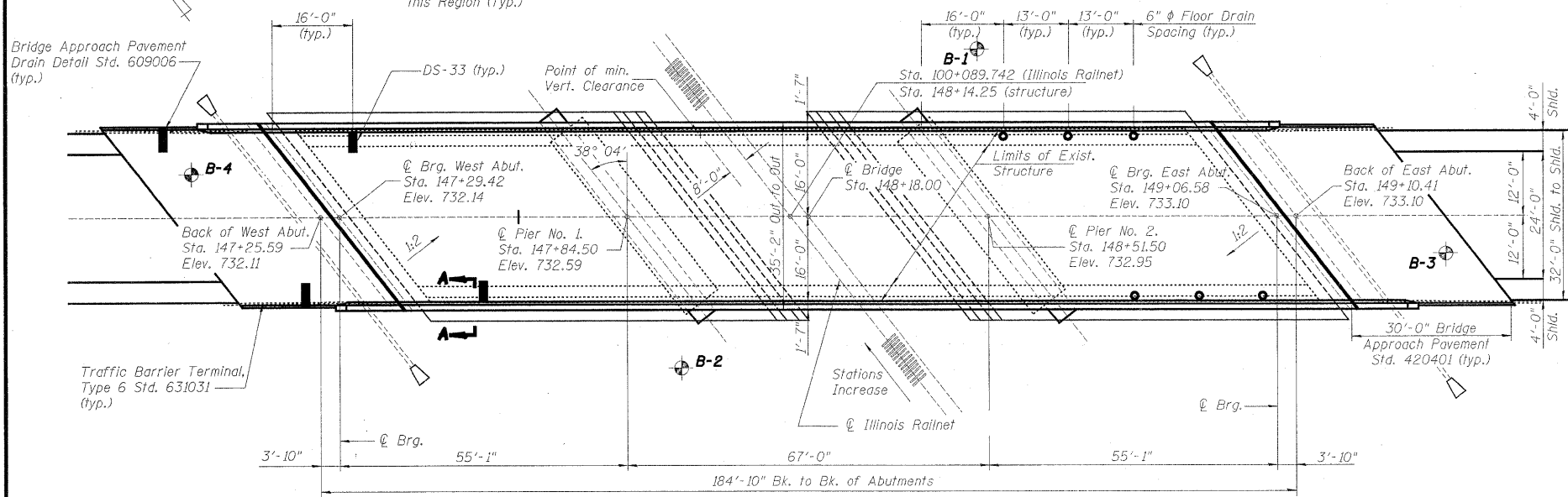
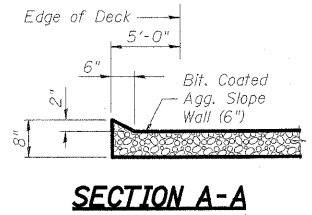
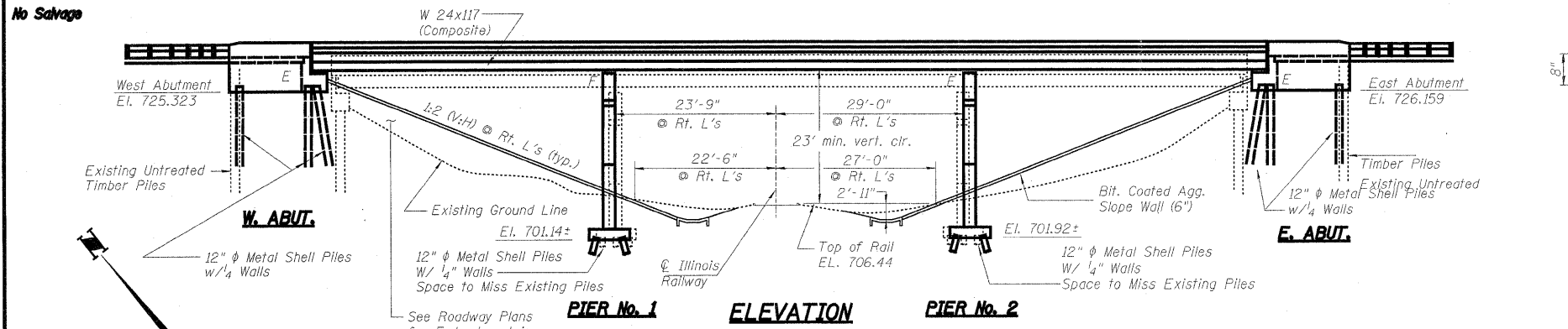


Existing Structure: S.N. 101-0027, Constructed as F.A. Rte. 179, Sec. 1.V.B.F., in 1943. The structure consists of a three span steel beam and reinforced concrete deck bridge, 170'-0" bk. to bk. of abutments and 26'-0" face to face of curbs, supported on concrete stub abutments and concrete piers. The bridge is skewed 38°04' right ahead. The road shall be closed during construction, with traffic maintained utilizing a detour.

Block Mark: B.M. 104 - A.C. & G.S. disc set in concrete post, Sta 4+545.694, 82.74' Rt., Elevation 710.35.

ROUTE	SECTION	COUNTY	SHEETS	SHEET NO.
5154	04-00343-00-BR	WINNEBAGO	92	25
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-BRM-50991751	
Structural Sheet 1A of 22A				

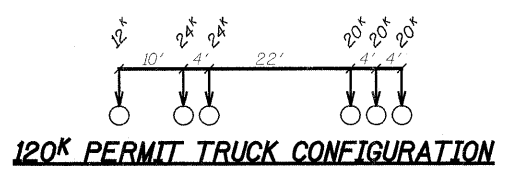
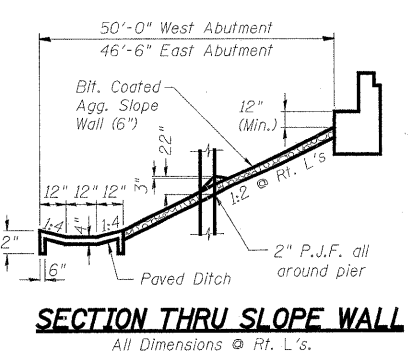
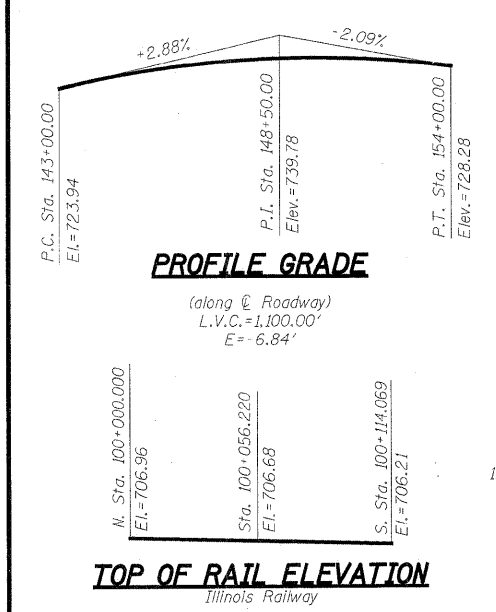


TOTAL BILL OF MATERIAL

ITEM	UNIT	SUB	SUPER	TOTAL
Porous Granular Embankment	Cu. Yd.	100		100
Removal of Existing Structures	Each			1
Structure Excavation	Cu. Yd.	424		424
Floor Drains	Each		6	6
Concrete Structures	Cu. Yd.	262.1		262.1
Concrete Superstructure	Cu. Yd.		210.4	210.4
Bridge Deck Grooving	Sq. Yd.		598	598
Protective Coat	Sq. Yd.		1,024	1,024
Furnishing and Erecting Structural Steel	L. Sum		0.2	0.2
Stud Shear Connectors	Each		3,708	3,708
Reinforcement Bars, Epoxy Coated	Pound	29,120	45,760	74,880
Bar Splicers	Each		66	66
Bituminous Coated Aggregate Slope Wall 6"	Sq. Yd.		516	516
Furnishing Metal Shell Piles 12" x 0.250"	Foot	824		824
Driving Piles	Foot	824		824
Test Pile Metal Shells	Each		4	4
Name Plates	Each		1	1
Preformed Joint Strip Seal	Foot		85.5	85.5
Elastomeric Bearing Assembly, Type I	Each		12	12
Elastomeric Bearing Assembly, Type II	Each		6	6
Anchor Bolts, 1"	Each		24	24
Anchor Bolts, 1 1/2"	Each		24	24
Concrete Sealer	Sq. Ft.	248		248
Geocomposite Wall Drain	Sq. Yd.	46		46
Concrete Headwalls for Pipe Drains	Each		4	4
Pipe Underdrains for Structures 4"	Foot	147		147
Permanent Survey Markers	Each		1	1
Drainage Scuppers, DS-33	Each		2	2
Railroad Protective Liability Insurance	L. Sum			1

GENERAL NOTES

*Includes Deck, Approach Pavement and Top & Inside Face of Parapet Only.
Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts 7/8" φ, holes 1 1/16" φ, unless otherwise noted.
Calculated weight of Structural Steel = 161,080 Pounds
Field welding of construction accessories will not be permitted to beams or girders.
Reinforcement bars designated (E) shall be epoxy coated.
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".
Anchor bolts shall be set before bolting diaphragms over supports.
The structural steel bearing plates of the Elastomeric Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50.
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 ASTM A706, Grade 60 (1L Modified). See Special Provisions.
Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8" inch. Adjustment shall be made either by grinding the surface or by shimming the bearing. Two 1/8" adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims. (For Type I Elastomeric Bearings, two 1/8" adjusting shims shall be provided for each bearing and placed as detailed).
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.
Concrete Sealer shall be applied to the seat area of the East and West Abutments.
The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
All construction joints shall be bonded.



ILLINOIS RAILNET
BUILT 2009 BY
WINNEBAGO COUNTY
SEC. 04-00343-00-BR
F.A.U. RTE. 5103 STATION 148+18
LOADING HS20 & IDOT 120K PERMIT LOAD
STR. NO. 101-0172

NAME PLATE LETTERING
Refer to Std. 515001

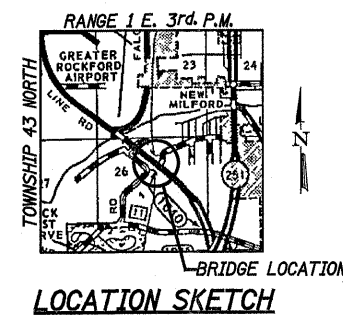
DESIGN SPECIFICATIONS
2002 AASHTO
LOADING HS20-44 & IDOT 120k PERMIT LOAD
Allow 50 lbs./ft.² for future wearing surface.

DESIGN STRESSES
FIELD UNITS
f_c = 3,500 psi
f_y = 60,000 psi (Reinf.)
f_y = 50,000 psi (M270 Grade 50)

SEISMIC DATA
Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.033
Site Coefficient (s) = 1.0

I, **Dorian K. Converse**,
DATE: 11/19/2008
EXPIRES 11/30/08

I Certify That To The Best Of My Knowledge, Information And Belief, This Bridge Design Is Structurally Adequate For The Design Loading Shown On The Plans. The Design Is An Economical One Complies With Requirements Of The Current "AASHTO Standard Specifications For Highway Bridges."



GENERAL PLAN
BELTLINE ROAD OVER ILLINOIS RAILNET
FAU ROUTE 5154 SECTION 04-00343-00-BR
WINNEBAGO COUNTY
STA. 148+18.00 (S.N. 101-0172)

WILLET, HOFMANN & ASSOCIATES, INC.
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Environmental - Architecture
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Phone 815.284.3381 Fax 815.284.3385
Design Firm #184-000918
www.willett-hofmann.com

Designed By: B. K. Converse
Date: 11/04
Checked By: M. R. Leslie
Date: 11/04
Drawn By: F. D. Lochat
Date: 11/04