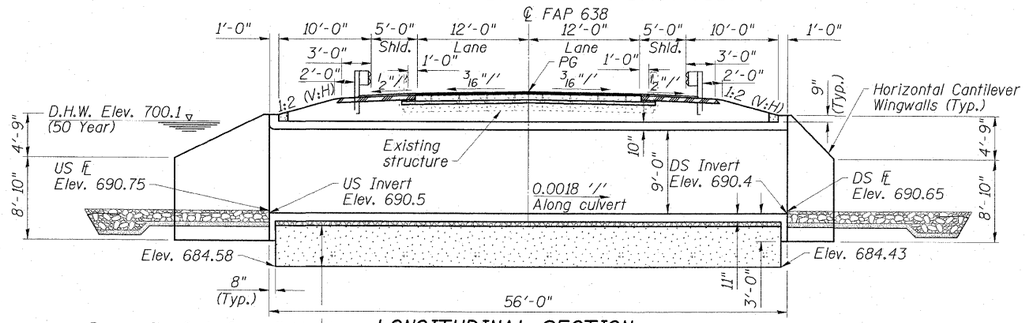
BENCHMARK: Chiseled square on NW corner of bridge over South Branch of Spring Creek, SN 037-0106 Sta. 636+69.60, 14.12' Lt. Elev. 701.96

EXISTING STRUCTURE:
SN 037-0106 was originally built in 1959 by Cambridge Township. The superstructure was replaced, and the substructure widened in 1961 as Section 137-1B. The structure consists of single span PPC deck beams on closed abutments founded on timber piles. One deck beam was replaced in November 1998 and two more were replaced in October of 2006. The bridge is 42'-9" back-to-back abutments and is 26'-0" wide face-to-face of curbs. The structure is skewed 20° left forward. Existing structure is to be removed and replaced during road closure while traffic utilizes a temporary detour route.

No salvage.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

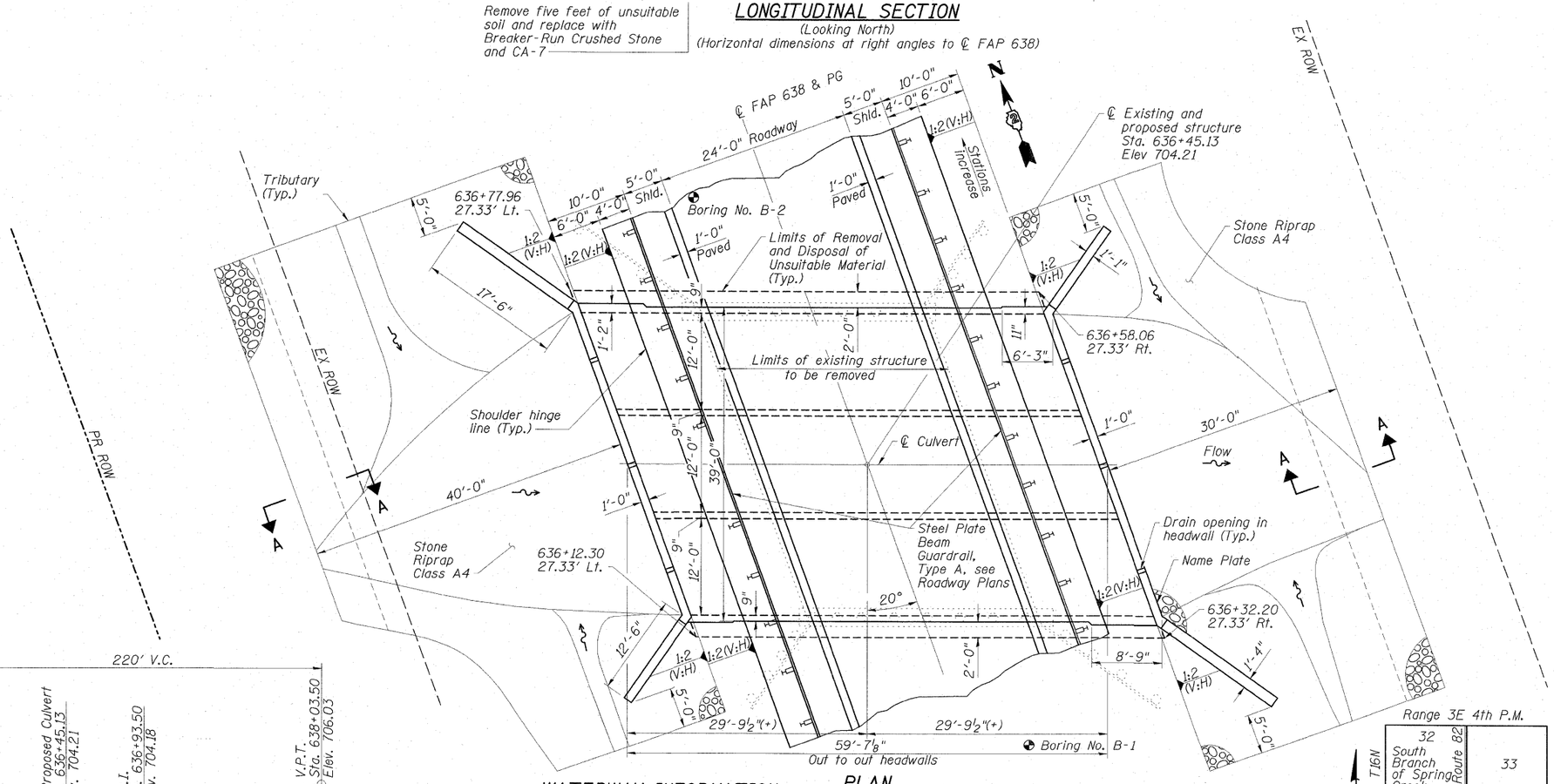


Remove five feet of unsuitable soil and replace with Breaker-Run Crushed Stone and CA-7

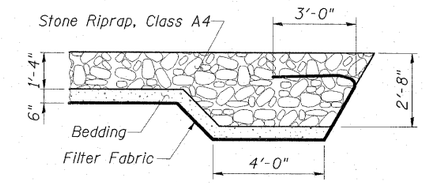
LONGITUDINAL SECTION
(Looking North)
(Horizontal dimensions at right angles to ℄ FAP 638)

STRUCTURE INDEX OF SHEETS

General Plan	Sheet No. 1 of 5
General Data	Sheet No. 2 of 5
Box Culvert Details	Sheet No. 3 of 5
Box Culvert Details	Sheet No. 4 of 5
Soil Boring Logs	Sheet No. 5 of 5



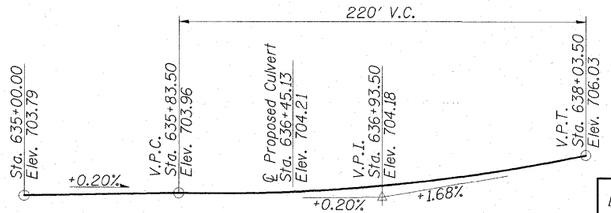
PLAN



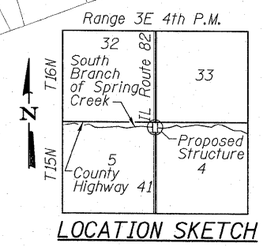
SECTION A-A

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
RICHARD D. PAYNE
No. 4647
LICENSED STRUCTURAL ENGINEER
EXPIRES 11-30-09
SIGNATURE
11-11-08
DATE



PROFILE GRADE
(Along ℄ Roadway)



LOCATION SKETCH

GENERAL PLAN
IL 82 OVER
SOUTH BRANCH OF SPRING CREEK
FAP ROUTE 638 - SECTION 137-1BR
HENRY COUNTY
STATION 636+45.13
STRUCTURE NO. 037-0173

WATERWAY INFORMATION

Drainage Area = 3.62 Sq. Mi.

Exist. Low Grade Elev. = 703.58 Ft. @ Sta. 635+00
Prop. Low Grade Elev. = 703.60 Ft. @ Sta. 634+50

Flood	Frequency Year	Discharge (cfs)	Waterway Opening (Sq. Ft.)		Nat. H.W.E.	Head (Ft.)		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
	10	949	163	324	699.5	0.9	0.4	700.4	699.9
Design	50	1497	184	324	700.1	1.5	0.8	701.6	700.9
Base	100	1733	195	324	700.4	2.6	0.9	703.0	701.3
Overtopping	280	2006	202	-	700.6	2.9	-	703.5	-
Max Calc	500	2322	-	324	700.8	-	1.5	-	702.3

SCOUR INFORMATION

Design Scour Elevation (Ft.)	US	DS
	687.5	687.4

DESIGN SPECIFICATIONS
2002 AASHTO

LOADING HS20-44
Allow 50 psf for future wearing surface.

DESIGN STRESSES
FIELD UNITS
f'c = 3,500 psi
fy = 60,000 psi (Reinf.)

ESCA CONSULTANTS, INC.

DESIGNED BY:	JMS	11/08
DRAWN BY:	DWH/cj	11/08
CHECKED BY:	RDP	03/09
APPROVED BY:	RDP	03/09

SHEET NO. 1	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5 SHEETS	638	137-1BR	HENRY	67	14
			CONTRACT NO. 64428		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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