

B.M. - B.M. #1, R.R. Spike in 10" Tree, 24.5' RT., STA. 49+26.0, EL. 476.81
 B.M. #2, R.R. Spike in 8" Tree, 43.7' RT., STA. 50+46.0, EL. 475.63

Existing Structure - Single span precast concrete deck beams, steel railing, with concrete abutment caps, on timber piling, with timber backwall and timber retaining walls.

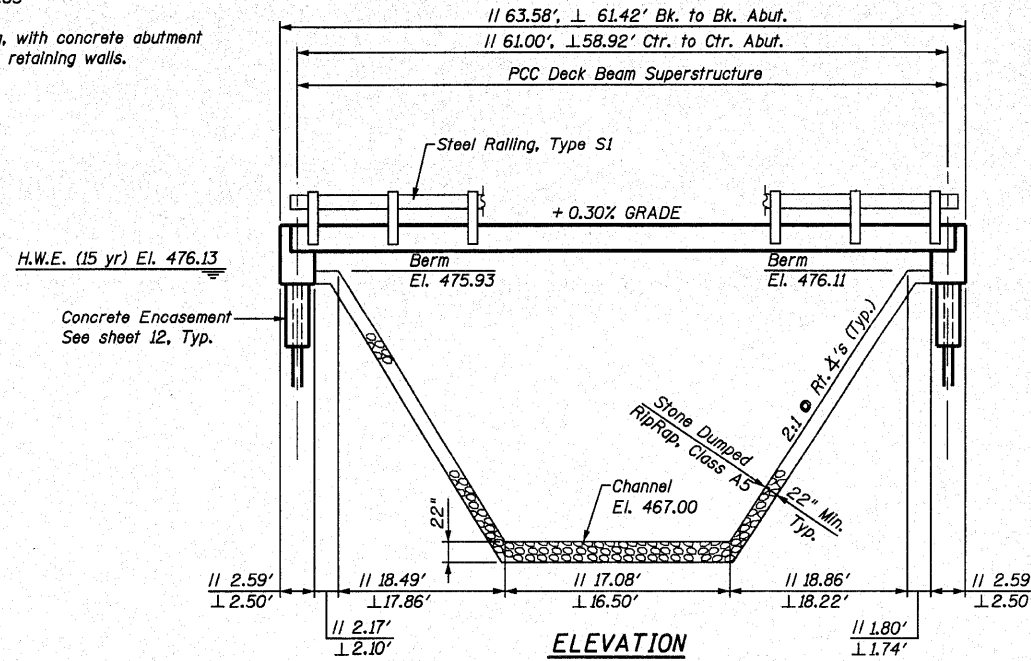
Salvage - Bridge Railing and posts.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 442	04-06116-00-BR	MARION	13	4
FEDERAL AID PROJECT		ILLINOIS	PROJECT	

CONTRACT NO. 97451

GENERAL NOTES

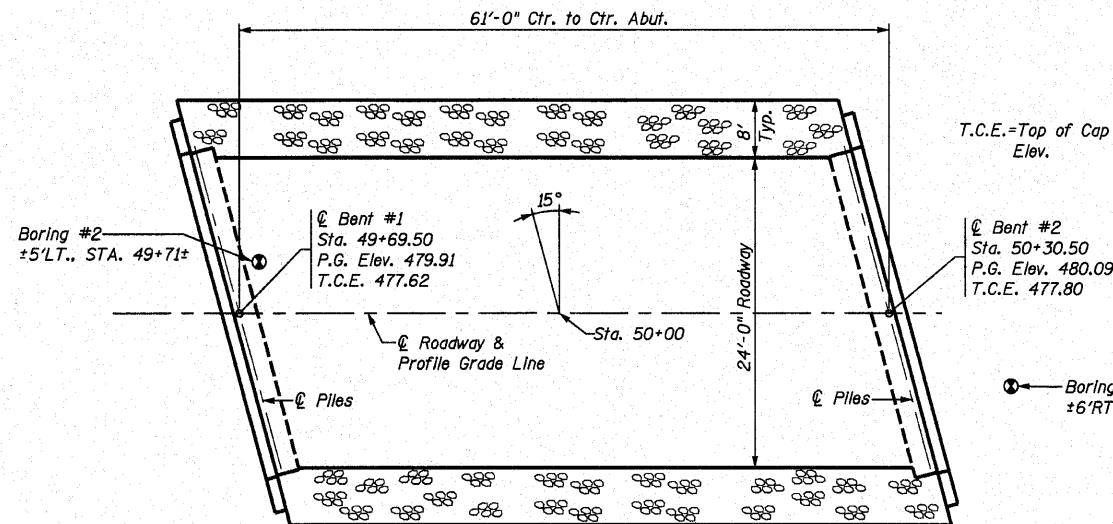
- The contractor shall drive 1 test pile, as specified, in a permanent location as directed by the Engineer before ordering the remaining piles.
- See Special Provisions for boring logs.
- Corrosion Inhibitor, per Article 1020.05(b)(12) and 1021.06 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.



Note:
 || Dimensions are parallel to roadway
 ⊥ Dimensions are perpendicular to channel

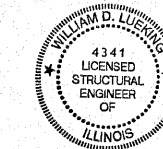
H.W.E. (15 yr) El. 476.13
 Concrete Encasement See sheet 12, Typ.

H.W.E. (100 yr) El. 477.82



TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub.		Total
			Piers	Abuts.	
Removal of Existing Structures	Each				1
Concrete Structures	Cu. Yd.			19.4	19.4
Precast Prestressed Concrete Deck Beams (27" Depth)	Sq. Ft.	1488			1488
Steel Railing, Type S-1	Foot	124			124
Reinforcement Bars	Pound			2440	2440
Furnishing Steel Piles HP 10x42	Foot			167	167
Driving Piles	Foot			167	167
Test Pile Steel HP 10x42	Each			1	1
Name Plates	Each			1	1
Concrete Encasement	Cu. Yd.			2.1	2.1



Date: 10-28-2010

Date of License Expiration: 11-30-2010

Signature: William D. Lueking

I certify that to the best of knowledge, information and belief, this bridge/box culvert 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 Standard Specifications for Highway Bridges.

DESIGN SPECIFICATIONS
 2007 AASHTO LRFD Bridge Design Specifications with 2008 Interims

LOADING HL-93

Allow 50# / Sq. Ft. for Future Wearing Surface.

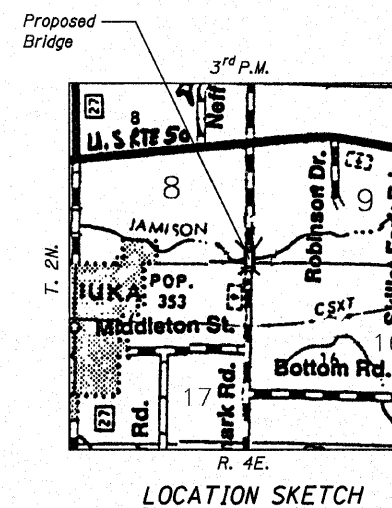
SEISMIC DATA

Seismic Performance Zone (SPZ) = 2
 Design Spectral Acceleration at 1.0 sec. (SD1) = 26.5
 Design Spectral Acceleration at 0.2 sec. (SDS) = 63
 Soil Site Class = D

STATION 50+00
 JAMISON CREEK
 SEC. 04-06116-00-BR BUILT 201
 PROJECT NO. BROS-0121 (054)
 MARION COUNTY
 LOADING HL93
 STRUCTURE NO. 061-3312

LETTERING FOR NAME PLATE

Locate Name Plate at Northeast Corner of Bridge (See sheet 12)



INDEX OF SHEETS

- GENERAL PLAN AND ELEVATION
- P.C.C. DECK BEAM SUPERSTRUCTURE
- 36" P.C.C. DECK BEAM DETAILS AND SECTIONS
- 36" P.C.C. DECK BEAM DETAILS AND SECTIONS
- 48" P.C.C. DECK BEAM DETAILS AND SECTIONS
- 48" P.C.C. DECK BEAM DETAILS AND SECTIONS
- P.C.C. DECK BEAM PILE BENT ABUTMENT
- STEEL RAILING, TYPE S1
- NAME PLATE & PILE ENCASEMENT DETAILS

PILE DATA (2-ABUTS.)

Pile Type and Size: Steel Piles, HP10x42
 Nominal Required Bearing: 297 kips
 Allowable Resistance Available: 99 kips
 Estimated Pile Length: 25 Feet Bent #1, 23 Feet Bent #2
 Number of Production Piles: 7
 Number of Test Piles: 1 (located in Bent #1)

WATERWAY INFORMATION

Drainage Area = 3.7 Sq. Mi.		Low Grade Elev. 479.84 @ Sta. 49+54							
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E. Ft.	Head - Ft.		Headwater Elev. - Ft.	
			Exlst.	Prop.		Exlst.	Prop.	Exlst.	Prop.
Design	15	1313	247	311	476.13	0.20	0.12	476.33	476.25
Base	100	2269	287	400	477.82	0.46	0.23	478.28	478.05
Overtopping									
Max. Calc.	500	3119	303	412	478.94	1.02	0.56	479.96	479.50

RHUTASEL and ASSOCIATES, INC.
 CONSULTING ENGINEERS & LAND SURVEYORS
 CENTRALIA, ILLINOIS FREEBURG, ILLINOIS

PREPARED FOR:
AECOM
 200705485

Date: 10/27/2010
 Design: WDL
 Drawn: BLT
 Job No.: 50810

GENERAL PLAN AND ELEVATION
 TR 442
 OVER JAMISON CREEK
 SECTION 04-06116-00-BR
 MARION COUNTY
 STATION 50+00