

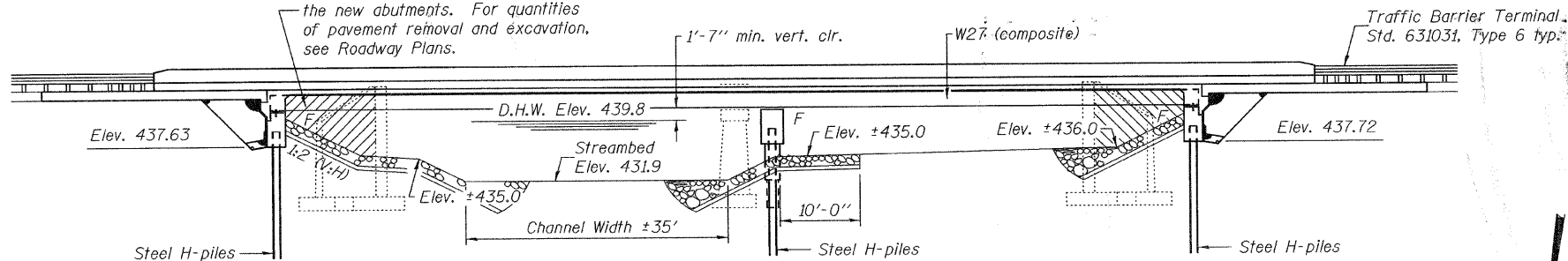
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

Bench Mark: Chiseled □ on top of southeast wing wall of S.N. 013-0026, Sta. 1037+01, 12.5 ft. Left Elev. 443.26

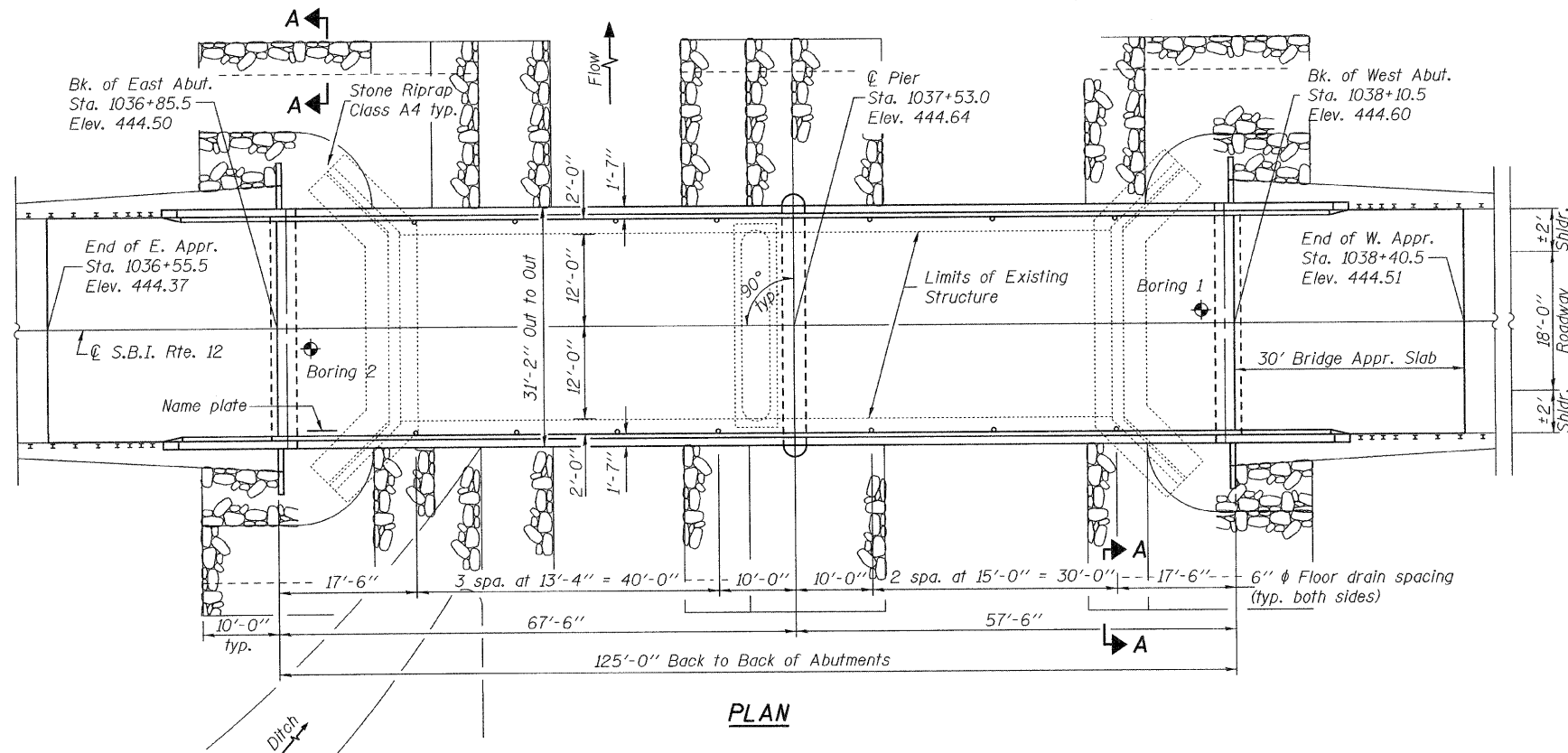
Existing Structure: S.N. 013-0026 Built in 1923 as S.B.I. Rt. 12, Sec. 10 at Sta. 1037+48 as a 2-span R.C. T-beam 96'-2" Bk.-Bk. of abutments. Out to out of deck is 24'-4". Closed abutments and pier is supported on untreated timber piles.  
Existing bridge to be removed and replaced. Traffic to be detoured during construction.

No salvage

Hatched areas indicate excavation between existing abutments and the new abutments. For quantities of pavement removal and excavation, see Roadway Plans.



ELEVATION



PLAN

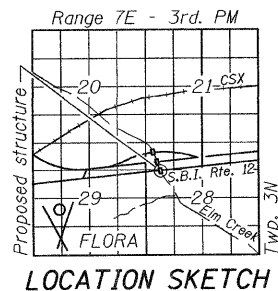
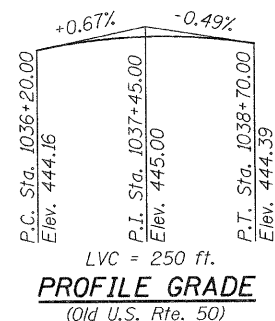
Design Scour Elevation (feet)	East Abut.	Pier	West Abut.
	437.63	426.9	437.72

WATERWAY INFORMATION

Exist. Low Grade Elev. 443.4 ft. @ Sta. 1036+00  
 Drainage Area = 12.4 mi.<sup>2</sup> Prop. Low Grade Elev. 443.7 ft. @ Sta. 1029+00

Flood	Freq. Yr.	C.F.S.	Opening Sq. Ft.		Head - Ft.		Headwater El.		
			Exist.	Prop.	H.W.E.	Exist.	Prop.	Exist.	Prop.
Design	10	1467	517	537	439.1	0.5	0.5	439.6	439.6
Base	50	2206	581	611	439.8	1.0	0.8	440.8	440.6
Max. Calc.	100	2513	592	632	440.0	1.2	0.8	441.2	440.8
	500	3242	592	686	440.5	1.5	1.0	442.0	441.5

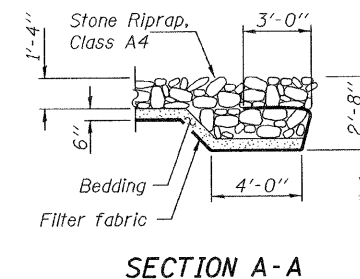
10 Year Velocity through Existing Bridge = 2.8 fps  
 10 Year Velocity through Proposed Bridge = 2.7 fps



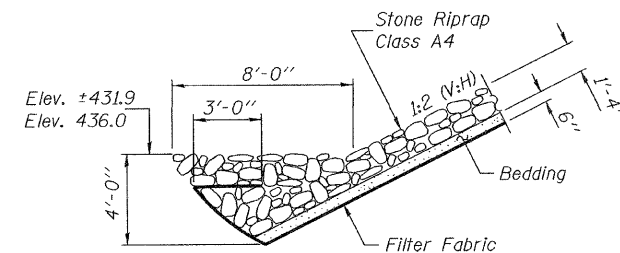
LOCATION SKETCH

INDEX OF SHEETS

- 1 General Plan & Elevation
- 2 General Data
- 3-5 Top of Slab Elevations
- 6 Top of East Approach Pavement Elevations
- 7 Top of West Approach Pavement Elevations
- 8 Superstructure
- 9 Superstructure Details
- 10 Diaphragm Details
- 11 Structural Steel
- 12 Bearing & Structural Steel Details
- 13 East Abutment
- 14 West Abutment
- 15 Pier
- 16-17 Bridge Approach Slab Details
- 18 Steel H Pile Details
- 19 Bar Splicer Assembly Details
- 20 Cantilever Forming Brackets for Superstructures with W27 Beams and Smaller
- 21-22 Soil Boring Logs



SECTION A-A



STONE RIPRAP ANCHOR DETAIL

LOADING HL-93

Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS

2004 LRFD AASHTO w/ 2005 & 2006 Interims

DESIGN STRESSES

FIELD UNITS

- $f'_c = 3,500$  psi
- $f_y = 60,000$  psi (reinforcement)
- $f_y = 50,000$  psi (AASHTO M270 Grade 50)
- $f_y = 36,000$  psi (AASHTO M270 Grade 36)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1  
 Bedrock Acceleration Coefficient (A) = .09g  
 Site Coefficient (S) = 1.5

STATION 1037+48.00  
 BUILT 20 BY  
 STATE OF ILLINOIS  
 S.B.I. RTE. 12 SEC. 10B-1  
 LOADING HL-93  
 STRUCTURE NO. 013-0040

NAME PLATE

See Std. 515001

GENERAL PLAN AND ELEVATION  
 OLD U.S. 50 OVER ELM CREEK  
 S.B.I. ROUTE 12 - SECTION 10B-1  
 CLAY COUNTY  
 STATION 1037+48.00  
 STRUCTURE NO. 013-0040

DESIGNED: [Signature]  
 CHECKED: [Signature]  
 DRAWN: Gregory D. Farmer  
 CHECKED: G.R.A.

EXAMINED: [Signature]  
 PASSED: [Signature]  
 ENGINEER OF BRIDGE DESIGN  
 ENGINEER OF BRIDGES AND STRUCTURES



EXPIRES 11-30-2010

SHEET NO. 1	S.B.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22 SHEETS	12	10B-1	CLAY	39	13
FED. ROAD DIST. NO. -		ILLINOIS FED. AID PROJECT		CONTRACT NO. 74004	