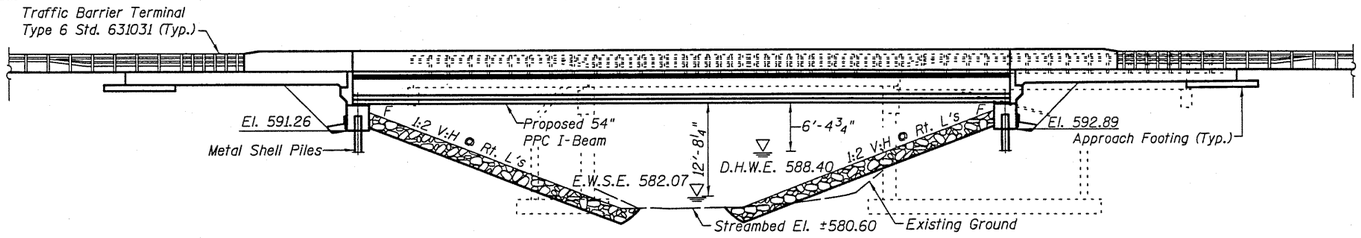
Benchmark: Benchmark disk set in concrete post in Northeast quad of intersection of N. Hoffman Avenue and State Highway 9 ±57' north of ℄ IL-9 and ±106' east of ℄ N. Hoffman Avenue. Elevation 591.41

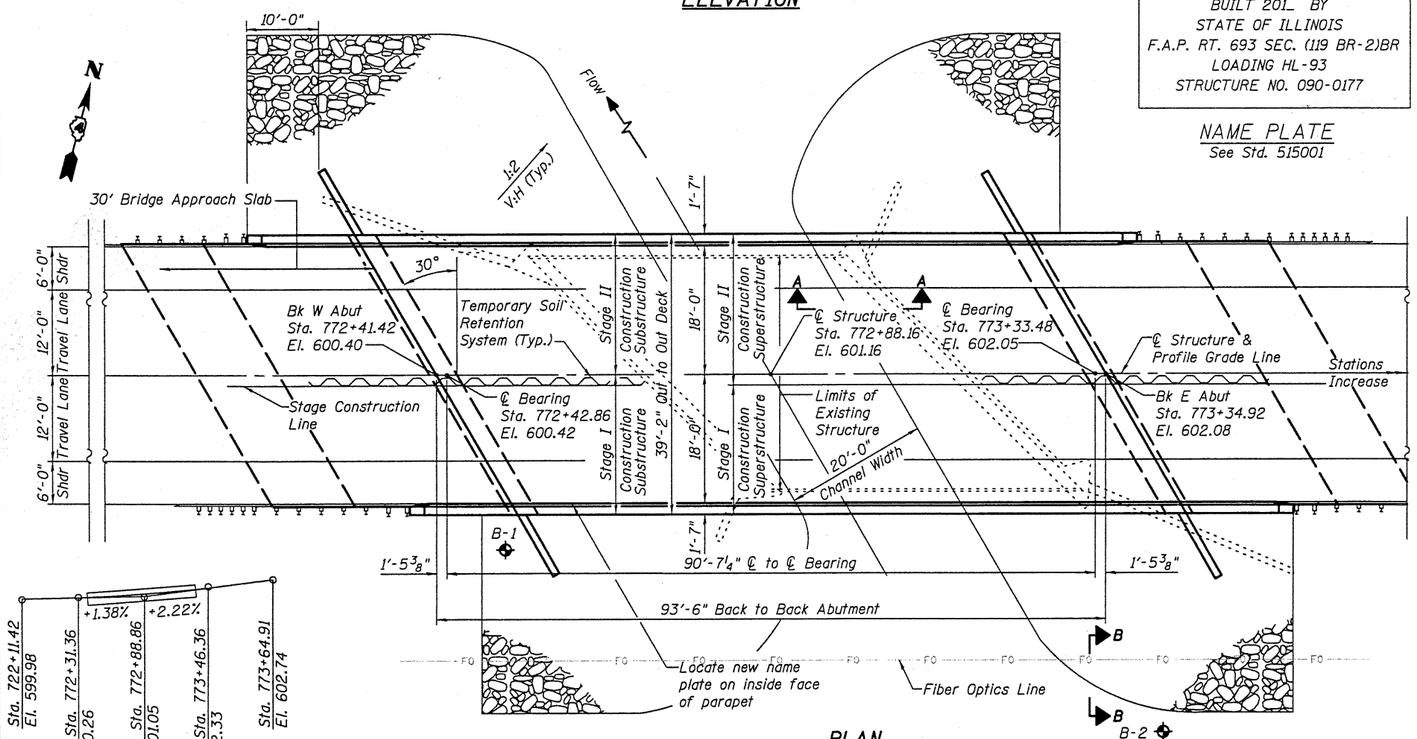
Existing Structure: S.N. 090-0064 built in 1928 as SBI Route 164, Section 119-B. The superstructure was replaced in 1975 with (11)- 21" x 36" PPC Deck Beams and a bituminous overlay. The substructure consists of RC closed abutments on untreated timber piles. Structure measures 44'-$9\frac{5}{8}$" bk to bk abutments and 33'-0" out-to-out of deck. Existing structure is to be removed. Traffic to be maintained using stage construction. Wide load detour to be provided.

Salvage all steel used for bracing and support. All salvaged steel should be shipped to East Peoria Maintenance Yard at 604 Camp St., East Peoria, IL 61611. Contact Brain Ruder at (309) 699-3822. Cost incidental to Removal of Existing Structures.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



ELEVATION



PLAN

PROFILE GRADE
(F.A.P. 693 along ℄ of roadway)

DESIGNED	- RRD
CHECKED	- AJS
DRAWN	- KAS
CHECKED	- AJS

STATION 772+88.16
BUILT 201_ BY
STATE OF ILLINOIS
F.A.P. RT. 693 SEC. (119 BR-2)BR
LOADING HL-93
STRUCTURE NO. 090-0177

NAME PLATE
See Std. 515001

WATERWAY INFORMATION

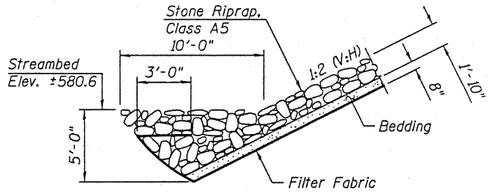
Drainage Area = 3.3 square miles Low Grade Elev. 600.24 @ Sta. 772+29

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	1060	162	199	586.70	0.65	0.44	587.35	587.14
Design	50	1810	211	280	588.40	1.16	0.61	589.56	589.01
Base	100	2160	229	314	589.05	1.42	0.69	590.47	589.74
Overtopping	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Max. Calc.	500	3030	268	391	590.40	2.15	0.91	592.55	591.31

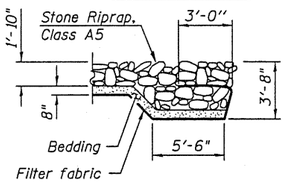
10-year velocity through existing bridge = 6.77 fps 10 year velocity through proposed bridge = 5.55 fps
Scour counter measures to be provided. No scour is anticipated.

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	West Abut.	East Abut.
	591.26	592.89



SECTION A-A



SECTION B-B

SCOPE OF WORK

Complete removal of Existing Superstructure, and Approach Slabs. Removal of Existing Abutments and Wingwalls. Construct Reinforced Concrete Bridge Deck, P.P.C. I-Beams, Approach Slab, and Abutments.

GENERAL NOTES

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.

Reinforcement bars designated (E) shall be epoxy coated.

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

The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.

The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at substructures specified or approved by the Engineer before ordering the remainder of piles.

Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure. The Contractor shall sawcut the upper portion of the existing abutment at the stage removal line before Stage I removal to ensure the remaining portion will not be prematurely damaged.

The Contractor is advised that the existing PPC Deck Beams are in a deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the beams when developing construction procedures for removal and replacement of the superstructure.

APPROVED
For Structural Adequacy Only
Ralph E Anderson (TJT)
Engineer of Bridges & Structures

INDEX OF SHEETS

DESIGN SPECIFICATIONS
2007 AASHTO LRFD Bridge Design Specifications with 2008 Interims

LOADING HL-93
Allow 50#/sq. ft. for future wearing surface.

SEISMIC DATA
Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.119
Design Spectral Acceleration at 0.2 sec. (S_{DS}) = 0.191
Soil Site Class = D

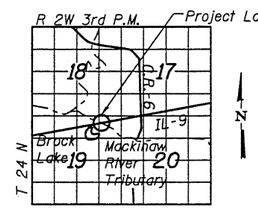
DESIGN STRESSES

FIELD UNITS
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)

PRECAST PRESTRESSED UNITS
f'c = 6,000 psi
f'ci = 5,000 psi
fpu = 270,000 psi (1/2" low lax. strands)
fpbt = 201,960 psi (1/2" low lax. strands)

ANTHONY J. STANDISH
081-005819
LICENSED STRUCTURAL ENGINEER
STATE OF ILLINOIS

ILLINOIS STRUCTURAL NO. 081-005819 (Expires 11/30/10)



LOCATION SKETCH

GENERAL PLAN AND ELEVATION
IL-9 OVER
MACKINAW RIVER TRIBUTARY
F.A.P. 693 - SECTION (119 BR-2)BR
TAZEWELL COUNTY
STA. 772+88.16
S.N. 090-0177

STRAND ASSOCIATES, INC.

SHEET NO. 1	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22 SHEETS	693	(119 BR-2)BR	TAZEWELL	65	18
			CONTRACT NO. 68660		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		