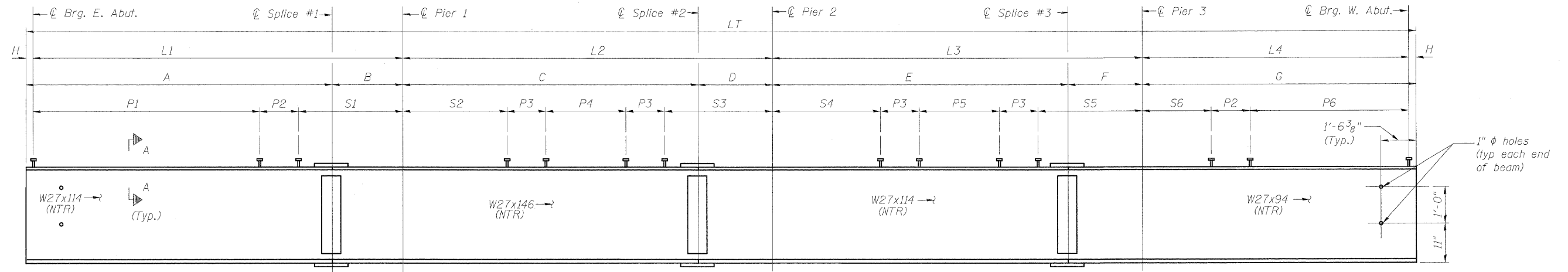


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

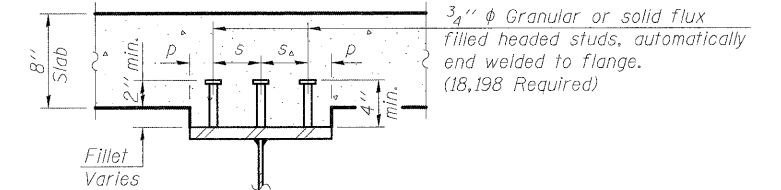


**BEAM ELEVATION**

Beams 1-18  
All beam steel shall be AASHTO M270 Grade 50.

**SHEAR STUD SPACING TABLE**

BEAM	S1	S2	S3	S4	S5	S6	P1	P2	P3	P4	P5	P6
1	14'-5 1/8"	14'-2 1/2"	10'-7 1/8"	13'-5 3/8"	11'-3 1/8"	9'-2 3/4"	79 Spaces at 6" cts.	15 Spaces at 3" cts.	13 Spaces at 3" cts.	63 Spaces at 7" cts.	43 Spaces at 7" cts.	66 Spaces at 6" cts.
2-8, 11-17	14'-2 5/8"	14'-0"	10'-6 5/8"	13'-3 3/8"	11'-3 3/8"	9'-0 3/4"	79 Spaces at 6" cts.	15 Spaces at 3" cts.	13 Spaces at 3" cts.	63 Spaces at 7" cts.	43 Spaces at 7" cts.	66 Spaces at 6" cts.
9-10	14'-3 3/8"	14'-0 1/2"	10'-6 3/4"	13'-3 3/4"	11'-3 1/2"	9'-1 1/8"	79 Spaces at 6" cts.	15 Spaces at 3" cts.	13 Spaces at 3" cts.	63 Spaces at 7" cts.	43 Spaces at 7" cts.	66 Spaces at 6" cts.
18	14'-1 3/8"	13'-10 3/4"	10'-6 3/8"	13'-2 3/8"	11'-3 1/8"	8'-11 3/4"	79 Spaces at 6" cts.	15 Spaces at 3" cts.	13 Spaces at 3" cts.	63 Spaces at 7" cts.	43 Spaces at 7" cts.	66 Spaces at 6" cts.



**SECTION A-A**

Section	p	s
W27x94	1 1/2"	3 1/2"
W27x114	1 1/2"	3 9/16"
W27x146	2"	5"

**DIMENSIONS ALONG C OF BEAM**

BEAM	A	B	C	D	E	F	G	H	L1	L2	L3	L4	LT
1	46'-5"	11'-9 1/2"	60'-0 1/4"	8'-0 3/8"	47'-6 7/8"	8'-9 3/8"	46'-6 1/8"	6 3/8"	57'-8 1/8"	68'-0 5/8"	56'-4 1/4"	45'-11 3/4"	229'-1 1/2"
2-8, 11-17	46'-3"	11'-9"	59'-9 5/8"	8'-0"	47'-4 3/4"	8'-9"	46'-4 1/8"	6 3/8"	57'-5 5/8"	67'-9 5/8"	56'-1 3/4"	45'-9 3/4"	228'-3 1/2"
9-10	46'-3 3/8"	11'-9 1/8"	59'-10 1/8"	8'-0 1/8"	47'-5 1/8"	8'-9 1/8"	46'-4 1/2"	6 3/8"	57'-6 1/8"	67'-10 1/4"	56'-2 1/4"	45'-10 1/8"	228'-5 1/2"
18	46'-2"	11'-8 3/4"	59'-8 1/4"	7'-11 1/4"	47'-3 3/4"	8'-8 3/4"	46'-3 1/8"	6 3/8"	57'-4 3/8"	67'-8 1/8"	56'-0 1/2"	45'-8 3/4"	227'-10 1/2"

**TOP OF BEAM ELEVATIONS FOR FABRICATION ONLY**

Beam No.	C Brg. E. Abut.	C Splice 1	C Pier 1	C Splice 2	C Pier 2	C Splice 3	C Pier 3	C Brg. W. Abut.
1	703.31	703.99	704.18	705.12	705.25	705.97	706.10	706.80
2	703.75	704.40	704.58	705.48	705.60	706.29	706.42	707.08
3	704.20	704.85	705.03	705.93	706.04	706.73	706.86	707.52
4	704.66	705.30	705.48	706.37	706.49	707.17	707.30	707.96
5	705.12	705.76	705.93	706.82	706.93	707.62	707.74	708.39
6	705.57	706.21	706.38	707.27	707.38	708.06	708.18	708.83
7	706.03	706.66	706.83	707.71	707.83	708.50	708.62	709.27
8	706.48	707.11	707.28	708.16	708.27	708.94	709.06	709.71
9	706.91	707.54	707.71	708.59	708.70	709.37	709.50	710.15
10	705.74	706.37	706.54	707.42	707.53	708.20	708.32	708.97
11	706.21	706.83	707.00	707.86	707.97	708.63	708.75	709.39
12	706.67	707.28	707.45	708.30	708.42	709.07	709.19	709.83
13	707.12	707.73	707.90	708.75	708.86	709.51	709.63	710.26
14	707.57	708.18	708.35	709.19	709.30	709.95	710.07	710.70
15	708.03	708.63	708.79	709.64	709.74	710.39	710.51	711.14
16	708.48	709.08	709.24	710.08	710.19	710.83	710.95	711.57
17	708.93	709.53	709.69	710.52	710.63	711.27	711.39	712.01
18	709.31	709.88	710.04	710.85	710.96	711.58	711.70	712.30

**NOTES:**

NTR denotes notch toughness requirements.  
See note sheet no. SH-35.

DESIGNED	PMH
CHECKED	MGB
DRAWN	PMH
CHECKED	MJL



**McDonough Associates Inc.**  
Engineers / Architects  
130 East Randolph Street  
Chicago, Illinois 60601  
(312) 946-8600

SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SH-34	57	(46-2) HBR	KANKAKEE	558	305
SHEETS	CONTRACT NO. 66409				
SH-56	FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT				

**STEEL DETAILS 1 OF 2  
STRUCTURE NO. 046-0144 (S.B.)  
& STRUCTURE NO. 046-0145 (N.B.)**