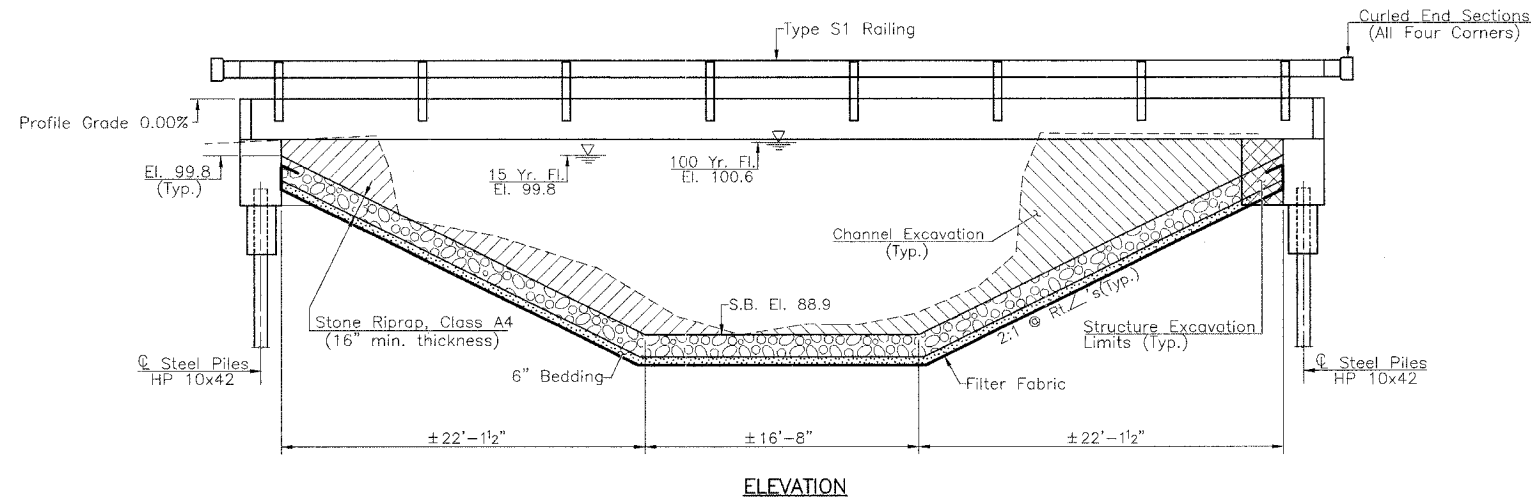


RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 140	*	SHELBY	10	4
PROJECT BROS-173(150)				
* 05-09119-00-BR				

Existing Structure: Single Span Timber Deck on Steel Stringers with Closed Timber Abutments, Wingwalls on Timber Piles. ±40'-0" Bk.-Bk. Abutments, ±20'-0" Clear Deck Width, Tubular Steel Railing.

Benchmarks: BM#1 -- 60d Nail & Washer in Power Pole
20' Rt. Sta. 8+70 El. 100.00 (Assumed)



TOTAL BILL OF MATERIAL

Item	Super	Sub	Total
Channel Excavation	Cu. Yd.		311
Stone Riprap, Class A4	Ton		440
Filter Fabric	Sq. Yd.		756
Removal of Existing Structures	Each		1
Structure Excavation	Cu. Yd.		70
Concrete Structures	Cu. Yd.	24.2	24.2
Concrete Encasement	Cu. Yd.	2.2	2.2
Precast Prestressed Concrete Deck Beams (27" Depth)	Sq. Ft.	1552	1552
Reinforcement Bars	Pound	2510	2510
Steel Railing Type S1	Foot	132	132
Furnishing Steel Piles HP 10x42	Foot	234	234
Driving Piles	Foot	234	234
Test Pile, Steel HP 10x42	Each	2	2
Name Plates	Each	1	1

WATERWAY INFORMATION

Drainage Area = 12.2 Sq. Miles		Low Grade Elev. = 98.8		@ Sta. 12+00		
Flood	Freq. Yr.	Q	Opening Sq. Ft.	Nat. H.W.E.	Head-Ft. Exist. Prop.	Headwater El. Exist. Prop.
Design	15	1946	305 375	99.8	0.5 0.3	100.3 100.1
Base	100	3090	337 417	100.6	0.5 0.7	101.1 101.3
Exist. Overtop	7.6	1625				
Prop. Overtop	9.5	1725				
Max. Calc.	500	4019	344 427	101.1	0.4 0.8	101.5 101.9

DESIGN STRESSES

FIELD UNITS

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

PRECAST PRESTRESSED UNITS

f'_c = 6000 psi
f'_{ci} = 5000 psi
f'_s = 270000 psi
f'_{si} = 201960 psi

GENERAL NOTES

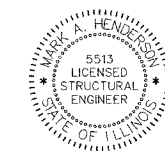
See Proposal for Boring Data.
Reinforcement bars shall conform to the requirements of ASTM A 706 Grade 60 (IL Modified). See Special Provisions.
The layout of the riprap slopewall may be varied to suit conditions in the field as determined by the engineer.
The contractor shall drive one test pile in a permanent location at the North and South Abutment 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.

LOADING HS 20-44

Allow 50#/sq. ft. 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".

Mark A. Henderson 3/30/07
Expiration Date 11/30/2008

MITCHELL CREEK
BUILT 200 BY
SHELBY COUNTY
SECTION 05-09119-00-BR
STA. 9+29.50
PROJECT BROS-173(150)
STR. NO. 087-3552 LOADING HS20-44
NAME PLATE
(Standard 515001)

