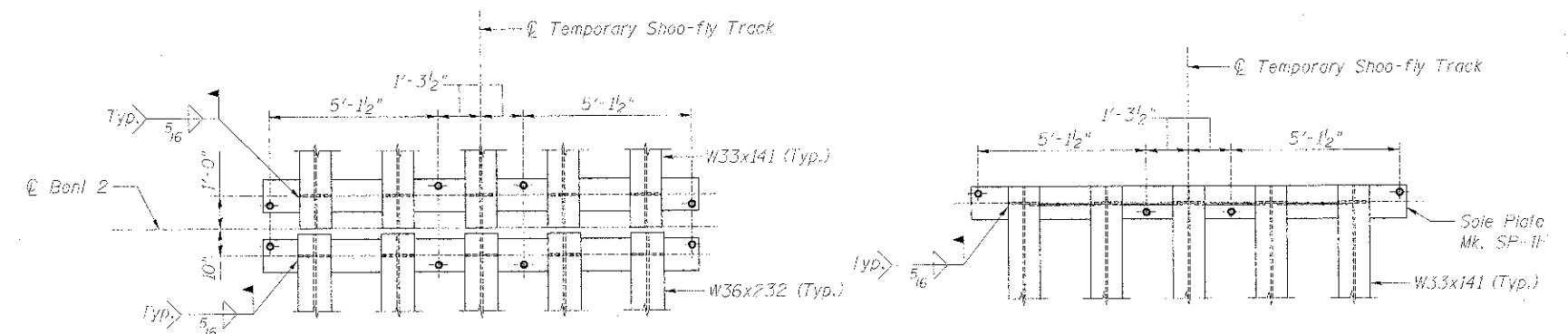


FRAMING PLAN

MOMENT AND SHEAR PER BEAM

MOMENT		
	Spans 1 & 3	Span 2
Dead Load	47 k-ft	118 k-ft
Live Load - Alternate Live Load	426 k-ft	684 k-ft
Impact	186 k-ft	290 k-ft
Total	659 k-ft	1,090 k-ft
Section - A709 Gr. 36	W33x141	W36x232
Gross I Furnished	7,450 in ⁴	15,000 in ⁴
Net I Furnished	6,950 in ⁴	14,500 in ⁴
Net Section Modulus Furnished	418 in ³	782 in ³
Allowable Max. Stress in Flange	19.8 ksi	19.8 ksi
Actual stress in Flange	Tension	18.9 ksi
	Compression	17.7 ksi
Actual stress in Flange	17.7 ksi	16.2 ksi
Allowable Max. Deflection	0.60"	0.84"
Actual Max. Deflection Alternate Load + Impact	0.52"	0.82"
SHEAR		
Dead Load	6 k	11 k
Live Load - Alternate Live Load	60 k	66 k
Impact	27 k	28 k
Total	93 k	105 k
Web Shear	4.6 ksi	3.3 ksi
End Stiffener Column Area Required	4.7 in ²	5.3 in ²
Section (2 Plates)	5/8" x 5"	5/8" x 5"
End Stiffener Column Area Furnished	10.6 in ²	15.3 in ²



PLAN - BENT 2 BEARING
(Bent 3 similar)

PLAN - END BENT BEARING

BEARING ON MASONRY

	Spans 1 & 3	Span 2
Total Reaction	93 k	105 k
Net Bearing Area Furnished	162 in ²	169 in ²
Average Bearing Stress	575 psi	621 psi

BILL OF MATERIAL*

ITEM	UNIT	QUANTITY
Furnishing and Erecting Structural Steel	Pound	116,250

*For information only. Furnishing and Erecting Structural Steel is included in cost of "Temporary Bridge".

NOTE:
N.T.R. denotes Notch Toughness Requirements.



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FILE NAME: Temp. Br. 3770-Framing-Plan.dgn	USER NAME: rgrism	DESIGNED: JLS	REVISED:
		CHECKED: LRB	REVISED:
	PLOT SCALE: 1/8" = 1'-0"	DRAWN: RMC	REVISED:
	PLOT DATE: 12/13/2012	CHECKED: LRB	REVISED:

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

M.P. 37.71 BELVIDERE SUBDIVISION - TEMPORARY BRIDGE
FRAMING PLAN

SHEET NO. UP-41 OF UP-52 SHEETS

F.A.P. RTL: 361	SECTION: 06-00214-18-RP	COUNTY: KANE	TOTAL SHEETS: 451	SHEET NO.: 361
CONTRACT NO. 63598			ILLINOIS FED. AID PROJECT	

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