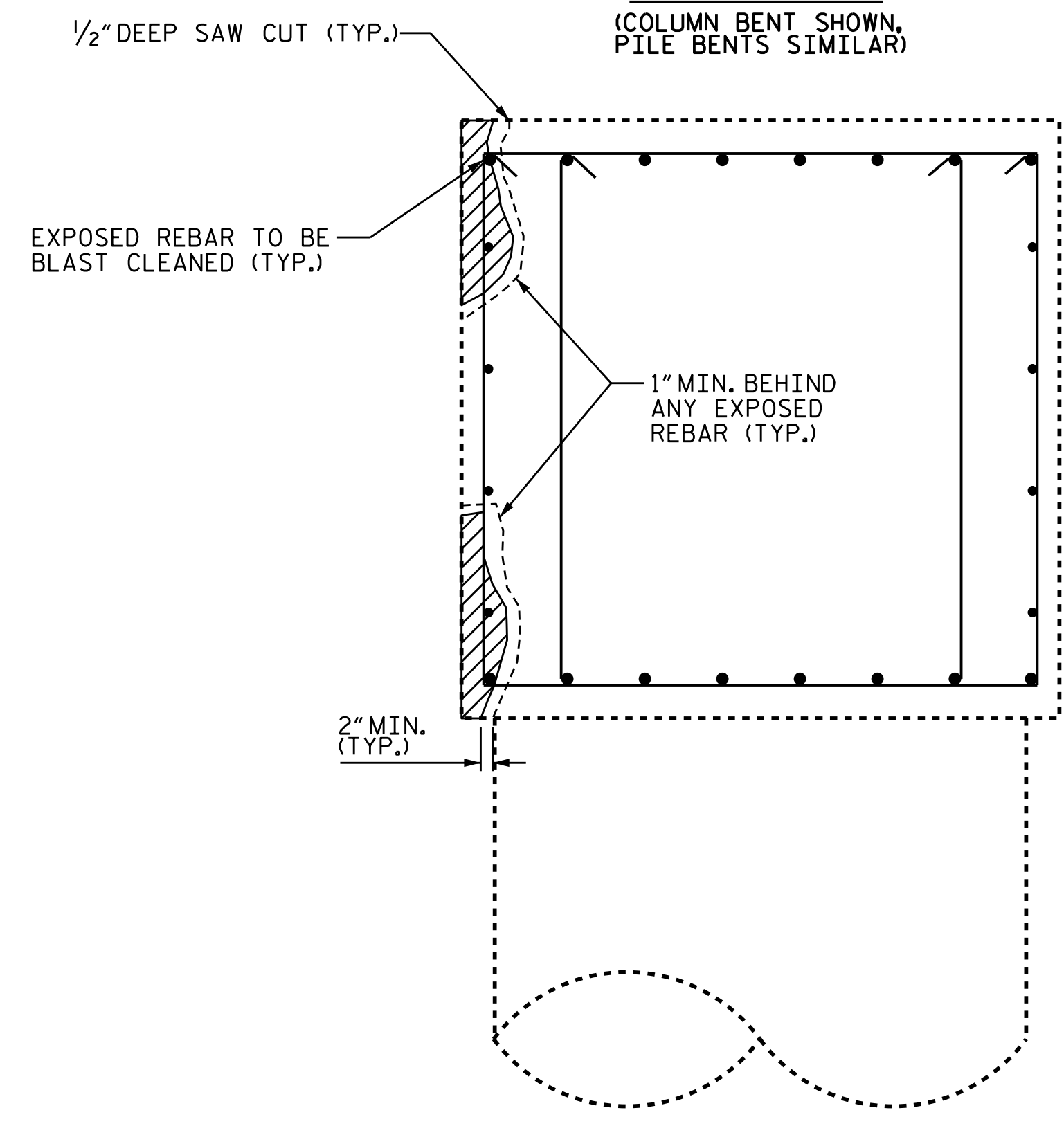


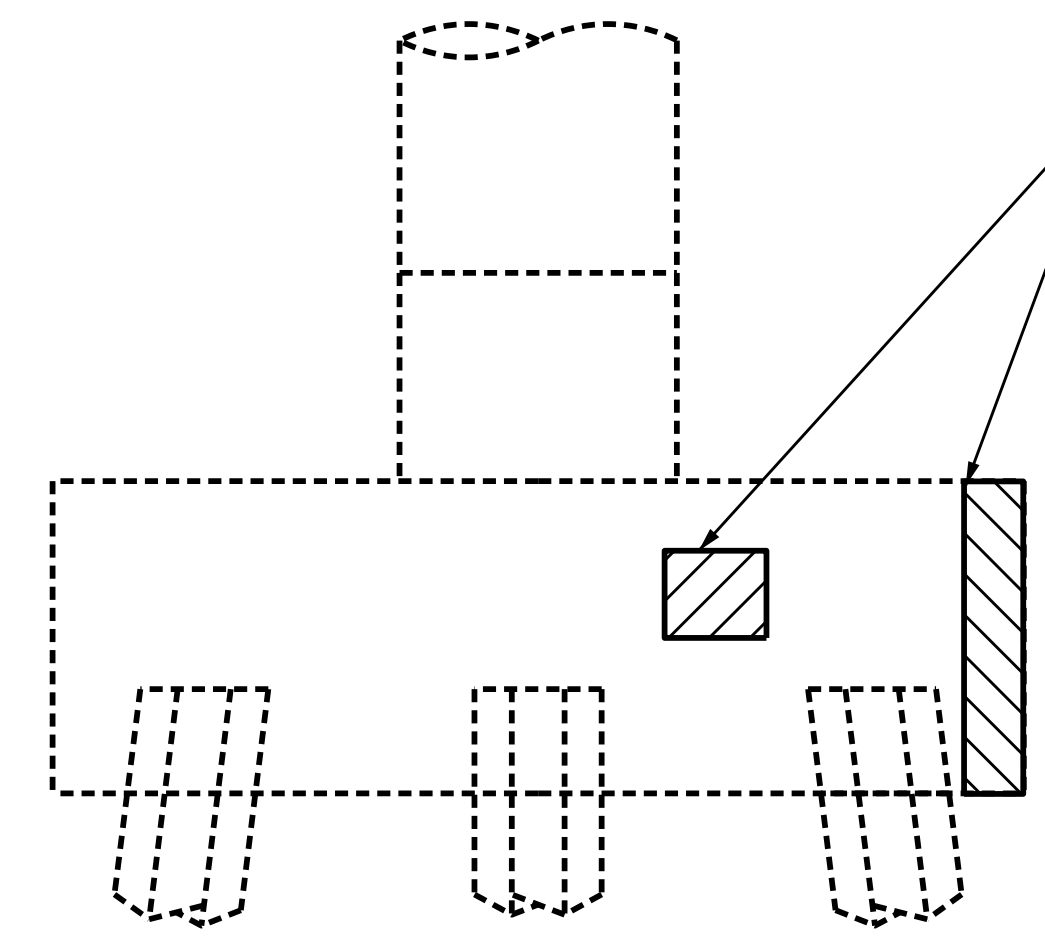
REPAIR ALL SPALLED, DELAMINATED OR CRACKED CONCRETE AREAS NOT OCCURRING AT BEAM BEARING AREAS PER PLANS AND PER THE ENGINEER USING SHOTCRETE OR "FORM AND POUR" AT THE CONTRACTOR'S OPTION SEE NOTE 2.

**CAP REPAIRS**  
(COLUMN BENT SHOWN, PILE BENTS SIMILAR)



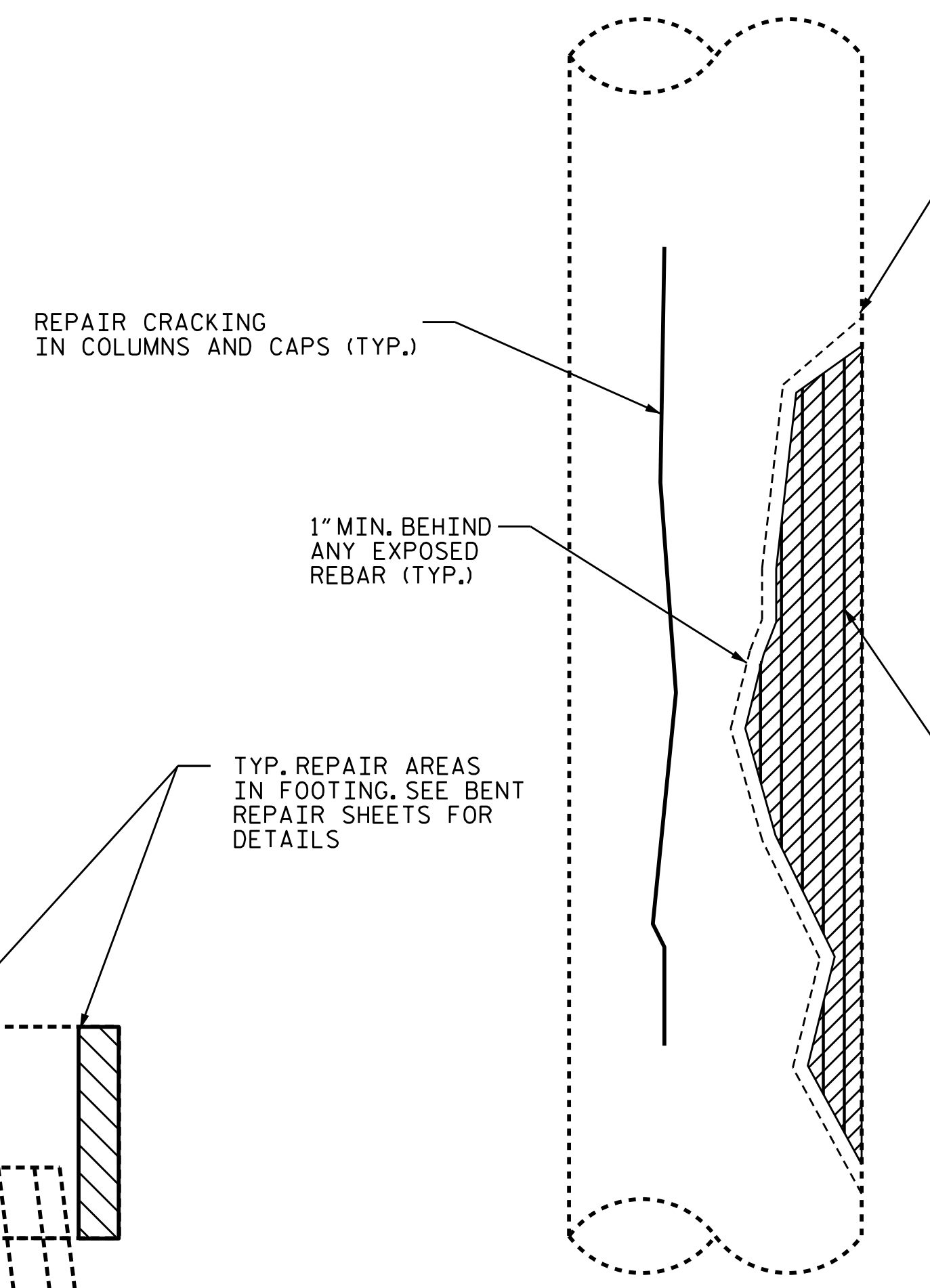
SECTION A-A

**BENT CAP REPAIRS**



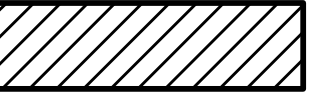
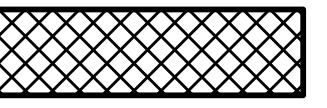

ELEVATION OF FOOTING

**TYPICAL FOOTING REPAIRS**



ELEVATION OF COLUMN

**COLUMN REPAIRS**

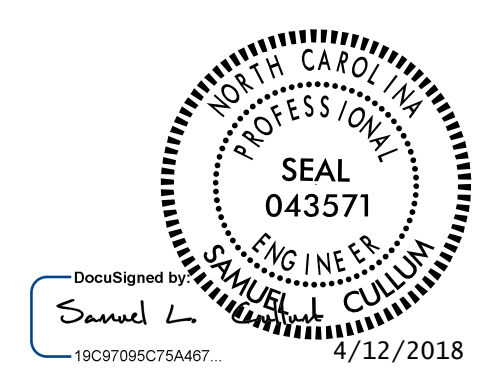
	CONCRETE REPAIR AREA
	SHOTCRETE REPAIR AREA
	EPOXY RESIN INJECTION (ERI)

\* REPAIR LENGTH SHALL NOT EXCEED 10 FEET AT ONCE.

**NOTES:**

- COORDINATE THIS SHEET WITH THE SUBSTRUCTURE REPAIR SHEETS.
- IF ANY AREA IS DETERMINED TO BE UNSTABLE DURING THE REPAIR PROCESS AS DETERMINED BY THE ENGINEER, STOP THE CURRENT REPAIR PROCEDURE, SHORE THE AREA AND PERFORM A "FORM AND POUR" CONCRETE REPAIR.
- IF IT IS DETERMINED THAT JACKING IS NEEDED TO ADEQUATELY REPAIR CONCRETE AREAS UNDER BEAM, A SUPPLEMENTAL AGREEMENT IS TO BE ANTICIPATED.

PROJECT NO. 15BPR.25  
BRUNSWICK COUNTY  
 BRIDGE NO. 14



STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH  
**CONCRETE RESTORATION  
 DETAILS**  
 SUBSTRUCTURE

**KCA** 4800 SIX FORKS ROAD SUITE 120  
 KISINGER CAMPO & ASSOCIATES RALEIGH, NC 27609  
 (919) 882-7839

DRAWN BY : JACOB H. DUKE DATE : 03-2018  
 CHECKED BY : DIEGO A. AGUIRRE DATE : 03-2018  
 DESIGN ENGINEER OF RECORD : SAMUEL L. CULLUM DATE : 03-2018

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-32
1			3			TOTAL SHEETS
2			4			111

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED