

Existing Structure: S.N. 016-0970 built in 1964 as F.A. Route 61, Section 531-3HB at Station 329+18.98. Structure consists of four span continuous wide flange beam bridge with a 13°24'15" right ahead skew, 205'-0" back-to-back abutments along local tangent, varying deck width of 69'-3<sup>3</sup>/<sub>4</sub>" to 72'-11<sup>7</sup>/<sub>8</sub>", 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. In 2000, the abutment bearings were replaced with elastomeric.

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

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.

INDEX OF SHEETS

1. General Plan and Elevation
2. Deck Slab Repair
3. Parapet Repair
4. Abutment Repair
5. Pier 1 Repair
6. Pier 2 Repair
7. Pier 3 Repair
8. Slopewall 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 Pavement Relief Joints
5. Repair Parapet Concrete
6. Repair Substructure Concrete
7. Repair Slopewall Concrete

DESIGN STRESSES

FIELD UNITS (New Const.)

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

FIELD UNITS (Existing)

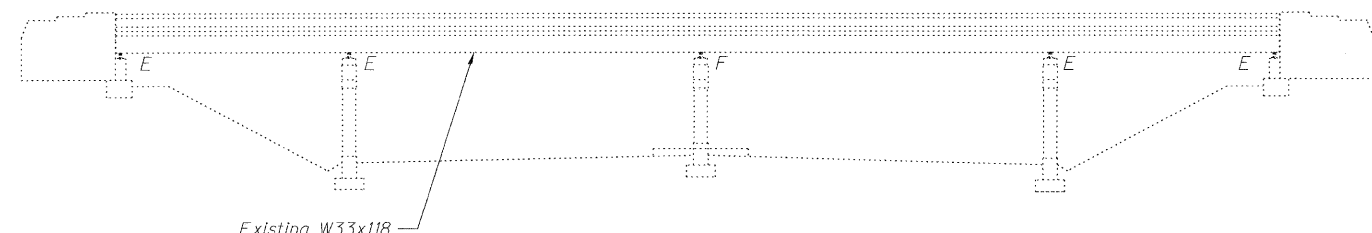
$f_c = 1,400$  psi (Superstructure & Substructure)  
 $f_s = 20,000$  psi (Reinforcement & Structural Steel)

LOADING HS 20-44

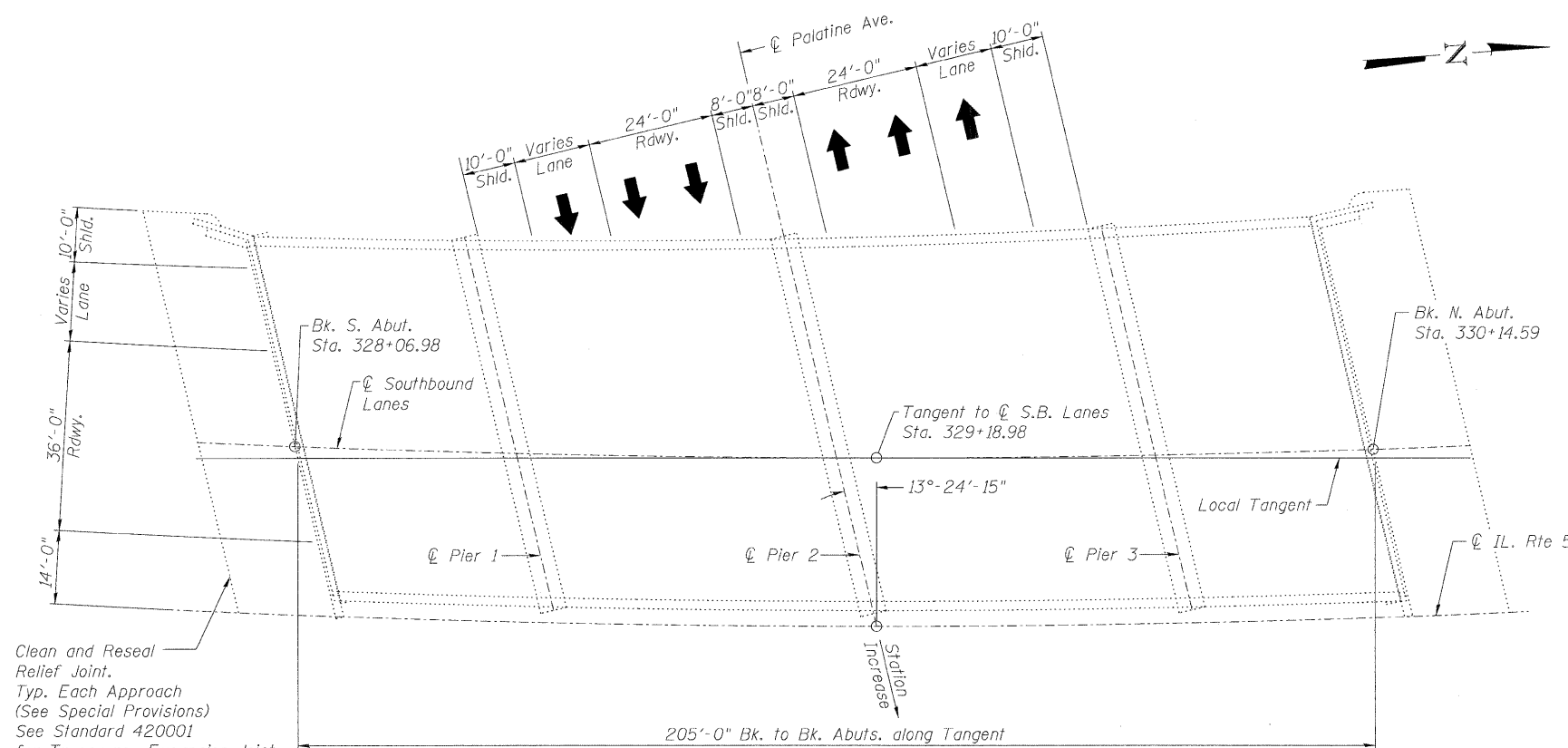
(Original Construction)

DESIGN SPECIFICATIONS

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



ELEVATION



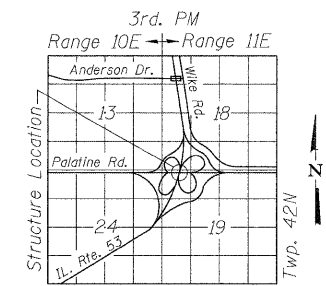
Clean and Reseal Relief Joint.  
Typ. Each Approach  
(See Special Provisions)  
See Standard 420001  
for Transverse Expansion Joint

205'-0" Bk. to Bk. Abuts. along Tangent

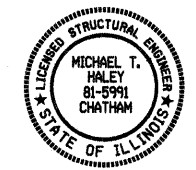
PLAN

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Slope Wall Removal	Sq. Yd.		233	233
Protective Shield	Sq. Yd.	905	4	909
Slope Wall 4 inch	Sq. Yd.		233	233
Concrete Sealer	Sq. Ft.	15491		15491
Silicone Joint Sealer, 3"	Foot	142		142
Structural Repair of Concrete (Depth Greater than 5 in.)	Sq. Ft.		112	112
Structural Repair of Concrete (Depth Equal to or Less than 5 in.)	Sq. Ft.	223	229	452
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	15.2		15.2
Clean and Reseal Relief Joint	Foot	162		162



LOCATION SKETCH



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  
SB IL ROUTE 53 OVER PALATINE ROAD  
F.A.P. 342 SEC (531-3.1,0305-302K)RS-5  
COOK COUNTY  
STATION 329+18.98  
STRUCTURE NO. 016-0970

<p>LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois</p>	<p>SHEET NO. 1 8 SHEETS</p>	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		290	(531-3.1,0305-302K)RS-5	COOK	314	176
<p>Designed By: KHR Checked By: MTR Drawn By: KHR Date: 12/2009 File: 016-0970.dgn</p>		<p>FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT</p>		<p>CONTRACT NO. 60138</p>		