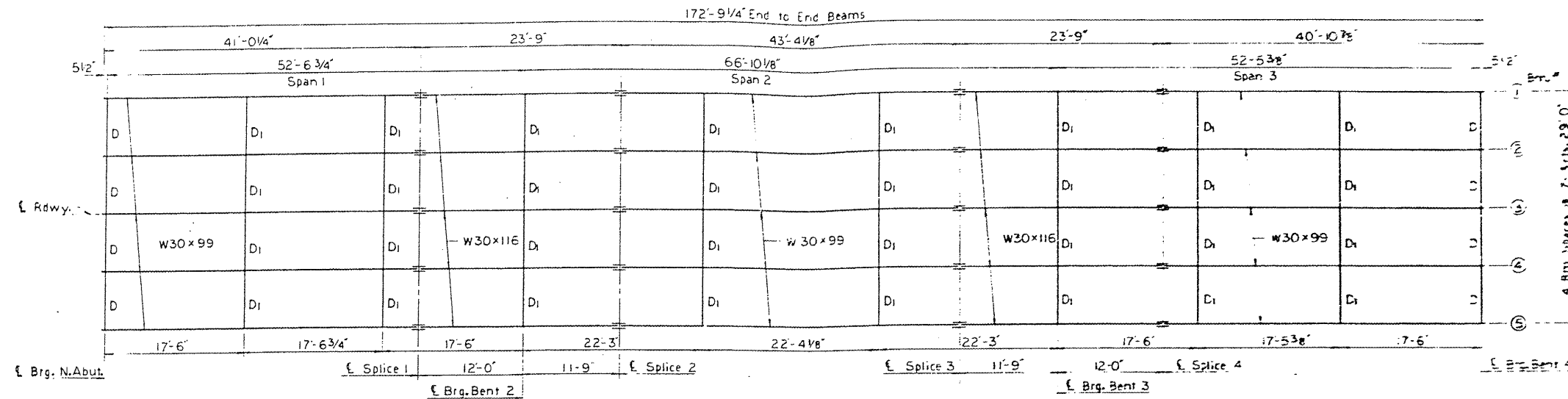
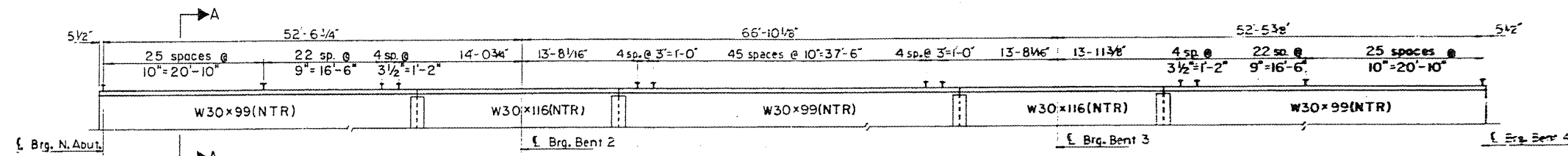


PROJECT NO.	SECTION	DATE	SHEET NO.	TOTAL SHEETS
FR 34	2 BR	MENARD MASON	57	18
Sheet 12 of 35				



FRAMING PLAN



ELEVATION

Spacing of Stud Shear Connectors
NTR-Designates Notch Toughness Requirement

INTERIOR BEAM MOMENT TABLE

Unit I	4 Sp.1 or 6 Sp.3	B-2 or 3	.5 Sp.2
Unit II	4 Sp.4 or 6 Sp.6	B-5 or 6	.5 Sp.5
I _s (in ⁴)	3990	4930	3990
I _c (in ⁴)	11151		11151
S _s (in ³)	269	329	269
S _c (in ³)	402.2		402.2
D (K/ft)	.83	.83	.83
M _D (K)	147.1	318.4	150.1
f _{sD} (KSI)	6.56	11.61	6.69
S _D (K/ft)	.33	.33	.33
M _{S_D} (K)	66.2	107.4	79.0
M _s (K)	3698	2600	4152
M _{imp} (K)	999	70.3	112.1
f _{sL+I} (KSI)	14.01	12.05	15.73
f _{sTotal} (KSI)	41.5	46.3	45.8
VR (K)	52.8		45.2

$f_{sTotal} = 1.3(f_{sD} + f_{sSR} + \frac{1}{3} f_{sL+I})$

NOTES FOR STRESS TABLE

I_s and S_s are the moment of inertia and section modulus of the steel section used in computing f_{sTotal}.
I_c and S_c are the moment of inertia and section modulus of the composite section used in computing f_{sTotal}.
VR is the maximum L+Impact shear range in span used to determine shear connector spacing.

INTERIOR BEAM REACTION TABLE

	N. Abut., B-4	Bents 2,3
R _D (K)	21.8	77.5
R _L (K)	37.4	41.1
Imp. (K)	10.1	11.1
R _{TOTAL} (K)	69.3	129.7

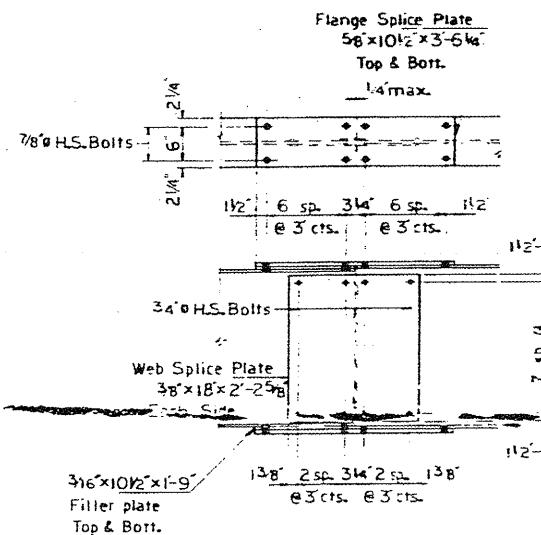
TOP OF BEAM ELEVATIONS

	Bm.1 or 5	Bm.2 or 4	Bm.3
ℓ Brg. N. Abut.	480.68	480.81	480.92
ℓ Splice 1	480.74	480.87	480.98
ℓ Brg. Bent 2	480.79	480.92	481.03
ℓ Splice 2	480.83	480.96	481.07
ℓ Splice 3	481.03	481.16	481.27
ℓ Brg. Bent 3	481.10	481.23	481.34
ℓ Splice 4	481.17	481.30	481.41
ℓ Brg. Bent 4	481.49	481.62	481.73

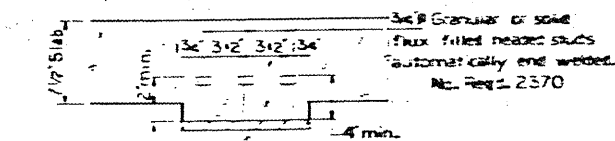
The above Elevations are for fabrication only.
Elevation at splices are given to the top of W30x116.

NOTE:

- All W30 wide flange beams and field splice material shall be AASHTO M-223 Grade 50 Steel. Diaphragms and their connecting angles & Brg. shall be AASHTO M-183 Steel.
- For detail of Diaphragms D and D_i, See Sheet 13.



DETAIL OF SPLICE



SECTION A-A

Est'd Wt.
M-183-15 BXO lbs. (incl. Bearings)
M-223-96 790 lbs.

UNIT I
STRUCTURAL STEEL
F.A.R. 34 SEC. 2 BR
MASON-MENARD COUNTY
STA. 730+40.73

FOR INFORMATION ONLY

EXISTING PLANS, SN 065-0002
VARIOUS ROUTES
D6REHAB BDGE PAINTING 2012
MENARD, SANGAMON COUNTIES