

EXISTING STRUCTURE: S.N. 006-3230
 Three Span (38'-3" : 48'-0" : 38'-3") Steel
 Girder Structure Supported by R.C. Abutments
 and Piers All on Friction Pile At Sta. 55+10.
 Skewed 0°. To be Removed. No Salvage.

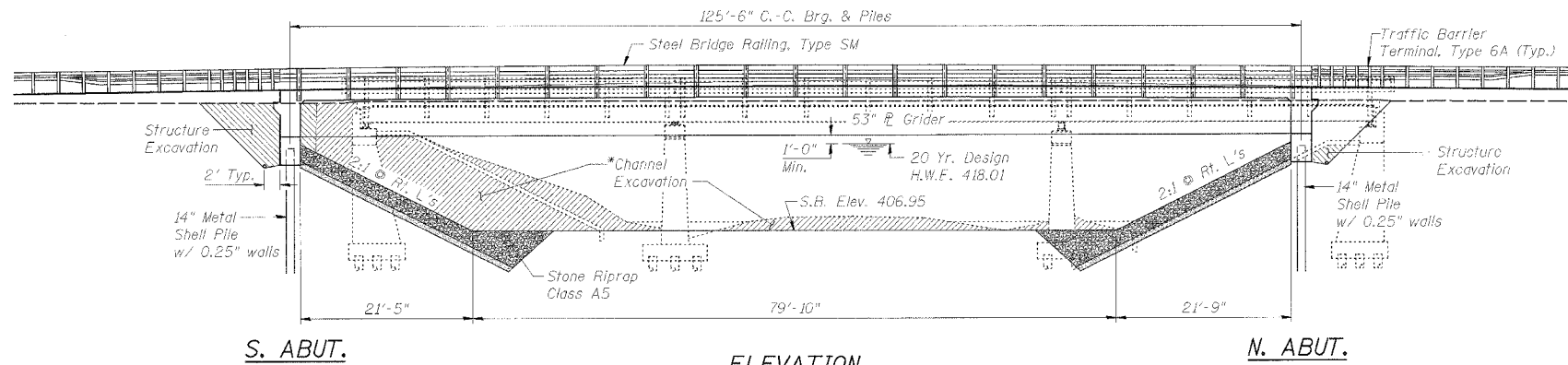
Bench Mark: Railroad Spike in Power Pole.
 36.5' Lt. of Sta. 53+48; Elev. 417.94

Bench Mark: Brass Disc in NE Corner of Exist. Bridge
 on Hub Guard, 12.5' Rt. of Sta. 55+73.
 Elev. 423.53

Bench Mark: Railroad Spike in Power Pole.
 44' Lt. of Sta. 57+16; Elev. 417.77

FILE	SECTION	COUNTY	SHEET	TOTAL
F.A.S. 249	03-00190-00-BR	BUREAU	22	9
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	BRS-249(104)	

Contract No. 87365
 Structural Sheet 1 of 12



BILL OF MATERIAL - BRIDGE

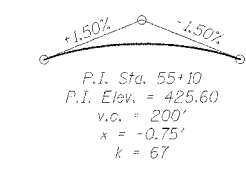
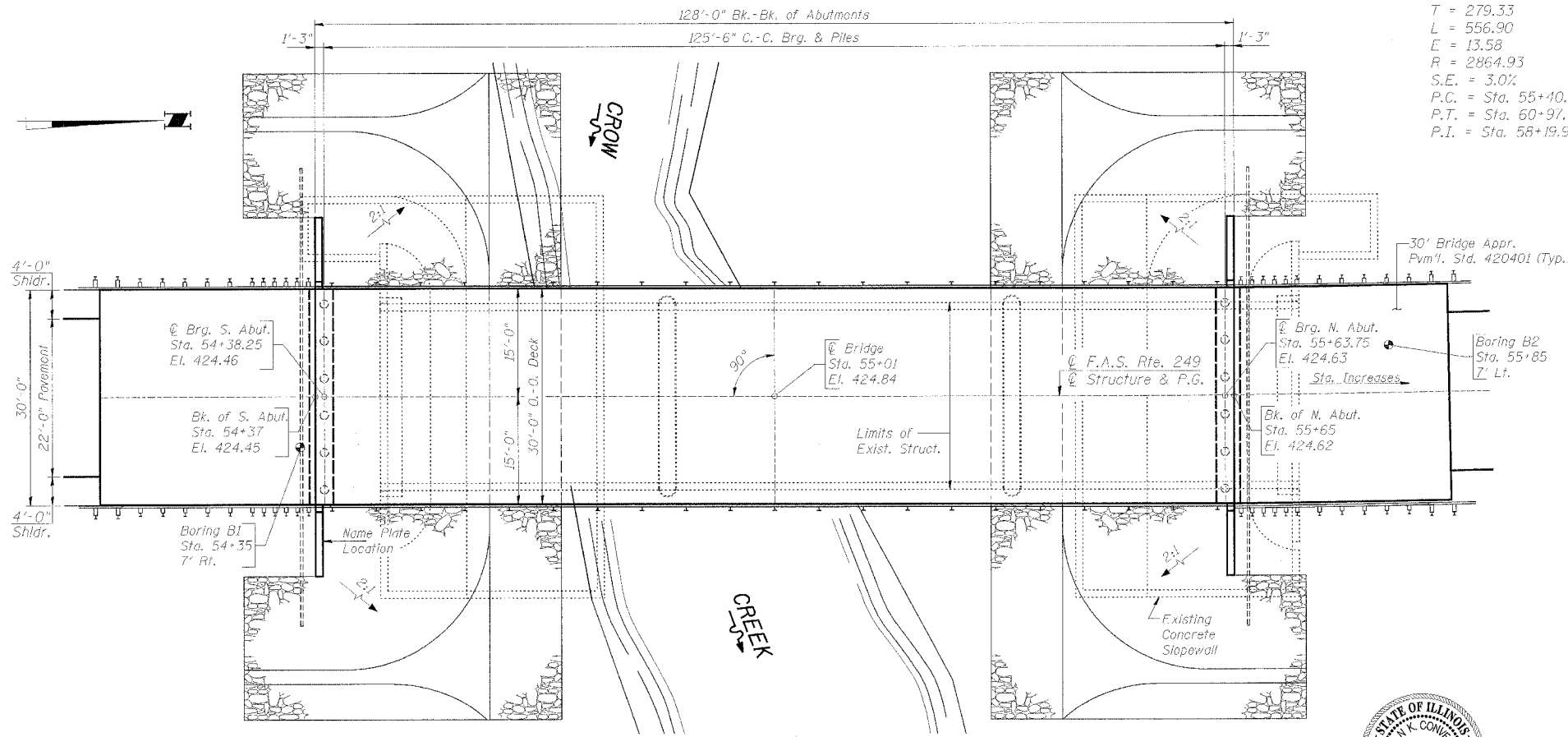
ITEM	UNIT	SUB	SUPER	TOTAL
Porous Granular Embankment, Special	Cu. Yd.	156		156
Stone Riprap, Class A5	Sq. Yd.	801		801
Removal of Existing Structures	Each		1	1
Concrete Structures	Cu. Yd.	30.5		30.5
Concrete Superstructure	Cu. Yd.		140.3	140.3
Bridge Deck Grooving	Sq. Yd.		400	400
Protective Coat	Sq. Yd.		427	427
Furnishing & Erecting Structural Steel	L. Sum		1	1
Stud Shear Connectors	Each		1,920	1,920
Reinforcement Bars, Epoxy Coated	Pound	4,780	24,540	29,320
Bar Splicers	Each		62	62
Steel Railing, Type SM	Foot		256	256
Furnishing Metal Pile Shells 14" x 0.250"	Foot	450		450
Driving Piles	Foot	450		450
Test Pile Metal Shells	Each	2		2
Name Plates	Each	1		1
Anchor Bolts, 1"	Each		20	20
Geocomposite Wall Drain	Sq. Yd.	65		65
Pipe Underdrains for Structures 4"	Foot	143		143

CURVE DATA

$\Delta = 11^{\circ}08'15''$
 $D = N. 01^{\circ}57'13'' W$
 $T = 279.33$
 $L = 556.90$
 $E = 13.58$
 $R = 2864.93$
 $S.E. = 3.0\%$
 $P.C. = Sta. 55+10.68$
 $P.T. = Sta. 60+97.58$
 $P.I. = Sta. 58+19.96$

GENERAL NOTES:

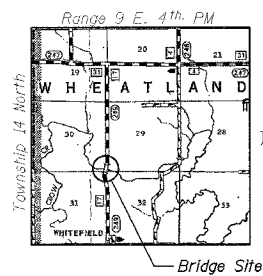
Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts.
 Bolts 3/4" ϕ , holes 5/8" ϕ , unless otherwise noted.
 Calculated weight of Structural Steel = 157,195 lbs.
 All structural steel shall be AASHTO M 270 Grade 50.
 No field welding is permitted except as specified in the contract documents.
 Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (LL Modified).
 See Special Provisions
 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 reddish brown, Munsell No. 2.5 Yr. 3/4. The color of the final finish coat for the exterior and bottom flange of the Tascia beams shall be reddish brown, Munsell No. 2.5 Yr. 3/4. See Special Provision for "Cleaning and Painting New Metal Structures".
 Layout of slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
 The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations of substructures specified or approved by the Engineer before ordering the remainder of piles.
 *Channel shall be transitioned from edge of deck to Temporary Construction Easement line.
 **Quantity is for Reinforced Concrete Deck.



VERTICAL CURVE

WATERWAY INFORMATION

DRAINAGE AREA	42.9 SQ. MI.
DESIGN DISCHARGE (20 YR.)	6,000 CFS
EXISTING OPENING	829 SQ. FT.
REQUIRED OPENING	1,094 SQ. FT.
PROPOSED OPENING	1,094 SQ. FT.
CREATED HEAD (20 YR.)	<0.5 FT.
100 YR. DISCHARGE	8,816 CFS
CREATED HEAD (100 YR.)	<1.0 FT.
HIGH WATER ELEV. (100 YR.)	419.15 FT.



LOCATION SKETCH

**GENERAL PLAN AND ELEVATION
 FAS 249 (C.H. 17-YANKEE LANE)
 OVER CROW CREEK
 SECTION 03-00190-00-BR
 STA. 55+01 (S.N. 006-3231)
 BUREAU COUNTY**

NAME PLATE LETTERING

CROW CREEK
 BUILT 2008 BY
 BUREAU COUNTY
 SECTION 03-00190-00-BR
 F.A.S. RT. 249 STATION 55+01
 STR. NO. 006-3231 LOADING HL-93

DESIGN SPECIFICATIONS
 2004 AASHTO LRFD Bridge Design Specifications
 with 2005 and 2006 Interims

LOADING HL-93
 Allow 50#/#sq. Ft. for future wearing surface.

DESIGN STRESSES

FIELD UNITS
 $f'c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 50,000$ psi (M270 Grade 50)

SEISMIC DATA

Seismic Performance Zone (SPZ) = I
 Bedrock Acceleration Coefficient (A) = 0.04g
 Site Coefficient (S) = 1.0

"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 Standard Specifications for Highway Bridges'."



Brian K. Converse
 DATE: APRIL 4th, 2008
 EXPIRES 11/30/09

Designed By: B. K. Converse
 Date: 02/2008
 Checked By: M. A. Small
 Date: 02/2008
 Drawn By: F. D. Lashat
 Date: 02/2008

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WHA # 1119D05