

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts 3/4 in.  $\phi$ , holes 1/8 in.  $\phi$ , unless otherwise noted.  
Calculated weight of Structural Steel = 4,241,110 lbs. AASHTO M 270 Grade 50.  
Calculated weight of Structural Steel = 138,540 lbs. AASHTO M 270 Grade 36.  
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. See Special Provisions.

Reinforcement bars designated (E) shall be epoxy coated.  
If the Contractor elects to use cantilever forming brackets on the exterior beams or girders, 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.  
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 by shimming the bearings.  
Concrete sealer shall be applied to the designated areas of the abutments.  
The existing structural steel coating contains lead. The contractor shall take appropriate precautions to deal with the presence of lead on this project.

The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Gray, Munsell No. 5B 7/1. See special Provision for "Cleaning and Painting New Metal Structures".

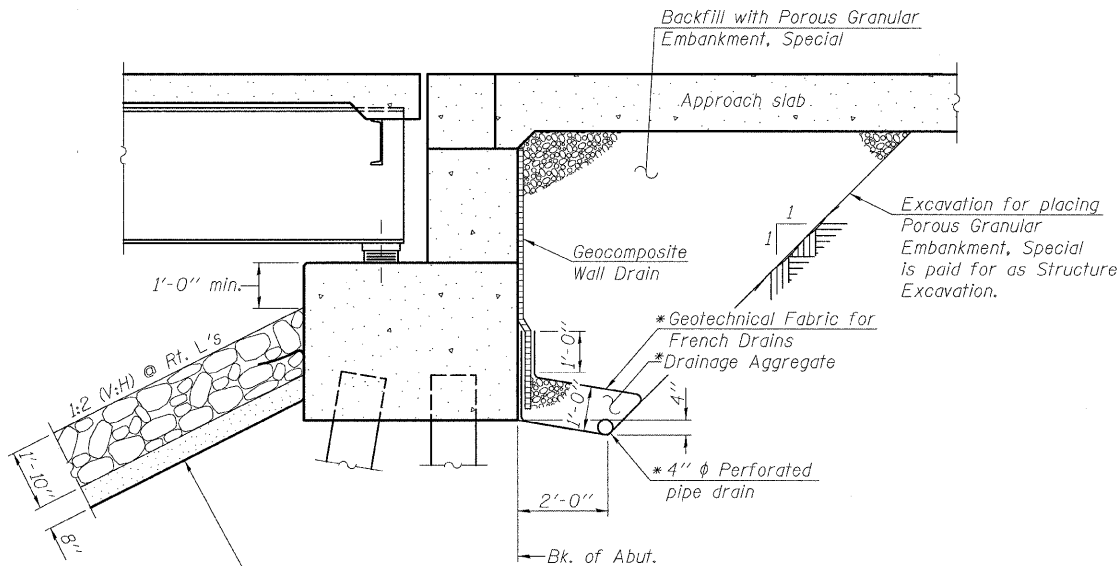
Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.

Slip forming of the parapets is not allowed.  
The Contractor is alerted that the camber and dead load deflection values shown within the drawings were developed based on the deck pouring sequence shown on sheet 16 of 48. Any deviation from this pouring sequence may require changes to the camber, dimensions, and elevations derived from the dead load deflections. If the Contractor elects to vary from the pouring sequence shown on the contract documents, an evaluation of the structure shall be performed by an Illinois Licensed Structural Engineer retained by the Contractor. Calculations and any revised details shall be submitted to the Engineer for review and approval.

The erection of the structural steel shall be accomplished by a steel erection contractor or sub-contractor certified as an Advanced Certified Steel Erector (ACSE) by AISC. See special provision for "Erection of Complex Steel Structures".

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment, Special	Cu. Yd.		372	372
Stone Riprap, Class A5	Sq. Yd.		1,115	1,115
Filter Fabric	Sq. Yd.		1,553	1,553
Removal of Existing Structures	Each			1
Structure Excavation	Cu. Yd.		861	861
Concrete Structures	Cu. Yd.		916.0	916.0
Concrete Superstructure	Cu. Yd.	2,057.4		2,057.4
Bridge Deck Grooving	Sq. Yd.	5,597		5,597
Protective Coat	Sq. Yd.	7,590		7,590
Furnishing and Erecting Structural Steel	L Sum	1		1
Stud Shear Connectors	Each	11,760		11,760
Reinforcement Bars	Pound		502,040	502,040
Reinforcement Bars, Epoxy Coated	Pound	581,030	135,020	716,050
Bar Splicers	Each		114	114
Slope Wall 4 Inch	Sq. Yd.		46	46
Bituminous Coated Aggregate Slope Wall, 6"	Sq. Yd.		379	379
Furnishing Metal Shell Piles 14" x 0.312"	Foot		3,696	3,696
Driving Piles	Foot		3,696	3,696
Test Pile Metal Shells	Each		2	2
Name Plates	Each	1		1
Drilled Shaft in Soil	Cu. Yd.		1,353.8	1,353.8
Drilled Shaft in Rock	Cu. Yd.		122.4	122.4
Finger Plate Expansion Joint, 4"	Foot	112		112
Fabric Reinforced Elastomeric Trough	Foot	124		124
Elastomeric Bearing Assembly, Type III	Each		14	14
Anchor Bolts, 1/2"	Each		98	98
Concrete Sealer	Sq. Ft.		2,102	2,102
Geocomposite Wall Drain	Sq. Yd.		139	139
Pipe Underdrains for Structures 4"	Foot		166	166
Drainage Scuppers, DS-11	Each	18		18
High Load Multi-Rotational Bearings, Fixed - 800k	Each	7		7
High Load Multi-Rotational Bearings, Fixed - 1250k	Each	14		14
Mechanical Splicers	Each		792	792
Drainage System	L Sum	1		1



SECTION THRU PILE SUPPORTED  
STUB ABUTMENT  
(Horiz. dim.  $\odot$  Rt. L's)

\*Included in the cost of Pipe Underdrains for Structures.

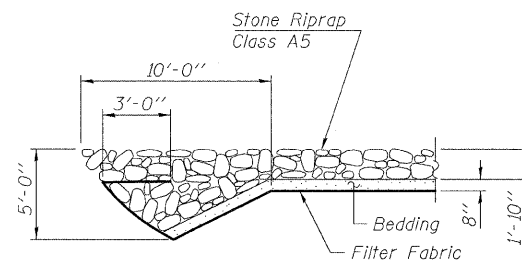
Note:

All drainage system components shall extend parallel to the abutment back wall until they intersect the wingwalls or 2'-0" from the end of the wingwalls when the wings are parallel to the abutment. The pipe shall extend under the wingwall, if necessary, until intersecting the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

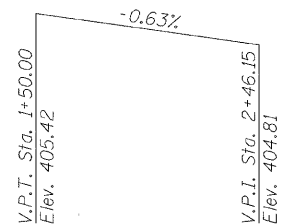
Stone Riprap, Class A5  
at N. Abut., Bit. Coated  
Aggregate Slope Wall 6"  
at S. Abut.

STATION 281+15.00  
BUILT 2011 BY  
STATE OF ILLINOIS  
F.A.P. RT. 312 SEC. 64-1VBR  
LOADING HL-93  
STRUCTURE NO. 082-0038

NAME PLATE  
See Std. 515001

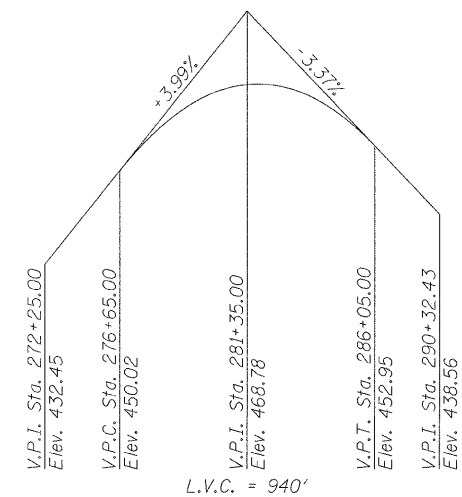


TOE STONE RIPRAP DETAIL  
(On all 4 sides of Piers 1 & 2)



PROFILE GRADE

(Along  $\odot$  Metro East Levee Trial)



PROFILE GRADE

(2'-0" Left and 2'-0" Right of  $\odot$  F.A.P. Rt. 312)

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GENERAL DATA

STRUCTURE NO. 082-0038

WATERWAY INFORMATION

Drainage Area = 38.5 Low Grade Elev. 451.58  $\odot$  Sta. 277+06

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exlst.	Prop.		Exlst.	Prop.	Exlst.	Prop.
Design	50	17,700	3,571	3,610	414.33	0.03	0.01	414.36	414.34
Base	100	19,500	3,728	3,825	414.88	0.04	0.00	414.92	414.88
Overtopping	N/A								
Max. Calc.	500	21,800	3,867	3,906	415.36	0.04	0.00	415.40	415.36

Waterway information includes 10 year Mississippi River backwater.

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	N. Abut.	Pier 1	Pier 2	Pier 3	S. Abut.
	432.19	390.50	391.50	405.00	436.73

HORNER &  
SHIFRIN, INC.  
ENGINEERS

SHEET NO. 2	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
48 SHEETS	312	64-1VBR	ST. CLAIR	259	54
CONTRACT NO. 76882					
ILLINOIS FED. AID PROJECT					