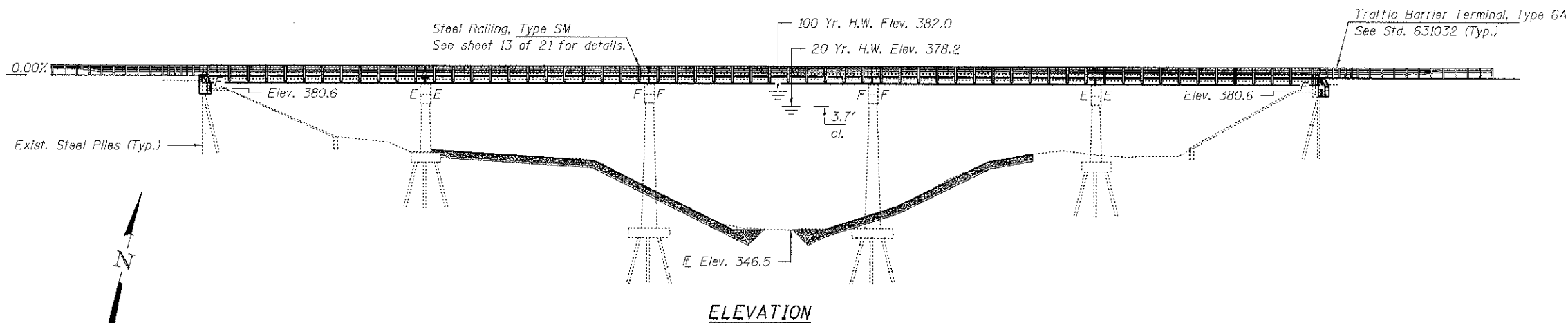


BENCHMARK: Mag spike in power pole. 32' RT, Sta. 148+04. Elev 383.71

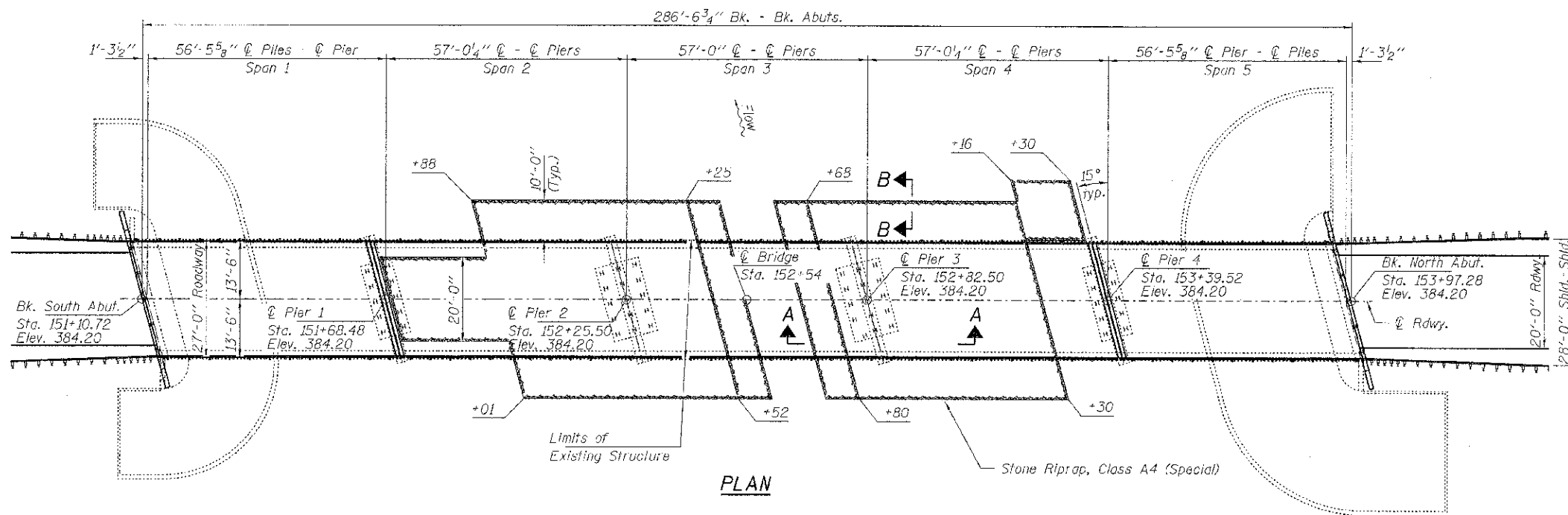
EXISTING STRUCTURE: Structure No. 039-3097, Built in 1968 under Section 104B-1R. The existing superstructure consists of 5 spans of 9 PPC Deck Beams with a back-to-back of abutment length of 286'-6 3/4", an out to out width of 28'-4", a 3"± HMA wearing surface, and concrete curb and hand rail. The existing substructure consists of reinforced concrete pile supported stub abutments and reinforced concrete single column piers on spread footings and piles. The existing superstructure is to be removed and replaced. Road closed to traffic during construction.

No Salvage



**INDEX OF STRUCTURE SHEETS**

1. General Plan & Elevation
2. General Data
- 3-4. 21"x36" PPC Deck Beam - Spans 1 & 5
5. 21"x36" PPC Deck Beam Details - Spans 1 & 5
- 6-7. 21"x36" PPC Deck Beam - Spans 2 & 4
8. 21"x36" PPC Deck Beam Details - Spans 2 & 4
9. 21"x36" PPC Deck Beam - Span 3
10. 21"x36" PPC Deck Beam Details - Span 3
- 11-12. Superstructure Details
13. Steel Railing, Type SM with Hot Mix Asphalt Wearing Surface
14. Abutments
15. Piers
- 16-21. Existing Structure Plans



**DESIGN STRESSES**

**FIELD UNITS (NEW CONST.)**

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

**PRECAST PRESTRESSED UNITS**

$f'_c = 6,000$  psi  
 $f'_ci = 5,000$  psi  
 $f_{pu} = 270,000$  psi (1/2" low lax. strands)  
 $f_{pbt} = 201,960$  psi (1/2" low lax. strands)  
 $f_y = 60,000$  psi (Reinf.)

**FIELD UNITS (EXIST. CONST.)**

$f'_c = 3,500$  psi  
 $f_y = 40,000$  psi (Reinforcement)

**DESIGN SPECIFICATIONS**

**NEW CONSTRUCTION**

2012 AASHTO LRFD Bridge Design Specifications

**LOADING HL-93-SUPERSTRUCTURE**

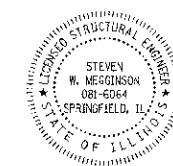
25#/Sq. Ft. included in dead load for HMA wearing surface.  
 Allow 25#/Sq. Ft. for future wearing surface.

**LOADING HS-15-SUBSTRUCTURE**

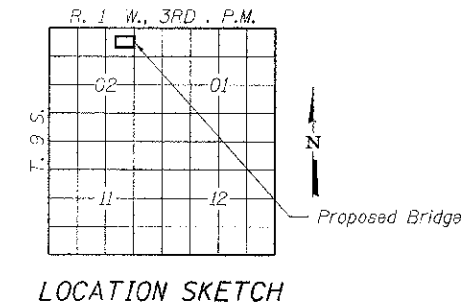
(Existing Construction)

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 requirements of the current "AASHTO LRFD Specifications."

Steven W. Megginson 03/12/2013  
 ILLINOIS STRUCTURAL ENGINEER NO. 081-6064



Expires 11-30-2014



**LOCATION SKETCH**

FILE NAME = 120127-shv-bridge.dgn	USER NAME =	DESIGNED - D.W.T.	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>GENERAL PLAN &amp; ELEVATION STRUCTURE NO. 039-3097</b>	C.K.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
HAMPTON, LENZINI AND RENWICK, INC. 3045 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703	PLOT SCALE =	CHECKED - S.W.M.	REVISED -			II	06-00145-00-BR	JACKSON	54	34
ILLINOIS PROFESSIONAL DESIGN #1193 16 / P. 26 CORP. 12-2012	PLOT DATE = 4/9/2013	DRAWN - D.A.B.	REVISED -			DILLINGER ROAD		CONTRACT NO. 99509		
		CHECKED - S.W.M.	REVISED -			SHEET NO. 1 OF 21 SHEETS		ILLINOIS FED. AID PROJECT		