

Bench Mark: Chiseled "□" on wingwall at southwest corner of existing bridge S.N. 036-0033 Elev. 620.21

Existing Structure: S.N. 036-0033, single span 22'-0" Back to Back abutments 33'-0" Out to Out R.C. slab bridge on closed abutments. Built as S.B.I. Rte. 94 Sec. 109B at Sta. 216+45 in 1928 and Rebuilt in 1977. The contractor shall remove the existing structure and replace it with a single span wide flange superstructure on integral abutments. Traffic to be maintained utilizing stage construction.

No Salvage.

GENERAL NOTES

Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts in painted areas and M164 Type 3 in unpainted areas. Bolts 3/4" φ holes 5/16" φ, unless otherwise noted.

Calculated weight of Structural Steel, Grade 50W = 58,610 lbs.
Field welding of construction accessories will not be permitted to beams.
The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These components are the wide flange beams.

Reinforcement bars shall conform to the requirements of ASTM A 706 Grade 60.

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

The Contractor shall drive two steel HP10x42 test piles in a permanent location, 1 of each abutment as directed by the Engineer before ordering the remainder of piles.

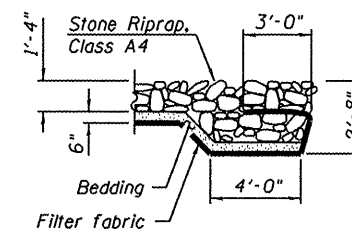
Excavation behind existing abutment walls shall be done before removing the existing superstructure. The Contractor shall sawcut the existing abutments at the stage removal line before stage I removal.

If the Contractor elects to use cantilever forming brackets on the exterior beams, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06 (b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.

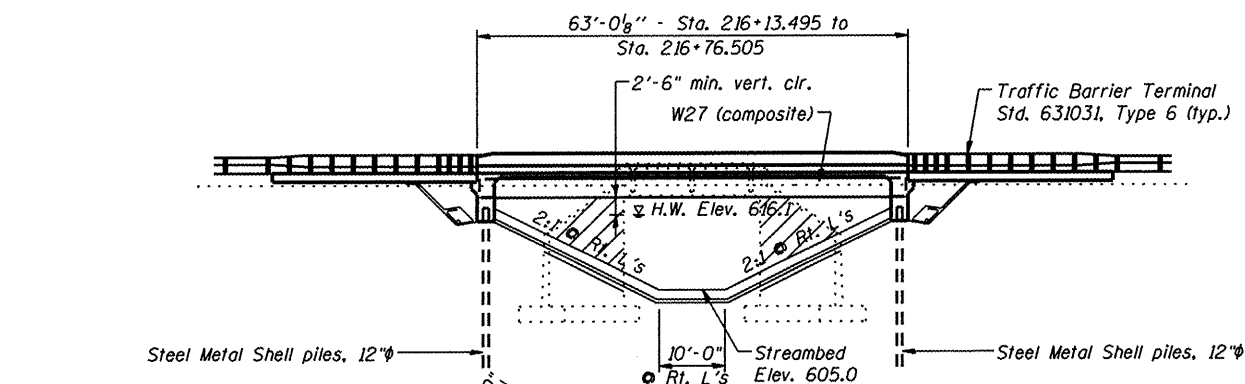
All structural steel shall be AASHTO M 270 Grade 50W.

Structural steel shall only be painted for a distance equal to the depth of embedment into the concrete cap plus 3". Painted areas shall be primed in the shop with a Department approved zinc rich primer. Field painting will not be required.

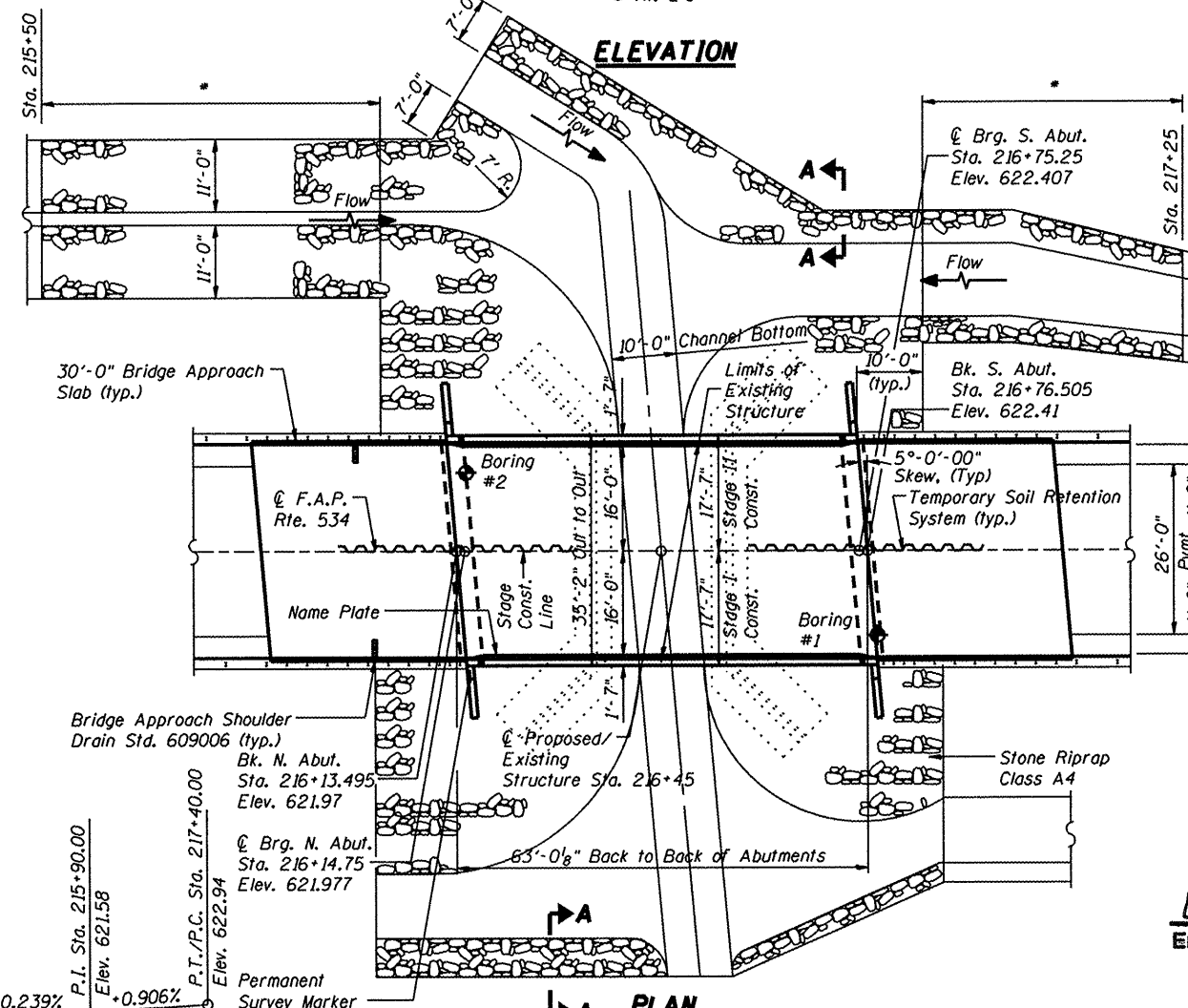
All structural steel shall be cleaned as specified in the Special Provision for "Surface Preparation and Painting Requirements for Weathering Steel."



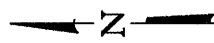
SECTION A-A



ELEVATION



PLAN



* For remaining configuration and relevant excavation quantities See Road Plans

STATION 216+45
BUILT 200 BY
STATE OF ILLINOIS
F.A.P. RT. 534 SEC. 109B (BR3)
HENDERSON COUNTY
LOADING HS20
STR. NO. 036-0055

LETTERING FOR NAME PLATE

Locate Name Plate at
Corner of Bridge (See Std. 515001)

APPROVED
For Structural Adequacy Only
D. Carl Pusey (TJD)
Engineer of Bridges & Structures

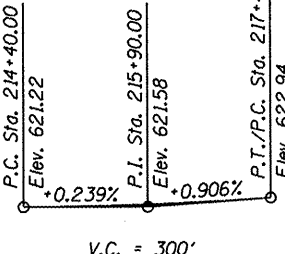
LOADING HS20-44
Allow 50#/sq. ft. for future wearing surface.
DESIGN SPECIFICATIONS
2002 AASHTO

DESIGN STRESSES
FIELD UNITS
f_c = 3,500 psi
f_y = 60,000 psi (reinforcement)
f_y = 50,000 psi (structural steel)
AASHTO M270 Grade 50W

SEISMIC DATA
Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 3.8%
Site Coefficient (S) = 1.0

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Parous Granular Embankment, Special	Cu. Yd.		100	100
Stone Rip Rap, Class A4	Sq. Yd.		1217	1217
Filter Fabric	Sq. Yd.		1217	1217
Removal of Existing Structures No. 1	Each			1
Structure Excavation	Cu. Yd.		154	154
Concrete Structures	Cu. Yd.		49.8	49.8
Concrete Superstructure	Cu. Yd.	179.9		179.9
Bridge Deck Grooving	Sq. Yd.	224		224
Protective Coat	Sq. Yd.	566		566
Reinforcement Bars, Epoxy Coated	Pound	42,200	3,740	45,940
Furnishing and Erecting Structural Steel	L. Sum	0.5		0.5
Stud Shear Connectors	Each	900		900
Furnishing Metal Shell Piles 12" x 0.179	Foot		770	770
Driving Piles	Foot		770	770
Test Pile Metal Shells	Each		2	2
Name Plates	Each	1		1
Geocomposite Wall Drain	Sq. Yd.		60.0	60.0
Pipe Underdrains for Structures 4"	Foot		130	130
Bar Splitters	Each	447	82	529
Temporary Soil Retention System	Sq. Ft.		407	407
Anchor Bolts, 1"	Each		24	24



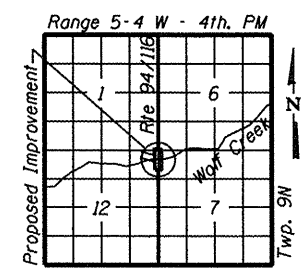
PROFILE GRADE
(along & roadway)



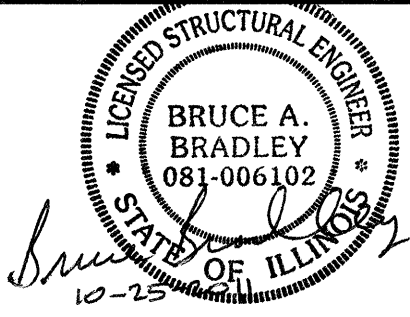
WATERWAY INFORMATION

Drainage Area = 5.50 sq. mi. Low Grade Elev. 620.93 @ Sta. 213+20

Flood	Freq. Yr.	0 C.F.S.	Opening Exist.	Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
Design	50	2035	199	356	616.1	2.3	0.2	618.4
Base	100	2380	205	373	616.4	3.8	0.2	620.2
Overtopping	75	2220	201			3.0		619.2
Max. Calc.	500	3230		412	617.1		0.4	617.5



LOCATION SKETCH



EXPIRES 11-30-2012

FILE NAME: D468083-sht-plan.dgn	USER NAME: #USER#	DESIGNED: -	REVISED: -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN AND ELEVATION IL 94 OVER WOLF CREEK S.N. 036-0055	F.A.P. RTE. 534	SECTION 109B (BR3)	COUNTY HENDERSON	TOTAL SHEETS 88	SHEET NO. 26	
#FILE#	PLOT SCALE: #SCALE#	DRAWN: -	REVISED: -			SCALE: -	SHEET NO. 1 OF 15 SHEETS	STA. 216+45	CONTRACT NO. 68083		(ILLINOIS) FED. AID PROJECT
		CHECKED: -	REVISED: -								
		DATE: -	REVISED: -								