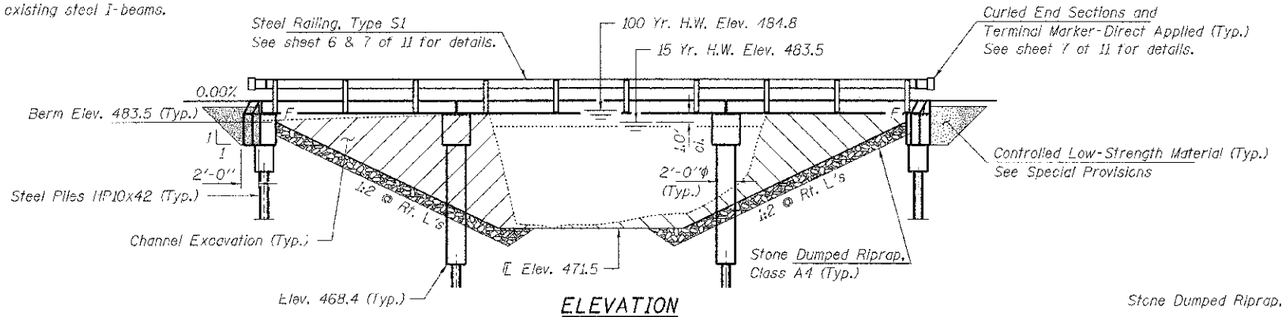
BENCHMARK: Mag Spike in PP. 25' LT., Sta. 10+26 Elev. 482.26

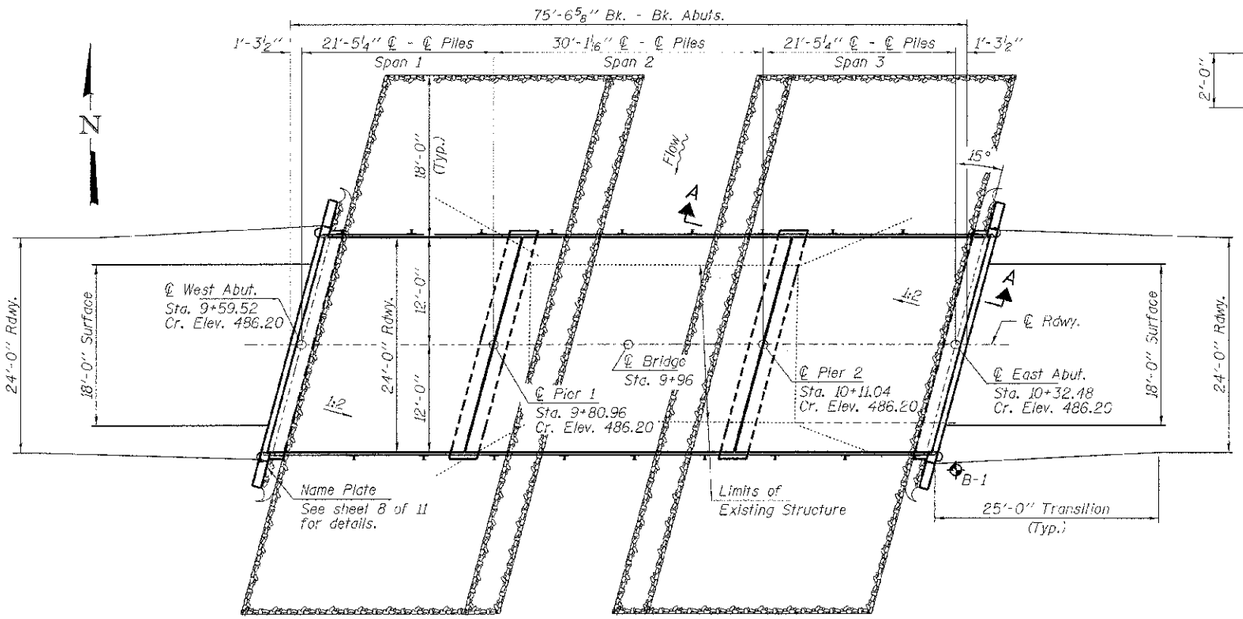
EXISTING STRUCTURE NO. 041-3078: A single span steel I-beam bridge with timber deck on closed timber abutments and wingwalls. 29.5' f.-f. abuts., 18.0' o.-o. deck.

Structure closed to traffic during construction.

Salvage existing steel I-beams.



ELEVATION



PLAN

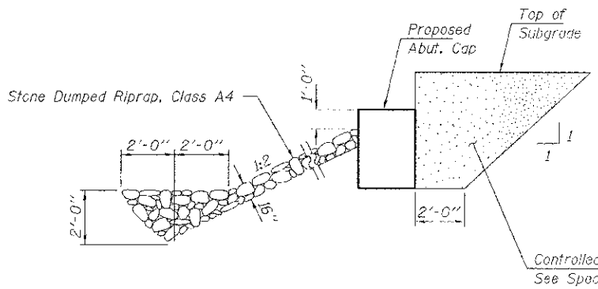
GENERAL NOTES

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.

Excavation required to construct the Abutments and Piers shall be included in the cost of Concrete Structures. No additional compensation will be allowed for Structure Excavation.

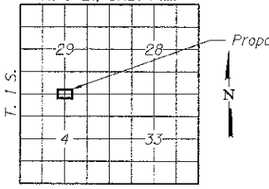
All proposed construction activities shall be in accordance with Nationwide Permit number 14 of the Department of the Army authorized under Section 404 of the Clean Water Act. The IEPA has issued Section 401 Water Quality Certification for this activity. See Special Provisions for conditions.



SECTION A-A

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

INDEX OF STRUCTURE SHEETS



LOCATION SKETCH

CASEY FORK
BUILT 201_ BY
JEFFERSON COUNTY
SEC. 09-07106-00-BR
FIELD ROAD DISTRICT
STR. NO. 041-3749
LOADING HL-93

NAME PLATE
See Std. 515001

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 (½"ϕ low lax. strands)
fpbt = 201,960 psi (½"ϕ low lax. strands)
fy = 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}) = 0.287g
Design Spectral Acceleration at 0.2 sec. (S_{DS}) = 0.680g
Soil Site Class = D

WATERWAY INFORMATION

Drainage Area = 17.7 Sq. Mi. Existing Low Grade Elev. 482.8 @ Sta. 8+00
Proposed Low Grade Elev. 482.8 @ Sta. 7+80

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Natural H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	3194	280	470	483.22	1.15	0.52	484.37	483.74
Design	15	3650	280	490	483.51	1.16	0.59	484.67	484.10
Base	100	5980	280	550	484.76	1.07	0.90	485.83	485.66
Max. Calc.	500	8220	280	550	485.73	0.92	0.96	486.65	486.69

Low water approaches to remain in place.

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	W. Abut.	Pier 1	Pier 2	E. Abut.
	481.0	466.4	466.4	481.0

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 02/14/2013
ILLINOIS STRUCTURAL ENGINEER NO. 081-6064

LICENSED STRUCTURAL ENGINEER · STEVEN W. MEGGINSON · 081-6064 · SPRINGFIELD, IL · STATE OF ILLINOIS

Expires 11-30-2014

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu. Yd.			290
Stone Dumped Riprap, Class A4	Ton			320
Removal of Existing Structures	Each			1
Concrete Structures	Cu. Yd.		43.2	43.2
Concrete Encasement	Cu. Yd.		14.2	14.2
Precast Prestressed Concrete Deck Beams (17" Depth)	Sq. Ft.	1,776		1,776
Reinforcement Bars	Pound		4,340	4,340
Steel Railing, Type S1	Foot	145		145
Furnishing Steel Piles HP10x42	Foot		720	720
Driving Piles	Foot		720	720
Name Plates	Each		1	1
Controlled Low Strength Material	Cu. Yd.		41	41

FILE NAME = 120135-sht-bridge.dgn	USER NAME =	DESIGNED - L.A.P.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC. 3365 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LIC./REG. CORP. 184.000558		CHECKED - S.W.M.	REVISED -
	PLOT SCALE =	DRAWN - D.A.B.	REVISED -
	PLOT DATE = 2/14/2013	CHECKED - S.W.M.	REVISED -

STATE OF ILLINOIS
JEFFERSON COUNTY HIGHWAY DEPARTMENT

GENERAL PLAN & ELEVATION
STRUCTURE NO. 041-3749
SHEET NO. 1 OF 11 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
123	09-07106-00-BR	JEFFERSON	23	13
FIELD ROAD DISTRICT		CONTRACT NO. 99504		
ILLINOIS	FED. AID PROJECT BROS-C08U062)			