

Bench Mark: Chiseled square on bridge abutment @ NW corner of structure 095-0007  
Sta. 1510+84.7, 18.4 ft. Left, Elev. 445.40

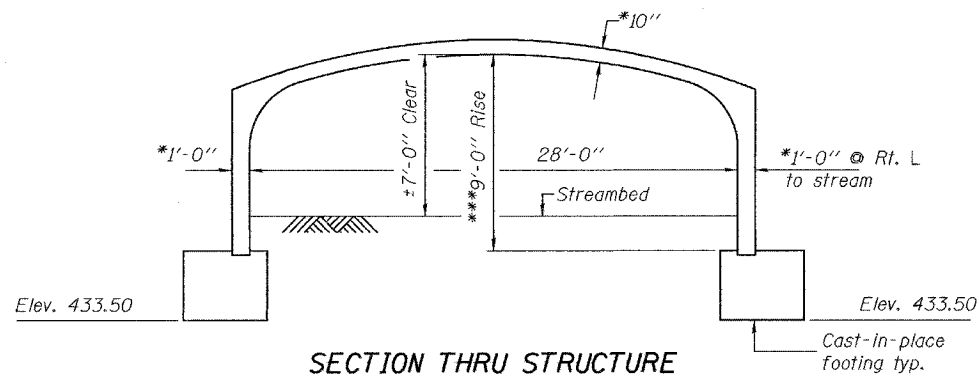
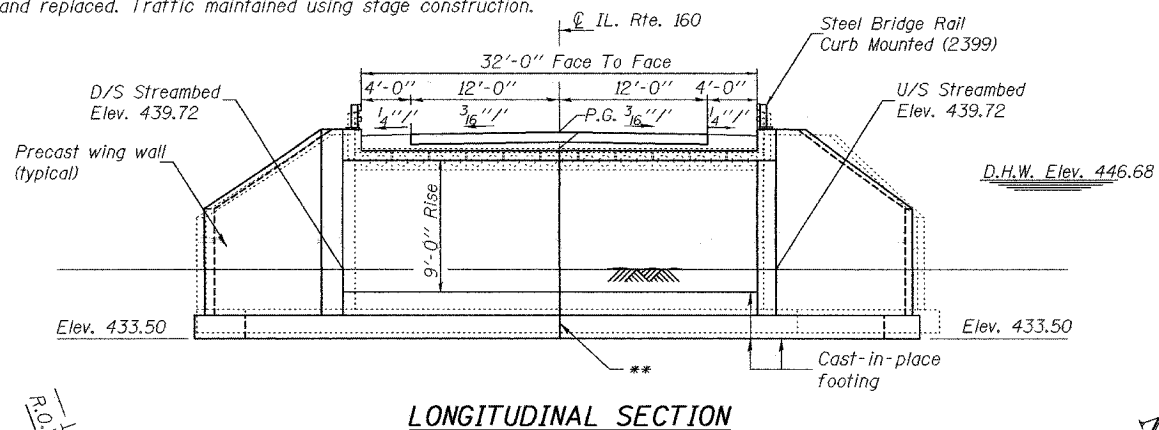
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOWNSHIP	SHEET NO.	SHEET NO. 1
F.A.S. 1832	5BR-2	WASHINGTON	97	71	12 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract #76949

Existing Structure: S.N. 095-0007 Built in 1921 as S.B.I. Route 15, Section 5B at Station 1510+80 as a 1 span RC slab bridge. Closed abutments on spread footings. 1971 superstructure replacement, and widening, with PPC deck beams. Existing bridge to be removed and replaced. Traffic maintained using stage construction.

No salvage

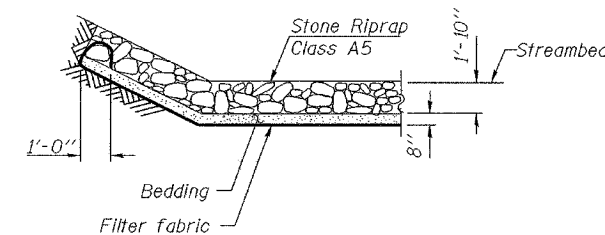


INDEX OF SHEETS

- 1 General Plan and Elevation
- 2 Stage Construction Details
- 3 Temporary Soil Retention System
- 4 Geotextile Retaining Wall
- 5 Temporary Concrete Barrier
- 6-7 Footing Details
- 8 Wingwall Details
- 9 Headwall Details
- 10 Bar Splicer Details
- 11 Steel Bridge Rail Details
- 12 Soil Boring Logs

\*Slab and wall thickness and shape may vary as per manufacturer's design.  
\*\*Stage I west footing to be constructed ±2' into Stage II Construction  
\*\*\*Based on Con Span sections that have a minimum rise of 9'-0".

Note: The selected structure by the contractor shall provide a hydraulically equivalent waterway opening specified in the waterway information table.



DESIGN SCOUR  
ELEVATION TABLE

Design Scour Elev. (ft.)	D.S. 437.72	U.S. 437.72
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SEISMIC DATA

Seismic Performance Category (SPC) = B  
Bedrock Acceleration Coefficient (A) = .11g  
Site Coefficient (S) = 1.5

LOADING HS20

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)

PRECAST UNITS

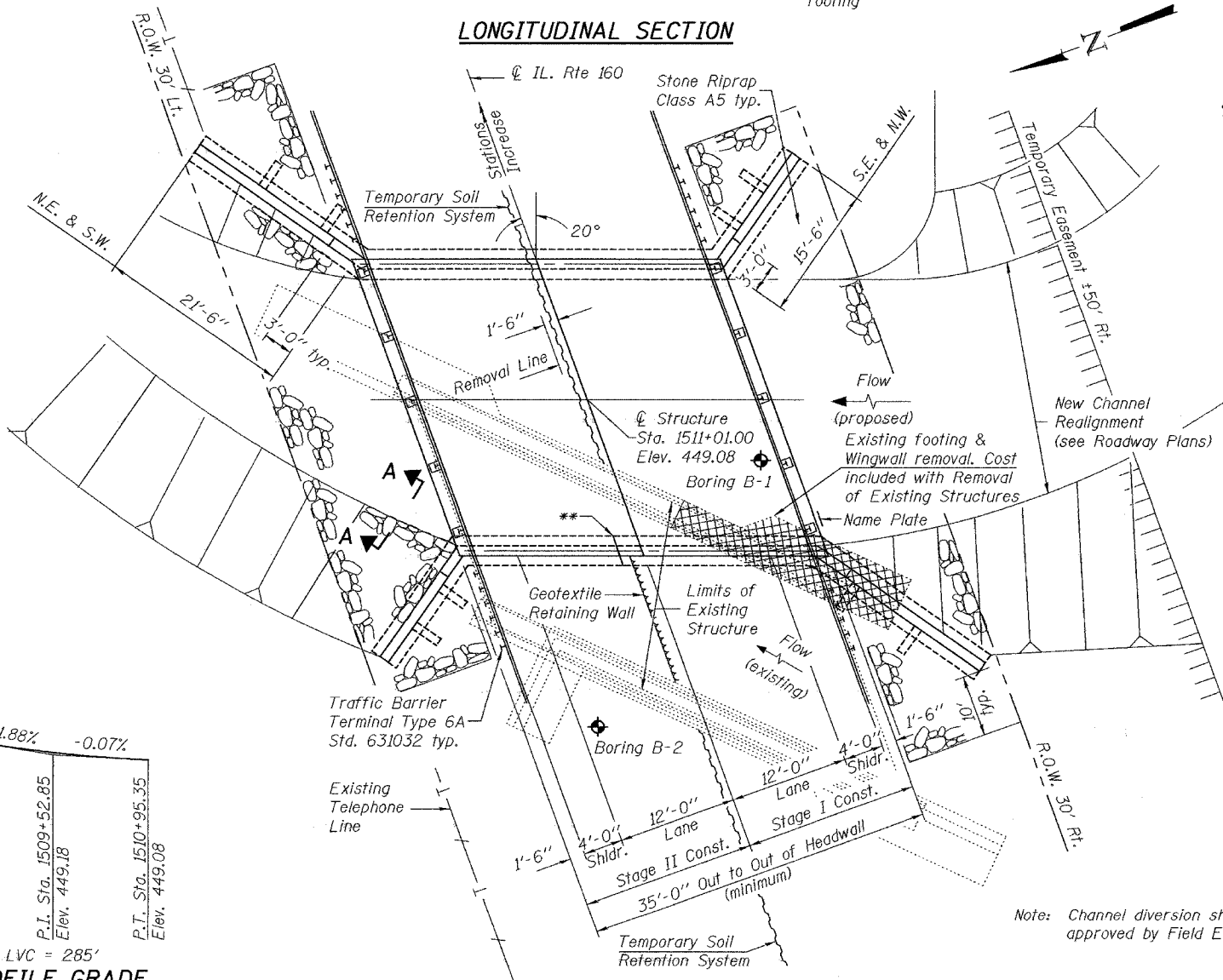
$f'_c = 5,000$  psi  
 $f_y = 60,000$  psi (reinforcement)  
 $f_y = 65,000$  psi (welded wire fabric)

Note: Channel diversion shall be approved by Field Engineer.

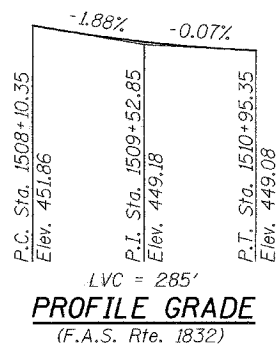
WATERWAY INFORMATION

Drainage Area = 0.87 sq. mi. Low Grade Elev. 447.49 ft. @ Sta. 1510+95

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Head - Ft.		Headwater El.		
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	
Design	50	741	79.84	139.00	446.68	1.54	1.16	448.22	447.84
Base	100	860	79.84	139.00	446.85	1.58	1.52	448.43	448.37
Exist. Overtop.	15	516	79.84	N/A	446.17	1.32	N/A	447.49	N/A
Prop. Overtop.	35	670	N/A	139.00	446.54	N/A	0.95	N/A	447.49
Scour	10	466	79.84	139.00	446.03	1.08	0.48	447.11	446.51



PLAN



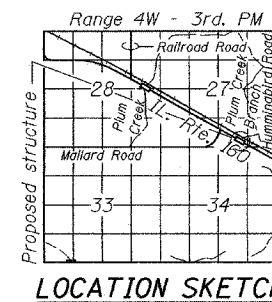
PROFILE GRADE  
(F.A.S. Rte. 1832)

DESIGNED	January 29, 2007
CHECKED	
DRAWN	
CHECKED	

EXAMINED  
PASSED  
ENGINEER OF BRIDGE DESIGN  
ENGINEER OF BRIDGES AND STRUCTURES



EXPIRES 11-30-2008



LOCATION SKETCH

STATION 1511+01.00  
BUILT 20 BY  
STATE OF ILLINOIS  
F.A.S. RTE 1832 - SEC. 5BR-2  
LOADING HS20  
STRUCTURE NO. 095-0078

NAME PLATE  
See Std. 515001

GENERAL PLAN AND ELEVATION  
IL. RTE. 160 OVER  
PLUM CREEK BRANCH  
F.A.S. RTE. 1832 - SEC. 5BR-2  
WASHINGTON CO.  
STATION 1511+01.00  
STRUCTURE NO. 095-0078