Fasterners shall be high strength bolts. Bolts ${}^{7}_{8}$ " ϕ , open holes ${}^{15}_{16}$ " ϕ , unless otherwise noted.

Calculated weight of Structural Steel: AASHTO M270 Grade 36 = E.B. 39,690 lbs - W.B. 40,040 lbs. Expansion joint plates and attached bars shall be shop painted with the inorganic zinc rich primer.

Field welding of construction accessories will not be permitted to beams or airders.

Anchor bolts shall be set before bolting diaphragms over supports.

The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These components are the wide flange beams and all splice plate material except fill plates.

Reinforcement bars shall conform to the requirements of AASHTO M 31 or M 322 Grade 60.

Slope wall shall be reinforced with welded wire fabric, 6"x6"-W4.0xW4.0. weighing 58 lbs. per 100 Sq. Ft.

Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price for the work.

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of ${}^{l}_{B}$ inch. Adjustment shall be made either by grinding the surface or by shimming the bearing. Two \(\frac{l}{B}'' \) adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims.

The contractor shall drive one HPIOx42 test pile at the Abutments and Pier #2 for the E.B. & W.B. structures in a permanent location as directed by the Engineer before ordering the remainder of piles.

Prior to pouring the new concrete deck, all loose rust, loose mill scale, and other loose potentially detrimental foreign material shall be removed from the surfaces of the beams or girders in contact with concrete. The cost of this work will be included in the pay item covering removal of the existing concrete, All heavy rust and other tightly adhered potentially detrimental foreign matter shall also be removed from the surfaces of the beams or girders in contact with concrete. Tightly adhered paint may remain unless otherwise noted. This removal shall be accomplished by methods that will not damage the steel. The cost of this work will be paid for according to Article 109.04.

All existing construction accessories welded to the top flange over the pier between the quarter points of the beams or girders shall be removed. The remaining weld shall be ground smooth and inspected for cracks using magnetic particle testing. Any cracks that cannot be removed by grinding approximately 14 inch deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of this work will be paid for according to Article 109,04.

Concrete Sealer shall be applied to the seat area of the abutment extensions. The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

The existing structural steel shall be painted, cleaned, and lead coatings removed under a separate contract.

All Construction joints shall be bonded.

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 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.

No deck drains will be permitted in the span over tracks or within 10' of crossarms of a railroad pole line.

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 Interstate Green Munsell No. 7.5G 4/8. See Special Provisions for "Cleaning and Painting New Metal Structures".

Drains shall be located clear of all diaphragms.

If the Contractor chooses to after the temporary contilevered sheet piling design requirements shown on the plans a design submittal including plan details and calculations will be required for review and acceptance by the Engineer.

Top of slob elevations were set using the proposed profile grade shown on this sheet to account for a future mill of $\frac{1}{4}$ " and an overlay of $3\frac{3}{4}$ ".

The Steel H-piles shall be according to AASHTO M270 Grade 50.

The test piles shall be driven to 110 percent of the Nominal Required Bearing indicated in the pile data information.

General Plan and Elevation W.B. West Abutment Concrete Removal General Notes and Bill of Material W.B. West Abutment Stage Construction Details W.B. West Abutment Details Temporary Concrete Barrier 27. W.B. East Abutment Concrete Removal Top of Slab Elevations-(W.B.) 28. W.B. East Abutment 8.-10. Top of Slab Elevations-(E.B.) 29. W.B. East Abutment Details Superstructure-Westbound 30. E.B. West Abutment Concrete Removal 12.-13. Superstructure Details-Westbound 31. E.B. West Abutment Superstructure-Fastbound E.B. West Abutment Details 33. 15.-16. Superstructure Details-Eastbound E.B. East Abutment Concrete Removal Drainage Scuppers, DS-11 E.B. East Abutment Bridge Joint System-Expansion 35. F.R. Fast Abutment Details (Preformed Joint Seal) 36. Pier Concrete Removal 37. Bridge Joint System-Expansion W.B. Piers 1-3 (Alternate-Strip Seal) 38. E.B. Piers 1-3 Structural Steel Framing Plan 39 Substructure Repairs Structural Steel Details 40. Bar Splicer Assembly Details

41.-44. Borings

Existing Slope Wall to be removed

and replaced with 6" Bituminous

Coated Aggregate Slopewall

Slope as required

2'-0"

N.40 (V:H

2" P.J.F. all

around pier

at ends of piers

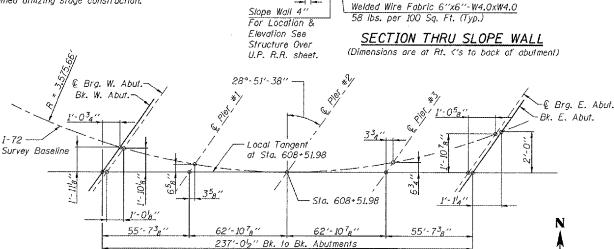
INDEX OF SHEETS

PROPOSED IMPROVEMENTS

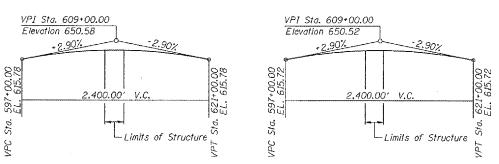
Bearing Details

Anchor Bolt Assembly Details

Existing dual structures to be widened. Existing concrete deck to be removed and widened using staged construction. Superstructure will be widened by adding one new beam line, utilizing the same type of beam and bearings as the existing structure. All diaphragms at the abutments to be replaced. Existing Structural Steel shall be cleaned and painted under a seperate contract. Existing wingwalls and backwalls to be removed, abutments to be widened. Pier cap cantilevers removed, piers to be widened and repaired at locations of cracks and spalled areas. East and West slopewall to be removed and replaced. Existing approach pavements to be removed and replaced with 30' bridge approach pavements. Traffic to be maintained utilizing stage construction.



6"



OFFSET SKETCH

1-72 Survey Baseline

I-72 W.B. PROPOSED PROFILE GRADE I-72 E.B. PROPOSED PROFILE GRADE

(I-72 WB & EB Proposed Profile Grades shown above are a best fit vertical curve that was based on a survey of the existing deck, and were adjusted to account for a future mill of $\frac{1}{4}$ " and an overlay of $3\frac{3}{4}$ ".

L*Drainage Aggregate *4" Perforated 2'-0" Pipe Drain Bk. of Abut. -I'-O" min. 4'-4" Low Bearing SECTION THRU ABUTMENT

2'-0" or 5'-0"

See sheet O1 of 44.

- Edge of Deck

4" Preform<u>ed</u>

Joint Seal

Bituminous Coated

2'-558" at Rt. <'s

€ Brg.-

Aggregate Slopewall 6'

SECTION A-A

Steel Rocker

1'-0" min.

Bearinas

Pipe Underdrains for Structures 4". 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

*Included in the cost of

SHEET

255

JOIAL

559

*(84-9-4)A.HBK.BY.BY-)

SANGAMON

Backfill with uncompacted Porous Granular

Embankment (Special) by Bridge Contractor.

Porous Granular Embankment (Special)

Excavation is paid for as

Structure Excavation.

*Geotechnical Fabric

for French Drains

-Approach Pavement

ILLUNCIS FED. ATO PROJE

SHEET NO. 02

Contract No 7254

44 SHEETS

Specifications and Highway Standard 601101). 4" \$\phi\$ Perforeated Pipe Drain shall be capped at the pipes (Dimensions at Rt. <'s to Bk. of Abutment) high end, adjacent to wingwall. Cost included with Pipe Underdrains for Structures 4".

TOTAL BILL OF MATERIAL

POUTE NO.

FAI 72

Existing Bridge Approach Pavement

to be removed and replaced with 30°

Existing Backwall to be

removed and replaced

Wall Drain

Bridge Approach Pavement (Std. 420401)

	7 9 7 7 1 500 507 50 500 507 777 777 500 77 50 77 50					
	ITEM	UNIT	SUPER	SUB	TOTAL	
	Concrete Removal	Cu. Yd.	-	117.6	117.6	
	Slope Wall Removal	Sq. Yd.	1	2100	2100	
	Removal of Existing Concrete Deck	Each	2	-	2	
	Porous Granular Embankment, Special	Cu, Yd.		132	132	
	Structure Excavation	Cu. Yd.		697	697	
	Floor Drains	Each	12	-	12	
	Concrete Structures	Cu. Yd.	-	340.0	340.0	
	Concrete Superstructure	Cu. Yd.	657.3	-	657.3	
	Bridge Deck Groaving	Sa. Yd.	1966	~	1966	
	Protective Coat	Sq. Yd.	2502	-	2502	
	Structural Repair of Conc. (Depth eq. to or less than 5")	Sa. Ft.	-	33	33	
	Furnishing and Erecting Structural Steel Bridge No. 1	L. Sum	1	-	1	
	Furnishing and Erecting Structural Steel Bridge No. 2	L. Sum	1	-	1	
but.	Stud Shear Connectors	Each	10710	+	10710	
	Structural Steel Removal	Pound	2920	-	2920	
	Reinforcement Bars, Epoxy Coated	Pound	148700	39400	188100	
	Slope Wall 4''	Sq. Yd.	-	152	152	
	Bituminous Coated Aggregate Slopewall 6''	Sq. Yd.	-	1982	1982	
	Furnishing Steel Piles HP10x42	Foot	-	1425	1425	
	Driving Piles	Foot	-	1425	1425	
	Test Pile Steel HPI0x42	Each	-	6	6	
	Temporary Sheet Piling	Sq. Ft.		1105	1105	
	Name Plates	Each	2	~	2	
	Concrete Sealer	Sq. Ft	98	98		
	Drainage Scuppers, DS-11	Each	4	,	4	
	Bridge Joint System (Expansion) 1 ⁵ 8"	Foot	187	-	187	
	Temporary Shoring and Cribbing	L. Sum	1	-	1	
	Bar Splicers	Each	1374	231	1605	
	Protective Shield	Sq. Yd.	1007	-	1007	
	Pipe Underdrains for Structures 4"	Foot	-	208	208	
	Geocomposite Wall Drain	Sq. Yd.	-	75	75	
7-{	Concrete Encasement	Cù. Yd.	******	4.4	4.4	
	Corocrate / ica	aca Kumb	AF 194-0	01-084	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
,	Fact Pail Corporate Lice	nse Numt	er 184-U	OI^{\perp}	UB4	

Roil	East Rail		
Elevation	Station	Elevation	
605.31	0+00.03	605.33	
605.32	0+67.76	605.35	
605.26	1+83.48	605.25	
605.24	2+80.71	605.24	
605.12	3+81.74	605.13	
605.26	4+81.69	605.24	
605.39	5+78.51	605.36	
	Elevation 605.31 605.32 605.26 605.24 605.12 605.26	Elevation Station 605.31 0+00.03 605.32 0+67.76 605.26 1+83.48 605.24 2+80.71 605.12 3+81.74 605.26 4+81.69	

All discrepencies shall be brought to the attention of the Field Engineer.

EXISTING TOP OF RAIL ELEVATIONS UP R.R.

GENERAL NOTES & BILL OF MATERIAL F.A.I. 72 OVER UNION PACIFIC RAILROAD SECTION (84-9-4)A.HBK.BY.BY-1 SANGAMON COUNTY

STATION 608+51.98 STR NO. 084-0074 EB - 084-0075 WB

(C) Copyright Hanson Professional Services Inc. \$MS, YEARS



96S2002B 01/12/06

/1\ Revised 02/09/07 Rod