

BENCHMARK:

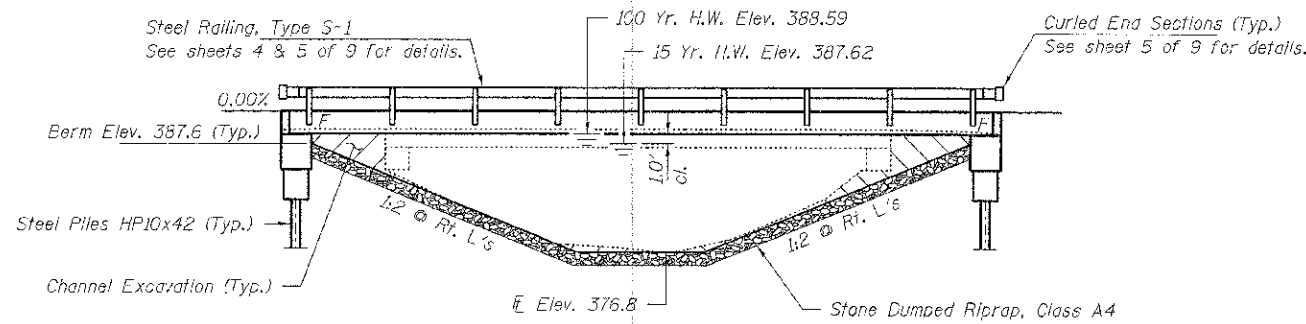
EXISTING STRUCTURE NO. 097-3042: Sta. 4+99.7 - 46' long single span bridge with oil & chip on 22" concrete deck beams with 8" concrete curb on 2'x2' concrete cap with wood piling and wood mudwalls and wingwalls.

Structure closed to traffic.

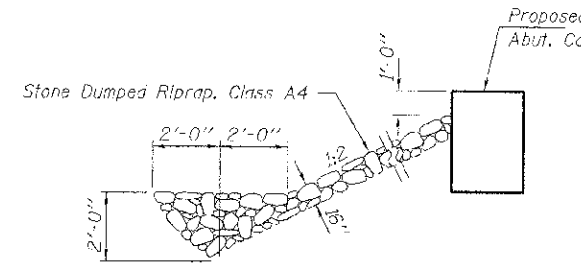
No Salvage

GENERAL NOTES

Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
 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.



ELEVATION

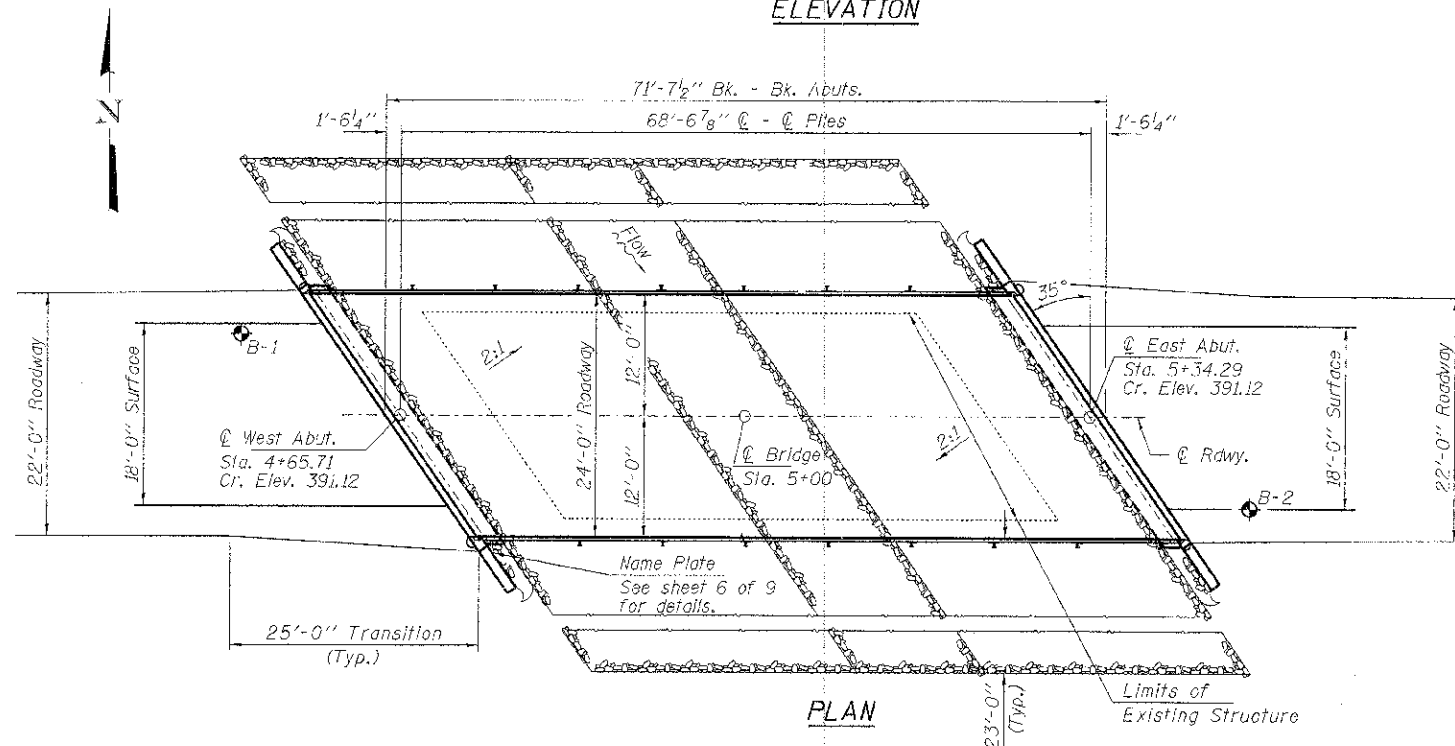


SECTION A-A

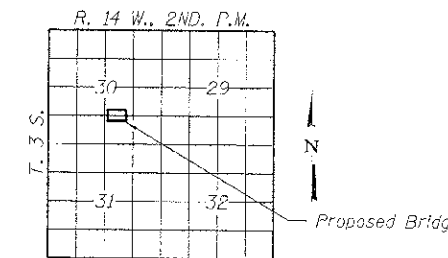
Note: See Special Provisions for Stone Dumped Riprap, Class A4.

INDEX OF STRUCTURE SHEETS

1. General Plan & Elevation
2. 27"x48" PPC Deck Beam
3. 27"x48" PPC Deck Beam Details
4. Superstructure Details
5. Steel Railing, Type S-1
6. Abutments
7. HP Pile Details
8. Borings



PLAN



LOCATION SKETCH

FRENCH CREEK
 BUILT 2011 BY
 WHITE COUNTY
 SEC. 10-05117-00-BR
 GRAY ROAD DISTRICT
 STR. NO. 097-3279
 LOADING HL-93

NAME PLATE
 See Std. 515001

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	W. Abut.	E. Abut.
	385.0	385.0

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 ($2"$ low lax. strands)
 $f_y = 60,000$ psi (Reinf.)

LOADING HL-93

Design Specifications: 2012 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}) = 0.201g
 Design Spectral Acceleration at 0.2 sec. (S_{D5}) = 0.556g
 Soil Site Class = C

WATERWAY INFORMATION

Flood		Freq. Yr.	Q C.F.S.	Opening Sq. Ft.	Natural H.W.E.	Head - Ft.	Headwater El.
Design	Base	15	2133	286	387.62	0.01	387.63
		100	3550	286	388.59	0.25	388.84
		500					

Drainage Area = 14.9 Sq. Mi. Existing Low Grade Elev. 386.2 @ Sta. 6+15 Proposed Low Grade Elev. 386.1 @ Sta. 7+80

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. Megginson 10/02/2012
 ILLINOIS STRUCTURAL ENGINEER NO. 081-6064



Expires 11-30-2012

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu. Yd.			244
Stone Dumped Riprap, Class A4	Ton			340
Removal of Existing Structures	Each			1
Concrete Structures	Cu. Yd.		28.4	28.4
Concrete Encasement	Cu. Yd.		3.4	3.4
Precast Prestressed Concrete Deck Beams (27" Depth)	Sq. Ft.	1,680		1,680
Reinforcement Bars	Pound		2,990	2,990
Steel Railing, Type S1	Foot	136		136
Furnishing Steel Piles HP10x42	Foot		700	700
Driving Piles	Foot		700	700
Name Plates	Each		1	1

FILE NAME	USER NAME	DESIGNED	REVISION
118072-shr-brldge.dgn		A.S.L.	
		S.W.M.	
		D.A.B.	
		S.W.M.	

STATE OF ILLINOIS
 WHITE COUNTY HIGHWAY DEPARTMENT

GENERAL PLAN & ELEVATION
 STRUCTURE NO. 097-3279

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
27	10-05117-00-BR	WHITE	13	5

SHEET NO. 1 OF 9 SHEETS

CONTRACT NO. 99484

ILLINOIS FED. AID PROJECT BRCS-193(068)