

Benchmark: Chiseled "X" in N.W. bolt of "Wolf Rd." exit sign located on the north side of Palatine Rd. and east of Wolf Rd. - Elev. = 648.63

Existing Structure: Structure No. 016-0680 built as Wolf Road over Palatine Road, Section 110-1415 in 1963 by the Cook County Highway Department. The length of the structure is 66'-2" center to center of bearings. The superstructure consists of 33"x36" PPC Deck Beams. The existing deck is 70'-0" out to out of deck. In 2006, 8 PPC Deck Beams, the sidewalks and concrete pedestrian rail were removed and replaced. Also in 2006, the bituminous wearing surface was replaced with a concrete wearing surface. Traffic to be maintained utilizing stage construction.

Salvage: Existing pedestrian bridge railing.

Scope of Work

1. Remove and replace superstructure (minor widening).
2. Remove and replace abutment backwalls and upper portion of cap.
3. Remove and replace approach slabs.
4. Add scuppers with closed drainage system to connect into Palatine Rd. drainage system.

DESIGN STRESSES

FIELD UNITS (New Construction)

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50)

FIELD UNITS (Existing Construction)

f'c = 3,500 psi
fy = 40,000 psi (Reinforcement)

DESIGN SPECIFICATIONS

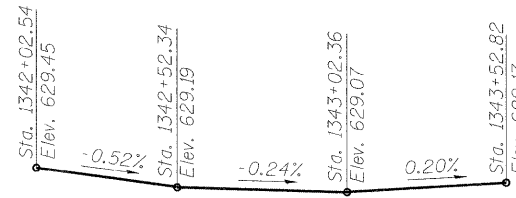
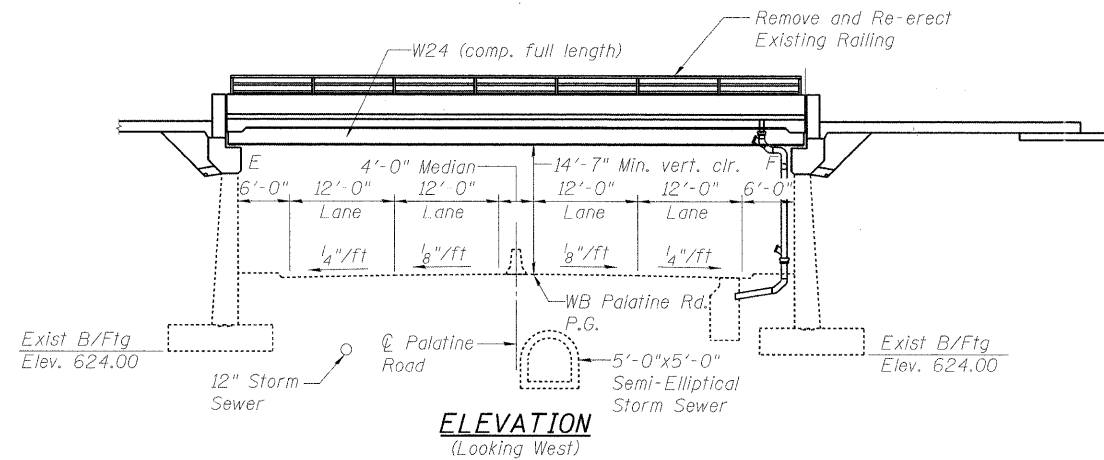
AASHTO LRFD Bridge Design Specifications, 5th Edition, with 2010 Interim Revisions

LOADING HL-93

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

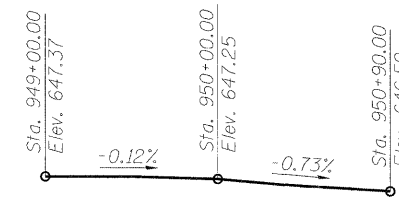
SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (SD1) = 0.057g
Design Spectral Acceleration at 0.2 sec. (SDS) = 0.161g
Soil Site Class = D



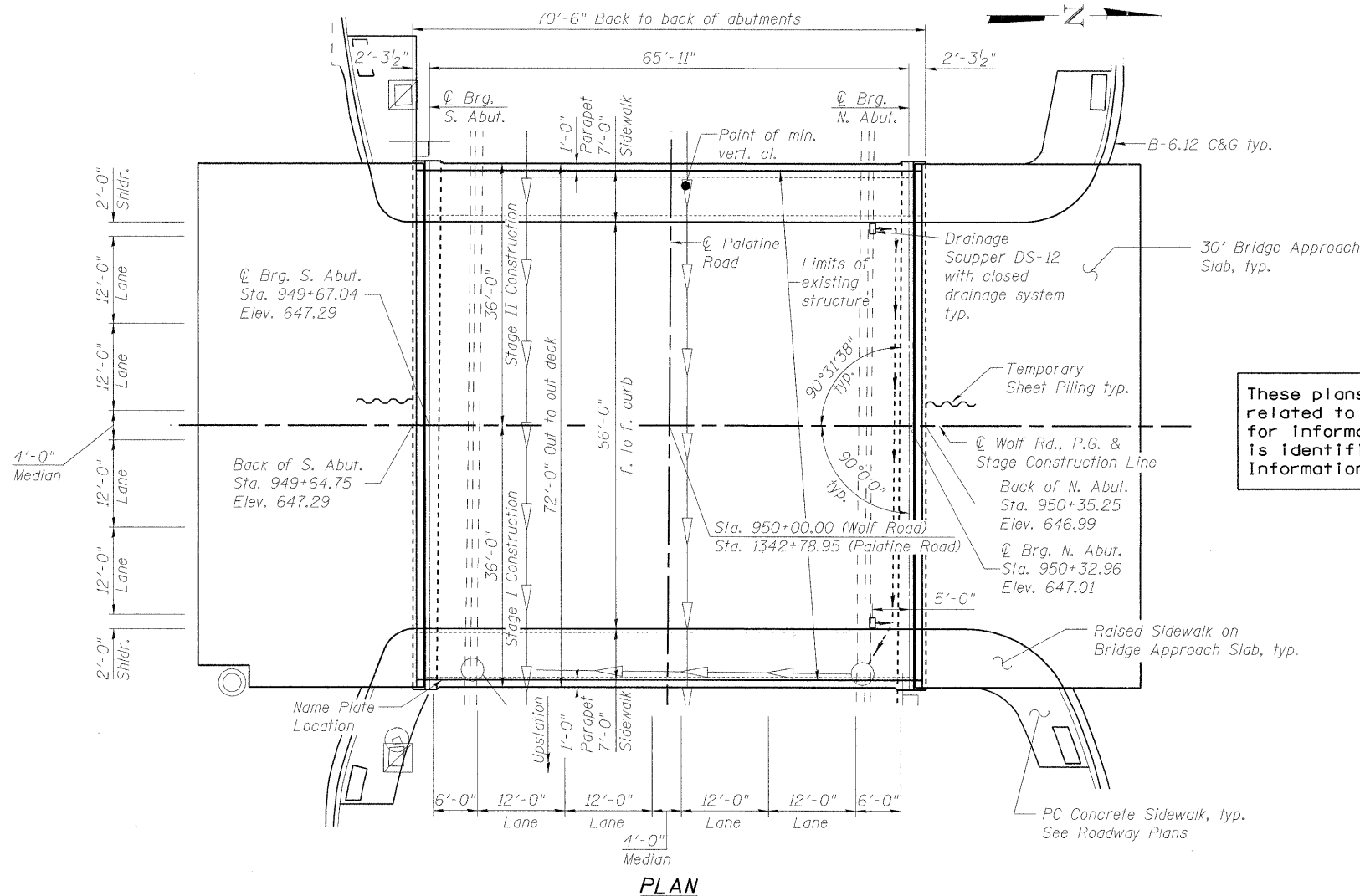
**PROFILE GRADE
PALATINE RD.**

(Westbound Palatine Road PGL)

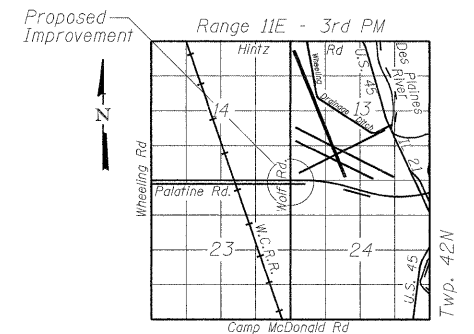


**PROFILE GRADE
WOLF RD.**

(Along roadway)



These plans are for the erection of the bridge. All work shown related to the Beam and Bearing Fabrication Contract (60R35) is for information only. It is not included in this contract, and is identified as "Not Included in this Contract" or "For Information only"



LOCATION SKETCH

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Brad H. Sayers
ENGINEER OF BRIDGES AND STRUCTURES



Brad H. Sayers
BRAD H. SAYERS, S.E.
IL. LIC. NO. 081-006267
EXP 11/30/12
DATE 12/5/11

**GENERAL PLAN & ELEVATION
WOLF ROAD OVER PALATINE ROAD
F.A.U. 2692 - SEC. 1415B-1
COOK COUNTY
STATION 950+00.00
STRUCTURE NO. 016-0680**

FILE NAME: g:\projects\2102105_02R\cadd\structure\ent\0160680-016-0680-021-CP-Edg



USER NAME = Zsayerb	DESIGNED - BPS	REVISED -
PLOT SCALE = N/A	CHECKED - BHS	REVISED -
PLOT DATE = 11/30/2011	DRAWN - BPS	REVISED -
	CHECKED - BHS	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GENERAL PLAN AND ELEVATION
S.N. 016-0680**
SHEET NO. S1 OF 29 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2692	1415B-1	COOK	72	36
				CONTRACT NO. 60M52
ILLINOIS FED. AID PROJECT				