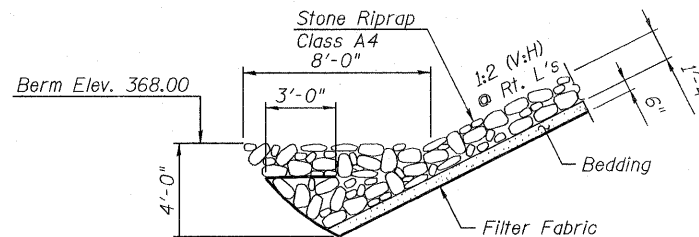


Bench Mark: Chiseled square in N.E. corner of SN 039-0042, approx. 0.5 miles west from intersection of Rte. 4/Rte. 127
 "88" Elev. = 384.28

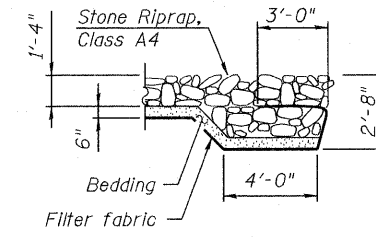
Existing Structure: SN 039-0042 was originally built in 1931. The structure consisted of 2-160' Penn trusses with 2-40' RCDG approach spans, 21' roadway on RC spill-thru abutments and solid concrete piers supported on timber piles. In 1983, the superstructure and part of substructure was replaced and four new wall piers were constructed to create an 8 simple-span PPC deck beam bridge. The structure is approximately 415'-6" back to back abutments and 35'-0" out to out deck width. The structure is to be removed and replaced. Traffic is to be detoured. No salvage.

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	W. Abut.	Pier 1	Pier 2	E. Abut.
	379.8	355.4	362.5	380.7



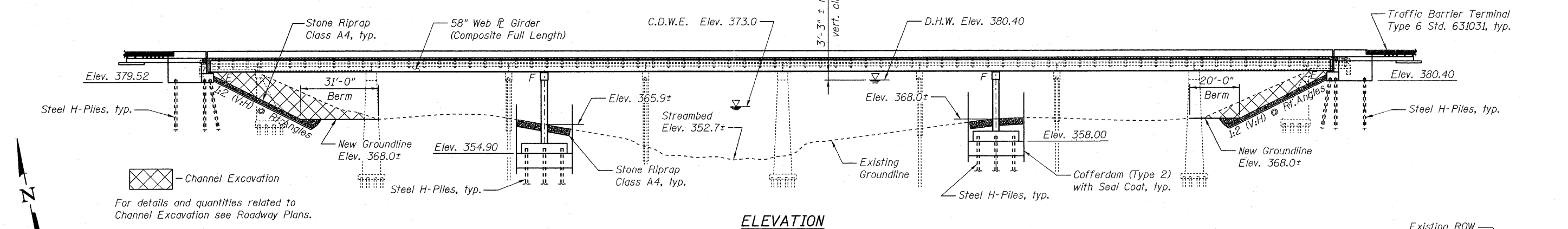
SECTION A-A
 Typical at edges of Abutment Riprap Protection



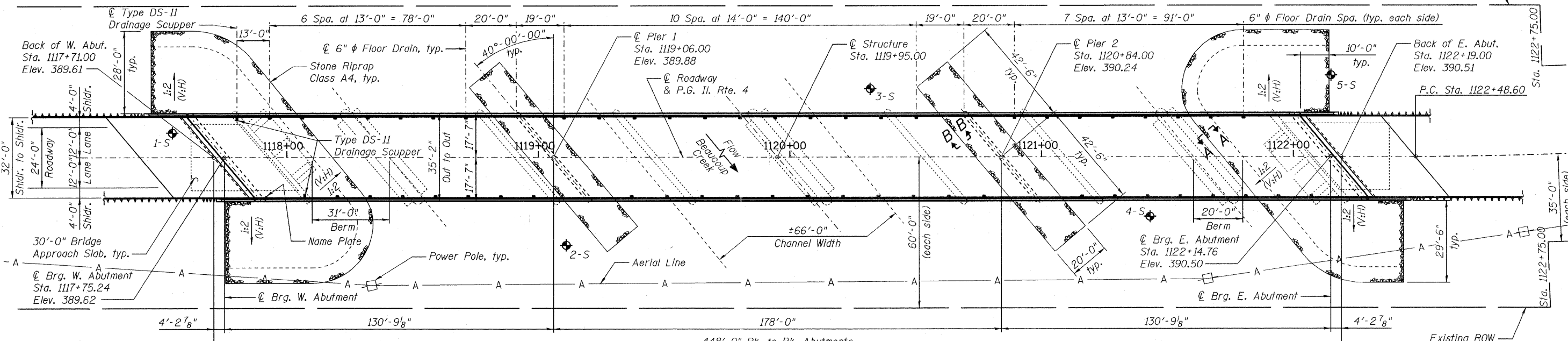
SECTION B-B
 Typical at edges of Pier Riprap Protection

STATION 1119+95
 BUILT 2011 BY
 STATE OF ILLINOIS
 F.A.P. ROUTE 686 SEC. 114B-1
 LOADING HL-93
 STRUCTURE NO. 039-0074

NAME PLATE
 See Std. 515001



ELEVATION



PLAN

WATERWAY INFORMATION

Drainage Area = 517 Sq Mi		Ex. Low Grade Elev. 384.07 @ Sta. 1105+50		Pr. Low Grade Elev. 384.07 @ Sta. 1105+50		
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist. Prop.	Nat. H.W.E. Exist. Prop.	Head - Ft. Exist. Prop.	Headwater El. Exist. Prop.
Design	10	14900	3410.0 3937.0	377.5 0.8 0.8	378.3 378.3	378.3
Base	50	22100	4192.0 4843.0	380.4 1.0 0.9	381.4 381.3	381.3
Overtopping	100	25100	4642.0 5357.0	382.0 0.9 0.9	382.9 382.9	382.9
			31880 5075.0	5847.0 383.5 1.3	384.8 384.4	384.4

10 Year Velocity through Existing Bridge = 4.37 fps.
 10 Year Velocity through Proposed Bridge = 3.8 fps.

DESIGN SPECIFICATIONS

2010 AASHTO LRFD Bridge Design Specifications, Customary U.S. Units, 5th Edition

SEISMIC DATA

Seismic Performance Zone (SPZ) = 3
 Design Spectral Acc. at 1.0 sec (S_{D1}) = 0.334g
 Design Spectral Acc. at 0.2 sec (S_{D5}) = 0.780g
 Soil Site Class D

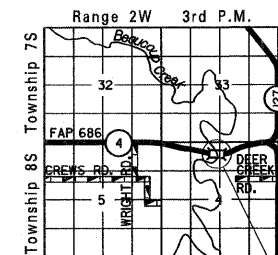
LOADING HL 93

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

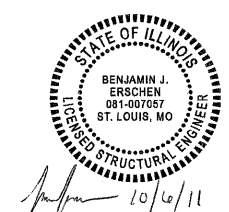
DESIGN STRESSES

f_c = 3,500 psi
 f_y = 60,000 psi (Reinforcement)
 f_y = 50,000 psi (M270 Grade 50) (Pile)
 f_y = 50,000 psi (M270 Grade 50W) (Girders)

Note: See Sheet No. 2 of 35 for Curve Data and Profile Grade Along Roadway.



LOCATION SKETCH



BENJAMIN J. ERSCHEN
 ST. LOUIS, MISSOURI
 ILLINOIS LICENSED STRUCTURAL
 ENGINEER NO. 081-007057
 EXPIRES NOV. 30, 2012

APPROVED
 FOR STRUCTURAL ADEQUACY ONLY

Benjamin J. Erschen
 ENGINEER OF BRIDGES AND STRUCTURES

GENERAL PLAN AND ELEVATION
IL ROUTE 4 OVER BEAUCOUP CREEK
FAP ROUTE 686 - SECTION 114B-1
JACKSON COUNTY
STATION 1119+95.00
STRUCTURE NO. 039-0074

JACOBS	USER NAME =	DESIGNED - B. ERSCHEN	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN & ELEVATION STRUCTURE NO. 039-0074	F.A.P. RTE. 686	SECTION 114F-1	COUNTY JACKSON	TOTAL SHEETS 3	SHEET NO. 24
	PLOT DATE = 06-OCT-2011	CHECKED - R. NIEMIETZ	REVISED -			SHEET NO. 1 OF 35 SHEETS	ILLINOIS FED. AID PROJECT			
FILE NAME=039-0074978049-Plan & Elevation.dgn		DRAWN - C. SALLADE	REVISED -							CONTRACT NO. 78283
		CHECKED - B. ERSCHEN	REVISED -							