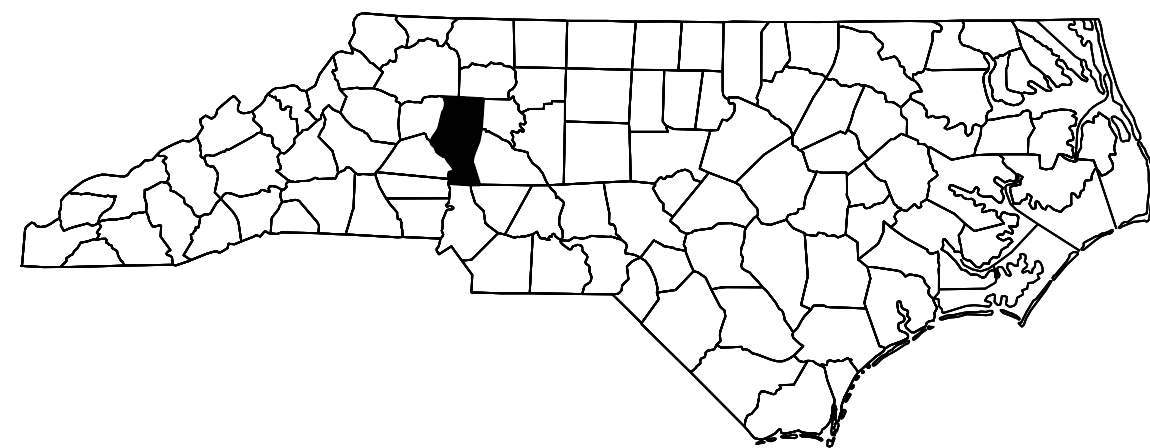


TIP PROJECT: 17BP.12.H.3

CONTRACT: DL00201



STATE OF NORTH CAROLINA

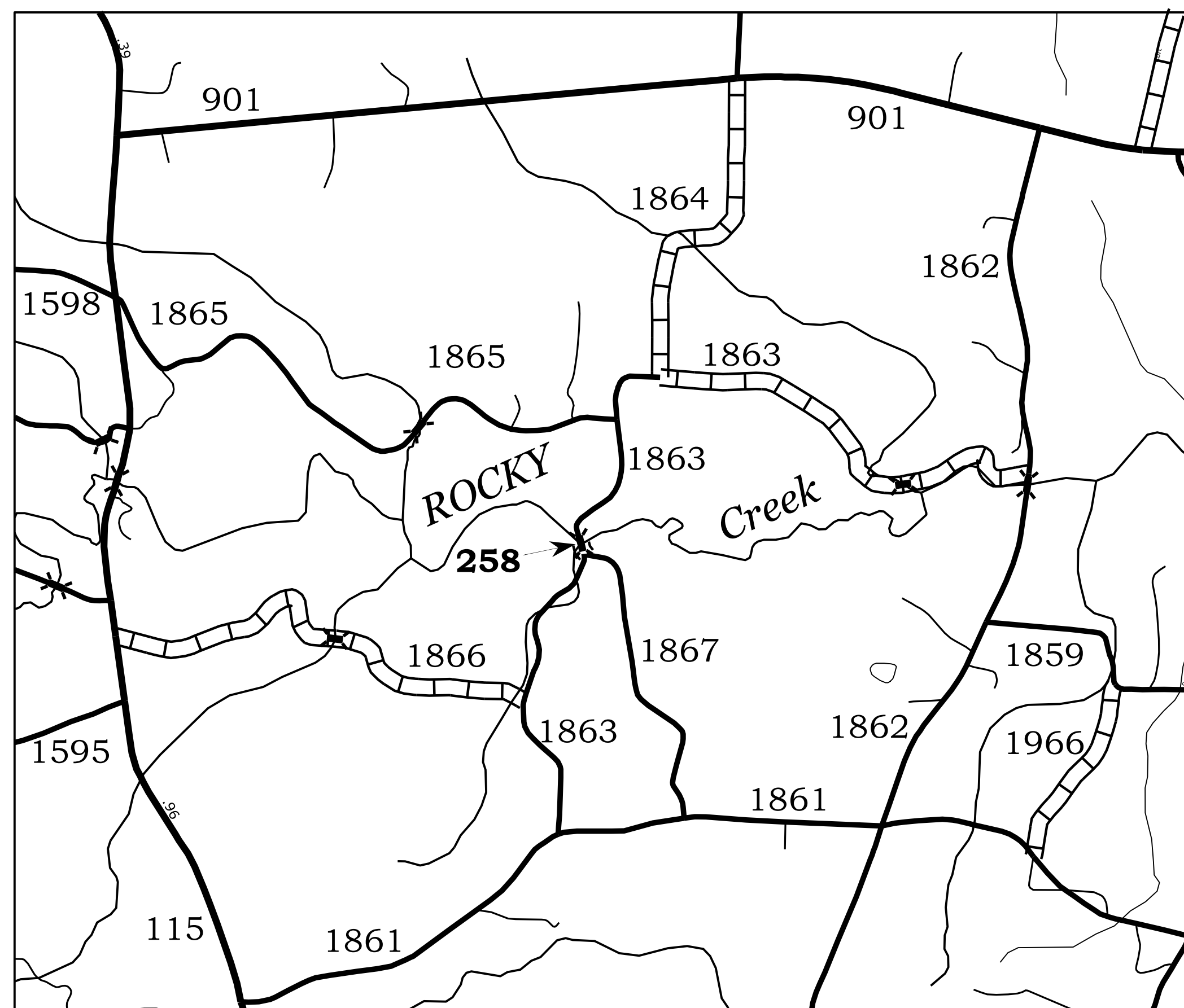
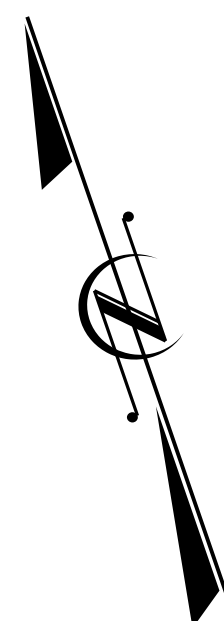
DIVISION OF HIGHWAYS

IREDELL COUNTY

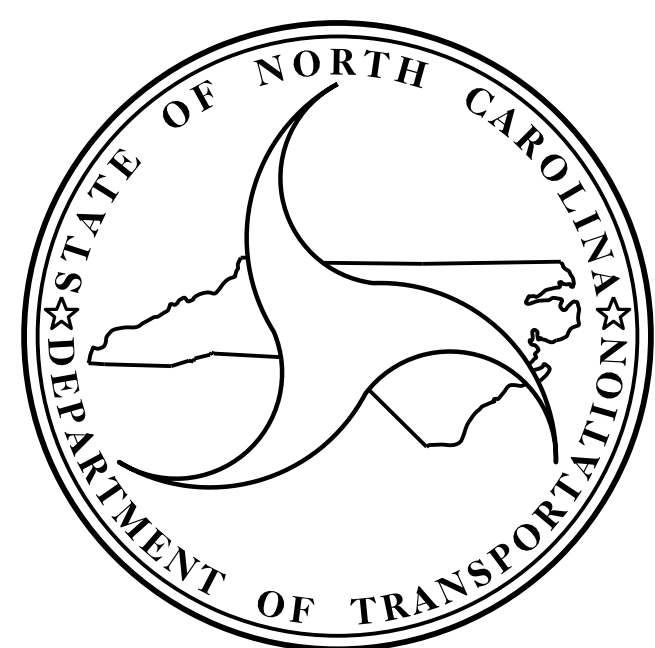
**LOCATION: BRIDGE NO. 258 OVER ROCKY CREEK
ON SR 1863 (MORGAN FORD ROAD)**

TYPE OF WORK: BRIDGE RECONSTRUCTION: SUPERSTRUCTURE REPLACEMENT

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	17BP.12.H.3	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
17BP.12.H.3	N/A	PE	
17BP.12.H.3	N/A	CONST.	



VICINITY MAP - IREDELL CO.



DESIGN DATA
IREDELL COUNTY
BRIDGE # 258
ADT 2000 = 70

PROJECT LENGTH
IREDELL COUNTY
BRIDGE # 258 = 0.023 MI.

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

2018 STANDARD SPECIFICATIONS

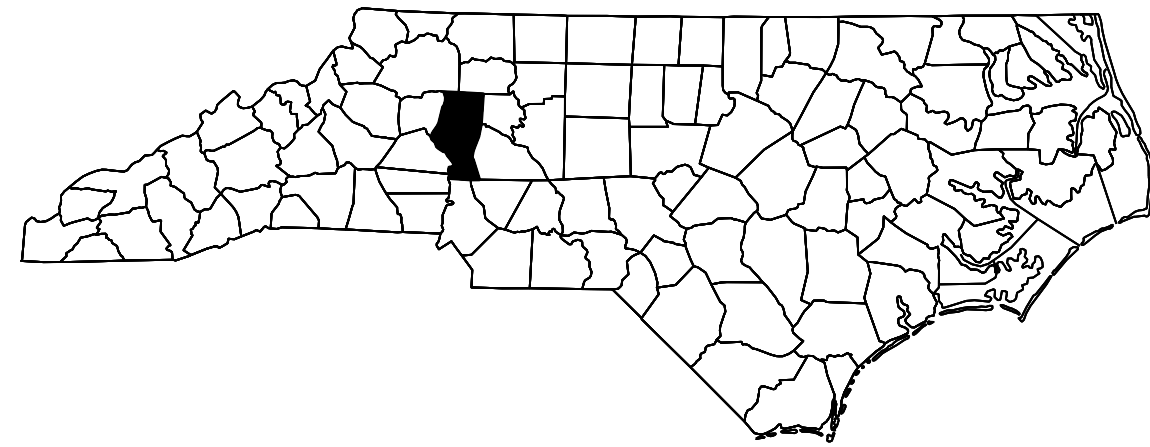
LETTING DATE :
MAY 14, 2019

A. KEITH PASCHAL, P.E.
PROJECT ENGINEER

ADAM A. COLE, P.E.
PROJECT DESIGN ENGINEER

TIP PROJECT: 17BP.12.H.3

CONTRACT: DL00201



STATE OF NORTH CAROLINA

DIVISION OF HIGHWAYS

IREDELL COUNTY

**LOCATION: BRIDGE NO. 258 OVER ROCKY CREEK
ON SR 1863 (MORGAN FORD ROAD)**

TYPE OF WORK: BRIDGE RECONSTRUCTION: SUPERSTRUCTURE REPLACEMENT

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	17BP.12.H.3	1A	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
17BP.12.H.3	N/A	PE	
17BP.12.H.3	N/A	CONST.	

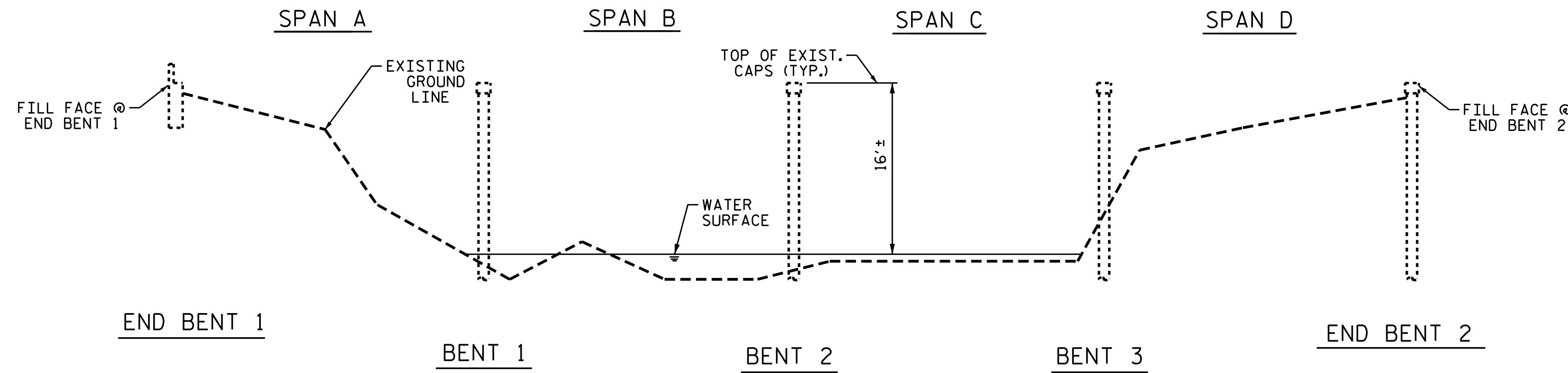
INDEX OF SHEETS

<i>1</i>	<i>TITLE SHEET</i>
<i>1A</i>	<i>INDEX OF SHEETS</i>
<i>S-1</i>	<i>GENERAL DRAWING</i>
<i>S-2</i>	<i>BILL OF MATERIAL AND LOCATION SKETCH</i>
<i>S-3</i>	<i>TYPICAL SECTIONS</i>
<i>S-4</i>	<i>FRAMING PLAN</i>
<i>S-5</i>	<i>STRUCTURAL STEEL DETAILS</i>
<i>SN</i>	<i>STANDARD NOTES</i>

NOTES

PLAN INFORMATION IS TAKEN FROM THE ROUTINE INSPECTION REPORT DATED 06/11/2018. THE CONTRACTOR SHALL FIELD VERIFY THE BRIDGE SPAN LENGTHS PRIOR TO FABRICATION OF THE STEEL BEAMS.

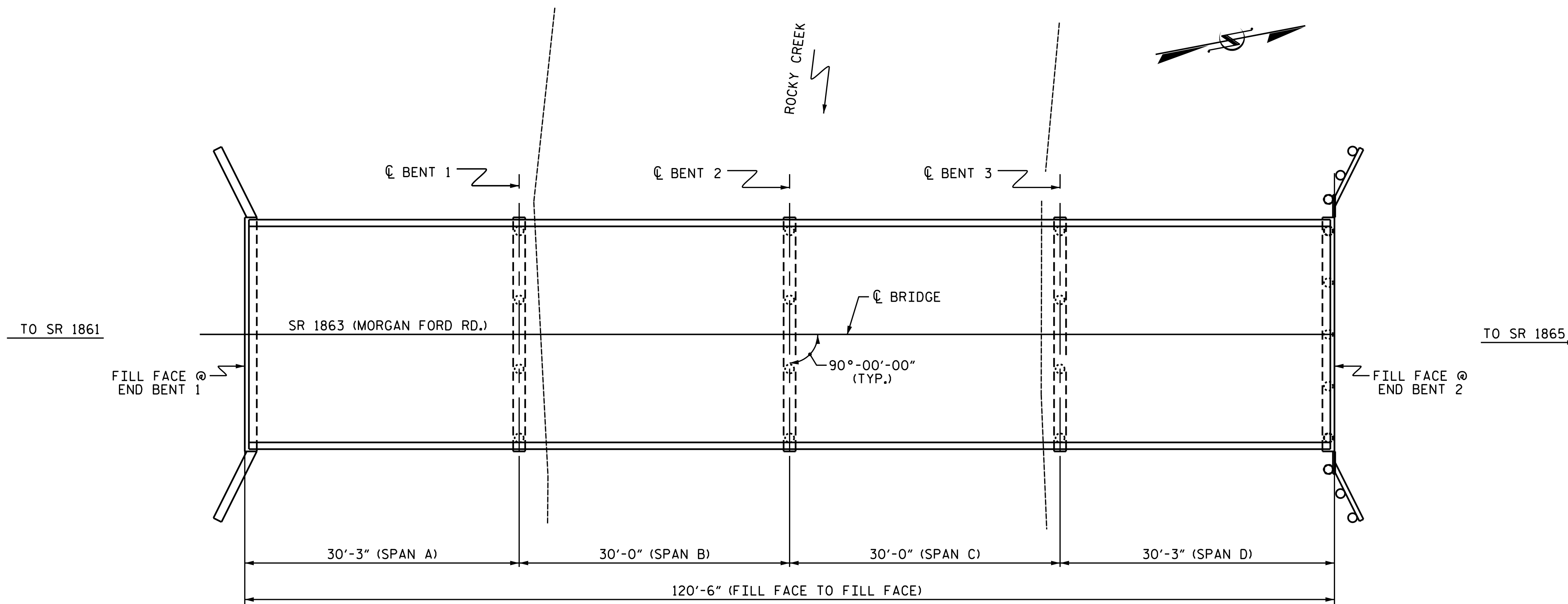
BRIDGE ORIENTATION CONFORMS TO THE ROUTINE INSPECTION REPORT DATED 06/11/2018.



SECTION ALONG CL BRIDGE

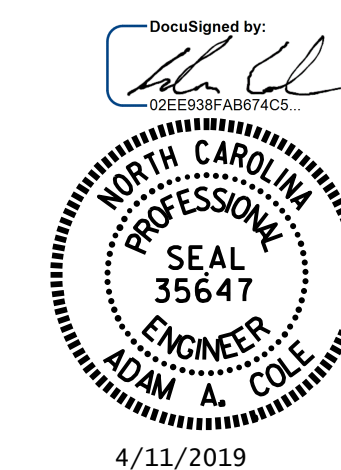
SCOPE OF WORK

- REMOVE EXISTING BRIDGE SUPERSTRUCTURE.
- INSTALL STEEL I-BEAMS ON EXISTING SUBSTRUCTURE.
- REPLACE BEARING PLATES AND ANCHOR BOLTS.
- INSTALL STEEL DIAPHRAGMS.



PLAN

PROJECT NO. 17BP.12.H.3
IREDELL COUNTY
 BRIDGE NO. 480258



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

GENERAL DRAWING
 FOR BRIDGE OVER
 ROCKY CREEK
 ON SR 1863
 (MORGAN FORD ROAD)

I HEREBY CERTIFY THAT THIS STRUCTURE WAS REHABILITATED ACCORDING TO THESE PLANS OR AS NOTED HEREIN.

 RESIDENT ENGINEER

 DATE

DRAWN BY : H. A. LOCKLEAR DATE : .02/2019
 CHECKED BY : A. A. COLE DATE : .03/2019

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

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



LOCATION SKETCH

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.

BRIDGE COORDINATES

LATITUDE: 36.01318611
LONGITUDE: -80.93191111

TOTAL BILL OF MATERIAL		
	REMOVAL OF EXISTING STRUCTURE AT BRIDGE #258	APPROX. 42,216 LBS STRUCTURAL STEEL
	LUMP SUM	LUMP SUM
SUPERSTRUCTURE	LUMP SUM	LUMP SUM
END BENT 1	---	---
BENT 1	---	---
BENT 2	---	---
BENT 3	---	---
END BENT 1	---	---
TOTAL	LUMP SUM	LUMP SUM

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.

THE EXISTING STRUCTURE CONSISTS OF 4 SIMPLE SPANS: 2 @ 30'-3" AND 2 @ 30'-0"; 19'-2" CLEAR ROAD WIDTH AND W14x30 STEEL BEAMS; END BENTS AND INTERIOR BENTS; END BENT 1 MASS CONCRETE; END BENT 2 AND INTERIOR BENTS ARE TIMBER BEAMS ON TIMBER PILES. THE EXISTING BRIDGE IS CLOSED TO ALL TRAFFIC.

REMOVAL OF THE EXISTING BRIDGE SUPERSTRUCTURE SHALL BE PERFORMED SO AS NOT TO DAMAGE THE EXISTING SUBSTRUCTURE AND IN A MANNER THAT PREVENTS DEBRIS FROM FALLING INTO THE WATER. THE CONTRACTOR SHALL SUBMIT DEMOLITION PLANS FOR REVIEW AND REMOVE THE EXISTING BRIDGE SUPERSTRUCTURE IN ACCORDANCE WITH ARTICLE 402-2 OF THE STANDARD SPECIFICATIONS.

FOR REMOVAL OF EXISTING STRUCTURE, SEE SPECIAL PROVISIONS.

NCDOT FORCES MAY NEED TO MAKE REPAIRS TO THE EXISTING BENTS AND/OR END BENTS. THE CONTRACTOR SHALL COORDINATE HIS WORK SCHEDULE WITH THE ENGINEER TO AVOID CONFLICTS. FOR COORDINATION WITH NCDOT STATESVILLE BRIDGE UNIT, SEE SPECIAL PROVISION.

FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.

FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.

FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.

PROJECT NO. 17BP.12.H.3
IREDELL COUNTY
BRIDGE NO. 480258



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

FRAMING PLAN

DRAWN BY : H. A. LOCKLEAR DATE : 02/2019
CHECKED BY : A. A. COLE DATE : 03/2019

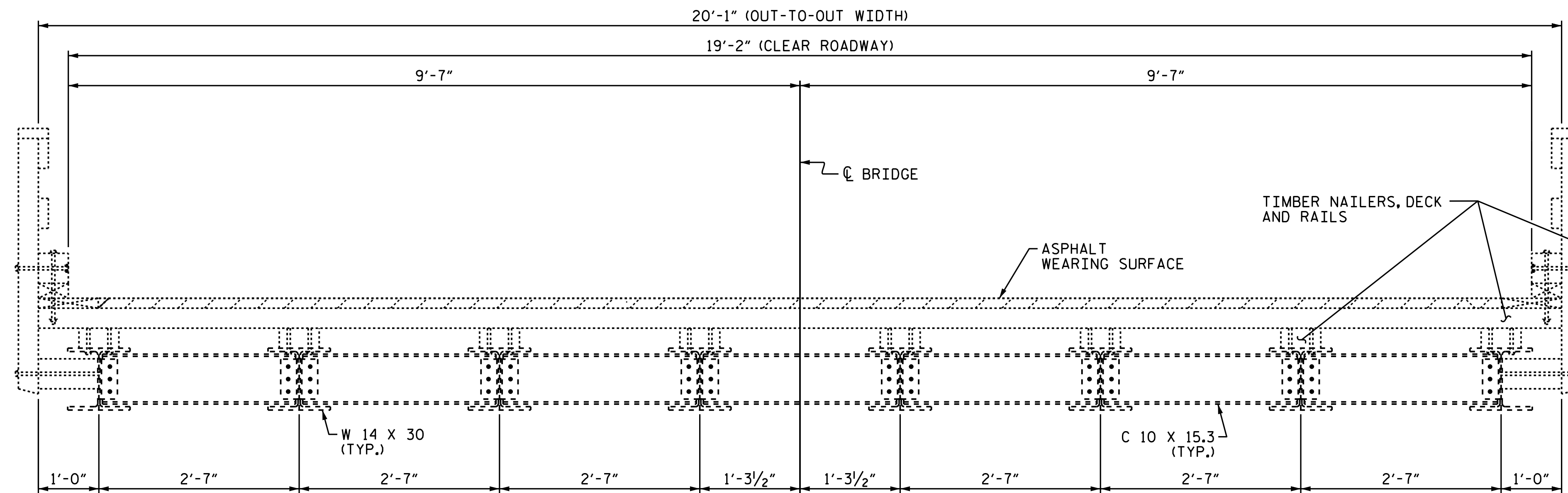
DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

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

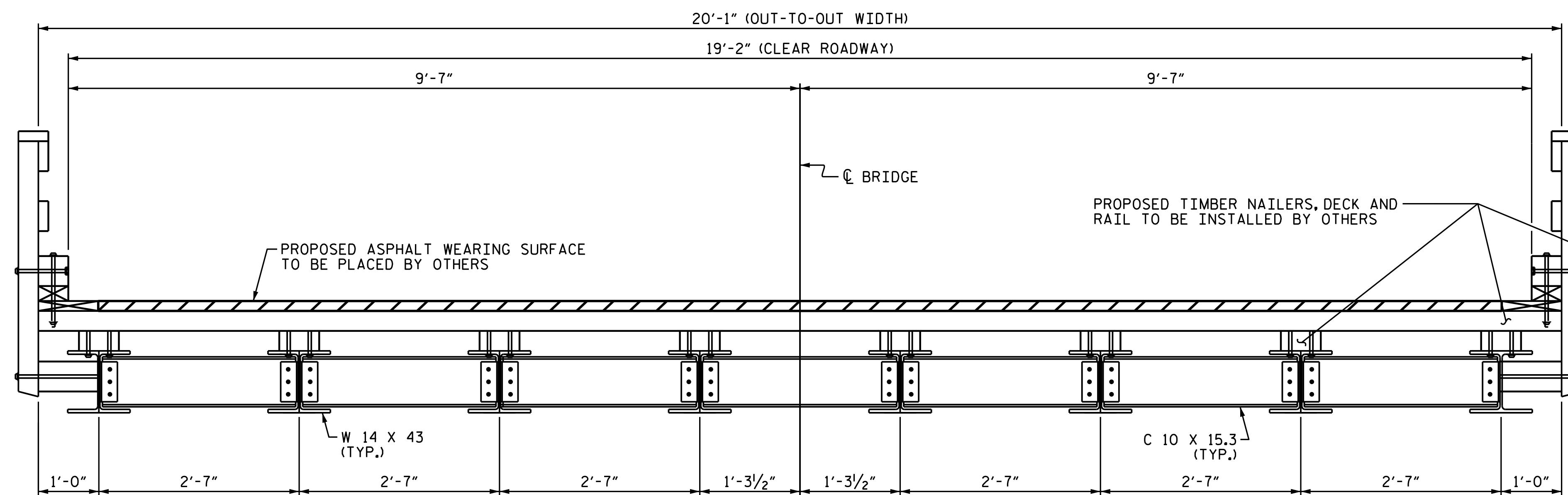
NOTES

ASSUMED LIVE LOAD = HS-20 OR ALTERNATE LOADING. THE CONDITION OF THE SUBSTRUCTURE MAY CONTROL BRIDGE LOAD RATING.

TWO LINES OF DIAPHRAGMS PER SPAN ARE REQUIRED AT SPACING SHOWN ON FRAMING PLAN.

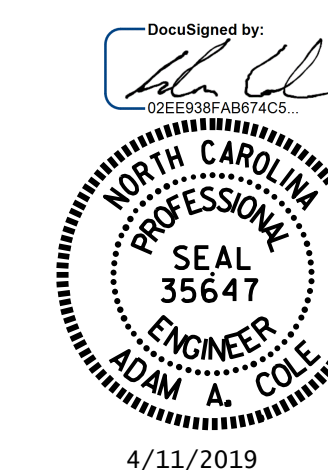


EXISTING TYPICAL SECTION
 (ALL FEATURES SHOWN SHALL BE REMOVED BY THE CONTRACTOR)



PROPOSED TYPICAL SECTION

PROJECT NO. 17BP.12.H.3
 IREDELL COUNTY
 BRIDGE NO. 480258

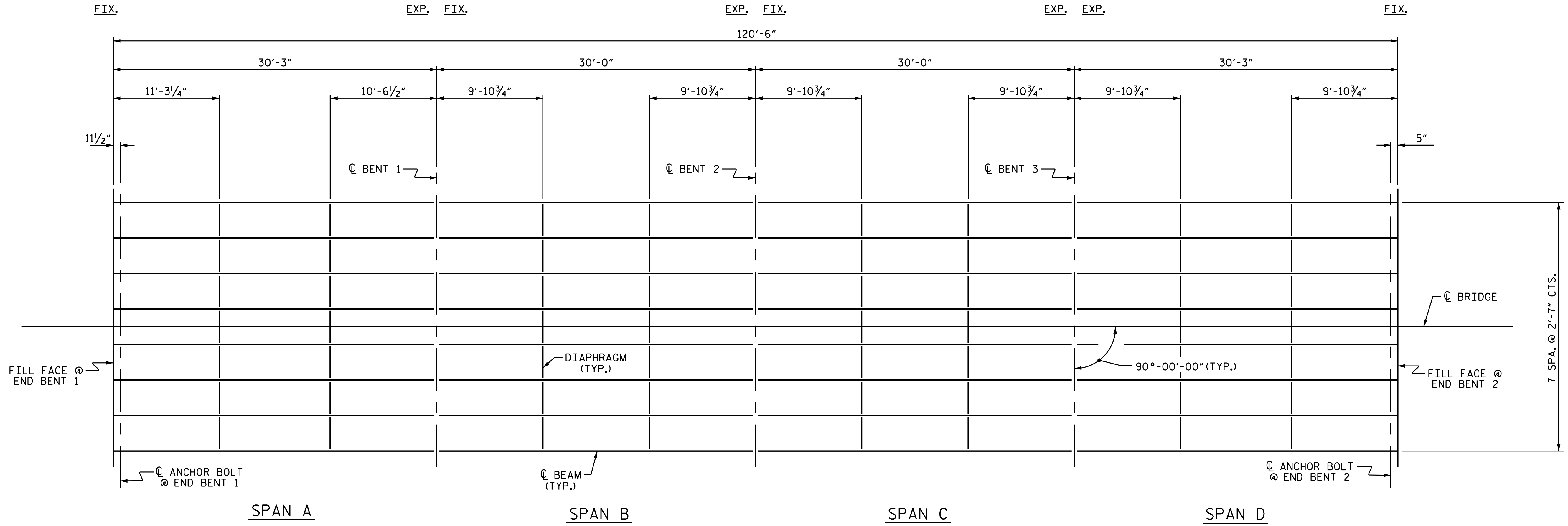


STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SUPERSTRUCTURE
 TYPICAL SECTIONS

DRAWN BY : H. A. LOCKLEAR DATE : 02/2019
 CHECKED BY : A. A. COLE DATE : 03/2019

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

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



FRAMING PLAN

PROJECT NO. 17BP.12.H.3
 IREDELL COUNTY
 BRIDGE NO. 480258

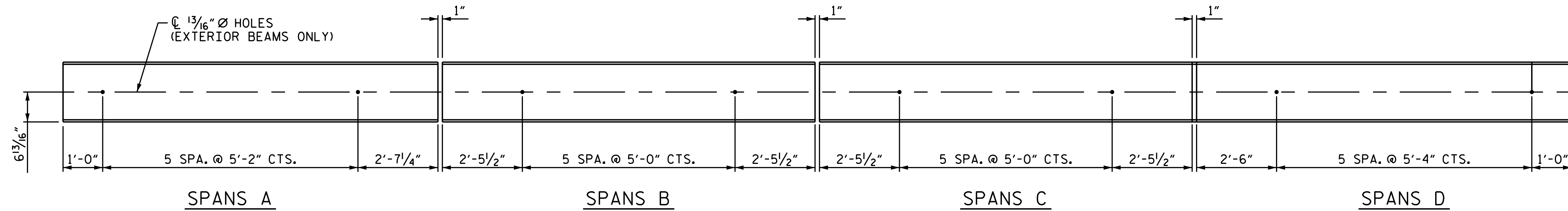


STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SUPERSTRUCTURE
 FRAMING PLAN

DRAWN BY : H. A. LOCKLEAR DATE : 02/2019
 CHECKED BY : A. A. COLE DATE : 03/2019

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

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



DETAIL OF EXTERIOR BEAMS SHOWING RAIL BLOCK HOLE SPACING

NOTES

ALL STRUCTURAL STEEL SHALL BE AASHTO M270 GRADE 50 STEEL AND PAINTED IN ACCORDANCE WITH SYSTEM 1 OF ARTICLE 442-8 OF THE STANDARD SPECIFICATIONS.

ALL FIELD CONNECTIONS TO BE ASTM A325 7/8" DIA. BOLTS UNLESS OTHERWISE NOTED.

AT ALL POINTS OF SUPPORT, NUTS FOR ANCHOR BOLTS ARE TO BE TIGHTENED FINGER TIGHT AND THEN BACKED OFF 1/2 TURN. THE THREAD OF THE NUT AND BOLT SHALL THEN BE BURRED WITH A SHARP POINTED TOOL.

NO SHOP CAMBER REQUIRED, TURN NATURAL MILL CAMBER UP.

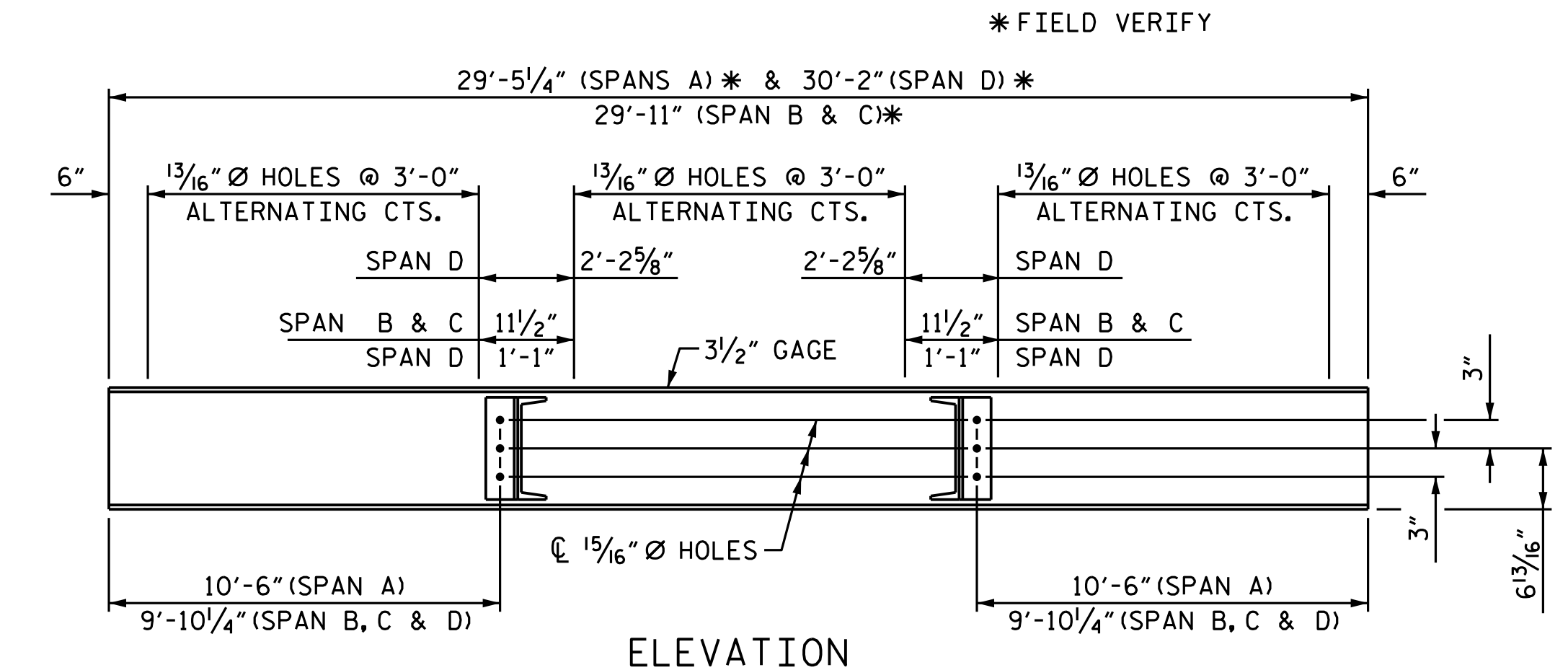
ALL SURFACES OF BEARING PLATES SHALL BE SMOOTH AND STRAIGHT.

TENSION ON THE ASTM A325 BOLTS SHALL BE CALIBRATED USING DIRECT TENSION INDICATOR WASHERS IN ACCORDANCE WITH ARTICLE 440-8 OF THE STANDARD SPECIFICATIONS.

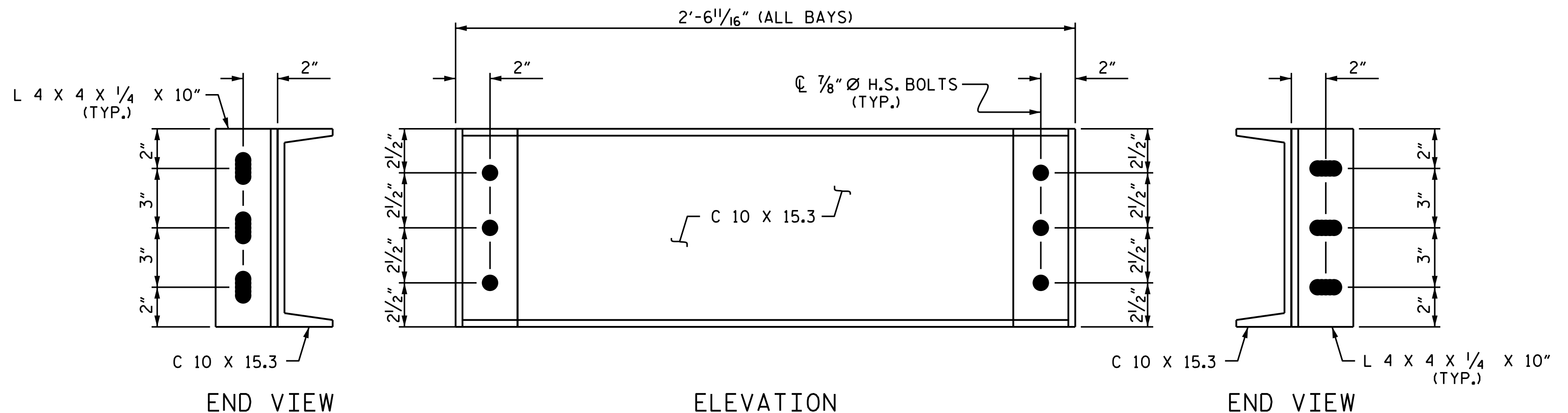
BEARING PLATES, BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

ALL WELDING SHALL BE IN ACCORDANCE WITH CURRENT APPLICABLE AWS AND NCDOT STANDARD SPECIFICATIONS.

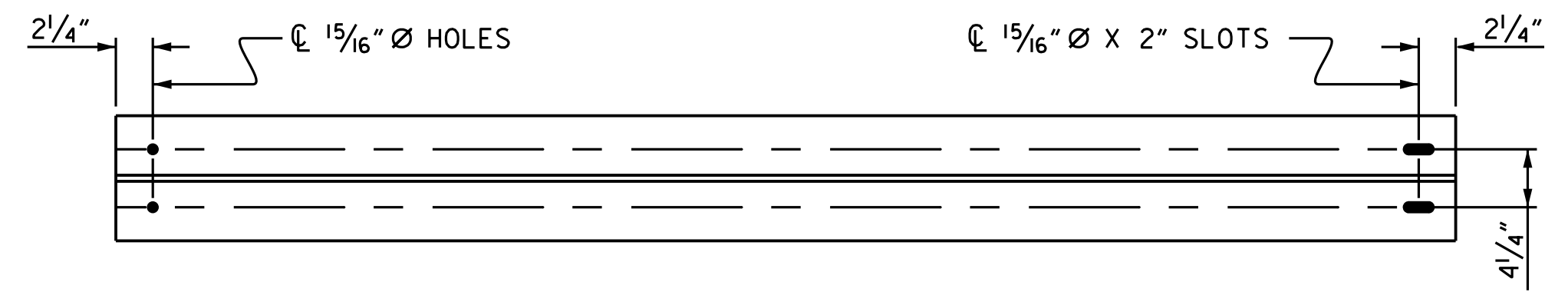
ALL WELDS WILL BE INSPECTED AND TESTED BY THE NCDOT MATERIALS AND TEST UNIT IN ACCORDANCE WITH THE CURRENT AWS BRIDGE WELDING CODE AND STANDARD SPECIFICATIONS.



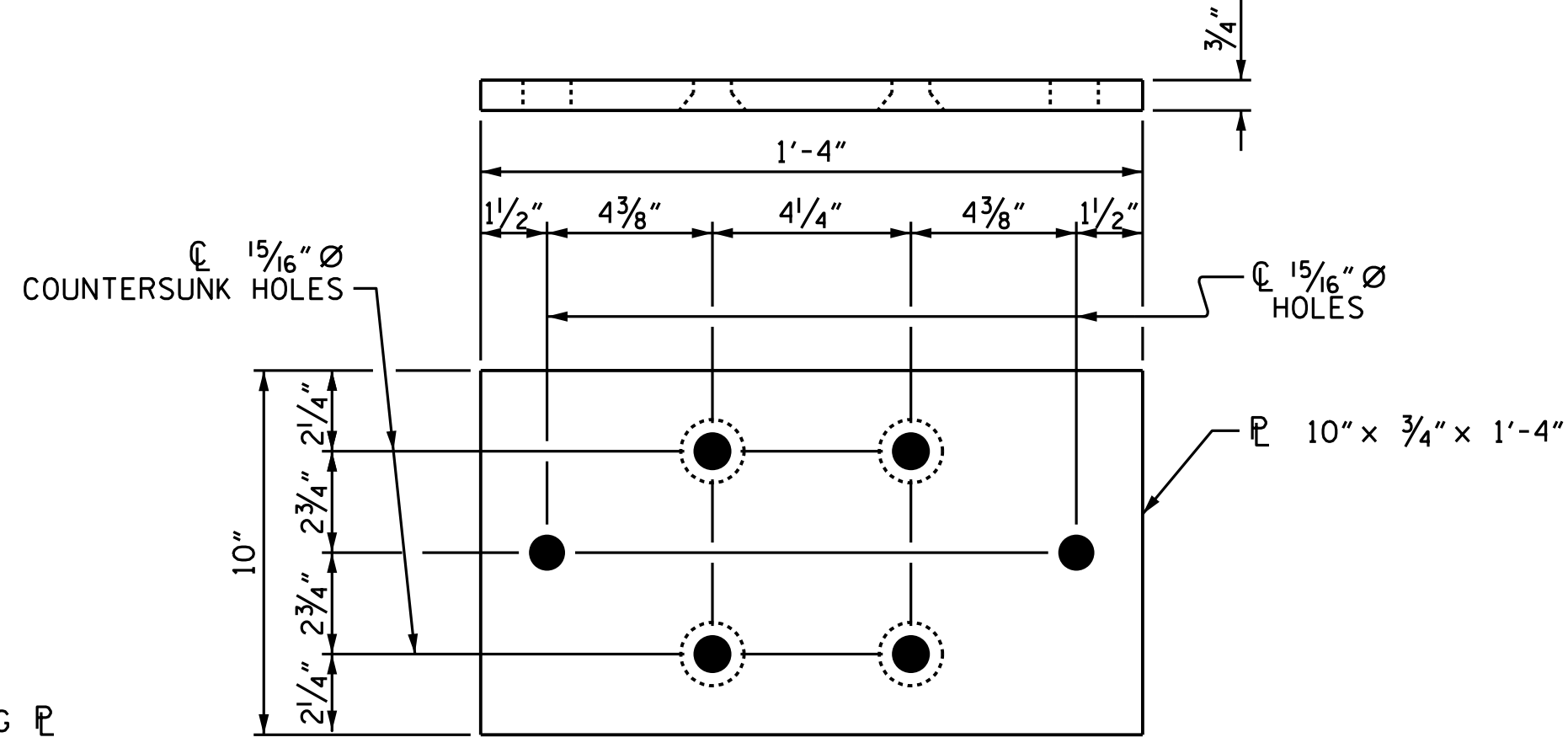
ELEVATION



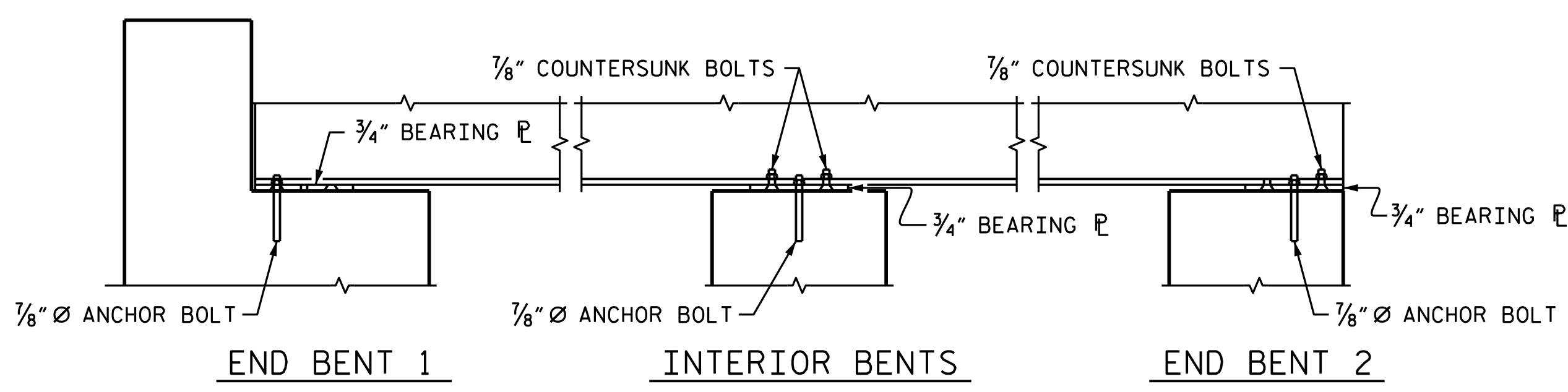
DIAPHRAGM DETAILS



PLAN OF BOTTOM FLANGE
BEAM DETAILS

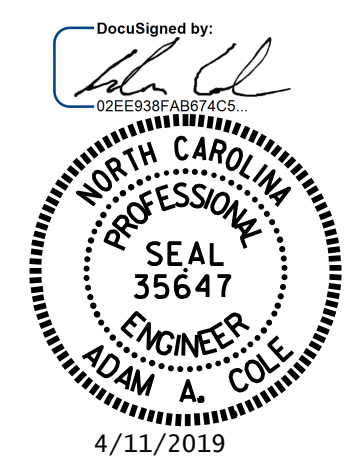


BEARING PLATE
M1 (40 REQ'D)
USE THE SAME PLATE AT ALL BEARINGS



END BENT 1 INTERIOR BENTS END BENT 2

PROJECT NO. 17BP.12.H.3
IREDELL COUNTY
BRIDGE NO. 480258



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUPERSTRUCTURE
STRUCTURAL STEEL
DETAILS

DRAWN BY: H. A. LOCKLEAR DATE: 02/2019
CHECKED BY: A. A. COLE DATE: 03/2019

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

