

Benchmark : Benchmark #1 - cut "□" in top of southeast wingwall, approx. 21' south of bridge. Assumed Elevation = 99.71'

Existing Structure: S.N. 016-0771 built in 1958 as a single span 27"x36" PPC Deck Beam bridge with 2" bituminous wearing surface on closed abutments on spread footings. The structure measures 48'-3 3/8" back to back abutments and 53'-0" out to out. Bridge was rehabilitated in 1999 with a new 5" concrete wearing surface, installation of parapets and handrails. Traffic is to be detoured with full bridge closure. New bridge width measures 52'-0".

Salvage: None

LOADING HL-93

Allow 50 psf for future wearing surface

DESIGN SPECIFICATIONS

2007 AASHTO LRFD 4th Edition

DESIGN STRESSES

FIELD UNITS

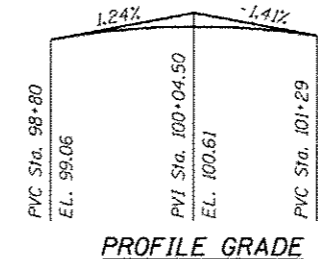
f'c = 3,500 psi
f'c = 5000 psi (Concrete Wearing Surface)
fy = 60000 psi (Reinforcement)

PRECAST PRESTRESSED UNITS

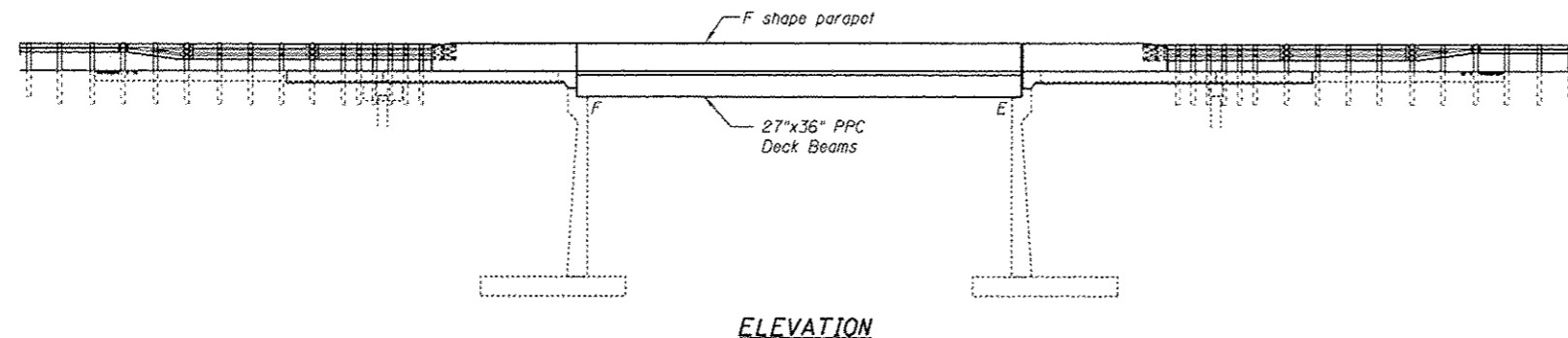
f'c = 6000 psi
f'ci = 5000 psi
f's = 270,000 psi (1/2" ϕ low lax. strands)
f'si = 201,900 psi (1/2" ϕ low lax. strands)

SEISMIC DATA

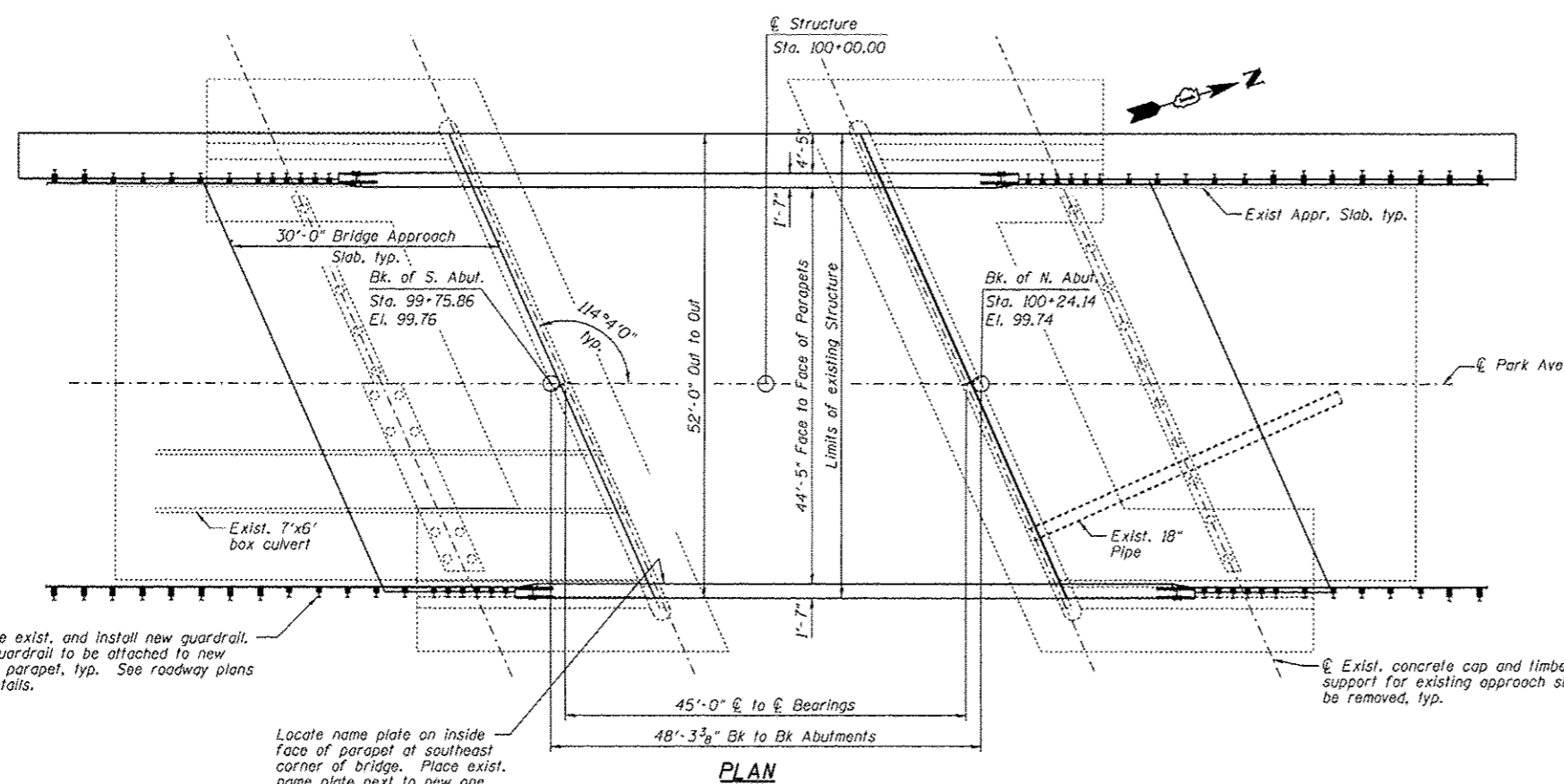
Seismic Performance Category (SPC) = A
Bedrock acceleration coefficient (A) = .04
Site Coefficient (S) = 1.2



PROFILE GRADE



ELEVATION



PLAN

STATION 100+00.00
REBUILT 20_ BY
STATE OF ILLINOIS
F.A.U. ROUTE 3597 SEC 0710 B
LOADING HL-93
STRUCTURE NO. 016-0771

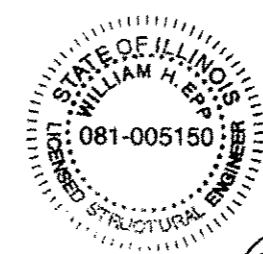
NAME PLATE

See Std. 515001

NOTE:
Existing Name Plate shall be cleaned and relocated next to new Name Plate.
Cost included with Name Plates.

APPROVED
For Structural Adequacy Only

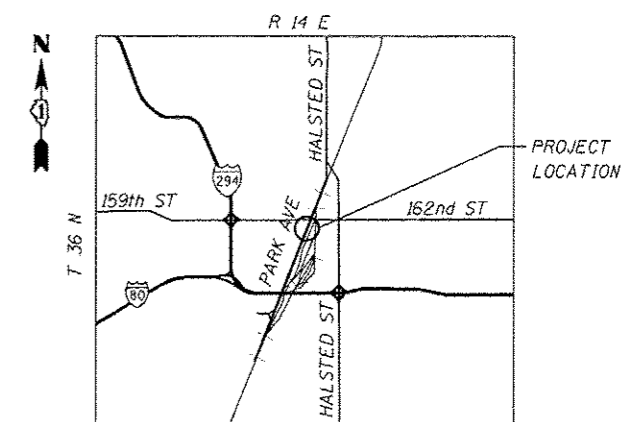
William H. Epp
Engineer of Bridges & Structures



William H. Epp

WILLIAM H. EPP, S.E.
IL. LIC. NO. 081-005150
EXP. 11.30.12
DATE 5.16.12

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 the requirements of the current AASHTO LRFD Bridge Design Specifications.



LOCATION SKETCH

GENERAL PLAN AND ELEVATION
PARK AVENUE OVER CALUMET

UNION DRAINAGE DITCH
F.A.U RT. 3597
SECTION 0710 B
COOK COUNTY
STA. 100+00.00
STRUCTURE NO. 016-0771

LOCO, INC.
CONSULTING ENGINEERS
1560 WALL ST, SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: (630) 517-9100

DESIGNED - SLV	REVISED -
CHECKED - MJM	REVISED -
DRAWN - SLV	REVISED -
CHECKED - MJM	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURE NO. 016-0771

SHEET NO. 51 OF 514 SHEETS

F.A.U. R.T.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3597	0710 B	COOK	30	10
0-91-292-09			CONTRACT NO. 60F95	
[ILLINOIS] FED. AID PROJECT				