

Existing Structure: S.N. 016-0378 built in 1962 as F.A. Route 61, Section 531-1-HB-5 at Station 119+77.27. Structure consists of four span continuous wide flange beam bridge with a 12°34'38" left ahead skew, 162'-0" back-to-back abutments, varying deck width of 127'-10⁷/₈" to 126'-7³/₄", multi-column piers, and pile bent abutments. In 1971, the deck was patched and a bituminous overlay was placed on the structure. In 1991, the expansion joints and parapets were reconstructed, along with deck patching and overlay replacement with microsilica concrete. The guardrail was also replaced with a concrete barrier. In 2000, the abutment bearings were replaced with elastomeric.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DESIGN STRESSES

FIELD UNITS (New Const.)

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

FIELD UNITS (Existing)

f_c = 1,400 psi (Superstructure & Substructure)
f_s = 20,000 psi (Reinforcement & Structural Steel)

LOADING HS 20-44 & ALT.

(Original Construction)

DESIGN SPECIFICATIONS

(New Construction)
2002 AASHTO "Standard Specifications for Highway Bridges"

SCOPE OF WORK

1. Repair Deck Slab
2. Apply Concrete Sealer to top of deck surface and top and inside vertical face of parapets
3. Replace P.J.S. at Expansion Joint with Silicone Joint Sealer
4. Clean and Reseal Relief Joints
5. Extend Floor Drains
6. Repair Parapet Concrete
7. Repair Substructure Concrete

GENERAL NOTES

Plan dimension and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

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

See Roadway plans for maintenance of traffic details.

When existing lighting fixtures, conduits and/or other existing utilities are present that will interfere with installation of the protective shield, the contractor shall submit, for approval by the Engineer, details of how he/she proposes to adjust the protective shield to clear the existing lighting fixtures, conduits and utilities. The protective shield shall not diminish the existing level of lighting of the roadway beneath. The Contractor shall coordinate the installation with municipalities and/or utilities to insure protection of their facilities.

The protective shield shall not rest upon existing lighting fixtures, conduits or utilities. Any lighting fixtures, conduits or utilities damaged by the contractor's operations shall be replaced or repaired by the contractor at his/her expense.

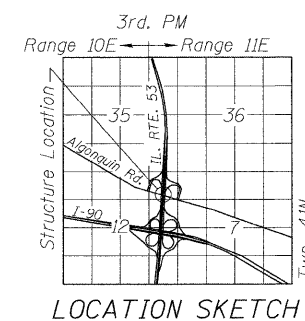
TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Protective Shield	Sq. Yd.	1135		1135
Floor Drain Extension	Each	24		24
Concrete Sealer	Sq. Ft.	21951		21951
Silicone Joint Sealer, 2"	Foot	256		256
Structural Repair of Concrete (Depth equal to or less than 5 in.)	Sq. Ft.	113	21	134
Approach Slab Repair (Partial Depth)	Sq. Yd.	2.3		2.3
Deck Slab Repair (Partial)	Sq. Yd.	47.5		47.5
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	321.9		321.9
Clean and Reseal Relief Joint	Foot	273		273

INDEX OF SHEETS

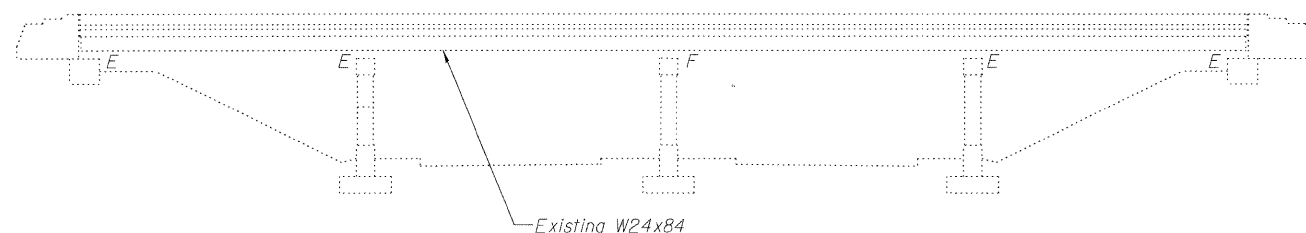
1. General Plan and Elevation
2. Stage Construction Details
3. Temporary Concrete Barrier for Stage Construction
4. Deck Slab Repair
5. Parapet Repair and Floor Drain Extension Details
6. Abutment Repair

Clean and Reseal Relief Joint.
Typ. Each Approach
(See Special Provisions)
See Standard 420001 for Transverse Expansion Joint



Michael J. Haley 2/8/10
Michael T. Haley Date
Licensed Structural Engineer
State of Illinois No. 81-5991
Expires 11/30/2010

GENERAL PLAN AND ELEVATION
NB IL ROUTE 53 OVER ALGONQUIN ROAD
F.A.I. 290 SEC (531-3.1,0305-302K)RS-5
COOK COUNTY
STATION 119+77.27
STRUCTURE NO. 016-0378



ELEVATION



PLAN

	SHEET NO. 1	F.A.I. RTE. 290	SECTION (531-3.1,0305-302K)RS-5	COUNTY COOK	TOTAL SHEETS 314	SHEET NO. 246
	6 SHEETS	CONTRACT NO. 60138		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		