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.

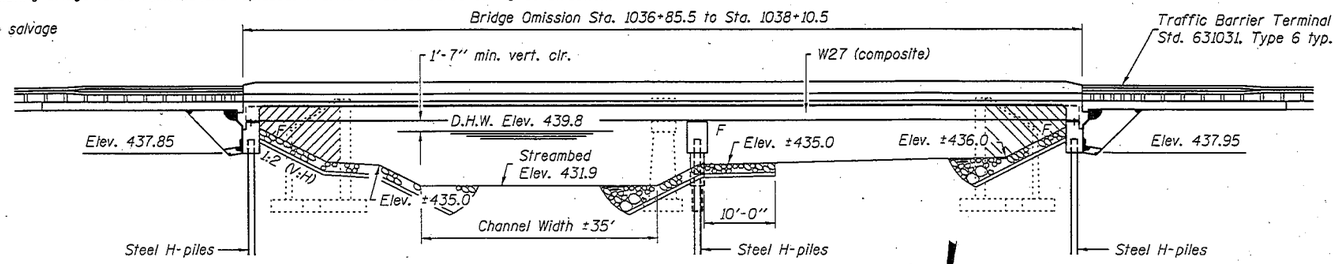
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

APPROVED
MAY 21 2007
AS A BASIS FOR
PREPARATION OF DETAILED PLANS

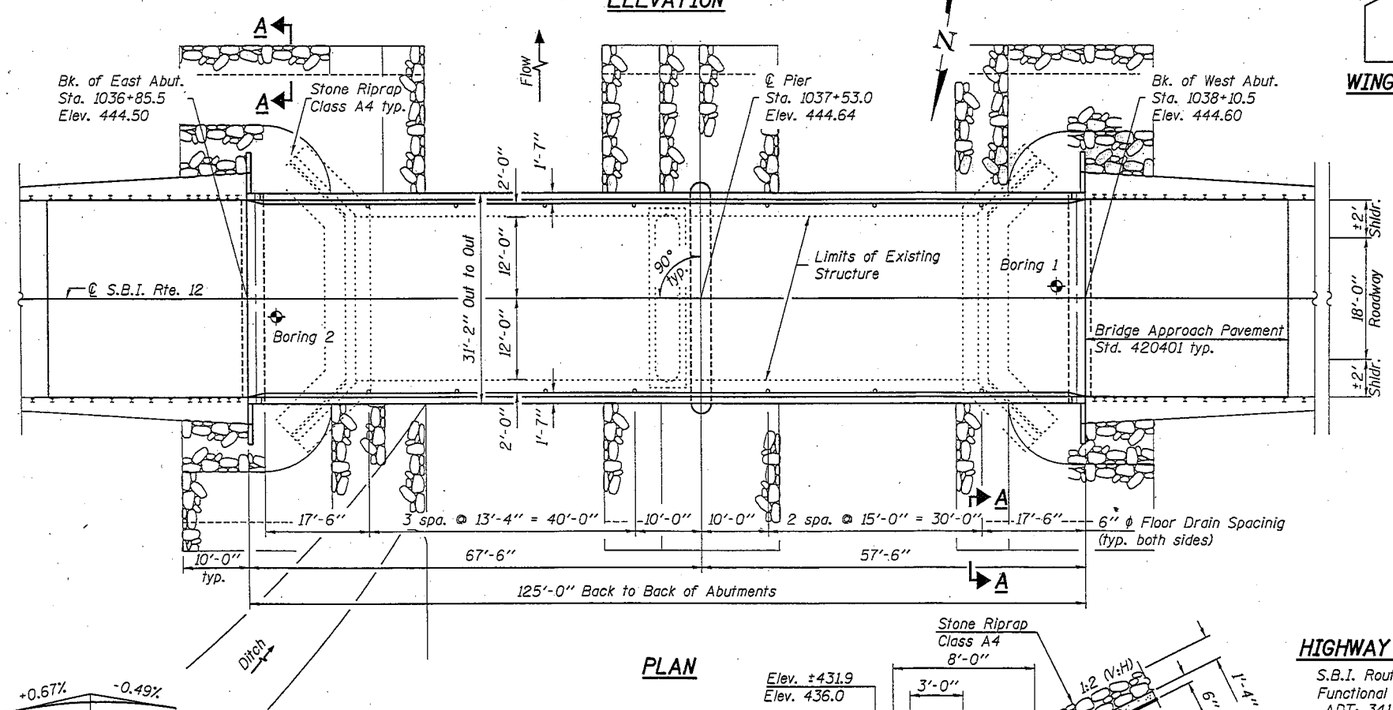
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 1
1 SHEET
Contract #

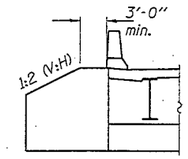
No salvage



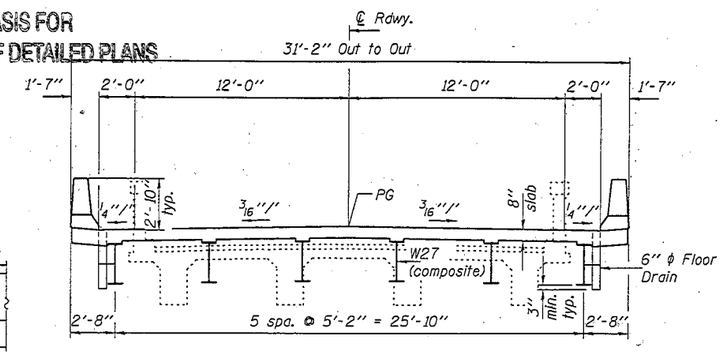
ELEVATION



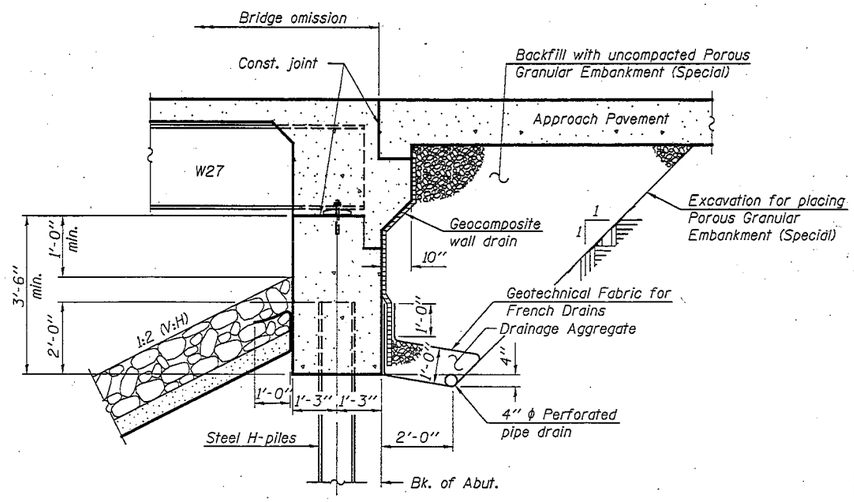
PLAN



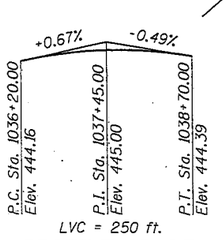
WINGWALL DETAIL



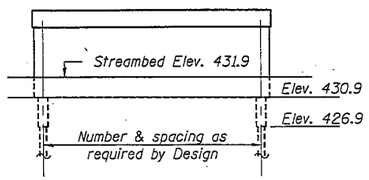
CROSS SECTION



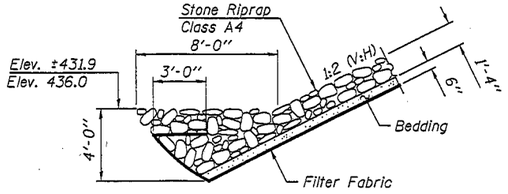
SECTION THRU INTEGRAL ABUTMENT



PROFILE GRADE
(Old U.S. Rte. 50)



PIER SKETCH



STONE RIPRAP ANCHOR DETAIL

HIGHWAY CLASSIFICATION

S.B.I. Route 12 - Old U.S. 50
Functional Class: Rural Local Road
ADT: 341 (2009); 420 (2029)
DHV: 41
Design Speed: 55 m.p.h.
Posted Speed: 55 m.p.h.

Design Scour Elevation (feet)	East Abut.	Pier	West Abut.
	437.85	426.9	437.95

LOADING HL-93

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

DESIGN SPECIFICATIONS

2004 LRFD AASHTO w/ 2005 & 2006 Interims

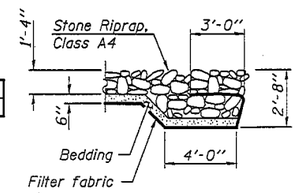
DESIGN STRESSES

FIELD UNITS

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

SEISMIC DATA

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



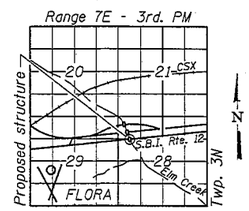
SECTION A-A

WATERWAY INFORMATION

Exist. Low Grade Elev. 443.4 ft. @ Sta. 1036+00
Prop. Low Grade Elev. 443.7 ft. @ Sta. 1029+00

Drainage Area = 12.4 mi.²									
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	1467	517	537	439.1	0.5	0.5	439.6	439.6
Design	50	2206	581	611	439.8	1.0	0.8	440.8	440.6
Base	100	2513	592	632	440.0	1.2	0.8	441.2	440.8
Max. Calc.	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

GENERAL PLAN
OLD U.S. 50 OVER ELM CREEK
S.B.I. ROUTE 12 - SECTION 10B-1
CLAY COUNTY
STATION 1037+48.00
S.N. 013-0040

DESIGNED	R.J. Chaput
CHECKED	Curt Evoy
DRAWN	W.D. Collins
CHECKED	M.K. Christensen

- 200

EXAMINED
ENGINEER OF BRIDGE DESIGN
PASSED
ENGINEER OF BRIDGES AND STRUCTURES

5-21-07

D-97-038-03

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