

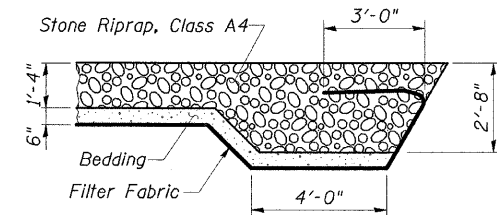
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET	SHEET NO. 1
FAP 328	#	CLAY	109	66	7 SHEETS
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT		
					Contract #74107 (8BR-3)B-1

BENCHMARK:
BM 209 - Railroad spike
in Power Pole No. 217,
Sta. 969+25, 29.7' Lt.,
Elev. 429.86 (NAVD 88)

EXISTING STRUCTURE:
SN 013-0016
was originally built in 1921
as SBI 25, Section 8B and
was reconstructed in 1974
as SBI 25, Section 8BR-3.
It is a single span structure
consisting of 21" PC channel
slabs on closed abutments and
wingwalls on spread footings.
The deck width is 33'-9" and
the length is 22'-0" back to
back of abutments. Traffic
shall be maintained utilizing
stage construction.

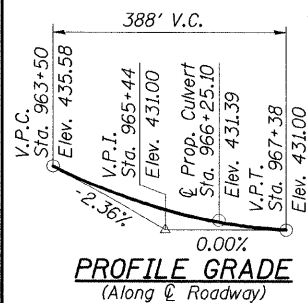
No salvage.



SECTION A-A

STATION 966+25.10
BUILT 200_ BY
STATE OF ILLINOIS
FAP RT. 328 SEC. (8BR-3)B-1
LOADING HS20-44
STR. NO. 013-2011

NAME PLATE
See Std. 515001

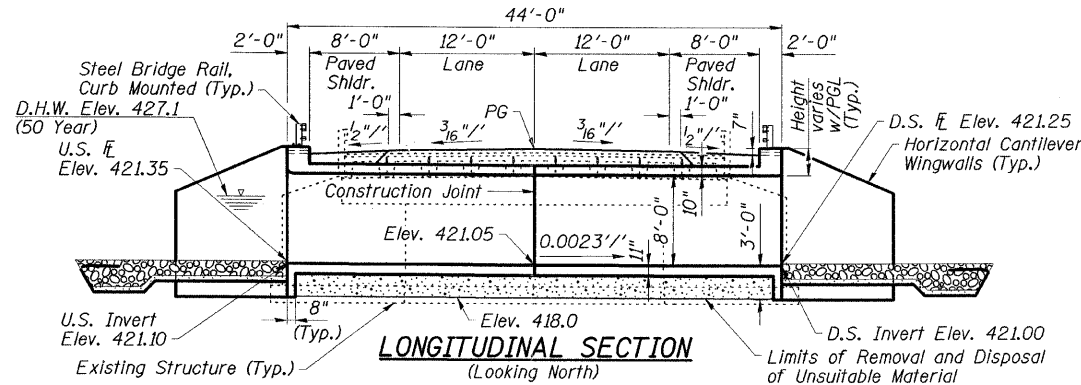


PROFILE GRADE
(Along \bar{C} Roadway)

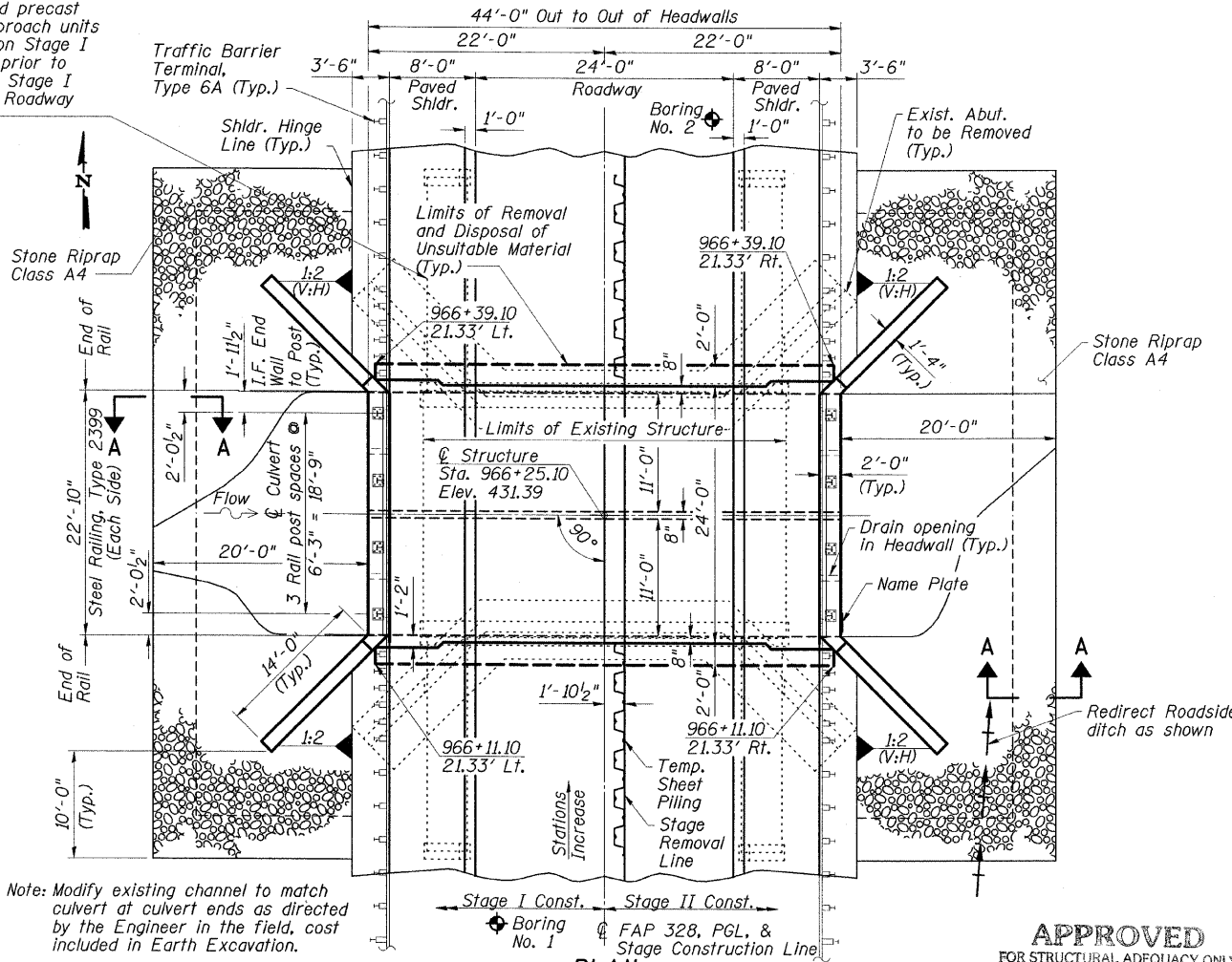
ESCA
CONSULTANTS, INC.

DESIGNED BY: FMA 03/08
DRAWN BY: CJ 03/08
CHECKED BY: ELH 05/08
APPROVED BY: RDP 08/08

Subsealing of existing
pavement and precast
concrete approach units
is required on Stage I
traffic side prior to
implementing Stage I
traffic. See Roadway
Plans



LONGITUDINAL SECTION
(Looking North)



PLAN

Note: Modify existing channel to match
culvert at culvert ends as directed
by the Engineer in the field, cost
included in Earth Excavation.

WATERWAY INFORMATION

Total Drainage Area = 6.77 Sq. Mi.		Exist. Low Grade Elev. = 430.8 Ft. @ Sta. 971+00 Prop. Low Grade Elev. = 431.0 Ft. @ Sta. 971+00									
Flood	Freq. Yr.	Q-C.F.S.				Nat. H.W.E.	Head-Ft.		Headwater El.		
		Exist.	Prop.	Exist.	Prop.		Exist.	Prop.	Exist.	Prop.	
10	10	Main Channel	1138	952	233	280	426.2	0.6	0.5	426.8	426.7
		Overflow	381	567	74	107					
		Total	1519	1519	307	387					
Design	50	Main Channel	1815	1743	278	348	427.1	1.1	0.7	428.2	427.8
		Overflow	641	713	92	127					
		Total	2456	2456	370	475					
Base	100	Main Channel	2137	2040	293	372	427.4	1.8	0.9	429.2	428.3
		Overflow	742	839	98	133					
		Total	2879	2879	391	505					
Overtopping	-	Main Channel	-	-	-	-	-	-	-	-	-
		Overflow	-	-	-	-					
		Total	-	-	-	-					
Max. Calc.	500	Main Channel	2856	2687	328	426	428.1	2.2	1.6	430.3	429.7
		Overflow	1060	1229	112	148					
		Total	3916	3916	440	574					

DESIGN SPECIFICATIONS
2002 AASHTO

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

DESIGN STRESSES

FIELD UNITS
 $f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinf.)

SCOUR INFORMATION

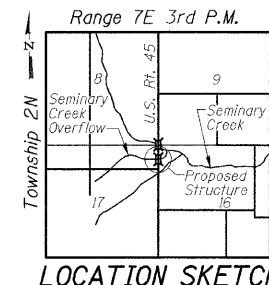
Design Scour Elevation (Ft.)	Upstream	Downstream
	418.1	418.0

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

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



EXPIRES 11-30-08
SIGNATURE
08-12-08
DATE



LOCATION SKETCH

STRUCTURE INDEX OF SHEETS

General Plan	Sheet No. 1 of 7
Stage Construction Details	Sheet No. 2 of 7
Box Culvert Details	Sheet No. 3 of 7
Bar Splicer Assembly Details	Sheet No. 4 of 7
Soil Boring Logs	Sheet No. 5 of 7
Temporary Concrete Barrier for Stage Construction	Sheet No. 6 of 7
Steel Railing, Type 2399	Sheet No. 7 of 7

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 PC channel slabs are in a deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the slabs when developing construction procedures for removal of the superstructure.
- If the Contractor's procedure for existing channel slab removal involves placement of cranes or other heavy equipment on the existing channel slabs, 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 slabs for the proposed loads. Costs included in Removal of Existing Structures.
- The cost of the removal of existing PC channel slabs 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'-0" 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.	95
Removal and Disposal of Unsuitable Material	Cu. Yd.	95
Stone Riprap, Class A4	Sq. Yd.	281
Filter Fabric	Sq. Yd.	281
Removal of Existing Structures No. 3	Each	1
Bar Splicers	Each	122
Concrete Box Culverts	Cu. Yd.	139
Reinforcement Bars	Pound	25,550
Temporary Sheet Piling	Sq. Ft.	555
Steel Railing, Type 2399	Foot	46
Name Plates	Each	1

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

GENERAL PLAN
US 45 OVER SEMINARY CREEK OVERFLOW
FAP ROUTE 328 - SECTION (8BR-3)B-1
CLAY COUNTY
STATION 966+25.10
STRUCTURE NO. 013-2011