

Benchmark : Benchmark #1 - Found out on NE'LY Wing Wall of Rte 23 Bridge over Coon Creek.
Elevation = 815.159'.

Existing Structure: S.M. 056-0012 was built in 1929 under S.B.I. Rte 23, Sec A-24 at Sta. 95+26.44. Structure consists of a four-span reinforced concrete slab bridge on closed reinforced concrete abutments and concrete piers. 112'-3" b-to-b abutments. 46'-0" o-to-o deck. In 1969, the bridge deck was widened and the concrete slab superstructure was replaced with PPC deck beams under S.B.I. Rte 23, Sec. 24B-R. Stone riprap was placed beneath bridge in 2002 under contract 62334. In 2008 two PPC Deck beams were removed and replaced under Contract 60D92. The contractor shall remove and replace the entire existing bridge with a three span W27 steel beam superstructure on integral abutments and two reinforced concrete piers. The road shall be kept open at all times by utilizing staged construction.

Salvage: None

STATION 95+36.16
BUILT 20__ BY
STATE OF ILLINOIS
F.A.P. ROUTE 324 SEC 24B-2
LOADING HL-93
STRUCTURE NO. 056-0277

NAME PLATE
See Std. 515001

LOADING HL-93
Allow 50 psf for future wearing surface

DESIGN SPECIFICATIONS
2010 AASHTO LRFD Bridge Design Specifications

DESIGN STRESSES
FIELD UNITS

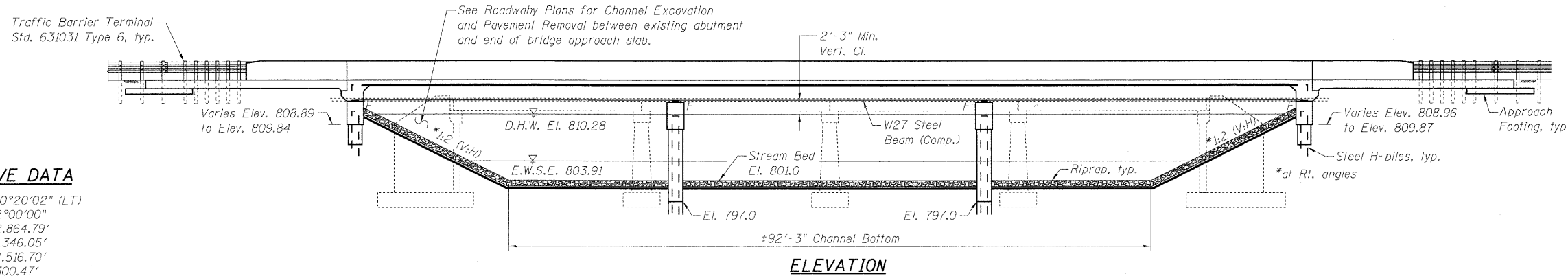
$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 50,000$ psi (M270 Gr 50 Structural Steel)
 $f_y = 36,000$ psi (M270 Gr 36 Structural Steel)

SEISMIC DATA

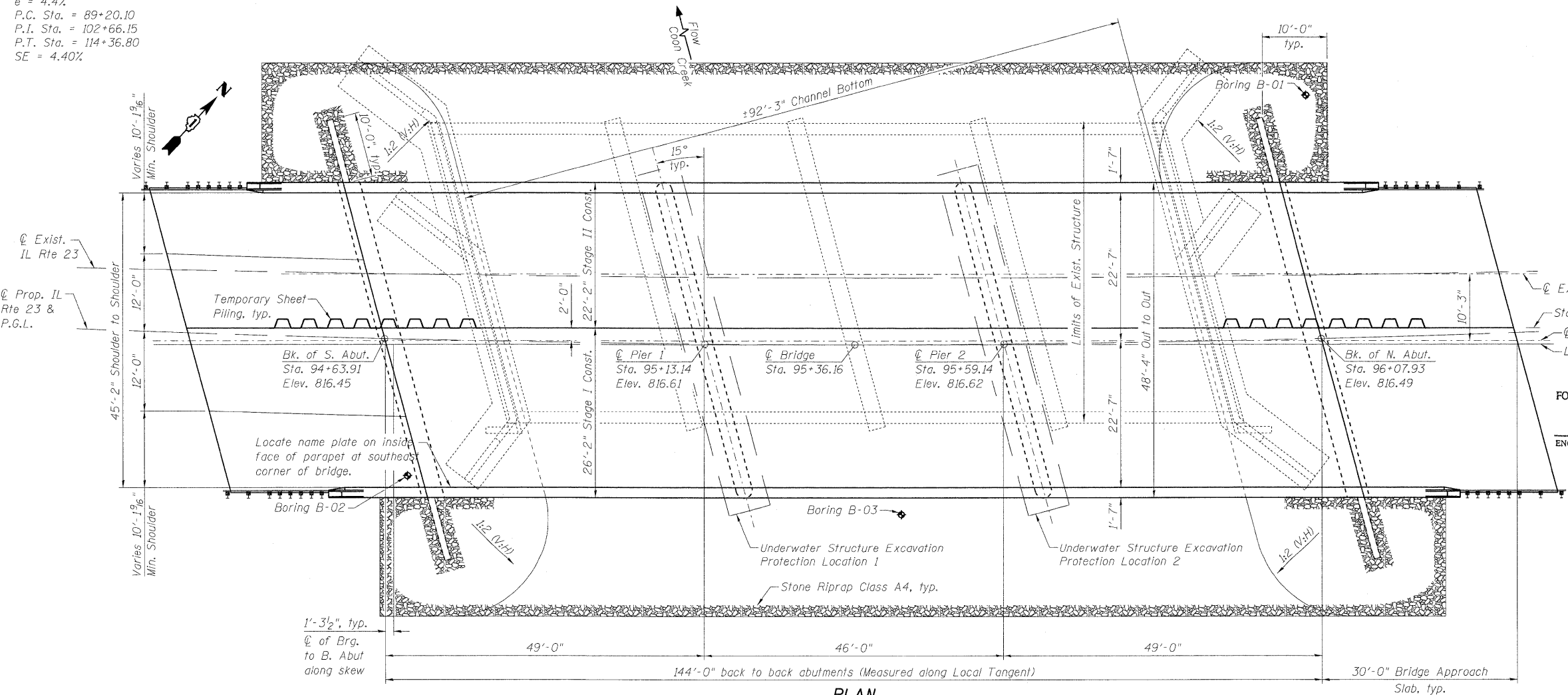
Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.058g
Design Spectral Acceleration at 0.2 sec. (S_{D5}) = 0.107g
Soil Site Class = C

CURVE DATA

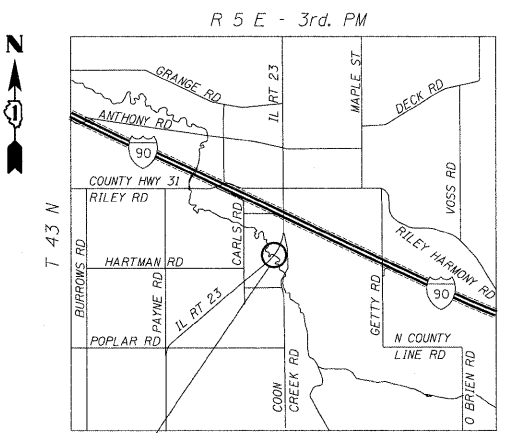
$\Delta = 50^\circ 20' 02''$ (LT)
 $D = 2^\circ 00' 00''$
 $R = 2,864.79'$
 $T = 1,346.05'$
 $L = 2,516.70'$
 $E = 300.47'$
 $e = 4.4\%$
P.C. Sta. = 89+20.10
P.I. Sta. = 102+66.15
P.T. Sta. = 114+36.80
SE = 4.40%



ELEVATION



PLAN



LOCATION SKETCH



APPROVED
FOR STRUCTURAL ADEQUACY ONLY
William H. Epp
ENGINEER OF BRIDGES AND STRUCTURES

William H. Epp
WILLIAM H. EPP, S.E.
IL. LIC. NO. 081-005150
EXP. 11-30-12
DATE 1-13-11

GENERAL PLAN AND ELEVATION
IL RTE 23 OVER COON CREEK
F.A.P. RT. 324
SECTION 24B-2
McHENRY COUNTY
STA. 95+36.16
STRUCTURE NO. 056-0277

LOCO, INC.
CONSULTING ENGINEERS
1560 WALL ST, SUITE 222
NAPERVILLE, ILLINOIS 60563 PH 630.577-9100

DESIGNED - SLV	REVISD -
CHECKED - MJM	REVISD -
DRAWN - SLV	REVISD -
CHECKED - DJB	REVISD -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 OF 26 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
324	24B-2	MCHEMRY	76	29
D-91-178-09			CONTRACT NO. 60F64	
[ILLINOIS] FED. AID PROJECT				