

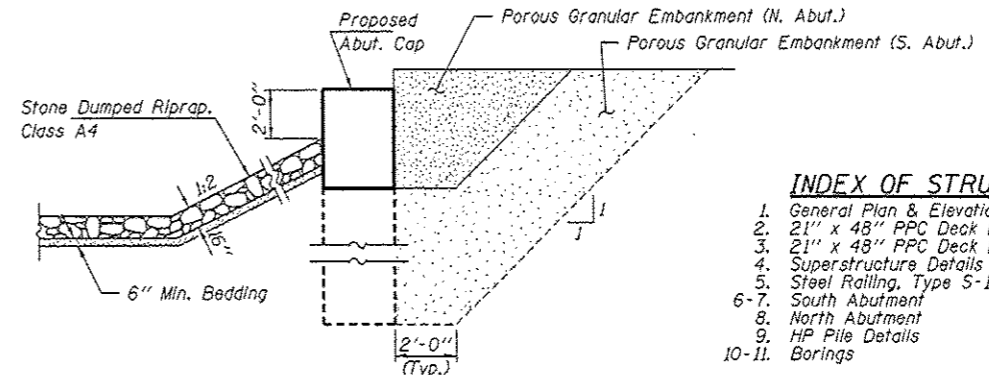
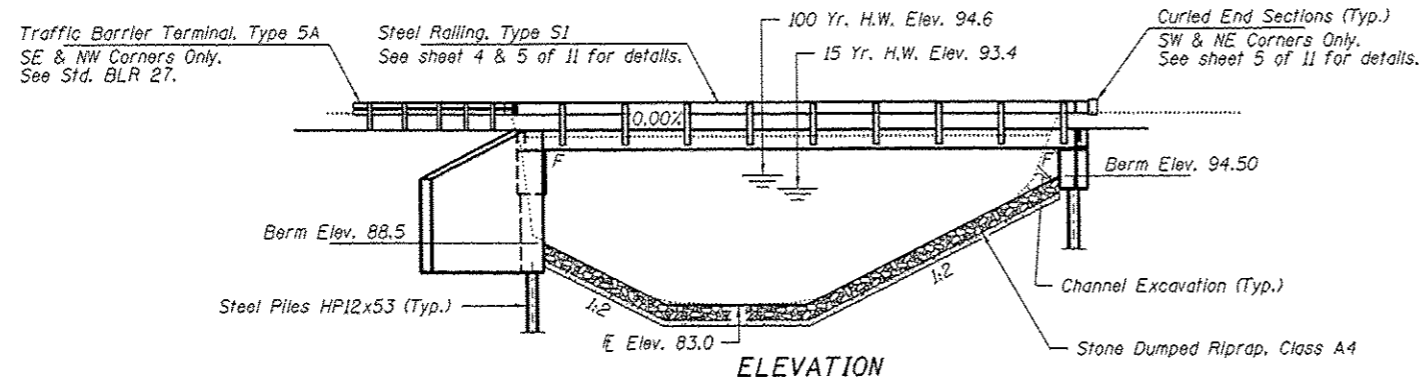
BENCHMARK: Mag Noll In Tree, Sta. 1+48 Lt., Elev. 107.31

EXISTING STRUCTURE: 15' x 50' wooden deck on steel I-Beams with wooden piles and abutments.

Salvage: See Special Provisions.

GENERAL NOTES

Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
 The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at West Abutment or approved by the Engineer before ordering the remainder of piles. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.
 Excavation required to construct the Abutments shall be included in the cost of Concrete Structures. No additional compensation will be allowed for Structure Excavation.
 All proposed construction activities shall be in accordance with Nationwide Permit number 14 of the Department of the Army authorized under Section 404 of the Clean Water Act. The IEPA has issued Section 401 Water Quality Certification for this activity. See Special Provisions for conditions.
 No In-Stream work will be allowed in the months of March, April or May of any year. See Special Provisions.

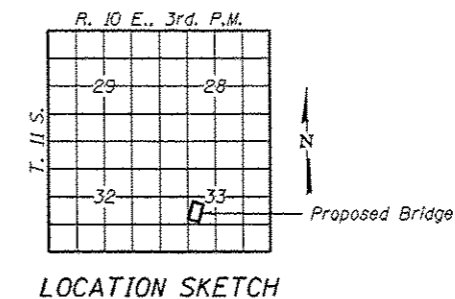
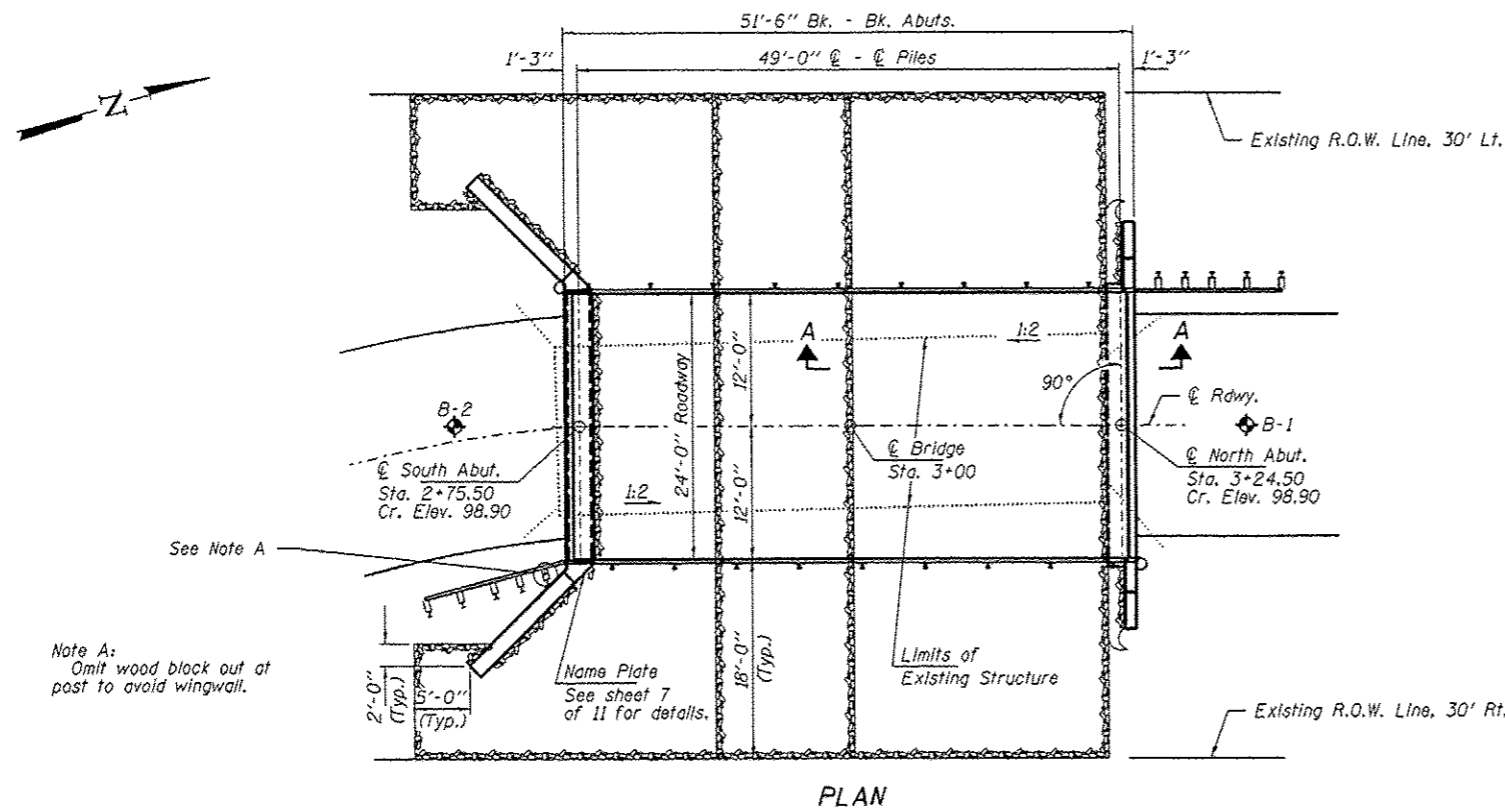


INDEX OF STRUCTURE SHEETS

1. General Plan & Elevation
2. 21" x 48" PPC Deck Beam
3. 21" x 48" PPC Deck Beam Details
4. Superstructure Details
5. Steel Railing, Type S-1
- 6-7. South Abutment
8. North Abutment
9. HP Pile Details
- 10-11. Borings

SECTION A-A

Note: See Special Provisions for Stone Dumped Riprap, Class A4.



HANEY CREEK
 BUILT 201L BY
 HARDIN COUNTY
 SEC. 07-01161-00-BR
 STR. NO. 035-3052
 LOADING HL-93

NAME PLATE
 See Std. 515001

DESIGN STRESSES

FIELD UNITS

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinf.)

PRECAST PRESTRESSED UNITS

$f'_c = 6,000$ psi
 $f'_ci = 5,000$ psi
 $f_{pu} = 270,000$ psi ($1/2$ " low lax. strands)
 $f_{pbt} = 201,960$ psi ($1/2$ " low lax. strands)
 $f_y = 60,000$ psi (Reinf.)

LOADING HL-93

Design Specifications: 2010 AASHTO LRFD with all applicable Interims.
 50#/#Sq. Ft. Included in dead load for future wearing surface.

SEISMIC DATA

Seismic Performance Zone (SPZ) = 2
 Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.320g
 Design Spectral Acceleration at 0.2 sec. (S_{D5}) = 0.743g
 Soil Site Class = D

WATERWAY INFORMATION

Drainage Area = 7.33 Sq. Mi.		Low Grade Elev. 92.9 @ Sta. 9+40								
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Prop.	Natural H.W.E. Exist.	Prop.	Head - Ft. Exist.	Prop.	Headwater El. Exist.	Prop.
Design	15	2003	345.5	324.1	93.44	-	0.0	-	93.44	-
Base	100	3163	398.8	377.4	94.61	-	0.0	-	94.61	-
Max. Calc.	500	4078	429.8	406.67	95.24	-	0.0	-	95.24	-

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	S. Abut.	N. Abut.
	86.0	93.3

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 Specifications."

Steven W. McGinnis 03/10/2013
 ILLINOIS STRUCTURAL ENGINEER NO. 081-6064



TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu. Yd.			96
Porous Granular Embankment	Ton			210
Stone Dumped Riprap, Class A4	Ton			300
Removal of Existing Structures	Each			1
Concrete Structures	Cu. Yd.		50.5	50.5
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	1,204		1,204
Reinforcement Bars	Pound		6,190	6,190
Steel Railing, Type S1	Foot	101		101
Furnishing Steel Piles HP12x53	Foot		385	385
Driving Piles	Foot		385	385
Test Pile Steel HP12x53	Each		1	1
Name Plates	Each		1	1