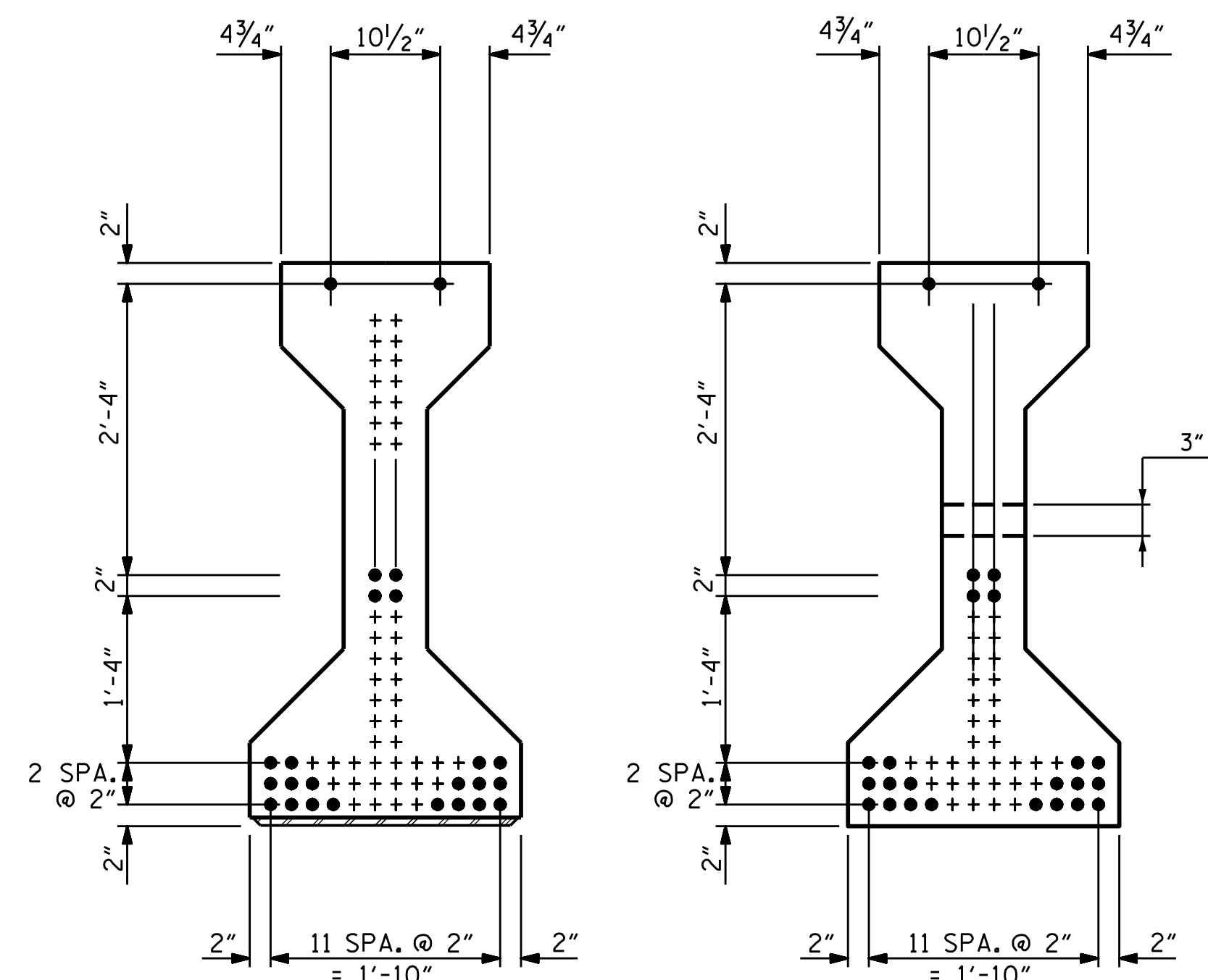


SECTION A-A



24-0.6" Ø LOW RELAXATION STRAND LAYOUT

• FULLY BONDED STRANDS

**NOTES**

ALL PRESTRESSING STRANDS SHALL BE 7-WIRE LOW-RELAXATION GRADE 270 STRANDS AND SHALL CONFORM TO AASHTO M203 EXCEPT FOR SAMPLING REQUIREMENTS WHICH SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

APPLY EPOXY PROTECTIVE COATING TO END OF GIRDER SURFACES.

EMBEDDED PLATE "B-1" SHALL BE GALVANIZED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

ANCHOR STUDS SHALL CONFORM TO AASHTO M169 GRADES 1010 THROUGH 1020 OR APPROVED EQUAL, AND SHALL MEET THE TYPE "B" REQUIREMENTS OF SUBSECTION 7.3 OF THE ANSI/AASHTO/AWS D1.5 BRIDGE WELDING CODE.

ALL PRESTRESSED STRANDS SHALL BE CUT FLUSH WITH THE GIRDER ENDS.

THE TRANSFER OF LOAD FROM THE ANCHORAGES TO THE GIRDER SHALL BE DONE WHEN CONCRETE HAS REACHED A COMPRESSIVE STRENGTH OF NOT LESS THAN 4000 PSI.

DEPENDING ON THE TYPE OF SYSTEM USED TO SUPPORT THE DECK SLAB FORMS, PRESET ANCHORS MAY BE NECESSARY IN THE PRESTRESSED CONCRETE GIRDER.

THE TOP SURFACE OF THE GIRDER SHALL BE RAKED TO A DEPTH OF 1/4" EXCEPT IN THE AREA BETWEEN THE STIRRUP AND THE EDGE OF THE GIRDER.

WHEN DRAPED STRANDS ARE DETAILED, THE LONGITUDINAL LOCATION OF THE HOLD DOWN DEVICES SHALL BE WITHIN 6" OF THE LOCATION SHOWN AND THE CENTER OF GRAVITY OF THE GROUP OF DRAPED STRANDS SHALL BE LOCATED WITHIN 1/2" OF THE THEORETICAL LOCATION SHOWN.

ALL REINFORCING STEEL SHALL BE GRADE 60.

END OF GIRDER

3" Ø CORED OR FORMED HOLE (SEE ELEVATION VIEW)

3/4" Ø X 5" ANCHOR STUDS

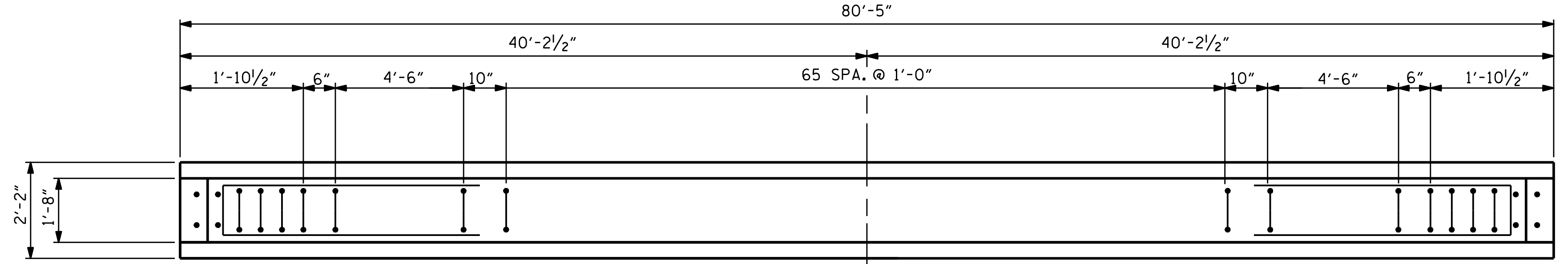
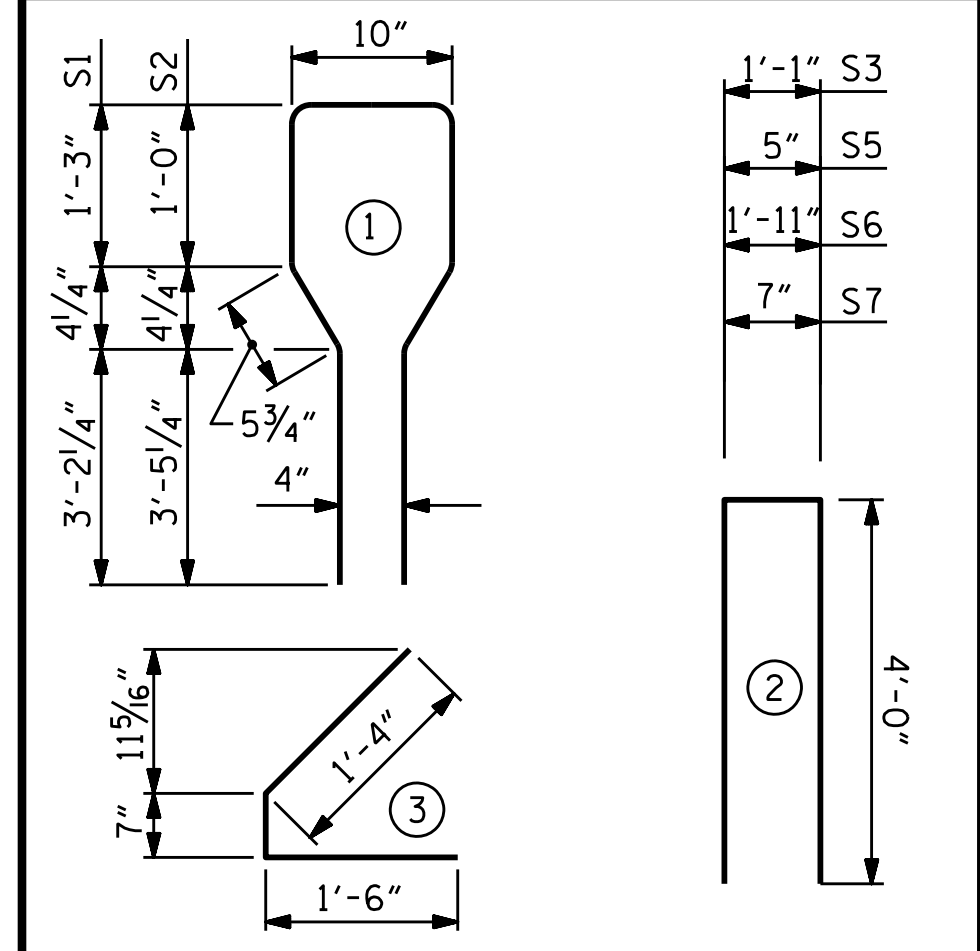
SECTION "F"  
(SEE NOTES)

EMBEDDED PLATE "B-1" DETAILS  
TWO EMBEDDED PLATES "B-1" ARE REQUIRED FOR EACH GIRDER.

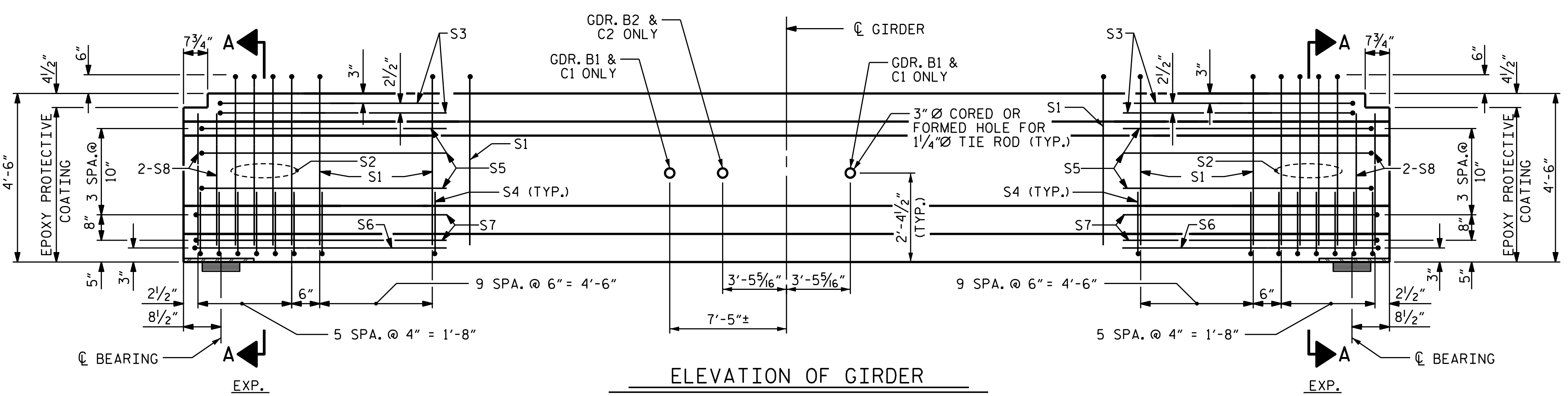
0.6" Ø L. R. GRADE 270 STRANDS		
AREA (SQUARE INCHES)	ULTIMATE STRENGTH (LBS. PER STRAND)	APPLIED PRESTRESS (LBS. PER STRAND)
0.217	58,600	43,950

REINFORCING STEEL FOR ONE GIRDER					
BAR	NUMBER	SIZE	TYPE	LENGTH	WEIGHT
S1	86	#4	1	10'-8"	613
S2	8	#6	1	10'-8"	128
S3	4	#4	2	9'-1"	24
S4	64	#4	3	3'-5"	146
S5	6	#4	2	8'-5"	34
S6	2	#4	2	9'-11"	13
S7	4	#4	2	8'-7"	23
S8	8	#6	STR	3'-9"	45

**BAR TYPES**  
ALL BAR DIMENSIONS ARE OUT-TO-OUT



PLAN OF GIRDER



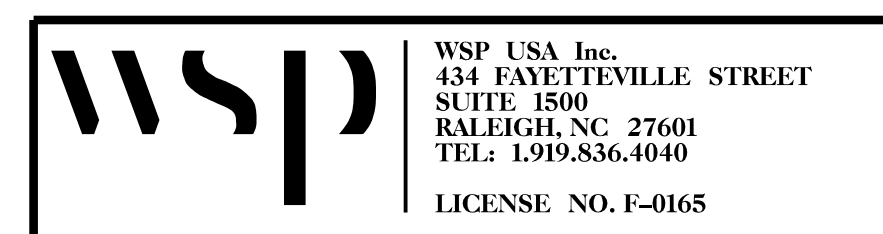
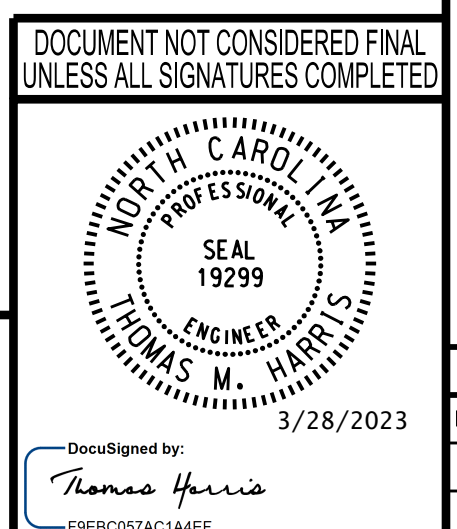
ELEVATION OF GIRDER

QUANTITIES FOR ONE GIRDER			
	REINFORCING STEEL LB.	5000 PSI CONCRETE C.Y.	0.6" Ø L. R. STRANDS No.
B1, B2, C1, C2	1026	16.3	24

GIRDERS REQUIRED		
NUMBER	LENGTH	TOTAL LENGTH
4	80.4	321.7

PROJECT NO. U-4424  
EDGEcombe COUNTY  
STATION: 66+24.84 -L-

STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH  
STANDARD  
AASHTO TYPE IV  
PRESTRESSED CONCRETE GIRDER  
SPANS B & C



REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-16
1			3			TOTAL SHEETS
2			4			37

3/28/2023 J:\188771-06\_NCDOT\_NC\_111\U-4424\Structures\Dr-off-fig\DGNS\401\_033\_U4424\_SML\_C2\_016.dgn

DRAWN BY : JMB 12/87	REV. 10/11	MAA/GM
CHECKED BY : ARB 12/87	REV. 1/15	MAA/TMG
	REV. 12/17	MAA/THC
DESIGNED BY : J. WHEATLEY	DATE : MAR 2023	
DRAWN BY : J. WHEATLEY	DATE : MAR 2023	
CHECKED BY : T. KIRSCHBAUM	DATE : MAR 2023	
DESIGN ENGINEER OF RECORD : T. HARRIS	DATE : MAR 2023	