

**BENCHMARKS:**

R.R. Spike in Fence Post, Sta. 11+95.57, 10.7' Lt. - El. 596.25  
 Survey Control Point No. 1 - Iron Pin at 13.75' Rt. Sta. 10+01.72 El. 602.74  
 Survey Control Point No. 2 - Iron Pin at 8.21' Rt. Sta. 14+20.56 El. 591.40  
 Survey Control Point No. 3 - Iron Pin at 10.01' Rt. Sta. 19+38.01 El. 601.75  
 (See Sheet 3 of 12 for Control Point Locations.)

**EXISTING STRUCTURE NO. 092-3178**

Timber Deck on Pratt Thru Truss / Eyebars  
 Superstructure on Stone Abutments and Stone Wingwalls.  
 ±15'-7" O.-O. of Deck  
 ±100'-0" Bk.-Bk. Abutments  
 100 Yr. H.W. Elev. 588.84  
 Design H.W. Elev. 587.51

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 291	94-14131-00-BR	VERMILION	12	10
FED. ROAD DIST. NO.	ILLINOIS	PROJECT	BROS-183(86)	

CONTRACT NO. 91323

**GENERAL NOTES**

Layout of Riprap Slopes may be varied in the field to suit ground conditions as directed by the Engineer.  
 Reinforcement Bars shall conform to the requirements of AASHTO M-31, M-42 or M-53 Grade 60.  
 The Contractor shall drive two Steel Test Piles in a permanent location at the West and East Abutments as directed by the Engineer to verify the depth to Rock at Each Abutment before ordering the Piles.  
 Steel Truss shall be cambered to account for Deck Dead Load. Truss manufacturer shall provide Dead Load Deflections.

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Structures	Each			1
Structure Excavation	Cu. Yd.		145	145
Concrete Structures	Cu. Yd.		71.7	71.7
Reinforcement Bars	Pound		4740	4740
Furnishing Steel Piles HP12X53	Foot		220	220
Driving Steel Piles	Foot		220	220
Test Pile Steel HP12X53	Each		2	2
Concrete Encasement	Cu. Yd.		7.7	7.7
Channel Excavation	Cu. Yd.		217	217
Grouted Riprap	Sq. Yd.		204	204
Concrete Cut-off Wall	Cu. Yd.		5.1	5.1
Neoprene Expansion Joint 2"	Foot	32		32
Preformed Joint Seal 1 3/4"	Foot	32		32
Pre-Engineered Truss Superstructure	Each	1		1
Furnishing and Erecting Structural Steel	Pound		910	910
Name Plates	Each		1	1
Protective Coat	Sq. Yd.	444		444

**DESIGN SPECIFICATIONS**

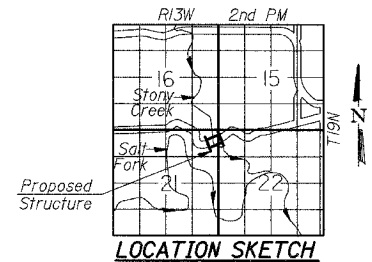
2002 AASHTO

**LOADING HS20-44**

Allowed 50#/sq. ft. for future wearing surface.

**DESIGN STRESSES**

CONCRETE: f'c = 3,500 p.s.i., fy = 60,000 p.s.i., n = 9  
 STRUCTURAL STEEL: AASHTO M-270, Gr. 50W

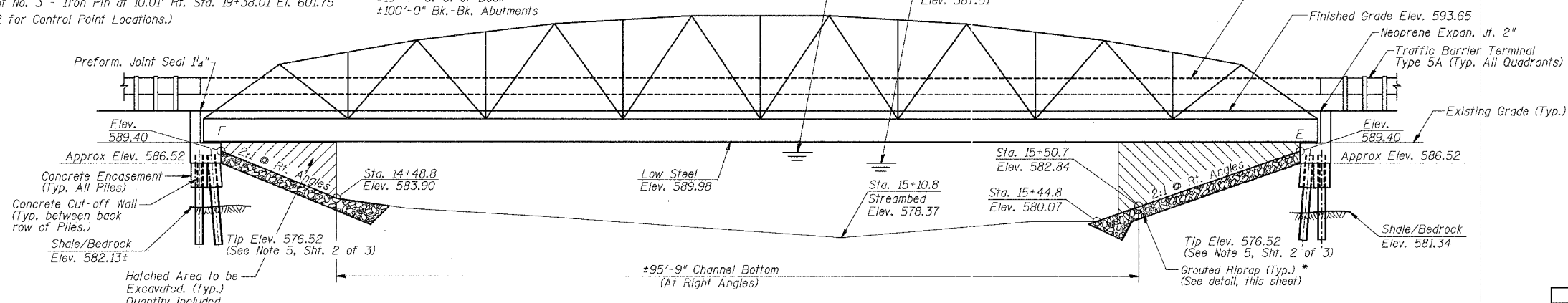


**WATERWAY INFORMATION**

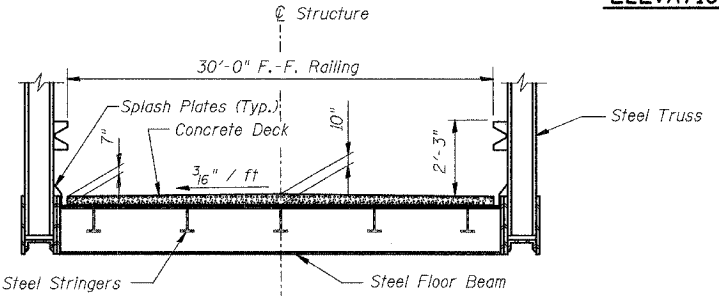
Drainage Area = 68.5 Sq. Mi. Existing Low Grade Elev. 591.26 @ Sta. 16+00.00  
 Proposed Low Grade Elev. 593.65 @ Sta. 16+00.00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Prop.	Nat. H.W.E.	Head-Ft. Exist.	Prop.	Headwater El. Exist.	Prop.
Design	15	3510	652	720	587.51	0	0	587.47	587.49
Base	100	5322	772	873	588.84	0	0	588.82	588.82
Overtopping									
Max. Calc.	500	6715	829	949	589.48	0.17	0.04	589.65	589.52

Low Beam Elev. (Prop.) = 589.98



**ELEVATION**

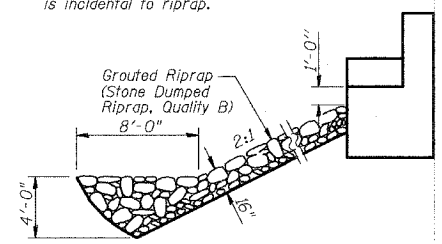


**SECTION THRU SUPERSTRUCTURE**

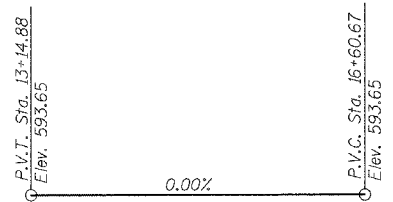
**STONE CREEK  
 BUILT 200, BY  
 OAKWOOD TWP.  
 VERMILION COUNTY  
 SECTION 94-14131-00-BR  
 STR. NO. 092-3488 LOADING HS-20**

**NAME PLATE**

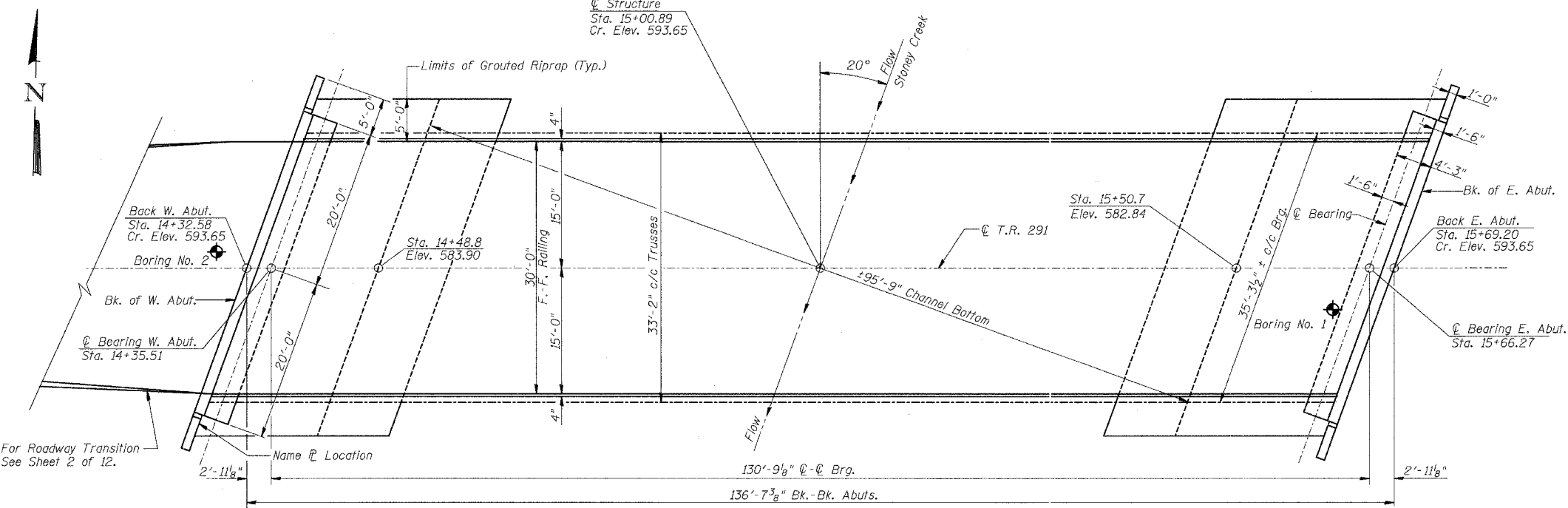
(See Std. 515001)



**STONE DUMPED RIPRAP ANCHOR DETAIL**



**PROFILE T.R. 291**



**PLAN**



DATE: March 22, 2005  
 Keith W. Bentz  
 KEITH W. BENTZ  
 ILL. STRUCTURAL NO. 4777

"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'."

**GENERAL PLAN AND ELEVATION**

Date	Designed MJP	T.R. 291 OVER STONEY CREEK SECTION 94-14131-00-BR VERMILION COUNTY OAKWOOD TOWNSHIP STA. 15+00.89 PROP. STR. NO. 092-3488	Sheet No.
Revisions	Drawn BKN		1
	Checked KWB		
	Approved KWB		
Prepared by:	URS 3040 North University Avenue Decatur, IL 62526		of 3 URS Job No. 36430707