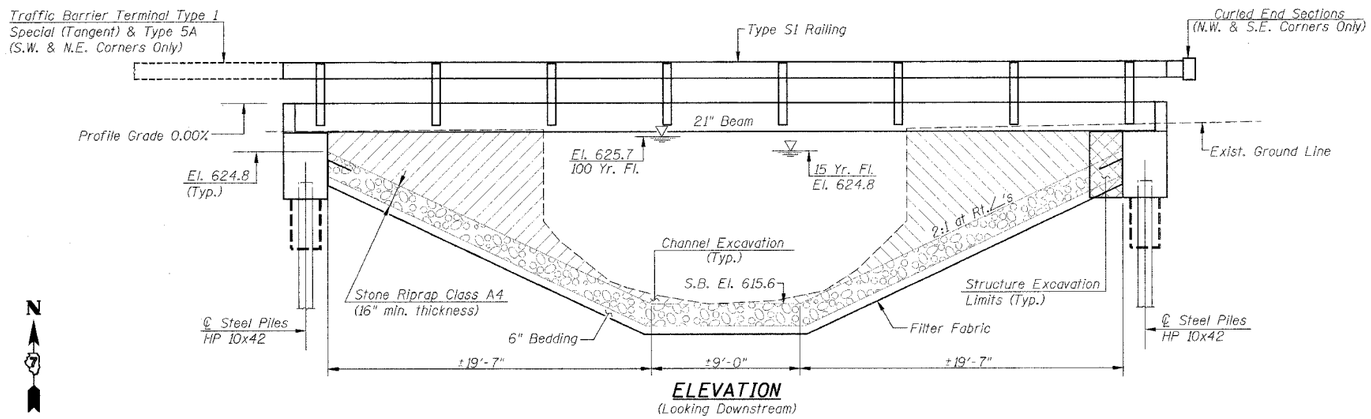
CONTRACT NO. 95520

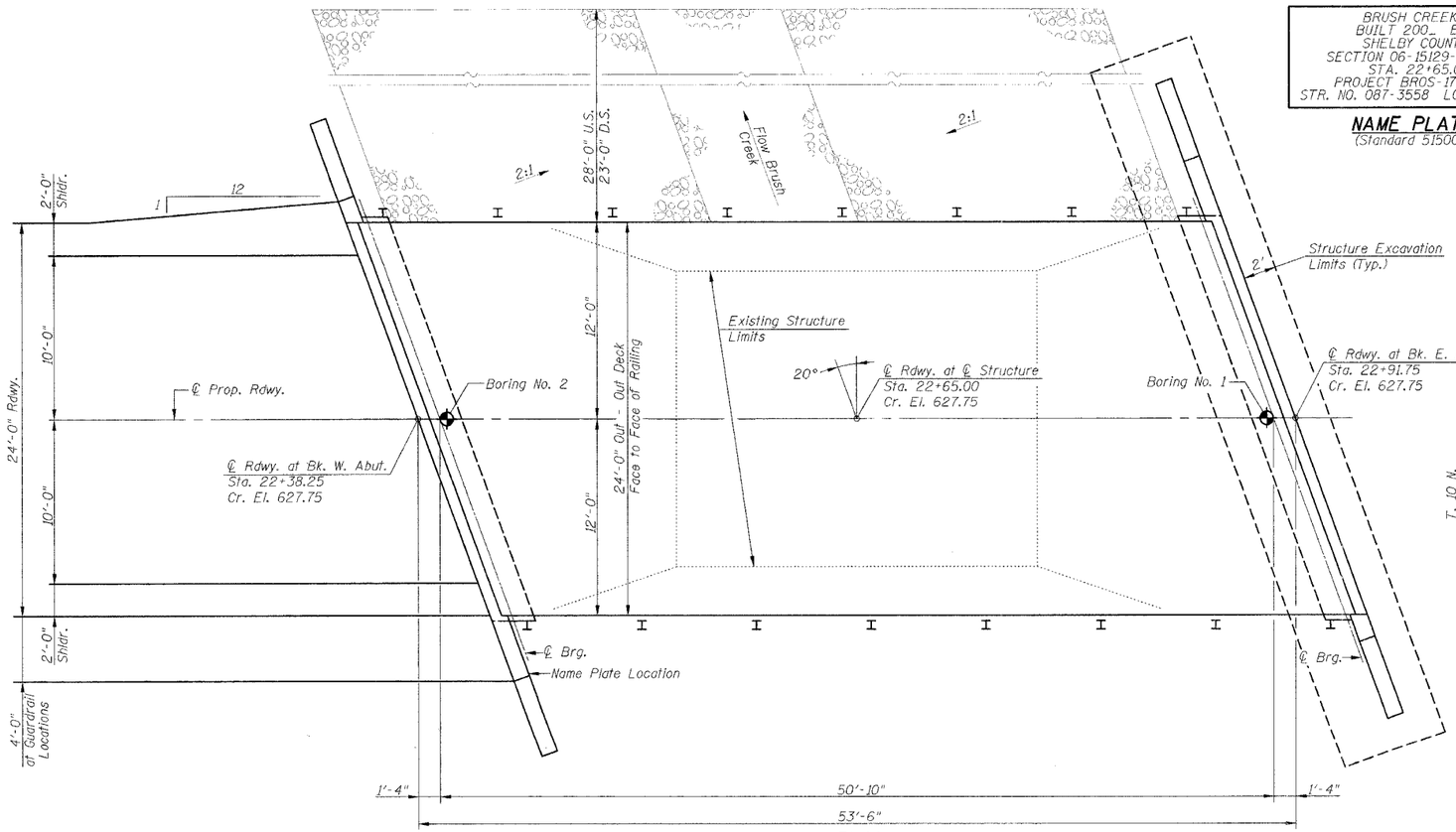
T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335A	06-15129-00-BR	SHELBY	11	4
STA. 20+00	TO STA. 25+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

Existing Structure: Single Span Timber Deck Bridge on Steel Stringers Supported by Timber Abutments Founded on Timber Piling. ±24'-0" Bk.-Bk. Abutments, ±18'-9" Clear Deck Width.

Benchmarks: BM#1 - PK Nail in West Most Pile of N.E. Wingwall El. 626.00 (Assumed)



ELEVATION
(Looking Downstream)



PLAN

BRUSH CREEK
BUILT 200_ BY
SHELBY COUNTY
SECTION 06-15129-00-BR
STA. 22+65.00
PROJECT BROS-173(152)
STR. NO. 087-3558 LOADING HS20

NAME PLATE
(Standard 515001)

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu. Yd.			214
Stone Riprap, Class A4	Ton			305
Filter Fabric	Sq. Yd.			435
Removal of Existing Structures	Each			1
Structure Excavation	Cu. Yd.			85
Concrete Structures	Cu. Yd.		27.8	27.8
Concrete Encasement	Cu. Yd.		2.8	2.8
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	1250		1250
Reinforcement Bars	Pound		2745	2745
Steel Railing Type S1	Foot	107		107
Furnishing Steel Piles HP 10x42	Foot		189	189
Driving Piles	Foot		189	189
Test Pile Steel HP 10x42	Each		1	1
Name Plates	Each		1	1

WATERWAY INFORMATION

Drainage Area = 4.24 Sq. Mi. Low Grade Elev. = 624.60 @ Sta. 20+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - ft. Exist.	Head - ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
Design	15	1059	147	247	624.8	0.8	0.2	625.6	625.0
Base	100	1806	147	288	625.7	1.3	0.7	627.0	626.4
Exist. Overtop.	10	990							
Prop. Overtop.	12	1025							
Max. Calc.	500	2454	147	313	626.2	1.1	1.3	627.3	627.5

DESIGN STRESSES

FIELD UNITS
fc = 1400 psi
fs = 24000 psi

PRECAST PRESTRESSED UNITS
f'c = 5000 psi
f'ci = 4000 psi
1/2"ϕ Strands — f's = 270000 psi
f'si = 201960 psi

GENERAL NOTES

See Proposal for Boring Data.

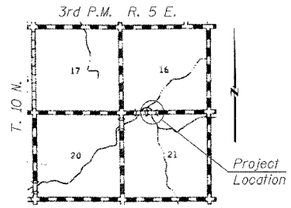
Reinforcement bars shall conform to the requirements of ASTM A706, Grade 60 (IL Modified). See Special Provisions.

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 East Abutment as directed by the Engineer in the field prior to ordering the remainder of piles.

DESIGN SPECIFICATIONS
2002 AASHTO Standard Specifications.

LOADING HS 20-44
Allow 25#/sq. ft. for future wearing surface.



LOCATION MAP

I certify that to the best of my knowledge, information and belief, this bridge 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 5513 LICENSED STRUCTURAL ENGINEER STATE OF ILLINOIS

Mark A Henderson 5/24/07
Expiration Date 11/30/2008

GENERAL PLAN & ELEVATION
T.R. 335A OVER BRUSH CREEK
SECTION 06-15129-00-BR
SHELBY COUNTY

PLOT DATE = $DATE$
FILE NAME = $FILE$