

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 173	*	SHELBY	11	5

PROJECT BROS-173(144)

* 01-18116-00-BR

TOTAL BILL OF MATERIAL

Item	Super	Sub	Total
Channel Excavation			1229
Stone Dumped Riprap, Class A4			431
Filter Fabric For Use With Riprap			594
Removal of Existing Structures			1
Structure Excavation			141
Concrete Structures		88.9	88.9
Precast Prestressed Concrete Deck Beams (21" Depth)	2555		2555
Reinforcement Bars		7015	7015
Steel Railing, Type S1	216		216
Furnishing Steel Piles HP 10x42		487	487
Driving Steel Piles		487	487
Test Pile, Steel HP 10 x 42		4	4
Concrete Encasement			2.2
Name Plates	1		1
X5020501 Underwater Structure Excavation Protection - Location 1			1
X5020502 Underwater Structure Excavation Protection - Location 2			1

WATERWAY INFORMATION

Flood		Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head-Ft.		Headwater El.	
Design	Base			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	15	3515		476	822	96.9	97.4	97.0	0.5	0.1
Base	100	5538		536	901	97.7	98.6	98.1	0.9	0.4
Exist. Overtop.	7.8	2890								
Prop. Overtop.	8.5	3000								
Max. Calc.	500	7172		555	960	98.3	99.2	98.8	0.9	0.5

DESIGN STRESSES

FIELD UNITS

f_c = 1400 psi
 v_c = 56.2 psi
 f_s = 24000 psi
 n = 9

PRECAST PRESTRESSED UNITS

f'_c = 5000 psi
 f'_{ci} = 4000 psi
 f'_s = 270000 psi
 f'_{si} = 201960 psi

GENERAL NOTES

See Proposal for Boring Data.

The layout of the riprap slopedwall may be varied to suit conditions in the field as determined by the engineer.
 The contractor shall drive one test pile in a permanent location at the East and West Abutment, Pier 1 and Pier 2, as directed by the Engineer in the field prior to ordering the remainder of piles.

DESIGN SPECIFICATIONS

2002 A.A.S.H.T.O. Specifications with 2003 & 2004 Interim Specifications.

LOADING HS 20-44

Allow 25 p.s.f. for future wearing surface.

I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current "A.A.S.H.T.O. Standard Specifications For Highway Bridges".



Gerald B. Rotherman 5/17/06
 Expiration Date 11/30/2006

**GENERAL PLAN & ELEVATION
 T.R. 173 OVER MUD CREEK
 SECTION 01-18116-00-BR
 SHELBY COUNTY**

FILE NAME: SCLT00E (REV. 5/15/08)