STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

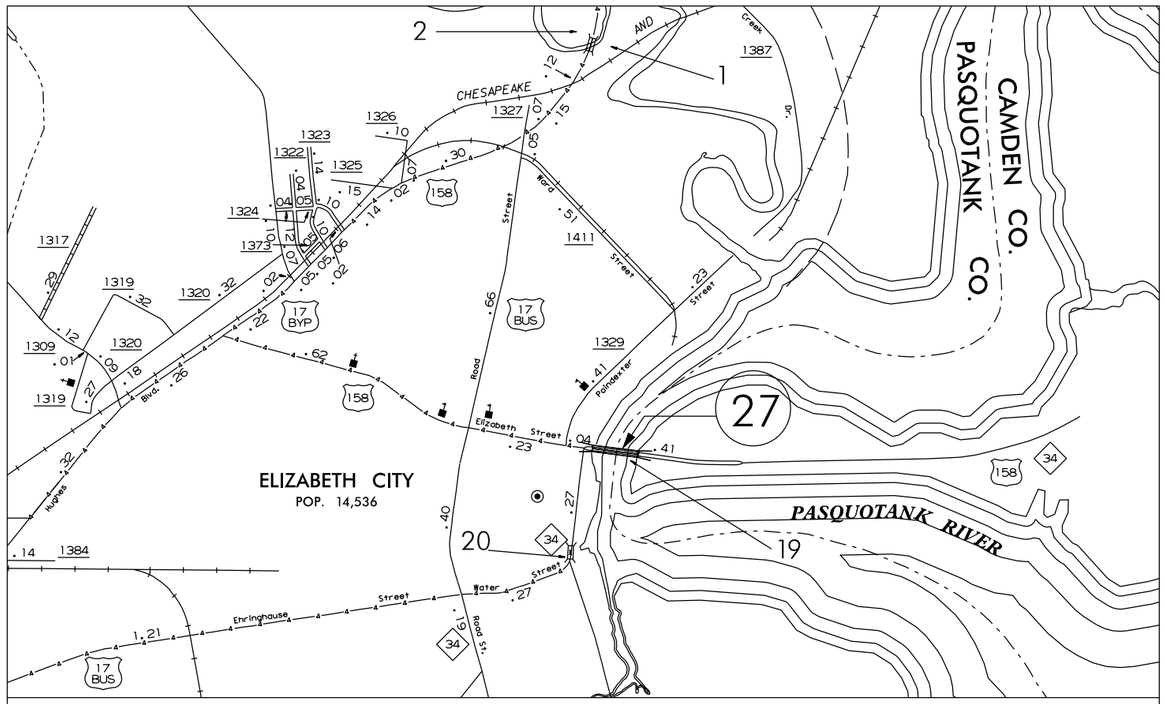
PASQUOTANK COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	——	1	34

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
——		P.E.

LOCATION: BRIDGE 27 OVER PASQUOTANK RIVER

TYPE OF WORK: SUPERSTRUCTURE & SUBSTRUCTURE REPAIRS



VICINITY MAP

CONTRACT: DA00271

DESIGN DATA

BRIDGE 27 ADT 2013 = 8500

PROJECT LENGTH

LENGTH STRUCTURE PROJECT = .17 Miles

Prepared in the Office of:

STRUCTURES MANAGEMENT UNIT

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

2012 STANDARD SPECIFICATIONS

LETTING DATE:

TIMOTHY M. SHERRILL, P.E.

PROJECT ENGINEER

ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 18565 ENGINEER TIMOTHY M. SHERRILL

TIMOTHY M. SHERRILL, P.E.

PROJECT DESIGN ENGINEER

STATE OF NORTH CAROLINA

DIVISION OF HIGHWAYS

PASQUOTANK COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	——	1A	34

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
–		P.E.

LOCATION: BRIDGE 27 OVER PASQUOTANK RIVER

TYPE OF WORK: SUPERSTRUCTURE & SUBSTRUCTURE REPAIRS

INDEX OF SHEETS

CONTRACT: DA00271

NOTES

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

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

FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.

FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.

FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.

FOR CLEANING OF BRIDGE, SEE SPECIAL PROVISIONS.

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

LOCATION MAP

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

TOTAL BILL OF MATERIAL

BRIDGE	EPOXY RESIN INJECTION	CONCRETE REPAIRS	SHOTCRETE REPAIRS	CONCRETE GIRDER REPAIR	EPOXY COATING	BRIDGE JACKING	TEMPORARY WORK PLATFORM
	LIN. FT.	CU. FT.	CU. FT.	CU. FT.	SQ. FT.	EACH	EACH
PASQUOTANK #27	86	41.6	260.8	9.2	1975	EACH	EACH

DRAWN BY : CL BRIGHT DATE : 01/16
CHECKED BY : T. SHERRILL DATE : 01/16
DESIGN ENGINEER OF RECORD: - DATE : -

PROJECT NO. DA00271
PASQUOTANK COUNTY
BRIDGE NO. 27

SHEET 1 OF 1

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

LOCATION MAP

FOR BRIDGE 27 ON US 158 OVER THE PASQUOTANK RIVER

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

STANDARD NOTES

DESIGN DATA:

SPECIFICATIONS	A.A.S.H.T.O. (CURRENT)
LIVE LOAD	SEE PLANS
IMPACT ALLOWANCE	SEE A.A.S.H.T.O.
STRESS IN EXTREME FIBER OF	
STRUCTURAL STEEL - AASHTO M270 GRADE 36	20,000 LBS. PER SQ. IN.
- AASHTO M270 GRADE 50W	27,000 LBS. PER SQ. IN.
- AASHTO M270 GRADE 50	27,000 LBS. PER SQ. IN.
REINFORCING STEEL IN TENSION	
GRADE 60	24,000 LBS. PER SQ. IN.
CONCRETE IN COMPRESSION	1,200 LBS. PER SQ. IN.
CONCRETE IN SHEAR	SEE A.A.S.H.T.O.
STRUCTURAL TIMBER - TREATED OR	
UNTREATED - EXTREME FIBER STRESS	1,800 LBS. PER SQ. IN.
COMPRESSION PERPENDICULAR TO GRAIN OF TIMBER	375 LBS. PER SQ. IN.
EQUIVALENT FLUID PRESSURE OF EARTH	30 LBS. PER CU. FT. (MINIMUM)

MATERIAL AND WORKMANSHIP:

EXCEPT AS MAY OTHERWISE BE SPECIFIED ON PLANS OR IN THE SPECIAL PROVISIONS, ALL MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE 2012 "STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES" OF THE N. C. DEPARTMENT OF TRANSPORTATION.

STEEL SHEET PILING FOR PERMANENT OR TEMPORARY APPLICATIONS SHALL BE HOT ROLLED.

CONCRETE:

UNLESS OTHERWISE REQUIRED ON PLANS, CLASS A CONCRETE SHALL BE USED FOR ALL PORTIONS OF ALL STRUCTURES WITH THE EXCEPTION THAT: CLASS AA CONCRETE SHALL BE USED IN BRIDGE SUPERSTRUCTURES, ABUTMENT BACKWALLS, AND APPROACH SLABS; AND CLASS B CONCRETE SHALL BE USED FOR SLOPE PROTECTION AND RIP RAP.

CONCRETE CHAMFERS:

UNLESS OTHERWISE NOTED ON THE PLANS, ALL EXPOSED CORNERS ON STRUCTURES SHALL BE CHAMFERED 3/4" WITH THE FOLLOWING EXCEPTIONS: TOP CORNERS OF CURBS MAY BE ROUNDED TO 1-1/2" RADIUS WHICH IS BUILT INTO CURB FORMS; CORNERS OF TRANSVERSE FLOOR EXPANSION JOINTS SHALL BE ROUNDED WITH A 1/4" FINISHING TOOL UNLESS OTHERWISE REQUIRED ON PLANS; AND CORNERS OF EXPANSION JOINTS IN THE ROADWAY FACES AND TOPS OF CURBS AND SIDEWALKS SHALL BE ROUNDED TO A 1/4" RADIUS WITH A FINISHING STONE OR TOOL UNLESS OTHERWISE REQUIRED ON PLANS.

DOWELS:

DOWELS WHEN INDICATED ON PLANS AS FOR CULVERT EXTENSIONS, SHALL BE EMBEDDED AT LEAST 12" INTO THE OLD CONCRETE AND GROUTED INTO PLACE WITH 1:2 CEMENT MORTAR.

ALLOWANCE FOR DEAD LOAD DEFLECTION, SETTLEMENT, ETC. IN CASTING SUPERSTRUCTURES:

BRIDGES SHALL BE BUILT ON THE GRADE OR VERTICAL CURVE SHOWN ON PLANS. SLABS, CURBS AND PARAPETS SHALL CONFORM TO THE GRADE OR CURVE.

ALL DIMENSIONS WHICH ARE GIVEN IN SECTION AND ARE AFFECTED BY DEAD LOAD DEFLECTIONS ARE DIMENSIONS AT CENTER LINE OF BEARING UNLESS OTHERWISE NOTED ON PLANS. IN SETTING FORMS FOR STEEL BEAM BRIDGES AND PRESTRESSED CONCRETE GIRDER BRIDGES, ADJUSTMENTS SHALL BE MADE DUE TO THE DEAD LOAD DEFLECTIONS FOR THE ELEVATIONS SHOWN. WHERE BLOCKS ARE SHOWN OVER BEAMS FOR BUILDING UP TO THE SLAB, THE VERTICAL DIMENSIONS OF THE BLOCKS SHALL BE ADJUSTED BETWEEN BEARINGS TO COMPENSATE FOR DEAD LOAD DEFLECTIONS, VERTICAL CURVE ORDINATE, AND ACTUAL BEAM CAMBER. WHERE BOTTOM OF SLAB IS IN LINE WITH BOTTOM OF TOP FLANGES, DEPTH OF SLAB BETWEEN BEARINGS SHALL BE ADJUSTED TO COMPENSATE FOR DEAD LOAD DEFLECTION, VERTICAL CURVE ORDINATE, AND ACTUAL BEAM CAMBER.

IN SETTING FALSEWORK AND FORMS FOR REINFORCED CONCRETE SPANS, AN ALLOWANCE SHALL BE MADE FOR DEAD LOAD DEFLECTIONS, SETTLEMENT OF FALSEWORK, AND PERMANENT CAMBER WHICH SHALL BE PROVIDED FOR IN ADDITION TO THE ELEVATIONS SHOWN. AFTER REMOVAL OF THE FALSEWORK, THE FINISHED STRUCTURES SHALL CONFORM TO THE PROFILE AND ELEVATIONS SHOWN ON THE PLANS AND CONSTRUCTION ELEVATIONS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR FALSEWORK OR FORMS FOR BRIDGE SUPERSTRUCTURE AND ANY STRUCTURE OR PARTS OF A STRUCTURE AS NOTED ON THE PLANS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL BEFORE CONSTRUCTION OF THE FALSEWORK OR FORMS IS STARTED.

REINFORCING STEEL:

ALL REINFORCING STEEL SHALL BE DEFORMED. DIMENSIONS RELATIVE TO PLACEMENT OF REINFORCING ARE TO CENTERS OF BARS UNLESS OTHERWISE INDICATED IN THE PLANS. DIMENSIONS ON BAR DETAILS ARE TO CENTERS OF BARS OR ARE OUT TO OUT AS INDICATED ON PLANS.

WIRE BAR SUPPORTS SHALL BE PROVIDED FOR REINFORCING STEEL WHERE INDICATED ON THE PLANS. WHEN BAR SUPPORT PIECES ARE PLACED IN CONTINUOUS LINES, THEY SHALL BE SO PLACED THAT THE ENDS OF THE SUPPORTING WIRES SHALL BE LAPPED TO LOCK LEGS ON ADJOINING PIECES.

STRUCTURAL STEEL:

AT THE CONTRACTOR'S OPTION, HE MAY SUBSTITUTE 7/8" Ø SHEAR STUDS FOR THE 3/4" Ø STUDS SPECIFIED ON THE PLANS. THIS SUBSTITUTION SHALL BE MADE AT THE RATE OF 3 - 7/8" Ø STUDS FOR 4 - 3/4" Ø STUDS, AND STUD SPACING CHANGES SHALL BE MADE AS NECESSARY TO PROVIDE THE SAME EQUIVALENT NUMBER OF 7/8" Ø STUDS ALONG THE BEAM AS SHOWN FOR 3/4" Ø STUDS BASED ON THE RATIO OF 3 - 7/8" Ø STUDS FOR 4 - 3/4" Ø STUDS. STUDS OF THE LENGTH SPECIFIED ON THE PLANS MUST BE PROVIDED. THE MAXIMUM SPACING SHALL BE 2'-0".

EXCEPT AT THE INTERIOR SUPPORTS OF CONTINUOUS BEAMS WHERE THE COVER PLATE IS IN CONTACT WITH BEARING PLATE, THE CONTRACTOR MAY, AT HIS OPTION, SUBSTITUTE FOR THE COVER PLATES DESIGNATED ON THE PLANS COVER PLATES OF THE EQUIVALENT AREA PROVIDED THESE PLATES ARE AT LEAST 5/16" IN THICKNESS AND DO NOT EXCEED A WIDTH EQUAL TO THE FLANGE WIDTH LESS 2" OR A THICKNESS EQUAL TO 2 TIMES THE FLANGE THICKNESS. THE SIZE OF FILLET WELDS SHALL CONFORM TO THE REQUIREMENTS OF THE CURRENT ANSI/AASHTO/AWS "BRIDGE WELDING CODE". ELECTROSLAG WELDING WILL NOT BE PERMITTED.

WITH THE SOLE EXCEPTION OF EDGES AT SURFACES WHICH BEAR ON OTHER SURFACES, ALL SHARP EDGES AND ENDS OF SHAPES AND PLATES SHALL BE SLIGHTLY ROUNDED BY SUITABLE MEANS TO A RADIUS OF APPROXIMATELY 1/16 INCH OR EQUIVALENT FLAT SURFACE AT A SUITABLE ANGLE PRIOR TO PAINTING, GALVANIZING, OR METALLIZING.

HANDRAILS AND POSTS:

METAL STANDARDS AND FACES OF THE CONCRETE END POSTS FOR THE METAL RAIL SHALL BE SET NORMAL TO THE GRADE OF THE CURB, UNLESS OTHERWISE SHOWN ON PLANS. THE METAL RAIL AND TOPS OF CONCRETE POSTS USED WITH THE ALUMINUM RAIL SHALL BE BUILT PARALLEL TO THE GRADE OF THE CURB.

METAL HANDRAILS SHALL BE IN ACCORDANCE WITH THE PLANS. RAILS SHALL BE AS MANUFACTURED FOR BRIDGE RAILING. CASTINGS SHALL BE OF A UNIFORM APPEARANCE. FINS AND OTHER DEFORMATIONS RESULTING FROM CASTING OR OTHERWISE SHALL BE REMOVED IN A MANNER SO THAT A UNIFORM COLORING OF THE COMPLETED CASTING SHALL BE OBTAINED. CASTINGS WITH DISCOLORATIONS OR OF NON-UNIFORM COLORING WILL NOT BE ACCEPTED. CERTIFIED MILL REPORTS ARE REQUIRED FOR METAL RAILS AND POSTS.

SPECIAL NOTES:

GENERALLY, IN CASE OF DISCREPANCY, THIS STANDARD SHEET OF NOTES SHALL GOVERN OVER THE SPECIFICATIONS, BUT THE REMAINDER OF THE PLANS SHALL GOVERN OVER NOTES HEREON, AND SPECIAL PROVISIONS SHALL GOVERN OVER ALL. SEE SPECIFICATIONS ARTICLE 105-4.

ENGLISH

JANUARY, 1990

STD. NO. SN

REV. 6-16-95 EEM (/) RGW REV. 5-7-03 RWW (/) JTE REV. 10-1-11 MAA (/) GM
REV. 8-16-99 RWW (/) LES REV. 5-1-06 TLA (/) GM

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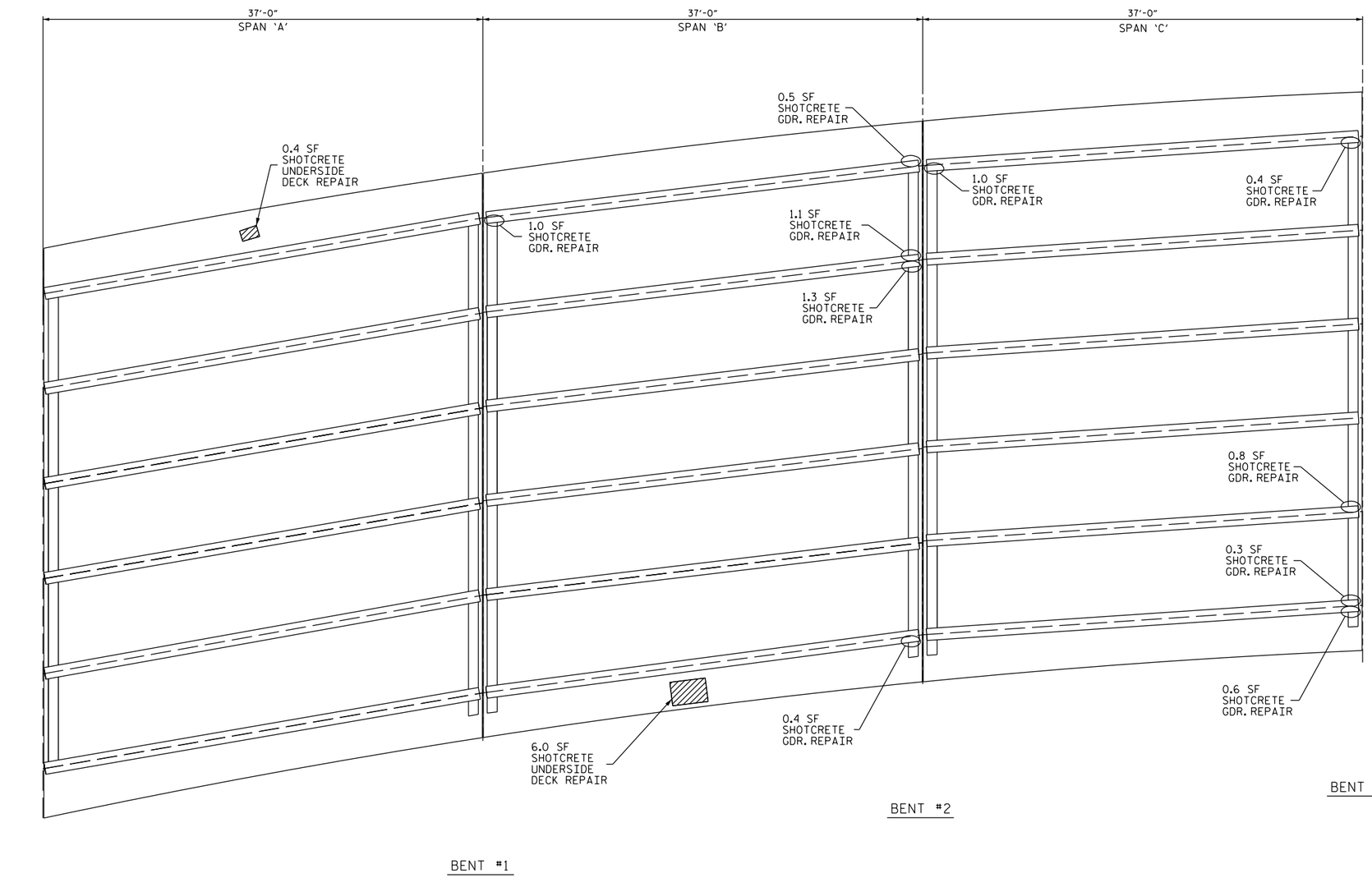


SUMMARY OF QUANTITIES

SPANS A,B,C	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
GIRDER	7.4	1.9		
INT. DIAPHRAGM	0.0	0.0		
OVERHANG DIAPHRAGM	0.0	0.0		
UNDERSIDE DECK	6.4	2.4		
UNDERSIDE DECK DRAIN REPAIR	37.5	9.4		
EPOXY RESIN INJECTION		LN. FT		LN. FT
UNDERSIDE OF DECK		0.0		
DIAPHRAGM		0.0		

NOTES

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

FOR REPAIR DETAILS, SEE "TYPICAL GIRDER, DIAPHRAGM & DRAIN REPAIR DETAILS" SHEETS.

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

SPAN 'A' WAS INACCESSIBLE AT TIME OF PROJECT SCOPING. QUANTITIES FOR SPAN 'A' ARE AN AVERAGE OF OTHER LIKE SPANS AND ARE INCLUDED IN THE QUANTITIES LISTED IN THE SUMMARY OF QUANTITIES TABLE.

DECK DRAIN REPAIRS		
SPAN	NUMBER OF LOCATIONS	AREA SF
A	6	9.4
B	7	10.9
C	11	17.2

FOR DECK DRAIN REPAIR DETAILS, SEE "TYPICAL UNDERSIDE OF DECK REPAIRS" SHEET.

PROJECT NO. DA00271

PASQUOTANK COUNTY

BRIDGE NO. 27

SHEET 1 OF 7

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

UNDERSIDE DECK SPANS A,B,C

NORTH CAROLINA PROFESSIONAL SEAL 18565 ENGINEER TIMOTHY M. SHERRILL

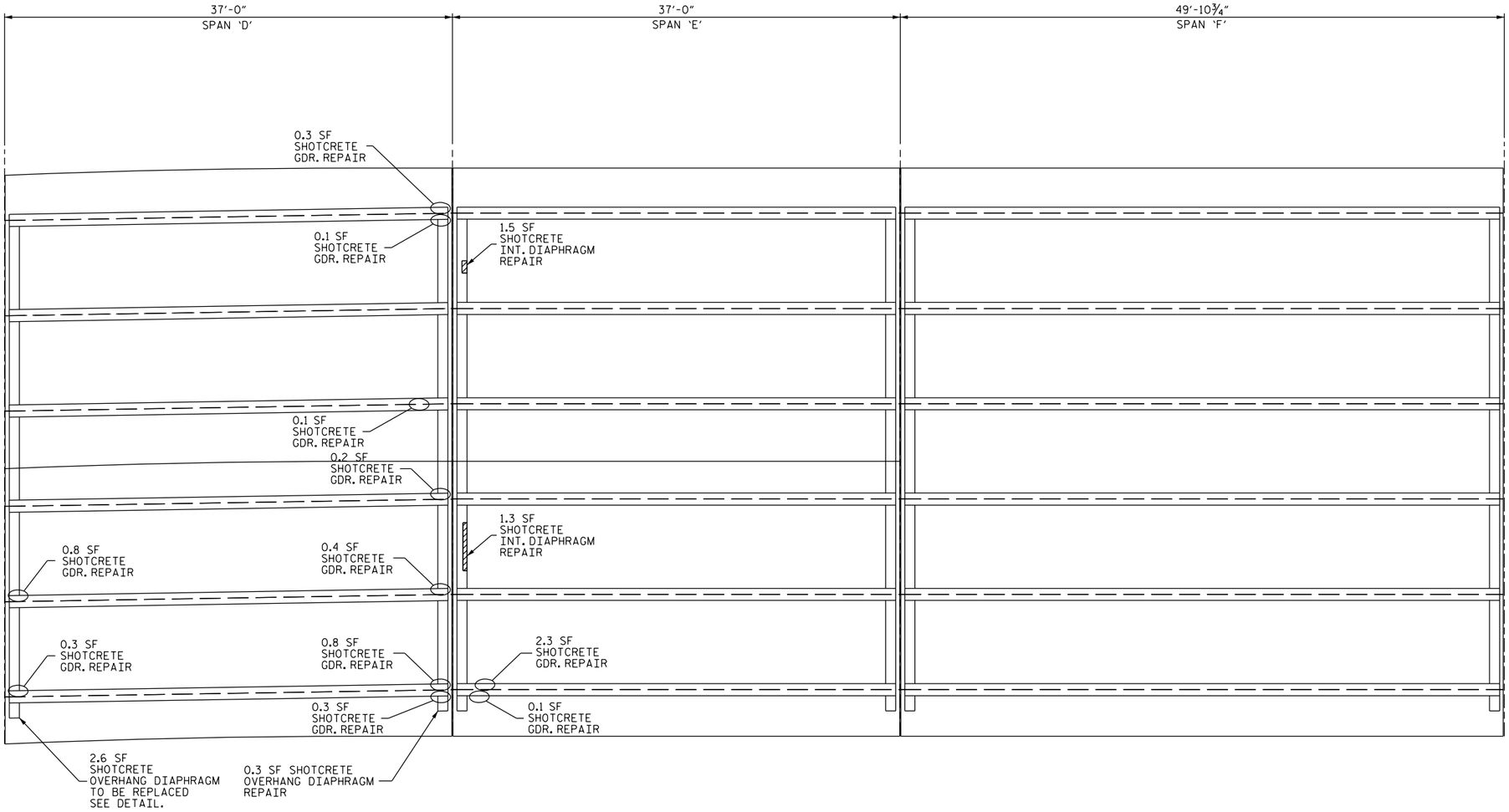
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-1
1			3			TOTAL SHEETS
2			4			34

DRAWN BY : C L BRIGHT DATE : 01/16
CHECKED BY : T. SHERRILL DATE : 01/16
DESIGN ENGINEER OF RECORD: - DATE : -

$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

TO ELIZABETH CITY

TO CAMDEN



BENT #3 BENT #4 BENT #5 PIER #1

SUMMARY OF QUANTITIES

SPANS D,E,F	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
GIRDER	5.7	1.4		
INT. DIAPHRAGM	2.8	1.1		
OVERHANG DIAPHRAGM	2.9	2.2		
UNDERSIDE DECK	0.0	0.0		
UNDERSIDE DECK DRAIN REPAIR	37.5	9.4		
EPOXY RESIN INJECTION		LN. FT		LN. FT
UNDERSIDE OF DECK		0.0		
DIAPHRAGM		0.0		

NOTES

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

FOR REPAIR DETAILS, SEE "TYPICAL GIRDER, DIAPHRAGM & DRAIN REPAIR DETAILS" SHEET.

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

DECK DRAIN REPAIRS		
SPAN	NUMBER OF LOCATIONS	AREA SF
D	10	15.6
E	8	12.5
F	6	9.4

FOR DECK DRAIN REPAIR DETAILS, SEE "TYPICAL UNDERSIDE OF DECK REPAIRS" SHEET.

NORTH CAROLINA PROFESSIONAL SEAL 18565 ENGINEER TIMOTHY M. SHERRILL

PROJECT NO. DA00271

PASQUOTANK COUNTY

BRIDGE NO. 27

SHEET 2 OF 7

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

UNDERSIDE DECK SPANS D,E,F

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

DRAWN BY : C L BRIGHT DATE : 01/16
CHECKED BY : T. SHERRILL DATE : 01/16
DESIGN ENGINEER OF RECORD: - DATE : -

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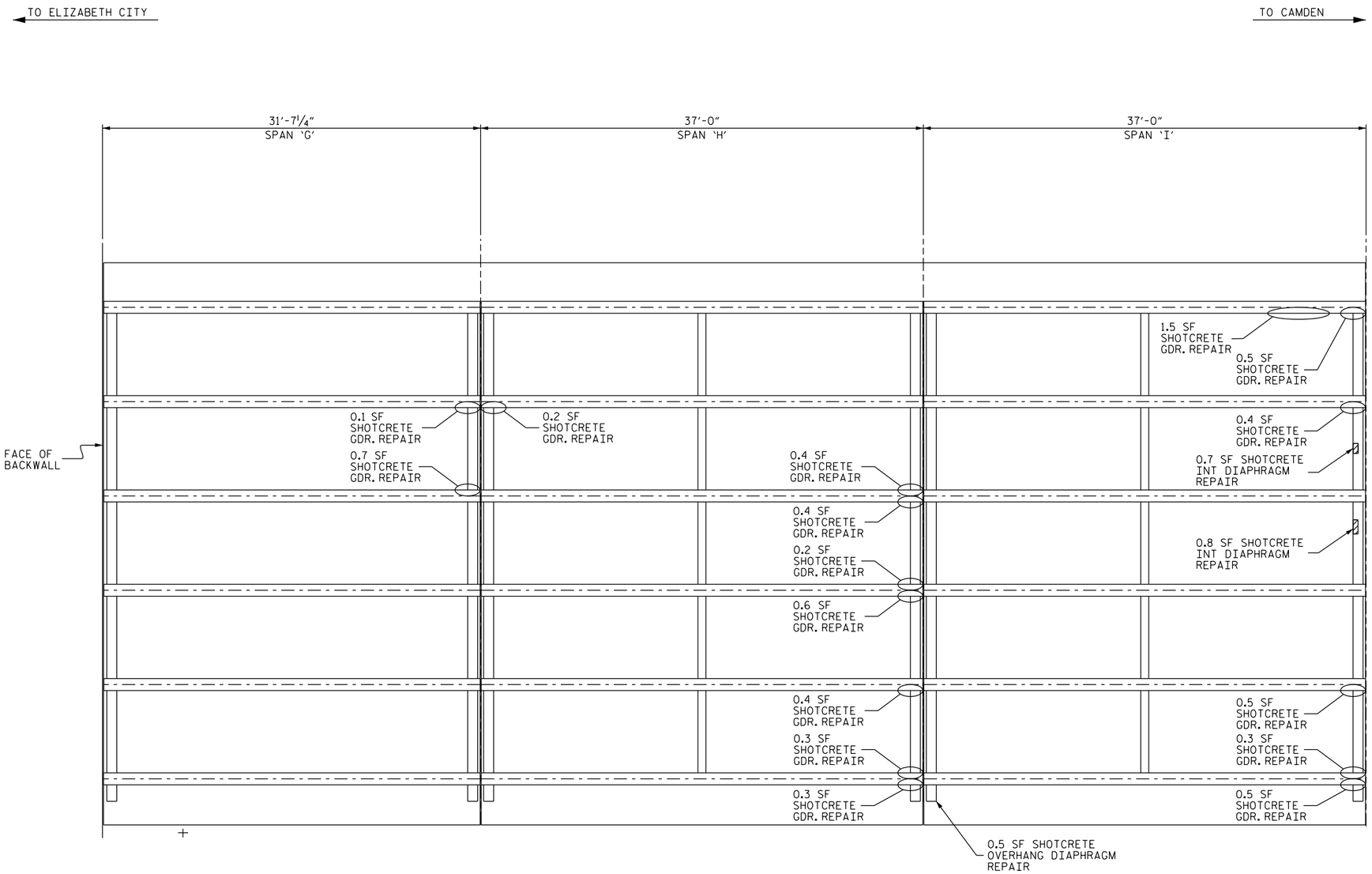

SUMMARY OF QUANTITIES

SPANS G,H,I	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
GIRDER	7.8	2.0		
INT. DIAPHRAGM	0.8	0.3		
OVERHANG DIAPHRAGM	0.5	0.2		
UNDERSIDE DECK	0.0	0.0		
UNDERSIDE DECK DRAIN REPAIR	43.7	11.0		
EPOXY RESIN INJECTION		LN FT		LN FT
UNDERSIDE OF DECK		0.0		
DIAPHRAGM		0.0		

NOTES

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

DECK DRAIN REPAIRS		
SPAN	NUMBER OF LOCATIONS	AREA SF
G	7	10.9
H	11	17.2
I	10	15.6

FOR DECK DRAIN REPAIR DETAILS, SEE "TYPICAL UNDERSIDE OF DECK REPAIRS" SHEET.

NORTH CAROLINA PROFESSIONAL SEAL 18565 ENGINEER TIMOTHY M. SHERRILL

PROJECT NO. U-3488

PASQUOTANK COUNTY

BRIDGE NO. 27

SHEET 3 OF 7

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

PLAN VIEW
UNDERSIDE
SPANS G,H,I

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

DRAWN BY : CL BRIGHT DATE : 01/16
CHECKED BY : T. SHERRILL DATE : 01/16
DESIGN ENGINEER OF RECORD: - DATE : -

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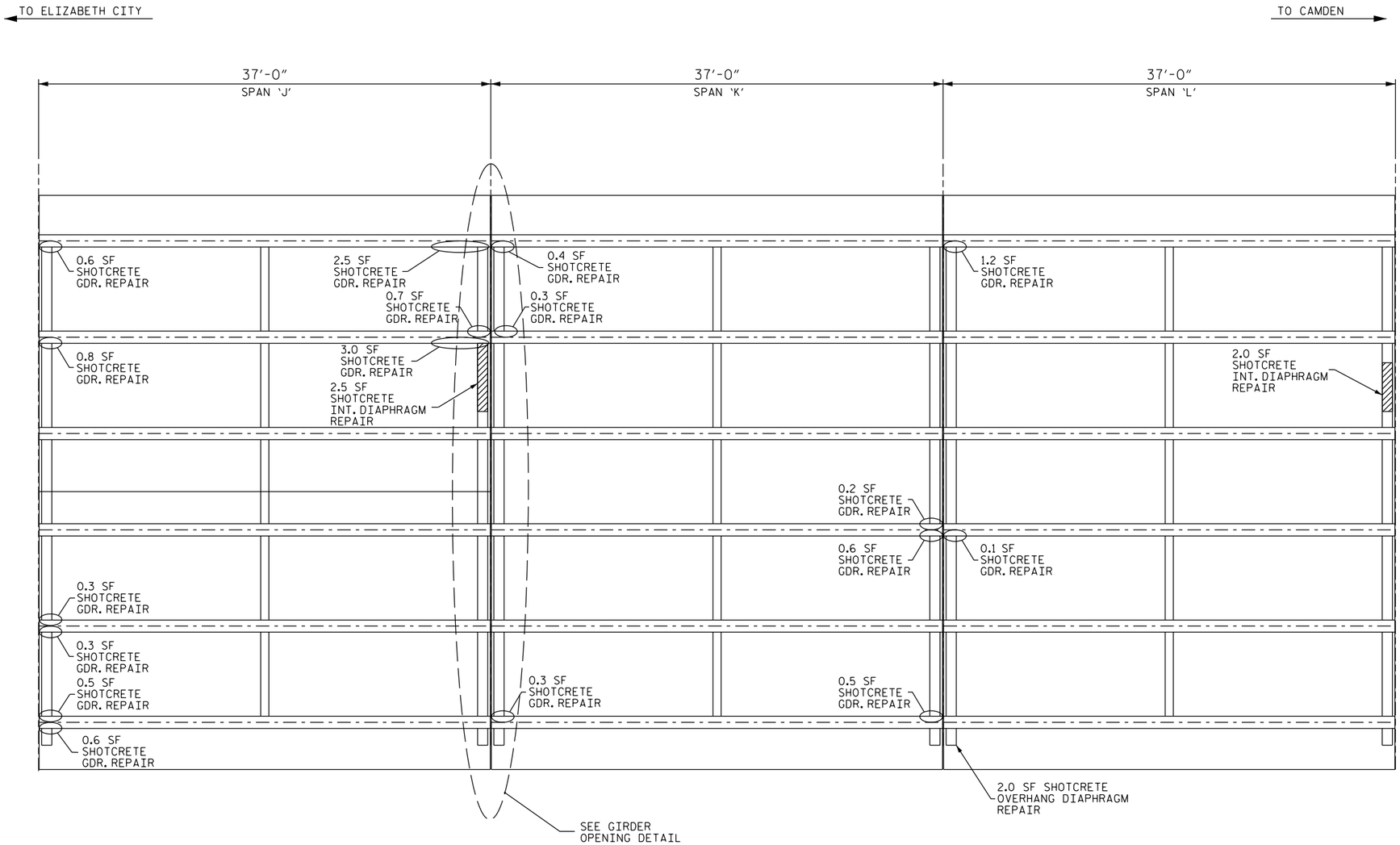

SUMMARY OF QUANTITIES

SPANS J,K,L	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
GIRDER	12.9	3.2		
INT. DIAPHRAGM	4.5	1.9		
OVERHANG DIAPHRAGM	2.0	0.8		
UNDERSIDE DECK	0.0	0.0		
UNDERSIDE DECK DRAIN REPAIR	37.7	9.4		
EPOXY RESIN INJECTION		LN FT		LN FT
UNDERSIDE OF DECK		0.0		
DIAPHRAGM		0.0		

NOTES

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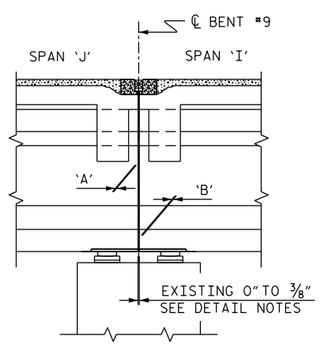
CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

GIRDER OPENING				
GIRDER	EXISTING		FINAL	
	A	B	A	B
1	5/16"	1/2"		
2	0	3/16"		
3	3/8"	9/16"		
4	5/16"	7/16"		
5	3/8"	3/4"		
6	1/8"	5/8"		



GIRDER OPENING DETAIL
(BENT #9 ONLY)

DETAIL NOTES

THE CONTRACTOR SHALL INCREASE THE OPENING BETWEEN GIRDER ENDS TO 3/4" MIN. WIDTH USING AN ENGINEER-APPROVED METHOD. THE ENGINEER-APPROVED METHOD SHALL BE APPLIED TO GIRDERS ON SPAN 'J' ONLY. THE NEW JOINT OPENING SHALL BE MEASURED BY THE ENGINEER AND RECORDED IN THE GIRDER OPENING CHART.

DECK DRAIN REPAIRS		
SPAN	NUMBER OF LOCATIONS	AREA SF
J	11	17.2
K	11	17.2
L	4	6.3

FOR DECK DRAIN REPAIR DETAILS, SEE "TYPICAL UNDERSIDE OF DECK REPAIRS" SHEET.

DRAWN BY : CL BRIGHT DATE : 01/16
CHECKED BY : T. SHERRILL DATE : 01/16
DESIGN ENGINEER OF RECORD: - DATE : -

$$$$$$SYSTIME$$$$$
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$$$$USERNAME$$$$

PROJECT NO. U-3488
PASQUOTANK COUNTY
BRIDGE NO. 27

SHEET 4 OF 7

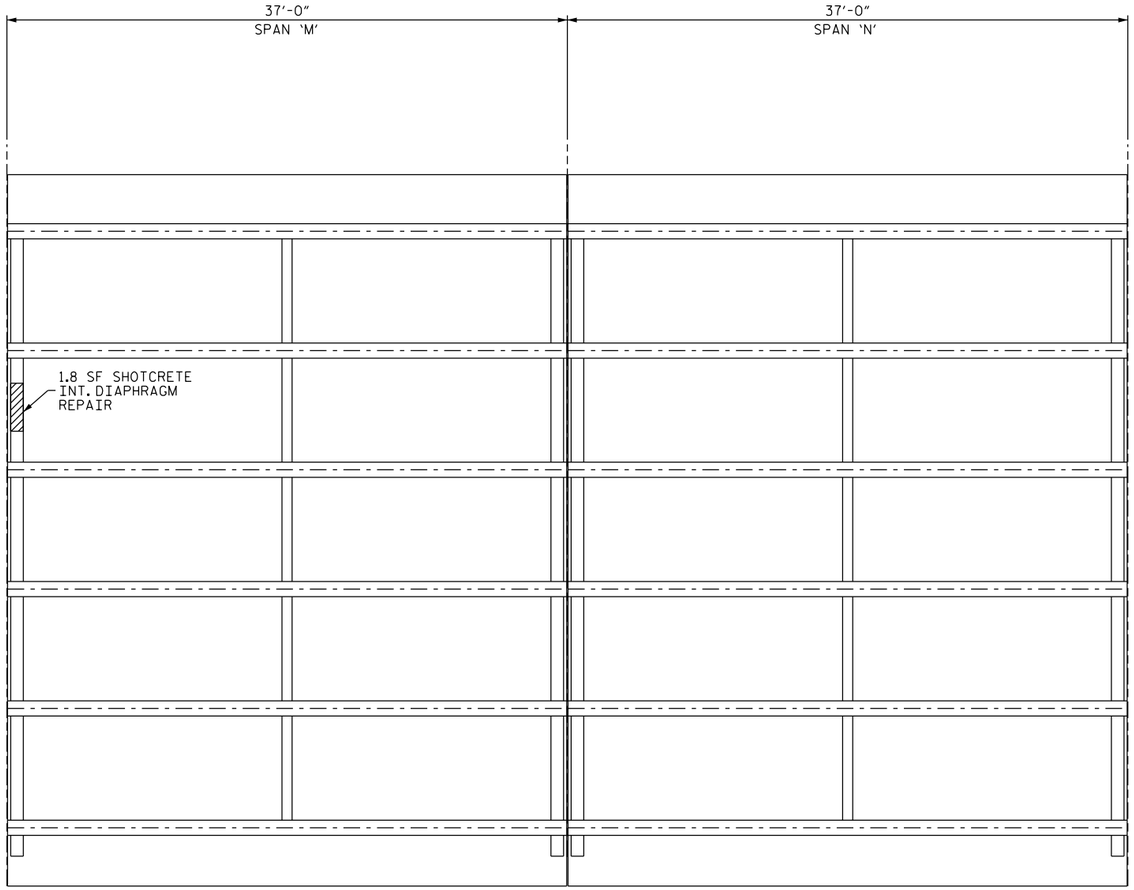
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

PLAN VIEW
UNDERSIDE
SPANS J,K& L

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

TO ELIZABETH CITY

TO CAMDEN



BENT #11

BENT #12

BENT #13

SUMMARY OF QUANTITIES

SPANS M & N	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
GIRDER	0.0	0.7		
INT. DIAPHRAGM	1.8	0.8		
OVERHANG DIAPHRAGM	0.0	0.0		
UNDERSIDE DECK	0.0	0.0		
UNDERSIDE DECK DRAIN REPAIR	28.1	7.0		
EPOXY RESIN INJECTION		LN FT		LN FT
UNDERSIDE OF DECK		0.0		
DIAPHRAGM		0.0		

NOTES

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FOR REPAIR DETAILS, SEE "TYPICAL GIRDER, DIAPHRAGM & DRAIN REPAIR DETAILS" SHEET.

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

SPAN 'N' WAS INACCESSIBLE AT THE TIME OF PROJECT SCOPING. QUANTITIES FOR SPAN 'N' ARE AN AVERAGE OF OTHER LIKE SPANS AND ARE INCLUDED IN THE QUANTITIES LISTED IN THE SUMMARY OF QUANTITIES TABLE.

NOTE: SPAN 'N' WAS ONLY VISUALLY ACCESSIBLE DURING THE INSPECTION. QUANTITIES IN THE "SUMMARY OF QUANTITIES" CHART REFLECT ONLY VISUAL DAMAGE AND ESTIMATED QUANTITIES. QUANTITIES IN THE "SUMMARY OF QUANTITIES" CHART ARE FOR BID PURPOSES ONLY. ACTUAL REPAIRS AND QUANTITIES SHALL BE DETERMINED BY THE ENGINEER AND CONTRACTOR DURING CONSTRUCTION. THE ACTUAL QUANTITIES SHALL BE ENTERED INTO THE "SUMMARY OF QUANTITIES" CHART BY THE ENGINEER.

DECK DRAIN REPAIRS		
SPAN	NUMBER OF LOCATIONS	AREA SF
M	10	15.6
N	8	12.5

FOR DECK DRAIN REPAIR DETAILS, SEE "TYPICAL UNDERSIDE OF DECK REPAIRS" SHEET.

PROJECT NO. DA00271

PASQUOTANK COUNTY

BRIDGE NO. 27

SHEET 5 OF 7

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

PLAN VIEW
UNDERSIDE
SPANS M & N

NORTH CAROLINA PROFESSIONAL SEAL 18565 ENGINEER TIMOTHY M. SHERRILL

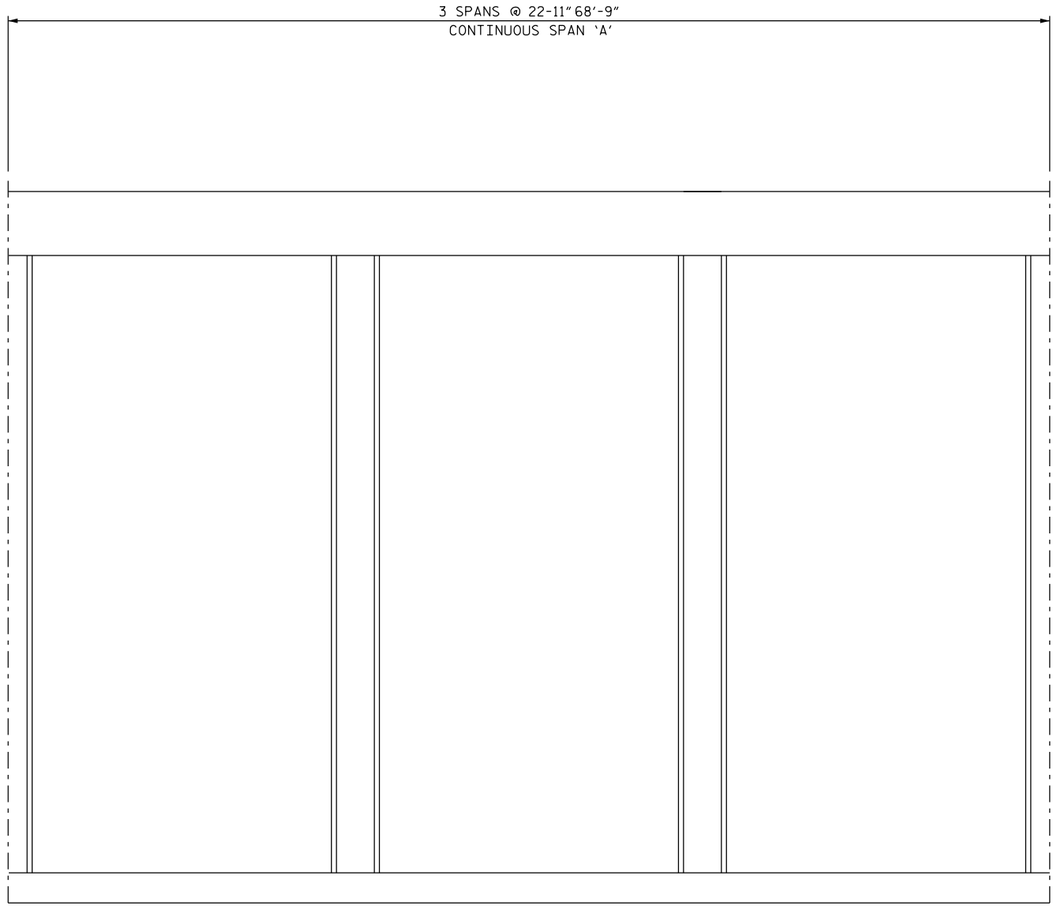
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-5
1			3			TOTAL SHEETS
2			4			34

DRAWN BY : CL BRIGHT DATE : 01/16
CHECKED BY : T. SHERRILL DATE : 01/16
DESIGN ENGINEER OF RECORD: - DATE : -

$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

TO ELIZABETH CITY

TO CAMDEN



SUMMARY OF QUANTITIES

CONTINUOUS SPAN A	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
UNDERSIDE DECK	0.0	0.0		
UNDERSIDE DECK DRAIN REPAIR	4.7	1.4		
EPOXY RESIN INJECTION		LN FT		LN FT
UNDERSIDE OF DECK		0.0		

NOTES

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

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

NOTE: SPAN WAS ONLY VISUALLY ACCESSIBLE DURING THE INSPECTION. QUANTITIES IN THE "SUMMARY OF QUANTITIES" CHART REFLECT ONLY VISUAL DAMAGE AND ESTIMATED QUANTITIES. QUANTITIES IN THE "SUMMARY OF QUANTITIES" CHART ARE FOR BID PURPOSES ONLY. ACTUAL REPAIRS AND QUANTITIES SHALL BE DETERMINED BY THE ENGINEER AND CONTRACTOR DURING CONSTRUCTION. THE ACTUAL QUANTITIES SHALL BE ENTERED INTO THE "SUMMARY OF QUANTITIES" CHART BY THE ENGINEER.

DECK DRAIN REPAIRS		
SPAN	NUMBER OF LOCATIONS	AREA SF
A	3	4.7

FOR DECK DRAIN REPAIR DETAILS, SEE "TYPICAL UNDERSIDE OF DECK REPAIRS" SHEET.

PROJECT NO. DA00271

PASQUOTANK COUNTY

BRIDGE NO. 27

SHEET 6 OF 7

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

PLAN VIEW
UNDERSIDE
CONTINUOUS
SPAN 'A'

NORTH CAROLINA PROFESSIONAL SEAL 18565 ENGINEER TIMOTHY M. SHERRILL

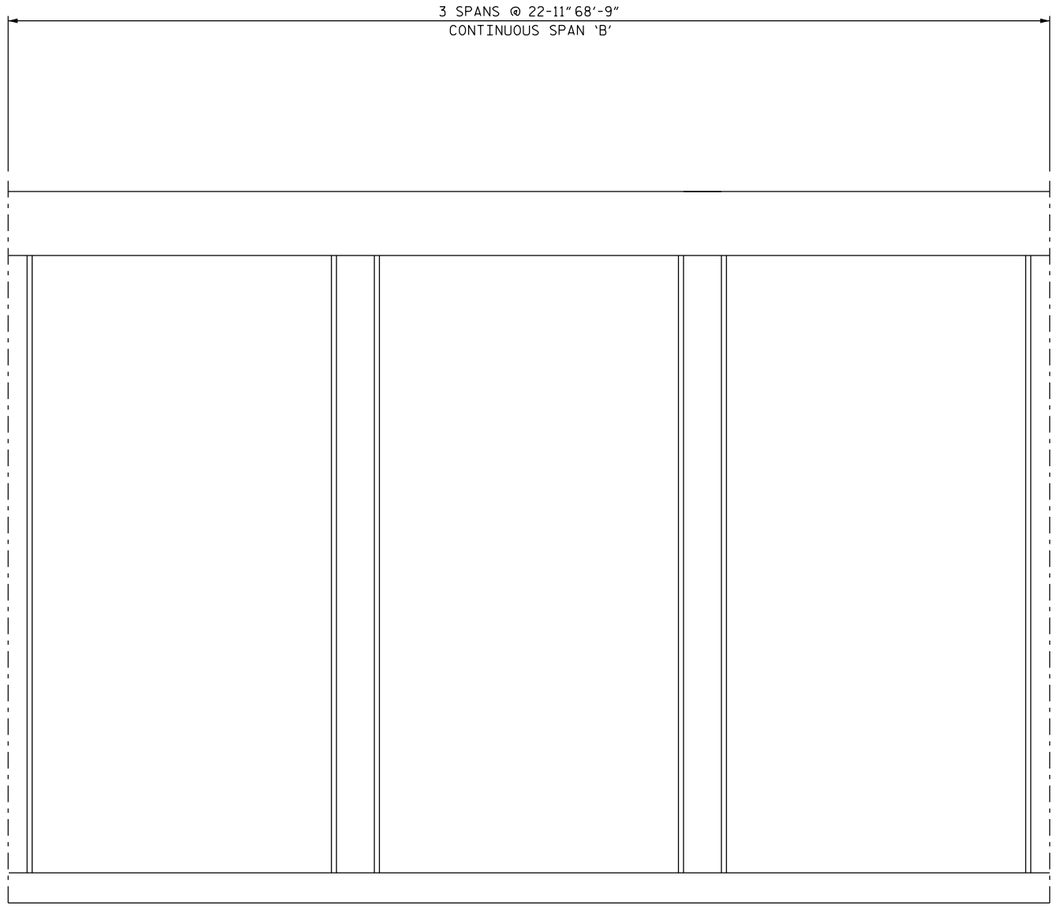
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-6
1			3			TOTAL SHEETS
2			4			34

DRAWN BY : CL BRIGHT DATE : 01/16
CHECKED BY : T. SHERRILL DATE : 01/16
DESIGN ENGINEER OF RECORD: - DATE : -

$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

TO ELIZABETH CITY

TO CAMDEN



SUMMARY OF QUANTITIES

CONTINUOUS SPAN B	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
UNDERSIDE DECK	0.0	0.0		
UNDERSIDE DECK DRAIN REPAIR	9.4	2.7		
EPOXY RESIN INJECTION		LN FT		LN FT
UNDERSIDE OF DECK		0.0		

NOTES

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

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

NOTE: SPAN WAS ONLY VISUALLY ACCESSIBLE DURING THE INSPECTION. QUANTITIES IN THE "SUMMARY OF QUANTITIES" CHART REFLECT ONLY VISUAL DAMAGE AND ESTIMATED QUANTITIES. QUANTITIES IN THE "SUMMARY OF QUANTITIES" CHART ARE FOR BID PURPOSES ONLY. ACTUAL REPAIRS AND QUANTITIES SHALL BE DETERMINED BY THE ENGINEER AND CONTRACTOR DURING CONSTRUCTION. THE ACTUAL QUANTITIES SHALL BE ENTERED INTO THE "SUMMARY OF QUANTITIES" CHART BY THE ENGINEER.

DECK DRAIN REPAIRS		
SPAN	NUMBER OF LOCATIONS	AREA SF
B	6	9.4

FOR DECK DRAIN REPAIR DETAILS, SEE "TYPICAL UNDERSIDE OF DECK REPAIRS" SHEET.

PROJECT NO. DA00271

PASQUOTANK COUNTY

BRIDGE NO. 27

SHEET 7 OF 7

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

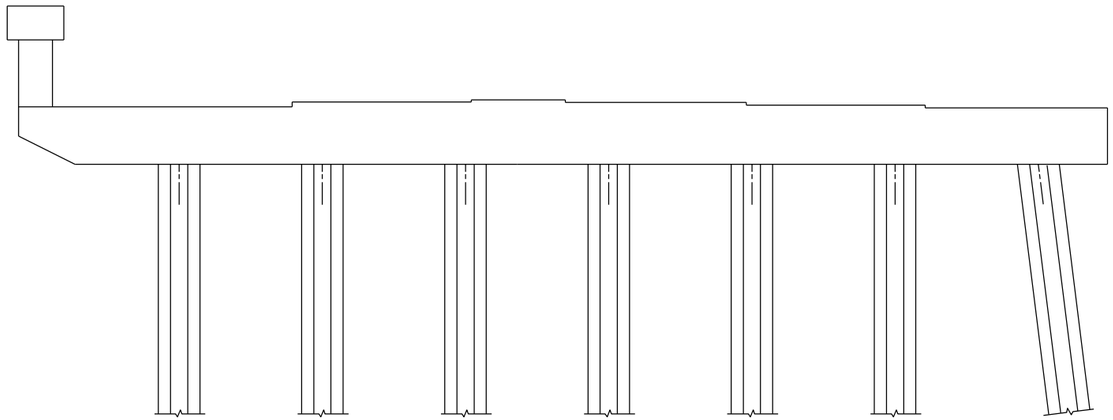
PLAN VIEW
UNDERSIDE CONTINUOUS SPAN 'B'

NORTH CAROLINA PROFESSIONAL SEAL 18565 ENGINEER TIMOTHY M. SHERRILL

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-7
1			3			TOTAL SHEETS
2			4			34

DRAWN BY : CL BRIGHT DATE : 01/16
CHECKED BY : T. SHERRILL DATE : 01/16
DESIGN ENGINEER OF RECORD: - DATE : -

$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$



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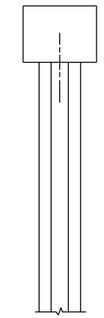
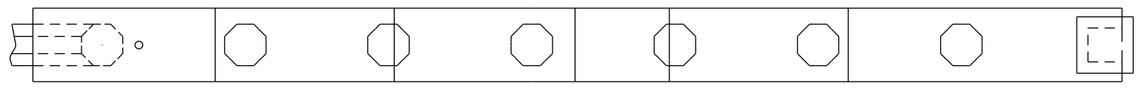
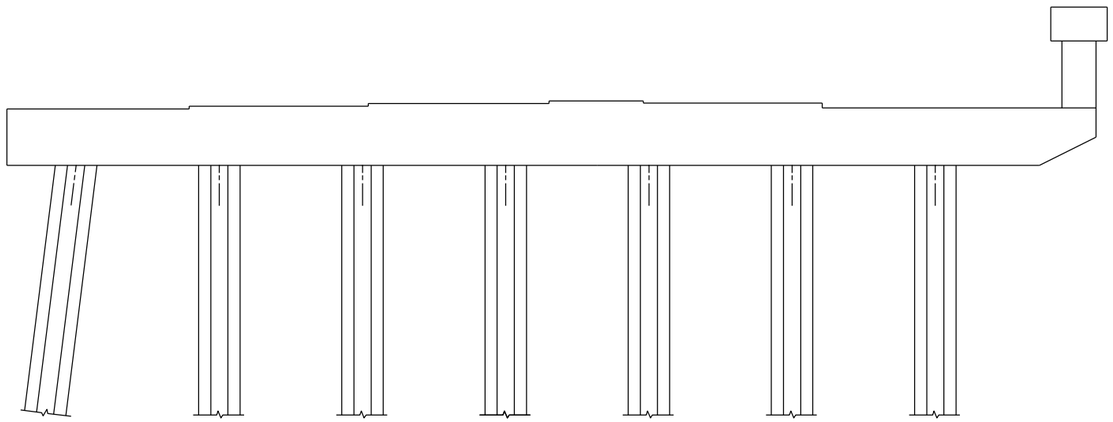


END VIEW
(NORTH)

SPAN B
SPAN A



TOP OF CAP



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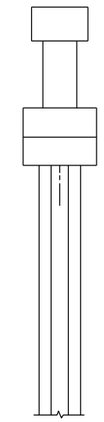


END VIEW
(SOUTH)

SUMMARY OF QUANTITIES

REPAIRS BENT 1	QUANTITIES			
	ESTIMATE		ACTUAL	
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	0.0	0.0		
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	12.5	5.2		
PILE	0.0	0.0		
EPOXY RESIN INJECTION		LN. FT		LN. FT
CAP		3.3		
PILE		0.0		
EPOXY COATING		SQ. FT		SQ. FT
TOP OF CAP		154		

NOTES

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

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

EPOXY COATING SHALL BE APPLIED TO THE TOP FACE OF THE CAP. THE CONTRACTOR SHALL NOT COAT THE AREA OF THE CAP BENEATH THE MASONARY PLATES. FOR EPOXY COATING, SEE SPECIAL PROVISIONS.

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

NOTE: BENT WAS NOT ACCESSIBLE DURING THE INSPECTION. QUANTITIES IN THE "SUMMARY OF QUANTITIES" CHART REFLECT AN AVERAGE OF QUANTITIES FROM OTHER LIKE BENTS. QUANTITIES IN THE "SUMMARY OF QUANTITIES" CHART ARE FOR BID PURPOSES ONLY. ACTUAL REPAIRS AND QUANTITIES SHALL BE DETERMINED BY THE ENGINEER AND CONTRACTOR DURING CONSTRUCTION. THE ACTUAL QUANTITIES SHALL BE ENTERED INTO THE "SUMMARY OF QUANTITIES" CHART BY THE ENGINEER.

PROJECT NO. DA00271

PASQUOTANK COUNTY

BRIDGE NO. 27

SHEET 1 OF 19

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

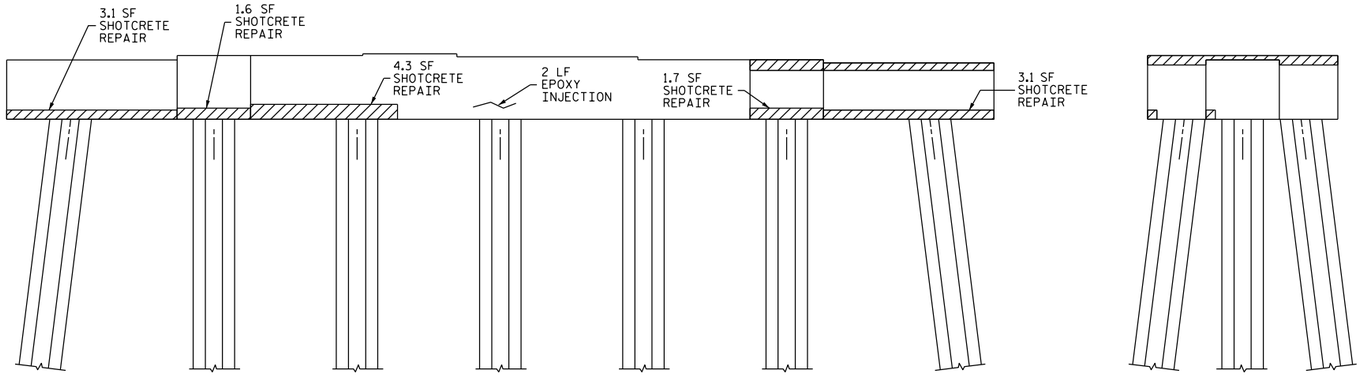
BENT 1

NORTH CAROLINA PROFESSIONAL SEAL 18565 ENGINEER TIMOTHY M. SHERRILL

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-8
1			3			TOTAL SHEETS
2			4			34

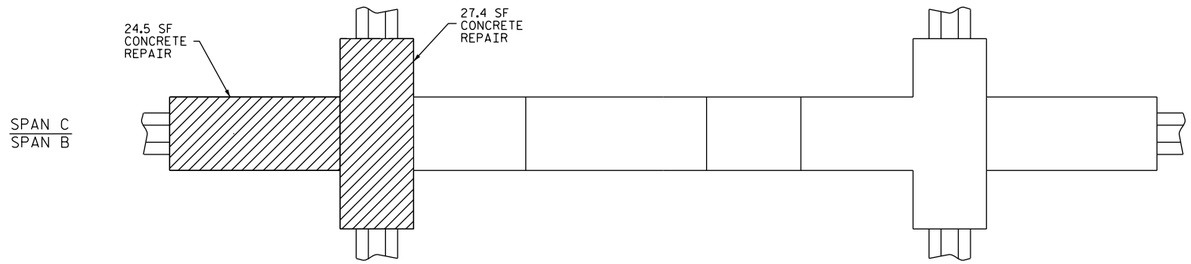
DRAWN BY : C L BRIGHT DATE : 01/16
CHECKED BY : T. SHERRILL DATE : 01/16
DESIGN ENGINEER OF RECORD: - DATE : -

$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

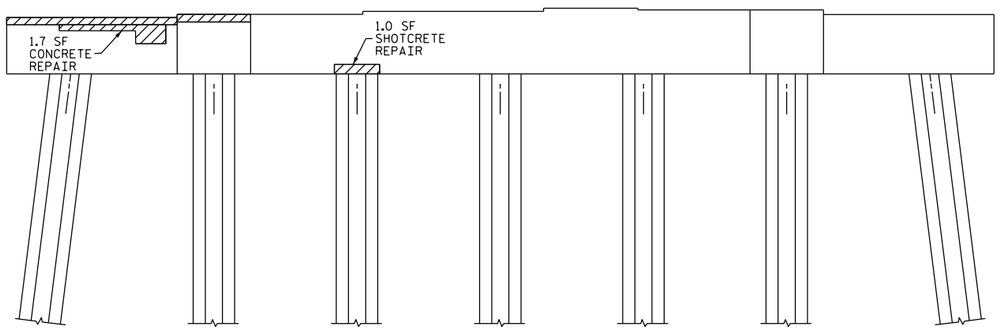


BENT 2
(SPAN C FACE)

END VIEW
(NORTH)



TOP OF CAP



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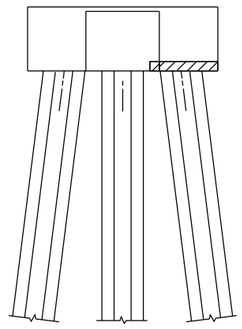

END VIEW
(SOUTH)

SUMMARY OF QUANTITIES

REPAIRS BENT 2	QUANTITIES			
	ESTIMATE		ACTUAL	
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	53.6	22.3		
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	14.8	4.9		
PILE	0.0	0.0		
EPOXY RESIN INJECTION		LN. FT		LN. FT
CAP		2.0		
PILE		0.0		
EPOXY COATING		SQ. FT		SQ. FT
TOP OF CAP		176		

NOTES

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

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

EPOXY COATING SHALL BE APPLIED TO THE TOP FACE OF THE CAP. THE CONTRACTOR SHALL NOT COAT THE AREA OF THE CAP BENEATH THE MASONARY PLATES. FOR EPOXY COATING, SEE SPECIAL PROVISIONS.

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

PROJECT NO. DA00271

PASQUOTANK COUNTY

BRIDGE NO. 27

SHEET 2 OF 19

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

BENT 2

NORTH CAROLINA PROFESSIONAL SEAL 18565 ENGINEER TIMOTHY M. SHERRILL

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-9
1			3			TOTAL SHEETS
2			4			34

DRAWN BY : C L BRIGHT DATE : 01/16
CHECKED BY : T. SHERRILL DATE : 01/16
DESIGN ENGINEER OF RECORD: - DATE : -

$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$$$$$
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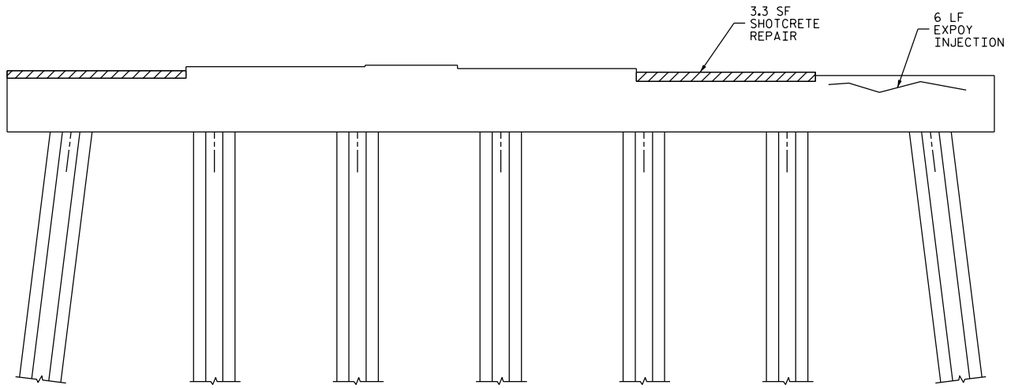

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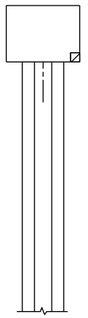
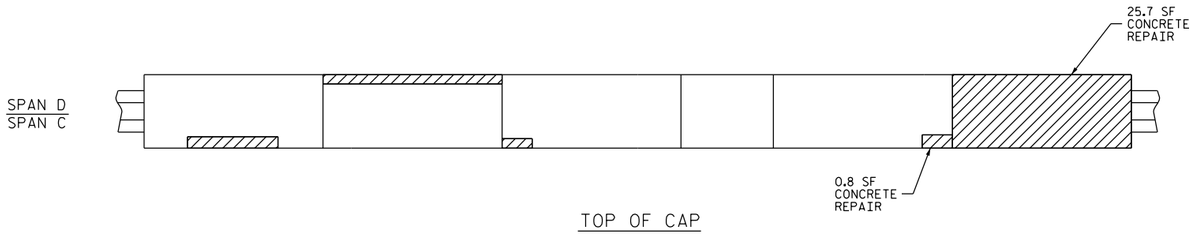
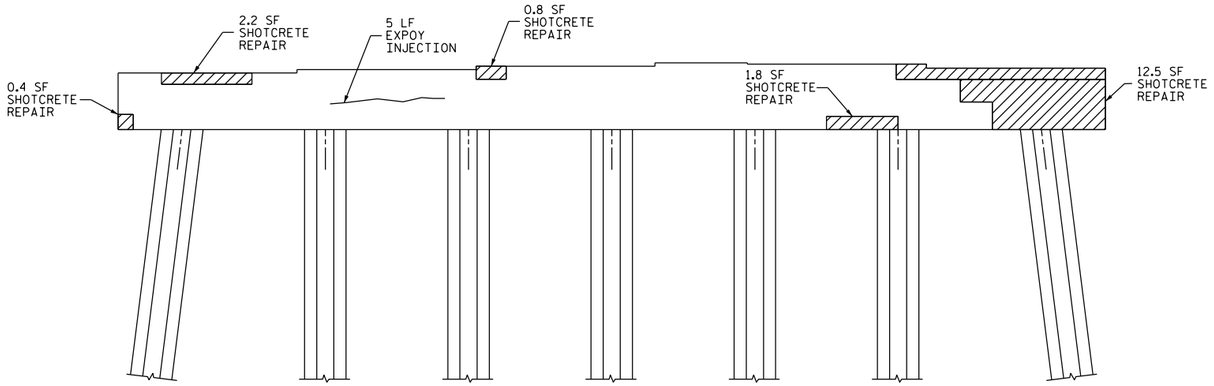


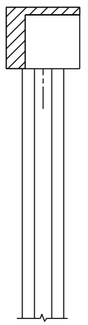
END VIEW
(NORTH)



TOP OF CAP



BENT 3
(SPAN C FACE)



END VIEW
(SOUTH)

SUMMARY OF QUANTITIES

REPAIRS BENT 3	QUANTITIES			
	ESTIMATE		ACTUAL	
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	26.5	11.0		
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	21.0	8.8		
PILE	0.0	0.0		
EPOXY RESIN INJECTION		LN. FT		LN. FT
CAP		11.0		
PILE		0.0		
EPOXY COATING		SQ. FT		SQ. FT
TOP OF CAP		142		

NOTES

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

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

EPOXY COATING SHALL BE APPLIED TO THE TOP FACE OF THE CAP. THE CONTRACTOR SHALL NOT COAT THE AREA OF THE CAP BENEATH THE MASONARY PLATES. FOR EPOXY COATING, SEE SPECIAL PROVISIONS.

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

PROJECT NO. DA00271

PASQUOTANK COUNTY

BRIDGE NO. 27

SHEET 3 OF 19

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

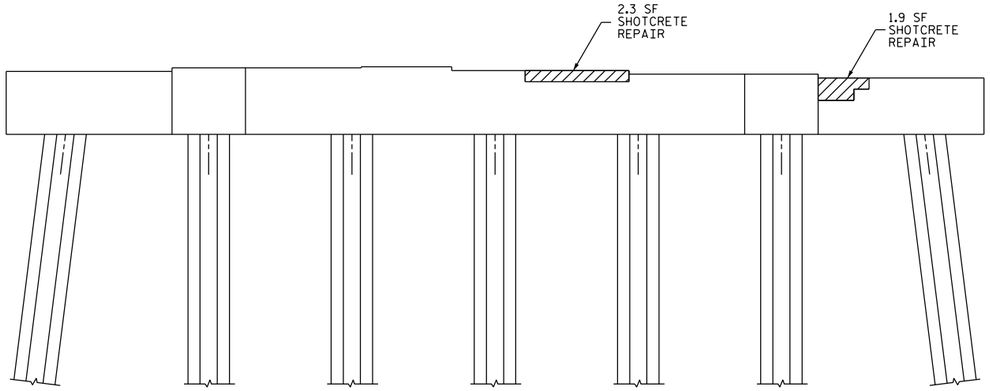
BENT 3

NORTH CAROLINA PROFESSIONAL SEAL 18565 ENGINEER TIMOTHY M. SHERRILL

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-10
1			3			TOTAL SHEETS
2			4			34

DRAWN BY : C L BRIGHT DATE : 01/16
CHECKED BY : T. SHERRILL DATE : 01/16
DESIGN ENGINEER OF RECORD: - DATE : -

$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$



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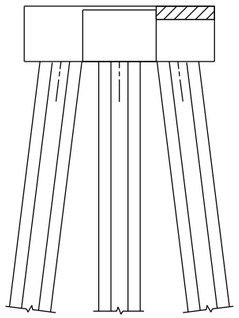
(SPAN E FACE)



END VIEW
(NORTH)

SUMMARY OF QUANTITIES

REPAIRS BENT 4	QUANTITIES			
	ESTIMATE		ACTUAL	
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	0.0	0.0		
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	28.3	11.8		
PILE	0.0	0.0		
EPOXY RESIN INJECTION		LN. FT		LN. FT
CAP		1.0		
PILE		0.0		
EPOXY COATING		SQ. FT		SQ. FT
TOP OF CAP		174		

NOTES

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

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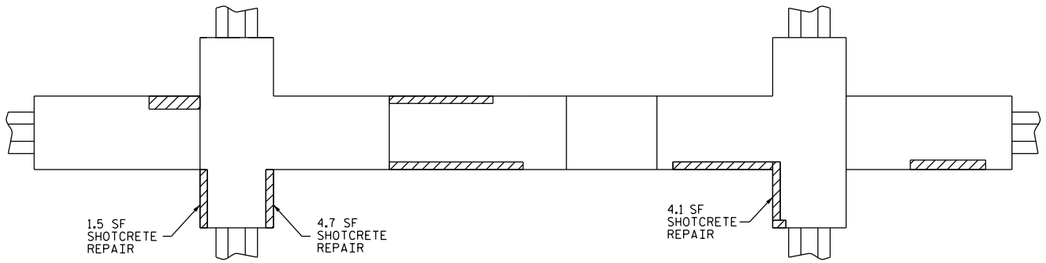
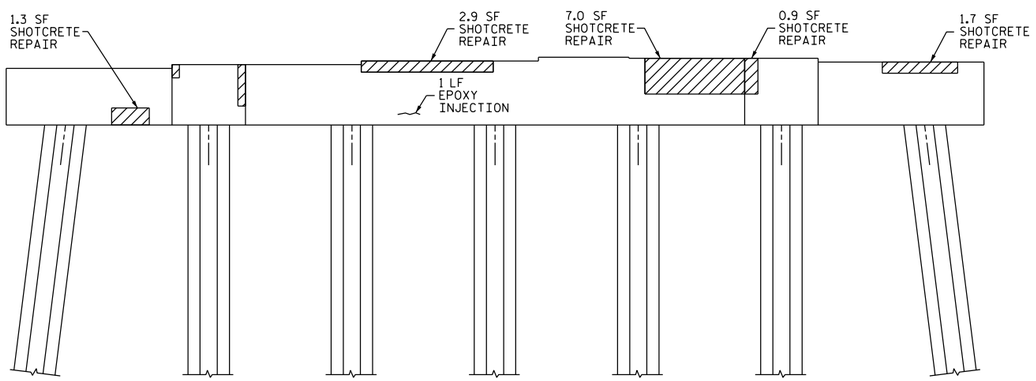
EPOXY COATING SHALL BE APPLIED TO THE TOP FACE OF THE CAP. THE CONTRACTOR SHALL NOT COAT THE AREA OF THE CAP BENEATH THE MASONARY PLATES. FOR EPOXY COATING, SEE SPECIAL PROVISIONS.

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

SPAN E
SPAN D



TOP OF CAP



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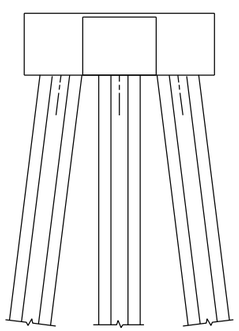


END VIEW
(SOUTH)

PROJECT NO. DA00271

PASQUOTANK COUNTY

BRIDGE NO. 27

SHEET 4 OF 19

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

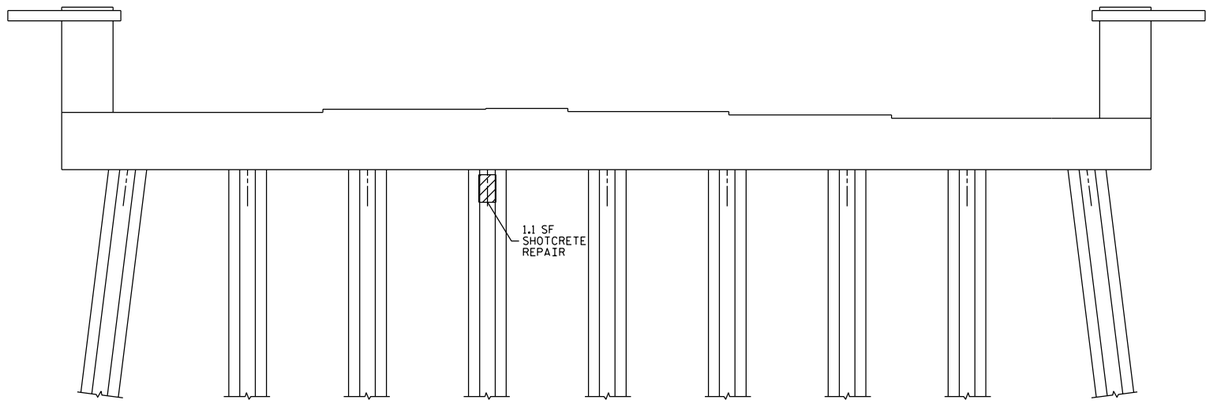
BENT 4

NORTH CAROLINA PROFESSIONAL SEAL 18565 ENGINEER TIMOTHY M. SHERRILL

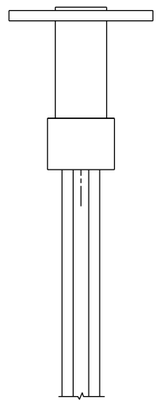
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-11
1			3			TOTAL SHEETS
2			4			34

DRAWN BY : C L BRIGHT DATE : 01/16
CHECKED BY : T. SHERRILL DATE : 01/16
DESIGN ENGINEER OF RECORD: - DATE : -

$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

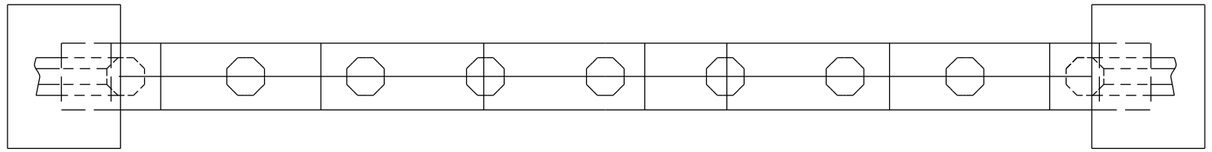


BENT 5
(SPAN F FACE)

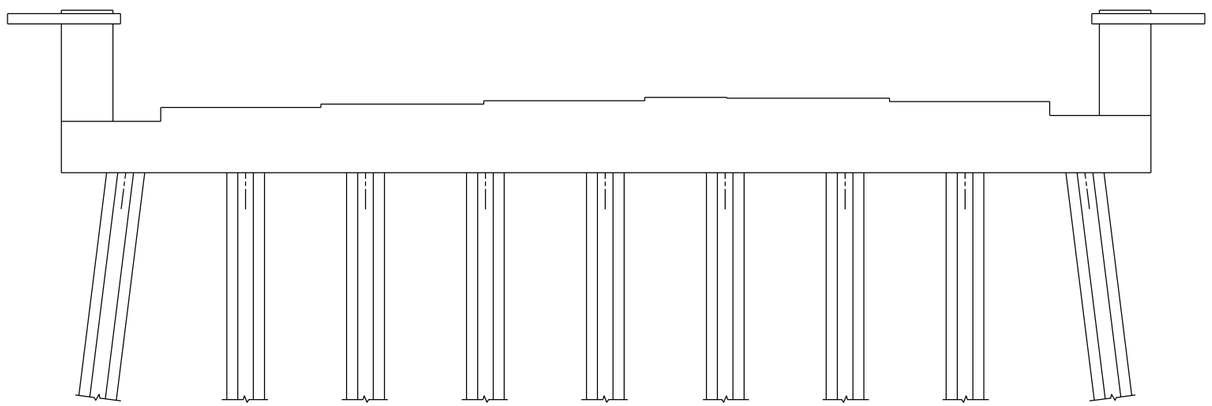


END VIEW
(NORTH)

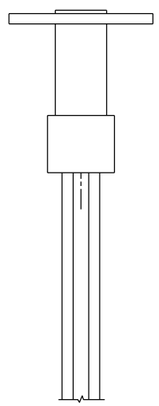
SPAN F
SPAN E



TOP OF CAP



BENT 5
(SPAN E FACE)



END VIEW
(SOUTH)

SUMMARY OF QUANTITIES

REPAIRS BENT 5	QUANTITIES			
	ESTIMATE		ACTUAL	
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	0.0	0.0		
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	0.0	0.0		
PILE	1.1	0.4		
EPOXY RESIN INJECTION		LN. FT		LN. FT
CAP		0.0		
PILE		0.0		
EPOXY COATING		SQ. FT		SQ. FT
TOP OF CAP		156		

NOTES

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

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

EPOXY COATING SHALL BE APPLIED TO THE TOP FACE OF THE CAP. THE CONTRACTOR SHALL NOT COAT THE AREA OF THE CAP BENEATH THE MASONARY PLATES. FOR EPOXY COATING, SEE SPECIAL PROVISIONS.

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

PROJECT NO. DA00271

PASQUOTANK COUNTY

BRIDGE NO. 27

SHEET 5 OF 19

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

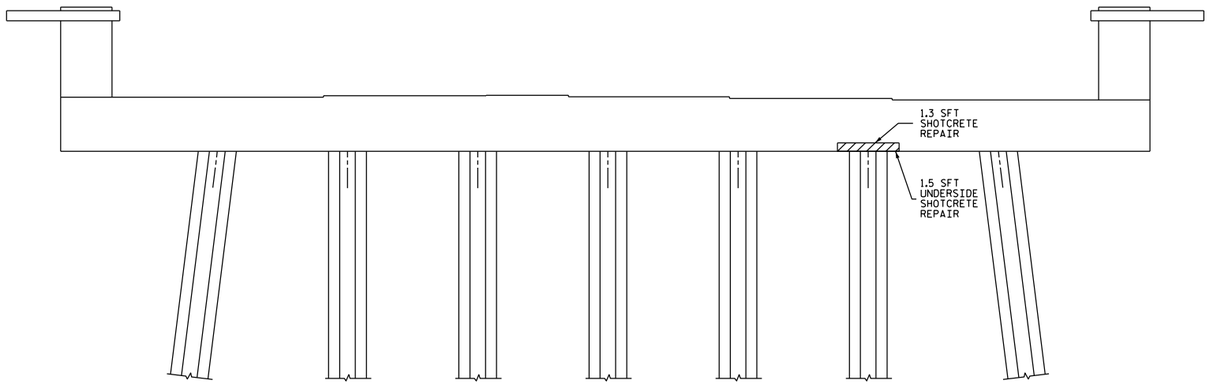
BENT 5

NORTH CAROLINA PROFESSIONAL SEAL 18565 ENGINEER TIMOTHY M. SHERRILL

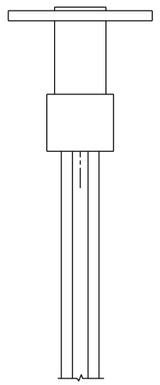
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-12
1			3			TOTAL SHEETS
2			4			34

DRAWN BY : C L BRIGHT DATE : 01/16
CHECKED BY : T. SHERRILL DATE : 01/16
DESIGN ENGINEER OF RECORD: - DATE : -

$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

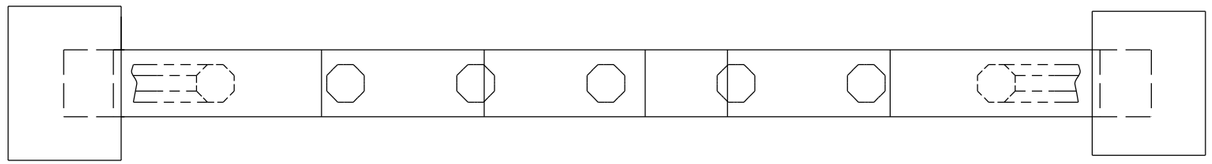


BENT 6
(SPAN H FACE)

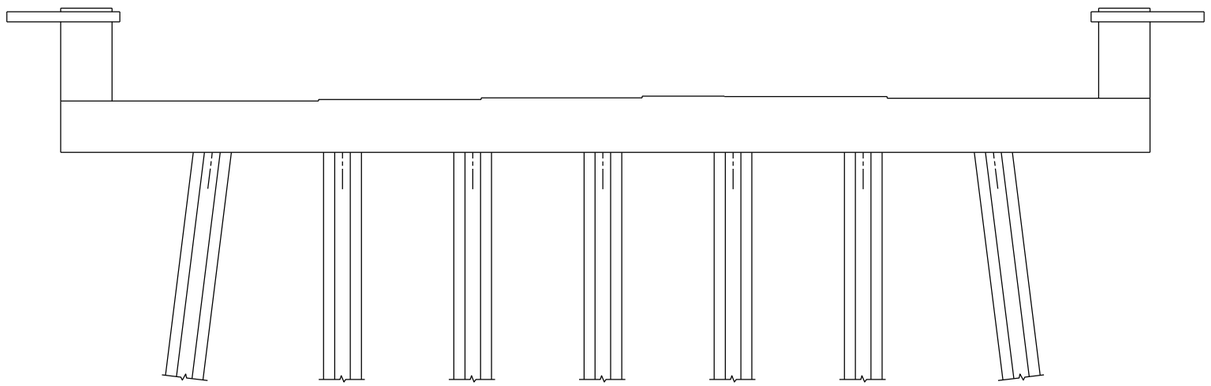


END VIEW
(NORTH)

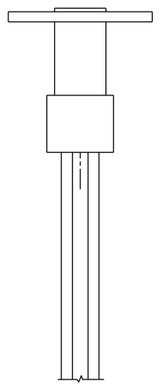
SPAN H
SPAN G



TOP OF CAP



BENT 6
(SPAN G FACE)



END VIEW
(SOUTH)

SUMMARY OF QUANTITIES

REPAIRS BENT 6	QUANTITIES			
	ESTIMATE		ACTUAL	
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	0.0	0.0		
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	2.8	1.2		
PILE	0.0	0.0		
EPOXY RESIN INJECTION		LN. FT		LN. FT
CAP		0.0		
PILE		0.0		
EPOXY COATING		SQ. FT		SQ. FT
TOP OF CAP		156		

NOTES

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

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

EPOXY COATING SHALL BE APPLIED TO THE TOP FACE OF THE CAP. THE CONTRACTOR SHALL NOT COAT THE AREA OF THE CAP BENEATH THE MASONARY PLATES. FOR EPOXY COATING, SEE SPECIAL PROVISIONS.

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

DRAWN BY : C L BRIGHT DATE : 01/16
CHECKED BY : T. SHERRILL DATE : 01/16
DESIGN ENGINEER OF RECORD: - DATE : -

$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

NORTH CAROLINA PROFESSIONAL SEAL 18565 ENGINEER TIMOTHY M. SHERRILL

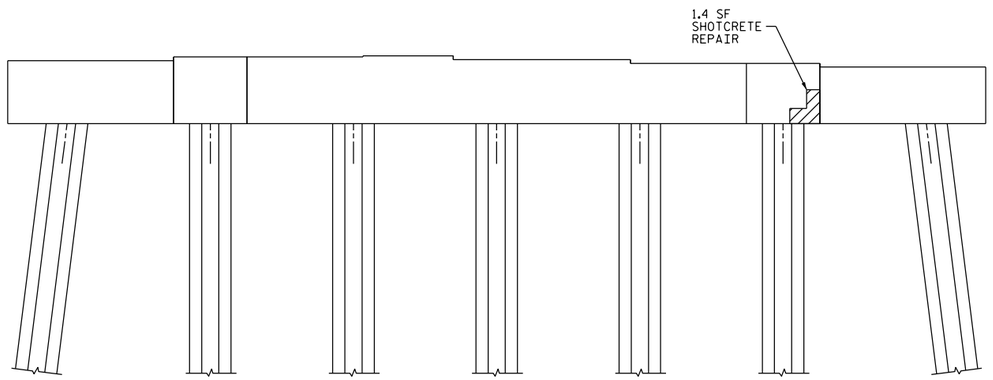
PROJECT NO. DA00271
PASQUOTANK COUNTY
BRIDGE NO. 27

SHEET 6 OF 19

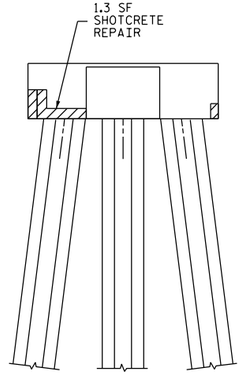
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

BENT 6

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-13
1			3			TOTAL SHEETS
2			4			34

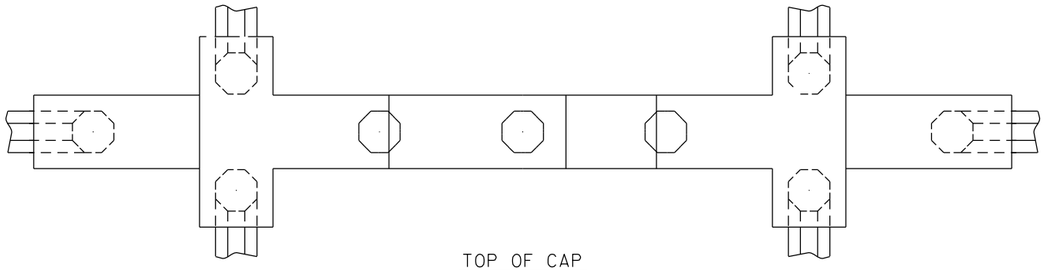


BENT 7
(SPAN I FACE)

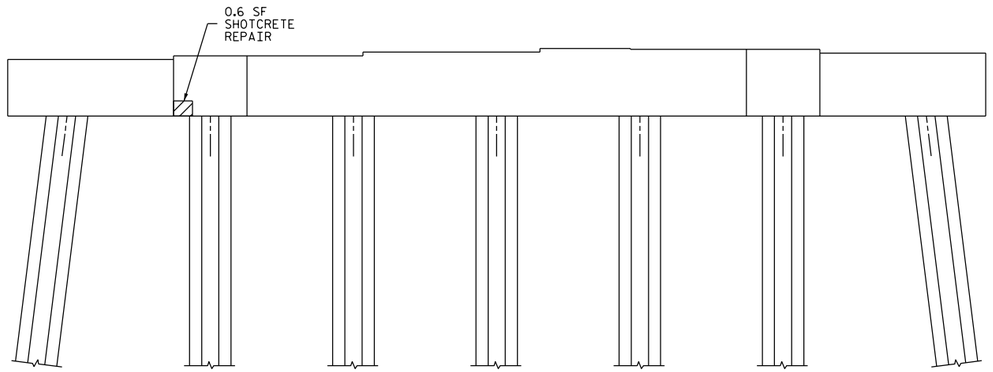


END VIEW
(NORTH)

SPAN I
SPAN H



TOP OF CAP



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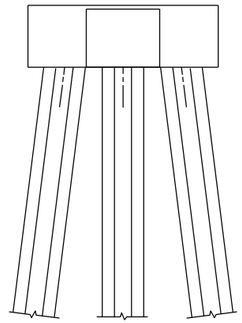
(SPAN H FACE)



END VIEW
(SOUTH)

SUMMARY OF QUANTITIES

REPAIRS BENT 7	QUANTITIES			
	ESTIMATE		ACTUAL	
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	0.0	0.0		
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	3.3	1.4		
PILE	0.0	0.0		
EPOXY RESIN INJECTION		LN. FT		LN. FT
CAP		0.0		
PILE		0.0		
EPOXY COATING		SQ. FT		SQ. FT
TOP OF CAP		174		

NOTES

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

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

EPOXY COATING SHALL BE APPLIED TO THE TOP FACE OF THE CAP. THE CONTRACTOR SHALL NOT COAT THE AREA OF THE CAP BENEATH THE MASONARY PLATES. FOR EPOXY COATING, SEE SPECIAL PROVISIONS.

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

PROJECT NO. DA00271

PASQUOTANK COUNTY

BRIDGE NO. 27

SHEET 7 OF 19

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

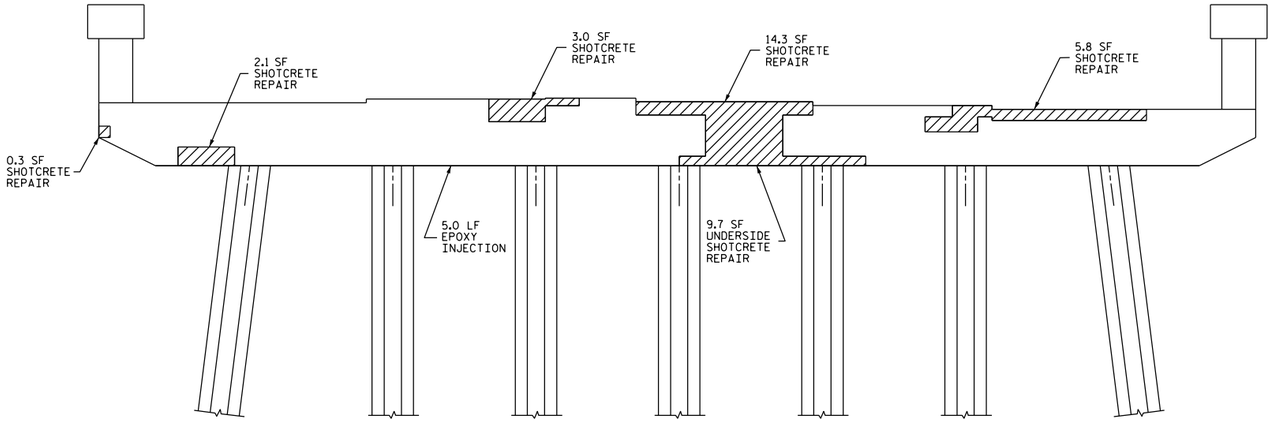
BENT 7

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-14
1			3			TOTAL SHEETS
2			4			34

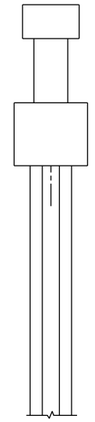
NORTH CAROLINA PROFESSIONAL SEAL 18565 ENGINEER TIMOTHY M. SHERRILL

DRAWN BY : C L BRIGHT DATE : 01/16
CHECKED BY : T. SHERRILL DATE : 01/16
DESIGN ENGINEER OF RECORD: - DATE : -

$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$



BENT 8
(SPAN J FACE)



END VIEW
(NORTH)

SUMMARY OF QUANTITIES

REPAIRS BENT 8	QUANTITIES			
	ESTIMATE		ACTUAL	
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	0.0	0.0		
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	67.6	28.2		
PILE	0.0	0.0		
EPOXY RESIN INJECTION		LN. FT		LN. FT
CAP		5.0		
PILE		0.0		
EPOXY COATING		SQ. FT		SQ. FT
TOP OF CAP		162		

NOTES

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

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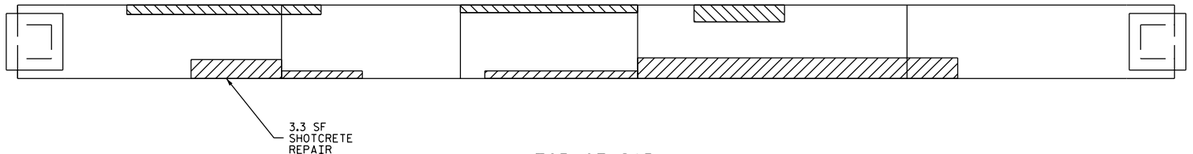
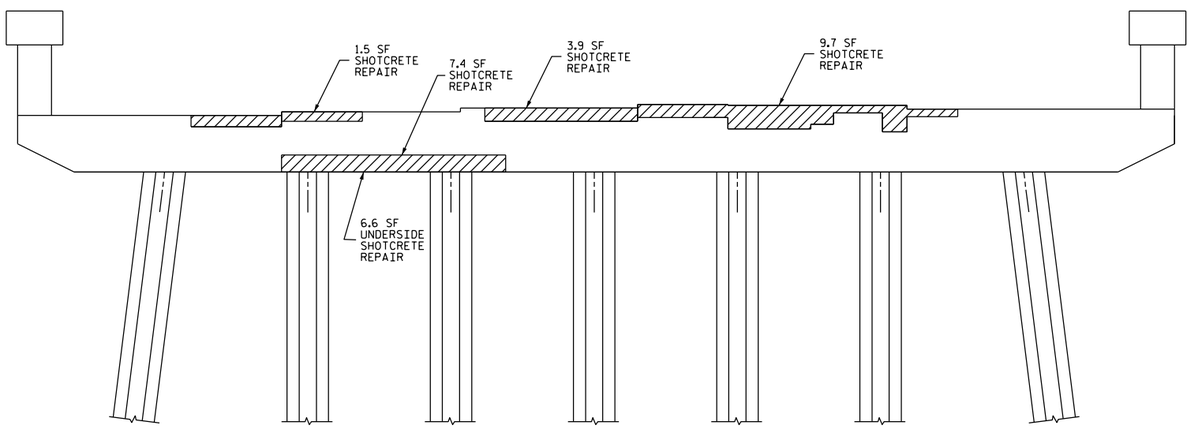
CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

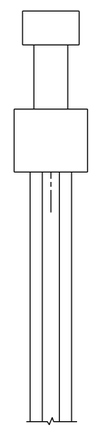
SPAN J
SPAN I



TOP OF CAP



BENT 8
(SPAN H FACE)



END VIEW
(SOUTH)

NORTH CAROLINA PROFESSIONAL SEAL 18565 ENGINEER TIMOTHY M. SHERRILL

PROJECT NO. DA00271
PASQUOTANK COUNTY
BRIDGE NO. 27
SHEET 8 OF 19

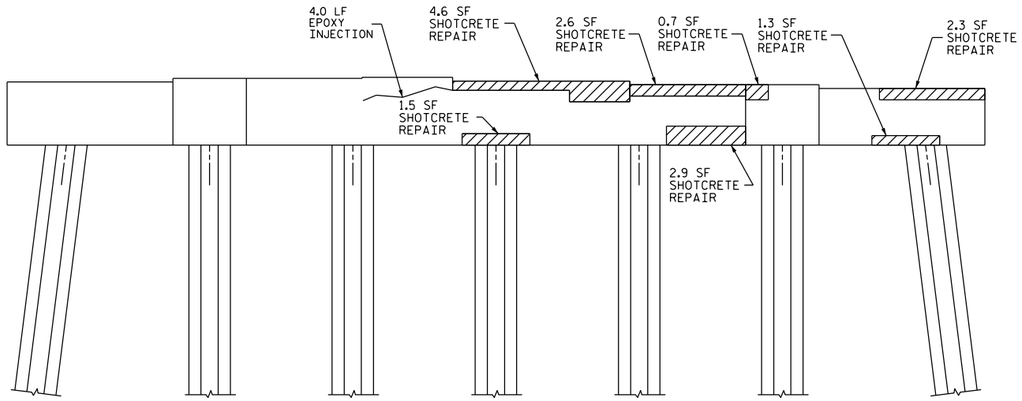
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

BENT 8

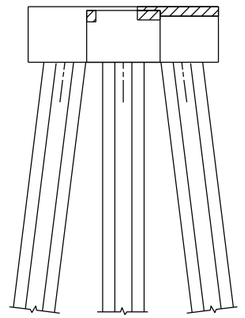
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-15
1			3			TOTAL SHEETS
2			4			34

DRAWN BY : C L BRIGHT DATE : 01/16
CHECKED BY : T. SHERRILL DATE : 01/16
DESIGN ENGINEER OF RECORD: - DATE : -

$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

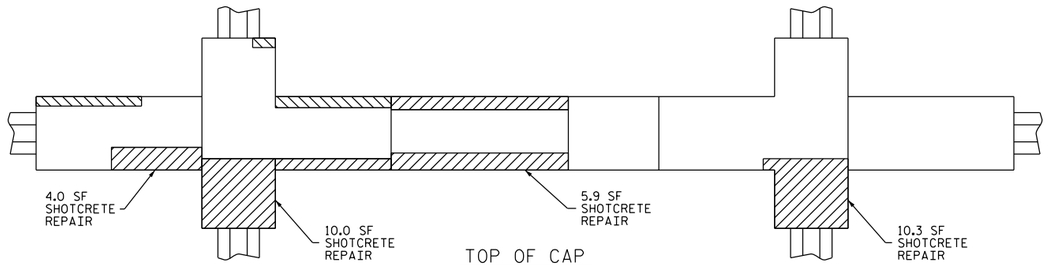


BENT 9
(SPAN K FACE)

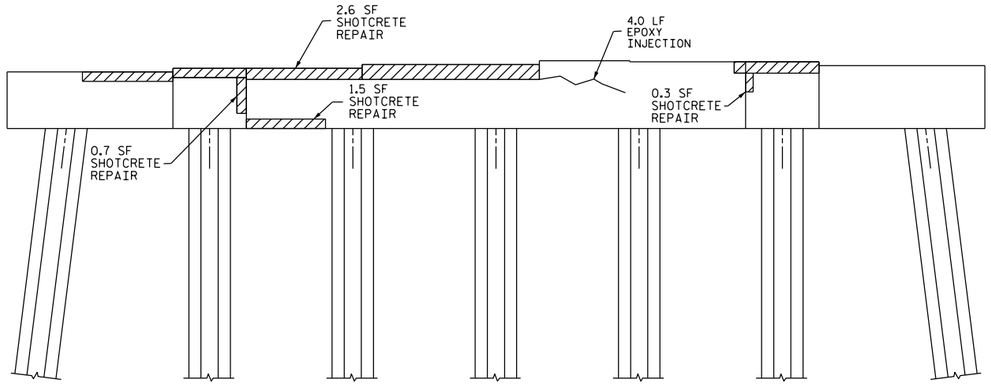


END VIEW
(NORTH)

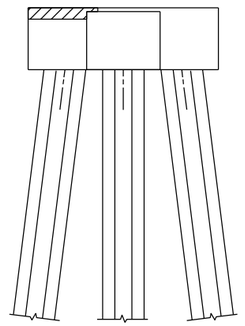
SPAN K
SPAN J



TOP OF CAP



BENT 9
(SPAN J FACE)



END VIEW
(SOUTH)

SUMMARY OF QUANTITIES

REPAIRS BENT 9	QUANTITIES			
	ESTIMATE		ACTUAL	
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	0.0	0.0		
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	51.2	21.4		
PILE	0.0	0.0		
EPOXY RESIN INJECTION		LN. FT		LN. FT
CAP		8.0		
PILE		0.0		
EPOXY COATING		SQ. FT		SQ. FT
TOP OF CAP		174		

NOTES

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

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

EPOXY COATING SHALL BE APPLIED TO THE TOP FACE OF THE CAP. THE CONTRACTOR SHALL NOT COAT THE AREA OF THE CAP BENEATH THE MASONARY PLATES. FOR EPOXY COATING, SEE SPECIAL PROVISIONS.

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

PROJECT NO. DA00271

PASQUOTANK COUNTY

BRIDGE NO. 27

SHEET 9 OF 19

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

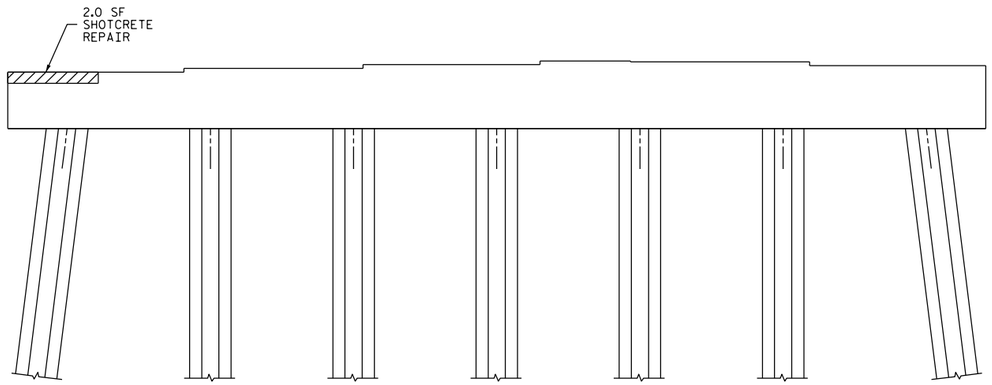
BENT 9

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-16
1			3			TOTAL SHEETS
2			4			34

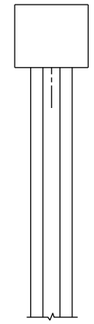
NORTH CAROLINA PROFESSIONAL SEAL 18565 ENGINEER TIMOTHY M. SHERRILL

DRAWN BY : C L BRIGHT DATE : 01/16
CHECKED BY : T. SHERRILL DATE : 01/16
DESIGN ENGINEER OF RECORD: - DATE : -

$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$



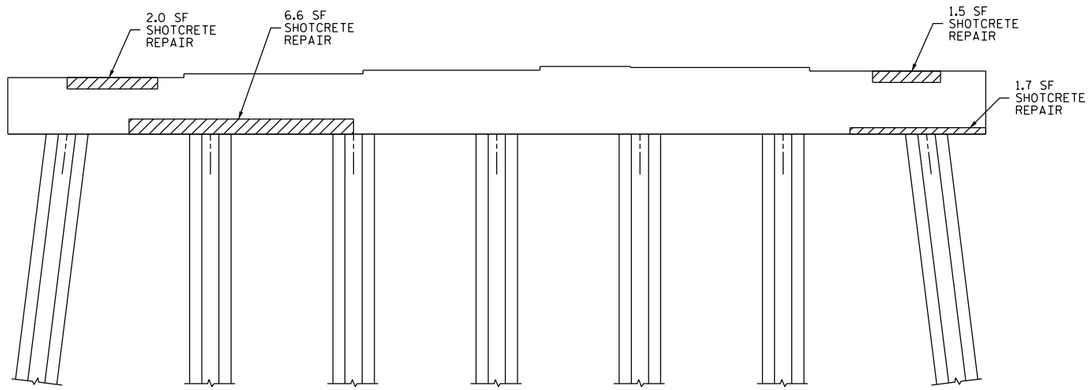
BENT 10
(SPAN L FACE)



END VIEW
(NORTH)

SPAN L
SPAN K

TOP OF CAP



BENT 10
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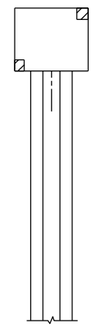


END VIEW
(SOUTH)

SUMMARY OF QUANTITIES

REPAIRS BENT 10	QUANTITIES			
	ESTIMATE		ACTUAL	
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	0.0	0.0		
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	13.8	5.8		
PILE	0.0	0.0		
EPOXY RESIN INJECTION		LN. FT		LN. FT
CAP		0.0		
PILE		0.0		
EPOXY COATING		SQ. FT		SQ. FT
TOP OF CAP		141		

NOTES

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

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

EPOXY COATING SHALL BE APPLIED TO THE TOP FACE OF THE CAP. THE CONTRACTOR SHALL NOT COAT THE AREA OF THE CAP BENEATH THE MASONARY PLATES. FOR EPOXY COATING, SEE SPECIAL PROVISIONS.

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

PROJECT NO. DA00271
PASQUOTANK COUNTY
BRIDGE NO. 27
SHEET 10 OF 19

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

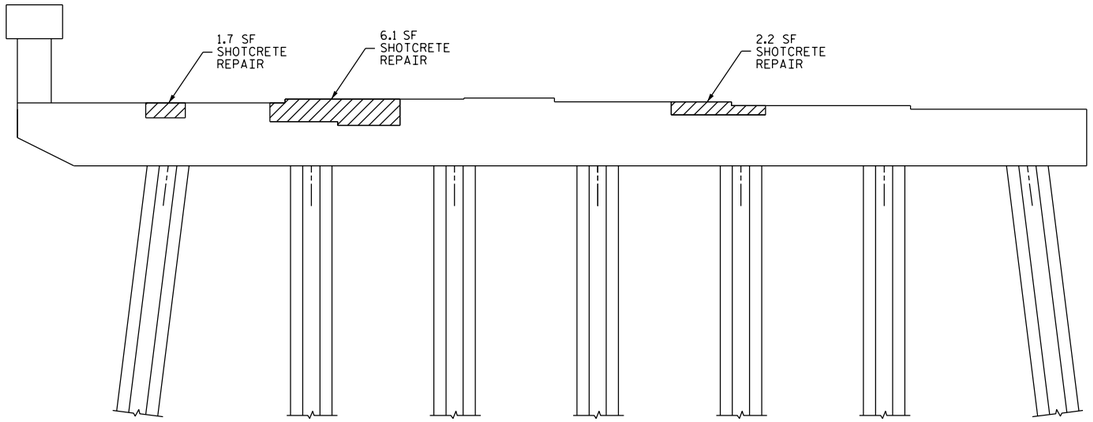
BENT 10

NORTH CAROLINA PROFESSIONAL SEAL 18565 ENGINEER TIMOTHY M. SHERRILL

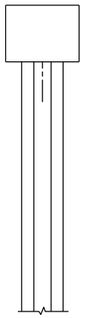
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-17
1			3			TOTAL SHEETS
2			4			34

DRAWN BY : C L BRIGHT DATE : 01/16
CHECKED BY : T. SHERRILL DATE : 01/16
DESIGN ENGINEER OF RECORD: - DATE : -

$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$



BENT 11
(SPAN M FACE)



END VIEW
(NORTH)

SUMMARY OF QUANTITIES

REPAIRS BENT 11	QUANTITIES			
	ESTIMATE		ACTUAL	
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	0.0	0.0		
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	15.3	6.4		
PILE	0.0	0.0		
EPOXY RESIN INJECTION		LN. FT		LN. FT
CAP		3.5		
PILE		0.0		
EPOXY COATING		SQ. FT		SQ. FT
TOP OF CAP		151		

NOTES

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

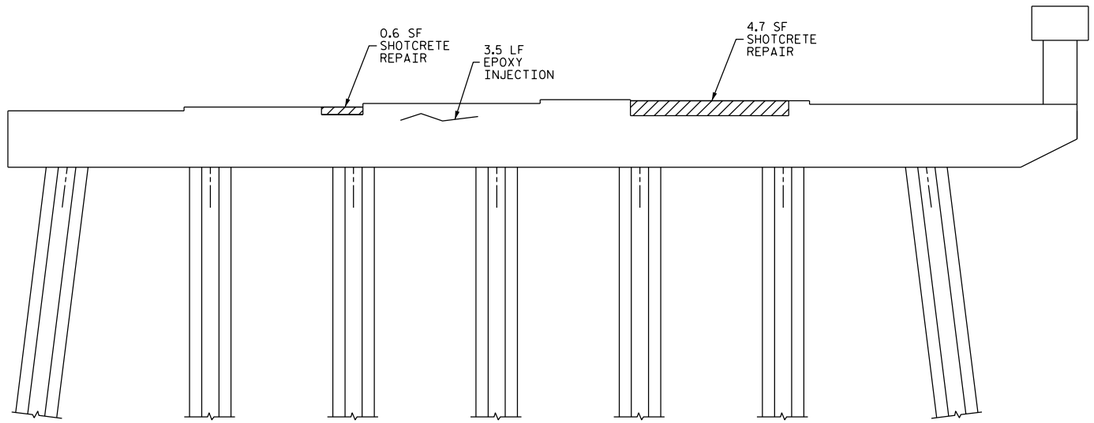
FOR REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

EPOXY COATING SHALL BE APPLIED TO THE TOP FACE OF THE CAP. THE CONTRACTOR SHALL NOT COAT THE AREA OF THE CAP BENEATH THE MASONARY PLATES. FOR EPOXY COATING, SEE SPECIAL PROVISIONS.

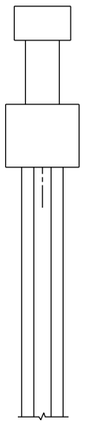
CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

(SPAN M)
(SPAN L)

TOP OF CAP



BENT 11
(SPAN L FACE)



END VIEW
(SOUTH)

PROJECT NO. DA00271
PASQUOTANK COUNTY
BRIDGE NO. 27

SHEET 11 OF 19

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

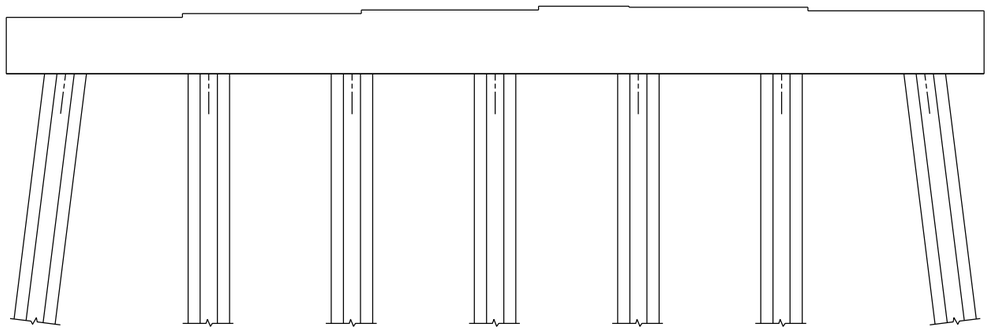
BENT 11

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-18
1			3			TOTAL SHEETS
2			4			34

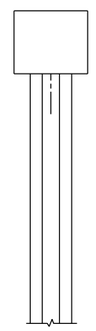
DRAWN BY : C L BRIGHT DATE : 01/16
CHECKED BY : T. SHERRILL DATE : 01/16
DESIGN ENGINEER OF RECORD: - DATE : -

$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

NOTE: BENT WAS NOT ACCESSIBLE DURING THE INSPECTION. QUANTITIES IN THE "SUMMARY OF QUANTITIES" CHART REFLECT AN AVERAGE OF QUANTITIES FROM OTHER LIKE BENTS. QUANTITIES IN THE "SUMMARY OF QUANTITIES" CHART ARE FOR BID PURPOSES ONLY. ACTUAL REPAIRS AND QUANTITIES SHALL BE DETERMINED BY THE ENGINEER AND CONTRACTOR DURING CONSTRUCTION. THE ACTUAL QUANTITIES SHALL BE ENTERED INTO THE "SUMMARY OF QUANTITIES" CHART BY THE ENGINEER.



BENT 12
(SPAN N FACE)



END VIEW
(NORTH)

SUMMARY OF QUANTITIES

REPAIRS BENT 12	QUANTITIES			
	ESTIMATE		ACTUAL	
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	0.0	0.0		
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	12.5	5.2		
PILE	0.0	0.0		
EPOXY RESIN INJECTION		LN. FT		LN. FT
CAP		3.3		
PILE		0.0		
EPOXY COATING		SQ. FT		SQ. FT
TOP OF CAP		141		

NOTES

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

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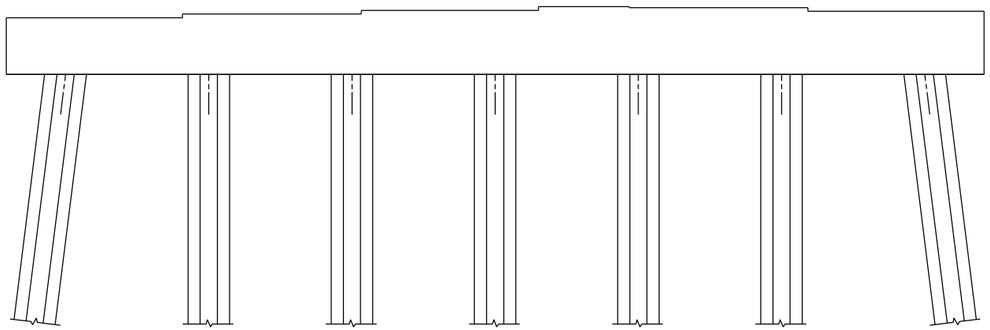
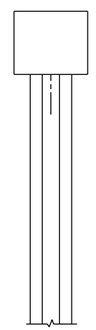
EPOXY COATING SHALL BE APPLIED TO THE TOP FACE OF THE CAP. THE CONTRACTOR SHALL NOT COAT THE AREA OF THE CAP BENEATH THE MASONARY PLATES. FOR EPOXY COATING, SEE SPECIAL PROVISIONS.

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

TOP OF CAP



BENT 12
(SPAN M FACE)



END VIEW
(SOUTH)

PROJECT NO. DA00271
PASQUOTANK COUNTY
BRIDGE NO. 27

SHEET 12 OF 19

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

BENT 12

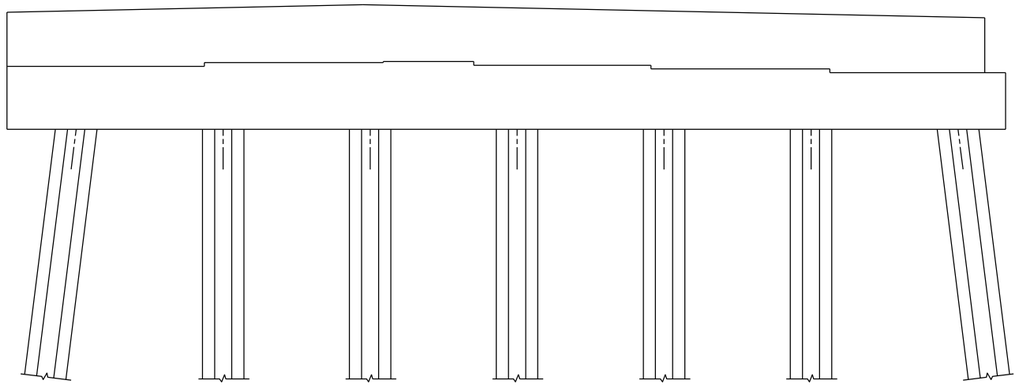
NORTH CAROLINA PROFESSIONAL SEAL 18565 ENGINEER TIMOTHY M. SHERRILL

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-19
1			3			TOTAL SHEETS
2			4			34

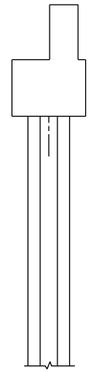
DRAWN BY : C L BRIGHT DATE : 01/16
CHECKED BY : T. SHERRILL DATE : 01/16
DESIGN ENGINEER OF RECORD: - DATE : -

$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

NOTE: BENT WAS NOT ACCESSIBLE DURING THE INSPECTION. QUANTITIES IN THE "SUMMARY OF QUANTITIES" CHART REFLECT AN AVERAGE OF QUANTITIES FROM OTHER LIKE BENTS. QUANTITIES IN THE "SUMMARY OF QUANTITIES" CHART ARE FOR BID PURPOSES ONLY. ACTUAL REPAIRS AND QUANTITIES SHALL BE DETERMINED BY THE ENGINEER AND CONTRACTOR DURING CONSTRUCTION. THE ACTUAL QUANTITIES SHALL BE ENTERED INTO THE "SUMMARY OF QUANTITIES" CHART BY THE ENGINEER.



BENT 13
SPAN 0



END VIEW
(NORTH)

SUMMARY OF QUANTITIES

REPAIRS BENT 13	QUANTITIES			
	ESTIMATE		ACTUAL	
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	0.0	0.0		
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	9.2	3.8		
PILE	0.0	0.0		
EPOXY RESIN INJECTION		LN. FT		LN. FT
CAP		2.5		
PILE		0.0		
EPOXY COATING (SPAN N SIDE ONLY)		SQ. FT		SQ. FT
TOP OF CAP		74		

NOTES

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

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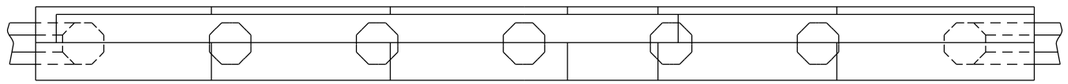
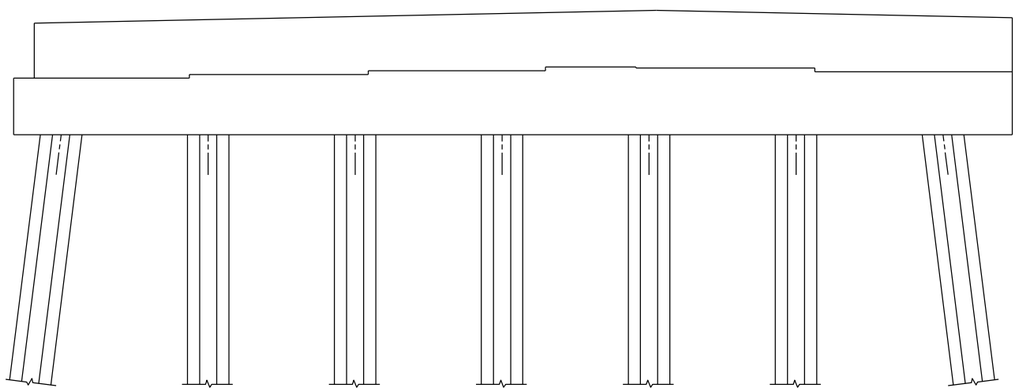
CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

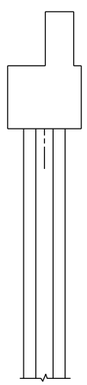
SPAN 0
SPAN N



TOP OF CAP



BENT 13
(SPAN N FACE)



END VIEW
(SOUTH)

NORTH CAROLINA PROFESSIONAL SEAL 18565 ENGINEER TIMOTHY M. SHERRILL

PROJECT NO. DA00271
PASQUOTANK COUNTY
BRIDGE NO. 27

SHEET 13 OF 19

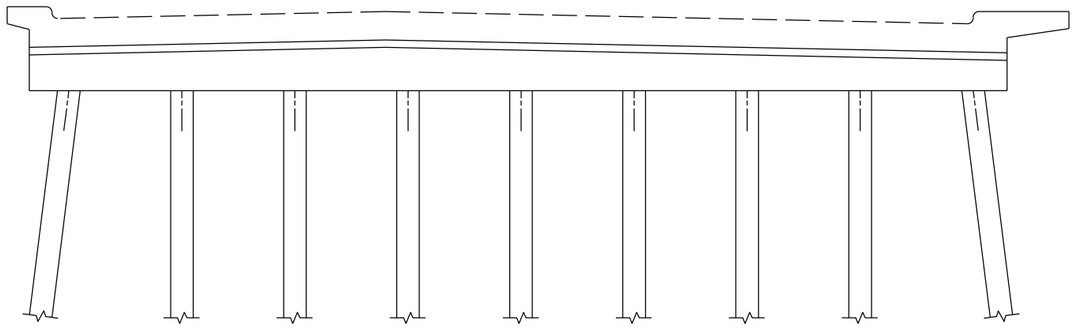
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

BENT 13

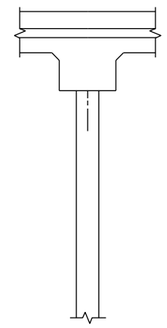
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-20
1			3			TOTAL SHEETS
2			4			34

DRAWN BY : C L BRIGHT DATE : 01/16
CHECKED BY : T. SHERRILL DATE : 01/16
DESIGN ENGINEER OF RECORD: - DATE : -

$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

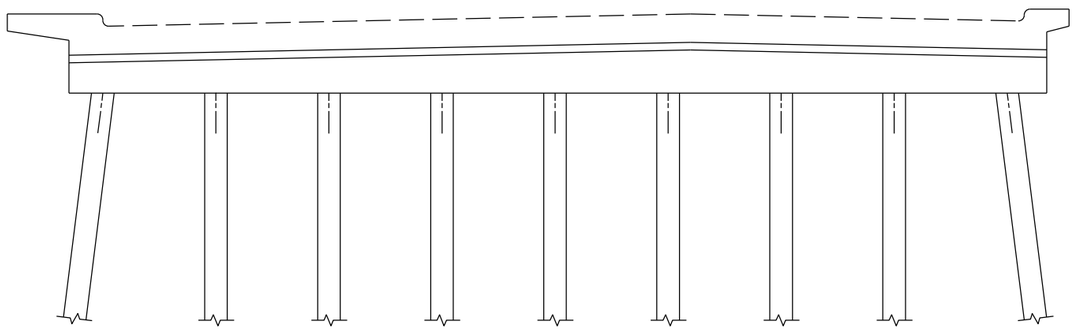


BENT 14
(SPAN P FACE)

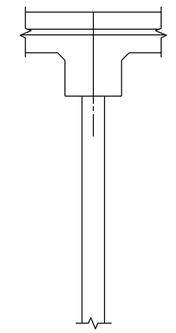


END VIEW
(NORTH)

TOP OF CAP



BENT 14
(SPAN O FACE)



END VIEW
(SOUTH)

SUMMARY OF QUANTITIES

REPAIRS BENT 14	QUANTITIES			
	ESTIMATE		ACTUAL	
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	0.0	0.0		
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	9.3	3.9		
PILE	0.0	0.0		
EPOXY RESIN INJECTION		LN. FT		LN. FT
CAP		2.0		
PILE		0.0		

NOTES

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

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

EPOXY COATING SHALL BE APPLIED TO THE TOP FACE OF THE CAP. THE CONTRACTOR SHALL NOT COAT THE AREA OF THE CAP BENEATH THE MASONARY PLATES. FOR EPOXY COATING, SEE SPECIAL PROVISIONS.

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

NOTE: BENT WAS ONLY VISUALLY ACCESSIBLE DURING THE INSPECTION. QUANTITIES IN THE "SUMMARY OF QUANTITIES" CHART REFLECT ONLY VISUAL DAMAGE AND ESTIMATED QUANTITIES. QUANTITIES IN THE "SUMMARY OF QUANTITIES" CHART ARE FOR BID PURPOSES ONLY. ACTUAL REPAIRS AND QUANTITIES SHALL BE DETERMINED BY THE ENGINEER AND CONTRACTOR DURING CONSTRUCTION. THE ACTUAL QUANTITIES SHALL BE ENTERED INTO THE "SUMMARY OF QUANTITIES" CHART BY THE ENGINEER.

PROJECT NO. DA00271

PASQUOTANK COUNTY

BRIDGE NO. 27

SHEET 14 OF 19

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

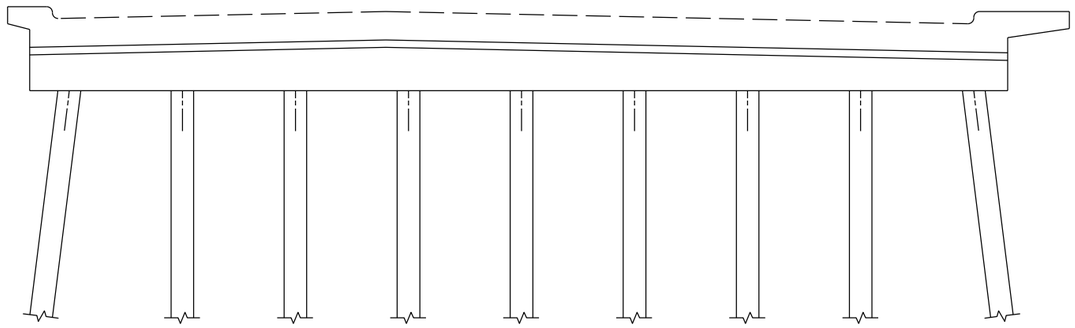
BENT 14

NORTH CAROLINA PROFESSIONAL SEAL 18565 ENGINEER TIMOTHY M. SHERRILL

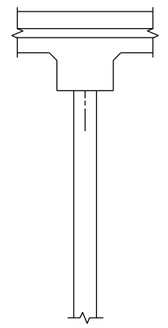
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-21
1			3			TOTAL SHEETS
2			4			34

DRAWN BY : C L BRIGHT DATE : 01/16
CHECKED BY : T. SHERRILL DATE : 01/16
DESIGN ENGINEER OF RECORD: - DATE : -

$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

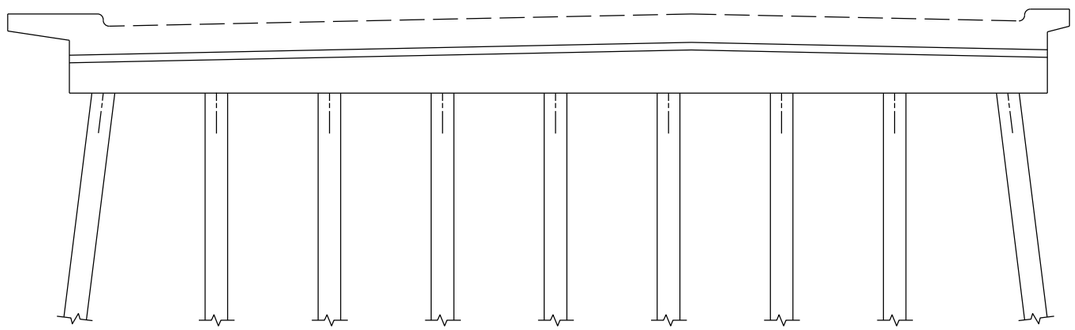


BENT 15
(SPAN Q FACE)

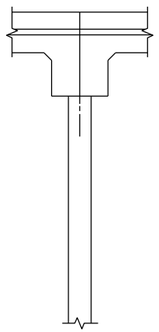


END VIEW
(NORTH)

TOP OF CAP



BENT 15
(SPAN P FACE)



END VIEW
(SOUTH)

SUMMARY OF QUANTITIES

REPAIRS BENT 15	QUANTITIES			
	ESTIMATE		ACTUAL	
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	0.0	0.0		
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	9.3	3.9		
PILE	0.0	0.0		
EPOXY RESIN INJECTION		LN. FT		LN. FT
CAP		2.0		
PILE		0.0		

NOTES

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

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

NOTE: BENT WAS ONLY VISUALLY ACCESSIBLE DURING THE INSPECTION. QUANTITIES IN THE "SUMMARY OF QUANTITIES" CHART REFLECT ONLY VISUAL DAMAGE AND ESTIMATED QUANTITIES. QUANTITIES IN THE "SUMMARY OF QUANTITIES" CHART ARE FOR BID PURPOSES ONLY. ACTUAL REPAIRS AND QUANTITIES SHALL BE DETERMINED BY THE ENGINEER AND CONTRACTOR DURING CONSTRUCTION. THE ACTUAL QUANTITIES SHALL BE ENTERED INTO THE "SUMMARY OF QUANTITIES" CHART BY THE ENGINEER.

PROJECT NO. DA00271

PASQUOTANK COUNTY

BRIDGE NO. 27

SHEET 15 OF 19

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

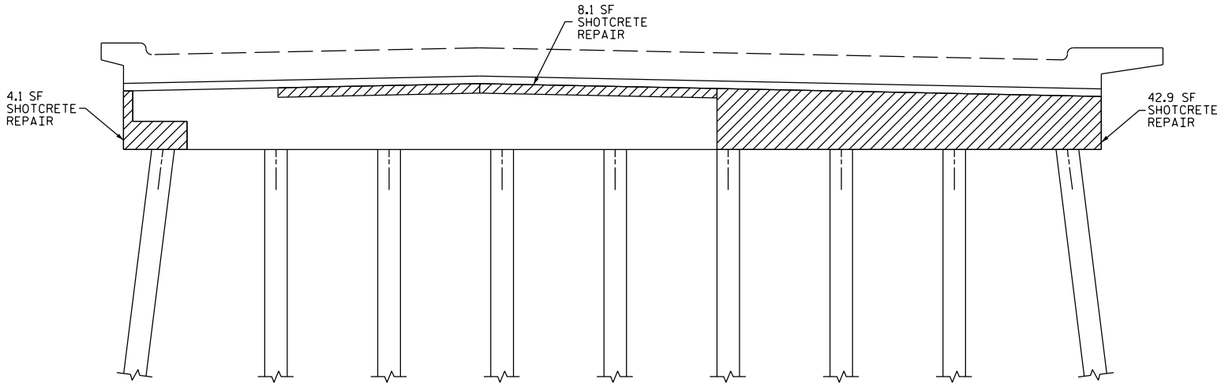
BENT 15

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-22
1			3			TOTAL SHEETS
2			4			34

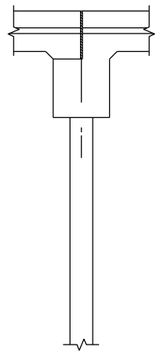
NORTH CAROLINA PROFESSIONAL SEAL 18565 ENGINEER TIMOTHY M. SHERRILL

DRAWN BY : C L BRIGHT DATE : 01/16
CHECKED BY : T. SHERRILL DATE : 01/16
DESIGN ENGINEER OF RECORD: - DATE : -

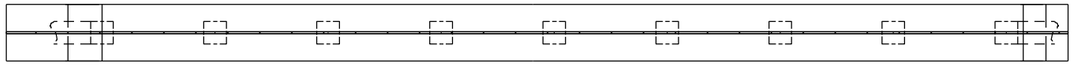
$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$



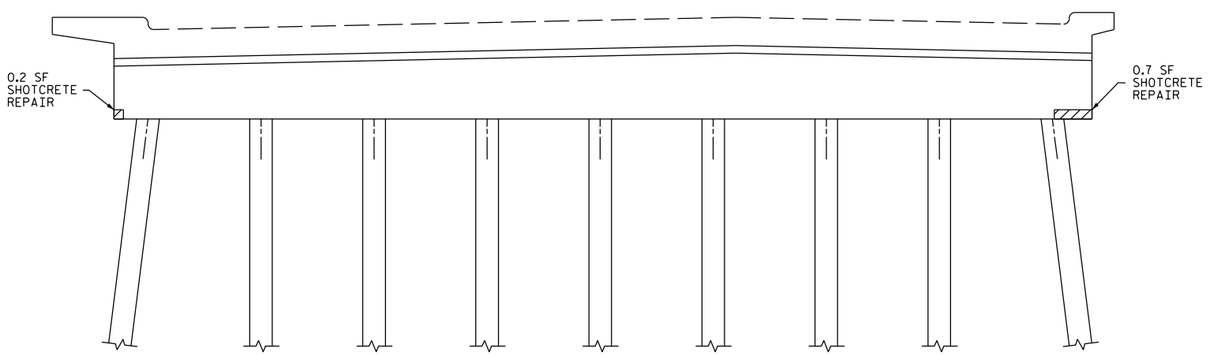
BENT 16
(SPAN R FACE)



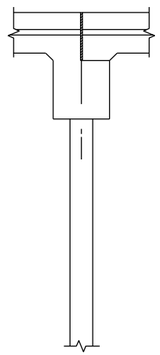
END VIEW
(NORTH)



TOP OF CAP



BENT 16
(SPAN Q FACE)



END VIEW
(SOUTH)

SUMMARY OF QUANTITIES

REPAIRS BENT 16	QUANTITIES			
	ESTIMATE		ACTUAL	
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	0.0	0.0		
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	56.0	23.3		
PILE	0.0	0.0		
EPOXY RESIN INJECTION		LN. FT		LN. FT
CAP		2.0		
PILE		0.0		

NOTES

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

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EPOXY COATING SHALL BE APPLIED TO THE TOP FACE OF THE CAP. THE CONTRACTOR SHALL NOT COAT THE AREA OF THE CAP BENEATH THE MASONARY PLATES. FOR EPOXY COATING, SEE SPECIAL PROVISIONS.

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

NOTE: BENT WAS ONLY VISUALLY ACCESSIBLE DURING THE INSPECTION. QUANTITIES IN THE "SUMMARY OF QUANTITIES" CHART REFLECT ONLY VISUAL DAMAGE AND ESTIMATED QUANTITIES. QUANTITIES IN THE "SUMMARY OF QUANTITIES" CHART ARE FOR BID PURPOSES ONLY. ACTUAL REPAIRS AND QUANTITIES SHALL BE DETERMINED BY THE ENGINEER AND CONTRACTOR DURING CONSTRUCTION. THE ACTUAL QUANTITIES SHALL BE ENTERED INTO THE "SUMMARY OF QUANTITIES" CHART BY THE ENGINEER.

PROJECT NO. DA00271

PASQUOTANK COUNTY

BRIDGE NO. 27

SHEET 16 OF 19

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

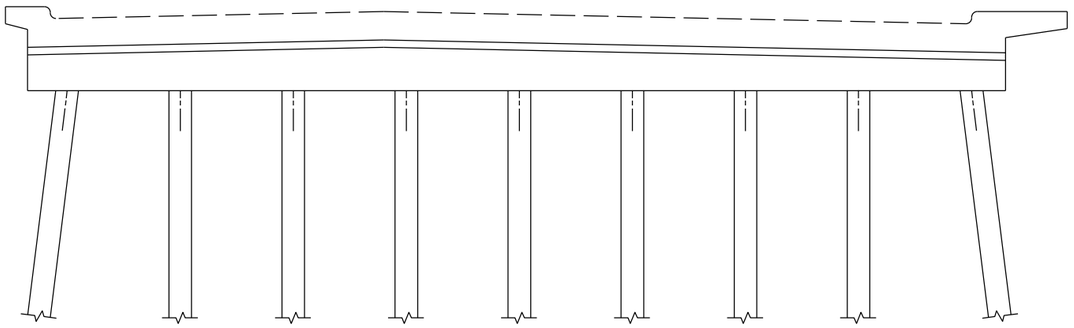
BENT 16

NORTH CAROLINA PROFESSIONAL SEAL 18565 ENGINEER TIMOTHY M. SHERRILL

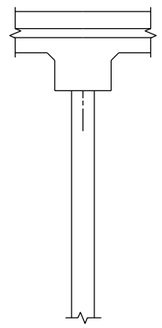
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-23
1			3			TOTAL SHEETS
2			4			S-

DRAWN BY : C L BRIGHT DATE : 01/16
CHECKED BY : T. SHERRILL DATE : 01/16
DESIGN ENGINEER OF RECORD: - DATE : -

$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

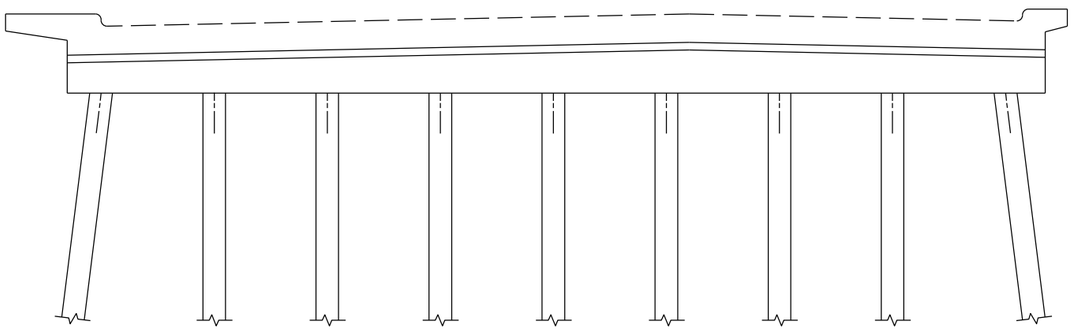


BENT 17
(SPAN S FACE)

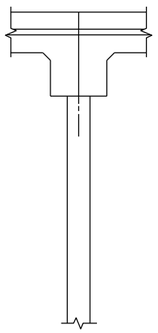


END VIEW
(NORTH)

TOP OF CAP



BENT 17
(SPAN R FACE)



END VIEW
(SOUTH)

SUMMARY OF QUANTITIES

REPAIRS BENT 17	QUANTITIES			
	ESTIMATE		ACTUAL	
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	0.0	0.0		
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	9.3	3.9		
PILE	0.0	0.0		
EPOXY RESIN INJECTION		LN. FT		LN. FT
CAP		2.0		
PILE		0.0		

NOTES

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

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

EPOXY COATING SHALL BE APPLIED TO THE TOP FACE OF THE CAP. THE CONTRACTOR SHALL NOT COAT THE AREA OF THE CAP BENEATH THE MASONARY PLATES. FOR EPOXY COATING, SEE SPECIAL PROVISIONS.

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

NOTE: BENT WAS ONLY VISUALLY ACCESSIBLE DURING THE INSPECTION. QUANTITIES IN THE "SUMMARY OF QUANTITIES" CHART REFLECT ONLY VISUAL DAMAGE AND ESTIMATED QUANTITIES. QUANTITIES IN THE "SUMMARY OF QUANTITIES" CHART ARE FOR BID PURPOSES ONLY. ACTUAL REPAIRS AND QUANTITIES SHALL BE DETERMINED BY THE ENGINEER AND CONTRACTOR DURING CONSTRUCTION. THE ACTUAL QUANTITIES SHALL BE ENTERED INTO THE "SUMMARY OF QUANTITIES" CHART BY THE ENGINEER.

PROJECT NO. DA00271

PASQUOTANK COUNTY

BRIDGE NO. 27

SHEET 17 OF 19

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

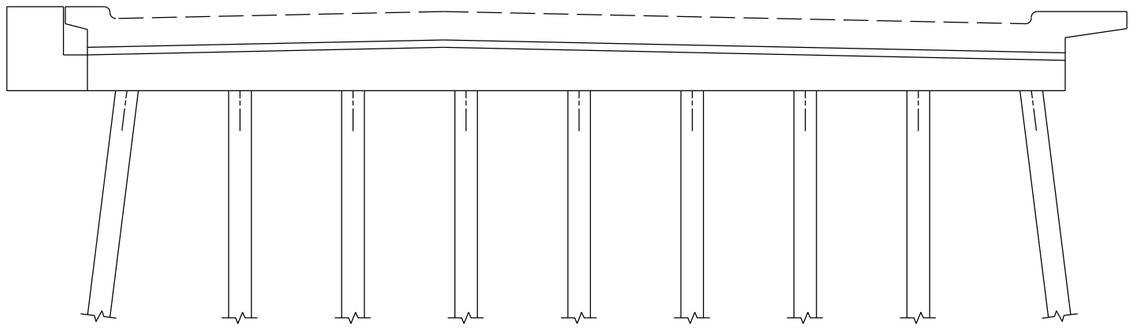
BENT 17

NORTH CAROLINA PROFESSIONAL SEAL 18565 ENGINEER TIMOTHY M. SHERRILL

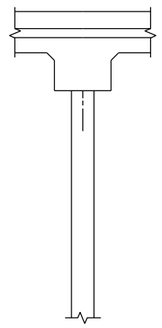
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-24
1			3			TOTAL SHEETS
2			4			34

DRAWN BY : C L BRIGHT DATE : 01/16
CHECKED BY : T. SHERRILL DATE : 01/16
DESIGN ENGINEER OF RECORD: - DATE : -

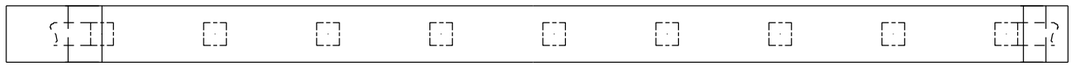
$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$



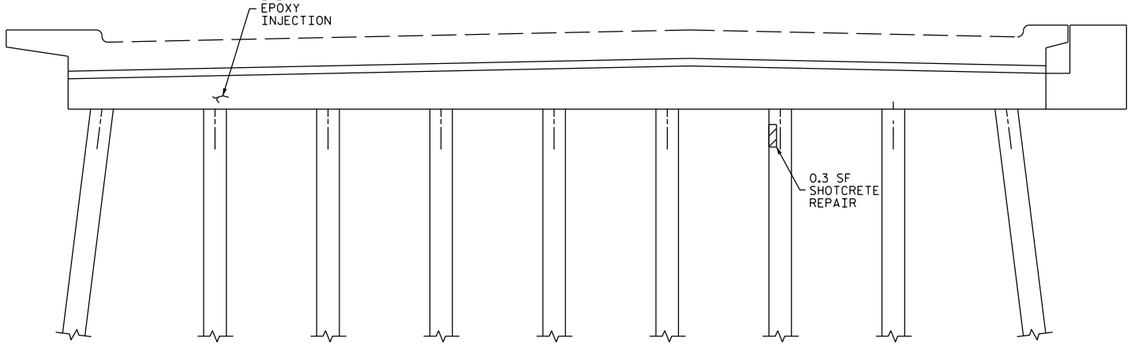
BENT 18
(SPAN T FACE)



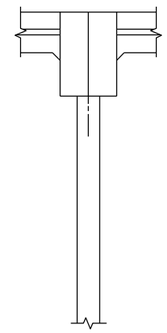
END VIEW
(NORTH)



TOP OF CAP



BENT 18
(SPAN S FACE)



END VIEW
(SOUTH)

SUMMARY OF QUANTITIES

REPAIRS BENT 18	QUANTITIES			
	ESTIMATE		ACTUAL	
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	0.0	0.0		
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	9.3	3.9		
PILE	0.3	0.1		
EPOXY RESIN INJECTION		LN. FT		LN. FT
CAP		2.0		
PILE		0.0		

NOTES

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

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

EPOXY COATING SHALL BE APPLIED TO THE TOP FACE OF THE CAP. THE CONTRACTOR SHALL NOT COAT THE AREA OF THE CAP BENEATH THE MASONARY PLATES. FOR EPOXY COATING, SEE SPECIAL PROVISIONS.

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

NOTE: BENT WAS ONLY VISUALLY ACCESSIBLE DURING THE INSPECTION. QUANTITIES IN THE "SUMMARY OF QUANTITIES" CHART REFLECT ONLY VISUAL DAMAGE AND ESTIMATED QUANTITIES. QUANTITIES IN THE "SUMMARY OF QUANTITIES" CHART ARE FOR BID PURPOSES ONLY. ACTUAL REPAIRS AND QUANTITIES SHALL BE DETERMINED BY THE ENGINEER AND CONTRACTOR DURING CONSTRUCTION. THE ACTUAL QUANTITIES SHALL BE ENTERED INTO THE "SUMMARY OF QUANTITIES" CHART BY THE ENGINEER.

PROJECT NO. DA00271

PASQUOTANK COUNTY

BRIDGE NO. 27

SHEET 18 OF 19

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

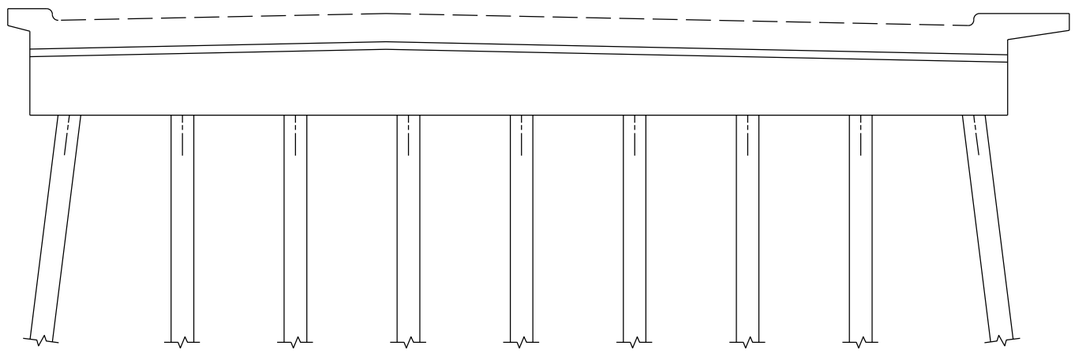
BENT 18

NORTH CAROLINA PROFESSIONAL SEAL 18565 ENGINEER TIMOTHY M. SHERRILL

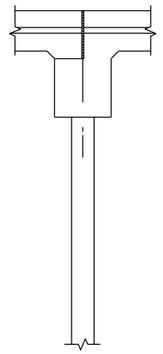
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-25
1			3			TOTAL SHEETS
2			4			34

DRAWN BY : C L BRIGHT DATE : 01/16
CHECKED BY : T. SHERRILL DATE : 01/16
DESIGN ENGINEER OF RECORD: - DATE : -

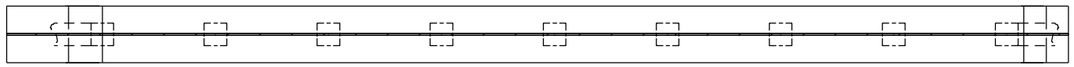
$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$



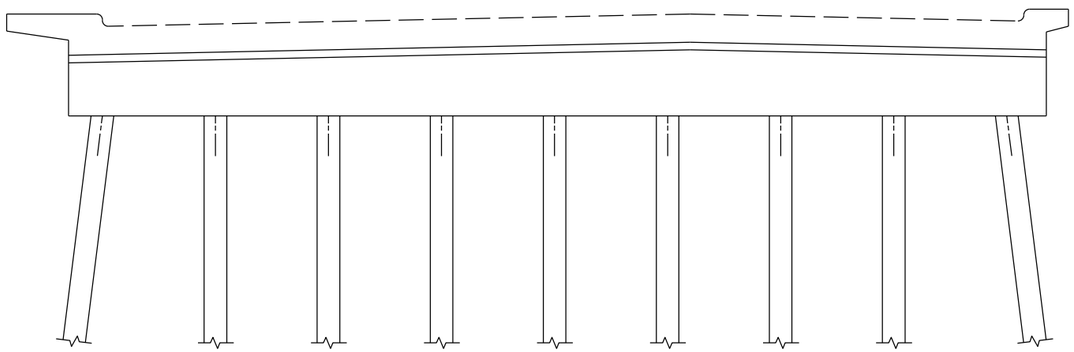
BENT 19
(APPROACH SLAB FACE)



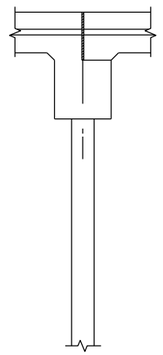
END VIEW
(NORTH)



TOP OF CAP



BENT 19
(SPAN T FACE)



END VIEW
(SOUTH)

SUMMARY OF QUANTITIES

REPAIRS BENT 19	QUANTITIES			
	ESTIMATE		ACTUAL	
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	0.0	0.0		
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	9.3	3.9		
PILE	0.0	0.0		
EPOXY RESIN INJECTION		LN. FT		LN. FT
CAP		2.0		
PILE		0.0		

NOTES

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

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

EPOXY COATING SHALL BE APPLIED TO THE TOP FACE OF THE CAP. THE CONTRACTOR SHALL NOT COAT THE AREA OF THE CAP BENEATH THE MASONARY PLATES. FOR EPOXY COATING, SEE SPECIAL PROVISIONS.

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

NOTE: BENT WAS ONLY VISUALLY ACCESSIBLE DURING THE INSPECTION. QUANTITIES IN THE "SUMMARY OF QUANTITIES" CHART REFLECT ONLY VISUAL DAMAGE AND ESTIMATED QUANTITIES. QUANTITIES IN THE "SUMMARY OF QUANTITIES" CHART ARE FOR BID PURPOSES ONLY. ACTUAL REPAIRS AND QUANTITIES SHALL BE DETERMINED BY THE ENGINEER AND CONTRACTOR DURING CONSTRUCTION. THE ACTUAL QUANTITIES SHALL BE ENTERED INTO THE "SUMMARY OF QUANTITIES" CHART BY THE ENGINEER.

PROJECT NO. DA00271

PASQUOTANK COUNTY

BRIDGE NO. --

SHEET 19 OF 19

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

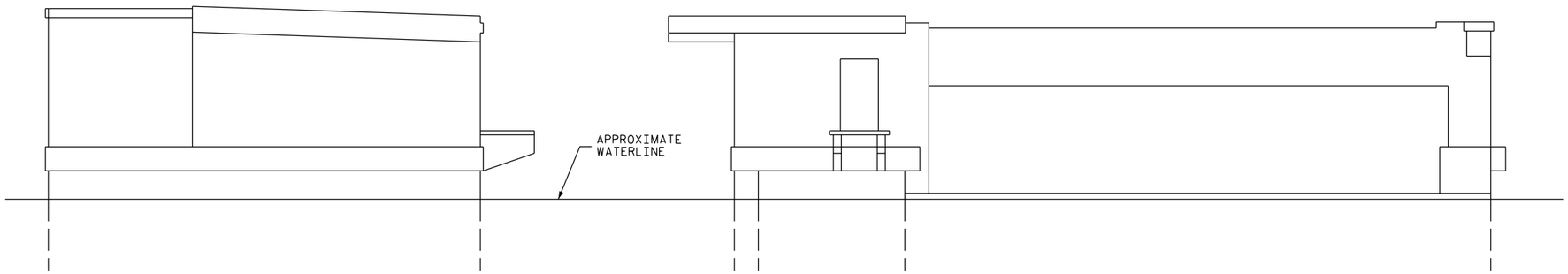
BENT 19

NORTH CAROLINA PROFESSIONAL SEAL 18565 ENGINEER TIMOTHY M. SHERRILL

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-26
1			3			TOTAL SHEETS
2			4			34

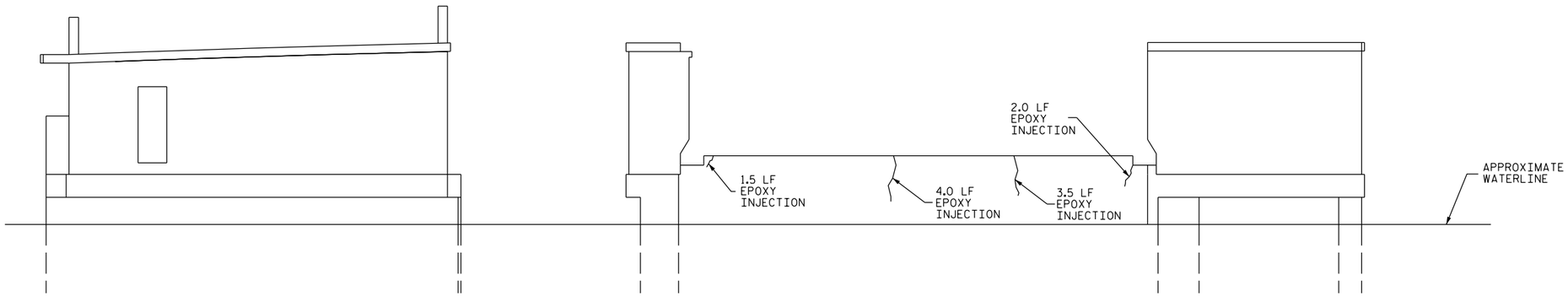
DRAWN BY : C L BRIGHT DATE : 01/16
CHECKED BY : T. SHERRILL DATE : 01/16
DESIGN ENGINEER OF RECORD: - DATE : -

$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$



NORTH FACE

WEST FACE



SOUTH FACE

EAST FACE
(CHANNEL SIDE)

SUMMARY OF QUANTITIES

REPAIRS BENT 12	QUANTITIES			
	ESTIMATE		ACTUAL	
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	0.0	0.0		
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	0.0	0.0		
EPOXY RESIN INJECTION		LF. FT		LF. FT
CAP		11.0		

NOTES

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

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

PROJECT NO. DA00271

PASQUOTANK COUNTY

BRIDGE NO. 27

SHEET 1 OF 2

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

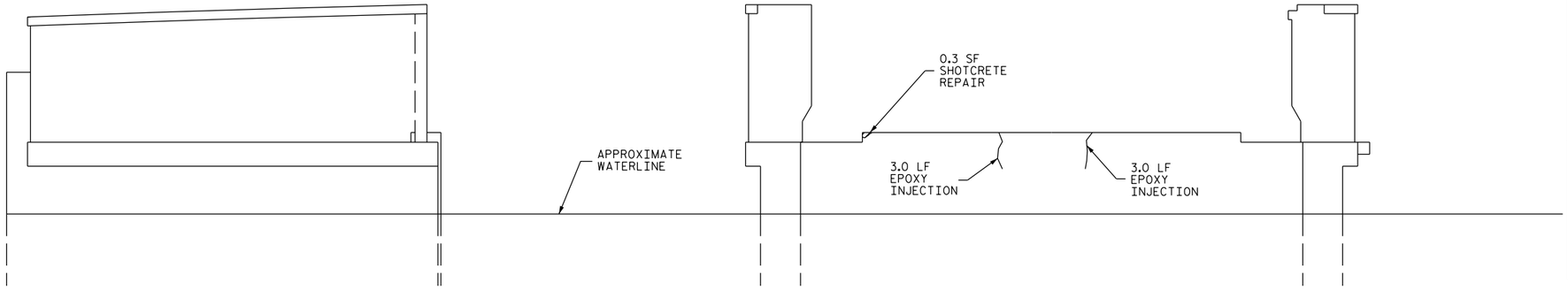
PIER 1

NORTH CAROLINA PROFESSIONAL SEAL 18565 ENGINEER TIMOTHY M. SHERRILL

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-27
1			3			TOTAL SHEETS
2			4			34

DRAWN BY : C L BRIGHT DATE : 01/16
CHECKED BY : T. SHERRILL DATE : 01/16
DESIGN ENGINEER OF RECORD: - DATE : -

$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$



NORTH FACE

WEST FACE
(CHANNEL SIDE)

SUMMARY OF QUANTITIES

REPAIRS BENT 12	QUANTITIES ESTIMATE		QUANTITIES ACTUAL	
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	0.0	0.0		
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	0.3	0.2		
EPOXY RESIN INJECTION		LF. FT		LF. FT
CAP		6.0		

NOTES

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

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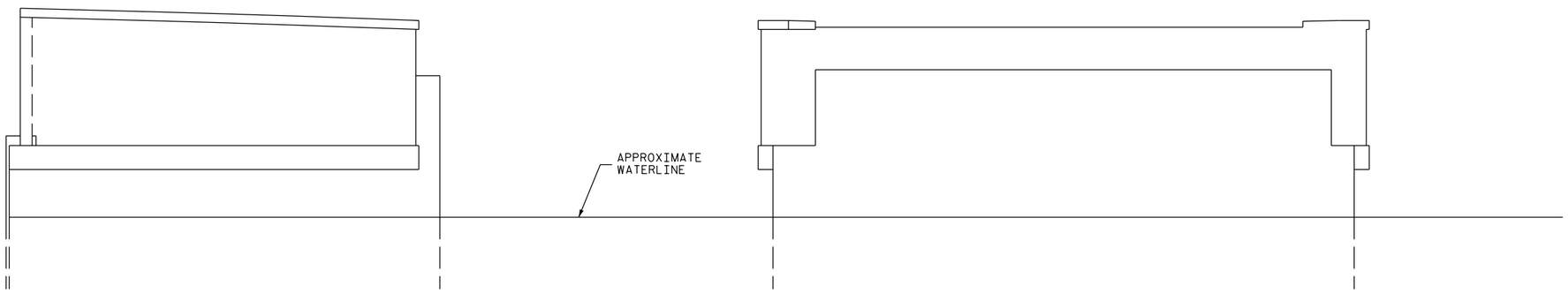
CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.



SOUTH FACE

EAST FACE
(CHANNEL SIDE)

PROJECT NO. DA00271

PASQUOTANK COUNTY

BRIDGE NO. 27

SHEET 2 OF 2

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

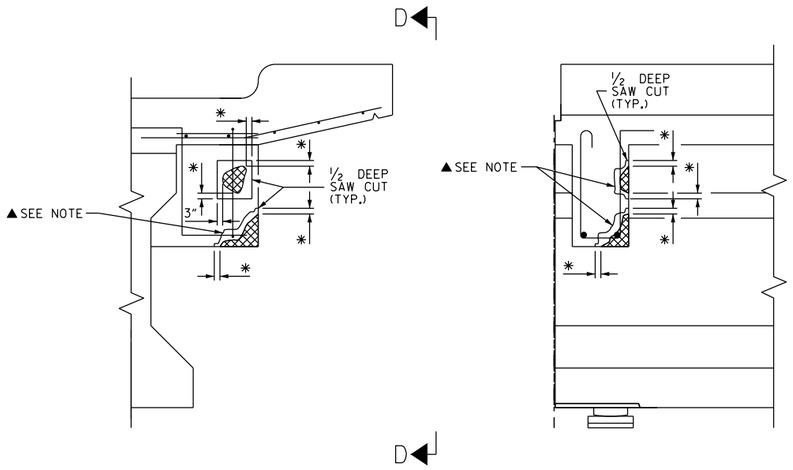
PIER 2

NORTH CAROLINA PROFESSIONAL SEAL 18565 ENGINEER TIMOTHY M. SHERRILL

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-28
1			3			TOTAL SHEETS
2			4			34

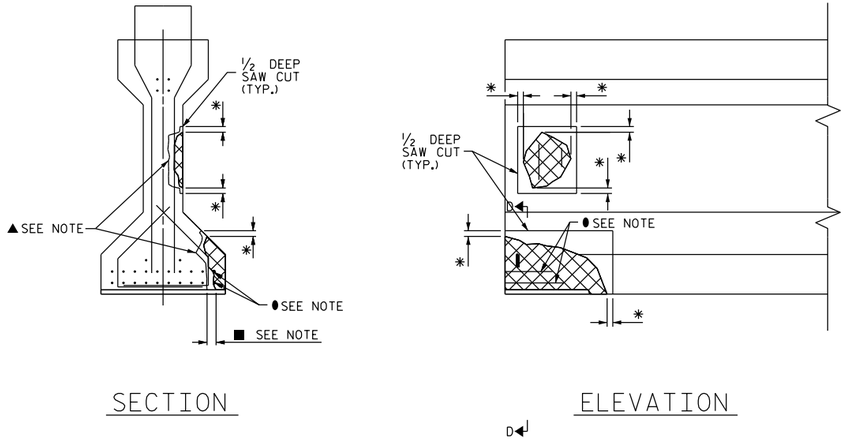
DRAWN BY : C L BRIGHT DATE : 01/16
CHECKED BY : T. SHERRILL DATE : 01/16
DESIGN ENGINEER OF RECORD: - DATE : -

$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$



TYPICAL SECTION

SECTION D-D



SECTION

ELEVATION

PRESTRESSED GIRDER REPAIR DETAIL

(EXAMPLE DETAILS ONLY. ACTUAL REBAR SIZE & LOCATION MAY VARY)

PRESTRESSED GIRDER REPAIR SEQUENCE:

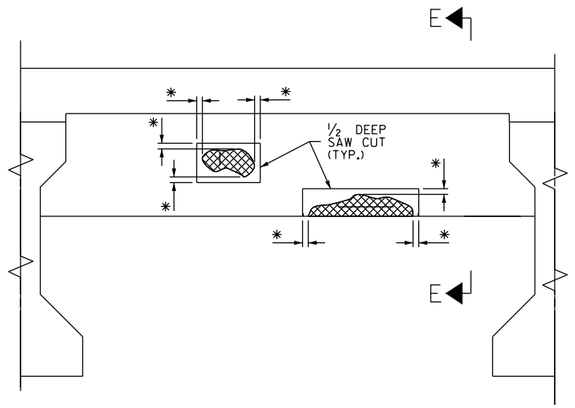
1. SOUND CONCRETE TO DETERMINE EXTENTS OF REPAIR LOCATION.
2. REMOVE SURFACE CONCRETE TO VERIFY THAT SAWCUT DEPTH WILL NOT DAMAGE EXISTING REINFORCING STEEL. SAW CUT AROUND REPAIR AREA TO A MIMIMUM DEPTH OF ½".
3. REMOVE CONCRETE WITHIN SAW CUT AREA TO MINIMUM ½" DEPTH. IF CONCRETE IS DAMAGED BEYOND THE ORIGINAL SAW CUT, A NEW SAW CUT IS REQUIRED.
4. ▲ IF MORE THAN HALF THE CIRCUMFERENCE OF A REINFORCING BAR IS EXPOSED DURING THIS PROCESS, REMOVE ADDITIONAL CONCRETE TO 1" MIN. BEHIND THE BAR.
5. ■ ALL UNSOUND CONCRETE MUST BE REMOVED, HOWEVER, PRESTRESSED STRANDS SHOULD NOT BE DISTURBED UNLESS ABSOLUTELY NECESSARY. USE EXTREME CARE TO NOT DAMAGE STRANDS.
6. ● THE ENGINEER SHALL BE NOTIFIED OF ALL DEBONDED STRANDS. DEBONED STRANDS OUTSIDE OF REINFORCING STEEL MAYBE CUT BACK TO WHERE THE BOND IS STILL INTACT AT THE ENGINEERS DISCRETION.
7. USE A WIRE BRUSH TO CLEAN ALL EXPOSED REINFORCING BARS AND PRESTRESSED STRANDS. FOR BARS WITH MORE THAN 10% SECTION LOSS, SPLICE AND SECURELY TIE SUPPLEMENTAL REINFORCING BARS AS NEEDED. NOTE AND PROVIDE DETAILED DOCUMENTATION, INCLUDING LOCATION AND SEVERITY, OF ALL DAMAGE TO PRESTRESSED STRANDS THAT EXCEEDS 10% SECTION LOSS. IF FIVE OR MORE STRANDS ARE DAMAGED, NOTIFY THE ENGINEER PRIOR TO PLACEMENT OF REPAIR MATERIAL.
8. REMOVE ALL LOOSE OR WEAKENED MATERIAL THEN CLEAN THE REPAIR AREA OF DIRT, GREASE, OIL, AND FOREIGN MATTER.
9. PREPARE SURFACE AND PLACE APPROVED SHOTCRETE OR REPAIR MATERIAL ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. MAXIMUM AGGREGATE SIZE FOR SHOTCRETE OR REPAIR MATERIAL SHALL NOT EXCEED 2/3 THE MINIMUM REPAIR DEPTH.

OVERHANG DIAPHRAGM REPAIR DETAIL

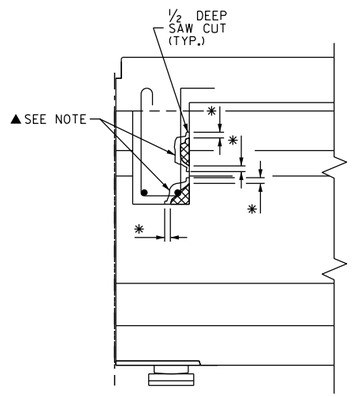
(EXAMPLE DETAILS ONLY. ACTUAL REBAR SIZE & LOCATION MAY VARY)

* CONCRETE TO BE REMOVED UNTIL SOUND CONCRETE IS FOUND. MIN. OF 1". ½"DEEP SAW CUT SHALL BE PLACED 1" INTO SOUND CONCRETE.

▨ DAMAGED AREA



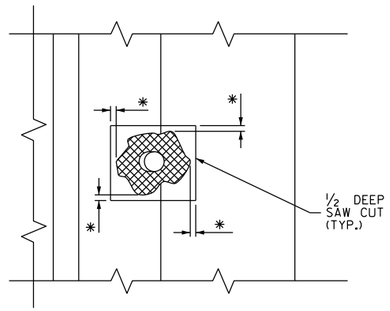
TYPICAL SECTION



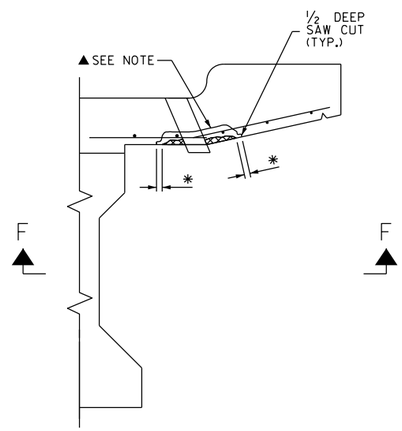
SECTION E-E

INTERIOR DIAPHRAGM REPAIR DETAIL

(EXAMPLE DETAILS ONLY. ACTUAL REBAR SIZE & LOCATION MAY VARY)



SECTION F-F



TYPICAL SECTION

DECK DRAIN REPAIR DETAIL

(EXAMPLE DETAILS ONLY. ACTUAL REBAR SIZE & LOCATION MAY VARY)

NOTES:

PREPACKAGED MATERIAL IS REQUIRED.

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

FOR SHALLOW REPAIRS THAT DO NOT ENGAGE REINFORCEMENT, ANCHOR PATCH MATERIAL USING ¼" STAINLESS BOLTS, EPOXY ANCHORED WITH 2" EMBEDMENT. PLACE BOLTS IN A 6" GRID. USE A SHOTCRETE OR EPOXY PATCH MATERIAL FOR IMPROVED BOND. USE EXTREME CARE TO NOT DAMAGE STRANDS.

EXISTING REBAR TO REMAIN IN PLACE. CLEAN AND REPAIR AS NECESSARY.

OVERHANG DIAPHRAGMS SHALL BE REMOVED PRIOR BEAM REPAIRS AND REPLACED AFTER BEAM REPAIRS AND PAINTING ARE COMPLETE.

* CONCRETE TO BE REMOVED UNTIL SOUND CONCRETE IS FOUND. MIN. OF 1". ½"DEEP SAW CUT SHALL BE PLACED 1" INTO SOUND CONCRETE.

▨ DAMAGED AREA

PROJECT NO. DA00271

PASQUOTANK COUNTY

BRIDGE NO. 27

SHEET 1 OF 1

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

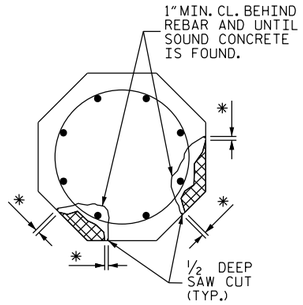
TYPICAL GIRDER, DIAPHRAGM & DRAIN REPAIR DETAILS

NORTH CAROLINA PROFESSIONAL SEAL 18565 ENGINEER TIMOTHY M. SHERRILL

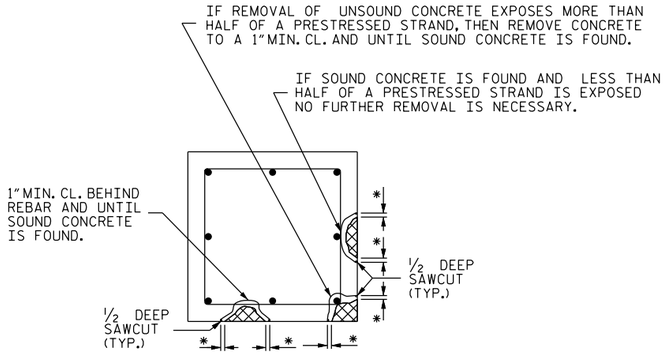
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-29
1			3			TOTAL SHEETS
2			4			34

DRAWN BY : C L BRIGHT DATE : 01/16
CHECKED BY : T. SHERRILL DATE : 01/16
DESIGN ENGINEER OF RECORD: - DATE : -

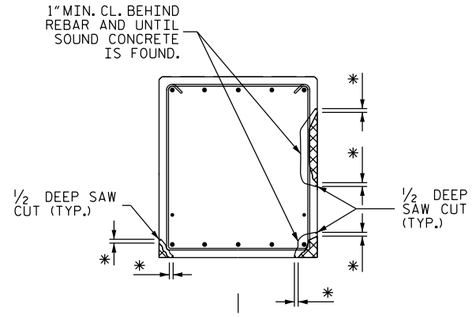
$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$



SECTION M-M



SECTION M-M



SECTION L-L

* CONCRETE TO BE REMOVED UNTIL SOUND CONCRETE IS FOUND. MIN. OF 1". SAW CUT SHALL BE PLACED 1" INTO SOUND CONCRETE.

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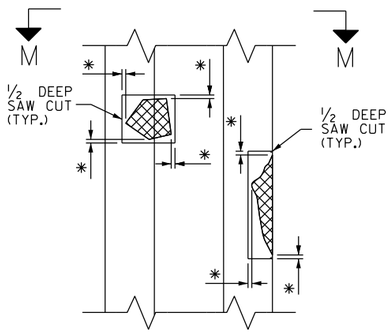
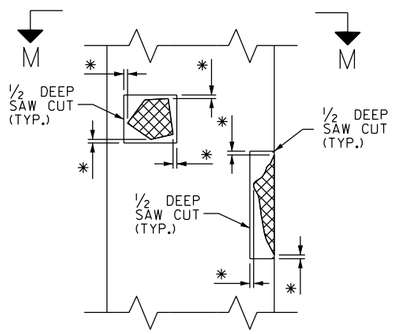


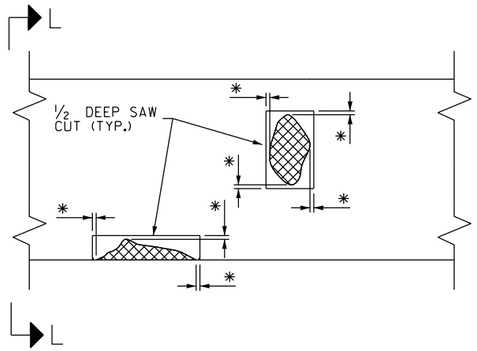
PILE REPAIR DETAIL

(EXAMPLE DETAILS ONLY. ACTUAL REBAR SIZE & LOCATION MAY VARY)



PRESTRESSED PILE REPAIR

(EXAMPLE DETAILS ONLY. ACTUAL REBAR SIZE & LOCATION MAY VARY)



CAP REPAIR DETAILS

(EXAMPLE DETAILS ONLY. ACTUAL REBAR SIZE & LOCATION MAY VARY)

PROJECT NO. DA00271

PASQUOTANK COUNTY

BRIDGE NO. 27

SHEET 1 OF 1

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

TYPICAL CAP AND COLUMN REPAIR DETAILS

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-30
1			3			TOTAL SHEETS
2			4			34

NORTH CAROLINA PROFESSIONAL SEAL 18565 ENGINEER TIMOTHY M. SHERRILL

DRAWN BY : C L BRIGHT DATE : 01/16
CHECKED BY : T. SHERRILL DATE : 01/16
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$$$$USERNAME$$$$