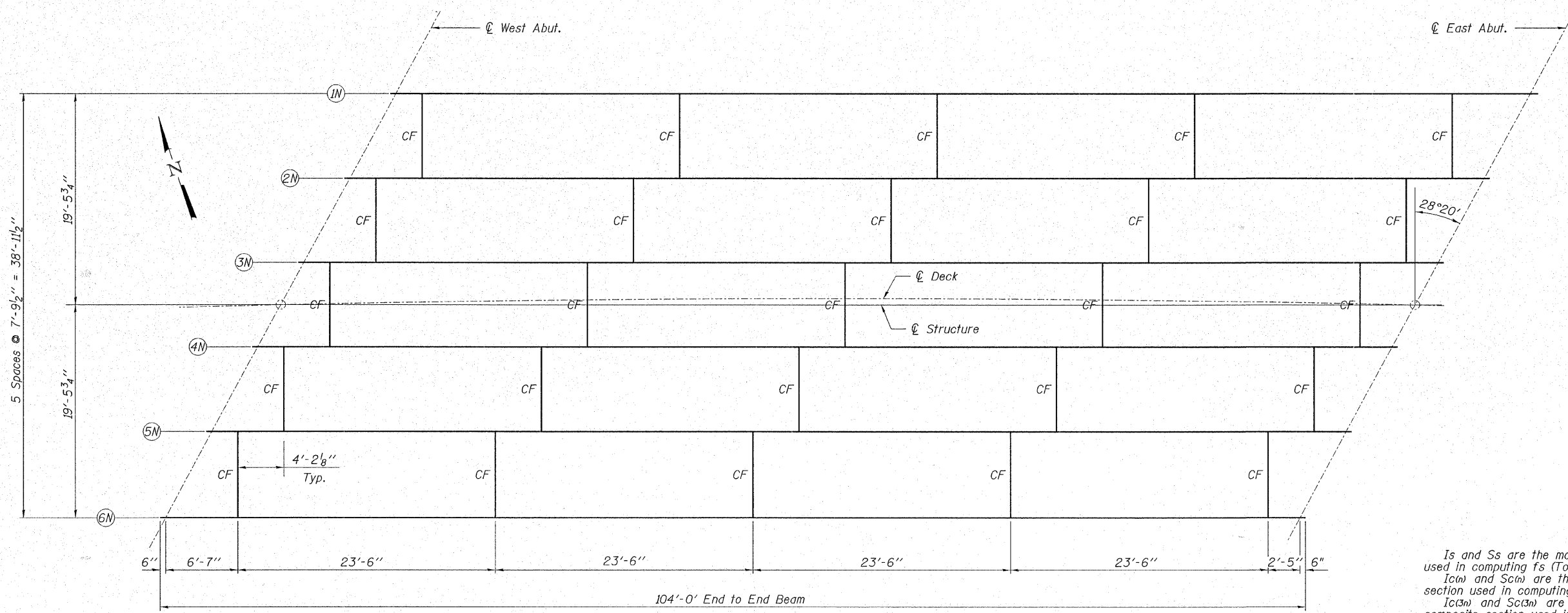


ROUTE NO.	SECTION	COUNTY	SHEET NO.	TOTAL SHEETS
F.A.U. 361	06-00214-08-BR	KANE	50	25
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT-	
CONTRACT NO. 83978		Sheet 11 of 18 W.B.		

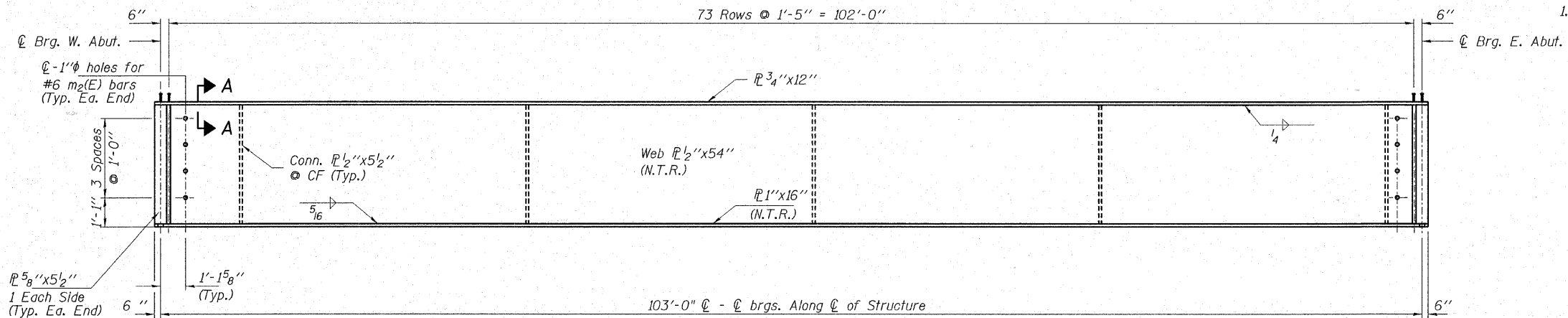


FRAMING PLAN - WESTBOUND

Property	Units	Value
I_s	(in ⁴)	24,686
I_c (n)	(in ⁴)	67,101
I_c (3n)	(in ⁴)	48,550
S_s	(in ³)	1,017
S_c (n)	(in ³)	1,441
S_c (3n)	(in ³)	1,317
ϕ	(k/ft.)	1.01
$M\phi$	(k)	1,339
$s\phi$	(k/ft.)	0.39
$Ms\phi$	(k)	517
$M\phi$	(k)	1,199
M (Imp)	(k)	263
$5_3[M\phi + M(\text{Imp})]$	(k)	2,436
M_a	(k)	5,586
M_u	(k)	7,394
$fs\phi$ non-comp (k.s.i.)		15.8
$fs\phi$ (comp) (k.s.i.)		4.7
$fs^{5_3}(\phi + \text{Imp})$ (k.s.i.)		20.3
fs (Overload) (k.s.i.)		40.8
VR	(k)	60.7

Property	Units	Value
$R(\phi + s\phi)$	(k)	72.1
$R\phi$	(k)	49.8
Imp.	(k)	10.9
R (Total)	(k)	132.8

I_s and S_s are the moment of inertia and section modulus of the steel section used in computing fs (Total & Overload).
 $I_c(n)$ and $S_c(n)$ are the moment of inertia and section modulus of the composite section used in computing stresses due to Live Load + Impact.
 $I_c(3n)$ and $S_c(3n)$ are the moment of inertia and section modulus of the composite section used in computing stresses due to superimposed dead loads.
 M_a (Applied Moment) = $1.3[M\phi + Ms\phi + 5_3(M\phi + M_{\text{Imp}})]$.
The Plastic Moment capacity (M_u) is computed according to AASHTO 10.48.1 and 10.50.1.1.
 fs (Overload) is the sum of the stresses due to $M\phi + Ms\phi + 5_3(M\phi + M_{\text{Imp}})$.
 fs (Total) (Non-compact section) is the sum of the stresses due to $1.3[M\phi + Ms\phi + 5_3(M\phi + M_{\text{Imp}})]$.

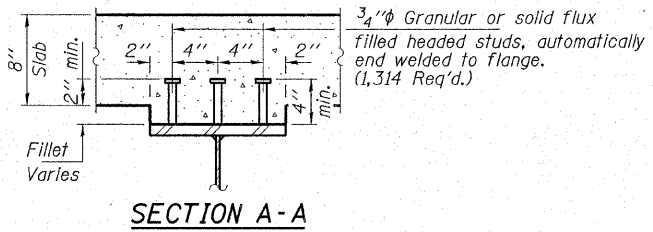


ELEVATION

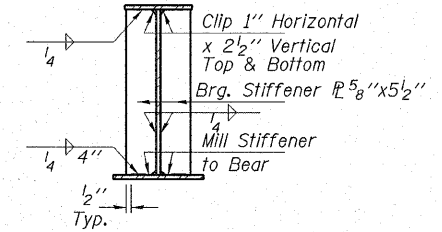
Location	W. Abut.	E. Abut.
BEAM 1	703.74	704.25
BEAM 2	703.87	704.39
BEAM 3	703.74	704.27
BEAM 4	703.50	704.03
BEAM 5	703.27	703.79
BEAM 6	703.03	703.55

TOP OF WEB ELEVATIONS
(For fabrication only)
(Does not include Dead Load Deflections)

Notes:
N.T.R. Indicates Notch Toughness Requirements, Zone 2.
All structural steel shall be M270 Grade 50 W.
For additional Structural Steel details see Sheet 12 of 18 W.B.



SECTION A-A



SECTION AT ABUTMENT

HAMPTON, LENZINI & RENWICK, INC.
CIVIL & STRUCTURAL ENGINEERS
LAND SURVEYORS

3085 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
(217) 546-3400

ELGIN • SPRINGFIELD

PROJECT NUMBER: 12-05-0077-1 DATE: 09/20/07
DESIGNED T.P.L. CHECKED: J.L.B. DRAWN: P.J.L.

STRUCTURAL STEEL
SECTION 06-00214-08-BR
F.A.U. ROUTE 361 / NEW STEARNS ROAD
OVER THE NORTH ARM OF BREWSTER CREEK
KANE COUNTY

STRUCTURE NO. 045-3165 (W.B.) / STATION 590+18.15