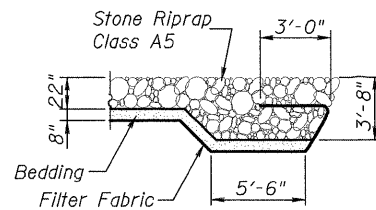


**SECTION THRU INTEGRAL ABUTMENT**  
(Horiz. dim. @ Rt. L's)

\*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**

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment (Special)	Cu. Yd.	150		150
Stone Riprap, Class A5	Sq. Yd.	752		752
Filter Fabric	Sq. Yd.	752		752
Removal of Existing Structures	Each			1
Structure Excavation	Cu. Yd.	229		229
Floor Drains	Each	12		12
Concrete Structures	Cu. Yd.	72.5		72.5
Concrete Superstructure	Cu. Yd.	270.3		270.3
Bridge Deck Grooving	Sq. Yd.	594		594
Concrete Encasement	Cu. Yd.	4.2		4.2
** Protective Coat	Sq. Yd.	723		723
Furnishing and Erecting Structural Steel	L. Sum	1		1
Stud Shear Connectors	Each	2,256		2,256
*** Reinforcement Bars, Epoxy Coated	Pound	61,410	7,340	68,750
*** Bar Splicers	Each	575		575
Furnishing Steel Piles HP 12x74	Foot		216	216
Name Plates	Each	1		1
Anchor Bolts, 1"	Each		32	32
Geocomposite Wall Drain	Sq. Yd.		74	74
Pipe Underdrains for Structures 4"	Foot		155	155
Asbestos Bearing Pad Removal	Each	24		24
Setting Piles in Rock	Each		12	12
Temporary Soil Retention System	Sq. Ft.		368	368

\*\* 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 and curbs.

\*\*\* Reinforcement and Bar Splicer quantities for Bridge Approach Slabs and Footings are included in Superstructure quantities.

**GENERAL NOTES**

- 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.
- Drill through existing footings, as necessary, where in conflict with piles. Cost included in Setting Piles in Rock.
- Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts  $\frac{3}{4}$  in.  $\phi$ , holes  $\frac{15}{16}$  in.  $\phi$ , unless otherwise noted.
- Calculated weight of Structural Steel = 114,030 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. 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.
- 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 slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
- Slipforming of the parapets is not allowed.
- Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure. The Contractor shall sawcut the upper portion of the existing abutment at the stage removal line before Stage I removal to ensure the remaining portion will not be prematurely damaged.

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

**GENERAL DATA**

SHEET NO. 2	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	328	(4BR-1)B	CLAY	42	20
21 SHEETS	S.N. 013-0039		CONTRACT NO. 74310		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		