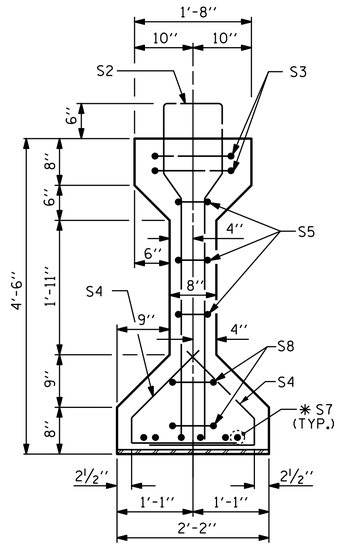
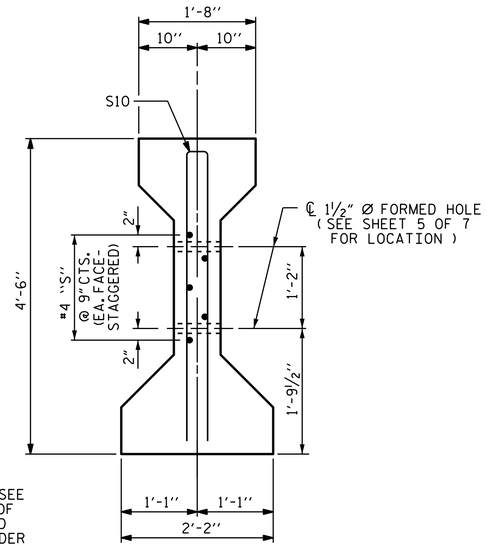


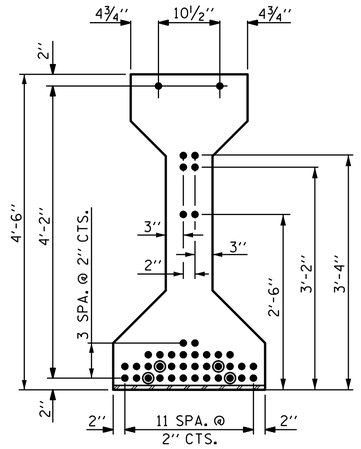
SECTION B-B

✱ FOR S7 BARS, SEE DETAIL "A" OF PRESTRESSED CONCRETE GIRDER CONTINUOUS FOR LIVE LOAD DETAILS SHEET (SHEET 5 OF 7)

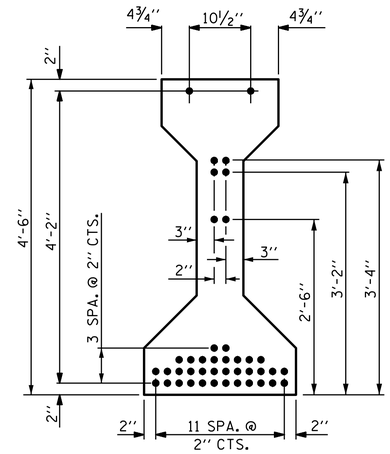


SECTION C-C

(S1 BARS NOT SHOWN)



AT END OF GIRDER



AT ℄ OF GIRDER

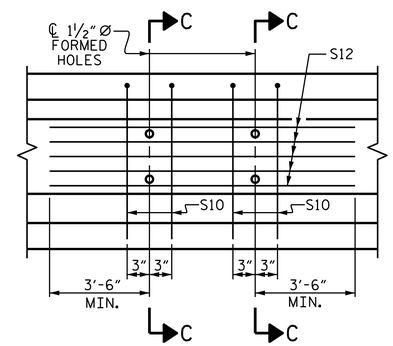
0.6" Ø LOW RELAXATION STRAND LAYOUT

42 STRANDS REQUIRED

DEBONDING LEGEND

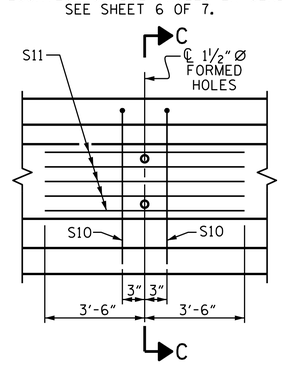
- ● FULLY BONDED STRANDS
- ◉ STRANDS DEBONDED FOR 12'-0" FROM END OF GIRDER

TABLE OF DIMENSIONS			
GDR.	X	Y	Z
B1	1'-5 9/16"	49'-11 1/16"	99'-10 1/8"
B2	1'-3 1/2"	49'-9"	99'-6"
B3	1'-1 9/16"	49'-7 1/16"	99'-2 1/8"
B4	11 5/8"	49'-5 1/8"	98'-10 1/4"
B5	9 3/4"	49'-3 1/4"	98'-6 1/2"



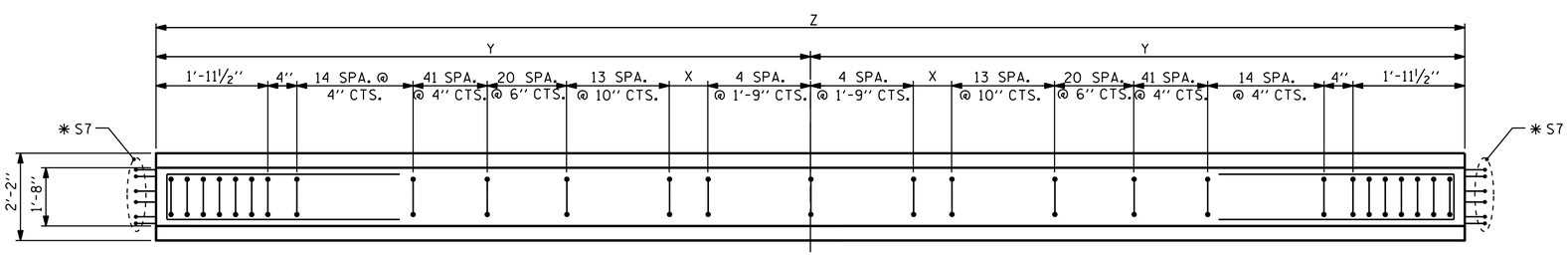
PARTIAL ELEVATION

SHOWING INTERMEDIATE DIAPHRAGM REINFORCING STEEL FOR GIRDERS B2, B3, & B4. FOR LOCATION OF BOLT HOLES IN GIRDERS, SEE SHEET 6 OF 7.

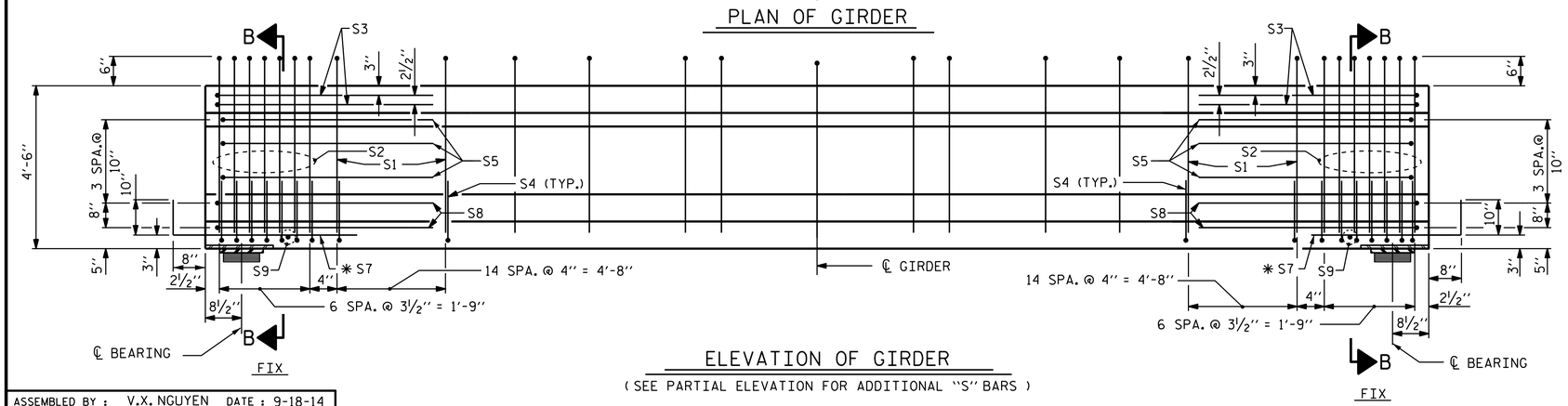


PARTIAL ELEVATION

SHOWING INTERMEDIATE DIAPHRAGM REINFORCING STEEL FOR GIRDERS B1 & B5. FOR LOCATION OF BOLT HOLES IN GIRDERS, SEE SHEET 6 OF 7.



PLAN OF GIRDER



ELEVATION OF GIRDER

(SEE PARTIAL ELEVATION FOR ADDITIONAL "S" BARS)

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

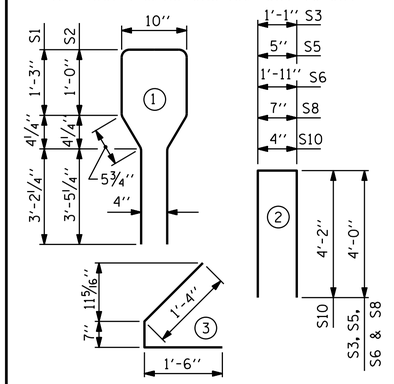
REINFORCING STEEL FOR ONE GIRDER

BAR	NUMBER	SIZE	TYPE	LENGTH	WEIGHT
S1	187	#4	1	10'-8"	1332
S2	14	#6	1	10'-8"	224
S3	4	#4	2	9'-1"	24
S4	88	#4	3	3'-5"	201
S5	6	#4	2	8'-5"	34
✱ S7	12	#5	STR	3'-8"	46
S8	4	#4	2	8'-7"	23
S9	2	#3	STR	1'-10"	1
EXTERIOR GDR. S10	2	#5	2	8'-8"	18
INTERIOR GDR. S10	4	#5	2	8'-8"	36
EXTERIOR GDR. S11	5	#4	STR	7'-0"	23
INTERIOR GDR. S12	5	#4	STR	15'-5"	51

✱ NOTE: S7 BARS SHALL BE BENT BEFORE SHIPMENT. HEAT BENDING SHALL NOT BE ALLOWED.

BAR TYPES

ALL BAR DIMENSIONS ARE OUT-TO-OUT



QUANTITIES FOR ONE GIRDER

	REINFORCING STEEL LB.	9000 PSI CONCRETE C.Y.	0.6" Ø L.R. STRANDS No.
GIRDER B1	1926	20.3	42
GIRDER B2	1972	20.2	42
GIRDER B3	1972	20.1	42
GIRDER B4	1972	20.1	42
GIRDER B5	1926	20.0	42

GIRDERS REQUIRED

NUMBER	LENGTH	TOTAL LENGTH
5	VARIES	495'-11"

PROJECT NO. B-3673

McDOWELL COUNTY

STATION: 29+38.00 -L-

SHEET 2 OF 7

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

STANDARD
AASHTO TYPE IV
PRESTRESSED CONCRETE GIRDER
CONTINUOUS FOR LIVE LOAD
SPAN B

NORTH CAROLINA PROFESSIONAL SEAL 17230 ENGINEER WAEL S. ARAFAT

DocuSigned by: Waeel Arafat 4139C12A32AB406... 2/24/2015

REVISIONS							SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:		S-15
1			3				TOTAL SHEETS
2			4				43

ASSEMBLED BY : V.X. NGUYEN	DATE : 9-18-14		
CHECKED BY : D. HODGE	DATE : 12-14		
DRAWN BY : ELR 8/91	REV. 10/17/00R	RWW/LES	DESIGN ENGINEER OF RECORD:
CHECKED BY : GRP 8/91	REV. 5/1/06R	TLA/GM	J.P. McCARTHA DATE : 1-14-15
	REV. 10/1/11	MAA/GM	

23-FEB-2015 17:35
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STD. NO. PCG6 (Sht. 1)