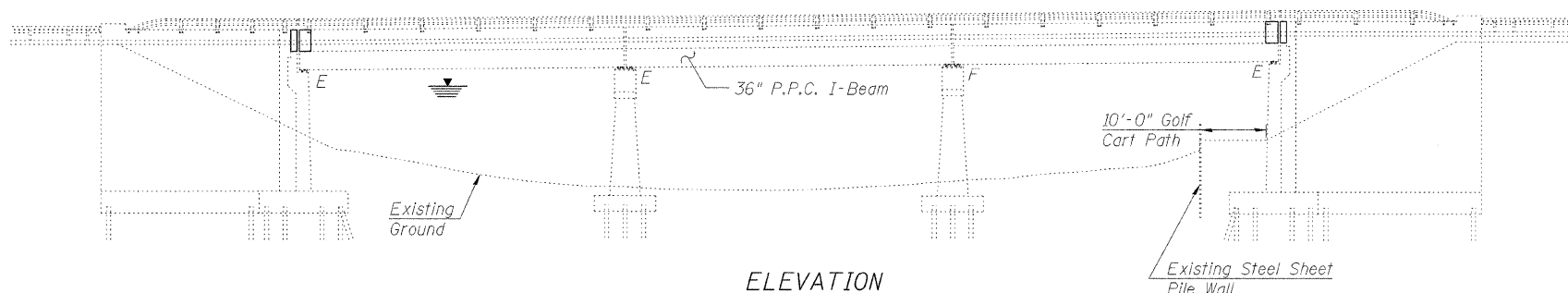
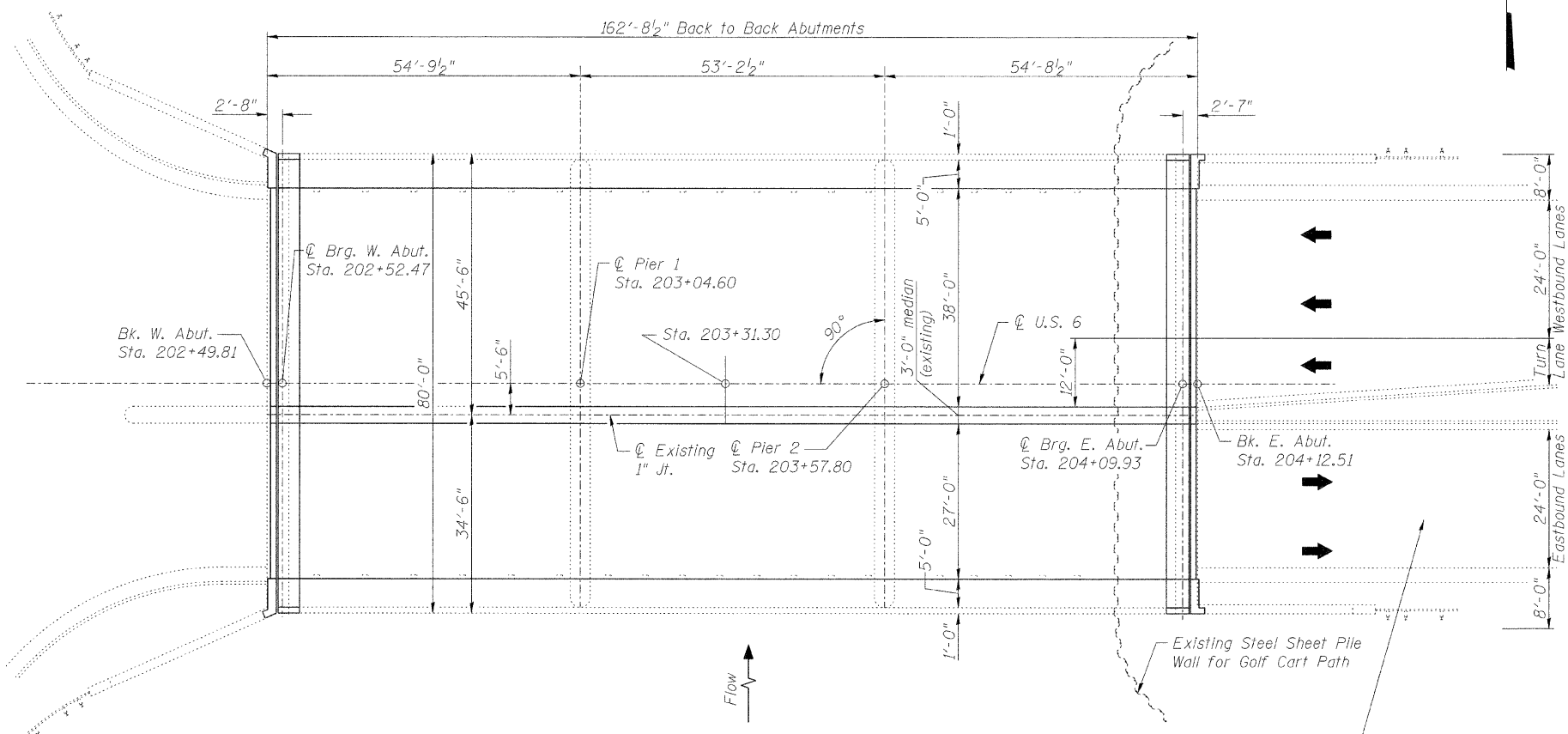


Existing Structure: S.N. 016-0389 built in 1931 as F.A.U. 1608, Section 539-BY at Station 203+31.20. In 1952, bridge was widened. In 1981, as F.A.U. 1608 Section 539-BY the bridge was reconstructed and widened. Structure consists of 3 span PPC-I Beam bridge with 7 1/2" concrete deck, 80'-0" out to out, and 162'-8 1/2" bk. to bk. abutments on pile supported closed abutments and solid wall piers. Stage Construction shall be utilized to maintain traffic during construction.



ELEVATION



PLAN



INDEX OF SHEETS

1. General Plan and Elevation
2. General Notes and Details
3. Temporary Concrete Barrier for Stage Construction
4. Superstructure Repair
5. Concrete Removal
- 6-7. Concrete Details
8. Preformed Joint Strip Seal
9. Bar Splicer Assembly and Mechanical Splicer Details

DESIGN STRESSES

FIELD UNITS

NEW CONSTRUCTION

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

FIELD UNITS

EXISTING CONSTRUCTION

$f'_c = 1,000$ psi, $f_s = 20,000$ psi, Substructure with earth pressure
 $f'_c = 1,400$ psi, $f_s = 20,000$ psi, Substructure without earth pressure
 $f'_c = 3,500$
 $f_y = 60,000$ psi, Deck Slab, Curb & Parapet (Epoxy Coated Bars in Top of Slab)

PRECAST PRESTRESSED UNITS

EXISTING CONSTRUCTION

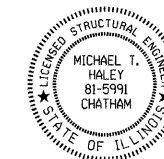
$f'_c = 5,000$ psi
 $f'_{cl} = 4,000$ psi
 $f'_s = 270,000$ psi, 1/2" ϕ Strands
 $f'_{si} = 189,000$ psi, 1/2" ϕ Strands
 $f_y = 60,000$ psi (Non prestressed reinforcement)

DESIGN SPECIFICATIONS

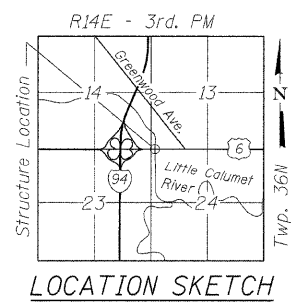
(New Construction)
 2002 AASHTO "Standard Specifications for Highway Bridges"

LOADING HS20-44

(Original Construction)



Michael J. Haley 4-8-2011
 Michael T. Haley Date
 Licensed Structural Engineer
 State of Illinois No. 81-5991
 Expires 11/30/2012



LOCATION SKETCH

GENERAL PLAN AND ELEVATION
U.S. RTE. 6 (159TH ST.) OVER
LITTLE CALUMET RIVER
F.A.P. 351 - SECTION 539W-1-RS
COOK COUNTY
STATION 203+31.20
STRUCTURE NO. 016-0389

	USER NAME =	DESIGNED - ADB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	F.A.P. RTE. =	SECTION =	COUNTY =	TOTAL SHEETS =	SHEET NO. =	
	FILE NAME =	CHECKED - MTH	REVISED -		351	539W-1-RS	COOK	52	34	
	PLOT SCALE =	DRAWN - AJF	REVISED -		CONTRACT NO. 60K57					
	PLOT DATE =	CHECKED - MTH	REVISED -		ILLINOIS FED. AID PROJECT					