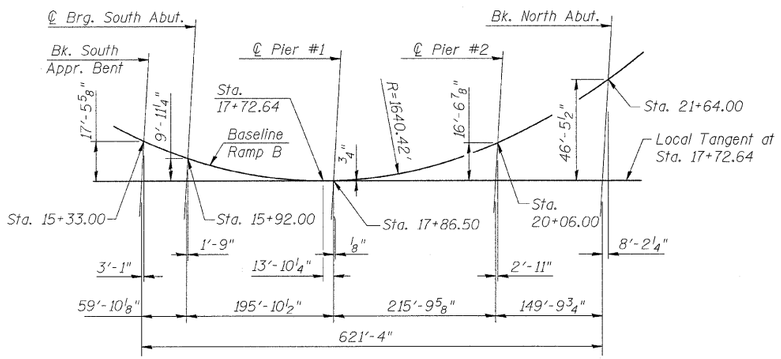
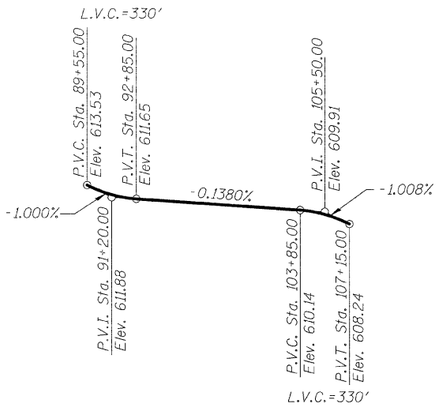
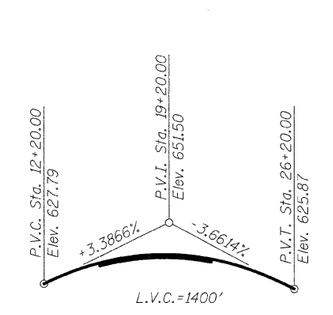


OFFSET SKETCH



PROFILE GRADE FAP RTE. 310

(Along Median Edge)



PROFILE GRADE RAMP B (FLYOVER)

(Along Baseline)

TOTAL BILL OF MATERIAL

	ITEM	UNIT	SUPER	SUB	TOTAL
	Furnishing and Erecting Structural Steel	LUMP SUM	1		1
	Stud Shear Connectors	EACH	4144		4144
	Test Pile Metal Shells	EACH		5	5
	Name Plates	EACH		1	1
	Porous Granular Embankment (Special)	CU YD		117	117
	Furnishing and Erecting Precast Prestressed Concrete I-Beams, 36 in.	FOOT	339		339
***	Stone Riprap, Class A3	SQ YD		1310	1310
	Stone Riprap, Class A1	SQ YD		218	218
**	Filter Fabric	SQ YD		1528	1528
	Protective Coat	SQ YD	2755		2755
	Structure Excavation	CU YD		707	707
	Preformed Joint Strip Seal	FOOT	34		34
	Modular Expansion Joint - Swivel 6"	FOOT	37		37
	Concrete Structures	CU YD		520.4	520.4
	Concrete Superstructure	CU YD	721.1		721.1
	Bridge Deck Grooving	SQ YD	2232		2232
	Reinforcement Bars, Epoxy Coated	POUND	162,880	50,770	213,650
	Bar Splicers	EACH		36	36
	Furnishing Metal Shell Piles 14" x 0.250"	FOOT		4098	4098
	Driving Piles	FOOT		4098	4098
	Concrete Sealer	SQ FT		1063	1063
	Slope Wall 4 inch	SQ YD		79	79
	HLMR Bearings, Fixed - 600K	EACH	6		6
	HLMR Bearings, Guided Expansion, 200K	EACH	6		6
	HLMR Bearings, Guided Expansion, 450K	EACH	6		6
	HLMR Bearings, Guided Expansion, 150K	EACH	6		6
	Form Liner Textured Surface	SQ FT		3380	3380
	Paved Ditch (Special)	FOOT		182	182
	Geocomposite Wall Drain	SQ YD		43	43
	Pipe Underdrain for Structures, 4"	FOOT		93	93
	Anchor Bolts, 1"	EACH		48	48
	Anchor Bolts, 1 1/2"	EACH		60	60

** Filter Fabric shall be used under Stone Riprap Class A1 & A3. See details on sheets 2 & 3 of 47.

*** Class A1 bedding under Stone Riprap, Class A3 is included in the cost of "Stone Riprap, Class A3"

GENERAL NOTES

Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts.
Bolts 7/8-in. ϕ, holes 15/16-in. ϕ, unless otherwise noted.
Calculated weight of Structural Steel = 1,449,980 lbs. (M270 Grade 50)
5,220 lbs. (M270 Grade 36)

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".

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 1/8 inch (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 South & North abutments.

Concrete slope wall & paved ditch shall be reinforced with welded wire fabric, 6"x6"-W4.0xW4.0, weighing 58 lbs. per 100 sq. ft.

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

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.

All test piles shall accommodate dynamic pile monitoring per special provision cost included with "Test Pile Metal Shells".

All cross Frames between girders shall be installed with erection pins and bolts in accordance with the erection plan approved by the engineer. 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.

Modular expansion joints shall be assembled in their final relative position with the ends in place for shop inspection and acceptance.

The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50.

Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

Piles shall be driven through 15" diameter precored holes extending to elevation 615.00 at the South Approach Bent and elevation 611.00 at the North Abutment according to Article 512.09(c) of the Standard Specifications. Cost included in driving piles.

When the deck pour is stopped for the day at one or more of the transverse Bonded Construction Joints in the Deck Pouring Sequence as shown on sheet #10 of 47, the next pour shall not be made until both of the following requirements are met:

1. At least 72 hours shall have elapsed from the end of the previous pour.
2. The concrete strength shall have attained a minimum flexural strength of 650 psi or a minimum compressive strength of 3500 psi.

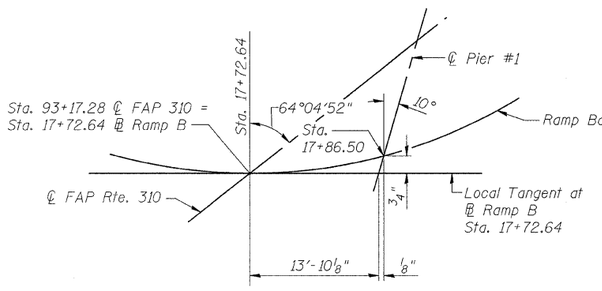
All construction joints shall be bonded.

The steel plate girders and cross frames shall be detailed, fabricated and erected such that the girders are plumb following erection of all structural steel.

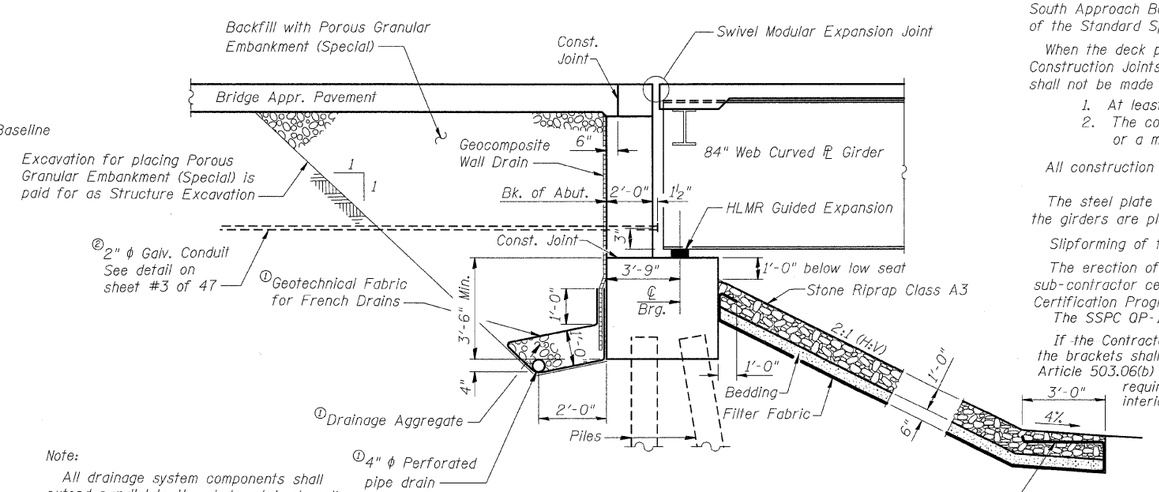
Slipforming of the parapets is not allowed.

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 the AISC Certification Program. See special provision for Erection of Curved Steel Superstructures. The SSPC QP-1 Painting Contractor Certification will be required for this Contract.

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.



DETAIL "A"



SECTION THRU NORTH ABUTMENT

(Dimensions are at Rt. L's to abutment, unless noted)

① Included in the cost of Pipe Underdrains for Structures, 4".
② Cost included with "Concrete Structures"

Note:
All drainage system components shall extend parallel to the abutment back wall until they intersect the wingwalls. The pipe shall extend under the wingwall, until intersecting the sides slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

DESIGNED	ADL
CHECKED	WLW
DRAWN	BGJ
CHECKED	WLW

STATION 93+17.28
BUILT 200_ BY
STATE OF ILLINOIS
F.A.P. RT. 310 SEC. 60-15HB-3
LOADING HS20
STR. NO. 060-0332

NAME PLATE

See Std. 515001
(1 Required)

TOTAL BILL OF MATERIAL, GENERAL NOTES AND DETAILS RAMP B OVER FAP RTE. 310 SECTION 60-15HB-3 MADISON COUNTY STATION 17+72.64 (RAMP B) SN 060-0332

Klingner & Assoc., P.C.