

B.M. #8: Chiseled square on northwest corner of southeast wingwall of S.N. 078-0029, Sta. 203+13, 22' Lt., Elev. 638.60.

EXISTING STRUCTURE: SN 078-0029, built in 1935 as Rte. SA-3A, Section 2-B, at Sta. 203+22. Outside edges of superstructure were reconstructed in 1971 as F.A. Rte. 94, Section 2(W&RS). Existing structure is a single span concrete slab bridge, 18'-0" back-back abutments, 43'-0" out-out width, reinforced concrete closed abutments on spread footings with timber piles. A reinforced concrete slab overlay was added in 2010 as an emergency repair.

Existing structure shall be removed and replaced using staged construction to maintain one lane of traffic.

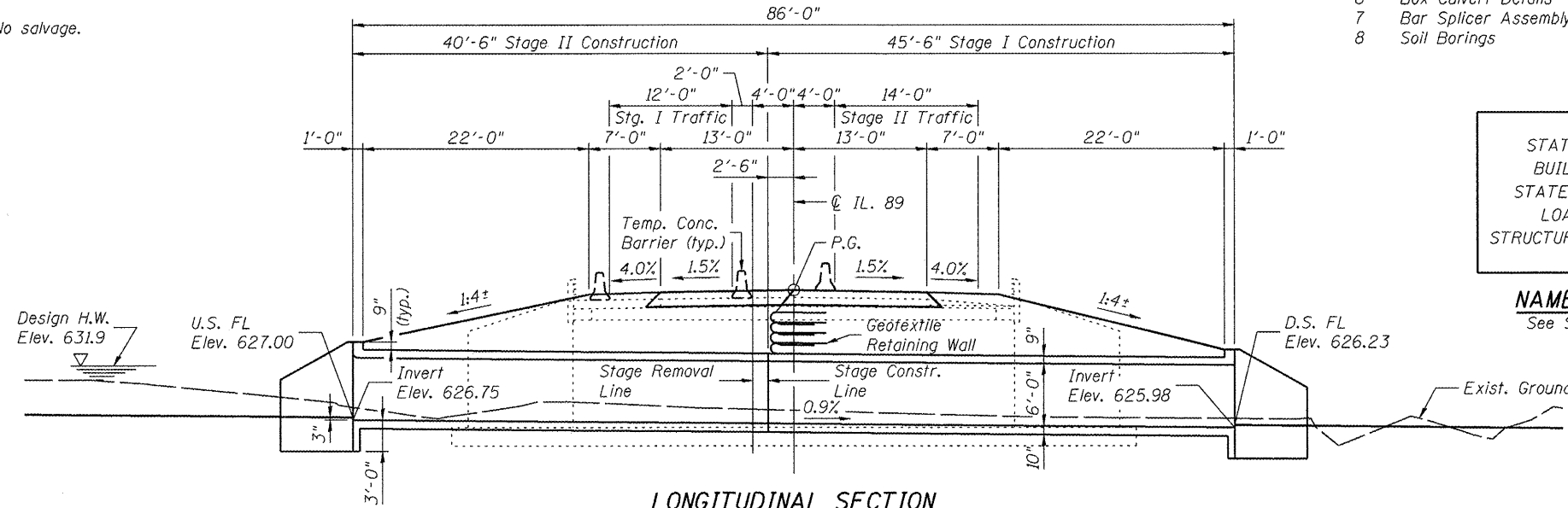
No salvage.

**INDEX OF SHEETS**

- 1 Gen Plan, Gen Notes, Bill of Mat'l
- 2 Stage Construction / Temp Soil Ret System
- 3 Temporary Geotextile Retaining Wall
- 4 Temporary Slab Overlay
- 5 Temporary Concrete Barrier
- 6 Box Culvert Details
- 7 Bar Splicer Assembly Details
- 8 Soil Borings

**GENERAL NOTES**

Precast culvert alternate is not allowed.  
 Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. Reinforcement bars designated (E) shall be epoxy coated.  
 Plan dimensions and details relative to existing plans are subject to routine variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished based upon the unit price bid for the work.  
 Layout of the slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.  
 Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure. The Contractor shall sawcut the upper portion of the existing abutment at the stage removal line before Stage I removal to ensure the remaining portion will not be prematurely damaged.  
 Structure excavation for the box culvert will not be measured or paid for separately, and the cost shall be included in other related items according to Article 502.13 of the Standard Specifications.  
 The structure excavation and backfill shall be as shown on roadway plan sheet titled "Detail of Excavation and Backfill for Box Culverts". Pay items included on that sheet are included in the roadway plans Summary of Quantities.

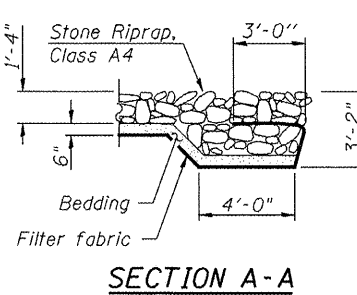
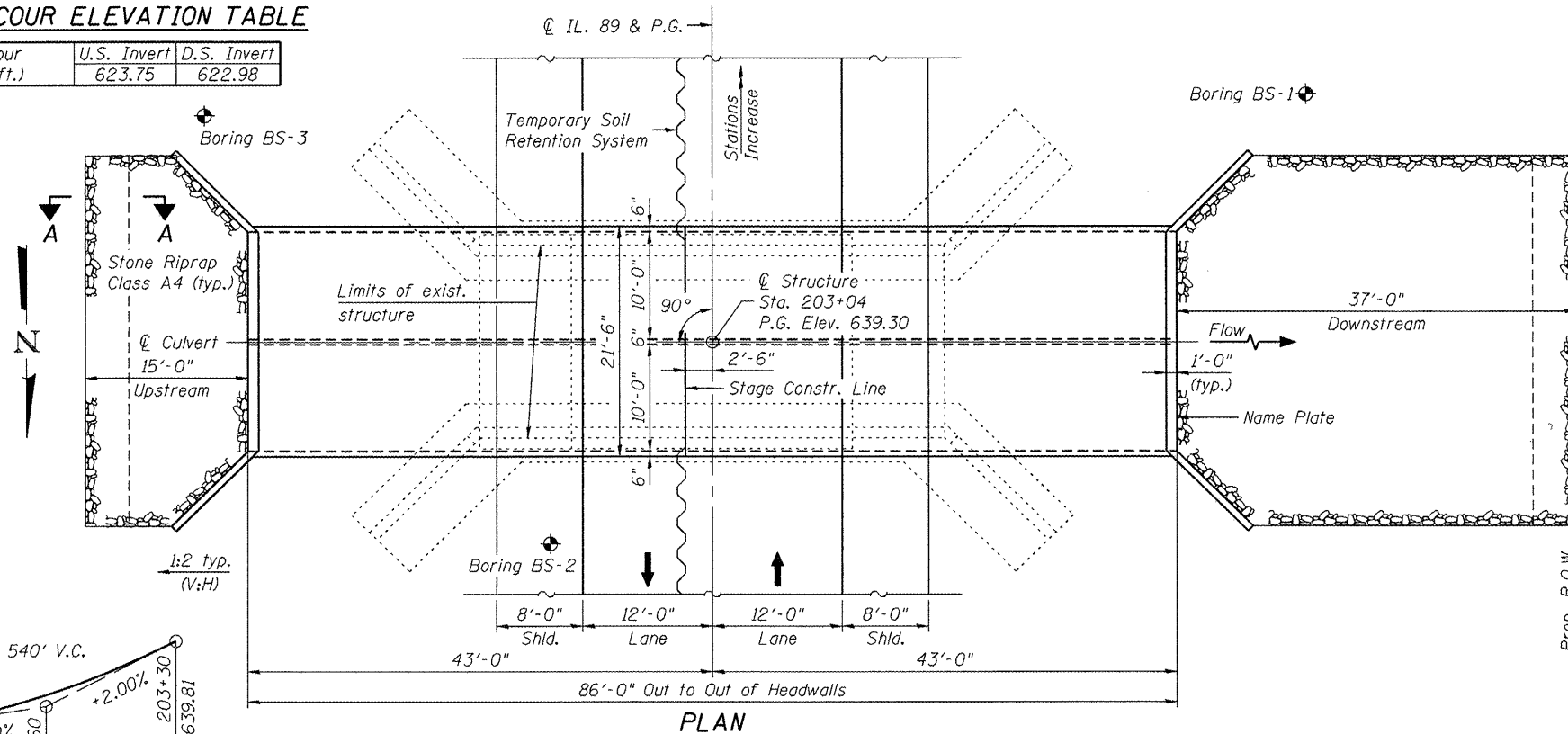


STATION 203+04  
 BUILT 20... BY  
 STATE OF ILLINOIS  
 LOADING HS20  
 STRUCTURE NO. 078-2010

**NAME PLATE**  
 See Std. 515001

**DESIGN SCOUR ELEVATION TABLE**

Design Scour Elevation (ft.)	U.S. Invert	D.S. Invert
	623.75	622.98

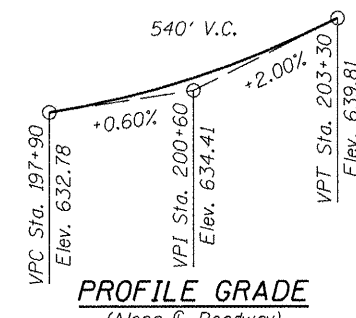


**APPROVED**  
 For Structural Adequacy Only  
*David Depp*  
 Engineer of Bridges & Structures

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Stone Riprap, Class A4	Sq Yd	198
Filter Fabric	Sq Yd	198
Removal Of Existing Structures No. 2	Each	1
Concrete Superstructure	Cu Yd	5.3
Reinforcement Bars	Pound	1400
Reinforcement Bars, Epoxy Coated	Pound	32560
Bar Splicers	Each	86
Name Plates	Each	1
Concrete Box Culverts	Cu Yd	154.1
Hot-Mix Asphalt Surface Removal (Deck)	Sq Yd	17
Geotextile Retaining Wall	Sq Ft	110
Temporary Soil Retention System	Sq Ft	313

DAVID C. DEPP  
 LICENSED STRUCTURAL ENGINEER  
 081-005117  
 Signed: *David Depp*  
 Date: 12-12-2011  
 Lic. Expires: 11-30-2012

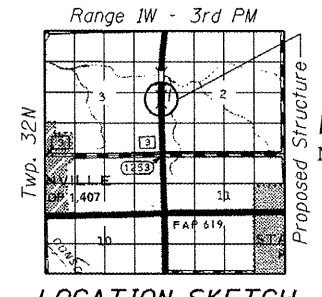


**WATERWAY INFORMATION**

Existing Low Grade Elevation: 635.2 @ Sta. 200+80  
 Prop. Low Grade Elevation: 635.2 @ Sta. 200+80

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.		Head - Ft.		Headwater El.	
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	Exist.	Prop.
Design	10	342	35	88	630.7	631.0	1.0	0.3	631.7	631.3
Design	50	582	51	109	631.6	631.9	1.8	0.5	633.4	632.4
Base	100	693	57	117	632.0	632.3	2.2	0.5	634.2	632.8
Max. Calc.	500	971	70	120	632.8	633.1	3.2	0.5	636.0	633.6

**LOADING HS20-44**  
 Allow 50#7/sq. ft. for future wearing surface.  
**DESIGN SPECIFICATIONS**  
 2002 AASHTO Standard Specifications for Highway Bridges  
**DESIGN STRESSES**  
**FIELD UNITS**  
 f'c = 3,500 psi  
 fy = 60,000 psi (Reinforcement)



**GENERAL PLAN & ELEVATION**  
**ILLINOIS 89 OVER ALLFORKS CREEK**  
**F.A.P. RTE. 698 SEC. (2) BR-1 & BR-2**  
**PUTNAM COUNTY**  
**STATION 203+04**  
**STRUCTURE NO. 078-2010**