

B.M.: RR Spike in Power Pole
Sta. 209+38, 38' Lt.
Elev. 708.42

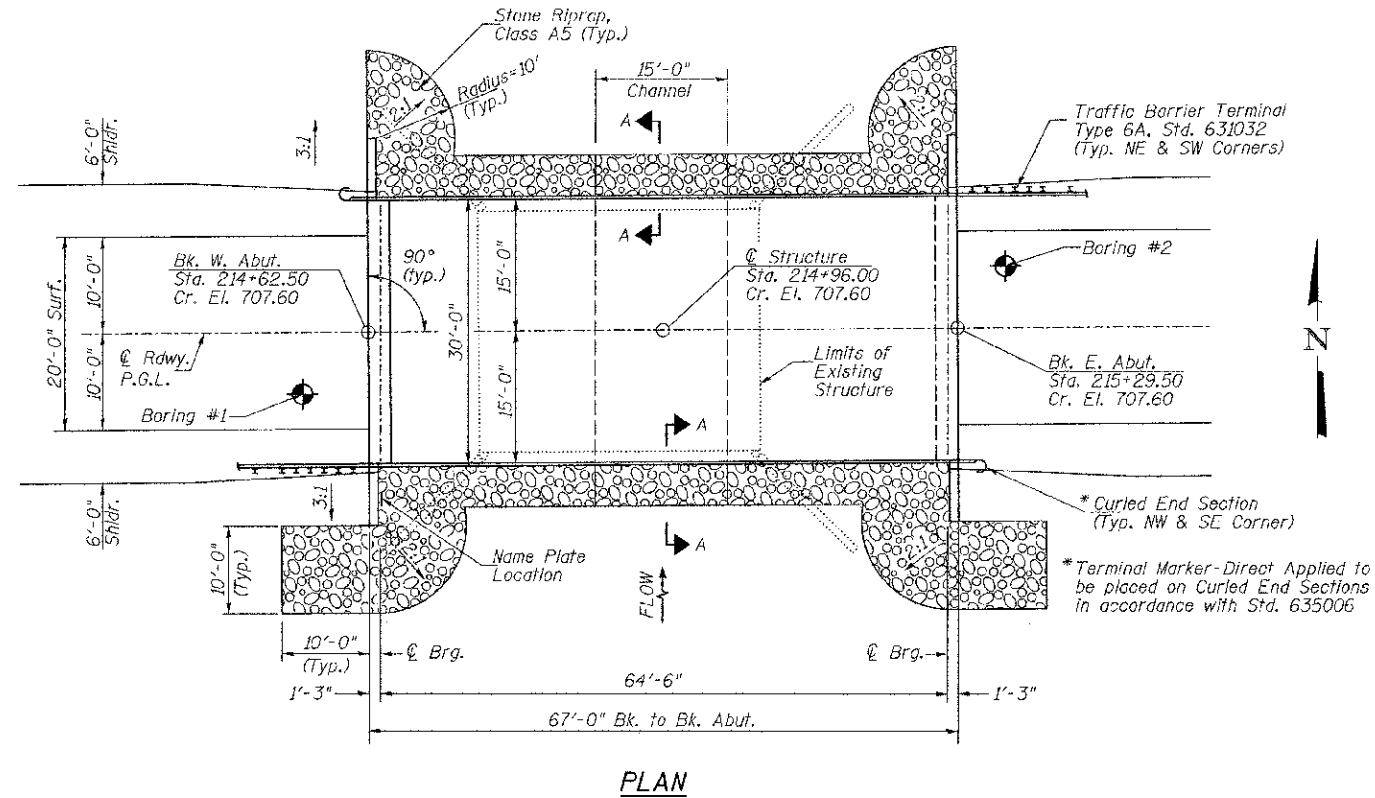
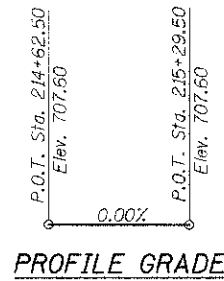
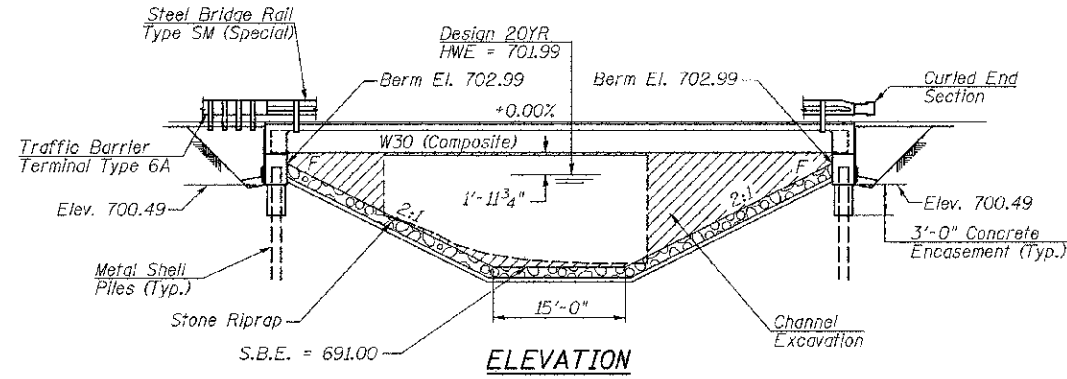
RR Spike in Power Pole
Sta. 219+05, 38' Lt.
Elev. 705.21

Existing Structure:

Single span T-beam with concrete deck superstructure on concrete closed abutments. The structure is 132'-0" back to back of abutments, +27'-0" out to out of deck with a 24'-0" driving surface, no skew. Str. No. 038-3000 built 1939.

Salvage: None

Road to be closed to traffic during construction.



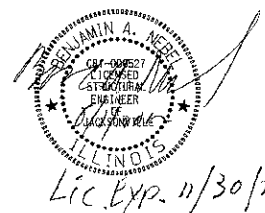
BRIDGE PLANS INDEX TO SHEETS

SHEET #/s	DESCRIPTION
1	General Plan & Elevation
2	General Notes & Bill of Materials
3-4	Top of Slab Elevations
5	Superstructure
6	Superstructure Details
7	Diaphragm Details
8	Steel Bridge Rail, Type SM (Special)
9	Structural Steel
10	Bearing Details
11	Abutments
12	Metal Shell Pile Details
13-15	Soil Boring Logs

Note:
For Bill of Material, General Notes, Section A-A, and Stone Rip Rap Detail, See Sheet 2 of 15.

I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current AASHTO LRFD Bridge Design Specifications. This design complies with all requirements of the current AASHTO Guide Specifications for Seismic Design of highway bridges.

Boyd H. Nelson 6/1/2012
Illinois Structural No. 6527
Expires 11/30/2012



LOUIS CREEK TRIBUTARY
BUILT 201 BY
IROQUOIS COUNTY
SEC. 08-00130-02-BR
C.H. 9 STATION 214+96.00
F.A. PROJ. BRS-0334(113)
STR. NO. 038-3014 LOADING HL-93

NAME PLATE

Locate Name Plate at S.W. Wingwall
Corner of Bridge (See Std. 515001)

DESIGN SCOUR TABLE

Location	W. Abut	E. Abut
Design Scour Elevation	693.7	693.7

WATERWAY INFORMATION

Drainage Area = 7.69 Sq. Mi. Low Grade Elev. = 707.53 @ Sta. 213+50.00

Flood	Freq. Yr.	C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	20	1,927	273	406	701.99	0.34	0.10	702.33	702.09
Base	100	2,870	295	451	702.72	0.94	0.33	703.66	703.05
Overlapping	-	-	-	-	-	-	-	-	-
Max. Calc.	-	-	-	-	-	-	-	-	-

DESIGNED	N.P.H.
CHECKED	B.A.N.
DRAWN	R.M.D.
CHECKED	N.P.H./B.A.N.

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.08g
Design Spectral Acceleration at 0.2 sec. (S_{D5}) = 0.14g
Soil Site Class = C

DESIGN SPECIFICATIONS

2010 AASHTO LRFD Bridge Design Specifications, 5th Edition with Interims

DESIGN STRESSES

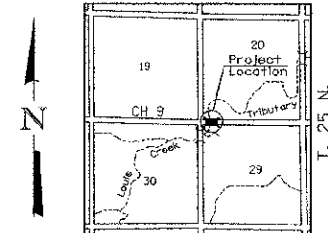
FIELD UNITS

f'_c = 3,500 psi
 f_y = 60,000 psi (Reinforcement)
 f_y = 50,000 psi (M270 Grade 50W)

LOADING HL-93

Allow 50#/sq. ft. For future wearing surface.

R. 10 E. 3rd P.M.



LOCATION SKETCH

GENERAL PLAN & ELEVATION
COUNTY HIGHWAY 9 OVER
LOUIS CREEK TRIBUTARY
SEC. 08-00130-02-BR
IROQUOIS COUNTY
STATION 214+96.00
STRUCTURE NO. 038-3014

SHEET NO. 1	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
15 SHEETS	334	08-00130-02-BR	IROQUOIS	27	7
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BRS-0334(113)		