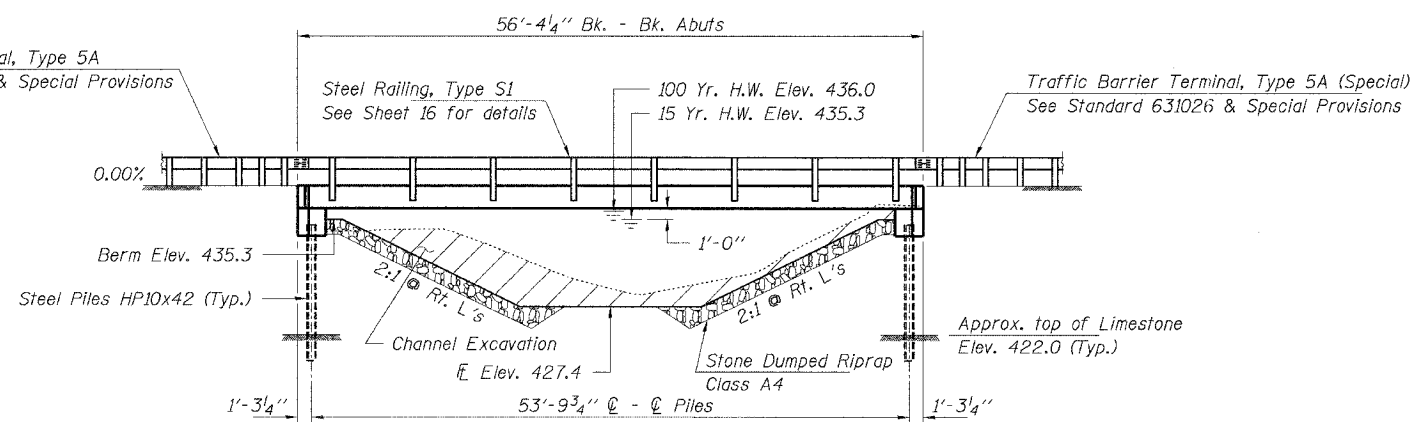


ROUTE NO.	SECTION	COUNTY	SHEET
T.R. 90	02-01175-00-BR	UNION	18 13
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 99213

Traffic Barrier Terminal, Type 5A
See Standard 631026 & Special Provisions



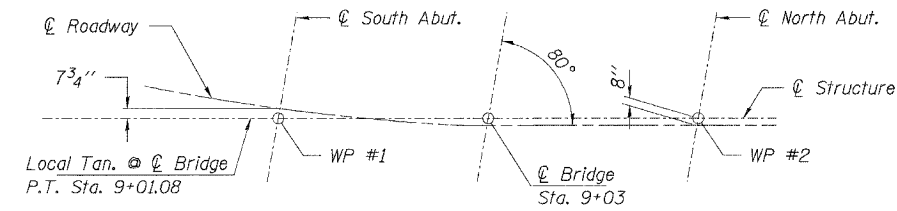
ELEVATION

GENERAL NOTES

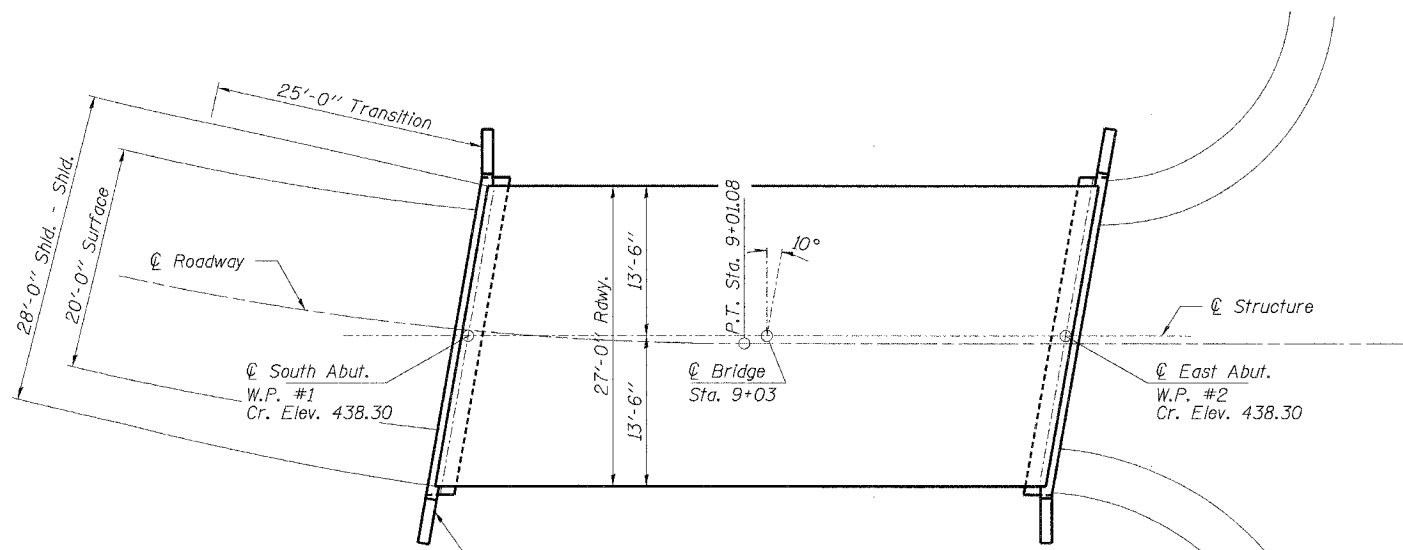
Layout of riprap may be varied in the field to suit ground conditions as directed by the Engineer.
All proposed construction activity shall be in accordance with Nationwide Permit number 14 of the Department of the Army authorized under Section 404 of the Clean Water Act.
The IEPA has issued Section 401 Water Quality Certification for this activity. See Special Provisions for conditions.
Structure Excavation will not be paid for separately and shall be included in the cost of the item specified.
See Sheet 18 for Borings.

BUILT 200_ BY
COUNTY UNIT ROAD DISTRICT
UNION COUNTY
SEC. 02-01175-00-BR
LOADING HS 20-44
STR. NO. 091-3217

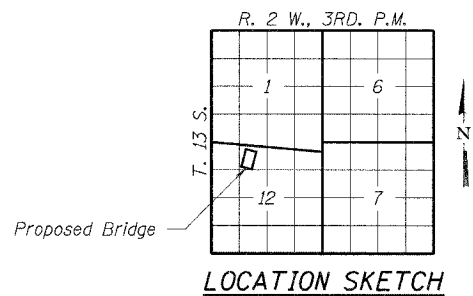
NAME PLATE
See Std. 515001



OFFSET SKETCH



PLAN



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 (1/2" low lax. strands)
f'si = 201,960 psi (1/2" 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) = B
Bedrock Acceleration Coefficient (A) = 0.15g
Site Coefficient (S) = 1.0

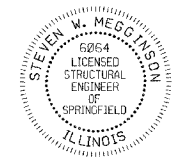
WATERWAY INFORMATION

Drainage Area = 1.65 Sq. Mi.		Low Grade Elev. 436.3 @ Sta. 6+00							
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.	Natural H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.	
Design	15	1140	205	250	435.3	0.1	0.0	435.4	435.3
Base	100	1860	225	285	436.0	0.3	0.1	436.3	436.1
Overtopping	100								
Max. Calc.	500	2450	235	300	436.4	0.9	0.8	437.3	437.2

① Approach Rdwy. 150 sq. ft.

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. McGinnis 1/2/05
ILLINOIS STRUCTURAL NO. 6064



Expires 11-30-05

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	1,485		1,485
Concrete Structures	Cu. Yd.		19.0	19.0
Reinforcement Bars	Pound		2,620	2,620
Steel Railing, Type S1, Special	Foot	118		118
Name Plates	Each		1	1
Stone Dumped Riprap, Class A4	Ton			310
Steel Piles HP10x42	Foot		144	144
Concrete Encasement	Cu. Yd.		2.0	2.0
Setting Piles in Rock	Each		8	8

HLR
Rice, Berry and Associates
A Division of Hampton, Lenzini and Renwick, Inc.
Civil & Structural Engineers
801 S. Durkin Drive
Springfield, Illinois 62704
217-546-3400

Account Number 12-92-0006-1
Date: 02/02/05

P.O. Box 1036
DuQuoin, Illinois 62832
618-190-4631

DESIGNED: T.P.L. CHECKED: S.W.M. DRAWN: D.T.M.

GENERAL PLAN AND ELEVATION
SECTION 02-01175-00-BR
T.R. 90 / LINGLE CREEK ROAD
UNION COUNTY
STRUCTURE NO. 091-3217 / STATION 9+03