

BENCHMARK:

R.R. Spike In fence corner post
Southeast of gravel entrance. Station 104+97
Elev. 561.57

EXISTING STRUCTURE: (Str. No.: 066-3152)

Concrete Slab Deck with Concrete Curb on
6" x 21" Steel Wide Flange Beams and
Timber Abutments.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 14 F.A.S. 209	00-00091-00-BR	MERCER	III	59
FED. ROAD DIST. NO.	ILLINOIS PROJECT			

CONTRACT NO. 89312

GENERAL NOTES

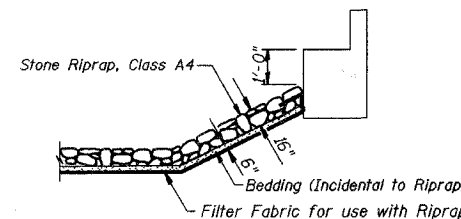
Layout of Riprap Slopes may be varied in the field to suit ground conditions as directed by the Engineer.

See Proposal for Boring Data.

Reinforcement Bars shall conform to the requirements of AASHTO M-31 or M-322, Grade 60.

The Contractor shall drive one Steel HP Test Pile in a permanent location at the North Abutment as directed by the Engineer before ordering the remainder of piles.

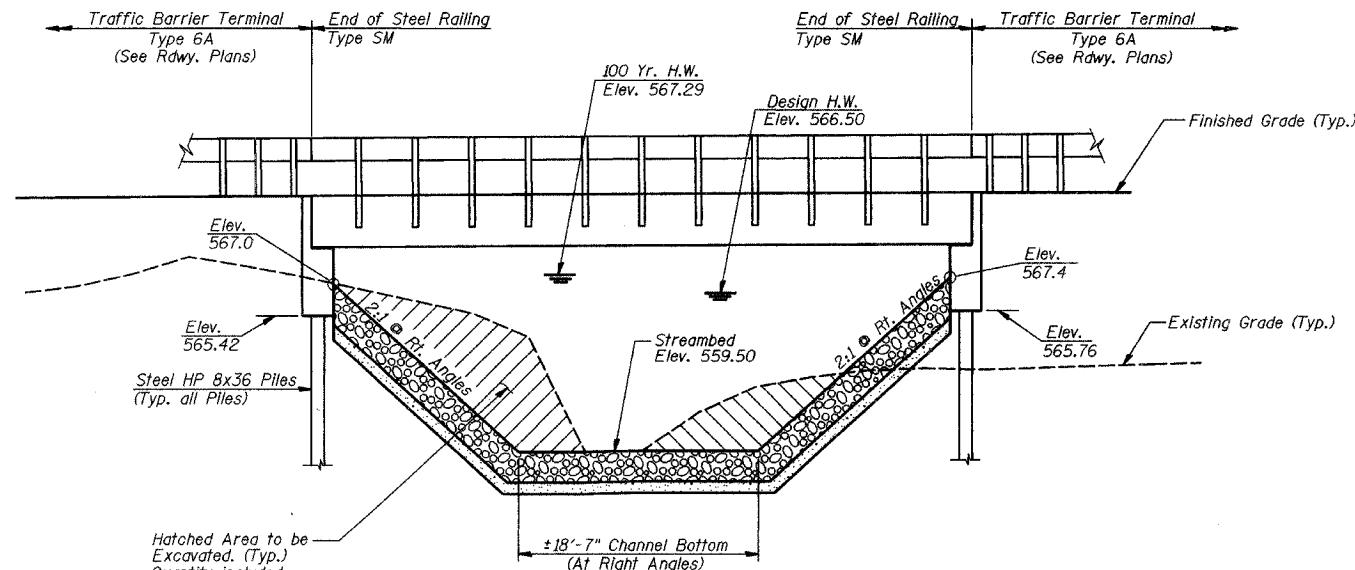
Excavation required for abutment construction shall be incidental to concrete structures. No additional compensation will be provided for structure excavation.



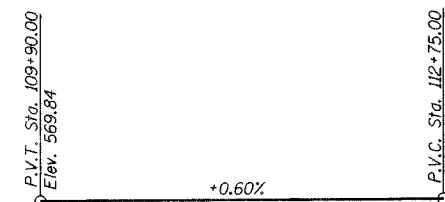
STONE RIPRAP DETAIL

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Structures No. 1	Each			1
P.P.C Deck Beams (27" Depth)	Sq. Ft.	1745		1745
Concrete Structures	Cu. Yd.		25.2	25.2
Reinforcement Bars, Epoxy Coated	Pound		2620	2620
Furnishing Steel Piles HP 8x36	Foot		587	587
Driving Piles	Foot		587	587
Test Pile Steel HP 8x36	Each		1	1
Channel Excavation	Cu. Yd.		133	133
Stone Riprap, Class A4	Sq. Yd.		261	261
Filter Fabric	Sq. Yd.		261	261
Name Plates	Each		1	1
Steel Railings, Type SM	Foot	117		117
Portland Cement Mortar Fairing Course	Foot	524		524
Waterproofing Membrane System	Sq. Yd.	194		194
Hot-Mix Asphalt Surface Course, Mixture C, N50	Ton	23		23
Concrete Encasement	Cu. Yd.		2	2
Permanent Survey Markers, Type 1	Each		1	1



ELEVATION



PROFILE C.H. 14

DESIGN SPECIFICATIONS

2002 AASHTO

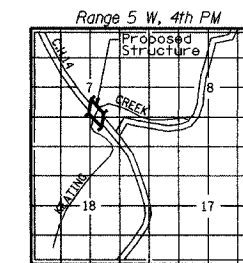
LOADING HS20-44

Allowed 50#/sq. ft. for future wearing surface.

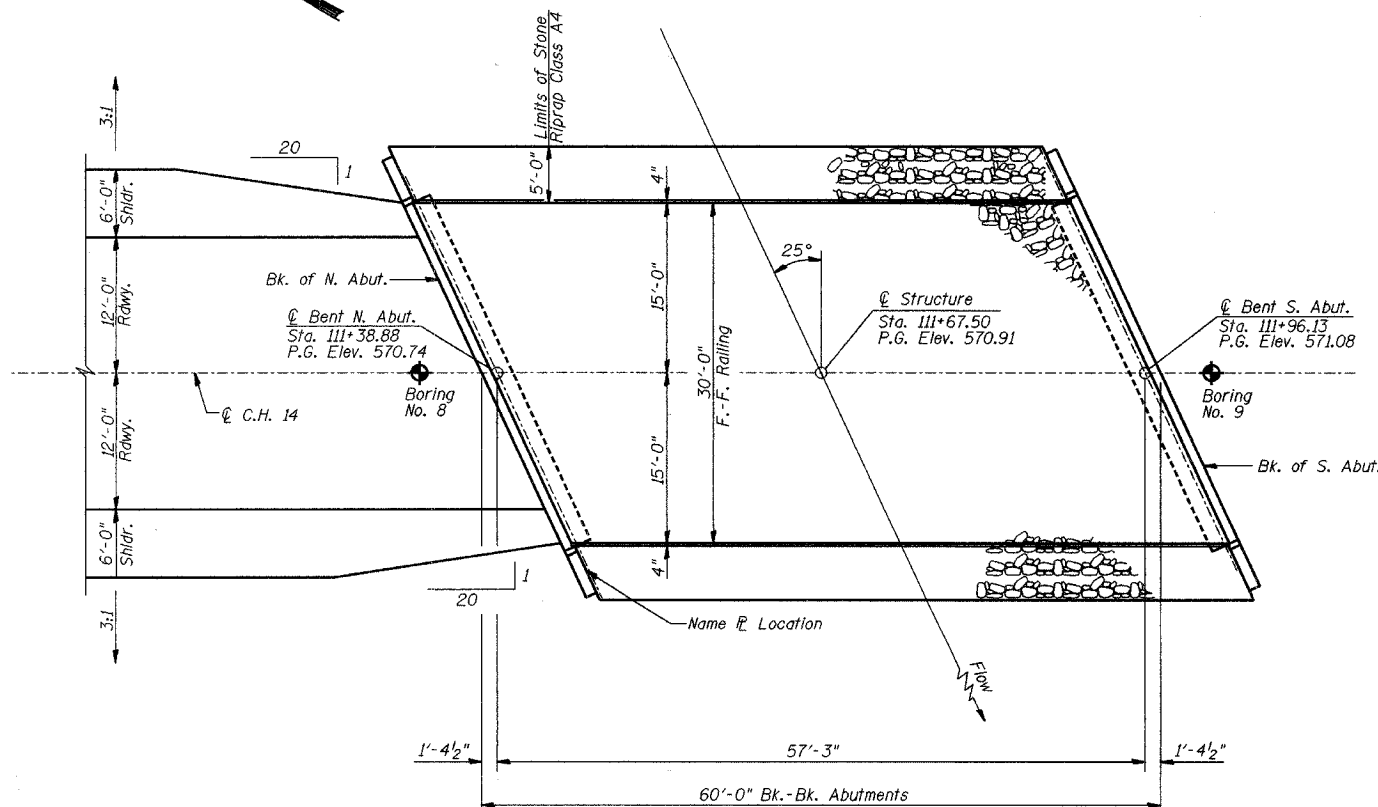
DESIGN STRESSES

FIELD UNITS
f'c = 3,500 p.s.i.
f'y = 60,000 p.s.i.
n = 9

PPC UNITS
f'ci = 4,000 p.s.i.
f'co = 5,000 p.s.i.
f's = 270,000 p.s.i.
f'si = 201,960 p.s.i.



LOCATION SKETCH



PLAN

**KEATING CREEK
BUILT 200... BY
MERCER COUNTY
SECTION 00-00091-00-BR
F.A.S. RT. 209 STA. III+67.50
F.A.S. PROJ. BR-S-209()
STR. NO. 066-3157 LOADING HS-20**

NAME PLATE

(See Std. 515001)



DATE: February 15, 2007

Keith W. Benting
KEITH W. BENTING
ILL. STRUCTURAL NO. 4777

Exp. 11/30/2008

WATERWAY INFORMATION

Drainage Area = 2.6 Sq. Mi. Existing Low Grade Elev. 559.50 @ Sta. III+62.50
Proposed Low Grade Elev. 570.74 @ Sta. III+40.26

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist. Prop.	Nat. H.W.E.	Head-Ft. Exist. Prop.	Headwater El. Exist. Prop.
Design	30	1382	64 228	566.50	0.40	566.90
Base	100	1905	64 266	567.29	0.76	568.05
Overtopping						
Max. Calc.	500	2618	64 306	568.10	1.78	569.88

Low Beam Elev. (Prop.) = 568.02

GENERAL PLAN AND ELEVATION

Date	Designed DCS	F.A.S. 209 (C.H. 14) OVER KEATING CREEK SECTION 00-00091-00-BR MERCER COUNTY STA. III+67.50 PROP. STR. NO. 066-3157	Sheet No.
Revisions	Drawn BKN		1
	Checked DCS		of 5
	Approved KWB		
Prepared by:	URS 3040 North University Avenue Decatur, IL 62526		WVP Job No. 2100001253.01

"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."