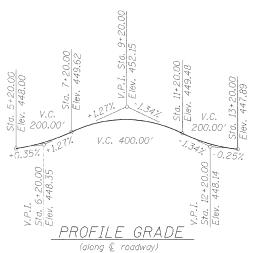


\* Included in the cost of Pipe Underdrains for Structures.

No

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

## SECTION THRU INTEGRAL ABUTMENT



Transition P.G. from © roadway at Sta. 6+98.50 to local tangent Sta. 8+29.26 at Bk. West Abut.

P.G. from Bk. West Abut. to PT Sta. 8+29.26 follows local tangent Sta. 8+29.26

DESIGNED ADL

CHECKED WLW

DRAWN BGJ

CHECKED WLW

STATION 9+14.50
BUILT 200\_ BY
STATE OF ILLINOIS
F.A.S. RTE. 1780 SEC. 27-1BR-1
LOADING HL-93
STR. NO. 014-0077

NAME PLATE
See Std. 515001
(1 Required)

## 

## GENERAL NOTES

Fasteners shall be AASHTO MI64 Type 1, mechanically galvanized bolts in painted areas and MI64 Type 3 in unpainted areas. Bolts  $^3_4$ -in.  $\phi$ , holes  $^{13}_{16}$ -in.  $\phi$ , unless otherwise noted.

Calculated weight of Structural Steel = 400,430 lbs.

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

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.

Bearing seat surfaces shall be constructed or adjusted to their designated elevations within a tolerance of  $^{l}_{8}$  inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.

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 permanent locations at substructures specified or approved by the Engineer before ordering the remainder of piles.

In lieu of the hammer selection criteria and use of the FHWA Modified Gates formula specified in Section 512 of the Standard Specifications, the Contractor shall conduct a wave equation analysis to establish the driving criteria at all pile foundations which specify a nominal required bearing above 600 kips. The analysis and calculations shall be submitted to the Engineer for approval.

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 for approval with the cofferdam design to the Engineer.

Two  $^{\prime}_{8}$  in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

Slipform Parapets will not be allowed.

## TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Furnishing and Erecting Structural Steel	L. Sum	1		1
Stud Shear Connectors	Each	6228		6228
Test Pile Steel HP12x53	Each		2	2
Test Pile Steel HP14x73	Each		2	2
Test Pile Steel HP14x89	Each		2	2
Name Plates	Each	1		1
Porous Granular Embankment (Special)	Cu. Yd.		133	133
Stone Riprap, Class A5	Sq. Yd.		2571	2571
Stone Dumped Riprap, Class A5	Ton		704	704
Filter Fabric	Sq. Yd.		2890	2890
Prctective Coat	Sg. Yd.	1685		1685
Structure Excavation	Cu. Yd.		214	214
Removal of Existing Structures	Each			1
Anchor Bolt 1" Ø	Each		72	72
Concrete Structures	Cu. Yd.		348.0	348.0
Concrete Superstructure	Cu, Yd.	456.5		456.5
Bridge Deck Grooving	Sq. Yd.	1340		1340
Reinforcement Bars, Epoxy Coated	Pound	110,250	39,680	149,930
Bar Splicers	Each	64		64
Furnishing Steel Piles HP12x53	Foot		495	495
Furnishing Steel Piles HP14x73	Foot		735	735
Furnishing Steel Piles HP14x89	Foot		875	875
Driving Piles	Foot		2105	2105
Cofferdam Excavation	Cu. Yd.		498	498
Cofferdam (Pier 2)	Each		1	1
Cofferdam (Pier 3)	Each		1	1
Seal Coat Concrete	Cu. Yd.		108.1	108.1
Floor Drains	Each	32		32
Concrete Encasement	Cu. Yd.		13.0	13.0
Geocomposite Wall Drain	Sq. Yd.		83	83
Pipe Underdrains for Structures, 4''	Foot		138	138
Mechanical Splice	Each		238	238

TOTAL BILL OF MATERIAL,
GENERAL NOTES & DETAILS
FAS RTE 1780 (OLD US 50) OVER
SUGAR CREEK
SECTION 27-1BR-1
CLINTON COUNTY
STATION 9+14.50
STRUCTURE NUMBER 014-0077

Klingner & Assoc., P.C.