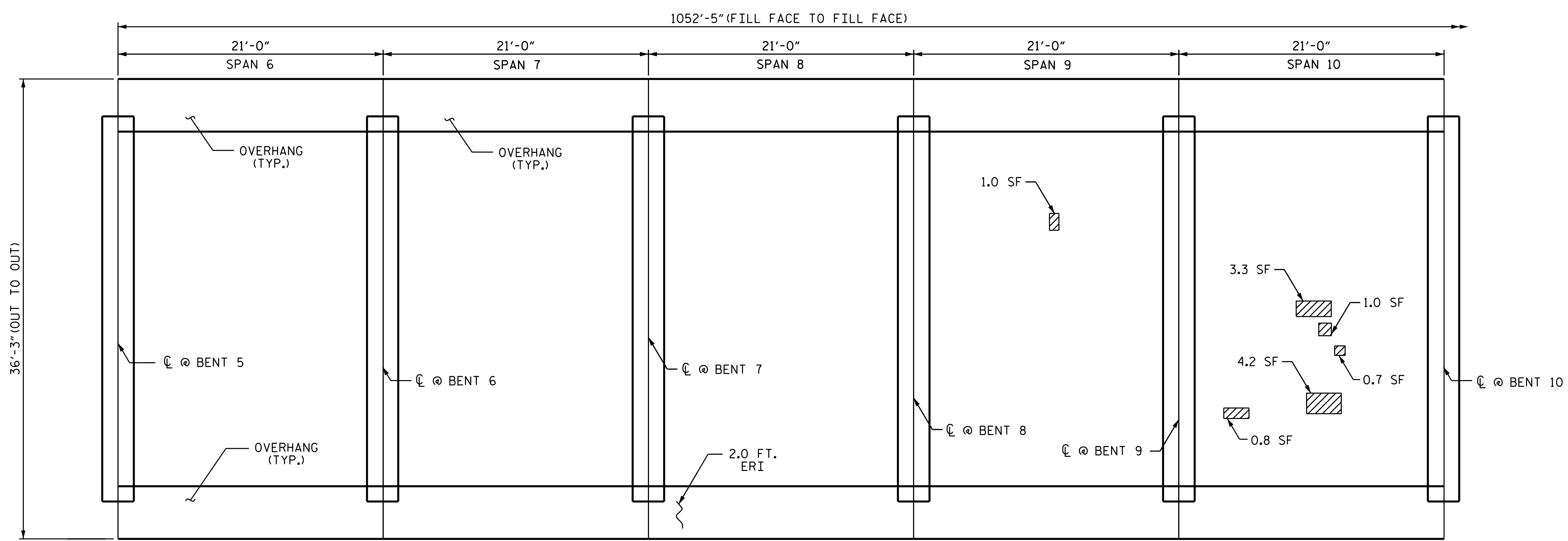


UNDERSIDE PLAN
(PILES NOT SHOWN FOR CLARITY)



UNDERSIDE PLAN
(PILES NOT SHOWN FOR CLARITY)

AS-BUILT REPAIR QUANTITY TABLE				
DECK UNDERSIDE REPAIRS - SPANS 1 THRU 10				
SHOTCRETE REPAIRS	ESTIMATE		ACTUAL	
	AREA SO. FT.	VOLUME CU. FT.	AREA SO. FT.	VOLUME CU. FT.
UNDERSIDE OF DECK	29.6	14.8		
OVERHANG	0.0	0.0		
CONCRETE REPAIRS	AREA SO. FT.	VOLUME CU. FT.	AREA SO. FT.	VOLUME CU. FT.
UNDERSIDE OF DECK	0.0	0.0		
OVERHANG	0.0	0.0		
EPOXY RESIN INJECTION	ESTIMATE LIN. FT.		ACTUAL LIN. FT.	
UNDERSIDE OF DECK	2.0			
OVERHANG	0.0			

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "OVERHANG, DIAPHRAGM AND BRIDGE RAIL REPAIR DETAILS" SHEET.

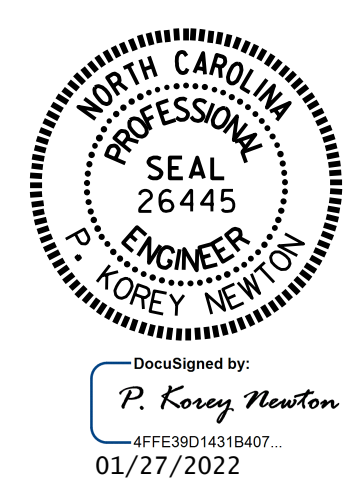
NOTES
REPAIR LOCATIONS AND ESTIMATE OF QUANTITIES ARE GIVEN WITH THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE INSPECTOR OR ENGINEER THE CONTRACTOR SHALL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATION AND DESCRIPTION OF THE REPAIRS AND ADJUST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

SHOTCRETE REPAIRS MAY BE REPLACED WITH CONCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.
FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

SHOTCRETE REPAIR
 ERI EPOXY RESIN INJECTION

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
BRIDGE NO. 060028

SHEET 1 OF 5



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUPERSTRUCTURE
DECK UNDERSIDE REPAIR
SPANS 1 THRU 10

DRAWN BY : S. T. SANDOR DATE : 03/2021
CHECKED BY : W. C. SMITH DATE : 06/2021

NO.	REVISIONS			NO.	REVISIONS			SHEET NO.
	BY:	DATE:			BY:	DATE:		
1				3			S3-13	
2				4			TOTAL SHEETS 78	

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

AS-BUILT REPAIR QUANTITY TABLE

DECK UNDERSIDE REPAIRS - SPANS 11 THRU 20

SHOTCRETE REPAIRS	ESTIMATE		ACTUAL	
	AREA SO. FT.	VOLUME CU. FT.	AREA SO. FT.	VOLUME CU. FT.
UNDERSIDE OF DECK	19.3	9.7		
OVERHANG	6.0	3.0		
CONCRETE REPAIRS	AREA SO. FT.	VOLUME CU. FT.	AREA SO. FT.	VOLUME CU. FT.
UNDERSIDE OF DECK	0.0	0.0		
OVERHANG	0.0	0.0		
EPOXY RESIN INJECTION	ESTIMATE LIN. FT.		ACTUAL LIN. FT.	
UNDERSIDE OF DECK	0.0			
OVERHANG	0.0			

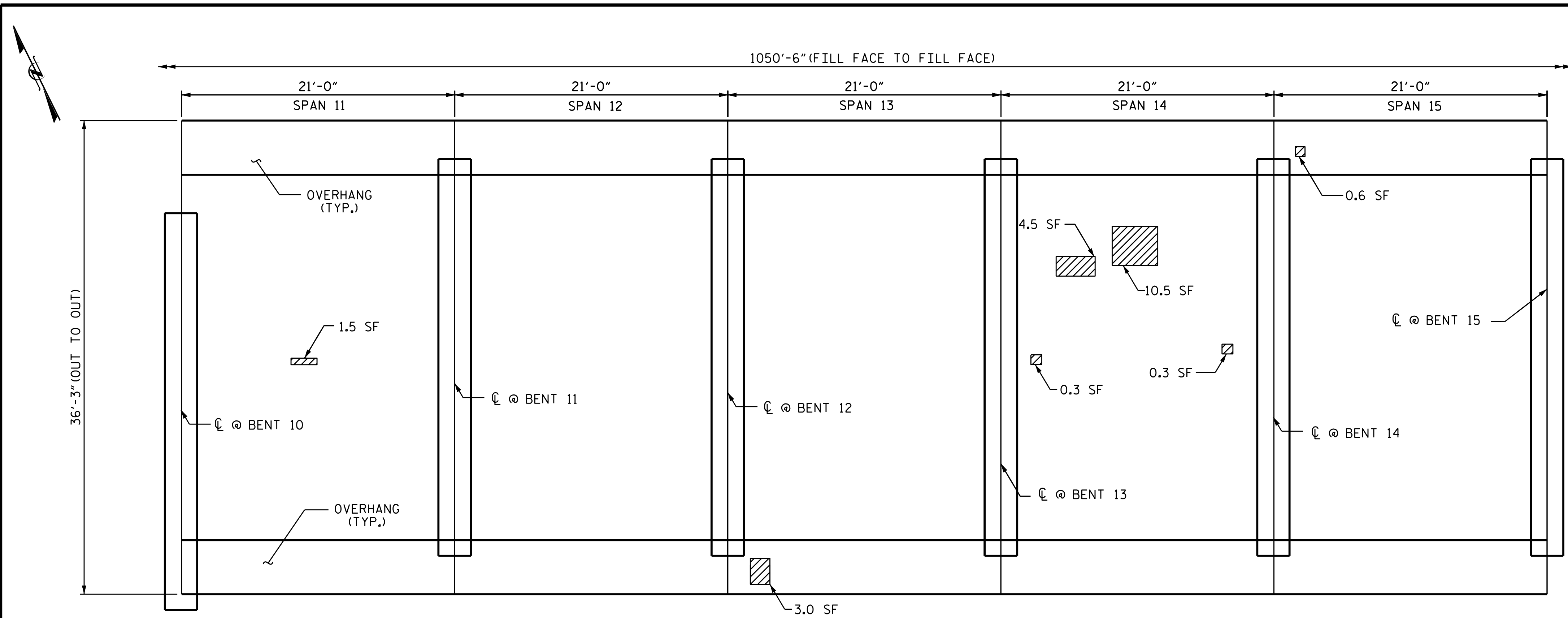
VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "OVERHANG, DIAPHRAGM AND BRIDGE RAIL REPAIR DETAILS" SHEET.

NOTES

REPAIR LOCATIONS AND ESTIMATE OF QUANTITIES ARE GIVEN WITH THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE 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.

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

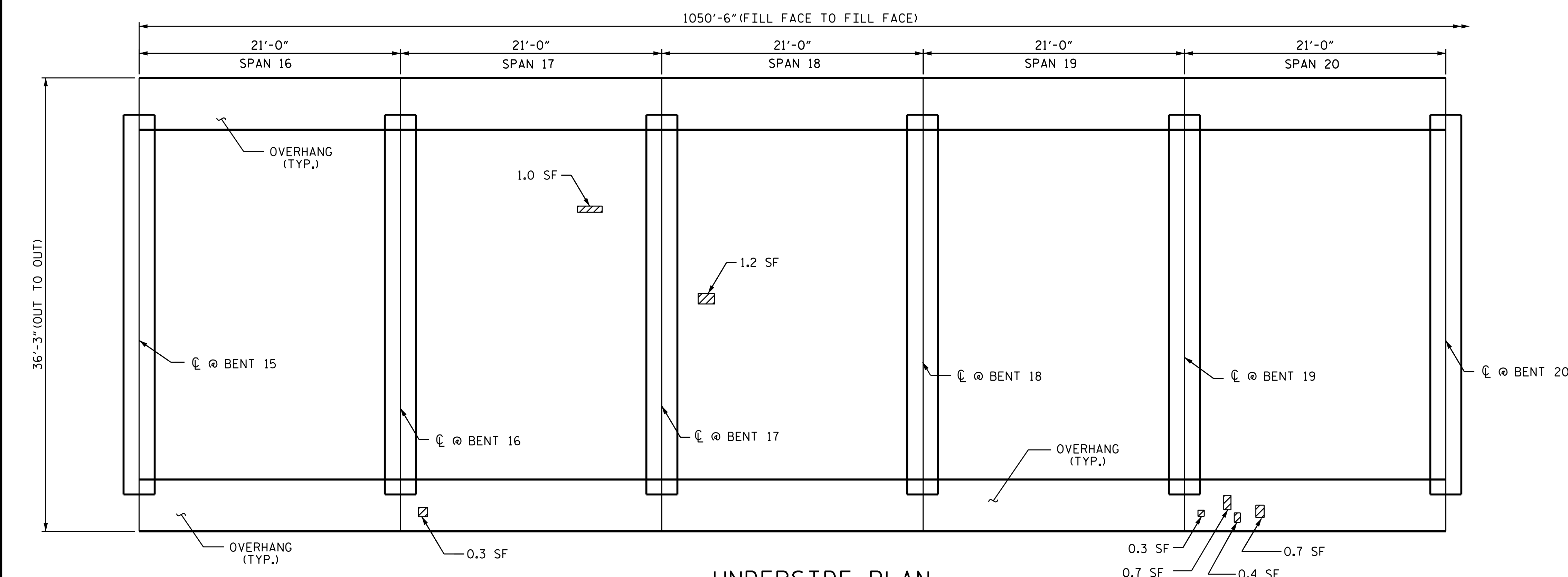
FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.



UNDERSIDE PLAN

(PILES NOT SHOWN FOR CLARITY)

SHOTCRETE REPAIR
 ERI EPOXY RESIN INJECTION

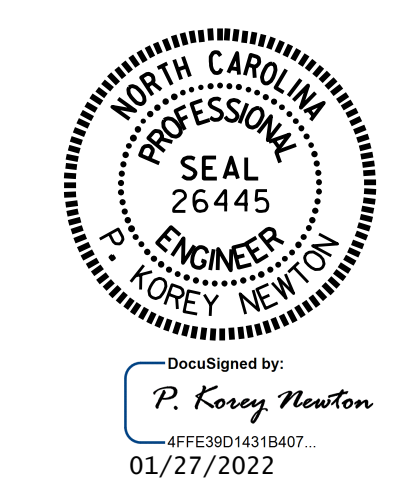


UNDERSIDE PLAN

(PILES NOT SHOWN FOR CLARITY)

PROJECT NO. 15BPR.56
 BEAUFORT COUNTY
 BRIDGE NO. 060028

SHEET 2 OF 5



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SUPERSTRUCTURE
 DECK UNDERSIDE REPAIR
 SPANS 11 THRU 20

DRAWN BY : S. T. SANDOR DATE : 03/2021
 CHECKED BY : W. C. SMITH DATE : 06/2021

NO.	REVISIONS			NO.	REVISIONS			SHEET NO.
	BY:	DATE:			BY:	DATE:		
1				3			S3-14	
2				4			TOTAL SHEETS 78	

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

AS-BUILT REPAIR QUANTITY TABLE

DECK UNDERSIDE REPAIRS - SPANS 21 THRU 24 AND SPANS 26-29

REPAIR TYPE	ESTIMATE		ACTUAL	
	AREA SQ. FT.	VOLUME CU. FT.	AREA SQ. FT.	VOLUME CU. FT.
SHOTCRETE REPAIRS				
UNDERSIDE OF DECK	28.4	14.2		
OVERHANG	1.4	0.7		
CONCRETE REPAIRS				
UNDERSIDE OF DECK	0.0	0.0		
OVERHANG	0.0	0.0		
EPOXY RESIN INJECTION				
UNDERSIDE OF DECK		ESTIMATE LIN. FT.		ACTUAL LIN. FT.
OVERHANG		0.0		0.0

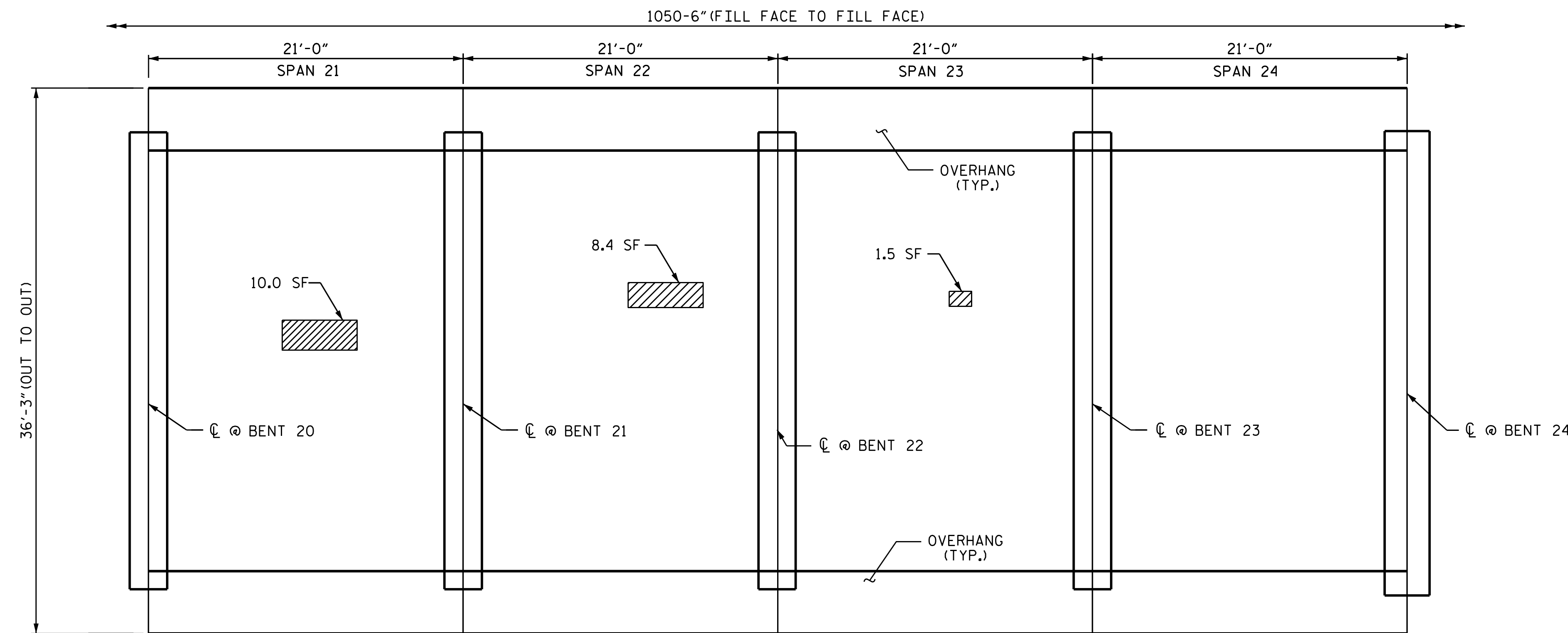
VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "OVERHANG, DIAPHRAGM AND BRIDGE RAIL REPAIR DETAILS" SHEET.

NOTES

REPAIR LOCATIONS AND ESTIMATE OF QUANTITIES ARE GIVEN WITH THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE 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.

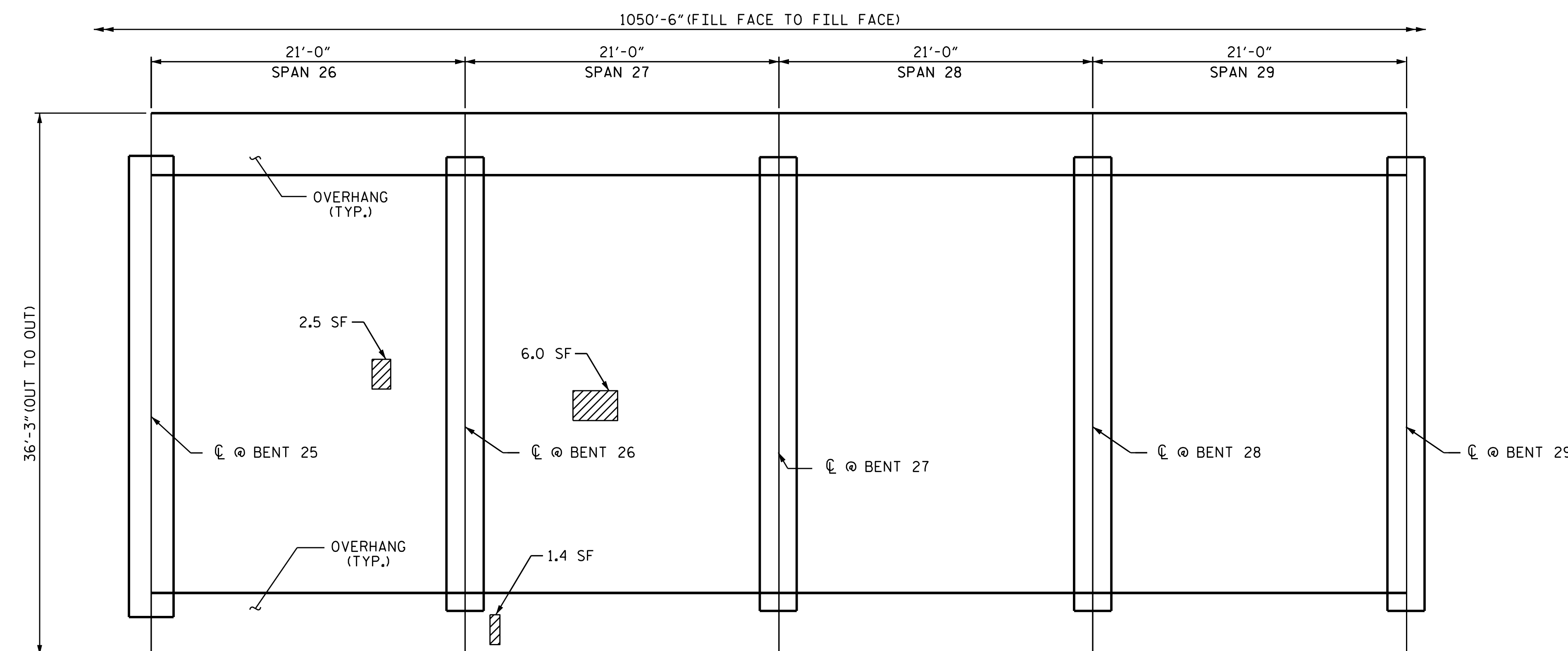
SHOTCRETE REPAIRS MAY BE REPLACED WITH CONCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.



UNDERSIDE PLAN

(PILES NOT SHOWN FOR CLARITY)



UNDERSIDE PLAN

(PILES NOT SHOWN FOR CLARITY)



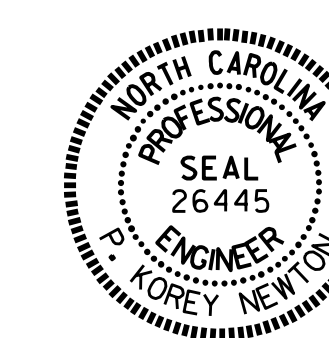
SHOTCRETE REPAIR



EPOXY RESIN INJECTION

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060028

SHEET 3 OF 5



DocuSigned by:
 P. Corey Newton
 AFFE39D1431B407...
 01/27/2022

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SUPERSTRUCTURE
 DECK UNDERSIDE REPAIR
 SPANS 21 THRU 24
 AND 26-29

DRAWN BY : S. T. SANDOR DATE : 03/2021
 CHECKED BY : W. C. SMITH DATE : 06/2021

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S3-15
1			3			TOTAL SHEETS
2			4			78

AS-BUILT REPAIR QUANTITY TABLE

DECK UNDERSIDE REPAIRS - SPANS 30 THRU 39

SHOTCRETE REPAIRS	ESTIMATE		ACTUAL	
	AREA SO. FT.	VOLUME CU. FT.	AREA SO. FT.	VOLUME CU. FT.
UNDERSIDE OF DECK	40.7	20.4		
OVERHANG	1.9	1.0		
CONCRETE REPAIRS	AREA SO. FT.	VOLUME CU. FT.	AREA SO. FT.	VOLUME CU. FT.
UNDERSIDE OF DECK	0.0	0.0		
OVERHANG	0.0	0.0		
EPOXY RESIN INJECTION	ESTIMATE LIN. FT.		ACTUAL LIN. FT.	
UNDERSIDE OF DECK	8.0			
OVERHANG	0.0			

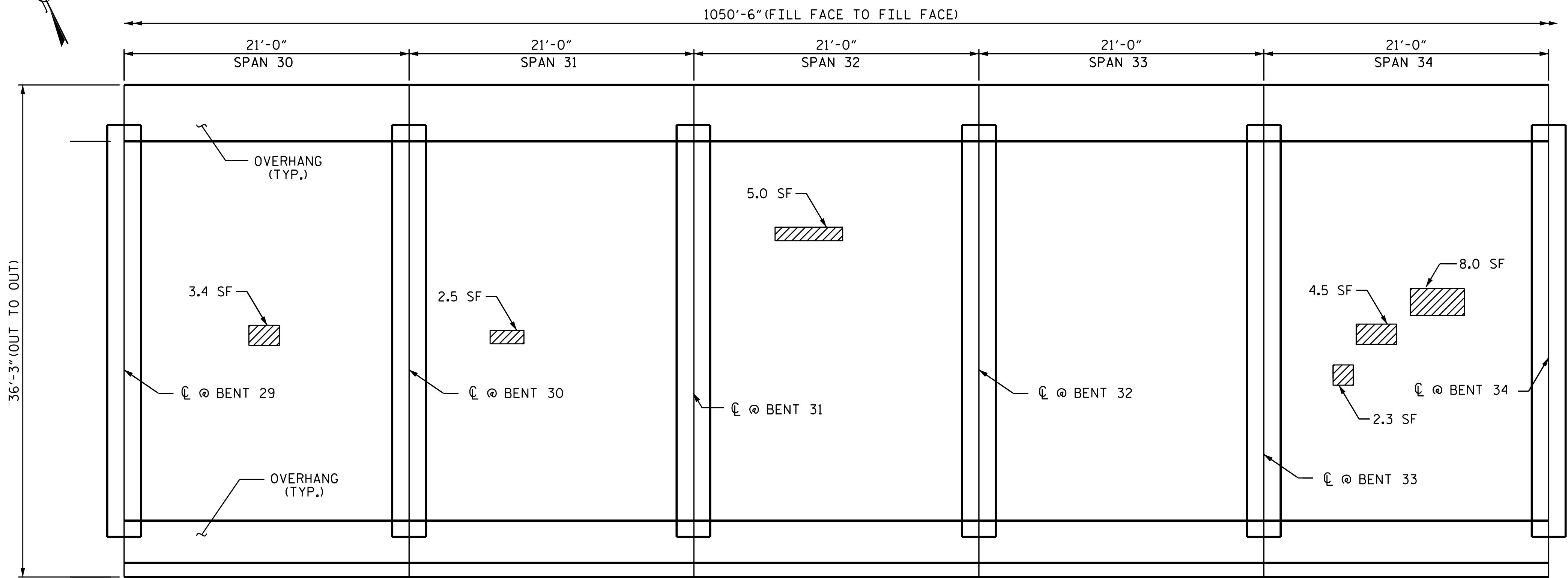
VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "OVERHANG, DIAPHRAGM AND BRIDGE RAIL REPAIR DETAILS" SHEET.

NOTES

REPAIR LOCATIONS AND ESTIMATE OF QUANTITIES ARE GIVEN WITH THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE 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.

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

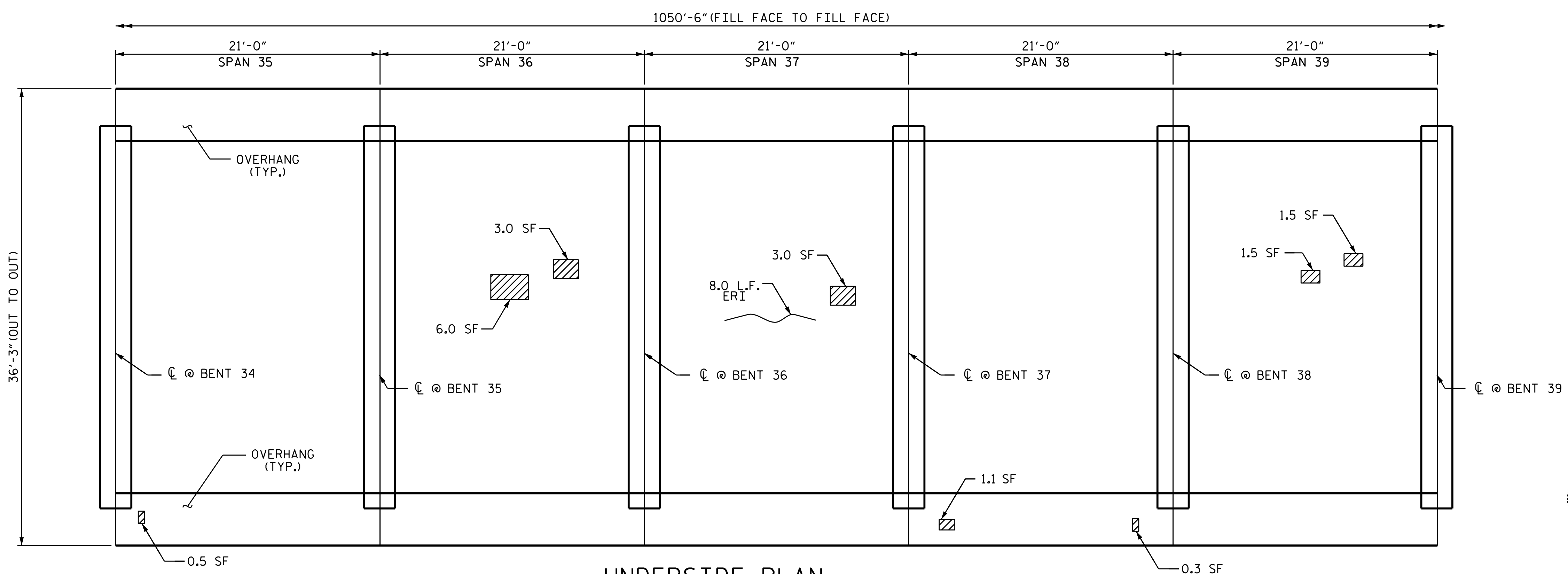
FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.



UNDERSIDE PLAN

(PILES NOT SHOWN FOR CLARITY)

- SHOTCRETE REPAIR
- ERI
- EPOXY RESIN INJECTION

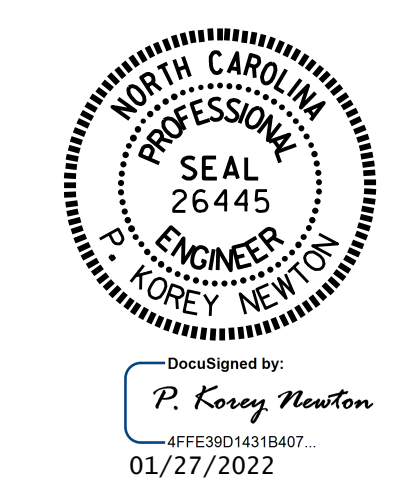


UNDERSIDE PLAN

(PILES NOT SHOWN FOR CLARITY)

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060028

SHEET 4 OF 5



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SUPERSTRUCTURE

DECK UNDERSIDE REPAIR
 SPANS 30 THRU 39

DRAWN BY : S. T. SANDOR DATE : 03/2021
 CHECKED BY : W. C. SMITH DATE : 06/2021

NO.	REVISIONS			SHEET NO.
	BY:	DATE:	DATE:	
1				S3-16
2				TOTAL SHEETS 78

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

AS-BUILT REPAIR QUANTITY TABLE

DECK UNDERSIDE REPAIRS - SPANS 40 THRU 49

SHOTCRETE REPAIRS	ESTIMATE		ACTUAL	
	AREA SO. FT.	VOLUME CU. FT.	AREA SO. FT.	VOLUME CU. FT.
UNDERSIDE OF DECK	14.3	7.2		
OVERHANG	1.6	0.8		
CONCRETE REPAIRS	AREA SO. FT.	VOLUME CU. FT.	AREA SO. FT.	VOLUME CU. FT.
UNDERSIDE OF DECK	0.0	0.0		
OVERHANG	0.0	0.0		
EPOXY RESIN INJECTION	ESTIMATE LIN. FT.		ACTUAL LIN. FT.	
UNDERSIDE OF DECK	0.0			
OVERHANG	0.0			

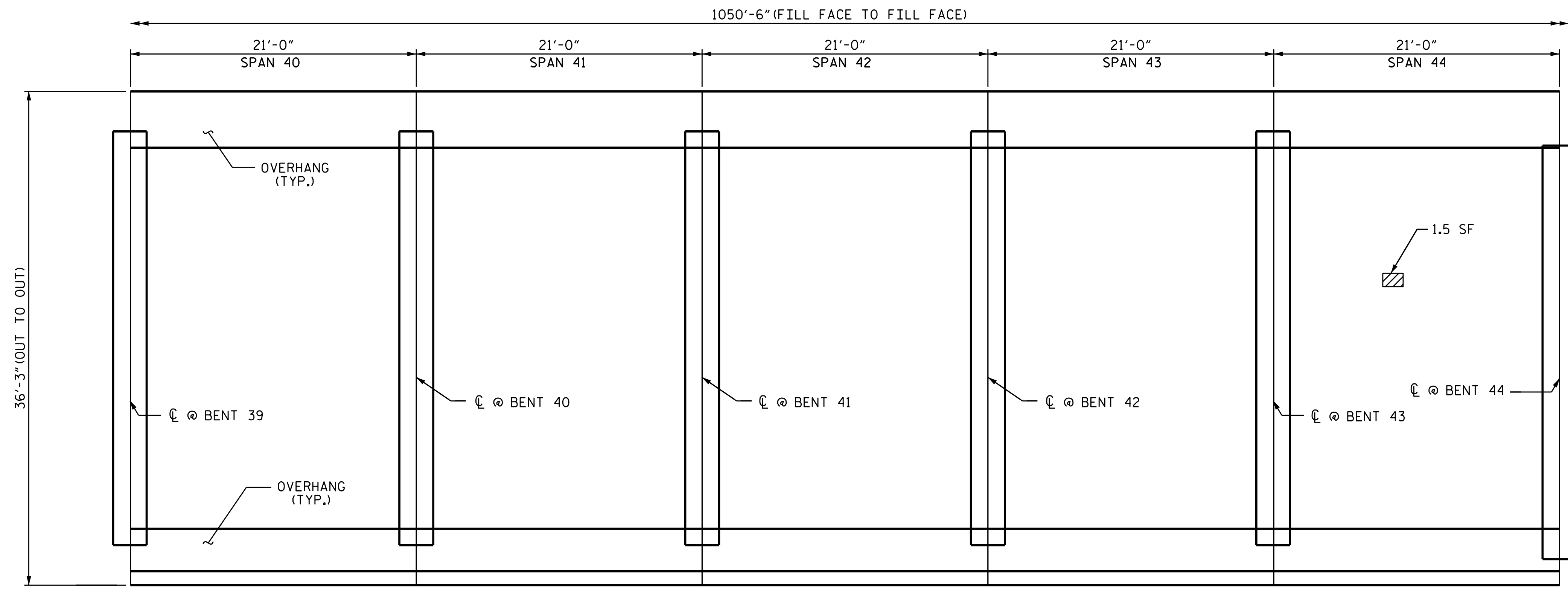
VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "OVERHANG, DIAPHRAGM AND BRIDGE RAIL REPAIR DETAILS" SHEET.

NOTES

REPAIR LOCATIONS AND ESTIMATE OF QUANTITIES ARE GIVEN WITH THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE 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.

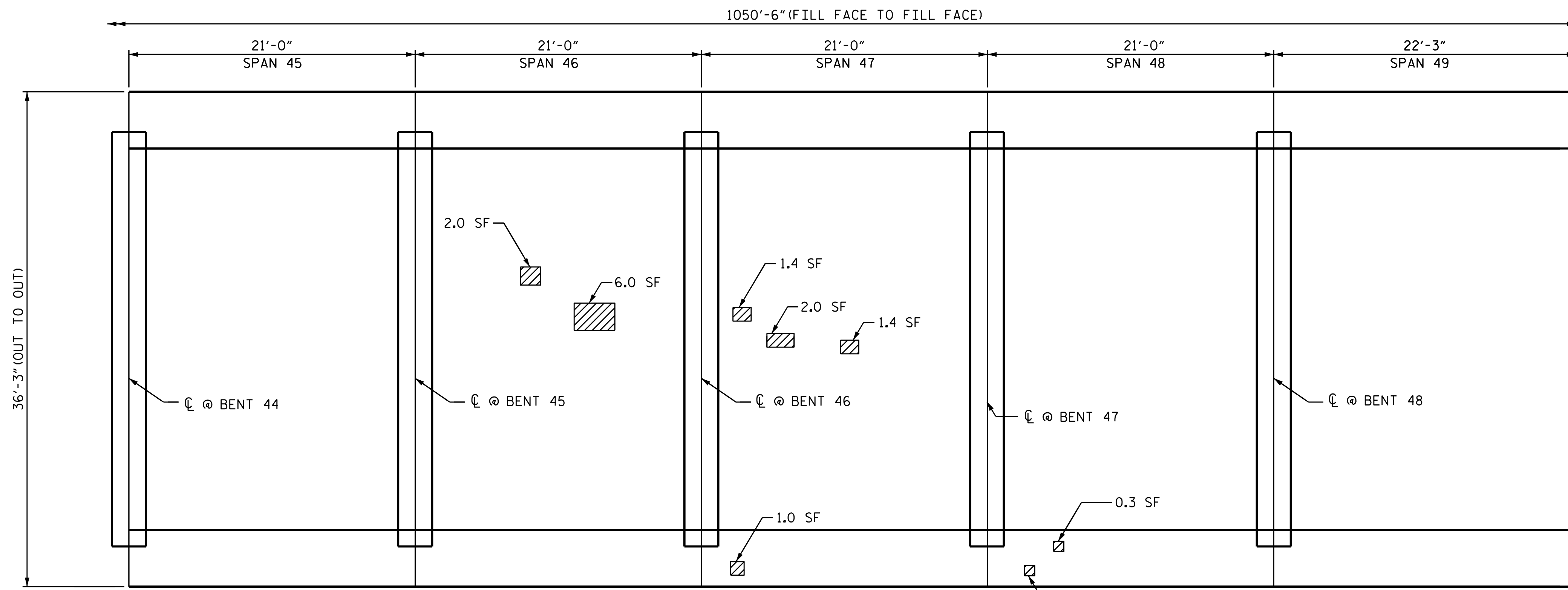
SHOTCRETE REPAIRS MAY BE REPLACED WITH CONCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.



UNDERSIDE PLAN

(PILES NOT SHOWN FOR CLARITY)



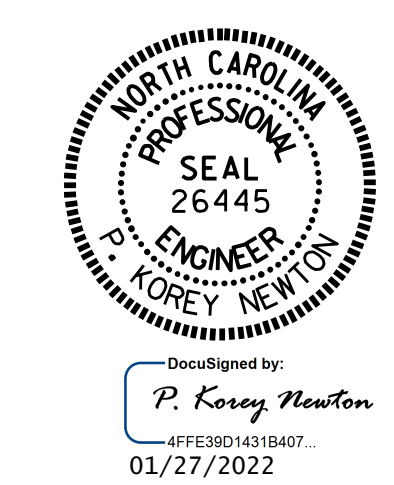
- SHOTCRETE REPAIR
- ERI

UNDERSIDE PLAN

(PILES NOT SHOWN FOR CLARITY)

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060028

SHEET 5 OF 5



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SUPERSTRUCTURE

DECK UNDERSIDE REPAIR
 SPANS 40 THRU 49

DRAWN BY : S. T. SANDOR DATE : 03/2021
 CHECKED BY : W. C. SMITH DATE : 06/2021

NO.	REVISIONS			NO.	REVISIONS			SHEET NO.
	BY:	DATE:			BY:	DATE:		
1				3				S3-17
2				4				TOTAL SHEETS 78

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

AS-BUILT REPAIR QUANTITY TABLE

END BENTS 1 & 2	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIRS	AREA SO. FT.	VOLUME CU. FT.	AREA SO. FT.	VOLUME CU. FT.
CAP	0.0	0.0		
CURTAIN WALL	0.0	0.0		
WING WALL	0.0	0.0		
CONCRETE REPAIRS	AREA SO. FT.	VOLUME CU. FT.	AREA SO. FT.	VOLUME CU. FT.
CAP	0.0	0.0		
CURTAIN WALL	0.0	0.0		
WING WALL	0.0	0.0		
EPOXY RESIN INJECTION	LIN. FT.		LIN. FT.	
CAP	0.0			
CURTAIN WALL	0.0			
WING WALL	0.0			

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



NOTES

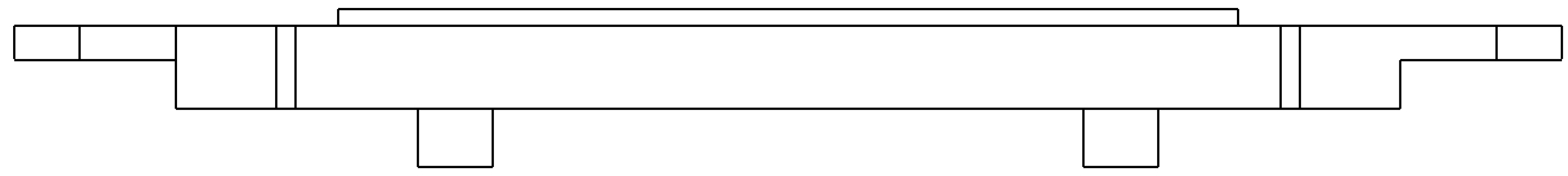
REPAIR LOCATIONS AND ESTIMATE OF QUANTITIES ARE GIVEN WITH THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE INSPECTOR OR ENGINEER THE CONTRACTOR SHALL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATION AND DESCRIPTION OF THE REPAIRS AND ADJUST THE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

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

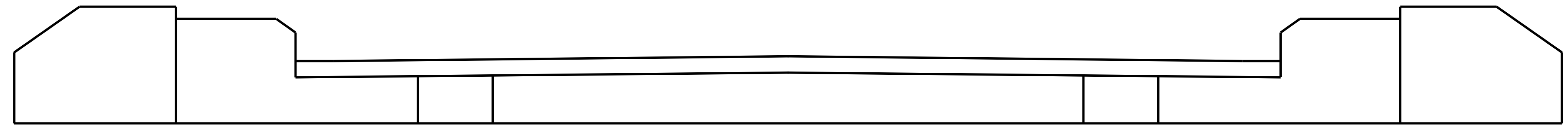
FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

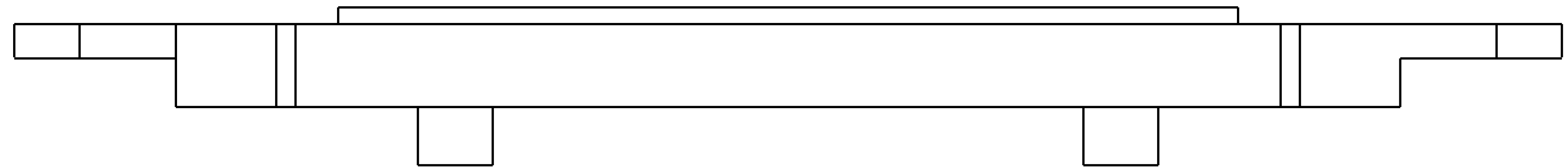
-  CONCRETE REPAIR
-  SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION



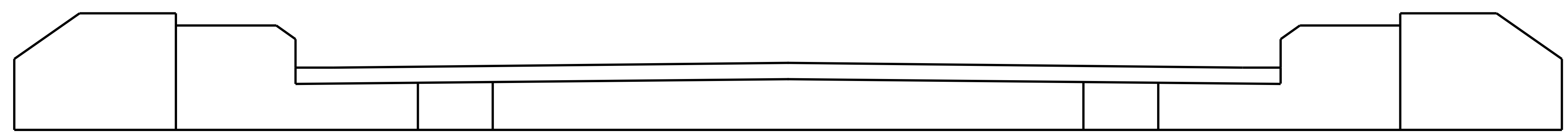
PLAN
(END BENT 1)



ELEVATION
(END BENT 1)
(LOOKING WEST)

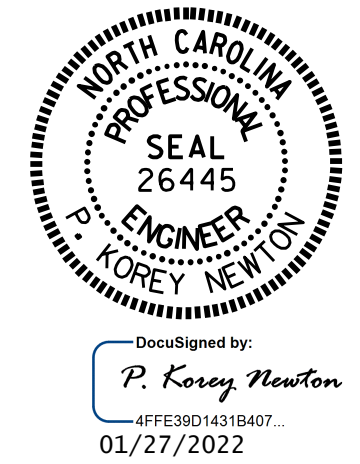


PLAN
(END BENT 2)



ELEVATION
(END BENT 2)
(LOOKING EAST)

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060028



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
**SUBSTRUCTURE
 END BENT REPAIRS**

DRAWN BY : S. T. SANDOR/A. Y. GODFREY DATE : 06/2021
 CHECKED BY : W. C. SMITH/ P. K. NEWTON DATE : 06/2021

NO.	REVISIONS			SHEET NO.
	BY:	DATE:	NO.	
1			3	S3-18 TOTAL SHEETS 78
2			4	

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

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.

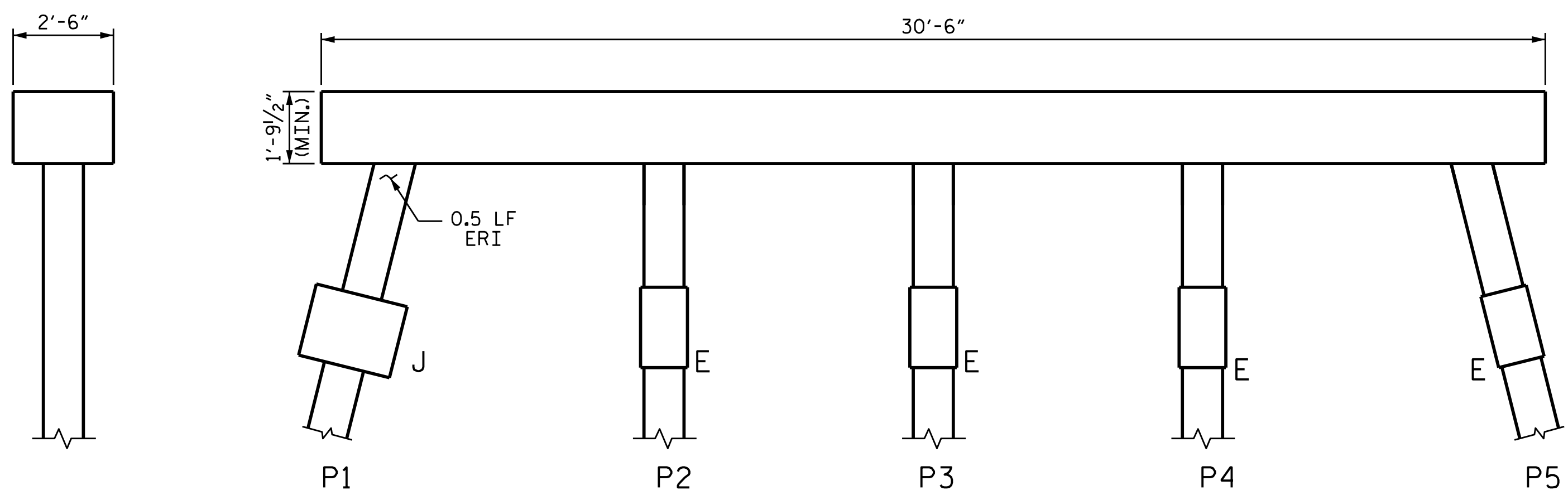
CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

-  CONCRETE REPAIR
-  SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- EXISTING
- J - JACKET
- E - ENCAPSULATION
- P - PILE

REPAIR QUANTITY TABLE

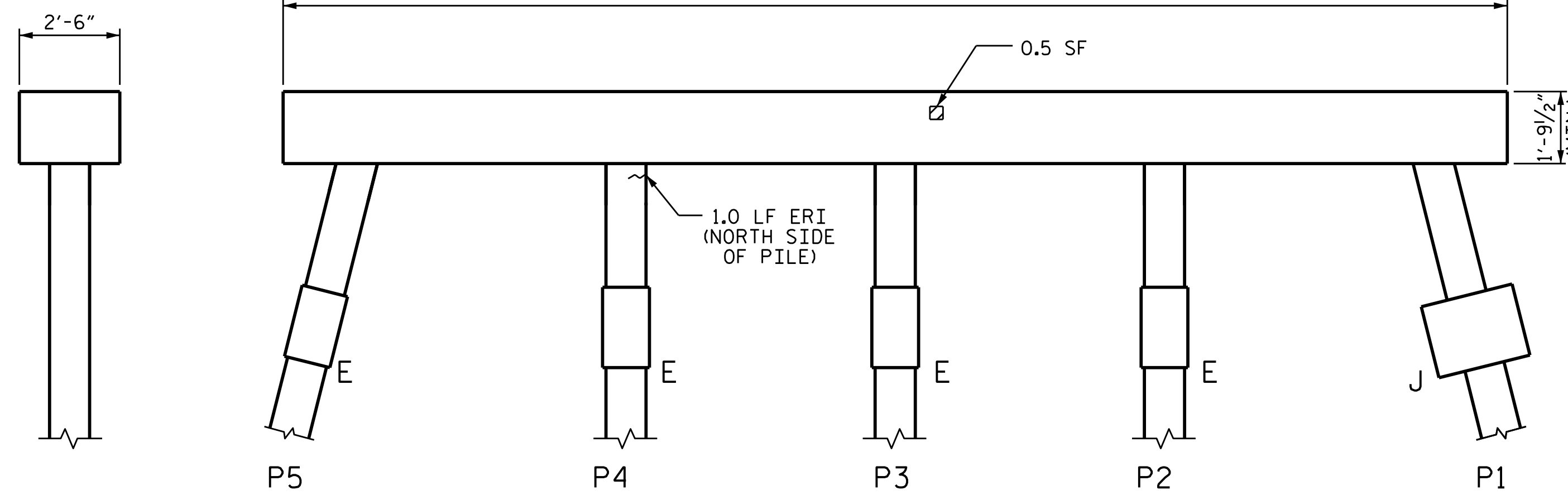
BENT 1	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.5	0.3		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		1.5		

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



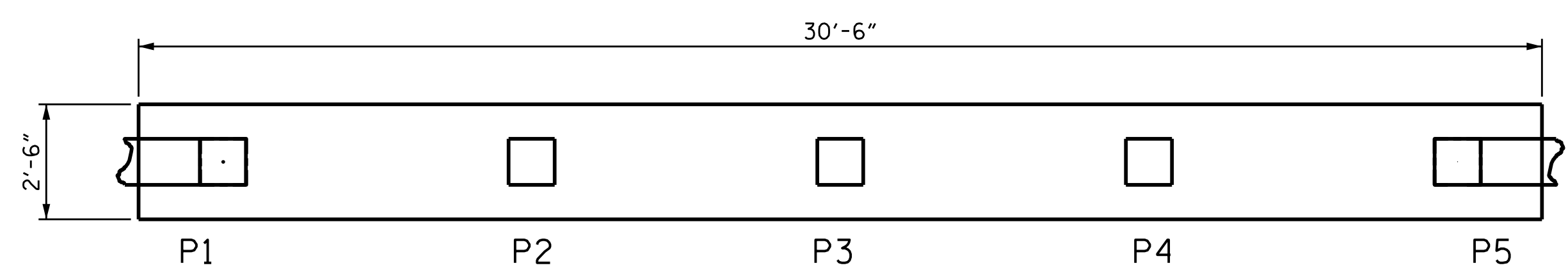
NORTH END

ELEVATION
(WEST SIDE)



SOUTH END

ELEVATION
(EAST SIDE)

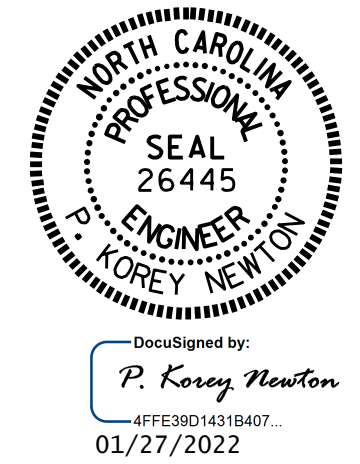


BOTTOM OF CAP

SPAN 1
SPAN 2

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060028

SHEET 1 OF 48



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

**SUBSTRUCTURE
 BENT 1 REPAIR**

DRAWN BY : S. T. SANDOR DATE : 05/2021
 CHECKED BY : W. C. SMITH DATE : 06/2021

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S3-19
2			4			TOTAL SHEETS 78

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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.

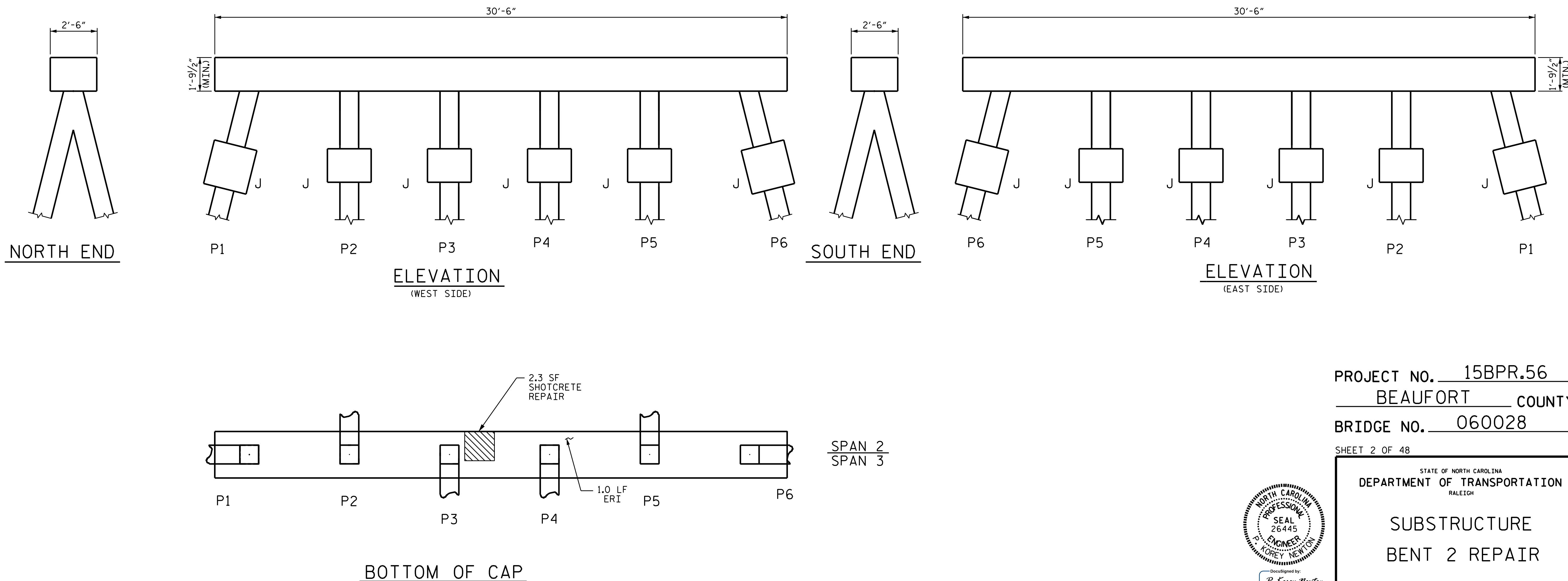
CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

- EXISTING _____
- J - JACKET
- E - ENCAPSULATION
- P - PILE
- CONCRETE REPAIR [Cross-hatched symbol]
- SHOTCRETE REPAIR [Diagonal lines symbol]
- EPOXY RESIN INJECTION [Dotted symbol]

REPAIR QUANTITY TABLE

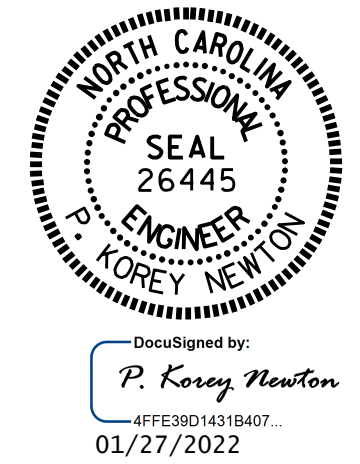
BENT 2	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	2.3	1.2		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		1.0		
COLUMN		0.0		

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



PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060028

SHEET 2 OF 48



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

DRAWN BY : S. T. SANDOR DATE : .05/2021
 CHECKED BY : W. C. SMITH DATE : .06/2021

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S3-20
2			4			TOTAL SHEETS 78

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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.

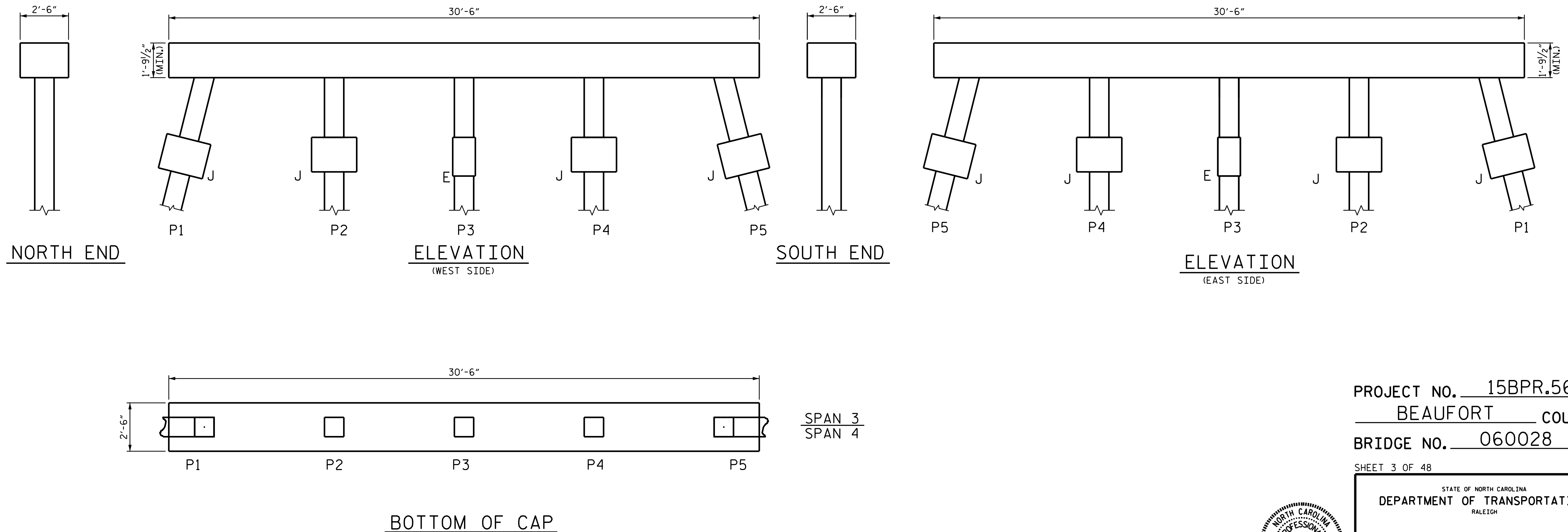
CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

- EXISTING _____
- J - JACKET
- E - ENCAPSULATION
- P - PILE
- CONCRETE REPAIR [Cross-hatched symbol]
- SHOTCRETE REPAIR [Diagonal lines symbol]
- EPOXY RESIN INJECTION [Dotted symbol]

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	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		
EPOXY RESIN INJECTION	AREA SF	LF	AREA SF	LF
CAP		0.0		
COLUMN		0.0		

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



PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060028

SHEET 3 OF 48

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SUBSTRUCTURE
 BENT 3 REPAIR



DocuSigned by:
 P. Corey Newton
 AFFE39D1431B407
 01/27/2022

DRAWN BY : S. T. SANDOR DATE : .05/2021
 CHECKED BY : W. C. SMITH DATE : .06/2021

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S3-21
2			4			TOTAL SHEETS 78

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.

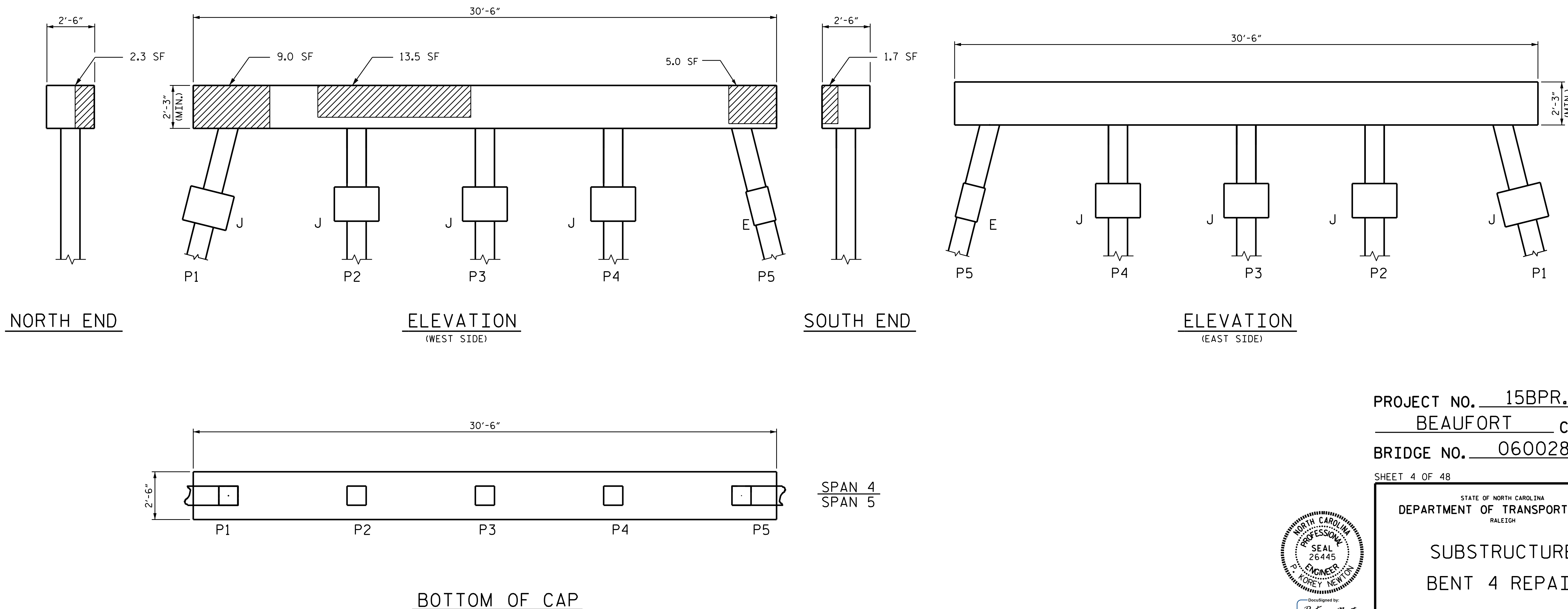
CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

-  CONCRETE REPAIR
-  SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- EXISTING
- J - JACKET
- E - ENCAPSULATION
- P - PILE

REPAIR QUANTITY TABLE

BENT 4	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	31.5	15.8		
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		

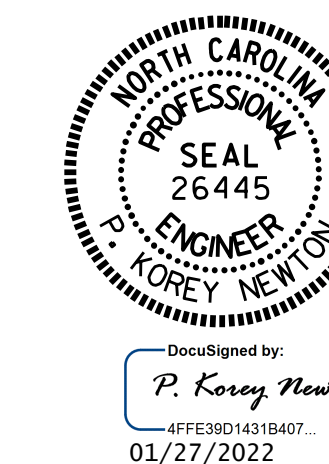
VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.



DRAWN BY : S. T. SANDOR DATE : .05/2021
 CHECKED BY : W. C. SMITH DATE : .06/2021

PROJECT NO. 15BPR.56
 BEAUFORT COUNTY
 BRIDGE NO. 060028

SHEET 4 OF 48



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

**SUBSTRUCTURE
 BENT 4 REPAIR**

NO.	REVISIONS			SHEET NO.
	BY:	DATE:	NO.	
1			3	S3-22
2			4	TOTAL SHEETS 78

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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.

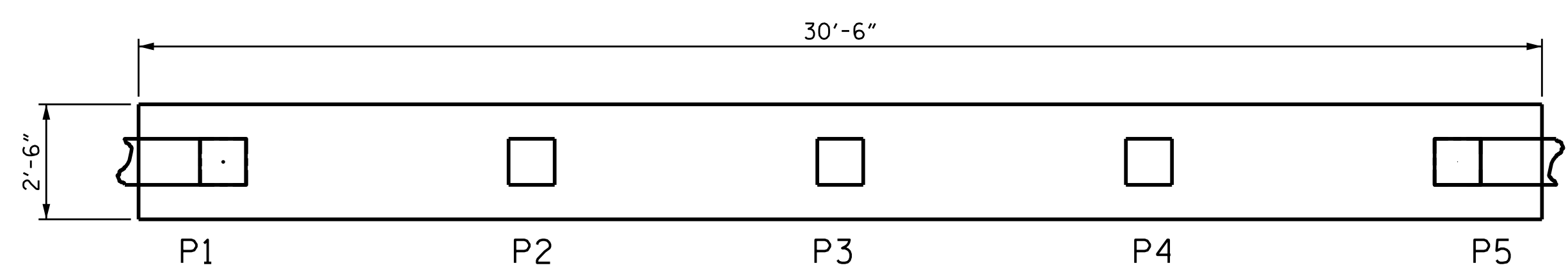
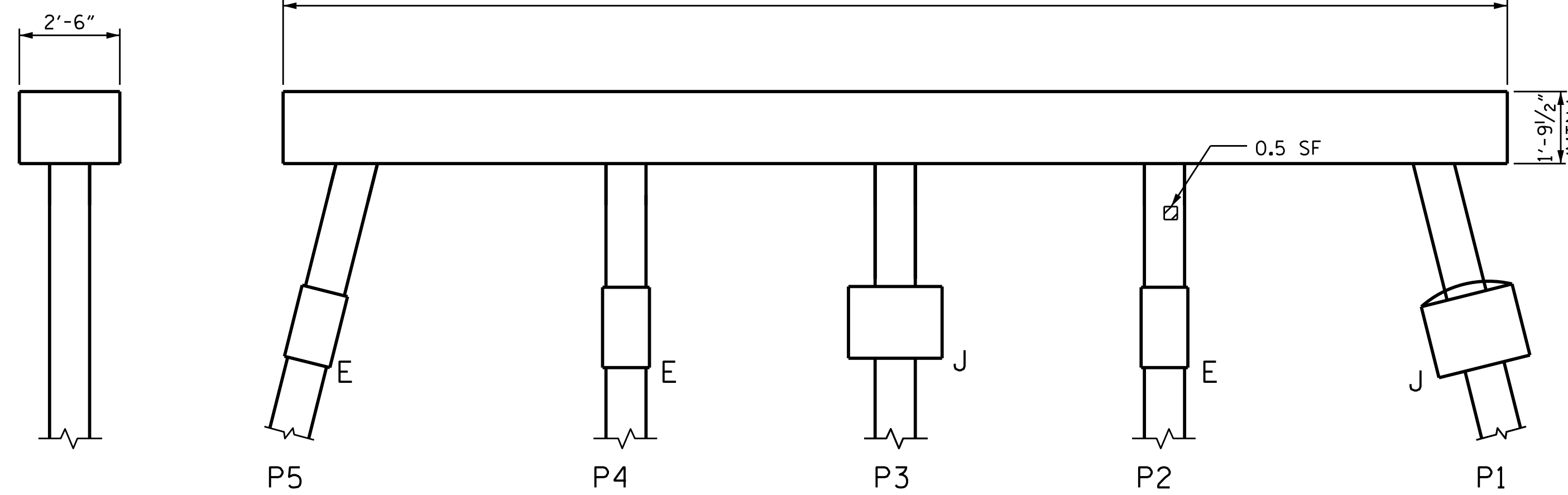
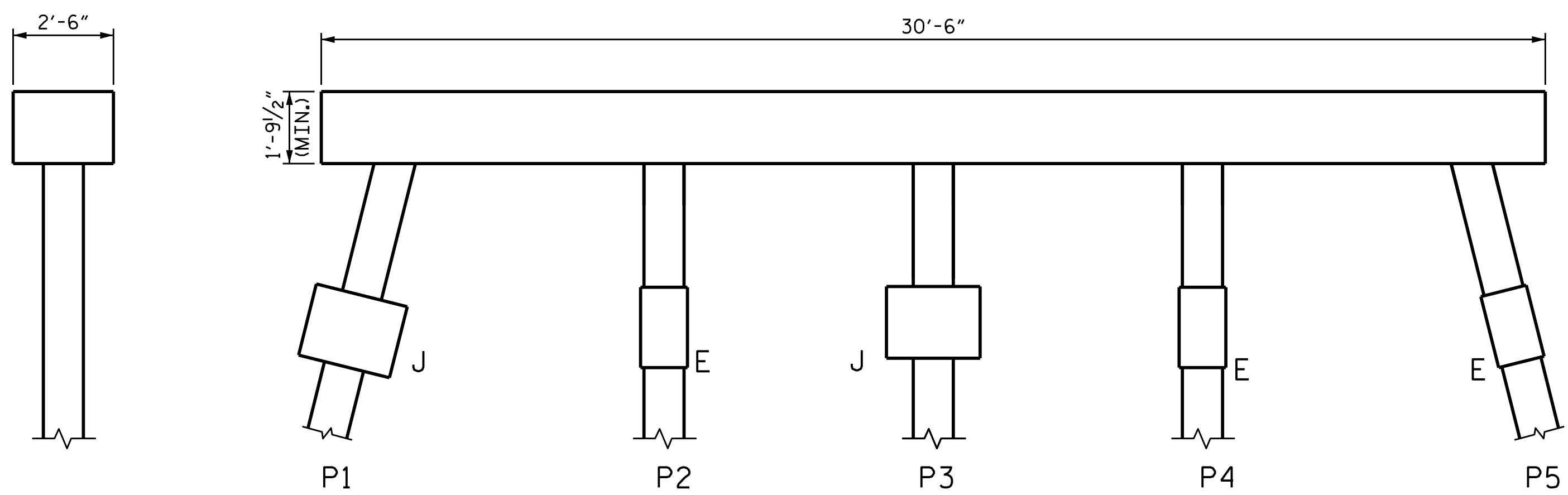
CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

-  CONCRETE REPAIR
-  SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- EXISTING
- J - JACKET
- E - ENCAPSULATION
- P - PILE

REPAIR QUANTITY TABLE

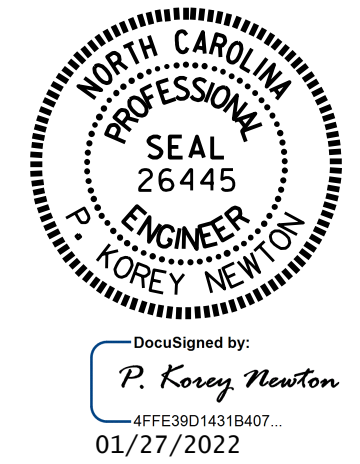
BENT 5	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.5	0.3		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		

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



PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060028

SHEET 5 OF 48



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
**SUBSTRUCTURE
 BENT 5 REPAIR**

DRAWN BY : S. T. SANDOR DATE : .05/2021
 CHECKED BY : W. C. SMITH DATE : .06/2021

NO.	REVISIONS			SHEET NO.
	BY:	DATE:	NO.	
1			3	S3-23
2			4	TOTAL SHEETS 78

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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.

-  CONCRETE REPAIR
-  SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION

EXISTING

J - JACKET

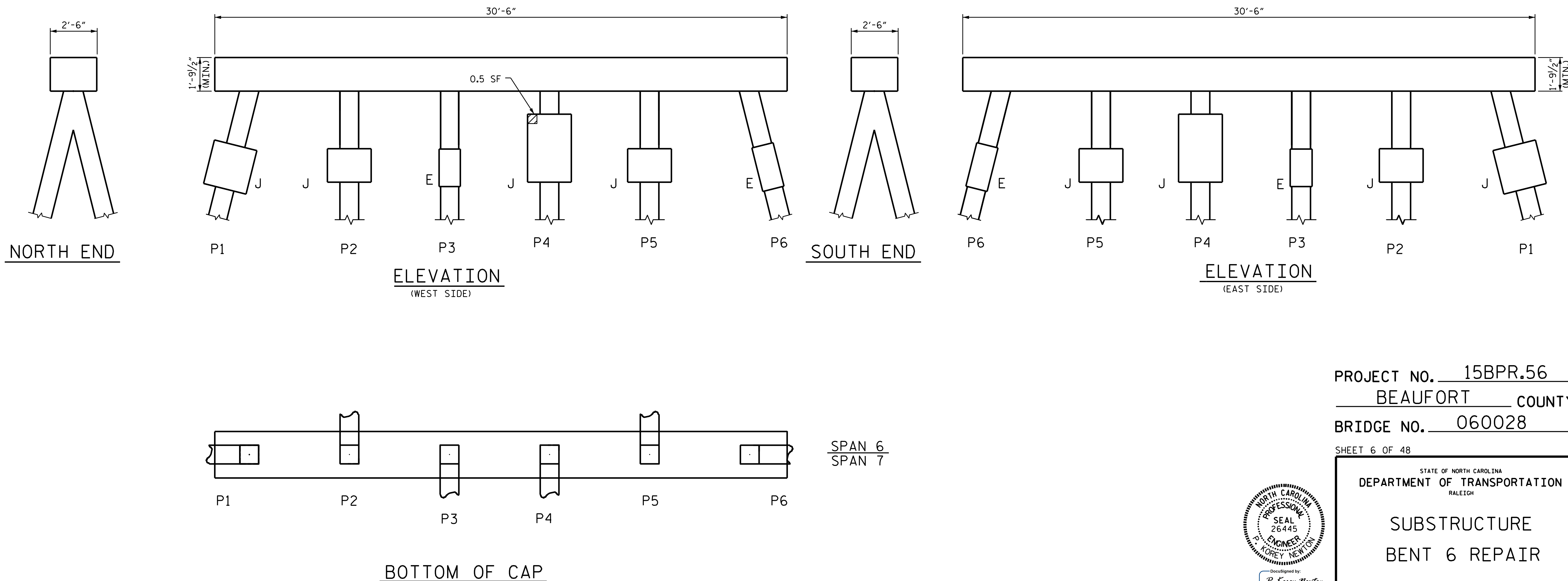
E - ENCAPSULATION

P - PILE

REPAIR QUANTITY TABLE

BENT 6	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	0.5	0.3		
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, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

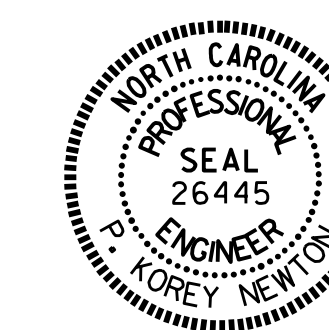


PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060028

SHEET 6 OF 48

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SUBSTRUCTURE
 BENT 6 REPAIR



DocuSigned by:
 P. Corey Newton
 AFFE39D1431B407
 01/27/2022

DRAWN BY : S. T. SANDOR DATE : .05/2021
 CHECKED BY : W. C. SMITH DATE : .06/2021

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S3-24
2			4			TOTAL SHEETS 78

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.

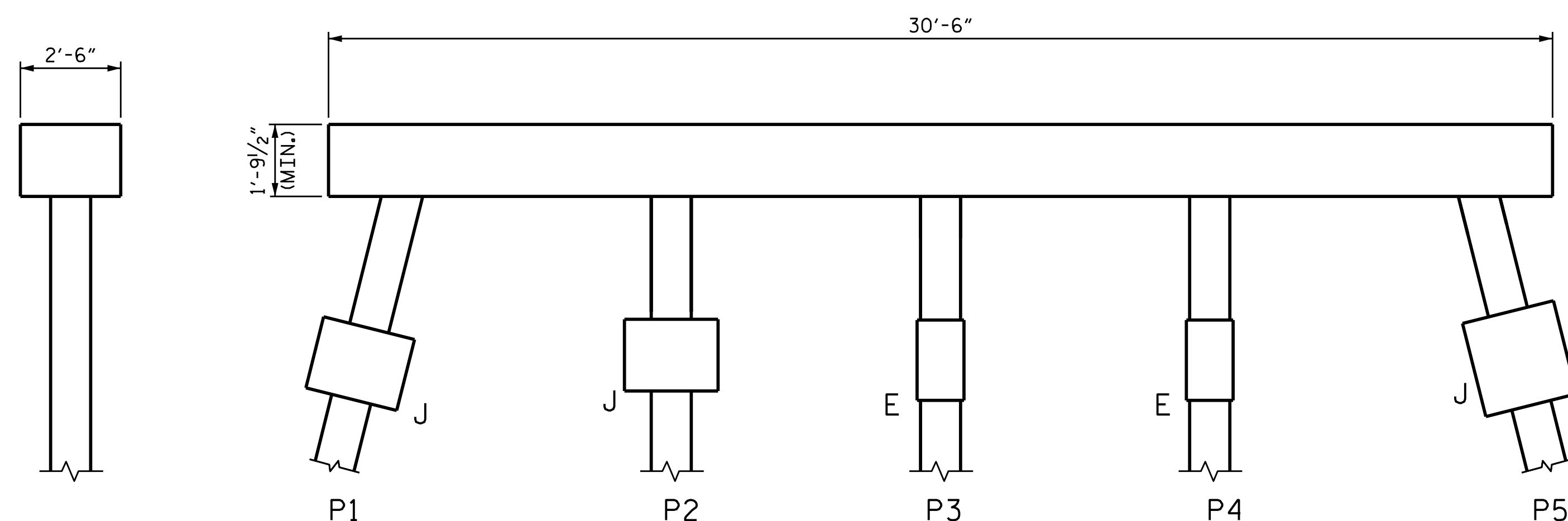
CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

-  CONCRETE REPAIR
-  SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- EXISTING
- J - JACKET
- E - ENCAPSULATION
- P - PILE

REPAIR QUANTITY TABLE

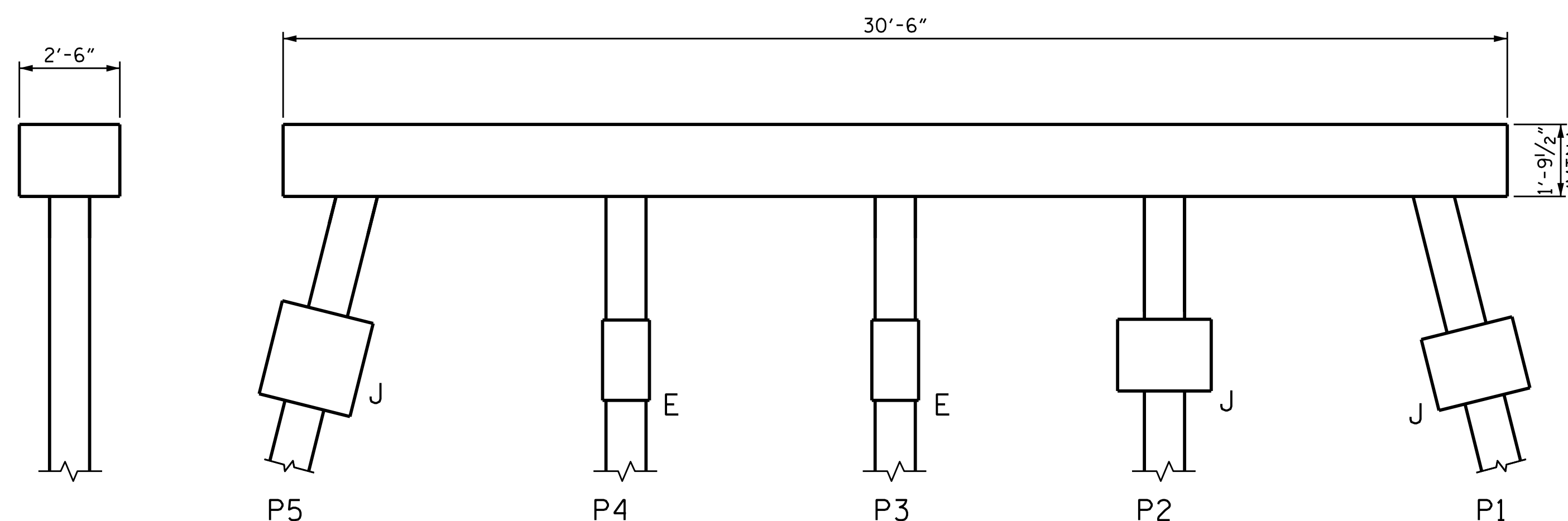
BENT 7	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION	LF	LF	LF	LF
CAP		0.0		
COLUMN		0.0		

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



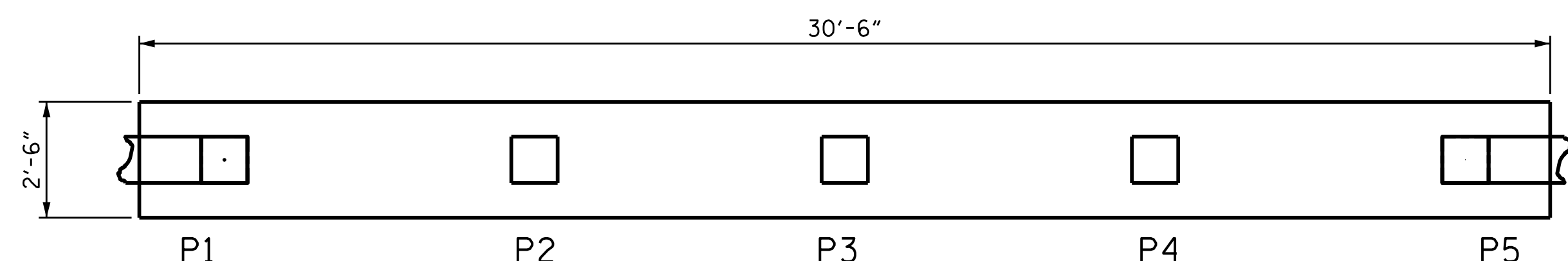
NORTH END

ELEVATION
(WEST SIDE)



SOUTH END

ELEVATION
(EAST SIDE)



BOTTOM OF CAP

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060028

SHEET 7 OF 48



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SUBSTRUCTURE
BENT 7 REPAIR

DRAWN BY : S. T. SANDOR DATE : .05/2021
 CHECKED BY : W. C. SMITH DATE : .06/2021

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S3-25
1			3			TOTAL SHEETS
2			4			78

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.

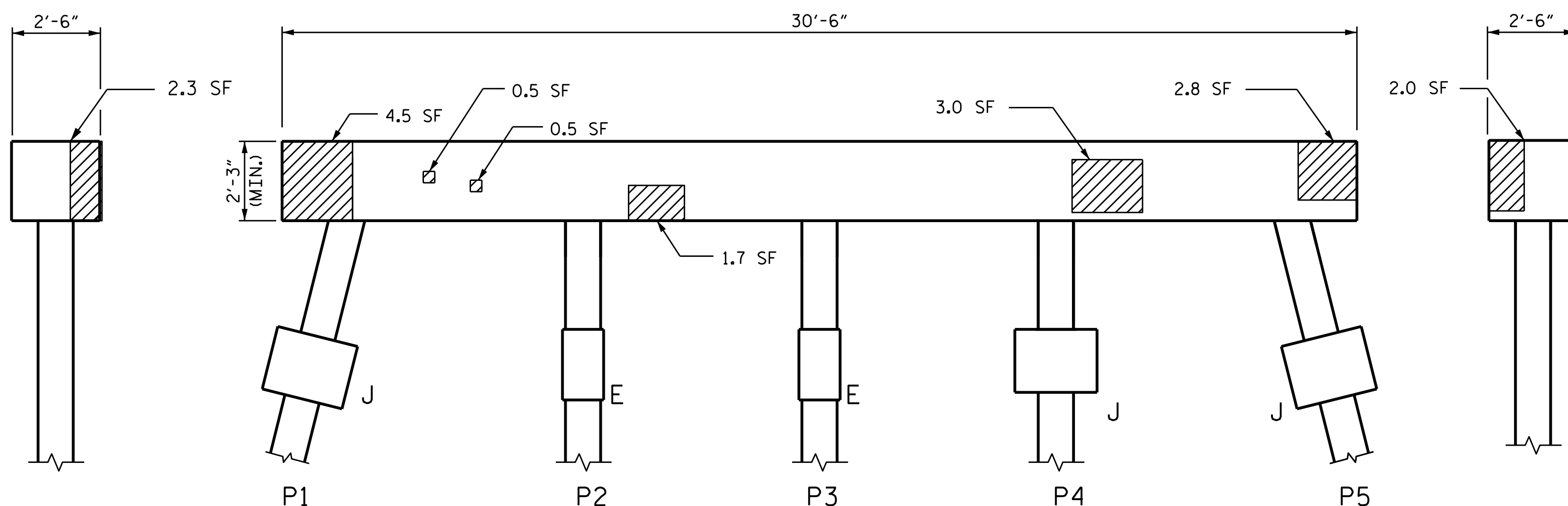
CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

-  CONCRETE REPAIR
-  SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- EXISTING
- J - JACKET
- E - ENCAPSULATION
- P - PILE

REPAIR QUANTITY TABLE

BENT 8	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	17.3	8.7		
CAP (HORIZONTAL FACE)	0.7	0.4		
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		

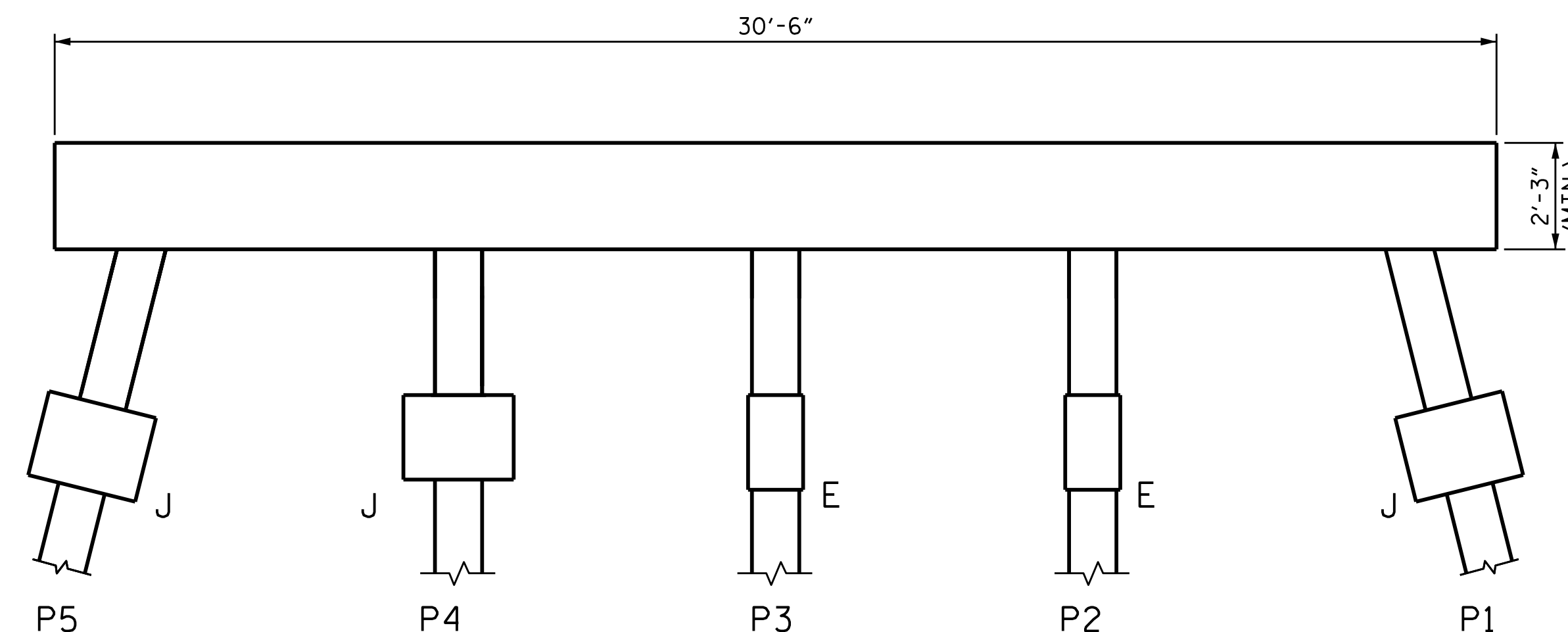
VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.



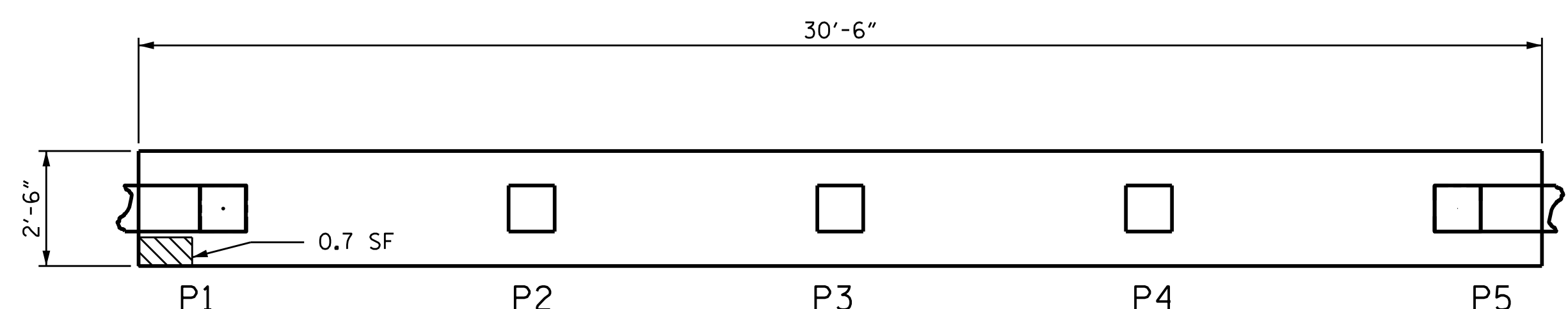
NORTH END

ELEVATION
(WEST SIDE)

SOUTH END



ELEVATION
(EAST SIDE)

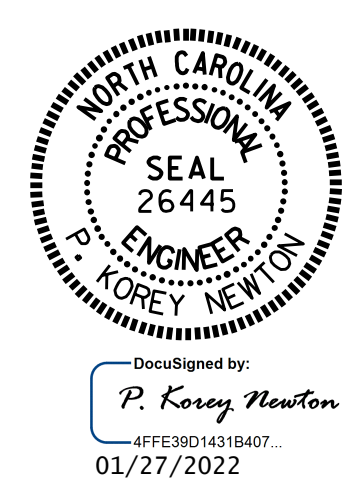


BOTTOM OF CAP

SPAN 8
SPAN 9

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060028

SHEET 8 OF 48



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SUBSTRUCTURE
BENT 8 REPAIR

DRAWN BY : S. T. SANDOR DATE : .05/2021
 CHECKED BY : W. C. SMITH DATE : .06/2021

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S3-26
2			4			TOTAL SHEETS 78

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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.

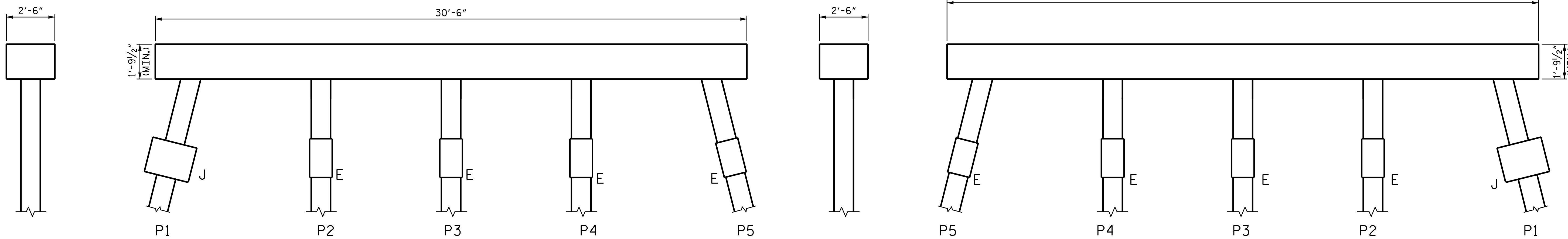
CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

-  CONCRETE REPAIR
-  SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- EXISTING
- J - JACKET
- E - ENCAPSULATION
- P - PILE

REPAIR QUANTITY TABLE

BENT 9	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, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

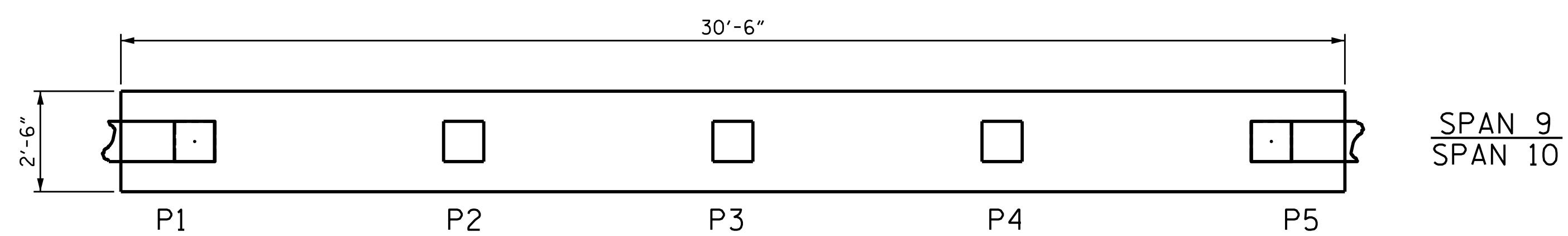


NORTH END

ELEVATION
(WEST SIDE)

SOUTH END

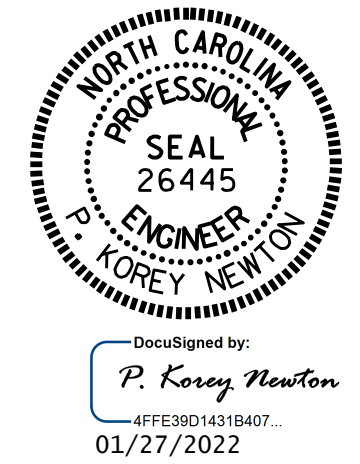
ELEVATION
(EAST SIDE)



BOTTOM OF CAP

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060028

SHEET 9 OF 48



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
SUBSTRUCTURE
BENT 9 REPAIR

DRAWN BY : S. T. SANDOR DATE : .05/2021
 CHECKED BY : W. C. SMITH DATE : .06/2021

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S3-27
1			3			TOTAL SHEETS
2			4			78

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

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.

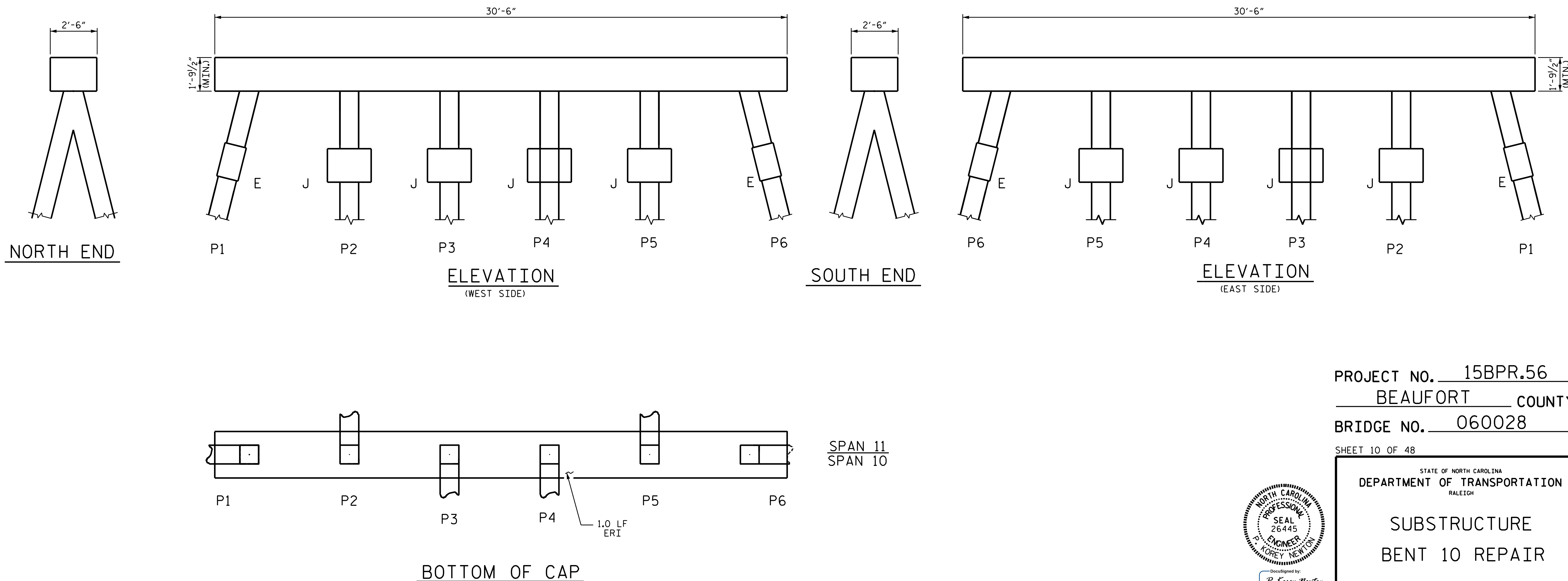
CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

-  CONCRETE REPAIR
-  SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- EXISTING
- J - JACKET
- E - ENCAPSULATION
- P - PILE

REPAIR QUANTITY TABLE

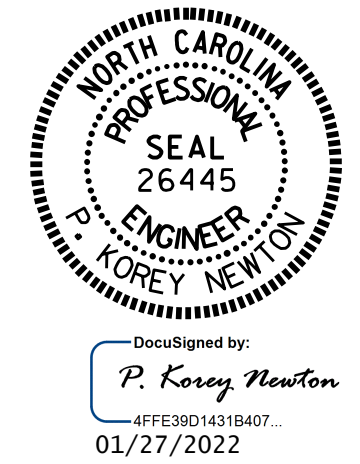
BENT 10	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		1.0		
COLUMN		0.0		

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



PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060028

SHEET 10 OF 48



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
**SUBSTRUCTURE
 BENT 10 REPAIR**

DRAWN BY : S. T. SANDOR DATE : .05/2021
 CHECKED BY : W. C. SMITH DATE : .06/2021

NO.	REVISIONS			SHEET NO.
	BY:	DATE:	NO.	
1			3	S3-28 TOTAL SHEETS 78
2			4	

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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.

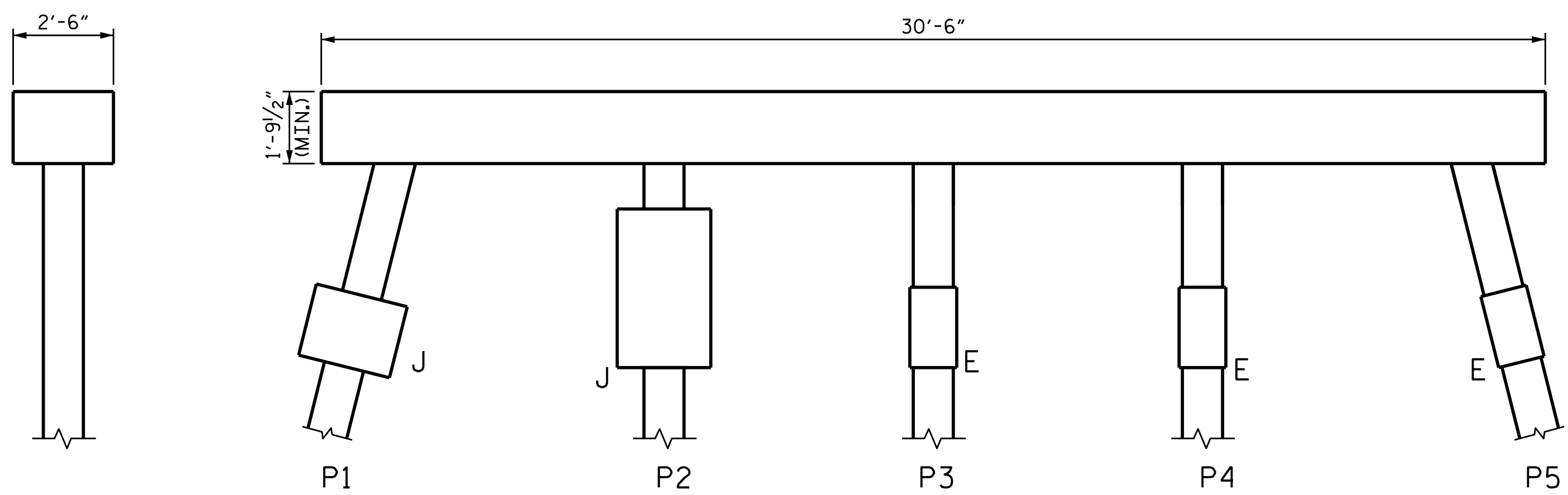
CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

-  CONCRETE REPAIR
-  SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- EXISTING
- J - JACKET
- E - ENCAPSULATION
- P - PILE

REPAIR QUANTITY TABLE

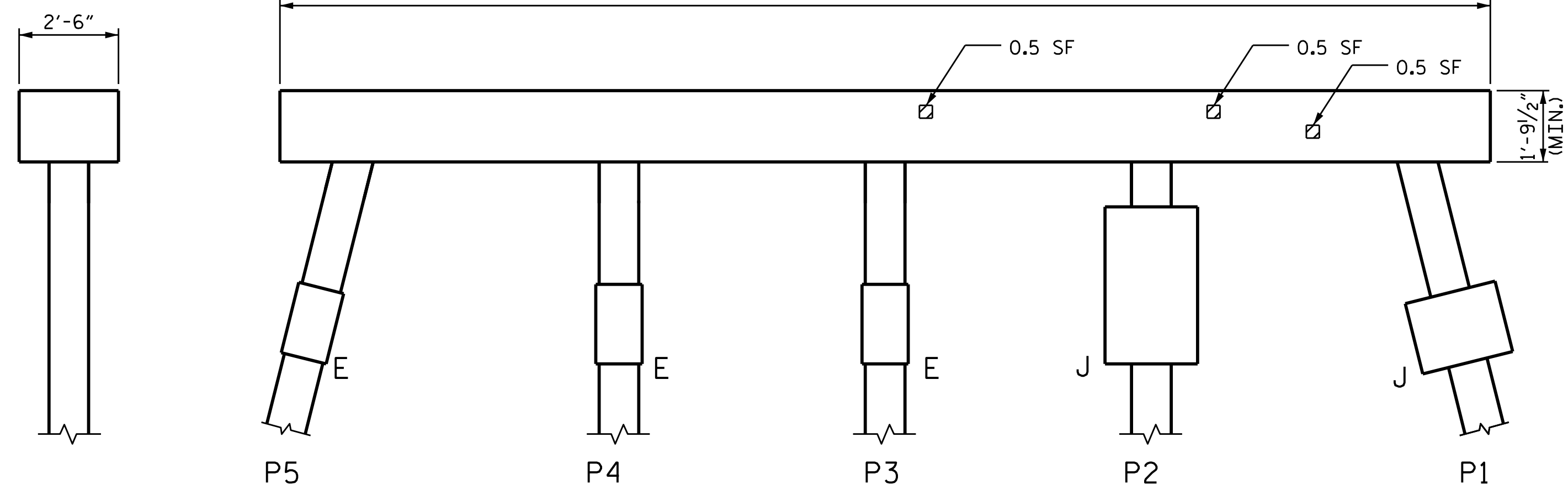
BENT 11	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	1.5	0.8		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		

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



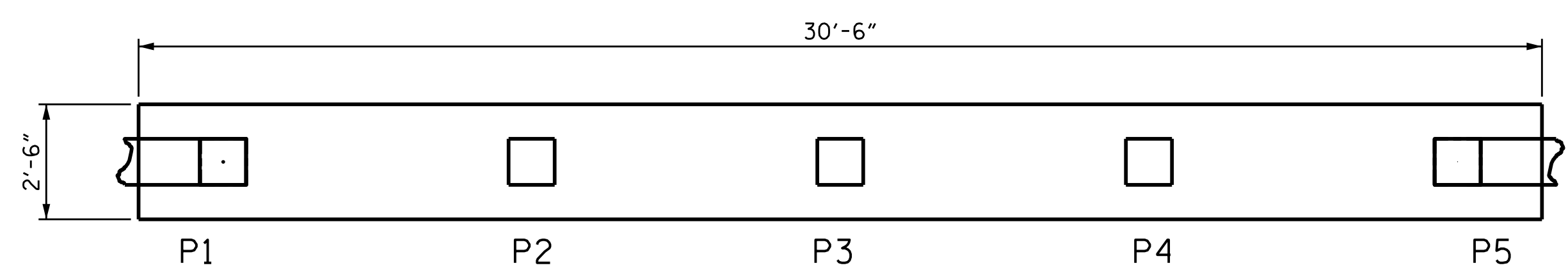
NORTH END

ELEVATION
(WEST SIDE)



SOUTH END

ELEVATION
(EAST SIDE)

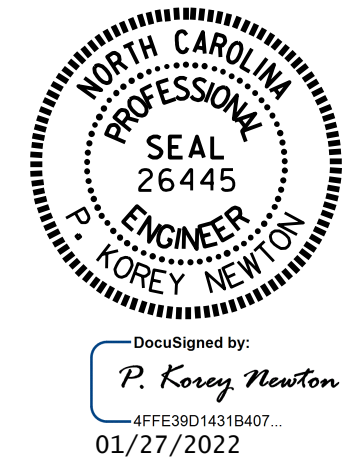


BOTTOM OF CAP

SPAN 11
SPAN 12

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
BRIDGE NO. 060028

SHEET 11 OF 48



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

**SUBSTRUCTURE
BENT 11 REPAIR**

DRAWN BY : S. T. SANDOR DATE : .05/2021
CHECKED BY : W. C. SMITH DATE : .06/2021

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S3-29
2			4			TOTAL SHEETS 78

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.

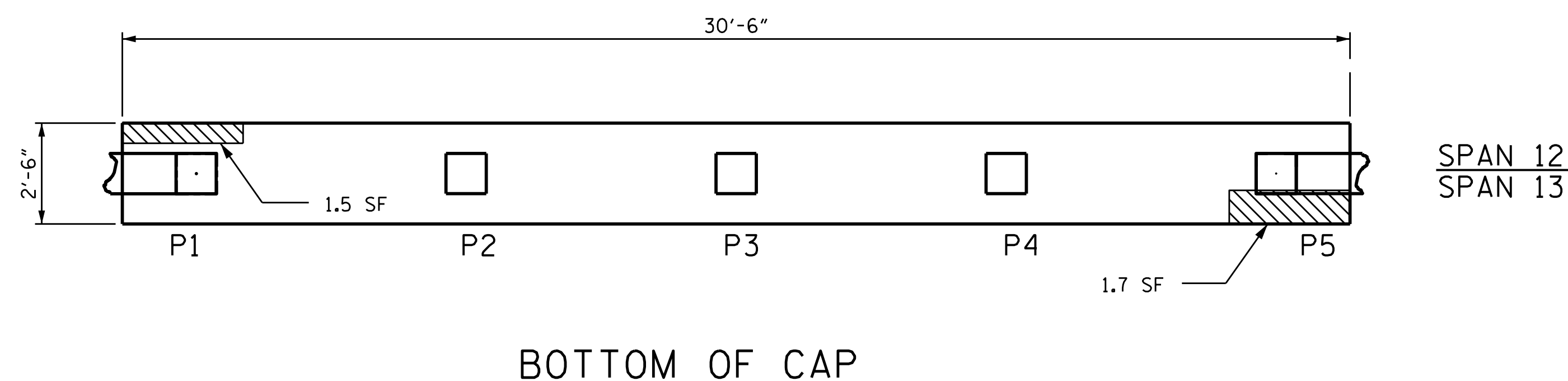
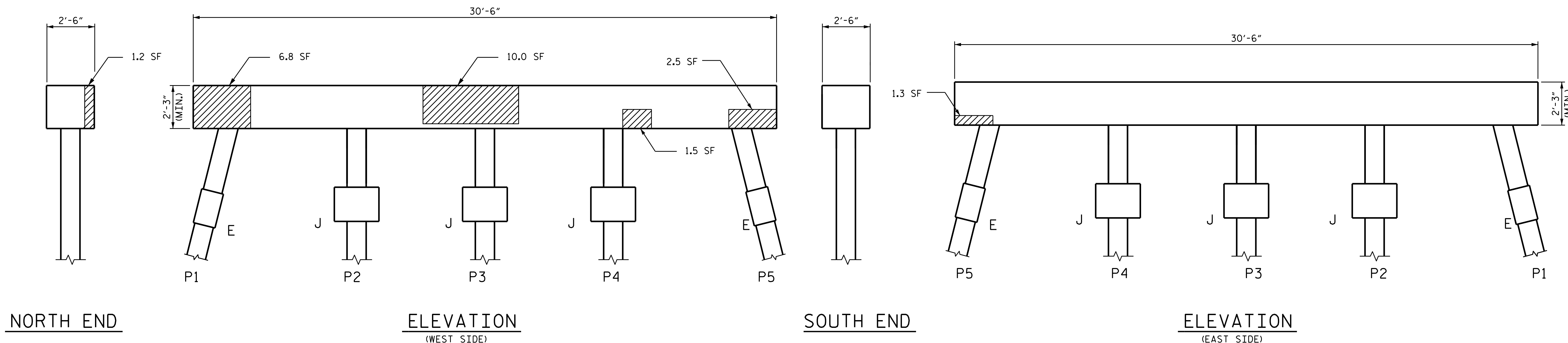
CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

-  CONCRETE REPAIR
-  SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- EXISTING
- J - JACKET
- E - ENCAPSULATION
- P - PILE

REPAIR QUANTITY TABLE

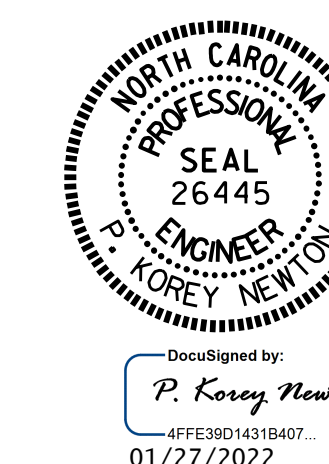
BENT 12	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	23.3	11.7		
CAP (HORIZONTAL FACE)	3.2	1.6		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		

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



PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060028

SHEET 12 OF 48



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

**SUBSTRUCTURE
 BENT 12 REPAIR**

DRAWN BY : S. T. SANDOR DATE : .05/2021
 CHECKED BY : W. C. SMITH DATE : .06/2021

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S3-30
1			3			TOTAL SHEETS
2			4			78

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.

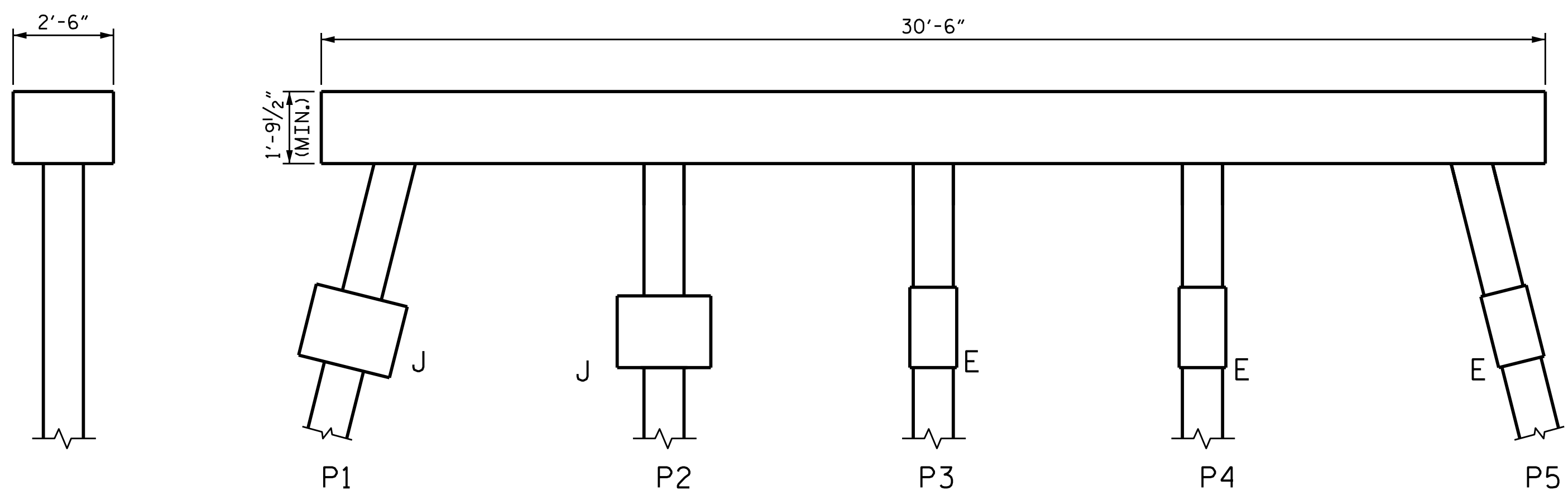
CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

-  CONCRETE REPAIR
-  SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- EXISTING
- J - JACKET
- E - ENCAPSULATION
- P - PILE

REPAIR QUANTITY TABLE

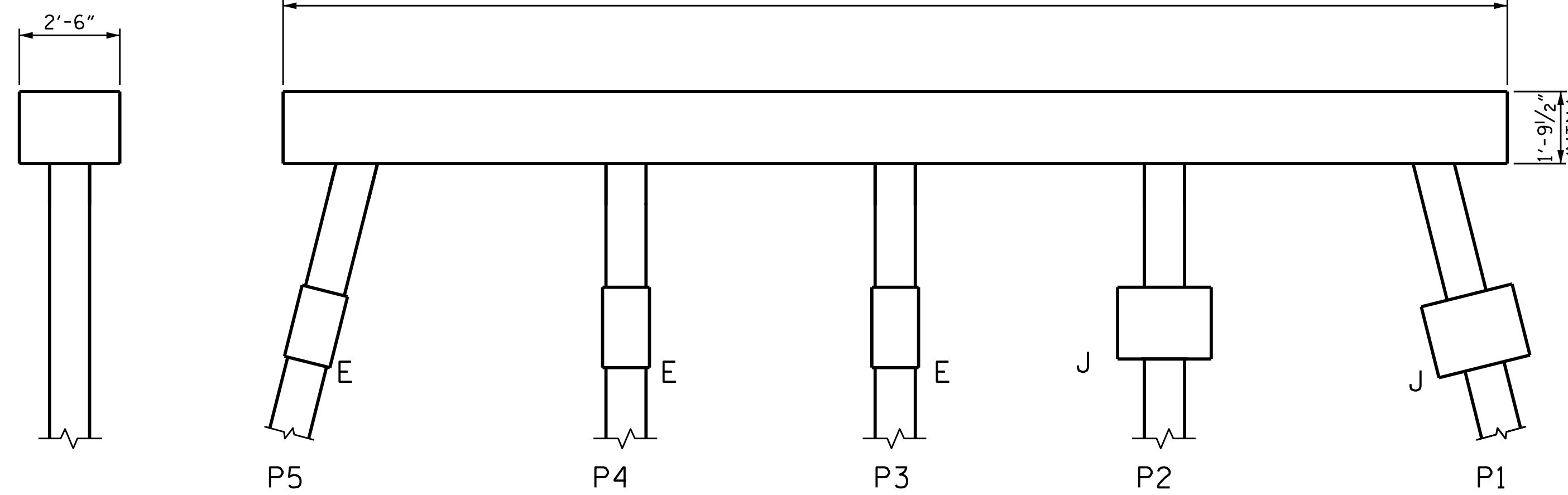
BENT 13	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		

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



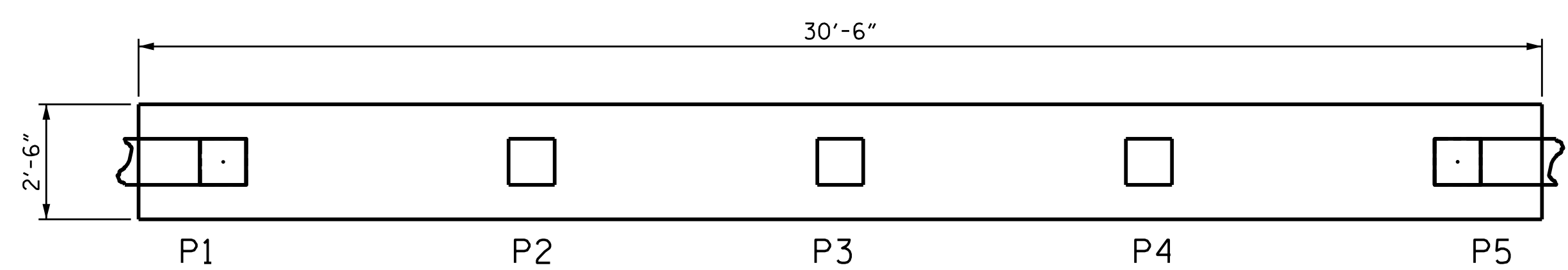
NORTH END

ELEVATION
(WEST SIDE)



SOUTH END

ELEVATION
(EAST SIDE)

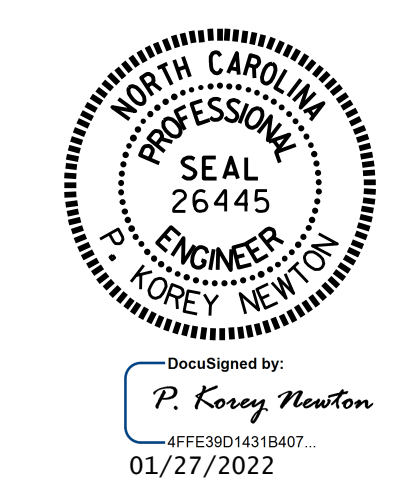


BOTTOM OF CAP

SPAN 13
SPAN 14

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
BRIDGE NO. 060028

SHEET 13 OF 48



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

**SUBSTRUCTURE
BENT 13 REPAIR**

DRAWN BY : S. T. SANDOR DATE : .05/2021
CHECKED BY : W. C. SMITH DATE : .06/2021

NO.	REVISIONS			SHEET NO.
	BY:	DATE:	NO.	
1			3	S3-31
2			4	TOTAL SHEETS 78

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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.

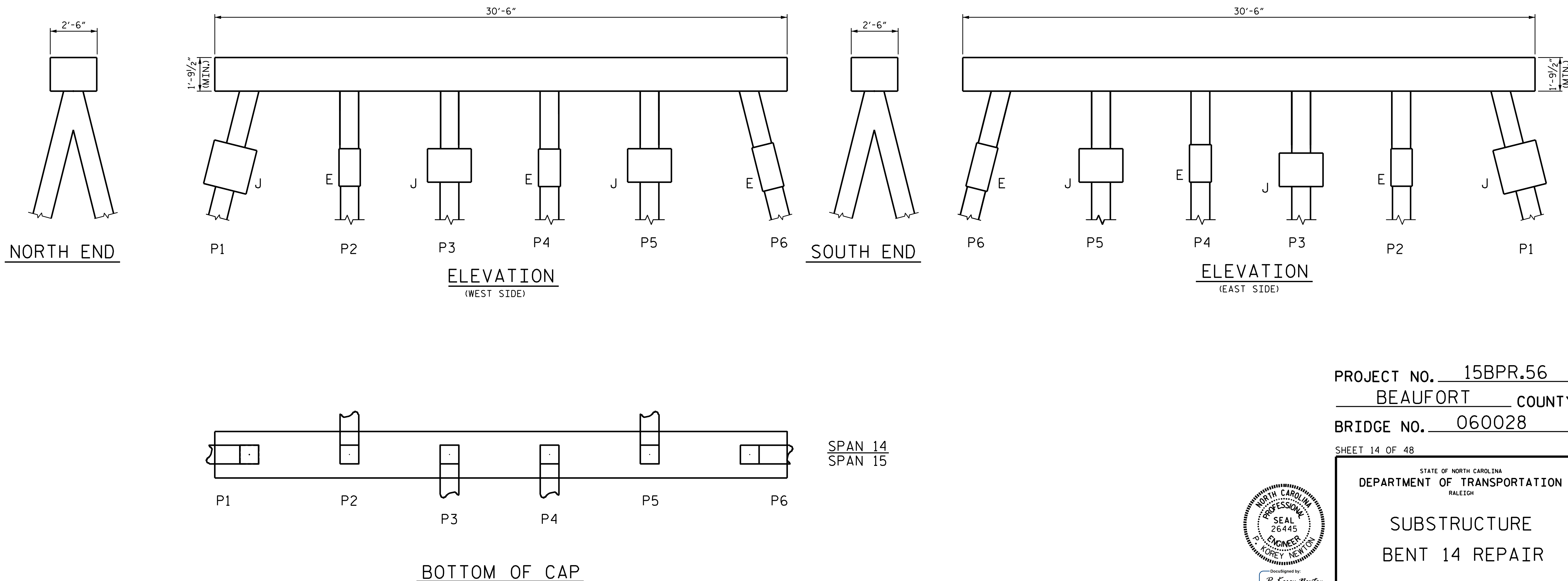
CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

- EXISTING _____
- J - JACKET
- E - ENCAPSULATION
- P - PILE
- CONCRETE REPAIR [Cross-hatched symbol]
- SHOTCRETE REPAIR [Diagonal line symbol]
- EPOXY RESIN INJECTION [Dotted symbol]

REPAIR QUANTITY TABLE

BENT 14	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, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

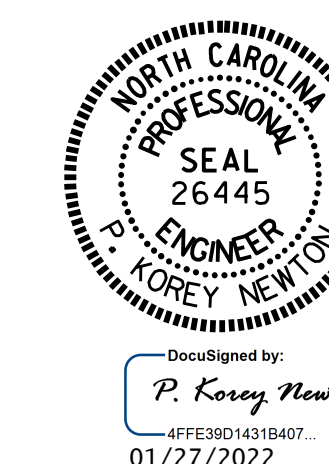


PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060028

SHEET 14 OF 48

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

**SUBSTRUCTURE
 BENT 14 REPAIR**



DocuSigned by:
 P. Corey Newton
 AFFE39D1431B407
 01/27/2022

DRAWN BY : S. T. SANDOR DATE : .05/2021
 CHECKED BY : W. C. SMITH DATE : .06/2021

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S3-32
2			4			TOTAL SHEETS 78

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.

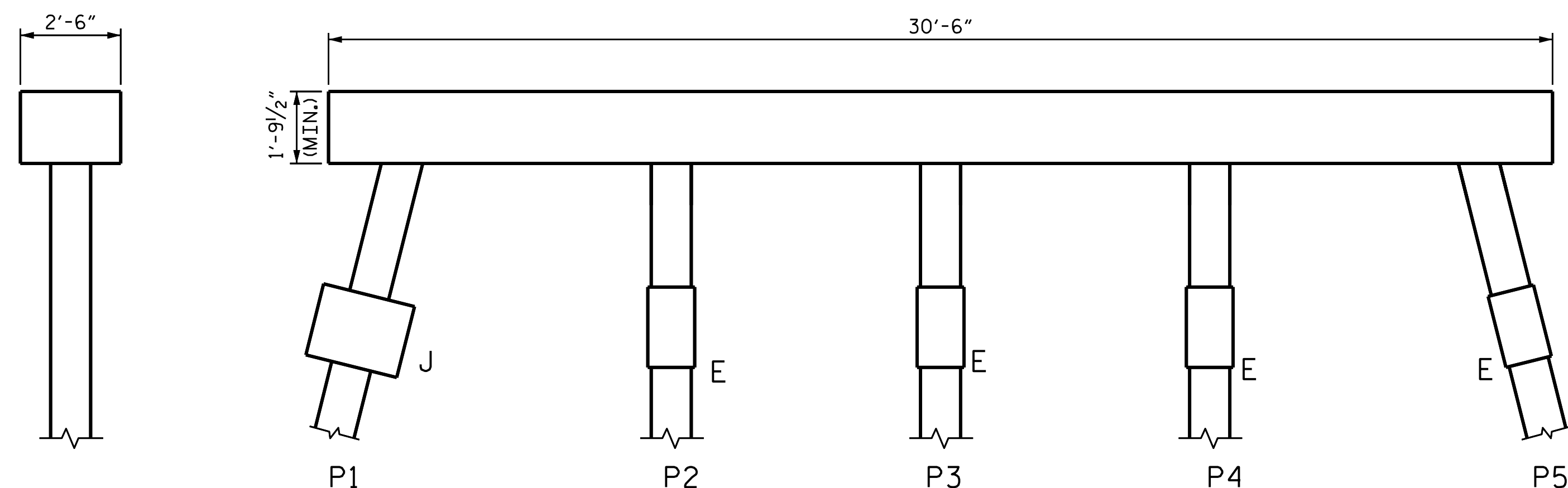
CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

-  CONCRETE REPAIR
-  SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- EXISTING
- J - JACKET
- E - ENCAPSULATION
- P - PILE

REPAIR QUANTITY TABLE

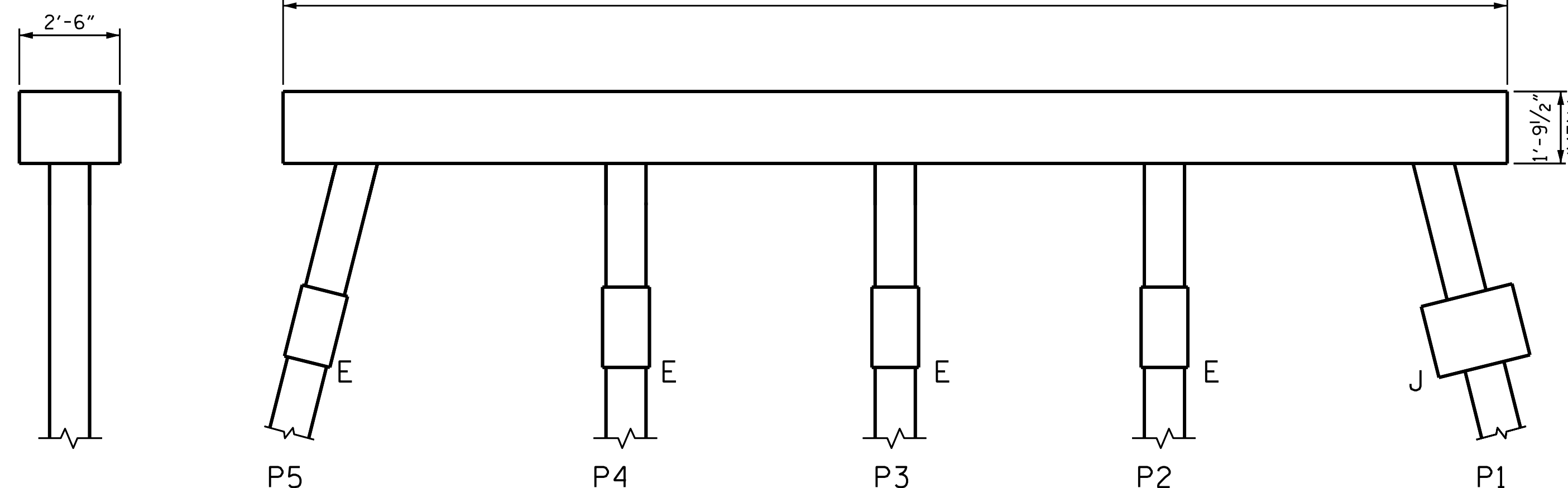
BENT 15	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		

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



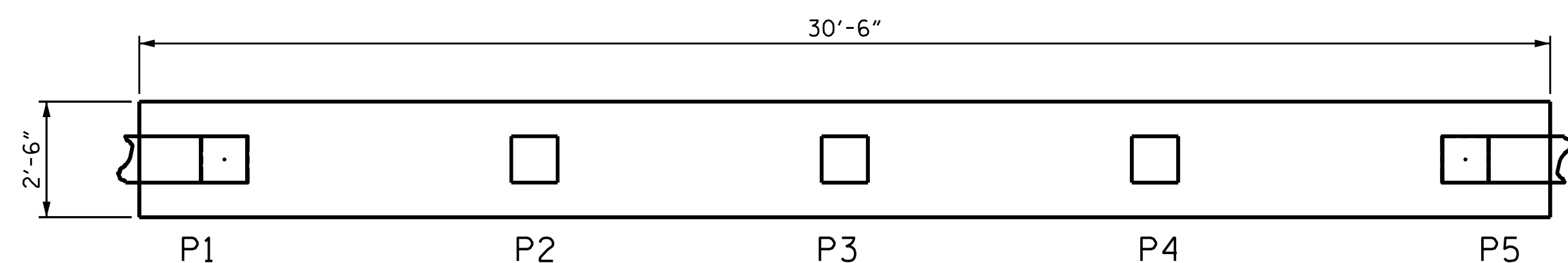
NORTH END

ELEVATION
(WEST SIDE)



SOUTH END

ELEVATION
(EAST SIDE)

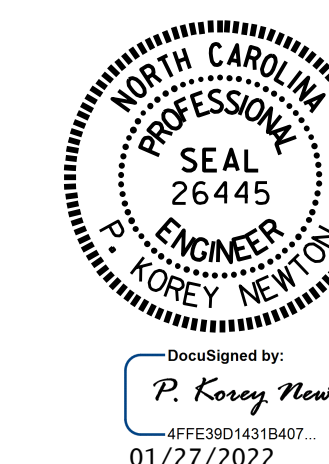


BOTTOM OF CAP

SPAN 15
SPAN 16

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
BRIDGE NO. 060028

SHEET 15 OF 48



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE
BENT 15 REPAIR

DRAWN BY : S. T. SANDOR DATE : .05/2021
CHECKED BY : W. C. SMITH DATE : .06/2021

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S3-33
1			3			TOTAL SHEETS
2			4			78

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.

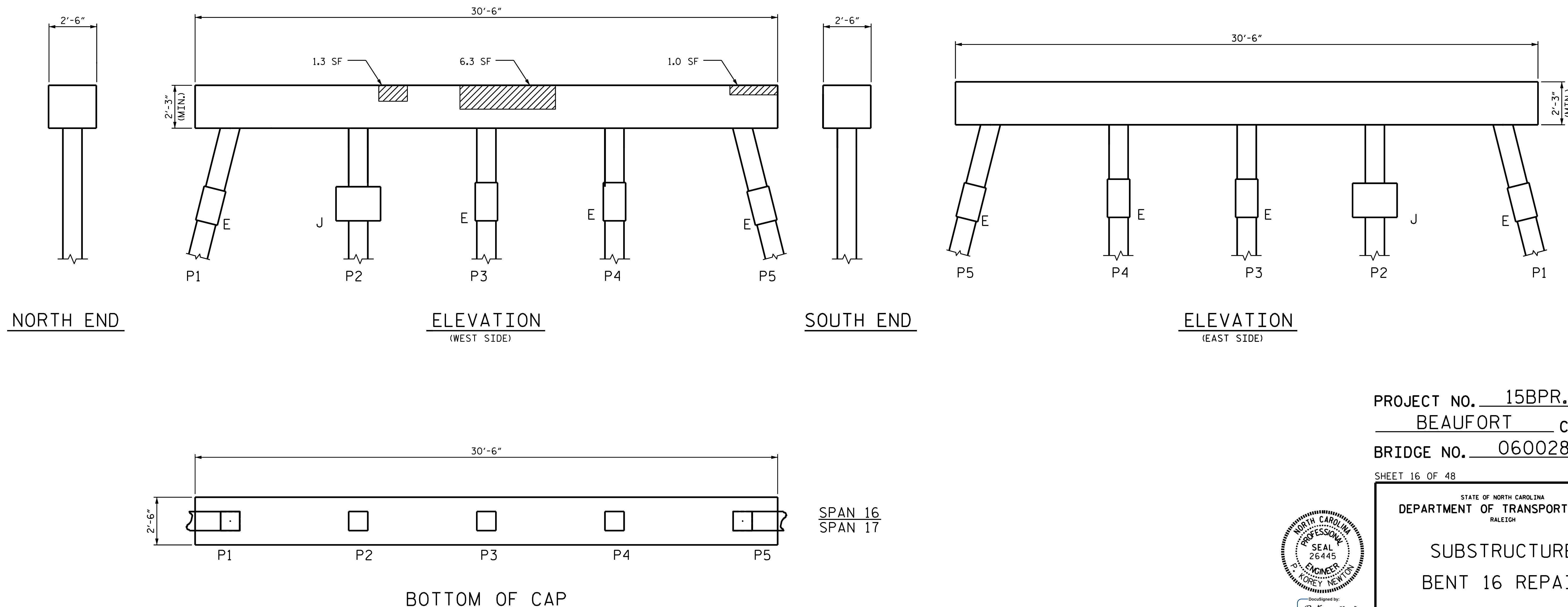
CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

-  CONCRETE REPAIR
-  SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- EXISTING
- J - JACKET
- E - ENCAPSULATION
- P - PILE

REPAIR QUANTITY TABLE

BENT 16	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	8.6	4.3		
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, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.



NORTH END

ELEVATION
(WEST SIDE)

SOUTH END

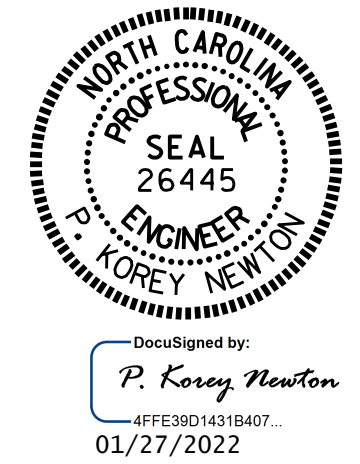
ELEVATION
(EAST SIDE)

BOTTOM OF CAP

SPAN 16
SPAN 17

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
BRIDGE NO. 060028

SHEET 16 OF 48



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

**SUBSTRUCTURE
BENT 16 REPAIR**

DRAWN BY : S. T. SANDOR DATE : .05/2021
CHECKED BY : W. C. SMITH DATE : .06/2021

NO.	REVISIONS			SHEET NO.
	BY:	DATE:	NO.	
1			3	S3-34 TOTAL SHEETS 78
2			4	

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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.

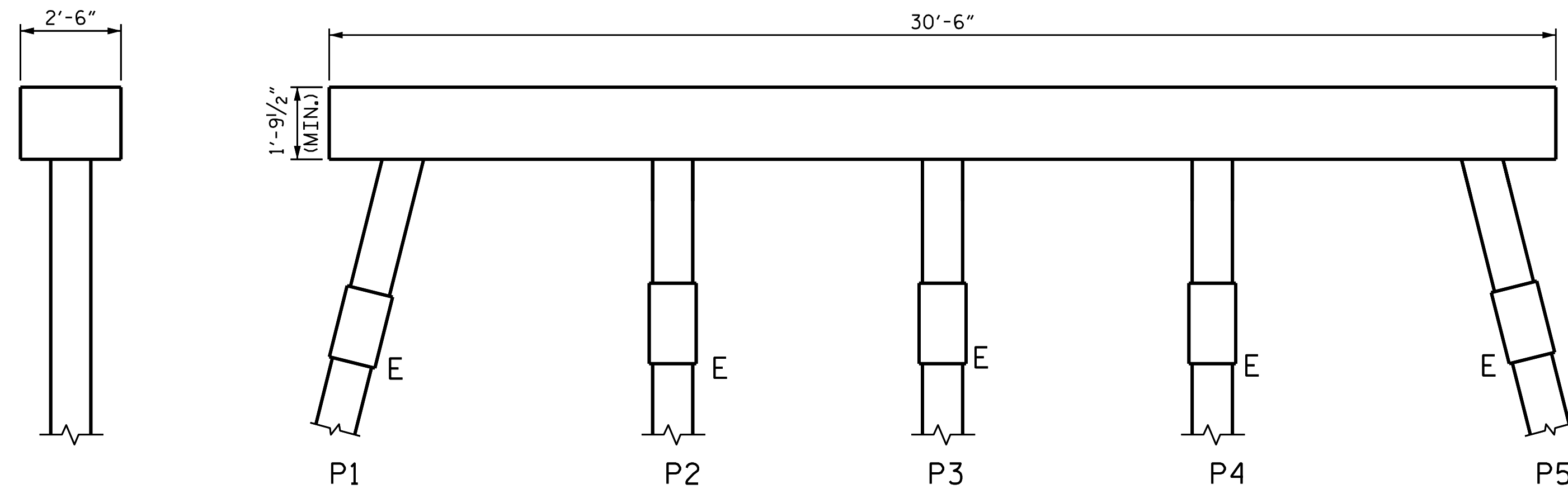
CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

-  CONCRETE REPAIR
-  SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- EXISTING
- J - JACKET
- E - ENCAPSULATION
- P - PILE

REPAIR QUANTITY TABLE

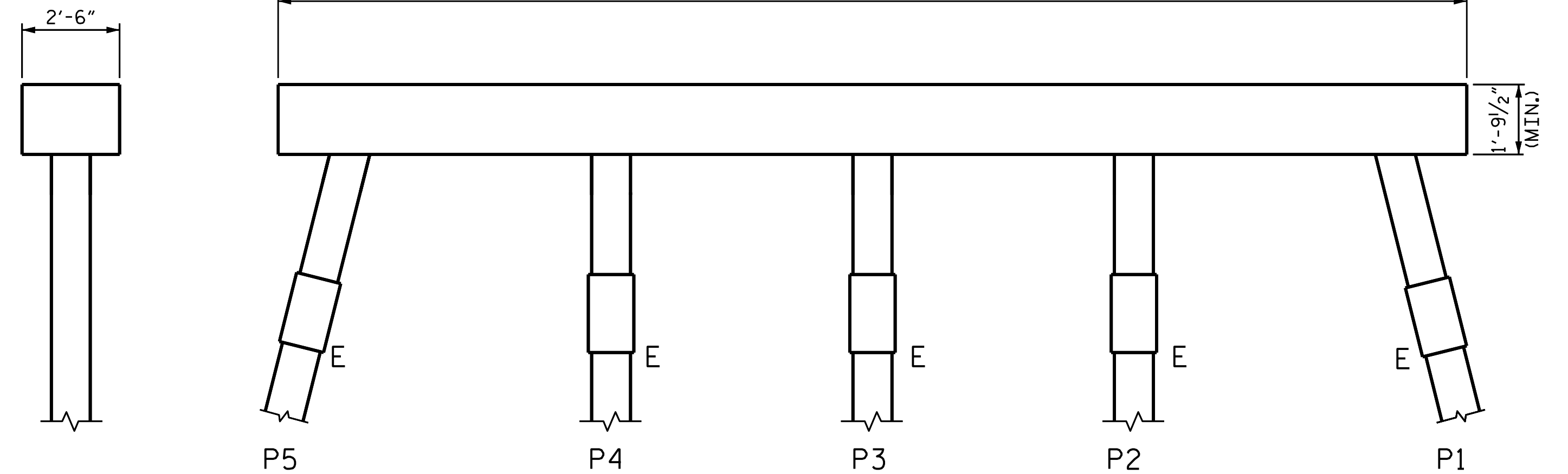
BENT 17	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		

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



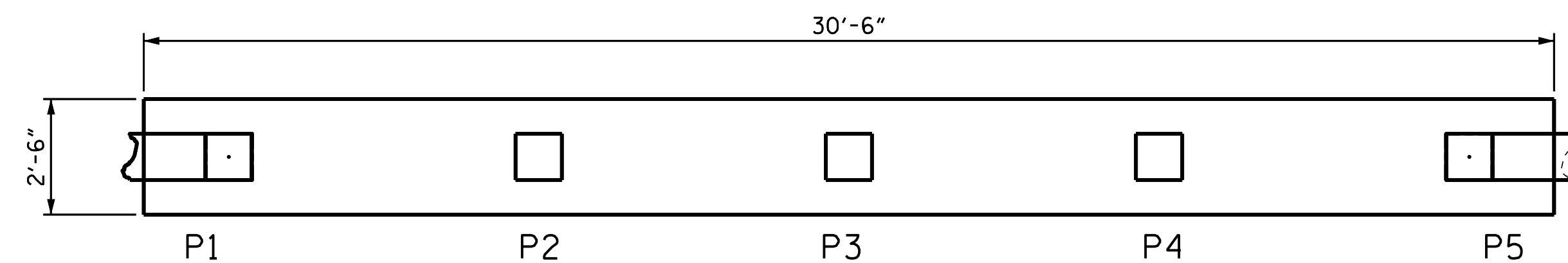
NORTH END

ELEVATION
(WEST SIDE)



SOUTH END

ELEVATION
(EAST SIDE)

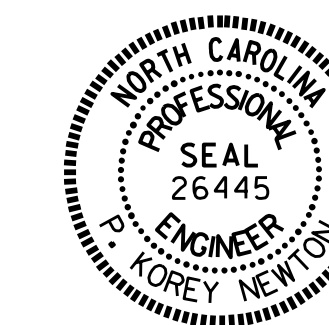


BOTTOM OF CAP

SPAN 17
SPAN 18

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
BRIDGE NO. 060028

SHEET 17 OF 48



DocuSigned by:
P. Corey Newton
4FFE39D1431B407
01/27/2022

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE
BENT 17 REPAIR

DRAWN BY : S. T. SANDOR DATE : .05/2021
CHECKED BY : W. C. SMITH DATE : .06/2021

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S3-35
1			3			TOTAL SHEETS
2			4			78

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.

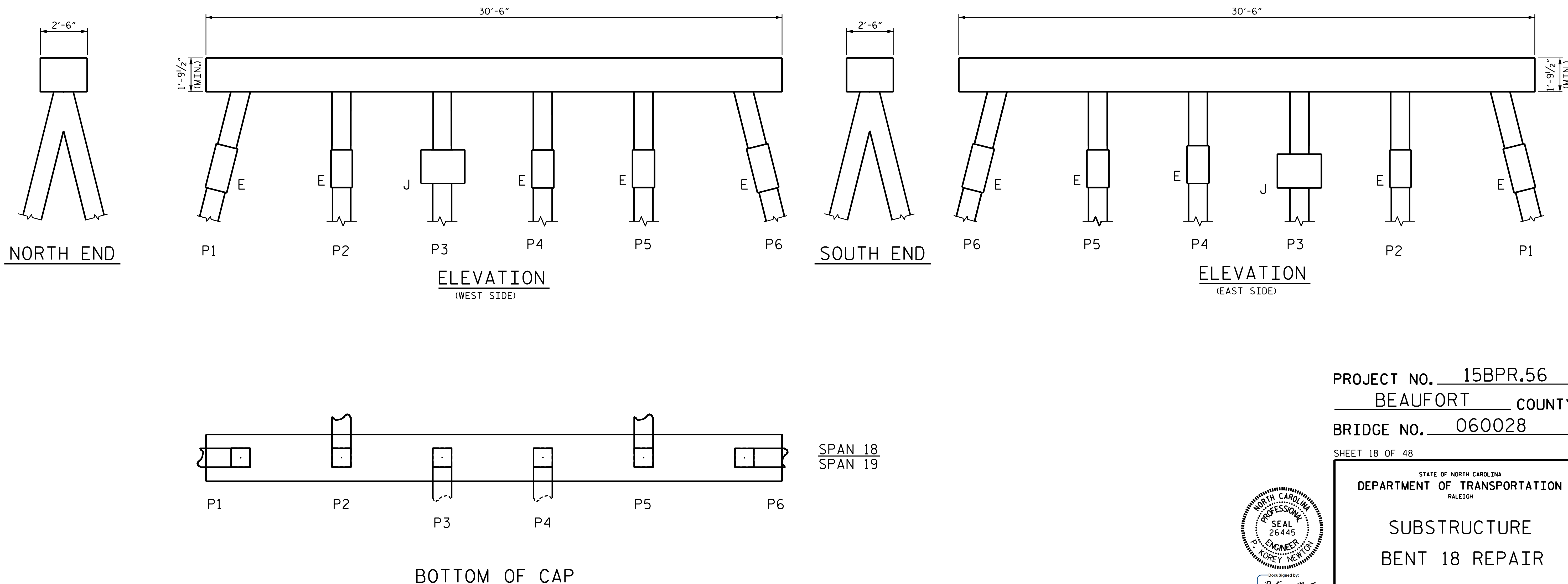
CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

- EXISTING
- CONCRETE REPAIR
- SHOTCRETE REPAIR
- EPOXY RESIN INJECTION
- J - JACKET
- E - ENCAPSULATION
- P - PILE

REPAIR QUANTITY TABLE

BENT 18	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, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

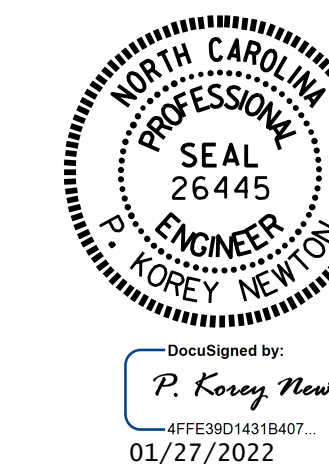


PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060028

SHEET 18 OF 48

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SUBSTRUCTURE
 BENT 18 REPAIR



DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S3-36
2			4			TOTAL SHEETS 78

DRAWN BY : S. T. SANDOR DATE : .05/2021
 CHECKED BY : W. C. SMITH DATE : .06/2021

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.

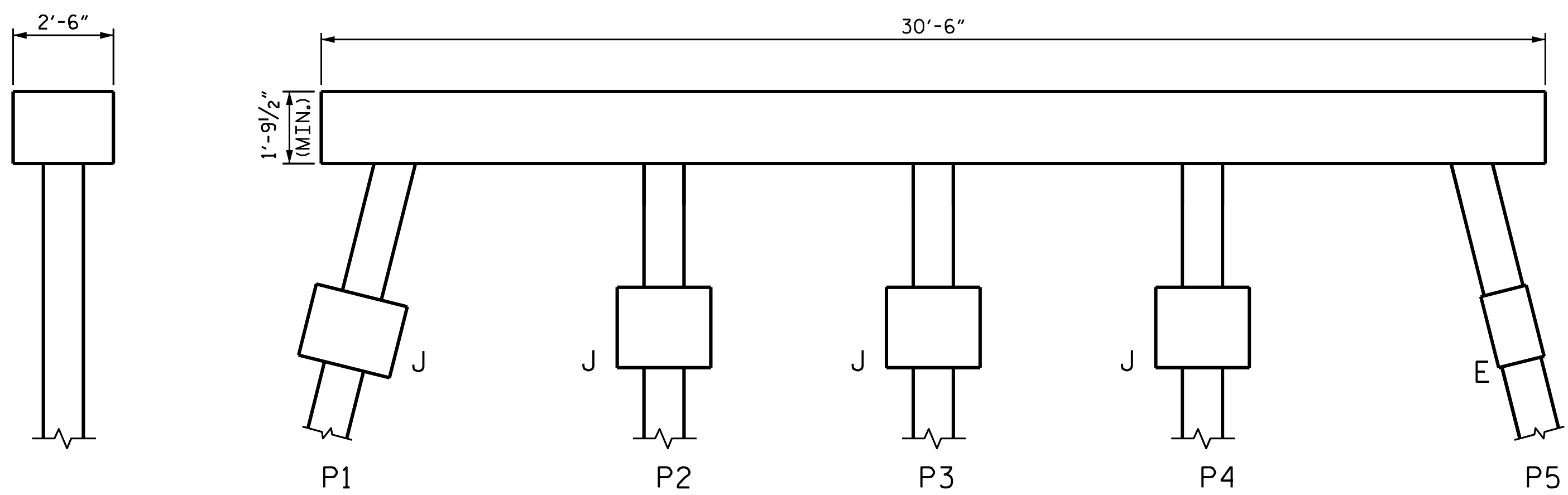
CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

-  CONCRETE REPAIR
-  SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- EXISTING
- J - JACKET
- E - ENCAPSULATION
- P - PILE

REPAIR QUANTITY TABLE

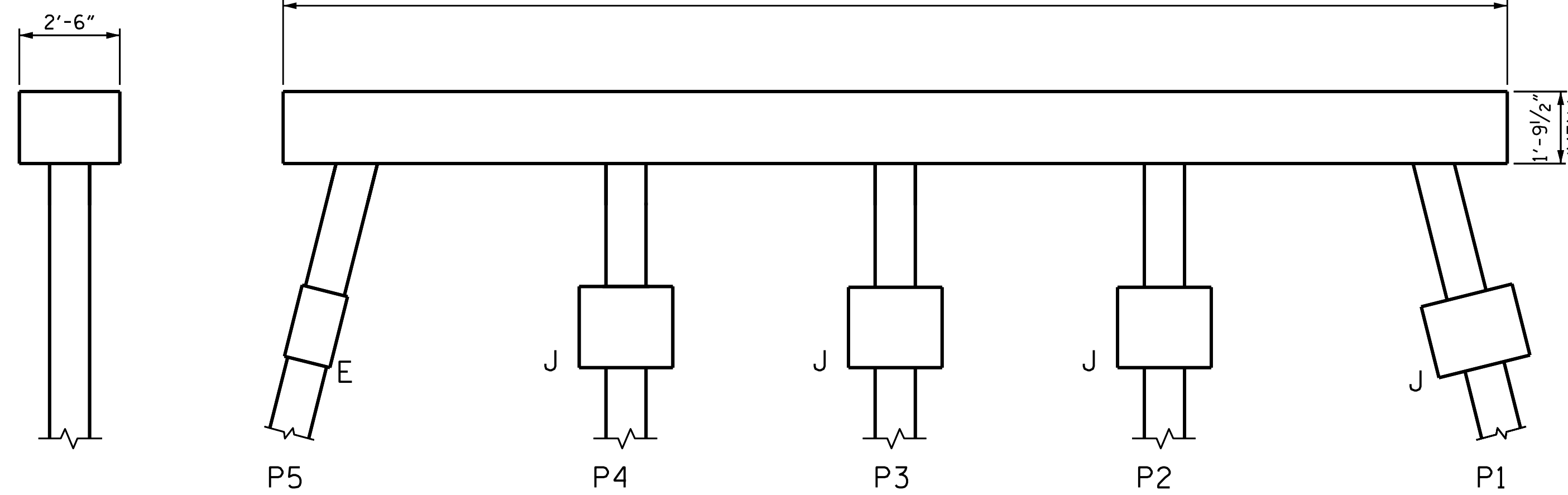
BENT 19	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		

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



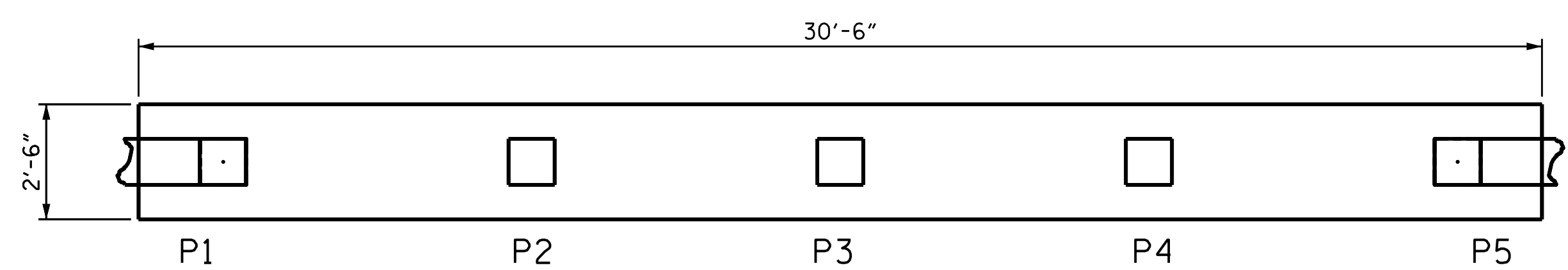
NORTH END

ELEVATION
(WEST SIDE)



SOUTH END

ELEVATION
(EAST SIDE)

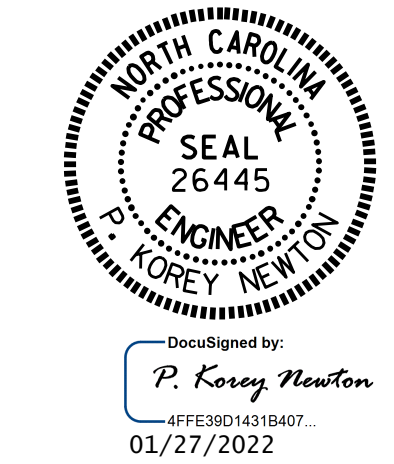


BOTTOM OF CAP

SPAN 19
SPAN 20

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060028

SHEET 19 OF 48



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
SUBSTRUCTURE
BENT 19 REPAIR

DRAWN BY : S. T. SANDOR DATE : .05/2021
 CHECKED BY : W. C. SMITH DATE : .06/2021

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S3-37
1			3			TOTAL SHEETS
2			4			78

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

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.

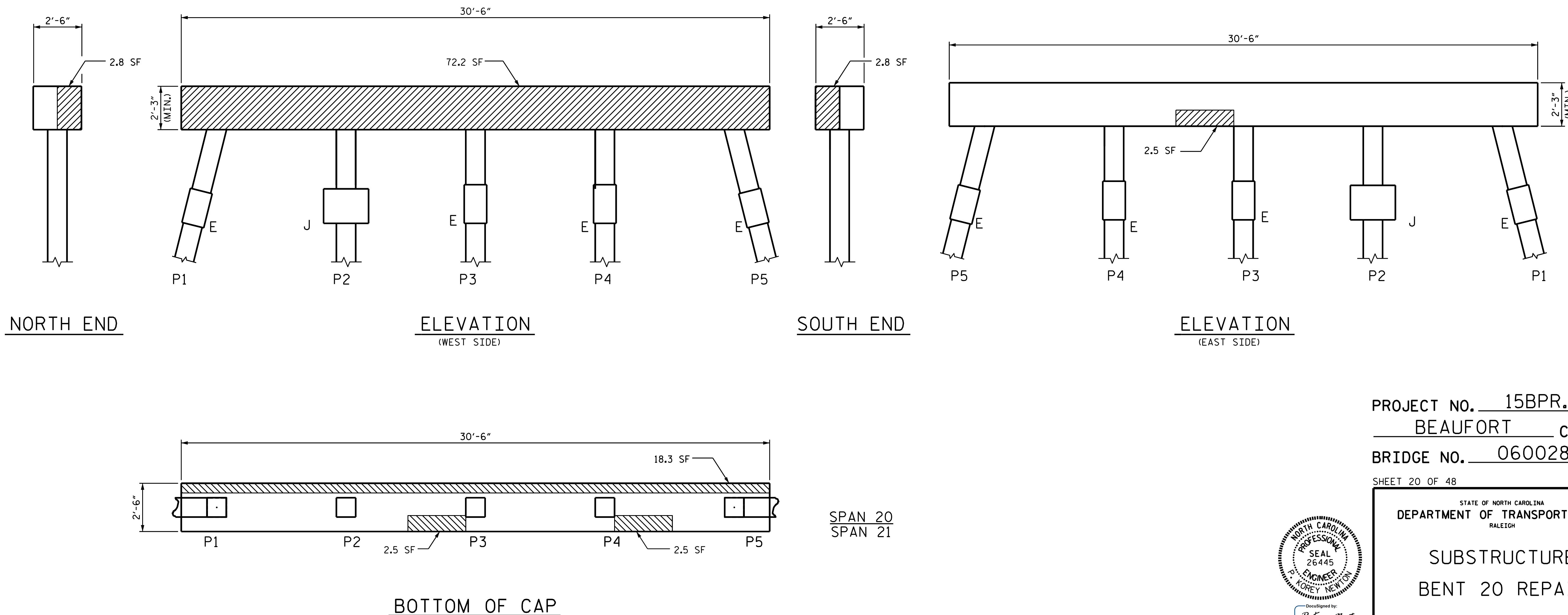
CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

-  CONCRETE REPAIR
-  SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- EXISTING
- J - JACKET
- E - ENCAPSULATION
- P - PILE

REPAIR QUANTITY TABLE

BENT 20	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	80.3	40.2		
CAP (HORIZONTAL FACE)	23.3	11.7		
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		

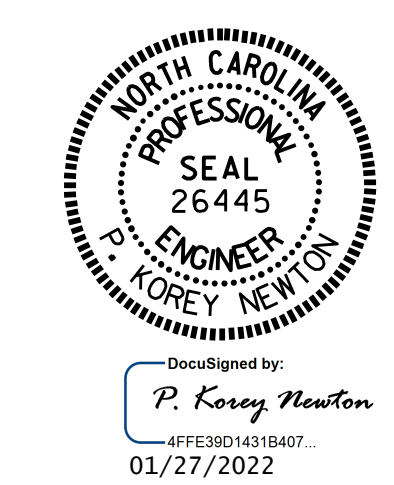
VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.



SPAN 20
SPAN 21

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060028

SHEET 20 OF 48



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

**SUBSTRUCTURE
 BENT 20 REPAIR**

DRAWN BY : S. T. SANDOR DATE : .05/2021
 CHECKED BY : W. C. SMITH DATE : .06/2021

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S3-38
1			3			TOTAL SHEETS
2			4			78

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

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.

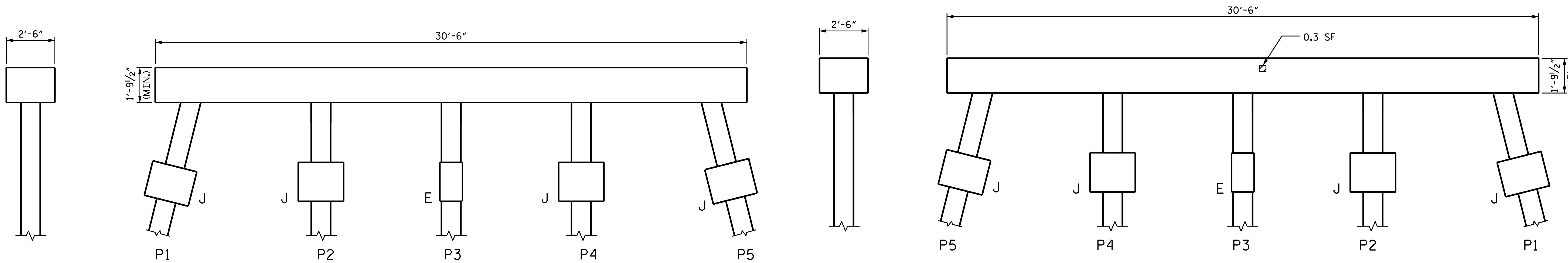
CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

-  CONCRETE REPAIR
-  SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- EXISTING
- J - JACKET
- E - ENCAPSULATION
- P - PILE

REPAIR QUANTITY TABLE

BENT 21	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.3	0.2		
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, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

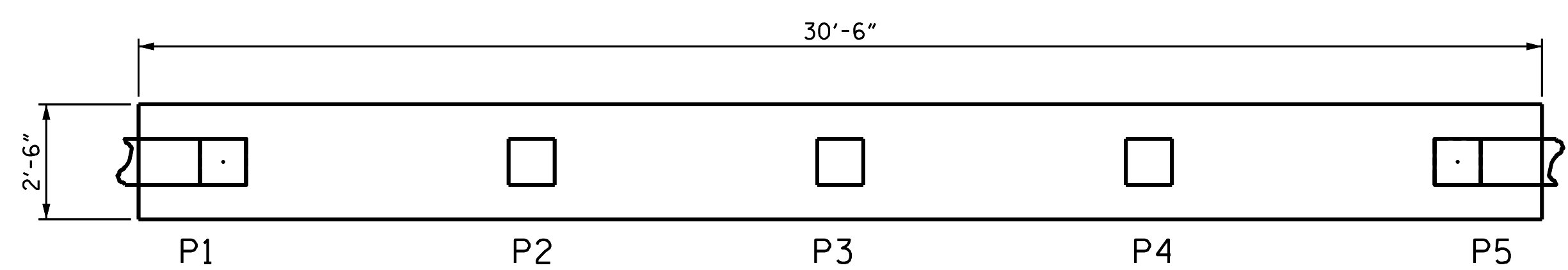


NORTH END

ELEVATION
(WEST SIDE)

SOUTH END

ELEVATION
(EAST SIDE)

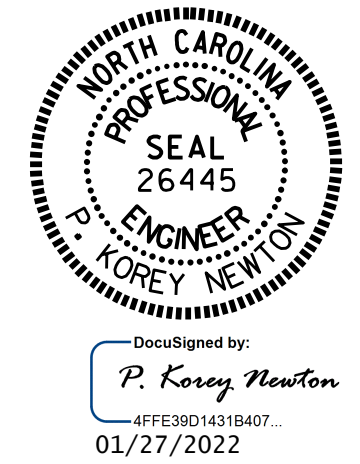


BOTTOM OF CAP

SPAN 21
SPAN 22

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060028

SHEET 21 OF 48



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
SUBSTRUCTURE
BENT 21 REPAIR

DRAWN BY : S. T. SANDOR DATE : .05/2021
 CHECKED BY : W. C. SMITH DATE : .06/2021

NO.	REVISIONS			SHEET NO.
	BY:	DATE:	NO.	
1			3	S3-39 TOTAL SHEETS 78
2			4	

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

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.

-  CONCRETE REPAIR
-  SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION

EXISTING

J - JACKET

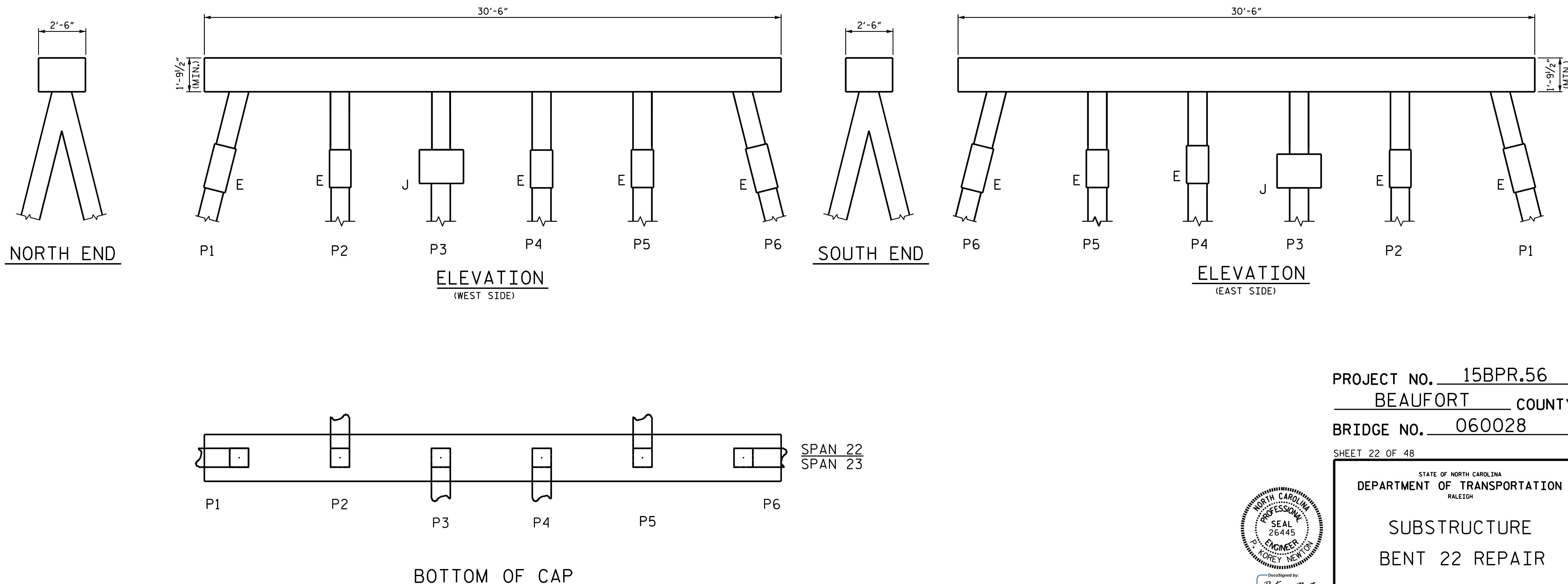
E - ENCAPSULATION

P - PILE

REPAIR QUANTITY TABLE

BENT 22	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	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		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		

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

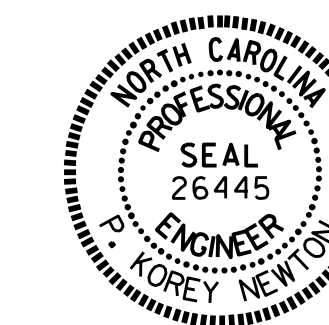


PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060028

SHEET 22 OF 48

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SUBSTRUCTURE
 BENT 22 REPAIR



DocuSigned by:
 P. Corey Newton
 AFFE39D14318407
 01/27/2022

DRAWN BY : S. T. SANDOR DATE : 05/2021
 CHECKED BY : W. C. SMITH DATE : 06/2021

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S3-40
2			4			TOTAL SHEETS 78

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.

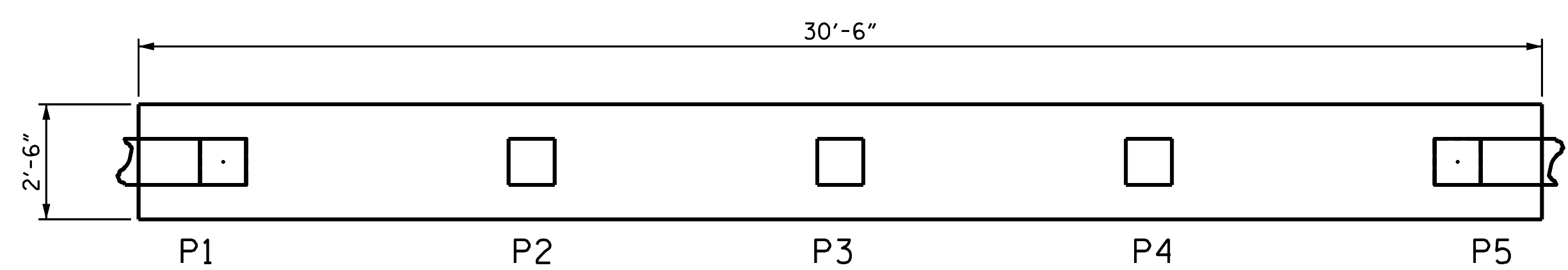
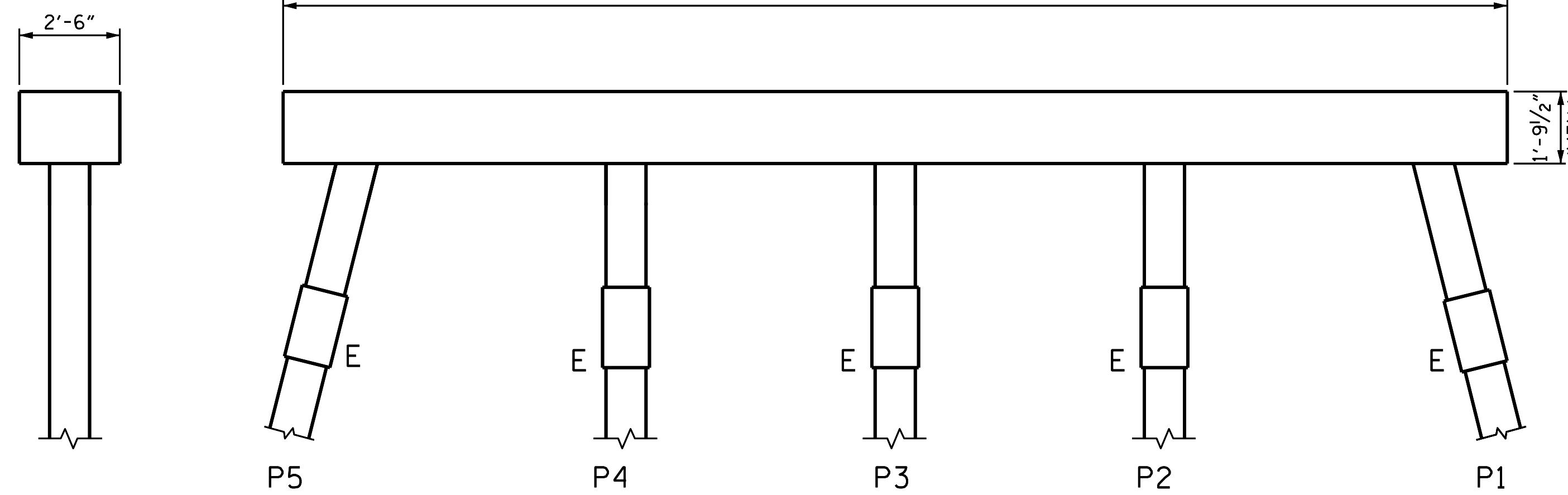
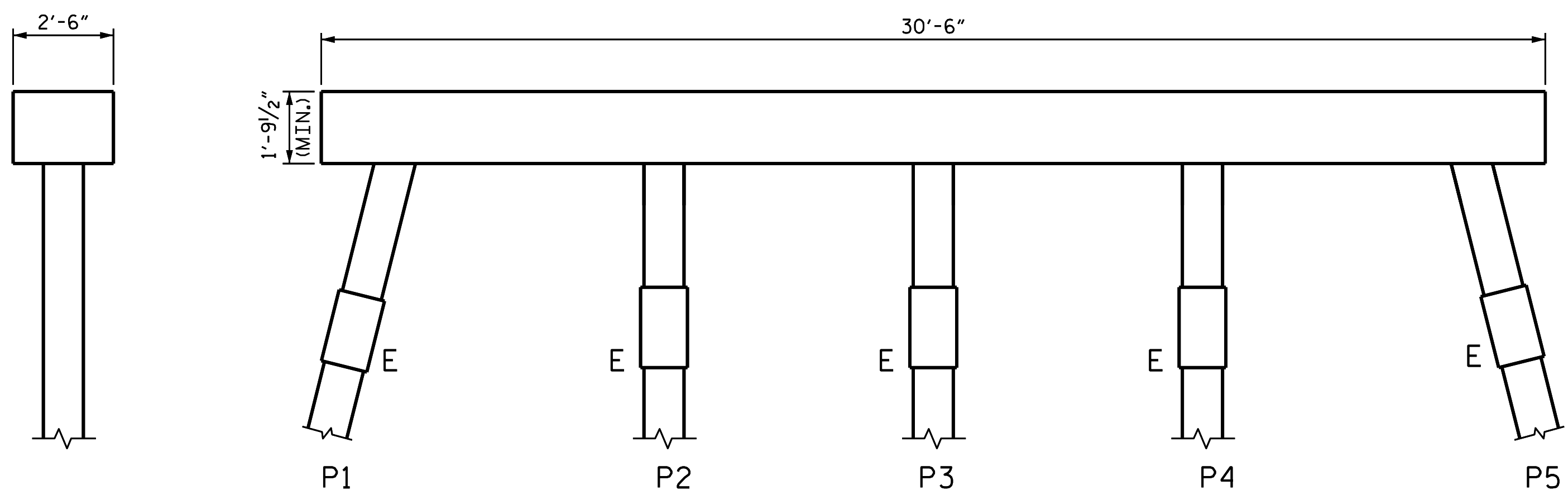
CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

-  CONCRETE REPAIR
-  SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- EXISTING
- J - JACKET
- E - ENCAPSULATION
- P - PILE

REPAIR QUANTITY TABLE

BENT 23	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		

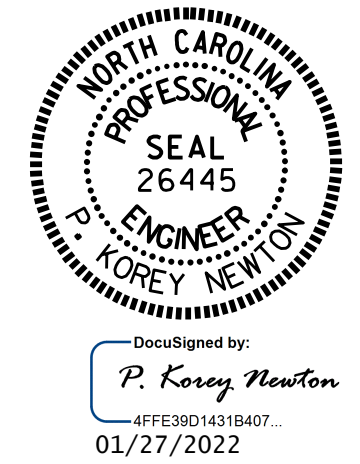
VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.



SPAN 23
SPAN 24

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060028

SHEET 23 OF 48

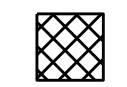



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
**SUBSTRUCTURE
 BENT 23 REPAIR**

DRAWN BY : S. T. SANDOR DATE : .05/2021
 CHECKED BY : W. C. SMITH DATE : .06/2021

NO.	REVISIONS			SHEET NO.
	BY:	DATE:	NO.	
1			3	S3-41
2			4	TOTAL SHEETS 78

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

 CONCRETE REPAIR
 SHOTCRETE REPAIR
 ERI EPOXY RESIN INJECTION

EXISTING
 J - JACKET
 E - ENCAPSULATION
 P - PILE

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.

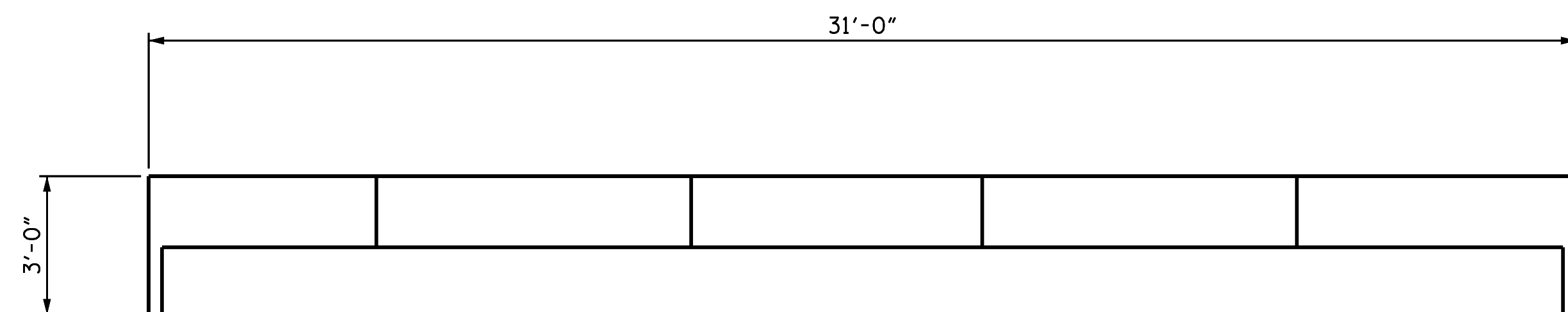
FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

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

REPAIR QUANTITY TABLE

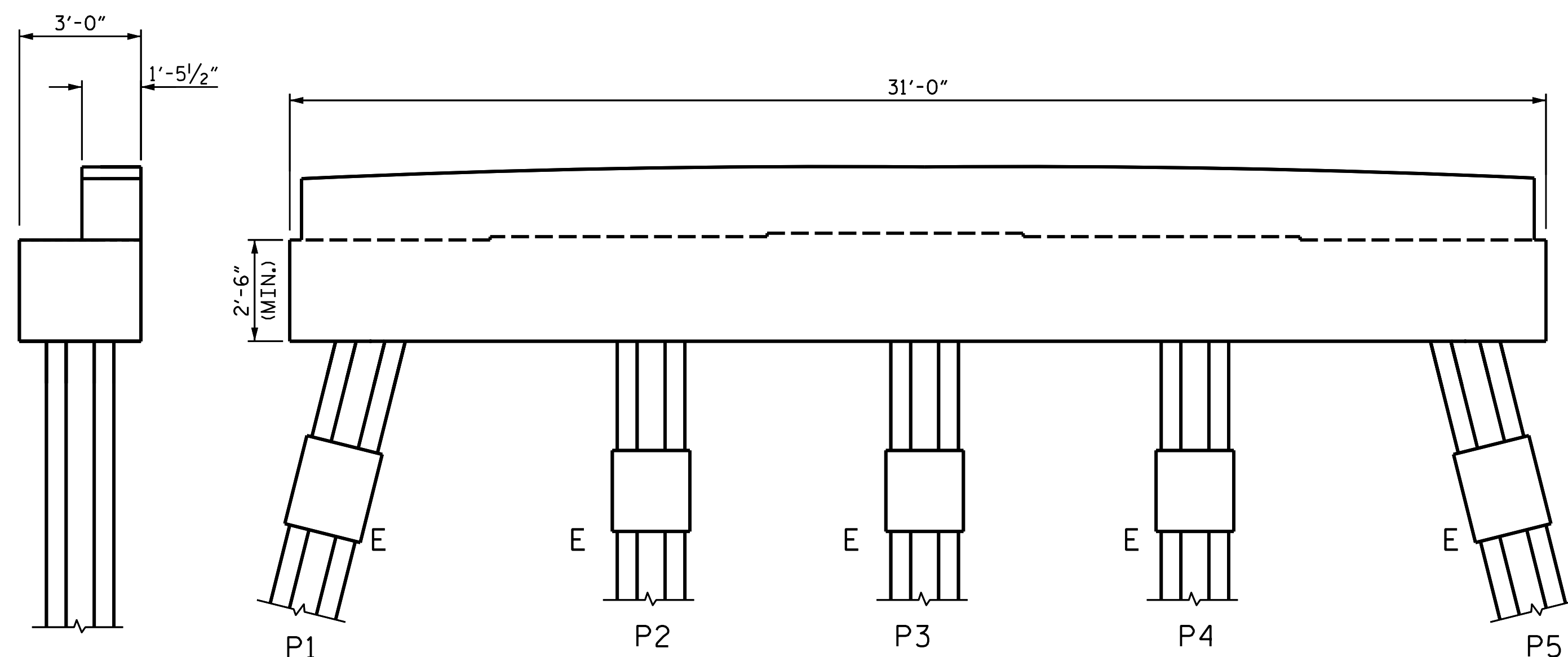
BENT 24	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	3.4	1.7		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	2.0	1.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		

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



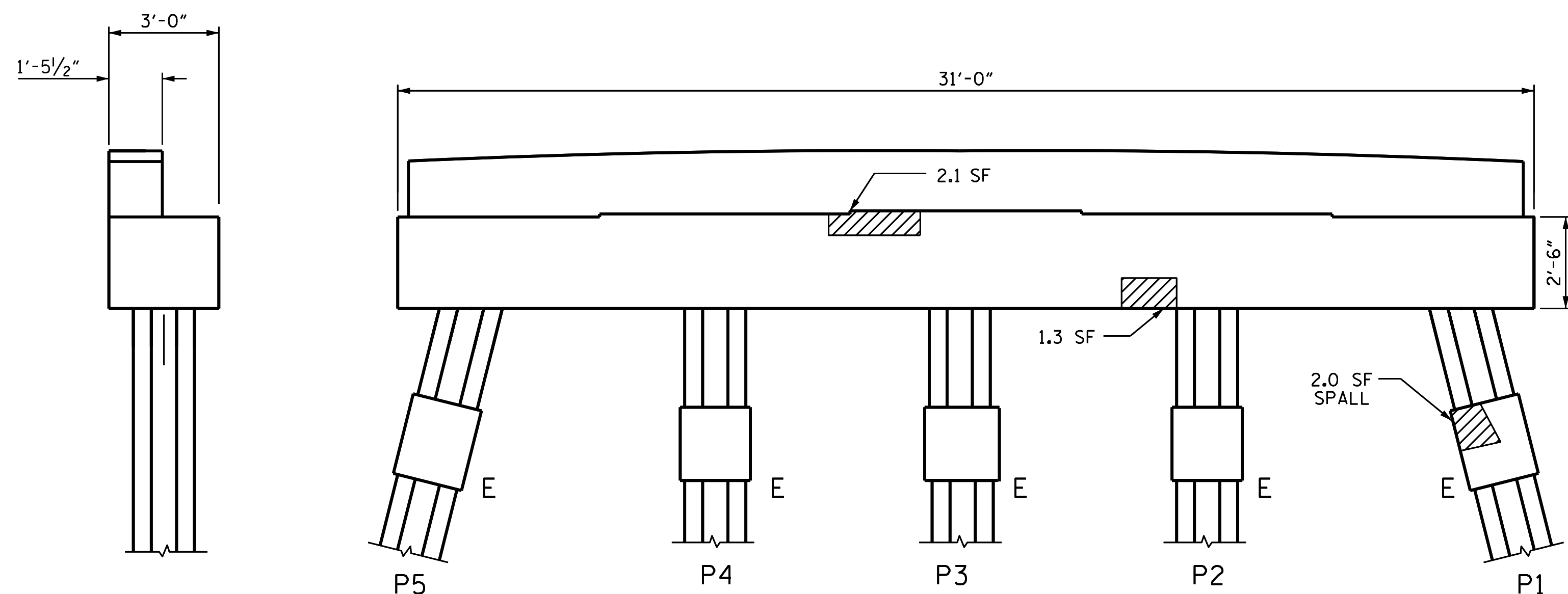
TOP OF CAP

SPAN 25
SPAN 24



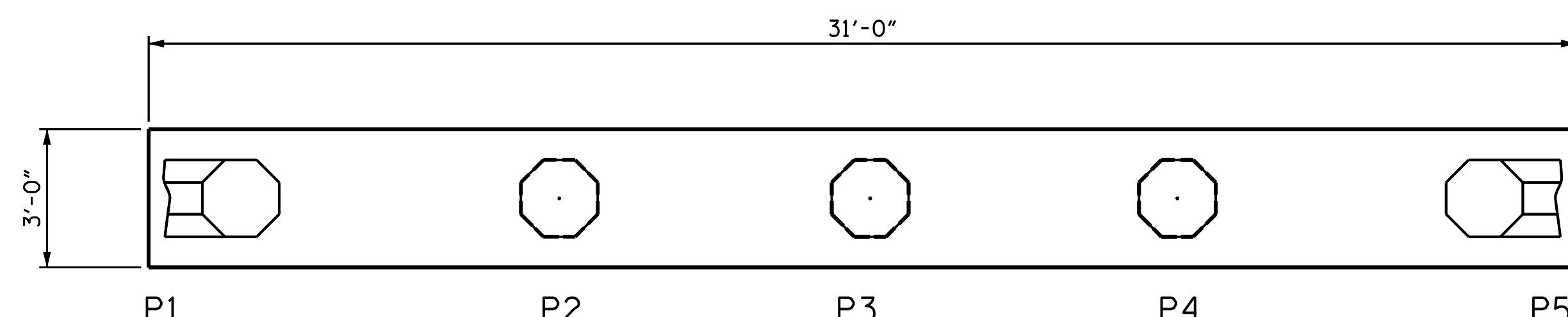
NORTH END

ELEVATION
(WEST SIDE)



SOUTH END

ELEVATION
(EAST SIDE)

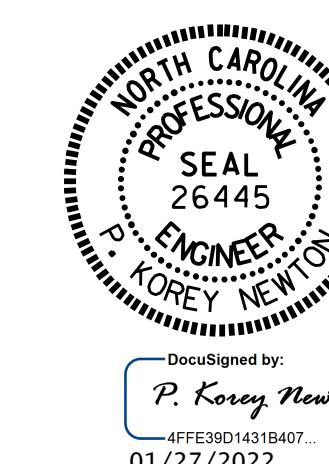


BOTTOM OF CAP

SPAN 24
SPAN 25

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060028

SHEET 24 OF 48



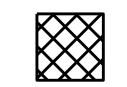

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE
BENT 24 REPAIR

DRAWN BY : S. T. SANDOR DATE : 05/2021
 CHECKED BY : W. C. SMITH DATE : 06/2021

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S3-42
2			4			TOTAL SHEETS 78

 CONCRETE REPAIR
 SHOTCRETE REPAIR
 ERI EPOXY RESIN INJECTION

EXISTING
 J - JACKET
 E - ENCAPSULATION
 P - PILE

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.

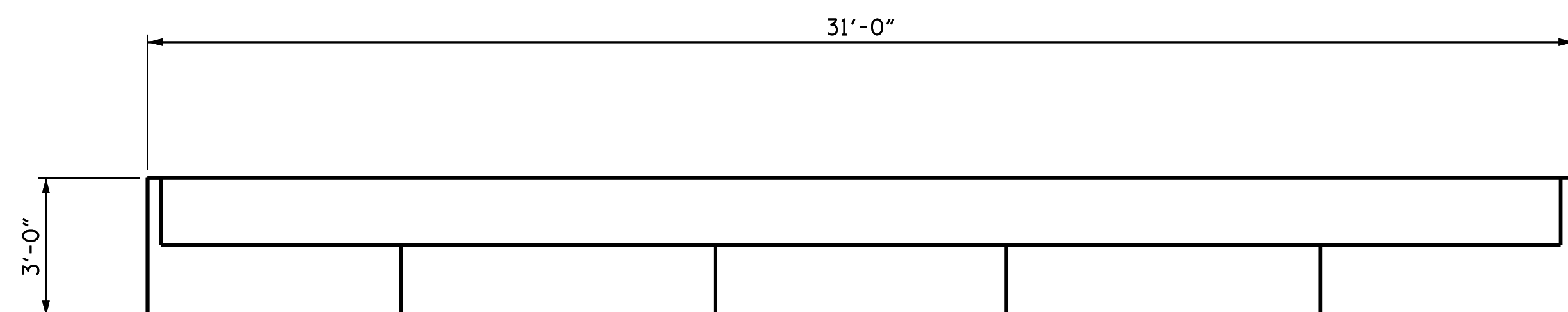
CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

SPAN 26
SPAN 25

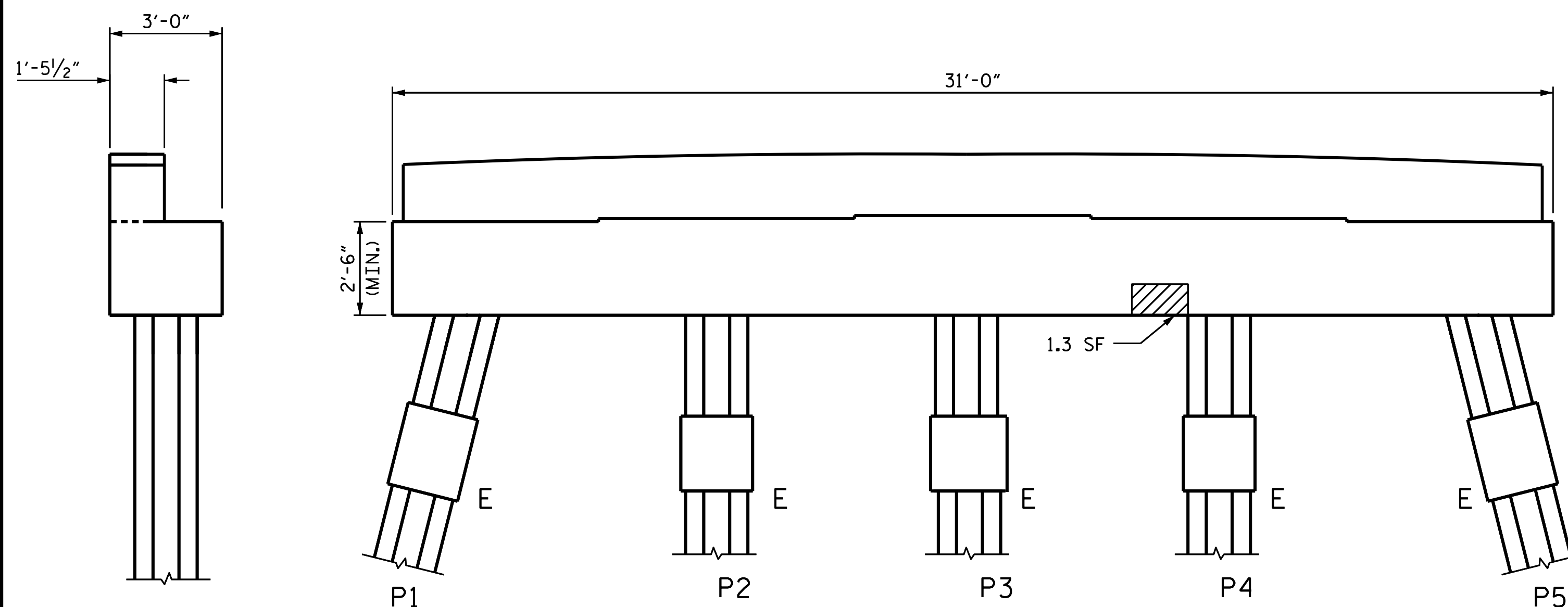
REPAIR QUANTITY TABLE

BENT 25	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	1.9	1.0		
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, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

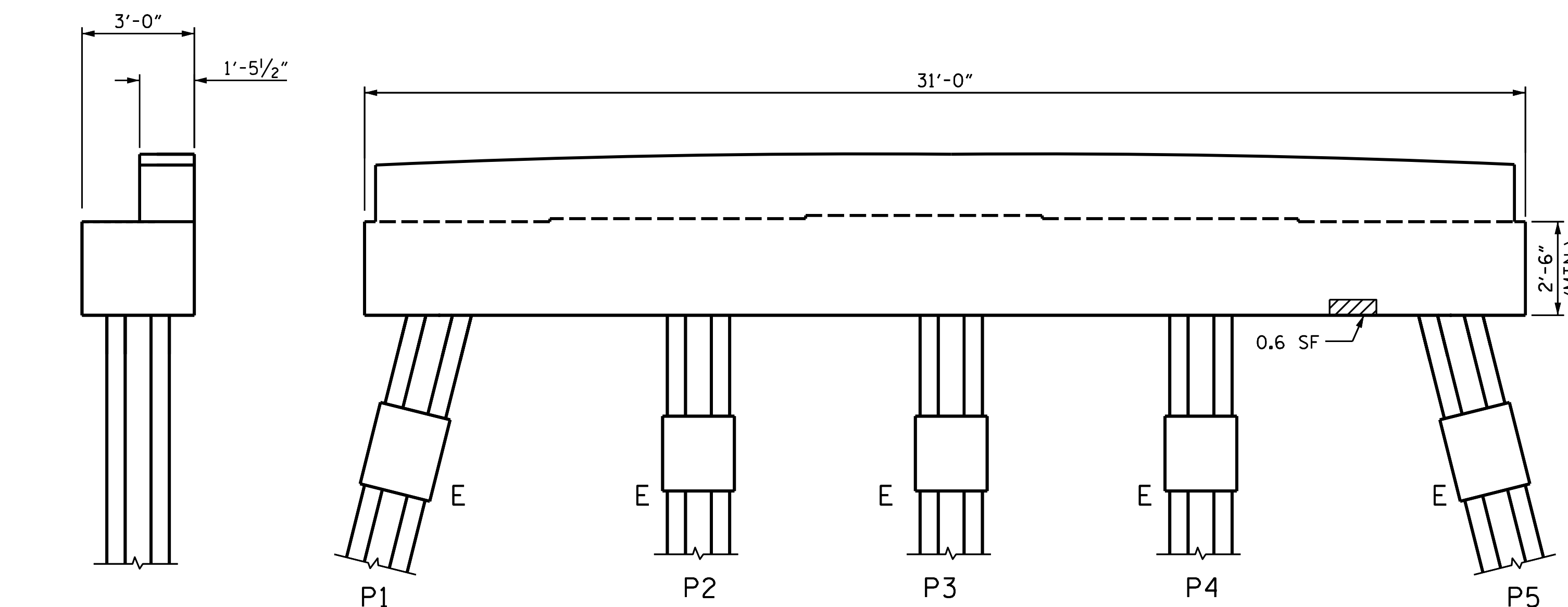


TOP OF CAP



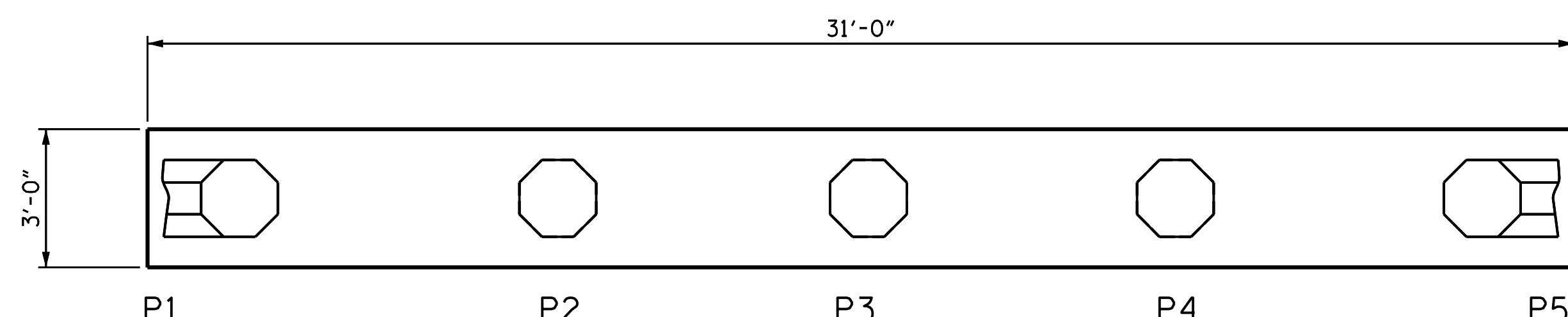
NORTH END

**ELEVATION
(WEST SIDE)**



SOUTH END

**ELEVATION
(EAST SIDE)**



BOTTOM OF CAP

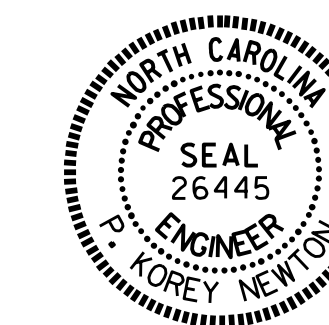
SPAN 25
SPAN 26

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060028

SHEET 25 OF 48

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE
BENT 25 REPAIR



DocuSigned by:
P. Corey Newton
4FFE39D14318407
01/27/2022

DRAWN BY : S. T. SANDOR DATE : .05/2021
 CHECKED BY : W. C. SMITH DATE : .06/2021

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S3-43
1			3			TOTAL SHEETS
2			4			78

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.

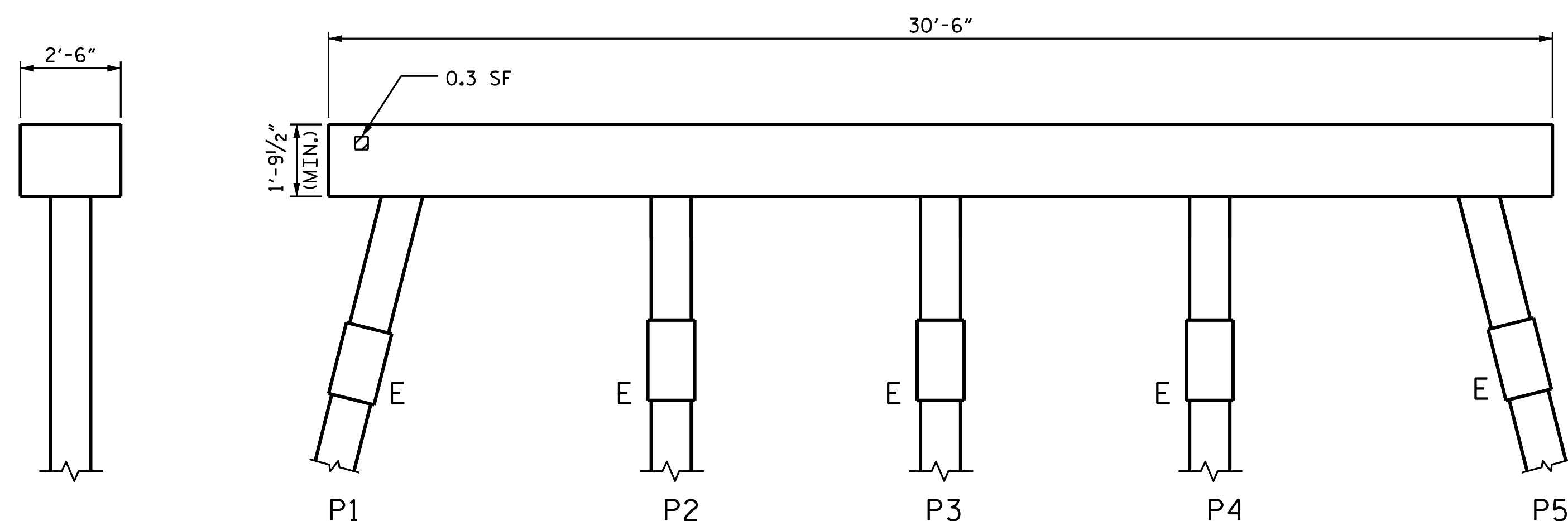
CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

-  CONCRETE REPAIR
-  SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- EXISTING
- J - JACKET
- E - ENCAPSULATION
- P - PILE

REPAIR QUANTITY TABLE

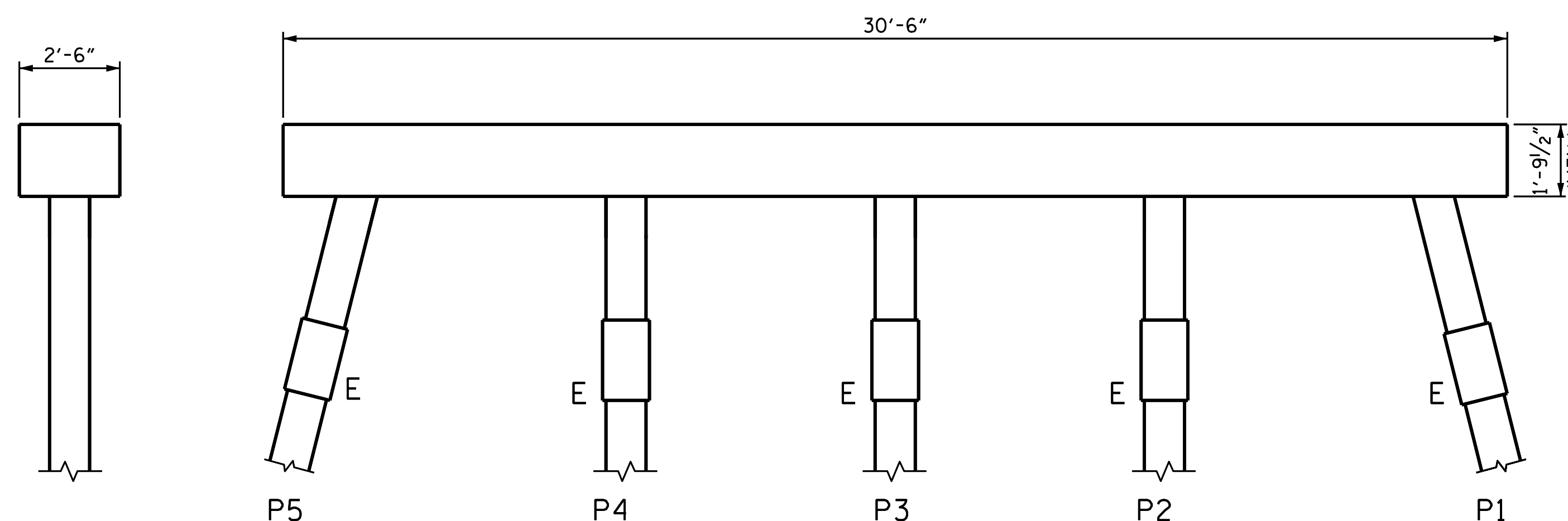
BENT 26	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.3	0.2		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		

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



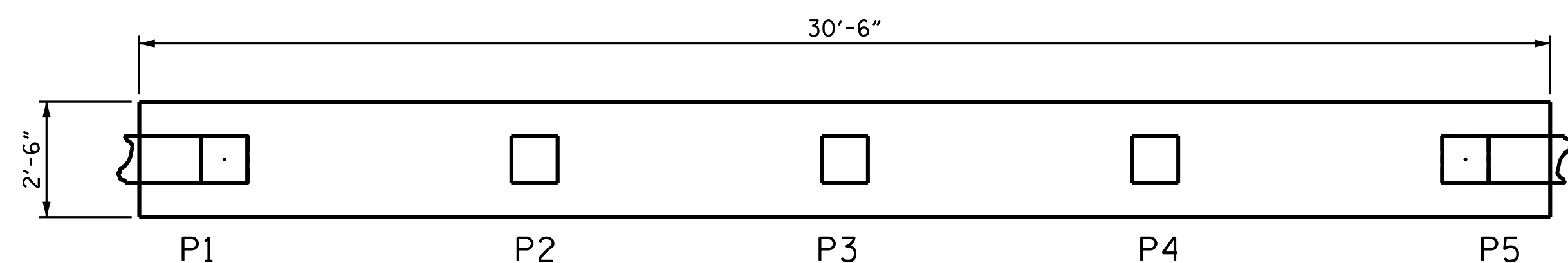
NORTH END

ELEVATION
(WEST SIDE)



SOUTH END

ELEVATION
(EAST SIDE)

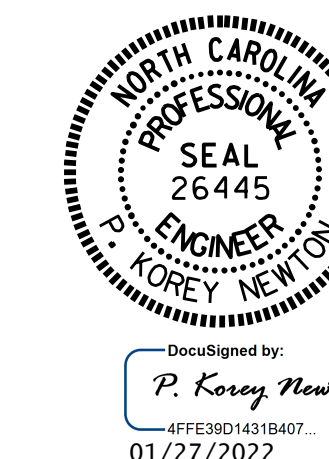


BOTTOM OF CAP

SPAN 26
SPAN 27

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
BRIDGE NO. 060028

SHEET 26 OF 48



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE
BENT 26 REPAIR

DRAWN BY : S. T. SANDOR DATE : .05/2021
CHECKED BY : W. C. SMITH DATE : .06/2021

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S3-44
1			3			TOTAL SHEETS
2			4			78

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.

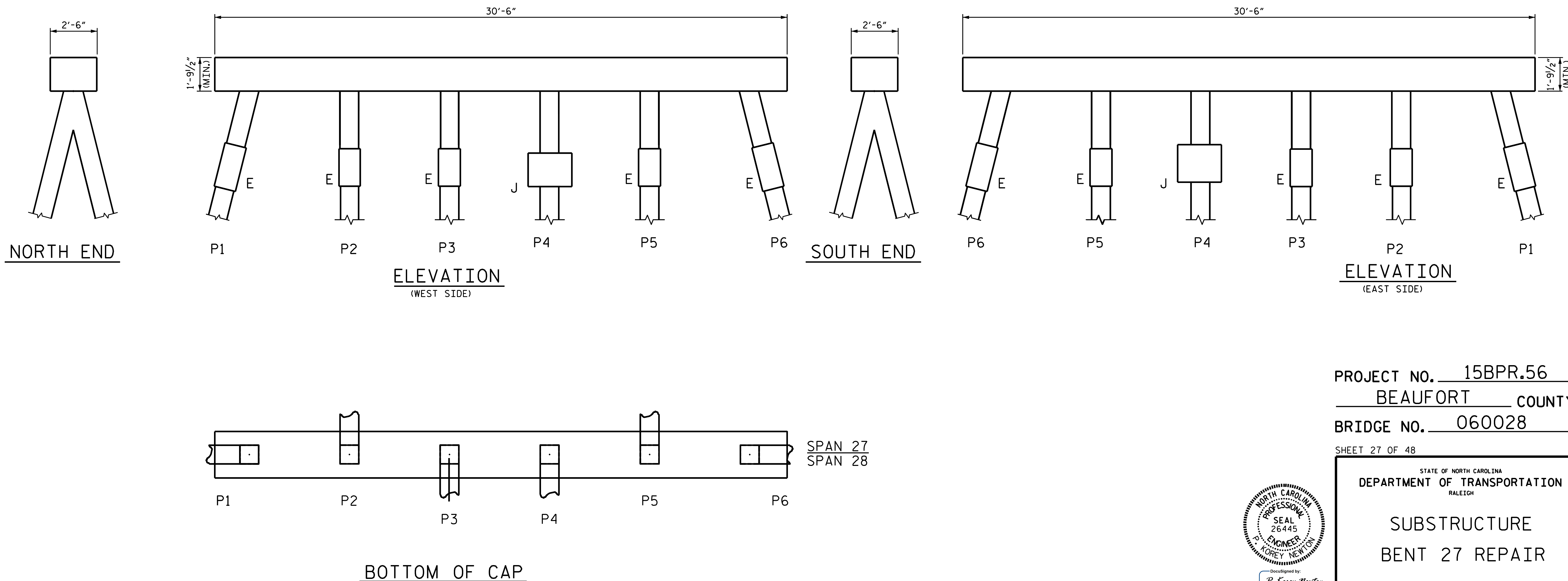
CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

- EXISTING _____
- J - JACKET
- E - ENCAPSULATION
- P - PILE
- CONCRETE REPAIR (cross-hatched)
- SHOTCRETE REPAIR (diagonal lines)
- EPOXY RESIN INJECTION (ERI)

REPAIR QUANTITY TABLE

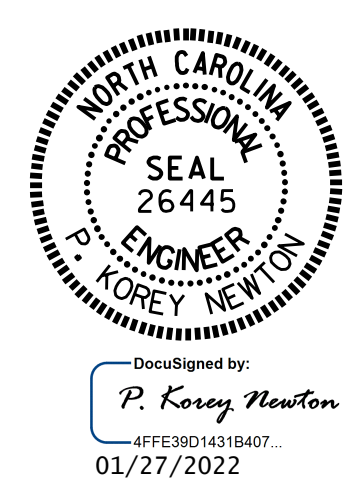
BENT 27	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		

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



PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060028

SHEET 27 OF 48



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
**SUBSTRUCTURE
 BENT 27 REPAIR**

DRAWN BY : S. T. SANDOR DATE : .05/2021
 CHECKED BY : W. C. SMITH DATE : .06/2021

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S3-45
2			4			TOTAL SHEETS 78

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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.

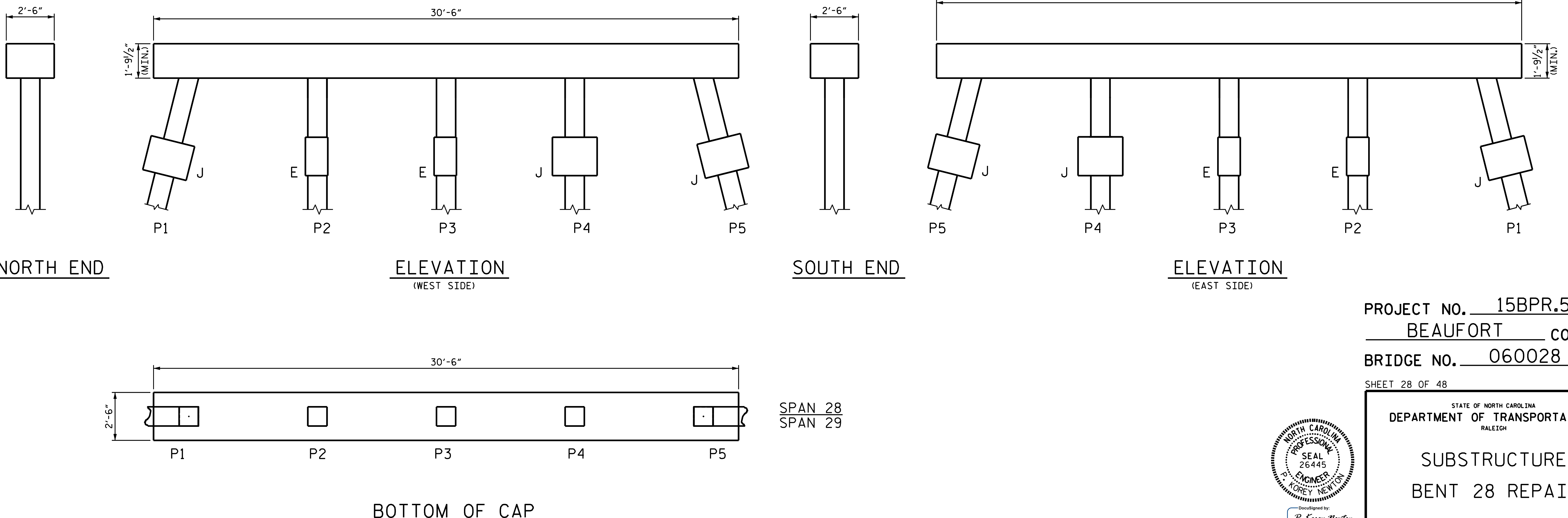
CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

-  CONCRETE REPAIR
-  SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- EXISTING
- J - JACKET
- E - ENCAPSULATION
- P - PILE

REPAIR QUANTITY TABLE

BENT 28	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		

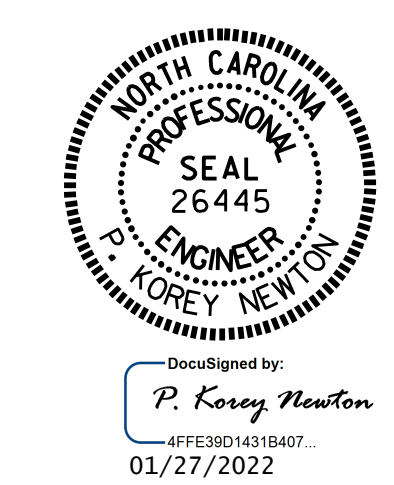
VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.



SPAN 28
SPAN 29

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060028

SHEET 28 OF 48



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
**SUBSTRUCTURE
 BENT 28 REPAIR**

DRAWN BY : S. T. SANDOR DATE : .05/2021
 CHECKED BY : W. C. SMITH DATE : .06/2021

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S3-46
2			4			TOTAL SHEETS 78

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

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.

-  CONCRETE REPAIR
-  SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION

EXISTING

J - JACKET

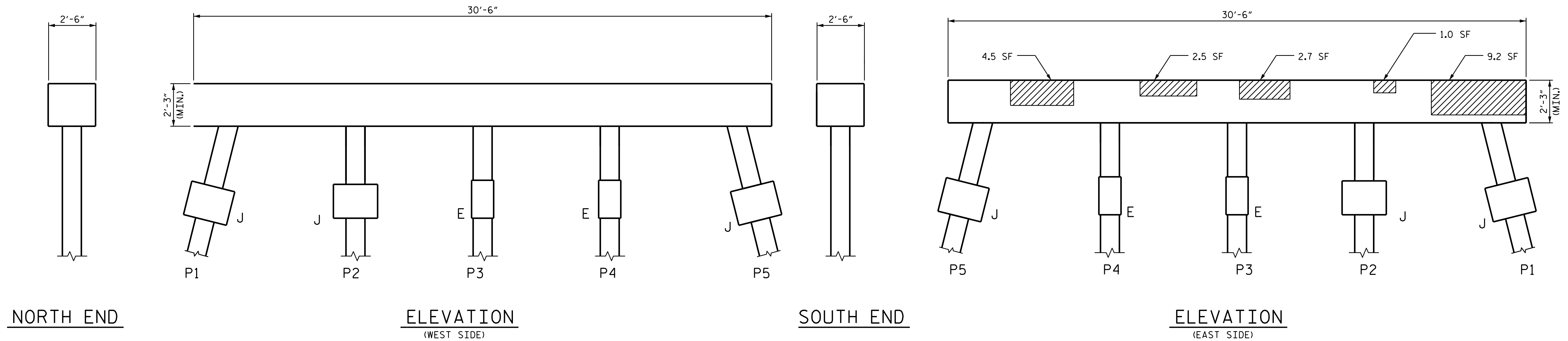
E - ENCAPSULATION

P - PILE

REPAIR QUANTITY TABLE

BENT 29	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	19.9	10.0		
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, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

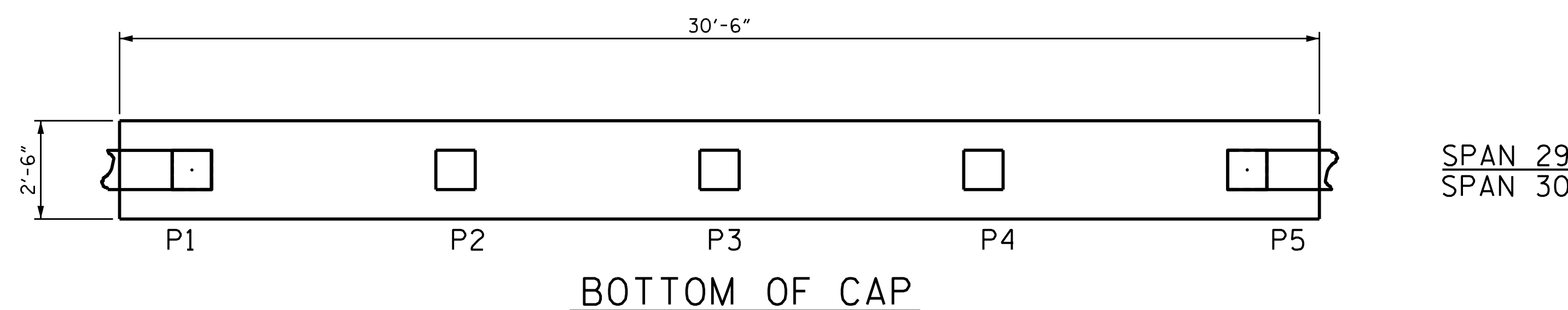


NORTH END

ELEVATION
(WEST SIDE)

SOUTH END

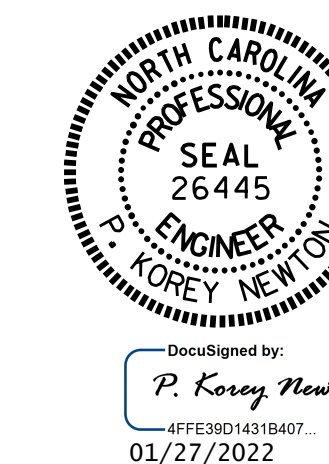
ELEVATION
(EAST SIDE)



BOTTOM OF CAP

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060028

SHEET 29 OF 48



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

**SUBSTRUCTURE
 BENT 29 REPAIR**

DRAWN BY : S. T. SANDOR DATE : .05/2021
 CHECKED BY : W. C. SMITH DATE : .06/2021

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S3-47
2			4			TOTAL SHEETS 78

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.

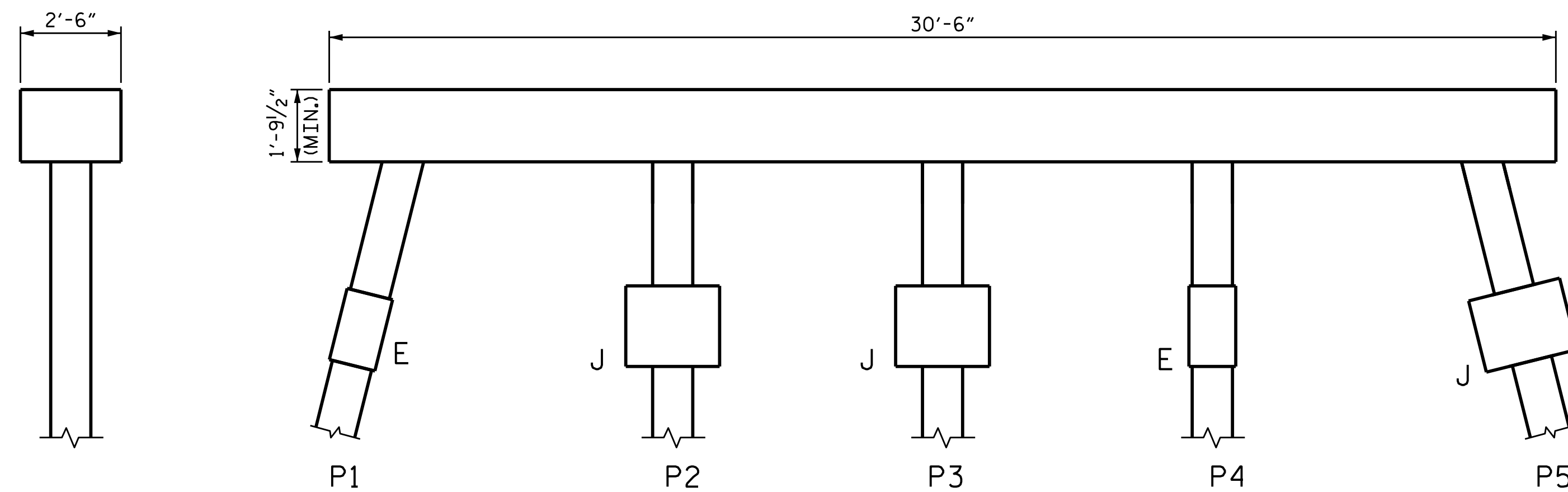
CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

-  CONCRETE REPAIR
-  SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- EXISTING
- J - JACKET
- E - ENCAPSULATION
- P - PILE

REPAIR QUANTITY TABLE

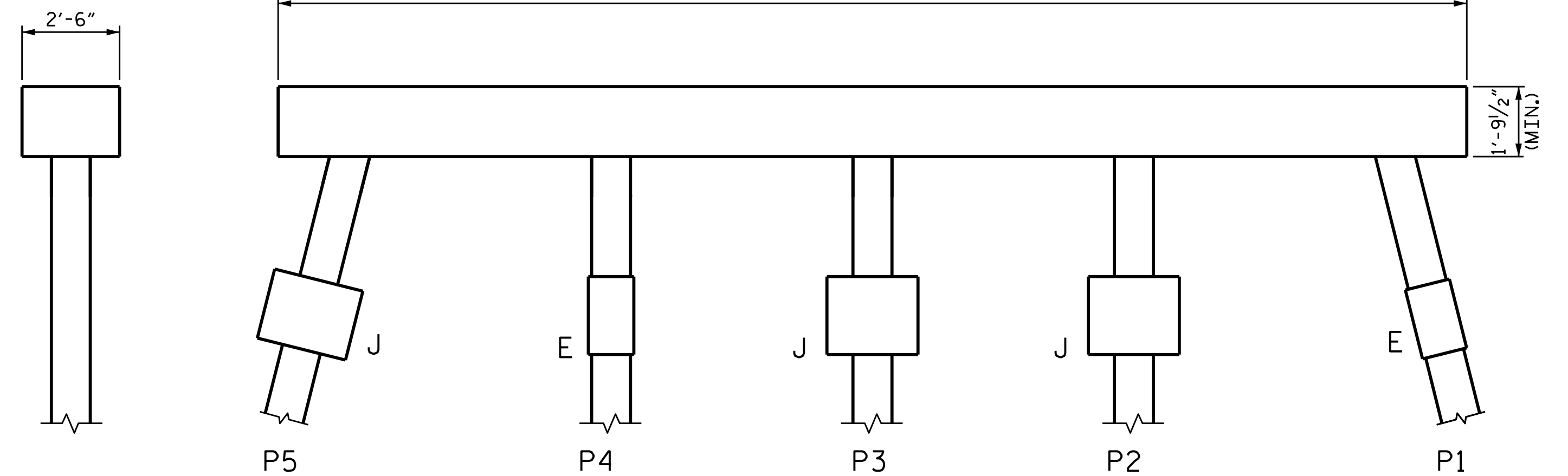
BENT 30	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		

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



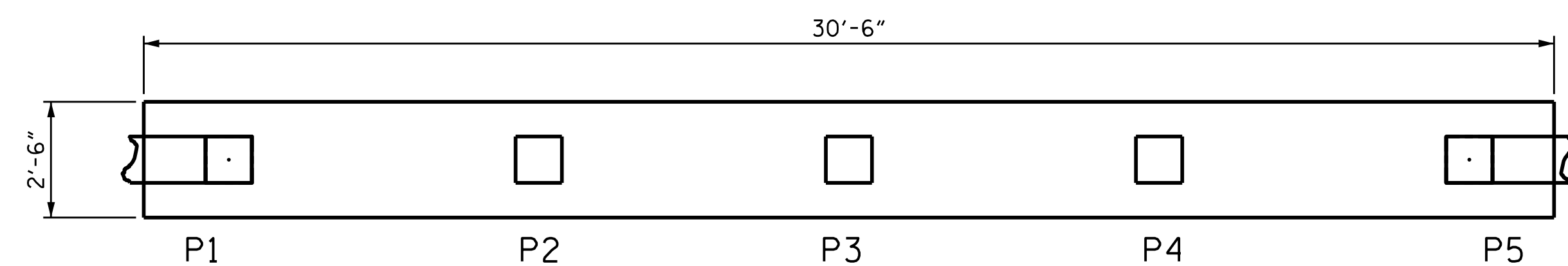
NORTH END

ELEVATION
(WEST SIDE)



SOUTH END

ELEVATION
(EAST SIDE)

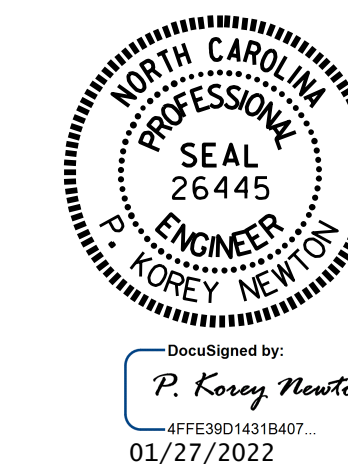


BOTTOM OF CAP

SPAN 30
SPAN 31

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060028

SHEET 30 OF 48



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

**SUBSTRUCTURE
 BENT 30 REPAIR**

DRAWN BY : S. T. SANDOR DATE : .05/2021
 CHECKED BY : W. C. SMITH DATE : .06/2021

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S3-48
1			3			TOTAL SHEETS
2			4			78

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.

-  CONCRETE REPAIR
-  SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION

EXISTING

J - JACKET

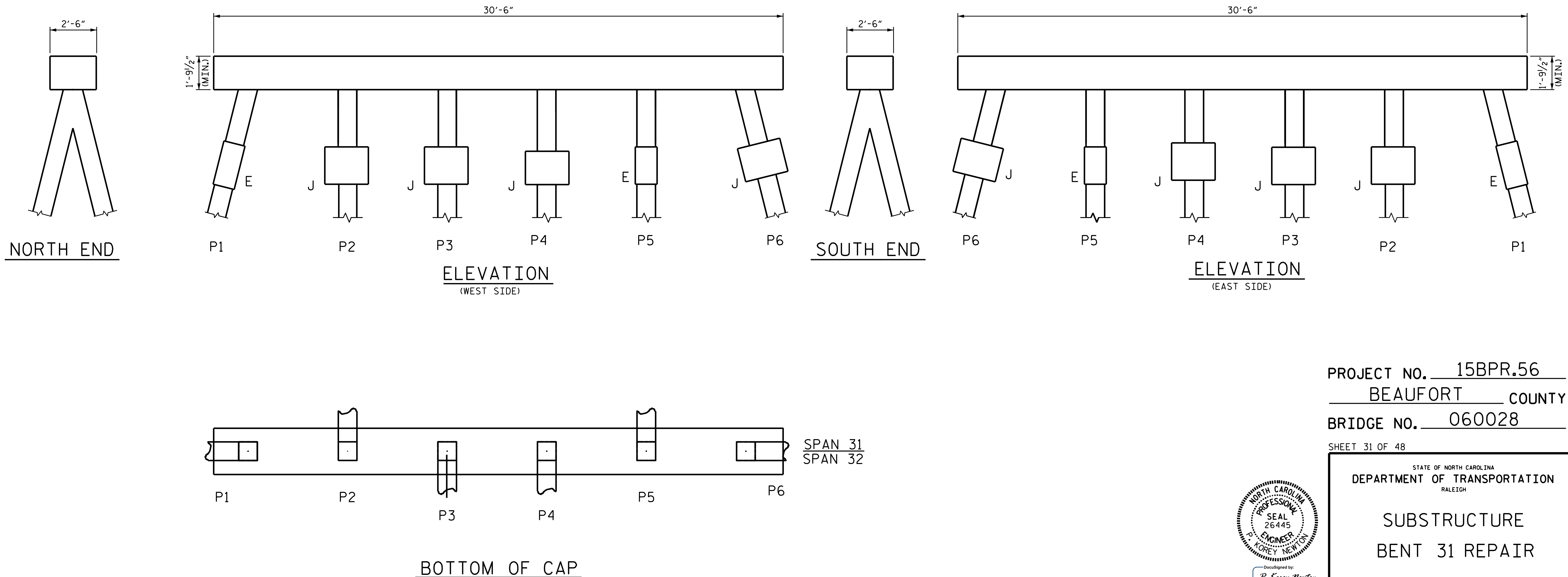
E - ENCAPSULATION

P - PILE

REPAIR QUANTITY TABLE

BENT 31	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	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		
EPOXY RESIN INJECTION	AREA SF	LF	AREA SF	LF
CAP		0.0		
COLUMN		0.0		

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



PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060028

SHEET 31 OF 48

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

**SUBSTRUCTURE
 BENT 31 REPAIR**



DocuSigned by:
 P. Corey Newton
 AFFE39D1431B407
 01/27/2022

DRAWN BY : S. T. SANDOR DATE : .05/2021
 CHECKED BY : W. C. SMITH DATE : .06/2021

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S3-49
2			4			TOTAL SHEETS 78

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.

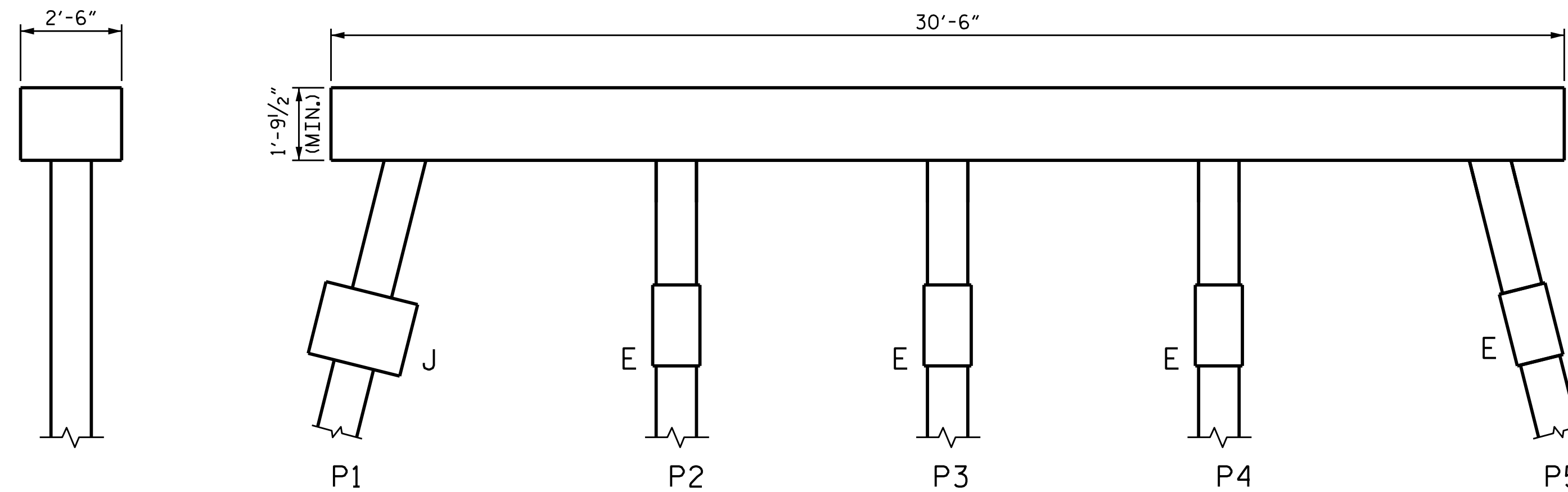
CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

-  CONCRETE REPAIR
-  SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- EXISTING
- J - JACKET
- E - ENCAPSULATION
- P - PILE

REPAIR QUANTITY TABLE

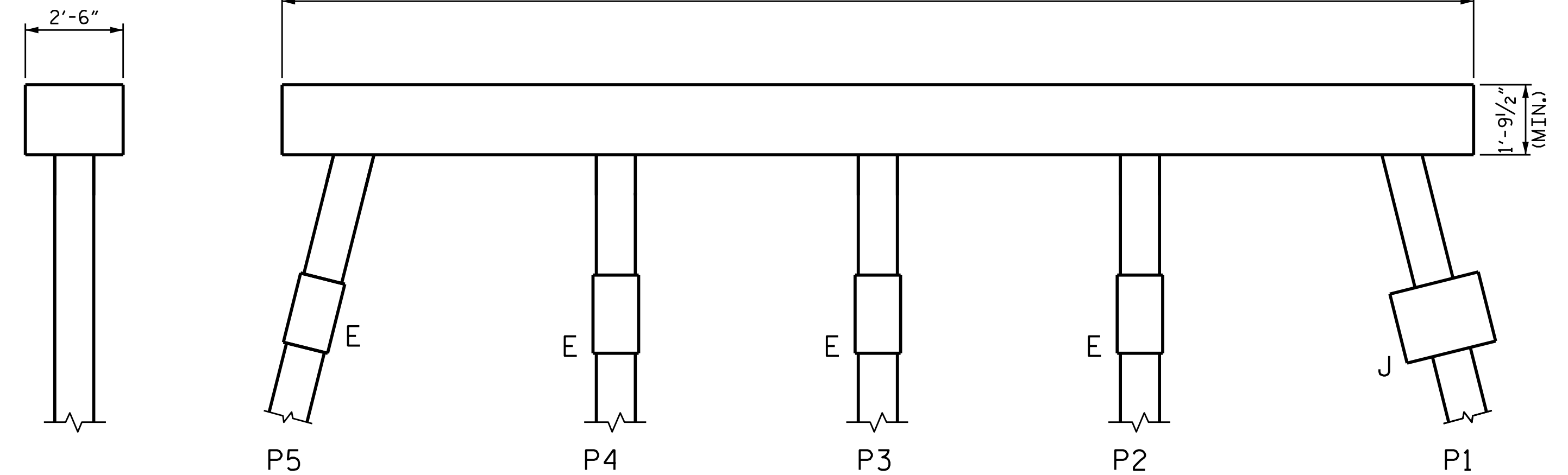
BENT 32	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		

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



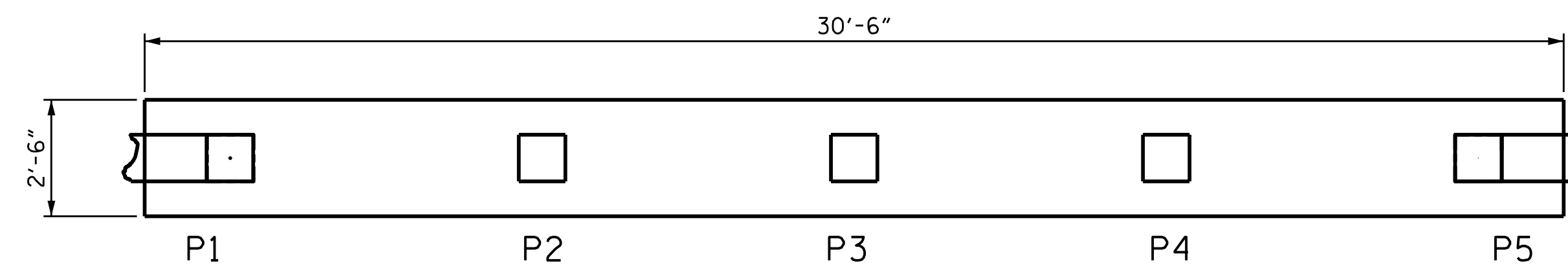
NORTH END

ELEVATION
(WEST SIDE)



SOUTH END

ELEVATION
(EAST SIDE)

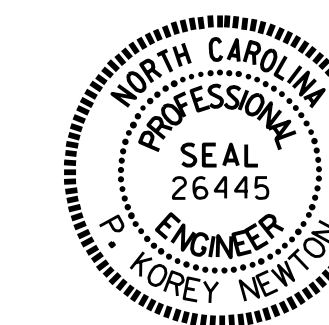


BOTTOM OF CAP

SPAN 32
SPAN 33

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060028

SHEET 32 OF 48



DocuSigned by:
 P. Corey Newton
 4FFE39D1431B407
 01/27/2022

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SUBSTRUCTURE
BENT 32 REPAIR

DRAWN BY : S. T. SANDOR DATE : .05/2021
 CHECKED BY : W. C. SMITH DATE : .06/2021

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S3-50
2			4			TOTAL SHEETS 78

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.

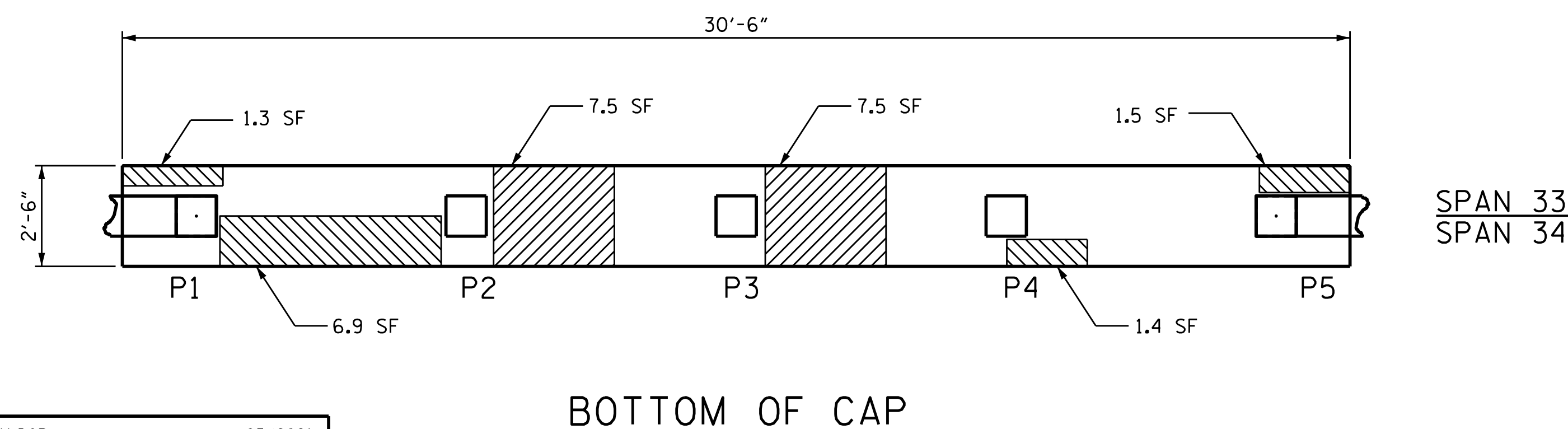
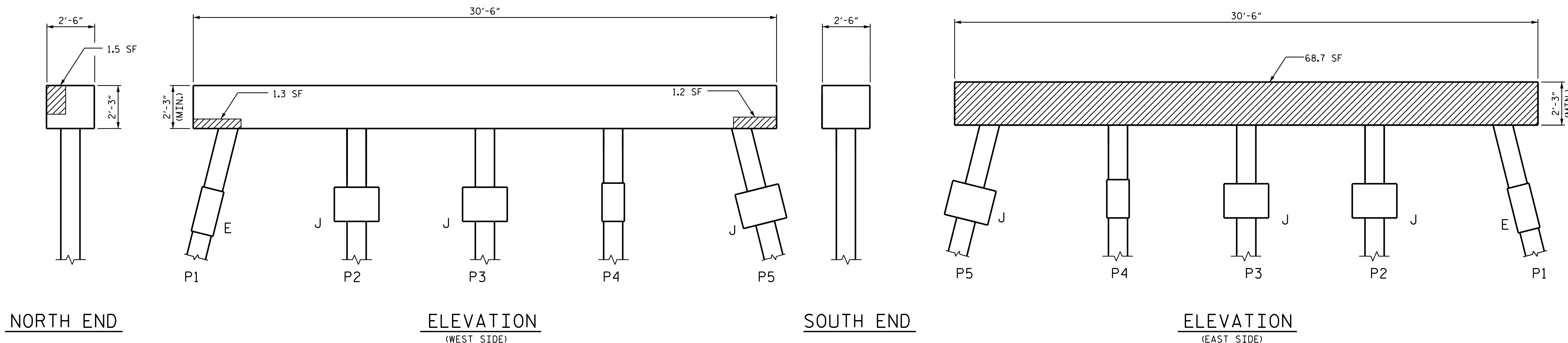
CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

-  CONCRETE REPAIR
-  SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- EXISTING
- J - JACKET
- E - ENCAPSULATION
- P - PILE

REPAIR QUANTITY TABLE

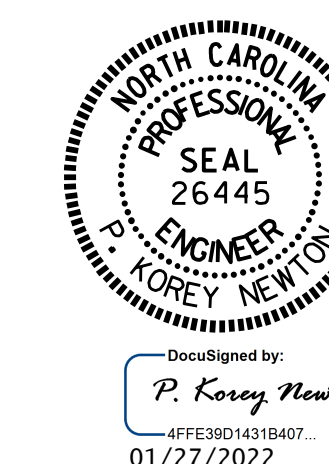
BENT 33	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	72.7	36.4		
CAP (HORIZONTAL FACE)	26.1	13.1		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		

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



PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060028

SHEET 33 OF 48



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

**SUBSTRUCTURE
 BENT 33 REPAIR**

DRAWN BY : S. T. SANDOR DATE : 05/2021
 CHECKED BY : W. C. SMITH DATE : 06/2021

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S3-51
1			3			TOTAL SHEETS
2			4			78

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.

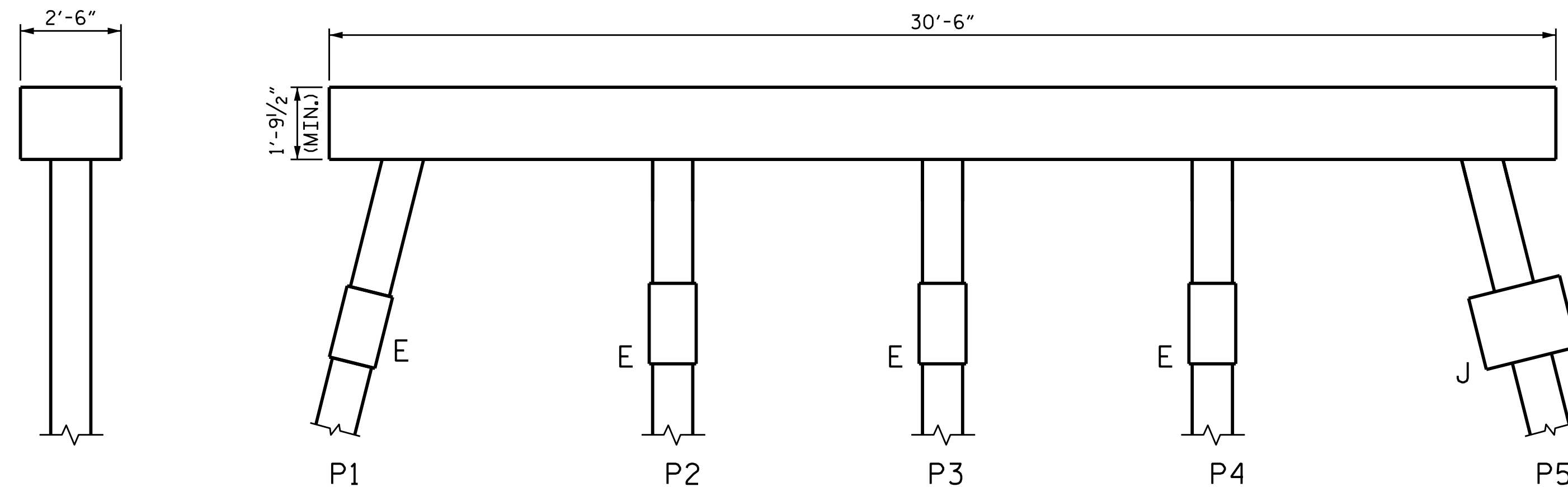
CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

-  CONCRETE REPAIR
-  SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- EXISTING
- J - JACKET
- E - ENCAPSULATION
- P - PILE

REPAIR QUANTITY TABLE

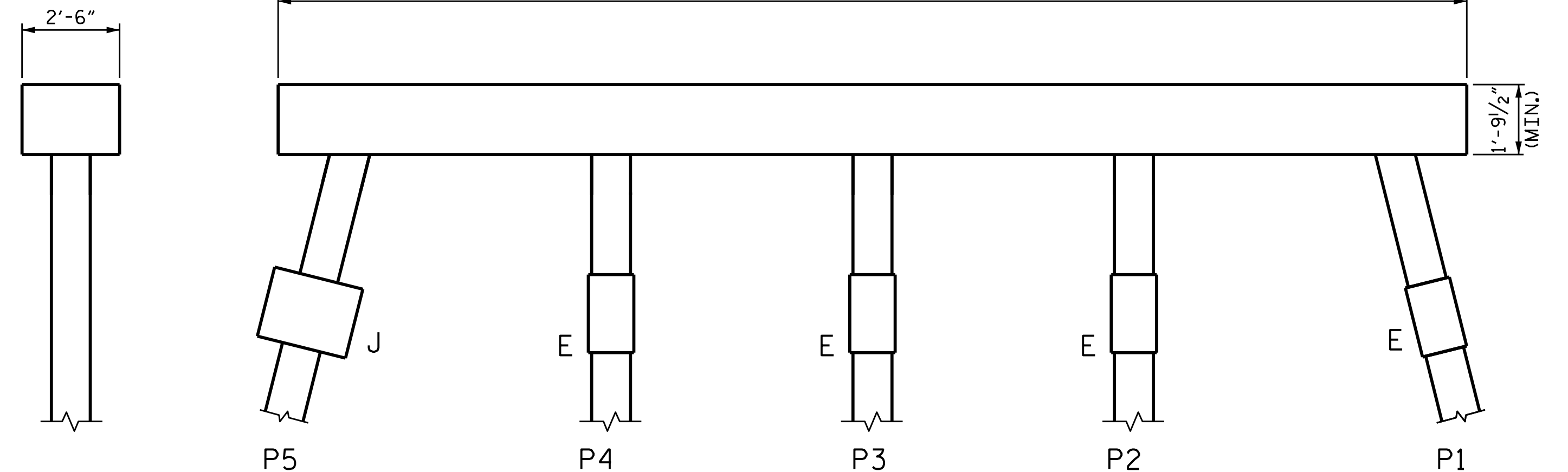
BENT 34	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		

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



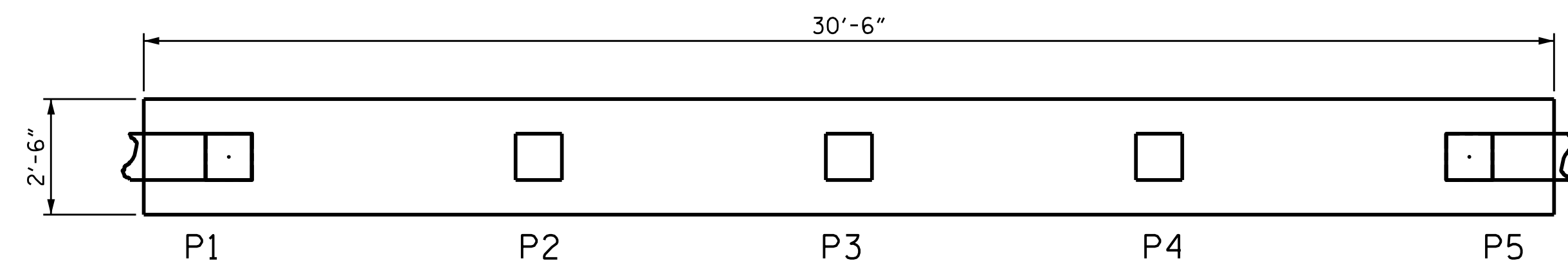
NORTH END

ELEVATION
(WEST SIDE)



SOUTH END

ELEVATION
(EAST SIDE)

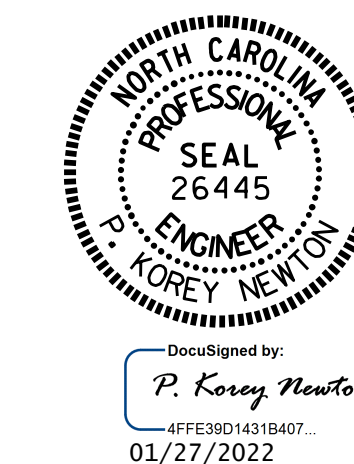


BOTTOM OF CAP

SPAN 34
SPAN 35

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
BRIDGE NO. 060028

SHEET 34 OF 48



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE
BENT 34 REPAIR

DRAWN BY : S. T. SANDOR DATE : .05/2021
CHECKED BY : W. C. SMITH DATE : .06/2021

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S3-52
2			4			TOTAL SHEETS 78

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.

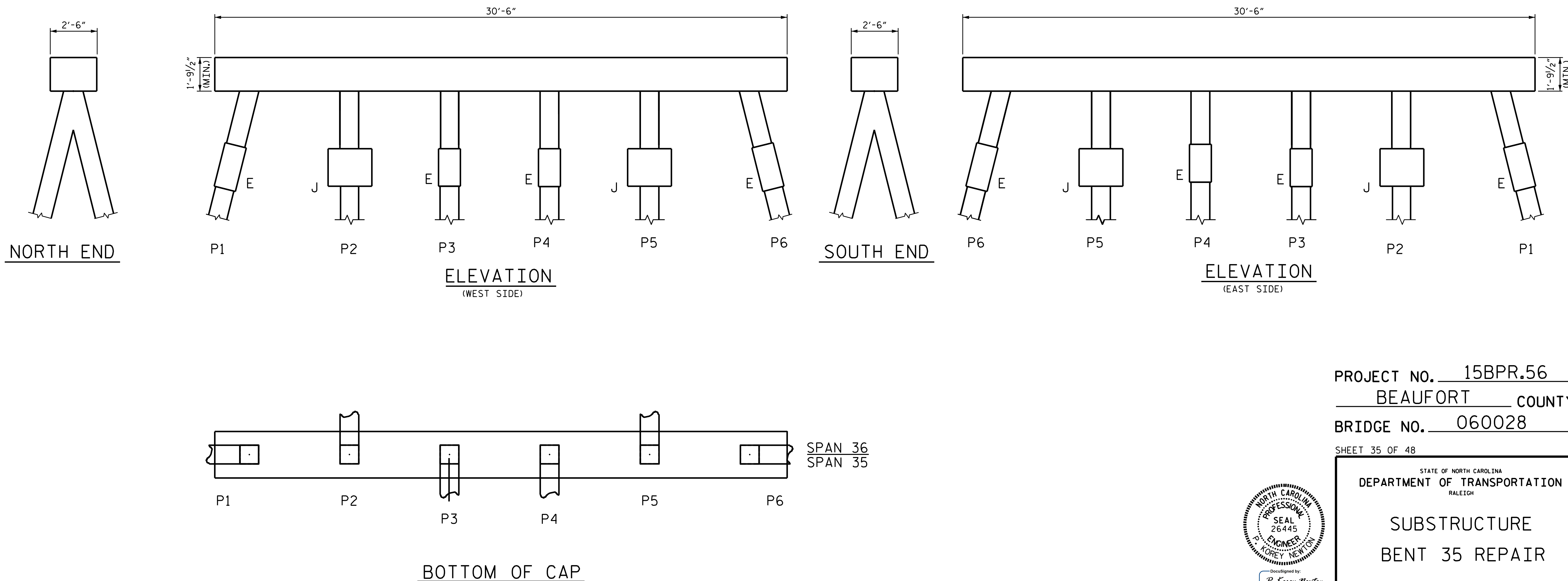
CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

-  CONCRETE REPAIR
-  SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- EXISTING
- J - JACKET
- E - ENCAPSULATION
- P - PILE

REPAIR QUANTITY TABLE

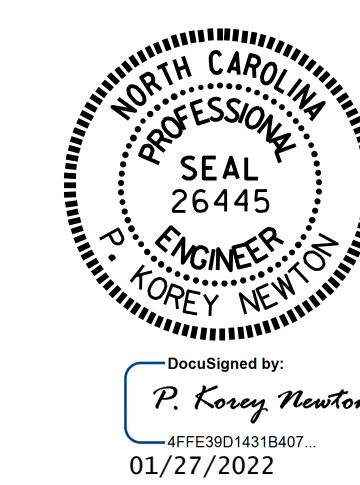
BENT 35	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		

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



PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060028

SHEET 35 OF 48



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
**SUBSTRUCTURE
 BENT 35 REPAIR**

DRAWN BY : S. T. SANDOR DATE : .05/2021
 CHECKED BY : W. C. SMITH DATE : .06/2021

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S3-53
2			4			TOTAL SHEETS 78

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.

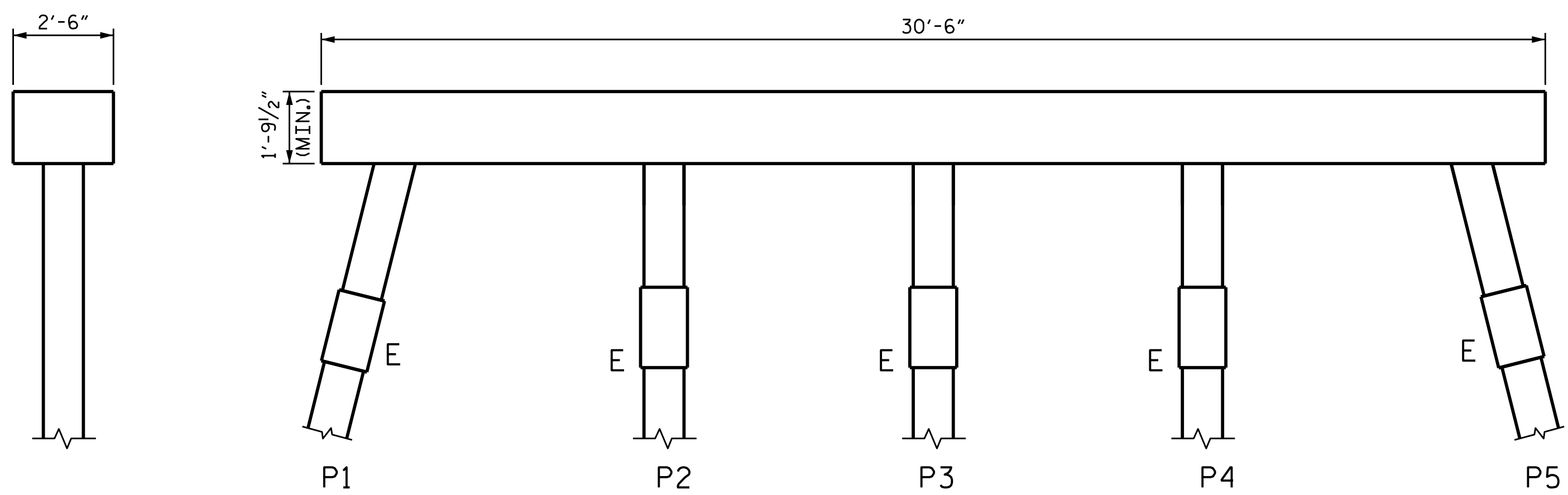
CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

-  CONCRETE REPAIR
-  SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- EXISTING
- J - JACKET
- E - ENCAPSULATION
- P - PILE

REPAIR QUANTITY TABLE

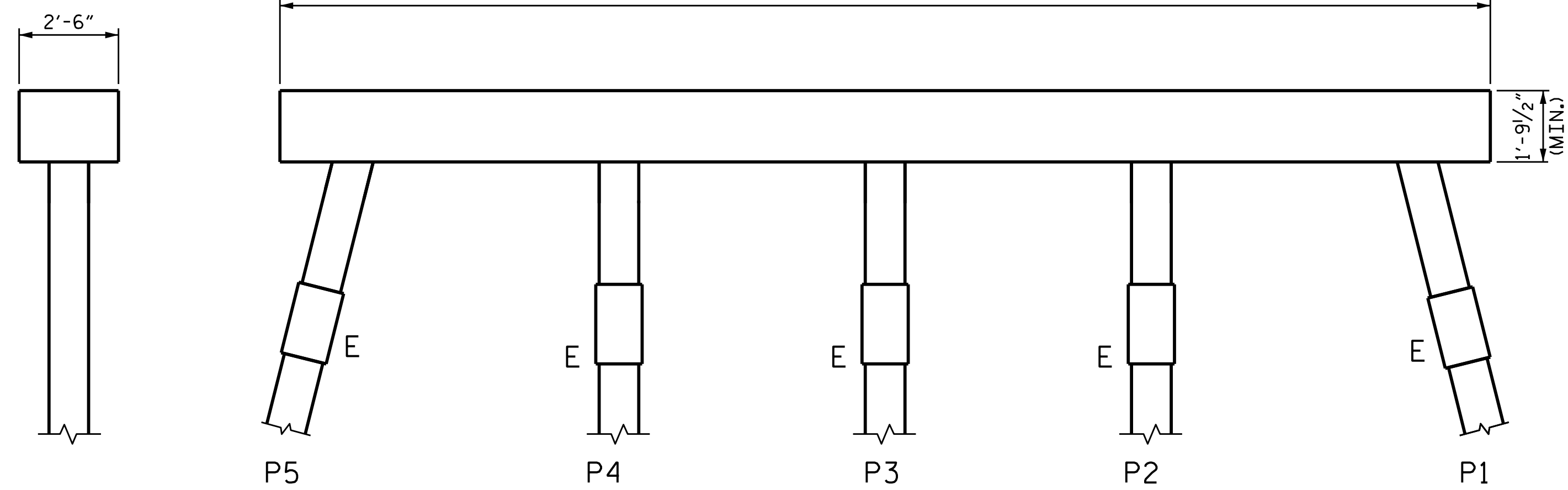
BENT 36	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		

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



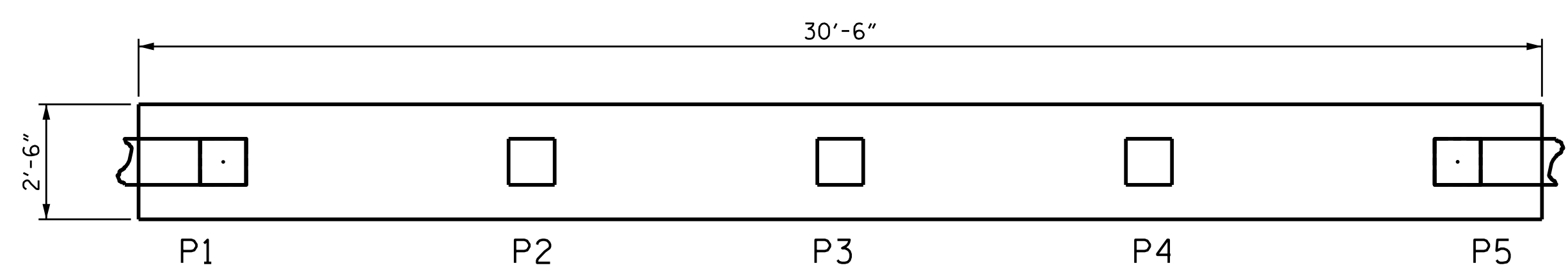
NORTH END

ELEVATION
(WEST SIDE)



SOUTH END

ELEVATION
(EAST SIDE)

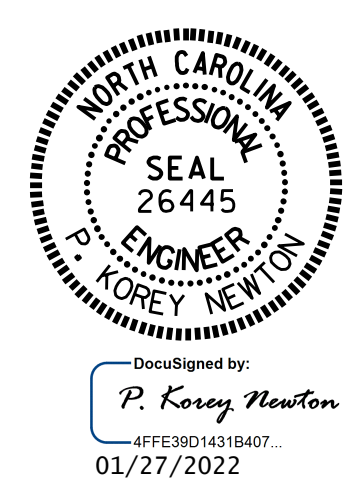


BOTTOM OF CAP

SPAN 36
SPAN 37

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060028

SHEET 36 OF 48



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
SUBSTRUCTURE
BENT 36 REPAIR

DRAWN BY : S. T. SANDOR DATE : .05/2021
 CHECKED BY : W. C. SMITH DATE : .06/2021

NO.	REVISIONS			SHEET NO.
	BY:	DATE:	NO.	
1			3	S3-54 TOTAL SHEETS 78
2			4	

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

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.

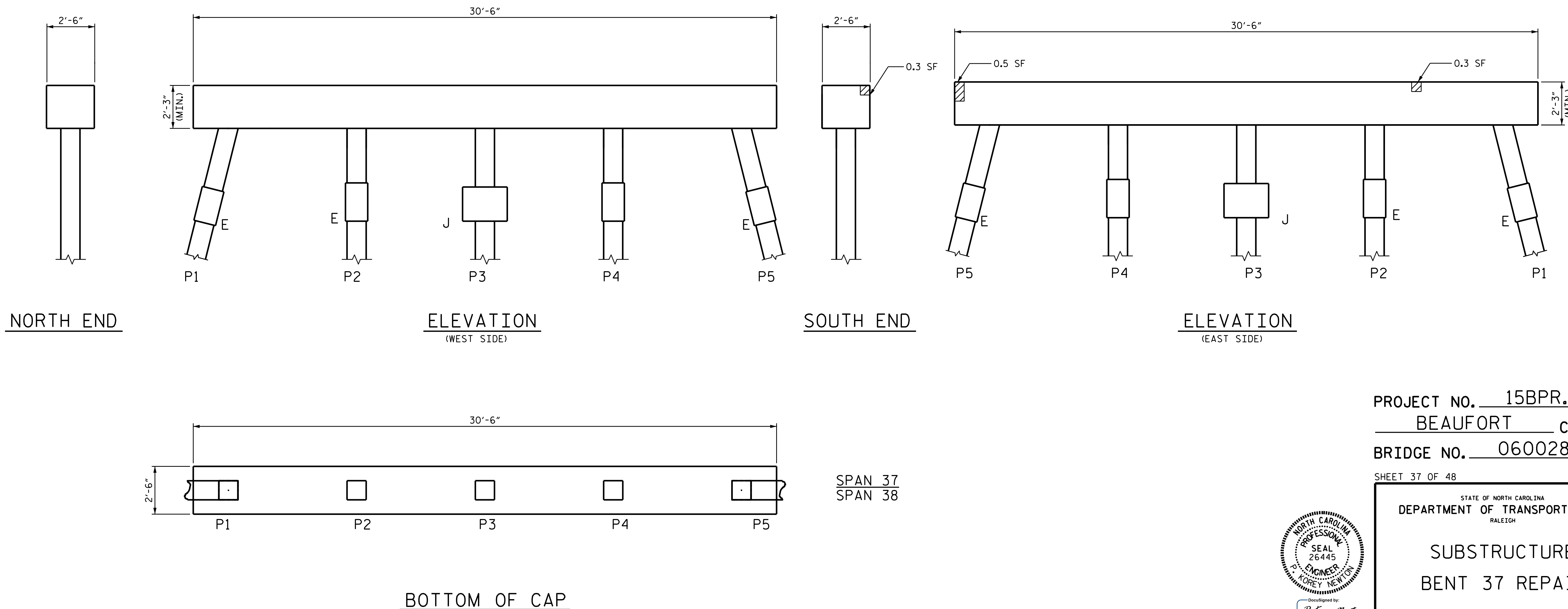
CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

-  CONCRETE REPAIR
-  SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- EXISTING
- J - JACKET
- E - ENCAPSULATION
- P - PILE

REPAIR QUANTITY TABLE

BENT 37	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	1.1	0.6		
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, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.



NORTH END

ELEVATION
(WEST SIDE)

SOUTH END

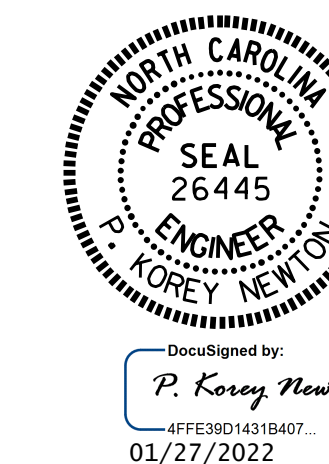
ELEVATION
(EAST SIDE)

SPAN 37
SPAN 38

BOTTOM OF CAP

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
BRIDGE NO. 060028

SHEET 37 OF 48



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE
BENT 37 REPAIR

DRAWN BY : S. T. SANDOR DATE : .05/2021
CHECKED BY : W. C. SMITH DATE : .06/2021

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S3-55
1			3			TOTAL SHEETS
2			4			78

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.

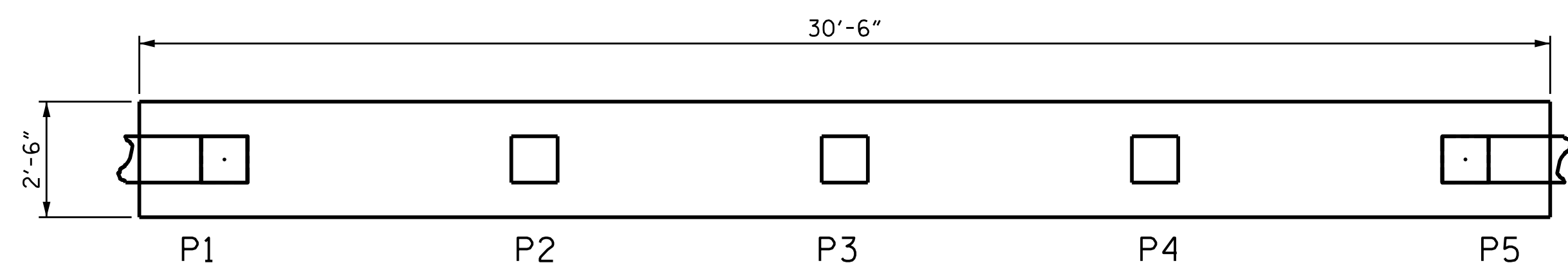
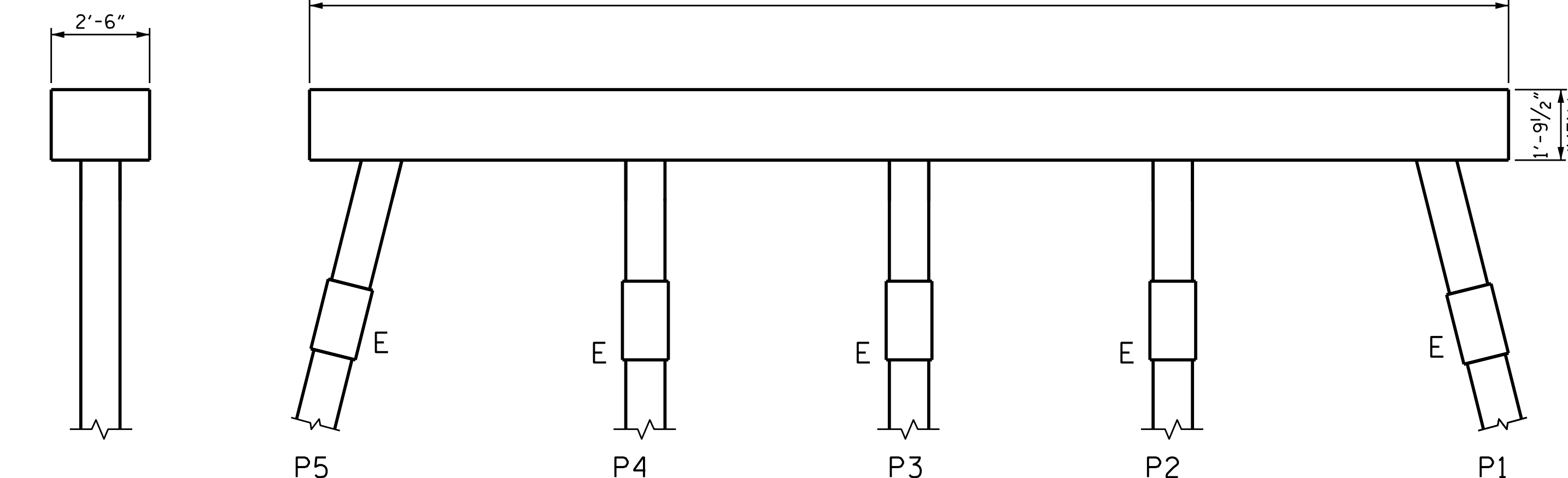
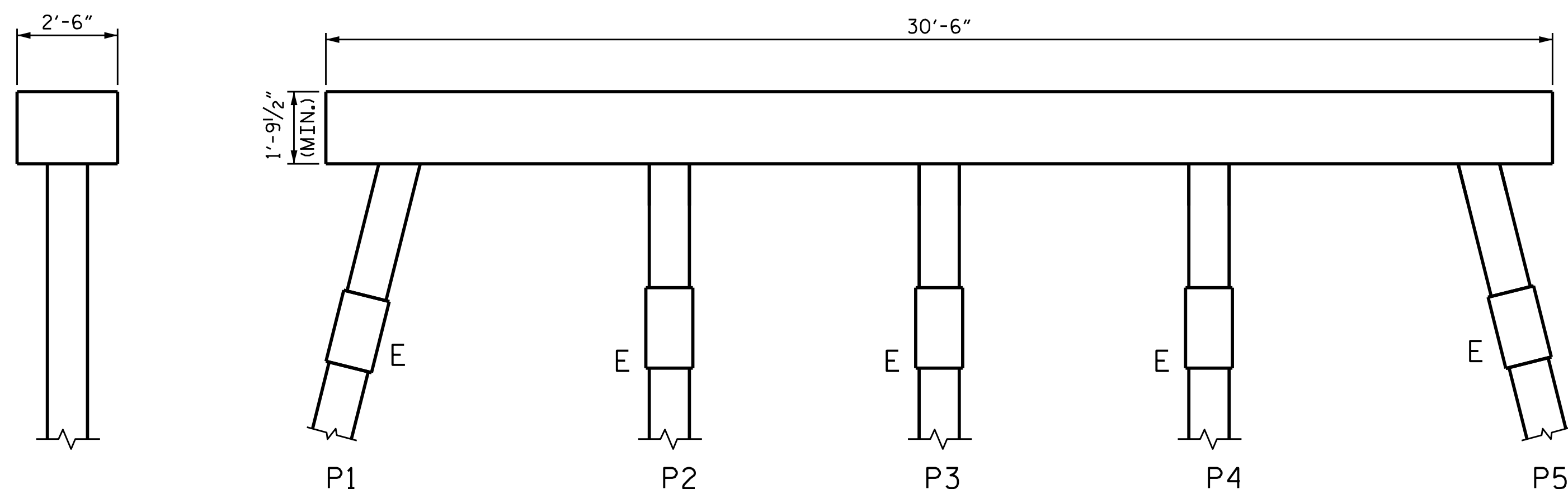
CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

-  CONCRETE REPAIR
-  SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- EXISTING
- J - JACKET
- E - ENCAPSULATION
- P - PILE

REPAIR QUANTITY TABLE

BENT 38	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		

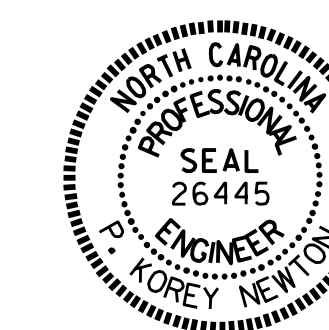
VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.



SPAN 38
SPAN 39

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060028

SHEET 38 OF 48



DocuSigned by:
 P. Corey Newton
 4FFE39D1431B407
 01/27/2022

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

**SUBSTRUCTURE
 BENT 38 REPAIR**

DRAWN BY : S. T. SANDOR DATE : .05/2021
 CHECKED BY : W. C. SMITH DATE : .06/2021

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S3-56
2			4			TOTAL SHEETS 78

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.

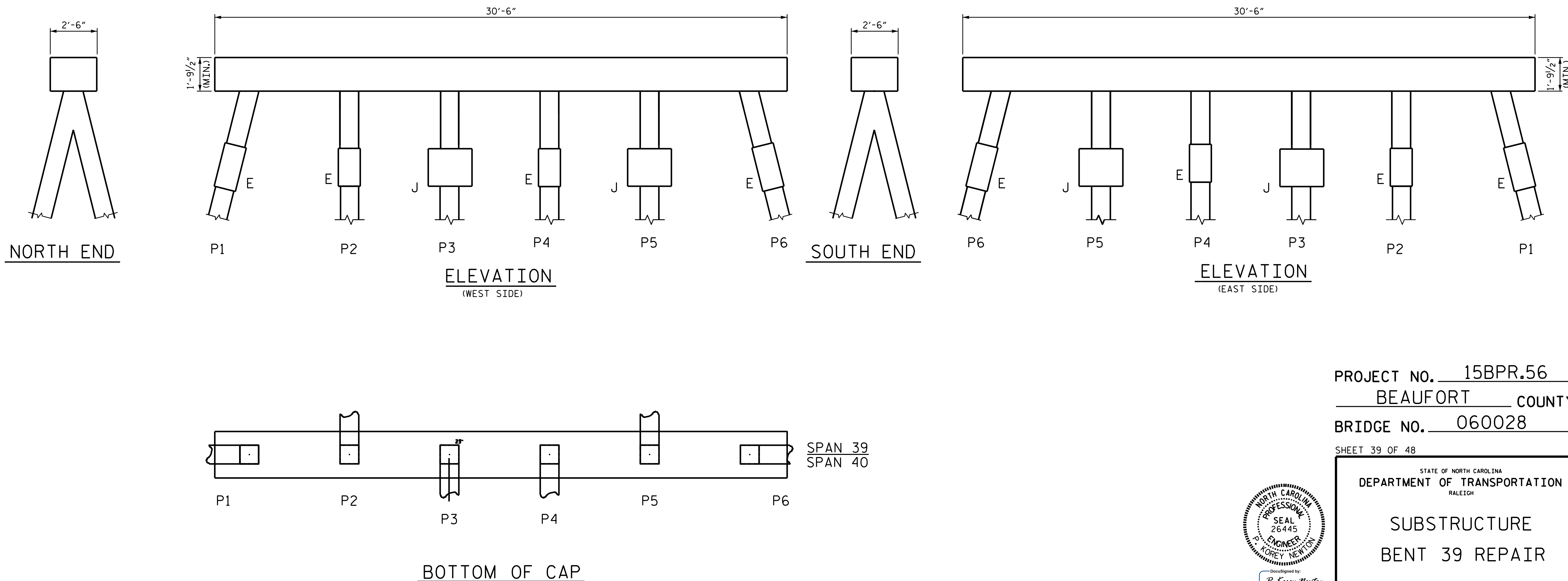
CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

-  CONCRETE REPAIR
-  SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- EXISTING
- J - JACKET
- E - ENCAPSULATION
- P - PILE

REPAIR QUANTITY TABLE

BENT 39	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	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		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		

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



PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060028

SHEET 39 OF 48



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

**SUBSTRUCTURE
 BENT 39 REPAIR**

DRAWN BY : S. T. SANDOR DATE : .05/2021
 CHECKED BY : W. C. SMITH DATE : .06/2021

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S3-57
2			4			TOTAL SHEETS 78

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.

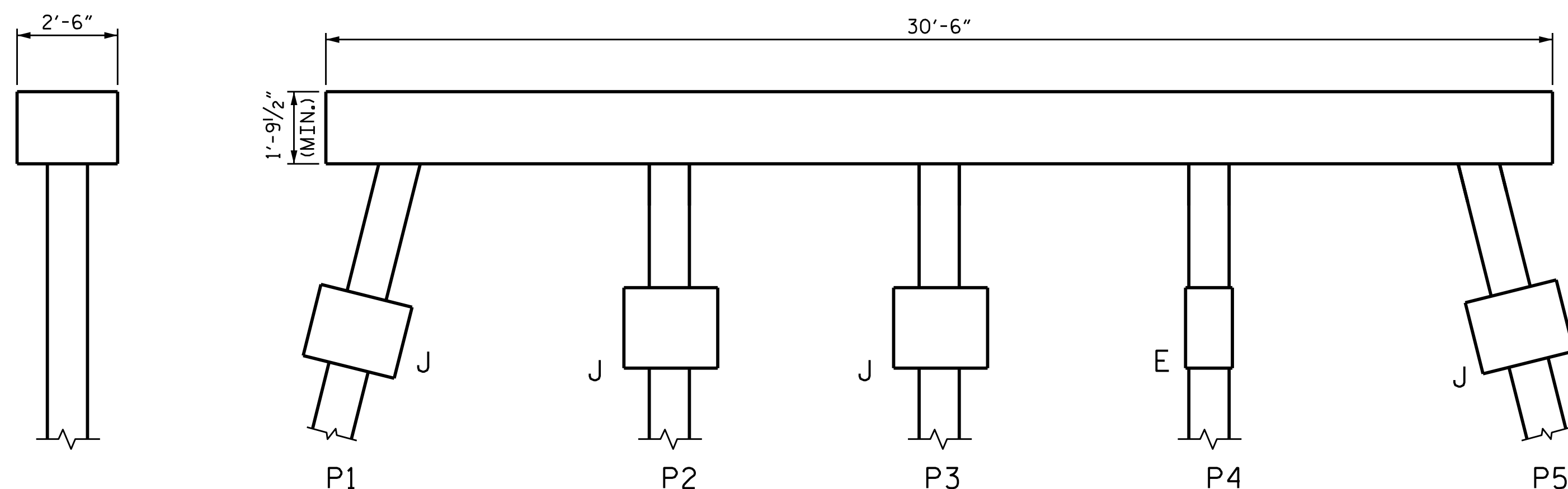
CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

-  CONCRETE REPAIR
-  SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- EXISTING
- J - JACKET
- E - ENCAPSULATION
- P - PILE

REPAIR QUANTITY TABLE

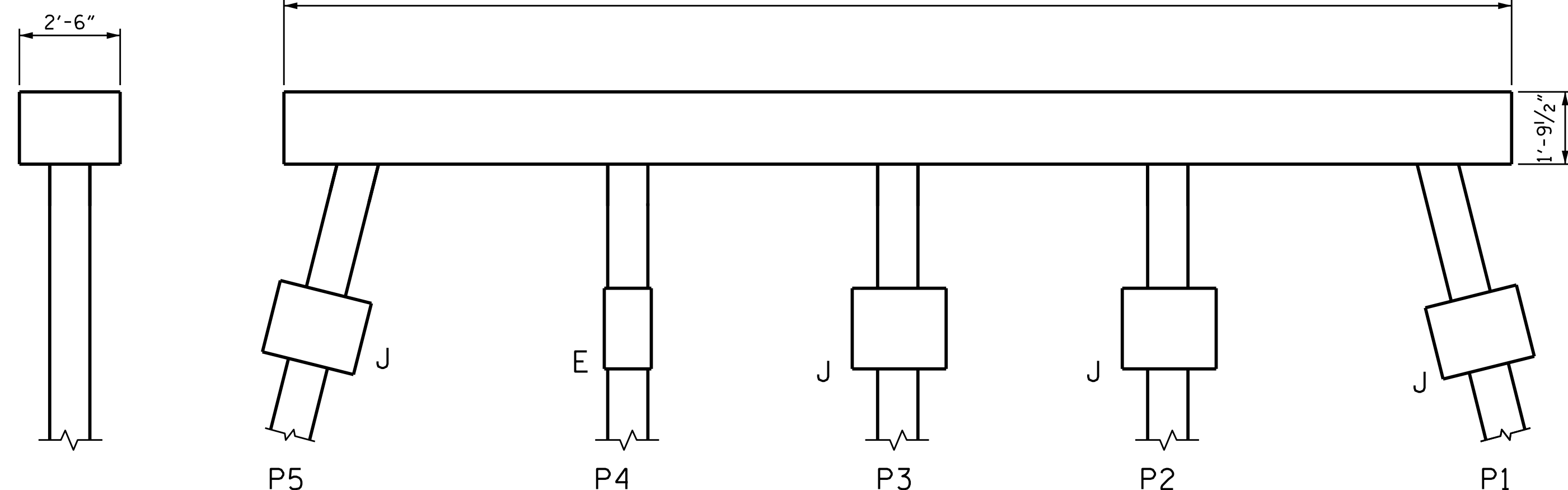
BENT 40	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		

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



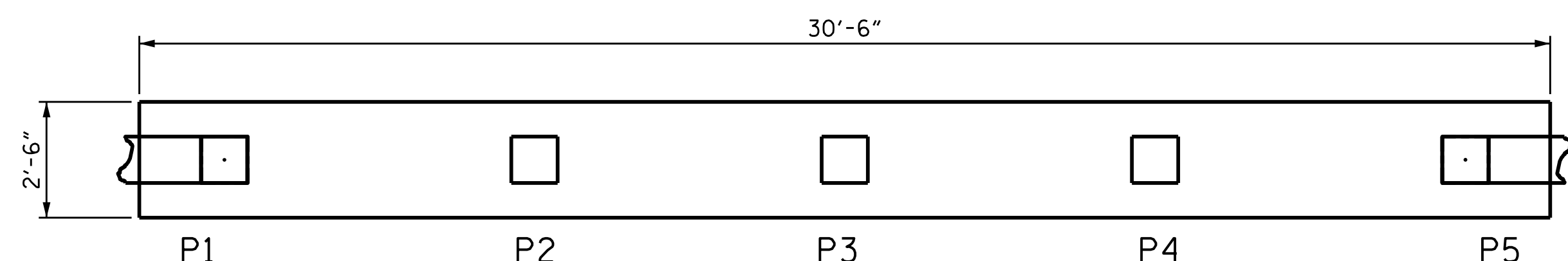
NORTH END

ELEVATION
(WEST SIDE)



SOUTH END

ELEVATION
(EAST SIDE)

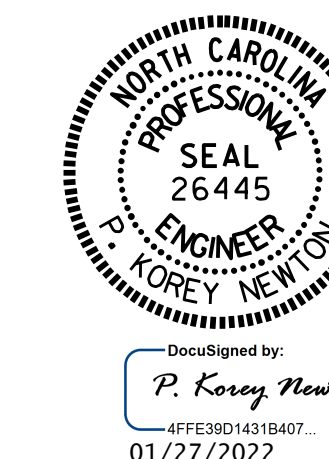


BOTTOM OF CAP

SPAN 40
SPAN 41

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060028

SHEET 40 OF 48



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SUBSTRUCTURE
BENT 40 REPAIR

DRAWN BY : S. T. SANDOR DATE : .05/2021
 CHECKED BY : W. C. SMITH DATE : .06/2021

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S3-58
2			4			TOTAL SHEETS 78

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.

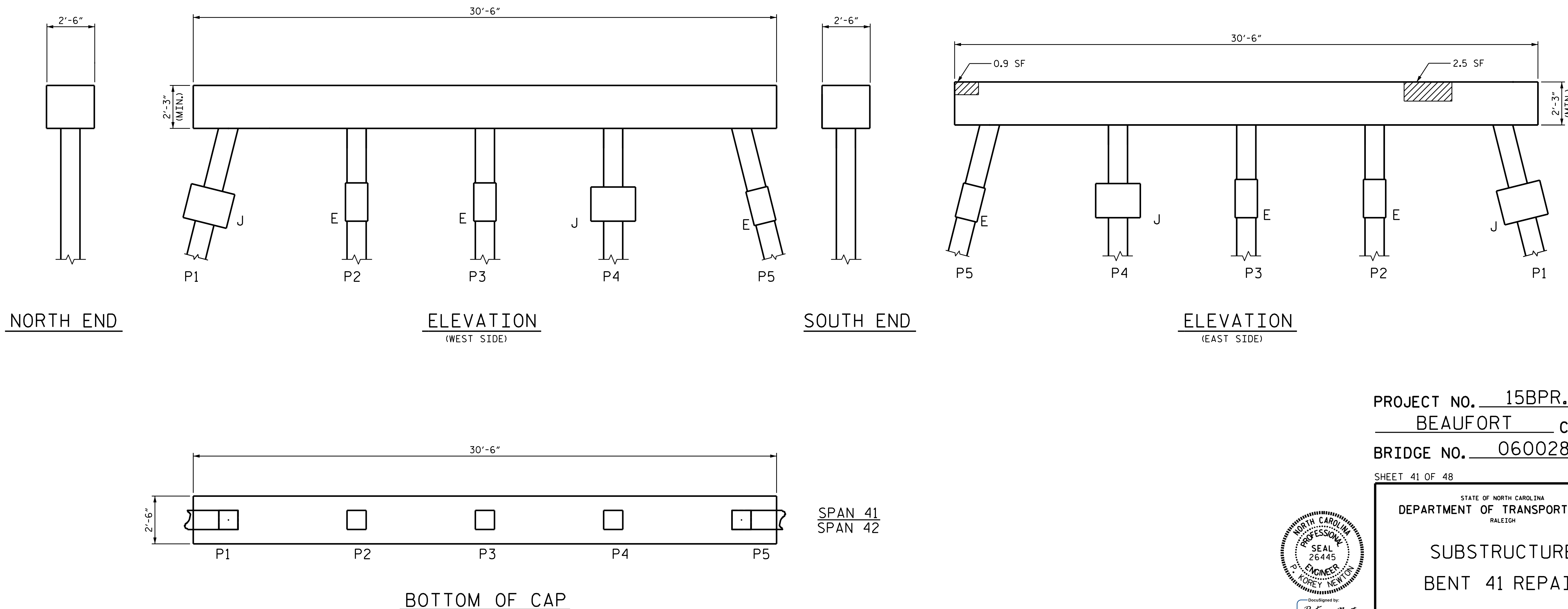
CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

-  CONCRETE REPAIR
-  SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- EXISTING
- J - JACKET
- E - ENCAPSULATION
- P - PILE

REPAIR QUANTITY TABLE

BENT 41	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	3.4	1.7		
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, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.



NORTH END

ELEVATION
(WEST SIDE)

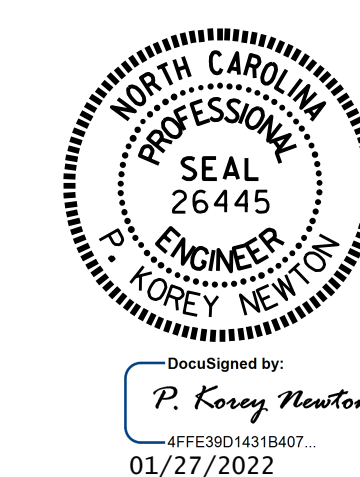
SOUTH END

ELEVATION
(EAST SIDE)

BOTTOM OF CAP

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060028

SHEET 41 OF 48



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
SUBSTRUCTURE
BENT 41 REPAIR

DRAWN BY : S. T. SANDOR DATE : .05/2021
 CHECKED BY : W. C. SMITH DATE : .06/2021

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S3-59
2			4			TOTAL SHEETS 78

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.

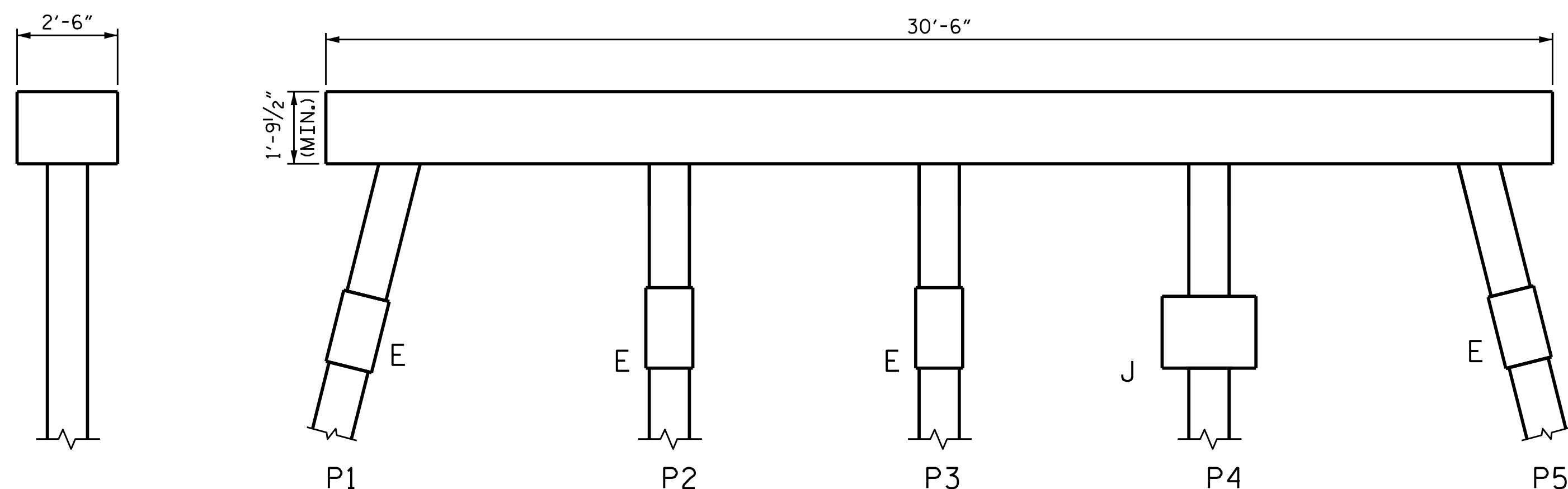
CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

-  CONCRETE REPAIR
-  SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- EXISTING
- J - JACKET
- E - ENCAPSULATION
- P - PILE

REPAIR QUANTITY TABLE

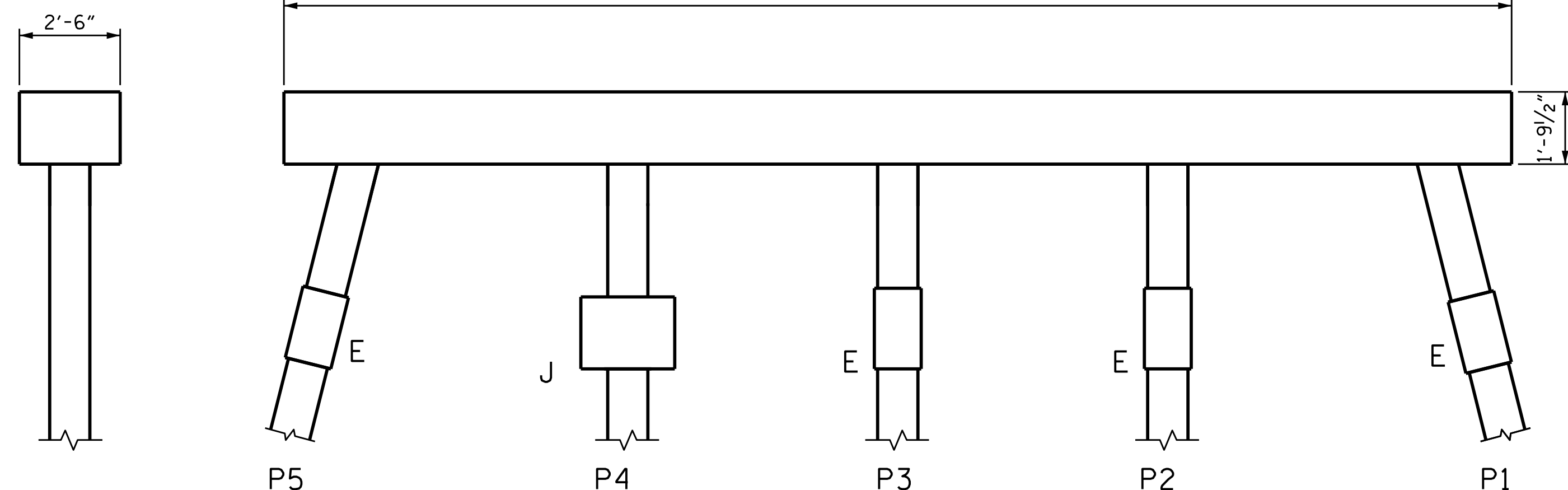
BENT 42	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		

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



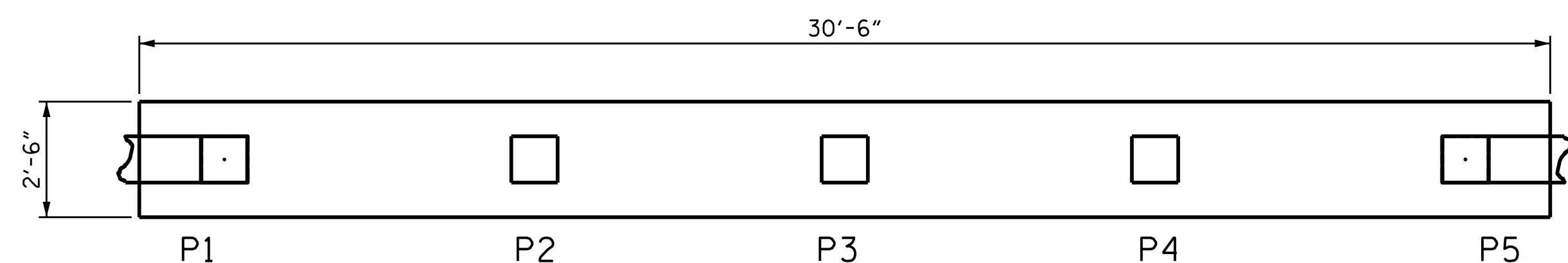
NORTH END

ELEVATION
(WEST SIDE)



SOUTH END

ELEVATION
(EAST SIDE)

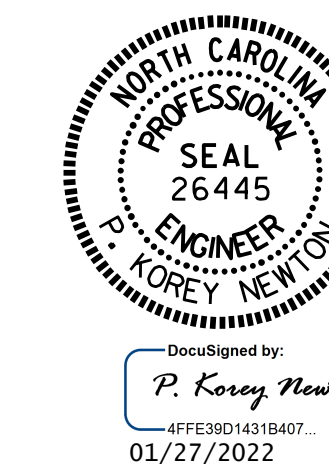


BOTTOM OF CAP

SPAN 42
SPAN 43

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060028

SHEET 42 OF 48



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SUBSTRUCTURE
 BENT 42 REPAIR

DRAWN BY : S. T. SANDOR DATE : .05/2021
 CHECKED BY : W. C. SMITH DATE : .06/2021

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S3-60
2			4			TOTAL SHEETS 78

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.

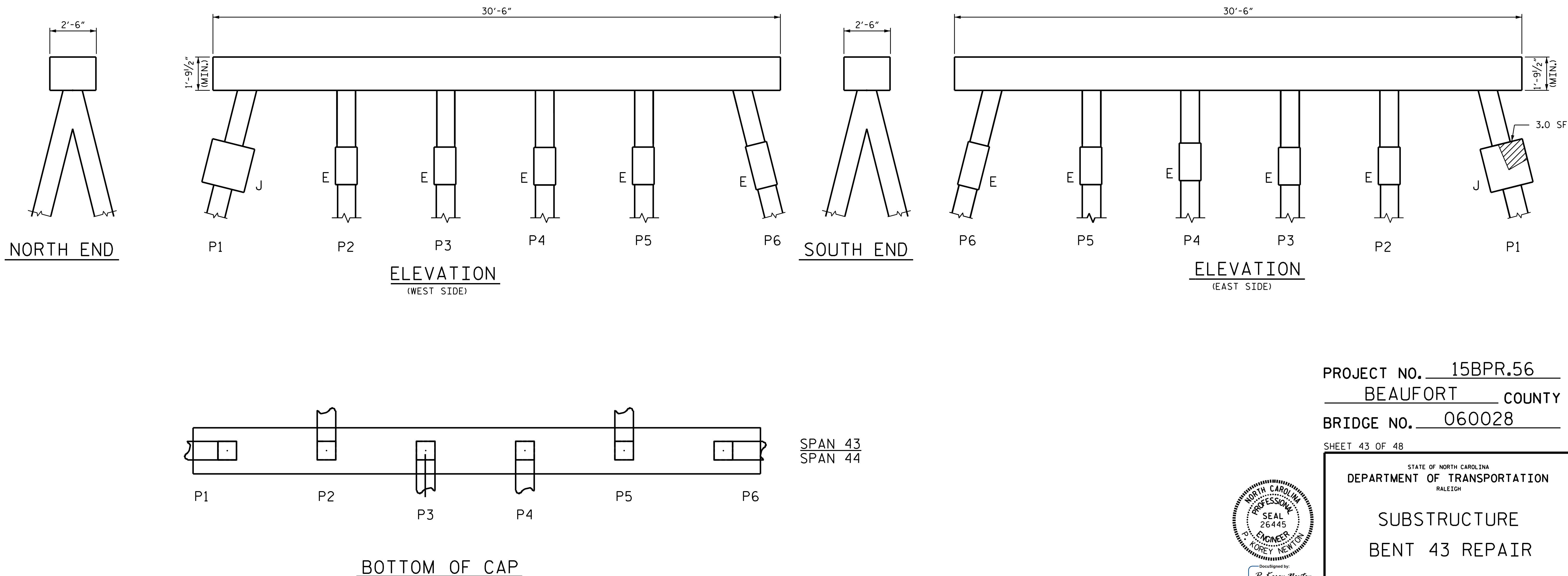
CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

- EXISTING
- J - JACKET
- E - ENCAPSULATION
- P - PILE
- CONCRETE REPAIR
- SHOTCRETE REPAIR
- EPOXY RESIN INJECTION

REPAIR QUANTITY TABLE

BENT 43	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, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.



PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060028

SHEET 43 OF 48



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
**SUBSTRUCTURE
 BENT 43 REPAIR**

DRAWN BY : S. T. SANDOR DATE : .05/2021
 CHECKED BY : W. C. SMITH DATE : .06/2021

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S3-61
2			4			TOTAL SHEETS 78

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.

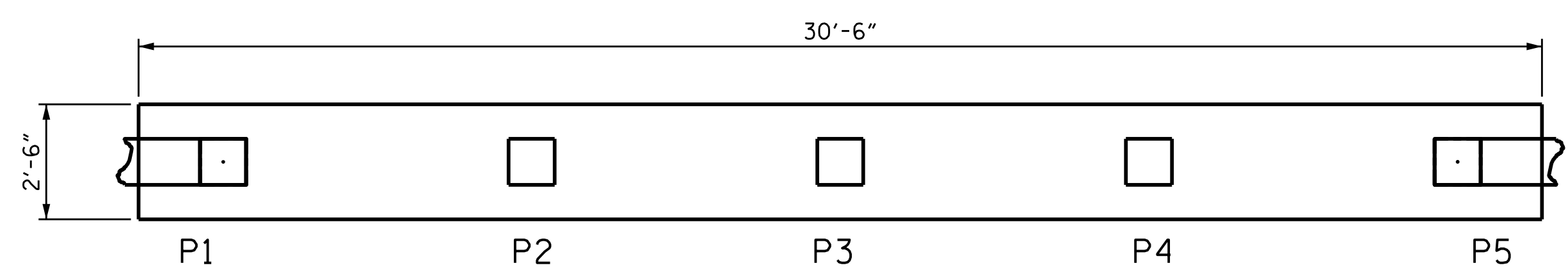
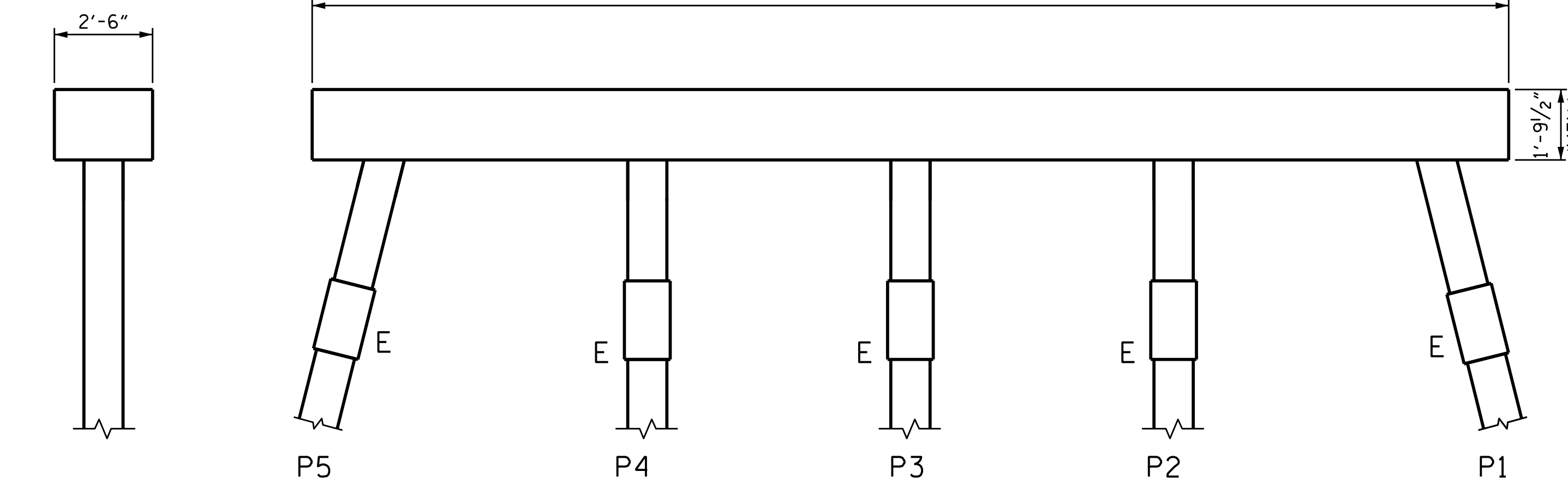
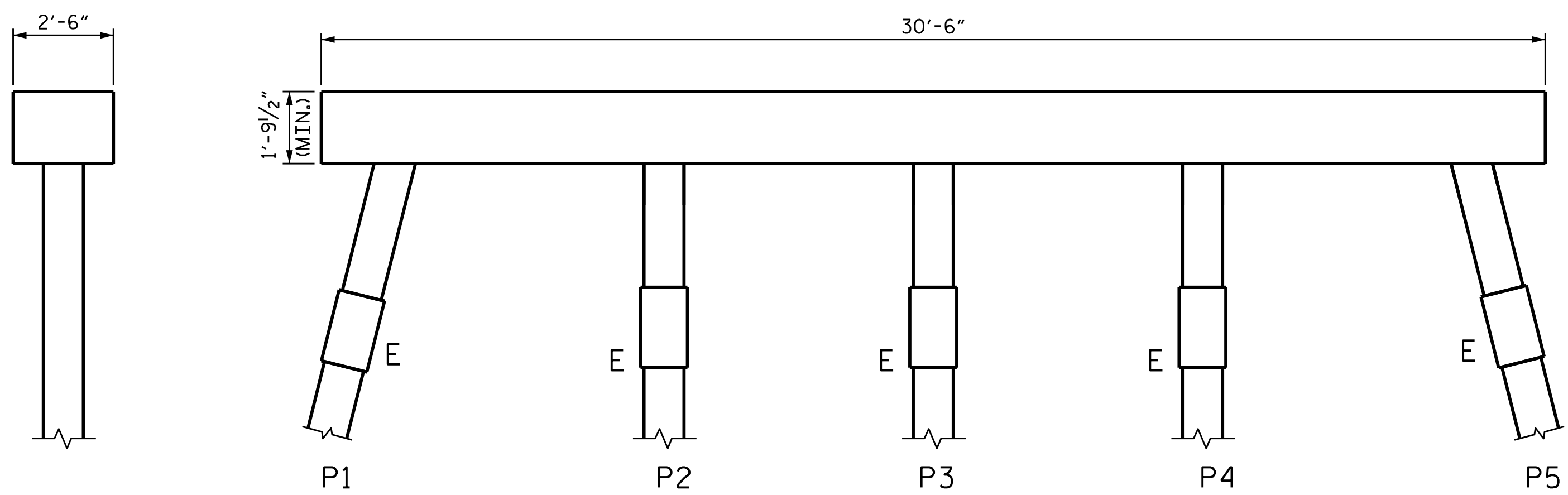
CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

-  CONCRETE REPAIR
-  SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- EXISTING
- J - JACKET
- E - ENCAPSULATION
- P - PILE

REPAIR QUANTITY TABLE

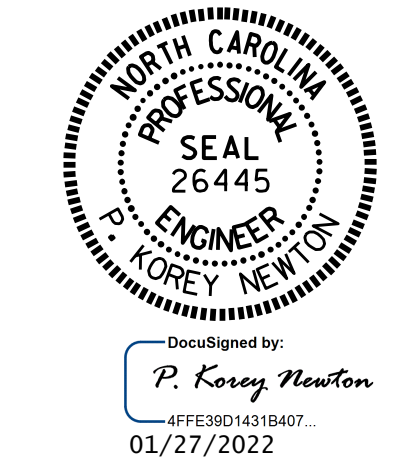
BENT 44	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		

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



PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060028

SHEET 44 OF 48



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
SUBSTRUCTURE
BENT 44 REPAIR

DRAWN BY : S. T. SANDOR DATE : .05/2021
 CHECKED BY : W. C. SMITH DATE : .06/2021

NO.	REVISIONS			SHEET NO.
	BY:	DATE:	NO.	
1			3	S3-62 TOTAL SHEETS 78
2			4	

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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.

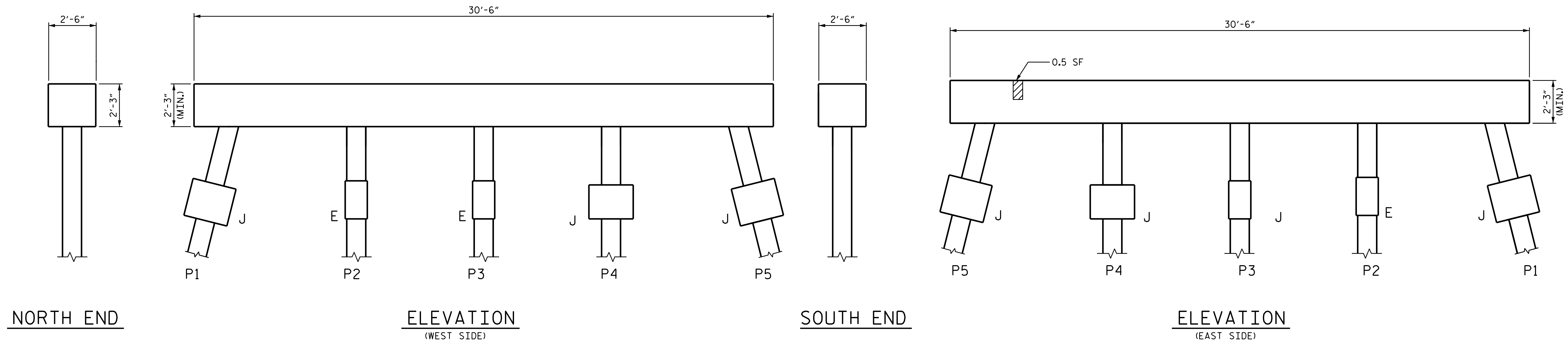
CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

-  CONCRETE REPAIR
-  SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- EXISTING
- J - JACKET
- E - ENCAPSULATION
- P - PILE

REPAIR QUANTITY TABLE

BENT 45	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.5	0.3		
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, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

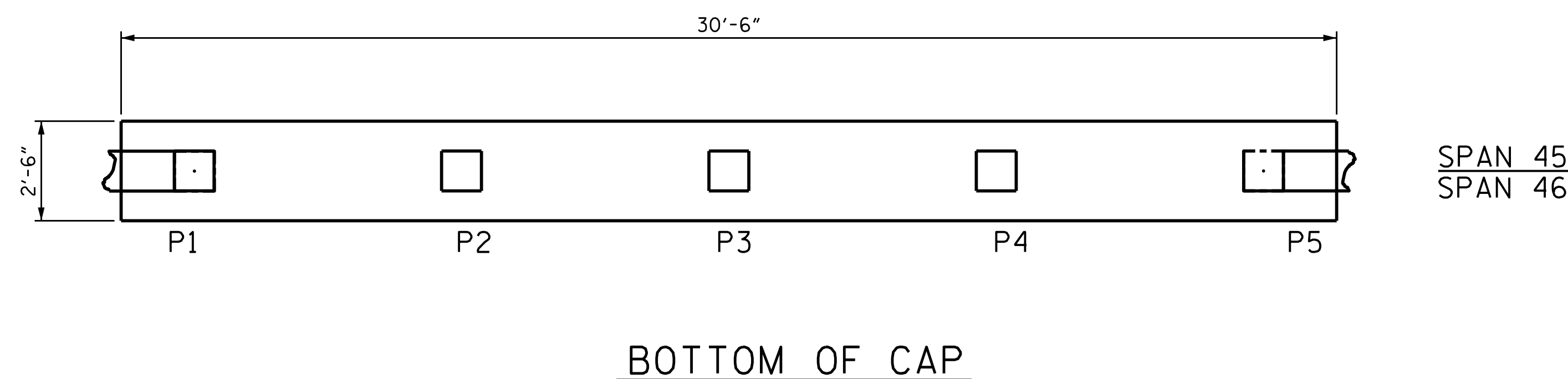


NORTH END

ELEVATION
(WEST SIDE)

SOUTH END

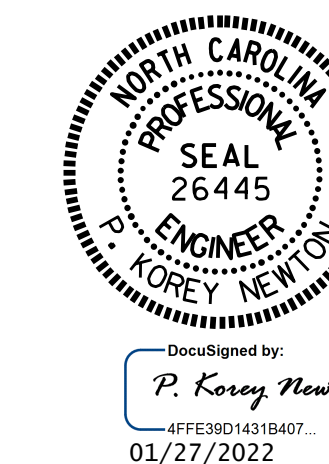
ELEVATION
(EAST SIDE)



BOTTOM OF CAP

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060028

SHEET 45 OF 48



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SUBSTRUCTURE
BENT 45 REPAIR

DRAWN BY : S. T. SANDOR DATE : .05/2021
 CHECKED BY : W. C. SMITH DATE : .06/2021

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S3-63
2			4			TOTAL SHEETS 78

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.

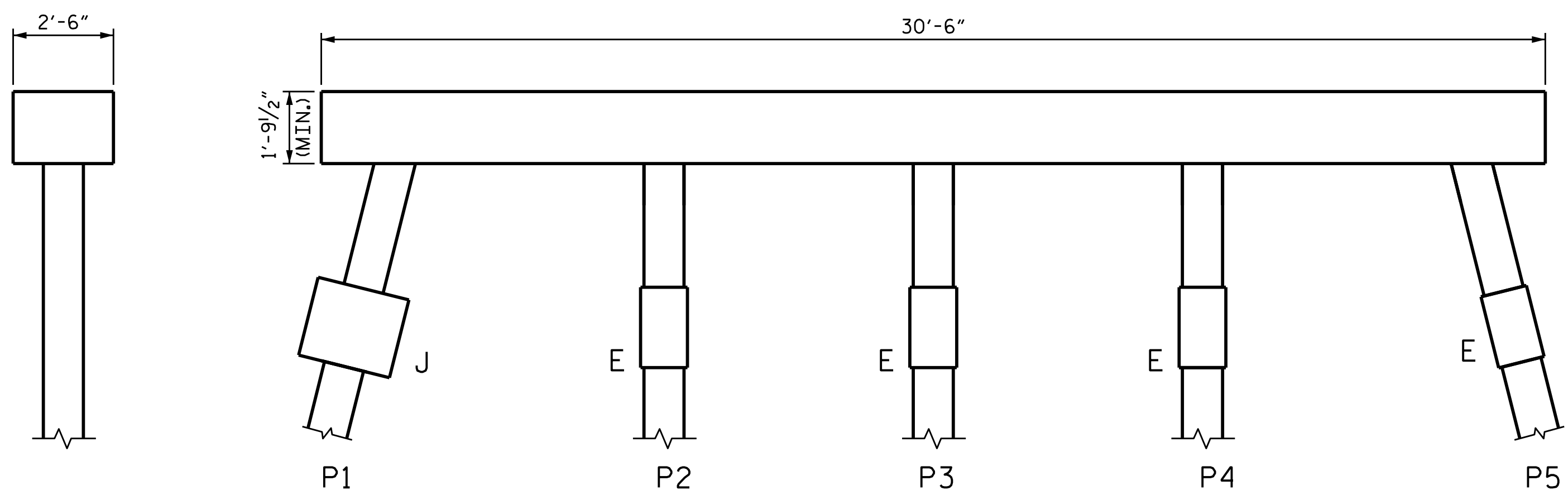
CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

-  CONCRETE REPAIR
-  SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- EXISTING
- J - JACKET
- E - ENCAPSULATION
- P - PILE

REPAIR QUANTITY TABLE

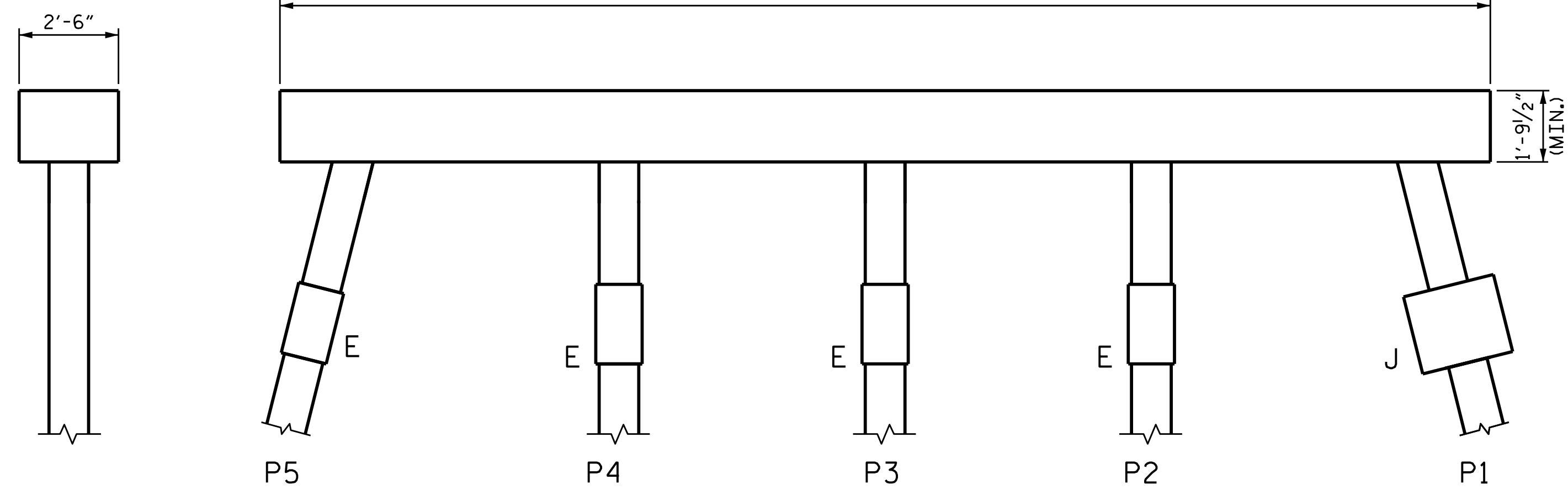
BENT 46	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		

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



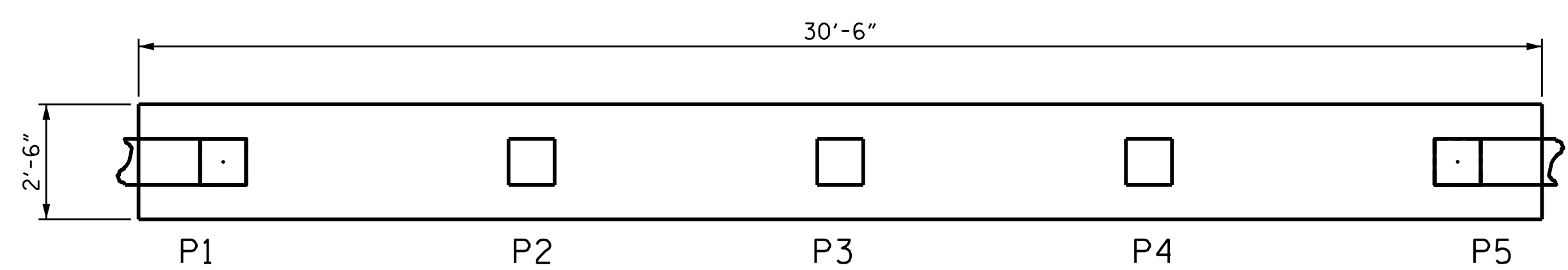
NORTH END

ELEVATION
(WEST SIDE)



SOUTH END

ELEVATION
(EAST SIDE)

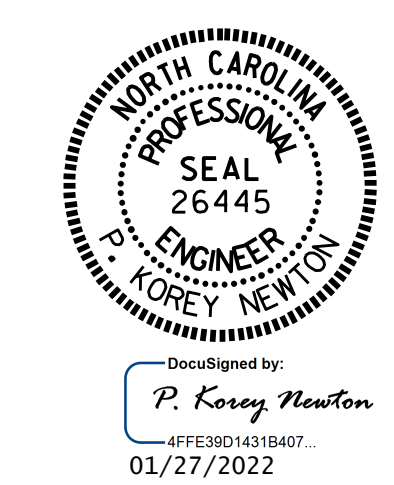


BOTTOM OF CAP

SPAN 46
SPAN 47

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
BRIDGE NO. 060028

SHEET 46 OF 48



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

**SUBSTRUCTURE
BENT 46 REPAIR**

DRAWN BY : S. T. SANDOR DATE : .05/2021
CHECKED BY : W. C. SMITH DATE : .06/2021

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S3-64
2			4			TOTAL SHEETS 78

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.

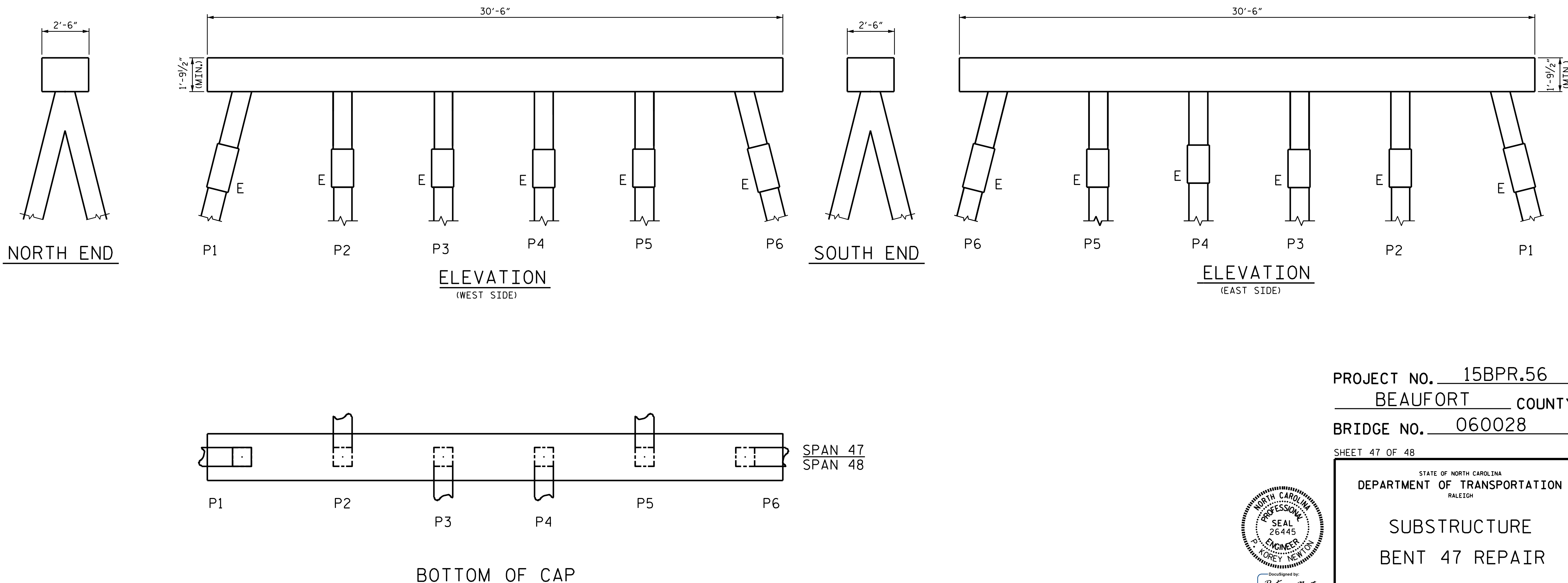
CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

- EXISTING
- J - JACKET
- E - ENCAPSULATION
- P - PILE
- CONCRETE REPAIR
- SHOTCRETE REPAIR
- EPOXY RESIN INJECTION

REPAIR QUANTITY TABLE

BENT 47	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, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.



PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060028

SHEET 47 OF 48



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
**SUBSTRUCTURE
 BENT 47 REPAIR**

DRAWN BY : S. T. SANDOR DATE : .05/2021
 CHECKED BY : W. C. SMITH DATE : .06/2021

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S3-65
2			4			TOTAL SHEETS 78

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.

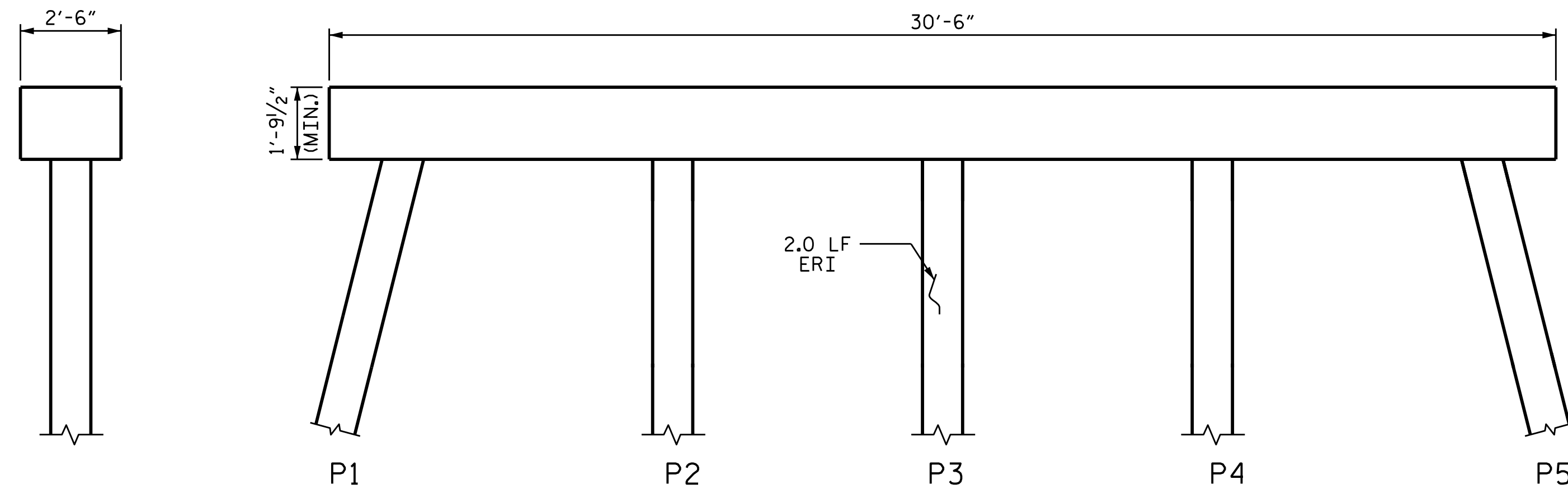
CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

-  CONCRETE REPAIR
-  SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- EXISTING
- J - JACKET
- E - ENCAPSULATION
- P - PILE

REPAIR QUANTITY TABLE

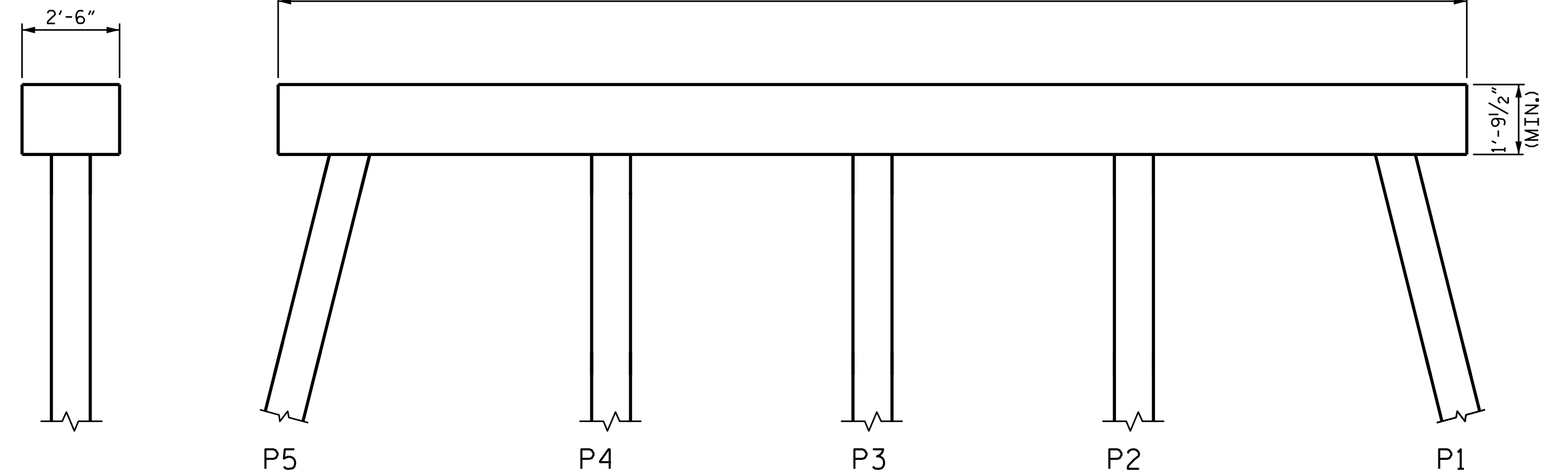
BENT 48	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		2.0		

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



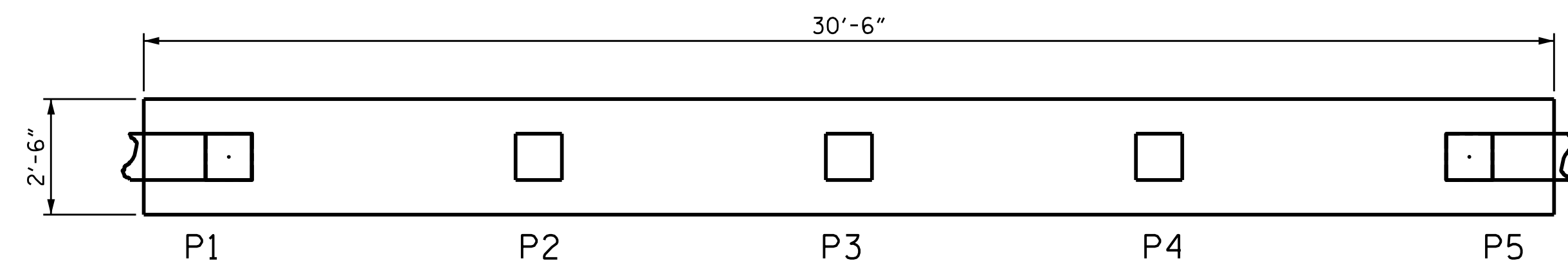
NORTH END

ELEVATION
(WEST SIDE)



SOUTH END

ELEVATION
(EAST SIDE)

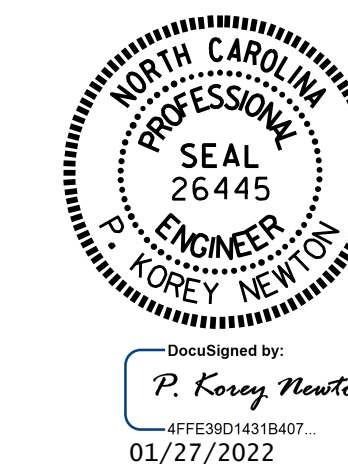


BOTTOM OF CAP

SPAN 48
SPAN 49

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
BRIDGE NO. 060028

SHEET 48 OF 48



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE
BENT 48 REPAIR

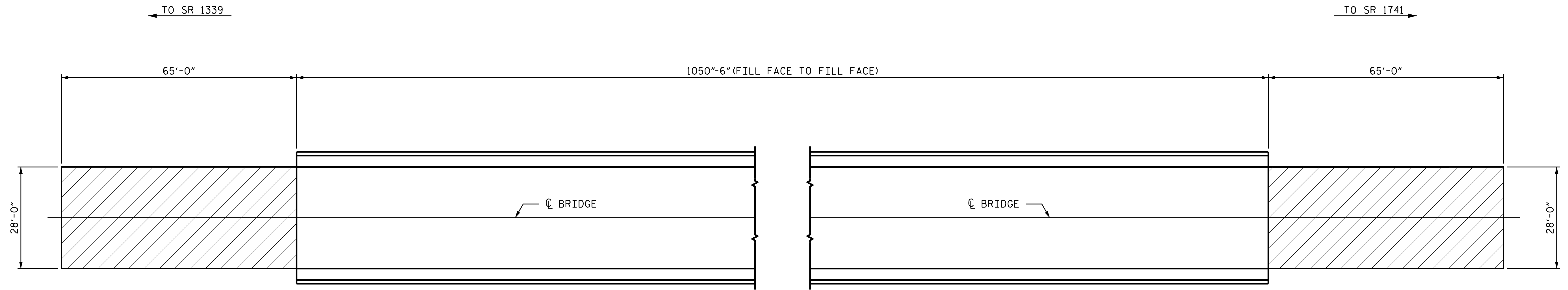
DRAWN BY : S. T. SANDOR DATE : .05/2021
CHECKED BY : W. C. SMITH DATE : .06/2021

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S3-66
2			4			TOTAL SHEETS 78

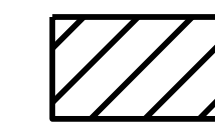
NOTES

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

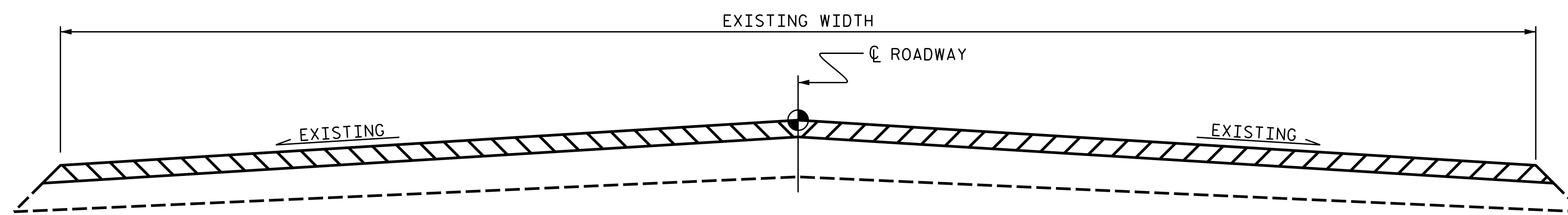


PLAN

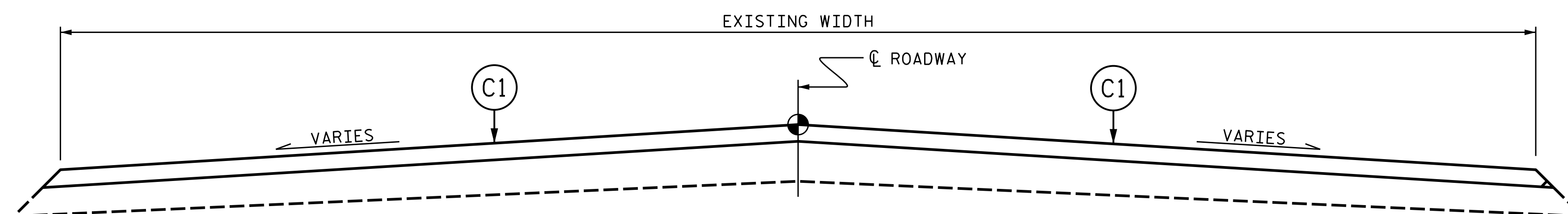
C1 PROPOSED VARIABLE DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 1/2" IN DEPTH OR GREATER THAN 2" DEPTH.

 INCIDENTAL MILLING

SUMMARY OF QUANTITIES		
	ESTIMATE	ACTUAL
INCIDENTAL MILLING	404.4 SY	
ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B	40.0 TONS	
ASPHALT BINDER FOR PLANT MIX	5.0 TONS	



TYPICAL ROADWAY MILLING SECTION



TYPICAL PROPOSED ROADWAY SECTION

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060028

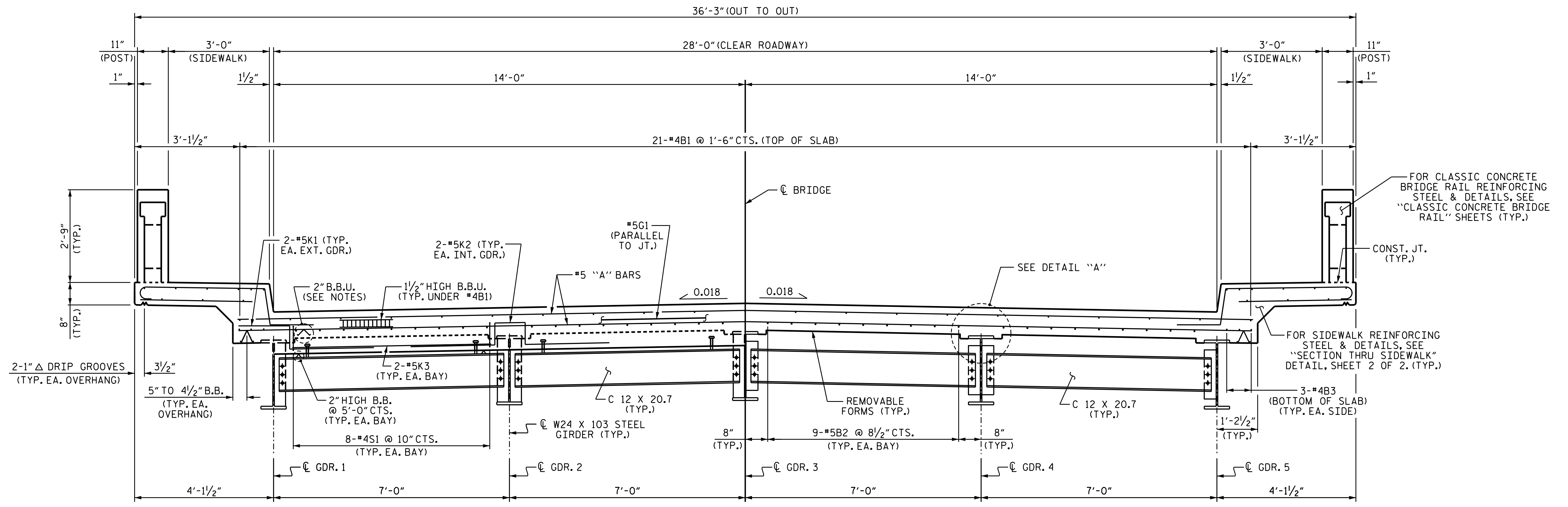


STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
**APPROACH MILLING
 AND TYPICAL
 ROADWAY SECTIONS**

DRAWN BY : A. Y. GODFREY DATE : 12/2021
 CHECKED BY : P. K. NEWTON DATE : 12/2021

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S3-67
2			4			TOTAL SHEETS 78

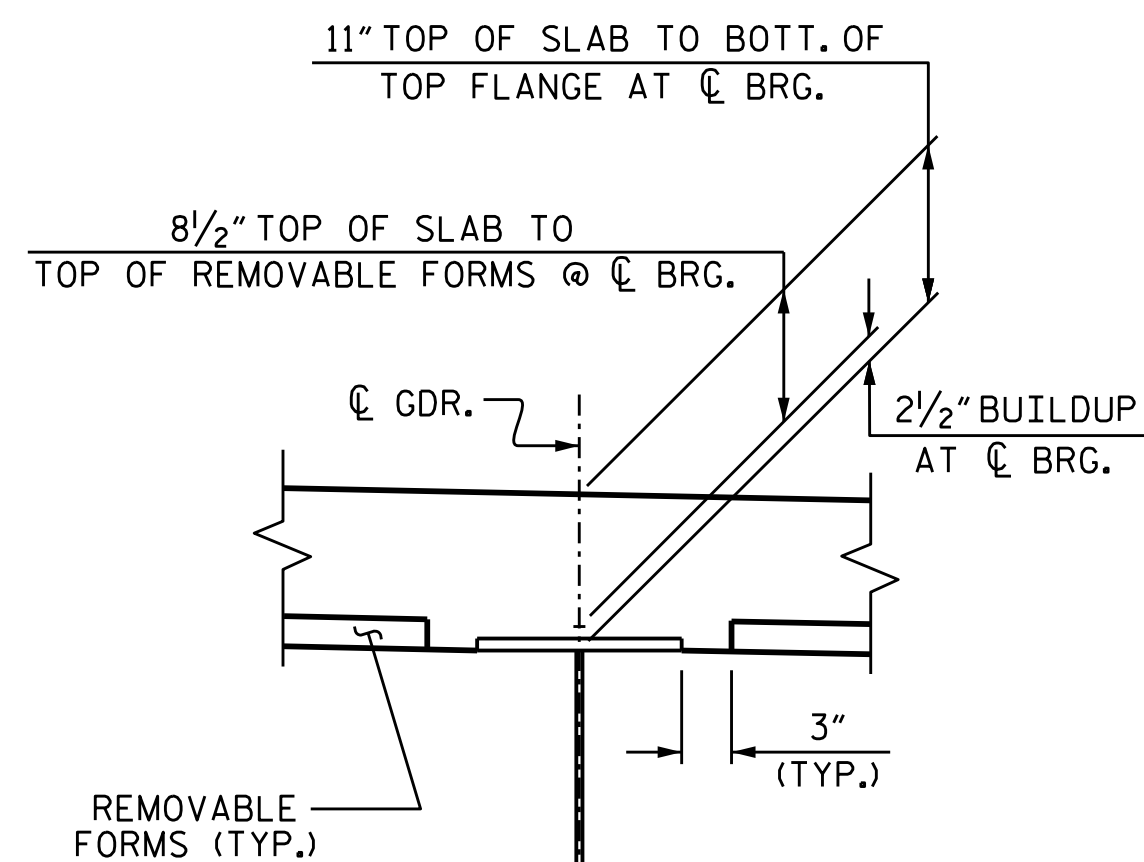


PART TYPICAL SECTION

(SHOWING BENT DIAPHRAGM)
(FOR CHANNEL DETAILS, SEE "STRUCTURAL STEEL" SHEET 2 OF 2)

PART TYPICAL SECTION

(SHOWING INTERMEDIATE DIAPHRAGM)
(FOR CHANNEL DETAILS, SEE "STRUCTURAL STEEL" SHEET 2 OF 2)



DETAIL "A"

NOTES

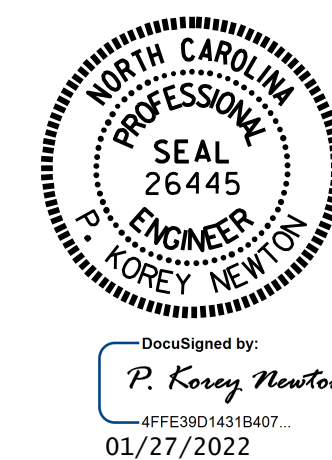
CLASSIC CONCRETE BRIDGE RAIL SHALL NOT BE CAST UNTIL ALL SLAB CONCRETE HAS BEEN CAST AND HAS REACHED A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI.

NO CHAMFER IS REQUIRED ON CORNERS OF GIRDER BUILDUPS.

ALL BAR SUPPORTS AND ALL INCIDENTAL REINFORCING STEEL SHALL BE EPOXY COATED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
BRIDGE NO. 060028

SHEET 1 OF 2



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

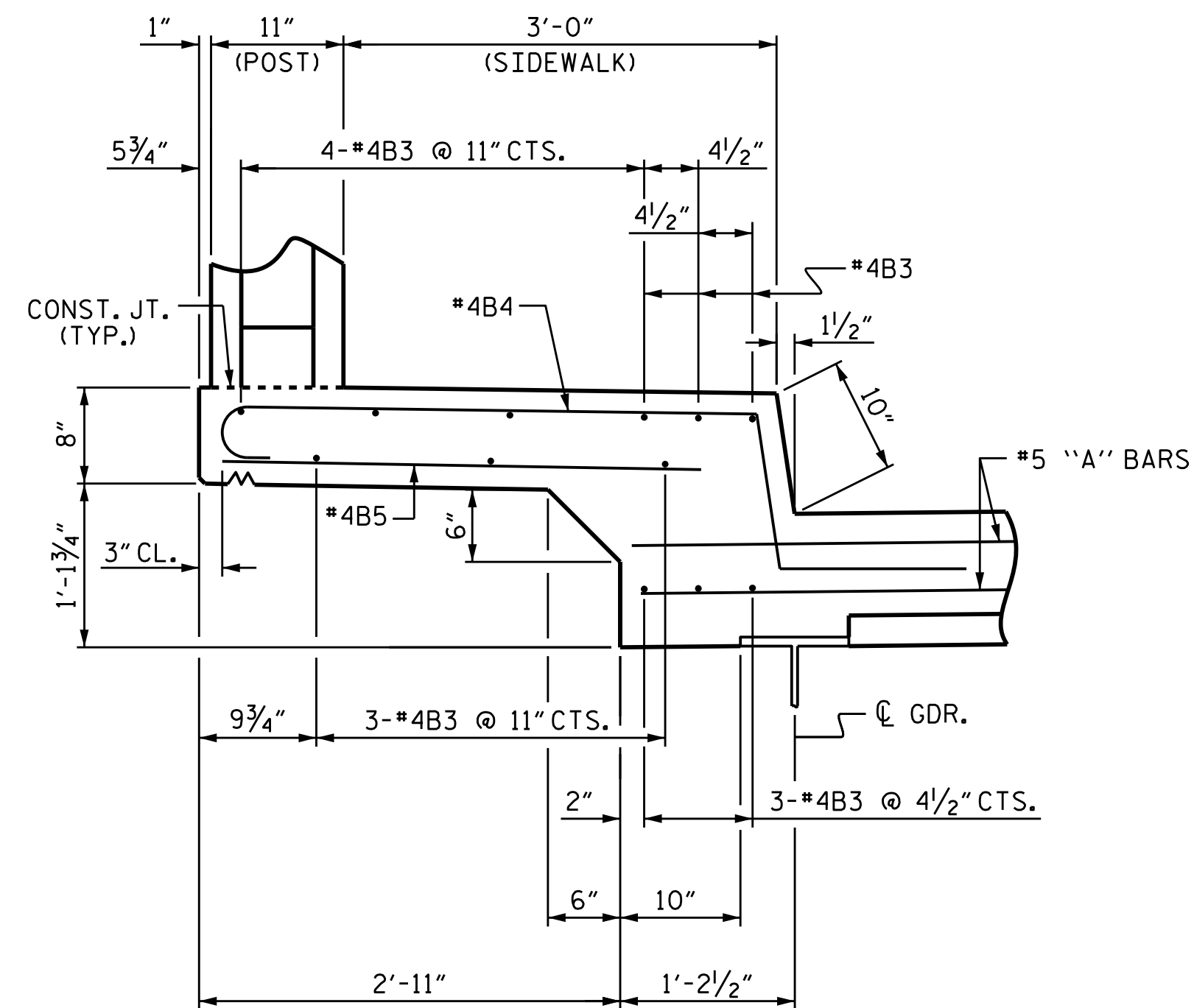
SUPERSTRUCTURE
TYPICAL SECTION
(SPAN 25)

DRAWN BY : M.K. BEARD DATE : 11/3/21
CHECKED BY : O.T. NGUYEN DATE : 12/2021
DESIGN ENGINEER OF RECORD: D. SHACKELFORD DATE : 12/2021

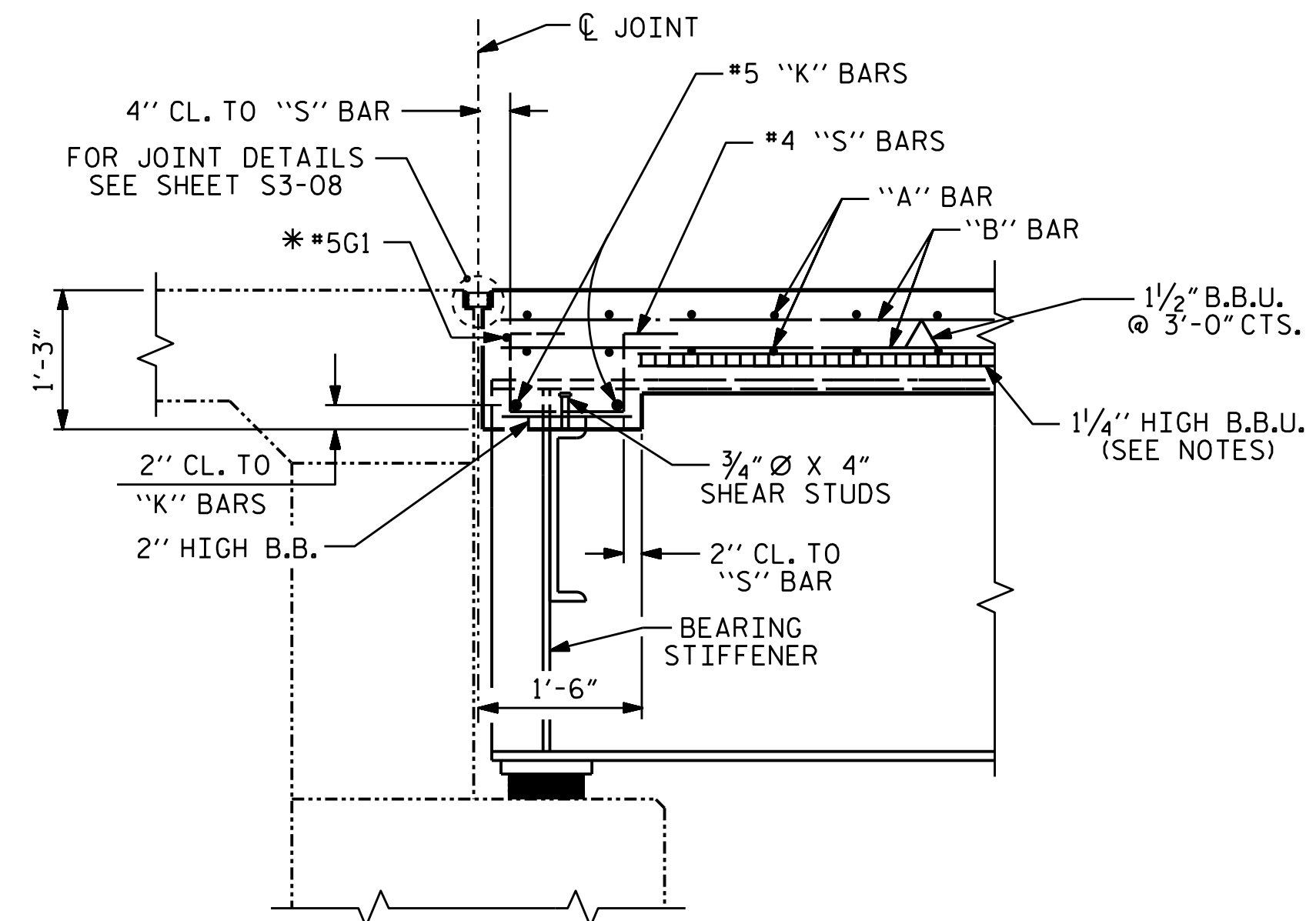
1/24/2022
R:\Structures\Plans\Brdge.060028\403.135.15BPR56.SMU.TS1.068.060028.dgn
pknewton

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S3-68
1			3			TOTAL SHEETS
2			4			78



SECTION THRU SIDEWALK

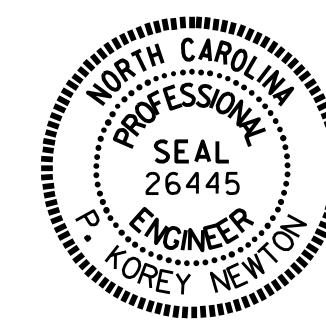


SECTION @ BENT DIAPHRAGM

* #5G1 MAY BE SHIFTED SLIGHTLY, AS NECESSARY, TO CLEAR DIAPHRAGM AND REINFORCING STEEL.

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060028

SHEET 2 OF 2



Designed by:
P. Corey Newton
 AFFE8014318407...
 01/27/2022

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

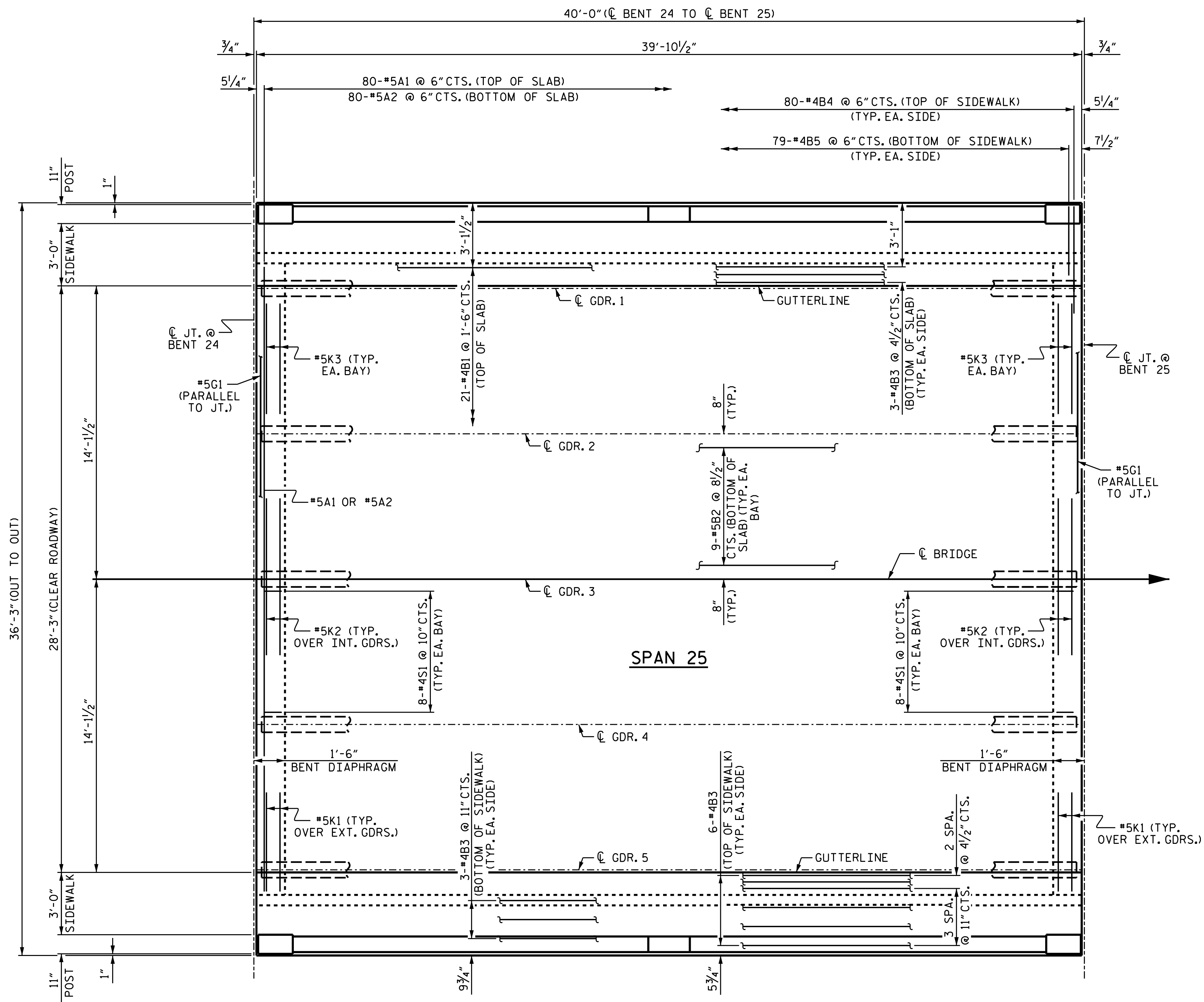
SUPERSTRUCTURE
 TYPICAL SECTION
 (SPAN 25)

DRAWN BY : M.K. BEARD DATE : 11/3/21
 CHECKED BY : O.T. NGUYEN DATE : 12/2021
 DESIGN ENGINEER OF RECORD: D. SHACKELFORD DATE : 12/2021

1/24/2022
 R:\Structures\Plans\Bridges\060028\403.137.15BPR56.SMU.TS2.069.060028.dgn
 pknewton

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

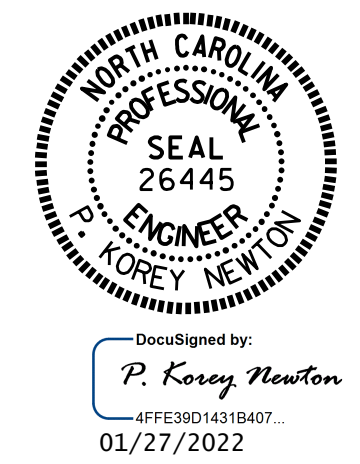
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S3-69
1			3			TOTAL SHEETS
2			4			78



PLAN OF SPAN & SIDEWALK

FOR CLASSIC CONCRETE BRIDGE RAIL REINFORCING STEEL & DETAILS, SEE "CLASSIC CONCRETE BRIDGE RAIL" SHEETS.
 FOR SIDEWALK REINFORCING STEEL & DETAILS, SEE "SECTION THRU SIDEWALK" ON THE "TYPICAL SECTION" SHEET 2 OF 2.

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060028

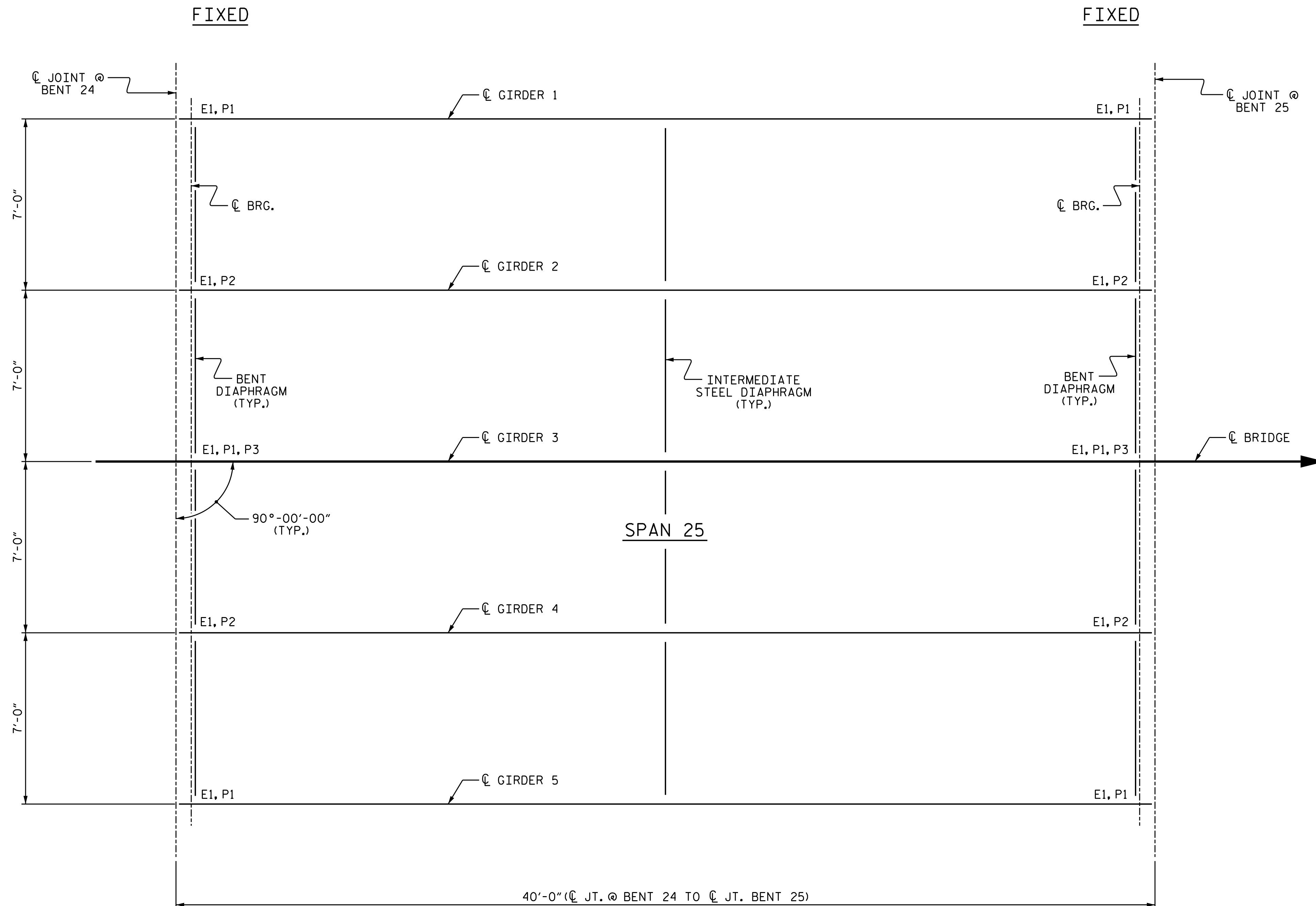


STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SUPERSTRUCTURE
**PLAN OF SPAN
 & SIDEWALK**
 (SPAN 25)

DRAWN BY : M.K. BEARD DATE : 11/8/21
 CHECKED BY : O.T. NGUYEN DATE : 12/2021
 DESIGN ENGINEER OF RECORD: D. SHACKELFORD DATE : 12/2021

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S3-70
1			3			TOTAL SHEETS
2			4			78



FRAMING PLAN

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060028

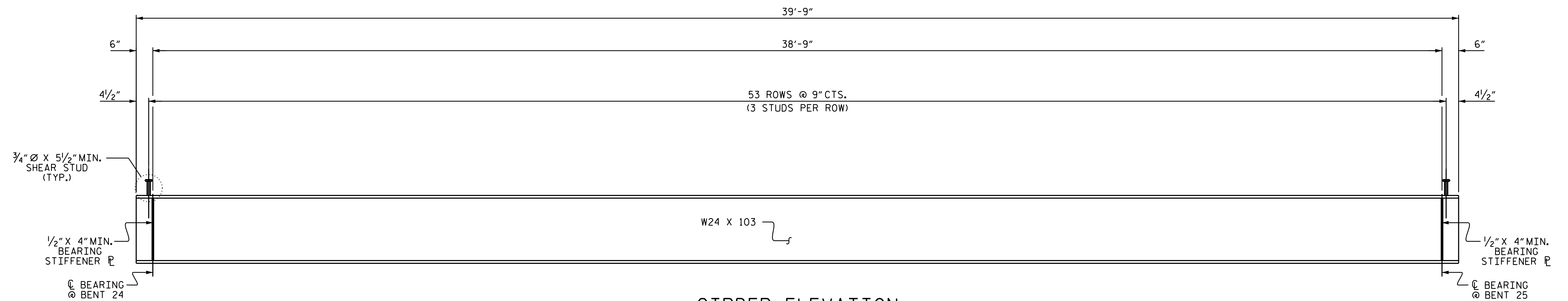


STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SUPERSTRUCTURE
 FRAMING PLAN
 (SPAN 25)

DRAWN BY : M.K. BEARD DATE : 11/19/21
 CHECKED BY : O.T. NGUYEN DATE : 12/2021
 DESIGN ENGINEER OF RECORD: D. SHACKELFORD DATE : 12/2021

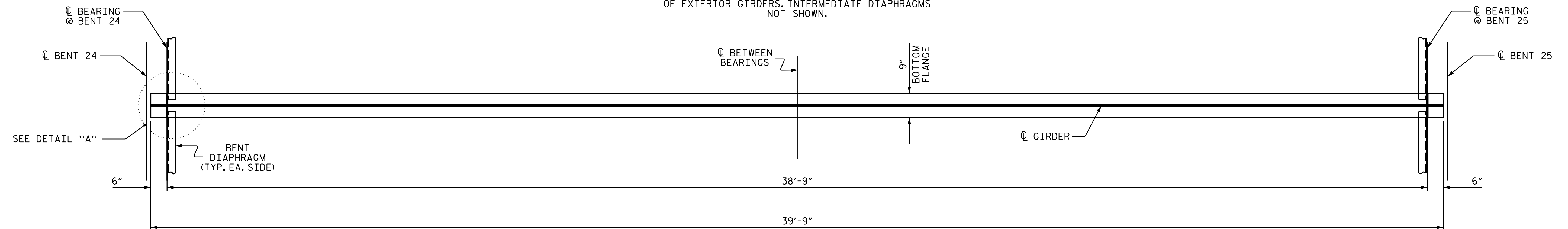
DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S3-71
1			3			TOTAL SHEETS 78
2			4			



GIRDER ELEVATION

OMIT BEARING STIFFENER PLATE ON OUTSIDE OF EXTERIOR GIRDERS. INTERMEDIATE DIAPHRAGMS NOT SHOWN.



BOTTOM FLANGE DETAIL

NOTES

ALL STRUCTURAL STEEL SHALL BE AASHTO M270 GRADE 50 AND PAINTED IN ACCORDANCE WITH SYSTEM 1 OR 2 OF THE STRUCTURAL STEEL SHOP COATINGS PROGRAM AND SECTION 442-8 OF THE STANDARD SPECIFICATIONS UNLESS OTHERWISE NOTED ON THE PLANS. GIRDERS SHALL BE PAINTED THE ENTIRE GIRDER LENGTH. TOP COAT COLOR SHALL BE AMS STANDARD 595A COLOR #26622.

ALL DIMENSIONS SHOWN ARE HORIZONTAL OR VERTICAL, UNLESS OTHERWISE NOTED.

ALL FIELD CONNECTIONS TO BE 7/8" DIA. HIGH STRENGTH BOLTS UNLESS OTHERWISE NOTED.

BEARING STIFFENERS ARE TO BE PLACED NORMAL TO THE WEB OF THE GIRDER AND SHALL BE PLUMB.

BEARING STIFFENER MAY REQUIRE COPING IF WIDER THAN BOTTOM FLANGE.

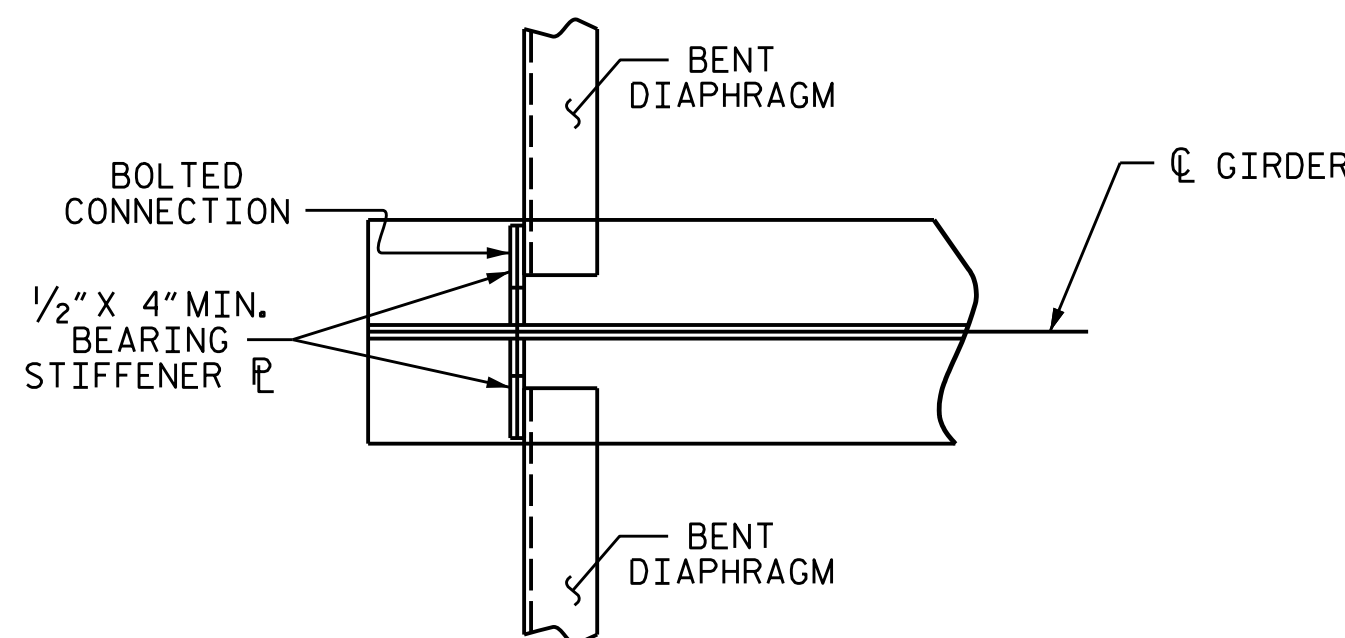
TENSION ON THE ASTM A325 BOLTS SHALL BE CALIBRATED USING DIRECT TENSION INDICATOR WASHERS IN ACCORDANCE WITH ARTICLE 440-8 OF THE STANDARD SPECIFICATIONS.

END OF GIRDERS SHALL BE PLUMB.

A CHARPY V-NOTCH TEST IS REQUIRED ON ALL GIRDER SECTIONS AND IN ACCORDANCE WITH ARTICLE 1072-7 OF THE STANDARD SPECIFICATIONS.

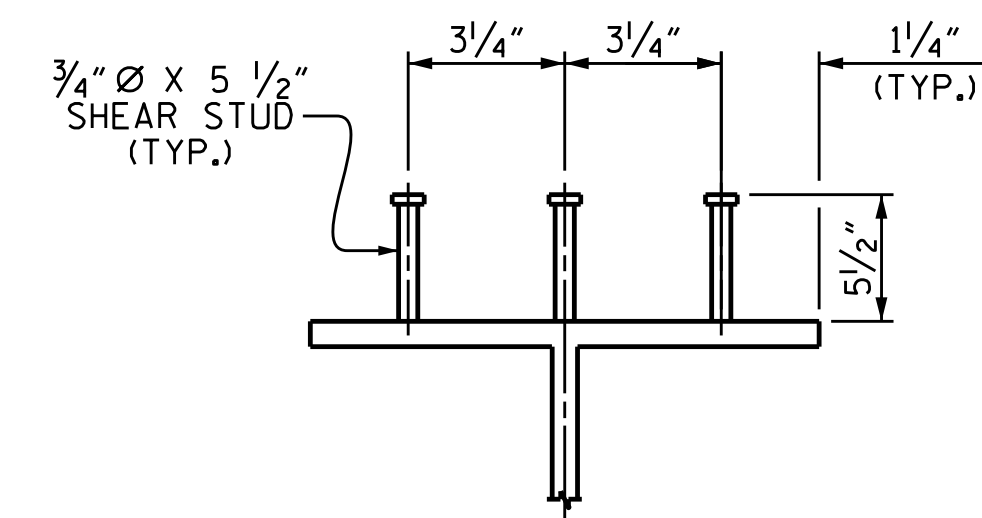
NEEDLE BEAM TYPE SUPPORTS ARE REQUIRED FOR THE OVERHANG FALSEWORK.

FABRICATORS SHALL DETAIL DIAPHRAGM MEMBERS AND CONNECTIONS FOR FULL DEAD LOAD FIT UP. GIRDERS SHALL BE PLUMB AFTER THE FULL AMOUNT OF DEAD LOAD IS APPLIED.



DETAIL "A"

(EACH END SIMILAR)

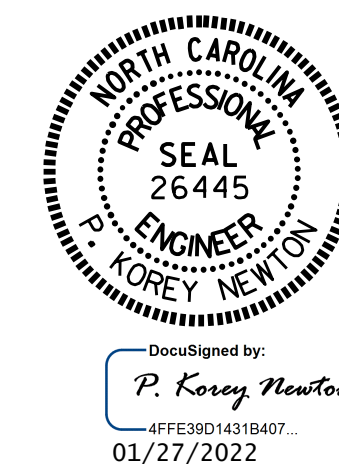


SHEAR STUD DETAIL

(TYP. EA. GIRDER)

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE: 060028

SHEET 1 OF 2



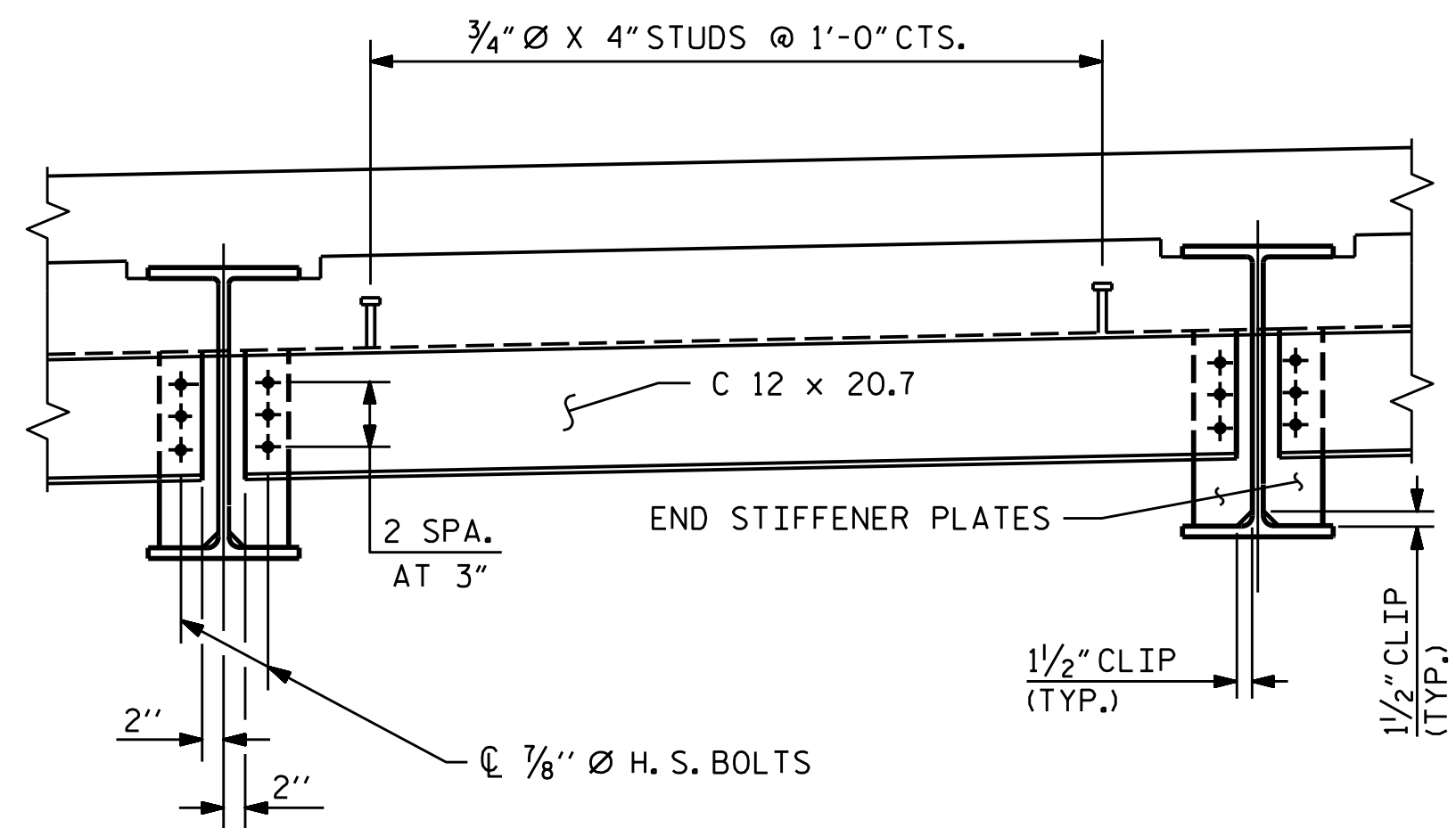
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SUPERSTRUCTURE
 STRUCTURAL STEEL
 DETAILS
 (SPAN 25)

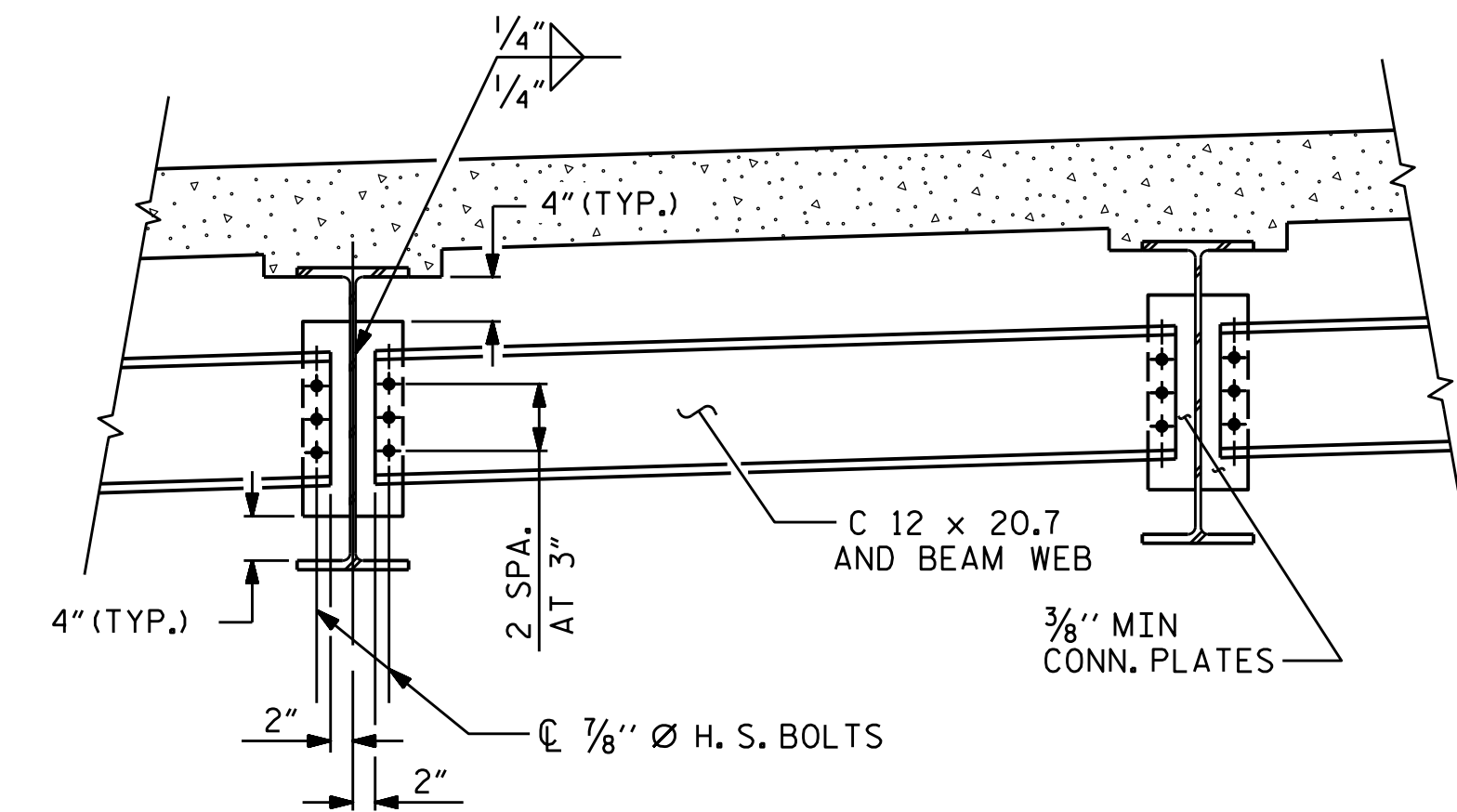
DRAWN BY : D. SHACKELFORD DATE : 12/2021
 CHECKED BY : M.K. BEARD DATE : 12/2021
 DESIGN ENGINEER OF RECORD: D. SHACKELFORD DATE : 12/2021

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

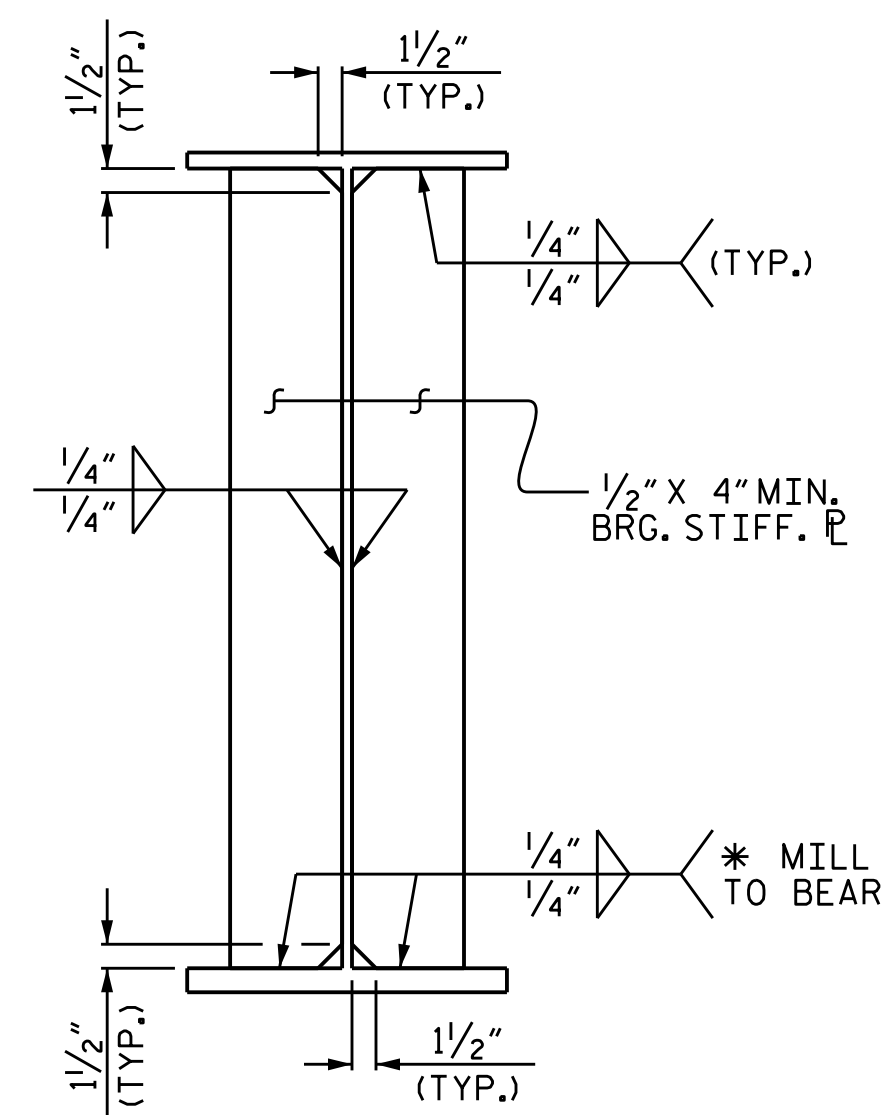
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S3-72
1			3			TOTAL SHEETS
2			4			78



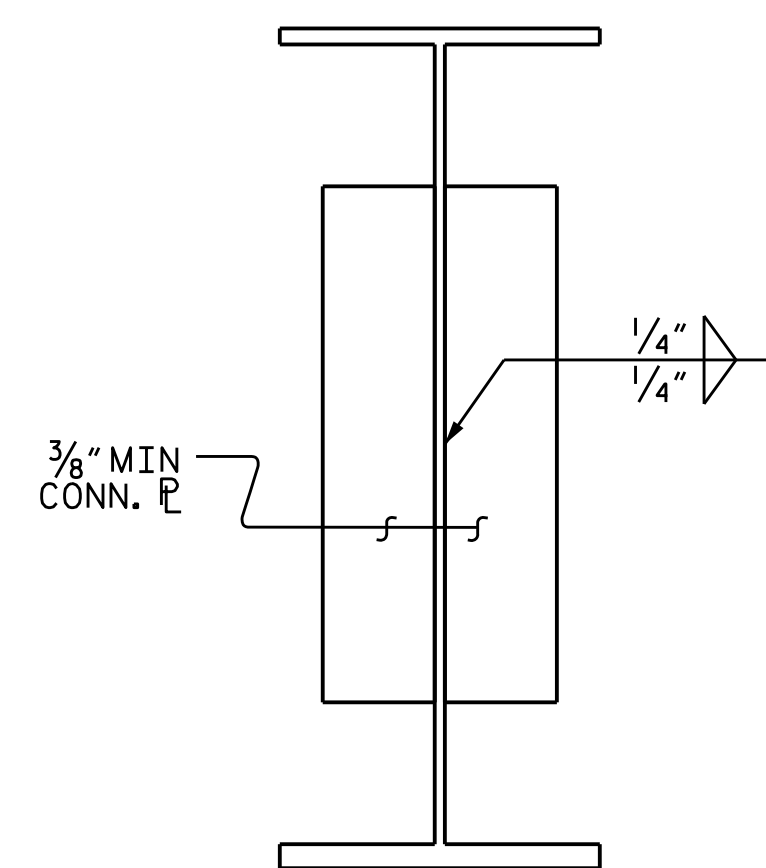
TYPICAL BENT DIAPHRAGM



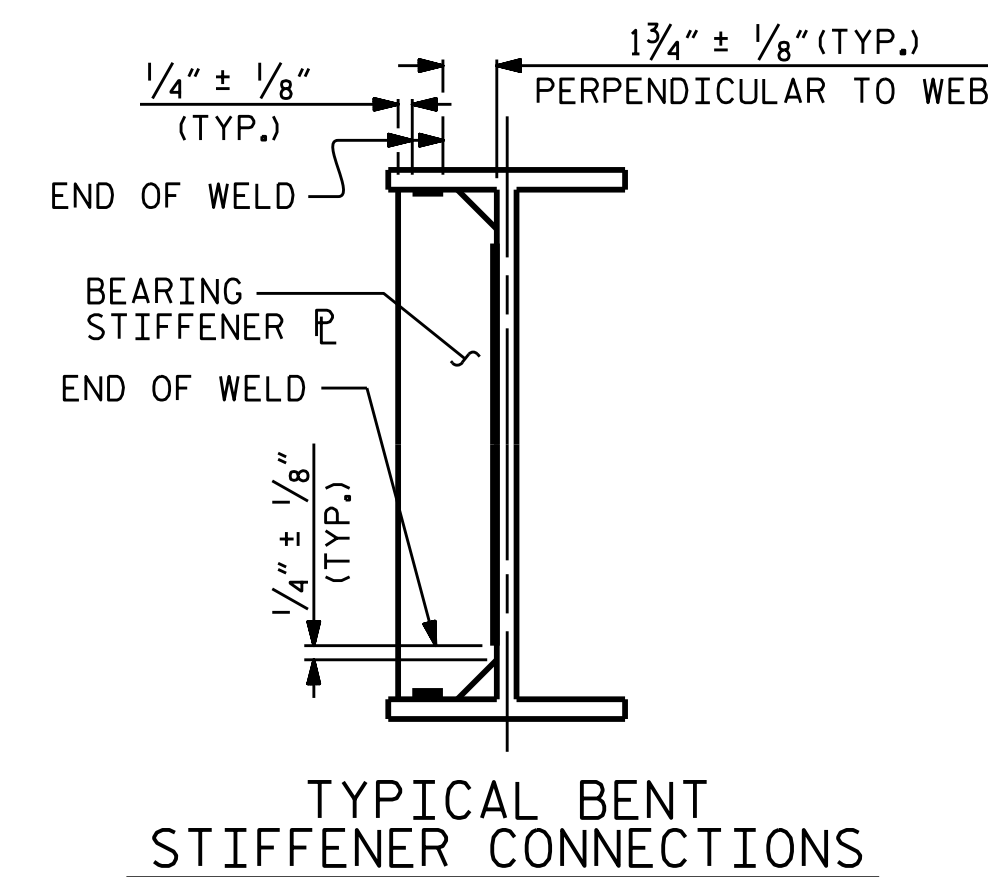
TYPICAL INTERMEDIATE DIAPHRAGM



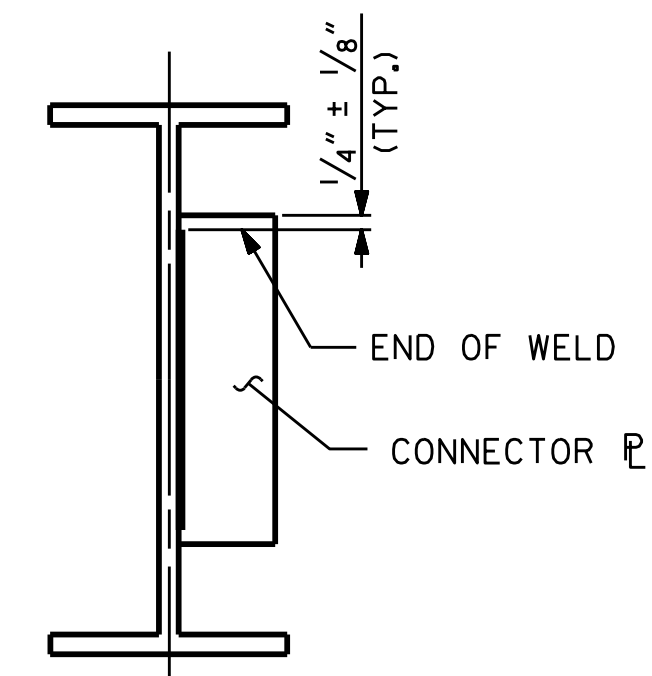
BEARING STIFFENER



CONNECTOR PLATE DETAIL

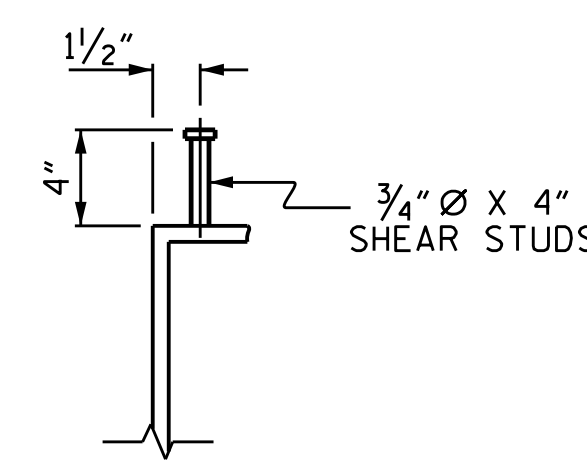


TYPICAL BENT STIFFENER CONNECTIONS



TYPICAL CONNECTOR PLATE CONNECTIONS

WELD TERMINATION DETAILS



SHEAR STUD DETAIL

(TYP. EA. BENT DIAPHRAGM)

PROJECT NO. 15BPR.56
 BEAUFORT COUNTY
 BRIDGE: 060028

SHEET 2 OF 2

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SUPERSTRUCTURE
 STRUCTURAL STEEL
 DETAILS
 (SPAN 25)



DocuSigned by:
 P. Corey Newton
 45FE3D14319A07...
 01/27/2022

DRAWN BY : D. SHACKELFORD DATE : 11/2021
 CHECKED BY : M.K. BEARD DATE : 12/2021
 DESIGN ENGINEER OF RECORD : D. SHACKELFORD DATE : 11/2021

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO. S3-73
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			TOTAL SHEETS 78
2			4			

DEAD LOAD DEFLECTION TABLE FOR GIRDERS																					
	BEAMS 1 AND 5																				
TWENTIETH POINTS	0	.05	.10	.15	.20	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95	0
DEFLECTION DUE TO WEIGHT OF GIRDER ↓	0	0.001	0.002	0.002	0.003	0.004	0.004	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.004	0.004	0.003	0.002	0.002	0.001	0
DEFLECTION DUE TO WEIGHT OF SLAB * ↓	0	0.008	0.016	0.023	0.029	0.035	0.040	0.044	0.047	0.049	0.049	0.049	0.047	0.044	0.040	0.035	0.029	0.023	0.016	0.008	0
DEFLECTION DUE TO WEIGHT OF PARAPET AND SIDEWALK ↓	0	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.000	0
TOTAL DEAD LOAD DEFLECTION ↓	0	0.009	0.019	0.026	0.033	0.040	0.045	0.050	0.053	0.055	0.056	0.055	0.053	0.050	0.045	0.040	0.033	0.026	0.019	0.009	0
VERTICAL CURVE ORDINATE ↑	0	0.004	0.007	0.010	0.012	0.014	0.016	0.017	0.018	0.019	0.019	0.019	0.018	0.017	0.016	0.014	0.012	0.010	0.007	0.004	0
REQUIRED CAMBER ↑	0	3/16"	5/16"	7/16"	1/2"	5/8"	3/4"	13/16"	7/8"	7/8"	7/8"	7/8"	7/8"	13/16"	3/4"	5/8"	1/2"	7/16"	5/16"	3/16"	0

DEAD LOAD DEFLECTION TABLE FOR GIRDERS																					
	BEAMS 2, 3 AND 4																				
TWENTIETH POINTS	0	.05	.10	.15	.20	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95	0
DEFLECTION DUE TO WEIGHT OF GIRDER ↓	0	0.001	0.002	0.002	0.003	0.004	0.004	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.004	0.004	0.003	0.002	0.002	0.001	0
DEFLECTION DUE TO WEIGHT OF SLAB * ↓	0	0.006	0.012	0.017	0.022	0.027	0.031	0.034	0.036	0.037	0.038	0.037	0.036	0.034	0.031	0.027	0.022	0.017	0.012	0.006	0
DEFLECTION DUE TO WEIGHT OF PARAPET AND SIDEWALK ↓	0	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.000	0
TOTAL DEAD LOAD DEFLECTION ↓	0	0.007	0.015	0.020	0.026	0.032	0.036	0.040	0.042	0.043	0.045	0.043	0.042	0.040	0.036	0.032	0.026	0.020	0.015	0.007	0
VERTICAL CURVE ORDINATE ↑	0	0.004	0.007	0.010	0.012	0.014	0.016	0.017	0.018	0.019	0.019	0.019	0.018	0.017	0.016	0.014	0.012	0.010	0.007	0.004	0
REQUIRED CAMBER ↑	0	1/8"	1/4"	3/8"	7/16"	9/16"	5/8"	11/16"	3/4"	3/4"	3/4"	3/4"	3/4"	11/16"	5/8"	9/16"	7/16"	3/8"	1/4"	1/8"	0

* INCLUDES SLAB AND BUILDUPS.
ALL VALUES ARE SHOWN IN FEET (DECIMAL FORM), EXCEPT "FINAL CAMBER", WHICH IS GIVEN IN INCHES (FRACTION FORM).

FABRICATORS SHALL DETAIL DIAPHRAGM MEMBERS AND CONNECTIONS FOR STEEL DEAD LOAD FIT UP.

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE: 060028



DocuSigned by:
 P. Corey Newton
 4FFE39D1431B407...
 01/27/2022

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SUPERSTRUCTURE
 DEAD LOAD
 DEFLECTIONS
 (SPAN 25)

DRAWN BY : D. SHACKELFORD DATE : 12/2021
 CHECKED BY : M.K. BEARD DATE : 12/2021
 DESIGN ENGINEER OF RECORD : D. SHACKELFORD DATE : 12/2021

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S3-74
1			3			TOTAL SHEETS
2			4			78

NOTES

AT ALL FIXED POINTS OF SUPPORT, NUTS FOR ANCHOR BOLTS ARE TO BE TIGHTENED FINGER TIGHT AND THEN BACKED OFF 1/2 TURN. THE THREAD OF THE NUT AND BOLT SHALL THEN BE BURRED WITH A SHARP POINTED TOOL.

THE 2" Ø PIPE SLEEVE SHALL BE CUT FROM SCHEDULE 40 PVC PLASTIC PIPE. THE PVC PLASTIC PIPE SHALL MEET THE REQUIREMENTS OF ASTM D1785.

THE PAYMENT FOR THE PIPE SLEEVES SHALL BE INCLUDED IN THE SEVERAL PAY ITEMS.

FOR PAINTED STRUCTURAL STEEL (EXCLUDING AASHTO M270 GRADE 50W), SOLE PLATES, ANCHOR BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

FOR AASHTO M270 GRADE 50W STRUCTURAL STEEL, SOLE PLATE SHALL BE AASHTO M270 GRADE 50W AND SHALL NOT BE GALVANIZED. ANCHOR BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

ANCHOR BOLTS SHALL MEET THE REQUIREMENTS OF ASTM A449. NUTS SHALL MEET THE REQUIREMENTS OF AASHTO M291-DH OR AASHTO M292-2H. WASHERS SHALL MEET THE REQUIREMENTS OF AASHTO M293. SHOP DRAWINGS ARE NOT REQUIRED FOR ANCHOR BOLTS, NUTS AND WASHERS. SHOP INSPECTION IS REQUIRED.

WHEN FIELD WELDING THE SOLE PLATE TO THE GIRDER FLANGE, USE TEMPERATURE INDICATING WAX PENS, OR OTHER SUITABLE MEANS, TO ENSURE THAT THE TEMPERATURE OF THE SOLE PLATE DOES NOT EXCEED 300°F. TEMPERATURES ABOVE THIS MAY DAMAGE THE ELASTOMER.

ALL SURFACES OF BEARING PLATES SHALL BE SMOOTH AND STRAIGHT.

THE ELASTOMER IN THE STEEL REINFORCED BEARINGS SHALL HAVE A SHEAR MODULUS OF 0.160 KSI, IN ACCORDANCE WITH AASHTO M251.

FOR STEEL REINFORCED ELASTOMERIC BEARINGS, SEE SPECIAL PROVISIONS.

THE CONTRACTOR'S ATTENTION IS CALLED TO THE FOLLOWING PROCEDURE, WHICH MAY BE REQUIRED BY THE ENGINEER, TO RESET ELASTOMERIC BEARINGS DUE TO GIRDER TRANSLATION AND END ROTATION:

- ONCE THE DECK HAS CURED, THE GIRDERS SHALL BE JACKED AND THE ELASTOMERIC BEARING SLOTS CENTERED AS NEARLY AS PRACTICAL ABOUT THE BEARING STIFFENER. THIS OPERATION SHALL BE PERFORMED AT APPROXIMATELY 60° F.

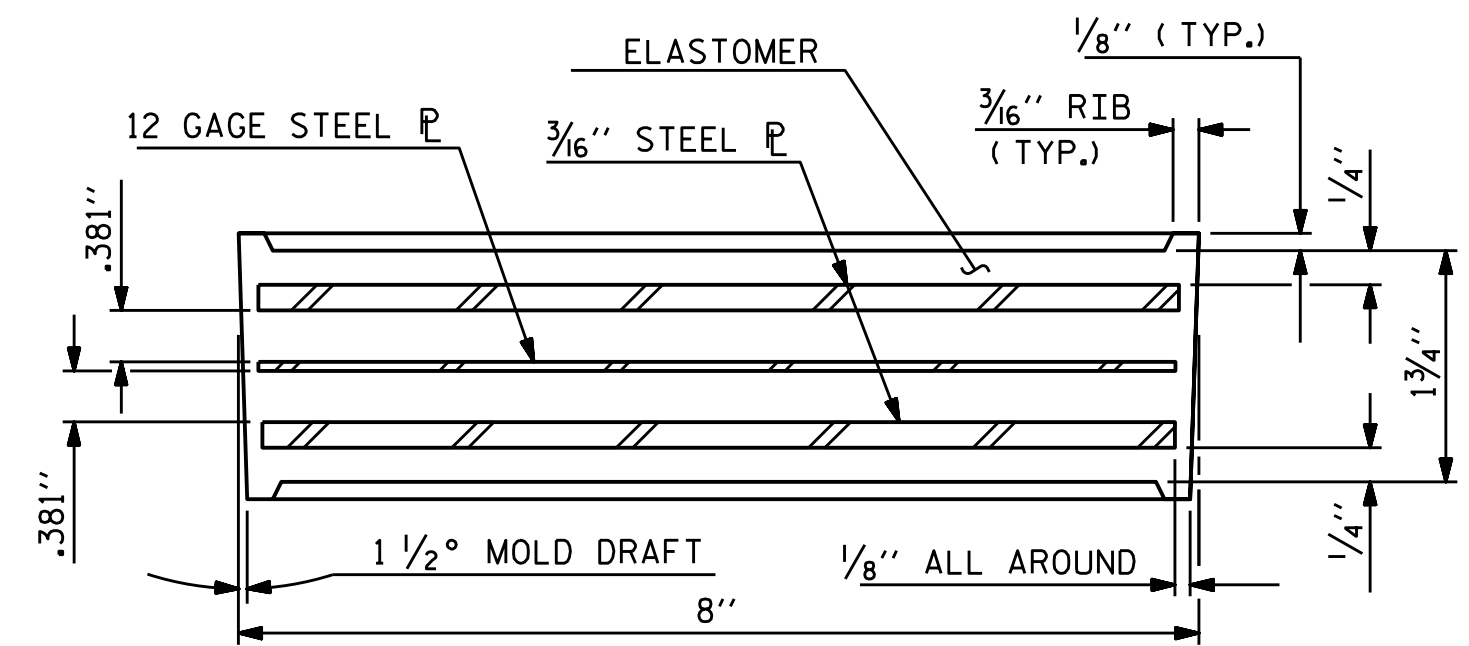
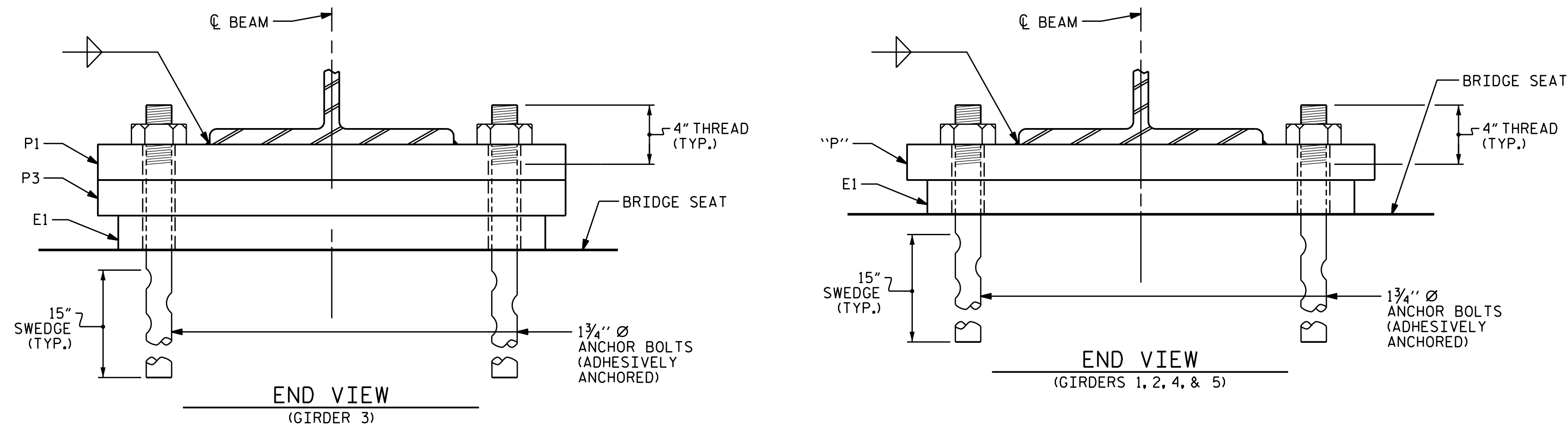
THE CONTRACTOR MAY PROPOSE ALTERNATE METHODS, PROVIDED DETAILS ARE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL.

CUT EXISTING ANCHOR BOLTS FLUSH TO THE TOP OF CONCRETE. BOLT ENDS SHALL BE COATED WITH AN APPROVED EPOXY PAINT.

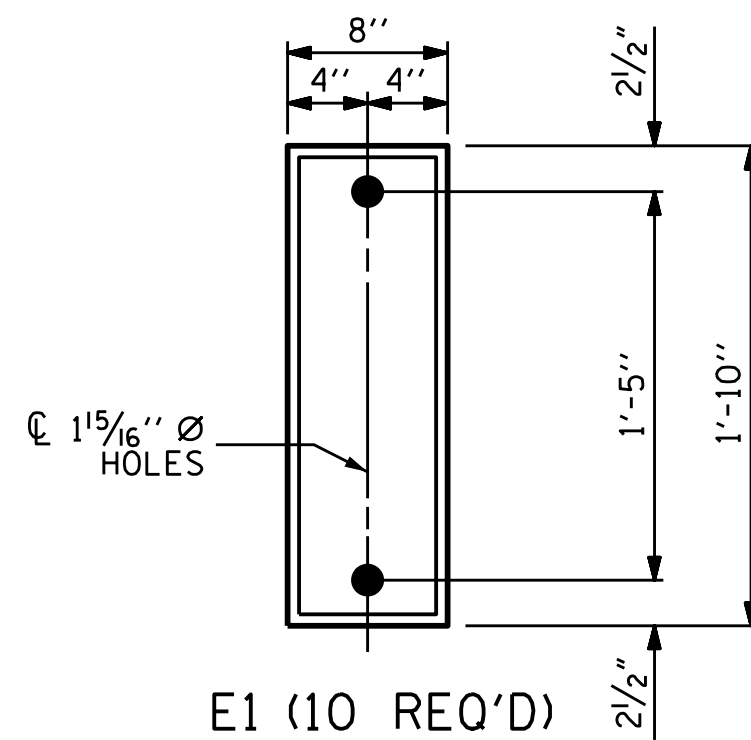
THE CONTRACTOR SHALL CORE INTO EXISTING BENT CAP TO INSTALL ANCHOR BOLTS. BOLTS SHALL BE ADHESIVELY ANCHORED; SEE STANDARD SPECIFICATIONS. CONTRACTOR SHALL SUBMIT PROPOSED ADHESIVE FOR APPROVAL. ADHESIVE FOR NEW ANCHOR BOLTS SHALL BE ON THE NCDOT APPROVED PRODUCT LIST, FOR THE PROPOSED USE.

NEW ADHESIVELY ANCHORED BOLTS SHALL BE SUBJECT TO LEVEL 1 FIELD TESTING, IN ACCORDANCE WITH STANDARD SPECIFICATIONS ARTICLE 420-13 (C), EXCEPT THAT THE TEST LOAD SHALL BE 10,000 LBS. TENSION FOR ANCHOR BOLTS.

MINIMUM EMBEDMENT OF ANCHOR BOLT SHALL BE PER MANUFACTURER RECOMMENDATIONS. MINIMUM LENGTH OF ANCHOR BOLT SHALL BE SUFFICIENT FOR EMBEDMENT DEPTH, THICKNESS OF ELASTOMERIC BEARING, SOLE PLATE(S), AND FULL ENGAGEMENT OF ANCHOR BOLT NUT.



TYPICAL SECTION OF ELASTOMERIC BEARINGS



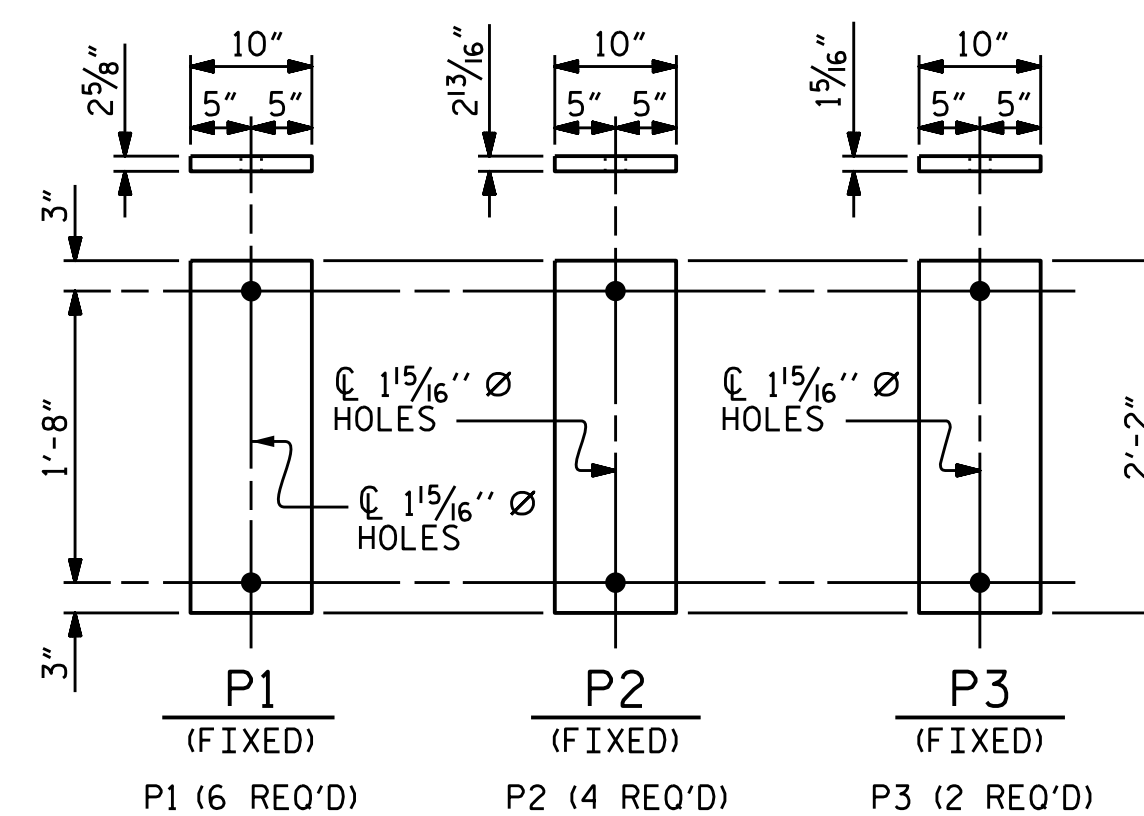
PLAN VIEW OF ELASTOMERIC BEARING

TYPE I

MAXIMUM ALLOWABLE SERVICE LOADS

D.L.+L.L. (NO IMPACT)

TYPE I	140 k
TYPE II	180 k
TYPE III	255 k



SOLE PLATE DETAILS ("P")

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 STATION: 060028

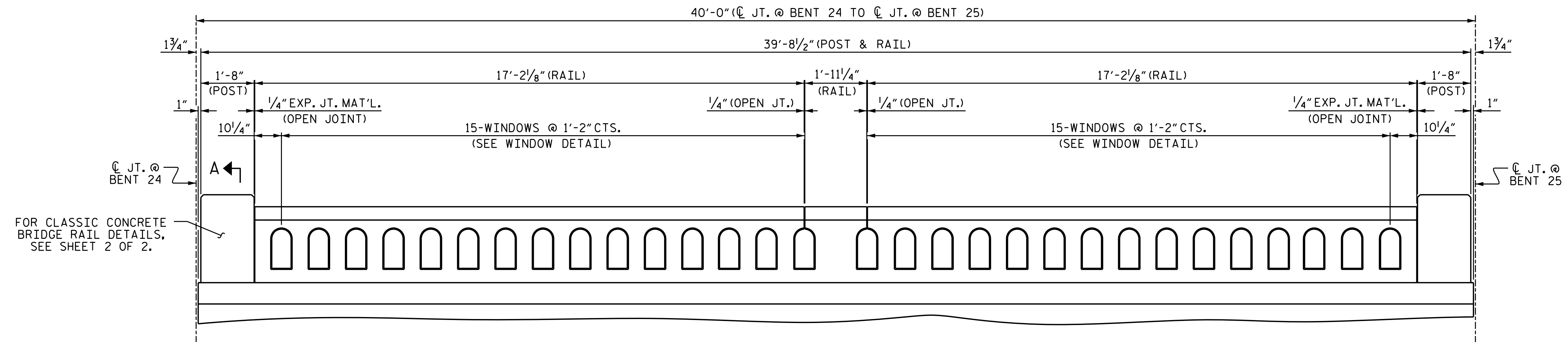


STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 STANDARD
ELASTOMERIC BEARING
DETAILS
 (STEEL SUPERSTRUCTURE)
 (SPAN 25)

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S3-75
1			3			TOTAL SHEETS
2			4			78

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

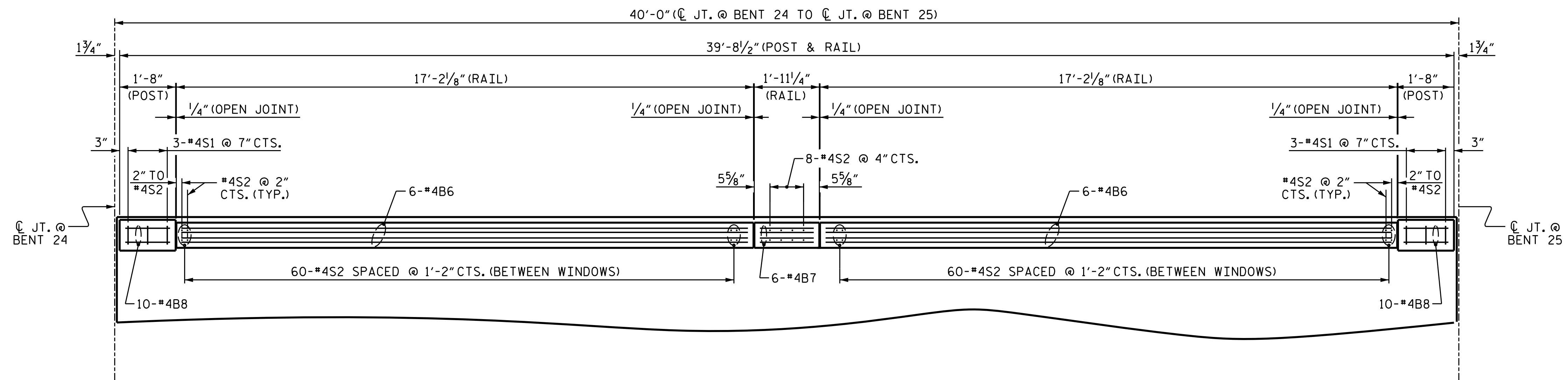
ASSEMBLED BY : M.K. BEARD	DATE : 11/29/21
CHECKED BY : D. SHACKELFORD	DATE : 1/14/22
DRAWN BY : JMB 11/87	REV. 10/1/11 MAA/GM
CHECKED BY : ARB 11/87	REV. 6/13 AAC/MAA
	REV. 12/17 MAA/THC



FOR CLASSIC CONCRETE BRIDGE RAIL DETAILS, SEE SHEET 2 OF 2.

ELEVATION OF CLASSIC CONCRETE BRIDGE RAIL

LEFT SIDE SHOWN, RIGHT SIDE SIMILAR.
DIMENSIONS ARE GIVEN ALONG OUTSIDE EDGE OF SUPERSTRUCTURE.



PLAN OF CLASSIC CONCRETE BRIDGE RAIL

LEFT SIDE SHOWN, RIGHT SIDE SIMILAR.
WINDOWS NOT SHOWN FOR CLARITY.
DIMENSIONS ARE GIVEN ALONG OUTSIDE OF SUPERSTRUCTURE.

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
BRIDGE NO. 060028

SHEET 1 OF 2



DocuSigned by:
P. Corey Newton
4FFE39D1431B407...
01/27/2022

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

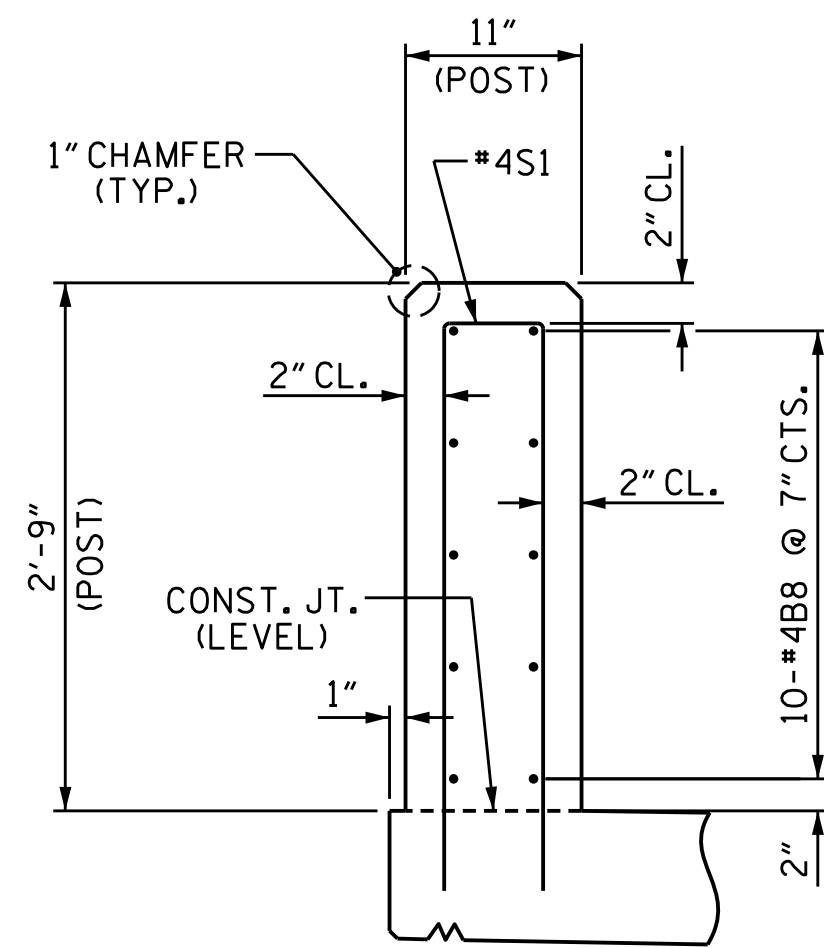
SUPERSTRUCTURE
CLASSIC CONCRETE
BRIDGE RAIL
(SPAN 25)

DRAWN BY : M.K. BEARD DATE : 11/18/21
CHECKED BY : O.T. NGUYEN DATE : 12/2021
DESIGN ENGINEER OF RECORD: D. SHACKELFORD DATE : 12/2021

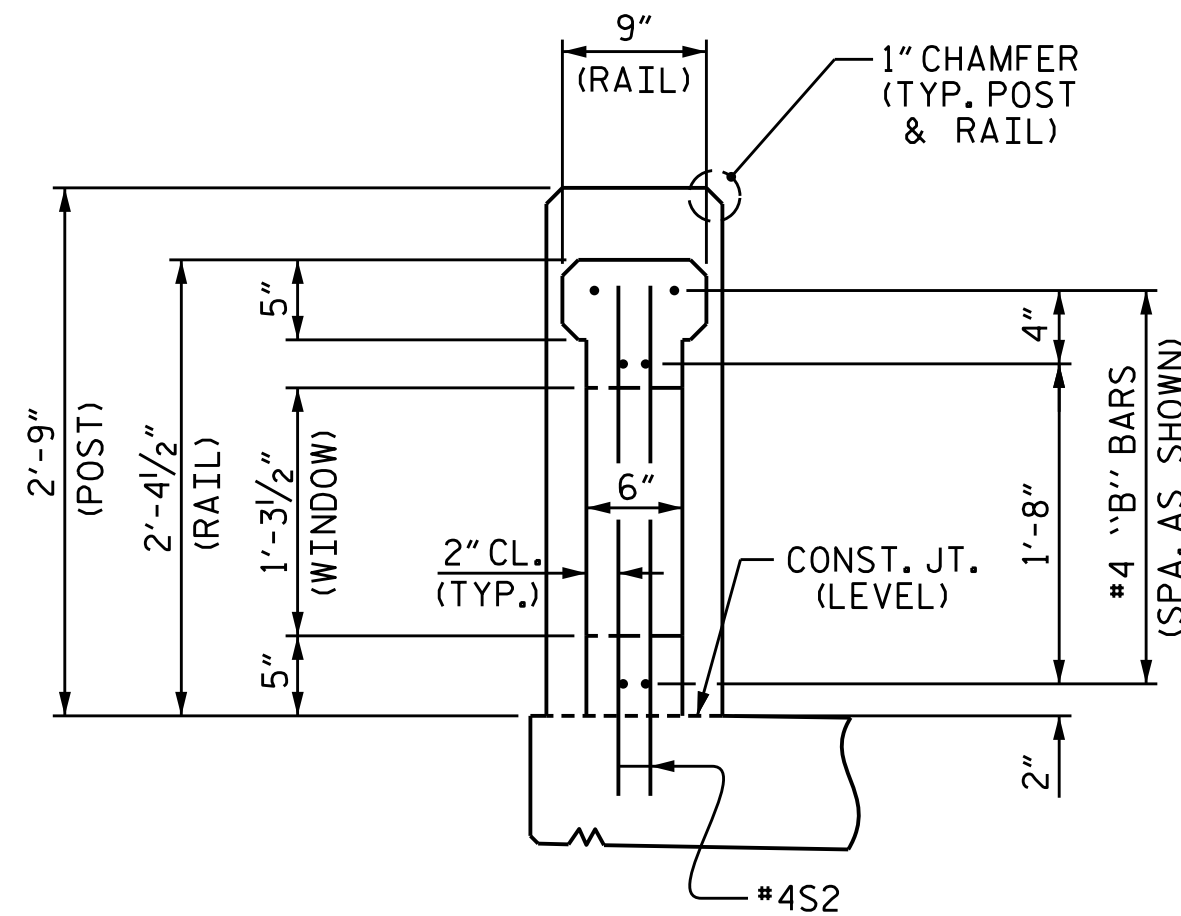
1/24/2022
R:\Structures\Plans\Bridges\060028\403.151.15BPR56.SMU.CBR1.076.060028.dgn
pknewton

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

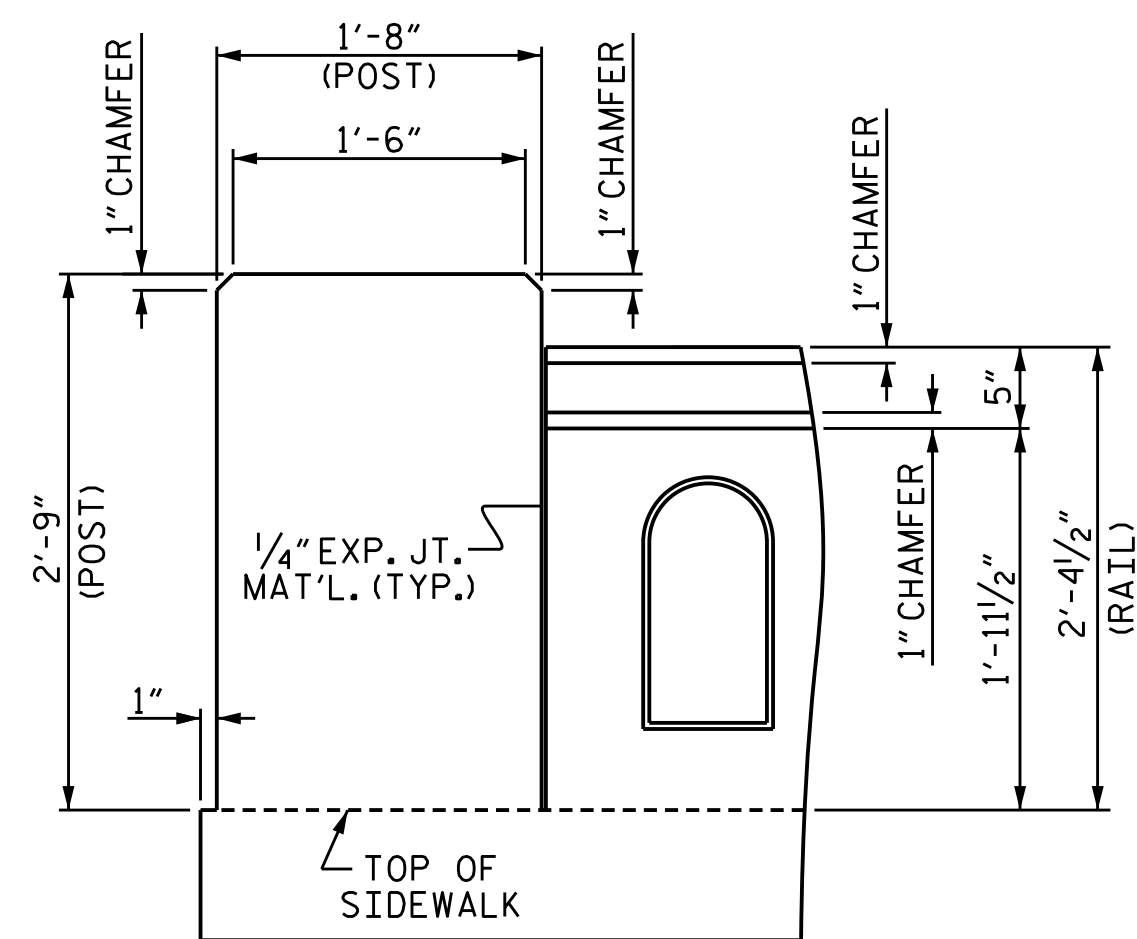
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S3-76
2			4			TOTAL SHEETS 78



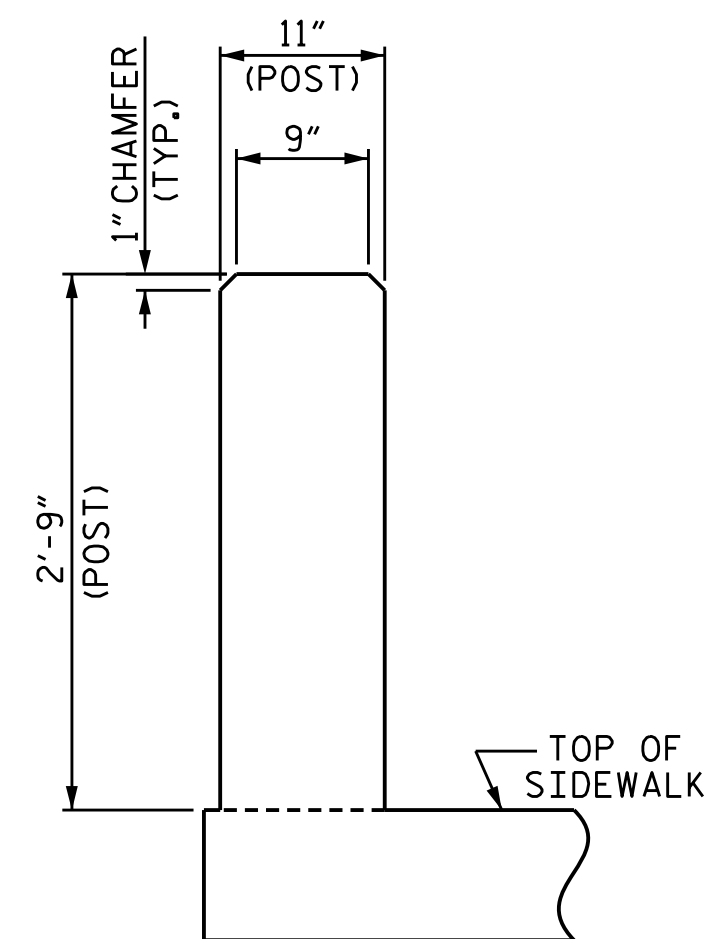
SECTION THRU POST



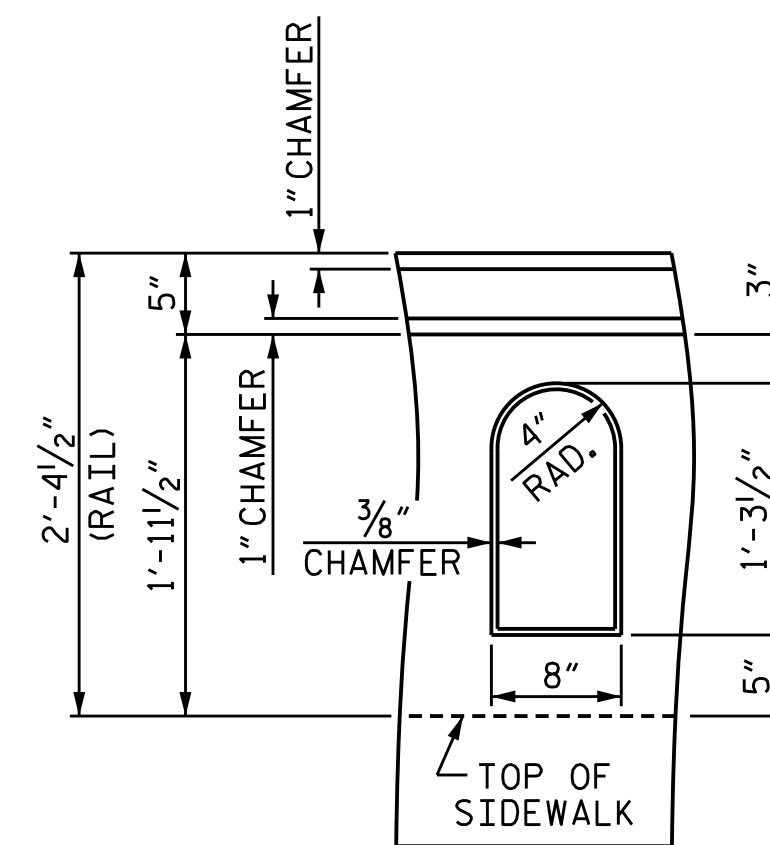
SECTION THRU RAIL



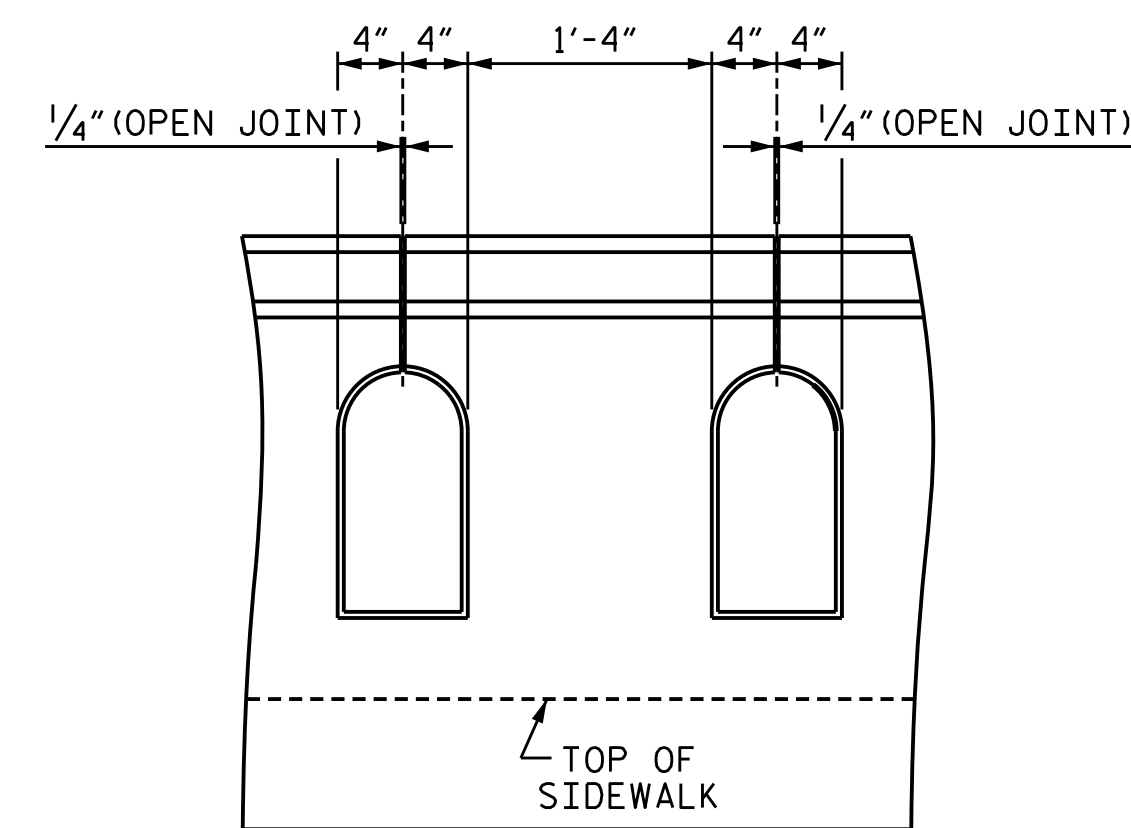
POST & RAIL DETAIL



SECTION A-A



WINDOW DETAIL



WINDOW DETAIL @ 1/4" OPEN JOINT

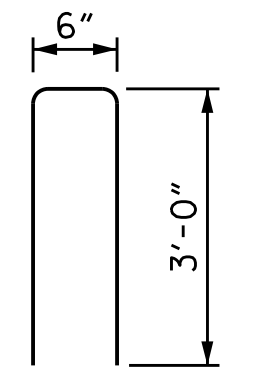
NOTES

ALL PARTS OF THE CLASSIC CONCRETE BRIDGE RAIL INCLUDING BUT NOT LIMITED TO THE REINFORCING STEEL, CLASS AA CONCRETE SHALL BE INCLUDED IN THE UNIT PRICE BID PER LINEAR FOOT FOR "CLASSIC CONCRETE BRIDGE RAIL". NO SEPARATE MEASUREMENT OR PAYMENT WILL BE MADE FOR THESE ITEMS.

CLASSIC CONCRETE BRIDGE RAIL SHALL NOT BE CAST UNTIL ALL SLAB CONCRETE IN THE UNIT HAS BEEN CAST AND HAS REACHED MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI.

ALL REINFORCING STEEL IN CLASSIC CONCRETE BRIDGE RAIL SHALL BE EPOXY COATED. FOR CLASSIC CONCRETE BRIDGE RAIL, SEE SPECIAL PROVISIONS.

BAR TYPES



1

ALL BAR DIMENSIONS ARE OUT TO OUT

BILL OF MATERIAL

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
* B6	24	#4	STR	16'-10"	270
* B7	12	#4	STR	1'-7"	13
* B8	40	#4	STR	1'-4"	36
* S1	12	#4	1	6'-6"	52
* S2	240	#4	STR	5'-3"	842

* EPOXY COATED REINFORCING STEEL 1213 LBS.

CLASS AA CONCRETE	
CONCRETE POST	0.6 CU. YDS.
CONCRETE RAIL	2.7 CU. YDS.
TOTAL	3.3 CU. YDS.

CONCRETE POST	6.67 LIN. FT.
CONCRETE RAIL	72.75 LIN. FT.
TOTAL	79.42 LIN. FT.

DRAWN BY : M.K. BEARD DATE : 11/18/21
 CHECKED BY : O.T. NGUYEN DATE : 12/2021
 DESIGN ENGINEER OF RECORD: D. SHACKELFORD DATE : 12/2021

1/24/2022
 R:\Structures\Plans\Bridges\060028\403.153.15BPR56.SMU.CBR2.077.060028.dgn
 pknewton

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED



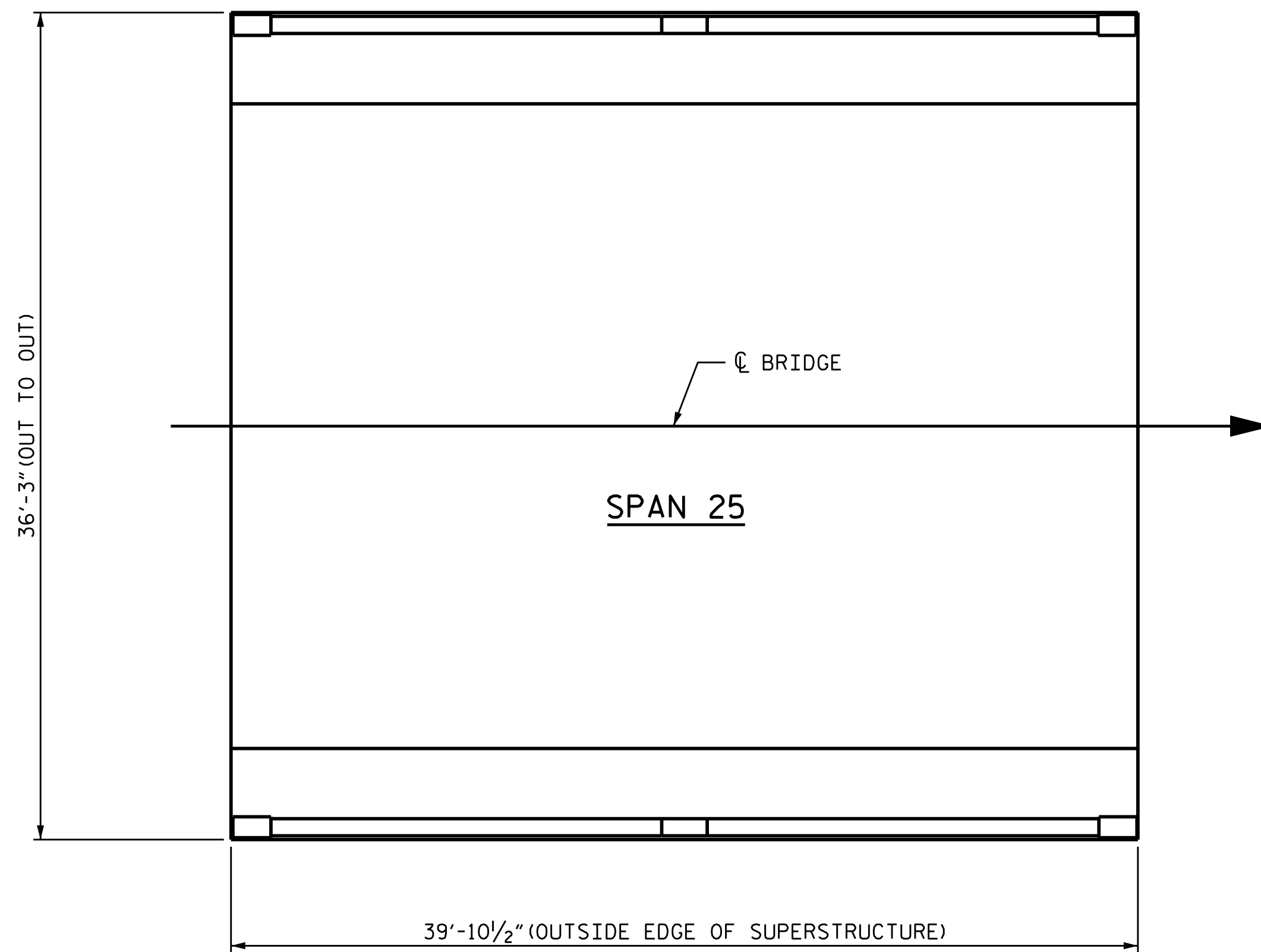
PROJECT NO. 15BPR.56
 BEAUFORT COUNTY
 BRIDGE NO. 060028

SHEET 2 OF 2

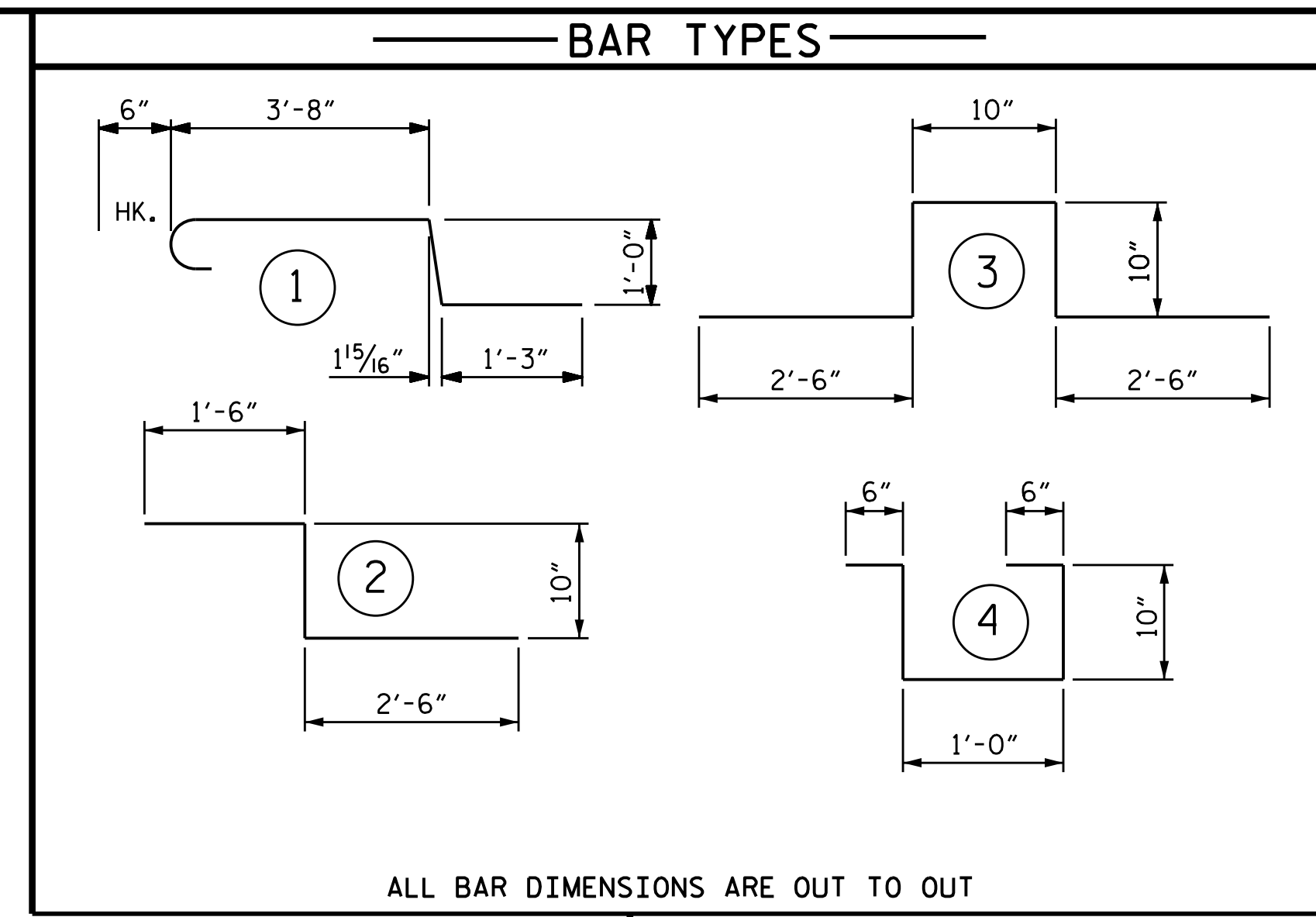
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SUPERSTRUCTURE
 CLASSIC CONCRETE
 BRIDGE RAIL
 (SPAN 25)

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S3-77
2			4			TOTAL SHEETS 78



LAYOUT FOR COMPUTING AREA
OF REINFORCED CONCRETE DECK SLAB
(SQ. FT. = 1445)



ALL BAR DIMENSIONS ARE OUT TO OUT

SUPERSTRUCTURE REINFORCING STEEL LENGTHS ARE BASED ON THE FOLLOWING MINIMUM SPLICE LENGTHS

BAR SIZE	SUPERSTRUCTURE EXCEPT APPROACH SLABS, PARAPETS, AND BARRIER RAILS		APPROACH SLABS		PARAPETS AND BARRIER RAILS
	EPOXY COATED	UNCOATED	EPOXY COATED	UNCOATED	
#4	1'-11"	1'-7"	1'-11"	1'-7"	2'-6"
#5	2'-5"	2'-0"	2'-5"	2'-0"	3'-1"
#6	2'-10"	2'-5"	3'-7"	2'-5"	3'-8"
#7	4'-2"	2'-9"			
#8	4'-9"	3'-2"			

BILL OF MATERIAL

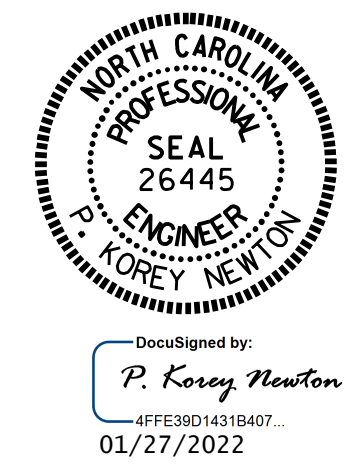
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
* A1	80	#5	STR	30'-1"	2510
* A2	80	#5	STR	30'-1"	2510
* B1	21	#4	STR	39'-5"	553
* B2	36	#5	STR	39'-5"	1480
* B3	24	#4	STR	39'-5"	632
* B4	160	#4	1	6'-5"	686
* B5	158	#4	STR	3'-4"	352
* G1	2	#5	STR	30'-1"	63
* K1	16	#5	2	4'-10"	81
* K2	16	#5	3	7'-6"	125
* K3	16	#5	STR	5'-10"	97
* S1	64	#4	4	3'-8"	157
* EPOXY COATED REINFORCING STEEL					9246 LBS.
CLASS AA CONCRETE					42.8 CU. YDS.
GROOVING BRIDGE FLOOR					997 SQ. FT.

— SUPERSTRUCTURE BILL OF MATERIAL —

	CLASS AA CONCRETE (CU.YDS.)	EPOXY COATED REINFORCING STEEL (LBS.)
SPAN 25	42.8	9246
TOTALS**	42.8	9246

** QUANTITIES FOR CLASSIC CONCRETE BRIDGE RAIL ARE NOT INCLUDED.

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
STATION: 060028

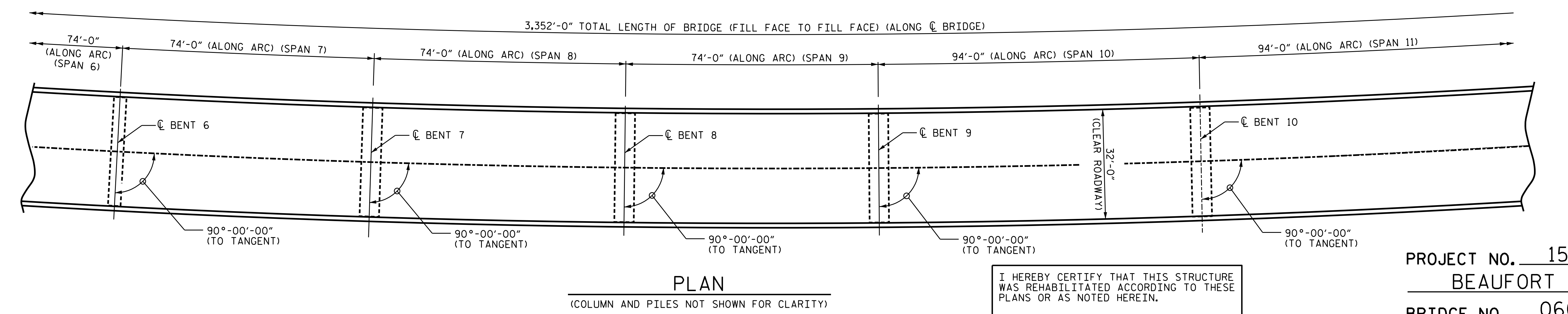
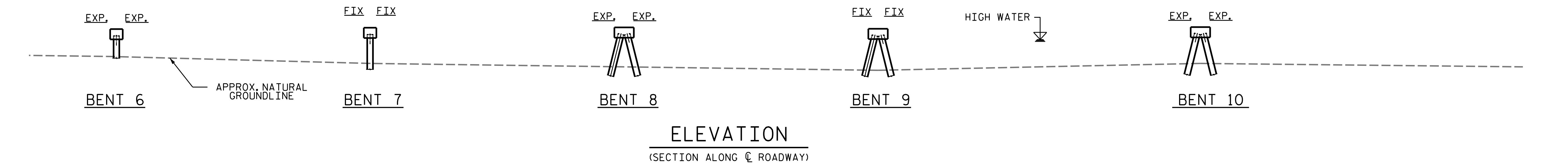
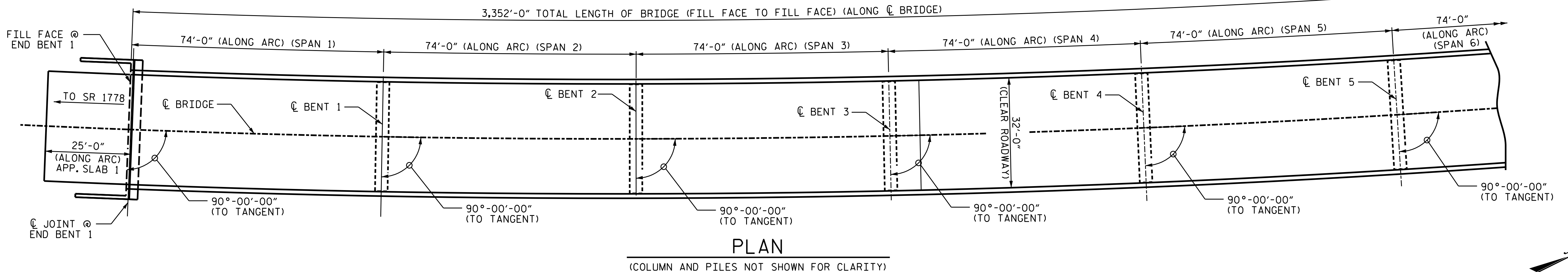


STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
STANDARD
SUPERSTRUCTURE
BILL OF MATERIAL
(SPAN 25)

ASSEMBLED BY : M.K. BEARD	DATE : 12/14/21
CHECKED BY : O.T. NGUYEN	DATE : 12/2021
DRAWN BY : JMB 5/87	REV. 10/1/11 MAA/GM
CHECKED BY : SJD 9/87	REV. 12/17 MAA/THC
	REV. 06/19 BNB/THC

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S3-78
1			3			TOTAL SHEETS
2			4			78

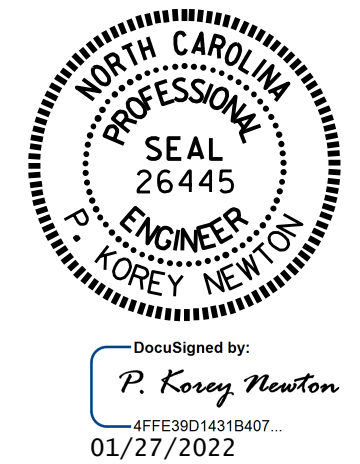


I HEREBY CERTIFY THAT THIS STRUCTURE WAS REHABILITATED ACCORDING TO THESE PLANS OR AS NOTED HEREIN.
RESIDENT ENGINEER

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
BRIDGE NO. 060077

SHEET 1 OF 4

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
GENERAL DRAWING
FOR BRIDGE ON
NC 99 OVER PANTEGO CREEK
BETWEEN
SR 1778 AND US 264



- SCOPE OF WORK**
- BRIDGE DECK PREPARATION WITH SHOTBLASTING METHODS.
 - PERFORM DECK REPAIRS IN PREPARED AREAS.
 - APPLY SILANE DECK TREATMENT.
 - REMOVE EXISTING ELASTOMERIC CONCRETE AND JOINT MATERIAL.
 - RECONSTRUCT BRIDGE JOINTS WITH ELASTOMERIC CONCRETE AND INSTALL FOAM JOINT SEAL.

NOTES

GENERAL DRAWING INFORMATION IS TAKEN FROM THE ORIGINAL PLANS AND THE ROUTINE INSPECTION REPORT DATED 06/04/2020.

BRIDGE ORIENTATION CONFORMS TO THE ORIGINAL BRIDGE PLANS.

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

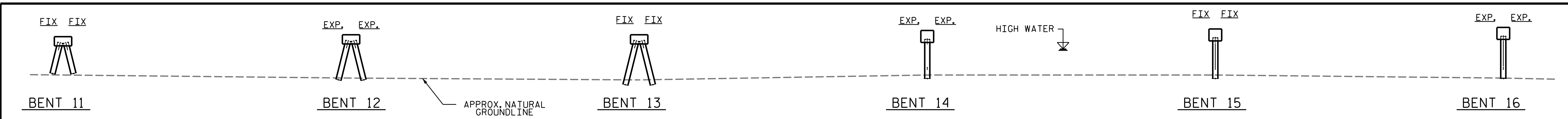
UNANTICIPATED ITEMS:

ITEM NO.	DESCRIPTION	UNIT
1	CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT	SO. FT.

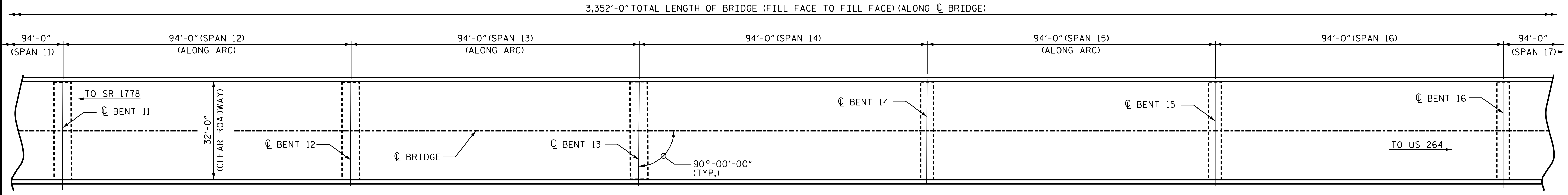
DRAWN BY : S. T. SANDOR DATE : 05/2021
CHECKED BY : W. C. SMITH DATE : 12/2021

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S4-1
1			3			TOTAL SHEETS
2			4			17

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



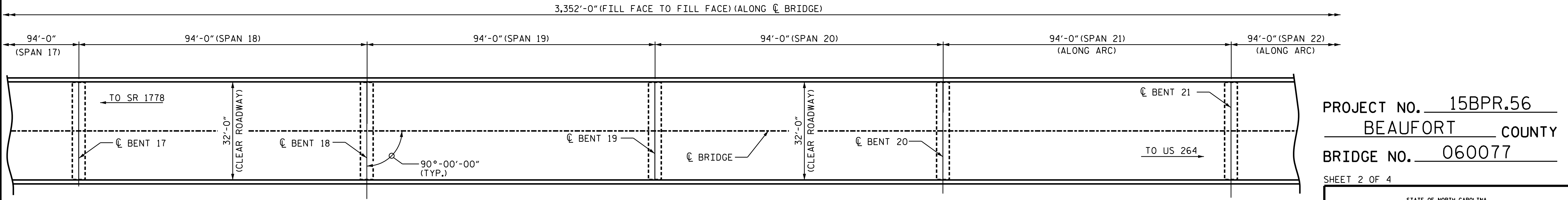
ELEVATION
(SECTION ALONG CL ROADWAY)



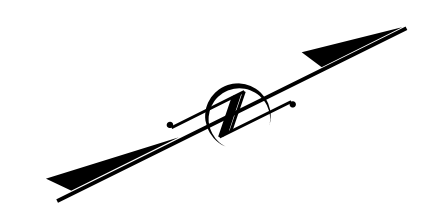
PLAN
(COLUMN AND PILES NOT SHOWN FOR CLARITY)



ELEVATION
(SECTION ALONG CL ROADWAY)



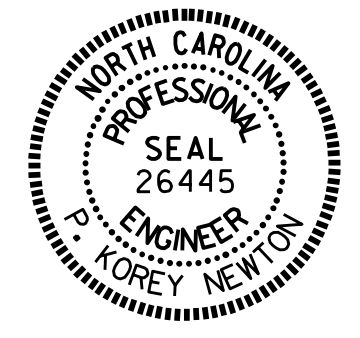
PLAN
(COLUMN AND PILES NOT SHOWN FOR CLARITY)



PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060077

SHEET 2 OF 4

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
GENERAL DRAWING
 FOR BRIDGE ON
 NC 99 OVER PANTEGO CREEK
 BETWEEN
 SR 1778 AND US 264

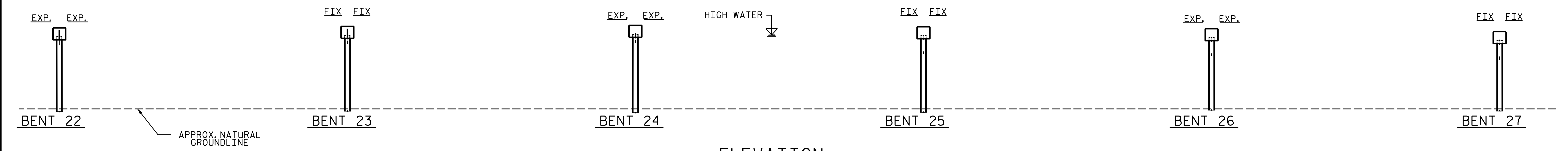


DocuSigned by:
P. Corey Newton
 4FFE38D1431B407
 01/27/2022

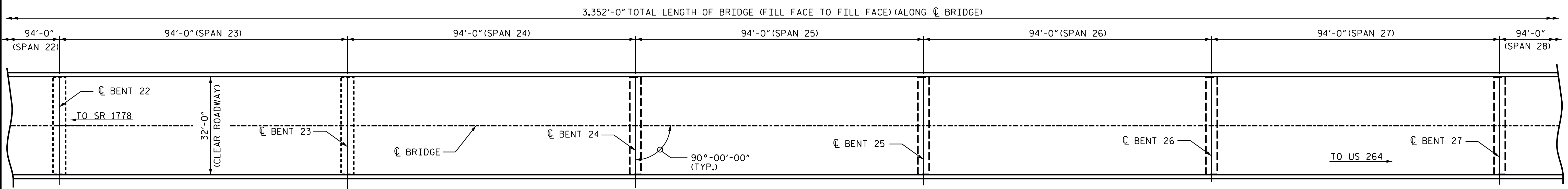
DRAWN BY : S. T. SANDOR DATE : 05/2021
 CHECKED BY : W. C. SMITH DATE : 12/2021

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

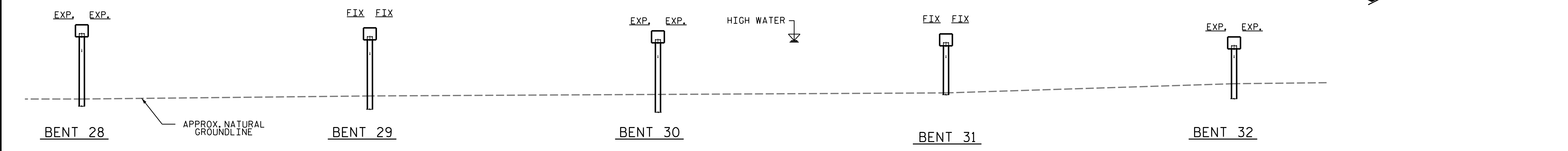
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S4-2
1			3			TOTAL SHEETS
2			4			17



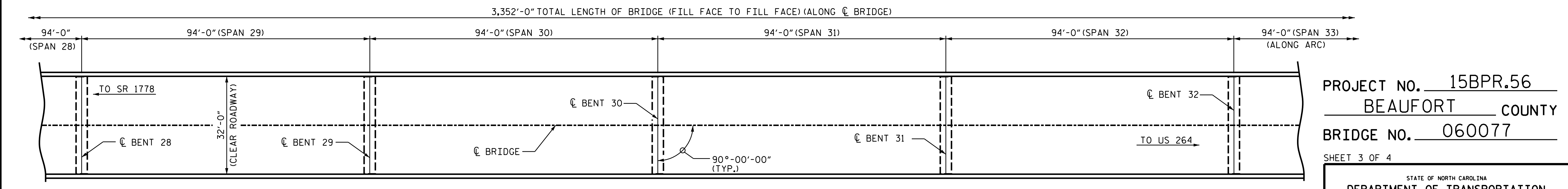
ELEVATION
(SECTION ALONG C ROADWAY)



PLAN
(COLUMN AND PILES NOT SHOWN FOR CLARITY)



ELEVATION
(SECTION ALONG C ROADWAY)



PLAN
(COLUMN AND PILES NOT SHOWN FOR CLARITY)

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060077

SHEET 3 OF 4



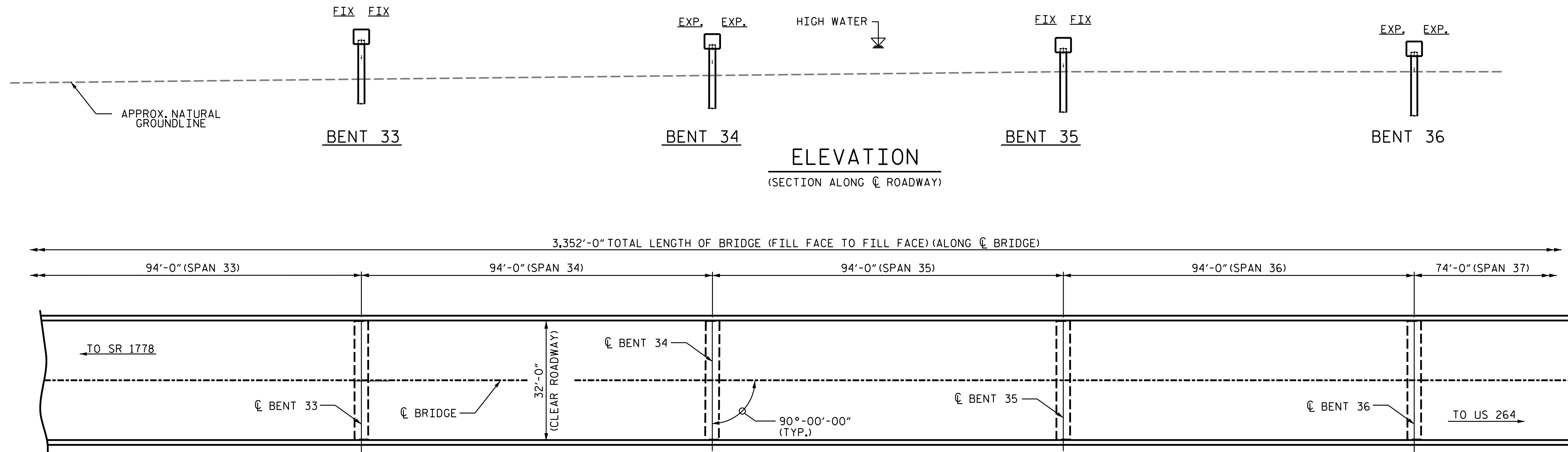
DocuSigned by:
P. Korey Newton
 4FFE38D143B407
 01/27/2022

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
GENERAL DRAWING
 FOR BRIDGE ON
 NC 99 OVER PANTEGO CREEK
 BETWEEN
 SR 1778 AND US 264

DRAWN BY : S. T. SANDOR DATE : 05/2021
 CHECKED BY : W. C. SMITH DATE : 12/2021

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S4-3
1			3			TOTAL SHEETS 17
2			4			

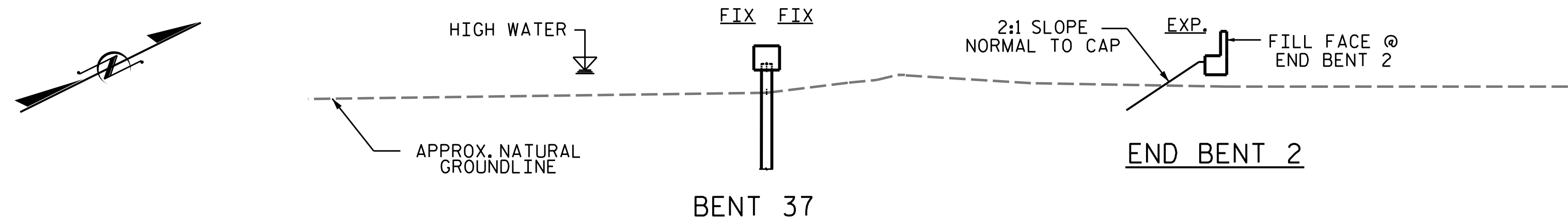


ELEVATION
(SECTION ALONG C ROADWAY)

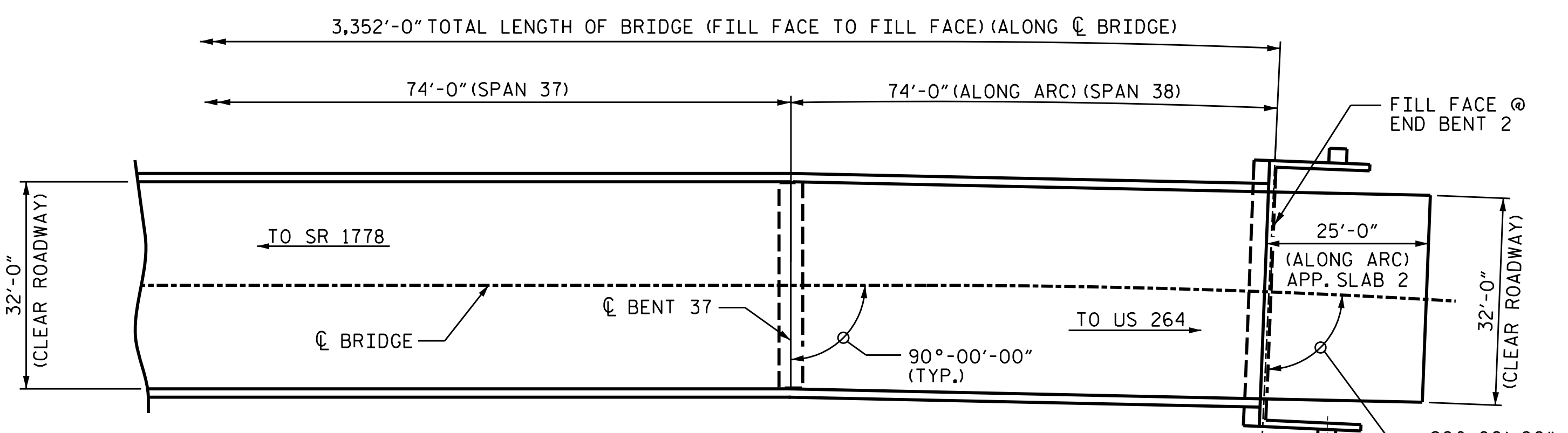
3,352'-0" TOTAL LENGTH OF BRIDGE (FILL FACE TO FILL FACE) (ALONG C BRIDGE)

94'-0" (SPAN 33) 94'-0" (SPAN 34) 94'-0" (SPAN 35) 94'-0" (SPAN 36) 74'-0" (SPAN 37)

PLAN
(COLUMN AND PILES NOT SHOWN FOR CLARITY)



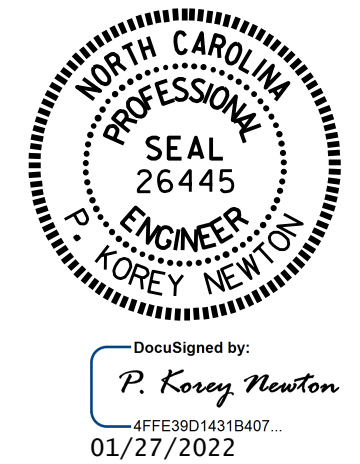
ELEVATION
(SECTION ALONG C ROADWAY)



PLAN
(COLUMN AND PILES NOT SHOWN FOR CLARITY)

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060077

SHEET 4 OF 4

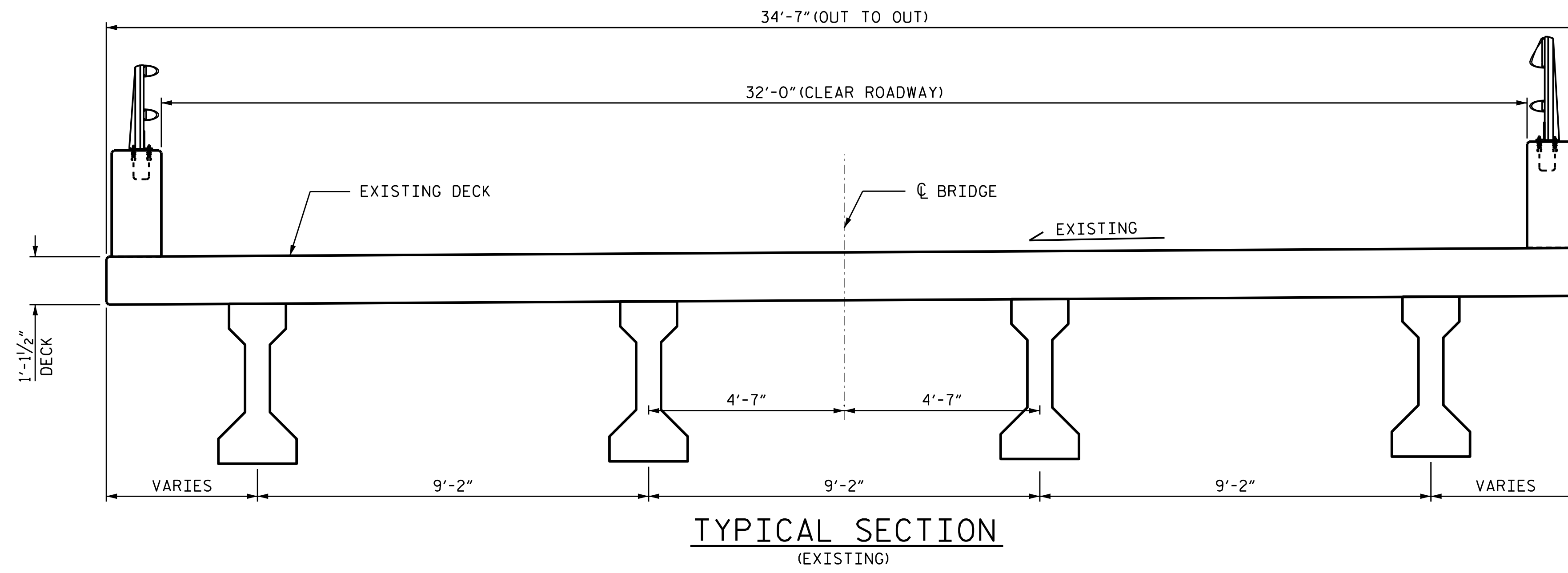


STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
GENERAL DRAWING
 FOR BRIDGE ON
 NC 99 OVER PANTEGO CREEK
 BETWEEN
 SR 1778 AND US 264

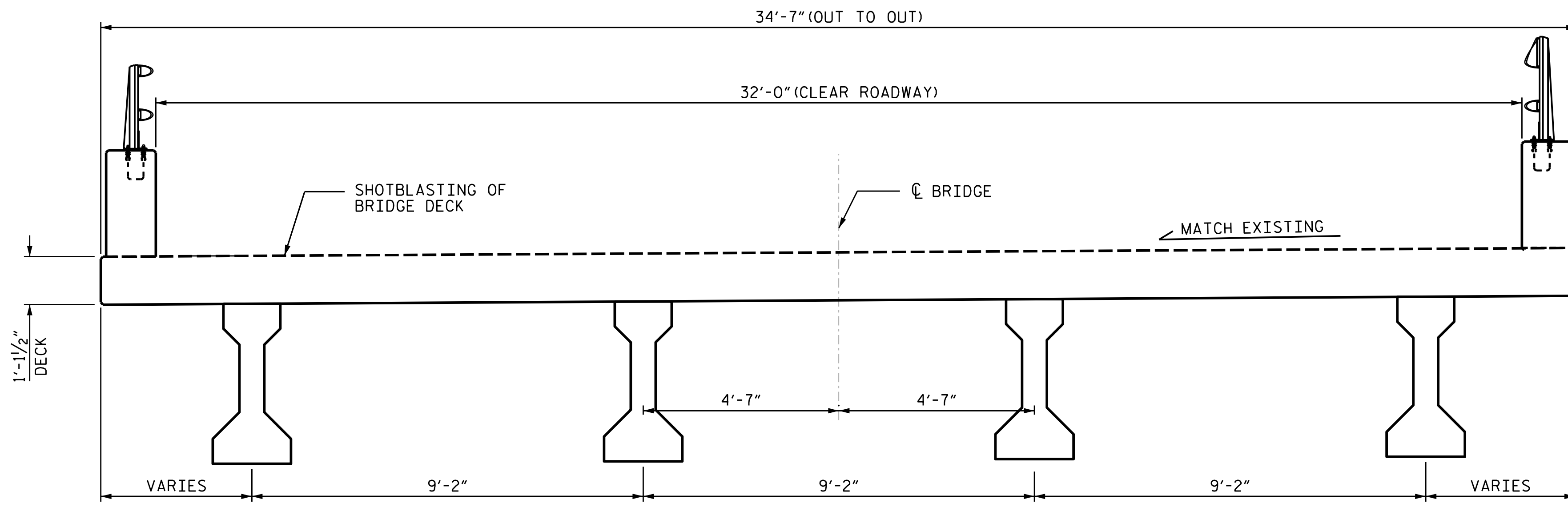
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S4-4
1			3			TOTAL SHEETS
2			4			17

DRAWN BY : S. T. SANDOR DATE : 05/2021
 CHECKED BY : W. C. SMITH DATE : 12/2021

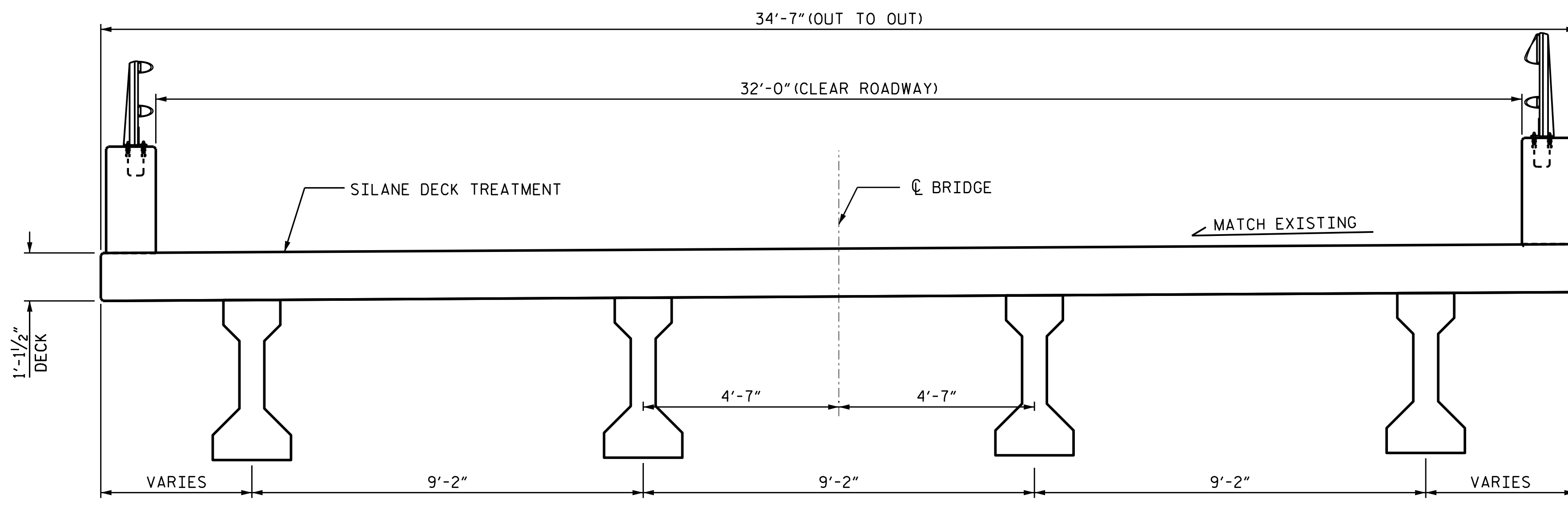
DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED



TYPICAL SECTION
(EXISTING)



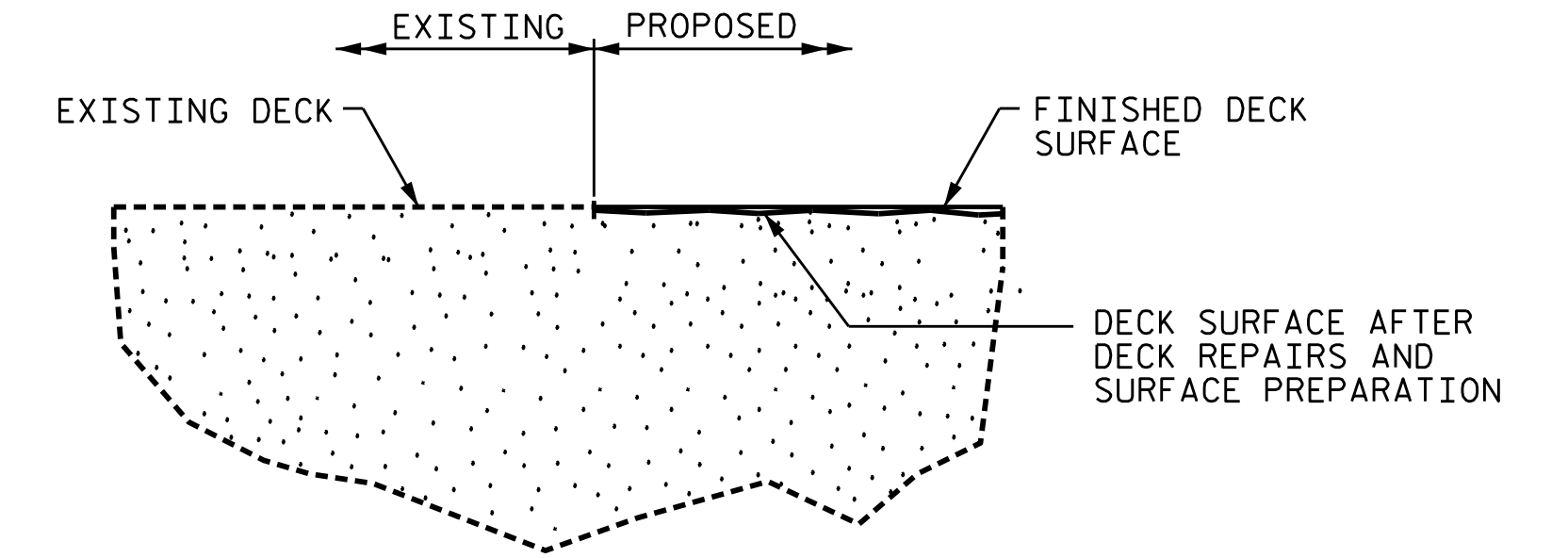
TYPICAL SECTION
(AFTER DECK PREPARATION)



TYPICAL SECTION
(PROPOSED)

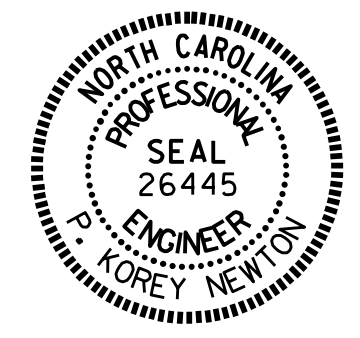
NOTES

SEE TRANSPORTATION MANAGEMENT PLANS FOR LANE WIDTHS, SEQUENCING AND OTHER TRAFFIC CONTROL MEASURES FOR STAGING OF OVERLAY SURFACE PREPARATION AND SILANE DECK TREATMENT.
FOR SILANE DECK TREATMENT, SEE SPECIAL PROVISIONS.
FOR CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT, SEE SPECIAL PROVISIONS.
GIRDER TYPE VARIES.



DETAIL FOR
SILANE DECK TREATMENT

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
BRIDGE NO. 060077

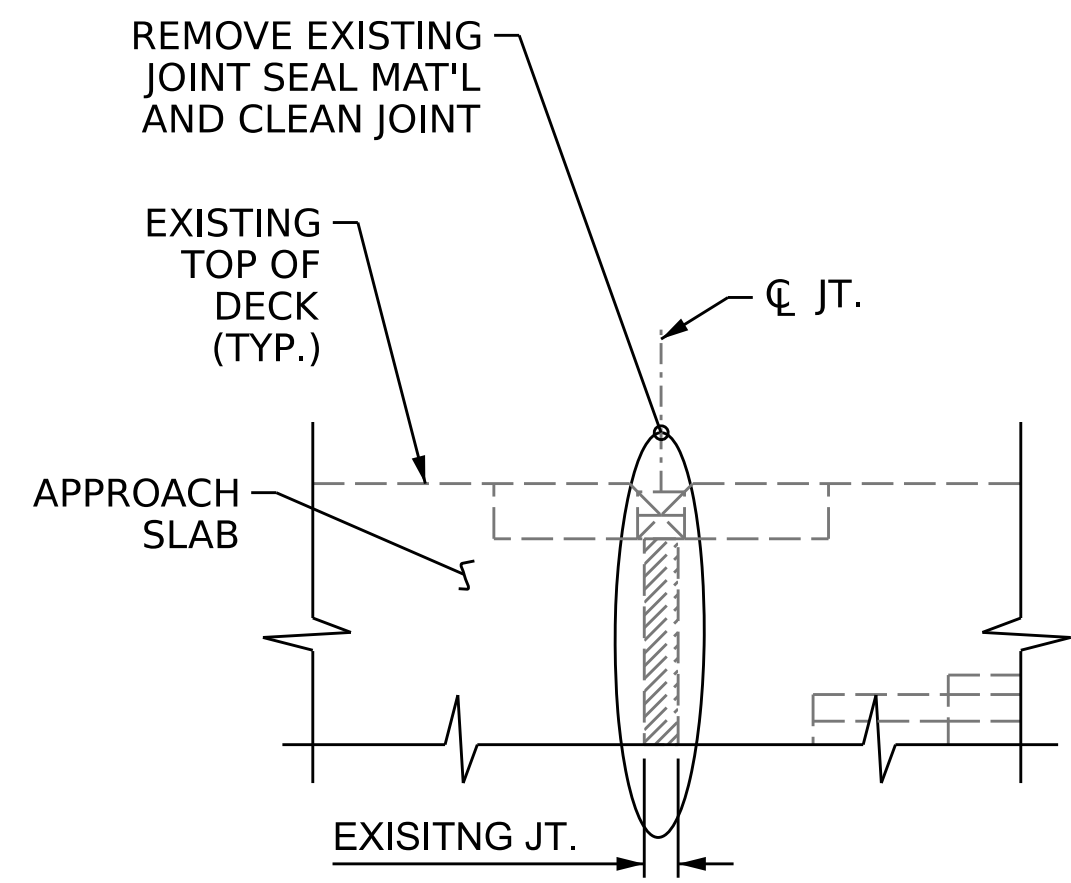


STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
TYPICAL SECTION
AND SILANE DECK
TREATMENT
DETAILS

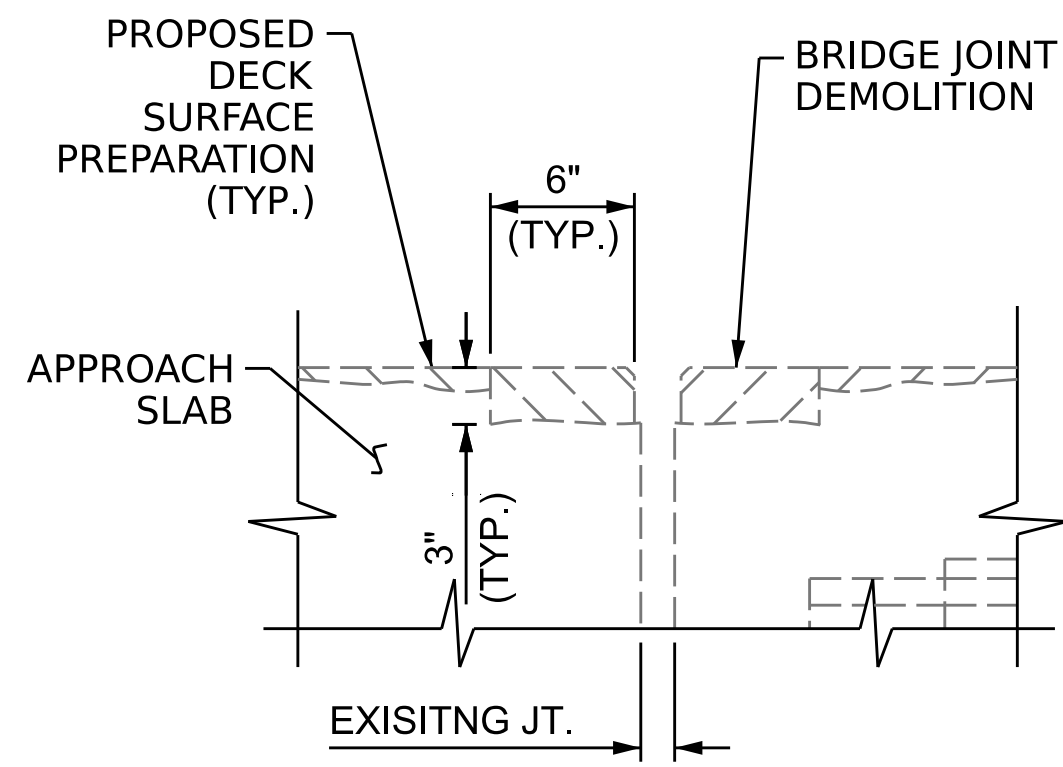
DRAWN BY : S. T. SANDOR DATE : 08/2020
CHECKED BY : W. C. SMITH DATE : 12/2021

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S4-5
1			3			TOTAL SHEETS
2			4			17

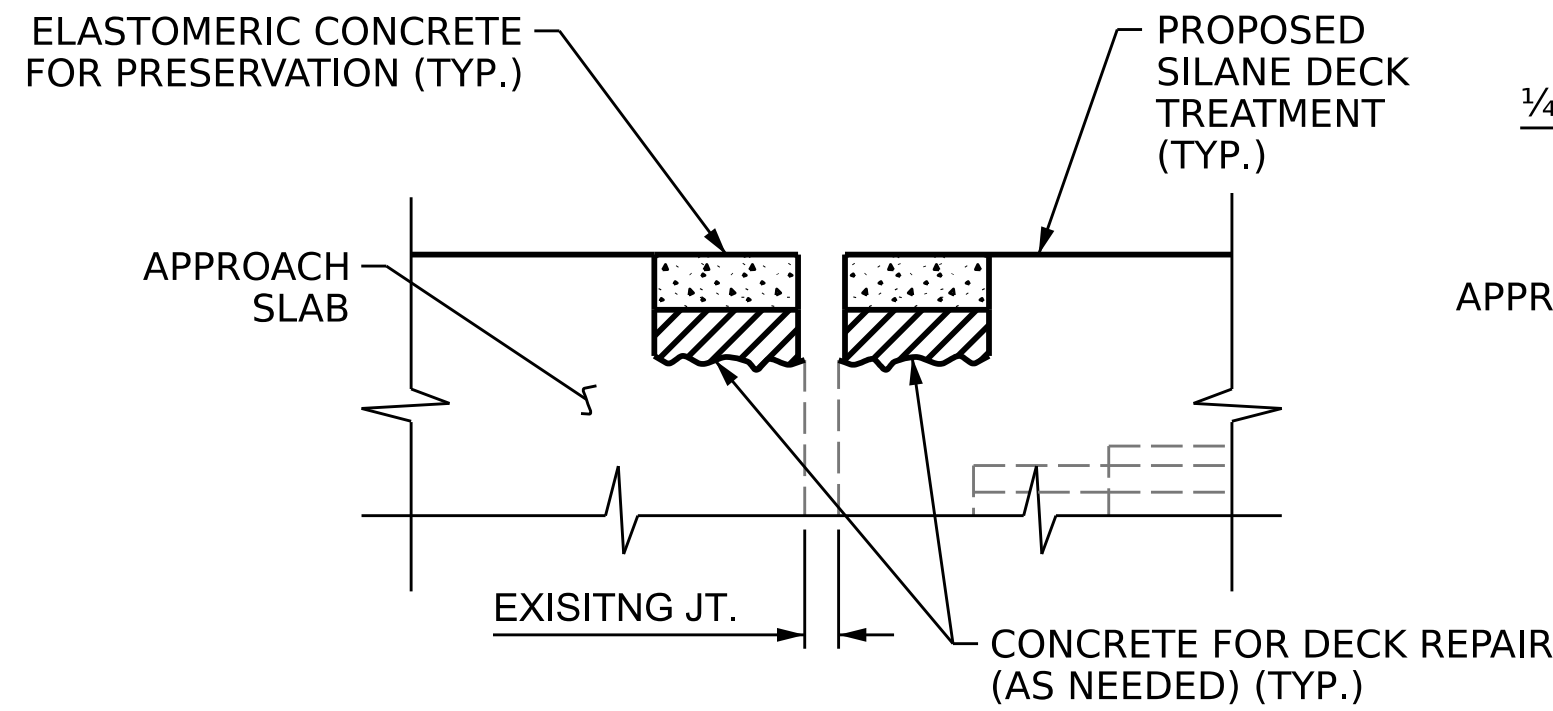
DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED



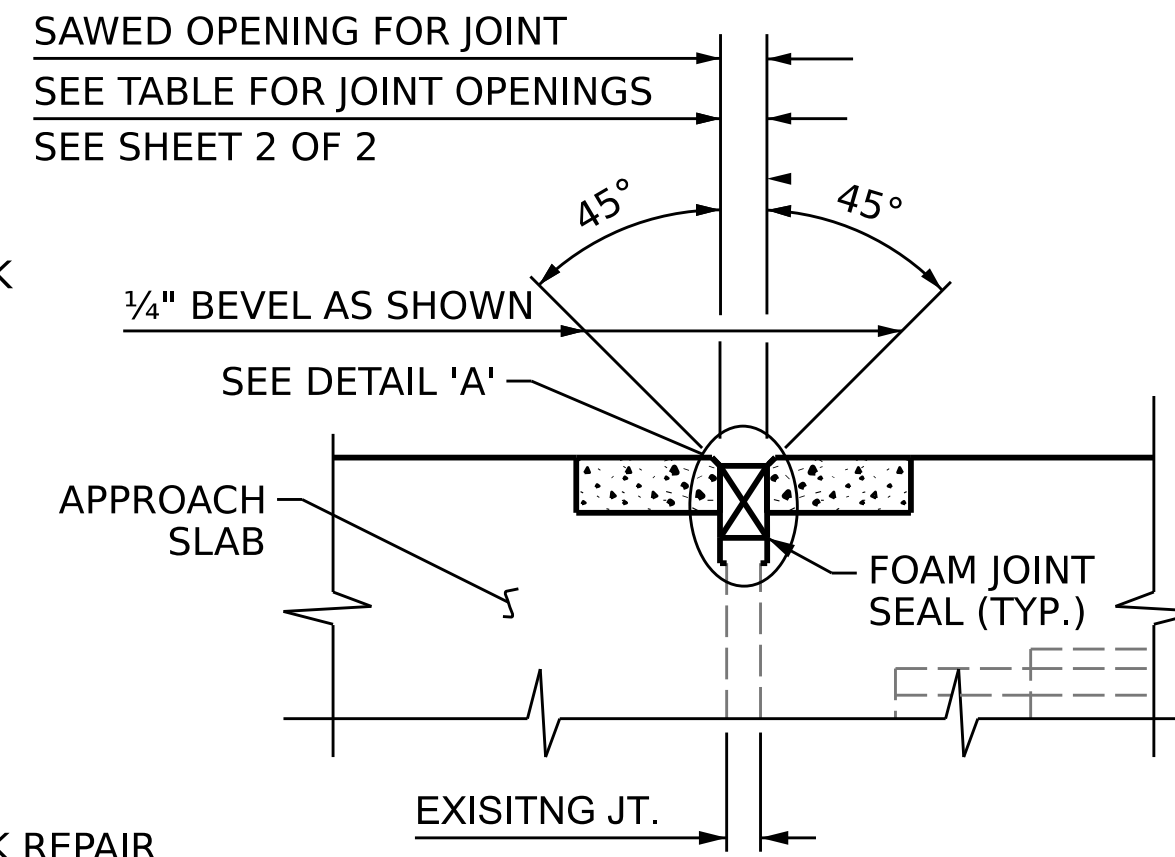
EXISTING JOINT SEAL



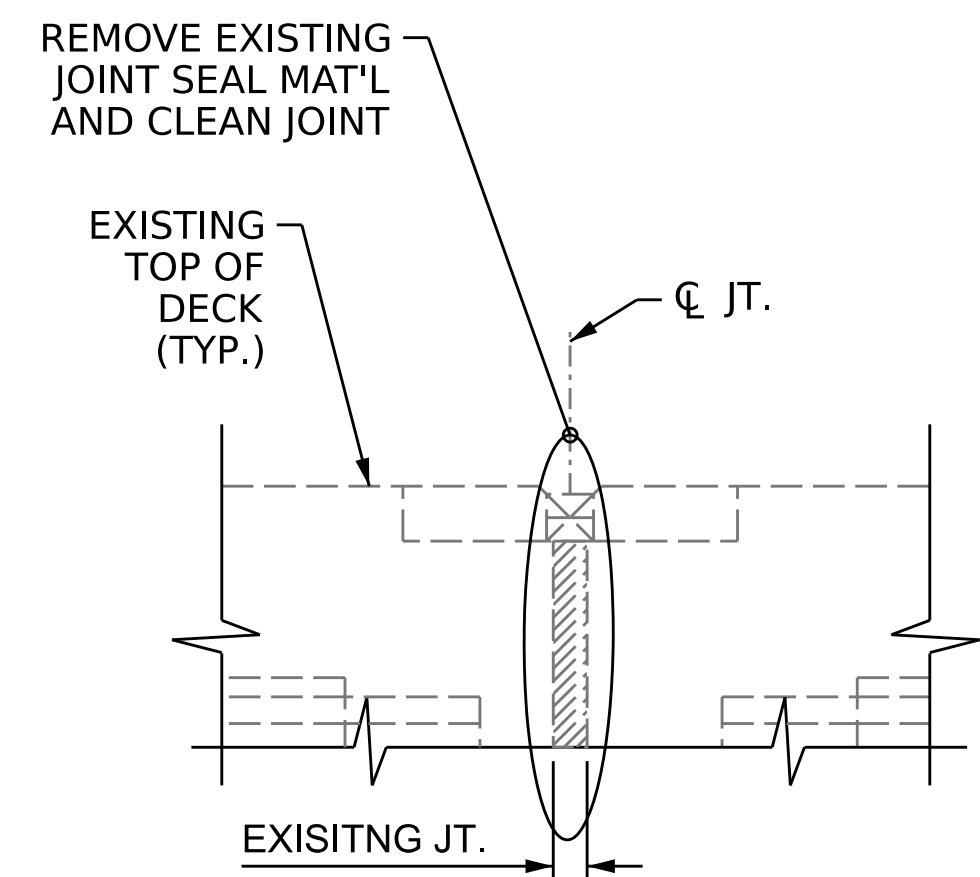
EXISTING JOINT AFTER JOINT DEMOLITION



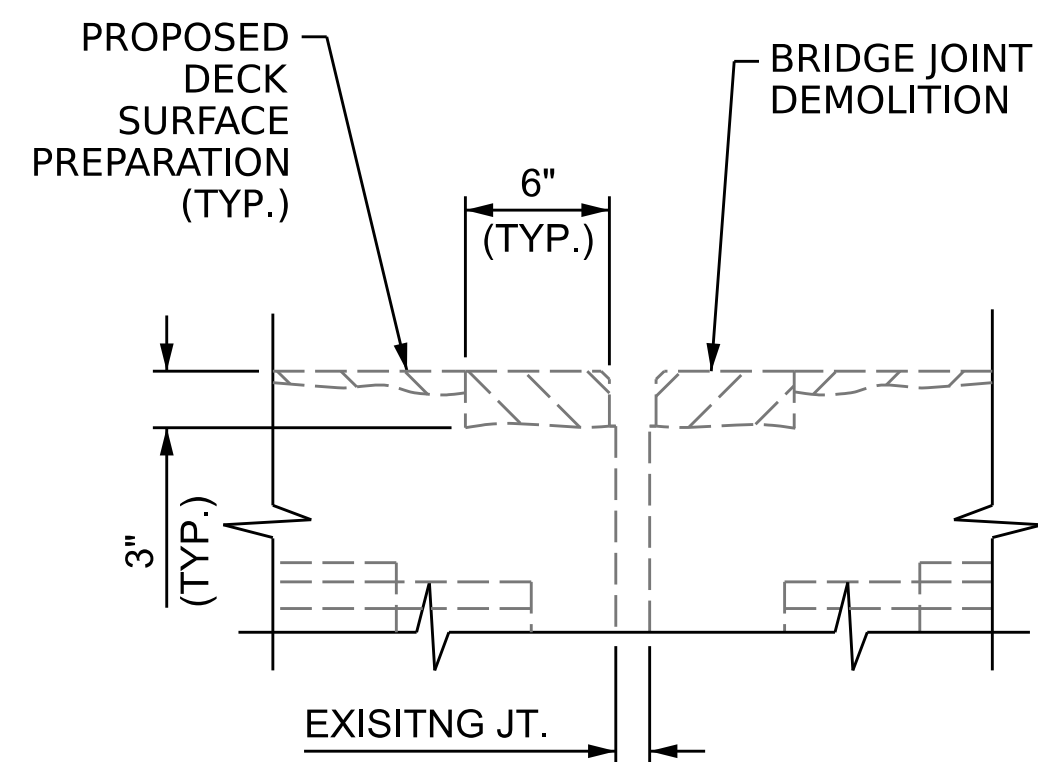
PROPOSED JOINT PRIOR TO SAWING



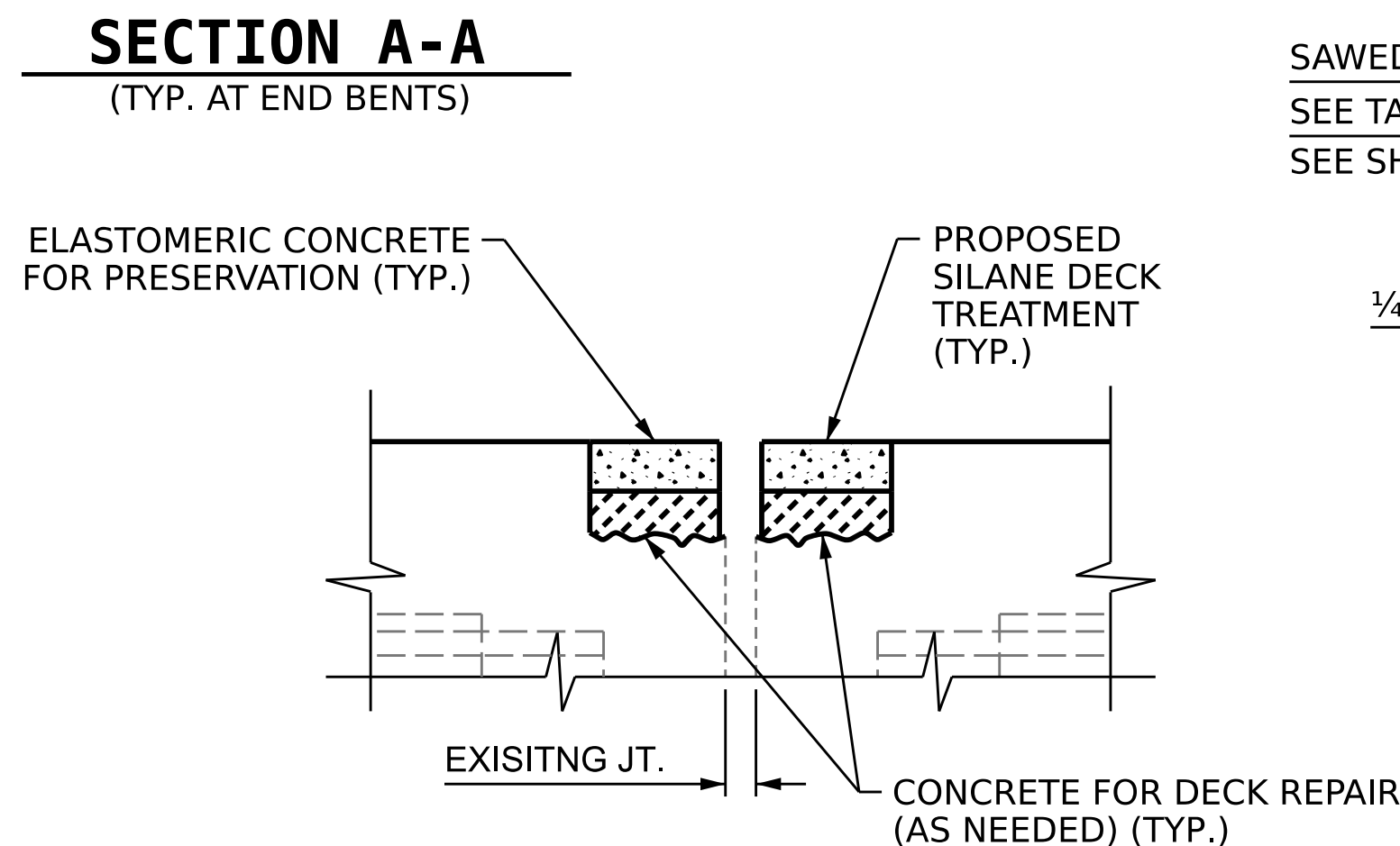
PROPOSED FOAM JOINT SEAL



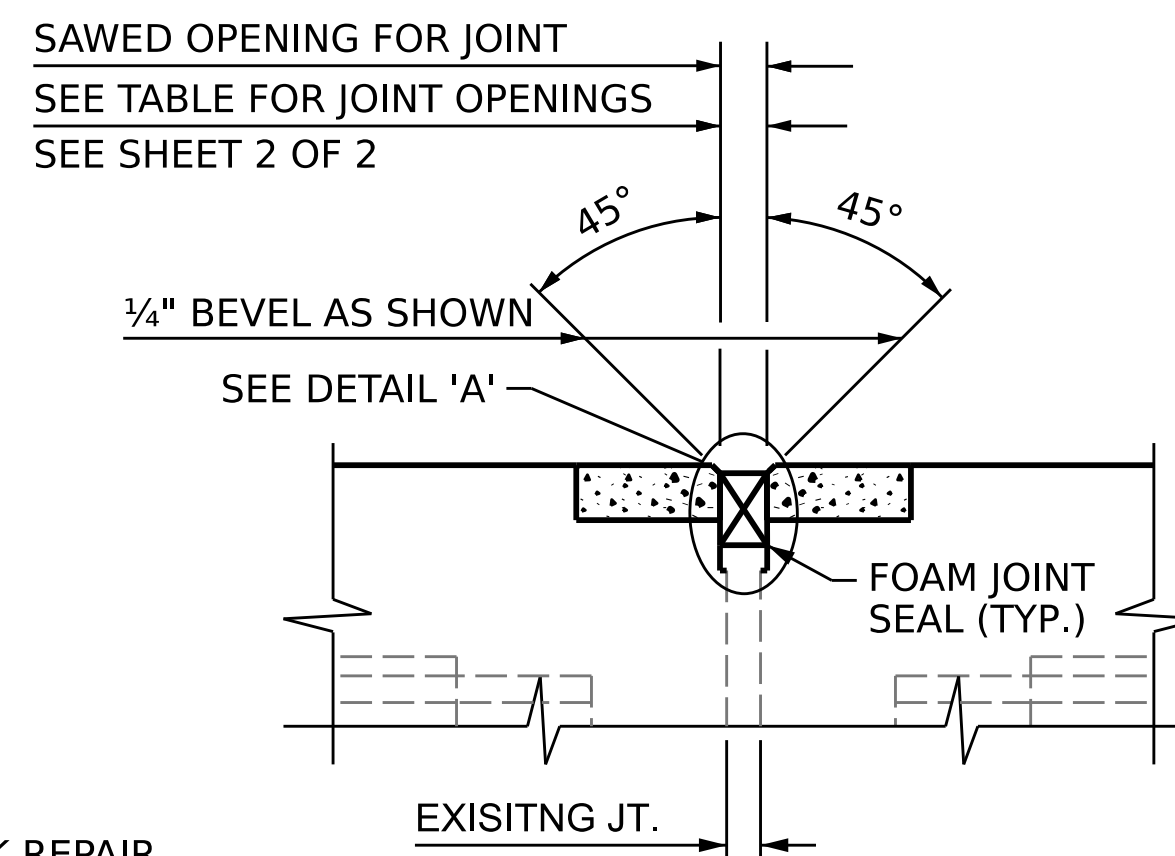
EXISTING JOINT SEAL



EXISTING JOINT AFTER JOINT DEMOLITION



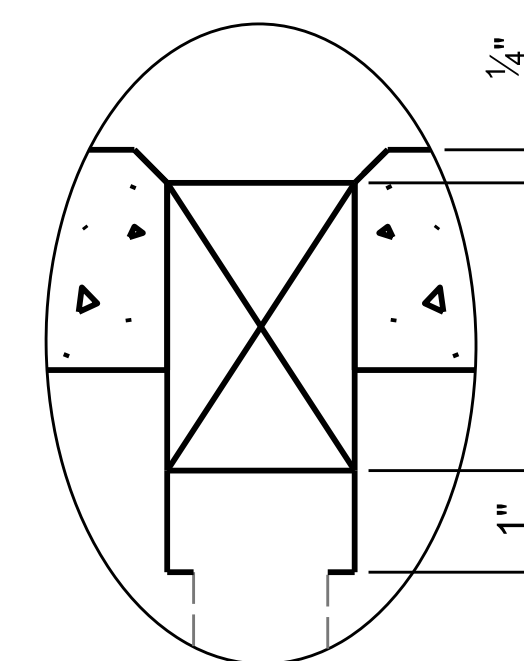
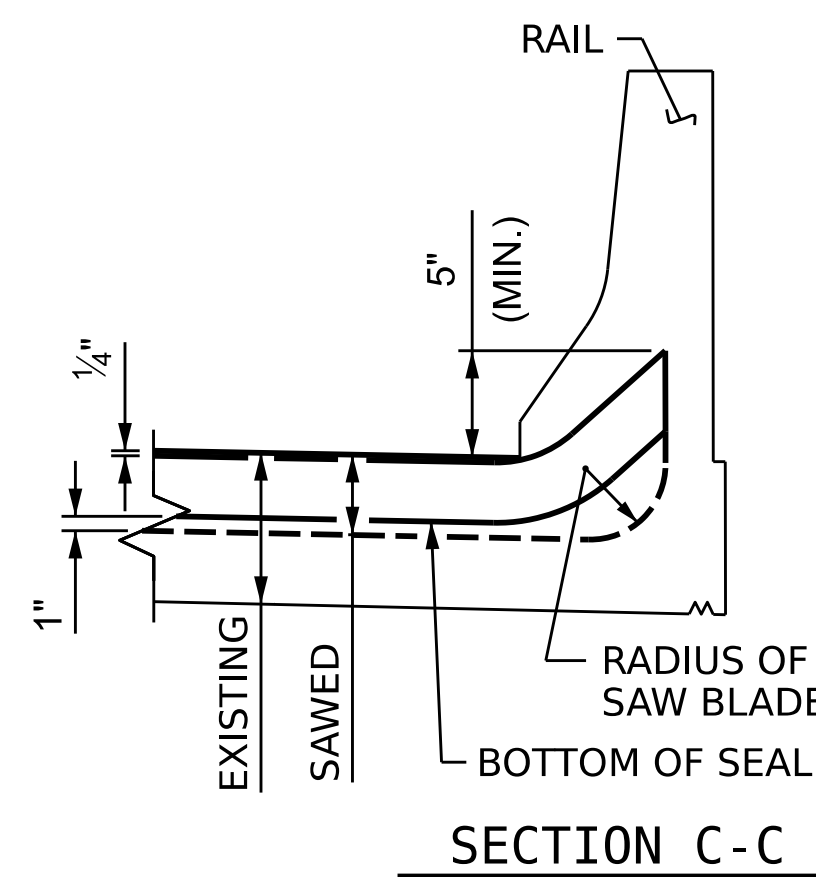
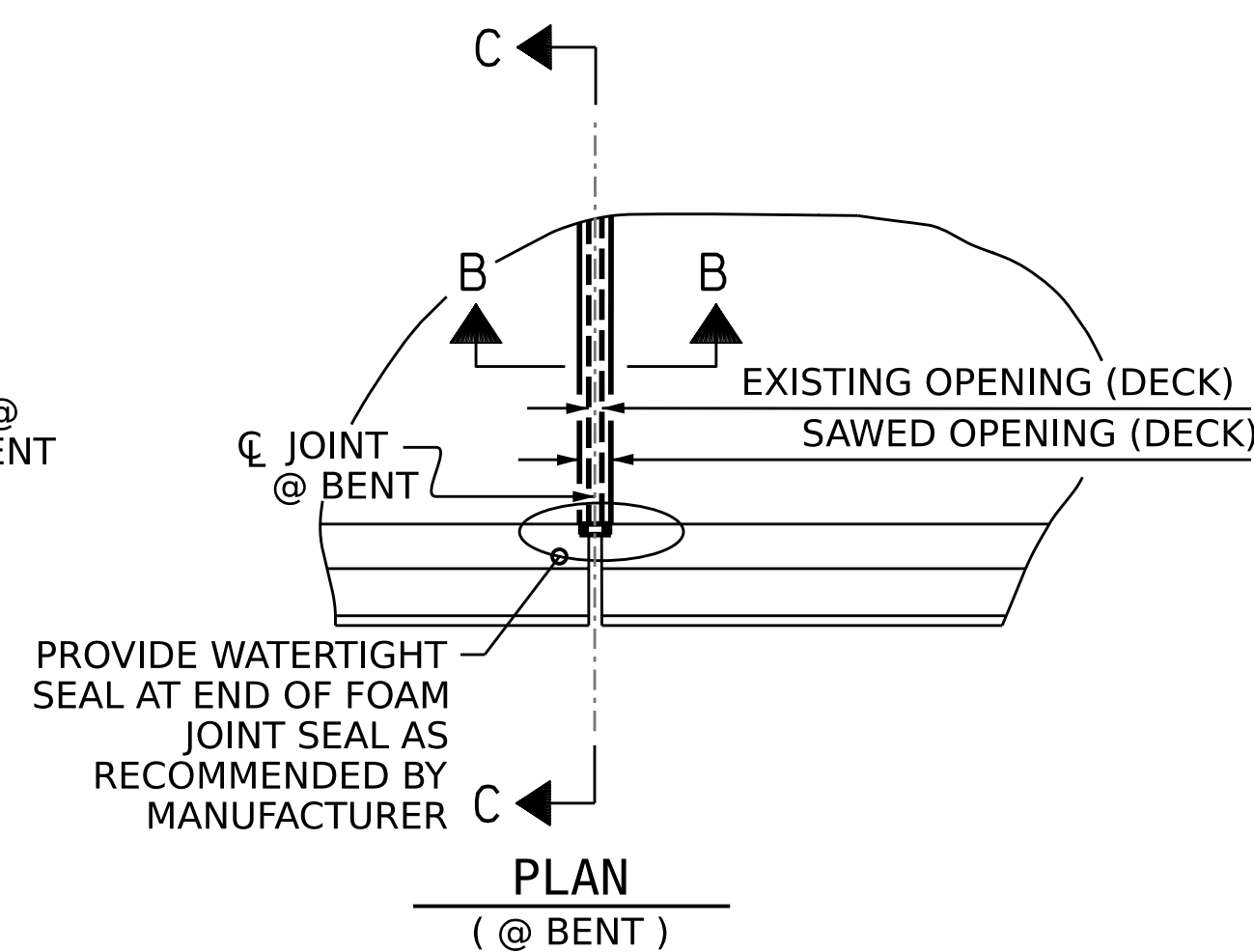
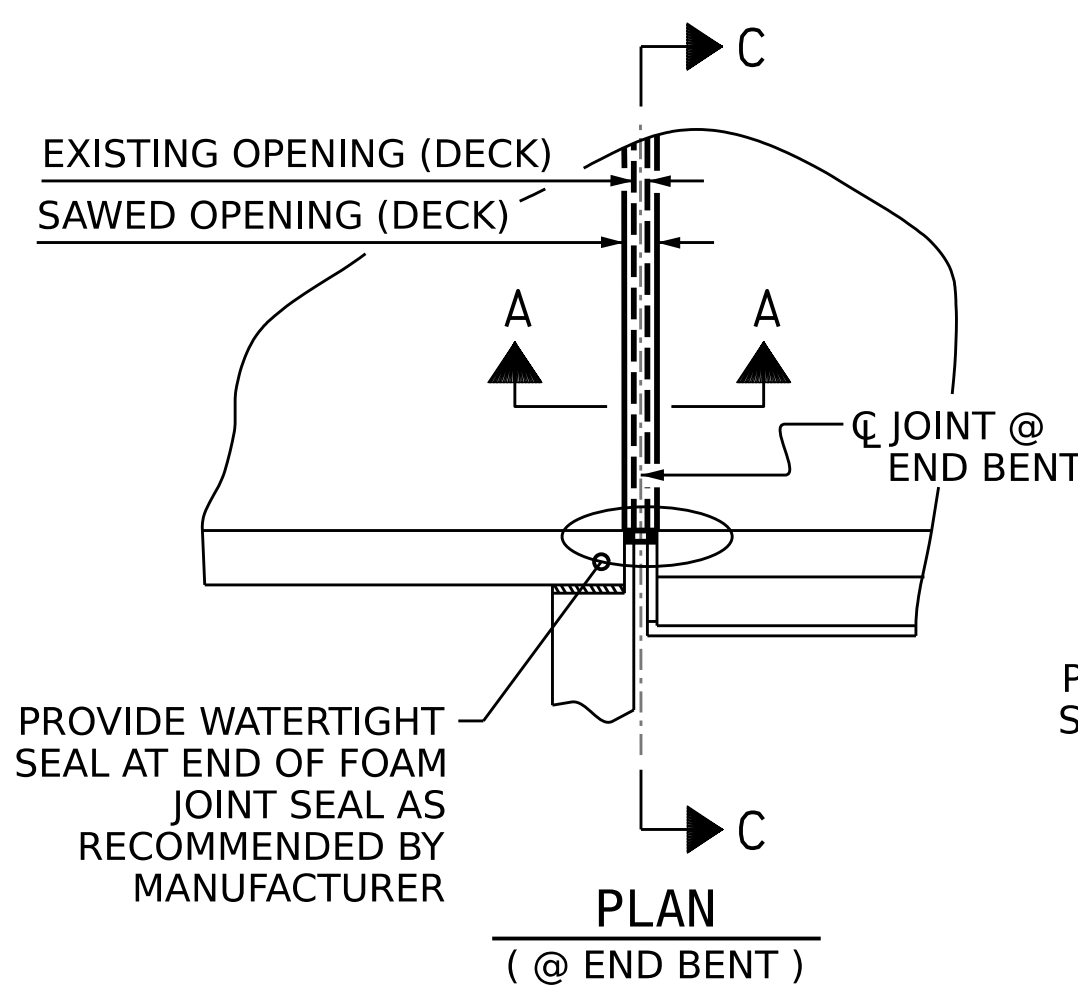
PROPOSED JOINT PRIOR TO SAWING



PROPOSED FOAM JOINT SEAL

SECTION A-A
(TYP. AT END BENTS)

SECTION B-B
(TYP. AT BENTS)



JOINT SEAL DETAILS

ASSEMBLED BY : S. T. SANDOR DATE : 01/2022
 CHECKED BY : P. K. NEWTON DATE : 01/2022
 DRAWN BY : NAP 08/2018
 CHECKED BY : -

1/25/2022
 R:\Structures\Plans\Bridges\060077\404.011.15BPR.56_SMU.JT1.006.060077.dgn
 pknewton

NOTES

FINAL JOINT SEALS SHALL NOT BE INSTALLED UNTIL THE OVERLAY OR SEALANT WORK IS COMPLETE.

THE CONTRACTOR SHALL FIELD VERIFY THE EXISTING JOINT OPENING PRIOR TO ORDERING JOINT SEAL MATERIAL. IF THE ACTUAL JOINT OPENING VARIES FROM THE OPENING INDICATED IN THE DETAILS BY MORE THAN 1/4", NOTIFY THE ENGINEER.

THE MANUFACTURER IS TO PROVIDE THE NOMINAL UNCOMPRESSED SEAL WIDTH OF THE FOAM JOINT SEAL FOR THE SIZE OF THE OPENING ON THE PLANS AND ACCOMMODATE THE MINIMUM EXPANSION SHOWN ON THE PLANS.

FOAM JOINTS SHALL BE INSTALLED AS PER THE MANUFACTURER'S RECOMMENDATIONS.

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

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

THE INSTALLED FOAM JOINTS SHALL BE WATER TIGHT.

FOR FOAM JOINT SEALS FOR PRESERVATION, SEE SPECIAL PROVISIONS.

THE CONTRACTOR SHALL SAW CUT TO A NOMINAL DEPTH OF 1/2" BUT REINFORCING STEEL SHALL NOT BE DAMAGED. CONTRACTOR SHALL REMOVE SURFACE CONCRETE TO VERIFY THAT SAWCUT DEPTH WILL NOT DAMAGE EXISTING REINFORCING STEEL.

QUANTITIES SHOWN IN THE ELASTOMERIC CONCRETE FOR PRESERVATION TABLE ARE BASED ON THE MINIMUM JOINT DEMOLITION SHOWN.

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

FOR EXCAVATION BELOW THE BOTTOM OF PLANNED JOINT DEMOLITION, CONCRETE FOR DECK REPAIR SHALL BE PLACED IN THE EXCAVATED AREA TO THE ELEVATION AT THE BOTTOM OF THE PROPOSED ELASTOMERIC CONCRETE FOR PRESERVATION HEADERS SHOWN.

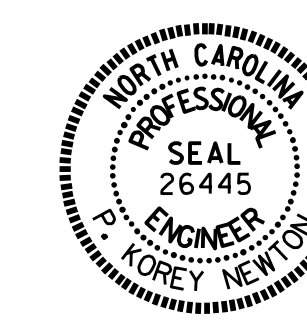
FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.

FOR ELASTOMERIC CONCRETE FOR PRESERVATION, SEE SPECIAL PROVISIONS.

FOR CONCRETE FOR DECK REPAIR, SEE SPECIAL PROVISIONS.

PROJECT NO. **15BPR.56**
BEAUFORT COUNTY
 BRIDGE NO. **060077**

SHEET 1 OF 2



DocuSigned by:
 P. Corey Newton
 AFFE38D1431B407
 01/27/2022

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 STANDARDS

JOINT REPAIR DETAILS

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S4-6
1			3			TOTAL SHEETS 17
2			4			

ELASTOMERIC CONCRETE FOR PRESERVATION

LOCATION	ESTIMATED (CU. FT.)	ACTUAL (CU. FT.)
END BENT 1	8.0	
BENT 2	8.0	
BENT 4	8.0	
BENT 6	8.0	
BENT 8	8.0	
BENT 10	8.0	
BENT 12	8.0	
BENT 14	8.0	
BENT 16	8.0	
BENT 18	8.0	
BENT 20	8.0	
BENT 22	8.0	
BENT 24	8.0	
BENT 26	8.0	
BENT 28	8.0	
BENT 30	8.0	
BENT 32	8.0	
BENT 34	8.0	
BENT 36	8.0	
END BENT 2	8.0	
TOTAL	160.0	

SAWED JOINT OPENING TABLE

LOCATION	SAWED JOINT OPENING (PERPENDICULAR TO JOINT)		
	AT 45°	AT 60°	AT 90°
END BENT 1	2½"	2¾"	2¾"
BENT 2	2¾"	2¾"	2½"
BENT 4	2¾"	2¾"	2½"
BENT 6	2¾"	2¾"	2½"
BENT 8	2¾"	2¾"	2½"
BENT 10	2½"	2¾"	1¾"
BENT 12	2½"	2¾"	1¾"
BENT 14	2½"	2¾"	1¾"
BENT 16	2½"	2¾"	1¾"
BENT 18	2½"	2¾"	1¾"
BENT 20	2½"	2¾"	1¾"
BENT 22	2½"	2¾"	1¾"
BENT 24	2½"	2¾"	1¾"
BENT 26	2½"	2¾"	1¾"
BENT 28	2½"	2¾"	1¾"
BENT 30	2½"	2¾"	1¾"
BENT 32	2½"	2¾"	1¾"
BENT 34	2½"	2¾"	1¾"
BENT 36	2½"	2¾"	1¾"
END BENT 2	2½"	2¾"	2¾"

JOINT REPAIR QUANTITY TABLE

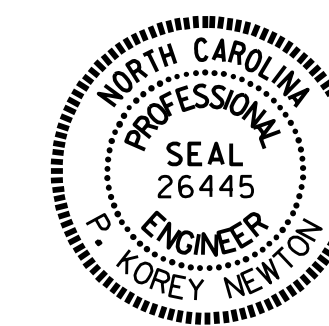
	ESTIMATED	ACTUAL
FOAM JOINT SEALS FOR PRESERVATION	640.0 L.F.	

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060077

SHEET 2 OF 2

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

JOINT REPAIR DETAILS



DocuSigned by:
P. Corey Newton
 4FF3901431B407...
 01/27/2022

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S4-7
2			4			17

DRAWN BY : S. T. SANDOR DATE : 01/2022
 CHECKED BY : W. C. SMITH DATE : 01/2022
 DESIGN ENGINEER OF RECORD: _____ DATE : _____

AS-BUILT REPAIR QUANTITY TABLE

DECK SURFACE REPAIRS - SPANS 1 THROUGH 3

	ESTIMATE	ACTUAL
SHOTBLASTING BRIDGE DECK	784.0 SQ. YDS.	
SILANE DECK TREATMENT	784.0 SQ. YDS.	
CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT	0.0 SQ. FT.	

DECK SURFACE REPAIRS - APPROACH SLAB 1

	ESTIMATE	ACTUAL
SHOTBLASTING BRIDGE DECK	87.1 SQ. YDS.	
SILANE DECK TREATMENT	87.1 SQ. YDS.	
CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT	0.0 SQ. FT.	

BARRIER RAIL REPAIRS

	ESTIMATE	ACTUAL
EPOXY RESIN INJECTION	31.0 LIN. FT.	

JOINT REPAIR

	ESTIMATE	ACTUAL
BRIDGE JOINT DEMOLITION	64.0 SQ. FT.	

NOTES



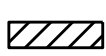
FOR SILANE DECK TREATMENT, SEE SPECIAL PROVISIONS.

FOR CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT, SEE SPECIAL PROVISIONS.

FOR SECTIONS A-A AND B-B, SEE "JOINT REPAIR DETAILS" SHEET.

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.

-  SHOTBLASTING AND SILANE DECK TREATMENT AREA
-  ERI - EPOXY RESIN INJECTION
-  BRIDGE JOINT DEMOLITION

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060077

SHEET 1 OF 10



DocuSigned by:
 P. Corey Newton
 4FEE3D1431B407...
 01/27/2022

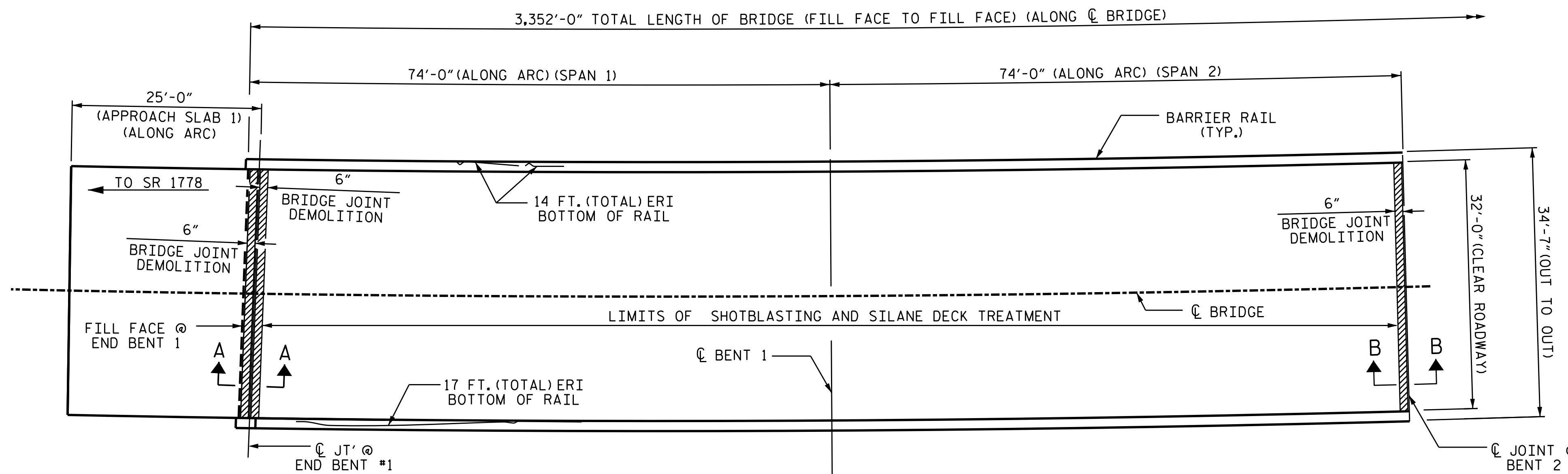
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SUPERSTRUCTURE
 PLAN OF SPANS
 AND
 APPROACH SLAB 1

REVISIONS

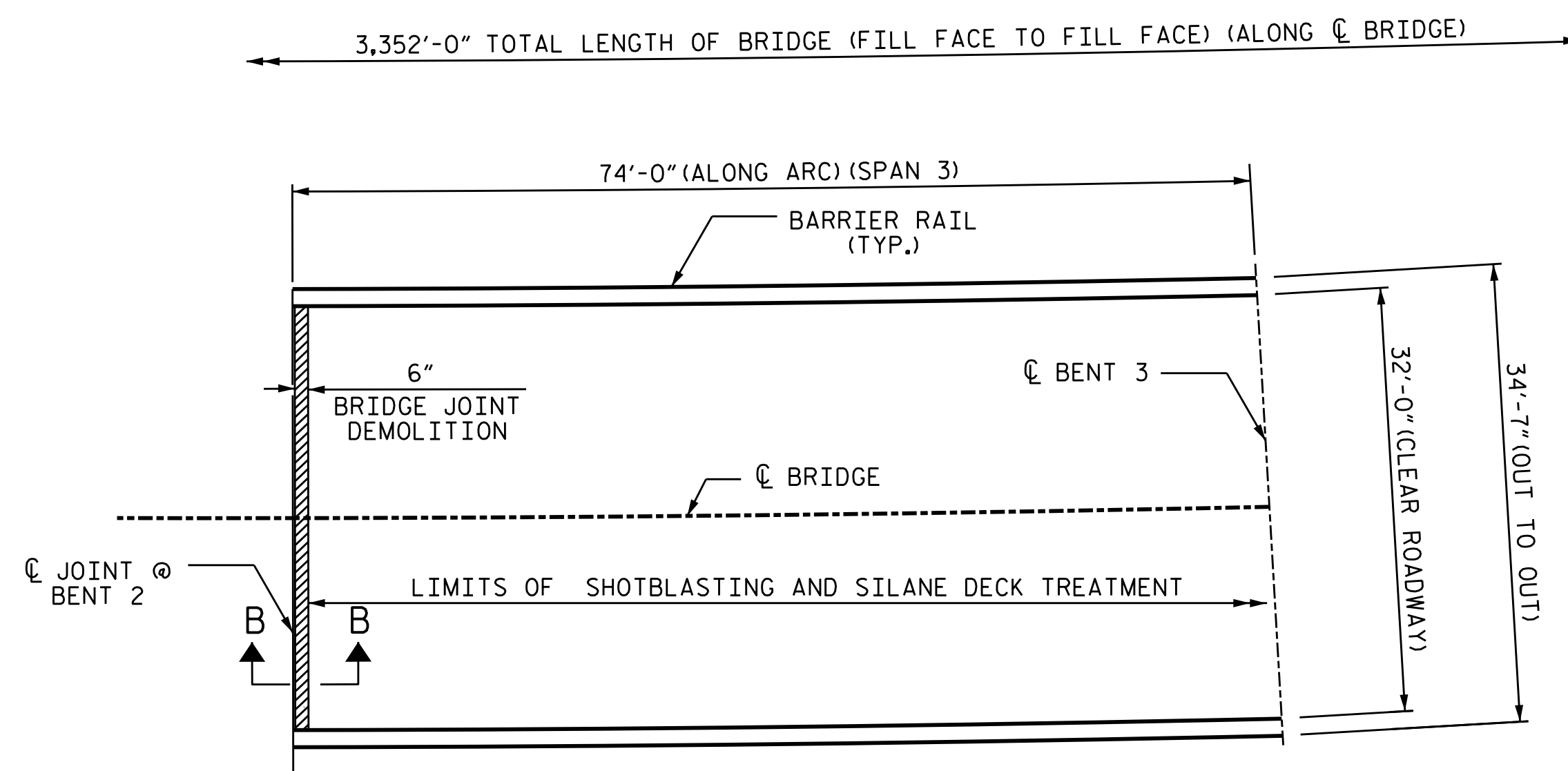
NO.	BY:	DATE:	NO.	BY:	DATE:	SHEET NO.
1			3			S4-8
2			4			TOTAL SHEETS 17

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED



PLAN

(APPROACH SLAB 1 AND SPANS 1 & 2)



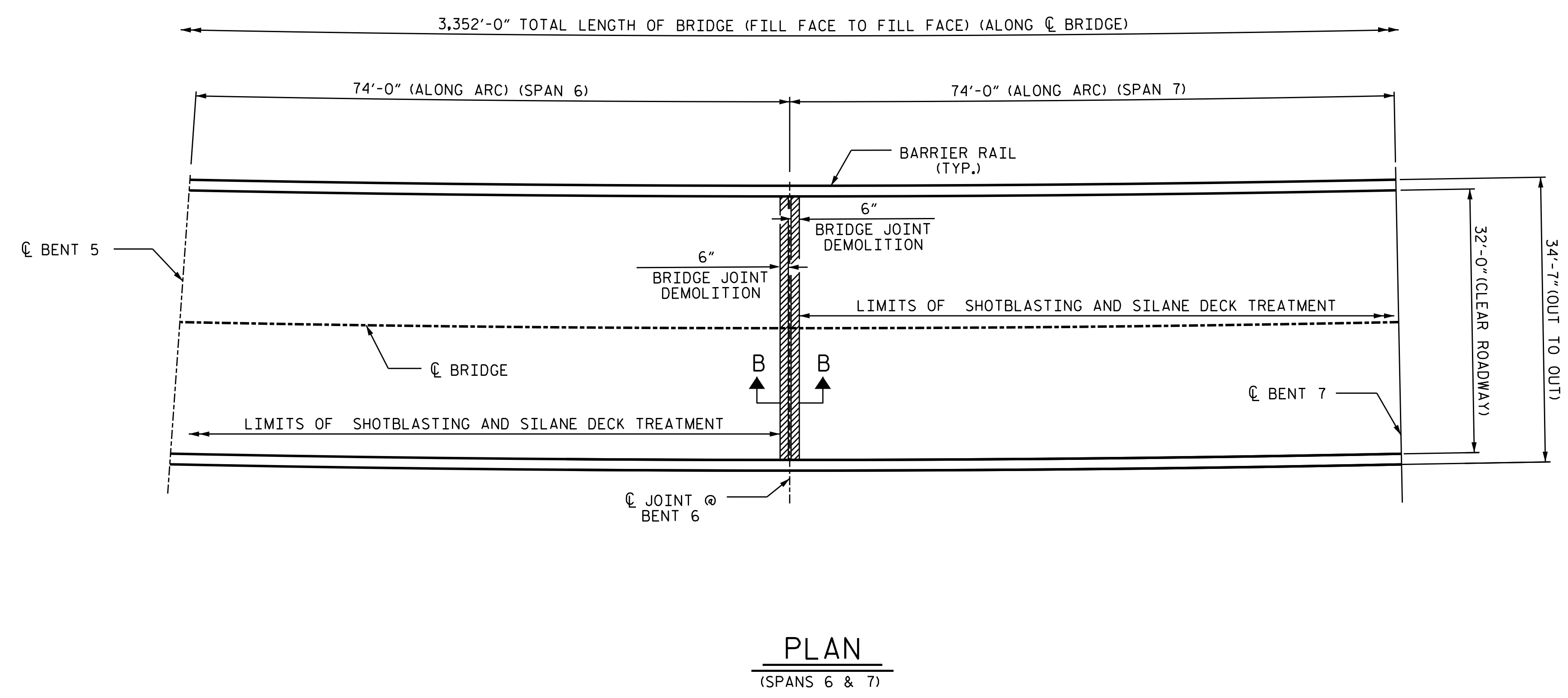
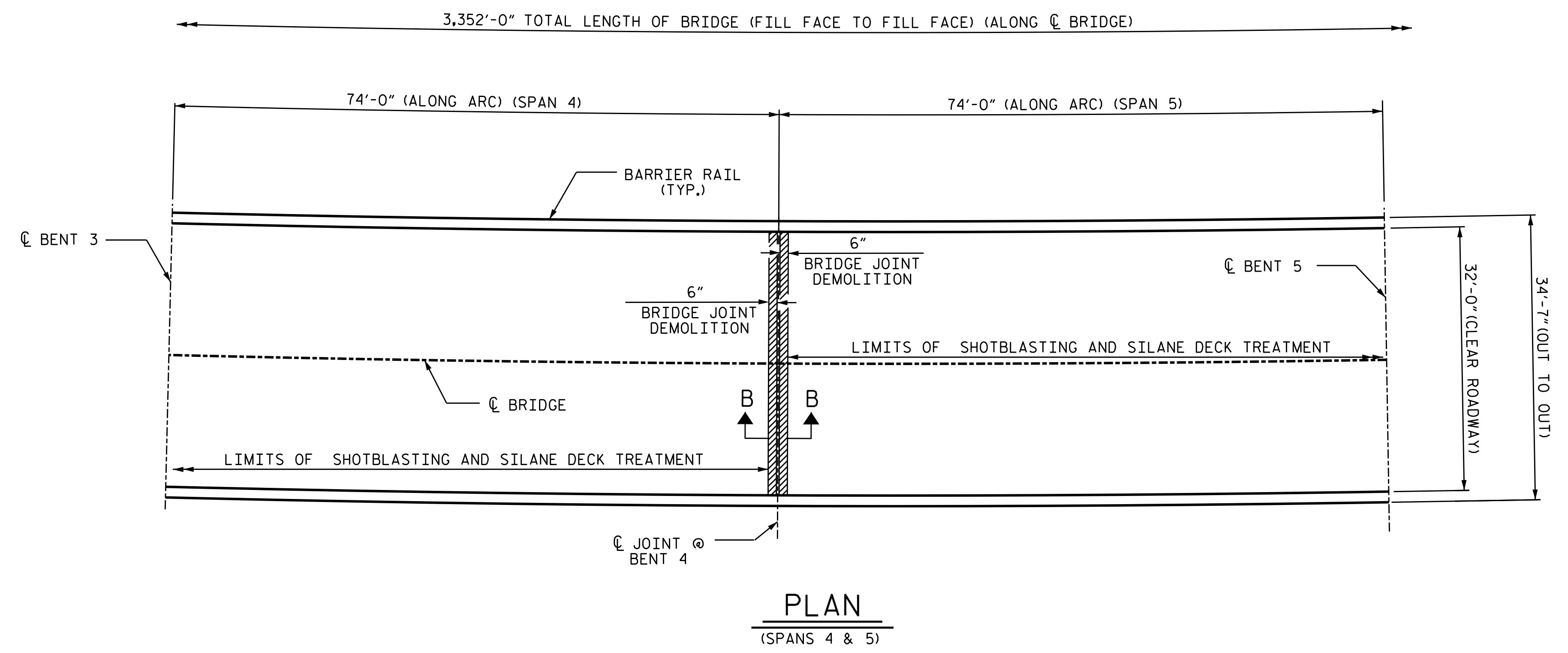
PLAN

(SPAN 3)

DRAWN BY : S. T. SANDOR DATE : 07/2021
 CHECKED BY : W. C. SMITH DATE : 12/2021

AS-BUILT REPAIR QUANTITY TABLE		
DECK SURFACE REPAIRS - SPANS 4 THROUGH 7		
	ESTIMATE	ACTUAL
SHOTBLASTING BRIDGE DECK	1,045.3 SQ. YDS.	
SILANE DECK TREATMENT	1,045.3 SQ. YDS.	
CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT	0.0 SQ. FT.	
BARRIER RAIL REPAIRS		
	ESTIMATE	ACTUAL
EPOXY RESIN INJECTION	0.0 LIN. FT.	
JOINT REPAIR		
	ESTIMATE	ACTUAL
BRIDGE JOINT DEMOLITION	64.0 SQ. FT.	

NOTES
 FOR SILANE DECK TREATMENT, SEE SPECIAL PROVISIONS.
 FOR CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT, SEE SPECIAL PROVISIONS.
 FOR SECTION B-B, SEE "JOINT REPAIR DETAILS" SHEET.
 FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.
 FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.



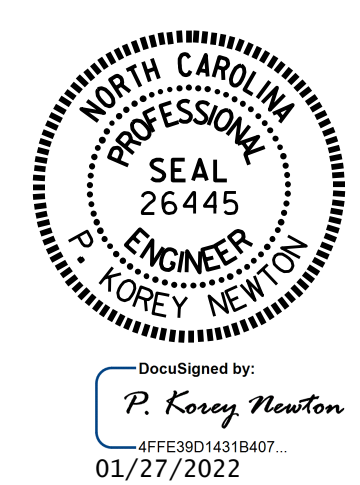
- SHOTBLASTING AND SILANE DECK TREATMENT AREA
- ERI - EPOXY RESIN INJECTION
- BRIDGE JOINT DEMOLITION

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060077

SHEET 2 OF 10

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

**SUPERSTRUCTURE
 PLAN OF SPANS**

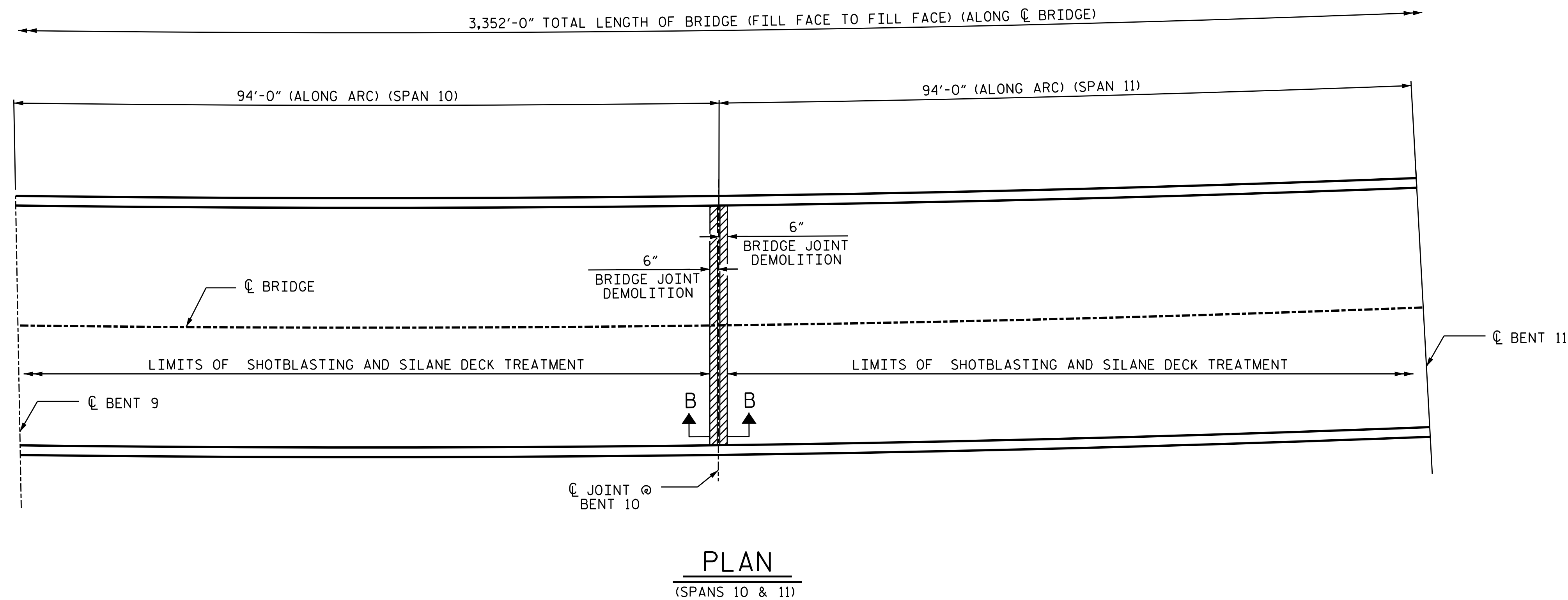
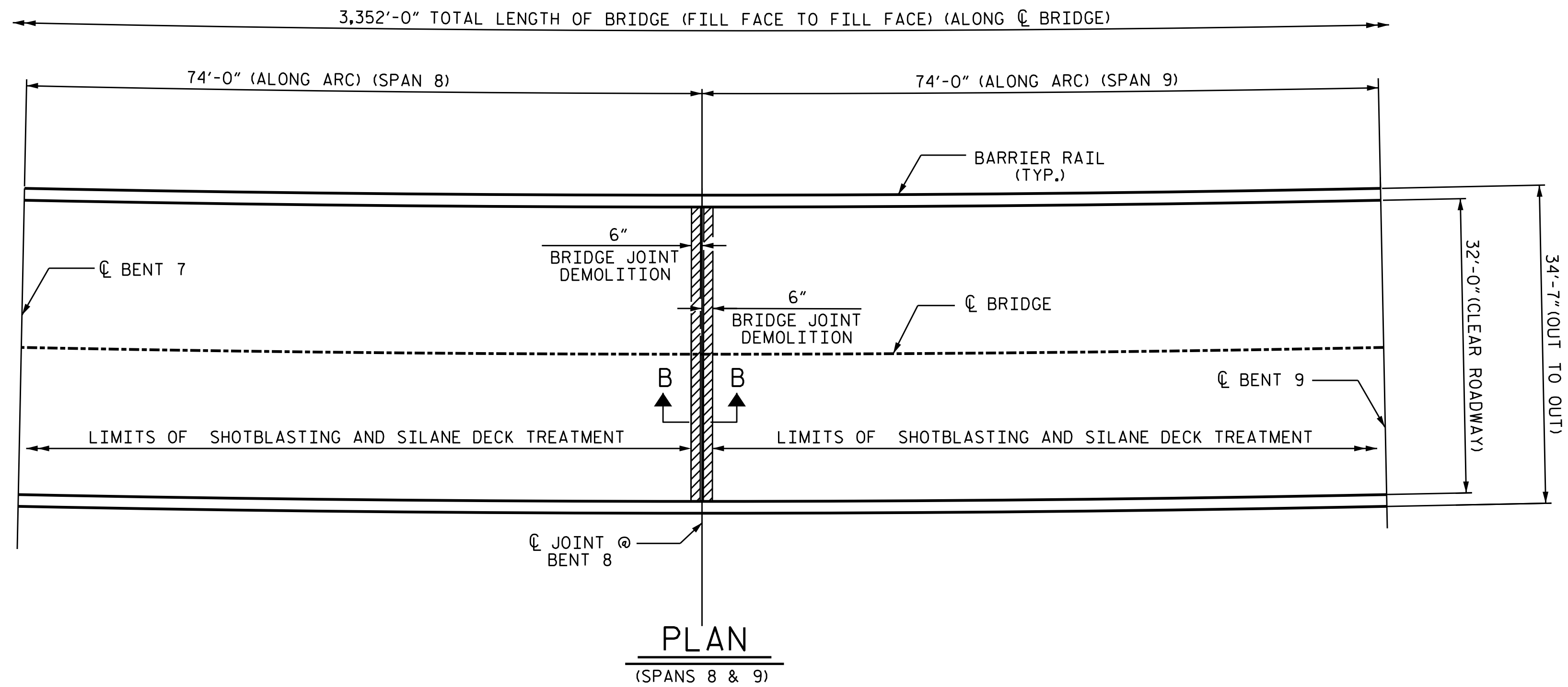


DocuSigned by:
P. Corey Newton
 4FFE8014318407...
 01/27/2022

DRAWN BY : S. T. SANDOR DATE : 07/2021
 CHECKED BY : W. C. SMITH DATE : 12/2021

NO.	REVISIONS			NO.	REVISIONS			SHEET NO.
	BY:	DATE:			BY:	DATE:		
1				3			S4-9	
2				4			TOTAL SHEETS 17	

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



AS-BUILT REPAIR QUANTITY TABLE

DECK SURFACE REPAIRS - SPANS 8 THROUGH 11		
	ESTIMATE	ACTUAL
SHOTBLASTING BRIDGE DECK	1,187.6 SQ. YDS.	
SILANE DECK TREATMENT	1,187.6 SQ. YDS.	
CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT	0.0 SQ. FT.	
BARRIER RAIL REPAIRS		
	ESTIMATE	ACTUAL
EPOXY RESIN INJECTION	0.0 LIN. FT.	
JOINT REPAIR		
	ESTIMATE	ACTUAL
BRIDGE JOINT DEMOLITION	64.0 SQ. FT.	

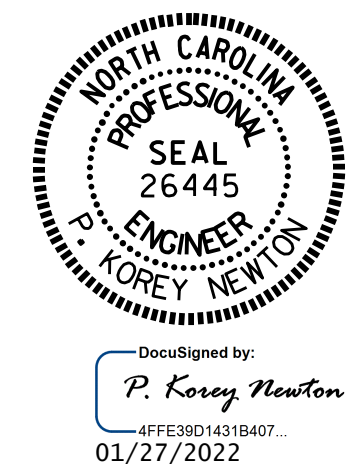
NOTES
 FOR SILANE DECK TREATMENT, SEE SPECIAL PROVISIONS.
 FOR CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT, SEE SPECIAL PROVISIONS.
 FOR SECTION B-B, SEE "JOINT REPAIR DETAILS" SHEET.
 FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.
 FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.

- SHOTBLASTING AND SILANE DECK TREATMENT AREA
- ERI - EPOXY RESIN INJECTION
- BRIDGE JOINT DEMOLITION

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060077

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

**SUPERSTRUCTURE
 PLAN OF SPANS**



NO.	REVISIONS			NO.	REVISIONS			SHEET NO.
	BY:	DATE:			BY:	DATE:		
1				3			S4-10	
2				4			TOTAL SHEETS 17	

DRAWN BY : S. T. SANDOR DATE : 07/2021
 CHECKED BY : W. C. SMITH DATE : 12/2021

AS-BUILT REPAIR QUANTITY TABLE		
DECK SURFACE REPAIRS - SPANS 12 THROUGH 15		
	ESTIMATE	ACTUAL
SHOTBLASTING BRIDGE DECK	1,329.8 SQ. YDS.	
SILANE DECK TREATMENT	1,329.8 SQ. YDS.	
CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT	0.0 SQ. FT.	
BARRIER RAIL REPAIRS		
	ESTIMATE	ACTUAL
EPOXY RESIN INJECTION	0.0 LIN. FT.	
JOINT REPAIR		
	ESTIMATE	ACTUAL
BRIDGE JOINT DEMOLITION	64.0 SQ. FT.	

NOTES




FOR SILANE DECK TREATMENT, SEE SPECIAL PROVISIONS.

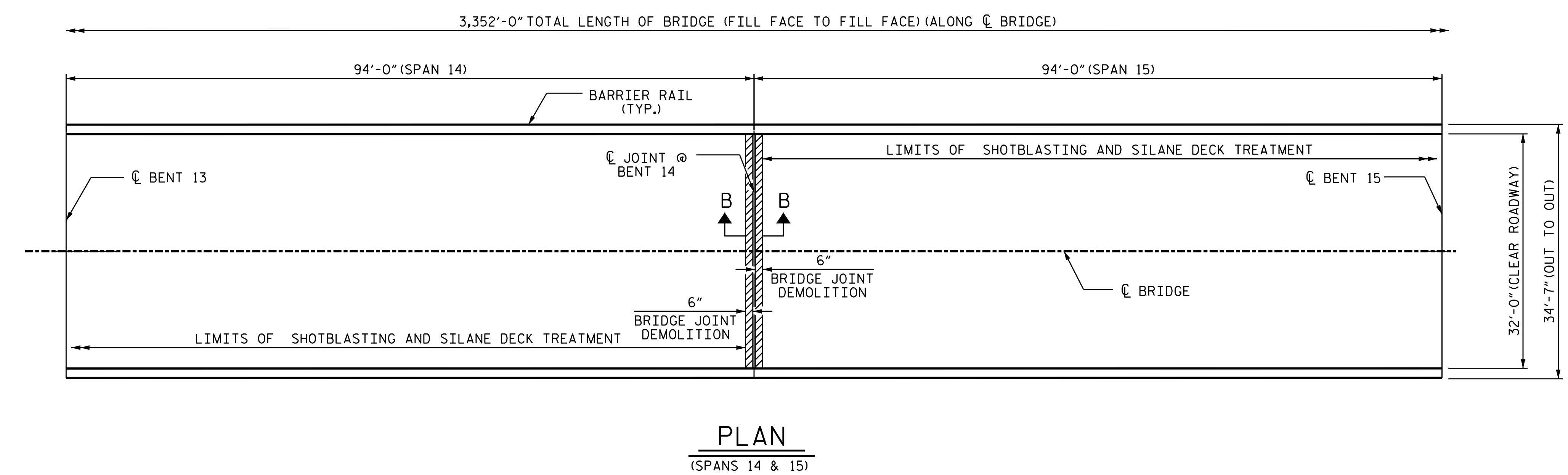
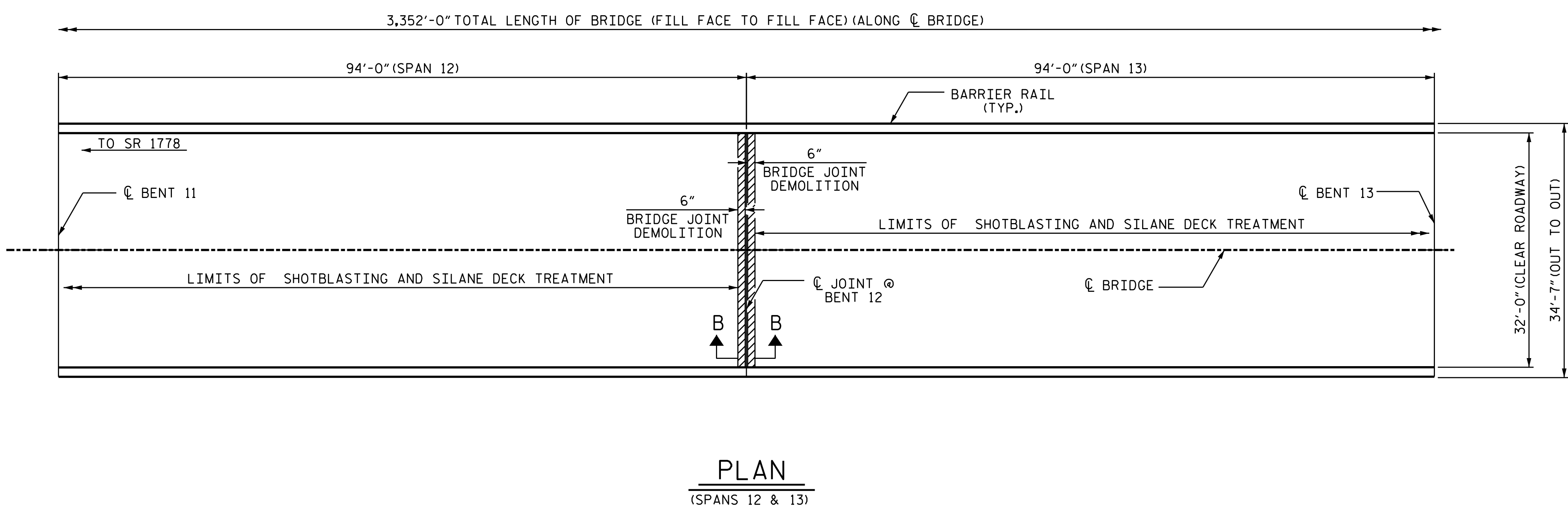
FOR CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT, SEE SPECIAL PROVISIONS.

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

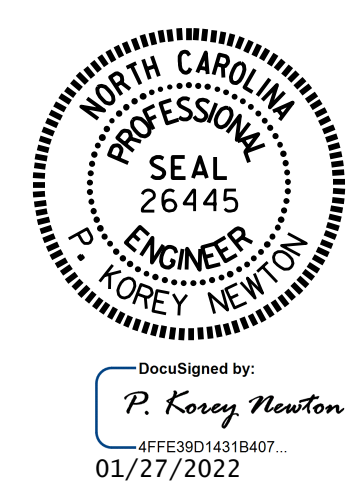
FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.

-  SHOTBLASTING AND SILANE DECK TREATMENT AREA
-  ERI - EPOXY RESIN INJECTION
-  BRIDGE JOINT DEMOLITION



PROJECT NO. 15BPR.56
BEAUFORT COUNTY
BRIDGE NO. 060077
SHEET 4 OF 10



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

**SUPERSTRUCTURE
PLAN OF SPANS**

DRAWN BY : S. T. SANDOR DATE : 07/2021
CHECKED BY : W. C. SMITH DATE : 12/2021

NO.	REVISIONS			NO.	REVISIONS			SHEET NO.
	BY:	DATE:			BY:	DATE:		
1				3			S4-11	
2				4			TOTAL SHEETS 17	

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

AS-BUILT REPAIR QUANTITY TABLE

DECK SURFACE REPAIRS - SPANS 16 THROUGH 19

	ESTIMATE	ACTUAL
SHOTBLASTING BRIDGE DECK	1,329.8 SQ. YDS.	
SILANE DECK TREATMENT	1,329.8 SQ. YDS.	
CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT	0.0 SQ. FT.	

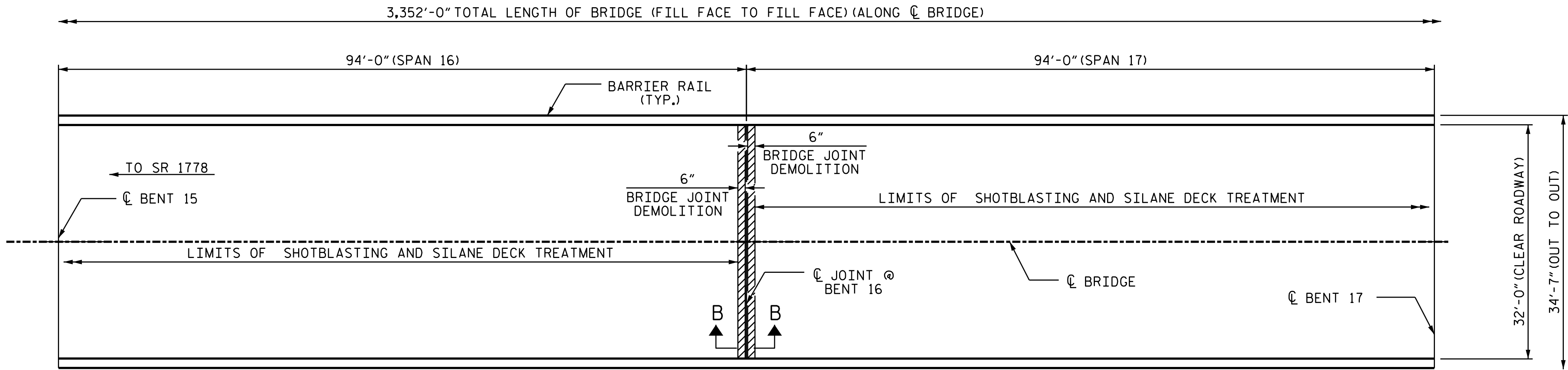
BARRIER RAIL REPAIRS

	ESTIMATE	ACTUAL
EPOXY RESIN INJECTION	0.0 LIN. FT.	

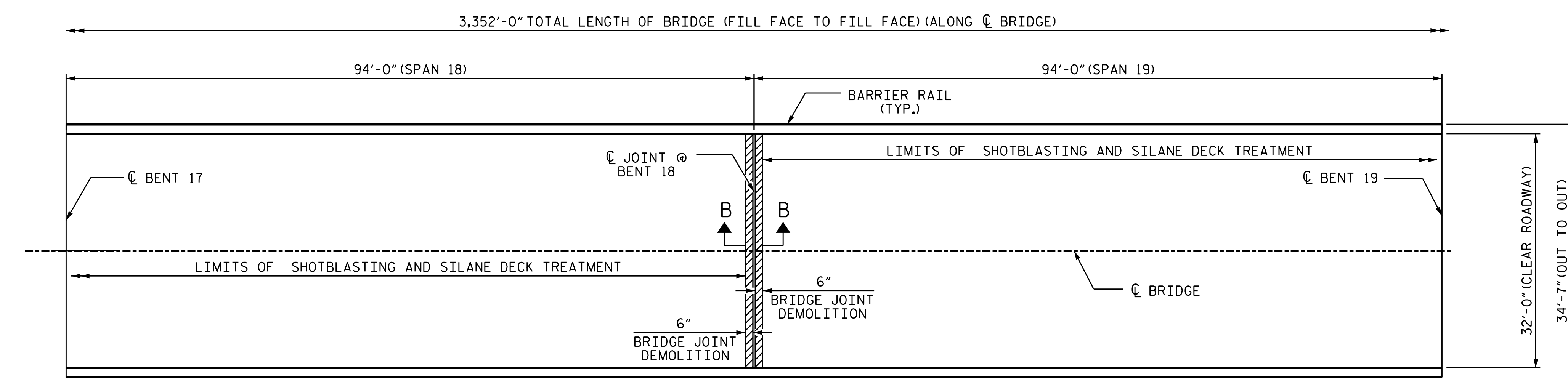
JOINT REPAIR

	ESTIMATE	ACTUAL
BRIDGE JOINT DEMOLITION	64.0 SQ. FT.	

NOTES
 FOR SILANE DECK TREATMENT, SEE SPECIAL PROVISIONS.
 FOR CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT, SEE SPECIAL PROVISIONS.
 FOR SECTION B-B, SEE "JOINT REPAIR DETAILS" SHEET.
 FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.
 FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.



PLAN
(SPANS 16 & 17)

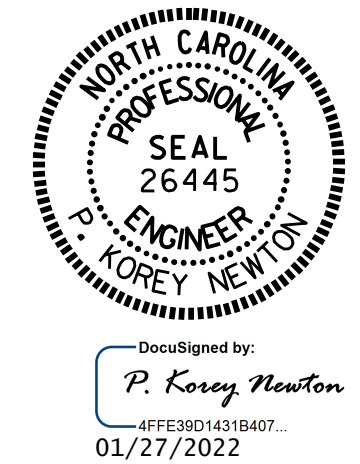


PLAN
(SPANS 18 & 19)

- SHOTBLASTING AND SILANE DECK TREATMENT AREA
- ERI - EPOXY RESIN INJECTION
- BRIDGE JOINT DEMOLITION

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060077

SHEET 5 OF 10



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
**SUPERSTRUCTURE
 PLAN OF SPANS**

DRAWN BY : S. T. SANDOR DATE : 07/2021
 CHECKED BY : W. C. SMITH DATE : 12/2021

NO.	REVISIONS			NO.	REVISIONS			SHEET NO.
	BY:	DATE:			BY:	DATE:		
1				3			S4-12	
2				4			TOTAL SHEETS 17	

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

AS-BUILT REPAIR QUANTITY TABLE

DECK SURFACE REPAIRS - SPANS 20 THROUGH 23

	ESTIMATE	ACTUAL
SHOTBLASTING BRIDGE DECK	1,329.8 SQ. YDS.	
SILANE DECK TREATMENT	1,329.8 SQ. YDS.	
CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT	0.0 SQ. FT.	

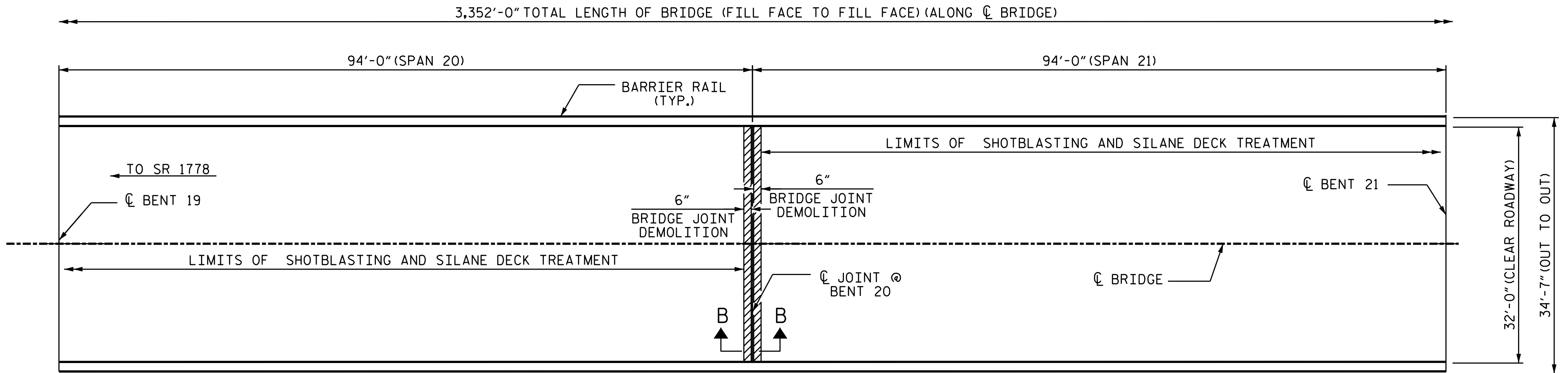
BARRIER RAIL REPAIRS

	ESTIMATE	ACTUAL
EPOXY RESIN INJECTION	0.0 LIN. FT.	

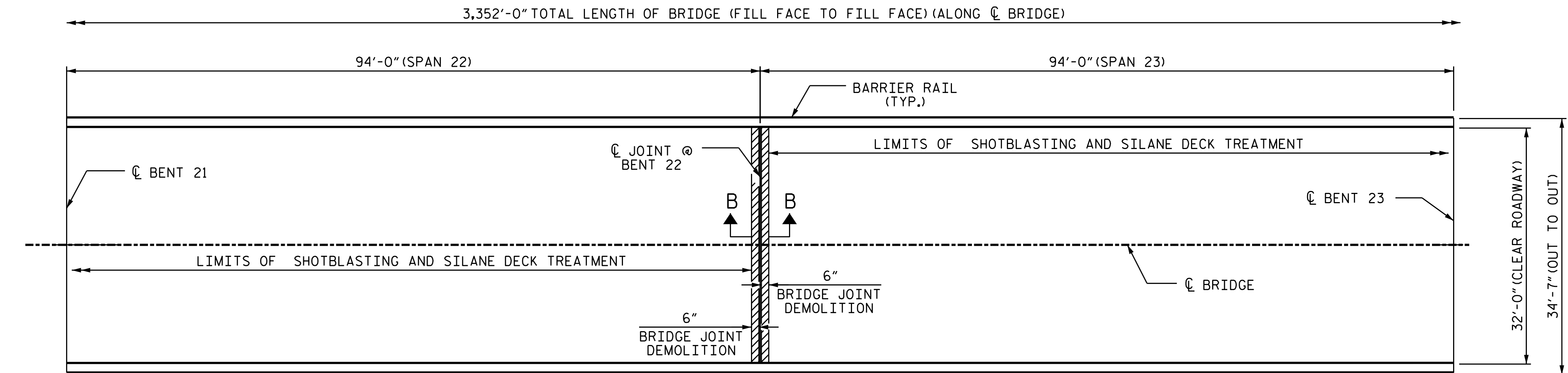
JOINT REPAIR

	ESTIMATE	ACTUAL
BRIDGE JOINT DEMOLITION	64.0 SQ. FT.	

NOTES
 FOR SILANE DECK TREATMENT, SEE SPECIAL PROVISIONS.
 FOR CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT, SEE SPECIAL PROVISIONS.
 FOR SECTION B-B, SEE "JOINT REPAIR DETAILS" SHEET.
 FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.
 FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.



PLAN
(SPANS 20 & 21)

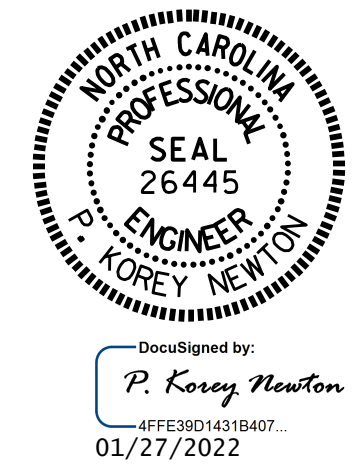


PLAN
(SPANS 22 & 23)

- SHOTBLASTING AND SILANE DECK TREATMENT AREA
- ERI - EPOXY RESIN INJECTION
- BRIDGE JOINT DEMOLITION

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060077

SHEET 6 OF 10



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
**SUPERSTRUCTURE
 PLAN OF SPANS**

DRAWN BY : S. T. SANDOR DATE : 07/2021
 CHECKED BY : W. C. SMITH DATE : 12/2021

NO.	REVISIONS			NO.	REVISIONS			SHEET NO.
	BY:	DATE:			BY:	DATE:		
1				3			S4-13	
2				4			TOTAL SHEETS 17	

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

AS-BUILT REPAIR QUANTITY TABLE		
DECK SURFACE REPAIRS - SPANS 24 THROUGH 27		
	ESTIMATE	ACTUAL
SHOTBLASTING BRIDGE DECK	1,329.8 SQ. YDS.	
SILANE DECK TREATMENT	1,329.8 SQ. YDS.	
CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT	0.0 SQ. FT.	
BARRIER RAIL REPAIRS		
	ESTIMATE	ACTUAL
EPOXY RESIN INJECTION	0.0 LIN. FT.	
JOINT REPAIR		
	ESTIMATE	ACTUAL
BRIDGE JOINT DEMOLITION	64.0 SQ. FT.	

NOTES




FOR SILANE DECK TREATMENT, SEE SPECIAL PROVISIONS.

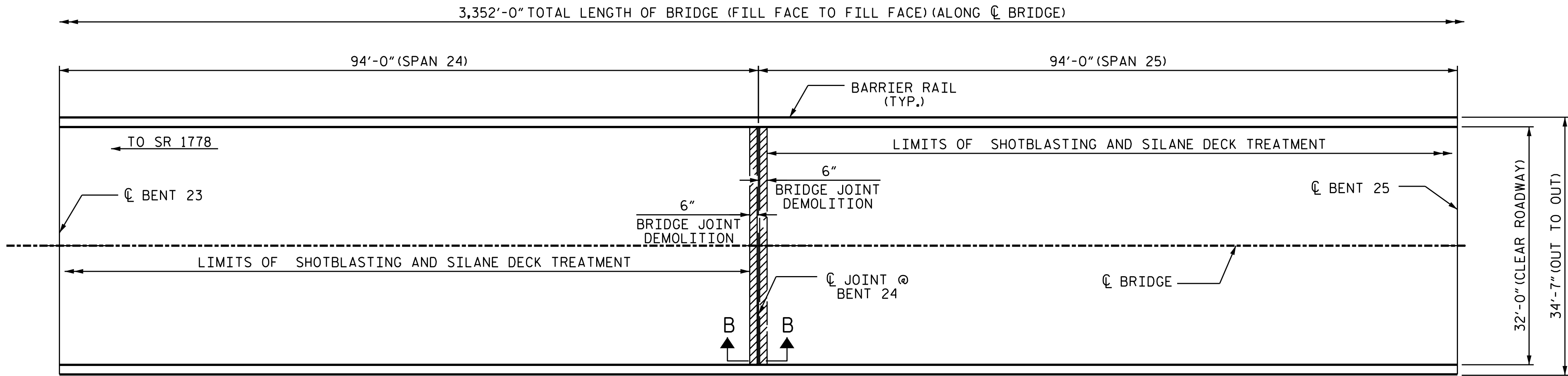
FOR CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT, SEE SPECIAL PROVISIONS.

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

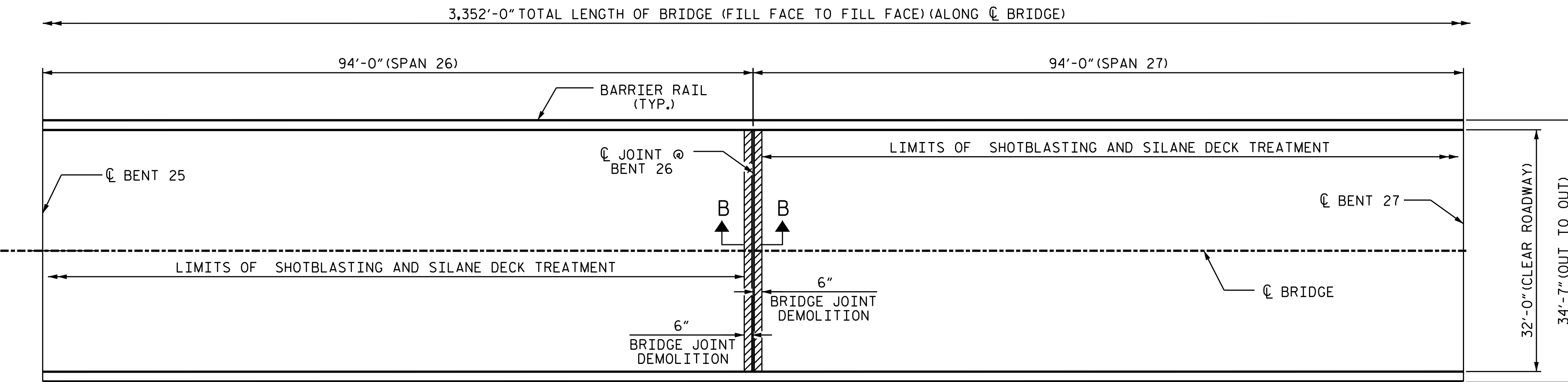
FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.

-  SHOTBLASTING AND SILANE DECK TREATMENT AREA
-  ERI - EPOXY RESIN INJECTION
-  BRIDGE JOINT DEMOLITION



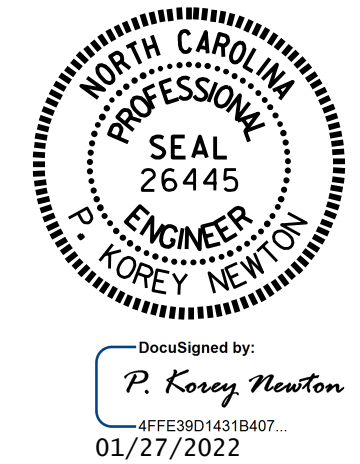
PLAN
(SPANS 24 & 25)



PLAN
(SPANS 26 & 27)

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060077

SHEET 7 OF 10



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SUPERSTRUCTURE
 PLAN OF SPANS

DRAWN BY : S. T. SANDOR DATE : 07/2021
 CHECKED BY : W. C. SMITH DATE : 12/2021

NO.	REVISIONS			NO.	REVISIONS			SHEET NO.
	BY:	DATE:			BY:	DATE:		
1				3			S4-14	
2				4			TOTAL SHEETS 17	

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

AS-BUILT REPAIR QUANTITY TABLE

DECK SURFACE REPAIRS - SPANS 28 THROUGH 31

	ESTIMATE	ACTUAL
SHOTBLASTING BRIDGE DECK	1,329.8 SQ. YDS.	
SILANE DECK TREATMENT	1,329.8 SQ. YDS.	
CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT	0.0 SQ. FT.	

BARRIER RAIL REPAIRS

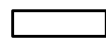

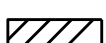
	ESTIMATE	ACTUAL
EPOXY RESIN INJECTION	0.0 LIN. FT.	

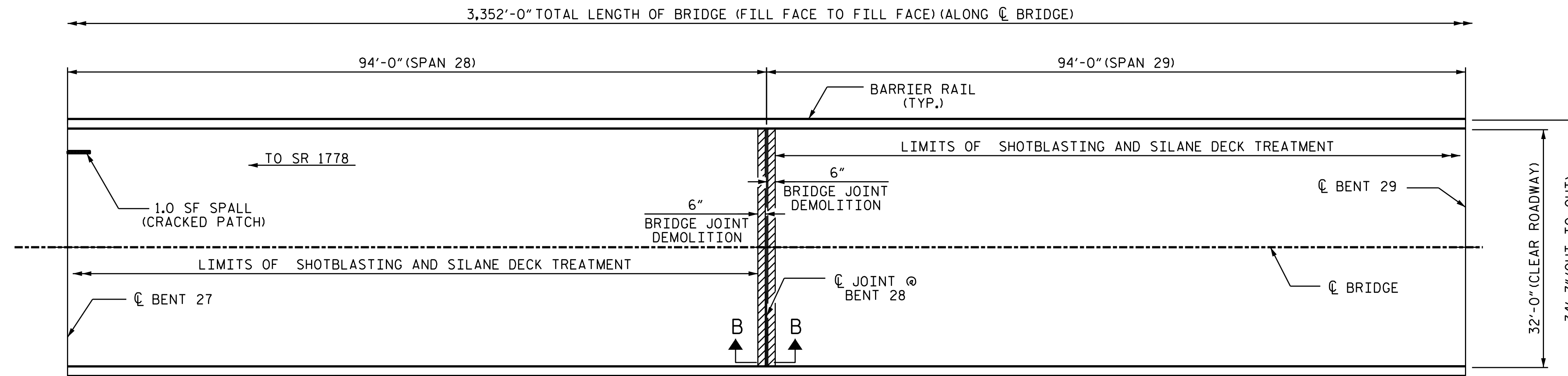
JOINT REPAIR

	ESTIMATE	ACTUAL
BRIDGE JOINT DEMOLITION	64.0 SQ. FT.	

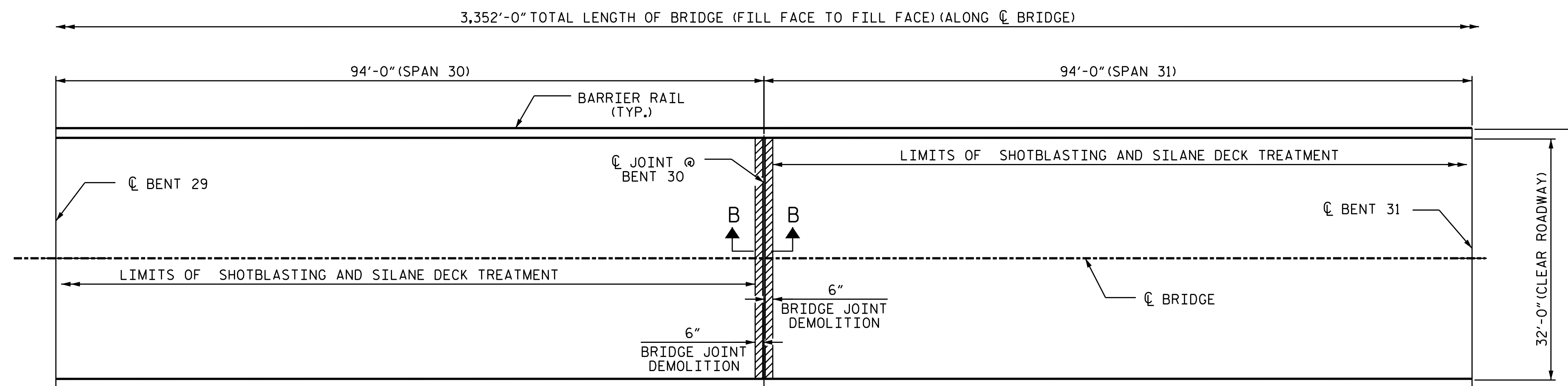
NOTES

- FOR SILANE DECK TREATMENT, SEE SPECIAL PROVISIONS.
- FOR CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT, SEE SPECIAL PROVISIONS.
- FOR SECTION B-B, SEE "JOINT REPAIR DETAILS" SHEET.
- FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.
- FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.

-  SHOTBLASTING AND SILANE DECK TREATMENT AREA
-  ERI - EPOXY RESIN INJECTION
-  BRIDGE JOINT DEMOLITION



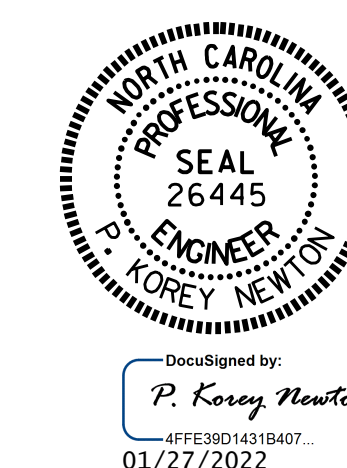
PLAN
(SPANS 28 & 29)



PLAN
(SPANS 30 & 31)

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060077

SHEET 8 OF 10



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SUPERSTRUCTURE PLAN OF SPANS

DRAWN BY : S. T. SANDOR DATE : 07/2021
 CHECKED BY : W. C. SMITH DATE : 12/2021

NO.	REVISIONS			NO.	REVISIONS			SHEET NO.
	BY:	DATE:			BY:	DATE:		
1				3			S4-15	
2				4			TOTAL SHEETS 17	

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

AS-BUILT REPAIR QUANTITY TABLE

DECK SURFACE REPAIRS - SPANS 32 THROUGH 35

	ESTIMATE	ACTUAL
SHOTBLASTING BRIDGE DECK	1,329.8 SQ. YDS.	
SILANE DECK TREATMENT	1,329.8 SQ. YDS.	
CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT	0.0 SQ. FT.	

BARRIER RAIL REPAIRS

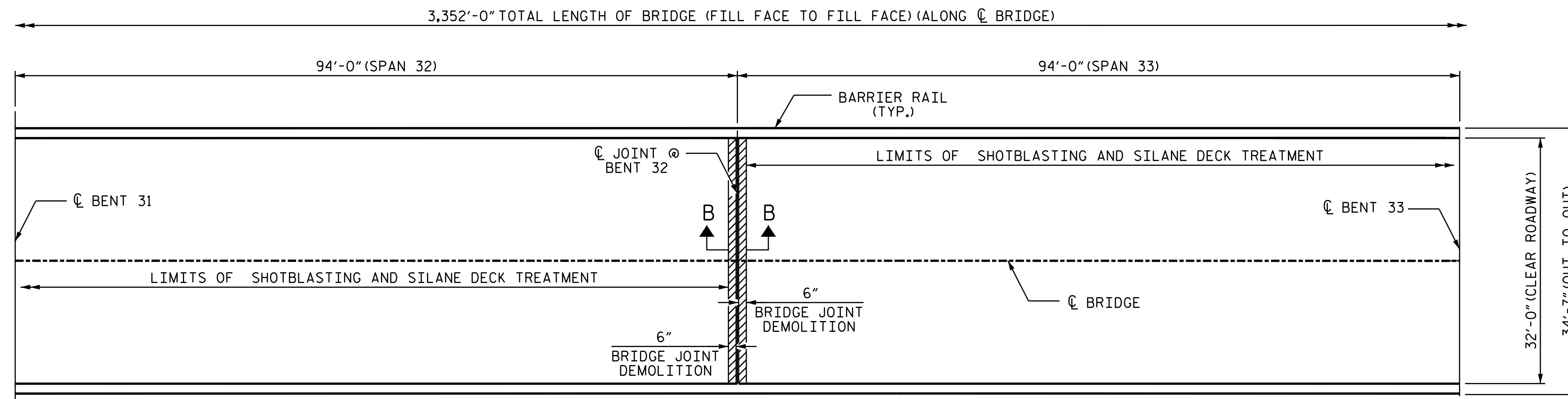
	ESTIMATE	ACTUAL
EPOXY RESIN INJECTION	0.0 LIN. FT.	

JOINT REPAIR

	ESTIMATE	ACTUAL
BRIDGE JOINT DEMOLITION	64.0 SQ. FT.	

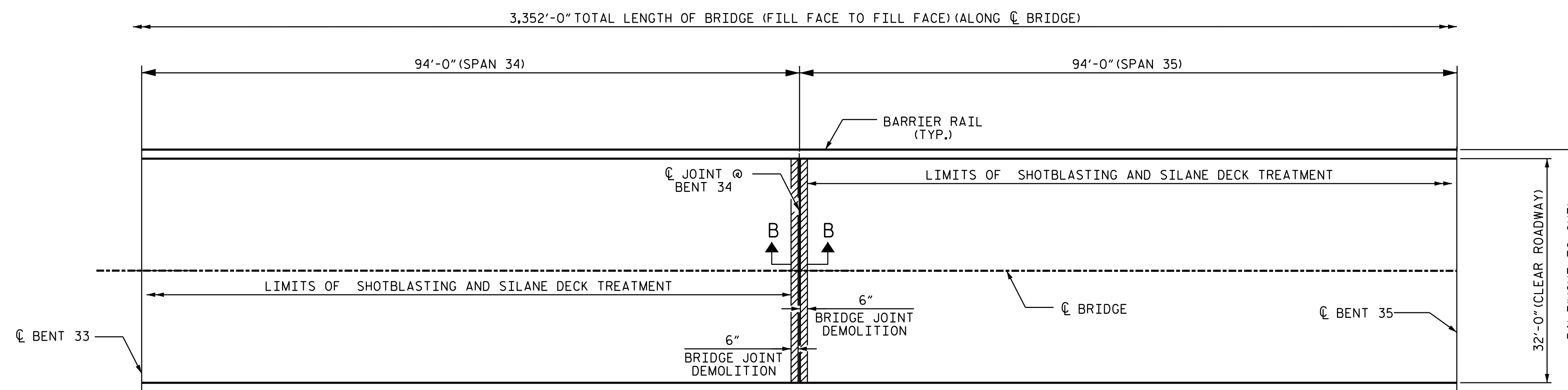
NOTES

- FOR SILANE DECK TREATMENT, SEE SPECIAL PROVISIONS.
- FOR CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT, SEE SPECIAL PROVISIONS.
- FOR SECTION B-B, SEE "JOINT REPAIR DETAILS" SHEET.
- FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.
- FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.



PLAN

(SPANS 32 & 33)



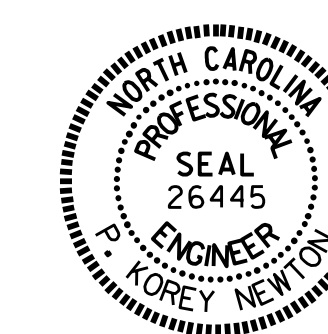
PLAN

(SPANS 34 & 35)

- SHOTBLASTING AND SILANE DECK TREATMENT AREA
- ERI - EPOXY RESIN INJECTION
- BRIDGE JOINT DEMOLITION

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060077

SHEET 9 OF 10



DocuSigned by:
P. Corey Newton
 4FEE89D1431B407...
 01/27/2022

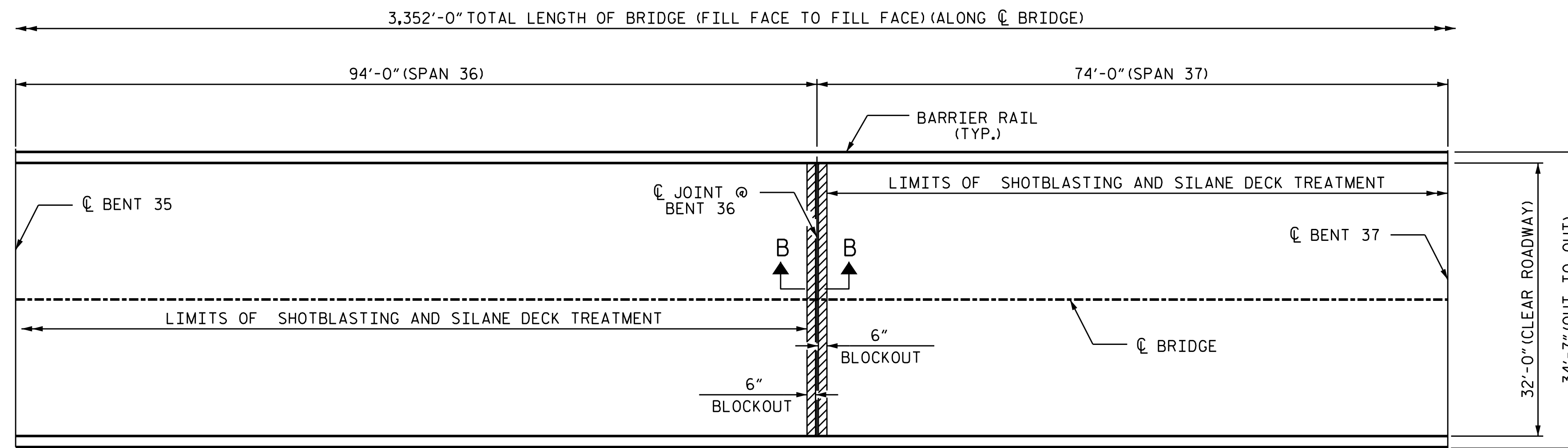
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SUPERSTRUCTURE PLAN OF SPANS

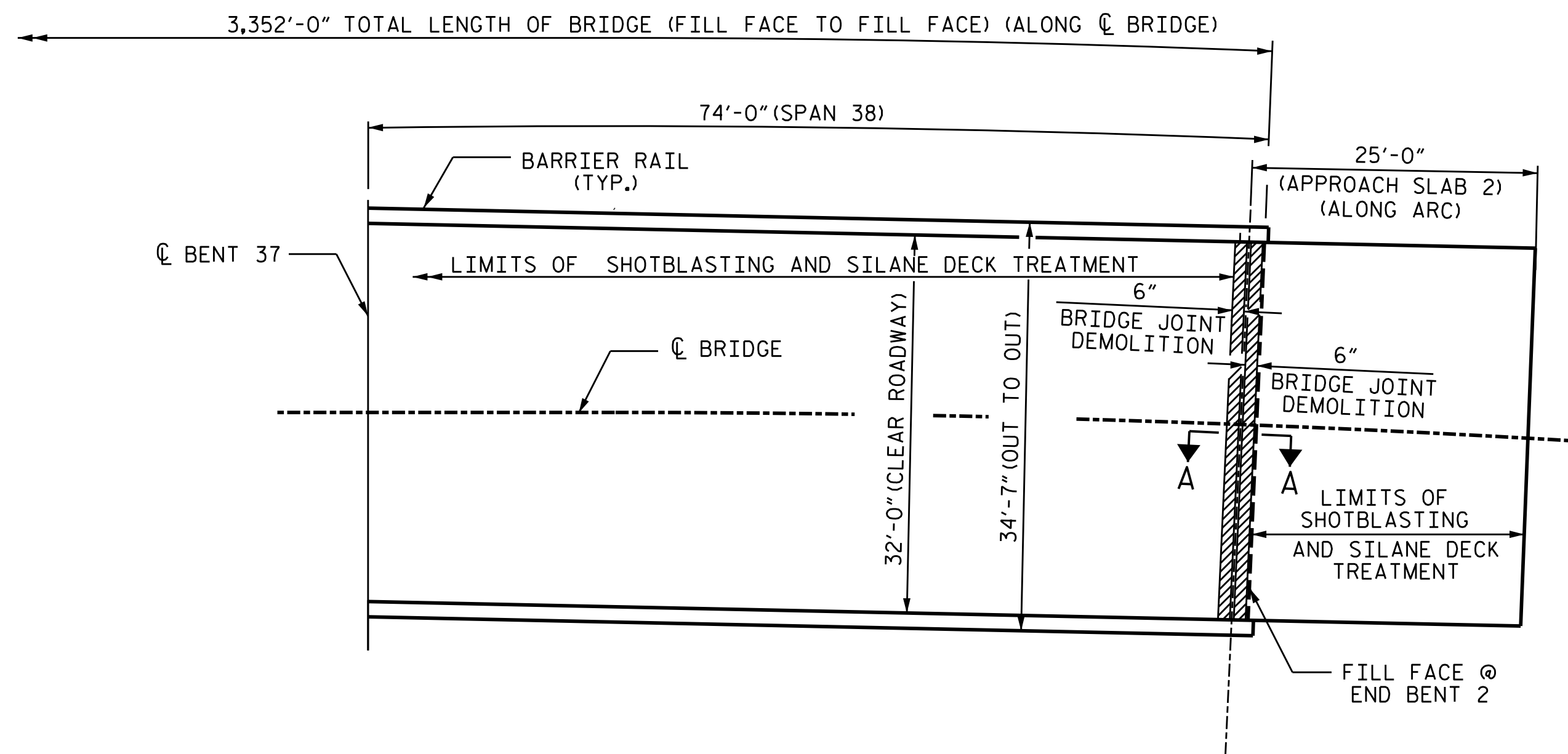
DRAWN BY : S. T. SANDOR DATE : 07/2021
 CHECKED BY : W. C. SMITH DATE : 12/2021

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S4-16
1			3			TOTAL SHEETS
2			4			17



PLAN
(SPANS 36 & 37)



PLAN
(SPAN 38 AND APPROACH SLAB 2)

AS-BUILT REPAIR QUANTITY TABLE

DECK SURFACE REPAIRS - SPANS 36 THROUGH 38

	ESTIMATE	ACTUAL
SHOTBLASTING BRIDGE DECK	855.1 SQ. YDS.	
SILANE DECK TREATMENT	855.1 SQ. YDS.	
CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT	0.0 SQ. FT.	

DECK SURFACE REPAIRS - APPROACH SLAB 2

	ESTIMATE	ACTUAL
SHOTBLASTING BRIDGE DECK	87.1 SQ. YDS.	
SILANE DECK TREATMENT	87.1 SQ. YDS.	
CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT	0.0 SQ. FT.	

BARRIER RAIL REPAIRS

	ESTIMATE	ACTUAL
EPOXY RESIN INJECTION	0.0 LIN. FT.	

JOINT REPAIR

	ESTIMATE	ACTUAL
BRIDGE JOINT DEMOLITION	64.0 SQ. FT.	

NOTES

- FOR SILANE DECK TREATMENT, SEE SPECIAL PROVISIONS.
- FOR CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT, SEE SPECIAL PROVISIONS.
- FOR SECTIONS A-A AND B-B, SEE "JOINT REPAIR DETAILS" SHEET.
- FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.
- FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.

- SHOTBLASTING AND SILANE DECK TREATMENT AREA
- ERI - EPOXY RESIN INJECTION
- BRIDGE JOINT DEMOLITION

PROJECT NO. 15BPR.56
BEAUFORT COUNTY
 BRIDGE NO. 060077

SHEET 10 OF 10



DocuSigned by:
P. Corey Newton
 4FFE98D1431B407...
 01/27/2022

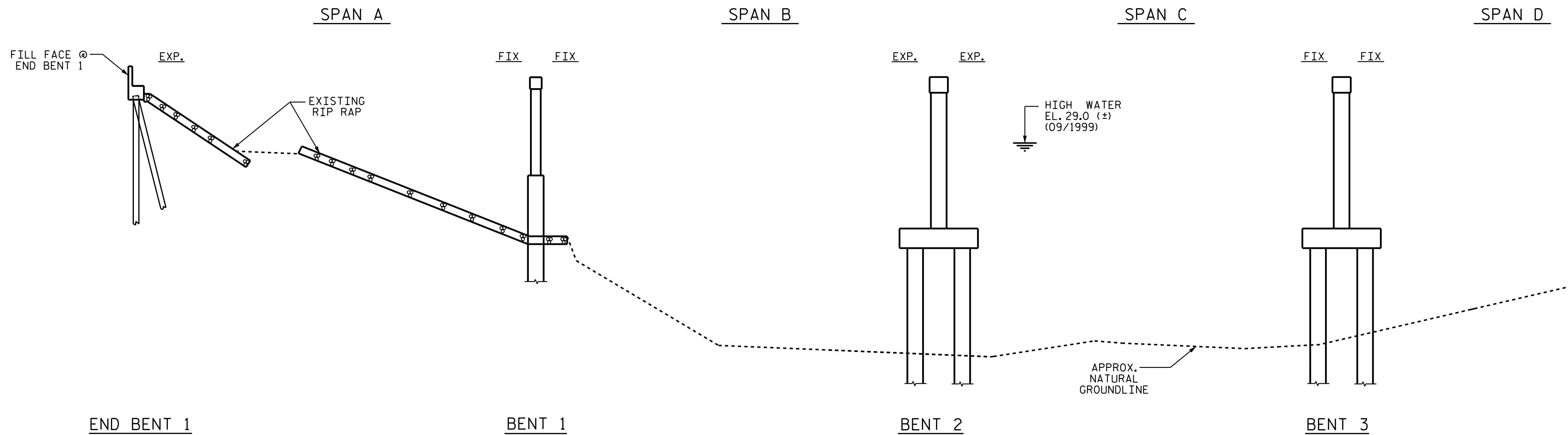
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

**SUPERSTRUCTURE
 PLAN OF SPANS
 AND
 APPROACH SLAB 2**

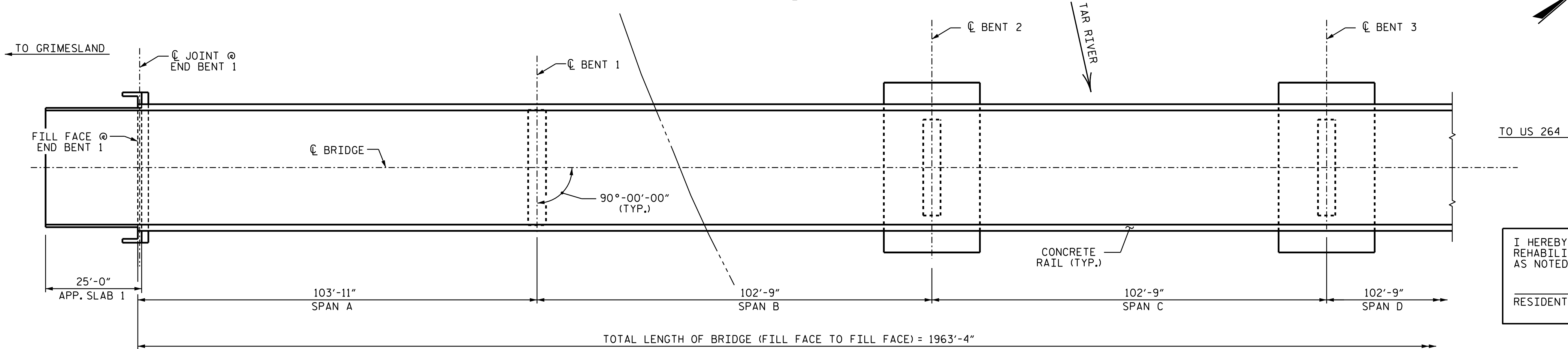
DRAWN BY : S. T. SANDOR DATE : 07/2021
 CHECKED BY : W. C. SMITH DATE : 12/2021

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S4-17
1			3			TOTAL SHEETS
2			4			17



ELEVATION
(SECTION ALONG \bar{C} BRIDGE)



PLAN

(PILES, COLUMNS, AND DRILLED PIERS NOT SHOWN FOR CLARITY)

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

RESIDENT ENGINEER

PROJECT NO. 15BPR.56
PITT COUNTY
 BRIDGE NO. 730127

SHEET 1 OF 5

SCOPE OF WORK

- BRIDGE DECK PREPARATION WITH SHOTBLASTING METHODS.
- CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT.
- APPLY SILANE DECK TREATMENT.
- REMOVE EXISTING ELASTOMERIC CONCRETE AND JOINT MATERIAL.
- RECONSTRUCT BRIDGE JOINTS WITH ELASTOMERIC CONCRETE AND INSTALL FOAM JOINT SEALS.

NOTES

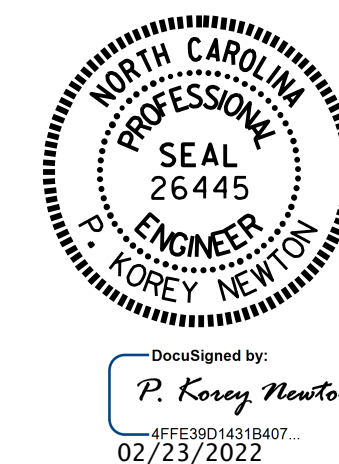
GENERAL DRAWING INFORMATION IS TAKEN FROM THE ORIGINAL PLANS AND THE ROUTINE INSPECTION REPORT DATED 03/09/2021.

BRIDGE ORIENTATION CONFORMS TO THE ORIGINAL BRIDGE PLANS.

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

UNANTICIPATED ITEMS:

ITEM NO.	DESCRIPTION	UNIT
1	CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT	SQ. FT.

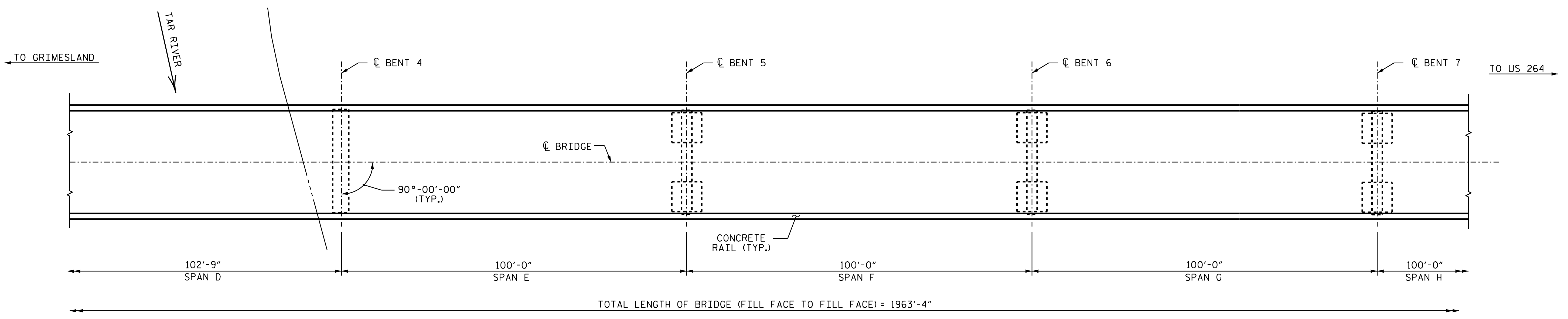
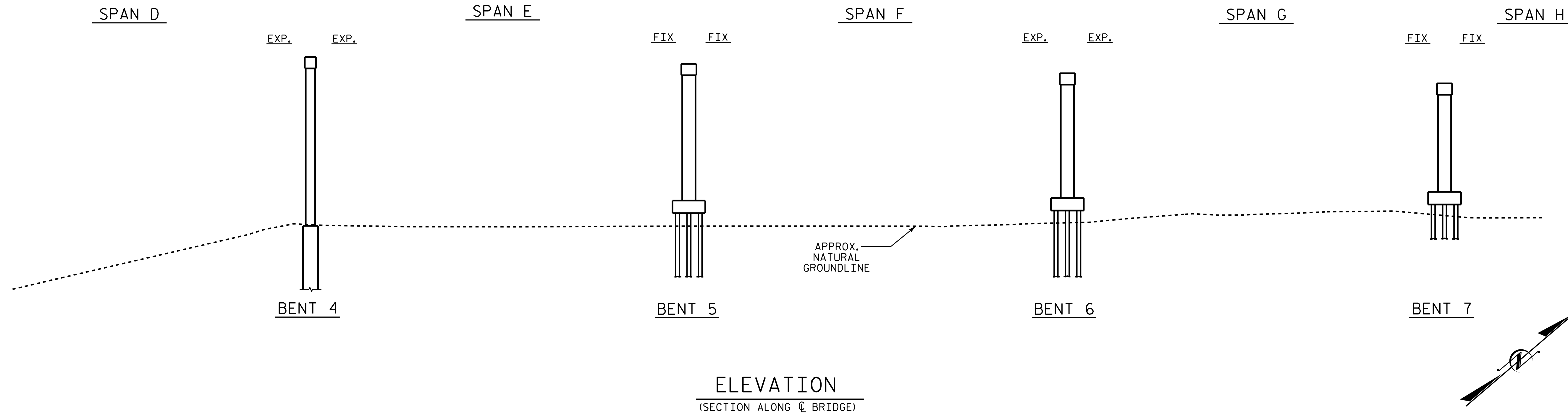


STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
GENERAL DRAWING
 FOR BRIDGE ON
 SR 1565 OVER TAR RIVER
 BETWEEN
 GRIMESLAND AND US 264

DRAWN BY : M.K. BEARD / S. T. S. DATE : 03/2021
 CHECKED BY : W. C. SMITH DATE : 05/2021

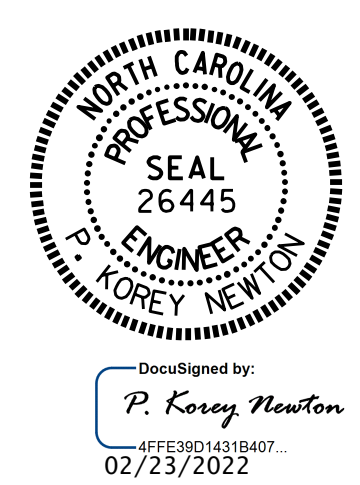
DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S5-1
2			4			TOTAL SHEETS 13



PROJECT NO. 15BPR.56
PITT COUNTY
 BRIDGE NO. 730127

SHEET 2 OF 5

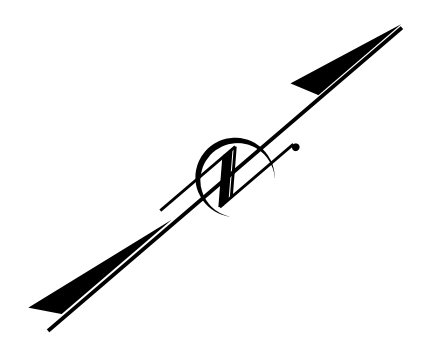
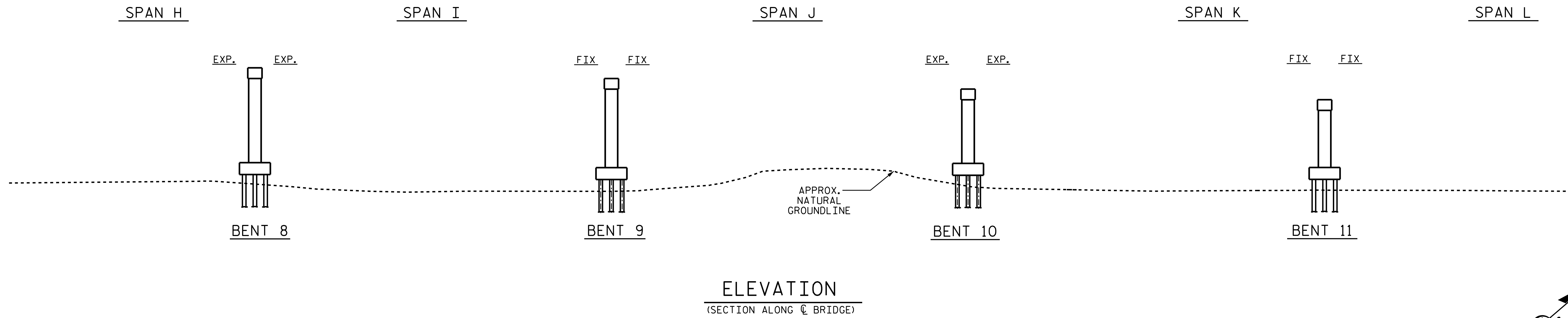


STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
GENERAL DRAWING
 FOR BRIDGE ON
 SR 1565 OVER TAR RIVER
 BETWEEN
 GRIMESLAND AND US 264

DRAWN BY : S. T. SANDOR DATE : .04/2021
 CHECKED BY : W. C. SMITH DATE : .05/2021

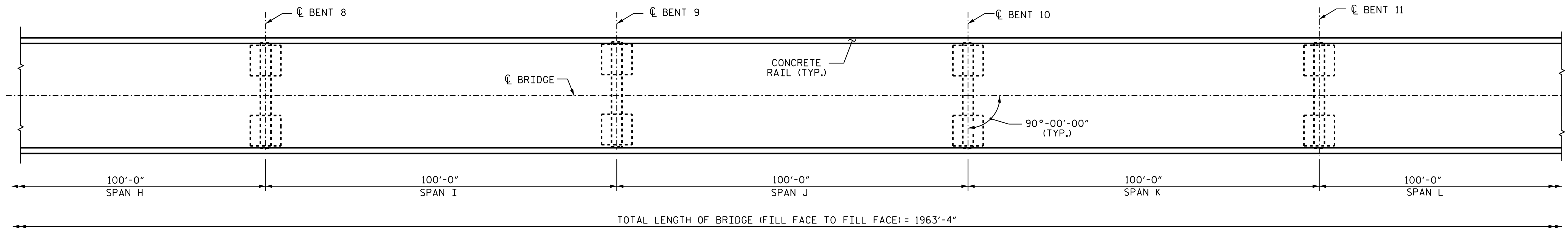
DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S5-2
1			3			TOTAL SHEETS
2			4			13



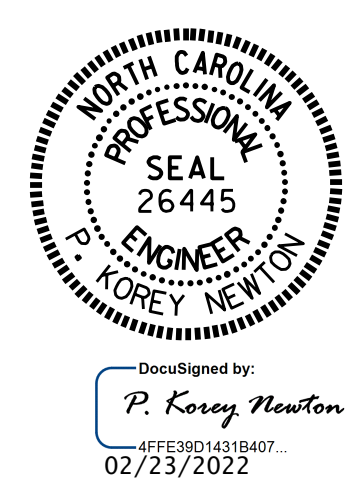
← TO GRIMESLAND

→ TO US 264



PROJECT NO. 15BPR.56
PITT COUNTY
 BRIDGE NO. 730127

SHEET 3 OF 5

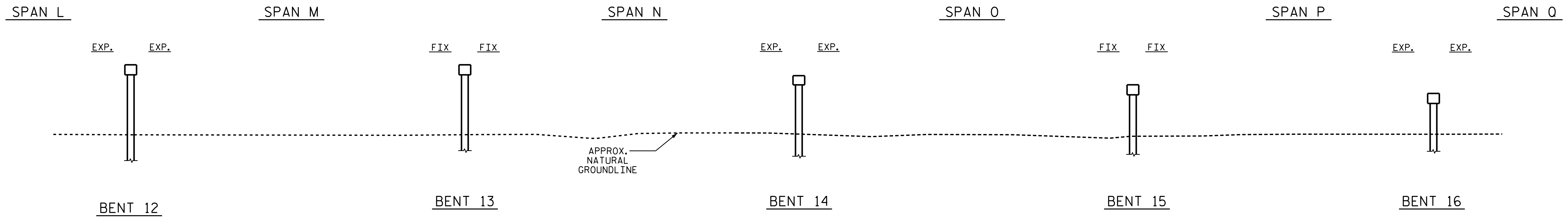


STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
GENERAL DRAWING
 FOR BRIDGE ON
 SR 1565 OVER TAR RIVER
 BETWEEN
 GRIMESLAND AND US 264

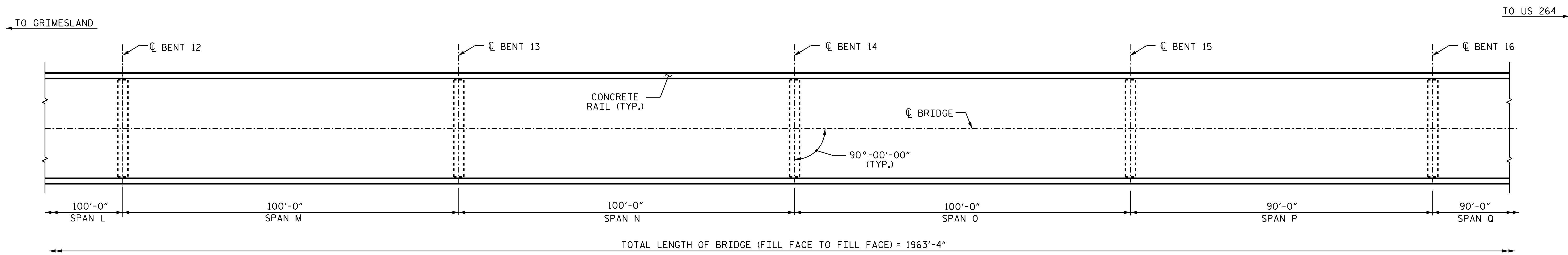
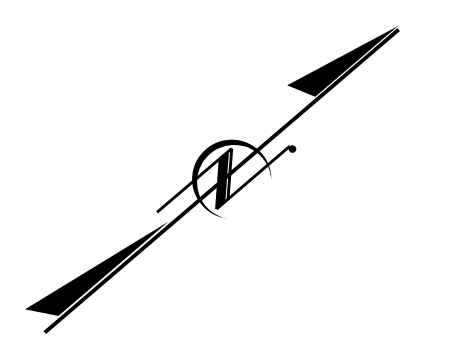
DRAWN BY : S. T. SANDOR DATE : .04/2021
 CHECKED BY : W. C. SMITH DATE : .05/2021

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S5-3
1			3			TOTAL SHEETS
2			4			13



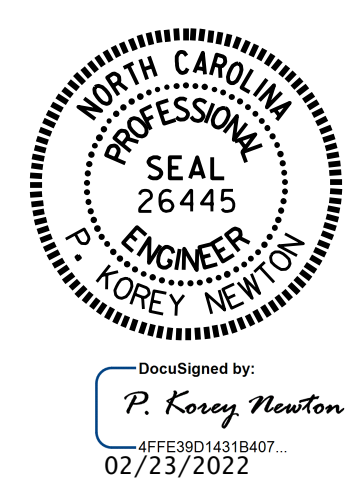
ELEVATION
(SECTION ALONG C BRIDGE)



PLAN
(PILES NOT SHOWN FOR CLARITY)

PROJECT NO. 15BPR.56
PITT COUNTY
 BRIDGE NO. 730127

SHEET 4 OF 5

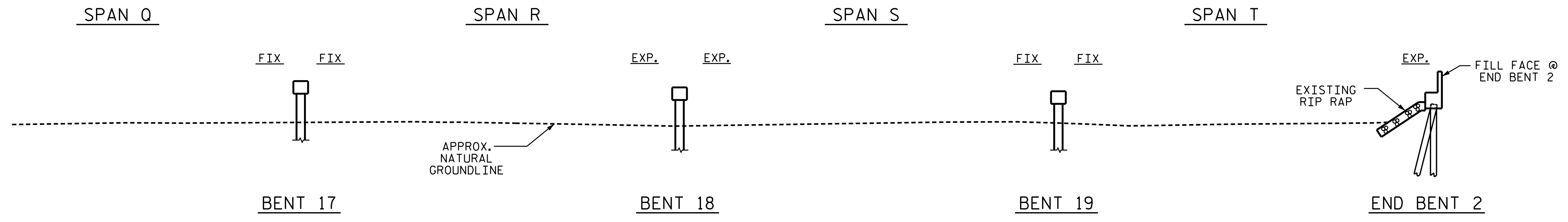


STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
GENERAL DRAWING
 FOR BRIDGE ON
 SR 1565 OVER TAR RIVER
 BETWEEN
 GRIMESLAND AND US 264

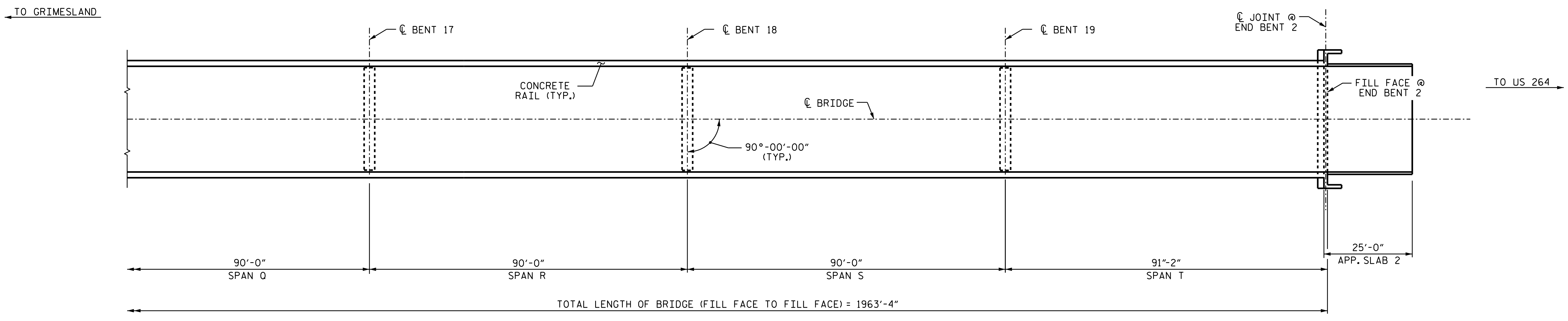
DRAWN BY : S. T. SANDOR DATE : .04/2021
 CHECKED BY : W. C. SMITH DATE : .05/2021

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S5-4
1			3			TOTAL SHEETS
2			4			13



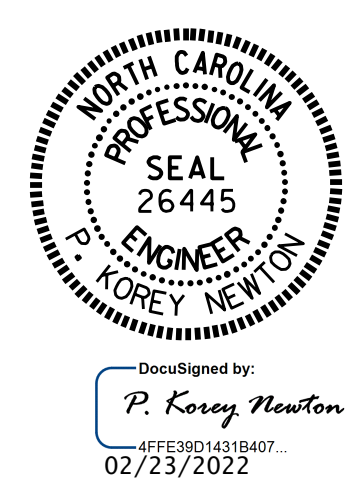
ELEVATION
(SECTION ALONG C BRIDGE)



PLAN
(PILES NOT SHOWN FOR CLARITY)

PROJECT NO. 15BPR.56
PITT COUNTY
 BRIDGE NO. 730127

SHEET 5 OF 5

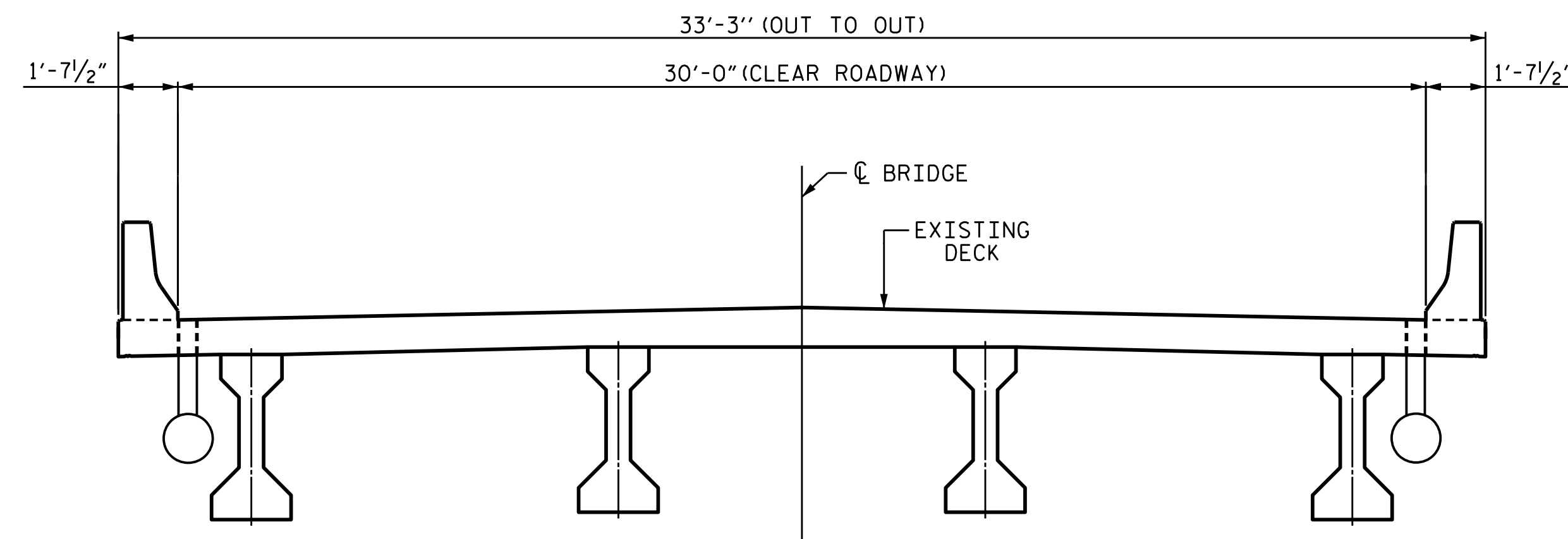


STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
GENERAL DRAWING
 FOR BRIDGE ON
 SR 1565 OVER TAR RIVER
 BETWEEN
 GRIMESLAND AND US 264

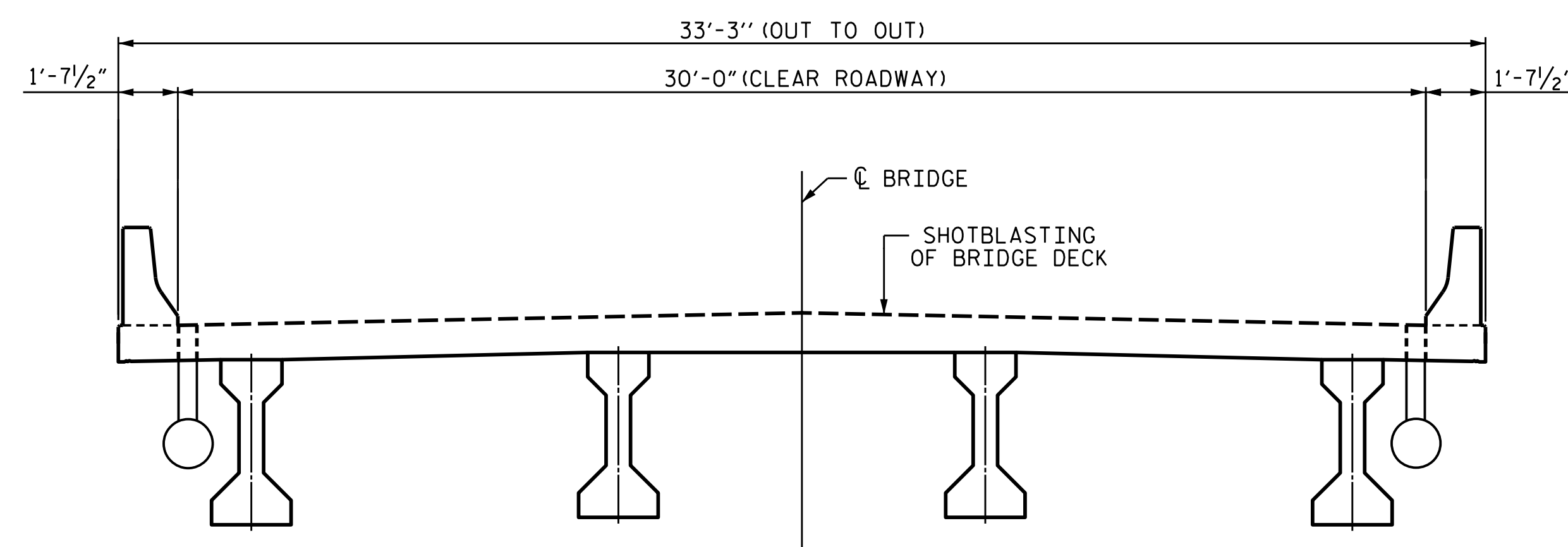
DRAWN BY : S. T. SANDOR DATE : .04/2021
 CHECKED BY : W. C. SMITH DATE : .05/2021

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

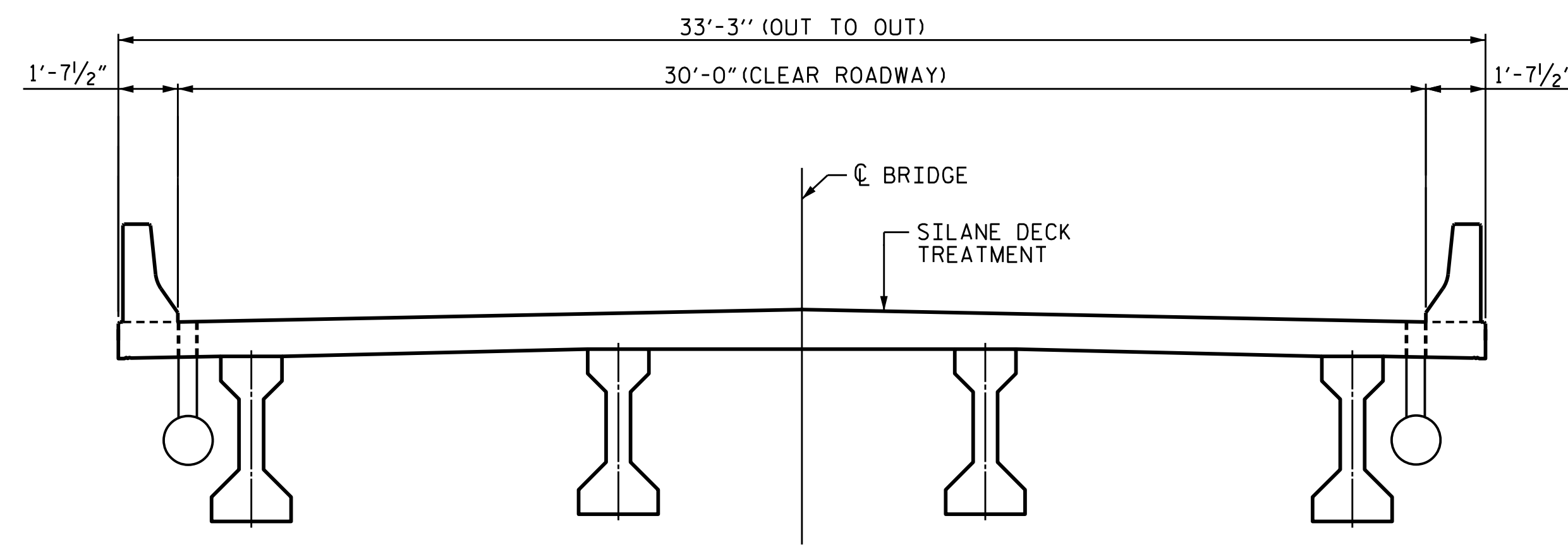
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S5-5
1			3			TOTAL SHEETS
2			4			13



TYPICAL SECTION
(EXISTING)



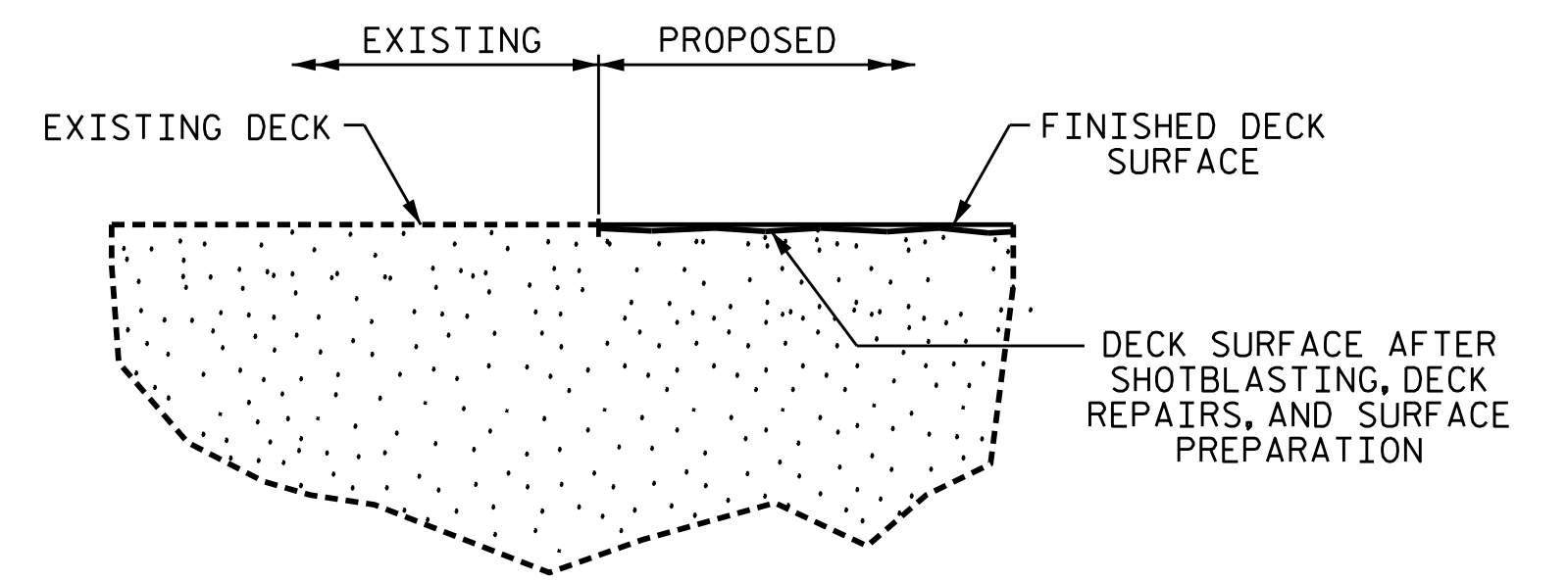
TYPICAL SECTION
(INTERMEDIATE)



TYPICAL SECTION
(PROPOSED)

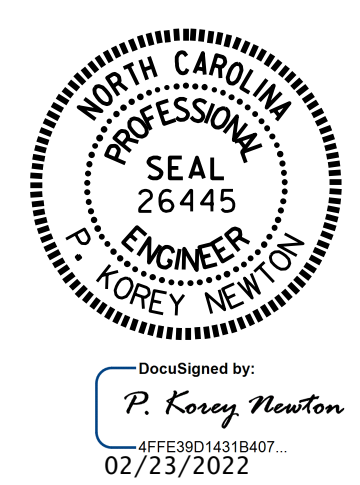
NOTES

SEE TRANSPORTATION MANAGEMENT PLANS FOR LANE WIDTHS, SEQUENCING AND OTHER TRAFFIC CONTROL MEASURES FOR STAGING OF SURFACE PREPARATION AND SILANE DECK TREATMENT.
GIRDERS ARE AASHTO TYPE IV PRESTRESSED CONCRETE GIRDERS.
FOR SILANE DECK TREATMENT, SEE SPECIAL PROVISIONS.
FOR CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT, SEE SPECIAL PROVISIONS.



DETAIL FOR SILANE DECK TREATMENT

PROJECT NO. 15BPR.56
PITT COUNTY
BRIDGE NO. 730127

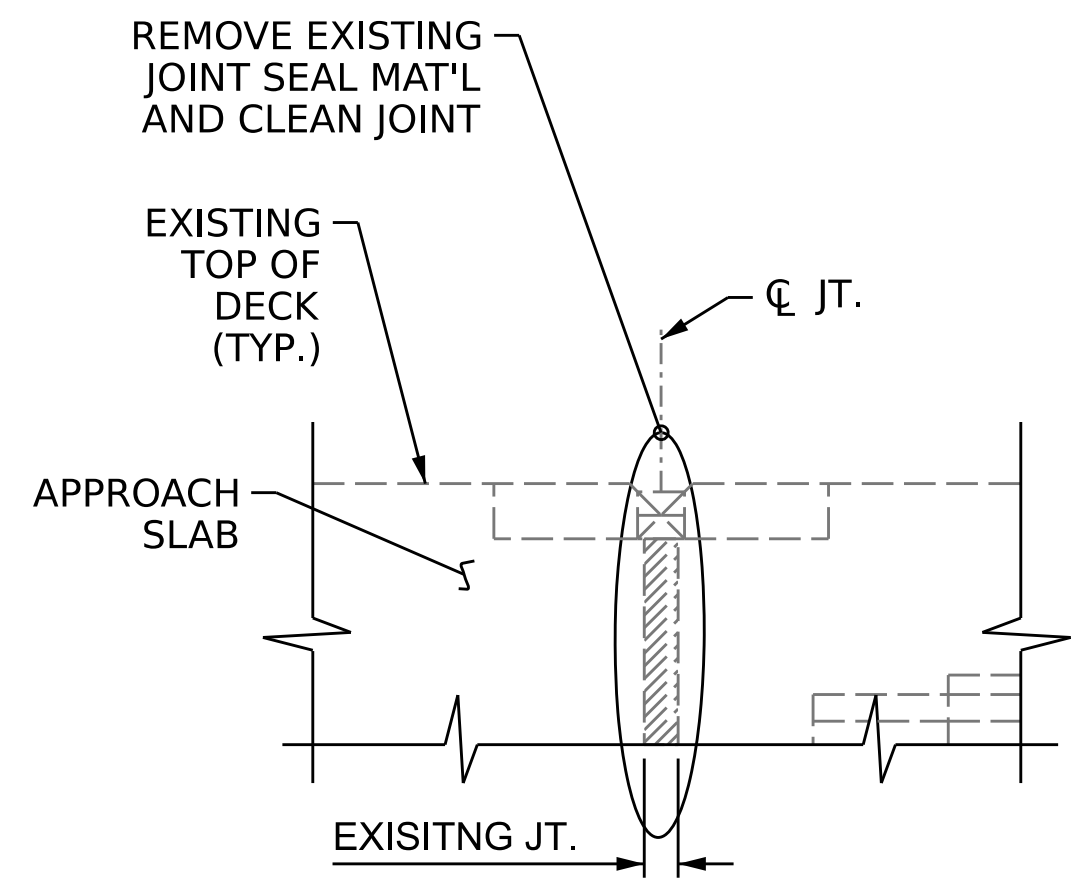


STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUPERSTRUCTURE
TYPICAL SECTION
FOR SILANE
DECK TREATMENT

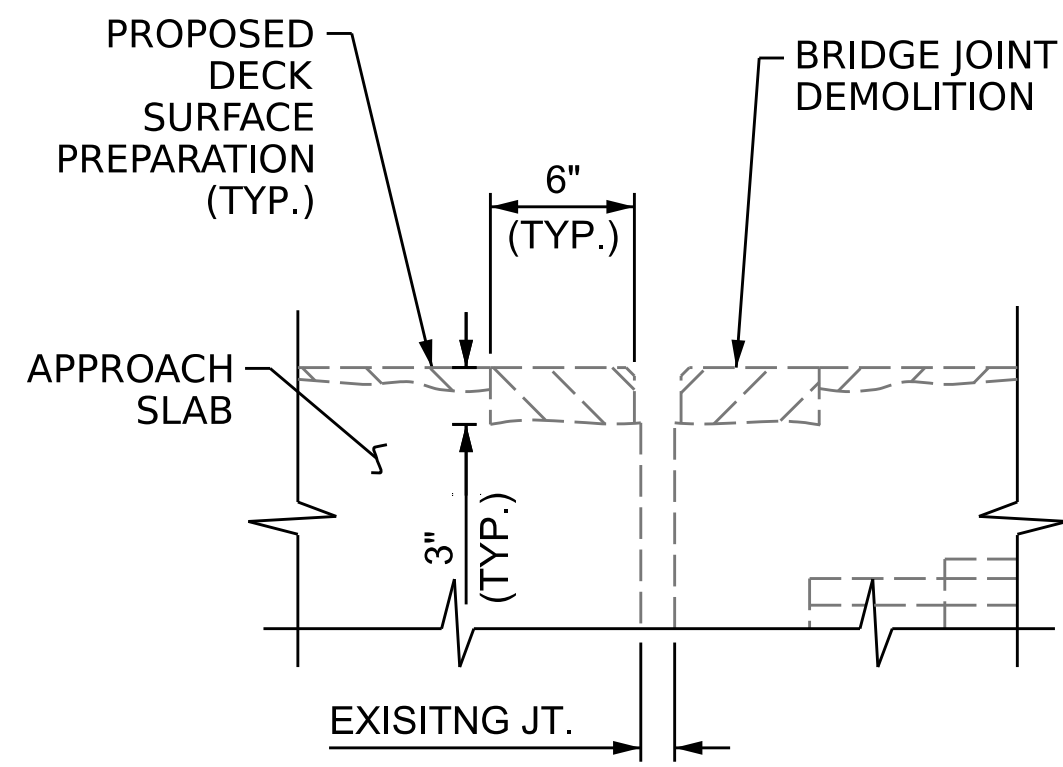
DRAWN BY : M. K. BEARD DATE : 08/2020
CHECKED BY : W. C. SMITH DATE : 10/2020

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S5-6
1			3			TOTAL SHEETS
2			4			13

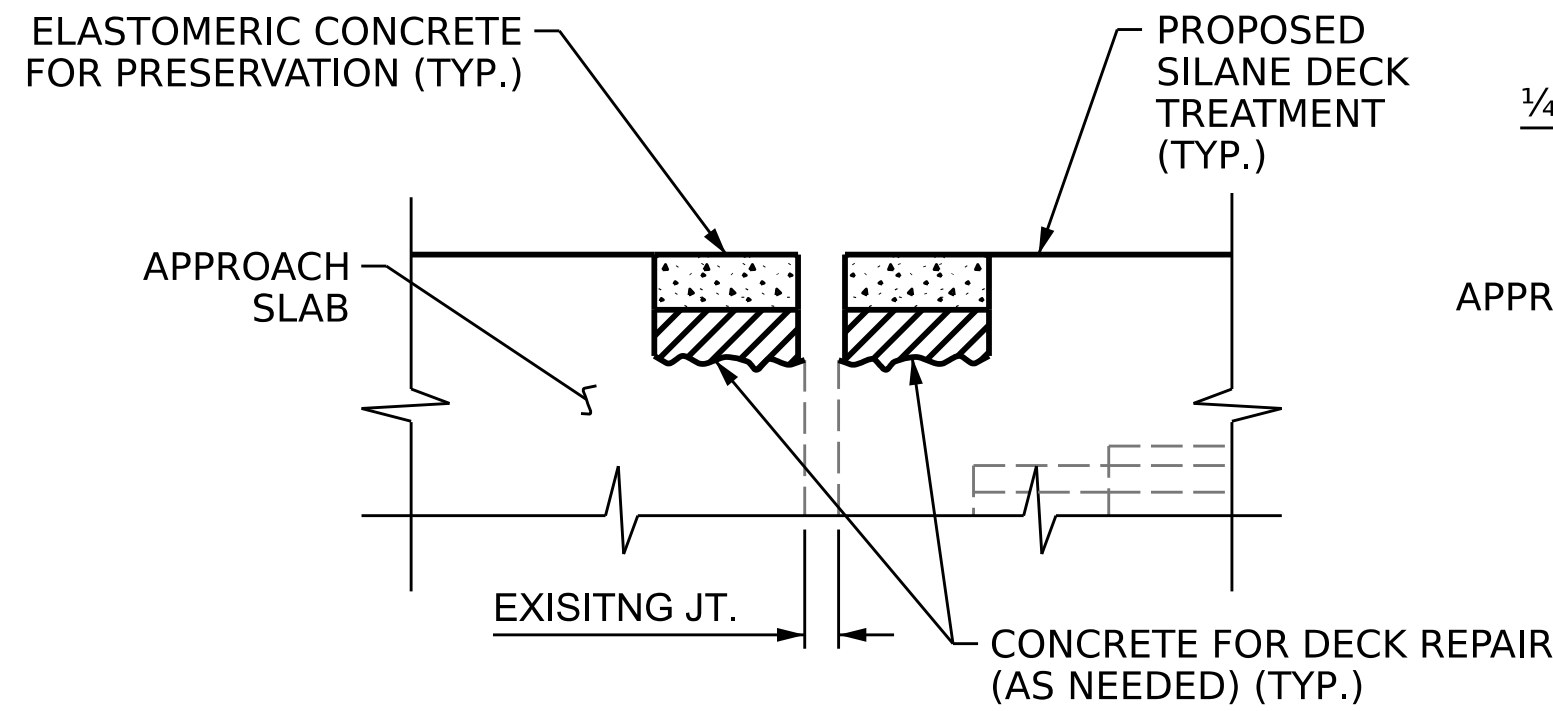
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



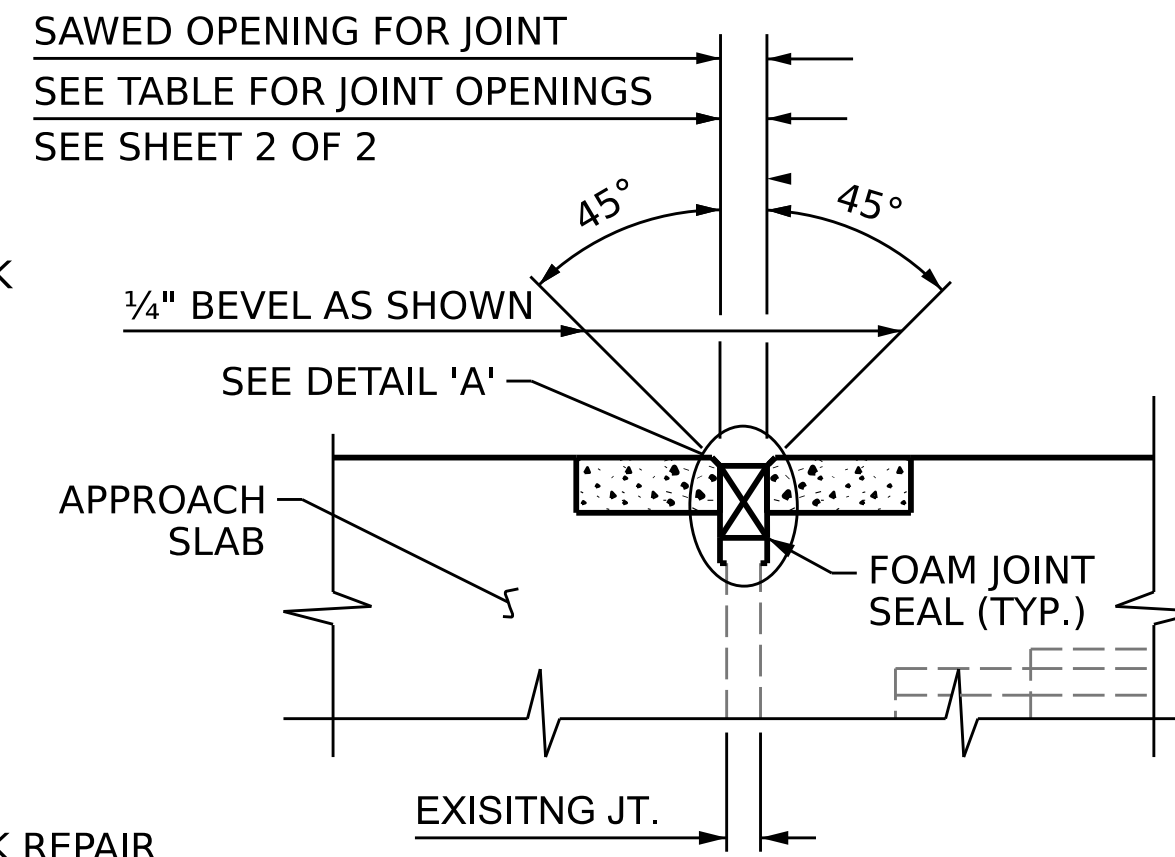
EXISTING JOINT SEAL



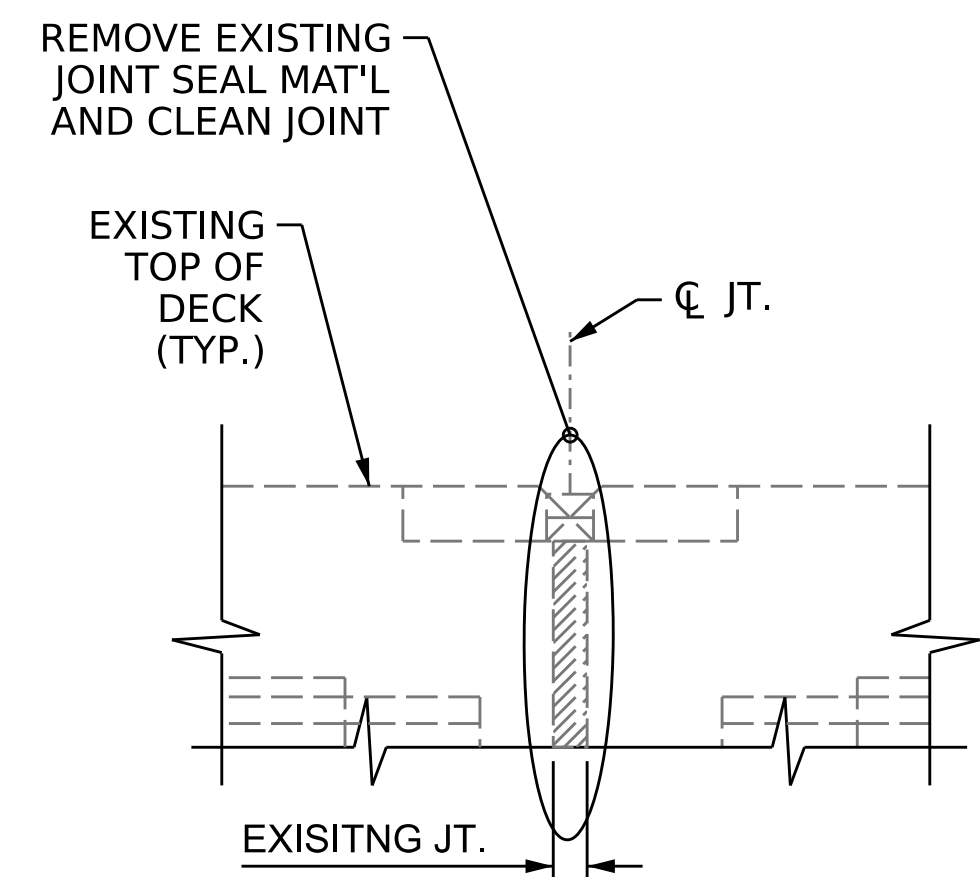
EXISTING JOINT AFTER JOINT DEMOLITION



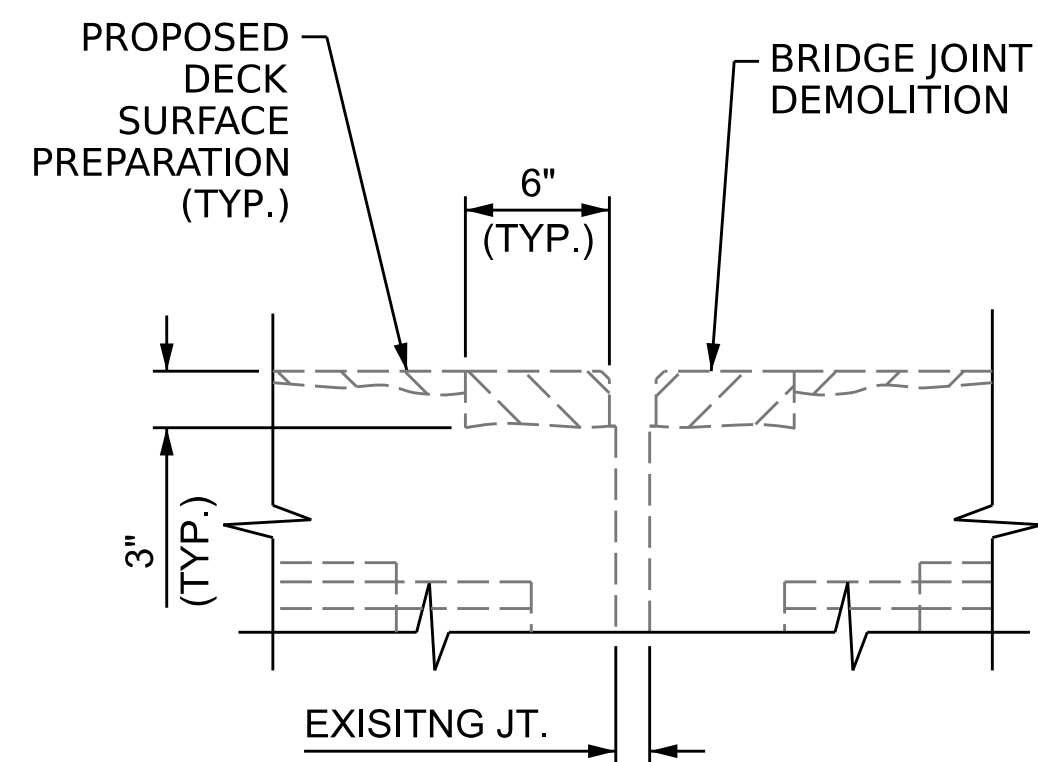
PROPOSED JOINT PRIOR TO SAWING



PROPOSED FOAM JOINT SEAL

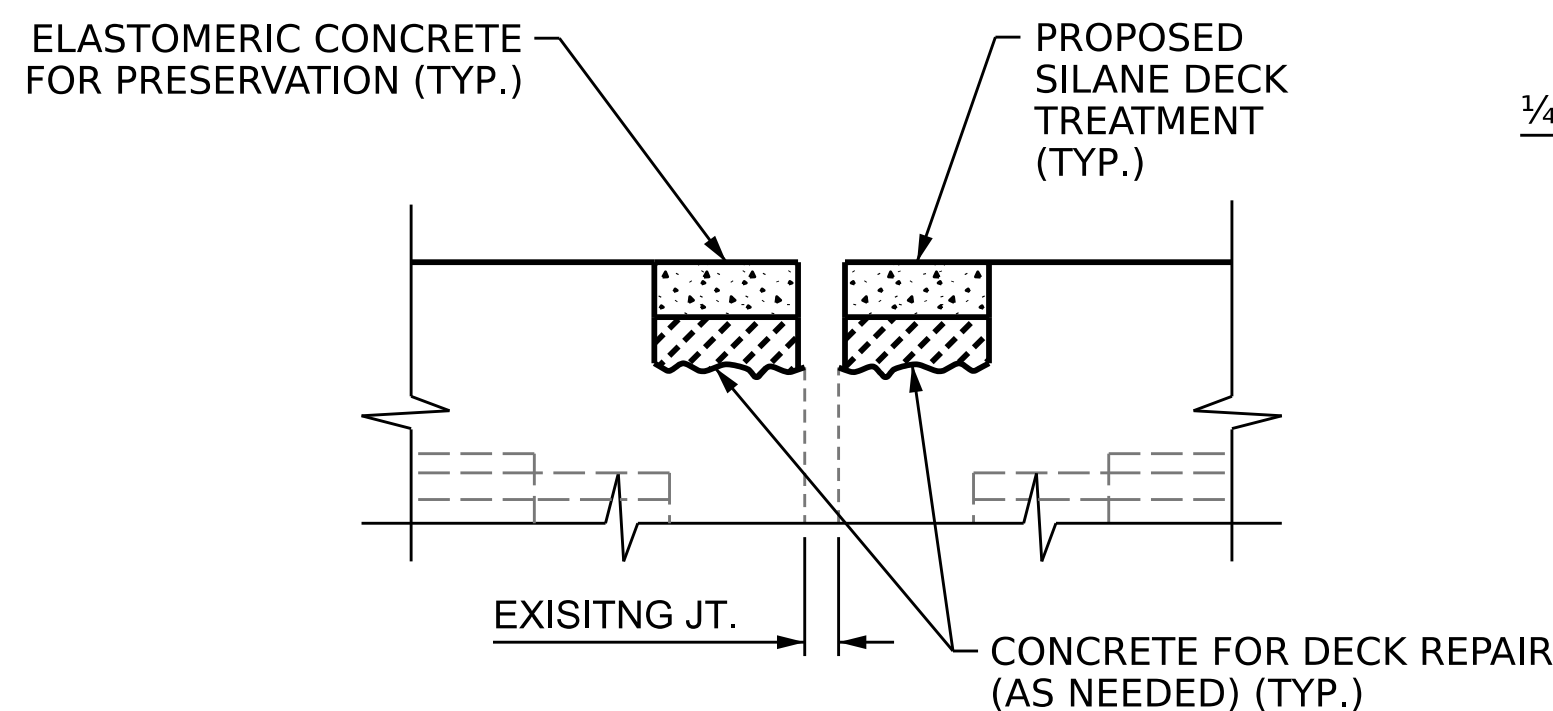


EXISTING JOINT SEAL

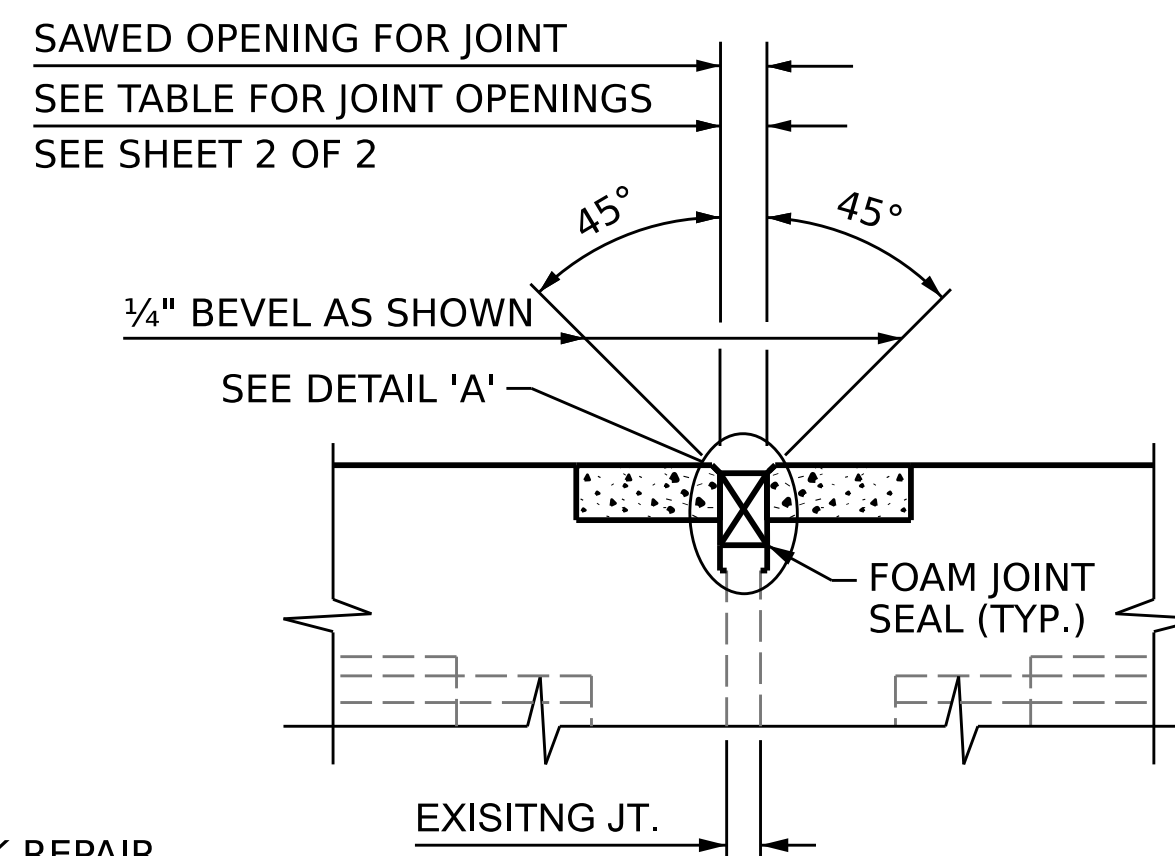


EXISTING JOINT AFTER JOINT DEMOLITION

SECTION A-A
(TYP. AT END BENTS)

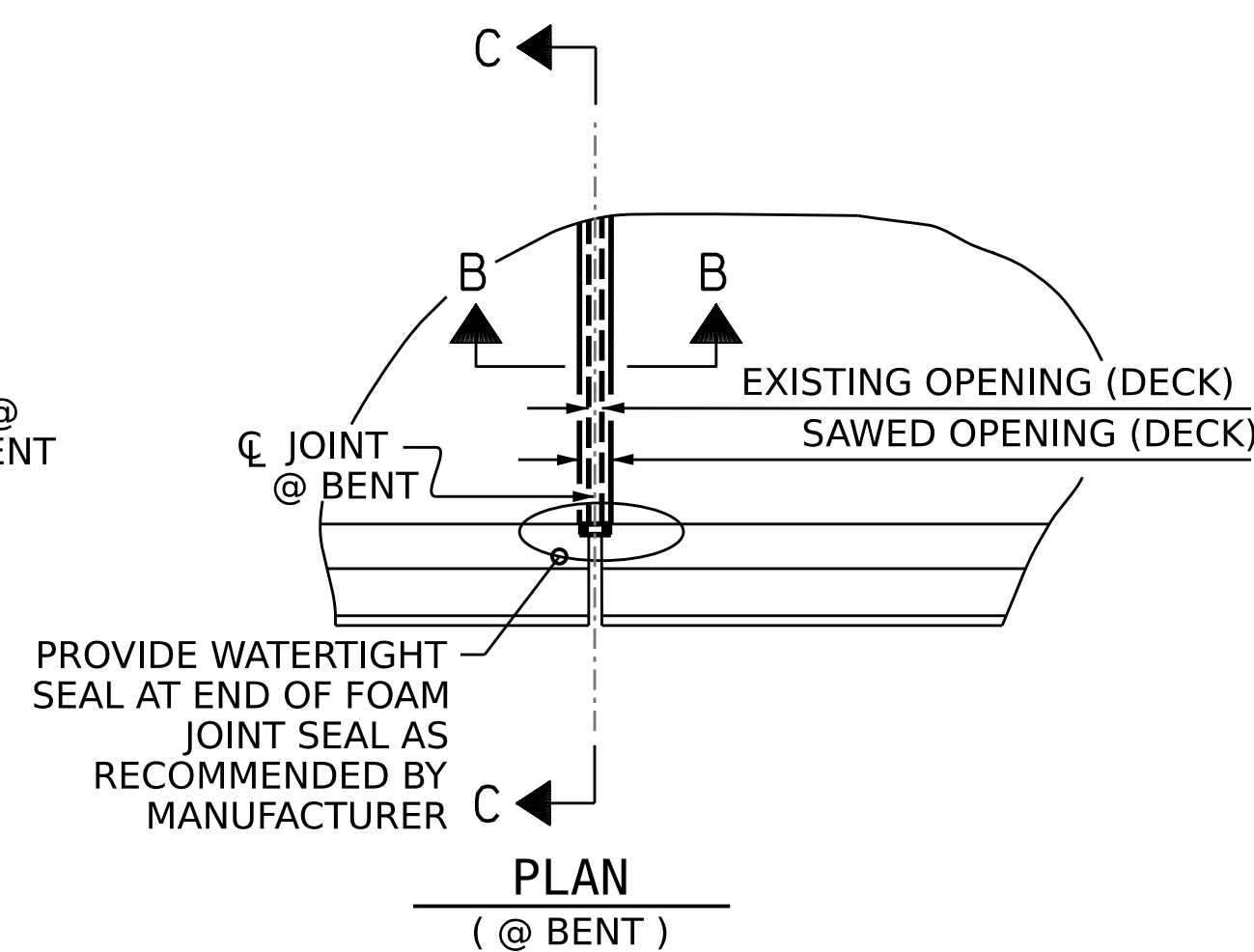
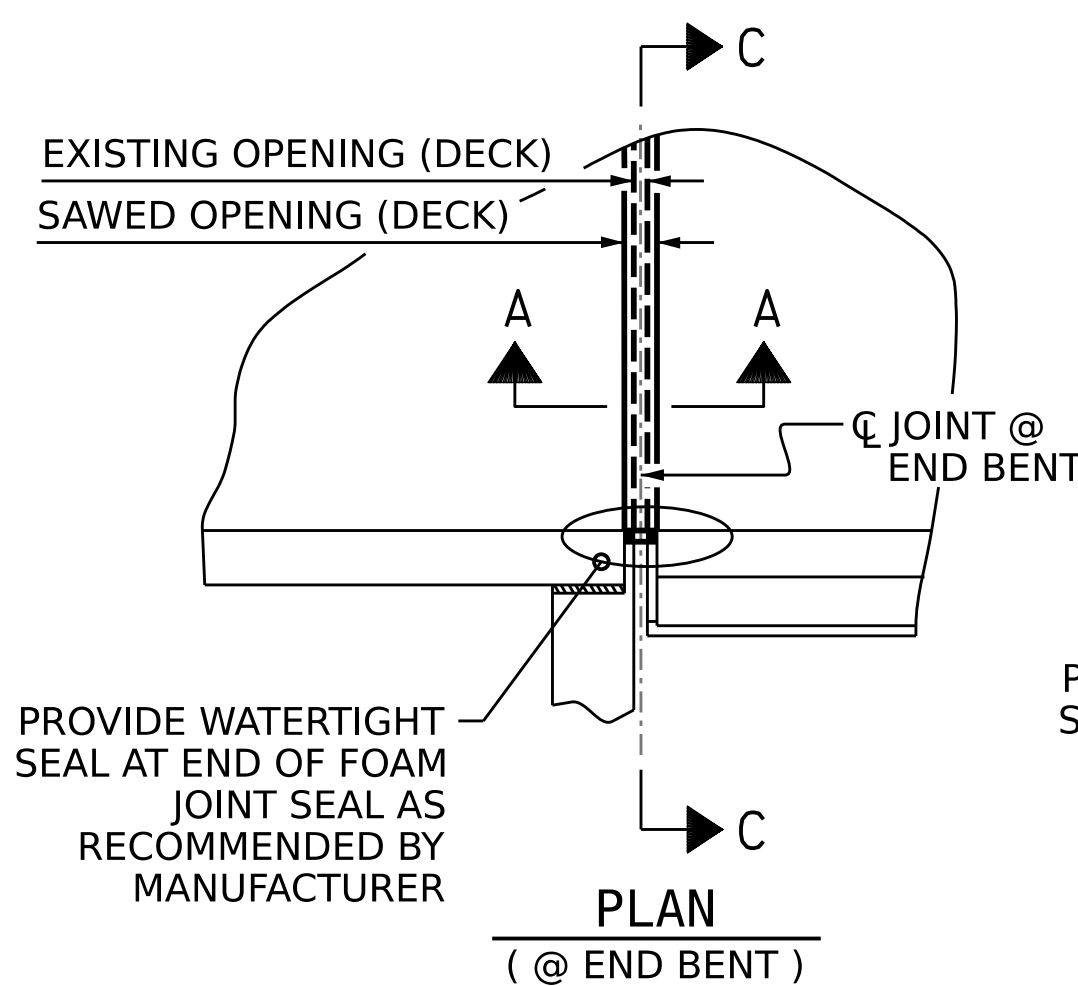


PROPOSED JOINT PRIOR TO SAWING

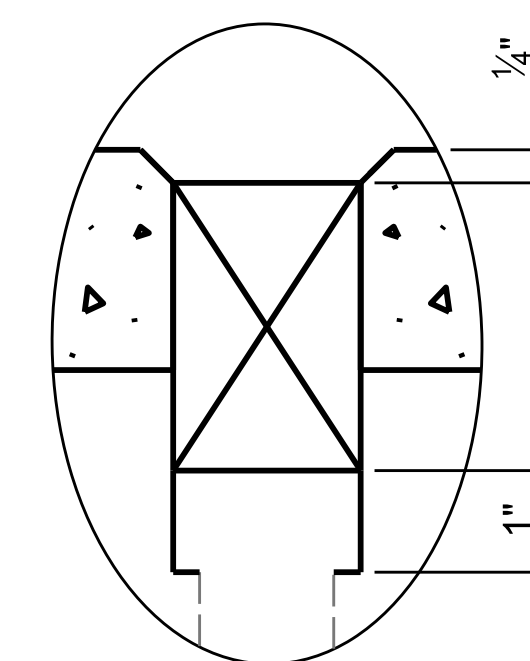
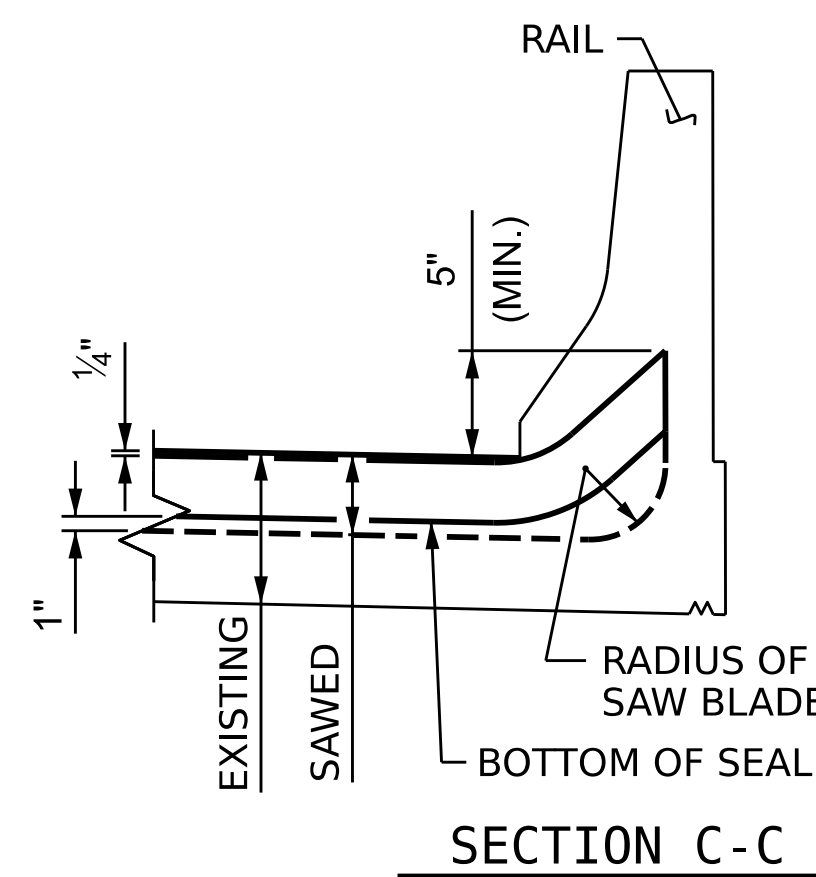


PROPOSED FOAM JOINT SEAL

SECTION B-B
(TYP. AT BENTS)



JOINT SEAL DETAILS



NOTES

FINAL JOINT SEALS SHALL NOT BE INSTALLED UNTIL THE OVERLAY OR SEALANT WORK IS COMPLETE.

THE CONTRACTOR SHALL FIELD VERIFY THE EXISTING JOINT OPENING PRIOR TO ORDERING JOINT SEAL MATERIAL. IF THE ACTUAL JOINT OPENING VARIES FROM THE OPENING INDICATED IN THE DETAILS BY MORE THAN 1/4", NOTIFY THE ENGINEER.

THE MANUFACTURER IS TO PROVIDE THE NOMINAL UNCOMPRESSED SEAL WIDTH OF THE FOAM JOINT SEAL FOR THE SIZE OF THE OPENING ON THE PLANS AND ACCOMMODATE THE MINIMUM EXPANSION SHOWN ON THE PLANS.

FOAM JOINTS SHALL BE INSTALLED AS PER THE MANUFACTURER'S RECOMMENDATIONS.

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

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

THE INSTALLED FOAM JOINTS SHALL BE WATER TIGHT.

FOR FOAM JOINT SEALS FOR PRESERVATION, SEE SPECIAL PROVISIONS.

THE CONTRACTOR SHALL SAW CUT TO A NOMINAL DEPTH OF 1/2" BUT REINFORCING STEEL SHALL NOT BE DAMAGED. CONTRACTOR SHALL REMOVE SURFACE CONCRETE TO VERIFY THAT SAWCUT DEPTH WILL NOT DAMAGE EXISTING REINFORCING STEEL.

QUANTITIES SHOWN IN THE ELASTOMERIC CONCRETE FOR PRESERVATION TABLE ARE BASED ON THE MINIMUM JOINT DEMOLITION SHOWN.

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

FOR EXCAVATION BELOW THE BOTTOM OF PLANNED JOINT DEMOLITION, CONCRETE FOR DECK REPAIR SHALL BE PLACED IN THE EXCAVATED AREA TO THE ELEVATION AT THE BOTTOM OF THE PROPOSED ELASTOMERIC CONCRETE FOR PRESERVATION HEADERS SHOWN.

FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.

FOR ELASTOMERIC CONCRETE FOR PRESERVATION, SEE SPECIAL PROVISIONS.

FOR CONCRETE FOR DECK REPAIR, SEE SPECIAL PROVISIONS.

PROJECT NO. **15BPR.56**
BEAUFORT COUNTY
 BRIDGE NO. **730127**

SHEET 1 OF 2



DocuSigned by:
P. Corey Newton
4FF99D14318407...
02/23/2022

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 STANDARDS
**JOINT REPAIR
 DETAILS**

ASSEMBLED BY : S. T. SANDOR DATE : 01/2022
 CHECKED BY : P. K. NEWTON DATE : 01/2022
 DRAWN BY : NAP 08/2018
 CHECKED BY : -

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S5-7
2			4			TOTAL SHEETS 13

JOINT REPAIR QUANTITY TABLE

	ESTIMATED	ACTUAL
FOAM JOINT SEALS FOR PRESERVATION	330.0 L.F.	

ELASTOMERIC CONCRETE FOR PRESERVATION

LOCATION	ESTIMATED (CU. FT.)	ACTUAL (CU. FT.)
END BENT 1	7.5	
BENT 2	7.5	
BENT 4	7.5	
BENT 6	7.5	
BENT 8	7.5	
BENT 10	7.5	
BENT 12	7.5	
BENT 14	7.5	
BENT 16	7.5	
BENT 18	7.5	
END BENT 2	7.5	
TOTAL	82.5	

SAWED JOINT OPENING TABLE

LOCATION	SAWED JOINT OPENING (PERPENDICULAR TO JOINT)		
	AT 45°	AT 60°	AT 90°
END BENT 1	2 1/8"	2"	1 11/16"
BENT 2	2 15/16"	2 5/8"	2 1/16"
BENT 4	2 15/16"	2 5/8"	2 1/16"
BENT 6	2 15/16"	2 5/8"	2 1/16"
BENT 8	2 15/16"	2 5/8"	2 1/16"
BENT 10	2 15/16"	2 5/8"	2 1/16"
BENT 12	2 15/16"	2 5/8"	2 1/16"
BENT 14	2 15/16"	2 5/8"	2 1/16"
BENT 16	3"	2 3/4"	2 1/4"
BENT 18	3"	2 3/4"	2 1/4"
END BENT 2	2 1/8"	2"	1 11/16"

PROJECT NO. 15BPR.56
PITT COUNTY
 BRIDGE NO. 730127

SHEET 2 OF 2

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

JOINT REPAIR DETAILS



DocuSigned by:
P. Corey Newton
 4FE93D14318A07...
 02/23/2022

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			55-8
2			4			13

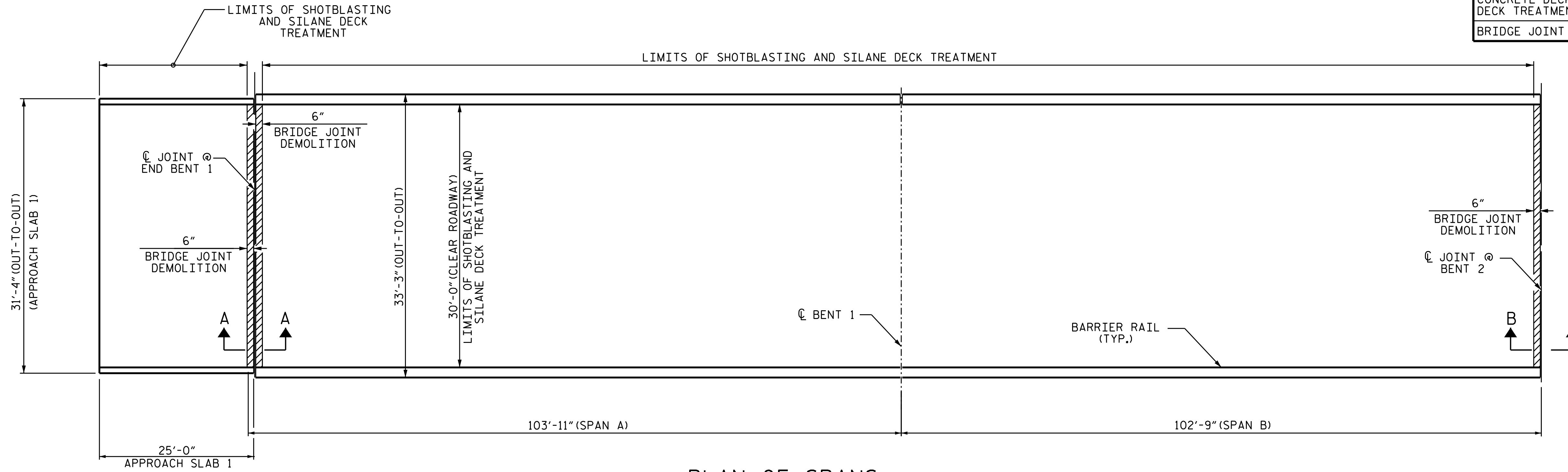
DRAWN BY : S. T. SANDOR DATE : 01/2022
 CHECKED BY : W. C. SMITH DATE : 01/2022
 DESIGN ENGINEER OF RECORD: _____ DATE : _____

NOTES

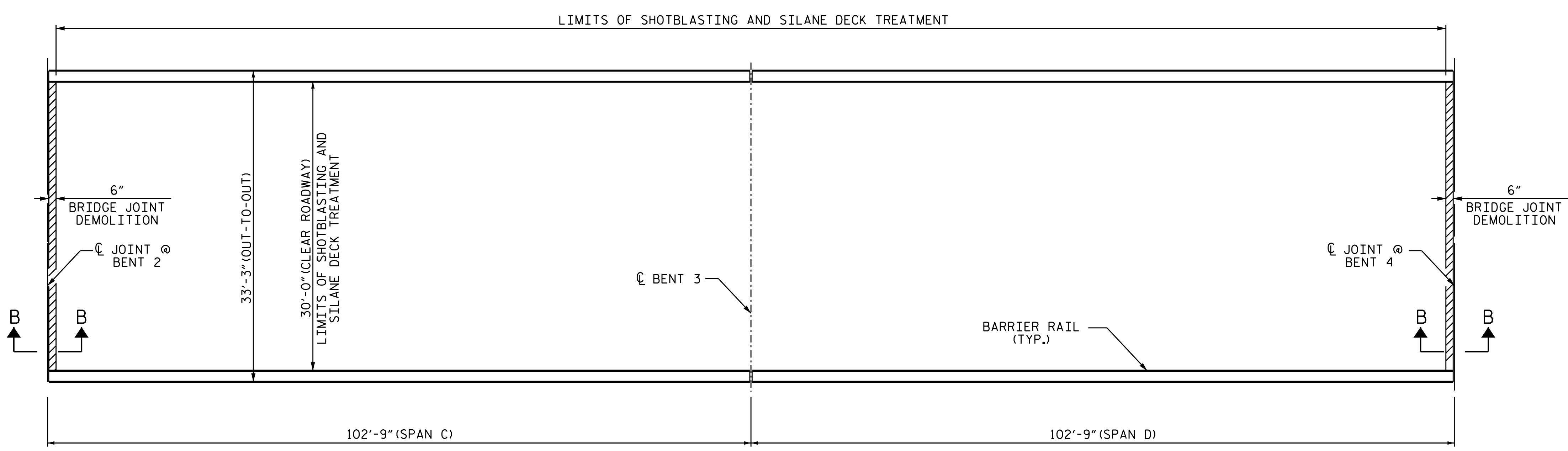
FOR SILANE DECK TREATMENT, SEE SPECIAL PROVISIONS.
 FOR CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT, SEE SPECIAL PROVISIONS.
 FOR SECTIONS A-A AND B-B, SEE "JOINT REPAIR DETAILS" SHEET.
 FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.

AS-BUILT REPAIR QUANTITY TABLE

DECK SURFACE REPAIRS - SPANS A THRU D		
	ESTIMATE	ACTUAL
SHOTBLASTING BRIDGE DECK	1,370.4 SQ. YDS.	
SILANE DECK TREATMENT	1,370.4 SQ. YDS.	
CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT	0.0 SQ. FT.	
BRIDGE JOINT DEMOLITION	60.0 SQ. FT.	
DECK SURFACE REPAIRS - APPROACH SLAB 1		
	ESTIMATE	ACTUAL
SHOTBLASTING BRIDGE DECK	83.3 SQ. YDS.	
SILANE DECK TREATMENT	83.3 SQ. YDS.	
CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT	0.0 SQ. YDS.	
BRIDGE JOINT DEMOLITION	15.0 SQ. FT.	



PLAN OF SPANS
(APPROACH SLAB 1 AND SPANS A & B)

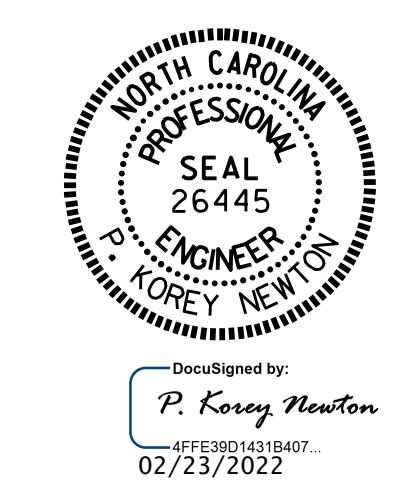


PLAN OF SPANS
(SPANS C & D)

- SHOTBLASTING BRIDGE DECK AND SILANE DECK TREATMENT AREA
- ERI - EPOXY RESIN INJECTION
- BRIDGE JOINT DEMOLITION

PROJECT NO. 15BPR.56
PITT COUNTY
 BRIDGE NO. 730127

SHEET 1 OF 5



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

**SUPERSTRUCTURE
 PLAN OF SPANS
 AND
 APPROACH SLAB 1**

DRAWN BY : S. T. SANDOR DATE : 07/2021
 CHECKED BY : W. C. SMITH DATE : 07/2021

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

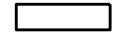

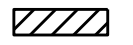
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S5-9
2			4			TOTAL SHEETS 13

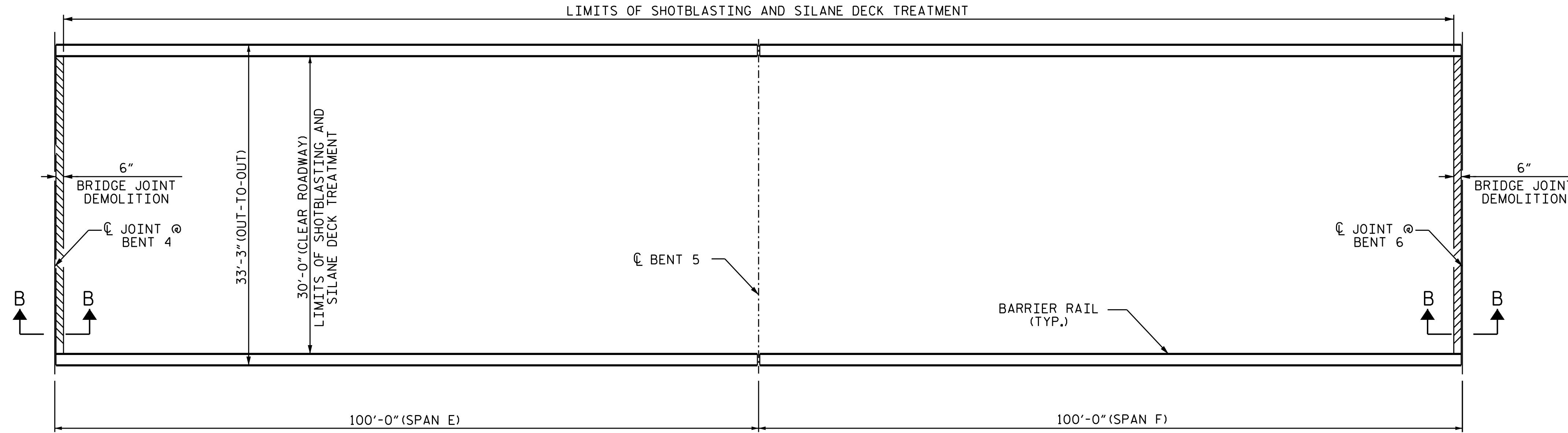
NOTES

FOR SILANE DECK TREATMENT, SEE SPECIAL PROVISIONS.
 FOR CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT, SEE SPECIAL PROVISIONS.
 FOR SECTION B-B, SEE "JOINT REPAIR DETAILS" SHEET.
 FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.

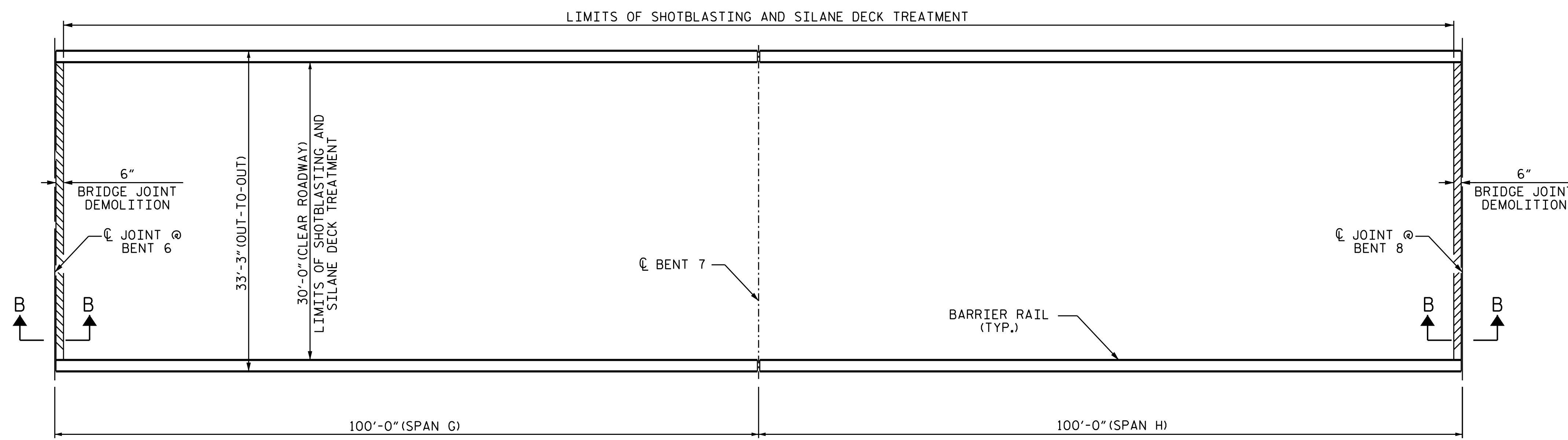
AS-BUILT REPAIR QUANTITY TABLE

DECK SURFACE REPAIRS - SPANS E THRU H		
	ESTIMATE	ACTUAL
SHOTBLASTING BRIDGE DECK	1,333.3 SQ. YDS.	
SILANE DECK TREATMENT	1,333.3 SQ. YDS.	
CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT	0.0 SQ. FT.	
BRIDGE JOINT DEMOLITION	60.0 SQ. FT.	

-  SHOTBLASTING BRIDGE DECK AND SILANE DECK TREATMENT AREA
-  ERI - EPOXY RESIN INJECTION
-  BRIDGE JOINT DEMOLITION



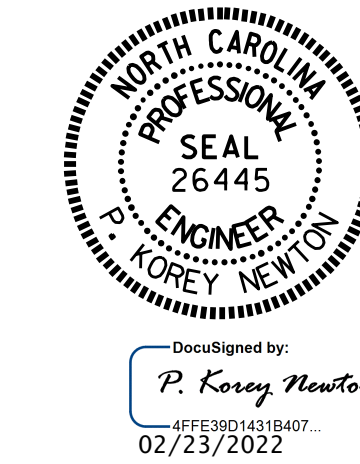
PLAN OF SPANS
(SPANS E & F)



PLAN OF SPANS
(SPANS G & H)

PROJECT NO. 15BPR.56
PITT COUNTY
 BRIDGE NO. 730127

SHEET 2 OF 5



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
SUPERSTRUCTURE
PLAN OF SPANS

DRAWN BY : S. T. SANDOR DATE : 07/2021
 CHECKED BY : W. C. SMITH DATE : 07/2021

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

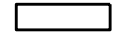

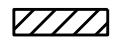
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S5-10
1			3			TOTAL SHEETS
2			4			13

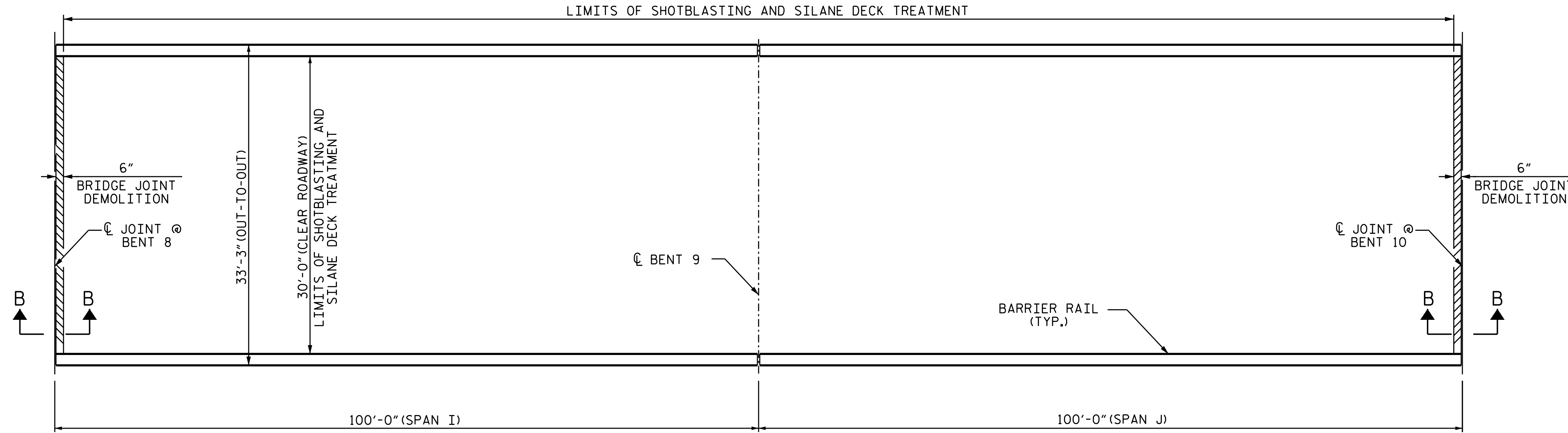
NOTES

FOR SILANE DECK TREATMENT, SEE SPECIAL PROVISIONS.
 FOR CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT, SEE SPECIAL PROVISIONS.
 FOR SECTION B-B, SEE "JOINT REPAIR DETAILS" SHEET.
 FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.

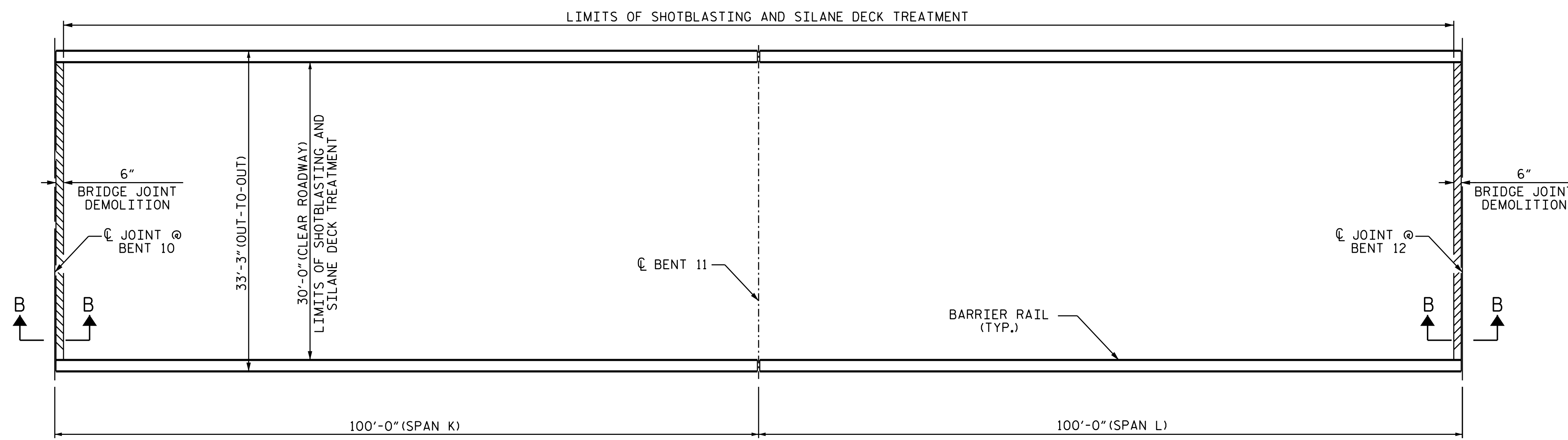
AS-BUILT REPAIR QUANTITY TABLE

DECK SURFACE REPAIRS - SPANS I THRU L		
	ESTIMATE	ACTUAL
SHOTBLASTING BRIDGE DECK	1,333.3 SQ. YDS.	
SILANE DECK TREATMENT	1,333.3 SQ. YDS.	
CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT	0.0 SQ. FT.	
BRIDGE JOINT DEMOLITION	60.0 SQ. FT.	

-  SHOTBLASTING BRIDGE DECK AND SILANE DECK TREATMENT AREA
-  ERI - EPOXY RESIN INJECTION
-  BRIDGE JOINT DEMOLITION



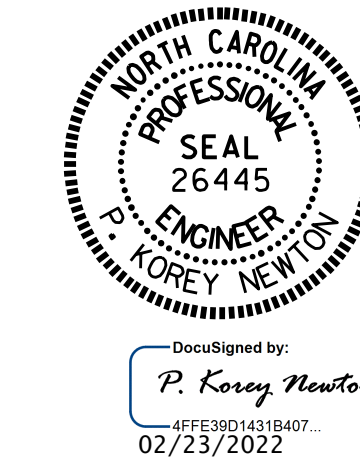
PLAN OF SPANS
(SPANS I & J)



PLAN OF SPANS
(SPANS K & L)

PROJECT NO. 15BPR.56
PITT COUNTY
 BRIDGE NO. 730127

SHEET 3 OF 5



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
SUPERSTRUCTURE
PLAN OF SPANS

DRAWN BY : S. T. SANDOR DATE : 07/2021
 CHECKED BY : W. C. SMITH DATE : 07/2021

NO.	BY:	DATE:	REVISIONS			SHEET NO.
			NO.	BY:	DATE:	
1			3			S5-11
2			4			TOTAL SHEETS 13




DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

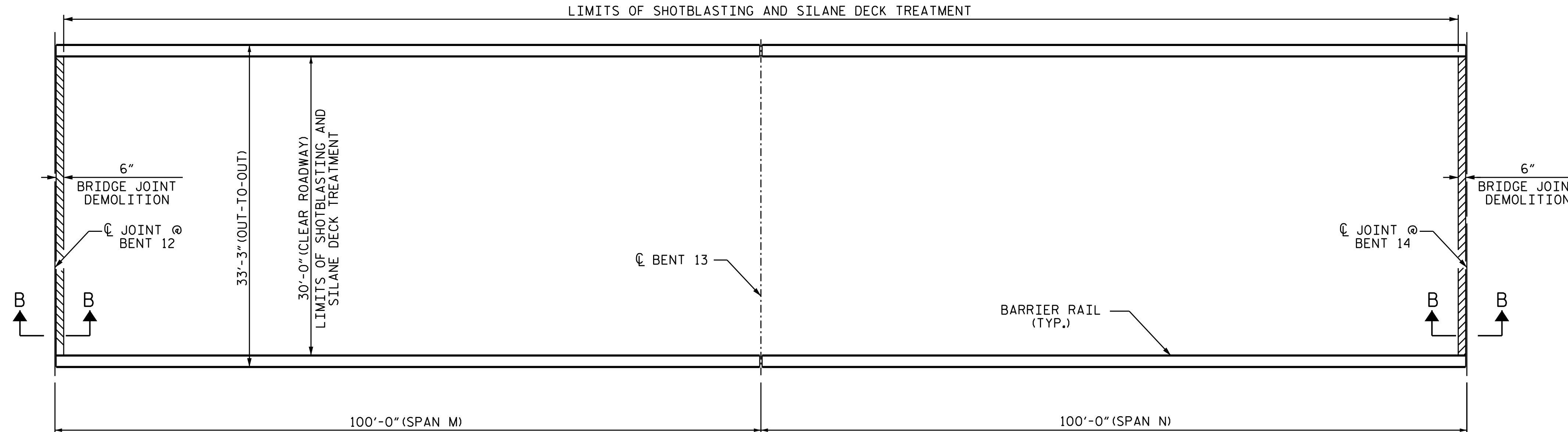
NOTES

FOR SILANE DECK TREATMENT, SEE SPECIAL PROVISIONS.
 FOR CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT, SEE SPECIAL PROVISIONS.
 FOR SECTION B-B, SEE "JOINT REPAIR DETAILS" SHEET.
 FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.

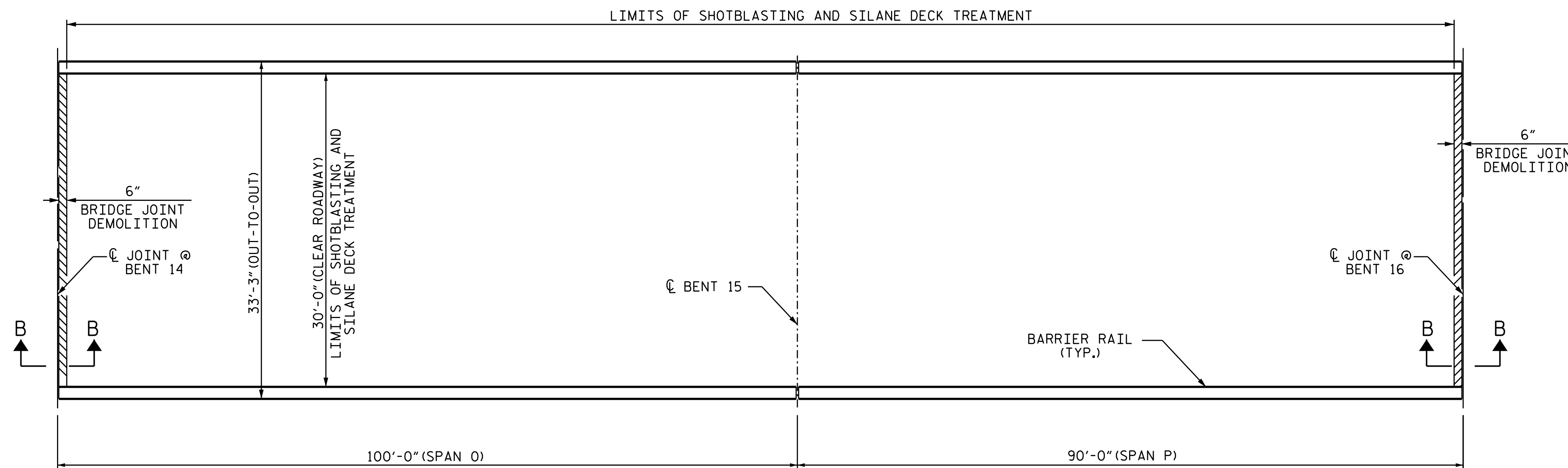
AS-BUILT REPAIR QUANTITY TABLE

DECK SURFACE REPAIRS - SPANS M THRU P		
	ESTIMATE	ACTUAL
SHOTBLASTING BRIDGE DECK	1,300.0 SQ. YDS.	
SILANE DECK TREATMENT	1,300.0 SQ. YDS.	
CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT	0.0 SQ. FT.	
BRIDGE JOINT DEMOLITION	60.0 SQ. FT.	

-  SHOTBLASTING BRIDGE DECK AND SILANE DECK TREATMENT AREA
-  ERI - EPOXY RESIN INJECTION
-  BRIDGE JOINT DEMOLITION



PLAN OF SPANS
(SPANS M & N)



PLAN OF SPANS
(SPANS O & P)

PROJECT NO. 15BPR.56
PITT COUNTY
 BRIDGE NO. 730127

SHEET 4 OF 5



DocuSigned by:
P. Corey Newton
 4FEF8D1431B407...
 02/23/2022

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

**SUPERSTRUCTURE
 PLAN OF SPANS**

DRAWN BY : S. T. SANDOR DATE : 07/2021
 CHECKED BY : W. C. SMITH DATE : 07/2021

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

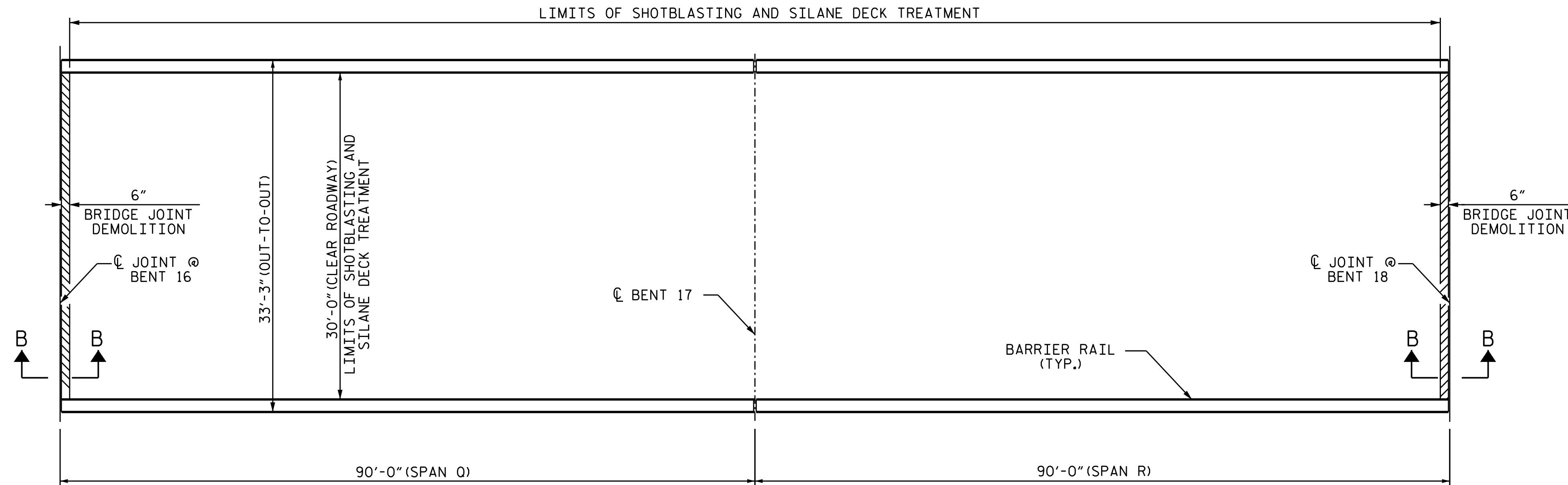
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S5-12
1			3			TOTAL SHEETS
2			4			13

NOTES

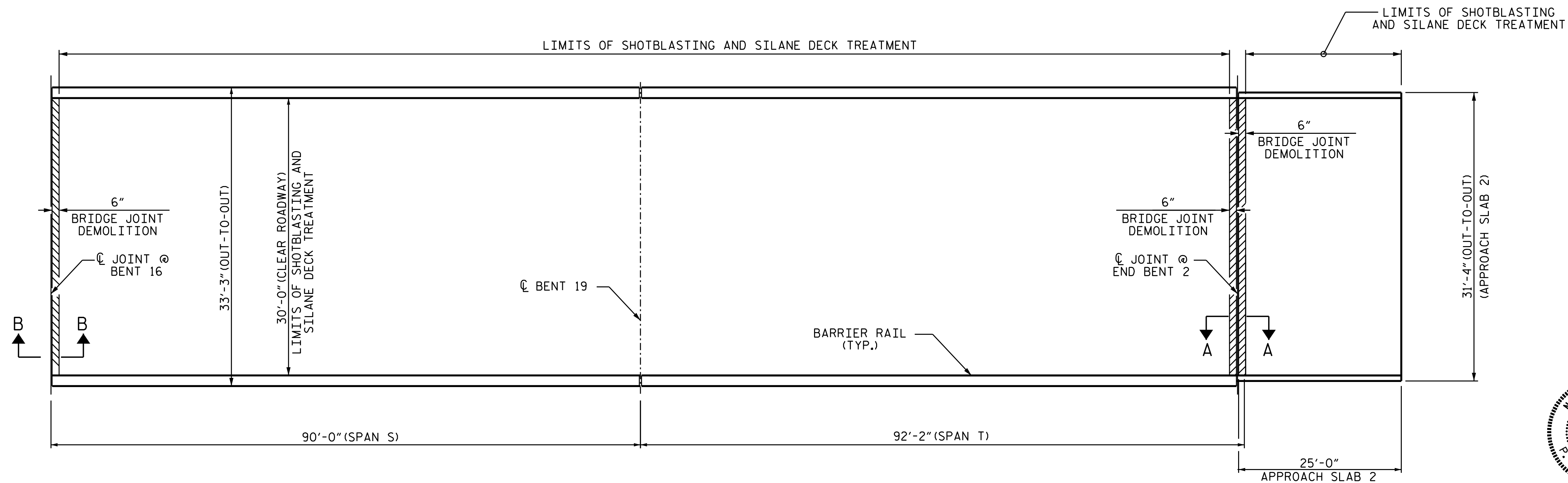
FOR SILANE DECK TREATMENT, SEE SPECIAL PROVISIONS.
 FOR CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT, SEE SPECIAL PROVISIONS.
 FOR SECTIONS A-A AND B-B, SEE "JOINT REPAIR DETAILS" SHEET.
 FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.

AS-BUILT REPAIR QUANTITY TABLE

DECK SURFACE REPAIRS - SPANS Q THRU T		
	ESTIMATE	ACTUAL
SHOTBLASTING BRIDGE DECK	1,200.4 SQ. YDS.	
SILANE DECK TREATMENT	1,200.4 SQ. YDS.	
CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT	0.0 SQ. FT.	
BRIDGE JOINT DEMOLITION	60.0 SQ. FT.	
DECK SURFACE REPAIRS - APPROACH SLAB 2		
	ESTIMATE	ACTUAL
SHOTBLASTING BRIDGE DECK	83.3 SQ. YDS.	
SILANE DECK TREATMENT	83.3 SQ. YDS.	
CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT	0.0 SQ. YDS.	
BRIDGE JOINT DEMOLITION	15.0 SQ. FT.	



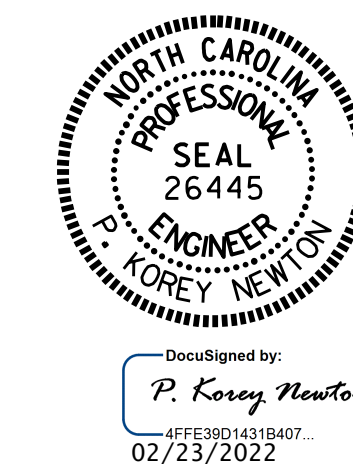
PLAN OF SPANS
(SPANS Q & R)



PLAN OF SPANS
(SPANS S & T AND APPROACH SLAB 2)

PROJECT NO. 15BPR.56
PITT COUNTY
 BRIDGE NO. 730127

SHEET 5 OF 5



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
**SUPERSTRUCTURE
 PLAN OF SPANS
 AND
 APPROACH SLAB 2**

DRAWN BY : S. T. SANDOR DATE : 07/2021
 CHECKED BY : W. C. SMITH DATE : 07/2021

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S5-13
2			4			TOTAL SHEETS 13

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 $1\frac{1}{2}$ " 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