

BENCHMARK:
Spike Nail in Telephone Pole Sta. 11+10.00, Rt.
Elevation = 100.00

EXISTING STRUCTURE (SN 048-3032):
3-Span Concrete Channel Beam Bridge on
Concrete Abutments and Piers with Steel Piles.
26'-5" O. to O. Deck. 74'-0" Bk.-Bk. Abutments.

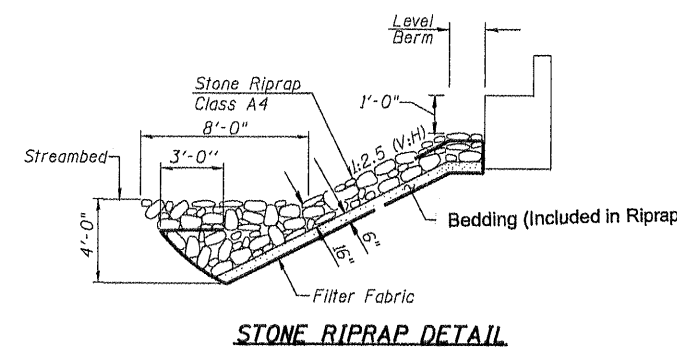
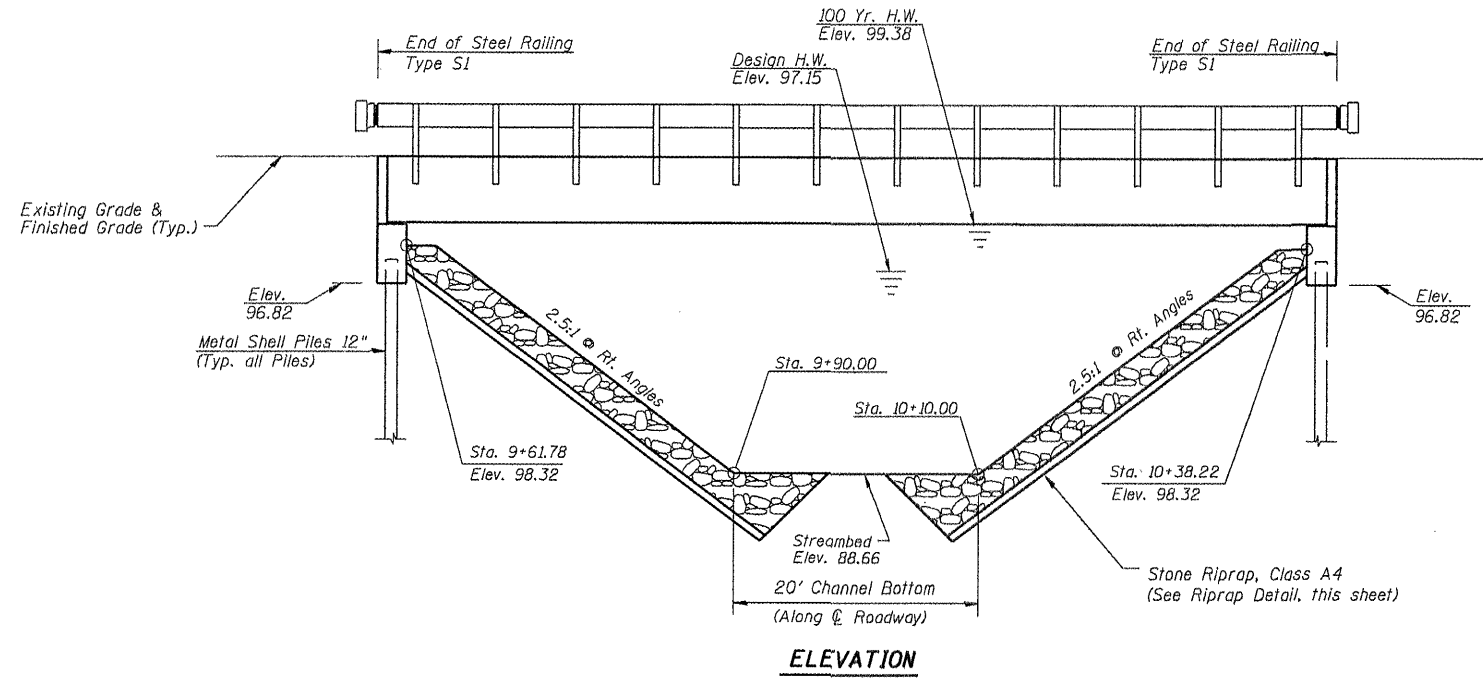
Traffic is to be detoured during construction.
No Salvage.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 16	05-00096-01-BR	KNOX	12	4
FED. ROAD DIST. NO.	ILLINOIS PROJECT			

CONTRACT # 89427

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 ASTM A 706, Grade 60 (See Special Provisions).
The Contractor shall drive one Metal Shell Test Pile in a permanent location at the West Abutment as directed by the Engineer before ordering the remainder of piles.
Excavation required for abutment construction shall be included in Concrete Structures. No additional compensation will be provided for Structure Excavation.
Channel Excavation shall be included in the cost of Stone Riprap, Class A4.



TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Structures	Each			1
P.P.C Deck Beams (33" Depth)	Sq. Ft.	2240		2240
Concrete Structures	Cu. Yd.		24.2	24.2
Reinforcement Bars, Epoxy Coated	Pound		2880	2880
FURNISHING METAL SHELL PILES 12" X 0.250"	Foot		445	445
Driving Piles	Foot		445	445
Test Pile Metal Shells	Each		1	1
Stone Riprap, Class A4	Sq. Yd.		257	257
Name Plates	Each		1	1
Steel Railing, Type S1	Foot	160		160
Portland Cement Mortar Fairing Course	Foot	480		480
Waterproofing Membrane System	Sq. Yd.	249		249
Hot-Mix Asphalt Surface Course, Mixture C, N50	Ton	27		27

FITCH CREEK
BUILT 200_, BY
KNOX COUNTY
SECTION 05-00096-01-BR
C.H. 16 STA. 10+00.00
STR. NO. 048-3389 LOADING HL-93
NAME PLATE
(See Std. 515001)

DESIGN SPECIFICATIONS

2007 AASHTO LRFD with 2008 Interim

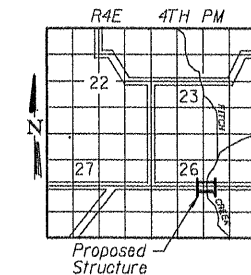
LOADING HL-93

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

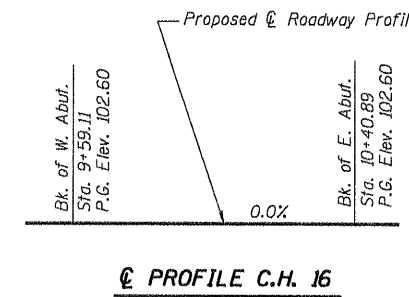
DESIGN STRESSES

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

PPC UNITS
f'ci = 5,000 p.s.i.
f'c = 6,000 p.s.i.
f's = 270,000 p.s.i.
f'si = 201,960 p.s.i.



LOCATION SKETCH



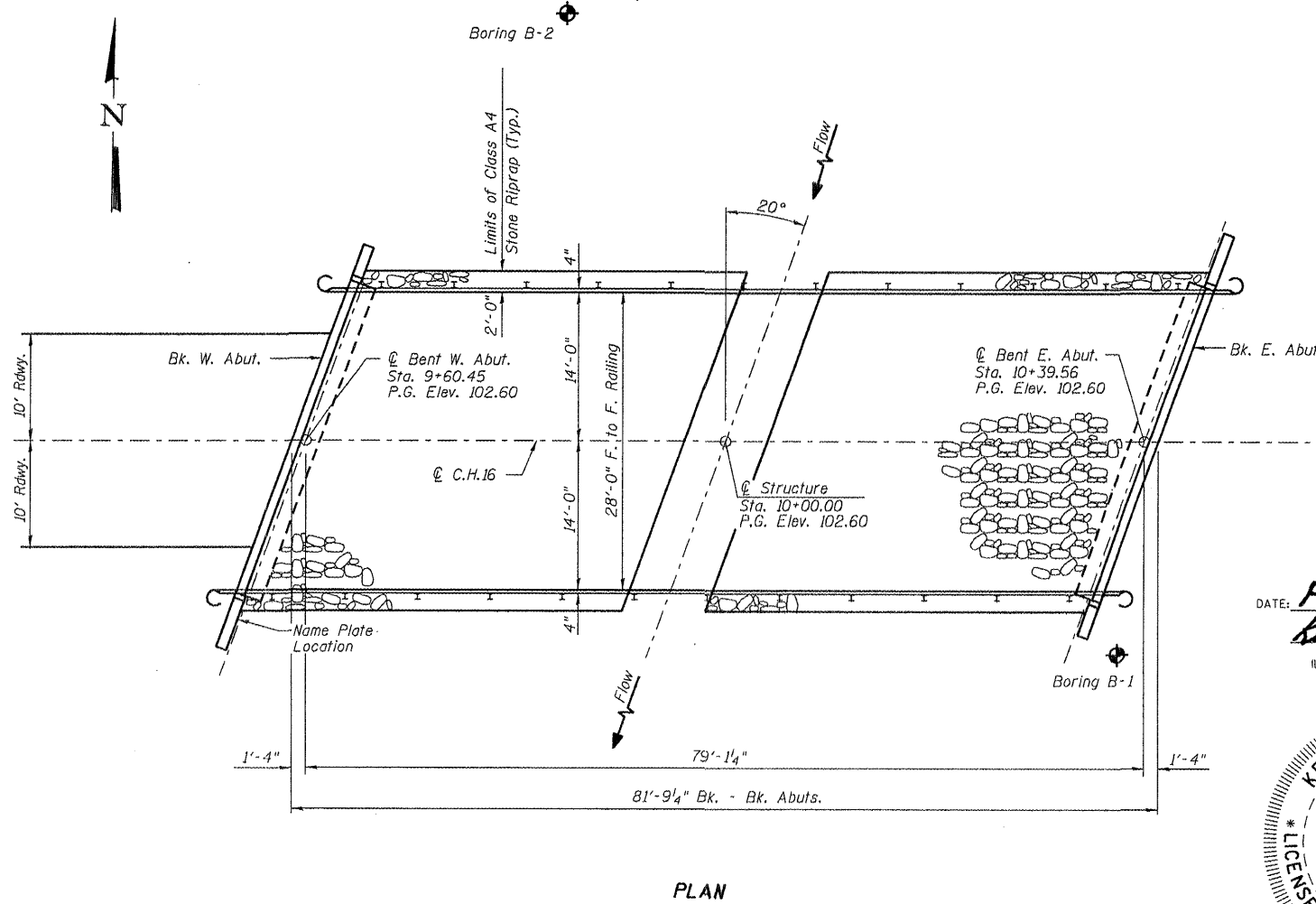
PROFILE C.H. 16

WATERWAY INFORMATION

Drainage Area = 17.1 Sq. Mi. Existing Low Grade Elev. 99.94 @ Sta. 14+00.00
Proposed Low Grade Elev. 99.94 @ Sta. 14+00.00

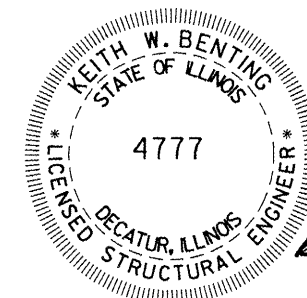
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exlst.	Prop.	Nat. H.W.E.	Head-Ft. Exlst.	Prop.	Headwater El. Exlst.	Prop.
Design	15	2025	275	350	97.15	0.62	0.52	97.77	97.67
Base	100	3299	389	501	99.38	0.85	0.67	100.23	100.05
Overtopping									
Max. Calc.	500	4387	439	619	100.9	0.97	0.78	101.87	101.68

Low Beam Elev. (Prop.) = 99.38



PLAN

DATE: February 16, 2009
Keith W. Bunting
KEITH W. BUNTING
ILL. STRUCTURAL NO. 4777



Exp. 11/30/2010

GENERAL PLAN AND ELEVATION			Sheet No.
Date	Designed DCS	C.H. 16 OVER FITCH CREEK SECTION 05-00096-01-BR KNOX COUNTY STA. 10+00.00 PROP. STR. NO. 048-3389	I
Revisions	Drawn DCS		
	Checked MJP		
	Approved KWB		
Prepared by:	URS		
345 East Ash Avenue Decatur, IL 62526		of 7	URS Job No. 36432317