

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Existing Structure: S.N. 016-2133 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 130'-3 7/8" to 131'-4 3/8", 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.

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 and repaired by the contractor at his/her expense.

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
7. Pier 1 and 2 Repair
8. Pier 3 Repair

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

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Protective Shield	Sq. Yd.	1168		1168
Floor Drain Extension	Each	24		24
Concrete Sealer	Sq. Ft.	22533		22533
Silicone Joint Sealer, 2"	Foot	263		263
Structural Repair of Concrete (Depth equal to or less than 5 in.)	Sq. Ft.	33	114	147
Approach Slab Repair (Partial Depth)	Sq. Yd.	1.0		1.0
Deck Slab Repair (Partial)	Sq. Yd.	42.4		42.4
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	100.3		100.3
Clean and Reseal Relief Joint	Foot	280		280
Cleaning and Painting Exposed Rebar	Sq. Ft.	74		74

DESIGN SPECIFICATIONS

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

DESIGN STRESSES

FIELD UNITS (New Const.)

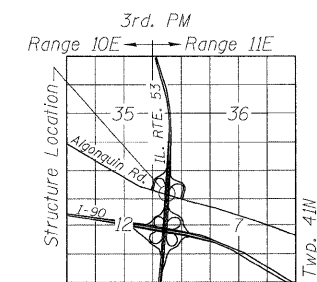
$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)

FIELD UNITS (Existing)

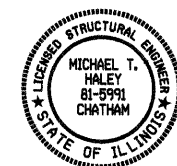
$f_c = 1,400$ psi (Superstructure & Substructure)
 $f_s = 20,000$ psi (Reinforcement & Structural Steel)

LOADING HS 20-44 & ALT.

(Original Construction)

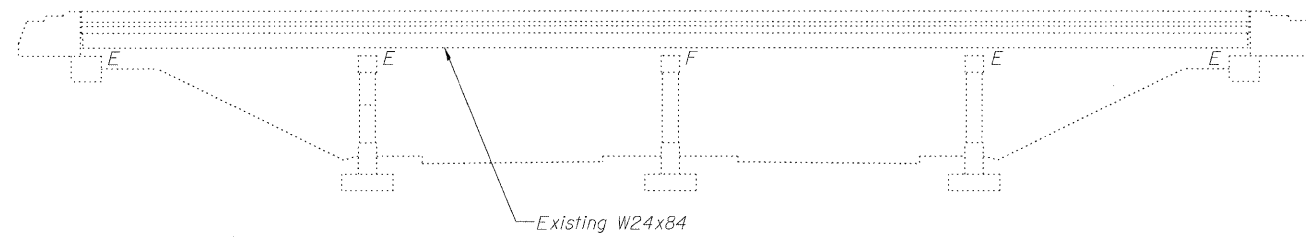


LOCATION SKETCH

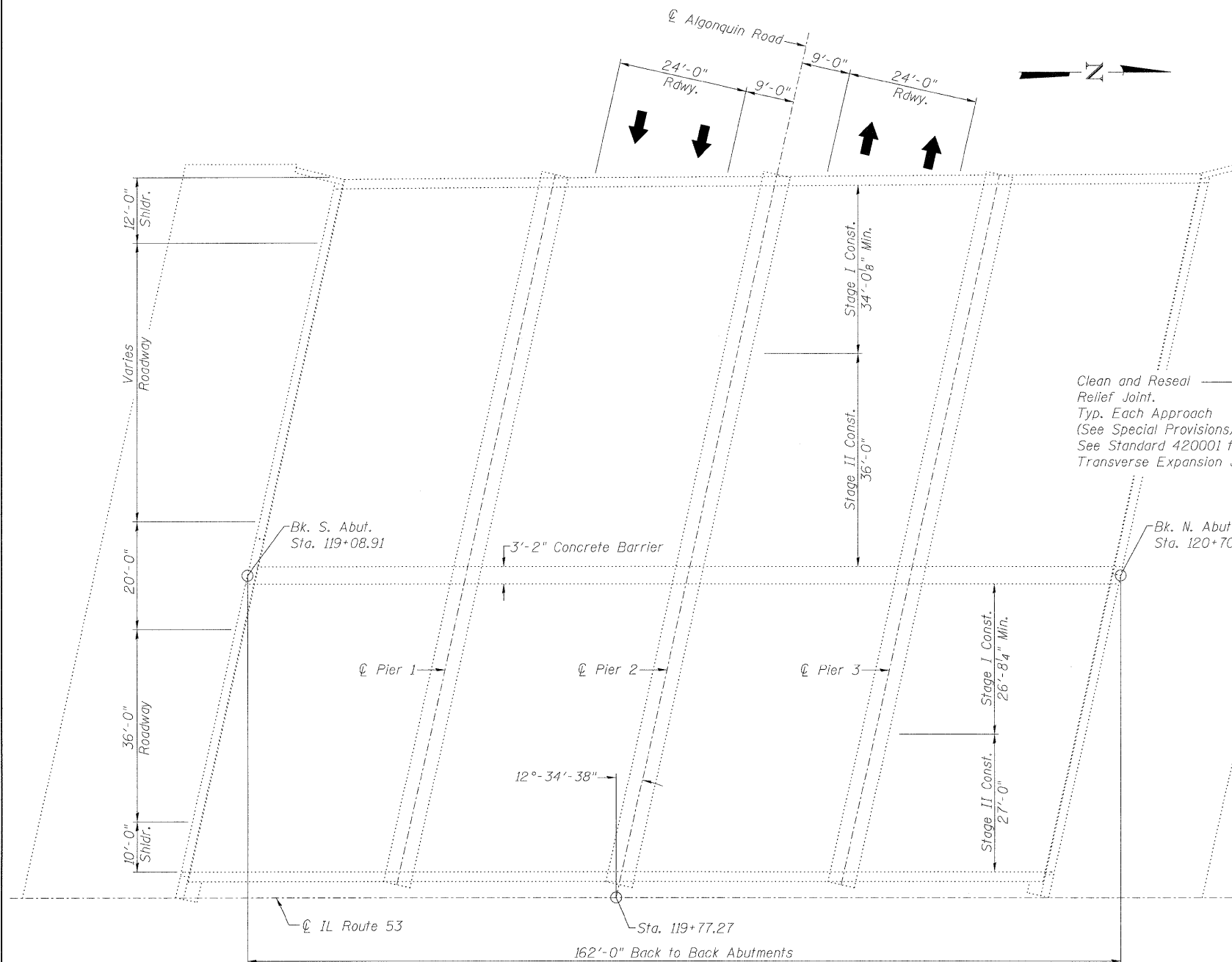


Michael J. Haley 2/8/10
Date
Michael T. Haley
Licensed Structural Engineer
State of Illinois No. 81-5991
Expires 11/30/2010

GENERAL PLAN AND ELEVATION
SB 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. 016-2133



ELEVATION



PLAN

<p>LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois</p> <p>Designed By: KHH Checked By: MTH Drawn By: KHH Date: 12/2009 File: 016-2133.dgn</p>	SHEET NO. 1	F.A.I. RTE. 290	SECTION (531-3.1,0305-302K)RS-5	COUNTY COOK	TOTAL SHEETS 314	SHEET NO. 252
	8 SHEETS	CONTRACT NO. 60138		FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT		