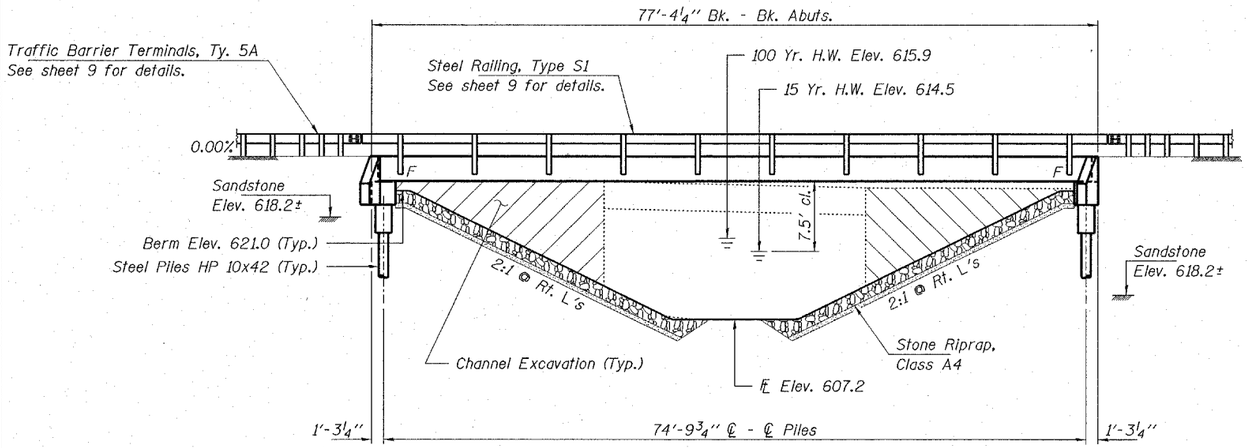
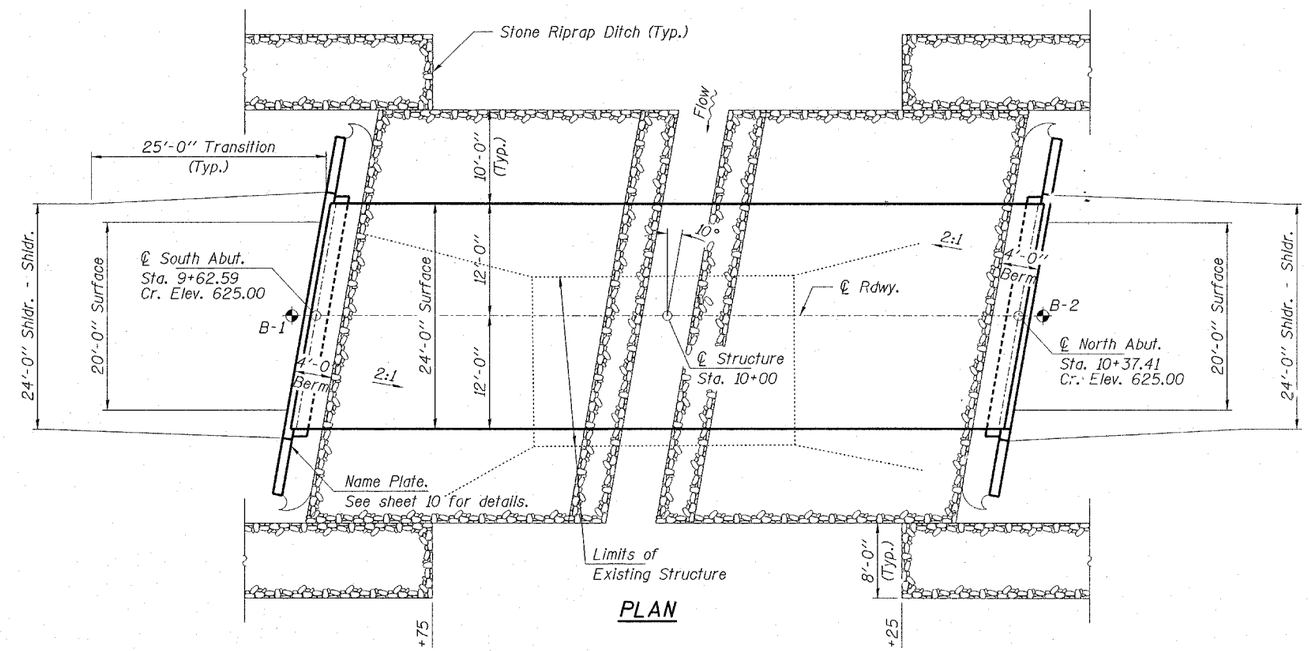
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SH.
T.R. 112	02-23112 -00-BR	SHELBY	11	
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-		

CONTRACT NO. 91336



ELEVATION



PLAN

GENERAL NOTES

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

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

All proposed construction activity 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.

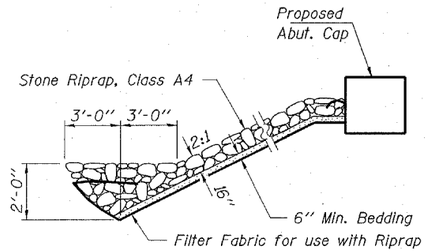
Embankment slopes may be modified as directed by the Engineer to avoid Rock Excavation.

See Sheet 11 for Borings.

BUILT 200_ BY
SHELBY COUNTY
SECTION 02-23112-00-BR
TOWER HILL ROAD DISTRICT
F.A. PROJ. BR-0S-173(130)
STR. NO. 087-3537
LOADING HS 20

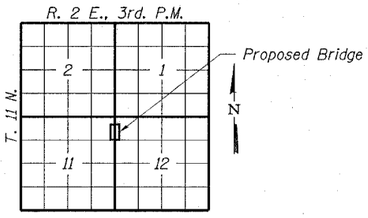
NAME PLATE

See Std. 515001



SECTION A-A

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



LOCATION SKETCH

DESIGN STRESSES

FIELD UNITS

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

PRECAST PRESTRESSED UNITS

f'c = 5,000 psi
f'ci = 4,000 psi
f's = 270,000 psi (½"ϕ low lax. strands)
f'si = 201,960 psi (½"ϕ low lax. strands)
fy = 60,000 psi (Reinf.)

Loading HS 20-44
Design Specifications: 2002 AASHTO & all applicable interims.
25#/Sq. Ft. included in dead load for future wearing surface.

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.06g
Site Coefficient (S) = 1.0

WATERWAY INFORMATION

Drainage Area = 1.3 Sq. Mi. Low Grade Elev. 623.7 @ Sta. 10+25

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.
Design	15	580	155	235	614.5	0.0	0.0	614.5	614.5
Base	100	960	190	275	615.9	0.0	0.0	615.9	615.9
Overtopping									
Max. Calc.	500	1270	215	295	616.9	0.2	0.1	617.1	617.0

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 Standard Specifications for Highway Bridges".

Steven W. Meggenson 12-8-05
ILLINOIS STRUCTURAL NO. 6064

STEVEN W. MEGGENSON 6064 LICENSED STRUCTURAL ENGINEER OF SPRINGFIELD ILLINOIS

Expires 11-30-06

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Structures	Cu. Yd.		20.0	20.0
Precast Prestressed Concrete Deck Beams (33" Depth)	Sq. Ft.	1,824		1,824
Reinforcement Bars	Pound		2,550	2,550
Steel Railing, Type S1	Foot	159		159
Steel Piles HP10x42	Foot		92	92
Concrete Encasement	Cu. Yd.		3.8	3.8
Name Plates	Each		1	1
Setting Piles in Rock	Each		8	8
Stone Riprap, Class A4	Ton			330
Filter Fabric for use with Riprap	Ton			470

HLR
Rice, Berry and Associates
A Division of Hampton, Lenzini and Renwick, Inc.
Civil & Structural Engineers
3085 Stevenson Drive
Suite 201
Springfield, Illinois 62703
217-546-3400
P.O. Box 1036
DuQuoin, Illinois 62832
618-790-4637

Account Number 12-87-0013-1
Date: 12/07/05
DESIGNED: D.B. | CHECKED: S.W.M. | DRAWN: D.B.

GENERAL PLAN AND ELEVATION

SECTION 02-23112-00-BR
TOWER HILL ROAD DISTRICT
SHELBY COUNTY
STR. NO. 087-3537 / STATION 10+00