

12+1=13

RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 291	94-14131-00-BR	VERMILION	12	1
VERMILION DIST. NO.	ILLINOIS	PROJECT BROS-183(86)		

CONTRACT NO. : 91323

### INDEX OF SHEETS

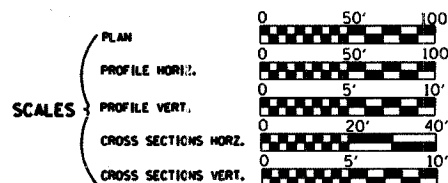
- 1 Cover Sheet
- 2 Summary of Quantities, General Notes, Typical Cross Sections and Details
- 3 Plan and Profile
- 3A Horizontal Layout
- 4-8 Station Cross Sections
- 9 Storm Water Pollution Prevention Plan
- 10-12 Bridge Plans

### LIST OF STANDARDS

- Standard 000001-04 Standard symbols, abbreviations and patterns
- Standard 280001-02 Temporary erosion control systems
- Standard 515001-02 Name plate for bridges
- Standard 630301-03 Shoulder Widening for Type 1 (Special) Guardrail Terminals
- Standard 631026-02 Traffic Barrier Terminal Type 5 & 5A
- Standard 701011-01 Off-road moving operations, 2-l, 2-w, day only, for speeds > 45 mph
- Standard 701201-02 Lane Closure, 2-l, 2-w, day only, for speeds ≥ 45 mph
- Standard 701301-02 Lane closure, 2-l, 2-w, short time operations
- Standard 702001-05 Traffic control devices
- Standard BLR-21-6 Typical application of traffic control devices for Construction on Rural Local Highways
- Standard BLR-22-4 Typical application of traffic control devices 2-l, 2-w, rural, Road closed to Thru Traffic

ROADWAY CLASSIFICATION: LOCAL ROAD  
 CURRENT ADT = 100 (4.0% TRUCKS)  
 DESIGN YEAR ADT = 125  
 DESIGN SPEED: 30 MPH  
 DESIGN GUIDELINES: RURAL  
 VARIANCES GRANTED: SUPERELEVATION ELIMINATED

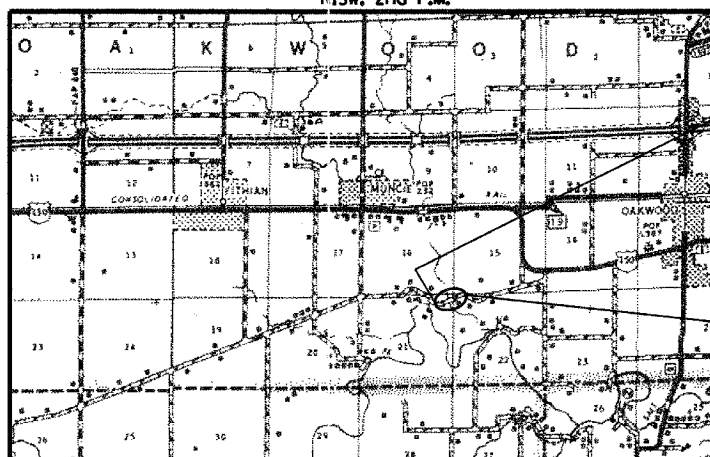
# STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS PLANS FOR PROPOSED LOCAL AGENCY IMPROVEMENT



## BRIDGE REPLACEMENT AND REHABILITATION PROGRAM T.R. 291 (LINCOLN TRAIL ROAD) OVER STONEY CREEK SECTION 94-14131-00-BR VERMILION COUNTY PROJECT BROS-183(86)

C-95-323-04

R13W, 2nd P.M.



IMPROVEMENT BEGINS  
STA. 11+00.00

IMPROVEMENT ENDS  
STA. 19+00.00



IMPROVEMENT CONSISTS OF THE REMOVAL OF A SINGLE-SPAN PRATT THRU TRUSS BRIDGE ON MASONRY ABUTMENTS, ±15'-7" O.-O. DECK, 100'-0" BK.-BK. ABUTMENTS AND THE CONSTRUCTION OF A SINGLE SPAN PREFABRICATED STEEL TRUSS SUPERSTRUCTURE ON CONCRETE SPILL-THRU ABUTMENTS, TOTAL LENGTH = 136'-7 1/2" BK.-BK. ABUTMENTS, WIDTH = 30'-0" O.-O. DECK AND NECESSARY APPROACH ROADWAY WORK. EXIST. STR. NO. 092-3178. PROP. STR. NO. 092-3488.

### LAYOUT

Approximate Scale: miles

Total and Net Length of Improvement 800.00 Feet = 0.152 Miles

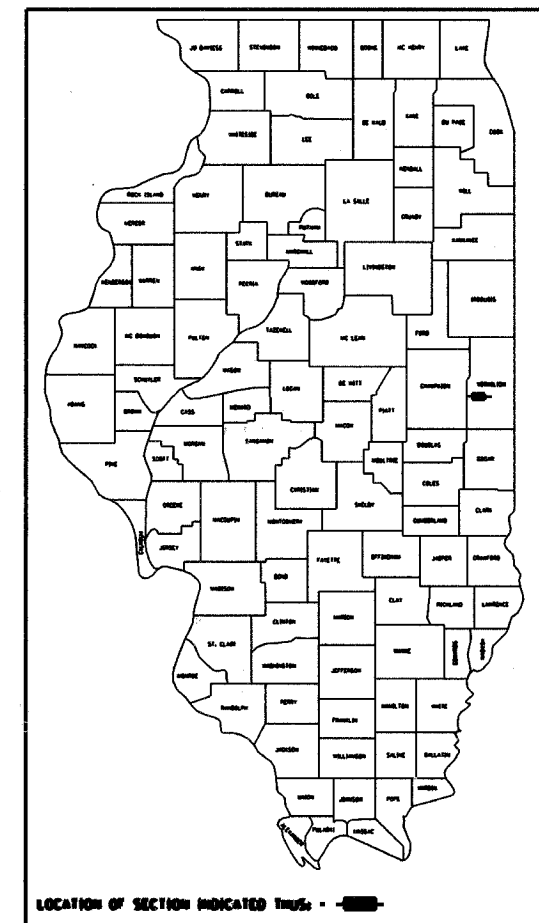
### JOINT UTILITY LOCATING INFORMATION FOR EXCAVATORS

J.U.L.I.E. Telephone No. Toll Free 1-800-892-0123

CONTRACT NO. : 91323



3040 N. UNIVERSITY AVE., SUITE ONE  
 DECATUR, ILLINOIS 62526-1343  
 PH. 217-875-4800



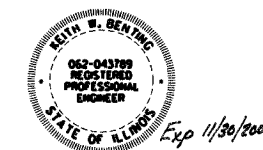
APPROVED 3-23 2005  
*John S. Hays*  
 ROAD COMMISSIONER

APPROVED March 23 2005  
*Robert B. Andrews*  
 COUNTY ENGINEER

APPROVED 3/29  
*Dell Sudd*  
 DISTRICT ENGINEER OF LOCAL ROADS AND STREETS

APPROVED March 29 2005  
*John*  
 REGIONAL ENGINEER

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION



Keith W. Bestine  
 Illinois Professional No. 43789

3/22/2005  
 Date

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 291	94-14131-00-BR	VERMILION	12	2
FED. ROAD DIST. NO.	ILLINOIS	PROJECT	BROS-183(86)	

CONTRACT NO. 91323

**GENERAL NOTES**

THE AREA TO BE SEEDED SHALL CONSIST OF ALL DISTURBED EARTH SURFACES WITHIN THE RIGHT-OF-WAY AND EASEMENTS AS DIRECTED BY THE ENGINEER.

SEEDING DATES FOR ALL CLASSES OF SEEDING WILL BE AS LISTED BELOW:

CLASS OF SEEDING	BEGINNING DATES	TERMINATION
1, 1A, 1B, 2, 2A, 3 (IN SPRING)	APRIL 1	MAY 15
1, 1A, 1B, 2, 2A, 3 (IN FALL)	AUGUST 15	OCTOBER 15

ALL TREES WITHIN THE RIGHT-OF-WAY AND EASEMENTS THAT INTERFERE WITH CONSTRUCTION SHALL BE REMOVED ONLY AT THE DIRECTION OF THE ENGINEER.

WHERE SECTION AND SUB-SECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL MONUMENTS UNTIL AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION. THE CONTRACTOR WILL BE RESPONSIBLE FOR HAVING AN AUTHORIZED SURVEYOR RE-ESTABLISH ANY SECTION OR SUB-SECTION DESTROYED BY HIS OPERATION.

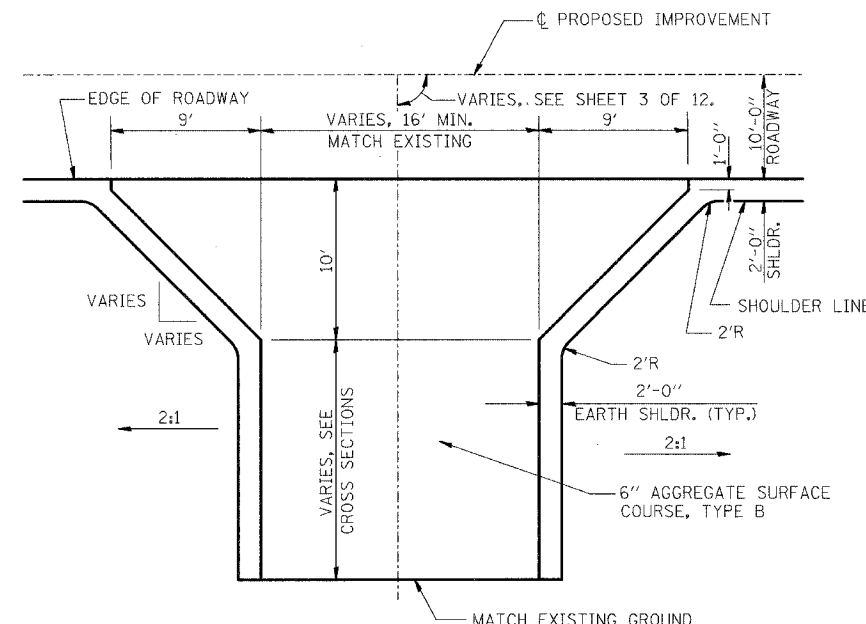
LAYOUT OF EROSION CONTROL ITEMS MAY BE VARIED IN THE FIELD TO SUIT GROUND CONDITIONS AS DIRECTED BY THE ENGINEER.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL UNDERGROUND UTILITY FACILITIES. HE SHALL ALSO OBTAIN FROM THE RESPECTIVE UTILITY COMPANIES DETAILED INFORMATION RELATIVE TO THE LOCATION OF THEIR FACILITIES AND THE WORKING SCHEDULES OF THE UTILITY COMPANIES FOR THEIR MARKING OF THE EXACT LOCATION.

REMOVAL OF EXISTING AGGREGATE MATERIAL AND OIL AND CHIP BITUMINOUS MATERIAL SHALL BE INCLUDED IN EARTH EXCAVATION.

**APPLICATION RATES**

GRANULAR MATERIALS	2.05	TONS/CU. YD.
NITROGEN FERTILIZER NUTRIENT	90	LBS./ACRE
PHOSPHORUS FERTILIZER NUTRIENT	90	LBS./ACRE
POTASSIUM FERTILIZER NUTRIENT	90	LBS./ACRE
MULCH METHOD 2	2	TONS/ACRE



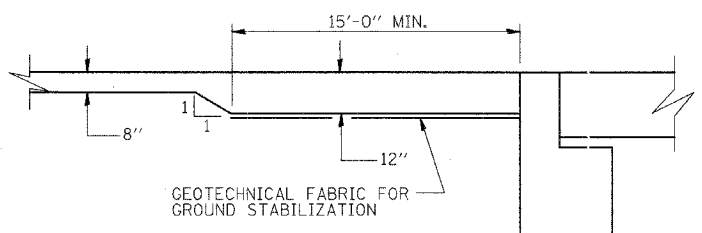
**ENTRANCE DETAIL**

AGGREGATE SURFACE COURSE, TYPE B  
TOTAL = 71 TONS

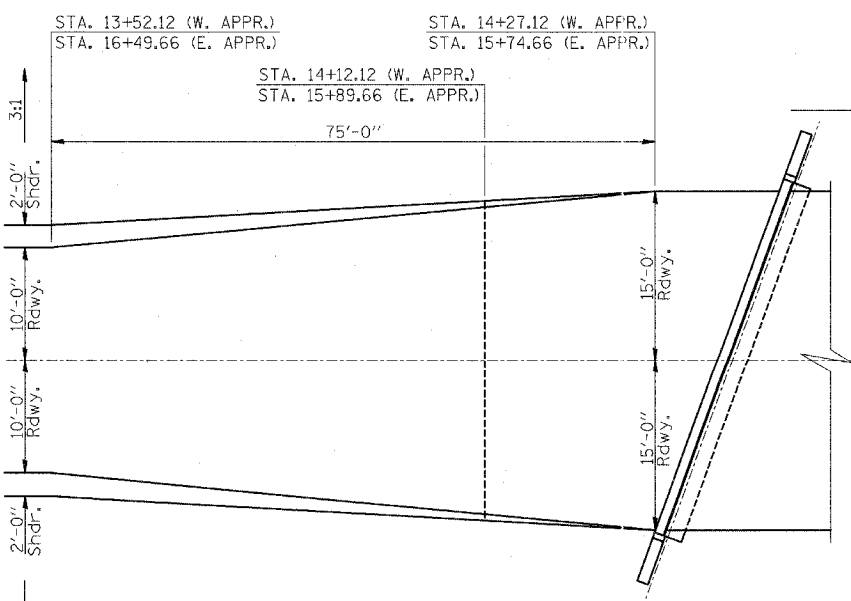
**SUMMARY OF QUANTITIES**

ITEM	UNIT	QUANTITY
20100110 TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	333
20100210 TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	164
20200100 EARTH EXCAVATION	CU YD	295
20300100 CHANNEL EXCAVATION	CU YD	217
20400800 FURNISHED EXCAVATION	CU YD	899
21001000 GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	SQ YD	143
25000200 SEEDING, CLASS 2	ACRE	0.7
25000400 NITROGEN FERTILIZER NUTRIENT	POUND	63
25000500 PHOSPHORUS FERTILIZER NUTRIENT	POUND	63
25000600 POTASSIUM FERTILIZER NUTRIENT	POUND	63
25100115 MULCH, METHOD 2	ACRE	0.7
25301800 SEEDLINGS	UNIT	1.41
28000200 EARTH EXCAVATION FOR EROSION CONTROL	CU YD	80
28000250 TEMPORARY EROSION CONTROL SEEDING	POUND	70
28000300 TEMPORARY DITCH CHECKS	EACH	16
28000400 PERIMETER EROSION BARRIER	FOOT	223
28000500 INLET AND PIPE PROTECTION	EACH	5
40200800 AGGREGATE SURFACE COURSE, TYPE B	TON	817
50300300 PROTECTIVE COAT	SQ YD	444
50100100 REMOVAL OF EXISTING STRUCTURES	EACH	1
50200100 STRUCTURE EXCAVATION	CU YD	145
50300110 PREFORMED JOINT SEAL 1 3/4"	FOOT	32
50300150 NEOPRENE EXPANSION JOINT 2"	FOOT	32
50300225 CONCRETE STRUCTURES	CU YD	71.7
50500405 FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	910
50800205 REINFORCEMENT BARS, EPOXY COATED	POUND	4740
51201600 FURNISHING STEEL PILES HP12X53	FOOT	220
51202700 DRIVING STEEL PILES	FOOT	220
51203600 TEST PILE STEEL HP12X53	EACH	2
51204315 CONCRETE ENCASEMENT	CU YD	7.7
51500100 NAME PLATES	EACH	1
** 542D0220 PIPE CULVERTS, CLASS D, TYPE 1 15"	FOOT	158
63100075 TRAFFIC BARRIER TERMINAL, TYPE 5A	EACH	4
63100167 TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)	EACH	4
** XX004565 GROUTED RIPRAP	SQ YD	204
** XX004566 CONCRETE CUT-OFF WALL	CU YD	5.1
** Z0013798 CONSTRUCTION LAYOUT	L SUM	1
XX006191 ** PRE-ENGINEERED TRUSS SUPERSTRUCTURE	EACH	1

\*\*SEE SPECIAL PROVISIONS

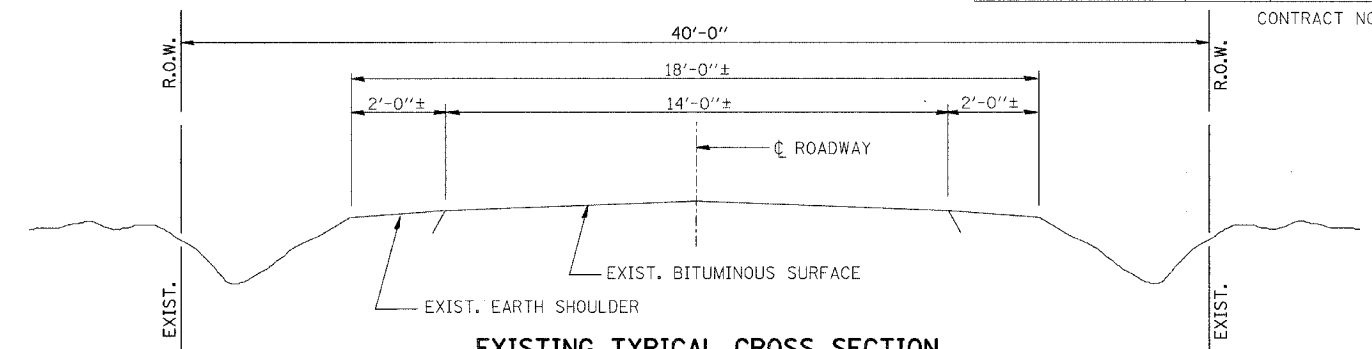


**AGGREGATE THICKNESS TRANSITION AT BRIDGE**

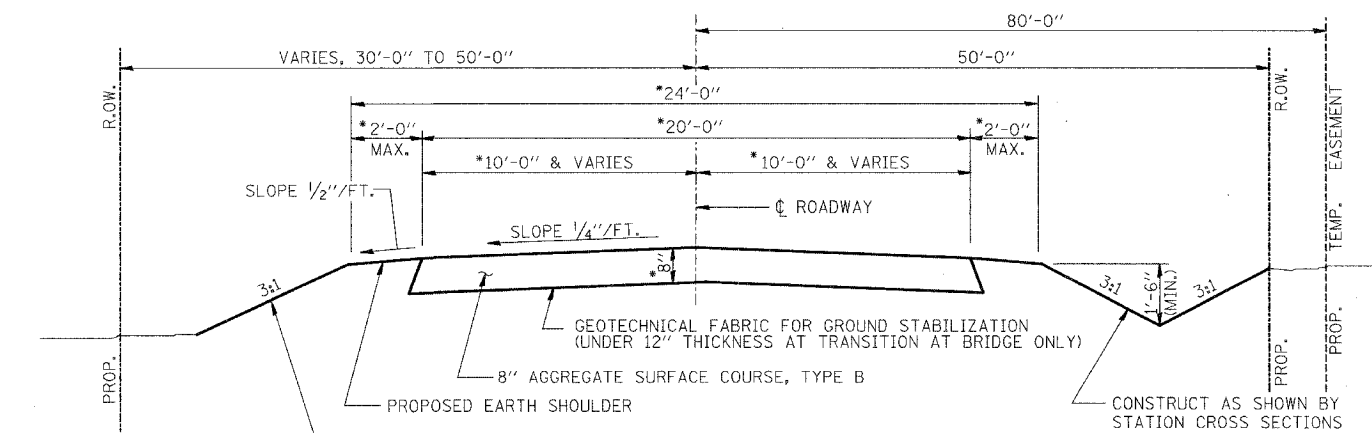


**ROADWAY TRANSITION AT BRIDGE**

(WEST APPROACH TRANSITION SHOWN, EAST OPPOSITE HAND)

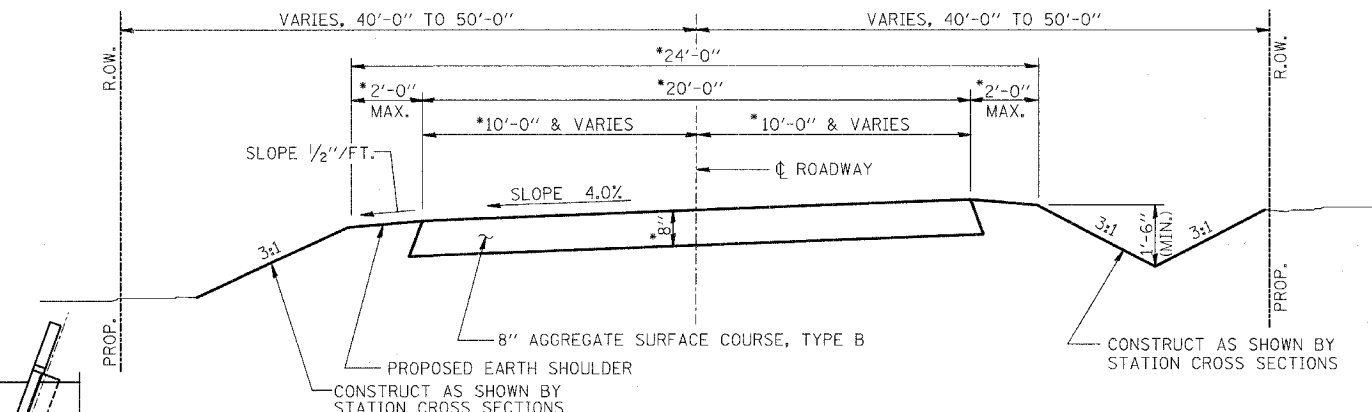


**EXISTING TYPICAL CROSS SECTION**



**PROPOSED TYPICAL CROSS SECTION**

STA. 12+00.00 TO STA. 13+52.12  
(TRANSITION STA. 11+00.00 TO STA. 12+00.00) \* VARIES, SEE "ROADWAY TRANSITION AT BRIDGE" DETAIL AND "AGGREGATE THICKNESS TRANSITION AT BRIDGE" DETAIL, THIS SHEET AND STD. 630301.  
(TRANSITION STA. 13+52.12 TO STA. 14+32.58)  
(TRANSITION STA. 15+69.20 TO STA. 16+00.80)  
(TRANSITION STA. 18+66.14 TO STA. 19+00.00)



**PROPOSED TYPICAL CROSS SECTION**

STA. 17+00.80 TO STA. 17+66.14  
(TRANSITION STA. 16+00.80 TO STA. 17+00.80)  
(TRANSITION STA. 17+66.14 TO STA. 18+66.14)

**GENERAL DATA**

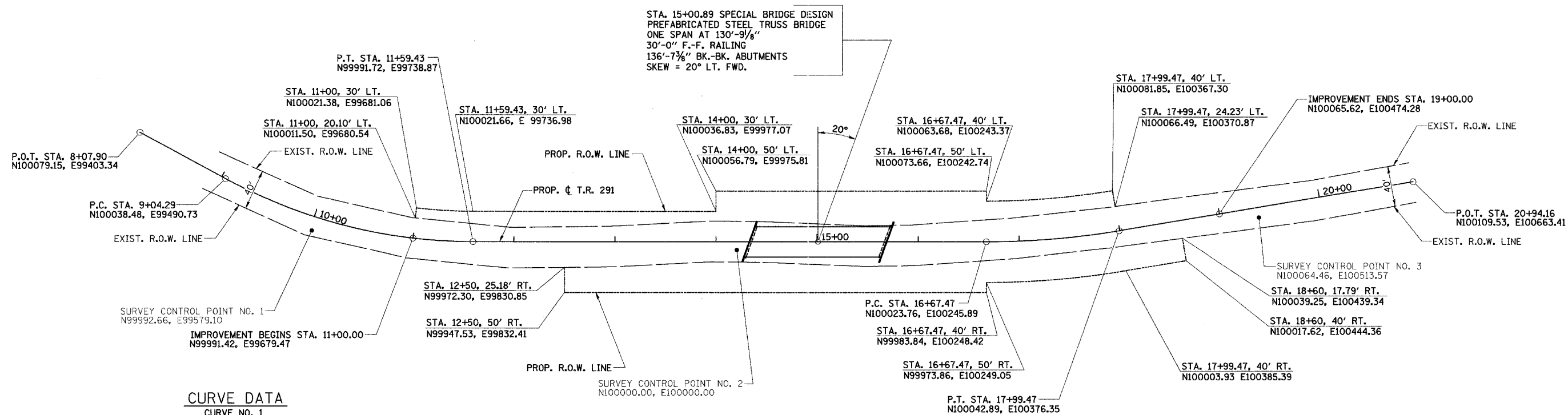
Date	Designed MJP	T.R. 291 OVER STONEY CREEK SECTION 94-14131-00-BR VERMILION COUNTY OAKWOOD TOWNSHIP STA. 15+00.89 PROP. STR. NO. 092-3488
Revisions	Drawn BKN	
	Checked KWB	
	Approved KWB	
Prepared by:	<b>URS</b> 3040 North University Avenue Decatur, IL 62526	URS Job No. 36430707



RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 291	94-14131-00-BR	VERMILION	12	3A
STA. 8+07.90		TO STA. 20+94.16		
FED. ROAD DIST. NO.	ILLINOIS	PROJECT	BROS-183(86)	
		CONTRACT NO. 91323		
HORZ.		50	0	50 100
SCALE IN FEET				

PLAN	SURVEYED	DATE
NOTE BOOK NO.	PLOTTED BY	
	CHECKED BY	
	DATE	
	BY	
	DATE	

PROFILE	SURVEYED	DATE
NOTE BOOK NO.	PLOTTED BY	
	CHECKED BY	
	DATE	
	BY	
	DATE	



**CURVE DATA**

**CURVE NO. 1**  
 P.I. STA. 10+34.57  
 $\Delta = 28^\circ 34' 23''$  (LT.)  
 $D = 11^\circ 11' 57''$   
 $T = 130.28'$   
 $R = 511.61'$   
 $L = 255.14'$   
 $E = 16.33'$   
 P.C. STA. 9+04.29  
 P.T. STA. 11+59.43

**PROPOSED STRUCTURE LAYOUT**

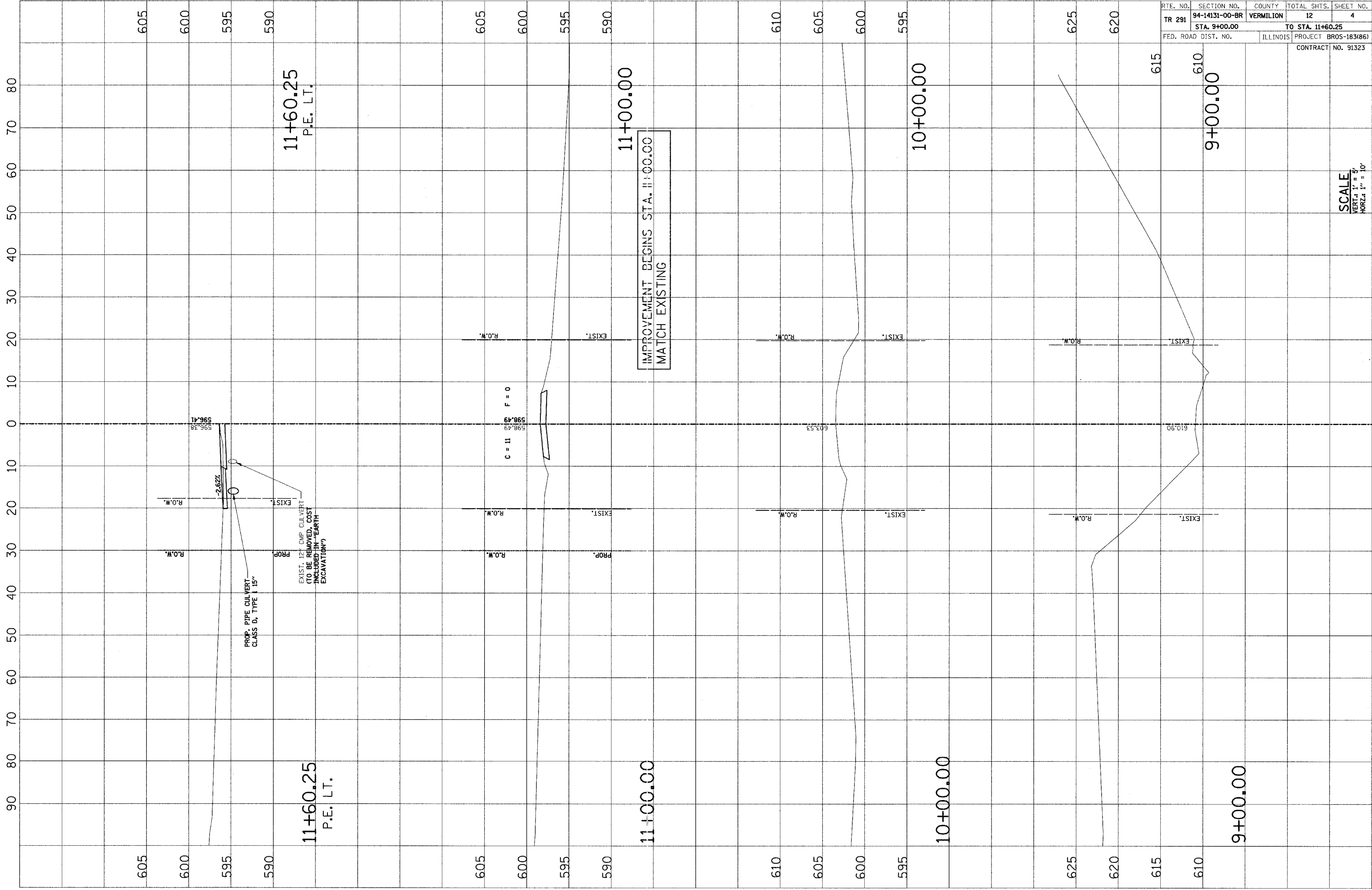
<b>WEST ABUTMENT</b>	<b>EAST ABUTMENT</b>
BK. OF W. ABUT. STA. 14+32.58 N100008.95, E10011.47	BK. OF E. ABUT. STA. 15+69.20 N100017.56, E100147.82
¢ BRG. W. ABUT. STA. 14+35.51 N100009.13, E10014.40	¢ BRG. E. ABUT. STA. 15+66.27 N100017.38, E100144.90
FACE OF W. ABUT. STA. 14+37.10 N100009.23, E100015.99	FACE OF E. ABUT. STA. 15+64.68 N100017.28, E100143.31

**CURVE DATA**

**CURVE NO. 2**  
 P.I. STA. 17+33.62  
 $\Delta = 9^\circ 27' 13''$  (LT.)  
 $D = 7^\circ 09' 43''$   
 $T = 66.15'$   
 $R = 800.00'$   
 $L = 132.00'$   
 $E = 2.73'$   
 P.C. STA. 16+67.47  
 P.T. STA. 17+99.47  
 S.E. = 4.0%  
 S.E. ATTAINED STA. 16+00.80  
 TO STA. 17+00.80  
 S.E. REMOVED STA. 17+66.14  
 TO STA. 18+66.14

**NOTE:**  
 FOR TIE POINTS AND BENCHMARK LOCATION,  
 SEE SHEET 3 OF 12.

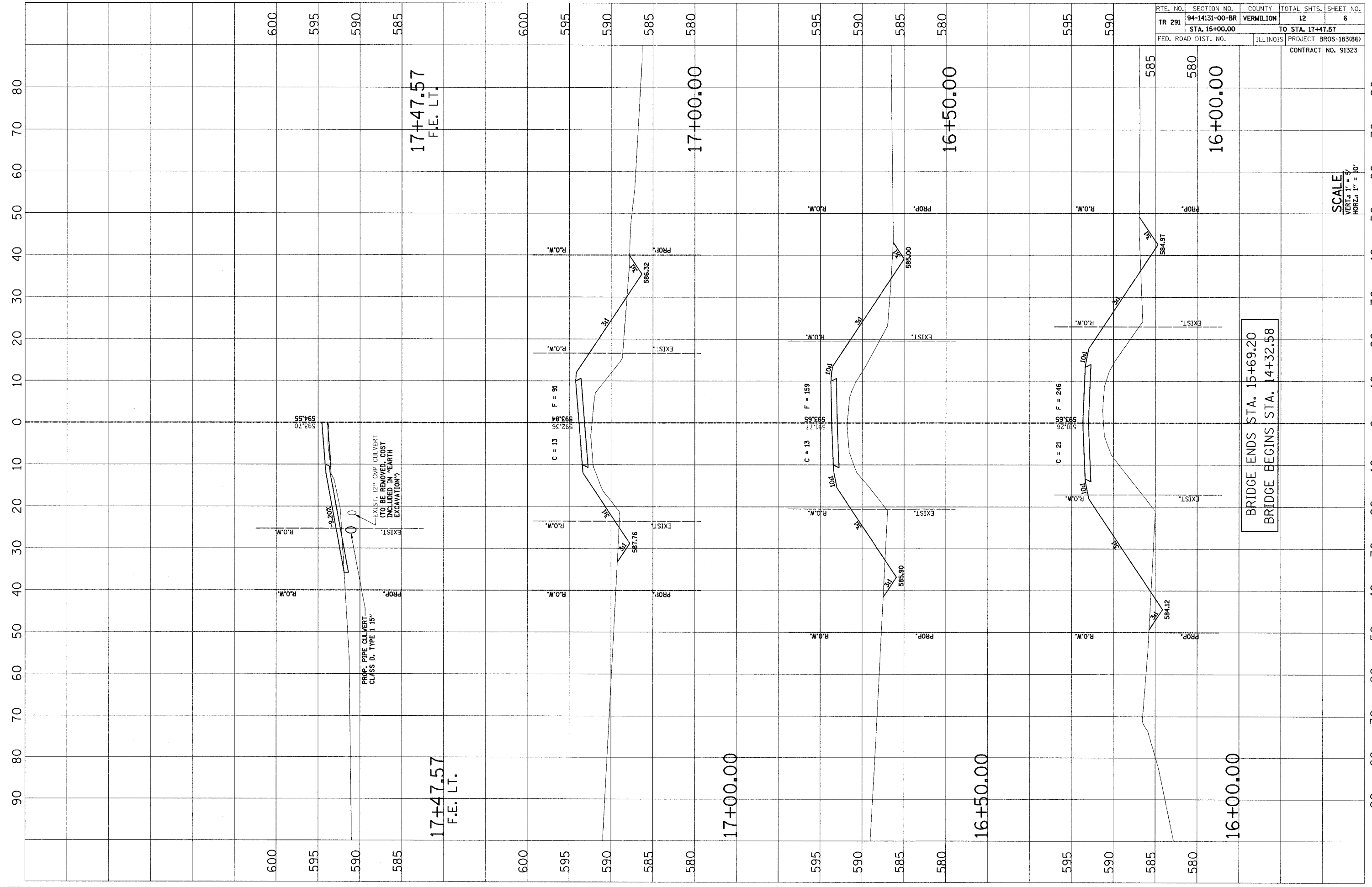
RTE. NO.	SECTION NO.	COUNTY	TOTAL SHTS.	SHEET NO.
TR 291	94-14131-00-BR	VERMILION	12	4
STA. 9+00.00		TO STA. 11+60.25		
FED. ROAD DIST. NO.	ILLINOIS PROJECT	BROS-183186)		
		CONTRACT NO. 91323		



SCALE  
 VERT. 1" = 5'  
 HORIZ. 1" = 10'



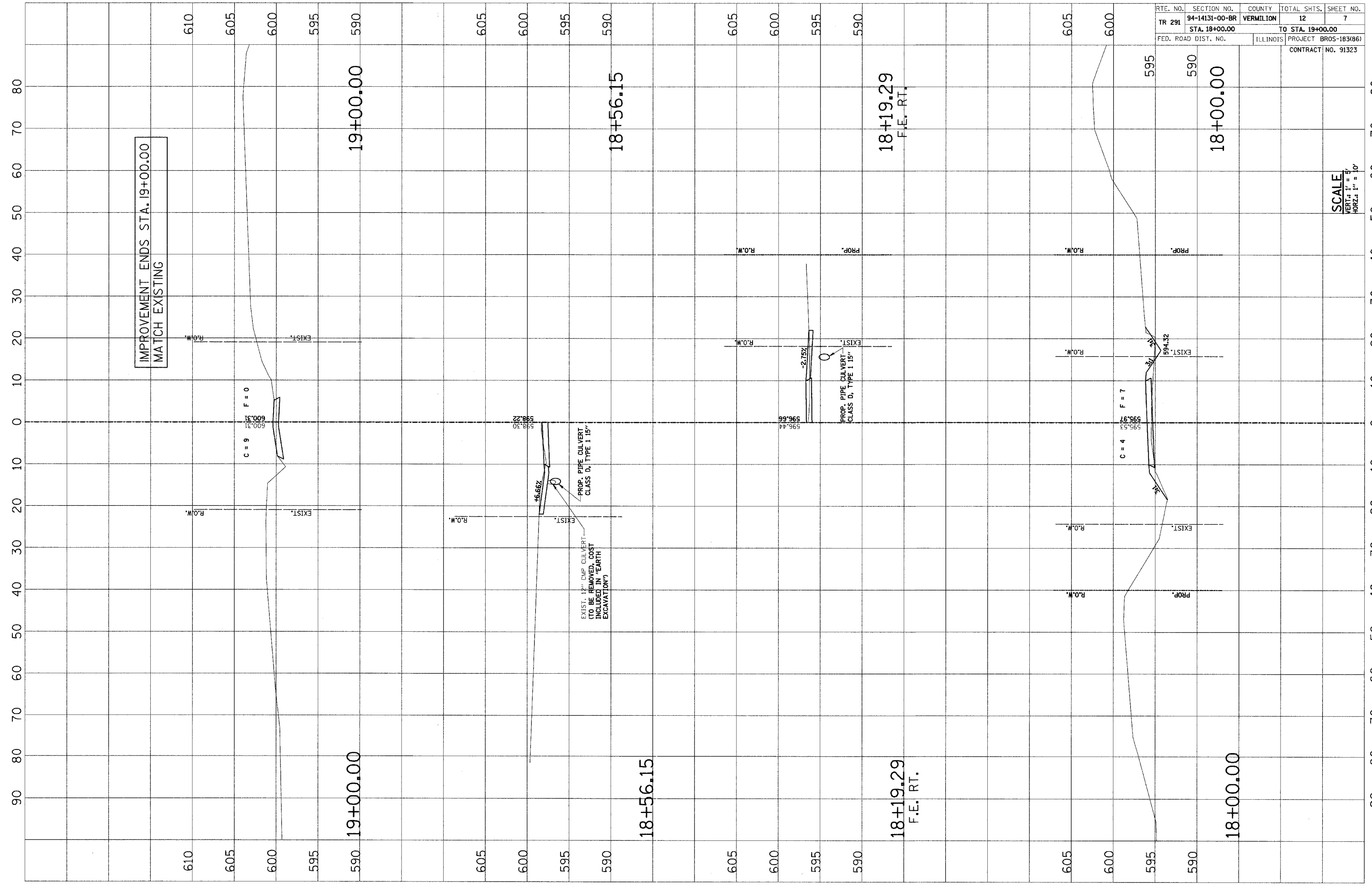
RTE. NO.	SECTION NO.	COUNTY	TOTAL SHTS.	SHEET NO.
TR 291	94-14131-00-BR	VERMILION	12	6
STA. 16+00.00		TO STA. 17+47.57		
FED. ROAD DIST. NO.	ILLINOIS		PROJECT	BROS-183(86)
			CONTRACT NO. 91323	



BRIDGE ENDS STA. 15+69.20  
BRIDGE BEGINS STA. 14+32.58

SCALE  
VERT. 1" = 4'  
HORIZ. 1" = 10'

RTE. NO.	SECTION NO.	COUNTY	TOTAL SHTS.	SHEET NO.
TR 291	94-14131-00-BR	VERMILION	12	7
STA. 18+00.00		TO STA. 19+00.00		
FED. ROAD DIST. NO.	ILLINOIS	PROJECT	BROS-183(86)	
		CONTRACT NO. 91323		

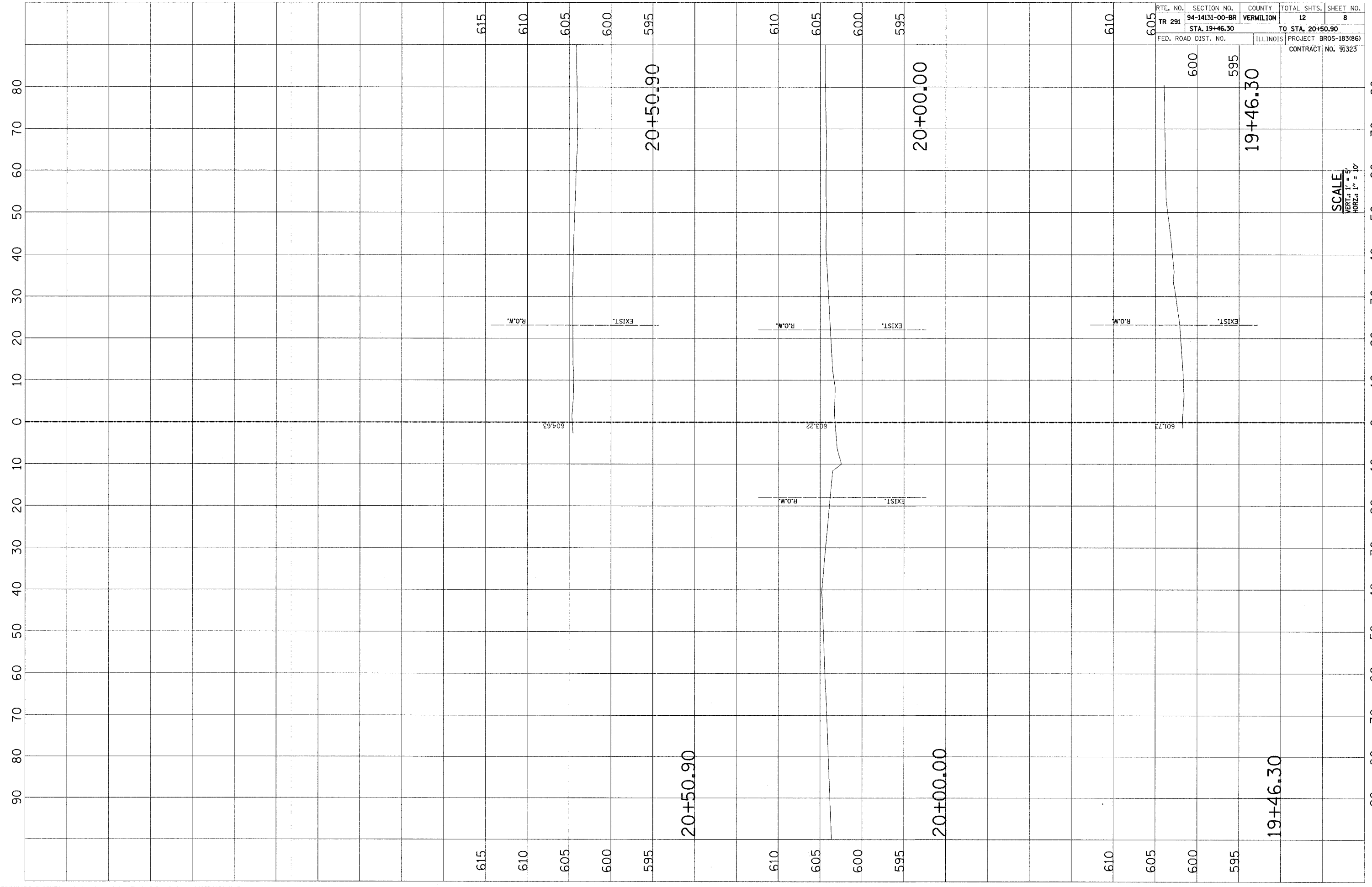


IMPROVEMENT ENDS STA. 19+00.00  
MATCH EXISTING

SCALE  
VERT. 1" = 4'  
HORIZ. 1" = 10'

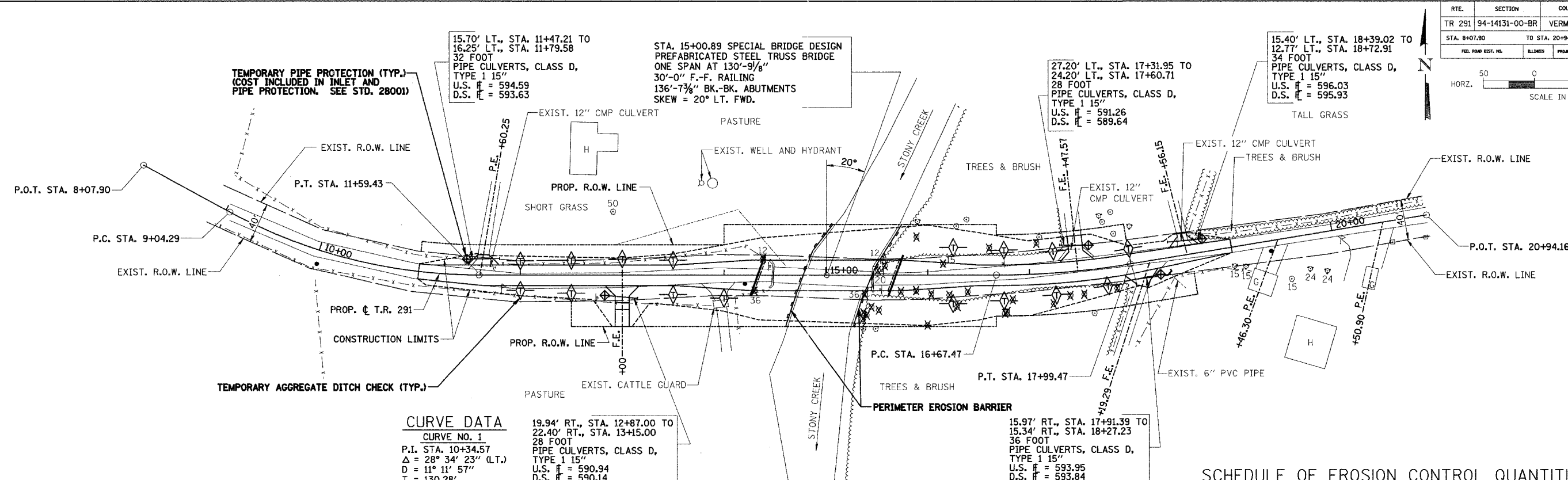


RTE. NO.	SECTION NO.	COUNTY	TOTAL SHTS.	SHEET NO.
TR 291	94-14131-00-BR	VERMILION	12	8
STA. 19+46.30		TO STA. 20+50.90		
FED. ROAD DIST. NO.	ILLINOIS	PROJECT BR05-183(86)		
CONTRACT NO. 91323				



SCALE  
 VERT. 1" = 4'  
 HORIZ. 1" = 10'

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 291	94-14131-00-BR	VERMILION	12	9
STA. 8+07.90 TO STA. 20+94.16				
FED. ROAD DIST. NO.		BLKMS	PROJECT	BROS-183186
CONTRACT NO. 91323				
SCALE IN FEET				



**CURVE DATA**  
 CURVE NO. 1  
 P.I. STA. 10+34.57  
 $\Delta = 28^\circ 34' 23''$  (LT.)  
 $D = 11^\circ 11' 57''$   
 $T = 130.28'$   
 $R = 511.61'$   
 $L = 255.14'$   
 $E = 16.33'$   
 P.C. STA. 9+04.29  
 P.T. STA. 11+59.43

19.94' RT., STA. 12+87.00 TO  
 22.40' RT., STA. 13+15.00  
 28 FOOT  
 PIPE CULVERTS, CLASS D,  
 TYPE 1 15"  
 U.S.  $\bar{f} = 590.94$   
 D.S.  $\bar{f} = 590.14$

**CURVE DATA**  
 CURVE NO. 2  
 P.I. STA. 17+33.62  
 $\Delta = 9^\circ 27' 13''$  (LT.)  
 $D = 7^\circ 09' 43''$   
 $T = 66.15'$   
 $R = 800.00'$   
 $L = 132.00'$   
 $E = 2.73'$   
 P.C. STA. 16+67.47  
 P.T. STA. 17+99.47  
 S.E. = 4.0Z  
 S.E. ATTAINED STA. 16+00.80  
 TO STA. 17+00.80  
 S.E. REMOVED STA. 17+66.14  
 TO STA. 18+66.14

**LEGEND**

- TEMPORARY AGGREGATE DITCH CHECK (TYP.) (COST INCLUDED IN TEMPORARY DITCH CHECK, SEE STD. 280001)
  - PERIMETER EROSION BARRIER
  - TEMPORARY PIPE PROTECTION
- ALL ITEMS SHALL BE CONSTRUCTED AS SHOWN ON STANDARD 280001 AND AS DIRECTED BY THE ENGINEER. MAINTENANCE AND CLEANING OF THE EROSION CONTROL ITEMS SHALL BE INCLUDED IN THE RESPECTIVE EROSION CONTROL PAY ITEM.

**STORM WATER POLLUTION PREVENTION PLAN**

**DESCRIPTION OF INTENDED SEQUENCE FOR MAJOR CONSTRUCTION ACTIVITIES:**

1. ISOLATED TREE REMOVAL AS SHOWN ON THE PLANS, TREES TO REMAIN WILL BE PROTECTED AGAINST DAMAGE.
2. REMOVAL OF EXISTING STRUCTURE.
3. EXCAVATION WILL BE COMPLETED ALONG THE ENTIRE LENGTH OF THE JOB TO REMOVE THE EXISTING ROADWAY AND GRADE THE PROPOSED DITCHES.
4. NECESSARY EMBANKMENT WILL BE PLACED ALONG THE ENTIRE LENGTH OF THE JOB FOR THE PROPOSED ROADWAY.
5. PLACEMENT, MAINTENANCE, REMOVAL AND PROPER CLEAN-UP OF TEMPORARY EROSION CONTROL ITEMS, SUCH AS EROSION BARRIER, AGGREGATE DITCH CHECKS, INLET AND PIPE PROTECTION, TEMPORARY SEEDING AND OTHER MISCELLANEOUS EROSION CONTROL MEASURES.
6. CONSTRUCT NEW BRIDGE.
7. PLACEMENT OF PERMANENT EROSION CONTROL ITEMS, INCLUDING RIPRAP AND SEEDING.
8. PLANTING OF REPLACEMENT TREES.
9. FINAL GRADING AND OTHER MISCELLANEOUS ITEMS.

**SCHEDULE OF EROSION CONTROL QUANTITIES**

**EARTH EXCAVATION FOR EROSION CONTROL**  
 TOTAL = 80 CU. YD.

**TEMPORARY EROSION CONTROL SEEDING**  
 100 LBS/ACRE X 0.7 ACRES = 70 POUNDS

**SEEDING, CLASS 2**  
 AREA INSIDE OF CONSTRUCTION LIMITS, LESS ROADWAY.  
 TOTAL = 0.7 ACRES

**NITROGEN FERTILIZER NUTRIENT**  
 TOTAL = 63 POUNDS

**PHOSPHORUS FERTILIZER NUTRIENT**  
 TOTAL = 63 POUNDS

**POTASSIUM FERTILIZER NUTRIENT**  
 TOTAL = 63 POUNDS

**MULCH, METHOD 2**  
 TOTAL = 0.7 ACRES

**INLET AND PIPE PROTECTION**  
 15.70' LT., STA. 11+47.21 = 1 EACH  
 19.94' RT., STA. 12+87.00 = 1 EACH  
 24.20' LT., STA. 17+60.71 = 1 EACH  
 15.34' RT., STA. 18+27.23 = 1 EACH  
 12.77' LT., STA. 18+72.91 = 1 EACH  
 TOTAL = 5 EACH

**PERIMETER EROSION BARRIER**  
 TO BE CONSTRUCTED AT LOCATIONS SHOWN ON PLANS. LAYOUT MAY VARY AS DIRECTED BY THE ENGINEER.  
 TOTAL = 223 FOOT

**TEMPORARY DITCH CHECK**  
 STA. 12+00, RT. & LT. = 2 EACH  
 STA. 12+50, RT. & LT. = 2 EACH  
 STA. 13+00, LT. = 1 EACH  
 STA. 13+50, RT. & LT. = 2 EACH  
 STA. 14+00, RT. = 1 EACH  
 STA. 16+25, RT. & LT. = 2 EACH  
 STA. 16+75, RT. & LT. = 2 EACH  
 STA. 17+25, RT. & LT. = 2 EACH  
 STA. 17+75, RT. = 1 EACH  
 STA. 18+00, LT. = 1 EACH  
 TOTAL = 16 EACH

**NOTES:**

FOR LAYOUT OF GROUTED RIPRAP AT BRIDGE, SEE SHT. 10 OF 12.  
 ALL ITEMS SHALL BE CONSTRUCTED AS SHOWN ON STANDARD 280001 AND AS DIRECTED BY THE ENGINEER. MAINTENANCE AND CLEANING OF THE EROSION CONTROL ITEMS SHALL BE INCLUDED IN THE RESPECTIVE EROSION CONTROL PAY ITEM.

**STORM WATER POLLUTION PREVENTION AND EROSION CONTROL PLAN**

DATE	BY	REVISION

DATE	BY	REVISION

**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)	

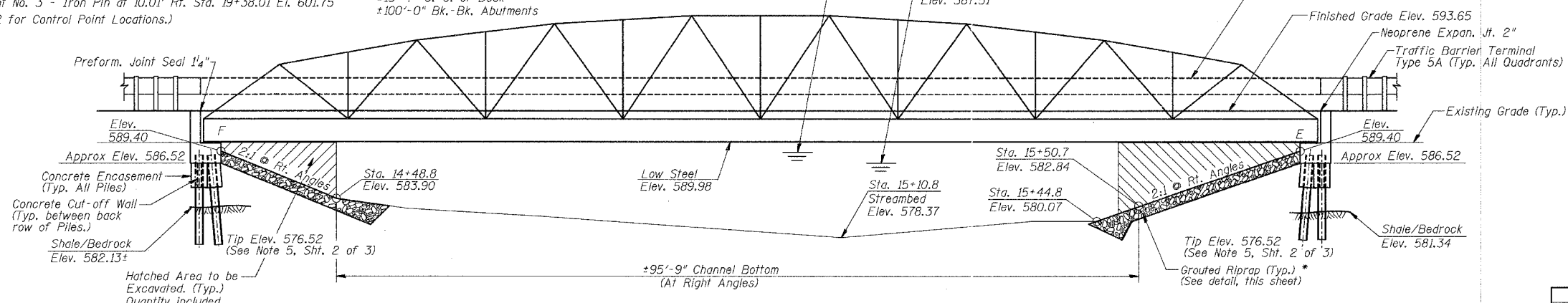
CONTRACT NO. 91323

**GENERAL NOTES**

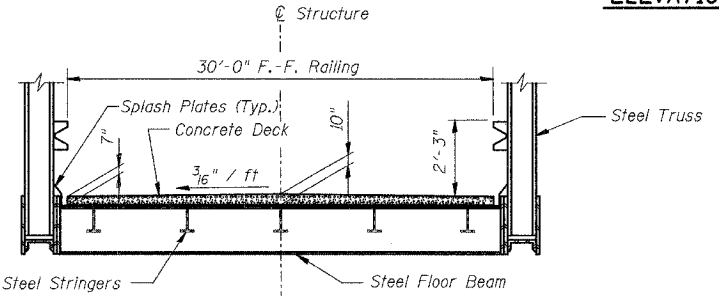
Layout of Riprap Slopes may be varied in the field to suit ground conditions as directed by the Engineer.  
 Reinforcement Bars shall conform to the requirements of AASHTO M-31, M-42 or M-53 Grade 60.  
 The Contractor shall drive two Steel Test Piles in a permanent location at the West and East Abutments 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



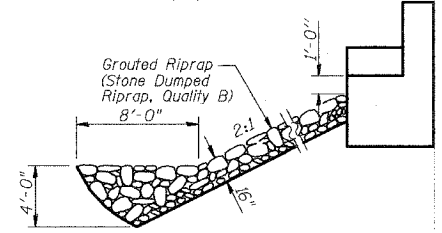
**ELEVATION**



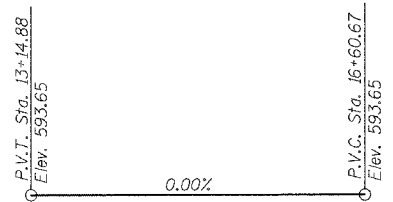
**SECTION THRU SUPERSTRUCTURE**

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

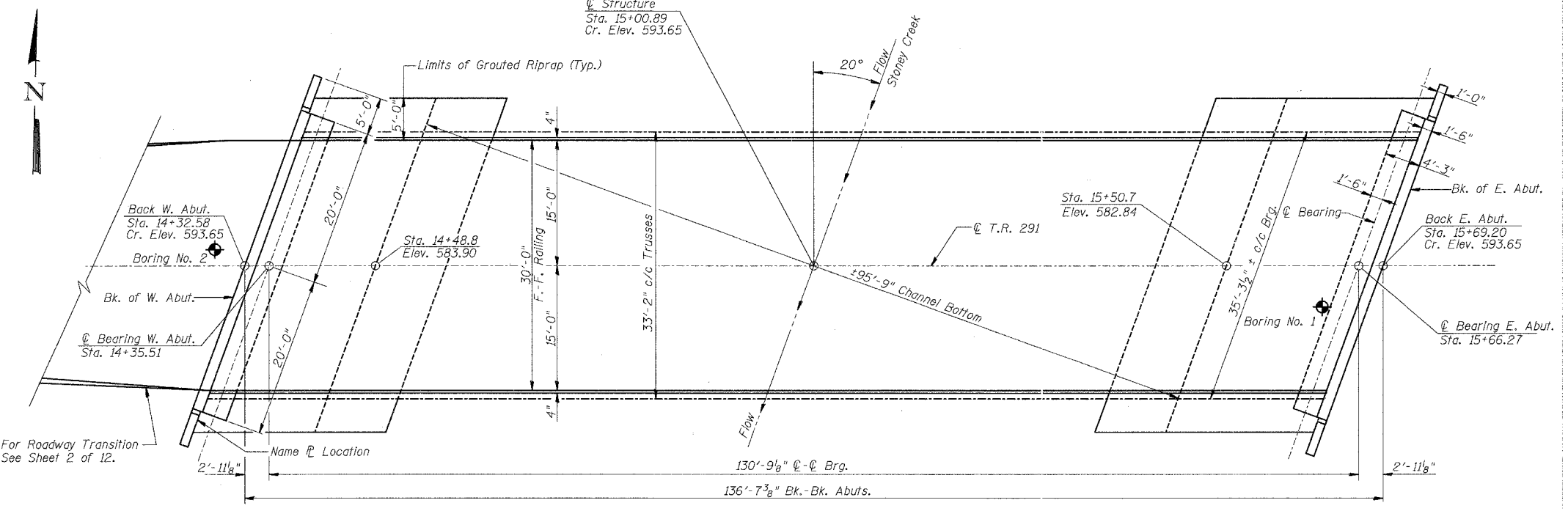
**NAME PLATE**  
 (See Std. 515001)



**STONE DUMPED RIPRAP ANCHOR DETAIL**



**PROFILE T.R. 291**



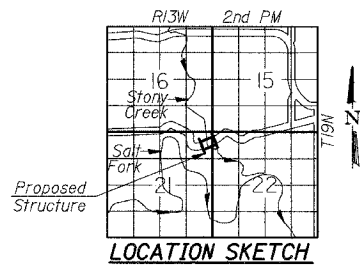
**PLAN**

**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



**LOCATION SKETCH**

**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

**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

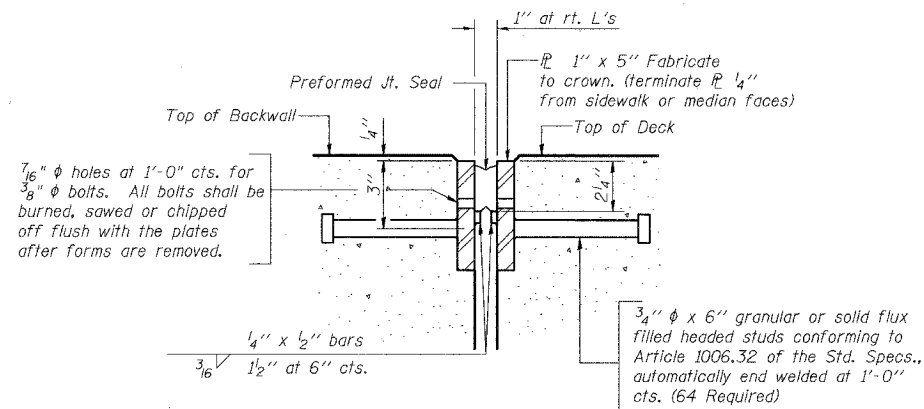


DATE: March 22, 2005  
 Keith W. Benting  
 KEITH W. BENTING  
 ILL. STRUCTURAL NO. 4777

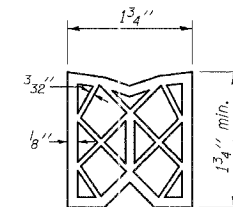
"I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THIS BRIDGE DESIGN IS STRUCTURALLY ADEQUATE FOR THE DESIGN LOADING SHOWN ON THE PLANS. THE DESIGN IS AN ECONOMICAL ONE FOR THE STYLE OF STRUCTURE AND COMPLIES WITH REQUIREMENTS OF THE CURRENT 'AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES'."



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 291	94-14131-00-BR	VERMILION	12	12
FED. ROAD DIST. NO.		ILLINOIS PROJECT BROS-183(86)	CONTRACT NO. 91323	



**SECTION THRU FIXED PREFORMED JOINT SEAL**



**PREFORMED JOINT SEAL**

**WEST ABUTMENT FIXED JOINT DETAILS**

(Preformed Joint Seal 1 3/4")

**GENERAL NOTES**

Furnish PJS steel plates in segments of 20 feet maximum length. Maximum space between installed segments shall be 3/16". Seal space with silicone sealant suitable for structural steel.  
The manufacturer's recommended installation methods shall be followed.

**BILL OF MATERIAL**

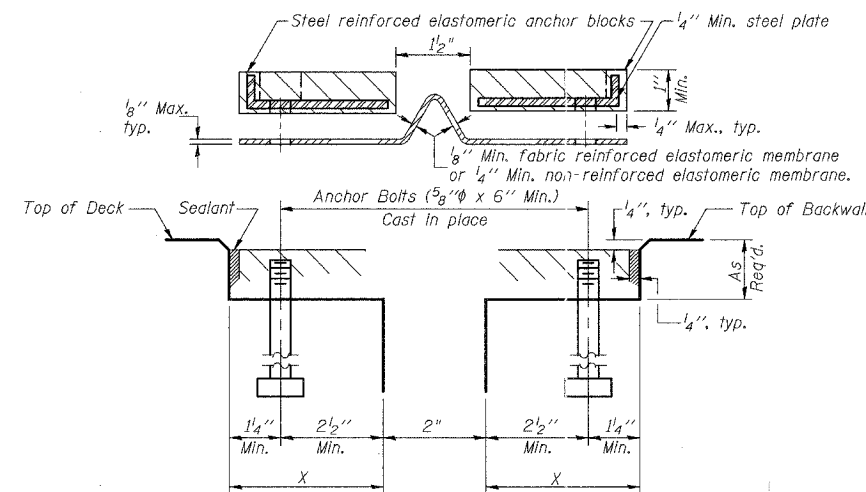
Item	Unit	Total
Preformed Joint Seal 1 1/4"	Foot	32
Neoprene Expansion Joint 2"	Foot	32
Furnishing and Erecting Structural Steel	Pound	910

**INSTALLATION NOTES**

① Install continuous seal in Bridge Deck and Backwall.

② Install anchor blocks as indicated.

NOTE A: Maximum spacing of anchor bolts shall be 12" centers.



**CROSS SECTION**

**EAST ABUTMENT EXPANSION JOINT DETAILS**

(Neoprene Expansion Joint 2")

**EXPANSION JOINT DETAILS**

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

**GENERAL NOTES**

Continuous Seal Neoprene Expansion Joint shall consist of molded anchor blocks of elastomer and steel, field assembled over continuous lengths of elastomeric membrane.  
The elastomeric membrane shall be pre-molded with a single or a double upward convolution that will have a "memory" to return to its molded position upon joint closure.  
The convolution length shall be such that the extended length will not be greater than the manufactured length when the joint is fully expanded in its design range and will not protrude above the anchor blocks when the joint is fully compressed.  
Joint openings shall be adjusted according to Article 503.10(c) of the Standard Specifications when the deck is poured at an ambient temperature other than 50° F.  
The parapet and roadway membrane shall be made continuous by an approved vulcanizing process. Lapping will not be permitted.  
Provide additional (X) bars in the deck at the neoprene expansion joint in accordance with the IDOT Bridge Manual.