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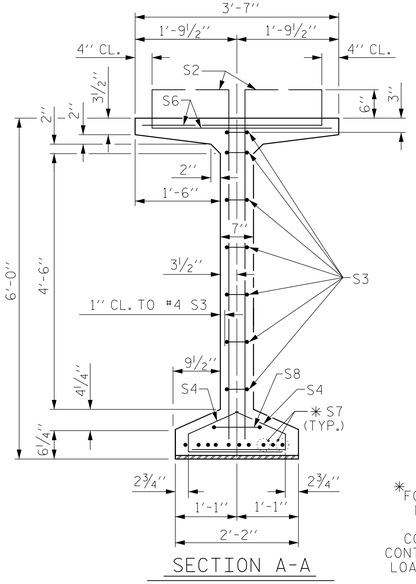
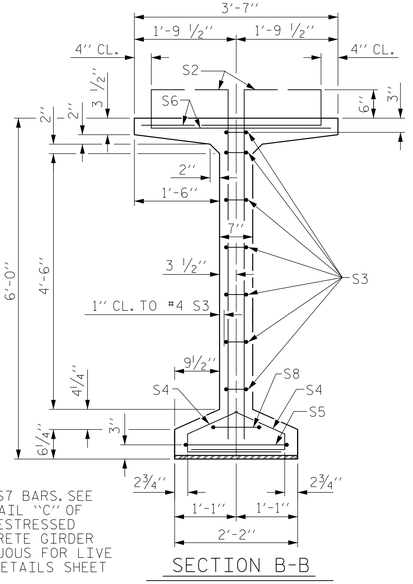
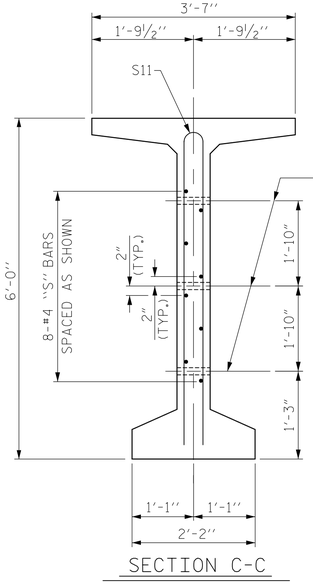


SECTION A-A



✳FOR S7 BARS. SEE DETAIL "C" OF PRESTRESSED CONCRETE GIRDER CONTINUOUS FOR LIVE LOAD DETAILS SHEET

SECTION B-B



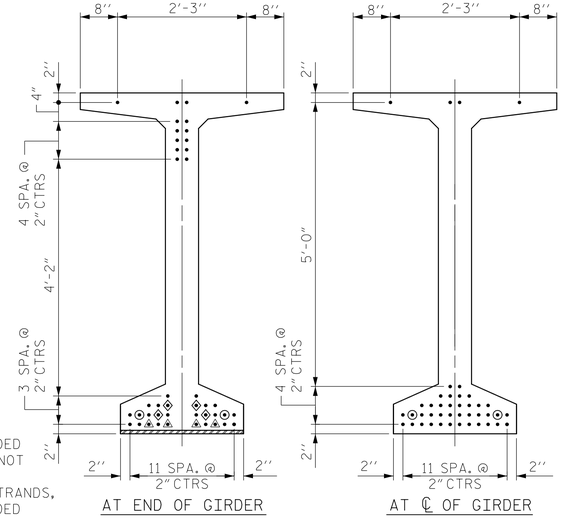
℄ 1½" Ø FORMED HOLE. SEE ELEVATION FOR LOCATION.

SECTION C-C

(S1, S6 AND S9 BARS NOT SHOWN)

DEBONDING LEGEND

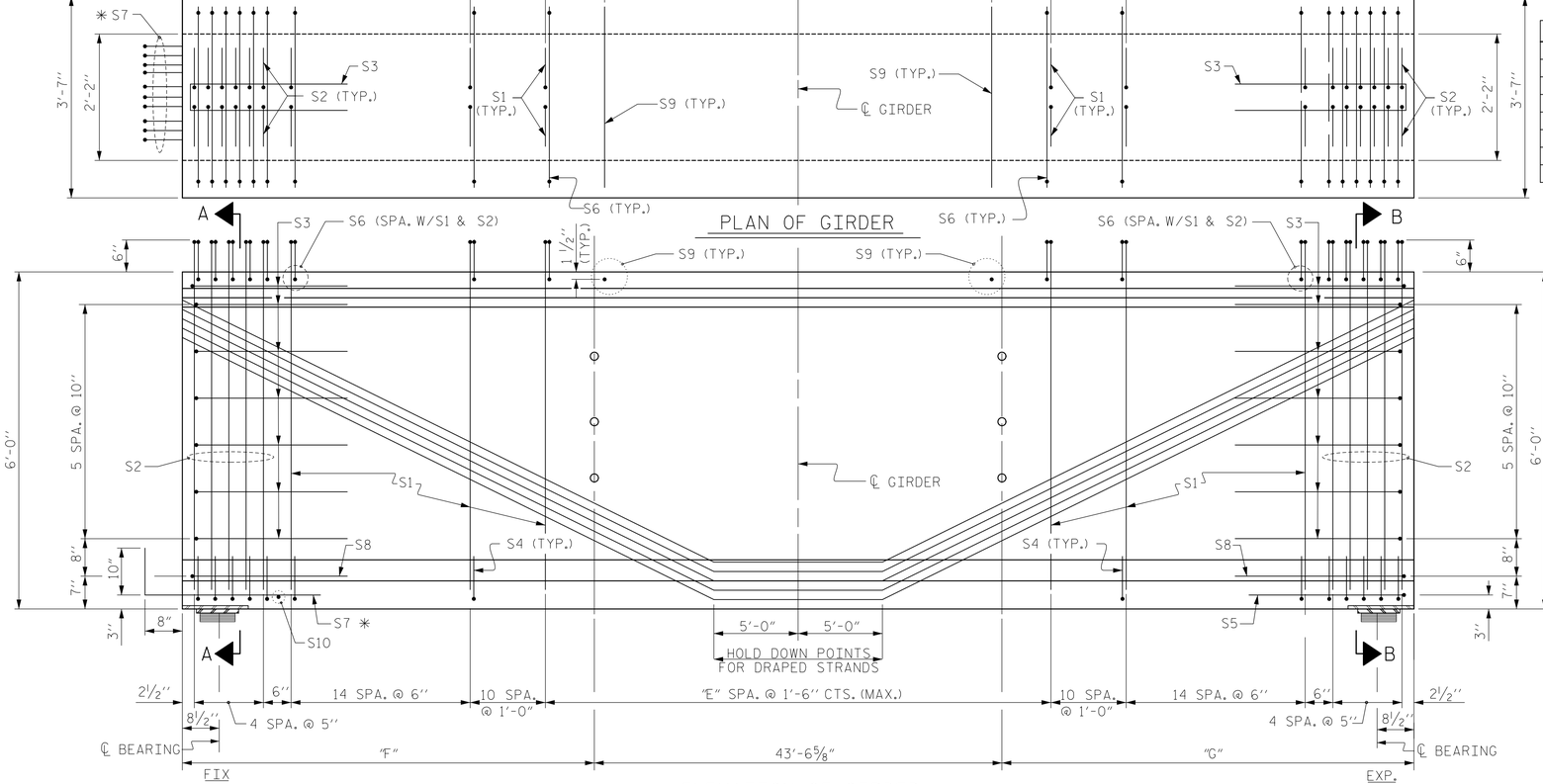
- ● FULLY BONDED STRANDS
- ◈ STRANDS DEBONDED FOR 10'-0" FROM END OF GIRDER
- ◬ STRANDS DEBONDED FOR 12'-0" FROM END OF GIRDER
- ⊙ OPTIONAL FULL LENGTH DEBONDED STRANDS. THESE STRANDS ARE NOT REQUIRED. IF THE FABRICATOR CHOOSES TO INCLUDE THESE STRANDS, THE STRANDS SHALL BE DEBONDED FOR THE FULL LENGTH OF THE GIRDER AT NO ADDITIONAL COST. SEE STANDARD SPECIFICATIONS, ARTICLE 1078-7.



0.6" Ø LOW RELAXATION STRAND LAYOUT

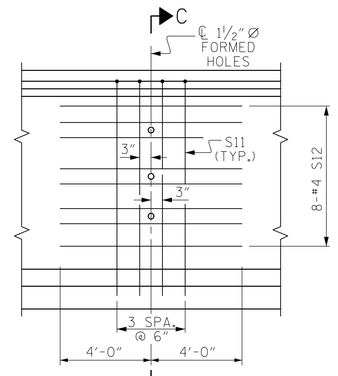
GIRDER	"A"	"B"	"C"	"D"	"E"	"F"
C1	99'-3⅜"	49'-7 11/16"	60'-6⅜"	40	41	22'-10"
C2	101'-8⅞"	50'-10 7/16"	62'-11⅞"	41	42	25'-2¼"
C3	104'-2⅜"	52'-1 3/16"	65'-5⅜"	43	44	27'-6½"
C4	106'-8"	53'-4"	67'-11"	45	46	29'-10 13/16"
C5	109'-1½"	54'-6¾"	70'-4½"	46	47	32'-3 3/16"
C6	111'-7"	55'-9½"	72'-10"	48	49	34'-7⅜"
C7	114'-0½"	57'-0¼"	75'-3½"	50	51	36'-11⅝"
C8	116'-6"	58'-3"	77'-9"	51	52	39'-3⅞"

GIRDER	"G"	"H"	"J"	"K"	"L"	"M"	"N"	"P"	"R"
C1	32'-10¾"	180	200	41	1,283	904	139	3,020	21.3
C2	33'-0"	182	202	42	1,297	913	142	3,046	21.8
C3	33'-1¼"	186	206	44	1,326	931	149	3,100	22.3
C4	33'-2 9/16"	190	210	46	1,354	949	156	3,153	22.9
C5	33'-3 13/16"	192	212	47	1,368	958	159	3,179	23.4
C6	33'-5"	196	216	49	1,397	976	166	3,233	23.9
C7	33'-6¼"	200	220	51	1,425	994	173	3,286	24.4
C8	33'-7½"	202	222	52	1,440	1,003	176	3,313	25.0



PLAN OF GIRDER

ELEVATION OF GIRDER



PARTIAL ELEVATION

SHOWING INTERMEDIATE STEEL DIAPHRAGM REINFORCING STEEL FOR GIRDERS

0.6" Ø L. R. GRADE 270 STRANDS

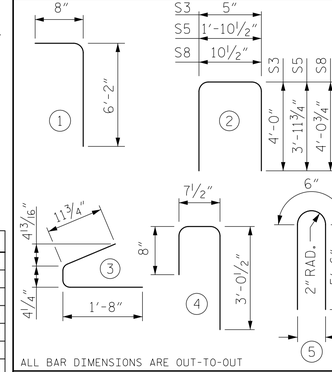
AREA (SQUARE INCHES)	ULTIMATE STRENGTH (LBS. PER STRAND)	APPLIED PRESTRESS (LBS. PER STRAND)
0.217	58,600	43,950

REINFORCING STEEL FOR ONE GDR

BAR	NUMBER	SIZE	TYPE	LENGTH	WEIGHT
S1	"H"	#5	1	6'-10"	"L"
S2	20	#6	1	6'-10"	205
S3	14	#4	2	8'-5"	79
S4	80	#4	3	3'-0"	160
S5	1	#5	2	9'-10"	10
S6	"J"	#5	4	4'-4"	"M"
✳ S7	10	#5	STR	3'-8"	38
S8	2	#5	2	9'-0"	19
S9	"K"	#5	STR	3'-3"	"N"
S10	1	#3	STR	1'-10"	1
S11	8	#5	5	11'-6"	96
S12	16	#4	STR	8'-0"	86

✳ 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	8,000 PSI CONCRETE	0.6" Ø L.R. STRANDS
	LB.	C.Y.	No.
GIRDER	"P"	"R"	40

GIRDERS REQUIRED

NUMBER	LENGTH	TOTAL LENGTH
8	"A"	863'-1⅝"

PROJECT NO. U-5008

MECKLENBURG COUNTY

STATION: 20+45.05 -L- P.O.T. = 14+54.24 -Y4- P.O.T.

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

72" PRESTRESSED CONCRETE MODIFIED BULB TEE CONTINUOUS FOR LIVE LOAD SPAN C

KCI ASSOCIATES OF NC, P.A.
9741 SOUTHERN PINE BLVD
SUITE J
CHARLOTTE, NC 28273
704-499-9452
NC LICENSE No. C-0764

NORTH CAROLINA PROFESSIONAL SEAL 032954 ENGINEER JARED C. MEDLIN
DocuSigned by: Jared C. Medlin 2/19/2015

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-23
1			3			SHEETS
2			4			78

DRAWN BY : M.S.BURGESS DATE : OCT. 2014
CHECKED BY : J.C.MEDLIN DATE : OCT. 2014

DJD 2/18/2015 Y:\Drawings\2011 DWGS\Bll-11 Sugar Creek Rd - NCDOT\Structures\RFC\Sh23_U-5008_SD_PCG-1 Span C.dgn