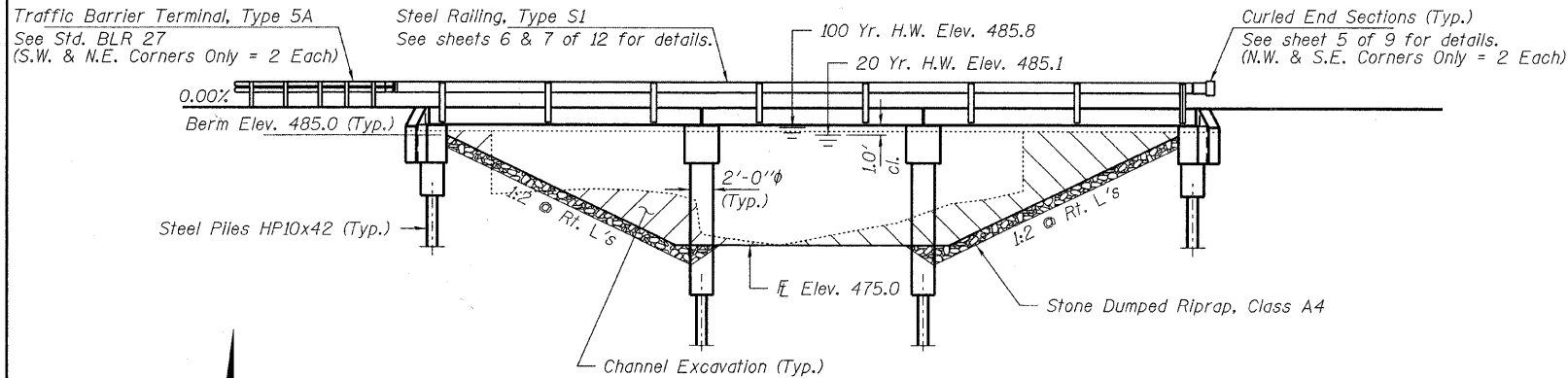


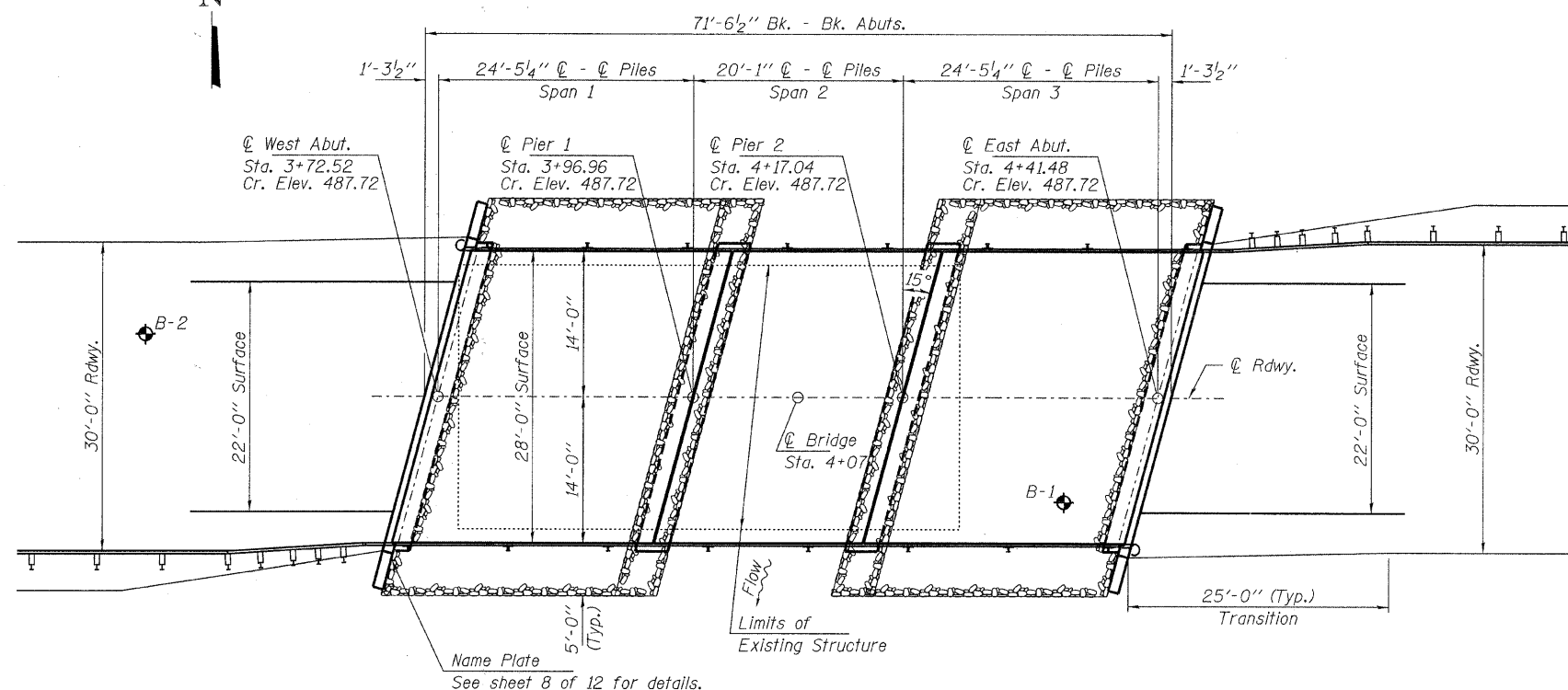
BENCHMARK: PK nail in power pole. 30.2' Rt., Sta. 7+22, Elev. 488.86

EXISTING STRUCTURE: A two span concrete deck bridge on closed concrete abutments and wingwalls. Structure closed to traffic.

No Salvage



ELEVATION



PLAN

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi  
fy = 60,000 psi (Reinf.)

PRECAST PRESTRESSED UNITS

f'c = 6,000 psi  
f'ci = 5,000 psi  
fpu = 270,000 psi (1/2" φ low lax. strands)  
fpbt = 201,960 psi (1/2" φ low lax. strands)  
fy = 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<sub>D1</sub>) = 0.206g  
Design Spectral Acceleration at 0.2 sec. (S<sub>D5</sub>) = 0.466g  
Soil Site Class = D

WATERWAY INFORMATION

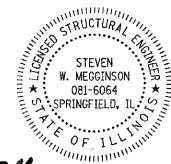
Drainage Area = 6.26 Sq. Mi.		Existing Low Grade Elev. 485.60 @ Sta. 3+00		Proposed Low Grade Elev. 486.42 @ Sta. 1+00		
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.	Natural H.W.E.	Head - Ft.	Headwater El.
Design	20	1657	226	485.1	1.0	486.1
Base	100	2540	226	485.8	0.9	486.7
Max. Calc.	500	3440	226	486.3	0.7	487.0

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	W. Abut.	Pier 1	Pier 2	E. Abut.
	482.5	470.5	470.5	482.5

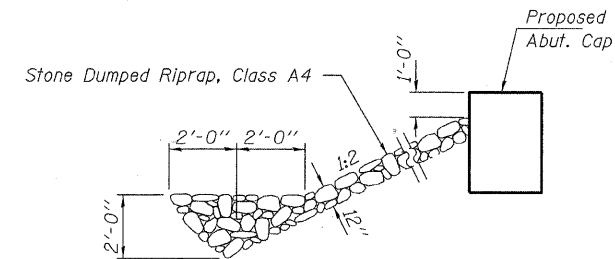
I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current "AASHTO LRFD Specifications."

Steven W. Meigsinson 2/11/2011  
ILLINOIS STRUCTURAL ENGINEER NO. 081-6064 Expires 11-30-2012



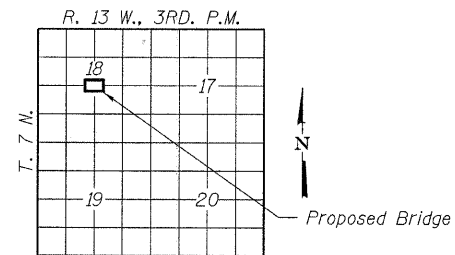
GENERAL NOTES

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 and Pier 2 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.



SECTION A-A

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



LOCATION SKETCH

INDEX OF STRUCTURE SHEETS

1. General Plan & Elevation
2. 17" x 48" PPC Deck Beam
3. 17" x 48" PPC Deck Beam Details
4. 17" x 48" PPC Deck Beam
5. 17" x 48" PPC Deck Beam Details
6. Superstructure Details
7. Steel Railing, Type S1
8. Abutments
9. Piers
10. HP Pile Details
- 11-12. Borings

DOGWOOD CREEK  
BUILT 20\_\_ BY  
CRAWFORD COUNTY  
SEC. 08-00091-00-BR  
C.H. 12 / F.A.S. 1698  
STR. NO. 017-3058  
LOADING HL-93

NAME PLATE

See Std. 515001

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu. Yd.			180
Stone Dumped Riprap, Class A4	Ton			140
Removal of Existing Structures	Each			1
Concrete Structures	Cu. Yd.		49.8	49.8
Concrete Encasement	Cu. Yd.		13.6	13.6
Precast Prestressed Concrete Deck Beams (17" Depth)	Sq. Ft.	1,960		1,960
Reinforcement Bars	Pound		4,800	4,800
Steel Railing, Type S1	Foot	145		145
Furnishing Steel Piles HP10x42	Foot		560	560
Driving Piles	Foot		560	560
Test Pile Steel HP10x42	Each		2	2
Name Plates	Each		1	1

FILE NAME =	USER NAME =	DESIGNED - V.J.H.	REVISED -	STATE OF ILLINOIS CRAWFORD COUNTY HIGHWAY DEPARTMENT	GENERAL PLAN & ELEVATION STRUCTURE NO. 017-3058 SHEET NO. 1 OF 12 SHEETS	C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
HAMPTON, LENZINI AND RENWICK, INC.		CHECKED - S.W.M.	REVISED -			12	08-00091-00-BR	CRAWFORD	16	5
385 STEVENSON DRIVE, SUITE 301 SPRINGFIELD, ILLINOIS 62703	PLOT SCALE =	DRAWN - D.A.B.	REVISED -			CONTRACT NO. 95649				
ILLINOIS PROFESSIONAL DESIGN FIRM L5 / PE / SE CORP. 184-00099	PLOT DATE = 2/18/2011	CHECKED - D.T.M.	REVISED -			ILLINOIS FED. AID PROJECT				