

BENCHMARK: BM 131-Chiseled square on top of approach slab support at East end of South abutment of SN 013-0011, Elev. 465.00 (NAVD 88)

EXISTING STRUCTURE: SN 013-0011 was originally built in 1920 as SBI 25, Section 6A and was reconstructed in 1972 as SBI 25, Section 6BR-1. It is a single span structure consisting of 17" PPC Deck Beams on closed abutments and wingwalls on spread footings. The deck width is 33'-0" and the length is 30'-0" back to back of abutments. Traffic shall be maintained utilizing stage construction.

No salvage.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	DATE	SHEET	SHEET NO. 1
FAP 328	#	CLAY	109	13	6 SHEETS
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	Contract #74107 *6BR-1B-1		

STRUCTURE INDEX OF SHEETS

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Stage Construction Details	Sheet No. 2 of 6
Box Culvert Details	Sheet No. 3 of 6
Bar Splicer Assembly Details	Sheet No. 4 of 6
Soil Boring Logs	Sheet No. 5 of 6
Temporary Concrete Barrier for Stage Construction	Sheet No. 6 of 6

GENERAL NOTES

- Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions.
- Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
- The Contractor is advised that the existing PPC Deck Beams are in a deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the beams when developing construction procedures for removal of the superstructure.
- If the Contractor's procedure for existing deck beam removal involves placement of cranes or other heavy equipment on the existing deck beams, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations, prepared and sealed by an Illinois Licensed Structural Engineer, verifying the structural adequacy of the beams for the proposed loads. Costs included in Removal of Existing Structures.
- The cost of the removal of existing precast concrete units and approach caps at the approaches is included in the cost of Removal of Existing Structures.
- Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before Stage I removal of 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.
- For backfilling and embankment, see Standard Specifications.
- At least 7'-6" of the barrel shall be poured monolithically with wingwalls.
- Precast alternate is not allowed.
- The limits and quantities of Removal and Disposal of Unsuitable Material shown are based on the boring data and may be modified by the District Geotechnical and Field Engineers for variable subsurface conditions encountered in the field.

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Rock Fill - Replacement	Cu. Yd.	125
Removal and Disposal of Unsuitable Material	Cu. Yd.	125
Stone Riprap, Class A4	Sq. Yd.	362
Filter Fabric	Sq. Yd.	362
Removal of Existing Structures No. 1	Each	1
Bar Splicers	Each	142
Concrete Box Culverts	Cu. Yds.	183
Reinforcement Bars	Pounds	36,450
Temporary Soil Retention System, (Location 1)	Sq. Ft.	405
Name Plates	Each	1

See Roadway Plans for quantities of Temporary Concrete Barrier, Earth Excavation, and Porous Granular Embankment.

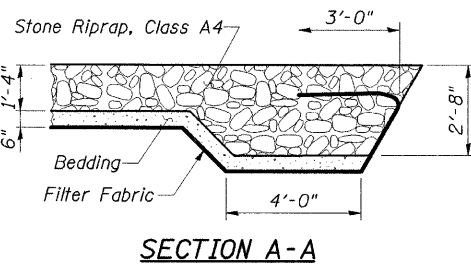
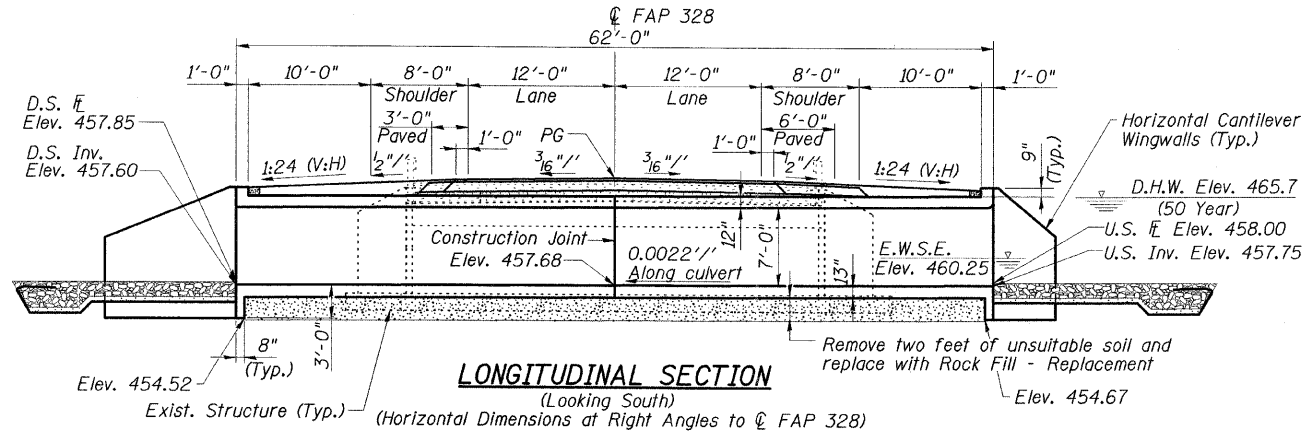
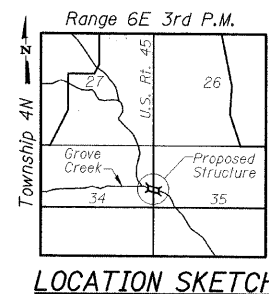


EXPIRES 11-30-08
Richard D. Pappas
SIGNATURE
8-12-08
DATE

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

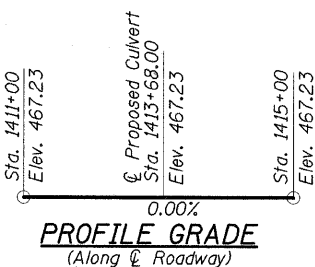
Ralph E. Anderson (TSP)
ENGINEER OF BRIDGES AND STRUCTURES

GENERAL PLAN
US 45 OVER GROVE CREEK
FAP ROUTE 328 - SECTION (6BR-1B-1)
CLAY COUNTY
STATION 1413+68.00
STRUCTURE NO. 013-2009



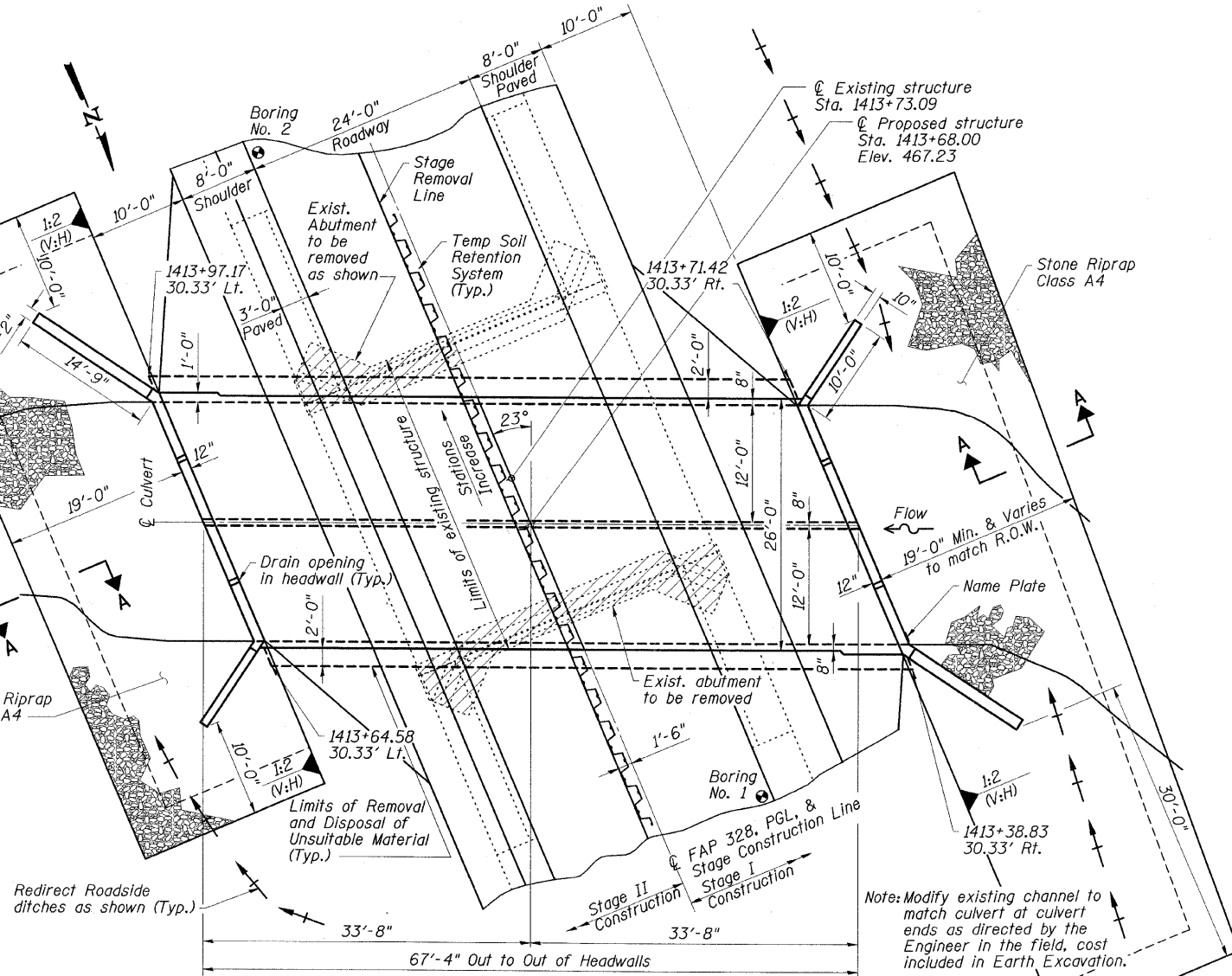
STATION 1413+68.00
BUILT 200_ BY
STATE OF ILLINOIS
FAP RT. 328 SEC. (6BR-1B-1)
LOADING HS20-44
STR. NO. 013-2009

NAME PLATE
See Std. 515001



SCOUR INFORMATION

Design Scour Elevation (ft.)	Upstream	Downstream
	454.75	454.60



WATERWAY INFORMATION

Drainage Area = 3.28 Sq. Mi. Exist. Low Grade Elev. = 467.01 Ft. @ Sta. 1413+58
Prop. Low Grade Elev. = 467.23 Ft. @ Sta. 1413+58

Flood	Yr.	Q C.F.S.	Opening-Sq. Ft.	Nat. Exist.	Nat. Prop.	Head-Ft. Exist.	Head-Ft. Prop.	Exist. Prop.	Exist. Prop.
Design	10	989	153	168	464.8	1.0	0.6	465.8	465.4
Base	50	1610	159	168	465.7	1.6	1.6	467.3	467.3
Overtopping	100	1892	159	168	466.1	1.6	1.6	467.7	467.7
	30	1433	159	168	465.5	1.6	1.6	467.1	467.1

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: FMA 02/08
DRAWN BY: CJ 02/08
CHECKED BY: ELH 05/08
APPROVED BY: RDP 08/08