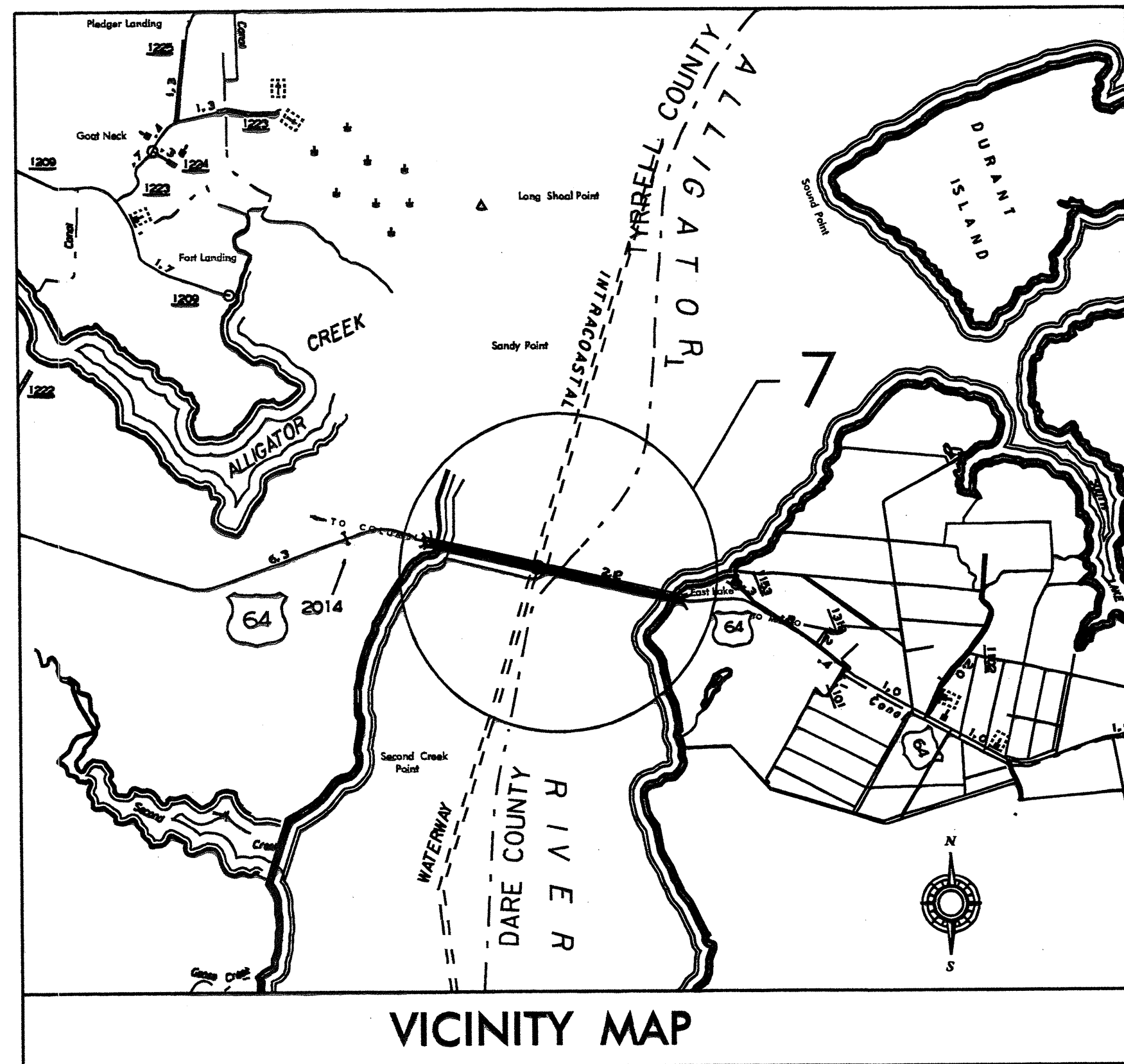


B-5195

CONTRACT NO. 202503



VICINITY MAP

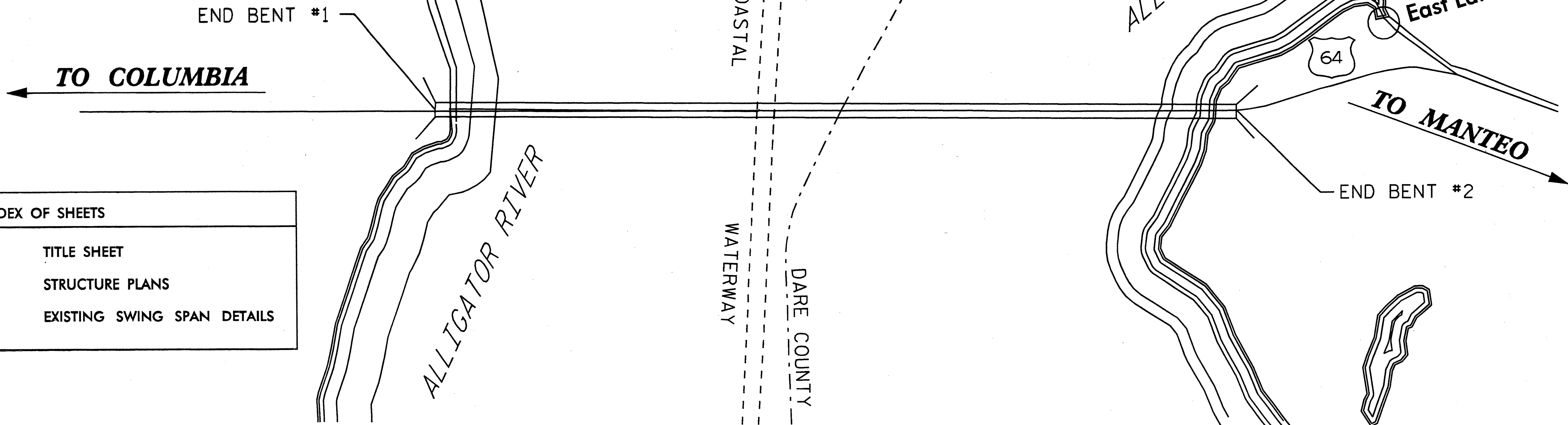
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TYRRELL /DARE COUNTIES

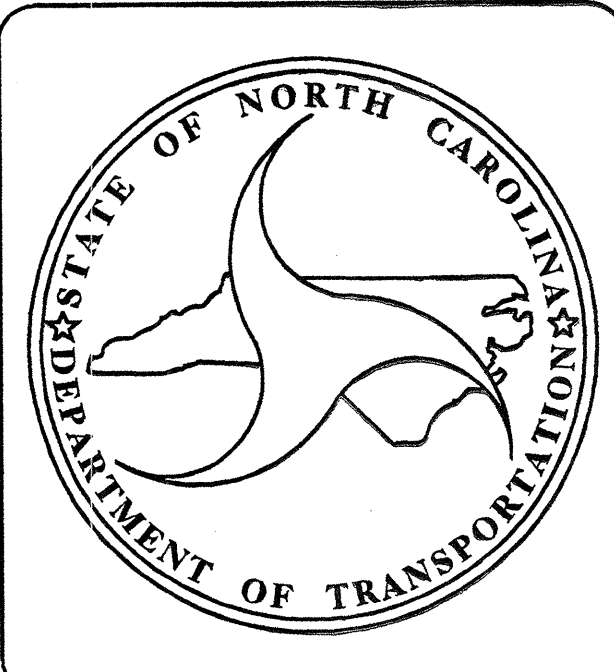
LOCATION: TYRRELL CO. BRIDGE #7, ON US 64, OVER THE ALLIGATOR RIVER.

TYPE OF WORK: BRIDGE PRESERVATION (REPAIRS TO BRIDGE UNDER DECK PILES, CAPS, DIAPHRAGMS, GIRDERS; CLEANING AND PAINTING OF DRAWSPAN).

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-5195	1	12
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
42608.1.STI	STM-0064 (135)	PE	
45288.3.STI	STM-0064 (135)	CONST	



INDEX OF SHEETS	
1	TITLE SHEET
S1 THRU S9	STRUCTURE PLANS
S10 THUR S12	EXISTING SWING SPAN DETAILS



DESIGN DATA

PROJECT DATA

BRIDGE CONSISTS OF 291 SPANS @ VARIOUS LENGTHS AND 2 SPANS @ 131'. 289 BENTS, 2 REST BENTS, END BENT #1 AND SEA WALL @ END BENT #2

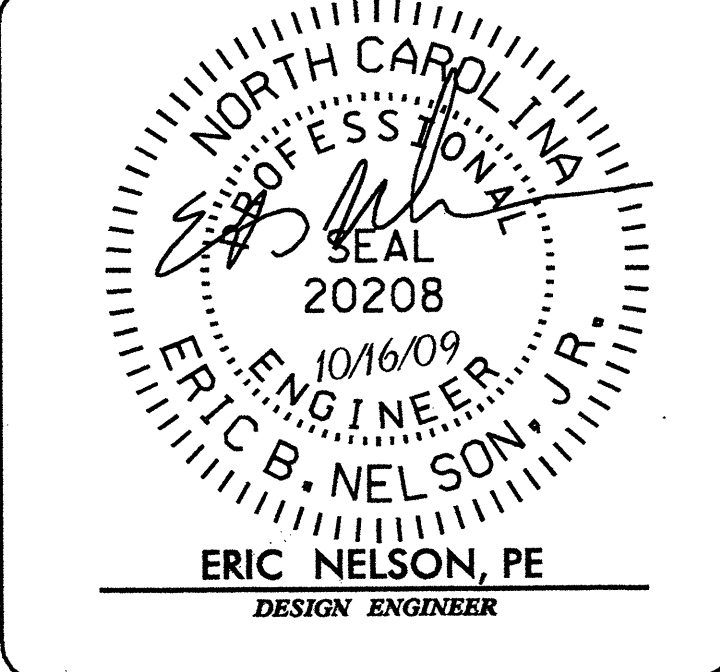
BRIDGE LENGTH IN TYRRELL COUNTY = APPROX. 1.43 MILES
BRIDGE LENGTH IN DARE COUNTY = APPROX. 1.40 MILES
TOTAL BRIDGE LENGTH = APPROX. 2.83 MILES

Prepared In the Office of:
DIVISION OF BRIDGE MANAGEMENT

2006 STANDARD SPECIFICATIONS

LETTING DATE: 1/19/2010

DAN HOLDERMAN, PE
PROJECT ENGINEER



STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SUMMARY OF QUANTITIES

Line #	ItemNumber	Sec #	Description
STRUCTURE ITEMS			
0001	8000000000-N	800	MOBILIZATION (STRUCTURES)
0002	8217000000-E	425	REINFORCING STEEL (BRIDGE)
0003	8860000000-N	SP	GENERIC STRUCTURE ITEM CLEANING AND PAINTING EXISTING STRUCTURE
0004	8860000000-N	SP	GENERIC STRUCTURE ITEM POLLUTION CONTROL
0005	8860000000-N	SP	GENERIC STRUCTURE ITEM UNDER STRUCTURE WORK PLATFORM
0006	8867000000-E	SP	GENERIC STRUCTURE ITEM CONCRETE PILE JACKET
0007	8867000000-E	SP	GENERIC STRUCTURE ITEM H-PILE JACKETS
0008	8867000000-E	SP	GENERIC STRUCTURE ITEM REJACKETS
0009	8882000000-E	SP	GENERIC STRUCTURE ITEM REPAIRS TO CAPS, DIAPHRAGMS, AND UNDER DECK
0010	8882000000-E	SP	GENERIC STRUCTURE ITEM REPAIRS TO PRESTRESSED CONCRETE GIRDERS

5/28/99

 08-DEC-2009 07:52
 s:\contracts\contracts\special_details\britt\english\misc\summary of quantities sheet.dgn
 sheet1 - All ps24552

BENT	DIRECTION	DESCRIPTION	CU FT
4	-	BOC- RT SIDE	9.00
8	-	BOC- LT SIDE	0.63
12	-	BOC- B/N PILES #2 & #3	0.33
13	BK	BRACE CAP #1	0.50
15	AH	DIAPHRAGM #2	0.67
30	AH	GIRDER #4	0.50
36	AH	GIRDER #4 (3/4 FROM BT 36)	0.12
41	AH	GIRDER #4	0.08
44	AH	GIRDER #3	0.50
45	-	BOC- NEAR PILE #1	0.11
47	AH	GIRDER #4	0.34
54	-	GIRDER #4	0.34
57	-	GIRDER #1	0.16
58	AH	GIRDER #4 (MIDWAY OF SPAN)	0.34
65	-	GIRDER #2	0.22
71	-	DIAPHRAGM #3	1.65
73	BK	GIRDER #3 (NEAR BT #72)	0.84
73	AH	GIRDER #2	0.06
74	BK	GIRDER #2 (NEAR BT #73)	0.08
74	BK	GIRDER #3 (NEAR BT #73)	0.08
78	-	CAP- NEAR PILE #4- EOC	2.68
81	-	BRACE CAP #2	2.40
82	BK	GIRDER #1	0.12
82	AH	GIRDER #4	0.12
84	BK	GIRDER #3	0.08
85	-	PILE #3- NEAR CAP	1.00
85	AH	BRACE CAP #1	0.50
87	AH	GIRDER #2	0.14
88	AH	GIRDER #4	0.14
97	BK	DIAPHRAGM #2	1.00
98	BK	GIRDER #1	0.06
98	BK	GIRDER #3	0.12
102	AH	DIAPHRAGM #2	0.17
104	AH	GIRDER #1	0.06
104	AH	GIRDER #2 (MIDWAY)	0.08
106	AH	GIRDER #2	0.12
110	BK	GIRDER #3	0.02
110	AH	GIRDER #2	0.06
114	BK	DIAPHRAGM #2	0.33
114	BK	DIAPHRAGM #3	0.13
		UNDERSIDE OF TRNDER HOUSE- NEAR SEWER TANK	8.00
	WEST	BT @ DRAWBRIDGE-BOC-LT SIDE	4.00
	WEST	BT @ DRAWBRIDGE-B/N PILES 10 & 11	2.00
	EAST	BT @ DRAWBRIDGE-BOC- NUMEROUS	40.00
115	BK	DIAPHRAGM #3	0.33
116	-	CAP LT SIDE TOP	0.17
117	-	BOC- B/N PILES #1 & #2	0.45
119	BK	DIAPHRAGM #2	0.33
120	BK	BRACE CAP #1	1.00
120	BK	BRACE CAP #2	2.66
120	BK	GIRDER #4	0.08
121	AH	GIRDER #2	0.12
123	AH	GIRDER #4	0.34
123	AH	DIAPHRAGM #1	0.11
124	BK	BRACE CAP #1	1.25
124	AH	BOC- B/N PILES #1 & #2	1.00
125	AH	GIRDER #2	0.12
127	BK	CAP 2 PILE #1	1.34
128	BK	GIRDER #4	1.06
128	AH	GIRDER #3	0.12
133	AH	DIAPHRAGM #1	0.45
134	BK	DIAPHRAGM #2	0.45
134	BK	BOC @ PILE #1	0.50
136	AH	GIRDER #3	0.08
140	AH	CAP LT SIDE	0.38
140	-	BOC- B/N BRACE CAPS	0.33
142	BK	OUTSIDE DIAPHRAGM- RT SIDE	0.33
143	-	BOC- NEAR PILE #1 (2 AREAS)	1.00
145	-	BOC- B/N PILES #1 TO #4	56.00
146	-	END OF CAP- RT SIDE	0.11
147	-	END OF CAP- LT SIDE	0.11
148	AH	GIRDER #3	0.16
154	AH	GIRDER #3 (MIDWAY)	0.66
156	-	BOC- NEAR PILE #1	0.50
156	-	BOC- NEAR PILE #1	0.67

BENT	DIRECTION	DESCRIPTION	CU FT
156	-	BOC- NEAR PILE #1	0.67
156	-	BOC- BRACE CAP #2	2.00
157	BK	GIRDER #3	1.02
158	BK	CAP RT SIDE	0.50
159	-	BOC- B/N PILES #2 & #3	0.39
159	-	BOC- B/N PILES #2 & #3	0.30
160	-	BRACE CAP #1	2.50
161	-	BOC- B/N PILES #2 & #3	0.75
162	BK	BOC- PILE #2	12.50
162	AH	BOC- PILE #3	0.75
162	AH	BOC- PILES #2	0.25
162	AH	GIRDER #4	0.16
163	BK	GIRDER #1	0.10
163	AH	BOC- B/N PILES #2 & #3	6.00
164	-	BOC- PILE #1	0.25
164	-	BOC- PILE #4	0.33
165	AH	BOC- PILE #3	1.00
167	AH	BOC- PILE #1	0.17
167	-	BOC- RT SIDE	0.28
168	BK	BRACE CAP #1	1.00
168	BK	B/N BRACE CAPS	1.50
170	BK	BOC- PILE #3	0.25
170	AH	BOC- PILE #3	0.25
172	-	BOC- PILE #1	0.25
174	-	BOC- B/N PILES #1 & #2	1.50
176	-	BRACE CAP #1	1.20
177	AH	GIRDER #1	0.12
178	-	BOC- LT SIDE	0.25
179	-	BOC- B/N PILES #1 & #2	0.17
179	-	BOC- B/N PILES #2 & #3	0.17
180	-	BOC- B/N PILES #1 & #2	0.17
180	-	B/N BRACE CAPS	0.33
182	-	BOC- PILE #2	0.33
184	-	BRACE CAP #1	1.5
184	-	BOC- RT SIDE	0.50
185	-	BOC- B/N PILES #1 & #2	0.44
186	-	BOC- B/N PILES #1 & #2	0.33
187	-	BOC- LT SIDE	0.38
187	-	BOC- RT SIDE	0.21
188	AH	GIRDER #2	0.38
190	-	BOC- B/N PILE #2 & #3	2.00
190	-	CAP- RT SIDE	0.50
190	-	BOC- B/N PILES #3 & #4	0.75
191	-	BOC- PILE #2	0.25
191	-	BOC- PILE #1	0.25
191	AH	GIRDER #1	0.08
192	-	BRACE CAP #2	1.33
194	BK	GIRDER #3	0.32
194	-	BOC- BRACE CAP #2	1.50
195	BK	CAP- RT SIDE	0.22
195	-	BOC- B/N PILES #2 & #3	2.00
195	-	BOC- PILE #1	0.25
196	-	B/N BRACE CAPS #1 & #2	0.25
196	-	BOC- RT SIDE	2.00
197	AH	BOC- PILE #2	0.75
198	AH	BOC- B/N PILES #1 & #2	10.00
199	BK	BOC- B/N PILES #2 & #3	10.00
199	BK	BOC- B/N PILES #1 & #2	2.00
200	BK	BRACE CAP #1	0.66
201	-	BOC- PILE #1	0.17
203	-	BOC- PILE #1	4.00
203	AH	BOC- PILE #2	1.00
204	-	BOC- PILE #1	0.50
205	-	BOC- PILE #1	0.50
205	AH	GIRDER #3	0.44
206	AH	BOC- B/N PILES #2 & #3	5.00
207	-	BOC- B/N PILES #1 & #2	2.00
208	-	BRACE CAP #2	3.35
208	-	BOC- PILE #1	0.33
210	-	BOC- PILE #2	0.14
210	-	BOC- B/N PILES #1 & #2	0.33
213	BK	BOC- PILE #2	2.00
213	-	BOC- PILE #1	0.25
215	AH	BOC- B/N PILES #2 & #3	3.00
216	BK	BRACE CAP #2- SECTION LOSS IN STEEL	1.00

BENT	DIRECTION	DESCRIPTION	CU FT
216	-	BOC PILE #4	1.25
218	-	BOC- B/N PILES #2 & #3	0.42
219	-	BOC- B/N PILE #1 TO #3	24.00
220	-	B/N BRACE CAPS #1 & #2	0.42
223	AH	DIAPHRAGM #3	0.33
226	BK	DIAPHRAGM #1	0.67
226	BK	DIAPHRAGM #2	0.67
226	BK	DIAPHRAGM #3	0.38
226	AH	DIAPHRAGM #1	4.50
227	AH	DIAPHRAGM #3	1.50
227	AH	DIAPHRAGM #2	0.17
227	AH	GIRDER #4 (1/4 FROM BT 227)	0.24
228	BK	DIAPHRAGM #1	5.00
228	AH	DIAPHRAGM #1	0.33
229	AH	DIAPHRAGM #2	7.50
229	AH	DIAPHRAGM #3	0.42
230	BK	DIAPHRAGM #1	0.33
235	AH	DIAPHRAGM #1	1.34
238	-	BOC- B/N PILE #3 & #4	0.17
240	BK	DIAPHRAGM #3	0.33
240	AH	GIRDER #3 (10' FROM BT)	0.06
241	-	BOC- LT SIDE NEAR PILE #1	0.33
244	BK	BRACE CAP #2	0.38
246	AH	OUTSIDE DIAPHRAGM- LT SIDE	0.27
249	BK	DIAPHRAGM #2	0.33
250	-	BOC- B/N PILES #1 & #2	0.11
250	BK	DIPHRAGM #3	0.50
251	-	BOC- PILE #1	0.67
253	AH	DIAPHRAGM #2	0.21
256	BK	BRACE CAP #1	0.67
256	BK	DIAPHRAGM #2	1.00
257	BK	OUTSIDE DIAPHRAGM- LT SIDE	0.22
259	AH	DIAPHRAGM #2	0.27
259	AH	GIRDER #2	0.26
259	AH	DIAPHRAGM #3	1.37
260	BK	DIAPHRAGM #3	0.22
260	AH	DIAPHRAGM #1	0.21
260	AH	GIRDER #3	0.42
261	AH	DIAPHRAGM #1	0.50
262	AH	DIAPHRAGM #2	0.75
262	AH	DIAPHRAGM #1	2.50
263	AH	DIAPHRAGM #1	0.83
	-	SPAN 263- GIRDER #3 (1/3 WAY)	0.16
264	-	BOC- B/N BRACE CAPS	0.28
267	-	BOC- PILE #1	0.75
268	-	DIAPHRAGM #2	0.25
269	-	GIRDER #1	0.16
270	-	BOC- LEFT END	0.63
271	-	BOC- PILE #5	0.16
272	-	SPAN 274- GIDER #4 @ BT 272	1.62
273	-	SPAN 275- GIDER #2 @ BT 273	1.44
274	BK	B/N PEDESTALS #3 & #4	1.00
277	BK	B/N PEDESTALS #3 & #4	0.38
282	BK	B/N PEDESTALS #2 & #3	0.58
282	AH	B/N PEDESTALS #1 & #2	1.25
282	-	PEDESTAL #4 (ALL SIDES)	0.58
		TOTAL CAP, GIRDER & DIAPHRAGM REPAIRS	340.48

SPAN	DESCRIPTION	CU FT
270	BOTTOM OF DECK (BAY 1)	0.35
277	BOTTOM OF DECK (VARIOUS AREAS) 20% DAMAGE	21.58
278	BOTTOM OF DECK (VARIOUS AREAS)	7.48
279	BOTTOM OF DECK (VARIOUS AREAS) 25% DAMAGE	26.98
280	BOTTOM OF DECK (VARIOUS AREAS) 50% DAMAGE	53.95
283	BOTTOM OF DECK (VARIOUS AREAS)	3.00
284	BOTTOM OF DECK (VARIOUS AREAS)	4.00
285	BOTTOM OF DECK (VARIOUS AREAS) 20% DAMAGE	21.58
286	BOTTOM OF DECK (VARIOUS AREAS) 10% DAMAGE	10.79
291	BOTTOM OF DECK (VARIOUS AREAS)	3.10
292	BOTTOM OF DECK (VARIOUS AREAS) 5% DAMAGE	5.40
	TOTAL UNDER DECK REPAIR	158.21

TOTAL BILL OF MATERIAL	
DESCRIPTION	QUANTITY
REINFORCING STEEL	500 LBS
CLEANING AND PAINTING EXISTING STRUCTURE	LS
POLLUTION CONTROL	LS
REPAIRS TO CAPS, DIAPHRAGMS, AND UNDER DECK	484.5 CF
REPAIRS TO PRESTRESSED CONCRETE GIRDERS	14.2 CF
UNDER STRUCTURE WORK PLATFORM	LS
CONCRETE PILE JACKETS	153 LF
H-PILE JACKETS	124 LF
REJACKETS	49 LF

KEY
BOC - BOTTOM OF CAP
AH - AHEAD STATION
BK - BACK STATION
B/N - BETWEEN

PROJECT NO. B-5195
COUNTY: TYRRELL
STATION: _____
BRIDGE NO. 7

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RAILROAD
CAP, GIRDER, DIAPHRAGM,
& UNDER DECK REPAIR.
QUANTITY & LOCATIONS
CHARTS

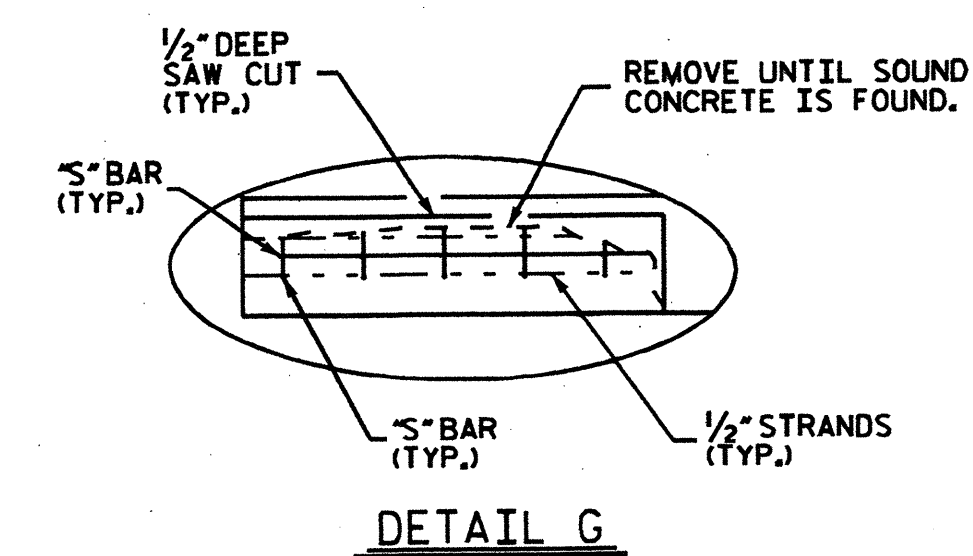
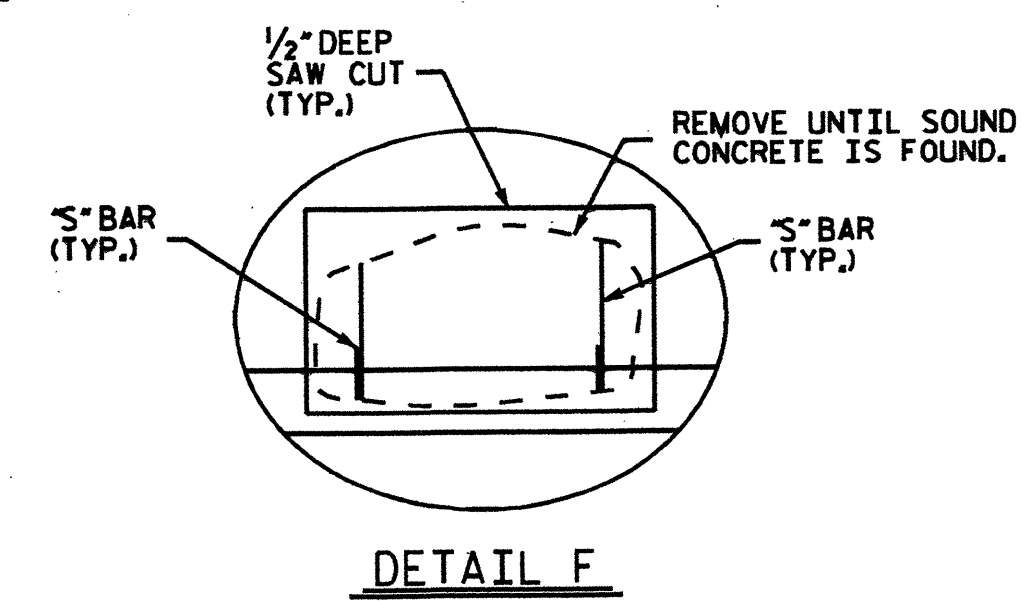
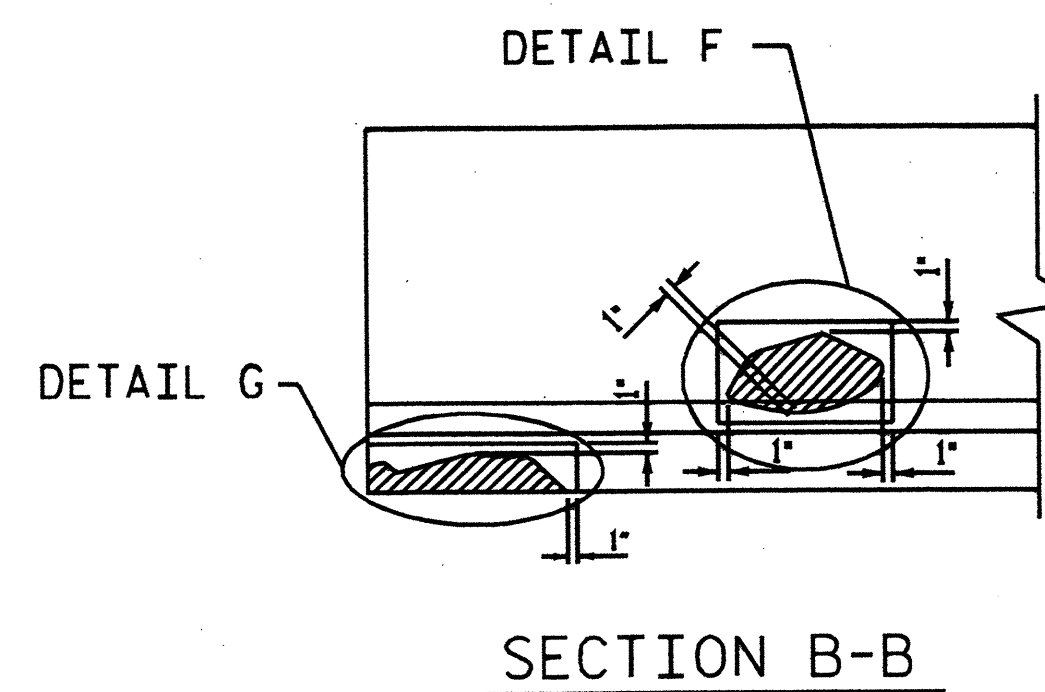
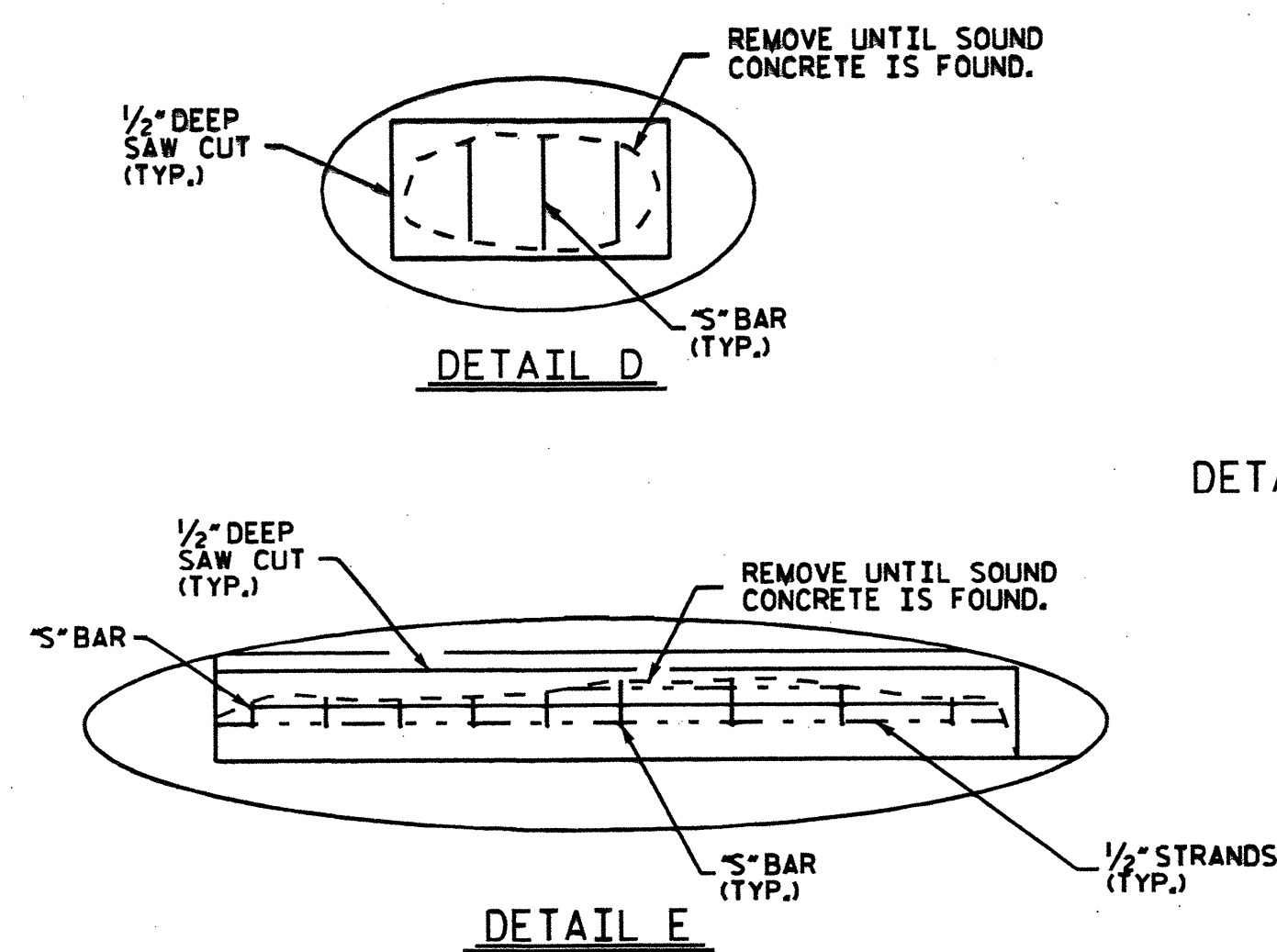
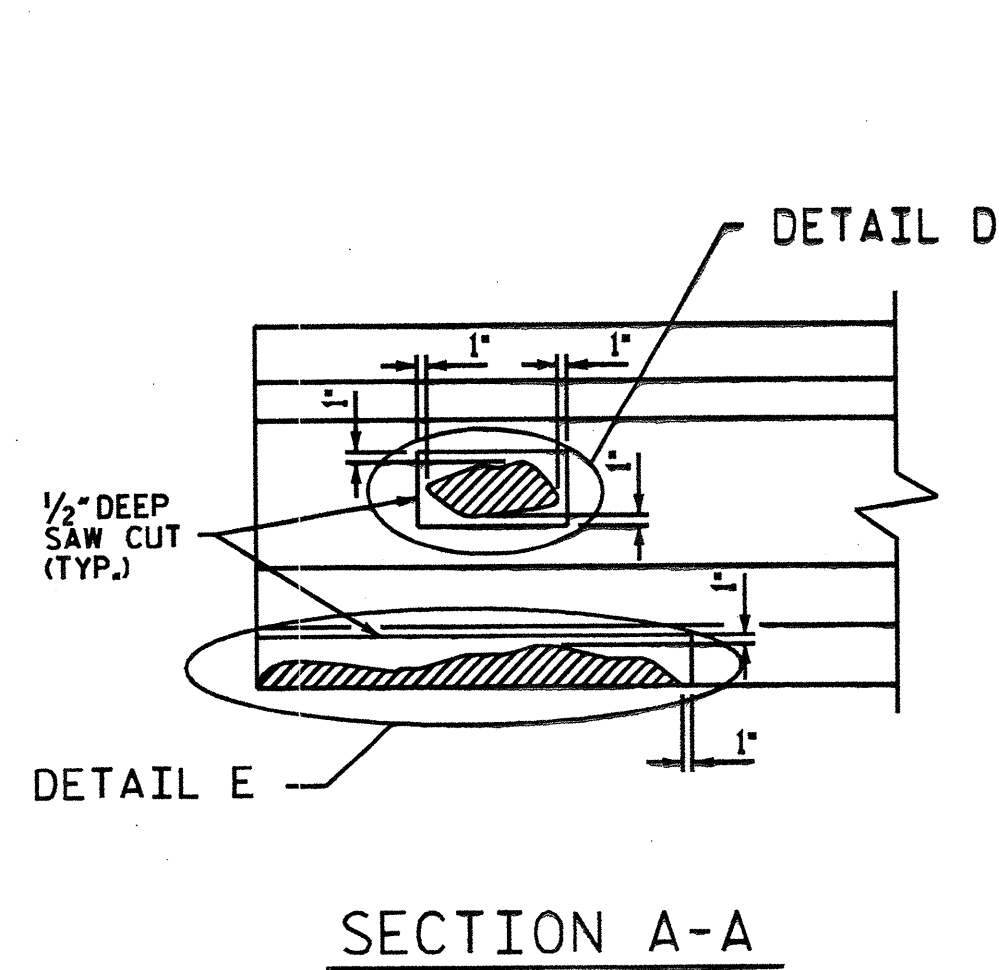
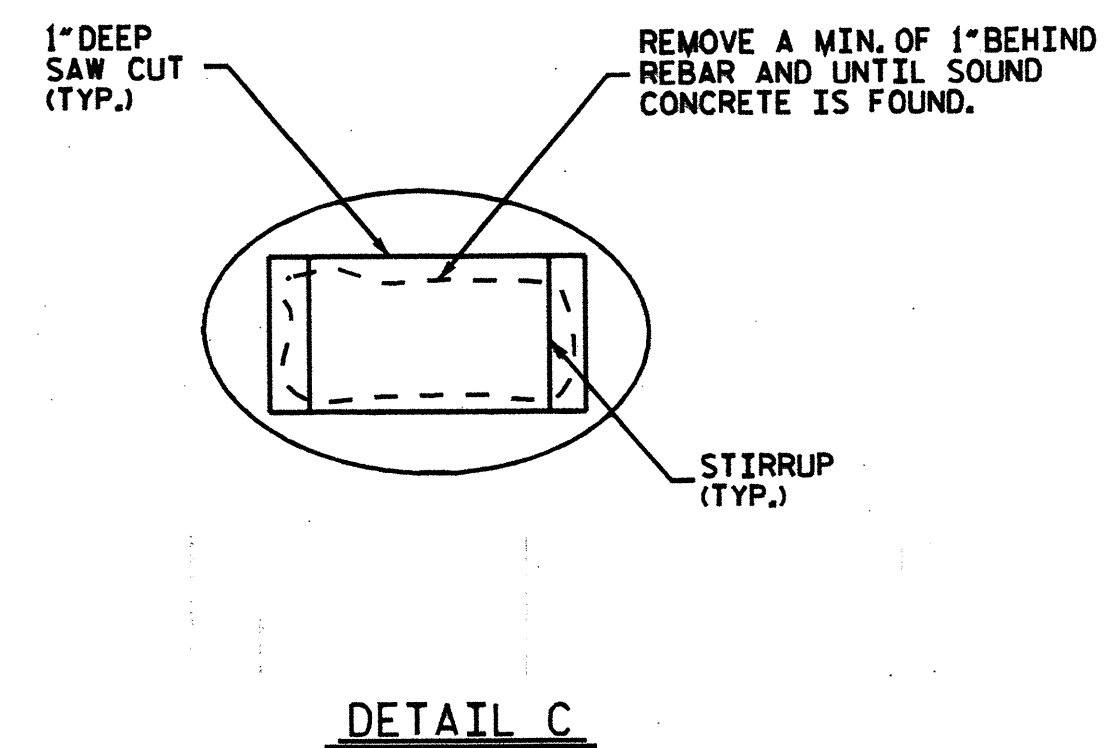
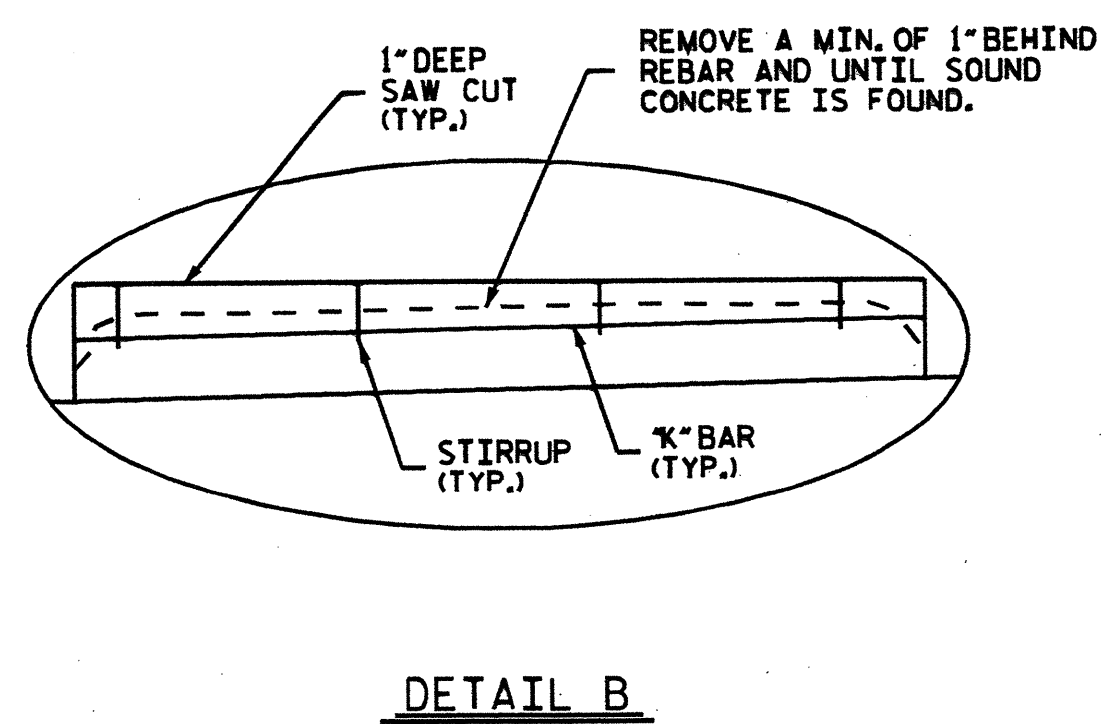
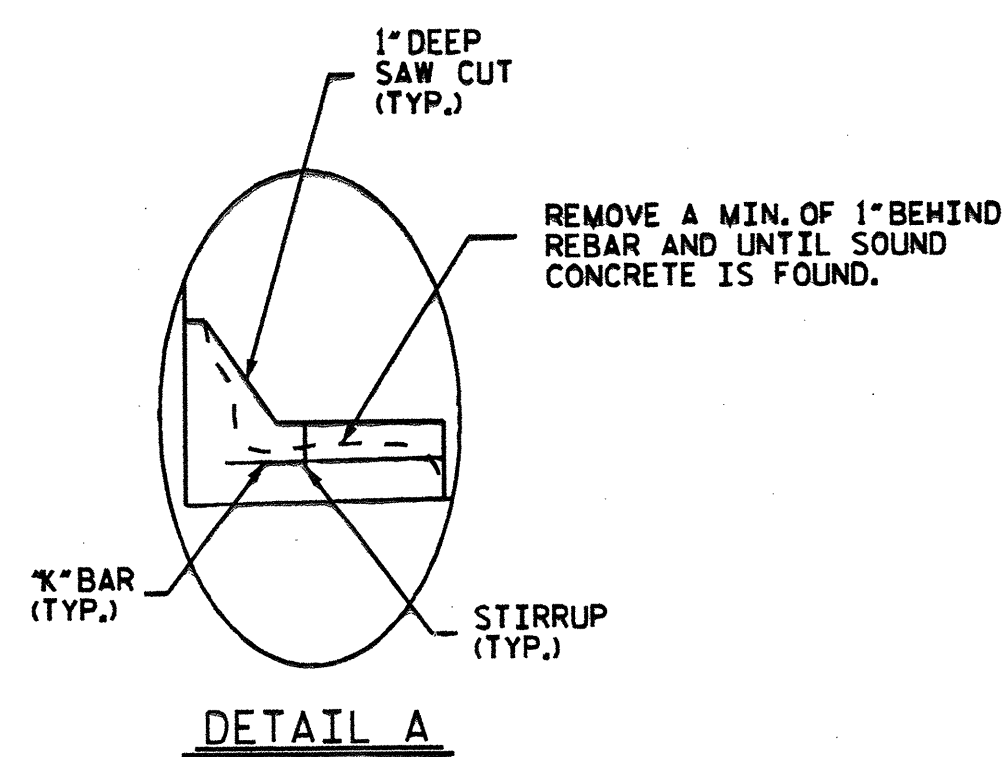
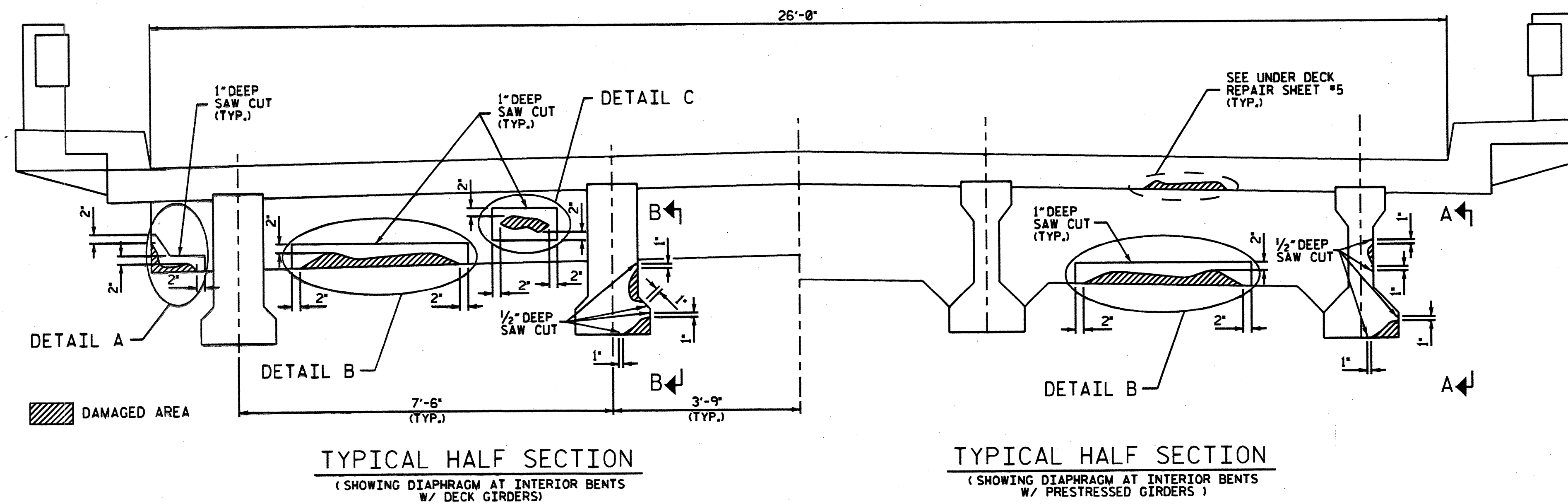
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NO.	BY	DATE	NO.	BY	DATE	TOTAL QUANTITY
1			3			
2			4			

DRAWN BY: CLB DATE: 03/08
CHECKED BY: EBN DATE: 04/08

*****SERIAL***** *****SYTIME*****

NOTES

1. SPALL DIMENSIONS SHOWN ARE APPROXIMATE.
2. REINFORCEMENT TO BE GRADE 60.
3. ADHESIVELY ANCHORED REINFORCING STEEL WILL BE TESTED FOR ADHESIVE BONDING AND PULLOUT STRENGTH. SEE SPECIAL PROVISIONS.
4. REPAIR MATERIAL FOR CAP SPALLS, DIAPHRAGM AND UNDER DECK REPAIR SHALL BE SHOTCRETE OR POLYMER MODIFIED CONCRETE.
5. REPAIR MATERIAL FOR PRESTRESSED GIRDERS SHALL BE POLYMER MODIFIED CONCRETE.



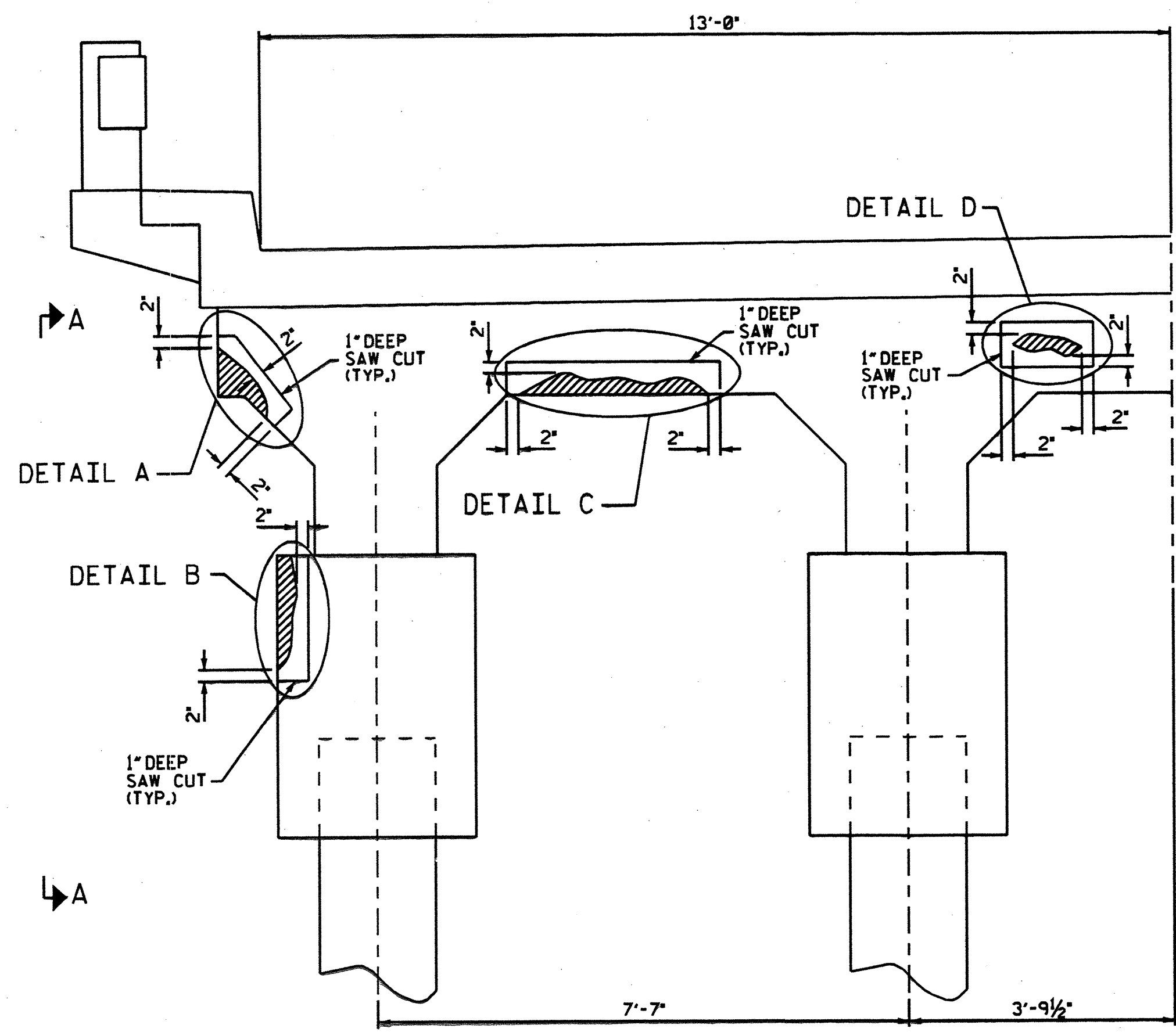
PROJECT NO. B-5195
 COUNTY: TYRRELL
 STATION:
 BRIDGE NO. 7

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RAILROAD
 TYPICAL GIRDER
 AND
 DIAPHRAGM
 REPAIRS

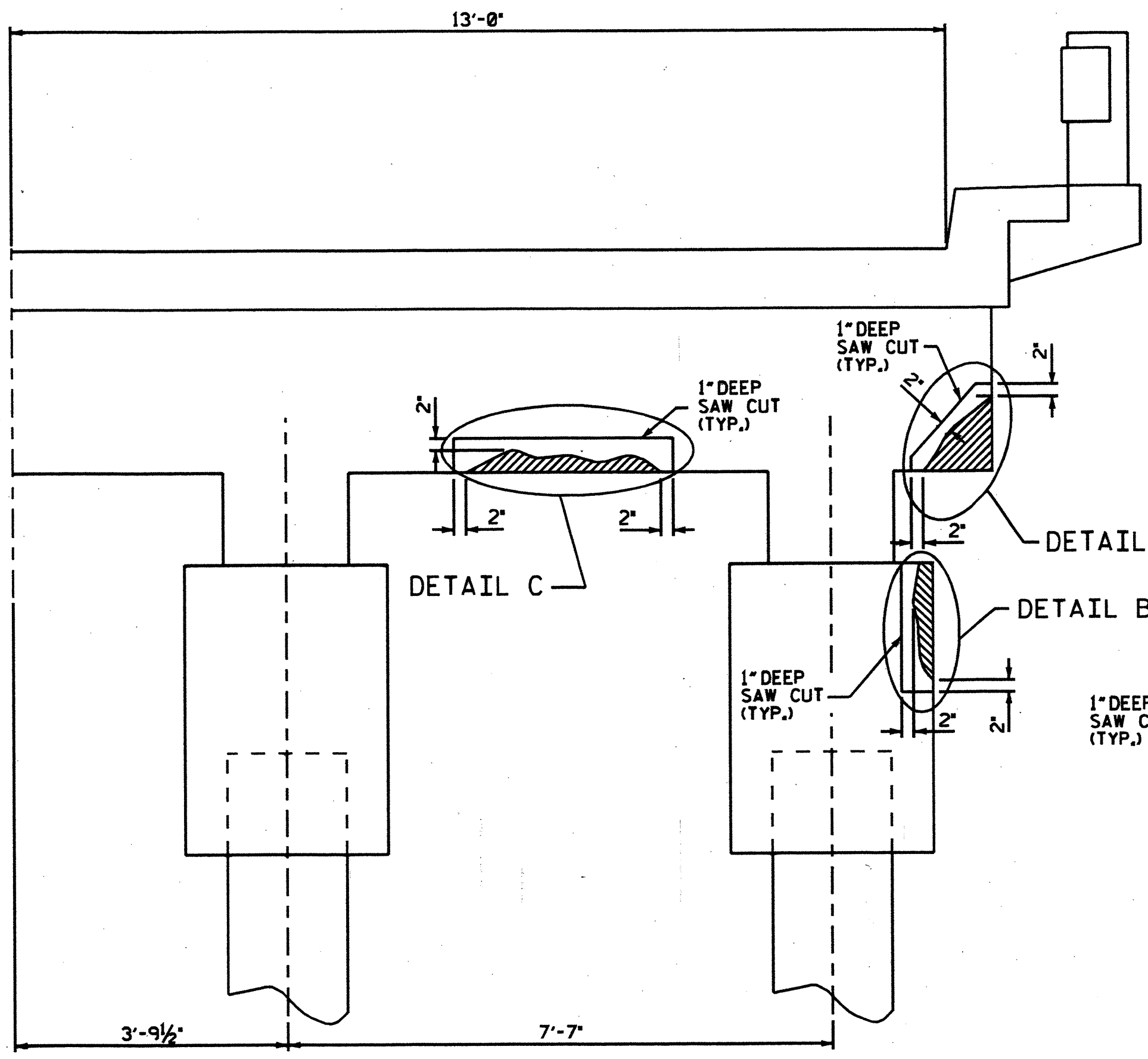
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NO.	BY	DATE	NO.	BY	DATE
1			3		
2			4		

SHEET NO. S-2
TOTAL SHEETS

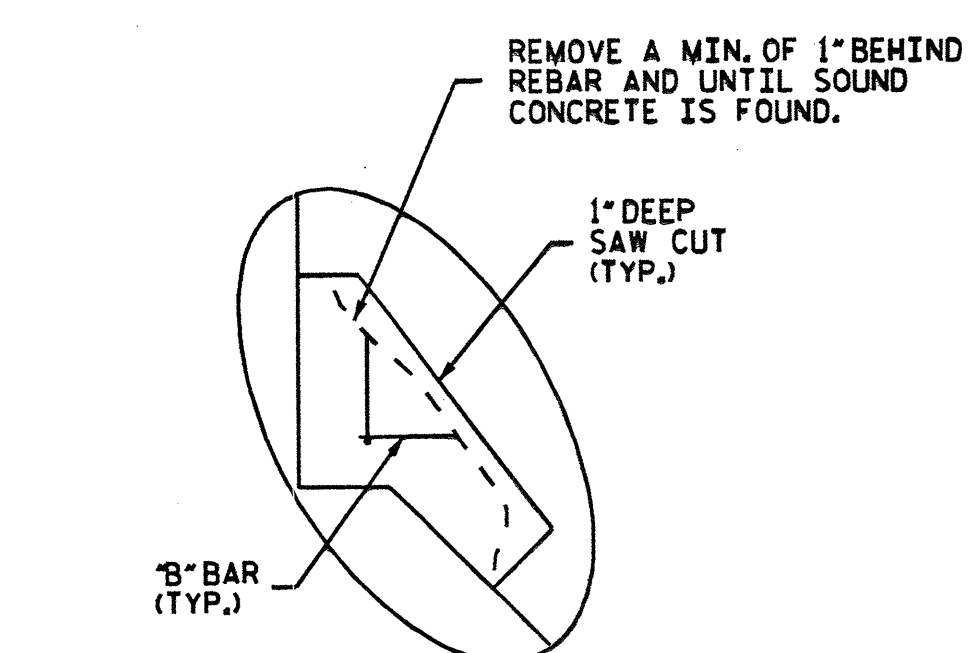
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 CHECKED BY: EBN DATE: 04/08



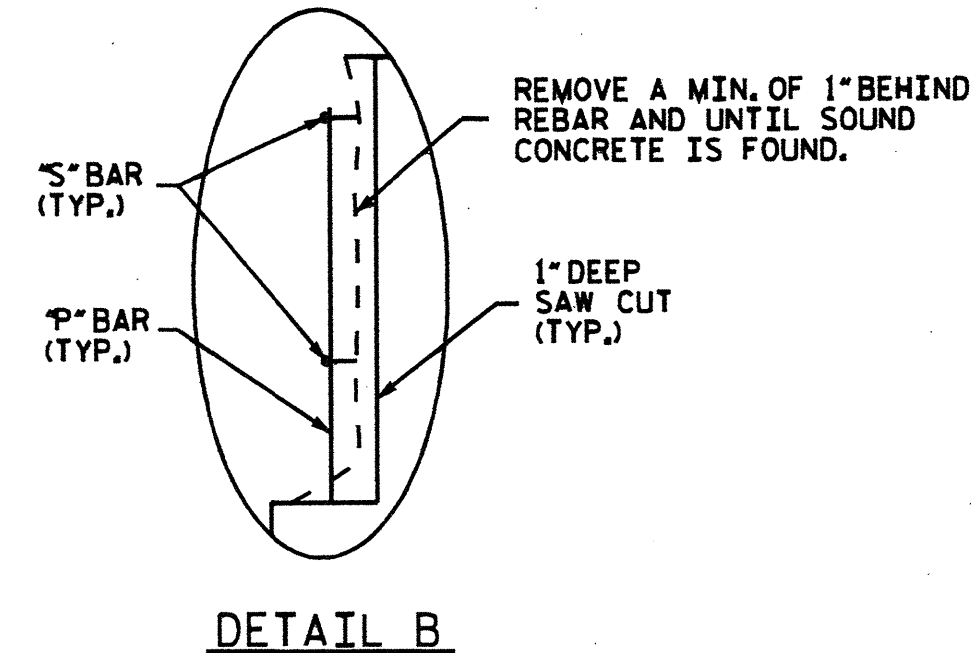
TYPICAL HALF SECTION
(AT FIXED BENTS)



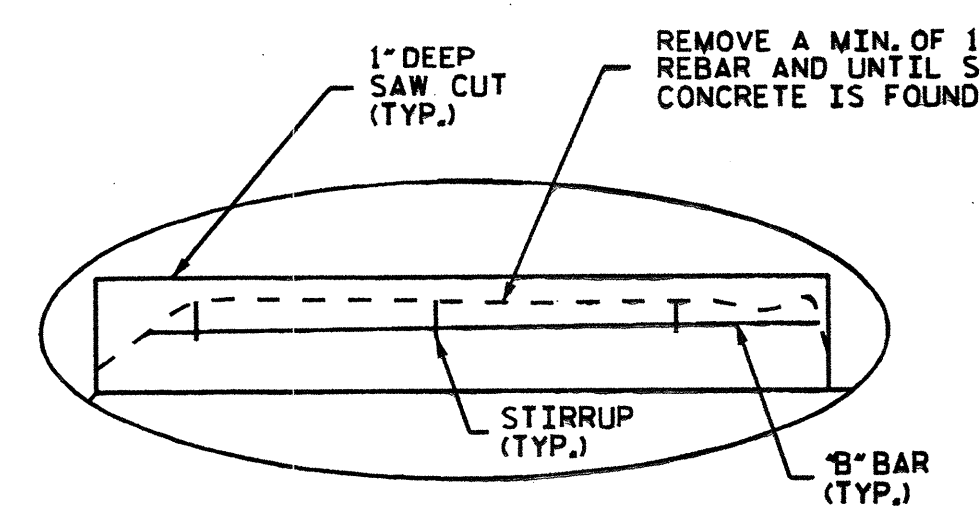
TYPICAL HALF SECTION
(AT EXPANSION BENTS)



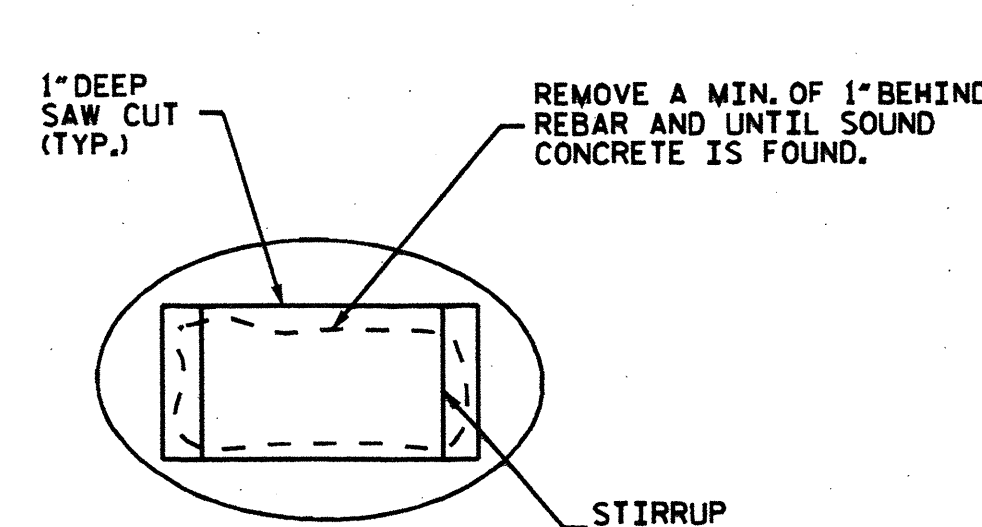
DETAIL A



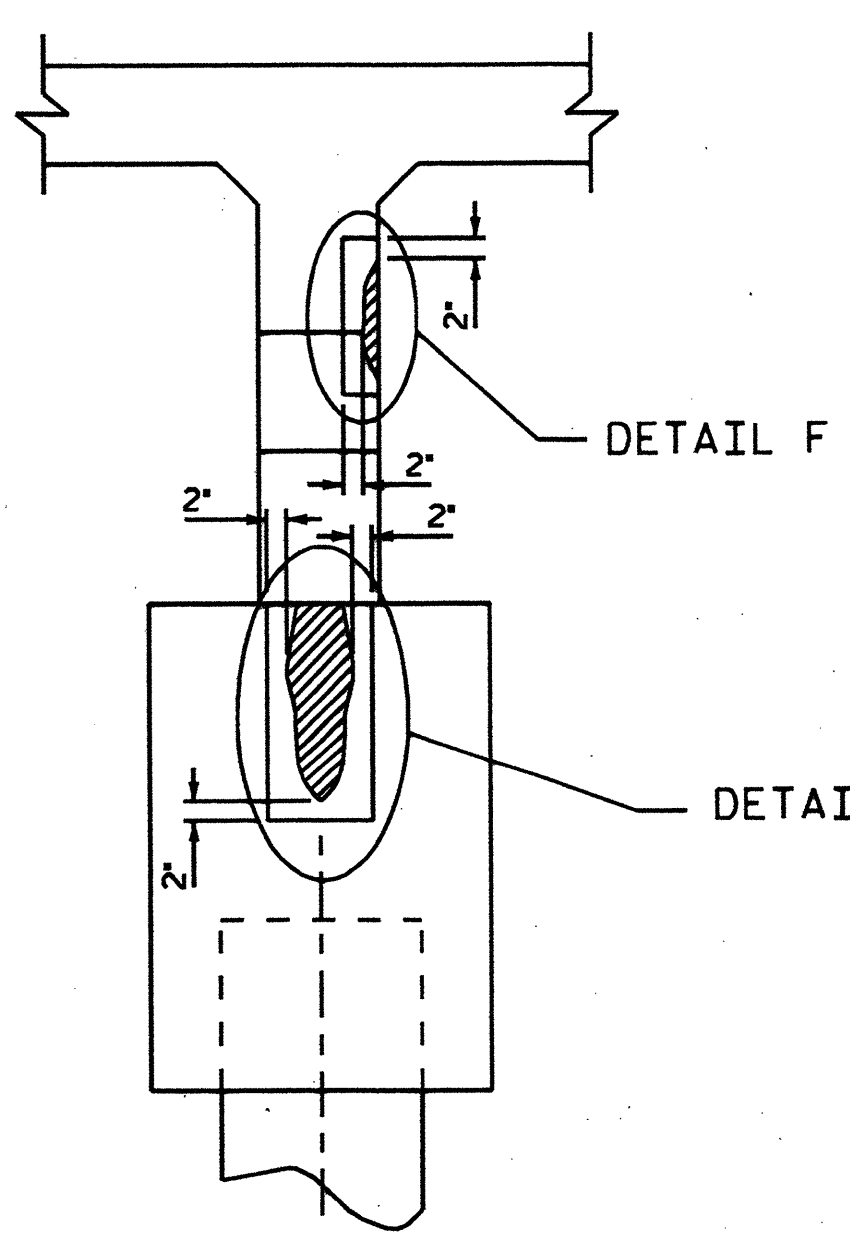
DETAIL B



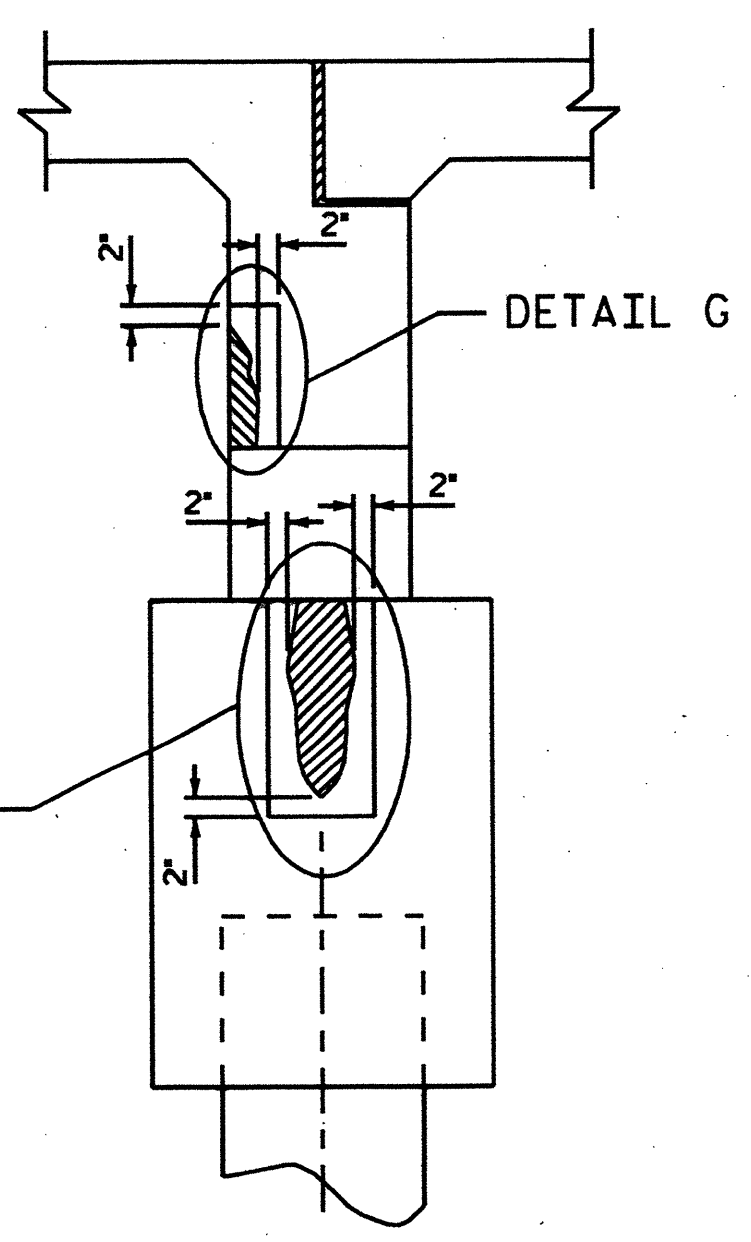
DETAIL C



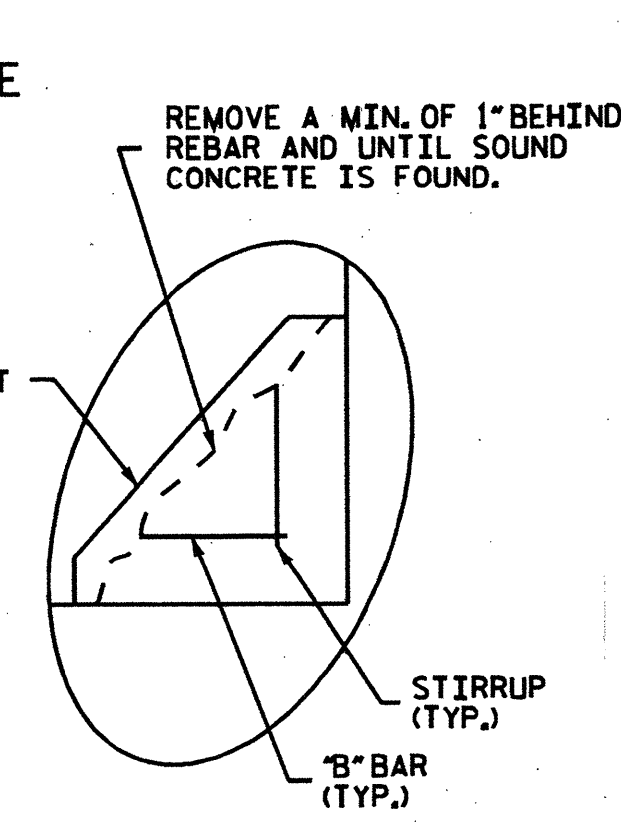
DETAIL D



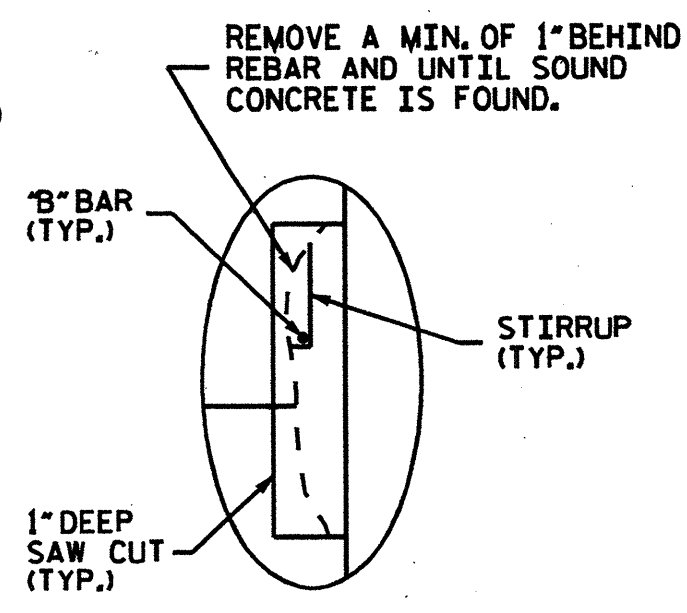
SECTION A-A
(INTERIOR BENT)



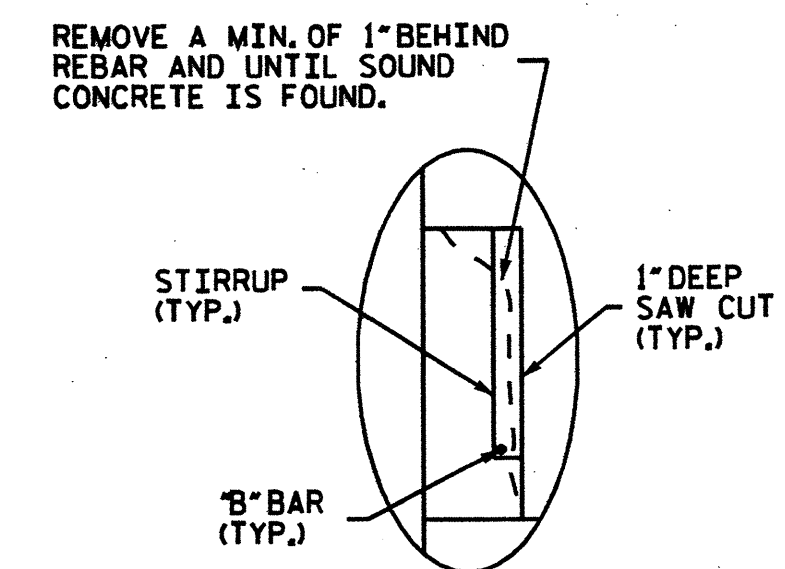
SECTION B-B
(EXPANSION BENT)



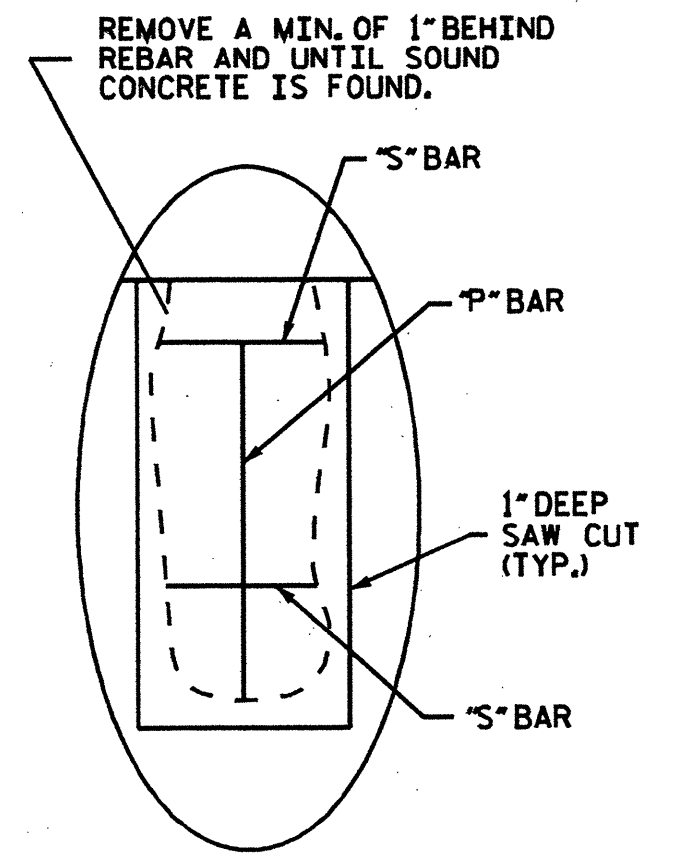
DETAIL E



DETAIL F



DETAIL G



DETAIL H

NOTES

1. SPALL DIMENSIONS SHOWN ARE APPROXIMATE.
2. REINFORCEMENT TO BE GRADE 60.
3. ADHESIVELY ANCHORED REINFORCING STEEL WILL BE TESTED FOR ADHESIVE BONDING AND PULLOUT STRENGTH. SEE SPECIAL PROVISIONS.
4. REPAIR MATERIAL FOR CAP SPALLS, DIAPHRAGM AND UNDER DECK REPAIR SHALL BE SHOTCRETE OR POLYMER MODIFIED CONCRETE.

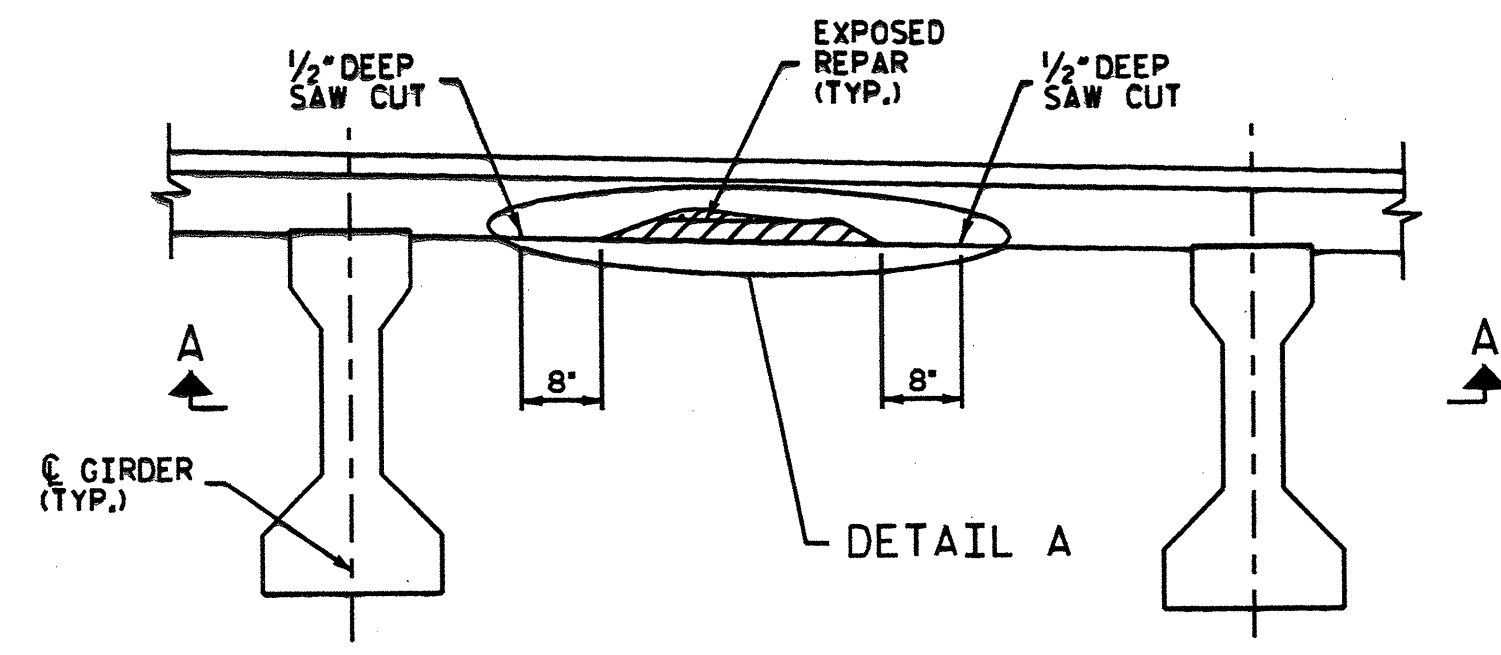
PROJECT NO. B-5195
 COUNTY: TYRRELL
 STATION: _____
 BRIDGE NO. 7

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALPHIGH					
TYPICAL INTEGRAL BENT REPAIRS					
REVISIONS					
NO.	BY	DATE	NO.	BY	DATE
1			3		
2			4		
					5-3

DRAWN BY: CLB DATE: 03/08
 CHECKED BY: EBN DATE: 04/08

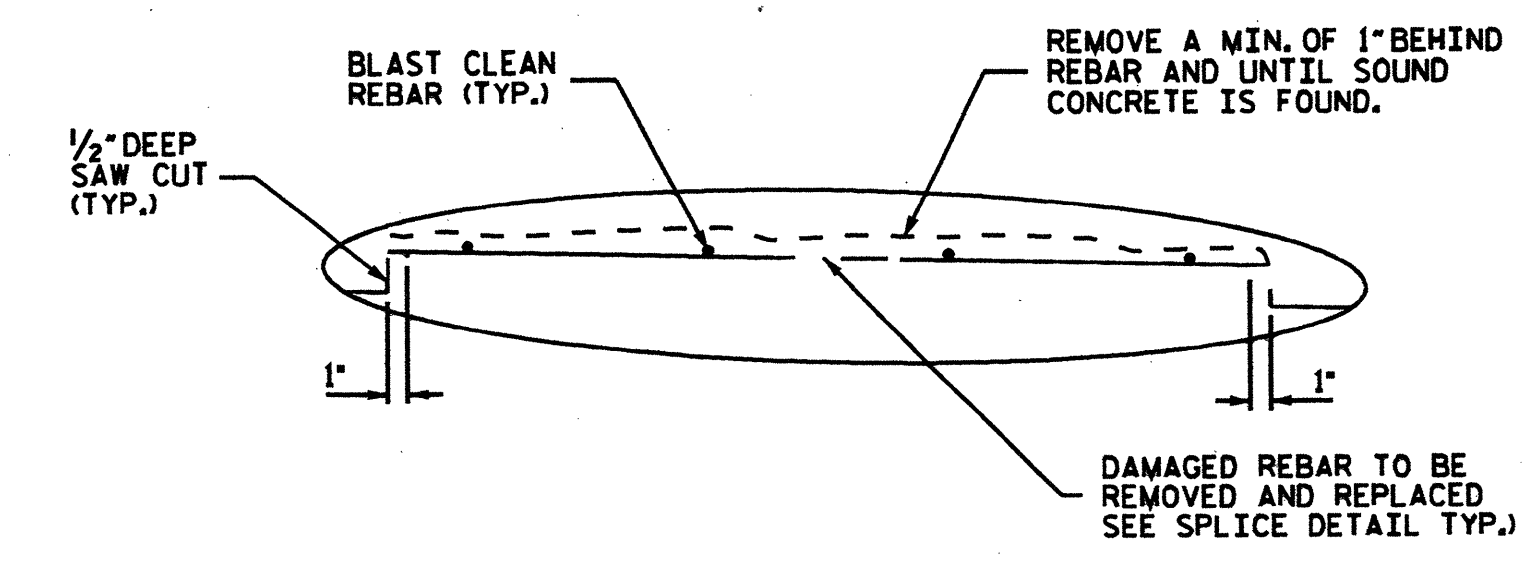
NOTES

1. SPALL DIMENSIONS SHOWN ARE APPROXIMATE.
2. REINFORCEMENT TO BE GRADE 60 AND EPOXY COATED.
3. ADHESIVELY ANCHORED REINFORCING STEEL WILL BE TESTED FOR ADHESIVE BONDING AND PULLOUT STRENGTH. SEE SPECIAL PROVISIONS.
4. REPAIR MATERIAL FOR CAP SPALLS, DIAPHRAGM AND UNDER DECK REPAIR SHALL BE SHOTCRETE OR POLYMER MODIFIED CONCRETE.

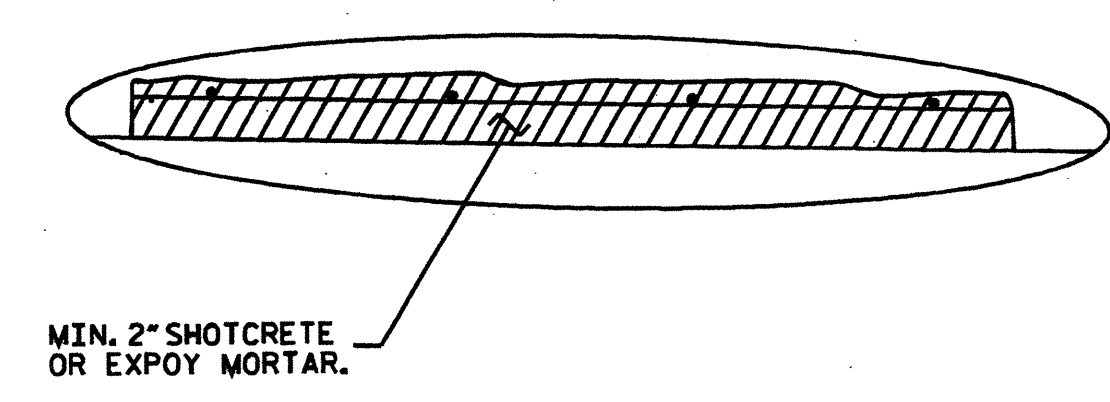


TYPICAL BAY SECTION

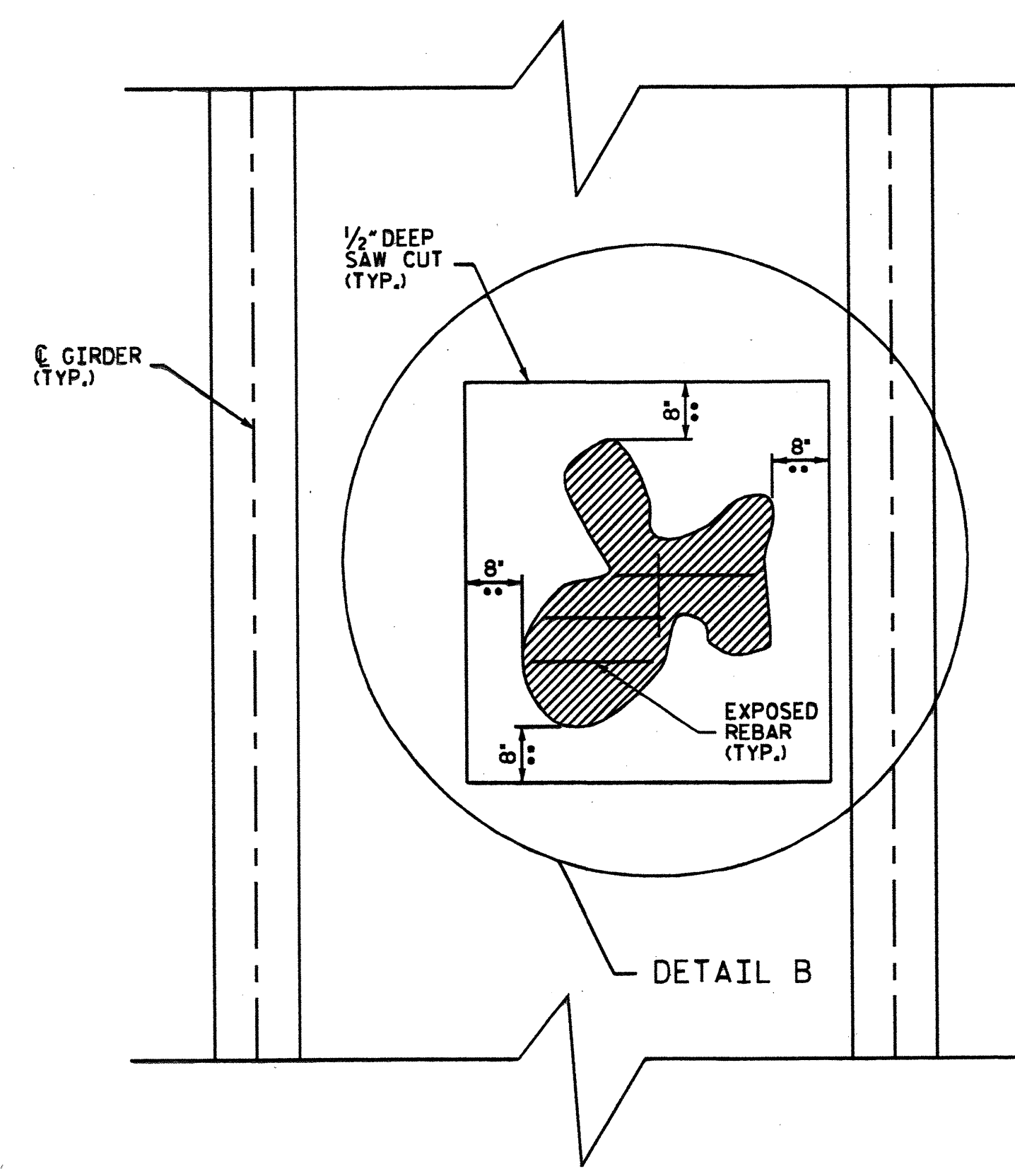
DAMAGED AREA



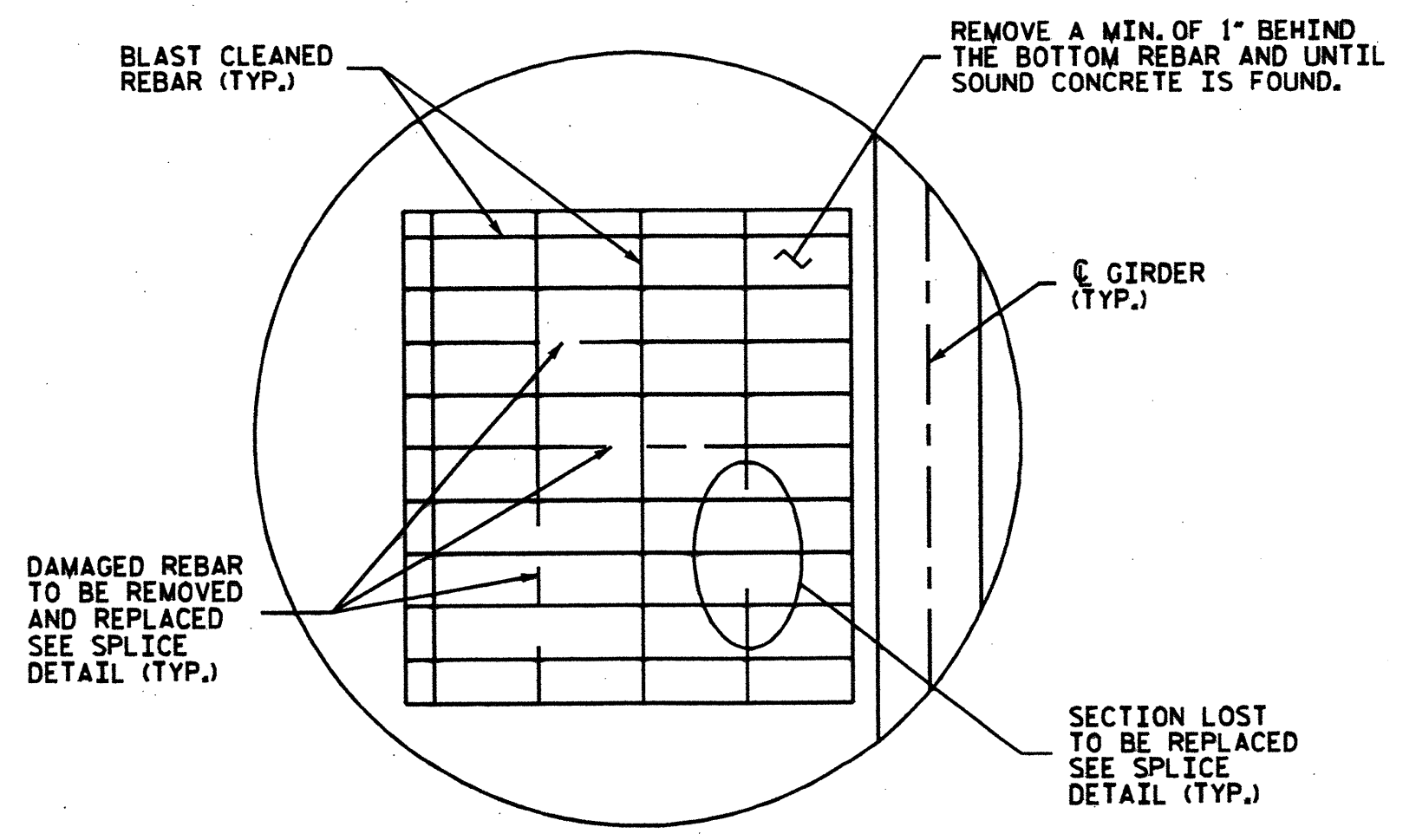
DETAIL A
(AFTER BLAST CLEANING)



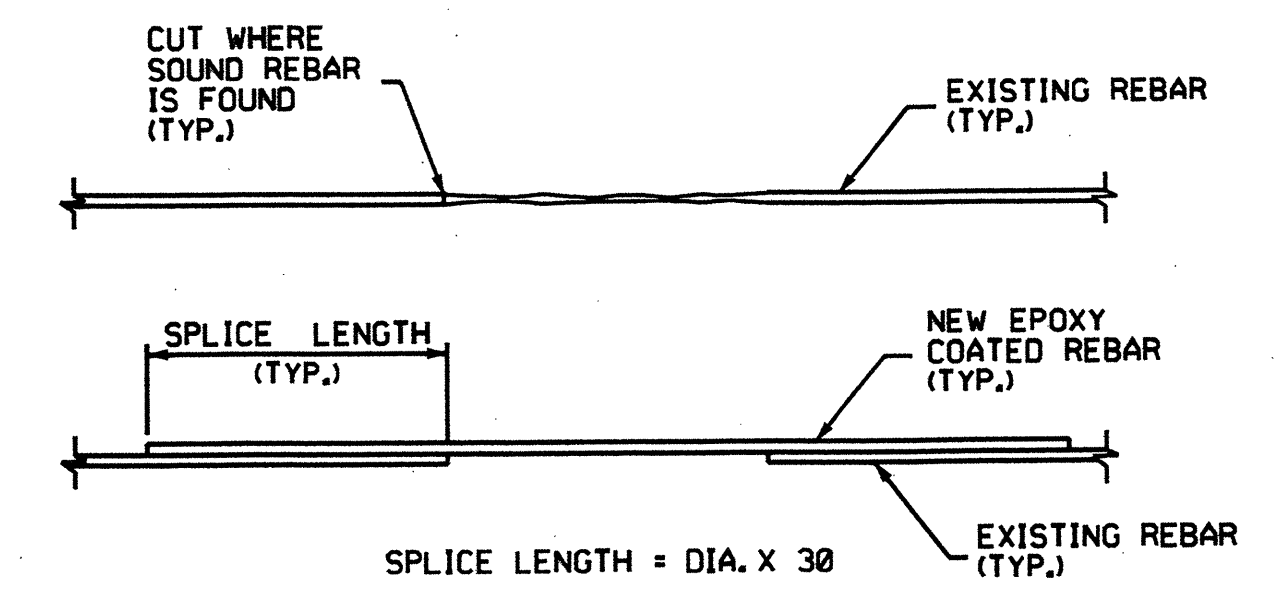
DETAIL A
(AFTER REPAIR)



TYPICAL BAY SECTION A-A
** 8" MIN. OR EDGE OF GIRDER OR DIAPHRAGM.



DETAIL B
(AFTER REMOVAL OF MATERIAL AND BLAST CLEANING
REPLACE DAMAGED REBAR AS NEEDED)



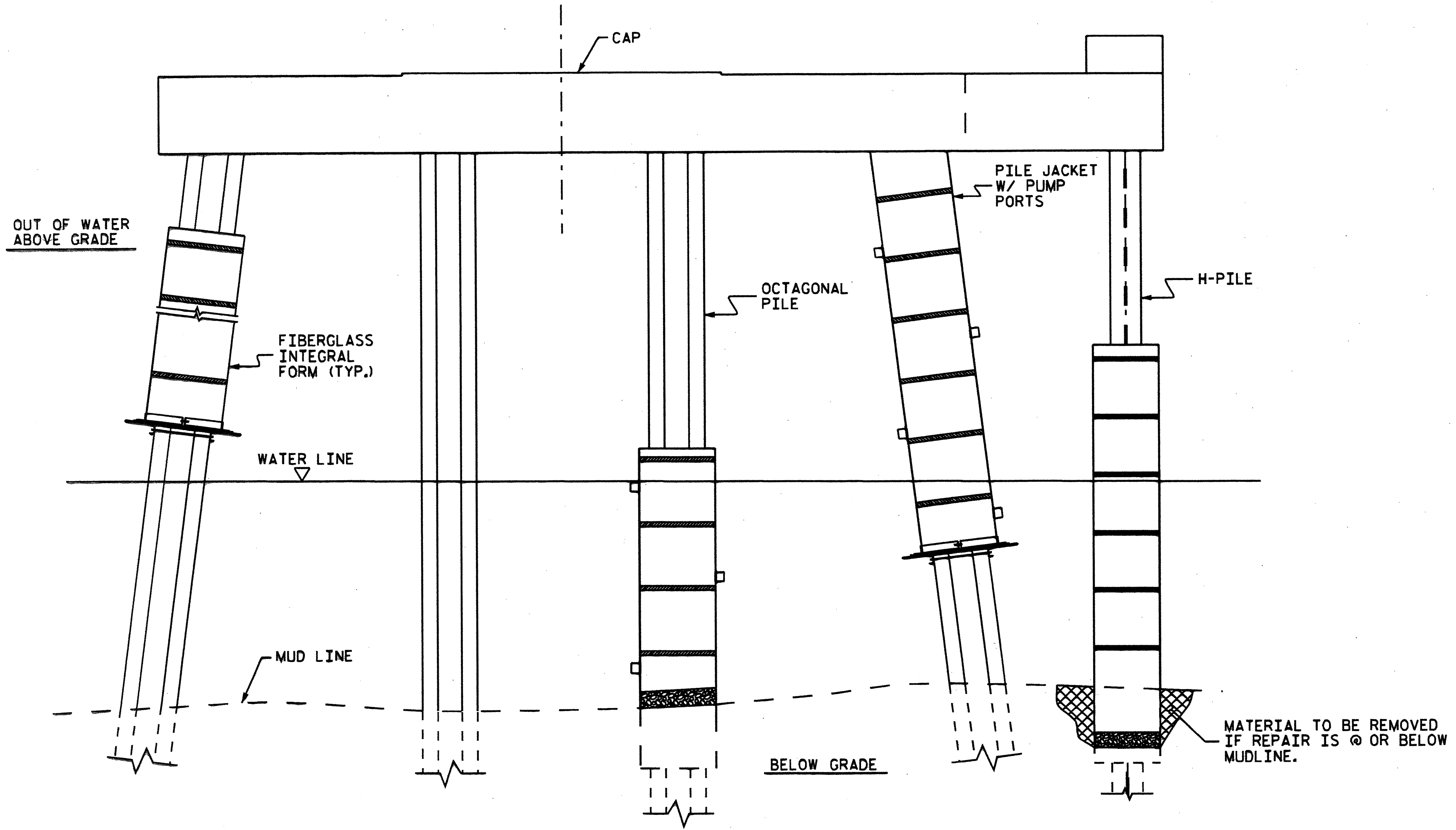
SPLICE DETAIL

PROJECT NO. B-5195
 COUNTY: TYRRELL
 STATION: _____
 BRIDGE NO. 7

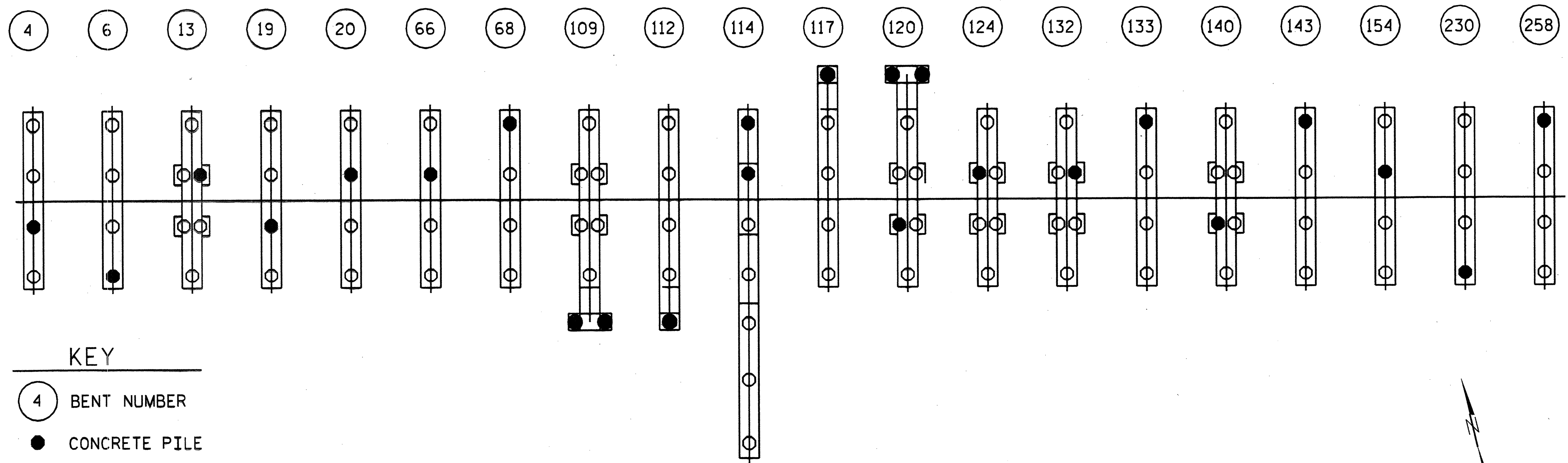
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 TYPICAL
 UNDER SIDE OF
 DECK REPAIR

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

DRAWN BY: CLB DATE: 09/09
 CHECKED BY: EBN DATE: 09/09



ELEVATION VIEW
(ALL PILE JACKET REPAIR LOCATIONS SIMILAR)



KEY
 (4) BENT NUMBER
 ● CONCRETE PILE
 ● H-PILE

PLAN VIEW OF PILE JACKET REPAIR LOCATIONS

DRAWN BY: CLB DATE: 09/09
 CHECKED BY: EBN DATE: 09/09

PILE JACKET CHART			
BENT	PILE	LENGTH	DESCRIPTION
4	3	11	EXISTING JACKET 4' ABOVE WL TO ML
6	4	11	CAP TO ML
13	3	3	TOP OF EXISTING JACKET UP 3'
19	3	11	2' BELOW WL TO CAP
20	2	11	2' BELOW WL TO CAP
66	2	18	EXISTING JACKET 4' ABOVE WL TO ML
68	1	11	FROM WL TO CAP
109	H	21	2' BELOW MUDLINE TO 4' ABOVE WL
109	H	21	2' BELOW MUDLINE TO 4' ABOVE WL
112	H	21	2' BELOW MUDLINE TO 4' ABOVE WL
114	1	13	2' BELOW WL TO CAP
114	2	13	2' BELOW WL TO CAP
117	H	21	2' BELOW MUDLINE TO 4' ABOVE WL
120	H	20	2' BELOW MUDLINE TO 4' ABOVE WL
120	H	20	2' BELOW MUDLINE TO 4' ABOVE WL
120	4	11	WL TO CAP
124	2	11	WL TO CAP
132	3	11	WL TO CAP
133	1	11	WL TO CAP
140	4	11	WL TO CAP
143	1	20	EXISTING JACKET 4' ABOVE WL TO ML
154	2	6	2' BELOW WL TO CAP
230	4	11	WL TO CAP
238	1	8	WL TO CAP
TOTAL NUMBER OF CONCRETE PILE JACKETS:			15
TOTAL LENGTH OF PILE JACKETS: (CONCRETE)			153 LF
TOTAL NUMBER OF H-PILE JACKETS:			6
TOTAL LENGTH OF PILE JACKETS: (H-PILES)			124 LF
TOTAL NUMBER OF REJACKETS:			3
TOTAL LENGTH OF PILE REJACKETS:			49 LF

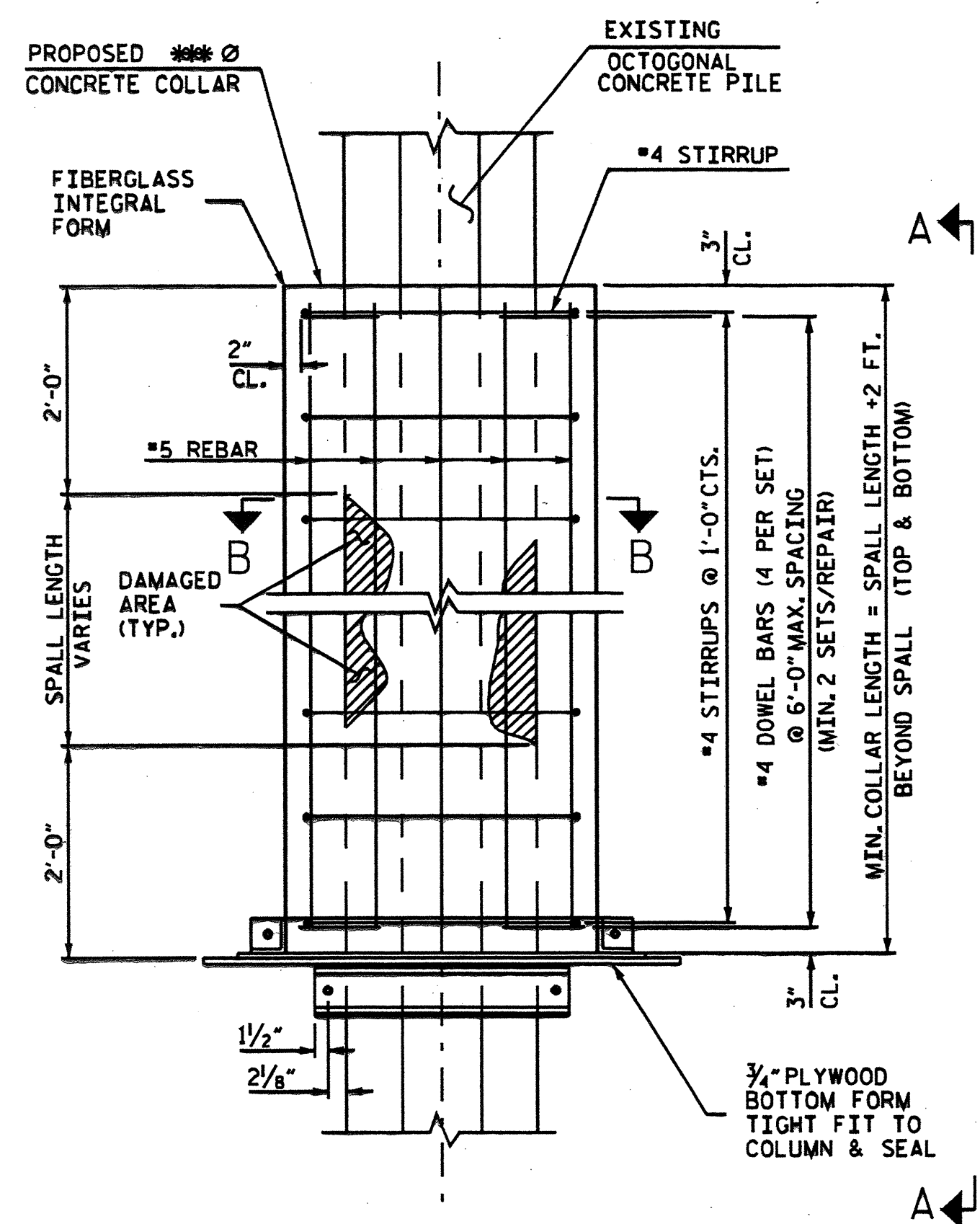
PROJECT NO. B-5195
 COUNTY: TYRRELL
 STATION:
 BRIDGE NO. 7

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 PILE JACKETS
 REPAIR (TYP.)

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

PILE JACKET OUT OF WATER REPAIR

1C2a

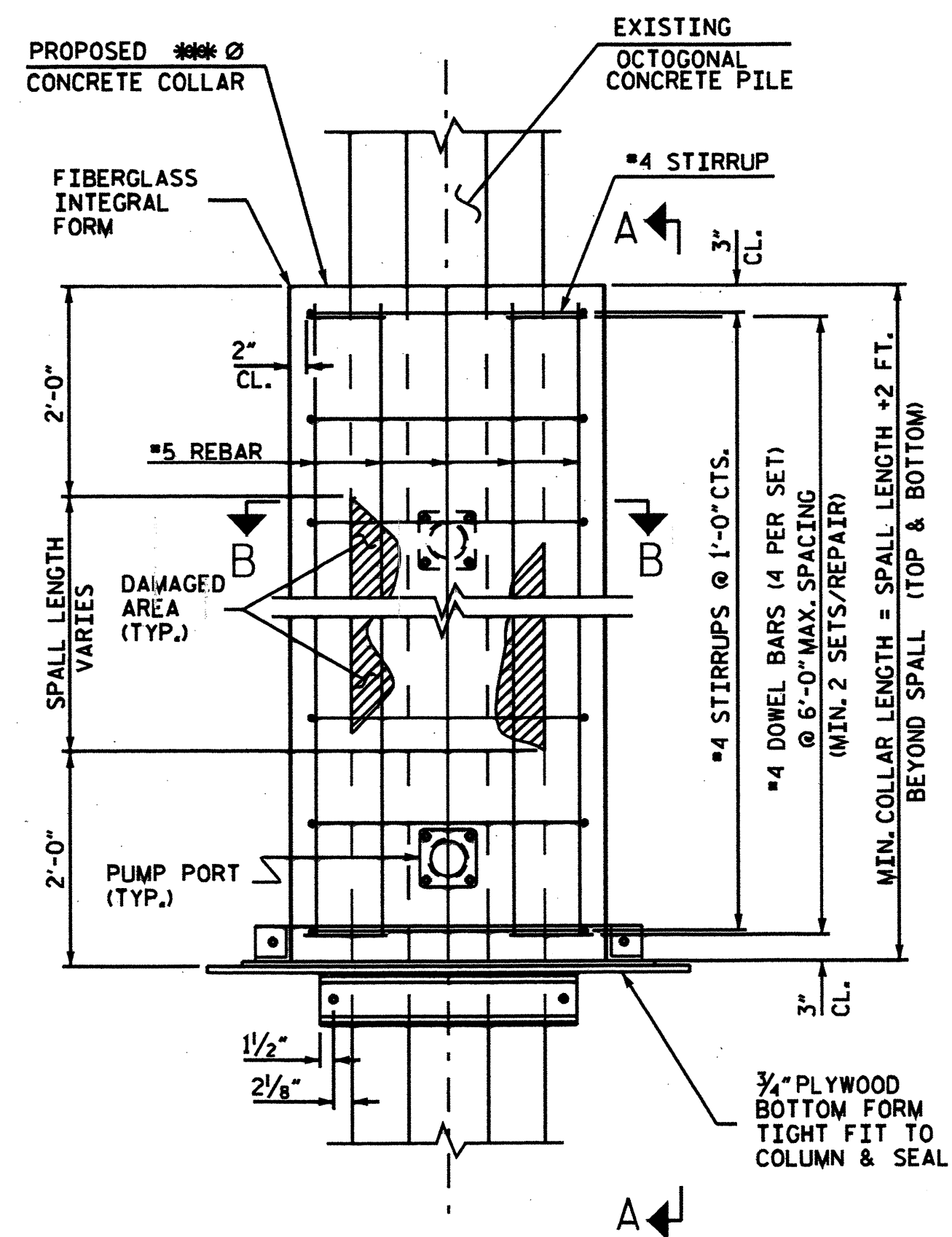


JACKET ELEVATION

(ABOVE GRADE/WATER APPLICATIONS)
 *** SEE JACKET SIZING CHART

PILE JACKET ABOVE GRADE REPAIR
 W/ PUMP PORTS

1C2b



JACKET ELEVATION

*** SEE JACKET SIZING CHART

PROJECT NO. B-5195
 COUNTY: TYRRELL
 STATION:
 BRIDGE NO. 7

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

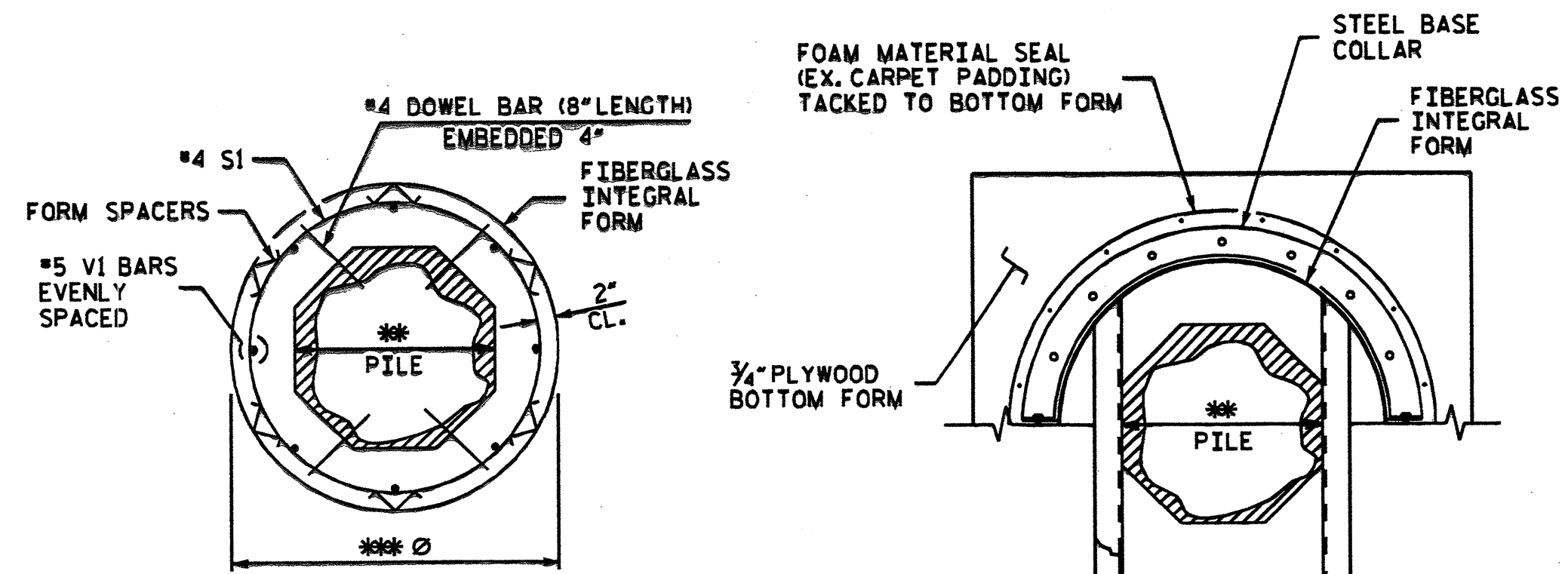
PILE JACKETS

SHEET 2 OF 4

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

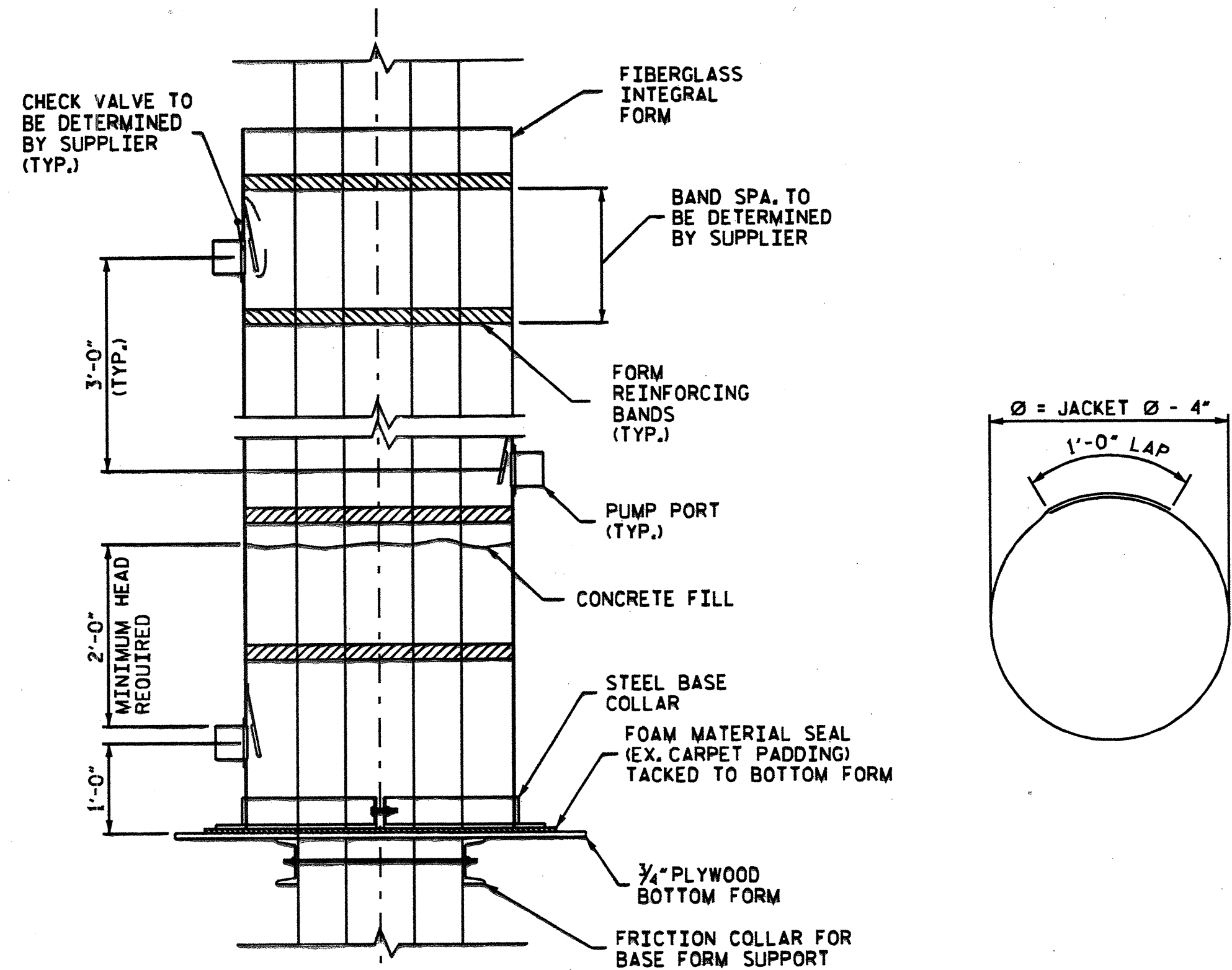
DRAWN BY: CLB DATE: 09/09
 CHECKED BY: EBN DATE: 09/09

DETAIL OF JACKET W/ PUMP PORTS



SECTION B-B
** & *** SEE JACKET SIZING CHART

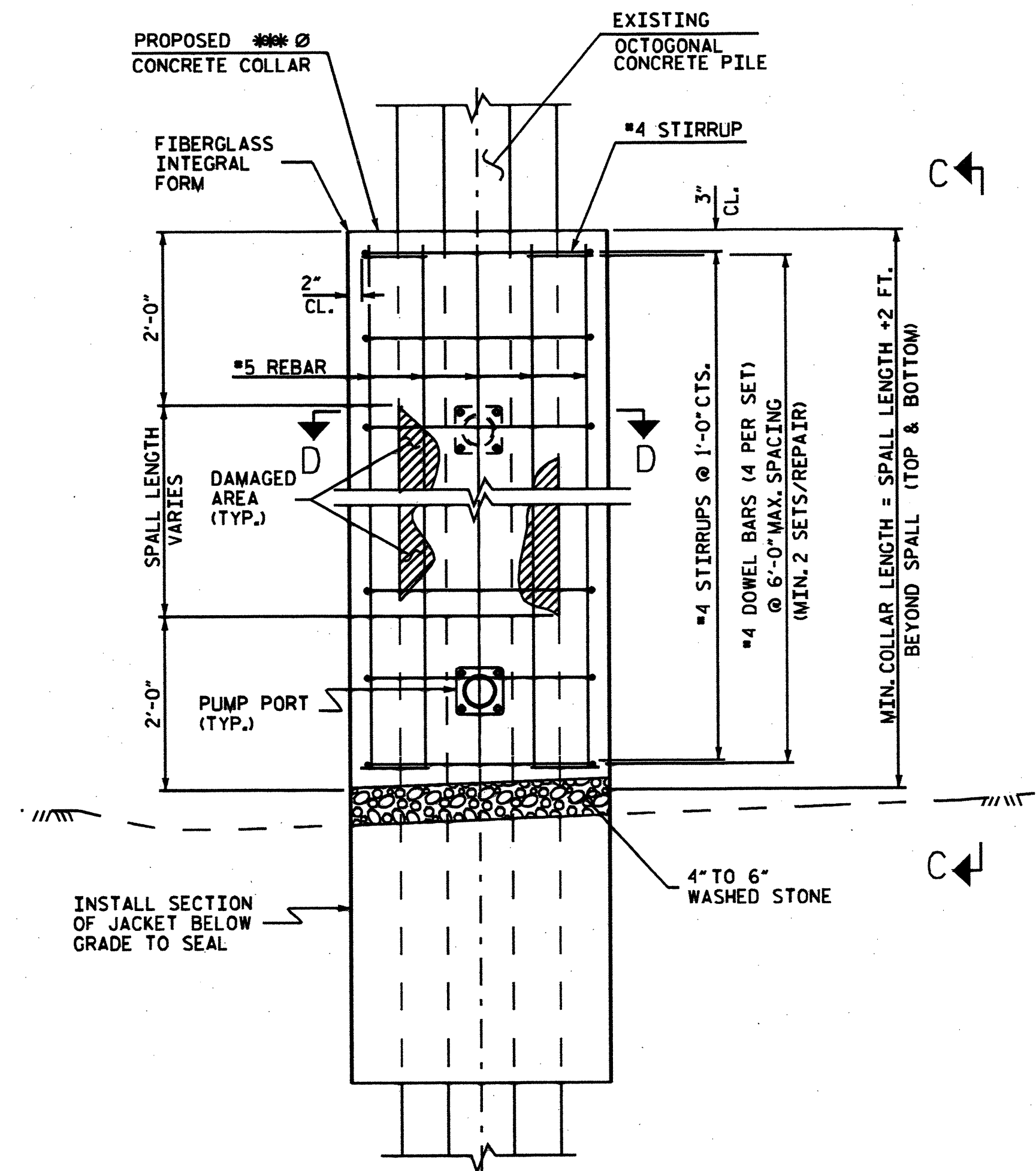
PLATFORM DETAIL
** SEE JACKET SIZING CHART



SECTION A-A

PILE JACKET BELOW GRADE REPAIR W/ PUMP PORTS

1C2c



JACKET ELEVATION

(BELOW GRADE APPLICATIONS)
*** SEE JACKET SIZING CHART

PROJECT NO. B-5195
 COUNTY: TYRRELL
 STATION:
 BRIDGE NO. 7

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

PILE JACKETS

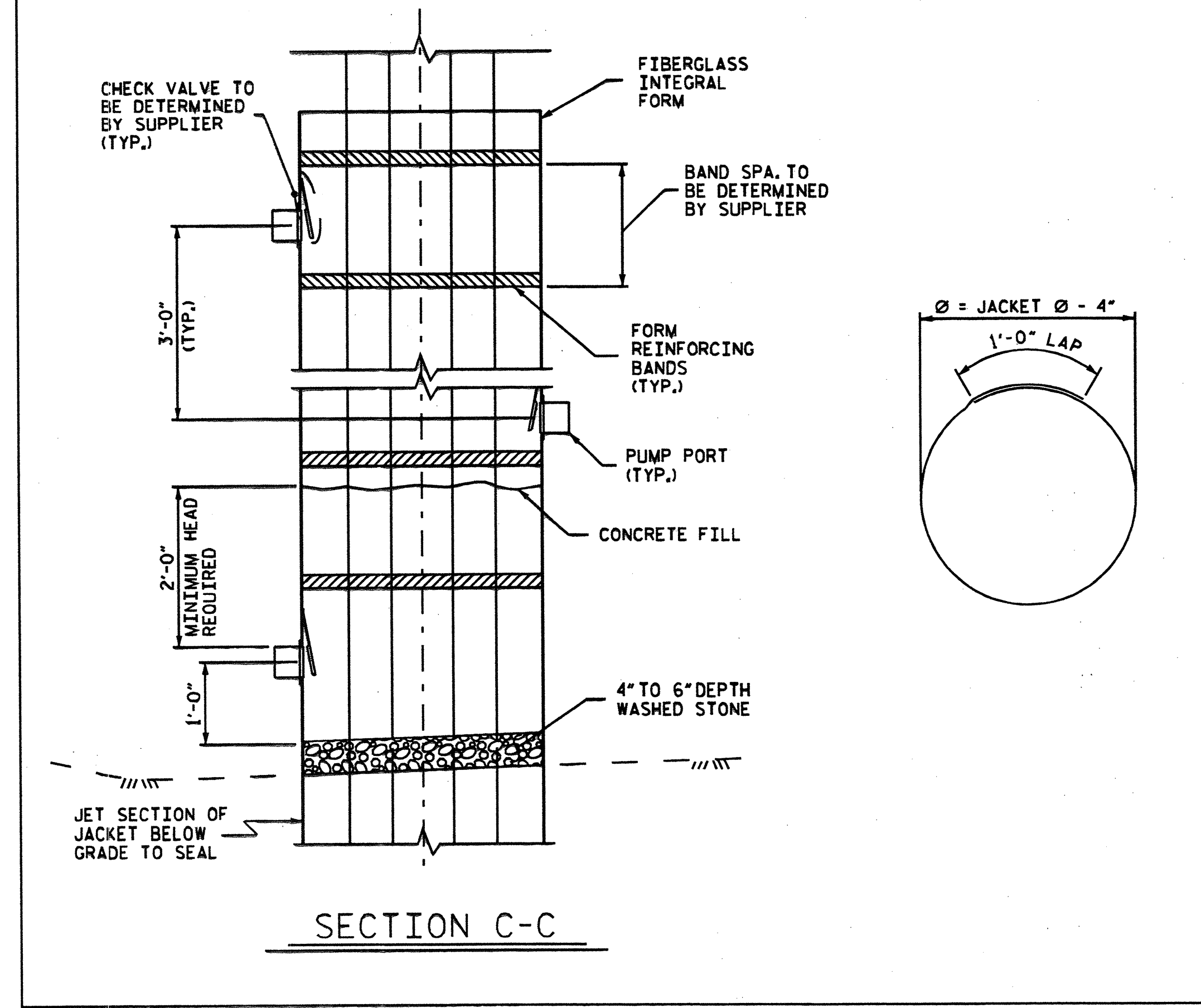
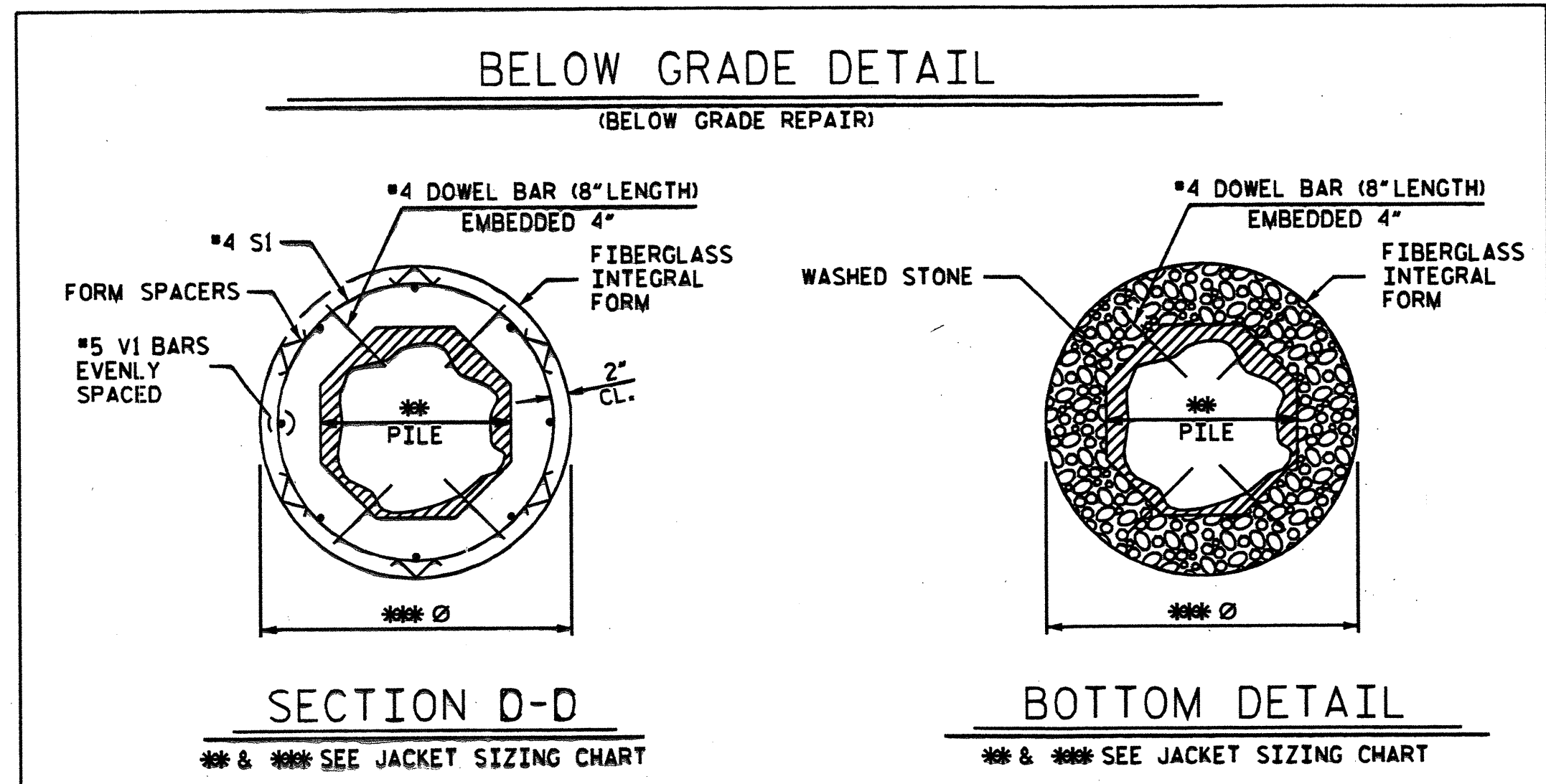
SHEET 3 OF 4

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

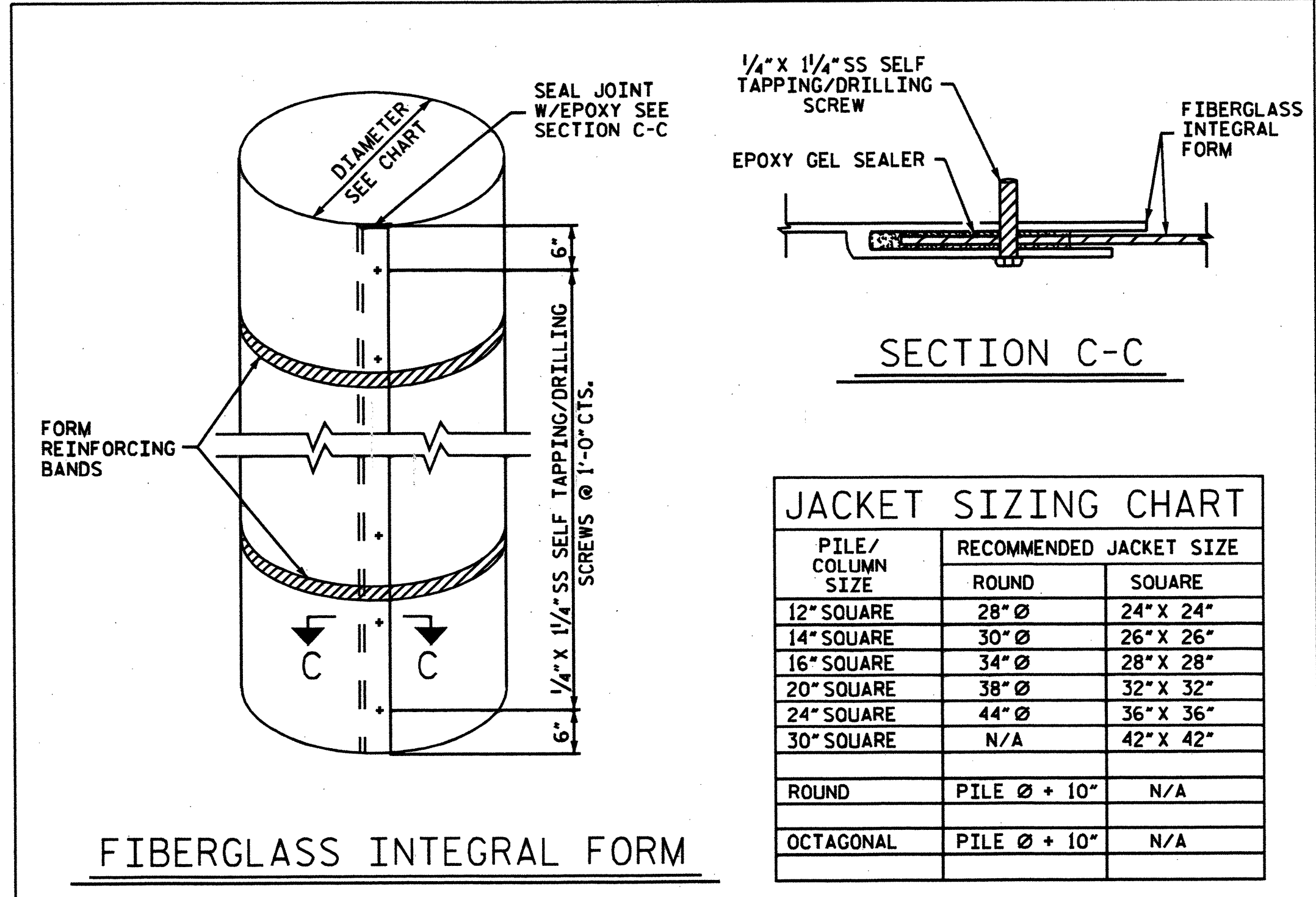
Drawn by: S-8
 Total Revisions: 4

DRAWN BY: CLB DATE: 09/09
 CHECKED BY: EBN DATE: 09/09

*****SERIAL***** *****STATION*****



DRAWN BY: CLB DATE: 09/09
CHECKED BY: EBN DATE: 09/09



- REPAIR SEQUENCE**
- 1) Completely remove all loose delaminated and weak concrete, oil, grease, laitance and other contaminants. Prepare concrete using acceptable mechanical means and concrete cleaners and degreasers as necessary to obtain clean, sound and rough surfaces. Coarse aggregate shall be exposed. Concrete pile surfaces should be sound and free of contamination. Where marine growth or other contaminants exist, including visible signs of corrosion, a high pressure water blast should be utilized to ensure a clean, sound, contaminant-free surface for optimum bond.
 - 2) Clean reinforcing steel & columns or pile, of all rust and foreign material.
 - 3) Determine fiberglass integral form length. Minimum length is 2' above and below clean, sound, contaminant-free surface.
 - 4) Drill 5/8" holes and place #4 dowels w/ epoxy grout.
 - 5) Build the rebar cage by placing the #4 stirrups and vertical reinforcing steel in accordance with the project drawing.
 - 6) Install form spacers to insure adequate concrete cover at all parts of the sleeve.
 - 7) Install the leave-in place Fiberglass Form (also called Jacket or Collar). The diameter of the jacket should be large enough to in-circle the pile while providing a minimum of 5" total clearance, 2" of clearance between the pile and the reinforcing steel and 2" of clearance between the reinforcing steel and the form. (see Jacket sizing chart)
 - 8) Insert concrete pump hose thru top of jacket and extend to just above the bottom and pump at a flow rate to the desired fill elevation. If site conditions prohibit inserting pump hose thru top of jacket then install pump ports and place concrete as shown in the details.
 - 9) Place concrete fill. Install pump port(s) in jacket for underwater applications. Ports should have a check valve to keep back flow of concrete once pump nozzle is removed. For concrete placements greater than 5' use multiple ports spaced 3' vertically and alternating 180° from previous port. A minimum of 2' of concrete head, is needed above port prior to changing ports.
 - 10) Remove form work when concrete strength achieves 3000 psi.

PROJECT NO. B-5195
COUNTY: TYRRELL
STATION: _____
BRIDGE NO. 7

**STATE OF NORTH CAROLINA
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RALEIGH**

PILE JACKETS

SHEET 4 OF 4

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

