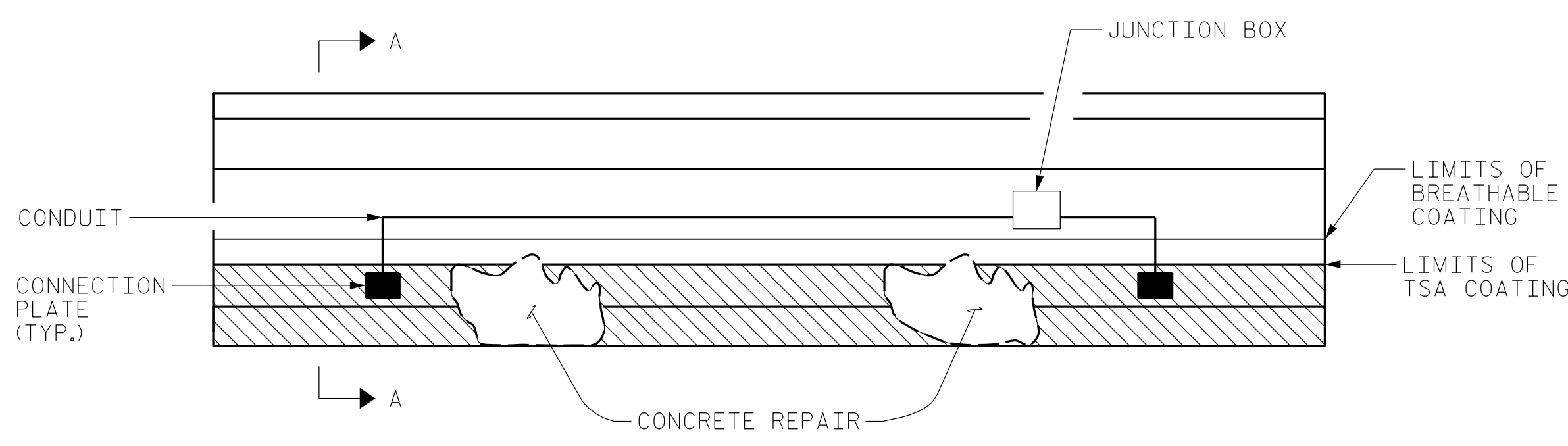
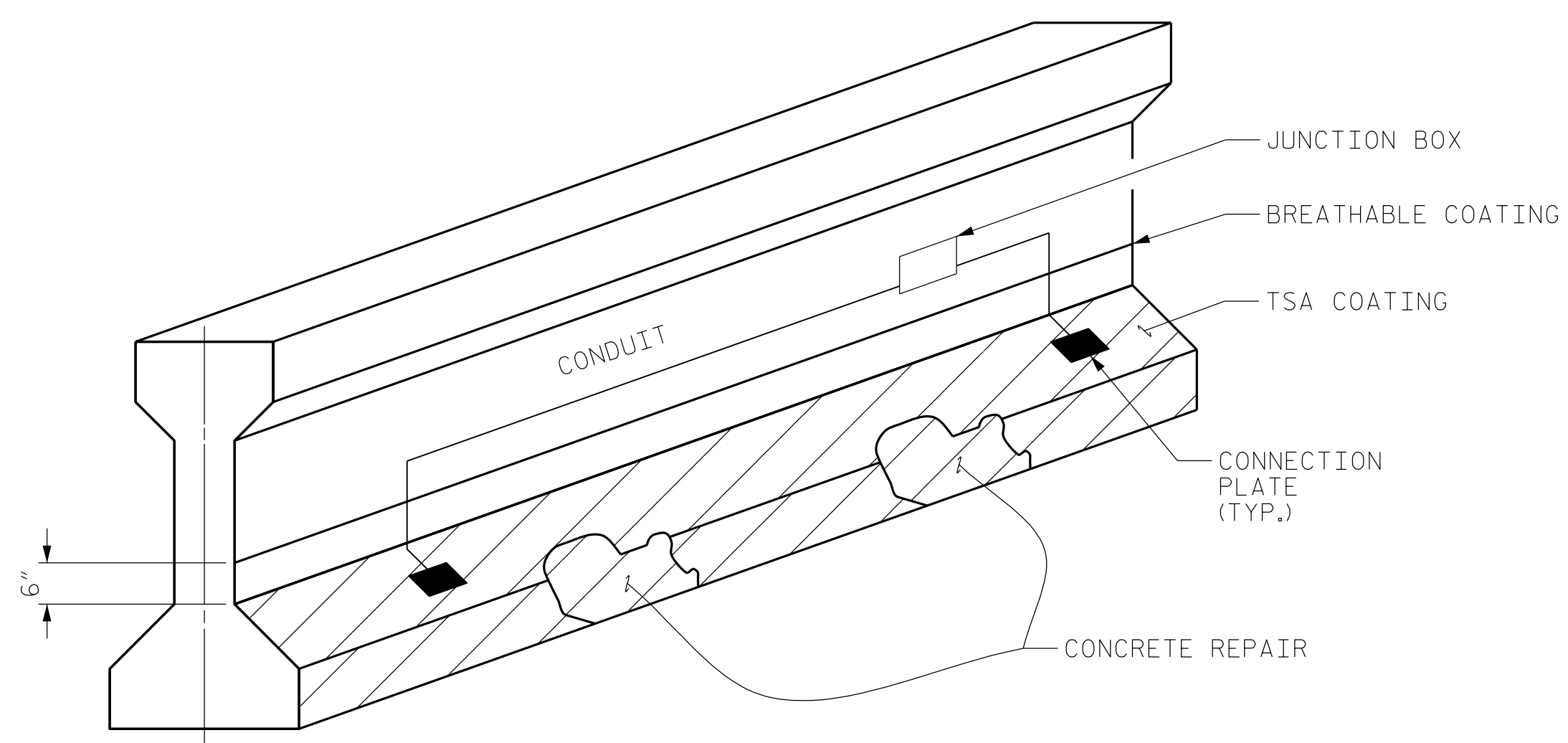


SECTION A-A  
CONDUIT, JUNCTION BOX, AND CONNECTION PLATES NOT SHOWN FOR CLARITY



ELEVATION



CP MONITORING ZONE

AS-BUILT REPAIR QUANTITY TABLE								
TSA COATING FOR BEAMS								
ESTIMATED TSA PER BEAM: 310.35 SF								
		TOTAL			TOTAL			TOTAL
SPAN	BEAM	ACTUAL	SPAN	BEAM	ACTUAL	SPAN	BEAM	ACTUAL
36	7		46	2		60	7	
37	7		46	3		61	①	
38	7		46	4		61	2	
39	7		46	5		61	3	
41	7		46	6		61	4	
42	1		46	⑦		61	5	
42	②		47	7		61	6	
42	3		48	7		61	7	
42	4		49	1		62	1	
42	5		49	2		62	2	
42	6		49	3		62	3	
42	7		49	4		62	4	
43	1		49	5		62	5	
43	2		49	6		62	6	
43	3		49	7		62	7	
43	4		52	1		63	2	
43	5		52	2		64	5	
43	6		52	3		64	7	
43	7		52	4		65	6	
44	1		52	5		65	7	
44	2		52	⑥		66	7	
44	3		52	7		67	7	
44	④		54	4		68	3	
44	5		54	7		69	3	
44	6		57	1		71	1	
44	7		58	7		71	2	
45	1		59	2		71	③	
45	2		59	6		71	4	
45	3		60	1		71	5	
45	4		60	2		71	6	
45	5		60	3		71	7	
45	6		60	4		73	7	
45	7		60	5				
46	1		60	6				
TOTAL (NON-MONITORING):					29,173 SF			
TOTAL (MONITORING):					1,862 SF			

① BEAM REQUIRING MONITORING

METALIZING NOTES:

- NO METALIZING SHALL BE PERFORMED UNTIL THE CONCRETE RESTORATION HAS BEEN APPROVED BY THE ENGINEER. METALIZE AT NO LESS THAN 10 (TEN) DAYS AFTER PLACING CONCRETE, BUT NO MORE THAN 90 (NINETY) DAYS. CONNECT METALIZING CONNECTION PLATE IMMEDIATELY AFTER COMPLETING METALIZING.
- APPLY A ZINC SILICATE OVERCOAT AT NO MORE THAN 72 HOURS AFTER METALIZING.
- COAT CONNECTION PLATE WITH EPOXY AT NO MORE THAN 96 HOURS AFTER APPLICATION OF ZINC SILICATE OVERCOAT.

NOTES:

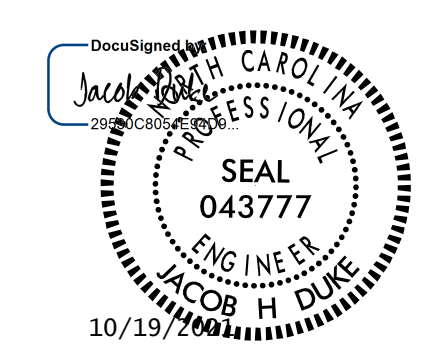
- REMOVE ALL UNSOUND CONCRETE FROM THE BEAMS IN ACCORDANCE WITH CONCRETE RESTORATION DETAILS AND PROJECT SPECIAL PROVISIONS FOR CONCRETE REPAIR.
- THE CONTRACTOR SHALL SUBMIT A PLAN FOR CONTROL AND DISPOSAL OF DEBRIS TO THE ENGINEER FOR APPROVAL.
- FOR SPALLS OR DELAMINATIONS ON THE BEAMS GREATER THAN 2'-0" WIDE OR LONG AND GREATER THAN 1" DEEP, RESTORE CONCRETE TO ORIGINAL PROFILE IN ACCORDANCE WITH CONCRETE RESTORATION DETAILS SHEET AND PROJECT SPECIAL PROVISIONS FOR CONCRETE REPAIR.
- FOR ANY CONCRETE AREAS THAT WOULD BE ISOLATED FROM PROPOSED CONTINUITY BY EXISTING SUPERFICIAL CRACKING, FILL CRACKS WITH EPOXY PRIOR TO METALIZING PER PROJECT SPECIAL PROVISIONS FOR EPOXY INJECTION OF CRACKS.
- ALL GIRDERS IN THE INDICATED SPANS SHALL BE METALIZED TO THE LIMITS SHOWN ON THE PLANS. CONNECTION BETWEEN PLATE AND REINFORCING STEEL SHALL BE PROVIDED VIA A 3/16" DIAMETER STAINLESS STEEL ALL THREADED ROD AS DESCRIBED IN THE CONNECTION PLATE DETAIL. THE CONNECTION PLATES SHALL BE LOCATED IN AREAS OF SOUND CONCRETE AS DETAILED IN THE PROJECT SPECIAL PROVISIONS FOR CATHODIC PROTECTION AND SHALL BE INSTALLED ON DIFFERENT BARS.
- CHECK INTERBAR CONTINUITY. REINFORCING BARS REQUIRING CONTINUITY CORRECTION SHALL BE MADE CONTINUOUS USING STEEL WIRE RESISTANCE WELDED OR BRAZED TO EVERY REBAR. ALL EXPOSED BARS SHALL BE MADE CONTINUOUS. COAT ALL CONTINUITY CORRECTION WELDS WITH NON-CONDUCTIVE EPOXY.
- CHECK ELECTRICAL CONTINUITY BETWEEN ALL PLATES IN ACCORDANCE WITH THE PROJECT SPECIAL PROVISIONS FOR CATHODIC PROTECTION.
- METALIZE AND PLACE CONNECTION PLATES IN ACCORDANCE WITH PROJECT SPECIAL PROVISIONS FOR CATHODIC PROTECTION.
- APPLY A ZINC SILICATE OVERCOAT TO THE METALIZED AREAS AS DESCRIBED IN THE PROJECT SPECIAL PROVISIONS FOR CATHODIC PROTECTION. THE ENGINEER MUST APPROVE THE METALIZING PRIOR TO THE OVERCOAT APPLICATION.
- SEE PROJECT SPECIAL PROVISIONS FOR ADDITIONAL METALIZING REQUIREMENTS AND ACCEPTANCE CRITERIA.
- SEQUENCE CLEANING AND COATING IN ORDER TO AVOID DELETERIOUS SUBSTANCES INHIBITING PROPOSED COATINGS.
- ALL HARDWARE AND MATERIAL ITEMS ON THIS SHEET ARE INCIDENTAL TO PAY ITEM FOR ZINC ALUMINUM SPRAY.
- THOROUGHLY CLEAR THE ALL FACES OF THE PIER/PILE CAPS OF ANY MARINE GROWTH AND DEBRIS BEFORE ALL PERFORMING ANY OF THE ASSOCIATED WORK FOR BEAM METALIZATION.
- FOR PRESTRESSED CONCRETE GIRDERS WITH THERMAL SPRAY ANODE, SEE SPECIAL PROVISIONS.

MONITORING NOTES:

- FOR NON-MONITORING, NO CONDUITS OR JUNCTION BOX IS REQUIRED.
- FOR MONITORING, TWO REFERENCE ELECTRODES SHALL BE INSTALLED PER GIRDER. ONE WITHIN THE FIRST 5 FT. OF THE GIRDER END, AND THE OTHER NEAR THE CONCRETE REPAIR AREA. THE EXACT LOCATIONS SHALL BE DECIDED BY THE CATHODIC PROTECTION SPECIALIST IN THE FIELD.
- ALWAYS EXTEND TSA COATING AREA 24" BEYOND CONCRETE DAMAGE AREA. EXTEND BREATHABLE COATING 6" BEYOND THE EDGE OF TSA COATING.
- FOR JUNCTION BOX DETAILS, SEE DETAIL 3 ON SHEET 2.

DRAWN BY : JACOB H. DUKE DATE : 9/30/2020  
 CHECKED BY : DIEGO A. AGUIRRE DATE : 10/1/2020  
 DESIGN ENGINEER OF RECORD : JACOB H. DUKE DATE : 10/1/2020

10/19/2021  
 15BPR.46.SMU.CP01.1.270012.dgn  
 jduke



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PROJECT NO. 15BPR.46  
 DARE COUNTY  
 BRIDGE NO. 270012

SHEET 1 OF 2

STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

CATHODIC PROTECTION  
 TSA COATING  
 FOR BEAMS  
 (SPANS 34-73)

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S-55
2			4			TOTAL SHEETS 137