

B.M. 101: Chiseled square in NW wingwall of existing S.N. 057-0090. Elev. 725.10.

EXISTING STRUCTURE, S.N. 057-0090, originally constructed in 1928 as SBI 164 Sec. 120B at Station 1209+00, superstructure replaced on widened abutments in 1973 as SBI 164 Sec. 120BR, using 21" PPC Deck Beams with 2 1/2" bituminous overlay, 42'-10 1/2" back-back abutments, 33'-0" out-out width, R.C. closed abutments on timber pile footings. Existing structure shall be removed and replaced while traffic is detoured.

No Salvage.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET 1
OF 12

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	120B	MCLEAN	31	12
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	CONTRACT NO. 70518

INDEX OF SHEETS

Sheet No.	Description
1	General Plan, General Notes & Bill of Material
2	Top of Slab Elevations
3	Top of Approach Slab Elevations
4	Superstructure Deck Plan and Typical Section
5	Superstructure Diaphragm Details
6	Superstructure Parapet
7	Structural Steel & Framing Plan
8	Abutments
9	Piles
10	Bar Splicer Assembly Details
11-12	Soil Borings

GENERAL NOTES

Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts in painted areas and M164 Type 3 in unpainted areas. Bolts 1/8 in. φ, holes 1/8 in. φ, unless otherwise noted.

All structural steel shall be AASHTO M 270 Grade 50W. Calculated weight of Structural Steel = 85520 lbs.

No field welding is permitted except as specified in the contract documents.

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions. Reinforcement bars designated (E) shall be epoxy coated.

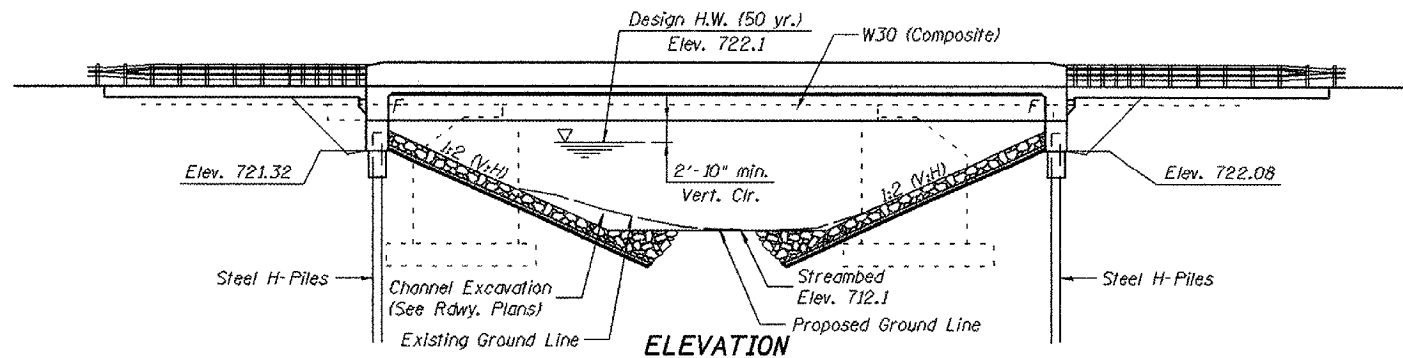
Structural steel shall only be painted for a distance equal to the depth of embedment into the concrete cap plus 3 inches. Those areas shall be primed in the shop with a Department approved zinc rich primer. No field painting shall be required. All structural steel shall be cleaned as specified in the Special Provision for "Surface Preparation and Painting Requirements for Weathering Steel".

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

The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at substructures specified or approved by the Engineer before ordering the remainder of piles.

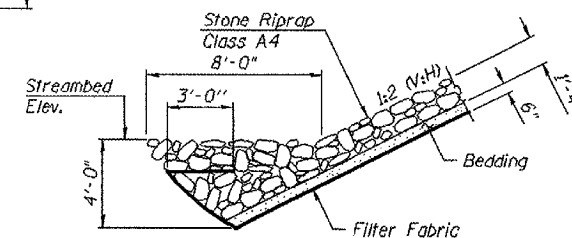
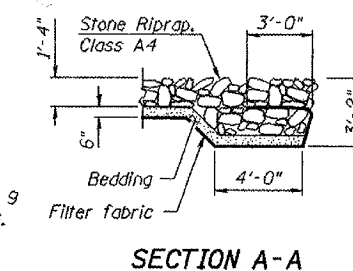
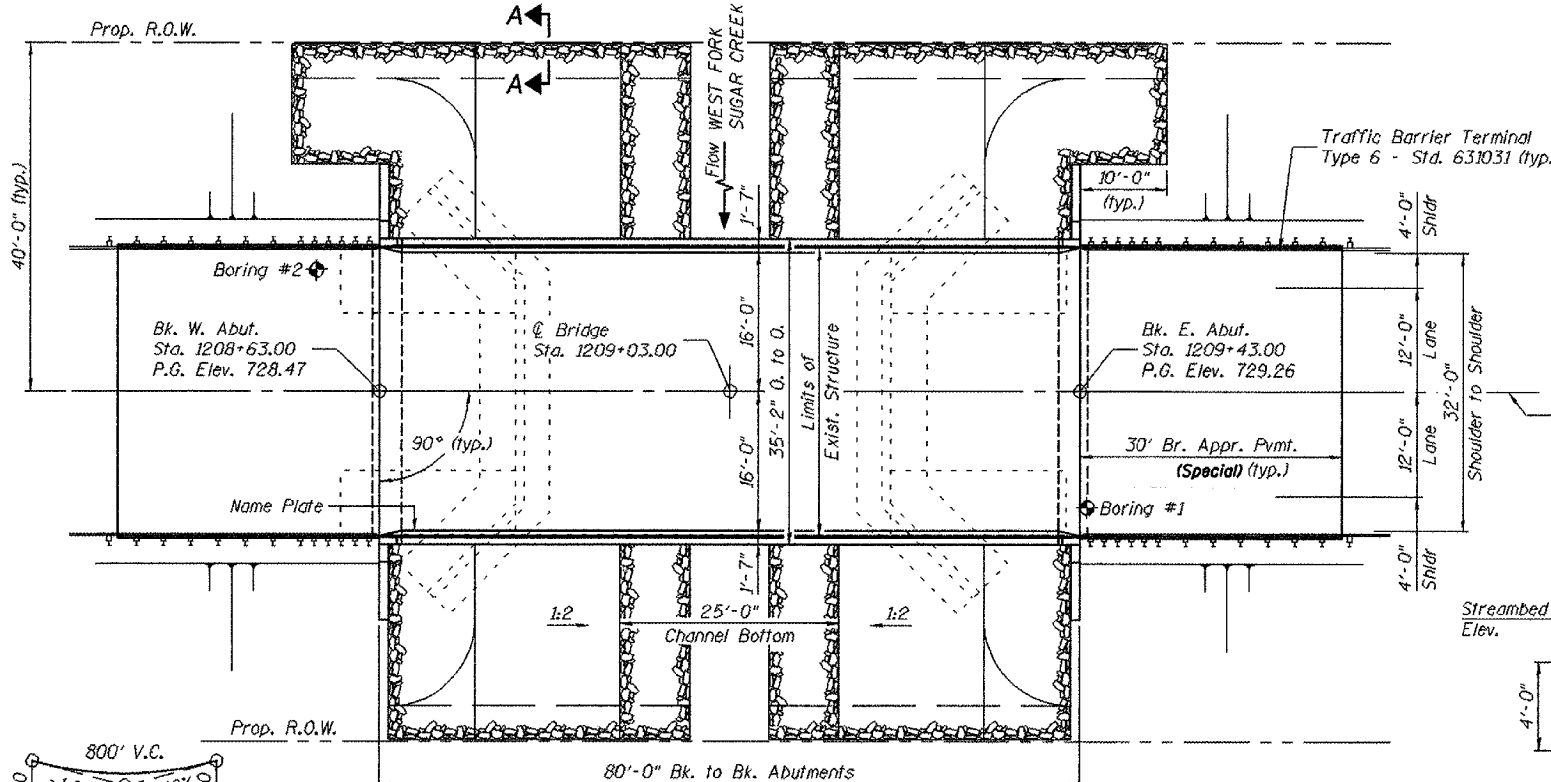
Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure.

The existing bearing pads at the East Abutment contain asbestos. The Contractor shall take appropriate precautions to deal with the presence and disposal of asbestos on this project. See Special Provisions.



STATION 1209+03.00
BUILT _____ BY
STATE OF ILLINOIS
F.A.P. RTE. 693 SEC. 120B
LOADING HS20
STR. NO. 057-0242

NAME PLATE
See Std. 515001



TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment, Special	Cu Yd	--	110	110
Stone Riprap, Class A4	Sq Yd	--	673	673
Filter Fabric	Sq Yd	--	673	673
Removal Of Existing Structures	Each	1	--	1
Structure Excavation	Cu Yd	--	694	694
Concrete Structures	Cu Yd	--	30.8	30.8
Concrete Superstructure	Cu Yd	112.3	--	112.3
Bridge Deck Grooving	Sq Yd	267	--	267
Concrete Encasement	Cu Yd	--	4.2	4.2
Protective Coat	Sq Yd	352	--	352
Furnishing And Erecting Structural Steel	L Sum	1	--	1
Stud Shear Connectors	Each	1134	--	1134
Reinforcement Bars, Epoxy Coated	Pound	21060	3660	24720
Bar Splicers	Each	64	--	64
Furnishing Steel Piles HP 12x53	Foot	--	640	640
Driving Piles	Foot	--	640	640
Test Pile Steel HP12x53	Each	--	2	2
Name Plates	Each	1	--	1
Anchor Bolts, 1"	Each	--	24	24
Geocomposite Wall Drain	Sq Yd	--	60	60
Pipe Underdrains For Structures, 4"	Foot	--	134	134
Diamond Grinding (Bridge Section)	Sq Yd	436	--	436
Asbestos Bearing Pad Removal	Each	22	--	22

APPROVED
For Structural Adequacy Only

Ralph E. Anderson (TSD)
Engineer of Bridges & Structures

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	W. Abut.	E. Abut.
	718.32	719.08

WATERWAY INFORMATION

Existing Low Grade Elevation: 726.53 @ Sta. 1208+00
Drainage Area = 8.64 sq. mi. Prop. Low Grade Elevation: 727.76 @ Sta. 1206+86

Flood	Freq. Yr.	Opening Sq. Ft.		Nat. H.W.E.		Head - Ft.		Headwater El.	
		Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	Exist.	Prop.
Design	10	997	305	372	721.1	0.1	0.1	721.2	721.2
Base	50	1561	345	436	722.1	0.2	0.1	722.3	722.2
Overtopping	100	1803	357	456	722.4	0.2	0.2	722.6	722.6
Max. Calc.	500	2387	381	497	723.0	0.6	0.5	723.6	723.5

LOADING HS20-44
Allow 50#/sq. ft. for future wearing surface.

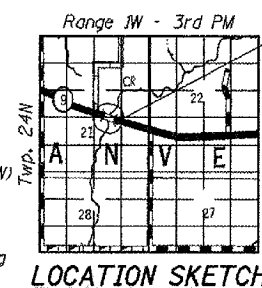
DESIGN SPECIFICATIONS
2002 AASHTO

DESIGN STRESSES

FIELD UNITS
f_c = 3,500 psi
f_y = 60,000 psi (reinforcement)
f_y = 50,000 psi (M270 Grade 50W)

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.045g
Site Coefficient (S) = 1.0



GENERAL PLAN
FAP 693 (IL 9) OVER
WEST FORK SUGAR CREEK
FAP ROUTE 693 SECTION 120B
MCLEAN COUNTY
STATION 1209+03.00
STRUCTURE NO. 057-0242

FILE: J:\JDO\10144 IL-DBVW\3 IL 9 Sugar Creek\1-Sugar-Creek-Digital.dgn
USER: DCD
DATE: 08/07/2007 - 16:54:56