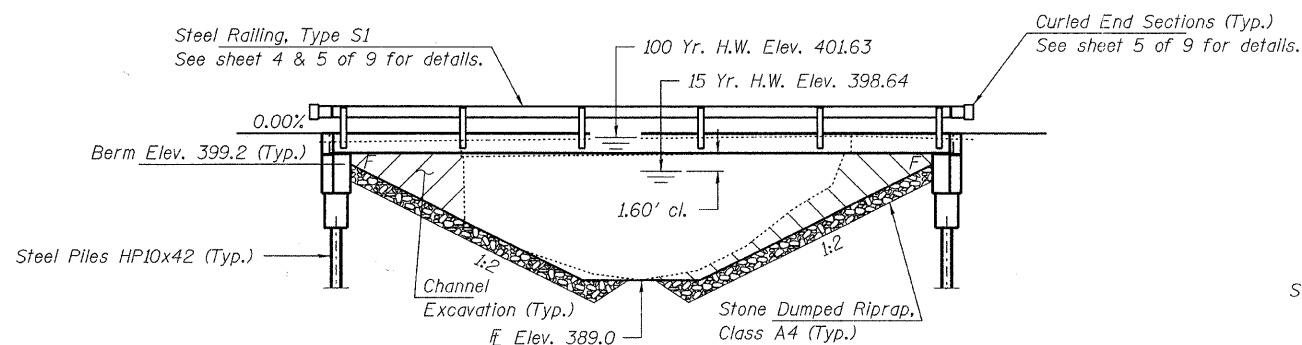
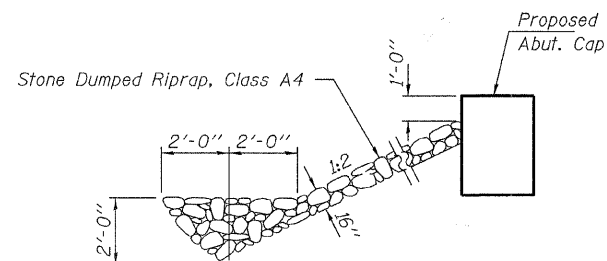


BENCHMARK: Iron Pin, Sta. 3+88.97, 8.47' Rt., Elev. 399.35

EXISTING STRUCTURE NO. 024-3052: 32.7' long single span bridge with 3" wood decking on 2-15" C-channels and 5-15" I-beams on steel piles, with steel plate mud walls on corrugated metal wingwalls. Structure closed to traffic.

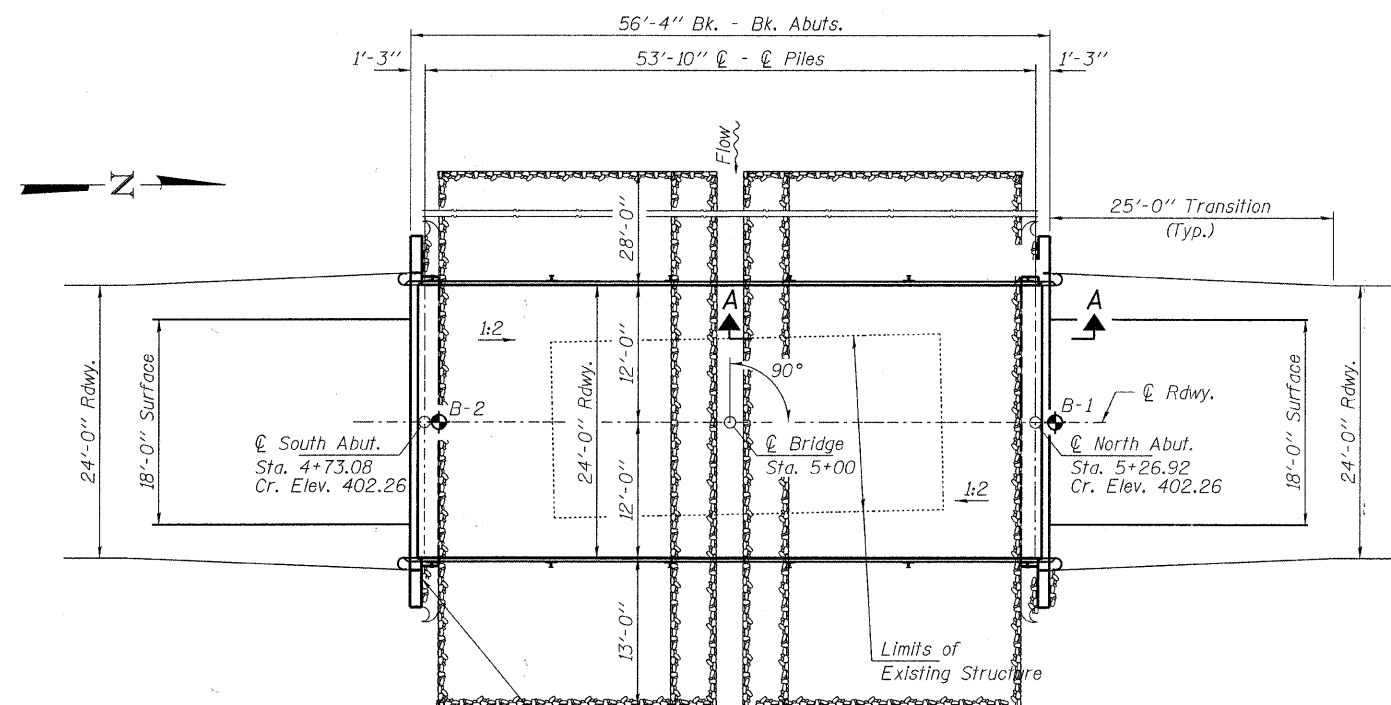


ELEVATION



SECTION A-A

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



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" low lax. strands)  
fpbt = 201,960 psi (1/2" low lax. strands)  
fy = 60,000 psi (Reinf.)

LOADING HL-93

Design Specifications: 2010 AASHTO LRFD  
50#/Sq. Ft. included in dead load for future wearing surface.

SEISMIC DATA

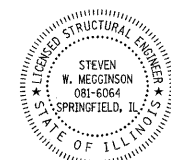
Seismic Performance Zone (SPZ) = 2  
Design Spectral Acceleration at 1.0 sec. (SD1) = 0.270g  
Design Spectral Acceleration at 0.2 sec. (SD5) = 0.644g  
Soil Site Class = D

WATERWAY INFORMATION

Drainage Area = 4.3 Sq. Mi.		Existing Low Grade Elev. 399.0 @ Sta. 9+00		Proposed Low Grade Elev. 399.0 @ Sta. 9+00	
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.	Natural Head - Ft.	Headwater El.
Design	15	1570	227	285	398.64
Base	100	2750	273	367	401.63
Max. Calc.	500				

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*  
ILLINOIS STRUCTURAL ENGINEER NO. 081-6064



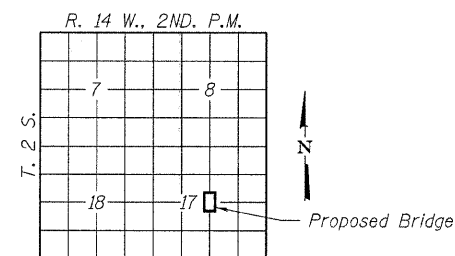
Expires 11-30-2012

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 pile to 110% of the nominal required bearing specified in production locations at North 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.

INDEX OF STRUCTURE SHEETS

1. General Plan & Elevation
2. Superstructure
- 3.-4. Superstructure Details
5. Steel Railing, Type S-1
6. Abutments
7. HP Pile Details
- 8.-9. Borings



LOCATION SKETCH

BUILT 201 BY  
EDWARDS COUNTY  
SEC. 09-05109-00-BR  
ROAD DISTRICT #5  
STR. NO. 024-3140  
LOADING HL-93

NAME PLATE

See Std. 515001

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu. Yd.			203
Stone Dumped Riprap, Class A4	Ton			300
Removal of Existing Structures	Each			1
Concrete Structures	Cu. Yd.		22.0	22.0
Concrete Encasement	Cu. Yd.		2.8	2.8
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	1,320		1,320
Reinforcement Bars	Pound		2,420	2,420
Steel Railing, Type S1	Foot	109		109
Furnishing Steel Piles HP10x42	Foot		365	365
Driving Piles	Foot		365	365
Test Pile HP10x42	Each		1	1
Name Plates	Each		1	1

FILE NAME = 100060-shr-bridge.dgn	USER NAME =	DESIGNED - A.S.L.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC.	3006 STEVENSON DRIVE SUITE 201 SPRINGFIELD, ILLINOIS 62703	CHECKED - D.W.T.	REVISED -
PLOT SCALE =		DRAWN - D.A.B.	REVISED -
PLOT DATE = 4/12/2011		CHECKED - S.W.M.	REVISED -

STATE OF ILLINOIS  
EDWARDS COUNTY HIGHWAY DEPARTMENT

GENERAL PLAN & ELEVATION  
STRUCTURE NO. 024-3140

SHEET NO. 1 OF 9 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
122	09-05109-00-BR	EDWARDS	13	5
ROAD DISTRICT #5			CONTRACT NO. 95652	
ILLINOIS FED. AID PROJECT				