SECTION THRU INTEGRAL ABUTMENT (Horiz, dim. @ Rt. L's)

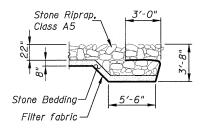
2'-0"

Bk. of Abut.

*Included in the cost of Pipe Underdrains for Structures.

Note:

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).



STONE RIPRAP FLANK DETAIL

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	В. G. Н.

TOTAL BILL OF MATERIAL

	ITEM	UNIT	SUPER	SUB	TOTAL
	Porous Granular Embankment (Special)	Cu. Yd.		127	127
	Stone Riprap, Class A5	Sq. Yd.		2,821	2,821
	Filter Fabric	Sq. Yd.		2,821	2,821
	Removal of Existing Structures	Each			1
	Structure Excavation	Cu. Yd.		471	471
	Floor Drains	Each	26		26
	Concrete Structures	Cu. Yd.		296.9	296.9
	Concrete Superstructure	Cu. Yd.	473.1		473.1
	Bridge Deck Grooving	Sq. Yd.	1,561		1,561
	Concrete Encasement	Cu. Yd.		21.8	21.8
*	Protective Coat	Sq. Yd.	1,981		1,981
i	Precast Concrete Bridge Slab	Sq. Ft.	2,270		2,270
	Furnishing and Erecting Structural Steel	L. Sum	1		1
	Stud Shear Connectors	Each	6,552		6,552
*	Reinforcement Bars, Epoxy Coated	Pound	121,760	33,180	154,940
*	Bar Splicers (E)	Each	1,234	172	1,406
	Furnishing Steel Piles HP 12x63	Foot		775	775
	Furnishing Steel Piles HP 14x89	Foot		2,268	2,268
	Driving Piles	Foot		3,043	3,043
	Test Pile Steel HP 12x63	Each		2	2
	Test Pile Steel HP 14x89	Each		4	4
	Temporary Sheet Piling	Sq. Ft.		3,403	3,403
	Name Plates	Each	1		1
	Anchor Bolts, 1"	Each		72	72
	Geocomposite Wall Drain	Sq. Yd.		68	68
	Pipe Underdrains for Structures 4"	Foot		152	152
	Asbestos Bearing Pad Removal	Each	140		140
	Mechanical Splice	Each		180	180
	Drainage Scuppers, DS-11	Each	2		2
	Underwater Structure Excavation Protection - Location 1	Each		Í	1
	Underwater Structure Excavation Protection - Location 2	Each		1	1
	Concrete Wearing Surface, 5"	Sq. Yd.	253		253

- * Quantity includes top of concrete surface of bridge deck and approach slab end to end and the top and inside vertical faces of the parapets.
- ** Bridge Approach Slab and Footing Reinforcement and Bar Splicer quantities are included in Superstructure quantities.

GENERAL NOTES

- 1. 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.
 - If the Contractor's procedures for existing beam removal involves placement of heavy equipment on the existing deck beams, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations, sealed by an Illinois Licensed Structural Engineer, verifying the structural adequacy of the beams for the proposed loads. Cost included with Removal of Existing Structures.
- 2. Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts $\frac{3}{4}$ in. ϕ , holes $\frac{15}{16}$ in. ϕ , unless otherwise noted.
- 3. Calculated weight of Structural Steel = 31,510 lbs. (M270, Grade 36) 311.680 lbs. (M270. Grade 50)
- 4. 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.
- 6. Reinforcement bars designated (E) shall be epoxy coated.
- 7. Bearing seat surfaces shall be constructed or adjusted to their designated elevations within a tolerance of l_B inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.
- 8. 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".
- 9. Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
- 10. 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.
- 11. 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.
- 12. Slipforming of the parapets is not allowed.

GENERAL DATA

SHEET NO. 2	F.A.P. RTE.	SECTION			COUNTY	TOTAL SHEETS	SHEET NO.
Office 1 110.	805	126-BR-1			CLINTON	35	3 3
34 SHEETS	S.N. 014-0078			CONTRACT	NO. 76	976	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT							

Excavation for placing

Embankment (Special)

is paid for as Structure

Porous Granular

French Drains

*Drainage Aggregate

o Perforated

pipe drain