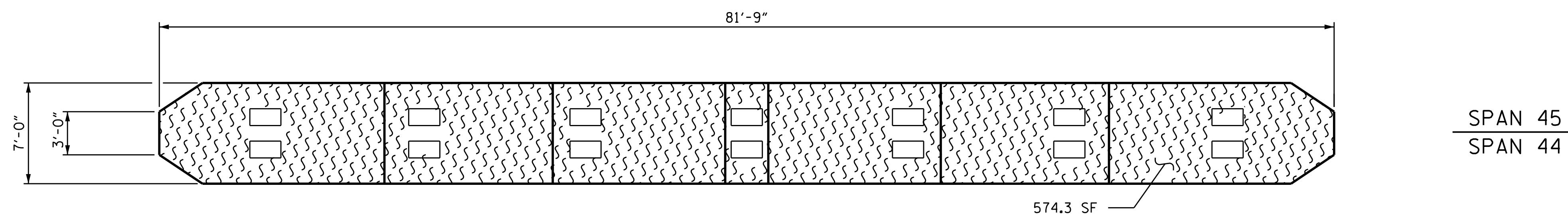


REPAIR QUANTITY TABLE

BENT 44	QUANTITIES		AREA SF	VOLUME CF
	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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	784.0			

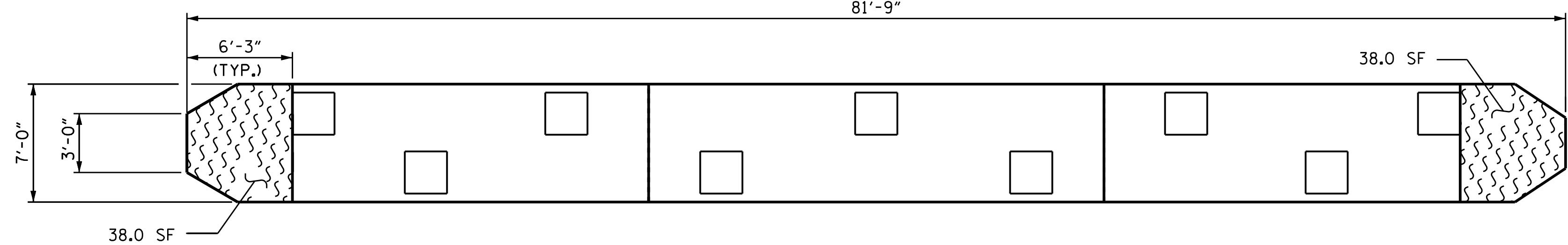
VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

TOP VIEW OF CAP



SPAN 45
SPAN 44

81'-9"



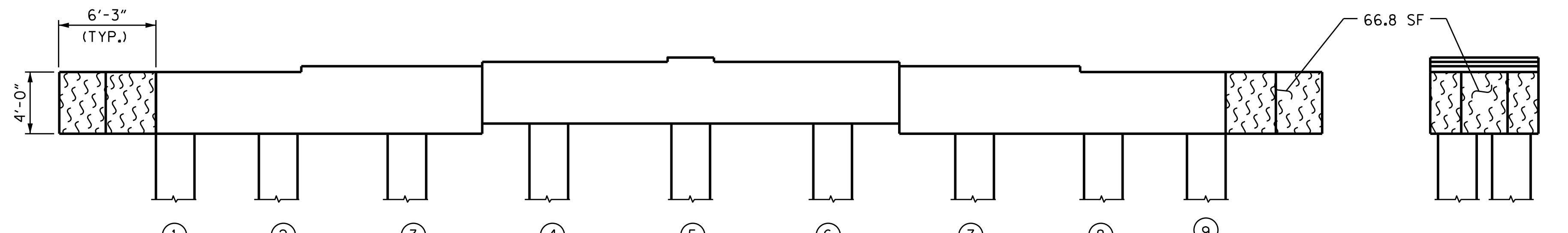
SPAN 44
SPAN 45

38.0 SF

BOTTOM VIEW OF CAP

NOTES:

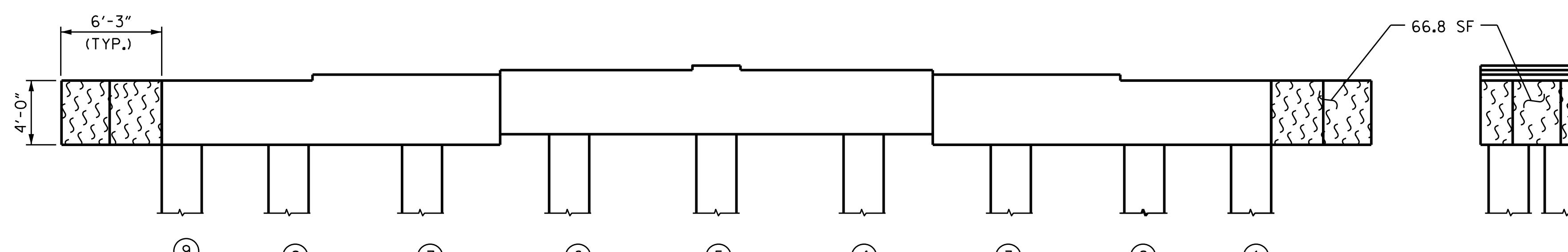
FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.



EAST END

ELEVATION

(SOUTH SIDE)
(LOOKING NORTH)



WEST END

ELEVATION

(NORTH SIDE)
(LOOKING SOUTH)

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- EPOXY COATING

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 44 OF 140

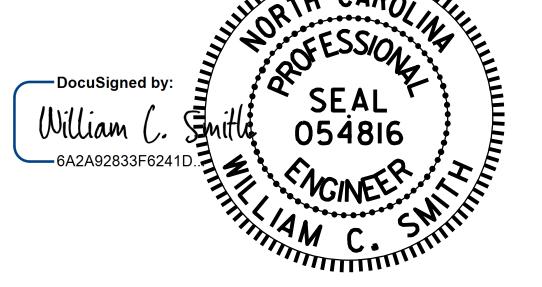
STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

SUBSTRUCTURE REPAIR

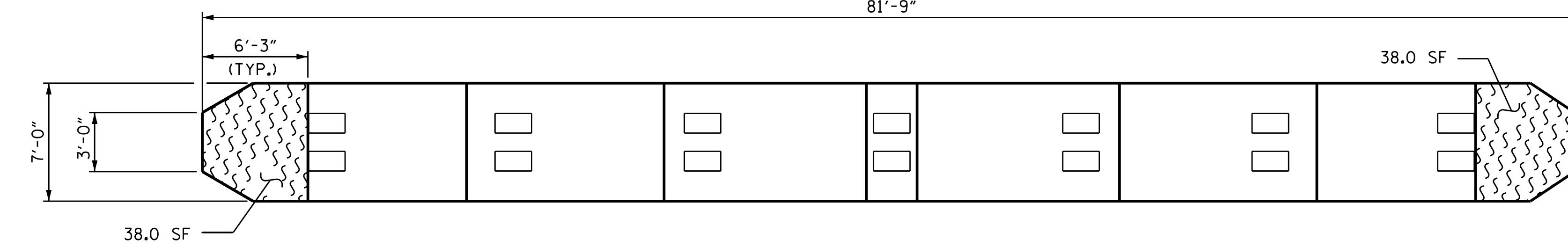
BENT 44



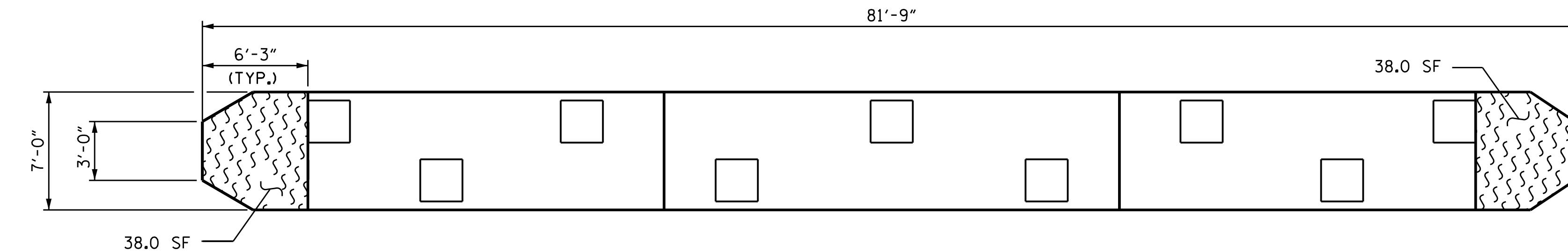
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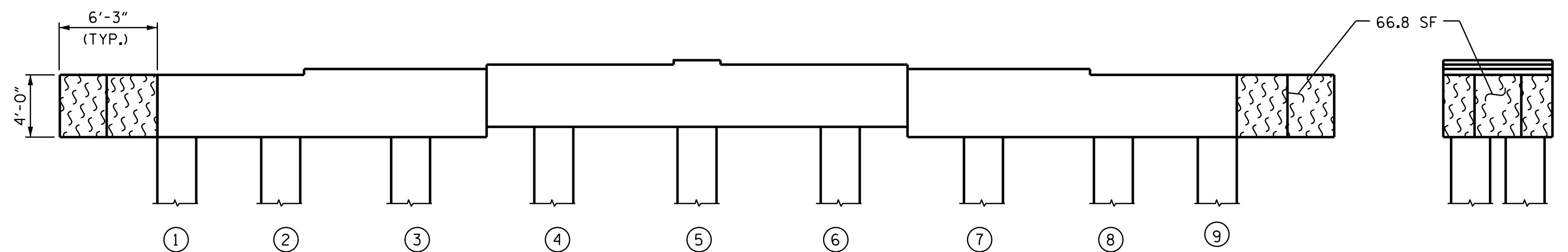
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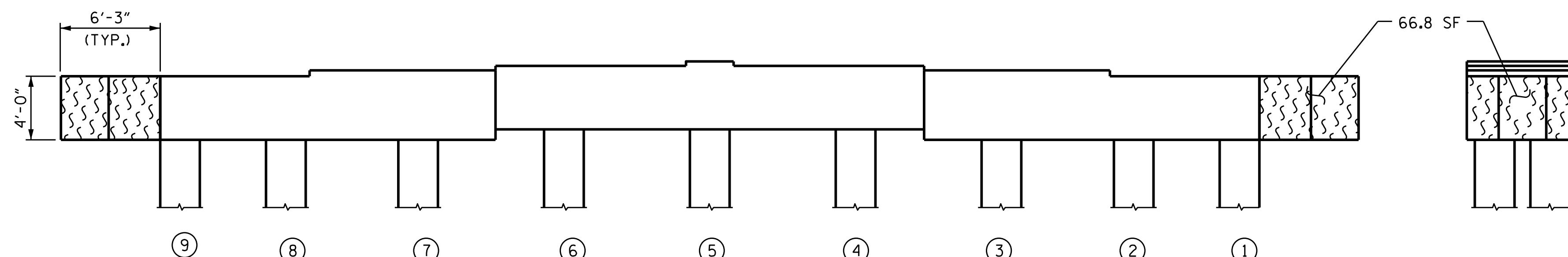
TOP VIEW OF CAP



BOTTOM VIEW OF CAP



ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)



ELEVATION
(NORTH SIDE)
(LOOKING SOUTH)

DRAWN BY : S. T. SANDOR DATE : 6/19/24
CHECKED BY : W. C. SMITH DATE : 7/09/24

11/21/2025

REPAIR QUANTITY TABLE

BENT 45	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	285.6			

VALUES IN THE REPAIR QUANTITY TABLE 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:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

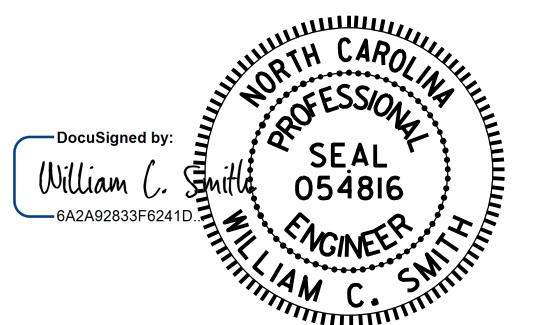
- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- EPOXY COATING

PROJECT NO. 15BPR.137
BEAUFORT COUNTY
BRIDGE NO. 060353

SHEET 45 OF 140

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUBSTRUCTURE REPAIR

BENT 45



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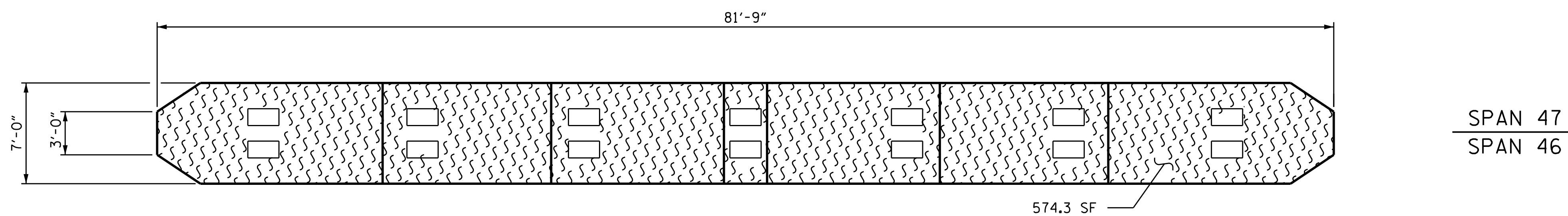
TOTAL SHEETS
217

REPAIR QUANTITY TABLE

BENT 46	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	784.0			

VALUES IN THE REPAIR QUANTITY TABLE 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.

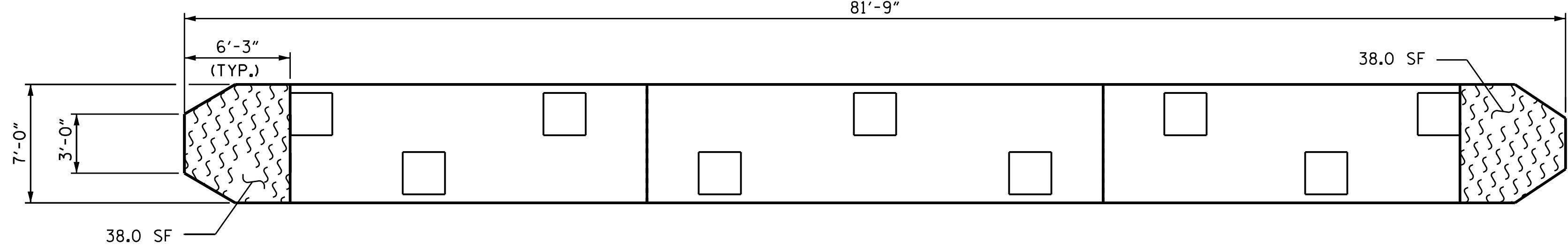
TOP VIEW OF CAP



SPAN 47
SPAN 46

81'-9"

574.3 SF

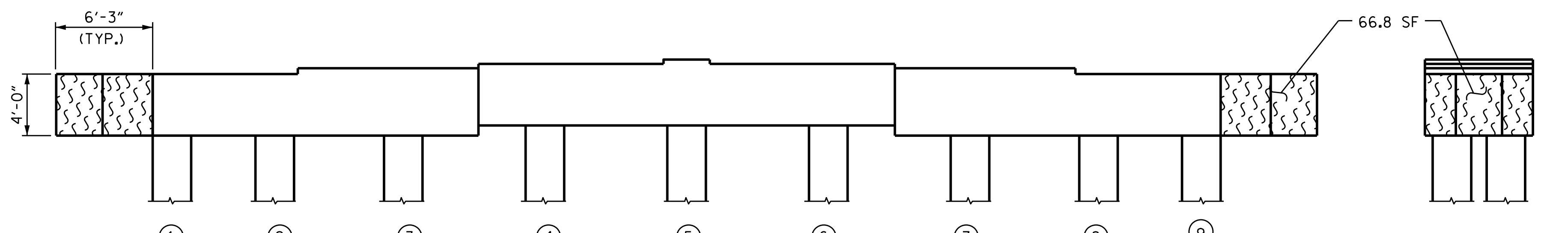


SPAN 46
SPAN 47

81'-9"

38.0 SF

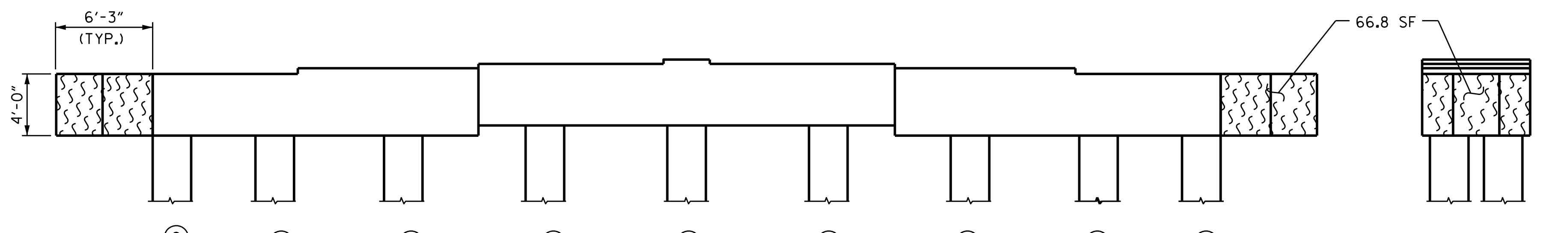
BOTTOM VIEW OF CAP



EAST END

ELEVATION

(SOUTH SIDE)
(LOOKING NORTH)



WEST END

ELEVATION

(NORTH SIDE)
(LOOKING SOUTH)

DRAWN BY : S. T. SANDOR DATE : 6/19/24
CHECKED BY : W. C. SMITH DATE : 7/09/24

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11/21/2025

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BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 46 OF 140

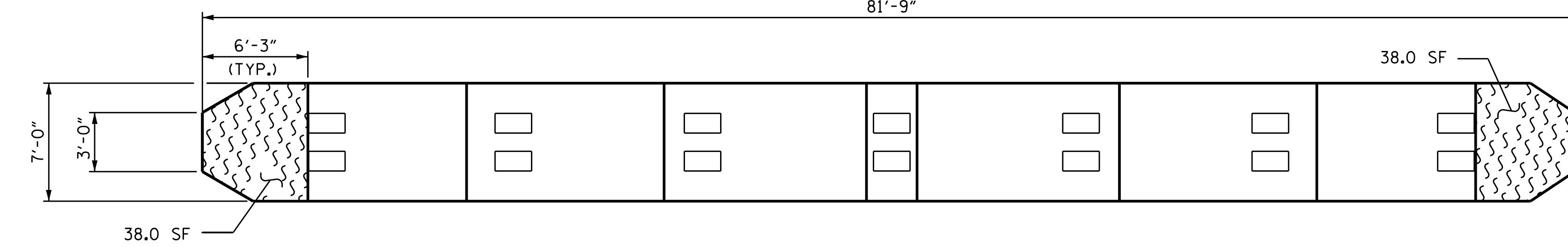
STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

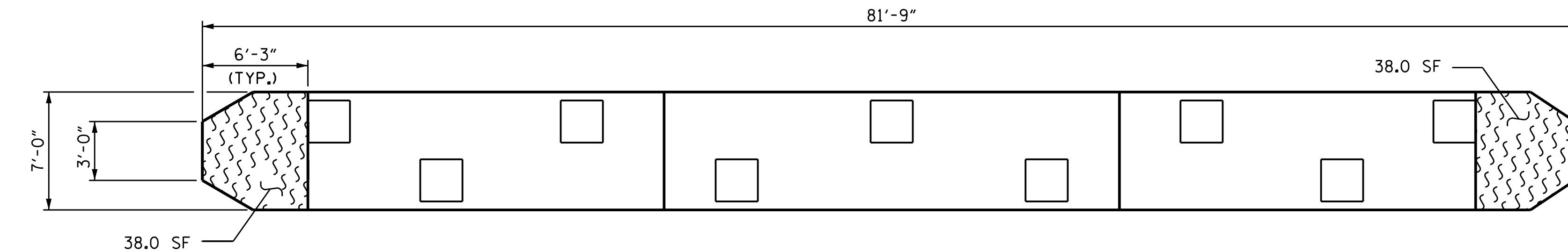
RALEIGH

SUBSTRUCTURE REPAIR

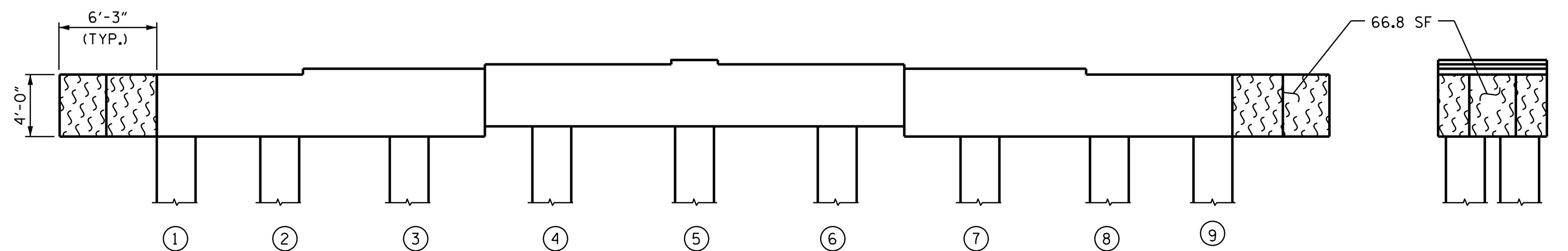
BENT 46



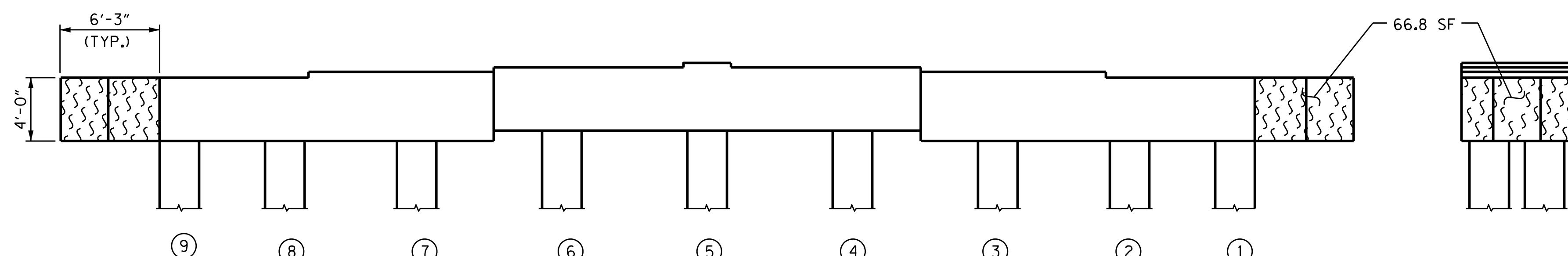
TOP VIEW OF CAP



BOTTOM VIEW OF CAP



ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)



ELEVATION
(NORTH SIDE)
(LOOKING SOUTH)

DRAWN BY : S. T. SANDOR DATE : 6/19/24
CHECKED BY : W. C. SMITH DATE : 7/09/24

11/21/2025

REPAIR QUANTITY TABLE

BENT 47	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	285.6			

VALUES IN THE REPAIR QUANTITY TABLE 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:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- EPOXY COATING

PROJECT NO. 15BPR.137
BEAUFORT COUNTY
BRIDGE NO. 060353

SHEET 47 OF 140

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUBSTRUCTURE REPAIR

BENT 47



REVISIONS					SHEET NO.	
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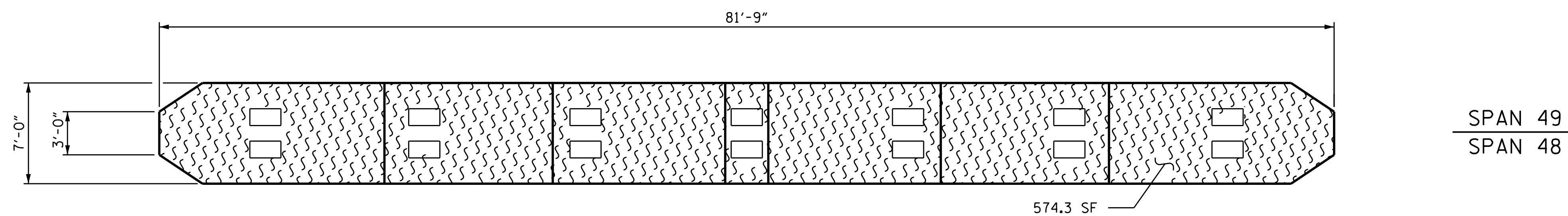
TOTAL SHEETS
217

REPAIR QUANTITY TABLE

BENT 48	QUANTITIES		AREA SF	VOLUME CF
	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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	784.0			

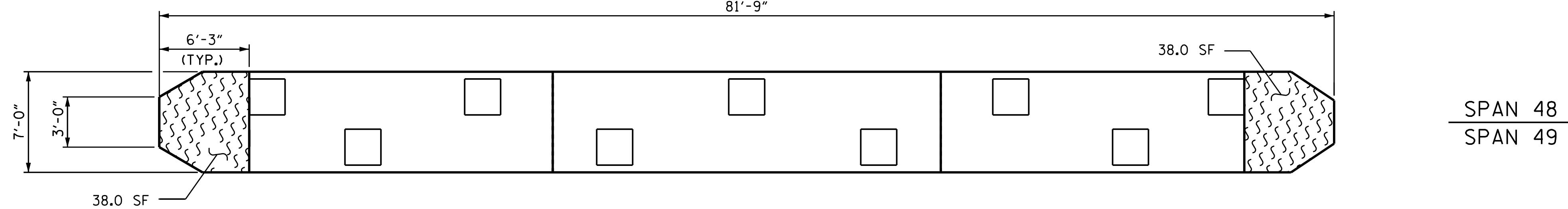
VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

TOP VIEW OF CAP



SPAN 49
SPAN 48

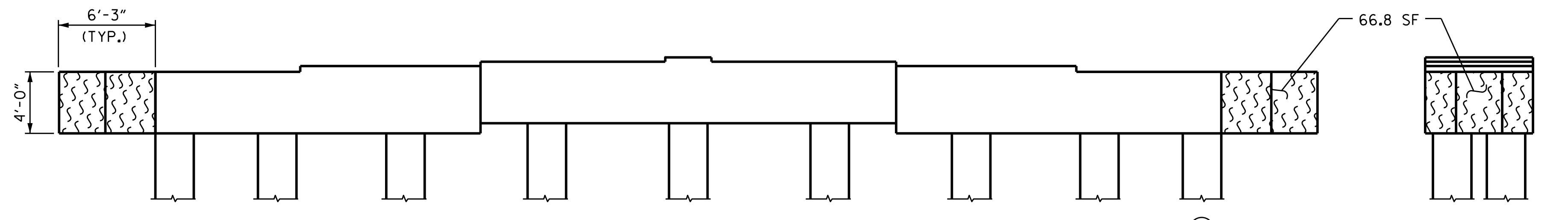
BOTTOM VIEW OF CAP



SPAN 48
SPAN 49

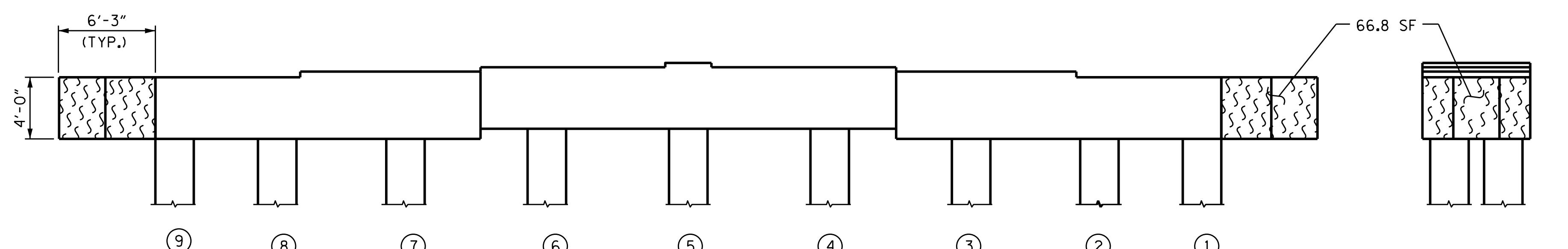
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.



EAST END

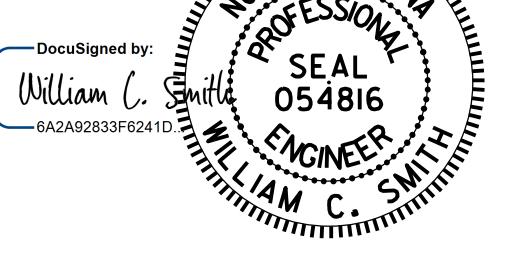
ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)



WEST END

ELEVATION
(NORTH SIDE)
(LOOKING SOUTH)

DRAWN BY : S. T. SANDOR DATE : 6/19/24
CHECKED BY : W. C. SMITH DATE : 7/09/24



11/21/2025

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2 4

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BRIDGE NO. 060353

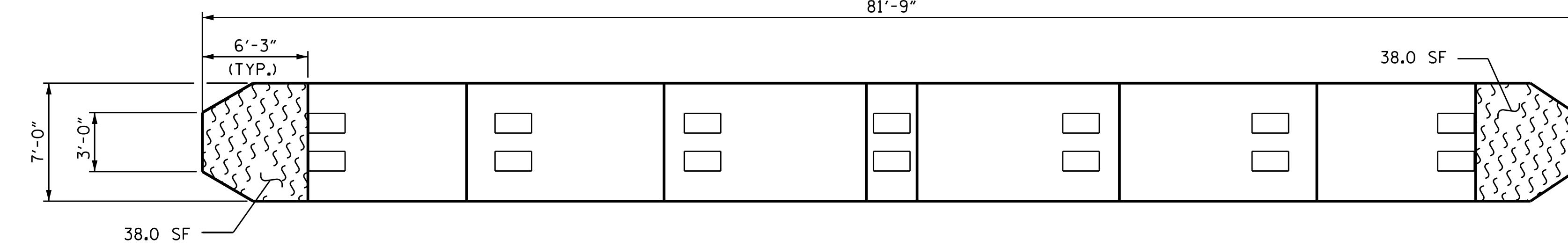
SHEET 48 OF 140

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUBSTRUCTURE REPAIR

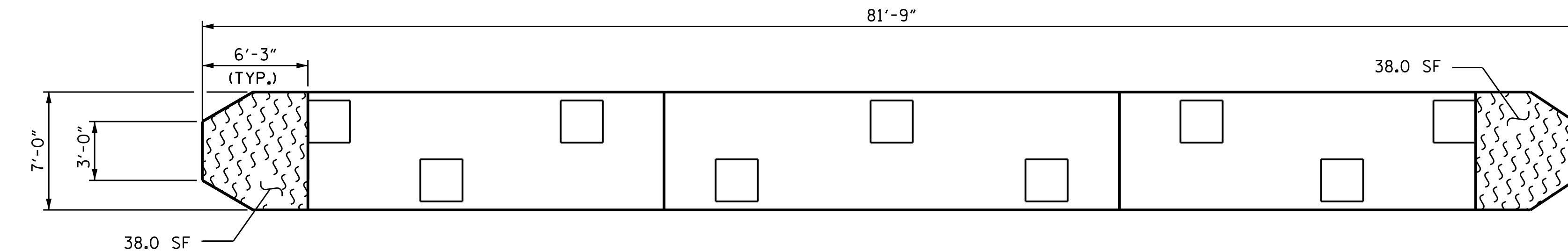
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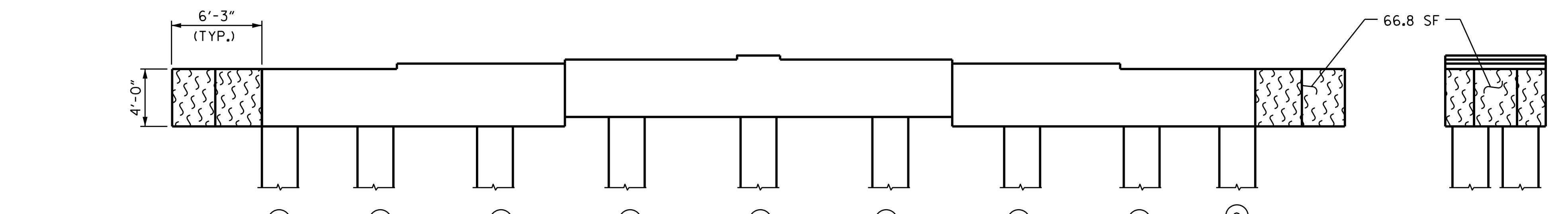
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TOTAL SHEETS 217



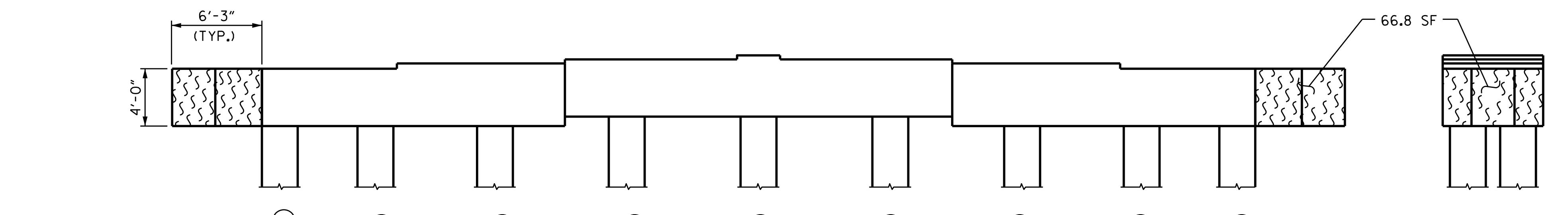
TOP VIEW OF CAP



BOTTOM VIEW OF CAP



ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)



ELEVATION
(NORTH SIDE)
(LOOKING SOUTH)

DRAWN BY : S. T. SANDOR DATE : 6/19/24
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11/21/2025

REPAIR QUANTITY TABLE

BENT 49	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	285.6			

VALUES IN THE REPAIR QUANTITY TABLE 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:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

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BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 49 OF 140

STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

SUBSTRUCTURE REPAIR

BENT 49



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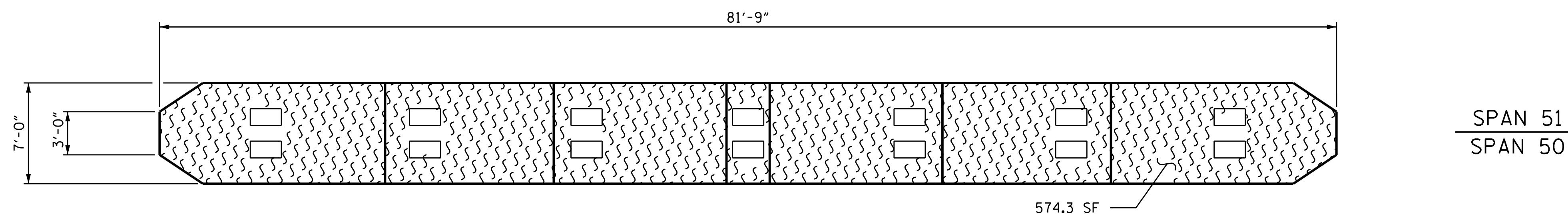
TOTAL SHEETS
217

REPAIR QUANTITY TABLE

BENT 50	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	784.0			

VALUES IN THE REPAIR QUANTITY TABLE 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.

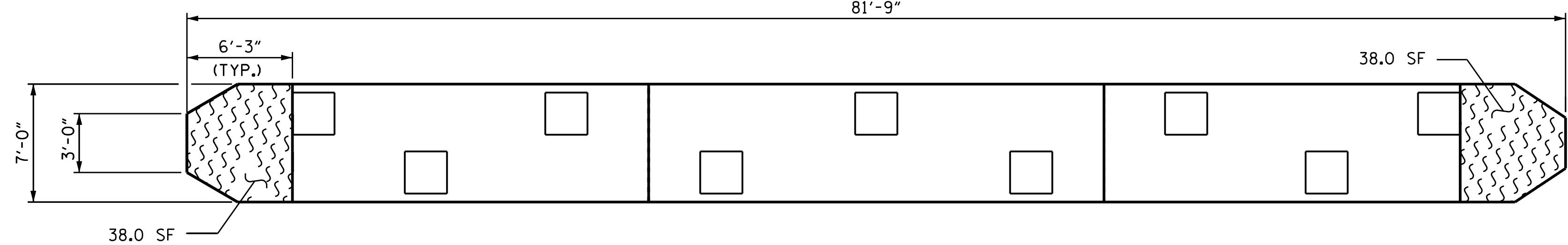
TOP VIEW OF CAP



SPAN 51
SPAN 50

81'-9"

574.3 SF

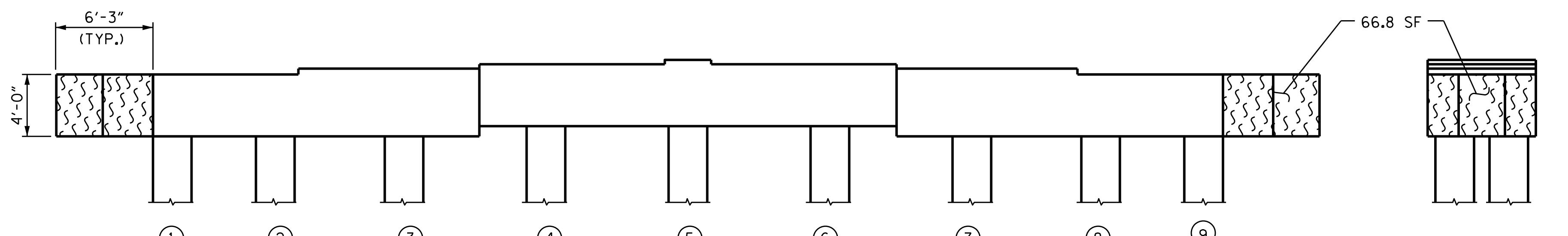


SPAN 50
SPAN 51

81'-9"

38.0 SF

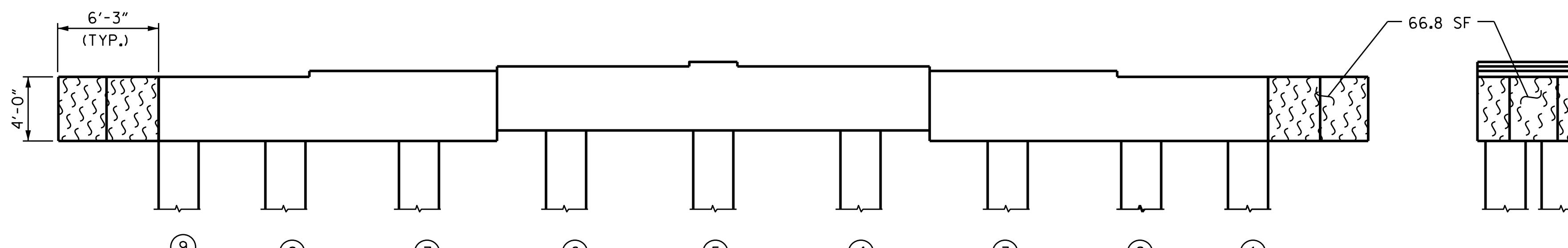
BOTTOM VIEW OF CAP



EAST END

ELEVATION

(SOUTH SIDE)
(LOOKING NORTH)



WEST END

ELEVATION

(NORTH SIDE)
(LOOKING SOUTH)

DRAWN BY : S. T. SANDOR DATE : 6/19/24
CHECKED BY : W. C. SMITH DATE : 7/09/24

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TOTAL SHEETS
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PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 50 OF 140

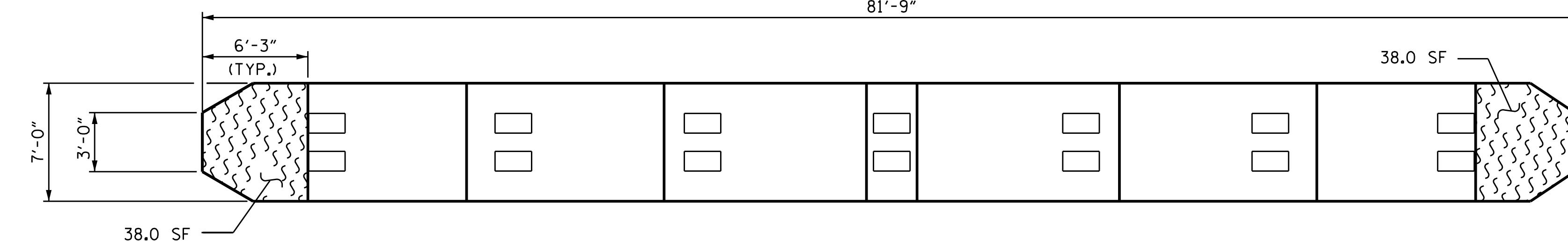
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE REPAIR

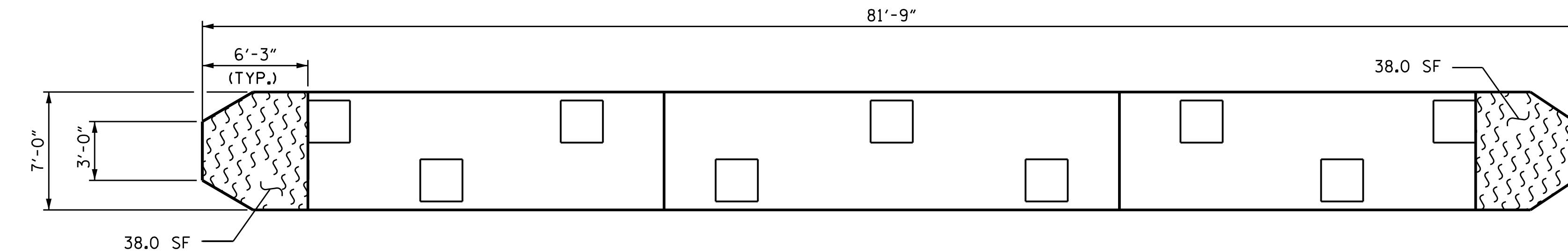
BENT 50



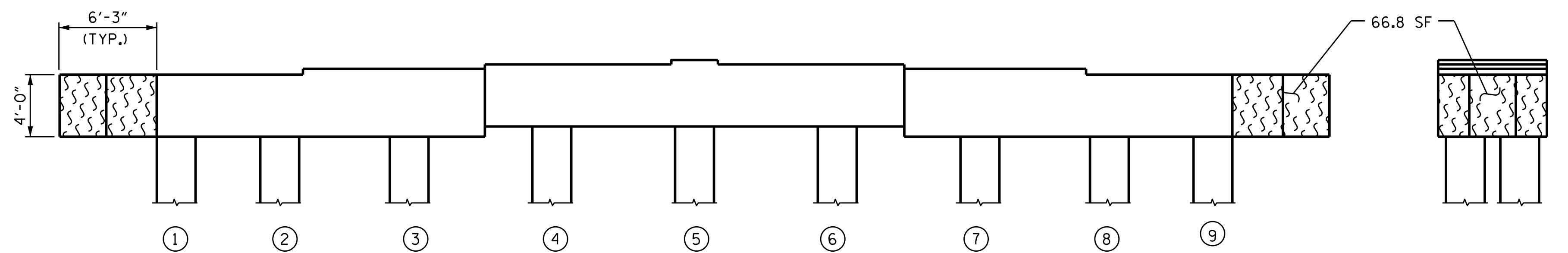
11/21/2025



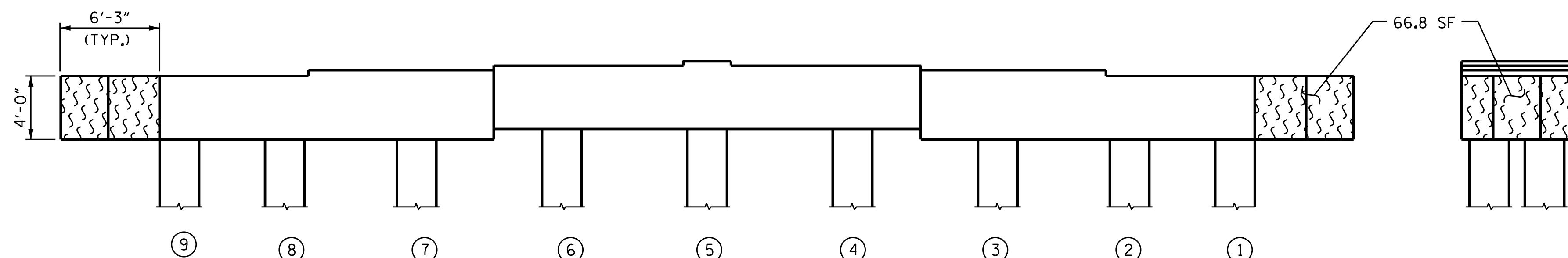
TOP VIEW OF CAP



BOTTOM VIEW OF CAP



ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)



ELEVATION
(NORTH SIDE)
(LOOKING SOUTH)

REPAIR QUANTITY TABLE

BENT 51	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	285.6			

VALUES IN THE REPAIR QUANTITY TABLE 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:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- EPOXY COATING

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 51 OF 140

STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

SUBSTRUCTURE REPAIR

BENT 51



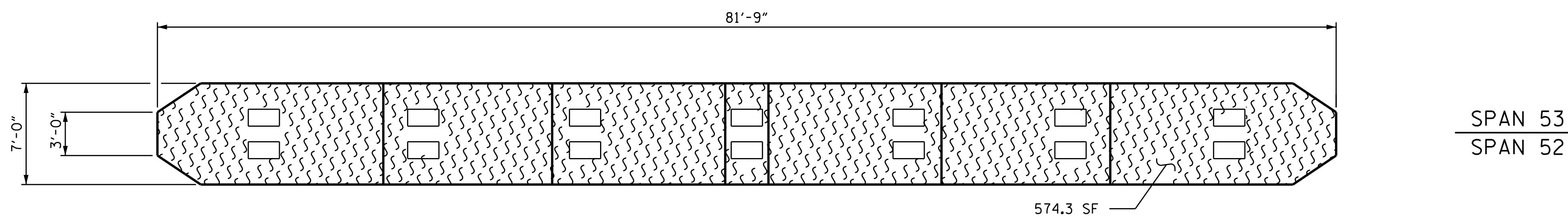
REVISIONS					SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-119
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2			4			

REPAIR QUANTITY TABLE

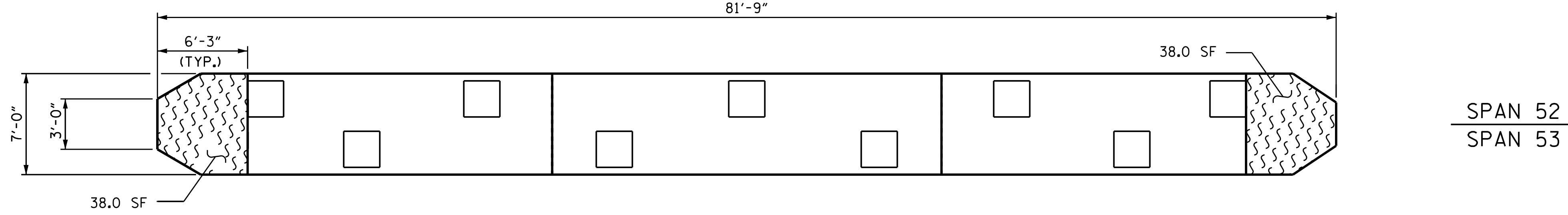
BENT 52	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION	LF		LF	
CAP	0.0			
COLUMN	0.0			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	784.0			

VALUES IN THE REPAIR QUANTITY TABLE 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 VIEW OF CAP

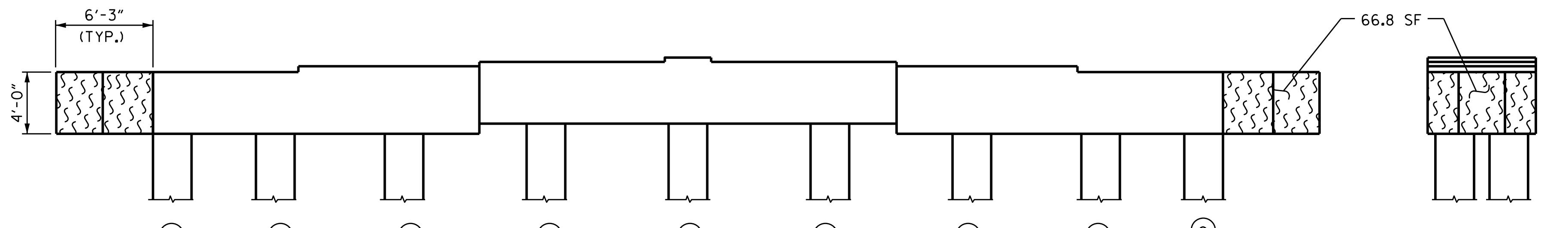


BOTTOM VIEW OF CAP



NOTES:

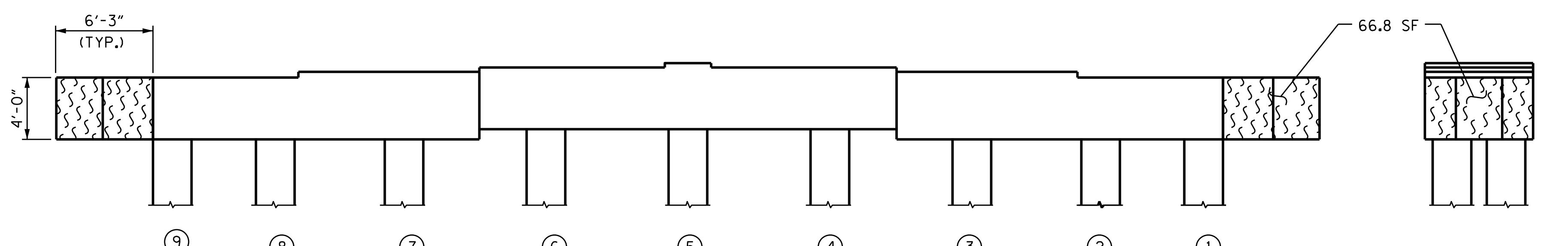
FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.



EAST END

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- EPOXY COATING

ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)



WEST END

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 52 OF 140

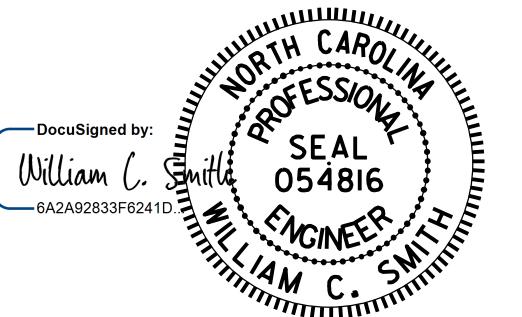
STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

SUBSTRUCTURE REPAIR

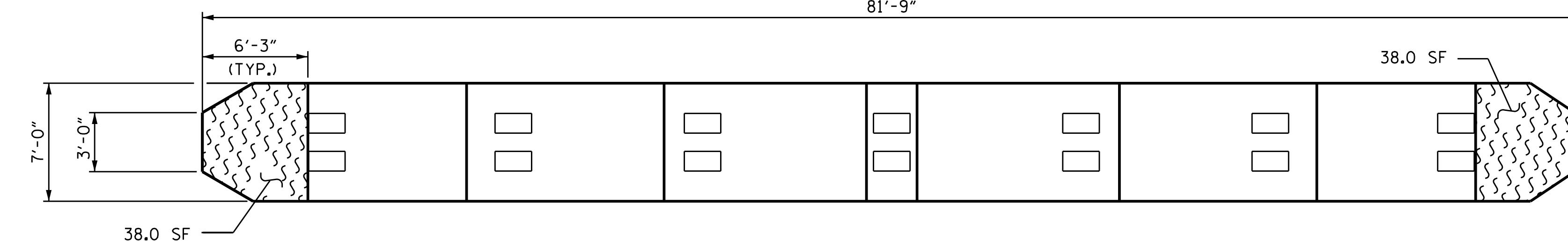
BENT 52



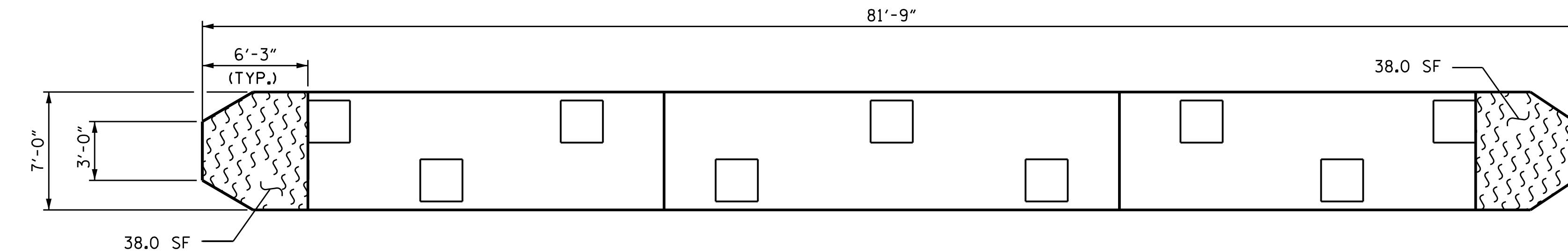
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NO.	BY:	DATE:	NO.	BY:	DATE:	S-120
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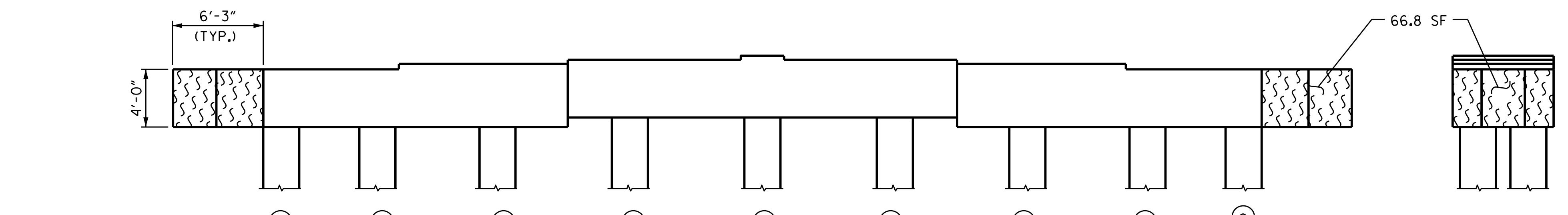
DRAWN BY : S. T. SANDOR DATE : 6/19/24
CHECKED BY : W. C. SMITH DATE : 7/09/24



TOP VIEW OF CAP

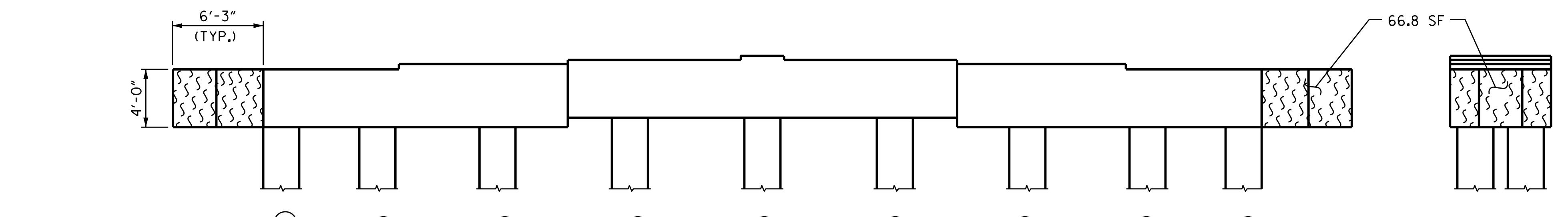


BOTTOM VIEW OF CAP



ELEVATION

(SOUTH SIDE)
(LOOKING NORTH)



ELEVATION

(NORTH SIDE)
(LOOKING SOUTH)

REPAIR QUANTITY TABLE

BENT 53	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	285.6			

VALUES IN THE REPAIR QUANTITY TABLE 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:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- EPOXY COATING

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 53 OF 140

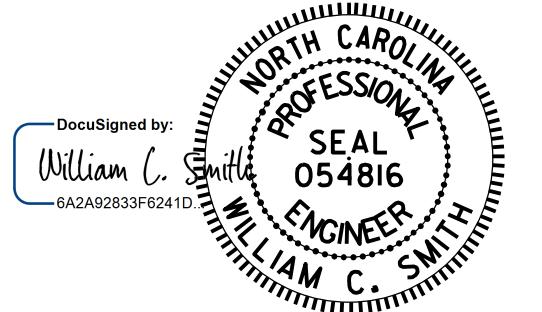
STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

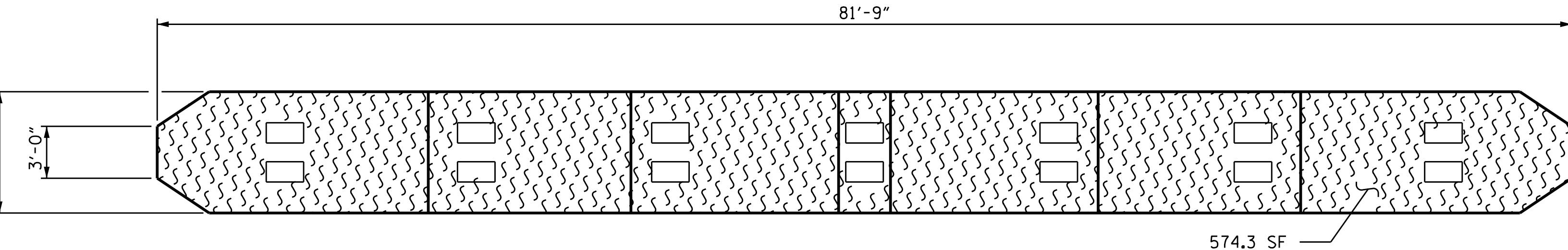
RALEIGH

SUBSTRUCTURE REPAIR

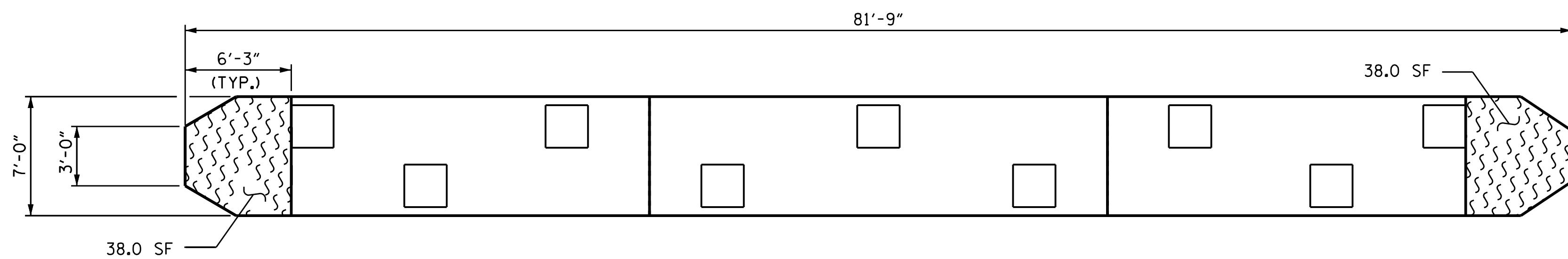
BENT 53



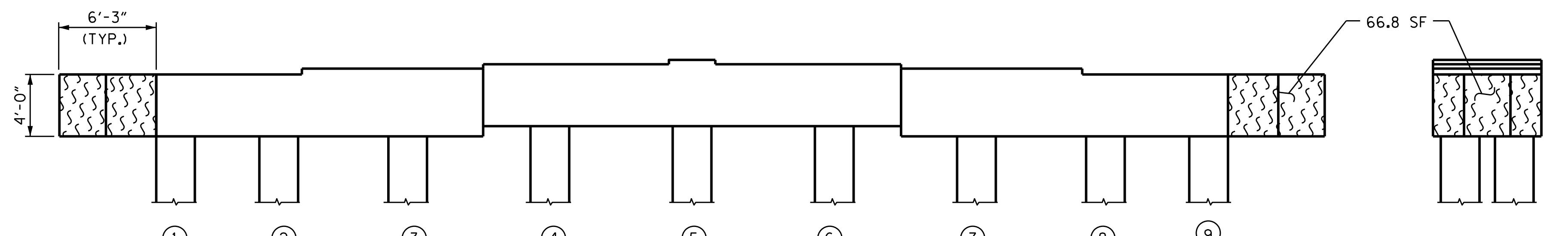
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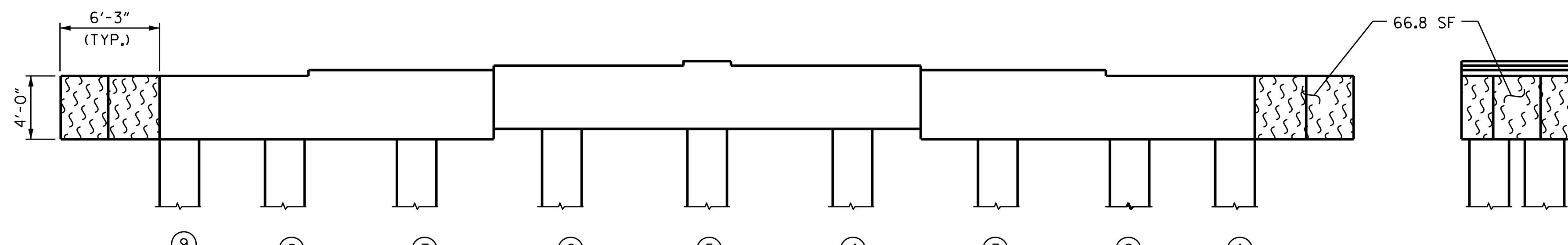
TOP VIEW OF CAP



BOTTOM VIEW OF CAP



ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)



ELEVATION
(NORTH SIDE)
(LOOKING SOUTH)

DRAWN BY : S. T. SANDOR DATE : 6/25/24
CHECKED BY : W. C. SMITH DATE : 7/9/24

REPAIR QUANTITY TABLE

BENT 54	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	784.0			

VALUES IN THE REPAIR QUANTITY TABLE 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:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- EPOXY COATING

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 54 OF 140

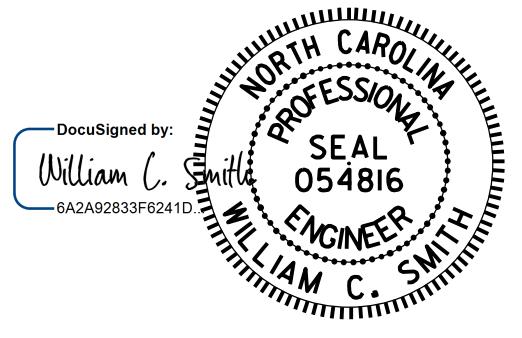
STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

SUBSTRUCTURE REPAIR

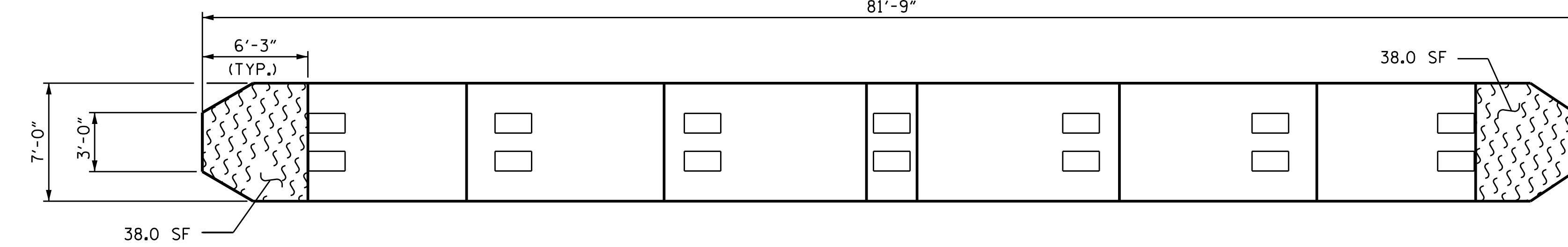
BENT 54



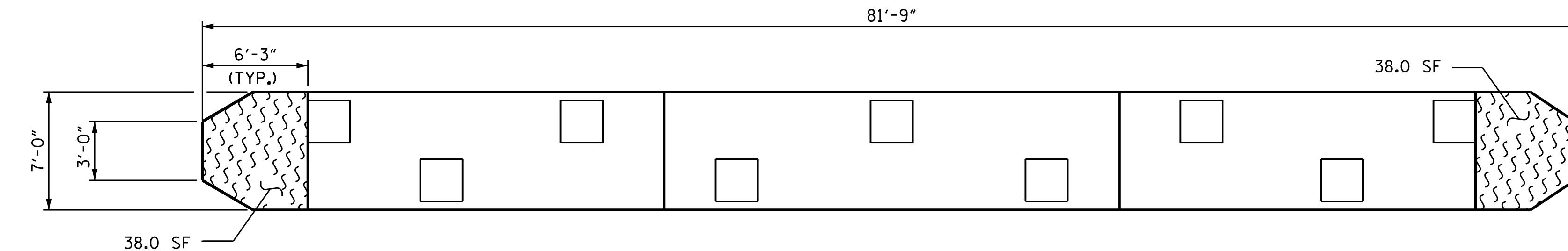
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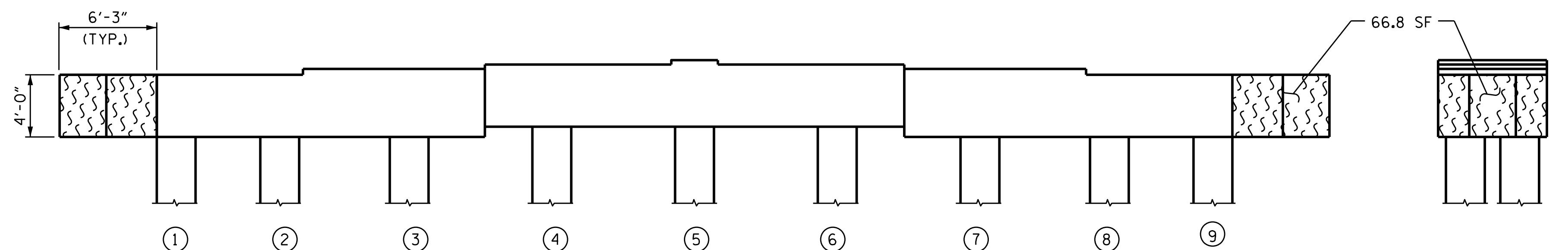
TOTAL SHEETS
217



TOP VIEW OF CAP

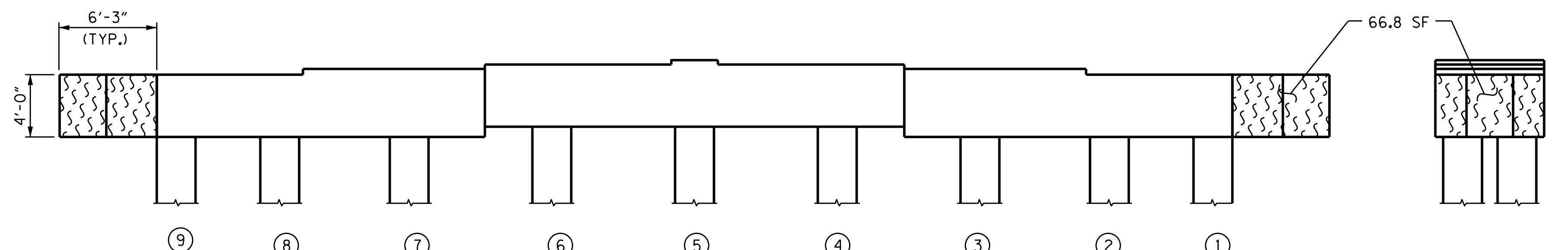


BOTTOM VIEW OF CAP



ELEVATION

(SOUTH SIDE)
(LOOKING NORTH)



ELEVATION

(NORTH SIDE)
(LOOKING SOUTH)

DRAWN BY : S. T. SANDOR DATE : 6/19/24
CHECKED BY : W. C. SMITH DATE : 7/10/24

11/21/2025

REPAIR QUANTITY TABLE

BENT 55	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	285.6			

VALUES IN THE REPAIR QUANTITY TABLE 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:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- EPOXY COATING

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 55 OF 140

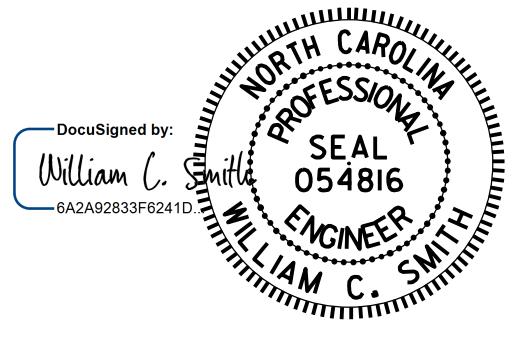
STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

SUBSTRUCTURE REPAIR

BENT 55



REVISIONS					SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-123
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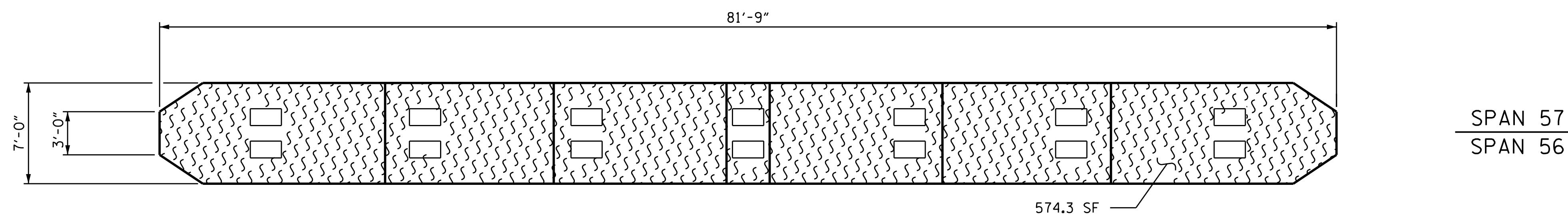
TOTAL SHEETS
217

REPAIR QUANTITY TABLE

BENT 56	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	784.0			

VALUES IN THE REPAIR QUANTITY TABLE 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.

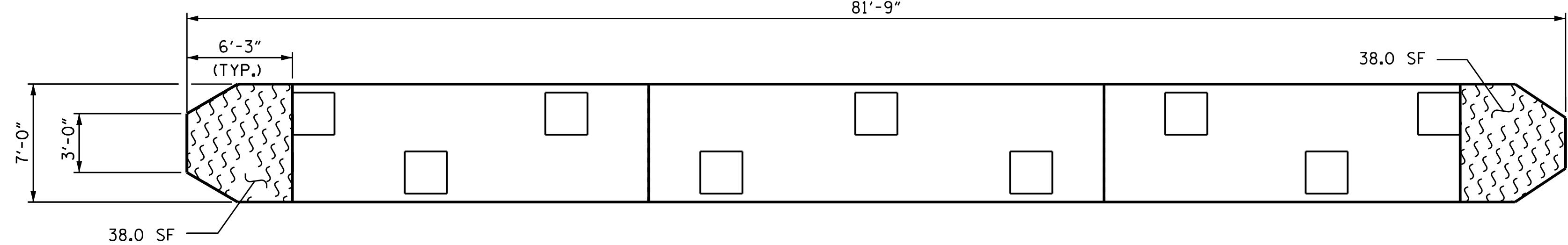
TOP VIEW OF CAP



81'-9"

574.3 SF

SPAN 57
SPAN 56

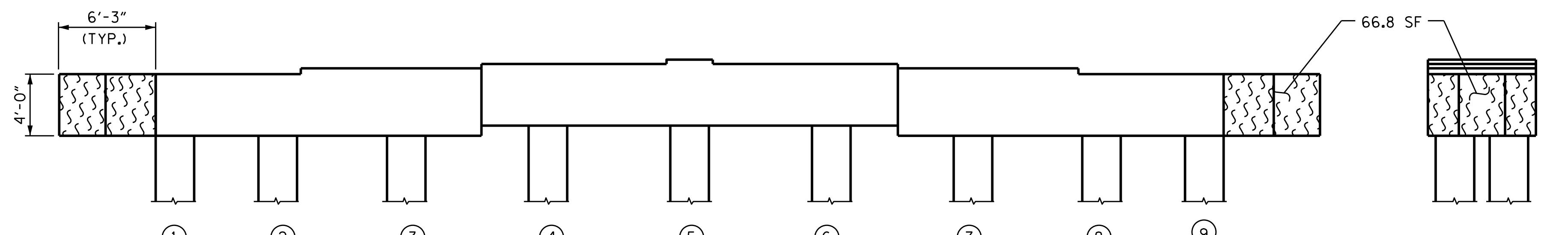


81'-9"

38.0 SF

SPAN 56
SPAN 57

BOTTOM VIEW OF CAP

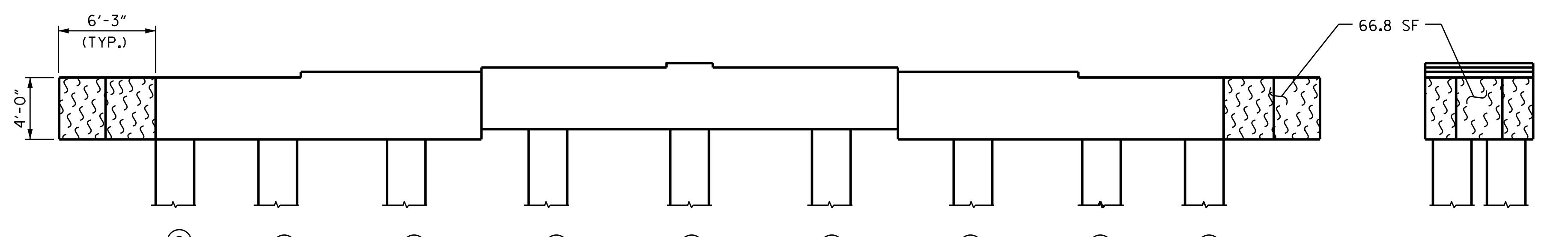


ELEVATION

(SOUTH SIDE)
(LOOKING NORTH)

EAST END

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- EPOXY COATING



ELEVATION

(NORTH SIDE)
(LOOKING SOUTH)

WEST END

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 56 OF 140

STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

SUBSTRUCTURE REPAIR

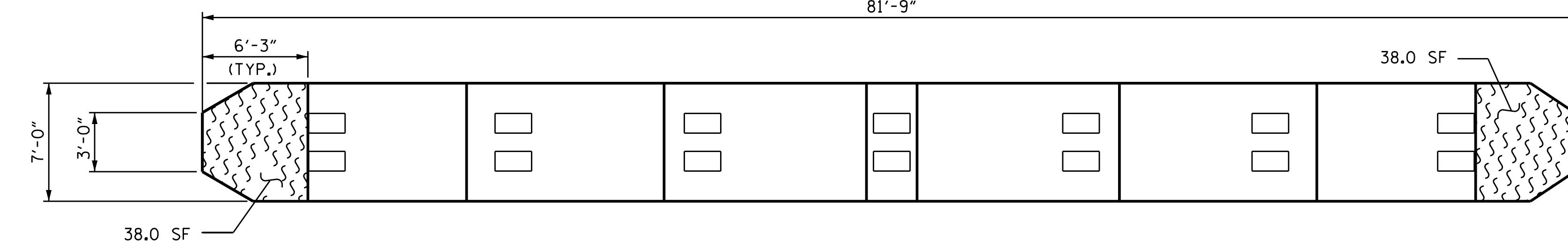
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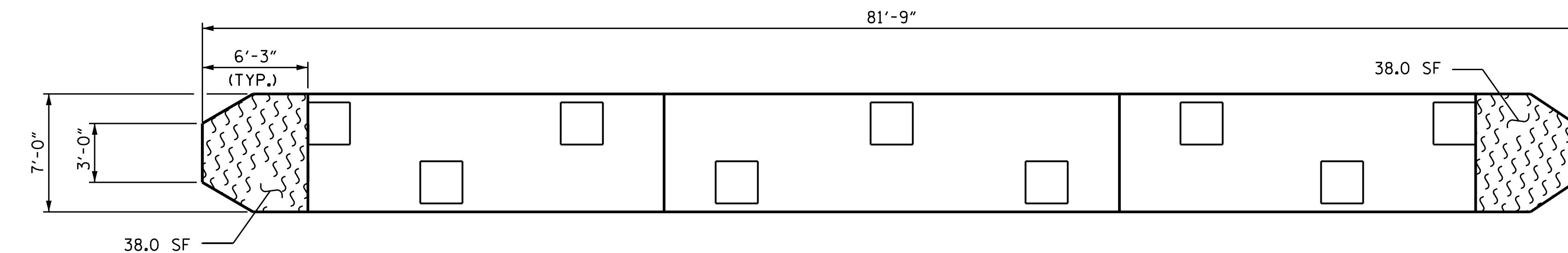
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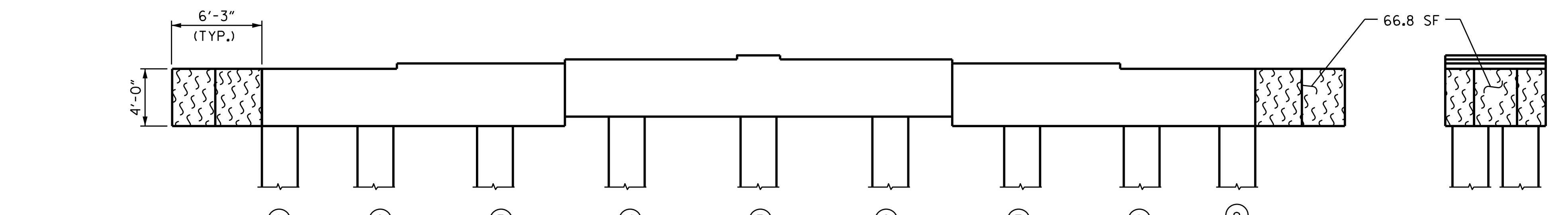
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CHECKED BY : W. C. SMITH DATE : 7/10/24



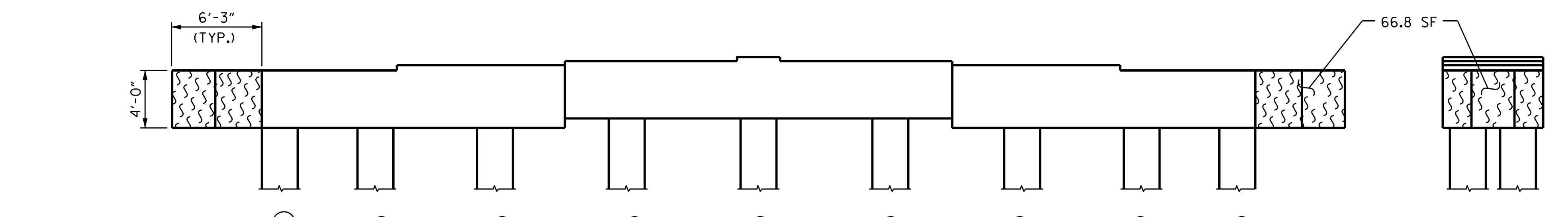
TOP VIEW OF CAP



BOTTOM VIEW OF CAP



ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)



ELEVATION
(NORTH SIDE)
(LOOKING SOUTH)

DRAWN BY : S. T. SANDOR DATE : 6/19/24
CHECKED BY : W. C. SMITH DATE : 7/10/24

11/21/2025

REPAIR QUANTITY TABLE

BENT 57	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	285.6			

VALUES IN THE REPAIR QUANTITY TABLE 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:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- EPOXY COATING

PROJECT NO. 15BPR.137
BEAUFORT COUNTY
BRIDGE NO. 060353

SHEET 57 OF 140

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUBSTRUCTURE REPAIR

BENT 57



REVISIONS					SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-125
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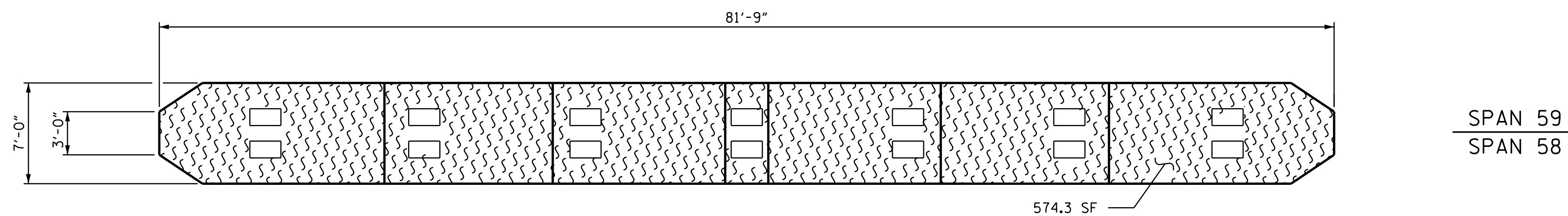
TOTAL SHEETS
217

REPAIR QUANTITY TABLE

BENT 58	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	784.0			

VALUES IN THE REPAIR QUANTITY TABLE 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 VIEW OF CAP



81'-9"

574.3 SF

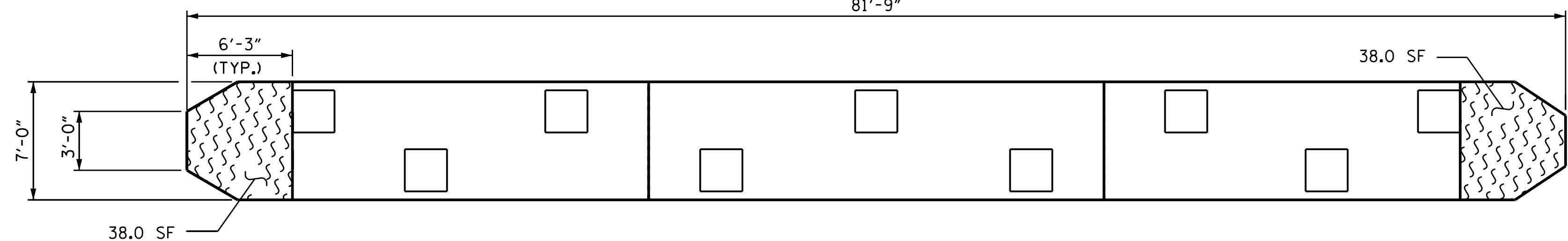
SPAN 59
SPAN 58

81'-9"

38.0 SF

SPAN 58
SPAN 59

BOTTOM VIEW OF CAP

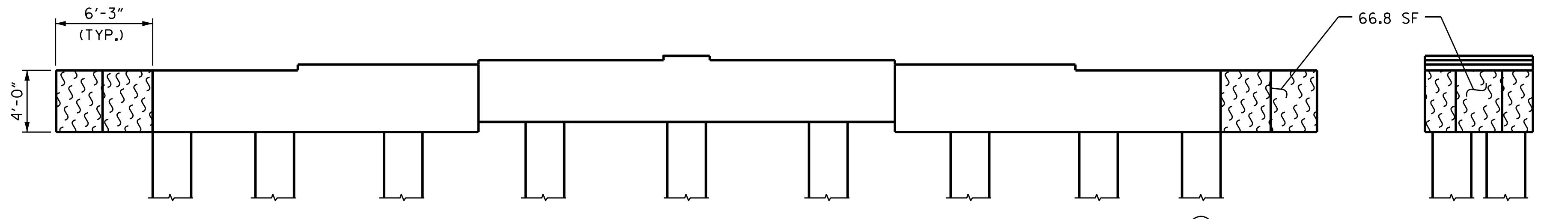


38.0 SF

38.0 SF

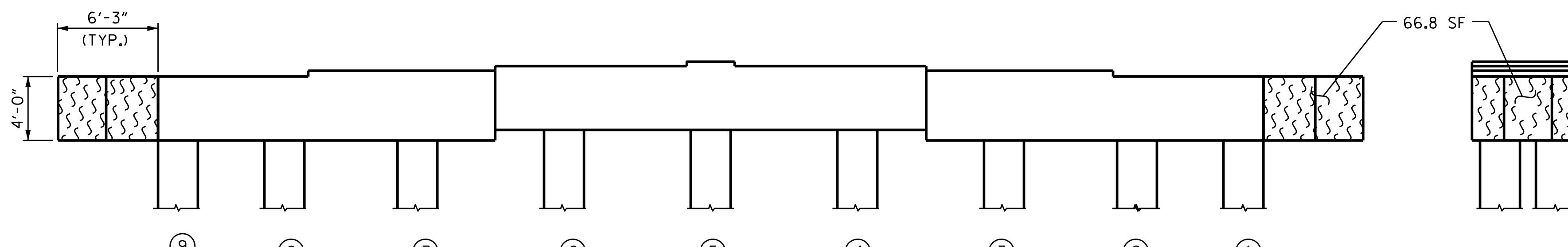
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.



ELEVATION

(SOUTH SIDE)
(LOOKING NORTH)



ELEVATION

(NORTH SIDE)
(LOOKING SOUTH)

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- EPOXY COATING

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 58 OF 140

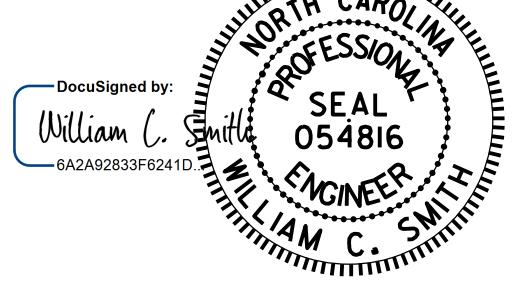
STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

SUBSTRUCTURE REPAIR

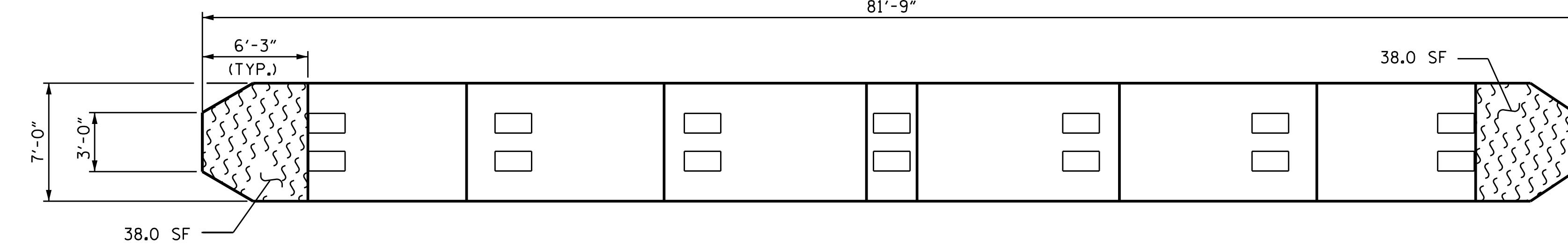
BENT 58



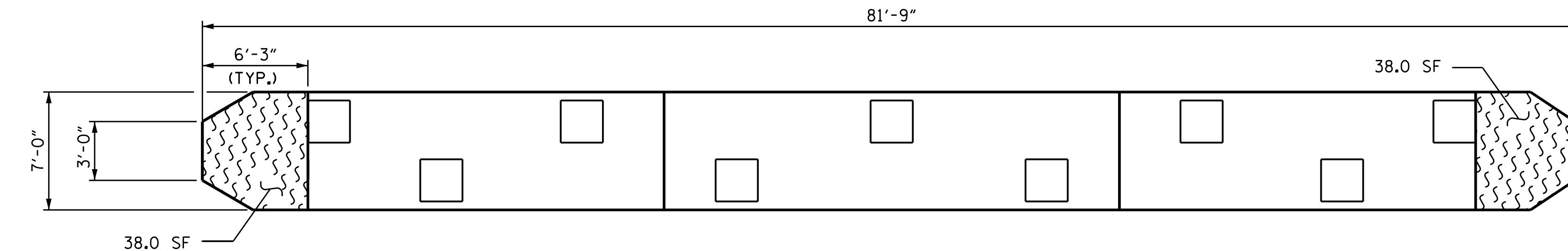
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SIGNATURES COMPLETED

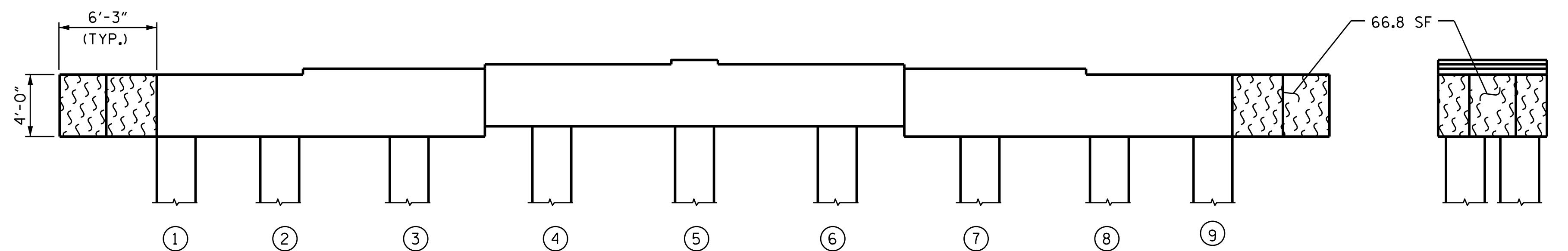
DRAWN BY : S. T. SANDOR DATE : 6/19/24
CHECKED BY : W. C. SMITH DATE : 7/10/24



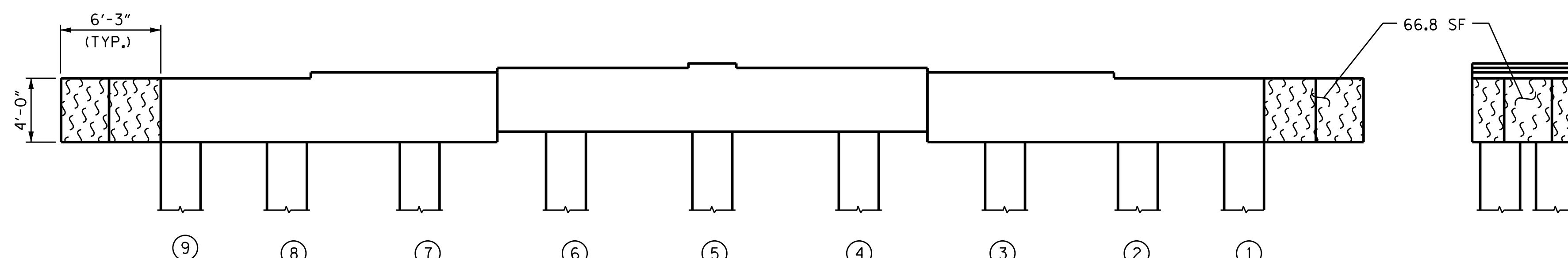
TOP VIEW OF CAP



BOTTOM VIEW OF CAP



ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)



ELEVATION
(NORTH SIDE)
(LOOKING SOUTH)

REPAIR QUANTITY TABLE

BENT 59	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	285.6			

VALUES IN THE REPAIR QUANTITY TABLE 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:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- EPOXY COATING

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 59 OF 140

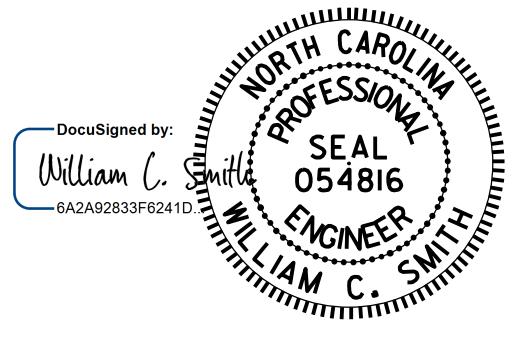
STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

SUBSTRUCTURE REPAIR

BENT 59



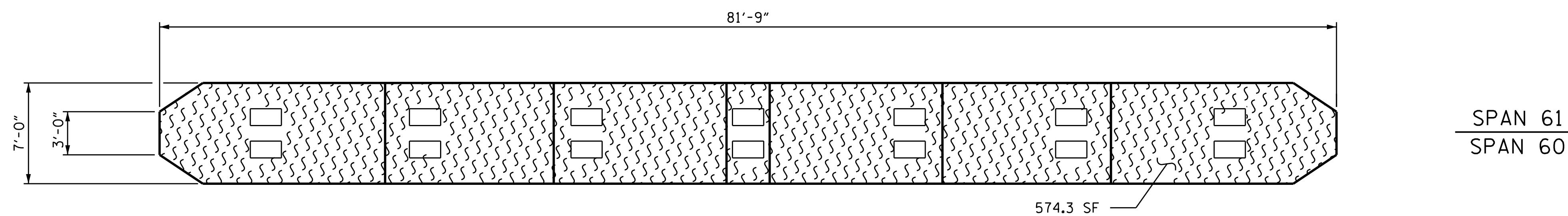
REVISIONS					SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-127
1			3			
2			4			

REPAIR QUANTITY TABLE

BENT 60	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	784.0			

VALUES IN THE REPAIR QUANTITY TABLE 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.

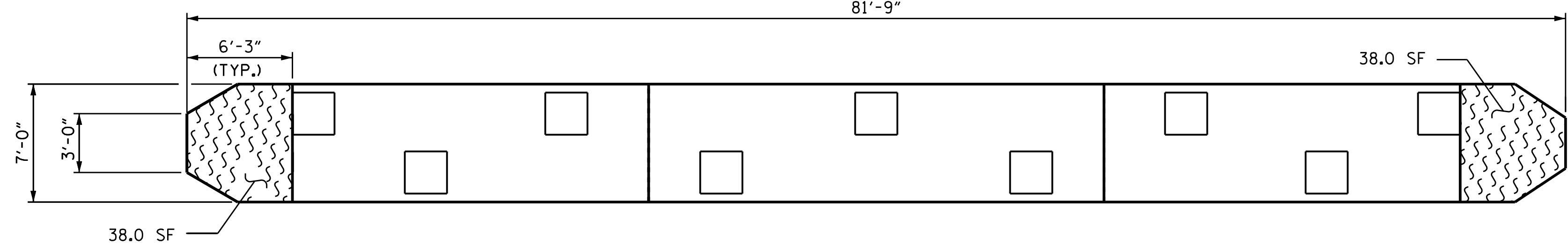
TOP VIEW OF CAP



SPAN 61
SPAN 60

81'-9"

574.3 SF

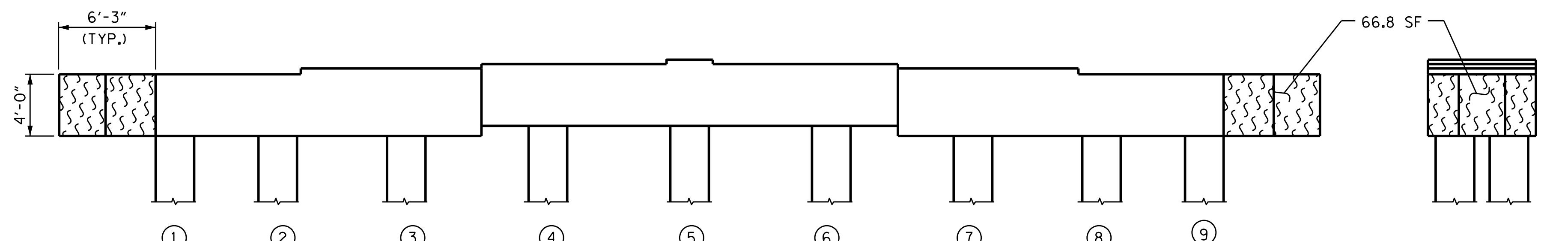


SPAN 60
SPAN 61

81'-9"

38.0 SF

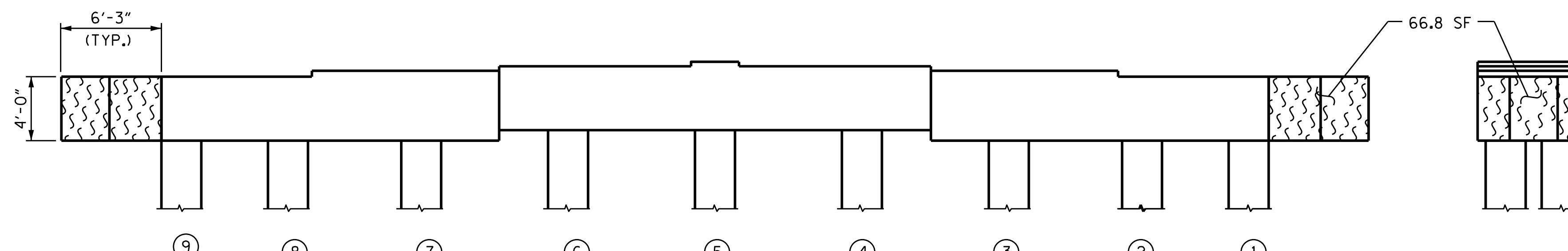
BOTTOM VIEW OF CAP



EAST END

ELEVATION

(SOUTH SIDE)
(LOOKING NORTH)



WEST END

ELEVATION

(NORTH SIDE)
(LOOKING SOUTH)

DRAWN BY : S. T. SANDOR DATE : 6/19/24
CHECKED BY : W. C. SMITH DATE : 7/10/24

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

1
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REVISIONS					SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-128
1			3			
2			4			

TOTAL SHEETS
217

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 60 OF 140

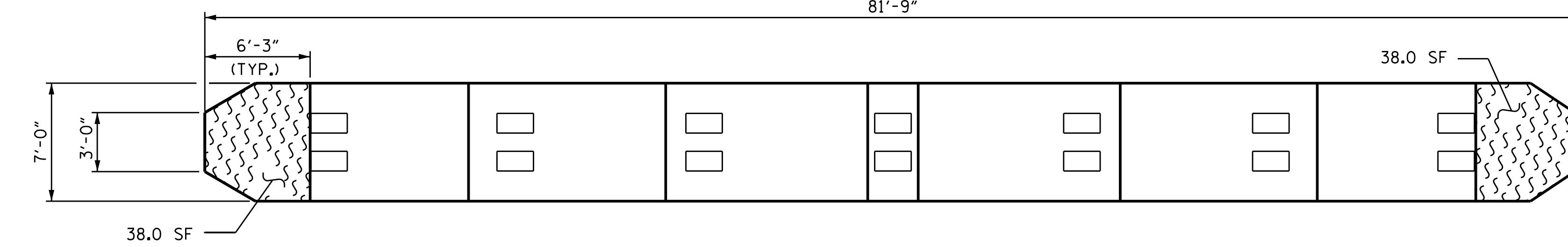
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE REPAIR

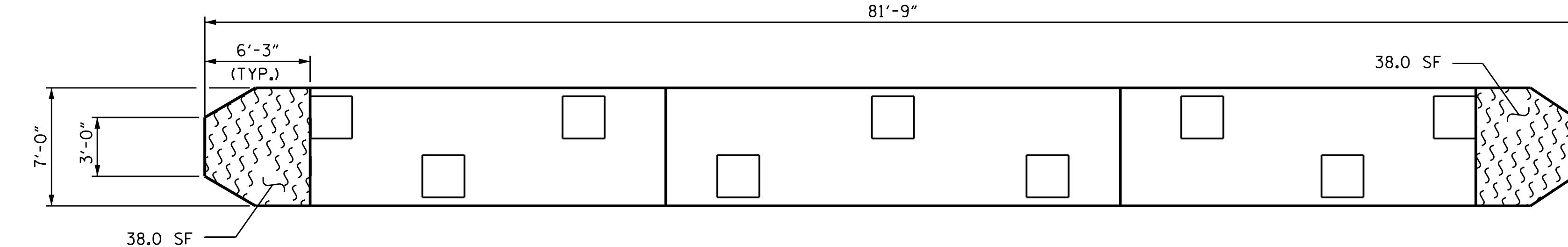
BENT 60



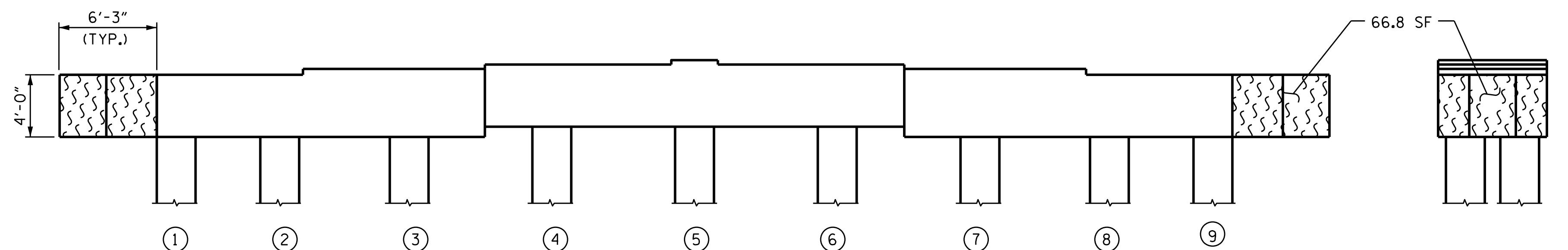
11/21/2025



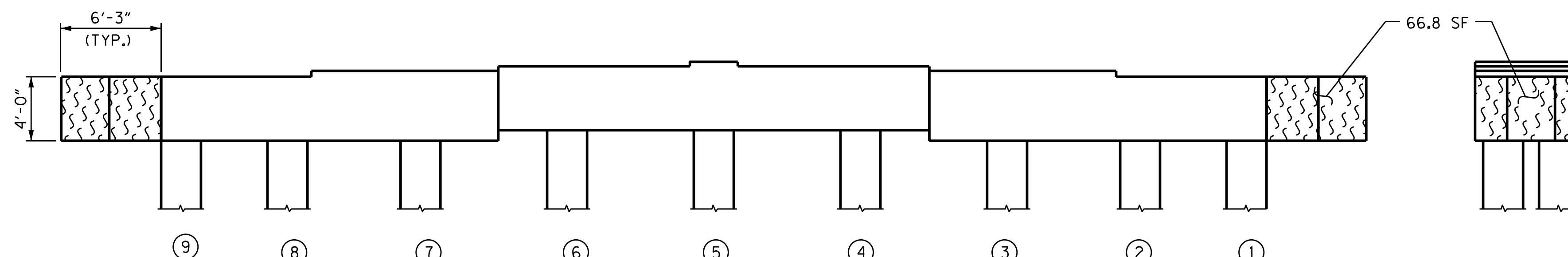
TOP VIEW OF CAP



BOTTOM VIEW OF CAP



ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)



ELEVATION
(NORTH SIDE)
(LOOKING SOUTH)

DRAWN BY : S. T. SANDOR DATE : 6/19/24
CHECKED BY : W. C. SMITH DATE : 7/10/24

11/21/2025

REPAIR QUANTITY TABLE

BENT 61	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	285.6			

VALUES IN THE REPAIR QUANTITY TABLE 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:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- EPOXY COATING

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 61 OF 140

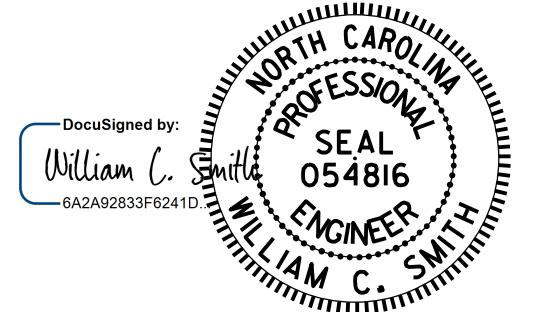
STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

SUBSTRUCTURE REPAIR

BENT 61



REVISIONS					SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-129
1			3			
2			4			

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

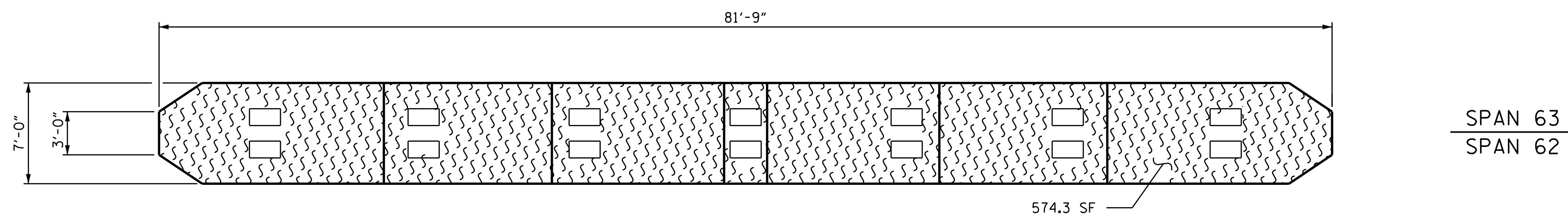
TOTAL SHEETS 217

REPAIR QUANTITY TABLE

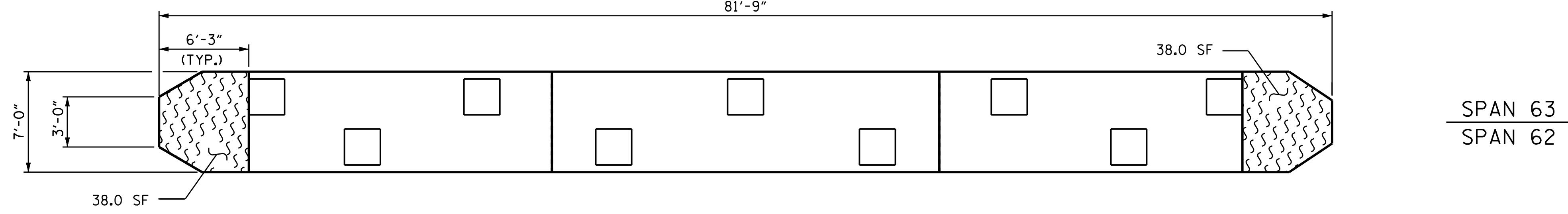
BENT 62	QUANTITIES		AREA SF	VOLUME CF
	ESTIMATE	ACTUAL		
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION	LF		LF	
CAP	0.0			
COLUMN	0.0			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	784.0			

VALUES IN THE REPAIR QUANTITY TABLE 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 VIEW OF CAP

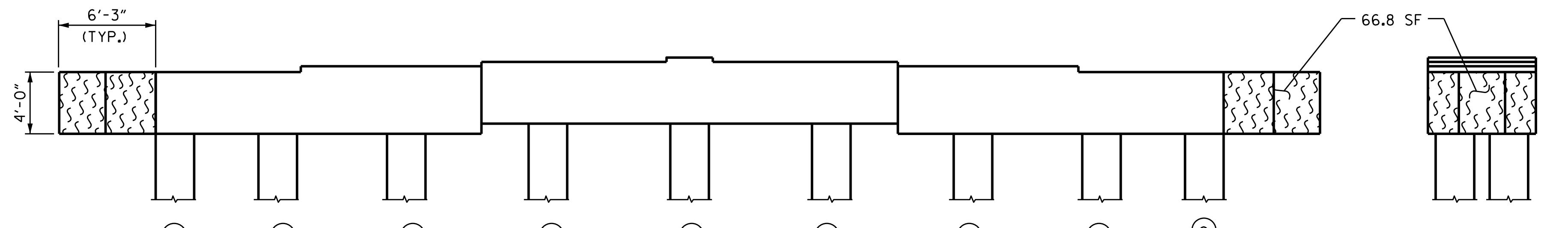


BOTTOM VIEW OF CAP

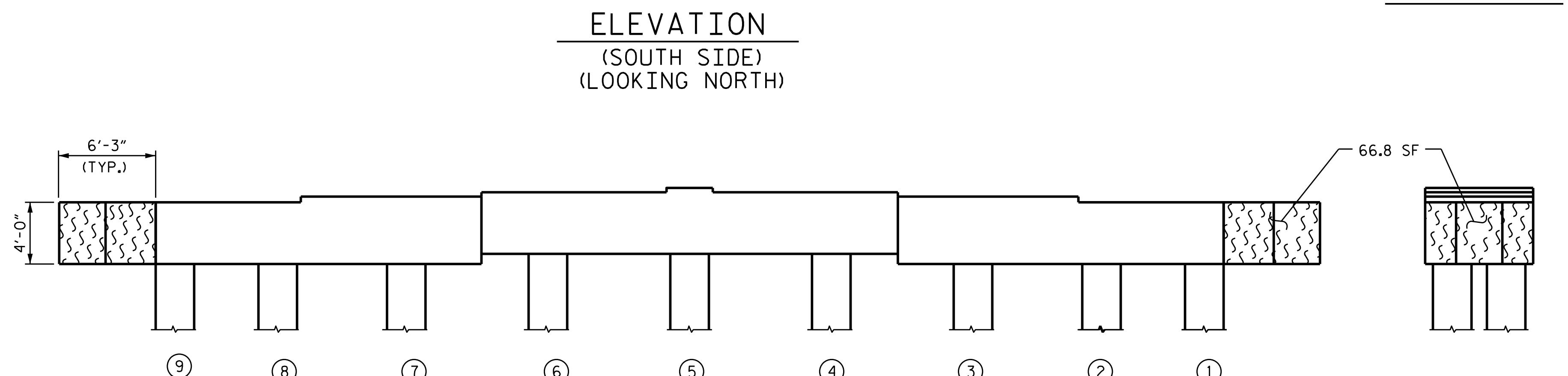


NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

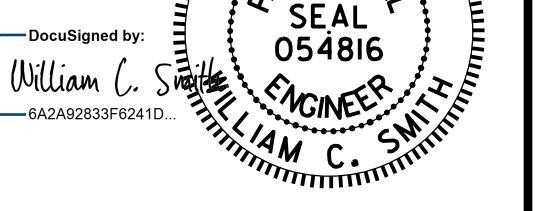


EAST END



WEST END

DRAWN BY : S. T. SANDOR DATE : 6/19/24
CHECKED BY : W. C. SMITH DATE : 7/10/24



11/21/2025

REVISIONS

REVISIONS		SHEET NO.	
1	BY: 3	DATE: 11/21/2025	S-130
2	BY: 4	DATE: 11/21/2025	TOTAL SHEETS 217
3	BY: 4	DATE: 11/21/2025	

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

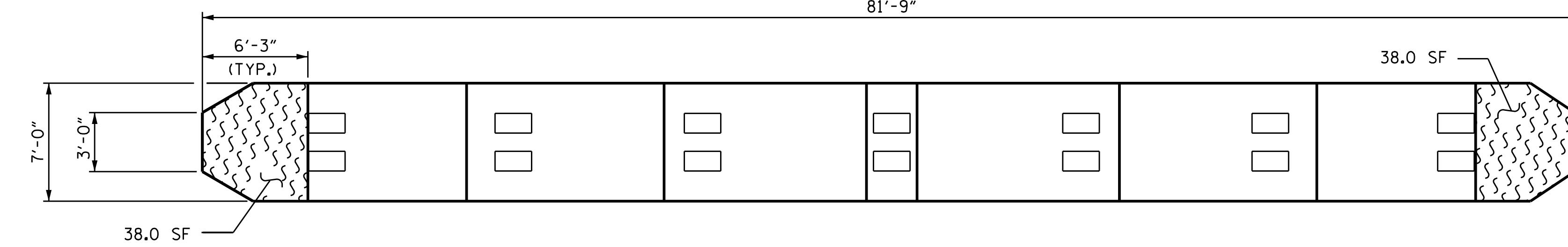
BRIDGE NO. 060353

SHEET 62 OF 140

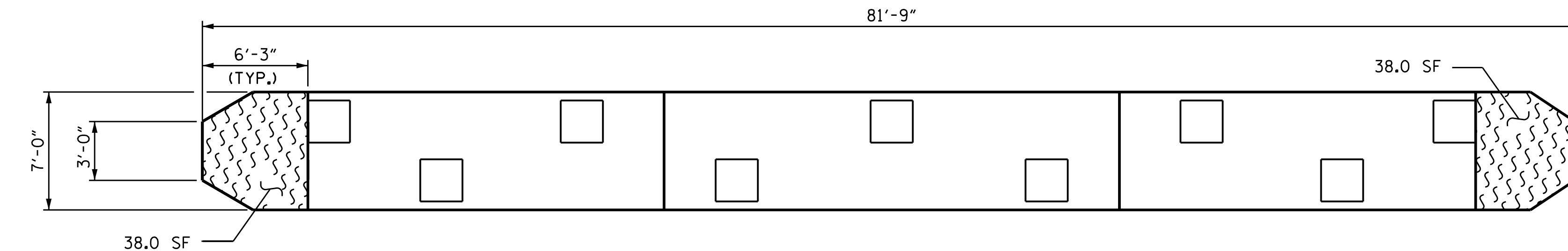
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUBSTRUCTURE REPAIR

BENT 62

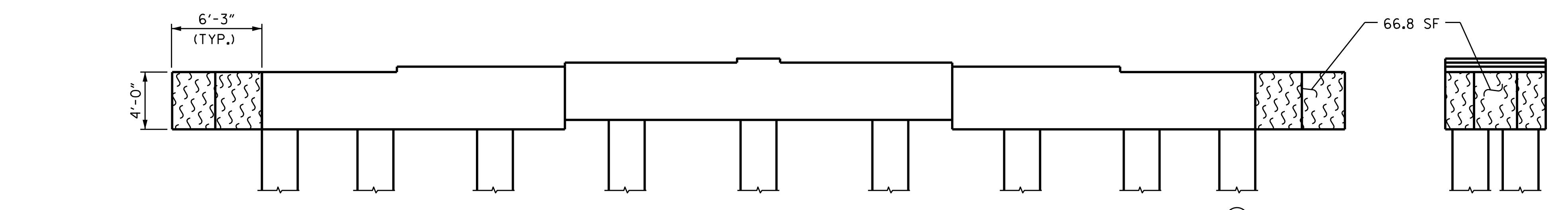
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FINAL UNLESS ALL
SIGNATURES COMPLETED



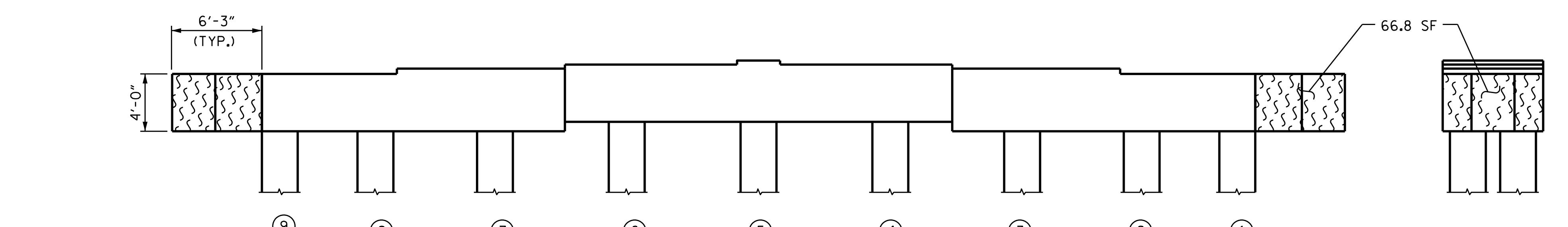
TOP VIEW OF CAP



BOTTOM VIEW OF CAP



ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)



ELEVATION
(NORTH SIDE)
(LOOKING SOUTH)

DRAWN BY : S. T. SANDOR DATE : 6/19/24
CHECKED BY : W. C. SMITH DATE : 7/10/24

11/21/2025

REPAIR QUANTITY TABLE

BENT 63	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	285.6			

VALUES IN THE REPAIR QUANTITY TABLE 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:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- EPOXY COATING

PROJECT NO. 15BPR.137

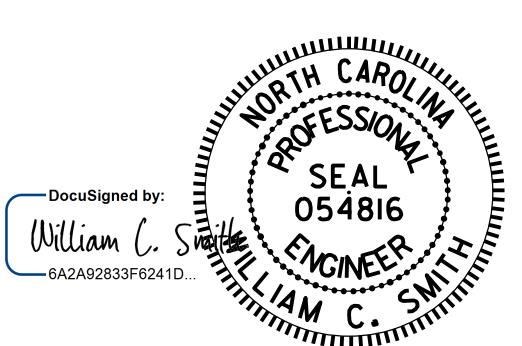
BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 63 OF 140

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUBSTRUCTURE REPAIR

BENT 63



11/21/2025

REVISIONS					SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-131
1			3			
2			4			

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

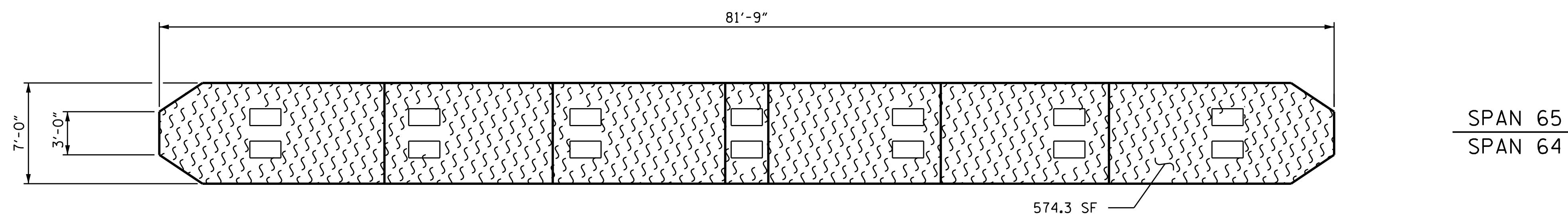
TOTAL SHEETS
217

REPAIR QUANTITY TABLE

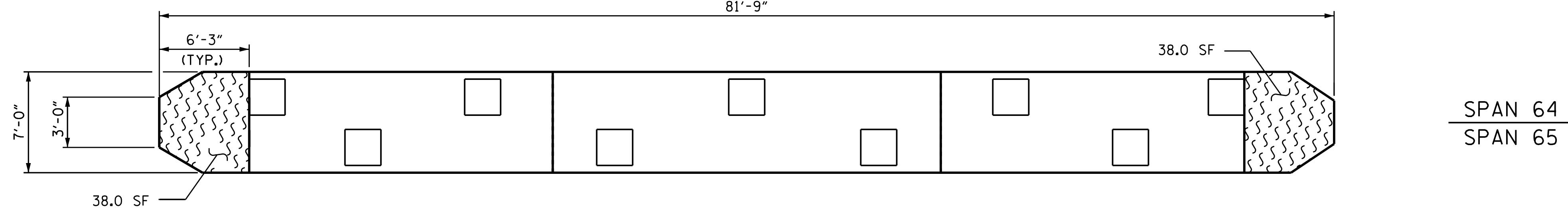
BENT 64	QUANTITIES		AREA SF	VOLUME CF
	ESTIMATE	ACTUAL		
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION	LF		LF	
CAP	0.0			
COLUMN	0.0			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	784.0			

VALUES IN THE REPAIR QUANTITY TABLE 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 VIEW OF CAP

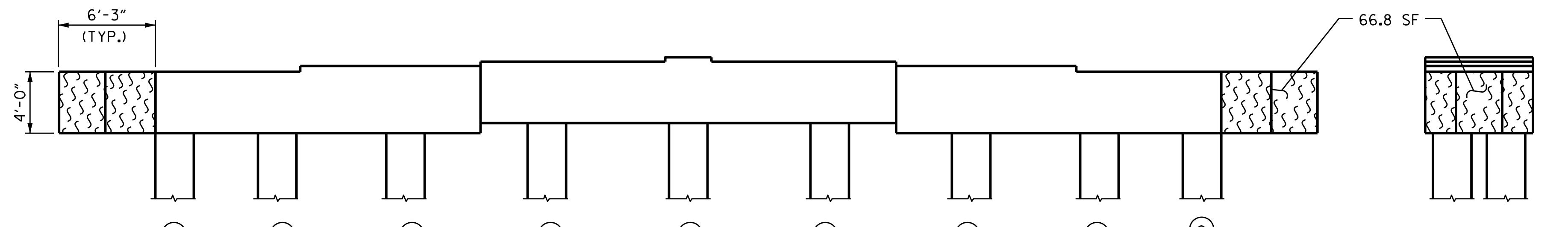


BOTTOM VIEW OF CAP



NOTES:

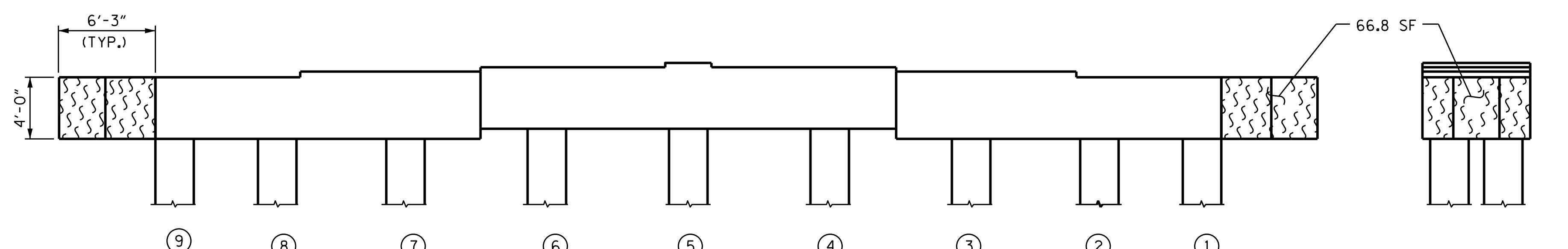
FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.



EAST END

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- EPOXY COATING

ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)



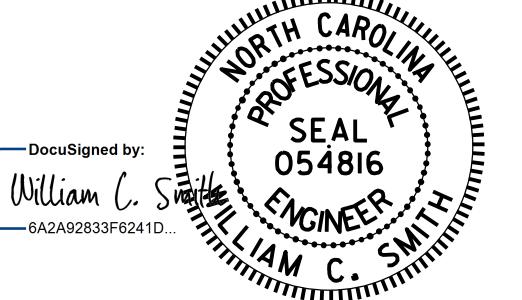
WEST END

PROJECT NO. 15BPR.137
BEAUFORT COUNTY
BRIDGE NO. 060353

SHEET 64 OF 140

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUBSTRUCTURE REPAIR

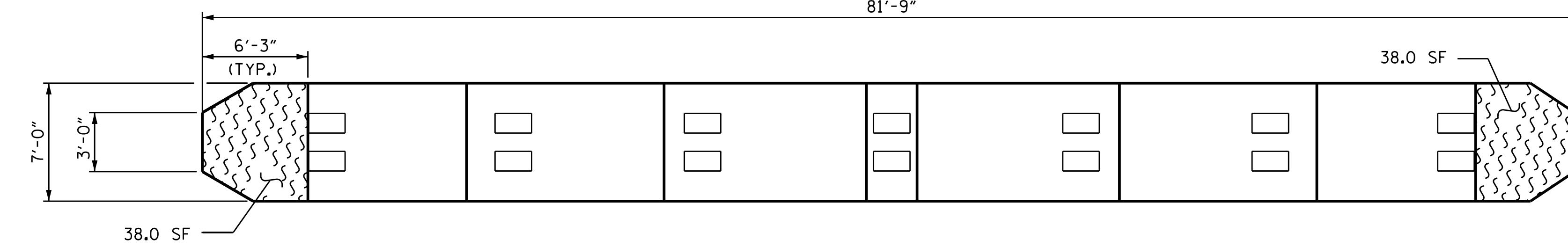
BENT 64



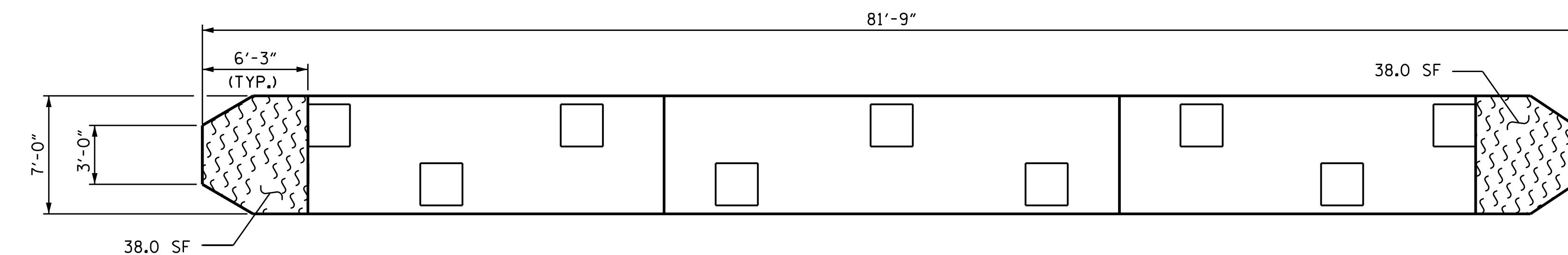
11/21/2025

REVISIONS		SHEET NO.	
DOCUMENT NOT CONSIDERED		1	S-132
FINAL UNLESS ALL SIGNATURES COMPLETED		2	TOTAL SHEETS 217

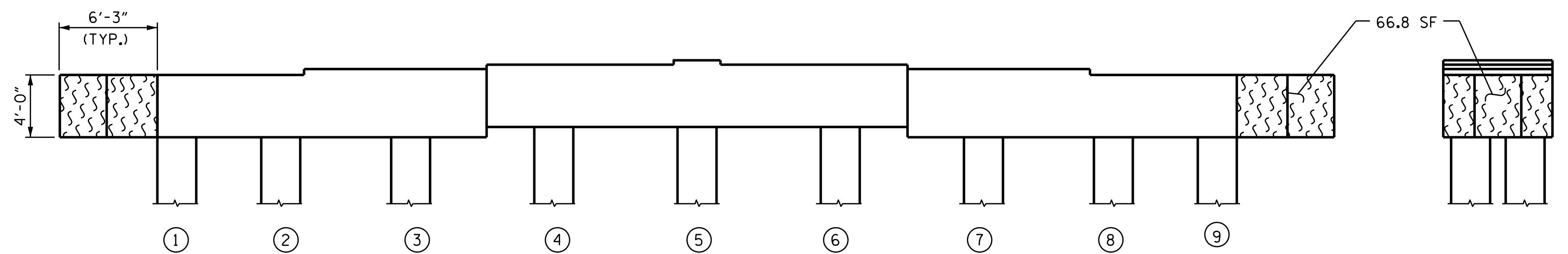
DRAWN BY : S. T. SANDOR DATE : 6/19/24
CHECKED BY : W. C. SMITH DATE : 7/10/24



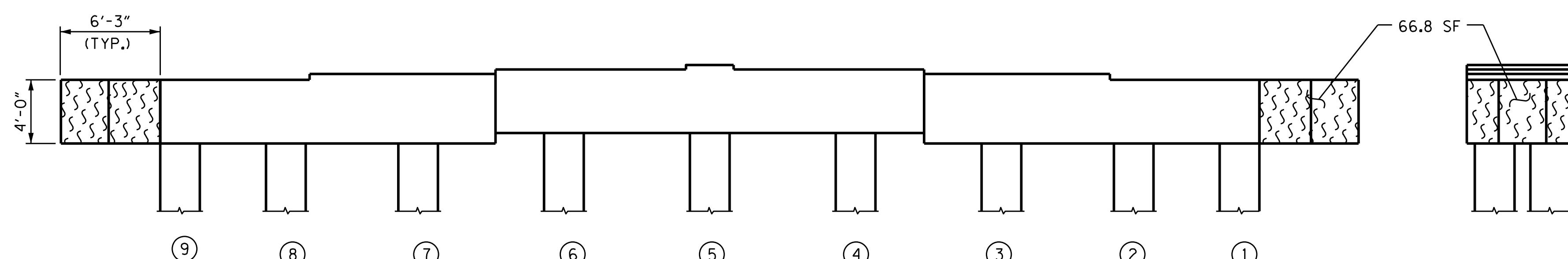
TOP VIEW OF CAP



BOTTOM VIEW OF CAP



ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)



ELEVATION
(NORTH SIDE)
(LOOKING SOUTH)

DRAWN BY : S. T. SANDOR DATE : 6/19/24
CHECKED BY : W. C. SMITH DATE : 7/10/24

11/21/2025

REPAIR QUANTITY TABLE

BENT 65	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	285.6			

VALUES IN THE REPAIR QUANTITY TABLE 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:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- EPOXY COATING

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 65 OF 140

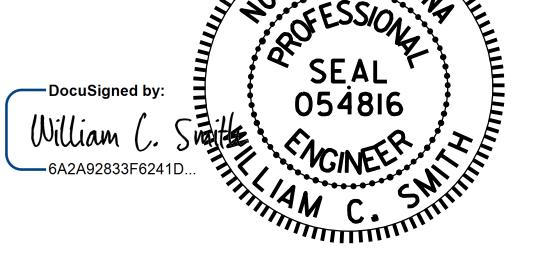
STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

SUBSTRUCTURE REPAIR

BENT 65



11/21/2025

REVISIONS SHEET NO. S-133

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

1

2

3

4

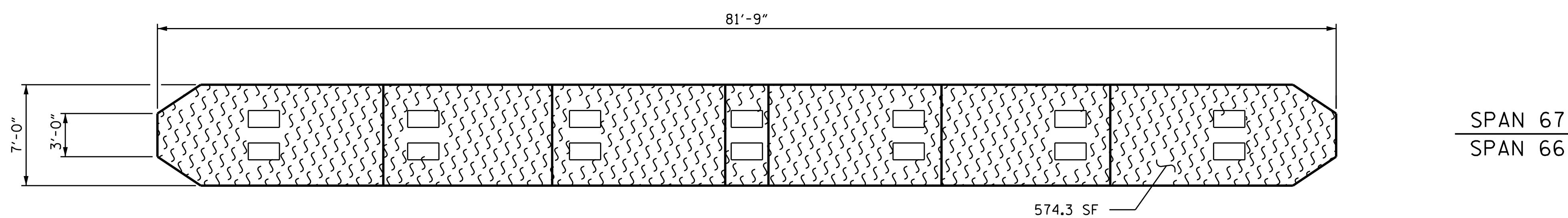
TOTAL SHEETS 217

REPAIR QUANTITY TABLE

BENT 66	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	784.0			

VALUES IN THE REPAIR QUANTITY TABLE 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 VIEW OF CAP



81'-9"

574.3 SF

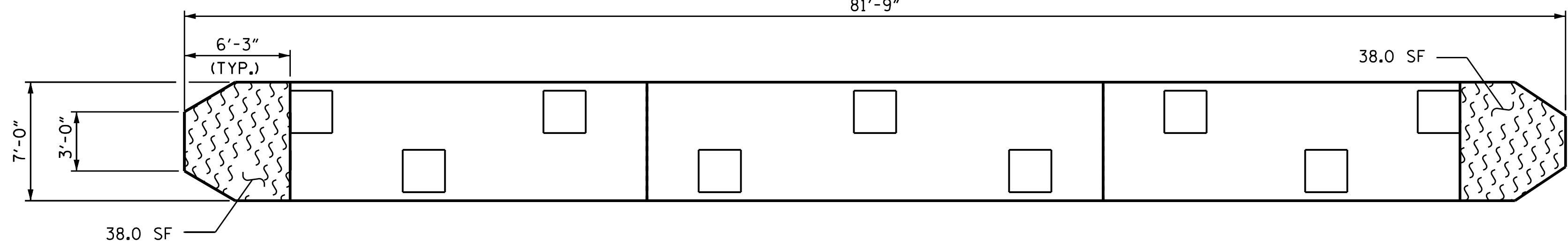
SPAN 67
SPAN 66

81'-9"

38.0 SF

SPAN 66
SPAN 67

BOTTOM VIEW OF CAP



38.0 SF

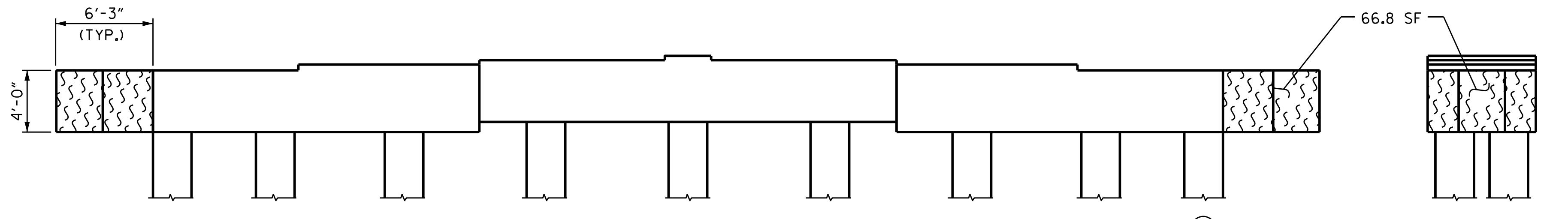
38.0 SF

81'-9"

574.3 SF

NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

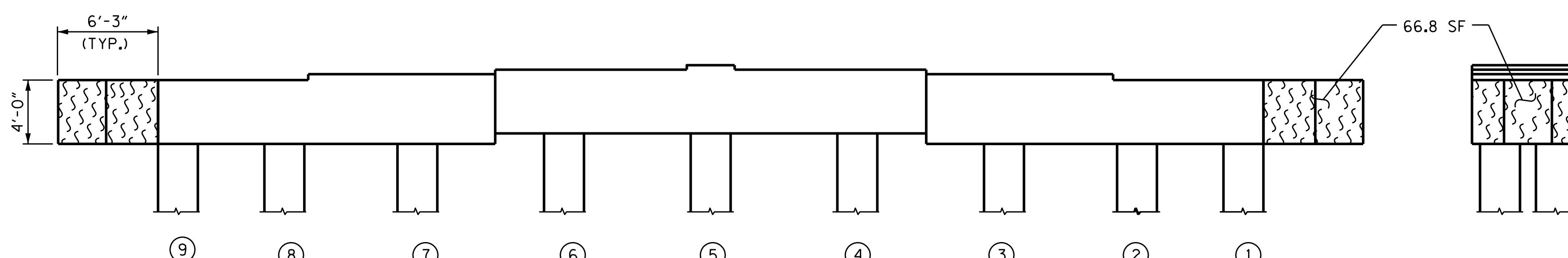


ELEVATION

(SOUTH SIDE)
(LOOKING NORTH)

EAST END

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- EPOXY COATING



ELEVATION

(NORTH SIDE)
(LOOKING SOUTH)

WEST END

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 66 OF 140

STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

SUBSTRUCTURE REPAIR

BENT 66



11/21/2025

REVISIONS

SHEET NO.

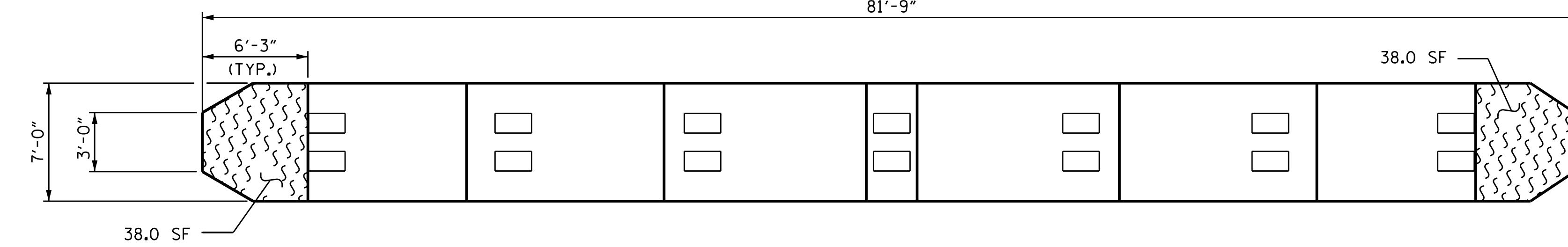
S-134

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	2			4		

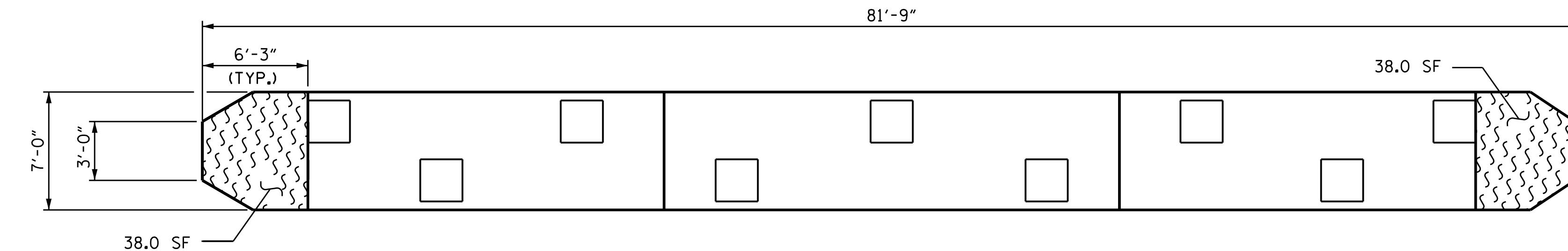
TOTAL SHEETS

217

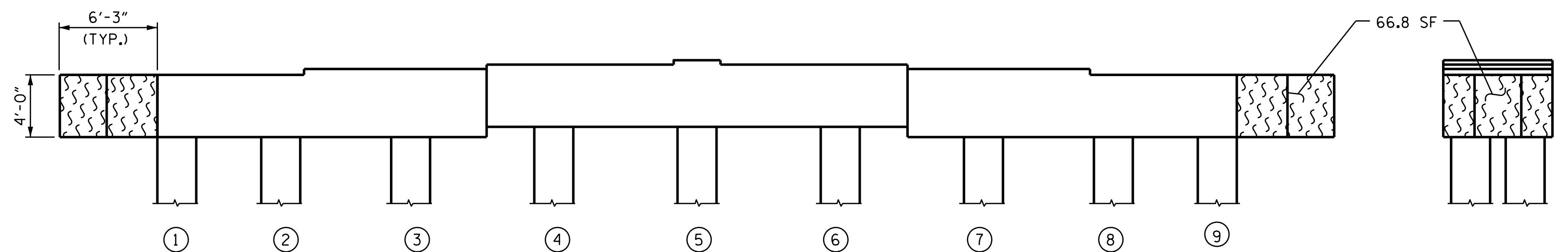
DRAWN BY : S. T. SANDOR DATE : 6/19/24
CHECKED BY : W. C. SMITH DATE : 7/10/24



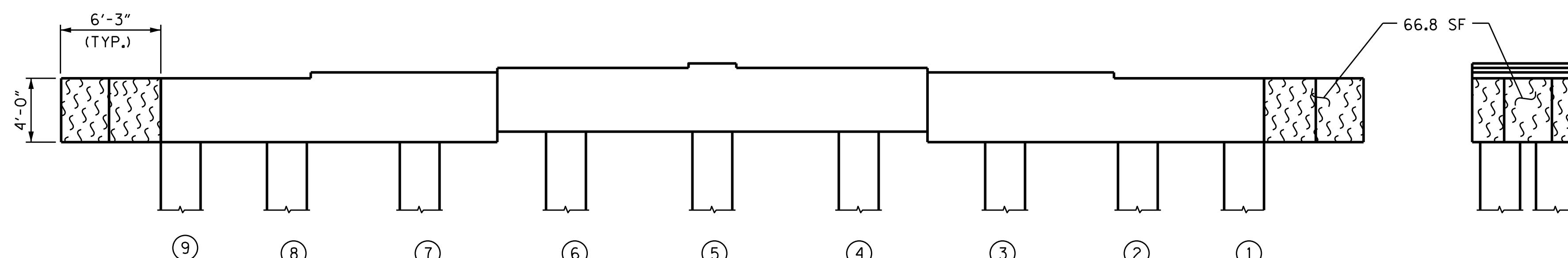
TOP VIEW OF CAP



BOTTOM VIEW OF CAP



ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)



ELEVATION
(NORTH SIDE)
(LOOKING SOUTH)

DRAWN BY : S. T. SANDOR DATE : 6/19/24
CHECKED BY : W. C. SMITH DATE : 7/10/24

11/21/2025

REPAIR QUANTITY TABLE

BENT 67	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	285.6			

VALUES IN THE REPAIR QUANTITY TABLE 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:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

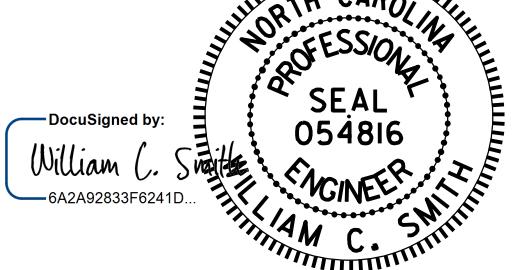
- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- EPOXY COATING

PROJECT NO. 15BPR.137
BEAUFORT COUNTY
BRIDGE NO. 060353

SHEET 67 OF 140

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUBSTRUCTURE REPAIR

BENT 67



REVISIONS		SHEET NO.	
1	BY: S. T. SANDOR	DATE: 6/19/24	S-135
2	BY: W. C. SMITH	DATE: 7/10/24	
3			
4			

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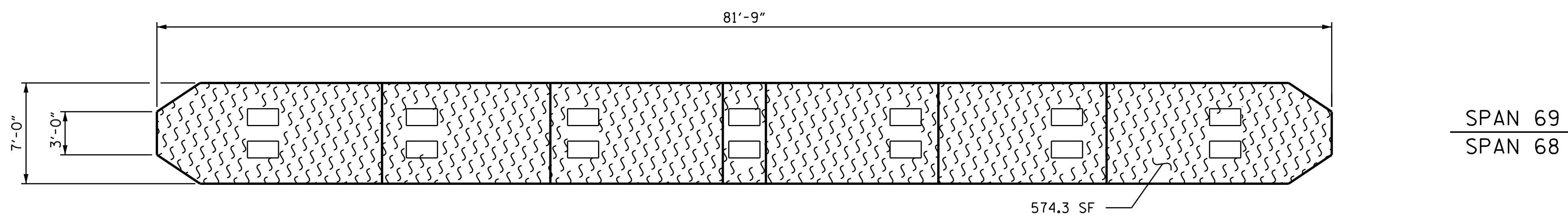
TOTAL SHEETS
217

REPAIR QUANTITY TABLE

BENT 68	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	784.0			

VALUES IN THE REPAIR QUANTITY TABLE 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 VIEW OF CAP



81'-9"

574.3 SF

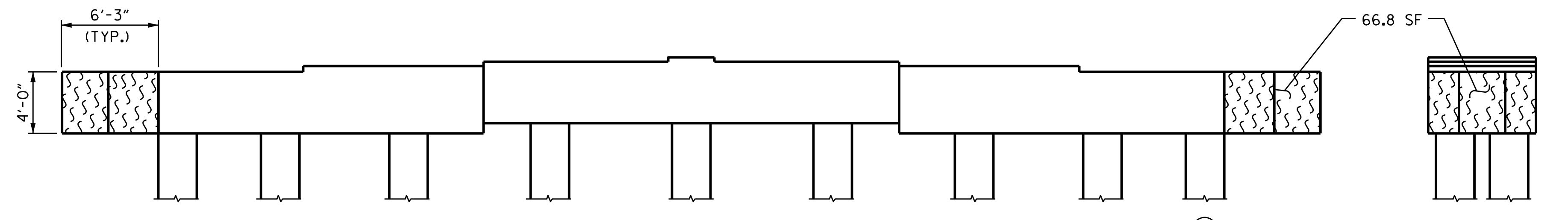
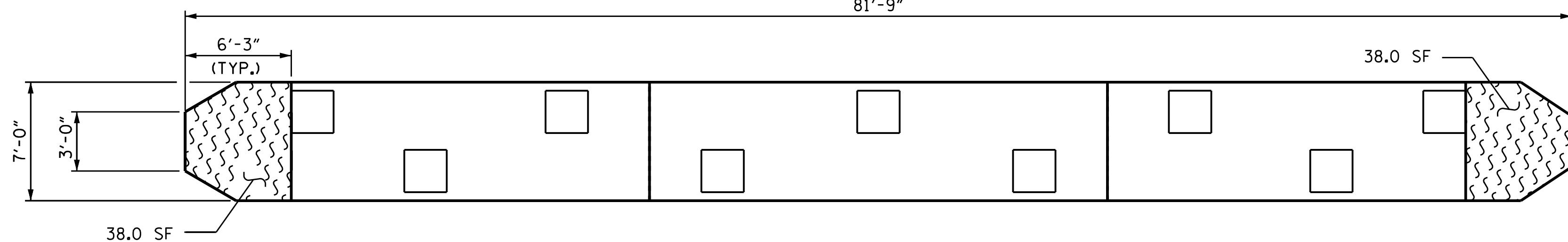
SPAN 69
SPAN 68

81'-9"

38.0 SF

SPAN 68
SPAN 69

BOTTOM VIEW OF CAP



ELEVATION

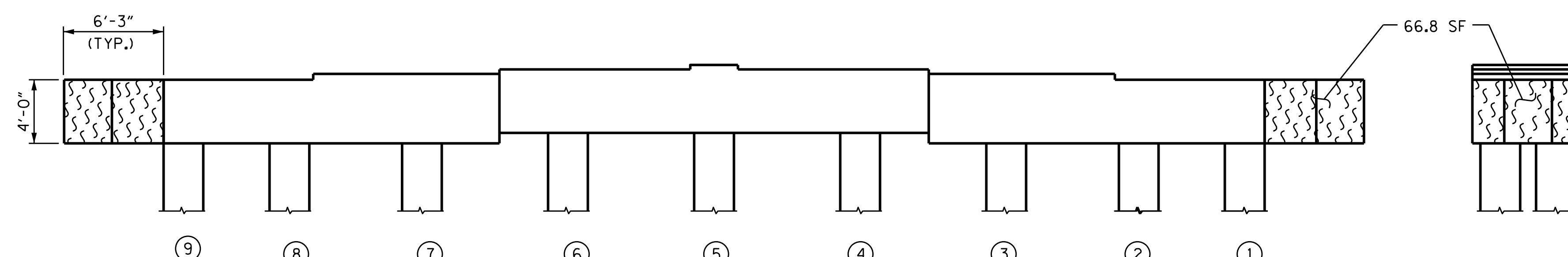
(SOUTH SIDE)
(LOOKING NORTH)

EAST END

NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- EPOXY COATING



ELEVATION

(NORTH SIDE)
(LOOKING SOUTH)

WEST END

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 68 OF 140

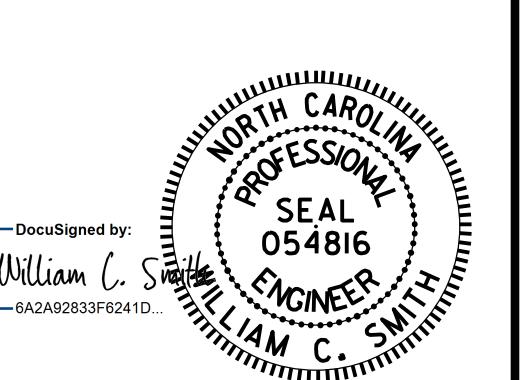
STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

SUBSTRUCTURE REPAIR

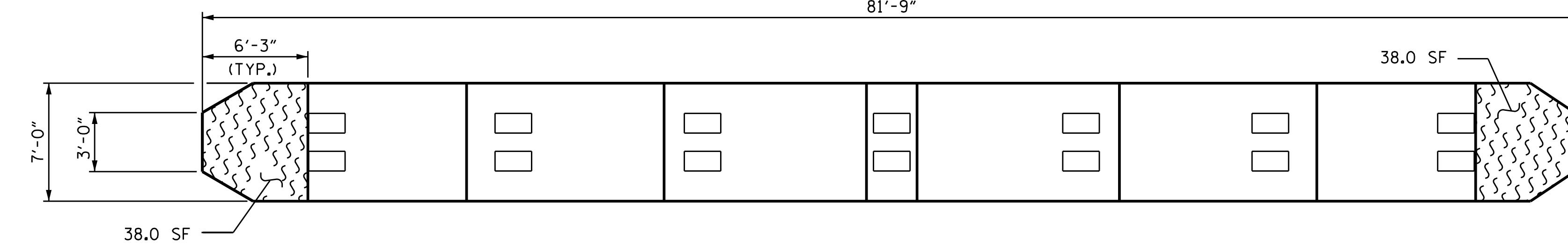
BENT 68



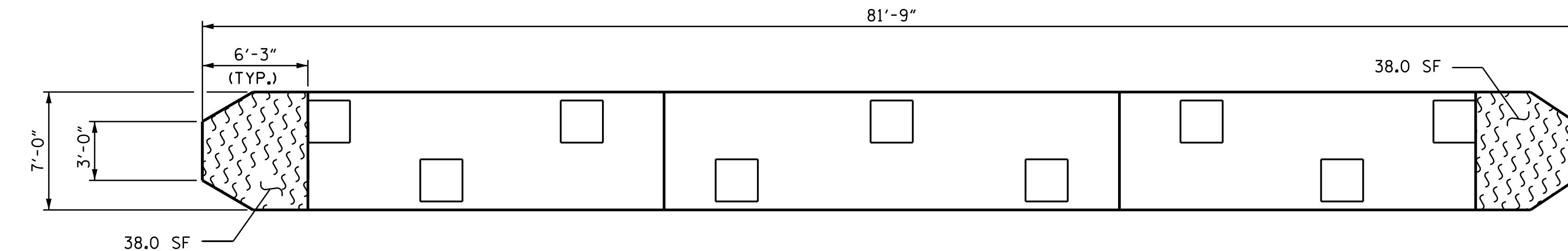
11/21/2025

REVISIONS		SHEET NO.	
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FINAL UNLESS ALL		TOTAL SHEETS	
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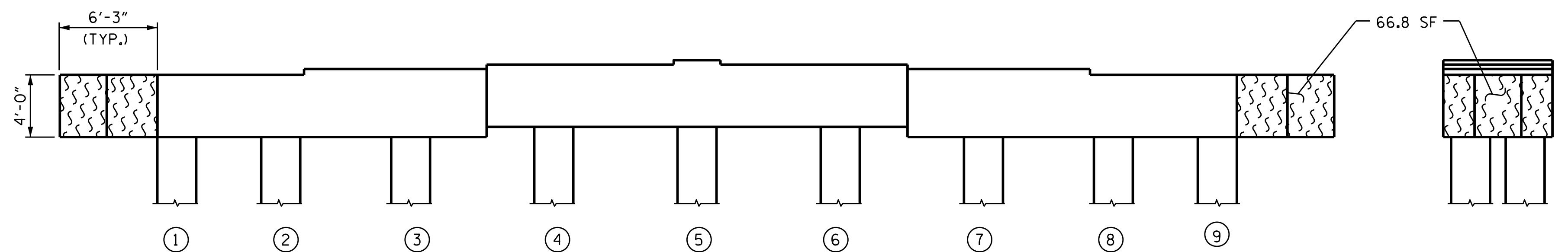
DRAWN BY : S. T. SANDOR DATE : 6/19/24
CHECKED BY : W. C. SMITH DATE : 7/10/24



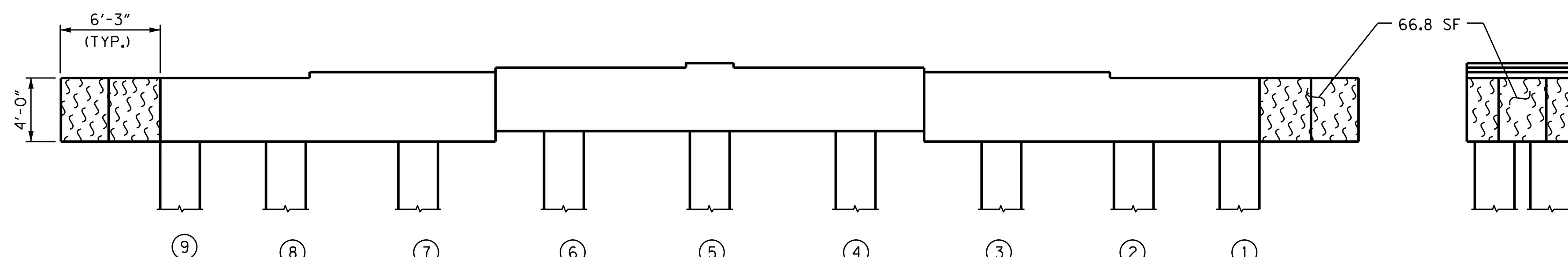
TOP VIEW OF CAP



BOTTOM VIEW OF CAP



ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)



ELEVATION
(NORTH SIDE)
(LOOKING SOUTH)

DRAWN BY : S. T. SANDOR DATE : 6/19/24
CHECKED BY : W. C. SMITH DATE : 7/10/24

11/21/2025

REPAIR QUANTITY TABLE

BENT 69	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	285.6			

VALUES IN THE REPAIR QUANTITY TABLE 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:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- EPOXY COATING

PROJECT NO. 15BPR.137

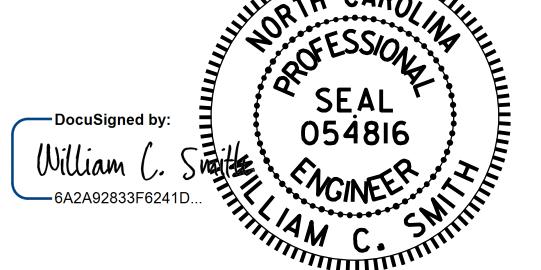
BEAUFORT COUNTY

BRIDGE NO. 060353

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STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUBSTRUCTURE REPAIR

BENT 69



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REVISIONS					SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-137
1			3			
2			4			

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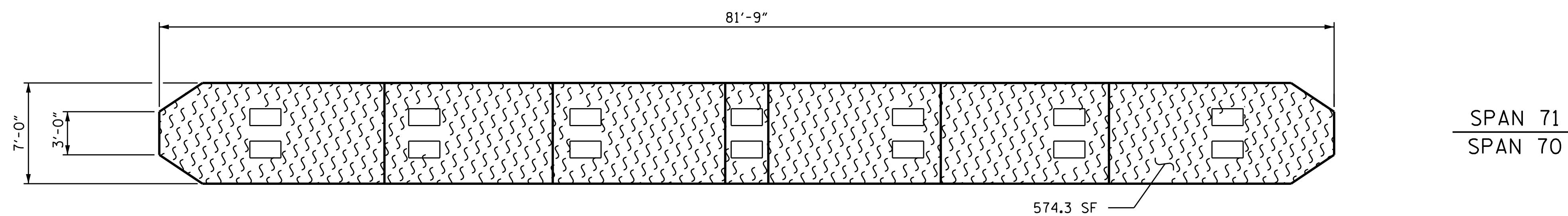
TOTAL SHEETS
217

REPAIR QUANTITY TABLE

BENT 70	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	784.0			

VALUES IN THE REPAIR QUANTITY TABLE 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.

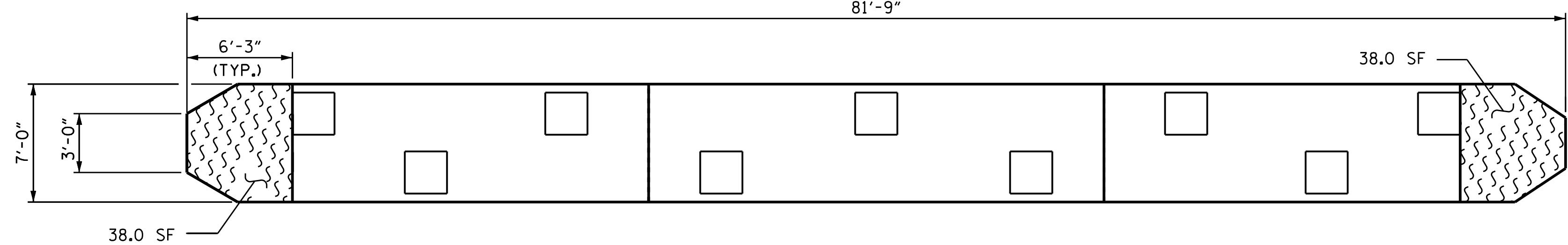
TOP VIEW OF CAP



SPAN 71
SPAN 70

81'-9"

574.3 SF

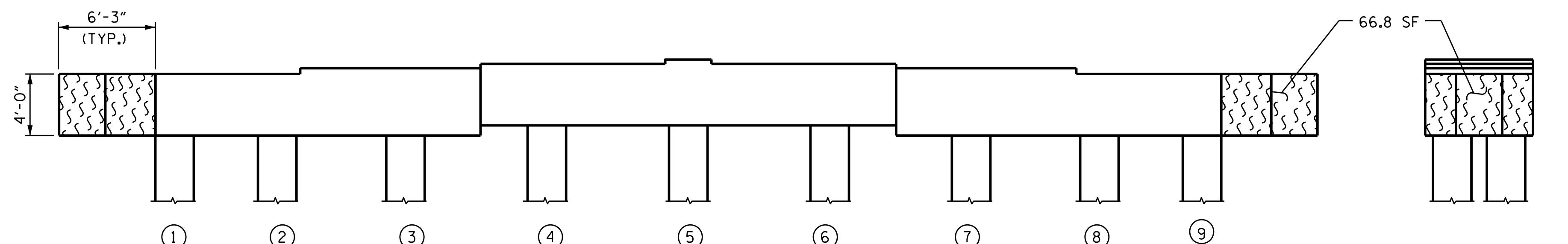


SPAN 70
SPAN 71

81'-9"

38.0 SF

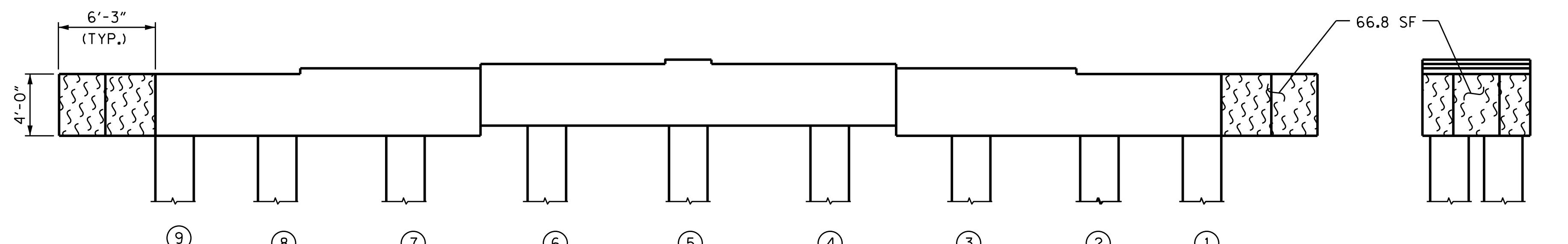
BOTTOM VIEW OF CAP



EAST END

ELEVATION

(SOUTH SIDE)
(LOOKING NORTH)



WEST END

ELEVATION

(NORTH SIDE)
(LOOKING SOUTH)

NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- EPOXY COATING

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

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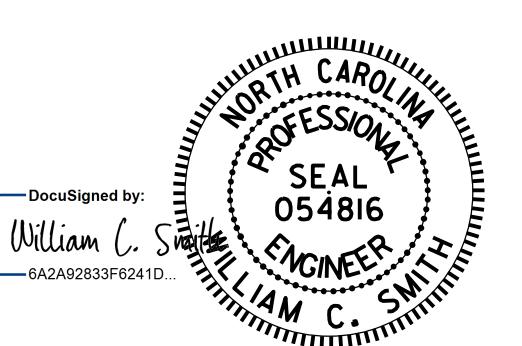
STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

SUBSTRUCTURE REPAIR

BENT 70



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NO.	BY:	DATE:	NO.	BY:	DATE:	S-138
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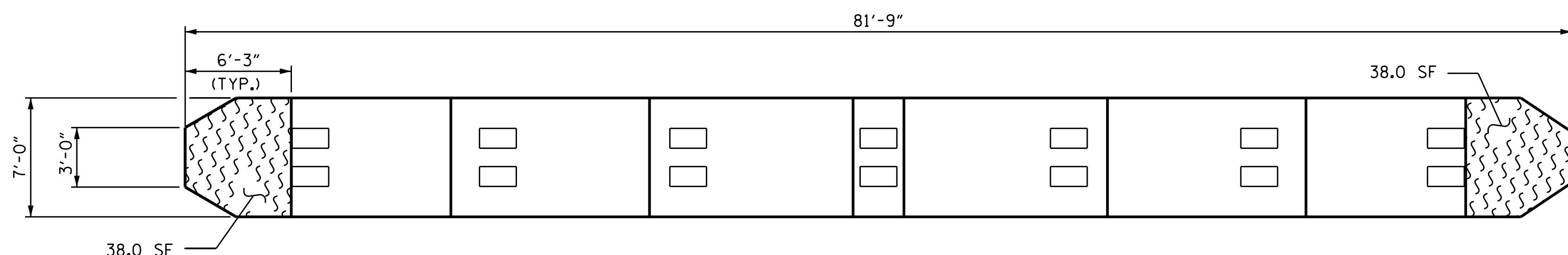
DRAWN BY : S. T. SANDOR DATE : 6/19/24
CHECKED BY : W. C. SMITH DATE : 7/10/24

REPAIR QUANTITY TABLE

BENT 71	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	285.6			

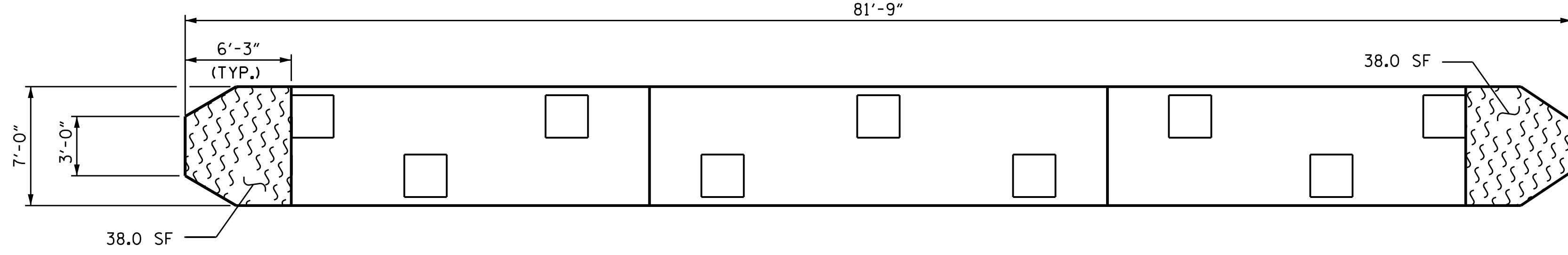
VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

TOP VIEW OF CAP



SPAN 72
SPAN 71

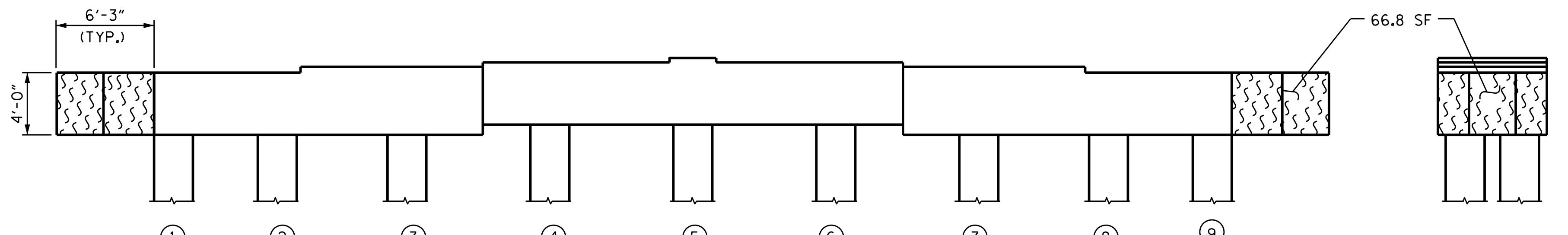
BOTTOM VIEW OF CAP



SPAN 71
SPAN 72

NOTES:

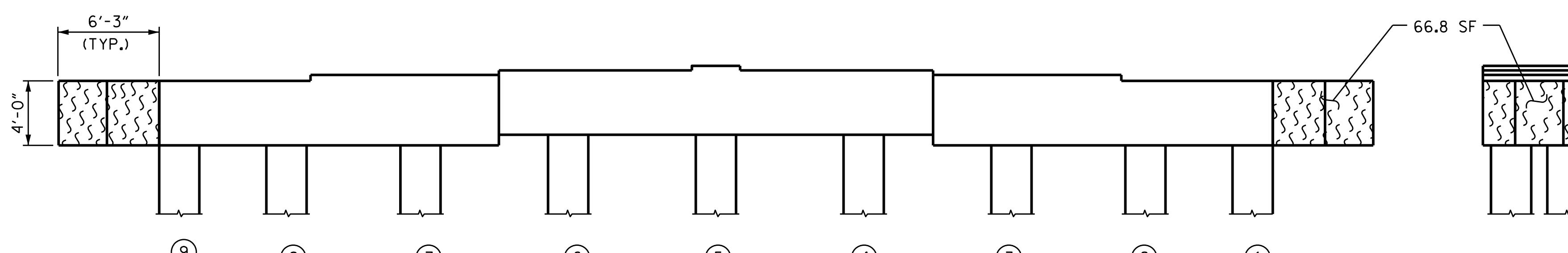
FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.



EAST END

ELEVATION

(SOUTH SIDE)
(LOOKING NORTH)



WEST END

ELEVATION

(NORTH SIDE)
(LOOKING SOUTH)

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

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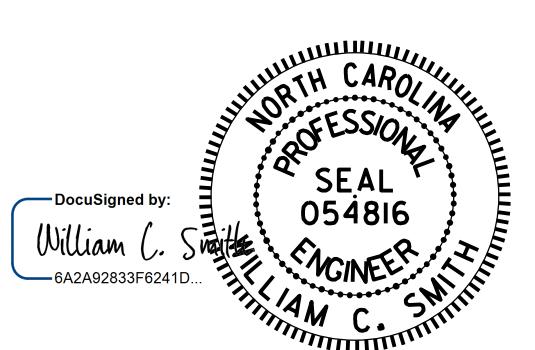
STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

SUBSTRUCTURE REPAIR

BENT 71



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REVISIONS

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DRAWN BY : S. T. SANDOR DATE : 6/19/24
CHECKED BY : W. C. SMITH DATE : 7/10/24

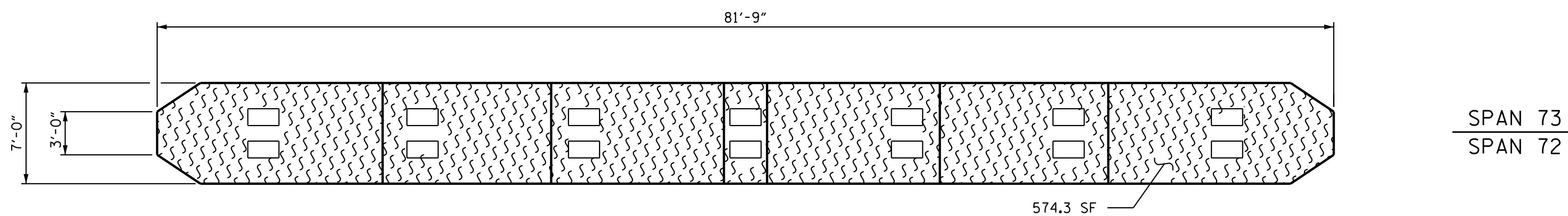
11/21/2025

REPAIR QUANTITY TABLE

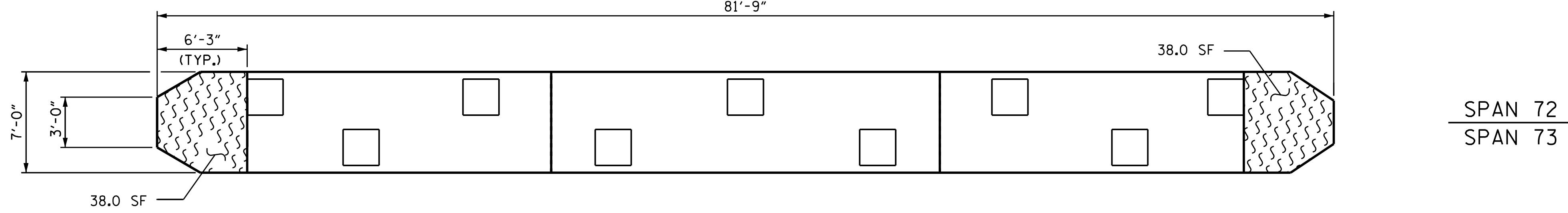
BENT 72	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION	LF		LF	
CAP	0.0			
COLUMN	0.0			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	784.0			

VALUES IN THE REPAIR QUANTITY TABLE 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 VIEW OF CAP

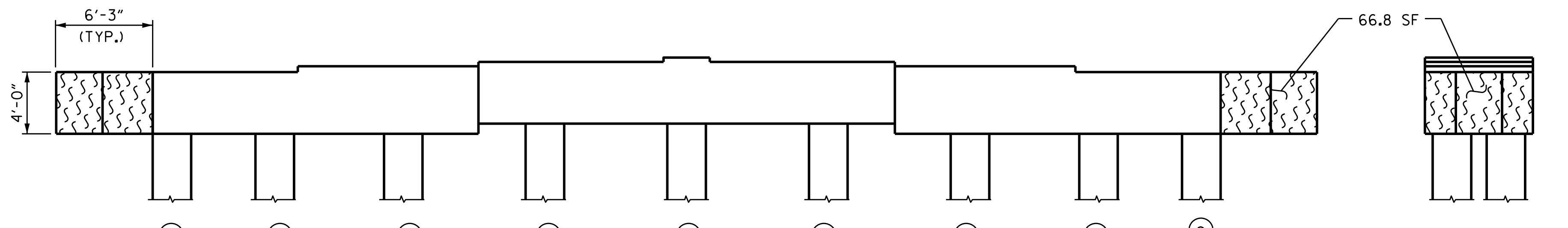


BOTTOM VIEW OF CAP



NOTES:

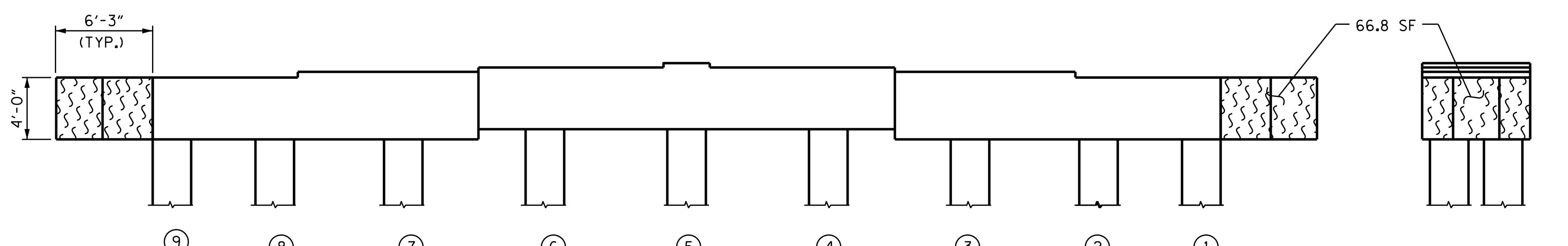
FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.



EAST END

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- EPOXY COATING

ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)



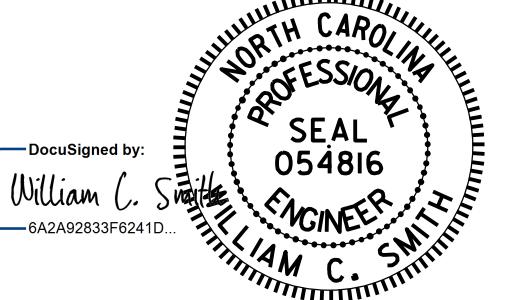
WEST END

PROJECT NO. 15BPR.137
BEAUFORT COUNTY
BRIDGE NO. 060353

SHEET 72 OF 140

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUBSTRUCTURE REPAIR

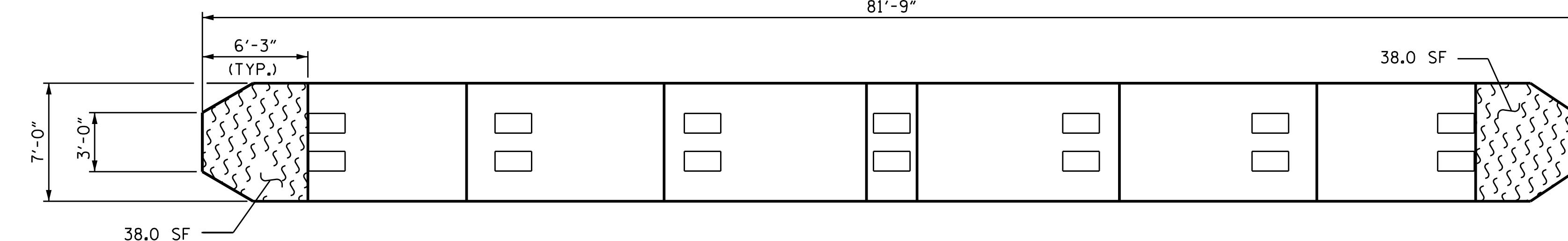
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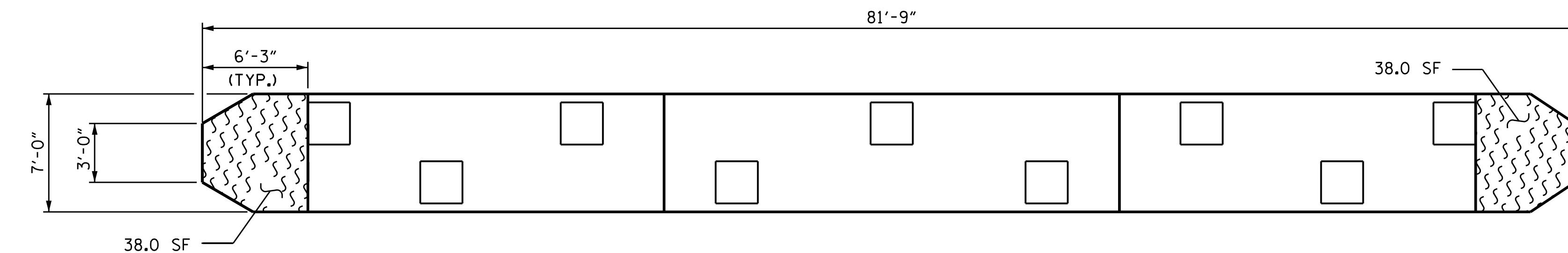
11/21/2025

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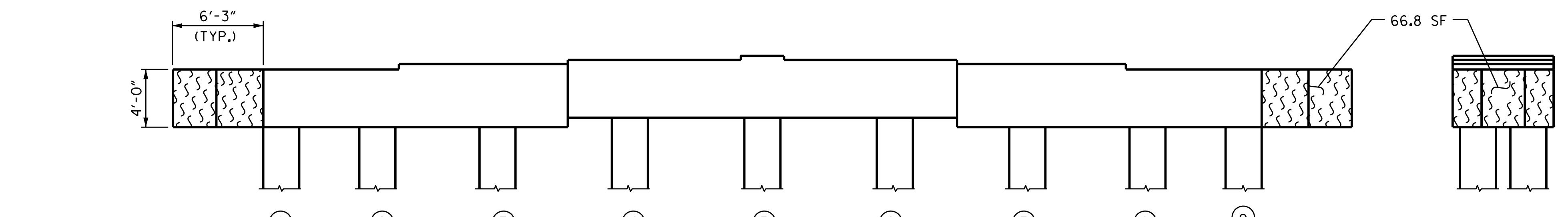
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CHECKED BY : W. C. SMITH DATE : 7/10/24



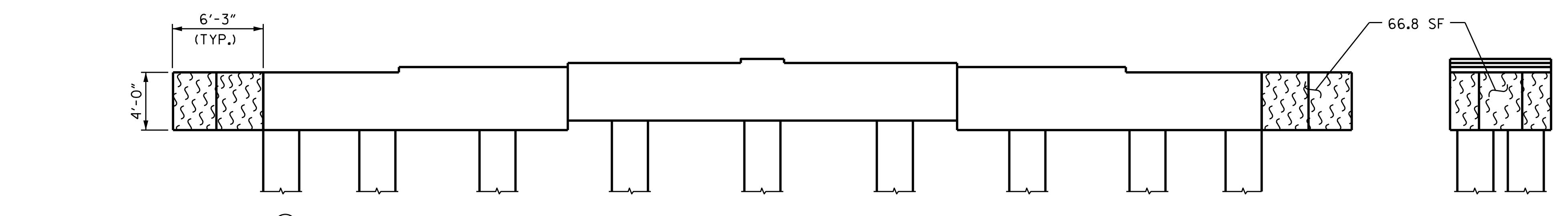
TOP VIEW OF CAP



BOTTOM VIEW OF CAP



ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)



ELEVATION
(NORTH SIDE)
(LOOKING SOUTH)

REPAIR QUANTITY TABLE

BENT 73	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	285.6			

VALUES IN THE REPAIR QUANTITY TABLE 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:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- EPOXY COATING

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

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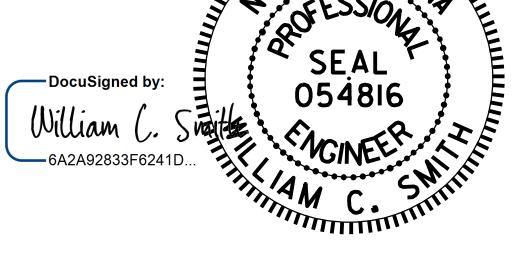
STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

SUBSTRUCTURE REPAIR

BENT 73



11/21/2025

REVISIONS

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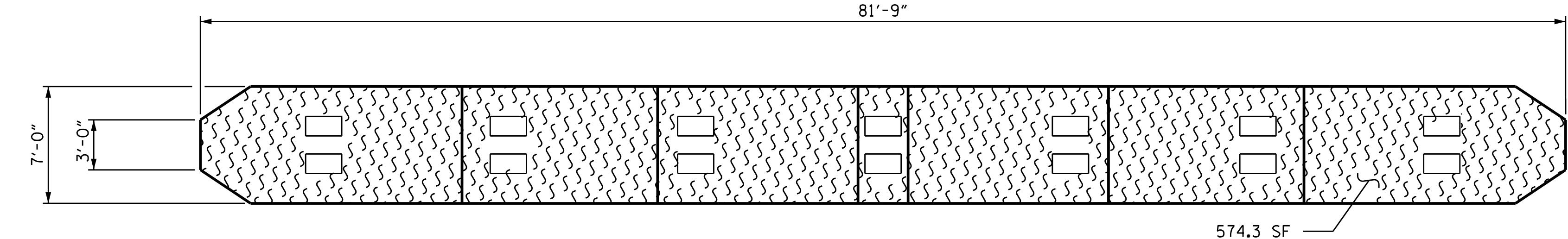
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FINAL UNLESS ALL
SIGNATURES COMPLETED

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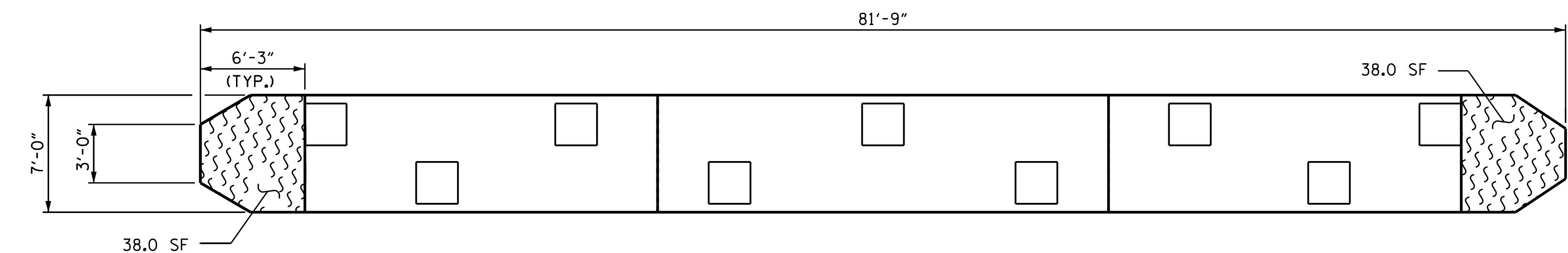
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2 4

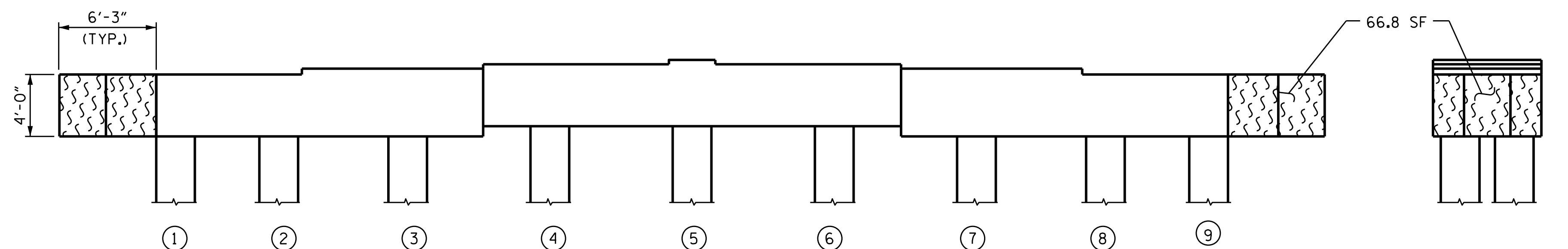
TOTAL SHEETS
217



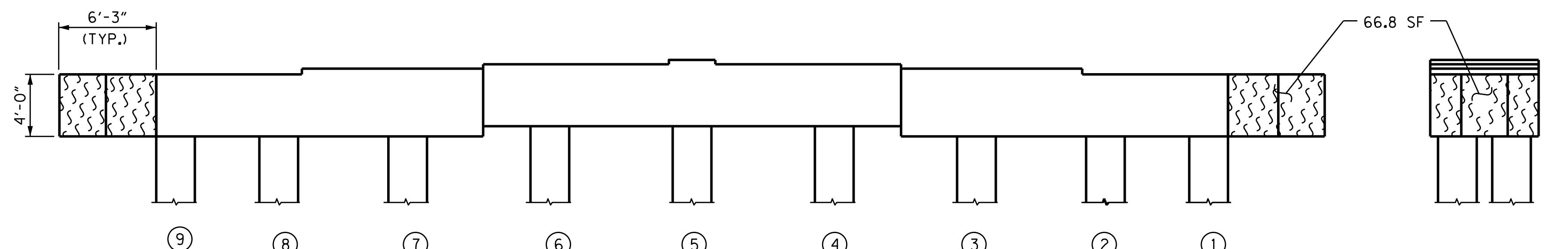
TOP VIEW OF CAP



BOTTOM VIEW OF CAP



ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)



ELEVATION
(NORTH SIDE)
(LOOKING SOUTH)

DRAWN BY : S. T. SANDOR DATE : 6/19/24
CHECKED BY : W. C. SMITH DATE : 7/10/24

REPAIR QUANTITY TABLE

BENT 74	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	784.0			

VALUES IN THE REPAIR QUANTITY TABLE 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:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- EPOXY COATING

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 74 OF 140

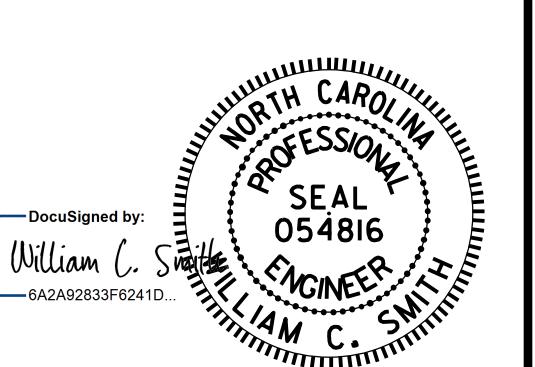
STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

SUBSTRUCTURE REPAIR

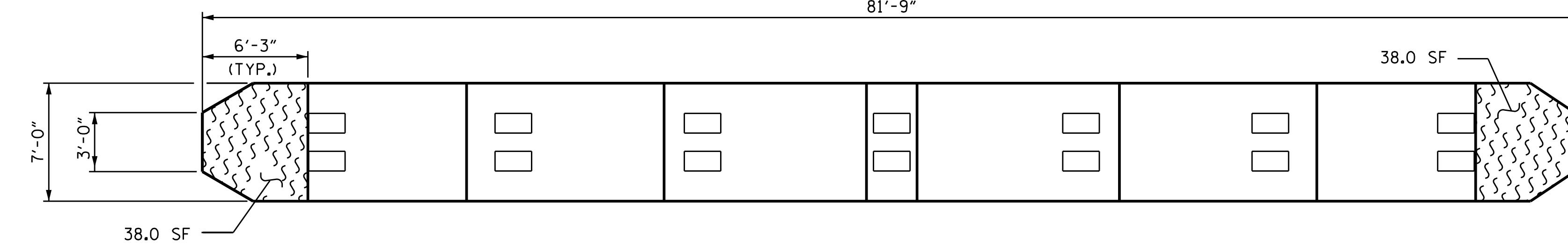
BENT 74



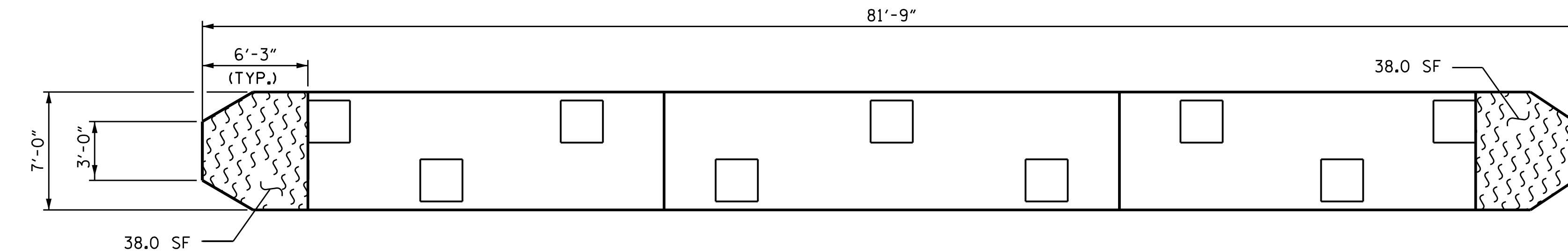
11/21/2025

REVISIONS		SHEET NO.	
1	BY:	DATE:	NO. 142
2	BY:	DATE:	217
3	BY:	DATE:	TOTAL SHEETS
4	BY:	DATE:	217

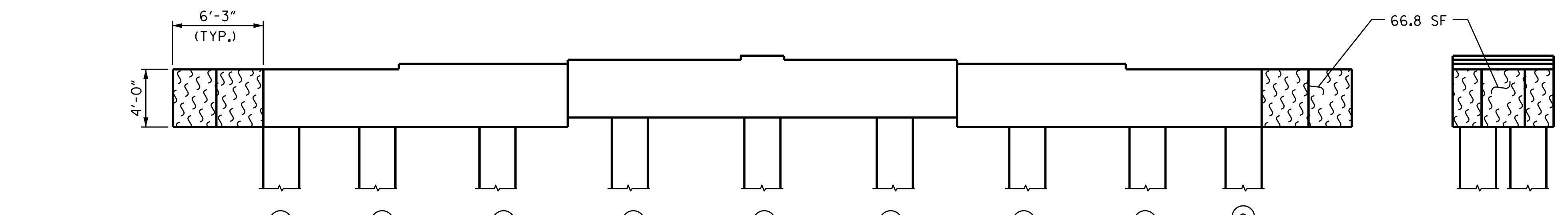
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SIGNATURES COMPLETED



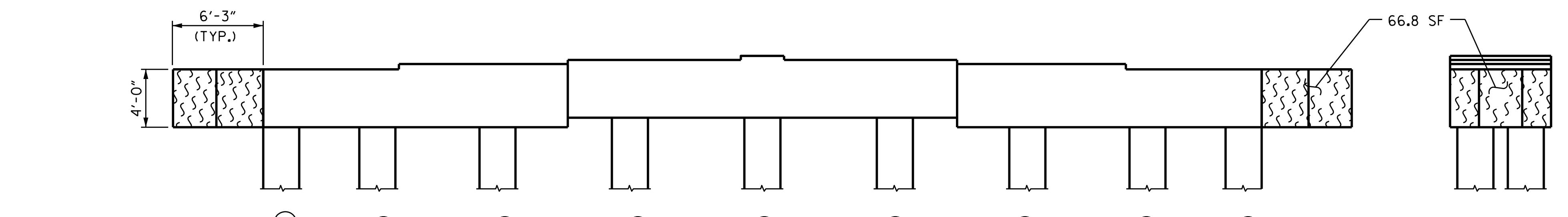
TOP VIEW OF CAP



BOTTOM VIEW OF CAP



ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)



ELEVATION
(NORTH SIDE)
(LOOKING SOUTH)

REPAIR QUANTITY TABLE

BENT 75	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	285.6			

VALUES IN THE REPAIR QUANTITY TABLE 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:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- EPOXY COATING

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 75 OF 140

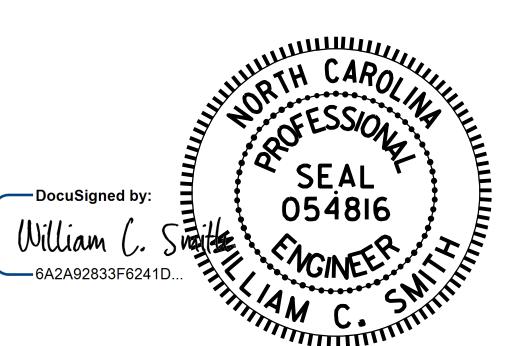
STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

SUBSTRUCTURE REPAIR

BENT 75



11/21/2025

REVISIONS

SHEET NO.

S-143

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

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BY:

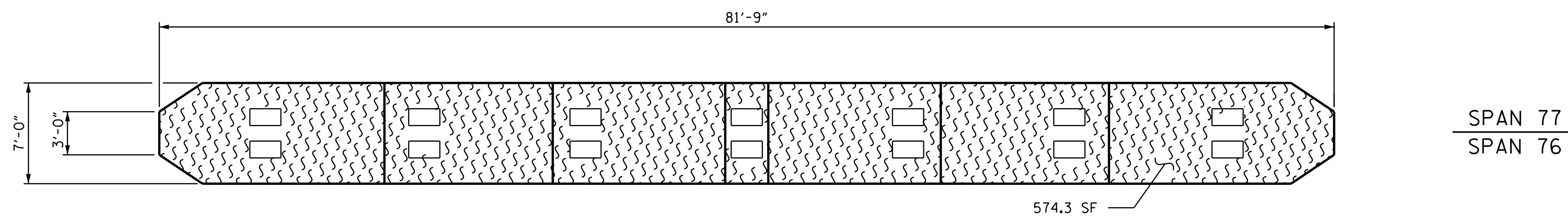
DATE:

REPAIR QUANTITY TABLE

BENT 76	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	784.0			

VALUES IN THE REPAIR QUANTITY TABLE 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 VIEW OF CAP



81'-9"

574.3 SF

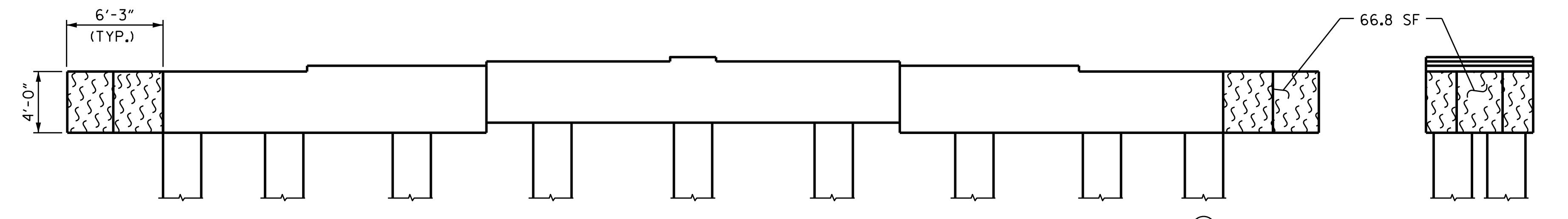
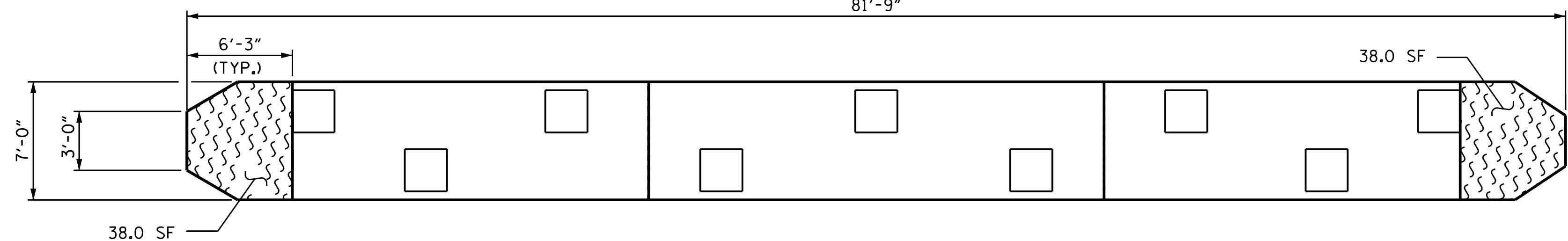
SPAN 77
SPAN 76

81'-9"

38.0 SF

SPAN 76
SPAN 77

BOTTOM VIEW OF CAP



ELEVATION

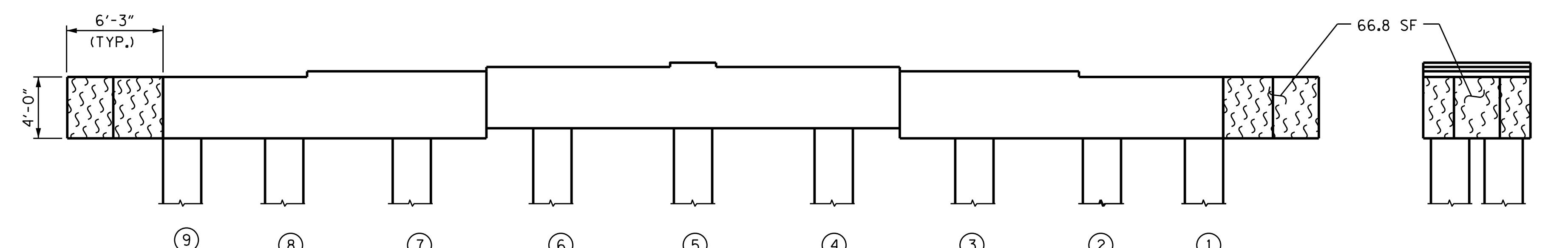
(SOUTH SIDE)
(LOOKING NORTH)

EAST END

NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- EPOXY COATING



ELEVATION

(NORTH SIDE)
(LOOKING SOUTH)

WEST END

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 76 OF 140

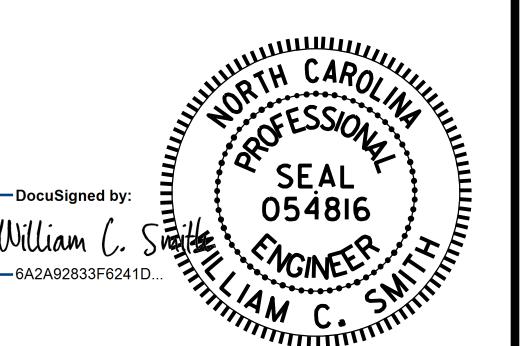
STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

SUBSTRUCTURE REPAIR

BENT 76



11/21/2025

REVISIONS

SHEET NO.

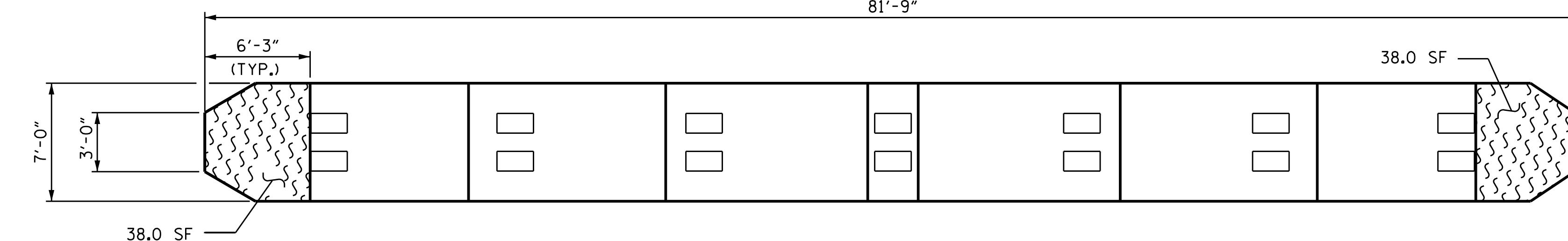
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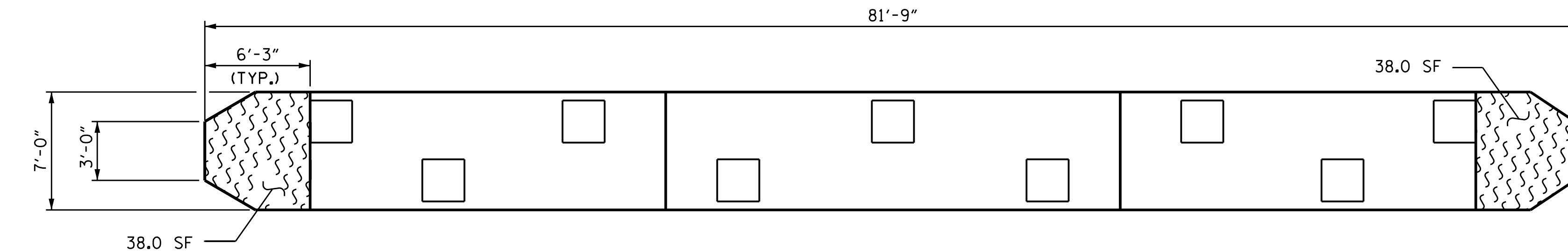
TOTAL SHEETS

217

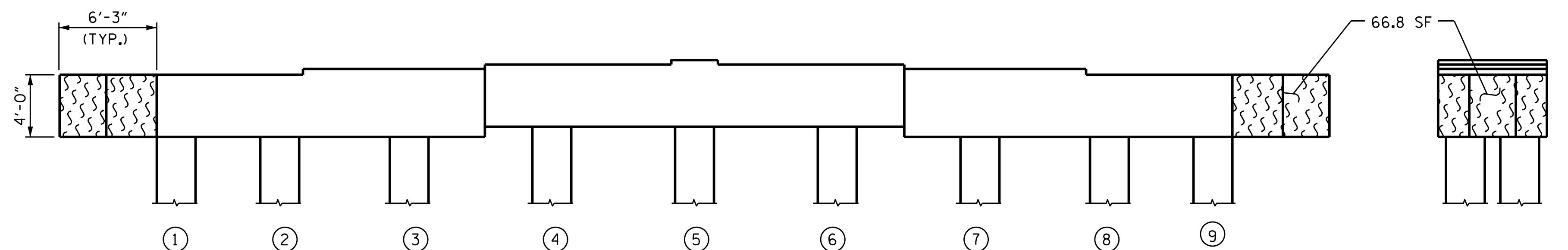
DRAWN BY : S. T. SANDOR DATE : 6/19/24
CHECKED BY : W. C. SMITH DATE : 7/10/24



TOP VIEW OF CAP

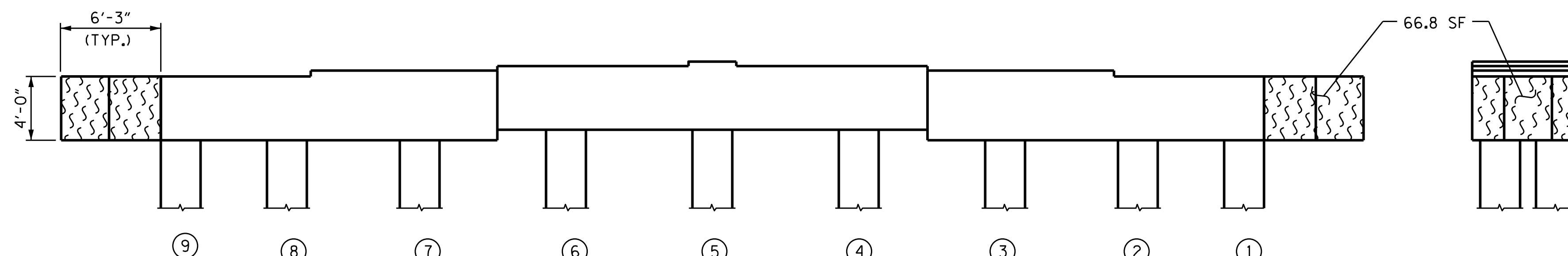


BOTTOM VIEW OF CAP



ELEVATION

(SOUTH SIDE)
(LOOKING NORTH)



ELEVATION

(NORTH SIDE)
(LOOKING SOUTH)

DRAWN BY : S. T. SANDOR DATE : 6/19/24
CHECKED BY : W. C. SMITH DATE : 7/10/24

11/21/2025

REPAIR QUANTITY TABLE

BENT 77	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	285.6			

VALUES IN THE REPAIR QUANTITY TABLE 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:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- EPOXY COATING

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

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STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

SUBSTRUCTURE REPAIR

BENT 77



11/21/2025

REVISIONS		SHEET NO.	
1	BY: S. T. SANDOR	DATE: 6/19/24	S-145
2	BY: W. C. SMITH	DATE: 7/10/24	
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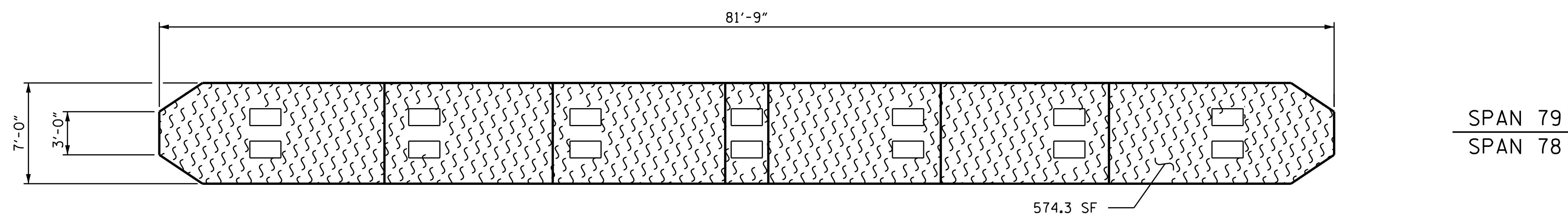
TOTAL SHEETS
217

REPAIR QUANTITY TABLE

BENT 78	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	784.0			

VALUES IN THE REPAIR QUANTITY TABLE 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 VIEW OF CAP



81'-9"

574.3 SF

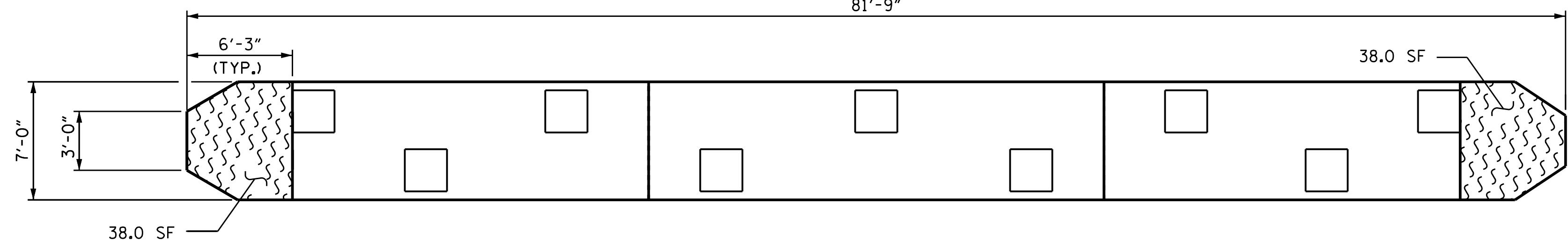
SPAN 79
SPAN 78

81'-9"

38.0 SF

SPAN 78
SPAN 79

BOTTOM VIEW OF CAP

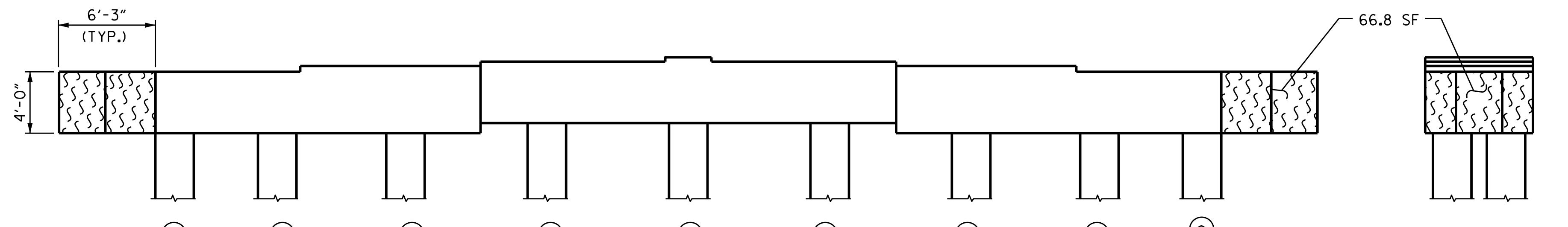


38.0 SF

38.0 SF

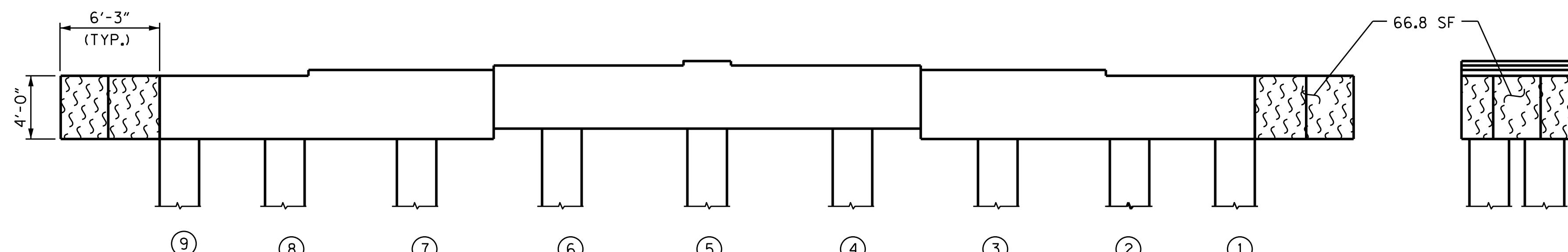
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.



ELEVATION

(SOUTH SIDE)
(LOOKING NORTH)



ELEVATION

(NORTH SIDE)
(LOOKING SOUTH)

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- EPOXY COATING

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 78 OF 140

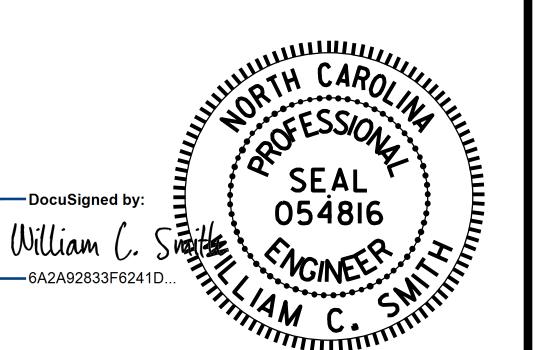
STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

SUBSTRUCTURE REPAIR

BENT 78

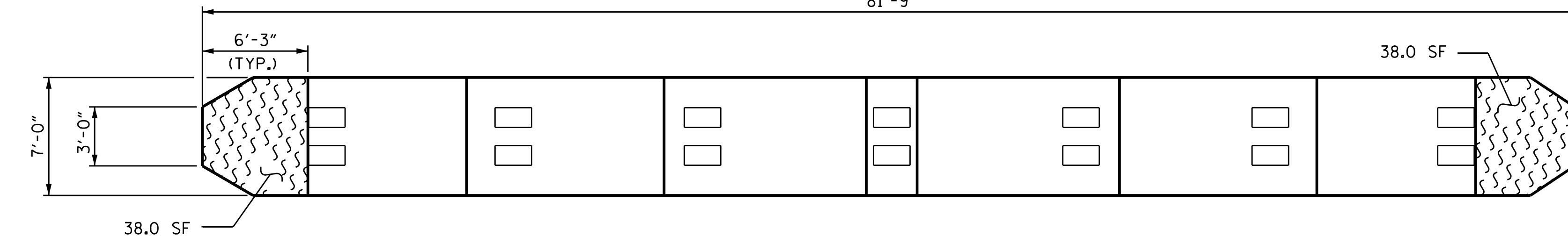


11/21/2025

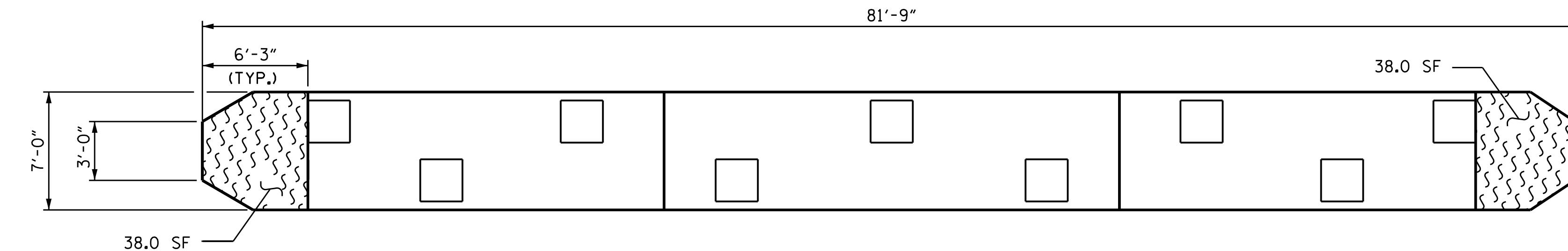
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NO.	BY:	DATE:	NO.
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2			4

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NO.	BY:	DATE:	NO.
S-146			217

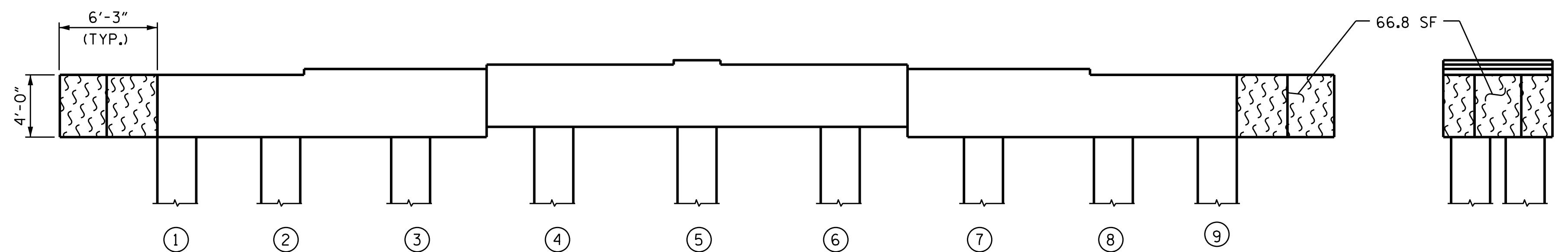
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CHECKED BY : W. C. SMITH DATE : 7/10/24



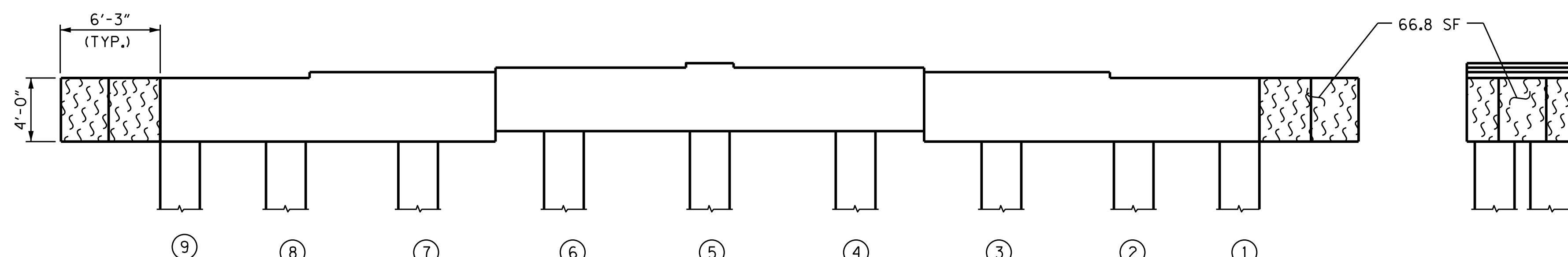
TOP VIEW OF CAP



BOTTOM VIEW OF CAP



ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)



ELEVATION
(NORTH SIDE)
(LOOKING SOUTH)

DRAWN BY : S. T. SANDOR DATE : 6/19/24
CHECKED BY : W. C. SMITH DATE : 7/10/24

11/21/2025

REPAIR QUANTITY TABLE

BENT 79	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	285.6			

VALUES IN THE REPAIR QUANTITY TABLE 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:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

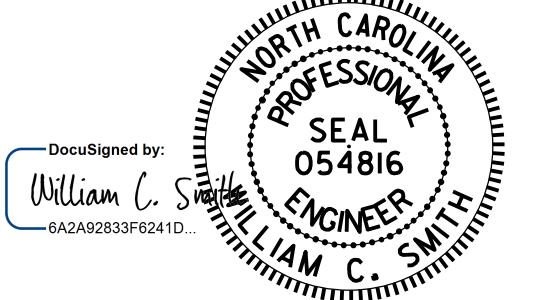
- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- EPOXY COATING

PROJECT NO. 15BPR.137
BEAUFORT COUNTY
BRIDGE NO. 060353

SHEET 79 OF 140

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUBSTRUCTURE REPAIR

BENT 79



11/21/2025
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REVISIONS					SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-147
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2			4			

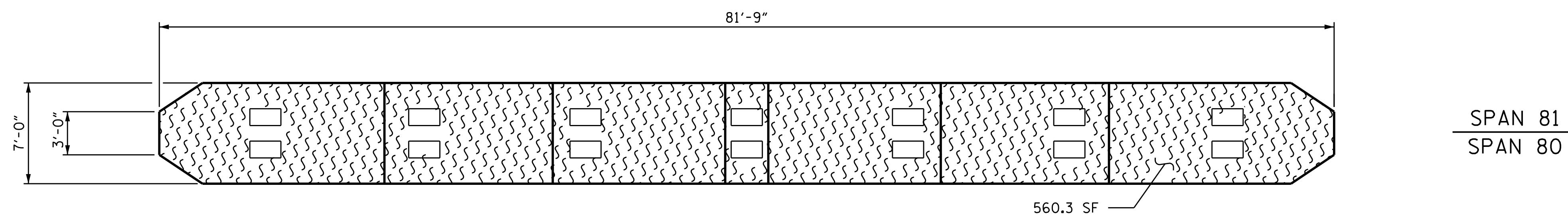
TOTAL SHEETS 217

REPAIR QUANTITY TABLE

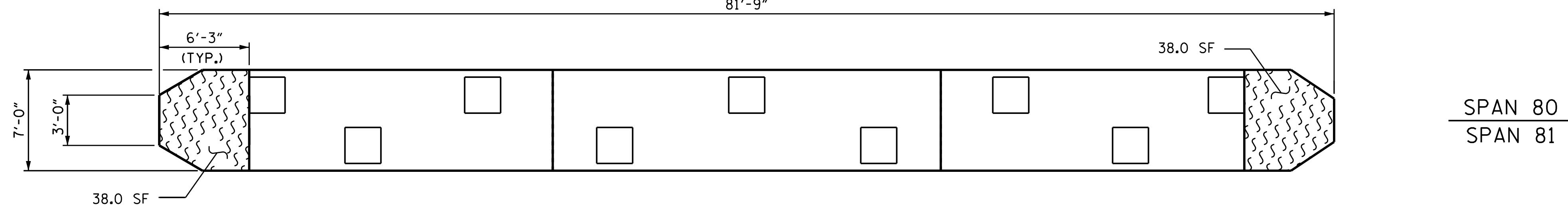
BENT 80	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION	LF		LF	
CAP	0.0			
COLUMN	0.0			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	784.0			

VALUES IN THE REPAIR QUANTITY TABLE 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 VIEW OF CAP

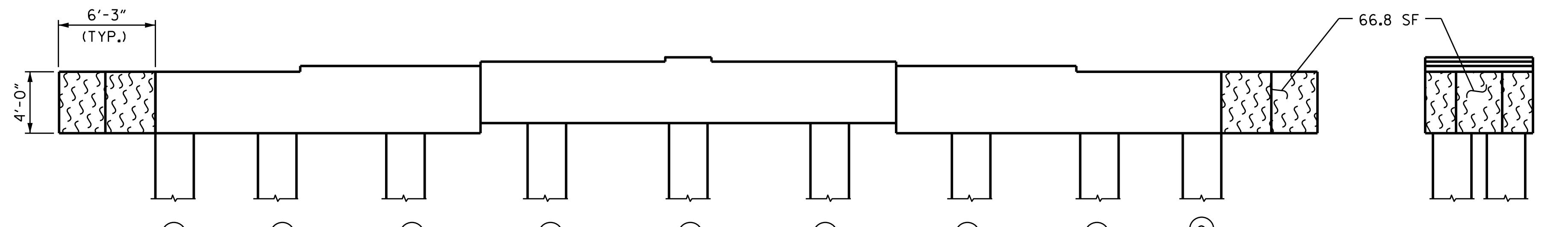


81'-9"



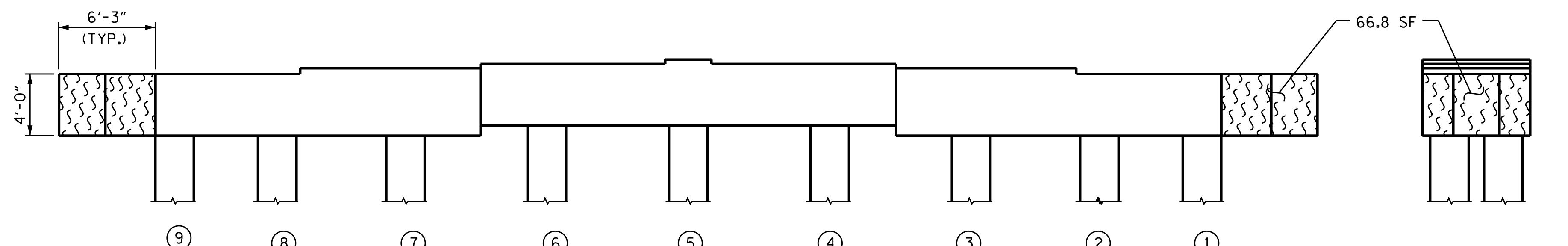
38.0 SF

BOTTOM VIEW OF CAP



ELEVATION

(SOUTH SIDE)
(LOOKING NORTH)



ELEVATION

(NORTH SIDE)
(LOOKING SOUTH)

NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- EPOXY COATING

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 80 OF 140

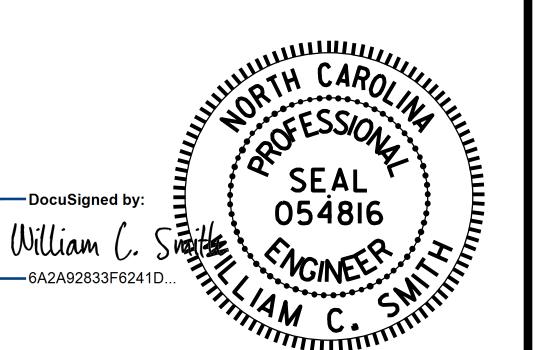
STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

SUBSTRUCTURE REPAIR

BENT 80

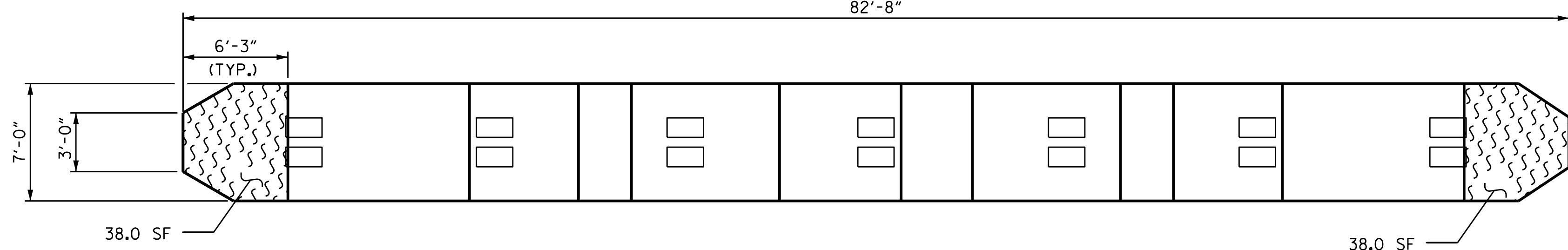


DRAWN BY : S. T. SANDOR DATE : 6/19/24
CHECKED BY : W. C. SMITH DATE : 7/10/24

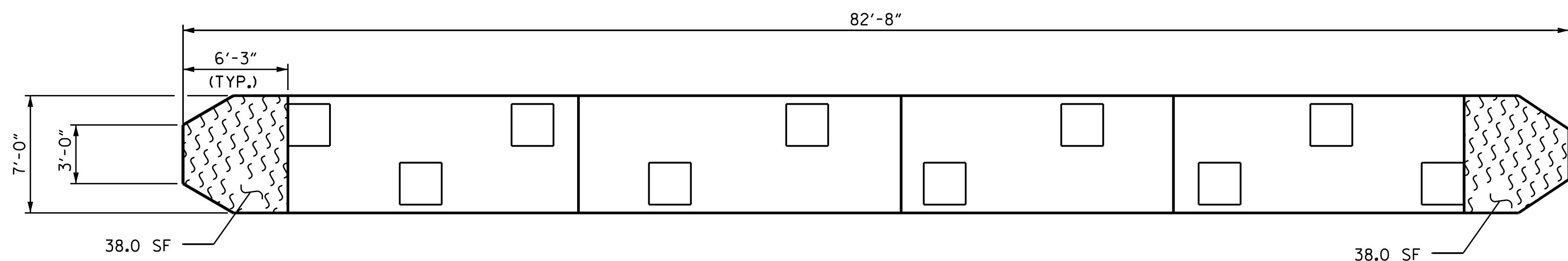
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NO.	BY:	DATE:	NO.	BY:	DATE:	S-148
1			3			
2			4			

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

TOTAL SHEETS
217



TOP VIEW OF CAP



BOTTOM VIEW OF CAP

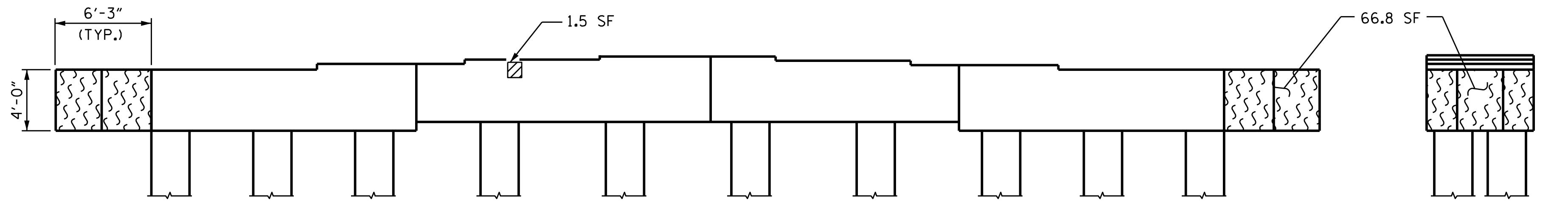
REPAIR QUANTITY TABLE

BENT 81	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		
EPOXY COATING AND DEBRIS REMOVAL			AREA SF	
CAP		285.6		

VALUES IN THE REPAIR QUANTITY TABLE 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:

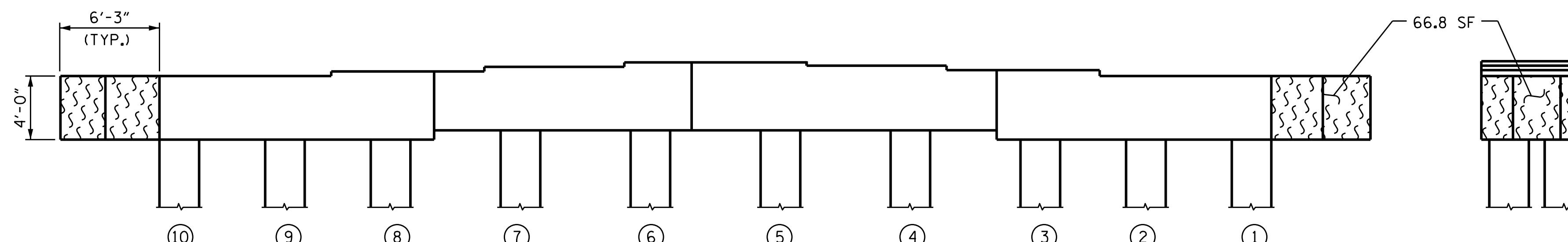
FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.



ELEVATION

(SOUTH SIDE)

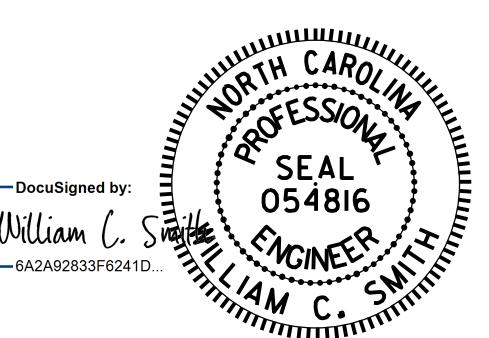
(LOOKING NORTH)



ELEVATION

(NORTH SIDE)

(LOOKING SOUTH)



11/21/2025

DRAWN BY : S. T. SANDOR DATE : 6/19/2
CHECKED BY : W. C. SMITH DATE : 7/10/2

11/21/2025
R:\Structures\15BPR.137\Plans\401_297_15BPR.137_SMU_B81_S-149_060353.dgn
kcadet

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	SHEET NO.
1			3			TOTAL SHEETS
2			4			217

PROJECT NO. 15BPR.137
BEAUFORT COUNTY
PERMIT NO. 060353

FET 81 OF 140

STATE OF NORTH CAROLINA

ARTMENT OF TRANSPORTATION
RALEIGH
SUBSTRUCTURE

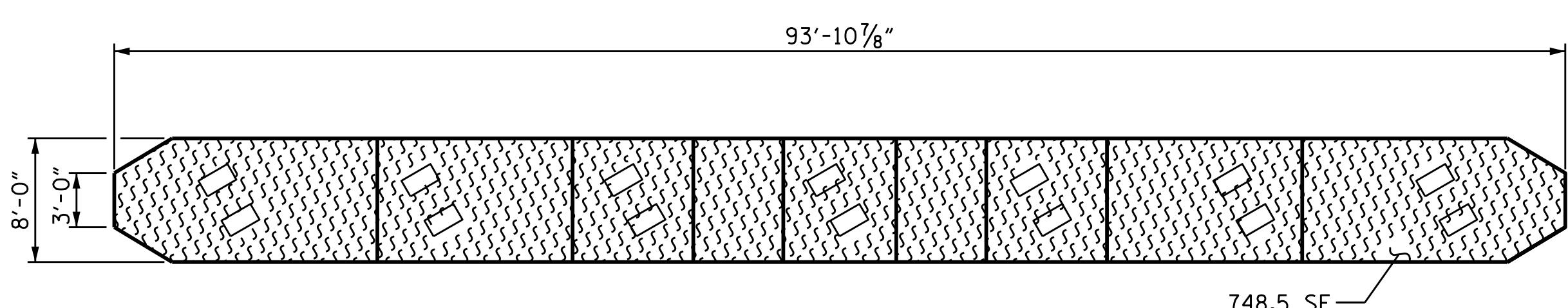
BENT 81

REVISIONS					SHEET NO.
BY:	DATE:	NO.	BY:	DATE:	S-149
		3			TOTAL SHEETS
		4			217

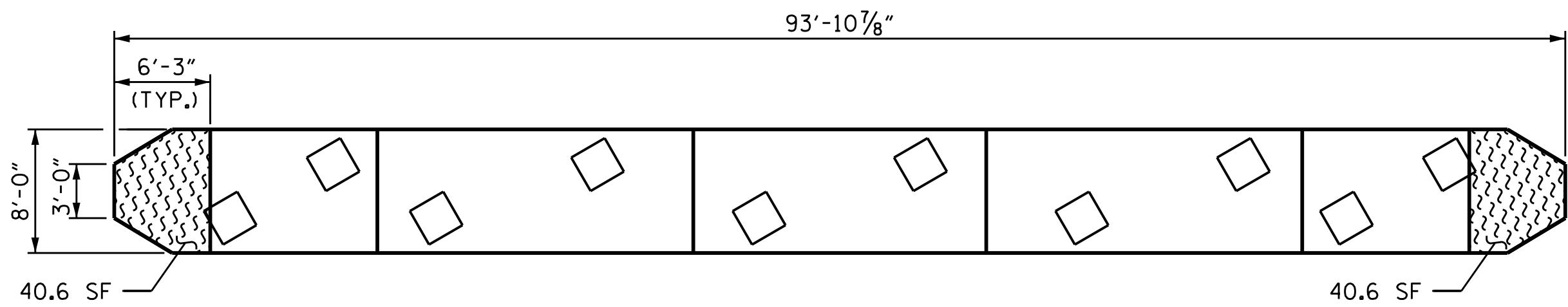
REPAIR QUANTITY TABLE

BENT 82	QUANTITIES		AREA SF	VOLUME CF
	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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	965.9			

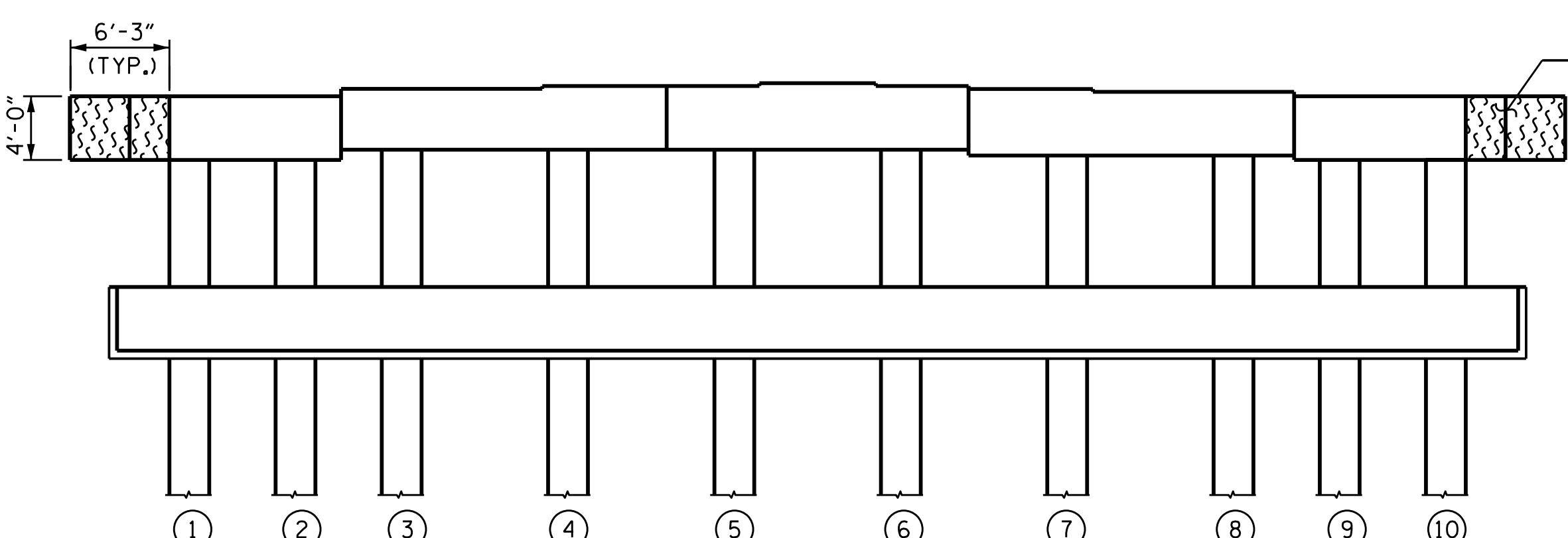
VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 2" CL. TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.



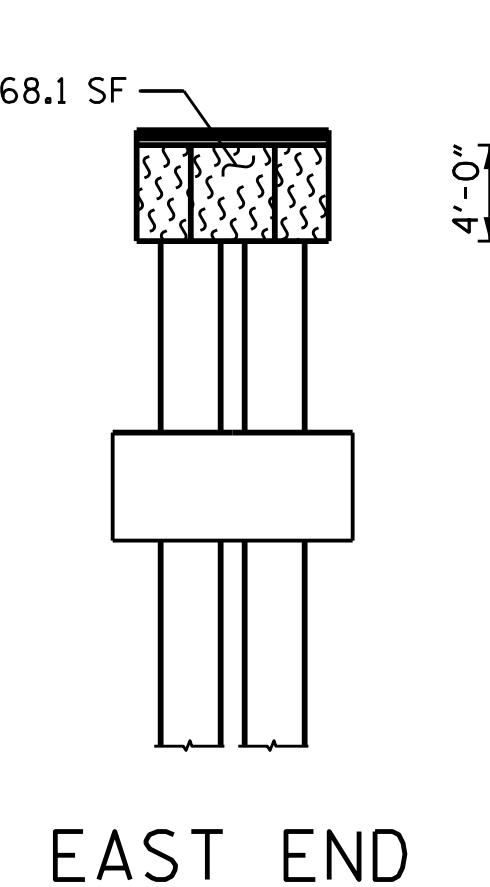
TOP VIEW OF CAP



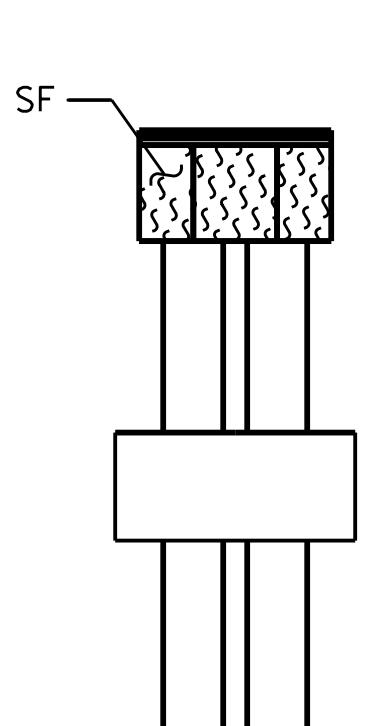
BOTTOM VIEW OF CAP



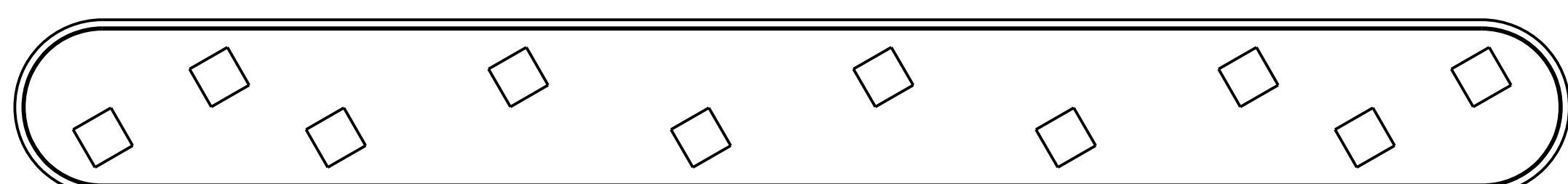
ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)



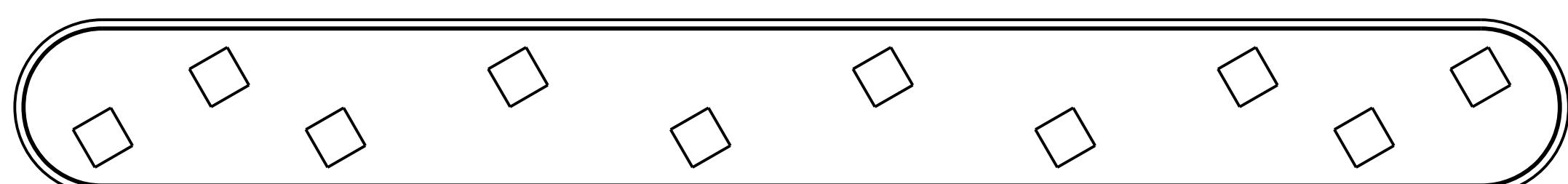
ELEVATION
(NORTH SIDE)
(LOOKING SOUTH)



WEST END



TOP VIEW OF STRUT



BOTTOM VIEW OF STRUT

NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

SHOTCRETE REPAIR

CONCRETE REPAIR

ERI EPOXY RESIN INJECTION

PILE

EPOXY COATING



11/21/2025

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE

BENT 82

REVISIONS		SHEET NO.	
NO.	BY:	DATE:	NO.
1			3
2			4

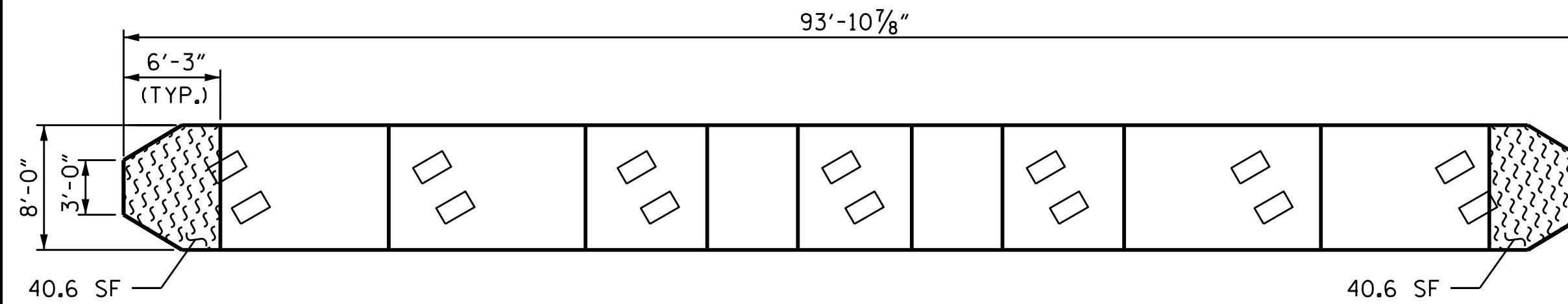
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FINAL UNLESS ALL
SIGNATURES COMPLETED

DRAWN BY : S. T. SANDOR DATE : 6/19/24
CHECKED BY : W. C. SMITH DATE : 7/10/25

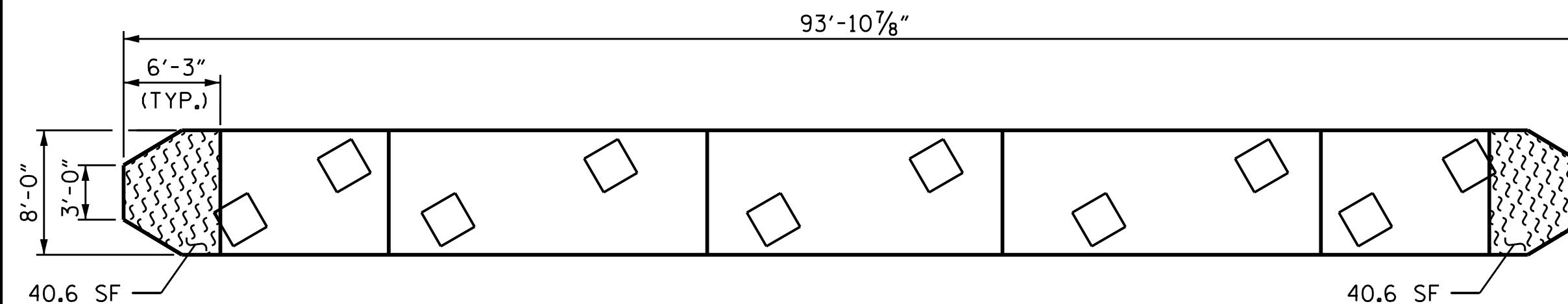
REPAIR QUANTITY TABLE

BENT 83	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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	14.0			
COLUMN	0.0			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	298.6			

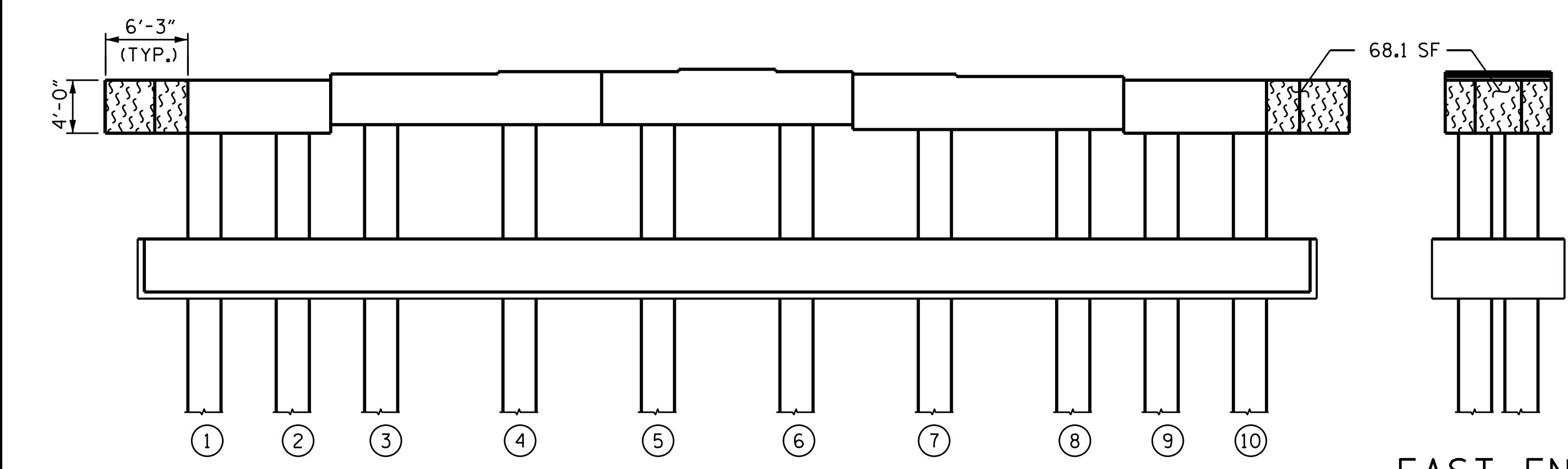
VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 2" CL. TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.



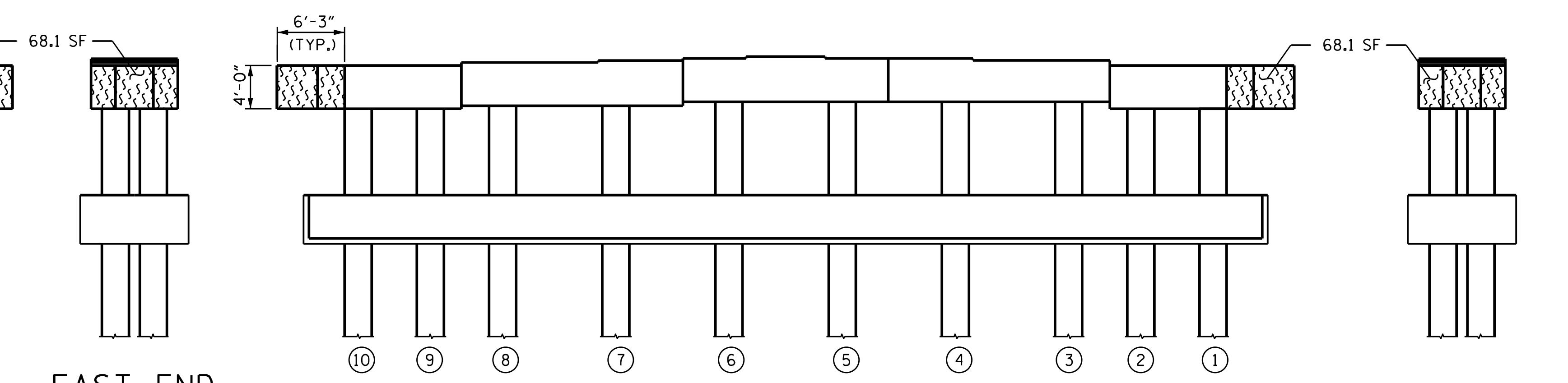
TOP VIEW OF CAP



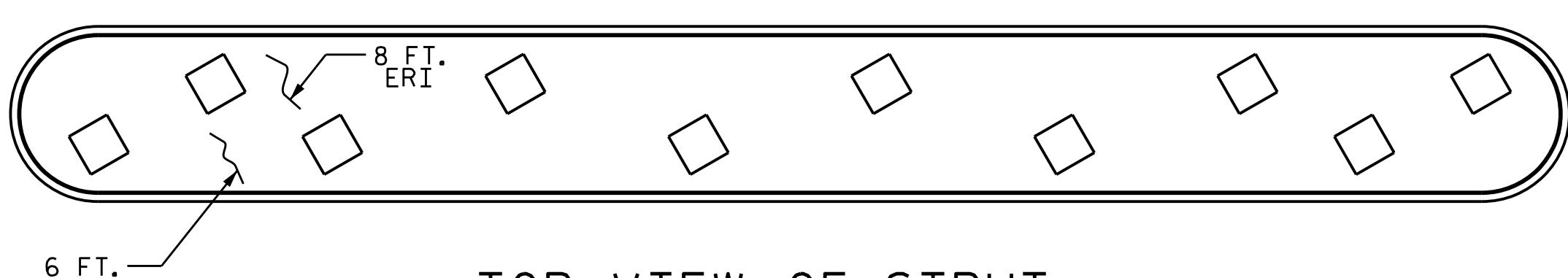
BOTTOM VIEW OF CAP



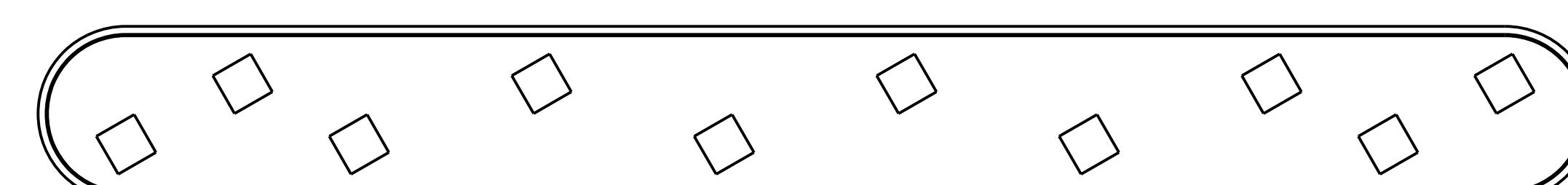
ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)



ELEVATION
(NORTH SIDE)
(LOOKING SOUTH)



TOP VIEW OF STRUT



BOTTOM VIEW OF STRUT

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 83 OF 140

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE

BENT 83

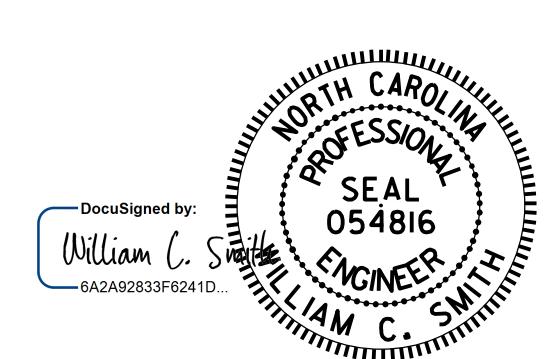
SHOTCRETE REPAIR

CONCRETE REPAIR

ERI EPOXY RESIN INJECTION

(P) PILE

EPOXY COATING



REVISIONS		SHEET NO.	
NO.	BY:	DATE:	S-151
1			1
2			2
			TOTAL SHEETS 217

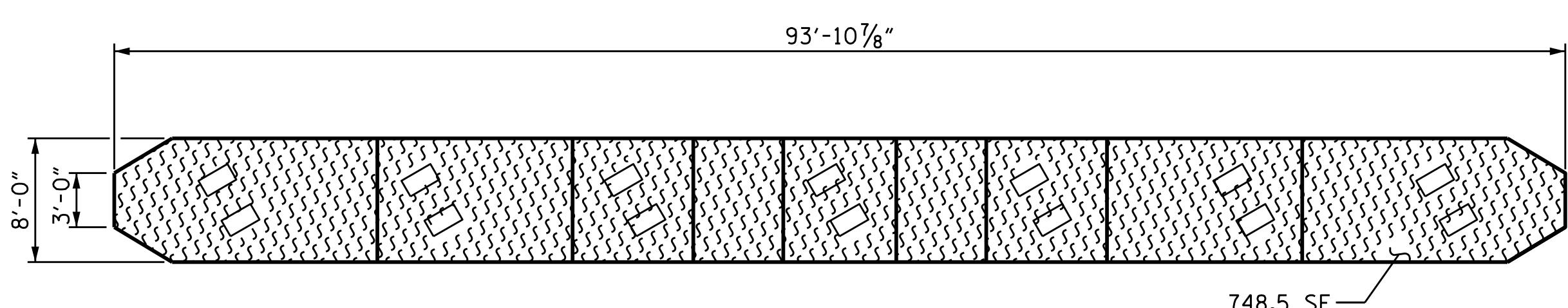
DRAWN BY : S. T. SANDOR DATE : 6/19/24
CHECKED BY : W. C. SMITH DATE : 7/10/24

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

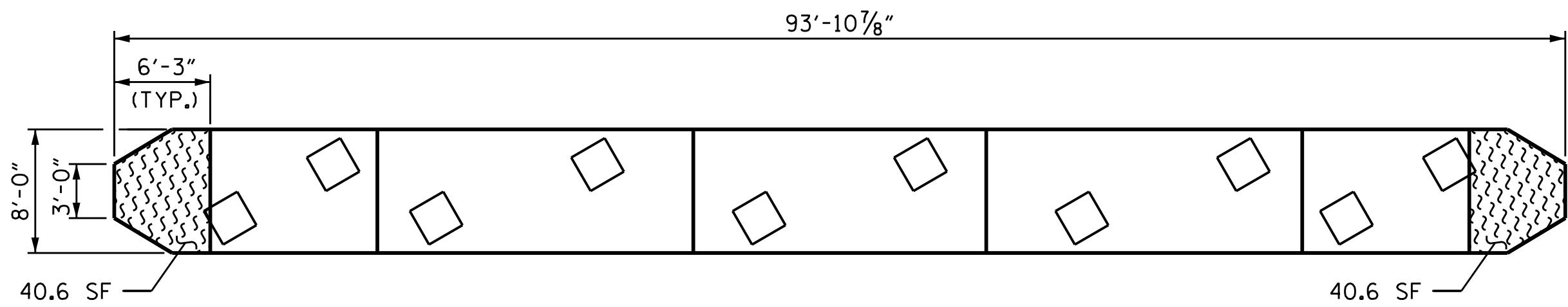
REPAIR QUANTITY TABLE

BENT 84	QUANTITIES		AREA SF	VOLUME CF
	ESTIMATE	ACTUAL		
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	2.0	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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	965.9			

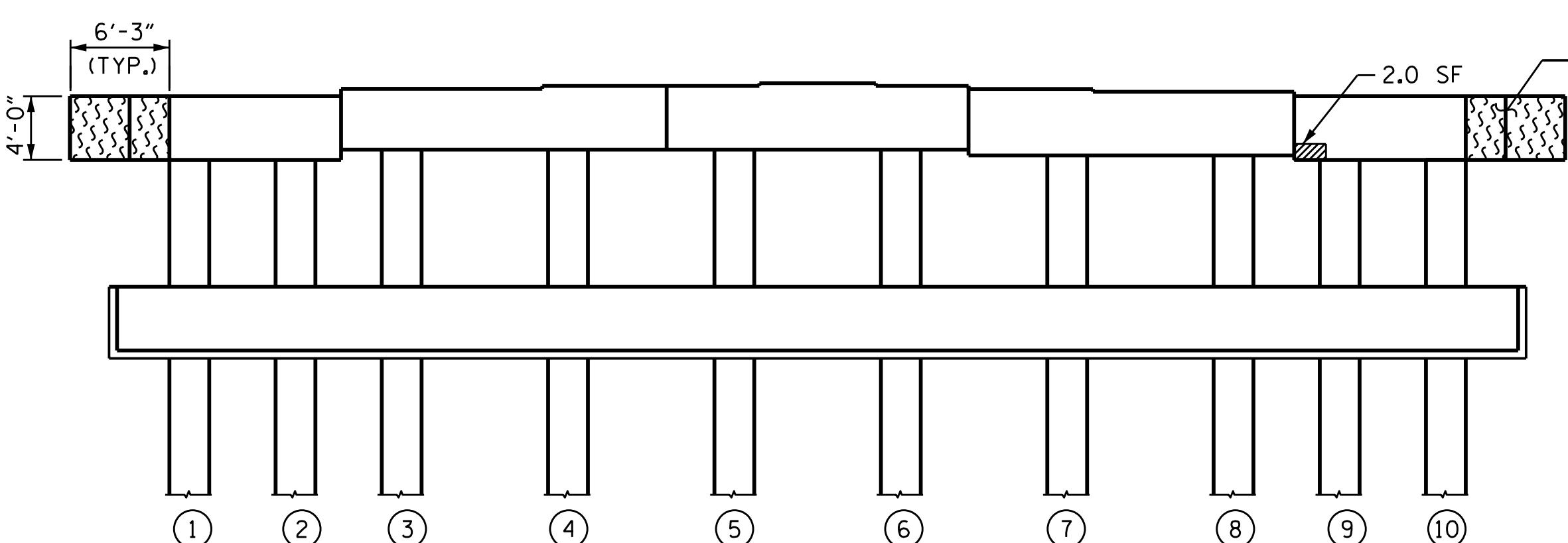
VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 2" CL. TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.



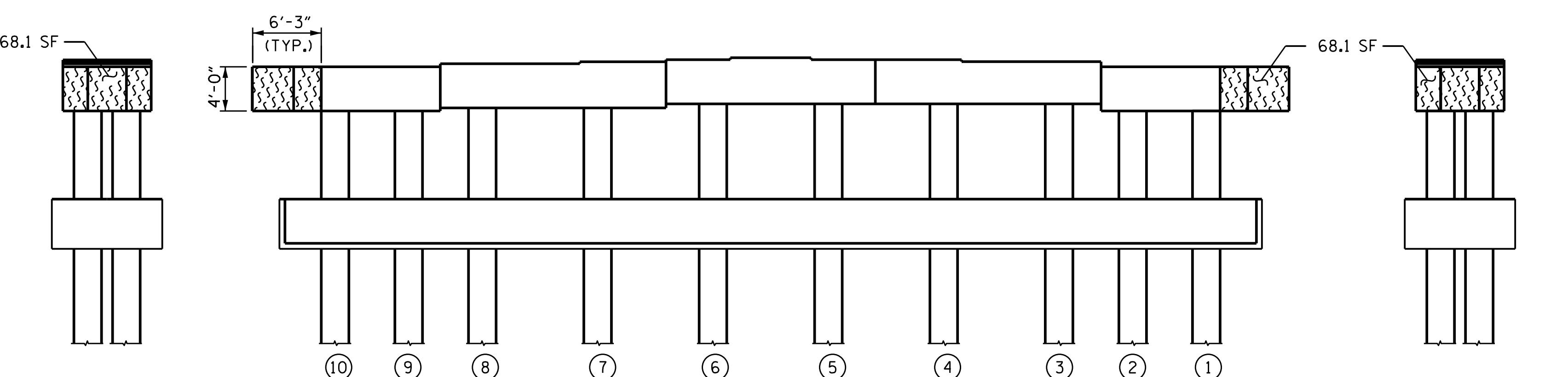
TOP VIEW OF CAP



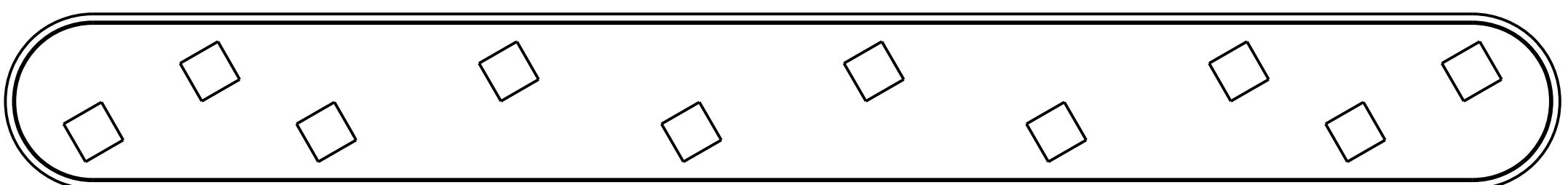
BOTTOM VIEW OF CAP



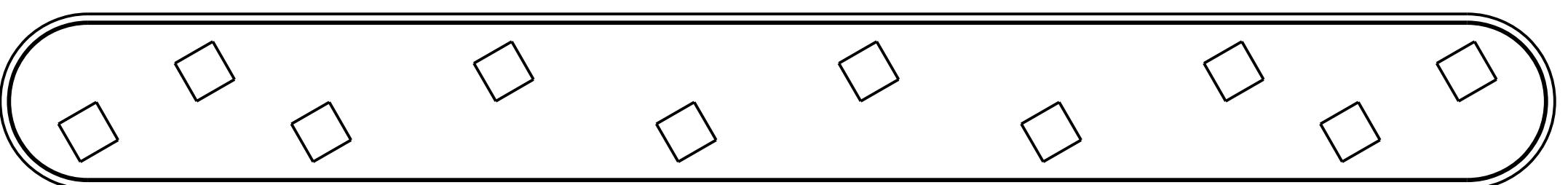
ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)



ELEVATION
(NORTH SIDE)
(LOOKING SOUTH)



TOP VIEW OF STRUT



BOTTOM VIEW OF STRUT

NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

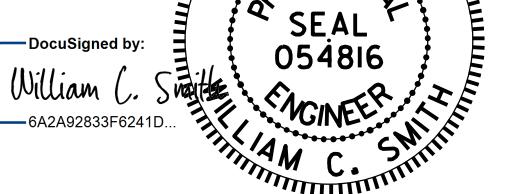
SHOTCRETE REPAIR

CONCRETE REPAIR

ERI EPOXY RESIN INJECTION

PILE

EPOXY COATING



11/21/2025

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE

BENT 84

REVISIONS		SHEET NO.	
NO.	BY:	DATE:	NO.
1			3
2			4

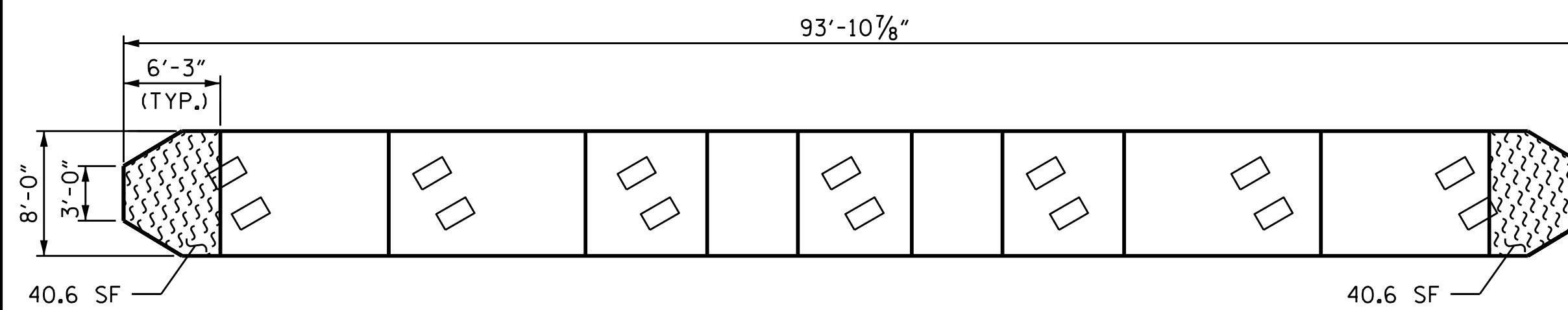
DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

DRAWN BY : S. T. SANDOR DATE : 6/20/24
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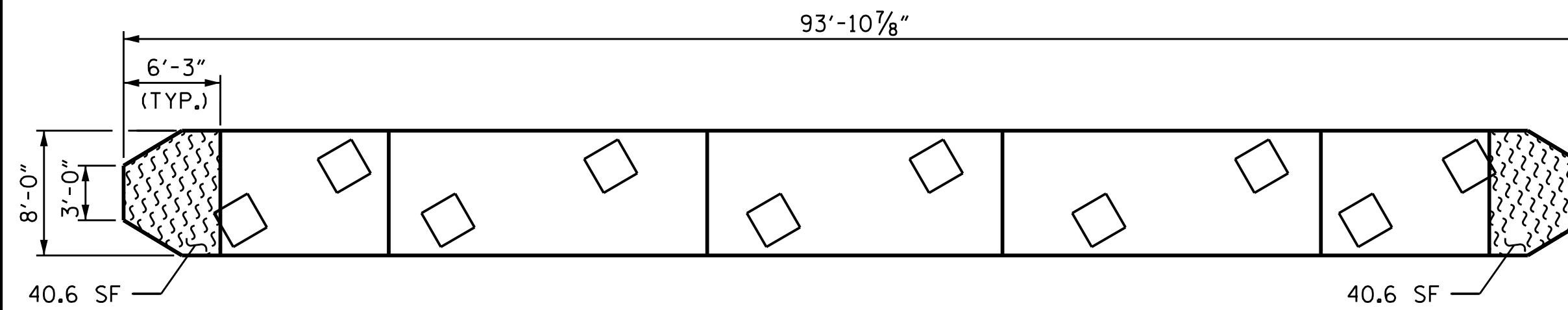
REPAIR QUANTITY TABLE

BENT 85	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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	14.0			
COLUMN	0.0			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	298.6			

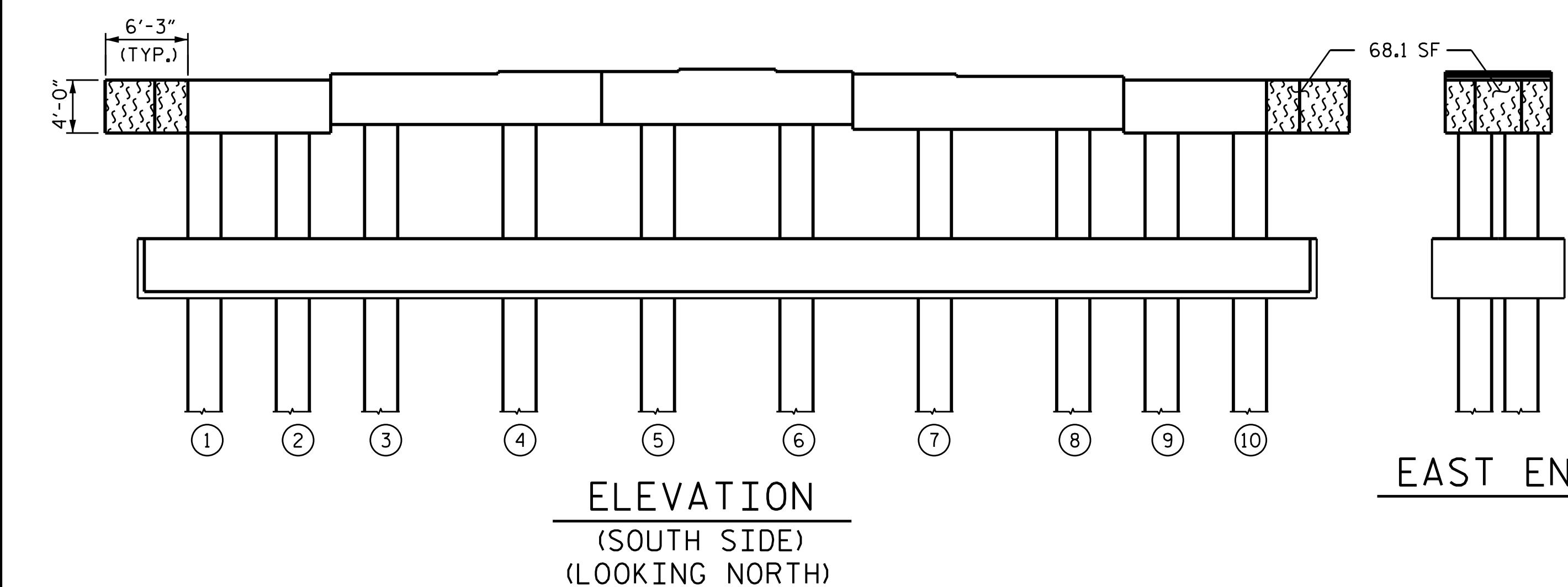
VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 2" CL. TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.



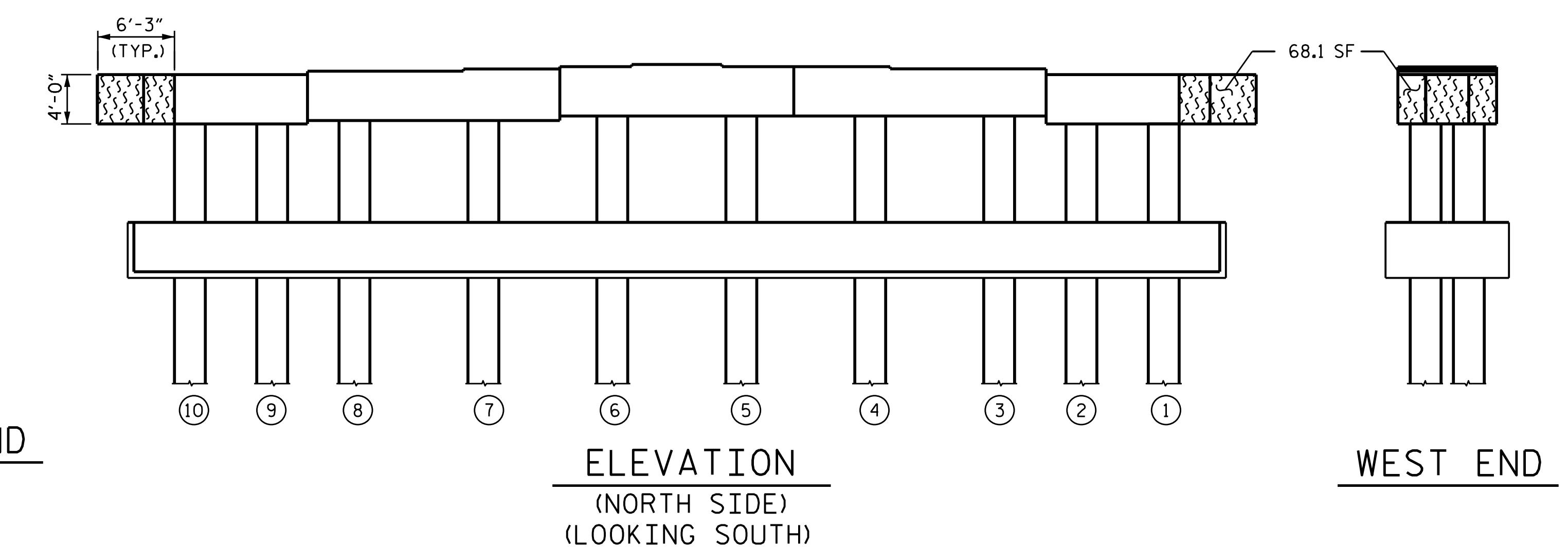
TOP VIEW OF CAP



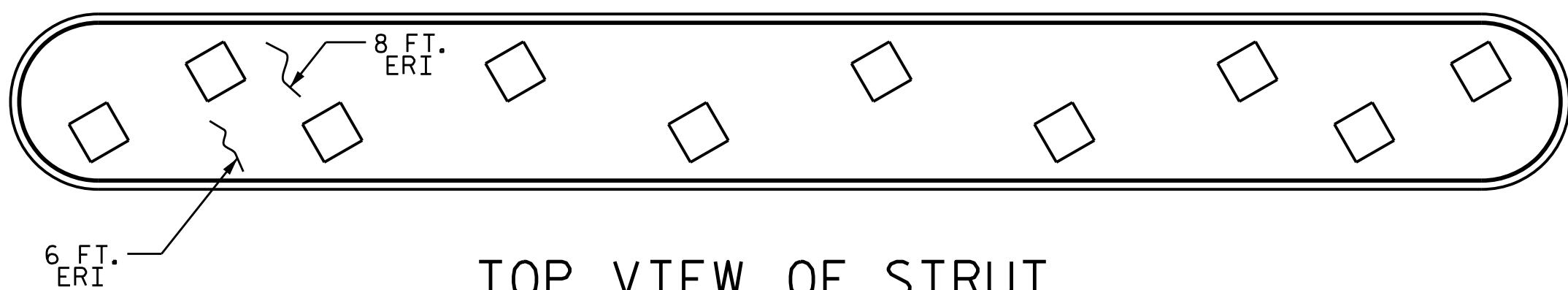
BOTTOM VIEW OF CAP



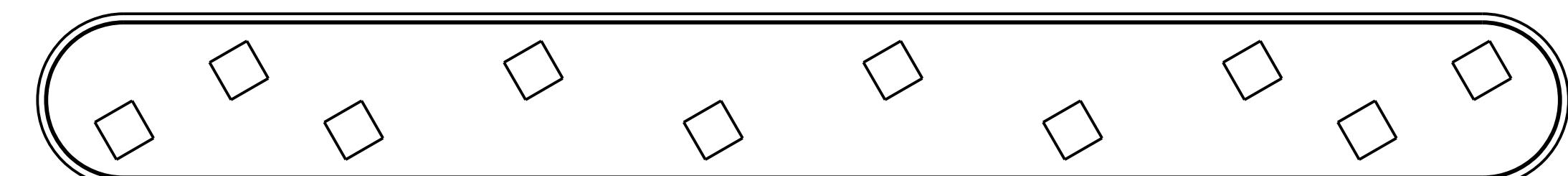
ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)



ELEVATION
(NORTH SIDE)
(LOOKING SOUTH)



TOP VIEW OF STRUT



BOTTOM VIEW OF STRUT

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 85 OF 140

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE

BENT 85

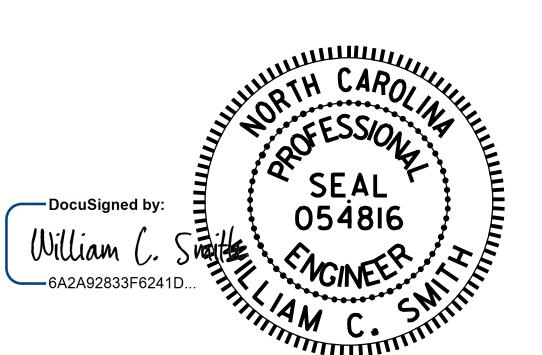
SHOTCRETE REPAIR

CONCRETE REPAIR

ERI EPOXY RESIN INJECTION

(P) PILE

EPOXY COATING



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CHECKED BY : W. C. SMITH DATE : 7/10/24

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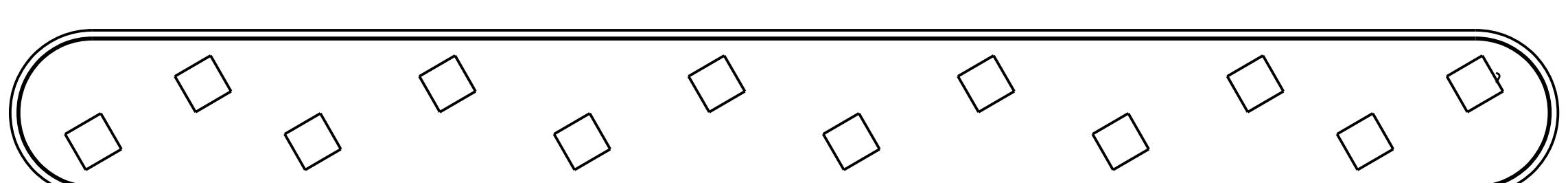
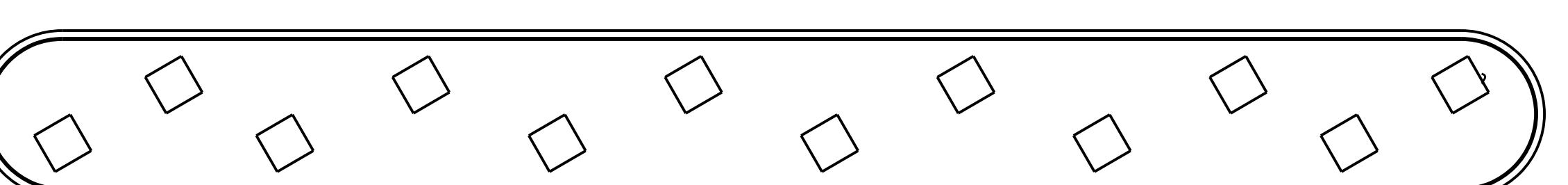
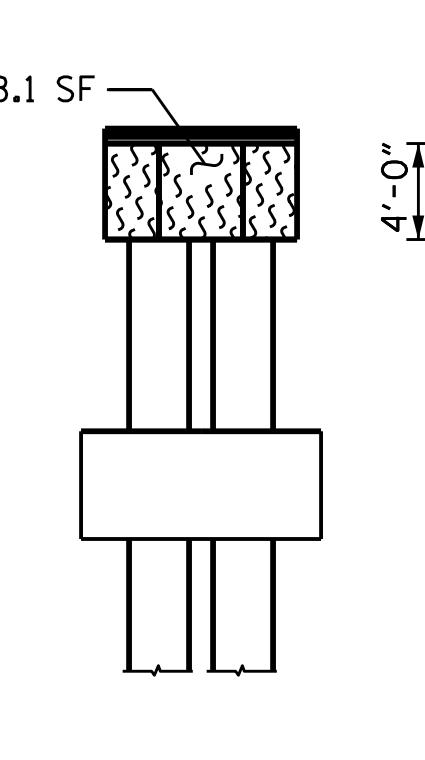
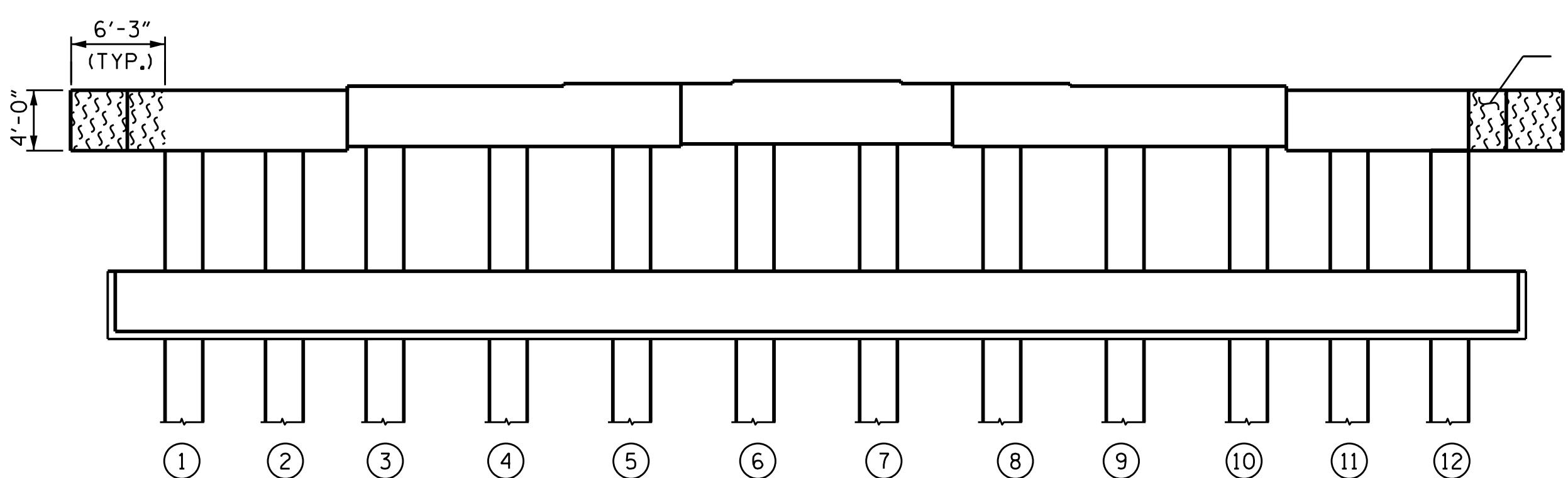
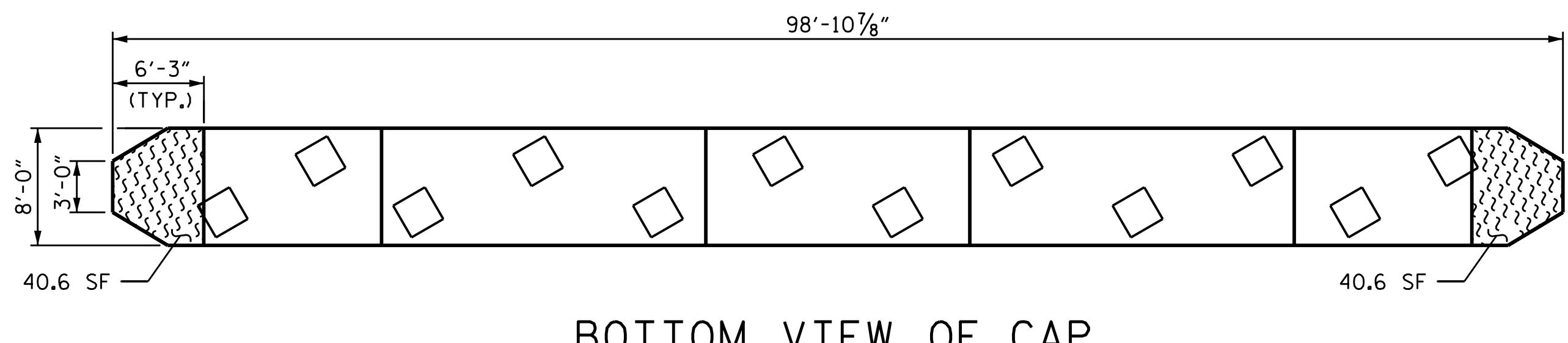
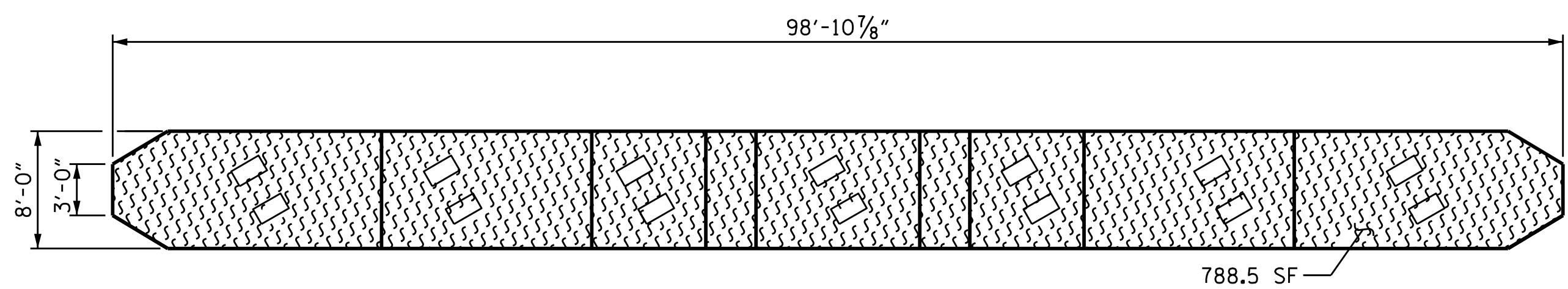
REVISIONS		SHEET NO.	
NO.	BY:	DATE:	NO.
1			3
2			4

S-153
TOTAL SHEETS 217

REPAIR QUANTITY TABLE

BENT 86	QUANTITIES		AREA SF	VOLUME CF
	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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	1,005.9			

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 2" CL. TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.



PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

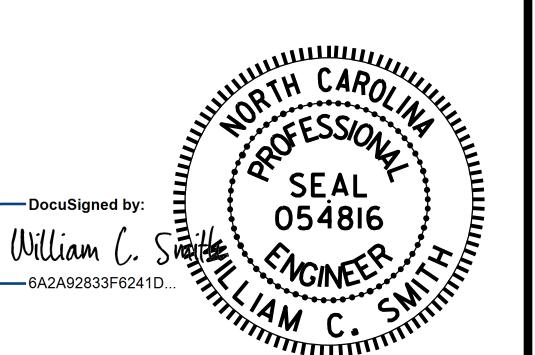
SHEET 86 OF 140

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE

BENT 86

- ▨ SHOTCRETE REPAIR
- ▨ CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- ▨ EPOXY COATING



REVISIONS					SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-154
1			3			
2			4			

DRAWN BY : S. T. SANDOR DATE : 6/20/24
CHECKED BY : W. C. SMITH DATE : 7/10/24

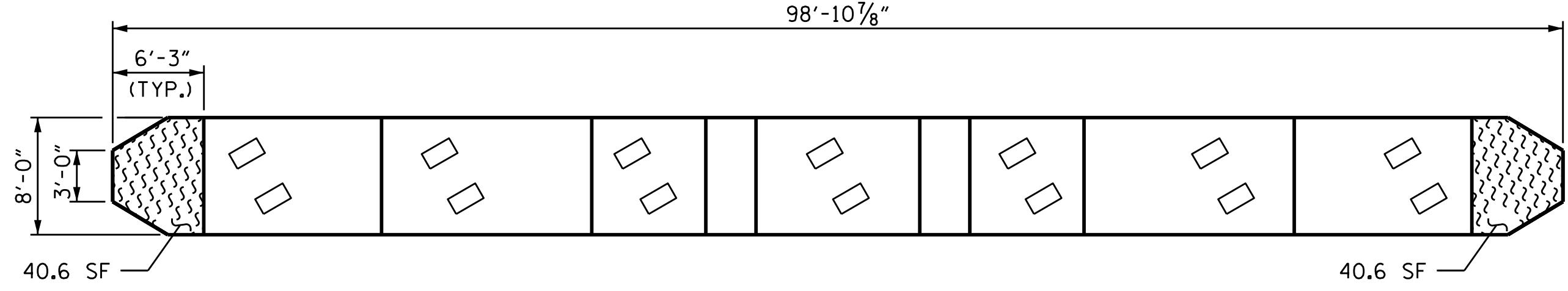
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FINAL UNLESS ALL
SIGNATURES COMPLETED

TOTAL SHEETS
217

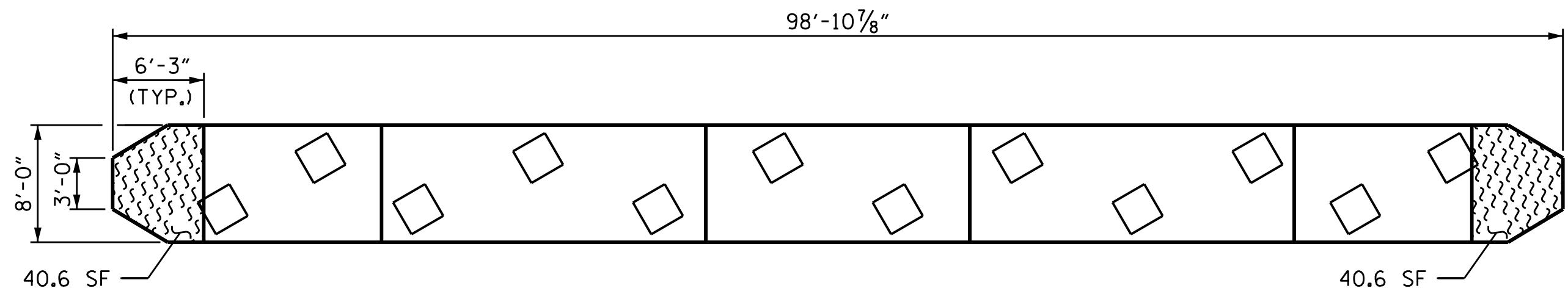
REPAIR QUANTITY TABLE

BENT 87	QUANTITIES		AREA SF	VOLUME CF
	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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	298.6			

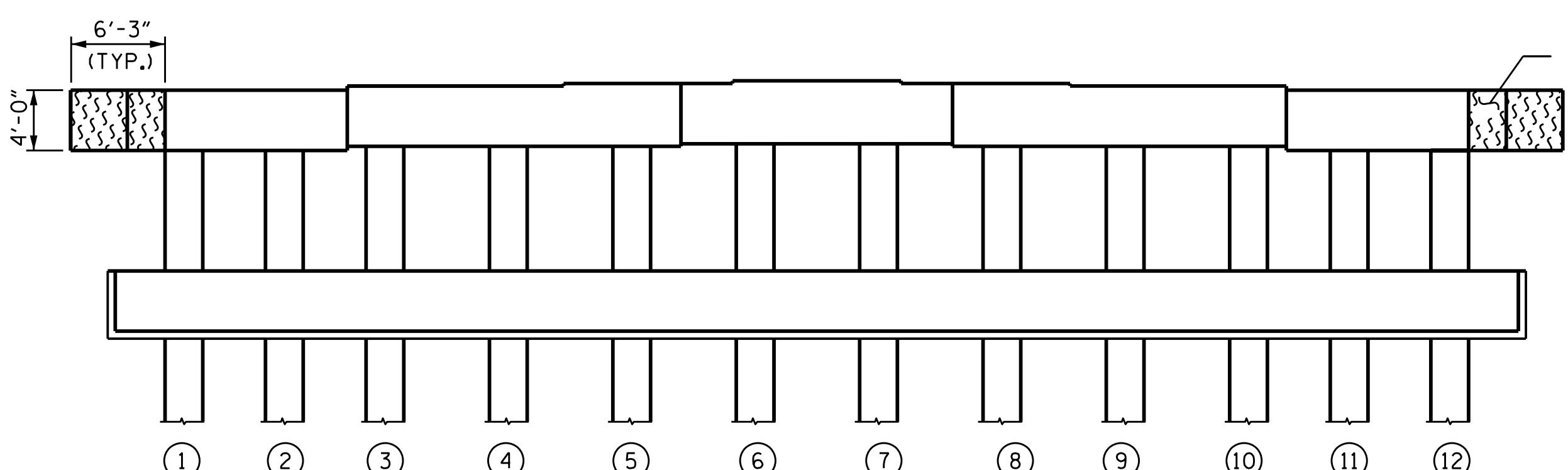
VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 2" CL. TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.



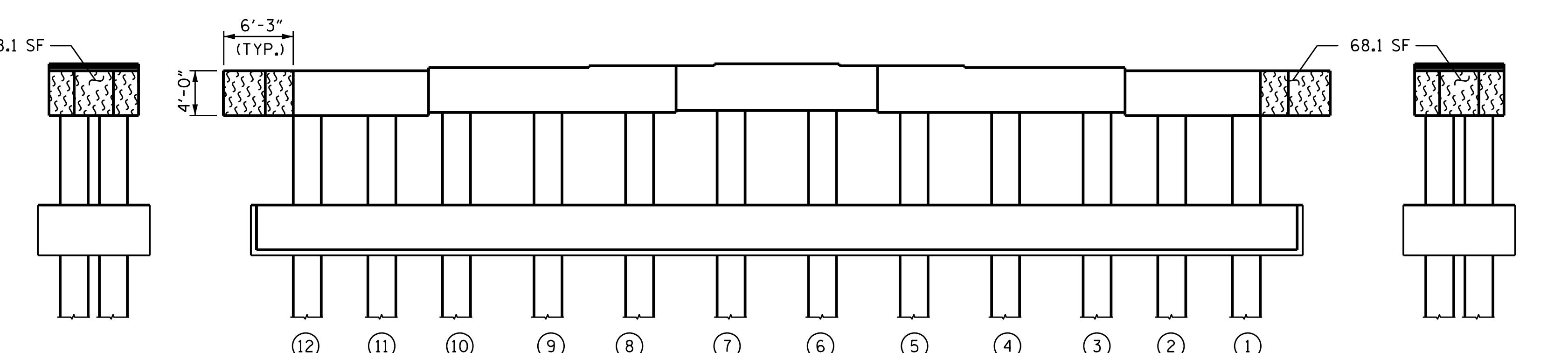
TOP VIEW OF CAP



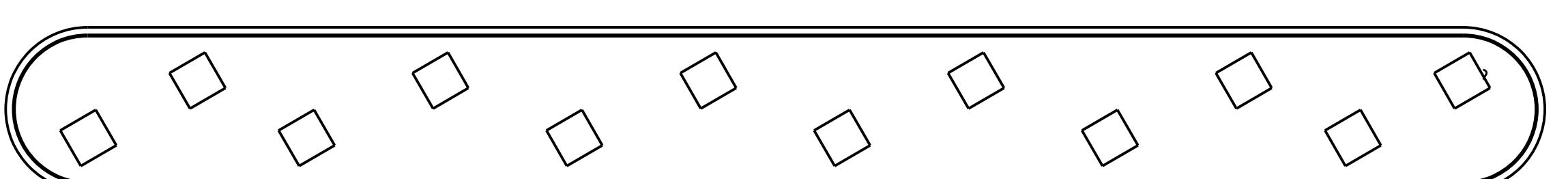
BOTTOM VIEW OF CAP



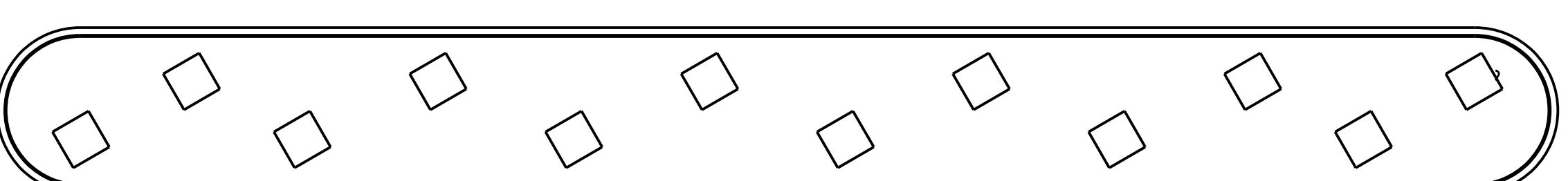
ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)



ELEVATION
(NORTH SIDE)
(LOOKING SOUTH)



TOP VIEW OF STRUT



BOTTOM VIEW OF STRUT

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

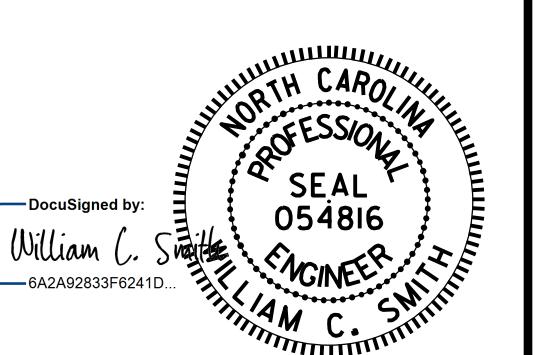
SHEET 87 OF 140

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE

BENT 87

- ▨ SHOTCRETE REPAIR
- ▨ CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- ▨ EPOXY COATING



REVISIONS					SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-155
1			3			
2			4			

DRAWN BY : S. T. SANDOR DATE : 6/20/24
CHECKED BY : W. C. SMITH DATE : 7/10/24

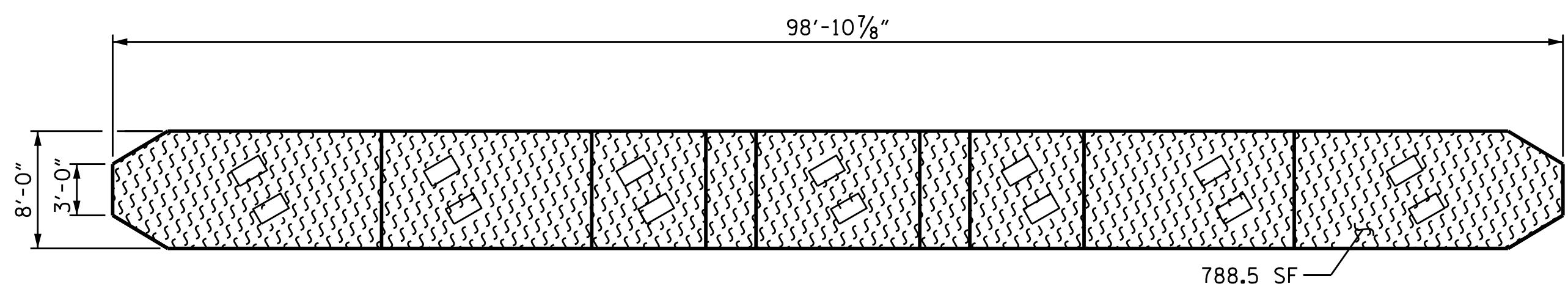
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FINAL UNLESS ALL
SIGNATURES COMPLETED

TOTAL SHEETS
217

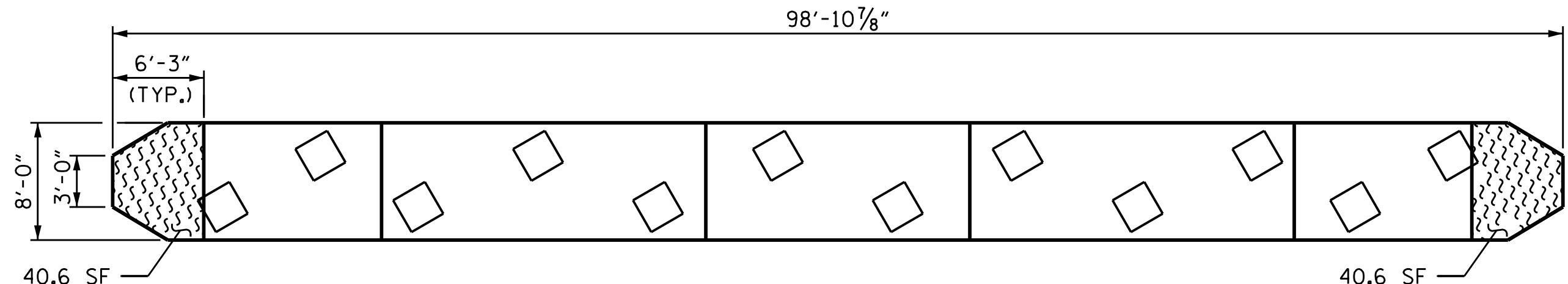
REPAIR QUANTITY TABLE

BENT 88	QUANTITIES		AREA SF	VOLUME CF
	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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	1,005.9			

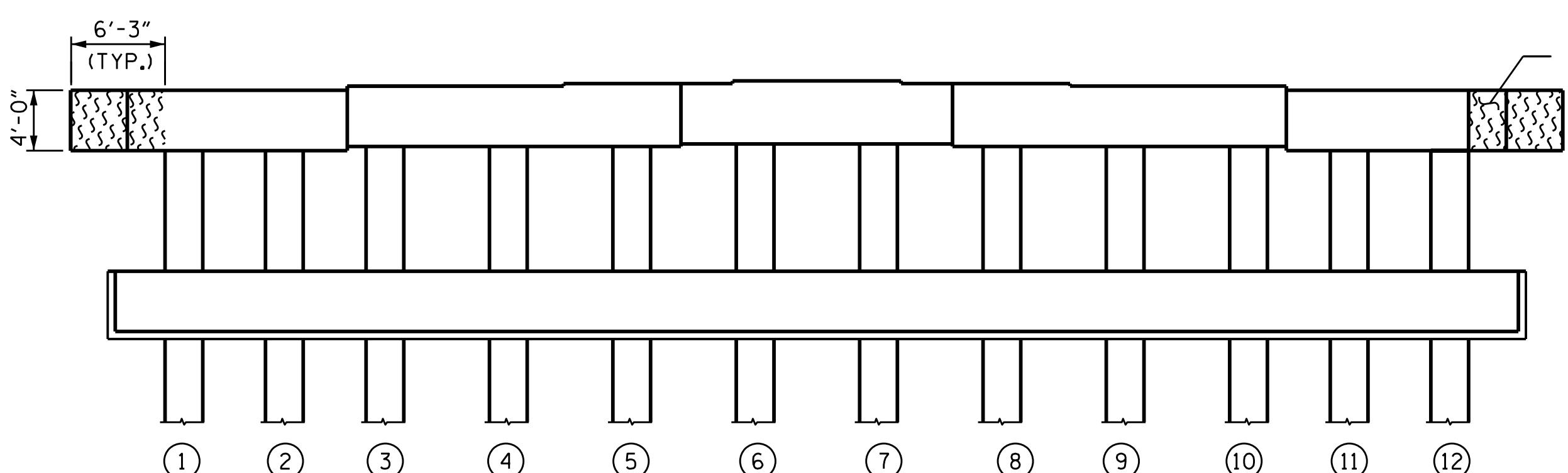
VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 2" CL. TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.



TOP VIEW OF CAP



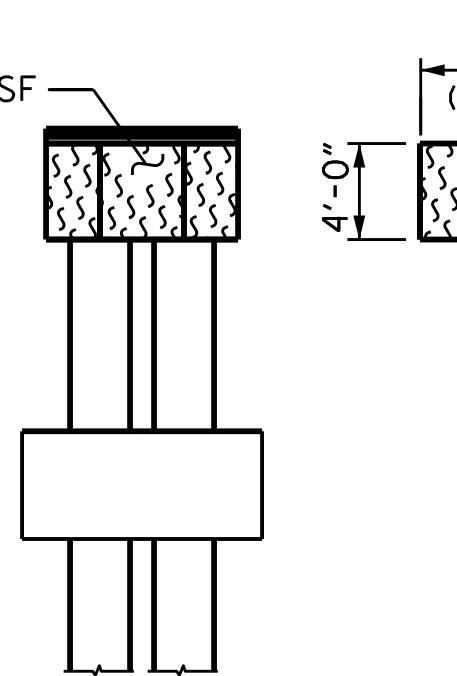
BOTTOM VIEW OF CAP



ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)

SPAN 88
SPAN 89

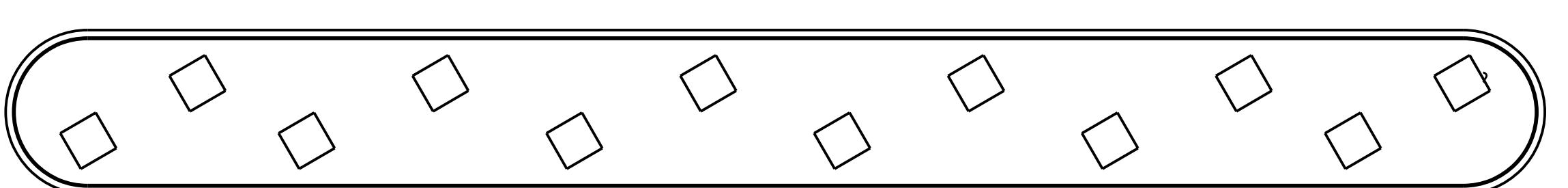
SPAN 89
SPAN 88



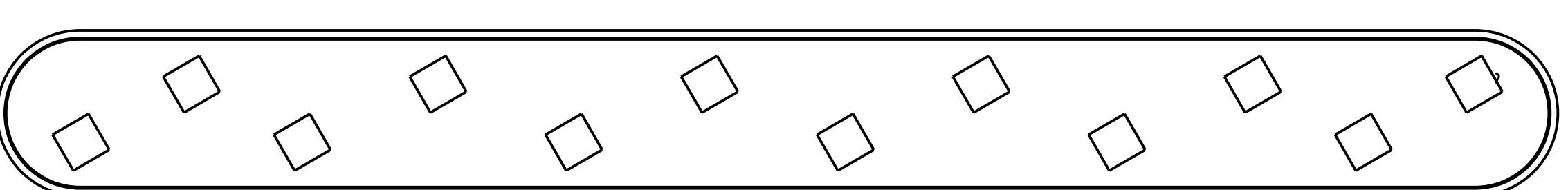
ELEVATION
(NORTH SIDE)
(LOOKING SOUTH)

EAST END

WEST END



TOP VIEW OF STRUT



BOTTOM VIEW OF STRUT

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 88 OF 140

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE

BENT 88

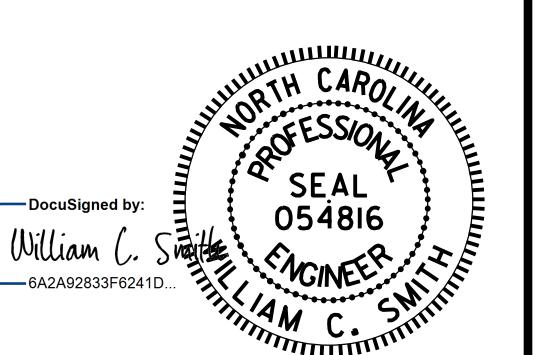
SHOTCRETE REPAIR

CONCRETE REPAIR

ERI EPOXY RESIN INJECTION

(P) PILE

EPOXY COATING



11/21/2025

REVISIONS		SHEET NO.	
NO.	BY:	DATE:	NO.
1			3
2			4

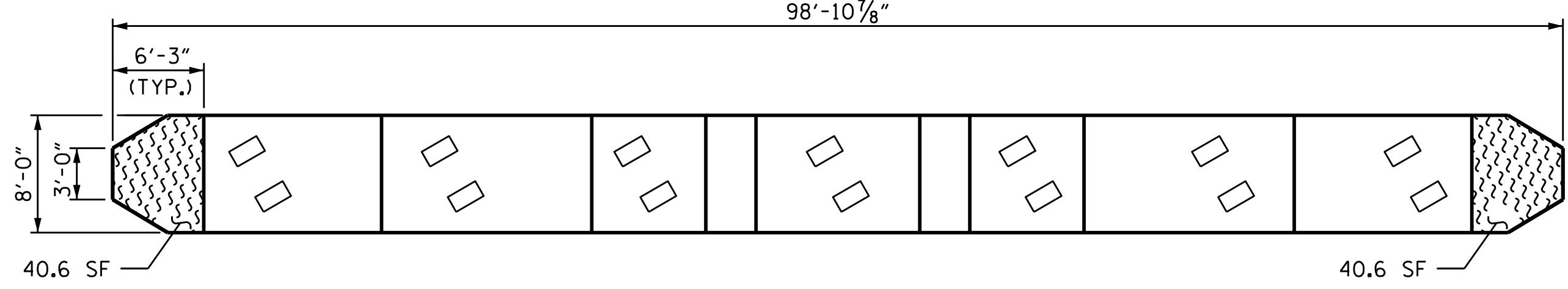
DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

DRAWN BY : S. T. SANDOR DATE : 6/27/24
CHECKED BY : W. C. SMITH DATE : 7/10/24

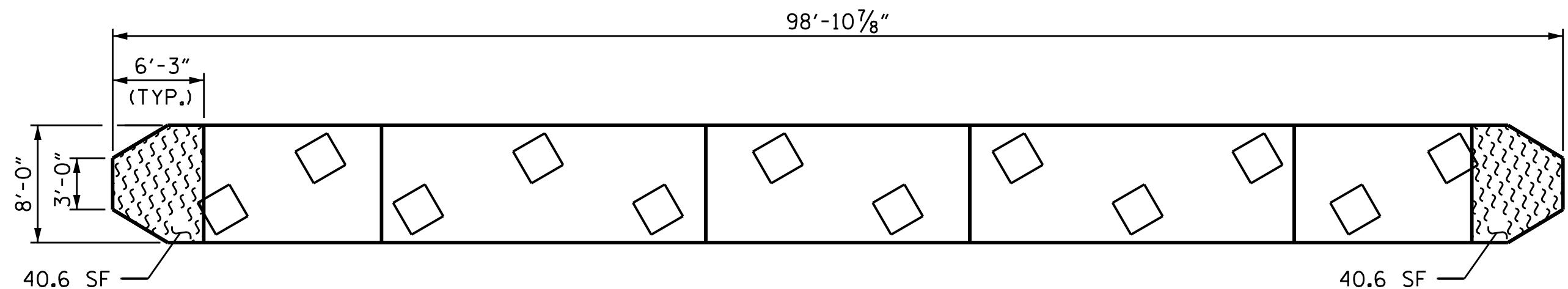
REPAIR QUANTITY TABLE

BENT 89	QUANTITIES		AREA SF	VOLUME CF
	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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	298.6			

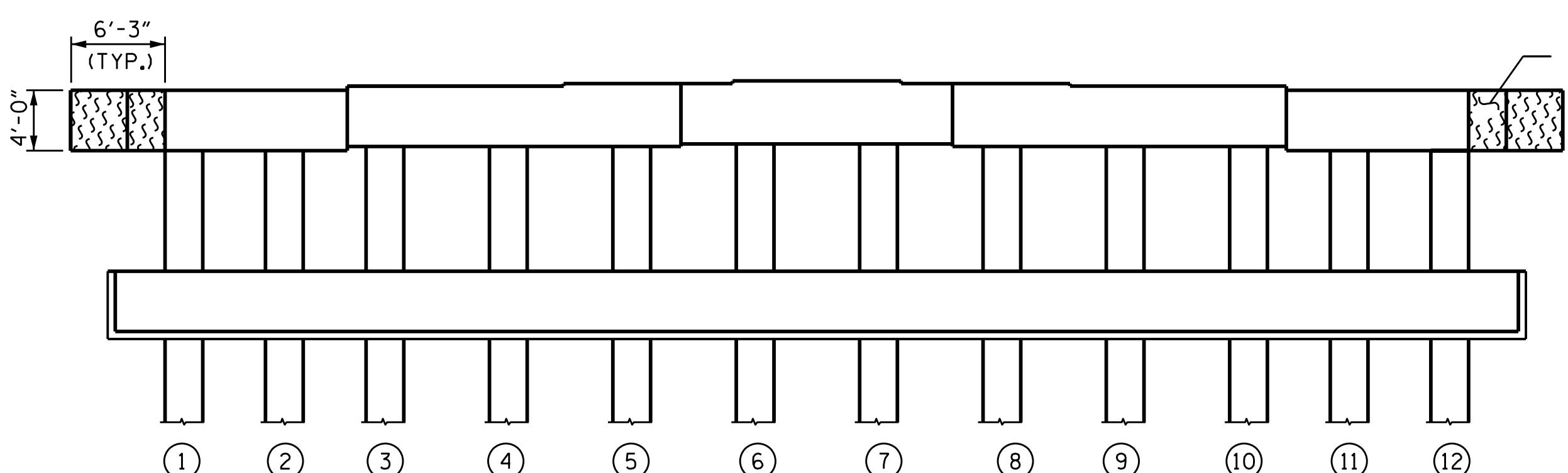
VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 2" CL. TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.



TOP VIEW OF CAP



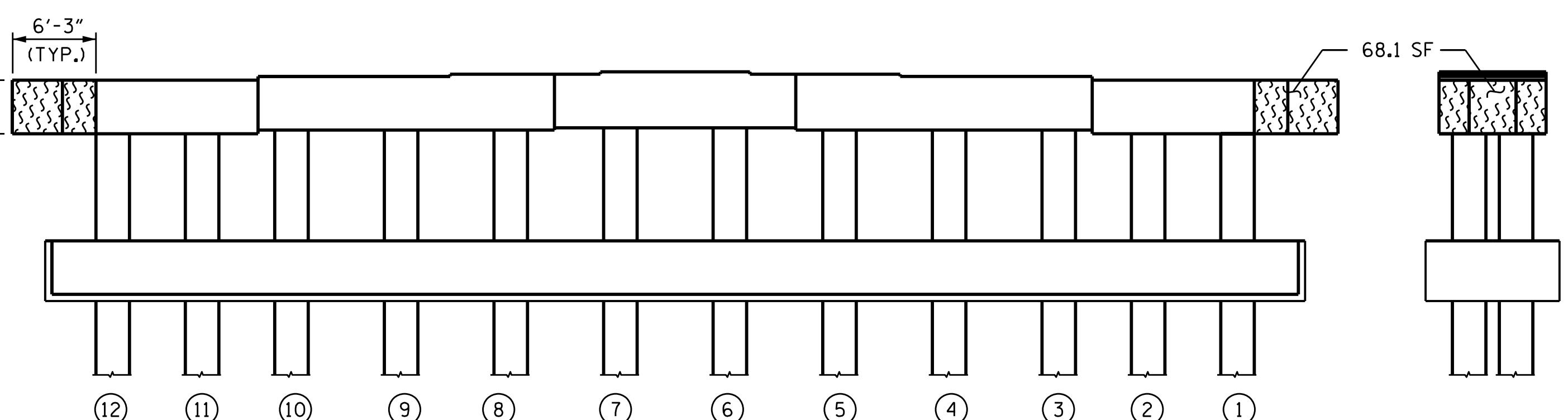
BOTTOM VIEW OF CAP



ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)

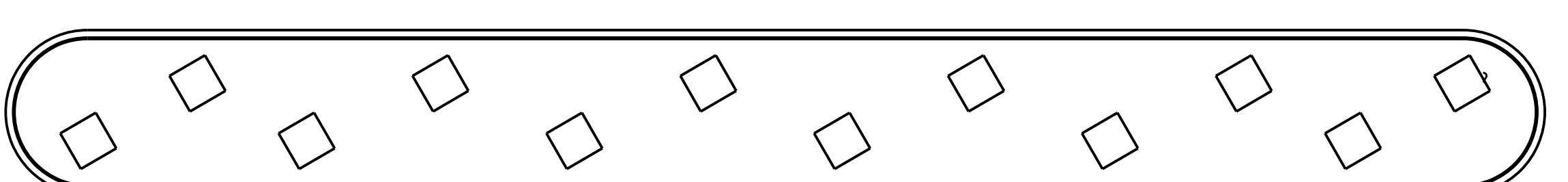
SPAN 89
SPAN 90

EAST END

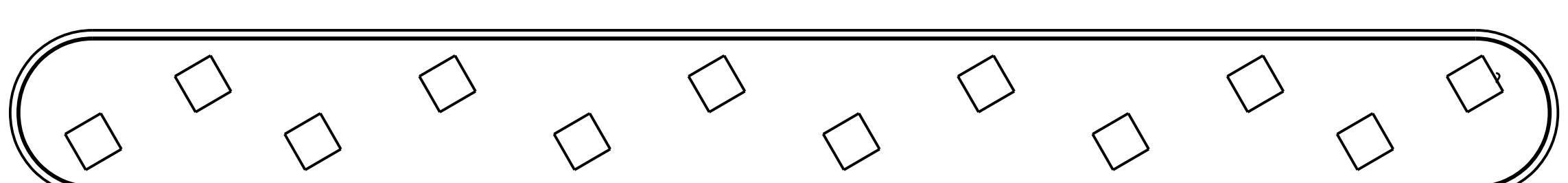


ELEVATION
(NORTH SIDE)
(LOOKING SOUTH)

WEST END



TOP VIEW OF STRUT



BOTTOM VIEW OF STRUT

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 89 OF 140

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE

BENT 89

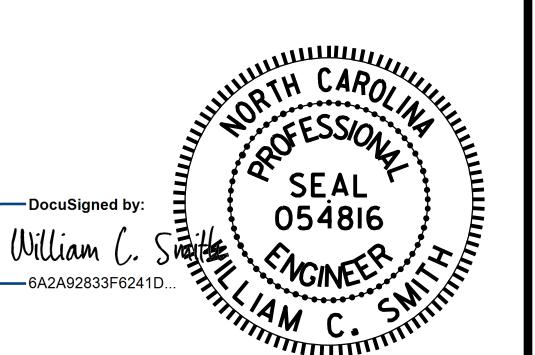
SHOTCRETE REPAIR

CONCRETE REPAIR

ERI EPOXY RESIN INJECTION

(P) PILE

EPOXY COATING



11/21/2025

DRAWN BY : S. T. SANDOR DATE : 6/28/24
CHECKED BY : W. C. SMITH DATE : 7/10/24

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

1
2
3
4

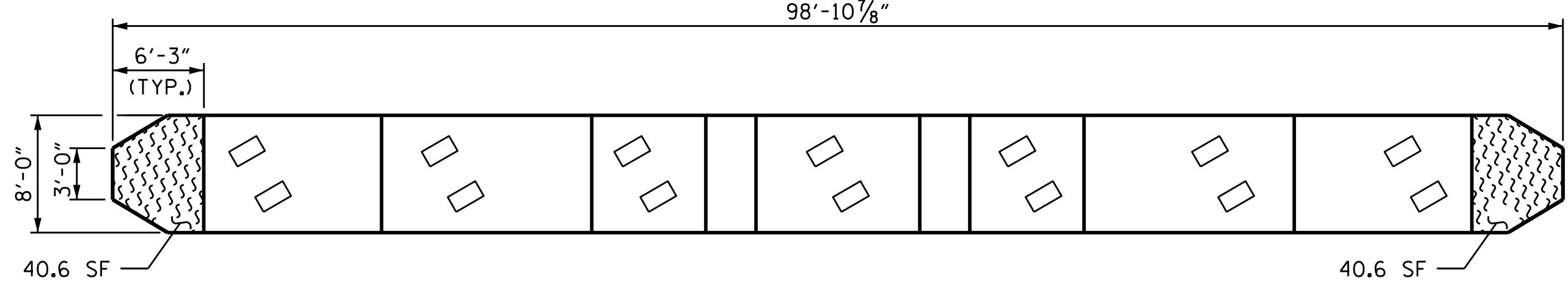
REVISIONS		SHEET NO.	
NO.	BY:	DATE:	NO.
1			3
2			4

S-157
TOTAL SHEETS 217

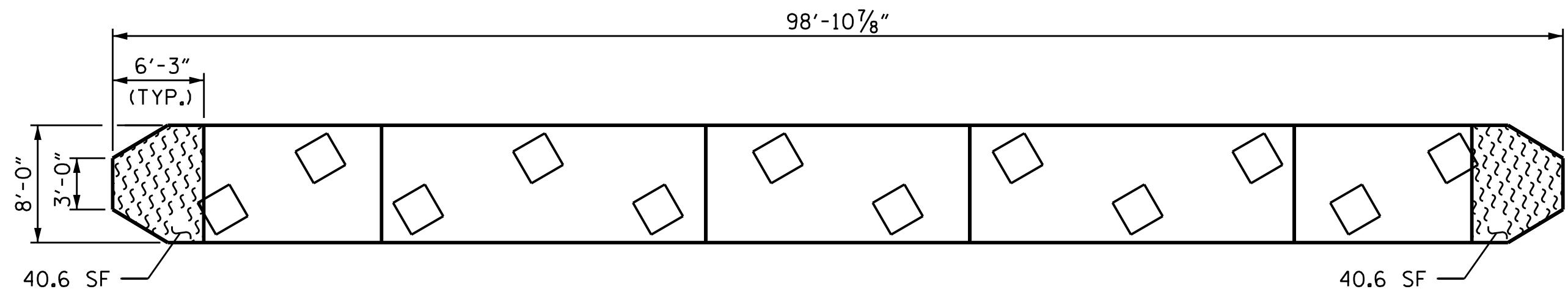
REPAIR QUANTITY TABLE

BENT 91	QUANTITIES		AREA SF	VOLUME CF
	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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	298.6			

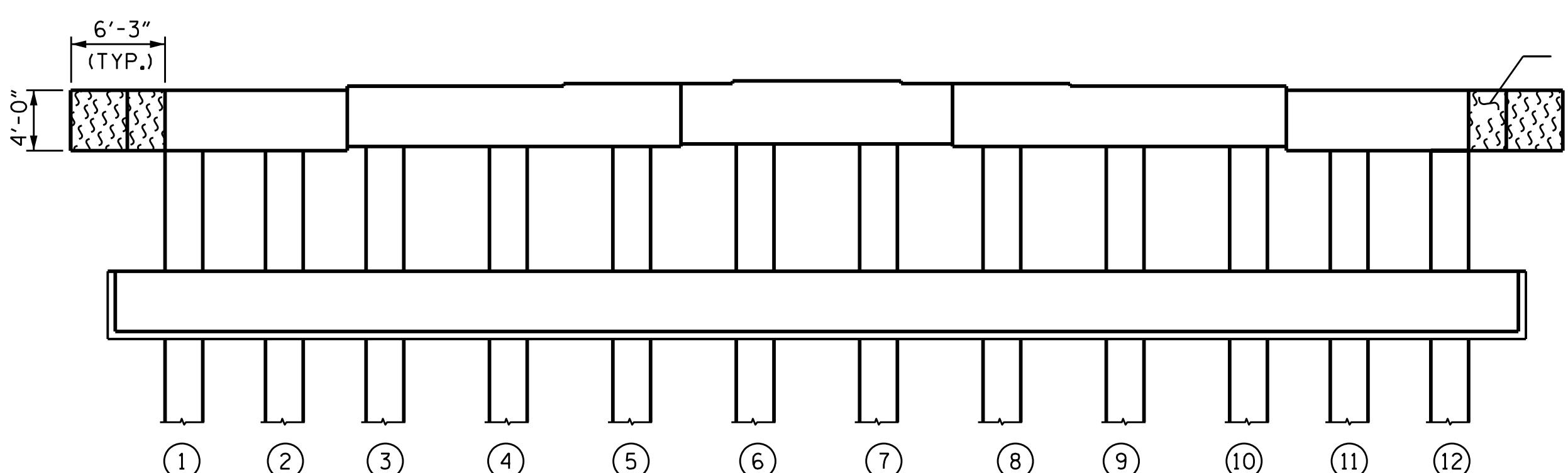
VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 2" CL. TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.



TOP VIEW OF CAP



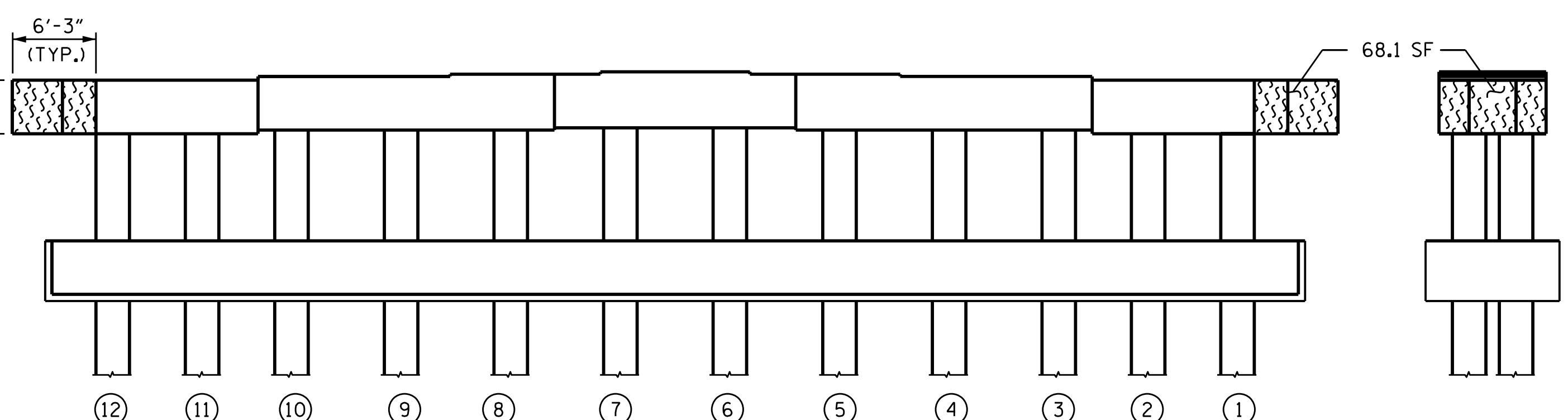
BOTTOM VIEW OF CAP



ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)

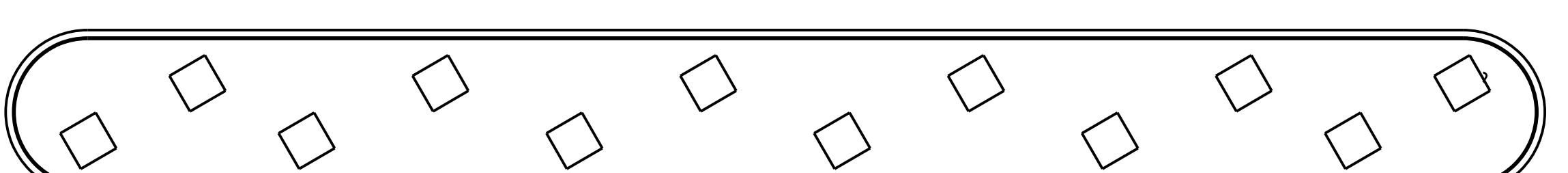
SPAN 91
SPAN 92

EAST END

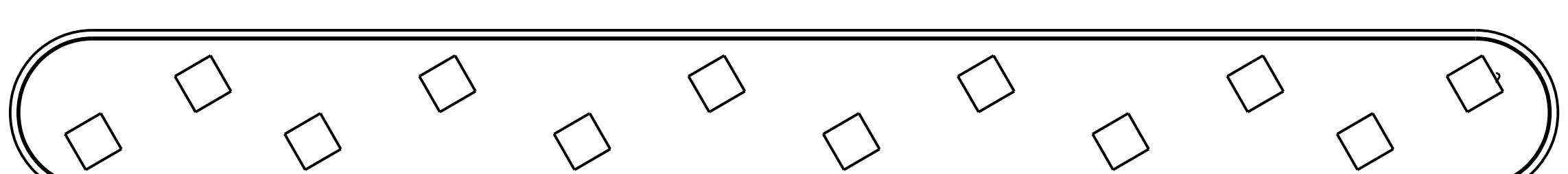


ELEVATION
(NORTH SIDE)
(LOOKING SOUTH)

WEST END



TOP VIEW OF STRUT



BOTTOM VIEW OF STRUT

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 91 OF 140

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE

BENT 91

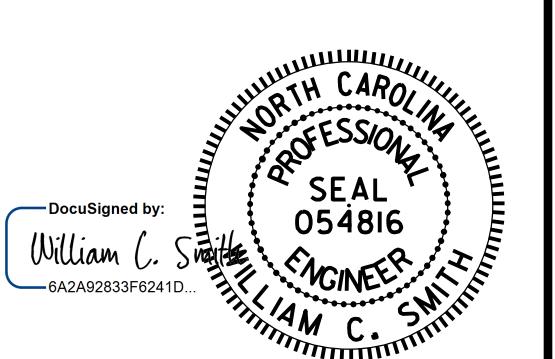
SHOTCRETE REPAIR

CONCRETE REPAIR

ERI EPOXY RESIN INJECTION

(P) PILE

EPOXY COATING



11/21/2025

REVISIONS		SHEET NO.	
NO.	BY:	DATE:	NO.
1			3
2			4

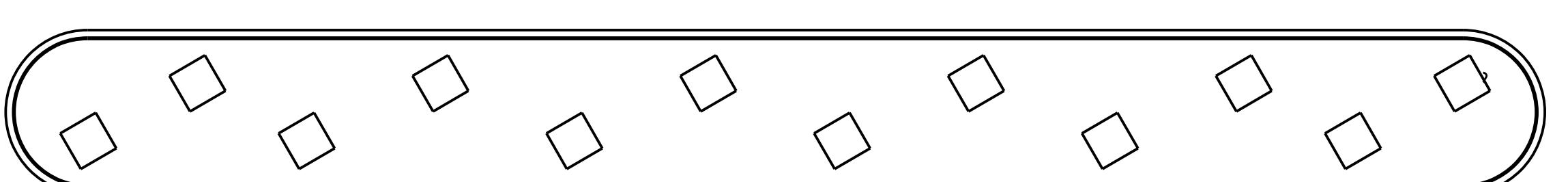
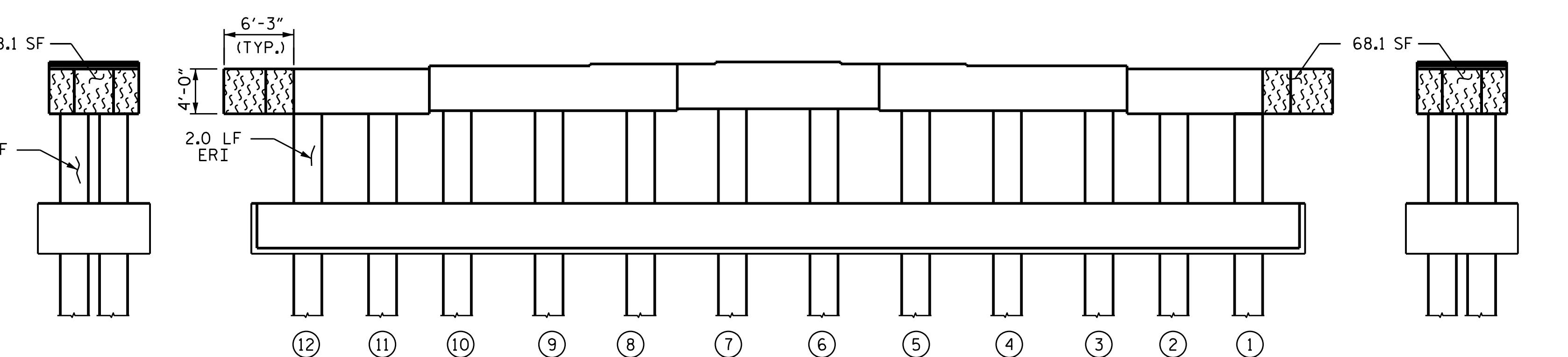
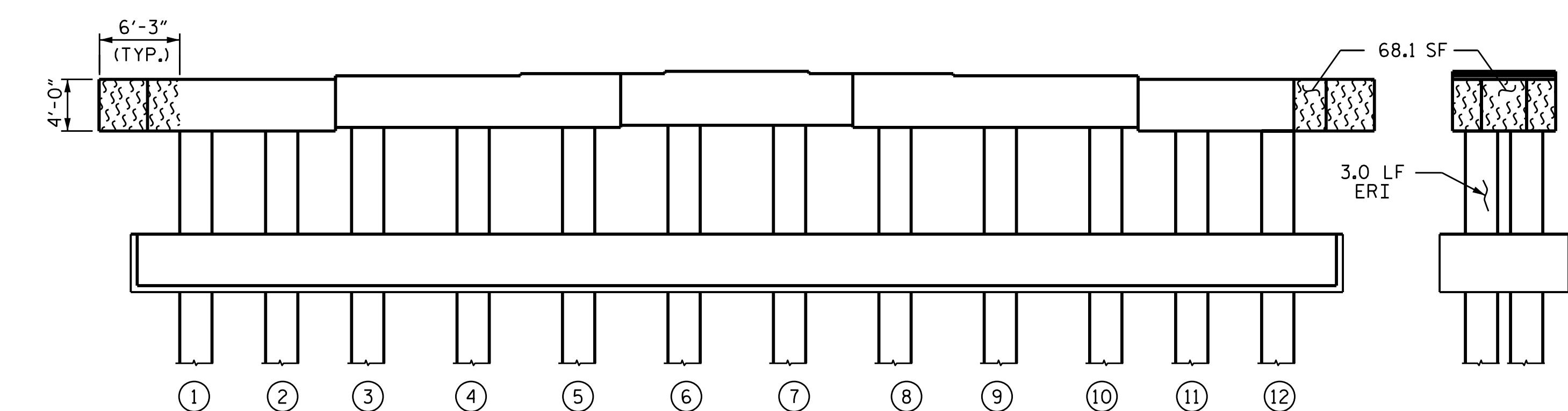
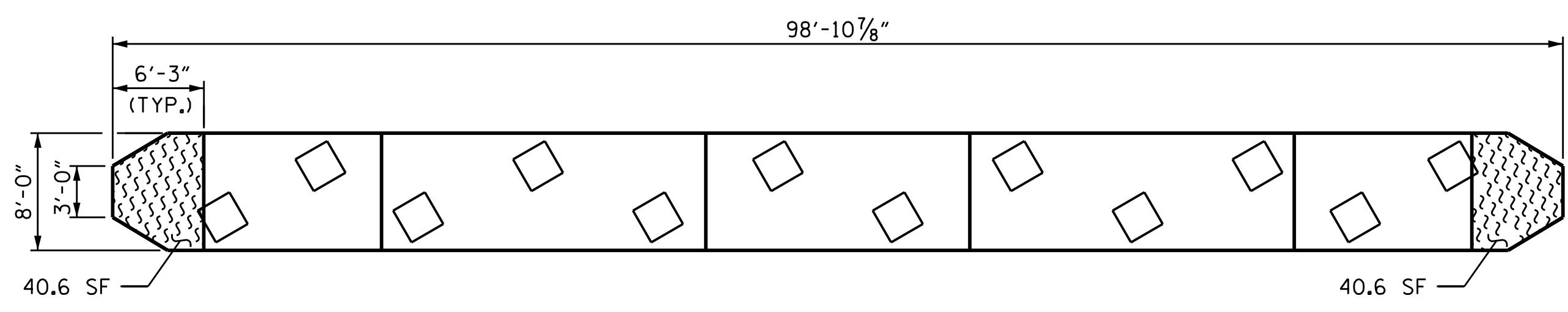
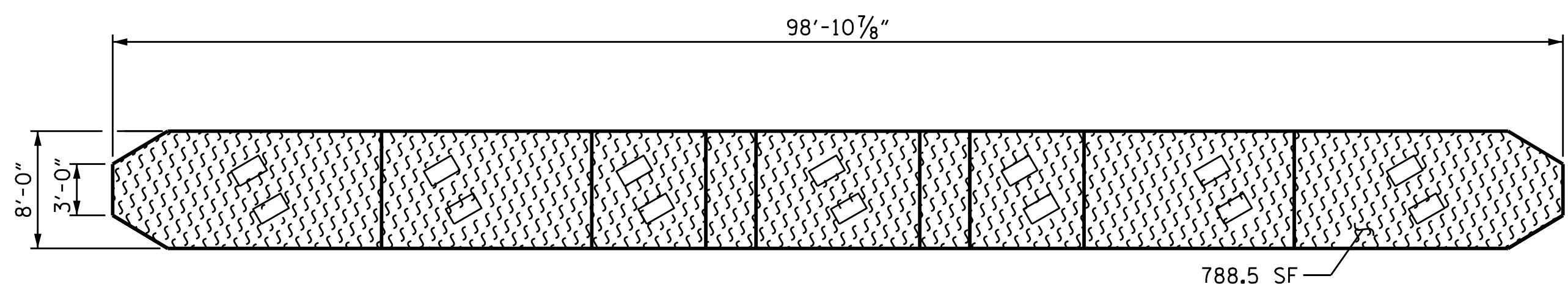
DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

DRAWN BY : S. T. SANDOR DATE : 6/27/24
CHECKED BY : W. C. SMITH DATE : 7/10/24

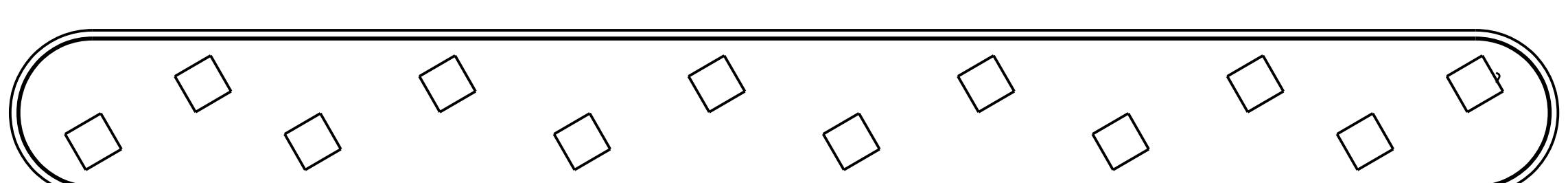
REPAIR QUANTITY TABLE

BENT 92	QUANTITIES		AREA SF	VOLUME CF
	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	5.0			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	1,005.9			

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 2" CL. TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.



TOP VIEW OF STRUT



BOTTOM VIEW OF STRUT

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

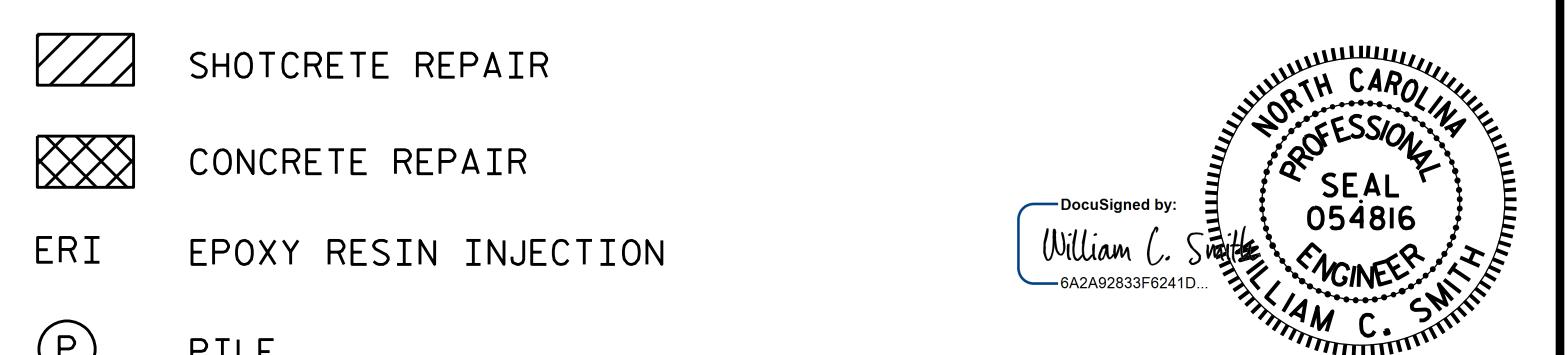
BRIDGE NO. 060353

SHEET 92 OF 140

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE

BENT 92



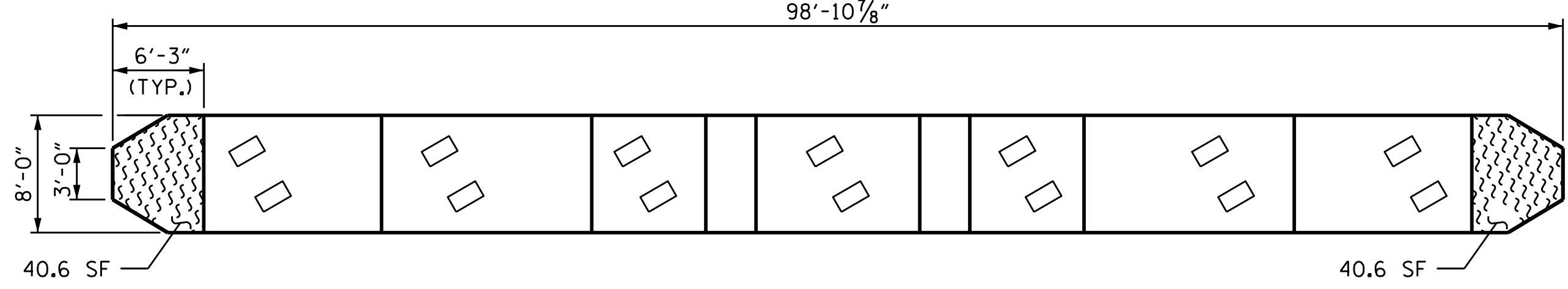
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NO.	BY:	DATE:	NO.	BY:	DATE:	S-160
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2			4			

DRAWN BY : S. T. SANDOR DATE : 6/27/24
CHECKED BY : W. C. SMITH DATE : 7/10/24

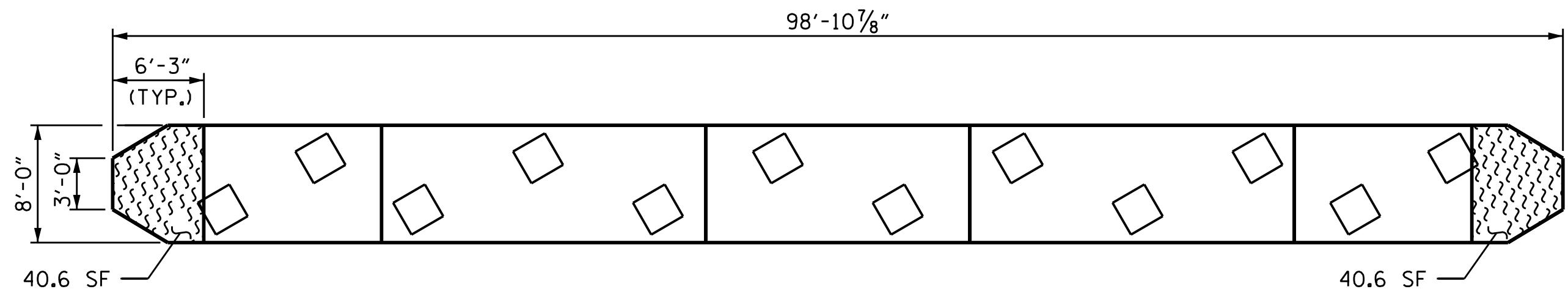
REPAIR QUANTITY TABLE

BENT 93	QUANTITIES		AREA SF	VOLUME CF
	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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	298.6			

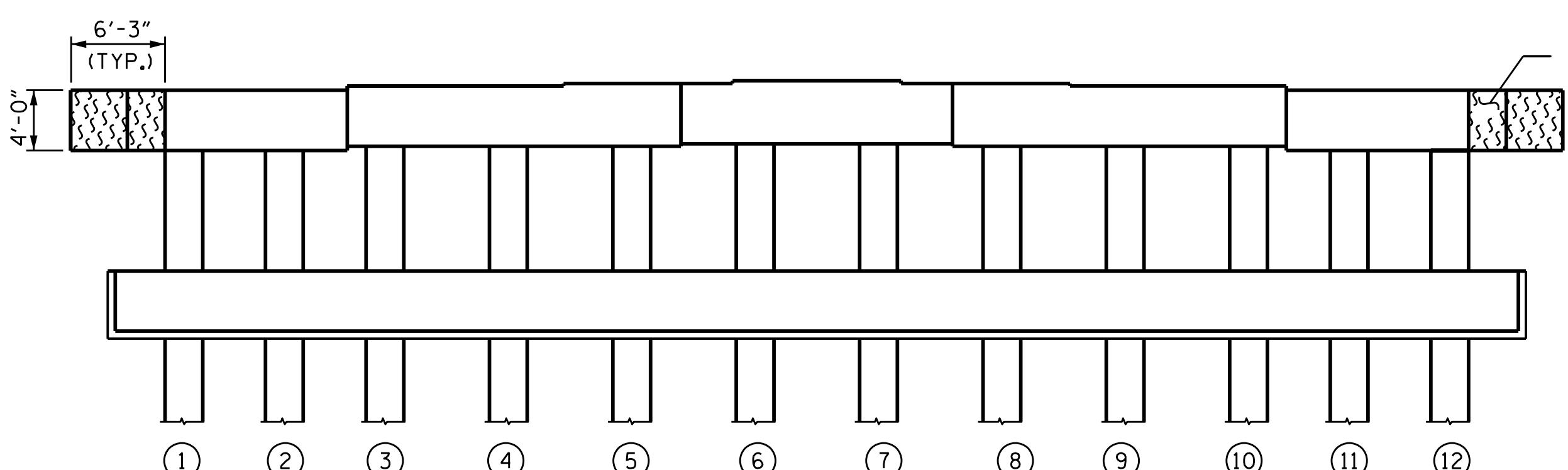
VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 2" CL. TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.



TOP VIEW OF CAP



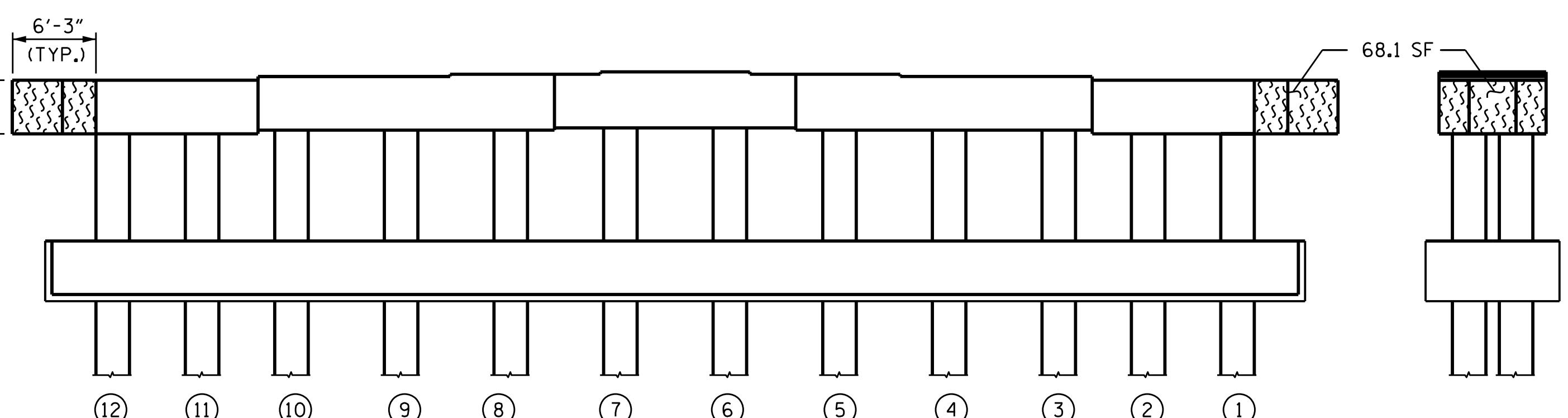
BOTTOM VIEW OF CAP



ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)

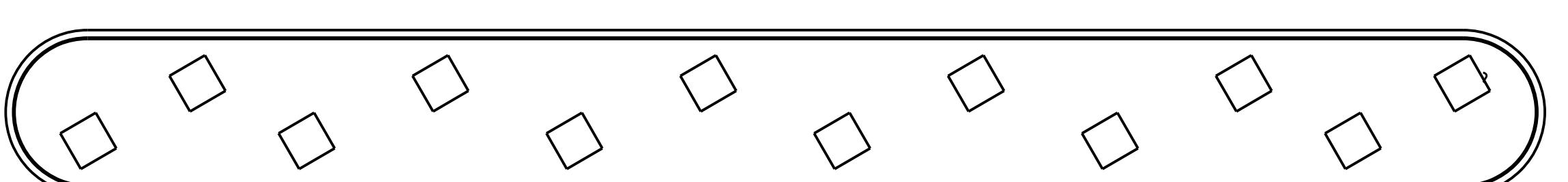
SPAN 93
SPAN 94

EAST END

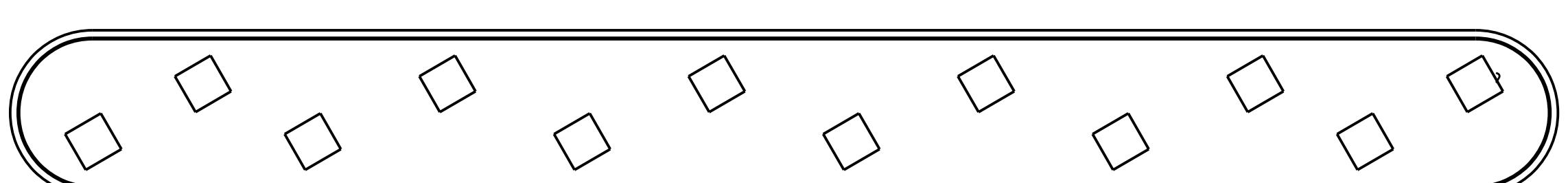


ELEVATION
(NORTH SIDE)
(LOOKING SOUTH)

WEST END



TOP VIEW OF STRUT



BOTTOM VIEW OF STRUT

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 93 OF 140

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE

BENT 93

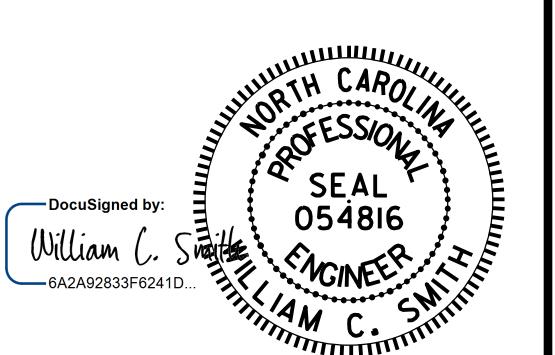
SHOTCRETE REPAIR

CONCRETE REPAIR

ERI EPOXY RESIN INJECTION

(P) PILE

EPOXY COATING



11/21/2025

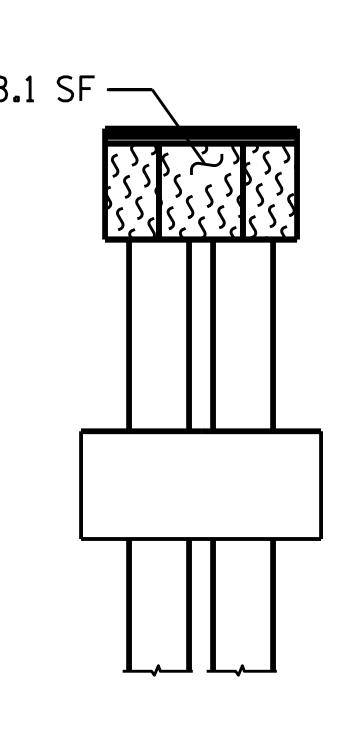
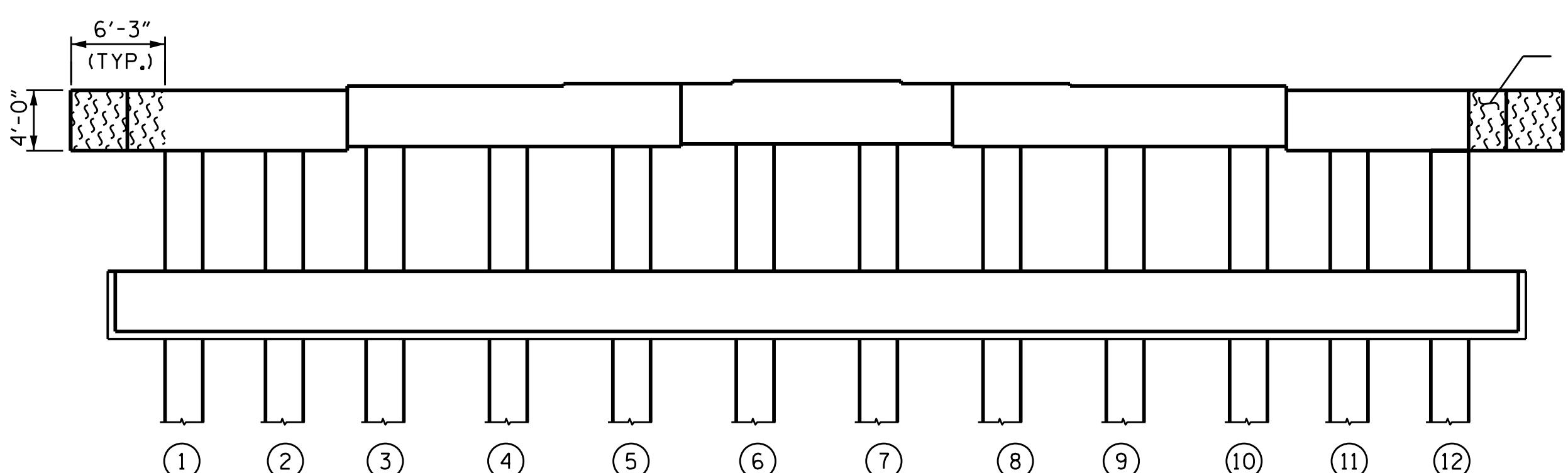
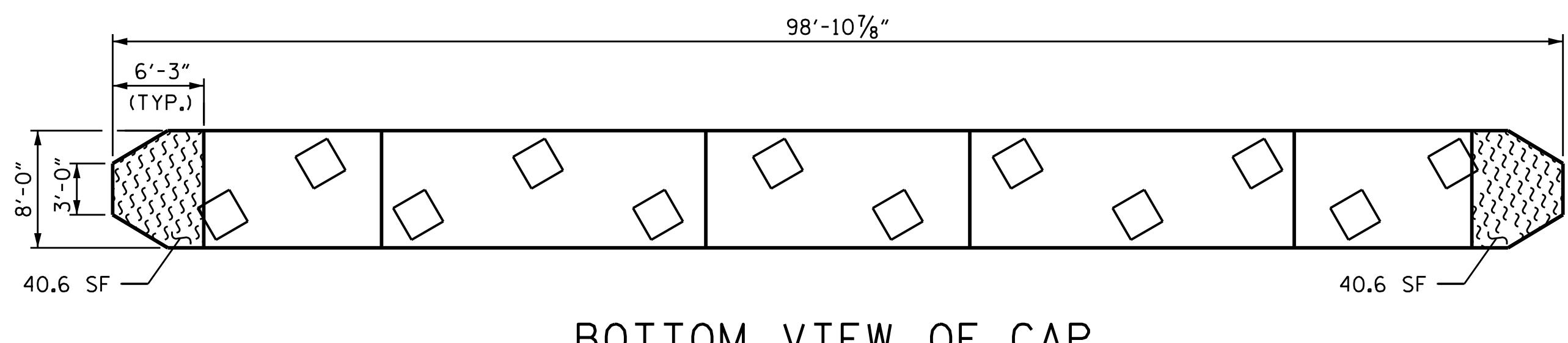
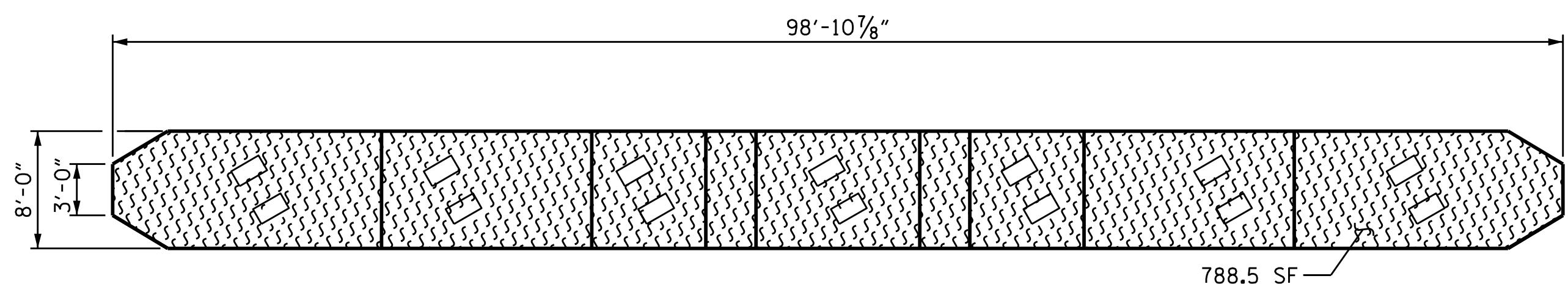
REVISIONS		SHEET NO.	
1	BY:	DATE:	NO. 161
2	BY:	DATE:	TOTAL SHEETS 217

DRAWN BY : S. T. SANDOR DATE : 6/27/24
CHECKED BY : W. C. SMITH DATE : 7/10/24

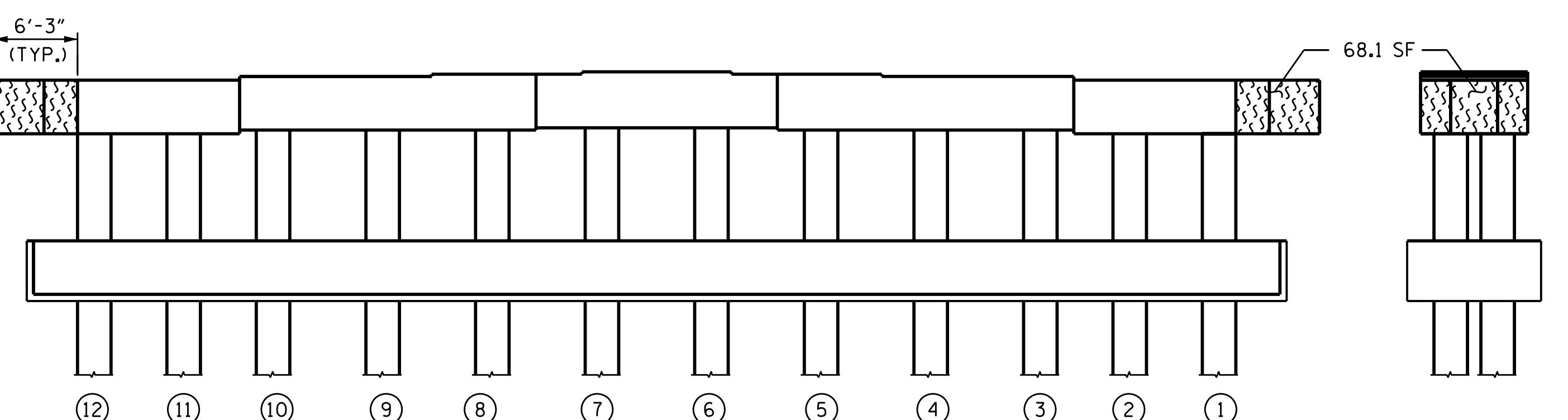
REPAIR QUANTITY TABLE

BENT 94	QUANTITIES		AREA SF	VOLUME CF
	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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	1,005.9			

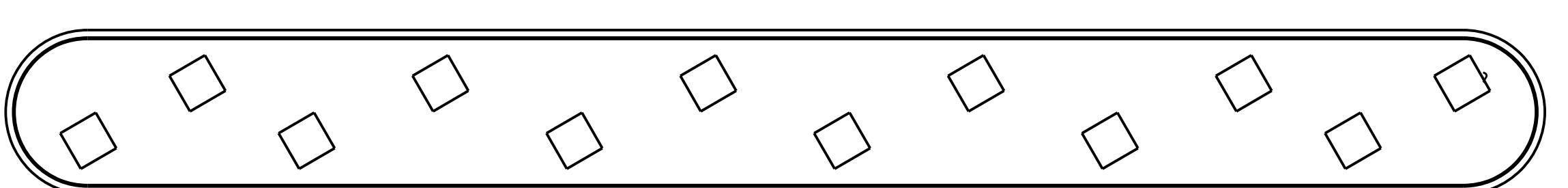
VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 2" CL. TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.



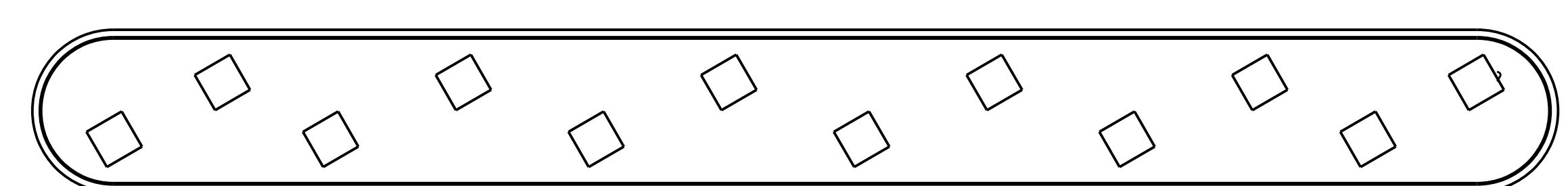
EAST END



WEST END



TOP VIEW OF STRUT



BOTTOM VIEW OF STRUT

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

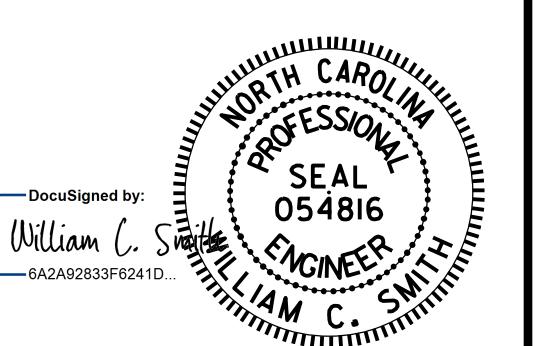
SHEET 94 OF 140

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE

BENT 94

- ▨ SHOTCRETE REPAIR
- ▨ CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- ▨ EPOXY COATING



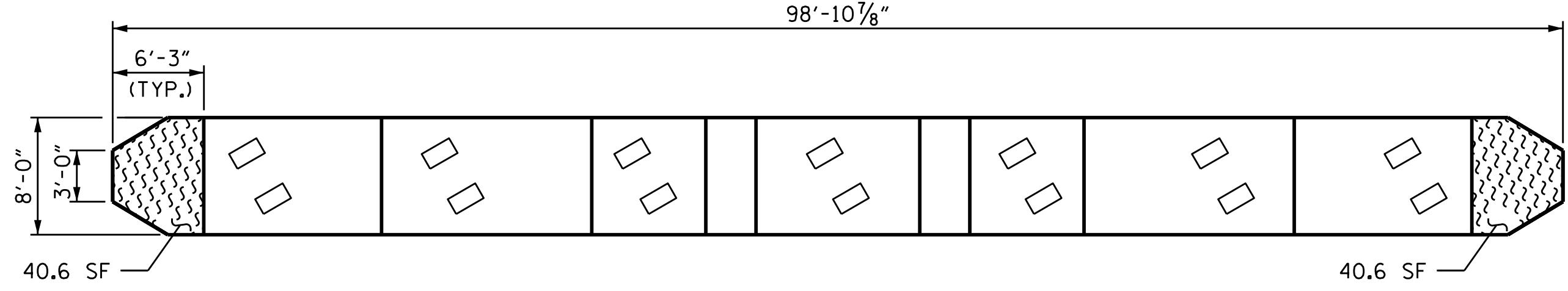
REVISIONS					SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-162
1			3			
2			4			

DRAWN BY : S. T. SANDOR DATE : 6/27/24
CHECKED BY : W. C. SMITH DATE : 7/10/24

REPAIR QUANTITY TABLE

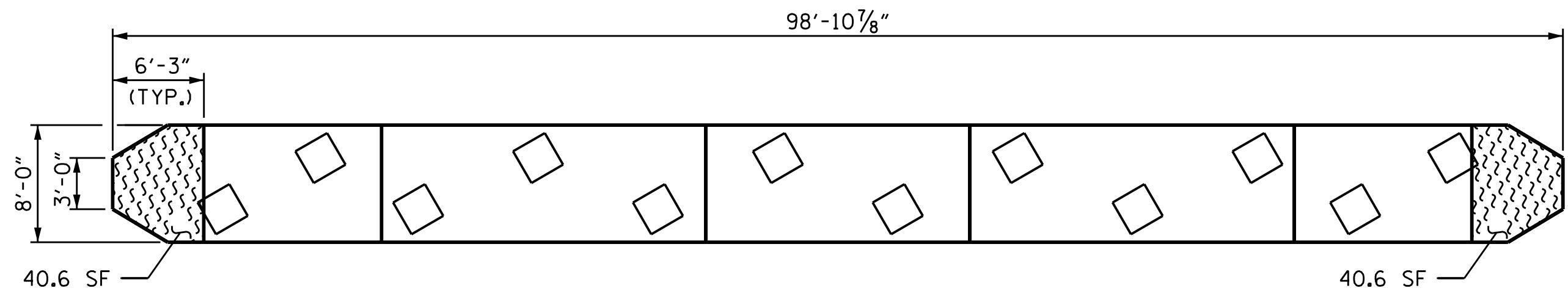
BENT 95	QUANTITIES		AREA SF	VOLUME CF
	ESTIMATE	ACTUAL		
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION	LF		LF	
CAP	0.0			
COLUMN	0.0			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	298.6			

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 2" CL. TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.



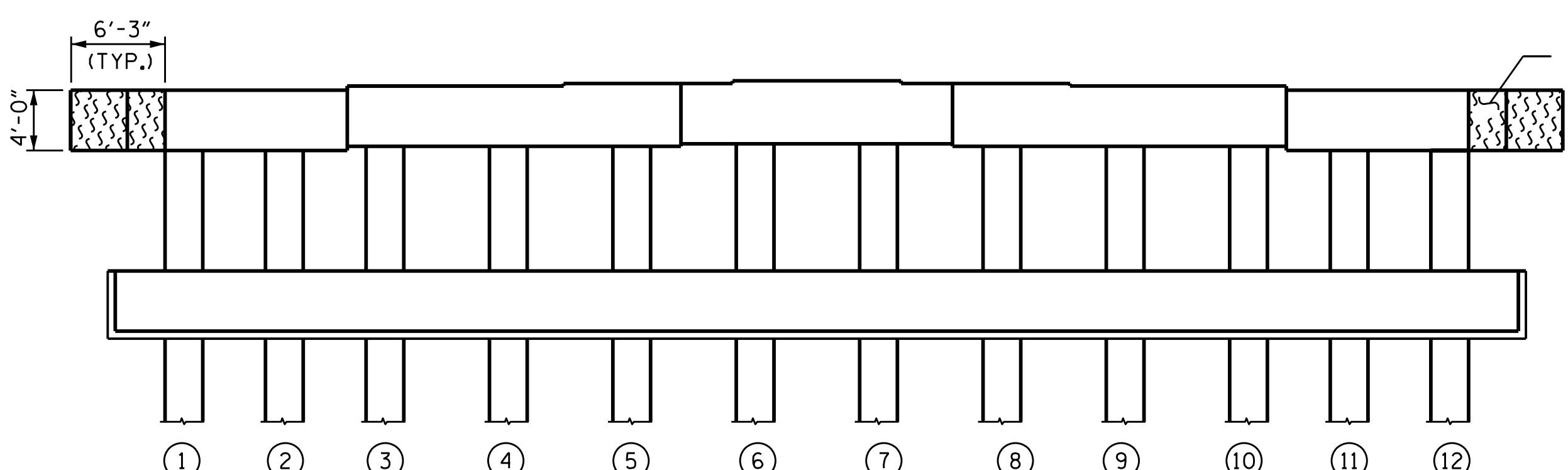
SPAN 96
SPAN 95

TOP VIEW OF CAP



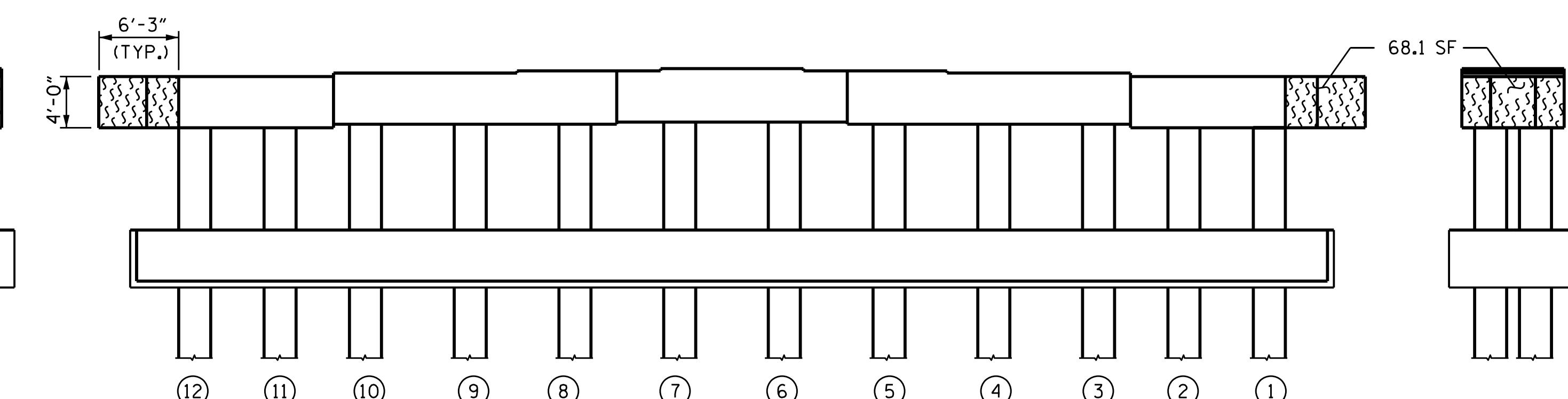
SPAN 95
SPAN 96

BOTTOM VIEW OF CAP



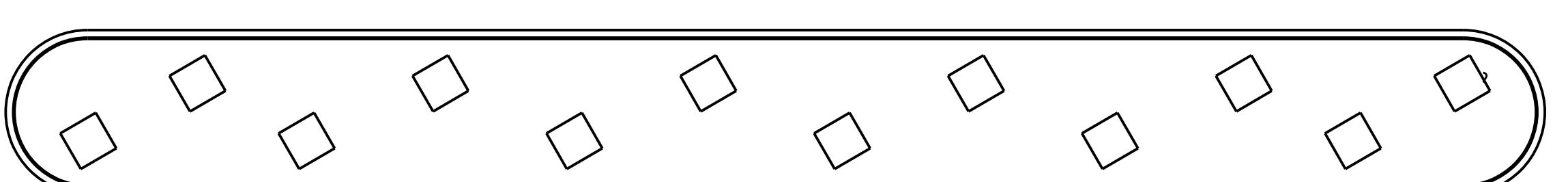
EAST END

ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)

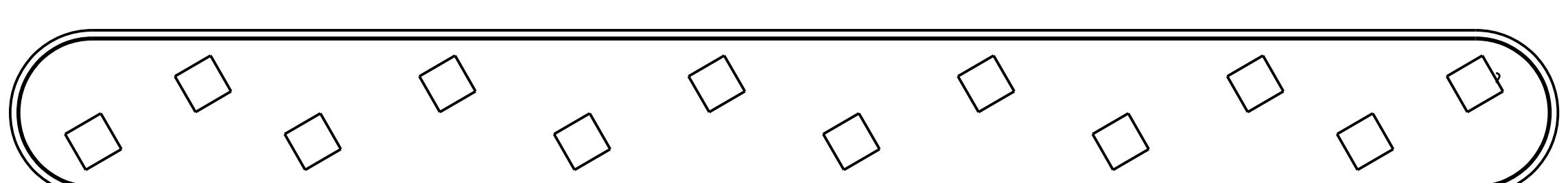


WEST END

ELEVATION
(NORTH SIDE)
(LOOKING SOUTH)



TOP VIEW OF STRUT



BOTTOM VIEW OF STRUT

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 95 OF 140

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE

BENT 95

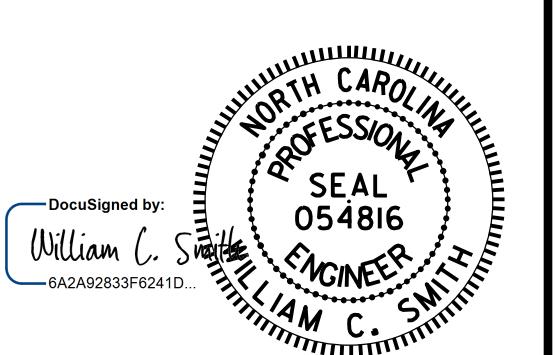
SHOTCRETE REPAIR

CONCRETE REPAIR

ERI EPOXY RESIN INJECTION

(P) PILE

EPOXY COATING



11/21/2025

REVISIONS					SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-163
1			3			
2			4			

DRAWN BY : S. T. SANDOR DATE : 6/27/24
CHECKED BY : W. C. SMITH DATE : 7/10/24

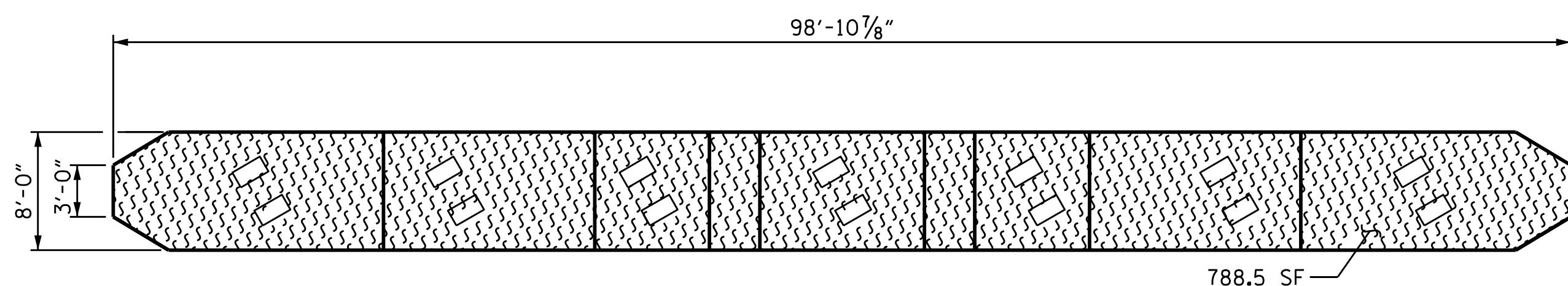
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FINAL UNLESS ALL
SIGNATURES COMPLETED

TOTAL SHEETS
217

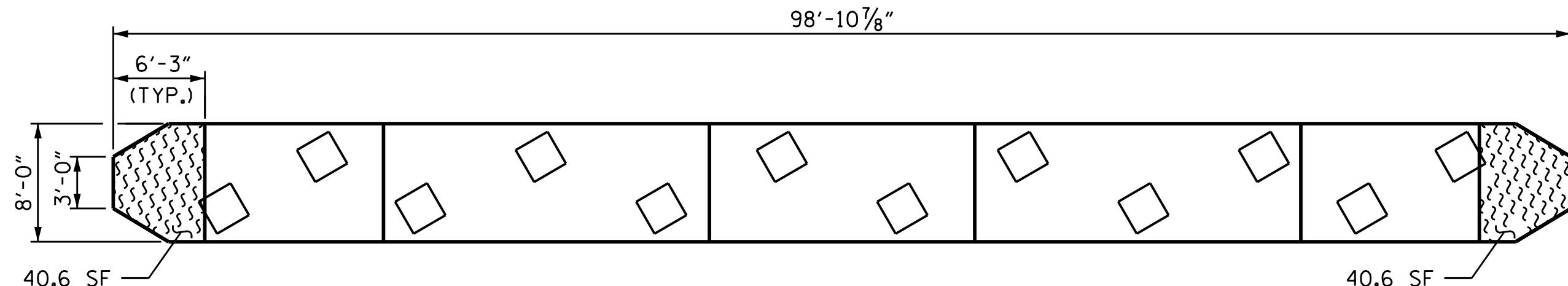
REPAIR QUANTITY TABLE

BENT 96	QUANTITIES		AREA SF	VOLUME CF
	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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	1,005.9			

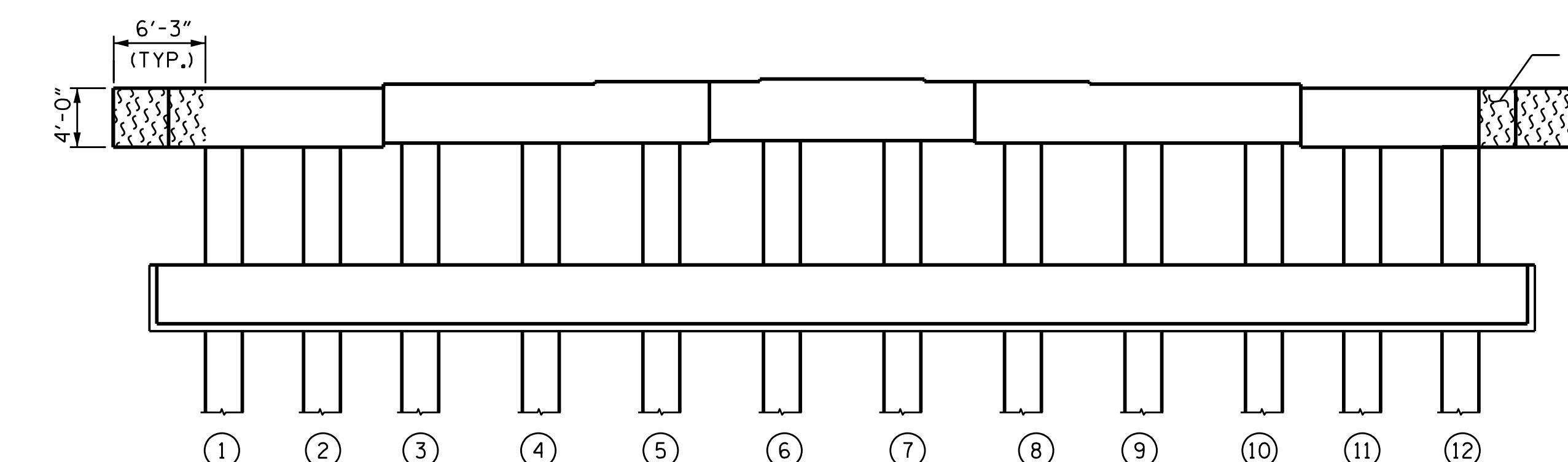
VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 2" CL. TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.



TOP VIEW OF CAP



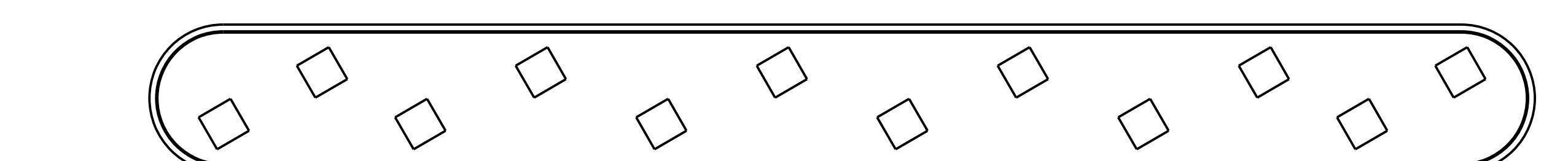
BOTTOM VIEW OF CAP



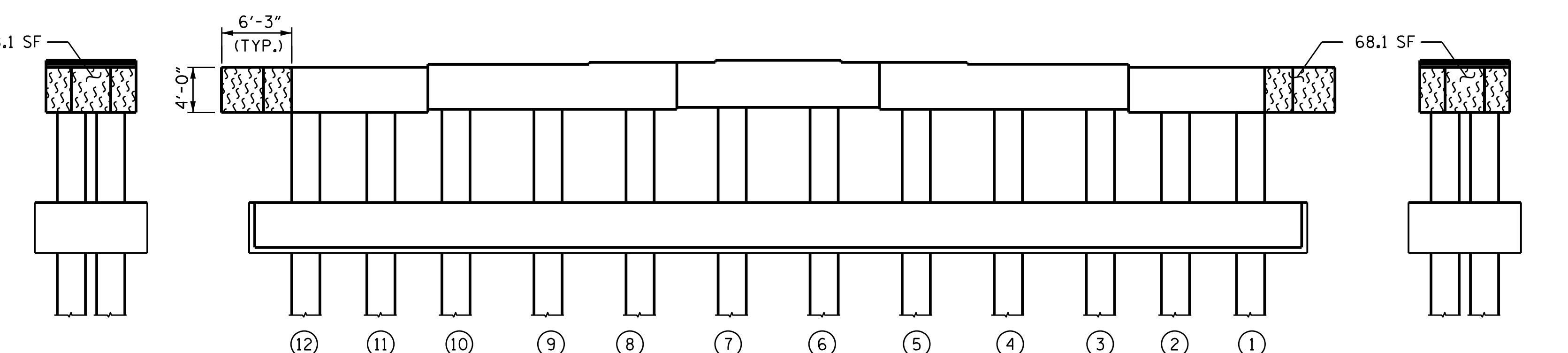
ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)

SPAN 96
SPAN 97

EAST END

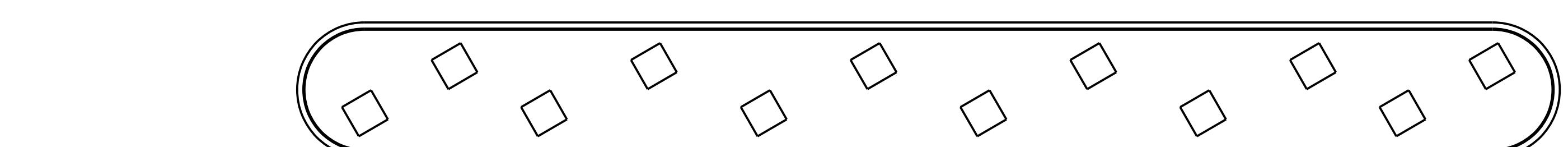


TOP VIEW OF STRUT



ELEVATION
(NORTH SIDE)
(LOOKING SOUTH)

WEST END



BOTTOM VIEW OF STRUT

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

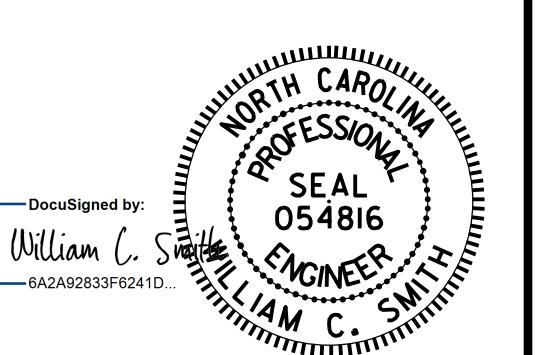
SHEET 96 OF 140

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE

BENT 96

- ▨ SHOTCRETE REPAIR
- ▨ CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- ▨ EPOXY COATING



11/21/2025

REVISIONS		SHEET NO.	
NO.	BY:	DATE:	NO.
1			3
2			4

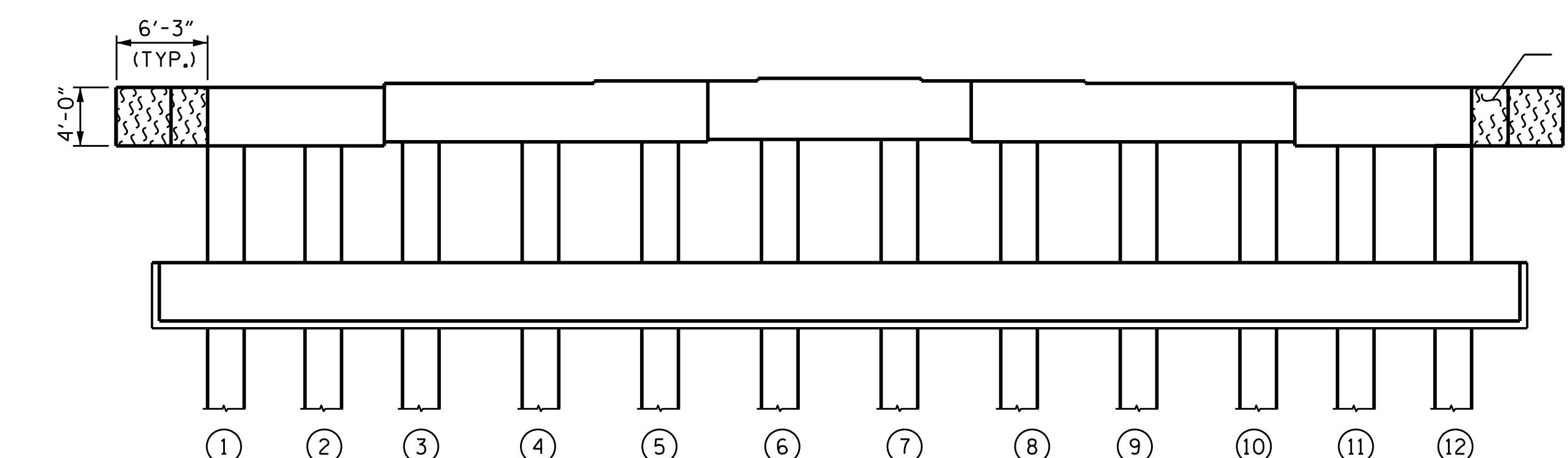
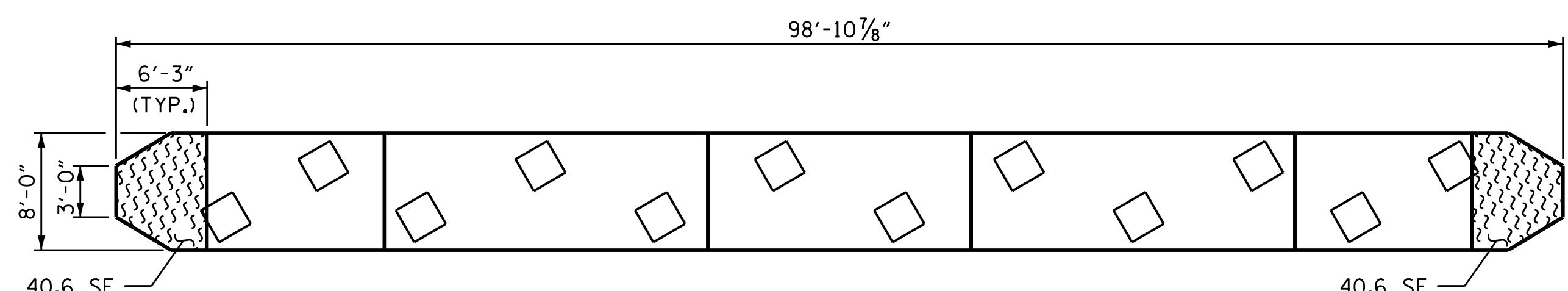
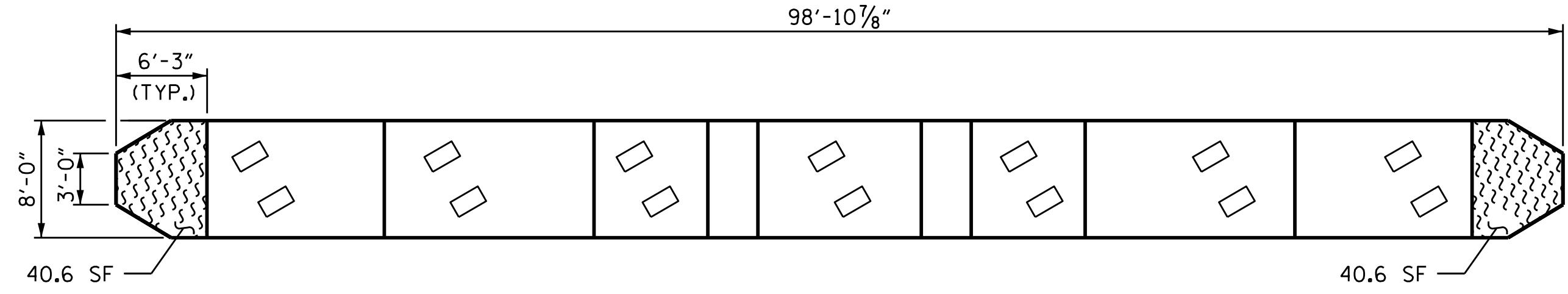
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SIGNATURES COMPLETED

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CHECKED BY : W. C. SMITH DATE : 7/10/24

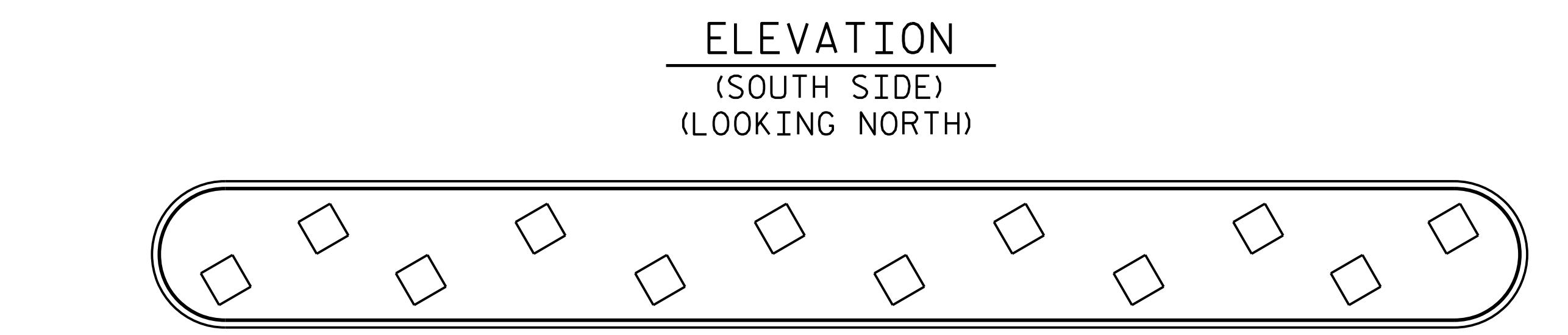
REPAIR QUANTITY TABLE

BENT 97	QUANTITIES		AREA SF	VOLUME CF
	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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	298.6			

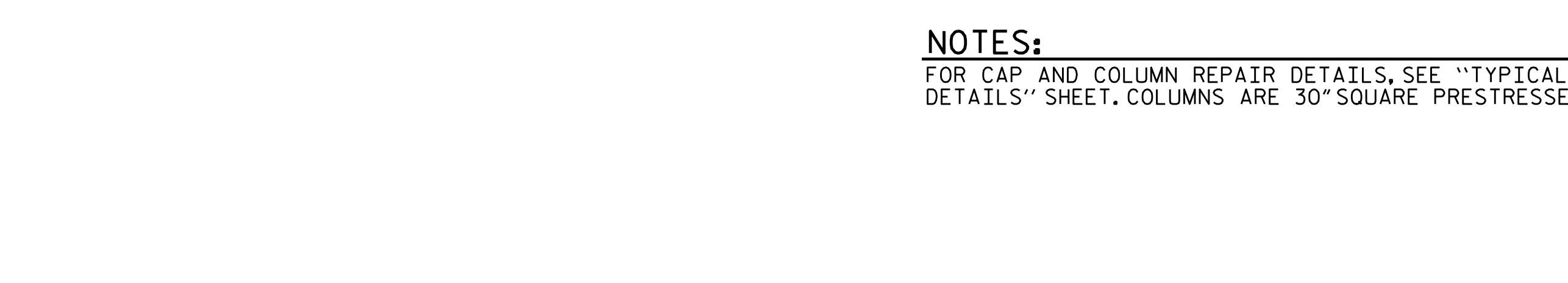
VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 2" CL. TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.



SPAN 98
SPAN 97



TOP VIEW OF STRUT



BOTTOM VIEW OF STRUT

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 97 OF 140

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

RALEIGH

SUBSTRUCTURE

BENT 97

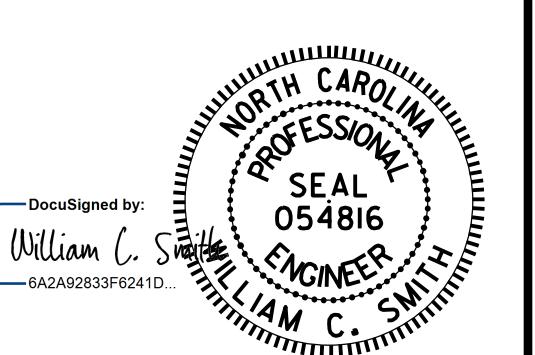
SHOTCRETE REPAIR

CONCRETE REPAIR

ERI EPOXY RESIN INJECTION

(P) PILE

EPOXY COATING



REVISIONS		SHEET NO.	
NO.	BY:	DATE:	NO.
1			3
2			4

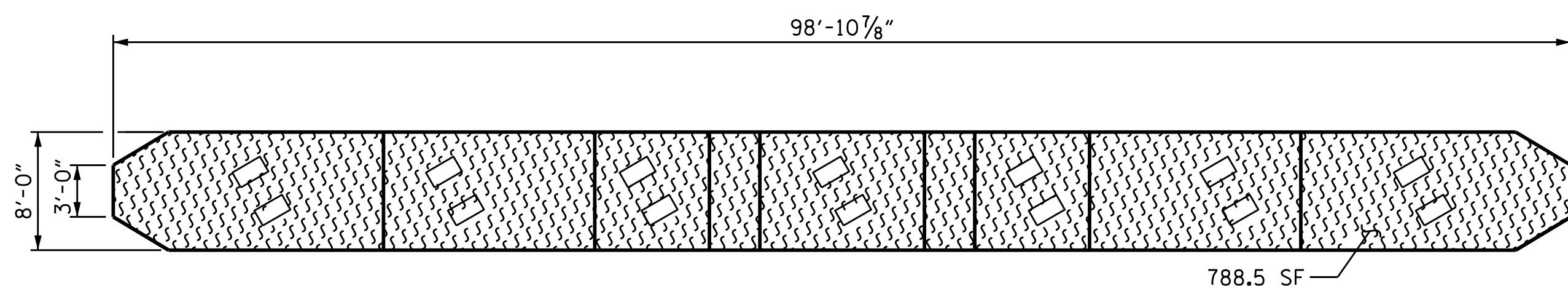
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SIGNATURES COMPLETED

DRAWN BY : S. T. SANDOR DATE : 6/27/24
CHECKED BY : W. C. SMITH DATE : 7/10/24

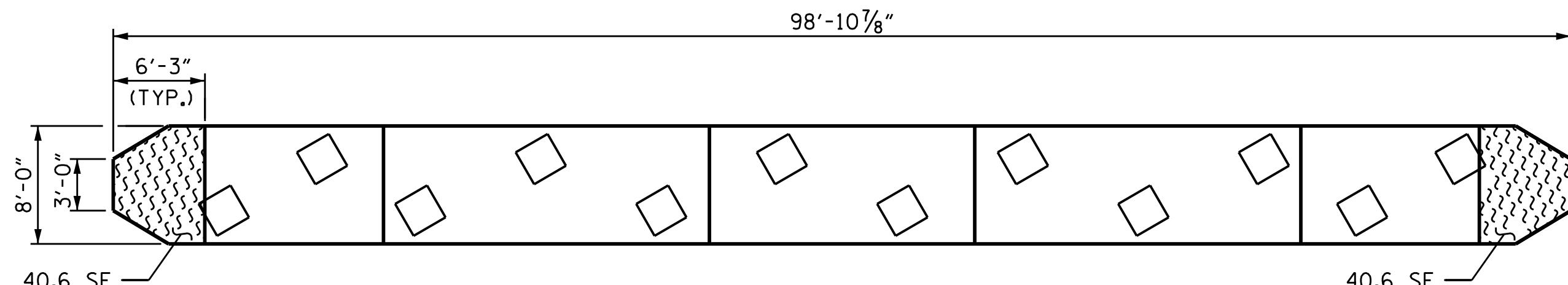
REPAIR QUANTITY TABLE

BENT 98	QUANTITIES		AREA SF	VOLUME CF
	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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	1,005.9			

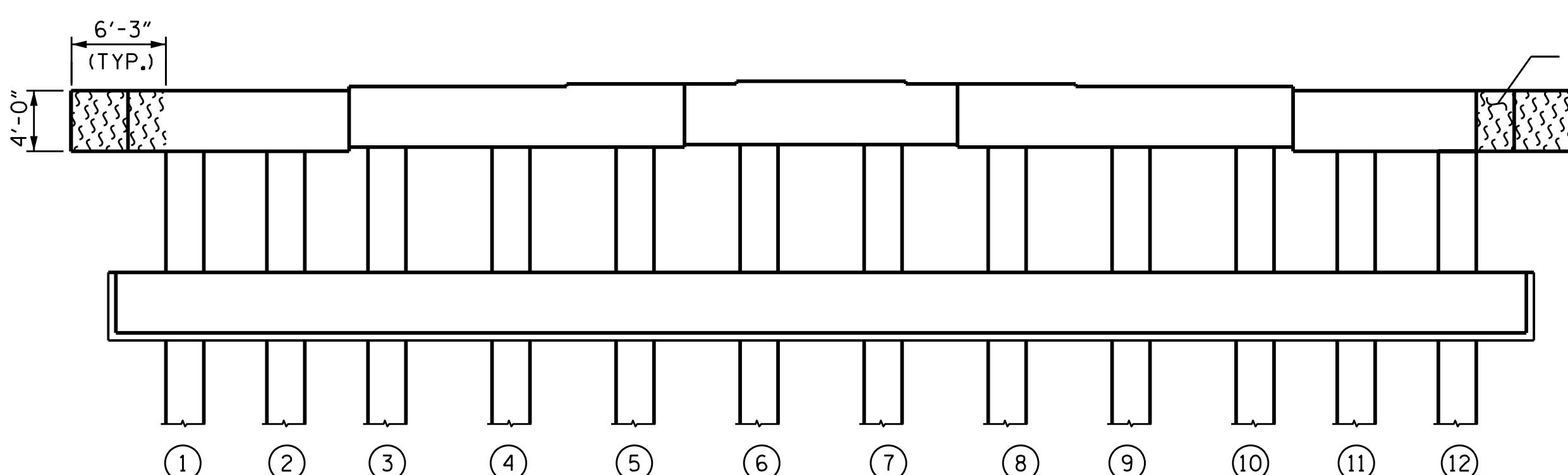
VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 2" CL. TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.



TOP VIEW OF CAP



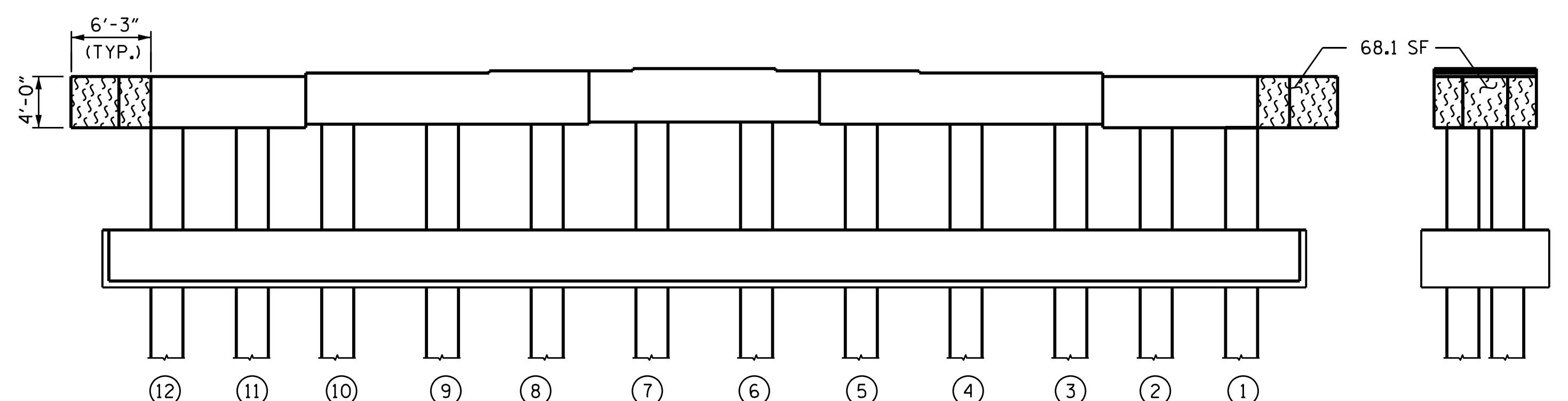
BOTTOM VIEW OF CAP



ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)

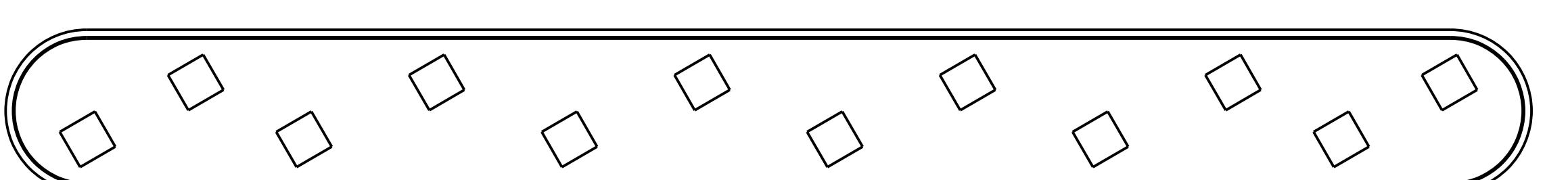
SPAN 98
SPAN 99

EAST END

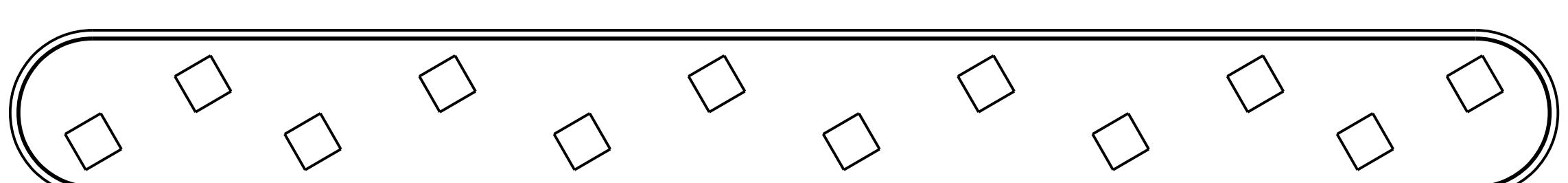


ELEVATION
(NORTH SIDE)
(LOOKING SOUTH)

WEST END



TOP VIEW OF STRUT



BOTTOM VIEW OF STRUT

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

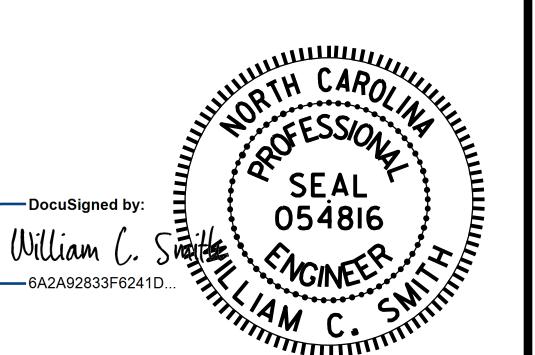
SHEET 98 OF 140

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE

BENT 98

- ▨ SHOTCRETE REPAIR
- ▨ CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- ▨ EPOXY COATING



11/21/2025

REVISIONS		SHEET NO.	
NO.	BY:	DATE:	NO.
1			3
2			4

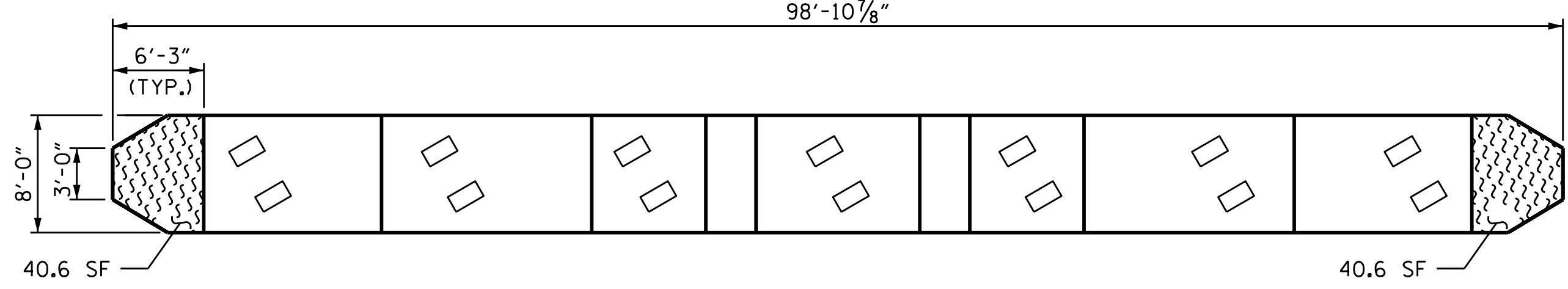
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DRAWN BY : S. T. SANDOR DATE : 6/27/24
CHECKED BY : W. C. SMITH DATE : 7/10/24

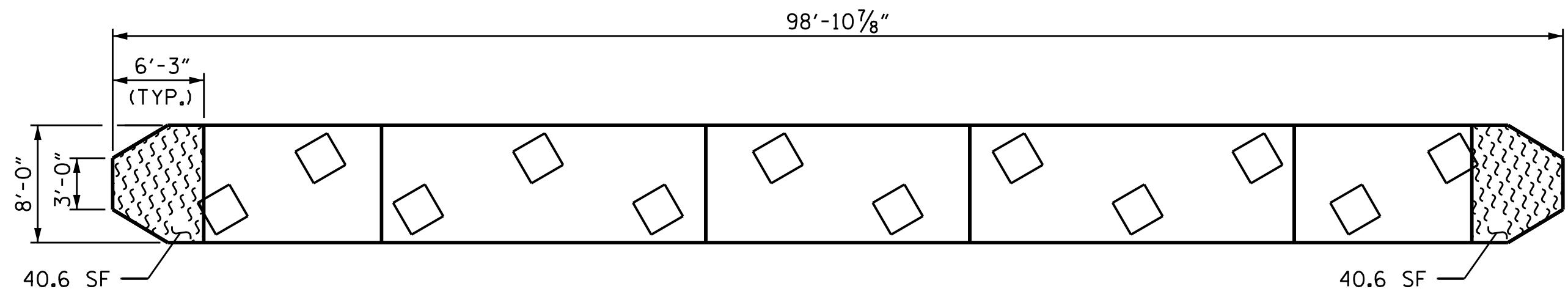
REPAIR QUANTITY TABLE

BENT 99	QUANTITIES		AREA SF	VOLUME CF
	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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	298.6			

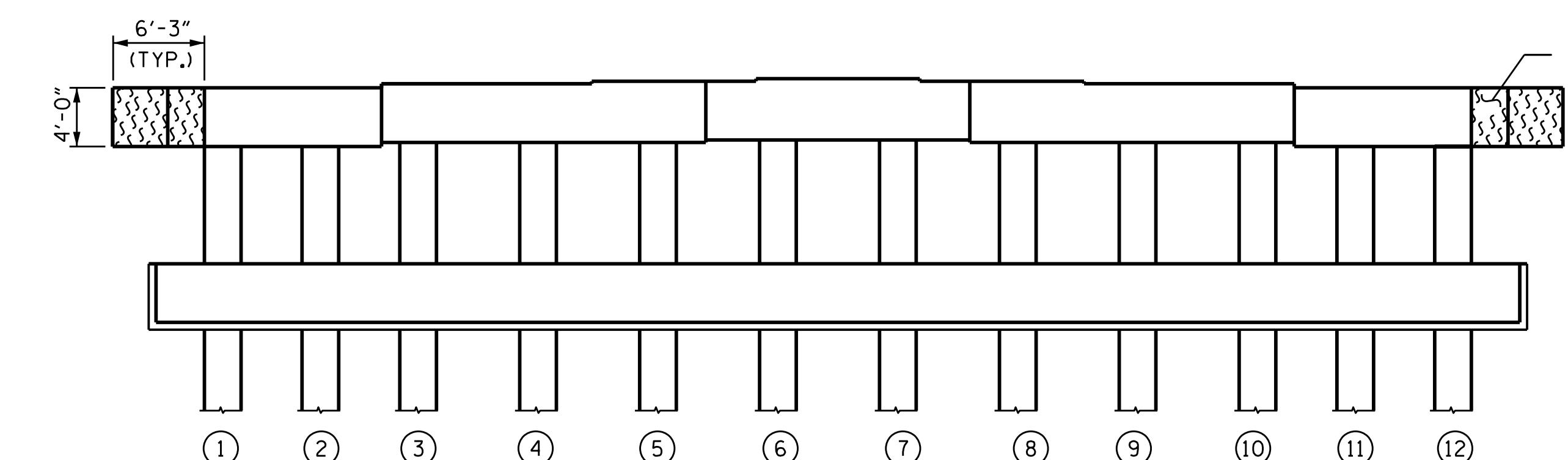
VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 2" CL. TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.



TOP VIEW OF CAP



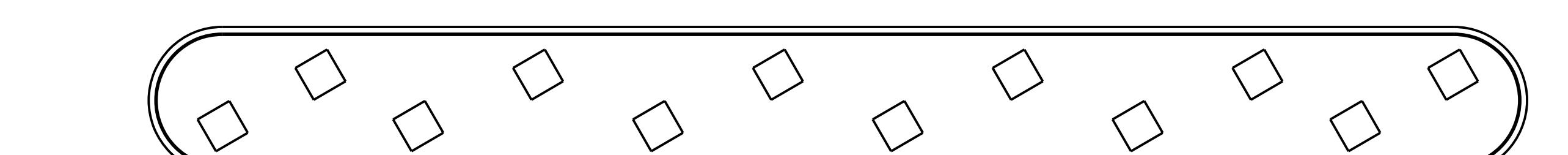
BOTTOM VIEW OF CAP



ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)

SPAN 99
SPAN 100

EAST END



TOP VIEW OF STRUT

BOTTOM VIEW OF STRUT

ELEVATION
(NORTH SIDE)
(LOOKING SOUTH)

WEST END

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 99 OF 140

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE

BENT 99

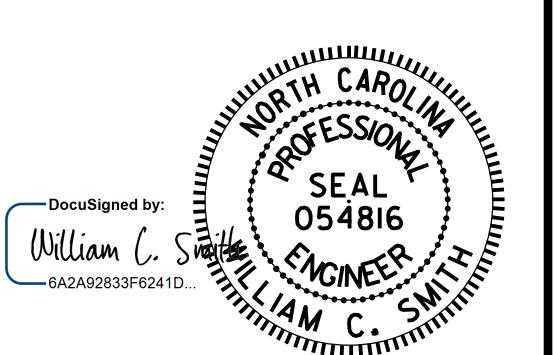
SHOTCRETE REPAIR

CONCRETE REPAIR

ERI EPOXY RESIN INJECTION

(P) PILE

EPOXY COATING

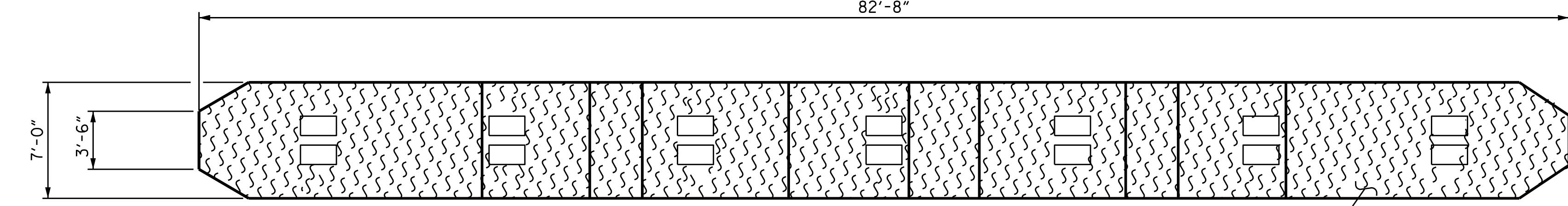


11/21/2025

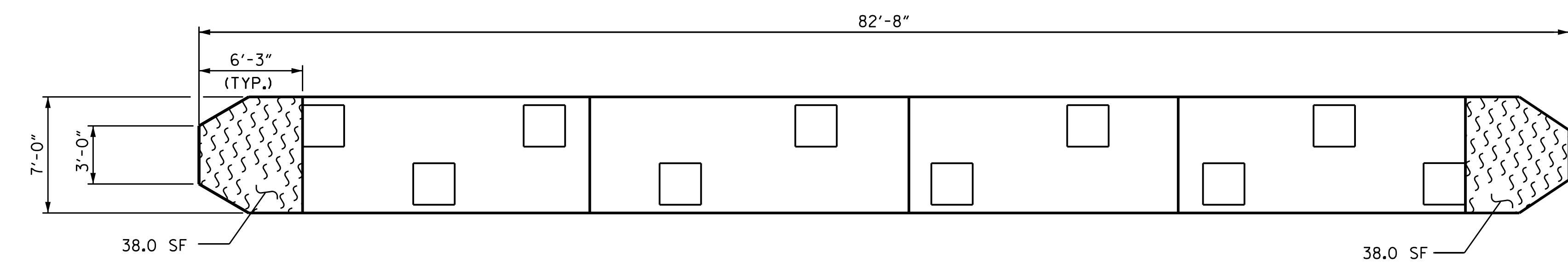
REVISIONS		SHEET NO.	
NO.	BY:	DATE:	NO.
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2			4

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SIGNATURES COMPLETED

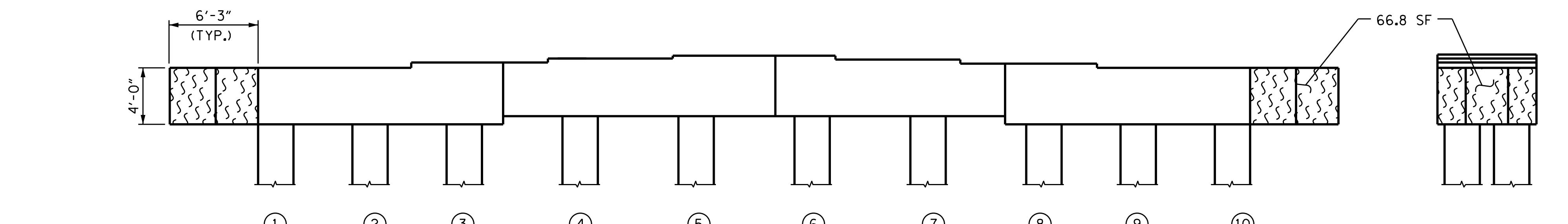
DRAWN BY : S. T. SANDOR DATE : 6/27/24
CHECKED BY : W. C. SMITH DATE : 7/10/24



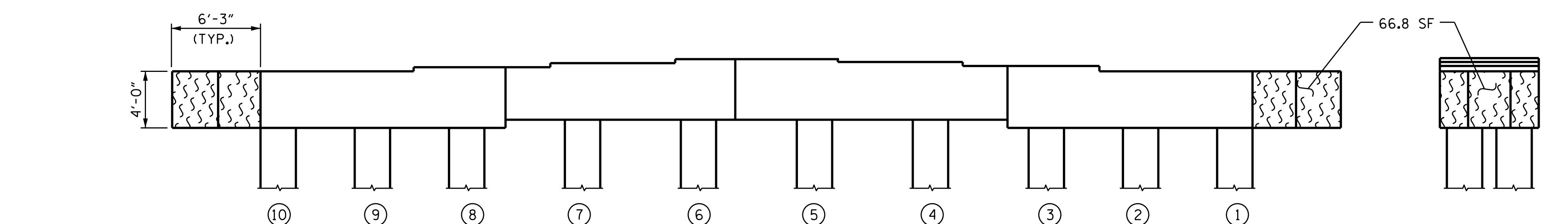
TOP VIEW OF CAP



BOTTOM VIEW OF CAP



ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)



ELEVATION
(NORTH SIDE)
(LOOKING SOUTH)

REPAIR QUANTITY TABLE

BENT 100	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	790.3			

VALUES IN THE REPAIR QUANTITY TABLE 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:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- EPOXY COATING

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 100 OF 140

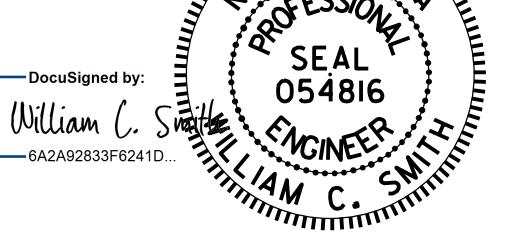
STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

SUBSTRUCTURE

BENT 100



11/21/2025

REVISIONS					SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-168
1			3			
2			4			

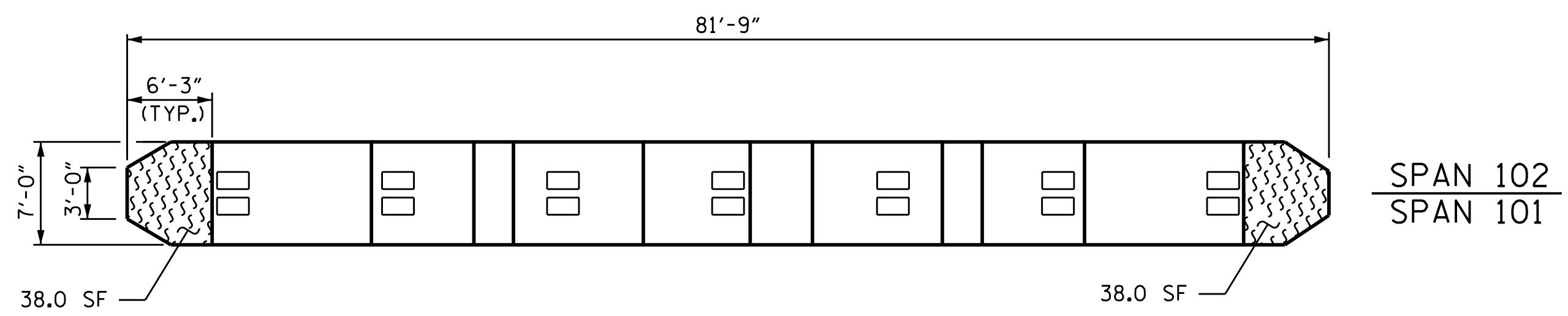
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SIGNATURES COMPLETED

DRAWN BY : S. T. SANDOR DATE : 6/27/24
CHECKED BY : W. C. SMITH DATE : 7/10/24

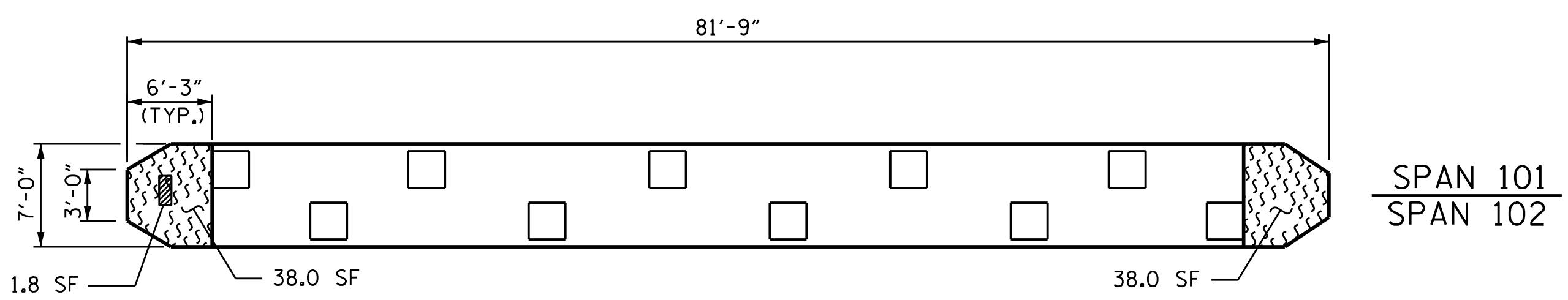
REPAIR QUANTITY TABLE

BENT 101	QUANTITIES		AREA SF	VOLUME CF
	ESTIMATE	ACTUAL		
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	1.8	0.9		
COLUMN	6.5	3.3		
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	10.0			
COLUMN	0.0			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	285.6			

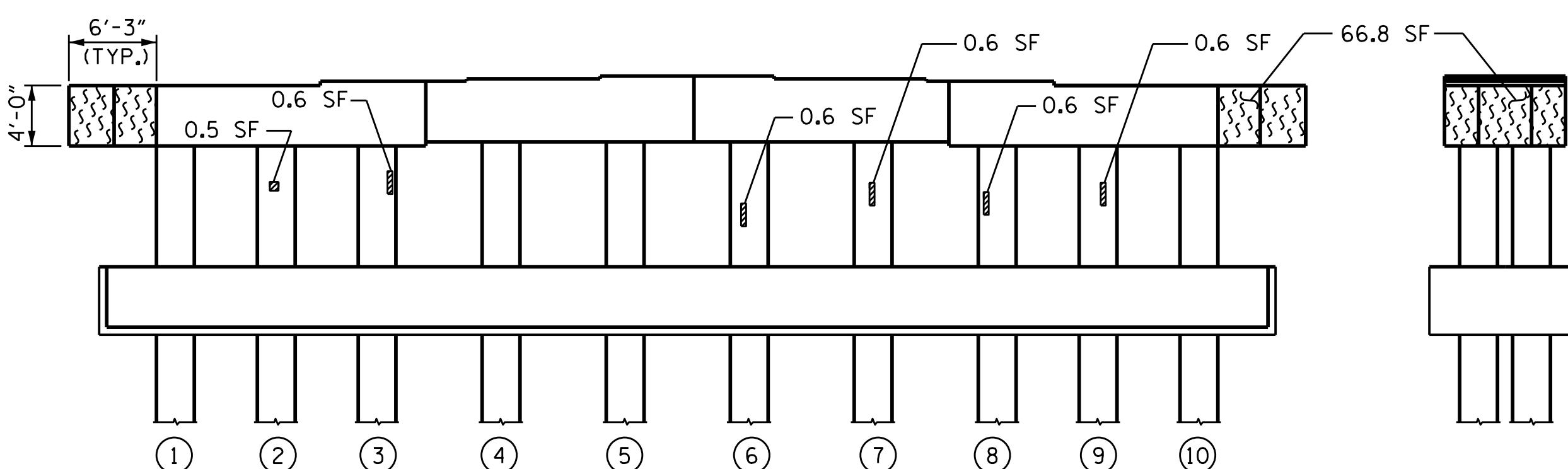
VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 2" CL. TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.



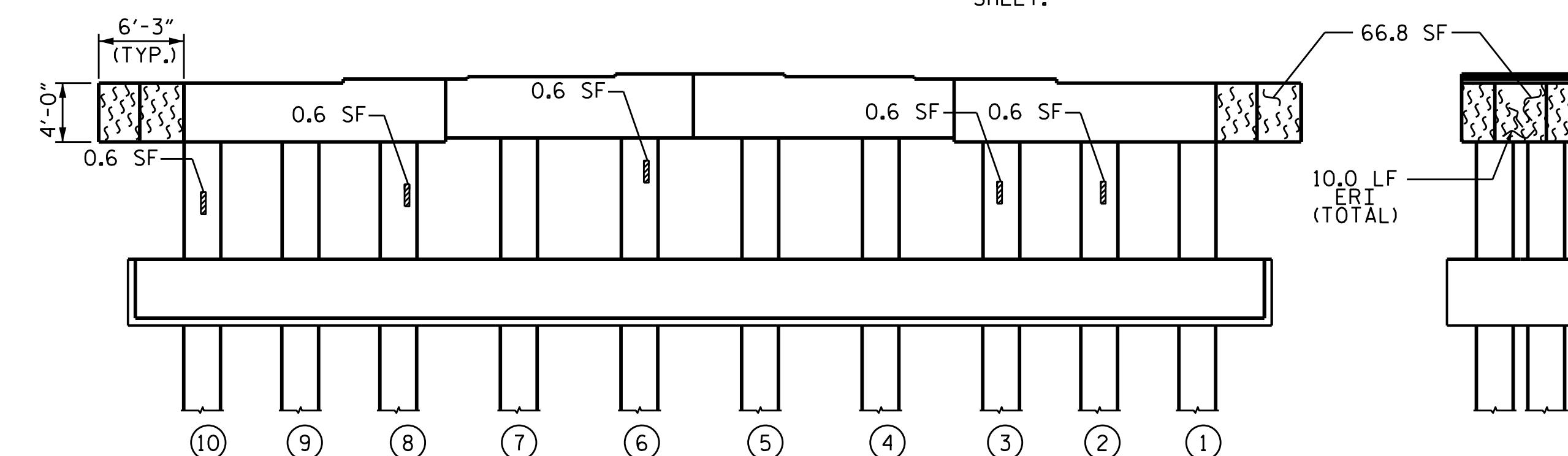
TOP VIEW OF CAP



BOTTOM VIEW OF CAP

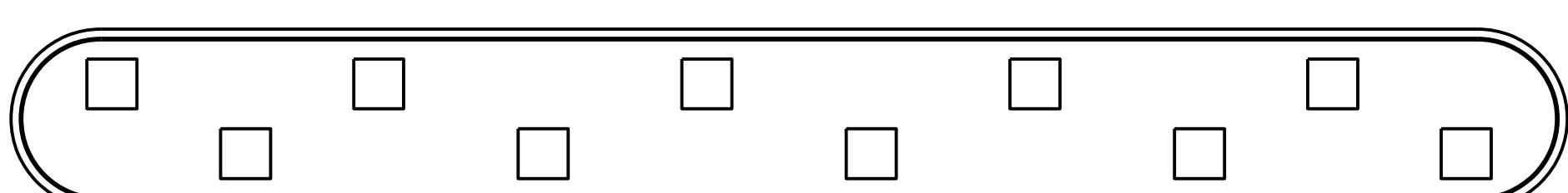


ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)

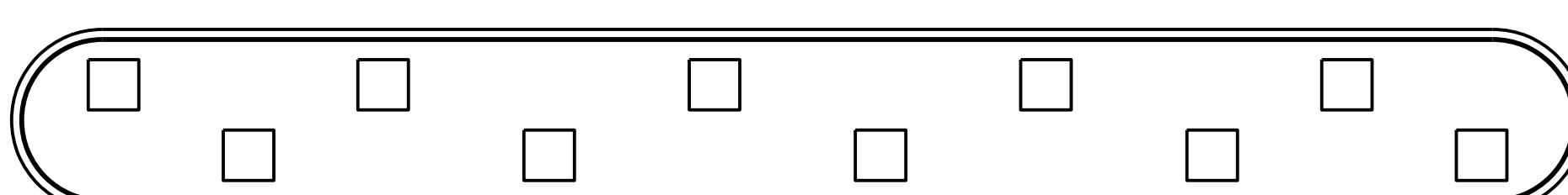


ELEVATION
(NORTH SIDE)
(LOOKING SOUTH)

WEST END



TOP VIEW OF STRUT



BOTTOM VIEW OF STRUT

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

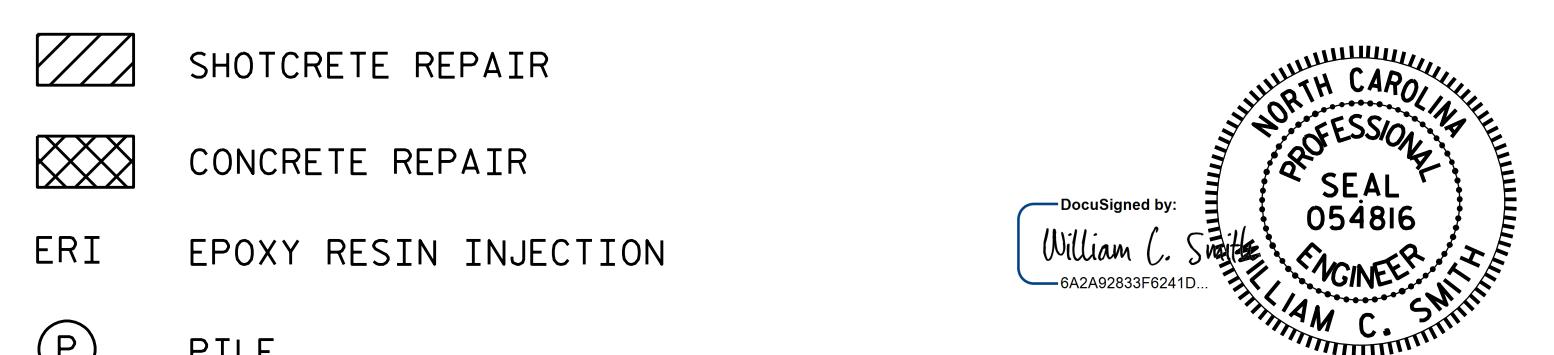
BRIDGE NO. 060353

SHEET 101 OF 140

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE

BENT 101



11/21/2025
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wsmith

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

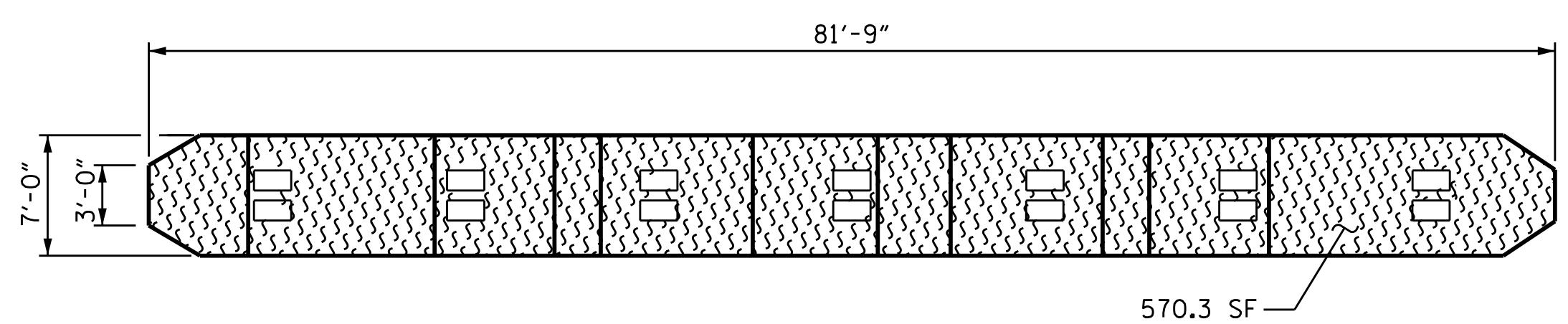
REVISIONS					SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-169
1			3			
2			4			

DRAWN BY : S. T. SANDOR DATE : 6/27/24
CHECKED BY : W. C. SMITH DATE : 7/10/24

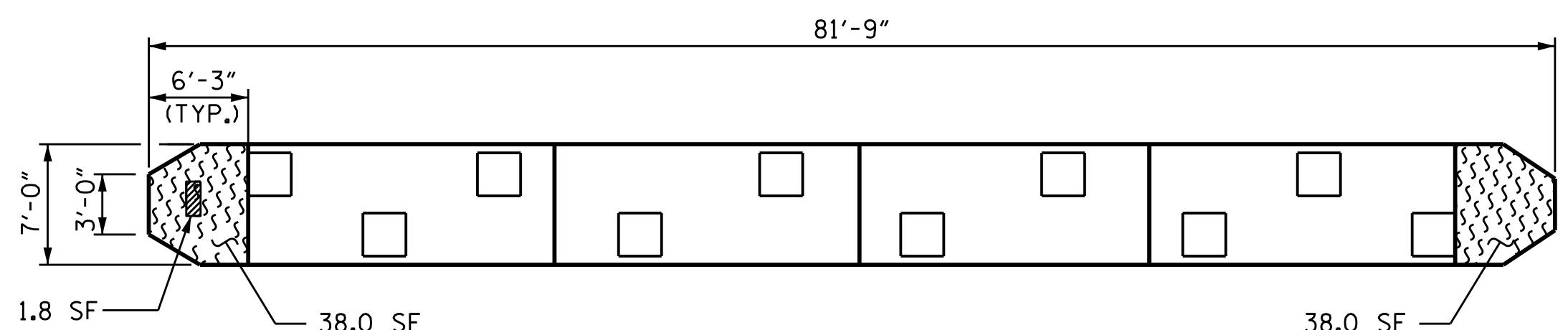
REPAIR QUANTITY TABLE

BENT 102	QUANTITIES		AREA SF	VOLUME CF
	ESTIMATE	ACTUAL		
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	1.8	0.9		
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	780.0			

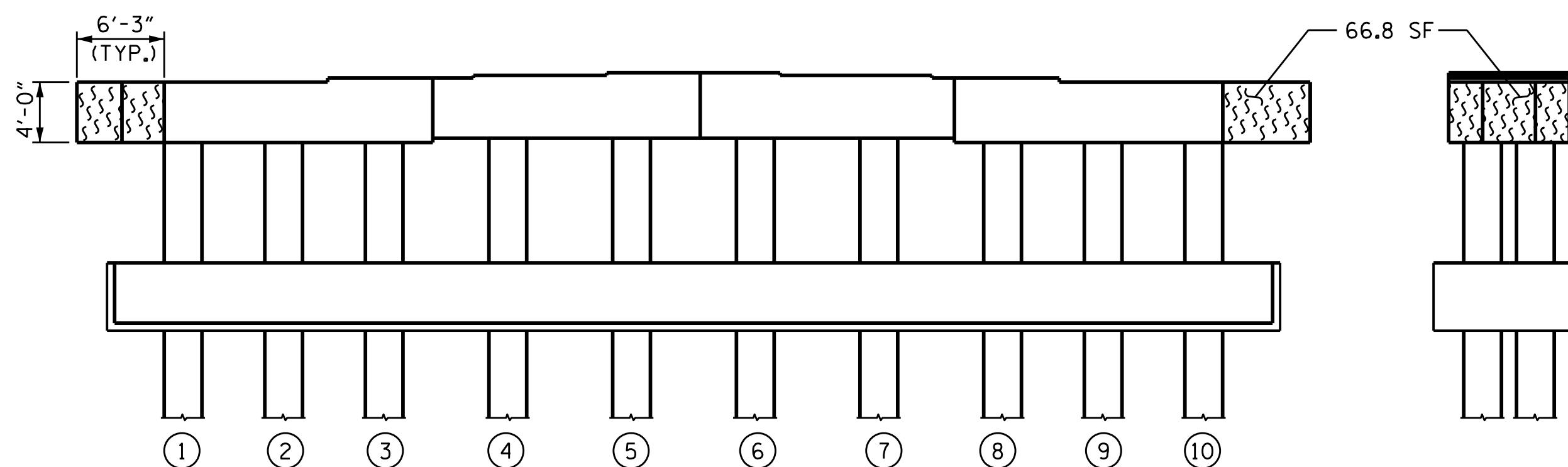
VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 2" CL. TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.



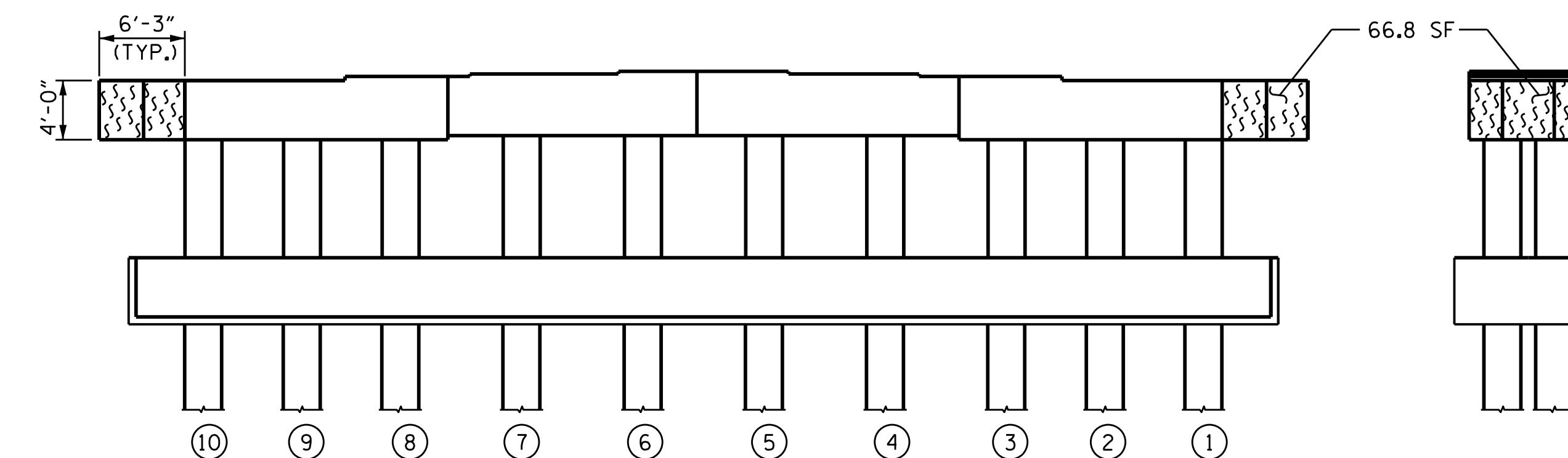
TOP VIEW OF CAP



BOTTOM VIEW OF CAP

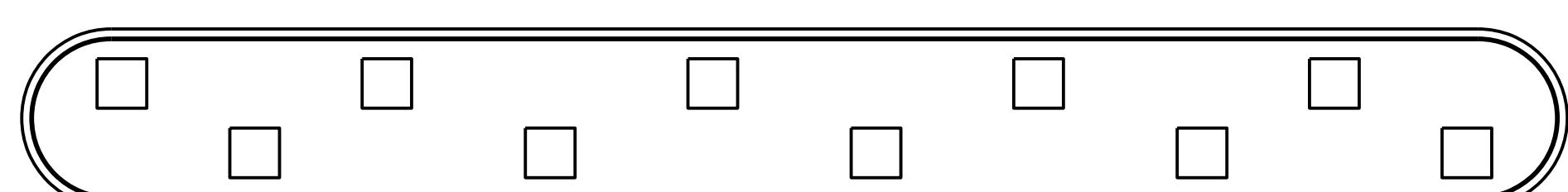


ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)

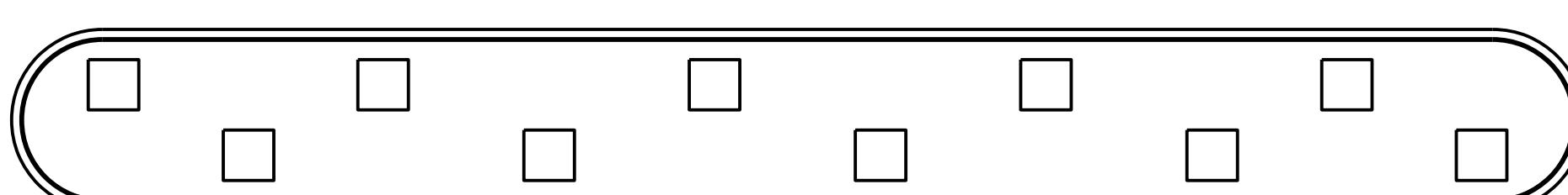


ELEVATION
(NORTH SIDE)
(LOOKING SOUTH)

WEST END



TOP VIEW OF STRUT



BOTTOM VIEW OF STRUT

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 102 OF 140

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE

BENT 102

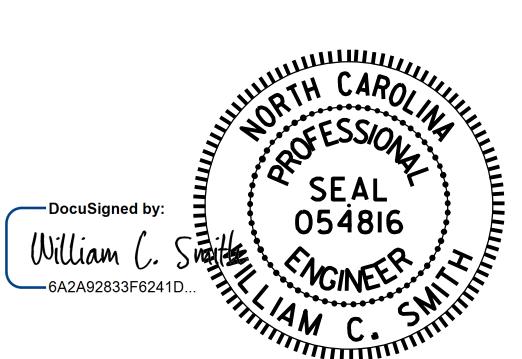
SHOTCRETE REPAIR

CONCRETE REPAIR

ERI EPOXY RESIN INJECTION

(P) PILE

EPOXY COATING



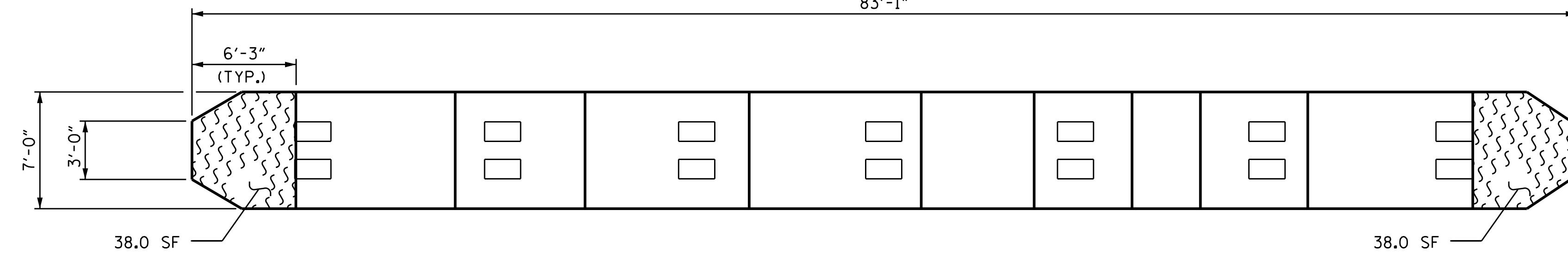
11/21/2025

DRAWN BY : S. T. SANDOR DATE : 6/27/24
CHECKED BY : W. C. SMITH DATE : 7/10/24

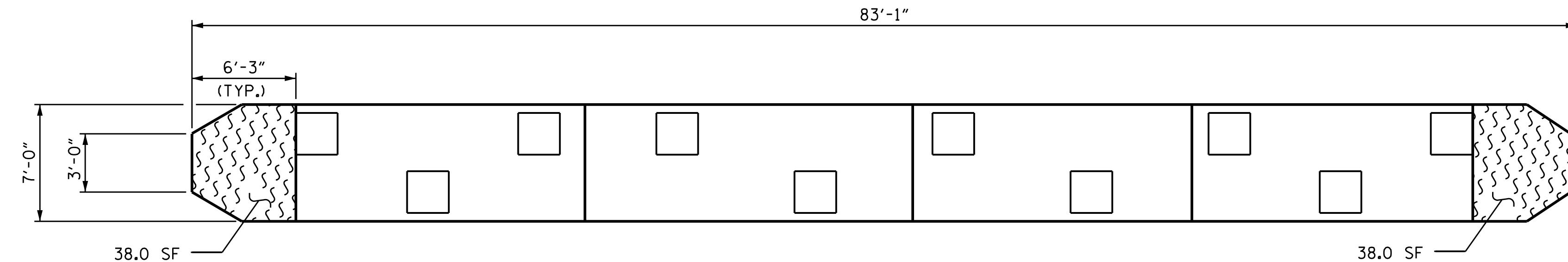
DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

REVISIONS		SHEET NO.	
NO.	BY:	DATE:	NO.
1			3
2			4

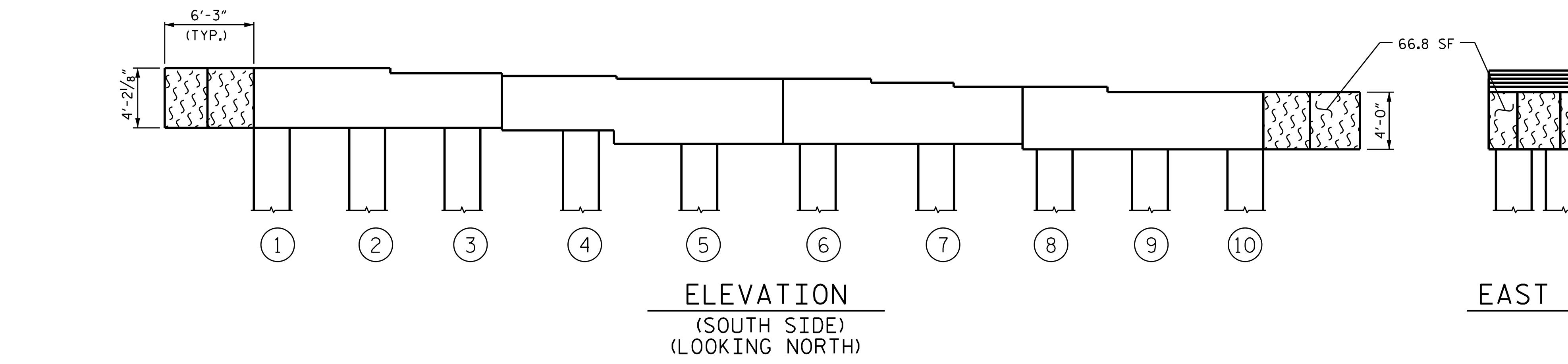
S-170
TOTAL SHEETS
217



TOP VIEW OF CAP



BOTTOM VIEW OF CAP



REPAIR QUANTITY TABLE

BENT 103	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	288.8			

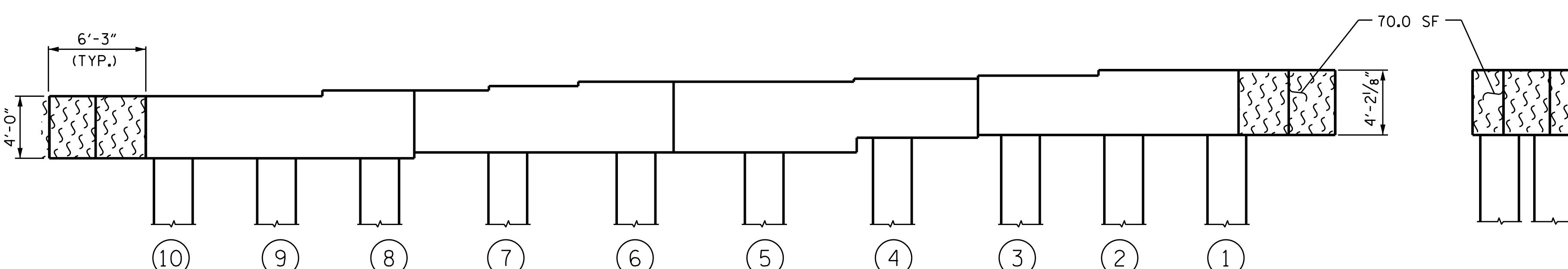
VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- EPOXY COATING

EAST END



WEST END

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 103 OF 140

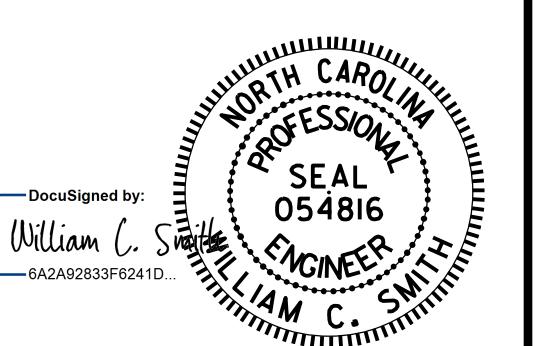
STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

SUBSTRUCTURE REPAIR

BENT 103

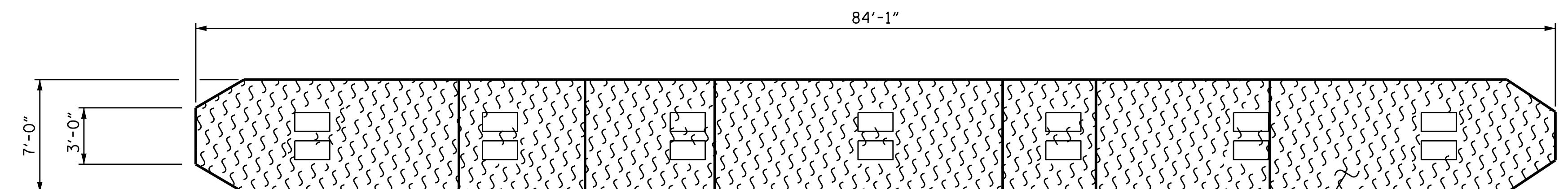


11/21/2025

REVISIONS					SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-171
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2			4			

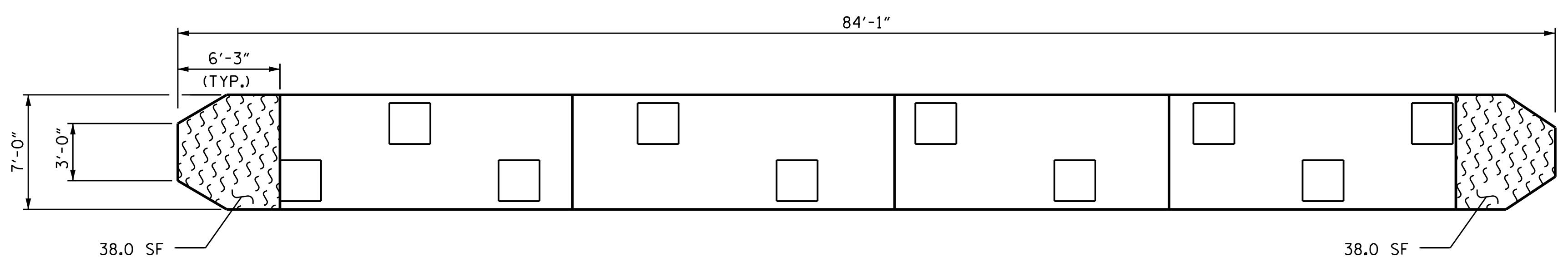
DOCUMENT NOT CONSIDERED
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DRAWN BY : S. T. SANDOR DATE : 6/27/24
CHECKED BY : W. C. SMITH DATE : 7/10/24



TOP VIEW OF CAP

SPAN 105
SPAN 104



BOTTOM VIEW OF CAP

SPAN 104
SPAN 105

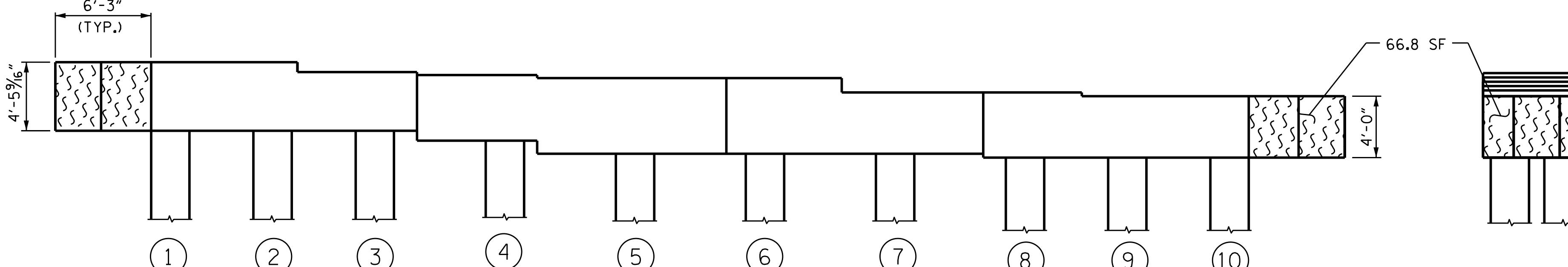
REPAIR QUANTITY TABLE

BENT 104	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	814.0			

VALUES IN THE REPAIR QUANTITY TABLE 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:

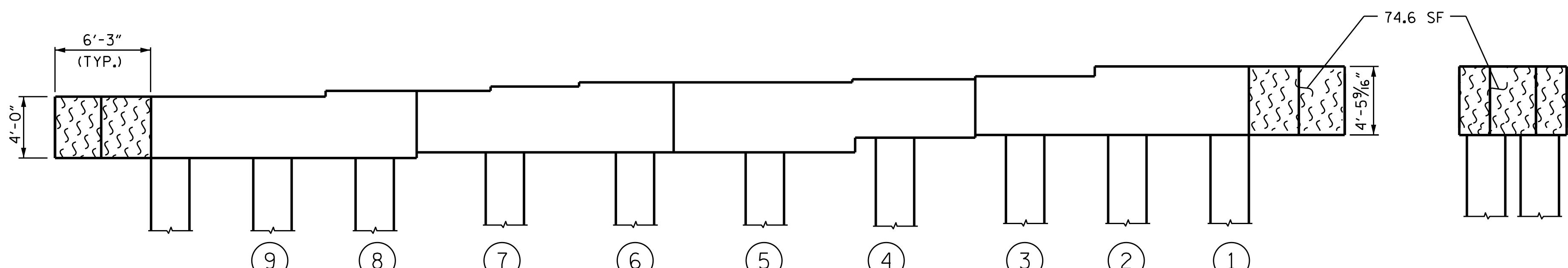
FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.



ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)

EAST END

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- EPOXY COATING



ELEVATION
(NORTH SIDE)
(LOOKING SOUTH)

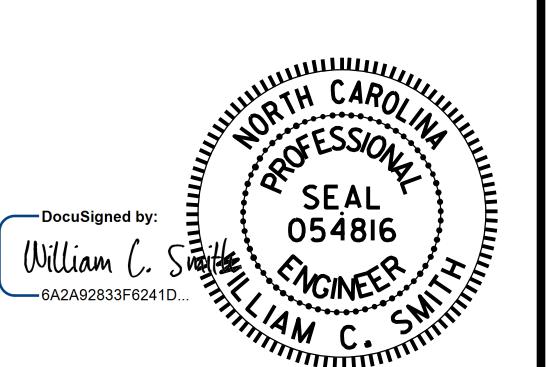
WEST END

PROJECT NO. 15BPR.137
BEAUFORT COUNTY
BRIDGE NO. 060353

SHEET 104 OF 140

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUBSTRUCTURE REPAIR

BENT 104

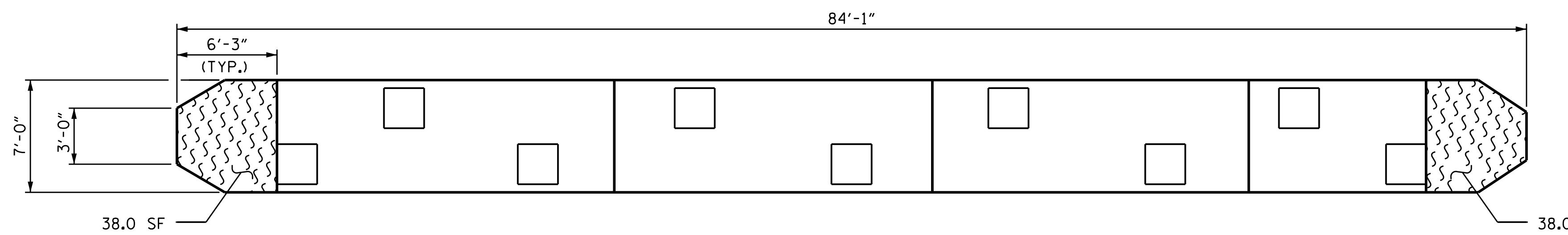
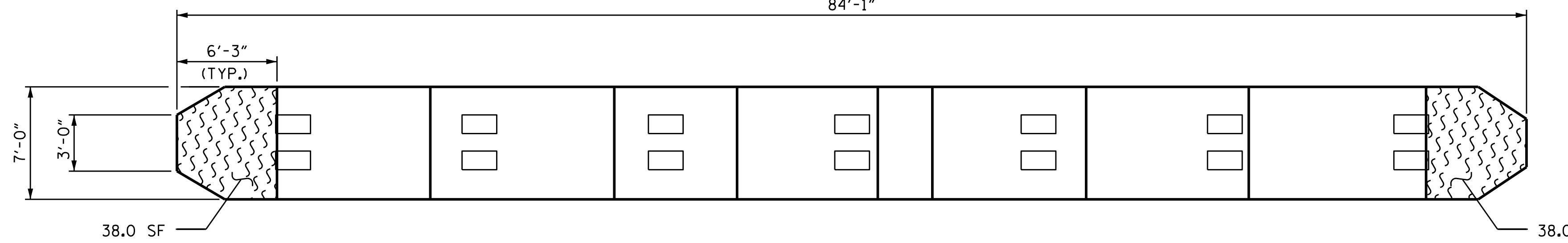


11/21/2025

REVISIONS					SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-172
1			3			
2			4			

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DRAWN BY : S. T. SANDOR DATE : 6/27/24
CHECKED BY : W. C. SMITH DATE : 7/10/24



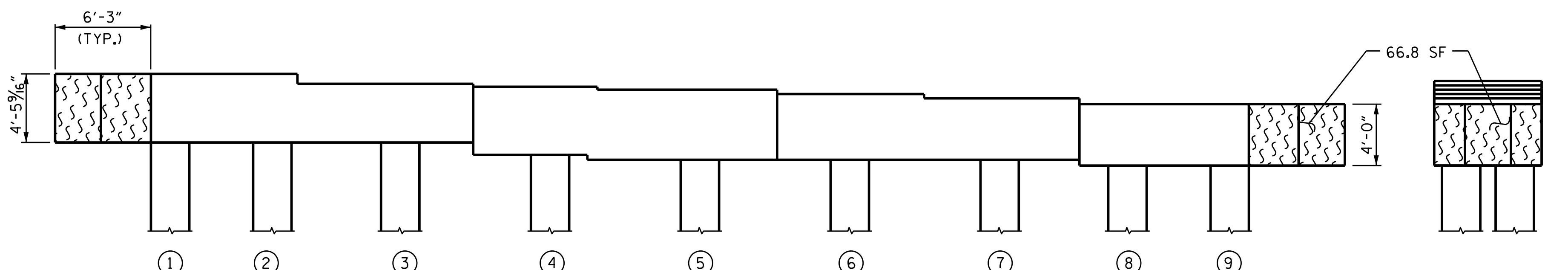
REPAIR QUANTITY TABLE

BENT 105	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	293.4			

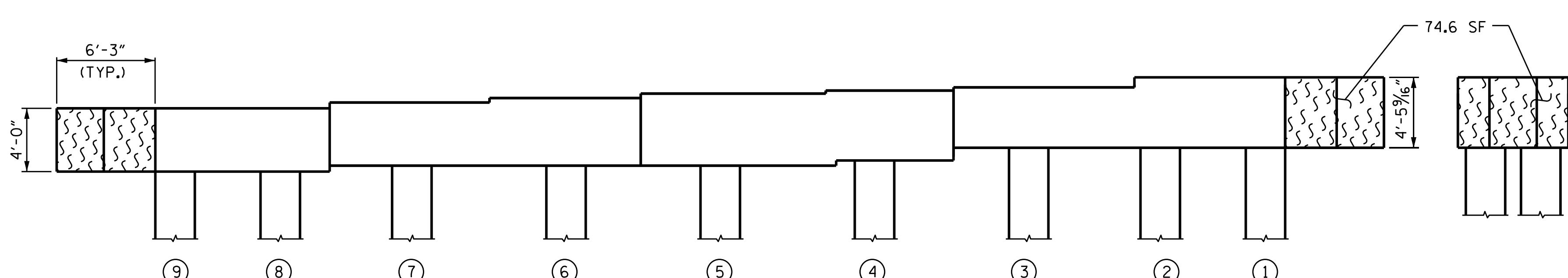
VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.



- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- EPOXY COATING



PROJECT NO. 15BPR.137
BEAUFORT COUNTY
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SHEET 105 OF 140

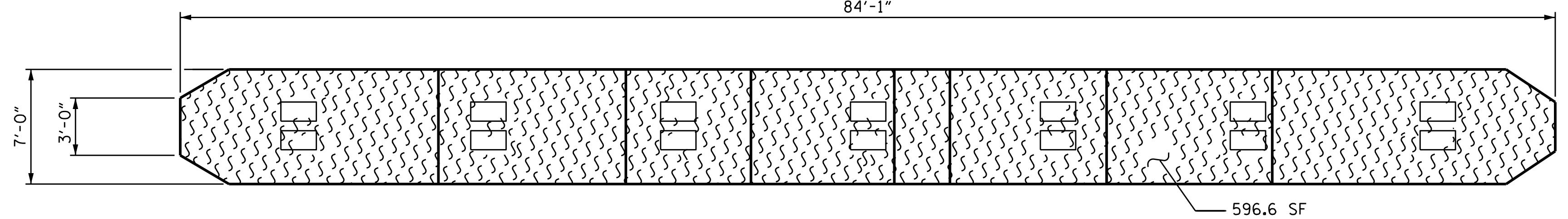
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUBSTRUCTURE REPAIR

BENT 105



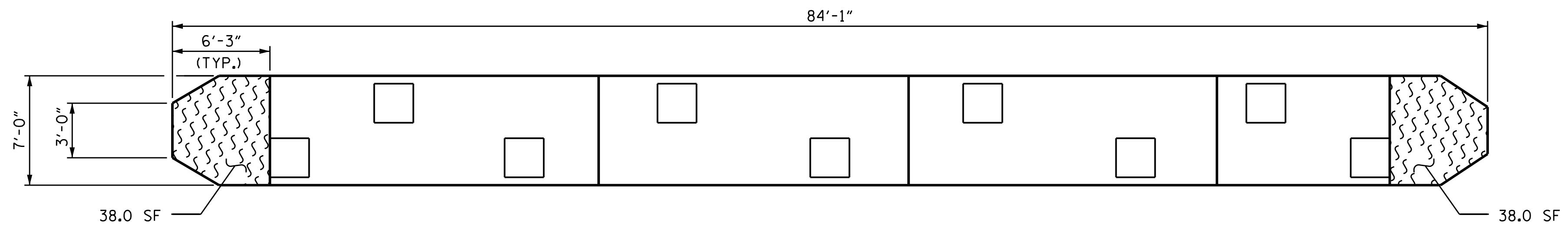
REVISIONS					SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-173
1			3			
2			4			

DRAWN BY : S. T. SANDOR DATE : 6/27/24
CHECKED BY : W. C. SMITH DATE : 7/10/24



SPAN 107
SPAN 106

TOP VIEW OF CAP



SPAN 106
SPAN 107

BOTTOM VIEW OF CAP

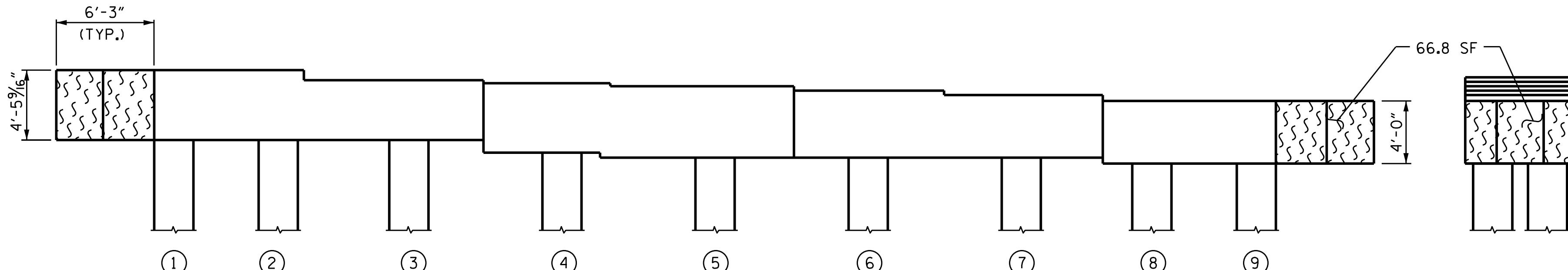
REPAIR QUANTITY TABLE

BENT 106	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	814.0			

VALUES IN THE REPAIR QUANTITY TABLE 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:

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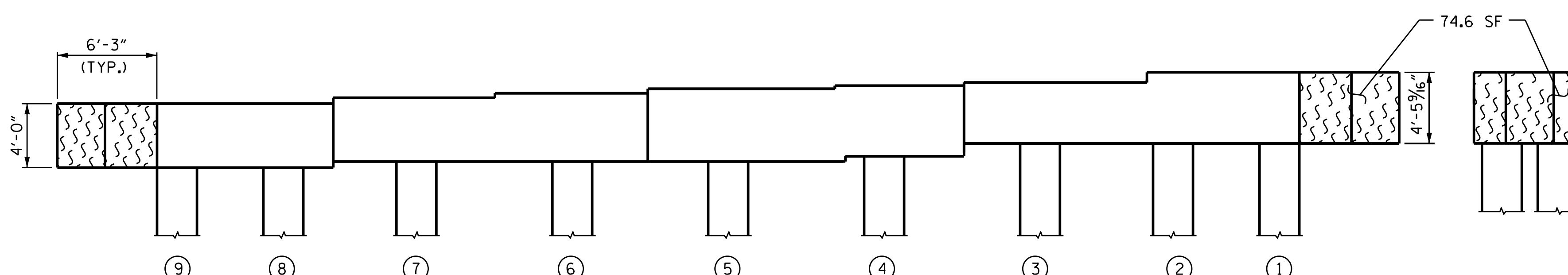


ELEVATION

(SOUTH SIDE)
(LOOKING NORTH)

EAST END

- █ SHOTCRETE REPAIR
- █ CONCRETE REPAIR
- █ ERI EPOXY RESIN INJECTION
- █ P PILE
- █ EPOXY COATING



ELEVATION

(NORTH SIDE)
(LOOKING SOUTH)

WEST END

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 106 OF 140

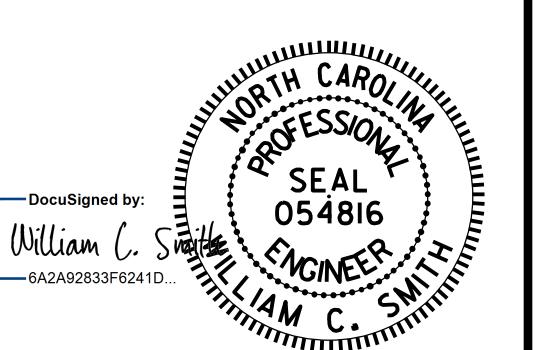
STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

SUBSTRUCTURE REPAIR

BENT 106



11/21/2025

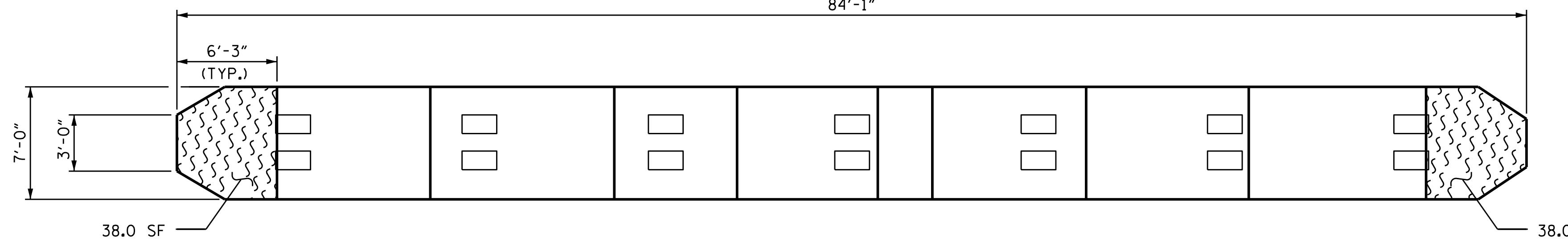
REVISIONS SHEET NO. S-174

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SIGNATURES COMPLETED

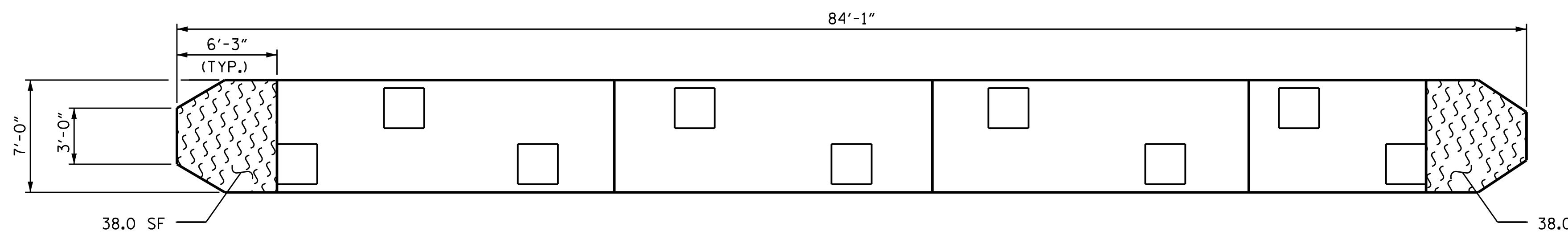
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		

TOTAL SHEETS 217

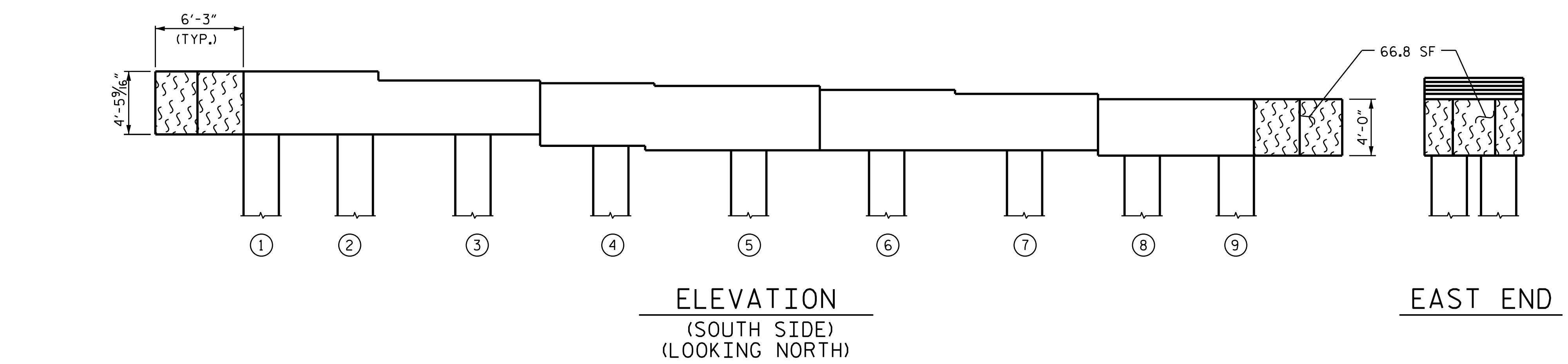
DRAWN BY : S. T. SANDOR DATE : 6/27/24
CHECKED BY : W. C. SMITH DATE : 7/10/24



TOP VIEW OF CAP

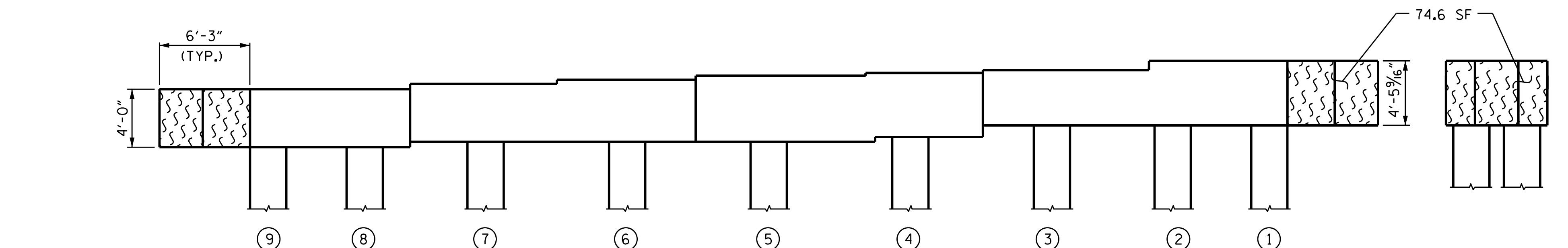


BOTTOM VIEW OF CAP



ELEVATION

(SOUTH SIDE)
(LOOKING NORTH)



ELEVATION

(NORTH SIDE)
(LOOKING SOUTH)

REPAIR QUANTITY TABLE

BENT 107	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	293.4			

VALUES IN THE REPAIR QUANTITY TABLE 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:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- EPOXY COATING

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 107 OF 140

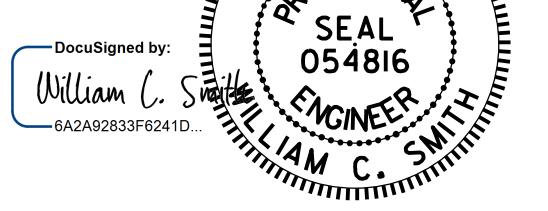
STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

SUBSTRUCTURE REPAIR

BENT 107

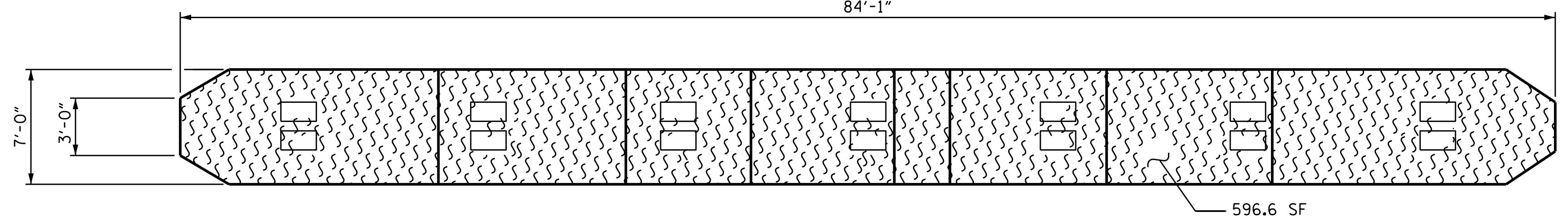


11/21/2025

REVISIONS					SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-175
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2			4			

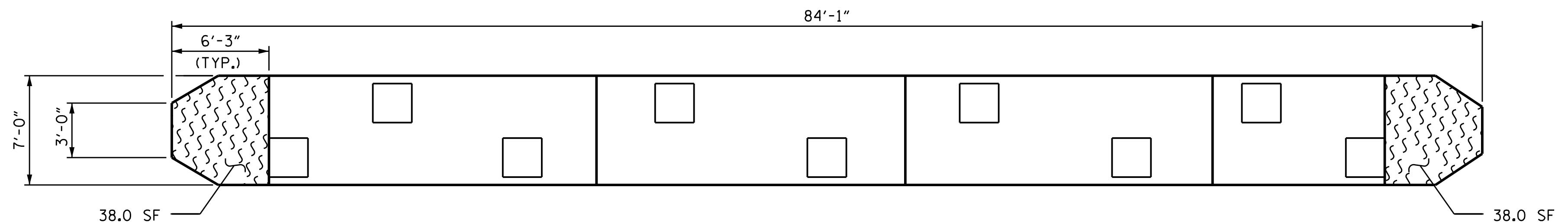
DOCUMENT NOT CONSIDERED
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SIGNATURES COMPLETED

DRAWN BY : S. T. SANDOR DATE : 6/28/24
CHECKED BY : W. C. SMITH DATE : 7/10/24



SPAN 109
SPAN 108

TOP VIEW OF CAP



SPAN 108
SPAN 109

BOTTOM VIEW OF CAP

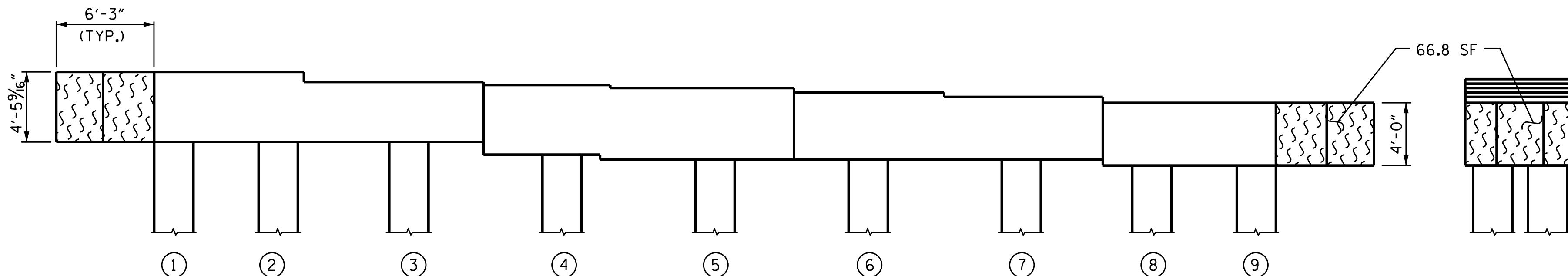
REPAIR QUANTITY TABLE

BENT 108	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	814.0			

VALUES IN THE REPAIR QUANTITY TABLE 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:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

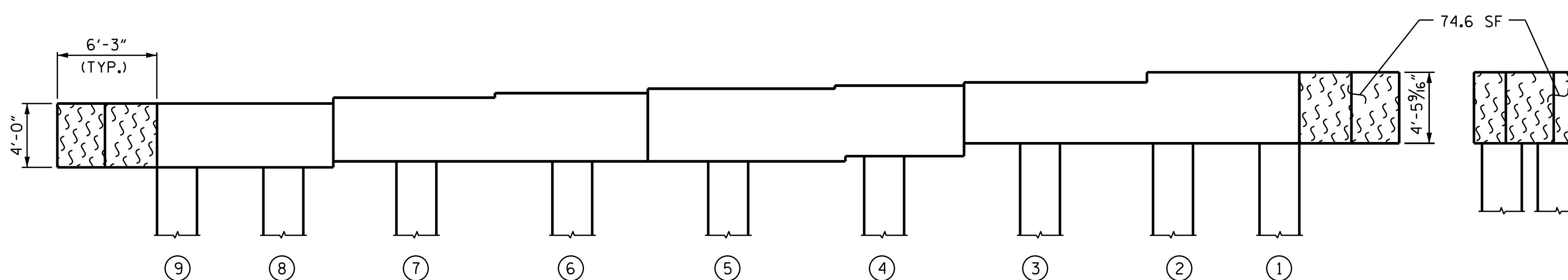


ELEVATION

(SOUTH SIDE)
(LOOKING NORTH)

EAST END

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- EPOXY COATING



ELEVATION

(NORTH SIDE)
(LOOKING SOUTH)

WEST END

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 108 OF 140

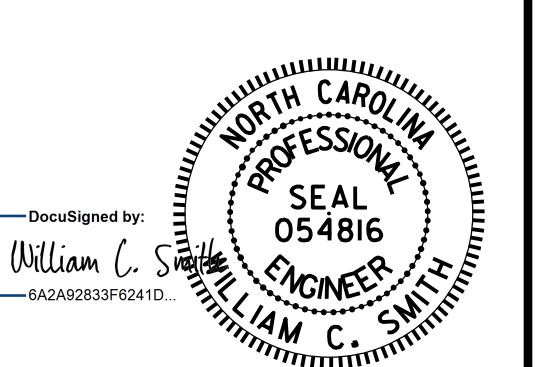
STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

SUBSTRUCTURE REPAIR

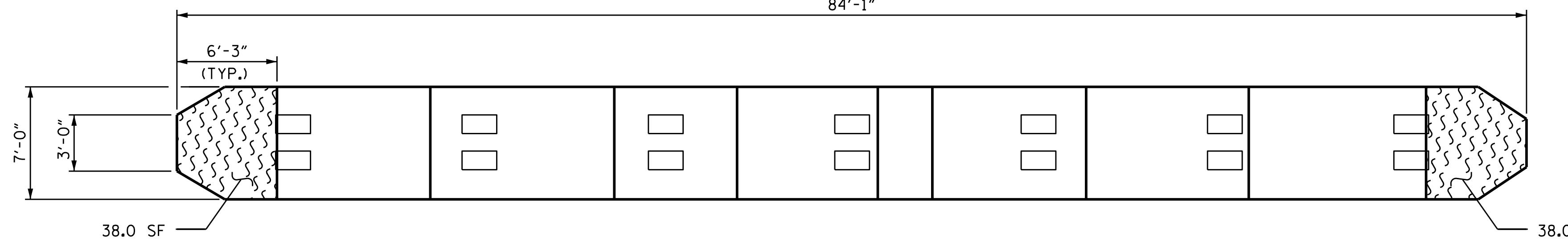
BENT 108



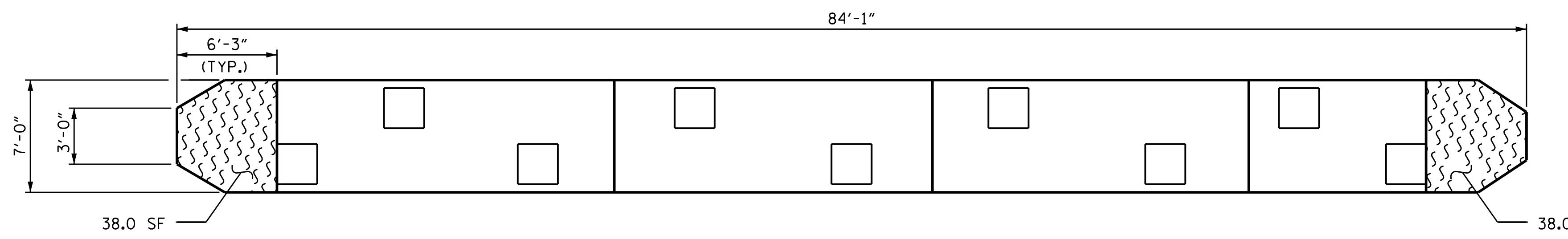
11/21/2025

REVISIONS		SHEET NO.	
DOCUMENT NOT CONSIDERED		1	3
FINAL UNLESS ALL SIGNATURES COMPLETED		2	4

DRAWN BY : S. T. SANDOR DATE : 6/28/24
CHECKED BY : W. C. SMITH DATE : 7/10/24



TOP VIEW OF CAP



BOTTOM VIEW OF CAP

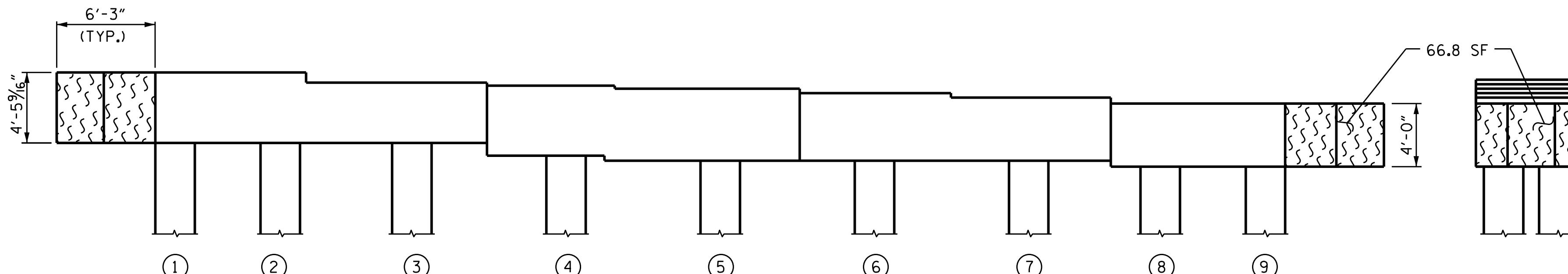
REPAIR QUANTITY TABLE

BENT 109	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	293.4			

VALUES IN THE REPAIR QUANTITY TABLE 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:

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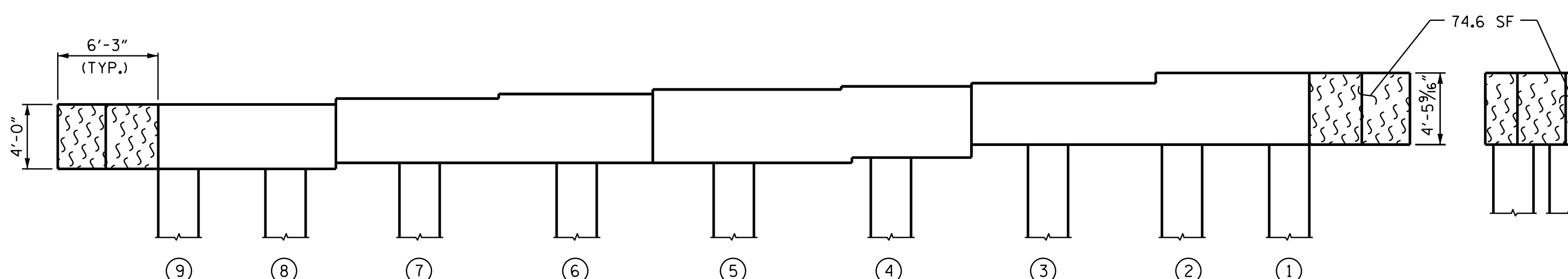


ELEVATION

(SOUTH SIDE)
(LOOKING NORTH)

EAST END

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- EPOXY COATING



ELEVATION

(NORTH SIDE)
(LOOKING SOUTH)

WEST END

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 109 OF 140

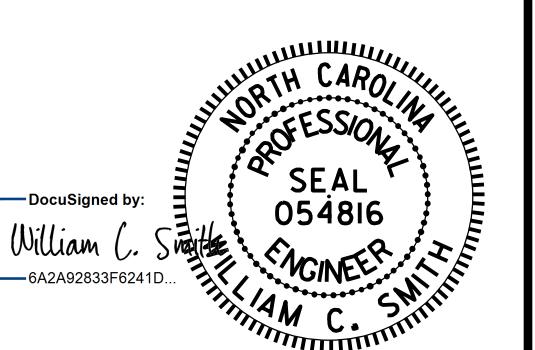
STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

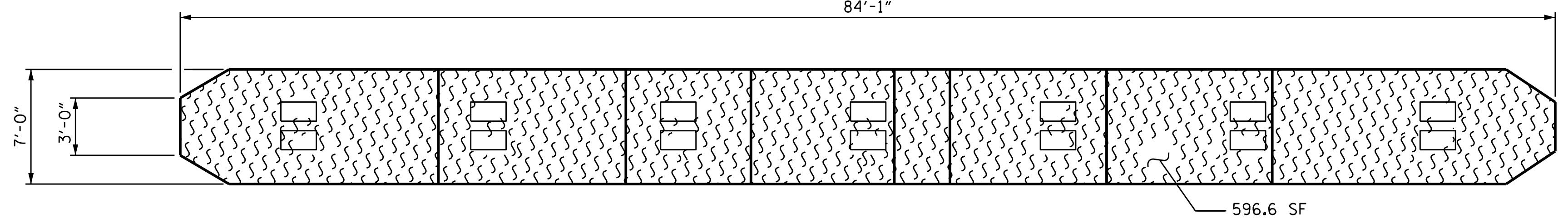
SUBSTRUCTURE REPAIR

BENT 109

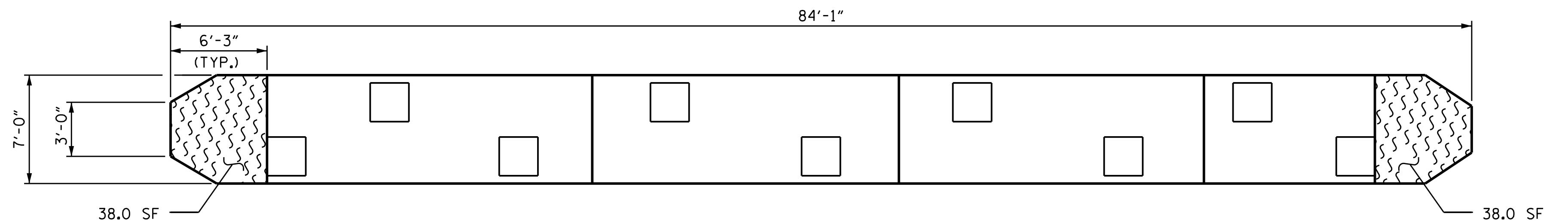


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NO.	BY:	DATE:	NO.	BY:	DATE:	S-177
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2			4			

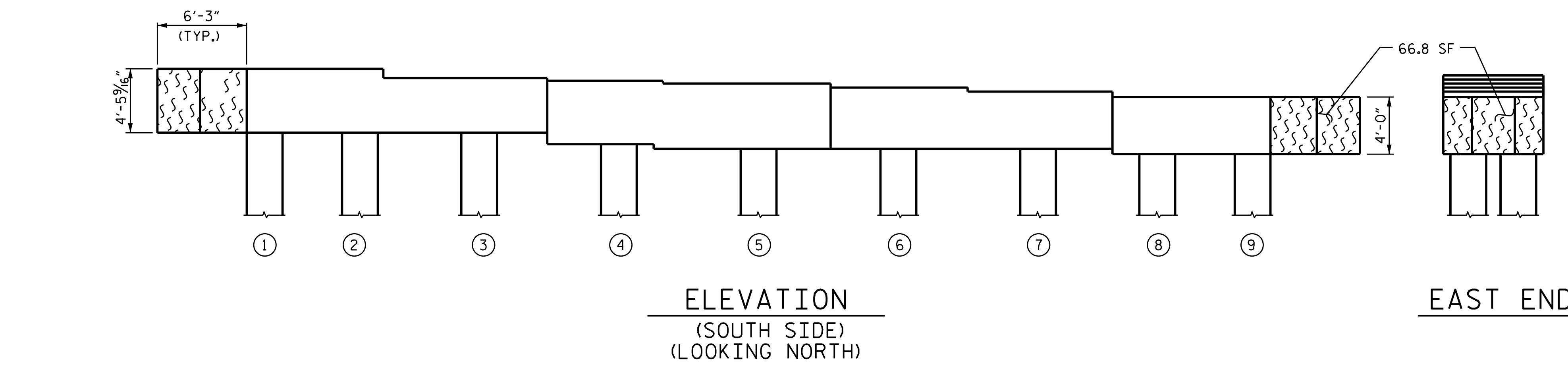
DRAWN BY : S. T. SANDOR DATE : 6/28/24
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TOP VIEW OF CAP



BOTTOM VIEW OF CAP



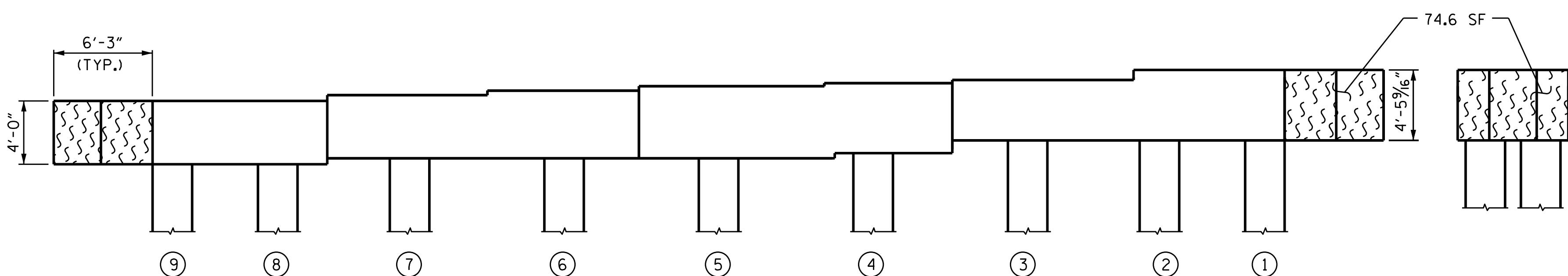
ELEVATION

(SOUTH SIDE)
(LOOKING NORTH)

NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- EPOXY COATING



ELEVATION

(NORTH SIDE)
(LOOKING SOUTH)

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 110 OF 140

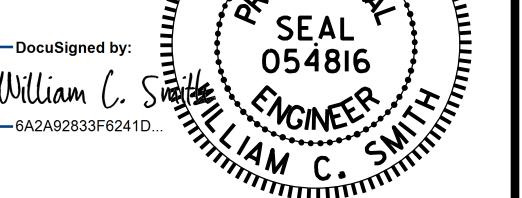
STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

SUBSTRUCTURE REPAIR

BENT 110



11/21/2025

REVISIONS

SHEET NO.

S-178

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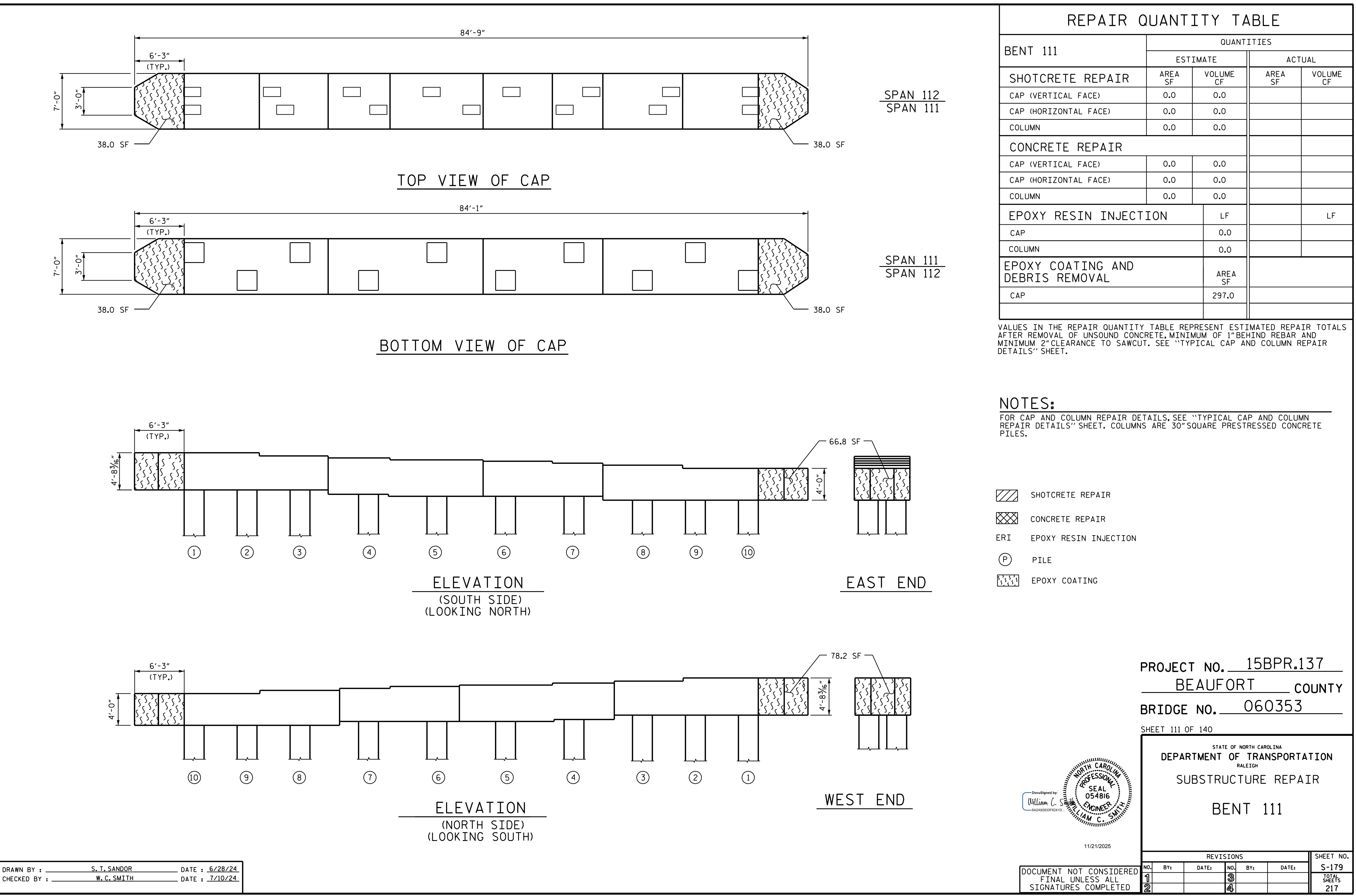
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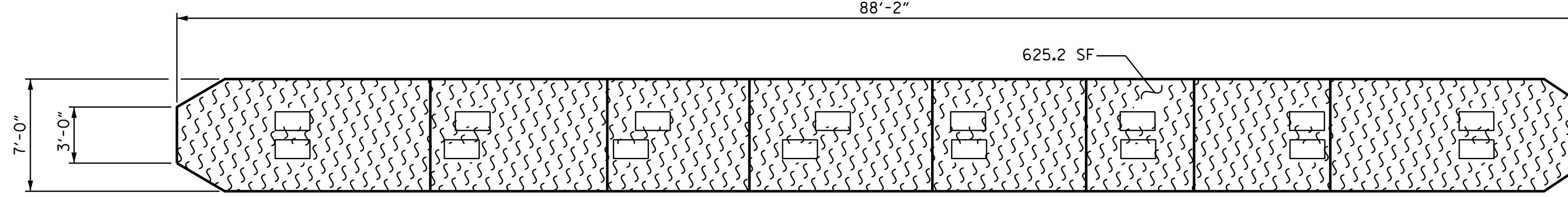
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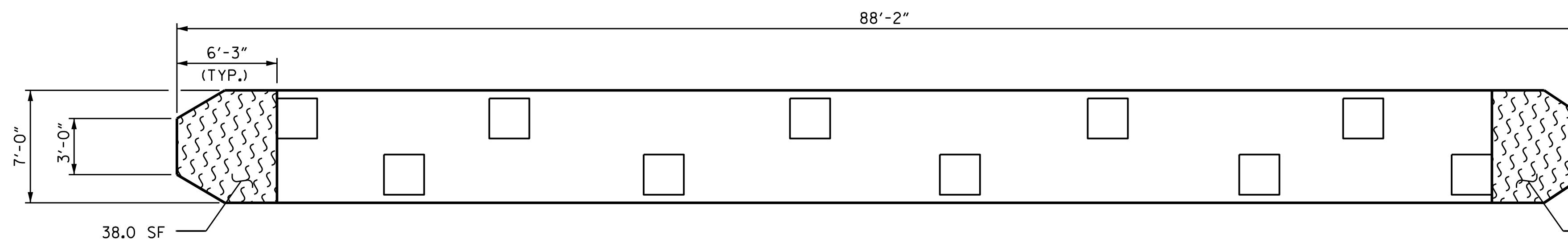
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TOTAL SHEETS
217





TOP VIEW OF CAP



BOTTOM VIEW OF CAP

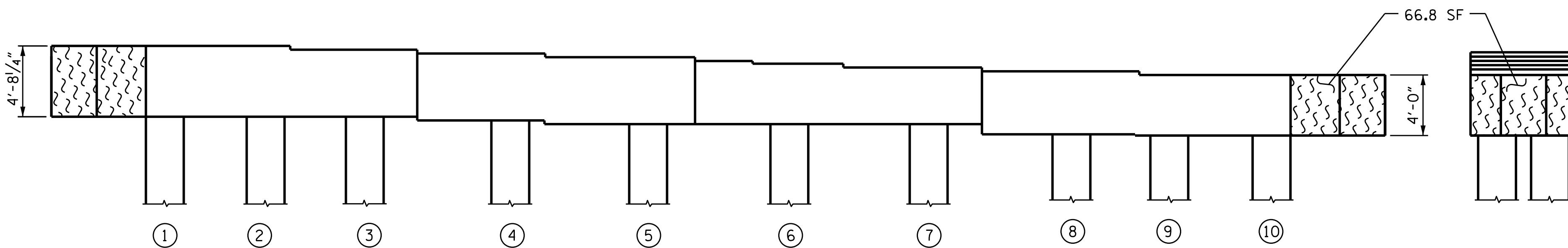
REPAIR QUANTITY TABLE

BENT 112	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	846.3			

VALUES IN THE REPAIR QUANTITY TABLE 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:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

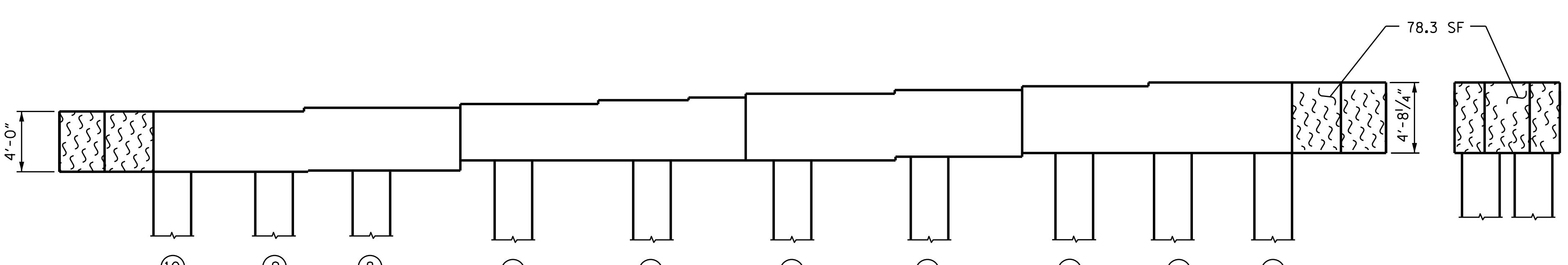


ELEVATION

(SOUTH SIDE)
(LOOKING NORTH)

EAST END

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- EPOXY COATING



ELEVATION

(NORTH SIDE)
(LOOKING SOUTH)

WEST END

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

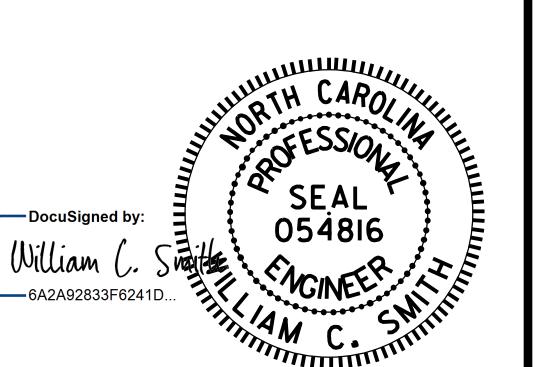
BRIDGE NO. 060353

SHEET 112 OF 140

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE REPAIR

BENT 112

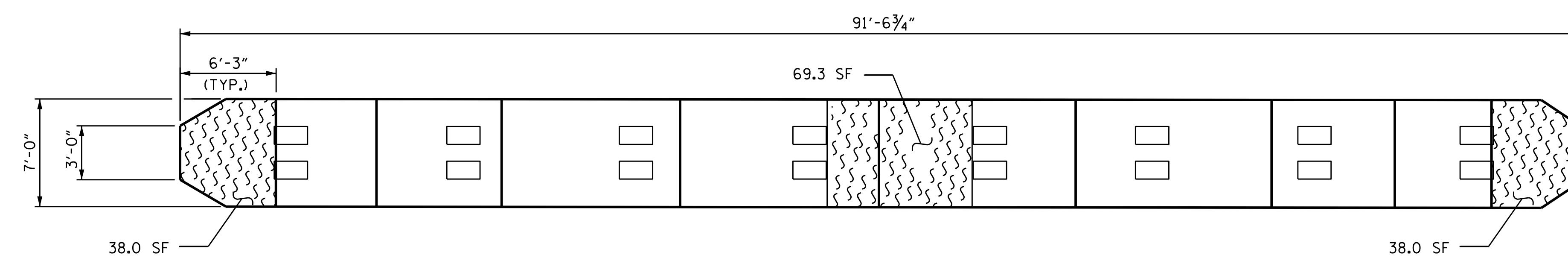


11/21/2025

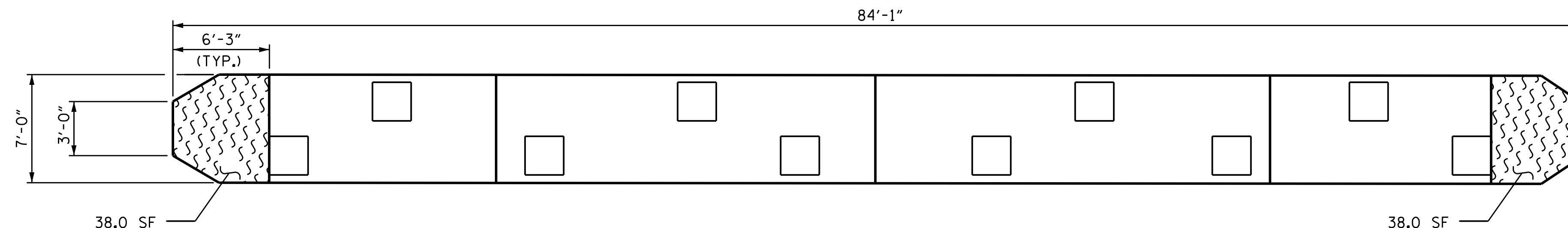
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NO.	BY:	DATE:	NO.	BY:	DATE:	S-180
1			3			
2			4			

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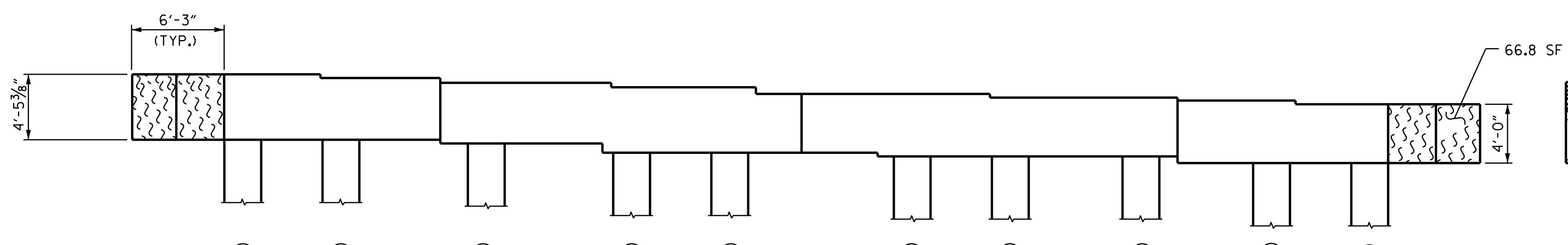
DRAWN BY : S. T. SANDOR DATE : 6/28/24
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TOP VIEW OF CAP



BOTTOM VIEW OF CAP

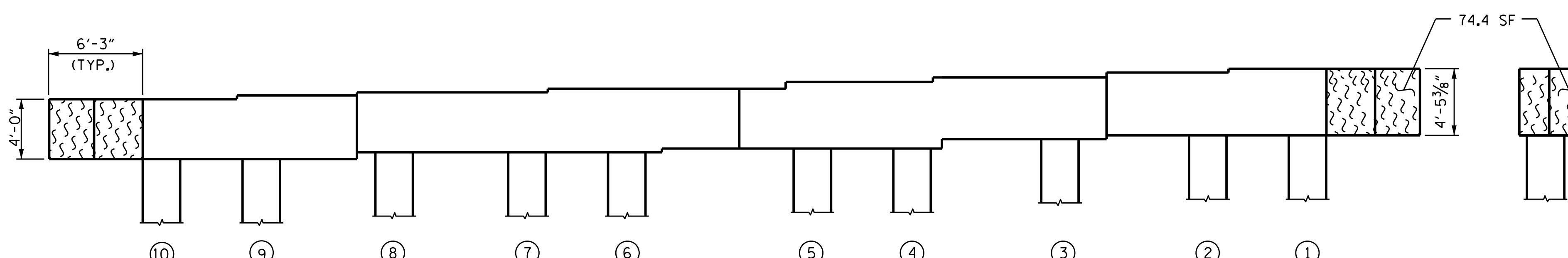


ELEVATION

(SOUTH SIDE)
(LOOKING NORTH)

EAST END

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- EPOXY COATING



ELEVATION

(NORTH SIDE)
(LOOKING SOUTH)

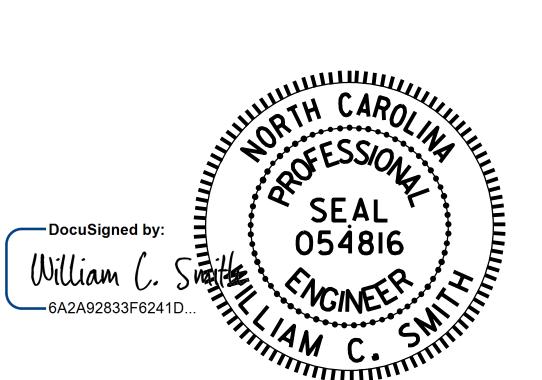
WEST END

PROJECT NO. 15BPR.137
BEAUFORT COUNTY
BRIDGE NO. 060353

SHEET 113 OF 140

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUBSTRUCTURE REPAIR

BENT 113



REVISIONS					SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-181
1			3			
2			4			

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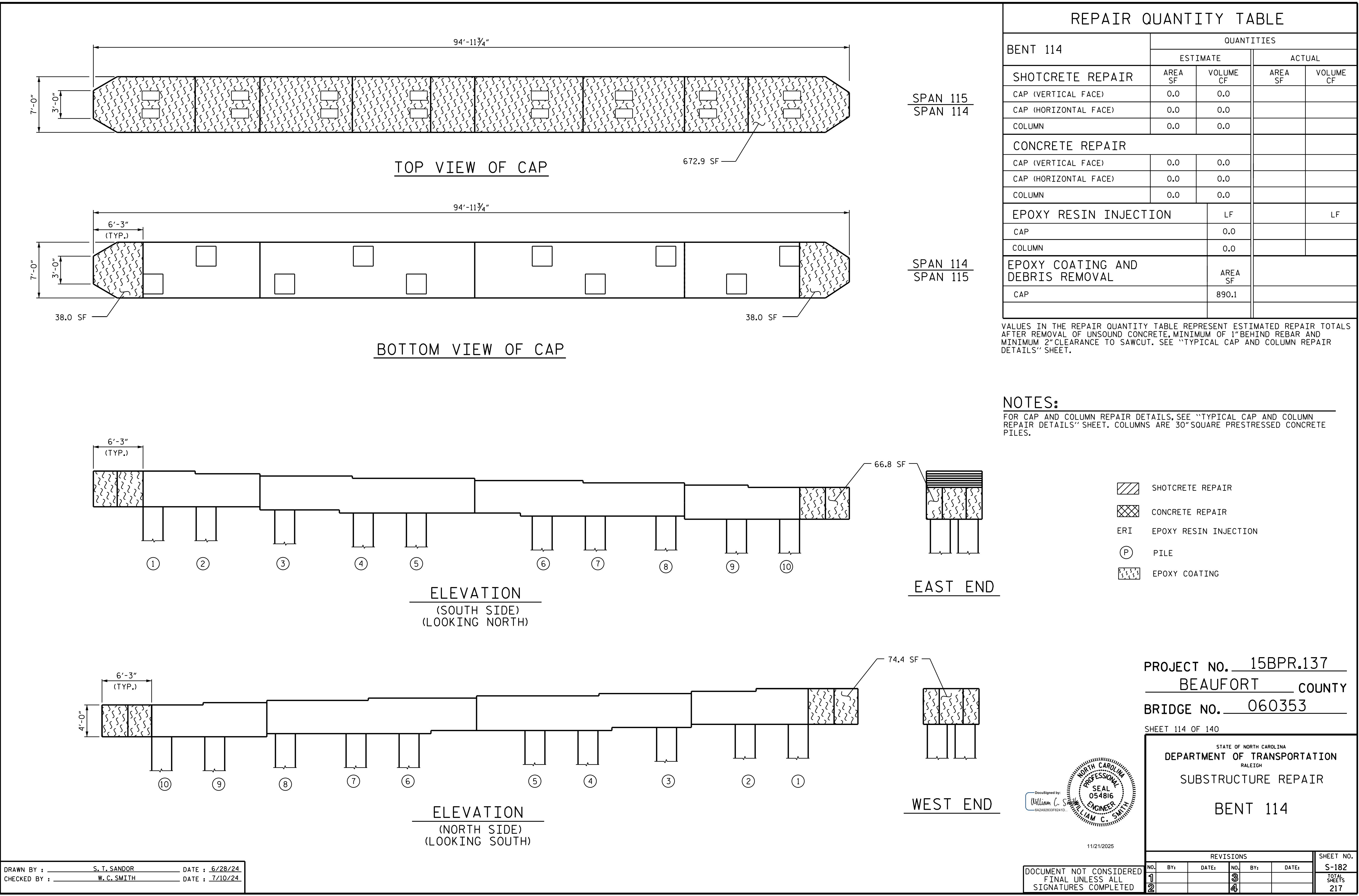
REPAIR QUANTITY TABLE

BENT 113	QUANTITIES		AREA SF	VOLUME CF
	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		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP	362.5			

VALUES IN THE REPAIR QUANTITY TABLE 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:

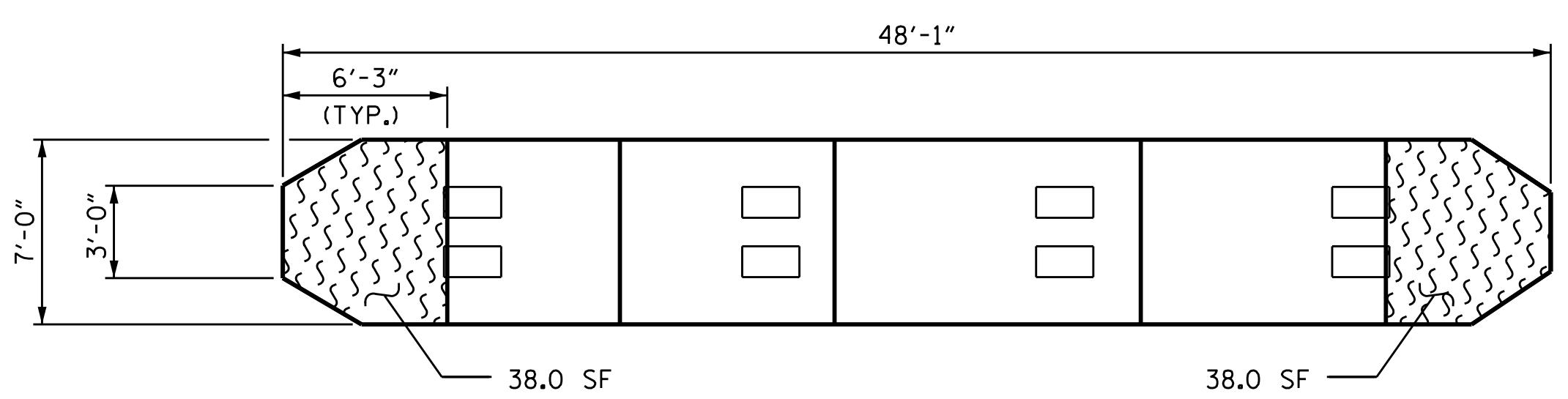
FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.



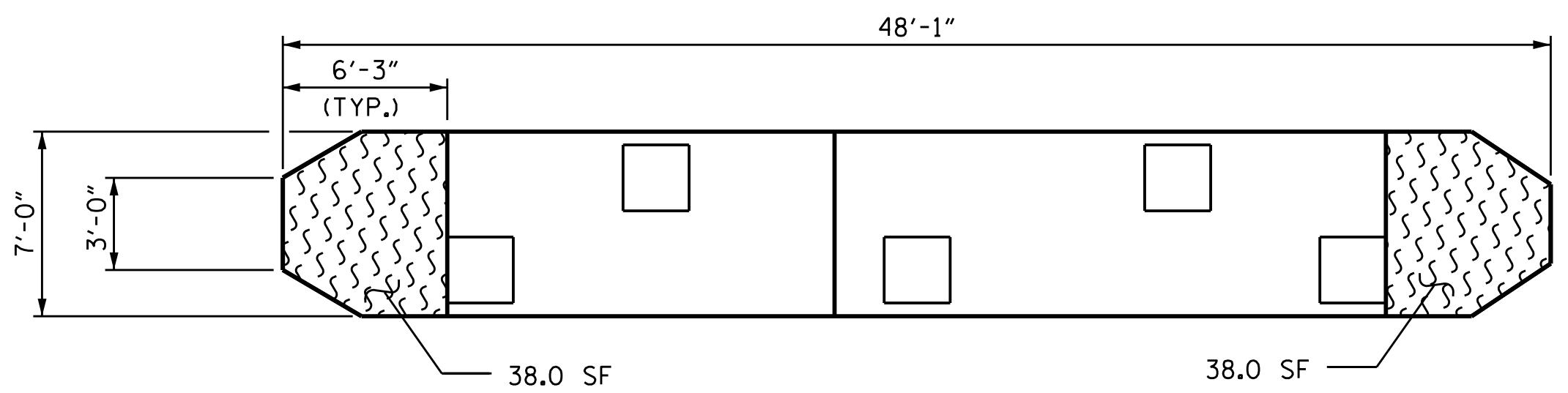
REPAIR QUANTITY TABLE

BENT 115 (SOUTHBOUND)	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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	0.6	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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	293.2			

VALUES IN THE REPAIR QUANTITY TABLE 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.



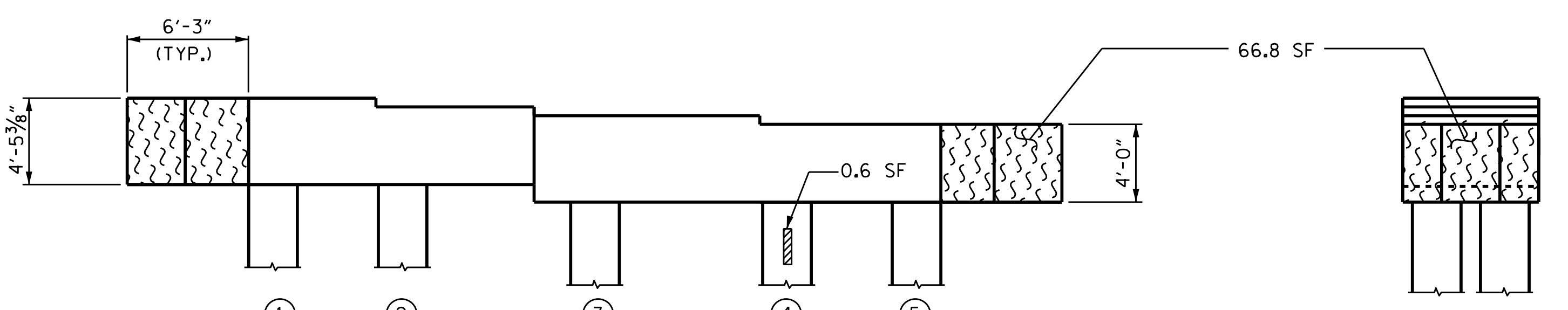
SPAN 116
(SOUTHBOUND)
SPAN 115
(SOUTHBOUND)



SPAN 115
(SOUTHBOUND)
SPAN 116
(SOUTHBOUND)

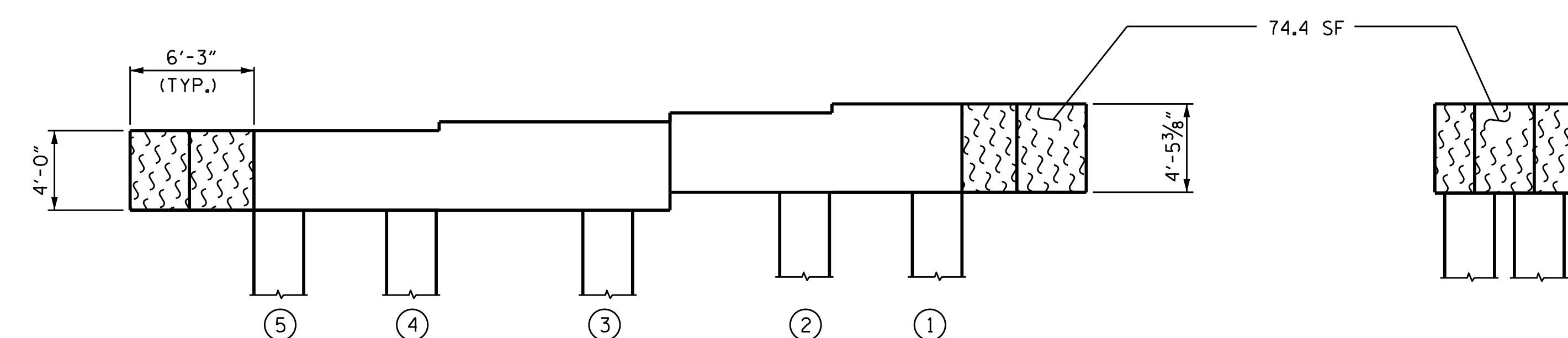
TOP VIEW OF CAP

BOTTOM VIEW OF CAP



ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)

EAST END



ELEVATION
(NORTH SIDE)
(LOOKING SOUTH)

WEST END

NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

█ SHOTCRETE REPAIR

█ CONCRETE REPAIR

ERI EPOXY RESIN INJECTION

(P) PILE

█ EPOXY COATING

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

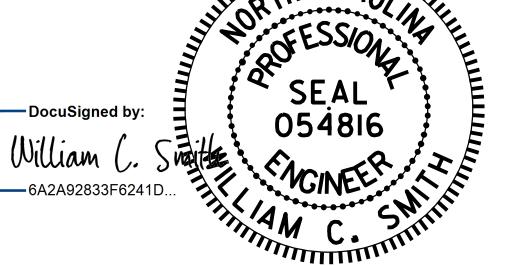
BRIDGE NO. 060353

SHEET 115 OF 140

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE

BENT 115
(SOUTHBOUND)



11/21/2025

REVISIONS					SHEET NO.	
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1			3			
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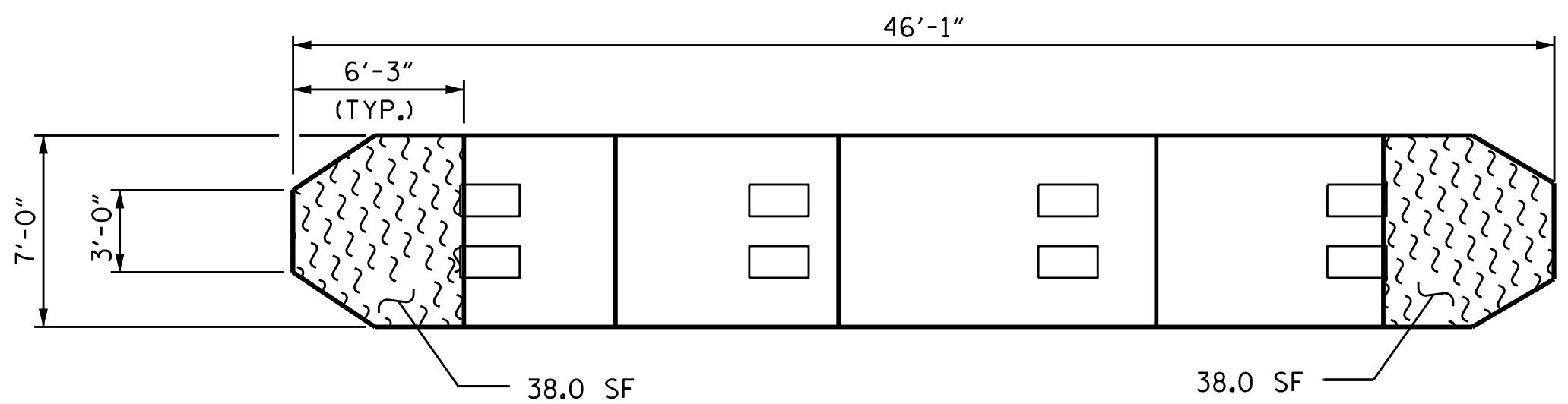
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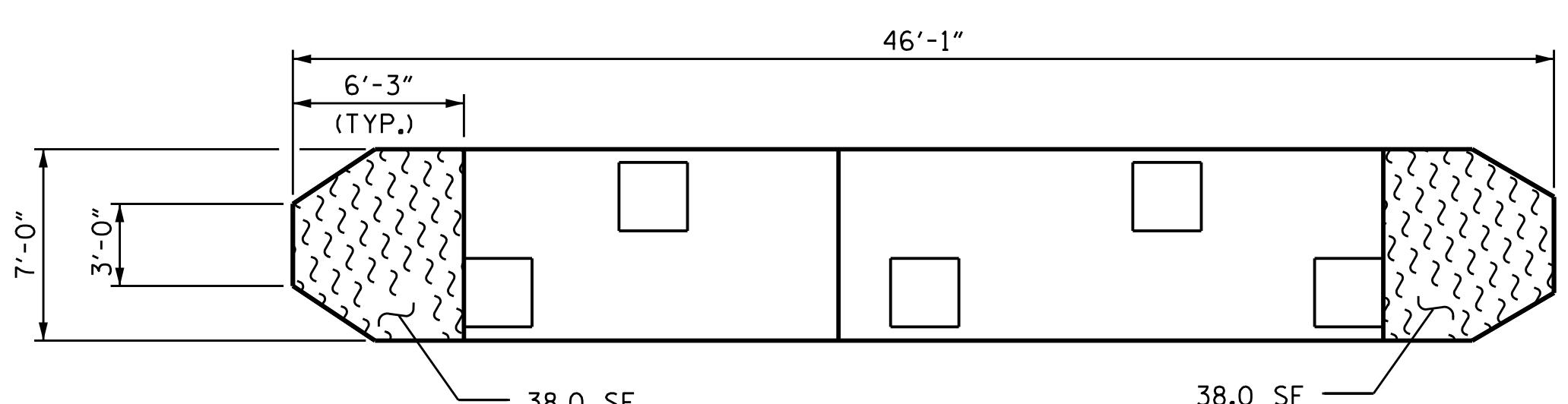
REPAIR QUANTITY TABLE

BENT 115 (NORTHBOUND)	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	292.8			

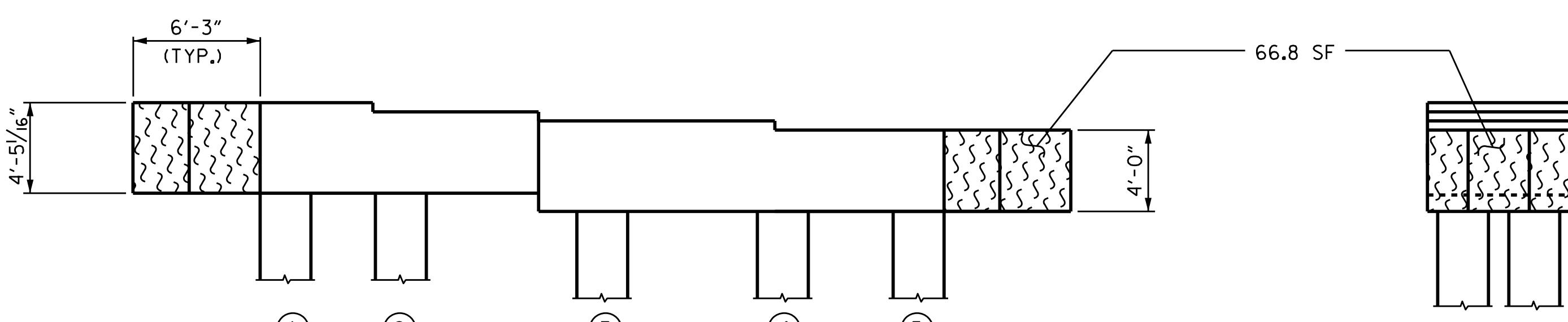
VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.



SPAN 116
(NORTHBOUND)
SPAN 115
(NORTHBOUND)



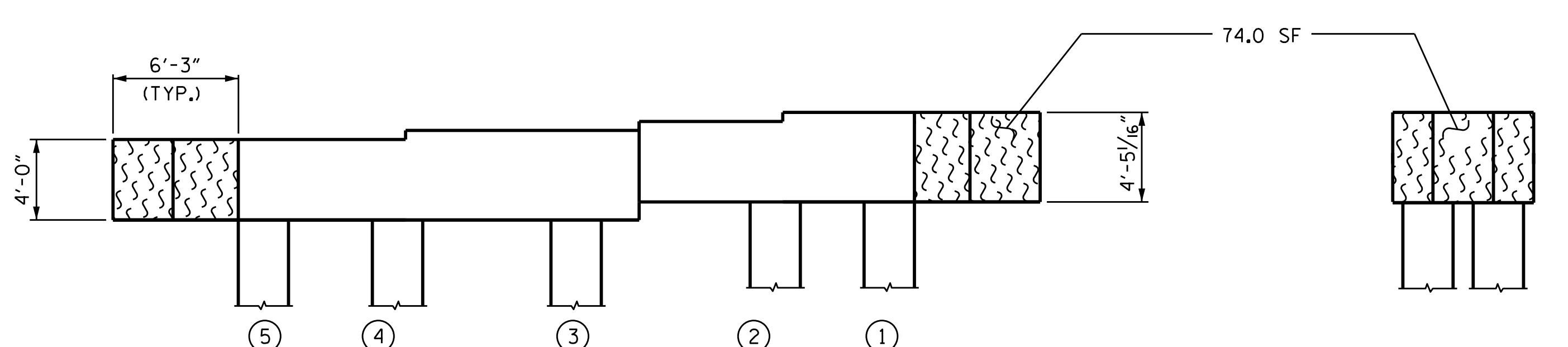
SPAN 115
(NORTHBOUND)
SPAN 116
(NORTHBOUND)



NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- EPOXY COATING



EAST END

PROJECT NO. 15BPR.137
BEAUFORT COUNTY
BRIDGE NO. 060353

SHEET 116 OF 140

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUBSTRUCTURE REPAIR

BENT 115
(NORTHBOUND)



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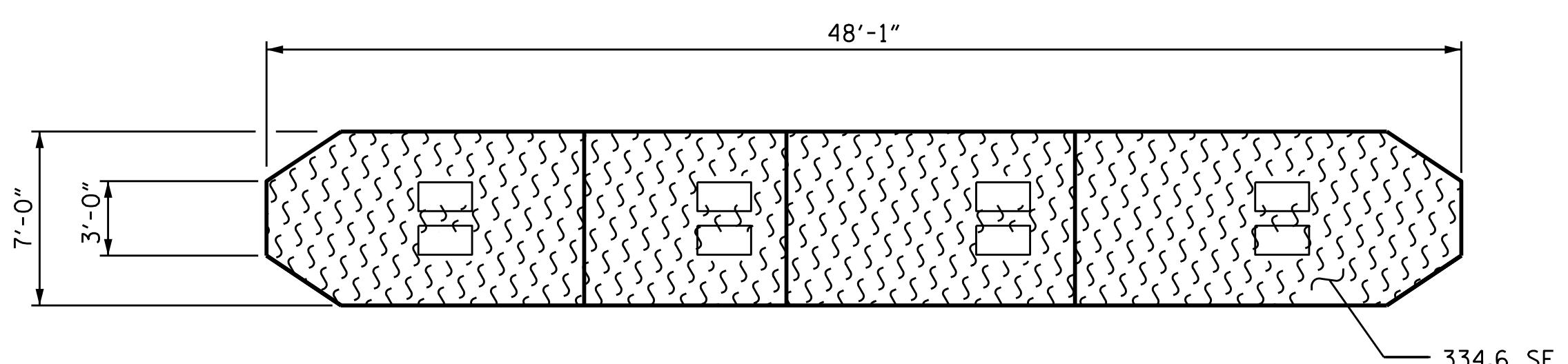
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2			4

TOTAL SHEETS
217

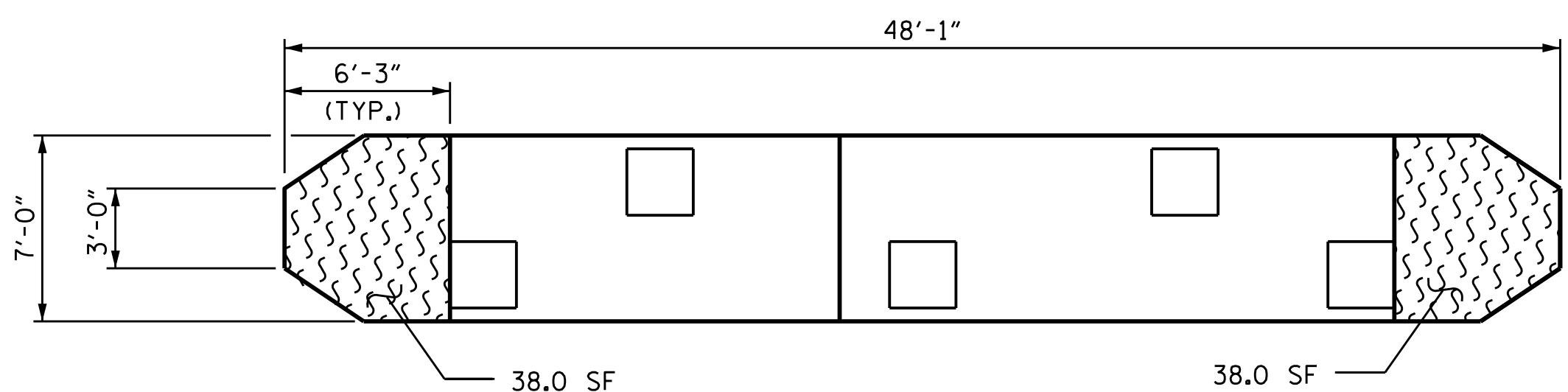
REPAIR QUANTITY TABLE

BENT 116 (SOUTHBOUND)	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	3.5	1.8		
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	551.8			

VALUES IN THE REPAIR QUANTITY TABLE 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.

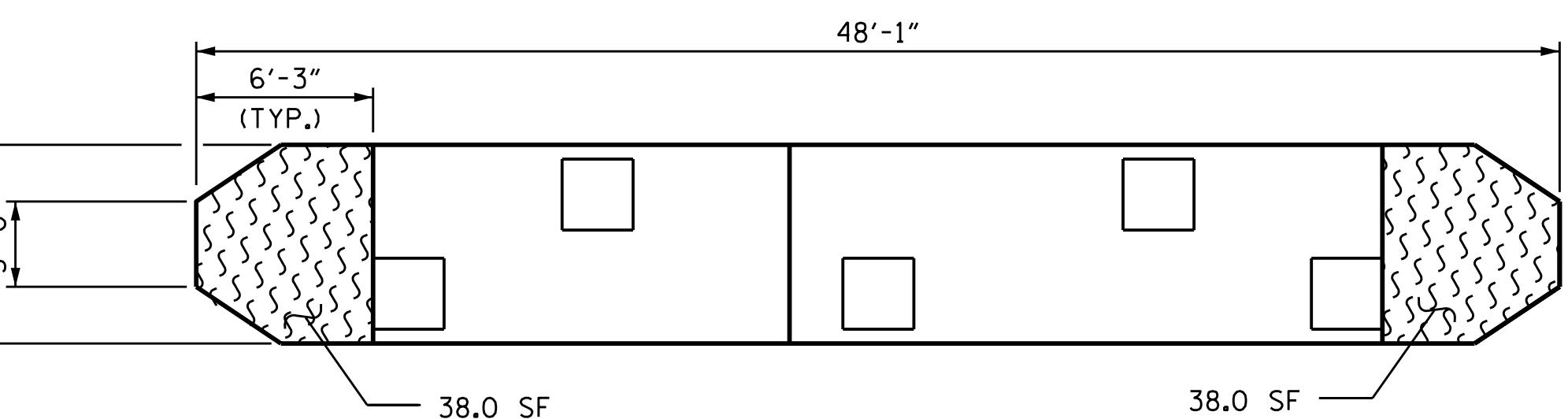


TOP VIEW OF CAP



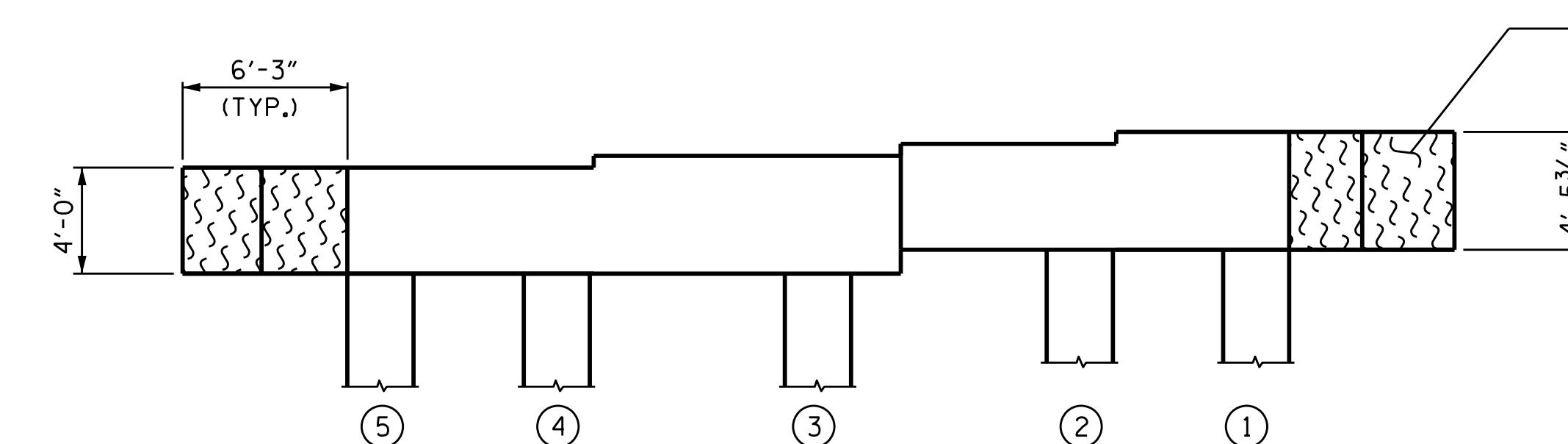
BOTTOM VIEW OF CAP

SPAN 117
(SOUTHBOUND)
SPAN 116
(SOUTHBOUND)



ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)

EAST END



ELEVATION
(NORTH SIDE)
(LOOKING SOUTH)

WEST END

NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

█ SHOTCRETE REPAIR

█ CONCRETE REPAIR

█ ERI EPOXY RESIN INJECTION

█ P PILE

█ EPOXY COATING

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 117 OF 140

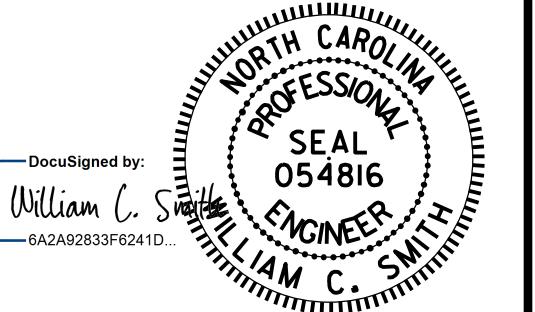
STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

SUBSTRUCTURE

BENT 116
(SOUTHBOUND)



11/21/2025

REVISIONS					SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-185
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2			4			

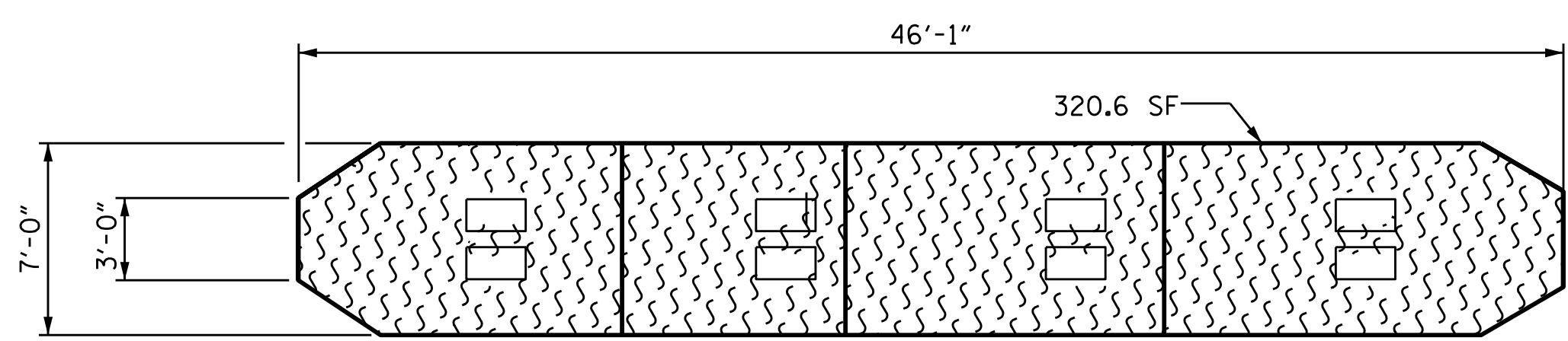
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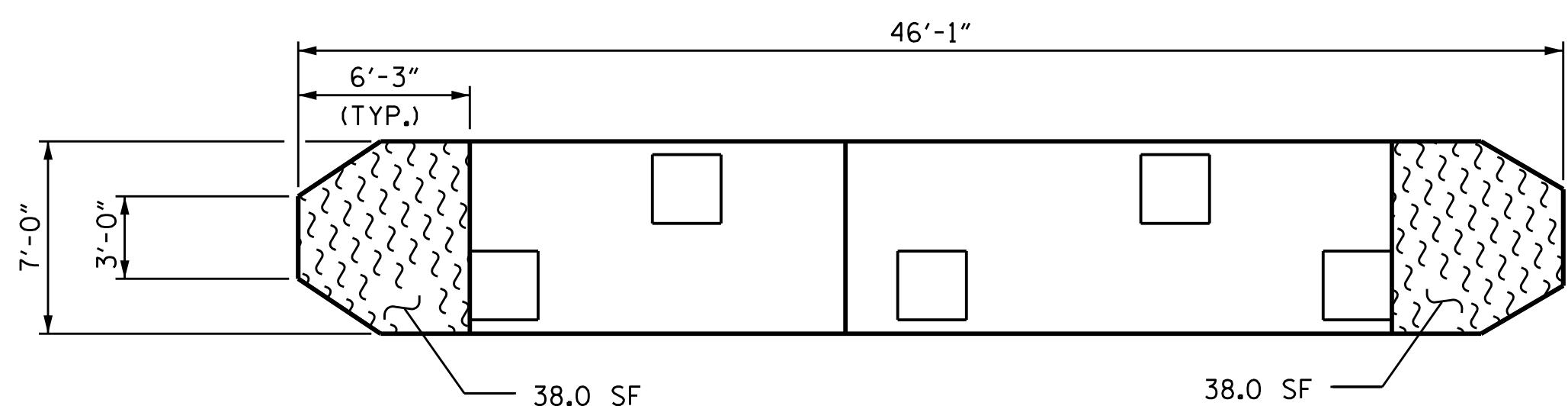
REPAIR QUANTITY TABLE

BENT 116 (NORTHBOUND)	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	537.4			

VALUES IN THE REPAIR QUANTITY TABLE 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.

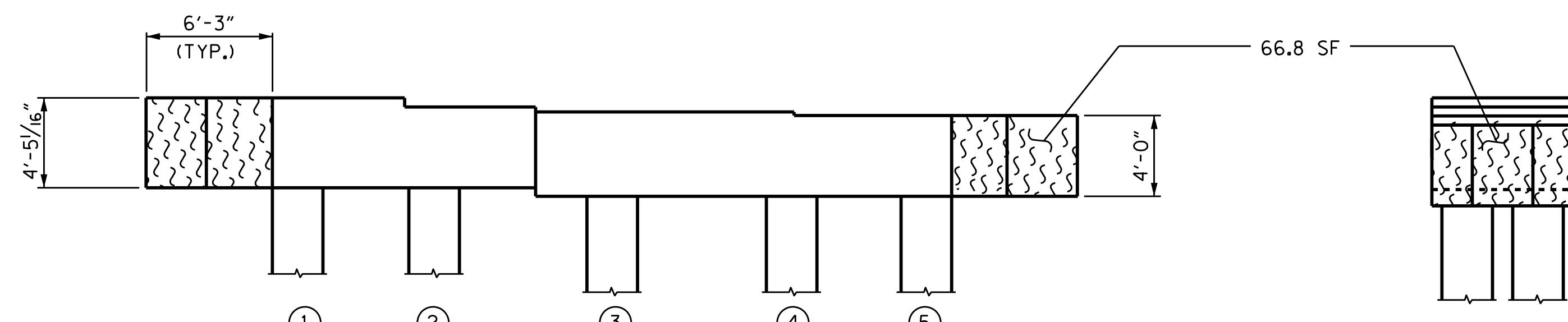


TOP VIEW OF CAP



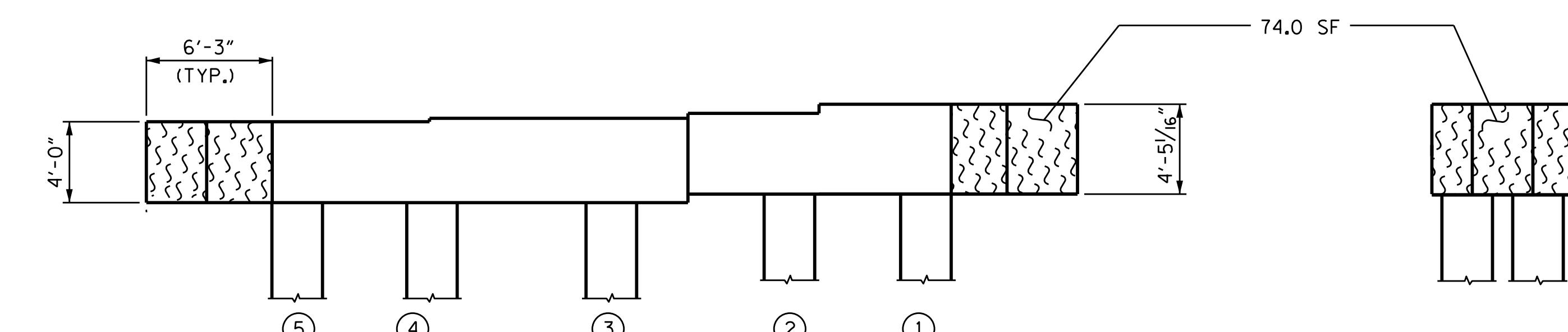
BOTTOM VIEW OF CAP

SPAN 117
(NORTHBOUND)
SPAN 116
(NORTHBOUND)



ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)

EAST END



ELEVATION
(NORTH SIDE)
(LOOKING SOUTH)

WEST END

NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- EPOXY COATING

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 118 OF 140

STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

SUBSTRUCTURE REPAIR

BENT 116
(NORTHBOUND)



11/21/2025

REVISIONS					SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-186
1			3			
2			4			

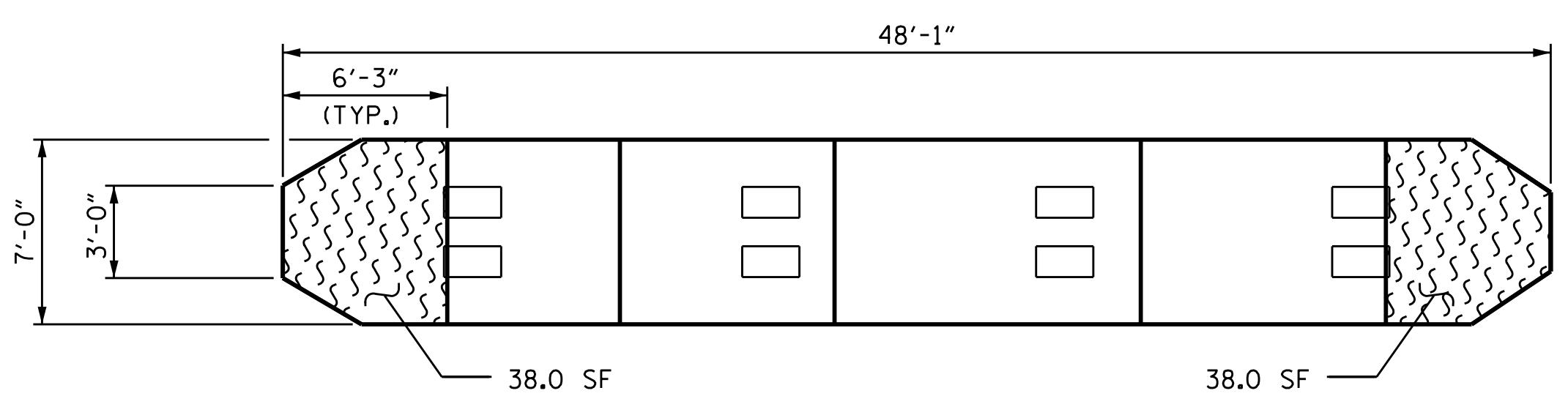
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DRAWN BY : S. T. SANDOR DATE : 6/28/24
CHECKED BY : W. C. SMITH DATE : 7/10/24

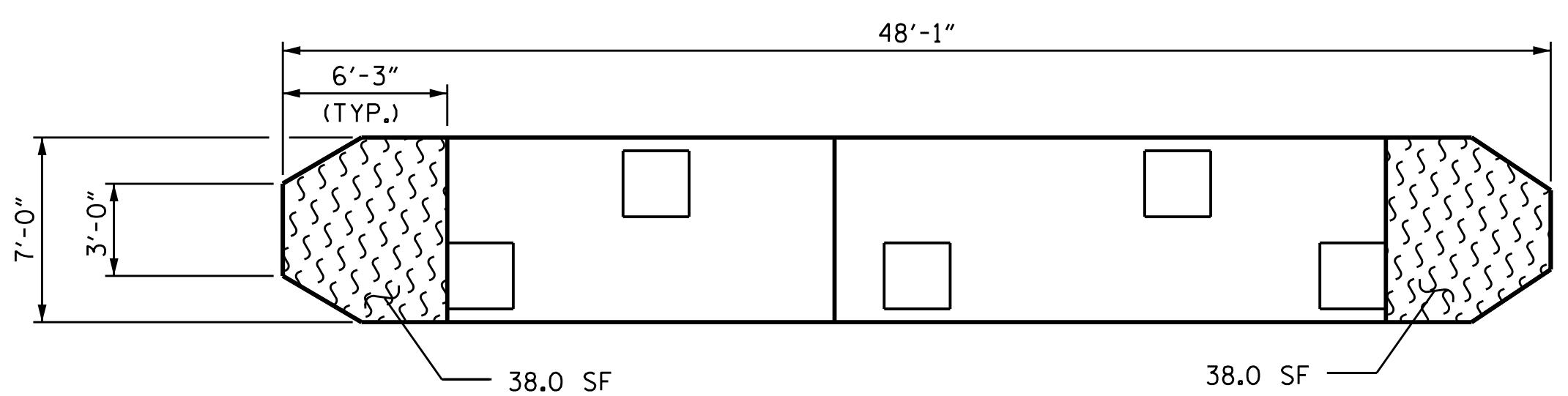
REPAIR QUANTITY TABLE

BENT 117 (SOUTHBOUND)	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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	0.6	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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	293.2			

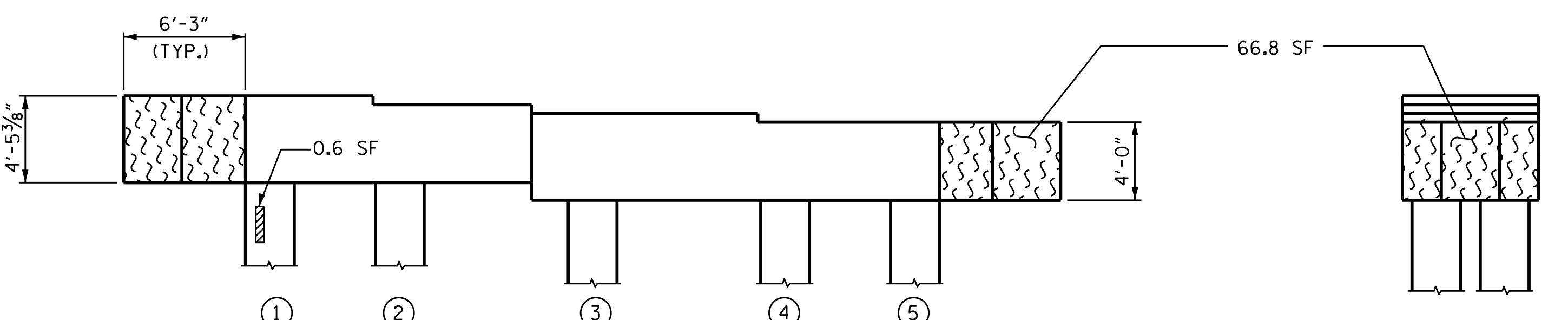
VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.



TOP VIEW OF CAP



BOTTOM VIEW OF CAP

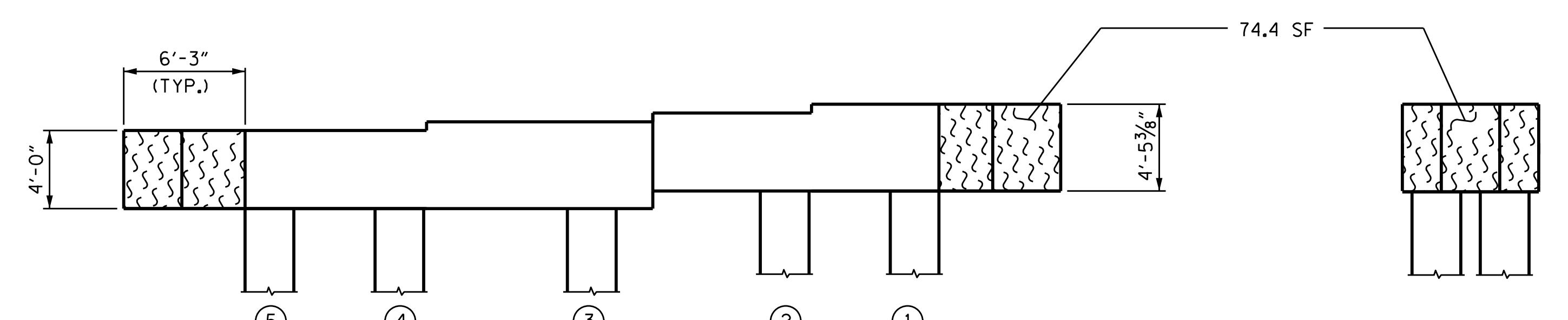


ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)

NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- EPOXY COATING



ELEVATION
(NORTH SIDE)
(LOOKING SOUTH)

EAST END

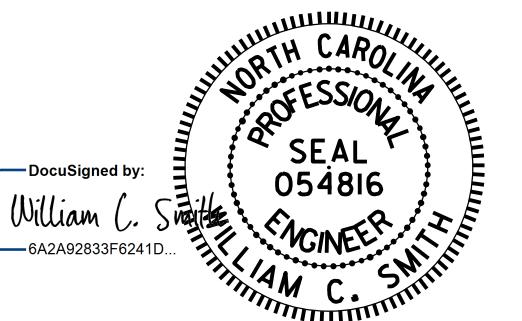
WEST END

PROJECT NO. 15BPR.137
BEAUFORT COUNTY
BRIDGE NO. 060353

SHEET 119 OF 140

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUBSTRUCTURE

BENT 117
(SOUTHBOUND)



11/21/2025

DRAWN BY : S. T. SANDOR DATE : 6/28/24
CHECKED BY : W. C. SMITH DATE : 7/10/24

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

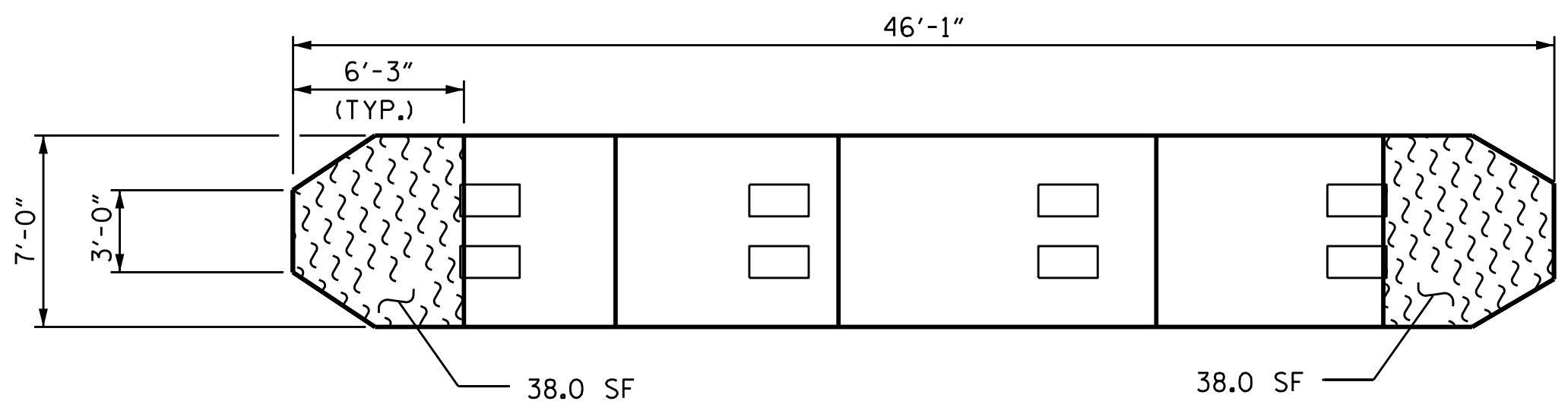
REVISIONS					SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-187
1			3			
2			4			

TOTAL
SHEETS
217

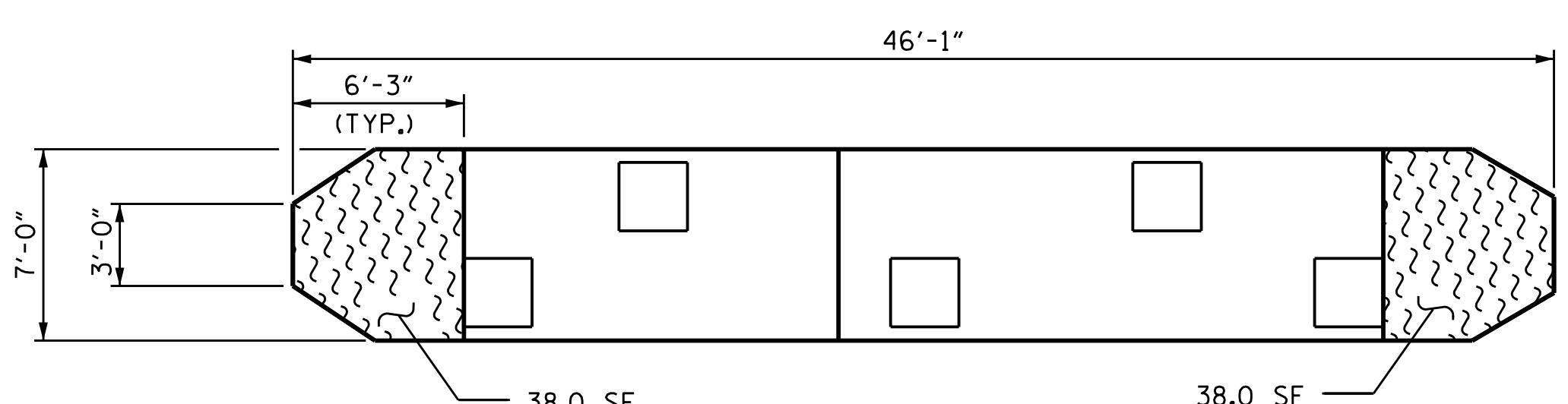
REPAIR QUANTITY TABLE

BENT 117 (NORTHBOUND)	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	2.4	1.2		
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	292.8			

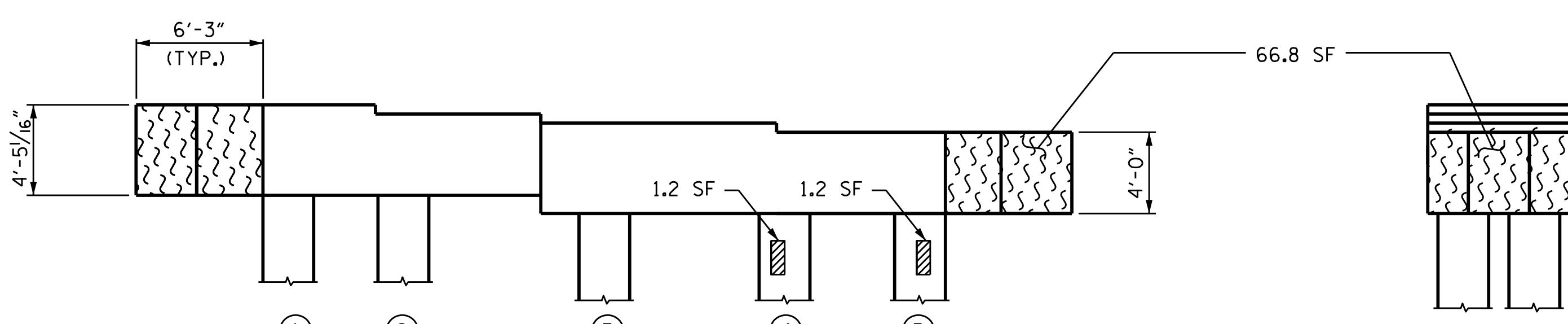
VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.



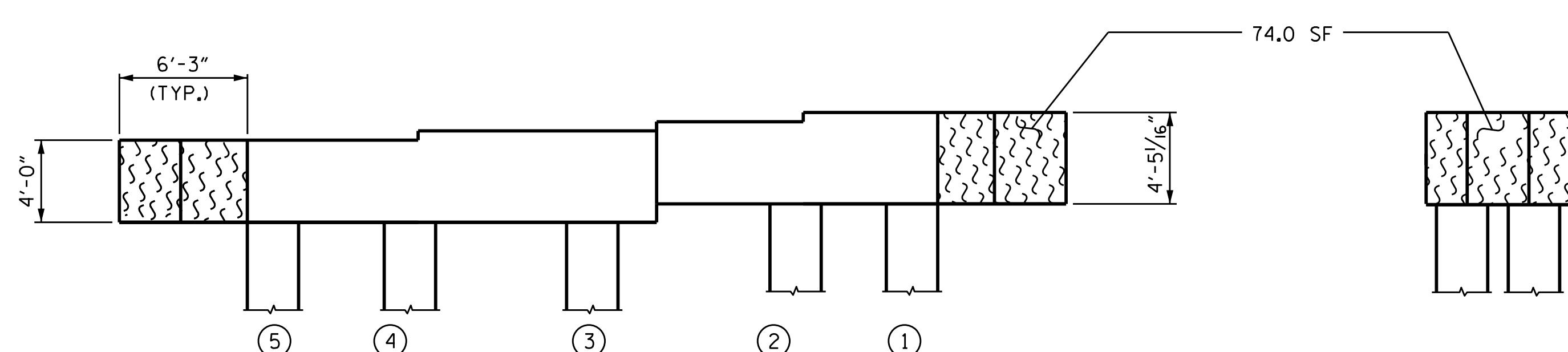
TOP VIEW OF CAP



BOTTOM VIEW OF CAP



ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)



ELEVATION
(NORTH SIDE)
(LOOKING SOUTH)

NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- ▨ SHOTCRETE REPAIR
- ▨ CONCRETE REPAIR
- ▨ ERI EPOXY RESIN INJECTION
- ▨ P PILE
- ▨ EPOXY COATING

PROJECT NO. 15BPR.137

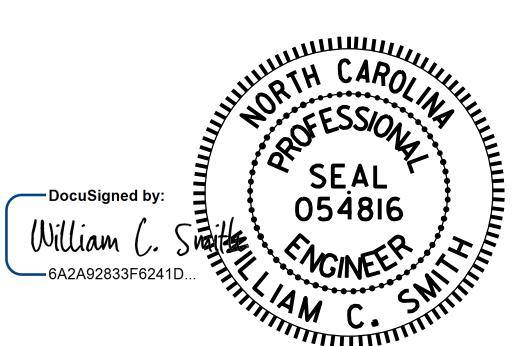
BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 120 OF 140

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE REPAIR
BENT 117
(NORTHBOUND)



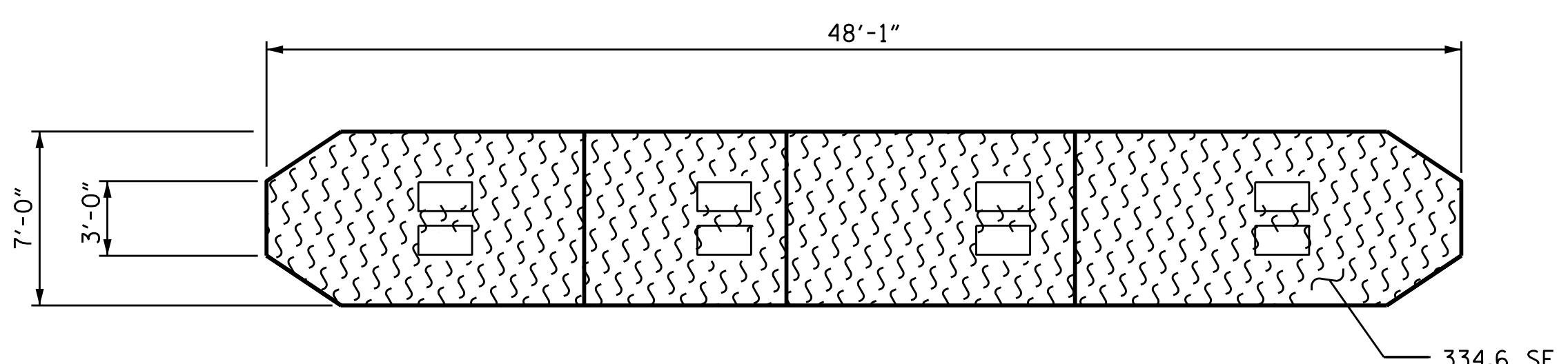
REVISIONS					SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-188
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2			4			

DRAWN BY : S. T. SANDOR DATE : 6/28/24
CHECKED BY : W. C. SMITH DATE : 7/10/24

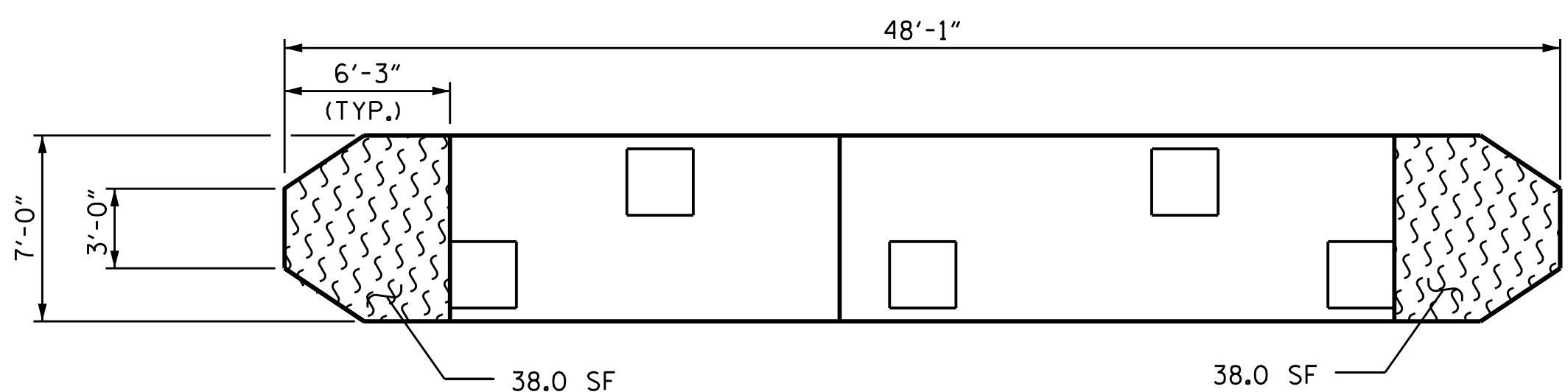
REPAIR QUANTITY TABLE

BENT 118 (SOUTHBOUND)	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	551.8			

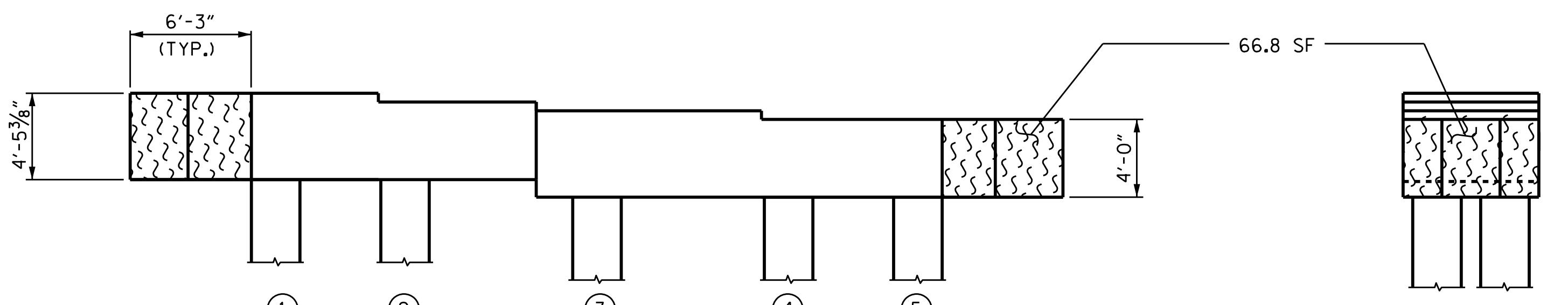
VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.



SPAN 119
(SOUTHBOUND)
SPAN 118
(SOUTHBOUND)



SPAN 118
(SOUTHBOUND)
SPAN 119
(SOUTHBOUND)

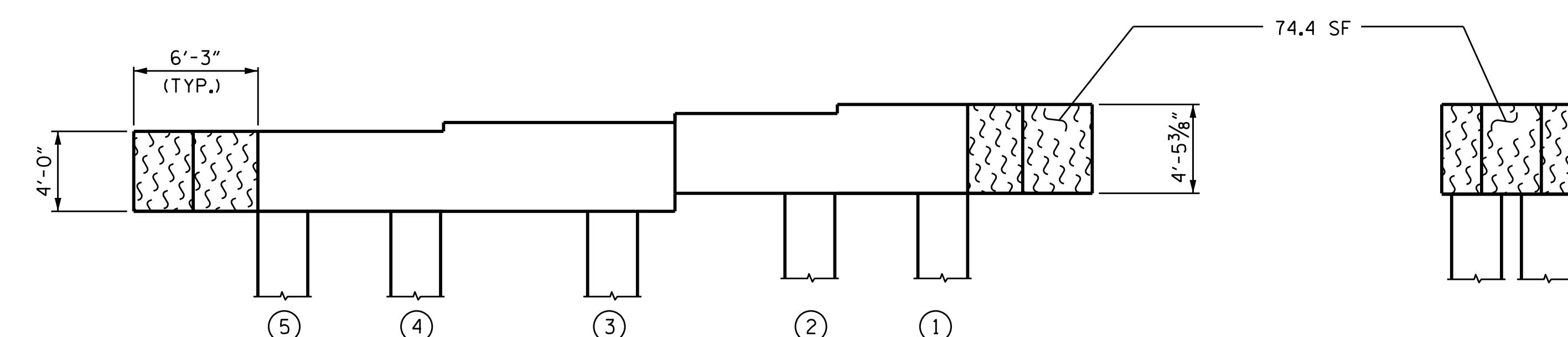


NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- █ SHOTCRETE REPAIR
- █ CONCRETE REPAIR
- █ ERI EPOXY RESIN INJECTION
- █ P PILE
- █ EPOXY COATING

EAST END



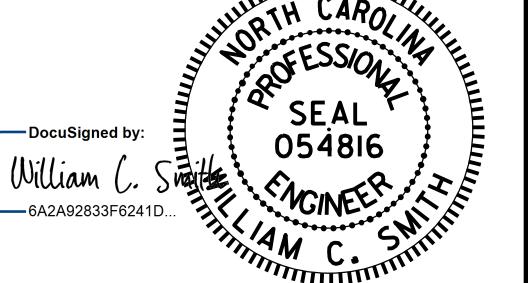
WEST END

PROJECT NO. 15BPR.137
BEAUFORT COUNTY
BRIDGE NO. 060353

SHEET 121 OF 140

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUBSTRUCTURE

BENT 118
(SOUTHBOUND)



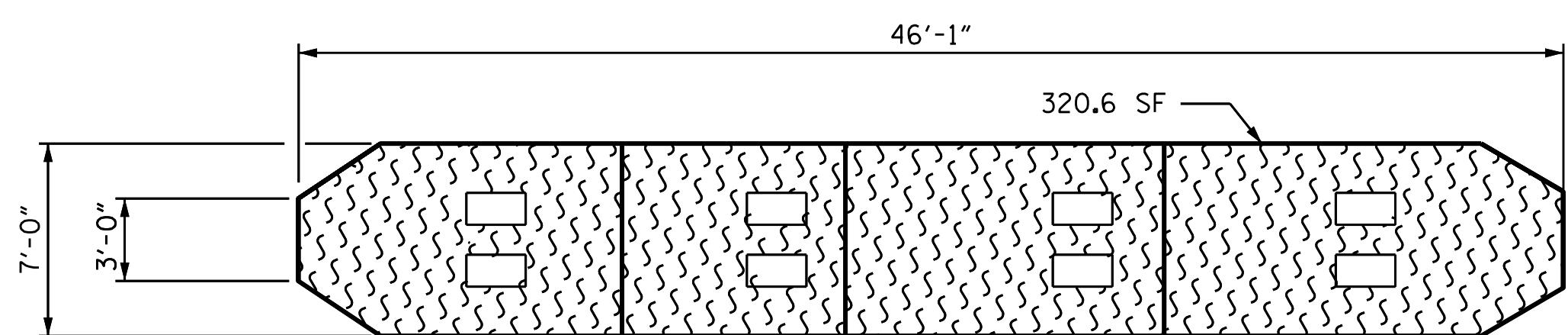
REVISIONS					SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-189
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2			4			

DRAWN BY : S. T. SANDOR DATE : 6/28/24
CHECKED BY : W. C. SMITH DATE : 7/10/24

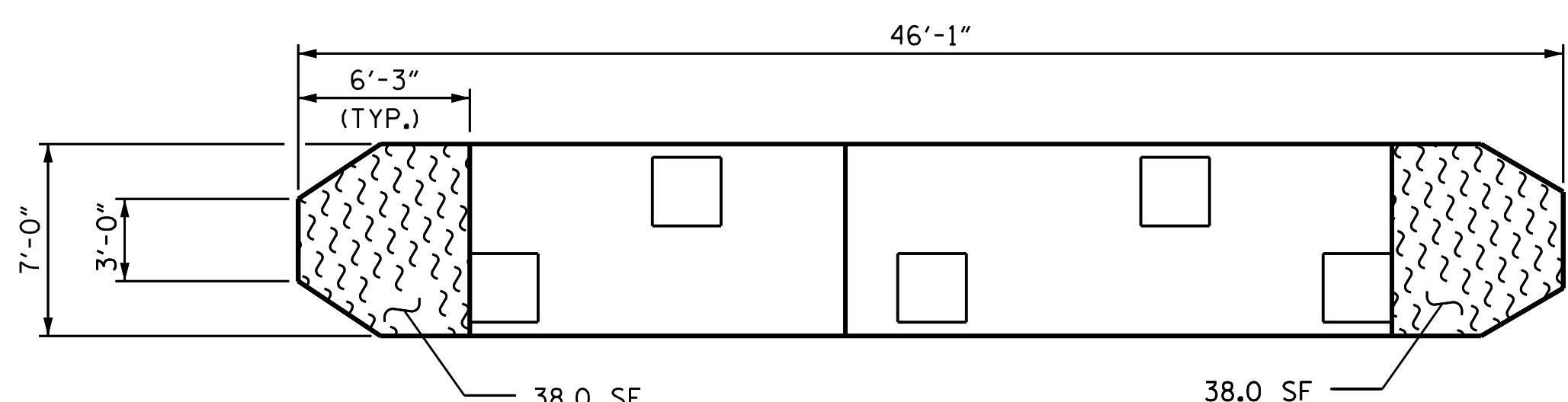
REPAIR QUANTITY TABLE

BENT 118 (NORTHBOUND)	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	537.4			

VALUES IN THE REPAIR QUANTITY TABLE 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.



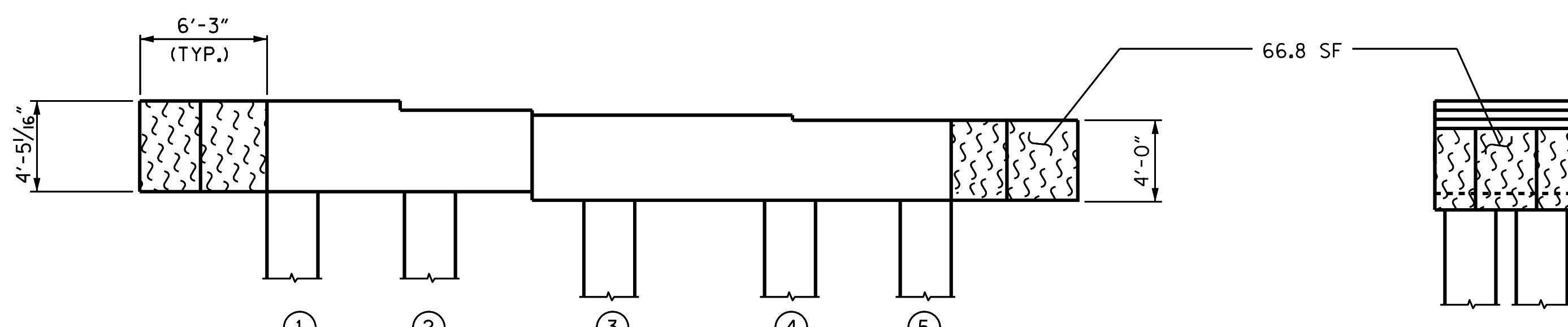
SPAN 119
(NORTHBOUND)
SPAN 118
(NORTHBOUND)



SPAN 118
(NORTHBOUND)
SPAN 119
(NORTHBOUND)

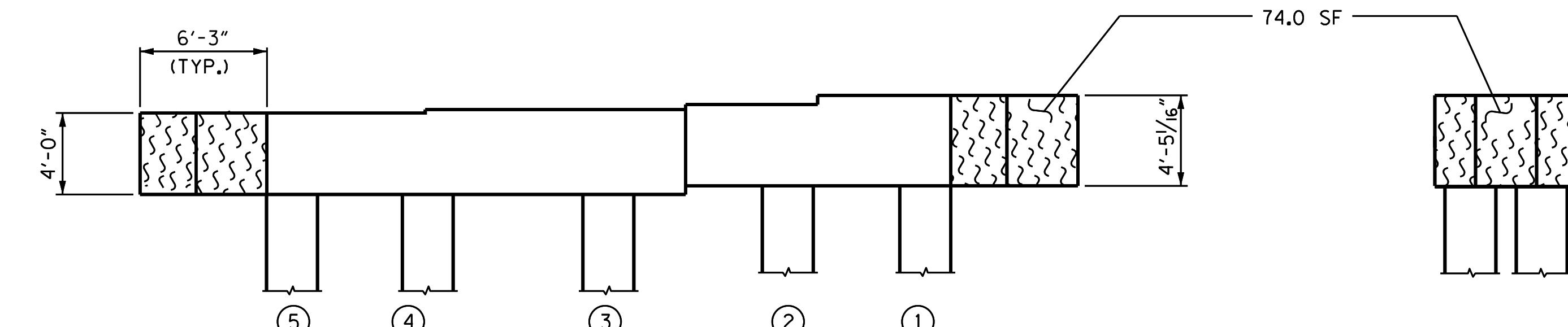
TOP VIEW OF CAP

BOTTOM VIEW OF CAP



ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)

EAST END



ELEVATION
(NORTH SIDE)
(LOOKING SOUTH)

WEST END

NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

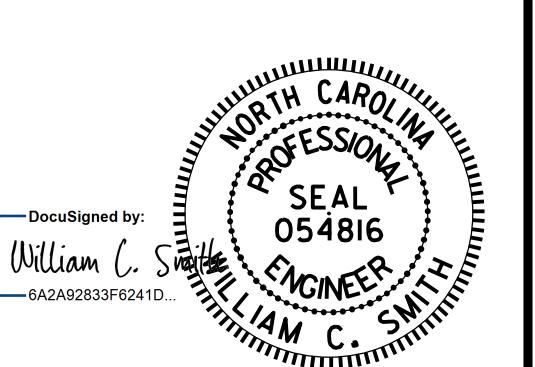
- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- EPOXY COATING

15BPR.137
BEAUFORT COUNTY
BRIDGE NO. 060353

SHEET 122 OF 140

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUBSTRUCTURE REPAIR

BENT 118
(NORTHBOUND)



11/21/2025

DRAWN BY : S. T. SANDOR DATE : 6/28/24
CHECKED BY : W. C. SMITH DATE : 7/10/24

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

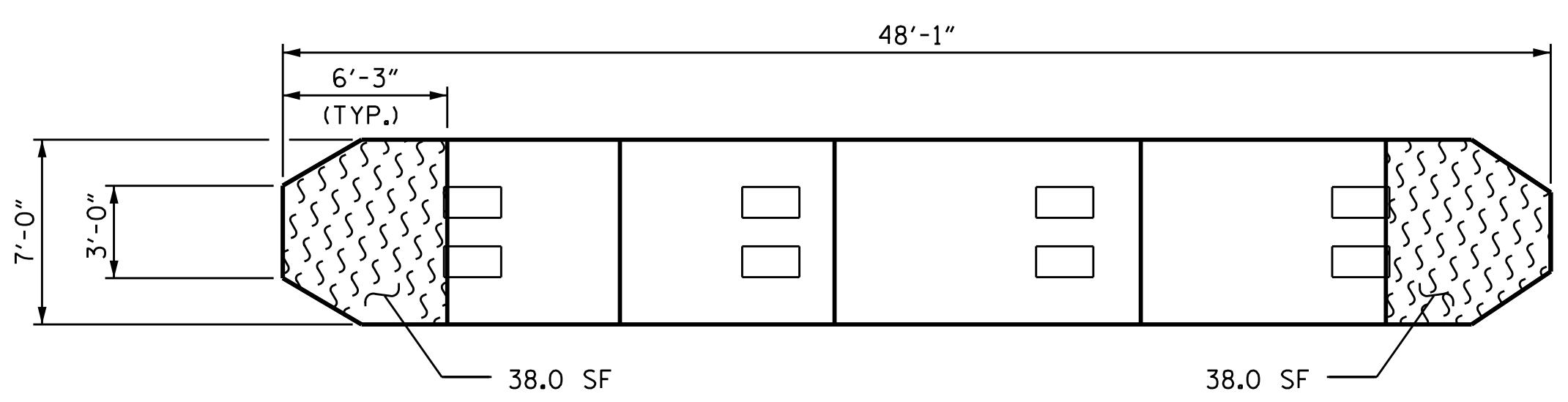
REVISIONS		SHEET NO.	
NO.	BY:	DATE:	NO.
1			3
2			4

TOTAL SHEET
217

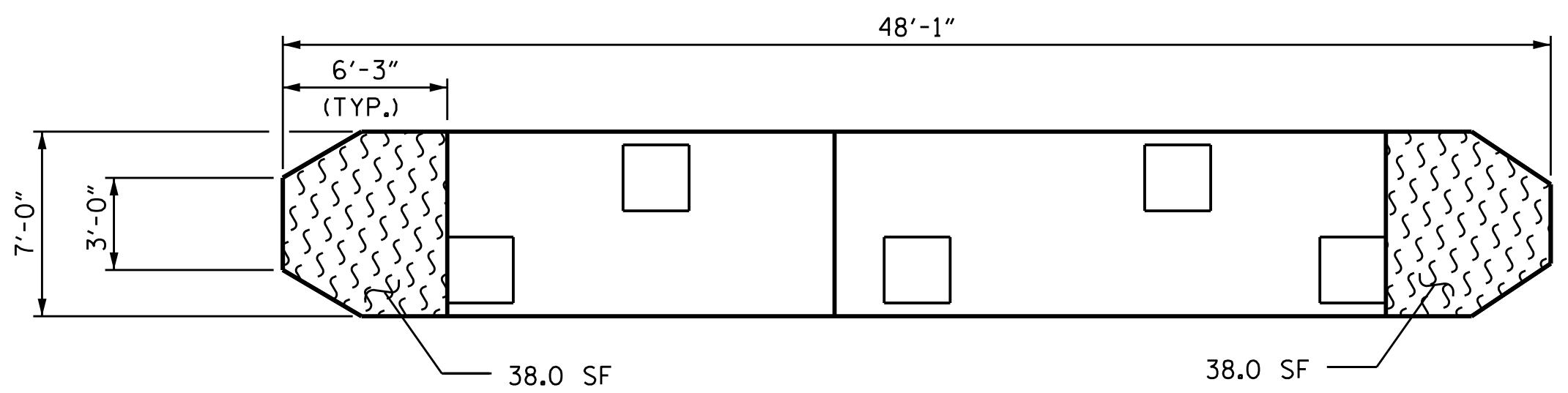
REPAIR QUANTITY TABLE

BENT 115 (SOUTHBOUND)	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	293.2			

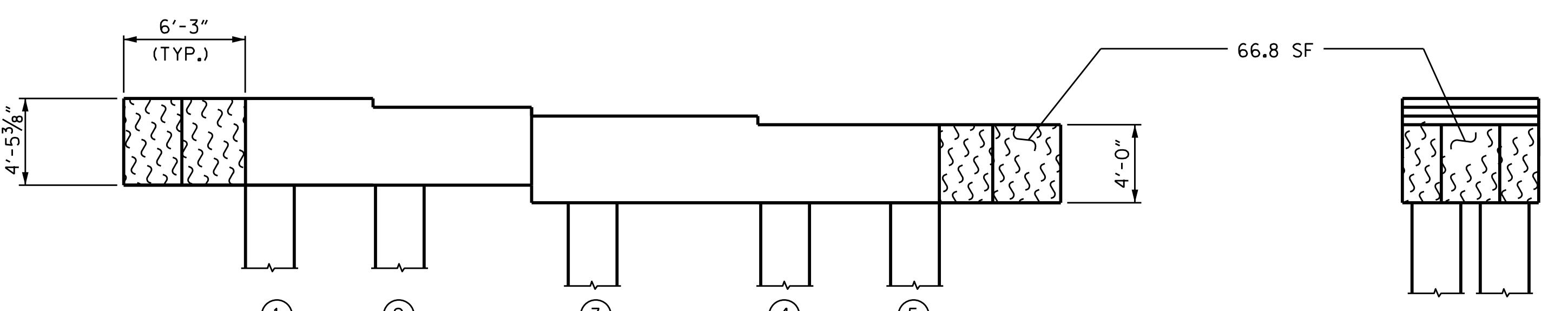
VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.



SPAN 120
(SOUTHBOUND)
SPAN 119
(SOUTHBOUND)



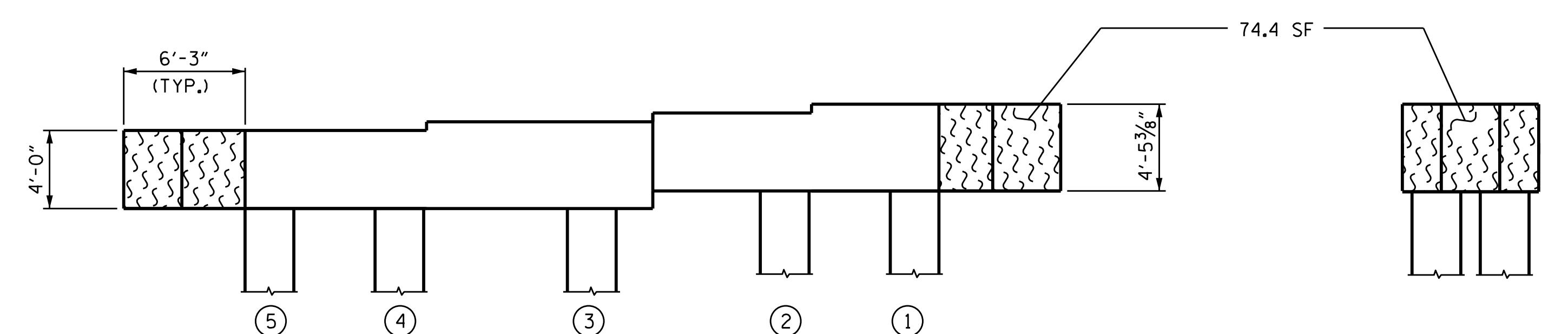
SPAN 119
(SOUTHBOUND)
SPAN 120
(SOUTHBOUND)



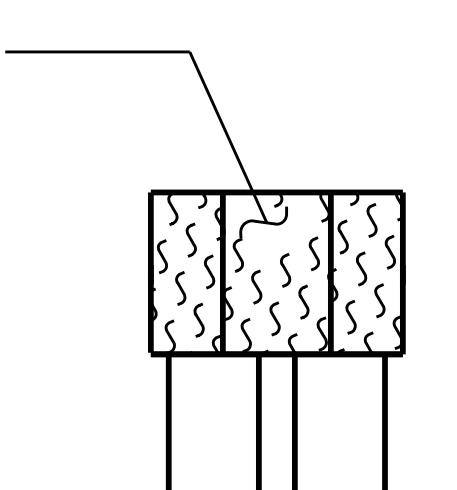
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- EPOXY COATING



EAST END



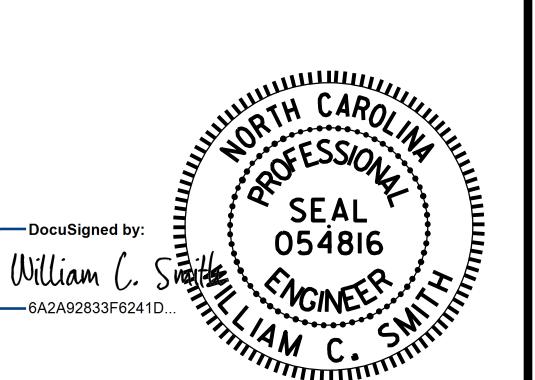
WEST END

PROJECT NO. 15BPR.137
BEAUFORT COUNTY
BRIDGE NO. 060353

SHEET 123 OF 140

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUBSTRUCTURE

BENT 119
(SOUTHBOUND)



REVISIONS					SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-191
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2			4			

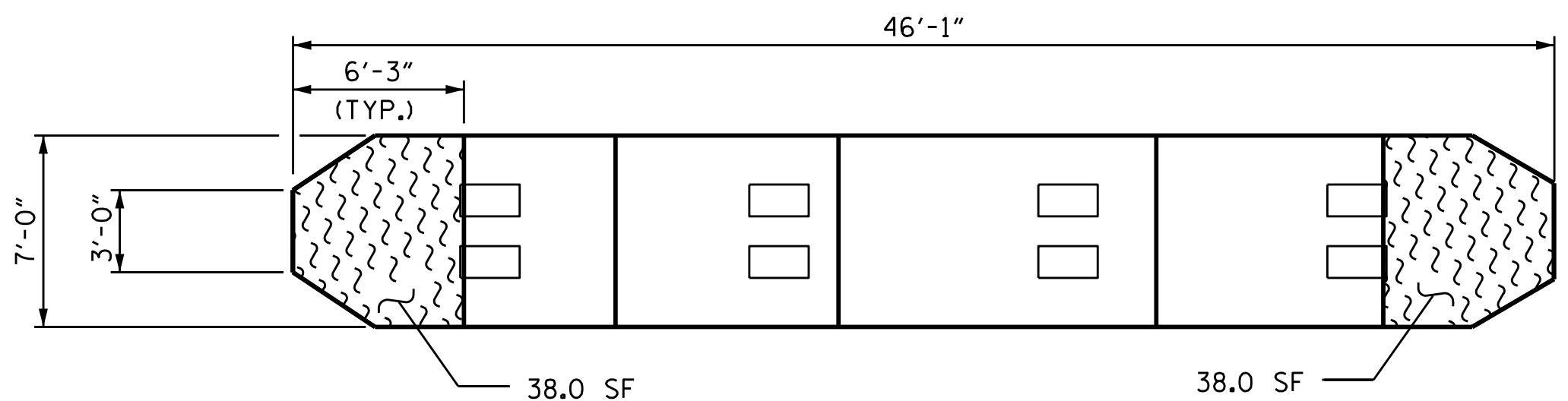
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FINAL UNLESS ALL
SIGNATURES COMPLETED

DRAWN BY : S. T. SANDOR DATE : 6/28/24
CHECKED BY : W. C. SMITH DATE : 7/10/24

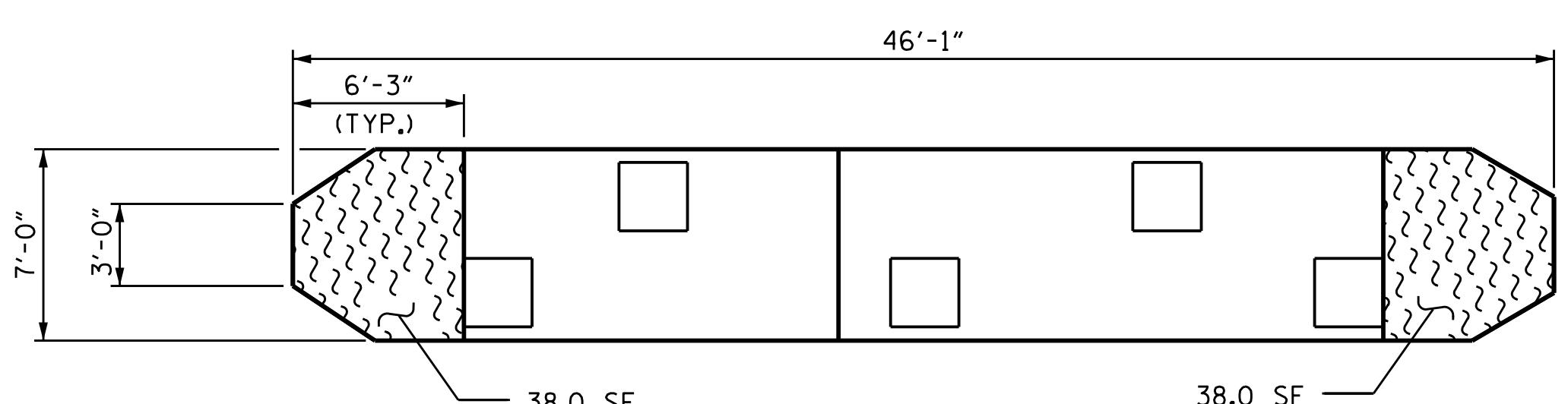
REPAIR QUANTITY TABLE

BENT 119 (NORTHBOUND)	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	292.8			

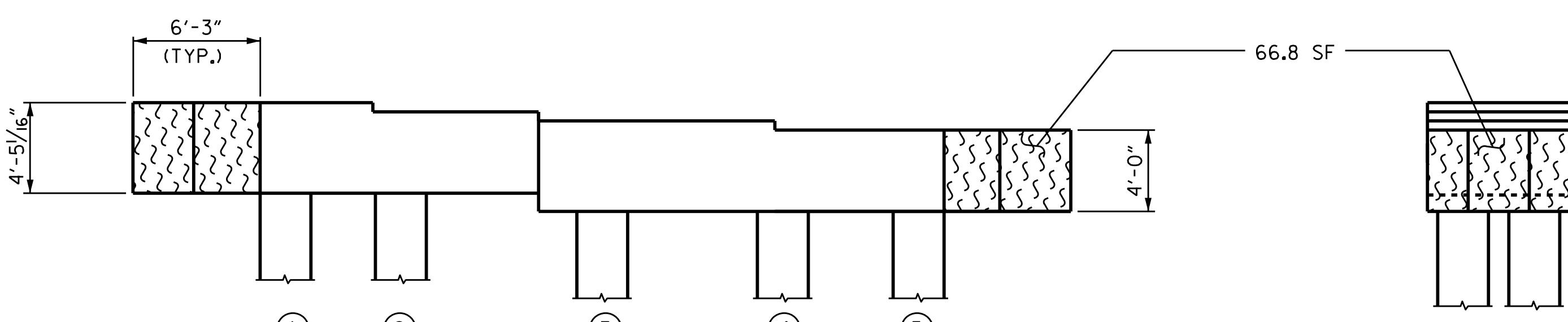
VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.



SPAN 120
(NORTHBOUND)
SPAN 119
(NORTHBOUND)



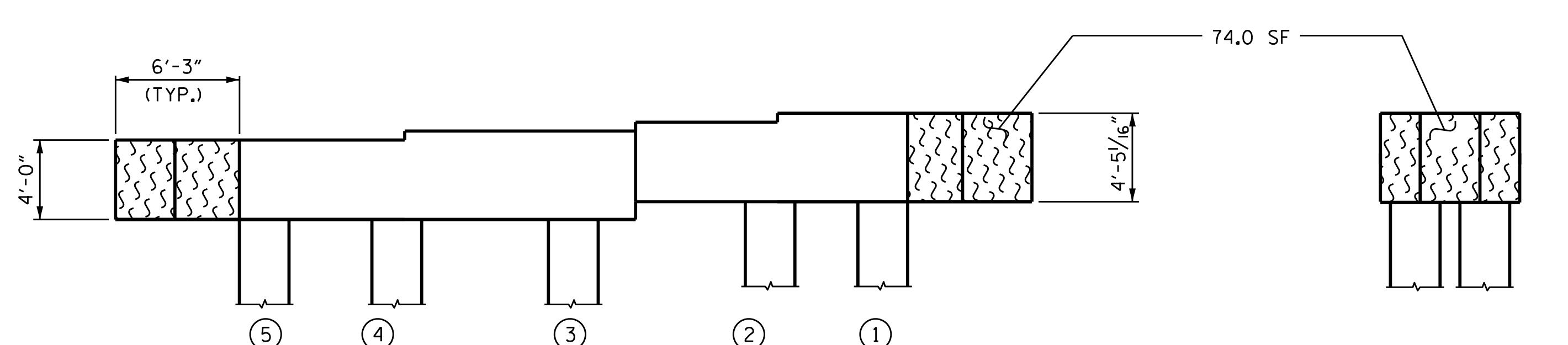
SPAN 119
(NORTHBOUND)
SPAN 120
(NORTHBOUND)



NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- █ SHOTCRETE REPAIR
- █ CONCRETE REPAIR
- █ ERI EPOXY RESIN INJECTION
- █ P PILE
- █ EPOXY COATING



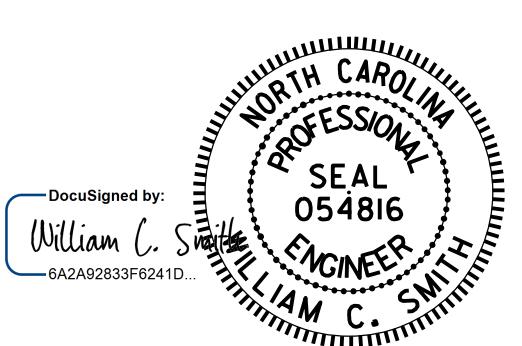
EAST END

PROJECT NO. 15BPR.137
BEAUFORT COUNTY
BRIDGE NO. 060353

SHEET 124 OF 140

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUBSTRUCTURE REPAIR

BENT 119
(NORTHBOUND)



DRAWN BY : S. T. SANDOR DATE : 6/28/24
CHECKED BY : W. C. SMITH DATE : 7/10/24

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

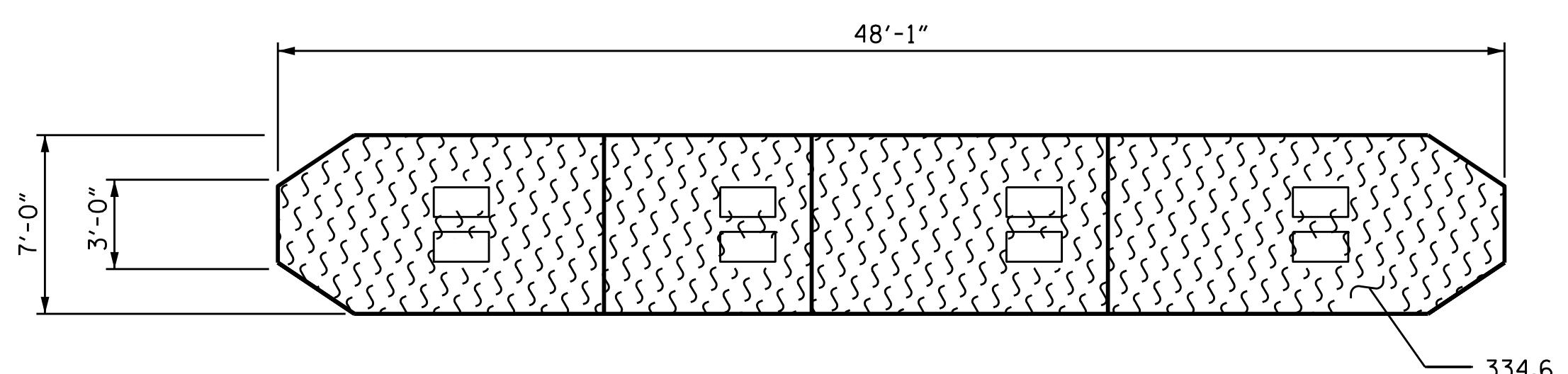
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REVISIONS
SHEET NO.
S-192
TOTAL SHEETS
217

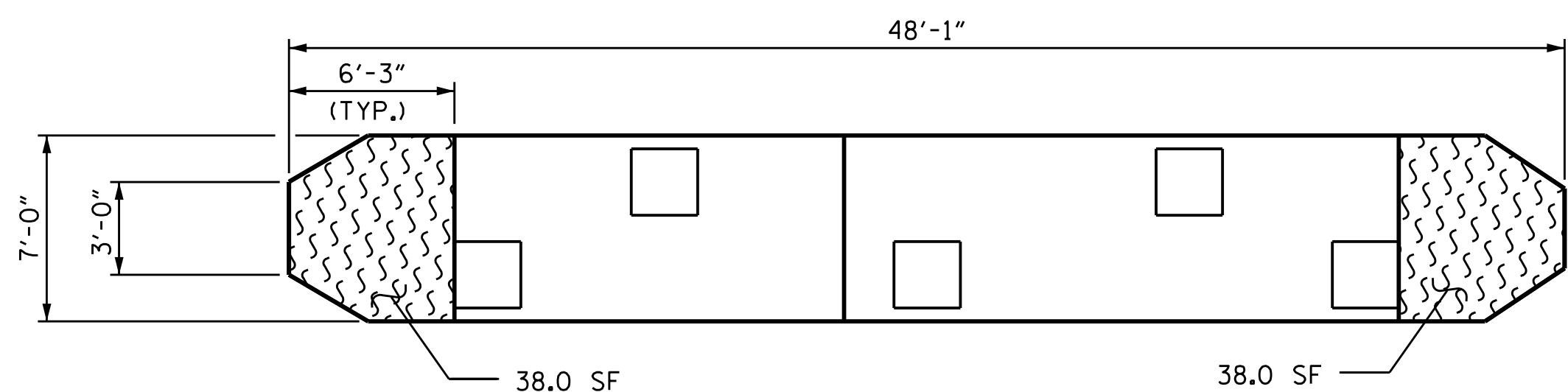
REPAIR QUANTITY TABLE

BENT 120 (SOUTHBOUND)	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	3.5	1.8		
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	551.8			

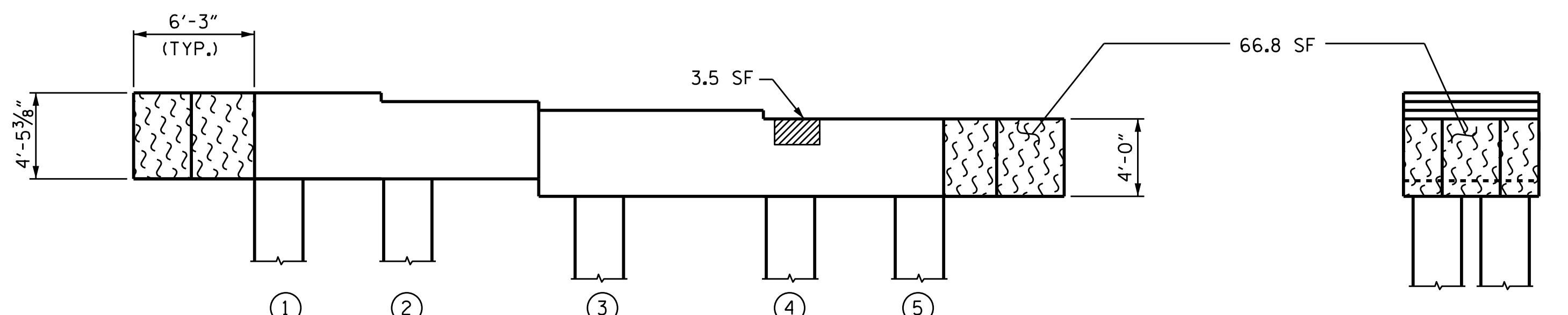
VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.



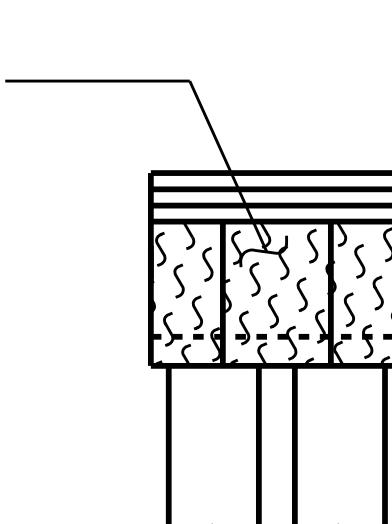
TOP VIEW OF CAP



BOTTOM VIEW OF CAP



ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)



NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

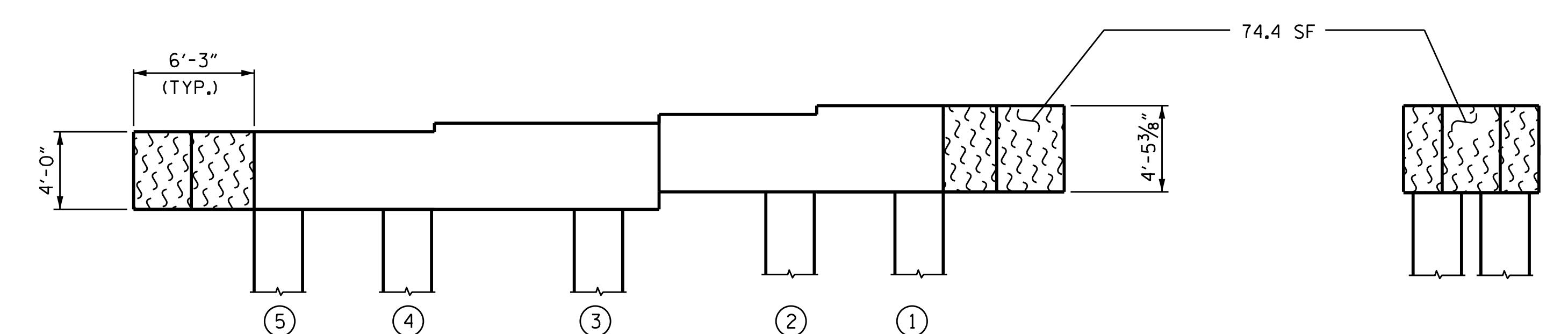
■ SHOTCRETE REPAIR

■ CONCRETE REPAIR

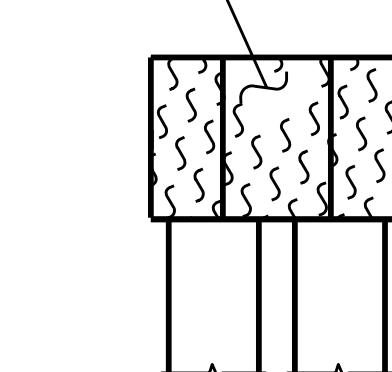
ERI EPOXY RESIN INJECTION

(P) PILE

■ EPOXY COATING



ELEVATION
(NORTH SIDE)
(LOOKING SOUTH)



EAST END

WEST END

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 125 OF 140

STATE OF NORTH CAROLINA

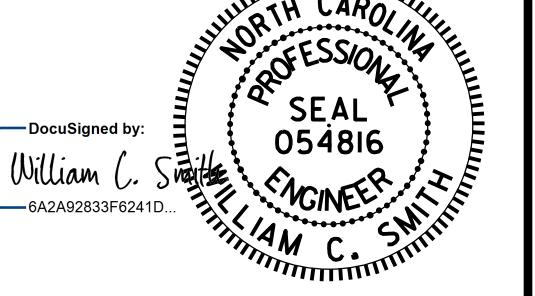
DEPARTMENT OF TRANSPORTATION

RALEIGH

SUBSTRUCTURE

BENT 120

(SOUTHBOUND)



11/21/2025

REVISIONS SHEET NO.

S-193

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

NO. BY: DATE: NO. BY: DATE:

1 3

2 4

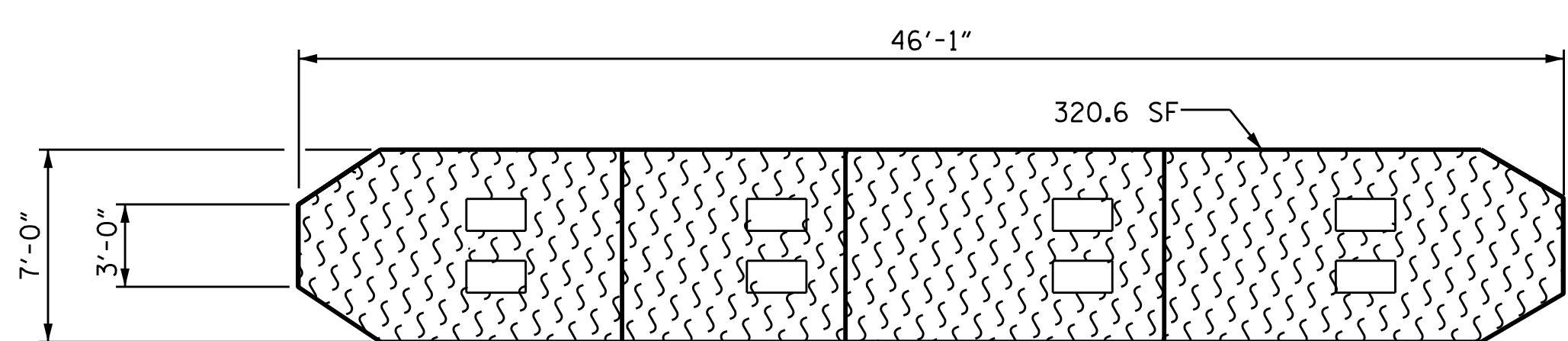
TOTAL SHEETS
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DRAWN BY : S. T. SANDOR DATE : 6/28/24
CHECKED BY : W. C. SMITH DATE : 7/10/24

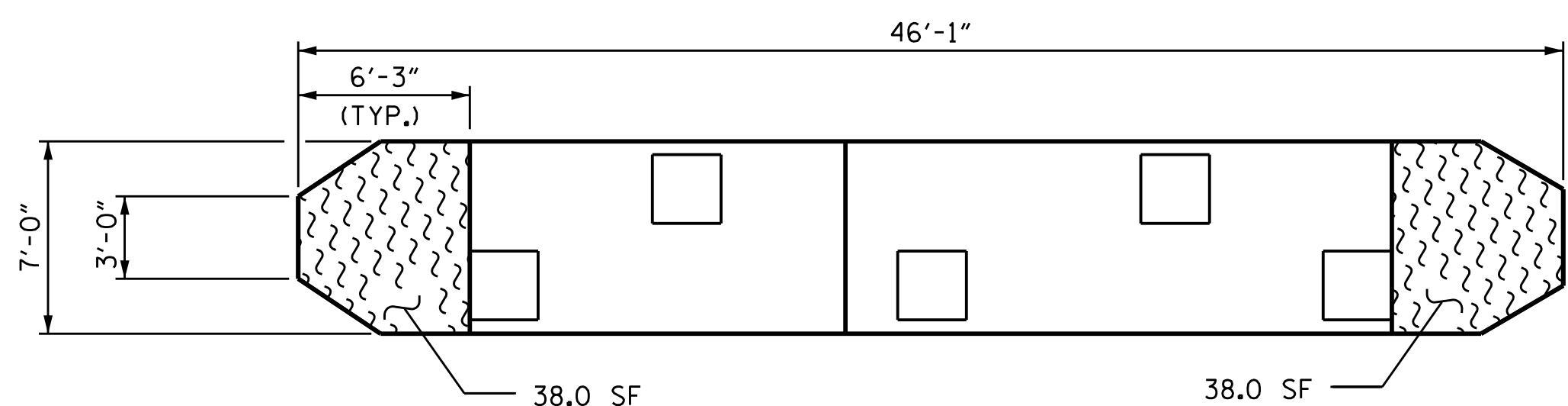
REPAIR QUANTITY TABLE

BENT 120 (NORTHBOUND)	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	537.4			

VALUES IN THE REPAIR QUANTITY TABLE 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.



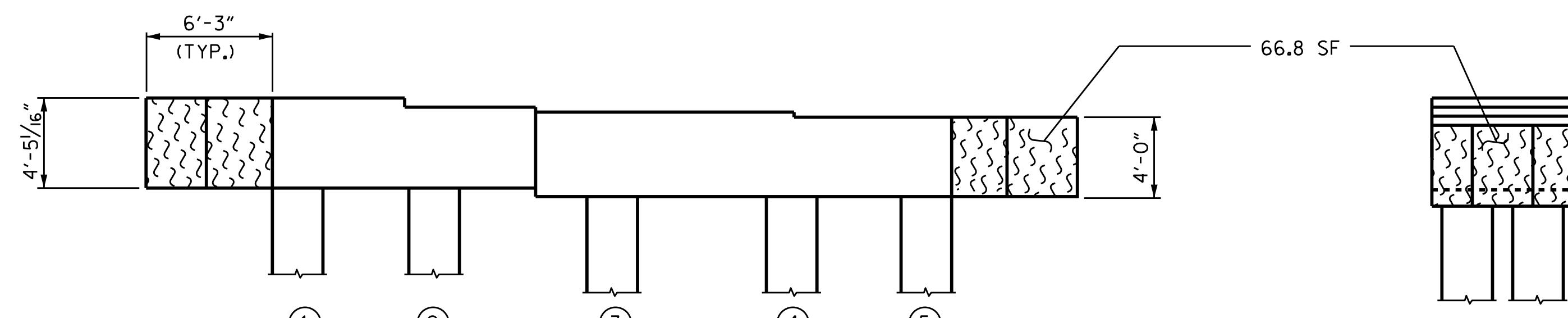
TOP VIEW OF CAP



BOTTOM VIEW OF CAP

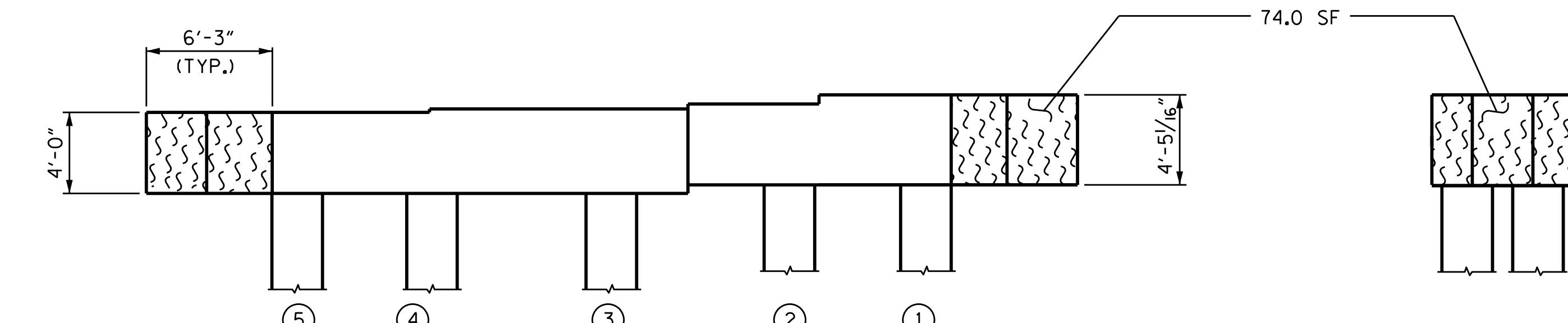
SPAN 121
(NORTHBOUND)
SPAN 120
(NORTHBOUND)

SPAN 120
(NORTHBOUND)
SPAN 121
(NORTHBOUND)



ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)

EAST END



ELEVATION
(NORTH SIDE)
(LOOKING SOUTH)

WEST END

NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- EPOXY COATING

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 126 OF 140

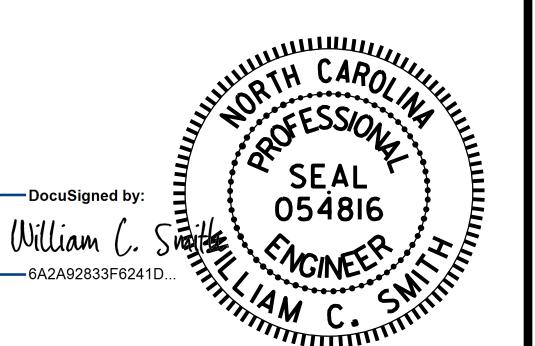
STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

SUBSTRUCTURE REPAIR

BENT 120
(NORTHBOUND)

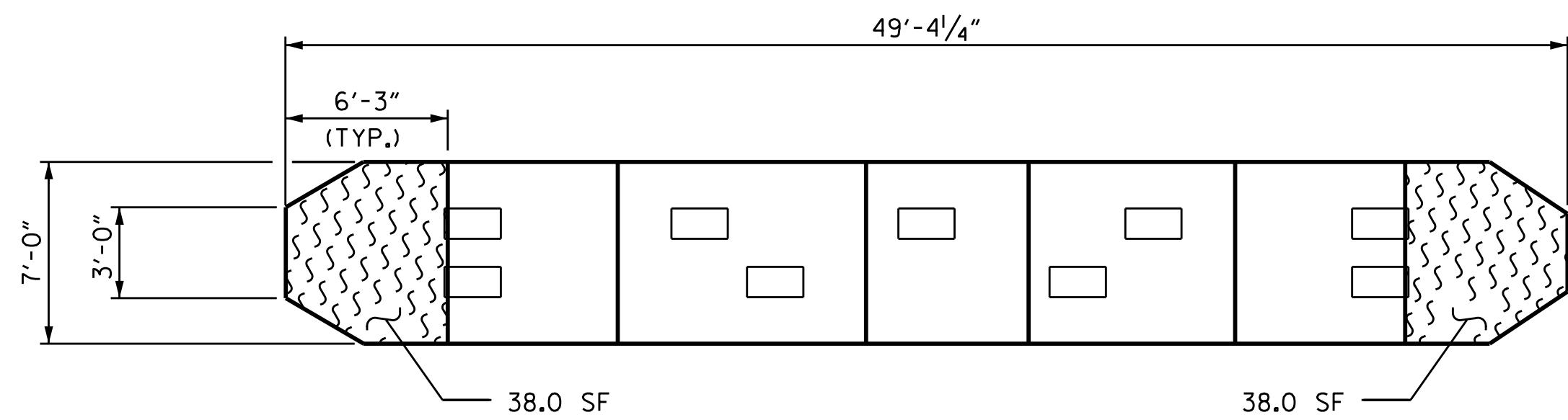


11/21/2025

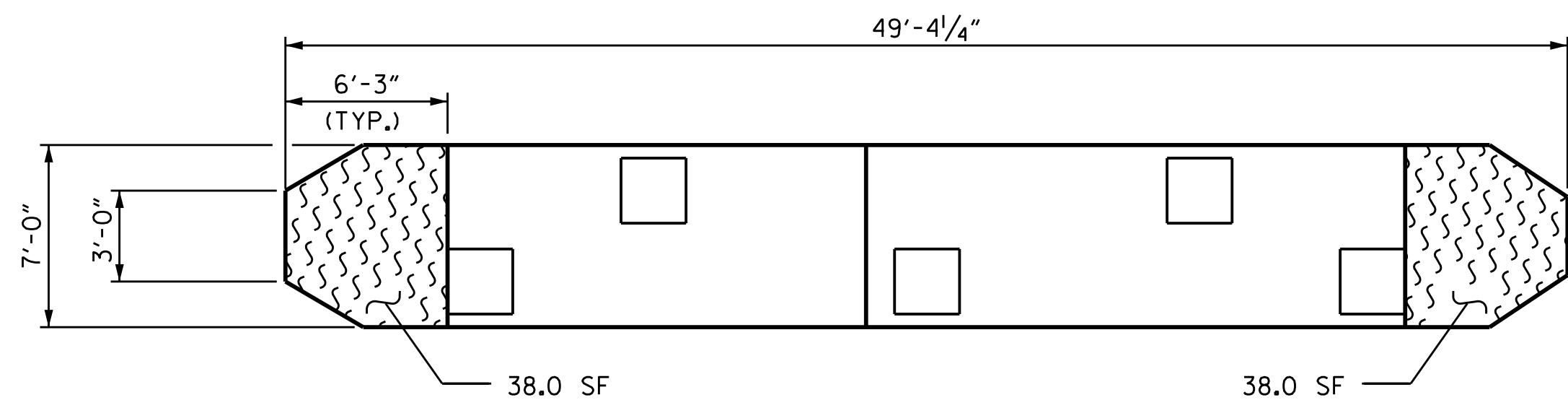
REVISIONS					SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-194
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2			4			

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TOP VIEW OF CAP



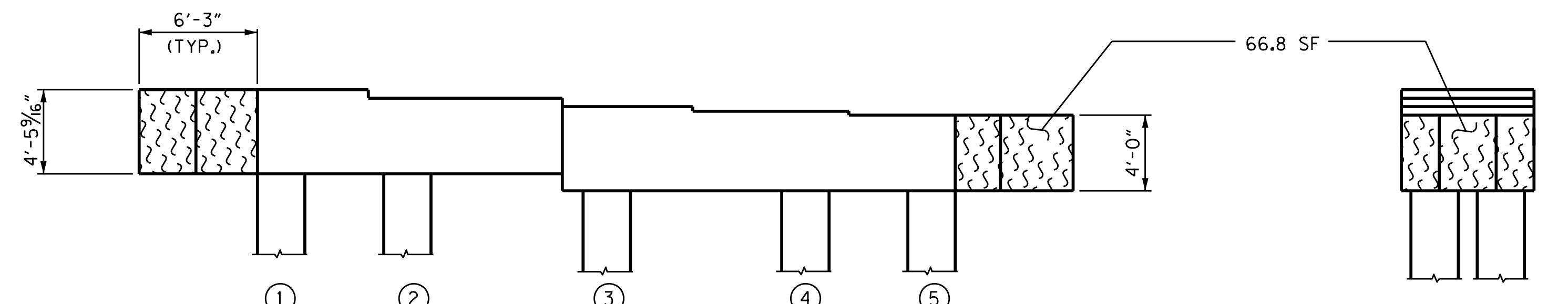
BOTTOM VIEW OF CAP

SPAN 122
(SOUTHBOUND)
SPAN 121
(SOUTHBOUND)

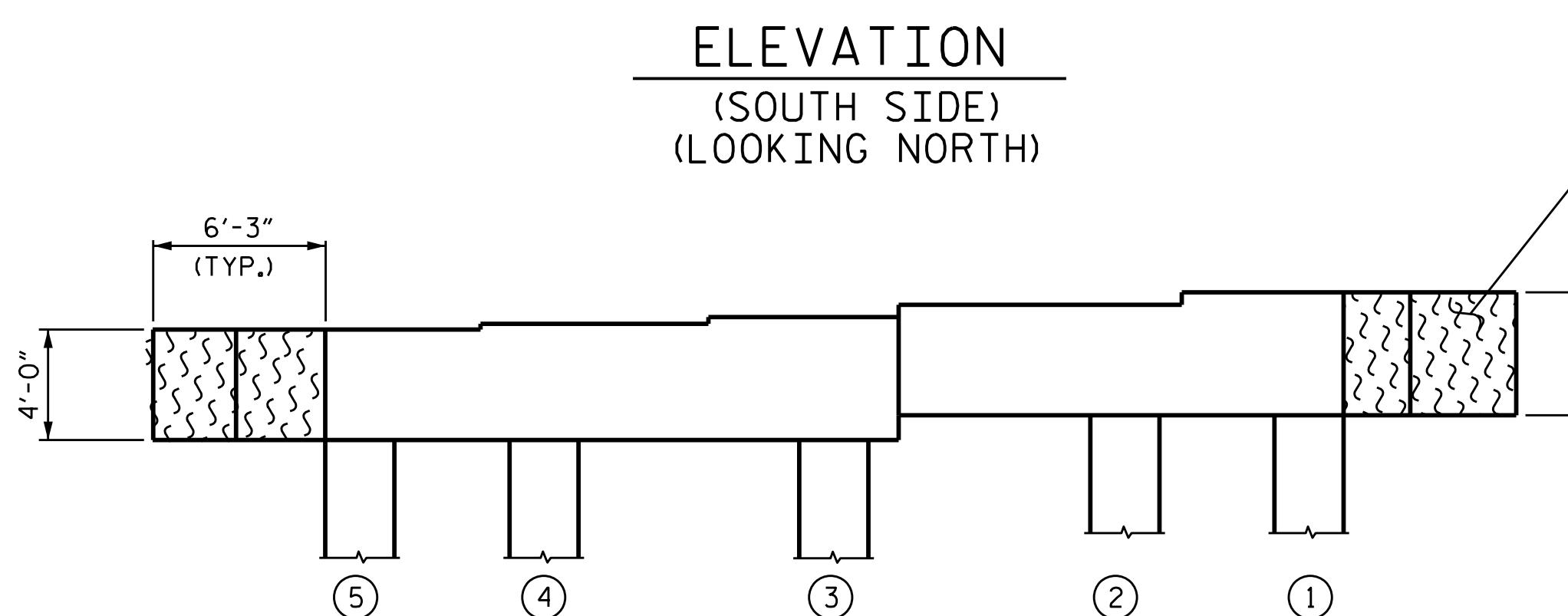
REPAIR QUANTITY TABLE

BENT 121 (SOUTHBOUND)	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	293.4			

VALUES IN THE REPAIR QUANTITY TABLE 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.



EAST END



WEST END

NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- EPOXY RESIN INJECTION
- PILE
- EPOXY COATING

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

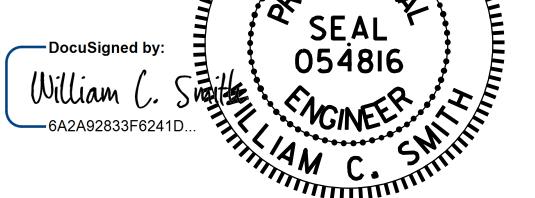
BRIDGE NO. 060353

SHEET 127 OF 140

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE

BENT 121
(SOUTHBOUND)



11/21/2025

DRAWN BY : S. T. SANDOR DATE : 6/28/24
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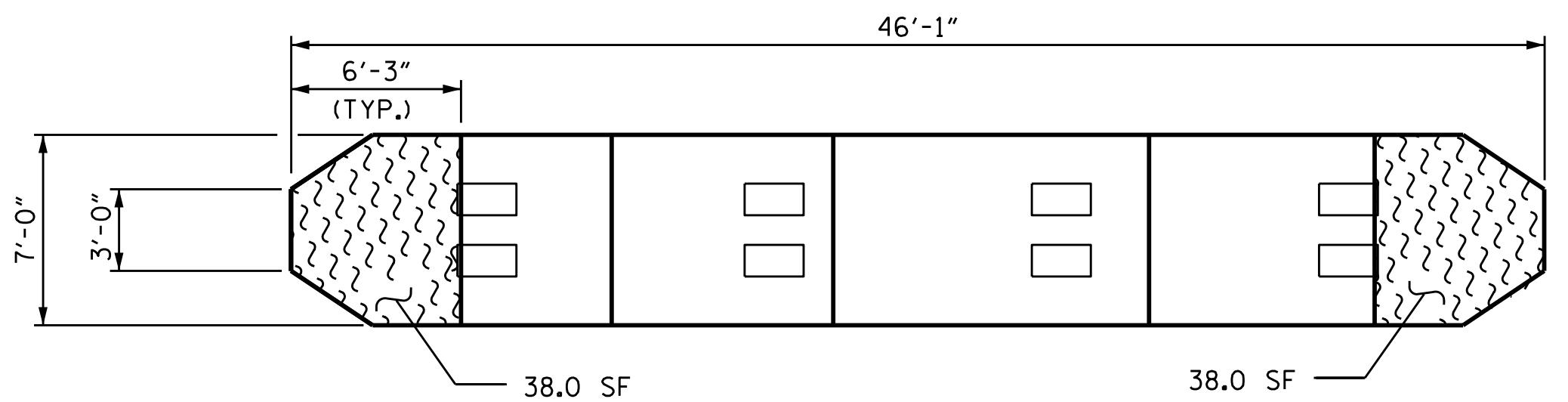
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TOTAL SHEETS
217

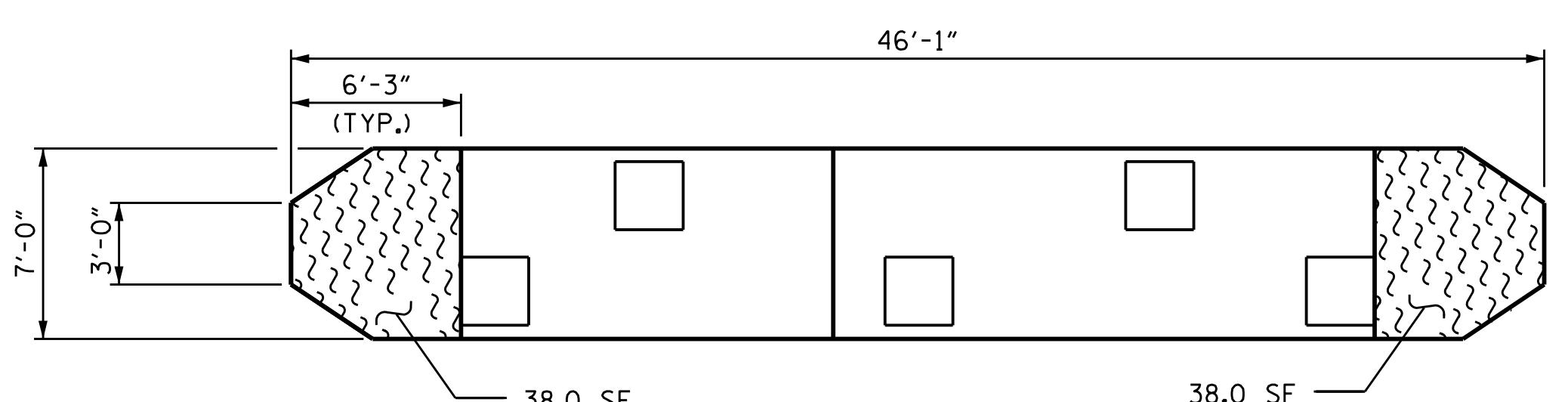
REPAIR QUANTITY TABLE

BENT 121 (NORTHBOUND)	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	292.8			

VALUES IN THE REPAIR QUANTITY TABLE 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.

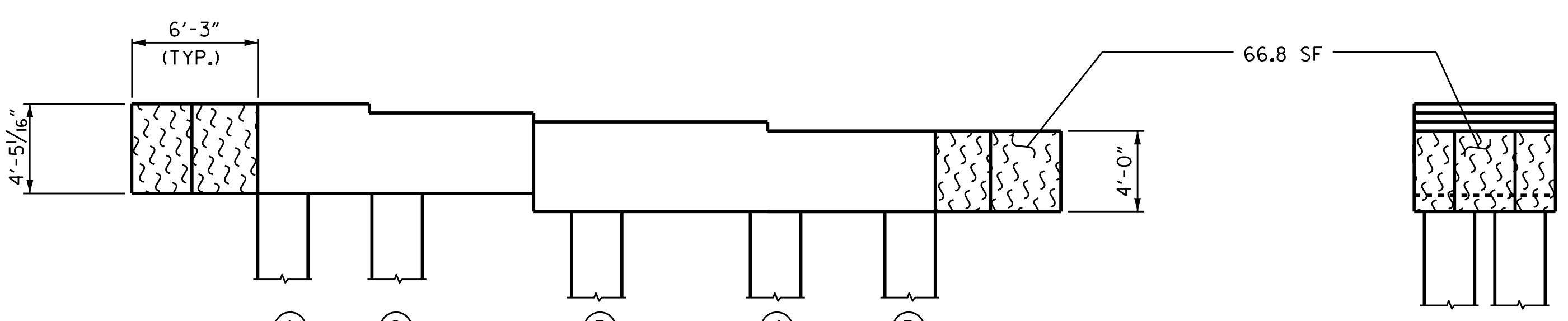


SPAN 122
(NORTHBOUND)
SPAN 121
(NORTHBOUND)

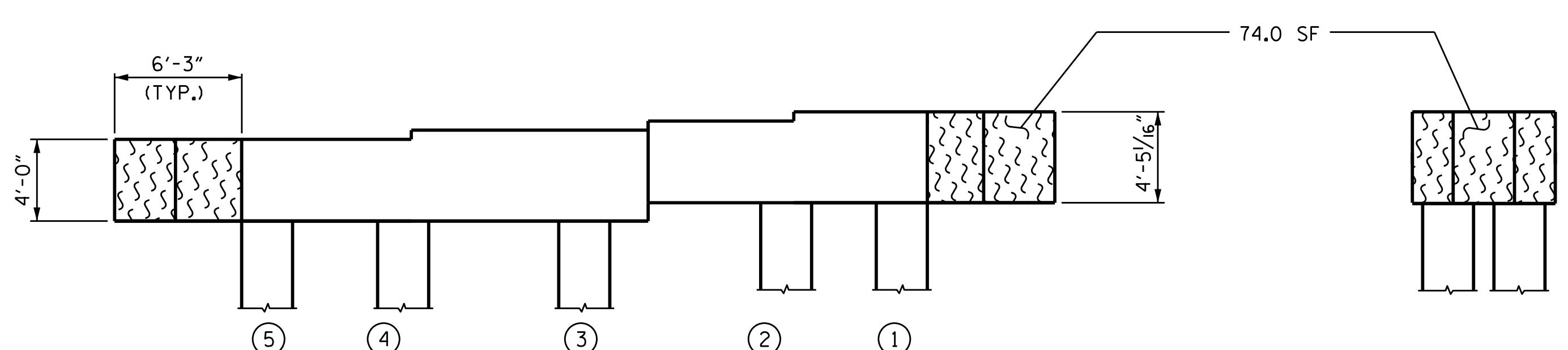


SPAN 121
(NORTHBOUND)
SPAN 122
(NORTHBOUND)

BOTTOM VIEW OF CAP



ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)



ELEVATION
(NORTH SIDE)
(LOOKING SOUTH)

NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- █ SHOTCRETE REPAIR
- █ CONCRETE REPAIR
- █ ERI EPOXY RESIN INJECTION
- █ P PILE
- █ EPOXY COATING

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

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STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE REPAIR

BENT 121
(NORTHBOUND)



11/21/2025

REVISIONS					SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-196
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2			4			

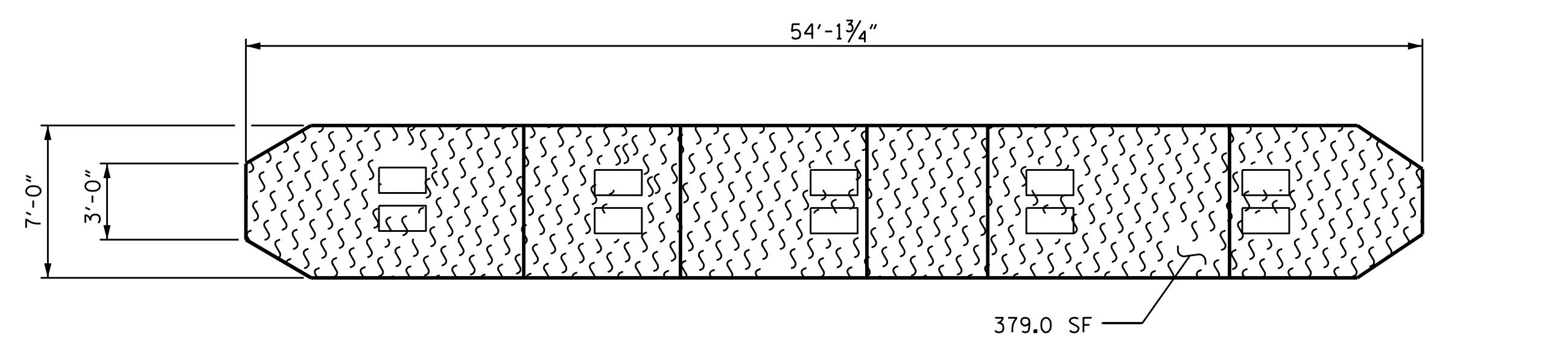
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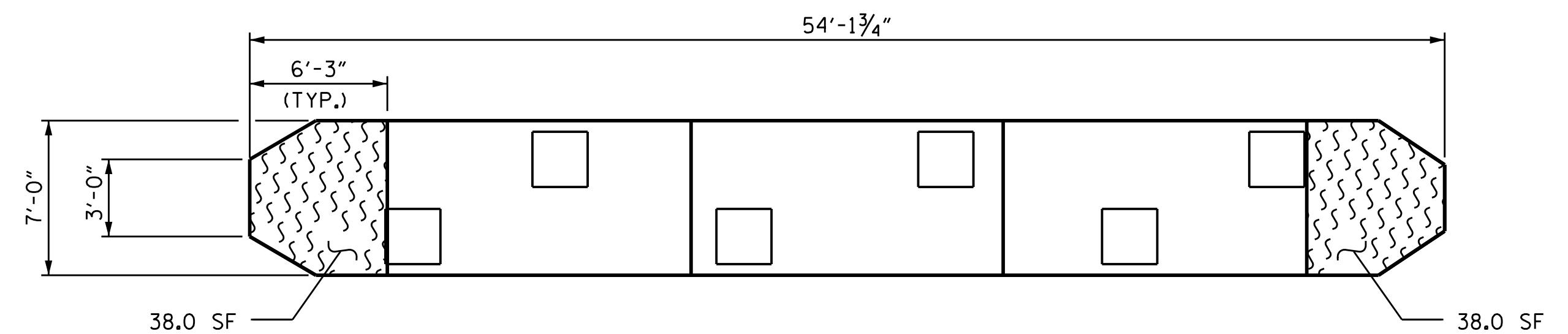
REPAIR QUANTITY TABLE

BENT 122 (SOUTHBOUND)	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	595.3			

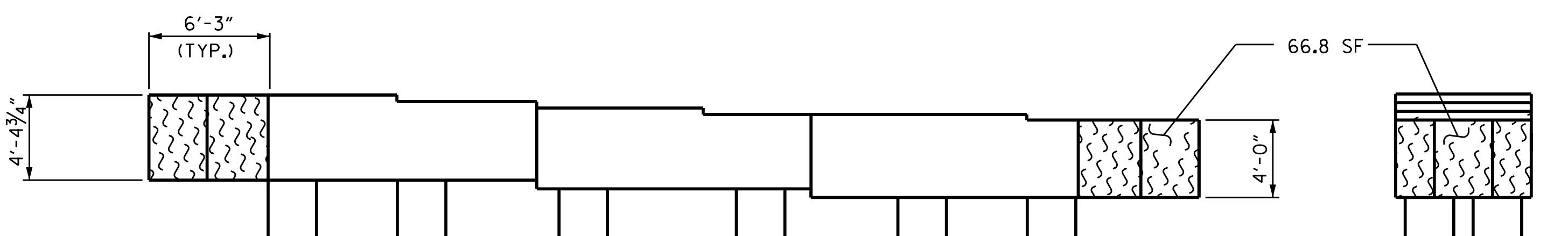
VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.



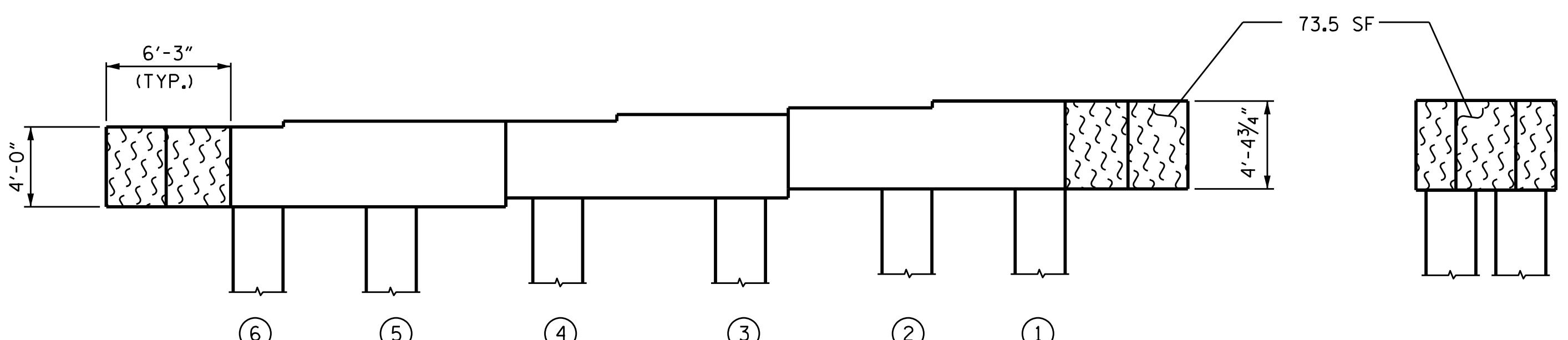
SPAN 123
(SOUTHBOUND)
SPAN 122
(SOUTHBOUND)



SPAN 122
(SOUTHBOUND)
SPAN 123
(SOUTHBOUND)



ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)



ELEVATION
(NORTH SIDE)
(LOOKING SOUTH)

NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- EPOXY RESIN INJECTION
- PILE
- EPOXY COATING

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

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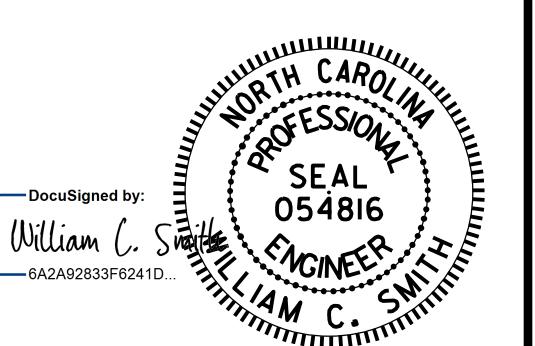
STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

SUBSTRUCTURE

BENT 122
(SOUTHBOUND)



11/21/2025

REVISIONS					SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-197
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2			4			

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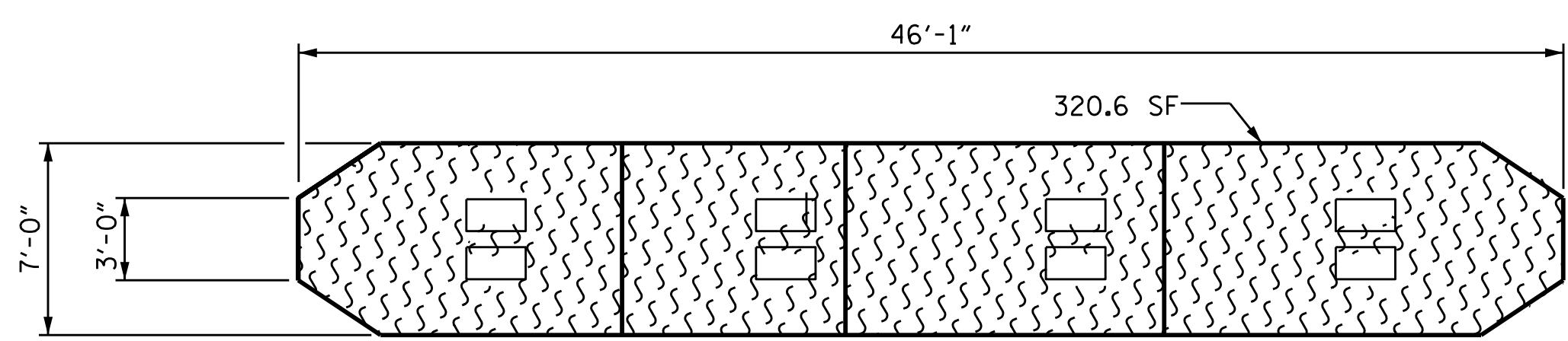
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SIGNATURES COMPLETED

TOTAL SHEETS
217

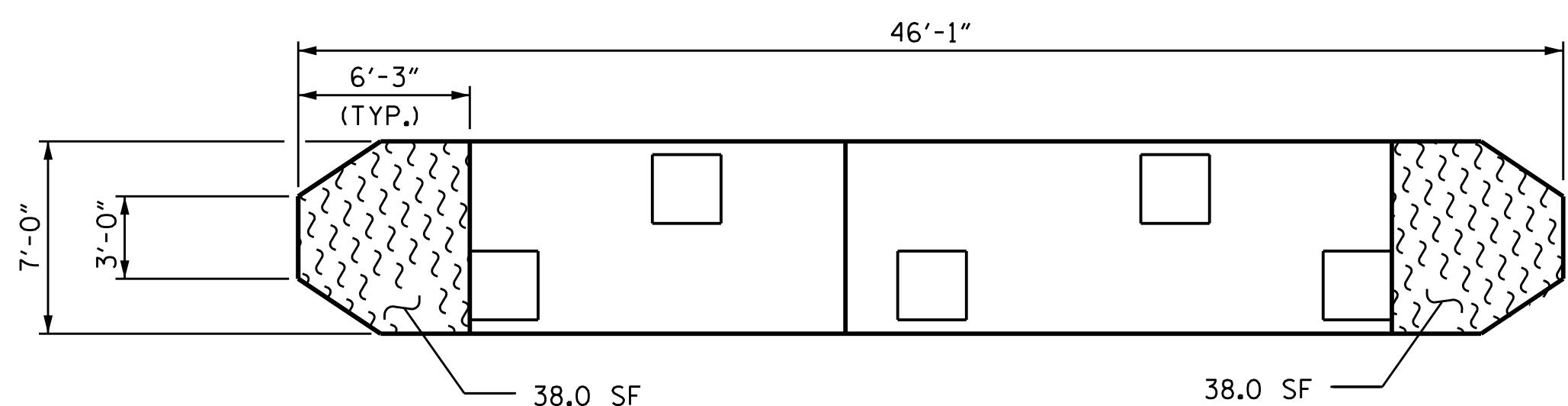
REPAIR QUANTITY TABLE

BENT 122 (NORTHBOUND)	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	537.4			

VALUES IN THE REPAIR QUANTITY TABLE 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.

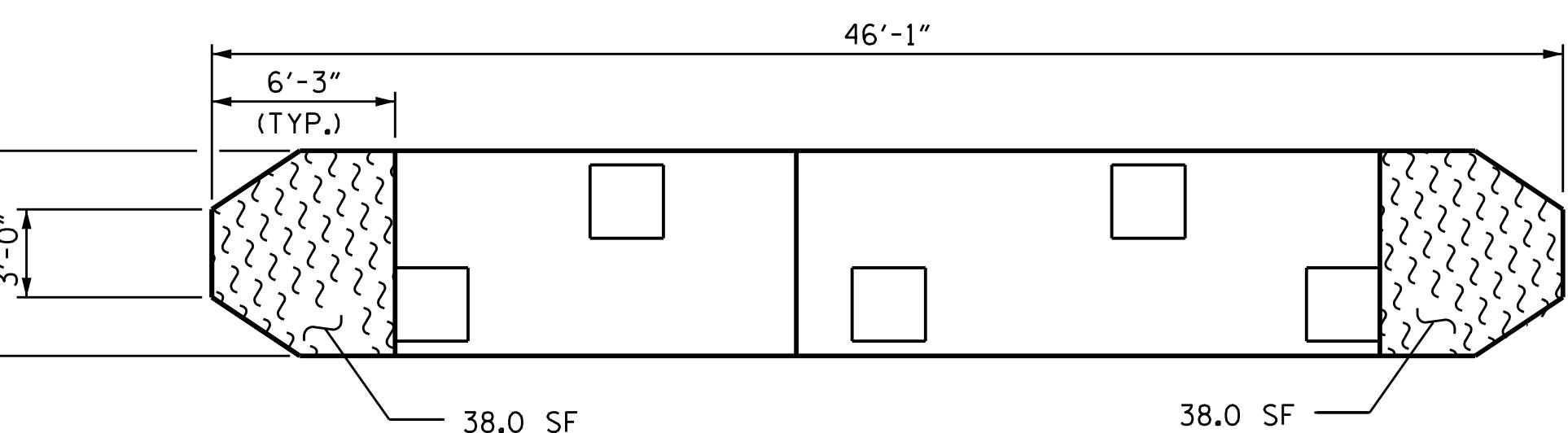


TOP VIEW OF CAP

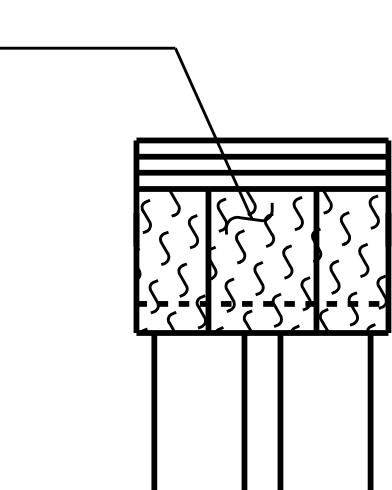


BOTTOM VIEW OF CAP

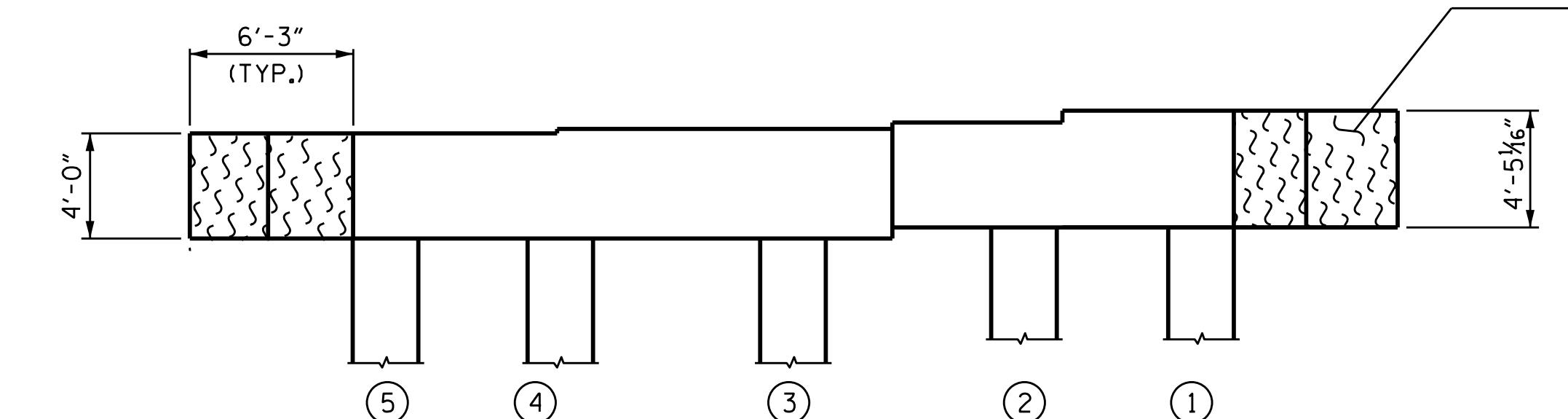
SPAN 123
(NORTHBOUND)
SPAN 122
(NORTHBOUND)



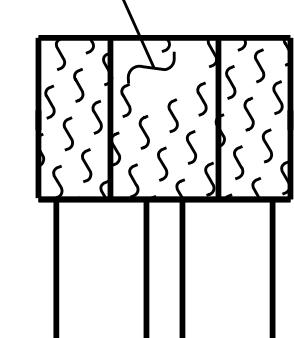
ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)



EAST END



ELEVATION
(NORTH SIDE)
(LOOKING SOUTH)



WEST END

NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- EPOXY COATING

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

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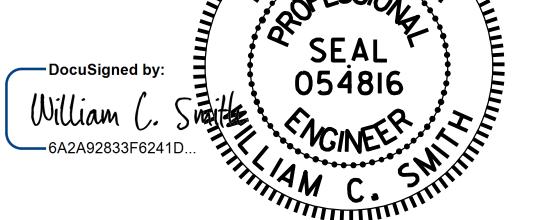
STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

SUBSTRUCTURE REPAIR

BENT 122
(NORTHBOUND)



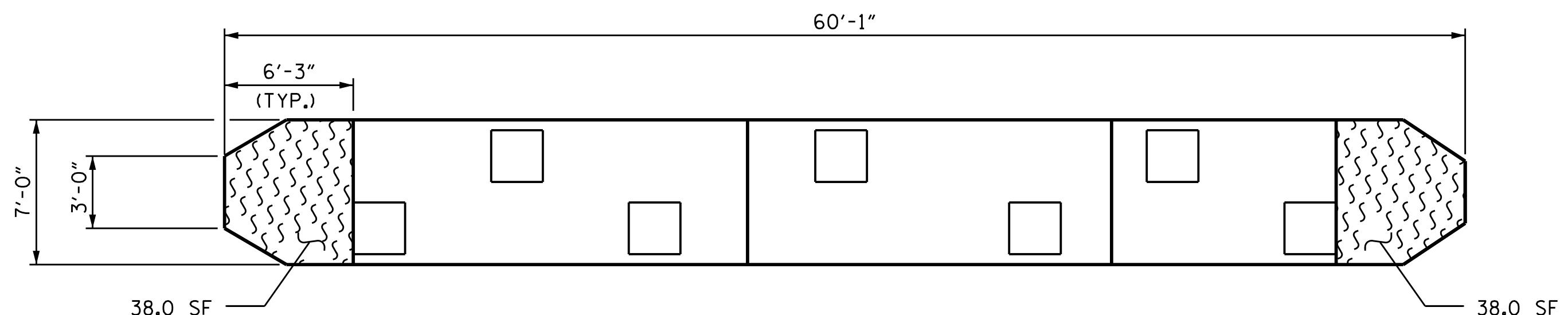
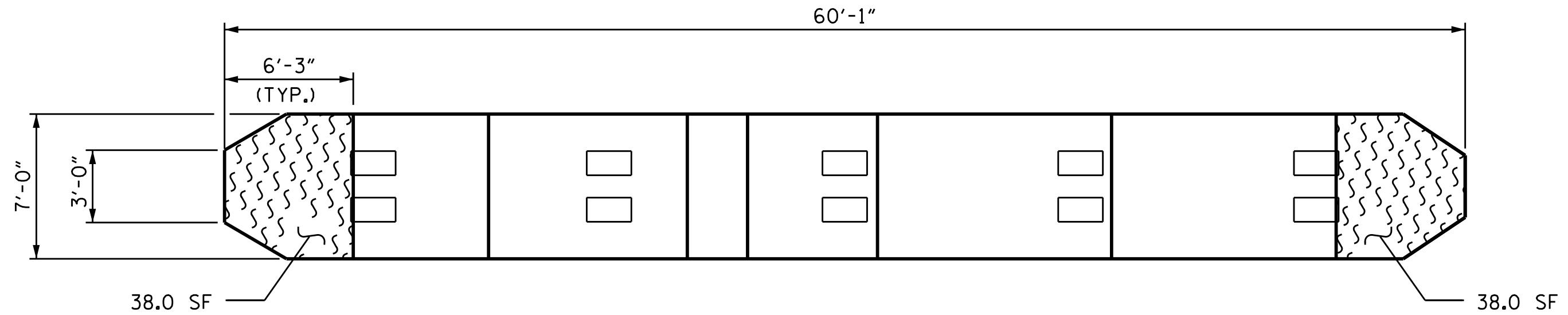
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TOTAL SHEETS
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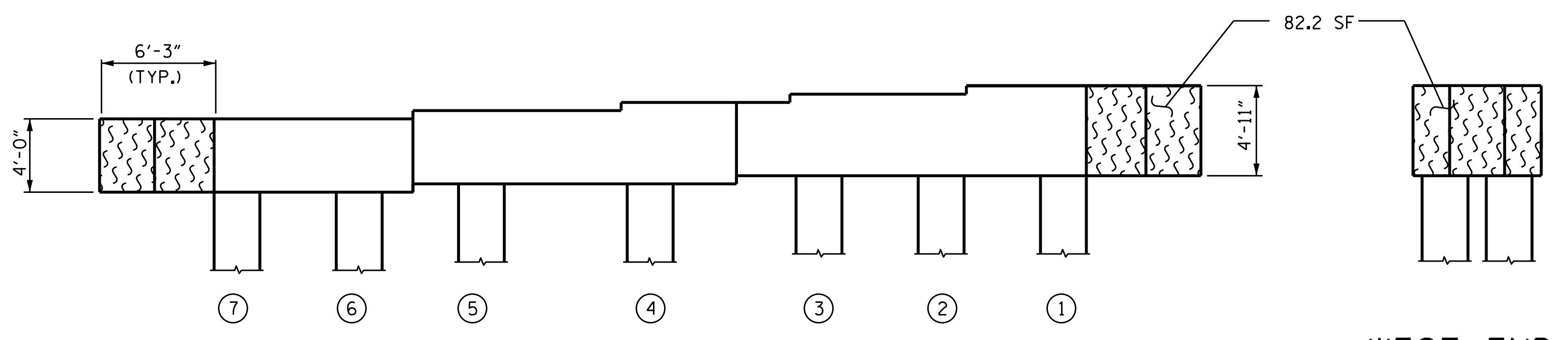
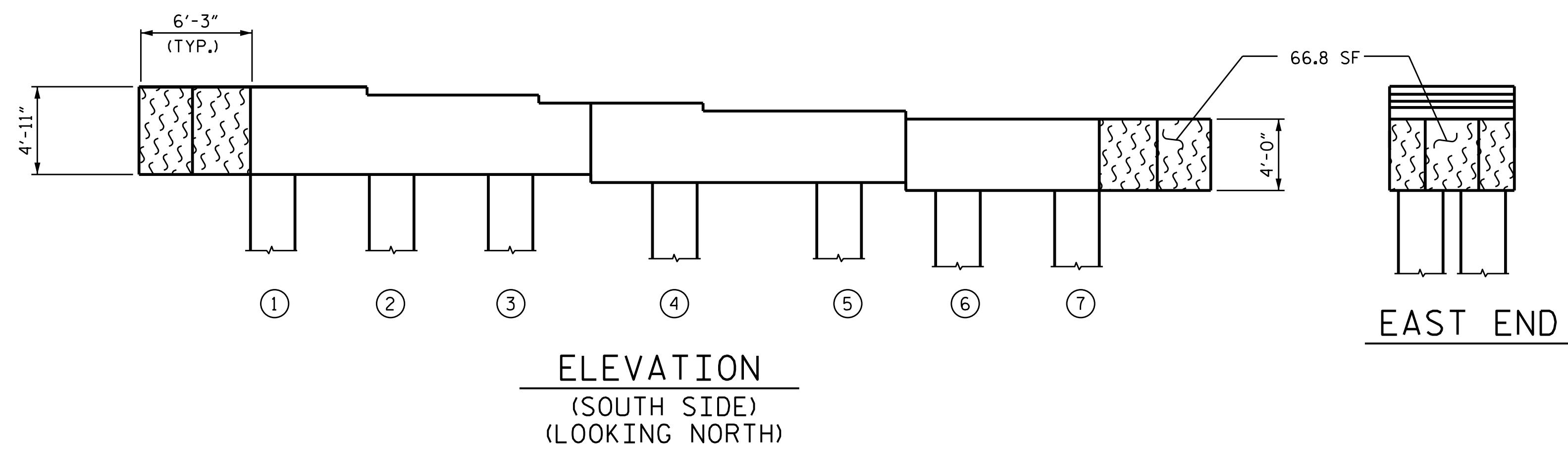


SPAN 124
(SOUTHBOUND)
SPAN 123
(SOUTHBOUND)

REPAIR QUANTITY TABLE

BENT 123 (SOUTHBOUND)	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP	301.0			

VALUES IN THE REPAIR QUANTITY TABLE 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.



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REVISIONS					SHEET NO.
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BEAUFORT COUNTY
BRIDGE NO. 060353

SHEET 131 OF 140

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUBSTRUCTURE

BENT 123
(SOUTHBOUND)

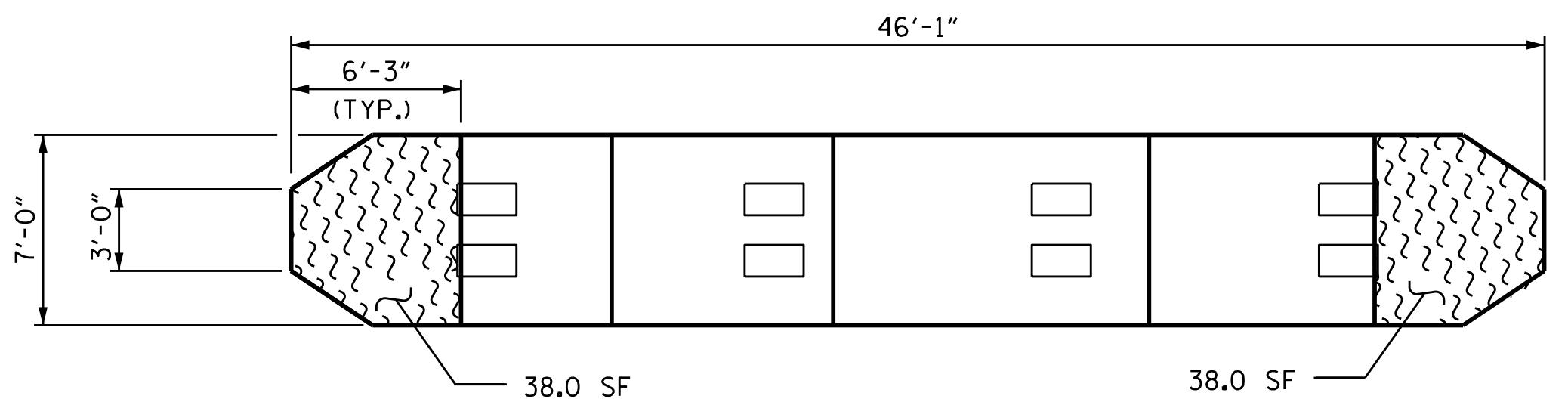
11/21/2025

S-199
TOTAL SHEETS
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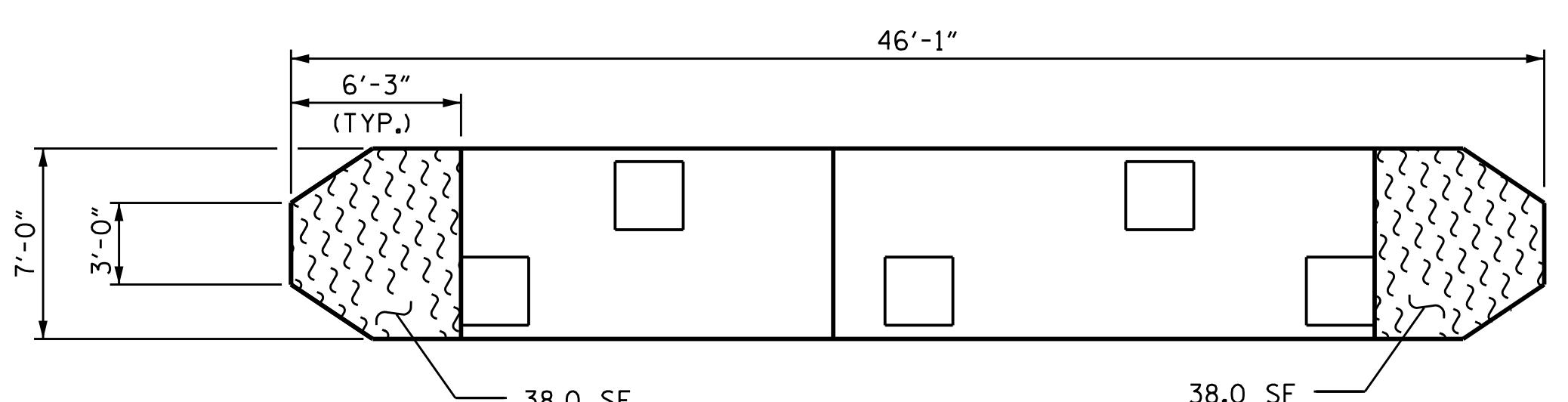
REPAIR QUANTITY TABLE

BENT 123 (NORTHBOUND)	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	292.8			

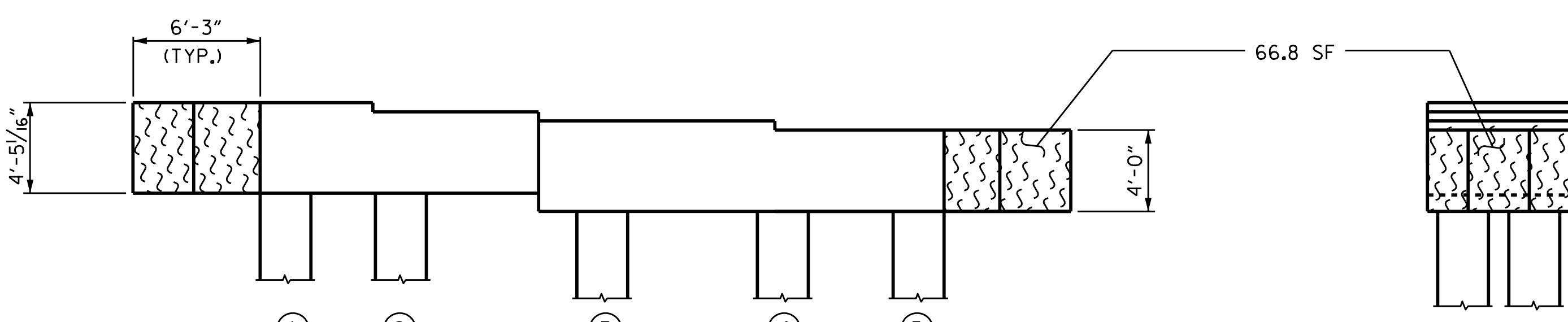
VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.



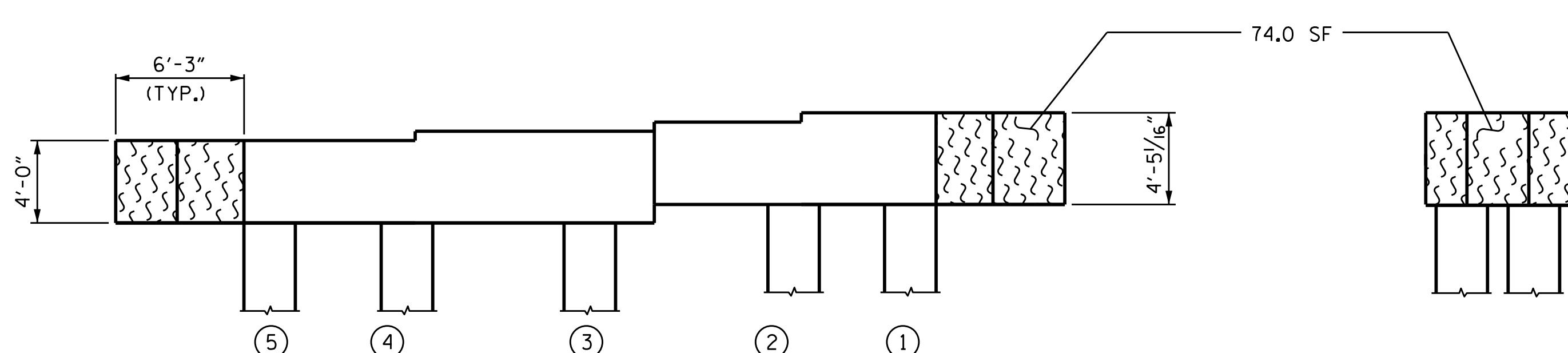
TOP VIEW OF CAP



BOTTOM VIEW OF CAP



ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)



ELEVATION
(NORTH SIDE)
(LOOKING SOUTH)

NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- █ SHOTCRETE REPAIR
- █ CONCRETE REPAIR
- █ ERI EPOXY RESIN INJECTION
- █ P PILE
- █ EPOXY COATING

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 132 OF 140

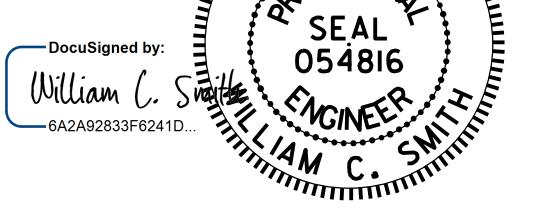
STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

SUBSTRUCTURE REPAIR

BENT 123
(NORTHBOUND)

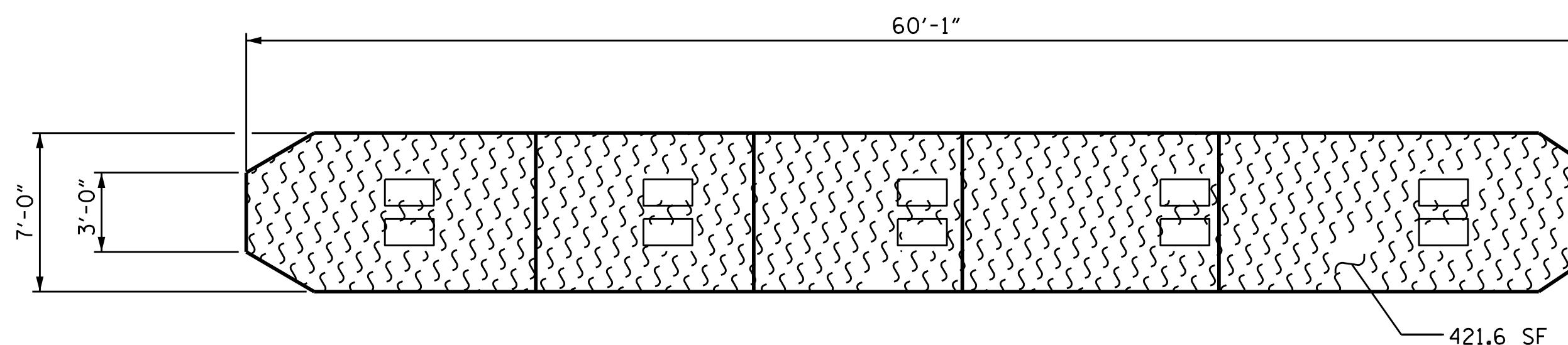


11/21/2025

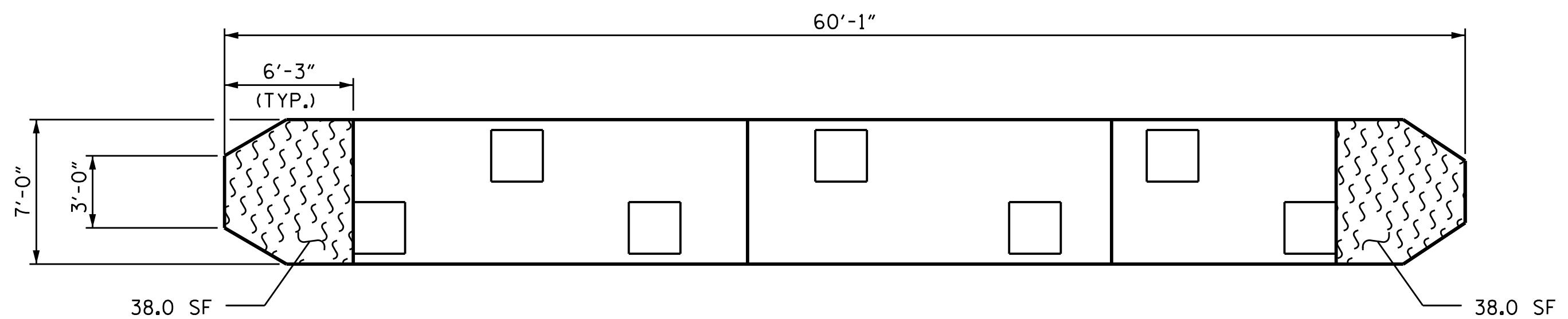
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REVISIONS		SHEET NO.	
1	3	2	4
TOTAL SHEETS 217			



TOP VIEW OF CAP



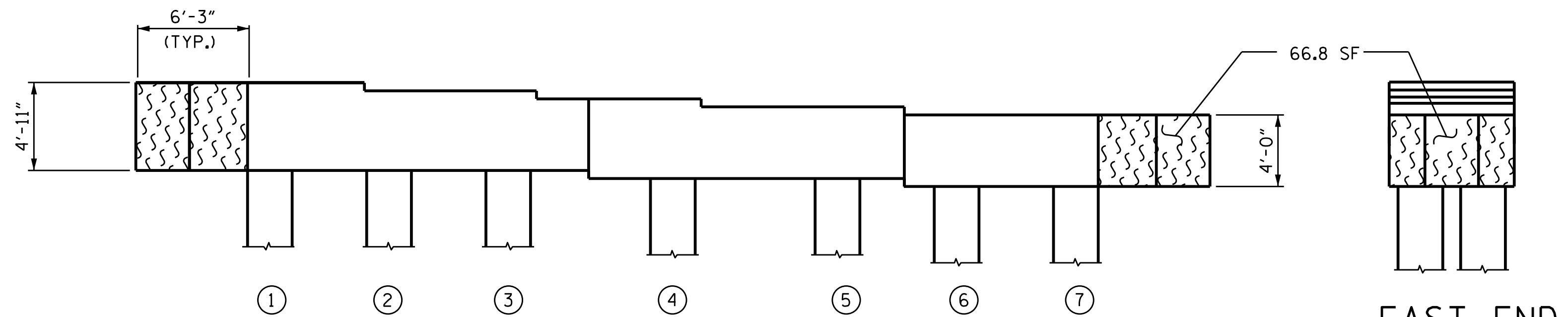
BOTTOM VIEW OF CAP

SPAN 125
(SOUTHBOUND)
SPAN 124
(SOUTHBOUND)

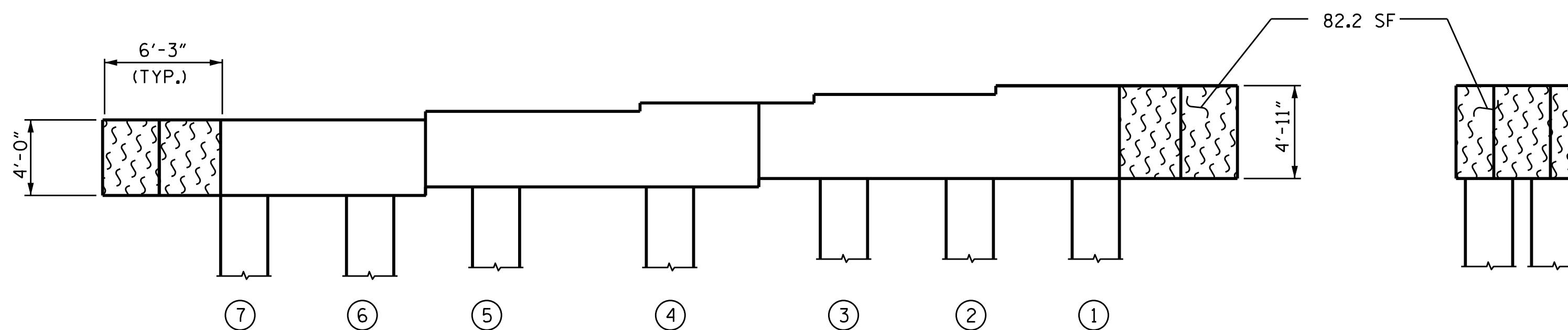
REPAIR QUANTITY TABLE

BENT 124 (SOUTHBOUND)	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	646.6			

VALUES IN THE REPAIR QUANTITY TABLE 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.



ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)



ELEVATION
(NORTH SIDE)
(LOOKING SOUTH)

NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- █ SHOTCRETE REPAIR
- █ CONCRETE REPAIR
- █ ERI EPOXY RESIN INJECTION
- █ P PILE
- █ EPOXY COATING

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 133 OF 140

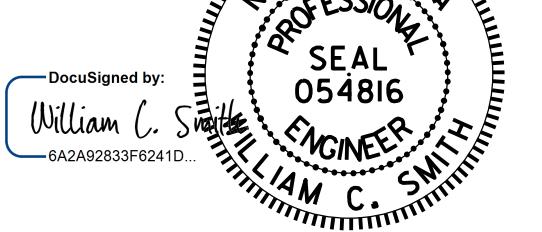
STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

SUBSTRUCTURE

BENT 124
(SOUTHBOUND)



REVISIONS SHEET NO.

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1			3			1		
2			4			2		

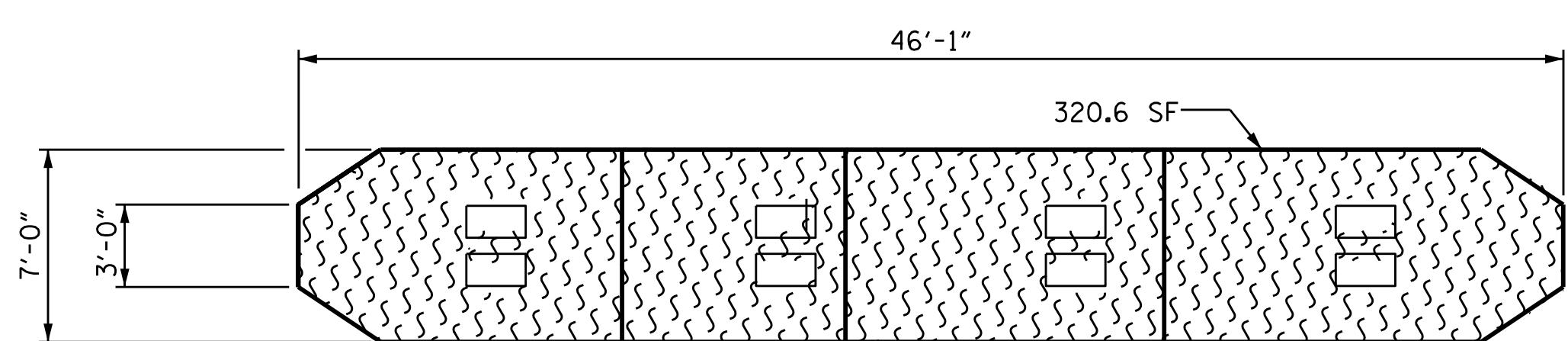
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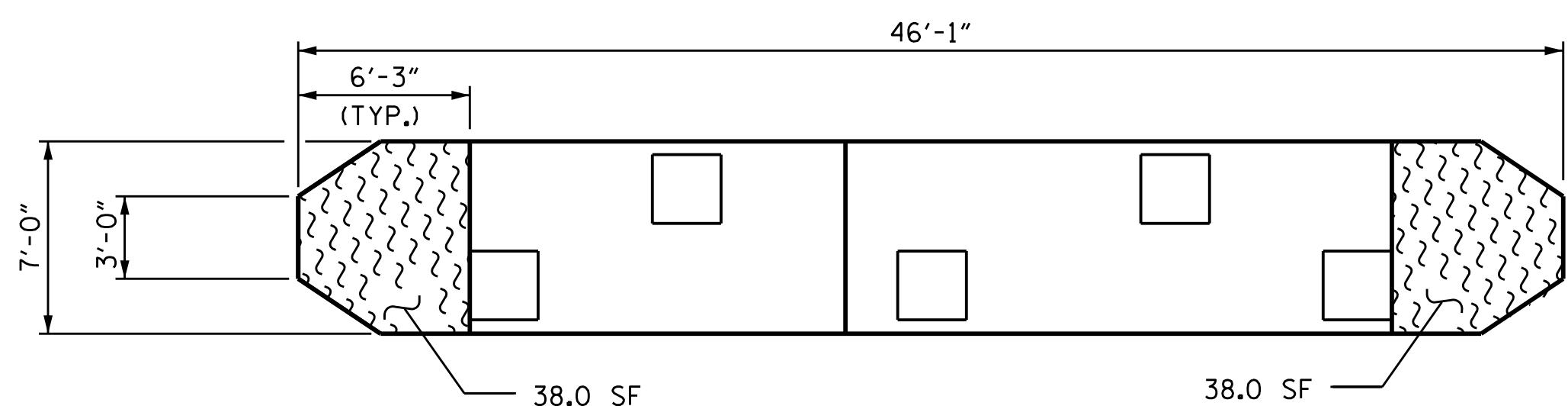
REPAIR QUANTITY TABLE

BENT 124 (NORTHBOUND)	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	537.4			

VALUES IN THE REPAIR QUANTITY TABLE 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.

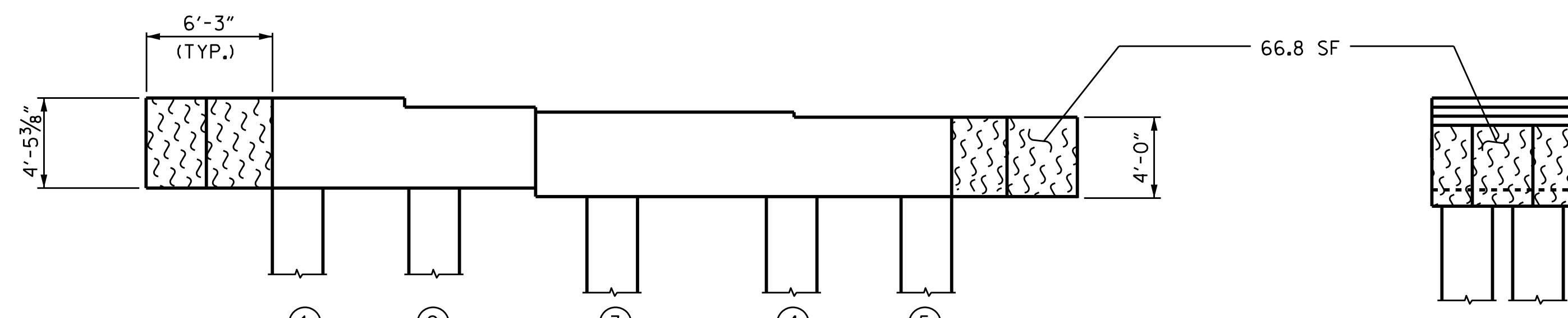


TOP VIEW OF CAP



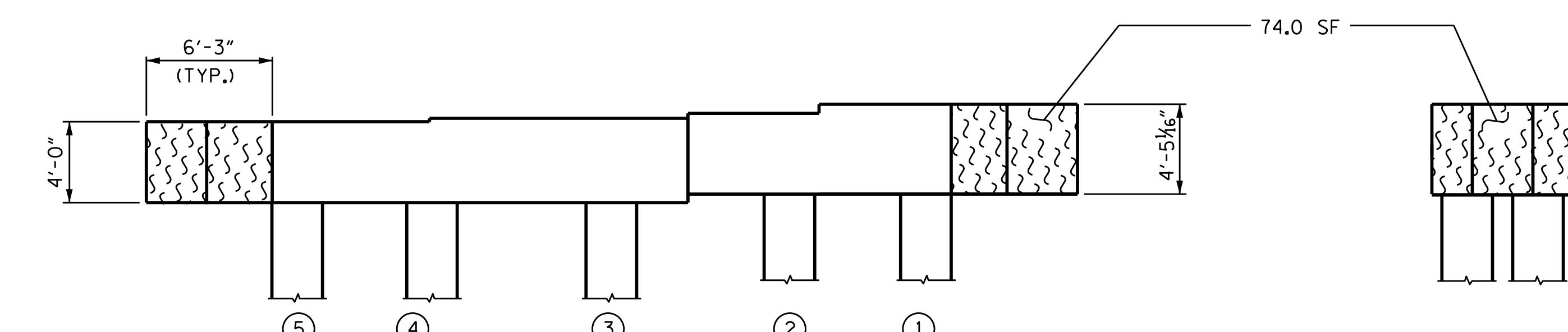
BOTTOM VIEW OF CAP

SPAN 125
(NORTHBOUND)
SPAN 124
(NORTHBOUND)



ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)

EAST END



ELEVATION
(NORTH SIDE)
(LOOKING SOUTH)

WEST END

NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- EPOXY COATING

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 134 OF 140

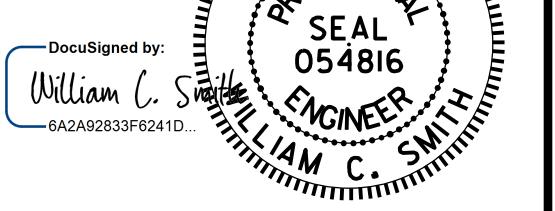
STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

SUBSTRUCTURE REPAIR

BENT 124
(NORTHBOUND)



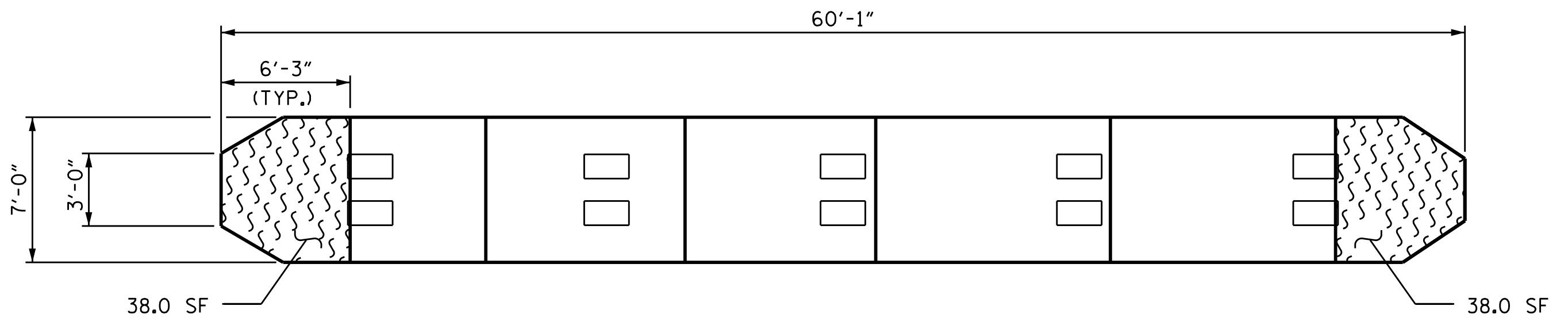
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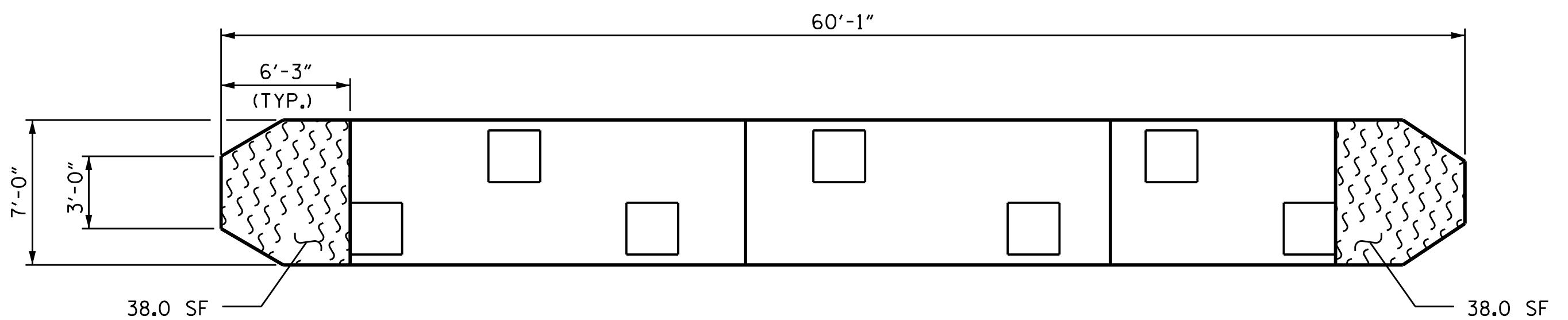
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2			4

TOTAL SHEETS
217



TOP VIEW OF CAP



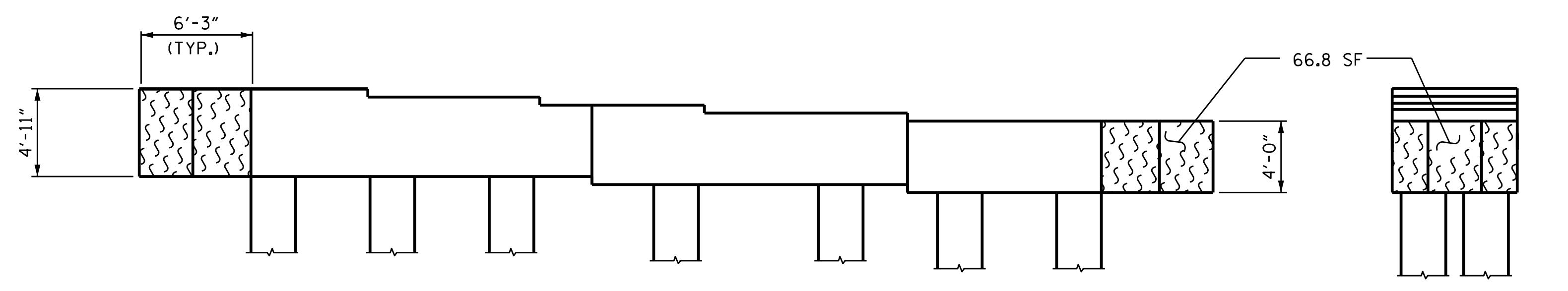
BOTTOM VIEW OF CAP

SPAN 126
(SOUTHBOUND)
SPAN 125
(SOUTHBOUND)

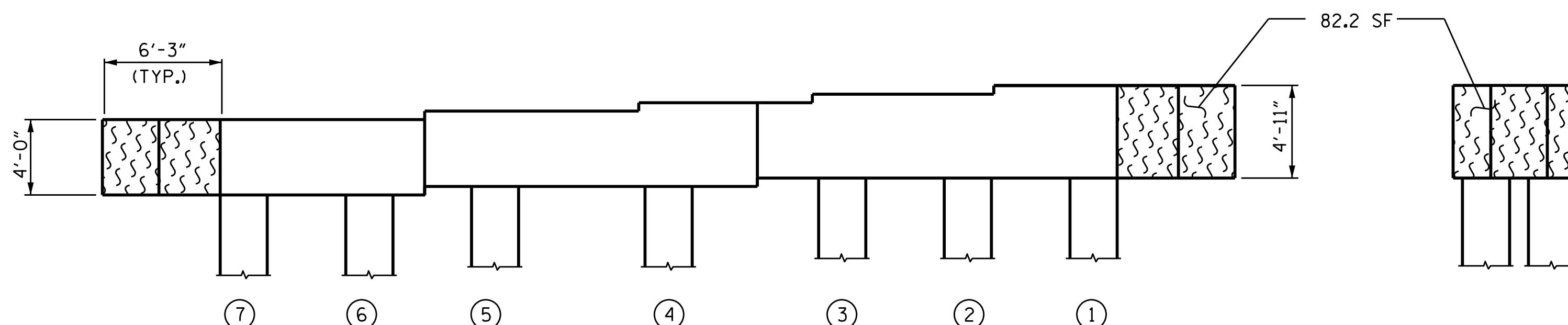
REPAIR QUANTITY TABLE

BENT 125 (SOUTHBOUND)	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	301.0			

VALUES IN THE REPAIR QUANTITY TABLE 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.



ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)



ELEVATION
(NORTH SIDE)
(LOOKING SOUTH)

NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- █ SHOTCRETE REPAIR
- █ CONCRETE REPAIR
- █ ERI EPOXY RESIN INJECTION
- █ P PILE
- █ EPOXY COATING

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 135 OF 140

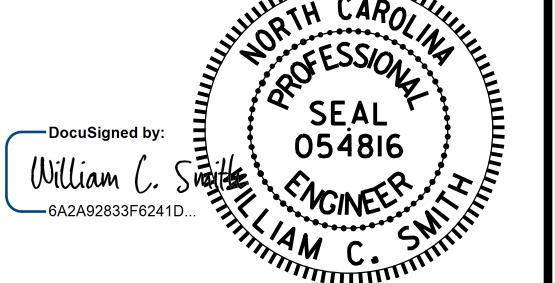
STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

SUBSTRUCTURE

BENT 125
(SOUTHBOUND)



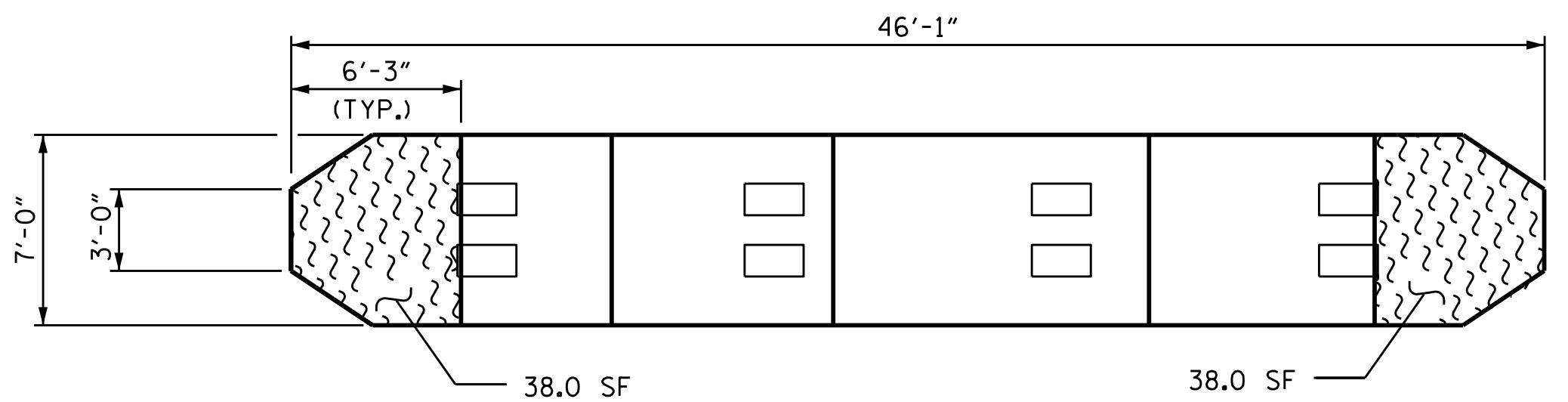
REVISIONS					SHEET NO.	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	NO.	BY:	DATE:	NO.	BY:	DATE:
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DRAWN BY : S. T. SANDOR DATE : 6/28/24
CHECKED BY : W. C. SMITH DATE : 7/10/24

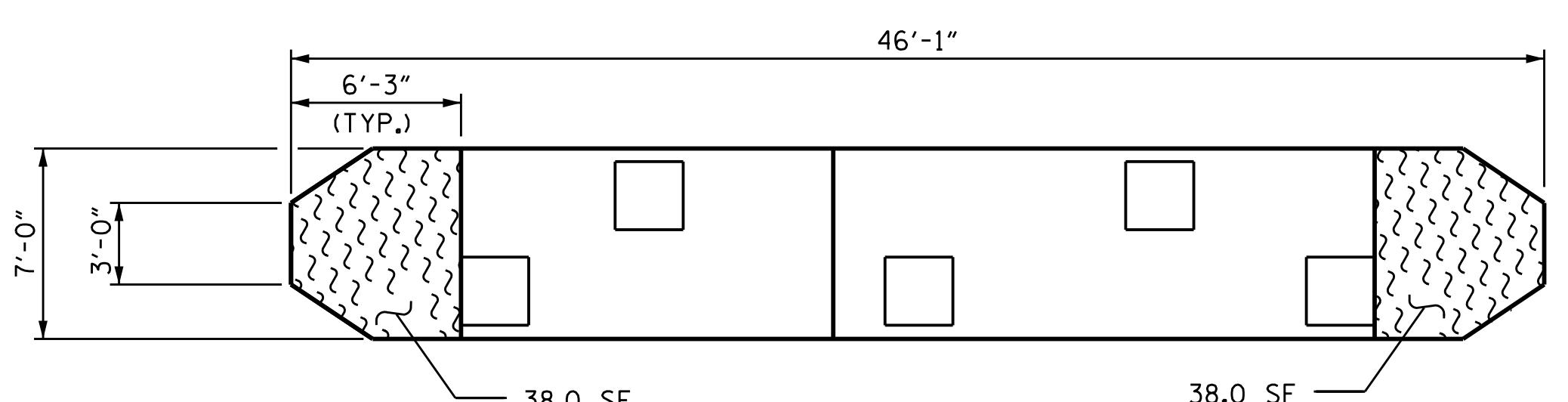
REPAIR QUANTITY TABLE

BENT 125 (NORTHBOUND)	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	292.8			

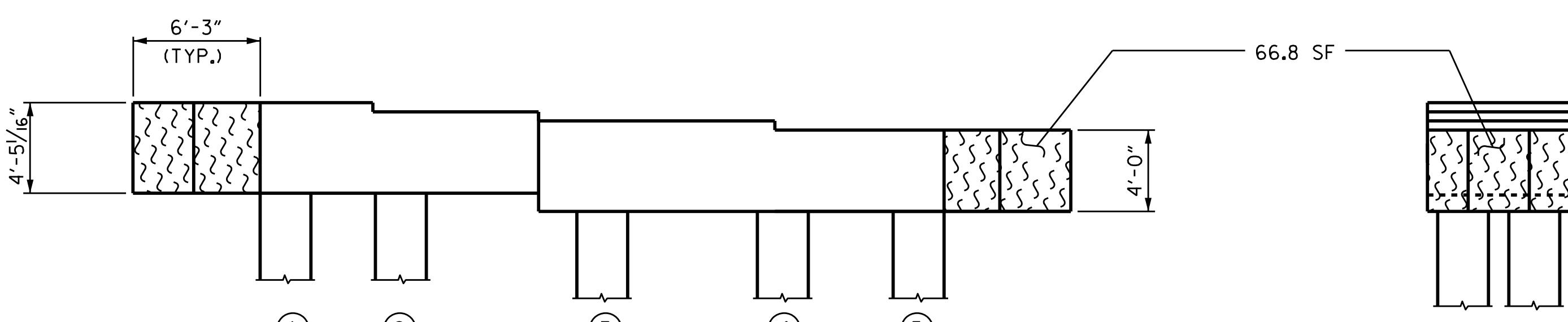
VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.



SPAN 126
(NORTHBOUND)
SPAN 125
(NORTHBOUND)



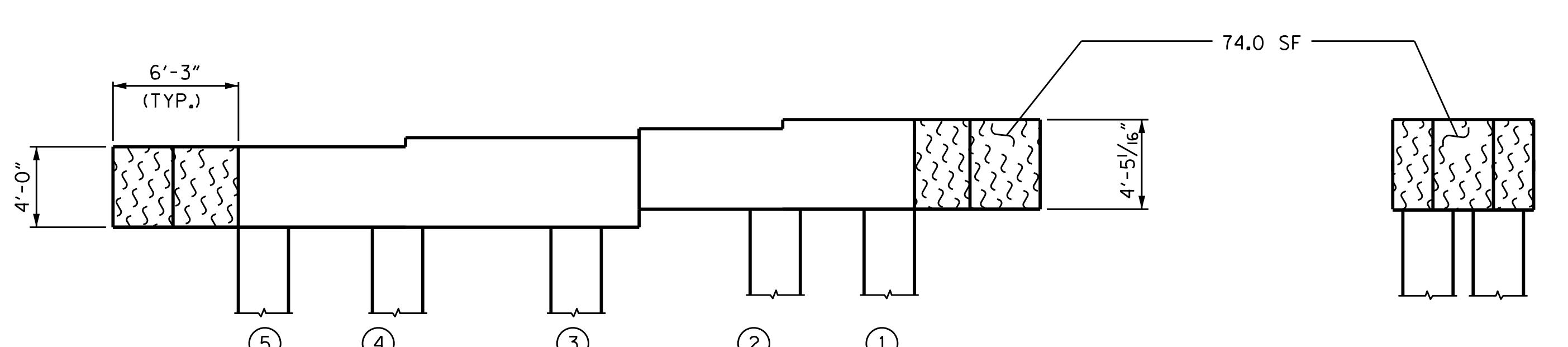
SPAN 125
(NORTHBOUND)
SPAN 126
(NORTHBOUND)



NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- █ SHOTCRETE REPAIR
- █ CONCRETE REPAIR
- █ ERI EPOXY RESIN INJECTION
- █ P PILE
- █ EPOXY COATING



EAST END

PROJECT NO. 15BPR.137

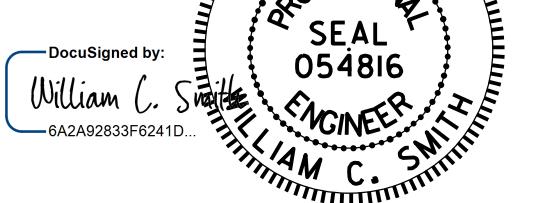
BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 136 OF 140

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE REPAIR
BENT 125
(NORTHBOUND)

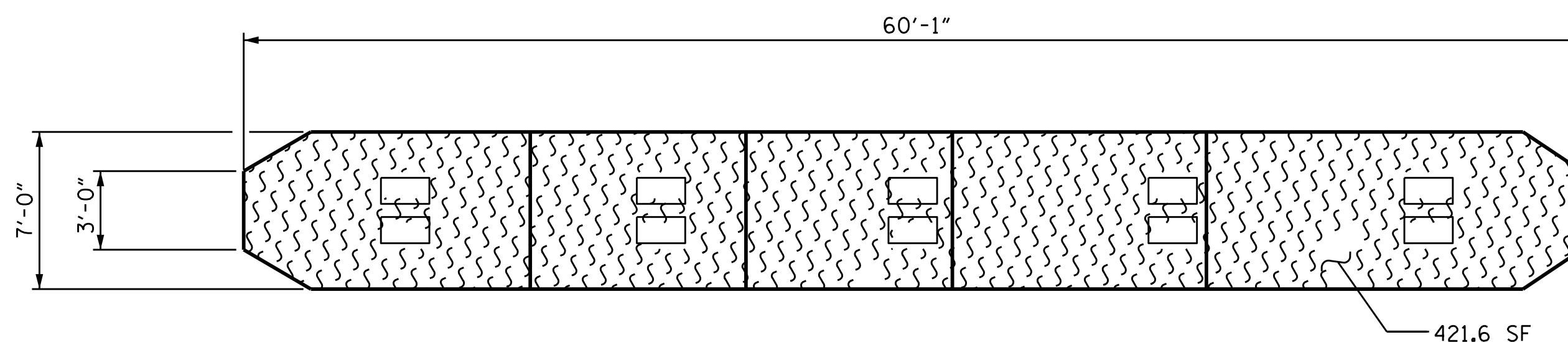


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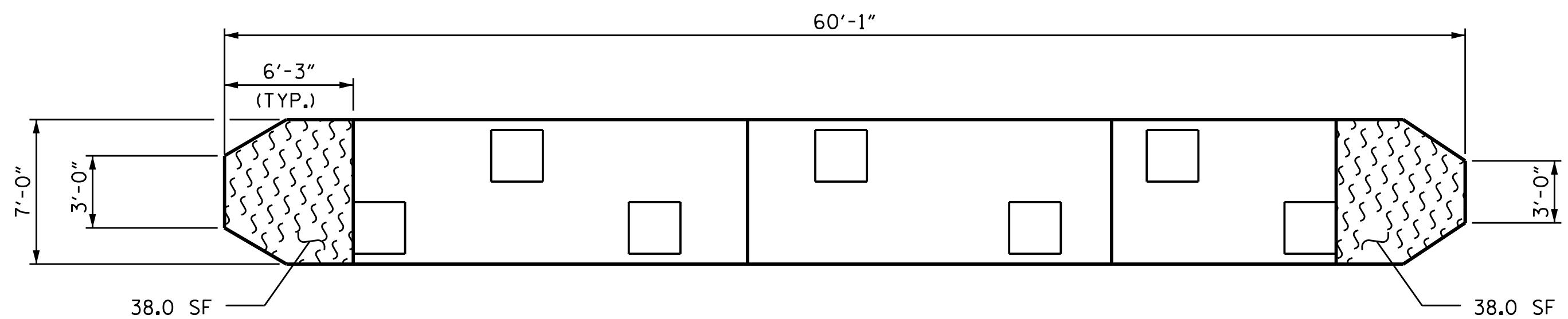
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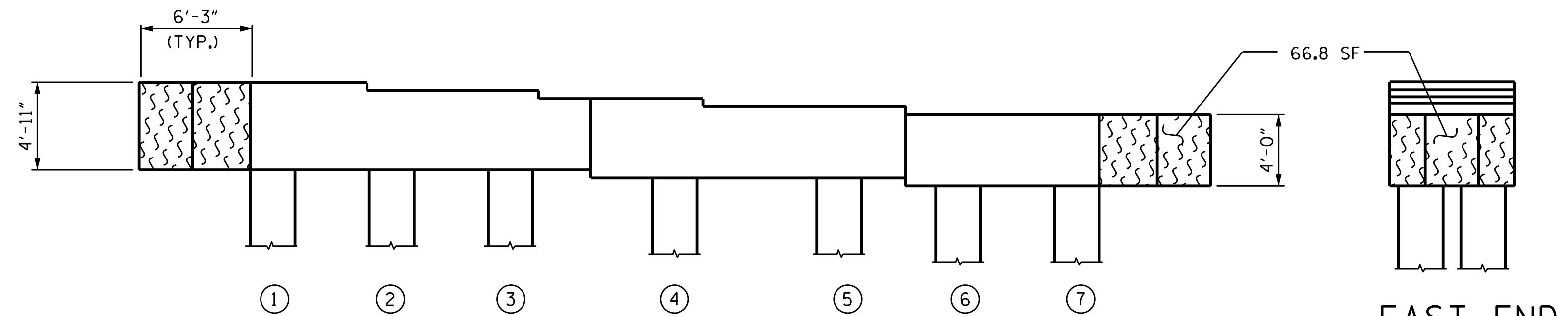
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SHEET NO.
S-204
TOTAL SHEETS
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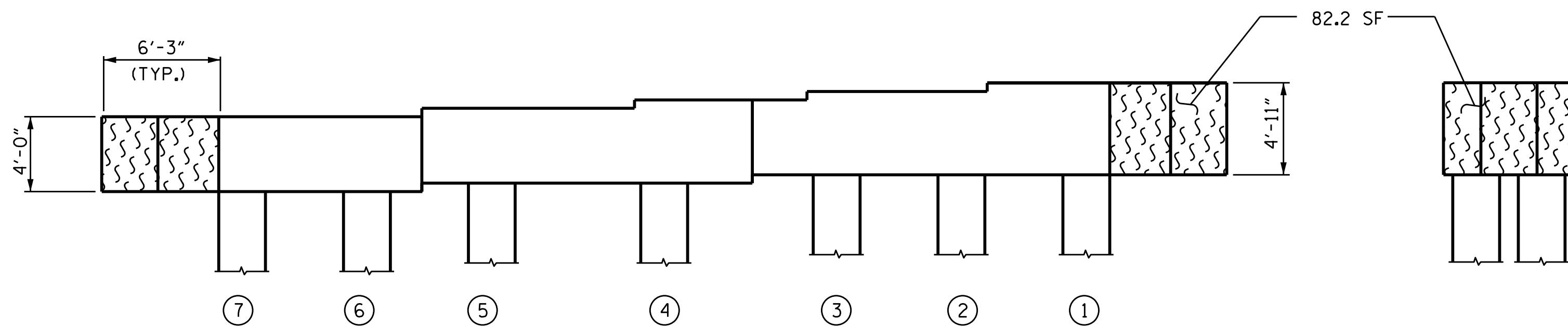
TOP VIEW OF CAP



BOTTOM VIEW OF CAP



ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)



ELEVATION
(NORTH SIDE)
(LOOKING SOUTH)

SPAN 127
(SOUTHBOUND)
SPAN 126
(SOUTHBOUND)

REPAIR QUANTITY TABLE

BENT 126 (SOUTHBOUND)	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	646.6			

VALUES IN THE REPAIR QUANTITY TABLE 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:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- EPOXY COATING

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 137 OF 140

STATE OF NORTH CAROLINA

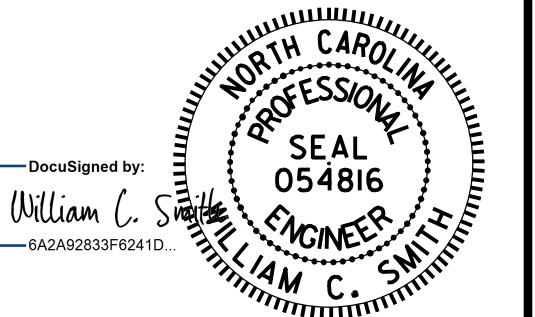
DEPARTMENT OF TRANSPORTATION

RALEIGH

SUBSTRUCTURE

BENT 126

(SOUTHBOUND)



11/21/2025

REVISIONS		SHEET NO.	
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2			4

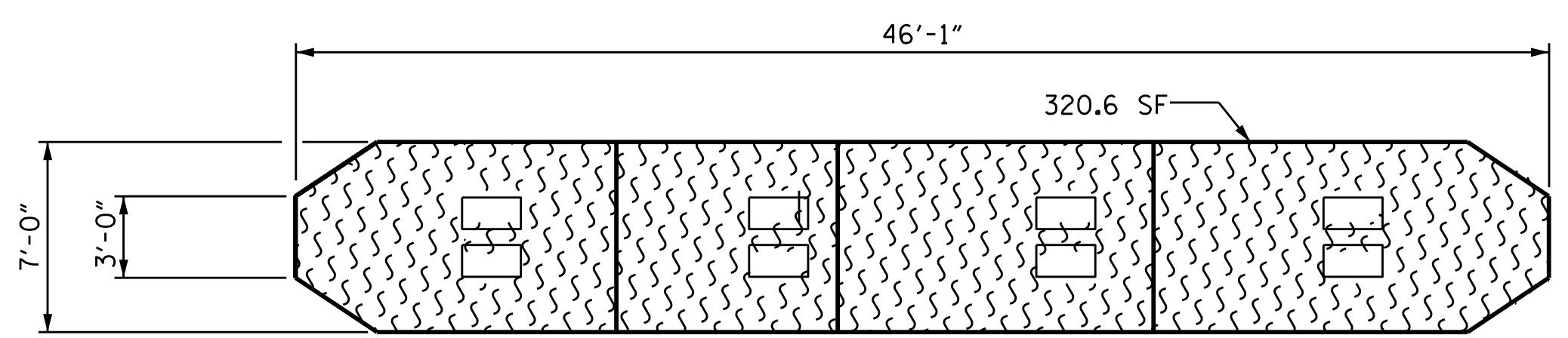
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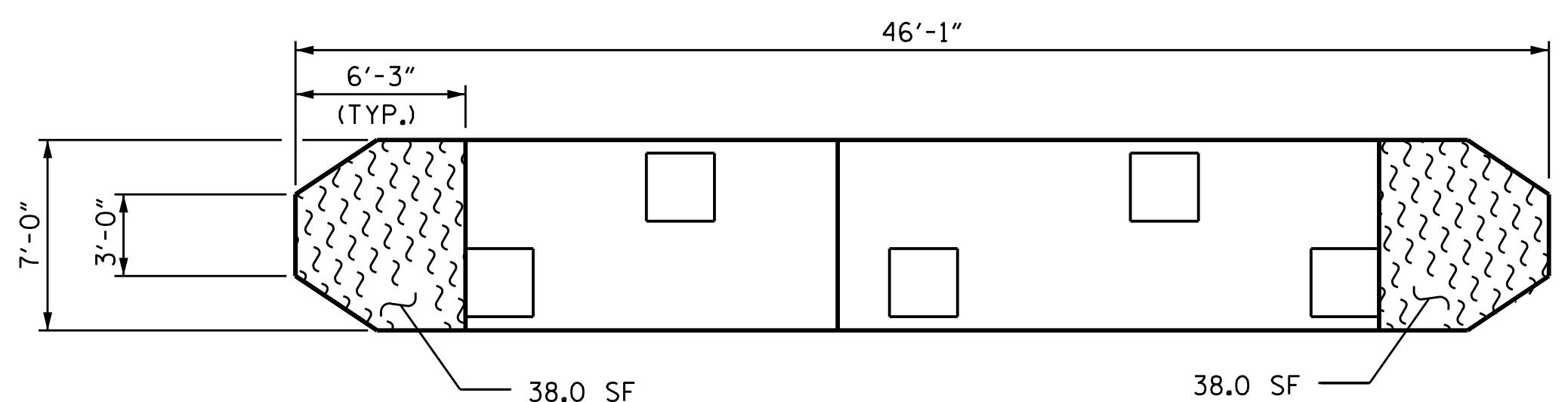
REPAIR QUANTITY TABLE

BENT 126 (NORTHBOUND)	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	540.9			

VALUES IN THE REPAIR QUANTITY TABLE 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.



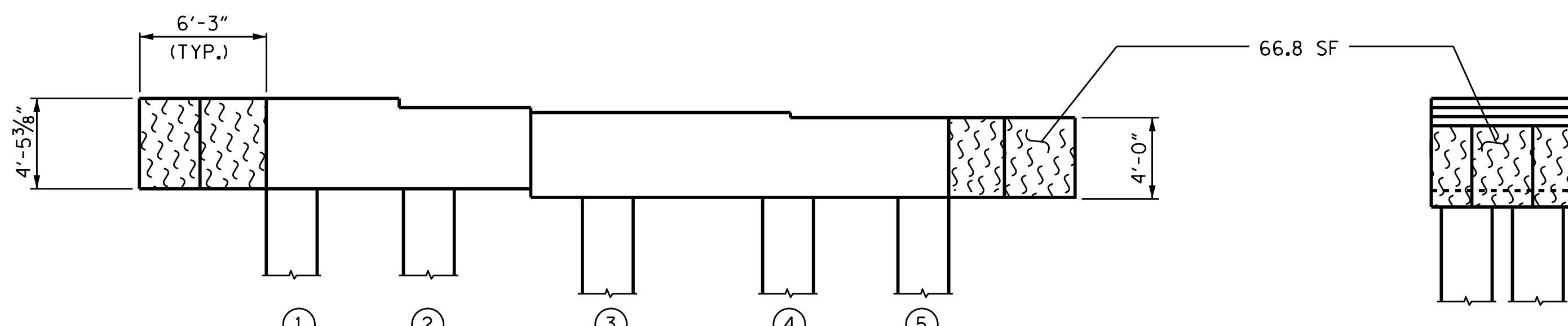
SPAN 127
(NORTHBOUND)
SPAN 126
(NORTHBOUND)



SPAN 126
(NORTHBOUND)
SPAN 127
(NORTHBOUND)

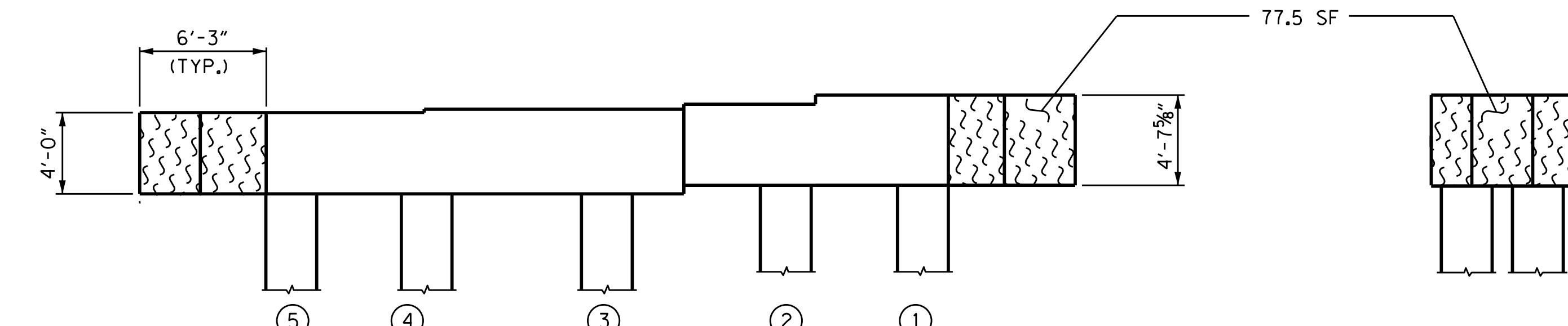
TOP VIEW OF CAP

BOTTOM VIEW OF CAP



ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)

EAST END



ELEVATION
(NORTH SIDE)
(LOOKING SOUTH)

WEST END

NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- EPOXY COATING

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 138 OF 140

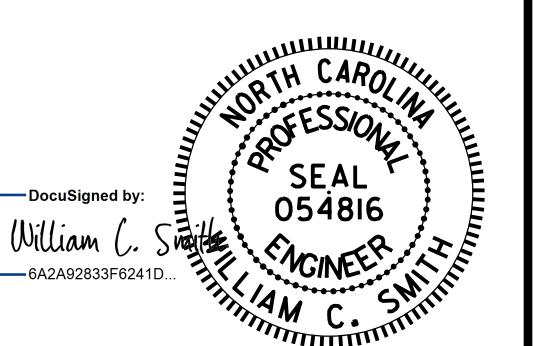
STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

SUBSTRUCTURE REPAIR

BENT 126
(NORTHBOUND)

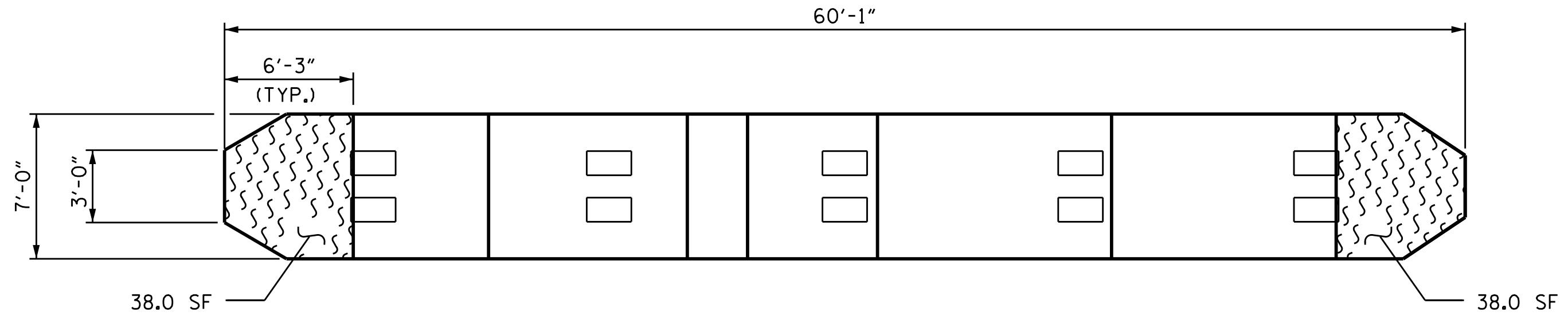


11/21/2025

REVISIONS		SHEET NO.	
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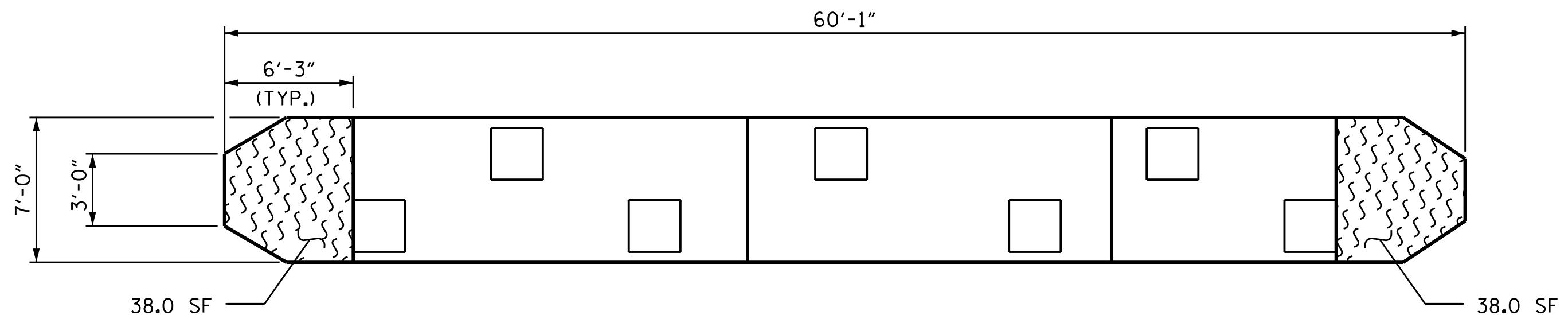
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TOP VIEW OF CAP

SPAN 128
(SOUTHBOUND)
SPAN 127
(SOUTHBOUND)



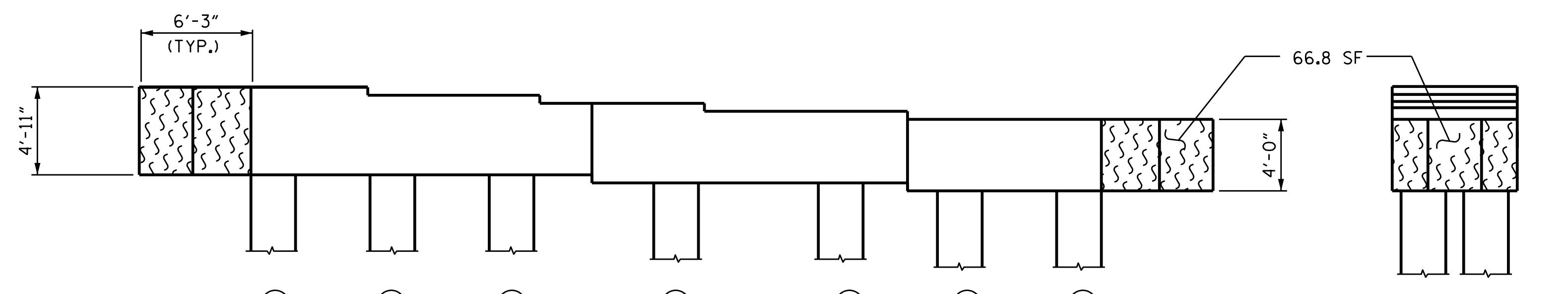
BOTTOM VIEW OF CAP

SPAN 127
(SOUTHBOUND)
SPAN 128
(SOUTHBOUND)

REPAIR QUANTITY TABLE

BENT 127 (SOUTHBOUND)	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	301.0			

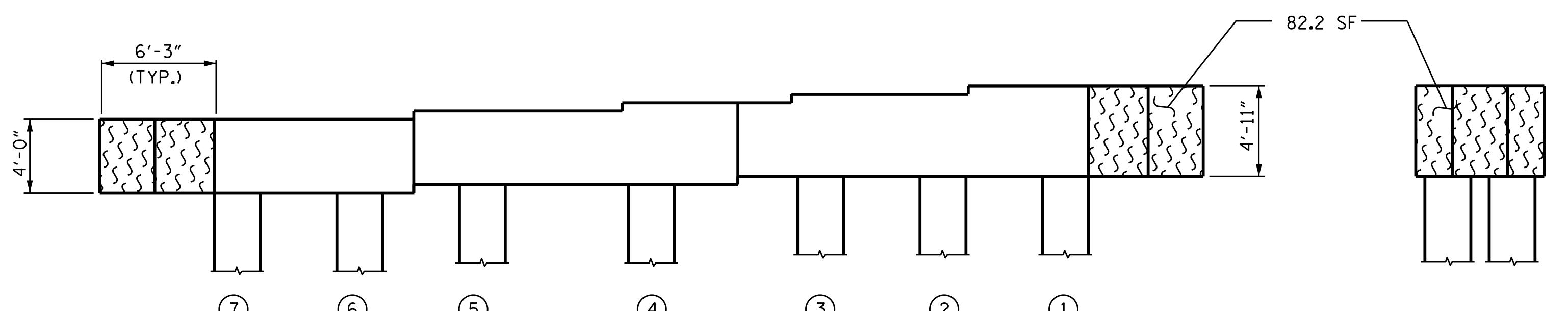
VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.



ELEVATION
(SOUTH SIDE)
(LOOKING NORTH)

NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.



ELEVATION
(NORTH SIDE)
(LOOKING SOUTH)

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- EPOXY COATING

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 139 OF 140

STATE OF NORTH CAROLINA

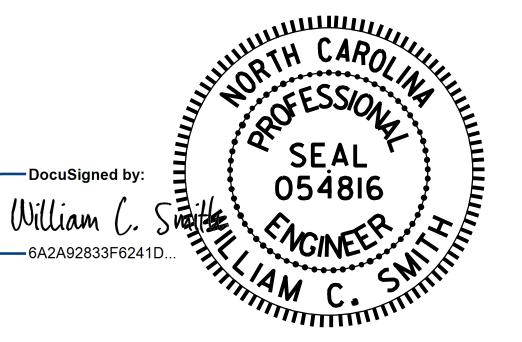
DEPARTMENT OF TRANSPORTATION

RALEIGH

SUBSTRUCTURE

BENT 127

(SOUTHBOUND)

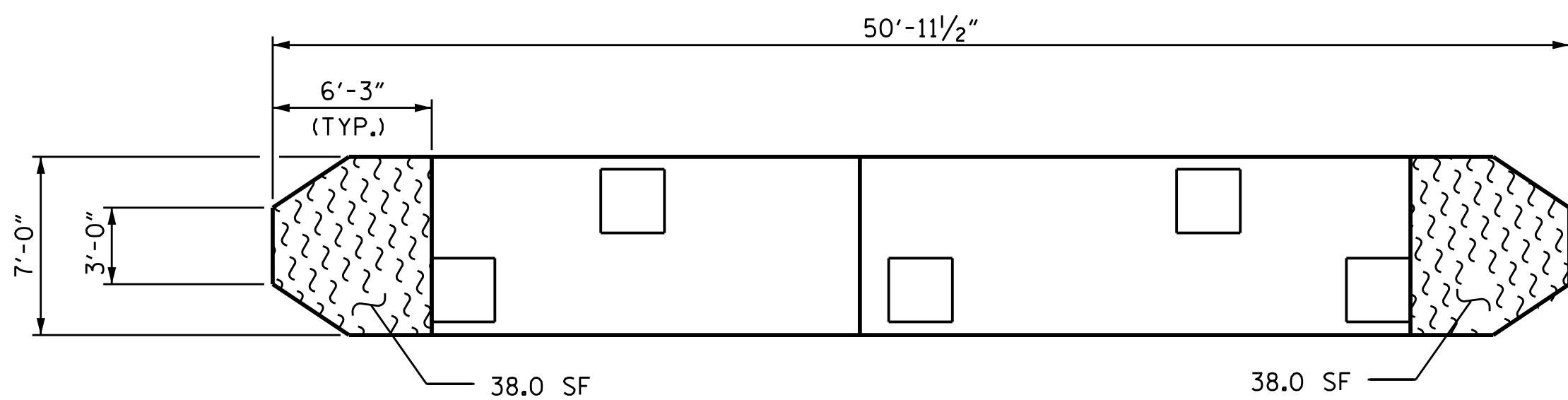
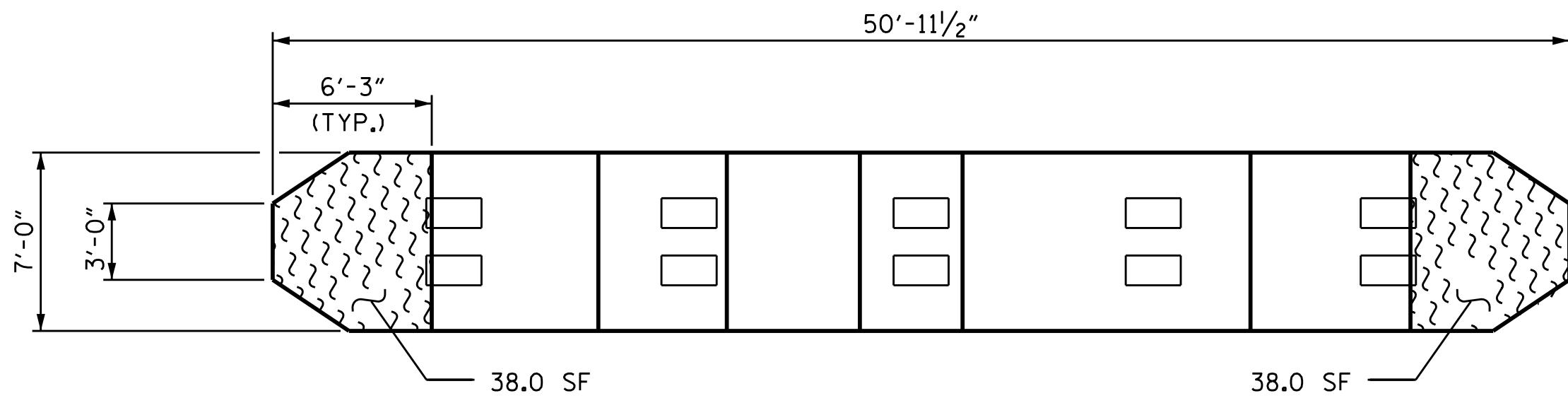


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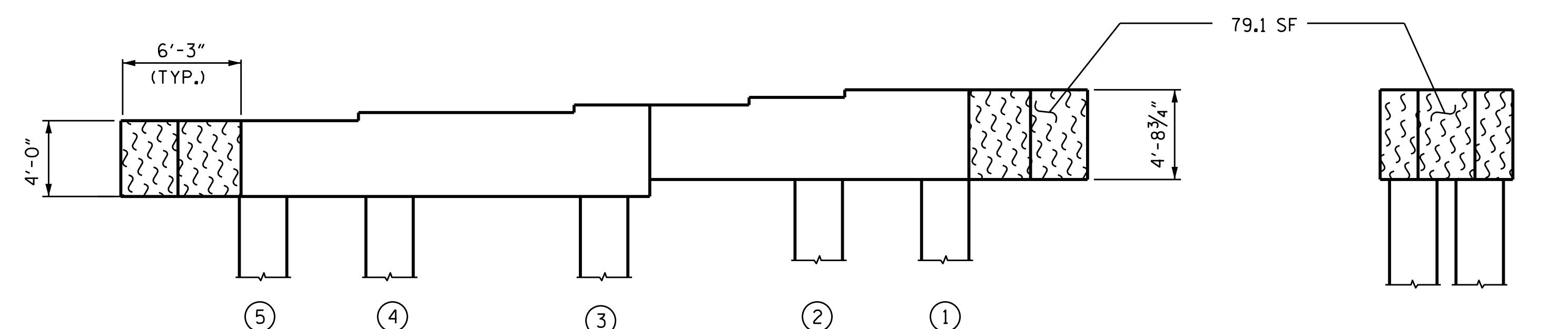
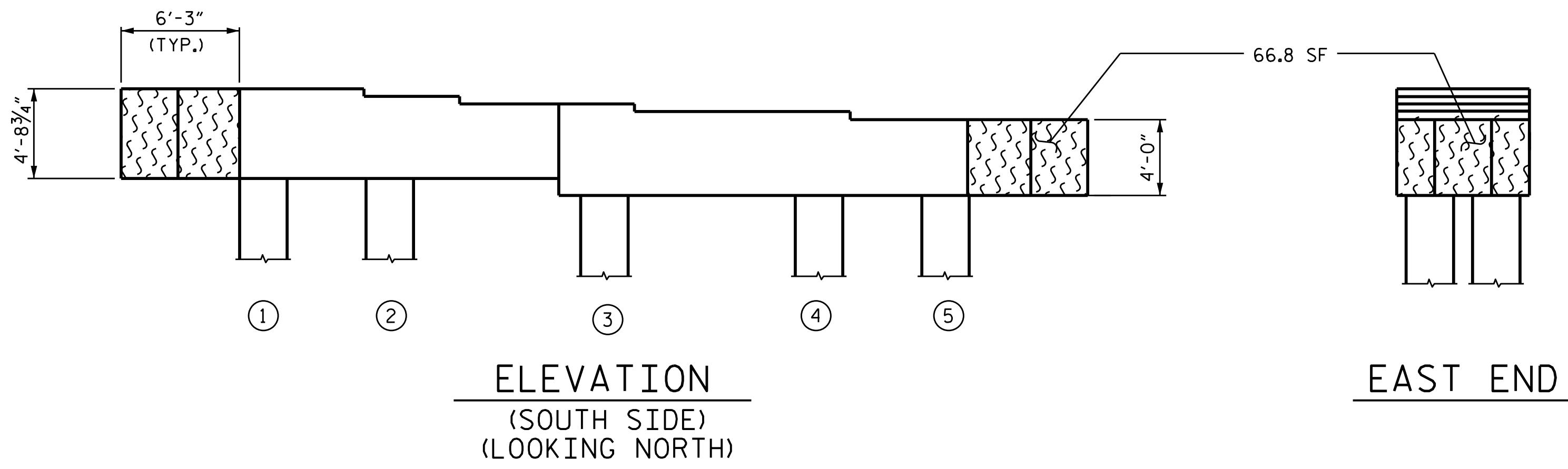
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CHECKED BY : W. C. SMITH DATE : 7/10/24



BOTTOM VIEW OF CAP



DRAWN BY : S. T. SANDOR DATE : 6/28/24
CHECKED BY : W. C. SMITH DATE : 7/10/24

REPAIR QUANTITY TABLE

BENT 127 (NORTHBOUND)	QUANTITIES			
	ESTIMATE	ACTUAL	AREA SF	VOLUME CF
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			
EPOXY COATING AND DEBRIS REMOVAL	AREA SF			
CAP	297.9			

VALUES IN THE REPAIR QUANTITY TABLE 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:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- █ SHOTCRETE REPAIR
- █ CONCRETE REPAIR
- █ ERI EPOXY RESIN INJECTION
- █ P PILE

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 140 OF 140

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE

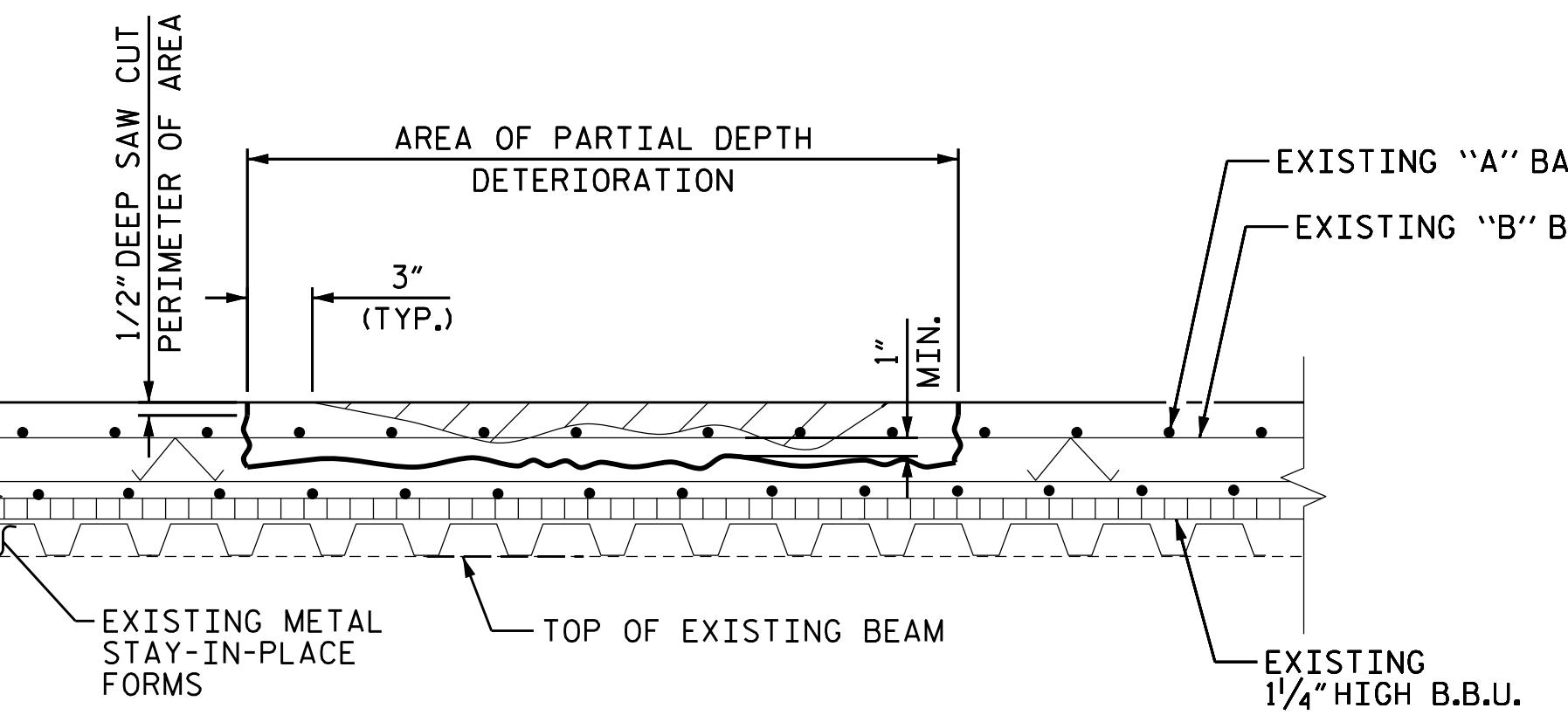
BENT 127
(NORTHBOUND)



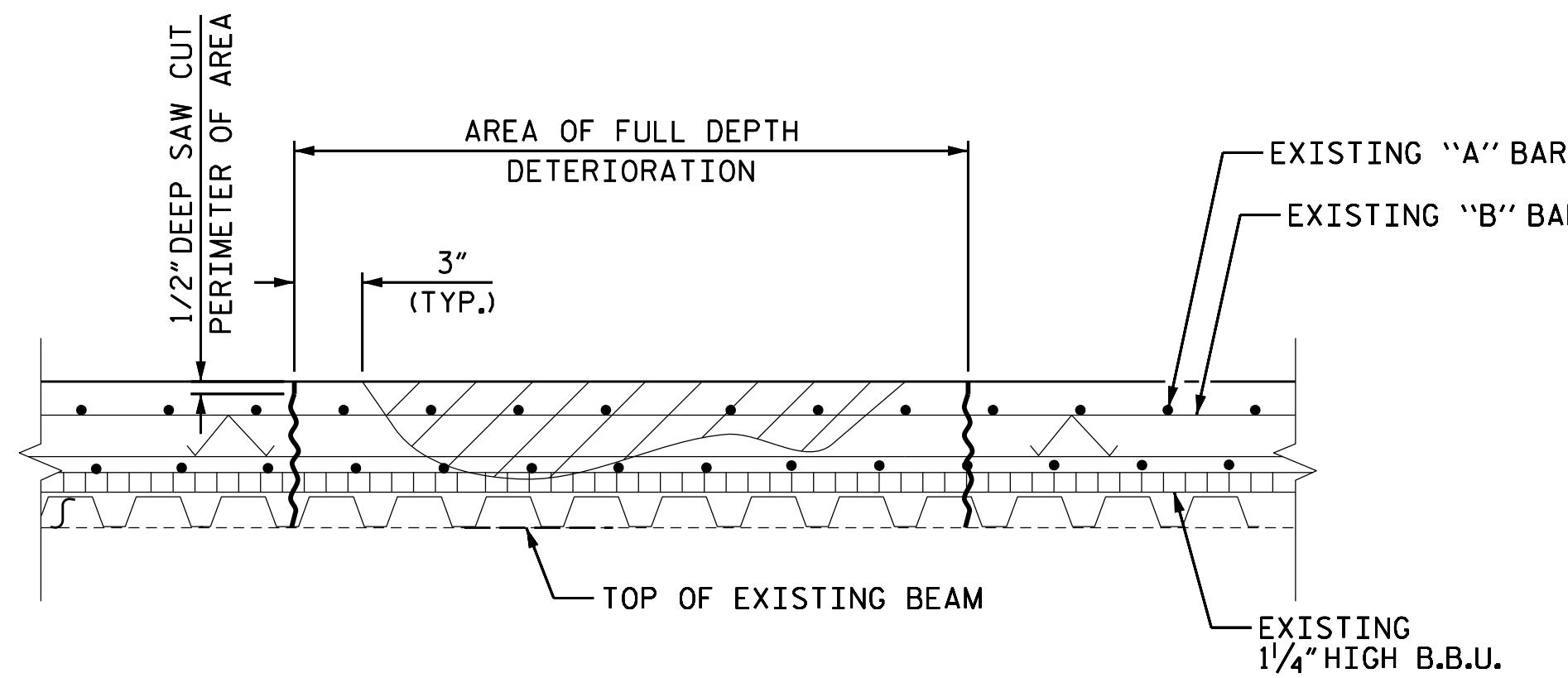
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NO.	BY:	DATE:	NO.
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2			4

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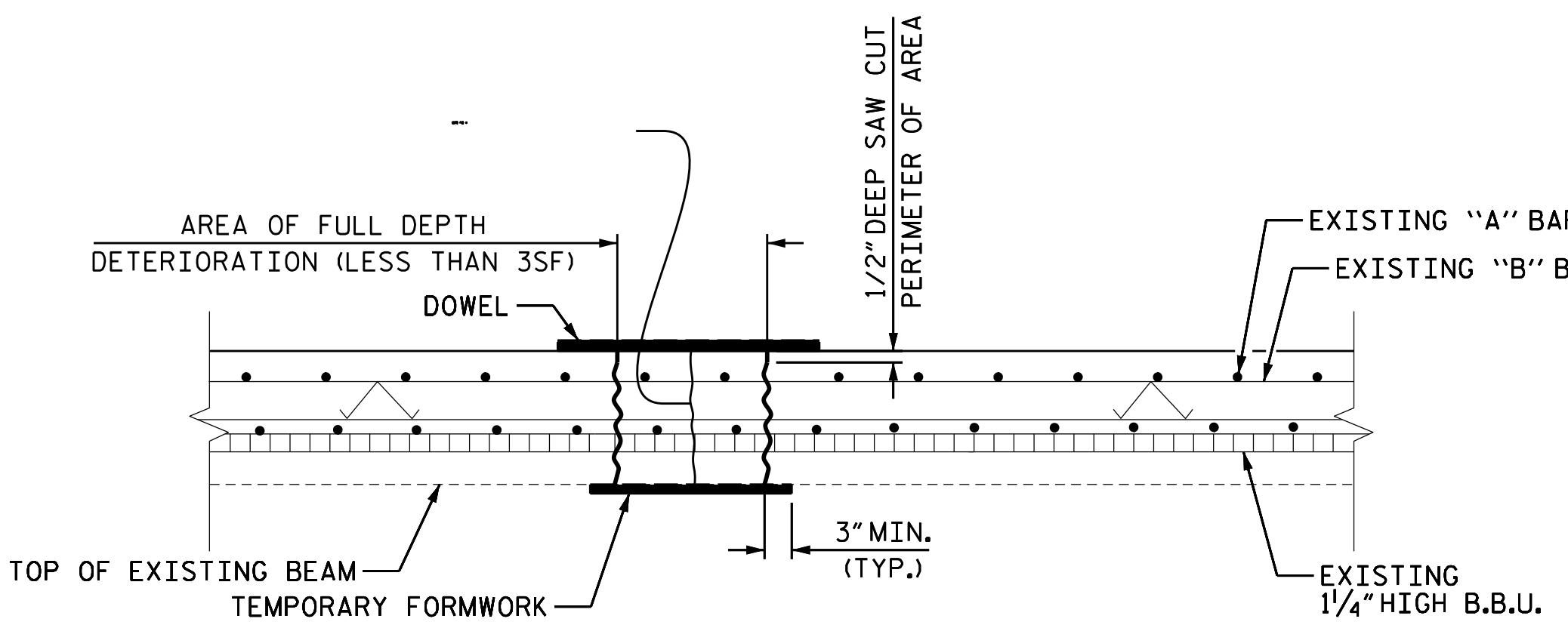
TOTAL SHEETS 217



CLASS II (PARTIAL DEPTH) REPAIR



CLASS III (FULL DEPTH) REPAIR

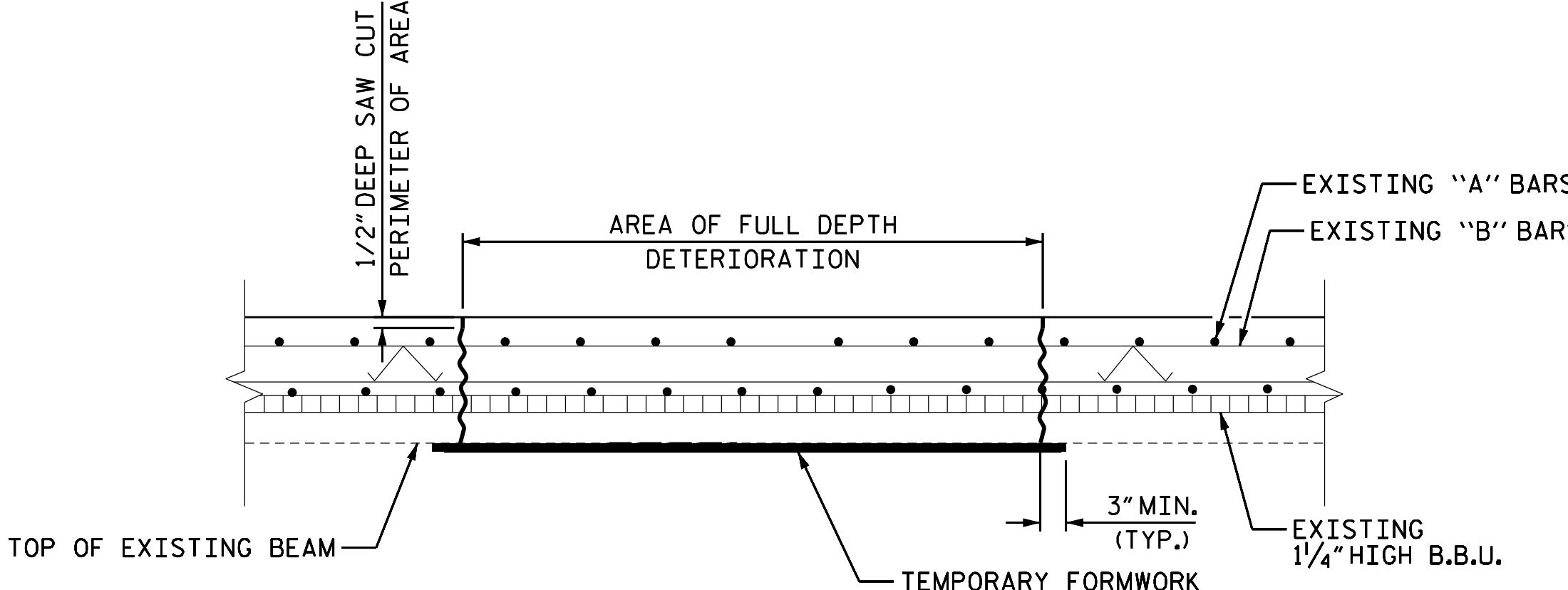


FULL DEPTH REPAIR WITH TEMPORARY FORMWORK

(FOR AREAS OF DETERIORATION EQUAL TO OR LESS THAN 3SF)

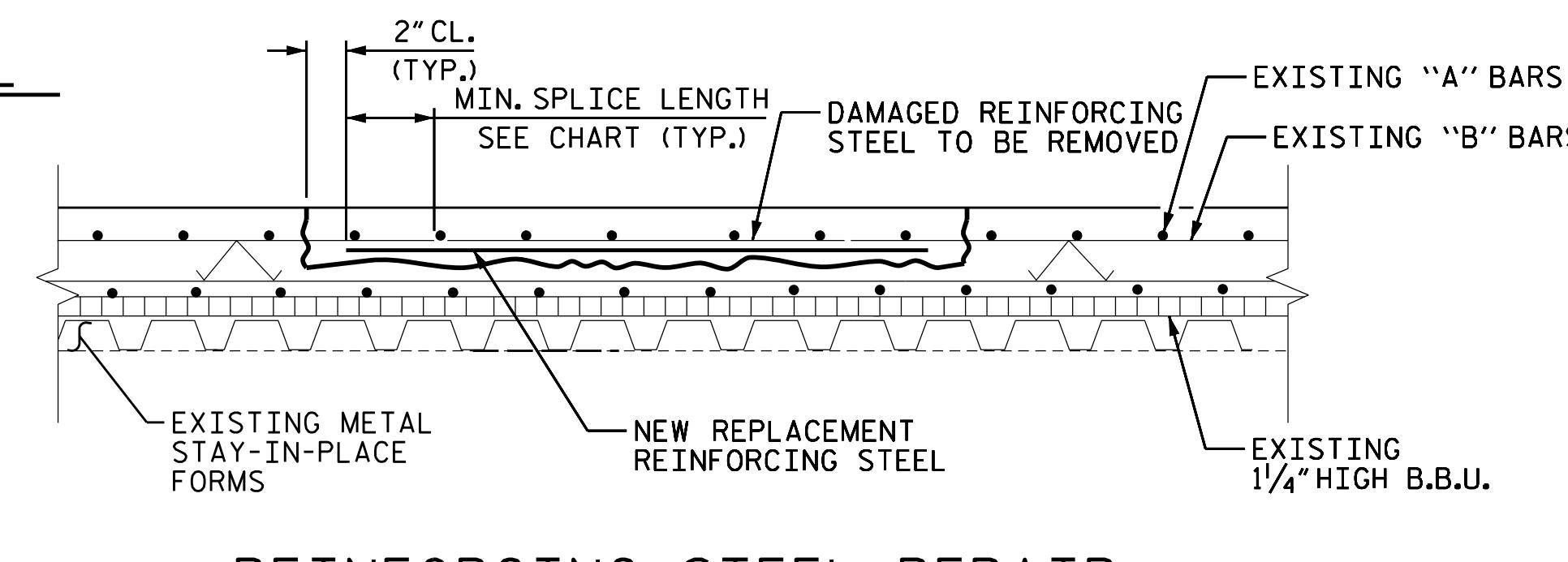
* WIRE TIE TO BE KNOTTED BELOW TEMPORARY FORMWORK AND ATTACHED TO DOWEL THAT IS WIDER THAN FORMED FULL DEPTH HOLE. ROTATE DOWEL TO TIGHTEN FORMWORK AGAINST BOTTOM OF DECK.

AREA OF DETERIORATION



FULL DEPTH REPAIR WITH TEMPORARY FORMWORK

(FOR AREAS OF DETERIORATION GREATER THAN 3SF)



REINFORCING STEEL REPAIR

NOTES

FOR AREAS TO BE REPAIRED, SEE "DECK UNDERSIDE REPAIR" SHEETS.

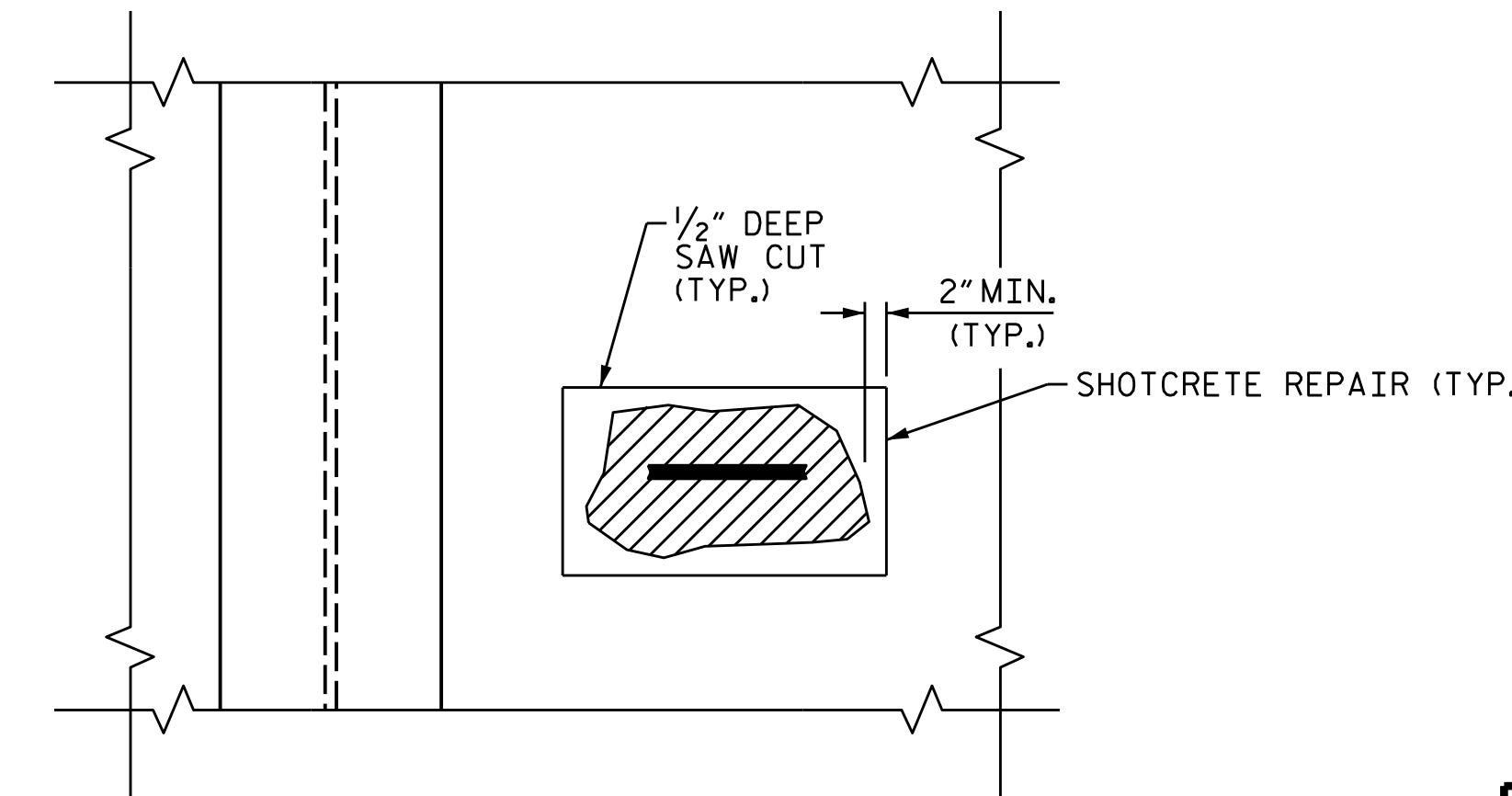
CONTRACTOR SHALL SAWCUT TO A NOMINAL DEPTH OF $\frac{1}{2}$ " BUT REINFORCING STEEL SHALL NOT BE DAMAGED. CONTRACTOR SHALL REMOVE SURFACE CONCRETE TO VERIFY THAT SAWCUT DEPTH WILL NOT DAMAGE REINFORCING STEEL.

ALL DECK REPAIRS SHALL BE COMPLETED PRIOR TO PLACEMENT OF SILANE DECK TREATMENT, SILANE BARRIER RAIL TREATMENT, OR SILANE GIRDERS TREATMENT.

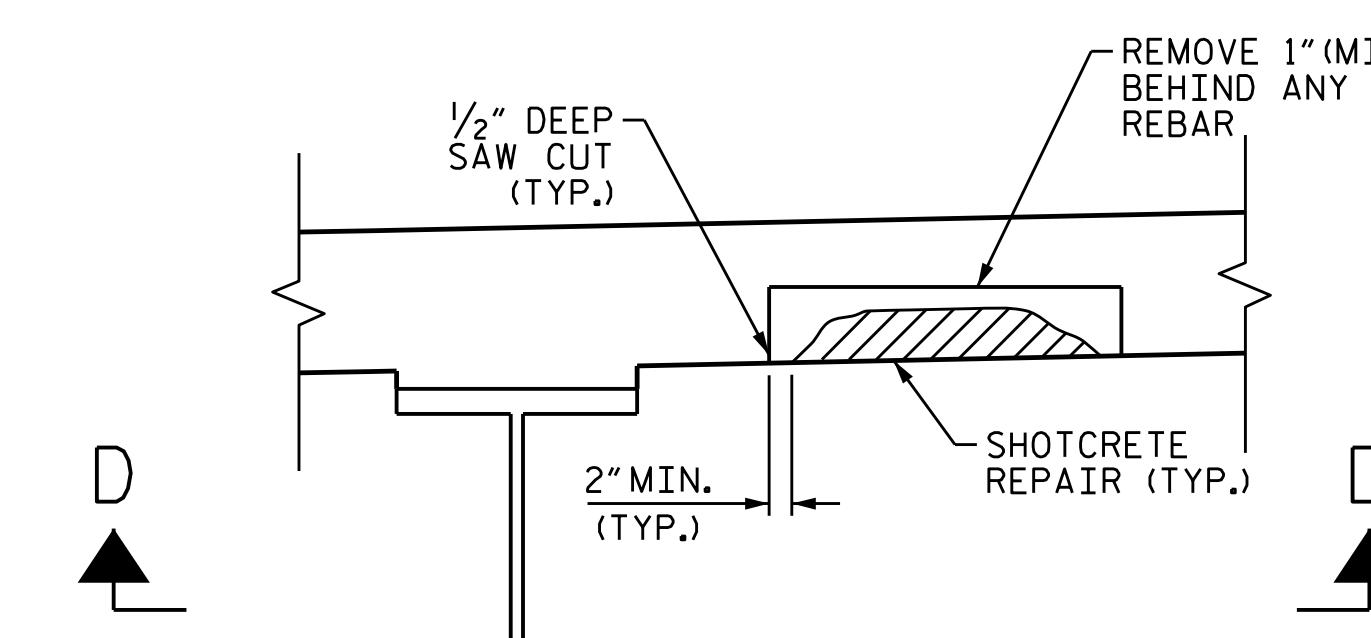
THE CONTRACTOR SHALL SUBMIT WORKING DRAWINGS TO THE ENGINEER FOR APPROVAL PRIOR TO STARTING WORK FOR TEMPORARY FORMWORK. FOR SUBMITTALS OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

UPON REMOVAL OF TEMPORARY FORMWORK, ALL VOIDS AND HONEYCOMBS ON THE UNDERSIDE OF DECK SURFACE SHALL BE FILLED WITH THE SAME MATERIAL AS USED FOR THE PATCH, AND FINISHED TO CONFORM TO THE SURROUNDING CONCRETE SURFACE.

NO FORMWORK SHALL BE LEFT IN PLACE.



SECTION D-D

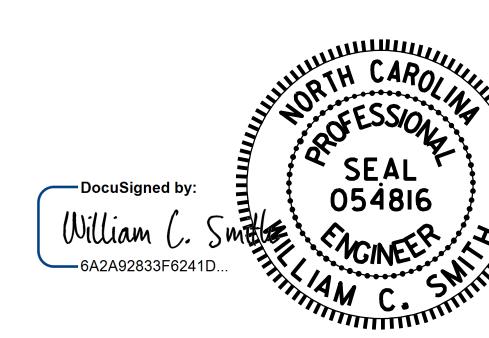


TYPICAL SECTION

UNDERSIDE OF DECK REPAIR

BAR SIZE	SUPERSTRUCTURE REINFORCING STEEL LENGTHS ARE BASED ON THE FOLLOWING MINIMUM SPLICE LENGTHS			
	EXCEPT APPROACH SLABS, PARAPET, AND BARRIER RAIL		APPROACH SLABS	PARAPET AND BARRIER RAIL
	EPoxy Coated	Uncoated	EPoxy Coated	Uncoated
#4	1'-11"	1'-7"	1'-11"	1'-7"
#5	2'-5"	2'-0"	2'-5"	2'-0"
#6	2'-10"	2'-5"	3'-7"	2'-5"
#7	4'-2"	2'-9"		3'-8"
#8	4'-9"	3'-2"		

PROJECT NO. 15BPR.137
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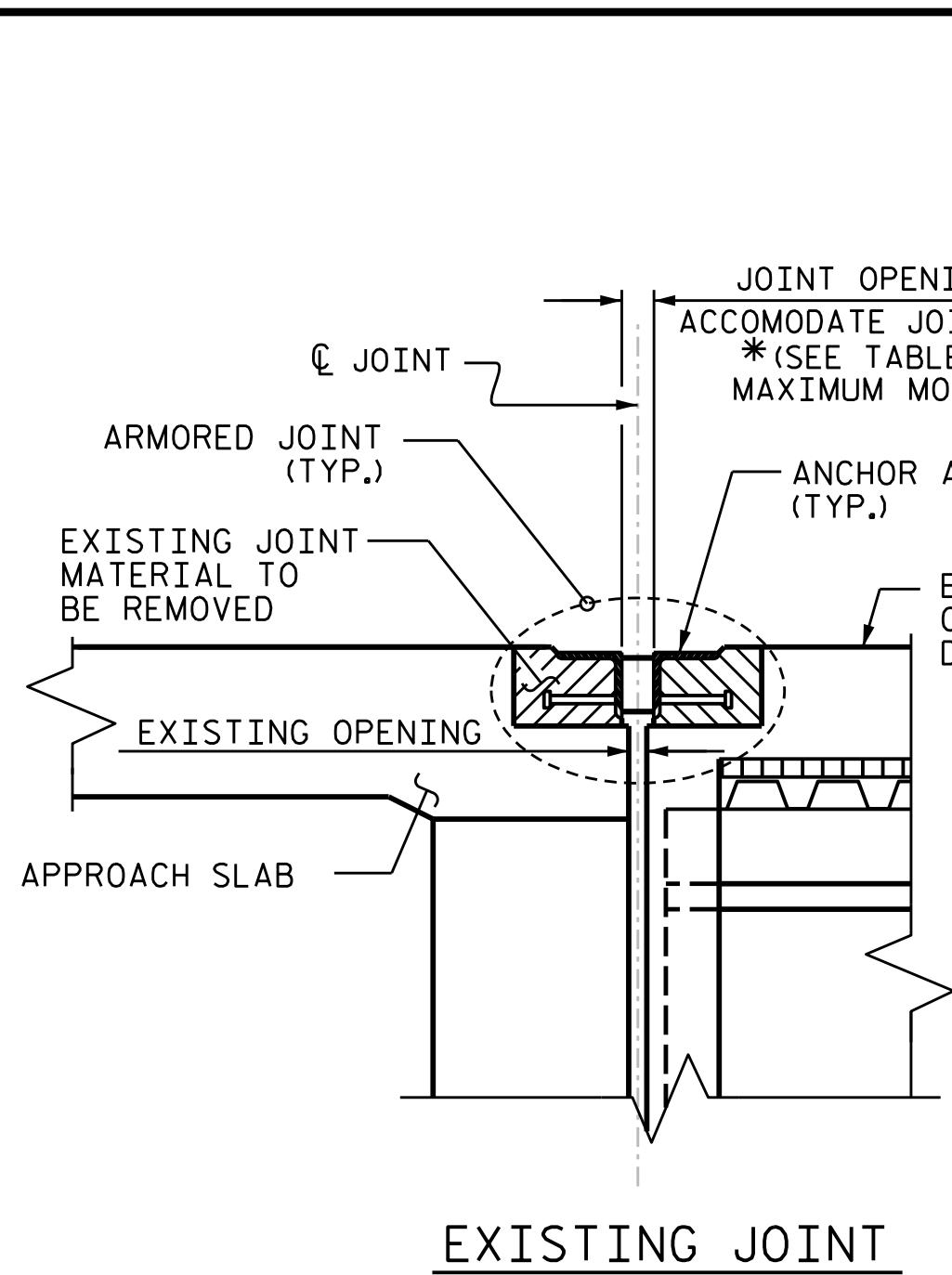


11/21/2025

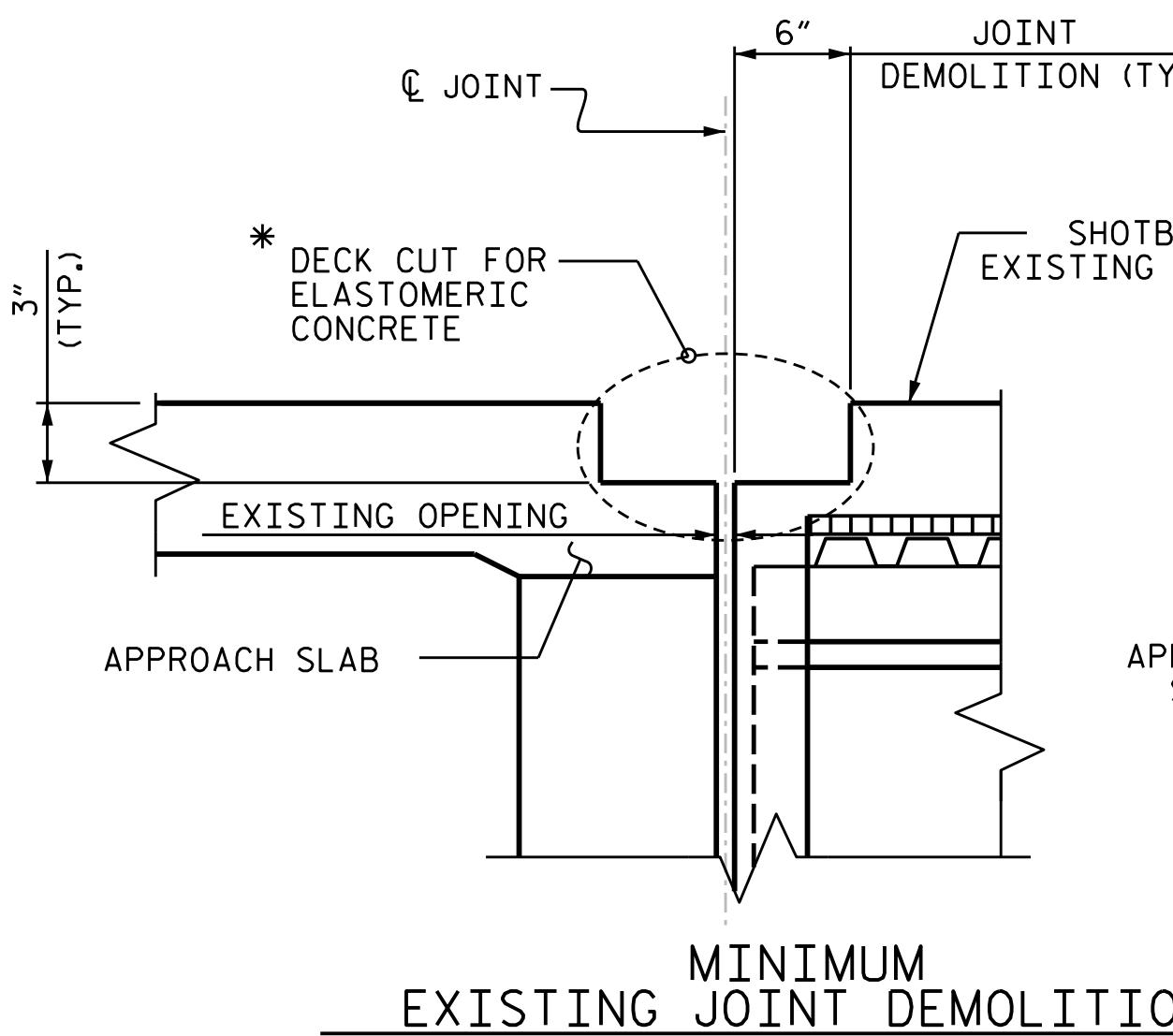
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
STANDARD
DECK REPAIR DETAILS

REVISIONS		SHEET NO.				
NO.	BY:	DATE:	NO.	BY:	DATE:	S-209
1			3			
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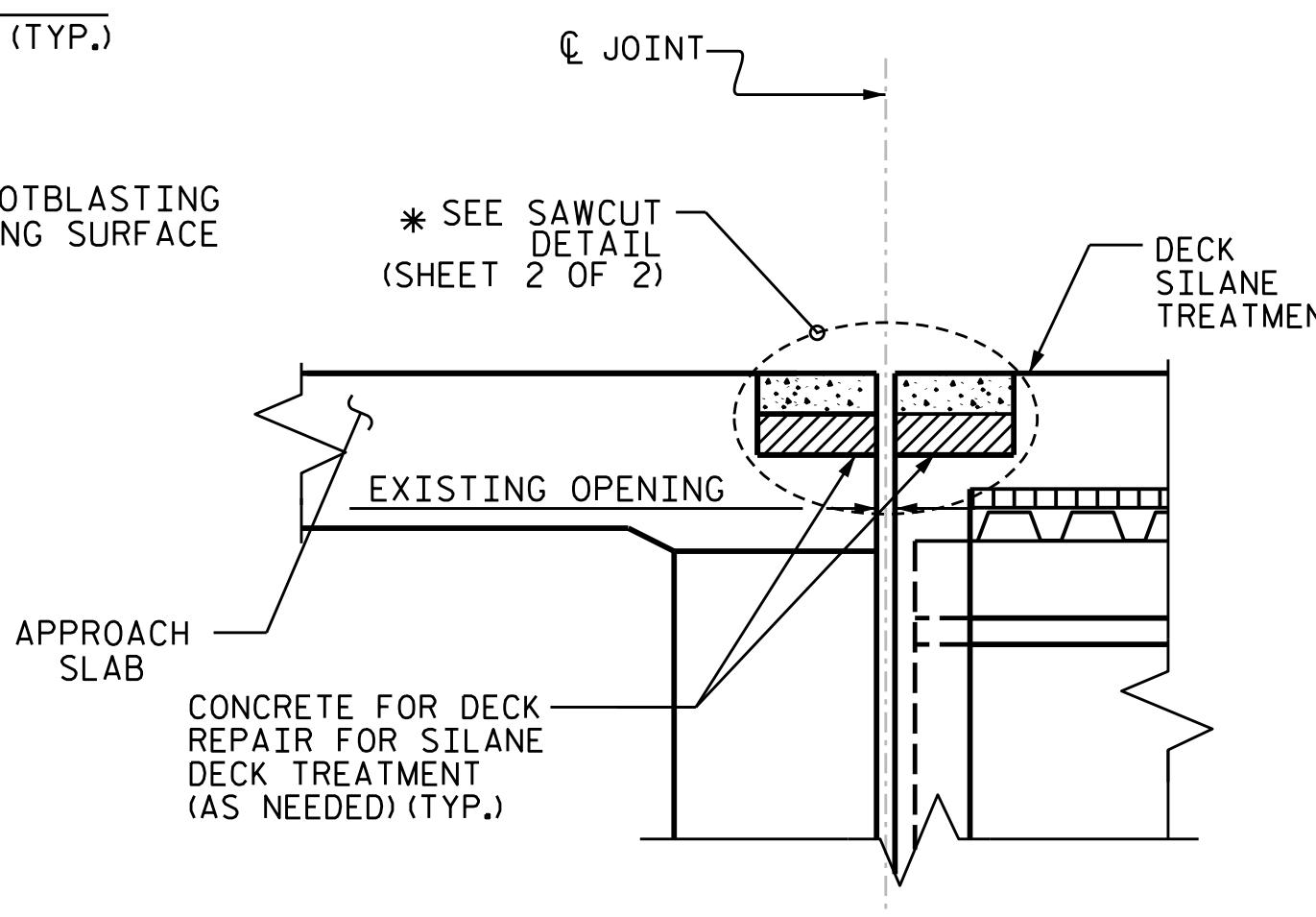
ASSEMBLED BY : P. K. NEWTON	DATE : 9/6/24
CHECKED BY : W. C. SMITH	DATE : 9/26/24
DRAWN BY : NAP 9/18	
CHECKED BY :	



EXISTING JOINT



MINIMUM EXISTING JOINT DEMOLITION



PROPOSED JOINT

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 ACTUAL JOINT OPENING VARIES FROM THE OPENING INDICATED IN DETAIL BY MORE THAN 1/4", NOTIFY THE ENGINEER. REVISION TO THE JOINT SEAL SIZE MIGHT BE NECESSARY.

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

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

THE CONTRACTOR WILL NOT BE PERMITTED TO FORM THE JOINTS IN LIEU OF SAWING THE JOINTS. THE INSTALLED FOAM JOINTS SHALL BE WATERTIGHT.

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

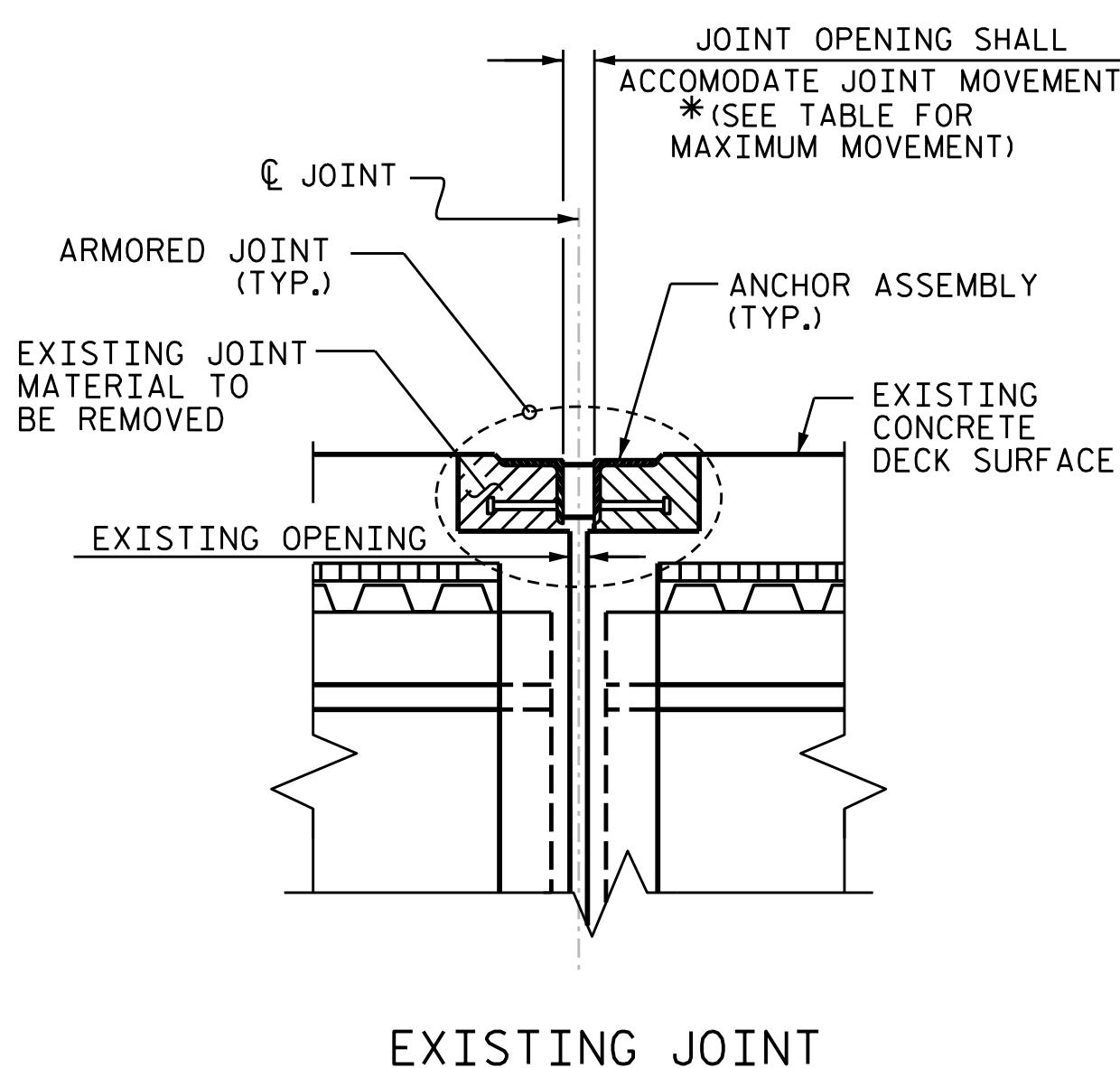
FINAL SURFACE OF JOINT DEMOLITION AREA PRIOR TO PLACEMENT OF CONCRETE REPAIR MATERIAL OR ELASTOMERIC CONCRETE SHALL BE REASONABLY FLAT AND LEVEL. THE ENGINEER SHALL DETERMINE ACCEPTABILITY OF THE SURFACE.

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

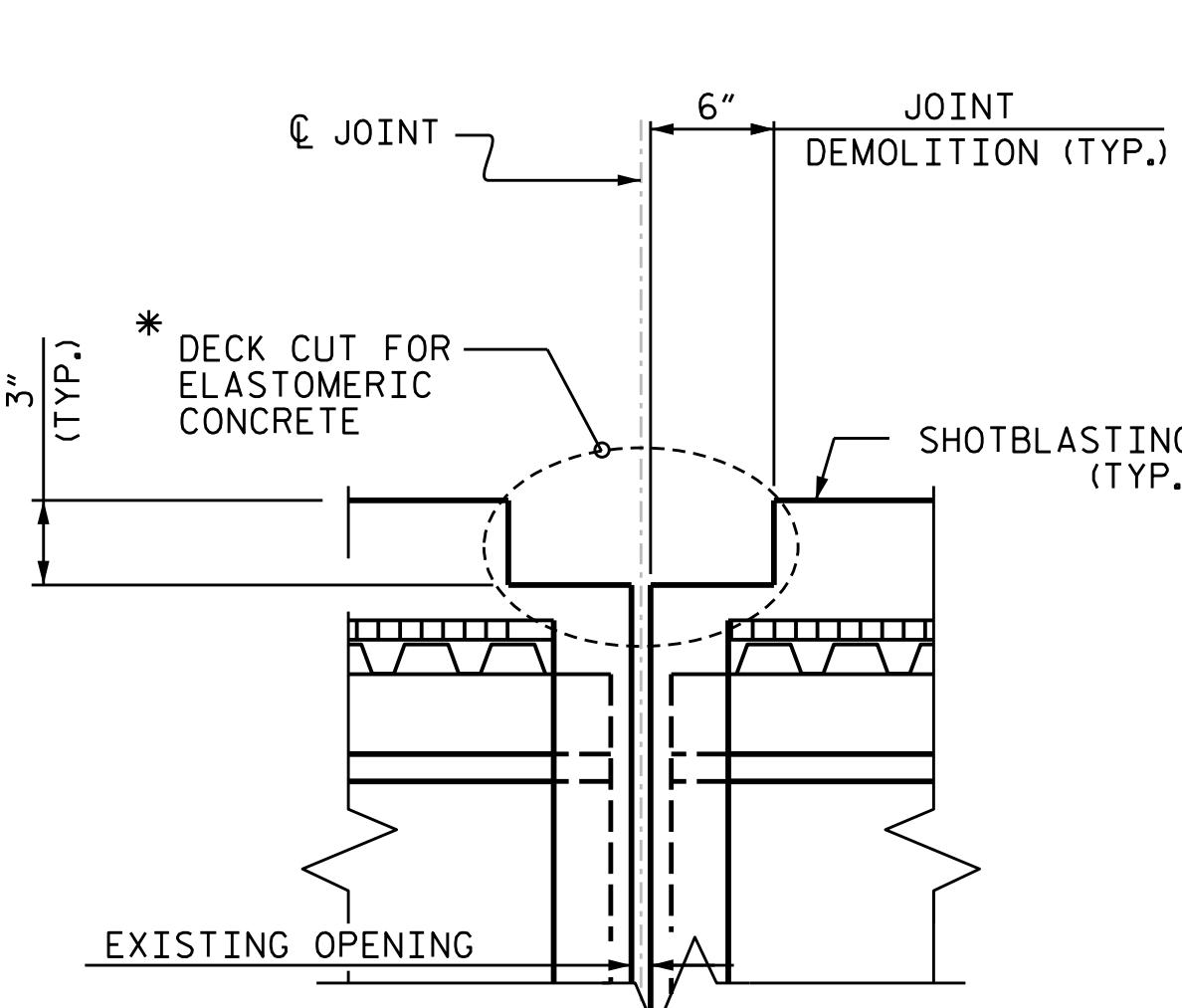
QUANTITIES SHOWN IN THE ELASTOMERIC CONCRETE FOR PRESERVATION TABLE ARE BASED UPON THE MINIMUM JOINT DEMOLITION SHOWN ON THE PLANS.

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

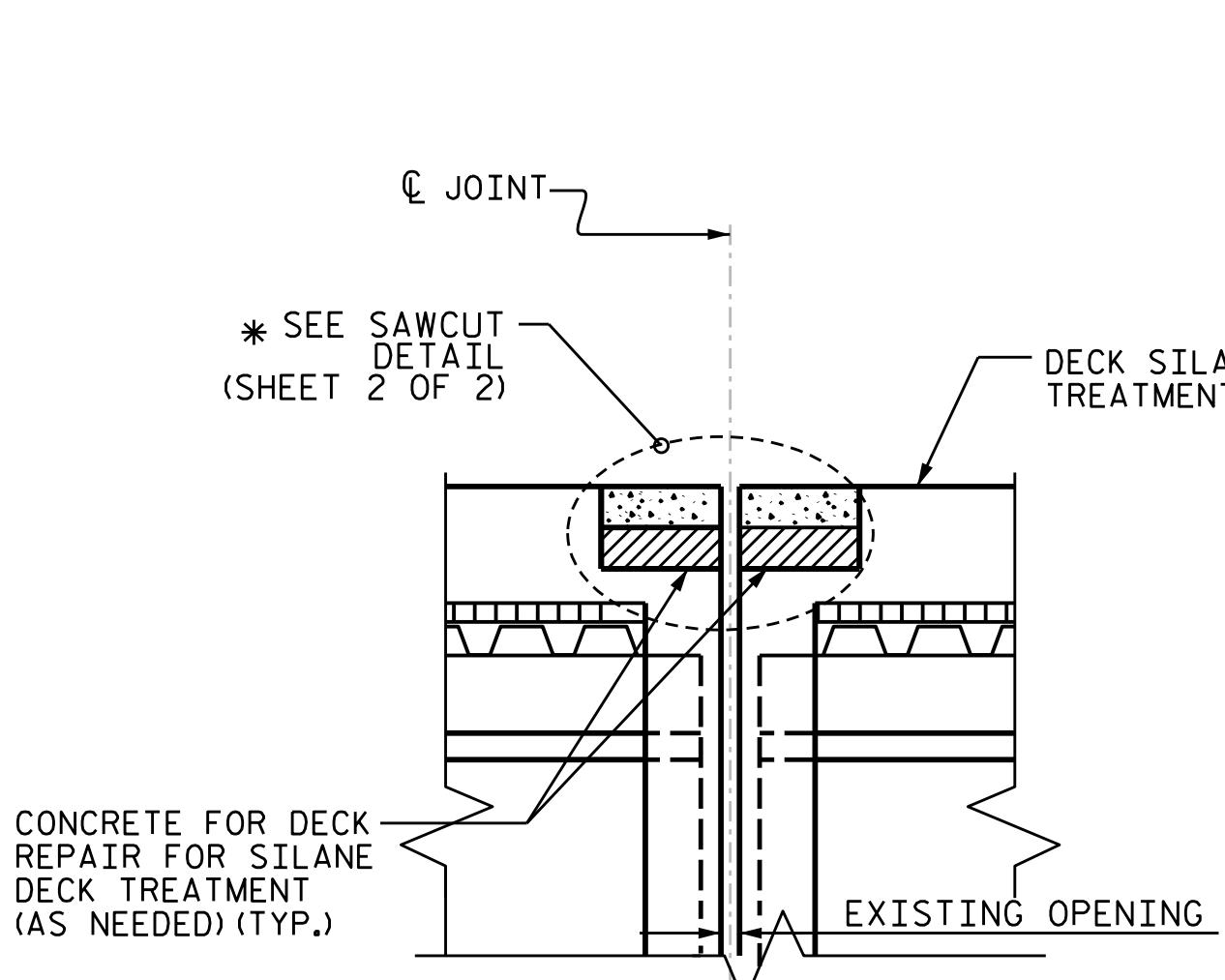
THE CONTRACTOR SHALL TAKE CARE DURING JOINT REHAB OPERATIONS NOT TO DROP ANY MATERIAL BELOW THE BRIDGE WITHOUT PROTECTIVE DEVICES BELOW TO CATCH THE MATERIAL. ANY MATERIAL THAT FALL BELOW THE BRIDGE SHALL BE CONTAINED, REMOVED, AND DISPOSED OF BY THE CONTRACTOR AT NO EXTRA COST TO THE DEPARTMENT. IF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



EXISTING JOINT



MINIMUM EXISTING JOINT DEMOLITION



PROPOSED JOINT

JOINT INSTALLATION SEQUENCE AT BENTS

SECTION A-A

JOINT INSTALLATION SEQUENCE AT BENTS

SECTION B-B

* SEE "JOINT REPAIR DETAILS" SHEET NO. 2 OF 2

PROJECT NO. 15BPR.137

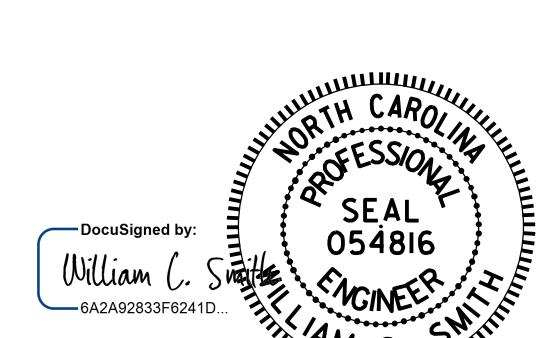
BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 1 OF 2

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

JOINT REPAIR DETAILS



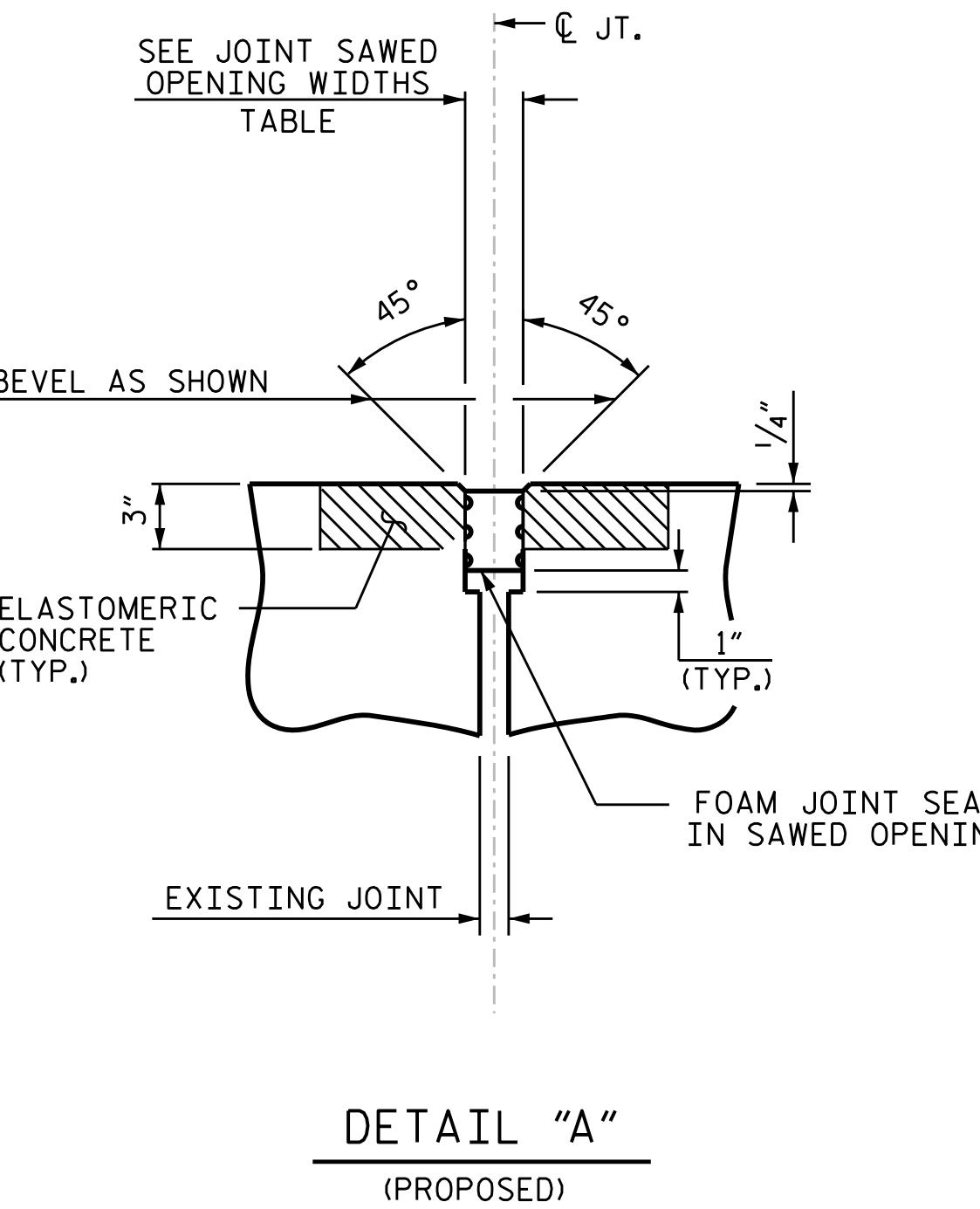
11/21/2025

DRAWN BY : S. T. SANDOR DATE : 6/21/24
CHECKED BY : W. C. SMITH DATE : 6/26/24

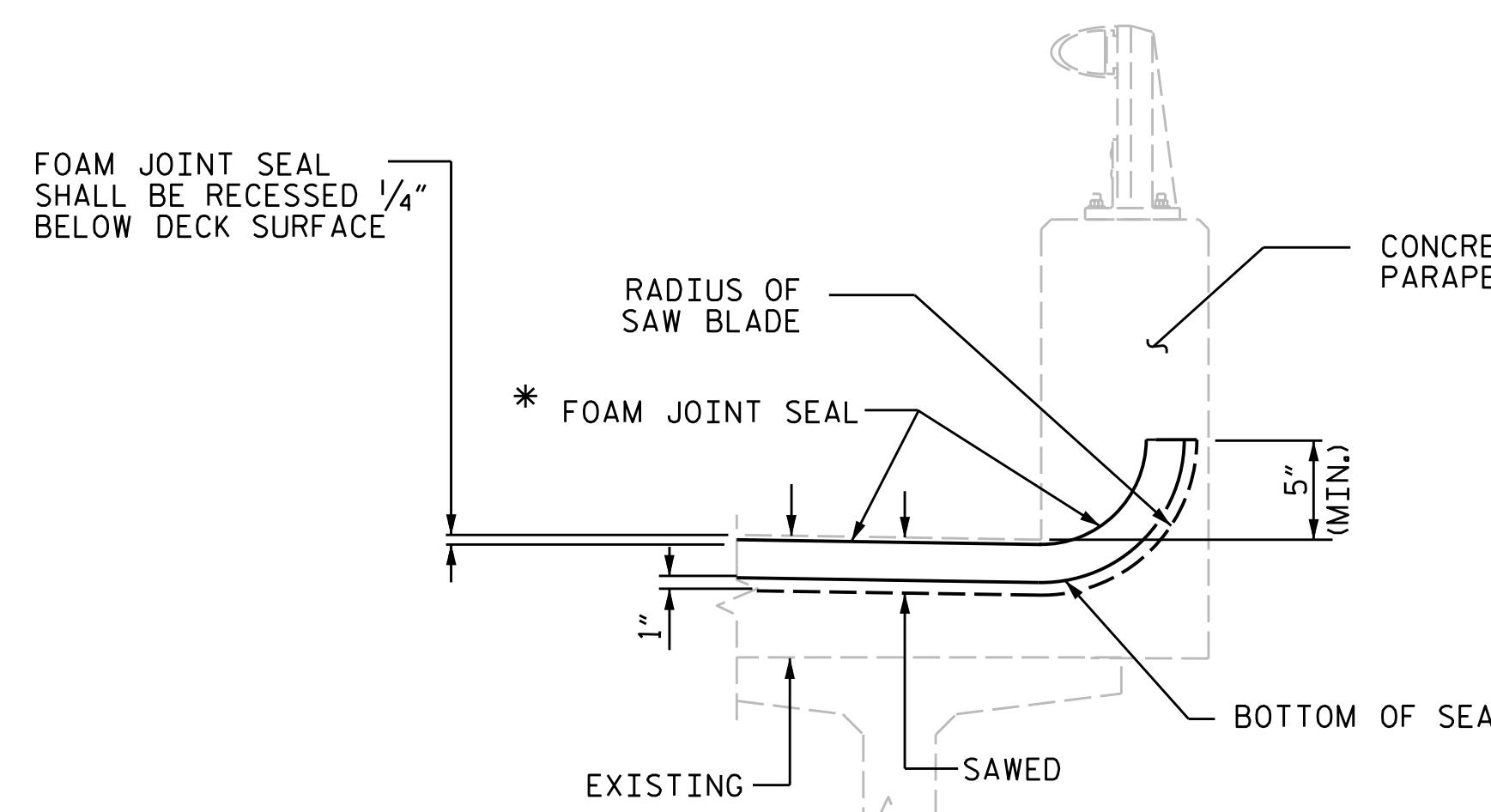
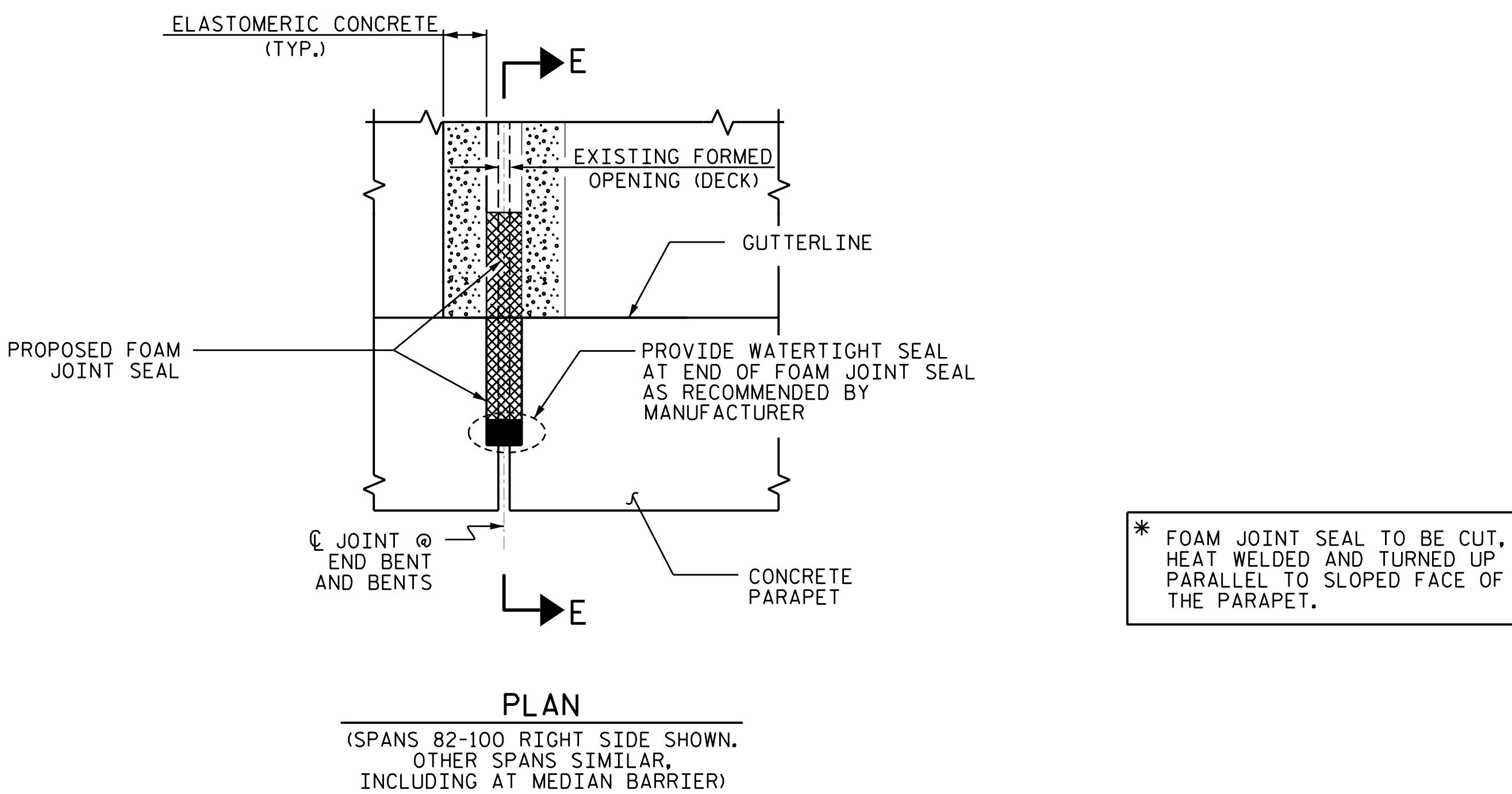
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SIGNATURES COMPLETED

REVISIONS		SHEET NO.	
1	3	2	4
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JOINT SAWED OPENING WIDTHS			
	@ 45° F	@ 60° F	@ 90° F
END BENT 1	1 3/4"	1 1/2"	1 1/8"
EVEN NUMBERED BENTS 2 THRU 12	2 7/8"	2 1/2"	1 7/8"
BENT 14	2 3/8"	2 1/8"	1 1/2"
BENT 16	2 1/4"	2"	1 1/2"
EVEN NUMBERED BENTS 18 THRU 26	2 5/8"	2 1/4"	1 5/8"
EVEN NUMBERED BENTS 28 THRU 80	2 7/8"	2 1/2"	1 7/8"
BENT 82	2 3/8"	2"	1 1/2"
EVEN NUMBERED BENTS 84 THRU 98	2 3/8"	2 1/8"	1 1/2"
BENT 100	2 5/8"	2 1/4"	1 5/8"
EVEN NUMBERED BENTS 102 THRU 126	2 7/8"	2 1/2"	1 7/8"
END BENT 2	1 5/8"	1 1/2"	1 1/8"



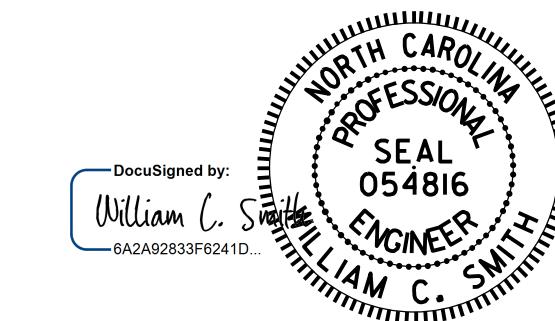
SUMMARY OF QUANTITIES				
LOCATION	ELASTOMERIC CONCRETE FOR PRESERVATION		FOAM JOINT SEAL	
	ESTIMATE (C.F.)	ACTUAL (C.F.)	ESTIMATE (L.F.)	ACTUAL (L.F.)
END BENT 1	18.1		72.4	
EVEN NUMBERED BENTS 2 THRU 12	108.6		434.4	
BENT 14	19.2		76.7	
BENT 16	23.3		93.0	
EVEN NUMBERED BENTS 18 THRU 80	579.2		2316.8	
EVEN NUMBERED BENTS 82 THRU 98	189.9		761.4	
BENT 100	18.3		73.2	
BENT 102	18.1		72.4	
EVEN NUMBERED BENTS 104 THRU 110	74.8		298.8	
BENT 112	18.9		75.4	
EVEN NUMBERED BENTS 114 THRU 120 (SOUTHBOUND)	38.8		154.8	
BENT 122 (SOUTHBOUND)	11.2		44.8	
BENTS 124 AND 126 (SOUTHBOUND)	25.4		101.4	
EVEN NUMBERED BENTS 114 THRU 120 (NORTHBOUND)	36.8		146.8	
BENT 122 (NORTHBOUND)	9.2		36.7	
BENTS 124 AND 126 (NORTHBOUND)	18.4		73.4	
END BENT 2 (SOUTHBOUND)	12.7		50.7	
END BENT 2 (NORTHBOUND)	11.8		47.1	



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BRIDGE NO. 060353
SHEET 2 OF 2

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

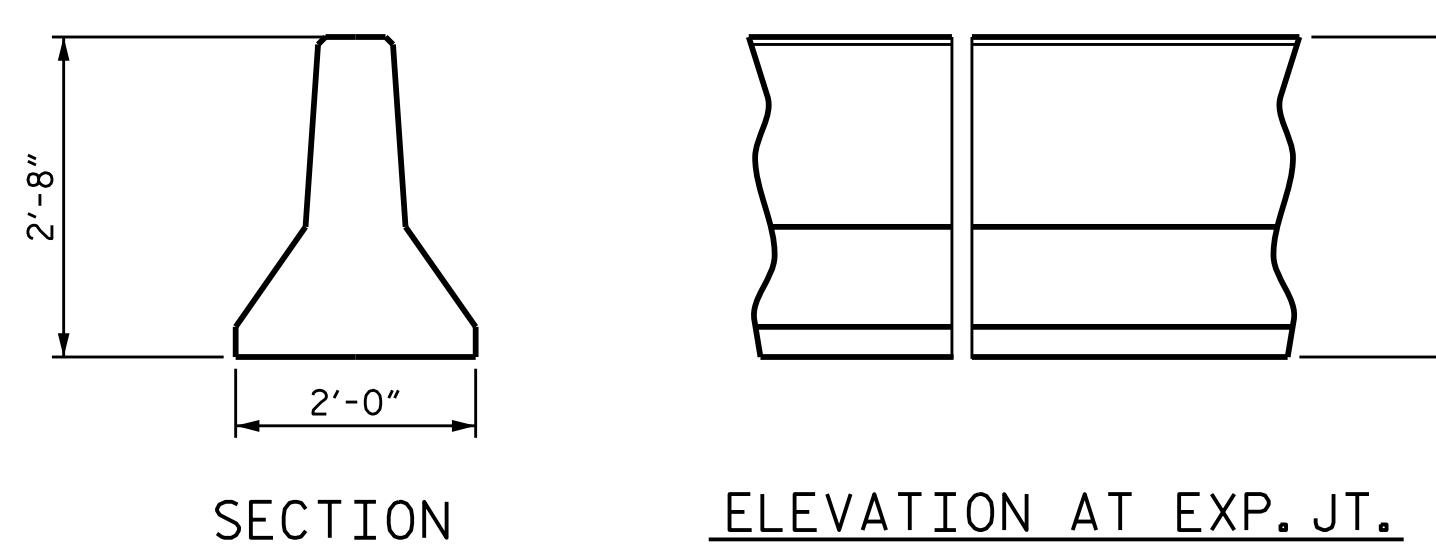
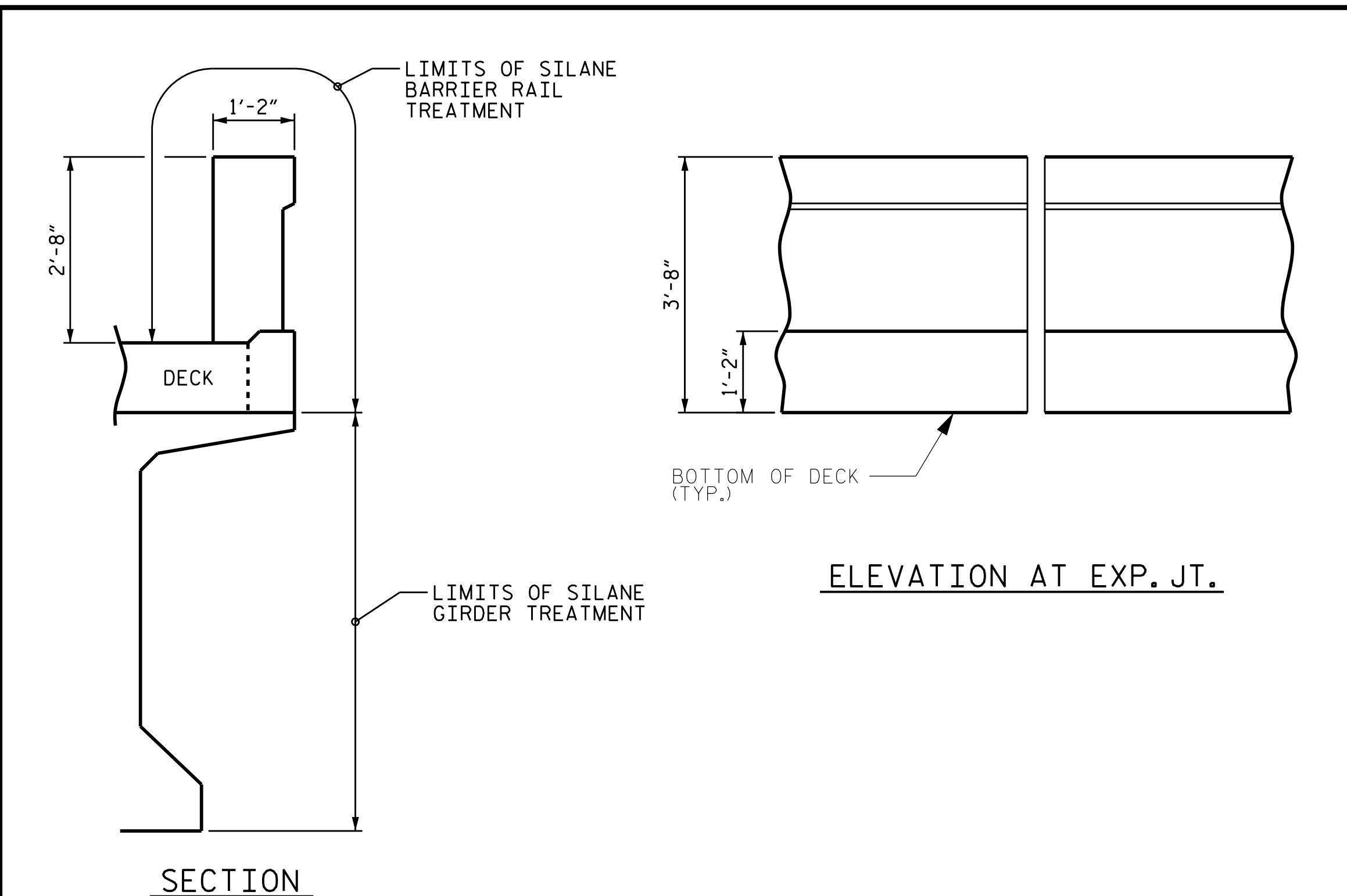
JOINT REPAIR DETAILS



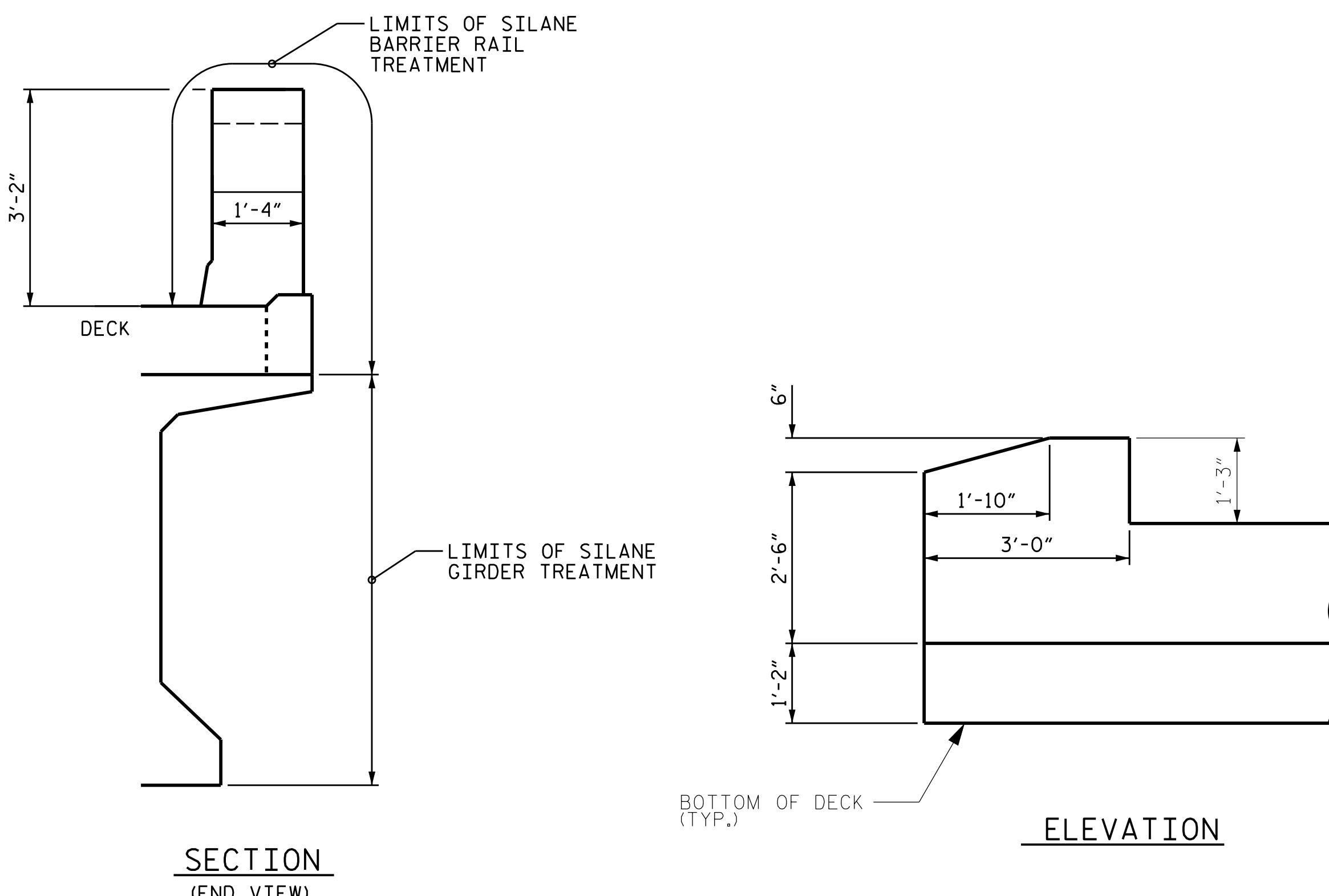
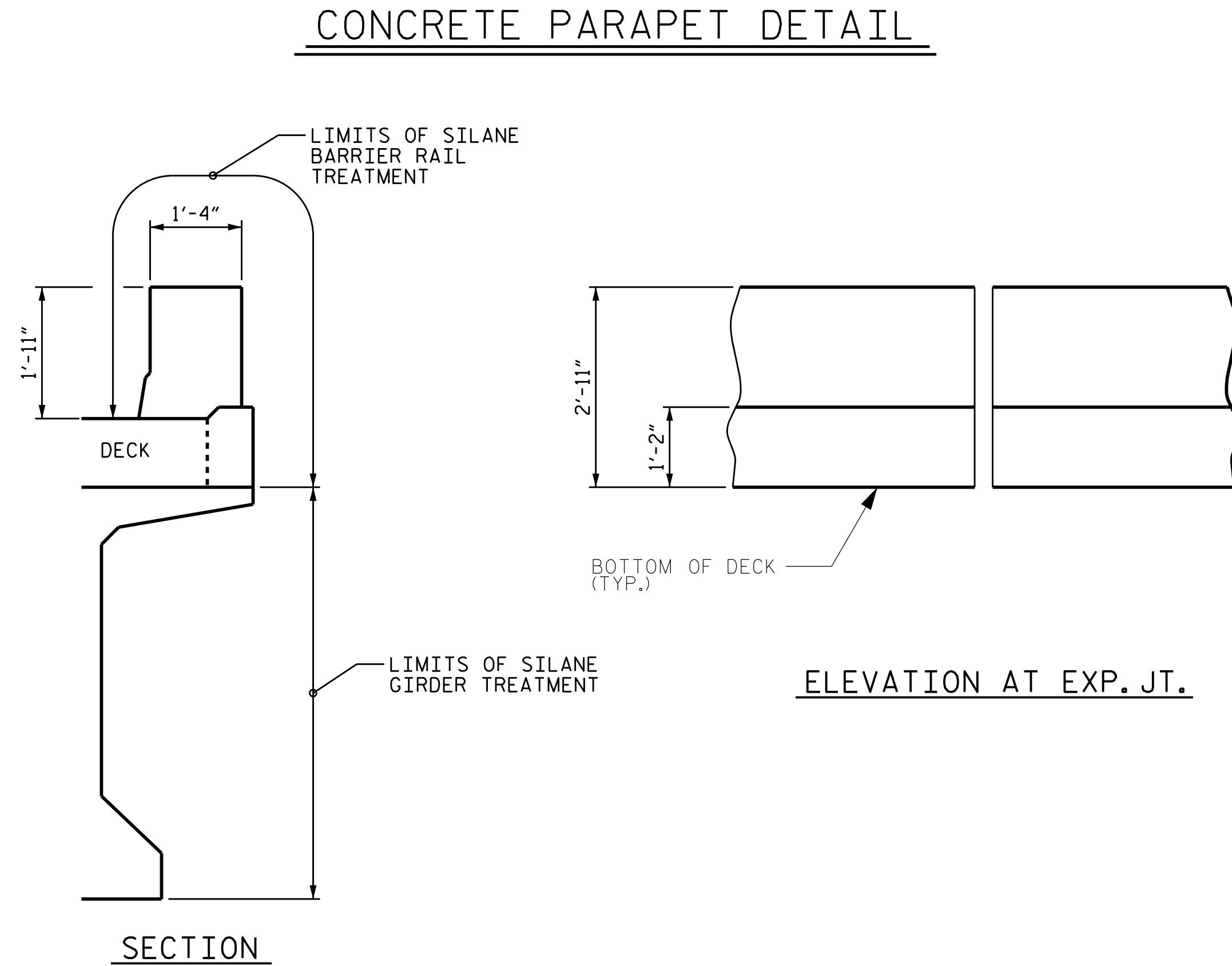
11/21/2025

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TYPICAL CONCRETE MEDIAN BARRIER DETAIL



CONCRETE PARAPET WITH METAL RAIL DETAIL

(METAL RAIL NOT SHOWN FOR CLARITY)

END POST FOR CONCRETE PARAPET WITH METAL RAIL DETAIL

(METAL RAIL NOT SHOWN FOR CLARITY)

	REPAIR QUANTITY TABLE	
	QUANTITIES	
SILANE BARRIER RAIL TREATMENT	ESTIMATE	ACTUAL
CONCRETE PARAPET	234,520.4	
CONCRETE PARAPET WITH METAL RAIL	28,807.6	
CONCRETE MEDIAN BARRIER	108,944.6	
SURFACE PREPARATION FOR CONCRETE BARRIER	372,272.6	
SILANE GIRDER TREATMENT	AREA SQ. FT.	AREA SQ. FT.
SILANE GIRDER TREATMENT	281,877.9	
SURFACE PREPARATION FOR SILANE GIRDER TREATMENT	281,877.9	

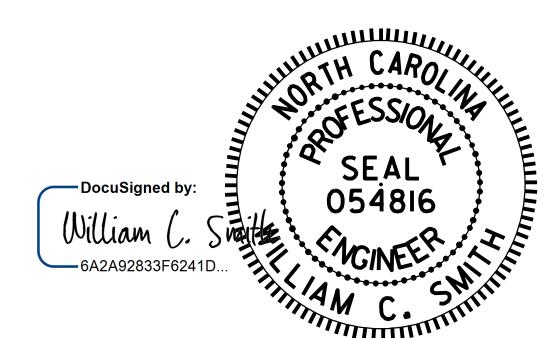
NOTES

SILANE BARRIER RAIL TREATMENT SHALL BE APPLIED TO ALL EXPOSED FACES OF CONCRETE PARAPETS, CONCRETE MEDIAN BARRIER, AND OUTSIDE EDGE OF DECK. SILANE TREATMENT OF OUTSIDE EDGE OF DECK AND POSTS SHALL BE CONSIDERED INCIDENTAL TO SILANE BARRIER RAIL TREATMENT.

FOR CONCRETE PARAPET AND CONCRETE MEDIAN BARRIER LOCATIONS, SEE "DECK SURFACE REPAIR" SHEETS.

PROJECT NO. 15BPR.137
BEAUFORT COUNTY
BRIDGE NO. 060353

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUPERSTRUCTURE
SILANE BARRIER RAIL AND GIRDER TREATMENT



DRAWN BY : S. T. SANDOR DATE : 6/21/24
CHECKED BY : W. C. SMITH DATE : 6/25/24

REVISIONS		SHEET NO.				
NO.	BY:	DATE:	NO.	BY:	DATE:	SHEET NO.
1			3			S-212
2			4			TOTAL SHEETS 217

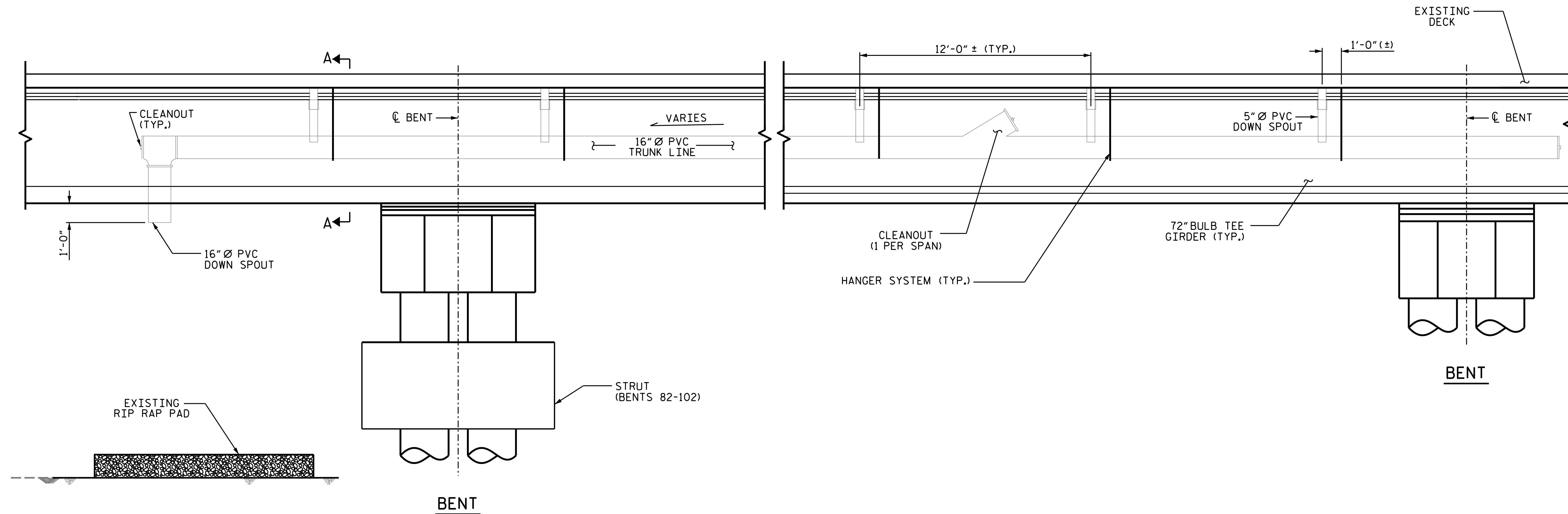
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NOTES

FOR SECTION A-A SEE SHEET 2 OF 2
CLOSED DRAINAGE SYSTEM DETAILS.

FOR DRAINAGE SYSTEM REPAIR, SEE
SPECIAL PROVISION.

PVC PIPE AND FITTINGS SHALL BE
SCHEDULE 40 AND CONFORM TO ASTM
D1785.



CLOSED DRAINAGE SYSTEM ELEVATION

RIGHT SIDE OF BRIDGE SHOWN. LEFT SIDE SIMILAR BY ROTATION.
(TYPICAL SPANS 81 THRU 85, 100 THRU 102, AND 115 THRU 122)

DRAINAGE SYSTEM REPAIRS WILL CONSIST OF THE FOLLOWING WORK:

- CLEAN OUT VEGETATION AND DEBRIS FROM CLOSED DRAINAGE SYSTEM AND OPEN DRAINS.
- REPLACE MISSING OR BROKEN PVC DOWN SPOUTS AND TRUNK LINE FOR CLOSED DRAINAGE SYSTEM.
- REPLACE MISSING OR BROKEN HANGER MATERIALS FOR CLOSED DRAINAGE SYSTEM.
- ADD 5" DIAMETER DRAIN PIPE EXTENSION TO ALL OPEN DRAINS.

PROJECT NO. 15BPR.137

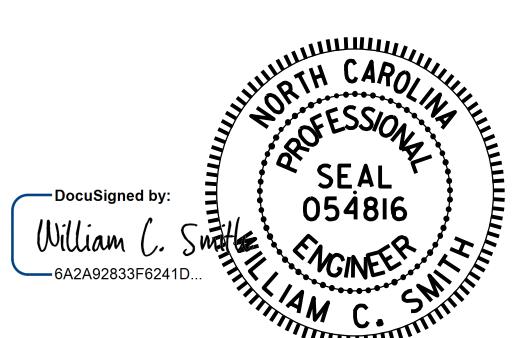
BEAUFORT COUNTY

BRIDGE NO: 060353

SHEET 1 OF 2

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

DRAINAGE SYSTEM REPAIR DETAILS



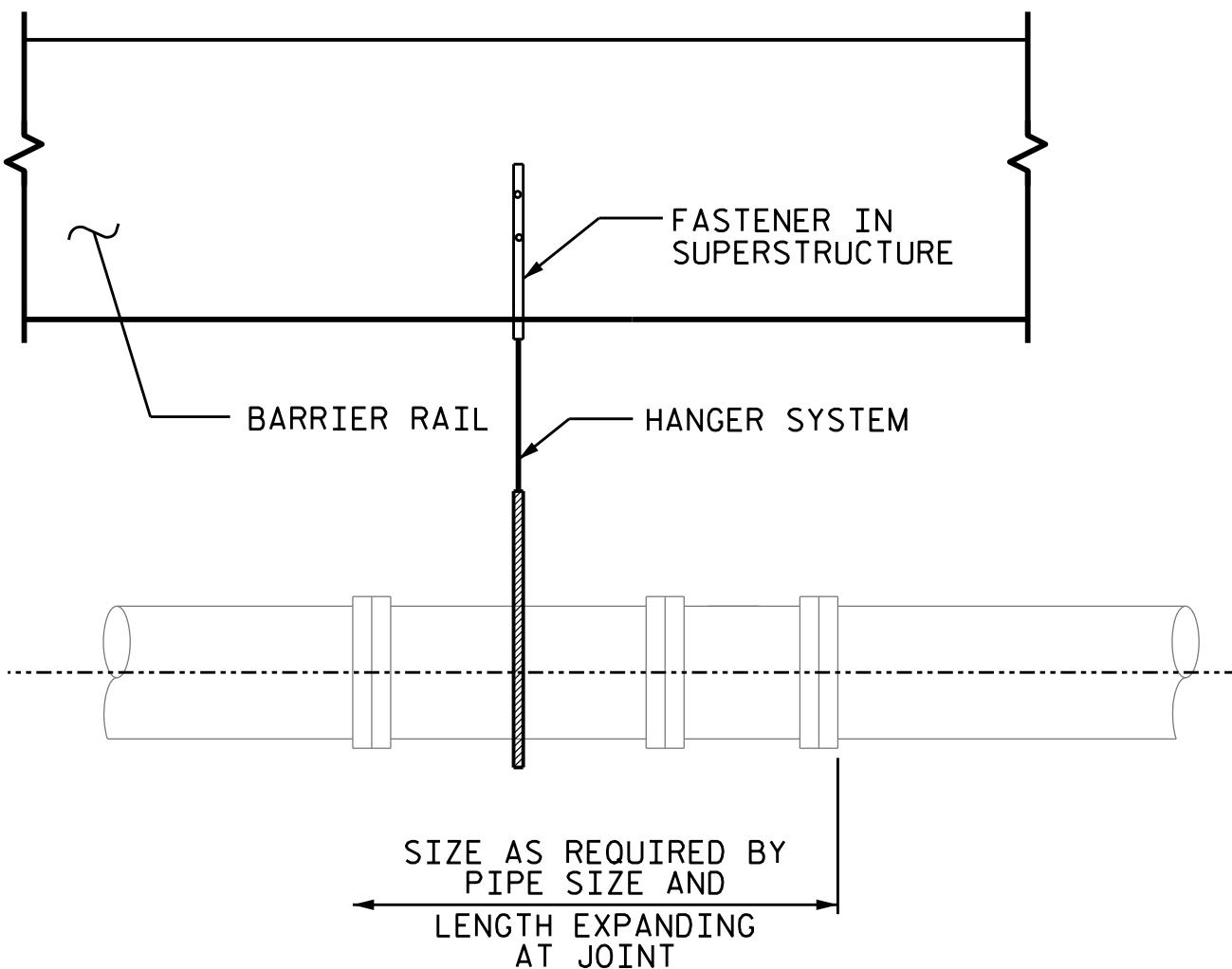
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NO.	BY:	DATE:	NO.	BY:	DATE:	S-213
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DRAWN BY : W. C. SMITH DATE : 7/5/24
CHECKED BY : S. T. SANDOR DATE : 7/10/24

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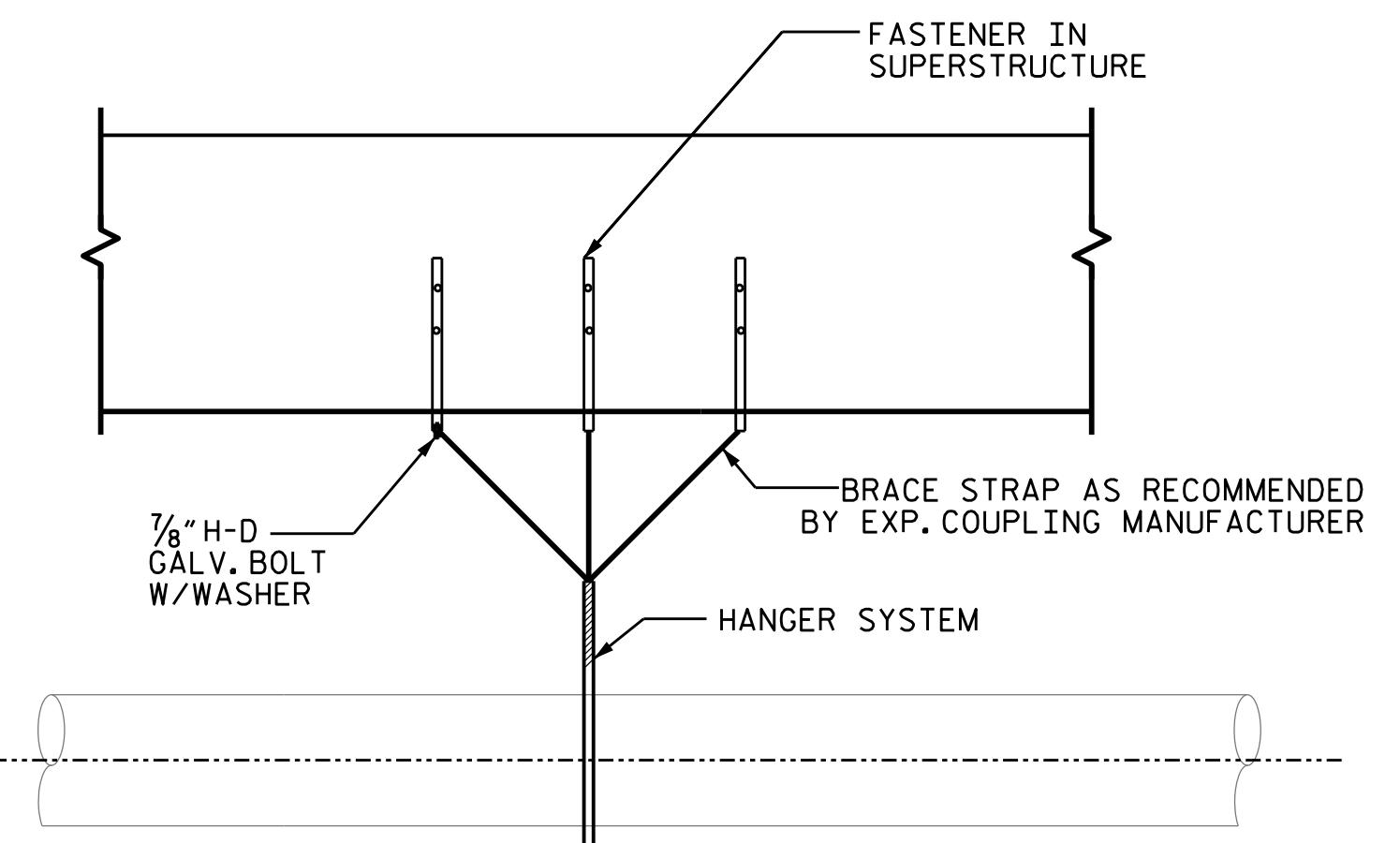
REPAIR QUANTITY TABLE

DRAINAGE SYSTEM	QUANTITIES	
	ESTIMATE	ACTUAL
PVC. PIPES	LENGTH LIN. FT.	LENGTH LIN. FT.
16" Ø TRUNK LINE	0	
5" Ø PVC PIPE	16.114	
16" Ø PVC DOWN SPOUT	0	
DRAINAGE SYSTEM PARTS	EACH	
CLEANOUT	0	
PVC COUPLER	0	
HANGER SYSTEM	0	
FASTENERS	0	
7/8" H-D GALV. BOLT W/WASHER	2	
BRACE STRAPS	0	

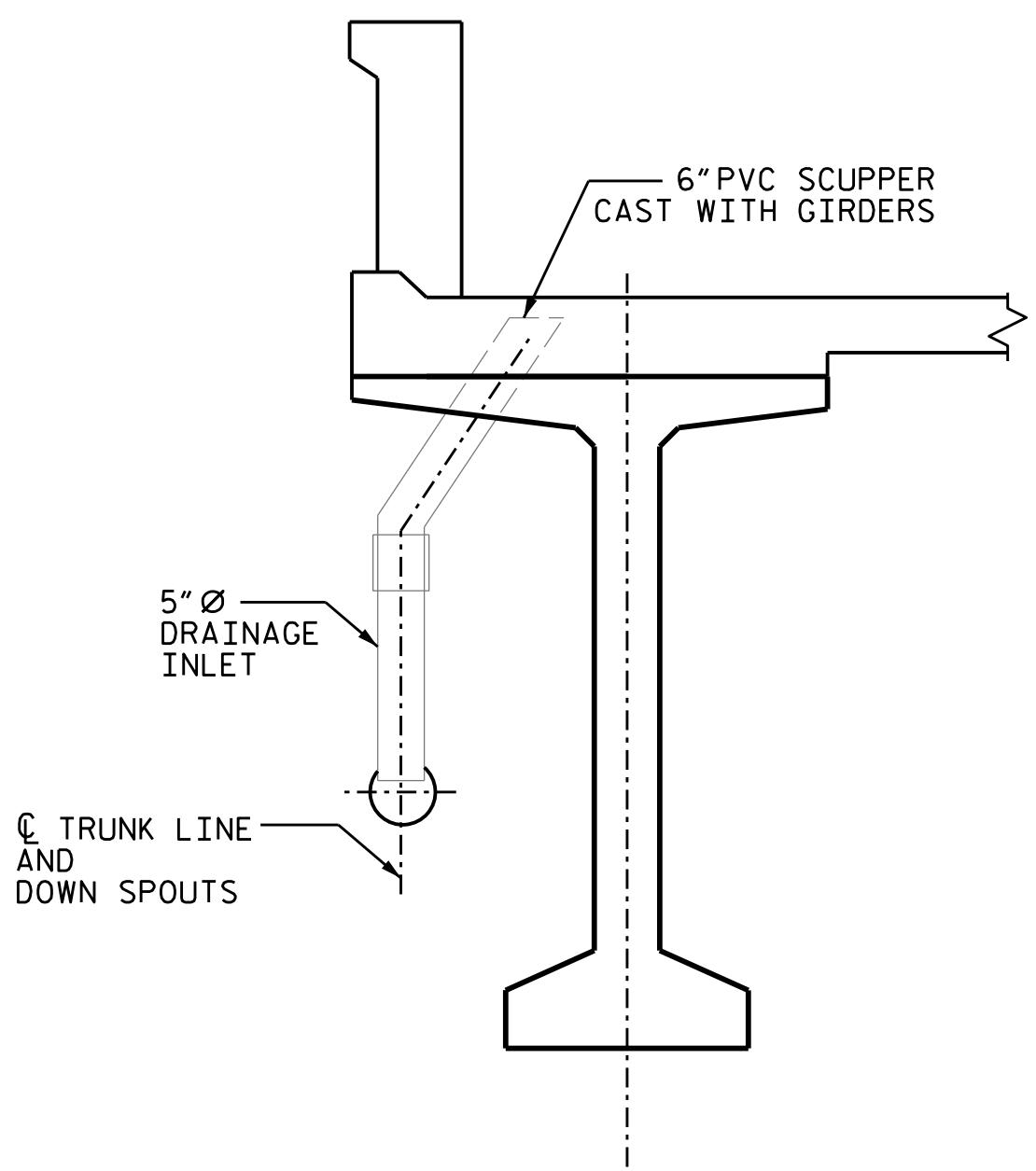


SLOTTED DETAIL

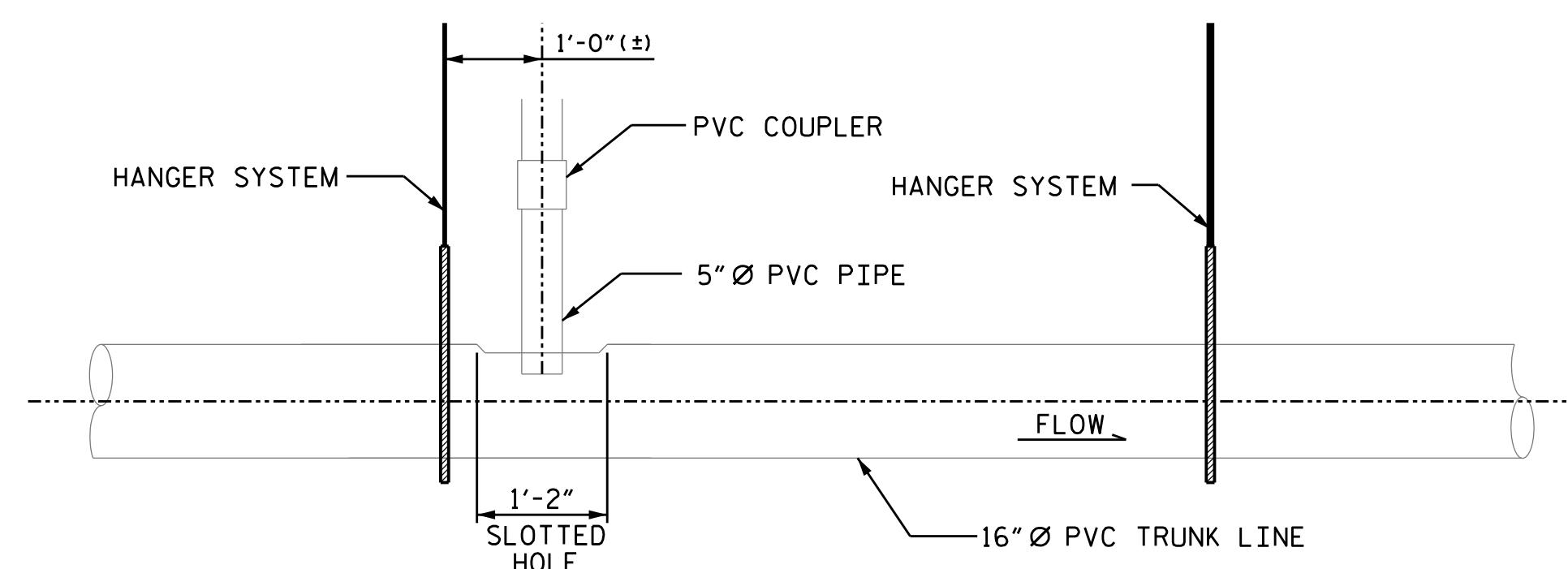
PVC EXPANSION COUPLING DETAIL



STOP DETAIL

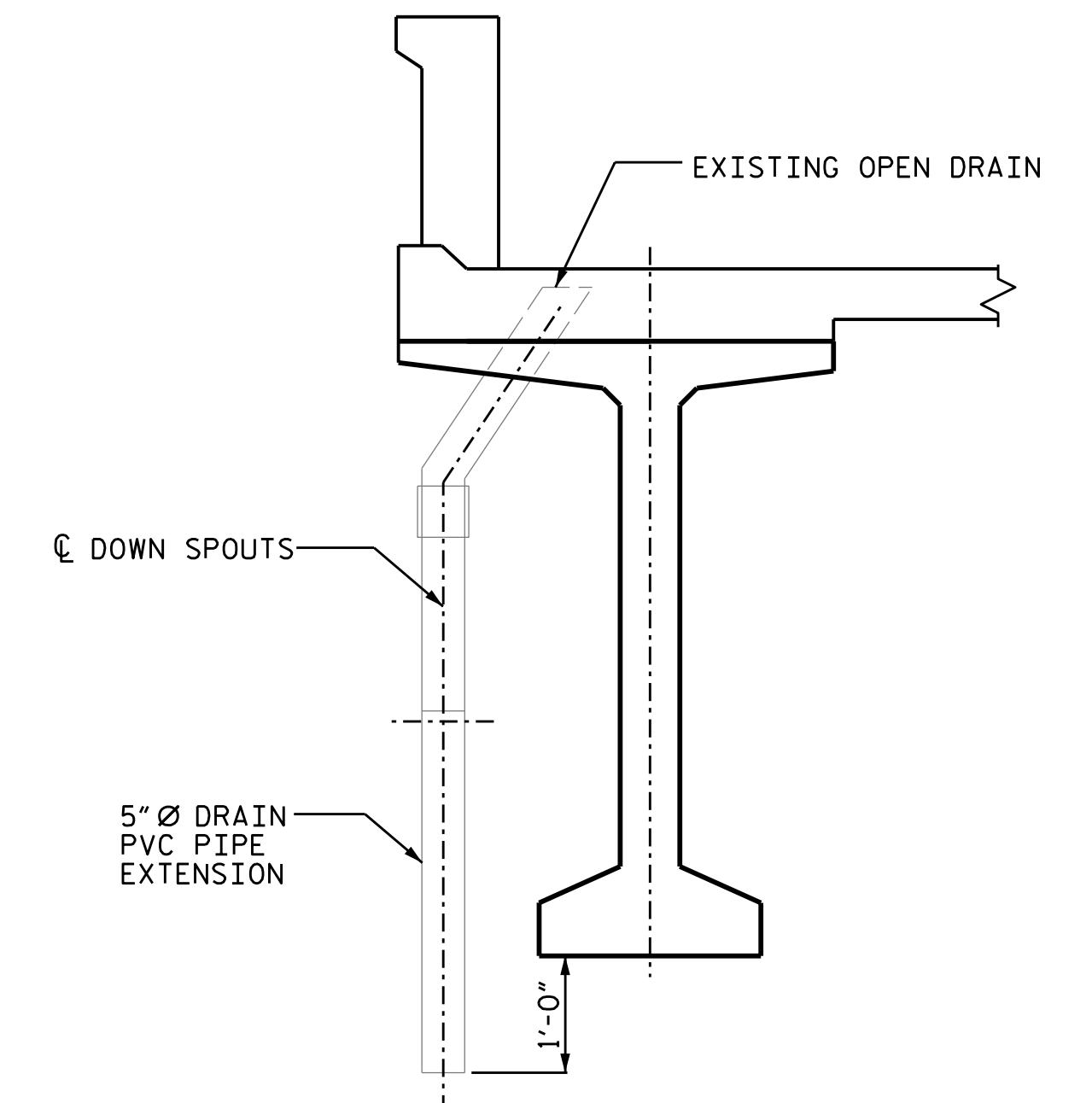


SECTION A-A



DRAIN INLET & PVC CONNECTION

CLOSED DRAINAGE SYSTEM DETAILS



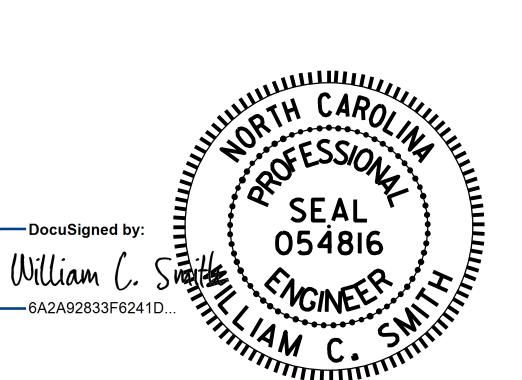
OPEN DRAIN REPAIR DETAIL

PROJECT NO. 15BPR.137
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BRIDGE NO: 060353

SHEET 2 OF 2

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

DRAINAGE SYSTEM REPAIR DETAILS

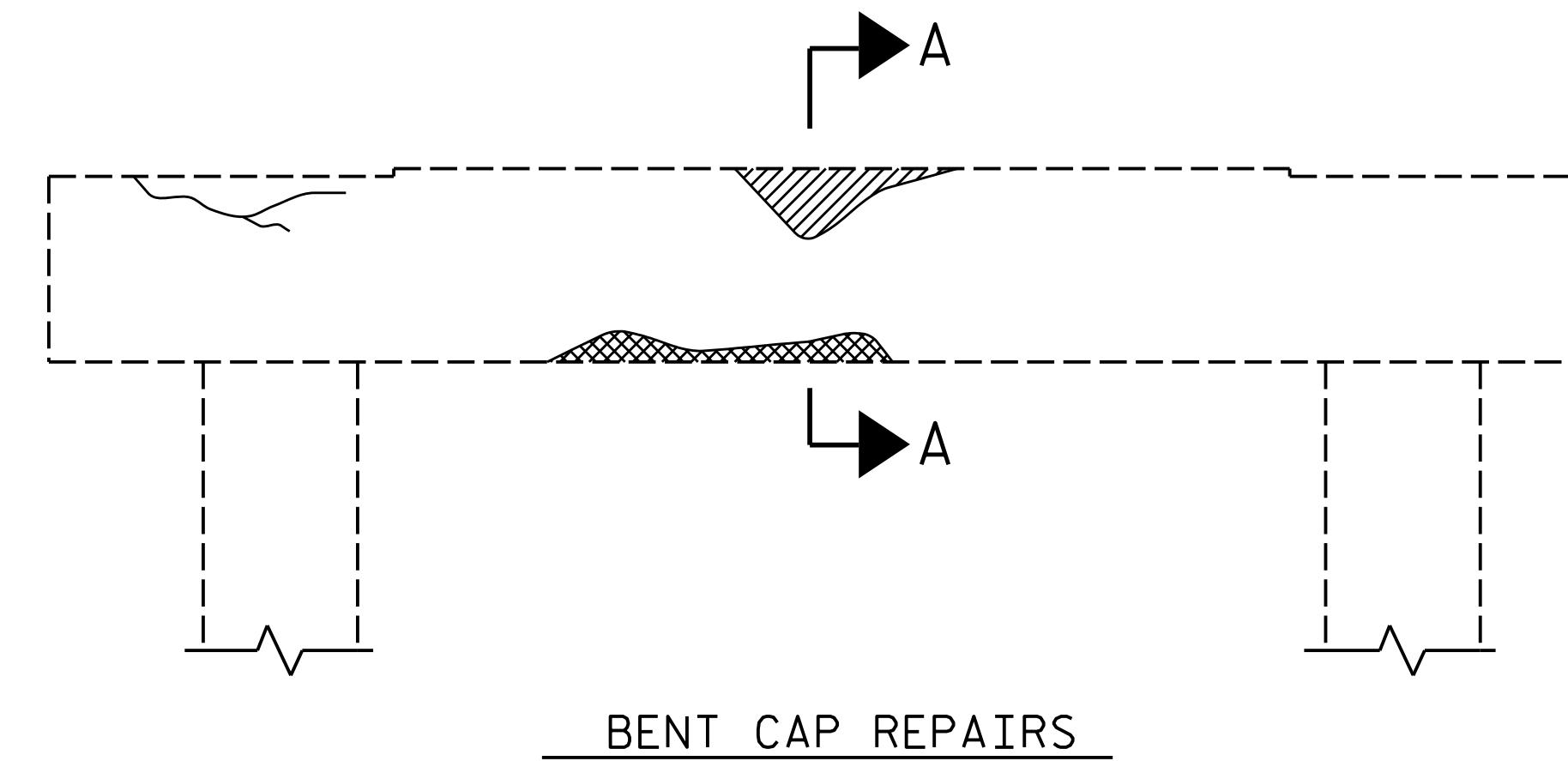


11/21/2025

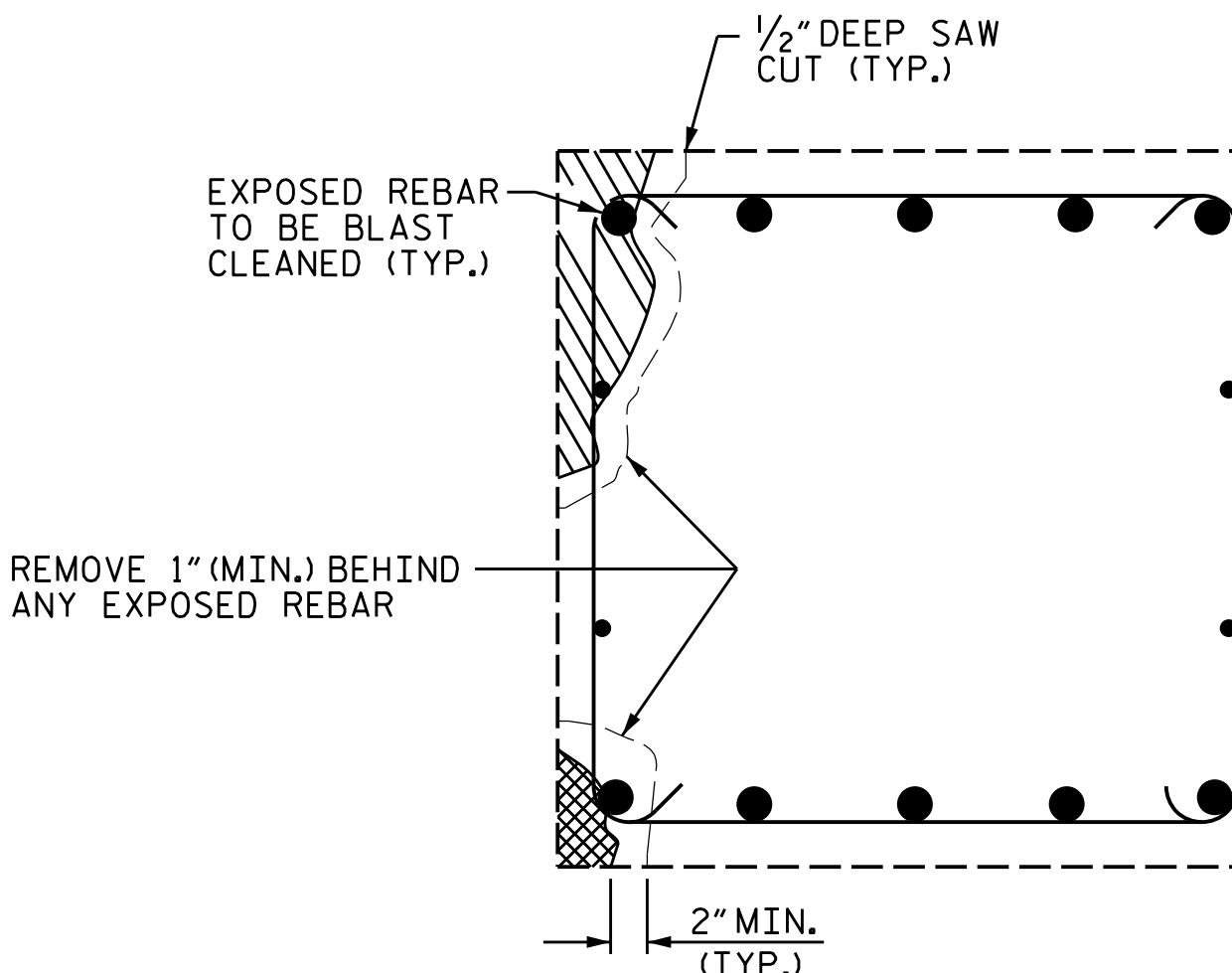
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SIGNATURES COMPLETED

REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		

DRAWN BY : S. T. SANDOR DATE : 7/5/24
CHECKED BY : W. C. SMITH DATE : 7/10/24



BENT CAP REPAIRS



NOTES

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

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

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

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

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

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

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

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

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

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

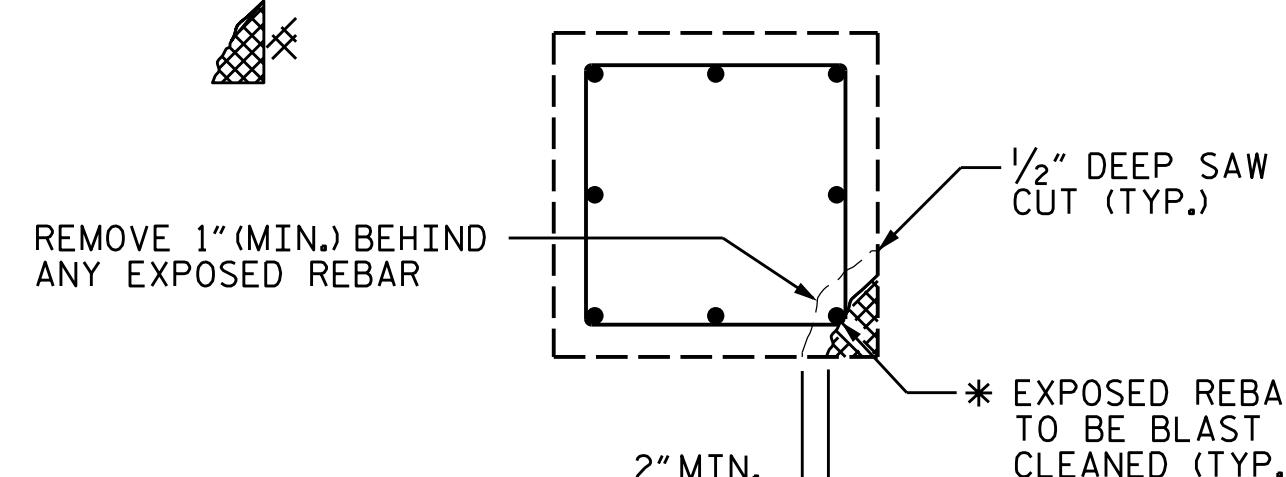
FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY PROTECTIVE COATING, SEE SPECIAL PROVISIONS.

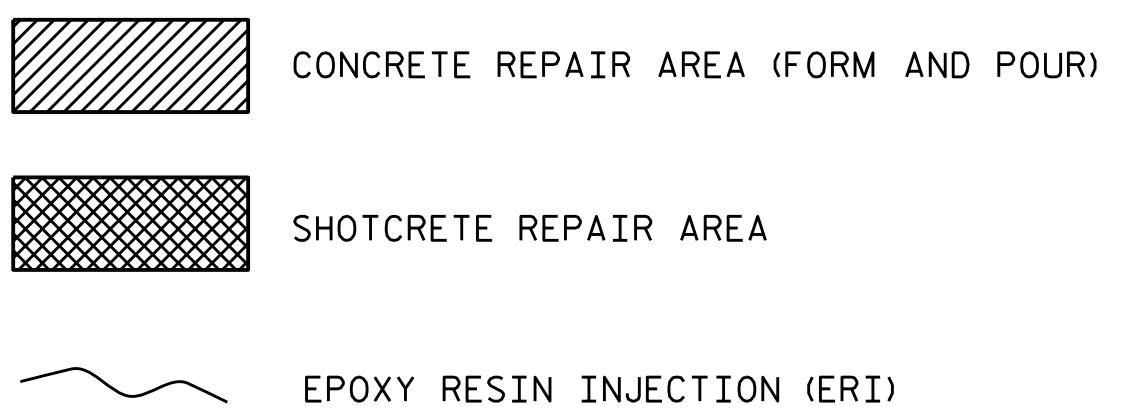
FOR EPOXY RESIN INJECTION (ERI), SEE SPECIAL PROVISIONS.

FOR PRESTRESSED CONCRETE PILE REPAIRS, SEE "PRESTRESSED CONCRETE PILE REPAIR DETAILS" SHEET.



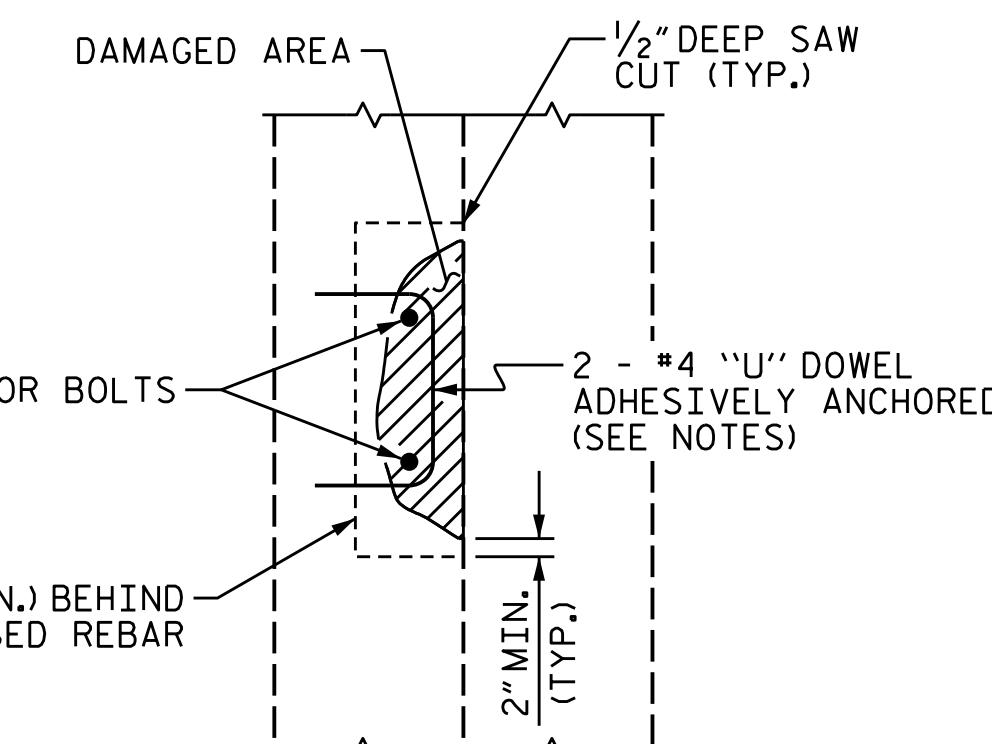
PLAN OF COLUMN

REPAIR KEY

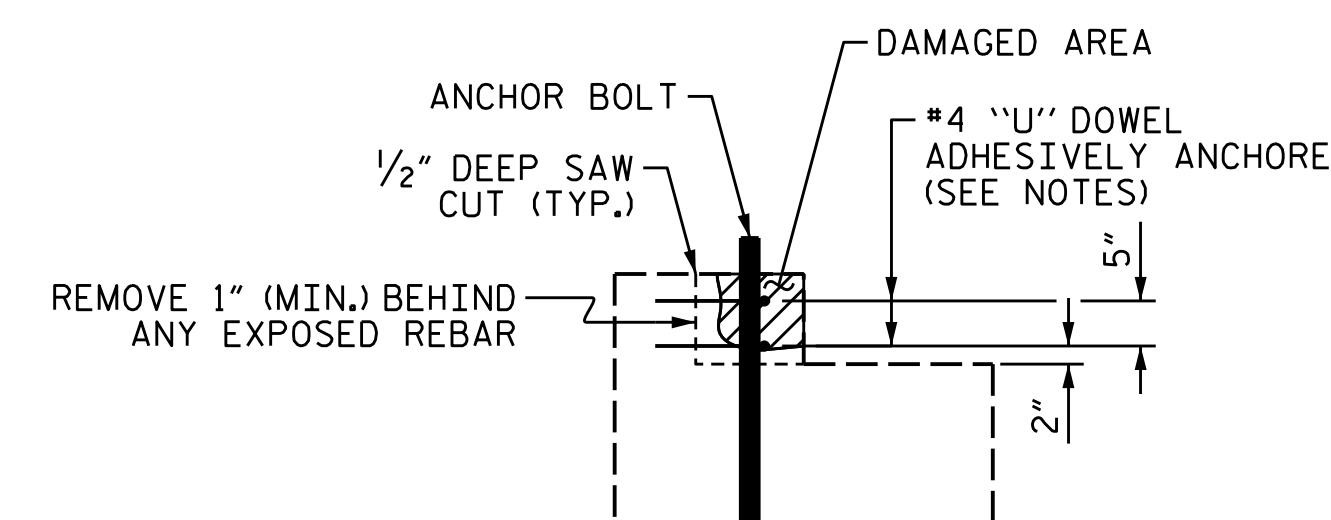


SECTION A-A

CAP REPAIR



PLAN



ELEVATION

PEDESTAL WALL REPAIR

PROJ. NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353



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

REVISIONS					SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-215
1			3			
2			4			

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

ASSEMBLED BY : S. T. SANDOR	DATE : 7/05/24
CHECKED BY : W. C. SMITH	DATE : 7/10/24
DRAWN BY : NAP 8/18	
CHECKED BY :	

COLUMN REPAIR

ELEVATION OF COLUMN

* REPAIR LENGTH SHALL NOT EXCEED 10 FEET.

NOTES

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

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

REMOVE UNSOUND CONCRETE TO THE EXTENT NECESSARY, MINIMUM OF 2" CLEARANCE TO SAWCUT.

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

SIMULTANEOUS REMOVAL OF UNSOUND CONCRETE MAY BE PERMITTED ON MORE THAN ONE FACE OF A CAP AND/OR COLUMN, IF THE AREAS OF REMOVAL ARE NOT ADJACENT TO OR DIRECTLY OPPOSITE ONE ANOTHER. IF REMOVAL EXTENDS MORE THAN 1½" BEHIND THE MAIN REINFORCING BARS, NOTIFY THE ENGINEER PRIOR TO PROCEEDING.

REINFORCING STEEL WHICH IS DETERMINED BY THE ENGINEER TO BE REPLACED SHALL BE REMOVED TO A POINT WHERE IT IS SOUND. THE REPAIR AREA SHALL EXTEND A SUFFICIENT DISTANCE BEYOND THIS POINT TO DEVELOP A SPLICE LENGTH SPECIFIED IN THE TABLE ON "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

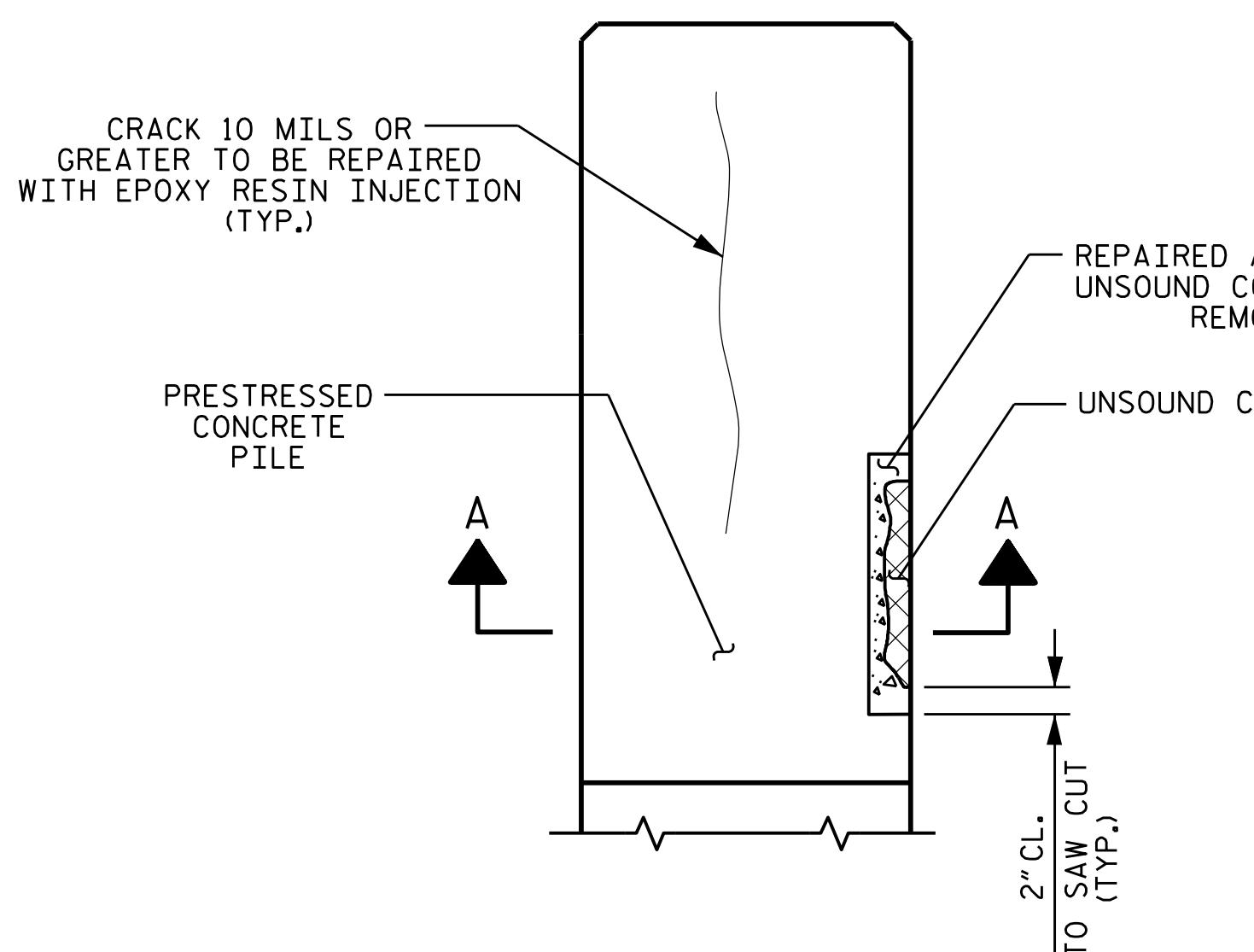
FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

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

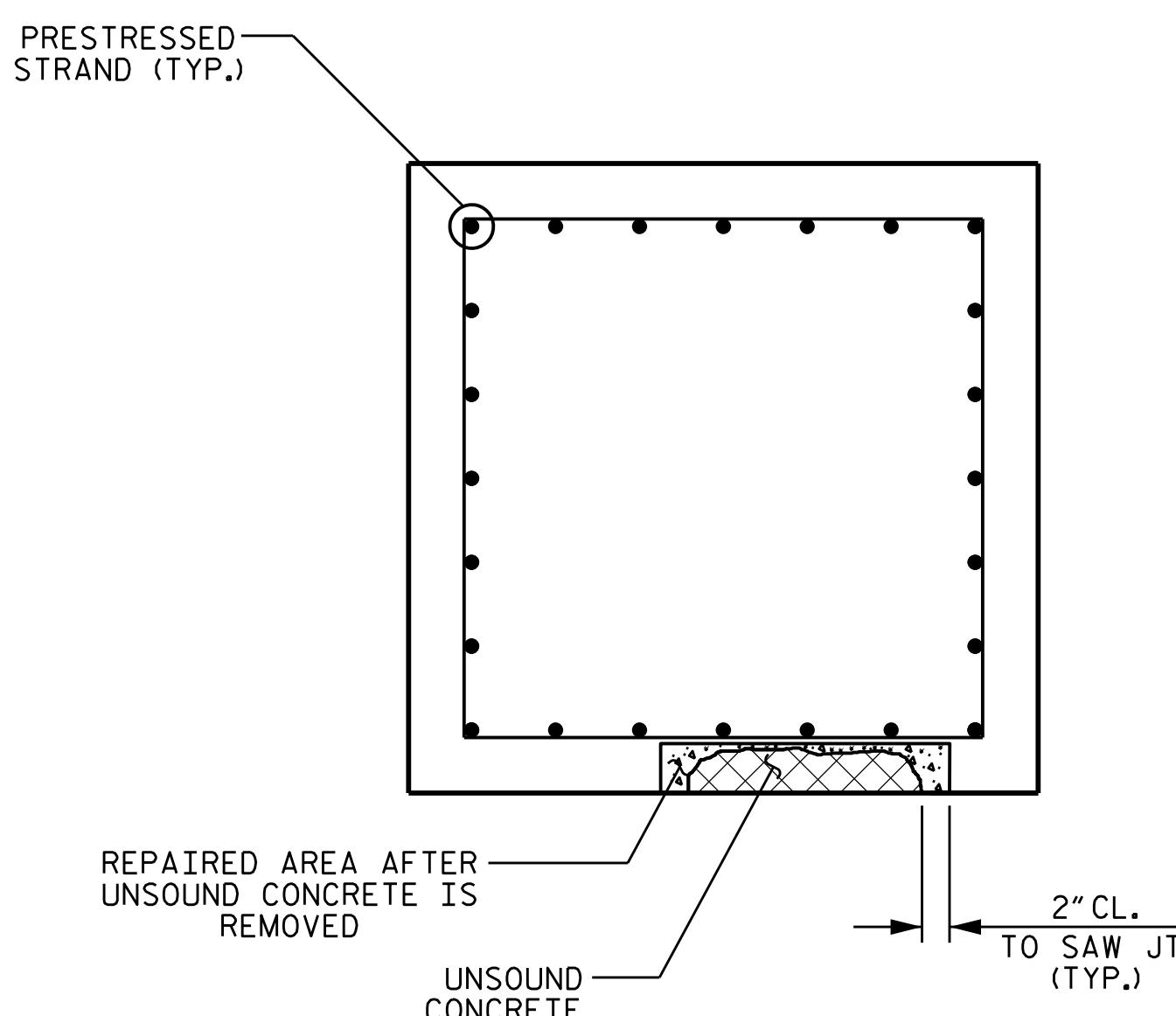
FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

PRESTRESSED CONCRETE PILE REPAIR SEQUENCE:

1. SOUND CONCRETE TO DETERMINE EXTENTS OF REPAIR LOCATION.
2. REMOVE SURFACE CONCRETE TO VERIFY THAT SAWCUT DEPTH WILL NOT DAMAGE EXISTING REINFORCING STEEL. SAW CUT AROUND REPAIR AREA TO A NOMINAL DEPTH OF ½".
3. REMOVE CONCRETE WITHIN SAW CUT AREA TO MINIMUM ½" DEPTH. IF CONCRETE IS DAMAGED BEYOND THE ORIGINAL SAW CUT, A NEW SAW CUT IS REQUIRED.
4. IF MORE THAN HALF THE CIRCUMFERENCE OF A REINFORCING BAR IS EXPOSED DURING THIS PROCESS, REMOVE ADDITIONAL CONCRETE TO 1" BEHIND THE BAR. THIS DOES NOT APPLY TO PRESTRESSED STRANDS.
5. ALL UNSOUND CONCRETE MUST BE REMOVED, HOWEVER, PRESTRESSED STRANDS SHOULD NOT BE DISTURBED UNLESS ABSOLUTELY NECESSARY. USE EXTREME CARE TO NOT DAMAGE STRANDS.
6. CLEAN ALL EXPOSED REINFORCING BARS AND PRESTRESSED STRANDS IN ACCORDANCE WITH SHOTCRETE REPAIRS SPECIAL PROVISION. FOR BARS WITH MORE THAN 10% SECTION LOSS, SPLICE AND SECURELY TIE SUPPLEMENTAL REINFORCING BARS AS NEEDED. NOTE AND PROVIDE DETAILED DOCUMENTATION, INCLUDING LOCATION AND SEVERITY, OF ALL DAMAGE TO PRESTRESSED STRANDS THAT EXCEEDS 10% SECTION LOSS. IF FIVE OR MORE STRANDS ARE DAMAGED, NOTIFY THE ENGINEER PRIOR TO PLACEMENT OF REPAIR MATERIAL.
7. REMOVE ALL LOOSE OR WEAKENED MATERIAL THEN CLEAN THE REPAIR AREA OF DIRT, GREASE, OIL, AND FOREIGN MATTER.
8. PREPARE SURFACE AND PLACE SHOTCRETE REPAIRS IN ACCORDANCE WITH SHOTCRETE REPAIRS SPECIAL PROVISION.



ELEVATION VIEW



SECTION A-A

PRESTRESSED CONCRETE PILE REPAIR

PROJECT NO. 15BPR.137
 BEAUFORT COUNTY
 BRIDGE NO. 060353



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

PRESTRESSED CONCRETE PILE REPAIR DETAILS

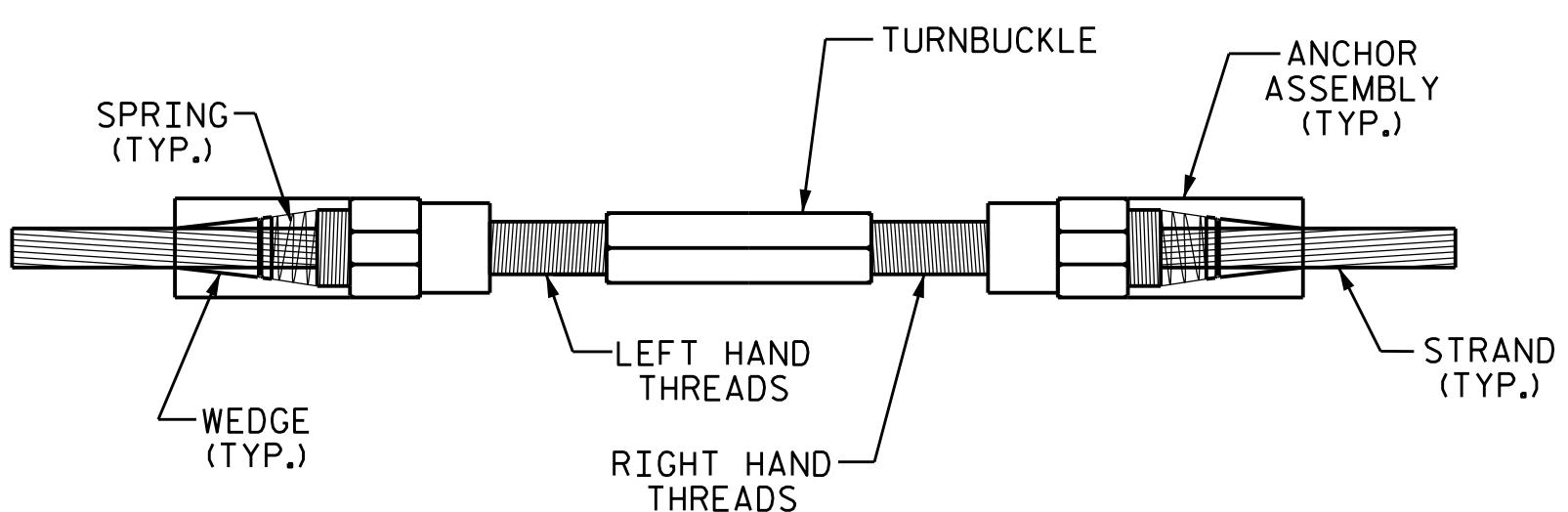
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 SIGNATURES COMPLETED

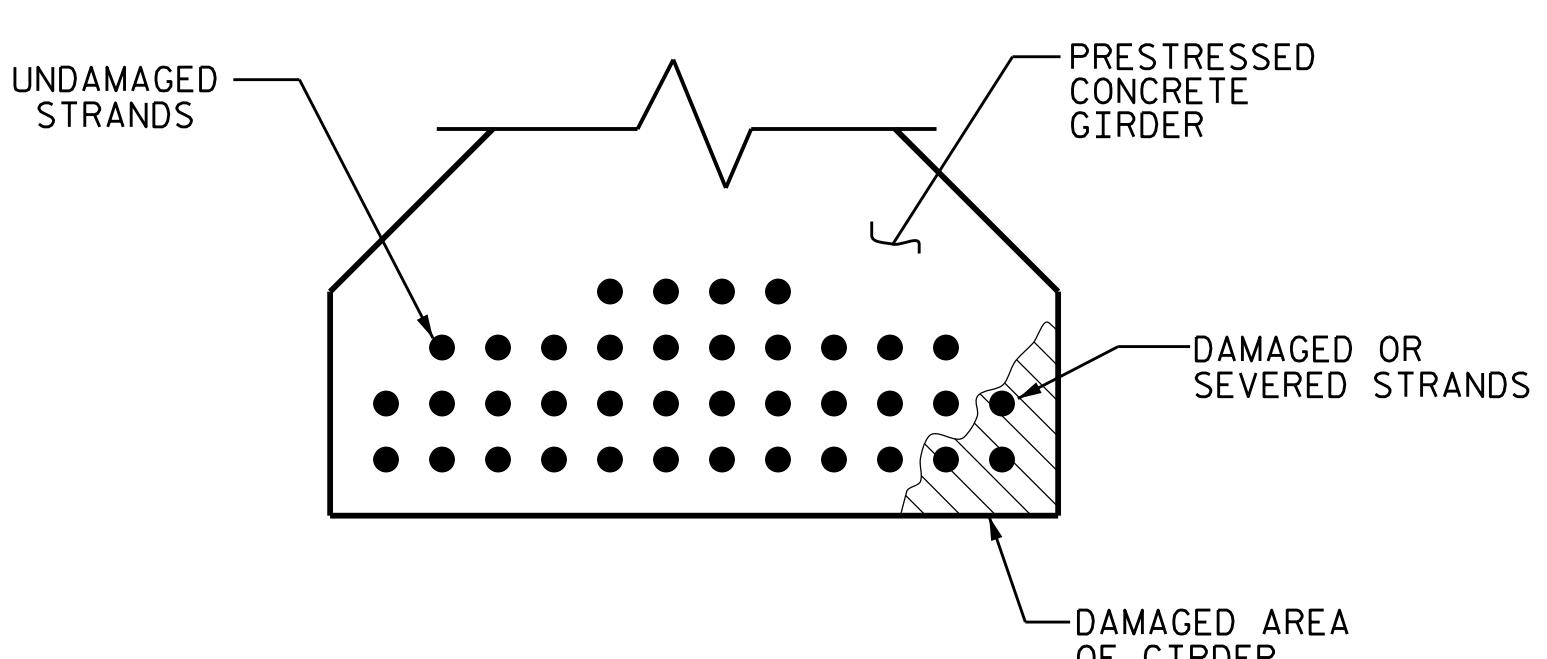
DRAWN BY : S. T. SANDOR DATE : 7/5/24
 CHECKED BY : W. C. SMITH DATE : 7/10/24
 DESIGN ENGINEER OF RECORD: _____ DATE : _____



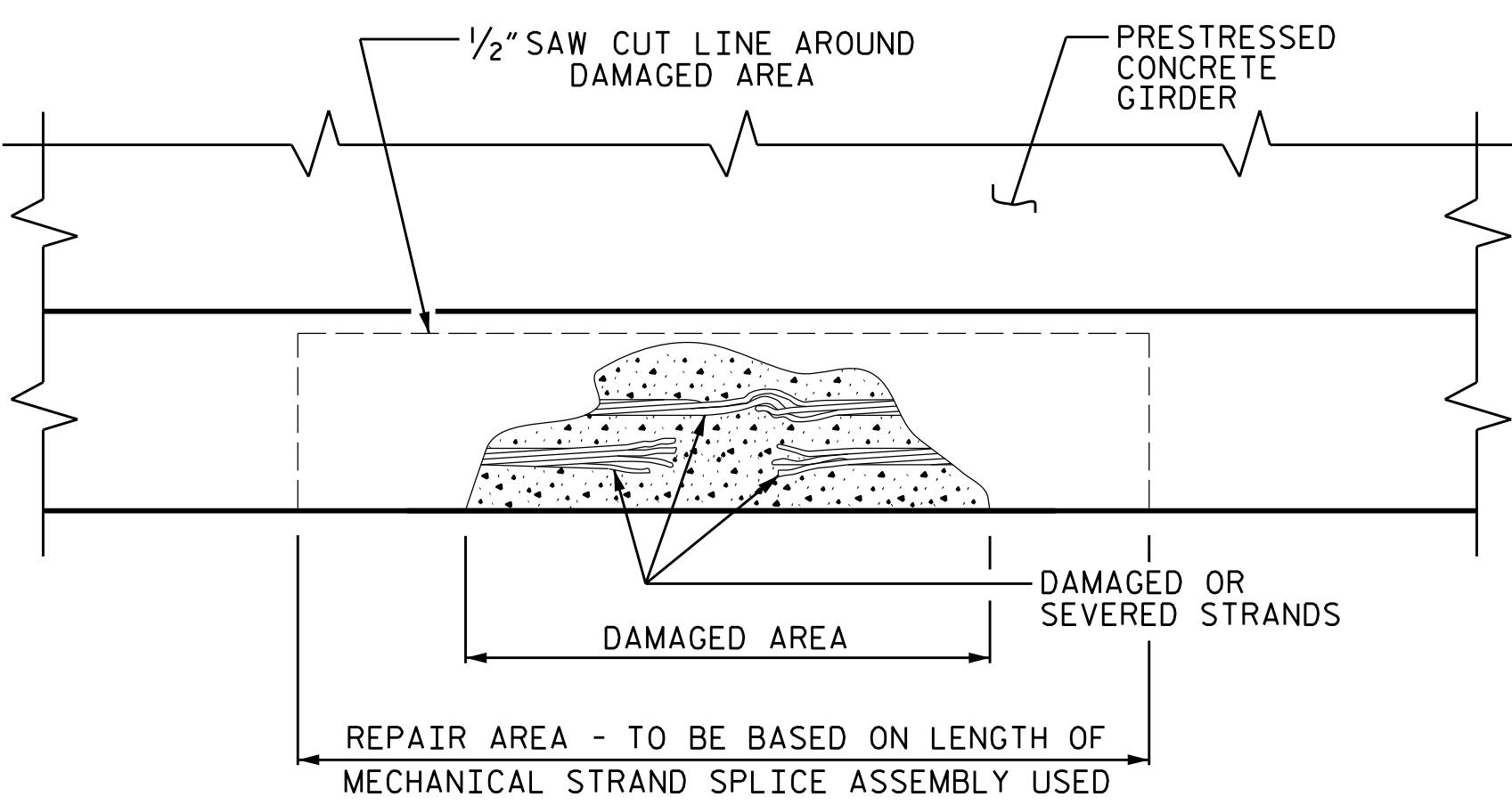
MECHANICAL STRAND SPLICE ASSEMBLY (ASSEMBLIES MAY VARY DEPENDING ON MANUFACTURER)



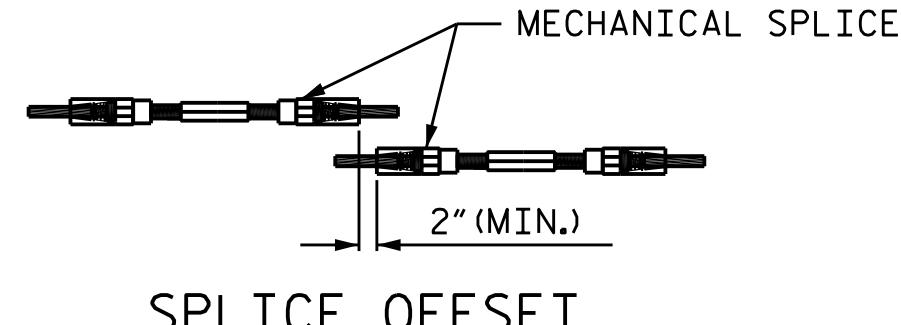
STRAND SPLICE DETAIL



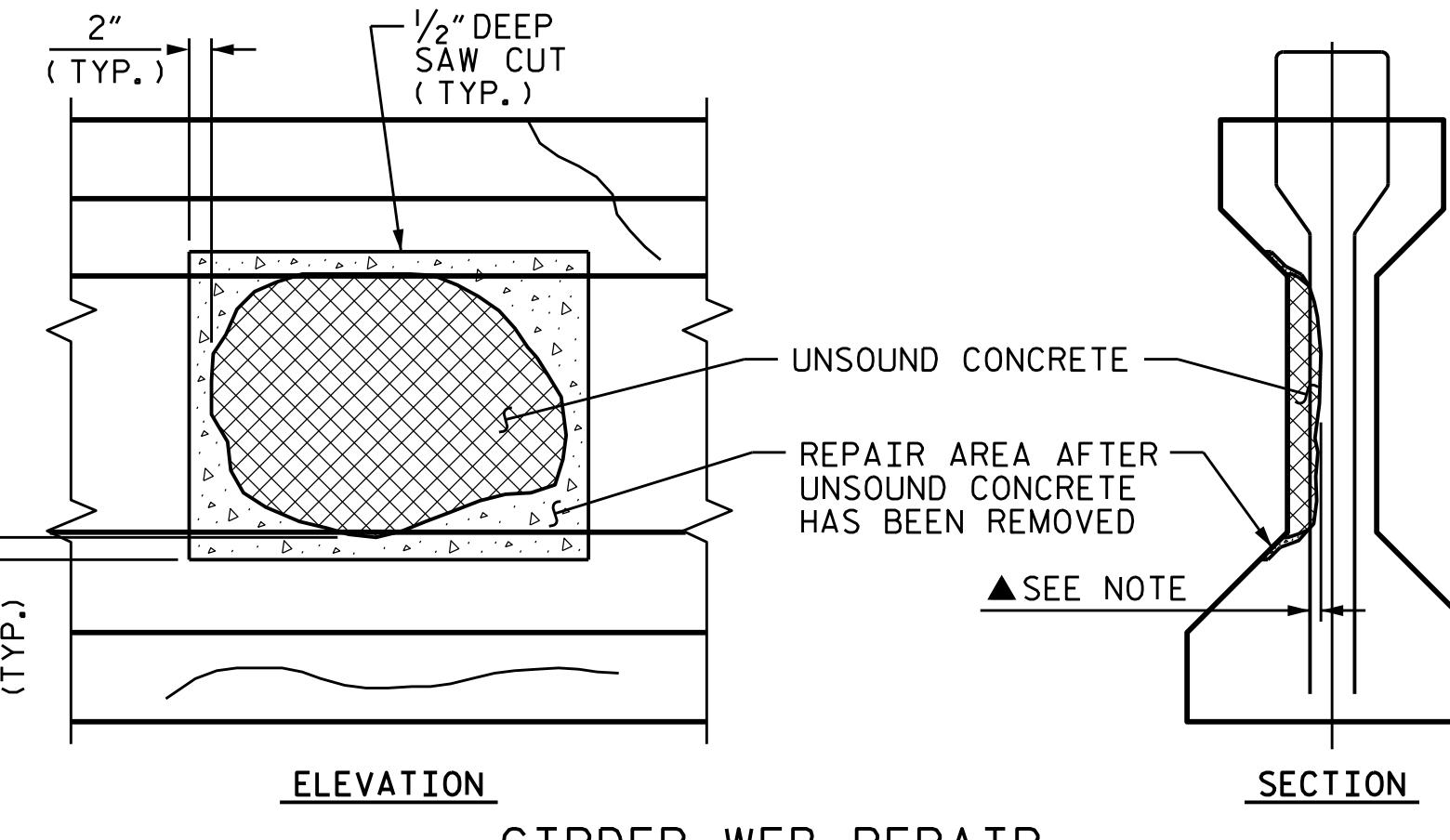
SECTION VIEW OF DAMAGED GIRDER



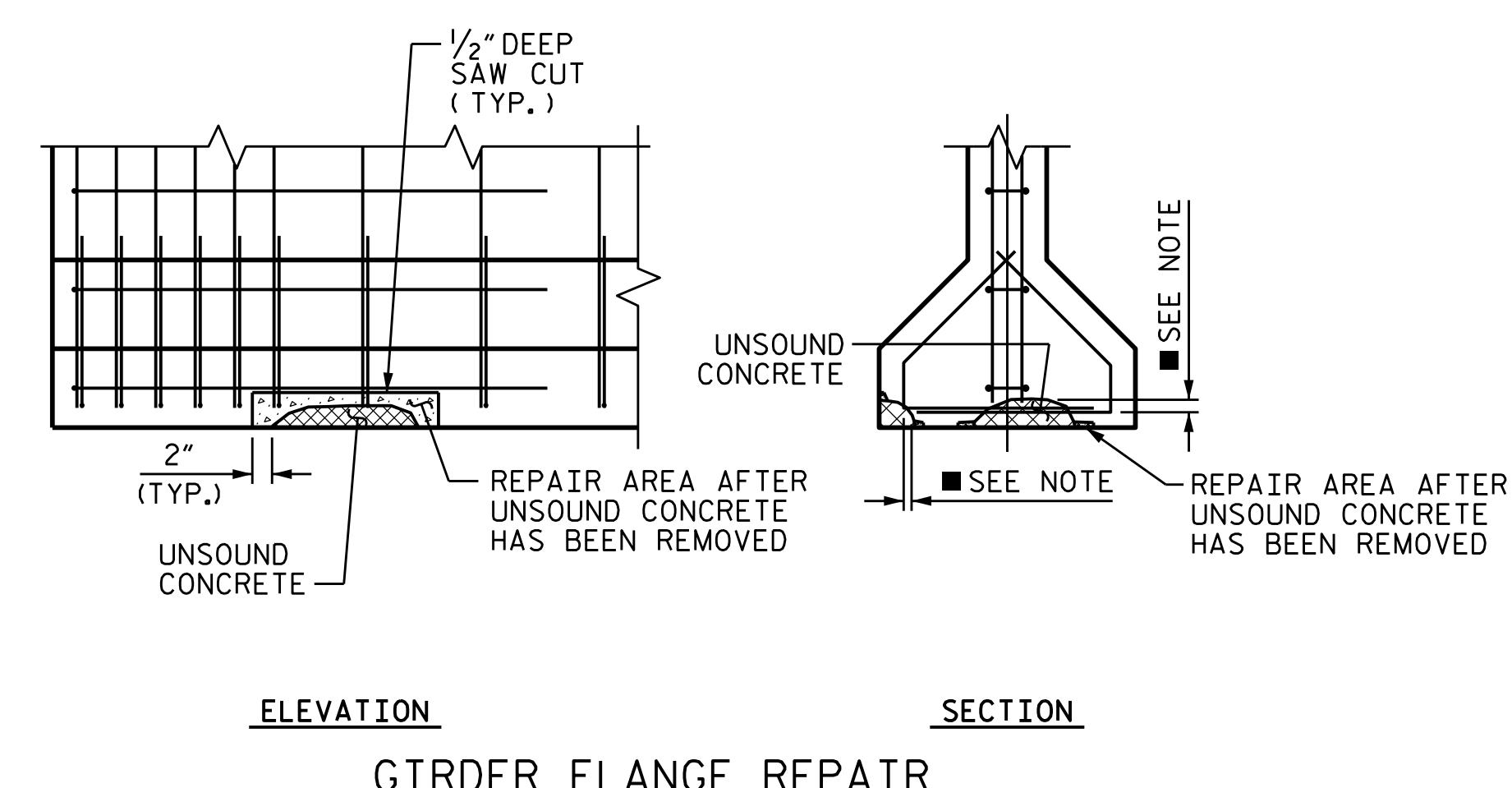
ELEVATION VIEW OF DAMAGED GIRDER



STRAND REPAIR DETAILS

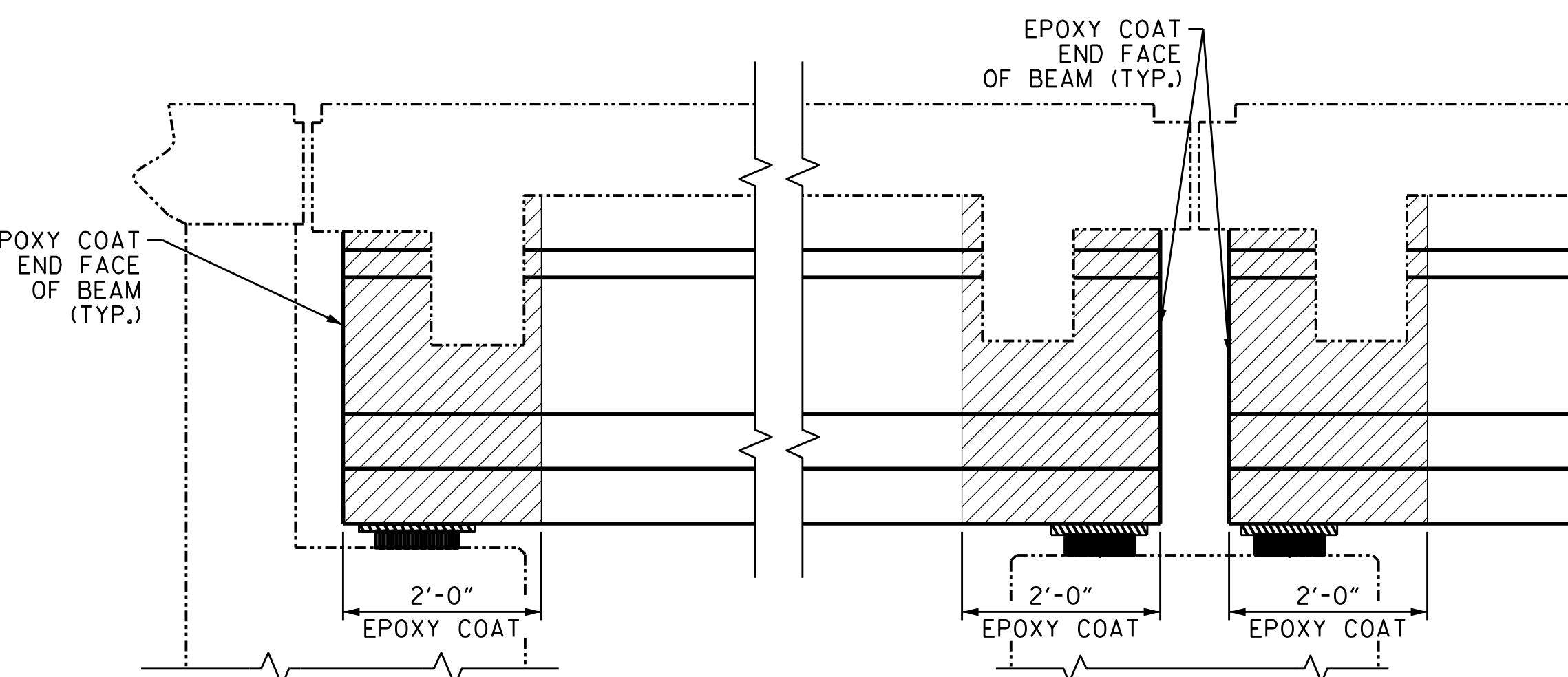
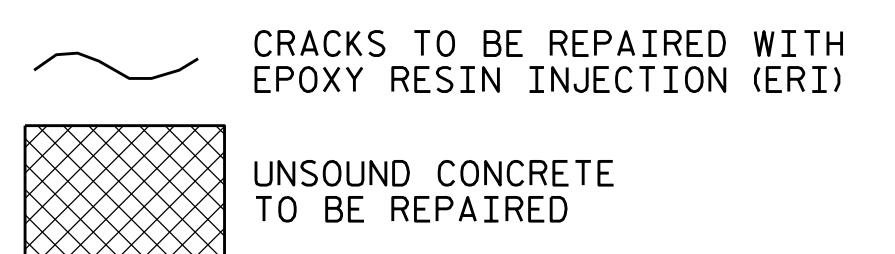


GIRDER WEB REPAIR



GIRDER FLANGE REPAIR

PRESTRESSED GIRDER REPAIR



LIMITS OF EPOXY COATING

NOTES:

PREPACKAGED MATERIAL IS REQUIRED.

CONSULT WITH THE ENGINEER TO DETERMINE PRELOADING REQUIREMENTS WHEN REPAIR IS WITHIN THE CENTER REGION OF THE BEAM (0.25L TO 0.75L).

FOR REPAIRS OVER TRAFFIC AND SHALLOW REPAIRS THAT DO NOT ENGAGE REINFORCEMENT, ANCHOR PATCH MATERIAL USING $\frac{1}{4}$ " GALVANIZED BOLTS, EPOXY ANCHORED WITH 2" EMBEDMENT. PLACE BOLTS IN A 6" GRID. USE A LATEX OR EPOXY PATCH MATERIAL FOR IMPROVED BOND. USE EXTREME CARE TO NOT DAMAGE STRANDS.

FOR REPAIRS TO PRESTRESSED CONCRETE GIRDERS, SEE SPECIAL PROVISIONS.

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

FOR EPOXY COATING CONCRETE GIRDER ENDS, SEE SPECIAL PROVISIONS.

PRESTRESSED GIRDER STRAND REPAIR SEQUENCE:

1. REMOVE LIVE LOAD FORM REPAIR AREA BY EITHER CLOSING BRIDGE TO TRAFFIC OR SHIFTING TRAFFIC AWAY FROM REPAIR AREA.
2. MEASURE OUT THE AREA NEEDED TO HAVE ADEQUATE ROOM TO SPLICER THE BROKEN OR DAMAGED STRAND. IF MULTIPLE STRANDS ARE BROKEN ADJACENT TO ONE ANOTHER THEN THE SPLICES SHALL BE STAGGERED. SEE "SPLICE OFFSET" ABOVE. AFTER YOU HAVE DETERMINED THE REPAIR AREA NEEDED, SAW CUT A MINIMUM OF $\frac{1}{2}$ " AT RIGHT ANGLES AROUND THE DAMAGED AREA. CHIP OUT REST OF CONCRETE TO A SUFFICIENT REPAIR DEPTH.
3. SPLICE STRANDS USING THE MECHANICAL SPLICE STRAND ASSEMBLY AND TENSION TO REQUIRED FORCE PER THE MANUFACTURER'S GUIDELINES.
4. PATCH REPAIR AREA USING NON SHRINK GROUT. PROFILE OF GIRDER MAY NEED TO BE INCREASED AROUND REPAIR AREA TO PROVIDE PROPER COVER.
5. AFTER GROUT HAS CURED PLACE TRAFFIC BACK ON BRIDGE OR REPAIRED AREA OF BRIDGE.

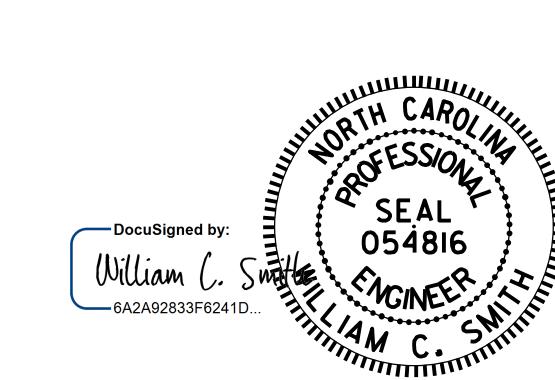
PRESTRESSED GIRDER REPAIR SEQUENCE:

1. SOUND CONCRETE TO DETERMINE EXTENTS OF REPAIR LOCATION.
2. REMOVE SURFACE CONCRETE TO VERIFY THAT SAWCUT DEPTH WILL NOT DAMAGE EXISTING REINFORCING STEEL. SAW CUT AROUND REPAIR AREA TO A NOMINAL DEPTH OF $\frac{1}{2}$ ".
3. REMOVE CONCRETE WITHIN SAW CUT AREA TO MINIMUM $\frac{1}{2}$ " DEPTH. IF CONCRETE IS DAMAGED BEYOND THE ORIGINAL SAW CUT, A NEW SAW CUT IS REQUIRED.
4. ▲ IF MORE THAN HALF THE CIRCUMFERENCE OF A REINFORCING BAR IS EXPOSED DURING THIS PROCESS, REMOVE ADDITIONAL CONCRETE TO 1" BEHIND THE BAR. THIS DOES NOT APPLY TO PRESTRESSED STRANDS.
5. ■ ALL UNSOUND CONCRETE MUST BE REMOVED. HOWEVER, PRESTRESSED STRANDS SHOULD NOT BE DISTURBED UNLESS ABSOLUTELY NECESSARY. USE EXTREME CARE TO NOT DAMAGE STRANDS.
6. CLEAN ALL EXPOSED REINFORCING BARS AND PRESTRESSED STRANDS IN ACCORDANCE WITH THE REPAIRS TO PRESTRESSED GIRDER'S SPECIAL PROVISION. IN ACCORDANCE WITH THE REPAIRS TO PRESTRESSED CONCRETE GIRDER'S SPECIAL PROVISION, FOR BARS WITH MORE THAN 10% SECTION LOSS, SPLICE AND SECURELY TIE SUPPLEMENTAL REINFORCING BARS AS NEEDED. NOTE AND PROVIDE DETAILED DOCUMENTATION, INCLUDING LOCATION AND SEVERITY, OF ALL DAMAGE TO PRESTRESSED STRANDS THAT EXCEEDS 10% SECTION LOSS. IF FIVE OR MORE STRANDS ARE DAMAGED, NOTIFY THE ENGINEER PRIOR TO PLACEMENT OF REPAIR MATERIAL.
7. REMOVE ALL LOOSE OR WEAKENED MATERIAL THEN CLEAN THE REPAIR AREA OF DIRT, GREASE, OIL, AND FOREIGN MATTER.
8. PREPARE SURFACE AND PLACE APPROVED REPAIR MATERIAL ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. MAXIMUM AGGREGATE SIZE FOR REPAIR MATERIAL SHALL NOT EXCEED $\frac{3}{8}$ THE MINIMUM REPAIR DEPTH.

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353



11/21/2025

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
STANDARD
PRESTRESSED CONCRETE
GIRDER REPAIR
DETAILS

REVISIONS					SHEET NO.	
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DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

ASSEMBLED BY : P. K. NEWTON	DATE : 5/1/2024
CHECKED BY : W. C. SMITH	DATE : 5/2/2024
DRAWN BY : NAP 08/18	
CHECKED BY :	

STANDARD NOTES

DESIGN DATA:

SPECIFICATIONS	AASHTO (CURRENT)
LIVE LOAD	SEE PLANS
IMPACT ALLOWANCE	SEE AASHTO
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 AASHTO
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 2024 "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 $\frac{7}{8}$ " Ø SHEAR STUDS FOR THE $\frac{3}{4}$ " Ø STUDS SPECIFIED ON THE PLANS. THIS SUBSTITUTION SHALL BE MADE AT THE RATE OF 3 - $\frac{7}{8}$ " Ø STUDS FOR 4 - $\frac{3}{4}$ " Ø STUDS, AND STUD SPACING CHANGES SHALL BE MADE AS NECESSARY TO PROVIDE THE SAME EQUIVALENT NUMBER OF $\frac{7}{8}$ " Ø STUDS ALONG THE BEAM AS SHOWN FOR $\frac{3}{4}$ " Ø STUDS BASED ON THE RATIO OF 3 - $\frac{7}{8}$ " Ø STUDS FOR 4 - $\frac{3}{4}$ " Ø 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 $\frac{3}{16}$ " 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 $\frac{1}{16}$ " 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. FINS 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.