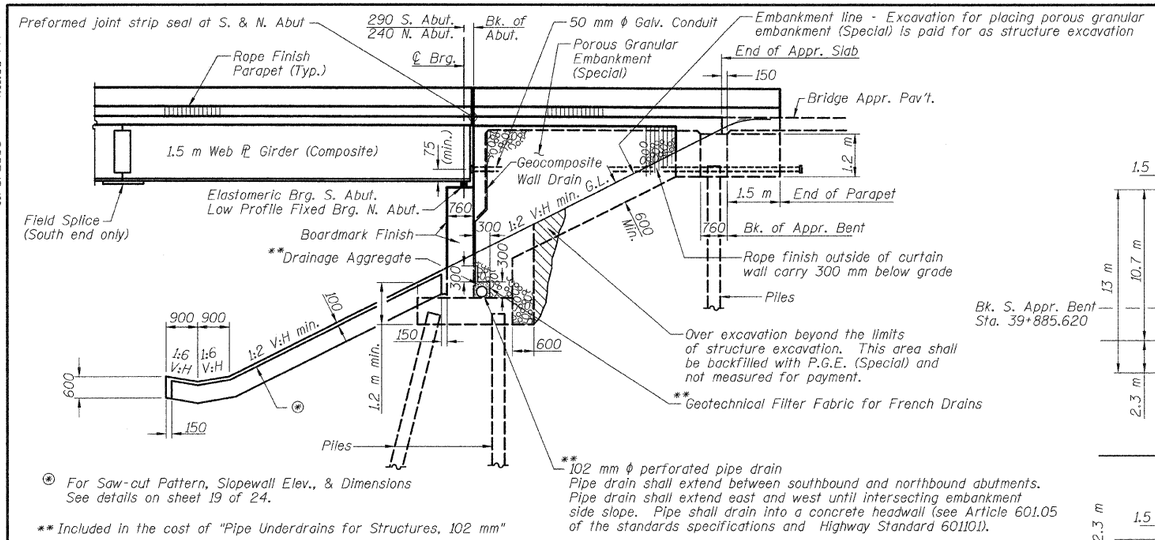


⊛ For Saw-cut Pattern, Slopewall Elev., & Dimensions See details on sheet 19 of 24.

** Included in the cost of "Pipe Underdrains for Structures, 102 mm"

VAULTED ABUTMENT AND SLOPEWALL DETAILS

GENERAL NOTES

Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts M22, open holes 24 mm ϕ, unless otherwise noted.

Calculated mass of Structural Steel = 201,390 kg (M270M Grade 345)
11,150 kg (M270M Grade 250)

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 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 girders shall be Reddish Brown, Munsell No. 2.5 YR 3/4. See special provision for "Cleaning and Painting New Metal Structures".

Concrete Sealer shall be applied to seat areas of the abutments, front faces of backwalls, and front faces of abutments.

All construction joints shall be bonded.

No field welding is permitted except as specified in the contract documents.

The structural steel bearing plates of the Elastomeric Bearing Assembly shall conform to the requirements of AASHTO M 270M Grade 345.

Reinforcement bars shall conform to the requirements of ASTM A 706M Gr 420 (IL Modified). See Special Provisions.

Reinforcement bars designated (E) shall be epoxy coated.

Slope wall shall be reinforced with welded wire fabric, 152 x 152-MW25.8 x MW25.8 with a mass of 2.91 kg/m².

The embankment configuration shown shall be the minimum embankment that must be constructed prior to construction of the abutments.

All cross frames shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames at supports may be temporarily disconnected to install bearing anchor rods.

Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.

Piles shall be driven through 380 mm diameter precored holes extending to elevation 186.0 at South Approach Bent & Elevation 187.0 at North Approach Bent according to Article 512.09(c) of the Standard Specifications. Cost included in driving piles.

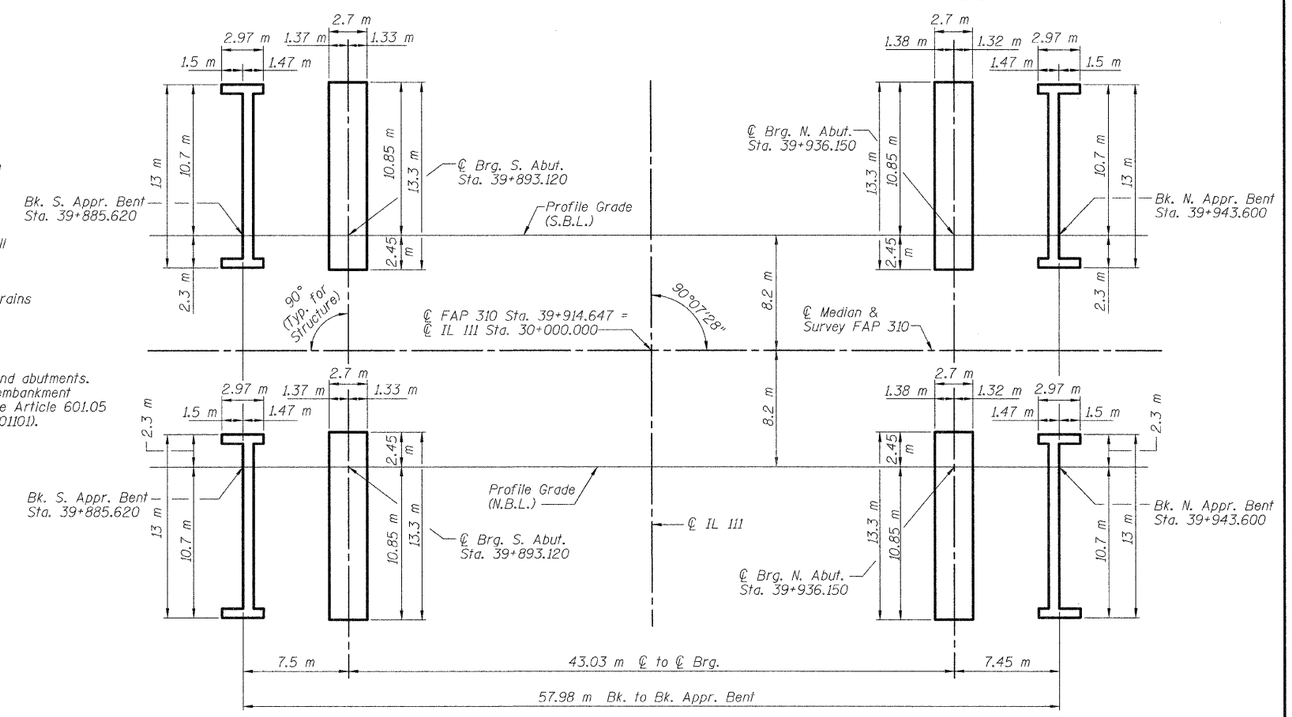
The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at substructures specified or approved by the Engineer before ordering the remainder of piles.

The contractor shall drive two (2) metal shell test piles in a permanent location shown on the following chart as directed by the Engineer before ordering the remainder of piles.

	S. Appr. Bent	S. Abut.	N. Abut.	N. Appr. Bent
N.B. Structure			1	
S.B. Structure		1		

All dimensions are in millimeters (mm) except as noted.

Slip Forming Parapets are not allowed.

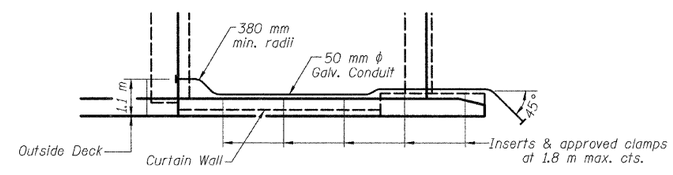


FOOTING LAYOUT

TOTAL BILL OF MATERIAL

	ITEM	UNIT	SUPER	SUB	TOTAL
	Floor Drains	Each	8		8
	Elastomeric Bearing Assembly, Type I	Each	12		12
	Furnishing and Erecting Structural Steel	Lump Sum	1		1
	Stud Shear Connectors	Each	2880		2880
	Test Pile Metal Shells	Each		2	2
	Name Plates	Each	2		2
	Stone Riprap, Class A3	m²		303	303
	Filter Fabric	m²		303	303
**	Protective Coat	m²	1662		1662
	Structure Excavation	m³		664	664
	Preformed Joint Strip Seal	m	50.5		50.5
	Concrete Structures	m³		371.9	371.9
	Concrete Superstructure	m³	452.4		452.4
**	Bridge Deck Grooving	m²	1377		1377
	Reinforcement Bars, Epoxy Coated	kg	59,300	26,820	86,120
	Furnishing Metal Shell Piles 356mmx6.35mm	m		1890.5	1890.5
	Driving Piles	m		1890.5	1890.5
	Concrete Sealer	m²		268	268
	Slope Wall, Special	m²		717	717
	Form Liner Textured Surface	m²	51	316	367
	Pipe Underdrains for Structures, 100 mm	m		132	132
	Geocomposite Wall Drain	m²		217	217
	Porous Granular Embankment (Special)	m³		684	684

** Quantity includes Approach Slabs



PARTIAL PLAN OF VAULTED ABUTMENT

Showing Electrical Conduit

Cost of 50 mm ϕ galv. conduit is included with "Concrete Structure"

DESIGNED	ADL
CHECKED	WLW
DRAWN	DGM/ADL
CHECKED	WLW

TOTAL BILL OF MATERIAL, GENERAL NOTES & FOOTING LAYOUT
FAP RTE 310 (IL RTE 255) OVER
IL RTE 111
SECTION 60-15HB-2
MADISON COUNTY
STATION 39+914.647
SN 060-0330 (NB) & 060-0331 (SB)