Bench Mark: TBM #53 Chiseled square on top of Northeast wingwall of existing structure. Station 1070+08, 17.5' Left. Elev. 692.15

Existing Structure: S.N. 020-0007, originally built in 1930 as S.B.I. 120, Section 111B. In 1971, the superstructure was replaced and the substructure was widened as F.A. Route 11, Section 111BR. The existing structure is a two span PPC deck beam bridge supported on closed abutments and a solid wall pier on a pile supported footing. The back to back abutments measures 106'-3¼" and 33'-0" out to out of deck. The existing structure is to be removed and replaced. Traffic to be detoured.

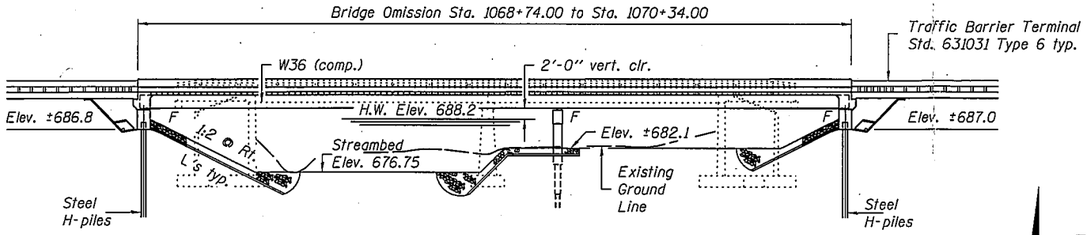
No salvage.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

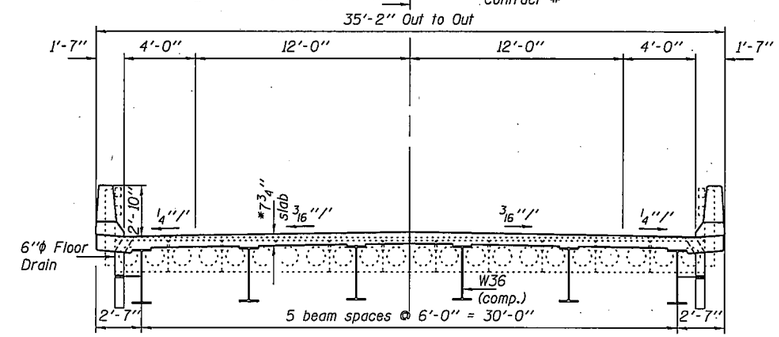
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 1
1 SHEET

Contract #



ELEVATION

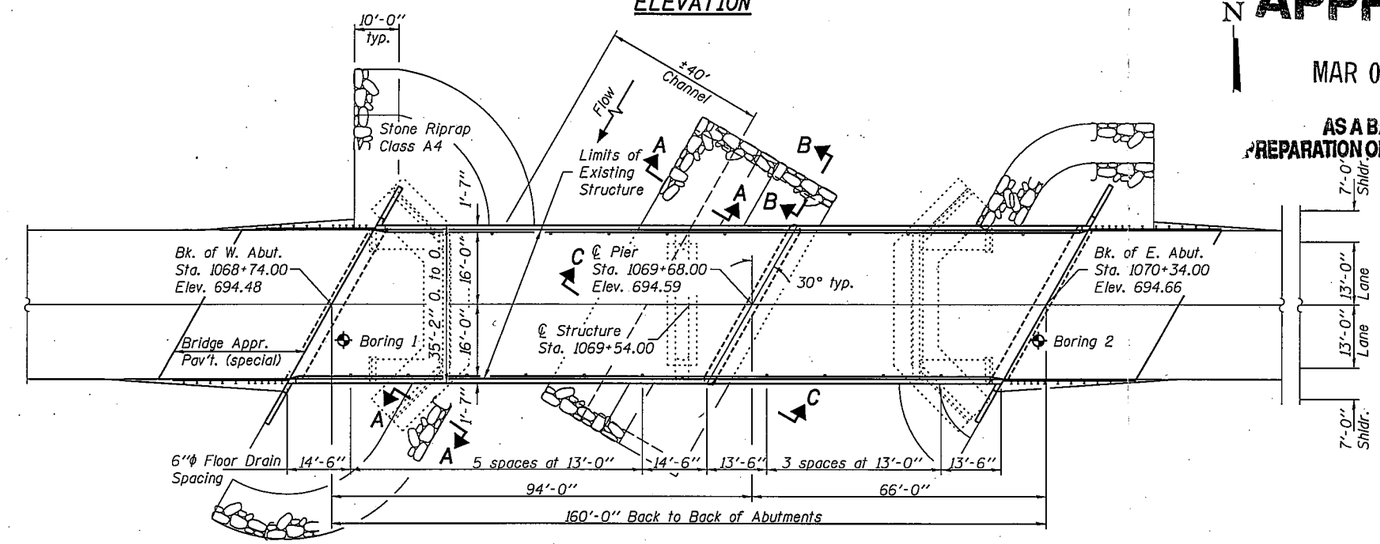


*Use Bridge Smoothness Specification

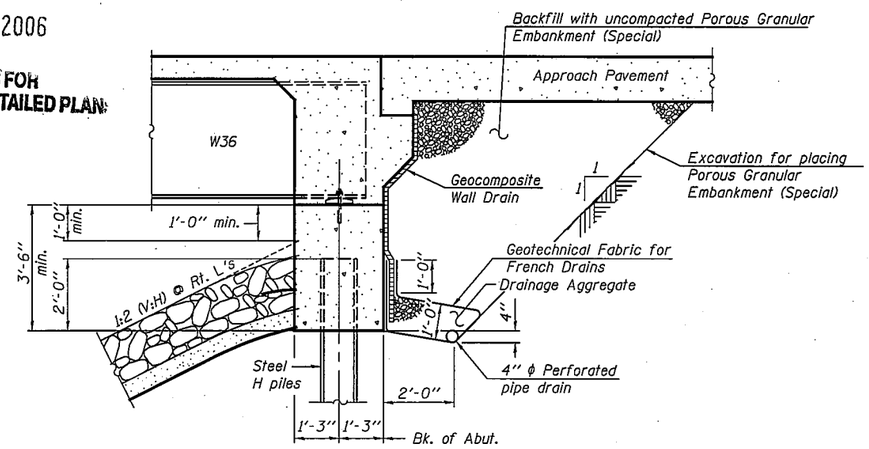
CROSS SECTION
(Looking East)

N

APPROVED
MAR 0 7 2006
AS A BASIS FOR PREPARATION OF DETAILED PLAN

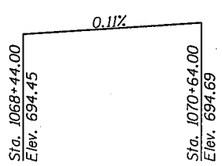


PLAN

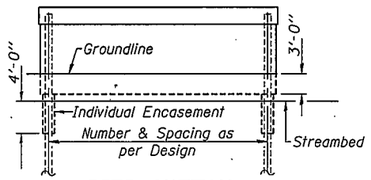


SECTION THRU INTEGRAL ABUTMENT
(Horiz. dim. @ Rt. L's)

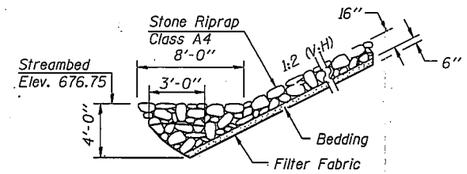
Design Scour Elevation	W. Abut.	Pier	E. Abut.
	686.8	672.75	687.0



PROFILE GRADE
(Elevations after Grinding)



PIER SKETCH



SECTION A-A

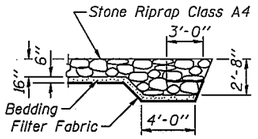
HIGHWAY CLASSIFICATION
F.A.P. Rte. 717 - Il. Rte. 10
Functional Class - Principal Arterial (Other)
A.D.T.: 2,450 (2004) 3,500 (2024)
A.D.T.T.: 518 (2024)
D.H.V.: 300
Design Speed : 60 mph
Posted Speed : 55 mph

LOADING HL-93
Allow 50 psf for future wearing surface

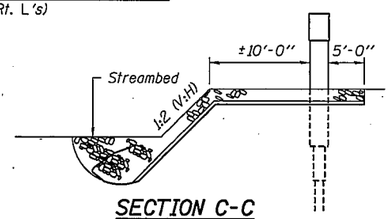
DESIGN SPECIFICATIONS
2004 AASHTO LRFD Bridge Design Specifications with 2005 Interims

DESIGN STRESSES
FIELD UNITS
f'_c = 3,500 psi
f_y = 60,000 psi (reinforcement)
f_y = 50,000 (M270 Grade 50W)

SEISMIC DATA
Seismic Performance Zone (SPZ) = 1
Bedrock Acceleration Coefficient (A) = 0.05g
Site Coefficient (S) = 1.5



SECTION B-B

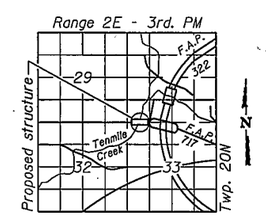


SECTION C-C

WATERWAY INFORMATION
Exist. Low Grade Elev. 694.4 ft. @ Sta. 1068+44

Drainage Area = 30.2 sq. mi. Prop. Low Grade Elev. 694.5 ft. @ Sta. 1069+52									
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	2145	434	787	686.8	1.1	0.9	687.9	687.7
Design	50	3318	532	923	688.2	1.5	1.0	689.7	689.2
Base	100	3818	568	1031	688.7	1.6	1.0	690.3	689.7
Overtopping									
Max. Calc.	500	5021	650	1185	689.9	2.0	1.3	691.9	691.2

10 yr. velocity through Existing Bridge = 4.9 fps 10 yr. velocity through Proposed Bridge = 2.7 fps



LOCATION SKETCH

GENERAL PLAN
ILLINOIS ROUTE 10 OVER TENMILE CREEK
F.A.P. ROUTE 717 - SECTION (111B)BR
DeWITT COUNTY
STATION 1069+54.00
STRUCTURE NO. 020-0063

DESIGNED	J.A. Elston
CHECKED	A. Siudyla
DRAWN	W.D. Collins
CHECKED	B.V. Garde

200
EXAMINED
ENGINEER OF BRIDGE DESIGN
PASSED
ENGINEER OF BRIDGES AND STRUCTURES

3-7-06

D-95-030-04

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