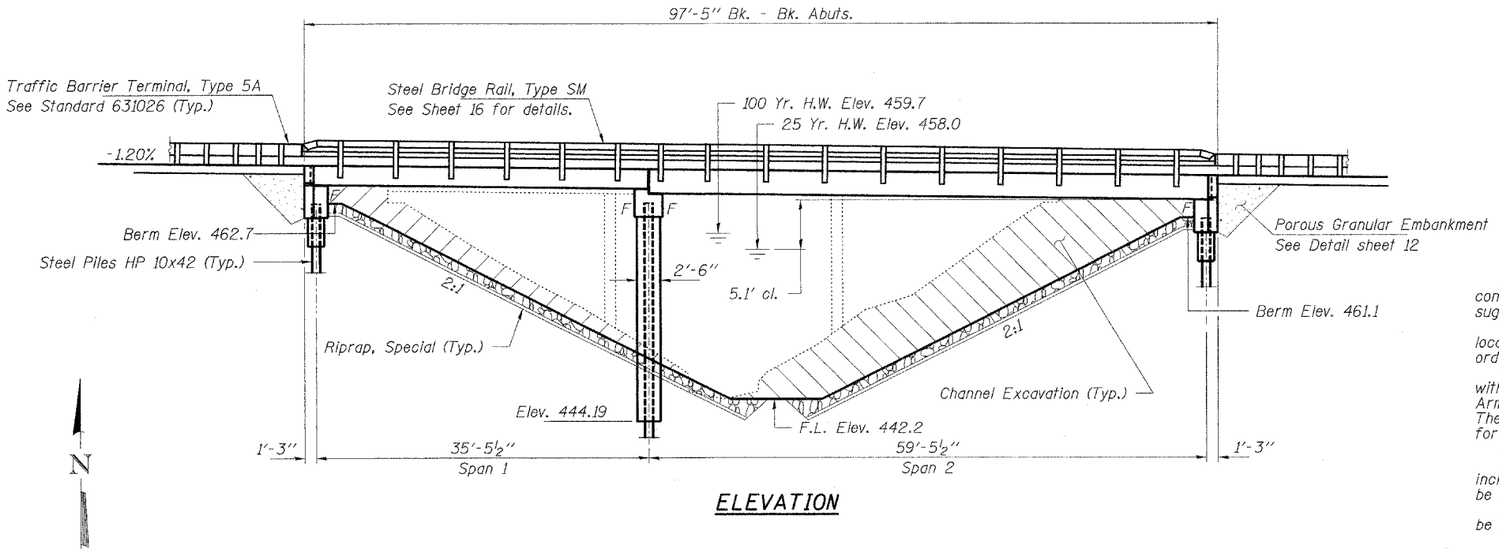
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 1870	03-00136 -00-BR	JACKSON	20	11
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-		

CONTRACT NO. 99203



ELEVATION

GENERAL NOTES

Layout of riprap may be varied in the field to suit ground conditions as directed by the Engineer. See sheet 12 for suggested layout.

The Contractor shall drive one steel test pile in a permanent location at the West Abutment, as directed by the Engineer before ordering the remainder of the piles.

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.

See Sheet 20 for Borings.

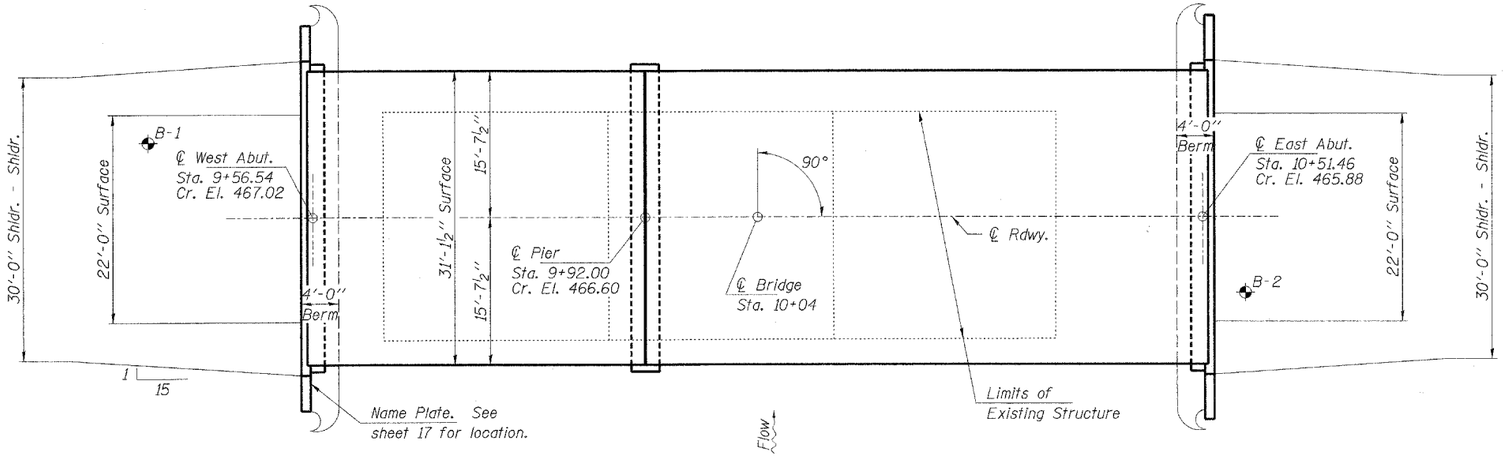
Excavation required to construct the Abutments shall be considered incidental to Concrete Structures. No additional compensation will be allowed for Structure Excavations.

Removal of existing concrete slopewall and grouted riprap shall be paid for as Slopewall REmoval.

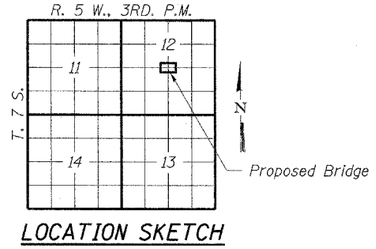
COX CREEK
BUILT 200 BY
JACKSON COUNTY
SECTION 03-00136-00-BR
F.A.S. 1870 / C.H. 7
PROJ. NO. BRS-1870(105)
STR. NO. 039-3249 LOADING HS 20

NAME PLATE

See Std. 515001



PLAN



LOCATION SKETCH

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	1,080		1,080
Precast Prestressed Concrete Deck Beams (27" Depth)	Sq. Ft.	1,800		1,800
Concrete Structures	Cu. Yd.		90.3	90.3
Reinforcement Bars	Pound		5,930	5,930
Steel Bridge Rail, Type SM	Foot	195		195
Name Plates	Each		1	1
Steel Piles HP10x42	Foot		952	952
Test Pile Steel HP10x42	Each		1	1
Concrete Encasement	Cu. Yd.		2.0	2.0
Stud Shear Connectors	Each		56	56
Riprap, Special	Ton			820
Porous Granular Embankment	Ton			180
Slope Wall Removal	Sq. Yd.			560
Waterproofing Membrane System	Sq. Yd.	262		262
P.C. Mortar Fairing Course	Foot	216		216

WATERWAY INFORMATION

Drainage Area = 5.5 Sq. Mi. Low Grade Elev. 465.3 @ Sta. 11+50

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	25	3140	400	645	458.0	0.4	0.1	458.4	458.1
Base	100	4400	490	775	459.7	1.8	0.5	461.5	460.2
Overtopping									
Max. Calc.	500	5950	555	865	460.8	3.4	1.5	464.2	462.3

DESIGN STRESSES

f'c = 5,000 psi (Prestressed Beams)
f'ci = 4,000 psi (Prestressed Beams - 21" Depth)
f'ci = 4,100 psi (Prestressed Beams - 27" Depth)
f's = 270,000 psi (Prestressed Strands)
fsi = 189,000 psi (Prestressed Strands)
fy = 60,000 psi (Reinf. Bars - Precast Units)
fy = 60,000 psi (Reinf. Bars - Field Units) — LF DESIGN
f'c = 3,500 psi (Field Units)
n = 9 (Class SI Concrete)
Loading HS 20-44
Design Specifications: 2002 AASHTO & all applicable interims.
50#/Sq. Ft. included in dead load for future wearing surface.

SEISMIC DATA

Seismic Performance Category (SPC) = B
Bedrock Acceleration Coefficient (A) = 0.13%g
Site Coefficient (S) = 1.0

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 10-29-04
ILLINOIS STRUCTURAL NO. 6064

STEVEN W. MEGGINSON 6064 LICENSED STRUCTURAL ENGINEER OF SPRINGFIELD ILLINOIS

Expires 11-30-06

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
P.O. Box 1036
DuQuoin, Illinois 62832
618-790-4637

Account Number 12-47-0016-1
Date: 10-28-04
DESIGNED: S.W.M. | CHECKED: T.P.L. | DRAWN: D.B.

GENERAL PLAN AND ELEVATION

F.A.S. 1870 / C.H. 7

SECTION 03-00136-00-BR

JACKSON COUNTY

STR. NO. 039-3249 / STATION 10+04