

**GENERAL NOTES**

Plan dimensions and details relative to existing structure have been taken from field survey 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 bid for the work.

The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project. The Contractor shall excavate behind the abutments to the elevations shown prior to the removal of the existing superstructure. The excavation shall be backfilled with Porous Granular Backfill after superstructure construction has been completed. The excavation required behind the abutments shall be included with Porous Granular Backfill.

Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.

The SSPC-QP1 Painting Contractor Certification will be required for this bridge.

Fasteners shall be high strength bolts. (AASHTO M164, Type 3 in unpainted areas and mechanically galvanized AASHTO M 164, Type 1 or 2 in painted areas). Bolts 1/2" φ, open holes 5/16" φ, unless otherwise noted.

All structural steel and exposed surfaces of bearings within a distance of 6 ft. each way from the deck joints shall be painted as specified in the Special Provision for "Surface Preparation and Painting Requirements for Weathering Steel".

Reinforcement bars shall conform to the requirements of ASTM A 706 Grade 60. See Special Provisions.

All construction joints shall be bonded, except as noted.

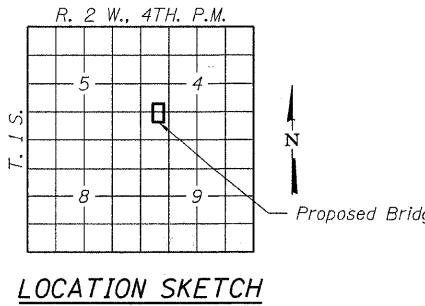
Protective Coat shall be applied to the bridge surface and fascia.

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

All proposed construction activity shall be in accordance with Nationwide Permit number 14 of the Department of the Army authorized under Section 404 of the Clean Water Act. The IEPA has issued Section 401 Water Quality Certification for this activity. See Special Provisions for conditions.

All structural steel shall be AASHTO M 270 Grade 50W. All structural steel shall be cleaned as specified in the Special Provision for "Surface Preparation and Painting Requirements for Weathering Steel".

Calculated weight of structural steel = 40,309 pounds.

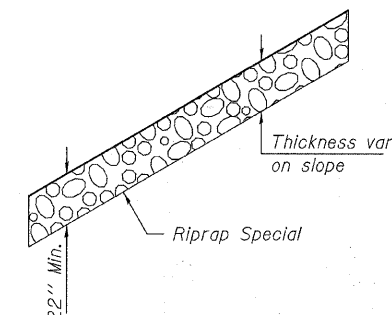


**LOCATION SKETCH**

LOGAN CREEK  
BUILT 201 BY  
BROWN COUNTY  
SEC. 05-00065-00-BR  
C.H. 3A / FAS 1583  
STR. NO. 005-3006  
LOADING HL-93

**NAME PLATE**

See Std. 515001



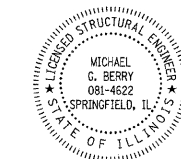
**SECTION A-A**

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu. Yd.			100
Porous Granular Backfill	Ton		70	70
Riprap Special	Ton			100
Removal of Existing Superstructure	Each	1		1
Concrete Structures	Cu. Yd.		3.0	3.0
Concrete Superstructure	Cu. Yd.	67.8		67.8
Protective Coat	Sq. Yd.	272		272
Furnishing and Erecting Structural Steel	L. Sum		1	1
Stud Shear Connectors	Each	1,860		1,860
Reinforcement Bars, Epoxy Coated	Pound	13,020	230	13,250
Steel Railing, Type S1	Foot	171		171
Name Plates	Each	1		1
Preformed Joint Strip Seal	Foot	27		27
Elastomeric Bearing Assembly, Type 1	Each	10		10
Anchor Bolts, 1"	Each	40		40

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 for the style of structure and complies with requirements of the current "AASHTO LRFD Specifications."

Michael S. Berry 4/09/10  
ILLINOIS STRUCTURAL NO. 081-4622



Expires 11-30-2010

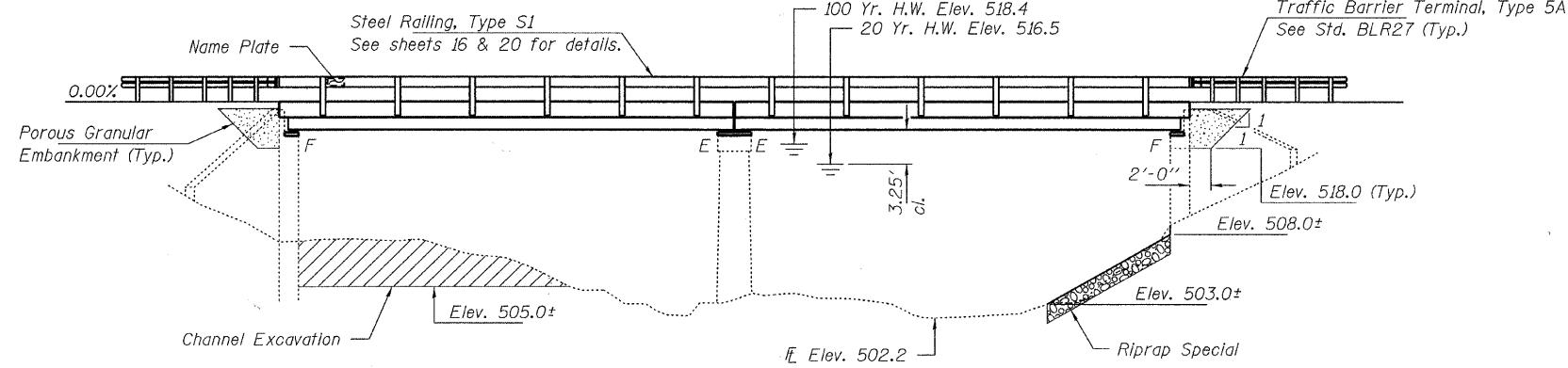
**GENERAL PLAN AND ELEVATION  
STRUCTURE NO. 005-3006**

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3A	05-00065-00-BR	BROWN	24	12
CONTRACT NO. 93509				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT ARA 1583(103)		

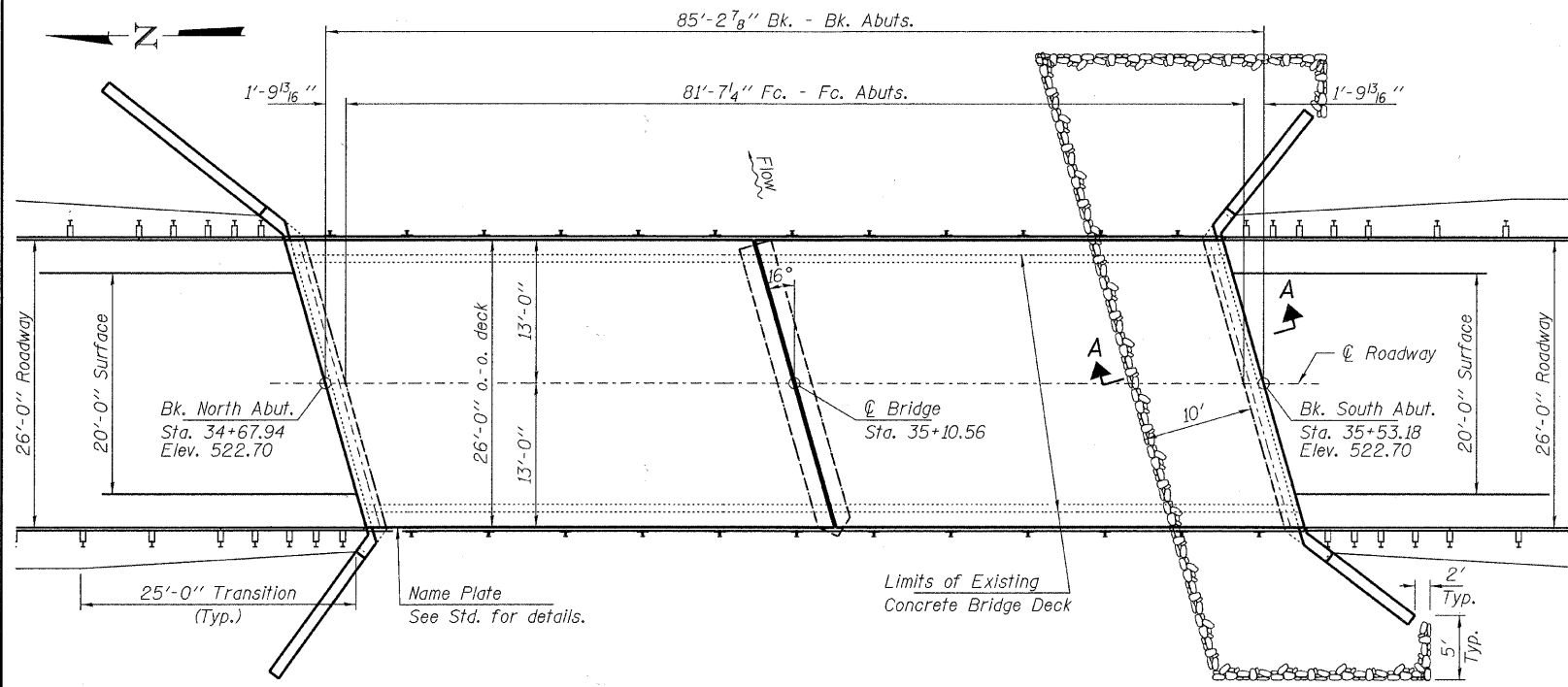
**HAMPTON, LENZINI & RENWICK, INC.**  
CIVIL & STRUCTURAL ENGINEERS  
LAND SURVEYORS

**HLR** 3085 STEVENSON DRIVE, SUITE 201  
SPRINGFIELD, ILLINOIS 62703  
(217) 546-3400

PROJECT NUMBER: 08.0204.130 DATE: 04/09/10



**ELEVATION**



**PLAN**

**DESIGN STRESSES**

FIELD UNITS (SUPERSTRUCTURE)

$f'_c = 3,500$  psi  
 $f_y = 60,000$  psi (Reinf.)  
 $f_y = 50,000$  p.s.i. (Struct.)  
 $n = 8$

**SEISMIC DATA**

Seismic Performance Zone (SPZ) = 1  
Design Spectral Acceleration at 1.0 sec. ( $S_{D1}$ ) = 0.053g  
Design Spectral Acceleration at 0.2 sec. ( $S_{D5}$ ) = 0.129g  
Soil Site Class = B

**LOADING HL-93 (SLAB)**

Design Specifications: 2007 AASHTO LRFD  
with all applicable Interims.  
50#/Sq. Ft. Included in dead load for  
future wearing surface.

**WATERWAY INFORMATION**

Drainage Area = 15.4 Sq. Mi. Existing Low Grade Elev. 522.0 @ Sta. 35+10.56  
Proposed Low Grade Elev. 522.7 @ Sta. 35+10.56

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Natural Head - Ft.		Headwater El.		
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	
Design	10	2410	720	720	515.11	0.27	0.27	515.38	515.38
Base	20	3020	820	820	516.51	0.38	0.38	516.89	516.89
Max. Calc.	100	4500	970	970	518.37	0.60	0.60	518.97	518.97
	500	6080	1030	1030	519.71	0.41	0.41	520.12	520.12

10 Year Velocity through Existing Bridge = 3.3 fps 10 Year Velocity through Proposed Bridge = 3.3 fps

DESIGNED - A.S.L.
CHECKED - S.W.M.
DRAWN - D.A.B.
CHECKED - S.W.M.