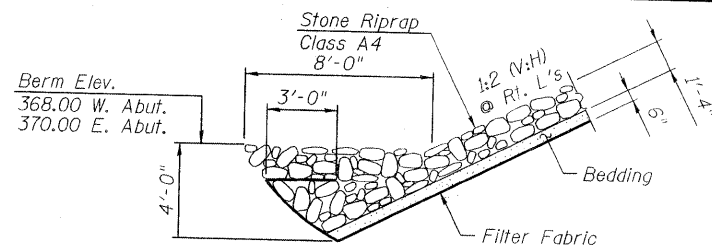


Bench Mark: Chiseled square in N.E. corner of SN 039-0042, approx. 0.5 miles west from intersection of Rte. 4/Rte. 127
 "88" Elev. = 384.28

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.

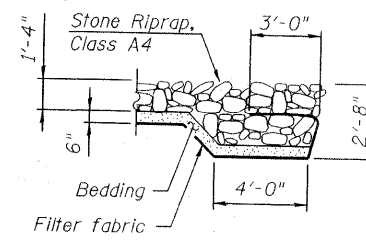
DESIGN SCOUR ELEVATION TABLE

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

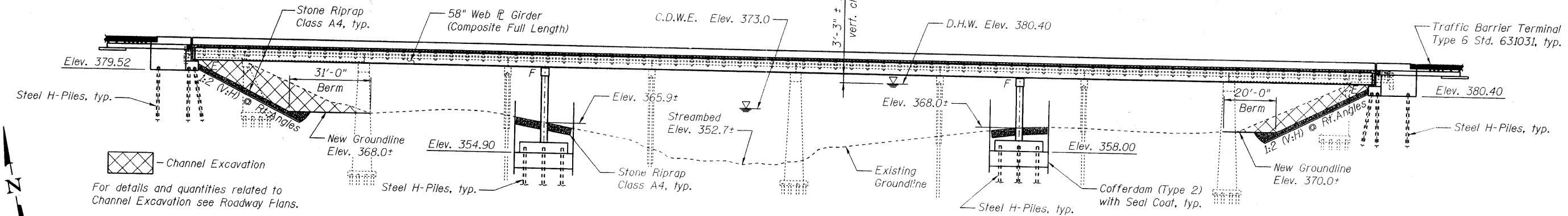


SECTION B-B

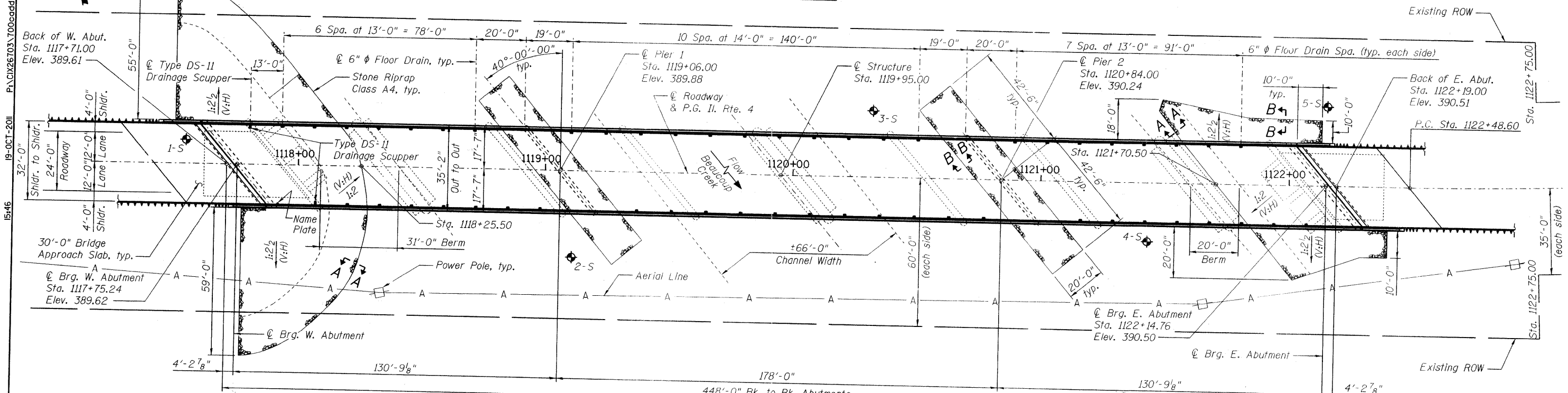
Typical at edges of Pier Riprap Protection

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 Yr.	Q C.F.S.	Opening Sq. Ft.	Nat. H.W.E.	Head - Ft. Exist.	Headwater El. Prop.
10	14900	3410.0	3937.0	377.5	378.3
Design	50	22100	4192.0	4843.0	380.4
Base	100	25100	4642.0	5357.0	382.0
Overtopping		31880	5075.0	5847.0	383.5

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

LOADING HL 93

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

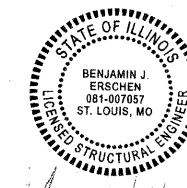
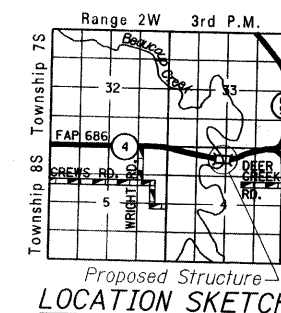
SEISMIC DATA

Seismic Performance Zone (SPZ) = 3
 Design Spectral Acc. at 1.0 sec (SD1) = 0.334g
 Design Spectral Acc. at 0.2 sec (SDS) = 0.780g
 Soil Site Class D

DESIGN STRESSES

f'c = 3,500 psi
 fy = 60,000 psi (Reinforcement)
 fy = 50,000 psi (M270 Grade 50) (Pile)
 fy = 50,000 psi (M270 Grade 50W) (Girders)

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



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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
STRUCTURE NO. 039-0074

SHEET NO. 1 OF 35 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
686	114B-1	JACKSON	80	114
CONTRACT NO. 78049				

ILLINOIS FED. AID PROJECT

19-OCT-2011 P:\CADD\2009\039-0074978049-Plan & Elevation.dgn

JACOBS

USER NAME =	DESIGNED - B. ERSCHEN	REVISED -
PLOT DATE = 19-OCT-2011	CHECKED - R. NIEMIETZ	REVISED -
FILE NAME = 039-0074978049-Plan & Elevation.dgn	DRAWN - C. SALLADE	REVISED -
	CHECKED - B. ERSCHEN	REVISED -