

STATE OF NORTH CAROLINA

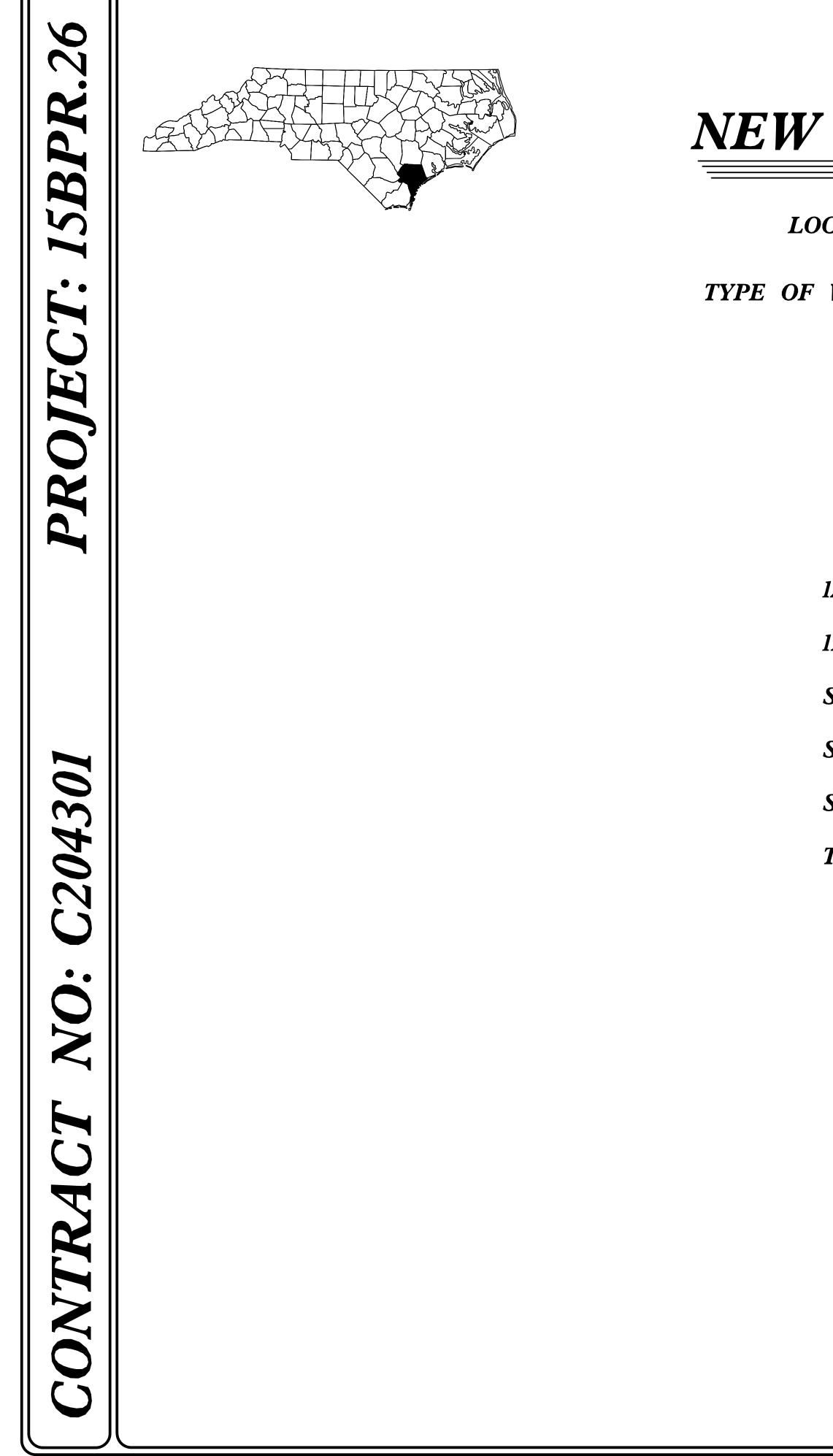
PROJECT LENGTH	2018 STANDARD SPECIFICATIONS	
BRIDGE #48 = 0.217 MILES BRIDGE #49 = 0.219 MILES	<i>LETTING DATE :</i> JANUARY 18, 2022	Silte 200 Cary, NC 27518 (919) 852-0468 (919) 852-0598 www.simpsoner LICENSURE NO.

STATE	STAT	STATE PROJECT REFERENCE NO.						
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STAT	e proj. No.	F. A. PROJ. NO.	DESCRIPT	TON				
15	BPR.26		P.E.					
15	BPR.26		CONS	ST.				

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

T.J. BEACH	I P.E.
PROJECT EN	GINEER

N.J. MABRY PROJECT DESIGN ENGINEER



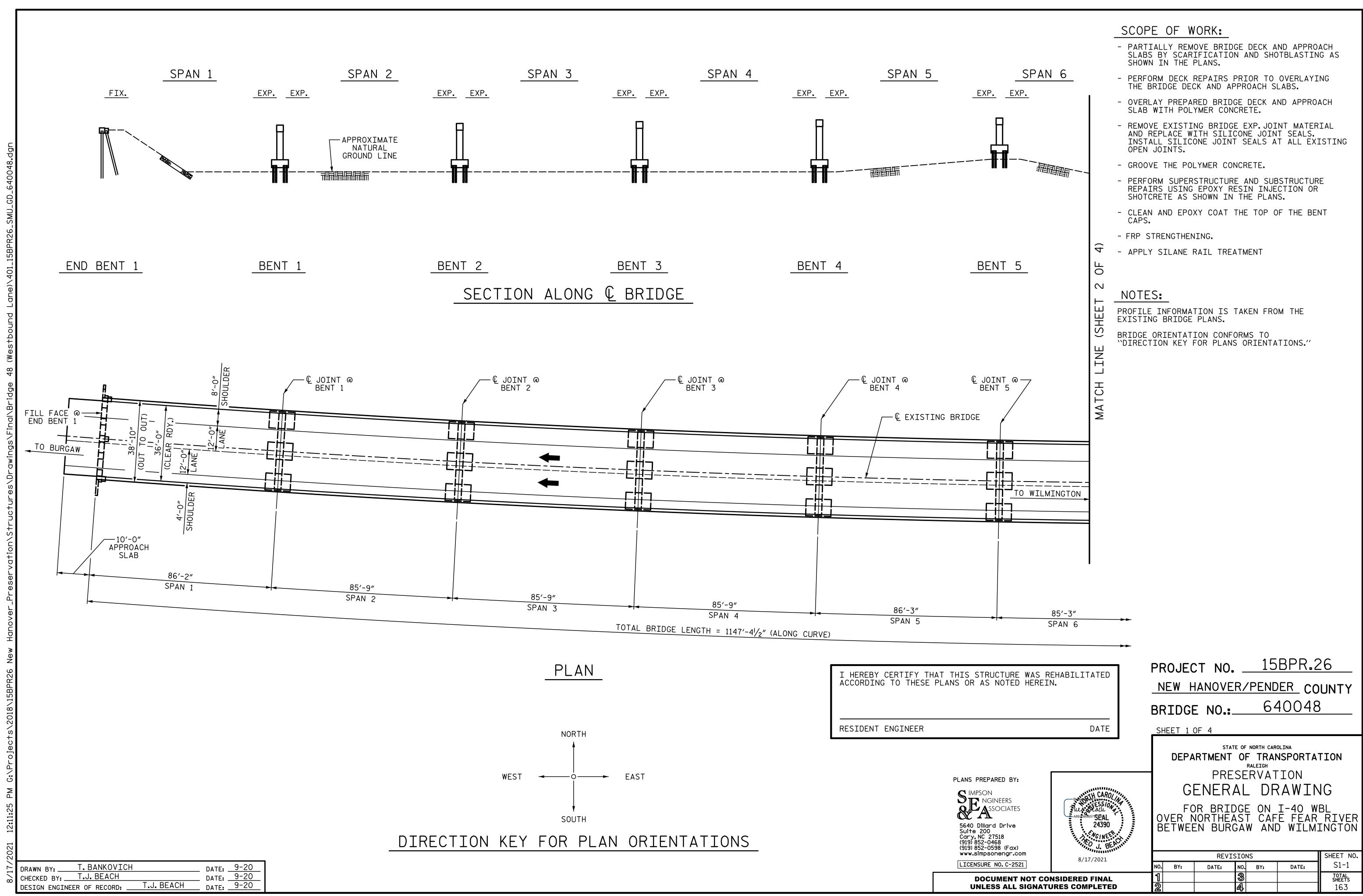
NEW HANOVER / PENDER COUNTY

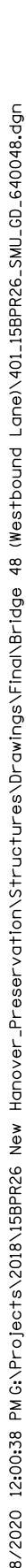
- LOCATION: BRIDGE #48 ON I-40 WBL OVER NORTHEAST CAPE FEAR RIVER. BRIDGE #49 ON I-40 EBL OVER NORTHEAST CAPE FEAR RIVER.
- TYPE OF WORK: CONCRETE BRIDGE DECK AND BARRIER RAIL REHABILITATION BY SCARIFICATION, SHOTBLASTING, PLACEMENT OF POLYMER CONCRETE OVERLAY, RECONSTRUCTION OF BRIDGE DECK JOINTS, SHOTCRETE, EPOXY RESIN INJECTION AND SILANE BARRIER RAIL TREATMENT. SUPERSTRUCTURE REHABILITATION BY REPAIRS TO PRESTRESSED CONCRETE GIRDERS, SHOTCRETE, EPOXY RESIN INJECTION, FRP GIRDER STRENGTHENING. SUBSTRUCTURE REHABILITATION BY SHOTCRETE, EPOXY RESIN INJECTION AND EPOXY COATING TOP OF END BENT AND BENT CAPS.

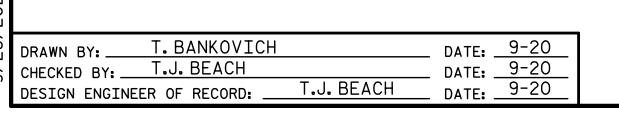
INDEX OF SHEETS

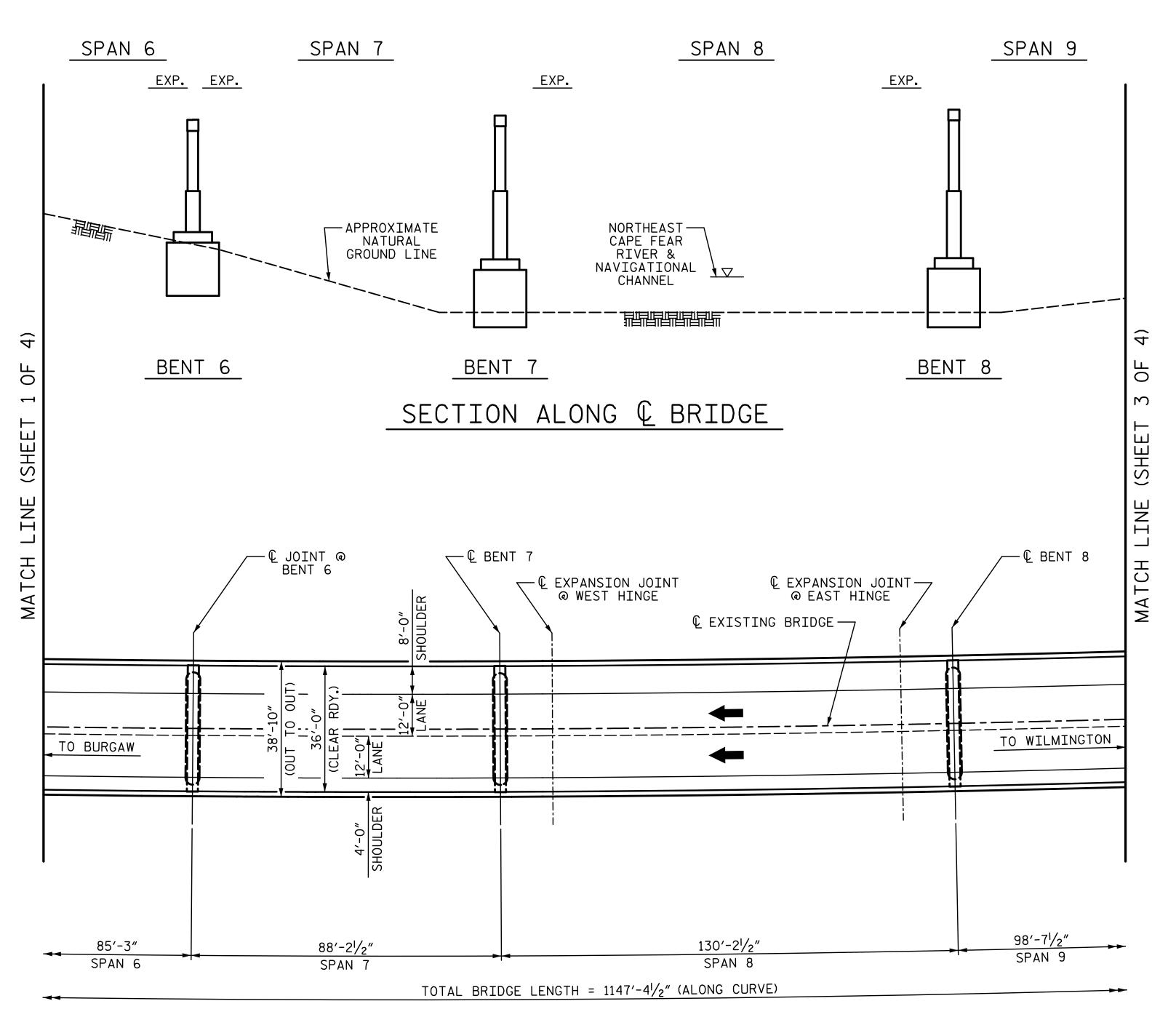
IA	TITLE SHEET
1 B	INDEX SHEETS
SI-1 THRU S1-163	640048 STRUCTURAL PLANS
S2–1 THRU S2–163	640049 STRUCTURAL PLANS
SN	STANDARD NOTES
TMP-1 THRU TMP-8	TRAFFIC MANAGEMENT PLANS

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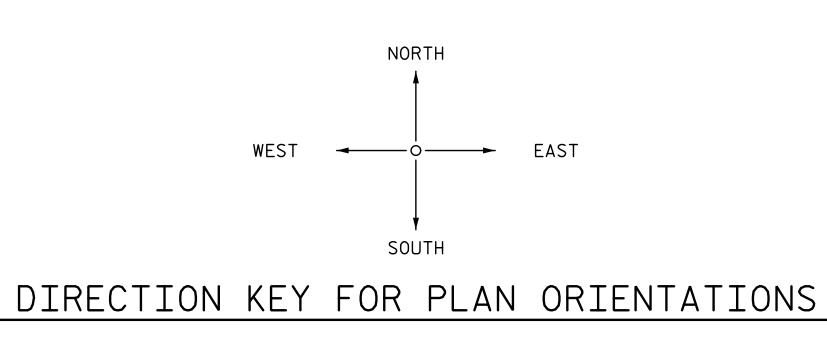










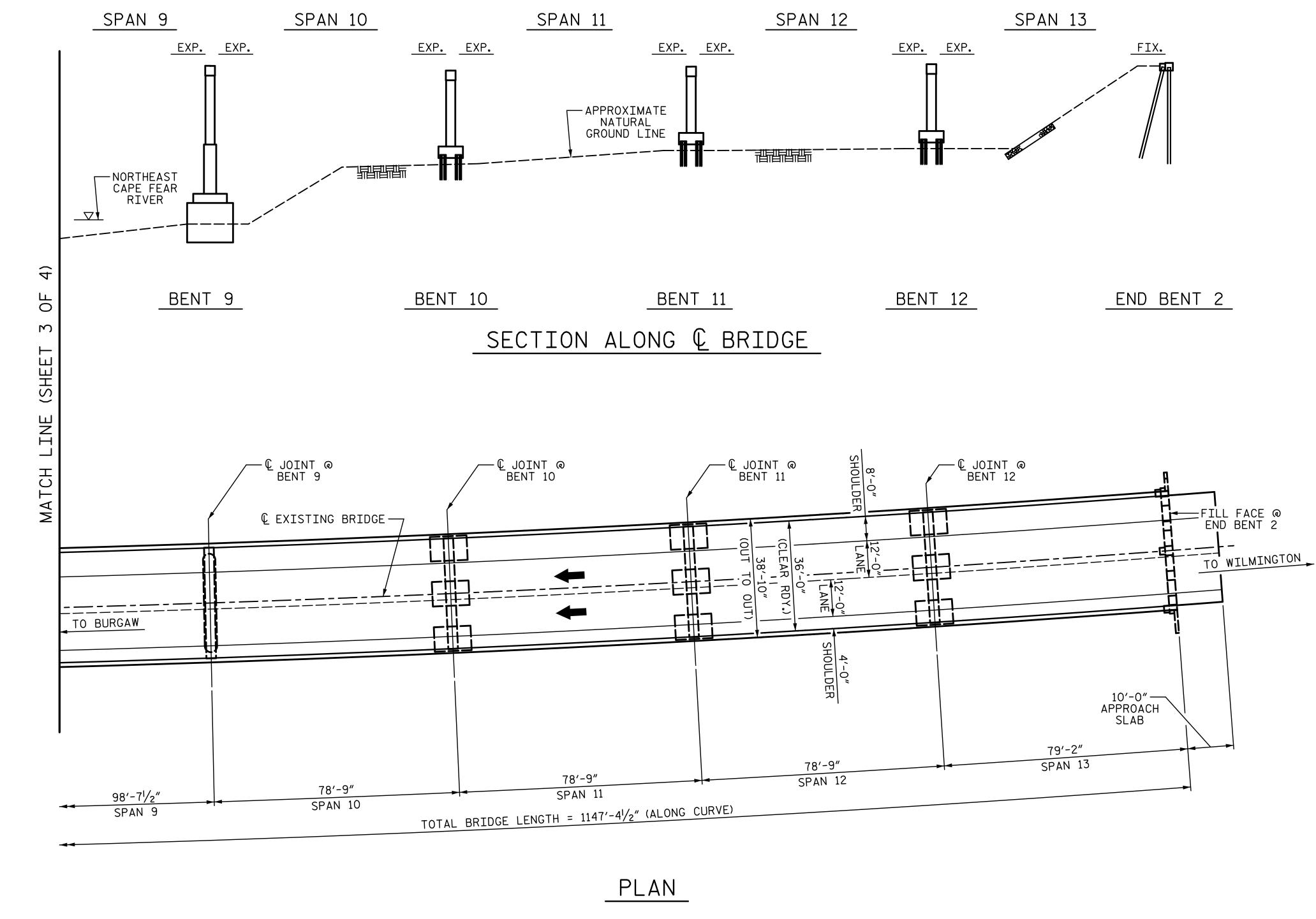






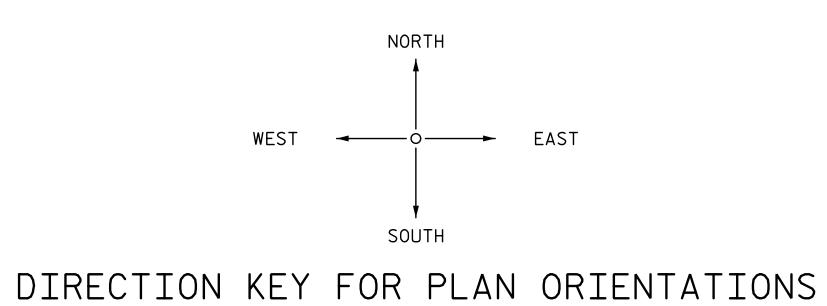
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		PROJEC	T NO.	15	BPR.2	26		
	NEW HANOVER/PENDER COUNTY							
		BRIDGE	E NO.:_	64	40048	3		
		SHEET 2	OF 4					
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ive Fax)	24390 24390 <i>A C N G N E E C L B E A C L B B A C B B A C B B A C B B A C B B B A C B B B A C B B B B A C B B B B A C B B B B A C B B B B B B B B B B</i>	BETWEE	EN BURG	SAW ANI	D WILM	INGTON		
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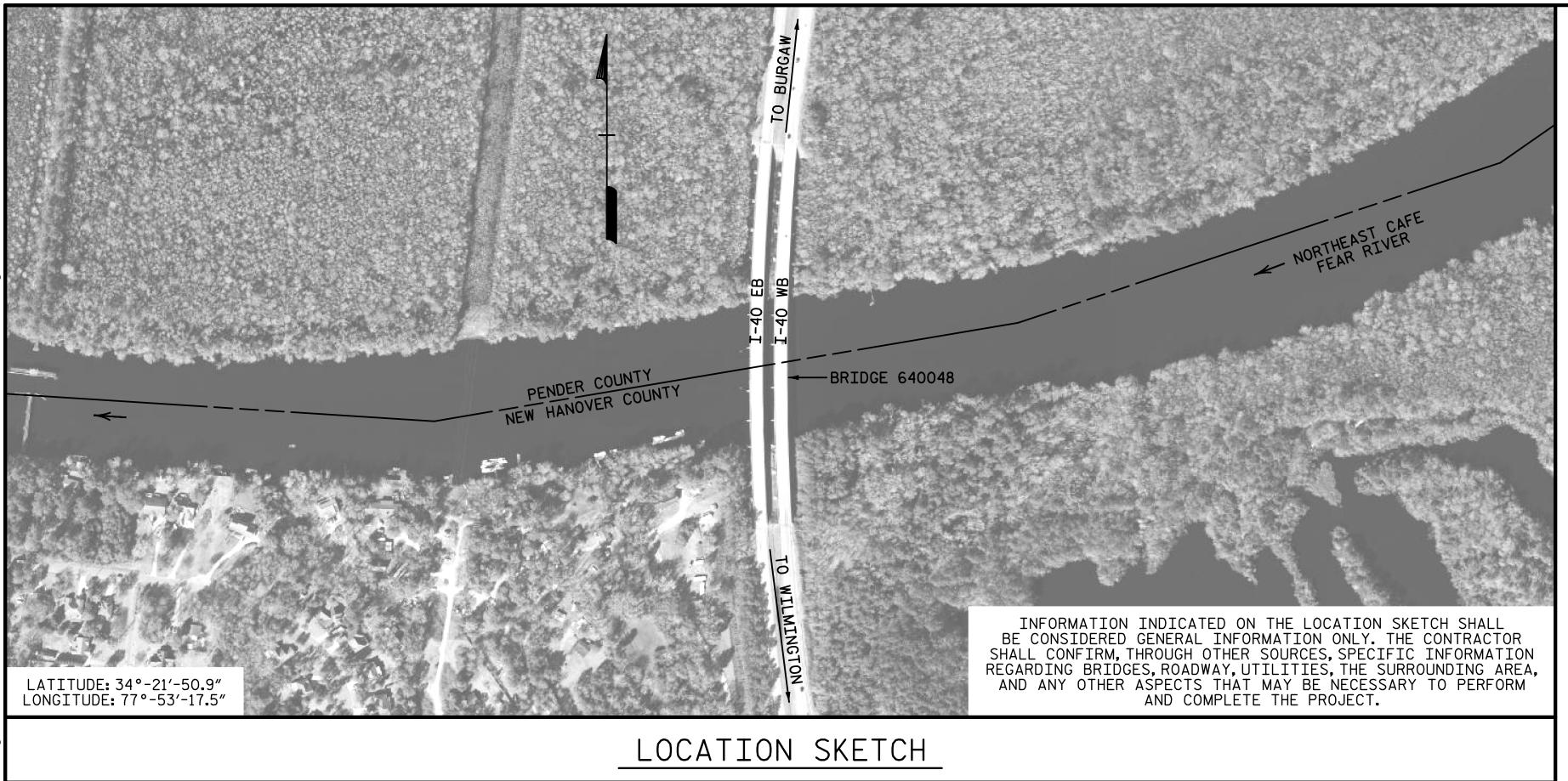
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DRAWN BY:T. BANKOVICH	DATE: 9-20
DRAWN BY: <u>T.BANKOVICH</u> CHECKED BY: <u>T.J. BEACH</u>	DATE: <u>9-20</u>
DESIGN ENGINEER OF RECORD:	DATE: 9-20





	PROJECT NO. <u>15BPR.26</u> <u>NEW HANOVER/PENDER COUNTY</u> BRIDGE NO.: <u>640048</u>
	SHEET 3 OF 4
PLANS PREPARED BY: SIMPSON NGINEERS SSOCIATES 5640 Dillard Drive Suite 200 Cary, NC 27518 (919) 852-0468 (919) 852-0598 (Fax)	STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH PRESERVATION GENERAL DRAWING FOR BRIDGE ON I-40 WBL OVER NORTHEAST CAFE FEAR RIVER BETWEEN BURGAW AND WILMINGTON
www.simpsonengr.com9/29/20LICENSURE NO. C-25219/29/20	REVISIONS SHEET NO. NO. BY: DATE: NO. BY: DATE: S1-3
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BRIDGE NO.GROOVING BRIDGE FLOORSCLASS II SURFACE PREPARATIONSHOTCRETE SURFACE PREPARATIONEPOXY SURFACE REPAIRSPOURABLE SURFACE POLYMER SURFACE SURFACE SURFACE OUNT SEALANTPOURABLE POLYMER CONCRETE ATERIALSPOUYESTER POLYMER CONCRETE ATTERNATESFIBER REINFORCED PRESTRESSED CONCRETE STRENGTHENING SYSTEMSURFACE PREPARATION SURFACE PREPARATION SURFACE PREPARATION SURFACE PREPARATION STRENGTHENING SYSTEMSURFACE SURFACE PREPARATION SURFACE PREPARATION SURFACE PREPARATION SURFACE PREPARATION SURFACE PREPARATION SURFACE PREPARATION SURFACE POLYMER SURFACE PREPARATION SURFACE PREPARATION SURFACE PREPARATION SURFACE PREPARATION SURFACE PREPARATION SURFACE PREPARATION SURFACE PREPARATION SURFACE PREPARATION SURFACE PREPARATION SURFACE PREPARATION SURFACE PREPARATION SURFACE PREPARATION SURFACE PREPARATION SURFACE PREPARATION SURFACE SURF									SHOTBLASTING BRIDGE DECK							
	SF	SY	CF	LF	LF	CY	CY	CF	SF	SF	SF	SF	SY	SY	SY	SY
640048	38,292.5	56.00	21.80	560.80	518.00	128.90	128.90	13.60	1,320.00	1,469	14,160.2	14,160.2	56.00	4,669.50	4,669.50	4,669.50
TOTAL	38,292.5	56.00	21.80	560.80	518.00	128.90	128.90	13.60	1,320.00	1,469	14,160.2	14,160.2	56.00	4,669.50	4,669.50	4,669.50

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\geq	DRAWN BY: CHECKED BY:	T.BANKOVICH		DATE:	9-20
<u></u>	CHECKED BY:	T.J. BEACH		DATE:	9-20
2	DESIGN ENGINE	ER OF RECORD:	T.J. BEACH	DATE:	9-20

NOTES:

EXISTING DIMENSIONS AND BRIDGE CONDITION ARE FROM BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL FIELD VERIFY THE INFORMATION SHOWN ON THE PLANS AND NOTIFY THE ENGINEER IF ACTUAL DIMENSIONS AND CONDITIONS DIFFER.

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

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

EXISTING JOINTS AND DECK DRAINS SHALL BE SEALED PRIOR TO BEGINNING SURFACE PREPARATION OF BRIDGE DECK. LONGITUDINAL CONTRUCTION JOINTS OF OVERLAYS SHALL BE LOCATED ALONG THE CENTERLINE OR EDGE OF TRAVEL LANES.

FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS. FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS. FOR CRANE SAFETY, SEE SPECIAL PROVISIONS. FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.

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

FOR SCARIFYING BRIDGE DECK, SHOTBLASTING BRIDGE DECK, AND CLASS II SURFACE PROTECTION, SEE "OVERLAY SURFACE PREPARATION FOR POLYMER CONCRETE" SPECIAL PROVISION. FOR POURABLE SILICONE JOINT SEALANT, SEE SPECIAL PROVISIONS. FOR EPOXY COATING, SEE SPECIAL PROVISIONS. FOR REPAIRS TO PRESTRESSED CONCRETE GIRDERS, SEE SPECIAL PROVISIONS. FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS. FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS. FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS. FOR SILANE RAIL TREATMENT, SEE SPECIAL PROVISIONS. FOR SECURING VESSELS, SEE SPECIAL PROVISIONS. FOR MAINTENANCE OF WATER TRAFFIC, SEE SPECIAL PROVISIONS. FOR WORK IN, OVER, OR ADJACENT TO NAVIGABLE WATERS, SEE SPECIAL PROVISIONS. FOR FRP REPAIRS, SEE "FIBER REINFORCED POLYMER (FRP) STRENGTHENING" SPECIAL PROVISION. NORTH, SOUTH, EAST AND WEST INDICATED ON THE PLANS ARE BASED ON I-40 HIGHWAY BEING AN EAST-WEST INTERSTATE AND NOT NECESSARILY ON GEODETIC DIRECTIONS FOR OTHER DESIGN DATA AND GENERAL NOTES. SEE SPECIAL PROVISIONS.

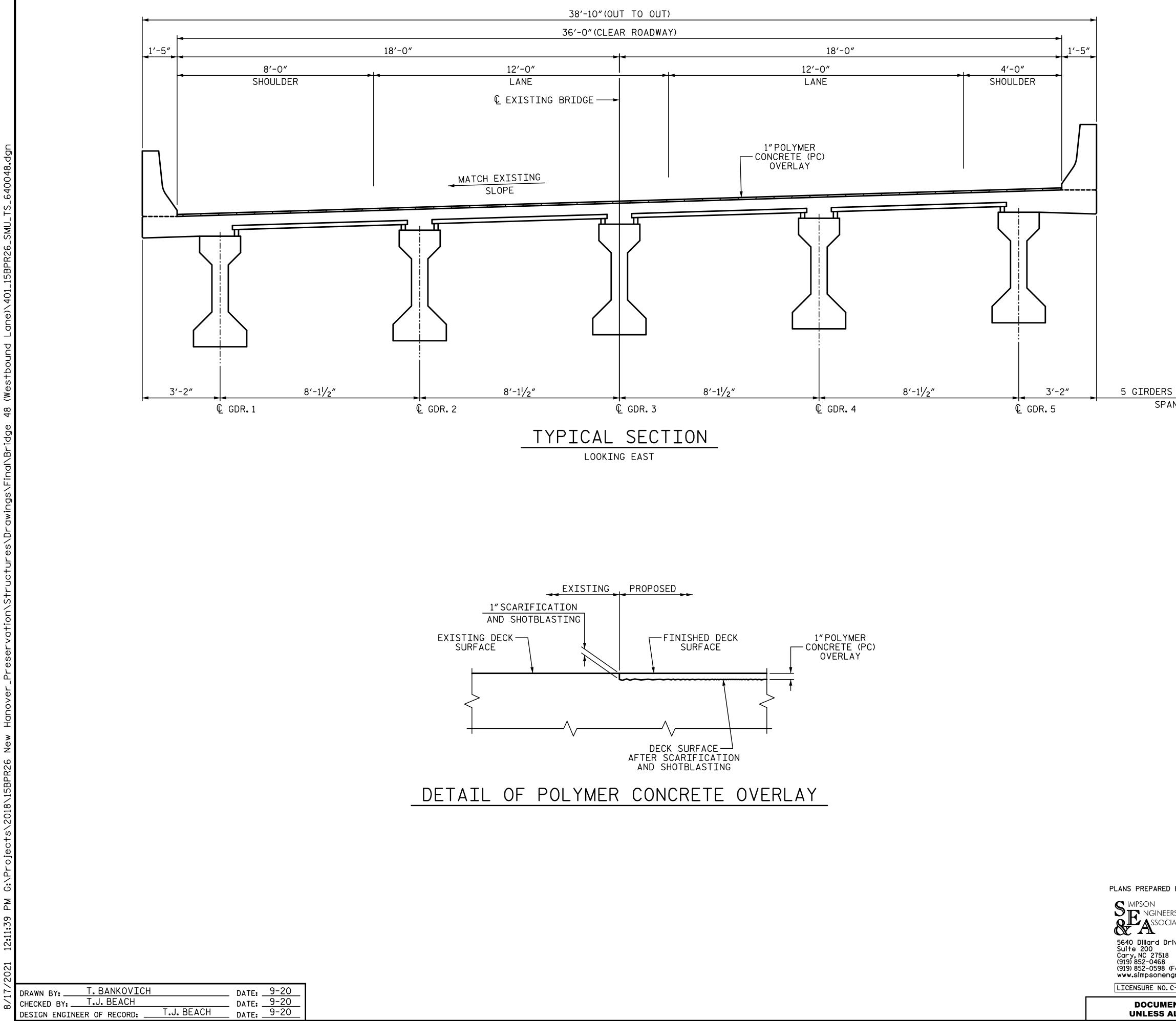
PLANS PREPARED BY



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

		PROJ	EC	T NO.		15	BPR.2	26
		NEW	H	ANOVE	<u>R/</u>	PEND	ER CO	UNTY
		BRID	GE	E NO.:_		64	10048)
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x) .com	J. BEACHING			REVIS	TON	10		SHEET NO.
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	NSIDERED FINAL JRES COMPLETED	1 2			3 4			total sheets 163



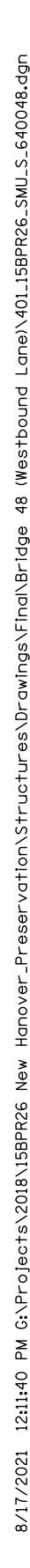
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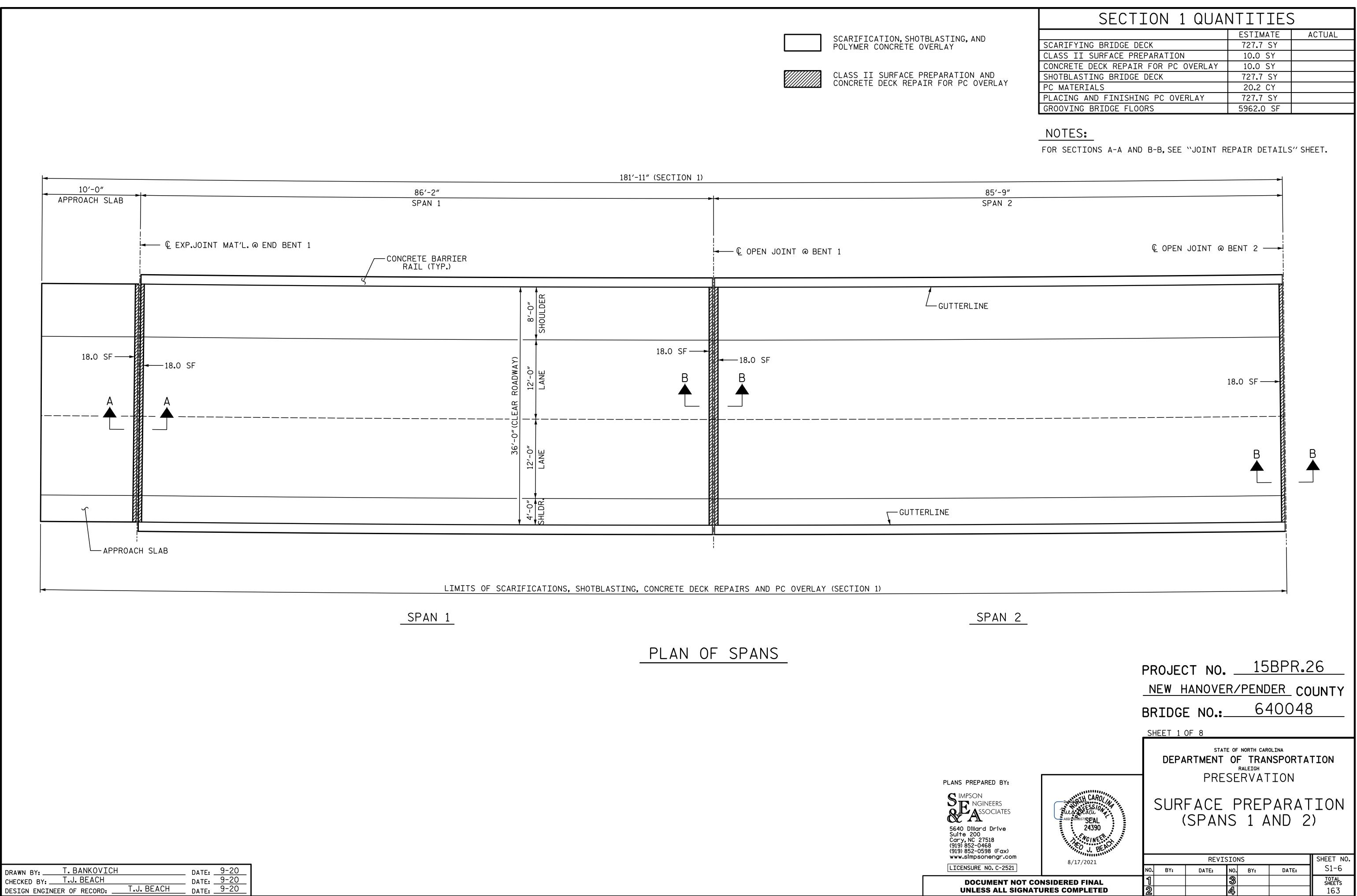
SEE TRAFFIC MANAGEMENT PLANS FOR LANE WIDTHS, SEQUENCING AND OTHER TRAFFIC CONTROL MEASURES FOR STAGING OF POLYESTER POLYMER CONCRETE (PPC) SYSTEM AND SURFACE PREPARATION. FOR LIMITS OF SCARIFICATION, SHOTBLASTING, CLASS II REPAIR AND PC OVERLAY, SEE SURFACE PREPARATION SHEETS.

5 GIRDERS SHOWN, 7 GIRDERS IN SPANS 7,8 AND 9

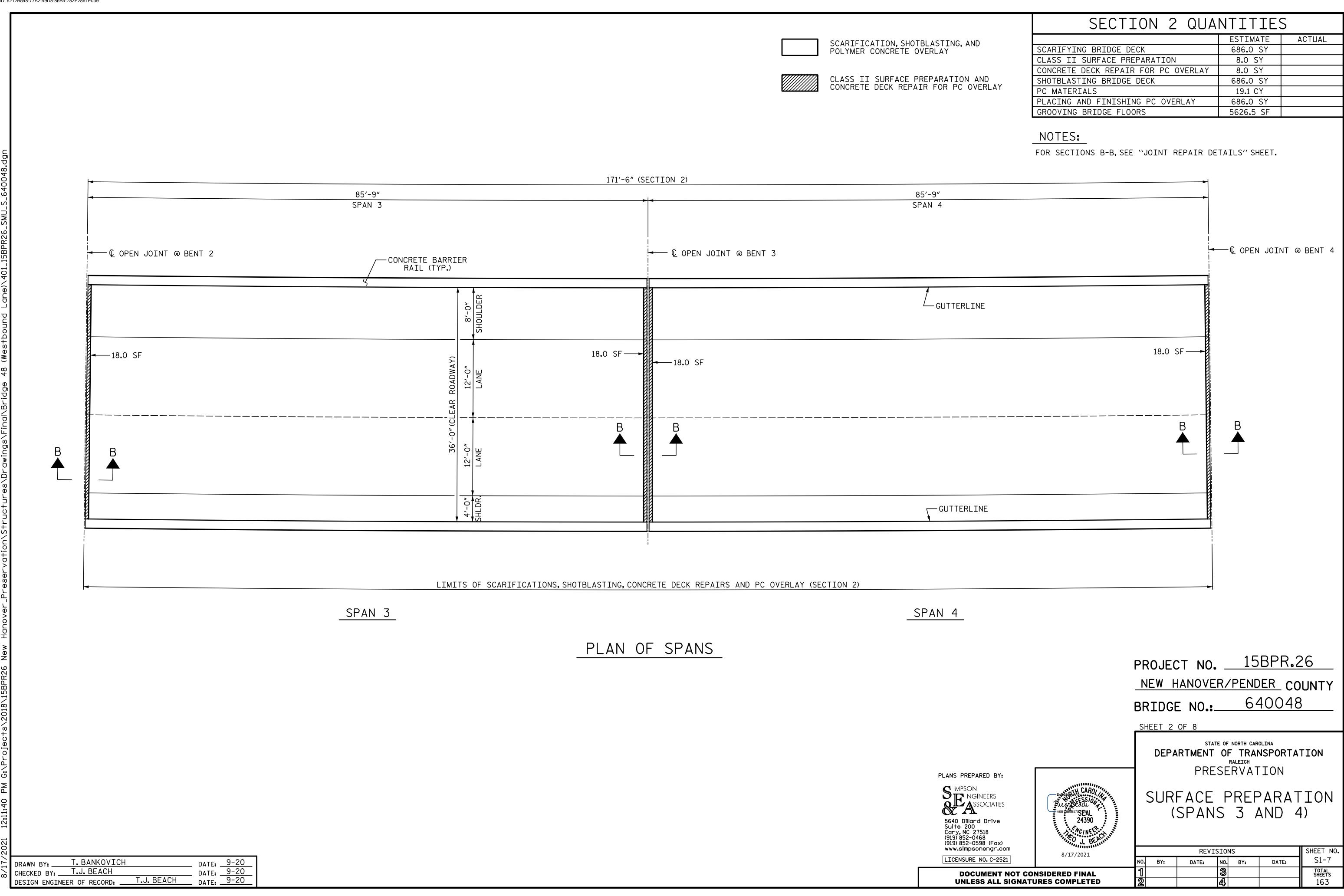
PROJECT NO. 15BPR.26 <u>NEW HANOVER/PENDER COUNTY</u> 640048 BRIDGE NO .: ____

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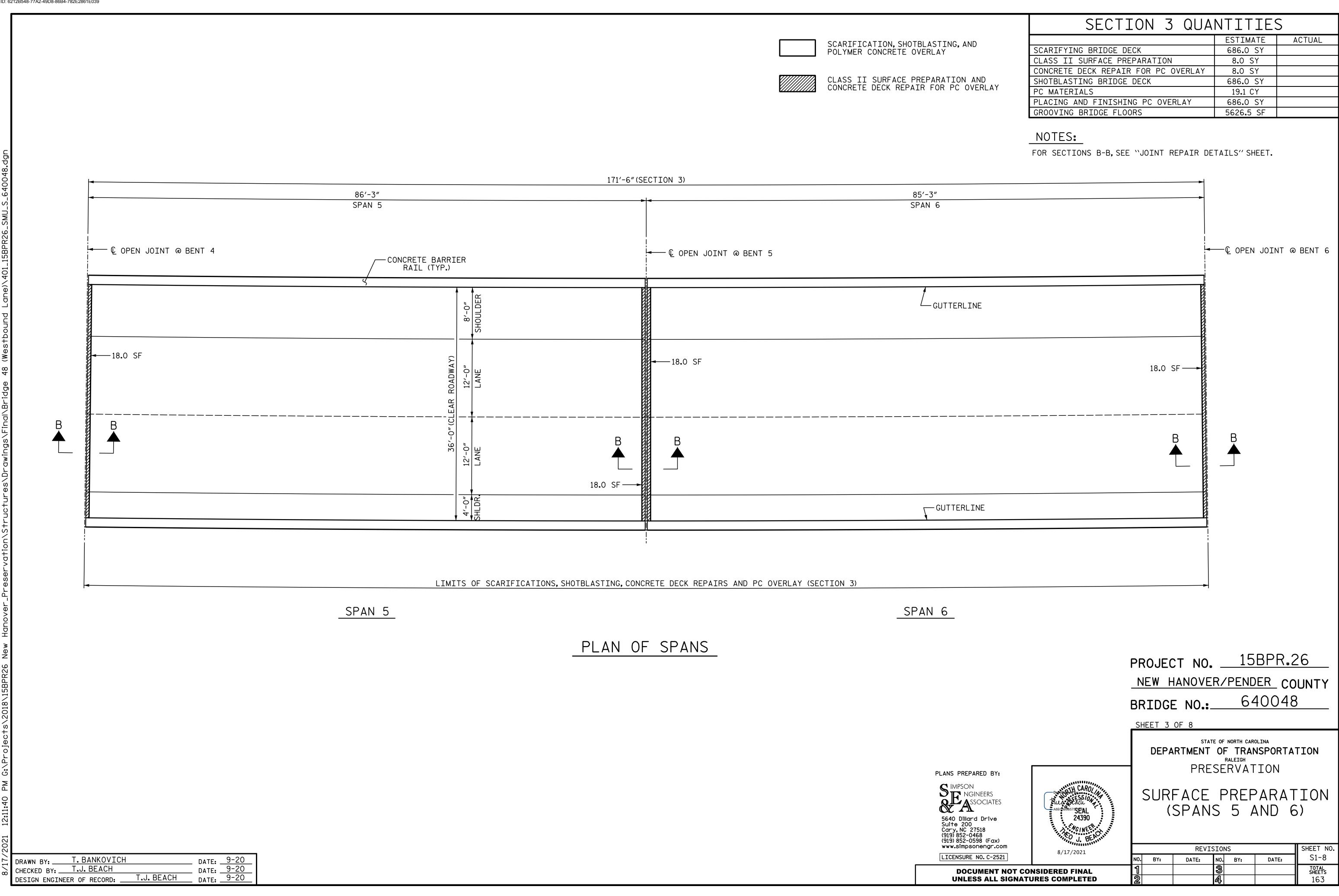




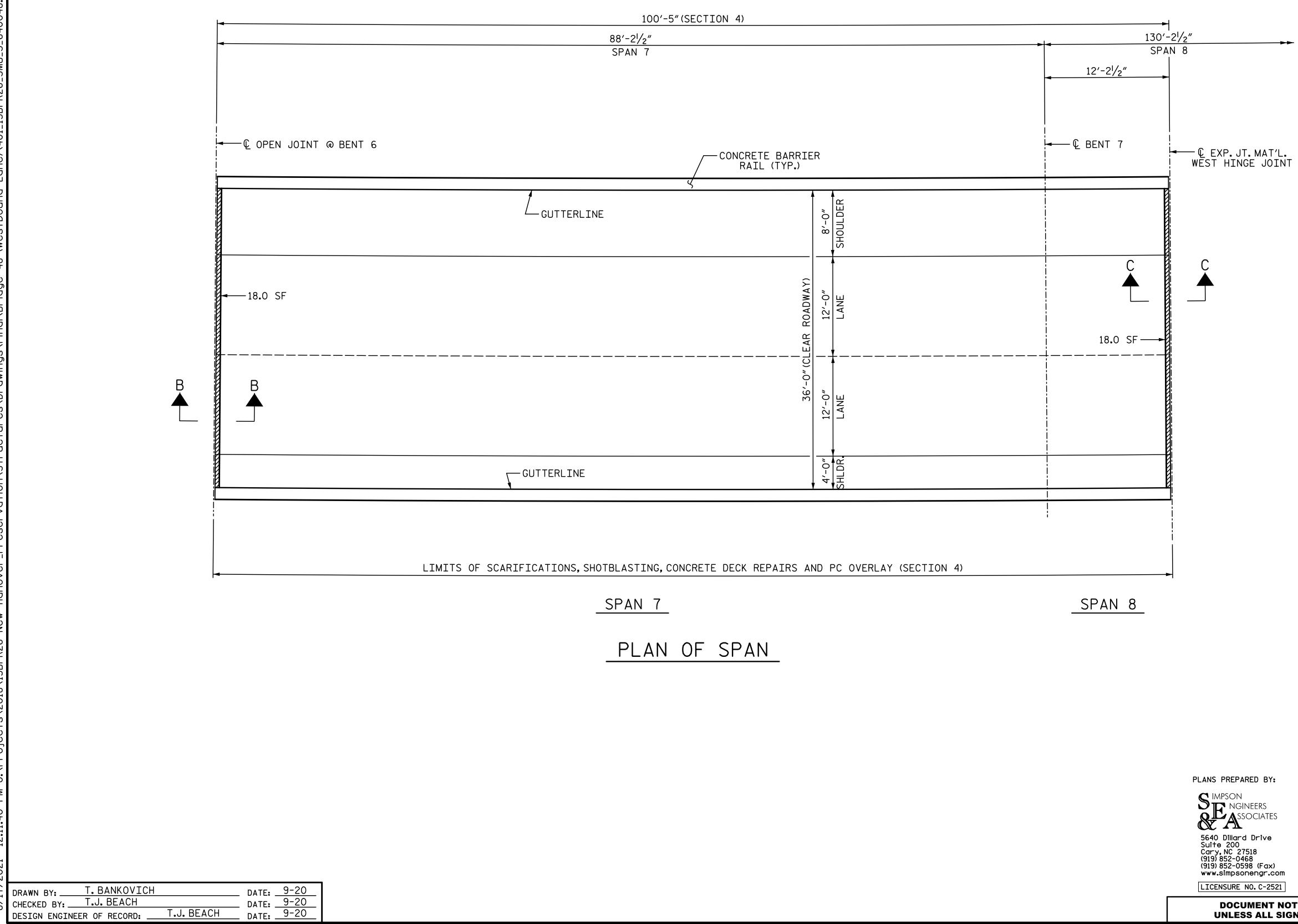




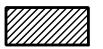
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SCARIFICATION, SHOTBLASTING, AND POLYMER CONCRETE OVERLAY



CLASS II SURFACE PREPARATION AND CONCRETE DECK REPAIR FOR PC OVERLAY

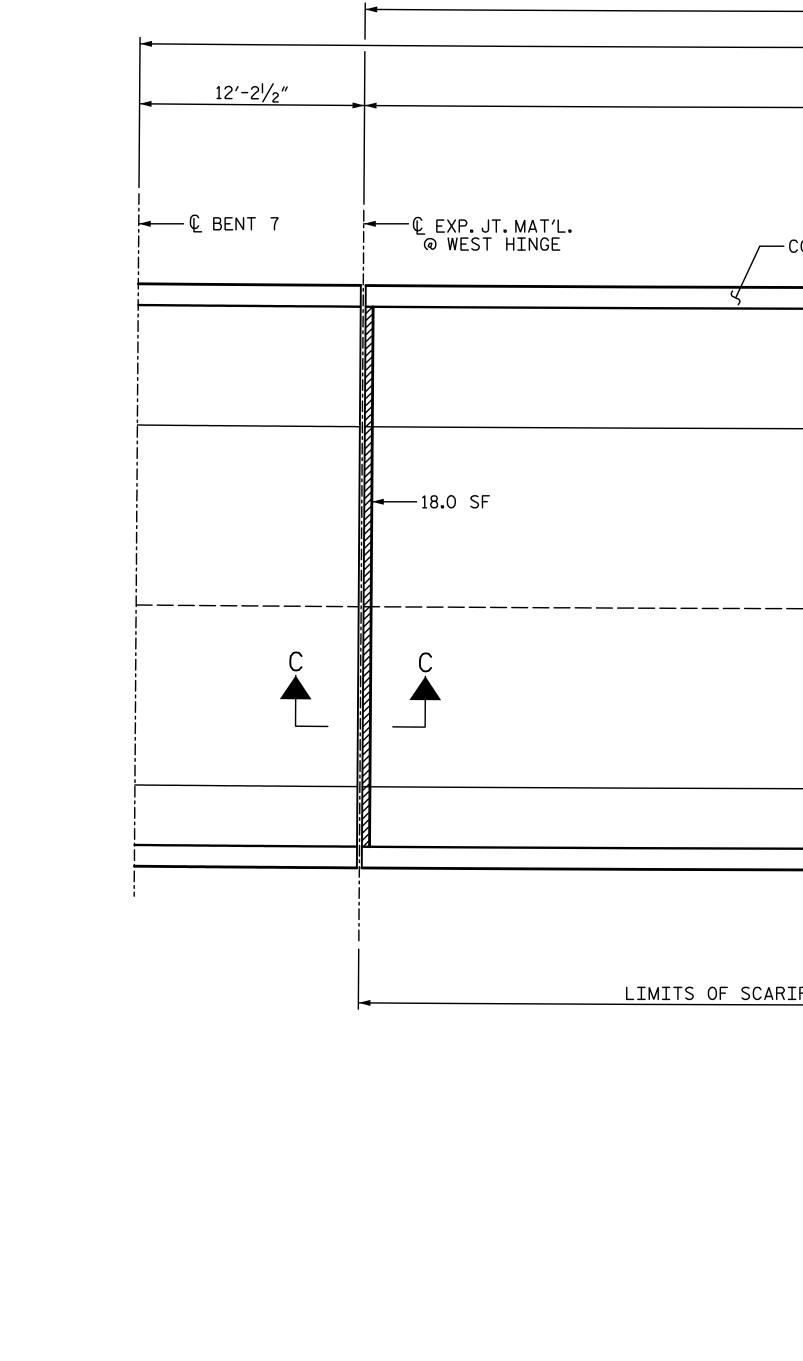
SECTION 4 QUANTITIES				
	ESTIMATE	ACTUAL		
SCARIFYING BRIDGE DECK	401.7 SY			
CLASS II SURFACE PREPARATION	4.0 SY			
CONCRETE DECK REPAIR FOR PC OVERLAY	4.0 SY			
SHOTBLASTING BRIDGE DECK	401.7 SY			
PC MATERIALS	11.2 CY			
PLACING AND FINISHING PC OVERLAY	401.7 SY			
GROOVING BRIDGE FLOORS	3297.3 SF			

NOTES:

FOR SECTIONS B-B AND C-C, SEE ``JOINT REPAIR DETAILS' SHEET.

		PROJE	CT NO.	15	BPR.2	26
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		BRIDG	E NO.:.	64	40048	3
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BY:		DEPA	RTMENT	OF NORTH CAR OF TRAI RALEIGH SERVAT	NSPORTA	TION
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	CHECKED BY:	T.J. BEACH		DATE: 9-20
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SCARIFICATION, SHOTBLASTING, AND POLYMER CONCRETE OVERLAY

CLASS II SURFACE PREPARATION AND CONCRETE DECK REPAIR FOR PC OVERLAY

105′-91/	2"(SECTION 5	5)		-
15	30'-2 <mark>'/</mark> 2″			►
	SPAN 8			
10	05′-9 /2″			12'-2 ¹ /2"
CONCRETE BARRIER RAIL (TYP.)			© EXP.JT.MAT′L. ──► @ EAST HINGE	
4		1		
	8'-0" OULDEF	GUTTERLINE		
	8'-0" SHOULDER			
AY)			Ç	Ç
ROADWAY)	12'-0" LANE			
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(CLEA				
°O-				
36,	12'-0" LANE			
			19.0 55	
			18.0 SF — ►	
	4'-0" SHLDR			
IFICATIONS, SHOTBLASTING, CO	ONCRETE DECI	K REPAIRS AND PC OVERLAY (SECTION 5))	-

SPAN 8

PLAN OF SPAN

PLANS PREPARED

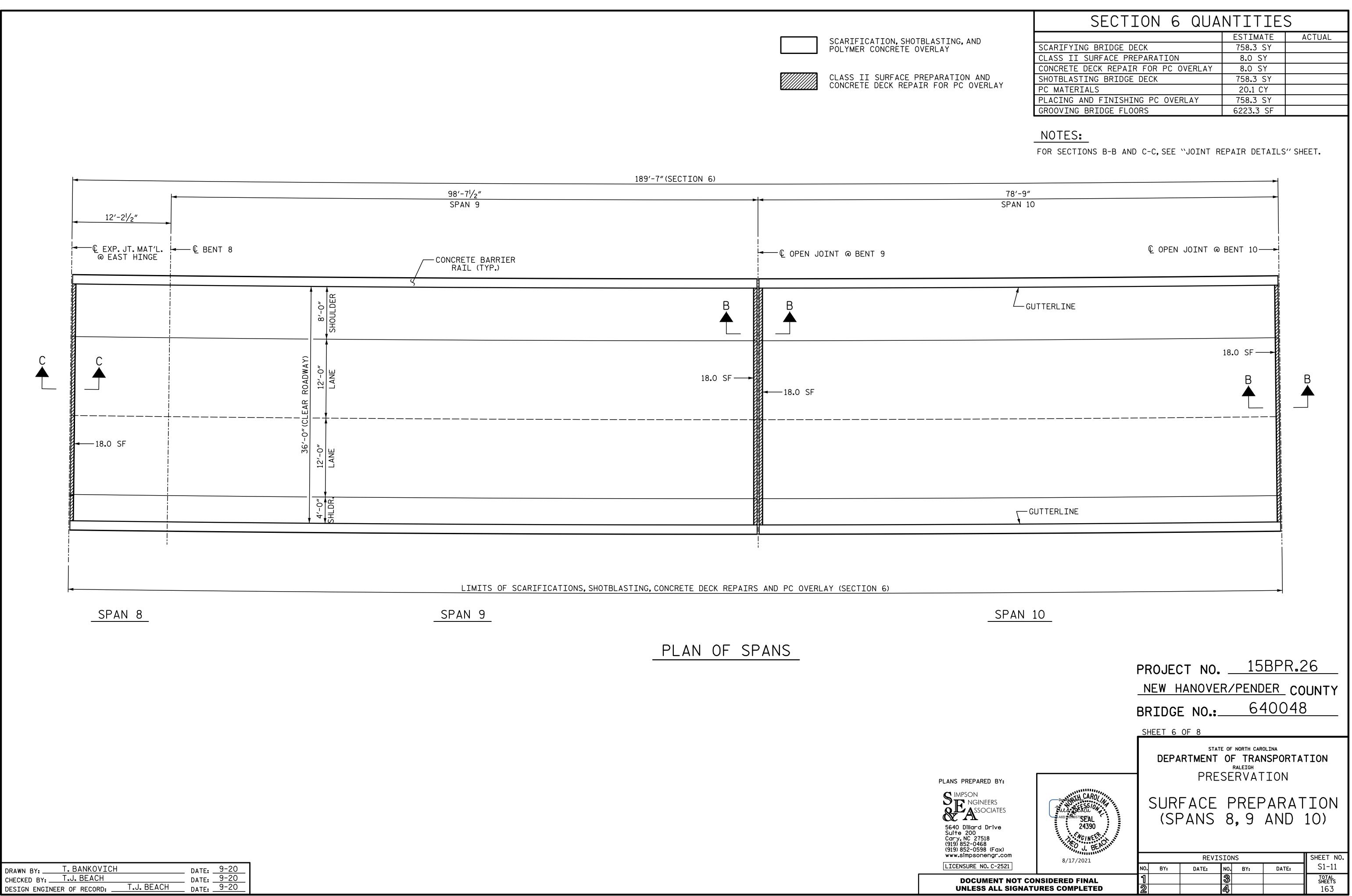


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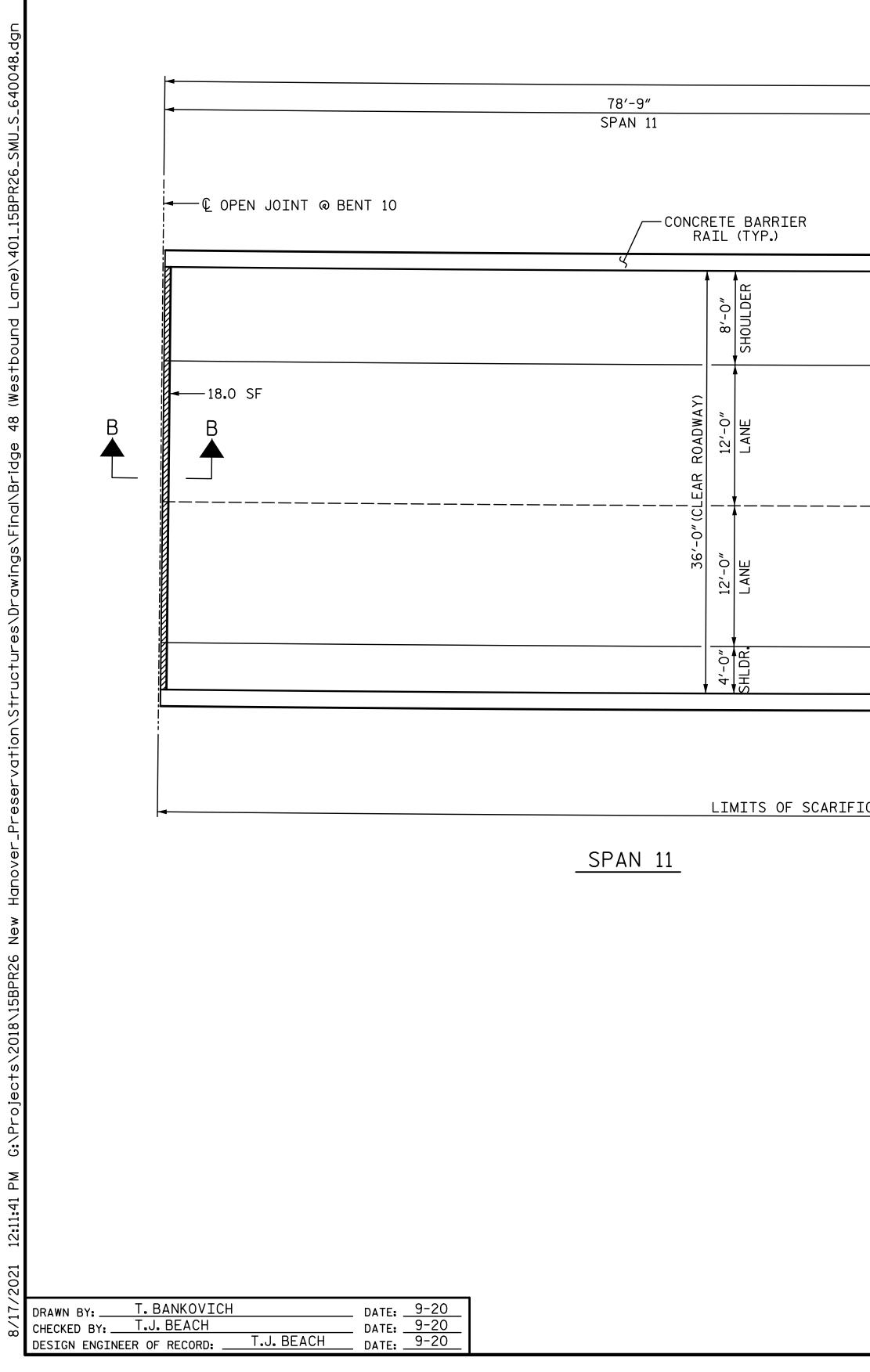
SECTION 5 QU	IANTITIE:	S
	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	423.2 SY	
CLASS II SURFACE PREPARATION	4.0 SY	
CONCRETE DECK REPAIR FOR PC OVERLA	Y 4.0 SY	
SHOTBLASTING BRIDGE DECK	423.2 SY	
PC MATERIALS	11.8 CY	
PLACING AND FINISHING PC OVERLAY	423.2 SY	
GROOVING BRIDGE FLOORS	3474.6 SF	
►		

		NEW H	CT NO. <u>IANOVEF</u> E NO.: _{OF 8}	R/PEND		UNTY
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PLANS PREPARED

PLAN OF SPANS

157'-6"(SECTION 7)

SPAN 12

LIMITS OF SCARIFICATIONS, SHOTBLASTING, CONCRETE DECK REPAIRS AND PC OVERLAY (SECTION 7)

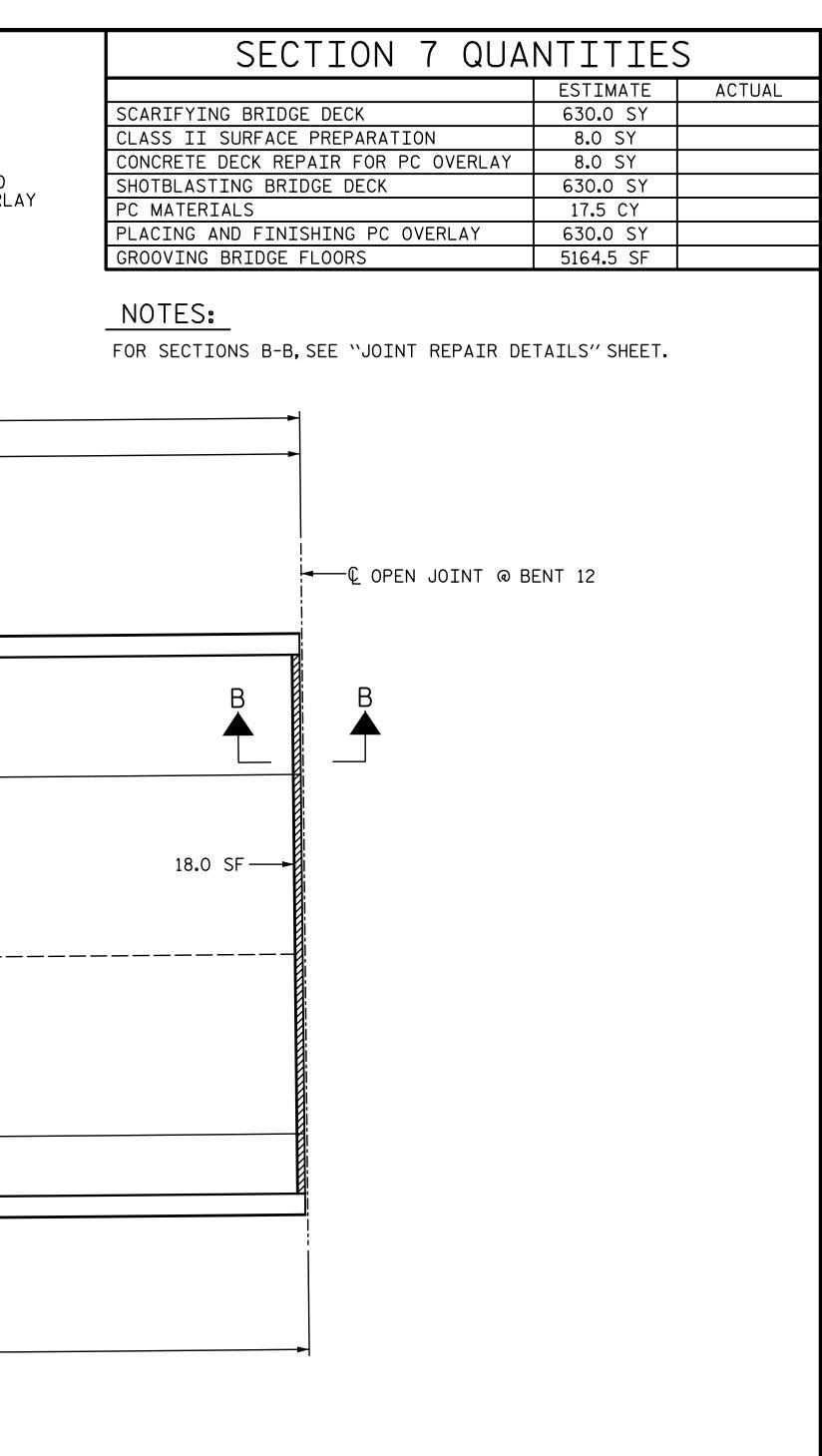
	╺───Ç OPEN JOINT @ BENT 11	
		-GUTTERLINE
18.0 SF	► 18.0 SF	
B		
		— GUTTERLINE

78′-9″

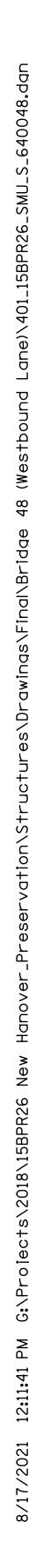
SPAN 12

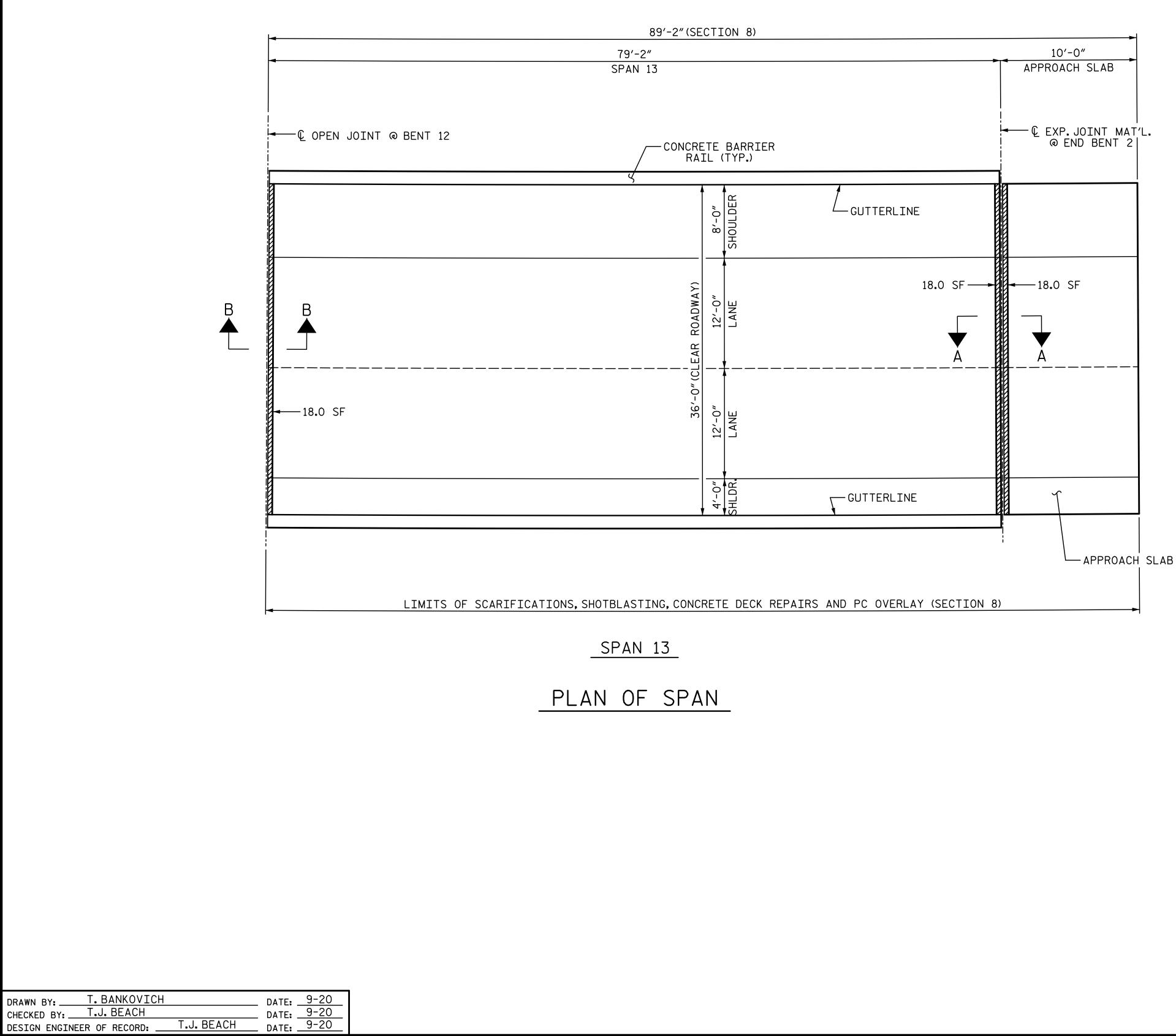
CLASS II SURFACE PREPARATION AND CONCRETE DECK REPAIR FOR PC OVERLAY

SCARIFICATION, SHOTBLASTING, AND POLYMER CONCRETE OVERLAY



	PROJECT NO. <u>15BPR.26</u> <u>NEW HANOVER/PENDER COUNTY</u>						
	BRIDGE NO.: 640048						
ANS PREPARED BY: IMPSON NGINEERS SSOCIATES 6640 Dillard Drive Suite 200 Cary, NC 27518 919) 852-0468 919) 852-0598 (Fax)	SHEET 7 OF 8 STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH PRESERVATION SURFACE PREPARATION (SPANS 11 AND 12)						
www.simpsonengr.com 8/17/2021	REVISIONS SHEET NO. NO. BY: DATE: NO BY: DATE: S1-12						
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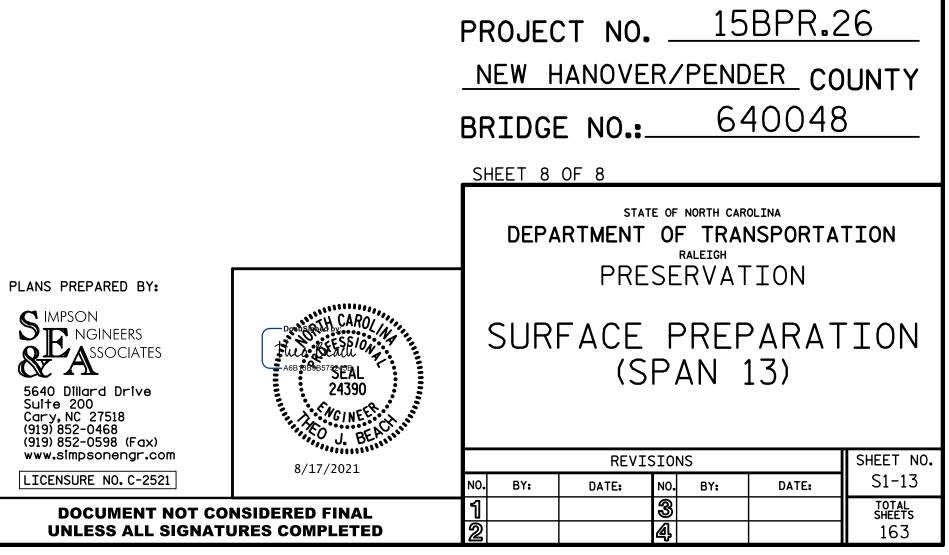






SCARIFICATION, SHOTBLASTING, AND POLYMER CONCRETE OVERLAY

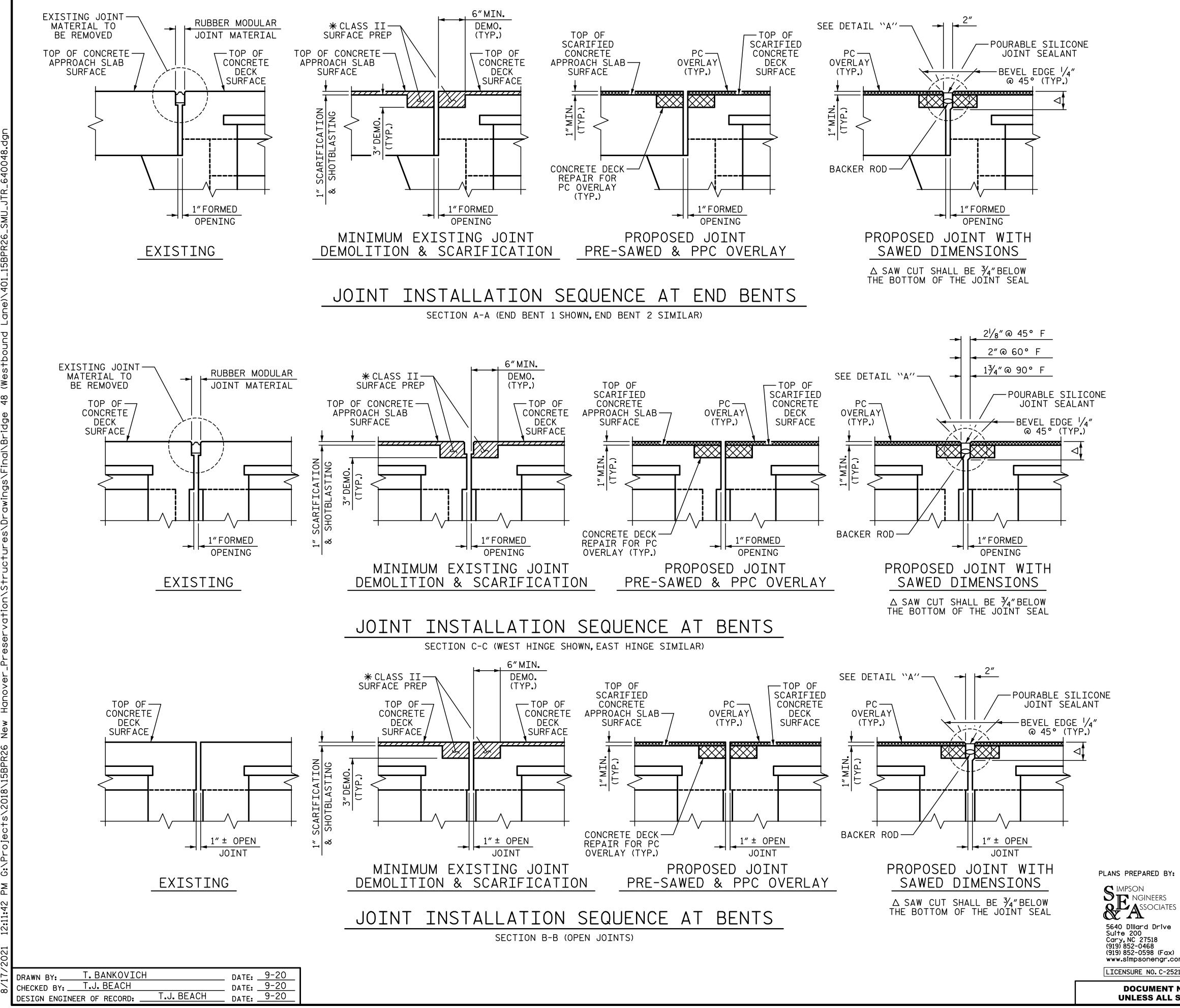
CLASS II SURFACE PREPARATION AND CONCRETE DECK REPAIR FOR PC OVERLAY



SECTION 8 QUA	NTITIE	S
	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	356.7 SY	
CLASS II SURFACE PREPARATION	6.0 SY	
CONCRETE DECK REPAIR FOR PC OVERLAY	6.0 SY	
SHOTBLASTING BRIDGE DECK	356.7 SY	
PC MATERIALS	9.9 CY	
PLACING AND FINISHING PC OVERLAY	356.7 SY	
GROOVING BRIDGE FLOORS	2917.8 SF	

NOTES:

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



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NOTES:

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 $\frac{1}{4}$, NOTIFY ENGINEER. REVISION TO THE JOINT SEAL SIZE MIGHT BE NECESSARY.

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

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

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

DURING THE JOINT INSTALLATION PROCEDURE, THE JOINT AND SURROUNDING AREA SHALL BE KEPT CLEAN AND FREE OF DEBRIS.

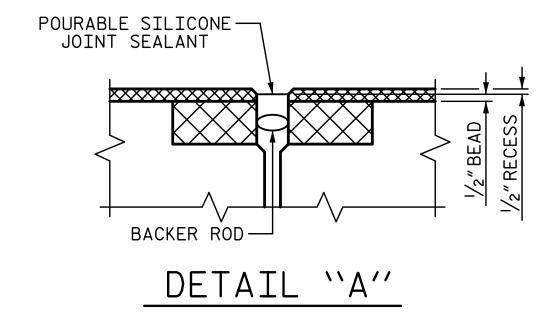
FOR POURABLE SILICONE JOINT SEALANT, SEE SPECIAL PROVISIONS.

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

THE INSTALLATION OF THE JOINT SEAL SHALL BE WATERTIGHT.

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

*****FOR CLASS II SURFACE PREPARATION AND CONCRETE DECK REPAIR FOR PC OVERLAY QUANTITIES SEE SURFACE PREPARATION SHEETS 1 THROUGH 8.



PROJE	CT NO.	<u>15BP</u>	R.26
NEW	HANOVER	PENDER	
BRIDG	E NO.:_	6400)48

SHEET 1 OF 2

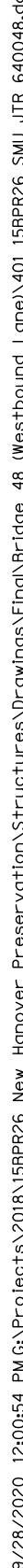
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH PRESERVATION

JOINT REPAIR DETAILS

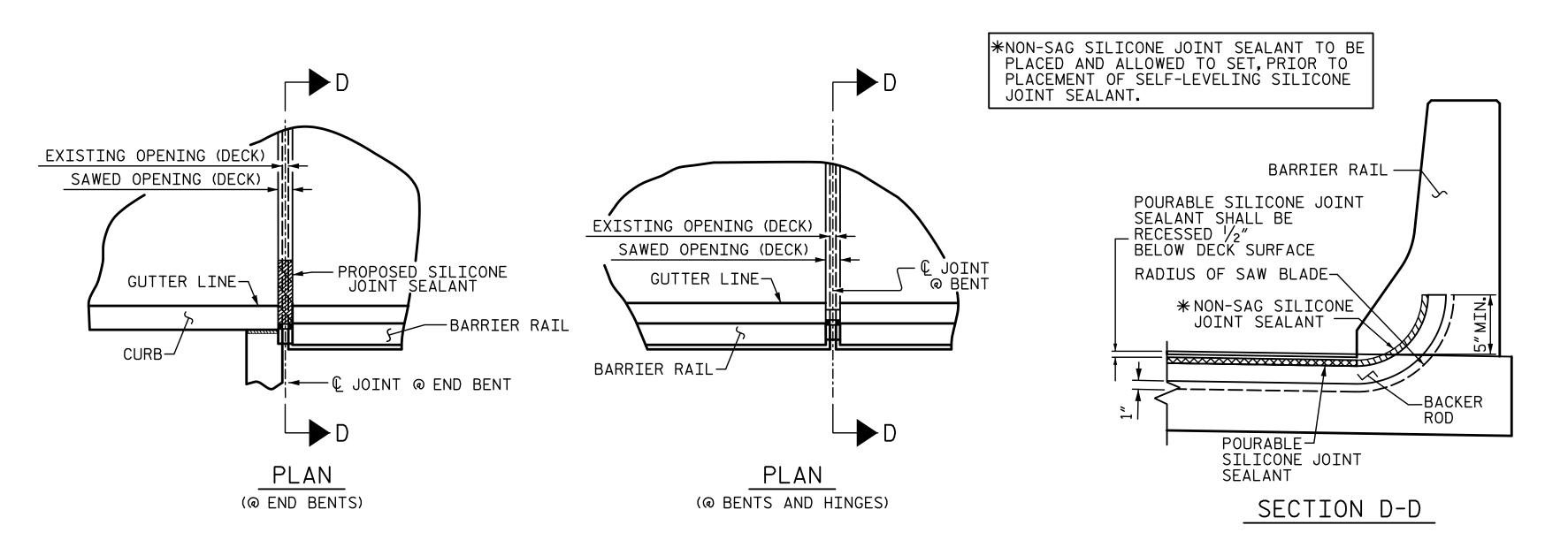
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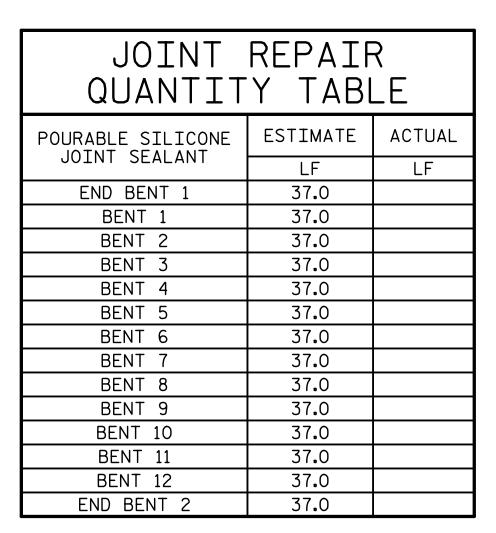
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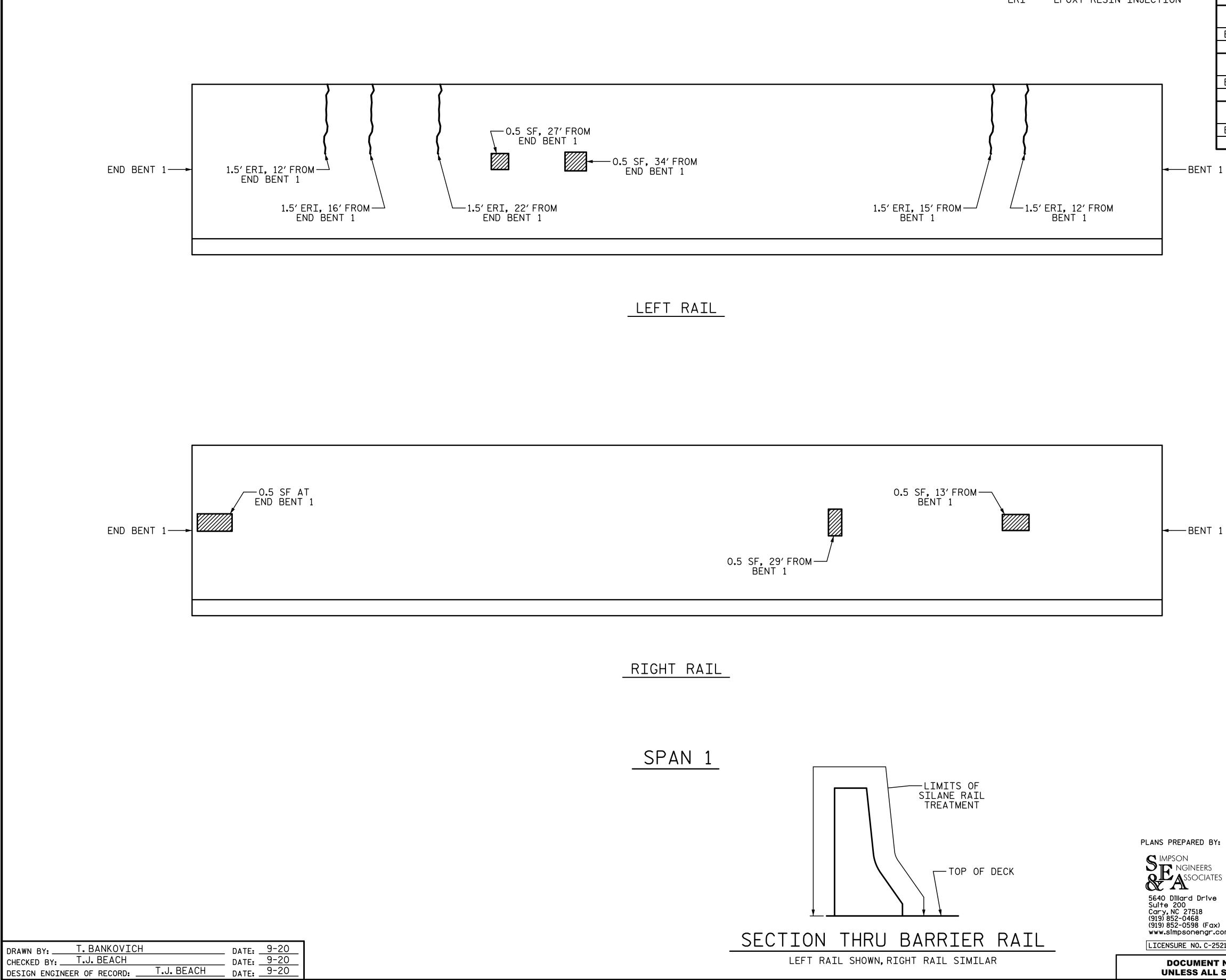




JOINT DETAIL AT BARRIER RAIL



PROJECT NO. 15BPR.26 <u>NEW HANOVER/PENDER COUNTY</u> 640048 BRIDGE NO .:__ SHEET 2 OF 2 STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION PRESERVATION JOINT REPAIR DETAILS ⁸⁵⁷⁵²⁴⁶ 24390 SNGINE REVISIONS SHEET NO. 9/29/2020 S1-15 NO. BY: DATE: DATE: BY: TOTAL SHEETS DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED 163



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ERI — EPOXY RESIN INJECTION

REPAIR QUANTITY TABLE								
REPAIRS SPAN 1		QUANTITIES						
REFAIRS SFAN I	EST	ESTIMATE		ACTUAL	-			
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	DEPTH FT		OLUME CF		
BARRIER RAIL	2.5	0.3						
EPOXY RESIN INJECTION						LF		
BARRIER RAIL								
SURFACE PREPARATI	ON	SF				SF		
BARRIER RAIL		1063.4						
SILANE RAIL TREATM	ENT	SF				SF		
BARRIER RAIL		1063.4						

NOTES:

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

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

VALUES IN CHART REPRESENT ESTIMATE REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN, OF 1" BEHIND REBAR AND MIN. 2"CL. TO SAWCUT. SEE REPAIR DETAILS.

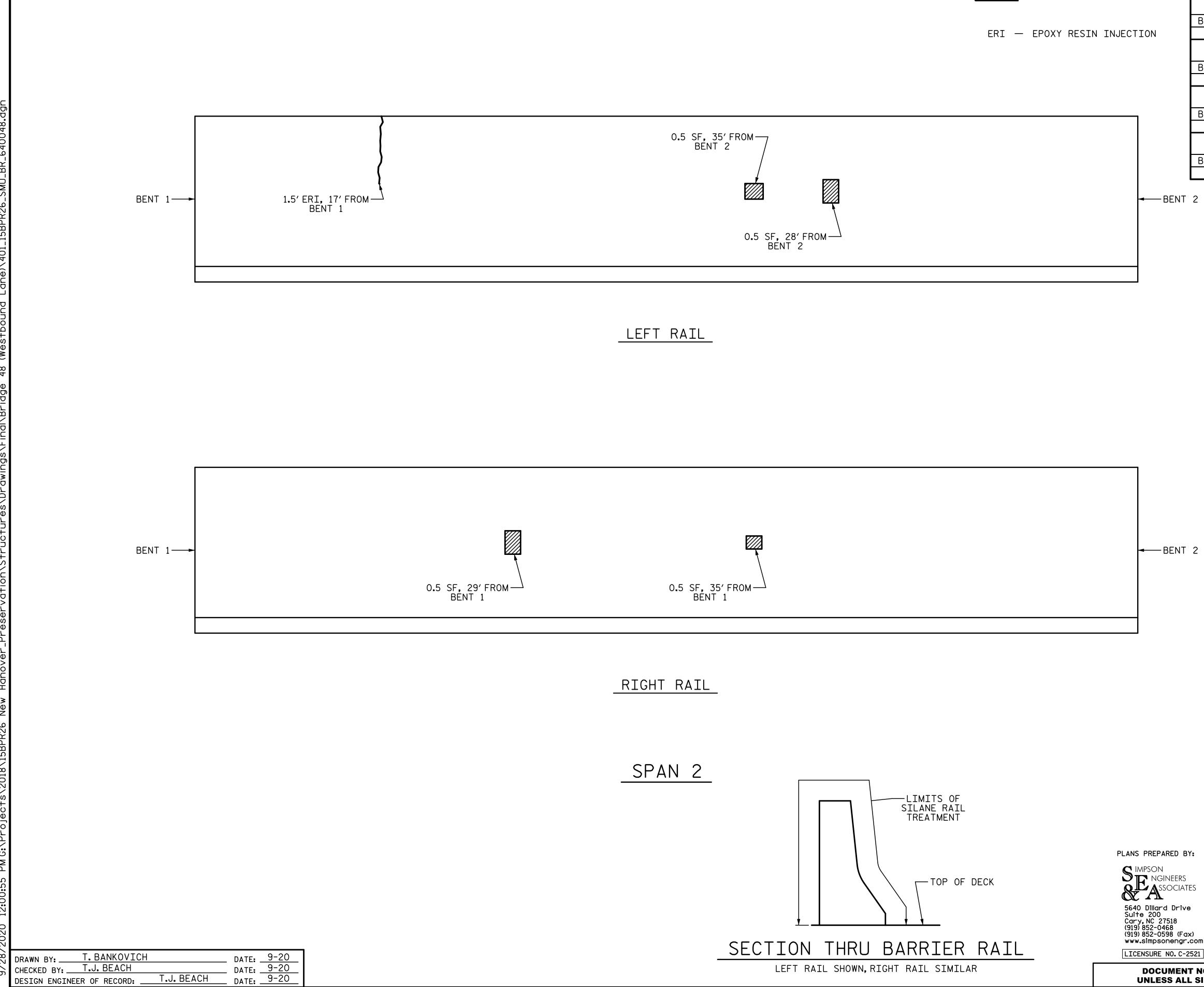
SHOTCRETE REPAIRS MAY BE REPLACED WITH CONCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR SUPERSTRUCTURE REPAIR DETAILS, SEE ``SUPERSTRUCTURE REPAIR DETAIL" SHEET.

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REPAIR QUANTITY TABLE								
REPAIRS SPAN 2		QUANTITIES						
REFAIRS SFAN Z	ES			ACTUAL				
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	V	OLUME CF		
BARRIER RAIL	2.0	0.3						
EPOXY RESIN INJECTION						LF		
BARRIER RAIL								
SURFACE PREPARATI	ON	LF				SF		
BARRIER RAIL		1058.2						
SILANE RAIL TREATM	SILANE RAIL TREATMENT					SF		
BARRIER RAIL		1058.2						

NOTES:

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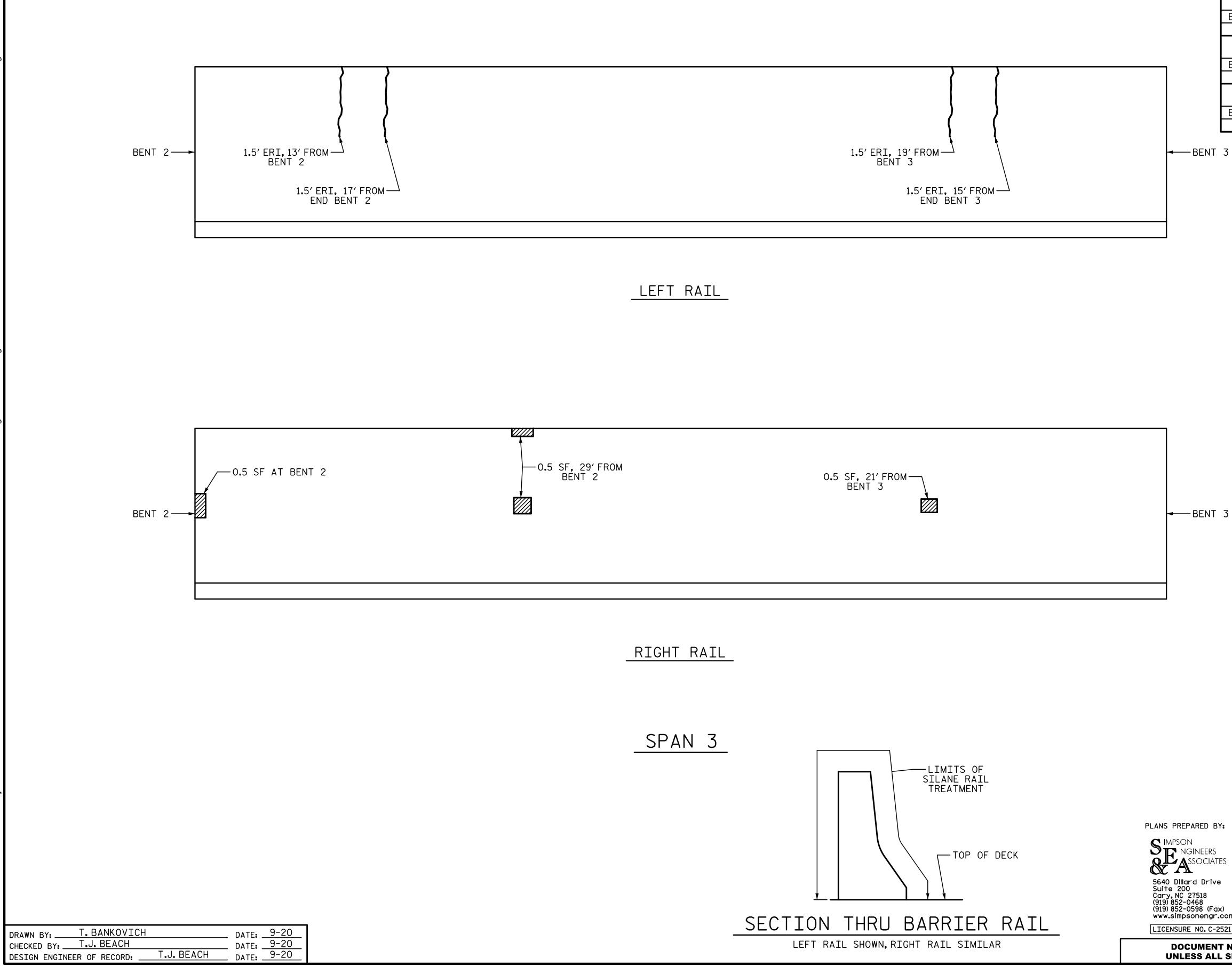
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ERI — EPOXY RESIN INJECTION

REPAIR QUANTITY TABLE								
REPAIRS SPAN 3	ЕСТ	QUANTITIES STIMATE ACTUAL						
				1				
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF			
BARRIER RAIL	2.0	0.3						
EPOXY RESIN INJECTION					LF			
BARRIER RAIL								
SURFACE PREPARATI	ON	LF			SF			
BARRIER RAIL		1058.2						
SILANE RAIL TREATMENT					SF			
BARRIER RAIL		1058.2						

NOTES:

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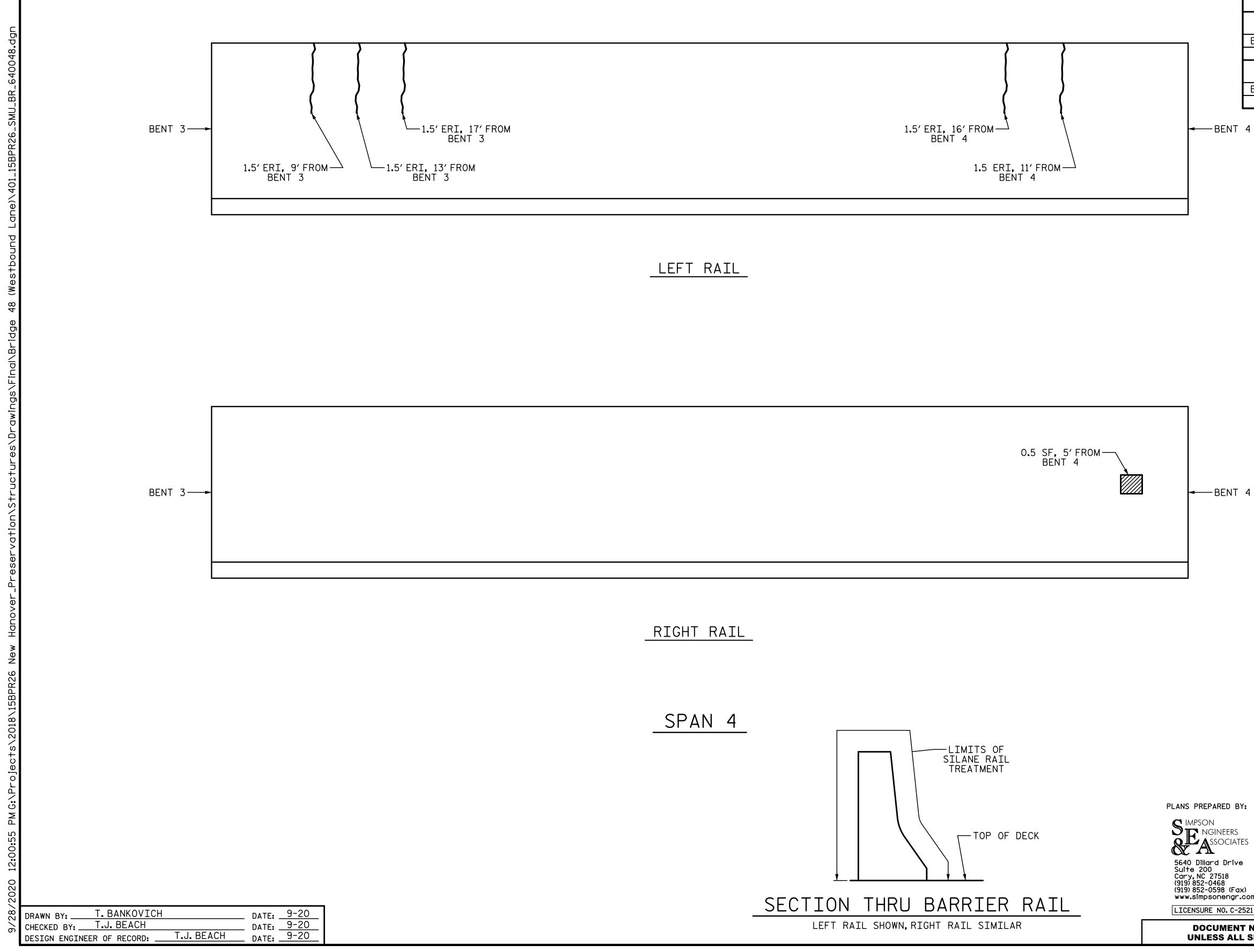
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ERI — EPOXY RESIN INJECTION

REPAIR QUANTITY TABLE								
REPAIRS SPAN 4		QUANTITIES						
REFAIRS SPAN 4	EST	IMATE		ACTUAL	_			
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	DEPTH FT		OLUME CF		
BARRIER RAIL	0.5	0.1						
EPOXY RESIN INJECTION						LF		
BARRIER RAIL								
SURFACE PREPARATI	ON	SF				SF		
BARRIER RAIL		1058.2						
SILANE RAIL TREATMENT						SF		
BARRIER RAIL		1058.2						

NOTES:

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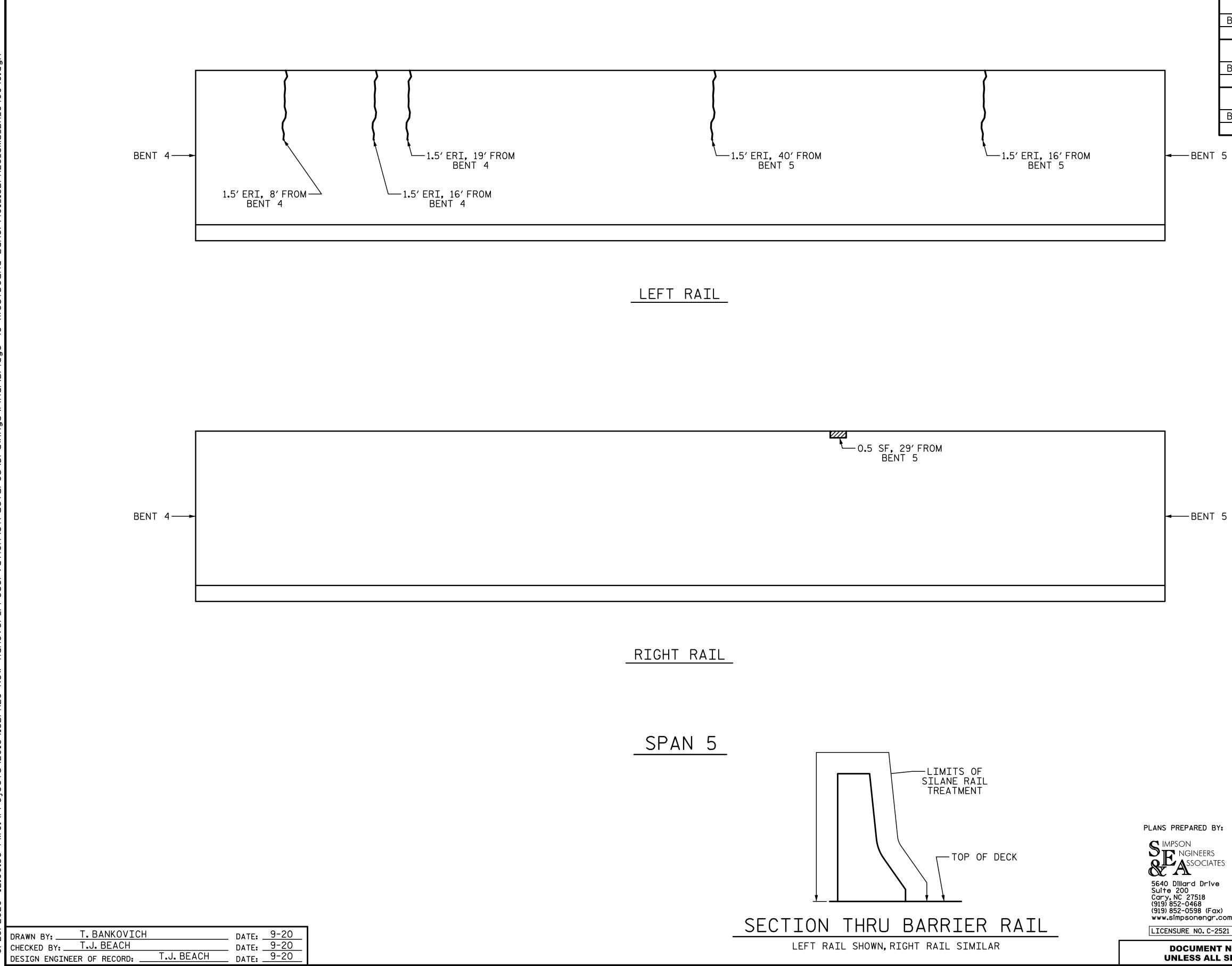
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ERI — EPOXY RESIN INJECTION

REPAIR QUANTITY TABLE								
REPAIRS SPAN 5	QUANTITIES							
REFAIRS SPAN 5	EST	IMATE		ACTUAL	ACTUAL			
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VC	DLUME CF		
BARRIER RAIL	0.5	0.1						
EPOXY RESIN INJECTION						LF		
BARRIER RAIL								
SURFACE PREPARATI	ON	SF				SF		
BARRIER RAIL		1064.4						
SILANE RAIL TREATMENT						SF		
BARRIER RAIL		1064.4						

NOTES:

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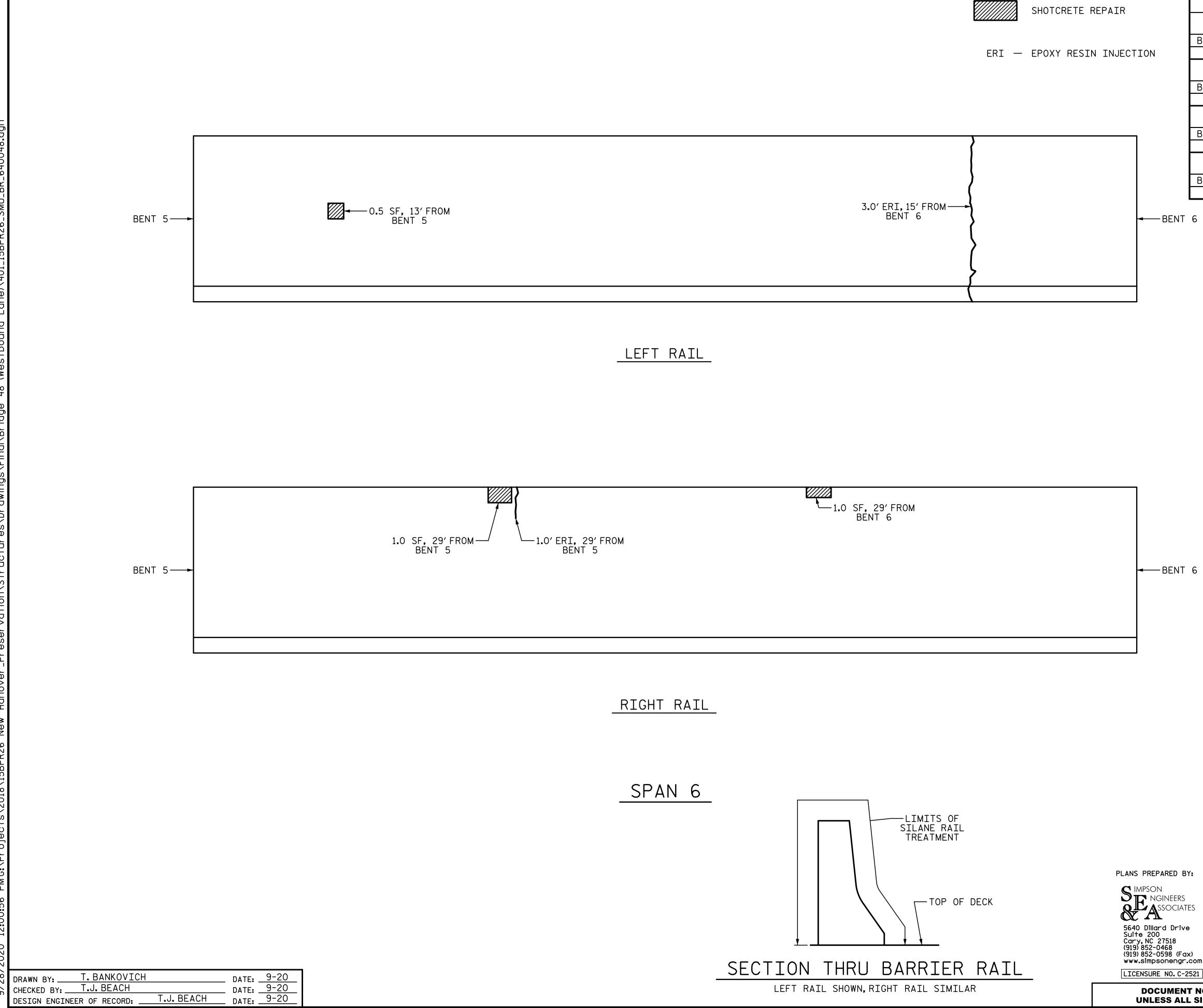
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REPAIR QU	REPAIR QUANTITY TABLE							
REPAIRS SPAN 6	QUANTITIES							
NEFAINS SFAN 6	EST	IMATE		ACTUAL	_			
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	V	OLUME CF		
BARRIER RAIL	2.5	0.8						
EPOXY RESIN INJECTION						LF		
BARRIER RAIL								
SURFACE PREPARATI	ON	SF				SF		
BARRIER RAIL		1052.0						
SILANE RAIL TREATMENT						SF		
BARRIER RAIL		1052.0						

NOTES:

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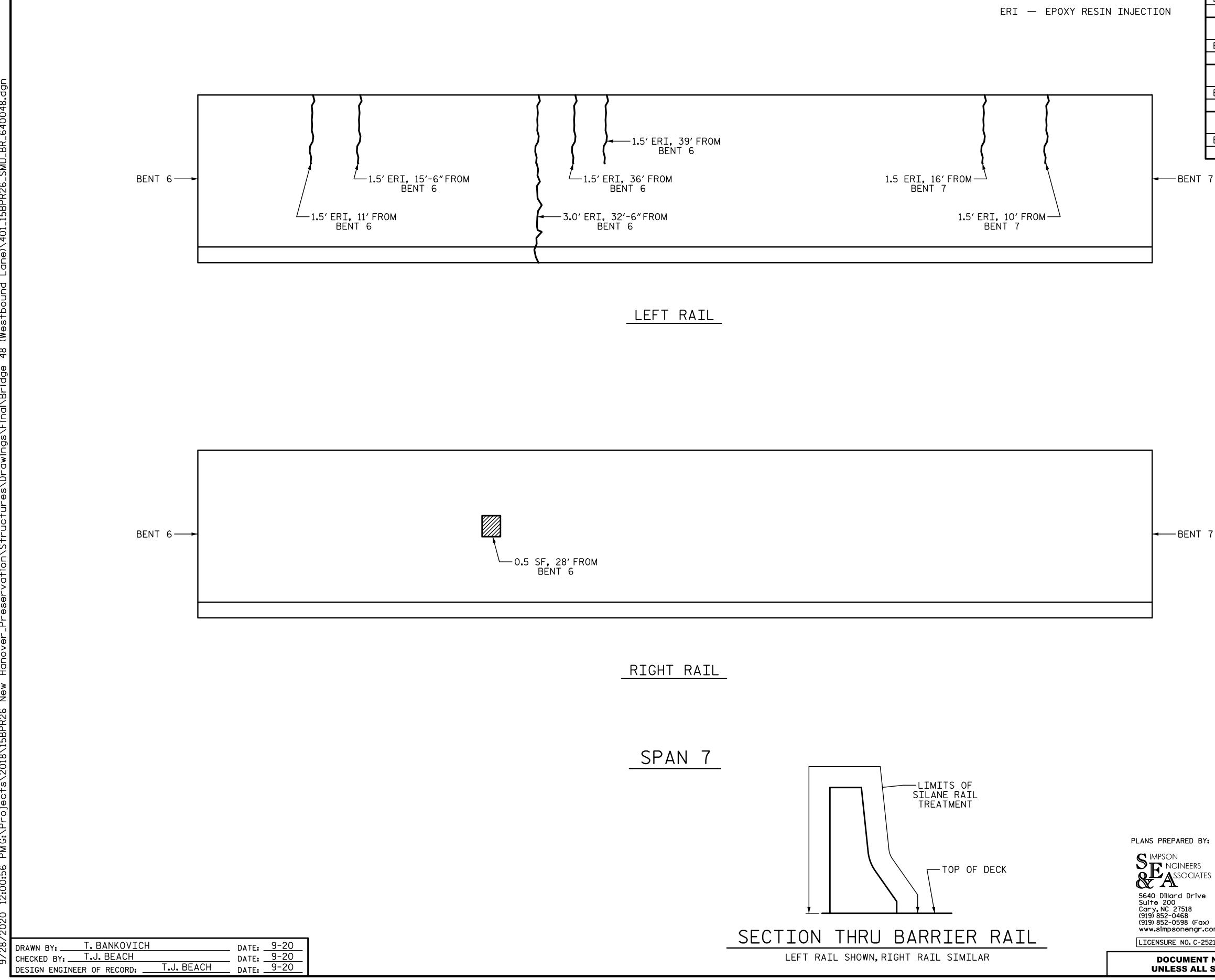
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REPAIR QUANTITY TABLE								
REPAIRS SPAN 7	QUANTITIES							
INEFAINS SFAN I	EST	IMATE		ACTUAL	-			
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	V	OLUME CF		
BARRIER RAIL	0.5	0.1						
EPOXY RESIN INJECTION						LF		
BARRIER RAIL								
SURFACE PREPARATI	ON	SF				SF		
BARRIER RAIL		1088.6						
SILANE RAIL TREATMENT						SF		
BARRIER RAIL		1088.6						

NOTES:

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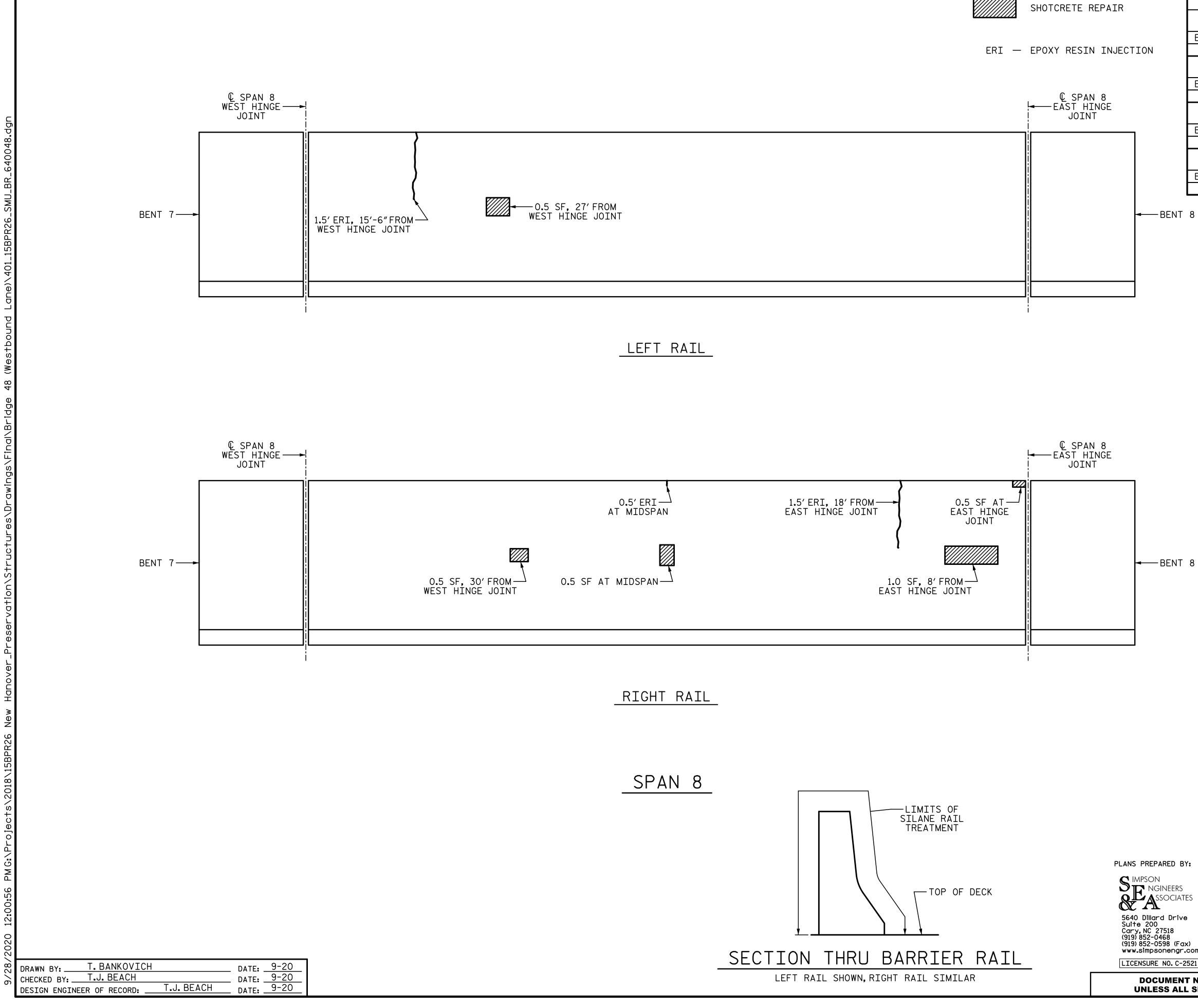
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	PROJECT NO. <u>15BPR.26</u> <u>NEW HANOVER/PENDER COUNTY</u> BRIDGE NO.: <u>640048</u>
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REPAIR QUANTITY TABLE								
REPAIRS SPAN 8		QUANTITIES						
REFAIRS SPAN O	EST	IMATE		ACTUAL	_			
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VC	DLUME CF		
BARRIER RAIL	3.0	0.4						
EPOXY RESIN INJECTION						LF		
BARRIER RAIL								
SURFACE PREPARATI	ON	SF				SF		
BARRIER RAIL		1607.9						
SILANE RAIL TREATMENT						SF		
BARRIER RAIL		1607.9						

NOTES:

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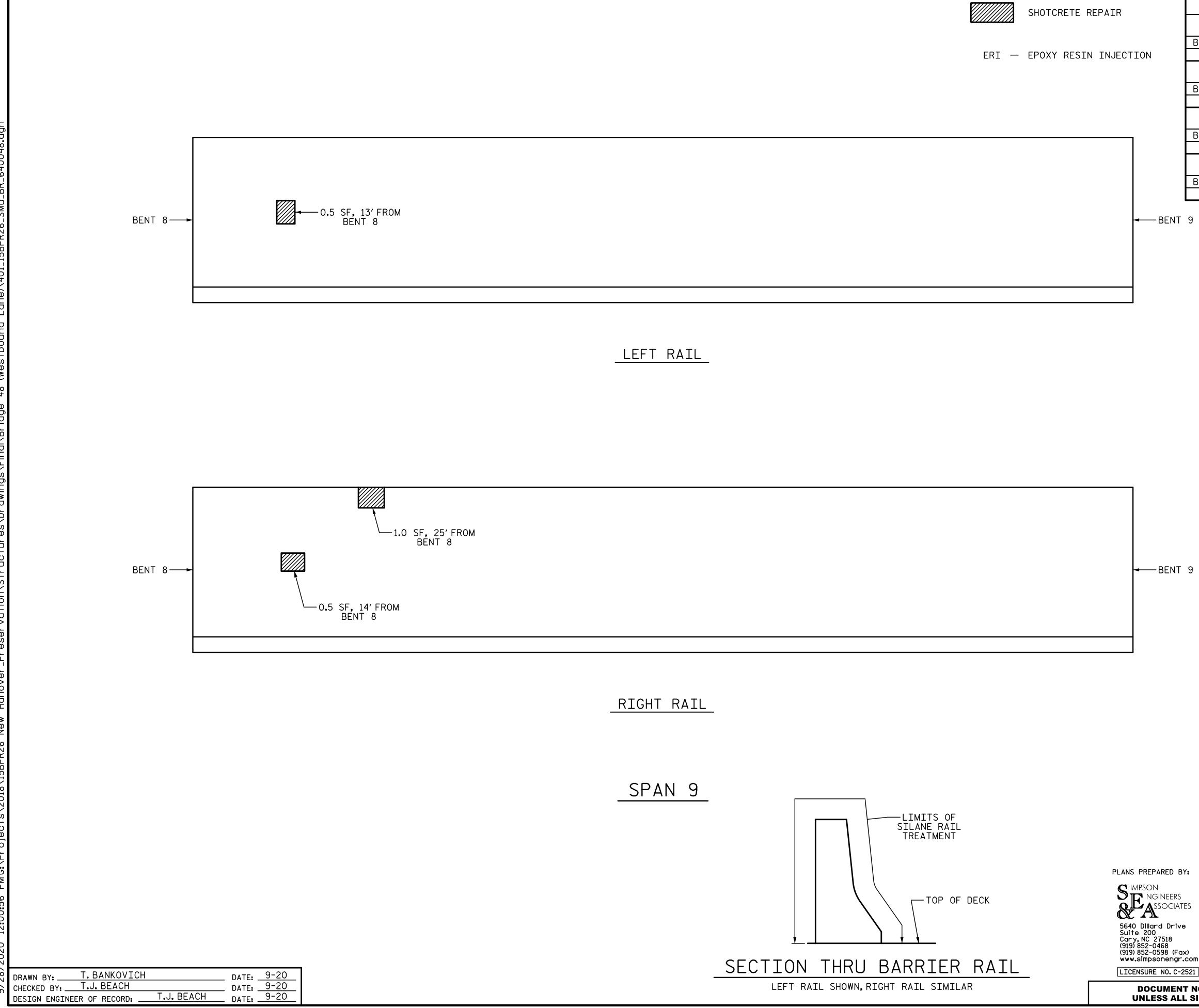
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REPAIR QU	REPAIR QUANTITY TABLE									
REPAIRS SPAN 9		QI	JANTITI	IES						
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SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	V	OLUME CF				
BARRIER RAIL	2.0	0.3								
EPOXY RESIN INJECT	LF				LF					
BARRIER RAIL										
SURFACE PREPARATI	ON	SF				SF				
BARRIER RAIL		1217.4								
SILANE RAIL TREATM	SF				SF					
BARRIER RAIL		1217.4								

NOTES:

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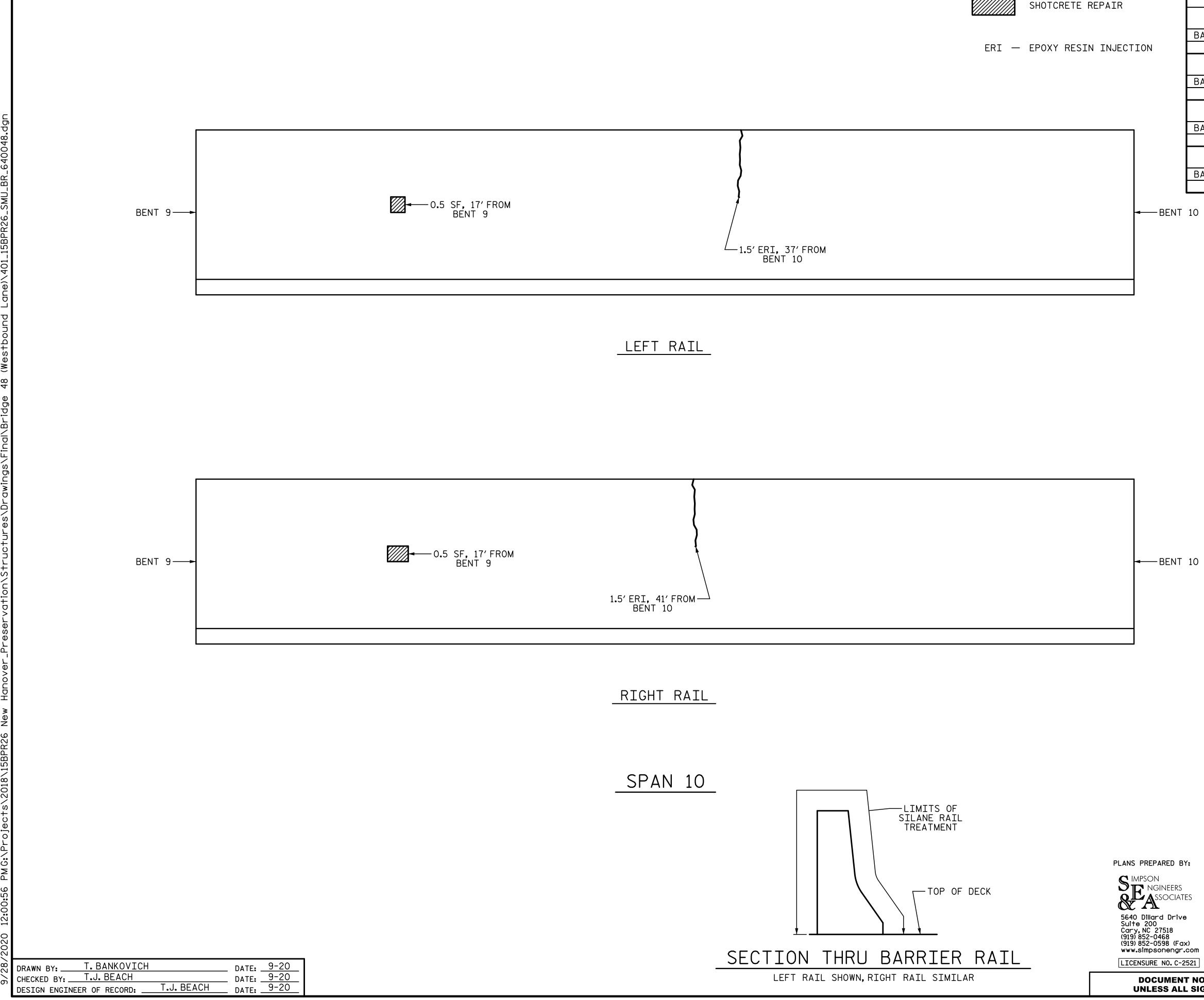
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REPAIR QU	REPAIR QUANTITY TABLE									
REPAIRS SPAN 10		QI	JANTIT	IES						
REFAIRS SPAN IU	EST	IMATE	ACTUAL							
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	V	OLUME CF				
BARRIER RAIL	1.0	0.1								
EPOXY RESIN INJECT	LF				LF					
BARRIER RAIL		3.0								
SURFACE PREPARATI	ON	SF				SF				
BARRIER RAIL		971.7								
SILANE RAIL TREATM	SF				SF					
BARRIER RAIL		971.7								

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VALUES IN CHART REPRESENT ESTIMATE REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN, OF 1"BEHIND REBAR AND MIN. 2"CL. TO SAWCUT. SEE REPAIR DETAILS.

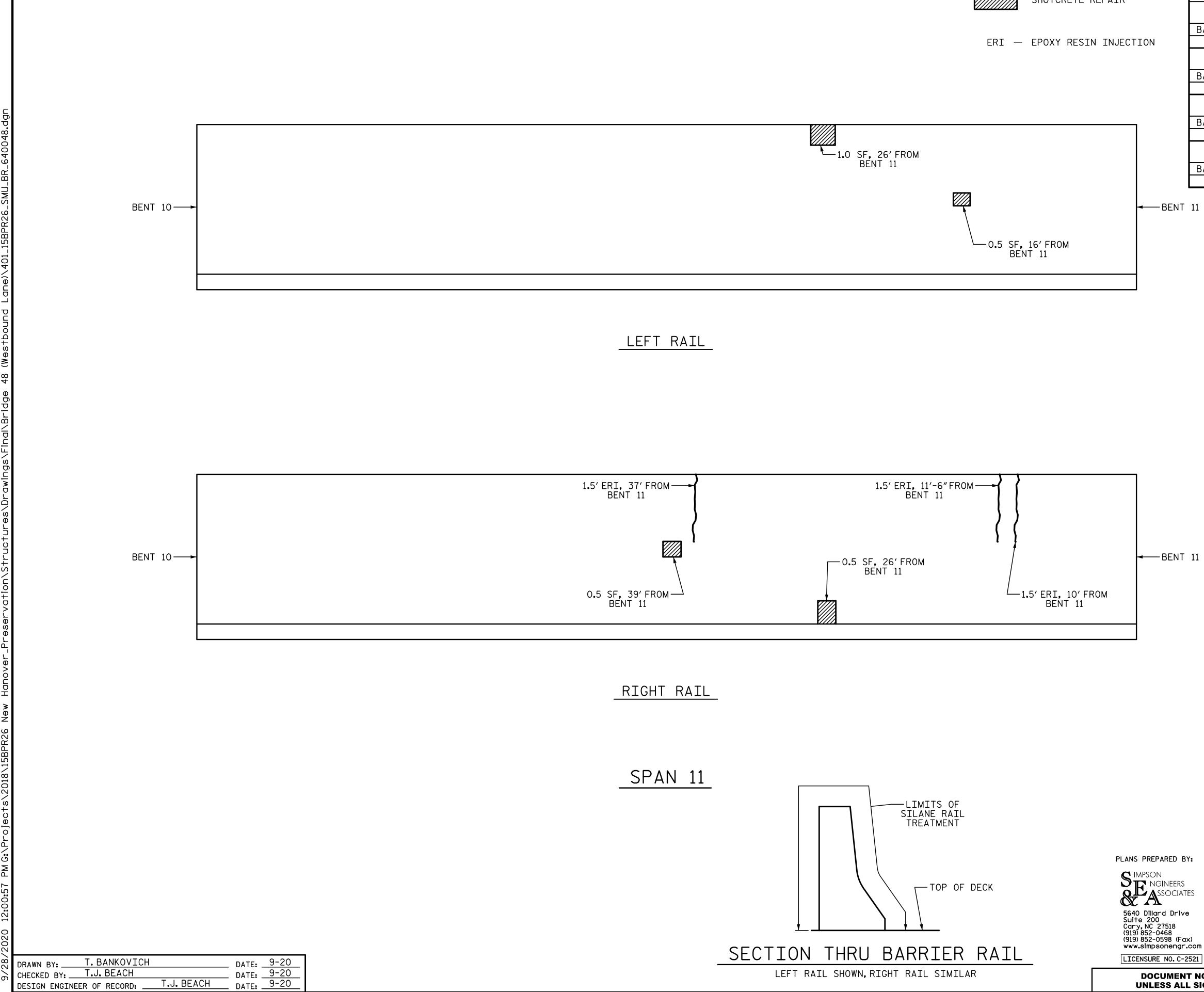
SHOTCRETE REPAIRS MAY BE REPLACED WITH CONCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR SUPERSTRUCTURE REPAIR DETAILS, SEE ``SUPERSTRUCTURE REPAIR DETAIL" SHEET.

PROJECT NO. <u>15BPR.26</u> <u>NEW HANOVER/PENDER COUN</u> BRIDGE NO.: <u>640048</u> SHEET 10 OF 13									
) BY:		STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH PRESERVATION							
ERS CIATES rive (Fax)	Docasting WoldARO/ Luco Stass/0, AGB 1000 5575245B SEAL 24390 WGINEER	SPAN 10 BARRIER RAIL							
ngr.com C-2521	9/29/2020		DV.	REVIS			DATE	SHEET NO. S1-25	
ENT NOT COM	ISIDERED FINAL IRES COMPLETED	≥ 1 2	BY:	DATE:	[≥] । প্টি ব্বি	BY:	DATE:	TOTAL SHEETS 163	





REPAIR QUANTITY TABLE									
REPAIRS SPAN 11		QL	QUANTITIES						
REFAIRS SFAN II	EST	IMATE		ACTUAL	-				
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	V	OLUME CF			
BARRIER RAIL	2.5	0.8							
EPOXY RESIN INJECT	LF				LF				
BARRIER RAIL	4.5								
SURFACE PREPARATI	ON	SF				SF			
BARRIER RAIL		971.7							
SILANE RAIL TREATM	SF				SF				
BARRIER RAIL		971.7							

NOTES:

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

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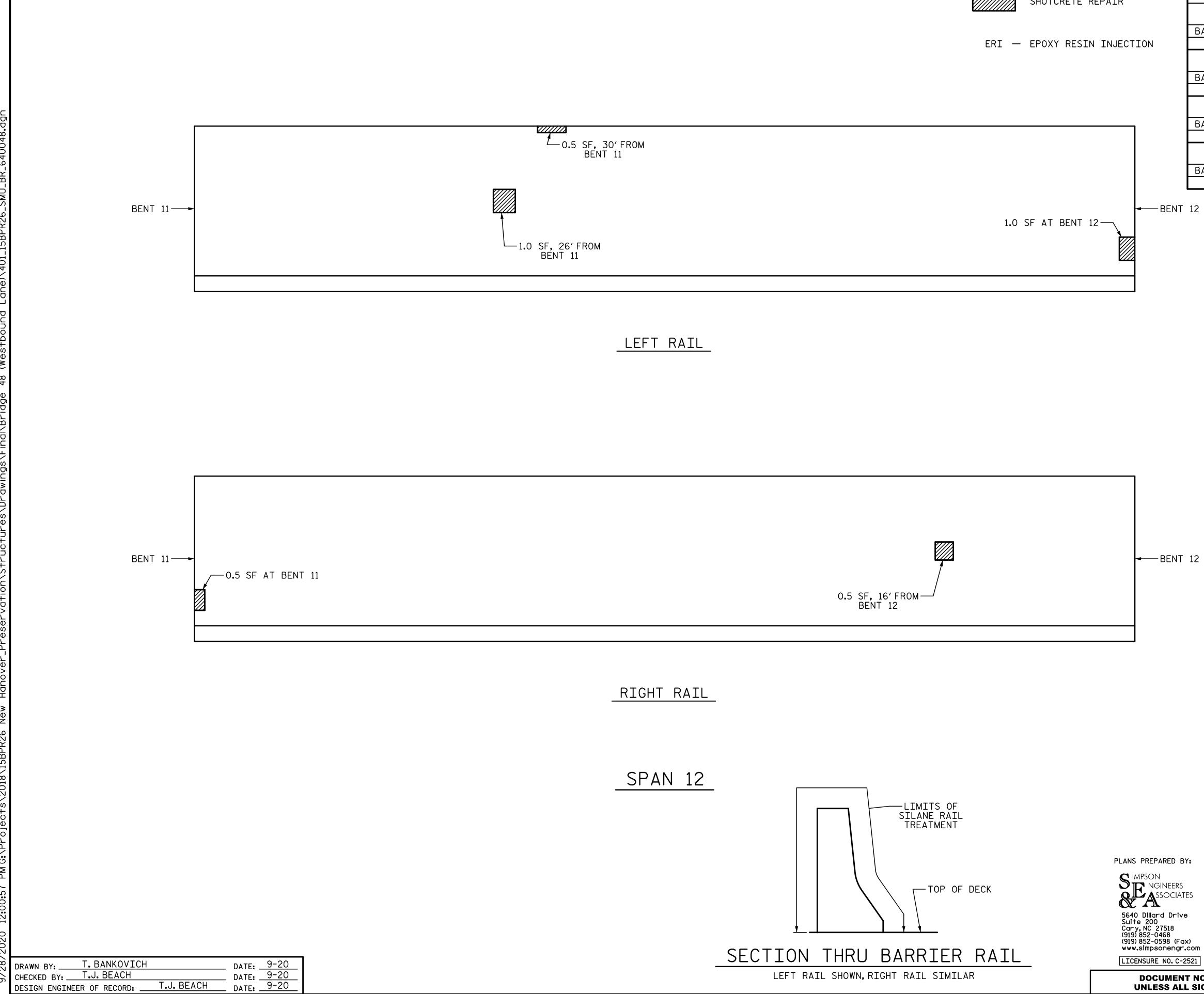
SHOTCRETE REPAIRS MAY BE REPLACED WITH CONCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

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FOR SUPERSTRUCTURE REPAIR DETAILS, SEE ``SUPERSTRUCTURE REPAIR DETAIL" SHEET.

		<u>N</u> BF	EW F	IANOVE E NO.:_	<u>R/</u>	<u>PEND</u>	<u>BPR.2</u> <u>er</u> co 10048	UNTY
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH PRESERVATION								TION
ERS CIATES rive (Fax)	AOBAI DE DE LA CINECTICA DE LA	SPAN 11 BARRIER RAIL						
ngr.com	9/29/2020			REVIS	SION	NS		SHEET NO.
C-2521		∾0. 1	BY:	DATE:	NO.	BY:	DATE:	S1-26
ENT NOT CONSIDERED FINAL ALL SIGNATURES COMPLETED					ন্ত ব্রু			total sheets 163





REPAIR QU	REPAIR QUANTITY TABLE										
REPAIRS SPAN 12		QI	QUANTITIES								
REFAIRS SFAN IZ	EST	IMATE		ACTUAL	-						
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	DEPTH FT		LUME CF					
BARRIER RAIL	3.5	0.8									
EPOXY RESIN INJECT	LF				LF						
BARRIER RAIL	0.0										
SURFACE PREPARATI	ON	SF				SF					
BARRIER RAIL		971.7									
SILANE RAIL TREATM	SF				SF						
BARRIER RAIL		971.7									

NOTES:

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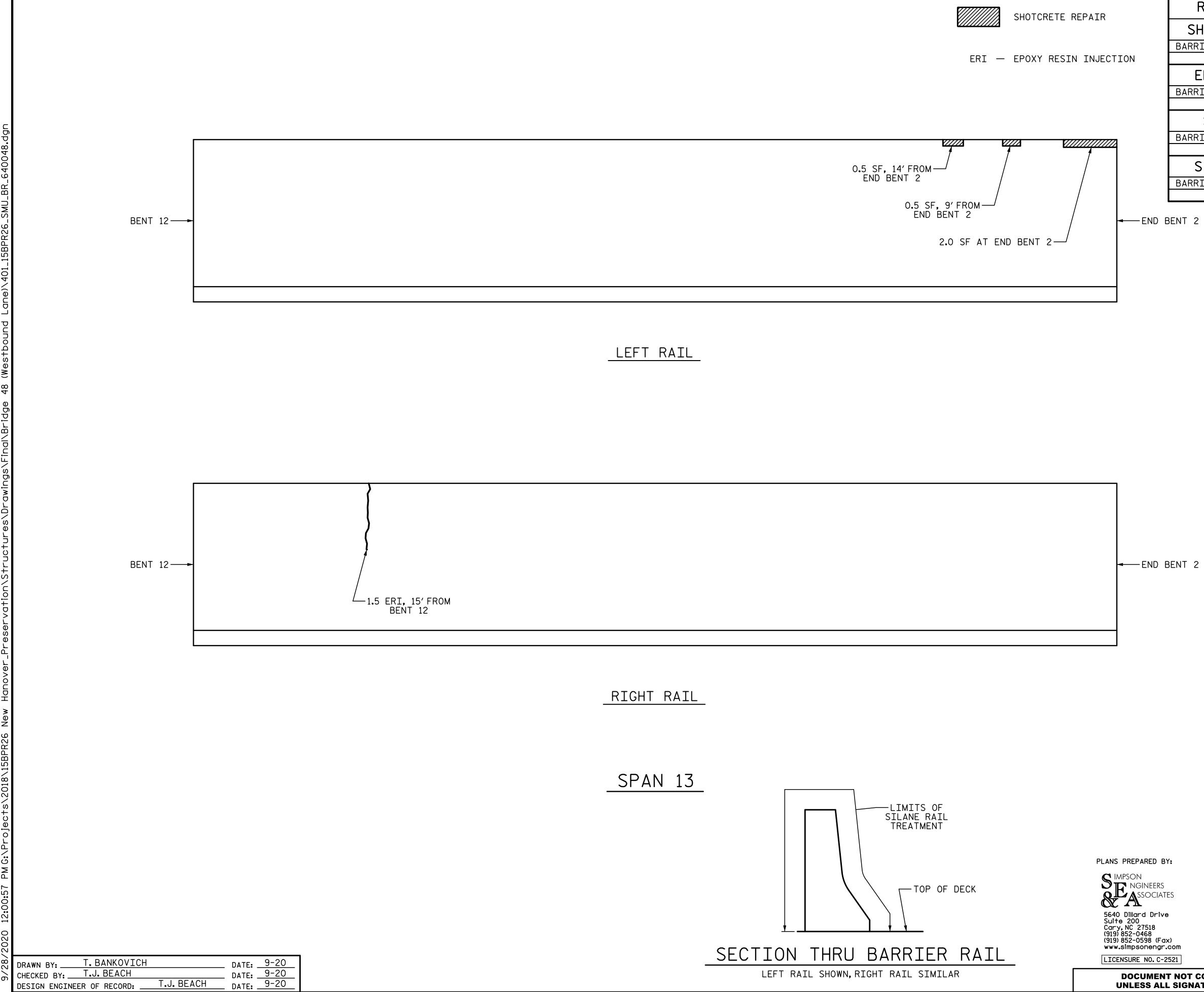
SHOTCRETE REPAIRS MAY BE REPLACED WITH CONCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

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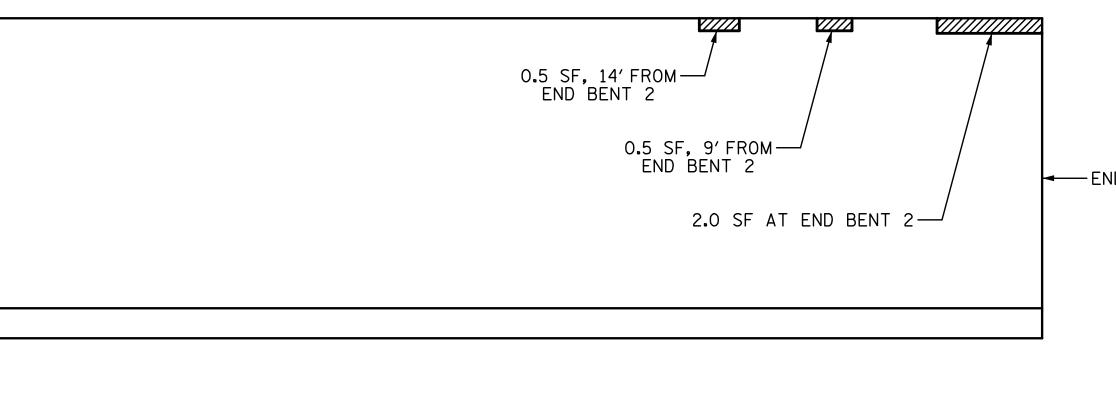
FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR SUPERSTRUCTURE REPAIR DETAILS, SEE ``SUPERSTRUCTURE REPAIR DETAIL" SHEET.

PROJECT NO. 15BPR.26 NEW HANOVER/PENDER COUR BRIDGE NO.: 640048 SHEET 12 OF 13									
) BY:		STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH PRESERVATION							
ERS CIATES rive (Fax)	AOBUSSIESEL AOBUSSIESEL 24390	SPAN 12 BARRIER RAIL							
C-2521	9/29/2020	NO. BY:	REVIS	IONS NO. BY:	DATE:	SHEET NO. S1-27			
	NSIDERED FINAL IRES COMPLETED	1		8 4		TOTAL SHEETS 163			







REPAIR QU	ANT	ITY -	ΓABL	.E		
REPAIRS SPAN 13		QI	JANTITI	IES		
REFAIRS SFAN IS	EST	IMATE		ACTUAL	_	
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	DEPTH FT		DLUME CF
BARRIER RAIL	3.0	0.5				
EPOXY RESIN INJECT	LF				LF	
BARRIER RAIL						
SURFACE PREPARATI	ON	SF				SF
BARRIER RAIL		976.8				
SILANE RAIL TREATM	SF				SF	
BARRIER RAIL		976.8				

NOTES:

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FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR SUPERSTRUCTURE REPAIR DETAILS, SEE ``SUPERSTRUCTURE REPAIR DETAIL" SHEET.

PROJECT NO. <u>15BPR.26</u> <u>NEW HANOVER/PENDER COUNT</u> BRIDGE NO.: <u>640048</u> SHEET 13 OF 13									
BY:	Complete the CARO/		DEPA	RTMENT PRES	of Se	F TRAN Raleigh RVAT	NSPORTA ION	TION	
RS IATES ⁻ Ive (Fax)	AGB (BESSELON , AGB (SPAN 13 BARRIER RAIL							
ngr.com C-2521	9/29/2020	NO.	BY:	REVIS DATE:	NOI	NS BY:	DATE:	SHEET NO. S1-28	
	NSIDERED FINAL IRES COMPLETED	12			3 4			total sheets 163	

		€ JOINT @ BENT 1—	▶	€ JOINT @ BENT 2
ļ				
	GIRDER #1			GIRDER #1
	GIRDER #2			GIRDER #2
		INTERMEDIATE	BENT 1	BENT 2
FACE OF ──► CURTAIN WALL		DIAPHRAGMS (TYP.)	<pre>DIAPHRAGM (TYP.) </pre>	DIAPHRAGM (TYP.)
F	GIRDER #3			GIRDER #3
				INTERMEDIATE DIAPHRAGMS (TYP.)
	GIRDER #4			GIRDER #4
	GIRDER #5			GIRDER #5
	OTHELK S			OINDER O
	S	PAN 1		SPAN 2
	└── € JOINT @ BENT 2	© JOINT @ BENT 3	<u>_</u>	🖞 JOINT @ BENT 4
	GIRDER #1			GIRDER #1
	GIRDER #2			GIRDER #2
	BENT 2	BENT 3		
	<pre>DIAPHRAGM (TYP.)</pre>	BENT 3 DIAPHRAGM (TYP.)	-	BENT 4 DIAPHRAGM──► (TYP.)
	GIRDER #3			GIRDER #3
		INTERMEDIATE DIAPHRAGMS		INTERMEDIATE
				INTERMEDIATE DIAPHRAGMS (TYP.)
	GIRDER #4			GIRDER #4
-	GIRDER #5			GIRDER #5
	C			
		PAN 3		SPAN 4
		UNDERSIDE	OF DECK SLAB	
			RS SEE GIRDER SHEETS	
DRAWN BY:T. BANKO CHECKED BY:T.J. BEAC				
CHECKED BY:	RD: DATE: T.J. BEACH DATE:			



ERI — EPOXY RESIN INJECTION

PLANS PREPARED



UNLESS /

REPAIR QUANTITY TABLE							
REPAIRS SPANS 1 - 4 QUANTITIES							
	EST	IMATE		ACTUAL			
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF		
SPAN 1	0.0	0.0					
SPAN 2	0.0	0.0					
SPAN 3	0.0	0.0					
SPAN 4	0.0	0.0					
EPOXY RESIN INJECT	ION	LF			LF		
SPAN 1		0.0					
SPAN 2		0.0					
SPAN 3		0.0					
SPAN 4		0.0					

NOTES:

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FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR SUPERSTRUCTURE REPAIR DETAILS, SEE ``SUPERSTRUCTURE REPAIR DETAIL'' SHEET.

		PROJECT NO. <u>15BPR.26</u> <u>NEW HANOVER/PENDER COUNTY</u>					
		BRIDG		64	40048	}	
S PREPARED BY: IMPSON NGINEERS SSOCIATES O Dillard Drive te 200 ry, NC 27518 0) 852-0468 0) 852-0468 0) 852-0598 (Fax) w.simpsonengr.com	Densed CAROL Densed by CAROL AGB TO SEAL 24390 AGB TO SEAL 24390 J. BEACTION	SHEET 1	NRTMENT PRE UNDE DE SF	TE OF NORTH CAR OF TRAN RALEIGH SERVAT ERSID CK SL	NSPORTA ION E OF AB		
ENSURE NO. C-2521	9/29/2020	NO. BY:	REV DATE:	ISIONS	DATE:	SHEET NO. S1-29	
DOCUMENT NOT CON UNLESS ALL SIGNATU		1		3 4		total sheets 163	

└ <mark>╼</mark> ───Û_ JOINT @ BENT 4	€ JOINT @ BENT 5
GIRDER #1	
GIRDER #2	
	INTERMEDIATE DIAPHRAGMS (TYP.)
GIRDER #3	
BENT 4 DIAPHRAGM (TYP.)	BENT 5 DIAPHRAGM──► (TYP.)
GIRDER #4	
GIRDER #5	

SPAN 5

──€ JOINT @ BENT 6		€ BENT 7—
	CIDDED #1	
	GIRDER #1	Π
	GIRDER #2	
		BENT 7 DIAPH.— (TYP.)
	GIRDER #3	
└───BENT 6 DIAPH.		
(TYP.)		
	GIRDER #4	••
		INTERMEDIATE DIAPH. 2
		(TYP.)
	GIRDER #5	
	INTERMEDIATE DIAPH. 1 (TYP.)	
	GIRDER #6	
	GIRDER #7	

SPAN 7

UNDERSIDE OF DECK SLAB

FOR GIRDER REPAIRS SEE GIRDER SHEETS

						_
28/	DRAWN BY:	T.BANKOVICH		DATE: _	9-20	
	CHECKED BY:	T.J. BEACH		DATE:	9-20	
0,		NEER OF RECORD:	T.J. BEACH	DATE:	9-20	

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SHOTCRETE REPAIR

ERI — EPOXY RESIN INJECTION

GIRDER #1 GIRDER #2 INTERMEDIATE — DIAPHRAGMS (TYP.) GIRDER #3 BENT 6 DIAPHRAGM──► (TYP.) GIRDER #4 GIRDER #5

SPAN 6

PLANS PREPARED



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REPAIR QUANTITY TABLE							
REPAIRS SPANS 5 - 7 QUANTITIES							
	EST	IMATE		ACTUAL	-		
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF		
SPAN 5	0.0	0.0					
SPAN 6	0.0	0.0					
SPAN 7	0.0	0.0					
EPOXY RESIN INJECT	ION	LF			LF		
SPAN 5		0.0					
SPAN 6	0.0						
SPAN 7		0.0					

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FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR SUPERSTRUCTURE REPAIR DETAILS, SEE ``SUPERSTRUCTURE REPAIR DETAIL" SHEET.

			IANOVE E NO.:	<u>15</u> <u>R/PEND</u> 64		UNTY
BY:		DEPA	RTMENT	OF NORTH CAR OF TRAN RALEIGH SERVAT	NSPORTA	TION
RS IATES 'ive	AGB S CUB 575345B 24390			ERSID CK SL		
Fax) gr.com	J. C.NGINEER, A. C. L.			ANS 5	- 7	
C-2521	9/29/2020	NO. BY:	DATE:	SIONS NO. BY:	DATE:	SHEET NO. S1-30
	NSIDERED FINAL JRES COMPLETED	1		<u> </u>		total sheets 163

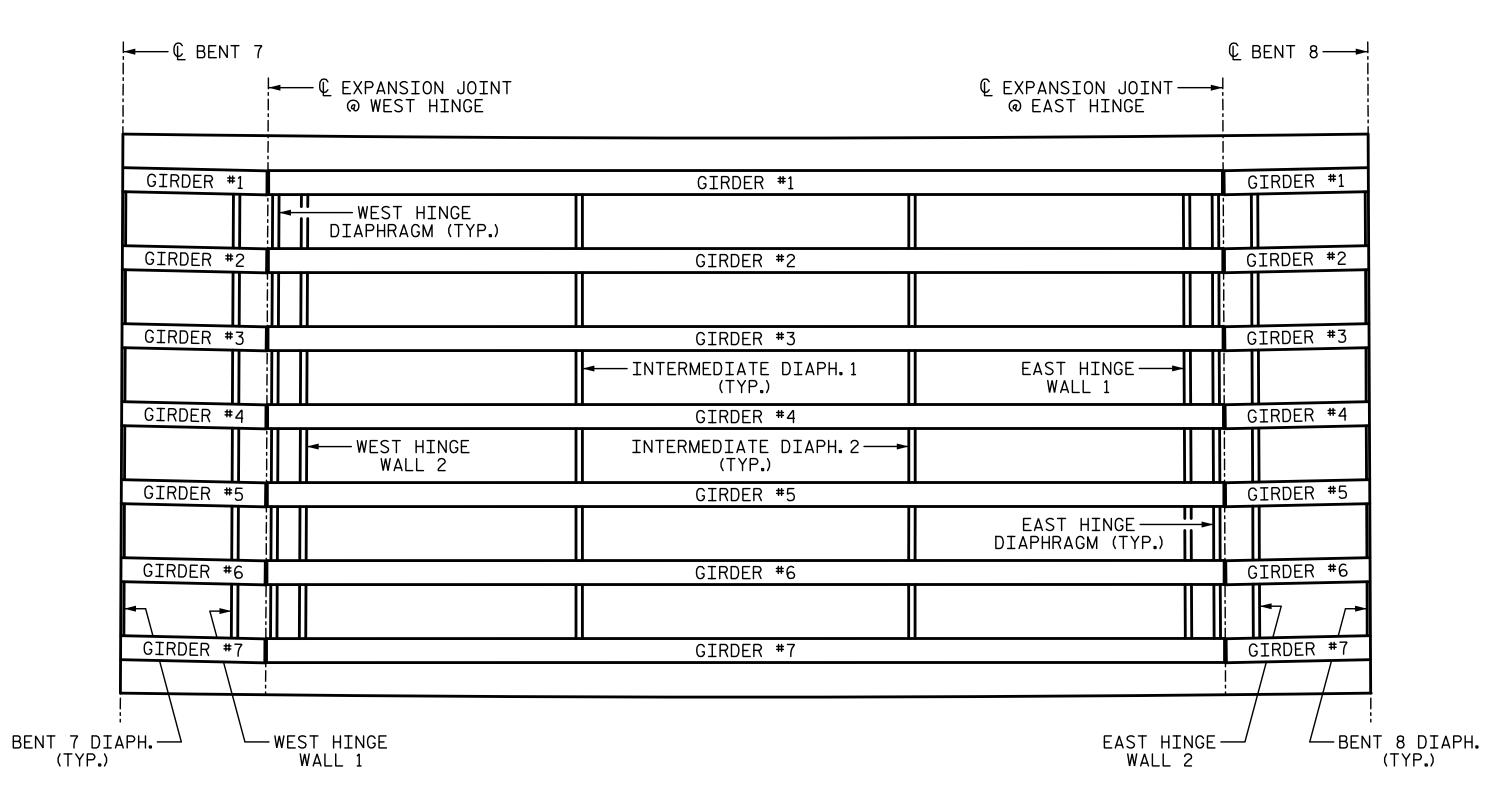
9/28/:	DRAWN BY: CHECKED BY: DESIGN ENGINE	T. BANKOVICH T.J. BEACH	T.J. BEACH	DATE: . DATE: . DATE: .	9-20 9-20 9-20]
	DESIGN ENGINE	ER OF RECORD:	100 02/000	DATE: .		

PAN 5

	GIRDER #1	
	GIRDER #2	
INTERMEDIATE DIAPH.1		
	GIRDER #3	
	GIRDER #4	
	GIRDER #5	-
	GIRDER #6	
⊢ BENT 8 DIAPH. (TYP.)		
	GIRDER #7	

E BENT 8

SPAN 8

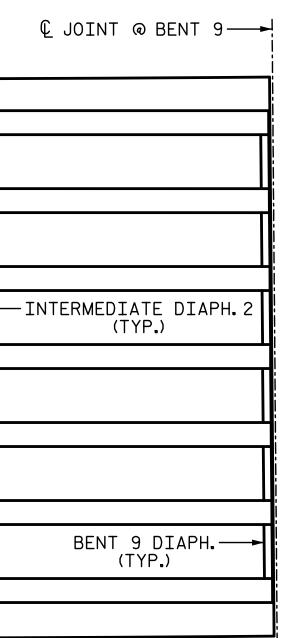


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SHOTCRETE REPAIR

ERI — EPOXY RESIN INJECTION



UNDERSIDE OF DECK SLAB

PLANS PREPARED



DOCUME

REPAIR QUANTITY TABLE							
REPAIRS SPANS 8 & 9 QUANTITIES							
	EST	IMATE		ACTUAL	_		
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF		
SPAN 8	0.0	0.0					
SPAN 9	0.0	0.0					
EPOXY RESIN INJECT	LF			LF			
SPAN 8	0.0						
SPAN 9		0.0					

NOTES:

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FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR SUPERSTRUCTURE REPAIR DETAILS, SEE ``SUPERSTRUCTURE REPAIR DETAIL''SHEET.

		PROJE	ECT NO	15	BPR.2	26	
		NEW	HANOV	ER/PEND	DER_CO	UNTY	
		BRIDO	SE NO.	64	40048	3	
		SHEET	3 OF 4				
	STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH						
BY:			PR	ESERVAI	ION		
RS ATES I ve	AGB 24390			ERSID ICK SL			
-ax)	J. BEACHING	SPANS 8 & 9					
gr.com 2-2521	9/29/2020	NO. BY:	REV	ISIONS	DATE:	SHEET NO. S1-31	
NT NOT CONSI LL SIGNATURE		1		3 4		TOTAL SHEETS 163	

ò	DRAWN BY:	T. BANKOVICH		DATE:	9-20
-	CHECKED BY:	T.J. BEACH		DATE:	9-20
		NEER OF RECORD:	T.J. BEACH	DATE:	9-20
				- 0/// -	

LAB FOR GIRDER REPAIRS SEE GIRDER SHEETS

└ <mark>╶</mark> ── € JOINT @ BENT 11	€ JOINT @ BENT 12-	_ ►
GIRDER #1		
BENT 11 DIAPHRAGM (TYP.)		
GIRDER #2		
	INTERMEDIATE DIAPHRAGMS (TYP.)	
GIRDER #3		
		BENT 12 DIAPHRAGM (TYP.)
GIRDER #4		
GIRDER #5		
	SPAN 12	
	UNDERSIDE	OF DECK S

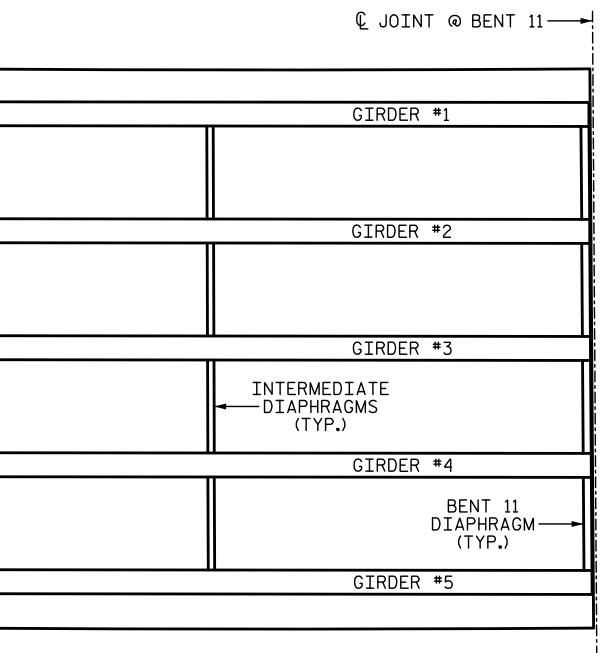
SPAN 10

└ ╡ ───Û JOINT @ BENT 9	€ JOINT @ BENT :	0
GIRDER #1		
GIRDER #2		
	INTERMEDIATE DIAPHRAGMS (TYP.)	BENT 10 DIAPHRAGM (TYP.)
GIRDER #3		
BENT 9 DIAPHRAGM (TYP.)		
GIRDER #4		
GIRDER #5		

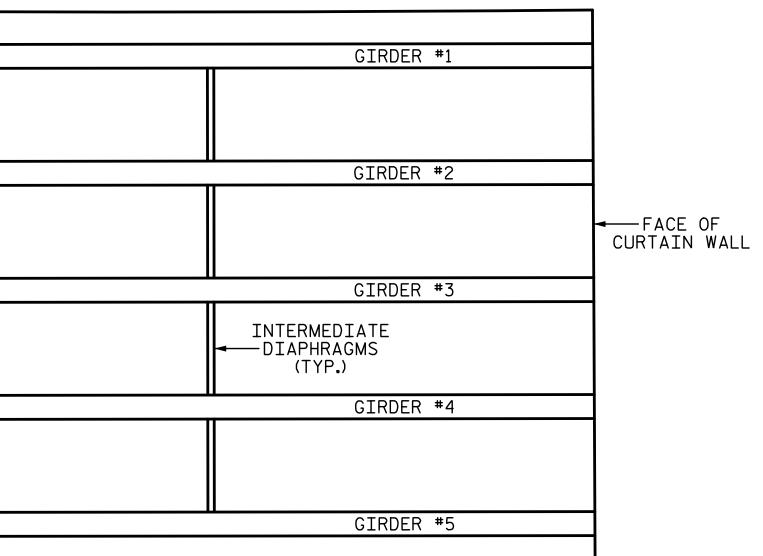


SHOTCRETE REPAIR

ERI — EPOXY RESIN INJECTION



SPAN 11



SPAN 13

PLANS PREPARED



DOCUMEI UNLESS A

REPAIR QUANTITY TABLE							
REPAIRS SPANS 10 - 13			JANTITI	IES			
INCLATING STANS TO IS	EST	IMATE		ACTUAL	_		
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF		
SPAN 10	0.0	0.0					
SPAN 11	0.0	0.0					
SPAN 12	0.0	0.0					
SPAN 13	0.0	0.0					
EPOXY RESIN INJECT	ION	LF			LF		
SPAN 10		0.0					
SPAN 11		0.0					
SPAN 12	0.0						
SPAN 13							

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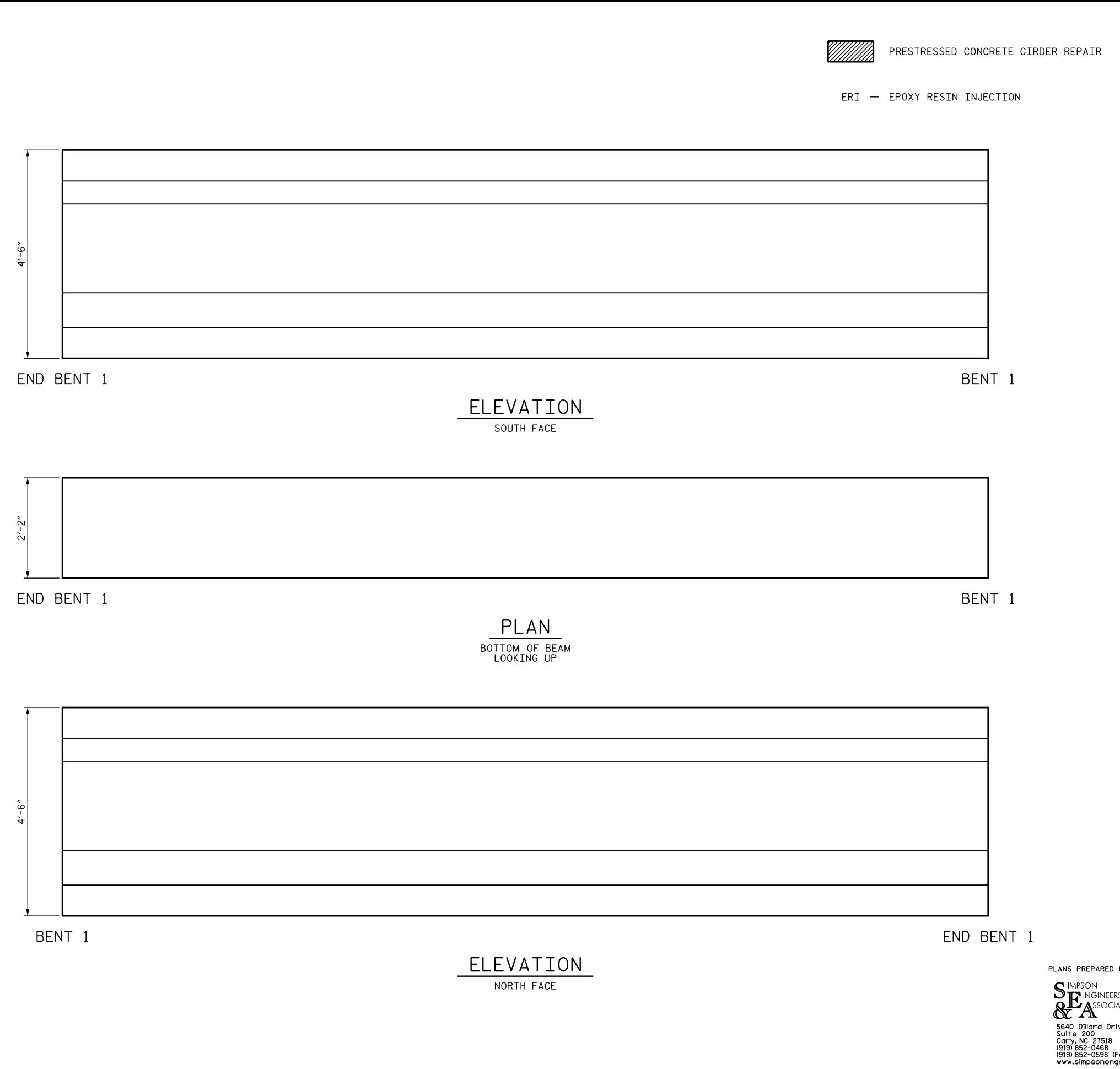
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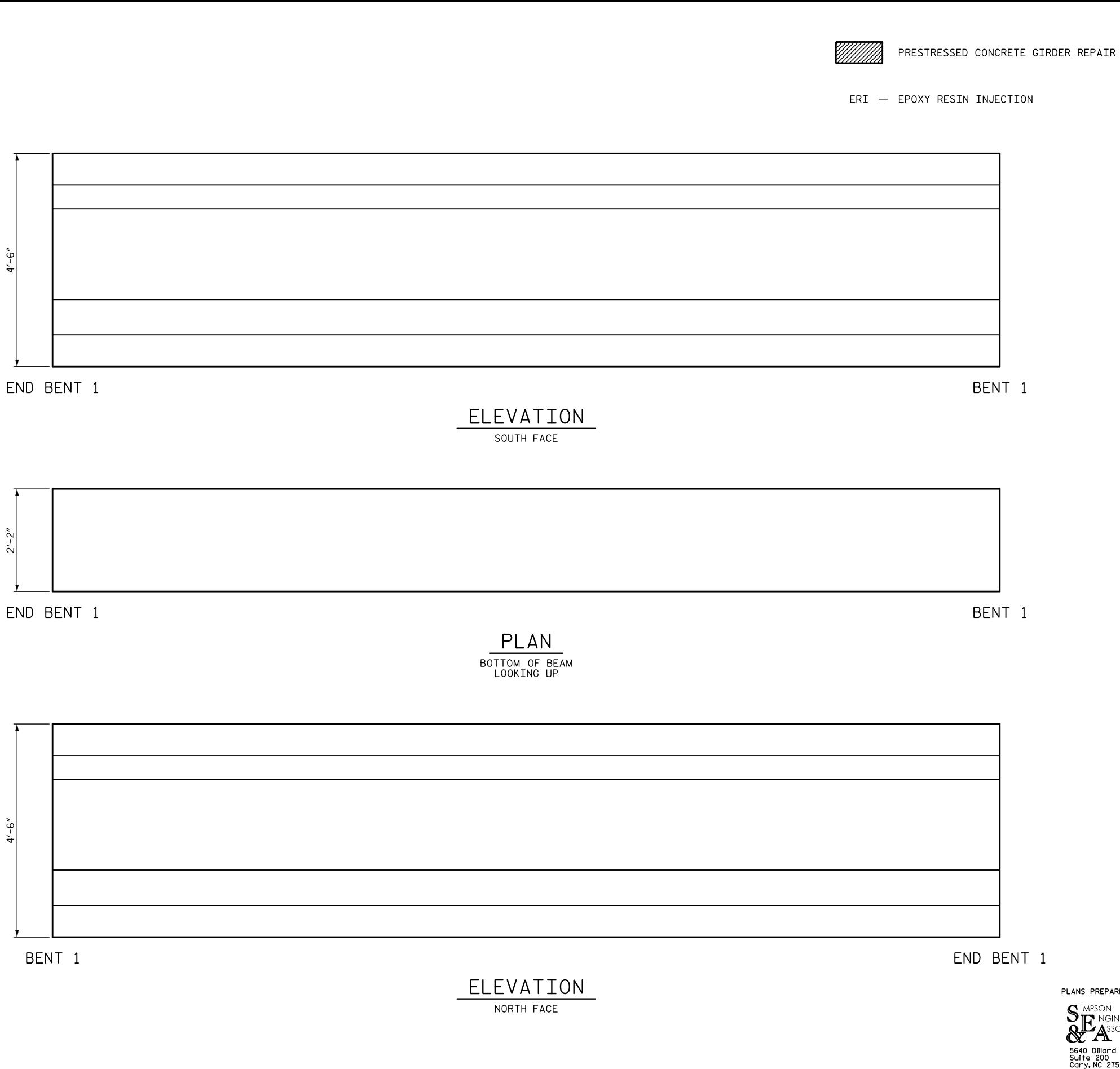
FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR SUPERSTRUCTURE REPAIR DETAILS, SEE ``SUPERSTRUCTURE REPAIR DETAIL'' SHEET.

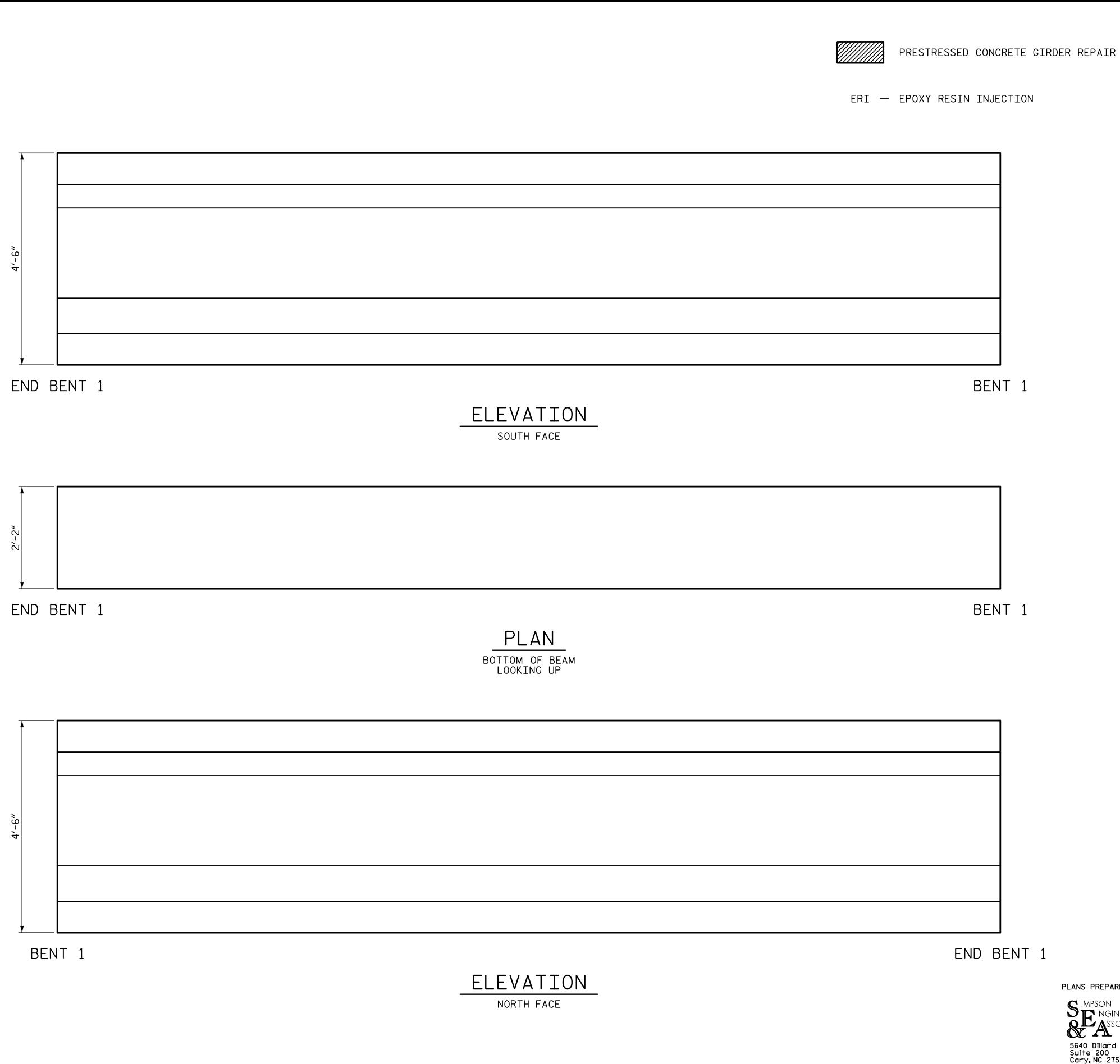
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		ANOVE	C	<u>)er</u> co 10048	
	BRIDGE	L NU.:_	0		,
	SHEET 4	OF 4			
	DEPA	RTMENT	OF NORTH CAR OF TRAI RALEIGH SERVAT	NSPORTA	TION
BY:		ΓNE.		TON	
RS ATES		UNDE DF(RSID CK SL		
Fax)			NS 10		
gr.com 9/29/2020		REVIS			SHEET NO. S1-32
ENT NOT CONSIDERED FINAL	№. вү: 1 22		NO. BY: 3 4	DATE:	TOTAL SHEETS 163













T. BANKOVICH		DATE:	9-20
		DATE:	9-20
	T.J. BEACH	DATE:	9-20
f		BY: T.J. BEACH	BY:

REPAIR QUANTITY TABLE							
REPAIRS SPAN 1 GRD.1		QUANTITIES					
	EST	IMATE		ACTUAL	-		
REPAIRS OF PRESTR. CONCRETE GIRDERS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF		
GIRDER	0.0	0.0					
EPOXY RESIN INJECT	TION LF			LF			
GIRDER		0.0					

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FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

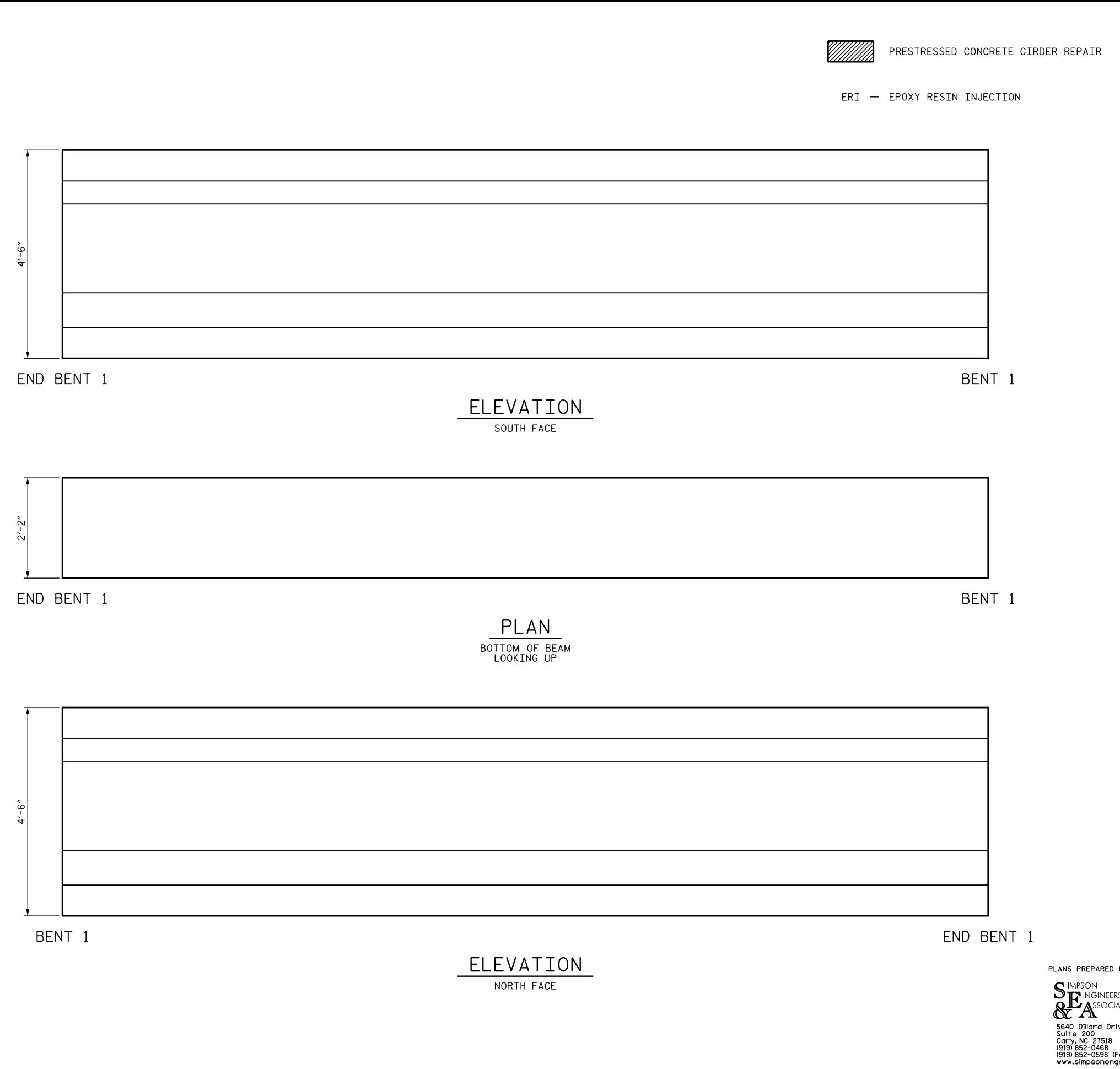
VALUES IN CHART REPRESENT ESTIMATE REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN, OF 1"BEHIND REBAR AND MIN. 2"CL. TO SAWCUT. SEE REPAIR DETAILS.

FOR REPAIRS OF PRESSTRESSED CONCRETE GIRDERS, SEE SPECIAL PROVISIONS.

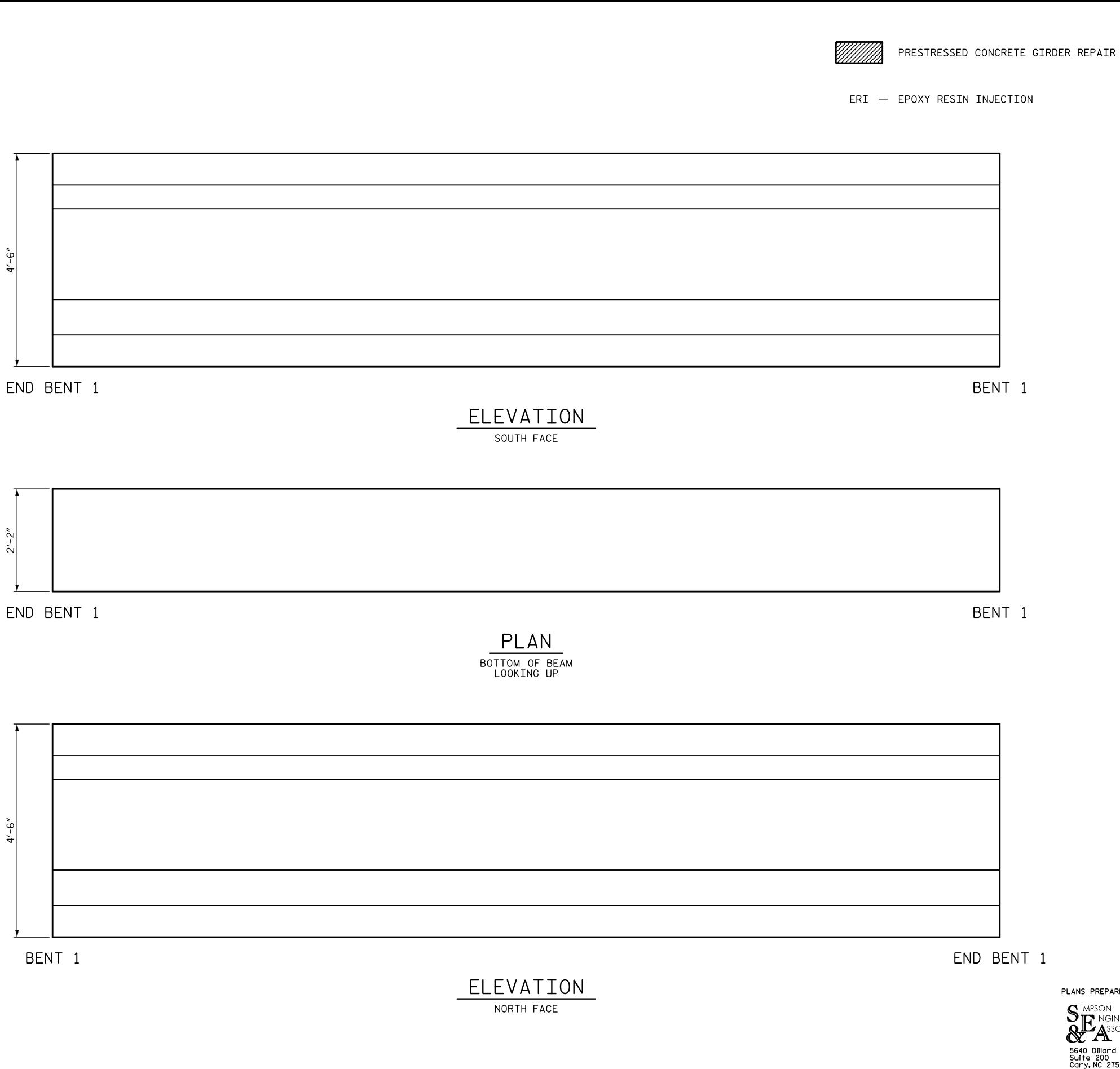
FOR REPAIRS OF PRESTRESSED CONCRETE GIRDERS DETAILS, SEE "PRESTRESSED CONCRETE GIRDER REPAIR DETAILS" SHEET.

AT THE TIME OF PREPARATION OF PLANS, IT WAS NOT ANTICIPATED SPLICING OF PRESSTRESSING STRAND, OR OTHER WORK WILL BE NECESSARY TO PROPERLY COMPLETE THE INTENDED BRIDGE PRESERVATION/REHABILITATION WORK. THE CONTRACTOR SHALL BE PREPARED TO PREFORM SUCH WORK IN A TIMELY MANNER, AS DETERMINED IN THE FIELD. SUCH WORK SHALL BE CONSIDERED EXTRA WORK AND SHALL BE ADDRESSED AS PER ARTICLE 104-7 OF THE STANDARD SPECIFICATIONS. WORK ITEMS HAVE BEEN PROVIDED IN THE CONTRACT DOCUMENTS, BUT NO QUANTITIES HAVE BEEN LISTED. ACTUAL PAY ITEMS, QUANTITIES AND COST WILL BE ESTABLISHED, AS REQUIRED, IF EXTRA WORK IS ENCOUNTERED.

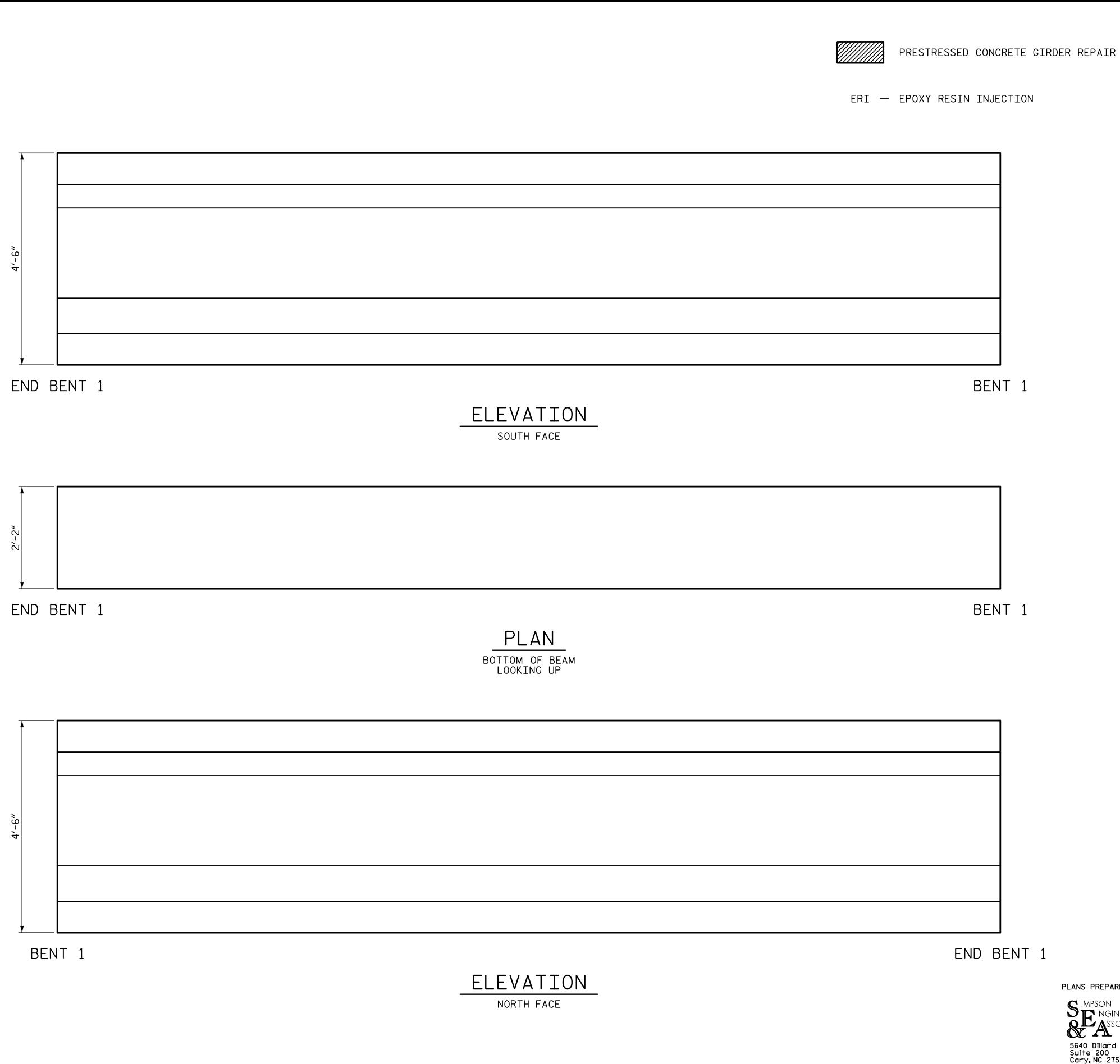
		PROJEC <u>NEW</u> H BRIDGE	IANOVE E NO.:	<u>R/F</u>	PEND	<u>BPR.2</u> <u>ER</u> co 10048	UNTY
PLANS PREPARED BY:		DEPA	RTMENT		EIGH	NSPORTA ISPORTA	TION
SIMPSON NGINEERS SSOCIATES 5640 Dillard Drive Suite 200 Cary, NC 27518 (919) 852-0468 (919) 852-0598 (Fax)	AGB THE OBEST SALE AGB THE OBEST SALE AGB THE OBEST SALE 24390	SPAN 1 GIRDER 1					
www.simpsonengr.com	9/29/2020		REVI	SIONS			SHEET NO.
LICENSURE NO. C-2521	-,,	NO. BY:	DATE:		BY:	DATE:	S1-33
DOCUMENT NOT CONSIDERED FINAL		1		3			TOTAL SHEETS
UNLESS ALL SIGNATU	IRES COMPLETED	2		4			163













T. BANKOVICH		DATE:	9-20
		DATE:	9-20
	T.J. BEACH	DATE:	9-20
f		BY: T.J. BEACH	BY:

REPAIR QUANTITY TABLE							
REPAIRS SPAN 1 GRD. 2			UANTIT				
	ESI	IMATE		ACTUAL	-		
REPAIR OF PREST. CONCRETE GIRDERS	RS AREA VOLUME		AREA SF	DEPTH FT	VOLUME CF		
GIRDER	0.0	0.0					
EPOXY RESIN INJECT	ION LF			LF			
GIRDER	0.0						

NOTES:

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

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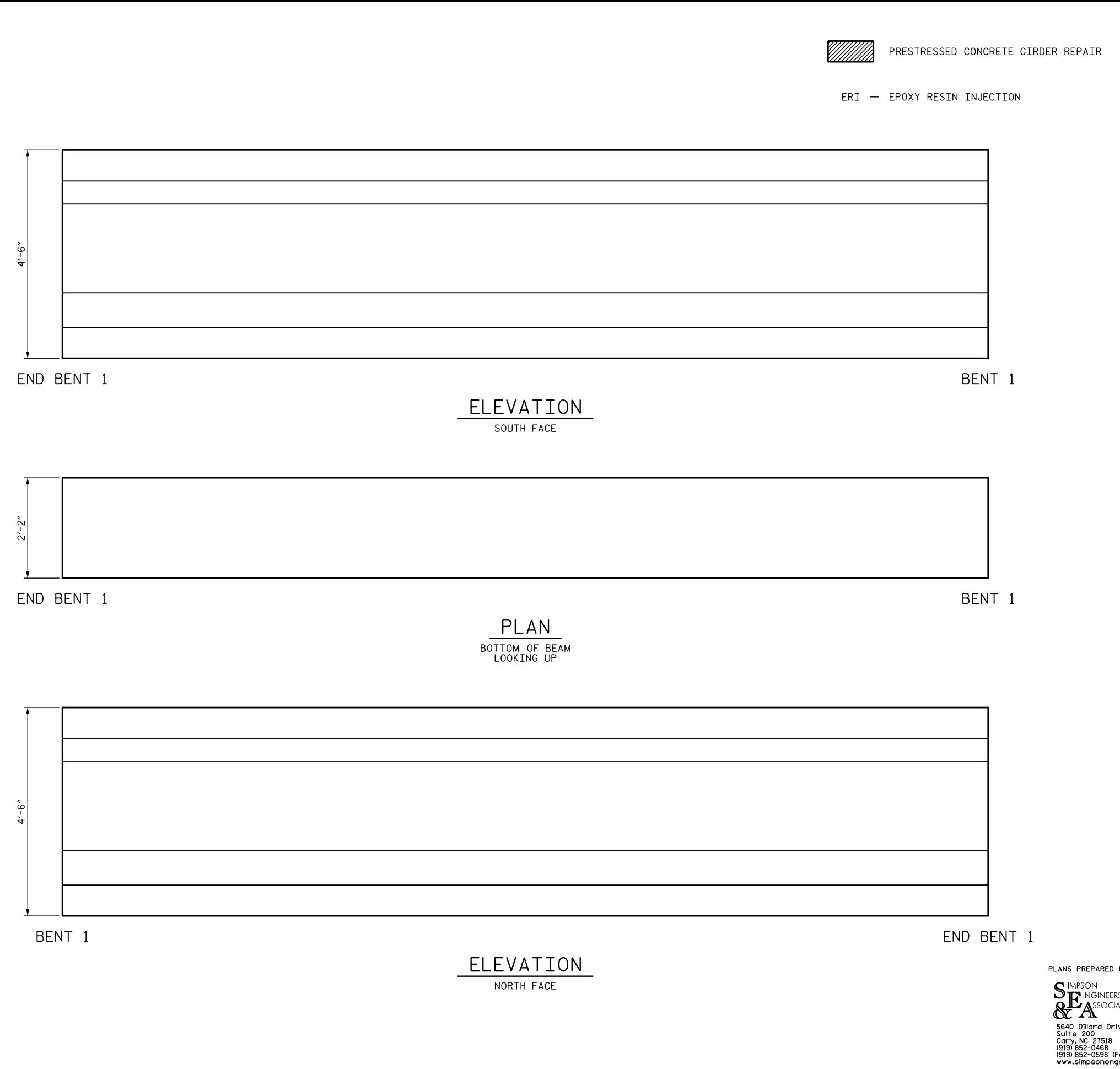
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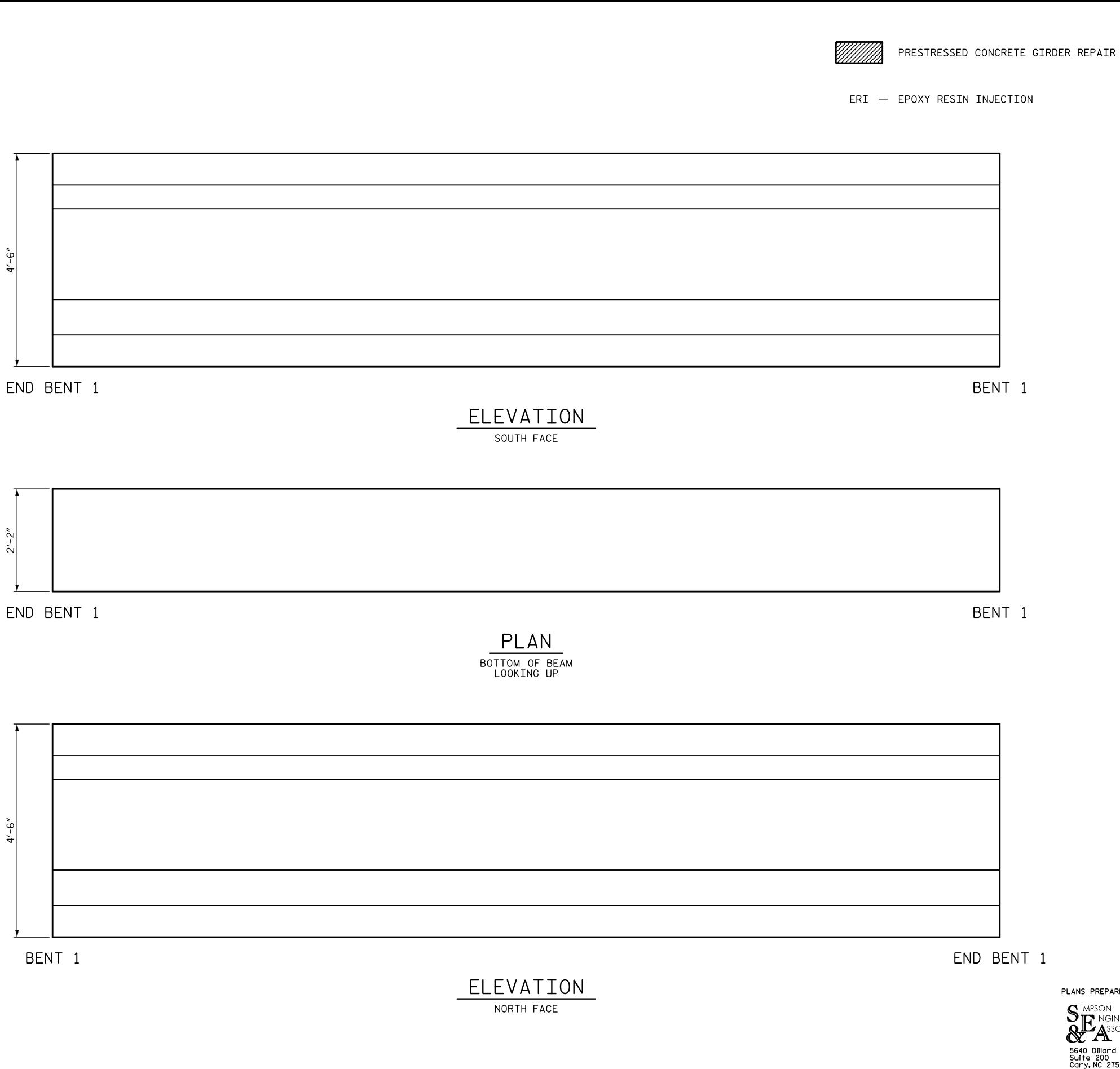
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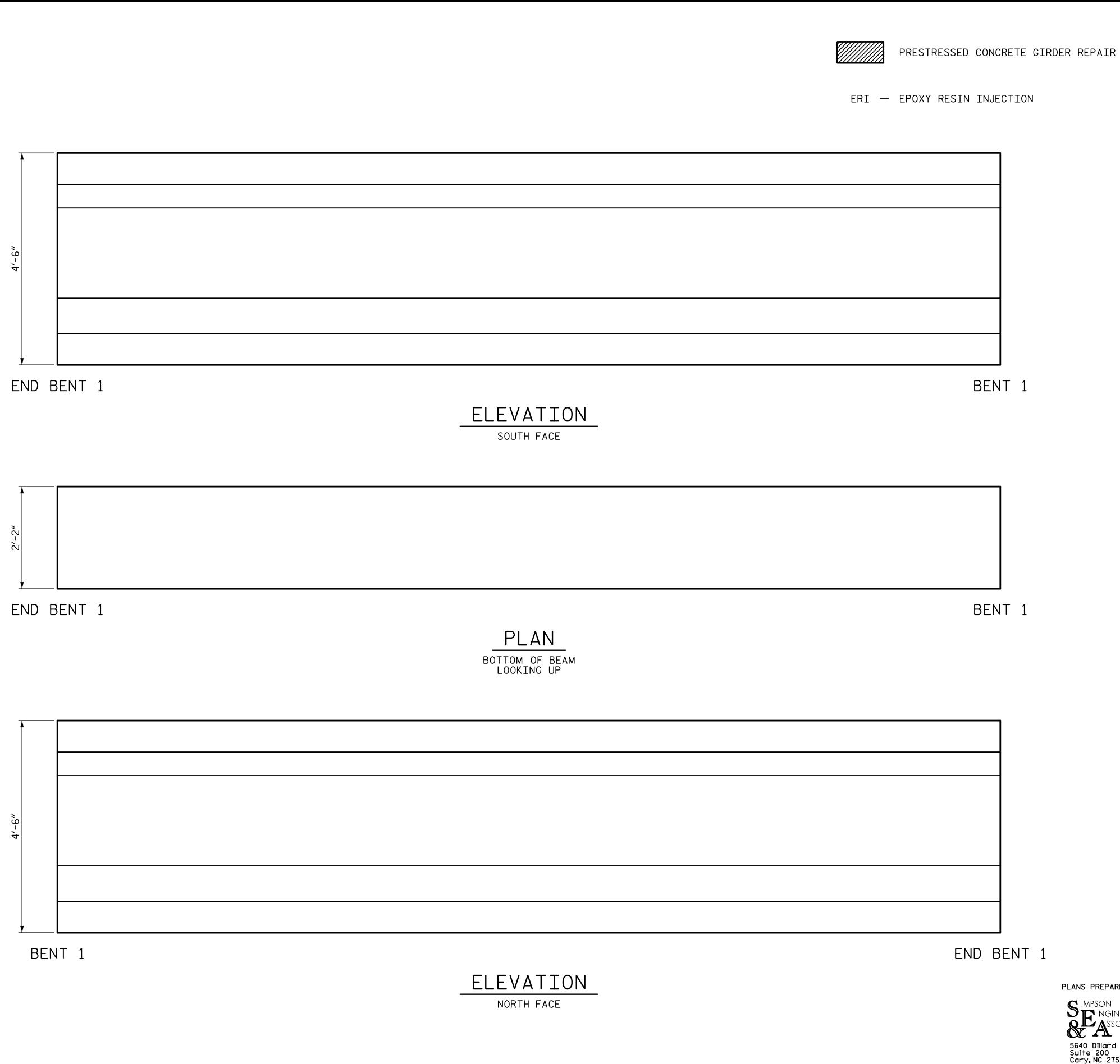
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PLANS PREPARED BY:		DEPA	N RTMENT O PRESE	RALEIGH	NSPORTA	TION
SIMPSON NGINEERS SSOCIATES 5640 Dillard Drive Suite 200 Cary, NC 27518 (919) 852-0468 (919) 852-0598 (Fax)	AGB CONSIGNATION CAROL AGB CONSIGNATION CAROL AGB CONSIGNATION SEAL 24390	SPAN 1 GIRDER 2				
www.simpsonengr.com	9/29/2020		REVISIC	NS		SHEET NO.
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T. BANKOVICH		DATE:	9-20
		DATE:	9-20
	T.J. BEACH	DATE:	9-20
f		BY: T.J. BEACH	BY:

REPAIR QUANTITY TABLE						
REPAIRS SPAN 1 GRD. 3	QUANTITIES					
	EST	IMATE		ACTUAL	-	
REPAIRS OF PRESTR. CONCRETE GIRDERS	AREA VOLUME SF CF		AREA SF	DEPTH FT	VOLUME CF	
GIRDER	0.0	0.0				
EPOXY RESIN INJECTION					LF	
GIRDER		0.0				

NOTES:

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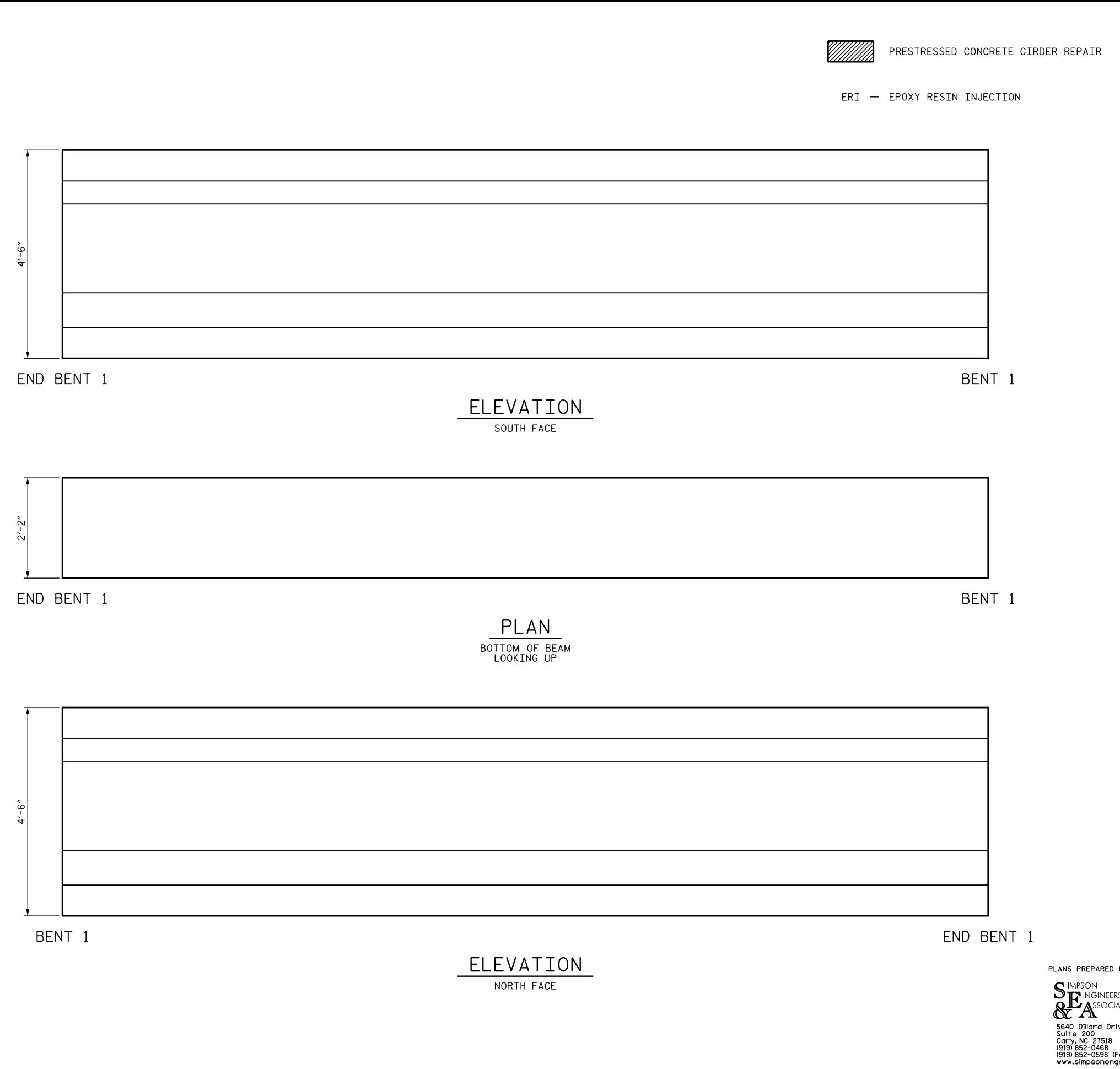
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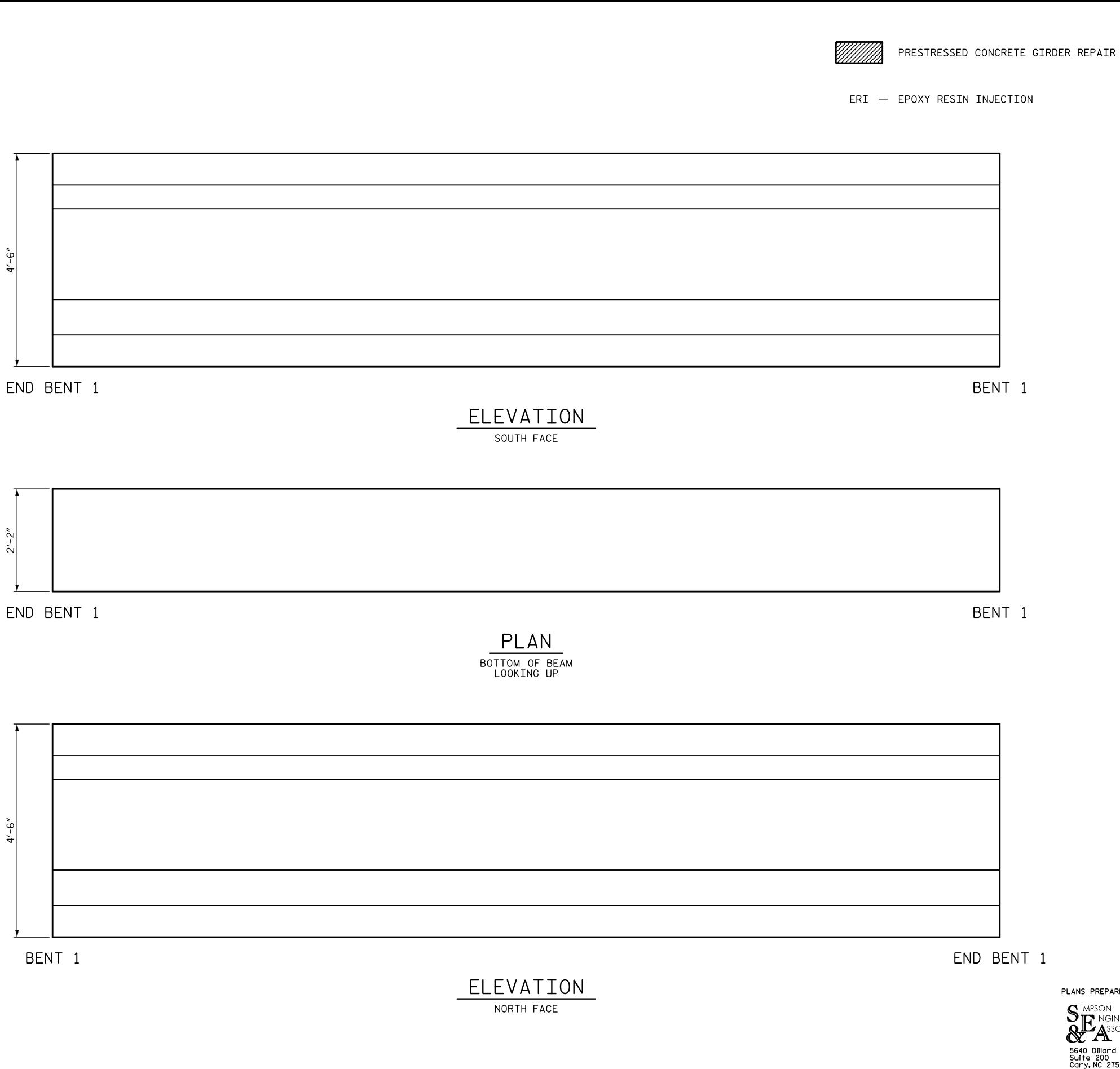
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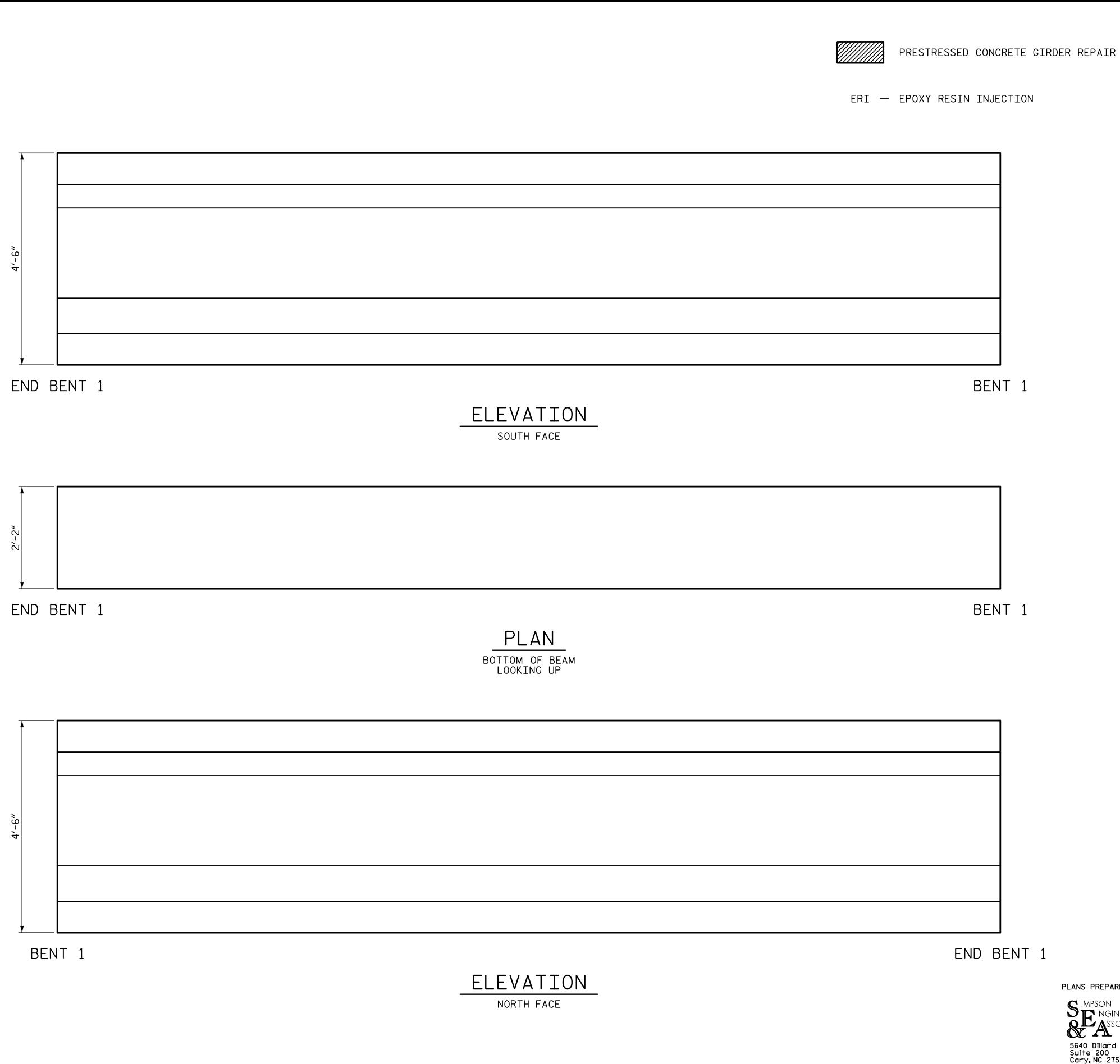
		PROJEC	CT NO.	15	BPR.2	26
		NEW H	ANOVER	R/PEND	DER_CC	
		BRIDG	E NO.:_	64	40048	3
		SHEET 3	OF 5			
PLANS PREPARED BY:		DEPA	RTMENT	of north car OF TRAI raleigh SERVAT	NSPORTA	TION
SIMPSON NGINEERS SSOCIATES 5640 Dillard Drive Suite 200	Doonsenting by ARO/ FUCA BEENSION AGBING 98575245B SEAL 24390		_	PAN RDER		
Cary, NC 27518 (919) 852-0468 (919) 852-0598 (Fax) www.simpsonengr.com LICENSURE NO. C-2521	9/29/2020	NO. BY:	REVISI	EONS	DATE:	SHEET NO. S1-35
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T. BANKOVICH		DATE:	9-20
		DATE:	9-20
	T.J. BEACH	DATE:	9-20
f		BY: T.J. BEACH	BY:

REPAIR QUANTITY TABLE						
REPAIRS SPAN 1 GRD. 4	QUANTITIES					
	EST	IMATE		ACTUAL	-	
REPAIRS OF PRESTR. CONCRETE GIRDERS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF	
GIRDER	0.0	0.0				
EPOXY RESIN INJECTION					LF	
GIRDER		0.0				

NOTES:

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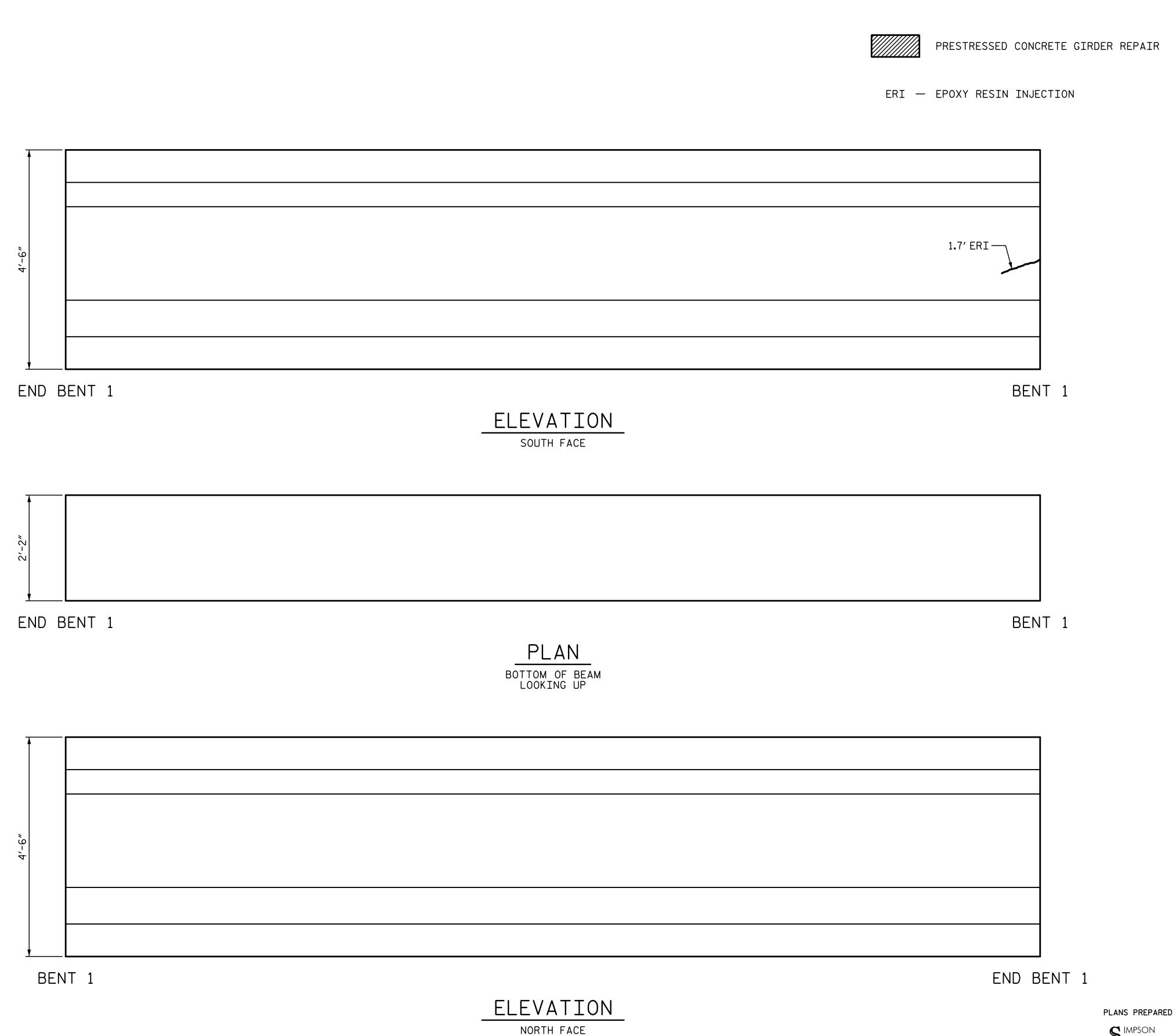
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VALUES IN CHART REPRESENT ESTIMATE REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN, OF 1"BEHIND REBAR AND MIN. 2"CL. TO SAWCUT. SEE REPAIR DETAILS.

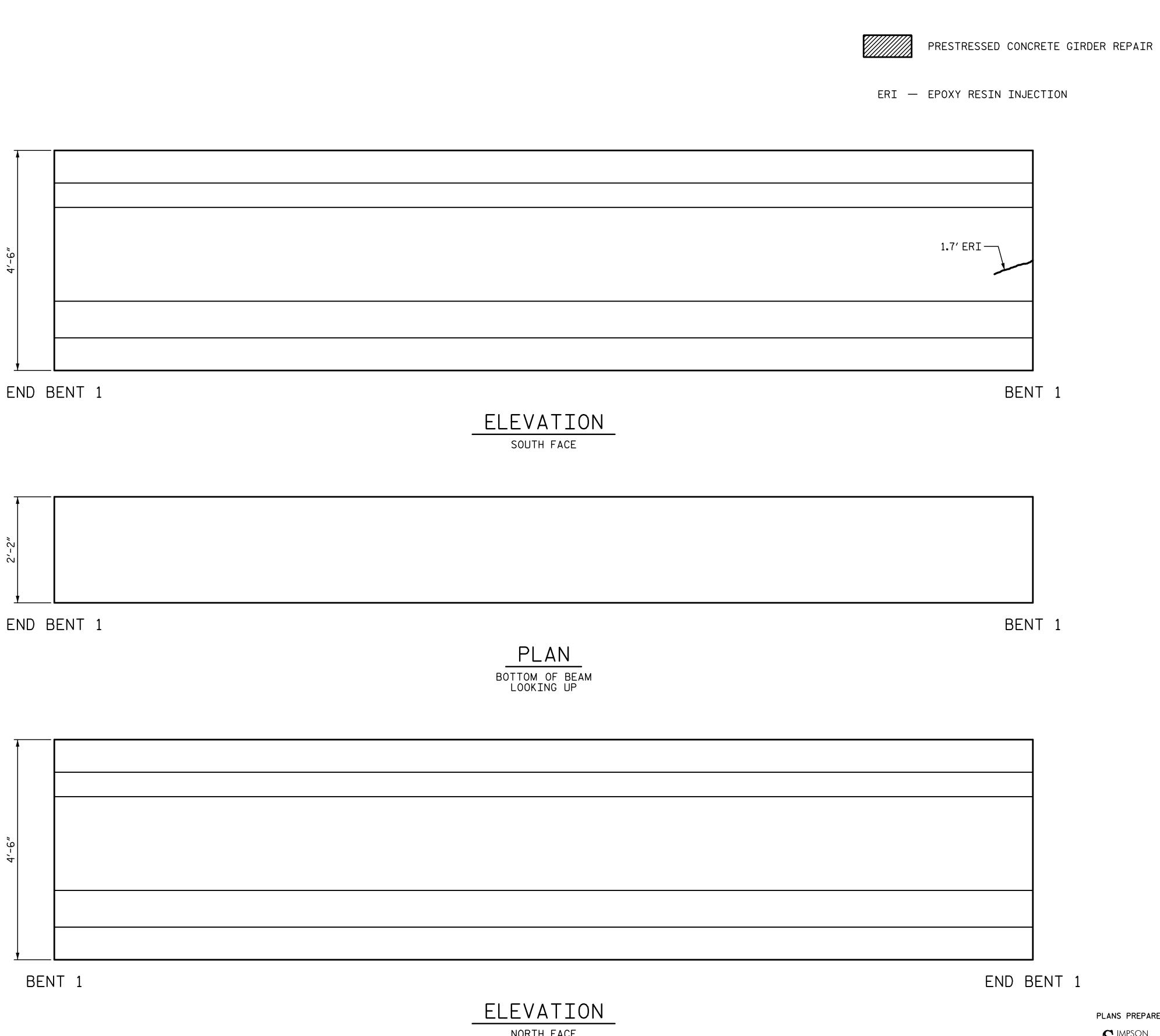
FOR REPAIRS OF PRESSTRESSED CONCRETE GIRDERS, SEE SPECIAL PROVISIONS.

FOR REPAIRS OF PRESTRESSED CONCRETE GIRDERS DETAILS, SEE "PRESTRESSED CONCRETE GIRDER REPAIR DETAILS" SHEET.

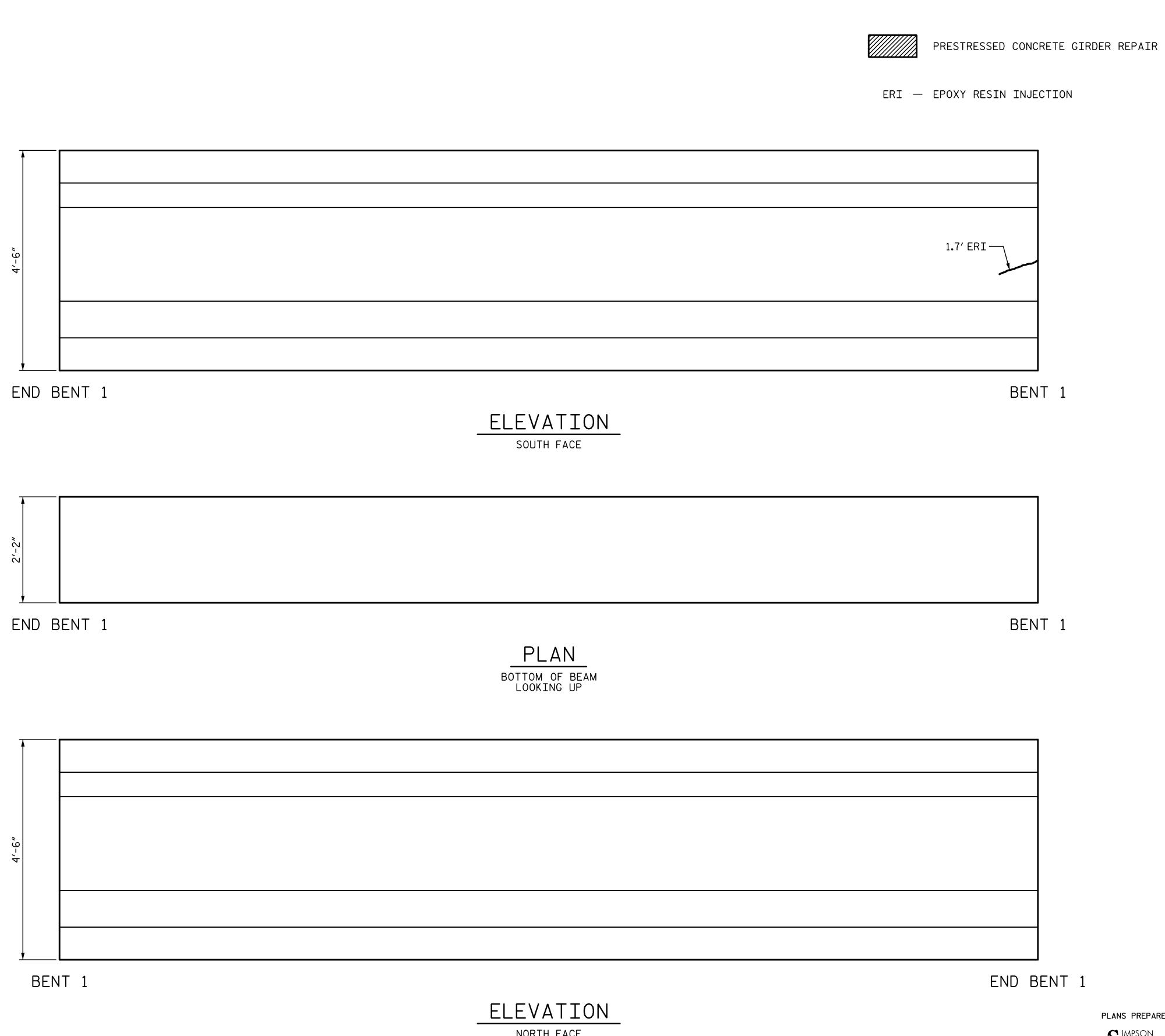
		NEW H	CT NO. IANOVER	<u>/PENE</u>	DER_CC	UNTY		
		BRIDGE NO.: 640048						
SHEET 4 OF 5								
PLANS PREPARED BY:		STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH PRESERVATION						
SIMPSON NGINEERS SSOCIATES 5640 Dillard Drive Suite 200	Docasignethos ARO/ tuco Betach/0 AGB 70005752458 SEAL 24390	SPAN 1 GIRDER 4						
Cary, NC 27518 (919) 852-0468 (919) 852-0598 (Fax) www.simpsonengr.com LICENSURE NO. C-2521	9/29/2020	NO. BY:	REVISI DATE: N		DATE:	SHEET NO. S1-36		
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T. BANKOVICH		DATE:	9-20
		DATE:	9-20
	T.J. BEACH	DATE:	9-20
f		BY: T.J. BEACH	BY:



REPAIR QUANTITY TABLE							
REPAIRS SPAN 1 GRD. 5		QUANTITIES					
	EST	IMATE		ACTUAL	-		
REPAIRS OF PRESTR. CONCRETE GIRDERS	STR. AREA VOLUME SF CF		AREA SF	DEPTH FT	VOLUME CF		
GIRDER	0.0	0.0					
EPOXY RESIN INJECTION					LF		
GIRDER		1.7					

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

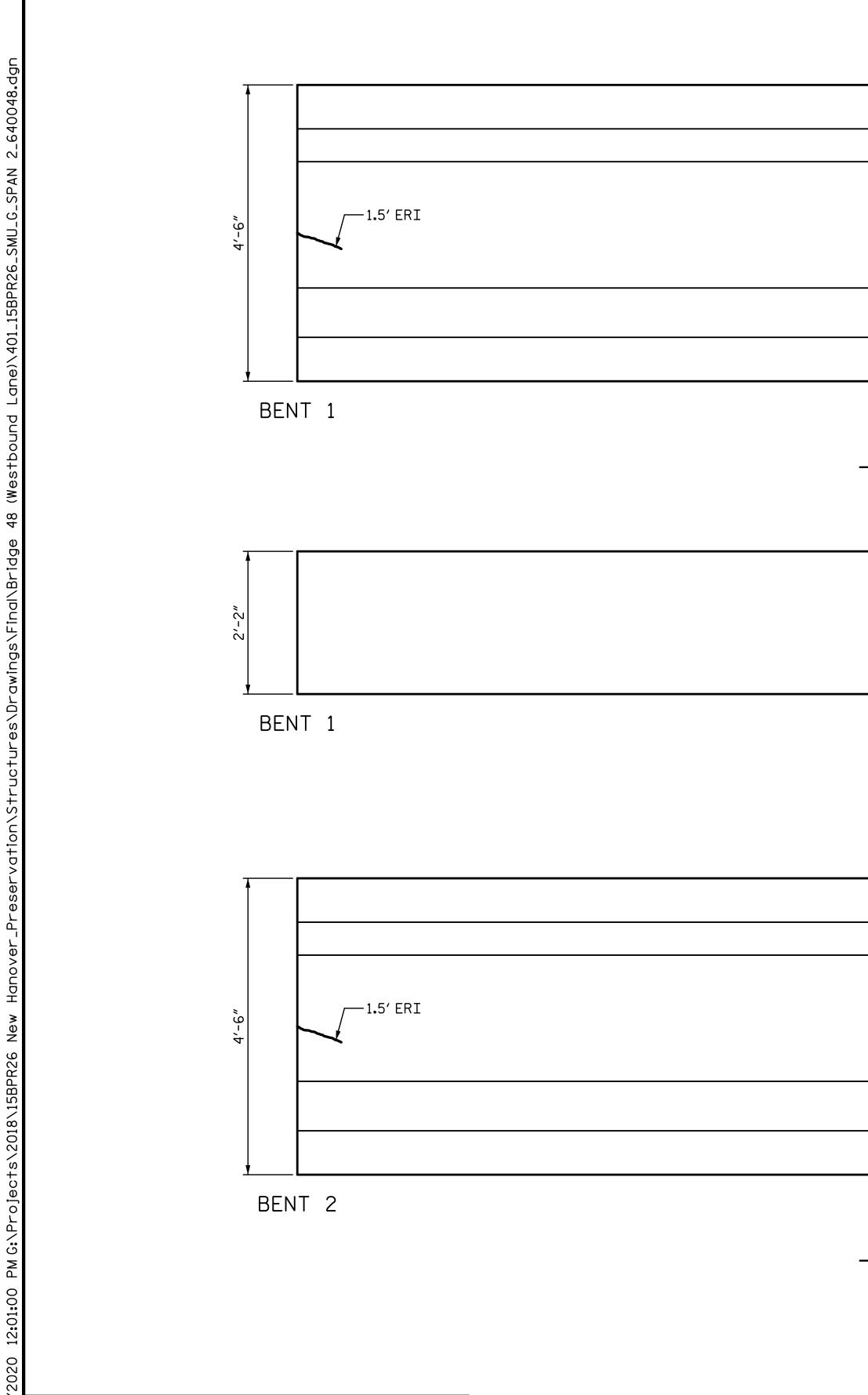
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FOR REPAIRS OF PRESTRESSED CONCRETE GIRDERS DETAILS, SEE "PRESTRESSED CONCRETE GIRDER REPAIR DETAILS" SHEET.

		PROJEC <u>NEW H</u> BRIDGE	IANOVE	<u>R/</u>	PEND	<u>BPR.2</u> D <u>ER</u> CC 40048	DUNTY
		SHEET 5	OF 5				
IS PREPARED BY:		DEPA	RTMENT	OF	NORTH CAR TRAI RALEIGH RVAT	NSPORTA	TION
IMPSON MGINEERS SSOCIATES O Dillard Drive 140 200 ry, NC 27518	AGEN SUBBEREAL 24390				AN DER		
9) 852-0468 9) 852-0598 (Fax) w.simpsonengr.com	J. BEACHIN		REVI	STON			SHEET NO.
CENSURE NO. C-2521	9/29/2020	NO. BY:	DATE:	NO.	BY:	DATE:	S1-37
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DRAWN BY:T.BANKOVICH CHECKED BY:T.J. BEACH DESIGN ENGINEER OF RECORD:T.J. BEACH	DATE: <u>9-20</u> DATE: <u>9-20</u> DATE: <u>9-20</u> DATE: <u>9-20</u>	
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		PRESTRESSED CONCRETE GIRDER REPAIR
		FRESTRESSED CONCRETE GIRDER REFAIR
	ERI —	EPOXY RESIN INJECTION
		BENT 2
ELEVATION		
SOUTH FACE		
		BENT 2
PLAN		
BOTTOM OF BEAM LOOKING UP		
		BENT 1
ELEVATION		PLANS PREPARED E
NORTH FACE		S IMPSON NGINEERS SSOCIA
		5640 Dillard Driv
		5640 Dillard Driv Suite 200 Cary, NC 27518 (919) 852-0468 (919) 852-0598 (Fo www.simpsonengr
		(919) 852-0598 (Fo www.simpsonengr LICENSURE NO.C-

REPAIR QUANTITY TABLE						
REPAIRS SPAN 2 GRD.1		QUANTITIES				
	EST	IMATE		ACTUAL	-	
REPAIRS OF PRESTR. CONCRETE GIRDERS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF	
GIRDER	0.0	0.0				
EPOXY RESIN INJECTION					LF	
GIRDER						

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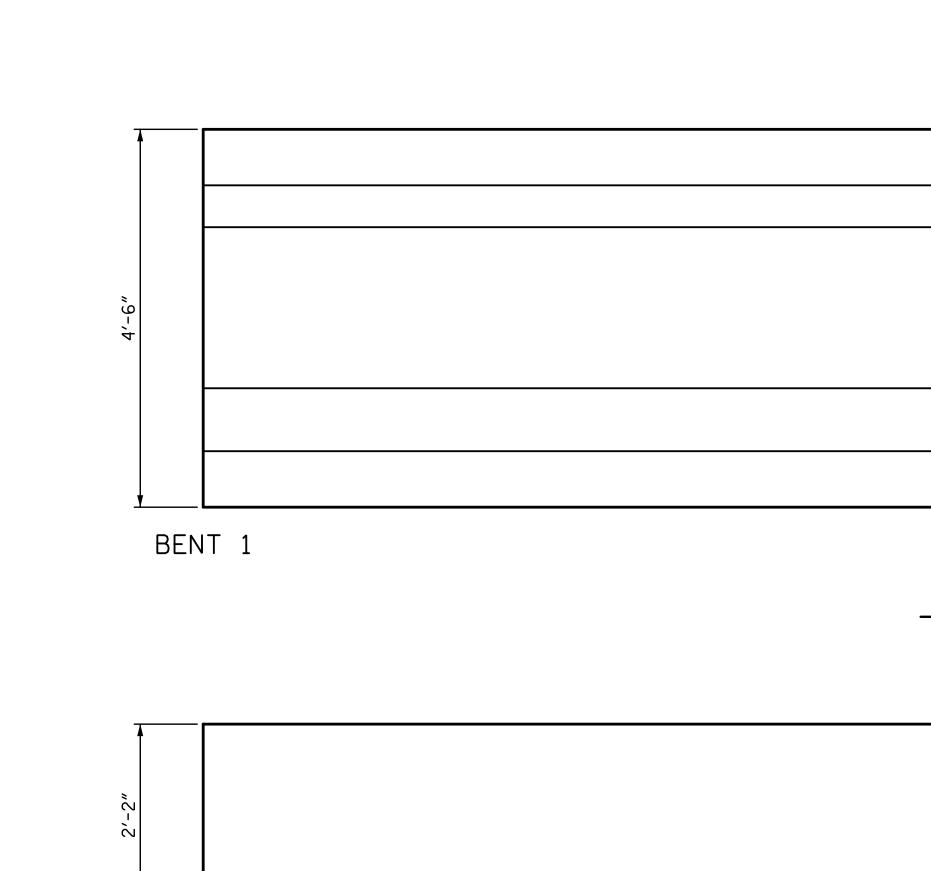
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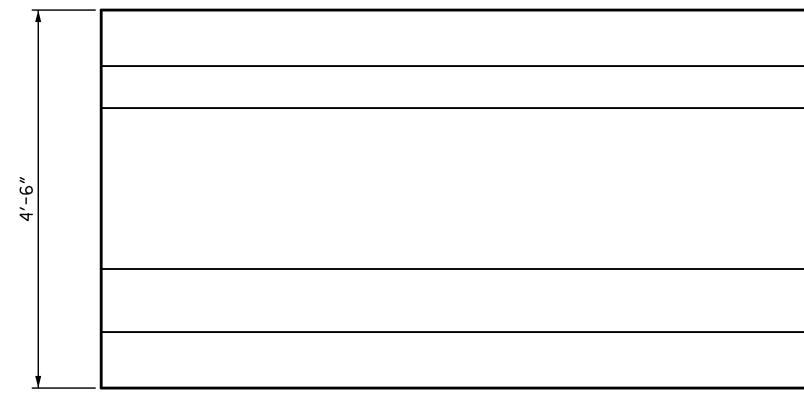
FOR REPAIRS OF PRESSTRESSED CONCRETE GIRDERS, SEE SPECIAL PROVISIONS.

FOR REPAIRS OF PRESTRESSED CONCRETE GIRDERS DETAILS, SEE "PRESTRESSED CONCRETE GIRDER REPAIR DETAILS" SHEET.

		NEW	CT NO. <u>Hanover</u> E NO.: of 5	/PENE		UNTY	
PLANS PREPARED BY:		DEPA	ARTMENT (of north car DF TRA raleigh ERVA	NSPORTA	TION	
SIMPSON NGINEERS SSOCIATES 5640 Dillard Drive Suite 200 Cary, NC 27518 (919) 852-0468 (919) 852-0598 (Fax)	AGB CONECTION ACTION OF AC	SPAN 2 GIRDER 1					
www.simpsonengr.com	9/29/2020		REVISI	ONS		SHEET NO.	
LICENSURE NO. C-2521		NO. BY: <1		0. BY: ଭ	DATE:	S1-38	
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28/	DRAWN BY:	T. BANKOVICH		_ DATE: <u>9-20</u>
6	CHECKED BY:	<u> </u>		_ DATE: <u>9-20</u>
01	DESIGN ENGI	NEER OF RECORD:	T.J. BEACH	_ DATE: <u>9-20</u>

		PRESTRESSED CONCRETE GIRDER REPAIR
	ERI —	EPOXY RESIN INJECTION
ELEVATION		BENT 2
SOUTH FACE		
PLAN		BENT 2
BOTTOM OF BEAM LOOKING UP		
		BENT 1
ELEVATION NORTH FACE		PLANS PREPARED BY
		5640 Dillard Drive Suite 200 Cary, NC 27518 (919) 852-0468 (919) 852-0598 (Fax www.simpsonengr.
		www.simpsonengr. LICENSURE NO.C-2

REPAIR QU	ANT	ITY -	ΓABL	.E		
REPAIRS SPAN 2 GRD. 2 GRD. 2 QUANTITIES						
	EST	IMATE		ACTUAL	-	
REPAIRS OF PRESTR. CONCRETE GIRDERS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF	Ε
GIRDER	0.0	0.0				
EPOXY RESIN INJECTION					LF	
GIRDER	0.0					

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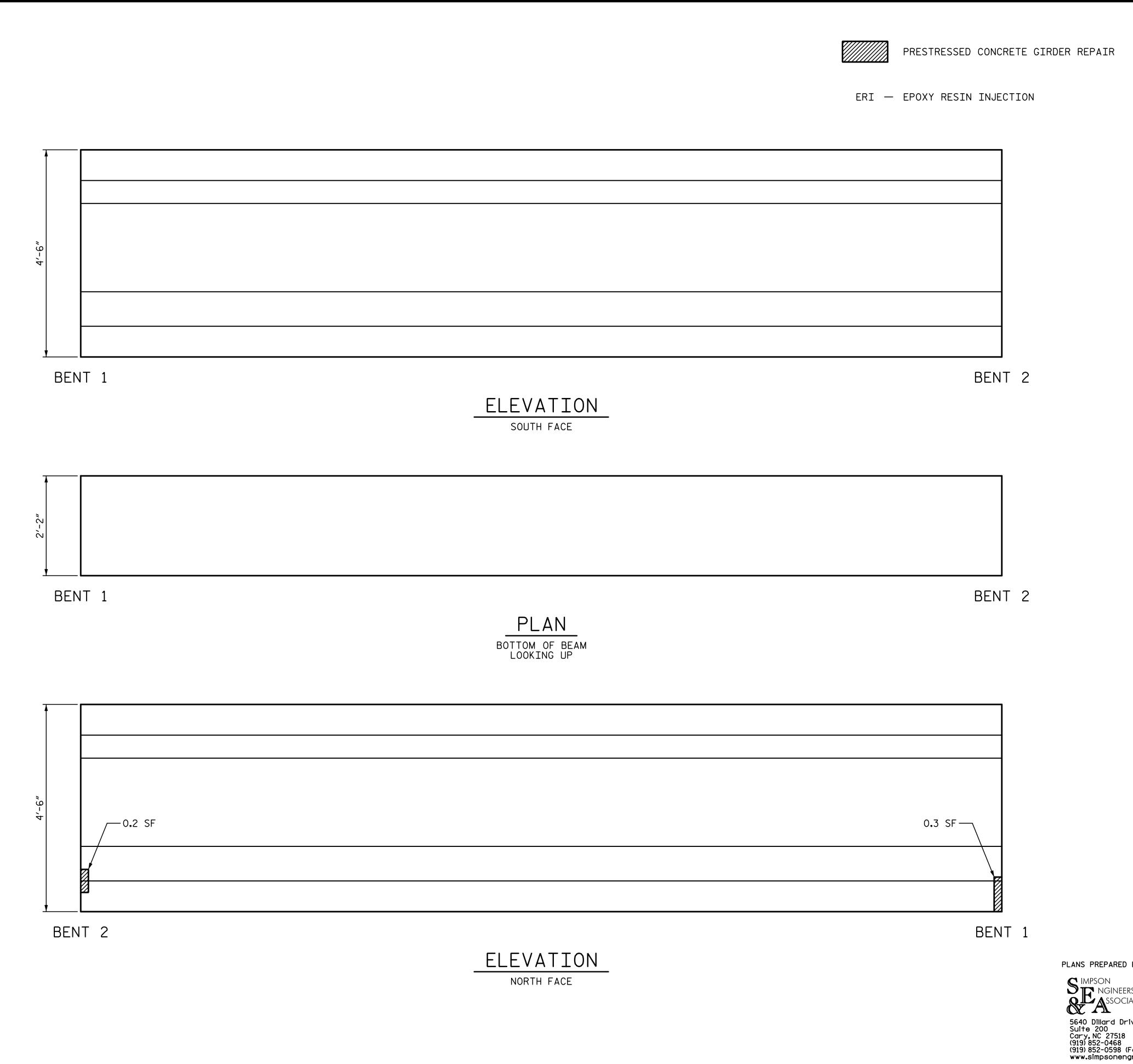
FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

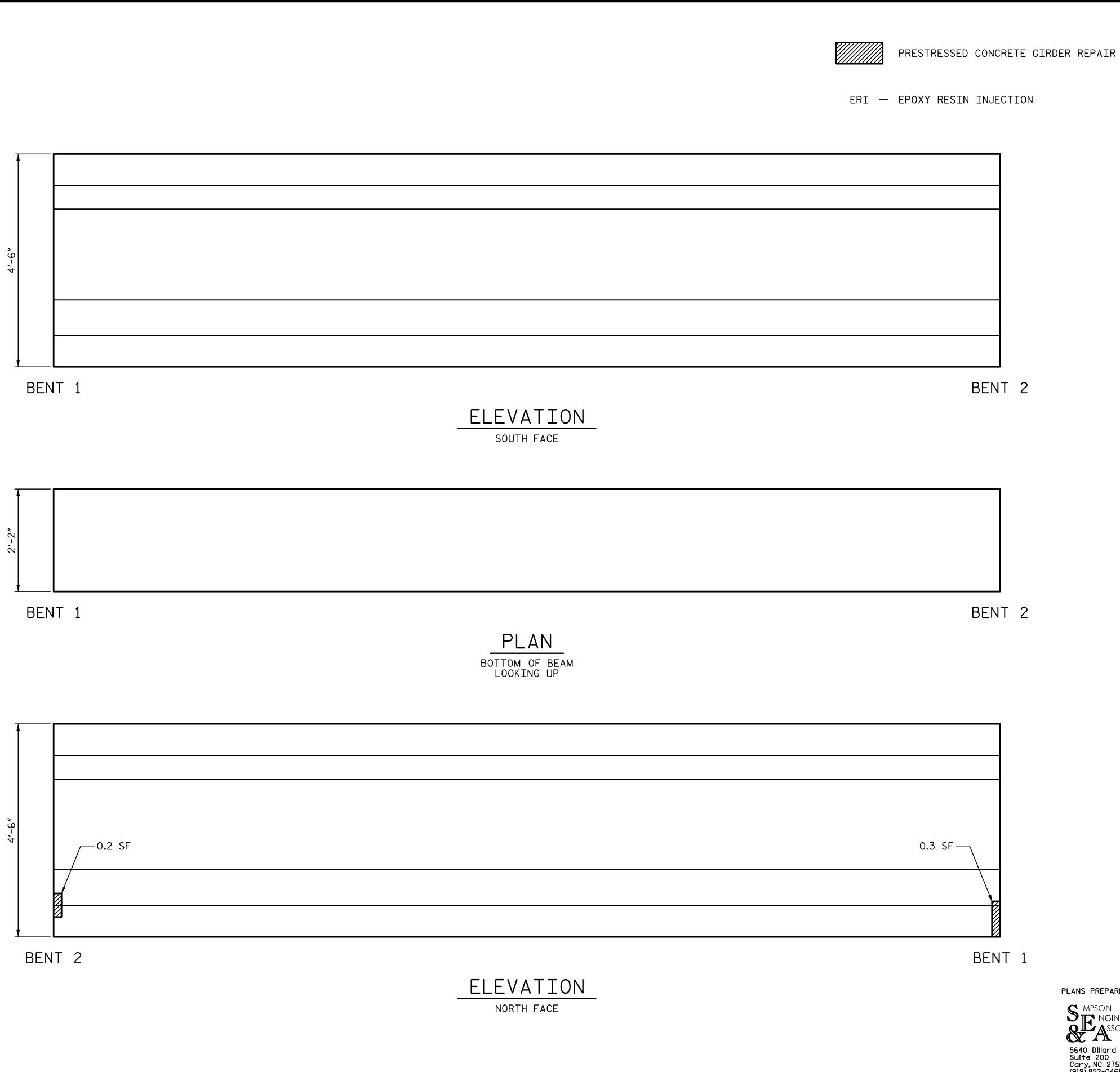
VALUES IN CHART REPRESENT ESTIMATE REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN, OF 1" BEHIND REBAR AND MIN. 2"CL. TO SAWCUT. SEE REPAIR DETAILS.

FOR REPAIRS OF PRESSTRESSED CONCRETE GIRDERS, SEE SPECIAL PROVISIONS.

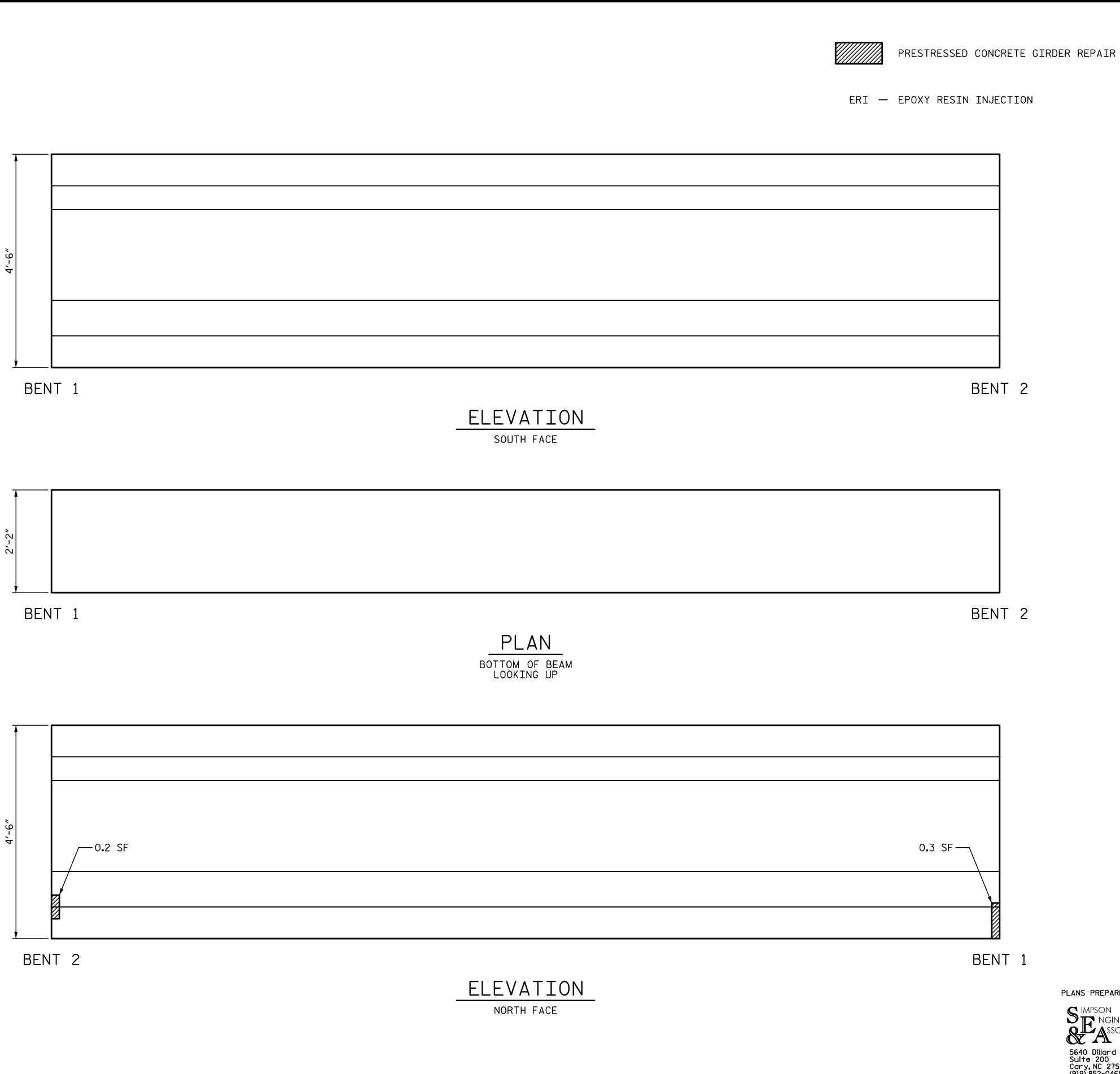
FOR REPAIRS OF PRESTRESSED CONCRETE GIRDERS DETAILS, SEE "PRESTRESSED CONCRETE GIRDER REPAIR DETAILS" SHEET.

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PLANS PREPARED BY:		DEPA	RTMENT	OF NORTH CAF OF TRA RALEIGH SERVA	NSPORTA	TION
SIMPSON NGINEERS SSOCIATES 5640 Dillard Drive Suite 200 Cary, NC 27518 (919) 852-0468 (919) 852-0598 (Fax)	Docesting Hy CARO/ two performance A6B1 Dectors Jon SEAL 24390 MGINEER		_	PAN RDER		
www.simpsonengr.com	9/29/2020		REVIS	IONS		SHEET NO.
LICENSURE NO. C-2521	5/ 25/ 2020	NO. BY:		NO. BY:	DATE:	S1-39
DOCUMENT NOT CO		1		3		TOTAL SHEETS
UNLESS ALL SIGNATU	JRES COMPLETED	2		4)		163











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28/	DRAWN BY:	T.BANKOVICH		DATE:	9-20
	CHECKED BY:	T.J. BEACH		DATE:	9-20
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REPAIR QUANTITY TABLE									
REPAIRS SPAN 2 GRD. 3			UANTIT	IES					
INELIATING SI AN 2 OND: 5	EST	IMATE		ACTUAL					
REPAIRS OF PRESTR. CONCRETE GIRDERS	AREA SF	VOLUME CF	E AREA DEPTH SF FT		VOLUME CF				
GIRDER	0.5	0.2							
EPOXY RESIN INJECTION					LF				
GIRDER 0.0									

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

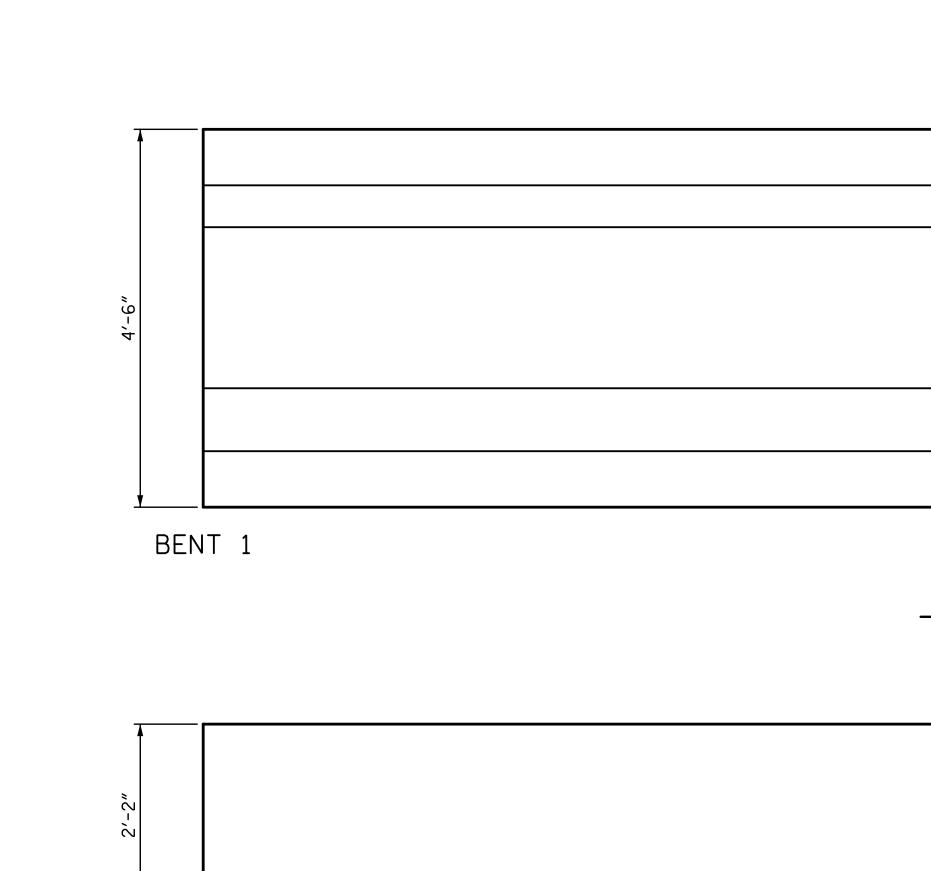
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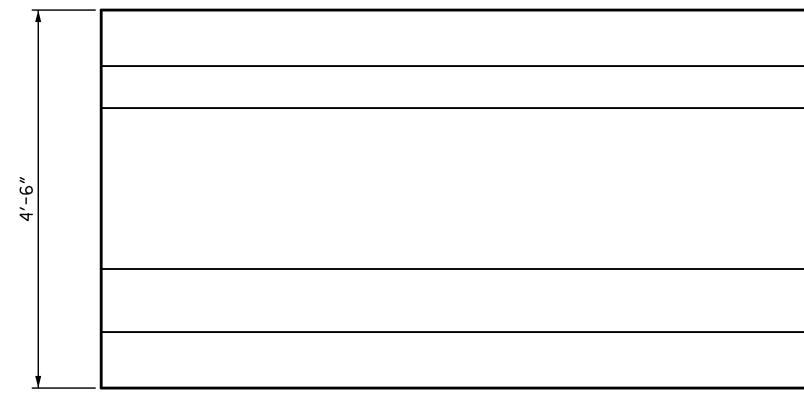
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		PROJEC <u>NEW</u> BRIDGE	IANOVE E NO.:	<u>R/P</u>	END	<u>BPR.2</u> ER_CC 10048	DUNTY
PLANS PREPARED BY: Simpson Ngineers			sta∵ RTMENT PRE	ISER	TRAN Eigh VAT	ISPORTA	TION
5640 Dillard Drive Suite 200 Cary, NC 27518 (919) 852-0468 (919) 852-0598 (Fax) www.simpsonengr.com	Dect spiner Barnov AGE BEST 5245B SEAL 24390 J. BEACTION 9/29/2020	SPAN 2 GIRDER 3 REVISIONS SHEET NO.					
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UNLESS ALL SIGNATU		2		4			163









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28/	DRAWN BY:	T. BANKOVICH		_ DATE: <u>9-20</u>
6	CHECKED BY:	<u> </u>		_ DATE: <u>9-20</u>
01	DESIGN ENGI	NEER OF RECORD:	T.J. BEACH	_ DATE: <u>9-20</u>

		PRESTRESSED CONCRETE GIRDER REPAIR
	ERI —	EPOXY RESIN INJECTION
ELEVATION		BENT 2
SOUTH FACE		
PLAN		BENT 2
BOTTOM OF BEAM LOOKING UP		
		BENT 1
ELEVATION NORTH FACE		PLANS PREPARED BY
		5640 Dillard Drive Suite 200 Cary, NC 27518 (919) 852-0468 (919) 852-0598 (Fax www.simpsonengr.
		www.simpsonengr. LICENSURE NO.C-2

REPAIR QUANTITY TABLE									
REPAIRS SPAN 2 GRD. 4			Q	UANTIT	IES				
ILLI AINS SI AN 2 OND. 4	EST	IMATE			ACTUAL				
REPAIRS OF PRESTR. CONCRETE GIRDERS	AREA SF	VOLUM CF	1E	AREA SF	DEPTH FT	v	OLUME CF		
GIRDER	0.0	0.0							
EPOXY RESIN INJECT	ION	LF					LF		
GIRDER	0.0)							

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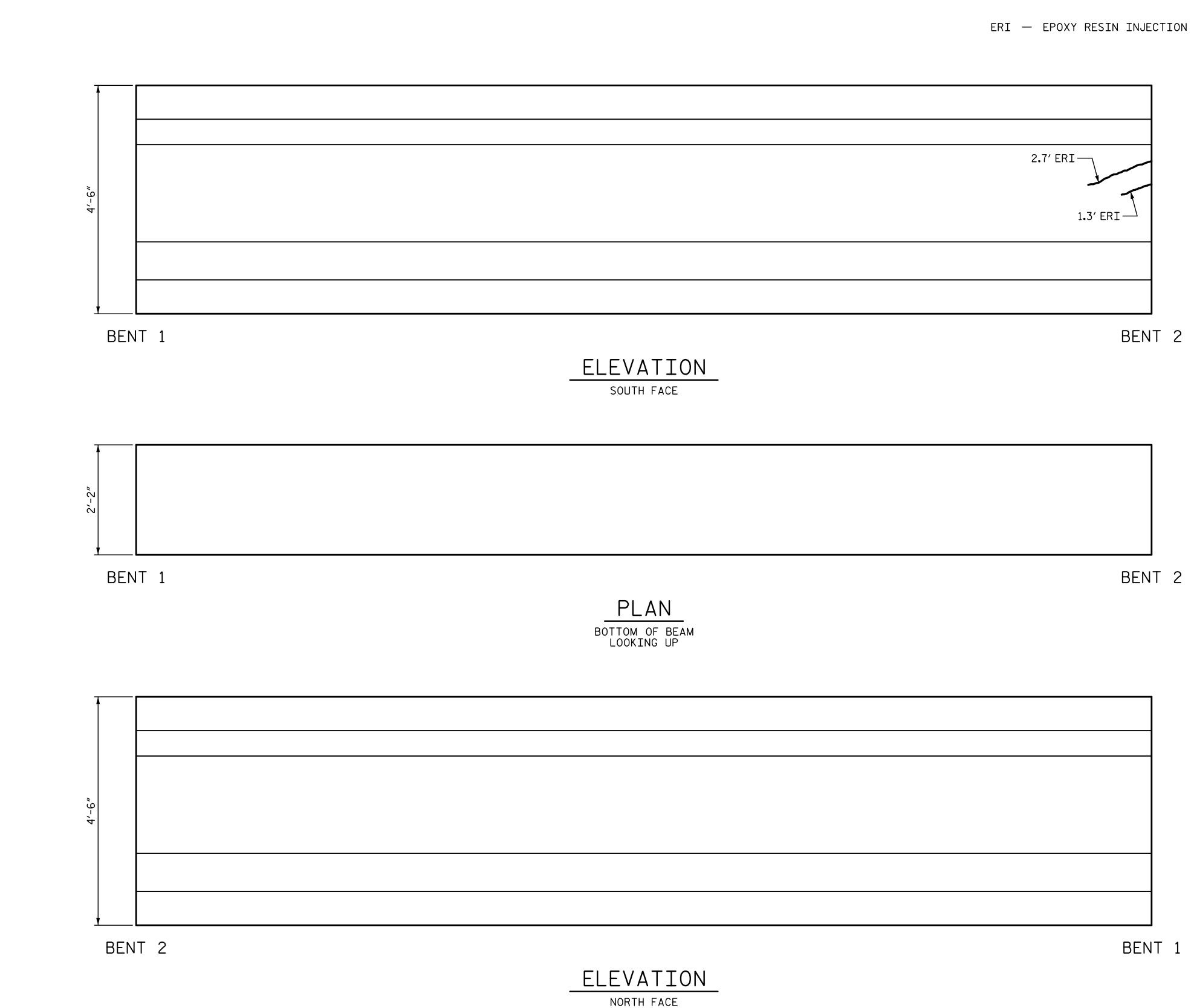
FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

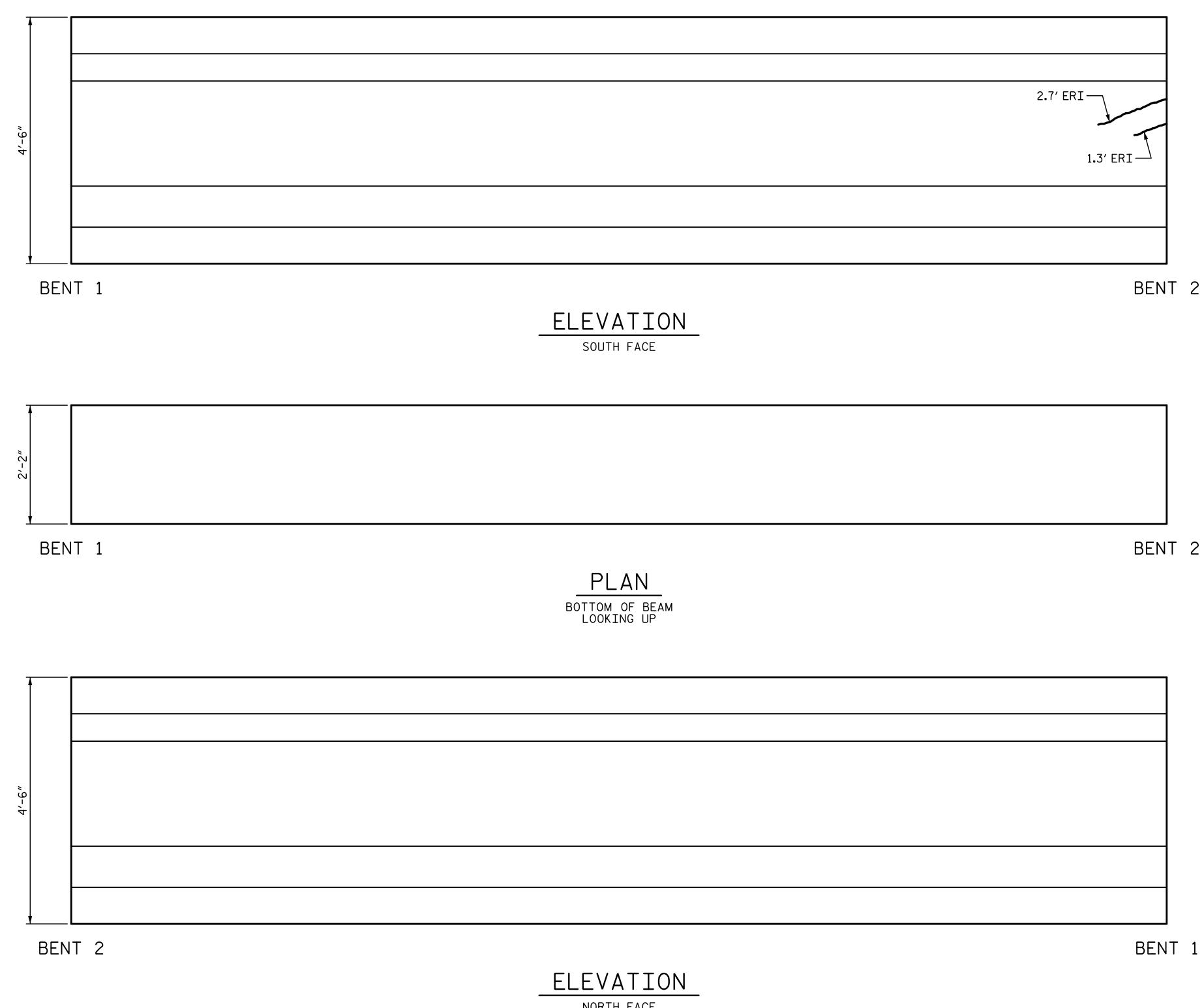
VALUES IN CHART REPRESENT ESTIMATE REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN, OF 1" BEHIND REBAR AND MIN. 2"CL. TO SAWCUT. SEE REPAIR DETAILS.

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FOR REPAIRS OF PRESTRESSED CONCRETE GIRDERS DETAILS, SEE "PRESTRESSED CONCRETE GIRDER REPAIR DETAILS" SHEET.

		PROJEC	CT NO.	15	BPR.2	26
		NEW H	ANOVER	/PEND	DER CO	
		BRIDG	E NO.:	64	40048	3
		SHEET 4	OF 5			
PLANS PREPARED BY:		DEPA	RTMENT	of north car DF TRAI raleigh ERVAT	NSPORTA	TION
SIMPSON NGINEERS SSOCIATES 5640 Dillard Drive Suite 200	AGB10199857524BBAL 24390			PAN RDER		
Cary, NC 27518 (919) 852-0468 (919) 852-0598 (Fax) www.simpsonengr.com LICENSURE NO. C-2521	9/29/2020	NO. BY:	REVISI DATE: N	ONS 0. BY:	DATE:	SHEET NO. S1-41
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	CHECKED BY:	T.J. BEACH		DATE: 9-20
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REPAIR QU	ANT	ITY -	ΓABL	.E		
REPAIRS SPAN 2 GRD. 5			JANTITI			
THE ATTO STATE ONDES	EST	IMATE		ACTUAL	_	
REPAIRS OF PRESTR. CONCRETE GIRDERS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF	
GIRDER	0.0	0.0				
EPOXY RESIN INJECT	ION	LF			LF	
GIRDER		4.0				

NOTES:

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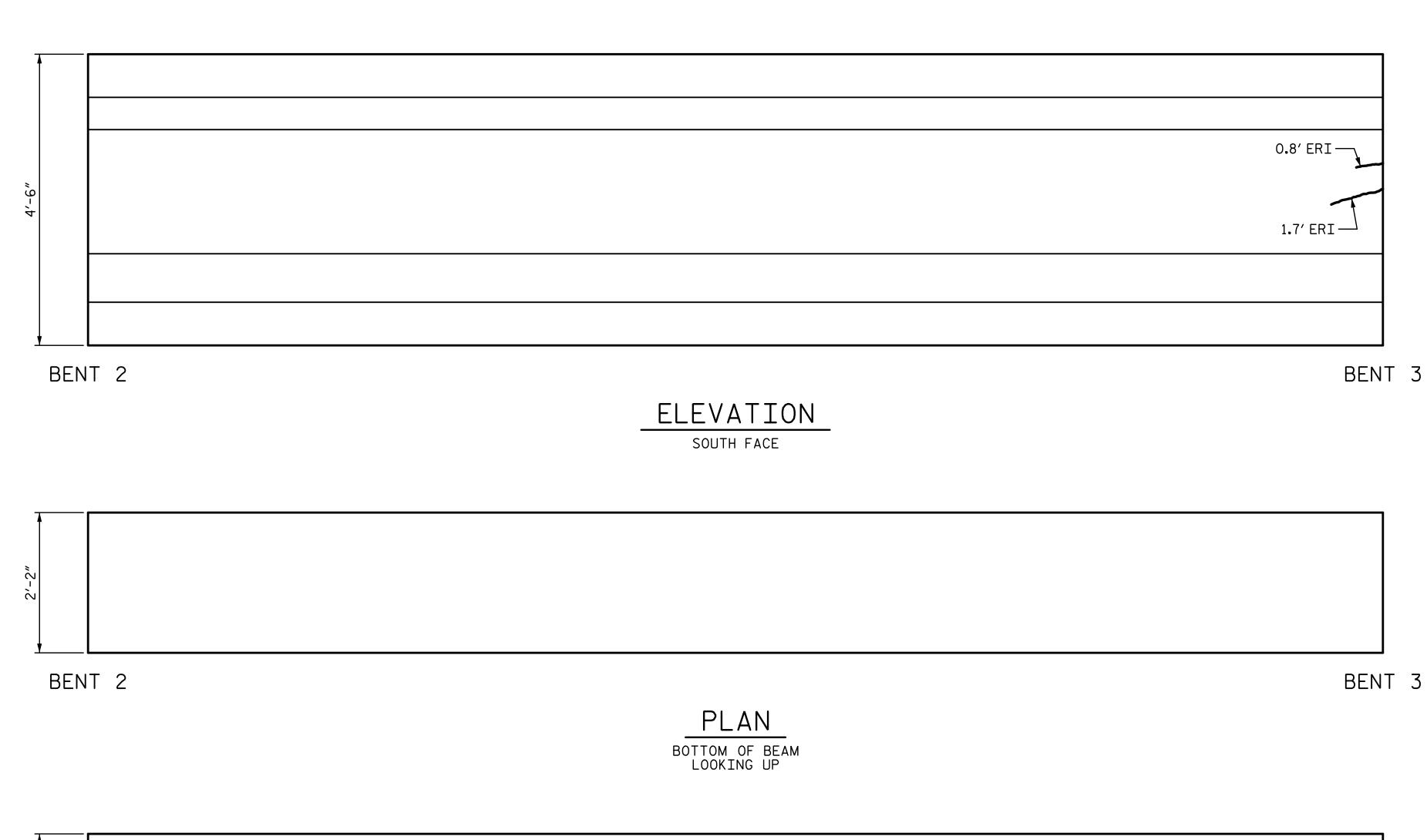
FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

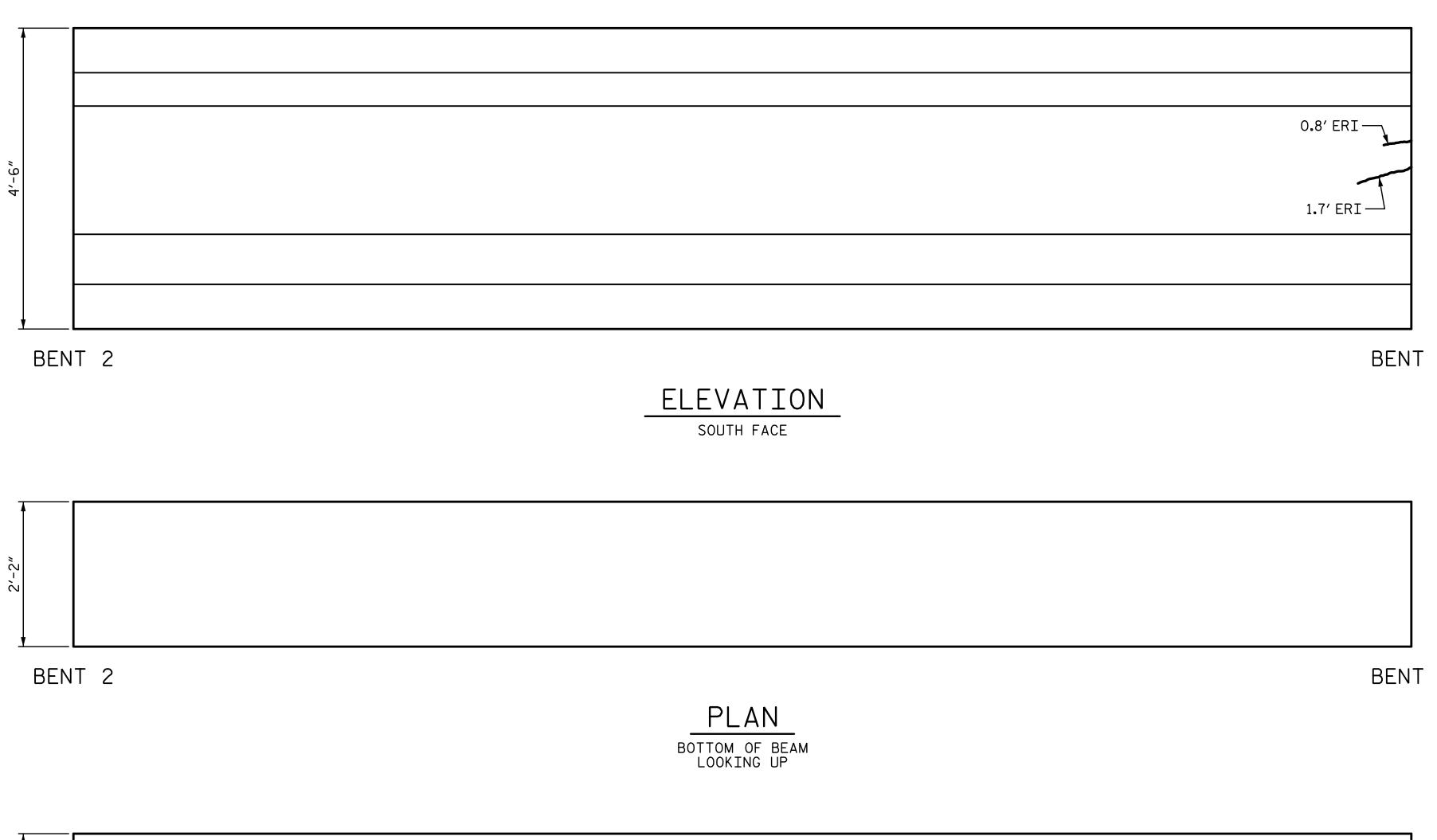
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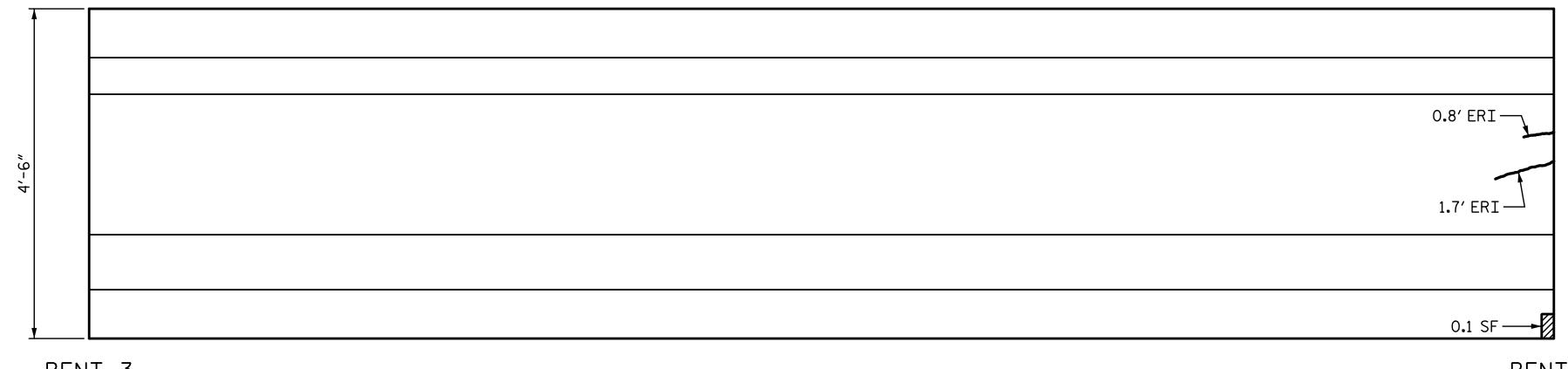
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		BR	IDGE	E NO.:_		04	10048	
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BY:			DEPA	RTMENT	OF ₅	NORTH CARG TRAN RALEIGH RVAT	NSPORTA	TION
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ax) gr.com :-2521	9/29/2020	NO.	BY:	REVIS	SION	S BY:	DATE:	SHEET NO. S1-42
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ERI — EPOXY RESIN INJECTION



PLANS PREPARED S IMPSON NGINEERS SSOCIA 5640 Dillard Driv Suite 200 Cary, NC 27518 (919) 852-0468 (919) 852-0598 (Fe www.simpsonenge LICENSURE NO. C

ELEVATION

NORTH FACE

REPAIR QU	ANT	ITY -	ΓABL	.E			
REPAIRS SPAN 3 GRD.1			JANTITI				
	EST	IMATE		ACTUAL			
REPAIRS OF PRESTR. CONCRETE GIRDERS	AREA SF	VOLUME CF	AREA SF	DEPTH FT		LUME CF	
GIRDER	0.1	0.05					
EPOXY RESIN INJECT	LF				LF		
GIRDER	DER 5.0						

NOTES:

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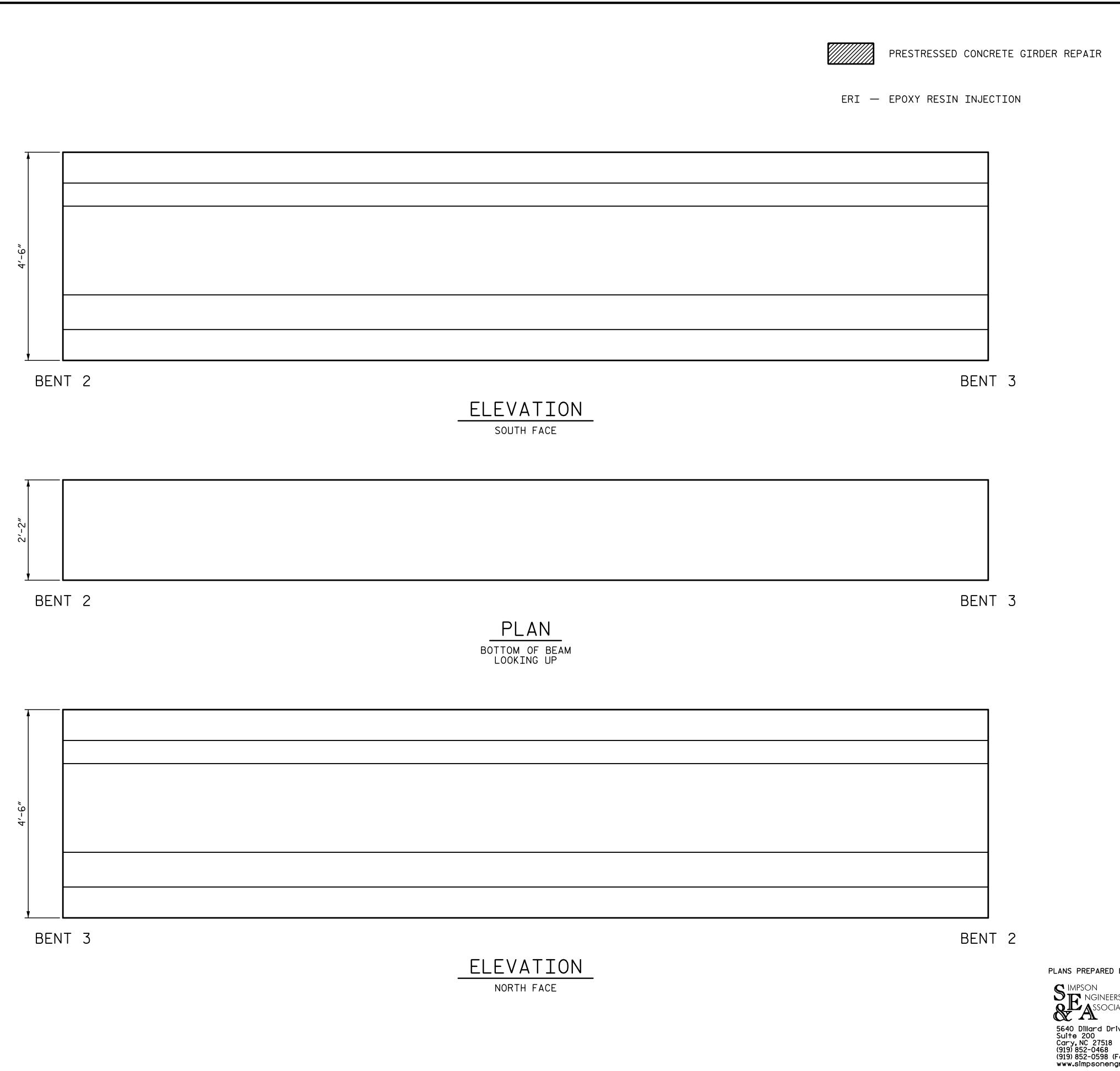
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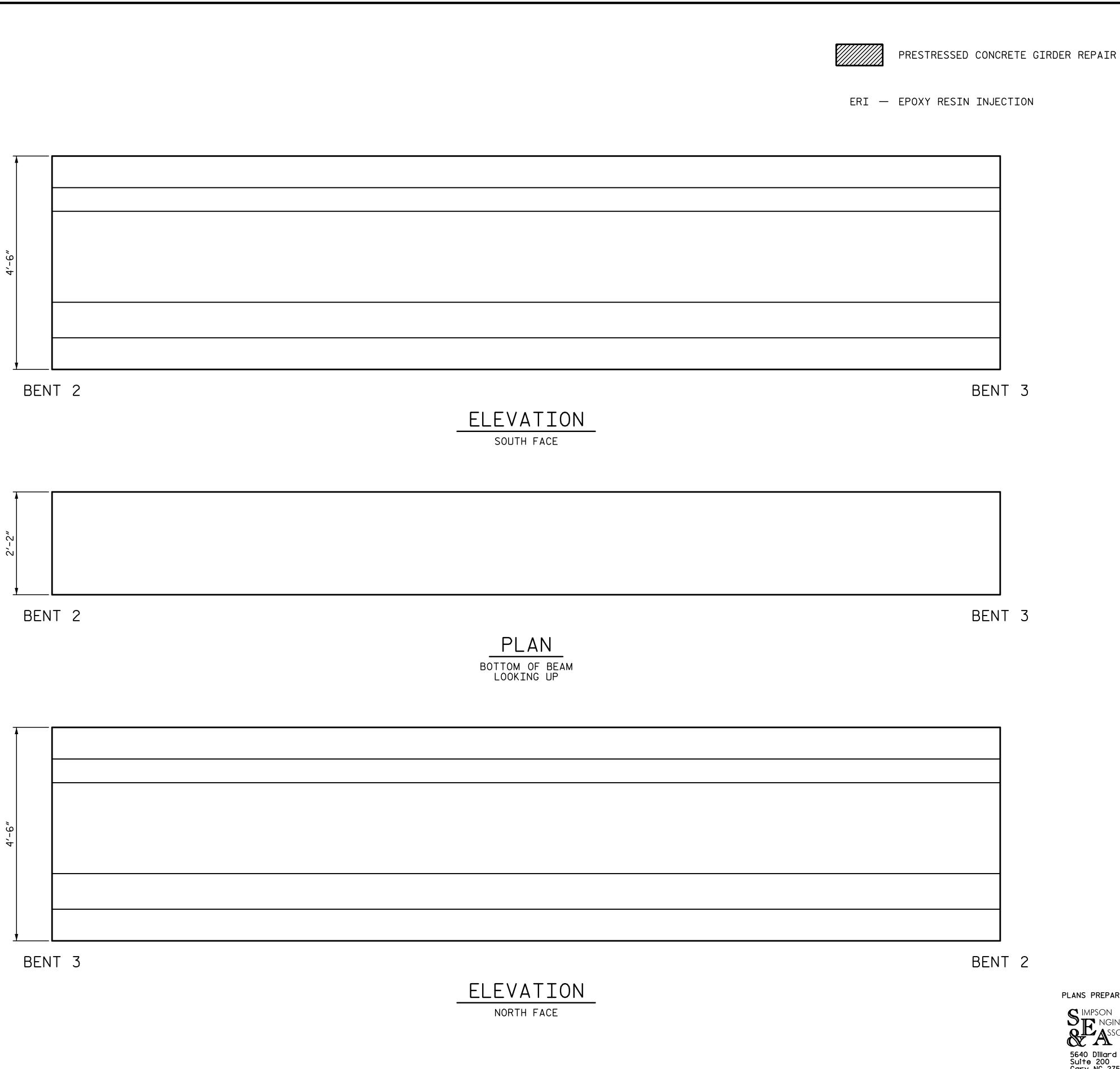
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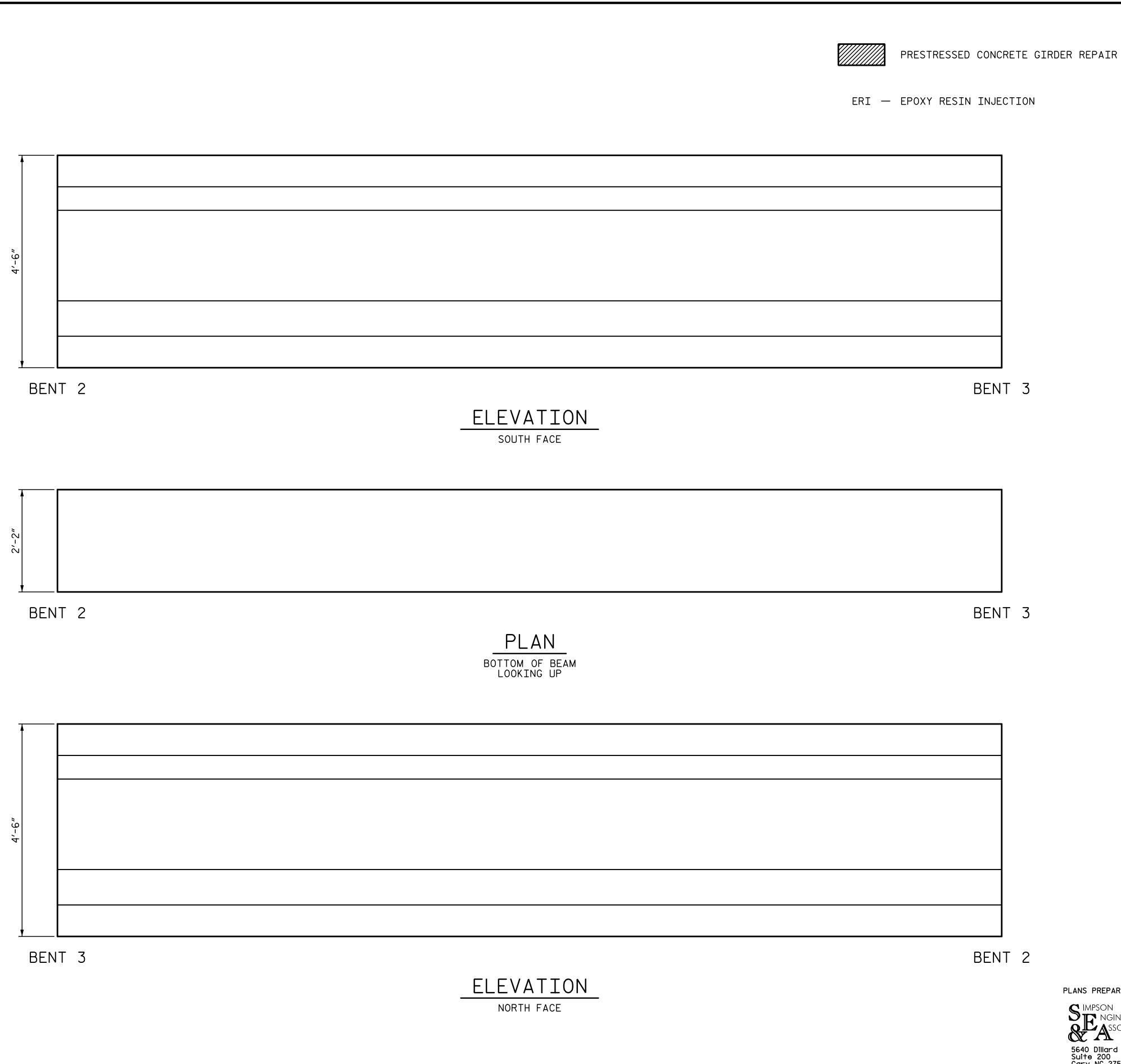
FOR REPAIRS OF PRESTRESSED CONCRETE GIRDERS DETAILS, SEE "PRESTRESSED CONCRETE GIRDER REPAIR DETAILS" SHEET.

	PROJECT NO. <u>15BPR.26</u> <u>NEW HANOVER/PENDER COUNTY</u> BRIDGE NO.: <u>640048</u> SHEET 1 OF 5
S PREPARED BY:	STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH PRESERVATION
IMPSON MGINEERS SSOCIATES ABB SSOCIATES ABB SSOCIATES ABB SSOCIATES ABB SSOCIATES ABB SSOCIATES ABB SSOCIATES SEAL 24390 CINEER SEAL 24390 CINEER SSOCIATES SEAL 24390 CINEER SSOCIATES SEAL 24390 CINEER SSOCIATES SEAL CINEER SEAL CINEER SEAL CINEER SEAL CINEER SEAL CINEER SEAL CINEER SEAL CINEER SEAL CINEER SEAL CINEER SEAL CINEER SSOCIATES SEAL CINEER SEAL CINEER SSOCIATES SEAL CINEER SSOCIATES SEAL CINEER SEAL CINEER SSOCIATES SEAL CINEER SSOCIATES SSOCIATES SEAL CINEER SSOCIATES SSOCIATES SEAL CINEER SSOCIATES SSOCIATES SSOCIATES SEAL CINEER SSOCIATES SSOC	SPAN 3 GIRDER 1
w.simpsonengr.com 9/29/2020	REVISIONS SHEET NO.
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REPAIR QUANTITY TABLE							
REPAIRS SPAN 3 GRD. 2			UANTIT				
REFAINS SFAN 5 ONDER	EST	IMATE		ACTUAL			
REPAIRS OF PRESTR. CONCRETE GIRDERS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF		
GIRDER	0.0	0.0					
EPOXY RESIN INJECT	ION	LF			LF		
GIRDER		0.0					

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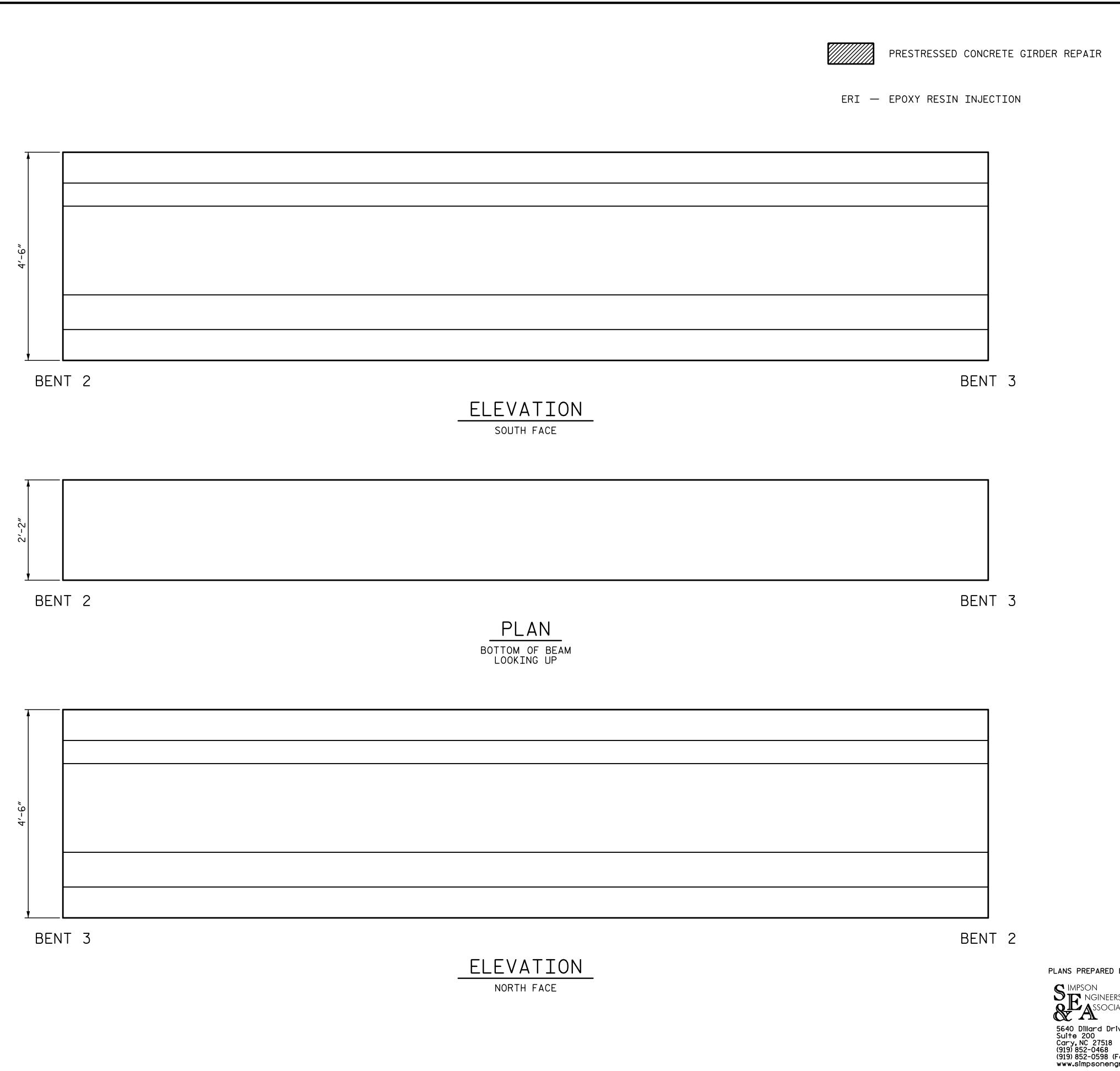
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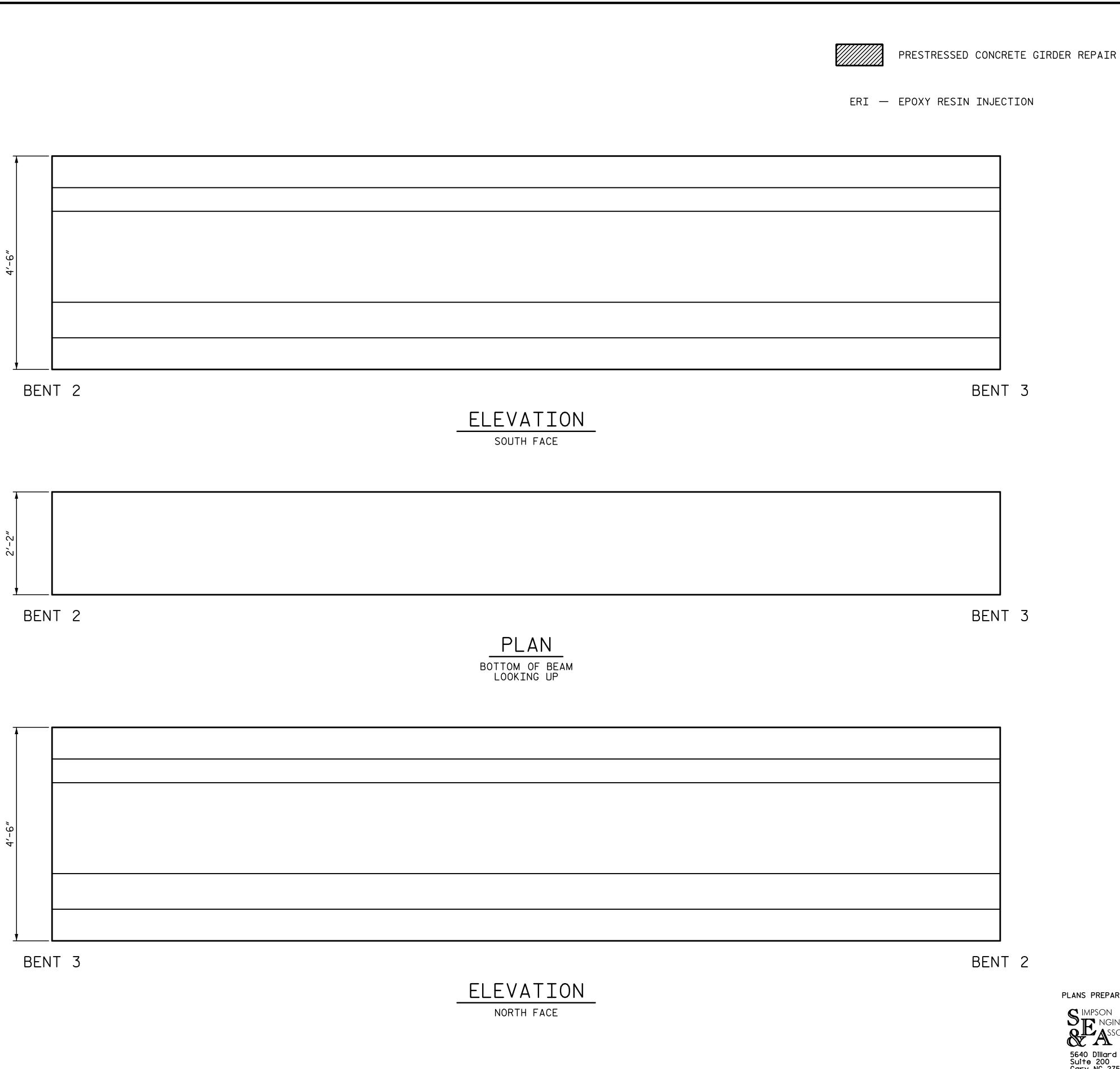
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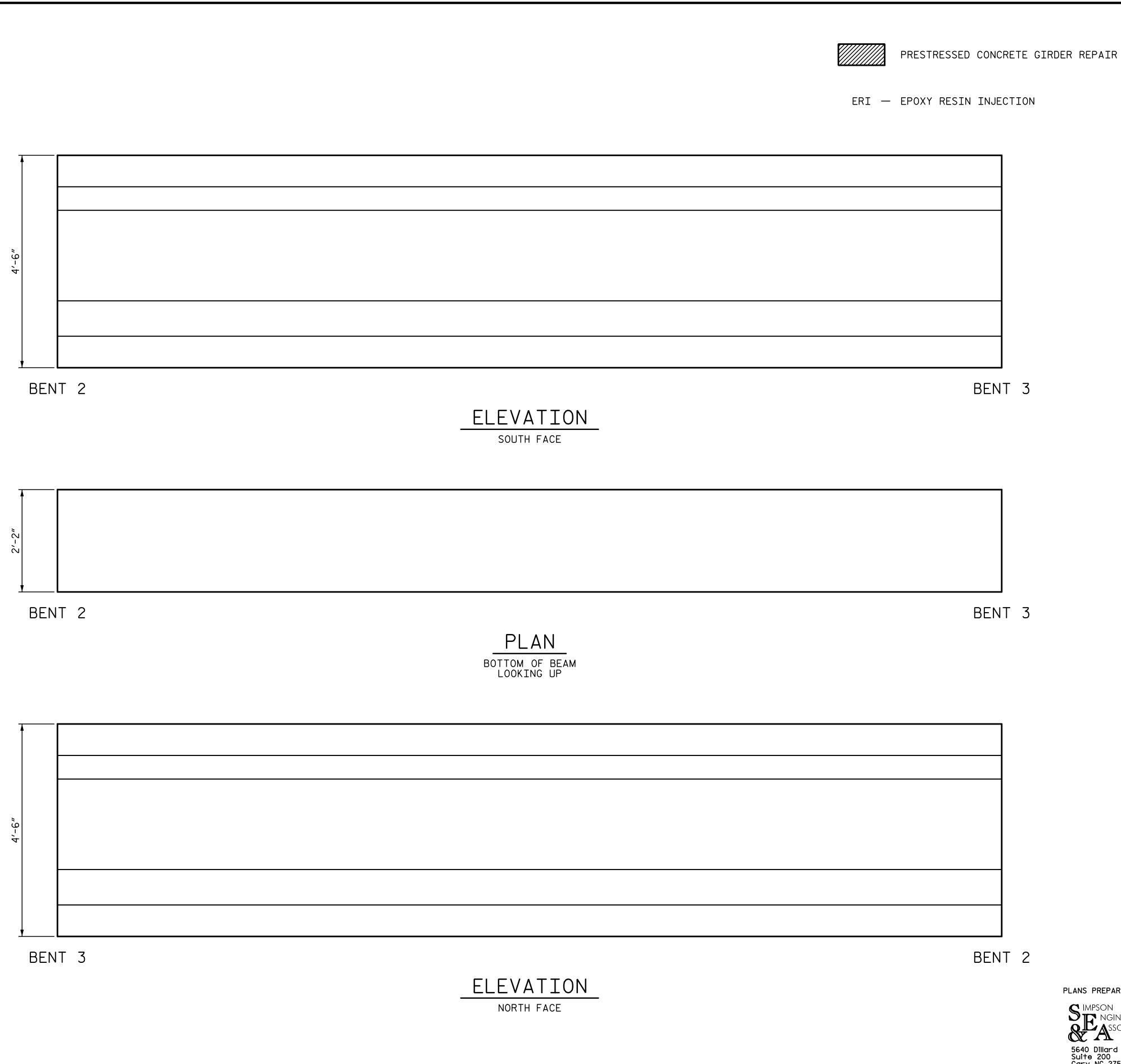
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PLANS PREPARED BY:		DEP	PARTMENT	TE OF NORTH OF OF TR RALEIGH ESERVA	ANSPORT	ATION
SIMPSON NGINEERS SSOCIATES 5640 Dillard Drive Suite 200 Cary, NC 27518 (919) 852-0468 (919) 852-0598 (Fax)	AGBOSOUBSTROAM AGBOSOUBSTROAM AGBOSOUBSTROAM SEAL 24390	SPAN 3 GIRDER 2				
www.simpsonengr.com	9/29/2020		REVI	ISIONS		SHEET NO.
LICENSURE NO. C-2521		NO. BY:	DATE:	NO. BY:	DATE:	S1-44
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REPAIR QUANTITY TABLE							
REPAIRS SPAN 3 GRD. 3		C	UANTIT	IES			
ILLI ATINS SI AN S GIU. S	EST	IMATE		ACTUAL	-		
REPAIRS OF PRESTR. CONCRETE GIRDERS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF		
GIRDER	0.0	0.0					
EPOXY RESIN INJECT	ION	LF			LF		
GIRDER 0.0							

NOTES:

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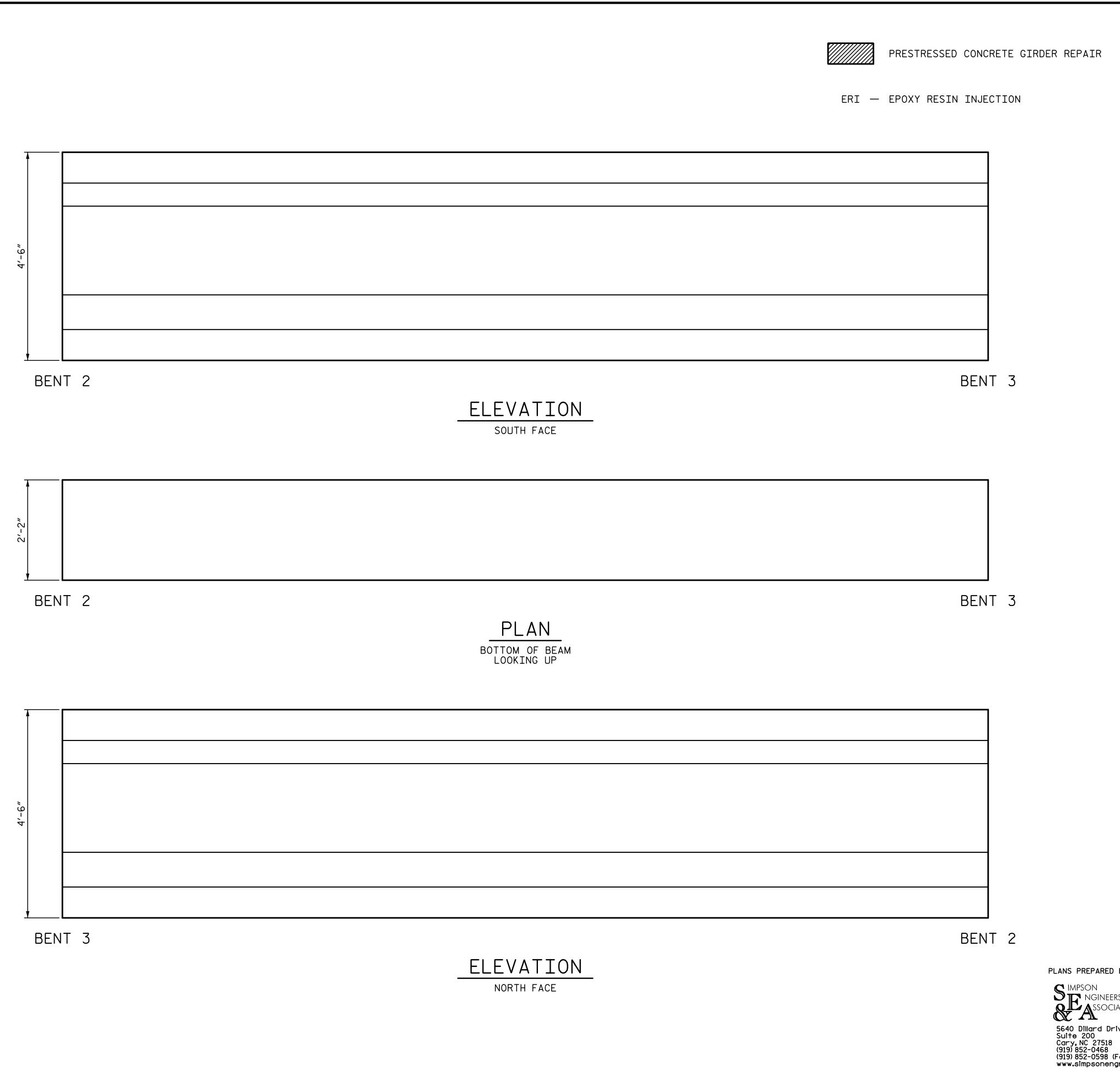
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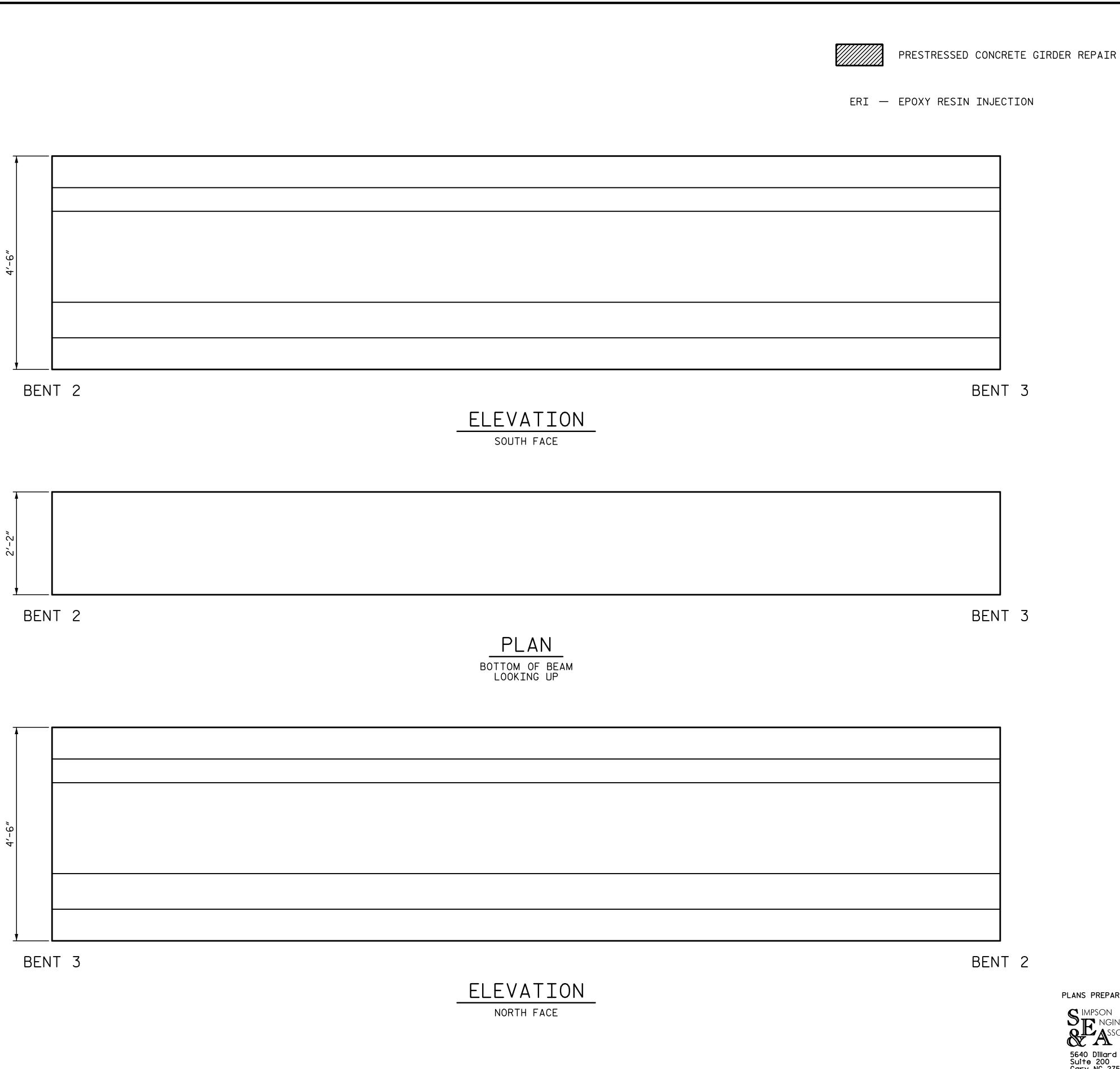
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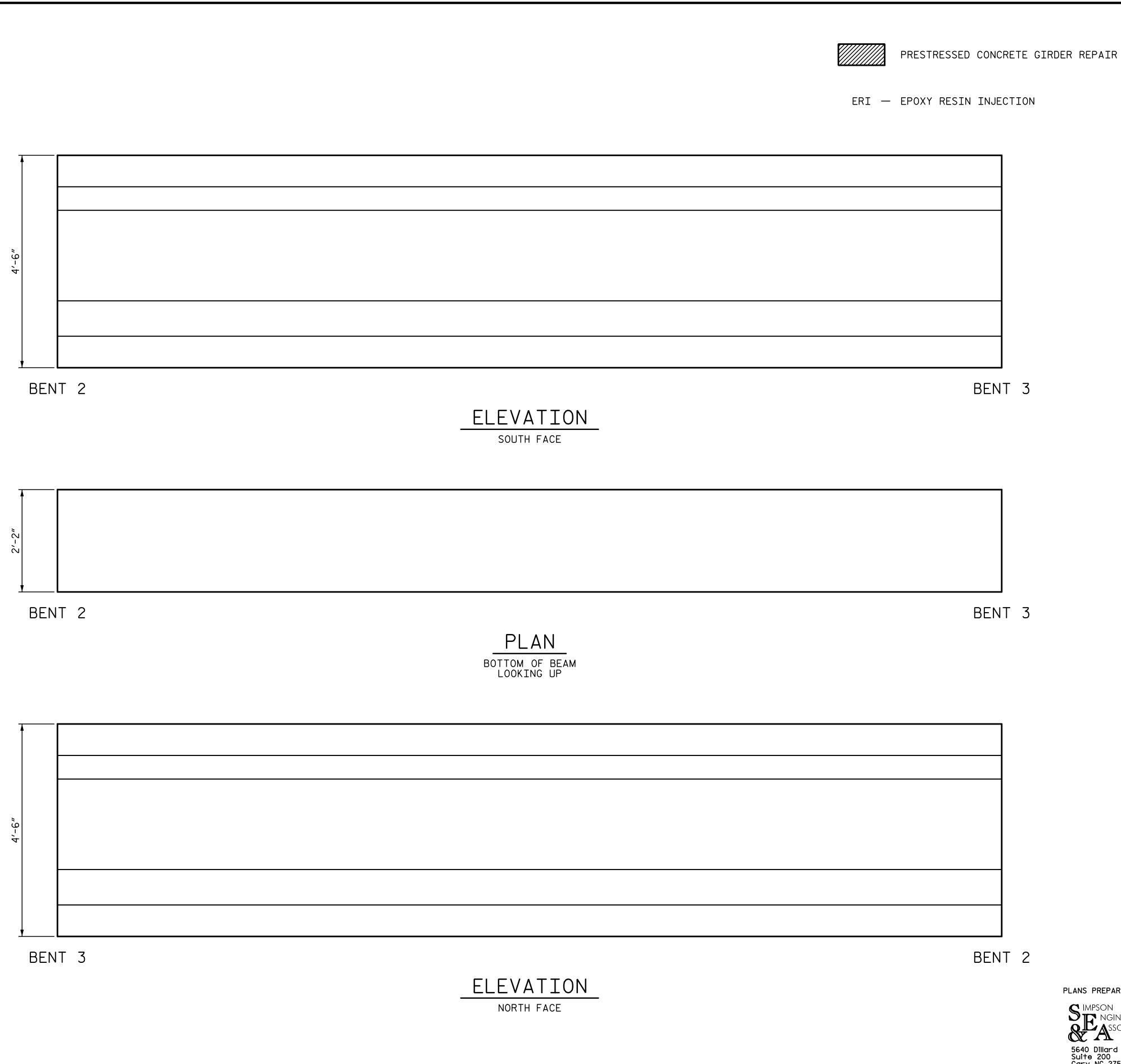
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PLANS PREPARED BY:		DEPA	RTMENT (DF NORTH CAR DF TRAI RALEIGH ERVAT	NSPORTA	TION
SIMPSON NGINEERS SSOCIATES 5640 Dillard Drive Suite 200 Cary, NC 27518 (919) 852-0468 (919) 852-0598 (Fax)	AGB HORESTSALE LAGE HORESTSALE AGB HORESTSALE LAGE HORESTSALE	SPAN 3 GIRDER 3				
www.simpsonengr.com	9/29/2020		REVISI	ONS		SHEET NO.
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28/	DRAWN BY:	T. BANKOVICH		DATE:	9-20
	CHECKED BY:	T.J. BEACH		DATE:	9-20
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REPAIR QUANTITY TABLE							
REPAIRS SPAN 3 GRD. 4			Ql	JANTITI	IES		
REFAIRS SPAN 5 GRD. 4	EST	IMATE			ACTUAL		
REPAIRS OF PRESTR. CONCRETE GIRDERS	REPAIRS OF PRESTR. CONCRETE GIRDERSAREA SFV		-	AREA SF	DEPTH FT	v	OLUME CF
GIRDER	0.0	0.0					
EPOXY RESIN INJECTION							LF
GIRDER		0.0					

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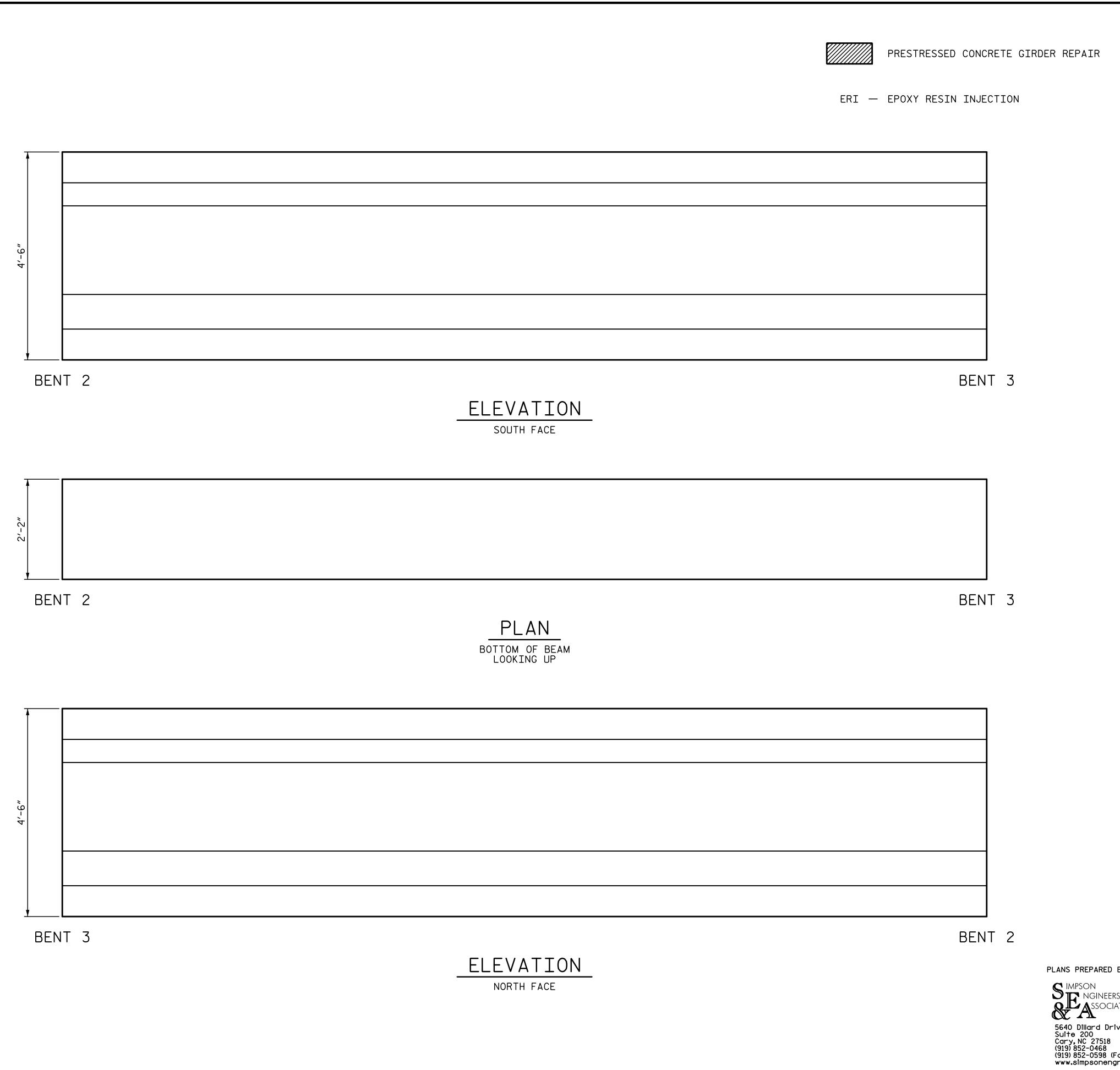
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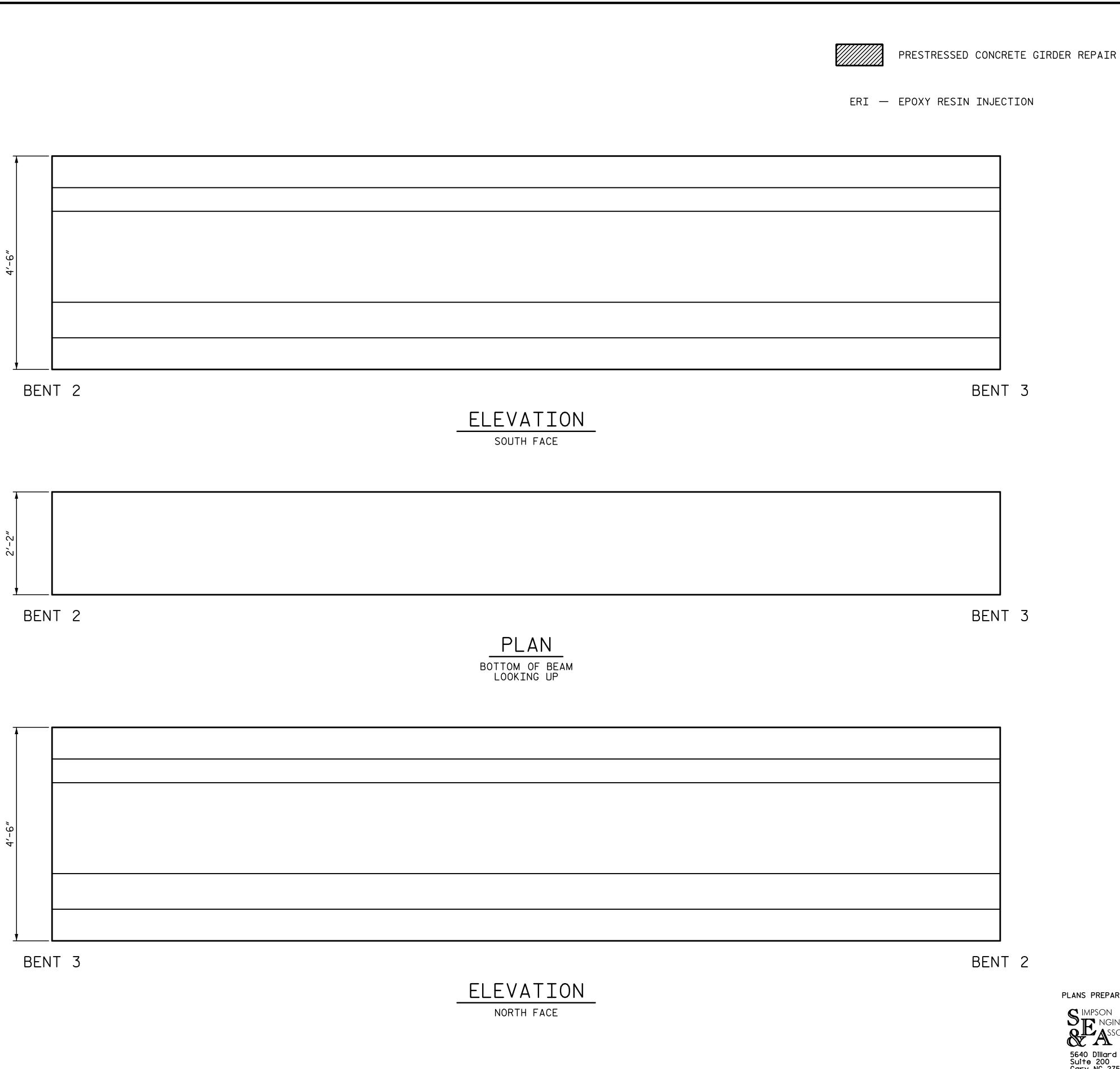
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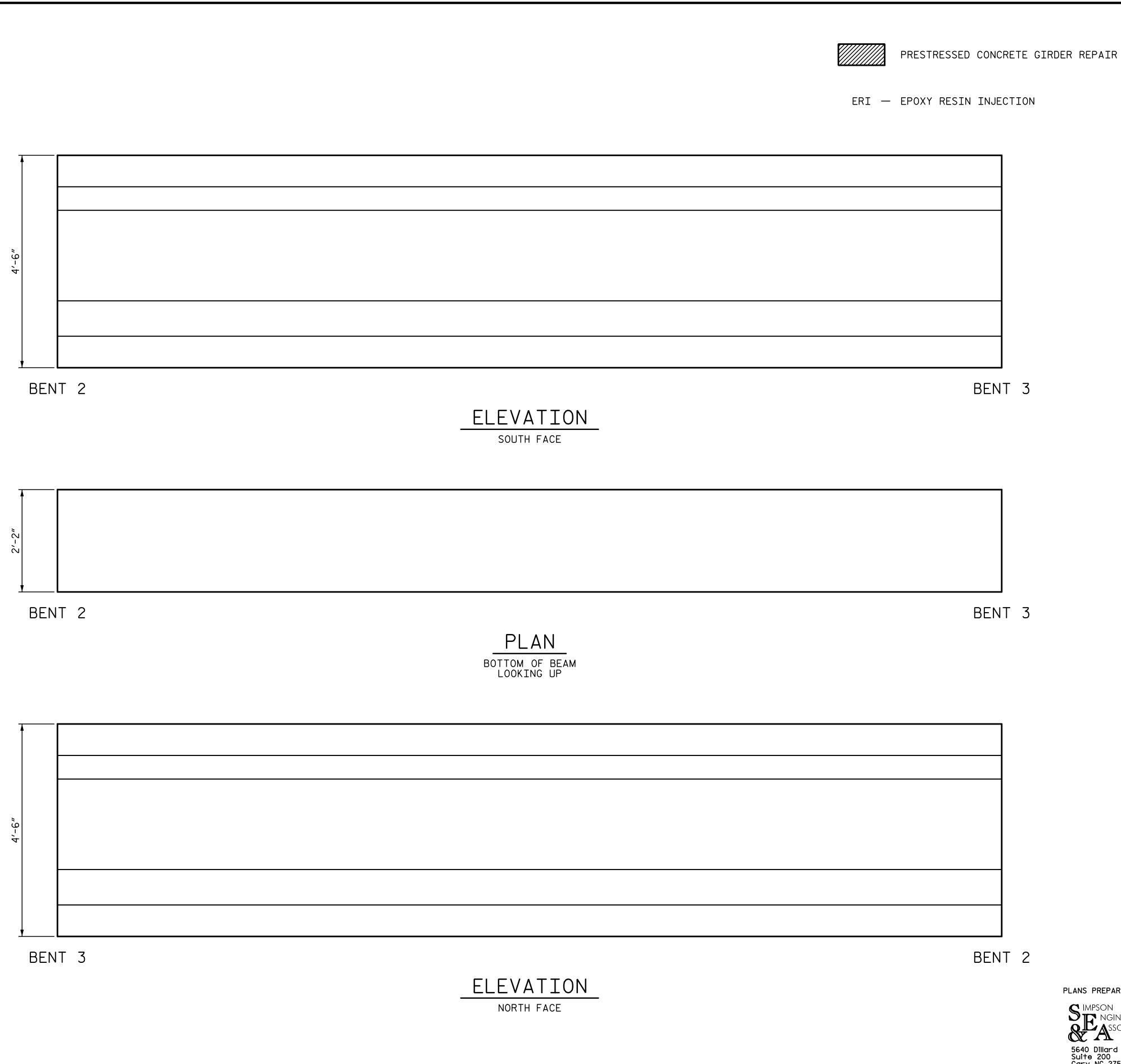
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		BRIDG	E NO .:	64	40048	<u>}</u>
		SHEET 4	OF 5			
PLANS PREPARED BY:		DEPA	RTMENT (OF NORTH CAR DF TRAI RALEIGH ERVAT	NSPORTA	TION
Simpson NGINEERS SSOCIATES 5640 Dillard Drive Suite 200 Cary, NC 27518 (919) 852-0468	AGB BOOLESTS ALE AGB BOOLESTS ALE AGB BOOLESTS ALE SEAL 24390			PAN RDER		
(919)852-0468 (919)852-0598 (Fax) www.simpsonengr.com	9/29/2020		REVISI	ONS		SHEET NO.
LICENSURE NO. C-2521	9/29/2020	NO. BY:	DATE: N		DATE:	S1-46
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28/	DRAWN BY:	T.BANKOVICH		DATE:	9-20
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REPAIR QUANTITY TABLE							
REPAIRS SPAN 3 GRD. 5			QUANTI	TIES			
ILLI AINS SI AN S GIU. S	EST	IMATE		ACTUA	L		
REPAIRS OF PRESTR. CONCRETE GIRDERS	REPAIRS OF PRESTR. AREA V CONCRETE GIRDERS		AREA SF		VOLUME CF		
GIRDER	0.0	0.0					
EPOXY RESIN INJECTION					LF		
GIRDER							

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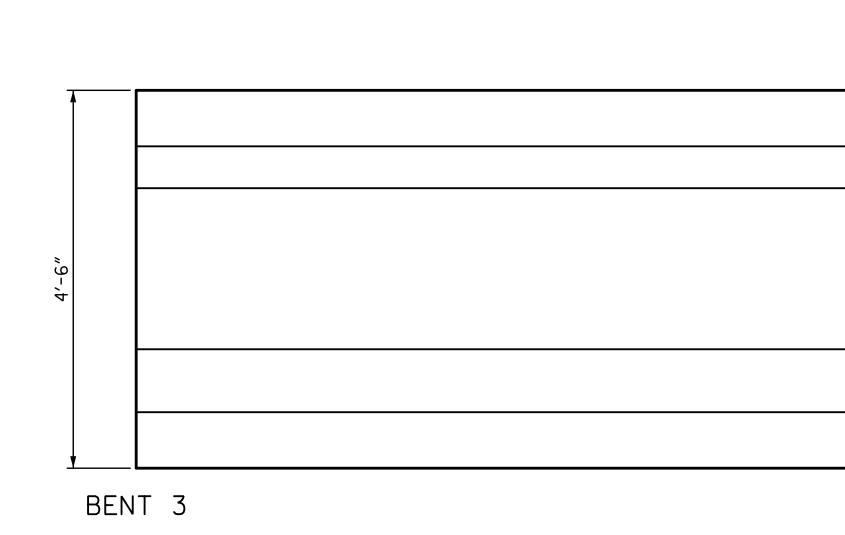
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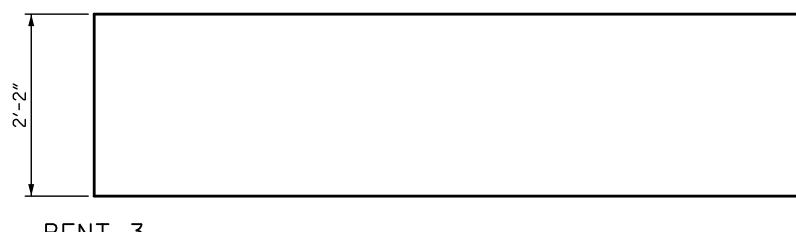
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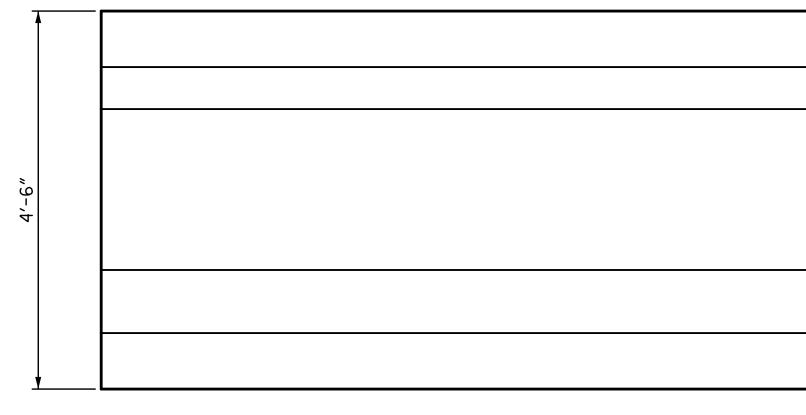
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PLANS PREPARED BY:		DEPA	STA RTMENT	TE OF NORTH OF TR RALEIGH SERV	ANSPO		ION
Simpson NGINEERS SSOCIATES 5640 Dillard Drive Suite 200 Cary, NC 27518 (919) 852-0468	AGB UNDESTIGATION SEAL 24390			SPAN IRDE			
(919) 852-0598 (Fax) www.simpsonengr.com	9/29/2020		REVI	SIONS			SHEET NO.
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	PRESTRESSED CONCRETE GIRDE	R REPAIR
	ERI — EPOXY RESIN INJECTION	
	BENT 4	
ELEVATION		
SOUTH FACE		
	BENT 4	
PLAN BOTTOM OF BEAM		
BOTTOM OF BEAM LOOKING UP		
	BENT 3	
ELEVATION NORTH FACE	F	PLANS PREPARED B
		5640 Dillard Drive Suite 200 Cary, NC 27518 (919) 852-0468 (919) 852-0598 (Fa: www.simpsonengr.
		LICENSURE NO. C-2

REPAIR QUANTITY TABLE							
REPAIRS SPAN 4 GRD.1	ГСТ	QUANTITIES ESTIMATE ACTUAL					
	ESI				-		
REPAIRS OF PRESTR. AREA V CONCRETE GIRDERS SF		VOLUME CF	AREA SF	DEPTH FT	VOLUME CF		
GIRDER	0.0	0.0					
EPOXY RESIN INJECTION					LF		
GIRDER	0.0						

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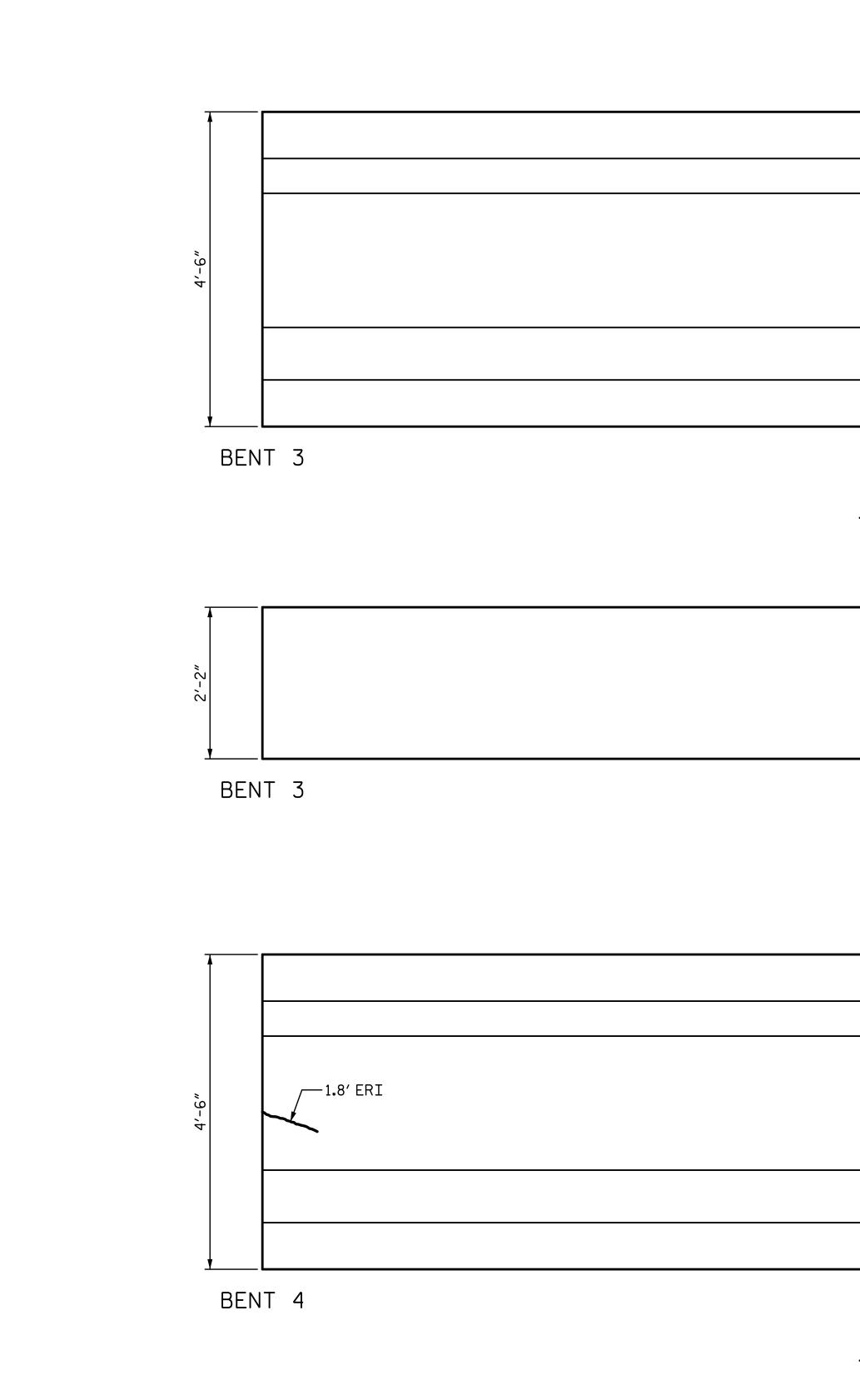
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SIMPSON NGINEERS SSOCIATES 5640 Dillard Drive Suite 200 Cary, NC 27518 (919) 852-0468 (919) 852-0598 (Fax)	Docustemethy CARO/ LEUD CEARES 10, A6B13 DE575245B SEAL 24390 MGINEEL			PAN RDEF	-	
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28/	DRAWN BY:	T. BANKOVICH		DATE:	9-20	
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		PRESTRESSED CONCRETE GIRDER REPAIR
	ERI —	EPOXY RESIN INJECTION
		BENT 4
ELEVATION SOUTH FACE		
		BENT 4
PLAN		
BOTTOM OF BEAM LOOKING UP		
		1.8' ERI
		0.1 SF
		BENT 3
ELEVATION NORTH FACE		PLANS PREPARED BY SIMPSON NGINEERS
		5640 Dillard Drive Suite 200 Cary, NC 27518 (919) 852-0468 (919) 852-0598 (Fax www.simpsonengr. LICENSURE NO. C-2

REPAIR QUANTITY TABLE										
REPAIRS SPAN 4 GRD. 2			UANTIT							
THE ATTOS STAR TORDER	EST	IMATE		ACTUAL	-					
REPAIRS OF PRESTR. CONCRETE GIRDERS		VOLUME CF	AREA SF	DEPTH FT	VOLUME CF					
GIRDER	0.1	0.05								
EPOXY RESIN INJECTION					LF					
GIRDER		3.6								

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

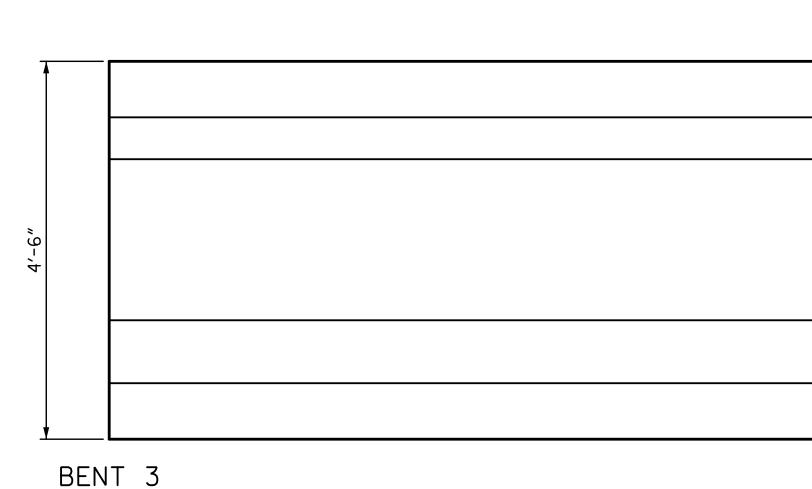
FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

VALUES IN CHART REPRESENT ESTIMATE REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN, OF 1" BEHIND REBAR AND MIN. 2"CL. TO SAWCUT. SEE REPAIR DETAILS.

FOR REPAIRS OF PRESSTRESSED CONCRETE GIRDERS, SEE SPECIAL PROVISIONS.

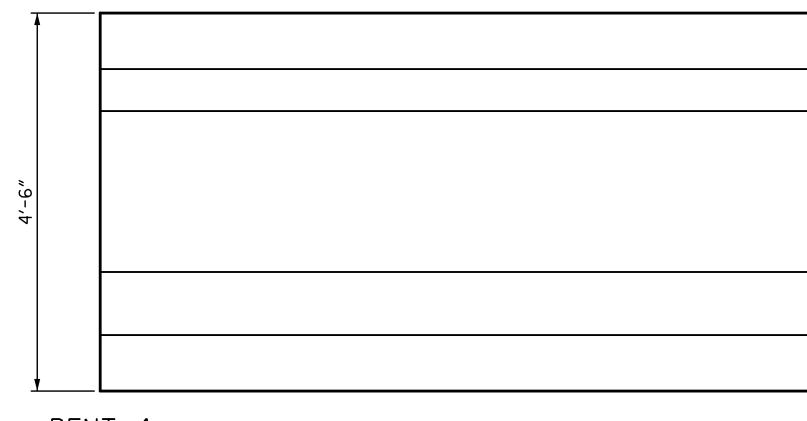
FOR REPAIRS OF PRESTRESSED CONCRETE GIRDERS DETAILS, SEE "PRESTRESSED CONCRETE GIRDER REPAIR DETAILS" SHEET.

		NEW H	CT NO I <u>ANOVER/</u> E NO.:	<u>PENE</u>		UNTY
PLANS PREPARED BY:		DEPA	RTMENT OF	RALEIGH	NSPORTA	TION
SIMPSON NGINEERS SSOCIATES 5640 Dillard Drive Suite 200 Cary, NC 27518 (919) 852-0468 (919) 852-0598 (Fax)	AGB 1 SEE ST 245B SEAL 24390		SP GIR	AN DER		
www.simpsonengr.com	9/29/2020		REVISION	NS		SHEET NO.
LICENSURE NO. C-2521	3, 23, 2020	NO. BY:	DATE: NO.	BY:	DATE:	S1-49
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	DRAWN BY:	T. BANKOVICH		DATE:	9-20
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		PRESTRESS	ED CONCRET	E GIRDE	R REPAIR
	ERI —	EPOXY RES	IN INJECTI	ON	
			BENT	4	
ELEVATION					
SOUTH FACE					
			BENT	4	
PLAN BOTTOM OF BEAM LOOKING UP					
			BENT	4	
ELEVATION					PLANS PREPARED B
NORTH FACE					S IMPSON NGINEERS ASSOCIAT
					5640 Dillard Driv Suite 200 Cary, NC 27518 (919) 852-0468 (919) 852-0598 (Fa www.simpsonengr
					(919) 852-0598 (Fa www.simpsonengr LICENSURE NO. C-2

REPAIR QUANTITY TABLE											
REPAIRS SPAN 4 GRD. 3			UANTIT								
ILLI AINS SI AN I ONDIS	EST	IMATE		ACTUAL	-						
REPAIRS OF PRESTR. AND CONCRETE GIRDERS		VOLUME CF	AREA SF	DEPTH FT	VOLUME CF						
GIRDER	0.6	0.2									
EPOXY RESIN INJECT	LF			LF							
GIRDER		0.0									

NOTES:

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

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

VALUES IN CHART REPRESENT ESTIMATE REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN, OF 1" BEHIND REBAR AND MIN. 2"CL. TO SAWCUT. SEE REPAIR DETAILS.

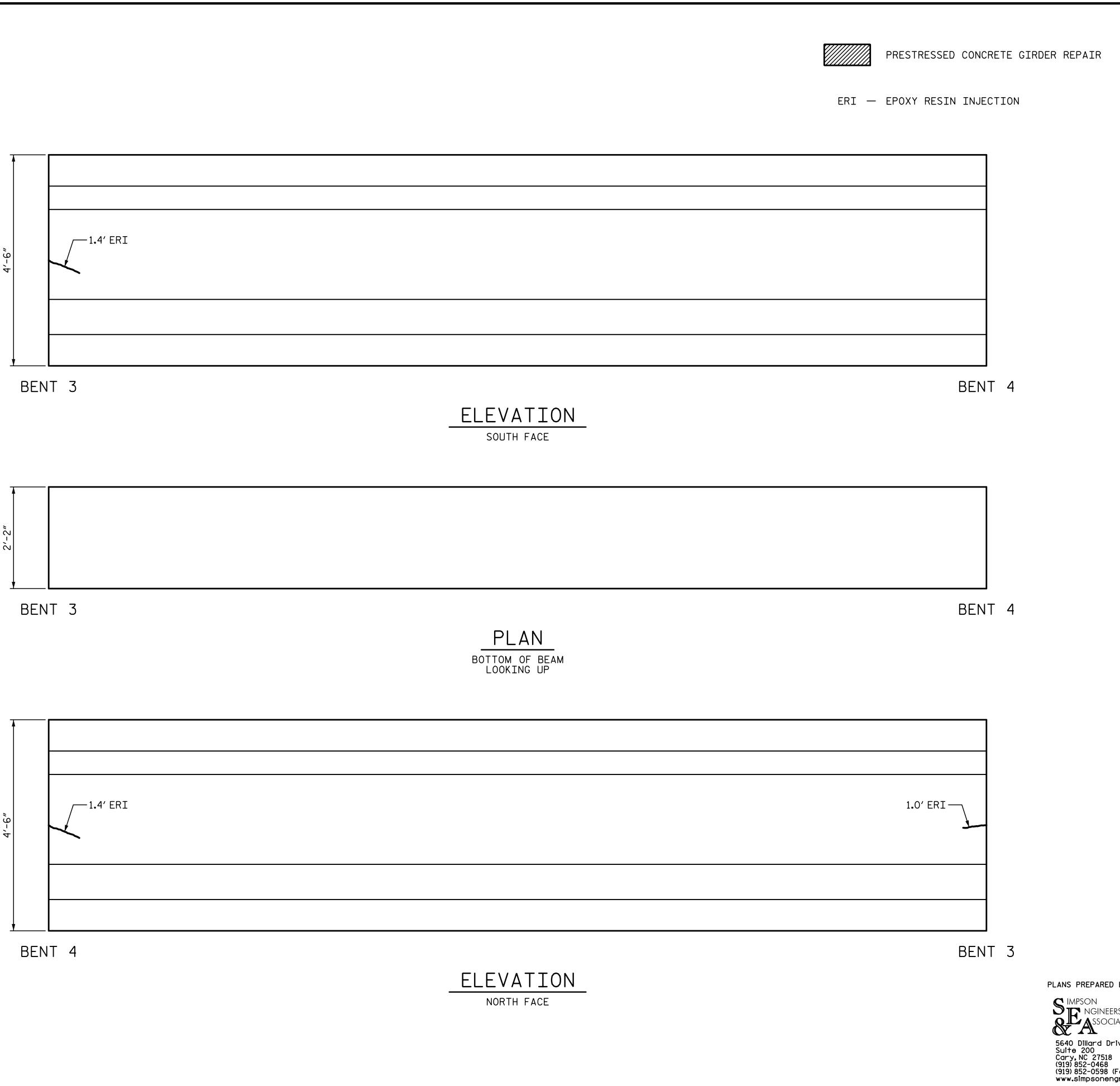
FOR REPAIRS OF PRESSTRESSED CONCRETE GIRDERS, SEE SPECIAL PROVISIONS.

FOR REPAIRS OF PRESTRESSED CONCRETE GIRDERS DETAILS, SEE "PRESTRESSED CONCRETE GIRDER REPAIR DETAILS" SHEET.

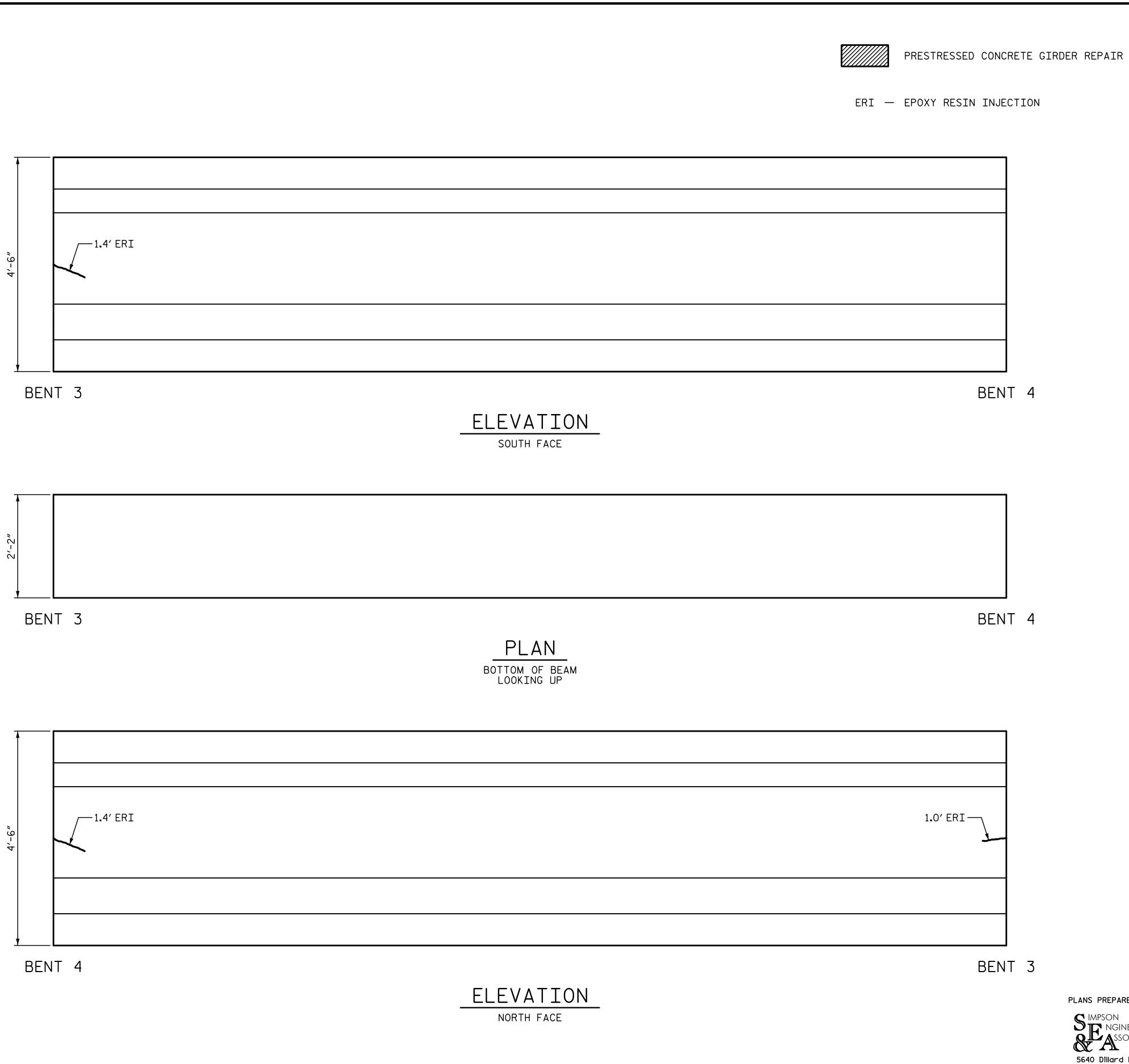
			CT NO. Ianovef			
			E NO.:_	<u> </u>	40048	
		SHEET 3				
PLANS PREPARED BY:		DEPA	RTMENT	of north car OF TRAI RALEIGH	NSPORTA	TION
SIMPSON NGINEERS SSOCIATES 5640 Dillard Drive Suite 200 Cary, NC 27518 (919) 852-0468	Docasing Web CARO/ TUCO CASES/00 AGBI BEST5245B SEAL 24390 MGINE			PAN RDER		
(919) 852-0598 (Fax) www.simpsonengr.com	9/29/2020		REVIS	EONS	1	SHEET NO.
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28,	DRAWN BY:	T.BANKOVICH		_ DATE:	9-20
6/5	CHECKED BY:	T.J. BEACH		_ DATE:	9-20
-	DESIGN ENGINE	ER OF RECORD:	T.J. BEACH	_ DATE: _	9-20

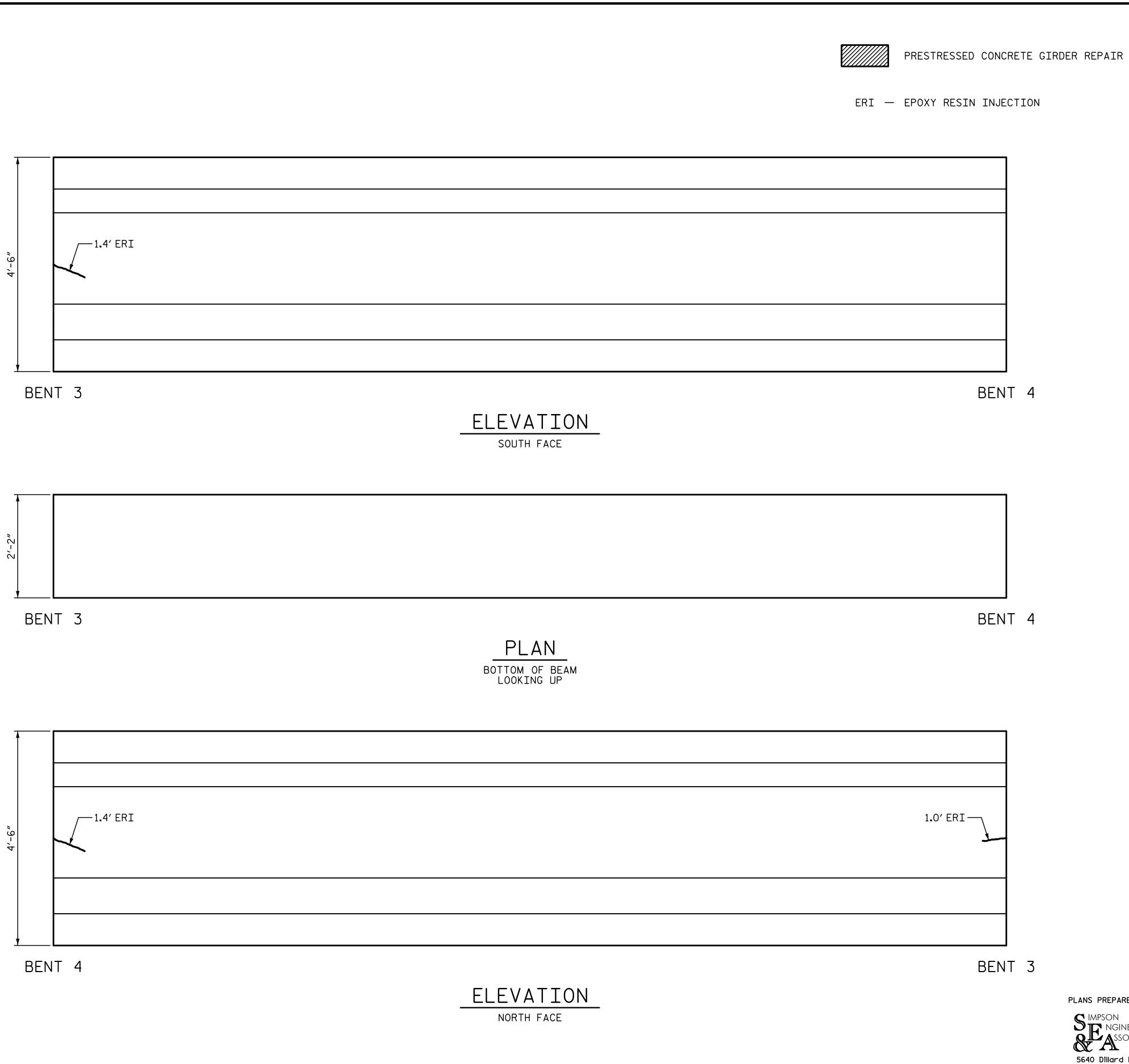














REPAIR QUANTITY TABLE											
REPAIRS SPAN 4 GRD. 4		Q	UANTIT	EES							
INLI AINS SI AN 4 OND. 4	EST	IMATE		ACTUAL							
REPAIRS OF PRESTR. CONCRETE GIRDERS	AREA SF	VOLUME CF	AREA SF	DEPTH FT		LUME CF					
GIRDER	0.0	0.0									
EPOXY RESIN INJECT	LF				LF						
GIRDER		3.8									

NOTES:

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

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

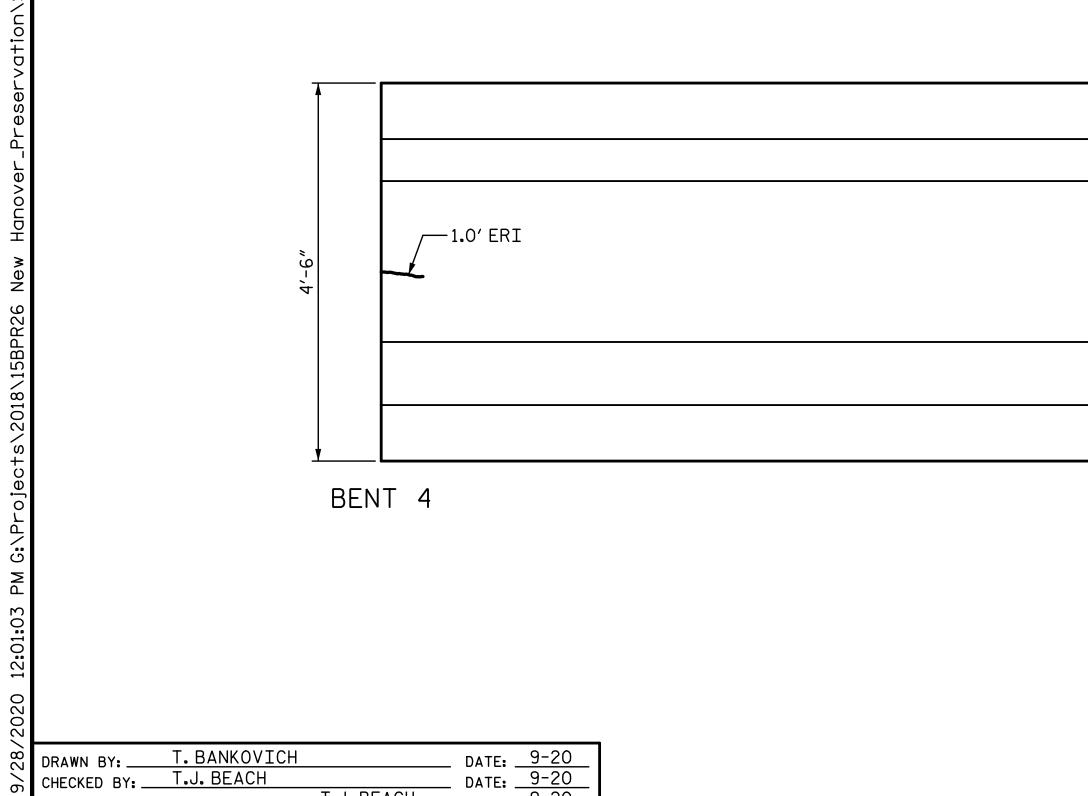
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FOR REPAIRS OF PRESSTRESSED CONCRETE GIRDERS, SEE SPECIAL PROVISIONS.

FOR REPAIRS OF PRESTRESSED CONCRETE GIRDERS DETAILS, SEE "PRESTRESSED CONCRETE GIRDER REPAIR DETAILS" SHEET.

			CT NO IANOVER					
		BRIDG	E NO .:	64	40048	3		
		SHEET 4	0F 5					
PLANS PREPARED BY:		STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH PRESERVATION						
SIMPSON NGINEERS SSOCIATES 5640 Dillard Drive Sulte 200 Cary, NC 27518 (919) 852-0468	AGEN SECONDA AGEN SECONDA AGEN SECONDA SEAL 24390	SPAN 4 GIRDER 4						
(919) 852-0598 (Fax) www.simpsonengr.com	9/29/2020		REVISIO	INS		SHEET NO.		
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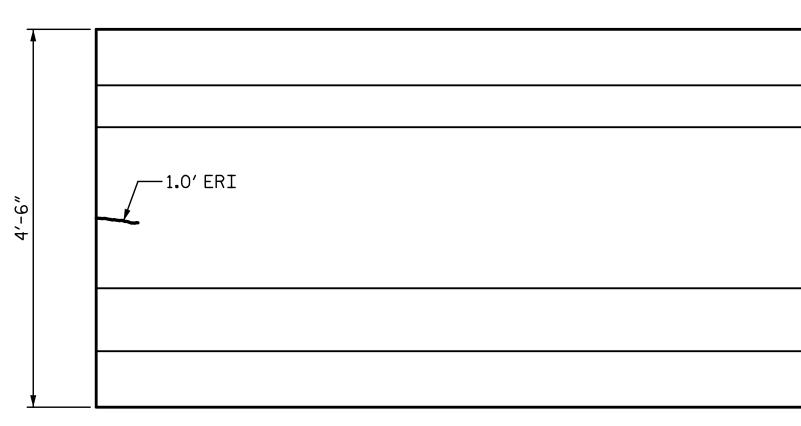
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9/28/	DRAWN BY: <u>T.BANKOVICH</u> CHECKED BY: <u>T.J.BEACH</u>	ATE: _	9-20 9-20
6	DESIGN ENGINEER OF RECORD:	ATE: _	9-20











	PRESTRESSED CONCRETE GIRDE	R REPAIR
	ERI — EPOXY RESIN INJECTION	
	BENT 4	
ELEVATION		
SOUTH FACE		
	BENT 4	
PLAN BOTTOM OF BEAM		
BOTTOM OF BEAM LOOKING UP		
	BENT 3	
ELEVATION NORTH FACE	F	PLANS PREPARED B
		5640 Dillard Drive Suite 200 Cary, NC 27518 (919) 852-0468 (919) 852-0598 (Fa: www.simpsonengr.
		LICENSURE NO. C-2

REPAIR QUANTITY TABLE											
REPAIRS SPAN 4 GRD. 5			UANTIT	EES							
THE ATTOS STAR TORDES	EST	IMATE		ACTUAL							
REPAIRS OF PRESTR. CONCRETE GIRDERS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF						
GIRDER	0.0	0.0									
EPOXY RESIN INJECT	ION	LF			LF						
GIRDER		2.0									

NOTES:

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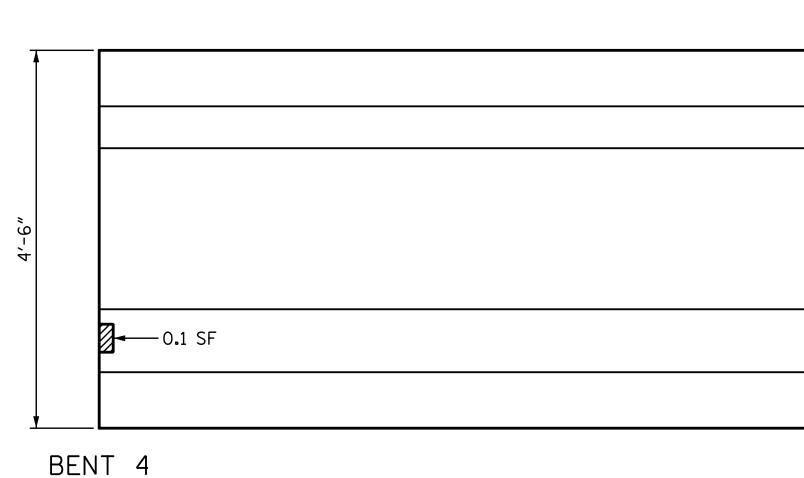
FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

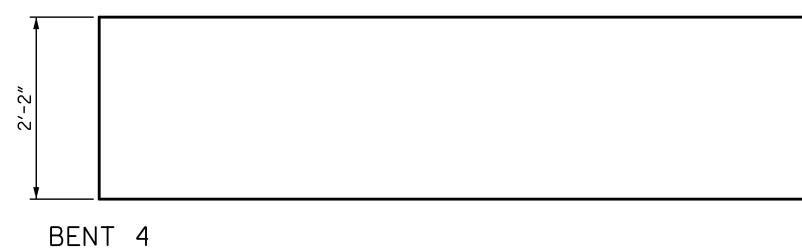
VALUES IN CHART REPRESENT ESTIMATE REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN, OF 1" BEHIND REBAR AND MIN. 2"CL. TO SAWCUT. SEE REPAIR DETAILS.

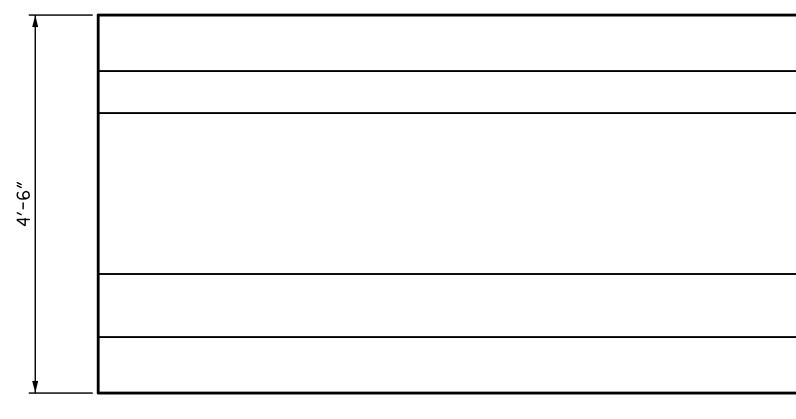
FOR REPAIRS OF PRESSTRESSED CONCRETE GIRDERS, SEE SPECIAL PROVISIONS.

FOR REPAIRS OF PRESTRESSED CONCRETE GIRDERS DETAILS, SEE ``PRESTRESSED CONCRETE GIRDER REPAIR DETAILS'' SHEET.

		PROJE	CT NO.	15	BPR.2	26
		NEW H	ANOVE	R/PEND	<u>ER</u> CC	
		BRIDG	E NO.:_	64	40048	3
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PLANS PREPARED BY:		DEPA	RTMENT	e of north car OF TRAI RALEIGH SERVAT	NSPORTA	TION
SIMPSON NGINEERS SSOCIATES 5640 Dillard Drive Suite 200 Cary, NC 27518	AGB STEPSTON			SPAN IRDER		
(919) 852-0468 (919) 852-0598 (Fax) www.simpsonengr.com LICENSURE NO.C-2521	9/29/2020	NO. BY:	REVIS	SIONS NO. BY:	DATE:	SHEET NO. S1-52
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	CHECKED BY:	T.J. BEACH		DATE:	9-20
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	P	PRESTRESSED CONCRETE G	IRDER REPAIR
	ERI — E	POXY RESIN INJECTION	
		BENT 5	
ELEVATION SOUTH FACE			
		BENT 5	
PLAN BOTTOM OF BEAM LOOKING UP			
LOOKING UP			
		BENT 4	
ELEVATION			PLANS PREPARED B
NORTH FACE			S IMPSON NGINEERS ASSOCIAT
			5640 Dillard Drive Sulte 200 Cary, NC 27518 (919) 852-0468 (919) 852-0598 (Fa www.simpsonengr.
			(919)852-0598 (Fa www.simpsonengr LICENSURE NO.C-2

REPAIR QUANTITY TABLE							
REPAIRS SPAN 5 GRD.1			JANTITI				
	ESI	IMATE		ACTUAL	-		
REPAIRS OF PRESTR. CONCRETE GIRDERS	REPAIRS OF PRESTR. AREA CONCRETE GIRDERS SF		AREA SF	DEPTH FT	VOLUME CF		
GIRDER	0.1	0.05					
EPOXY RESIN INJECTION					LF		
GIRDER		0.0					

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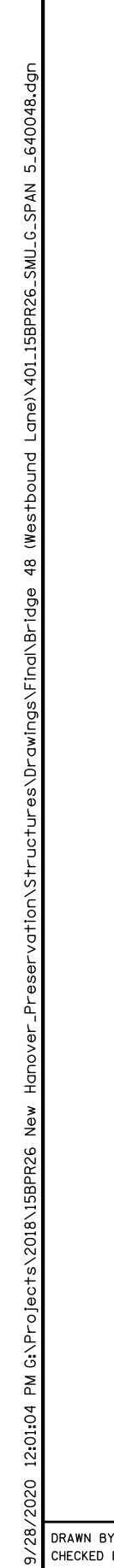
FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

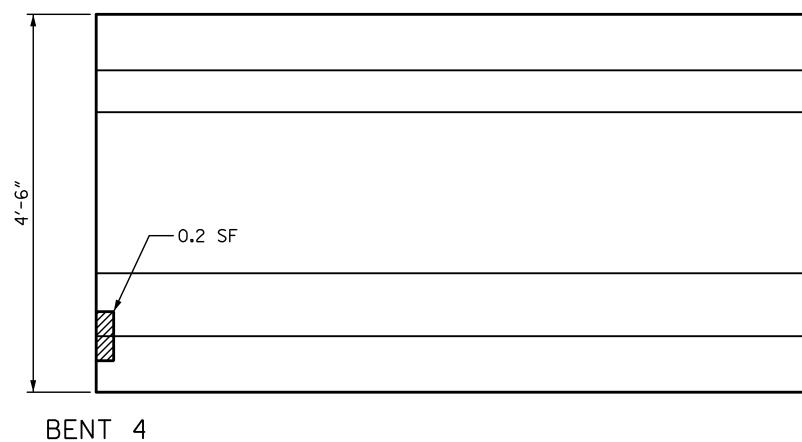
VALUES IN CHART REPRESENT ESTIMATE REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN, OF 1" BEHIND REBAR AND MIN. 2"CL. TO SAWCUT. SEE REPAIR DETAILS.

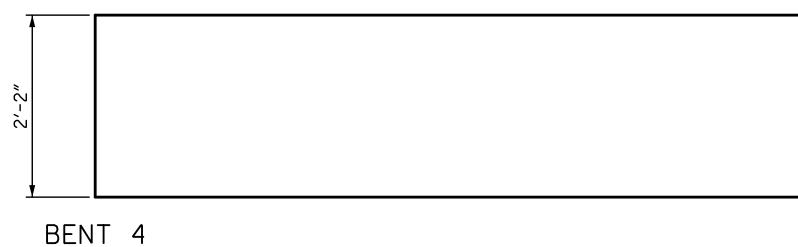
FOR REPAIRS OF PRESSTRESSED CONCRETE GIRDERS, SEE SPECIAL PROVISIONS.

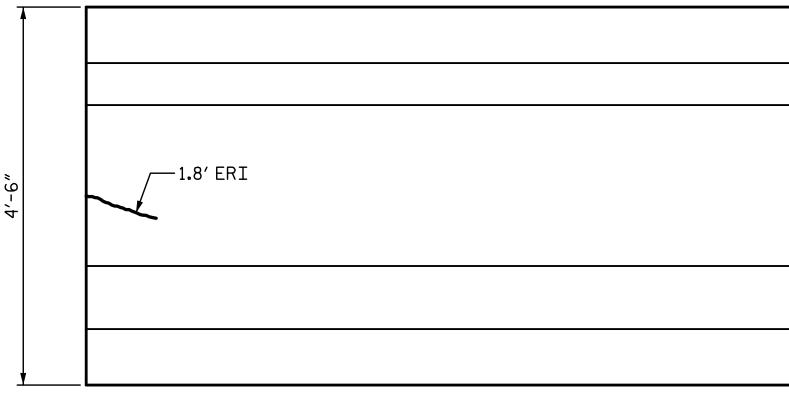
FOR REPAIRS OF PRESTRESSED CONCRETE GIRDERS DETAILS, SEE "PRESTRESSED CONCRETE GIRDER REPAIR DETAILS" SHEET.

PLANS PREPARED BY: SIMPSON SSOCIATES SSOC			NEW H	CT NO I <u>ANOVER/</u> E NO.:	PEND		UNTY
SSOCIATES 5640 Dillard Drive Suite 200 Cary, NC 27518 (919) 852-0468 (919) 852-0598 (Fax) www.simpsonengr.com 9/29/2020 Document not considered Final	PLANS PREPARED BY:			STATE OF RTMENT OF	TRAN	NSPORTA	TION
www.simpsonengr.com % REVISIONS SHEET NO. LICENSURE NO. C-2521 9/29/2020 NO. BY: DATE: NO. BY: DATE: SHEET NO. DOCUMENT NOT CONSIDERED FINAL 1 3 TOTAL SHEETS	5640 Dillard Drive Suite 200 Cary, NC 27518 (919) 852-0468	Doorsigned LyCARO/ Suco Betered ON AGBIERSTSSABE 24390				_	
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T.J. BEACH		DATE:	9-20
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		PRESTRESSED CONCRETE	GTRDER REPATR
		TRESTRESSED CONCRETE	GINDER REFAIN
	ERI —	EPOXY RESIN INJECTIO	N
		BENT 5	
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ELEVATION SOUTH FACE			
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			5640 Dillard Drive Suite 200
			5640 Dillard Drive Suite 200 Cary, NC 27518 (919) 852-0468 (919) 852-0598 (Fa: www.simpsonengr.
			www.simpsonengr.

REPAIR QUANTITY TABLE								
REPAIRS SPAN 5 GRD. 2		Q	UANTIT	EES				
ILLI AINS SI AN S GIU. 2	EST	IMATE		ACTUAL				
REPAIRS OF PRESTR. CONCRETE GIRDERS	AIRS OF PRESTR. AREA VOLUME NCRETE GIRDERS SF CF		AREA SF	DEPTH FT	VOLUME CF			
GIRDER	0.2	0.05						
EPOXY RESIN INJECT	LF			LF				
GIRDER		1.8						

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

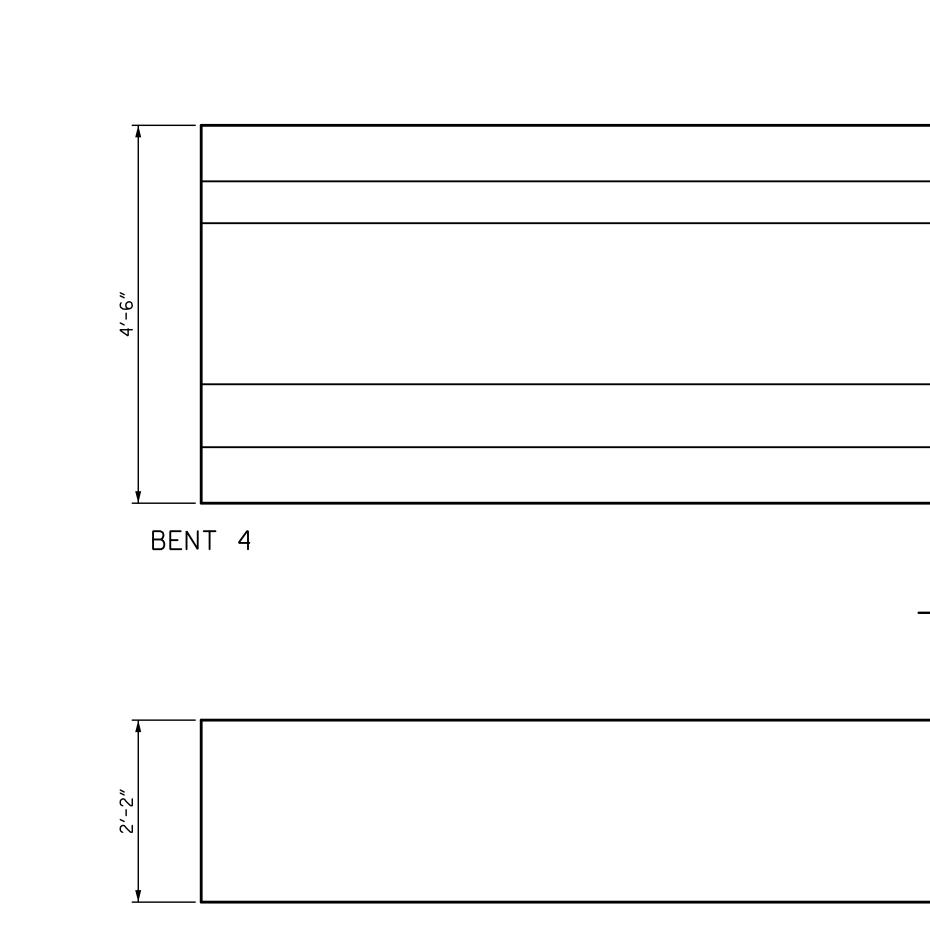
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VALUES IN CHART REPRESENT ESTIMATE REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN, OF 1" BEHIND REBAR AND MIN. 2"CL. TO SAWCUT. SEE REPAIR DETAILS.

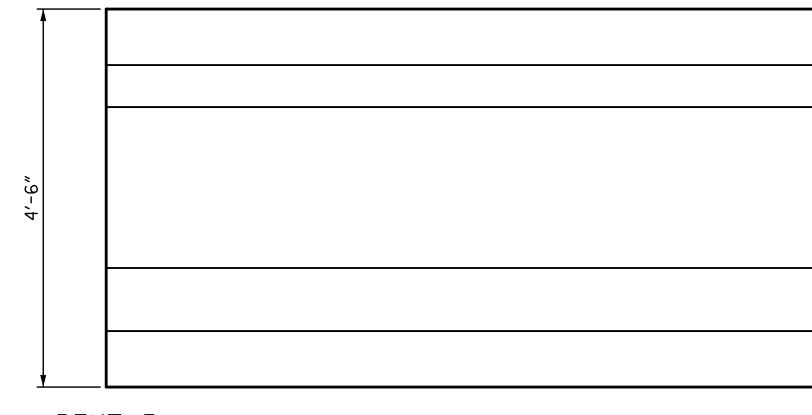
FOR REPAIRS OF PRESSTRESSED CONCRETE GIRDERS, SEE SPECIAL PROVISIONS.

FOR REPAIRS OF PRESTRESSED CONCRETE GIRDERS DETAILS, SEE "PRESTRESSED CONCRETE GIRDER REPAIR DETAILS" SHEET.

		PROJE	CT NO.	15	BPR.2	26
		NEW I	HANOVEF	R/PEND	DER_CC	
		BRIDG	E NO.:_	64	40048	3
		SHEET 2	0F 5			
PLANS PREPARED BY:		DEP	ARTMENT	OF NORTH CAR OF TRAI RALEIGH	NSPORTA	TION
SIMPSON NGINEERS SSOCIATES 5640 Dillard Drive Suite 200	AGB SOLB575245 24390			PAN RDER	_	
Cary, NC 27518 (919) 852-0468 (919) 852-0598 (Fax) www.simpsonengr.com LICENSURE NO. C-2521	9/29/2020	NO. BY:	REVIS	EONS	DATE:	SHEET NO. S1-54
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28/	DRAWN BY:	T.BANKOVICH		DATE:	9-20
	CHECKED BY:	T.J. BEACH		DATE:	9-20
		EER OF RECORD:	T.J. BEACH	_ DATE: _	9-20

	P	PRESTRESSED CONCRETE G	IRDER REPAIR
	ERI — E	POXY RESIN INJECTION	
		BENT 5	
ELEVATION SOUTH FACE			
		BENT 5	
PLAN BOTTOM OF BEAM LOOKING UP			
LOOKING UP			
		BENT 4	
ELEVATION			PLANS PREPARED B
NORTH FACE			S IMPSON NGINEERS ASSOCIAT
			5640 Dillard Drive Sulte 200 Cary, NC 27518 (919) 852-0468 (919) 852-0598 (Fa www.simpsonengr.
			(919)852-0598 (Fa www.simpsonengr LICENSURE NO.C-2

REPAIR QUANTITY TABLE								
REPAIRS SPAN 5 GRD. 3			UANTIT	IES				
INELIATING SI AN S ONDES	EST	IMATE		ACTUAL				
REPAIRS OF PRESTR. CONCRETE GIRDERS	S OF PRESTR. AREA VOLUME ETE GIRDERS SF CF		AREA SF	DEPTH FT	VOLUME CF			
GIRDER	0.0	0.0						
EPOXY RESIN INJECTION					LF			
GIRDER	0.0							

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

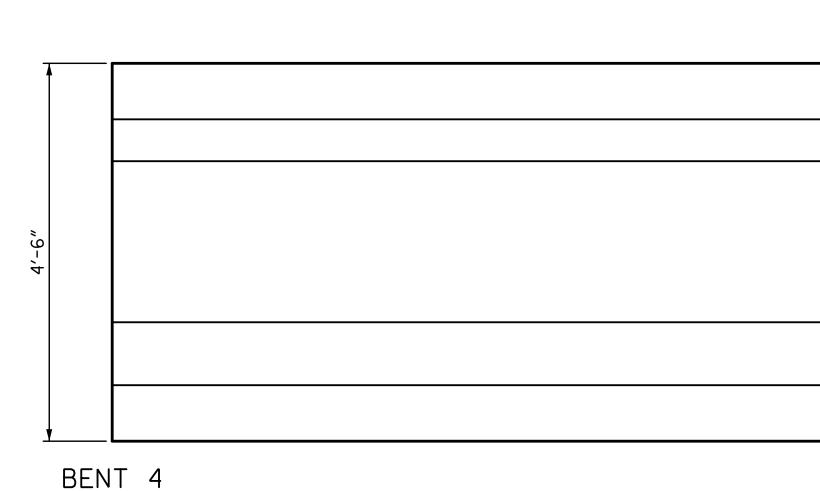
FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

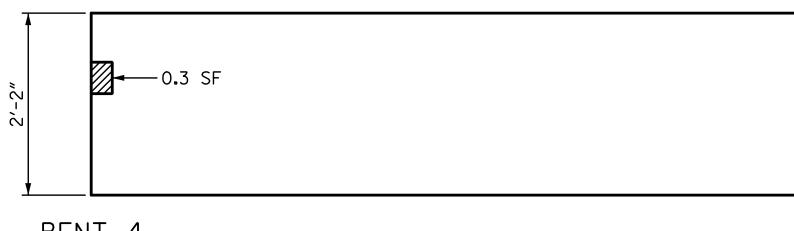
VALUES IN CHART REPRESENT ESTIMATE REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN, OF 1" BEHIND REBAR AND MIN. 2"CL. TO SAWCUT. SEE REPAIR DETAILS.

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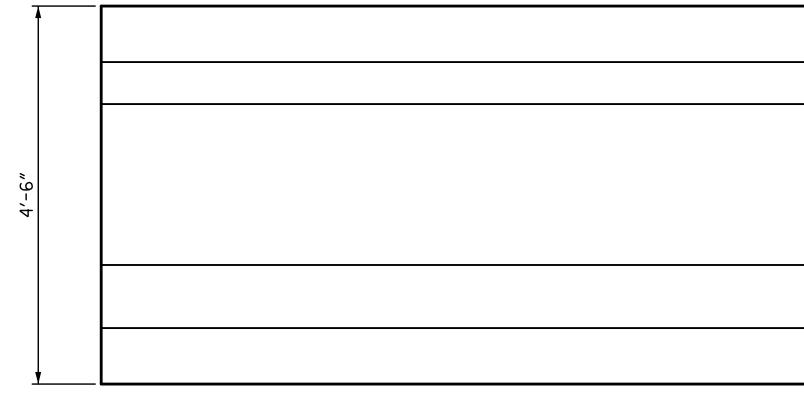
FOR REPAIRS OF PRESTRESSED CONCRETE GIRDERS DETAILS, SEE ``PRESTRESSED CONCRETE GIRDER REPAIR DETAILS'' SHEET.

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PLANS PREPARED BY:		STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH PRESERVATION					
SIMPSON NGINEERS SSOCIATES 5640 Dillard Drive Suite 200 Cary, NC 27518 (919) 852-0468 (919) 852-0468	Dooweign Aby CARO/ TUCO GEESSION A6B 1 MORESTS246B. SEAL 24390 MGINEEN	SPAN 5 GIRDER 3					
(919)852-0598 (Fax) www.simpsonengr.com	9/29/2020		REV	ISIONS		SHEET NO.	
LICENSURE NO. C-2521		NO. BY:	DATE:	NO. BY:	DATE:	S1-55	
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28/	DRAWN BY:	T. BANKOVICH		DATE: 9-20
	CHECKED BY: _	T.J. BEACH		DATE: 9-20
0,		EER OF RECORD:	T.J. BEACH	_ DATE: <u>9-20</u>

	P	PRESTRESSED CONCRETE G	IRDER REPAIR
	ERI — E	POXY RESIN INJECTION	
		BENT 5	
ELEVATION SOUTH FACE			
		BENT 5	
PLAN BOTTOM OF BEAM LOOKING UP			
LOOKING UP			
		BENT 4	
ELEVATION			PLANS PREPARED B
NORTH FACE			S IMPSON NGINEERS ASSOCIAT
			5640 Dillard Drive Sulte 200 Cary, NC 27518 (919) 852-0468 (919) 852-0598 (Fa www.simpsonengr.
			(919)852-0598 (Fa www.simpsonengr LICENSURE NO.C-2

REPAIR QU	ANT	ITY	TABL	.E		
REPAIRS SPAN 5 GRD. 4		C	UANTIT	IES		
ILLI ATING SI AN S OND. 4	EST	IMATE	ATE ACTUA		L	
REPAIRS OF PRESTR. CONCRETE GIRDERS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF	
GIRDER	0.3	0.1				
EPOXY RESIN INJECT	ION	LF			LF	
GIRDER		0.0				

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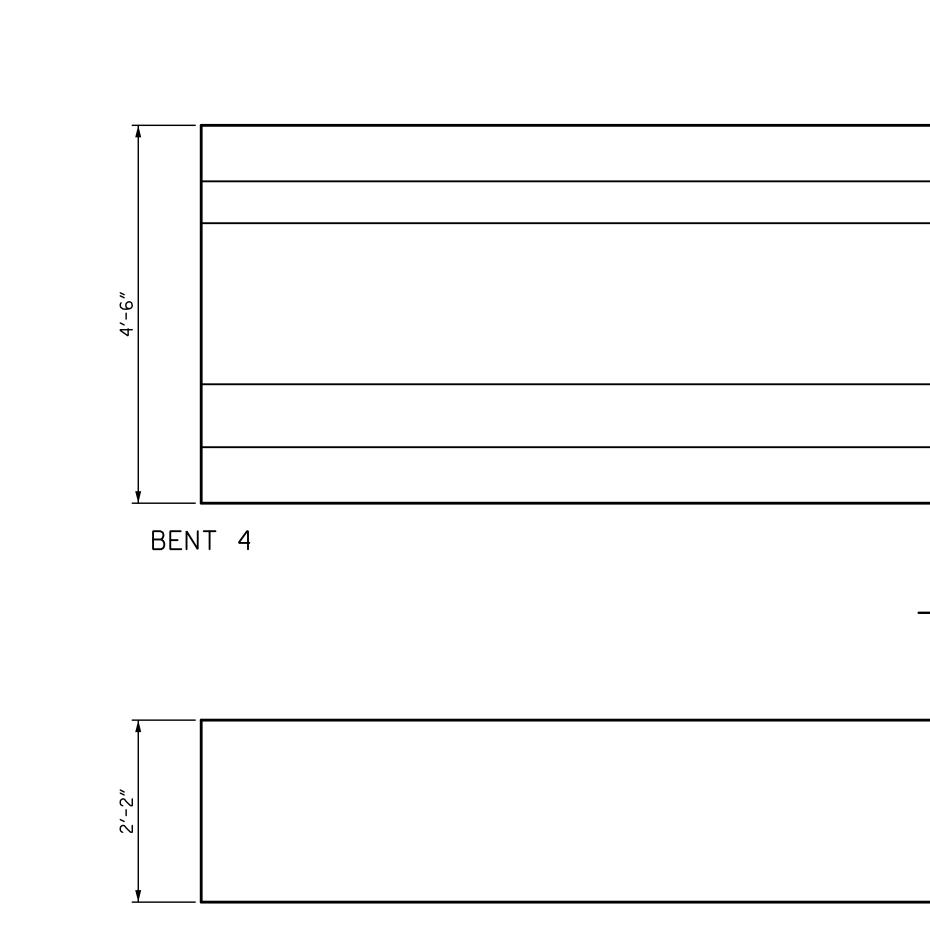
FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

VALUES IN CHART REPRESENT ESTIMATE REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN, OF 1" BEHIND REBAR AND MIN. 2"CL. TO SAWCUT. SEE REPAIR DETAILS.

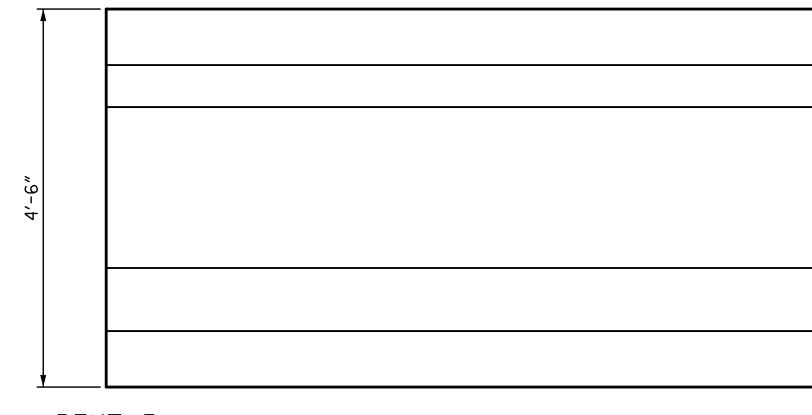
FOR REPAIRS OF PRESSTRESSED CONCRETE GIRDERS, SEE SPECIAL PROVISIONS.

FOR REPAIRS OF PRESTRESSED CONCRETE GIRDERS DETAILS, SEE "PRESTRESSED CONCRETE GIRDER REPAIR DETAILS" SHEET.

			CT NO. Ianover			
		BRIDG	E NO .:	64	40048	3
		SHEET 4	OF 5			
PLANS PREPARED BY:		DEPA	RTMENT (OF NORTH CAR DF TRAI RALEIGH ERVAT	NSPORTA	TION
SIMPSON NGINEERS SSOCIATES 5640 Dillard Drive Sulte 200 Cary, NC 27518 (919) 852-0468	AGEN DE BESTESSEE AGEN DE BESTESSEE SEAL 24390	SPAN 5 GIRDER 4				
(919) 852-0598 (Fax) www.simpsonengr.com LICENSURE NO.C-2521	9/29/2020	NO. BY:	REVISI DATE: N		DATE:	SHEET NO. S1-56
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28/	DRAWN BY:	T.BANKOVICH		DATE:	9-20
	CHECKED BY:	T.J. BEACH		DATE:	9-20
		EER OF RECORD:	T.J. BEACH	_ DATE: _	9-20

	P	PRESTRESSED CONCRETE G	IRDER REPAIR
	ERI — E	POXY RESIN INJECTION	
		BENT 5	
ELEVATION SOUTH FACE			
		BENT 5	
PLAN BOTTOM OF BEAM LOOKING UP			
LOOKING UP			
		BENT 4	
ELEVATION			PLANS PREPARED B
NORTH FACE			S IMPSON NGINEERS ASSOCIAT
			5640 Dillard Drive Sulte 200 Cary, NC 27518 (919) 852-0468 (919) 852-0598 (Fa www.simpsonengr.
			(919)852-0598 (Fa www.simpsonengr LICENSURE NO.C-2

REPAIR QU	ANT	ITY -	ΓABL	.E	
REPAIRS SPAN 5 GRD. 5			JANTITI		
THE ATTO STAR 5 ONDES	EST	IMATE		ACTUAL	-
REPAIRS OF PRESTR. CONCRETE GIRDERS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF
GIRDER	0.0	0.0			
EPOXY RESIN INJECT	ION	LF			LF
GIRDER		0.0			

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

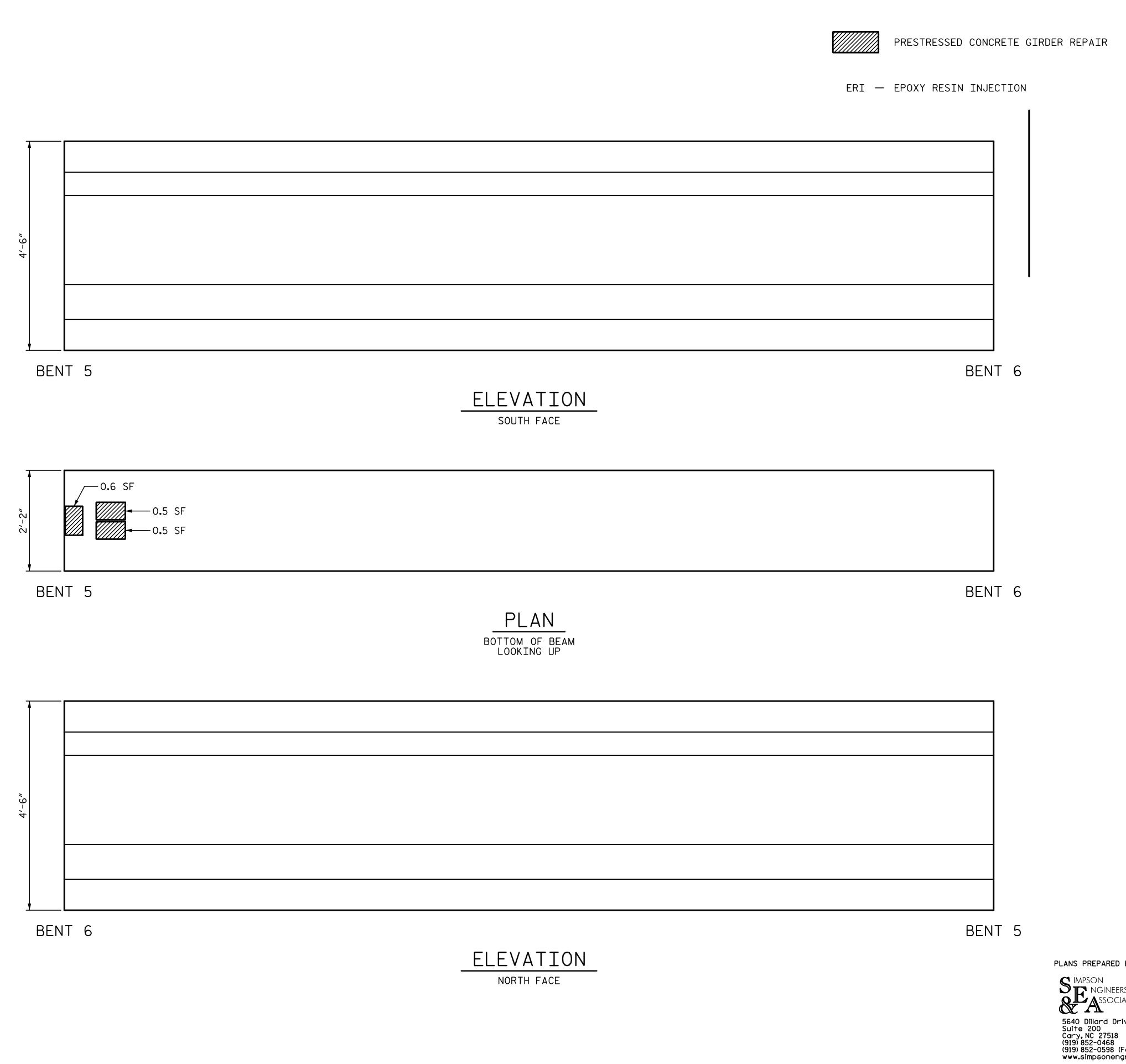
FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

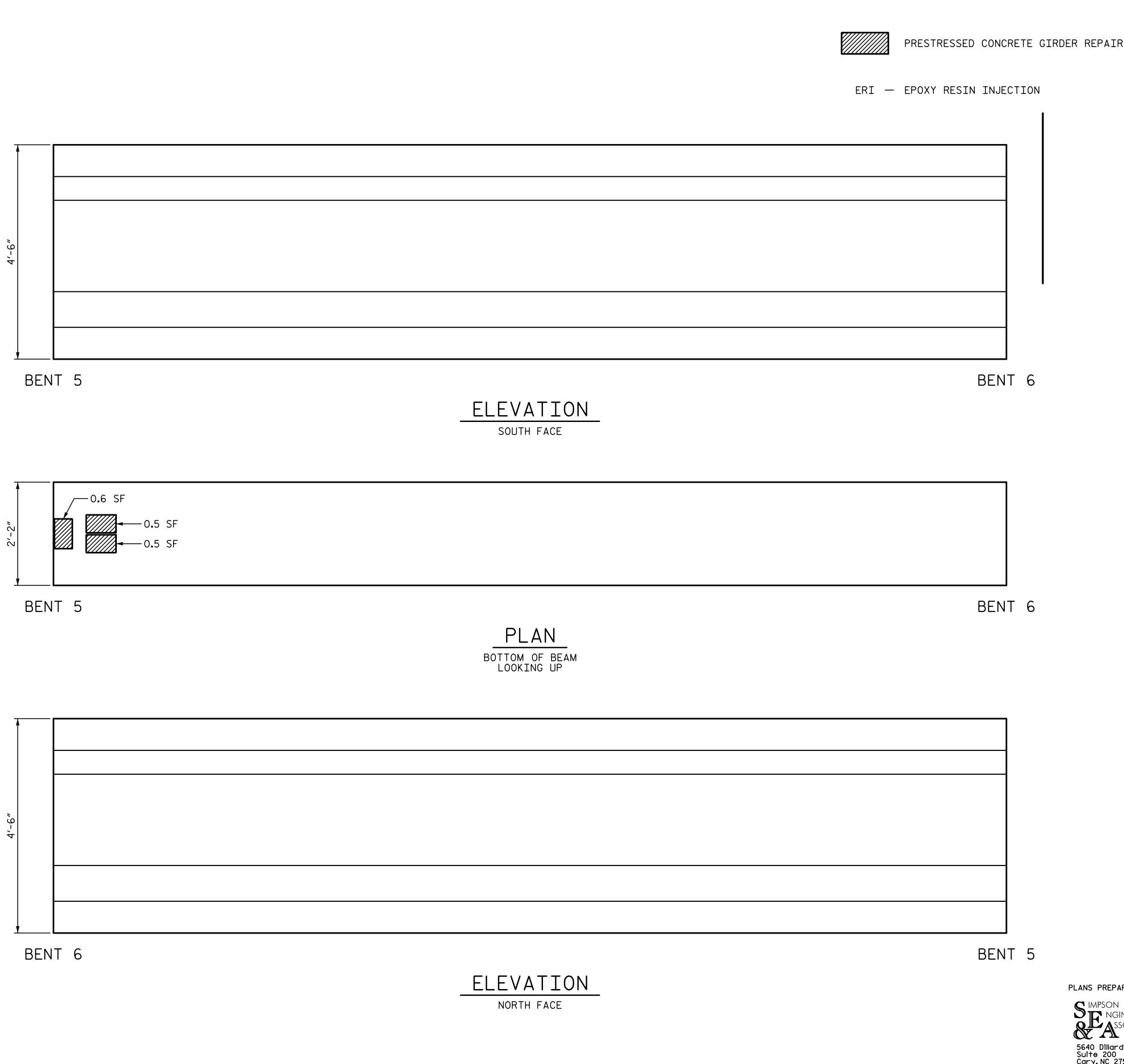
VALUES IN CHART REPRESENT ESTIMATE REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN, OF 1" BEHIND REBAR AND MIN. 2"CL. TO SAWCUT. SEE REPAIR DETAILS.

FOR REPAIRS OF PRESSTRESSED CONCRETE GIRDERS, SEE SPECIAL PROVISIONS.

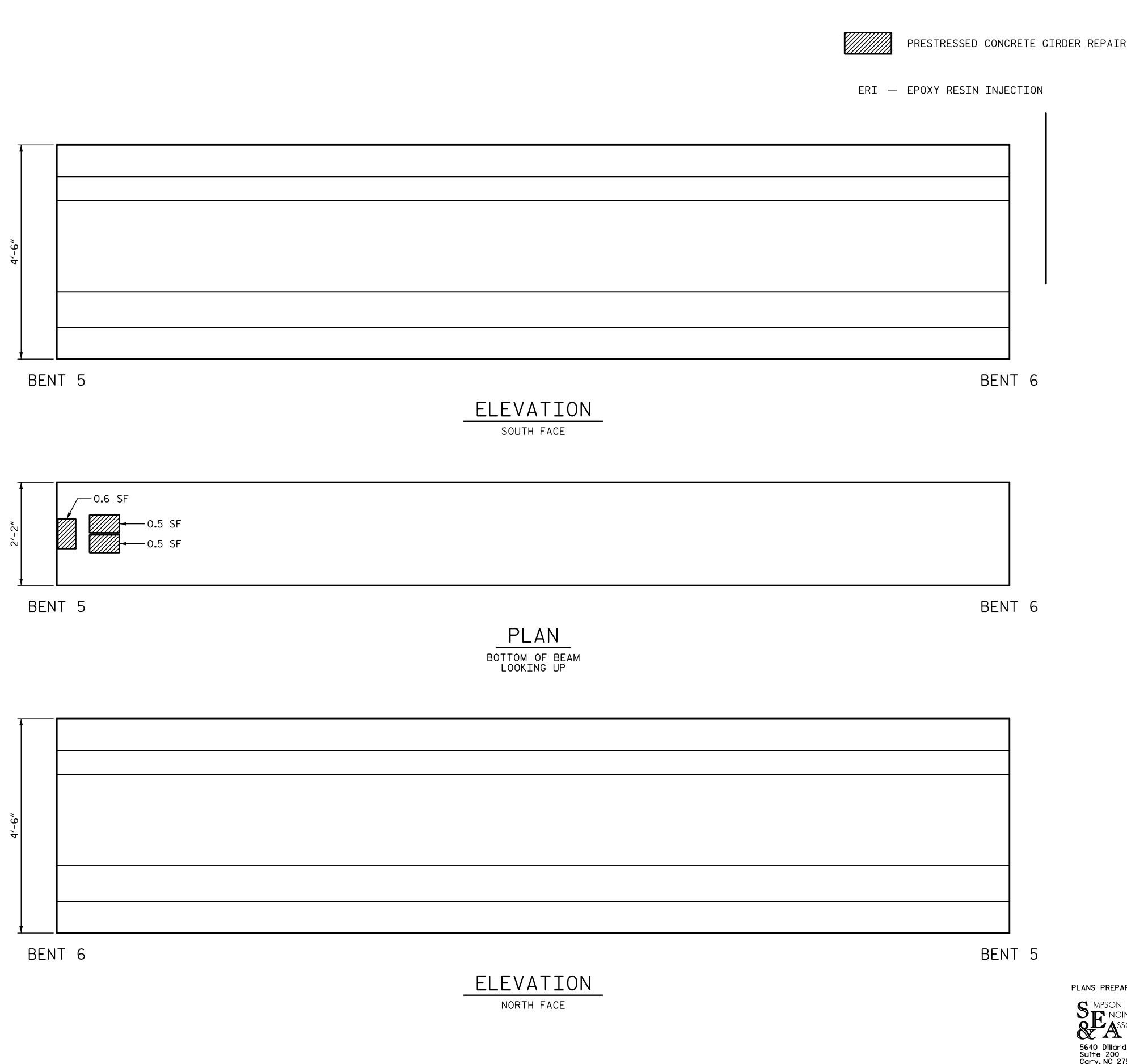
FOR REPAIRS OF PRESTRESSED CONCRETE GIRDERS DETAILS, SEE ``PRESTRESSED CONCRETE GIRDER REPAIR DETAILS'' SHEET.

		PROJE		1 ⊑	SRPR (26
		NEW F	IANOVE	R/PENI	DER CO)UNTY
		BRIDG	E NO.:	6	40048	3
		SHEET 5	0F 5			
PLANS PREPARED BY:		STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH PRESERVATION				
SIMPSON NGINEERS SSOCIATES 5640 Dillard Drive Suite 200 Cary, NC 27518	Doorbertingh & CARO/ TUCK BYEASSION AGB TO 99575245B SEAL 24390	SPAN 5 GIRDER 5				
(919) 852-0468 (919) 852-0598 (Fax) www.simpsonengr.com LICENSURE NO.C-2521	9/29/2020	NO. BY:	REVI DATE:	SIONS NO. BY:	DATE:	SHEET NO. S1-57
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0,	DESIGN ENGIN	NEER OF RECORD:	T.J. BEACH	_ DATE: <u>9-20</u>

REPAIR QU	ANT	ITY ⁻	ΓABL	.E	
REPAIRS SPAN 6 GRD.1			JANTITI		
	EST	IMATE		ACTUAL	-
REPAIRS OF PRESTR. CONCRETE GIRDERS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF
GIRDER	1.6	0.8			
EPOXY RESIN INJECT	ION	LF			LF
GIRDER		0.0			

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

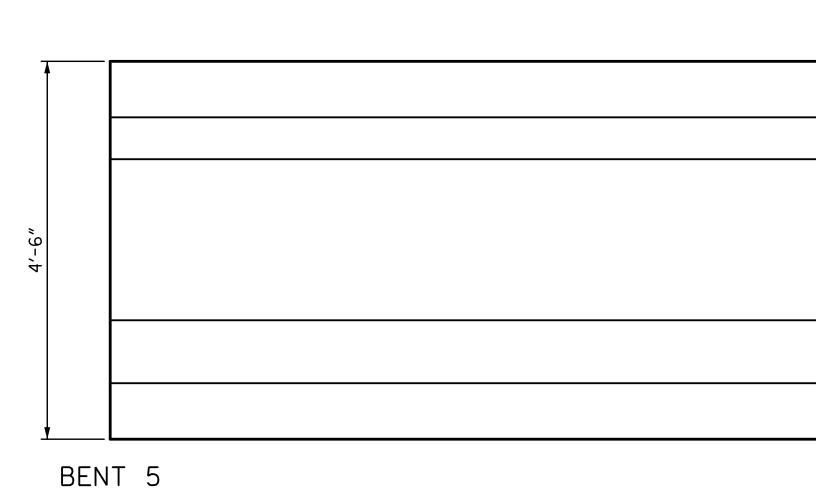
FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

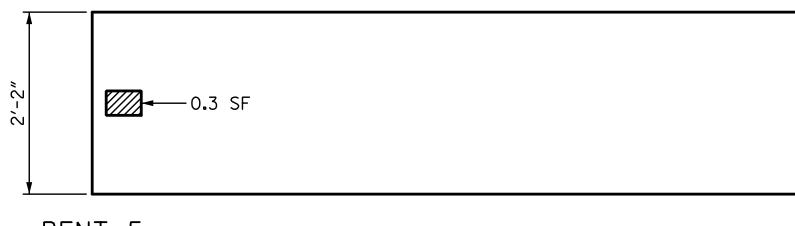
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FOR REPAIRS OF PRESSTRESSED CONCRETE GIRDERS, SEE SPECIAL PROVISIONS.

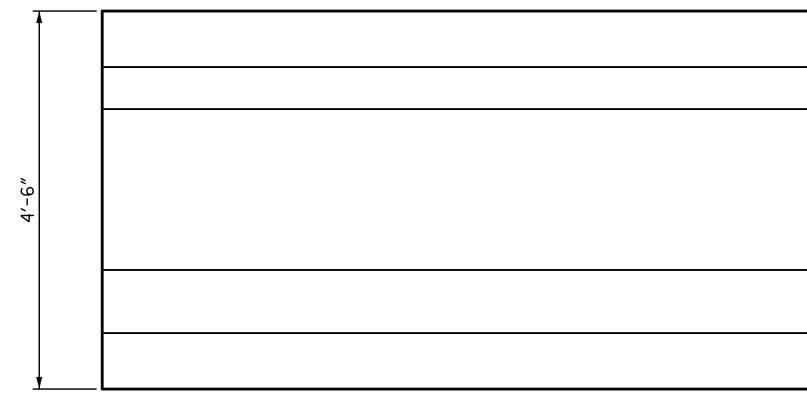
FOR REPAIRS OF PRESTRESSED CONCRETE GIRDERS DETAILS, SEE "PRESTRESSED CONCRETE GIRDER REPAIR DETAILS" SHEET.

		NEW H	CT NO I <u>ANOVER/</u> E NO.:	PEND		UNTY
PLANS PREPARED BY:		DEPA	RTMENT OF	RALEIGH	NSPORTA	TION
SIMPSON NGINEERS SSOCIATES 5640 Dillard Drive Suite 200 Cary, NC 27518 (919) 852-0468 (919) 852-0598 (Fax)	Docusion the CARO/ THUS BEESSER AGB 18 BEB57524EB SEAL 24390 MGINEER	SPAN 6 GIRDER 1				
www.simpsonengr.com	9/29/2020		REVISION	IS	1	SHEET NO.
LICENSURE NO. C-2521		NO. BY:	DATE: NO.	BY:	DATE:	S1-58
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DRAWN BY:	T.BANKOVICH		DATE: 9-20
CHECKED BY:	T.J. BEACH		DATE: 9-20
	ER OF RECORD:	T.J. BEACH	DATE: 9-20
(CHECKED BY:

	PR	RESTRESSED CONCRETE	GIRDER REPAIR
	ERI — EP	OXY RESIN INJECTIO	Ν
ELEVATION		BENT 6	
SOUTH FACE			
PLAN		BENT 6	
BOTTOM OF BEAM LOOKING UP			
		BENT 5	
ELEVATION NORTH FACE			PLANS PREPARED BY SIMPSON NGINEERS
			5640 Dillard Drive
			5640 Dillard Drive Suite 200 Cary,NC 27518 (919) 852-0468 (919) 852-0598 (Fa) www.simpsonengr. LICENSURE NO.C-2
			ILICENSURE NO. C-2

REPAIR QUANTITY TABLE						
REPAIRS SPAN 6 GRD. 2	QUANTITIES					
	EST	IMATE		ACTUAL		
REPAIRS OF PRESTR. CONCRETE GIRDERS	AREA SF	VOLUME CF	AREA SF	DEPTH FT		OLUME CF
GIRDER	0.3	0.15				
EPOXY RESIN INJECT	ION	LF				LF
GIRDER	0.0					

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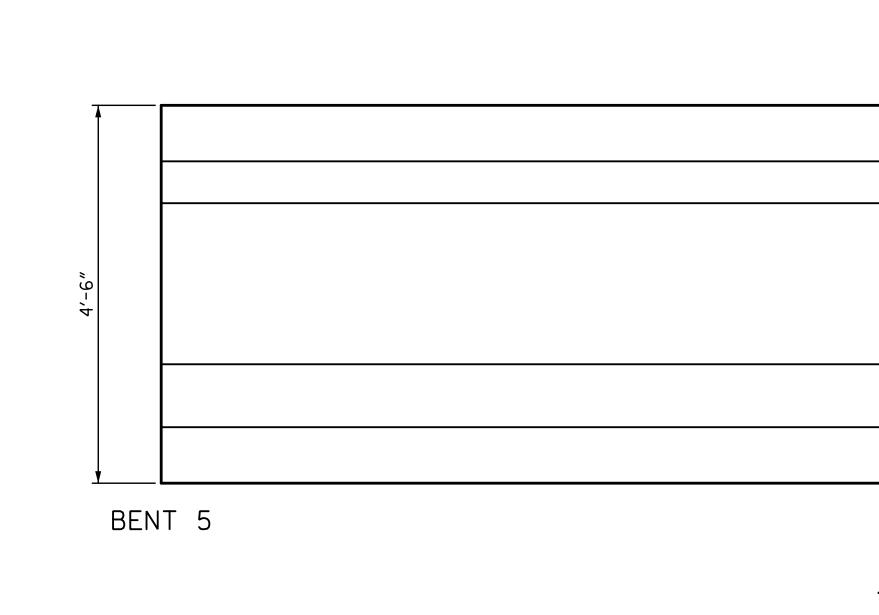
FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

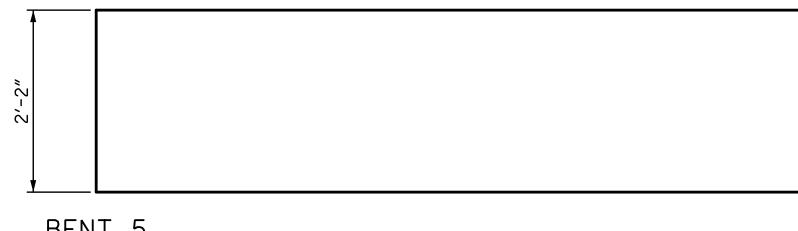
VALUES IN CHART REPRESENT ESTIMATE REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN, OF 1" BEHIND REBAR AND MIN. 2"CL. TO SAWCUT. SEE REPAIR DETAILS.

FOR REPAIRS OF PRESSTRESSED CONCRETE GIRDERS, SEE SPECIAL PROVISIONS.

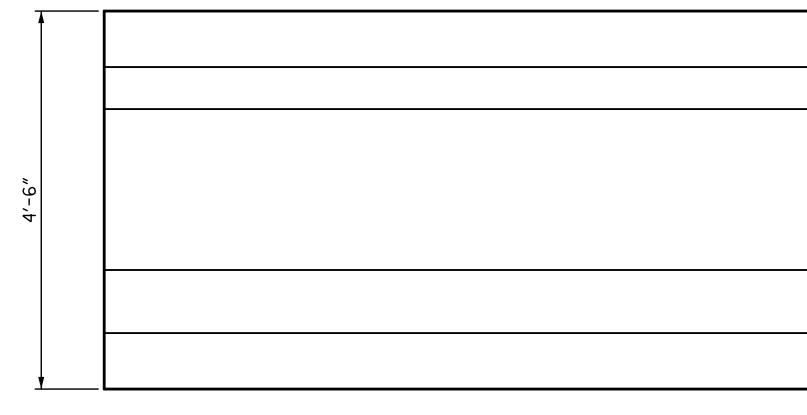
FOR REPAIRS OF PRESTRESSED CONCRETE GIRDERS DETAILS, SEE "PRESTRESSED CONCRETE GIRDER REPAIR DETAILS" SHEET.

		PROJEC NEW H BRIDG	IANOVE E NO.:	R/PENE		DUNTY
PLANS PREPARED BY:		DEPA	RTMENT	OF NORTH CAR OF TRA RALEIGH SERVA	NSPORTA	TION
SIMPSON NGINEERS SSOCIATES 5640 Dillard Drive Suite 200 Cary, NC 27518 (919) 852-0468 (919) 852-0598 (Fax)	Dopublic Model AGB 1 CE SCLON AGB 1 CE SCLON AGB 1 CE SCLON SEAL 24390 MGINEE CONSERVICE CONSE		_	SPAN IRDER	-	
www.simpsonengr.com	9/29/2020		REVI	SIONS		SHEET NO.
LICENSURE NO. C-2521	5/25/2020	NO. BY:	DATE:	NO. BY:	DATE:	S1-59
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UNLESS ALL SIGNATU	IRES COMPLETED	2		4		163











DRAWN BY:	T.BANKOVICH		DATE: 9-20
	T.J. BEACH		DATE: 9-20
	ER OF RECORD:	T.J. BEACH	DATE: 9-20
	DRAWN BY: CHECKED BY: DESIGN ENGINE		CHECKED BY:

	PR	RESTRESSED CONCRETE	GIRDER REPAIR
	ERI — EP	OXY RESIN INJECTIO	Ν
ELEVATION		BENT 6	
SOUTH FACE			
PLAN		BENT 6	
BOTTOM OF BEAM LOOKING UP			
		BENT 5	
ELEVATION NORTH FACE			PLANS PREPARED BY SIMPSON NGINEERS
			5640 Dillard Drive
			5640 Dillard Drive Suite 200 Cary,NC 27518 (919) 852-0468 (919) 852-0598 (Fa) www.simpsonengr. LICENSURE NO.C-2
			ILICENSURE NO. C-2

REPAIR QUANTITY TABLE						
REPAIRS SPAN 6 GRD. 3	QUANTITIES					
	ESI	IMATE		ACTUAL	-	
REPAIRS OF PRESTR. CONCRETE GIRDERS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF	
GIRDER	0.0	0.0				
EPOXY RESIN INJECT	ION	LF		LF		
GIRDER	0.0					

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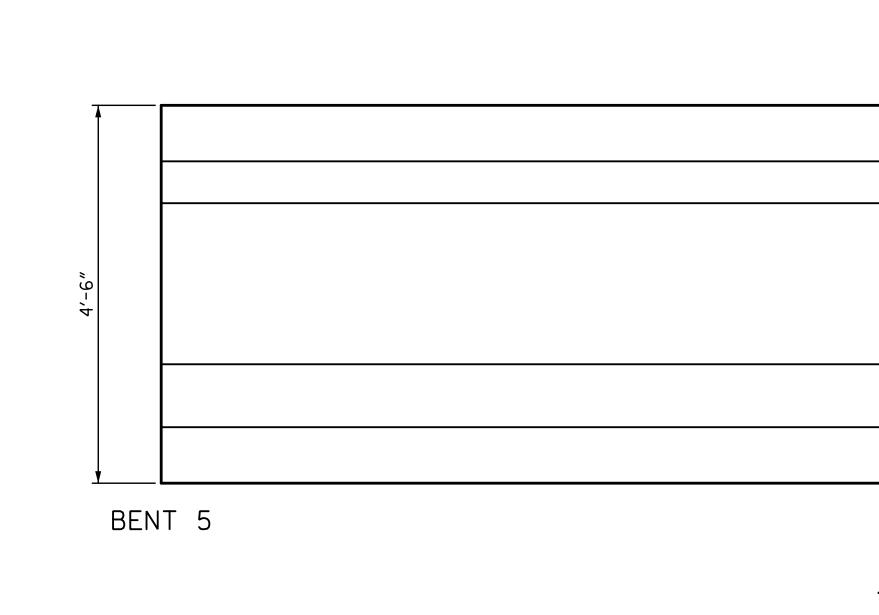
FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

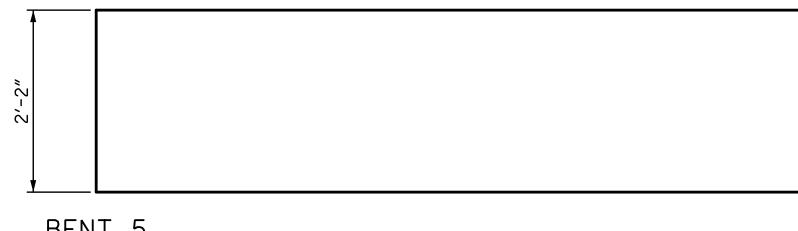
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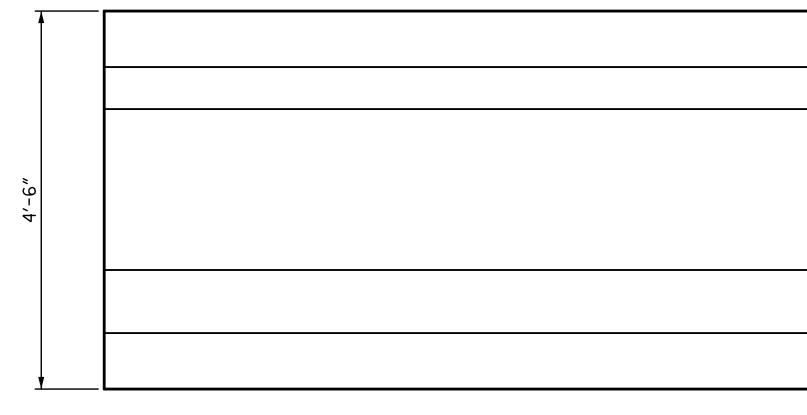
FOR REPAIRS OF PRESTRESSED CONCRETE GIRDERS DETAILS, SEE "PRESTRESSED CONCRETE GIRDER REPAIR DETAILS" SHEET.

			IANOVE E NO.:	R/PEN	<u>5BPR.</u> NDER_C 54004	OUNTY
PLANS PREPARED BY:			STAT RTMENT	RALEIGH	ANSPORT	ATION
SIMPSON NGINEERS SSOCIATES 5640 Dillard Drive Suite 200 Cary, NC 27518 (919) 852-0468	Doguesiantitu VCARO/ turo getestic/04 A6B (States St./04 SEAL 24390 MG/NEE		-	SPAN IRDE	-	
(919) 852-0598 (Fax) www.simpsonengr.com	9/29/2020		REVIS	SIONS		SHEET NO.
LICENSURE NO. C-2521	5/25/2020	NO. BY:	DATE:	NO. BY:	DATE:	S1-60
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DRAWN BY:	T.BANKOVICH		DATE: 9-20
	T.J. BEACH		DATE: 9-20
	ER OF RECORD:	T.J. BEACH	DATE: 9-20
	DRAWN BY: CHECKED BY: DESIGN ENGINE		CHECKED BY:

	PR	RESTRESSED CONCRETE	GIRDER REPAIR
	ERI — EP	OXY RESIN INJECTIO	Ν
ELEVATION		BENT 6	
SOUTH FACE			
PLAN		BENT 6	
BOTTOM OF BEAM LOOKING UP			
		BENT 5	
ELEVATION NORTH FACE			PLANS PREPARED BY SIMPSON NGINEERS
			5640 Dillard Drive
			5640 Dillard Drive Suite 200 Cary,NC 27518 (919) 852-0468 (919) 852-0598 (Fa) www.simpsonengr. LICENSURE NO.C-2
			ILICENSURE NO. C-2

REPAIR QUANTITY TABLE							
REPAIRS SPAN 6 GRD. 4 GUANTITIES							
INCLATING STAN 0 GILD. 4	EST	IMATE		ACTUAL			
REPAIRS OF PRESTR. CONCRETE GIRDERS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF		
GIRDER	0.0	0.0					
EPOXY RESIN INJECT	ION	LF			LF		
GIRDER	0.0						

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

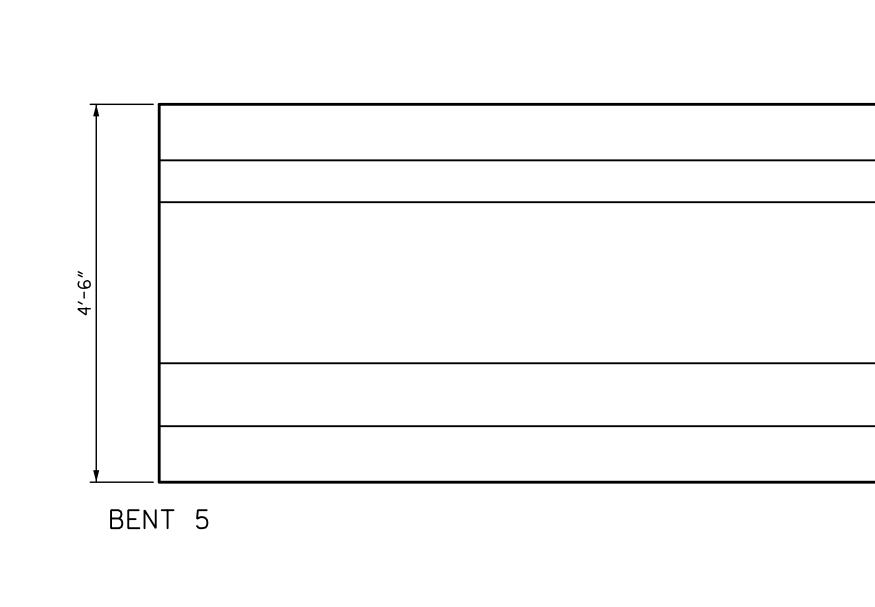
FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

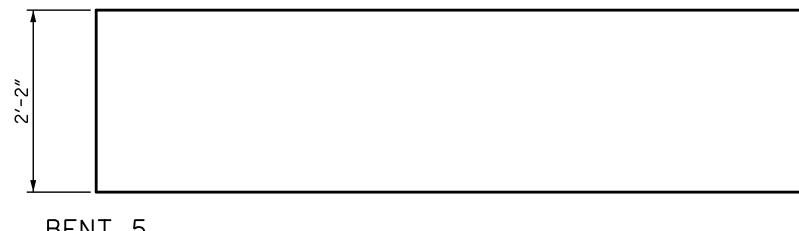
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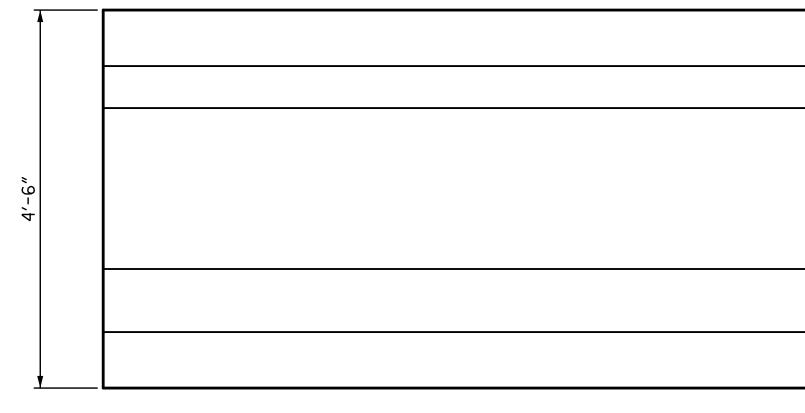
FOR REPAIRS OF PRESTRESSED CONCRETE GIRDERS DETAILS, SEE "PRESTRESSED CONCRETE GIRDER REPAIR DETAILS" SHEET.

			CT NO. Ianover			
				C	40048	
		BRIDG	E NO.:_	0-		<u> </u>
		SHEET 4	OF 5			
PLANS PREPARED BY:		DEPA	RTMENT	OF NORTH CAR OF TRAI RALEIGH	NSPORTA	TION
SIMPSON NGINEERS SSOCIATES 5640 Dillard Drive Suite 200 Cary NC 27518	AGB CONSTRUCTION SEAL 24390	SPAN 6 GIRDER 4				
Cary, NC 27518 (919) 852-0468 (919) 852-0598 (Fax) www.simpsonengr.com	9/29/2020		REVISI			SHEET NO. S1-61
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DRAWN BY:	T.BANKOVICH		DATE: 9-20
	T.J. BEACH		DATE: 9-20
	ER OF RECORD:	T.J. BEACH	DATE: 9-20
	DRAWN BY: CHECKED BY: DESIGN ENGINE		CHECKED BY:

	PR	RESTRESSED CONCRETE	GIRDER REPAIR
	ERI — EP	OXY RESIN INJECTIO	Ν
ELEVATION		BENT 6	
SOUTH FACE			
PLAN		BENT 6	
BOTTOM OF BEAM LOOKING UP			
		BENT 5	
ELEVATION NORTH FACE			PLANS PREPARED BY SIMPSON NGINEERS
			5640 Dillard Drive
			5640 Dillard Drive Suite 200 Cary,NC 27518 (919) 852-0468 (919) 852-0598 (Fa) www.simpsonengr. LICENSURE NO.C-2
			ILICENSURE NO. C-2

REPAIR QU	ANT	ITY -	TABL	.E	
REPAIRS SPAN 6 GRD. 5			UANTIT		
	EST	IMATE		ACTUAL	-
REPAIRS OF PRESTR. CONCRETE GIRDERS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF
GIRDER	0.0	0.0			
EPOXY RESIN INJECTION LF					
GIRDER	0.0				

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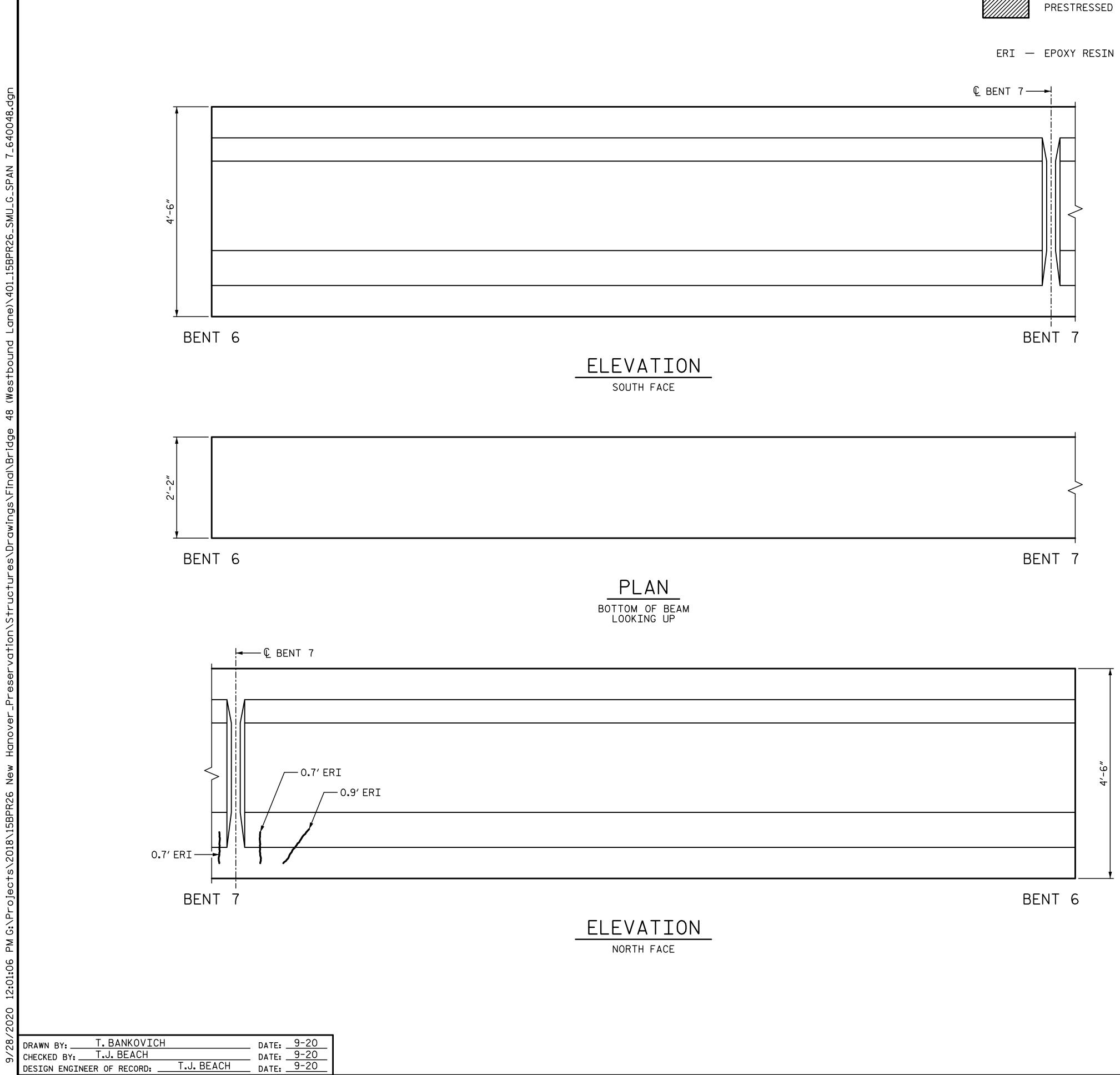
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FOR REPAIRS OF PRESTRESSED CONCRETE GIRDERS DETAILS, SEE "PRESTRESSED CONCRETE GIRDER REPAIR DETAILS" SHEET.

		PROJE	CT NO.	15	BPR.2	26		
		NEW H	HANOVER	/PEN[DER CO	DUNTY		
		BRIDG	E NO .:	6	40048	3		
SHEET 5 OF 5								
PLANS PREPARED BY:		DEPA	ARTMENT (DF NORTH CAR DF TRA RALEIGH ERVA	NSPORTA	TION		
SIMPSON NGINEERS SSOCIATES 5640 Dillard Drive Suite 200 Cary, NC 27518	AGB BESTELLER AGB STELLER AGB STELLER SEAL 24390			PAN RDER				
(919) 852-0468 (919) 852-0598 (Fax) www.simpsonengr.com	9/29/2020		REVISI	ONS		SHEET NO.		
LICENSURE NO. C-2521		NO. ВҮ: 1	DATE: NO		DATE:	S1-62 TOTAL SHEETS		
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ERI — EPOXY RESIN INJECTION



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REPAIR QU	ANT	ITY -	ΓABL	.E		
REPAIRS SPAN 7 GRD.1	БСТ		JANTITI			
	EST	IMATE		ACTUAL	-	
REPAIRS OF PRESTR. CONCRETE GIRDERS	AREA SF			DEPTH FT	VOLUI CF	ИE
GIRDER	0.0	0.0				
EPOXY RESIN INJECTION LF						F
GIRDER	2.3					

NOTES:

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

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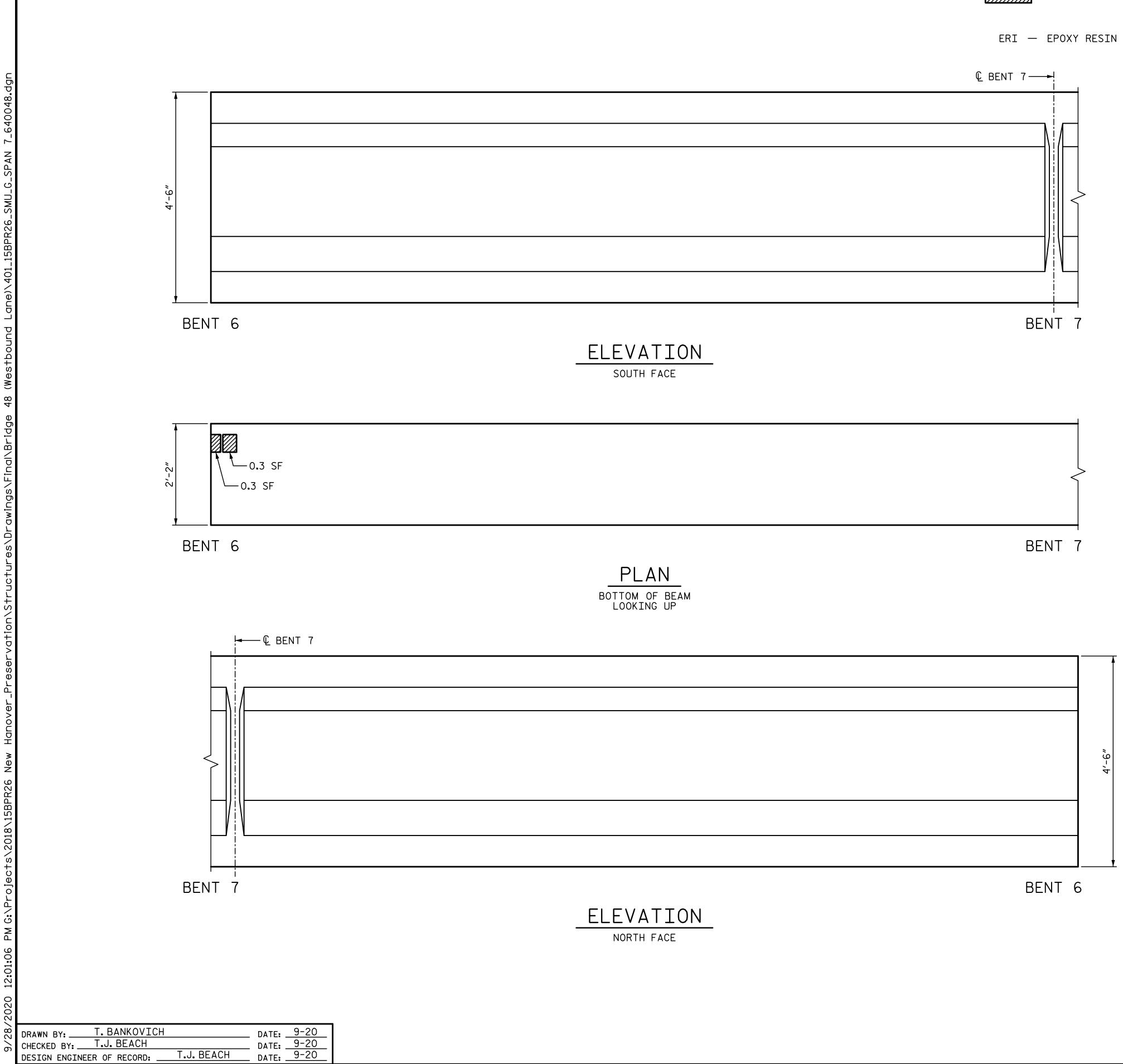
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		NEW H	CT NO. <u>Ianovef</u> E NO.:_	<u>R/F</u>	PEND		UNTY
		SHEET 1	0F 7				
BY:		STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH PRESERVATION					
RS ATES Ive	Dogues of the SAROL TUCS BEESSION AGB SEE SEAL 24390				AN DER		
⁻ ax) gr.com	J. BEAMIN		REVIS	IONS	;		SHEET NO.
2-2521	9/29/2020	NO. BY:	DATE: 1	NO.	BY:	DATE:	S1-63
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DESIGN ENGINEER OF RECORD: ___





ERI — EPOXY RESIN INJECTION



DOCUME **UNLESS A**

REPAIR QU	ANT	ITY -	ΓABL	.E		
REPAIRS SPAN 7 GRD. 2 QUANTITIES						
	EST	IMATE		ACTUAL	-	
REPAIRS OF PRESTR. CONCRETE GIRDERS	AREA SF			DEPTH FT	VOLUN CF	٨E
GIRDER	0.6	0.2				
EPOXY RESIN INJECTION LF					LF	=
GIRDER	0.0					

NOTES:

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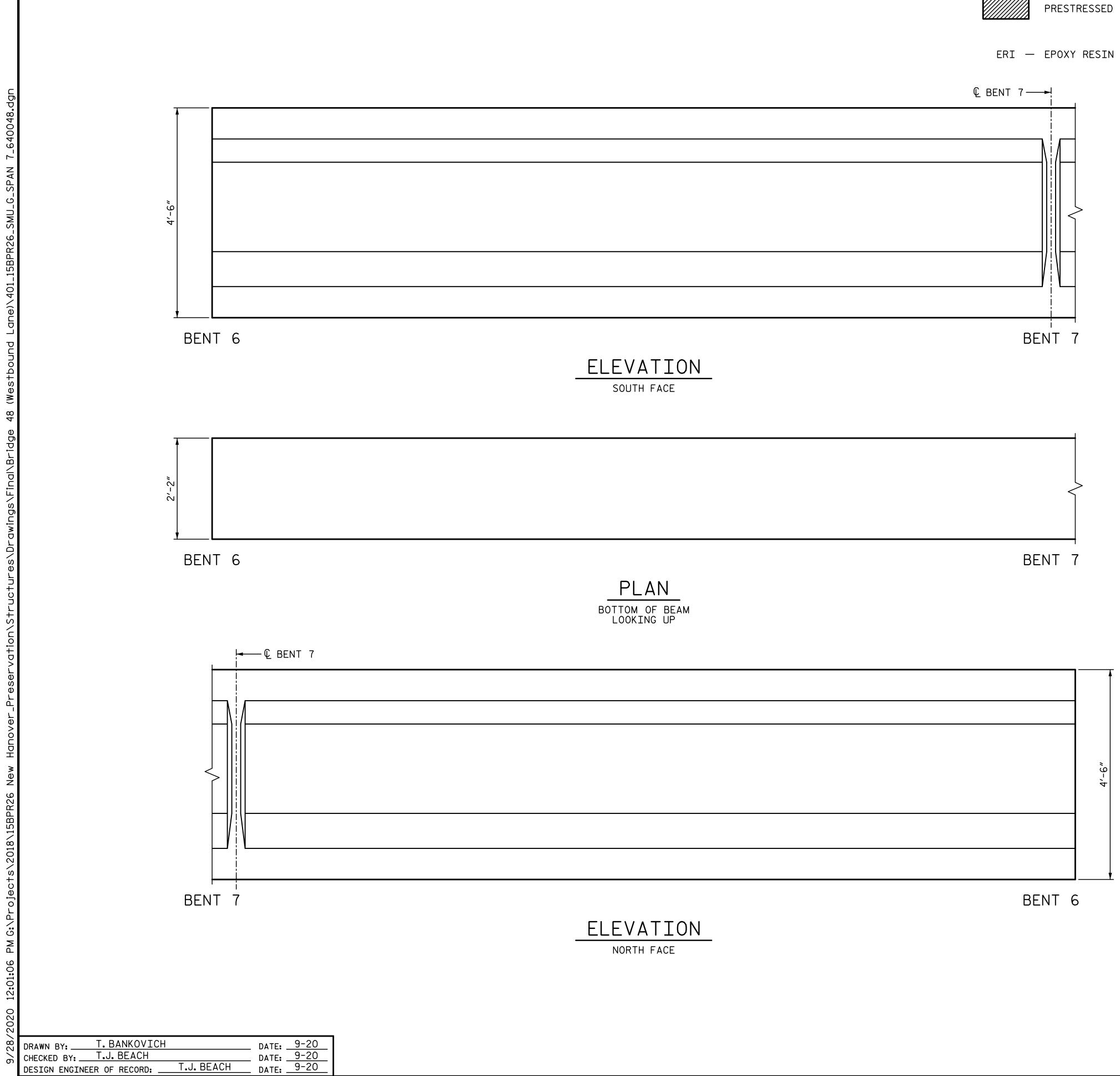
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FOR REPAIRS OF PRESSTRESSED CONCRETE GIRDERS, SEE SPECIAL PROVISIONS.

FOR REPAIRS OF PRESTRESSED CONCRETE GIRDERS DETAILS, SEE "PRESTRESSED CONCRETE GIRDER REPAIR DETAILS" SHEET.

		NEW	CT NO. <u>Hanovef</u> E NO.:_	<u>R/PENE</u>		UNTY		
		SHEET 2	0F 7					
BY:		STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH PRESERVATION						
RS ATES Ive	Poor Big The Mo SARO/ FUCO BUE ST 52458. AGB 100 PB 57 52458. SEAL 24390	SPAN 7 GIRDER 2						
ax) gr.com 2-2521	9/29/2020		REVISI			SHEET NO.		
NT NOT COI	NSIDERED FINAL JRES COMPLETED	NO. BY: 1 2		ио. вү: 33 13,	DATE:	S1-64 Total Sheets 163		





ERI — EPOXY RESIN INJECTION



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REPAIR QUANTITY TABLE							
REPAIRS SPAN 7 GRD. 3				JANTITI	IES		
THE ATTO STAN TONDES	EST	IMA	TE		ACTUAL		
REPAIRS OF PRESTR. CONCRETE GIRDERS	AREA SF			AREA SF	DEPTH FT		OLUME CF
GIRDER	0.0	(0.0				
EPOXY RESIN INJECT		LF				LF	
GIRDER		0.0					

NOTES:

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

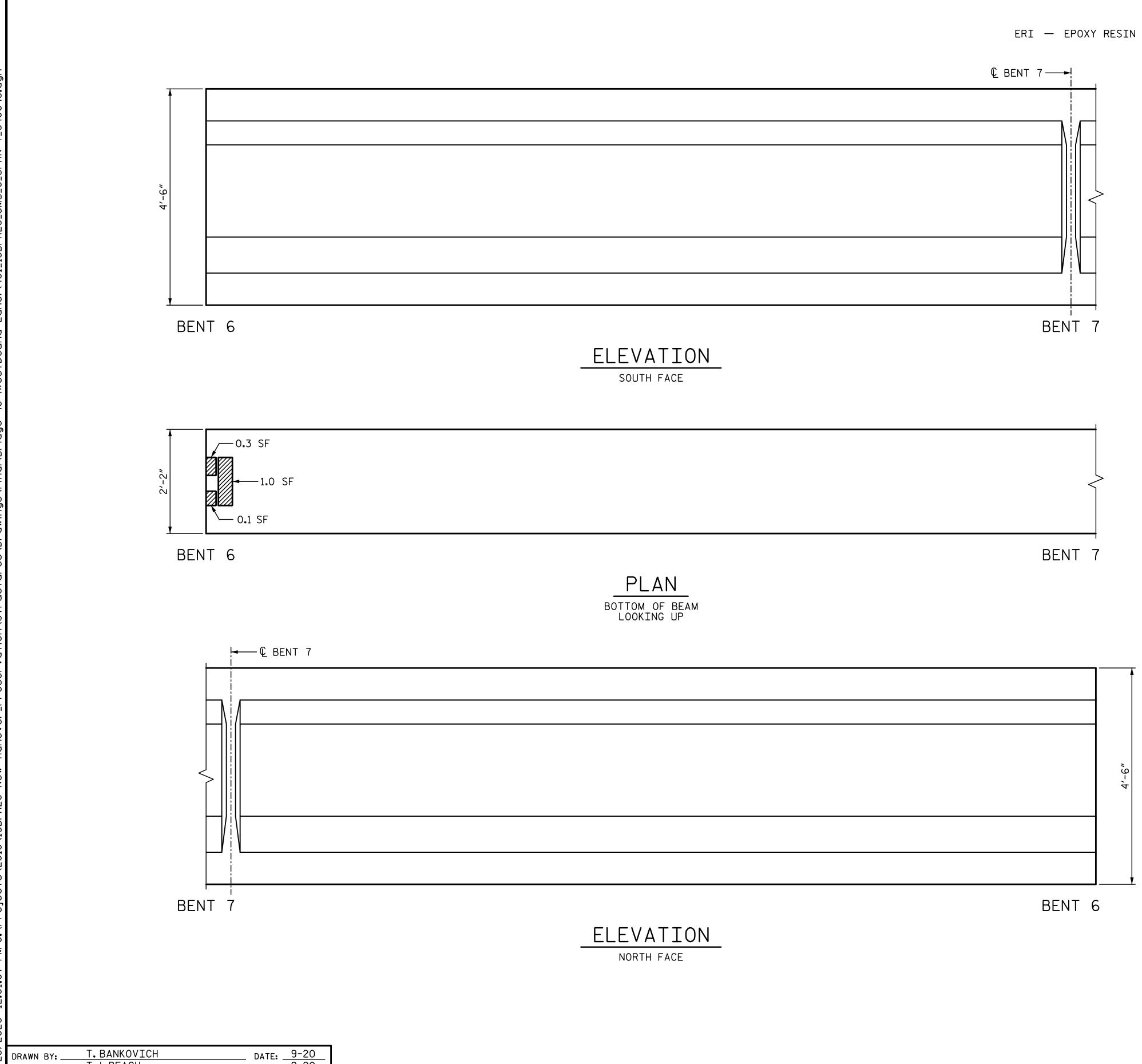
FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

VALUES IN CHART REPRESENT ESTIMATE REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN, OF 1"BEHIND REBAR AND MIN. 2"CL. TO SAWCUT. SEE REPAIR DETAILS.

FOR REPAIRS OF PRESSTRESSED CONCRETE GIRDERS, SEE SPECIAL PROVISIONS.

FOR REPAIRS OF PRESTRESSED CONCRETE GIRDERS DETAILS, SEE "PRESTRESSED CONCRETE GIRDER REPAIR DETAILS" SHEET.

		PROJEC <u>NEW</u> H BRIDGE	ANOVE	<u>R/PENE</u>		UNTY	
		SHEET 3	OF 7				
BY:		STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH PRESERVATION					
RS ATES Ive	Danis min by CARO/ ture Strate A6B & BES75245E SEAL 24390	SPAN 7 GIRDER 3					
Fax) gr.com ;-2521	9/29/2020	NO. BY:	REVIS DATE:	IONS NO. BY:	DATE:	SHEET NO. S1-65	
	T NOT CONSIDERED FINAL1Date:Date:Date:Date:L SIGNATURES COMPLETED24163						



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ERI — EPOXY RESIN INJECTION



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REPAIR QUANTITY TABLE							
REPAIRS SPAN 7 GRD. 4				JANTITI	IES		
INELIATING SLAN LOND. L	EST	IMA	TE	ACTUAL			
REPAIRS OF PRESTR. CONCRETE GIRDERS	AREA SF			AREA SF	DEPTH FT	V	OLUME CF
GIRDER	1.4		0.5				
EPOXY RESIN INJECT	SIN INJECTION LF						LF
GIRDER 0.0							

NOTES:

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

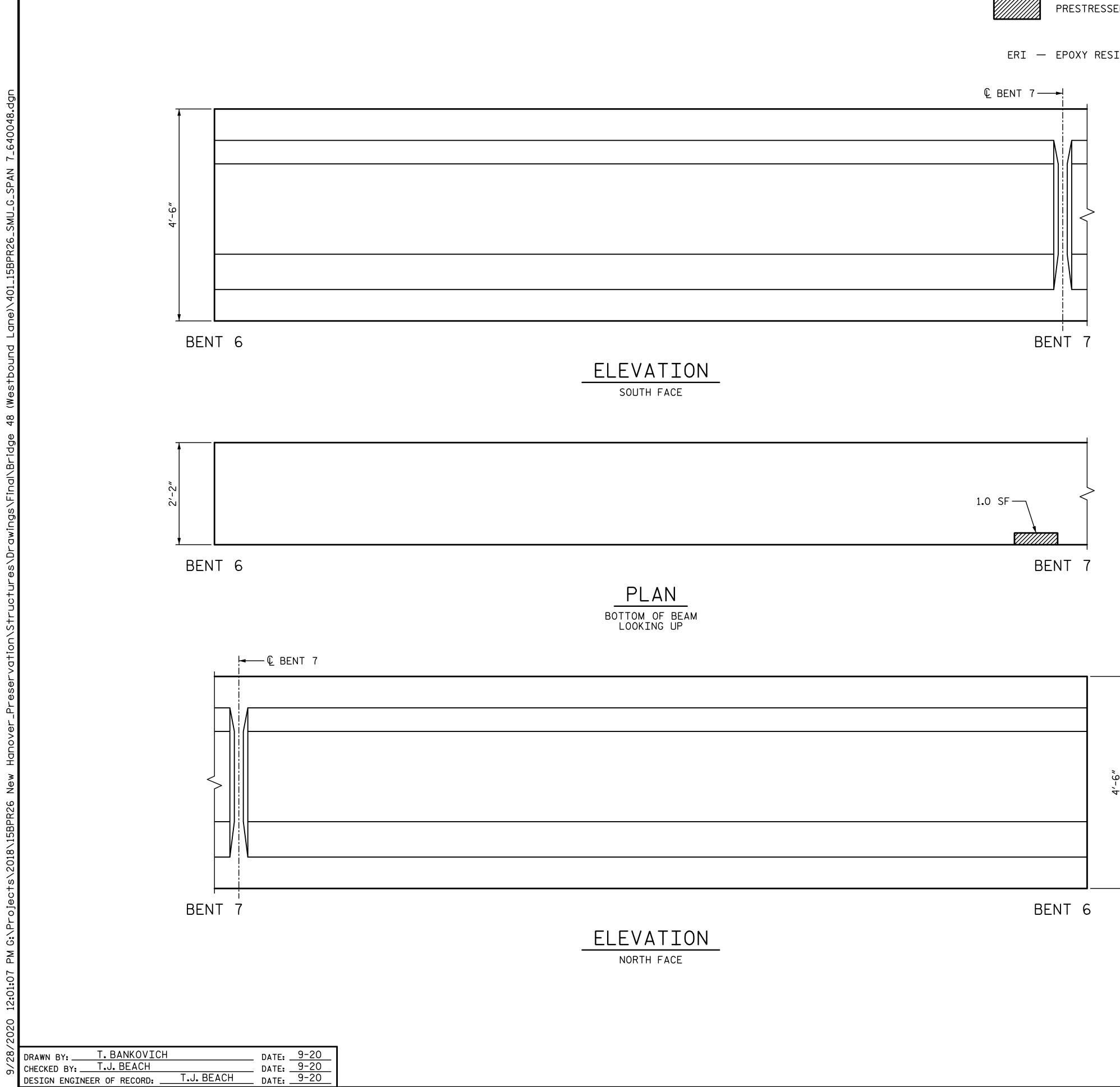
FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

VALUES IN CHART REPRESENT ESTIMATE REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN, OF 1"BEHIND REBAR AND MIN. 2"CL. TO SAWCUT. SEE REPAIR DETAILS.

FOR REPAIRS OF PRESSTRESSED CONCRETE GIRDERS, SEE SPECIAL PROVISIONS.

FOR REPAIRS OF PRESTRESSED CONCRETE GIRDERS DETAILS, SEE "PRESTRESSED CONCRETE GIRDER REPAIR DETAILS" SHEET.

		PROJEC	CT NO.		15	BPR.2	26
			IANOVE				
		BRIDGE NO.: 640048					
		SHEET 4	OF 7				
BY:		STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH PRESERVATION					
S ATES Ve	ACTIVITY OF AROLINA ACTIVITY OF EXEMPTION ACTIVITY OF EXAMPLE SEAL 24390	SPAN 7 GIRDER 4					
ax) jr.com	9/29/2020		REVIS	ION	IS		SHEET NO.
-2521	3/23/2020	NO. BY:		NO.	BY:	DATE:	S1-66
	NSIDERED FINAL JRES COMPLETED	1 2		3 4			total sheets 163





ERI — EPOXY RESIN INJECTION



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REPAIR QU	ANT	ITY	TABL	.E			
REPAIRS SPAN 7 GRD. 5	QUANTITIES						
	EST	IMATE		ACTUAL			
REPAIRS OF PRESTR. CONCRETE GIRDERS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF		
GIRDER	1.0 0.3						
EPOXY RESIN INJECTION LF							
GIRDER 0.0							

NOTES:

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

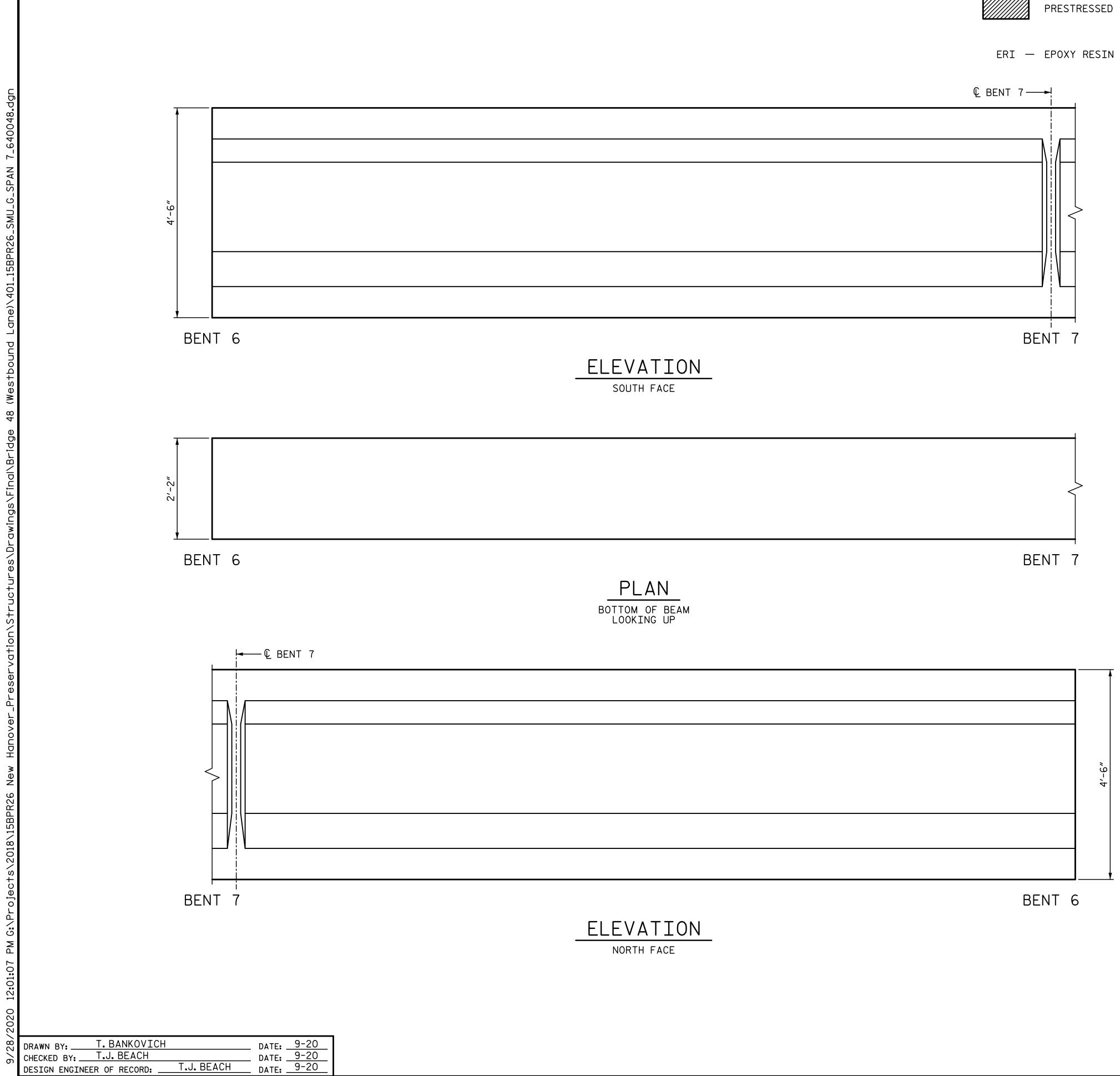
FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

VALUES IN CHART REPRESENT ESTIMATE REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN, OF 1"BEHIND REBAR AND MIN. 2"CL. TO SAWCUT. SEE REPAIR DETAILS.

FOR REPAIRS OF PRESSTRESSED CONCRETE GIRDERS, SEE SPECIAL PROVISIONS.

FOR REPAIRS OF PRESTRESSED CONCRETE GIRDERS DETAILS, SEE "PRESTRESSED CONCRETE GIRDER REPAIR DETAILS" SHEET.

	PROJECT NO. <u>15BPR.26</u> <u>NEW HANOVER/PENDER</u> COUNT BRIDGE NO.: 640048							
		SHEET 5	OF 7					
BY:		STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH PRESERVATION						
IS ATES Ve	Docusioner M: CAROL Hard Streets Ion AGB 13805 5/52458 SEAL 24390	SPAN 7 GIRDER 5						
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pr.com -2521	9/29/2020		REVIS			DATE	SHEET NO. S1-67	
		NO. ВҮ: 1	DATE:	NO. BY:		DATE:	TOTAL SHEETS	
	NSIDERED FINAL JRES COMPLETED	2		<u>4</u>			sheets 163	





ERI — EPOXY RESIN INJECTION



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REPAIR QUANTITY TABLE							
REPAIRS SPAN 7 GRD. 6	QUANTITIES						
INELIATING SLAN I ONDER	EST	IMATE	IATE ACTUAL				
REPAIRS OF PRESTR. CONCRETE GIRDERS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF		
GIRDER	0.0 0.0						
EPOXY RESIN INJECTION LF							
GIRDER	0.0						

NOTES:

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

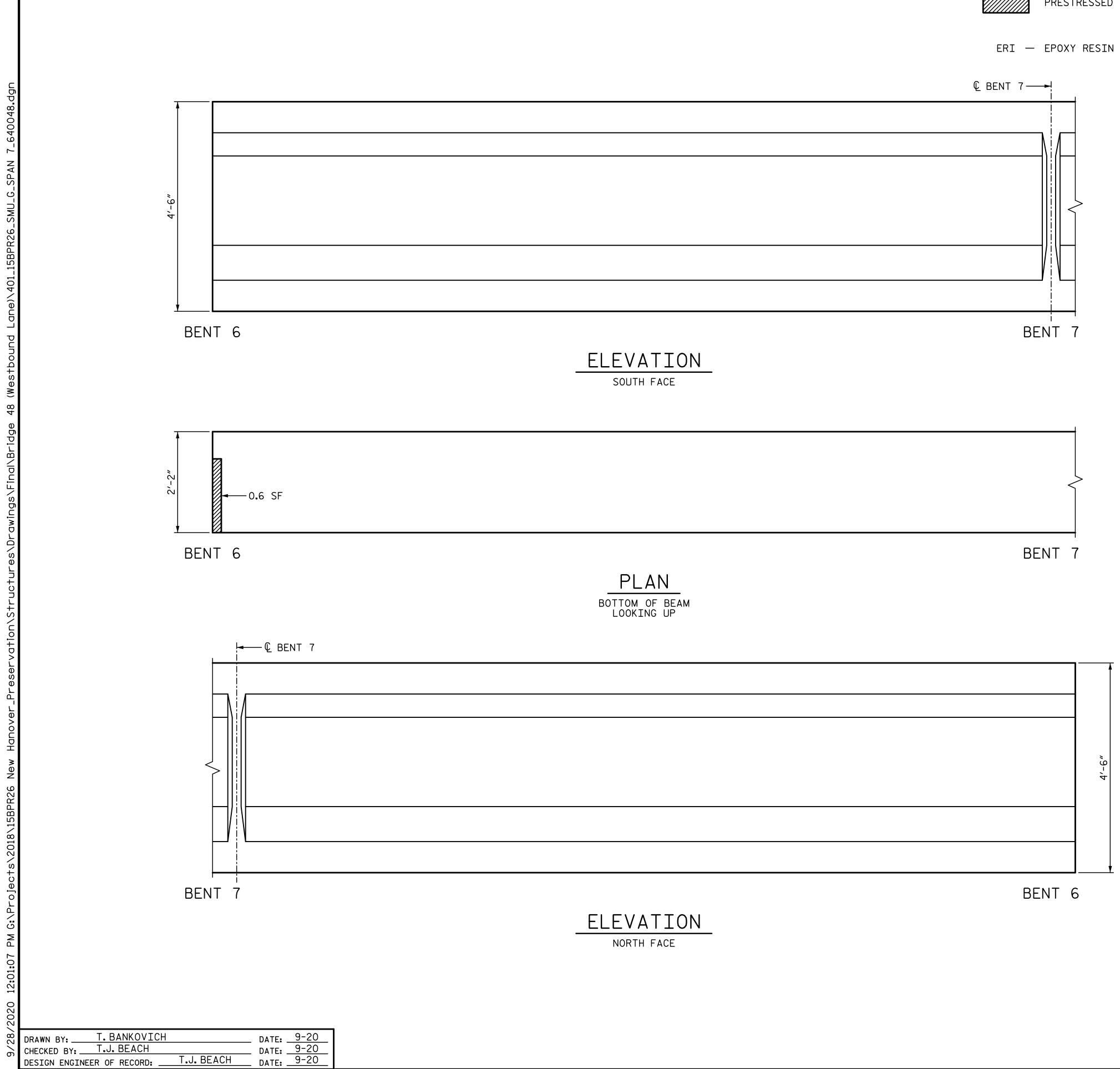
FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

VALUES IN CHART REPRESENT ESTIMATE REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN, OF 1"BEHIND REBAR AND MIN. 2"CL. TO SAWCUT. SEE REPAIR DETAILS.

FOR REPAIRS OF PRESSTRESSED CONCRETE GIRDERS, SEE SPECIAL PROVISIONS.

FOR REPAIRS OF PRESTRESSED CONCRETE GIRDERS DETAILS, SEE "PRESTRESSED CONCRETE GIRDER REPAIR DETAILS" SHEET.

		PROJECT NO. <u>15BPR.26</u> <u>NEW HANOVER/PENDER COUNTY</u> BRIDGE NO.: <u>640048</u> SHEET 6 OF 7						
BY:		STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH PRESERVATION						
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CHECKED BY: T.J. BEACH T.J. BEACH DESIGN ENGINEER OF RECORD: ___



ERI — EPOXY RESIN INJECTION



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REPAIR QU	ANT	ITY [.]	TABL	.E			
REPAIRS SPAN 7 GRD. 7		IES					
THE ATTOS START FORDER	EST	IMATE		ACTUAL			
REPAIRS OF PRESTR. CONCRETE GIRDERS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF		
GIRDER	0.6 0.2						
EPOXY RESIN INJECTION LF							
GIRDER 0.0							

NOTES:

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

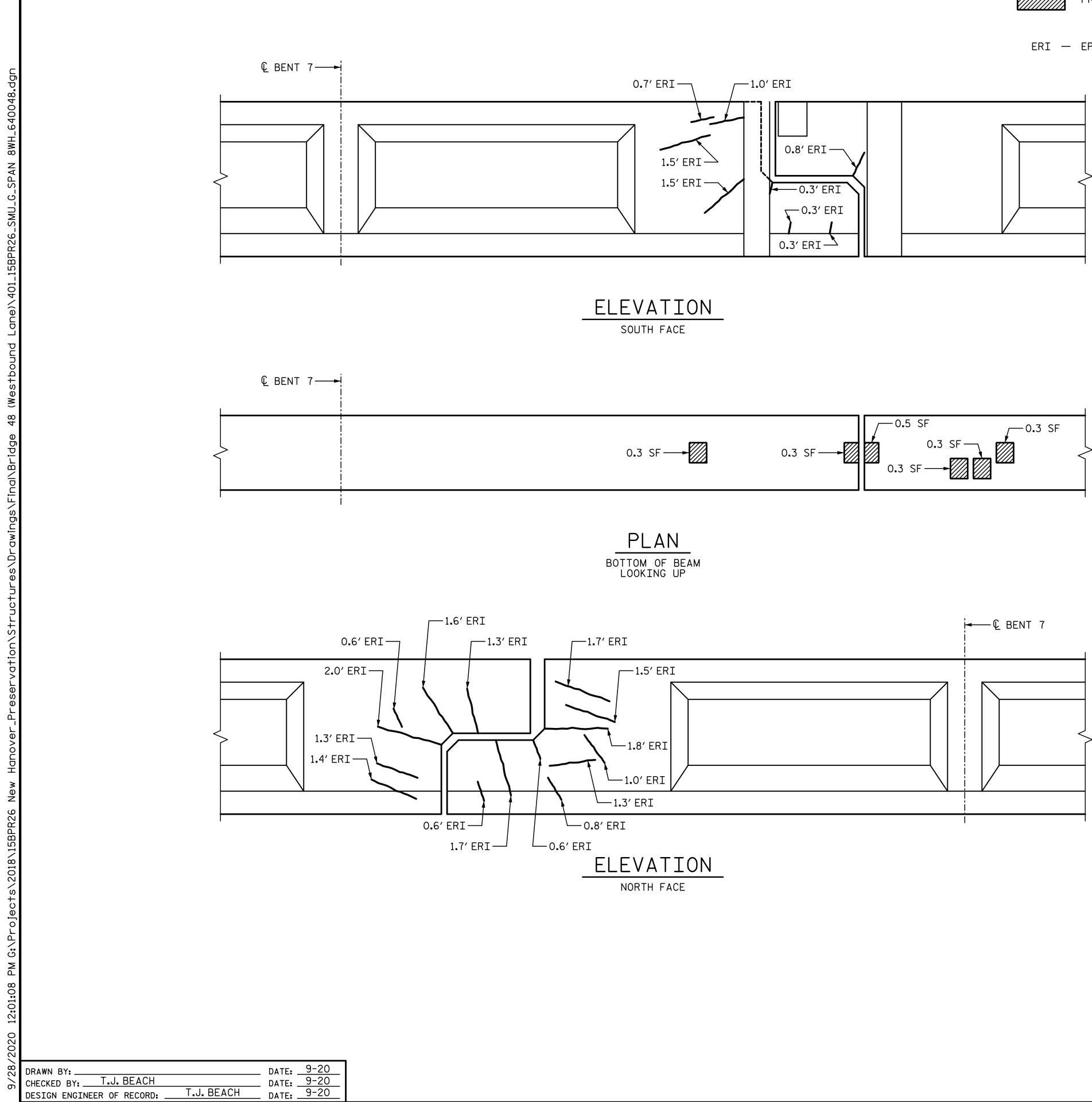
FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

VALUES IN CHART REPRESENT ESTIMATE REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN, OF 1"BEHIND REBAR AND MIN. 2"CL. TO SAWCUT. SEE REPAIR DETAILS.

FOR REPAIRS OF PRESSTRESSED CONCRETE GIRDERS, SEE SPECIAL PROVISIONS.

FOR REPAIRS OF PRESTRESSED CONCRETE GIRDERS DETAILS, SEE "PRESTRESSED CONCRETE GIRDER REPAIR DETAILS" SHEET.

		PROJEC	CT NO. Ianovei		PEND		UNTY	
		BRIDGE NO.: 640048						
		SHEET 7	OF 7					
BY:		STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH PRESERVATION						
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					total sheets 163			





ERI — EPOXY RESIN INJECTION

PLANS PREPARED



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REPAIR QU	ANT	ITY -	ΓABL	.E			
REPAIRS EAST HINGE	QUANTITIES						
	EST	IMATE	MATE ACTUAL				
REPAIRS OF PRESTR. CONCRETE GIRDERS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF		
GIRDER	2.0 0.5						
EPOXY RESIN INJECT	ESIN INJECTION LF						
GIRDER 25.3							

NOTES:

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

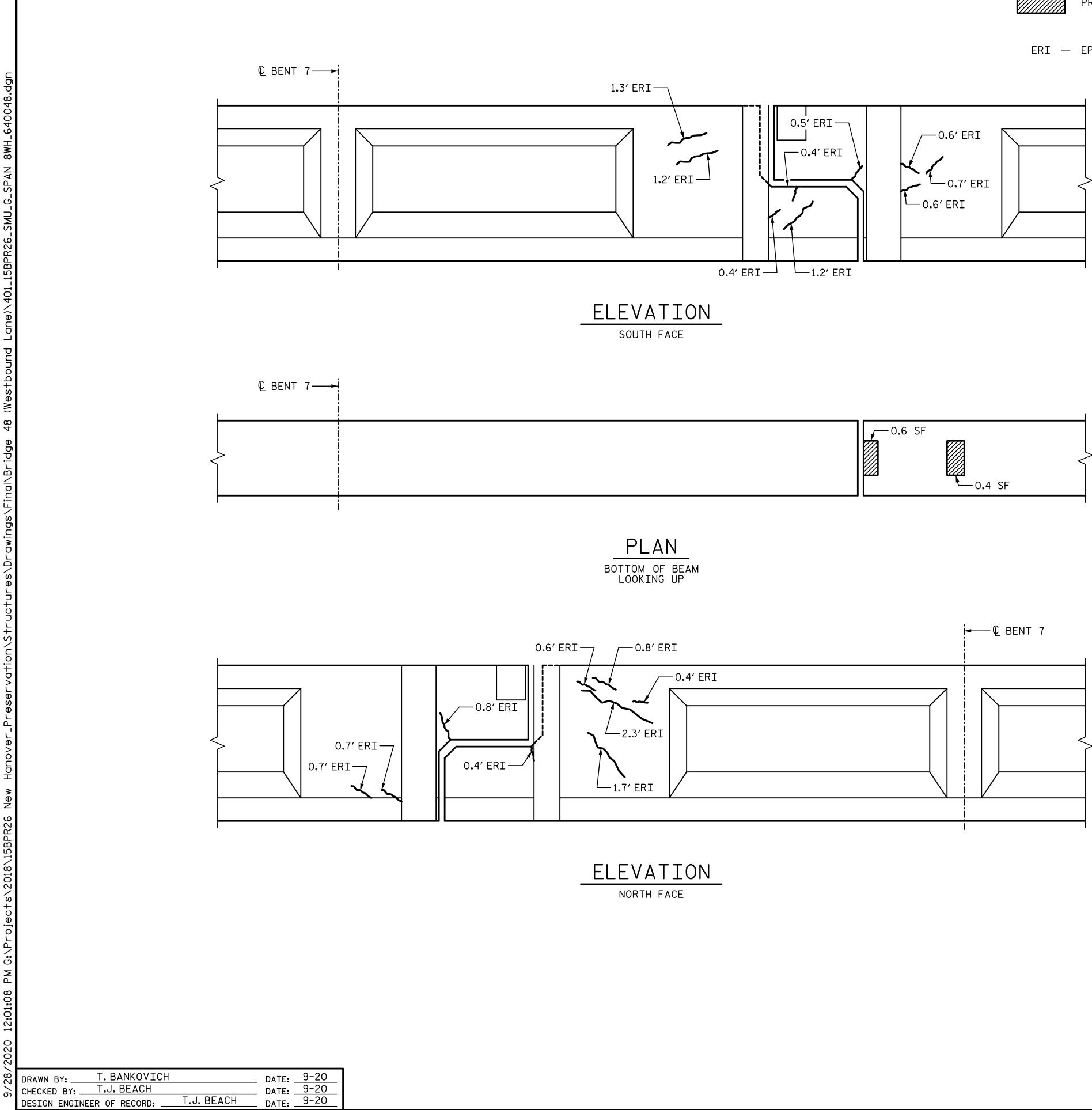
FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

VALUES IN CHART REPRESENT ESTIMATE REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN, OF 1"BEHIND REBAR AND MIN. 2"CL. TO SAWCUT. SEE REPAIR DETAILS.

FOR REPAIRS OF PRESSTRESSED CONCRETE GIRDERS, SEE SPECIAL PROVISIONS.

FOR REPAIRS OF PRESTRESSED CONCRETE GIRDERS DETAILS, SEE "PRESTRESSED CONCRETE GIRDER REPAIR DETAILS" SHEET.

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REPAIR QU	ANT	ITY	TABL	.E		
REPAIRS EAST HINGE	QUANTITIES ESTIMATE ACTUAL					
					-	
REPAIRS OF PRESTR. CONCRETE GIRDERS	AREA SF			DEPTH FT	VOLUME CF	Ξ
GIRDER	1.0	0.5				
EPOXY RESIN INJECT	ION LF				LF	
GIRDER	15.3					

NOTES:

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

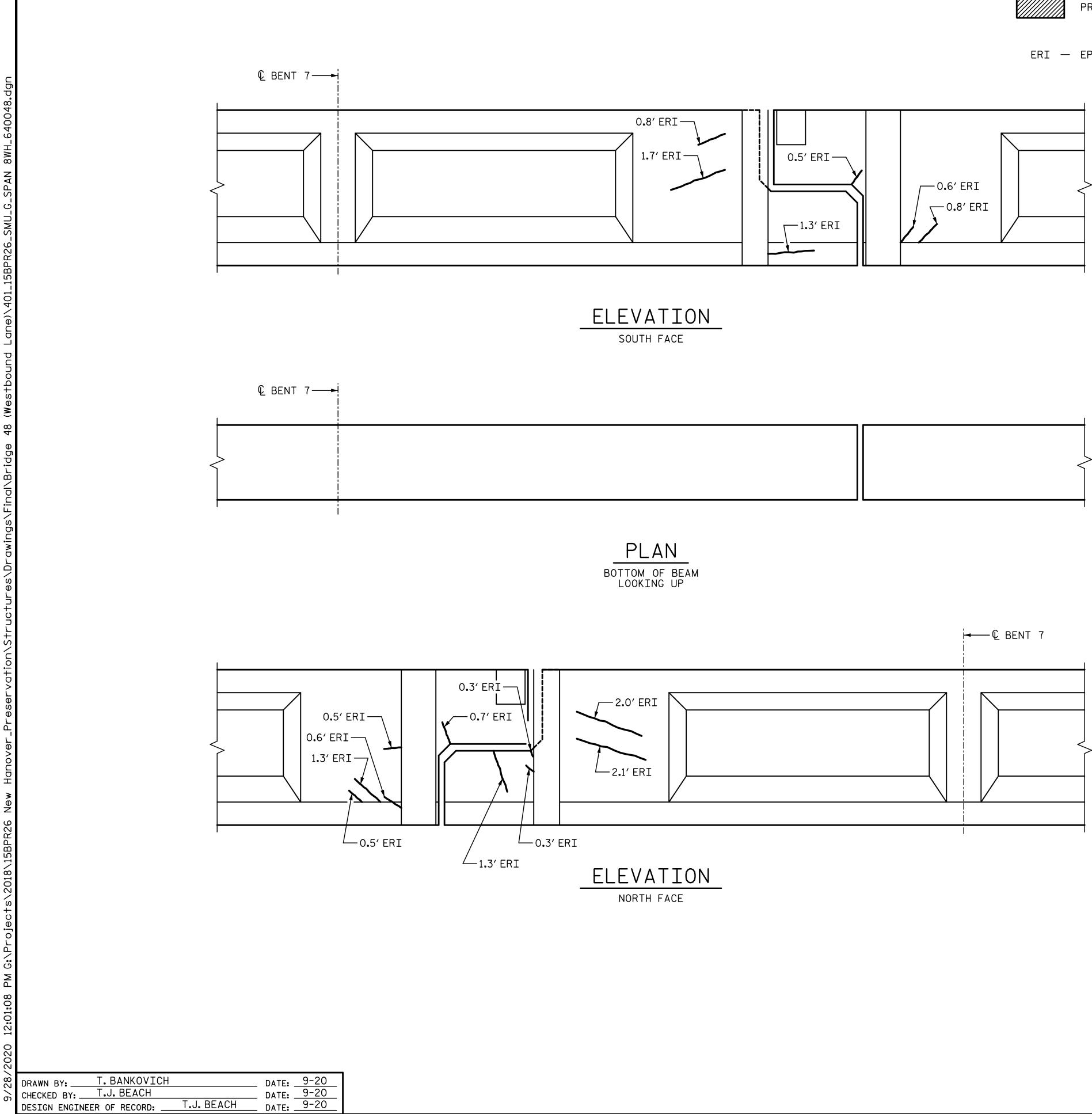
FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

VALUES IN CHART REPRESENT ESTIMATE REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN, OF 1"BEHIND REBAR AND MIN. 2"CL. TO SAWCUT. SEE REPAIR DETAILS.

FOR REPAIRS OF PRESSTRESSED CONCRETE GIRDERS, SEE SPECIAL PROVISIONS.

FOR REPAIRS OF PRESTRESSED CONCRETE GIRDERS DETAILS, SEE "PRESTRESSED CONCRETE GIRDER REPAIR DETAILS" SHEET.

		<u>NEW</u>	IANOVE E NO.:	<u>R/PEN</u>	5 <u>BPR.2</u> DER_CC 40048	DUNTY	
BY:		SHEET 2 OF 7 STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH PRESERVATION					
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PLANS PREPARED



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REPAIR QU	ANT	ITY -	TABL	.E		
REPAIRS EAST HINGE			UANTIT			
	ESTIMATE ACTL			ACTUAL	<u>۱</u>	
REPAIRS OF PRESTR. CONCRETE GIRDERS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF	
GIRDER	0.0	0.0				
EPOXY RESIN INJECT	TION LF L					
GIRDER	15.3					

NOTES:

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

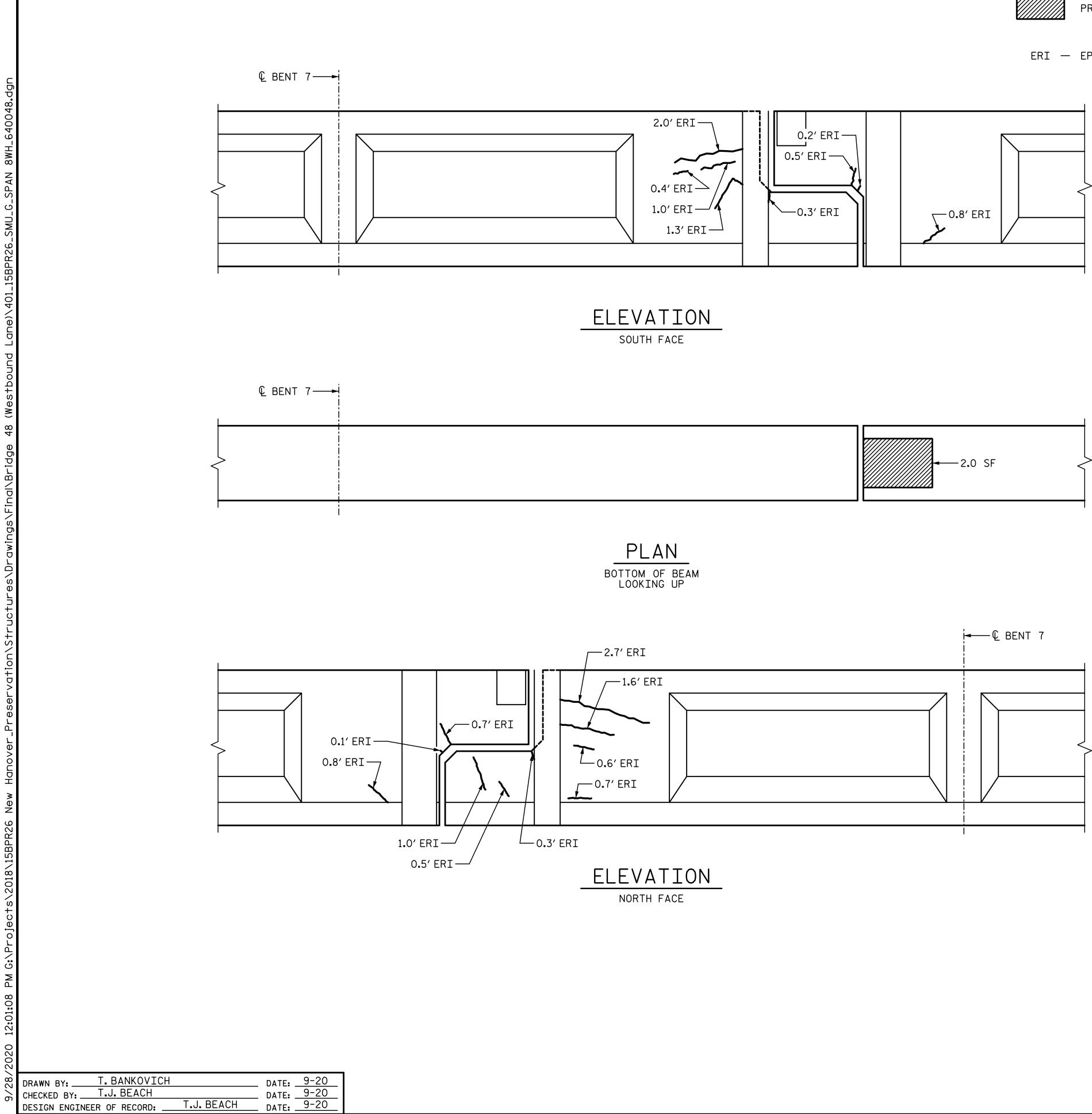
FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

VALUES IN CHART REPRESENT ESTIMATE REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN, OF 1"BEHIND REBAR AND MIN. 2"CL. TO SAWCUT. SEE REPAIR DETAILS.

FOR REPAIRS OF PRESSTRESSED CONCRETE GIRDERS, SEE SPECIAL PROVISIONS.

FOR REPAIRS OF PRESTRESSED CONCRETE GIRDERS DETAILS, SEE "PRESTRESSED CONCRETE GIRDER REPAIR DETAILS" SHEET.

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REPAIR QUANTITY TABLE								
REPAIRS EAST HINGE			UANTIT					
	ESTIMATE ACTUAL			-				
REPAIRS OF PRESTR. CONCRETE GIRDERS	AREA SF			DEPTH FT	VOLU CF	ME		
GIRDER	2.0	0.8						
EPOXY RESIN INJECT	FION LF L					F		
GIRDER	15.5							

NOTES:

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

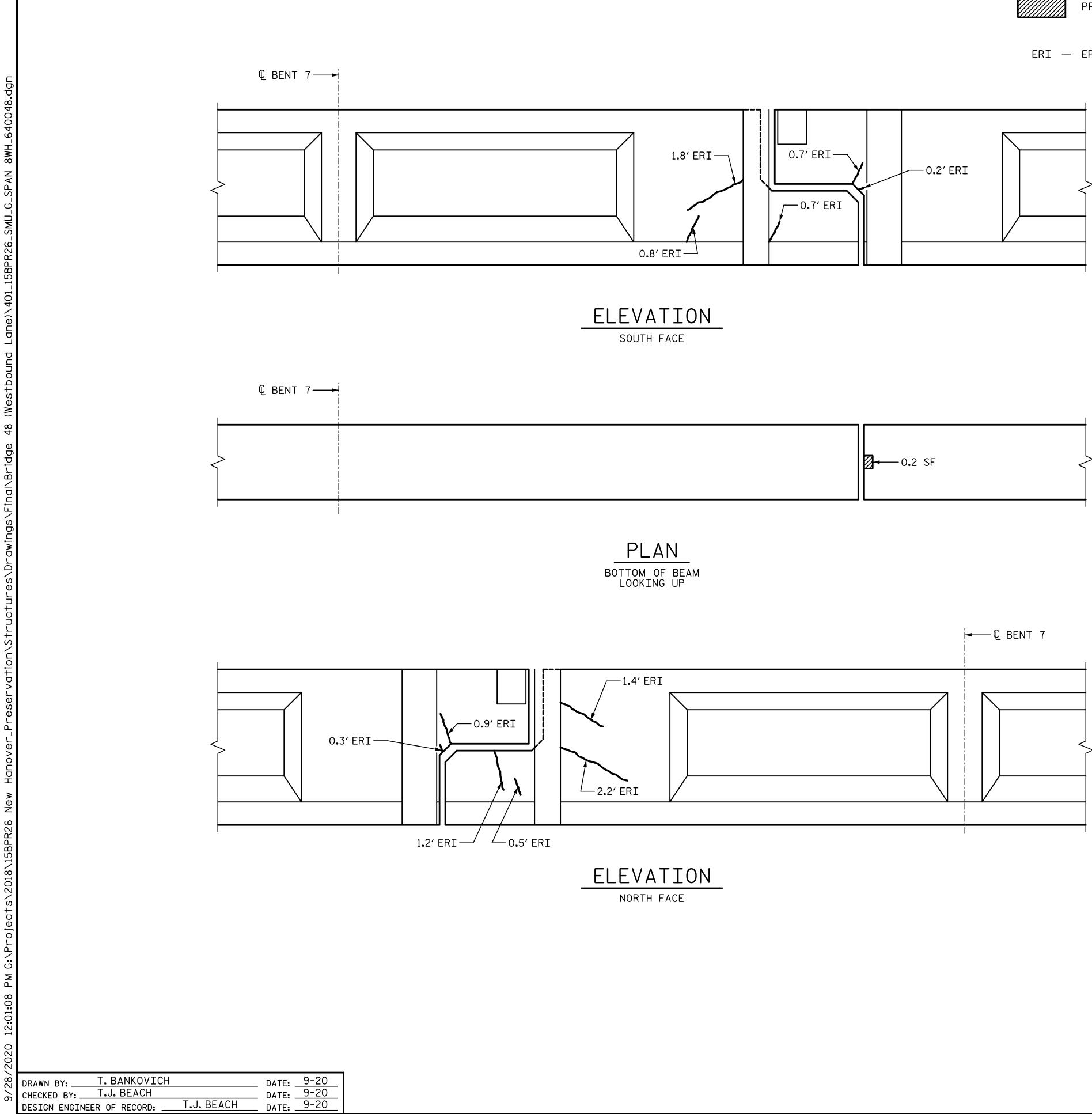
FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

VALUES IN CHART REPRESENT ESTIMATE REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN, OF 1"BEHIND REBAR AND MIN. 2"CL. TO SAWCUT. SEE REPAIR DETAILS.

FOR REPAIRS OF PRESSTRESSED CONCRETE GIRDERS, SEE SPECIAL PROVISIONS.

FOR REPAIRS OF PRESTRESSED CONCRETE GIRDERS DETAILS, SEE "PRESTRESSED CONCRETE GIRDER REPAIR DETAILS" SHEET.

		<u>NEW</u> BRIDO	CT NO. <u>Hanovei</u> Se No.:_	<u>R/PENE</u>		UNTY		
BY:		SHEET 4 OF 7 STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH PRESERVATION						
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	L NSIDERED FINAL JRES COMPLETED	1		3 4		total sheets 163		





PLANS PREPARED



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REPAIR QUANTITY TABLE								
REPAIRS EAST HINGE		QUANTITIES						
	ESTIMATE ACTUAL			-				
REPAIRS OF PRESTR. CONCRETE GIRDERS	AREA SF			DEPTH FT	VOLUME CF			
GIRDER	0.2	0.1						
EPOXY RESIN INJECT	TION LF L							
GIRDER	10.7							

NOTES:

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

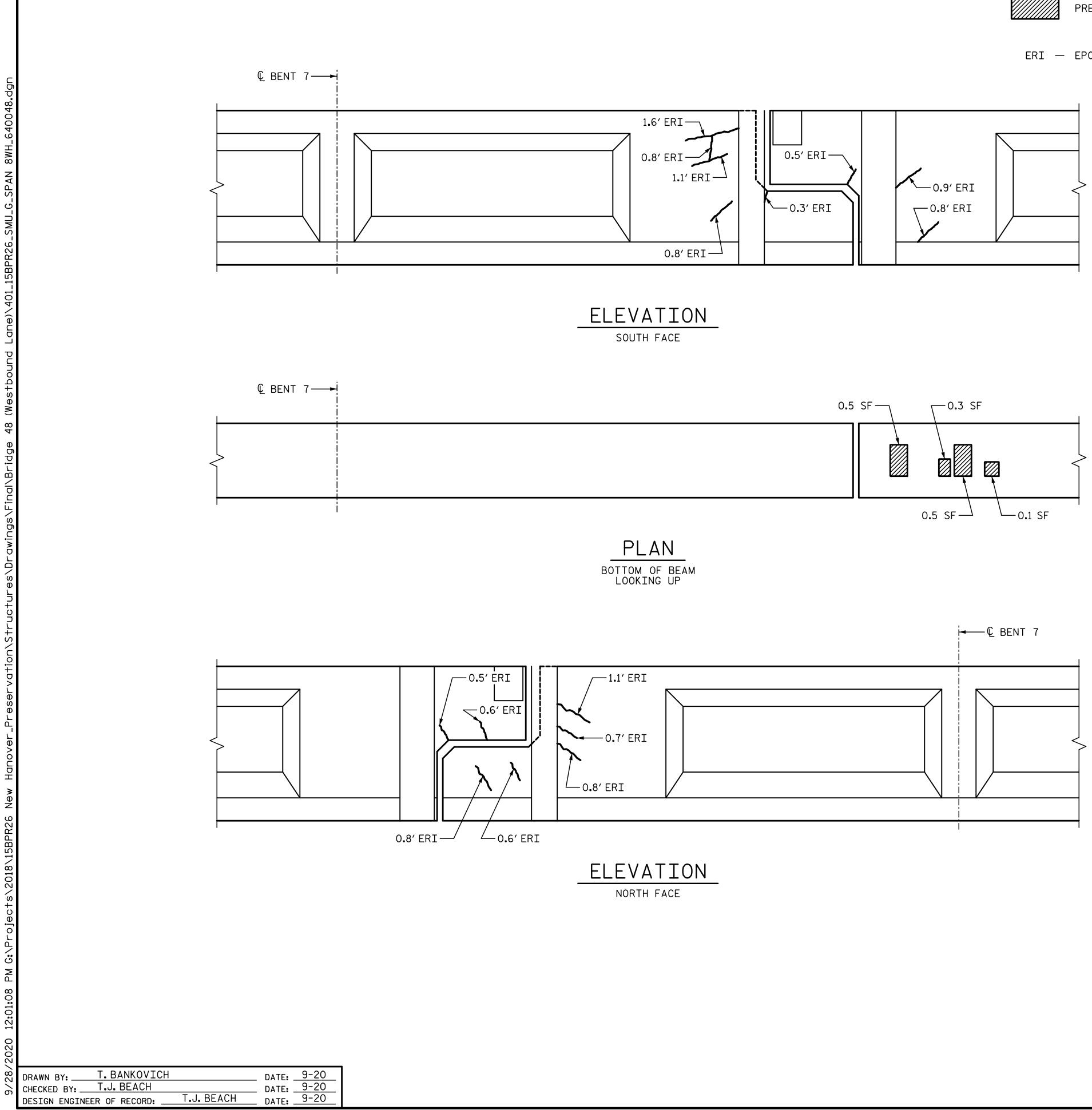
FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

VALUES IN CHART REPRESENT ESTIMATE REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN, OF 1"BEHIND REBAR AND MIN. 2"CL. TO SAWCUT. SEE REPAIR DETAILS.

FOR REPAIRS OF PRESSTRESSED CONCRETE GIRDERS, SEE SPECIAL PROVISIONS.

FOR REPAIRS OF PRESTRESSED CONCRETE GIRDERS DETAILS, SEE "PRESTRESSED CONCRETE GIRDER REPAIR DETAILS" SHEET.

		BRIDG	HANOVE E NO.:	ER/P	END	<u>BPR.2</u> <u>er</u> co 10048	UNTY
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	NSIDERED FINAL JRES COMPLETED	1		<u> </u>			total sheets 163





PLANS PREPARED



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REPAIR QU	ANT	ITY ⁻	TABL	.E		
REPAIRS EAST HINGE	QUANTITIES					
	ESI	ESTIMATE ACTUAL				
REPAIRS OF PRESTR. CONCRETE GIRDERS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUM CF	E
GIRDER	1.4	0.4				
EPOXY RESIN INJECT	ION LF L					
GIRDER	11.9					

NOTES:

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

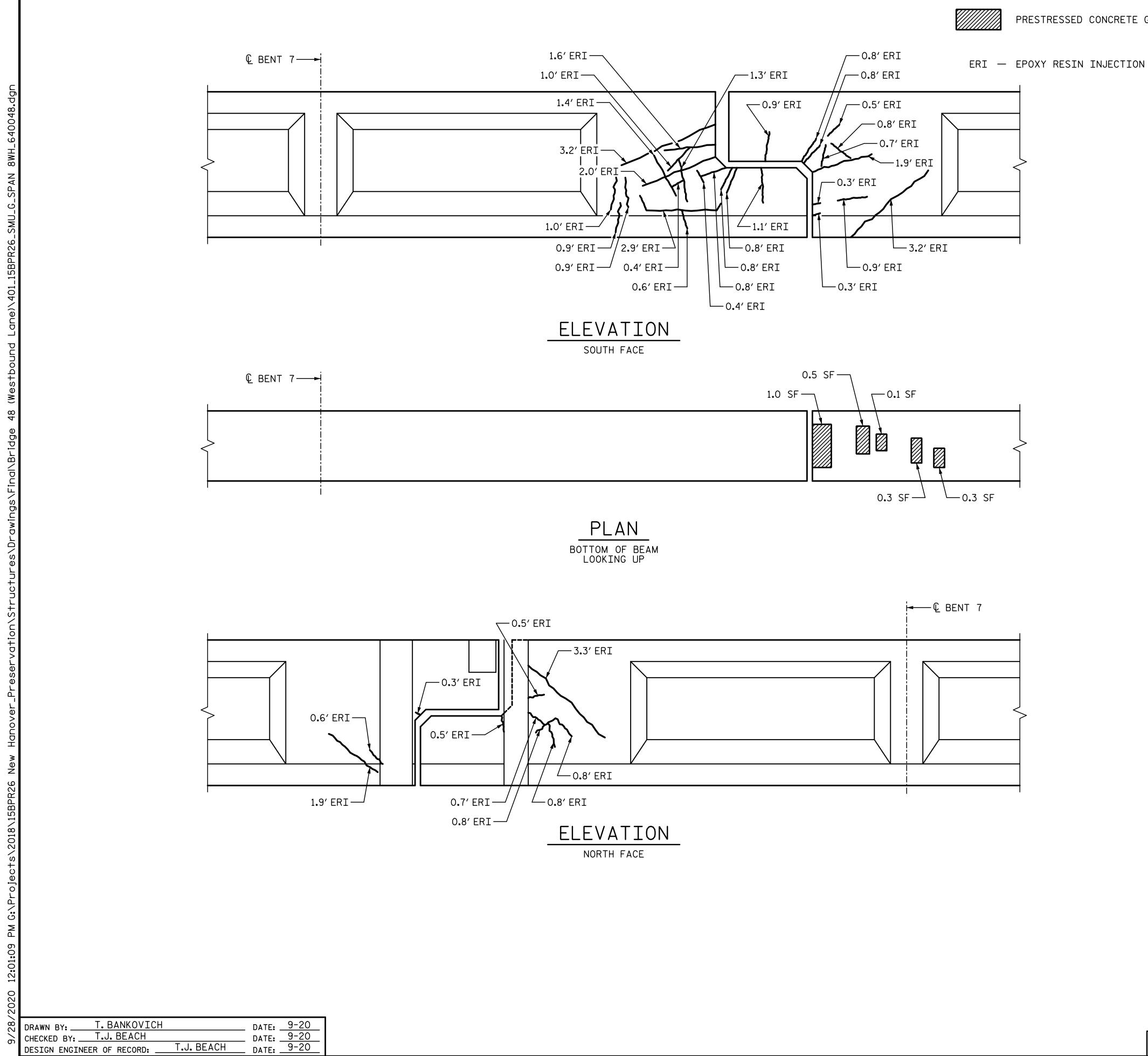
FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

VALUES IN CHART REPRESENT ESTIMATE REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN, OF 1"BEHIND REBAR AND MIN. 2"CL. TO SAWCUT. SEE REPAIR DETAILS.

FOR REPAIRS OF PRESSTRESSED CONCRETE GIRDERS, SEE SPECIAL PROVISIONS.

FOR REPAIRS OF PRESTRESSED CONCRETE GIRDERS DETAILS, SEE "PRESTRESSED CONCRETE GIRDER REPAIR DETAILS" SHEET.

		BRIDG	IANOVE E NO.:_	<u>R/PENE</u>	BPR.2 D <u>er</u> co 40048	UNTY	
BY:		SHEET 6 OF 7 STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH PRESERVATION					
RS ATES Ive	Documenteto CARO/ TELLS EXERCISION AGB CONESTORIA SEAL 24390 MGINEE	WES		NGE GIRD	DETA ER 6	ILS	
Tax) gr.com 2-2521	9/29/2020	NO. BY:	REVIS	IONS	DATE:	SHEET NO. S1-75	
	NO. BY: DATE: NO. BY: DATE: SI T NOT CONSIDERED FINAL 1 3 TOTA L SIGNATURES COMPLETED 2 4 162						





PLANS PREPARED



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REPAIR QU	ANT	ITY ⁻	ΓABL	.E	
REPAIRS WEST HINGE	QUANTITIES				
	ESTIMATE ACTUAL				
REPAIRS OF PRESTR. CONCRETE GIRDERS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF
GIRDER	2.2	1.0			
EPOXY RESIN INJECT	TION LF Lf				
GIRDER	42.4				

NOTES:

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

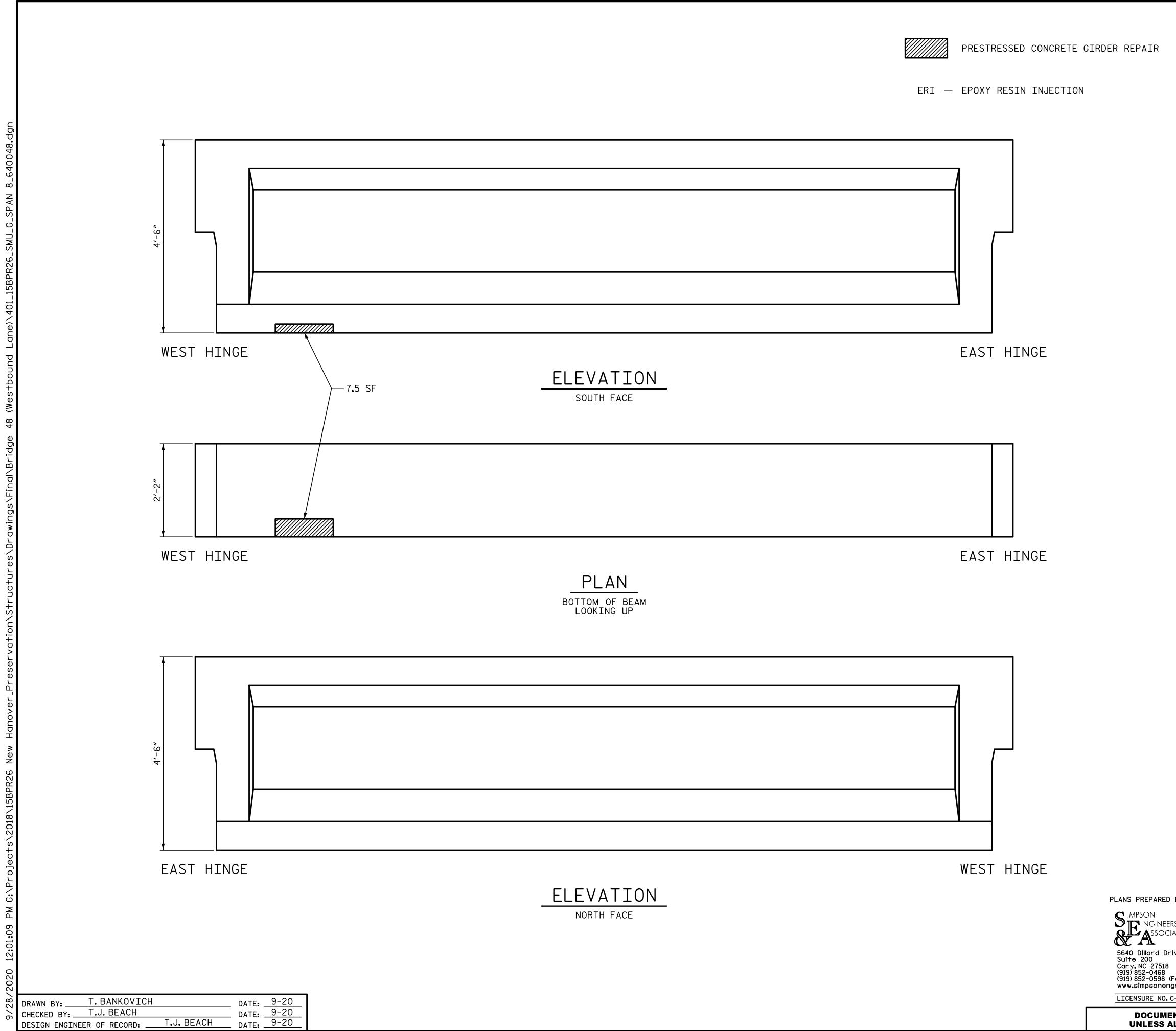
FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

VALUES IN CHART REPRESENT ESTIMATE REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN, OF 1"BEHIND REBAR AND MIN. 2"CL. TO SAWCUT. SEE REPAIR DETAILS.

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FOR REPAIRS OF PRESTRESSED CONCRETE GIRDERS DETAILS, SEE "PRESTRESSED CONCRETE GIRDER REPAIR DETAILS" SHEET.

		<u>NEW</u>	CT NO. <u>IANOVEF</u> E NO.:_	<u>R/PENE</u>		UNTY		
BY:		SHEET 7 OF 7 STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH PRESERVATION						
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ax) r.com -2521	9/29/2020	NO, BY:	REVISI	EONS	DATE:	SHEET NO. S1-76		
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REPAIR QUANTITY TABLE								
REPAIRS SPAN 8 GRD.1	QUANTITIES ESTIMATE ACTUAL							
REPAIRS OF PRESTR. CONCRETE GIRDERS	AREA SF	VOLUME CF	AREA SF	DEPTH		OLUME CF		
GIRDER	7.5	2.0						
EPOXY RESIN INJECT	TON	LF				LF		
GIRDER		0.0						

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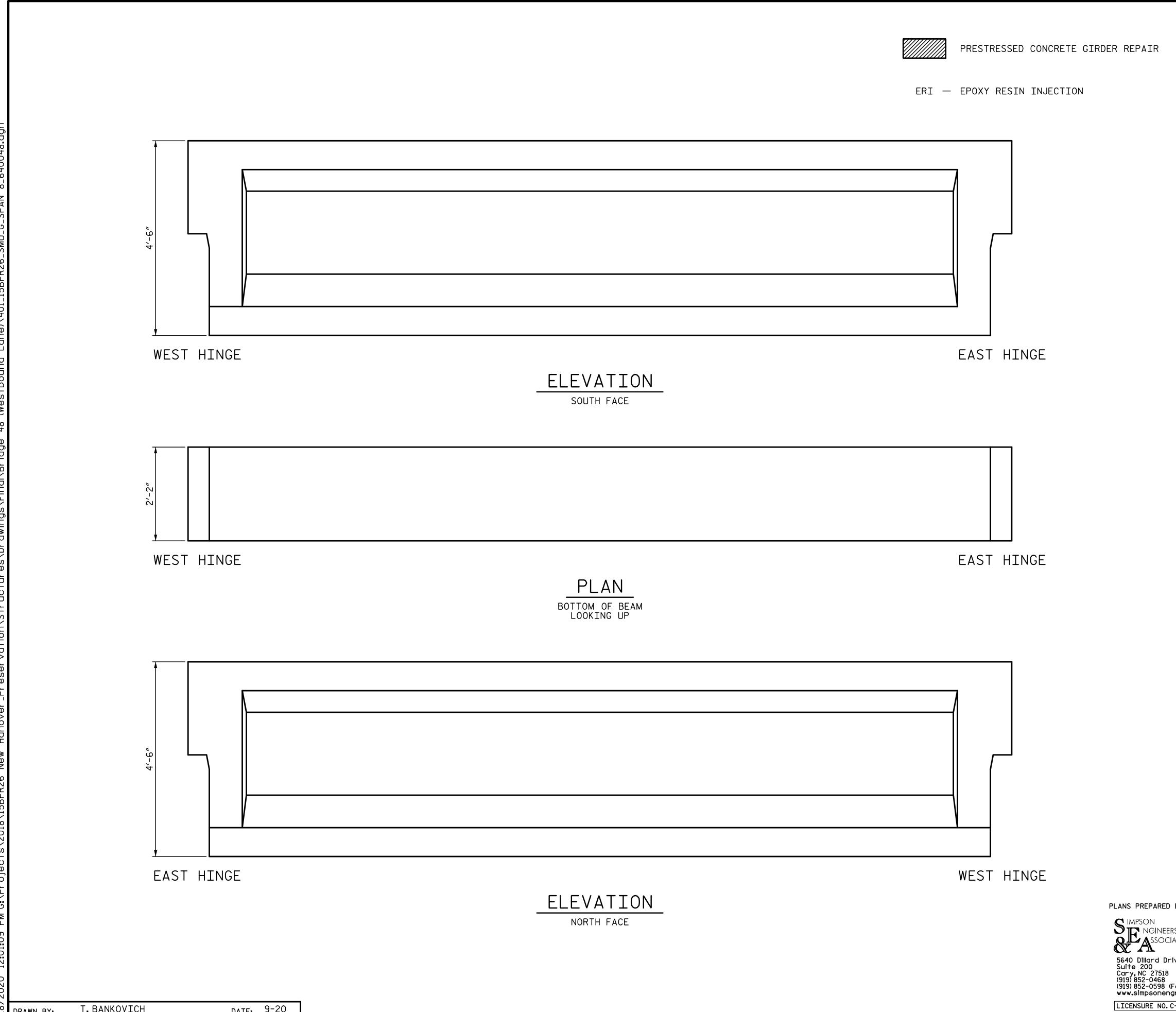
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		SHEET	1 OF 7				
BY:		DE	PARTMENT	OF R	NORTH CAR TRAI RALEIGH RVAT	NSPORTA	TION
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Fax) gr.com C-2521	9/29/2020		REVI				SHEET NO. S1-77
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	DRAWN BY:	T.BANKOVICH		DATE:	9-20
	CHECKED BY:	T.J. BEACH		DATE:	9-20
,, ,		NEER OF RECORD:	T.J. BEACH	DATE:	9-20
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REPAIR QUANTITY TABLE								
REPAIRS SPAN 8 GRD. 2			UANTIT	IES				
THE ATTYS STAN 0 OND. 2	EST	IMATE		ACTUAL				
REPAIRS OF PRESTR. CONCRETE GIRDERS	AREA SF	VOLUME CF	AREA SF					
GIRDER	0.0	0.0						
EPOXY RESIN INJECTION LF								
GIRDER		0.0						

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

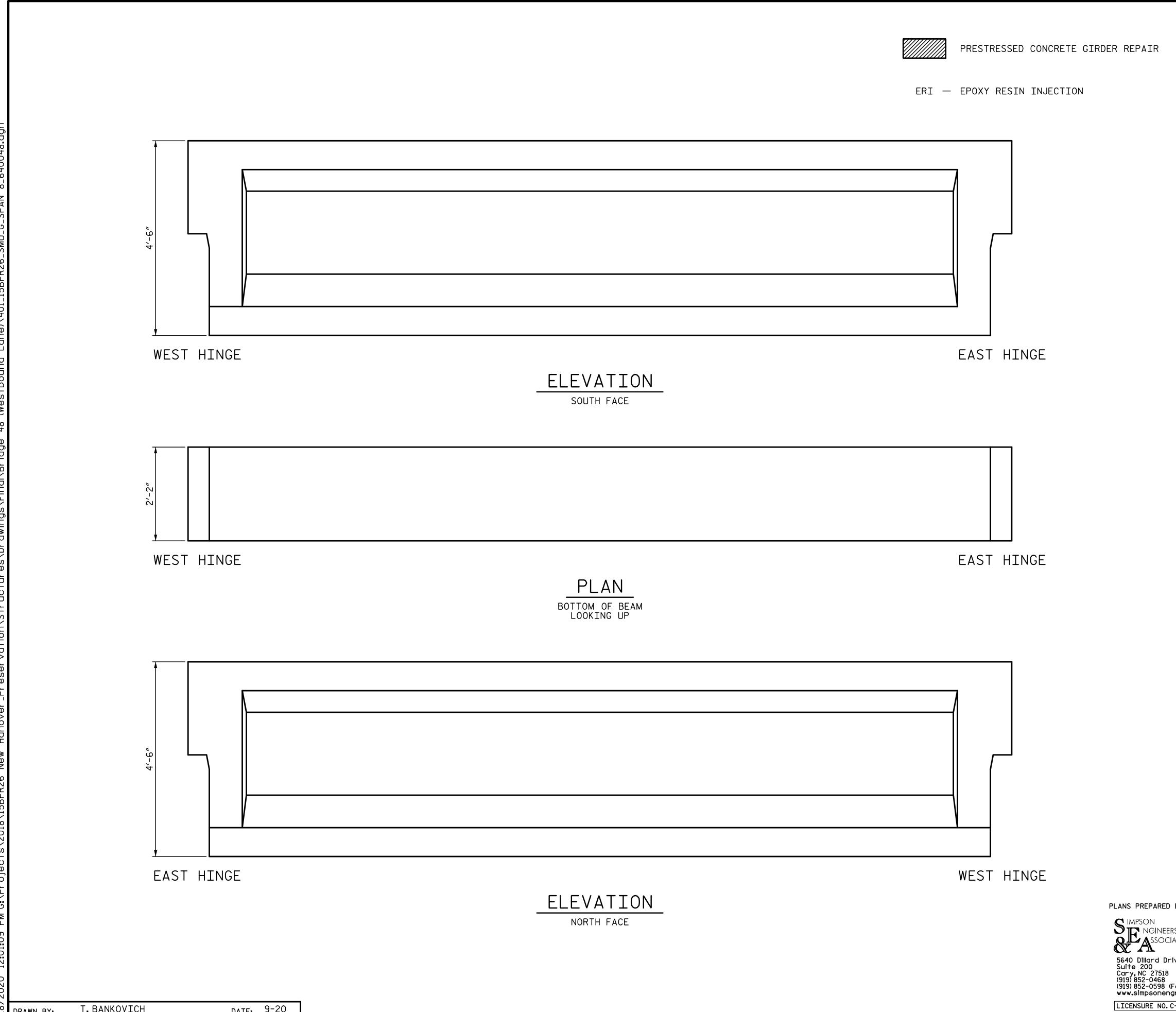
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	DRAWN BY:	T.BANKOVICH		DATE:	9-20
	CHECKED BY:	T.J. BEACH		DATE:	9-20
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REPAIR QUANTITY TABLE								
REPAIRS SPAN 8 GRD. 3			Q	UANTIT	IES			
ILLI AINS SI AN O OND. S	EST	IMATE			ACTUAL			
REPAIRS OF PRESTR. CONCRETE GIRDERS	AREA SF	VOLU CF	ME	AREA SF	DEPTH FT	VOLUN CF	ИE	
GIRDER	0.0	0.0						
EPOXY RESIN INJECTION LF						F		
GIRDER		0.	.0					

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

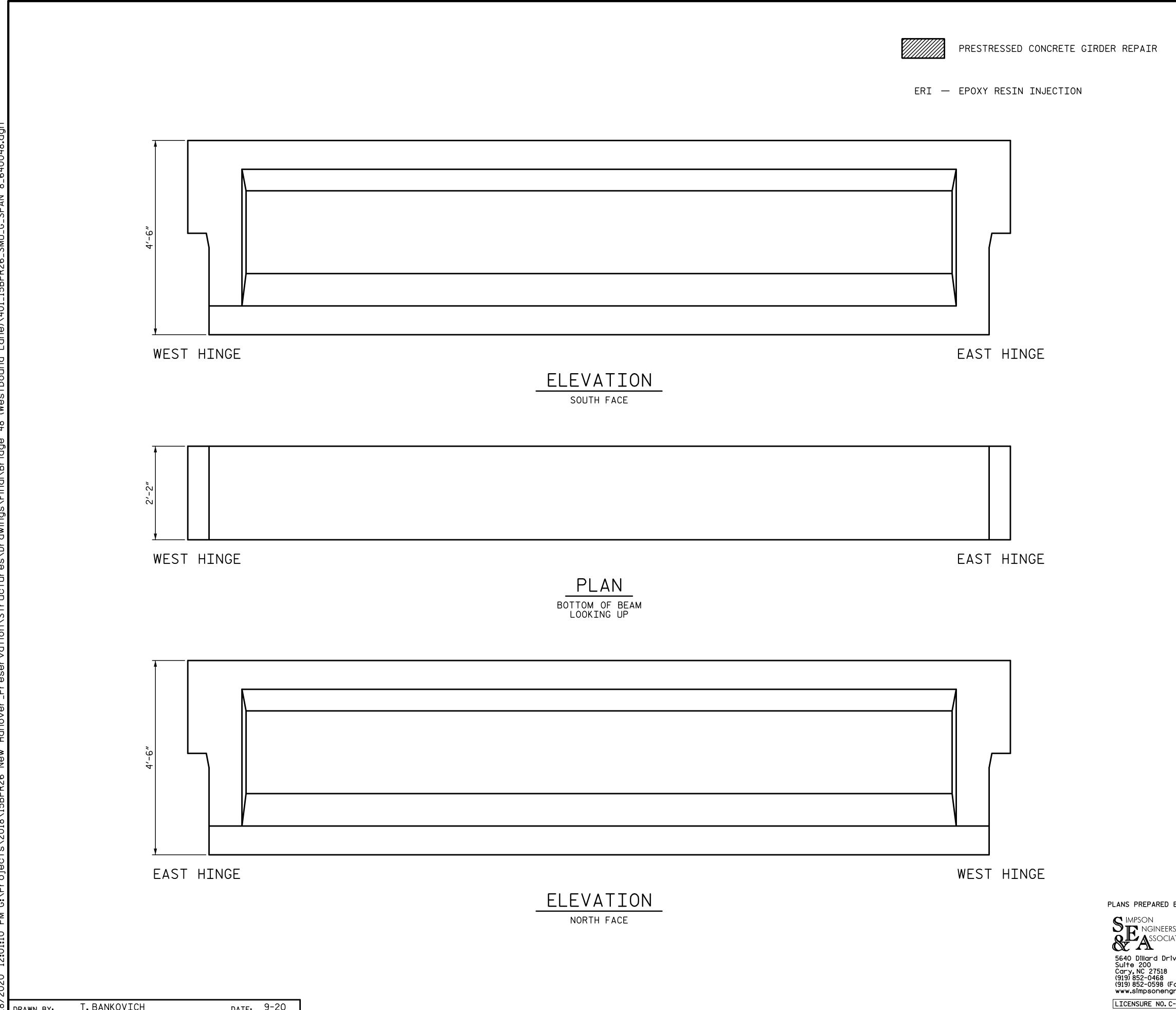
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	CHECKED BY:	T.J. BEACH		DATE:	9-20
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REPAIR QUANTITY TABLE								
REPAIRS SPAN 8 GRD. 4			UANTIT					
THE ATTO STAR & OLDE T	EST	IMATE		ACTUAL				
REPAIRA OF PRESTR. CONCRETE GIRDERS	AREA SF	VOLUME CF	AREA SF					
GIRDER	0.0	0.0						
EPOXY RESIN INJECT	ION	LF			LF			
GIRDER		0.0						

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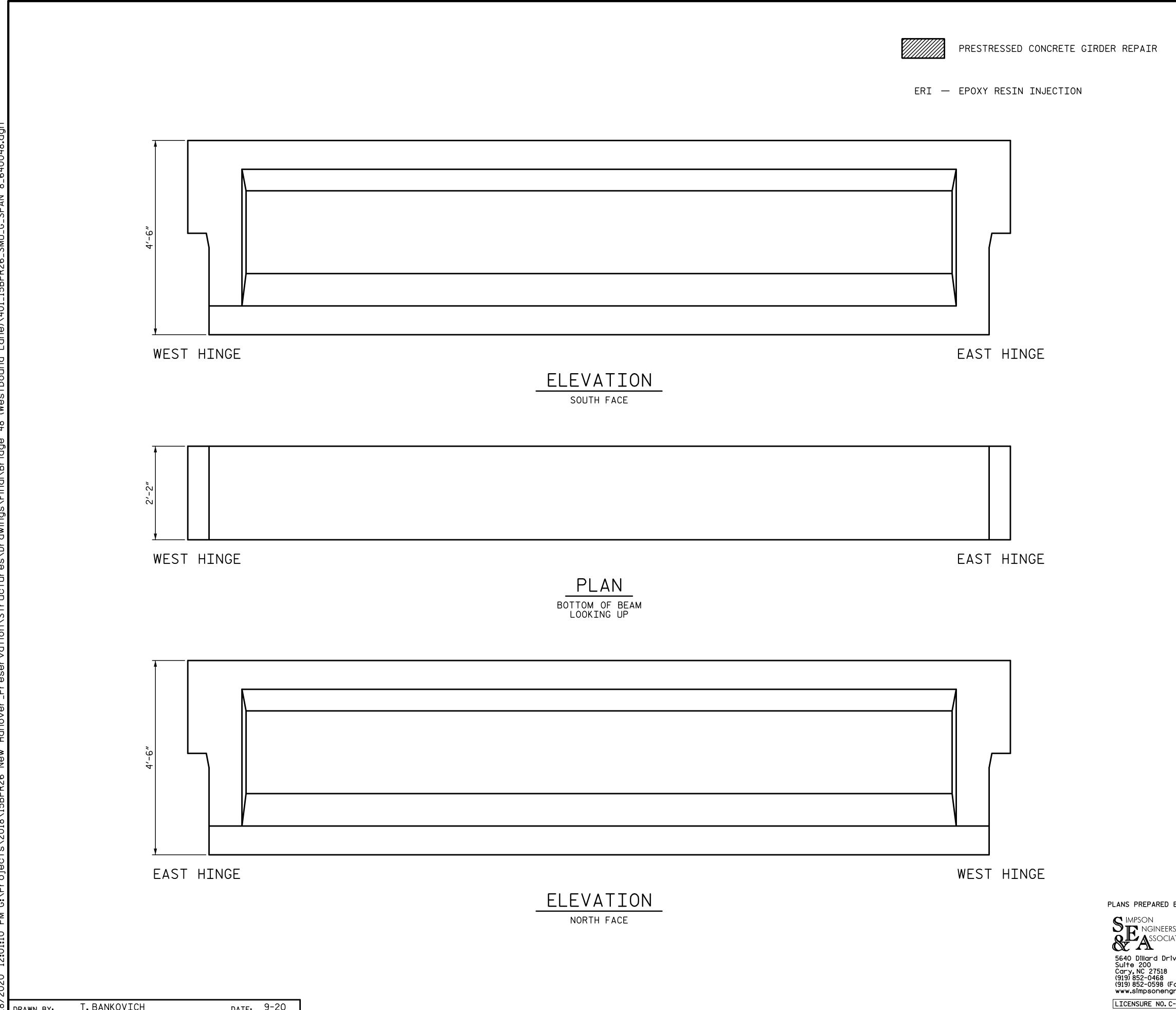
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	CHECKED BY:	T.J. BEACH		DATE:	9-20
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REPAIR QU	ANT	ITY -	ΓABL	.E			
REPAIRS SPAN 8 GRD. 5		QUANTITIES					
ILLI AINS SI AN 8 GIU. S	EST	IMATE		ACTUAL			
REPAIRS OF PRESTR. CONCRETE GIRDERS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF		
GIRDER	0.0	0.0					
EPOXY RESIN INJECTION LF							
GIRDER		0.0					

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

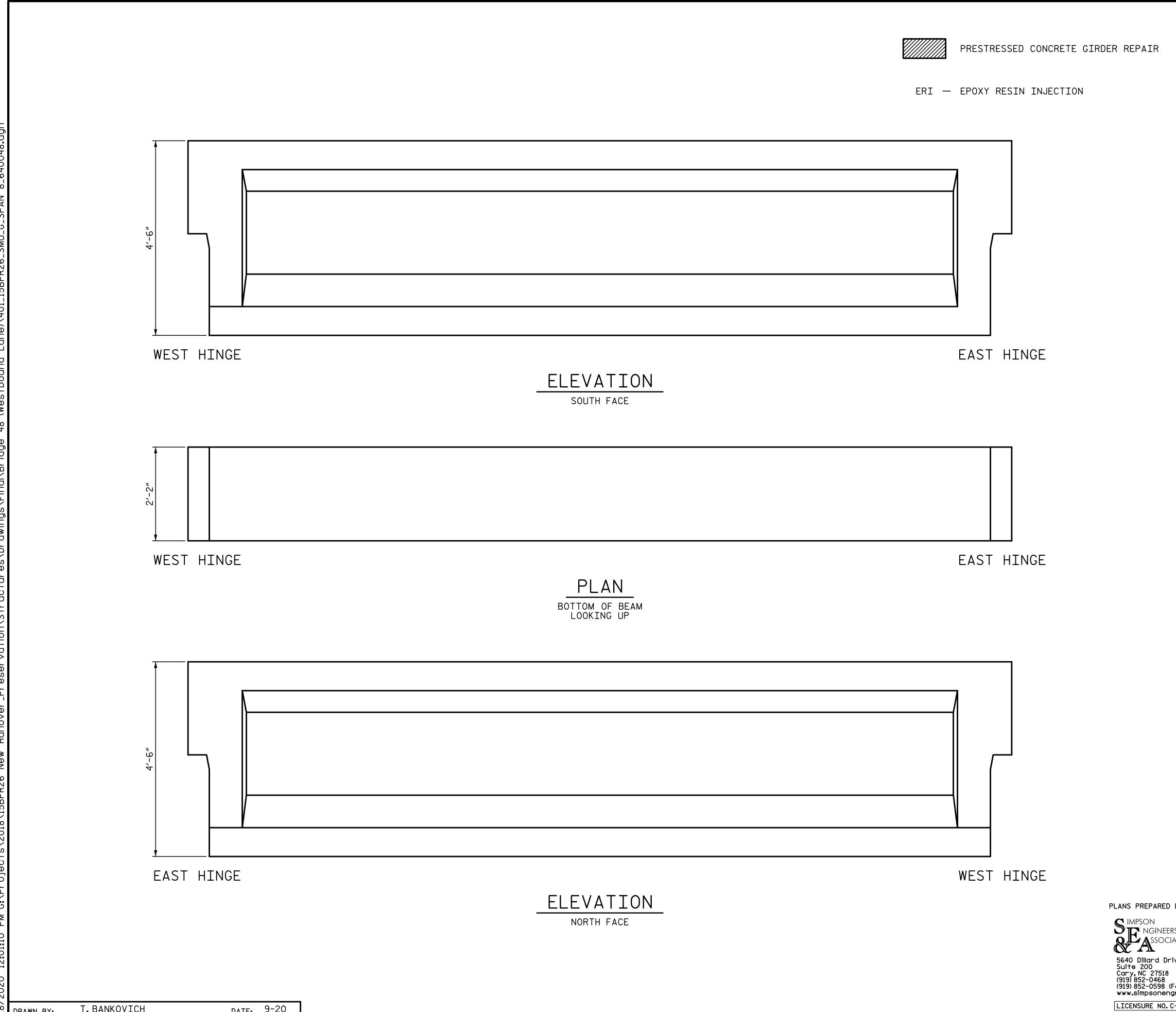
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		NEW H	CT NO. <u>Ianovef</u> E NO.:_	R/	PEND		UNTY
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$\dot{\circ}$	DRAWN BY:	T. BANKOVICH		DATE:	9-20
	CHECKED BY:	T.J. BEACH		DATE:	9-20
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REPAIR QUANTITY TABLE								
REPAIRS SPAN 8 GRD.6			UANTIT	IES				
ILLI AINS SI AN O OND. O	EST	IMATE		ACTUAL				
REPAIRS OF PRESTR. CONCRETE GIRDERS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF			
GIRDER	0.0	0.0						
EPOXY RESIN INJECT	TION LF LF							
GIRDER 0.0								

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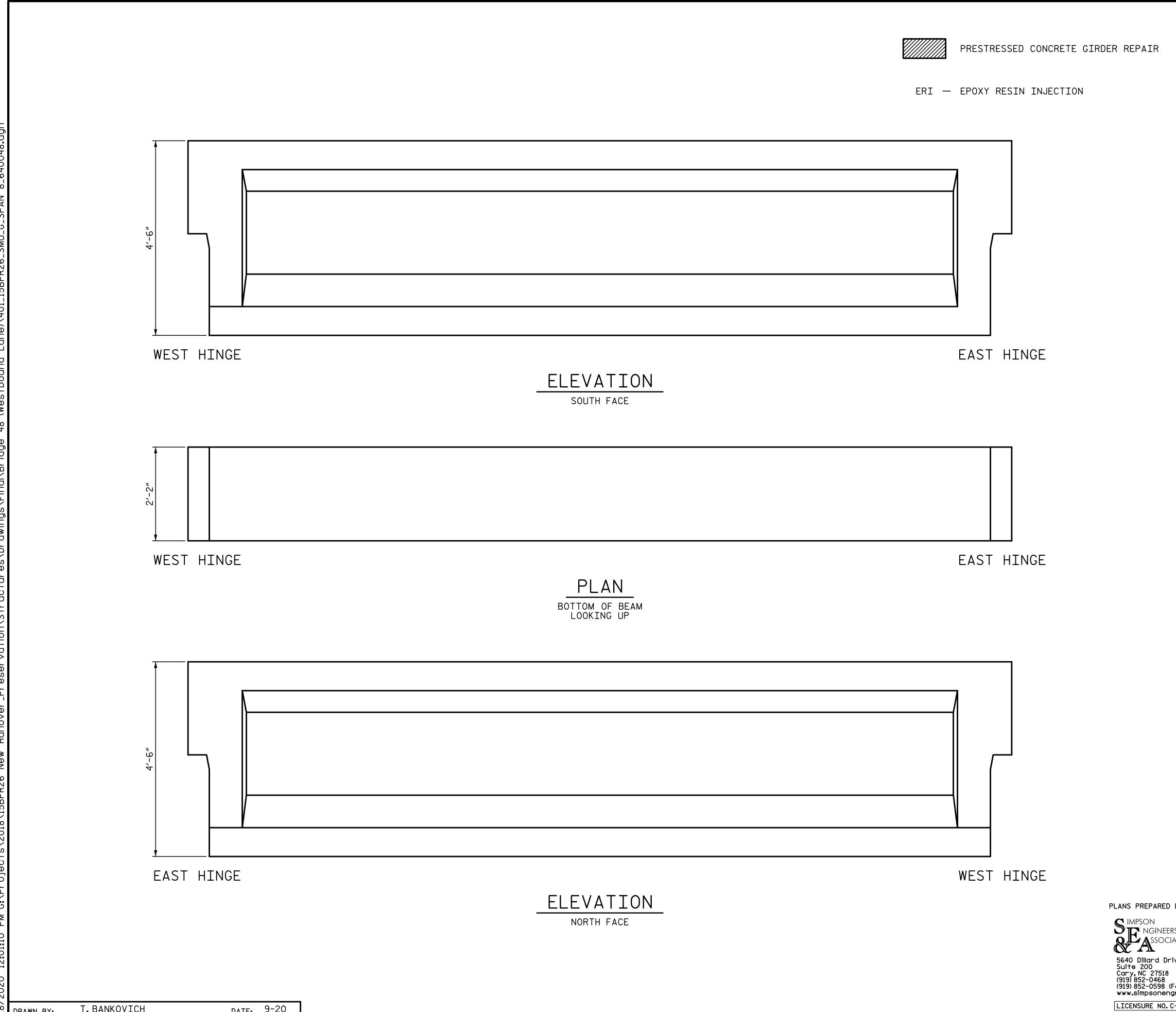
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		PROJEC	CT NO.		15	BPR.2	26
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	NSIDERED FINAL JRES COMPLETED	1		3 4			total sheets 163



$\dot{\circ}$	DRAWN BY:	T. BANKOVICH		DATE:	9-20
	CHECKED BY:	T.J. BEACH		DATE:	9-20
		NEER OF RECORD:	T.J. BEACH	DATE:	9-20
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REPAIR QU	ANT	ITY	TAB	LE		
REPAIRS SPAN 8 GRD. 7	QUANTITIES					
REFAIRS SPAN 0 GRD. 1	EST	IMATE		ACTUA	L	
REPAIRS OF PRESTR. CONCRETE GIRDERS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF	
GIRDER	0.0	0.0				
EPOXY RESIN INJECT	TION LF					
GIRDER 0.0						

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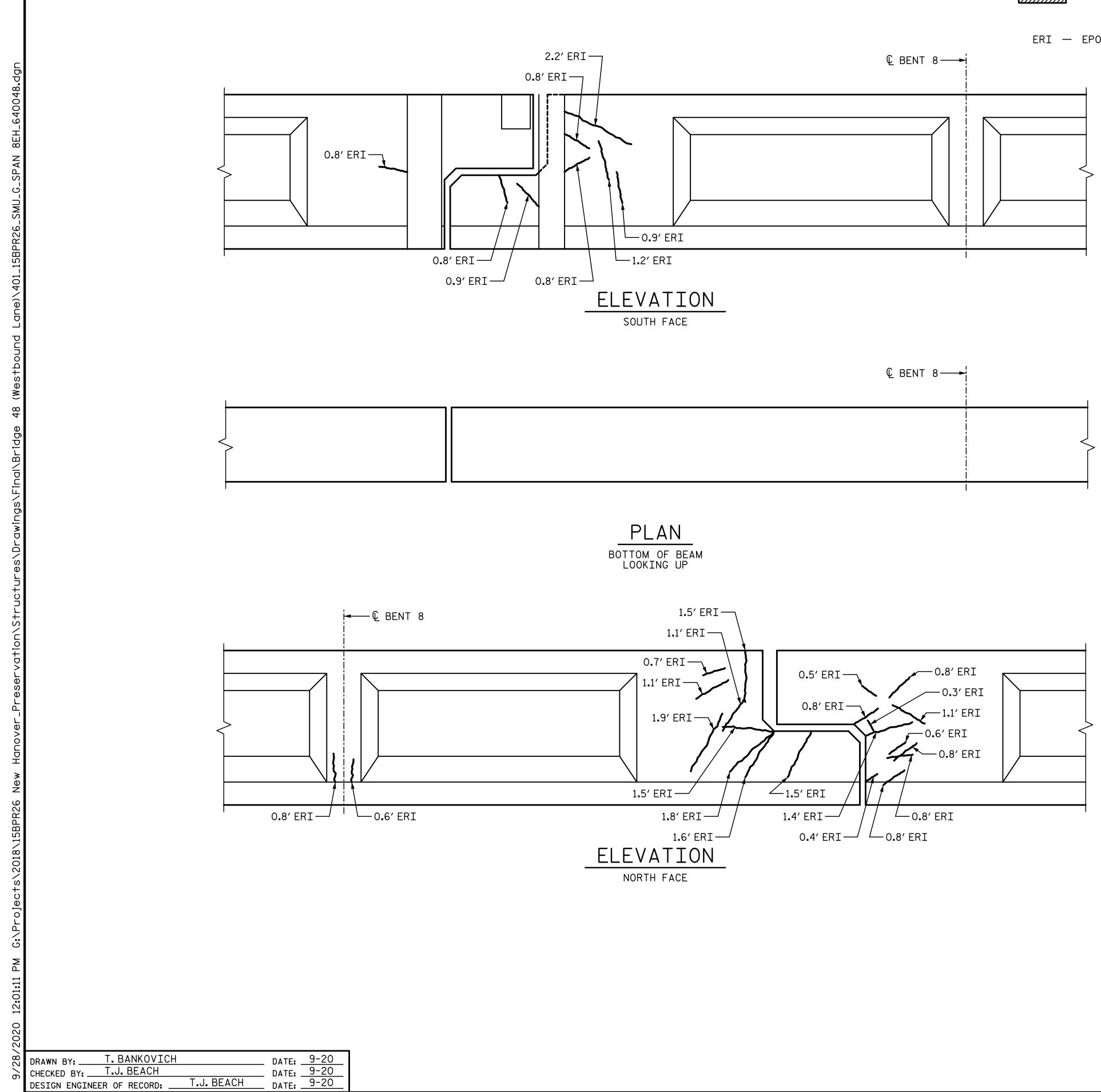
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REPAIR QU	ANT	ITY -	ΓABL	.E		
REPAIRS EAST HINGE	QUANTITIES					
ILLI AINS EAST HINGE	EST	IMATE		ACTUAL	-	
REPAIRS OF PRESTR. CONCRETE GIRDERS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF	
GIRDER	0.0	0.0				
EPOXY RESIN INJECT	CTION LF LF					
GIRDER	30.8					

NOTES:

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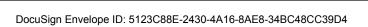
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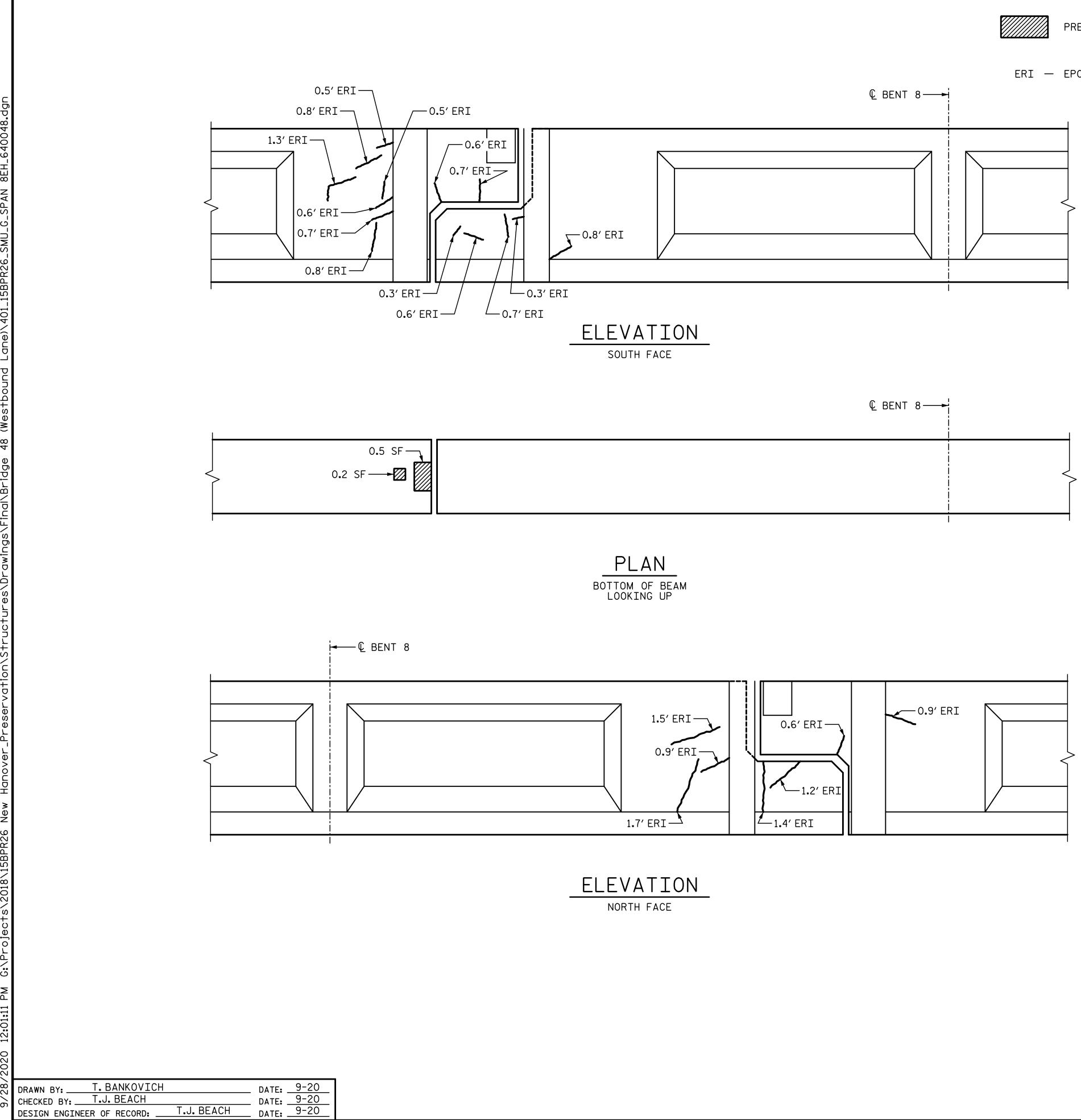
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	NSIDERED FINAL JRES COMPLETED	1		3 4			total sheets 163			



CHECKED BY: T.J. BEACH

DESIGN ENGINEER OF RECORD: ____

T.J. BEACH





ERI — EPOXY RESIN INJECTION

PLANS PREPARED



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REPAIR QU	ANT	ITY ⁻	TABL	.E			
REPAIRS EAST HINGE		QUANTITIES					
	EST	IMATE		ACTUAL			
REPAIRS OF PRESTR. CONCRETE GIRDERS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	V V	OLUME CF	
GIRDER	0.7	0.2					
EPOXY RESIN INJECT	TION LF LF					LF	
GIRDER	17.4						

NOTES:

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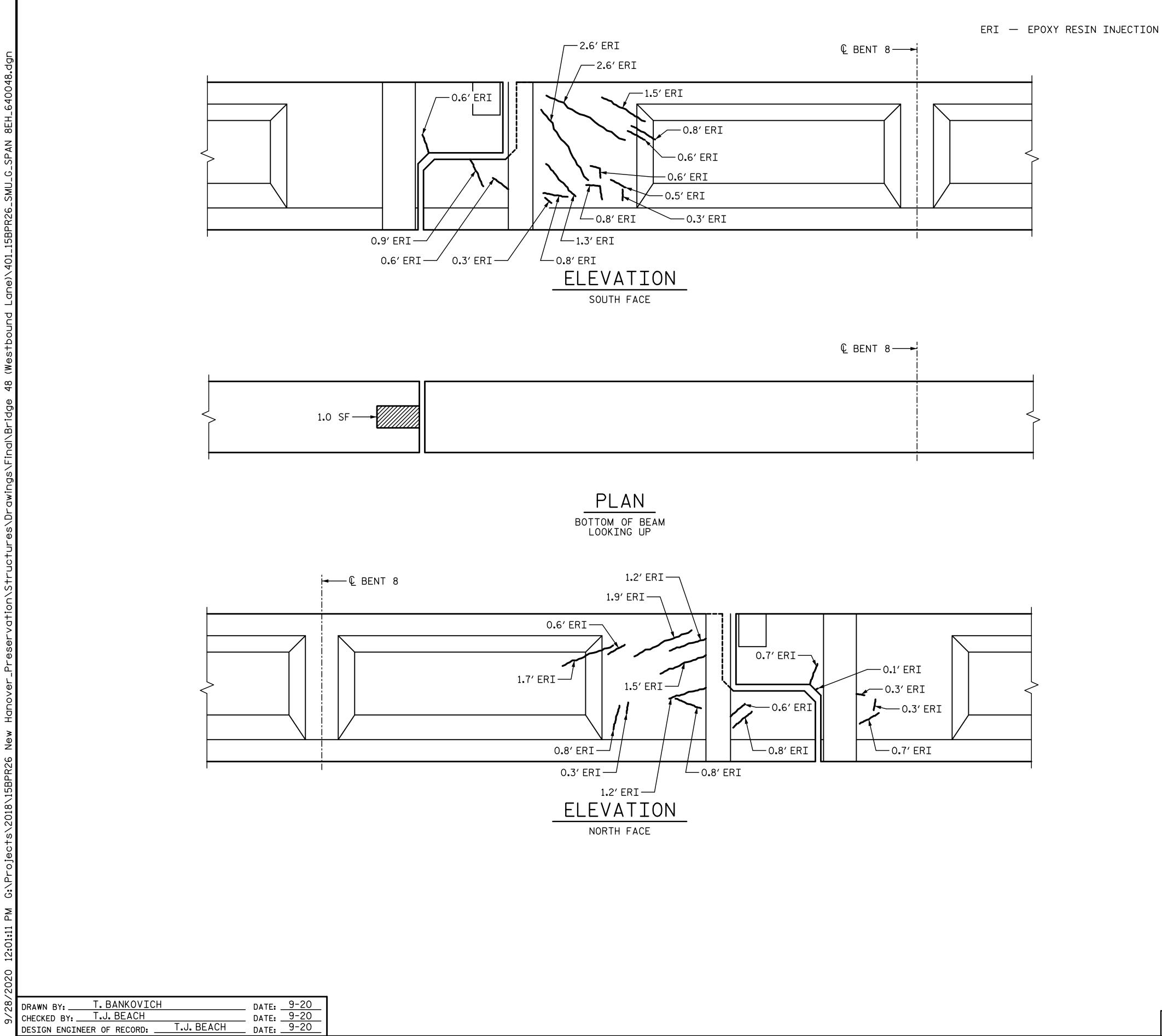
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		PROJECT NO. <u>15BPR.26</u> <u>NEW HANOVER/PENDER COUN</u> BRIDGE NO.: <u>640048</u>								
		SHEET 2 OF 7								
BY:	STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH PRESERVATION									
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	NSIDERED FINAL JRES COMPLETED	1		3 4			total sheets 163			





PLANS PREPARED



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REPAIR QU	ANT	ITY -	ΓABL	.E		
REPAIRS EAST HINGE						
	EST	IMATE		ACTUAL	-	
REPAIRS OF PRESTR. CONCRETE GIRDERS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF	
GIRDER	1.0	0.3				
EPOXY RESIN INJECT	ION	LF	LF			
GIRDER		28.3				

NOTES:

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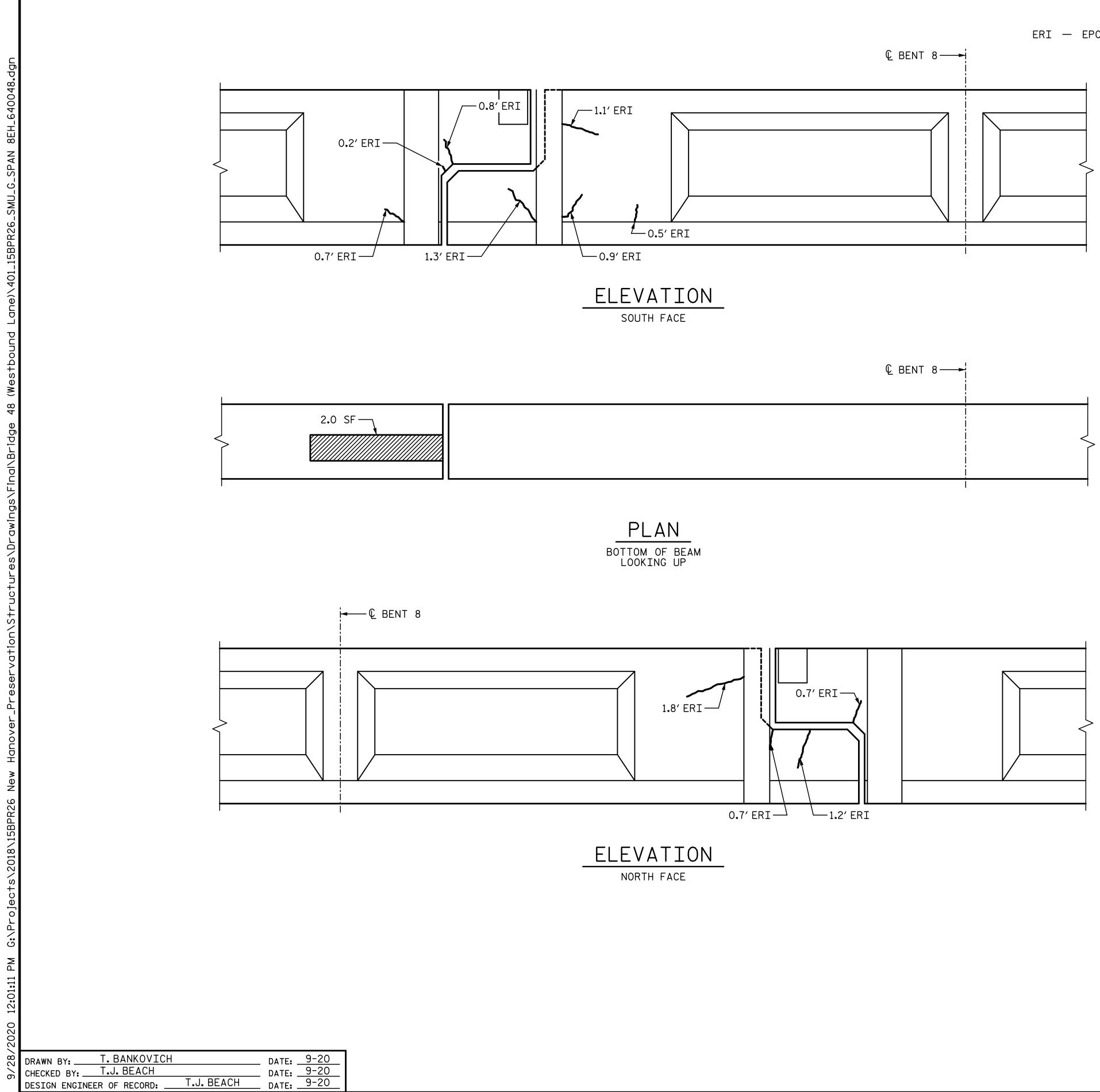
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DESIGN ENGINEER OF RECORD: ____





ERI — EPOXY RESIN INJECTION

PLANS PREPARED



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REPAIR QU	ANT	ITY -	ΓABL	.E		
REPAIRS EAST HINGE QUANTITIES						
	EST	IMATE			-	
REPAIRS OF PRESTR. CONCRETE GIRDERS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF	
GIRDER	2.0	0.6				
EPOXY RESIN INJECT	TION LF				LF	
GIRDER		9.9		ACTUAL		

NOTES:

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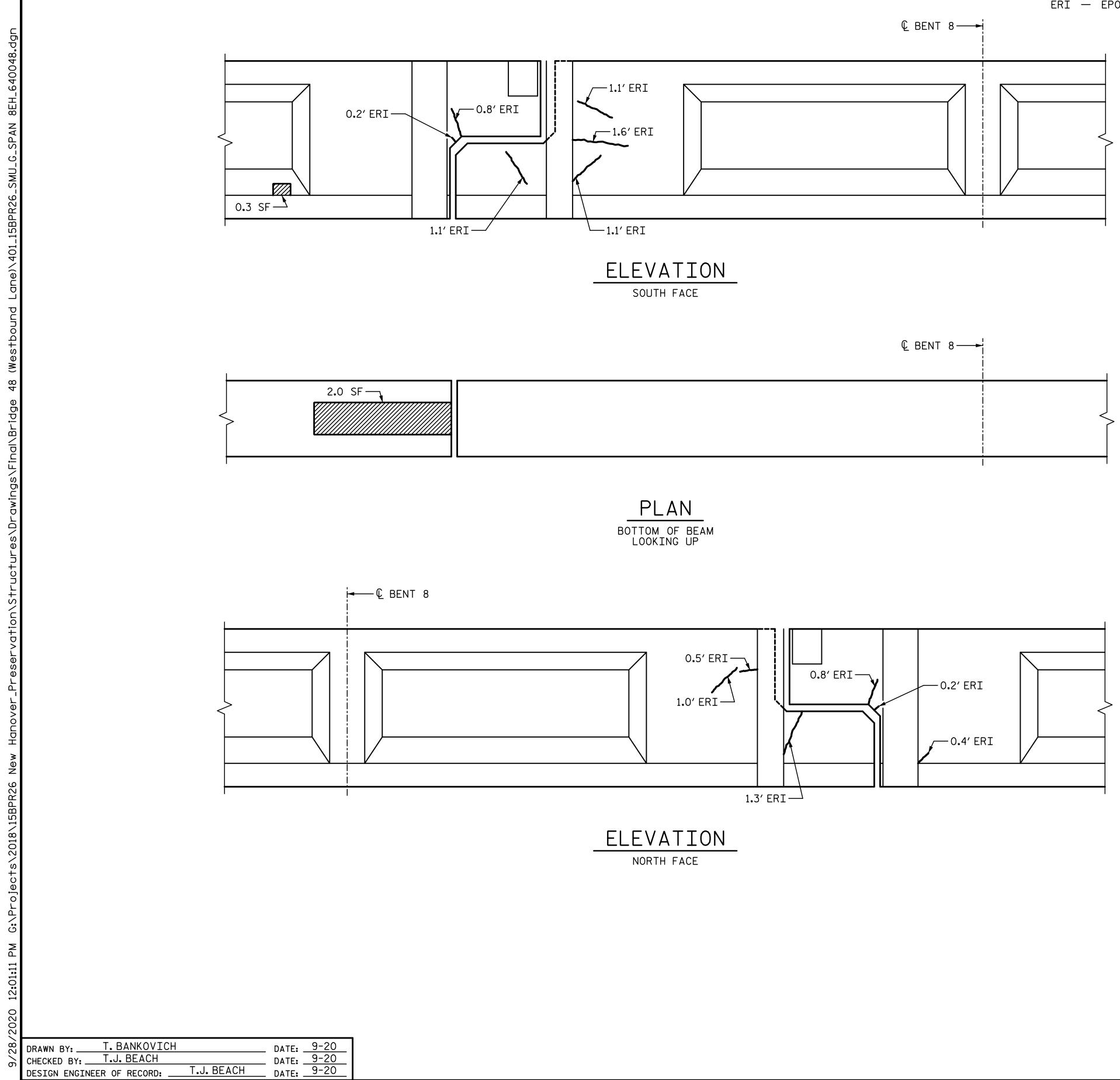
FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

VALUES IN CHART REPRESENT ESTIMATE REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN, OF 1"BEHIND REBAR AND MIN. 2"CL. TO SAWCUT. SEE REPAIR DETAILS.

FOR REPAIRS OF PRESSTRESSED CONCRETE GIRDERS, SEE SPECIAL PROVISIONS.

FOR REPAIRS OF PRESTRESSED CONCRETE GIRDERS DETAILS, SEE "PRESTRESSED CONCRETE GIRDER REPAIR DETAILS" SHEET.

	<u>NEW</u> BRIDG	CT NO. Hanovef E NO.:_	<u>R/PENE</u>		UNTY		
	SHEET 4 OF 7 STATE OF NORTH CAROLINA						
BY:	UEP/	ARTMENT PRES	SERVAT		TION		
S ATES Ve 24390	EAST HINGE DETAILS FOR GIRDER 4						
ax) r.com -2521	NO. BY:	REVIS	IONS	DATE:	SHEET NO. S1-87		
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PLANS PREPARED



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REPAIR QU	ANT	ITY ⁻	TABL	.E	
REPAIRS EAST HINGE QUANTITIES					
	EST	IMATE		ACTUAL	-
REPAIRS OF PRESTR. CONCRETE GIRDERS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF
GIRDER	2.3	1.3			
EPOXY RESIN INJECT	ION	LF	LF		
GIRDER		10.1			

NOTES:

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

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

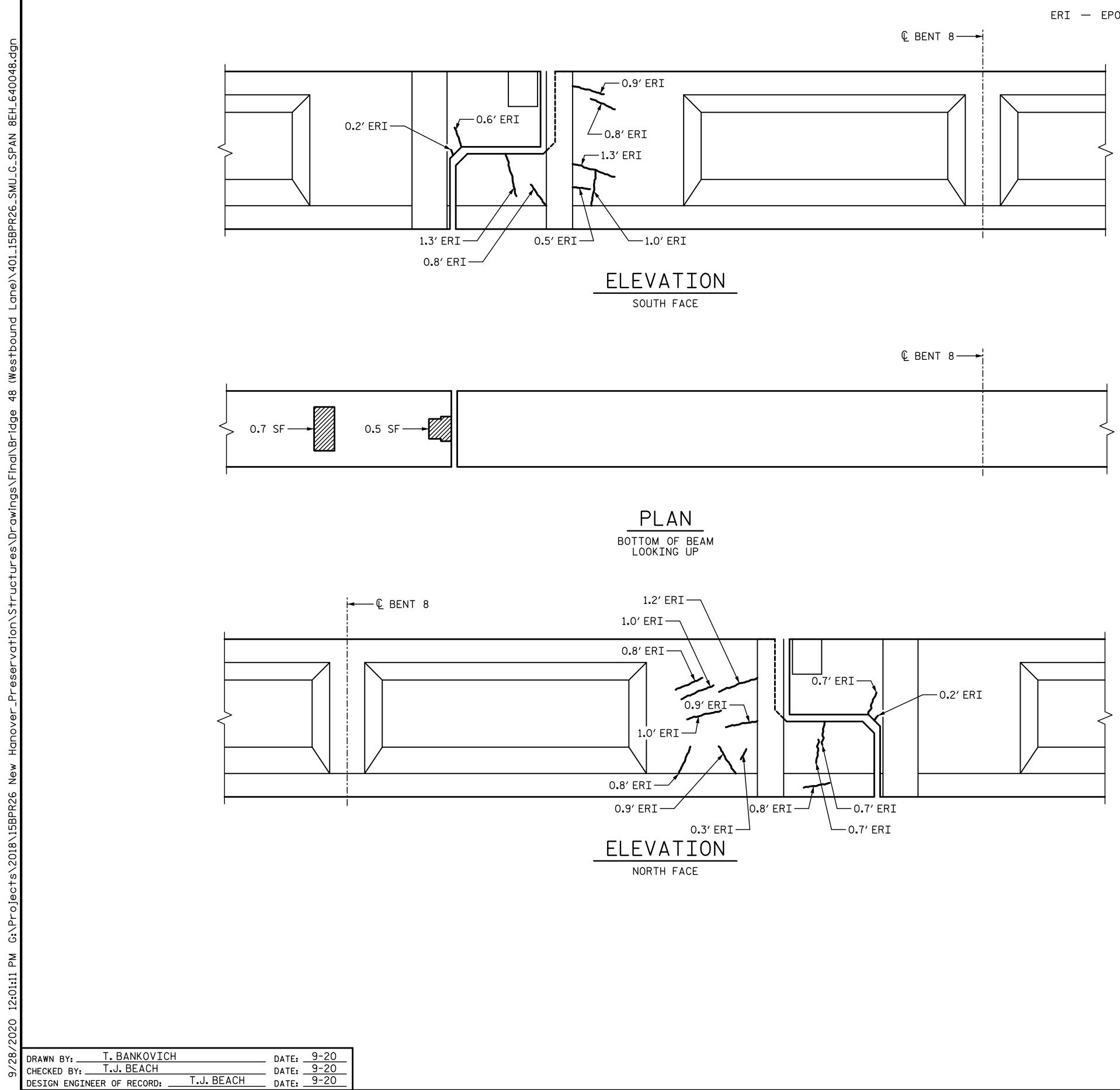
VALUES IN CHART REPRESENT ESTIMATE REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN, OF 1"BEHIND REBAR AND MIN. 2"CL. TO SAWCUT. SEE REPAIR DETAILS.

FOR REPAIRS OF PRESSTRESSED CONCRETE GIRDERS, SEE SPECIAL PROVISIONS.

FOR REPAIRS OF PRESTRESSED CONCRETE GIRDERS DETAILS, SEE "PRESTRESSED CONCRETE GIRDER REPAIR DETAILS" SHEET.

	<u>NEW</u>	ECT NO. <u>Hanove</u> Ge No.:	<u>R/PEN</u>		DUNTY		
	SHEET 5 OF 7 STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION						
BY:					TION		
S ATES Ve Ve	EAST HINGE DETAILS FOR GIRDER 5						
ax) r.com -2521 9/29/2020	NO. BY:	REVIS	SIONS	DATE:	SHEET NO. S1-88		
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DESIGN ENGINEER OF RECORD: ____





ERI — EPOXY RESIN INJECTION

PLANS PREPARED



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REPAIR QU	ANT	ITY [.]	TABL	.E	
REPAIRS EAST HINGE QUANTITIES					
	ESI	IMATE		ACTUAL	
REPAIRS OF PRESTR. CONCRETE GIRDERS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF
GIRDER	1.2	0.4			
EPOXY RESIN INJECT	ION	LF	LF		
GIRDER		17.4			

NOTES:

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

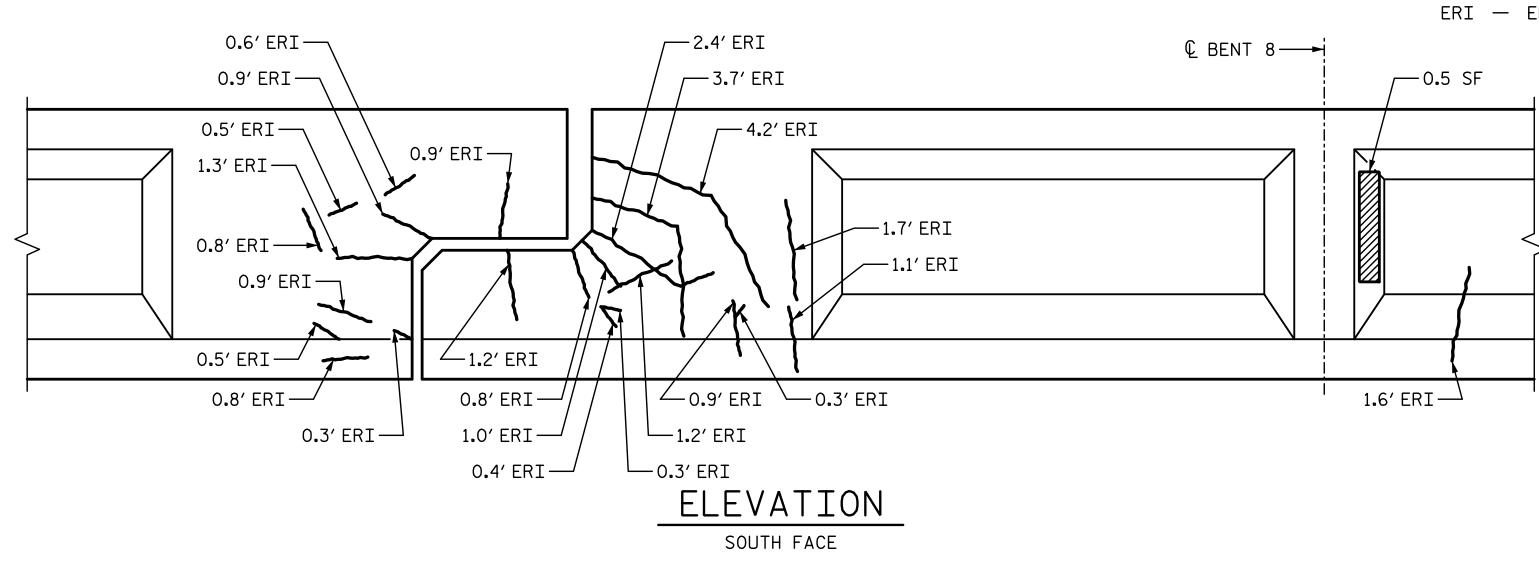
FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

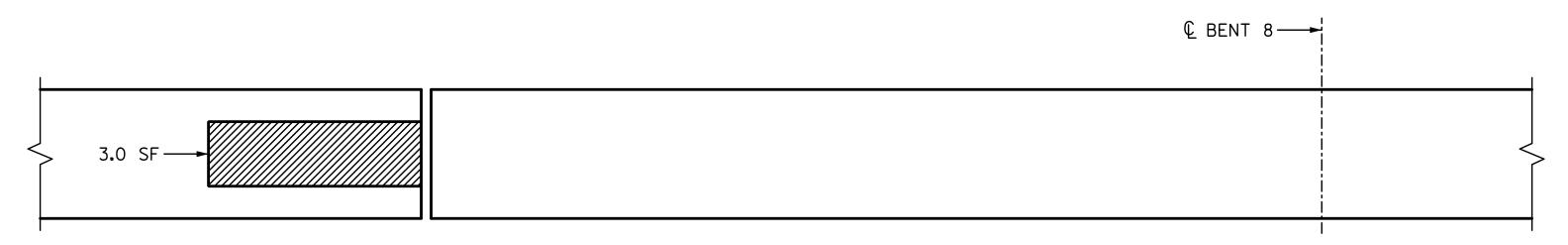
VALUES IN CHART REPRESENT ESTIMATE REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN, OF 1"BEHIND REBAR AND MIN. 2"CL. TO SAWCUT. SEE REPAIR DETAILS.

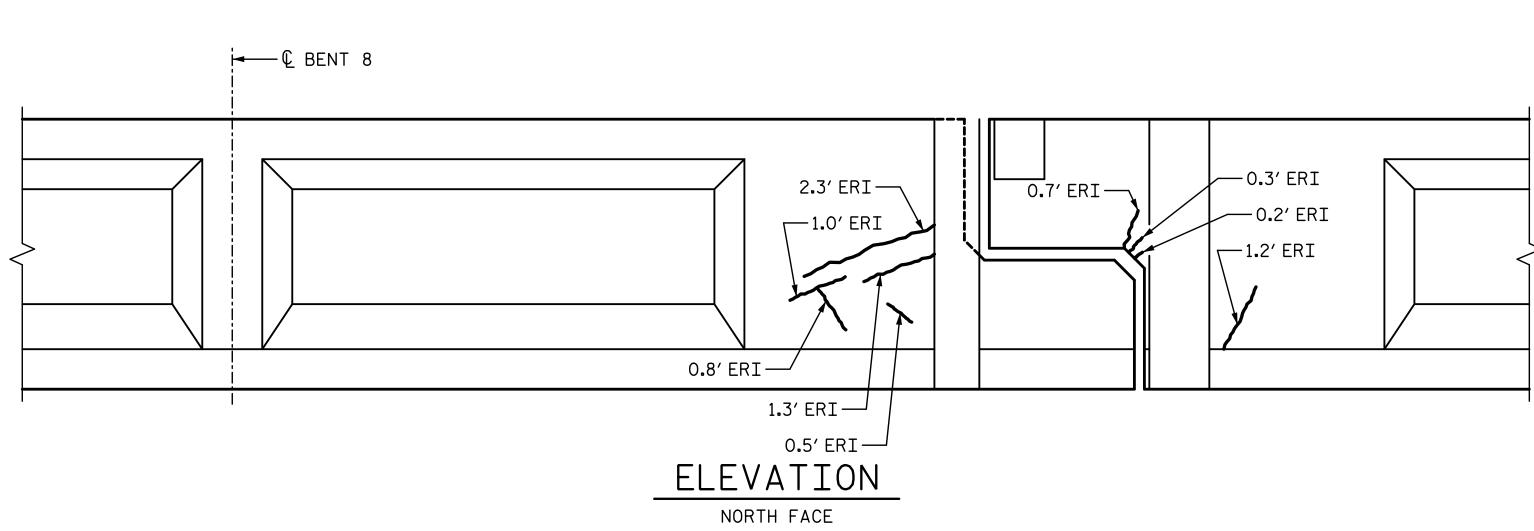
FOR REPAIRS OF PRESSTRESSED CONCRETE GIRDERS, SEE SPECIAL PROVISIONS.

FOR REPAIRS OF PRESTRESSED CONCRETE GIRDERS DETAILS, SEE "PRESTRESSED CONCRETE GIRDER REPAIR DETAILS" SHEET.

		NEW H	CT NO. Hanover E NO.:	<u>/PENE</u>		UNTY	
		SHEET 6	OF 7				
BY:		DEPA	ARTMENT (DF NORTH CAR DF TRA RALEIGH ERVA	NSPORTA	TION	
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8	DRAWN BY:	T.BANKOVICH		DATE: 9-20
12	CHECKED BY:	T.J. BEACH		DATE: 9-20
0,		NEER OF RECORD:	T.J. BEACH	DATE: 9-20

2020



ERI — EPOXY RESIN INJECTION



LOOKING UP

PLANS PREPARED



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REPAIR QU	ANT	ITY [.]	TABL	.E	
REPAIRS EAST HINGE	IES				
	EST	IMATE		ACTUAL	_
REPAIRS OF PRESTR. CONCRETE GIRDERS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF
GIRDER	3.5	1.0			
EPOXY RESIN INJECT	ION	ON LF			
GIRDER		35.0			

NOTES:

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

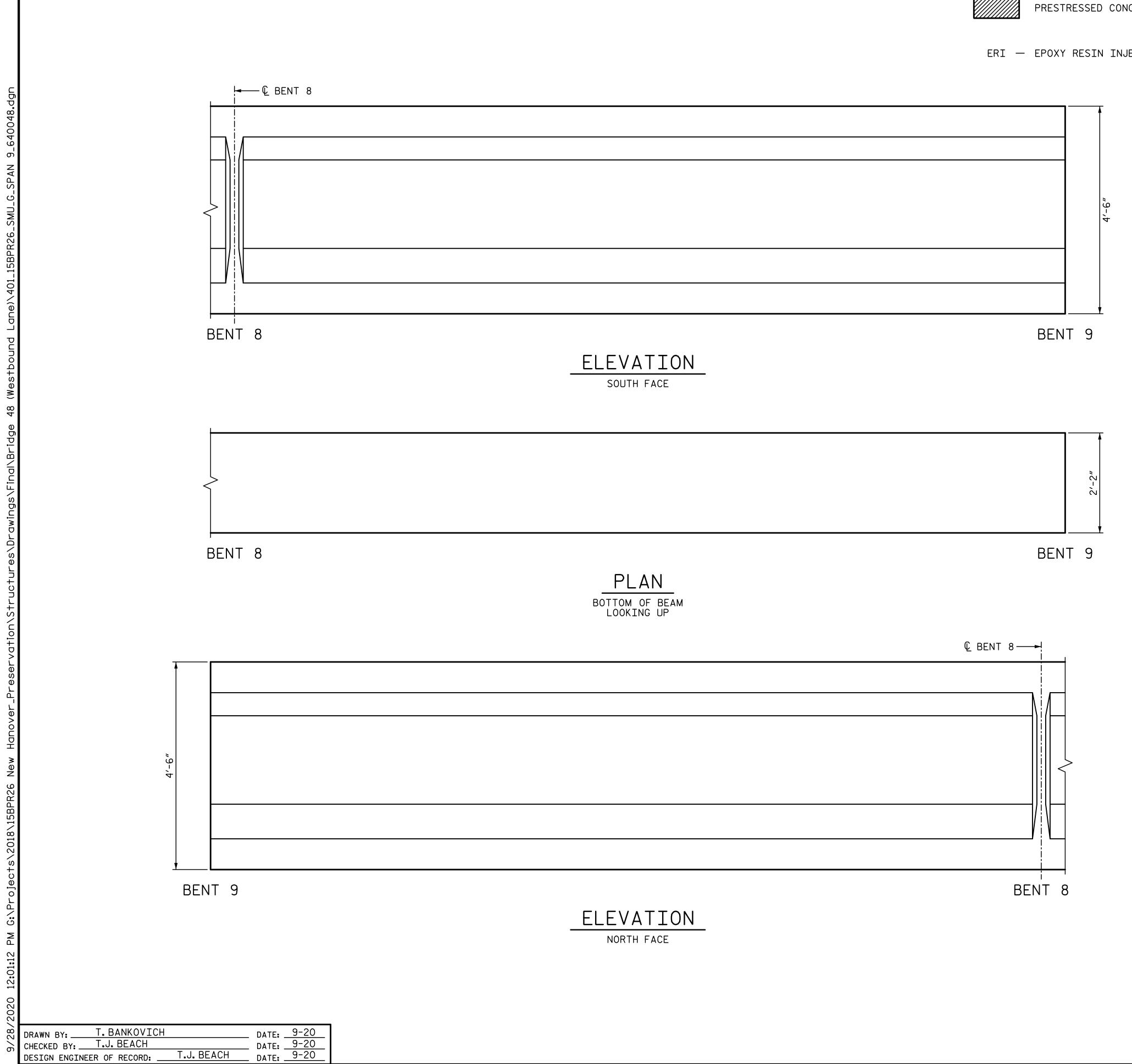
FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

VALUES IN CHART REPRESENT ESTIMATE REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN, OF 1"BEHIND REBAR AND MIN. 2"CL. TO SAWCUT. SEE REPAIR DETAILS.

FOR REPAIRS OF PRESSTRESSED CONCRETE GIRDERS, SEE SPECIAL PROVISIONS.

FOR REPAIRS OF PRESTRESSED CONCRETE GIRDERS DETAILS, SEE "PRESTRESSED CONCRETE GIRDER REPAIR DETAILS" SHEET.

		NEW H	CT NO. <u>Hanovef</u> E NO.:_	<u>R/PENE</u>		UNTY		
	SHEET 7 OF 7 STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION							
BY:				RALEIGH				
S ATES Ve	AGB SOUBSTSAFE 24390	EAST HINGE DETAILS FOR GIRDER 7						
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REPAIR QUANTITY TABLE							
REPAIRS SPAN 9 GRD.1		UANTIT:					
	ESI	IMATE		ACTUAL			
REPAIRS OF PRESTR. CONCRETE GIRDERS	AREA SF				VOLUME CF		
GIRDER	0.0	0.0					
EPOXY RESIN INJECT	LF			LF			
GIRDER 0.0							

NOTES:

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

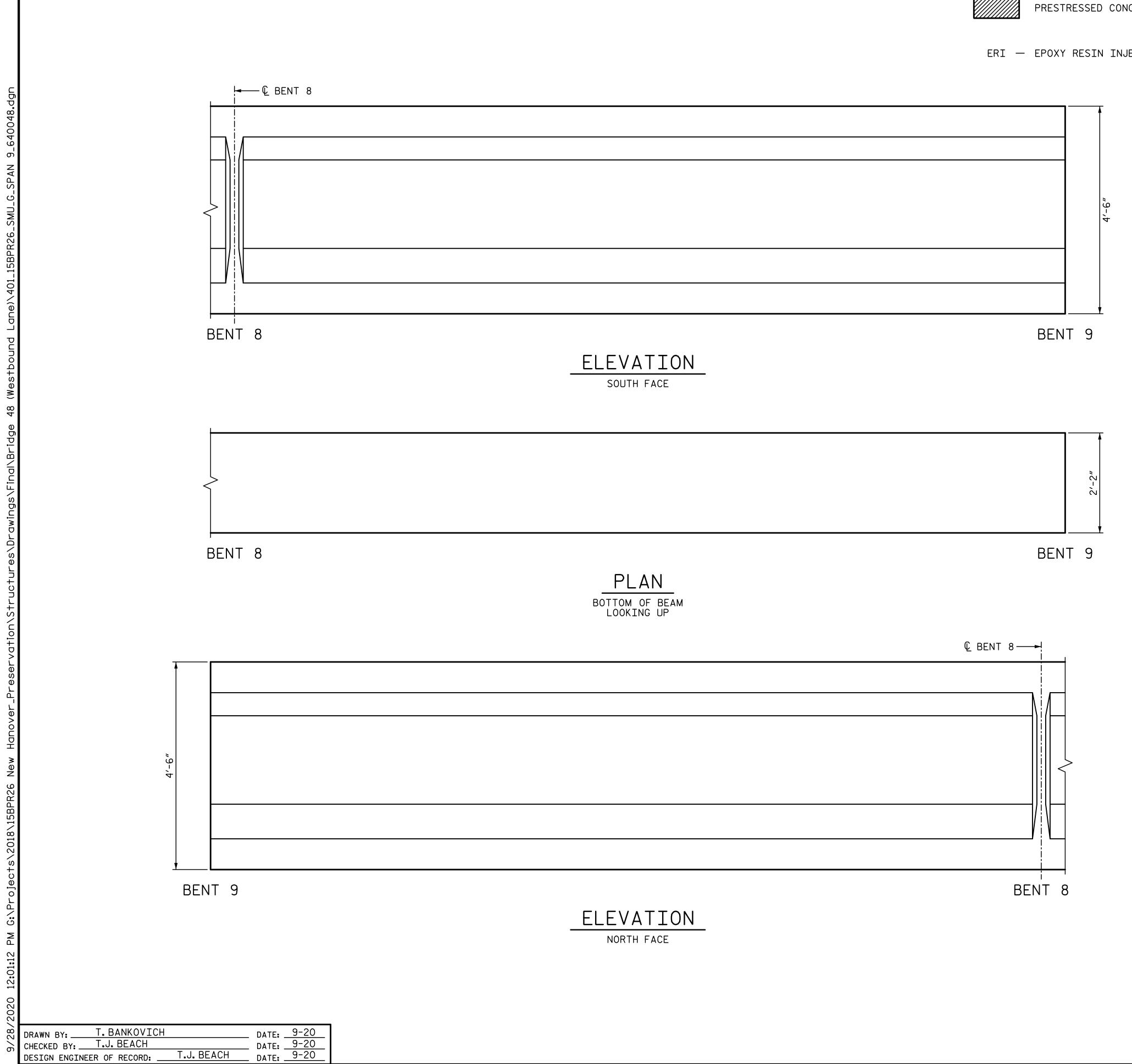
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FOR REPAIRS OF PRESTRESSED CONCRETE GIRDERS DETAILS, SEE "PRESTRESSED CONCRETE GIRDER REPAIR DETAILS" SHEET.

		NE	W H	T NO. <u>ANOVE</u> NO.:	R/P	END	<u>BPR.</u> <u>ER</u> co 10048	DUNTY		
		SHEET 1 OF 7								
PLANS PREPARED BY:		STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH PRESERVATION						TION		
SIMPSON NGINEERS SSOCIATES 5640 Dillard Drive Suite 200 Cary, NC 27518	AGE CONSTRUCTION			_	SPA IRD	•	-			
(919)852-0468 (919)852-0598 (Fax) www.simpsonengr.com	J. BEAUNIN			REVT	SIONS			SHEET NO.		
LICENSURE NO. C-2521	9/29/2020	NO.	BY:	DATE:		BY:	DATE:	S1-91		
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REPAIR QUANTITY TABLE								
REPAIRS SPAN 9 GRD. 2			UANTIT					
THE ATTO STAR 5 ONDEE	EST	IMATE		ACTUAL				
REPAIRS OF PRESTR. CONCRETE GIRDERS	AREA SF			DEPTH FT	VOLUME CF			
GIRDER	0.0	0.0						
EPOXY RESIN INJECT	LF			LF				
GIRDER 0.0								

NOTES:

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

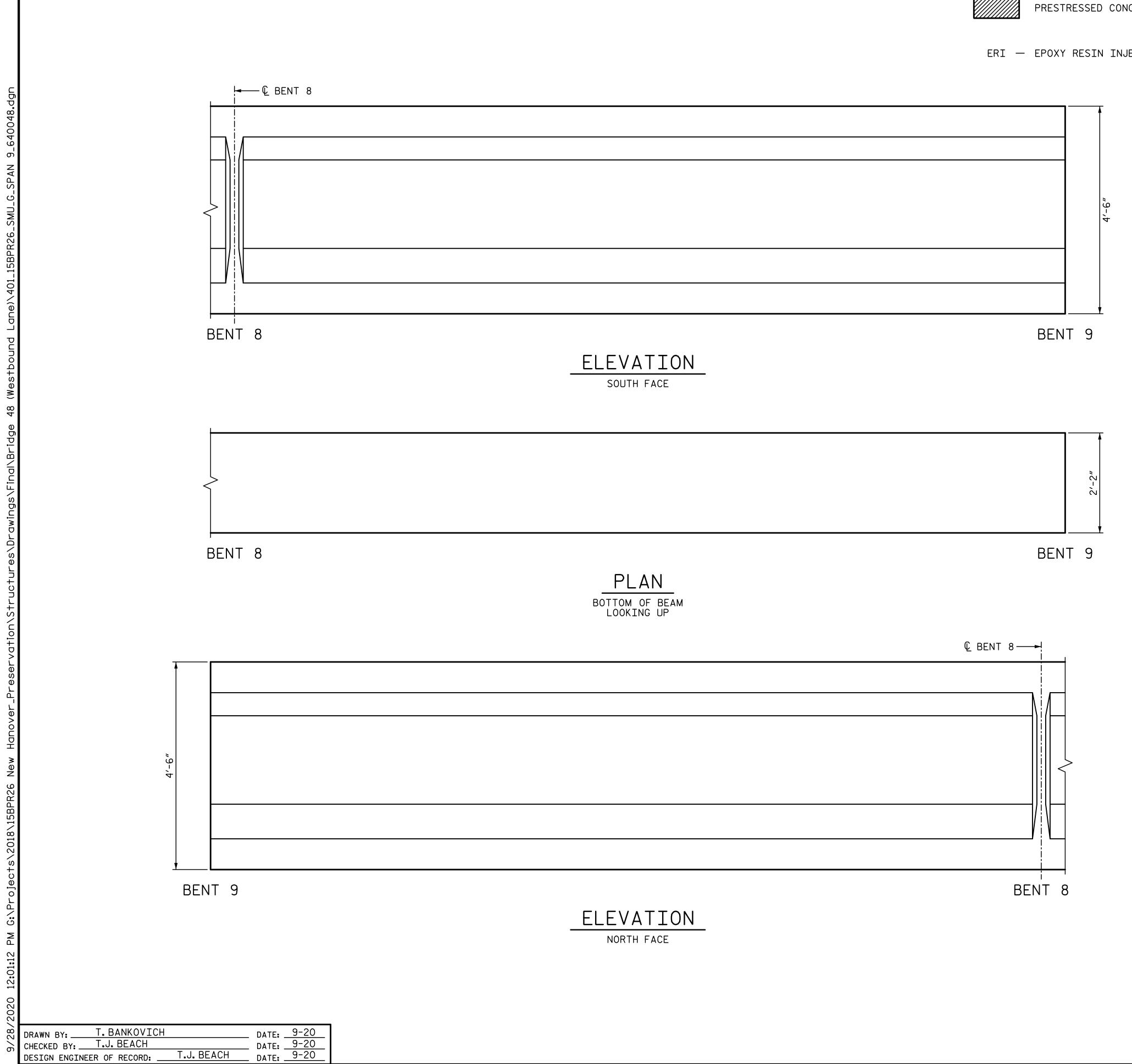
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FOR REPAIRS OF PRESTRESSED CONCRETE GIRDERS DETAILS, SEE "PRESTRESSED CONCRETE GIRDER REPAIR DETAILS" SHEET.

			HANOVE	<u>15</u> R/PEND		UNTY		
		SHEET 2	0F 7					
PLANS PREPARED BY:		STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH PRESERVATION						
SIMPSON NGINEERS SSOCIATES 5640 Dillard Drive Suite 200	AGB 1900575245B SEAL 24390	SPAN 9 GIRDER 2						
Cary, NC 27518 (919) 852-0468 (919) 852-0598 (Fax) www.simpsonengr.com LICENSURE NO. C-2521	9/29/2020	NO. BY:	REVI DATE:	SIONS	DATE:	SHEET NO. S1-92		
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REPAIR QUANTITY TABLE								
REPAIRS SPAN 9 GRD. 3			QL	JANTITI				
ILLI AIRS SI AR S ORDES		IMATE			ACTUAL	-		
REPAIRS OF PRESTR. CONCRETE GIRDERS	AREA SF			DEPTH FT	v	OLUME CF		
GIRDER	0.0	0.0						
EPOXY RESIN INJECTION							LF	
GIRDER 0.0								

NOTES:

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

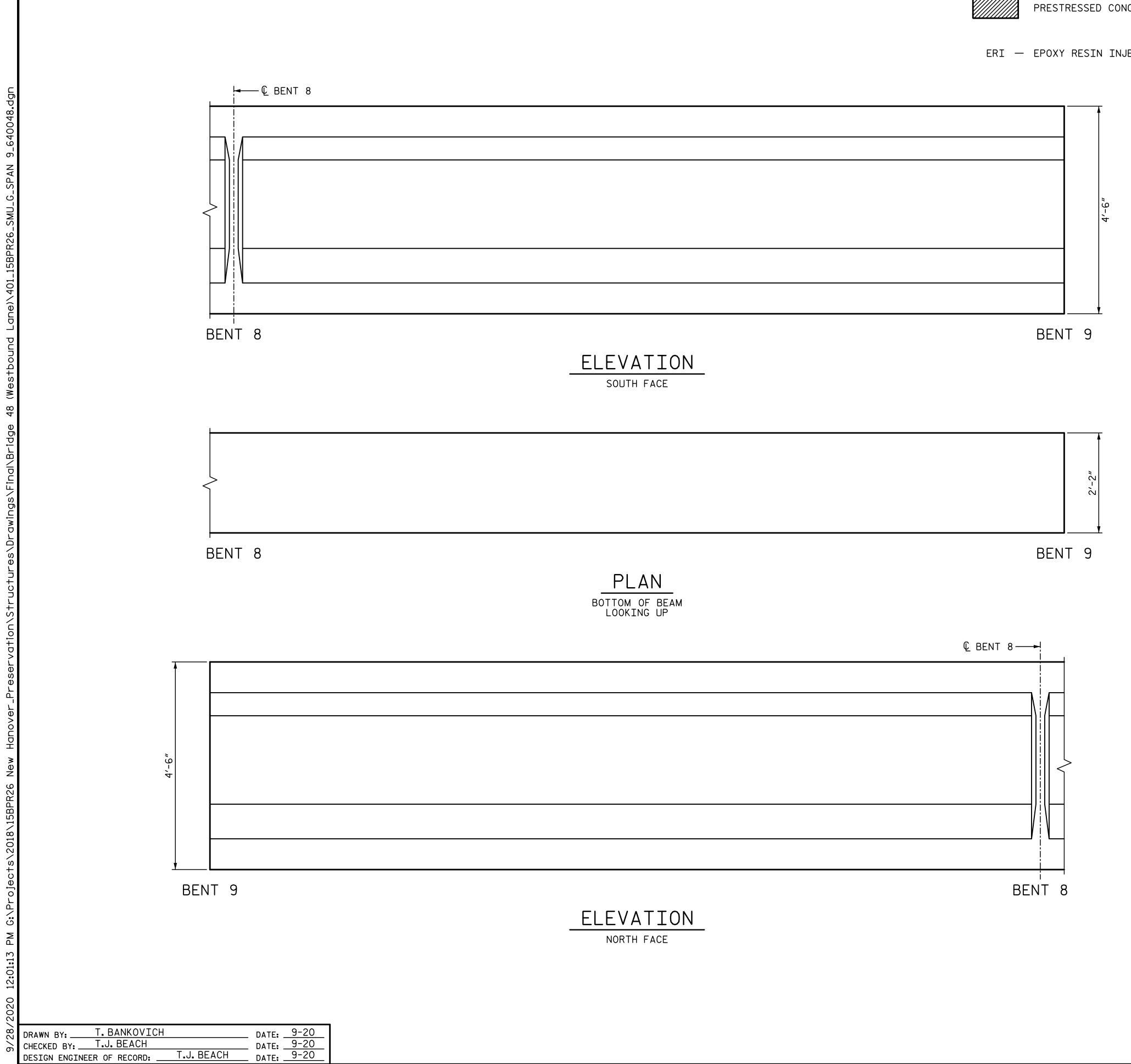
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FOR REPAIRS OF PRESTRESSED CONCRETE GIRDERS DETAILS, SEE "PRESTRESSED CONCRETE GIRDER REPAIR DETAILS" SHEET.

		NEW		<u>15</u> <u>R/PENE</u> 64		DUNTY				
		SHEET 3 OF 7								
PLANS PREPARED BY:		DEP	ARTMENT	te of north car OF TRAI RALEIGH SERVAT	NSPORTA	TION				
SIMPSON NGINEERS SSOCIATES 5640 Dillard Drive Suite 200	AGB 1 DE BOTS 2458 24390			SPAN IRDER						
Cary, NC 27518 (919) 852-0468 (919) 852-0598 (Fax) www.simpsonengr.com	J. BEAMIN		DEVI	SIONS		SHEET NO.				
LICENSURE NO. C-2521	9/29/2020	NO. BY:	DATE:	NO. BY:	DATE:	S1-93				
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REPAIR QUANTITY TABLE							
REPAIRS SPAN 9 GRD. 4			UANTIT				
RELATING SLAN 3 OND. I	EST	IMATE		ACTUAL	.		
REPAIRS OF PRESTR. CONCRETE GIRDERS	AREA SF			DEPTH FT	VOLUME CF		
GIRDER	0.0	0.0					
EPOXY RESIN INJECTION					LF		
GIRDER							

NOTES:

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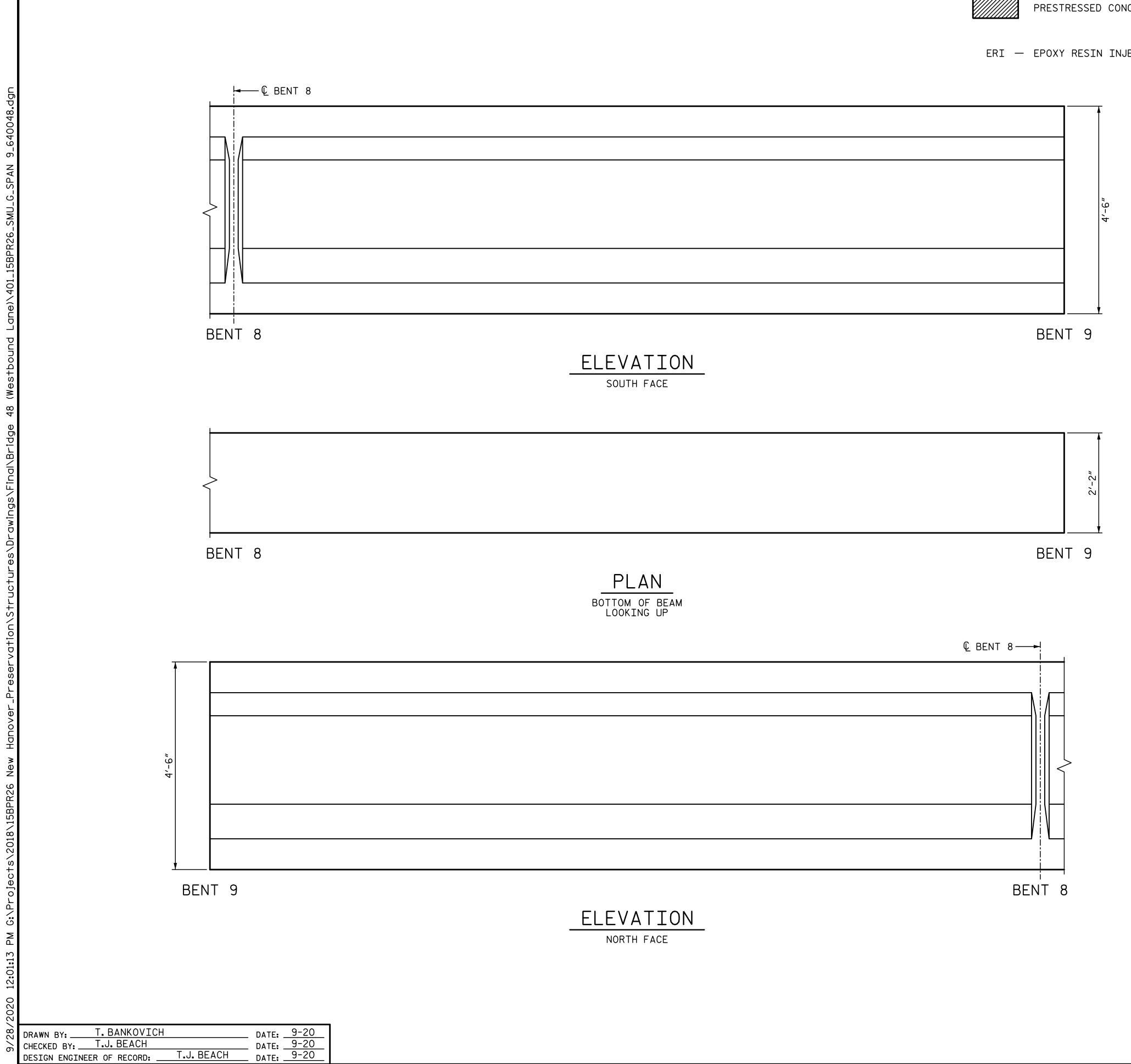
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FOR REPAIRS OF PRESTRESSED CONCRETE GIRDERS DETAILS, SEE "PRESTRESSED CONCRETE GIRDER REPAIR DETAILS" SHEET.

		N	EW H	CT NO. Ianove E NO.:	R/PE	NDE		UNTY
		SH	EET 4	OF 7				
PLANS PREPARED BY:		STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH PRESERVATION						
5640 Dillard Drive Suite 200 Cary, NC 27518	Doorbergin LARO/ TUS Steadlon AGE OB5752458. SEAL 24390				SPAN ERDE			
Cary, NC 27518 (919) 852-0468 (919) 852-0598 (Fax) www.simpsonengr.com	J. BEAU				07010			
LICENSURE NO. C-2521	9/29/2020	NO.	BY:	DATE:	SIONS NO. BY:		DATE:	SHEET NO. S1-94
		1			3			TOTAL SHEETS
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REPAIR QUANTITY TABLE							
REPAIRS SPAN 9 GRD. 5			UANTIT				
	EST	IMATE		ACTUAL	-		
REPAIRS OF PRESTR. CONCRETE GIRDERS	AREA SF			DEPTH FT	VOLUME CF		
GIRDER	0.0	0.0					
EPOXY RESIN INJECT	LF			LF			
GIRDER							

NOTES:

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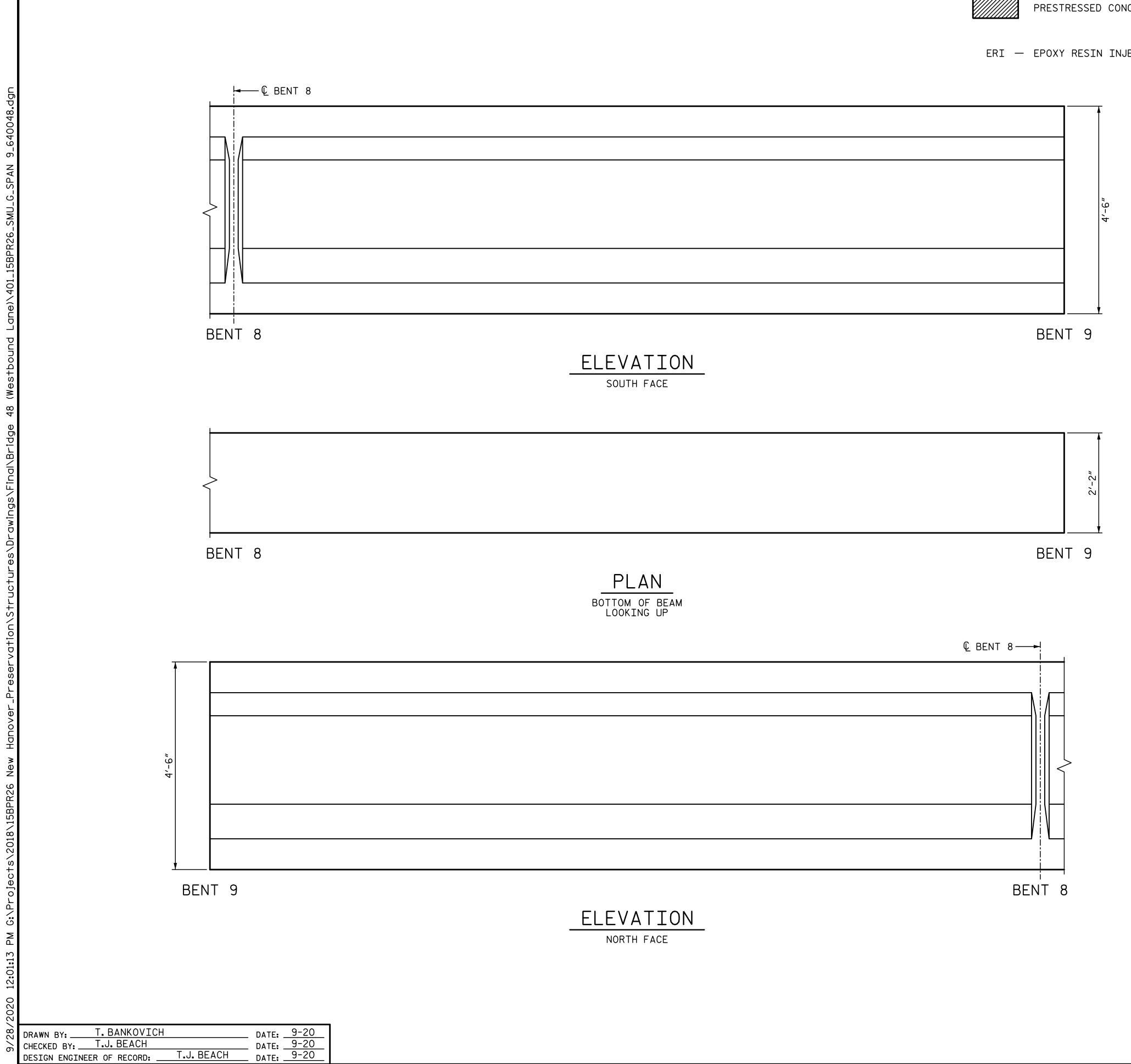
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FOR REPAIRS OF PRESSTRESSED CONCRETE GIRDERS, SEE SPECIAL PROVISIONS.

FOR REPAIRS OF PRESTRESSED CONCRETE GIRDERS DETAILS, SEE "PRESTRESSED CONCRETE GIRDER REPAIR DETAILS" SHEET.

	PROJECT NO. <u>15BPR.26</u> <u>NEW HANOVER/PENDER COUNTY</u>							
	BRIDGE NO.: 640048							
	SHEET 5 OF 7							
PLANS PREPARED BY:	STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH PRESERVATION							
SIMPSON NGINEERS SSOCIATES 5640 Dillard Drive Suite 200 Correction Processing Action of the SEAL 24390	SPAN 9 GIRDER 5							
Cary, NC 27518 (919) 852-0468 (919) 852-0598 (Fax) www.simpsonengr.com LICENSURE NO. C-2521	REVISIONS SHEET NO. NO. BY: DATE: NO. BY: DATE: S1-95							
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REPAIR QUANTITY TABLE								
REPAIRS SPAN 9 GRD.6			UANTIT					
ILLI AINS SI AN 5 OND. O	EST	IMATE		ACTUAL	-			
REPAIRS OF PRESTR. CONCRETE GIRDERS	AREA VOLUME AREA DEPTH SF CF SF FT			VOLUME CF				
GIRDER	0.0	0.0						
EPOXY RESIN INJECT	LF			LF				
GIRDER 0.0								

NOTES:

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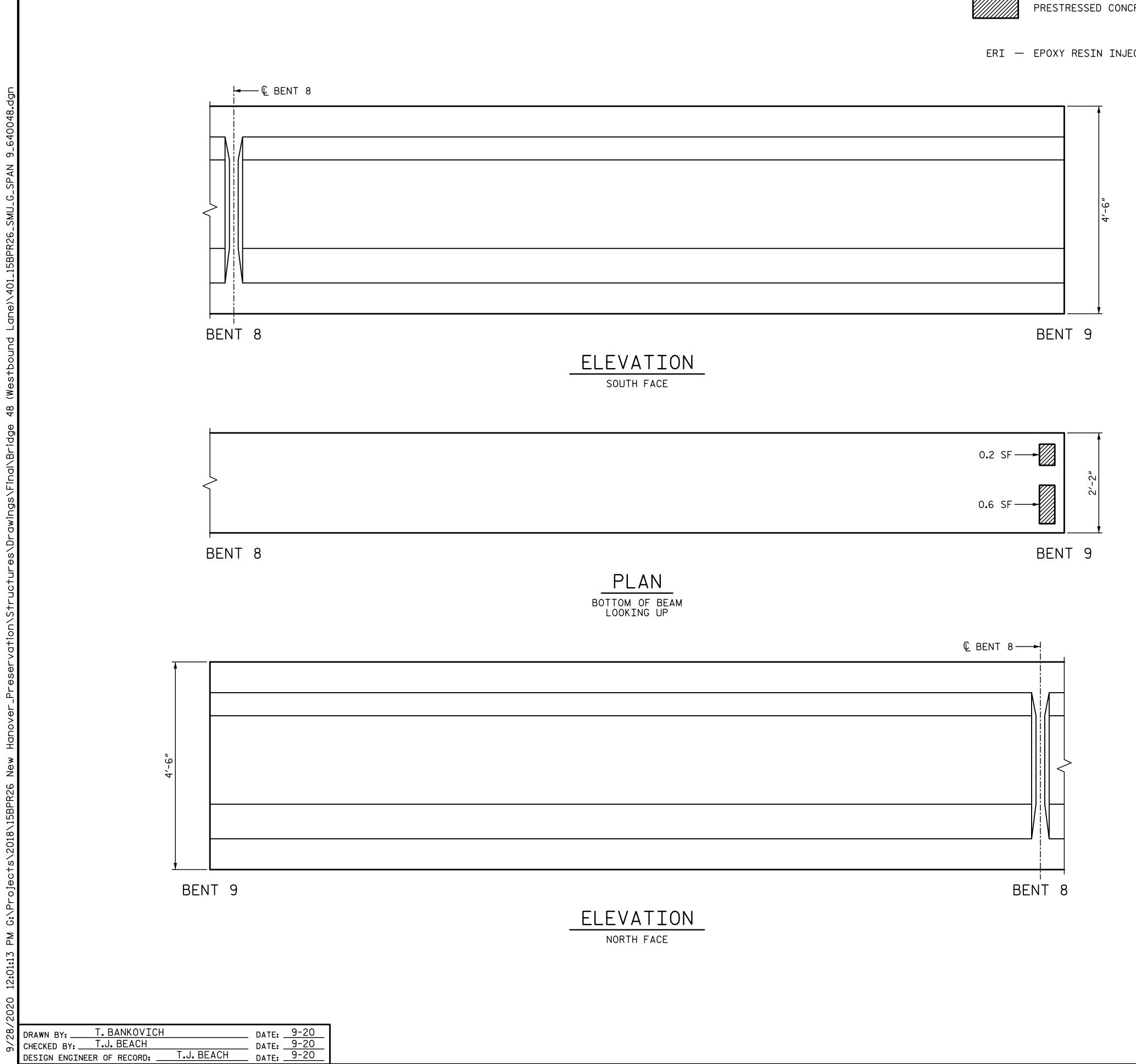
FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

VALUES IN CHART REPRESENT ESTIMATE REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN, OF 1"BEHIND REBAR AND MIN. 2"CL. TO SAWCUT. SEE REPAIR DETAILS.

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FOR REPAIRS OF PRESTRESSED CONCRETE GIRDERS DETAILS, SEE "PRESTRESSED CONCRETE GIRDER REPAIR DETAILS" SHEET.

		NEV	V H		R/PEN	<u>5BPR.</u> Ider_c 54004	OUNTY		
		SHEET 6 OF 7							
PLANS PREPARED BY:		D	EPA	RTMENT	RALEIGH	ANSPORT	ATION		
SIMPSON NGINEERS SSOCIATES 5640 Dillard Drive Suite 200 Cary, NC 27518 (919) 852-0468	AGE SUBBSSEAL 24390				SPAN IRDE				
(919)852-0598 (Fax) www.simpsonengr.com	J. BEAUNI			REVI	SIONS		SHEET NO.		
LICENSURE NO. C-2521	9/29/2020	NO. B	SY:	DATE:	NO. BY:	DATE:	S1-96		
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REPAIR QUANTI			TABL	.E	
REPAIRS SPAN 9 GRD. 7			UANTIT		
ILLI AINS SI AN 3 OND. I	EST	IMATE		ACTUAL	
REPAIRS OF PRESTR. AREA V CONCRETE GIRDERS SF		VOLUME CF	AREA DEPTH V SF FT		VOLUME CF
GIRDER 0.8		0.4			
EPOXY RESIN INJECTION					LF
GIRDER	0.0				

NOTES:

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

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

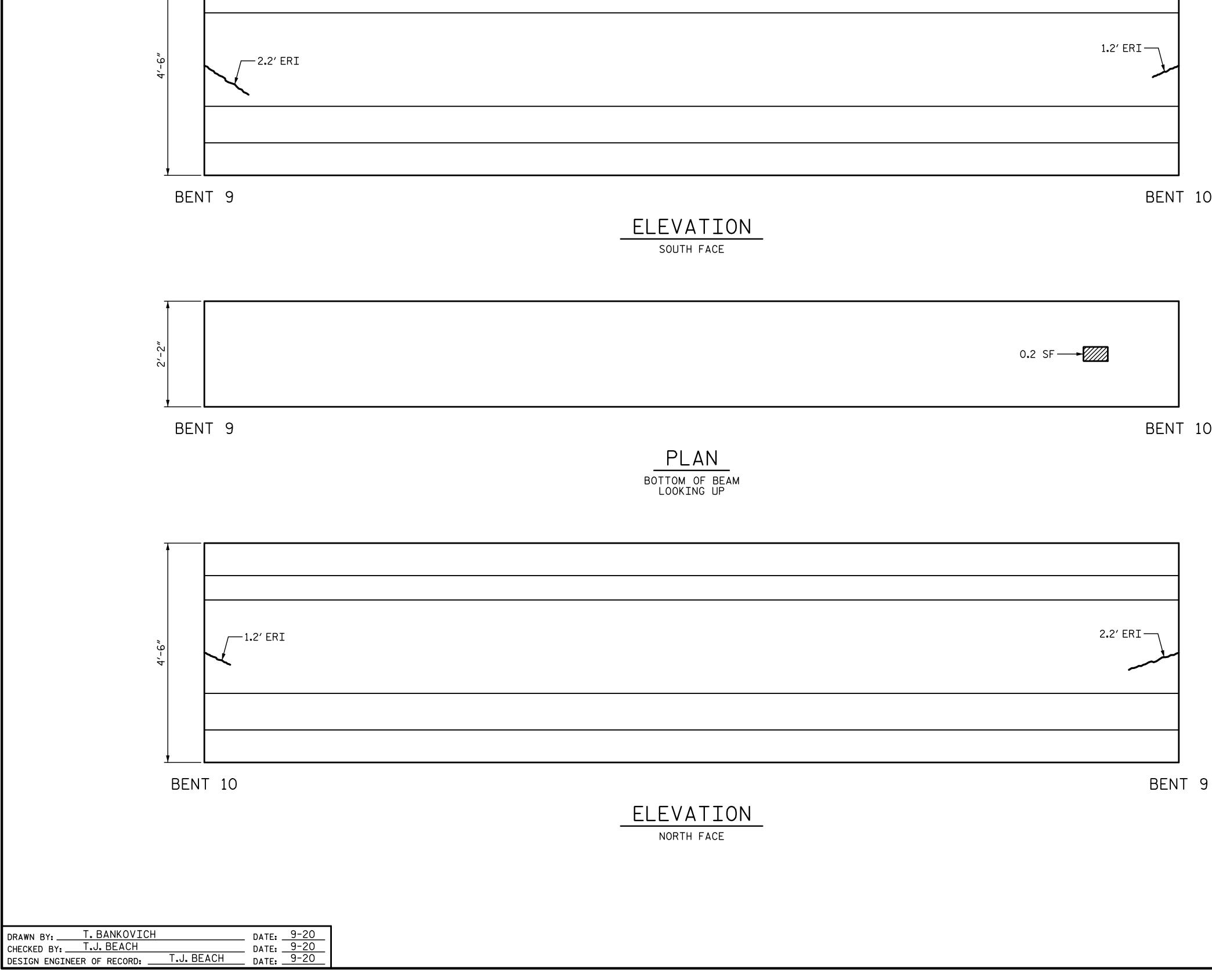
VALUES IN CHART REPRESENT ESTIMATE REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN, OF 1"BEHIND REBAR AND MIN. 2"CL. TO SAWCUT. SEE REPAIR DETAILS.

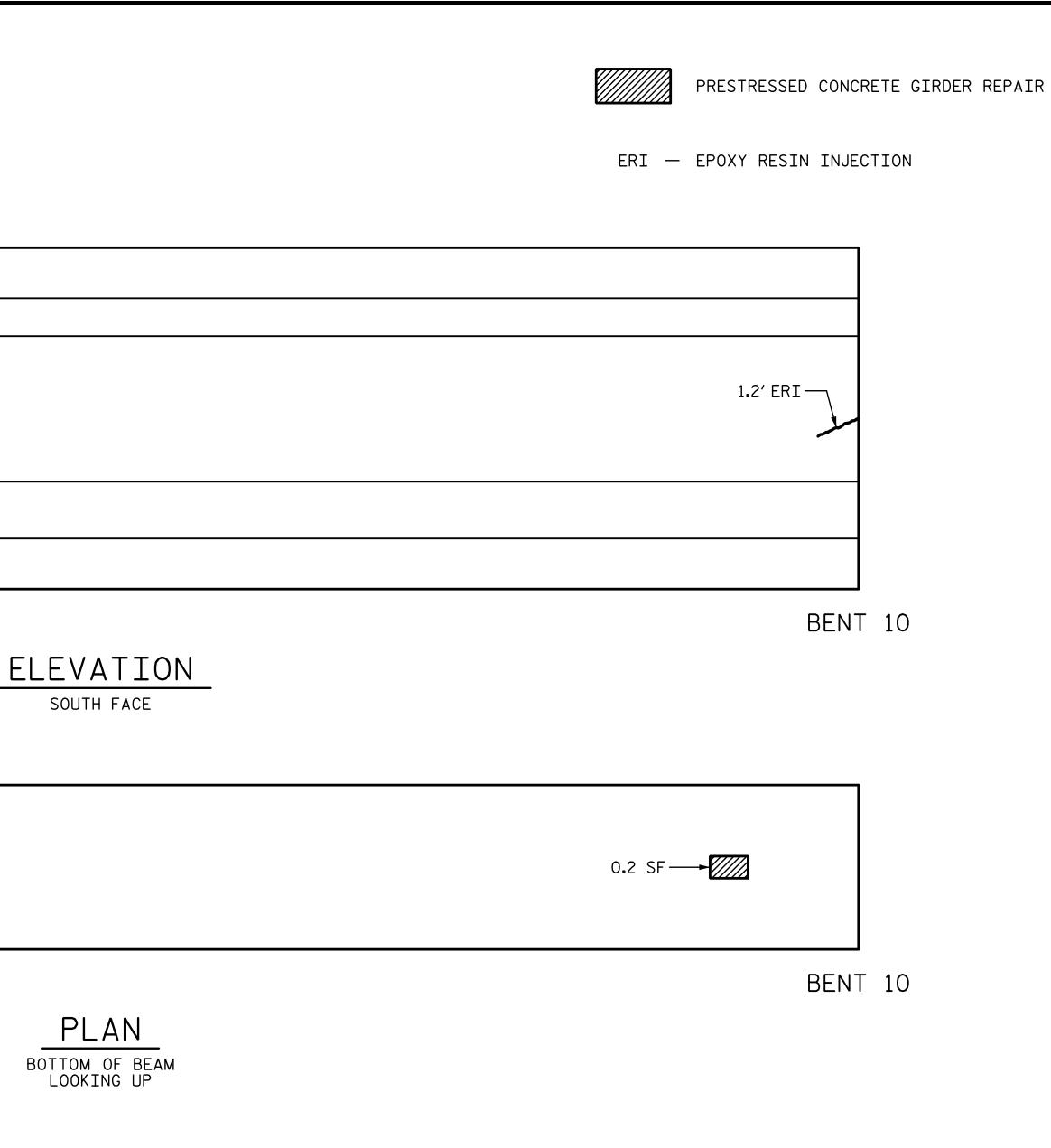
FOR REPAIRS OF PRESSTRESSED CONCRETE GIRDERS, SEE SPECIAL PROVISIONS.

FOR REPAIRS OF PRESTRESSED CONCRETE GIRDERS DETAILS, SEE "PRESTRESSED CONCRETE GIRDER REPAIR DETAILS" SHEET.

		PROJECT NO. <u>15BPR.26</u> <u>NEW HANOVER/PENDER COUNT</u> BRIDGE NO.: 640048					
		SHEET 7 OF 7					
PLANS PREPARED BY:		DEPA	RTMENT	OF NORTH CAR OF TRAN RALEIGH SERVAT	NSPORTA	TION	
SILVERS SSOCIATES 5640 Dillard Drive Sulte 200 Cary, NC 27518 (919) 852-0468	Doensignerhos AROL FUED BEFESSION AGB PROBSTS2458. SEAL 24390			SPAN IRDER			
(919) 852-0468 (919) 852-0598 (Fax) www.simpsonengr.com	J. BEAU			STONE			
LICENSURE NO. C-2521	9/29/2020	NO. BY:	REVIS	NO. BY:	DATE:	SHEET NO. S1-97	
DOCUMENT NOT CON UNLESS ALL SIGNATU		1		3 4		total sheets 163	







PLANS PREPARED S IMPSON NGINEERS ASSOCIA 5640 Dillard Driv Suite 200 Cary, NC 27518 (919) 852-0468 (919) 852-0598 (Fe www.simpsonenge LICENSURE NO. C

REPAIR QUANTI			ΓABL	.E		
REPAIRS SPAN 10 GRD.1			JANTITI			
	EST	IMATE		ACTUAL	_	
REPAIRS OF PRESTR. AREA CONCRETE GIRDERS SF		VOLUME CF	AREA SF	DEPTH FT	VOLUME CF	E
GIRDER		0.1				
EPOXY RESIN INJECTION					LF	
GIRDER		6.8				

NOTES:

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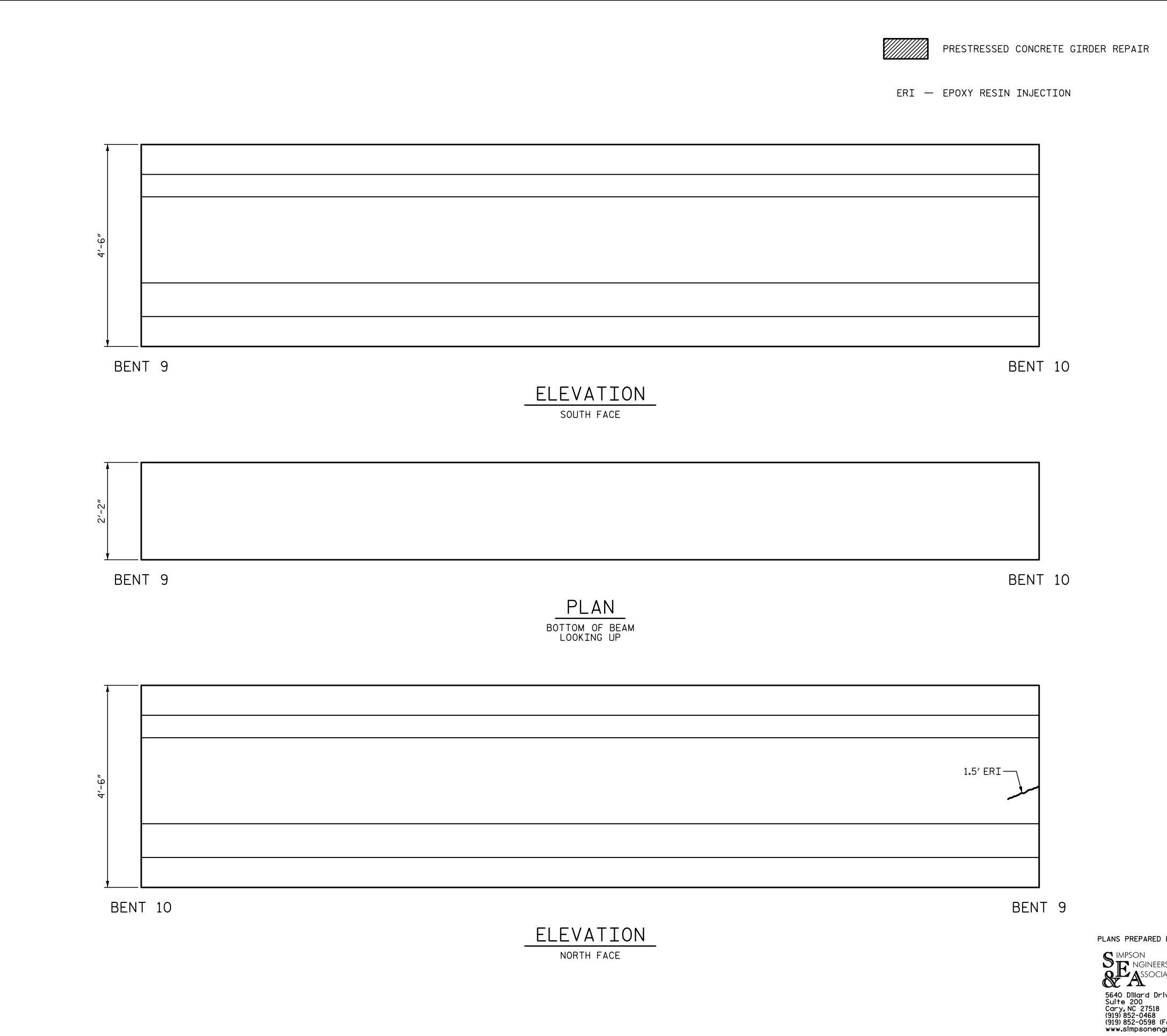
FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

VALUES IN CHART REPRESENT ESTIMATE REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN, OF 1" BEHIND REBAR AND MIN. 2"CL. TO SAWCUT. SEE REPAIR DETAILS.

FOR REPAIRS OF PRESSTRESSED CONCRETE GIRDERS, SEE SPECIAL PROVISIONS.

FOR REPAIRS OF PRESTRESSED CONCRETE GIRDERS DETAILS, SEE "PRESTRESSED CONCRETE GIRDER REPAIR DETAILS" SHEET.

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w.simpsonengr.com			REVIS	SION	IS		SHEET NO.
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REPAIR QUANTII			TABL	.E	
REPAIRS SPAN 10 GRD. 2		Q	UANTIT	IES	
REFAIRS SFAN IU GRU. Z	EST	IMATE		ACTUAL	_
REPAIRS OF PRESTR. AF CONCRETE GIRDERS		VOLUME CF	AREA DEPTH VC SF FT		VOLUME CF
GIRDER		0.0			
EPOXY RESIN INJECT	ION	LF			LF
GIRDER		1.5			

NOTES:

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

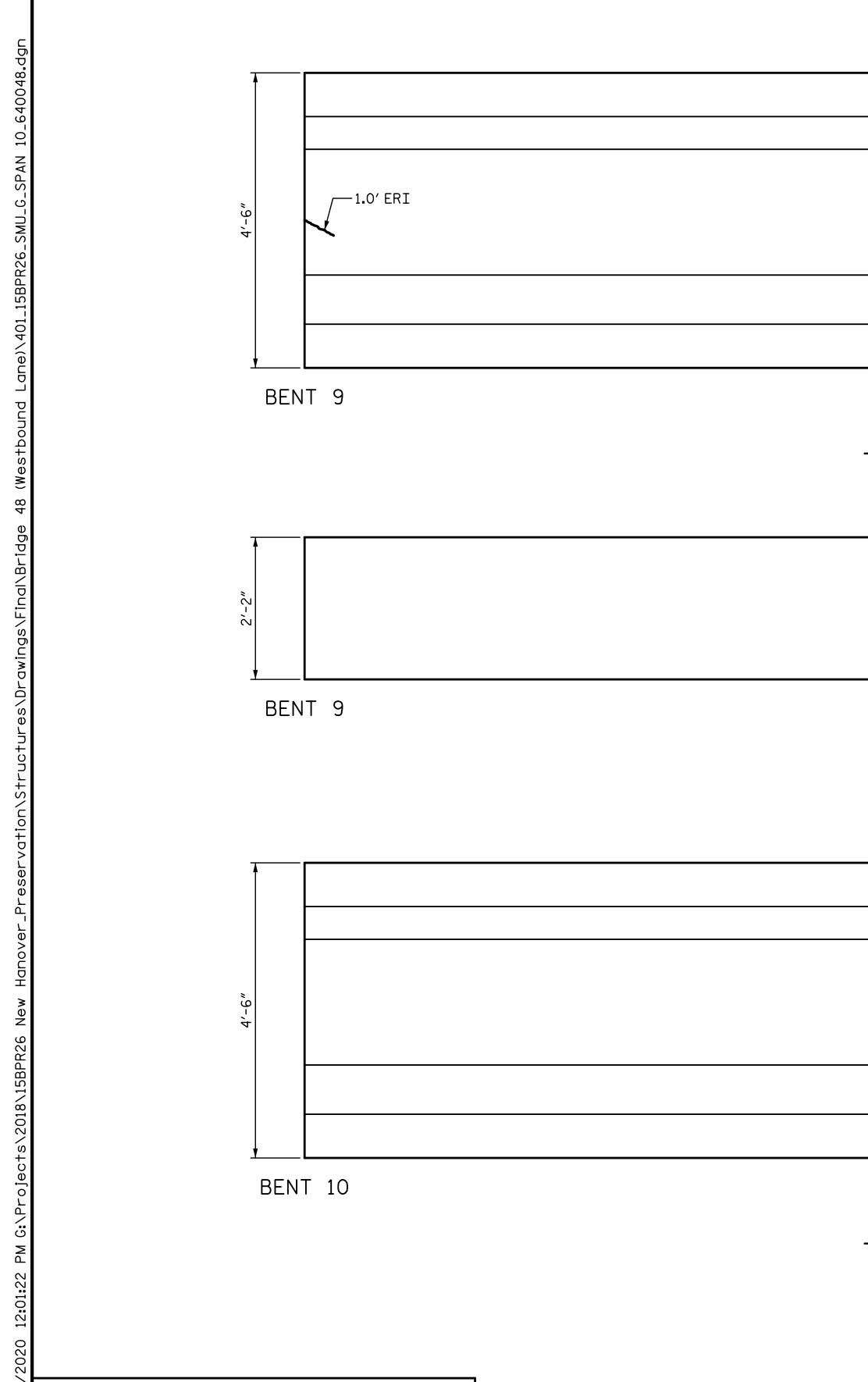
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PLANS PREPARED BY:
Sind Dillard Drive Sulte 200 Cary, NC 27518 (919) 852-0468 (919) 852-0468
(919) 852-0598 (Fax) www.simpsonengr.com 9/29/2020 REVISIONS
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	PRESTRESSED CONCRETE GIRDER REPAIR	
	ERI — EPOXY RESIN INJECTION	
	BENT 10	
ELEVATION SOUTH FACE		
PLAN	BENT 10	
BOTTOM OF BEAM LOOKING UP		
	BENT 9	
ELEVATION NORTH FACE		
	S IMPSON NGIN 5640 Dillard Sulte 200	OCIATI
	5640 Dillard Suite 200 Cary, NC 27 (919) 852-046 (919) 852-059 www.simpsor	
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REPAIR QUANTITY			TABL	.E	
REPAIRS SPAN 10 GRD. 3		Q	UANTIT	IES	
REFAIRS SFAN IU GRU. J	EST	IMATE		ACTUAL	_
REPAIRS OF PRESTR. ARE CONCRETE GIRDERS		VOLUME CF	AREA SF	DEPTH FT	VOLUME CF
GIRDER	0.0	0.0			
EPOXY RESIN INJECT	ION	LF			LF
GIRDER		1.0			

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		PROJECT NO. <u>15BPR.26</u> <u>NEW HANOVER/PENDER COUN</u> BRIDGE NO.: <u>640048</u>					
		SHEET 3	OF 5				
PLANS PREPARED BY:		DEP	ARTMENT	OF NORTH CA OF TRA RALEIGH SERVA	NSPORTA	TION	
SIMPSON NGINEERS SSOCIATES 5640 Dillard Drive Suite 200 Cary, NC 27518	AGE SECTOR			PAN IRDEF			
(919)852-0468 (919)852-0598 (Fax) www.simpsonengr.com	J. BEANNIN		REVIS	SIONS		SHEET NO.	
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