

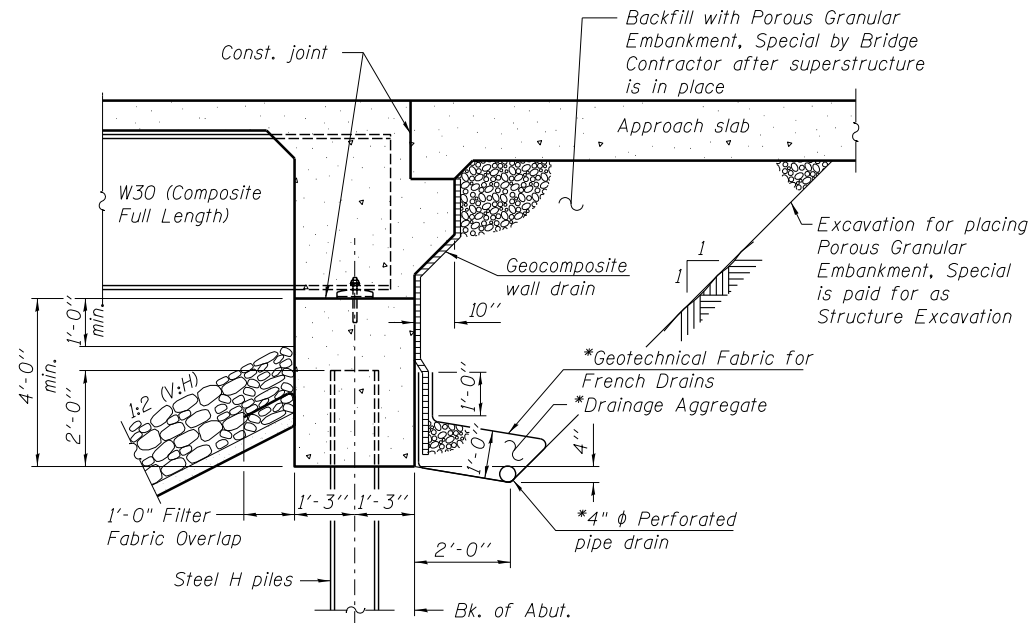
**GENERAL NOTES**

- Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts in painted areas and ASTM A325 Type 3 in unpainted areas. Bolts 7/8 in. dia., holes 15/16 in. dia., unless otherwise noted.
- Calculated weight of structural steel = 122,350 pounds.
- All structural steel shall be AASHTO M 270 Grade 50W.
- No field welding is permitted except as specified in the contract documents.
- Reinforcement bars designated (E) shall be epoxy coated.
- Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8 in. (0.01 ft.). Adjustment shall be made either by grinding the surface or shimming the bearings.
- Structural steel shall only be painted for a distance equal to the depth of embedment into the concrete cap plus 3 in. Painted areas shall be primed in the shop with a Department approved zinc rich primer. Field painting will not be required.
- Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
- Seal coat thickness design is based on the Estimated Water Surface Elevation (EWSE). Cofferdam design details and proposed changes in seal coat thickness shall be submitted to the Engineer for approval with the cofferdam design.
- If the Contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on the plans, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer.
- Slipforming of the parapets is not allowed.
- Current Ratings on File for Existing Structure

Inventory: HS 16.5  
 Operating: HS 28.2  
 Live Load Restrictions: No

Inventory and Operating Ratings and Live Load Restrictions are provided for information only. Inventory and Operating Ratings are based on HS loading and configuration. Live Load Restrictions are based on Illinois legal loads and configurations. The Ratings and Live Load Restrictions are not necessarily representative of capacities to support the Contractor's equipment.

- The Contractor is advised that the existing PPC Deck Beams are in a deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the beams when developing construction procedures for removal and replacement of the superstructure.



**SECTION THRU INTEGRAL ABUTMENT**

\*Included in the cost of Pipe Underdrain for Structures 4"

All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend from the wingwall on the low side until intersecting with the side slopes. The pipe shall drain into a concrete headwall. (See Article 601.05 of the Standard Specifications and Highway Standard 601101.)

STATION 674+13.32  
 BUILT 20\_\_ BY  
 STATE OF ILLINOIS  
 F.A.P. RTE. 17 SEC. 4BR-5  
 LOADING HL-93  
 STRUCTURE NO. 008-0049

**NAME PLATE**

See Std. 515001

**DESIGN SCOUR ELEVATION TABLE**

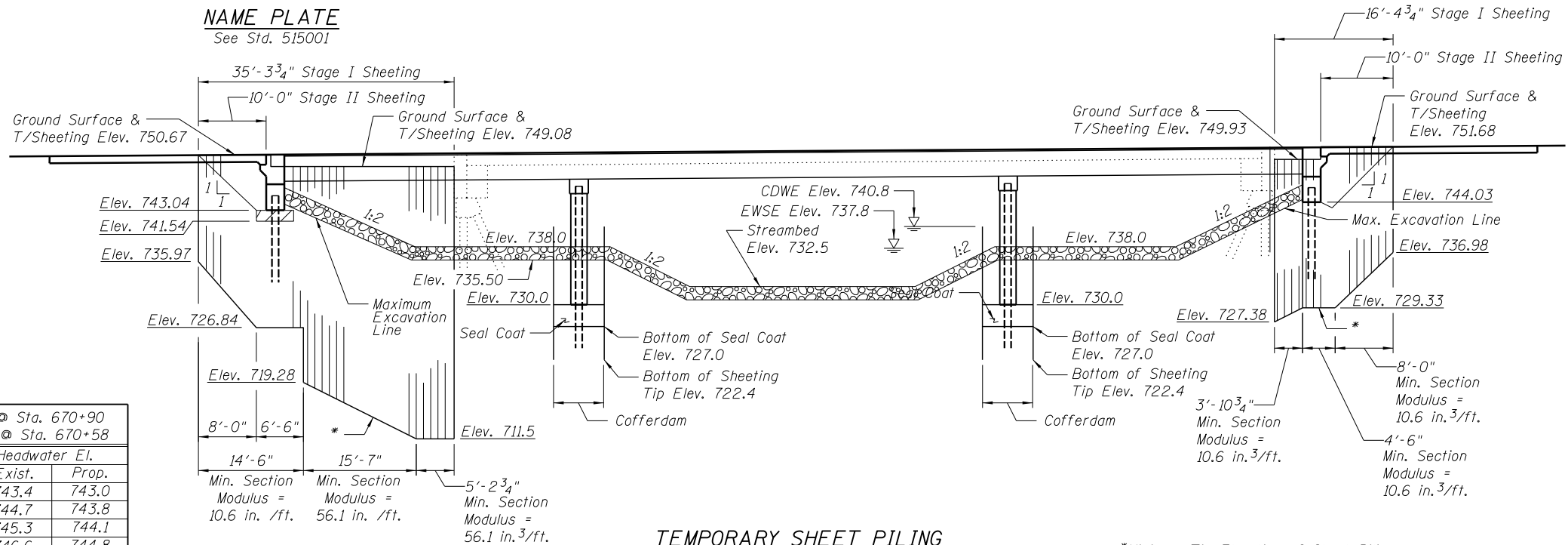
W. Abut.	Pier 1	Pier 2	E. Abut.
743.0	730.0	730.0	744.0

**WATERWAY INFORMATION**

Drainage Area = 40.6 sq. mi.      Exist. Low Grade Elev. = 747.11 @ Sta. 670+90  
 Prop. Low Grade Elev. = 749.05 @ Sta. 670+58

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		H.W.E.		Headwater El.		
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	
Ten Year	10	2700	478	797	743.0	0.4	0.0	743.4	743.0
Design	50	4210	537	883	743.7	1.0	0.0	744.7	743.8
Base	100	4880	563	921	744.0	1.2	0.1	745.3	744.1
Max. Calc.	500	6530	617	997	744.6	2.0	0.3	746.6	744.8

10-Year Velocity through Existing Bridge = 5.6 fps  
 10-Year Velocity through Proposed Bridge = 3.4 fps



**TEMPORARY SHEET PILING & COFFERDAM DETAIL**

(Looking North)

\*Minimum Tip Elevation of Sheet Piling

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment, Special	Cu. Yd.		112	112
Removal and Disposal of Unsuitable Material for Structures	Cu. Yd.		16	16
Stone Riprap Class A5	Sq. Yd.		1,364	1,364
Filter Fabric	Sq. Yd.		1,364	1,364
Removal of Existing Structures No. 1	Each		1	1
Structure Excavation	Cu. Yd.		256	256
Cofferdam Excavation	Cu. Yd.		381	381
Cofferdam (Type 2) (Location-1)	Each		1	1
Cofferdam (Type 2) (Location-2)	Each		1	1
Concrete Structures	Cu. Yd.		159.7	159.7
Concrete Superstructure	Cu. Yd.	330.8		330.8
Bridge Deck Grooving	Sq. Yd.	780		780
Seal Coat Concrete	Cu. Yd.		98.9	98.9
Concrete Encasement	Cu. Yd.		4.0	4.0
Protective Coat	Sq. Yd.	963		963
Furnishing and Erecting Structural Steel	L. Sum	0.5		0.5
Stud Shear Connectors	Each	4,878		4,878
Reinforcement Bars, Epoxy Coated	Pound	76,300	20,580	96,880
Bar Splicers	Each	710	200	910
Furnishing Steel Piles HP12x53	Foot		425	425
Furnishing Steel Piles HP14x73	Foot		600	600
Driving Piles	Foot		1,025	1,025
Test Pile Steel HP12x53	Each		2	2
Test Pile Steel HP14x73	Each		2	2
Pile Shoes	Each		28	28
Name Plates	Each	1		1
Anchor Bolts, 3/4"	Each		24	24
Anchor Bolts, 1"	Each		24	24
Geocomposite Wall Drain	Sq. Yd.		58	58
Pipe Underdrains for Structures 4"	Foot		132	132
Temporary Sheet Piling	Sq. Ft.		1,364	1,364
Asbestos Bearing Pad Removal	Each		30	30

FILE NAME = ...E4DB3-SN0080049-002-GenDwg.dgn



Zroka Engineering, P.C.  
 4216 North Hermitage  
 Chicago, IL 60613

USER NAME = SAW  
 DESIGNED - JLA  
 CHECKED - DAZ  
 PLOT SCALE = 0:2.0000 '1' / in.  
 PLOT DATE = 8/19/2013

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

GENERAL DATA  
 S.N. 008-0049

SHEET NO. SA-2 OF SA-24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-5	CARROLL	150	41

CONTRACT NO. 64DB3

ILLINOIS FED. AID PROJECT