

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336A	31BR	MADISON	11	6
STA. N/A		TO STA. N/A		
FED. ROAD DIST. NO. 8		ILLINOIS FED. AID PROJECT		
Contract No. 76121				

**EXISTING STRUCTURE:**

S.N. 060-0270. Original structure is a simple open-span structure, 16' wide, reinforced concrete slab deck supported by concrete abutments, built prior to 1911. The original structure was widened to 20' in 1911 under FA Section P-15d and widened again with a double box culvert, with two 10' x 10' cells on each side in 1931 under SBI II Section 47-B. Existing structure will be removed and replaced with a cast-in-place double box culvert with two 11' x 11' cells. The existing road will be closed to through traffic during construction and detours provided.

Salvage: No salvage.

**STRUCTURAL NOTES:**

Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.

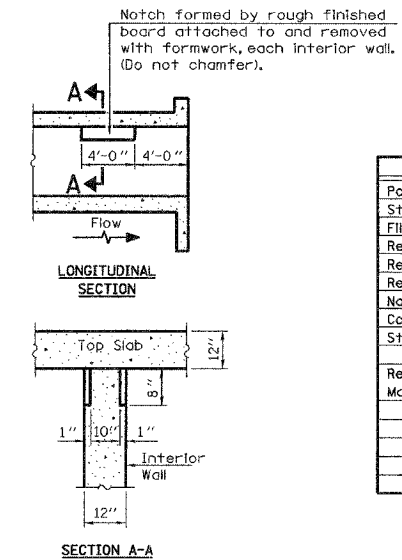
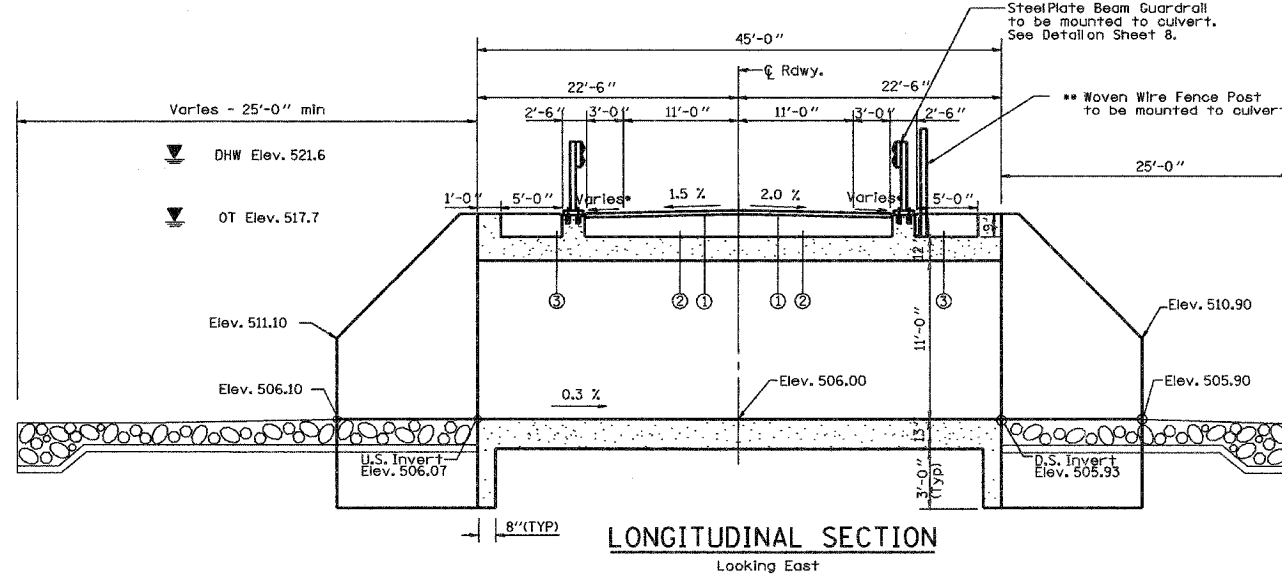
All construction joints shall be bonded.

Reinforcement bars shall conform to the requirements of AASHTO M31 or M322 Grade 60.

Precast alternate is not allowed.

A distance of half the length of the wingwall but not less than six feet of the barrel shall be poured monolithically with the wingwall.

Excavation behind existing side walls shall be done before removing the existing top slab.



**TOTAL BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Porous Granular Embankment	CU YD	97
Stone Riprap, Class A4	SQ YD	450
Filter Fabric	SQ YD	450
Removal of Existing Structures	Each	1
Reinforcement Bars	Pound	31980
Reinforcement Bars, Epoxy Coated	Pound	430
Name Plates	Each	1
Concrete Box Culverts	CU YD	168.3
Steel Plate Beam Guardrail, Attached to Structures	Foot	50
Removal and Disposal of Unsuitable Material	CU YD	97

**LOADING HS20-44**

ALLOW 50#/SQ. FT. FOR FUTURE WEARING SURFACE

**DESIGN SPECIFICATIONS**

1996 AASHTO WITH 1997 THROUGH 2002 INTERIMS

**DESIGN STRESSES**

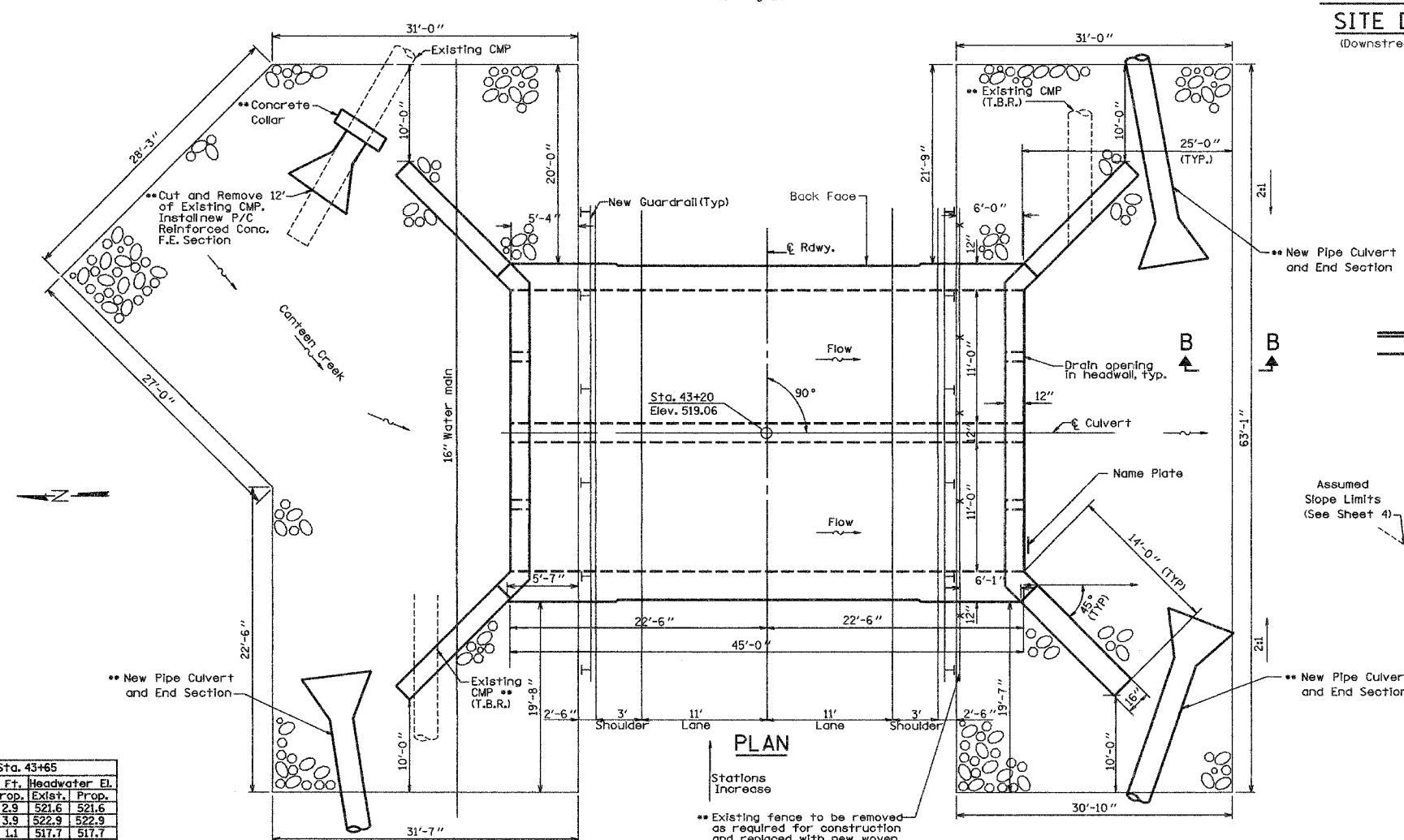
FIELD UNITS  
 $f'_c = 3,500$  psi  
 $f_y = 60,000$  PSI (REINFORCEMENT)

CANTEEN CREEK  
 BUILT 200 BY  
 STATE OF ILLINOIS  
 MADISON COUNTY  
 SEC. 31BR  
 STA. 43+20.00  
 STR. NO. 060-2045 LOADING HS20-44

**NAME PLATE**  
 See Std. 515001

**WATERWAY INFORMATION**

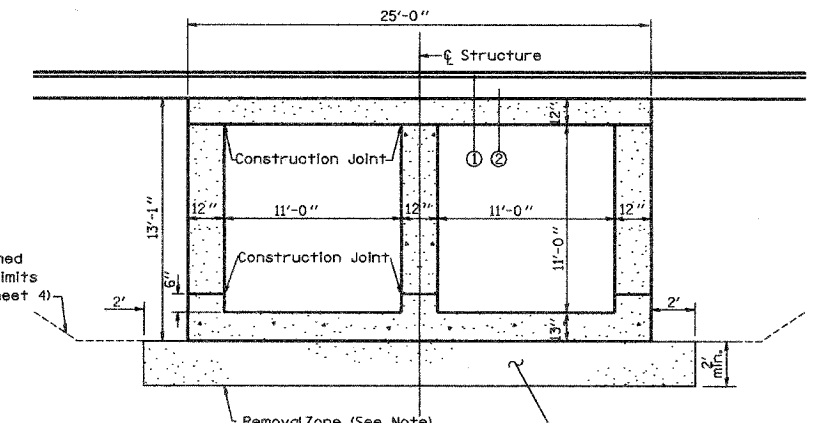
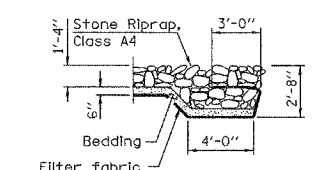
Drainage Area = 4.08 sq. mi		Low Grade Elev. 518.5 @ Sta. 43+65							
Flood Freq.	Q	Opening Sq. Ft.	Natural H.W.E.	Head - Ft.	Headwater El.	Design	Base	Overtopping	Max. Calc.
50 Yr.	732	200.0	242.0	2.9	2.9	521.6	521.6		
100 Yr.	850	200.0	242.0	3.9	3.9	522.9	522.9		
6 Yr.	398	200.0	242.0	1.1	1.1	517.7	517.7		
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		



**SECTION A-A PHOEBE NESTING SITE DETAILS (Downstream End Only)**

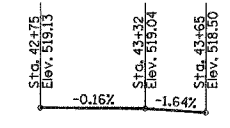
Shoulder Slope varies from 2.0% to 4.0%

- LEGEND**
- ① Proposed Bituminous Concrete Surface Course \*\*
  - ② Proposed Bituminous Concrete Binder Course \*\*
  - ③ Proposed Aggregate Shoulders \*\*



**Note:**  
 Remove two feet of soil beneath the footprint of the box culvert. The footprint will extend two feet beyond the perimeter of the culvert. The contractor shall replace with Porous Granular Embankment. Excavation shall be paid for as Removal and Disposal of Unsuitable Material.

**PROFILE GRADE**  
 along roadway



DESIGNED	<i>Tom Kutschals</i>	EXAMINED	<i>Thomas J. ...</i>
CHECKED	<i>...</i>	PASSED	<i>...</i>
DRAWN	CKB / SDH		
CHECKED	TJK PDC		



EXPIRES 11-30-2006

Drawing Not to Scale

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**CULVERT GENERAL PLAN**  
 STRUCTURE NO. 060-2045  
 TR 336A  
 SECTION 31BR  
 MADISON COUNTY

DATE \_\_\_\_\_ DRAWN BY \_\_\_\_\_ CHECKED BY \_\_\_\_\_