

Bench Mark: A chiseled square on NE corner of NE wingwall of S.N. 044-0010, El. 354.524

Existing Structure: S.N. 044-0010, built in 1924 under S.B.I. Route 1, Section 38B, was originally a RC T-beam bridge. The superstructure was replaced and widened with PPC deck beams in 1972 under S.B.I. Route 1, Section 38 B-DR. The existing structure is a single span 21' x 36" PPC-deck beam bridge with closed cantilever abutments on untreated timber piles, 52'-10" back to back abutments, 33'-0" out to out, with a 45 degree skew.

The existing deck beams, bridge railing, and approach shoulder beams including railing are to be removed and replaced. Traffic to be maintained utilizing stage construction.

No Salvage.

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
F.A.S. 960	38 B-1	JOHNSON	23	12
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract # 98890

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LOADING HS20-44 (NEW CONSTRUCTION)

No allowance for future wearing surface.

DESIGN SPECIFICATIONS (NEW CONSTRUCTION)

2002 AASHTO

DESIGN STRESSES

FIELD UNITS

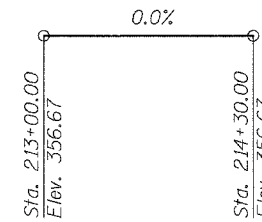
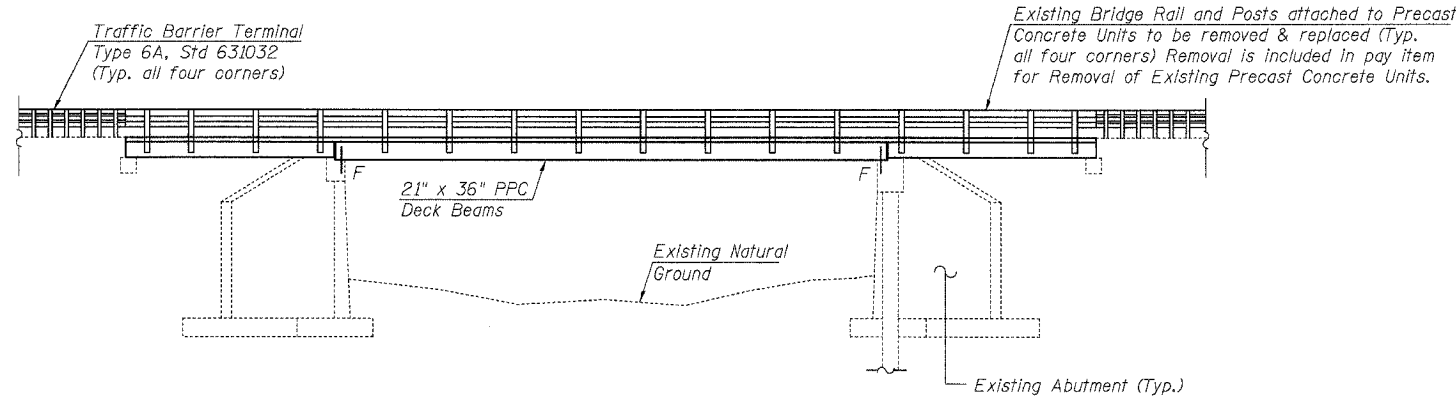
$f'_c = 5,000$ psi (Concrete Wearing Surface)
 $f_y = 60,000$ psi (Reinforcement)

PRECAST PRESTRESSED UNITS

$f'_c = 5,000$ psi
 $f_{ci} = 4,000$ psi
 $f'_s = 270,000$ psi ($\frac{1}{2}$ " ϕ low lax. strands)
 $f_{si} = 201,960$ psi ($\frac{1}{2}$ " ϕ low lax. strands)

SEISMIC DATA

Seismic Performance Category (SPC) = B
 Bedrock Acceleration Coefficient (A) = 13.6%g
 Site Coefficient (S) = 1.5



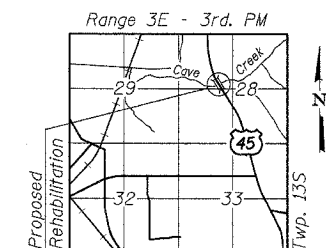
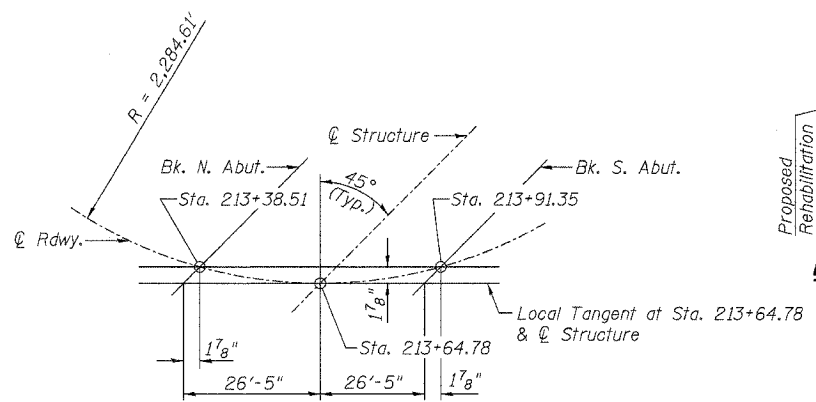
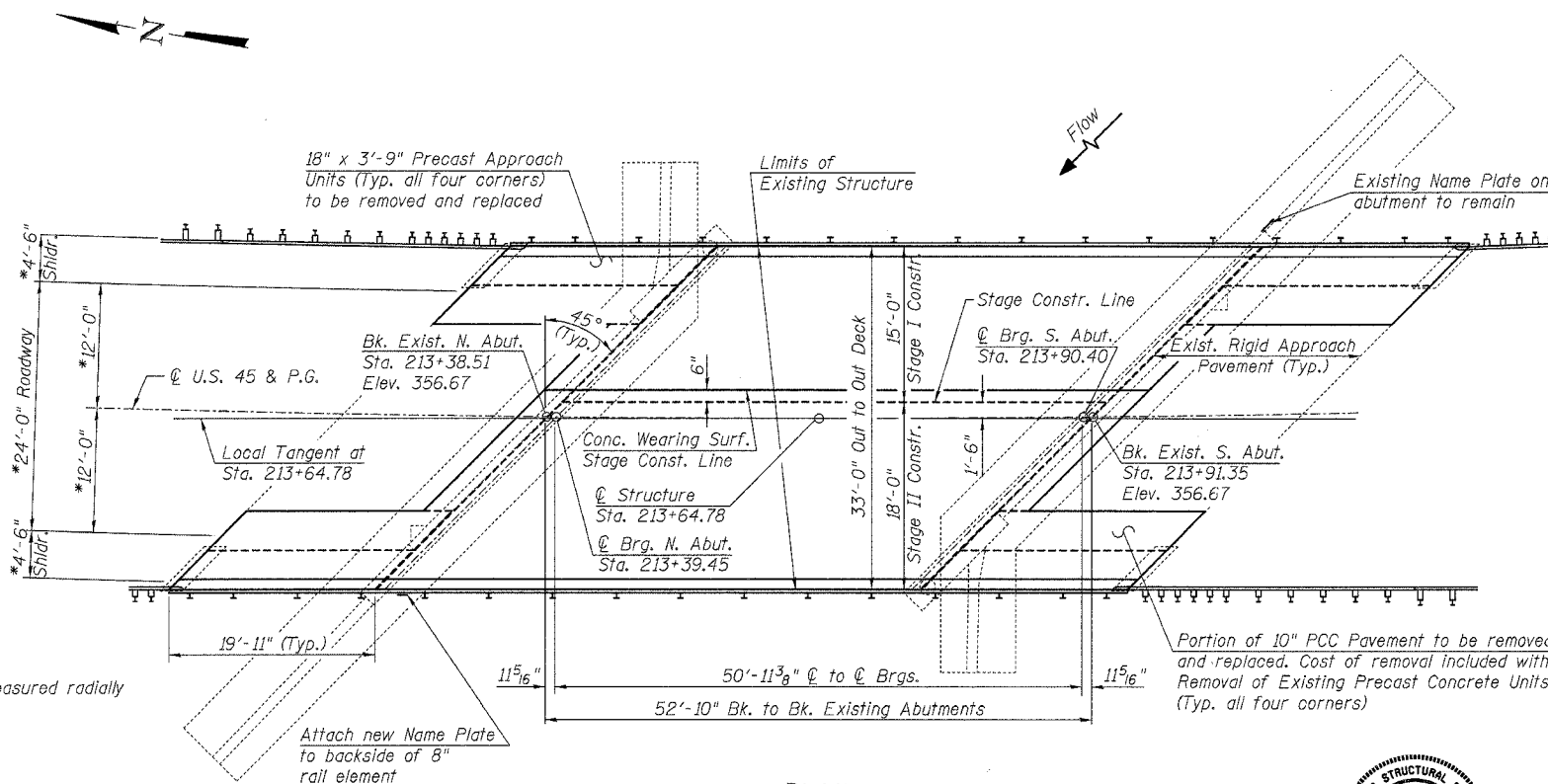
CURVE DATA

$\Delta = 19^\circ 08' 56"$ (LT)
 $D = 2^\circ 30' 28"$
 $T = 385.36'$
 $L = 763.54'$
 $E = 32.27'$
 $R = 2284.61'$
 $S.E. = 0.0211'$
 $P.C. = \text{Sta. } 207+36.58$
 $P.T. = \text{Sta. } 215+00.12$
 $P.I. = \text{Sta. } 211+21.94$

STATION 213+64.78
 REBUILT 20 BY
 STATE OF ILLINOIS
 F.A.S. RT. 960 SEC. 38 B-1
 LOADING HS20
 STR. NO. 044-0010

NAME PLATE

(See Std. 515001)



APPROVED
 FOR STRUCTURAL ADEQUACY ONLY
 (Signature)
 ENGINEER OF BRIDGES AND STRUCTURES

(Signature)
 Michael T. Haley
 Licensed Structural Engineer
 State of Illinois No. 81-5991
 Expires 11/30/2008
 8-16-07 Date

REVISIONS	
NAME	DATE

LIN ENGINEERING, L.T.D.
 Consulting Engineers
 Chatham, Illinois
 Designed By: DLS Checked By: MTH Drawn By: AJF
 Date: 03/2007 File: 044-0010.DGN

ILLINOIS DEPARTMENT OF TRANSPORTATION
GENERAL PLAN
 U.S. ROUTE 45 OVER
 CAVE CREEK
 F.A.S. ROUTE 960 - SECTION 38 B-1
 JOHNSON COUNTY
 STA. 213+64.78
 STRUCTURE NO. 044-0010

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