Illinois Department of Transportation

Memorandum

To:	D. Carl Puzey	Attn: Patrik D. Claussen
From:	Scott W. Neihart	By: Timothy J. Brandenburg
Subject:	Bridge Condition Report – Region 3 / District 5	
Date:	June 1, 2017	

Route: FAI 74 *Job No.: P-95-029-17*
Section: (92-11)BR-1 *S.N.: 092-0007 WB (E)*
County: Vermilion *S.N.: N.A. (P)*
Crossing: Salt Fork Vermilion River *PTB / Item: NA* *Contract: 70A92*

Prepared By: Region 3 / District 5 *File Name: 0920007BCR-20170601*
Date Prepared: June 1, 2017

An electronic copy of the Region 3 / District 5 prepared Bridge Condition Report for SN 092-0007 (E) has been sent to: dot.bbs.planning@illinois.gov for your review and approval.

SN 092-0007 is a seven span fracture critical steel beam structure that carries FAI 74 westbound over the Salt Fork Vermilion River west of Danville and one mile east of the US 150 Interchange. The District proposes Bridge Rehabilitation – Superstructure Replacement for this structure.

A Proposed Structure Sketch and Plan/Profile sheets have been included.

This superstructure replacement is programmed for a November 2019 Letting.

The proposed details are subject to refinement during TSL development.

Contact: Timothy J. Brandenburg at (217) 465-4181 ext. 211.

Timothy J. Brandenburg, P.E.
Bridge & Hydraulics Engineer
Region 3 / District 5

BRIDGE CONDITION REPORT

REGION:	**3**
DISTRICT:	**5**
ROUTE:	**FAI 74**
SECTION:	**(92-11)BR-1**
COUNTY:	**Vermilion**
CONTRACT:	**70A92**
JOB NUMBER:	**P-95-029-17 / D-95-029-17**
STRUCTURE NUMBER:	**092-0007 (WB)**
LOCATION:	**Over Salt Fork Vermilion River West of Danville and 1 Mile East of US 150 Interchange**

PREPARED BY:	Timothy J. Brandenburg – District 5
DATE PREPARED:	June 1, 2017
PROPOSED LETTING DATE:	November 2019

Table of Contents

I. Geographical & Administrative Data:

Structure Number:	092-0007 (WB)
County:	Vermilion
Route Carried:	FAI 74
Feature Crossed:	Salt Fork Vermilion River
Section:	(92-11)BR-1
Contract:	70A92
Station:	1755+16
Roadway Classification:	Interstate
Design Speed:	70 mph
ADT (WB):	10,900 (2017) / 12,000 (2037)
ADTT (WB):	3,400 (2017) / 3,744 (2037)
DHV (WB):	910 (2037)
NHS:	Yes
SD:	Yes
Inventory Rating HS:	1.100
Operating Rating HS:	1.840
Sufficiency Rating:	76.3
Bridge Posting Level:	No Posting Required

Construction / Reconstruction / Repair History:

Structure 092-0007 (WB) was built in 1962 as FAI 74, Section 92-11B, Contract 20973F at Station 1755+16 in Vermilion County. The structure carries FAI 74 westbound over the Salt Fork Vermilion River. In 1977 the structure was repaired with improvements consisting of deck patching, expansion device reconstruction, installation of waterproofing membrane system and hma overlay. Plans for the 1977 repairs have not been found, however these improvements are shown as noted on the 1991 GP&E sheet. In 1991 the structure was rehabilitated with improvements consisting of deck replacement, replacement of 12 of 66 floor beams, various bolt, hanger and other structural steel repairs, neoprene expansion joints, drainage scuppers, replacement of all bearings, substructure repairs at Pier 1A and A3 riprap scour protection as Section 92-11BR, Contract 90165. In 2008 the structure received scour mitigation improvements consisting of placing A4 and A5 riprap around Piers 2 and 3, as Section D5 Scour Mitigation 2008-1, Contract 70013.

Bridge Crew Repairs: In 2006, the neoprene expansion joints at the east abutment and pier1a were replaced with polymer concrete and silicone joints. In 2008, the east abutment vaulted abutment door was replaced. In 2017, a gusset plate connecting cross bracing to the north girder at pier 1a, span 1a and connecting vertical tie rod were replaced.

II. Physical Description of Structure:

Structure 092-0007 (WB) carries FAI 74 over the Salt Fork Vermilion River west of Danville and 1 mile east of the US 150 Interchange. Due to foundation issues during original construction, an additional 93' simple span was added to the west end of this structure, thus moving the west abutment back and creating an overall structure length of 750'-2". Therefore, the original structure consists of one simple 93' span and six continuous spans (1 @ 93', 4 @ 116', 1 @ 93') for a back to back abutment length of 750'-2" with a 9" reinforced concrete deck on two 84" riveted steel plate girders with 66 steel floor beams (24WF94) supported by six double column piers (piers 1a thru 3 on spread footing and piers 4 & 5 with steel piles) and vaulted abutments with spread footing under the west and concrete piles under the east. The clear deck width is 30'-0" with 3'-0" curbs for an out to out width of 36'-0". The structure is built 90° to FAI 74.

The existing structure consists of one simple 93' span and six continuous spans (1 @ 93', 4 @ 116', 1 @ 93') for a back to back abutment length of 750'-2" with a 9" reinforced concrete deck on two 84" riveted steel plate girders with 66 steel floor beams (24WF94) supported by six double column piers (piers 1a thru 3 on spread footing and piers 4 & 5 with steel piles) and vaulted abutments with spread footing under the west and concrete piles under the east. The clear deck width is 32'-10" with 1'-7" parapets for an out to out width of 36'-0". The structure is built 90° to FAI 74.

The structure is on a horizontal tangent and on a vertical tangent with a profile grade of 2.4% located between a crest and sag vertical curves. There are utilities attached to the abutment seat and wingwalls of the west vaulted abutment. Overhead electric lines are present well north of these structures.

The FAI 74 approach roadway consists of two 12'-0" lanes with 10'-0" outside and 4'-0" inside hma shoulders. Shoulder break lines are at 12'-0" outside and 8'-0" inside.

III. Field Inspection & Physical Evaluation:

Superstructure:

Deck: The bare deck is in overall poor condition with advanced deterioration. The deck soffit has numerous leaching transverse, longitudinal and map cracking at less than 2' intervals throughout, but overall appears solid with minimal patching anticipated. The drainage scuppers with 6" down spouts are in good condition, at correct locations and length. The parapets exhibit some vertical cracks and map cracking, but are still in good condition.

Beams: The two main girders and 66 floor beams are in overall poor condition with advanced deterioration. There is moderate rust throughout with heavy rust at beam ends and diaphragms under the joints. The two main 84" girders exhibit initial section loss around 5% and have thousands of tack welds between members which could become initiation points for fatigue cracks. The 1991 rehabilitation attempted to grind out the tack welds, but in most cases only the tops were ground, leaving the members bonded and gouging of the girder webs in the process. These locations now exhibit heavy rusting. See Attachment C4 0920007 Fracture Critical Inspection 9.9.2015 for detailed inspections comments. The lead paint system was last painted in May 1998 and is failing with corrosion present throughout.

Joints: The joints are in poor condition with deterioration and leaking. The west abutment joint remains a preformed joint seal and the hatch block is in poor condition. The east abutment and the Pier 1A neoprene joints have been replaced with polymer nosing and silicone, but have been continually leaking for a lengthy period of time in spite of Bridge Crew repairs over the

years. These leaking joints have led to a significant amount of substructure deterioration, especially at Pier 1A.

Bearings: The abutment bearings and pier bearings 1 through 5 exhibit moderate rust and corrosion while Pier 1A bearings exhibit a significant amount of rust. It is difficult to confirm, but is anticipated that none of these bearings functioning properly.

Substructure:

Abutments: The vaulted abutments are in overall fair condition with some deterioration. Both abutments exhibit map cracking and leaching in the interior walls and soffit and have an HMA wearing surface which is worn and map cracked. The backwalls and wingwalls exhibit vertical and map cracking with some delamination, spalling and exposed reinforcement. The west abutment has been identified for 44.0 sq. ft. of Structural Concrete Repair (SCR), approximately 12% of the abutment face area and 10.0 sq. ft. of SCR along the beam seat face. The wingwalls exhibit leaching cracks and some delamination for an area of 38.0 sq. ft. of SCR. The east abutment has 10.0 sq. ft. of SCR on the abutment face and 6.0 sq. ft. of SCR on the beam seat. The wingwalls exhibit leaching cracks and minor delamination for an area of 2.0 sq. ft. of SCR.

Piers: Pier 1A is in poor condition due to the leaking expansion joint with areas of delamination, spalling and exposed reinforcement in the columns and has been identified for 278.0 sq. ft. of Structural Concrete Repair. The three transverse tie members are in poor condition with advanced deterioration and should be replaced entirely. Piers 1 thru 5 are in good condition with minor deterioration and identified for a combined 71.0 sq. ft. of SCR. Pier 1 transverse tie members have the most deterioration with the remaining in very good condition. There is minor erosion present along the west face of pier 5.

Slope Protection: The west slopewall is protected with 6" concrete and is in poor condition with most of the area broken and failing with trees and vegetation growing through cracks and voids. Due to addition of the west simple span, the west slopewall is very steep at 1.2:1 and difficult to maintain. The 5' paved ditch at the bottom of slopewall is broken and in poor condition. The 12" storm sewer which drains from the west slopewall to just west of Pier 2 is in poor condition and not draining effectively. The east slopewall is protected with A3 and A4 riprap and is in good condition. The concrete gutter along the beam seat is in poor condition and likely drains north to the median area as an outlet to the south has not been located.

Scour Protection: The scour protection is in good condition due to the scour mitigation contract in 2008. Pier 2 along the west bank is protected with sheet piling and large portions of the original parapets from the deck replacement. Pier 3 along the east bank is protected with A5 riprap. Piers 2 & 3 have been on Annual Special Feature Inspections for scour critical evaluation monitoring since 2004. Pier 5 had A4 riprap installed along a portion of the west face in 2008, however the erosion area has expanded and should have additional A4 placed.

Inspection History (NBIS Ratings):

Year	Deck	Super	Sub	Scour
2016	4	5	7	8
2014	4	5	7	
2012	5	6	7	

Geometric, Horizontal & Vertical Clearance / Hydraulic Data:

Geometrically, the alignment criteria for the existing structure are adequate. The existing 32'-10" deck clear width does not meet the required 38'-0" clear width for existing bridges to remain in place as indicated in Figures 39-6.A and 44-5.A of the BDE Manual. A design exception with an analysis to determine cost effectiveness of improving this clear width and satisfactory safety record would be required to retain the use of this superstructure. As a reconstruction, the required clear width is 40'-0" consisting of two 12'-0" lanes with 10'-0" outside and 6'-0" inside shoulders. The shoulder widths will vary to 8'-0" across the structure to allow for symmetry of substructure widening. Due to the large vertical clearance of approximately 53' between the proposed low beam elevation and 50 year natural high water elevation, an Abbreviated Hydraulic Report is anticipated.

1962 Original Vertical Information (CN 20973):

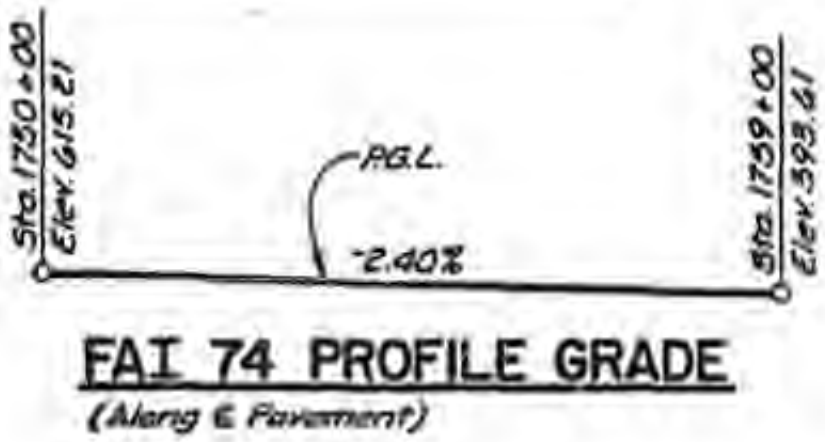
	Sta.	Elev.	Grades, Type, Length
VPC	1739+50	630.74	-0.72%
VPI	1745+00	626.78	1100' Crest V.C.
	1750+00	614.78	
VPT	1750+50	613.58	-2.4%
VPC	1759+00	593.18	-2.4%
VPI	1763+00	583.58	800' Sag V.C.
VPT	1767+00	590.10	+1.631%

P.G.L. across Structure: – 2.40%

Sta. 1750+00; Elev. 614.78

Sta. 1759+00; Elev. 593.18

1991 Rehabilitation Vertical Information (CN 90165):



FAI 74 PROFILE GRADE
(Along ℄ Pavement)

Potential Scope of Work & Analysis:

1. Rehabilitation – B-SMART or Deck Repair: An analysis has not been completed for this scope of work due to the fracture critical nature, condition and age of the superstructure. Though the deck condition and age suggest this scope of work may be considered, the narrow clear width of 32'-10" would remain and is well short of the 38'-0" required bridge width to remain in place. Therefore, it is not recommended or considered cost-effective to pursue this scope of work for a fracture critical structure with a less than required clear width.

2. Rehabilitation – Deck Replacement: An analysis has not been completed for this scope of work due to the fracture critical nature, condition and age of the superstructure. The deck was replaced on this structure in 1991 and the existing two main girder with floor beam system could not support a wider structure than 36'-0" out to out, 32'-10" clear width without widening. Therefore, it is not recommended or considered cost-effective to pursue this scope of work for a fracture critical structure with a less than required clear width.

3. Rehabilitation – Superstructure Replacement (7 span): This option would involve removal of the existing superstructure, widening and repair of all eight substructure units and placement of superstructure with 6 – 45" plate girder beam lines to provide a policy 40'-0" clear width. Approach slab replacements to meet roadway width and cross-over traffic control costs are included. The estimated structure cost of this Superstructure Replacement (7 span) is $8,481,219. Costs associated with Painting or Metalizing are included. No Utility or Land Acquisition costs are incurred. Preliminary Engineering is to be completed by BBS, so no costs are incurred. The overall cost of Alternative 3 is 53% of the cost of Alternative 5.

4. Rehabilitation – Superstructure Replacement (6 span): This option would eliminate the east span 6 and involve removal of the existing superstructure, partial removal of the east abutment, retrofit of pier 5 to the proposed east abutment, widening and repair of the remaining six substructure units and placement of superstructure with 6 – 45" plate girder beam lines to provide a policy 40'-0" clear width. Approach slab replacements to meet roadway width and cross-over traffic control costs are included. The estimated structure cost of this Superstructure Replacement (6 span) is $7,889,049. Costs associated with Painting or Metalizing are included. No Utility or Land Acquisition costs are incurred. Preliminary Engineering is to be completed by BBS, so no costs are incurred. The overall cost of Alternative 4 is 93% of Alternative 3 and 49% of the cost of Alternative 5.

5. Complete Replacement: This option would involve the complete removal and replacement of the entire structure. The proposed structure would consist of 3 – 210' spans with 6 - 84" plate girders for a 635'-0" bk. to bk. of abutment length with vaulted approach spans. Substructure units where positioned to provide greater clearance from the Salt Fork Vermilion River banks thus avoiding future scour issues and to avoid existing substructure units. Depths of the substructure units mirror the existing conditions as mining activities are present at this structure, especially west of the SFVR. The proposed clear width is 40'-0" with an out-out width of 43'-2". Approach slab replacements to meet roadway width and cross-over traffic control costs are included. The estimated cost of Complete Replacement is $16,033,358. Costs associated with Painting or Metalizing are included. No Utility or Land Acquisition costs are incurred. Preliminary Engineering is to be completed by BBS, so no costs are incurred. The overall cost of Alternative 5 is approximately twice the cost of Alternative 3 and Alternative 4, respectively.

V. Discussion and Recommended Scope of Work:

Alternative 5, Complete Replacement at this time does not fit the overall life cycle of this structure. The substructure is in overall good condition, has only 55 years of service and can be repaired effectively to allow re-use. The remaining service life of these large, deep substructure units is expected to be around 40 years.

Alternative 4, Rehabilitation - Superstructure Replacement (6 span) is 49% of the cost of complete replacement and fits the life cycle of this structure more appropriately. This alternative provides a 40'-0" clear width and shortens the structure by eliminating the east span. However, this does eliminate floodplain access above the natural design highwater elevation under the structure on the east end which has been used by both public and private parties in the past. The remaining five piers can be repaired and widened effectively to allow for re-use. Pier 1A has the majority of the repairs with the other four piers requiring minimal repairs. To provide symmetry of substructure pier cap widening as shown in the Proposed Typical Pier Cap sheet, the proposed shoulder widths will need to be 8'-0" across the structure and will vary from 10' and 6' along the roadway typical to 2 – 8's along the structure typical. The west abutment will be retrofitted to accommodate the proposed 40'-0" clear width as shown in the Proposed Typical Abutment Rehabilitation sheet. The east abutment will be relocated to pier 5 and pier 5 retrofitted to an abutment to accommodate the proposed 40'-0" clear width. The cost of this alternative is within 10% of alternative 3.

Alternative 3, Rehabilitation - Superstructure Replacement (7 span) is 53% of the cost of complete replacement and fits the life cycle of this structure more appropriately. This alternative provides a 40'-0" clear width and re-uses the entire substructure. The six piers can be repaired and widened effectively. Pier 1A has the majority of the repairs with the other five piers requiring minimal repairs. To provide symmetry of substructure pier cap widening as shown in the Proposed Typical Pier Cap sheet, the proposed shoulder widths will need to be 8'-0" across the structure and will vary from 10' and 6' along the roadway typical to 2 – 8's along the structure typical. Both abutments will be retrofitted to accommodate the proposed 40'-0" clear width as shown in the Proposed Typical Abutment Rehabilitation sheet. The cost of this alternative is within 10% of alternative 4.

Based on this discussion; Alternative 3: Rehabilitation – Superstructure Replacement (7 span) is recommended.

Due to the existing fracture critical structure type, the only method of traffic control is to construct cross-overs. A width restriction will be required.

The contract is currently programmed for a November 2019 Letting.

The Bureau of Bridges and Structures is scheduled for the preliminary engineering and structure plans. Details are subject to refinement during the TS&L Phase.

The SGR will be prepared by a District Consultant.

An Abbreviated Hydraulic Report will be prepared, approved and submitted by the District at a later date.

SN's 092-0006 & 0007; CN 70A92 Bridge Rehabilitation
FAI 74 over Salt Fork Vermilion River west of Danville; 1 mile east of US 150 Interchange
Section (92-11)BR-1
Vermilion County
P & D 95-029-17

Illinois Department of Transportation
Structures Information Management System
Master Structure Report (S-107)

Structure Number: 092-0007 **District: 5**

Inventory Data

Facility Carried:	I-74 (WB)	**Bridge Name:**		**Sufficiency Rating:**	76.3
Feature Crossed:	SALT FORK VERM RIVER	**Location:**	W OF DANVILLE	**HBP Eligible:**	Yes
Bridge Remarks:	SPANS=4 @ 116',3 @ 93', APPR=2 @ 17.3'			**Replaced By:**	
Bridge Status:	1 OPEN - NO RESTRICT	**StatusDate:**	04/1988	**Replaces:**	
Status Remarks:				**Last Update Date:**	10/29/2012
Maint County:	092 VERMILION	**Maint Township:**	05 DANVILLE	**Parallel Structure:**	Left
Maint Responsibility:	01 I.D.O.T.			**Multi-Level Structure Nbr:**	
Service On/Under:	1 HIGHWAY	/	5 WATERWAY	**Skew Direction:**	None
Reporting Agency:	1 I.D.O.T. - BUREAU OF MAINTENANCE			**Skew Angle:**	0 D
Main Span Matl/Type:	4 STEEL CONTINUOUS	/	03 GIRDER AND FLOORBEAM SYSTEM	**Structure Flared:**	No
Nbr Of Main Spans:	7	**Nbr Of Approach Spans:**	2	**Historical Significance:**	No

Structure Length:	750.2				
AASHTO Bridge Length:	99.9				
Length of Long Span:	116.0				
Bridge Roadway Width:	32.8				
Appr Roadway Width:	39.0				
Deck Width:	36.0				
Sidewalk Width Right:	0.0				
Sidewalk Width Left:	0.0				
Navigation Control:	0 No				
Navigation Horiz Clear:	0				
Navigation Vert Clear:	0				

Approaches

Near #1 Matl/Type:	1 CONCRETE	/	01 SLAB	**Bdr State SN:**	
Near #2 Matl/Type:		/		**Bdr State % Responsibility:**	0
Far #1 Matl/Type:	1 CONCRETE	/	01 SLAB	**Structural Steel Wt:**	2,205,800
Far #2 Matl/Type:		/		**Substructure Material:**	55

Border Bridge State:					
Culvert Fill Depth:	0.0				
Number Culvert Cells:	0				
Culvert Opening Area:	0.0				
Culvert Cell Height:	0.00				
Culvert Cell Width:	0.00				

Median Width/Type:	0 Ft. / 0 None			**Rated By:**	2 IDOT
Guardrail Type L/R:	0 None	/	0 None	**Inventory Rating:**	1.100 (39)
Toll Facility Indicator:	0 No Toll			**Operating Rating:**	1.840 (66)
Latitude:	40.11554090	**Longitude:**	87.69464119	**Design Load:**	01 HS20+MOD
Deck Structure Type:	A CIP CON NRMLLY FORM			**Deck Structure Thickness:**	9.0 **SD:** Y **FO:** N
Sidewalks Under Structure:	0 None				

Rate Method:	6 LOAD FACTOR (LF) RE
Load Rating Date:	08/31/2016

Railroad Crossing Info

Crossing 1 Nbr:	
Crossing 1 Nbr:	
RR Lateral Underclear:	0.0
RR Vertical Underclear:	0 Ft 0 In

Key Route On Data

Key Route Nbr:	FEDERAL-AID INTERSTATE 0074	**Station:**	13.2500		
Appurtenances	Main Route 00000	**Segment:**			
Inventory County:	092 VERMILION	**Linked:**	Y		
Township/Road Dist	05 DANVILLE	**Natl. Hwy System:**	On NHS		
Municipality	0000	**Inventory Direction:**			
Urban Area:	None	**Curr AADT Yr/Count:**	2015 / 11000		
Functional Class:	1 INTERSTATE	**Est Truck Percentage:**	31		
**** CLEARANCES ** South/East**	**North/West**	**Number Of Lanes:**	2		
Max Rdwy Width:	32.8	**One Or Two Way:**	1 One-Way		
Horizontal:	34.0	0.0	**Bypass Length:**	1	
Min Vertical:	99 Ft 11 In	00 Ft 00 In	**Future AADT Yr/Cnt:**	2032 / 9140	
10 Ft Vertical:	99 Ft 11 In	00 Ft 00 In	**Designated Truck Rte:**	CLASS I	
Lateral:			**Special Systems:**	Yes	

Key Route Under Data

		Station:	
		Segment:	
		Linked:	
		Natl. Hwy System:	
		Inventory Direction:	
		Curr AADT Yr/Count:	/
		Est Truck Percentage:	
South/East	**North/West**	**Number Of Lanes:**	
		One Or Two Way:	
		Bypass Length:	
Ft In	Ft In	**Future AADT Yr/Cnt:**	/
Ft In	Ft In	**Designated Truck Rte:**	
Ft	Ft	**Special Systems:**	

*** Marked Route On Data ***

	Designation		Kind	Number
Route #1:	1 Mainline	1	Interstate Highway	074
Route #2:	1 Mainline			
Route #3:	1 Mainline			

*** Marked Route Under Data ***

Designation	Kind	Number

Structure Number: 092-0007 **District: 5**

Data Related to Inspection Information

***Inspection Intervals ***				*** Maximum Allowable Posting Limits ***				Bridge Posting Level:	
Routine NBIS:	24 MOS	Underwater:	0 MOS	One Truck At A Time:	0	Combination Type 3S-1:	Tons	5	No Posting Required
Fracture Critical:	24 MOS	Special:	N	Single Unit Vehicles:	Tons	Combination Type 3S-2:	Tons		

Inspection/Appraisal Information

Inspection Date:	01/14/2016	Inspection Temperature:	44 Deg. F	Insp by (Name):	CraddockDJ	** Actual Posted Limits **			
Deck:	4	POOR CONDITION - ADVANCED DETERIORATION		Insp by (Name):	ConklinSD	Single Unit Vehicles:		Tons	
Superstructure:	5	FAIR CONDITION - MINOR SECTION LOSS, CRACKS		Utilities Attached:	N N/A	Combination Type 3S-1:		Tons	
Substructure:	7	GOOD CONDITION - SOME MINOR PROBLEMS			N N/A	Combination Type 3S-2:		Tons	
Culvert:	N	NOT APPLICABLE			N N/A	One Truck At A Time:	0		
Channel and Protection:	7	GOOD CONDITION - SOME MINOR PROBLEMS		Deck Wearing Surf:	A BARE DECK NO OVRLAY	Last Paint Type:			
Structural Evaluation:	5	BETTER THAN ADEQUATE TO BE LEFT IN PLACE		Deck Membrane:	F NONE	E	LD FLD PRM AL FNL		
Deck Geometry:	4	MINIMUM ADEQUACY TO BE LEFT IN PLACE		Deck Protection:	A EPOXY COATED REINF	J	IR/ZC/OXIDE ALKYD		
Underclearance-Vert/Lat.:	N	NOT APPLICABLE		Total Deck Thick:	9.0				
Waterway Adequacy:	8	EQUAL TO PRESENT DESIRABLE CRITERIA		Last Paint Date:	05/1998				
Approach Roadway Align:	8	EQUAL TO PRESENT DESIRABLE CRITERIA		Inspection Remarks:					
Bridge Railing Appraisal:	3	Meets Standards		DECK SOFFIT HAS TRANSVERSE AND LONGITUDINAL LEACHING CRACKS. BEAM ENDS AND DIAP PHRAMS ARE RUSTY UNDER JOINT. OTHER LIGHT TO MODERATE RUST THROUGHOUT SUPERSTRU CTURE. RIPRAP PLACED AROUND PIERS IN FALL OF 2008. LOWER SUPER PER 2009 FC INSP					
Approach Guardrail:	333	Acceptable	Acceptable Acceptable						
Pier Navig Protection:	N	N/A							

Underwater Inspection/Appraisal Information

Inspection Date:	06/07/2005								
Temperature:	80	Inspection Method:	OPV	Other	Probe	Visual			
Inspected By:	ConklinSD	Inspected By:		Appraisal Rating:	8	VERY GOOD CONDITION			
Inspection Remarks:	PIER 2 PROTECTED BY SHEET PILING AND IS OUT OF WATER, PIER 3 HAS 8.9' COVER AND D GREATER. (INSPECTOR 2 MATT BOWER)								

Scour Critical Information

Rating:	8 CALCULATED SCOUR ABOVE FOOTING	Evaluation Method:	A Computer Calculation
Analysis Date:	05/09/2008	Analysis By:	BRIDGE & HYDRAULICS

Miscellaneous

Fracture Critical Members:	Yes
Microfilm Data Recorded:	Yes

Construction Information

Year:	1962 Original		1991 Reconstructed		
Route:	FAI 74	Sta: 1755+16	FAI 74	Sta: 1755+16	
Section Nbr:	92-11B		92-11BR		
Contract Nbr:	20974B		90165		
Fed Aid Pr #:	SEE REMARKS				
Built By:	1 I.D.O.T.		0 UNKNOWN		

Proposed Improvement

Cost Estimate Year:		Length:	
Type of Work:			
Done By:			
Remarks:			

*** Costs in Dollars ***

Bridge Cost:	
Roadway Cost:	
Total Project Cost:	

Illinois Department of Transportation

Routine Inspection Report

SN: 092-0007	District: 5	Spans: 7	Appr. Spans: 2	Skew: 0	ADT: 44000	Truck Pct: 31
ADT Un:	Maint. Co: VERMILION		Twsp: DANVILLE		Status: OPEN, NO RESTRICTIONS	
Facility Carried: I-74 (WB)			Feature Crossed: SALT FORK VERM RIVER			
Location: W OF DANVILLE	Municipality:				Team/Sub Section: 542/740	Insp/Rte: 000
Bridge Name:			Material & Type: STEEL CONTINUOUS/DECK GIRDER			
Insp. Intervals Routine: 24	Fracture Critical: 24		Underwater: 0		Special: N/A	Element Level: 24

90 - Inspection Date:	11/4/16	90C - Temp. (°F):	44°	90B1 - In-Depth	☐
Is Delinquent:		Reason:			
90A - Agency Program Manager:	K. Woods		90A3 - Consultant Program Manager:		
90A1 - Team Leader:	D. Craddock		90A2 - Inspector:	S. Conklin	

90B - Inspection Remerks:	
Previous Inspection	DECK SOFFIT HAS TRANSVERSE AND LONGITUDINAL LEACHING CRACKS. BEAM ENDS AND DIAPPHRAMS ARE RUSTY UNDER JOINT. OTHER LIGHT TO MODERATE RUST THROUGHOUT SUPERSTRUCTURE. RIPRAP PLACED AROUND PIERS IN FALL OF 2008. LOWER SUPER PER 2009 FC INSP

Resources

Time to Inspect(H:M):	8:0	3:0	Traffic Control:	1	1	Boat:			Waders	W	W	Snooper:				
Ladder:			Manlift:			Bucket Truck:			Other:	BINOCULARS, LEVEL ROD		Binoculars, Level Rod				

Inspector's Appraisals

	Prev	New	
58 - Deck Condition:	4	4	transverse and longiutudinal leaching cracks at <2' intervals over a majority of decks surface and soffit.
59 - Superstructure Cond:	5	5	rating lowered per fracture critical inspection dated 9/4/13. areas of rust scaling/pitting with section loss that may affect the strucrurel capcity of individual members.
60 - Substructure Cond:	7	7	minor cracking in abutments and wingwall. small spalls with exposed rebar in crossmembers and columns of piers 1A and 1
62 - Culvert Condition:	N	N	
61 - Channel Condition:	7	7	
71 - Waterway Adequacy:	8	8	
72 - Approach Rdwy Align:	8	8	
111 - Pier Navig Protection:	N	N	

90B - Inspection Remarks:

Illinois Department of Transportation

Structure Number: 092-0007

Routine Inspection Report

Additional Inspection Data

	Prev	New
36A - Bridge Railing Adequacy:	3	3

	Prev	New		Prev	New		Prev	New
Approach Guardrail Adequacy: 36B - Transitions:	3	3	36C - Guardrail:	3	3	36CD - Ends:	3	3

	Prev	New
108A - Wearing Surface Type:	A	A
108B - Type of Membrane:	F	F
108C - Deck Protection:	A	A
108D - Total Deck Thickness (In.):	9.0	9.0

If 'L-Other' Describe:

If 'E-Other' Describe:

If 'I-Other' Describe:

59A - Paint Date(Mo/Yr):	05/1998	05/1998
59B - Paint Type:	E J	E J
59C - Utilities Attached:	N N N	N N N

Color: Fascia - _____; Inter. - _____; Railing - _____.

If 'B-Other' Describe:

Weight Limit Posting:	70A2 - Single Unit Vehicles:			Tons
	70B2 - Combination Type 3S-1 (3 or 4 axles):			Tons
	70C2 - Combination Type 3S-2 (5 or more axles):			Tons
	70D2 - One Truck at a Time:			

Joint Openings (In.): _____

90B - Inspection Remarks:

	Signature	Date
Inspection Team Leader:	David J. Craddock	1/14/16
Consultant Program Manager:		/ /
Agency Program Manager:	Kevin Domke	1/20/16

Illinois Department of Transportation

CA2-0007

Work Inspector Candidates

Repair Codes	Repair Description	Assign To	Priority	Quantity	Date Completed
557	Fix Dow Silicone between existing Polycarbonate WBPL – Dow failed WBDL – OK for Now	BC	M	20'	
557	Repair torn Silicone Joint: 8' at East Abutment 2' at Pier 1A (2014)	BC	M	10'	
959	Replace Hanger Rod @ West End Near W. Abutment (16)	BC	H	4.0 HRS.	

Work Inspector Candidates

as of September 1, 2005

Repair Code	Repair Description	Unit of Measure	Unit Cost
241	Highway Lighting Maintenance	EA	$100.00
411	Partial Depth Patches (Bituminous)	SY	$45.00
413	Bituminous Overlay	SY	$3.50
416	Crack & Joint Seal HD Pout	GAL	$4.50
418	Mudjacking	CY	$150.00
420	Patch & Repair Shoulders	TONS	$140.00
421	Add & Spread Aggregate – Hand	TONS	$32.00
422	Add & Spread Aggregate – Machine	TONS	$15.00
424	Cut High Shoulder	CY	$10.00
430	Repair Earth Slopes	CY	$10.00
431	Ditches – Hand	LF	$4.10
432	Ditches – Machine	CY	$9.00
433	Inlet & Basin Cleaning	EA	$28.00
434	Inlet & Basin Repair	EA	$500.00
440	Tree & Brush Removal	HRS	$25.00
443	Mowing – Machine	AC	$32.00
444	ROW Vegetation Spraying	GAL	$1.70
453	Moveable Span Bridges and Ferries	HRS	$23.00
454	Bridge Inspection	EA	$150.00
455	Bridge Sealing	LF	$10.00
460	Guardrail Maintenance	LF	$10.00
461	Fence Maintenance	LF	$4.00
463	Attenuator Maintenance	EA	$300.00
467	Delineator Maintenance	EA	$10.00
468	Sign Maintenance & Traffic Activities	HRS	$26.00
516	Crack & Joint Routing	LF	$0.39
550	Bridge Cleaning (Deck, Super, Sub)	LF	$0.50
551	Partial Depth Bridge Deck Patching	SY	$75.00
552	Full Depth Bridge Deck Patching	SY	$275.00
553	Deck Drain Cleaning	EA DRAIN	$15.00
554	Deck Drain Repair	EA DRAIN	$45.00
555	Joint Protection Shielding	LF	$25.00
557	Expansion Joint Repair	LF	$45.00
558	Roadway Joint Maintenance	LF	$19.00
559	Handrail Repair / Maintenance	LF	$15.00
617	Bridge Deck Wearing Surface Remove & Replacement	SY	$45.00
618	Protective Shielding	SY	$35.00
619	Overhead Concrete Removal	HRS	$25.00
620	Drain Extension	EA	$300.00
621	Approach Slab Patching	SF	$20.00
622	Pier Protection Maintenance	HRS	$25.00
650	Mobilization	LS	$5,000.00
652	Bridge Bearing Maint. (Exc. Act 6.)	EA BRG	$30.00
655	Structural Steel Repair	LBS	$22.00
656	Cleaning & Painting	SF	$12.50
657	Pin & Link Inspection & Maintenance	EA	$75.00
658	Graffiti Removal	SF	$8.00
750	Bridge Concrete Repair	SF	$75.00
751	Bridge Epoxy Injection	LF	$10.00
752	Slopewall Repair	SY	$35.00
753	Collection System Cleaning	LF	$1.30
754	Collection System Repair	LF	$35.00
755	Rip-Rap Placement	TONS	$25.00
756	Channel Maintenance	HRS	$34.00
959	Other Bridge Maintenance	HRS	$25.00

Illinois Department of Transportation

Element Level Inspection Report

SN: 092-0007	District: 5	Spans: 7	Appr. Spans: 2	Skew: 0	ADT: 44000	Truck Pct: 31
ADT Un:	Maint. Co: VERMILION		Twsp: DANVILLE		Status: OPEN, NO RESTRICTIONS	
Facility Carried: I-74 (WB)			Feature Crossed: SALT FORK VERM RIVER			
Location: W OF DANVILLE	Municipality:				Team/Sub Section: 542/740	Insp/Rte: 000
Bridge Name:			Material & Type: STEEL CONTINUOUS/DECK GIRDER			
Insp. Intervals Routine: 24	Fracture Critical: 24		Underwater: 0		Special: N/A	Element Level: 24

93D - Inspection Date:	1/14/16	93C6 - Temp. (°F):	44°		
Is Delinquent		Reason:			
90E - Agency Program Manager:	K. Woods	90E3 - Consultant Program Manager:			
90E1 - Team Leader:	D. Craddock	90E2 - Inspector:	S. Conklin		

Resources

Time to Inspect(H:M):	8:0	3:0	Traffic Control:	1	1	Boat:			Waders	W	W	Snooper:				
Ladder:			Manlift:			Bucket Truck:			Other:							

Inspector's Appraisals

Element	Element Description	Env	Quantity	Unit	CS1	CS2	CS3	CS4
8026	Concrete Deck Protected w/ Coated Bars	3	26197	SF	2392	12405	0	11400
	Remarks							
8040	Concrete Slab Protected w/HMA Overlay	3	1152	SF	576	576	0	0
	Remarks	slab over vaulted abutments						
107	Lead Painted Steel Open Girder	4	27500	SF	3732	23760	8	0
	Remarks							
152	Lead Painted Steel Floor Beam	4	13416	SF	4876	8500	40	0
	Remarks							
8172	Lead Painted Steel Closed Web/Box Girder and Open	4	8	EA	0	4	4	0
	Remarks							
205	Reinforced Conc Column or Pile Extension	1	6815	SF	6785	0	30	0
	Remarks							
210	Reinforced Conc Pier Wall	1	14358	SF	14326	22	10	0
	Remarks							
215	Reinforced Conc Abutment	1	1858	SF	1790	44	24	0
	Remarks							
234	Reinforced Conc Pier or Abutment Cap	1	217	LF	210	2	5	0
	Remarks							
302	Preformed Joint Seal	3	36	LF	0	36	0	0
	Remarks							
304	Open Expansion Joint	3	71	LF	28	33	10	0
	Remarks							
311	Movable Discontinous Brg.	4	6	EA	0	6	0	0
	Remarks							
313	Fixed Bearing	4	4	EA	0	4	0	0
	Remarks							
8316	Moveable Steel Bearings below continuous decks	4	8	EA	0	8	0	0
	Remarks							

Illinois Department of Transportation

Structure Number: 092-0007

Element Level Inspection Report

Element	Element Description	Env	Quantity	Unit	CS1	CS2	CS3	CS4
8323	Approach Pavement	3	2	EA	1	1	0	0
	Remarks							
331	Concrete Bridge Railing	3	1495	LF	1195	300	0	0
	Remarks							

	Signature	Date
Inspection Team Leader:	Daniel J Cuddeback	1/14/16
Consultant Program Manager:		/ /
Agency Program Manager:	Eric Peterson	1/20/16

Illinois Department of Transportation

Element Level Inspection Report

SN: 092-0007	District: 5	Spans: 7	Appr. Spans: 2	Skew: 0	ADT: 40800	Truck Pct: 32
ADT Un:	Maint. Co: VERMILION		Twsp: DANVILLE		Status: OPEN, NO RESTRICTIONS	
Facility Carried: I-74 (WB)			Feature Crossed: SALT FORK VERM RIVER			
Location: W OF DANVILLE	Municipality:				Team/Sub Section: 542/740	Insp/Rte: 000
Bridge Name:			Material & Type: STEEL CONTINUOUS/DECK GIRDER			
Insp. Intervals Routine: 24			Fracture Critical: 24		Underwater: 0	Special: N/A

93C - Inspection Date:	3-19-14	93C6 - Temp. (°F):	42
90E - Agency Program Manager:	K. Woods	90E3 - Consultant Program Manager:	
90E1 - Team Leader:	S. Conklin	90E2 - Inspector:	C. Boescher

Resources

Time to Inspect(H:M):	0:0	8:00	Traffic Control:		1	Boat:			Waders		W	Snooper:					
Ladder:			Manlift:			Bucket Truck:			Other:								

Inspector's Appraisals

Element	Element Description	Env	Quantity	Unit	CS1	CS2	CS3	CS4
8026	Concrete Deck Protected w/ Coated Bars	3	26197	SF	2392	~~23805~~ 12405	0	11400 0
	Remarks							
107	Lead Painted Steel Open Girder	4	27500	SF	25405	~~2095~~ 23760	8 ~~0~~	0
	Remarks							
152	Lead Painted Steel Floor Beam	4	13416	SF	12671	8500 ~~745~~	40 ~~0~~	0
	Remarks							
8172	Lead Painted Steel Closed Web/Box Girder and Open	4	8	EA	~~8~~	4 ~~0~~	4 ~~0~~	0
	Remarks							
205	Reinforced Conc Column or Pile Extension	1	6815	SF	6815	0	30 ~~0~~	0
	Remarks							
210	Reinforced Conc Pier Wall	1	14358	SF	14335	22 ~~16~~	10 ~~7~~	0
	Remarks							
215	Reinforced Conc Abutment	1	1858	SF	1814	44 ~~24~~	24 ~~20~~	0
	Remarks							
234	Reinforced Conc Pier or Abutment Cap	1	217	LF	214	2 ~~2~~	5 ~~1~~	0
	Remarks							
302	Preformed Joint Seal	3	36	LF	0	✓ 36	0	0
	Remarks							
8307	~~Neoprene Expansion Joint~~ Silicone	3	71	LF	~~71~~ 28	33 0	10 ~~0~~	0
	Remarks							
311	Movable Discontinous Brg.	4	6	EA	0	✓ 6	0	0
	Remarks							
313	Fixed Bearing	4	4	EA	0	✓ 4	0	0
	Remarks							
8316	Moveable Steel Bearings below continuous decks	4	8	EA	0	✓ 8	0	0
	Remarks							
8323	Approach Pavement	3	2	EA	1 ~~0~~	1 ~~2~~	0	0
	Remarks							
331	Concrete Bridge Railing	3	1495	LF	~~1495~~ 1195	~~1495~~ 300	0	0
	Remarks							

Illinois Department of Transportation

Structure Number: 092-0007

Element Level Inspection Report

	Signature	Date
Inspection Team Leader:		3 / 19 / 14
Consultant Program Manager:		/ /
Agency Program Manager:		/ /

S.N.: 092-0007 Date: 3/18/14
1-14-16

1140 C2 | 576 C1, 576 C2 | MJS all C2 | Silicone 33 C2, 10 C3

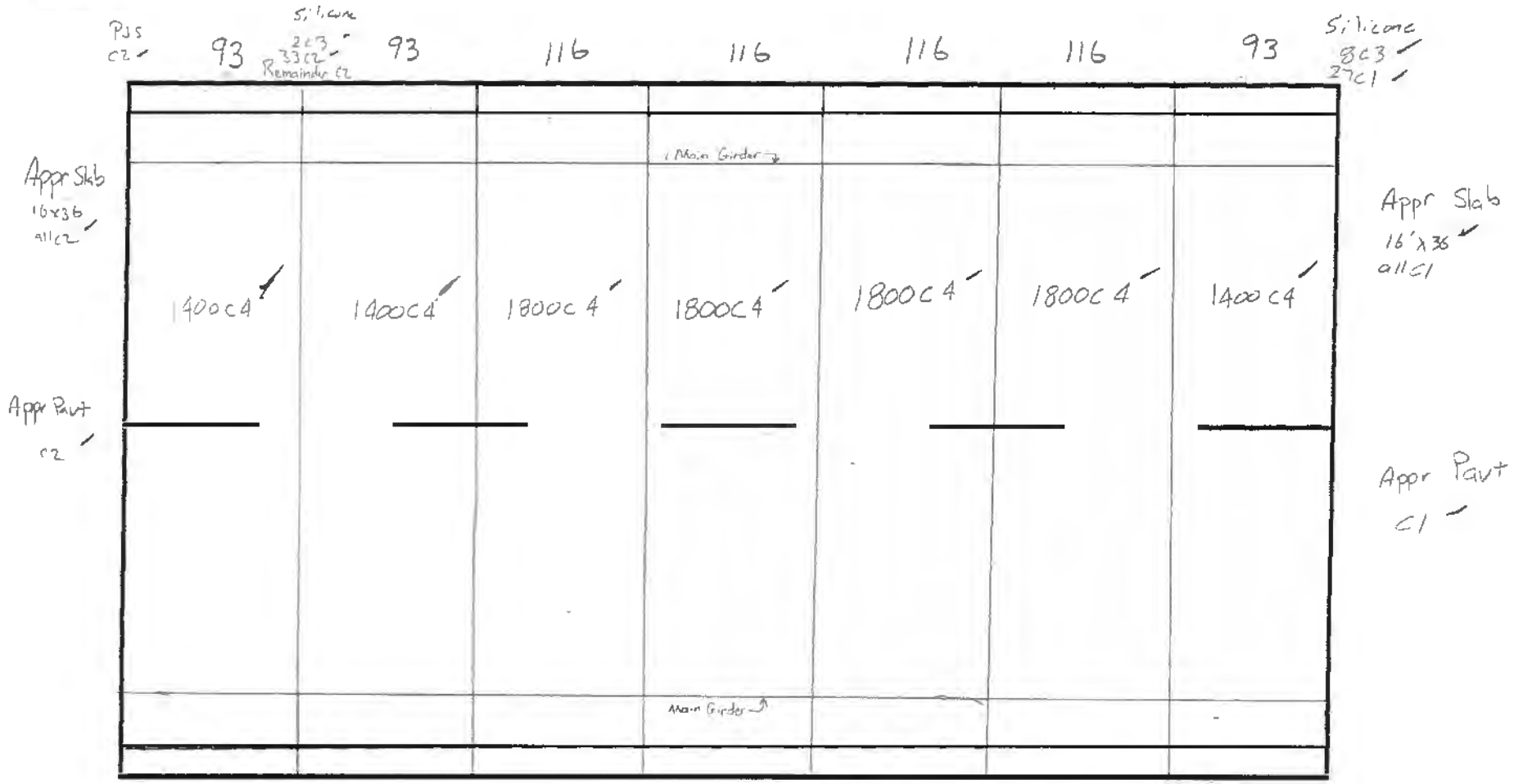
Page: ___ of ___

Bridge Inspection Form

Pontis Deck Survey

Top all C2

N



S.N.: 092 Date: 3-18-14 Insp. By: Page of

1-14-16

N

BRIDGE INSPECTION FORM: OPEN WEB GIRDERS

Pot Brg Pot Brg Pot Brg

Beam #	End	location on beam													End
			93		93		116		116		116		116		93	
	2'	Web	650	C3 C2	200	C2	800	C2	800	C2	600	C2	400	C2	130	2'
		Bottom, Top Flange	140		140		224		224		224		224		140 C2	
	Brg	Top, Bottom Flange	140		140		224		224		224		224		140 C2	
	2'	Bot, Bottom Flange	138 C2 2 C3		138 C2 2 C3		224		224		224		224		140 C2	2'
		Web	650		650		800		800		800		800		651 C2	

Beam #	End	location on beam													End
	2'	Web	650	C3 C2	650	C2	800	C2	800	C2	800	C2	800	C2	651 C2	2'
		Bottom, Top Flange	140		140 C2		224		224		224		224		140 C2	
	Brg	Top, Bottom Flange	140		140 C2		224		224		224		224		140 C2	Brg
	2'	Bot, Bottom Flange	138 C2 2 C3		138 C2 2 C3		224		224		224		224		140 C2	2'
		Web	500		400		400		200		200		160		130 C2	

Beam #	End	location on beam		End
		Web		
		Bottom, Top Flange		
	Brg	Top, Bottom Flange		Brg
		Bot, Bottom Flange		
		Web		

160 Bottom Top Flange

Beam #	End	location on beam													End
		Web	1000 C2		1000 C2		1500 C2		1500 C2		1500 C2		1500 C2		500 C2	
		Bottom, Top Flange													40 C3	
	Brg	Top, Bottom Flange														Brg
		Bot, Bottom Flange														
		Web														

Beam #	End	location on beam													End
		Web	4286 C2		3736 C2		[redacted]								2902	
		Bottom, Top Flange	4 C3		4 C3		5644 C2		5444		5244		5004		[redacted]	
	Brg	Top, Bottom Flange														Brg
		Bot, Bottom Flange					[redacted] 32260									
		Web														

Beam #	End	location on beam													End
		Web	FB 8500 C2				Girders 23760 C2									
		Bottom, Top Flange	40 C3				8 C3									
	Brg	Top, Bottom Flange														Brg
		Bot, Bottom Flange														
		Web														

S.N.: Date: Insp. By: Page of N

BRIDGE INSPECTION FORM: OPEN WEB GIRDERS

Beam #	End	location on beam		End
		Web		
		Bottom, Top Flange		
	Brg	Top, Bottom Flange		
		Bot, Bottom Flange		
		Web		

Beam #	End	location on beam		End
		Web		
		Bottom, Top Flange		
	Brg	Top, Bottom Flange		Brg
		Bot, Bottom Flange		
		Web		

Beam #	End	location on beam		End
		Web		
		Bottom, Top Flange		
	Brg	Top, Bottom Flange		Brg
		Bot, Bottom Flange		
		Web		

Beam #	End	location on beam		End
		Web		
		Bottom, Top Flange		
	Brg	Top, Bottom Flange		Brg
		Bot, Bottom Flange		
		Web		

Beam #	End	location on beam		End
		Web		
		Bottom, Top Flange		
	Brg	Top, Bottom Flange		Brg
		Bot, Bottom Flange		
		Web		

Beam #	End	location on beam		End
		Web		
		Bottom, Top Flange		
	Brg	Top, Bottom Flange		Brg
		Bot, Bottom Flange		
		Web		

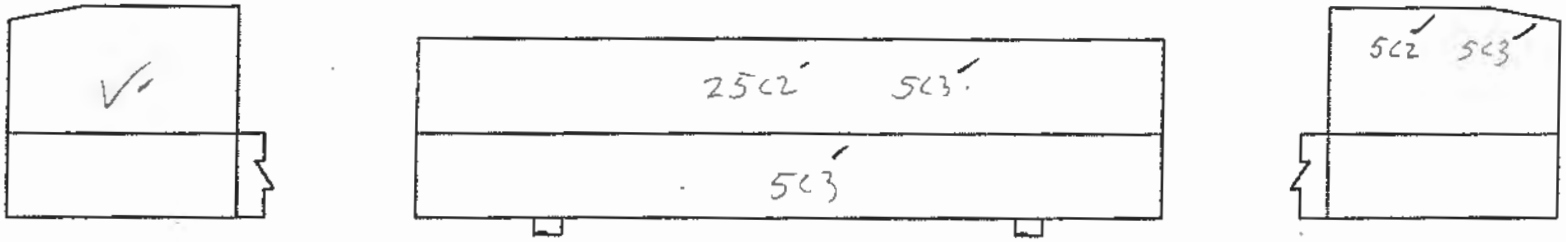
Abut	Cap
44 C2	2 C2
24 C3	5 C3

S.N. 092-0007

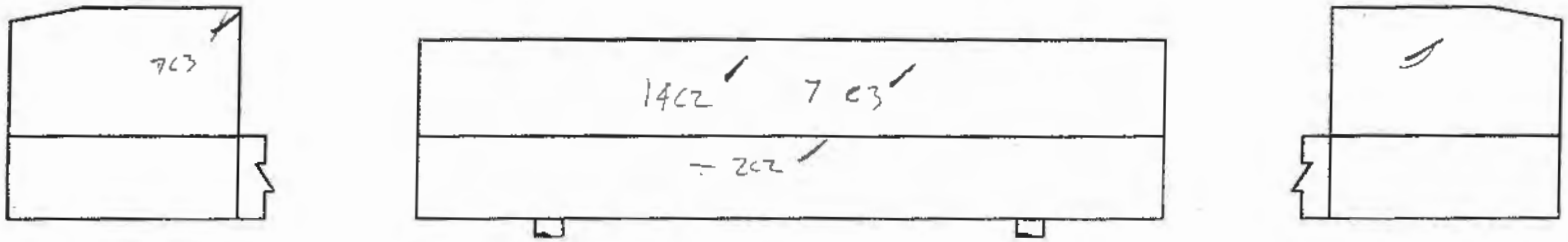
Insp. Date: 3-18-14 1-14-16

Insp. By:

East



West



Bridge Inspection Form

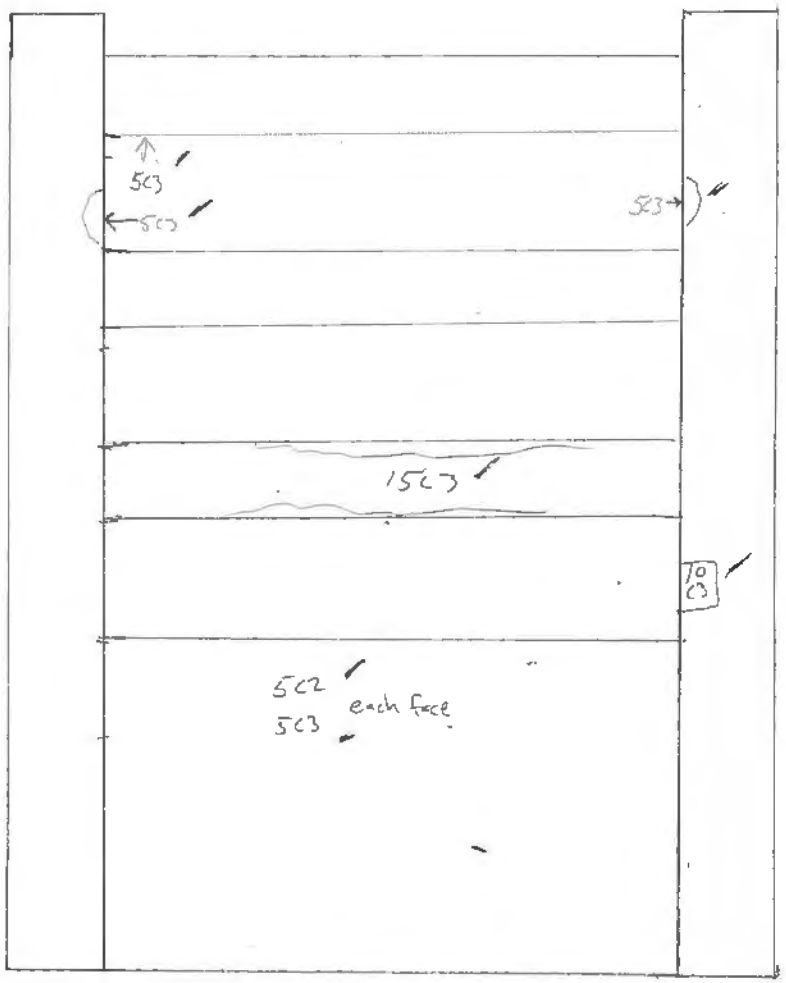
Pontis Format

Pier 1A

S.N. 092-000

Insp Date: 1-14-16

Insp By:



Wall	Column	Gap
5C2	30C3	0
5C3		

Totals

Wall	Column
22 C2	30 C3
10 C3	

Bridge Inspection Form

Pontis Format

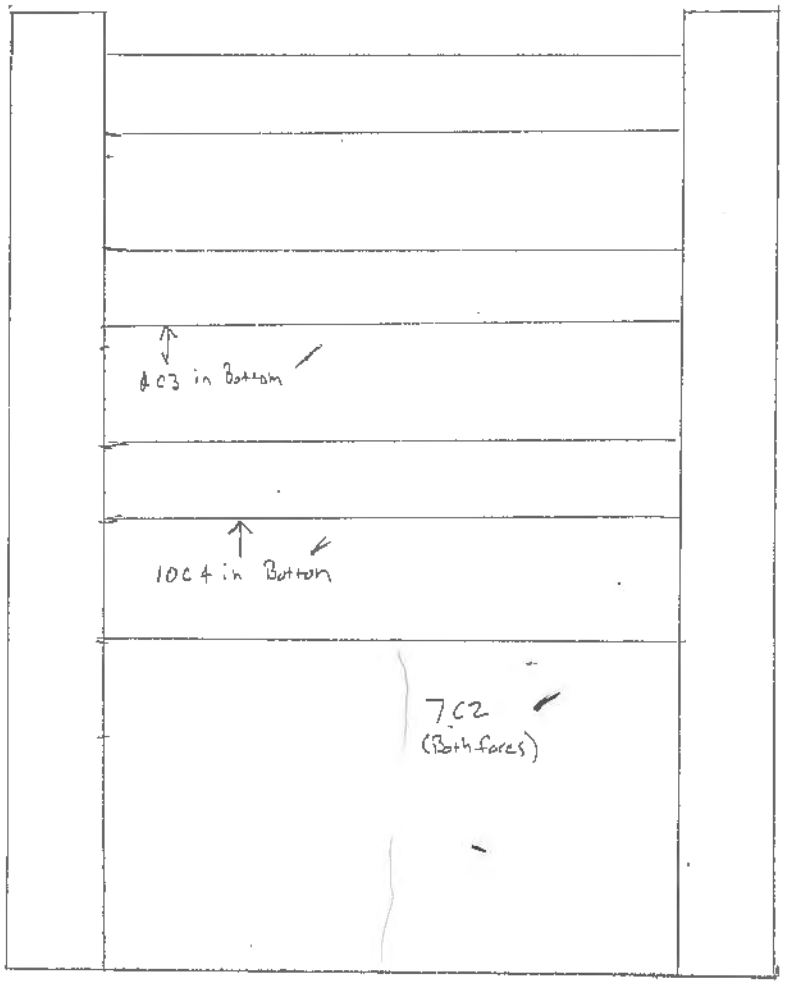
Page ___ of ___

Pier 1 From west

S.N. 092-000

Insp Date: 1-14-16

Insp By:



Pier Wall	Cap	Column
7C2	0	0
4C3		
10C4		

Bridge Inspection Form

Pontis Format

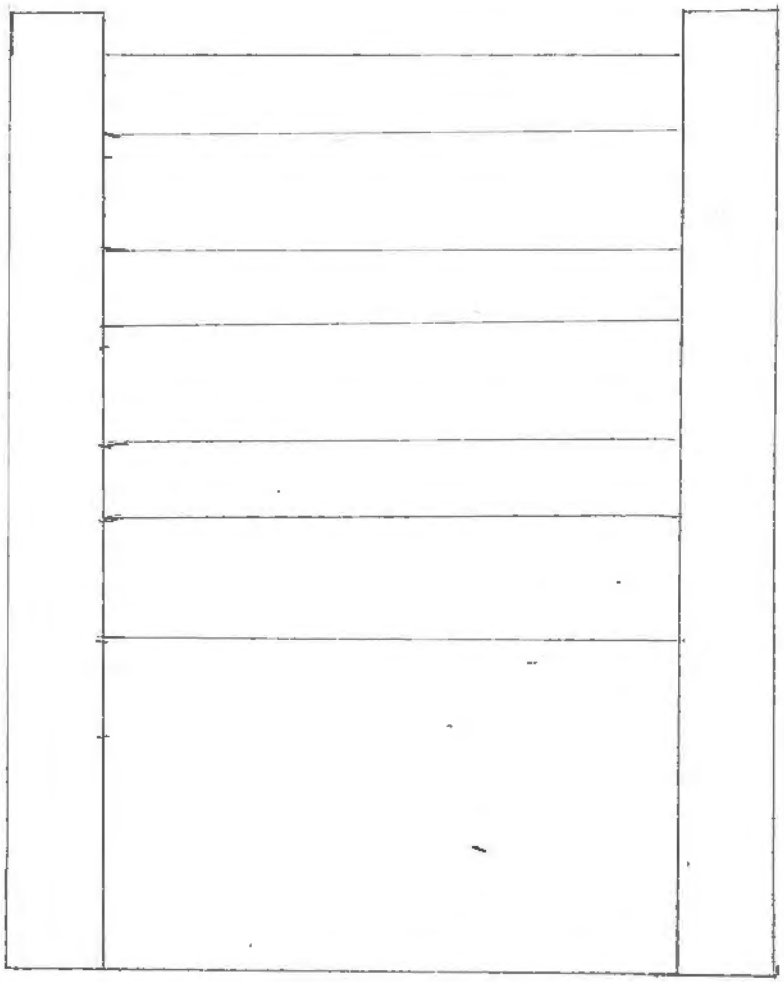
Pier 2 (From west).

S.N. 092-000

Insp Date: 1-14-16

all ok

Insp By:



Bridge Inspection Form

Pontis Format

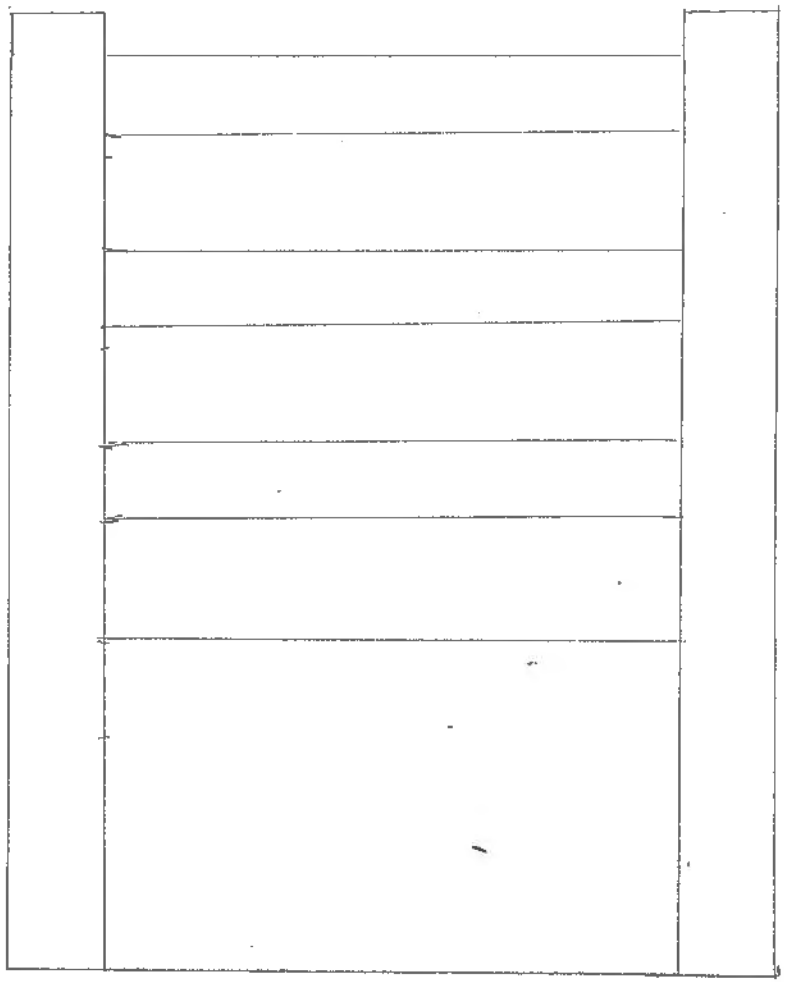
Pier 3 (From West.)

S.N. 092-0007-

Insp Date: 3-18-14 1-14-16.

East face OK!
West face OK!

Insp By:



Bridge Inspection Form

Pontis Format

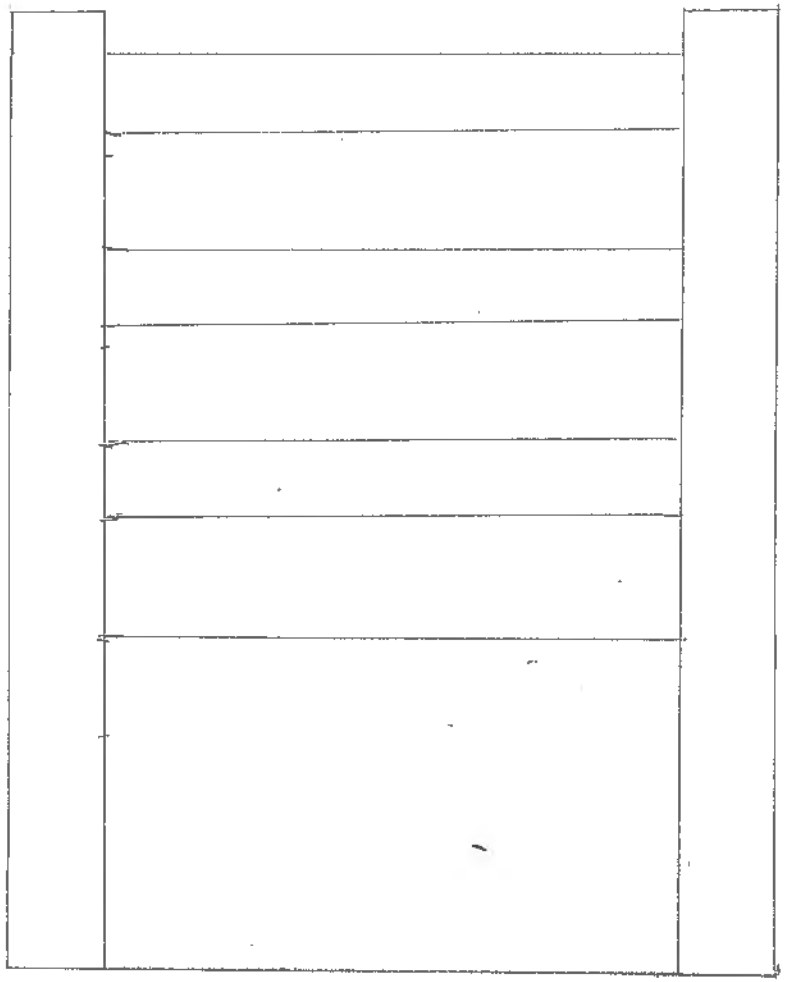
Pier 4 (From west).

S.N. 092-000

Insp Date: 1-14-16

Insp By:

ALL OK



Bridge Inspection Form

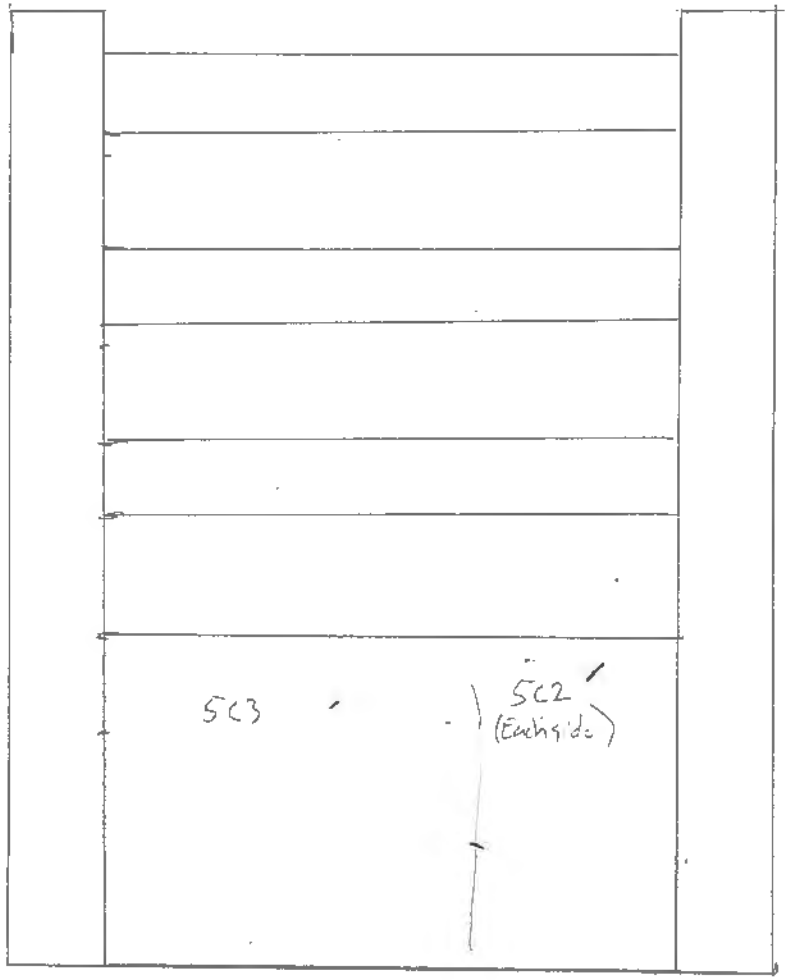
Pontis Format

Pier 5 (East Pier)

S.N. 092-0007

Insp Date:

Insp By:



Column	Wall	Cap
0	10C2 - 5C3	0

Illinois Department of Transportation

Routine Inspection Report

SN: 092-0007	District: 5	Spans: 7	Appr. Spans: 2	Skew: 0	ADT: 40800	Truck Pct: 32
ADT Un:	Maint. Co: VERMILION		Twsp: DANVILLE		Status: OPEN, NO RESTRICTIONS	
Facility Carried: I-74 (WB)			Feature Crossed: SALT FORK VERM RIVER			
Location: W OF DANVILLE	Municipality:				Team/Sub Section: 542/740	Insp/Rte: 000
Bridge Name:			Material & Type: STEEL CONTINUOUS/DECK GIRDER			
Insp. Intervals Routine: 24			Fracture Critical: 24		Underwater: 0	Special: N/A

90 - Inspection Date:	3/19/14	90C - Temp. (°F):	42	90B1 - In-Depth	☐
Is Delinquent:		Reason:			
90A - Agency Program Manager:	K Woods		90A3 - Consultant Program Manager:		
90A1 - Team Leader:	S. Conklin		90A2 - Inspector:	C. Buescher	
90B - Inspection Remarks:					
Previous Inspection	DECK SOFFIT HAS TRANSVERSE AND LONGITUDINAL LEACHING CRACKS. BEAM ENDS AND DIAPPHRAMS ARE RUSTY UNDER JOINT. OTHER LIGHT TO MODERATE RUST THROUGHOUT SUPERSTRUCTURE. RIPRAP PLACED AROUND PIERS IN FALL OF 2008. LOWER SUPER PER 2009 FC INSP				

Resources

Time to Inspect(H:M):	1:30	8:00	Traffic Control:	1	1	Boat:			Waders	W	W	Snooper:				
Ladder:			Manlift:			Bucket Truck:			Other:	BINOCULARS, LEVEL ROD		Binoculars, level Rod				

Inspector's Appraisals

	Prev	New	
58 - Deck Condition:	5	4	Transverse and longitudinal leaching cracks many at 12' intervals over a majority of decks surface + soffit
59 - Superstructure Cond:	6	5	Rating lowered Per Fracture Critical Inspection dated 9/4/13. Areas of Rust Scaling/Pitting w/ sect. loss that may affect the
60 - Substructure Cond:	7	7	structural capacity of individual members
62 - Culvert Condition:	N	N	Minor Cracking in abutments and wingwalls. Small spalls w/exp. rebar in Cross members of Piers 1A & 1
61 - Channel Condition:	7	7	
71 - Waterway Adequacy:	8	8	
72 - Approach Rdwy Align:	8	8	
111 - Pier Navig Protection:	N	N	

90B - Inspection Remarks:

Deck and Superstructure Scanned Visually with Binoculars (14)

Illinois Department of Transportation

Structure Number: 092-0007

Routine Inspection Report

Additional Inspection Data

	Prev	New
36A - Bridge Railing Adequacy:	3	3

Approach Guardrail Adequacy: 36B - Transitions:	Prev	New	36C - Guardrail:	Prev	New	36CD - Ends:	Prev	New
	3	3		3	3		3	3

	Prev	New
108A - Wearing Surface Type:	A	A
108B - Type of Membrane:	F	F
108C - Deck Protection:	A	A
108D - Total Deck Thickness (In.):	9.0	9.0

If 'L-Other' Describe:

If 'E-Other' Describe:

If 'I-Other' Describe:

59A - Paint Date(Mo/Yr):	05/1998	
59B - Paint Type:	E J	
59C - Utilities Attached:	N N N	

Color: Fascia - _____; Inter. - _____; Railing - _____.

If 'B-Other' Describe:

Weight Limit Posting:				
	70A2 - Single Unit Vehicles:			Tons
	70B2 - Combination Type 3S-1 (3 or 4 axles):			Tons
	70C2 - Combination Type 3S-2 (5 or more axles):			Tons
	70D2 - One Truck at a Time:			

Joint Openings (In.): _____

90B - Inspection Remarks:

	Signature	Date
Inspection Team Leader:	Shawn O. Conklin	3 / 19 / 14
Consultant Program Manager:		/ /
Agency Program Manager:	Kevin Goodin	4 / 10 / 14

Historical Remarks

Inspection Date	Remarks
04/19/12	DECK SOFFIT HAS TRANSVERSE AND LONGITUDINAL LEACHING CRACKS. BEAM ENDS AND DIAPPHRAMS ARE RUSTY UNDER JOINT. OTHER LIGHT TO MODERATE RUST THROUGHOUT SUPERSTRUCTURE. RIPRAP PLACED AROUND PIERS IN FALL OF 2008. LOWER SUPER PER 2009 FC INSP
07/13/10	DECK SOFFIT HAS TRANSVERSE AND LONGITUDINAL LEACHING CRACKS. BEAM ENDS AND DIAPPHRAMS ARE RUSTY UNDER JOINT. OTHER LIGHT TO MODERATE RUST THROUGHOUT SUPERSTRUCTURE. RIPRAP PLACED AROUND PIERS IN FALL OF 2008. LOWER SUPER PER 2009 FC INSP
10/20/08	DECK RATING LOWERED DUE TO LEACHING TRANS. CRACKING@<5' INTERVALS WITH MULTIPLEE INTERSECTING LONGITUDINAL LEACHING CRACKS.(08)
11/08/06	DECK RATING LOWERED DUE TO LEACHING TRANS. CRACKING@<5' INTERVALS WITH MULTIPLEEE INTERSECTING LONGITUDINAL LEACHING CRACKS.(06)
01/11/06	DECK RATING LOWERED DUE TO LEACHING TRANS. CRACKING@<5' INTERVALS WITH MULTIPLEE INTERSECTING LONGITUDINAL LEACHING CRACKS.(06)
03/01/99	VAULTED ABUTS. INSPECTED ON 01/25/01 BY M. BRENNAN. NO PROBLEMS FOUND. MMI ENTRY BY B.FATHAUER 02/07/01
02/14/92	ON FY-91 PROGRAM FOR NEW DECK.
01/18/90	SEE BRIDGE FIELD BOOK 1 FOR DETAILED NOTES ON SUPER INSPECTION
02/01/89	REPL EXP JTS ESP OVER PIER;REPOS & PAINT RKRS;RPR DECK ALONG CONST JT
02/17/88	REPL EXP JTS ESP OVER PIER;REPOS & PAINT RKRS;RPR DECK ALONG CONST JT

Illinois Department of Transportation

Bridge Inspection Report (MI)

Structure Number: 092-0007

Maintenance County: Vermilion

90 – Insp. Date	90A – Insp. Team Leader/Qualification		Temp.
10/20/08	Bruescher, Conklin	/	58
7/13/2010	S. Conklin C. Bruescher	/	84
4/19/12	Bruescher, Conklin	/	78
/ /		/	
/ /		/	

Township:

Municipality:

Fac Carried: I-74 W.B.

Feat Crossed: Salt Fork River

Location: West of Danville

Mat/Type/# Span:

Bridge Inspection Year: 08 10 12

Team Sect. – Sub-Sect: –

	Appraisals					Comments (All comments must be dated.)
Deck						
58 - Deck Condition:	5	5	5			Lowered due to Longitudinal cracks (08)
Wearing Surface	3	3	3			numerous transverse cracks w/some Longitudinal (08)(12)
Parapets / Bridge Railings:	3	3	3			few vertical cracks (08)
Curbs:	–	–	–			
Median:	–	–	–			
Sidewalks:	–	–	–			
Drain System:	4	4	4			
Light Standards:	–	–				
Expansion Joints:	3	3	3			Openings (In.):
Superstructure						
59 - Superstructure Cond:	7	6	6			lowered per 2009 F.C. interpretation
Bearing Devices:	3	3	3			moderate rust under joints (08)(12)
Girders / Beams (Floor) / ~~Stringers~~:	3	3	3			Light to moderate rust, some pack rust between plates at Bearings (08)(12)
Diaphragms / Braces:	3	3	3			
Trusses / Portals / Bracing:	–	–	–			
Rivets / Bolts:	3	3	3			
Paint:	3	3	3			
Substructure						
60 - Substructure Cond:	7	7	7			
Abutments: Stem / Columns / Piles:	3	3	3			Some cracking and spalling on Pier 1A (08)
Abutments: Caps:	3	3	3			
Abutments: Bearing Seats:	3	3	3			
Abutments: Backwalls:	3	3	3			spalling w/exp. Rebar (10)(12)
Abutments: Wingwalls:	3	3	3			
Piers: Stem / Columns / Piles:	3	3	3			Top diaphram of W. Pier cracked w/Holland (10)(12)
Piers: Caps:	4	4	4			
Piers: Bearing Seats:	4	4	4			
Piers: Crash Walls:	4	4	4			
Fender Systems:	–	–	–			
Paint:	–	–	–			

Bridge Inspection Report

Structure Number: _____

Bridge Inspection Year: 08 10 12

	Appraisals					Comments (All comments must be dated.)
Culvert						
62 – Culvert Condition	N	N	N			
Top Slab / Soffit:						
Side Walls / Arch:						
Bottom:						
Headwalls:						
Wingwalls:						
Waterway and Channel						
61 - Channel Condition:	7	7	7			
Streambed:	3	3	3			Debris Boom installed / completed 2008
Slope Walls & Rip-Rap:	3	3	3			
Stream Banks:	3	3	3			
Spur Dykes & Jetties:	–	–	–			
71 – Waterway Adequacy:	8	8	8			
Approach Roadway						
72 – Appr. Rdwy Alignment:	8	8	8			
Riding Quality:	3	3	3			
Structural Condition:	3	3	3			
Relief Joints:	3	3	3			
Navigable Waterways						
111 – Pier Navig. Protect'n:	N	N	N			

Inspection Remarks

Year	**Item 90B – Inspection Remarks** (237 characters maximum.)
20	
20	
20	
20	
20	

Additional Inspection Data

36A – Bridge Railing Adequacy: 3 Rail Types:

Approach Guardrail Adequacy: 36B – Transitions: 3 36C – Guardrail: 3 36D – Ends: 3

108A – Wearing Surface Type: 4 108B – Type of Membrane: F 108C – Deck Protection: A

108D – Total Deck Thickness (In.): ~~10.0~~ 9.0

59A – Paint Date (Mo/Yr): 5/98

59B – Paint Systems: E - J - 4 - Color: Fascia – ___; Inter. – ___; Railing – ___.

59C – Utilities Attached: N - N - N

Weight Limit Posting

70A2 – Single Unit Vehicles: T. Combinations: 70B2 – 3 or 4 Axle: T. 70C2 – 5 or More Axle: T.

70D2 – One Truck at a Time:

Inspection Resource Needs					
	Time to Inspect (H:M): 1 : 30		Traffic Control: /		
	Equipment:	Boat–	Waders– X	Snooper–	Manlift–
		Ladder– Short	Medium	Tall	Other–

93C – Special Inspection Date: / / / / / / / / / /

Signature Block

	Signature	Date	Unit Supervisor Initials - Date
Inspection Team Leader	Chris Buescher	10-20-08	
	Shawn ?. C[illegible]	7/13/10	[illegible] 7/15/10
	Chris Buescher	4-19-12	[illegible] 4/23/12

Additional Comments:

(Continue comments on page 4)

Illinois Department of Transportation

Bridge Inspection Report

Mo.	Day	Yr.	Temp.	Inspector
03	06	01	38°	S. CONKLIN M. BRENNAN
03	06	03	36°	C. Buescher, K. Behnke
01	22	04	18°	S. CONKLIN K. KNOEPFEL
01	11	06	40°	S. CONKLIN J. Lee
11	08	06	62	C. Buescher, S. Conklin

SN= 092-0007 MUNI=
FACILITY CARRIED= I-74 (WB)
FEATURE CROSSED= SALT FORK VERM RIVER
LOCATION= W OF DANVILLE
CONST ROUTE= FAI 74 STA= 1755+16
CONST SECT= 92-11B
MAIN SPANS= 7 STL CONT GIRD/FL BM SYS
APPR SPANS= 2 STEEL GIRD/FL BM SYS

Year	01	03	04	06	06

Deck — Element Rating

Wearing Surface	3	3	3	3	3
Deck Structural Condition	3	3	3	3	3
Curbs	-	-	-	-	-
Median	-	-	-	-	-
Sidewalks	-	-	-	-	-
Parapet	4	4	4	4	4
Railing	-	-	-	-	-
Drains	5	5	5	4	4
Light Standards	-	-	-	-	-
Expansion Joints	3	3	3	3	4

58 Condition Rating: 8 | 8 | 7 | 6 | 6

Bridge Railing Appraisal

36 Condition Rating: 3 3 3 2 | 3 3 2 2 | 3 3 2 2 | 3 3 2 2 | 3 2 2 2

Remarks

108A Wearing Surface Type: A
108B Type of Membrane: F
108C Deck Protection: A
108D Total Deck Thickness: 10.0"

INTERSECTING LONG. AND TRANS. CRACKS (01) (04) (06) (06)
LEACHING LONG. AND TRANS. CRACKS (01) (04) (06) (06)

FEW VERT. CRACKS (01) (06)

MEAS Opening Neo Joint have been replaced 4/06 Joint (06)
E. NEO HAS MISSING ARMOUR AND DRN BLADDER (01) (04) (06)
BROKEN BLOCK + TORN BLADDER OVER PIER (OK (06) FIXED (06)) (1A)
DECK RATING LOWERED DUE TO TRANS CRACKS @ >5' intervals w/ MULTIPLE INTERSECTING LONG. LEACHING CRACKS

Superstructure

Bearing Devices	4	4	3	3	3
~~Stringers~~ Floor Beams	3	3	3	3	3
Girders or ~~Beams~~	3	3	3	3	3
Diaphragms or Braces	3	3	3	3	3
Crack Leaching	-	-	-	-	-
Joints (Leakage or Cond.)	-	-	-	-	-
59C Util. N/A 1	-	-	-	-	-
Trusses	-	-	-	-	-
Portals and Bracing	-	-	-	-	-
Drainage System	-	-	-	-	-
Paint	3	3	3	3	3
Color: Facia ____ Inter ____ Rail ____					
Rivets or Bolts	3	3	3	3	3
Weld Cracking	3	3	3	3	3
Rust	3	3	3	3	3
Timber (Decay, Damage)	-	-	-	-	-
Concrete Cracking	-	-	-	-	-
Collision Damage	4	4	4	4	4
LL Deflec & Vibration	3	3	3	3	3
Alignment of Members	4	4	4	4	4

59 Condition Rating: 7 | 7 | 7 | 7 | 7

BEARING UNDER JOINTS (04) (04) (06)
SOME RUST ON ALL FLOOR BEAMS (01) (03) (06) (06)
INITIAL RUST ON GIRDERS (01) (01) (06) (06)

59A MO/YR: 6/77 59B Code: 1 E 2 J 3 4 H
05/98 (4)

Worst % Loss: ____ %

Bridge Inspection Report

Bridge No. 092 - 0007

Year | 01 | 03 | 04 | 06 | 06 |

Substructure	Element Rating					Remarks
Abutments-Wing	3	3	3	3	3	
Backwall	3	3	3	3	3	SOME MINOR CRACKING (01)(03)
Bearing Seat	3	3	3	3	3	
Stem	3	3	3	3	3	
Slopes	3	3	3	3	3	
Erosion	3	3	3	3	3	Erosion on the west side of East pier (06)
Settlement	3	3	3	3	3	
Piers or Bents	4	4	4	4	4	
Cap	4	4	4	4	4	
Column	4	4	4	4	4	REPAIR OF PIER 1A "DIAPHRAGS" FROM EARLY 90's STARTING TO SPALL + DELAM
Crash Walls	4	4	4	4	4	FAILED NEOPRENE JOINT → PIER 1A WET (06)
Scour	3	3	3	3	3	
Settlement	3	3	3	3	3	
Fender Systems	-	-	-	-	-	
Steel Corrosion	-	-	-	-	-	
Timber Decay, etc.	-	-	-	-	-	
Debris on Seat	3	3	3	3	3	
Paint	-	-	-	-	-	
Collision Damage	4	4	4	4	4	
60 Condition Rating	7	7	7	7	7	

Channel & Channel Protection						
Scour of Channel	3	3	3	3	3	
Erosion of Banks	3	3	3	3	3	EROSION WEST SIDE OF 1st PIER FROM EAST. (06)
Drift	3	3	3	3	3	
Vegetation	3	3	3	3	3	
Change in Channel	3	3	3	3	3	
Spur Dykes & Jetties	-	-	-	-	-	
Rip Rap or Slope Wall	3	3	3	3	3	
61 Condition Rating	7	7	7	7	7	

Pier & Abutment Protection						
111 Condition Rating	N	N	N	N	N	

Culverts						
Wing Walls						
Head Walls						
Top Slab						
Walls						
Floor						
Siltation						
Settlement						
Scour						
62 Condition Rating	N	N	N	N	N	

Bridge Inspection Report

Bridge No. ____-____

Year	01	03	04	06	06
	Element Rating				
Waterway Adequacy					
71 Appraisal Rating	3	8	8	8	8
Approach Roadway Alignment					
72 Appraisal Rating	8	8	8	8	8
72 A Condition Rating	-	-	-	-	-
Riding Quality	3	3	3	3	3
Settlement	4	4	4	4	4
Structural Condition	4	4	4	4	4
Relief Joints	4	3	3	3	3

Posting Year	01	03	04	06	06
70A2 Inspectors Rating	4	4	4	4	4
70B2 Inspectors Rating	4	4	4	4	4
70C2 Inspectors Rating	4	4	4	4	4
70D2 Inspectors Rating	-	-	-	-	-

70A2 = Single Unit Vehicle
70B2 = Combination Type 3S- 1, 3 or 4 axles
70C2 = Combination Type 3S- 2, 5 or more axles
70D2 = One Truck at a Time

Proposed Maintenance Repair

Repair Code	Repair Description	Asgd to Code	Priority Code	Quantity	Unit Cost	Date Cmpl
✓557	REPLACE ORN BLADDER @ BOTH NEO (01)	MC	1	71 LF		
557	REPLACE NEOPRENE EXP JOINTS w/ POLYMER NOSING	BC	H	71 LF		
755	RIPRAP PLACEMENT WEST SIDE OF 1st PIER E OF EAST PIERS (11/8/06)	BC	H	40 TONS		

AGENCY CODES:
TS - DISTRICT TEAM SECTION
BC - DISTRICT BRIDGE CREW
DL - DAY LABOR
MC - MAINTENANCE CONTRACT
RC - REPAIR FOR REHAB CONTRACT

PRIORITY CODES:
1 - DO THIS YEAR
2 - SHOULD DO THIS YEAR
3 - WHEN CONVENIENT

Illinois Department of Transportation

Vaulted abutment

Element Level Inspection Report

SN:	092-0007	District:	5	Spans:	7	Appr. Spans:	2	Skew:	0	ADT:	11000	Truck Pct:	31
ADT Un		Maint. Co:	VERMILION	Twsp:	DANVILLE			Status:	OPEN - NO RESTRICT				
Facility Carried	I-74 (WB)					Feature Crossed:	SALT FORK VERM RIVER						
Location	W OF DANVILLE			Municipality:				Team/Sub:	542/740	Insp/Rte:	000		
Bridge Name:						Material & Type:	STEEL CONTINUOUS/GIRDER AND FLOORBEAM SYSTE						
Insp. Intervals Routine:	24	Fracture Critical:	24	Underwater:	0	Special:	N/A			Element Level:	24		
93D – Inspection Date:	2-29-16					90C – Temp. (°F)	38						
Is Delinquent:	☐	Reason:											
90E – Agency Program Manager:	K. Woods					90E3 – Consultant Program Manager:							
90E1 – Team Leader:	Bnescher					90E2 – Inspector:	Braddock						

Resources

Time to Inspect (H:M):	3:0	/ : 00	Traffic Control:	1	\	Boat:			Waders:	W		Snooper:			
Ladder:			Manlift:			Bucket Truck:			Other:				

Inspector's Appraisals

Element	Element Description	Env	Quantity	Unit	CS1	CS2	CS3	CS4
8026	Concrete Deck Protected w/ Coated Bars	3	26197	SF				
	Remarks							
8040	Concrete Slab Protected w/HMA Overlay	3	1152	SF				
	Remarks	slab over vaulted abutments						
107	Lead Painted Steel Open Girder	4	27500	SF				
	Remarks							
152	Lead Painted Steel Floor Beam	4	13416	SF				
	Remarks							
8172	Lead Painted Steel Closed Web/Box Girder Ends Incl	4	8	EA				
	Remarks							
205	Reinforced Conc Column or Pile Extension	1	6815	SF				
	Remarks							
210	Reinforced Conc Pier Wall	1	14358	SF				
	Remarks							
215	Reinforced Conc Abutment	1	1858	SF				
	Remarks							
234	Reinforced Conc Pier or Abutment Cap	1	217	LF				
	Remarks							
302	Preformed Joint Seal	3	36	LF				
	Remarks							
304	Open Expansion Joint	3	71	LF				
	Remarks							
311	Movable Discontinous Brg.	4	6	EA				
	Remarks							
313	Fixed Bearing	4	4	EA				
	Remarks							
8316	Moveable Steel Bearings below continuous decks	4	8	EA				
	Remarks							
8323	Approach Pavement	3	2	EA				
	Remarks							
331	Concrete Bridge Railing	3	1495	LF				
	Remarks							

8040 Conc. Slab Prot. w/Ac overlay 3 1440 SF 20 115

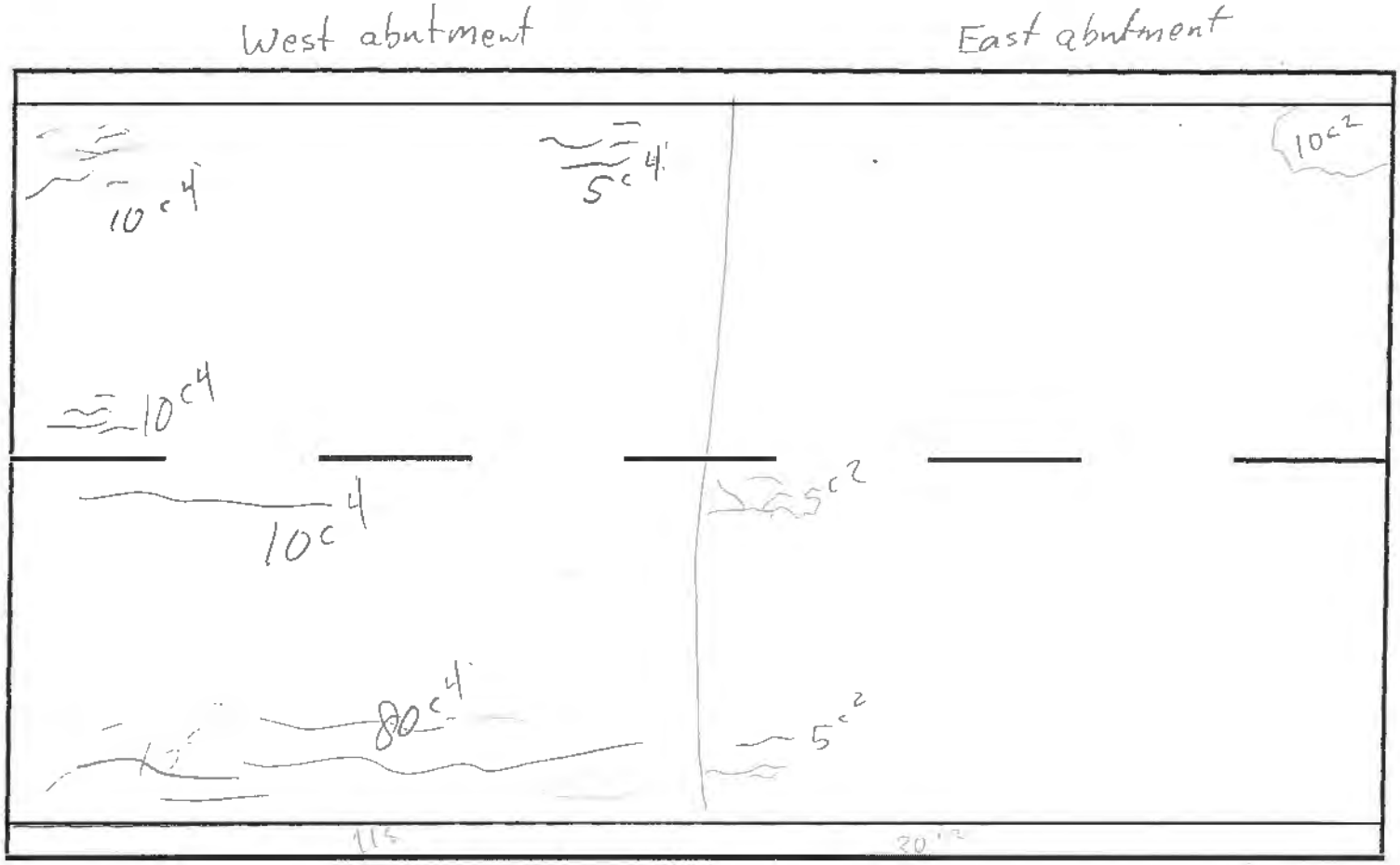
overlay map cracking, Areas of leaching cracks in soffit

	Signature	Date
Inspection Team Leader:	Chris Brueckner	2 / 29 / 16
Consultant Program Manager:		/ /
Agency Program Manager:	Kevin Sponda	3 / 22 / 16

S.N.: 092-0007 Date: 2/29/16

Page: ___ of ___

Bridge Inspection Form
Pontis Deck Survey



Map cracking on top of Curtain wall

Areas of leaching map cracks

Top All c^2

$20\ c^2, 115\ c^4$

Asphalt overlay is showing wear, not c^2 yet.

leaching around Construction Joints.

1.5
5
5

Illinois Department of Transportation

Vaulted abutment

Routine Inspection Report

SN:	092-0007	District:	5	Spans:	7	Appr. Spans:	2	Skew:	0	ADT:	11000	Truck Pct:	31
ADT Un:		Maint. Co:	VERMILION	Twsp:	DANVILLE					Status:	OPEN - NO RESTRICT		
Facility Carried	I-74 (WB)					Feature Crossed:	SALT FORK VERM RIVER						
Location	W OF DANVILLE			Municipality:				Team/Sub	542/740	Insp/Rte:	000		
Bridge Name:				Material & Type:	STEEL CONTINUOUS/GIRDER AND FLOORBEAM SYSTE								
Insp. Intervals Routine:	24	Fracture Critical:	24	Underwater:	0	Special:	N/A	Element Level:	24				

90 – Inspection Date:	2/29/16	90C – Temp. (°F)	38	90B1 – In-Depth	☒
Is Delinquent:	☐	Reason:			
90A – Agency Program Manager:	K. Woods			90A3 – Consultant Program Manager:	
90A1 – Team Leader:	Bnescher			90A2 – Inspector:	Craddock

90B – Inspection Remarks:

Previous Inspection: DECK SOFFIT HAS TRANSVERSE AND LONGITUDINAL LEACHING CRACKS. BEAM ENDS AND DIAPPHRAMS ARE RUSTY UNDER JOINT. OTHER LIGHT TO MODERATE RUST THROUGHOUT SUPERSTRUCTURE. RIPRAP PLACED AROUND PIERS IN FALL OF 2008. LOWER SUPER PER 2009 FC INSP

Resources

Time to Inspect (H:M):	3:0	1:	0	Traffic Control:	1		Boat:			Waders:	W		Snooper:			
Ladder:			Manlift:			Bucket Truck:			Other:	BINOCULARS, LEVEL ROD					

Inspector's Appraisals

	Prev	New	Comments
58 – Deck Condition: Slab	4	6	Asphalt overlay it's map cracking, Area of leaching map cracks in soffit
59 – Superstructure Cond:	5	6	" "
60 – Substructure Cond:	7	7	
62 – Culvert Condition:	N		
61 – Channel Condition:	7		
71 – Waterway Adequacy:	8		
72 – Approach Rdw Align:	8		
111 – Pier Navig Protection:	N		

90B – Inspector Remarks:

USE a rating of a "5" for NBI insp for superstructure

Additional Inspection Data

	Prev	New
36A – Bridge Railing Adequacy:	3	

Rail Types:

Approach Guardrail Adequacy:	36B – Transitions: Prev	36B – Transitions: New	36C – Guardrail: Prev	36C – Guardrail: New	36D – Ends: Prev	36D – Ends: New
	3		3		3	

	Prev	New	
108A – Wearing Surface Type:	A		If "L-Other" Describe:
108B – Type of Membrane:	F		If "E-Other" Describe:
108C – Deck Protection:	A		If "I-Other" Describe:
108D – Total Deck Thickness (in):	9.0		

	Prev	New
59A – Paint Date (Mo/Yr):	05/1998	/
59B – Paint Type:	EJ	— — — — — — — —

Color: Fascia - ____: Inter. - ____: Railing - ____.

59C – Utilities Attached:	NNN	__ __ __

If "B-Other" Describe _____

Weight Limit Posting:	Prev	New
70A2 – Single Unit Vehicles:		Ton
70B2 – Combination Type 3S-1 (3 or 4 axles):		Ton
70C2 – Combination Type 3S-2 (5 or more axles):		Ton
70D2 – One Truck at a Time:	0	

Joint Openings (In.) _____

90B – Inspector Remarks Continued:

	Signature	Date
Inspection Team Leader:		/ /
Consultant Program Manager:		/ /
Agency Program Manager:		/ /

Vaulted Abutment

Illinois Department of Transportation

Bridge Inspection Report (MI)

Structure Number: 092-0007

Maintenance County: Vermilion

90 – Insp. Date	90A – Insp. Team Leader/Qualification	Temp.
02/24/2008	M. Brennan, C. Bueschen, D. CRADDOCK /	18°
2/3/12	Bueschen /	52
/ /	/	
/ /	/	
/ /	/	

Township:
Municipality:
Fac Carried: I-74 WB
Feat Crossed: Salt Fork
Location:
Mat/Type/# Span:

Bridge Inspection Year: 08 12

Team Sect. -- Sub-Sect: --

	Appraisals	Comments (All comments must be dated.)
Deck		
58 - Deck Condition:	7	
Wearing Surface		
Parapets / Bridge Railings:		
Curbs:		
Median:		
Sidewalks:		
Drain System:		
Light Standards:		
Expansion Joints:		Openings (In.):
Superstructure		
59 - Superstructure Cond:	7	
Bearing Devices:		
Girders / Beams / Stringers:		
Diaphragms / Braces:		
Trusses / Portals / Bracing:		
Rivets / Bolts:		
Paint:		
Substructure		
60 - Substructure Cond:	7	
Abutments: Stem / Columns / Piles:		
Abutments: Caps:		
Abutments: Bearing Seats:		
Abutments: Backwalls:		
Abutments: Wingwalls:		
Piers: Stem / Columns / Piles:		
Piers: Caps:		
Piers: Bearing Seats:		
Piers: Crash Walls:		
Fender Systems:		
Paint:		

Bridge Inspection Report

Structure Number: _____

Bridge Inspection Year: ☐☐☐☐☐

	Appraisals	Comments (All comments must be dated.)
Culvert		
62 – Culvert Condition	☐☐☐☐☐	
Top Slab / Soffit:		
Side Walls / Arch:		
Bottom:		
Headwalls:		
Wingwalls:		
Waterway and Channel		
61 - Channel Condition:	☐☐☐☐☐	
Streambed:		
Slope Walls & Rip-Rap:		
Stream Banks:		
Spur Dykes & Jetties:		
71 – Waterway Adequacy:	☐☐☐☐☐	
Approach Roadway		
72 – Appr. Rdwy Alignment:	☐☐☐☐☐	
Riding Quality:		
Structural Condition:		
Relief Joints:		
Navigable Waterways		
111 – Pier Navig. Protect'n:	☐☐☐☐☐	

Inspection Remarks

Year	Item 90B – Inspection Remarks (237 characters maximum.)
2008	Some Diagonal Cracks in SLAB where Backwall & Sidewalls meet. Some Leaching on side walls @ Const. Joint
20	
20	
20	
20	

Bridge Inspection Report

Structure Number: _____

Additional Inspection Data

36A – Bridge Railing Adequacy:		Rail Types:			
Approach Guardrail Adequacy:	36B – Transitions:		36C – Guardrail:		36D – Ends:
108A – Wearing Surface Type:		108B – Type of Membrane:		108C – Deck Protection:	
108D – Total Deck Thickness (In.):					
59A – Paint Date (Mo/Yr):					
59B – Paint Systems:	- - -	Color: Fascia – ___; Inter. – ___; Railing – ___.			
59C – Utilities Attached:	- -				

Weight Limit Posting

70A2 – Single Unit Vehicles:	T.	Combinations: 70B2 – 3 or 4 Axle:	T.	70C2 – 5 or More Axle:	T.
70D2 – One Truck at a Time:					

Inspection Resource Needs	Time to Inspect (H:M):	1 :30	Traffic Control:	1	
Equipment:	Boat–	Waders–	Snooper–	Manlift–	
	Ladder– Short	Medium	Tall	Other–	

93C – Special Inspection Date: / / / / / / / / / /

Signature Block

	Signature	Date	Unit Supervisor Initials - Date
Inspection Team Leader	Michael Brennan	2/21/2008	
	Chris Buesch	2-7-12	2/15/12

Additional Comments:

(Continue comments on page 4)

Illinois Department of Transportation

Scour/Streambed Inspection Report

Mo.	Day	Year	Temp.	Inspectors
3	19	14	42 °F.	Conklin Swecker
1	14	16	44 °F.	Peacock Conklin
			°F.	
			°F.	
			°F.	

S.N. 092-0007 Municipality

Facility Carried

Feature Crossed

Location

Main Spans

Category Frequency

Year	Rating	Method	Time	Access Equipment	Traffic Control	Remarks
14		measured	:	waders	1	

Notes: Pier 2 has sheet piling protection, see Remarks for Streambed elevations along toe of sheet Piling
Pier 3 has Rip Rap Protection with 8.8' minimum Cover over top of footing
See Reverse for Field Sketch and Elevations

Year	Rating	Method	Time	Access Equipment	Traffic Control	Remarks
16		Measured	:			

Notes: P2 HAS 8.95' ~ 9.85' OF COVER ALONG THE SHEET PILING
P3 HAS 8.98' ~ 9.78' OF COVER ALONG THE FACE OF PIER 3 WALL.

Year	Rating	Method	Time	Access Equipment	Traffic Control	Remarks
			:			

Notes:

Year	Rating	Method	Time	Access Equipment	Traffic Control	Remarks
			:			

Notes:

Year	Rating	Method	Time	Access Equipment	Traffic Control	Remarks
			:			

Notes:

092-0007
(WB)

Top of Ftg. Elev.: P2 = 511.34
P3 = 512.31

* 528.54
- 2.95
525.59
H_2O ELEV.

Painted elevation
528.54
- 3.75
524.79
H_2O Elev.

Illinois Department of Transportation

Scour/Streambed Inspection Report

Mo.	Day	Year	Temp.	Inspectors
10	20	08	58 °F.	Kuester, Conkling
7	13	10	84 °F.	[illegible]
4	19	2012	78 °F.	Conkling, Kuester
			°F.	
			°F.	

S.N. 092 - 0007 Municipality _____
Facility Carried I-74 WB
Feature Crossed Salt Fork
Location W. of Danville
Main Spans 7

Category _____ Frequency _____

Year	Rating	Method	Time	Access Equipment	Traffic Control	Remarks
08		Level Rod	09:30	Waders	1	

Notes: Pier 3 has 8.3' cover and greater, All other piers out of water

Year	Rating	Method	Time	Access Equipment	Traffic Control	Remarks
10		Level Rod	:	Waders	1	

Notes: see Special Feature "K" Inspection dated 7/3/10 for Field Sketch and elev., Scour Countermeasures placed in Fall of 08

Year	Rating	Method	Time	Access Equipment	Traffic Control	Remarks
12		Level Rod	:	Waders	1	

Notes: P_2 has 9.12' minimum Cover over footing along Sheet Piling
P_3 has 8.85' minimum Cover over footing w/Design Scour Countermeasure RIP Rap
See Reverse for Field Sketch + Elevations of Streambed

Year	Rating	Method	Time	Access Equipment	Traffic Control	Remarks
			:			

Notes:

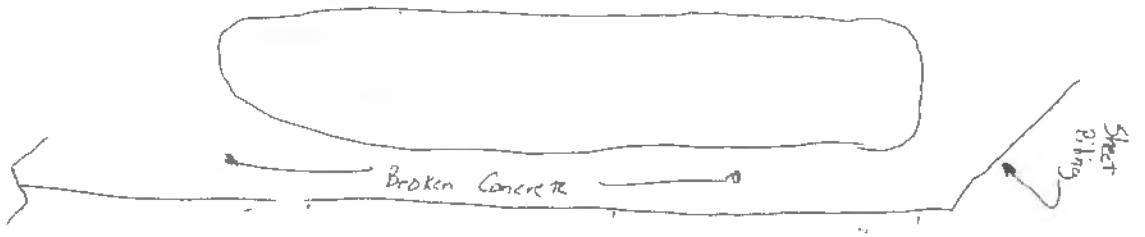
Year	Rating	Method	Time	Access Equipment	Traffic Control	Remarks
			:			

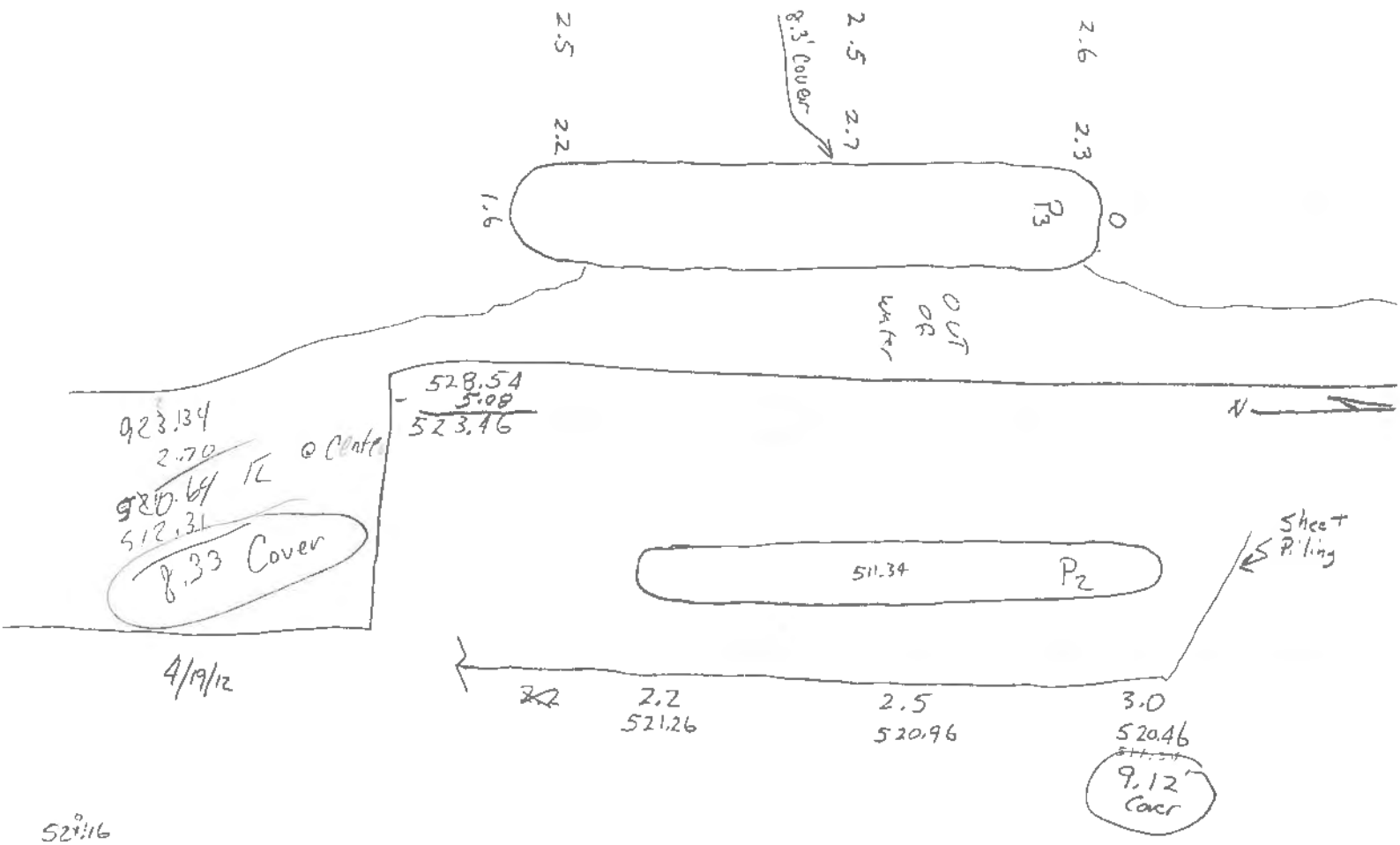
Notes:

092-0007
WB

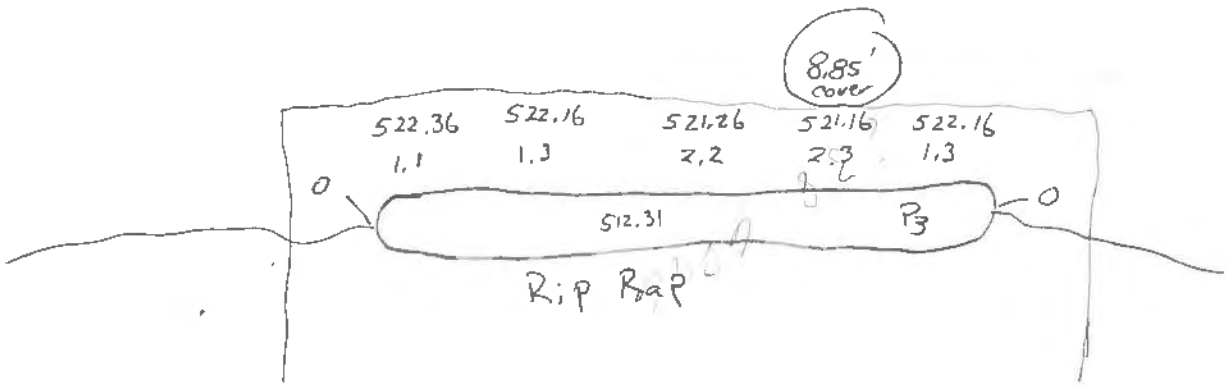
H_2O elev.
528.54
5.2
523.34

10/20/08





521.16
512.31
8.85



SCOUR / STREAMBED INSPECTION REPORT

MO.	DAY	YR.	TEMP.	INSPECTORS
11	08	06	62	[illegible]

SN 092-0007 MUNI

Facility Carried

Feature Crossed

Location

Main Spans

CATEGORY

FREQUENCY

YR.	RATING	METHOD	TIME	ACCESS EQUIP.	TRAFFIC CONTROL	REMARKS
06						8.7' Cover and greater @ Pier 3

YR.	RATING	METHOD	TIME	ACCESS EQUIP.	TRAFFIC CONTROL	REMARKS

YR.	RATING	METHOD	TIME	ACCESS EQUIP.	TRAFFIC CONTROL	REMARKS

YR.	RATING	METHOD	TIME	ACCESS EQUIP.	TRAFFIC CONTROL	REMARKS

YR.	RATING	METHOD	TIME	ACCESS EQUIP.	TRAFFIC CONTROL	REMARKS

PROPOSED MAINTENANCE REPAIRS

REPAIR CODE	REPAIR DESCRIPTION	ASGD TO CODE	PRIORITY CODE	QUANTITY	UNIT COST	DATE COMPL.

AGENCY CODES: TS=DISTRICT TEAM SECTION MC=MAINTENANCE CONTRACT BC=DISTRICT BRIDGE CREW RC=REPAIR FOR REHAB CONTRACT DL=DAY LABOR

PRIORITY CODES: 1=DO THIS YEAR 2=SHOULD DO THIS YEAR 3=WHEN CONVENIENT

Illinois Department of Transportation

Special Feature Inspection Report

SN: 092-0007	**District:** 5	**Spans:** 7	**Appr. Spans:** 2	**Skew:**	**ADT:** 17800	**Truck Pct:** 37	
ADT Un:	**Maint. Co:** 092	**Twsp:** 05			**Status:** 1		
Facility Carried: I-74 WB		**Feature Crossed:** Salt Fork of Vermilion River					
Location: West of Danville		**Municipality:**			**Team/Sub Section:** /		
Bridge Name:		**Material & Type:**					
Insp. Intervals (Mo) Routine NBIS: 24	**Fracture Critical:** 24	**Underwater:**	**Special Feature:** 12				
93C– Inspection Date: 7/12/12	**93C3– Temp. (°F):** 82°	**90A- Program Manager:** K. Woods					
Is Delinquent: ☐	**Reason:**						
93C2A– Team Leader: S. Conklin	**93C2B- Inspector:** C. Buescher						

93C4 –Special Feature Inspection Remarks:

Previous Inspection

Resources

Time to Inspect (H:M):	__ : __	01 : 00	**Traffic Control:**	_	1	**Boat:**	_		**Waders:**	_	W	**Snooper:**	_		
Ladder:	_		**Manlif**	_		**Bucket Truck:**	_		**Other:**						

Special Feature Inventory

92C– Inspection Interval: (months): 12 92C4– Initiated By: _____ If "4-Other Agency" Describe: _____

92C2– Start Date: 7/27/04 92C6– Determination Date: __/__/____ 92C7 – Inspect By Date: __/__/____

92C1– Type Code:

- ☐ A – Structural Damage/Steel Superstructure
- ☐ B – Structural Damage/Concrete Superstructure
- ☐ C – Structural Damage/Timber Superstructure
- ☐ D – Structural Damage/Steel Substructure
- ☐ E – Structural Damage/Concrete Substructure
- ☐ F – Structural Damage/Timber Substructure
- ☐ G – Underwater/Debris and/or Erodible Soil
- ☐ H – Underwater/Flow Restriction or Velocity
- ☐ I – Underwater/Spread footings not adequately keyed into rock or protected from the effects of streambed scour
- ☐ J Reserved
- ☑ K – Underwater/Scour Critical Evaluation Monitoring
- ☐ L – Existing Streambed Scour/Spread Footing
- ☐ M – Existing Streambed Scour/Pile Supported Footing
- ☐ N – Existing Streambed Scour/Pile Bent Substructure Unit
- ☐ P – Embankment Movement or Settlement
- ☐ Q – Substructure Movement or Settlement
- ☐ R – Pin & Link in Multi-Girder (Redundant) Bridge (If checked must add BBS Form(s) 2760 and 2780 if needed)
- ☐ S – Specifically Identified Problematic Structural Details
- ☐ T – Deck
- ☐ Z – Other (Describe):

92C5 – Special Feature Type Remarks: Rip Rap around P3 w/ 8.8' minimum Cover to top of footer. P2 protected by Sheet Piling w/ 10.7' minimum Cover to Bottom of sheet piling

SPECIAL FEATURE INSPECTION

93C1 – Special Feature Condition Status:

Prev	New	
☐ 0	☐ 0	- Worsening Condition Indicating Imminent Structural Failure - Immediate closure required, then contact BBS
☐ 1	☐ 1	- Progression of Deterioration or Worsening Condition - Contact BBS, Program Manager, and SFI Initiator
☐ 2	☑ 2	- No Change in Condition Noted
☐ 3	☐ 3	- Corrected Condition Noted - SF inspections no longer required after verification by BBS personnel
☐ 4	☐ 4	- Feature Determined to be in Adequate Condition - Primarily for monitoring problematic structural details

93C4 – Special Feature Inspection Remarks:

	Signature	Date
Inspection Team Leader:	Shannon D. Conklin	7/12/12
Inspection Program Manager:	Keri Woods	7/23/12

Illinois Department of Transportation

SPECIAL FEATURE INSPECTION REPORT

Structure Number: 092 - 0007

Location & Inventory Information

Maintenance County: Vermilion Township: _____ Municipality: _____

Facility Carried: I-74 WB Feature Crossed: Salt Fork of the Vermilion River

Location: West of Danville

Number of Spans: 7 Material & Type: _____

Special Feature Inventory (determined and set by the BBS)

92C – Special Feature Inspection Interval: (months) 12 92C2 – Special Feature Start Date: 7/27/04

92C1 – Special Feature Type Code:

- ☐ A – Structural Damage/Steel Superstructure
- ☐ B – Structural Damage/Concrete Superstructure
- ☐ C – Structural Damage/Timber Superstructure
- ☐ D – Structural Damage/Steel Substructure
- ☐ E – Structural Damage/Concrete Substructure
- ☐ F – Structural Damage/Timber Substructure
- ☐ G – Underwater/Debris and/or Erodible Soil
- ☐ H – Underwater/Flow Restriction or Velocity
- ☐ I – Underwater/Keying of Spread Footing
- ☐ J – Underwater/Large Drainage Area (> 5000 mi^2)
- ☑ K – Underwater/Scour Critical Evaluation Monitoring
- ☐ L – Existing Streambed Scour/Spread Footing
- ☐ M – Existing Streambed Scour/Pile Supported Footing
- ☐ N – Existing Streambed Scour/Pile Bent Substructure Unit
- ☐ P – Embankment Movement or Settlement
- ☐ Q – Substructure Movement or Settlement
- ☐ R – Pin & Link in Multi-Girder (Redundant) Bridge
- ☐ S – Specifically Identified Problematic Structural Details
- ☐ T – Deck
- ☐ Z – Other

92C5 – Special Feature Type Remarks:

SPECIAL FEATURE INSPECTION

93C – Special Feature Inspection Date: 7/13/11

93C1 – Special Feature Condition Status:

Prev	New	
☐ 0	☐ 0	- Worsening Condition Indicative of Imminent Structural Failure (closure required pending follow-up by BBS)
☐ 1	☐ 1	- Progression of Deterioration or Worsening of Condition Noted (immediate follow-up by BBS required)
☐ 2	☑ 2	- No Change in Condition Noted
☐ 3	☐ 3	- Corrected Condition Noted (SF inspections no longer required after verification by BBS personnel)
☐ 4	☐ 4	- Feature Determined to be in Adequate Condition (primarily for monitoring problematic structural details)

93C4 – Special Feature Inspection Remarks:

Previous Inspection	
New Inspection	P_2 protected by Sheet Piling with 10.3' minimum Cover to bottom of planned Sheet Piling P_3 has Rip Rap protection with 8.8' minimum Cover

93C2A – Inspection Team Leader _____ Signature 7/13/11 Date

_____ Supervisor Initials 7/15/11 Date

Illinois Department of Transportation

SPECIAL FEATURE INSPECTION REPORT

Structure Number: 092-0007

Location & Inventory Information

Maintenance County: Vermilion Township: _____ Municipality: _____

Facility Carried: I-74 WB Feature Crossed: Salt Fork River

Location: West of Danville

Number of Spans: 7 Material & Type: _____

Special Feature Inventory (determined and set by the BBS)

92C – Special Feature Inspection Interval: (months) 12 92C2 – Special Feature Start Date: 7 / 27 / 04

92C1 – Special Feature Type Code:

- ☐ A – Structural Damage/Steel Superstructure
- ☐ B – Structural Damage/Concrete Superstructure
- ☐ C – Structural Damage/Timber Superstructure
- ☐ D – Structural Damage/Steel Substructure
- ☐ E – Structural Damage/Concrete Substructure
- ☐ F – Structural Damage/Timber Substructure
- ☐ G – Underwater/Debris and/or Erodible Soil
- ☐ H – Underwater/Flow Restriction or Velocity
- ☐ I – Underwater/Keying of Spread Footing
- ☐ J – Underwater/Large Drainage Area (> 5000 mi²)
- ☑ K – Underwater/Scour Critical Evaluation Monitoring
- ☐ L – Existing Streambed Scour/Spread Footing
- ☐ M – Existing Streambed Scour/Pile Supported Footing
- ☐ N – Existing Streambed Scour/Pile Bent Substructure Unit
- ☐ P – Embankment Movement or Settlement
- ☐ Q – Substructure Movement or Settlement
- ☐ R – Pin & Link in Multi-Girder (Redundant) Bridge
- ☐ S – Specifically Identified Problematic Structural Details
- ☐ T – Deck
- ☐ Z – Other

92C5 – Special Feature Type Remarks:

SPECIAL FEATURE INSPECTION

93C – Special Feature Inspection Date: 7 / 13 / 10

93C1 – Special Feature Condition Status:

Prev	New	
☐ 0	☐ 0	- Worsening Condition Indicative of Imminent Structural Failure (closure required pending follow-up by BBS)
☐ 1	☐ 1	- Progression of Deterioration or Worsening of Condition Noted (immediate follow-up by BBS required)
☐ 2	☑ 2	- No Change in Condition Noted
☐ 3	☐ 3	- Corrected Condition Noted (SF inspections no longer required after verification by BBS personnel)
☐ 4	☐ 4	- Feature Determined to be in Adequate Condition (primarily for monitoring problematic structural details)

93C4 – Special Feature Inspection Remarks:

Previous Inspection	
New Inspection	P2 protected by Sheet piling w/ 10.1' minimum cover to Bottom of Planned Sheet piling P3 has Rip Rap w/ 8.8' minimum cover near ℄ of West Face See Reverse for Field Sketch and Elev.

93C2A – Inspection Team Leader Shawn D. Culbertson 7/13/10

Signature Date

Supervisor Initials 7/15/10

Date

Illinois Department of Transportation

SPECIAL FEATURE INSPECTION REPORT

Structure Number: 092 - 0007

Location & Inventory Information

Maintenance County: Vermilion Township: _____ Municipality: _____

Facility Carried: I-74 West Bound Feature Crossed: Salt Fork River

Location: West of Danville

Number of Spans: 7 Material & Type: Twin Girder Steel w/ Floor beams

Special Feature Inventory (determined and set by the BBS)

92C – Special Feature Inspection Interval: (months) 12 92C2 – Special Feature Start Date: 7/27/2004

92C1 – Special Feature Type Code:

- ☐ A – Structural Damage/Steel Superstructure
- ☐ B – Structural Damage/Concrete Superstructure
- ☐ C – Structural Damage/Timber Superstructure
- ☐ D – Structural Damage/Steel Substructure
- ☐ E – Structural Damage/Concrete Substructure
- ☐ F – Structural Damage/Timber Substructure
- ☐ G – Underwater/Debris and/or Erodible Soil
- ☐ H – Underwater/Flow Restriction or Velocity
- ☐ I – Underwater/Keying of Spread Footing
- ☐ J – Underwater/Large Drainage Area (> 5000 mi²)
- ☑ K – Underwater/Scour Critical Evaluation Monitoring
- ☐ L – Existing Streambed Scour/Spread Footing
- ☐ M – Existing Streambed Scour/Pile Supported Footing
- ☐ N – Existing Streambed Scour/Pile Bent Substructure Unit
- ☐ P – Embankment Movement or Settlement
- ☐ Q – Substructure Movement or Settlement
- ☐ R – Pin & Link in Multi-Girder (Redundant) Bridge
- ☐ S – Specifically Identified Problematic Structural Details
- ☐ T – Deck
- ☐ Z – Other

92C5 – Special Feature Type Remarks:

SPECIAL FEATURE INSPECTION

93C – Special Feature Inspection Date: 7/8/09

93C1 – Special Feature Condition Status:

Prev	New	
☐ 0	☐ 0	- Worsening Condition Indicative of Imminent Structural Failure (closure required pending follow-up by BBS)
☐ 1	☐ 1	- Progression of Deterioration or Worsening of Condition Noted (immediate follow-up by BBS required)
☐ 2	☑ 2	- No Change in Condition Noted
☐ 3	☐ 3	- Corrected Condition Noted (SF inspections no longer required after verification by BBS personnel)
☐ 4	☐ 4	- Feature Determined to be in Adequate Condition (primarily for monitoring problematic structural details)

93C4 – Special Feature Inspection Remarks:

Previous Inspection	
New Inspection	P_2 is Protected by Sheet Piling with 10.4' minimum Cover to bottom of Planned sheet Piling, P_3 has scour mitigation Rip Rap w/±9.3' cover up against Pier wall and ±8.5' cover 10' out. SEE Reverse For Field sketch and Elevations

93C2A – Inspection Team Leader _____ 7/8/09

Signature Date

_____ 7/9/09

Supervisor Initials Date

Illinois Department of Transportation

SPECIAL FEATURE INSPECTION REPORT

Structure Number: 092 - 0007

Location & Inventory Information

Maintenance County: Vermilion Township: _____ Municipality: _____

Facility Carried: I-74 (WB) Feature Crossed: Salt Fork Vermilion River

Location: W. of Danville

Number of Spans: 7 Material & Type: Twin Girder/Floor Beam

Special Feature Inventory (determined and set by the BBS)

92C – Special Feature Inspection Interval: (months) 12 92C2 – Special Feature Start Date: 7/22/2004

92C1 – Special Feature Type Code:

- ☐ A – Structural Damage/Steel Superstructure
- ☐ B – Structural Damage/Concrete Superstructure
- ☐ C – Structural Damage/Timber Superstructure
- ☐ D – Structural Damage/Steel Substructure
- ☐ E – Structural Damage/Concrete Substructure
- ☐ F – Structural Damage/Timber Substructure
- ☐ G – Underwater/Debris and/or Erodible Soil
- ☐ H – Underwater/Flow Restriction or Velocity
- ☐ I – Underwater/Keying of Spread Footing
- ☐ J – Underwater/Large Drainage Area (> 5000 mi^2)
- ☒ K – Underwater/Scour Critical Evaluation Monitoring
- ☐ L – Existing Streambed Scour/Spread Footing
- ☐ M – Existing Streambed Scour/Pile Supported Footing
- ☐ N – Existing Streambed Scour/Pile Bent Substructure Unit
- ☐ P – Embankment Movement or Settlement
- ☐ Q – Substructure Movement or Settlement
- ☐ R – Pin & Link in Multi-Girder (Redundant) Bridge
- ☐ S – Specifically Identified Problematic Structural Details
- ☐ T – Deck
- ☐ Z – Other

92C5 – Special Feature Type Remarks:

SPECIAL FEATURE INSPECTION

93C – Special Feature Inspection Date: 11/26/2008

93C1 – Special Feature Condition Status:

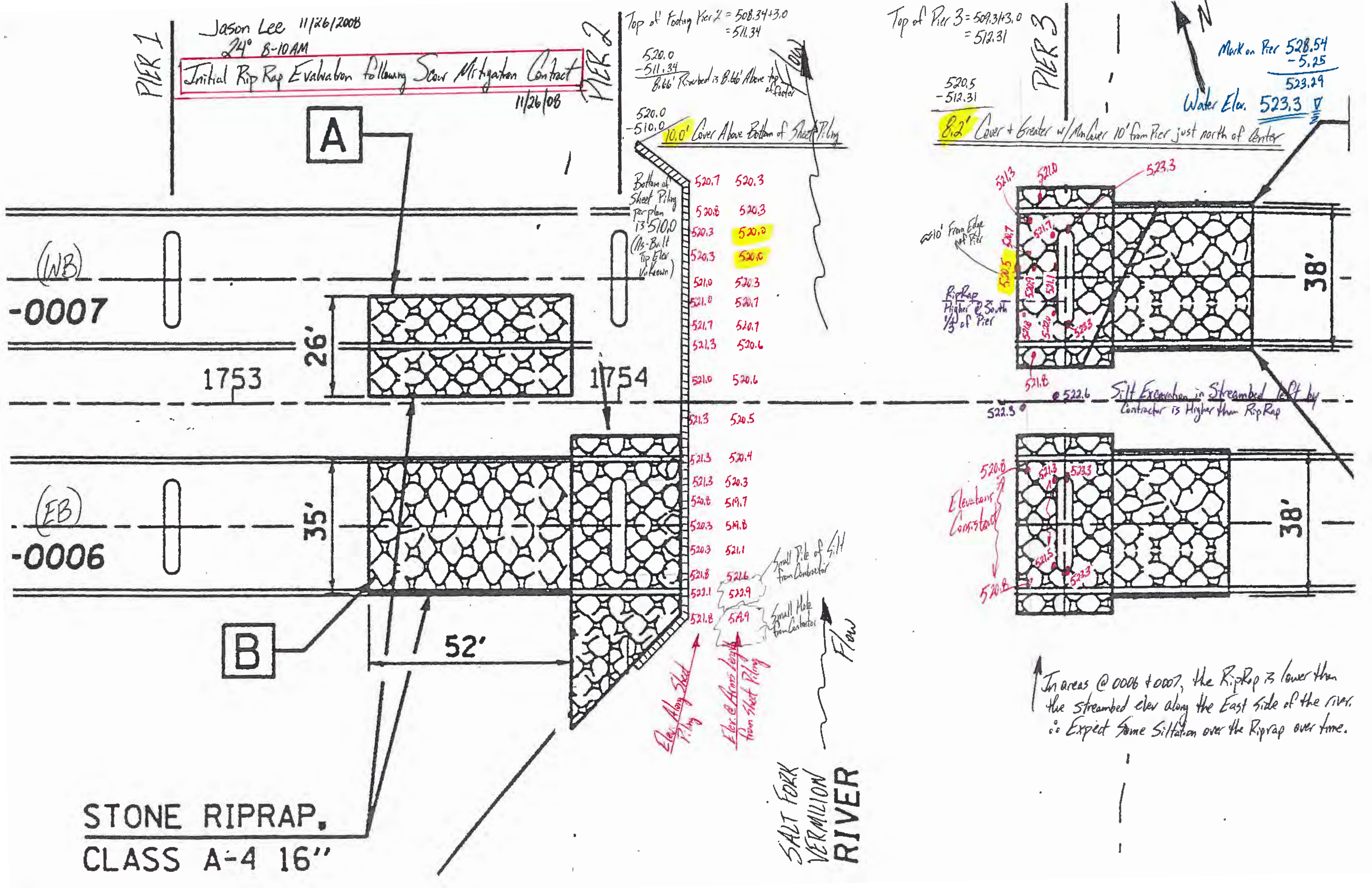
Prev	New	
☐ 0	☐ 0	- Worsening Condition Indicative of Imminent Structural Failure (closure required pending follow-up by BBS)
☐ 1	☐ 1	- Progression of Deterioration or Worsening of Condition Noted (immediate follow-up by BBS required)
☒ 2	☒ 2	- No Change in Condition Noted
☐ 3	☐ 3	- Corrected Condition Noted (SF inspections no longer required after verification by BBS personnel)
☐ 4	☐ 4	- Feature Determined to be in Adequate Condition (primarily for monitoring problematic structural details)

93C4 – Special Feature Inspection Remarks:

Previous Inspection	
New Inspection	After completion of Scour Mitigation Contract A5 Rip Rap is in place: Pier #2 is protected by sheet pile wall. The cover above the bottom of sheet piling is 10.0' + greater w/ the min cover just north of the center of the pier at arms reach from the sheet pile wall. Pier #3 has 8.2' Cover + greater w/ the min cover 10' from the pier just north of center. (riverbed)

93C2A – Inspection Team Leader Jason Lee Signature 11/26/08 Date

Supervisor Initials 12/4/08 Date


PIER 1
Jason Lee 11/26/2008
24° 8-10AM
Initial Rip Rap Evaluation following Scour Mitigation Contract
11/26/08
PIER 2
Top of Footing Pier 2 = 508.34+3.0
= 511.34
520.0
-511.34
8.66' Riverbed is 8.66' Above top of Footer
520.0
-510.0
10.0' Cover Above Bottom of Sheet Piling
Bottom of Sheet Piling per plan is 510.0 (As-Built Tip Elev. Unknown)
Flow
Top of Pier 3 = 509.31+3.0
= 512.31
520.5
-512.31
8.2' Cover + Greater w/ Min Cover 10' from Pier just north of Center
PIER 3
N
Mark on Pier 528.54
-5.25
523.29
Water Elev. 523.3
A
(NB)
-0007
26'
1753
1754
520.7 520.3
520.8 520.3
520.3 520.0
520.3 520.0
521.0 520.3
521.0 520.7
521.7 520.7
521.3 520.6
521.0 520.6
521.3 520.5
521.3 520.4
521.3 520.3
520.8 519.7
520.3 519.8
520.3 521.1
521.8 521.6
522.1 522.9
521.8 521.9
Small Pile of Silt from Contractor
Small Hole from Contractor
Elev. Along Sheet Piling
Elev. @ Areas beyond from Sheet Piling
Flow
(EB)
-0006
35'
B
52'
STONE RIPRAP.
CLASS A-4 16"
SALT FORK VERMILION RIVER
521.3
521.0
523.3
≈10' From Edge of Pier
RipRap Higher @ South 1/3 of Pier
521.8
522.6
522.3
Silt Excavation in Streambed left by Contractor is Higher than RipRap
38'
520.8
521.3
523.3
521.5
523.3
520.8
Elevations Consistent
38'
In areas @ 0006 + 0007, the RipRap is lower than the streambed elev along the East side of the river.
∴ Expect Some Siltation over the Riprap over time.

Illinois Department of Transportation

SPECIAL FEATURE INSPECTION REPORT

Structure Number: 092 - 0007

Location & Inventory Information

Maintenance County: Vermilion Township: _____ Municipality: _____

Facility Carried: I-74 WB Feature Crossed: Salt Fork River

Location: West of Danville

Number of Spans: 7 Material & Type: Cont Stl Girder / Floor Beam System

Special Feature Inventory (determined and set by the BBS)

92C – Special Feature Inspection Interval: (months) 12 92C2 – Special Feature Start Date: 12 / 15 / 2007

92C1 – Special Feature Type Code:

- ☐ A – Structural Damage/Steel Superstructure
- ☐ B – Structural Damage/Concrete Superstructure
- ☐ C – Structural Damage/Timber Superstructure
- ☐ D – Structural Damage/Steel Substructure
- ☐ E – Structural Damage/Concrete Substructure
- ☐ F – Structural Damage/Timber Substructure
- ☐ G – Underwater/Debris and/or Erodible Soil
- ☐ H – Underwater/Flow Restriction or Velocity
- ☐ I – Underwater/Keying of Spread Footing
- ☐ J – Underwater/Large Drainage Area (> 5000 mi²)
- ☑ K – Underwater/Scour Critical Evaluation Monitoring
- ☐ L – Existing Streambed Scour/Spread Footing
- ☐ M – Existing Streambed Scour/Pile Supported Footing
- ☐ N – Existing Streambed Scour/Pile Bent Substructure Unit
- ☐ P – Embankment Movement or Settlement
- ☐ Q – Substructure Movement or Settlement
- ☐ R – Pin & Link in Multi-Girder (Redundant) Bridge
- ☐ S – Specifically Identified Problematic Structural Details
- ☐ T – Deck
- ☐ Z – Other

92C5 – Special Feature Type Remarks:

SPECIAL FEATURE INSPECTION

93C – Special Feature Inspection Date: 7 / 17 / 2008

93C1 – Special Feature Condition Status:

Prev	New	
☐ 0	☐ 0	- Worsening Condition Indicative of Imminent Structural Failure (closure required pending follow-up by BBS)
☐ 1	☐ 1	- Progression of Deterioration or Worsening of Condition Noted (immediate follow-up by BBS required)
☐ 2	☑ 2	- No Change in Condition Noted
☐ 3	☐ 3	- Corrected Condition Noted (SF inspections no longer required after verification by BBS personnel)
☐ 4	☐ 4	- Feature Determined to be in Adequate Condition (primarily for monitoring problematic structural details)

93C4 – Special Feature Inspection Remarks:

Previous Inspection	
New Inspection	P2 has sheet-piling protection w/ large concrete slabs around Pier P3 has minimum of 8.6' of cover midway Along West face. SEE REVERSE FOR FIELD DRAWING

S. Conklin C Boesche

93C2A – Inspection Team Leader Shawn O. Conklin 7/17/08
Signature Date

Supervisor Initials 7/21/08
Date

Illinois Department of Transportation

SPECIAL FEATURE INSPECTION REPORT

Structure Number: 092 - 0007

Location & Inventory Information

Maintenance County: Vermilion Township: Municipality:

Facility Carried: I-74 (WB) Feature Crossed: Salt Fork River

Location: W. of Danville

Number of Spans: 7 Material & Type: S+I Cont girder/Floor beam system

Special Feature Inventory (determined and set by the BBS)

92C – Special Feature Inspection Interval: (months) 12 92C2 – Special Feature Start Date: 2/15/07

92C1 – Special Feature Type Code:

- ☐ A – Structural Damage/Steel Superstructure
- ☐ B – Structural Damage/Concrete Superstructure
- ☐ C – Structural Damage/Timber Superstructure
- ☐ D – Structural Damage/Steel Substructure
- ☐ E – Structural Damage/Concrete Substructure
- ☐ F – Structural Damage/Timber Substructure
- ☐ G – Underwater/Debris and/or Erodible Soil
- ☐ H – Underwater/Flow Restriction or Velocity
- ☐ I – Underwater/Keying of Spread Footing
- ☐ J – Underwater/Large Drainage Area (> 5000 mi^2)
- ☑ K – Underwater/Scour Critical Evaluation Monitoring
- ☐ L – Existing Streambed Scour/Spread Footing
- ☐ M – Existing Streambed Scour/Pile Supported Footing
- ☐ N – Existing Streambed Scour/Pile Bent Substructure Unit
- ☐ P – Embankment Movement or Settlement
- ☐ Q – Substructure Movement or Settlement
- ☐ R – Pin & Link in Multi-Girder (Redundant) Bridge
- ☐ S – Specifically Identified Problematic Structural Details
- ☐ T – Deck
- ☐ Z – Other

92C5 – Special Feature Type Remarks:

SPECIAL FEATURE INSPECTION

93C – Special Feature Inspection Date: 7/17/07

93C1 – Special Feature Condition Status:

Prev	New	
☐ 0	☐ 0	- Worsening Condition Indicative of Imminent Structural Failure (closure required pending follow-up by BBS)
☐ 1	☐ 1	- Progression of Deterioration or Worsening of Condition Noted (immediate follow-up by BBS required)
☐ 2	☑ 2	- No Change in Condition Noted
☐ 3	☐ 3	- Corrected Condition Noted (SF inspections no longer required after verification by BBS personnel)
☐ 4	☐ 4	- Feature Determined to be in Adequate Condition (primarily for monitoring problematic structural details)

93C4 – Special Feature Inspection Remarks:

Previous Inspection	
New Inspection	Pier 2 has 15.2' of cover and greater, P_3 has 8.4' and greater cover.

93C2A – Inspection Team Leader Shawn D. Cook
Signature

7/17/07
Date

Supervisor Initials

7/18/07
Date

Illinois Department of Transportation

SPECIAL FEATURE INSPECTION REPORT

Structure Number: PR2 - 0001

Location & Inventory Information

Maintenance County: Vermilion Township: Municipality:

Facility Carried: I-74 (WB) Feature Crossed: Salt Fork Vermilion River

Location: W. of Danville

Number of Spans: 7 Material & Type: Plate Girder / Floor Beam

Special Feature Inventory (determined and set by the BBS)

92C – Special Feature Inspection Interval: (months) 12 92C2 – Special Feature Start Date: 7/27/2004

92C1 – Special Feature Type Code:

- ☐ A – Structural Damage/Steel Superstructure
- ☐ B – Structural Damage/Concrete Superstructure
- ☐ C – Structural Damage/Timber Superstructure
- ☐ D – Structural Damage/Steel Substructure
- ☐ E – Structural Damage/Concrete Substructure
- ☐ F – Structural Damage/Timber Substructure
- ☐ G – Underwater/Debris and/or Erodible Soil
- ☐ H – Underwater/Flow Restriction or Velocity
- ☐ I – Underwater/Keying of Spread Footing
- ☐ J – Underwater/Large Drainage Area (> 5000 mi^2)
- ☒ K – Underwater/Scour Critical Evaluation Monitoring
- ☐ L – Existing Streambed Scour/Spread Footing
- ☐ M – Existing Streambed Scour/Pile Supported Footing
- ☐ N – Existing Streambed Scour/Pile Bent Substructure Unit
- ☐ P – Embankment Movement or Settlement
- ☐ Q – Substructure Movement or Settlement
- ☐ R – Pin & Link in Multi-Girder (Redundant) Bridge
- ☐ S – Specifically Identified Problematic Structural Details
- ☐ T – Deck
- ☐ Z – Other

92C5 – Special Feature Type Remarks:

SPECIAL FEATURE INSPECTION

93C – Special Feature Inspection Date: ~~7/27/2004~~ 5/22/07

93C1 – Special Feature Condition Status:

Prev	New	
☐ 0	☐ 0	- Worsening Condition Indicative of Imminent Structural Failure (closure required pending follow-up by BBS)
☐ 1	☐ 1	- Progression of Deterioration or Worsening of Condition Noted (immediate follow-up by BBS required)
☐ 2	☒ 2	- No Change in Condition Noted
☐ 3	☐ 3	- Corrected Condition Noted (SF inspections no longer required after verification by BBS personnel)
☐ 4	☐ 4	- Feature Determined to be in Adequate Condition (primarily for monitoring problematic structural details)

93C4 – Special Feature Inspection Remarks:

Previous Inspection	
New Inspection	Pier #2 has 15.2' of Cover and greater w/ Min Cover @ the South End. The Cover above the bottom of the steel piling is 10.4' and greater. Pier #3 has 8.5' of Cover and greater.

93C2A – Inspection Team Leader J. Lee Signature 5/22/07 Date

J. Lee
S. Conklin

BRK Supervisor Initials 5/29/07 Date

Structure Number ___ - ____

Comments:

Mark on Pier 528.54 - 4.63 = 523.91 = Water Elev.

Top Pier #3 = 509.31 + 3.0 = 512.31

PIER #3 East Bank — 2.9-3.1' below water line — Rocky RIP3 type Material

523.91 − 3.1 = 520.81 = Streambed Elev.

Cover = 520.81 − 512.31 = 8.5'
PIER 3

N

Along Sheet Piling 2.5-3.5 below water

PIER #2 WEST Bank

Ground Shot 527.85

Ground Shot 526.56

Streambed Elev. along Sheet Piling 523.91 − 3.5 = 520.41

Cover above bottom of Sheet Piling = 520.41 − 510.0 = 10.4'

Top Pier #2 = 508.34 + 3.0 = 511.34 = Top Footer

Cover = 526.56 − 511.34 = 15.2'
PIER #2

(continue comments on additional pages as needed)

Inspection Resource Needs:

Time to Inspect (H:M): ___:___

Traffic Control: ☐ Yes ☐ No

Equipment: ☐ Boat ☐ Waders ☐ Snooper ☐ Manlift Ladder ☐ short ☐ medium ☐ tall

Other: _____

Illinois Department of Transportation

Fracture Critical Inspection Report

SN: 092-0007	District: 5	Spans: 7	Appr. Spans: 2	Skew: 0	ADT: 40800	Truck Pct: 32
ADT Un:	Maint. Co: VERMILION		Twsp: DANVILLE		Status: OPEN, NO RESTRICTIONS	
Facility Carried: I-74 (WB)			Feature Crossed: SALT FORK VERM RIVER			
Location: W OF DANVILLE	Municipality:				Team/Sub Section: 542/740	Insp/Rte: 000
Bridge Name:			Material & Type: STEEL CONTINUOUS/DECK GIRDER			
Insp. Intervals Routine: 24	Fracture Critical: 24		Underwater: 0		Special: N/A	Element Level: 24

93A - Inspection Date:	9/10/15	93A4 - Temp. (°F):	80°
Is Delinquent:	Reason:		
90A - Agency Program Manager:	K. Woods	90A3 - Consultant Program Manager:	
93A3 - Team Leader:	Jason Lee	93A5 - Inspector:	Shawn Conklin + Chris Burscher

Resources

Time to Inspect(H:M):	10:0	10:00	Traffic Control:	3	3	Boat:			Waders			Snooper:	S	S			
Ladder:			Manlift:			Bucket Truck:			Other:	ISP GABZ Patrols							

Inspector's Appraisals

92A1 - Type: A3 If "X4-Other":

93A1-Rating: Prev. 5 New 5 FC Method: Pr V New: MP [ ] DP [ ] UT [ ] V [V]

93A2 - Remarks: SEE FRACTURE CRITICAL FILE FOR FULL REPORT AND PHOTOS. LOWERED DUE TO AREAS OFF RUST SCALING / PITTING WITH SECTION LOSS THAT MAY AFFECT THE STRUCTURAL CAPACITY OF INDIVIDUAL MEMBERS.(09)

See attached report (2015) Jason Lee 9/10/15

	Signature	Date
Inspection Team Leader:	Jason Lee	9 / 10 / 15
Consultant Program Manager:		/ /
Agency Program Manager:	Kris Woods	9 / 17 / 15

Two Girder
A1 - Suspension Link & Pin
A2 - Suspension Single Pin
A3 - Tension Flanges Riveted/Bolted Plate Girders
A4 - Bearing Seat of Suspended Spans
A5 - Tension Flange of Rolled Beam
A6 - Tension Flange of Welded Plate Girders
A7 - Tension Flanges of Latice Truss Web Girders

Tryss Systems
B1 - Eyebar & Pin Tension Members
B2 - Simple Span Welded Truss Tension Members
B3 - Hanger Link & Pin of Suspended Trusses
B4 - Single Element Tension Members
B5 - Simple Span Riveted/Bolted Tension Members
B6 - Continuous Truss System - Welded, Riveted or Bolted Tension Members

Cable Stayed & Suspension
C1 - Suspension Bridge - Cables
C2 - Cable Stayed - Cables

Tied Arches
D1 - Welded Box Ties
D2 - Riveted/Bolted Box Ties
D3 - Stiffened Girders

Framed Steel Substructure
E1 - Welded or Rolled Pier Cap
E2 - Riveted or Bolted Pier Cap
E3 - Welded or Rolled Pier Column

Box Beams
F1 - Single Welded Box
F2 - Single Riveted/Bolted Box
F3 - Double Box Beam - Welded, Riveted or Bolted

Other Types
X1 - Bascule
X2 - Floorbeams supporting other steel members or spacing > 15 ft.
X3 - Cross Frames or Transfer Beams
X4 - Other

Historical Remarks

Inspection Date	Type	Remarks
10/18/90	A3	ONLY SIGNIFICANT PROBLEM INVOLED NUMEROUS TACK WELDS IN TENSILE ZONES. INSPECTION NOTES CAN BE FOUND ON PAGES 14&15 OF BRIDGE FIELD NOTES FIELD BOOK.
12/07/93	A3	SEE INSP. REPORT FOR DETAILS.
01/21/99	A3	INSPECTION NOTES ON PAGES 141 - 142 OF BRIDGE FIELD NOTES BOOK 5, SEE ATTACHED REPORT
01/22/04	A3	SEEE BRIDGE FIELD NOTES BOOK #6 FOR INSPECTION NOTES
11/09/05	A3	SEE FRACTURE CRITICAL FILE FOR FULL REPORT AND PHOTOS.
10/16/07	A3	SEE FRACTURE CRITICAL FILE FOR FULL REPORT AND PHOTOS.
09/16/09	A3	SEE FRACTURE CRITICAL FILE FOR FULL REPORT AND PHOTOS. LOWERED DUE TO AREAS OFF RUST SCALING / PITTING WITH SECTION LOSS THAT MAY AFFECT THE STRUCTURAL CAPACITY OF INDIVIDUAL MEMBERS.(09)
09/07/11	A3	SEE FRACTURE CRITICAL FILE FOR FULL REPORT AND PHOTOS. LOWERED DUE TO AREAS OFF RUST SCALING / PITTING WITH SECTION LOSS THAT MAY AFFECT THE STRUCTURAL CAPACITY OF INDIVIDUAL MEMBERS.(09)
09/04/13	A3	SEE FRACTURE CRITICAL FILE FOR FULL REPORT AND PHOTOS. LOWERED DUE TO AREAS OFF RUST SCALING / PITTING WITH SECTION LOSS THAT MAY AFFECT THE STRUCTURAL CAPACITY OF INDIVIDUAL MEMBERS.(09)

FRACTURE CRITICAL INSPECTION
092-0007 I-74 WB

September 9th and 10th, 2015

Inspected by: Jason A. Lee and Shawn D. Conklin

Equip. used: Springfield's 2008 A-62 Aspen under bridge inspection truck Operated by Paul Carpenter of the State-Wide Bridge Crew

Structure: 7 Spans, 2 Riveted Plate Girders with Floor Beams and Cross Members.

Logistics: Access was accomplished using the Central Bureau's 2008 A-62 Aspen under bridge inspection truck. WBPL & EBPL interstate lane closures were set by Danville Storage in accordance with case number WZ 42 of the Operations Work Site Protection Manual. We closed the passing lanes to also allow the Bridge Crew to be able to fix a median erosion problem along the vaulted abutment wings at the east abutment of both structures. The A-62 hoist works off both sides of the truck chassis; therefore utilization of the passing lanes worked out well. Illinois State Police GABZ Patrols were also utilized to enforce speed limits on the traveling public.

Inspection: All tensile areas of the Fracture Critical Riveted Plate Girders were visually inspected at arms length. The tensile areas include the bottom half of the girders in simple spans, the top half of the girders for 30' each side of the piers in the continuous spans (30' is at the splice location), and the bottom half of the girders for 60' in the middle of the continuous spans. Emphasis was placed on the documented tack welds between the web plate and flange-to-web connection angle in the tensile zones, splice connections, cross-brace connections to the main girders, and out of plane bending. Tack welds in tension zones were supposed to have been ground off during the structure rehabilitation in 1992. In most cases the top of the weld was ground off but the bond between members was not severed. In the remaining cases the welds were not touched at all. The last several years, a greater emphasis has been placed on the six "shop web splices". These splices have a 3/8" filler plate on the vertical portion (web portion) of the flange-to-web connection angle. Pack rust has started to develop in the corners of the fill plates.

Findings: The attached diagram, field notes, and photos show areas of interest that have been documented by District 5 forces during Fracture Critical Inspections since 1990. Each area of interest is lettered with a description of the observations. Pictures of various points of interest are also attached and lettered to match the diagram when appropriate.

Throughout the structure various bends, nicks, and gouges can be found on the girders. These imperfections were most likely caused during fabrication, transportation, or erection of the members during original construction. These imperfections have been in service since 1962 with no documented problems. The most severe cases have been documented in this report, with no evidence of distress in the field to date. These locations will continue to be closely monitored in subsequent inspections.

The failure of the paint system continues to play an increasing larger role in the overall condition of this structure. In localized areas, deterioration has grown beyond surface rust and developed into areas of pitting, scaling, or pack rust. The most notable locations of deterioration are at the locations of the six "shop web splices". These splices have a 3/8" filler plate on the vertical portion (web portion) of the flange-to-web connection angle. Moderate to heavy pack rust has developed in the corners behind the fill plates. This condition is worse on the splice on the outside of the girders. The side of the splice on the inside of the girders is protected more from the elements and is therefore in better condition. Since the 3/8" filler plates have little to do with the structural capacity of the members, the main concern is the extent of the deterioration to the flange-to-web connection angle behind the 3/8" fill plate. After heavy scraping by inspectors, it appears that section loss of the flange-to-web connection angle is minor. The majority of the pack rust appears to be created from the 3/8" fill plate as evidenced by the "fanning" of the fill plate. A portion of the surface of the flange-to-web connection angle behind the 3/8" fill plate has rust scaling, but no major pitting at this time. No broken rivets have been found to date.

The District 5 Bridge Crew replaced the joint at Pier 1A in the summer of 2006 with polymer nosing and silicone. The wide joint and large movements have made it difficult for the silicone to perform maintenance-free. Joint opening has typically been 3"-3½" at inspection time and sees a significant amount of expansion and contraction throughout the year. The performance of the silicone has been fair with a few holes and tears. This joint receives routine maintenance. The current joint is performing better than the old block and bladder joint. The efforts of the District Bridge Crew have greatly reduced leakage at this joint.

In 2015, two hanger rod locations that support the cross bracing were in need of repair. In Span 1A, the 1st hanger rod from the west was broken and was replaced by the inspectors. Also, in Span 1A, the 4th hanger rod from the west

was loose and was tightened by the inspectors. The Bridge Crew has hanger rod replacements ready to go and stored in Tuscola.

The poor attempt at removing the tack welds during the 1992 rehabilitation, has made inspection of the tack welds more difficult. The bond between members was not broken and the paint in the immediate area near the tack welds was disturbed. These areas are now starting to surface rust. No cracks or broken tack welds were found at this time.

All other minor problems or deficiencies are shown and discussed in the attached diagram, field notes, and photos. Tensile zones and the documented points of interest will continue to be monitored during future Fracture Critical Inspections.

Conclusions: While no major changes have taken place since the last inspection, the failure of the paint system has resulted in localized areas of scaling and minor pitting that could affect the structural capacity of individual members but not of the overall structure – most notably at the "shop web splices". The Fracture Critical Appraisal Rating (Item No. 93A1) is a "5" = "Fair – Rust scaling/pitting and/or minor nicks or gouges indicating measureable section loss which may affect structural capacity of individual members but not of the overall structure."

Pack rust at the "shop web splices" has not broken any rivets. No cracks or distresses were found in main members at nicks, gouges, or tack welds.

Fracture Critical Bridge Field Notes & Photos
092-0007 I-74 WB

A. 2009 / 2011 / 2013 / 2015 Shop Web Splice #1 – N. Girder Span 6 – Moderate pack rust in corners of the outside 3/8" fill plate at bottom of web. Minor pack rust in corners of the inside 3/8" fill plate at bottom of web. No broken rivets.

B. 2009 / 2011 / 2013 / 2015 Inside N. Girder Span 6 – Gouge on bottom flange – east end of second box. Smooth indentation with no jagged edges.

C. 1993/1999/2007/2009/2011/2013/2015 N & S Girders @ Pier 5 – Rivets removed for setting the new bearings during re-construction in 1992. See 1993 report from Frauenhoffer and Assoc. and correspondence between D-5 Construction, BB&S, O'Neil Bros., Frauenhoffer, and ESCA Consultants. Removed rivets for placement of bearings can be found at various substructure units, not just @ Pier 5.

D. 2007 / 2009 / 2011 / 2013 / 2015 Bearings at Pier 1 and Pier 5 are not centered on the top of the Pier columns on both 092-0006 & 092-0007.

E. 1999/2004/2007/2009/2011/2013/2015 Span 6 – 2nd set of horizontal cross bracing from the east are bent upward. Not causing any apparent problems.

F. 2007 / 2009 / 2011 / 2013 / 2015 Shop Web Splice #2 – S. Girder Span 6 – Heavy pack rust in the corners of the outside 3/8" fill plate at bottom of web. After heavy scraping by inspectors, it appears that section loss of the flange-to-web connection angle is very minor. The majority of pack rust appears to be created from the 3/8" fill plates as evidenced by the "fanning" of the fill plate. No broken rivets found. The inside 3/8" fill plate exhibits minor to moderate rust in the corners.

G. 1999/2005/2007/2009/2011/2013/2015 Inside N. Girder Span 5 – Loose bolt on bottom vertical gusset – 3rd vertical gusset from pier 4 / 1st vertical gusset from pier 5.

H. 1999/2005/2007/2009/2011/2013/2015 Inside N. Girder Span 5 – Bent gusset for horizontal cross member – NE plate, first box east of pier 4

I. 2009 / 2011 / 2013 / 2015 Inside S. Girder Span 5 – Bent vertical stiffener – 2nd box east of pier 4

J. 2009 / 2011 / 2013 / 2015 Outside S. Girder Span 5 – Typical paint failure and rusting – top of bottom flange – has progressed slightly beyond surface rust, but has not started to pit.

K. 2009/2011/2013/2015 Outside S. Girder Span 5 – Light gouges in top flange just west of pier 5.

L. 2009 / 2011 / 2013 / 2015 Outside N. Girder over Pier 4 – Light gouges in top flange.

M. 2007 / 2009 / 2011 / 2013 / 2015 Outside S. Girder Span 4 – West splice is wavy / warped.

N. 2009 / 2011 / 2013 / 2015 Outside N. Girder Span 3 – Typical paint failure – top flange at west splice in span 3.

O1. 2013 / 2015 Outside S. Girder Span 4 – Top flange west of west splice, top plate is bent / nicked / gouged just east of pier 3.

O2. 2007 / 2009 / 2011 / 2013 / 2015 Outside S. Girder Span 3 – Top flange east of east splice, top plate is bent / nicked / gouged just west of pier 3.

P. 2009 / 2011 / 2013 / 2015 Inside N. Girder Span 2 – Web streaks / surface deformations near Pier 2.

Q. 1999/2005/2007/2011/2013/2015 Inside S. Girder Span 2 – Broken rivet head / slice in gusset – 1st vertical brace west of pier 2. No damage to bottom flange is apparent.

R. 2007 / 2009 / 2011 / 2013 / 2015 Outside & Inside S. Girder Span 2 – Bottom flange to web angle east of west splice – tack weld partially ground out w/ a thin grinder wheel, almost looks like a broken weld but is not.

S. 2007 / 2009 / 2011 / 2013 / 2015 Outside S. Girder Span 2 – West of west splice – Bottom of web exhibits various gouges – compression zone therefore not as critical, continue to monitor. No shear distress evident.

T. 2009 / 2011 / 2013 / 2015 Shop Web Splice #3 – N. Girder Span 1 – Minor pack rust in corners of the outside 3/8" fill plate at bottom of web. Little to no rust in corners of the inside 3/8" fill plate at bottom of web. No broken rivets.

U. 2009 / 2011 / 2013 / 2015 Shop Web Splice #4 – S. Girder Span 1 – Minor to moderate pack rust in corners of the outside 3/8" fill plate at bottom of web. Little to no rust in corners of the inside 3/8" fill plate at bottom of web. No broken rivets.

V. 2009 / 2011 / 2013 / 2015 Shop Web Splice #5 – N. Girder Span 1A – Little to no rust in corners of the 3/8" fill plates at bottom of web on both the inside and outside of the girder. No broken rivets.

W. 2009 / 2011 / 2013 / 2015 Shop Web Splice #6 – S. Girder Span 1A – Minor pack rust in corners of the outside 3/8" fill plate at bottom of web. Little to no rust in corners of the inside 3/8" fill plate at bottom of web. No broken rivets.

X. 2007 / 2009 / 2011 / 2013 / 2015 Span 1A – High volume of tack welds between the bottom flange angle and the web. None have been ground out. Tension zone in Span 1A is bottom half of girder for the entire length of Span 1A (simple span). Continue to monitor.

High volume of tack welds applies to:

S. Girder – Inside & Outside

N. Girder – Inside mostly (Outside has a few tack welds, but not as many)

Y. 1990 / 2009 / 2011 / 2013 / 2015 Lower portions of girders at west abutment are very close to the backwall. Has not proven to create a problem to date.

Z. 1990 N. Girder at Pier 3 – Tack weld between web stiffeners above bearing has possible cracked weld, if so it predates 1977 painting. No evidence that this is a working crack – even if it is it is unlikely to propagate into the web stiffeners. No problems found (2009/2011/2013/2015).

AA. 2009 / 2011 / 2013 / 2015 Outside S. Girder Span 1 – Paint Failure – just east of and at pier 1A.

BB. 2011 / 2013 / 2015 N. Girder at Pier 1A – West of Pier 1A – Typical corrosion under expansion joint at Pier 1A. Old neoprene joints were replaced by bridge crew in 2006 with polymer nosing and silicone. Joint opening is typically 3”-3½” and sees a significant amount of expansion and contraction. The performance of the silicone has been fair with a few hole and tears. The silicone has been repaired a few times. The current joint is performing better than the old block and bladder joint.

CC. 2011 / 2013 / 2015 Outside N. Girder Span 1A – Gouges, nicks, and dents along bottom flange – west of west field splice. No distresses evident.

DD. 2013 / 2015 Inside N. Girder Span 4 – at web splice just E of pier 3 – Top flange has extra bolt hole or has a misdrilled hole location.

EE. 2015 Inside N. Girder Span 5 – West of Pier 5 – Dent in bottom plate of top flange. No distresses evident. Continue to monitor.

FF. 2015 Inside N. Girder Span 3 – East of Pier 2 – Pencil markings, letters, and numbers that may look like a crack from the ground, but are only markings from a carpenters pencil.

GG. 2015 Span 1A – 1st hanger rod from the west supporting the cross bracing is broken. Replaced by inspector. The Bridge Crew has hanger rod replacements ready to go and stored in Tuscola. Span 1A – 4th hanger rod from the west supporting the cross bracing is loose. Hanger rod was tightened by inspectors.

Brandenburg, Timothy J

From: Lee, Jason A
Sent: Wednesday, May 17, 2017 6:30 AM
To: Veliz, Victor H
Cc: Puzey, Carl; Speicher, David A; Brandenburg, Timothy J; Baliva, Dominic A; Carr, Jeffrey A; Day, Paul R.
Subject: RE: Fracture Critical 092-0007 - broken cross bracing connection plate
Attachments: P1010102.JPG; 20170516_110152.jpg; 20170516_104933.jpg; 20170516_104927.jpg; 0920007.pdf

Victor,

This repair was completed yesterday. The modified gusset detail by your unit keeping the old gusset in place while avoiding the bearing attachment bolts worked out very well – thank you.
Another job well done by the D-5 Bridge Crew.

Thanks,

Jason

From: Lee, Jason A
Sent: Thursday, April 27, 2017 2:09 PM
To: Veliz, Victor H
Cc: Puzey, Carl; Speicher, David A; Brandenburg, Timothy J; Baliva, Dominic A
Subject: RE: Fracture Critical 092-0007 - broken cross bracing connection plate

Victor,

The details look good. I met with our Bridge Crew Lead Worker and OS and we are planning to complete these repairs in house. Material acquisition has begun this afternoon.

Thank you,

Jason

From: Veliz, Victor H
Sent: Wednesday, April 26, 2017 3:56 PM
To: Lee, Jason A
Cc: Puzey, Carl; Speicher, David A; Brandenburg, Timothy J; Baliva, Dominic A
Subject: RE: Fracture Critical 092-0007 - broken cross bracing connection plate

Mr. Lee:

Attached is a detail that we believe will restore the connectivity of the cross bracing. What we have done is to avoid getting into the area where the bearing stiffeners and bearing connecting bolts are located while still providing a connection of the diagonal bracing to the main girder and floorbeam.

To all please offer any comments as needed.

Victor H. Veliz, PE

Bridge Investigation and Repair Unit Chief
Bureau of Bridges and Structures
Illinois Department of Transportation
Phone: (217)-782-2708
Email: Victor.Veliz@illinois.gov

Please include IDOT contract number and structure number in correspondence.

From: Veliz, Victor H
Sent: Wednesday, April 26, 2017 9:15 AM
To: Lee, Jason A
Cc: Puzey, Carl; Speicher, David A; Brandenburg, Timothy J
Subject: RE: Fracture Critical 092-0007 - broken cross bracing connection plate

Mr. Lee:

I do not think that eliminating this cross-brace is an option.

Looking at the detail it appears that the vertical tie rod at the mid-span of the cross-frame broke off and the subsequent flexing of the cross-frame fatigued the gusset plate which eventually broke off. Looking at the picture it looks like the vertical tie rod was not the original either because it appear to have been spliced before.

Anyway I agree that we do not want to get into trying to disconnect the bearing bolts for the pot bearings (which is very unlikely you will be able to remove). We will develop a detail for replacing the gusset plate and will send it to you for your consideration. The tie rod will need to be replaced too.

Victor H. Veliz, PE

Bridge Investigation and Repair Unit Chief
Bureau of Bridges and Structures
Illinois Department of Transportation
Phone: (217)-782-2708
Email: Victor.Veliz@illinois.gov

Please include IDOT contract number and structure number in correspondence.

From: Lee, Jason A
Sent: Wednesday, April 26, 2017 8:29 AM
To: Veliz, Victor H
Cc: Puzey, Carl; Speicher, David A; Brandenburg, Timothy J
Subject: Fracture Critical 092-0007 - broken cross bracing connection plate

Victor,

We have a broken cross bracing connection plate (3/8”) on fracture critical structure 092-0007 (I-74 WB over the Salt Fork Vermilion River). This is at the north girder, span 1-A, pier 1-A. The cross bracing is resting / bouncing (under semi loading) on the pier cap. I have attached some photos and plans sheets showing the location.

This is the cross bracing in the 4th "box" from the west abutment in span 1-A. The hanger rod that secures the cross bracing in this "box" has broken and been replaced by our bridge crew a few times over the years. This time the 3/8" connection plate has also failed.

I don't suppose this is an option, but could the cross bracing in this "box" be removed? This would be the easiest option if allowed.

I am contemplating if replacement of the 3/8" connection plate could be accomplished by our bridge crew. The corrosion of the connection bolts could prove problematic for us. From the plans it also appears 2 bearing device bolts also go thru this 3/8" connection plate.

Tim Brandenburg saw the problem during a scoping review and notified me of the issue yesterday.
092-0006 & 0007 are tentatively scheduled for superstructure replacements in FY2020 – Contract 70A92 – Nov 2019 Letting.

Jason Lee
Acting Bridge Maintenance Engineer
IDOT D-5
Cell: (217) 251-4860

GENERAL NOTES

All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.

Fasteners shall be high strength bolts. Bolts $\frac{3}{4}''\phi$, open holes $\frac{13}{16}''\phi$, unless otherwise noted.

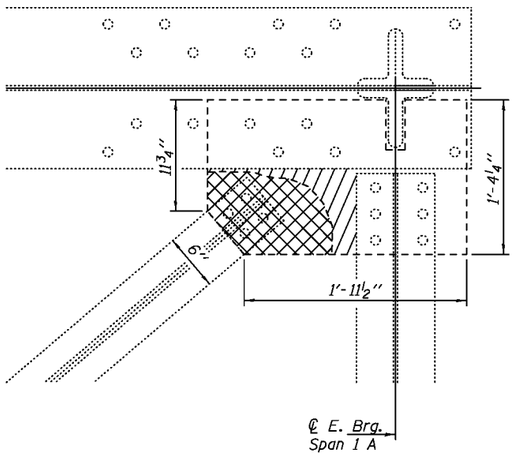
Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Cost of removal and re-installation of all members necessary to complete the work as detailed on the plans and as specified in the Special Provisions shall be included with Structural Steel Repair.

The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the GBSP "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".

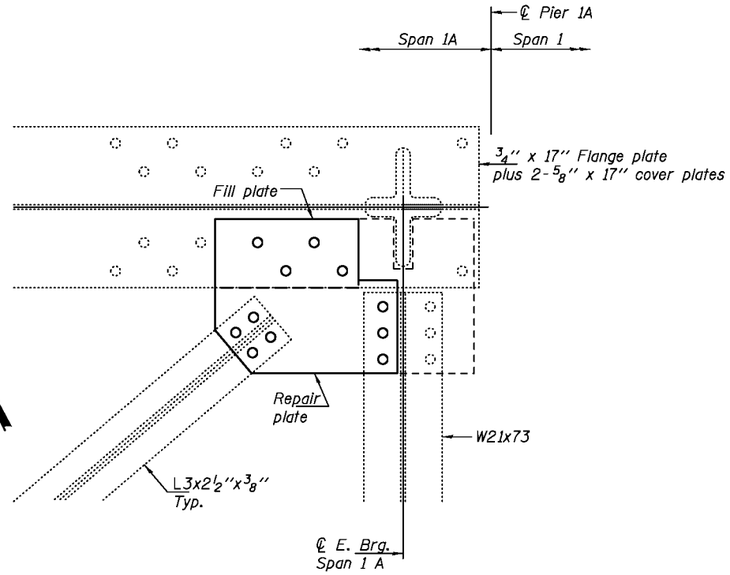
All structural steel shall be shop painted with the inorganic zinc rich primer per AASHTO M300, Type 1. Cost included with Structural Steel Repair.



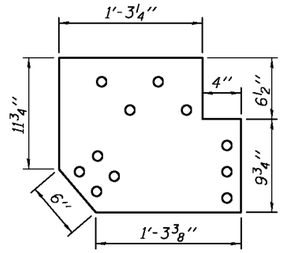
EXISTING PARTIAL PLAN

Hatched area indicates portion of existing connector plate to be removed from floorbeam and stringer. Crosshatched area indicates portion of existing connector plate to be removed from diagonals. Cost included with Structural Steel Repair.

Use holes in existing steel as a template for drilling holes in new steel.

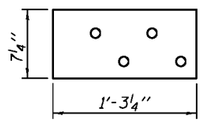


REPLACEMENT PARTIAL PLAN



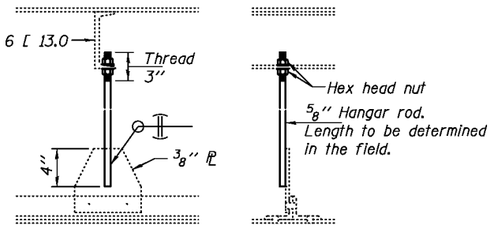
REPAIR PLATE

PL ½'' x 1'-4¼'' x 1'-7¼''



FILL PLATE

PL ¾'' x 7¼'' x 1'-3¼''



LATERAL BRACING HANGER REPAIR

Cost included with Structural Steel Repair.

BILL OF MATERIAL

Item	Unit	Total
Structural Steel Repair	Lbs	100

DRAFT

DATE: 4/26/2017

EXPIRES 11-30-2018

DESIGNED -		DATE - APRIL 26, 2017	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STEEL REPAIR FAI 74 OVER SALT FORK SN 092-0007	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED -					74	-	VERMILION	-	-
DRAWN baliva	PASSED	REVISED					CONTRACT NO.		
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES	REVISED		SHEET NO. 1 OF 1 SHEETS			ILLINOIS FED. AID PROJECT		

FOR INDEX OF SHEETS - SEE SHEET. 3.
FOR SUMMARY OF QUANTITIES - SEE SHEET. 4.

FEDERAL AID ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11HB-1 92-11B 92-11F	VERMILION	93	1

1-74-6(37) 213

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED FEDERAL AID HIGHWAY

Official Copy Revised as Built

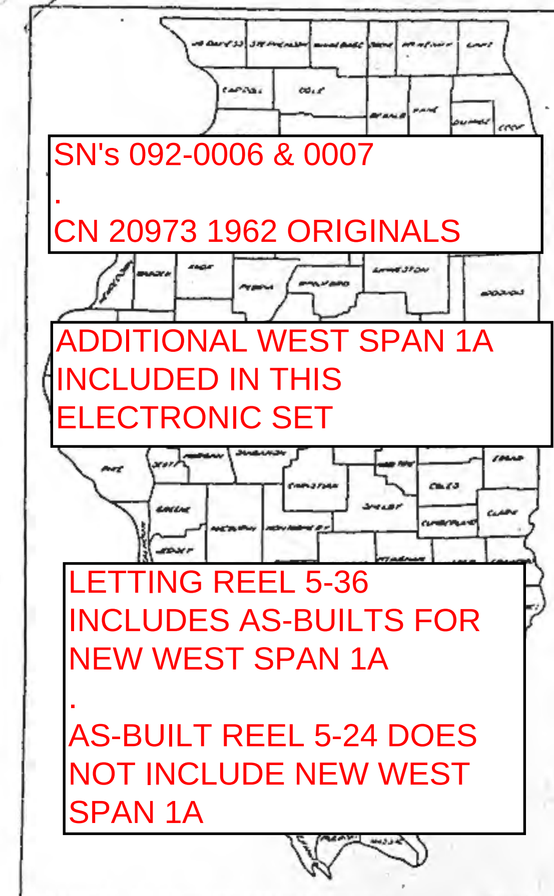
SCALES
- PLAN 1 INCH 100 FT
- PROFILE, HOR 1 INCH 100 FT
- PROFILE, VERT 1 INCH 10 FT
- CROSS SECTIONS 1 INCH 100 FT HORZ
- CROSS SECTIONS 1 INCH 5 FT VERT

FAI ROUTE 74, SEC 92-11 HB-1, VERMILION COUNTY
PROJECT I-74-6(35) 213
FAI ROUTE 74, SEC 92-11B, VERMILION COUNTY
FAI ROUTE 74, SEC 92-11F, VERMILION COUNTY
PROJECT I-74-6(37) 213

SN's 092-0006 & 0007
.
CN 20973 1962 ORIGINALS

ADDITIONAL WEST SPAN 1A INCLUDED IN THIS ELECTRONIC SET

LETTING REEL 5-36 INCLUDES AS-BUILTS FOR NEW WEST SPAN 1A
.
AS-BUILT REEL 5-24 DOES NOT INCLUDE NEW WEST SPAN 1A



LOCATION OF SECTION INDICATED THUS:—

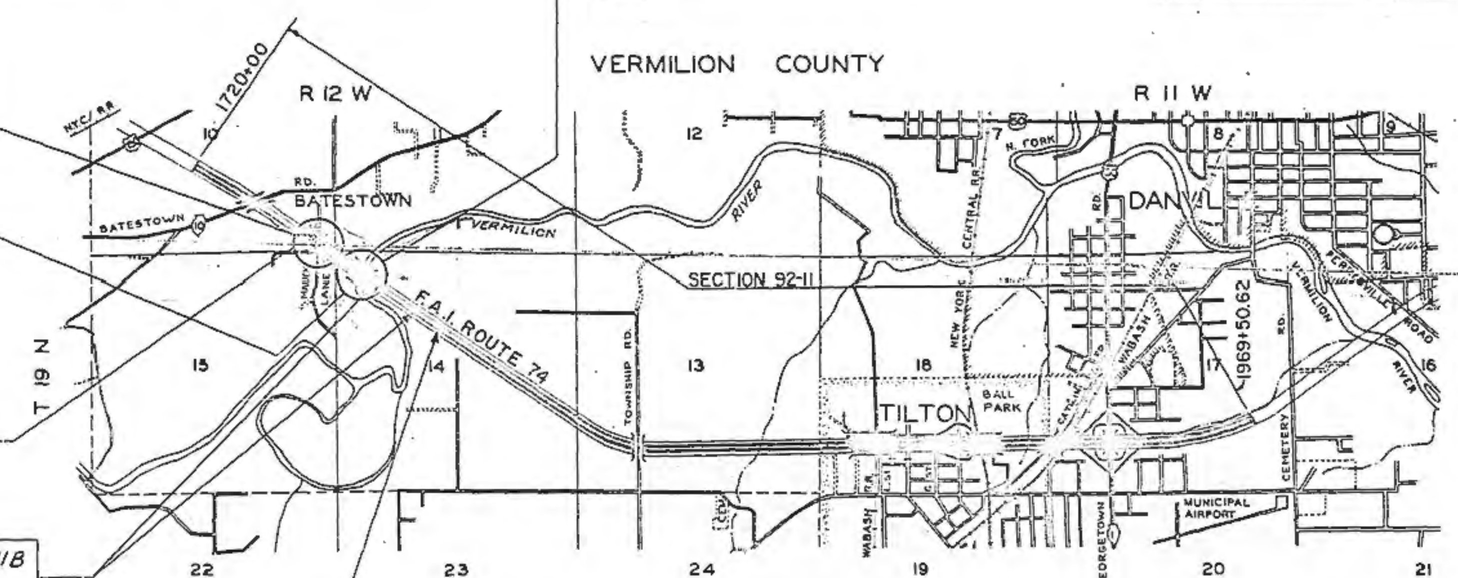
SECTION 92-11F INCLUDES FURNISHING AND FABRICATING STRUCTURAL STEEL, FURNISHING AND APPLYING SHOP COAT OF PAINT AND DELIVERY OF STRUCTURAL STEEL AS SPECIFIED BELOW.

SECTION 92-11HB-1 INCLUDES A 4 SPAN REINFORCED CONCRETE GRADE SEPARATION STRUCTURE; SPANS 2 AT 54'-6" AND 2 AT 68'-6" WITH 24'-0" ROADWAY WIDTH AND 2'-0" SAFETY WALKS ON REINFORCED CONCRETE PIERS AND ABUTMENTS AT STATION 1742+16.65

SECTION 92-11B INCLUDES TWIN 6 SPAN DECK PLATE GIRDER BRIDGES OVER THE VERMILION RIVER; SPANS 2 AT 93'-0" AND 4 AT 116'-0" WITH 30' 0" ROADWAY WIDTH AND 2'-0" SAFETY WALKS ON REINFORCED CONCRETE PIERS AND ABUTMENTS AT STATION 1755+16 TOGETHER WITH ROUGH GRADING.

DESIGN CLASSIFICATION
1525-T-70
PROJECT I-74-6(37) 213

NOTE: STRUCTURAL STEEL SHALL BE DELIVERED F.O.B. RAILWAY TEAM TRACK NEAREST THE BRIDGE SITE, EXCEPT THAT DELIVERY MAY BE F.O.B. BRIDGE SITE BY TRUCK IF SUITABLE ARRANGEMENTS ARE MADE WITH THE CONTRACTOR FOR SECTION 92-11B



PROJECT I-74-6(37)213
SECTION 92-11B
BEGINS STA. 1739+40

OMISSION SEC. 92-11B
STA. 1758+59 TO
STA. 1769+40

PROJECT I-74-6(37)213
SECTION 92-11B
ENDS STA. 1775+30

EXAMINED May 25 1961
W.E. Beaumont
ENGINEER OF BRIDGE & TRAFFIC STRUCTURES

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS
SUBMITTED May 25, 1961
EXAMINED June 13, 1961
PASSED June 13, 1961
APPROVED June 13, 1961
APPROVED June 13, 1961

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS
APPROVED
DIVISION ENGINEER
DATE

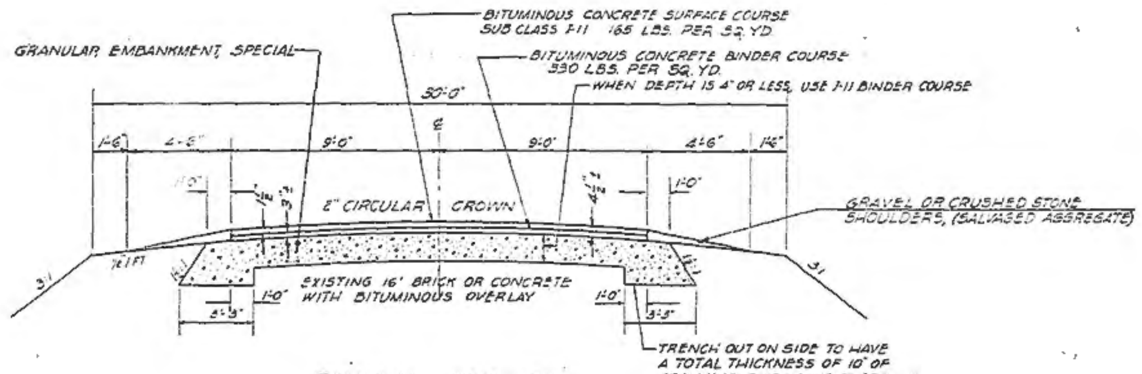
PLANS PREPARED BY
CONSOER TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS
360 EAST GRAND AVE.
CHICAGO, ILL.

PROJECT I-74-6(35)213 LENGTH = 0.0 FT = 0.0 MI.
SECTION 92-11B GROSS LENGTH = 3,590.0 FT. = 0.680 MI.
PROJECT I-74-6(37)213 LENGTH = 2,509.0 FT. = 0.475 MI.

No 20973(F) 20974(B)

VERMILION COUNTY SECTION 92-11HB-1 92-11B 92-11F F.A. ROUTE 74

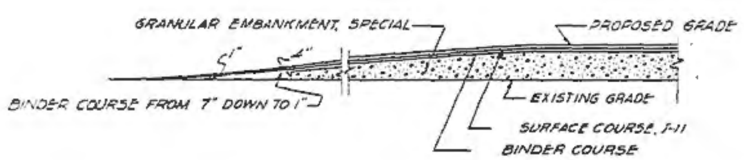
FEDERAL AID ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
74	97-I-HS 91-11B	VERMILION	93	2



TYPICAL SECTION

MAUCK LANE

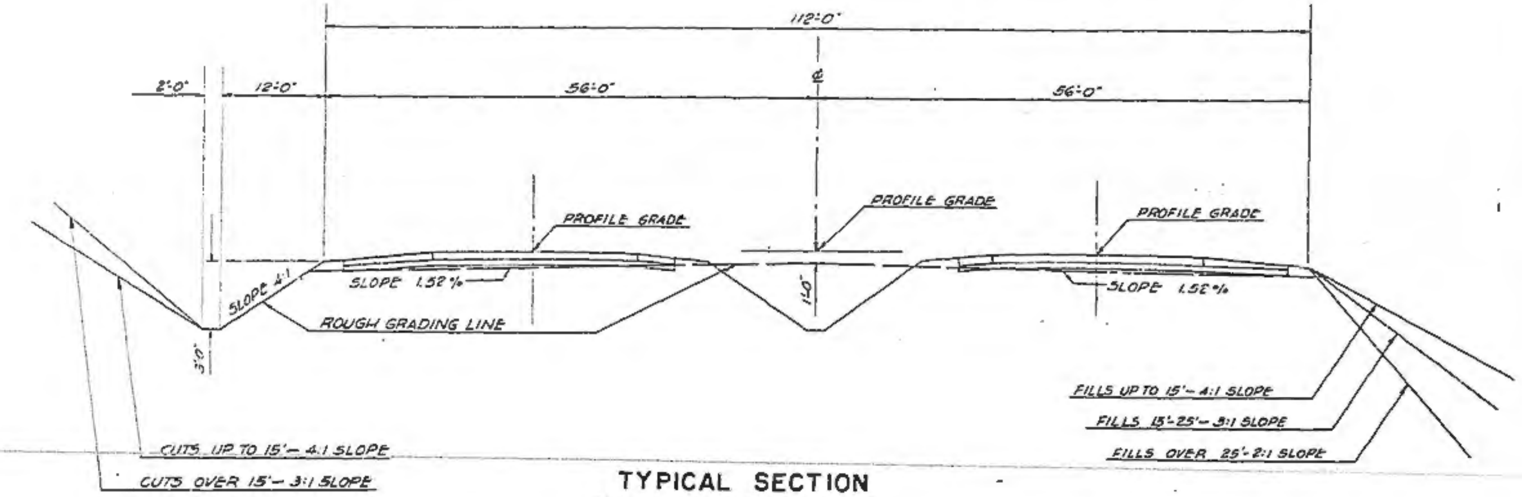
STATION 47+00 TO STATION 48+47.62
STATION 51+52.38 TO STATION 53+50



LONGITUDINAL SECTION — MAUCK LANE
FOR MEETING EXISTING PAVEMENT

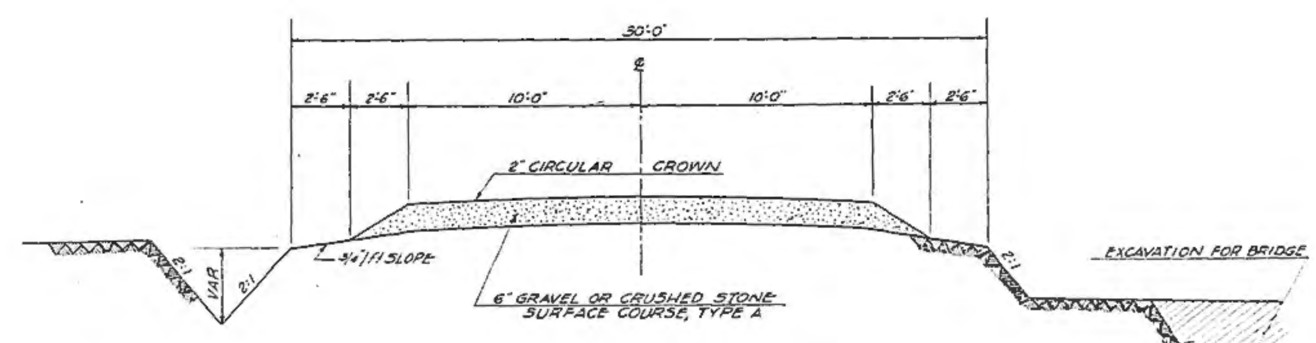
THE NOMINAL THICKNESSES FOR SUB-BASE GRANULAR MATERIAL AND GRAVEL OR CRUSHED STONE SHOULDERS TYPE B; BASE AND SURFACE COURSES ARE SHOWN ON THE TYPICAL SECTIONS, STANDARDS, SCHEDULES OR SPECIAL DETAILS. THE CONSTRUCTED THICKNESSES OF THE ABOVE ITEMS SHALL NOT BE LESS THAN 90 PER CENT OF THE NOMINAL THICKNESS AT ANY LOCATION.

THE THICKNESS OF BITUMINOUS MIXTURE SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE BITUMINOUS MIXTURE IS PLACED.



TYPICAL SECTION
ROUGH GRADING LINE

DUAL PORTLAND CEMENT CONCRETE PAVEMENT



TYPICAL SECTION

MAUCK LANE DETOUR ROAD

FEDERAL AID ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11HB-1 92-11B 92-11F	VERMILION	93	3
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

GENERAL NOTES - ROADWAY

All elevations shown are on United States Geological Survey Datum.

Grade elevations on Plan and Profile Sheets and On Cross Sections apply as follows:

1. Crossroad: Station 47 + 00 to Station 53 + 50; the center of the surfaced way.
2. Detour Road: Station 7+57.77 to Station 13 + 78.53; the center of the surfaced way.

A Bituminous Concrete Binder Course, shall be constructed 3 inches thick and variable, in accordance with the Typical Section shown, and as directed by the Engineer, on the Crossroad at F.A.I. Station 1742+16.65.

ESTIMATED QUANTITY:

108	Tons	BITUMINOUS CONCRETE BINDER COURSE
250	Gals.	BITUMINOUS MATERIALS (PRIME COAT)

A Bituminous Concrete Surface Course, Sub-Class 1-11, shall be constructed 1 1/2 inches thick, in accordance with the Typical Section shown, and as directed by the Engineer.

ESTIMATED QUANTITY:

60	Tons	BITUMINOUS CONCRETE SURFACE COURSE, SUB-CLASS 1-11

Granular Embankment, Special shall be placed over the existing pavement surface on Mauck Lane and shall be compacted to the elevations as shown on the Cross Sections and as directed by the Engineer.

ESTIMATED QUANTITY:

430	Tons	GRANULAR EMBANKMENT - SPECIAL

Gravel or Crushed Stone Shoulders, Type B, shall be built of Salvaged Aggregate in accordance with the Typical Sections shown in the plans and as directed by the Engineer.

ESTIMATED QUANTITY:

50	Cu.Yds.	GRAVEL OR CRUSHED STONE SHOULDERS, (SALVAGED AGGREGATE)

A Gravel or Crushed Stone Surface Course, Type A, shall be placed uniformly 6 inches thick, compacted, on the detour for Mauck Lane, Station 7 + 86 to Station 13 + 50, in accordance with the Typical Section shown.

ESTIMATED QUANTITY:

535	Tons	GRAVEL OR CRUSHED STONE SURFACE COURSE, TYPE A

Gravel or Crushed Stone for maintenance purposes and for raising the grade at the terminals of the Detour Road for Mauck Lane has been provided.

ESTIMATED QUANTITY:

200	Tons	GRAVEL OR CRUSHED STONE

Calcium Chloride shall be applied on the [illegible] 5 pounds per square yard and shall be mixed with the Gravel or Crushed Stone for maintenance as directed by the Engineer.

ESTIMATED QUANTITY:

4.6	Tons	CALCIUM CHLORIDE APPLIED

Where indicated on the cross sections and as may be directed by the Engineer, Top Soil, 4 inches thick shall be placed.

ESTIMATED QUANTITY:

75	Cu.Yds.	TOPSOIL

Shoulders, Ditches and any other areas between the Right of Way lines on Mauck Lane having insufficient cover or unsatisfactory vegetation shall be seeded as directed by the Engineer.

ESTIMATED QUANTITIES:

0.1	Acres	TEMPORARY SEEDING
0.1	Acres	COMPLETE SEEDING

On all areas to be seeded, Fertilizer Nutrients and Agricultural Ground Limestone shall be applied as directed by the Engineer.

ESTIMATED QUANTITIES:

0.1	Ton	FERTILIZER NUTRIENTS
1	Ton	AGRICULTURAL GROUND LIMESTONE

Earth Shoulders and all areas having a slope of 4:1, or steeper, shall be covered with asphalt-coated mulch as directed by the Engineer.

ESTIMATED QUANTITIES:

1	Ton	STRAW FOR ASPHALT-COATED MULCH
100	Gal.	EMULSIFIED ASPHALT

A strip of sod 36 inches wide shall be placed on each side of all paved ditches and paved ditch transitions as directed by the Engineer.

ESTIMATED QUANTITIES:

1000	Sq.Yds.	SODDING
6	Units	SUPPLEMENTAL WATERING

All trees that interfere with construction operations shall be removed as directed by the Engineer. For the Contractors convenience, the estimated Inch Diameters and Acres to be removed are shown below. (See Special Provisions)

ESTIMATED DIAMETERS & ACRES

270	In.Dia.	TREE REMOVAL (6" TO 15" DIA.)
330	In.Dia.	TREE REMOVAL (OVER 15" DIA.)
14.6	Acres	TREE REMOVAL (ACRES)

QUANTITY:

1	Lump Sum	TREE AND HEDGE REMOVAL

At locations indicated on the plans and as directed by the Engineer, Right of Way Markers shall be furnished and erected.

ESTIMATED QUANTITIES:

30	Each	FURNISHING AND ERECTING RIGHT OF WAY MARKERS

Existing pavement on Mauck Lane shall be removed as indicated on the plans and as directed by the Engineer.

ESTIMATED QUANTITY:

533	Sq.Yds.	PAVEMENT REMOVAL

Before ordering pipe culverts, corrugated metal pipe or storm sewers, the Contractor shall consult the Engineer for exact lengths.

[illegible] dard 2153-2, shall be erected at locations as shown on the plans.

Wherever in these plans reference is made to the "Standard Specifications", it is understood to include the "Supplemental Specifications", effective July 1, 1961

GENERAL NOTES - BRIDGES

SECTIONS 92-11HB-1 & 92-11B

Class X Concrete shall be used throughout.

Superstructure Slab shall be finished in accordance with Article 51.19 of the Standard Specifications.

Exposed Concrete surfaces shall be rubbed in accordance with Standard Specifications, Sec. 52-13.

SECTION 92-11HB-1

All Rollers, Rockers, Bearing Plates, Masonry Plates, Pintles, Anchor Bolts, Bolts and Nuts, Lead Plates, and all parts of Expansion Guards and Devices shall be fabricated and set in accordance with Article 51.13 and Article 51.15 of the Standard Specifications and are included for payment as "Furnishing and Erecting Structural Steel".

All surfaces of Structural Steel that will be exposed after erection shall receive one coat red lead paint and two field coats of Aluminum paint. All paint to be furnished and applied by the contractor and included in the unit price bid for "Furnishing and Erecting Structural Steel".

4" Concrete Slopewall shall be reinforced with welded Wire Fabric 6" x 6" Mesh, #4 Wires, Weighing 58# Per 100 Sq. ft.

Test Piles, the Contractor shall drive one test pile in a permanent location in the North Abutment before driving the remainder of the piles.

SECTION 92-11B

Coarse Aggregate used in Parapet Handrails and Wingwall End Posts must be absolutely free of Chert, Flint, Limonite, Lignite and soft Sandstone.

Anchor Bolts shall be set before riveting Cross Frames over Piers and Abutments.

Slope Wall shall be reinforced with welded Wire Fabric 6" x 6" Mesh, #4 Wires, weighing 58 Lbs. per 100 Sq. Ft. layout of the Slope Walls may be varied to suit ground conditions in the field, as directed by the Engineer.

Test Piles shall be driven in permanent locations after embankments are placed, before driving remainder of piles.

Piles in Abutments shall be driven in holes precored to natural ground in accordance with Article 60.9 (c) of the Standard Specifications.

SECTIONS 92-11B & 92-11F

All Rollers, Rockers, Bearing Plates, Masonry Plates, Pintles and Anchor Bolts shall be fabricated and set in accordance with Article 51.15 of the Standard Specifications and are included for payment as Structural Steel.

Expansion Guards shall be fabricated and erected in accordance with Article 51.13 (d) of the Standard Specifications. Expansion Plates shall be flame cut as provided in Article 54.5 of the Standard Specifications. Expansion Guards shall be given two shop coats of Red Lead Paint. The 3/4" x 8" welded Stud Anchors shall not be painted. Expansion Guards are included for payment as Structural Steel.

Except as otherwise provided, All Structural Steel shall receive one shop coat of red lead paint and two field coats of Aluminum paint. See Articles 56.1 to 56.5, inclusive, of the Standard Specifications.

All Paint shall be furnished and applied by the Contractor involved.

3/4" Rivets shall be used for all connections, except as noted.

SECTION 92-11F

All Holes for Splices shall be subpunched 11/16" and reamed to 13/16" for 3/4" Rivets, while Girders are assembled in shop in proper position and left assembled for shop inspection by Division of Highways.

Design Specifications: A.A.S.H.O. 1957 Edition
Design Load: H15-S12-44

Unit Stresses: Structural Steel	[illegible] p.s.i.
Reinforcing Steel	f_s = 20,000 p.s.i.
Concrete Ultimate compression	f'_c = 3,500 p.s.i.
Allowable compression (No Earth Pressure)	f_c = 1,400 p.s.i.
Allowable compression (With Earth Pressure)	f_c = 1,000 p.s.i.
Modular Ratio	n = 10
Horizontal Earth Pressure (Equiv. Liquid Pressure)	= 40 p/cf
Concrete Piles, Capacity	= 40 Tons @ Abutments
Pier Footing Shear	V = 75 p.s.i.
Allowable Soil Pressure - Piers	3 Tons/S.F. Max.

Design Specification: A.A.S.H.O. 1957 Edition

Design Load: H20-S16-44 & Alternative

Deck Slab, Piers, Footings and Abutments	
Structural Steel	f_s = 18,000 p.s.i.
Reinforcing Steel	f_s = 20,000 p.s.i.
Concrete	
Ultimate Compression	f'_c = 3,500 p.s.i.
Allowable Compression (No Earth Pressure)	f_c = 1,400 p.s.i.
Allowable Compression (With Earth Pressure)	f_c = 1,000 p.s.i.
Modular Ratio	n = 10
Horizontal Earth Pressure = Equiv. Fluid Pressure	= 40 p.c.f.
Concrete Pile Capacity	= 40 Tons @ Abutments
Timber Pile Capacity	= 15 Tons @ Approach Slab
Steel Pile Capacity	= 40 Tons @ Piers
Pier Footings, Max. Shear	= 75 p.s.i.

INDEX OF SHEETS

INDEX OF SHEETS SECTION 92-11F

FEDERAL AID ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11HB-1 & 92-11B	VERMILION	93	4
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

PROJECT F.A.I-74-6(35)213. SECTION 92-11HB-1

QUANTITY	UNIT	ITEM	CODE
657	CU.YD.	EARTH EXCAVATION	011001
430	TON	GRANULAR EMBANKMENT - SPECIAL	017001
50	CU.YD.	GRAVEL OR CRUSHED STONE SHOULDERS, (SALVAGED AGGREGATE)	026005
75	CU.YD.	TOP SOIL	027001
535	TON	GRAVEL OR CRUSHED STONE SURFACE COURSE, TYPE A	036001
250	GAL.	BITUMINOUS MATERIALS (PRIME COAT)	046001
108	TON	BITUMINOUS CONCRETE BINDER COURSE	046006
60	TON	BITUMINOUS CONCRETE SURFACE COURSE, SUBCLASS 1-11	046007
106	SQ.YD.	PORTLAND CEMENT CONCRETE PAVEMENT (16 1/2 - 10 1/2 - 16 1/2)	048011
331	CU.YD.	CLASS A EXCAVATION FOR STRUCTURES	050001
10,650	POUND	FURNISHING AND ERECTING STRUCTURAL STEEL	051002
685.5	CU.YD.	CLASS X CONCRETE	052003
498	LIN.FT.	FURNISHING & ERECTING METAL HANDRAIL	055001
106	LIN.FT.	PIPE CULVERTS, TYPE 2A, RCP CLASS 3, 36 IN.	058103
126,940	POUND	REINFORCEMENT BARS	059001
357	LIN.FT.	DRIVING CONCRETE PILES	060043
357	LIN.FT.	FURNISHING CONCRETE PILES	060044
8	EACH	TEST PILES (CONCRETE)	060047
2	EACH	NAME PLATES	061001
533	SQ.YD.	PAVEMENT REMOVAL	082001
505	SQ.YD.	SLOPE WALL, 4 INCH	083002
200	LIN.FT.	STEEL PLATE BEAM GUARD RAIL	094001
200	TON	GRAVEL OR CRUSHED STONE	101002
9	CU.YD.	SALVAGED AGGREGATE	101006
4.6	TON	CALCIUM CHLORIDE APPLIED	102001
0.1	ACRE	TEMPORARY SEEDING	110001
0.1	ACRE	COMPLETE SEEDING	110004
0.1	TON	FERTILIZER NUTRIENTS	110005
1	TON	AGRICULTURAL GROUND LIMESTONE	110006
1	TON	STRAW FOR ASHPHAT-COATED MULCH	111002
100	GAL.	EMULSIFIED ASPHALT	111003

SUMMARY OF QUANTITIES

PROJECT F.A.I-74-6(37)213. SECTION 92-11B

QUANTITY	UNIT	TYPE	CODE
1	LUMP SUM	TREE AND HEDGE REMOVAL	010009
234,171	CU.YD.	EARTH EXCAVATION	011001
2,335	CU.YD.	CLASS A EXCAVATION FOR STRUCTURES	050001
970	CU.YD.	CLASS B EXCAVATION FOR STRUCTURES	050002
498.7	CU.YD.	CLASS X CONCRETE	052003
15.7	CU.YD.	CLASS X CONCRETE (HEADWALL)	052016
1,914,880	POUND	ERECTING STRUCTURAL STEEL	054003
188	LIN.FT.	PIPE CULVERTS, TYPE 2A, RCP CLASS 3, 24 IN.	058099
582	LIN.FT.	PIPE CULVERTS, TYPE 3A, RCP CLASS 4, 36 IN.	058126
268	LIN.FT.	PIPE CULVERTS, TYPE 3A, RCP CLASS 4, 42 IN.	058127
921,750	POUND	REINFORCEMENT BARS	059001
300	LIN.FT.	FURNISHING CREOSOTED PILES, 20.1'-38'	060005
300	LIN.FT.	DRIVING TIMBER PILES	060008
4,310	LIN.FT.	FURNISHING STEEL PILES (12 BP 53)	060024
2	EACH	TEST PILES (STEEL 12 BP 53)	060033
4,510	LIN.FT.	DRIVING STEEL PILES	060037
5,470	LIN.FT.	DRIVING CONCRETE PILES	060043
5,470	LIN.FT.	FURNISHING CONCRETE PILES	060044
2	EACH	TEST PILES (CONCRETE)	060047
2	EACH	NAME PLATES	061001
8	LIN.FT.	CORRUGATED METAL PIPE, 12 IN.	063003
60	LIN.FT.	STORM SEWERS, TYPE 3, 24 IN.	066053
100	CU.YD.	ROCK EXCAVATION FOR STRUCTURES	066054
1	EACH	MANHOLES, TYPE A, 5' DIA. WITH TYPE 1 FRAME AND CLOSED LID	075096
2	EACH	CATCH BASINS, TYPE B WITH TYPE 7 GRATE	075120
4	EACH	CAST IRON FRAMES & GRATES - SPECIAL	078025
1,830	SQ.YD.	SLOPE WALL, 6-INCH	083003
1,354	LIN.FT.	PAVED DITCH, 6 FT.	091005
30	EACH	FURNISHING AND ERECTING RIGHT OF WAY MARKERS	104001
1000	SQ.YD.	SODDING	112001
6	UNIT	SUPPLEMENTAL WATERING	112002
2,611	LIN.FT.	ALUMINUM HANDRAIL	Z00004
4	EACH	FURNISHING & ERECTING DRAINAGE MARKERS	Z00125
2	EACH	COFFERDAM (PIER 2)	050007
2	EACH	COFFERDAM (PIER 3)	050008

PROJECT F.A.I-74-6(37)213. SECTION 92-11F

AS BUILT QUANTITY	QUANTITY	UNIT	TYPE	CODE
1,905,777	1,914,880	POUND	FURNISHING STRUCTURAL STEEL	054002

TOTALS - SEC. 92-11HB-1 & SEC. 92-11B

AS BUILT QUANTITY	QUANTITY	UNIT	ITEM	CODE
	1	LUMP SUM	TREE AND HEDGE REMOVAL	010009
247,333	~~234,838~~	CU.YD.	EARTH EXCAVATION	011001
373.6	~~430~~	TON	GRANULAR EMBANKMENT - SPECIAL	017001
	50	CU.YD.	GRAVEL OR CRUSHED STONE SHOULDERS, (SALVAGED AGGREGATE)	026005
	75	CU.YD.	TOP SOIL	027001
543.4	~~535~~	TON	GRAVEL OR CRUSHED STONE SURFACE COURSE, TYPE A	036001
223	~~250~~	GAL.	BITUMINOUS MATERIALS (PRIME COAT)	046001
105	~~108~~	TON	BITUMINOUS CONCRETE BINDER COURSE	046006
64.8	~~60~~	TON	BITUMINOUS CONCRETE SURFACE COURSE, SUBCLASS 1-11	046007
	106	SQ.YD.	PORTLAND CEMENT CONCRETE PAVEMENT (16 1/2 - 10 1/2 - 16 1/2)	048011
4,120	~~2,666~~	CU.YD.	CLASS A EXCAVATION FOR STRUCTURES	050001
	970	CU.YD.	CLASS B EXCAVATION FOR STRUCTURES	050002
10,696	~~10,650~~	POUND	FURNISHING & ERECTING STRUCTURAL STEEL	051002
6,636.3	~~5,664.6~~	CU.YD.	CLASS X CONCRETE	052003
16.3	~~15.7~~	CU.YD.	CLASS X CONCRETE (HEADWALL)	052016
2,205,745	~~1,914,880~~	POUND	ERECTING STRUCTURAL STEEL	054003
	498	LIN.FT.	FURNISHING & ERECTING METAL HANDRAIL	055001
138	~~106~~	LIN.FT.	PIPE CULVERTS, TYPE 2A, RCP CLASS 3, 24 IN.	058099
	104	LIN.FT.	PIPE CULVERTS, TYPE 2A, RCP CLASS 3, 36 IN.	058103
	542	LIN.FT.	PIPE CULVERTS, TYPE 3A, RCP CLASS 4, 36 IN.	058126
	268	LIN.FT.	PIPE CULVERTS, TYPE 3A, RCP CLASS 4, 42 IN.	058127
1,218,129	~~1,048,690~~	POUND	REINFORCEMENT BARS	059001
	300	LIN.FT.	FURNISHING CREOSOTED PILES, 20.1'-38'	060005
	~~300~~	~~LIN.FT.~~	~~DRIVING TIMBER PILES~~	060008
3,430	~~4,310~~	LIN.FT.	FURNISHING STEEL PILES, (12 BP 53)	060024
3	~~2~~	EACH	TEST PILES (STEEL, 12 BP 53)	060033
	~~4,510~~	~~LIN.FT.~~	~~DRIVING STEEL PILES~~	060037
	~~5,827~~	~~LIN.FT.~~	~~DRIVING CONCRETE PILES~~	060043
4,557	~~5,827~~	LIN.FT.	FURNISHING CONCRETE PILES	060044
2	~~8~~	EACH	TEST PILES (CONCRETE)	060047
	2	EACH	NAME PLATES	061001
	8	LIN.FT.	CORRUGATED METAL PIPE, 12 IN.	063003
57	~~60~~	LIN.FT.	STORM SEWERS, TYPE 3, 24 IN.	066053
3,056	~~100~~	CU.YD.	ROCK EXCAVATION FOR STRUCTURES	066054
	1	EACH	MANHOLES, TYPE A, 5' DIA. WITH TYPE 1 FRAME AND CLOSED LID	075096
	2	EACH	CATCH BASINS, TYPE B WITH TYPE 7 GRATE	075120
	4	EACH	CAST IRON FRAMES & GRATES - SPECIAL	078025
	533	SQ.YD.	PAVEMENT REMOVAL	082001
464.7	~~505~~	SQ.YD.	SLOPE WALL, 4-INCH	083002
1,659.5	~~1,830~~	SQ.YD.	SLOPE WALL, 6-INCH	083003
1,270.5	~~1,354~~	LIN.FT.	PAVED DITCH, 6 FT.	091005
OK	~~200~~	~~LIN.FT.~~	~~STEEL PLATE BEAM GUARD RAIL~~ OK	094001
	~~200~~	~~TON~~	~~GRAVEL OR CRUSHED STONE~~	101002
	~~9~~	~~CU.YD.~~	~~SALVAGED AGGREGATE~~	101006
2.5	~~4.6~~	TON	CALCIUM CHLORIDE APPLIED	102001
35	~~30~~	EACH	FURNISHING & ERECTING RIGHT OF WAY MARKERS	104001
	~~0.1~~	ACRE	TEMPORARY SEEDING	110001
20	~~0.1~~	ACRE	COMPLETE SEEDING	110004
	0.1	TON	FERTILIZER NUTRIENTS	110005
	1	TON	AGRICULTURAL GROUND LIMESTONE	110006
	1	TON	STRAW FOR ASPHALT-COATED MULCH	111002
	100	GAL.	EMULSIFIED ASPHALT	111003
752.6	~~1000~~	SQ.YD.	SODDING	112001
	~~6~~	~~UNIT~~	~~SUPPLEMENTAL WATERING~~	112002
2991	~~2,611~~	LIN.FT.	ALUMINUM HANDRAIL	Z00004
	4	EACH	FURNISHING & ERECTING DRAINAGE MARKERS	Z00125
	2	EACH	COFFERDAM (PIER 2)	050007
	2	EACH	COFFERDAM (PIER 3)	050008

4,965.4 Lin.Ft. Driving Concrete Piles (Abs.)
3,320.4 Lin.Ft. Driving Steel Piles (Abs.)
208.1 Lin.Ft. Driving Timber Piles (Abs.)

SUMMARY OF CLASS X CONCRETE

SIDE	STATION	TYPE OF STRUCTURE	CLASS X CONC.	CLASS X CONC. HEADWALL
		PROJECT F.A.I. 74-6(35)213, SEC. 92-11HB-1		
C/L	50+00	SPECIAL BRIDGE DESIGN	685.5	
		TOTALS	685.5	
		PROJECT F.A.I-74-6(37)213 SEC. 92-11B		
LT	1746+10	SPECIAL TRANSITION FOR PAVED DITCH	2.6	
RT	1745+98	SPECIAL TRANSITION FOR PAVED DITCH	2.8	
C/L	1746+90	STANDARD 1258 R INLET	1.1	
RT	1747+75	SPECIAL TRANSITION FOR PAVED DITCH	2.9	
RT	1748+00	2051-D336-2 (1) HEADWALL		2.6
WT	1748+00	SPECIAL BAFFLE		0.2
RT	1748+22	SPECIAL TRANSITION FOR PAVED DITCH	2.3	
RT	1748+87	SPECIAL TRANSITION FOR PAVED DITCH	2.6	
RT	1750+40	1976-D74-2 (1) HEADWALL		1.0
RT	1750+40	STANDARD 1258 R INLET	1.3	
C/L	1751+14	STANDARD 1258 R INLET	1.1	
LT	1751+14	STANDARD 1258 R INLET	1.1	
C/L	1755+16	SPECIAL BRIDGE DESIGN	5,076.5	
LT	1755+65	SPECIAL TRANSITION FOR PAVED DITCH	2.1	
RT	1757+15	SPECIAL TRANSITION FOR PAVED DITCH	2.1	
C/L	1770+00	1988-D342-2 (2) HEADWALL		10.8
C/L	1770+00	SPECIAL BAFFLE		0.3
		TOTALS ~~5,077.5~~	~~15.7~~ 16.3	

TOTAL CLASS X CONCRETE (HEADWALL) 16.3 ~~15.7~~ CU. YDS.
TOTAL CLASS X CONCRETE ~~5,664.6~~ CU. YDS.
6,636.3

Revised quantities Class A and Class B Excav. added Cofferdams Piers 2 & 3 12-12-01 L.D.W.
Revised quantities Class B Excav., Class X Conc., Steel piles, Test piles steel 1-8-02 L.D.W.

RESURVEY OF BATES SECOND SUBDIVISION

STATION EQUATION: 1742+16.65 F.A.I. 74 = 50+00 (CROSSROAD)

STATION EQUATION 1740+00 (F.A.I. 74) = 11+46.75 (DETOUR)

SPECIAL BRIDGE DESIGN
CONTINUOUS REINFORCED CONCRETE GIRDER BRIDGE
4 SPANS @ 54'-6", 68'-6", 68'-6" & 54'-6"
24' ROADWAY WITH 2'-0" SAFETY WALK
STA. 1742+16.65, SKEW 35°49'30" RT
INCLUDED IN SEC. 92-11 HB-1

CURVE DATA FOR 2 DETOUR CURVES NORTH OF F.A.I. 74
Δ = 60°0'
R = 60.0'
T = 34.64'
L = 62.83'
D = 95°30'
E = 9.28'

CROSS ROAD STA. 1742+16.65
MAUCK LANE

CURVE DATA FOR 2 DETOUR CURVES SOUTH OF F.A.I. 74
Δ = 54°10'30"
R = 69.66'
T = 32.56'
L = 60.19'
D = 90°0'
E = 7.84'

TEMPORARY CONST. EASEMENT — OPAL A. HARKER

TEMPORARY CONST. EASEMENT — MOLLIE HOLDEN

INCLUDED IN SEC. 92-11 HB-1 DETOUR ROAD

PIPE CULVERT I.I TYPE IA, 24"Ø CSP SEE SHEET NO.

PIPE CULVERT I.I TYPE IA, 24"Ø CSP SEE SHEET NO.

TEMPORARY LOCATION 8" WATER LINE

STD. 2153-2 SIGN

12" C.M.P.

12" R.C.P.

8" V.C.P.

12" V.C.P.

12" M.C.P.

16" V.C.P.

12" MOCK DR.

3" WATER LINE

E.X. ROW

76' BITUMINOUS SURFACING CLASS I-11 OVER CONCRETE

℄ PROPOSED IMPROVEMENT INCLUDED IN SEC. 92-11 HB-1

BR. APPR. SLAB

PAVEMENT REMOVAL
STA. 48+50 TO STA. 51+30 = 533.3 SQ. YDS.
INCLUDED IN QUANTITIES LISTED IN GENERAL NOTES
INCLUDED IN SEC. 92-11 HB-1

NOTE: THE CONTRACTOR FOR SEC. 92-11 HS-1 SHALL REMOVE WATER LINES AS INDICATED ABOVE. SEE SPECIAL PROVISIONS.

ACCESS CONTROL LINES SHOWN THUS: ——AC——AC——AC——

PIPE CULVERT, TYPE 2A (R.C.P. CLASS III)
36"×104'-0" WITH STD. 1974-D36-2
U.S.F.L. 33' LT. SURVEYED E. ELEV. 623.4
D.S.F.L. 71' RT. SURVEYED E. ELEV. 623.3
A.R. STA. 49+16 SKEW 35°49'30" RT.
HEADWALLS BY OTHERS
INCLUDED IN SEC. 92-11 HB-1

STEEL PLATE BEAM GUARD RAIL
LT. STA. 48+20 TO 48+70 = 50 LIN. FT.
RT. STA. 48+00 TO 48+50 = 50 LIN. FT.
LT. STA. 51+50 TO 52+00 = 50 LIN. FT.
RT. STA. 51+30 TO 51+80 = 50 LIN. FT.
TOTAL = 200 LIN. FT.
INCLUDED IN SEC. 92-11-HB-1

OMISSION FROM SURFACING STA. 48+74.12 TO STA. 51+25.88

BITUMINOUS SURFACING SUB-CLASS I-11
GRANULAR EMBANKMENT, SPECIAL = 430 TONS
BITUMINOUS CONCRETE BINDER COURSE = 108 TONS
BITUMINOUS CONCRETE SURFACE COURSE = 60 TONS
BITUMINOUS MATERIALS (PRIME COAT) = 250 GALS.
INCLUDED IN QUANTITIES LISTED IN GENERAL NOTES
INCLUDED IN SEC. 92-11 HB-1

SCALE 1" = 30'

MARIE F. HOWIE
J.A. & J.F. HOWIE
RICHARD L. & HAZEL I. McDONALD
IDEN & GOLDIE GOINGS
RELOCATED WATER LINE
MOLLIE HOLDEN
EVERETTE E. & LILY I. MILLER
GERTIE M. CARR
VERNUS MOORE

ENTIRE SECTION INSPECTED AND APPROVED AS TO POLICY
DISTRICT ENGINEER: J. Wyche
DATE: May 22, 1961

PLAN — DRAWN: DAUGHERTY-ROBBINS, M.D.H. — CHECKED: — QUANTITIES: — CHECKED: — DATE: 4-07, 7-60, 5-60

Chief Designer: D.O.F. — Designed: H.H.D.

DETOUR PROFILE

FOR DETOUR DITCH ELEVATIONS SEE STATION CROSS SECTIONS

PROFILE OF CROWN OF PROPOSED DETOUR

PROFILE OF EXISTING GROUND

+0.96% · -0.40% · +0.66% · +1.09%

+7853 MEET EXISTING GRADE

STA. 7 · 8 · 9 · 10 · 11 · 12 · 13 · 14

PROFILE OF CROWN OF PROPOSED IMPROVEMENT

100' V.C. · +1.34% · +0.35% · -1.34% · -0.60% · 100' V.C.

PROFILE OF EXISTING [illegible] LINE ALONG ℄

+00 BEGIN CONSTRUCTION

+50 END CONSTRUCTION

℄ AT RT. ∠ TO EXPRESSWAY

STA. 42 · 43 · 44 · 45 · 46 · 47 · 48 · 49 · 50 · 51 · 52 · 53 · 54 · 55 · 56 · 57 · 58

FOR DETOUR
16" GRAVEL OR CRUSHED STONE SURFACE COURSE, TYPE A = 535 TONS
CALCIUM CHLORIDE = 9.6 TONS
INCLUDED IN QUANTITIES LISTED IN GENERAL NOTES
INCLUDED IN SEC. 92-11 HB-1

TO CONSTRUCT DETOUR ROAD
EARTH EXCAVATION 281 CU. YDS.
EMBANKMENT 361 CU. YDS.
ADDITIONAL EXCAVATION 188 CU. YDS.
TO BE OBTAINED FROM EXPRESSWAY STA. 1739+40 TO STA. 1740+00
OVERHAUL NONE ALLOWED
INCLUDED IN SEC. 92-11 HB-1

TO REMOVE DETOUR ROAD
EARTH EXCAVATION 355 CU. YDS.
EMBANKMENT 65 CU. YDS.
EXCESS EXCAVATION 270 CU. YDS.
TO STA. 1756+96 TO 1761+98
INCLUDED IN SEC. 92-11 HB-1

EARTH EXCAVATION 21 CU. YDS.
EMBANKMENT 300 CU. YDS.
ADDITIONAL EXCAVATION 369 CU. YDS.
TO BE OBTAINED FROM EXPRESSWAY STA. 1739+40 TO STA. 1740+00
OVERHAUL NONE ALLOWED
INCLUDED IN SEC. 92-11 HB-1

BRIDGE APPROACH SLABS (STD. 1909-3) METHOD I
STA. 48+47.62 TO STA. 48+74.12
STA. 51+25.88 TO STA. 51+52.38
QUANTITIES FOR TWO (2) APPROACH SLABS
P.C. CONCRETE PAVEMENT (16"-10"-16") 108 SQ. YDS.
REINFORCEMENT BARS 5220 LBS.*
* 50 #8 BARS WITH HOOKS 21'-4" LONG
* 24 #5 BARS WITH HOOKS 17'-4" LONG
* 56 #5 BARS 21'-4" LONG
INCLUDED IN SECTION 92-11 HB-1

MAIL BOX TURNOUT (STD. 1716-R)
RT. STA. 52+45
GRAVEL OR CRUSHED STONE SURFACE COURSE, TYPE A, * 1.5 CU. YDS.

PRIVATE ENTRANCE
RT. STA. 52+85
GRAVEL OR CRUSHED STONE SURFACE COURSE, TYPE A, * 1.5 CU. YDS.
(* USE SALVAGED AGGREGATE)
INCLUDED IN SECTION 92-11 HB-1

B.M. 2-B R.R. SPIKE IN P. POLE
18' LT. S.B.I. 10 STA. 62+64
ELEV. 651.08

EXIST. ILL. BELL TELEPHONE CO. POLE
PROP. ILL. BELL TELEPHONE CO. POLE
EXIST. ILL. POWER CO. POLE
PROP. ILL. POWER CO. POLE
TEMP. ILL. POWER CO. POLE

ROUTE No. | SEC | COUNTY
F.A.I. 74 (37) 118 | VERMILION | 93 | 6
STA. 1736+00 TO STA. 1752+00
STD ROAD DIST. No 7 | ILLINOIS | STD. SHEET NO.

PROJ. I-74-6(37)213
SEC. 92-11 B
BEGINS STA. 1739+40

PLAN
DESIGN STD. ADJUSTED | ADJUSTMENT CHECKED
NOTE BOOK | EQUIVALENT CHECKED | BY: C.P. WAY CHECKED
NO. | ARMEY GUY | 6-27

PROFILE
SURVEYED | 6-27
PLOTTED | 6-27
GRADES CHECKED | 7-27
NOTE BOOK | STRUCTURE QUANTITIES VERIFIED | 7-27
NO. | 7-27

SEC. 11 T19N R12W — GEORGE & BLANCHE M. VAN ZANDT

EVERETTE E. & LILY I. MILLER — MOLLIE HOLDEN — IDEN & GOLDIE GOINGS — RICHARD L. & HAZEL I. MCDONALD — MARIE F. HOWIE — GERTIE M. CARR — OPAL A. HARKER — J.A. & J.F. HOWIE — RESURVEY OF BATES 2ND SUBDIVISION

N. & B.C. IN COR. OF SHED — POT 1760+69.71 BOAT SPIKE — 37.66' — 35.96' — WIRE & TACK IN FENCE
N. & B.C. IN 20" MAPLE — POT BOAT SPIKE 1743+83.33 — 35.28' — 37.00' — 18" MAPLE — 53.62' — N. & B.C. IN 24" MAPLE
N. & B.C. IN 14" BEECH IN 14" OAK — POT BOAT SPIKE 1748+30.3 — 23.92' — N. & B.C. IN 30" OAK — N. & B.C. IN 30" MAPLE
N. & B.C. IN 7" OAK — POT 1751+17.67 — 34" IRON PIN — N. & B.C. IN 15" OAK

PROPOSED R.O.W. — EX. R.O.W. — TEMPORARY CONST. EASEMENT — 77,328.73 R.P. — CURVE DATA: R1 1729+97, Δ 6°30'35", D 0°20'00", T 1037.69', L 2053.54, R1 17,188.73, E 30.80, SE NONE

PIPE CULVERT, TYPE 2A (R.C.P. CLASS III) 24" — 24"-52'-0" WITH STD 1917G/D24"-2 — U.S.F.L. 49.5 R.T. SURVEYED E. ELEV. 625.3 — D.S.F.L. 7.5' L.T. SURVEYED E. ELEV. 627.8 — A.R. STA. 1740+75 — CLASS X CONC. 2.0 CU. YDS. REINFORCEMENT BARS 70 LBS.

PIPE CULVERT, TYPE 12A (R.C.P. CLASS III) 24" — 24"-52'-0" WITH STD 1917G/D24"-2 AND TYPE I MEDIAN APRON — U.S.F.L. 49.5 R.T. SURVEYED E. ELEV. 625.3 — D.S.F.L. 6.5 RT. AUGER'D E. ELEV. 626.6 — A.R. STA. 1741+75 — CLASS I CONC. 2.4 CU. YDS. REINFORCEMENT BARS 70 LBS.

BRIDGE 92-11 HB-1 — STA 1742+16.65 = STA 50+00 — INCLUDED IN SEC. 92-11 HB-1

STATION EQUATION: 1742+16.65 (FA.I. 74) = 50+00 (CROSSROAD)

TEMPORARY CONST. EASEMENT — 176.76' RT. 1741+59.6 — 156.5' RT. 1743+54 — 160' RT. 1741+91.6

℄ OF DETOUR — STEEL PLATE BEAM GUARDRAIL: RT. STA. 1751+29 TO STA. 1751+65 = 37.5 LIN. FT.; RT. STA. 1751+35 TO STA. 1751+65 = 30.5 LIN. FT.; TOTAL = 68.0 LIN. FT.

DELINEATORS Y.S.D. 2103 (76) L.T. & R.T. STA. 1738+80 TO STA. 1752+00 SINGLE REFLECTOR

PROPOSED R.O.W. — ROW 130' RT. 1739+00

SEC. 15 T19N R12W

* TYPE B CATCH BASIN (STD 1514 R WITHOUT BAFFLE) TO BE BUILT 117' LT. STA. 1742+75 WITH TP 1 GRATE GRATE ELEV. 605.5 — WITH DRAINAGE MARKER
* TYPE B CATCH BASIN (STD 1514 R WITHOUT BAFFLE) TO BE BUILT 119' LT. STA. 1747+60 WITH TP 1 GRATE GRATE ELEV. 599.9 — WITH DRAINAGE MARKER
* PIPE CULVERT, TYPE 3A (RCP CLASS III) 36" — 36"-25'-0" — U.S.F.L. ELEV. 599.6 — D.S.F.L. ELEV. 596.6 — A.R. STA 1747+60, SKEW 62°30'
* INCLUDED IN SEC. 92-11B

PIPE CULVERT, TYPE 3A (R.C.P. CLASS III) 36" — 36"-132'-0" — U.S.F.L. ELEV. 593.8 — D.S.F.L. ELEV. 592.6 — A.R. STA. 1747+00, SKEW 26°45' — INCLUDED IN SEC. 92-11B

PAVED DITCH TRANSITION — PAVED DITCH 6 FEET

TYPE A MANHOLE, DIAM. 5'-0" (STD 1537-2) WITH TYPE I FRAME & CLOSED LID — LID ELEV. 617.1, BOTTOM ELEV. 589.6 — STA. 1747+00 ON ℄ DEPTH 27' — INCLUDED IN SEC. 92-11B

PIPE CULVERT, TYPE 3A (R.C.P. CLASS III) 36" — 36"-156'-0" — U.S.F.L. ELEV. 589.6 — D.S.F.L. ELEV. 587.6 — A.R. STA. 1747+00, SKEW 60°00' — INCLUDED IN SEC. 92-11B

PIPE CULVERT, TYPE 2A (R.C.P. CLASS III) 24" — 24"-104'-0" STA. 1751+12 ELEV. 605.6 — U.S.F.L. 1.0' RT. ℄ STA. 1751+12 ELEV. 605.8 — D.S.F.L. 76.0' RT. ℄ STA. 1750+40 ELEV. 605.4 — RT. DITCH INLET BOX STD. 1258R — BOTTOM ELEV. 605.1, WEIR ELEV. 606.1 — 7'-7" RT. ℄ STA. 1750+90 — CLASS X CONC. 1.3 CU. YDS. — REINFORCEMENT BARS 30 LBS. — WITH DRAINAGE MARKER INCLUDED IN SEC. 92-11 HB-1

STORM SEWER, TYPE 1 — 20"-82'-0" WITH STD. 1916-DD8-2 — U.S.F.L. 78.5' RT. ℄ STA. 1750+40 ELEV. 605.3 — D.S.F.L. 138.5' RT. ℄ STA. 1750+40 ELEV. 605.0 — HEADWALL AT 138.5' RT. ℄ STA. 1750+40 — CLASS X CONC. 1.0 CU. YDS. — REINFORCEMENT BARS 33 LBS. — INCLUDED IN SEC. 92-11B

STD. 2051-DS3G-2 (60° SKEW) WITH BAFFLE — 121.4' RT. STA. 1748+00 F.L. ELEV. 581.6 — CLASS X CONC. 3.6 CU. YDS. — REINFORCEMENT BARS 125 LBS. — INCLUDES BAFFLE — INCLUDED IN SEC. 92-11B

* CORRUGATED METAL PIPE 12"-8'-0" AND MISC. — U.S.F.L. STA. 1746+91 ON ℄, ELEV. 615.5 — D.S.F.L. STA. 1746+98 ON ℄, ELEV. 612.9 — MEDIAN INLET BOX STD. 1258R — F.L. ℄ ELEV. 615.5 WEIR ELEV. 617.3 — STA. 1746+90 ON ℄ — CLASS X CONC. 1.1 CU. YD. — REINFORCEMENT BARS 30 LBS. — BY BRIDGE CONTRACTOR — PIPE CULVERT, TYPE 2A, 36"-106' — SEE SHEET NO. 5 — INCLUDED IN SEC. 92-11 HB-1

PROPOSED RIGHT OF WAY MARKERS SHOWN THUS ● 19. THIS SHEET. INCLUDED IN QUANTITIES LISTED IN GENERAL NOTES INCLUDED IN SEC. 92-11B

SCALE: 1" = 50'

SEC. 14 T19N R12W

B.M. "S" R.R. SPIKE IN 24" OAK 138' LT. STA. 1748+55 — ELEV. 641.32

SPECIAL DESIGN TILE UNDERDRAINS (SEE DETAIL SHEET NO.)
6" STD. DRAIN TILE — LT. STA. 1740+55 TO STA. 1740+55 = 210 LIN. FT.
RT. STA. 1736+37 TO STA. 1740+55 = 218 LIN. FT.
LT. STA. 1736+37 TO STA. 1740+55 = 218 LIN. FT.
RT. STA. 1740+55 TO STA. 1743+39 = 432 LIN. FT.
LT. STA. 1740+55 TO STA. 1743+39 = 432 LIN. FT.
RT. STA. 1743+39 TO STA. 1743+39 = 836 LIN. FT.
TOTAL = 2332 LIN. FT.

SPECIAL TILE OUTLET HEADWALL TO BE BUILT:
LT. STA. 1740+55 = 10.9 CU. YDS. CLASS X CONC.
RT. STA. 1740+55 = 0.9 CU. YDS. CLASS X CONC.
LT. STA. 1743+39 = 19.6 CU. YDS. CLASS X CONC.
RT. STA. 1743+39 = 0.9 CU. YDS. CLASS X CONC.
TOTAL = 1.6 CU. YDS. CLASS X CONC.

PAVED DITCH, 6 FEET TO BE BUILT:
LT. STA. 1736+25.20 TO STA. 1751+10 = 761 LIN. FT.
RT. STA. 1736+31.70 TO STA. 1747+25 = 1242 LIN. FT.
RT. STA. 1748+39.70 TO STA. 1748+97 = 67 LIN. FT.
TOTAL = 1033 LIN. FT.
INCLUDED IN SEC. 92-11B

PAVED DITCH, 6 FEET TO BE BUILT:
MED. STA. 1748+15 TO STA. 1751+10 = 295 LIN. FT.

SPECIAL PAVED DITCH TRANSITION TO BE BUILT:
LT. STA. 1749+10 TO STA. 1749+26 = 2.6 CU. YDS. CLASS X CONC.
RT. STA. 1745+96 TO STA. 1746+11 = 2.8 CU. YDS. CLASS X CONC.
RT. STA. 1747+75 TO STA. 1747+99 = 2.3 CU. YDS. CLASS X CONC.
RT. STA. 1748+22 TO STA. 1748+39 = 2.3 CU. YDS. CLASS X CONC.
RT. STA. 1748+97 TO STA. 1749+12 = 2.6 CU. YDS. CLASS X CONC.
TOTAL = 12.6 CU. YDS. CLASS X CONC.
INCLUDED IN SEC. 92-11B

SPECIAL PAVED DITCH TRANSITION TO BE BUILT:
MED. STA. 1749+08 TO STA. 1749+15 = 1.8 CU. YDS. CLASS X CONC.

SODDING:
LT. STA. 1744+10 TO STA. 1751+10 = 520 SQ. YDS.
RT. STA. 1745+96 TO STA. 1746+11 = 140 SQ. YDS.
RT. STA. 1748+22 TO STA. 1749+12 = 80 SQ. YDS.
TOTAL = 740 SQ. YDS.
INCLUDED IN SEC. 92-11B

SODDING:
MED. STA. 1748+00 TO STA. 1751+10 = 183 SQ. YDS.

SPECIAL DITCHES TO BE BUILT:
LT. STA. 1740+00 TO STA. 1740+90
RT. STA. 1739+00 TO STA. 1742+35
RT. STA. 1749+12 TO STA. 1751+65
LT. STA. 1751+12 TO STA. 1751+65
GRADES AS SHOWN - SEE STATION CROSS SECTIONS
INCLUDED IN SEC. 92-11B

SPECIAL DITCHES TO BE BUILT:
MED. STA. 1740+75 TO STA. 1742+00
GRADES AS SHOWN - SEE STATION CROSS SECTIONS

ACCESS CONTROL LINES SHOWN THUS: —AC— AC— AC—

CONTRACTOR FOR SEC. 92-11HB-1 & 92-11B SHALL GRADE TO THESE LINES — OR

PROFILE OF CROWN OF PROPOSED IMPROVEMENT

PROFILE OF EXISTING GROUND LINE ALONG ℄

-0.72% — RT. DITCH -1.66% — LT. DT. -1.67% — MEDIAN DT. -0.40% — RT. DITCH -0.40% — LT. DITCH +0.67% — 1100' V.C. — -2.40% — RT. DITCH -1.72% — RT. DT. -2.00% — LT. DITCH +0.73%

EARTH EXCAVATION 23,033 CU. YDS.
EMBANKMENT 0 CU. YDS.
EXCESS EXCAVATION TO DETOUR-ROAD 188 CU. YDS.
CROSS ROAD 369 CU. YDS.
INCLUDED IN SEC. 92-11HB-1
* STA. 1756+96 — 1762+25 22,476 CU. YDS.
INCLUDED IN SEC. 92-11B

EARTH EXCAVATION 26,227 CU. YDS.
EMBANKMENT 0 CU. YDS.
EXCESS EXCAVATION TO
* STA. 1756+96 — 1762+25
INCLUDED IN SEC. 92-11HB-1

EARTH EXCAVATION 126,033 CU. YDS.
EMBANKMENT 18,487 CU. YDS.
EXCESS EXCAVATION 103,849 CU. YDS. TO
STA. 1756+96 TO STA. 1760+98
OVER HAUL NONE
INCLUDED IN SEC. 92-11B

TREE REMOVAL
LT. STA. 1740+00 - STA. 1741+00 — 0.7 ACRES
LT. & RT. STA. 1756+50 - STA. 1762+00 — 11.3 ACRES
LT. & RT. STA. 1770+00 - STA. 1775+00 — 2.6 ACRES
TOTAL — 14.6 ACRES
THIS INFORMATION IS INCLUDED FOR THE CONTRACTOR'S CONVENIENCE SEE SPECIAL PROVISIONS INCLUDED IN SEC. 92-11B

Revised 12-29-61 * Stationing of Excavation Sec. 92-11B & 2 notes (Sec. 92-11HB-1)

F.A.I. 74
VERMILION
93
STA. 1752+00 TO STA. 1784+00
FED. ROAD DIST. No. 7
PLAN
PROFILE
P.O.T. STA. 1753+80.58 ½" IRON PIN
P.O.T. STA. 1754+99.99 BOAT SPIKE
P.O.T. STA. 1755+17.23 BOAT SPIKE
P.O.T. STA. 1756+71.02 HUB & TACK
P.O.T. STA. 1766+69.96 BOAT SPIKE
P.O.T. STA. 1768+37.05 ½" IRON PIN
P.O.T. STA. 1770+77.53 BOAT SPIKE
P.O.T. STA. 1778+52.67 BOAT SPIKE
NOTE: THE PILES FOR THE BRIDGE APPROACH SLABS, METHOD II, SHALL BE DRIVEN BY CONTRACTOR FOR SECTION 92-11B.
NOTE: Approach slabs and transition from curb at ends of the bridge to Type B gutter to be constructed by the contractor for Section 92-11
PIPE CULVERT TYPE 1A (RCP CLASS III) 24" 24" x 64'-0" WITH SPECIAL PIPE OUTLET U.S.F.L. 1.5' LT. SURVEYED ℄, ELEV. 581.0 D.S.F.L. 65.5 LT. SURVEYED ℄, ELEV. 579.2 MEDIAN INLET BOX STD. NO. 1258 R BOTTOM ELEV. 580.8, WEIR ELEV. 583.7 AR STA. 1763+75 CLASS X CONC INLET 1.3 CU. YDS. OUTLET CU. YDS. REINFORCEMENT BARS 30 LBS.
ROAD TO BE CLOSED 12.5 LIN. FT. OF STEEL BEAM PLATE GUARD RAIL SCREEN PLANTING BY OTHERS
PROJ. I-74-6 (37) 213
SEC. 92-11B
ENDS STA. 1775+30
ILLINOIS BRICK CO.
STATION EQUATION 1779+22.80 (F.A.I. 74) = 20+00 (CROSSROAD)
9' GRAVEL ROAD (PRIVATE)
PAVED DITCH 6 FEET
SPECIAL PAVED DITCH TRANSITION
VERMILION RIVER
PROPOSED R.O.W.
+90' DITCH PLUG TO BE BUILT
℄ NORTH PAVEMENT
℄ SOUTH PAVEMENT
1760
1765
1770
1775
1780
OMISSION SEC. 92-11B STA. 1758+59 TO STA. 1769+40
WELLS
PROPOSED R.O.W. STANDARD BRIDGE APPROACH SLABS STD. 2138-1 METHOD I TO BE BUILT. STA. 1751+58.00 TO STA. 1751+73.00 (W.B.L.) STA. 1751+53.00 TO STA. 1751+73.00 (E.B.L.) 106.6 SQ YDS P.C.C. PAV'T 16½"-12"-16½" 7,740 LBS. REINFORCEMENT BARS 66-#5 BARS 23'-6" LONG 56-#9 BARS WITH HOOKS 21'-6" LONG 34-#9 BARS WITH HOOKS 17'-6" LONG
QUANTITIES FOR 2 SLABS
SPECIAL BRIDGE DESIGN CONTINUOUS STEEL PLATE GIRDERS & CAST IN PLACE DECK SLAB 6 SPANS, 93'-0", 4@116'-0", 93'-0" 30' ROADWAY WITH 2'-0" SAFETY WALKS STA. 1755+16 INCLUDED IN SEC 92-11B
STEEL PLATE BEAM GUARD RAIL LT. STA. 1758+69 TO STA. 1759+05 = 37.5 LIN. FT. LT. STA. 1758+69 TO STA. 1758+99 = 37.5 LIN. FT. TOTAL 75.0 LIN. FT.
DELINEATORS - STD. 2149 (82) LT. & RT. STA. 1754+00 TO STA. 1789+00 SINGLE REFLECTORS
NOTE: UNLESS OTHERWISE SHOWN ALL NOTES PERTAIN TO SEC. 92-11
PIPE CULVERT, TYPE 3A (CLASS IV) R.C.P. 42" 42" x 268'-0" WITH STD. 1998-DS42-2 (SKEW 35° U.S.F.L. 108' LT. SURVEYED ℄, ELEV. 581.8 D.S.F.L. 160' RT. SURVEYED ℄, ELEV. 562.2 SPECIAL HEADWALL BAFFLE ON RIGHT AR STA. 1770+00 SKEW 35° CLASS X CONCRETE, HEADWALL 11.1 CU.YDS. REINFORCEMENT BARS 700 LBS. INCLUDES BAFFLE INCLUDED IN SEC. 92-11B
NOTE: ALL PAVED DITCHES TERMINATED AT STREAMS USE "SPECIAL DESIGN PAVED DITCH STREAM BED TERMINATION"
PROPOSED RIGHT OF WAY MARKERS SHOWN THUS ●, 11 THIS SHEET INCLUDED IN QUANTITIES LISTED IN GENERAL NOTES INCLUDED IN SEC. 92-11B
PIPE CULVERT, TYPE 1A (RCP CLASS III) 24" 24" x 58'-0" WITH STD. 1976-D24-2 U.S.F.L. 8.9' RT. SURVEYED ℄, ELEV. 605.8 D.S.F.L. 60.9' RT. SURVEYED ℄, ELEV. 603.5 AR STA. 1778+00 CLASS X CONCRETE 2.0 CU. YDS. REINFORCEMENT BARS 70 LBS.
ROAD TO BE CLOSED 12.5 LIN. FT. OF STEEL BEAM PLATE GUARD RAIL SCREEN PLANTING BY OTHERS
+22.80 ℄ TOWNSHIP RD
SCALE 1" = 100'
B.M. #6 SPIKE IN ROOT OF 50" POPLAR 235' LT. STA. 1754+00 ELEV. 528.85
B.M. #7 SPIKE IN ROOT OF 15" ELM 141' LT. STA. 1755+07 ELEV. 532.46
B.M. #8 SPIKE IN ROOT OF 24" ASH 144' LT. STA. 1762+00 ELEV. 540.97
B.M. SPIKE IN ROOT OF 24" ELM 110' LT. STA. 1766+95 ELEV. 546.66
B.M. #10 SPIKE IN ROOT OF 10" MAPLE 78' LT. STA. 1771+30 ELEV. 603.09
B.M. #11 SPIKE IN ROOT OF 15" MAPLE 153' LT. STA. 1778+58 ELEV. 639.87
DITCH PLUG TO BE BUILT MED. STA. 1777+90 TOP ELEV. 605.5
SPECIAL DITCHES TO BE BUILT
SODDING
SPECIAL PAVED DITCH TRANSITION TO BE BUILT
PAVED DITCH, 6 FEET, TO BE BUILT
600' V.C.
PROFILE OF EXISTING GROUND LINE ALONG ℄
PROFILE OF CROWN OF PROPOSED IMPROVEMENT
CONTRACTOR FOR SEC. 92-11B & 92-11HB-1 GRADE TO THESE LINES
STANDARD BRIDGE APPROACH SLABS
CONTRACTOR FOR SEC. 92-11B & 92-11HB: GRADE TO THESE LINES
H.W. 547.0
EARTH EXCAVATION 1,171 CU. YDS.
EMBANKMENT 170,515 CU. YDS.
ADDITIONAL EXCAVATION FROM:
MAUCK LANE DETOUR 270 CU. YDS.
MAUCK LANE STR. EXC. 26,237 CU. YDS.
STA. 1739+40 — 1741+15 — 22,476 CU. YDS.
STA. 1743+15 — 1752+30 — 103,849 CU. YDS.
STA. 1769+48 — 1776+00 51,189 CU. YDS.
OVER HAUL NONE
INCLUDED IN SEC. 92-11B
EARTH EXCAVATION 57,697 CU. YDS.
EMBANKMENT 5,423 CU. YDS.
EXCESS EXCAVATION 51,189 CU. YDS.
TO BE OBTAINED FROM EXPRESSWAY STA. 1769+48 TO STA. 1776+00 TO BE USED IN EAST BERM 92-11B
OVERHAUL NONE ALLOWED
INCLUDED IN SEC. 92-11B
610
600
590
580
570
560
550
540
530
640
630
620
52
53
54
1755
56
57
58
59
1760
61
62
63
64
1765
66
67
68
69
1770
71
72
73
74
1775
76
77
78
79
1780
81
82
83
84

F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11B	VERMILION	93	24
	ROAD DISTRICT NO. 7	ILLINOIS		

FEDERAL AID ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11F	VERMILION	13	2
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

686'-0 End to End of Wearing Surface
650'-0 ℄ Bearing to ℄ Bearing

93'-0 | 116'-0 | 116'-0 | 116'-0

-2.40 %

Earth Excavation 18,600 Cu.Yds.

Concrete Piles
8 @ 30'-240 L.F. Ea. Bridge

22 Concrete Piles
21 @ 30'-630 L.F. ℄ Test Pile Rt. Bridge
22 @ 30'-660 L.F. Lt. Bridge

West Abutment

Note: No Concrete Slope Wall at West Abutment.

Ground Line @ ℄ Right Bridge

48 Steel Piles 12" BP 53 Ea. Pier
47 @ 15'-705 L.F. ℄ Test Pile Rt. Br.
48 @ 10'-480 L.F. Ct. Br.

Elev. 535.12

Excavation Classification Line Elev. 526.5

Design H.W. 546.0

Normal Water 523.2

R 517.1
Elev. 508.34

Elev. 509.31

Elev. 524.5

Class 'A' Exc.

Pier 1 | Pier 2 | Pier 3

93'-0, @ 116'-0, 93'-0 PLATE GIRDER SPANS
TWIN 30'-0 ROADWAYS
Right Bridge Shown
Left Bridge Identical

Span #1 93'-0 | Span #2 116'-0 | Span #3 116'-0 | Span #4 116'-0

Earth Excavation

2:1 Slope

Approx. Subgrade

End of Abut.

Crown Grade ℄ FAI Rt. 74

Span lengths

Conc. Gutter

Boring #153

Boring #151

Boring #155

Boring #157

Boring #157A

Boring #156

Boring #152

Boring #154
℄ 154A

Bridge 90° ℄ FAI Rt. 74

℄ Bridge Sta. 1755+16

Shoulder Line ℄

End West Abut. Slab Sta. 1751+73.0
Cr. El. 610.63

℄ Westbound Lane

℄ Eastbound Lane

20'-0 Pvmt.

40'-0 Median

60'-0 Pvmt.

20'-0 Typ.

50'-0 Typ.

100' Typ.

100' Typical

30'-0 Roadway

36'-0

5'-0

3'-0

28'-0

1751 ℄ FAI Rt. 74

1752 | 1753 | 1754 | 1755 | 1756

1751+00 Cr. El. 612.38

1752+84 ℄ Pier 1 Cr. El. 607.36

1754+00 ℄ Pier 2 Cr. El. 605.18

1755+16 ℄ Pier 3 Cr. El. 602.40

1756+00 Match Line

W.E.

VERMILION RIVER

Scale 1"=20

B.M. #6 Spike in root of 50" Poplar
235' Lt. Sta. 1754+00 El. 528.85

B.M. #7 Spike in root of 15" Elm
161' Lt. Sta 1755+07 El. 532.96

Note: Construct Bridge and all Elements 90° to ℄ of Construction FAI Rt 74

Revised and removed piles 1-2-68 L.D.W.

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS

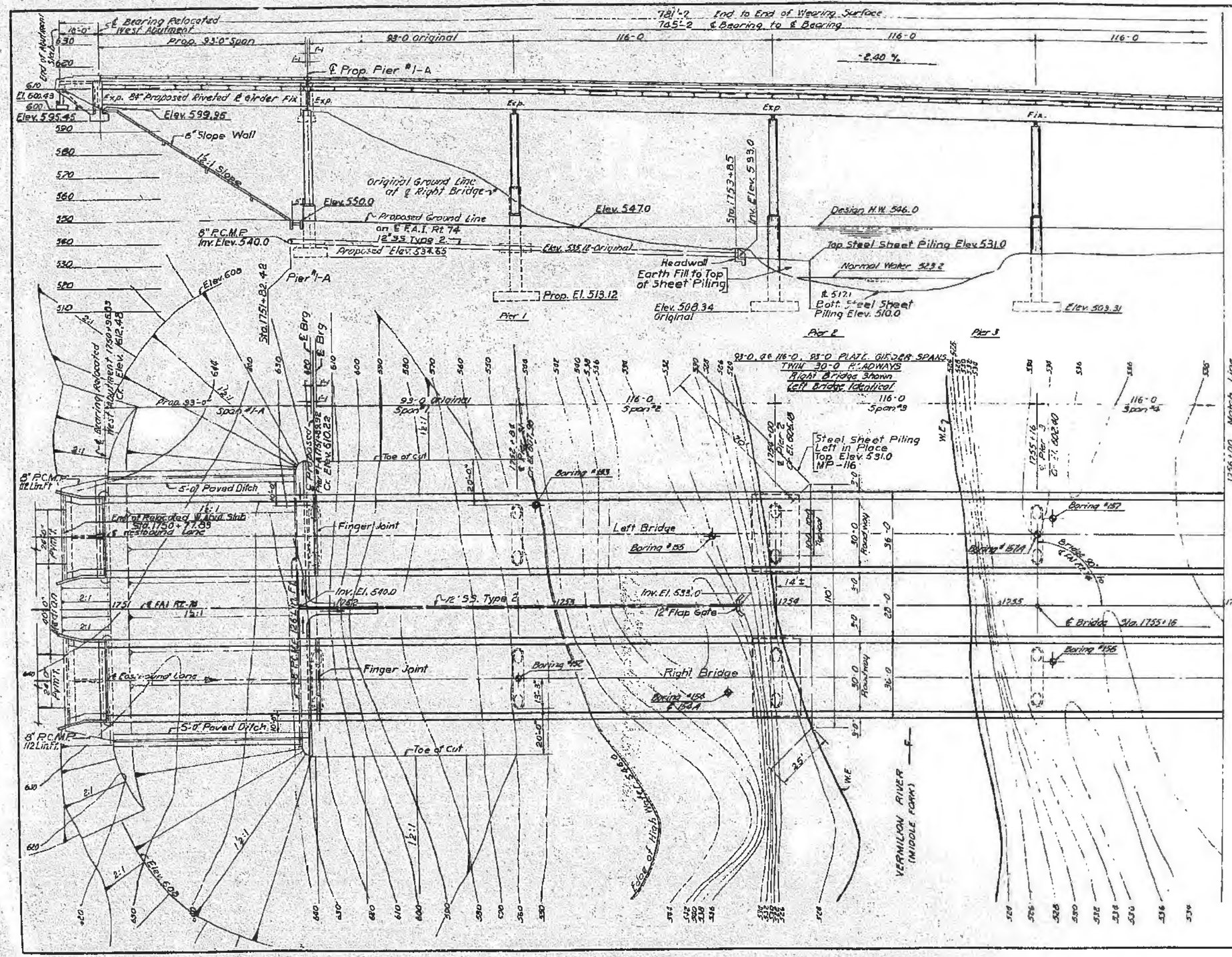
FAI RT. 74 BRIDGE OVER VERMILION RIVER
FAI-74 SECTION 92-11 B,11F
PROJECT I-74-6(37)213 STA. 1755+16

GENERAL PLAN AND LOCATION

DESIGNED	DRAWN	TRACED	CHECKED	DATE	REVISED
GEE	RLF	RLF	JHH		
			LDB	H5M	10-10-67

FED. ROAD DIST. NO.	STATE	COUNTY	TOTAL SHEETS	SHEET NO.
7	92-11B	VERMILION		24-1
FEDERAL AID PROJECT NO. 7		ILLINOIS		

FED. ROAD DIST. NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
7A	92-11F	VERMILION		1
FED. ROAD DIST. NO. 7	ILLINOIS PROJECT			



B.M. #6 Spike in root of 30" Poplar 235' Lt. Sta. 1754+00 El. 528.85

B.M. #7 Spike in root of 15" Elm 181' Lt. Sta. 1755+07 El. 532.96

Note: Construct Bridge and all Elements 90° to ℄ of Construction FAI Rt 74

-AS BUILT-

RELOCATED WEST ABUTMENT

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS

FAI RT. 74 BRIDGE OVER VERMILION RIVER
FAI-74 SECTION 92-11B, 11F
VERMILION COUNTY STA. 1755+16

GENERAL PLAN AND LOCATION

DESIGNED	DRAWN	TRACED	CHECKED	APPROVED	DATE	CHECKED
GEE	RLF	RLF	JWH LDB	HSM	12-3-62	

FAI RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11B	VERMILION		24-B
FEDERAL ROAD DISTRICT NO.		ILLINOIS	FED.	

6" Slopewall	1,750 Sq. Yds.
Class A Excavation	197 Cu. Yds.
8" PCMP Pipe	350 Lin. Ft.
Drain Tile	132 Lin. Ft.
Porous Granular Backfill	370 Cu. Yds.

NOTE: Paved Ditch, Paved Gutter & Channel Included in Slope Wall

HEADWALL REINFORCING BARS

	Mark	Length	No.	Weight
#4	h	9'3"	1	6
#4	V	3'0"	13	25

HEADWALL QUANTITIES

Class X Concrete 0.6 Cu.Yds.
Reinforcement Bars 30 Lbs

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
FAI RT. 74 BRIDGE OVER VERMILION RIVER
FAI-74 SECTION 92-11B, 11F
VERMILION COUNTY STA. 1755-6

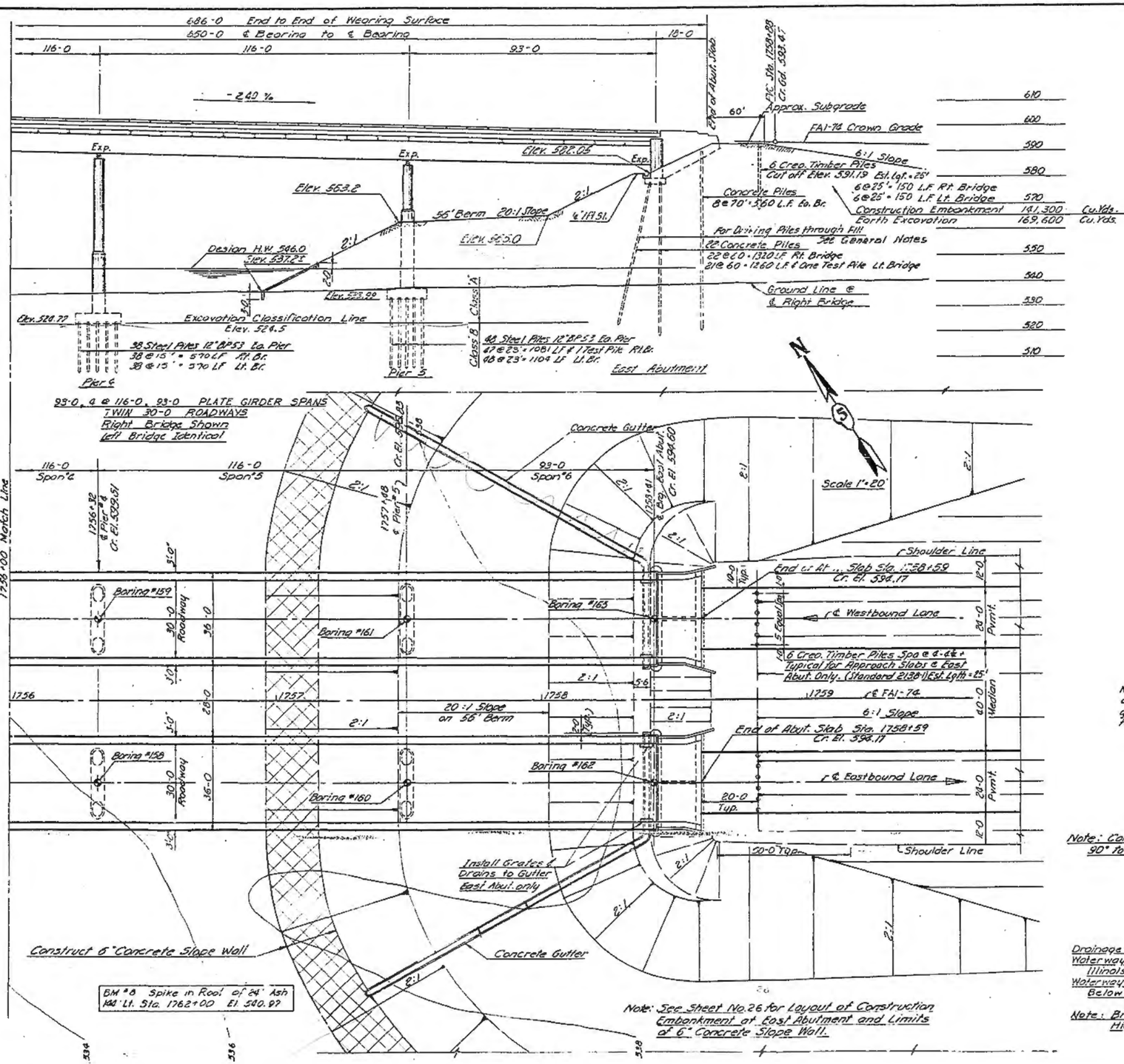
SLOPE WALL PLAN

DESIGNED	DRAWN	TRACED	CHECKED	REVISED	DATE	APPROVED
			LDB	HSM 12-8-62		

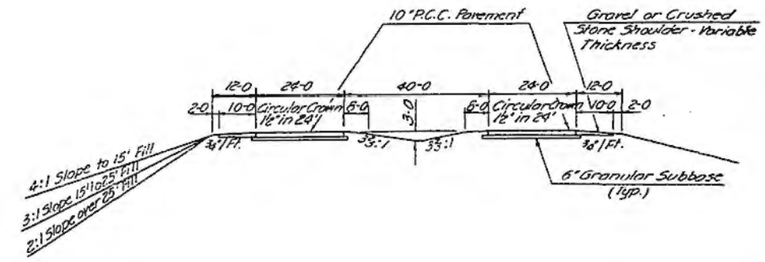
AS BUILT

F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11B	VERMILION	93	25
FEDERAL ROAD DISTRICT NO. 7	ILLINOIS	PROJ. I-74-6(37)213		

FEDERAL AID ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11F	VERMILION	13	3
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

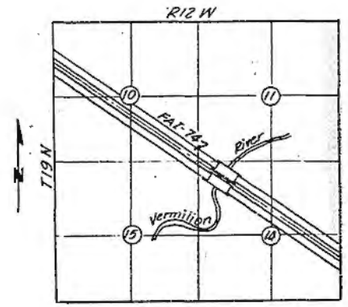


Note: See Sheet No. 26 for Layout of Construction Embankment at East Abutment and Limits of 6" Concrete Slope Wall.



TYPICAL APPROACH ROADWAY CROSS SECTION

NOTE: Approach slabs and transition from curb at the ends of the bridge to Type B gutter to be constructed by the contractor for Section 92-11



BRIDGE LOCATION

Note: Construct Bridge and All Elements 90° to ℄ of Construction FAI Rt. 74.

Note: Design loading this structure H20-S16-44 Mod. The right Bridge illustrated, the left bridge is identical except as noted in the plans.

WATERWAY INFORMATION

Drainage Area	970 Sq. Mi.
Waterway Required:	
Illinois Division of Waterways	5,650 Sq. Ft.
Waterway Provided:	
Below Design High Water	5,380 Sq. Ft.

Note: Bridge Grade not controlled by High Water.

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

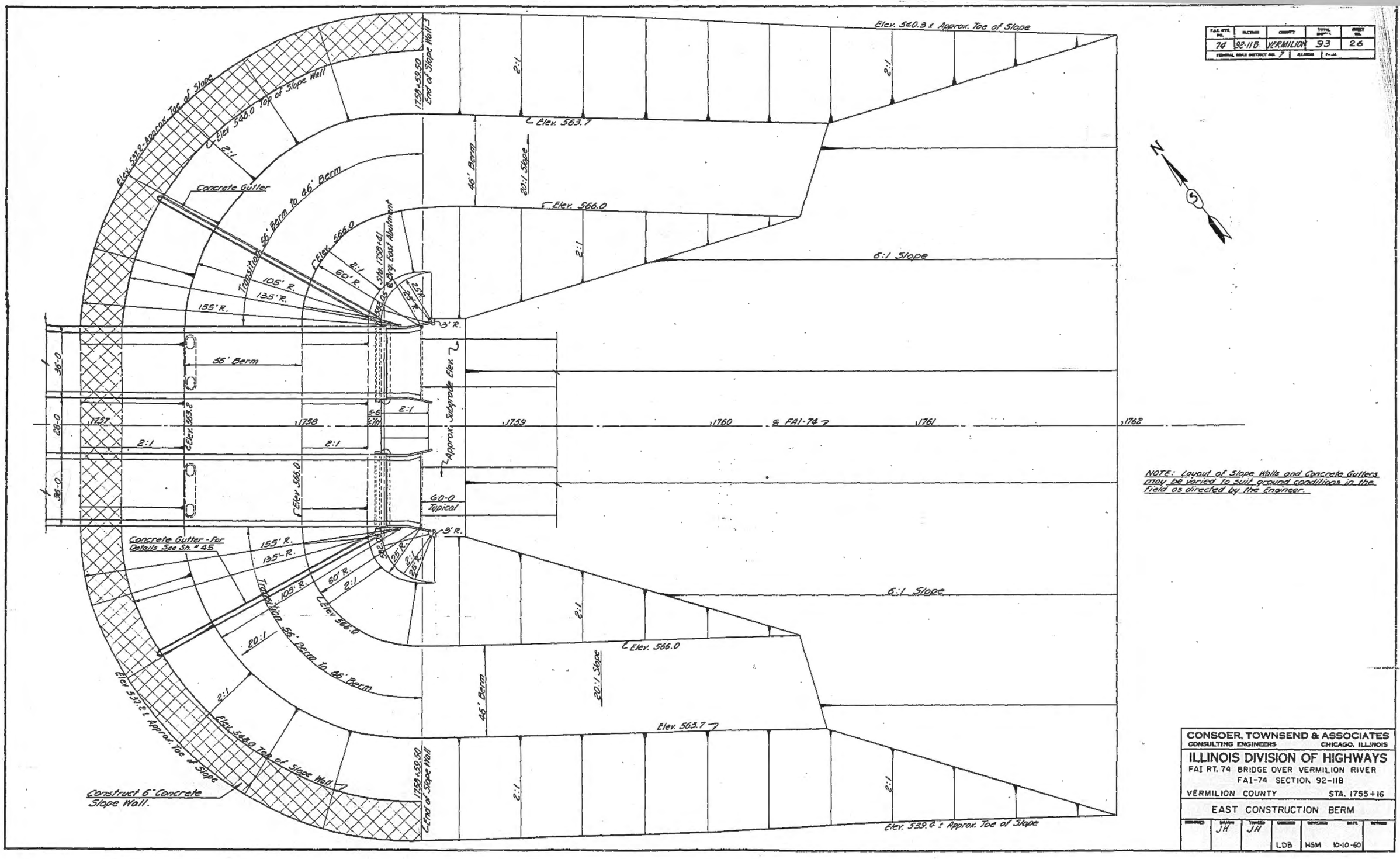
ILLINOIS DIVISION OF HIGHWAYS
FAI RT. 74 BRIDGE OVER VERMILION RIVER
FAI-74 SECTION 92-11B, IIF
PROJECT I-74-6(37)213 STA. 1755+16

GENERAL PLAN AND LOCATION

DESIGNED	DRAWN	TRACED	CHECKED	REVISED	DATE	REVISED
GEE	RLF	RLF	JWH			
			LDB	HSM	10-10-60	

Revised piles 1-2-62 L.D.W.

F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11B	VERMILION	93	26
FEDERAL AID DISTRICT NO. 7		ILLINOIS		



NOTE: Layout of Slope Walls and Concrete Gutters may be varied to suit ground conditions in the field as directed by the Engineer.

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

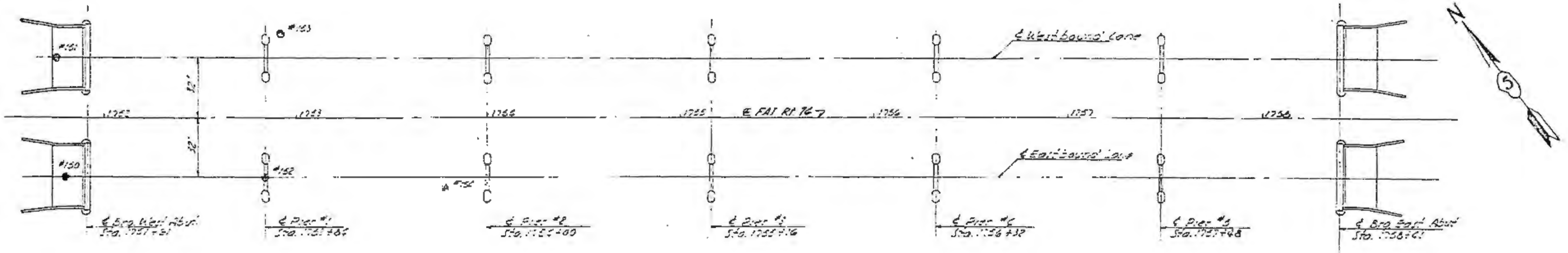
ILLINOIS DIVISION OF HIGHWAYS
FAI RT. 74 BRIDGE OVER VERMILION RIVER
FAI-74 SECTION 92-11B
VERMILION COUNTY STA. 1755+16

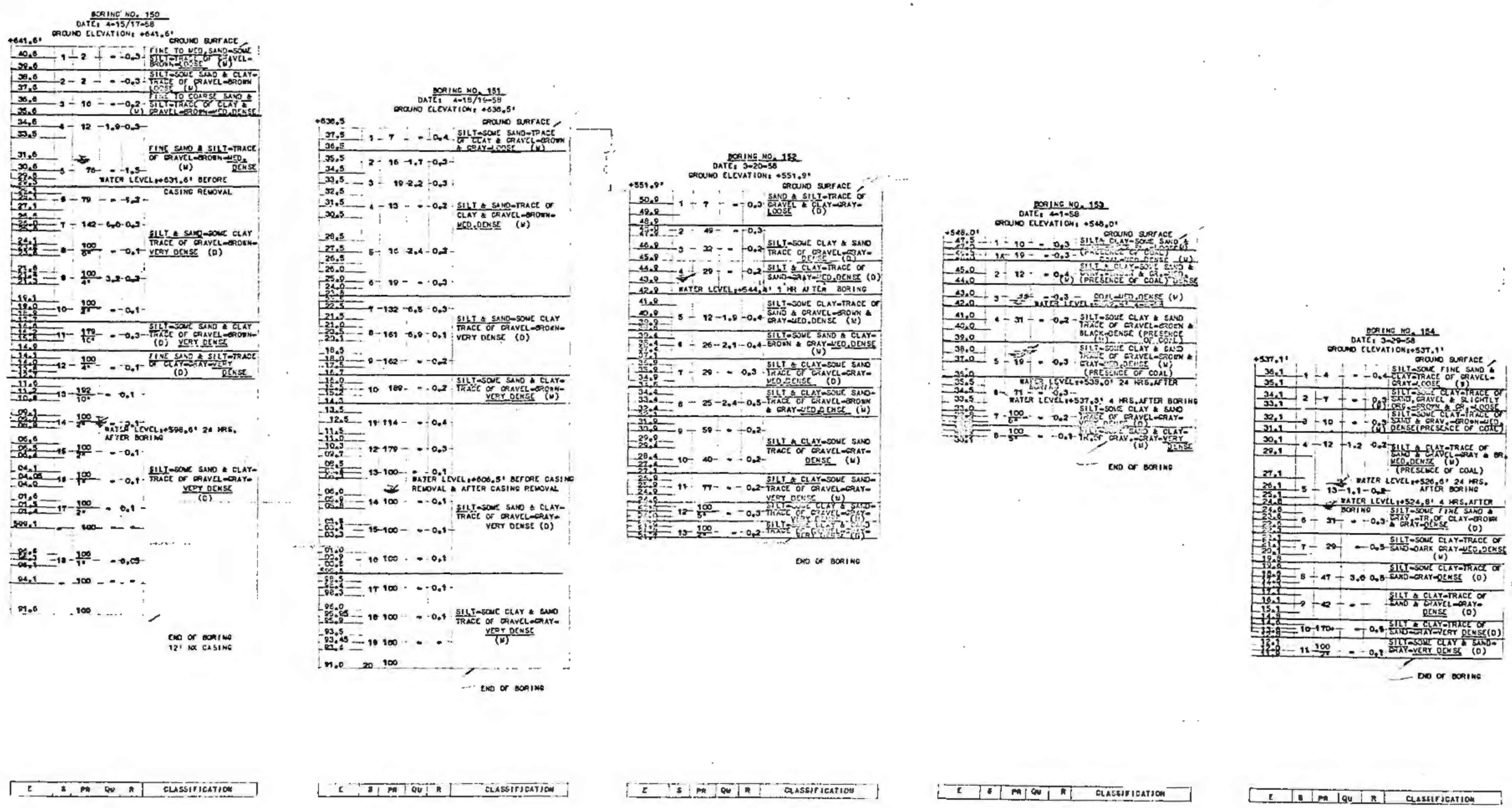
EAST CONSTRUCTION BERM

DESIGNED	DRAWN	TRACED	CHECKED	QUANTITIES	DATE	APPROVED
	JH	JH	LDB	HSM	10-10-60	

Revised berm dimension 1-3-62 L.D.W.

F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-15	VERMILION	93	27
FEDERAL ROAD DISTRICT NO. 7	ILLINOIS	PROJ.		





BORING #	STATION	OFFSET
150	1751+80	32' RT.
151	1751+75	32' LT.
152	1752+84	32' RT.
153	1752+92	45' LT.
154	1753+78	36' RT.

GENERAL NOTES

1950 CHICAGO BUILDING CODE SOIL CLASSIFICATIONS ARE USED.

- E : ELEVATION
- S : SAMPLE NUMBERS
- PR : PENETRATION IN BLOWS PER FOOT OF 140 POUNDS HAMMER FALLING 30 INCHES
- QU : UNCONFINED COMPRESSIVE STRENGTH-T/SQ.FT.
- R : RECOVERY IN FEET
- SS : SPLIT SPOON-SIZE: 2"O.D. SIZE: $1\frac{3}{8}$" I.D.
- M : MOIST
- D : DRY
- W : WET

*LOGS PREPARED BY
SOIL TESTING SERVICES, INC.
1827 N. HARLEM AVE.
CHICAGO 35, ILL.

WATER LEVELS INDICATED ON THE BORING LOGS ARE THE LEVELS MEASURED IN THE BORING AT THE TIMES INDICATED. IN PERVIOUS SOILS, THE INDICATED ELEVATIONS ARE CONSIDERED RELIABLE GROUND WATER LEVELS. IN IMPERVIOUS SOILS, THE ACCURATE DETERMINATION OF GROUND WATER ELEVATIONS IS NOT POSSIBLE IN EVEN SEVERAL DAYS OBSERVATION, AND ADDITIONAL EVIDENCE ON GROUND WATER ELEVATIONS MUST BE SOUGHT.

S.T.S. JOB NO. 2721-B

LOCATION # 3-1

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS — CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
FAI RT. 74 BRIDGE OVER VERMILION RIVER
FAI-74 SECTION 92-11B
VERMILION COUNTY — STA 1755+16

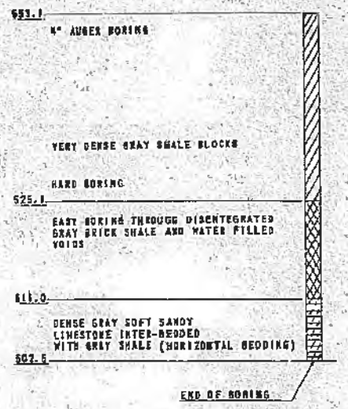
BORING LOGS

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
			LDB	HSM	10-10-60	

F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11B	VERMILION		2/2
FEDERAL ROAD DISTRICT NO. 7		ILLINOIS	FINAL	

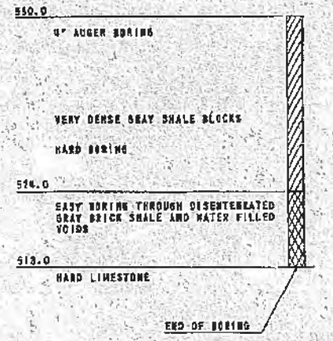
BORING NO. 3

DATE: 8-21, 1962
GROUND ELEVATION: 553.1
STATION 1755 +08 OFFSET 81' LT.



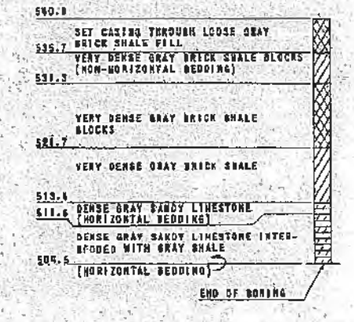
BORING NO. 2

DATE: 8-20, 1962
GROUND ELEVATION: 550.0
STATION 1752 +91 OFFSET 1' LT.



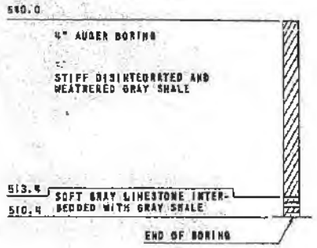
BORING NO. 1

DATE: 8-15 & 17, 1962
GROUND ELEVATION: 540.8
STATION 1752 +86 OFFSET 21' LT.



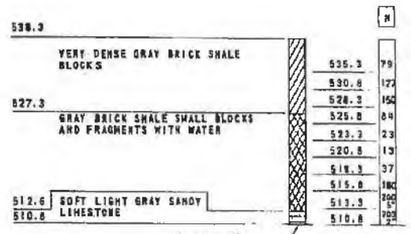
BORING NO. 4

DATE: 8-22, 1962
GROUND ELEVATION: 540.0
STATION 1753 +82.5 OFFSET 0.5' LT.



BORING NO. 5

DATE: 9-17, 1962
GROUND ELEVATION: 538.3
STATION 1752 +82 OFFSET 32' LT.



N - STANDARD PENETRATION TEST - BLOWS PER FOOT TO DRIVE 2" O.D. SPLIT SPOON SAMPLER 12" WITH 140# HAMMER FALLING 30"

BORING LOGS BY DISTRICT #5 PARIS, ILLINOIS.

--AS BUILT--

RELOCATED WEST ABUTMENT

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
F.A.I. RT. 74 BRIDGE OVER VERMILION RIVER
F.A.I.-74 SECTION 92-11B
VERMILION COUNTY STA. 1755+16

BORING LOGS

DESIGNED	DRAWN	TRACED	CHECKED	REVISED	DATE	APPROVED
	DU		LDB	HSM	11-20-62	

F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-1B	VERMILION		
FEDERAL AID DISTRICT NO. 7		ILLINOIS	1962	

BORING NO. 5
DATE: 9-23 & 24, 1962
GROUND ELEVATION: 620.0
STATION 1750+68 OFFSET 2' RT.

620.0 HARD BROWN CLAY LOAM TILL

607.5 VERY DENSE GRAY BRICK SHALE HORIZONTAL BEDDING

589.2 VERY DENSE DARK GRAY TO BLACK SHALE (SLATE LIKE)

586.5 97 VEIN COAL

580.0 VERY STIFF GRAY MOTTLED FIRE CLAY

537.5 VERY DENSE GRAY BRICK SHALE

526.0 529.0 HARD BROWN SHALE

VERY DENSE GRAY SHALE

511.0 DENSE GRAY SANDY LIMESTONE INTERBEDDED WITH HARD GRAY SHALE

501.0 END OF BORING

BORING NO. 6
DATE: 9-4 & 5, 1962
GROUND ELEVATION: 616.3
STATION 1751+80 OFFSET 32' LT.

616.3 4" AUGER HOLE

VERY DENSE GRAY BRICK SHALE

585.3 VERY SHORT INTERVALS OF EASY BORING BELOW THIS ELEVATION - POSSIBLE VOIDS

VERY DENSE GRAY BRICK SHALE

546.8 VERY DARK GRAY TO BLACK SHALE (SLATE LIKE)

540.8 END OF BORING

BORING NO. 7
DATE: 9-6, 1962
GROUND ELEVATION: 612.5
STATION 1751+91 OFFSET 32' RT.

612.5 4" AUGER HOLE

VERY DENSE GRAY BRICK SHALE

549.0 DENSE SLATE LIKE DARK GRAY TO BLACK SHALE

545.0 1' OF #7 VEIN COAL

544.0 END OF BORING

BORING NO. 9
DATE: 10-8, 1962
GROUND ELEVATION: 629.2
STATION 1751+00 OFFSET 32' RT.

629.2 HARD LIGHT BROWN & DARK GRAY LOAM FILL

618.2 617.2 DENSE FINE GRAINED BROWN SAND

614.2 HARD FINE GRAY CLAY LOAM TILL

HARD VERY DENSE THICK BEDDED GRAY BRICK SHALE

593.7 GRAY BRICK SHALE LOST & GAINED WATER INTERMITTENTLY ELEV. 586 TO 589, THEN LOST WATER COMPLETELY. BORING WAS HARD - 569 TO 566, EASY 566 - 563, MODERATE 563 - 561, VERY EASY 561 - 559, MODERATE HARD 559 - 558, EASY 558 - 551, VERY EASY (NO RESISTANCE) 551 - 549, VERY EASY 549 - 544.2. THE COAL HAS BEEN REMOVED FROM THIS AREA

548.2 END OF BORING

BORING NO. 10
DATE: 10-9, 1962
GROUND ELEVATION: 622.3
STATION 1751+00 OFFSET 32' LT.

622.3 618.3 HARD DARK GRAY CLAY LOAM TILL

614.8 DENSE FINE GRAINED BROWN SAND

HARD VERY DENSE THICK BEDDED GRAY BRICK SHALE

593.8 BEGAN WASH BORING THROUGH GRAY BRICK SHALE. NO VOIDS - WASH WATER WAS RETAINED FOR THE COMPLETE DEPTH. BORING WAS HARD ELEV. 593 - 588, VERY HARD 554 - 562, HARD 562 - 557, VERY HARD 557 - 554, HARD 554 - 550. ALL ABOVE HAD LIGHT GRAY CUTTINGS. BORING WAS - HARD 550 - 539 (WASH WATER WAS DARK GRAY TO BLACK; COAL VEIN BETWEEN THESE ELEVATIONS.) VERY HARD 539 - 535, AND HARD 535 TO BOTTOM OF HOLE

532.3 END OF BORING

BORING LOGS BY DISTRICT 5
PARIS, ILLINOIS.

--AS BUILT--

RELOCATED WEST ABUTMENT

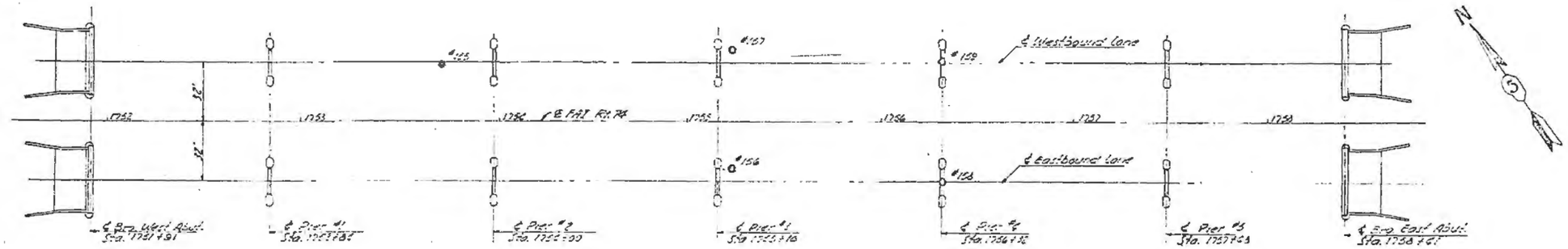
CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
F.A.I. RT. 74 BRIDGE OVER VERMILION RIVER
F.A.I.-74 SECTION 92-1B
VERMILION COUNTY STA. 1755+16

BORING LOGS

DESIGNED	DRAWN	TRACED	CHECKED	APPROVED	DATE	REVISED
	DU		LDB	HSM	11-1962	

F.A.I. RTE. NO.	SECTION	COUNTY	TOT. NO. SHEETS	SHEET NO.
74	92-11B	VERMILION	93	28
FEDERAL ROAD DISTRICT NO. 7		ILLINOIS	PROJ.	



BORING NO. 155
DATE: 3-30-58
GROUND ELEVATION: +530.8'

E	S	PR	Qu	R	CLASSIFICATION
+530.8'					GROUND SURFACE
29.8	1	4	-	0.4	SILT=SOME SAND, CLAY & FIBROUS MATERIAL=BROWN LOOSE (M)
28.8					
27.8	2	9	-	0.4	
26.8					
25.8	3	10	-	0.3	SILT=SOME SAND & CLAY BROWN=LOOSE (M)
24.8					
23.8	4	9	-	0.4	
22.8					
21.8					
20.8					
19.8	5	20	-	0.4	SILT=SOME SAND & GRAVEL=BROWN=MED.DENSE (M)
18.8					
17.8		WATER LEVEL=518.8' ± HR. AFTER BORING			
17.3	6	21	-	0.3	
16.3					
15.8					
14.8	7	26	1.7	0.3	
13.8					
12.8					SILT=SOME CLAY & SAND TRACE OF GRAVEL & ORG. MATERIAL=GRAY=LOOSE (M)
12.3	8	29	1.9	0.4	
11.3					
10.8					
10.3	9	100	-	0.3	SILT=SOME CLAY & SAND TRACE OF GRAVEL=GRAY=VERY DENSE (D)
09.8					
09.3					
08.8	10	108	-	0.1	SILT=SOME SAND, CLAY & GRAVEL=GR.=VERY DENSE (D)
08.3					
		END OF BORING			

BORING NO. 156
DATE: 2-14-58
GROUND ELEVATION: +534.2'

E	S	PR	Qu	R	CLASSIFICATION
+534.2'					GROUND SURFACE
33.2	1	7	-	0.8	BROWN TOP SOIL=LOOSE (M)
32.2					
31.2	2	6	1.0	0.5	SILT=SOME CLAY=TRACE OF SAND=BROWN=LOOSE (M)
30.2					
29.2	3	8	-	0.6	
28.2					
27.2	4	6	0.8	0.4	SILT=SOME SAND & CLAY BROWN=LOOSE (M)
26.2					
25.2					
24.2					
23.5	5	5	-	0.0	FINE SAND=SOME SILT=TRACE OF CLAY=BROWN=LOOSE (M)
22.7		WATER LEVEL=523.8' AFTER BORING & 24 HRS. AFTER BORING			
22.0					
21.2					
20.5	6	5	-	0.5	FINE TO MED. SAND=SOME SILT=TRACE OF GRAVEL=BROWN & GRAY=LOOSE (M)
19.7					
19.0					
18.2					
17.5	7	18	-	0.4	FINE TO MED. SAND & GRAVEL=SOME SILT=BROWN=MED.DENSE (M)
16.7					
16.0					
15.2					
14.5	8	40	-	0.8	SILT=SOME SAND=TRACE OF CLAY & GRAVEL=GRAY=DENSE (M)
13.8					
13.0					
12.2					
11.5	9	200	-	0.3	SILT=SOME CLAY & SAND=GRAY=VERY DENSE (D)
10.8					
10.0					
09.2					
08.5	10	200	-	0.8	
		END OF BORING			

BORING NO. 157
DATE: 2-14-58
GROUND ELEVATION: +535.4'

E	S	PR	Qu	R	CLASSIFICATION
+535.4'					GROUND SURFACE
34.4	1	8	-	0.5	BROWN TOP SOIL=LOOSE (M)
33.4					
32.4	2	9	1.4	0.6	SILT=SOME CLAY=TRACE OF SAND=BROWN=LOOSE (M)
31.4					
30.4	3	8	-	0.5	
29.4					
28.4	4	9	-	0.5	SILT=SOME SAND=TRACE OF CLAY=BROWN=LOOSE (M)
27.4					
26.4					
25.4					
24.6	5	5	-	0.6	FINE SAND=SOME SILT=TRACE OF CLAY=BROWN=LOOSE (M)
23.9		WATER LEVEL=524.4' AFTER BORING & 24 HRS. AFTER BORING			
23.2					
22.4					
21.6	6	6	-	0.6	FINE TO MED. SAND=SOME SILT=TRACE OF CLAY=GRAY LOOSE (M)
20.9					
20.2					
19.4					
18.6	7	35	-	0.9	FINE TO MED. SAND & GRAVEL=SOME SILT=BROWN=DENSE (M)
17.9					
17.2					
16.4					
15.6	8	41	-	0.9	FINE TO MED. SAND & GRAVEL=SOME SILT=GRAY=DENSE (M)
14.9					
14.2					
13.4					
12.6	9	19	-	0.4	FINE TO MED. SAND & GRAVEL=SOME SILT=BROWN=MED.DENSE (M)
11.9					
11.2					
10.4					
10.0	10	187	-	0.9	SILT=SOME CLAY & SAND TRACE OF GRAVEL=GRAY=VERY DENSE (D)
09.8					
07.4					
07.0	11	150	-	0.2	
06.2					
		END OF BORING			

BORING NO. 158
DATE: 2-16-58
GROUND ELEVATION: +537.2'

E	S	PR	Qu	R	CLASSIFICATION
+537.2'					GROUND SURFACE
36.4	1	57	-	0.7	BROWN TOP SOIL=LOOSE (M) (FROZEN)
35.7					
35.0	2	22	2.0	0.4	SILT=SOME CLAY=TRACE OF SAND=BROWN=MED.DENSE (M)
34.2					
33.5	3	15	-	0.3	
33.7					
32.0	4	6	-	0.8	SILT=SOME CLAY=TRACE OF SAND=BROWN=LOOSE (M)
31.2					
30.5	5	6	-	0.9	
29.7					SILT=SOME SAND & CLAY BROWN=LOOSE (M)
27.2					
29.5	6	5	-	0.6	
28.7		WATER LEVEL=525.2' ± HR. AFTER BORING & 24 HRS. AFTER BORING			
28.0					
27.2	7	3	-	0.5	SILT=SOME SAND & CLAY TRACE OF COAL=BR.=LOOSE (M)
26.5	7A	5	-	0.6	SILT=SOME SAND=TRACE OF CLAY & COAL=BROWN=LOOSE (M)
25.7					
25.0					
24.2	8	11	-	0.6	FINE TO MED. SAND & GRAVEL=SOME SILT=TRACE OF CLAY=BROWN=MED.DENSE (M)
23.5					
22.7					
22.0					
21.2	9	48	-	0.5	FINE TO MED. SAND & GRAVEL=SOME SILT=TRACE OF CLAY=BROWN & GRAY=DENSE (M)
20.5					
19.7					
19.0					
18.2					
17.5	10	53	-	0.4	SILT=SOME CLAY & SAND TRACE OF GRAVEL=GRAY=DENSE (D)
16.7					
16.0					
15.2					
14.5	11	148	6.3	-	
13.7					SILT=SOME CLAY & SAND TRACE OF GRAVEL=GRAY=VERY DENSE (D)
13.0					
12.2					
11.5	12	126	-	-	
10.7					
10.0					
		END OF BORING			

BORING NO. 159
DATE: 2-18-58
GROUND ELEVATION: +537.5'

E	S	PR	Qu	R	CLASSIFICATION
+537.5'					GROUND SURFACE
36.8	1	48	-	0.2	BROWN TOP SOIL=LOOSE (M) (FROZEN)
36.0					
35.2	2	21	2.0	0.6	SILT=SOME CLAY=TRACE OF SAND=BROWN=MED.DENSE (M)
34.5					
33.2	3	10	1.1	0.4	
33.0					
32.2	4	6	-	0.5	
31.8					
30.3	5	2	-	0.6	
30.0					SILT=SOME CLAY=TRACE SAND=BROWN=LOOSE (M)
27.5					
26.8	6	8	0.7	0.4	
26.0		WATER LEVEL=527.1' ± HR. & 24 HRS. AFTER BORING			
25.3					
24.5					
23.8	7	7	-	0.7	SILT=SOME CLAY & SAND=BROWN=LOOSE (M)
23.0					
22.3					
21.5					
20.8	8	6	-	0.6	FINE TO MED. SAND=SOME SILT=TRACE OF GRAVEL & WOOD=BROWN & GRAY=LOOSE (M)
20.3					
19.7	8A	2	-	0.2	FINE TO COARSE SAND=SOME GRAVEL & SOME SILT=GR. (F)
19.2					
18.5					
17.8	9	34	-	0.8	FINE TO MED. SAND & GRAVEL=SOME SILT=BROWN & GRAY=DENSE (M)
17.0					
16.3					
15.5					
14.8	10	30	-	0.7	FINE TO MED. SAND & GRAVEL=SOME SILT=TRACE OF CLAY & COAL=BROWN & GRAY=MED.DENSE (M)
14.0					
13.3					
12.5					
11.8	11	112	-	0.3	SILT=SOME CLAY & SAND TRACE OF GRAVEL=GRAY=VERY DENSE (D)
11.0					
09.5					
08.8	12	150	-	0.6	
02.8					
		END OF BORING			

BORING #	STATION	OFFSET
155	1753+73	31'LT.
156	1755+23	25' RT.
157	1755+23	39'LT.
158	1756+32	32'RT.
159	1756+32	32'LT.

NOTE: FOR GENERAL NOTES SEE LOCATION # 3-1

LOCATION # 3-7

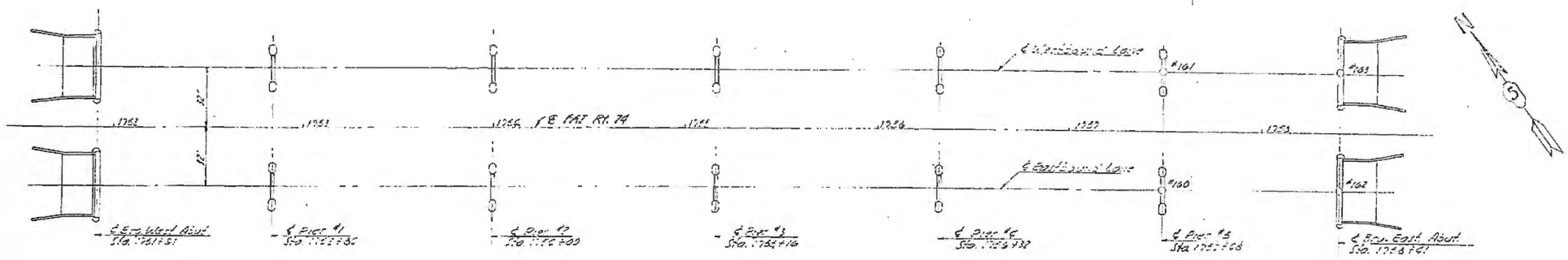
CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
FAI RT. 74 BRIDGE OVER VERMILION RIVER
FAI-74 SECTION 92-11B
VERMILION COUNTY STA. 1755+16

BORING LOGS

DESIGNED	DRAWN	TRACED	CHECKED	REVISED	DATE	REVISED
			LDB			
				HSM	10-5-60	

F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11B	VERMILION	9.3	2.3
FEDERAL ROAD DISTRICT NO. 7		ILLINOIS	FINAL	



BORING NO. 160
DATE: 2-19-58
GROUND ELEVATION: +537.6'

+537.6'						GROUND SURFACE
36.8	1	80	-	0.9	BROWN TOP SOIL=LOOSE (M) (FROZEN)	
36.1						
35.3	2	18	-	0.3		
34.6					SILT=TRACE OF SAND & CLAY=BROWN=MED.DENSE (M)	
33.8	3	19	1.7	0.6		
33.1						
32.3	4	13	1.8	0.4		
31.6					SILT=SOME CLAY=TRACE OF SAND=BROWN=MED.DENSE (M)	
30.8	5	19	0.5	0.8		
30.1						
28.9						
27.6						
26.9	6	8	0.7	0.6		
26.1					SILT=SOME CLAY & SAND=BROWN=LOOSE (M)	
24.6					WATER LEVEL=524.1' AFTER BORING & 24 HRS. AFTER BORING	
23.8	7	9	0.8	0.9		
23.1					WATER LEVEL=523.1' WHILE SAMPLING	
22.4						
21.6						
20.9	8	19	0.9	1.1	MED.SAND & SILT=SOME CLAY & GRAVEL=BROWN & GRAY=MED.DENSE (M)	
20.1						
19.4						
18.6					SILT=SOME CLAY & SAND=BROWN & GRAY=LOOSE (M)	
17.9	9	3	-	0.8		
17.1						
17.0	9A	29	1.4	0.8	SILT=SOME SAND, CLAY & GRAVEL=BROWN=MED.DENSE (M)	
15.4						
15.2						
14.8	10	53	-	0.8	SILT=SOME CLAY & FINE SAND=DARK GRAY=DENSE (D)	
14.1						
13.4						
12.6						
11.8	11	147	-	0.8	SILT=SOME CLAY & FINE SAND=GRAY=VERY DENSE (D)	
11.1						
09.8						

END OF BORING

E	S	PR	QU	R	CLASSIFICATION

BORING NO. 161
DATE: 2-15-58
GROUND ELEVATION: +537.5'

+537.5'						GROUND SURFACE
36.8	1	55	-	0.9	BROWN TOP SOIL=LOOSE (M) (FROZEN)	
36.0						
35.2	2	12	2.4	0.4	SILT=TRACE OF CLAY & SAND=BROWN=MED.DENSE (M)	
34.5						
33.8	3	14	2.3	0.4		
33.0						
32.2	4	18	1.6	0.4	SILT=SOME CLAY=TRACE OF SAND=BROWN=MED.DENSE (M)	
31.5						
30.7	5	11	1.3	0.3		
30.0						
29.3						
27.5						
26.8	6	5	0.6	0.7	SILT=SOME CLAY=TRACE OF SAND=BROWN=LOOSE (M)	
26.0						
24.5					WATER LEVEL=524.5' ± HR. AFTER BORING & 24 HRS.	
23.8	7	6	-	0.8		
23.0						
22.3						
21.5					WATER LEVEL=521.5' WHILE SAMPLING	
20.8	8	28	-	0.7	FINE TO MED.SAND & GRAVEL=SOME SILT=TRACE OF CLAY=BROWN=MED.DENSE (M)	
20.0						
19.3						
18.5						
17.8	9	32	-	0.3	SILT=SOME SAND & CLAY GRAY=DENSE (D)	
17.0						
16.3						
15.5						
14.8	10	92	-	0.3	MED.GRAVEL=SOME SILT & SAND=TRACE OF CLAY=GRAY=VERY DENSE (D)	
14.0						
13.3						
12.5						
11.8	11	145	-	0.8	SILT=SOME CLAY & FINE SAND=GRAY=VERY DENSE (D)	
11.0						

END OF BORING

E	S	PR	QU	R	CLASSIFICATION

BORING NO. 162
DATE: 3-18-58
GROUND ELEVATION: +537.9'

+537.9'						GROUND SURFACE
36.9	1	6	-	0.3	SILT=SOME CLAY=TRACE OF SAND & ORGANIC MATERIAL BROWN=LOOSE (M)	
35.9						
34.9	2	13	2.0	0.4	SILT & CLAY=TRACE OF SAND=BROWN=MED.DENSE (M)	
33.9						
32.9	3	15	0.8	0.3		
31.9					SILT & CLAY=TRACE OF SAND=BROWN=LOOSE (M)	
30.9	4	14	0.9	0.3		
29.9						
28.9						
27.9						
26.9	5	7	0.5	0.3	SILT=SOME CLAY & SAND BROWN=LOOSE (M)	
25.9						
25.4						
24.4	6		0.5	0.4	WATER LEVEL=524.4' 4 HRS. AFTER BORING	
23.4						
22.9						
22.2						
21.9	7	5	0.33	0.5	SILT=SOME SAND, CLAY & GRAVEL=BROWN=LOOSE (M)	
20.9						
20.4						
19.4	8	31	-	0.4	SAND & GRAVEL=SOME SILT TRACE OF CLAY=BROWN=M.D. (M)	
18.4						
17.2						
16.9	9	28	-	0.5		
15.9						
15.4						
14.6	10	88	-	0.5	SILT & CLAY=SOME SAND TRACE=[illegible]=GRAY=VERY DENSE (D)	
13.7						
12.9						
11.9	11	100	-	0.1		
10.9					SILT=SOME SAND & CLAY=	
10.2	12	100	-	0.1	[illegible]	(D)

END OF BORING

E	S	PR	QU	R	CLASSIFICATION

BORING NO. 163
DATE: 2-10/20-58
GROUND ELEVATION: +538.4'

+538.4'						GROUND SURFACE
37.7	1	66	-	1.0	BROWN TOP SOIL=LOOSE (M) (FROZEN)	
36.9						
36.1	2	24	3.0	0.4	SILT=TRACE OF CLAY & SAND=BROWN=MED.DENSE (M)	
35.3						
34.7	3	18	2.2	0.5		
33.9						
33.1	4	17	2.1	0.6		
32.4					SILT=SOME CLAY=TRACE OF SAND=BROWN=[illegible]	
31.7	5	16	2.2	0.7	(M) DENSE	
30.9						
29.7						
28.4						
27.7	6	7	0.6	0.6	SILT=SOME CLAY=TRACE OF SAND & COAL=BROWN LOOSE (M)	
26.9						
26.4						
25.9					WATER LEVEL=525.4' AFTER BORING & 24 HRS. AFTER BORING	
25.1	7	7	0.2	0.6		
24.4						
23.4					SILT=SOME CLAY=TRACE OF SAND=BROWN=LOOSE (M)	
22.7	8		0.4	0.7		
21.9					WATER LEVEL=522.0' WHILE SAMPLING	
21.4						
20.6						
20.1	9	27	-	0.6	MED.GRAVEL=SOME SAND & SILT=[illegible] (M) DENSE	
19.4						
18.6						
17.6	10	126	-	0.3		
17.2					COAL=VERY DENSE (D)	
15.9						
15.2	11	165	-	0.2		
14.5						
13.4						
12.7	12	98	-	0.3	SILT=SOME CLAY & FINE SAND=GRAY=VERY DENSE (D)	
11.9						
10.9						
10.7	13	165	-	0.4		

END OF BORING

E	S	PR	QU	R	CLASSIFICATION

NOTE:
FOR GENERAL NOTES SEE LOCATION #3-1

BORING #	STATION	OFFSET
160	1757+48	32' RT
161	1757+48	32' LT
162	1758+41	32' RT
163	1758+41	32' LT

LOCATION # 3-3

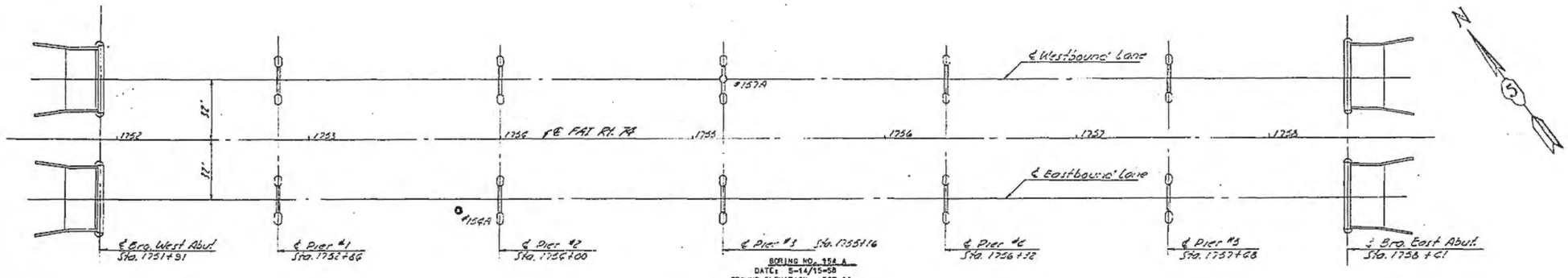
CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
FAI 74 BRIDGE OVER VERMILION RIVER
FAI - 74 SECTION 92-11B
VERMILION COUNTY STA 1755+16

BORING LOGS

DESIGNED	DRAWN	TRACED	CHECKED	REVISED	DATE	APPROVED
			LOB	JWM	10/64	

F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11B	VERMILION	93	30
FEDERAL ROAD DISTRICT NO. 7		ILLINOIS	FHWA	

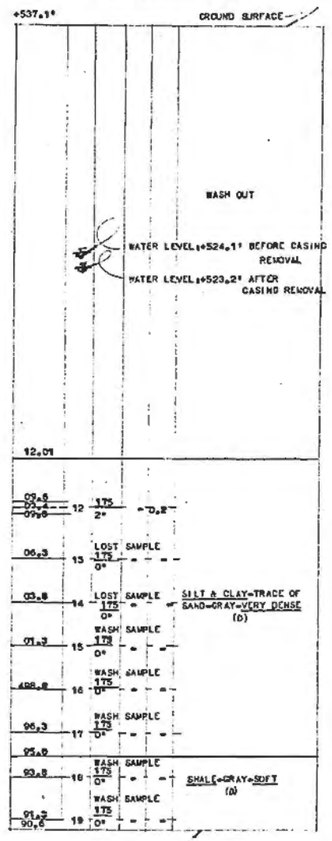


BORING	STATION	OFFSET
154A	1753+78	38' RT.
157A	1755+16	32' LT.

S.T.A.S. JOB NO. 3791-B

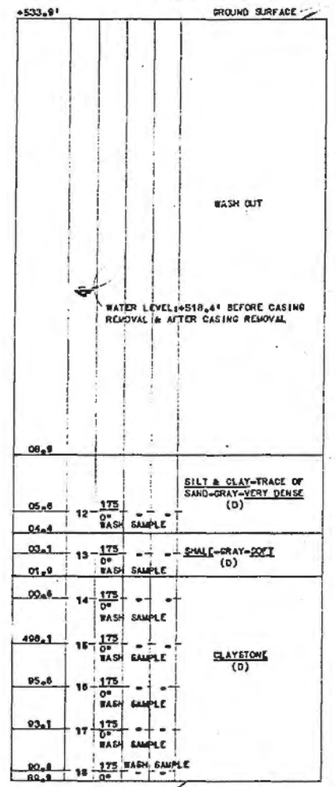
FOR GENERAL NOTES SEE LOCATION # 3-1

BORING NO. 154 A
DATE: 5-14/15-58
GROUND ELEVATION: +537.1'



E	S	PR	QU	R	CLASSIFICATION

BORING NO. 157 A
DATE: 5-13-58
GROUND ELEVATION: +533.9'



E	S	PR	QU	R	CLASSIFICATION

LOCATION # 3-4

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

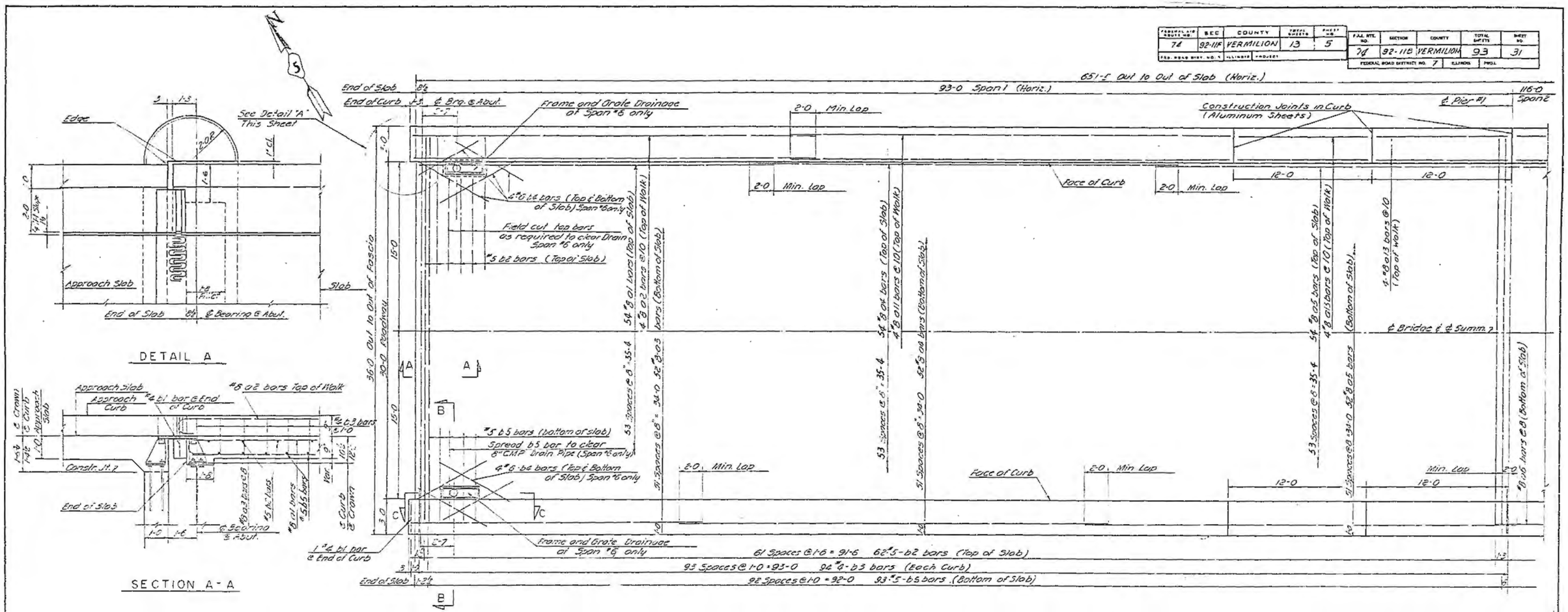
ILLINOIS DIVISION OF HIGHWAYS
FAI RT 74 BRIDGE OVER VERMILION RIVER
FAI-74 SECTION 92-11B
VERMILION COUNTY STA 1755+16

BORING LOGS

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
			LDB	HSM	10-10-60	

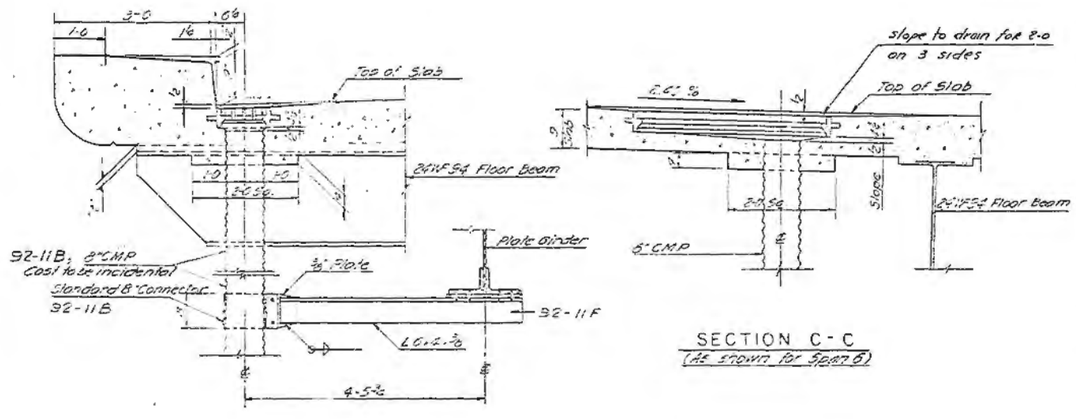
FEDERAL AID ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11F	VERMILION	13	5
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

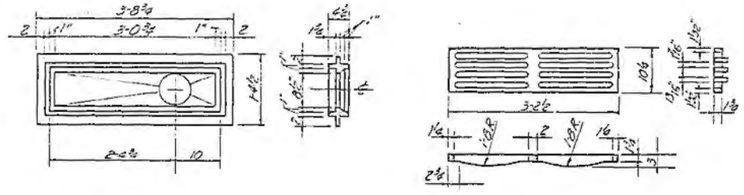
F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11B	VERMILION	93	31
FEDERAL ROAD DISTRICT NO. 7	ILLINOIS	PROJ.		



PART FLOOR PLAN

Span #1 Shown (Span #6 Identical by 180° Rotation Except as Shown)





DETAIL OF CAST IRON FRAME
Height 220 lbs.
(4 Req'd)

DETAIL OF CAST IRON GRATE
Height 110 lbs.
(4 Req'd)

Cast Iron Frame and Grate by Contractor 92-11B

CONSOER, TOWNSEND & ASSOCIATES
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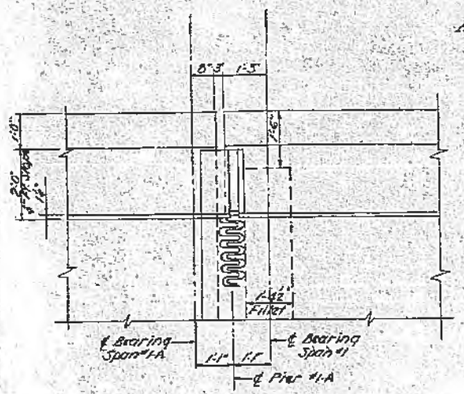
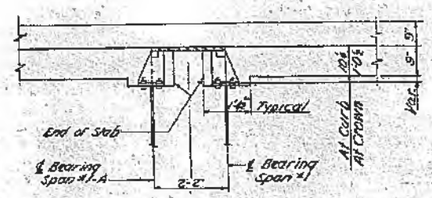
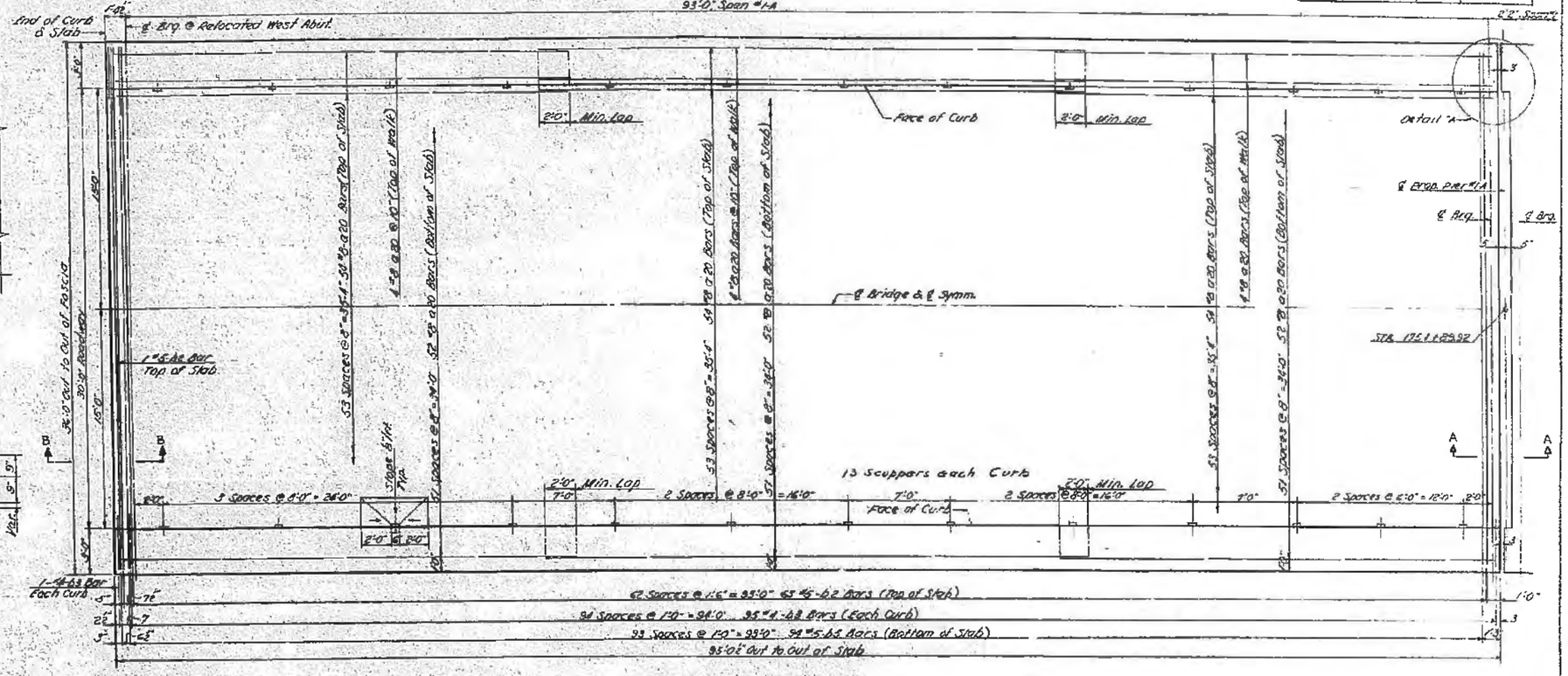
ILLINOIS DIVISION OF HIGHWAYS
FAI RT 74 BRIDGE OVER VERMILION RIVER
FAI-74 SECTION 92-11B, 11F
VERMILION COUNTY STA. 1755+16

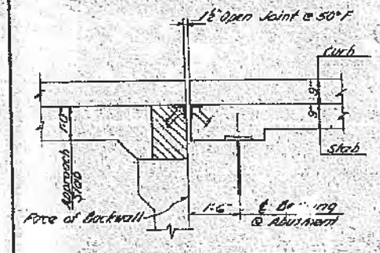
SUPERSTRUCTURE FLOOR PLAN

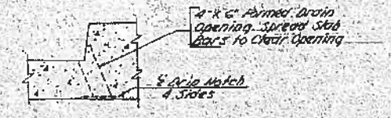
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
SMP	JT	JT	JMA			
			LDS	HEM	10-10-60	

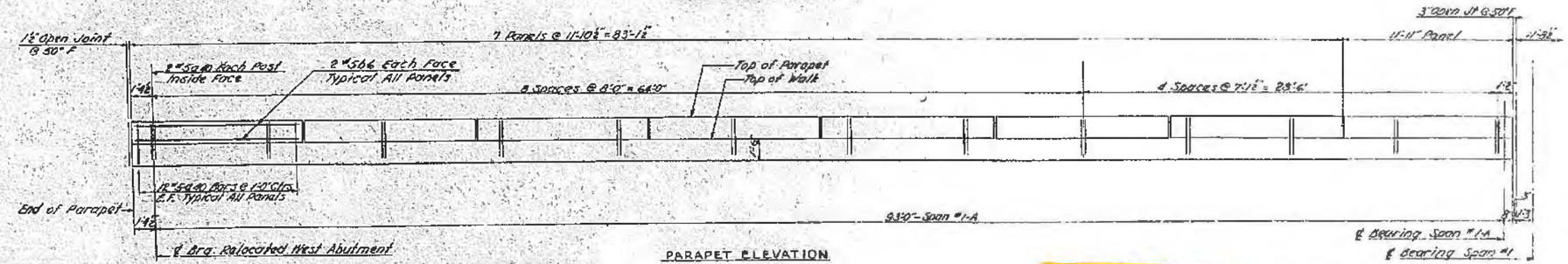












F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11B	VERMILION		[illegible]
FEDERAL ROAD DISTRICT NO.		ILLINOIS	FED.	

DETAIL "A"

SECTION A-A

FLOOR PLAN-SPAN #1-A

SECTION B-B
½"=1'-0

PARAPET ELEVATION

26 #5 a40 Bars Required At Railing Posts per face.

SECTION THRU SCUPPER

-AS BUILT-

RELOCATED WEST ABUTMENT

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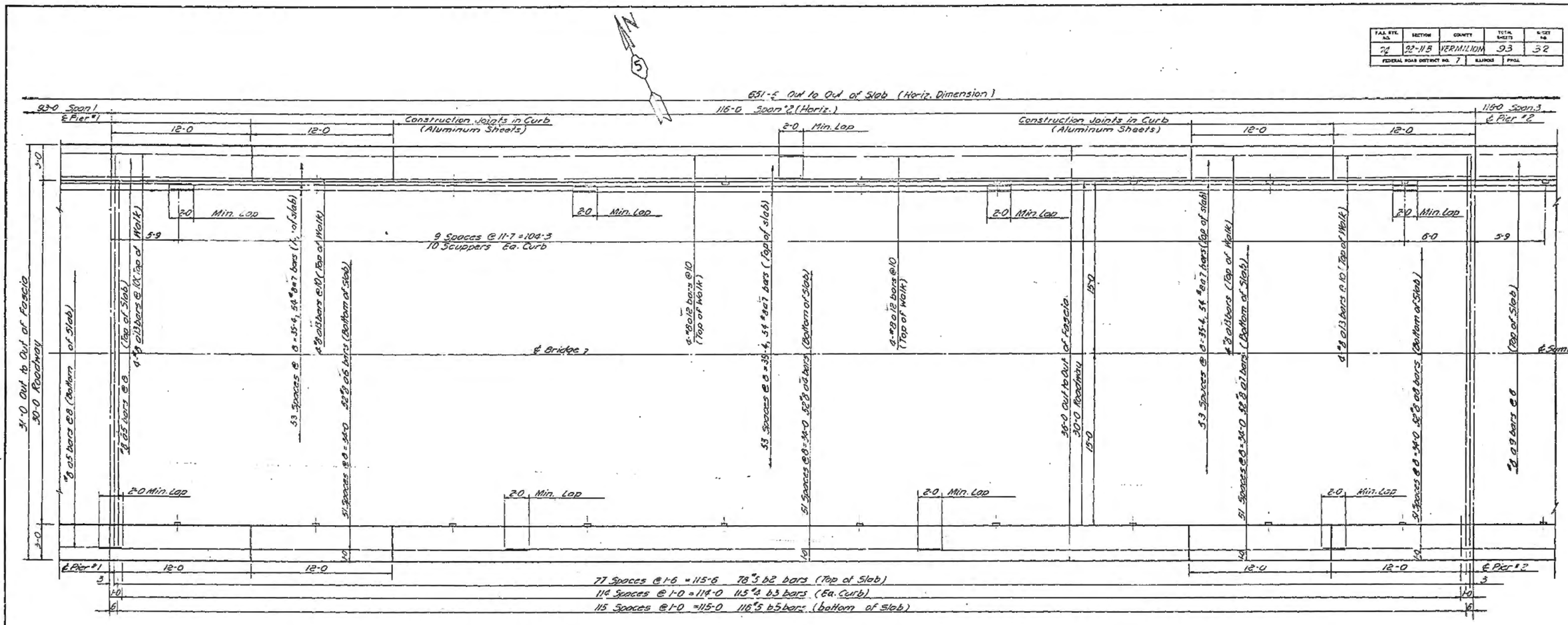
ILLINOIS DIVISION OF HIGHWAYS
F.A.I. RT. 74 BRIDGE OVER VERMILION RIVER
F.A.I.-74 SECTION 92-11B
VERMILION COUNTY STA. 1755+16

FLOOR PLAN - SPAN NO. 1-A

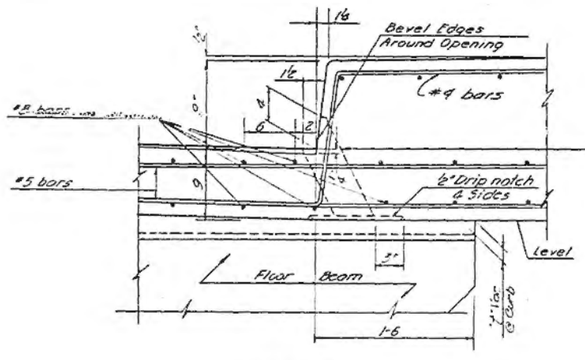
DESIGNED	DRAWN	TRACED	CHECKED	REVISED	DATE	REVISED
ST	E.G.		L.D.B.	H.S.M.	12-3-62	

F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11B	VERMILION	93	32
FEDERAL ROAD DISTRICT NO. 7		ILLINOIS	FISCAL	



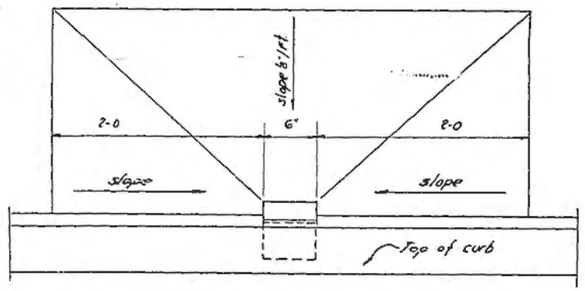
PART FLOOR PLAN

Span #2 shown . Span #3 Identical by 180° Rotation



SECTION

4"x6" formed Drain Opening Spaced to miss Floor Beams @ ± 11'-7 ctrs. Scuppers at Spans #2, #3, #4 & #5 Each Curb. Spread Slab Bars to clear Opening



PLAN

SCUPPER DETAIL

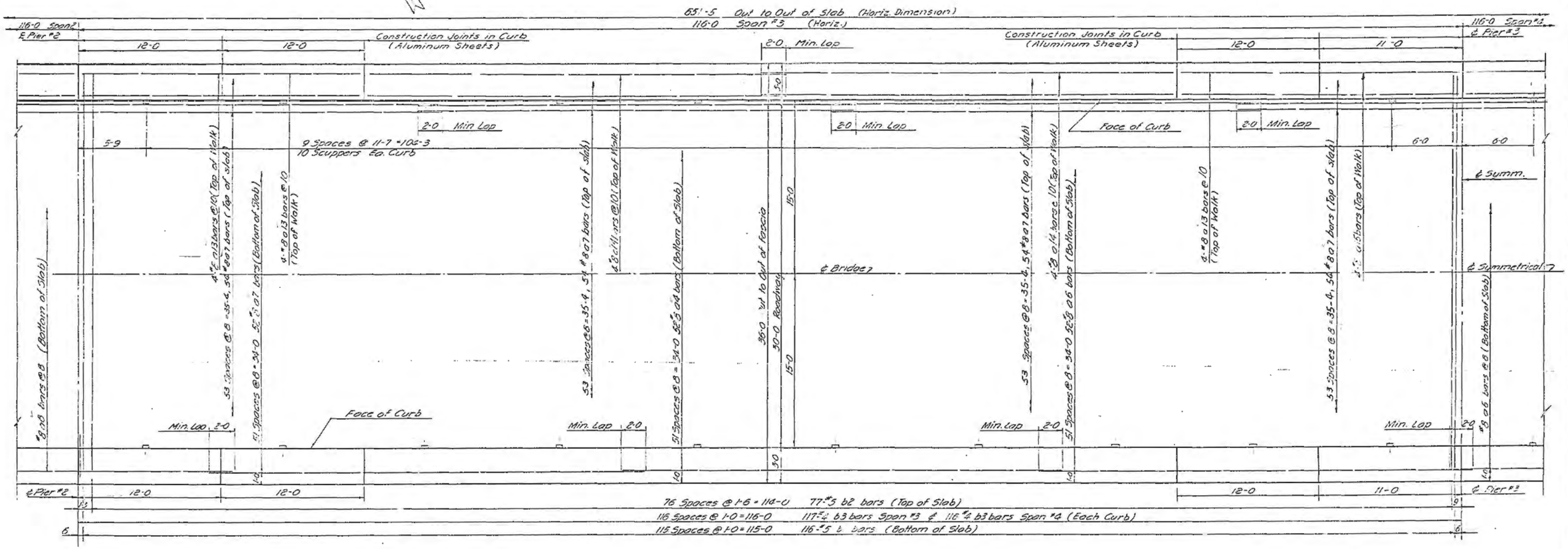
CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
FAI RT 74 BRIDGE OVER VERMILION RIVER
FAI-74 SECTION 92-11B
VERMILION COUNTY STA 1755+16

SUPERSTRUCTURE FLOOR PLAN

DESIGNED	DRAWN	TRACED	CHECKED	QUANTITIES	DATE	REVISED
S.M.H	J.T	J.T	J.M.H			
			L.D.B	H.S.M	10-63	

F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11B	VERMILION	33	33
FEDERAL ROAD DISTRICT NO. 7		ILLINOIS	PROJ.	



PART FLOOR PLAN

Span #3 shown. Span's Identical by 180° Rotation

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
FAI RT 74 BRIDGE OVER VERMILION RIVER
FAI-74 SECTION 92-11B
VERMILION COUNTY STA. 1755+16

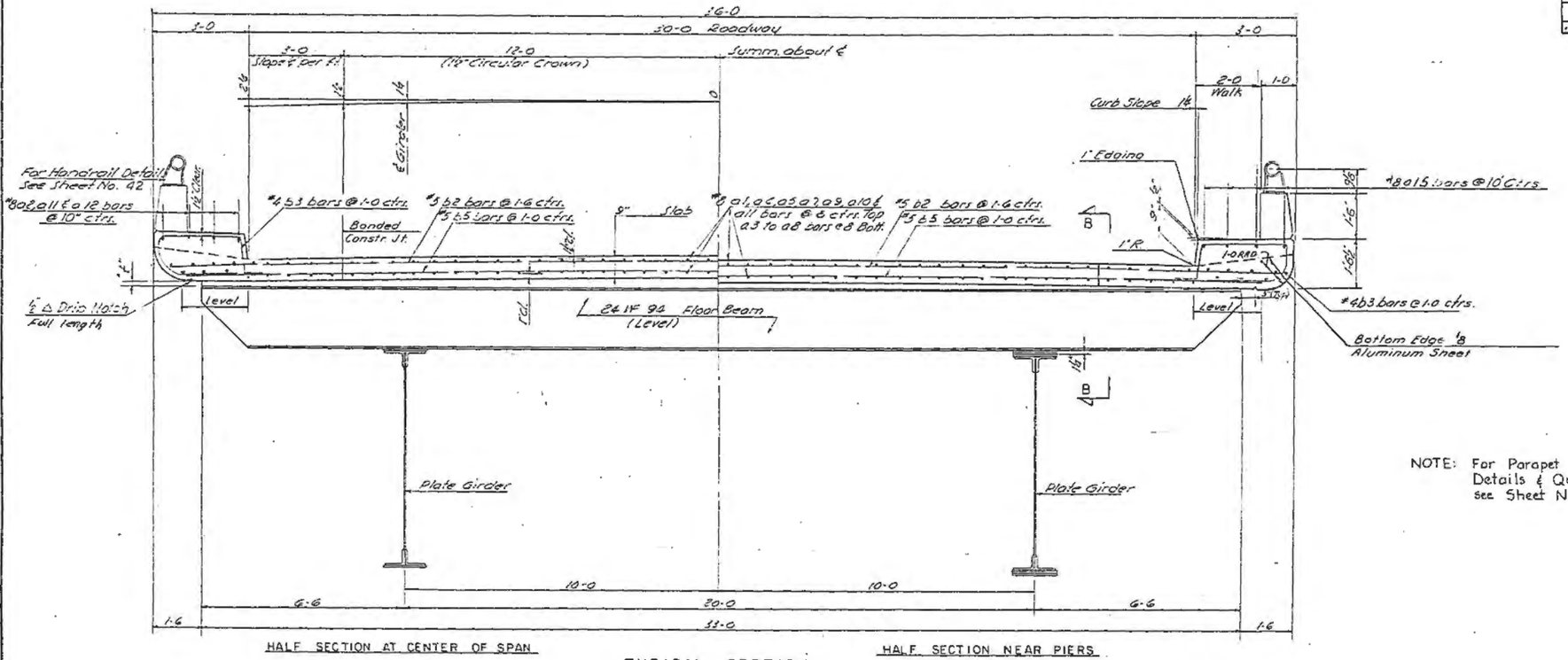
SUPERSTRUCTURE FLOOR PLAN

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
S.M.H	J.T	J.T	J.W.H			
			L.D.B	H.S.M	10-17-66	

FEDERAL AID ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11F	VERMILION	13	6

F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11B	VERMILION	93	34

FED. ROAD DIST. NO. 7 | ILLINOIS | PROJECT



HALF SECTION AT CENTER OF SPAN

HALF SECTION NEAR PIERS

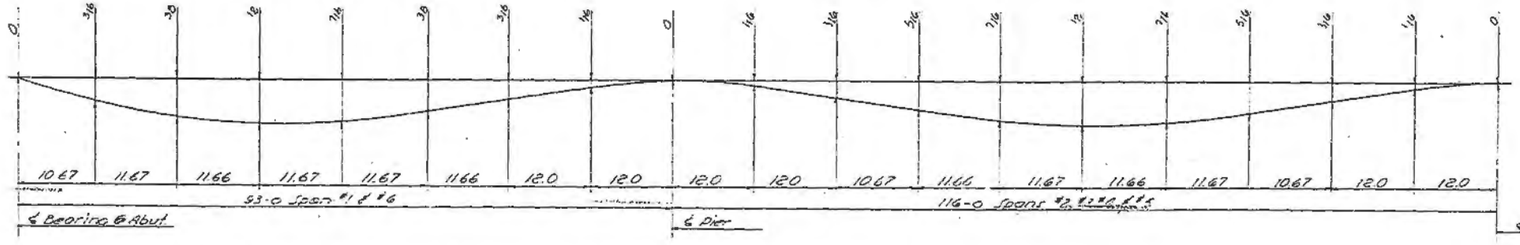
TYPICAL SECTION

BAR SCHEDULE					
Bar	No	Size	Length	Spacing	Shape
a1	216	8	30-7	6	
a2	32	8	35-1	6	
a3	208	8	23-8	8	
a6	1056	8	37-0	As Shown	
a5	424	8	37-10	As Shown	
a6	216	8	36-9	6	
a7	1064	8	36-7	As Shown	
a8	208	8	26-0	6	
a9	216	8	37-0	As Shown	
a10	216	8	36-8	As Shown	
a11	248	8	38-0	As Shown	
a12	64	8	35-0	10"	
a13	288	8	11-1	10"	
a14	64	8	35-4	10"	
a15	32	8	10-8	10"	
b1	8	4	8-2	As Shown	
b2	868	5	35-3	1-6	
b3	2604	4	8-2	1-0	
b4	32	6	7-0	As Shown	
b5	1300	5	36-3	1-0	

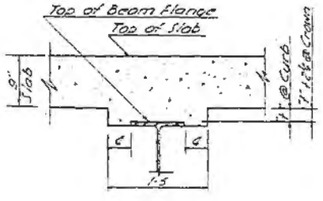
SUPERSTRUCTURE QUANTITIES		
Class X Concrete	1556.5	C.Yds.
Reinforcement Bars	522,510	lbs.

Note: Quantities shown are for both structures.

NOTE: For Parapet Handrail Details & Quantities see Sheet No. 42



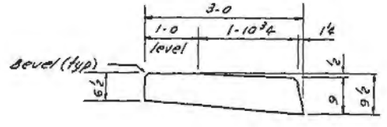
SLAB DEAD LOAD DEFLECTION



SECTION B-B

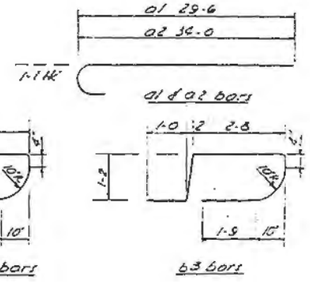
METHOD FOR DETERMINING FILLET HEIGHTS "T"

Elevation of the top flanges of each Floor Beam shall be taken after all Structural Steel has been erected. From these elevations subtract the increment of deflection for these points, determined from the Slab D.L. deflection diagram. The elevations so obtained subtracted from the theoretical grade elevations, minus 1'4" (Slab 8" & Crown 2½") equals the fillet height "T" at the curb. The fillet height @ ℄ Roadway equals "T" +2½" Crown.



DETAIL OF ⅛" ALUMINUM SHEETS
Used in curb joints (3003-H14)

NOTE: Aluminum Sheet Used in Curb shall be Included in Cost of Class X Concrete.



BENDING DIAGRAMS
(All Bar dimensions are Out to Out)

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
FAI RT 74 BRIDGE OVER VERMILION RIVER
FAI-74 SECTION 92-11B.11F
VERMILION COUNTY STA. 1755+16

SUPERSTRUCTURE DETAILS

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
SMH	JT	NES	SMH			
			LDB	HSM	10-10-62	

FEDERAL AID ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11F	VERMILION		2
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11B	VERMILION		34-A
FEDERAL AID DISTRICT NO. 7	ILLINOIS	FINAL		

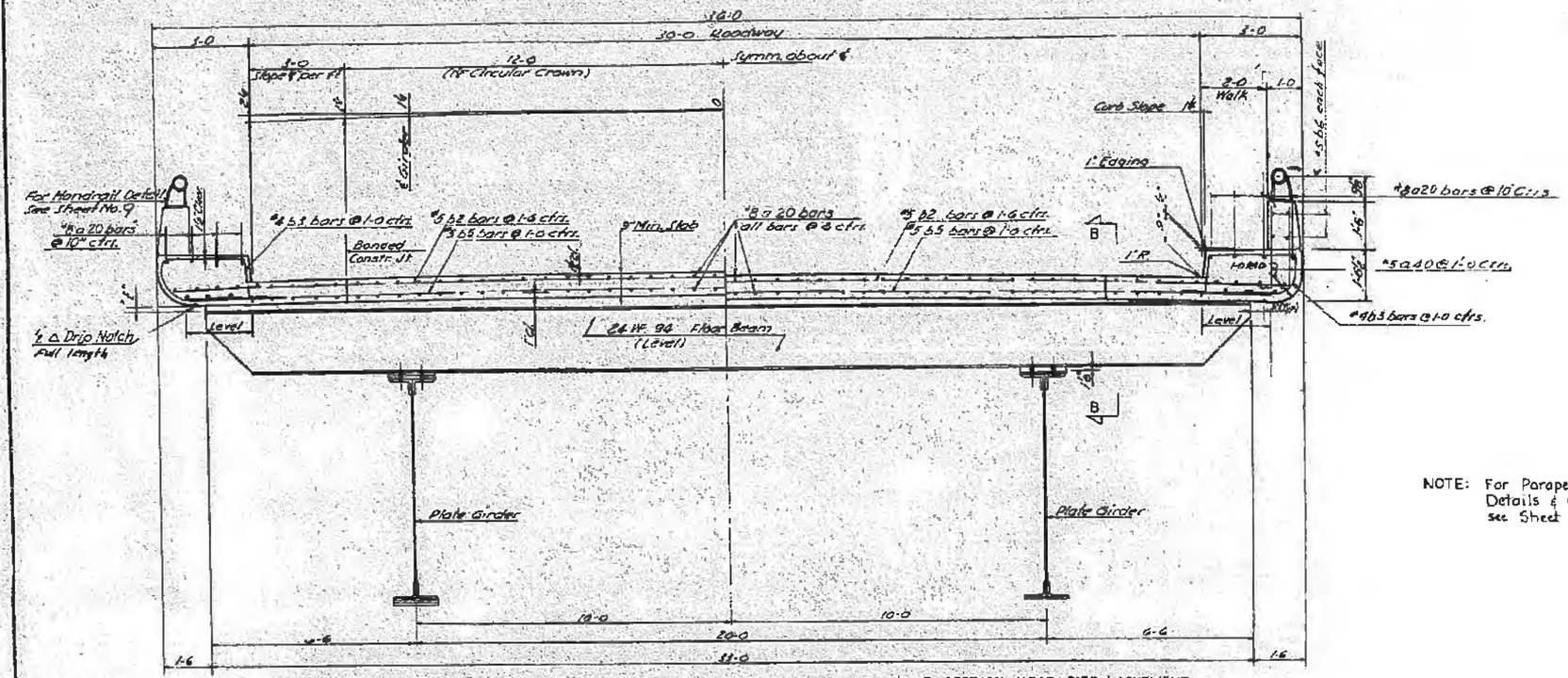
BAR SCHEDULE

Bar	No	Size	Length	Spacing	Shape
a 20	684	8	33'-0	As Shown	
a 40	872	5	3'-0	As Shown	
b 2	128	5	35'-3	1'-6	
b 3	384	4	8'-2	1'-0	
b 5	188	5	34'-3	1'-0	
b 6	128	5	11'-6	As Shown	

SUPERSTRUCTURE QUANTITIES	
Class X Concrete	244.4 Cu. Yds.
Reinforcement Bars	78,950 Lbs.

Note. Quantities shown are for both structures, Span No. 1-A

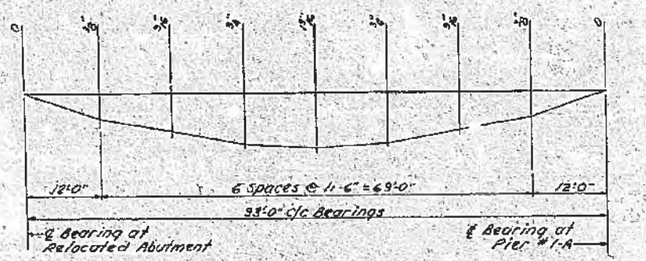
NOTE: For Parapet Handrail Details & Quantities see Sheet No. 9



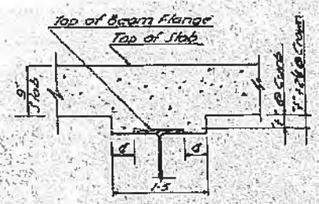
HALF SECTION AT CENTER OF SPAN

TYPICAL SECTION

HALF SECTION NEAR PIER & ABUTMENT

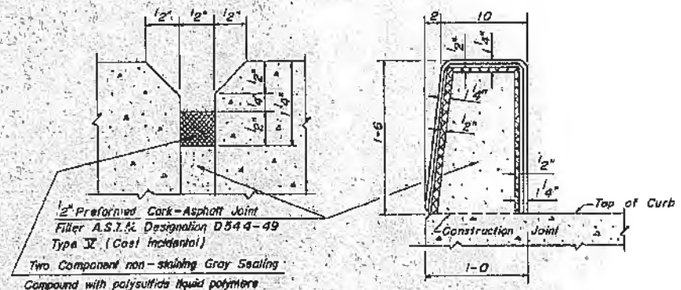


SLAB DEAD LOAD DEFLECTION

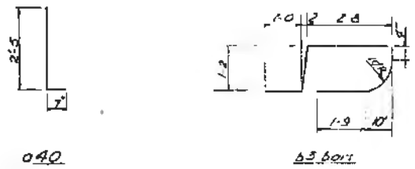


METHOD FOR DETERMINING FILLET HEIGHTS "T"

Elevation of the top flanges of each Floor Beam shall be taken after all structural steel has been erected. From these elevations subtract the increment of deflection for these points, determined from the slab D.L. deflection diagram. The elevations so obtained subtracted from the theoretical grade elevations, minus 11¼" (Slab 9" + Crown 2½") equals the fillet height "T" at the curb. The fillet height @ ℄ Roadway equals "T" + 2½" Crown.



DETAIL OF JOINT IN PARAPET WALL



BENDING DIAGRAM
(All Bar dimensions are out to out)

AS BUILT

RELOCATED WEST ABUTMENT

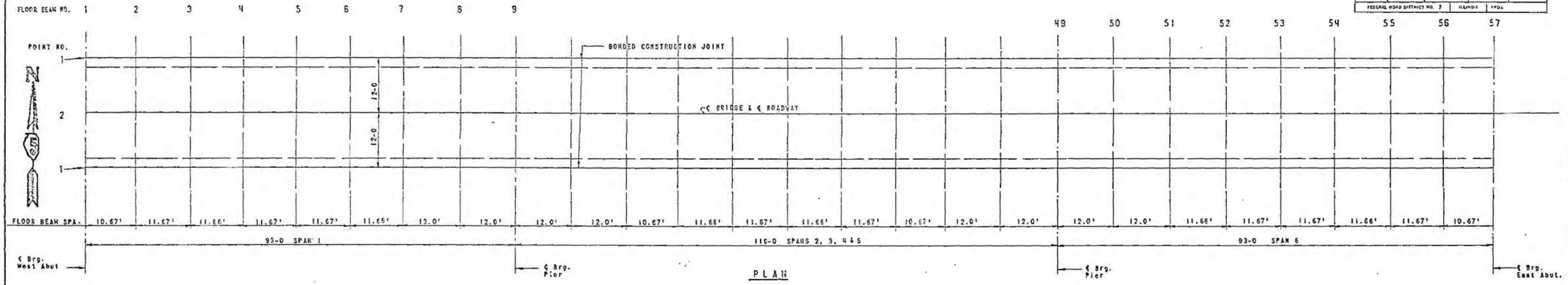
CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
FAI RT 74 BRIDGE OVER VERMILION RIVER
FAI-74 SECTION 92-11B,11F
VERMILION COUNTY STA. 1755+16

SUPERSTRUCTURE DETAILS

DESIGNED	DRAWN	TRACED	CHECKED	REVISED	DATE	APPROVED
JMH	JT	MES	JMH LDB	HSM 12-3-62		

F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11B	VERMILION	53	35
FEDERAL ROAD DISTRICT NO. 7	ILLINOIS	FED.AID PROJ.		



PLAN

SPAN 1

FLOOR BEAM NO.	POINT NO.	STATION	ELEVATION THEOR.	ELEVATION ADJUSTED
1.	1	175191.000	610.071	610.071
	2	175191.000	610.196	610.196
2.	1	175201.670	609.814	609.830
	2	175201.670	609.939	609.955
3.	1	175213.336	609.538	609.565
	2	175213.336	609.650	609.690
4.	1	175225.002	609.254	609.290
	2	175225.002	609.379	609.421
5.	1	175236.668	608.974	609.011
	2	175236.668	609.099	609.136
6.	1	175248.334	608.694	608.725
	2	175248.334	608.819	608.850
7.	1	175260.000	608.415	608.431
	2	175260.000	608.540	608.556
8.	1	175272.000	608.127	608.132
	2	175272.000	608.252	608.257
℄ Brg. Pier 41 9.	1	175284.000	607.836	607.839
	2	175284.000	607.964	607.964

SPAN 2

FLOOR BEAM NO.	POINT NO.	STATION	ELEVATION THEOR.	ELEVATION ADJUSTED
10.	1	175296.000	607.551	607.556
	2	175296.000	607.676	607.681
11.	1	175308.000	607.263	607.279
	2	175308.000	607.388	607.404
12.	1	175318.666	607.006	607.032
	2	175318.666	607.131	607.157
13.	1	175330.333	606.726	606.763
	2	175330.333	606.851	606.888
14.	1	175342.000	606.446	606.488
	2	175342.000	606.571	606.613
15.	1	175353.666	606.166	606.203
	2	175353.666	606.291	606.328
16.	1	175365.333	605.886	605.912
	2	175365.333	606.011	606.037
17.	1	175376.000	605.630	605.656
	2	175376.000	605.755	605.771
18.	1	175388.000	605.352	605.387
	2	175388.000	605.467	605.472
℄ Brg. Pier 42 19.	1	175400.000	605.054	605.054
	2	175400.000	605.179	605.179

SPAN 3

FLOOR BEAM NO.	POINT NO.	STATION	ELEVATION THEOR.	ELEVATION ADJUSTED
20.	1	175412.000	604.766	604.771
	2	175412.000	604.891	604.896
21.	1	175424.000	604.478	604.494
	2	175424.000	604.603	604.619
22.	1	175434.666	604.223	604.249
	2	175434.666	604.348	604.374
23.	1	175446.333	603.943	603.980
	2	175446.333	604.068	604.105
24.	1	175458.000	603.663	603.705
	2	175458.000	603.788	603.830
25.	1	175469.666	603.383	603.420
	2	175469.666	603.508	603.545
26.	1	175481.333	603.103	603.129
	2	175481.333	603.228	603.254
27.	1	175492.000	602.847	602.863
	2	175492.000	602.972	602.988
28.	1	175504.000	602.559	602.564
	2	175504.000	602.684	602.689
℄ Brg. Pier 43 29.	1	175516.000	602.271	602.271
	2	175516.000	602.396	602.396

SPAN 4

FLOOR BEAM NO.	POINT NO.	STATION	ELEVATION THEOR.	ELEVATION ADJUSTED
30.	1	175528.000	601.983	601.938
	2	175528.000	602.108	602.113
31.	1	175540.000	601.695	601.711
	2	175540.000	601.820	601.836
32.	1	175550.666	601.439	601.465
	2	175550.666	601.564	601.590
33.	1	175562.333	601.159	601.196
	2	175562.333	601.284	601.321
34.	1	175574.000	600.879	600.921
	2	175574.000	601.004	601.046
35.	1	175585.666	600.599	600.636
	2	175585.666	600.724	600.761
36.	1	175597.333	600.319	600.345
	2	175597.333	600.444	600.470
37.	1	175608.000	600.063	600.079
	2	175608.000	600.188	600.204
38.	1	175620.000	599.775	599.780
	2	175620.000	599.900	599.905
℄ Brg. Pier 44 39	1	175632.000	599.487	599.487
	2	175632.000	599.612	599.612

SPAN 5

FLOOR BEAM NO.	POINT NO.	STATION	ELEVATION THEOR.	ELEVATION ADJUSTED
40.	1	175644.000	599.189	599.206
	2	175644.000	599.324	599.329
41.	1	175656.000	598.911	598.927
	2	175656.000	599.036	599.052
42.	1	175666.666	598.655	598.661
	2	175666.666	598.780	598.806
43.	1	175678.333	598.375	598.412
	2	175678.333	598.500	598.537
44.	1	175690.000	598.095	598.137
	2	175690.000	598.220	598.262
45.	1	175701.666	597.815	597.852
	2	175701.666	597.940	597.977
46.	1	175713.333	597.535	597.561
	2	175713.333	597.660	597.686
47.	1	175724.000	597.279	597.295
	2	175724.000	597.404	597.420
48.	1	175736.000	596.991	596.996
	2	175736.000	597.116	597.121
℄ Brg. Pier 45 49.	1	175748.000	596.703	596.703
	2	175748.000	596.828	596.828

SPAN 6

FLOOR BEAM NO.	POINT NO.	STATION	ELEVATION THEOR.	ELEVATION ADJUSTED
50.	1	175760.000	596.415	596.420
	2	175760.000	596.540	596.545
51.	1	175772.000	596.127	596.143
	2	175772.000	596.252	596.268
52.	1	175783.666	595.847	595.878
	2	175783.666	595.972	595.003
53.	1	175795.333	595.567	595.604
	2	175695.333	595.692	595.729
54.	1	175807.000	595.287	595.329
	2	175807.000	595.412	595.454
55.	1	175818.666	595.007	595.038
	2	175818.666	595.132	595.163
56.	1	175830.333	594.727	594.742
	2	175830.333	594.852	594.868
57.	1	175841.000	594.471	594.471
	2	175841.000	594.596	594.596

NOTES: 1. THEORETICAL ELEVATION IS THE THEORETICAL TOP OF SLAB ELEVATION.

2. ADJUSTED ELEVATION IS THE THEORETICAL TOP OF SLAB ELEVATION ADJUSTED FOR THE CONCRETE DEAD LOAD DEFLECTION.

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS

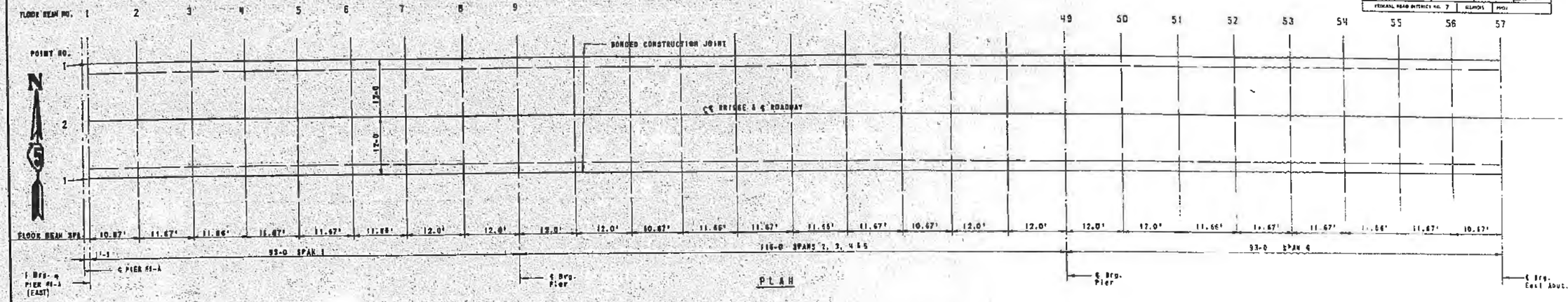
FAI RT. 74 BRIDGE OVER VERMILION RIVER
FAI-74 SECTION 92-11B

VERMILION COUNTY STA. 1755+15

DECK SLAB ELEVATIONS

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
		JCS	LDB	HSM	3-24-61	

F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11B 1	VERMILION		35-A
FEDERAL ROAD DISTRICT NO. 7	ILLINOIS	PROJ.		



PLAN

SPAN 1

FLOOR BEAM NO.	POINT NO.	STATION	ELEVATION THEOR.	ELEVATION ADJUSTED
1.	1	175195.000	610.071	610.071
	2	175191.000	610.106	610.106
2.	1	175201.670	609.814	609.830
	2	175201.670	609.939	609.955
3.	1	175213.336	609.534	609.565
	2	175213.336	609.659	609.690
4.	1	175225.002	609.259	609.296
	2	175225.002	609.379	609.426
5.	1	175236.668	608.979	609.011
	2	175236.668	609.099	609.136
6.	1	175248.334	608.694	608.725
	2	175248.334	608.819	608.850
7.	1	175260.000	608.415	608.491
	2	175260.000	608.540	608.596
8.	1	175272.000	608.127	608.132
	2	175272.000	608.252	608.157
℄ Brg. Pier #1	1	175284.000	607.839	607.839
9.	2	175284.000	607.964	607.964

SPAN 2

FLOOR BEAM NO.	POINT NO.	STATION	ELEVATION THEOR.	ELEVATION ADJUSTED
10.	1	175286.000	607.551	607.556
	2	175286.000	607.676	607.681
11.	1	175308.000	607.263	607.279
	2	175308.000	607.388	607.404
12.	1	175318.666	607.068	607.032
	2	175318.666	607.211	607.157
13.	1	175330.333	606.776	606.763
	2	175330.333	606.851	606.888
14.	1	175342.000	606.466	606.486
	2	175342.000	606.571	606.613
15.	1	175353.666	606.160	606.203
	2	175353.666	606.291	606.328
16.	1	175365.333	605.884	605.912
	2	175365.333	606.011	606.037
17.	1	175376.000	605.630	605.646
	2	175376.000	605.755	605.771
18.	1	175388.000	605.392	605.387
	2	175388.000	605.487	605.472
℄ Brg. Pier #2	1	175400.000	605.054	605.054
19.	2	175400.000	605.179	605.179

SPAN 3

FLOOR BEAM NO.	POINT NO.	STATION	ELEVATION THEOR.	ELEVATION ADJUSTED
20.	1	175412.000	604.766	604.771
	2	175412.000	604.891	604.896
21.	1	175424.000	604.478	604.494
	2	175424.000	604.603	604.619
22.	1	175434.666	604.223	604.248
	2	175434.666	604.348	604.374
23.	1	175446.333	603.963	603.980
	2	175446.333	604.088	604.105
24.	1	175458.000	603.663	603.705
	2	175458.000	603.788	603.830
25.	1	175469.666	603.383	603.420
	2	175469.666	603.508	603.545
26.	1	175481.333	603.103	603.129
	2	175481.333	603.228	603.254
27.	1	175492.000	602.847	602.869
	2	175492.000	602.972	602.988
28.	1	175504.000	602.559	602.564
	2	175504.000	602.684	602.689
℄ Brg. Pier #3	1	175516.000	602.271	602.271
29.	2	175516.000	602.396	602.396

SPAN 4

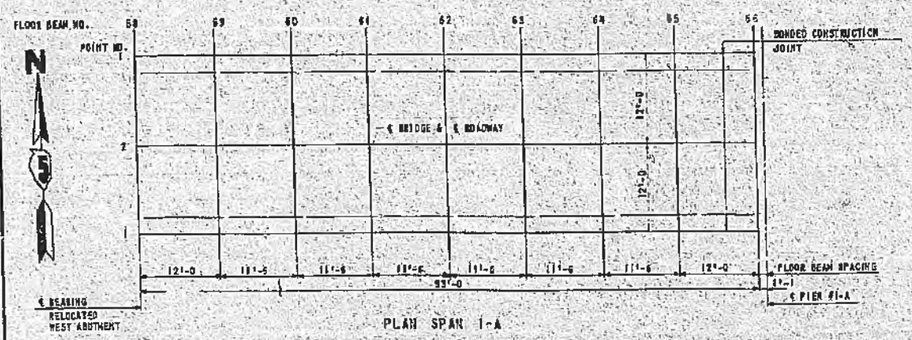
FLOOR BEAM NO.	POINT NO.	STATION	ELEVATION THEOR.	ELEVATION ADJUSTED
30.	1	175528.000	601.963	601.988
	2	175528.000	602.108	602.113
31.	1	175540.000	601.695	601.711
	2	175540.000	601.820	601.836
32.	1	175550.666	601.439	601.415
	2	175550.666	601.564	601.580
33.	1	175562.333	601.150	601.196
	2	175562.333	601.284	601.321
34.	1	175574.000	600.873	600.821
	2	175574.000	601.004	601.045
35.	1	175585.666	600.599	600.636
	2	175585.666	600.724	600.761
36.	1	175597.333	600.349	600.395
	2	175597.333	600.488	600.470
37.	1	175608.000	600.063	600.079
	2	175608.000	600.188	600.204
℄ Brg. Pier #4	1	175620.000	599.775	599.780
38.	2	175620.000	599.900	599.905
	1	175632.000	599.487	599.487
	2	175632.000	599.612	599.612

SPAN 5

FLOOR BEAM NO.	POINT NO.	STATION	ELEVATION THEOR.	ELEVATION ADJUSTED
40.	1	175643.000	599.199	599.204
	2	175643.000	599.324	599.329
41.	1	175656.000	598.911	598.927
	2	175656.000	599.036	599.052
42.	1	175666.666	598.655	598.681
	2	175666.666	598.780	598.806
43.	1	175678.333	598.375	598.412
	2	175678.333	598.500	598.537
44.	1	175690.000	598.095	598.137
	2	175690.000	598.220	598.262
45.	1	175701.666	597.815	597.852
	2	175701.666	597.940	597.977
46.	1	175713.333	597.595	597.568
	2	175713.333	597.660	597.586
47.	1	175728.000	597.229	597.295
	2	175728.000	597.304	597.420
48.	1	175736.000	596.984	596.936
	2	175736.000	597.184	597.221
℄ Brg. Pier #5	1	175748.000	596.701	596.703
49.	2	175748.000	596.826	596.826

SPAN 6

FLOOR BEAM NO.	POINT NO.	STATION	ELEVATION THEOR.	ELEVATION ADJUSTED
50.	1	175760.000	596.415	596.420
	2	175760.000	596.540	596.545
51.	1	175772.000	596.127	596.143
	2	175772.000	596.252	596.268
52.	1	175783.666	595.847	595.878
	2	175783.666	595.972	595.003
53.	1	175795.333	595.567	595.609
	2	175795.333	595.692	595.728
54.	1	175807.000	595.287	595.326
	2	175807.000	595.412	595.454
55.	1	175818.666	595.007	595.038
	2	175818.666	595.132	595.163
56.	1	175830.333	594.727	594.782
	2	175830.333	594.852	594.858
57.	1	175841.000	594.471	594.471
	2	175841.000	594.596	594.596



PLAN SPAN 1-A

FLOOR BEAM NO.	POINT NO.	STATION	ELEVATION THEOR.	ELEVATION ADJUSTED
58.	1	1750+95.83	612.355	612.365
	2	1750+95.83	612.480	612.480
59.	1	1750+07.83	612.067	612.095
	2	1750+07.83	612.192	612.220
60.	1	1749+19.83	611.781	611.840
	2	1749+19.83	611.906	611.965
61.	1	1748+30.83	611.515	611.577
	2	1748+30.83	611.640	611.702
62.	1	1747+41.33	611.239	611.306
	2	1747+42.39	611.369	611.431
63.	1	1746+53.83	610.989	611.025
	2	1746+53.83	611.089	611.152
64.	1	1745+65.33	610.667	610.736
	2	1745+65.33	610.842	610.861
65.	1	1744+76.83	610.411	610.439
	2	1744+76.88	610.536	610.564
66.	1	1743+88.83	610.123	610.123
	2	1743+88.83	610.248	610.248

AS BUILT

HOTE: FLOOR BEAM NO. 58 = ℄ BEARING AT RELOCATED WEST ABUTMENTS.
FLOOR BEAM NO. 66 = ℄ WEST BEARING AT PIER #1-A.

NOTES:
1. THEORETICAL ELEVATION IS THE THEORETICAL TOP OF SLAB ELEVATION.
2. ADJUSTED ELEVATION IS THE THEORETICAL TOP OF SLAB ELEVATION ADJUSTED FOR THE CONCRETE DEAD LOAD DEFLECTION.

RELOCATED WEST ABUTMENT

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

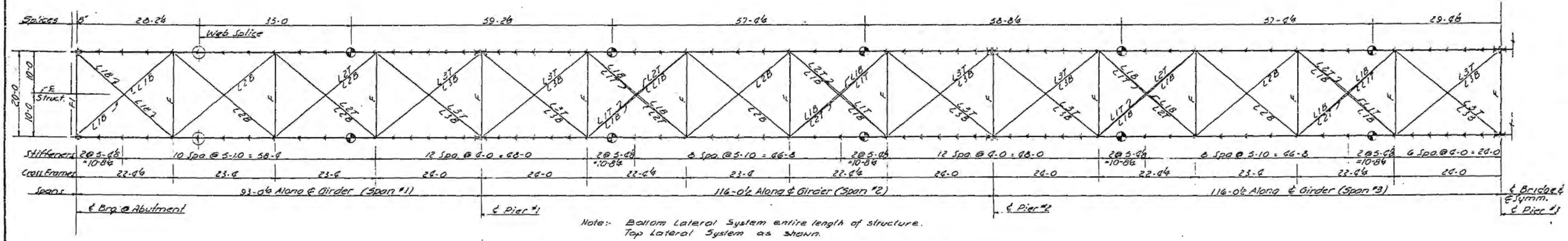
ILLINOIS DIVISION OF HIGHWAYS
FAI RT. 74 BRIDGE OVER VERMILION RIVER
FAI-74 SECTION 92-11B
VERMILION COUNTY STA 1755+16

DECK SLAB ELEVATIONS

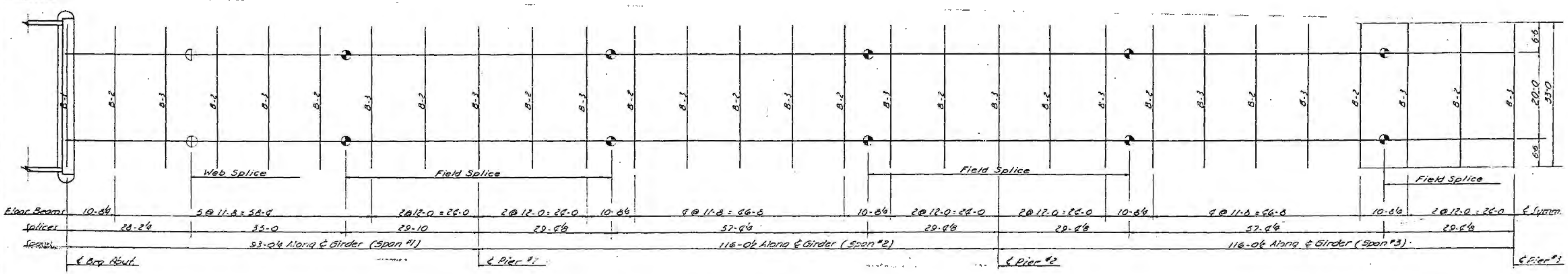
DESIGNED	DRAWN	TRACED	CHECKED	REVISED	DATE	FILE NO.
ST		JCS	LDB	HSM 12-3-62		

F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11 B	VERMILION	93	36
FEDERAL ROAD DISTRICT NO. 7		ILLINOIS	FED.	

FEDERAL AID ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11F	VERMILION	13	7



LAYOUT GIRDERS, STIFFENERS, CROSS FRAMES & LATERAL BRACING



LAYOUT GIRDERS, SPLICES & FLOOR BEAMS

PLATE GIRDER ELEVATION

AT TOP FLANGE BACK OF ANGLES

LOCATION	ELEVATION
℄ Brg. West Abut.	607.071
Field Splice	605.555
℄ Brg. Pier #1	604.639
Field Splice	604.135
Field Splice	602.758
℄ Brg. Pier #2	602.059
Field Splice	601.350
Field Splice	599.975
℄ Brg. Pier #3	599.271
Field Splice	598.567
Field Splice	597.191
℄ Brg. Pier #4	596.487
Field Splice	595.783
Field Splice	594.407
℄ Brg. Pier #5	593.703
Field Splice	592.967
℄ Brg. East Abut.	591.471

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS

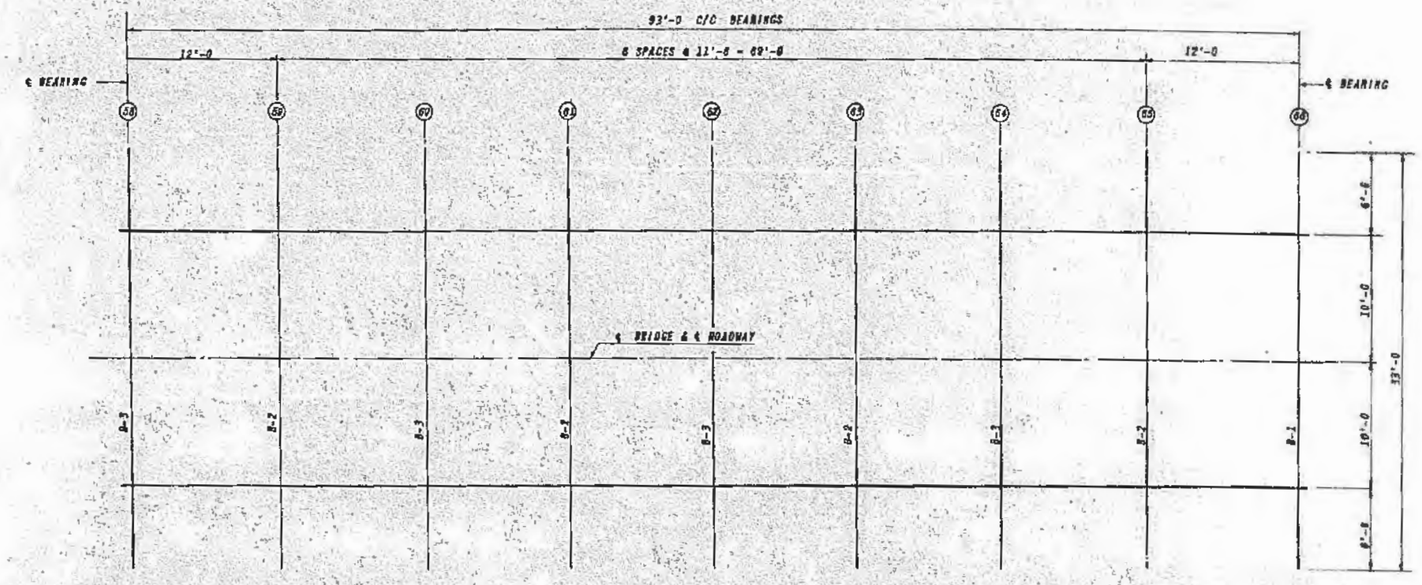
FAI RT.74 BRIDGE OVER VERMILION RIVER
FAI-74 SECTION 92-11 B, 11F
VERMILION COUNTY STA. 1755+16

STRUCTURAL STEEL-FRAMING PLAN

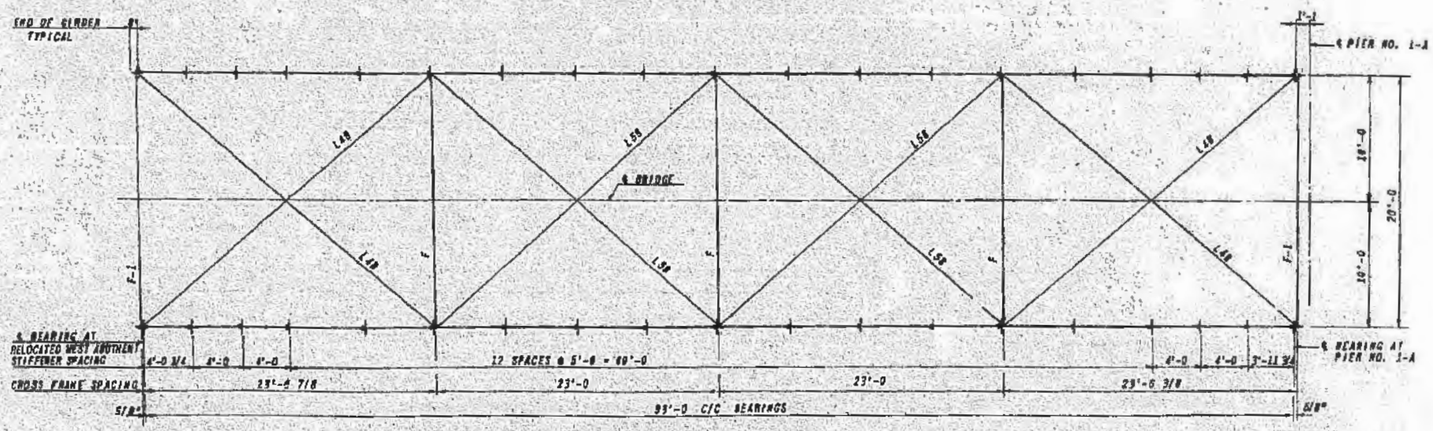
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
S.H.	J.A.H.	W.E.S.	LDB	HSM	10-10-60	

F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11 B	VERMILION		32
FEDERAL ROAD DISTRICT NO.		ILLINOIS	FED.	

74	92-8F	VERMILION



LAYOUT GIRDERS & FLOOR BEAMS



LAYOUT GIRDERS, STIFFENERS, CROSSFRAMES & LATERAL BRACING

~AS BUILT~

RELOCATED WEST ABUTMENT

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

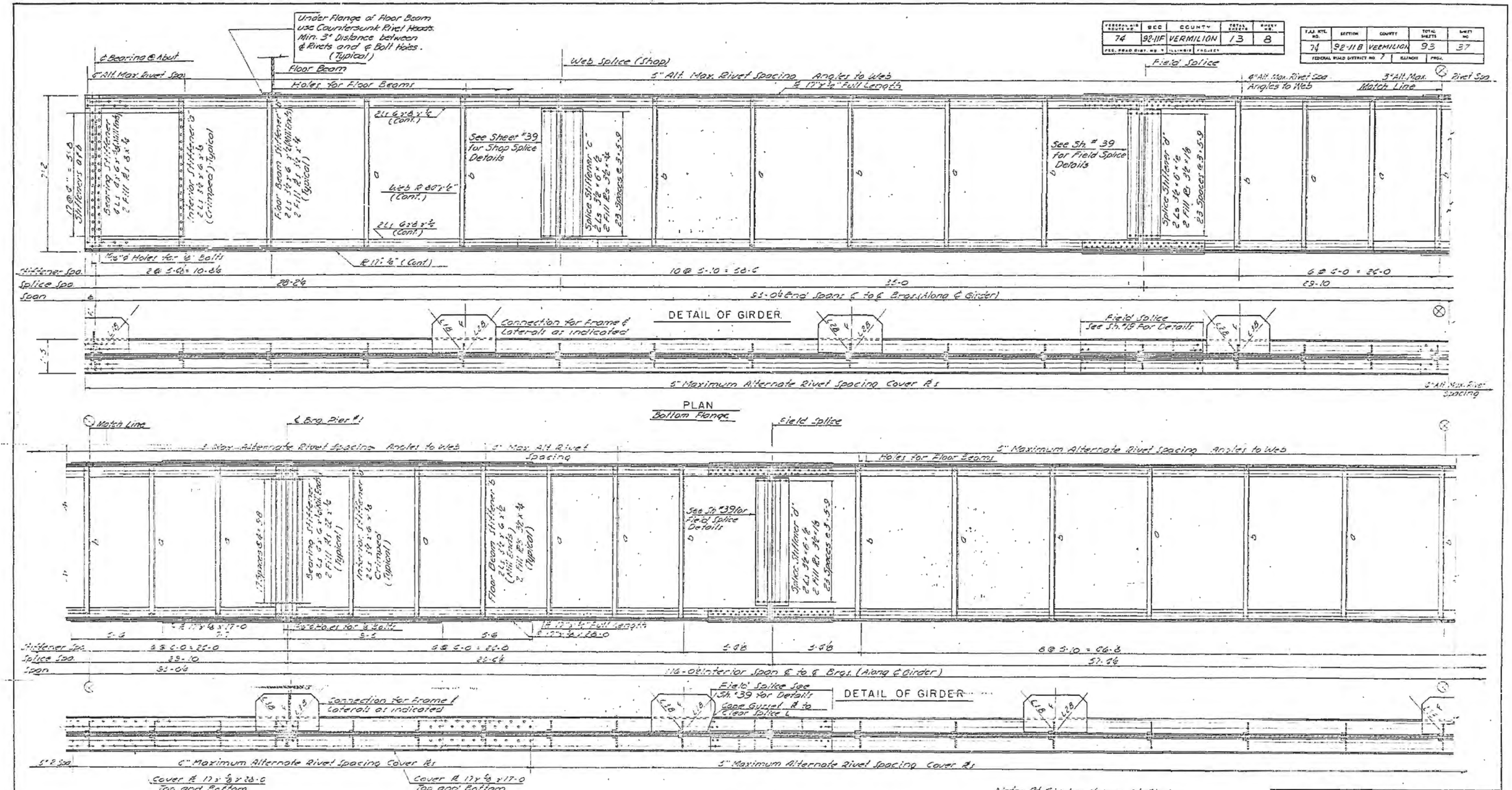
ILLINOIS DIVISION OF HIGHWAYS
F.A.I. RT. 74 BRIDGE OVER VERMILION RIVER
F.A.I-74 SECTION 92-11B
VERMILION COUNTY STA. 1755+16

FRAMING PLAN SPAN NO.1-A

DESIGNED	DRAWN	TRACED	CHECKED	REVISED - DATE	REVISED
ST	EG		LDB	HSM 12-3-62	

FEDERAL AID ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11F	VERMILION	13	8
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11B	VERMILION	93	37
FEDERAL ROAD DISTRICT NO. 7	ILLINOIS	PROJ.		



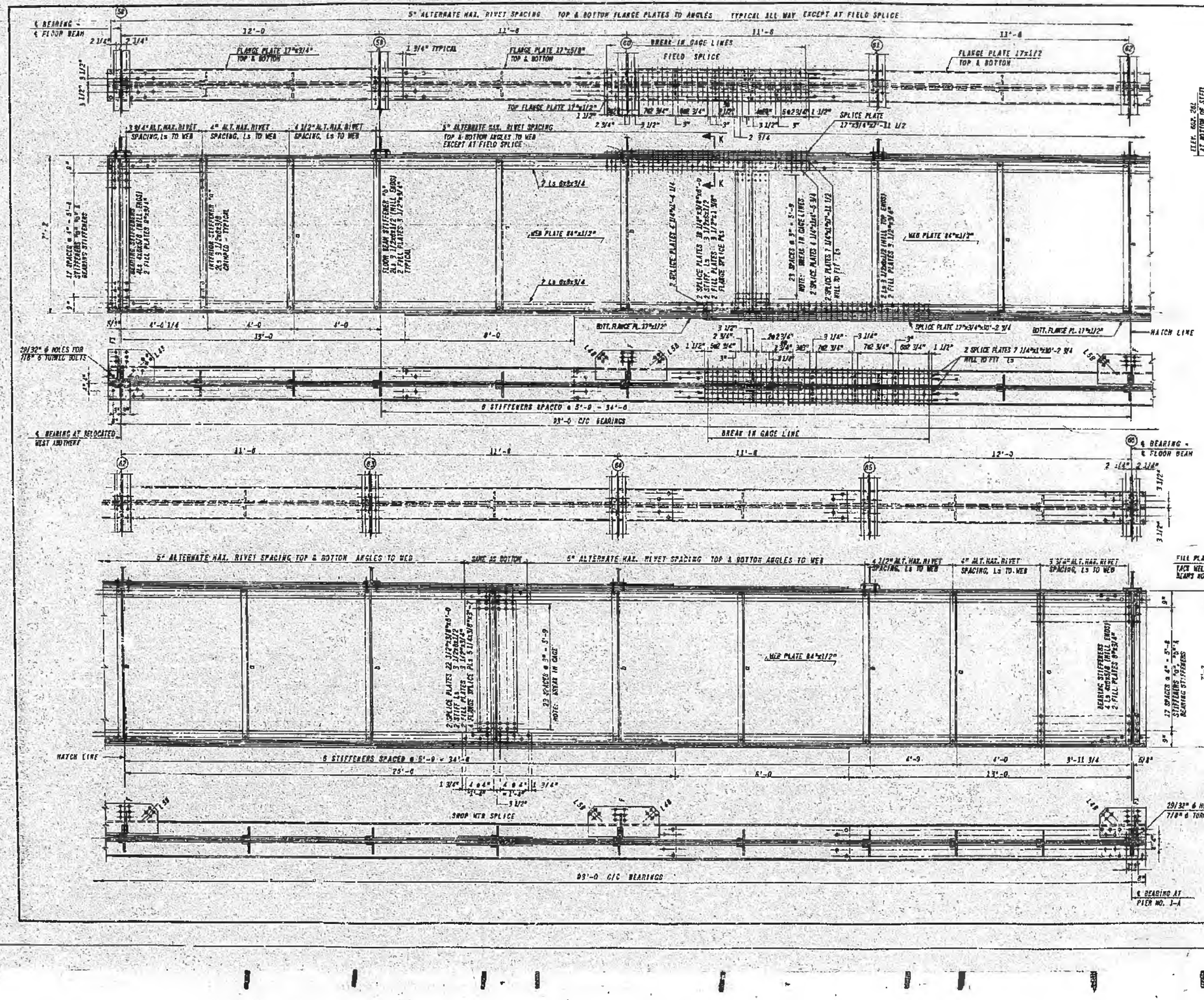
Note: Rt. Girder Shown. Lt. Girder Is Symmetrical by 180° Rotation. Use ¾" Rivets Throughout.

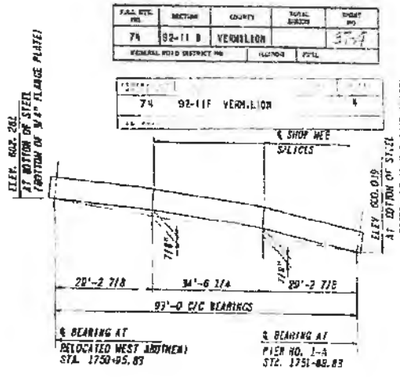
CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
FAI RT. 74 BRIDGE OVER VERMILION RIVER
FA1-74 SECTION 92-11B, IIF
VERMILION COUNTY STA. 1655+16

GIRDER DETAILS

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.H.	J.H.	J.E.L.	J.H.F. LDB	HSM	10-10-60	





CHAMBER DIAGRAM
NO SCALE

F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11 B	VERMILION		37
FEDERAL ROAD DISTRICT NO.		ILLINOIS	FISCAL	

74 92-11F VERMILION

NOTES:

ALL SHOP RIVETS SHALL BE 3/4" ø IN 13/16" ø HOLES.

FIELD SPLICE RIVETS SHALL BE 7/8" ø RIVETS.

HOLES FOR FIELD RIVETS SHALL BE SUBPUNCHED AND REAMED WHILE ASSEMBLED.

ALL UNITS THAT ARE REQUIRED TO BE SHOP ASSEMBLED FOR REAMING, SHALL BE INSPECTED BEFORE AND AFTER REAMING WHILE FULLY ASSEMBLED.

FOR SECTION K-K SEE SHEET "STRUCTURAL STEEL FRAMING DETAILS".

AS BUILT

RELOCATED WEST ABUTMENT

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

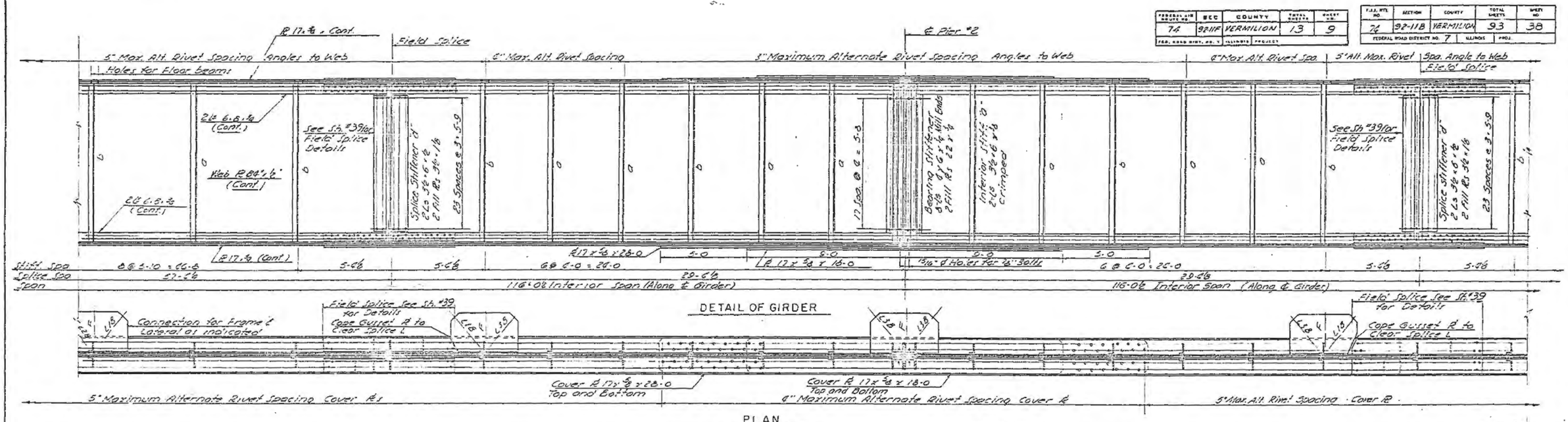
ILLINOIS DIVISION OF HIGHWAYS
F.A.I. RT. 74 BRIDGE OVER VERMILION RIVER
F.A.I.-74 SECTION 92-11B
VERMILION COUNTY STA. 1755+16

GIRDER SPAN NO. 1-A

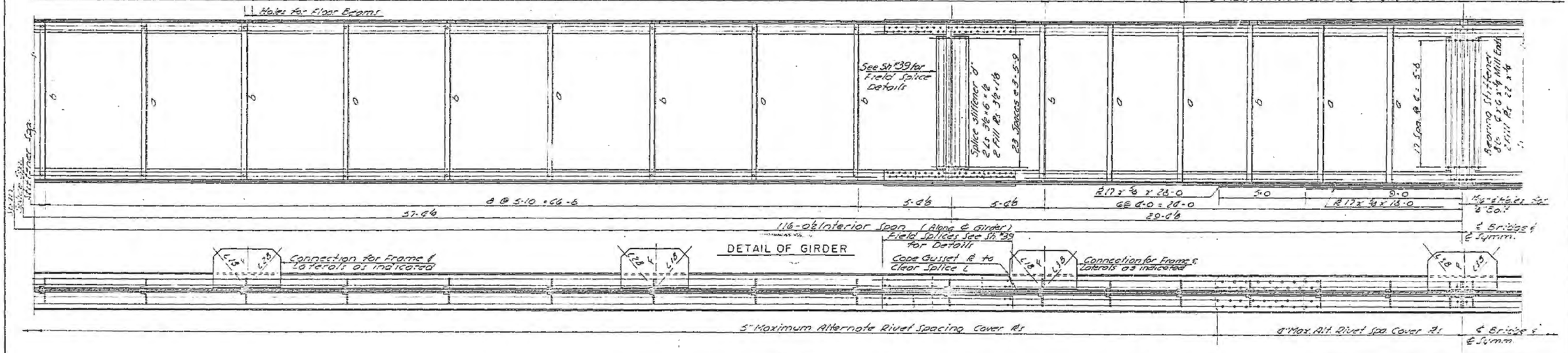
DESIGNED	DRAWN	TRACED	CHECKED	DESIGN APPD.	DATE	REVISED
ST	EG		LDB	HSM	1-7-63	

FEDERAL AID ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11F	VERMILION	13	9
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11B	VERMILION	93	38
FEDERAL ROAD DISTRICT NO. 7	ILLINOIS	PROJ.		



PLAN
Bottom Flange



PLAN
Bottom Flange

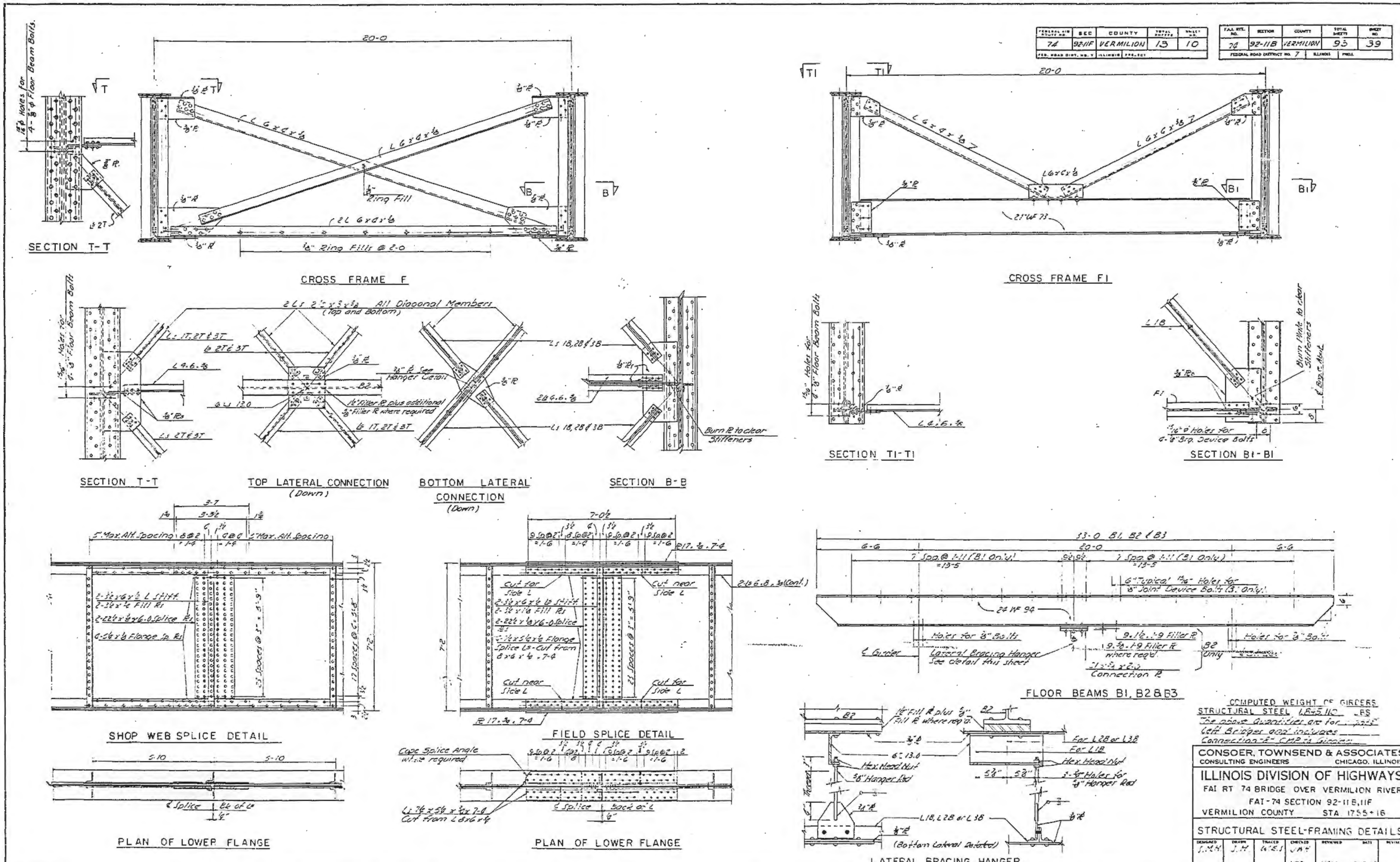
Note: Rt. Girder shown Lt. Girder is symmetrical by 180° Rotation Use ⅞" Rivets Throughout.

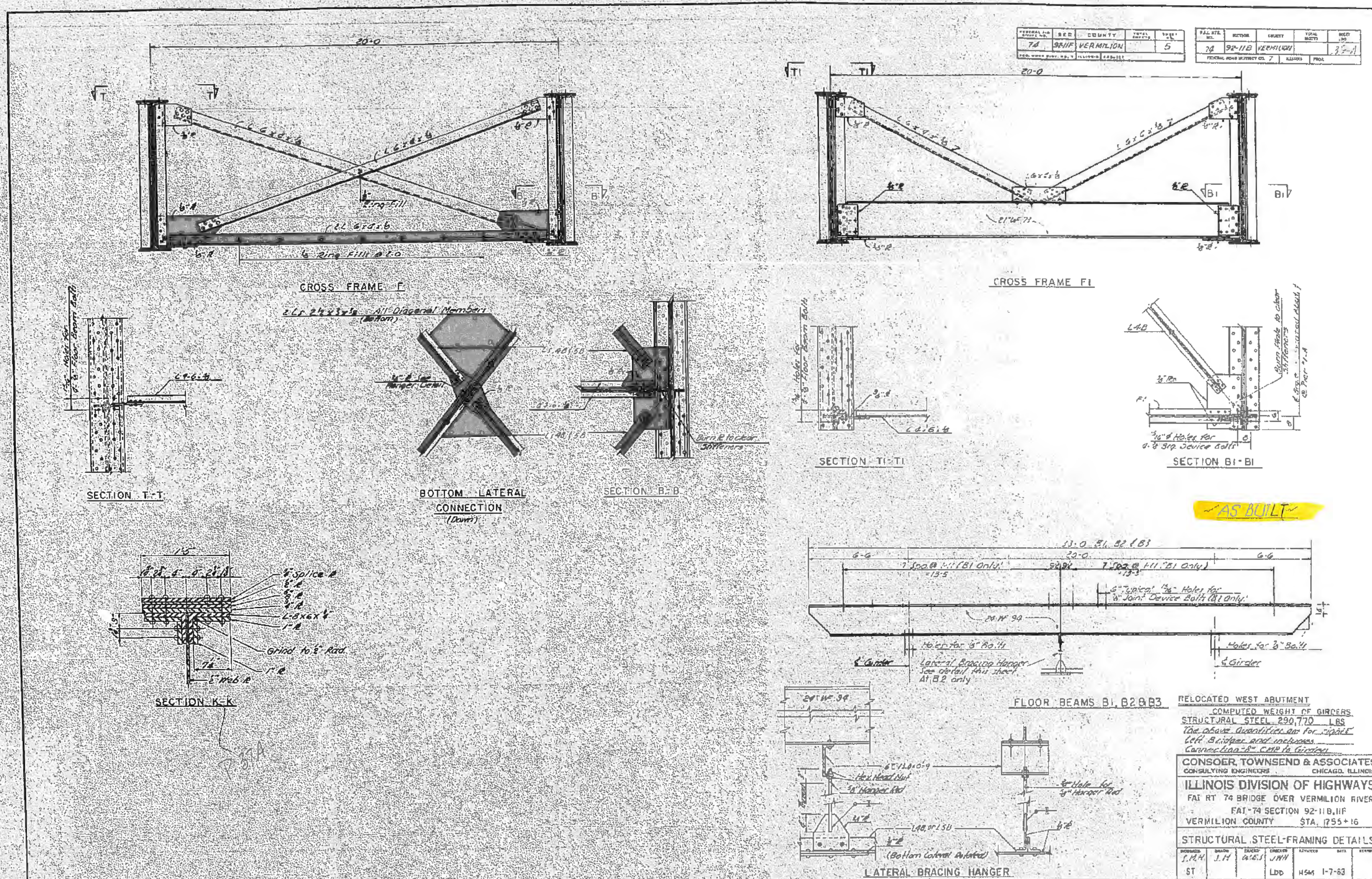
CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
FAI RT 74 BRIDGE OVER VERMILION RIVER
FAI-74 SECTION 92-11B,11F
VERMILION COUNTY STA. 1755+16

GIRDER DETAILS

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
S.N.H.	J.H.	W.E.S.	J.A.H.			
			LDB	RSM	10-10-60	

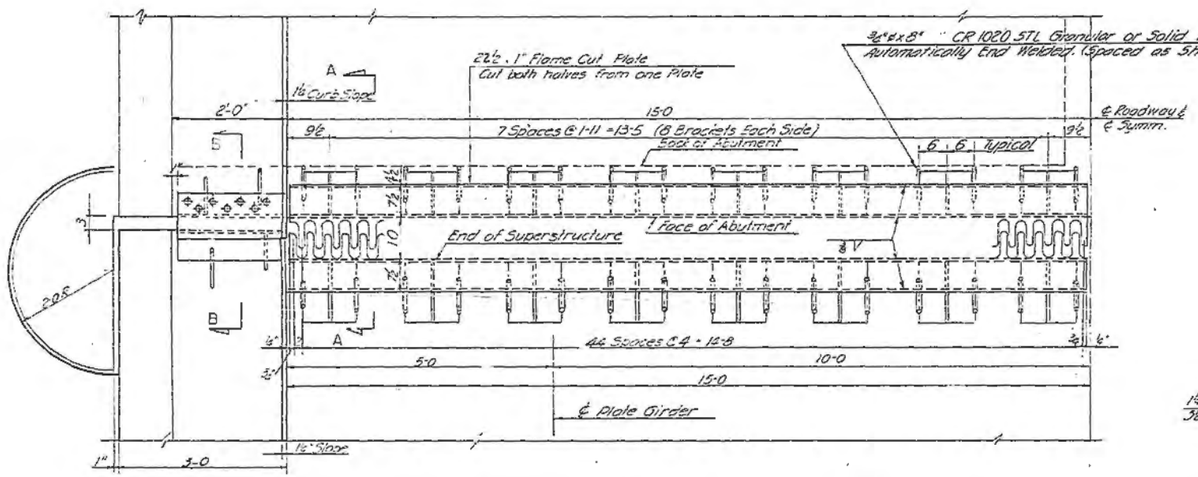

FAI RTE. NO. 74 | SEC 92-11F | COUNTY VERMILION | TOTAL SHEETS 13 | SHEET NO. 10
FAI RTE. NO. 74 | SECTION 92-11B | COUNTY VERMILION | TOTAL SHEETS 93 | SHEET NO. 39
FEDERAL ROAD DISTRICT NO. 7 | ILLINOIS
SECTION T-T
CROSS FRAME F
20-0
2L 6x4x3/8
3/8" Ring Fills @ 2-0
Ring Fill
CROSS FRAME F1
21" WF 73
SECTION T-T
TOP LATERAL CONNECTION
(Down)
2 Ls 2 1/2 x 2 1/2 x 5/16 All Diagonal Members
(Top and Bottom)
BOTTOM LATERAL CONNECTION
(Down)
SECTION B-B
Burn R to clear Stiffeners
SECTION T1-T1
SECTION B1-B1
SHOP WEB SPLICE DETAIL
FIELD SPLICE DETAIL
53-0 B1, B2 & B3
24 WF 94
Lateral Bracing Hanger See detail this sheet
Connection R
FLOOR BEAMS B1, B2 & B3
PLAN OF LOWER FLANGE
PLAN OF LOWER FLANGE
LATERAL BRACING HANGER
(Bottom Lateral Deleted)
COMPUTED WEIGHT OF GIRDERS
CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS
ILLINOIS DIVISION OF HIGHWAYS
FAI RT 74 BRIDGE OVER VERMILION RIVER
FAI-74 SECTION 92-11B, 11F
VERMILION COUNTY STA 1755+16
STRUCTURAL STEEL-FRAMING DETAILS



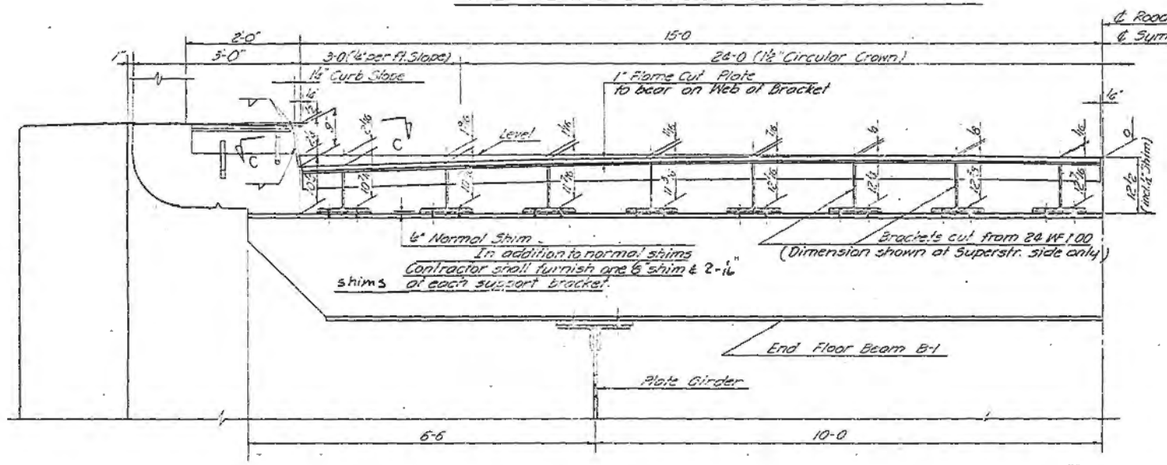
CROSS FRAME F
CROSS FRAME F1
SECTION T-T
BOTTOM LATERAL CONNECTION (Down)
SECTION B-B
SECTION T1-T1
SECTION B1-B1
SECTION K-K
FLOOR BEAMS B1, B2 & B3
LATERAL BRACING HANGER
~AS BUILT~
RELOCATED WEST ABUTMENT
COMPUTED WEIGHT OF GIRDERS
STRUCTURAL STEEL 290,770 LBS
The above quantities are for right & left Bridges and includes Connection-8" CMP to Girders
CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS
ILLINOIS DIVISION OF HIGHWAYS
FAI RT 74 BRIDGE OVER VERMILION RIVER
FAI-74 SECTION 92-11B,11F
VERMILION COUNTY STA. 1755+16
STRUCTURAL STEEL-FRAMING DETAILS
J.M.H. J.H. W.E.J. JWH
ST LDD HSM 1-7-63
74 92-11F VERMILION 5
74 92-11B VERMILION

FAI RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11B	VERMILION	93	40
FEDERAL ROAD DISTRICT NO. 7	ILLINOIS	PROJ.		

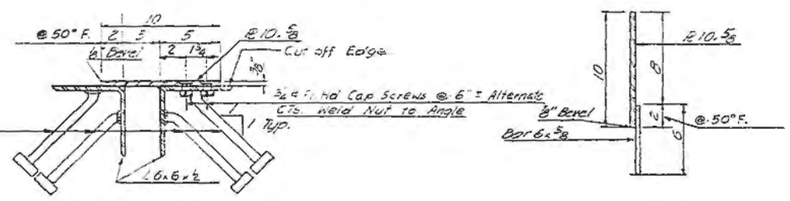
FAI RTE. NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11F	VERMILION	13	11
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		



HALF PLAN OF EXPANSION DEVICE AT WEST ABUT.



HALF ELEVATION OF EXPANSION DEVICE



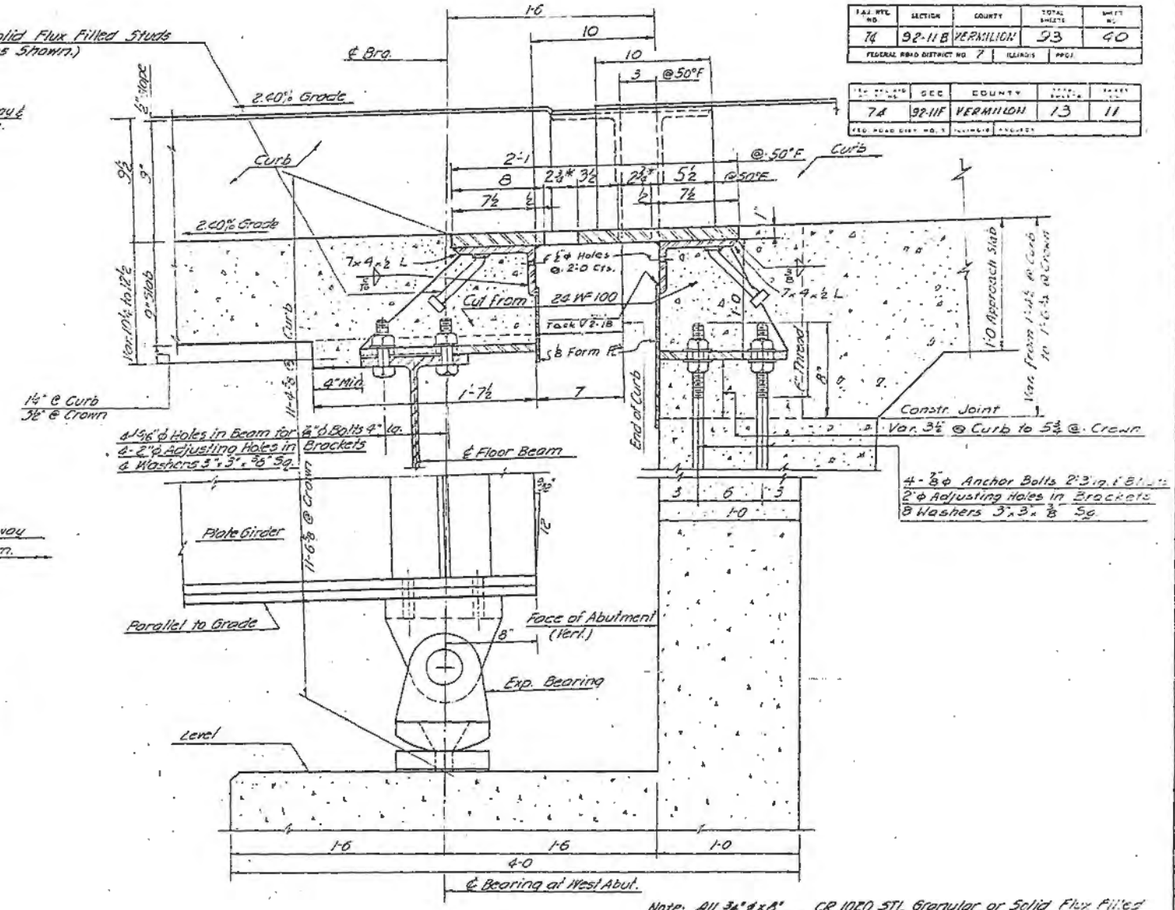
SECTION B-B

SECTION C-C

¾"ø x 8" CR 1020 STL Granular or Solid Flux Filled Studs Automatically End Welded (Alternate @ 1'-0 c/s.)

TEMPERATURE SETTING TABLE

DEG. FAHR.	EXPANS. PL. OPENING* INCHES
110°	1 7/16
100°	1 21/32
90°	1 7/8
80°	2 3/32
70°	2 5/16
60°	2 17/32
50°	2 3/4
40°	2 31/32
30°	3 3/16
20°	3 13/32
10°	3 5/8
0°	3 27/32
-10°	4 1/16



SECTION A-A

Note: All ¾"ø x 8" CR 1020 STL Granular or Solid Flux Filled Studs automatically end welded shall be included in the unit price bid for "Furnishing Structural Steel"

COMPUTED WEIGHT OF JOINT DEVICE AT WEST ABUT.

STRUCTURAL STEEL 12,470 LBS.

The above Quantities are for right & left Bridges

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

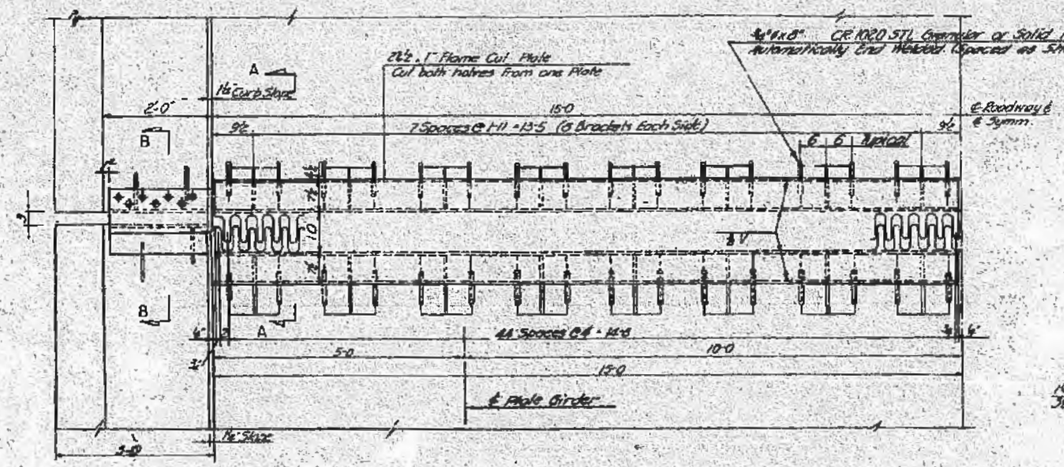
ILLINOIS DIVISION OF HIGHWAYS
FAI RT 74 BRIDGE OVER VERMILION RIVER
FAI - 74 SECTION 92-11B,11F
VERMILION COUNTY STA 1755+16

STRUCTURAL STEEL EXP JOINT DETAILS

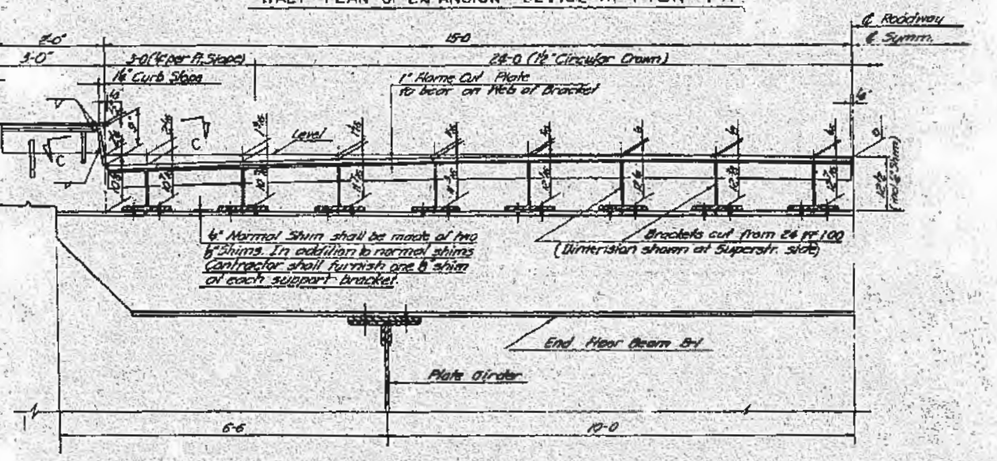
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
	J.T.	J.T.	J.M. LDB	WSM	10-12-60	

FAI RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11B	VERMILION		6A4
FEDERAL ROAD DISTRICT NO. 7	ILLINOIS	PROJ.		

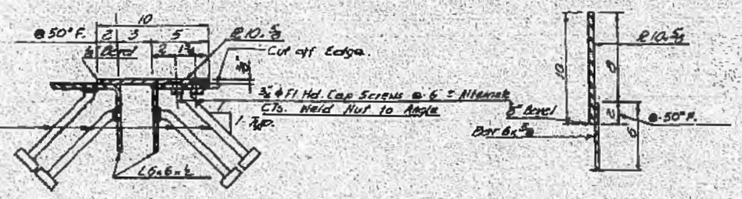
FAI ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11F	VERMILION		7
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		



HALF PLAN OF EXPANSION DEVICE AT PIER "I-A"



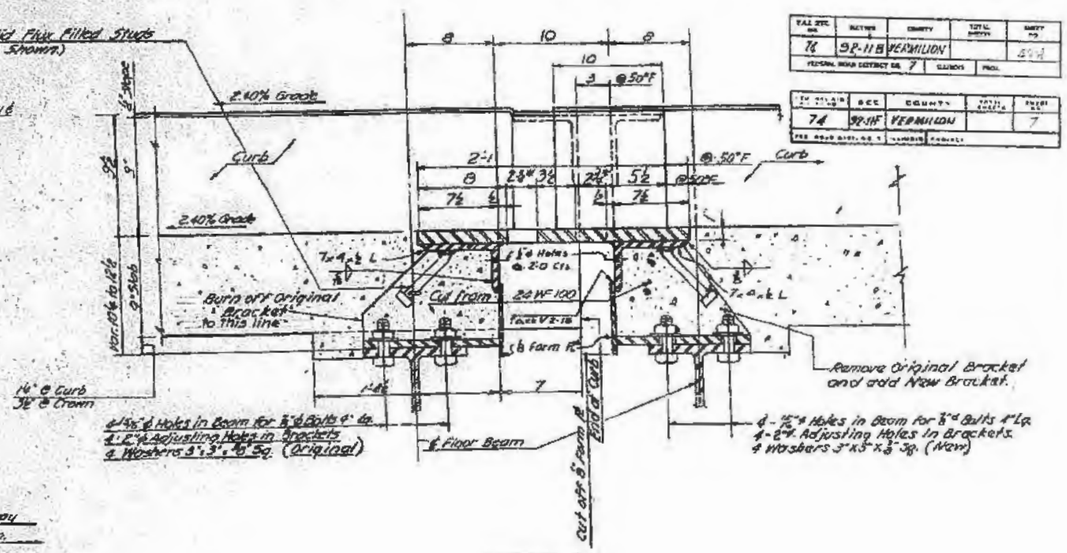
HALF ELEVATION OF EXPANSION DEVICE



SECTION B-B

SECTION C-C

¾"ø x 8" CR 1020 STL Granular or Solid Flux Filled Studs Automatically End Welded (Alternate @ 1'-0 C.C.)



SECTION A-A

TEMPERATURE SETTING TABLE

DEG. FAHR.	FINGER PL. OPENING IN INCHES
110°	1 7/16
100°	1 21/32
90°	1 7/8
80°	2 3/32
70°	2 5/16
60°	2 17/32
50°	2 3/4
40°	2 31/32
30°	3 5/16
20°	3 13/32
10°	3 5/8
0°	3 27/32
-10°	4 1/16

NOTE:

Finger joint originally shown for West Abutment shall be remodeled for Pier ℄ I-A by adjustment of 24" WF 100 brackets for attachment to superstructure steel on each side of joint.

Note. All ¾"ø x 8" CR 1020 STL Granular or Solid Flux Filled Studs automatically end welded shall be included in the unit price bid for "Furnishing Structural Steel"

AS BUILT

COMPUTED WEIGHT OF REMODELED JOINT DEVICE AT PIER "I-A". STRUCTURAL STEEL 3,640 LBS.

The above Quantities are for right & left Bridges

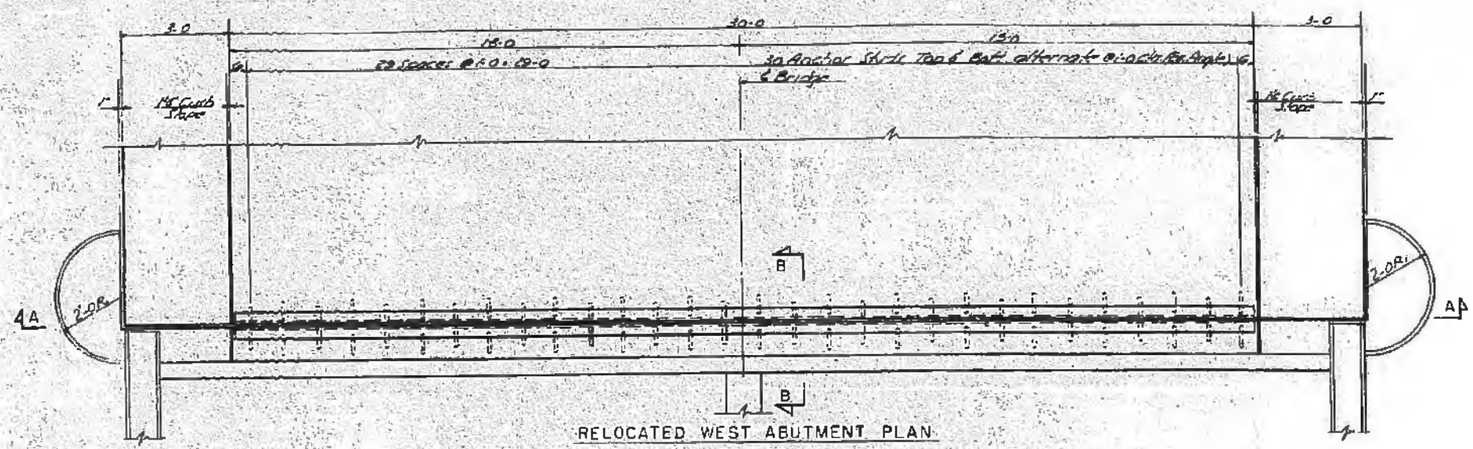
RELOCATED WEST ABUTMENT

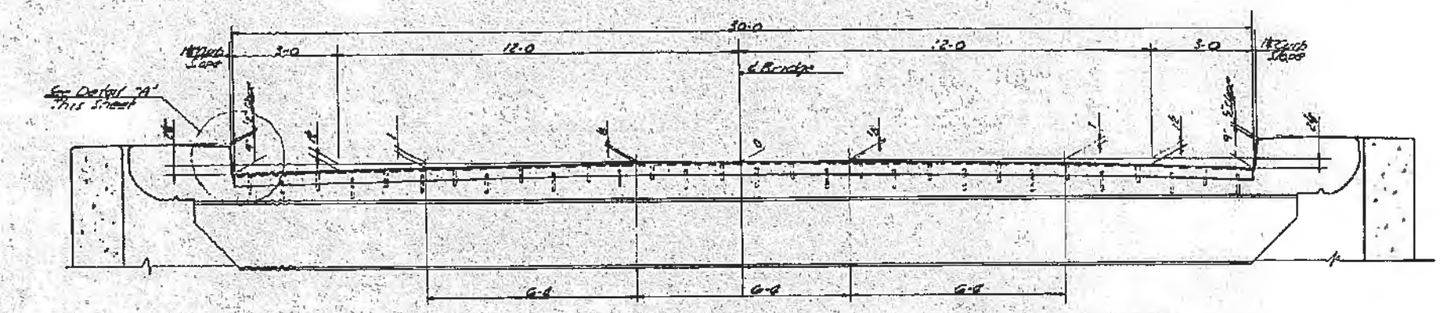
CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

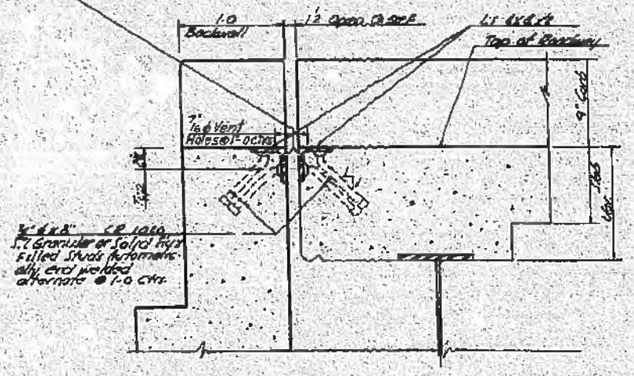
ILLINOIS DIVISION OF HIGHWAYS
FAI RT 74 BRIDGE OVER VERMILION RIVER
FAI - 74 SECTION 92-11B,11F
VERMILION COUNTY STA. 1755+16

STRUCTURAL STEEL EXP. JOINT DETAILS

CHECKED	DESIGN	TRACED	CHECKED	REVISED	DATE	REVISED
	J.T.	J.T.	J.H.			
			LDB	MSM	12-9-62	







[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
74	92-118	Vermilion		60 B
[illegible] 7	[illegible]	[illegible]		

[illegible]	SEC	COUNTY	[illegible]	[illegible]
74		Vermilion		3

RELOCATED WEST ABUTMENT PLAN

SECTION A-A

EXPANSION JOINT DEVICE

2 Required (2 Bridges)

Right Bridge Shown

Left Bridge Identical

7/16 ϕ Holes @ 12" ctrs. For 3/8" ϕ Bolts,
All Bolts Shall Be Burned, Sawed Or Clipped Off Flush
With Back Of Angles After Forms Are Removed

SECTION B-B

DETAIL "A"

SECTION C-C

~~AS BUILT~~

Note: All 1/2" ϕ x 8" CD 1020 ST Granular or Solid Flux Filled studs Automatically End Welded shall be included in the weight of Structural Steel

TOTAL COMPUTED WEIGHT OF JOINT
DEVICES AT RELOCATED WEST ABUT.
STRUCTURAL STEEL 1,686 LBS
(2 Bridges)

RELOCATED WEST ABUTMENT

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

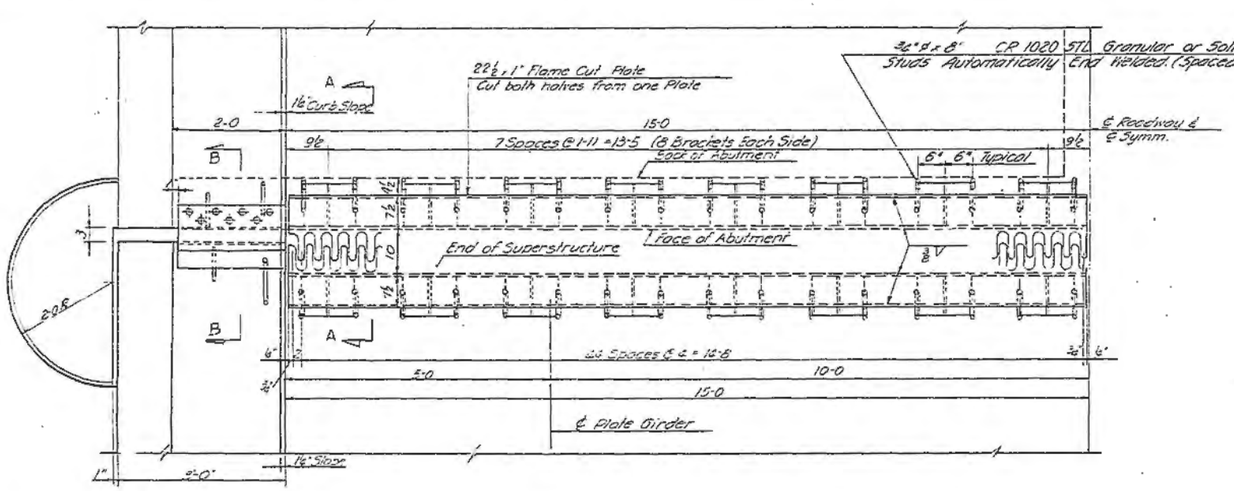
ILLINOIS DIVISION OF HIGHWAYS
F.A.I. RT. 74 BRIDGE OVER VERMILION RIVER
F.A.I.-74 SECTION 92-118.1IF
VERMILION COUNTY STA. 1755+16

STRUCTURAL STEEL JOINT DETAILS

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			LDB	H.S.M. 12-3-62	

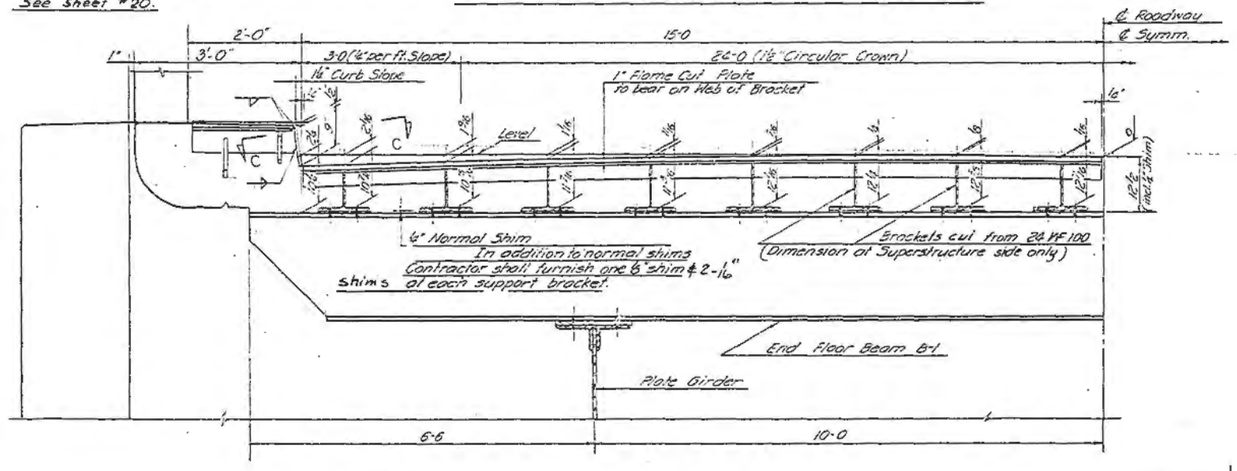
FAI RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
74	92-118	VERMILION	93	41
FEDERAL ROAD DISTRICT NO. 7	ILLINOIS	PROJ.		

FEDERAL AID ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO
74	92-11F	VERMILION	13	12
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

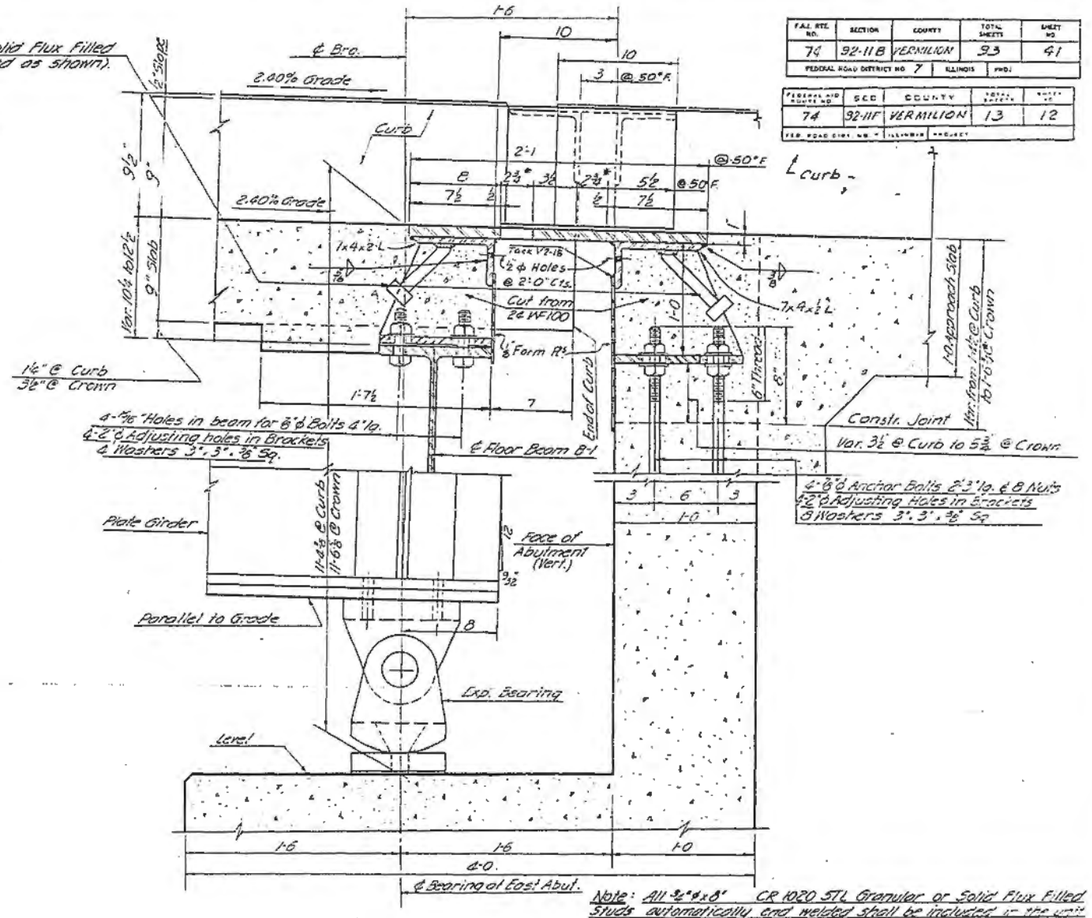


For Section B-B & C-C See Sheet #20.

HALF PLAN OF EXPANSION DEVICE AT EAST ABUT.

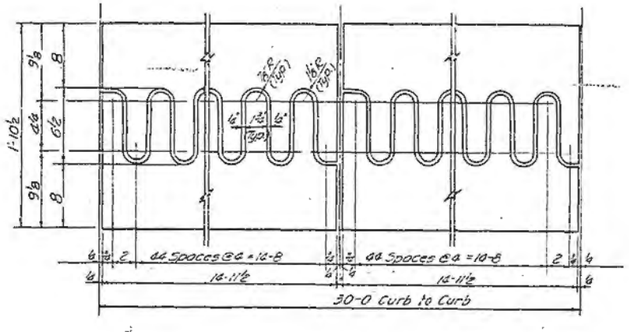


HALF ELEVATION OF EXPANSION DEVICE



SECTION A-A

Note: All ¾"ø x 8" CR 1020 STL Granular or Solid Flux Filled Studs automatically end welded shall be included in the unit price bid for "Furnishing Structural Steel"



DETAIL OF FLAME CUT PLATE

Plates shall be matched marked

COMPUTED WEIGHT OF JOINT DEVICE AT EAST ABUT

STRUCTURAL STEEL 11,740 LBS.

The above Quantities are for right & left Bridges

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS

FAI RT 74 BRIDGE OVER VERMILION RIVER

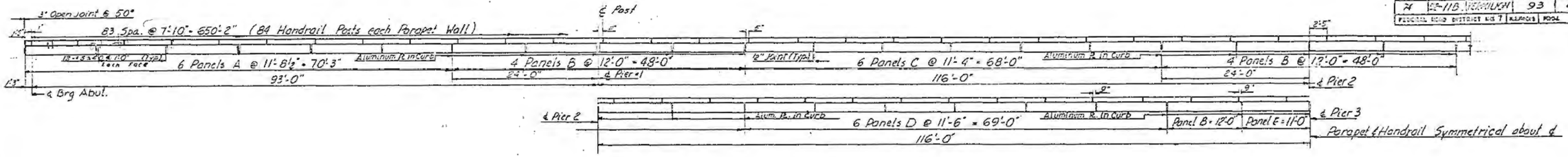
FAI - 74 SECTION 92-11B, 11F

VERMILION COUNTY STA. 1755+16

STRUCTURAL STEEL EXP. JOINT DETAILS

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
	J.T.	J.T.	J.H.			
			LDB	HSM	10-10-60	

F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11B	VERMILION	93	42
FEDERAL ROAD DISTRICT NO. 7		RAILROADS	POST.	



HANDRAIL ELEVATION

Showing spacing of handrail posts & joints in parapet

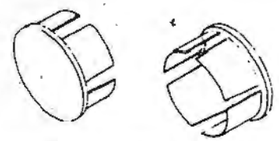
STATION 1755+16
BUILT 19[illegible]-67
STATE OF ILLINOIS
FAI RTE. 74 SEC. 92-11B
FA PROJ. I-74-6(37)
LOADING H20-S16 & PLT.

ELEVATION
BRIDGE NAME PLATE
(Provide 2)
See STD. 2113

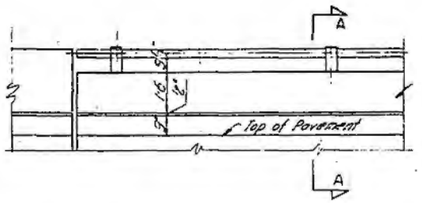
BAR LIST						
Panel	Bar	No.	Size	Length	Spacing	Shape
All	a 40	5,376	5	3'-0"	1'-0"	⌐
A, D	b 40	394	5	11'-2"	As Shown	—
B	b 41	288	5	11'-8"	"	—
C	b 42	192	5	11'-0"	"	—
E	b 43	32	5	10'-8"	"	—

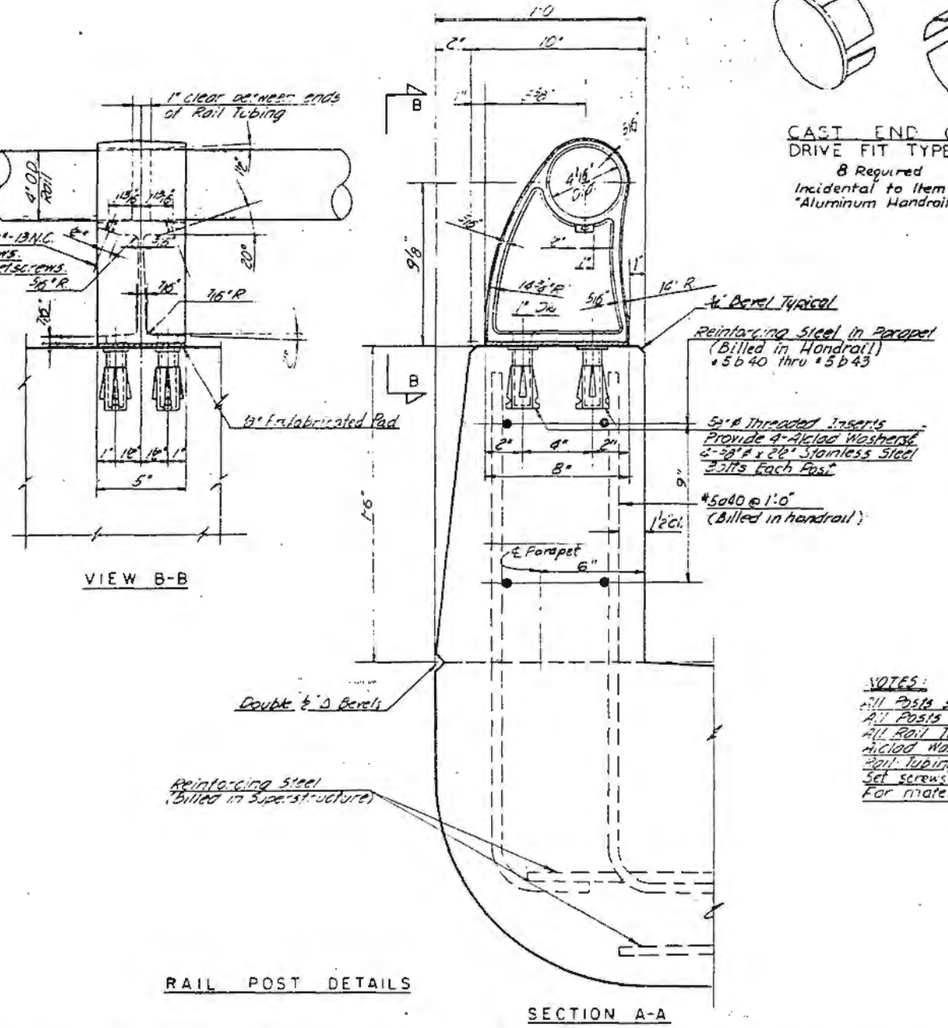
NOTE: Quantities Shown for 2 Bridges

BILL OF MATERIAL		
Item	Unit	Quantity
Aluminum Handrail	Lin. Ft.	2611
Class X Concrete	Cu. Yds.	132.9
Reinforcement Bars	Lbs.	27,360



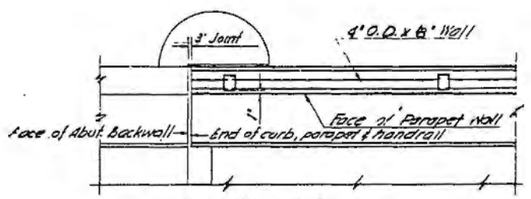
CAST END CAP
DRIVE FIT TYPE
8 Required
Incidental to Item "Aluminum Handrail"





RAIL POST DETAILS

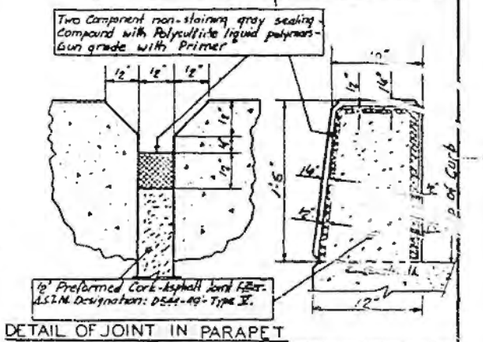
ELEVATION - END POST



PLAN - END POST

NOTES:
All Posts shall be placed normal to parapet.
All Posts shall be of Aluminum conforming to A.S.T.M. Specification B-108 alloy 56-70B-T6.
All Rail Tubing shall be of Aluminum conforming to A.S.T.M. Specification B-235 alloy GS-11A-T6.
Alclad Washers shall be made from sheet conforming to A.S.T.M. Specification B-209 alloy clad CG-42A-T4.
Rail Tubing may be cut to 3 Lengths maximum.
Set screws shall be of Aluminum conforming to A.S.T.M. Specification B-211 Alloy CG-42A-T4.
For material composition of Prefabricated Pad see Art. 54.9(f) (Bearings & Anchorage of the Std. Specs.

NOTE: Parapet Wall Joint Materials Cost Incidental to Class X Concrete



DETAIL OF JOINT IN PARAPET

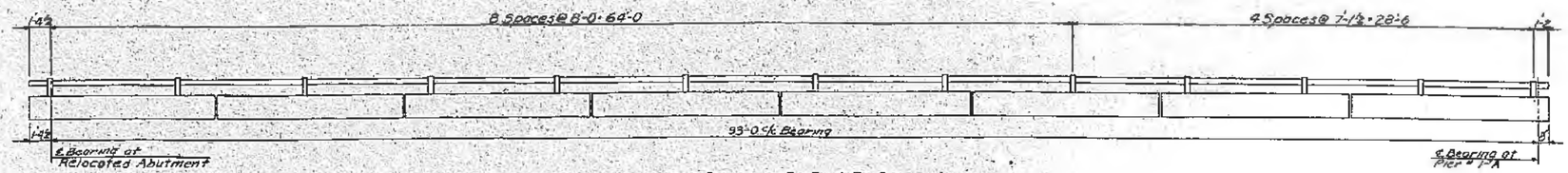
CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS — CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
FAI RT. 74 BRIDGE OVER VERMILION RIVER
FAI - 74 SECTION 92-11-B
VERMILION COUNTY STA. 1755+16

HANDRAIL DETAILS

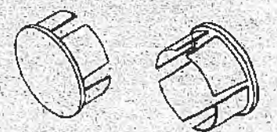
	LDB	RK	EFD	HSM 10-10-60	

F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11B	VERMILION		50A
FEDERAL ROAD DISTRICT NO. 7	ILLINOIS	FED. AID PROJ. NO.		

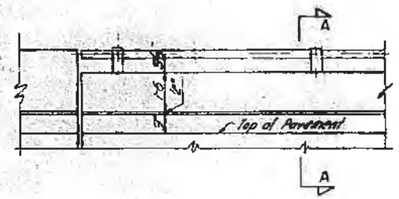


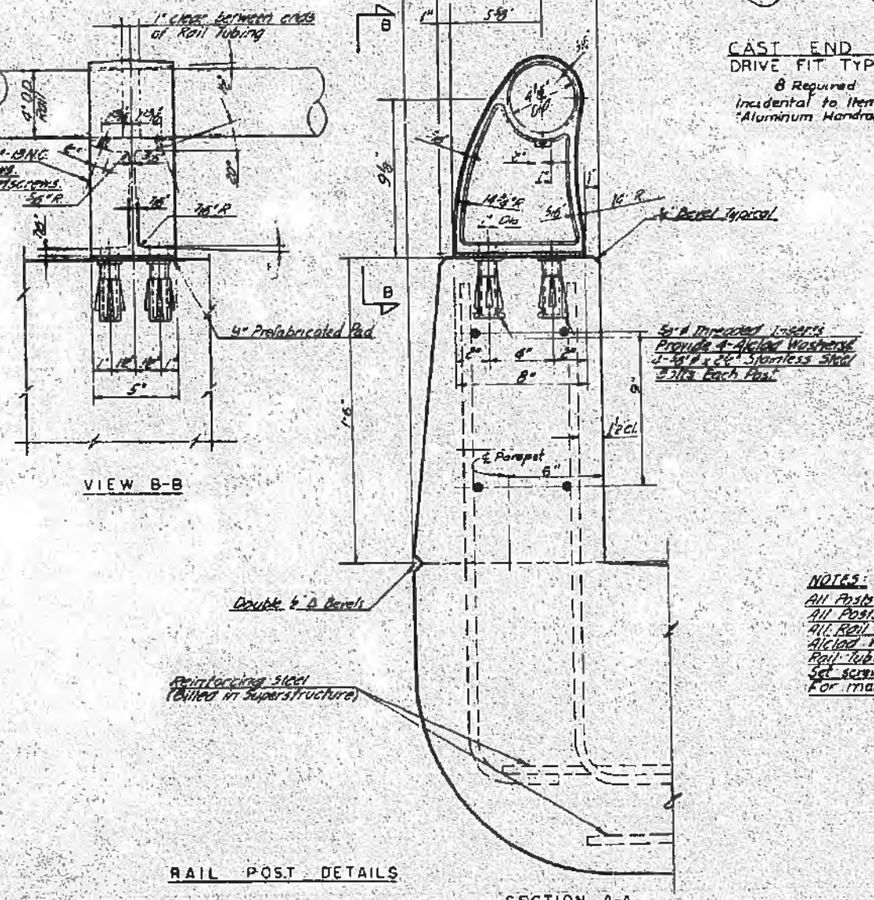
HANDRAIL ELEVATION

Showing spacing of handrail posts & joints in parapet

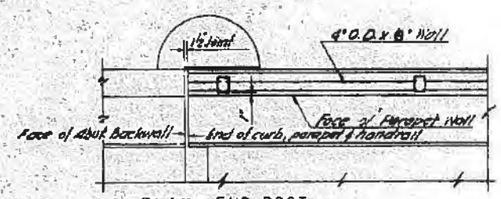


CAST END CAP
DRIVE FIT TYPE
8 Required
Incidental to Item "Aluminum Handrail"





ELEVATION - END POST



PLAN - END POST

NOTE: Quantities Shown for 2 Bridges

BILL OF MATERIAL		
Item	Unit	Quantity
Aluminum Handrail	Lin. Ft.	390

- AS BUILT -

NOTES:
All Posts shall be placed normal to parapet.
All Posts shall be of Aluminum conforming to A.S.T.M. Specification B-108 alloy 56-70B-T6.
All Rail Tubing shall be of Aluminum conforming to A.S.T.M. Specification B-235 alloy 65-11A-T6.
Alclad Washers shall be made from sheet conforming to A.S.T.M. Specification B-209 alloy clad 6061-T4.
Rail Tubing may be cut to 2 lengths maximum.
Set screws shall be of Aluminum conforming to A.S.T.M. Specification B-211 Alloy 6S-42A-T4.
For material composition of Prefabricated Pad see Art. 54.9(f) (Bearings & Anchorage of the Std. Specs.

NOTE: Parapet Wall Joint Materials cost incidental to Class X Concrete

RELOCATED WEST ABUTMENT

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS — CHICAGO, ILLINOIS

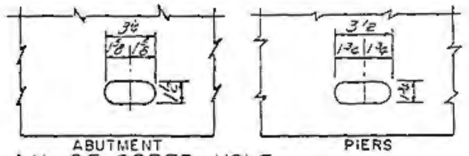
ILLINOIS DIVISION OF HIGHWAYS
FAI RT. 74 BRIDGE OVER VERMILION RIVER
FAI - 74 SECTION 92-11-B
VERMILION COUNTY — STA. 1755+16

HANDRAIL DETAILS

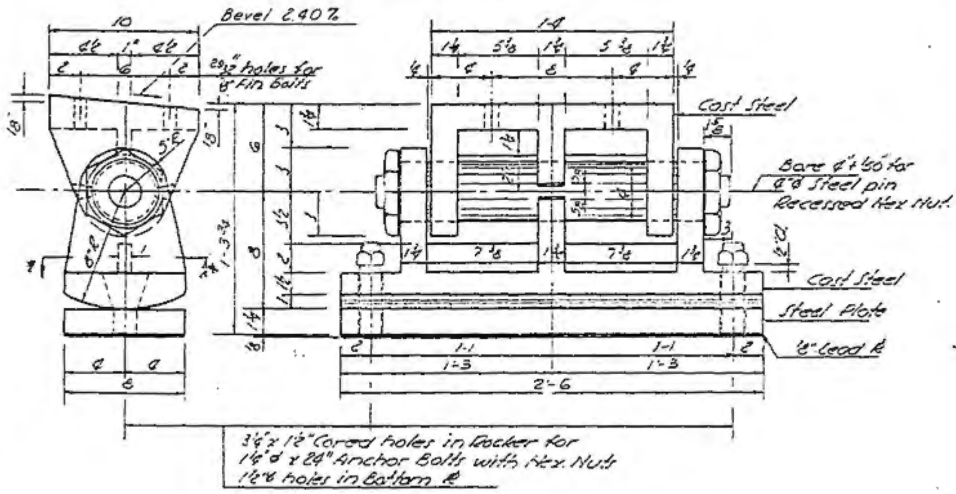
ST	LDB	RK	EFD	HSM 12-3-62	

F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11B	VERMILION	93	43
FEDERAL ROAD DISTRICT NO. 7	ILLINOIS	PROJ.		

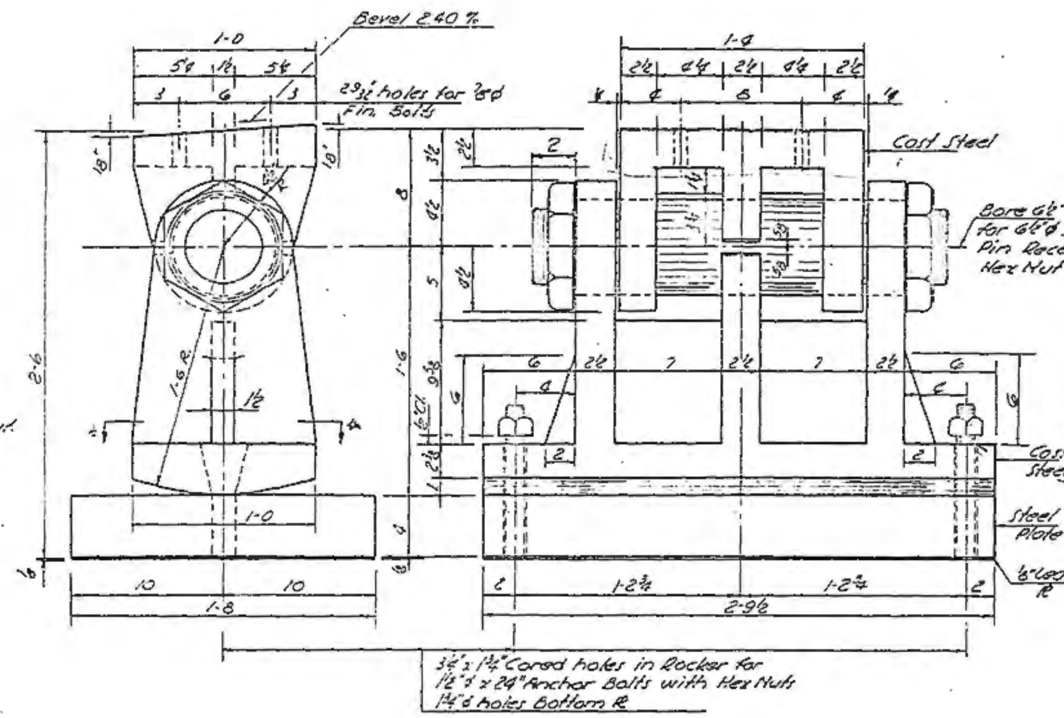
FEDERAL AID ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11F	VERMILION	13	13
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		



PLAN OF CORED HOLE

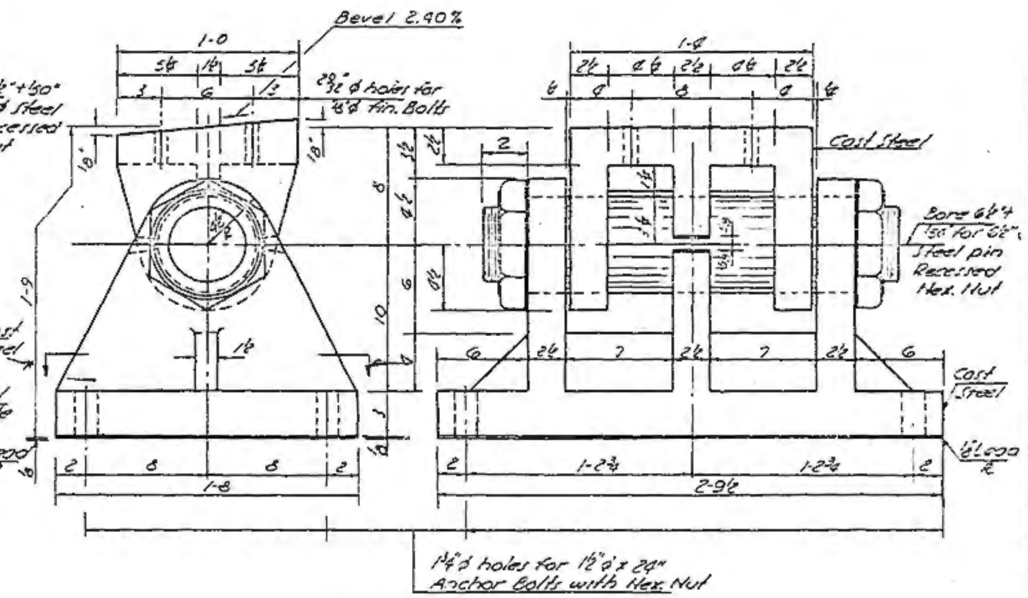


DETAIL OF EXPANSION BEARING
AT ABUTMENTS
(8 Required)

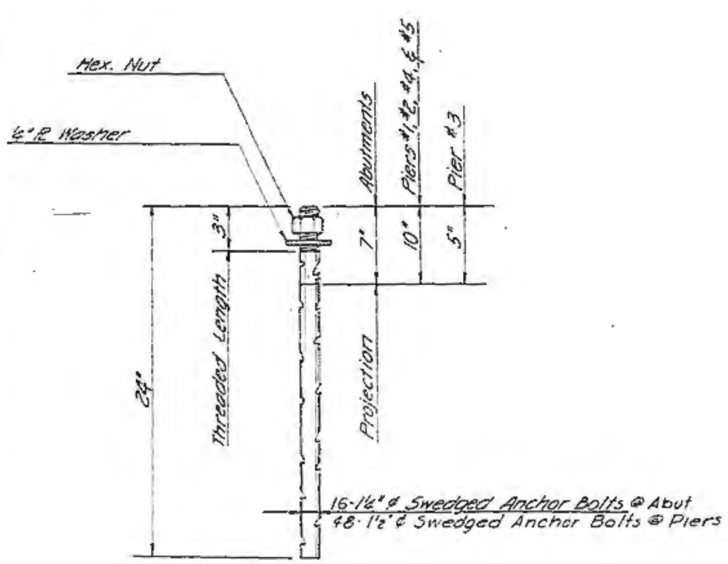


DETAIL OF EXPANSION BEARING
AT PIERS
(16 Required)

* Indicates Areas to be X-Rayed.
See Special Provisions.



DETAIL OF FIXED BEARING
AT PIERS
(4 Required)



ANCHOR BOLT
(64 Required)

COMPUTED WEIGHT OF BEARING DEVICES

STRUCTURAL STEEL 45,560 LBS.

The above Quantities are for right & left Bridges

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

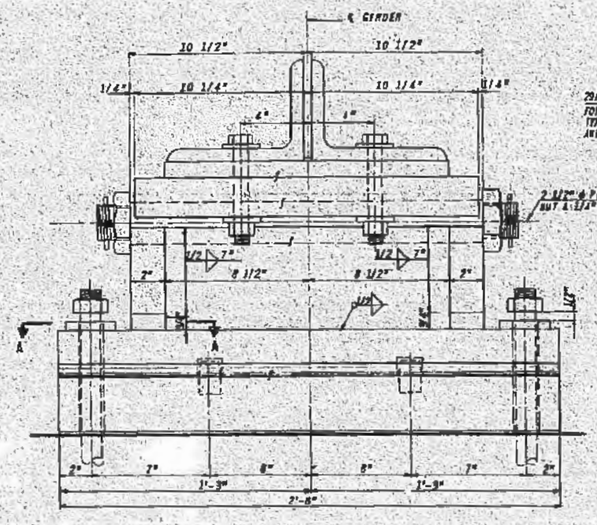
ILLINOIS DIVISION OF HIGHWAYS
FAI RT 74 BRIDGE OVER VERMILION RIVER
FAI-74 SECTION 92-11B,11F
VERMILION COUNTY STA 1755+16

STRUCTURAL STEEL BEARING DEVICES

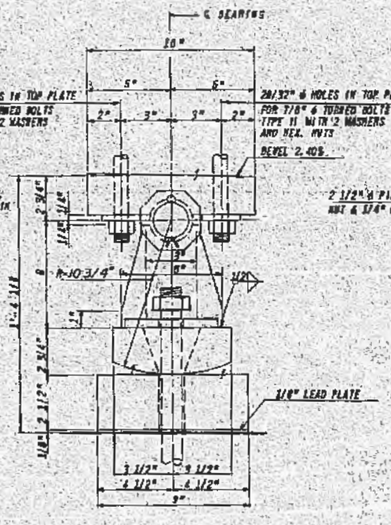
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
S.N.H	JT	R.E.S	J.H			

F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11 B	VERMILION		4
FEDERAL ROAD DISTRICT NO. 7		ILLINOIS	FED.	

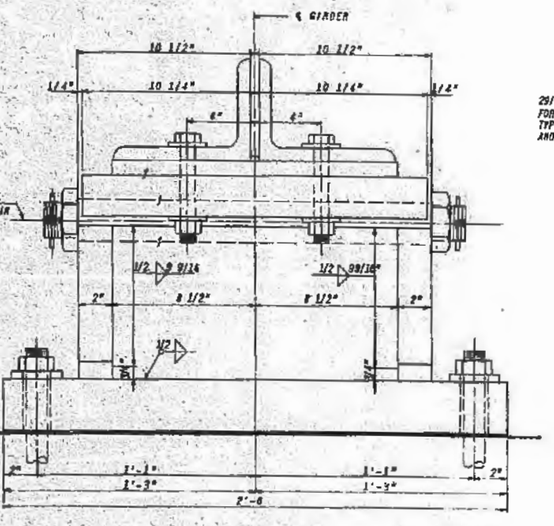
74 92-11F VERMILION 5



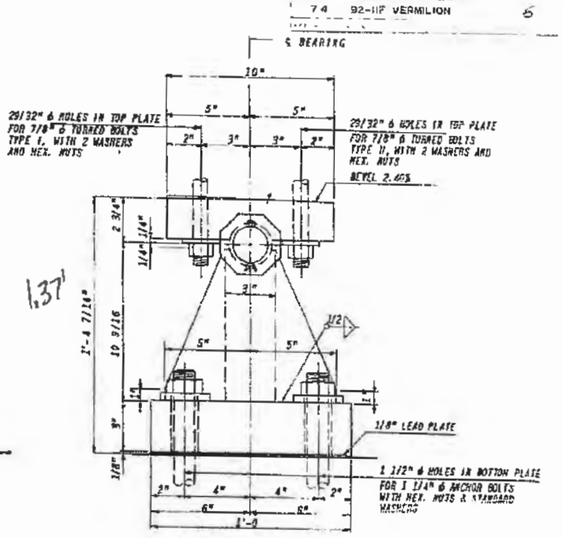
EXPANSION BEARING
4 REQUIRED



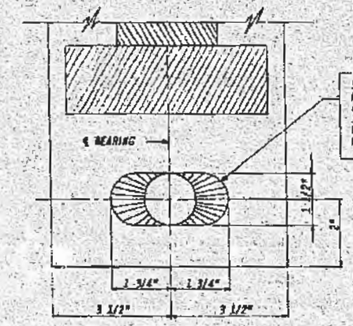
1.34'



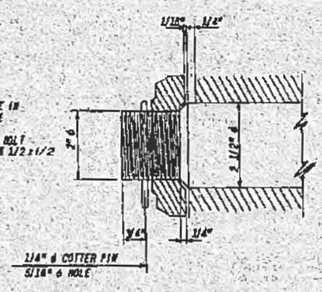
FIXED BEARING
4 REQUIRED



1.37'



SECTION A-A



DETAIL OF PIN

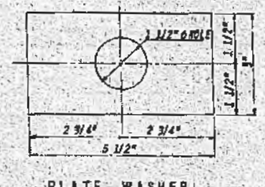
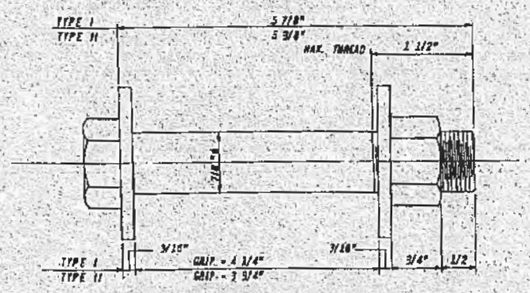
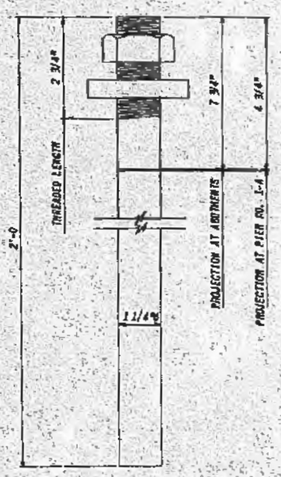


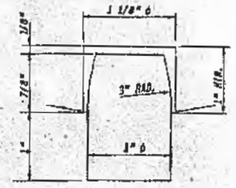
PLATE WASHER
8 REQUIRED



TURNED BOLT
TYPE I 16 REQUIRED
TYPE II 16 REQUIRED



ANCHOR BOLT DETAIL
ANCHOR BOLTS & HEX. NUTS 74 REQUIRED
STANDARD WASHER 16 REQUIRED



DETAIL OF PINTLES
8 REQUIRED

NOTE: WELDED STEEL ASTM A373

AS BUILT

TOTAL COMPUTED WEIGHT OF BEARING DEVICES
STRUCTURAL STEEL 6,030 LBS.

RELOCATED WEST ABUTMENT

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
F.A.I. RT. 74 BRIDGE OVER VERMILION RIVER
F.A.I.-74 SECTION 92-11B
VERMILION COUNTY STA. 1755+16
STRUCTURAL STEEL BEARING DEVICES

DESIGNED	DRAWN	TRACED	CHECKED	APPROVED	DATE	REVISED
ST	DU		LDB	HSM	12-3-62	

F.A.I. RTE. NO.	SECTION	COUNTY		SHEET NO.
74	92-11B	VERMILION		47
FEDERAL ROAD DISTRICT NO. 7		ILLINOIS		

HALF PLAN

SECTION H-H

FRONT ELEVATION

(REINFORCING SHOWN)

SECTION V-V

REINFORCING - WINGWALL "A"

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS

FAI RT. 74 BRIDGE OVER VERMILION RIVER
FAI-74 SECTION 92-11B
VERMILION COUNTY STA 1755+16

ABUTMENTS

DESIGNED	DRAWN	TRACED	CHECKED	REVISED	DATE	REVISED
J.T.	J.T.	D.S.	J.M.			
			LDB	HSM	10-10-60	

F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11B	VERMILION		
FEDERAL ROAD DISTRICT NO. 7	ILLINOIS	FED.		

HALF PLAN

SECTION H-H

FRONT ELEVATION (REINFORCING SHOWN)

West Abutment Max. Footing Bearing Press. = 3,400 Lbs. per Sq. Ft.

REINFORCING - WINGWALL "A"

SECTION V-V

"AS BUILT"

RELOCATED WEST ABUTMENT

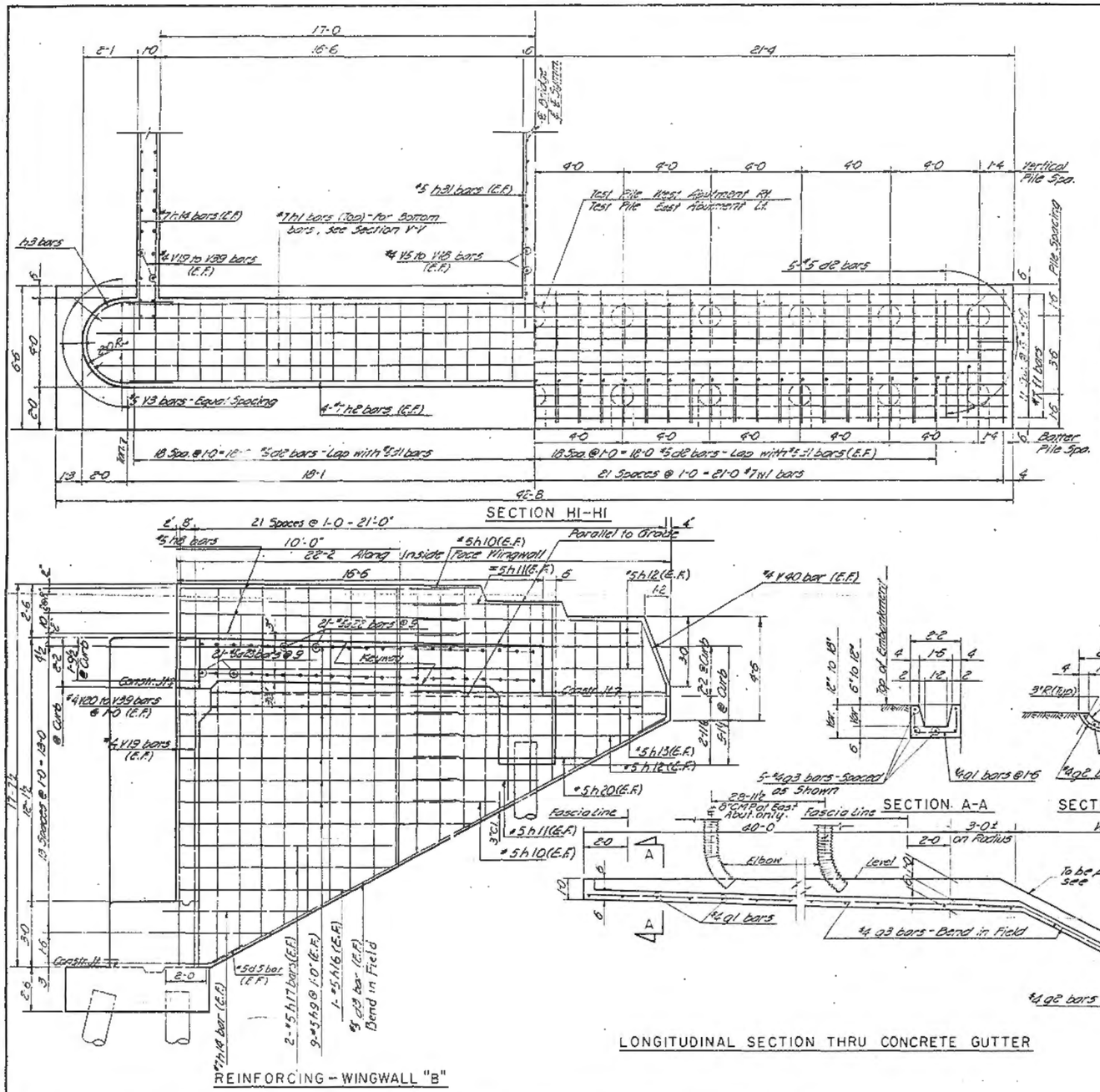
CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

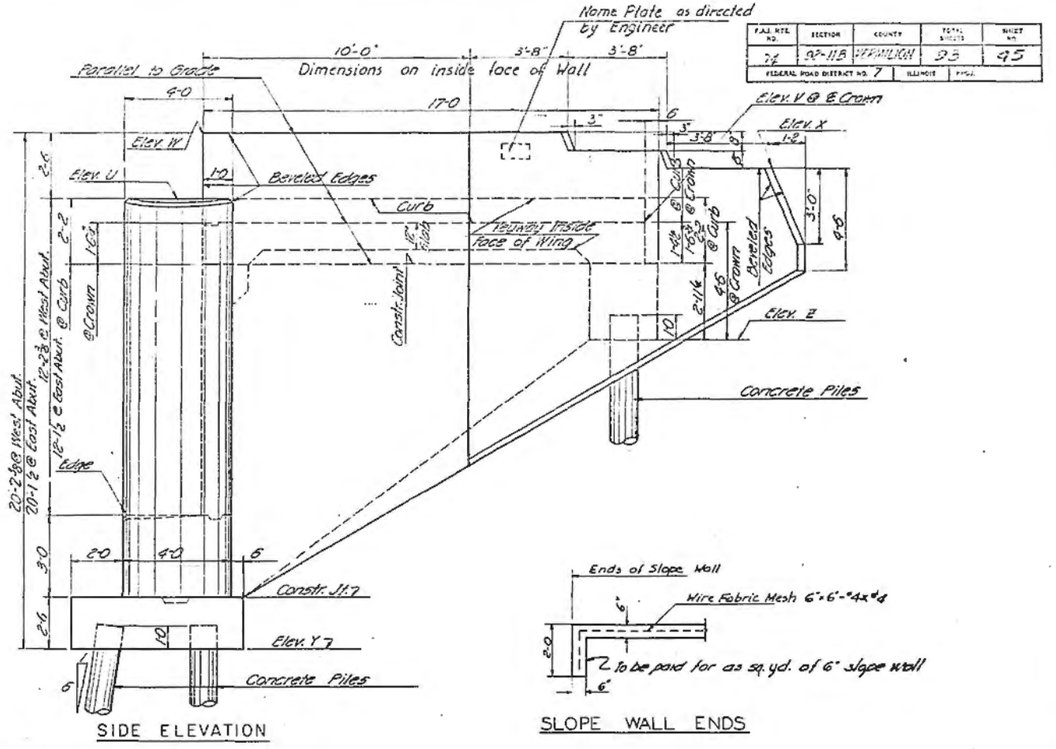
ILLINOIS DIVISION OF HIGHWAYS
FAI RT. 74 BRIDGE OVER VERMILION RIVER
FAI-74 SECTION 92-11B
VERMILION COUNTY STA 1755+16

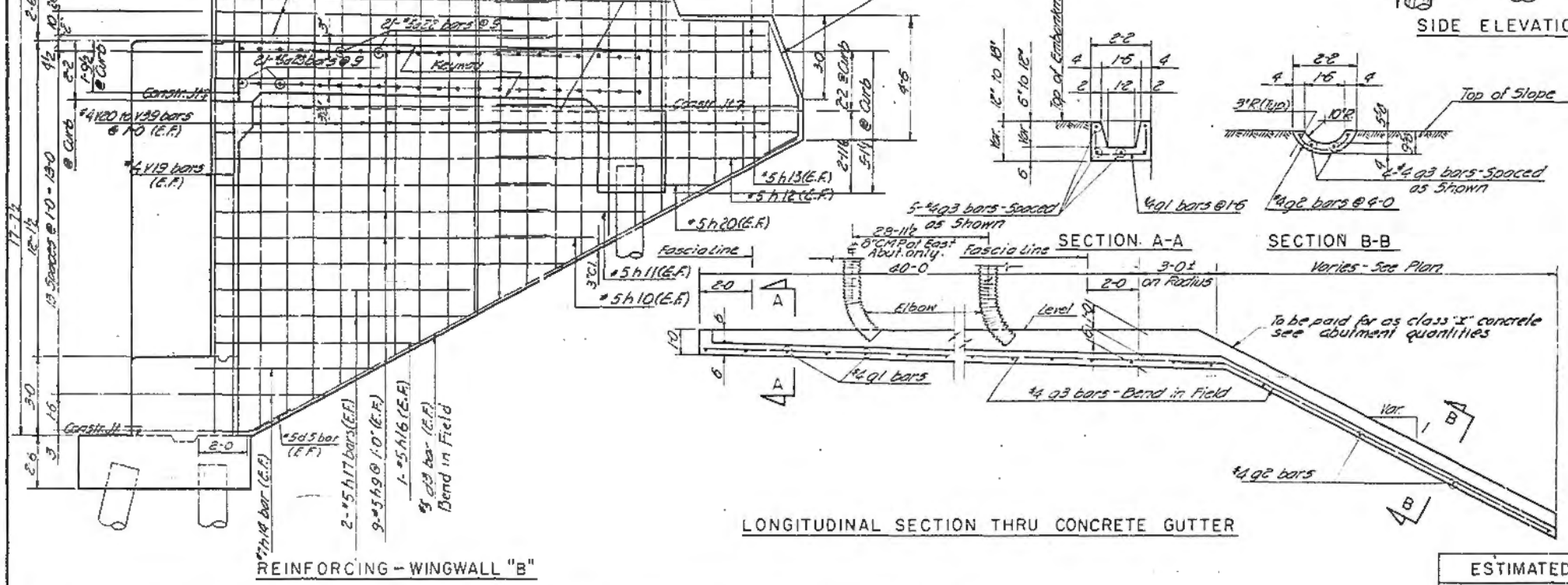
ABUTMENTS

DESIGNED	DRAWN	TRACED	CHECKED	DATE	REVISED
S.T. J.T.	J.T.	D.T.	J.M. LDB	H&M 12-3-62	

FAI RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11B	VERMILION	93	45
FEDERAL ROAD DISTRICT NO. 7	ILLINOIS			







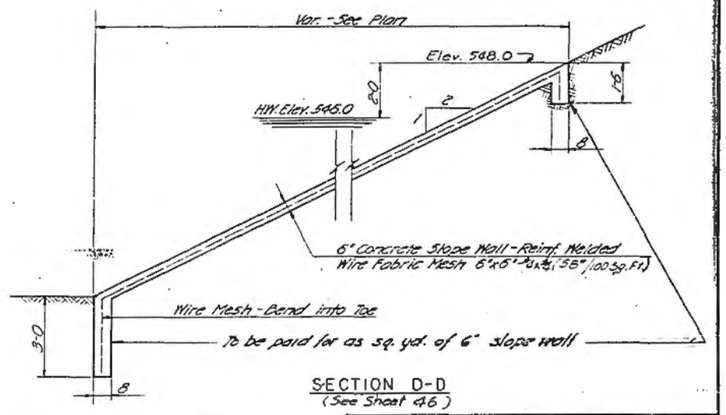


TABLE OF ELEVATIONS										
Abutment	Berm Elev.	Crown Elev. Inside Face Backwall on ℄	Wingwall						Brg Seat Elev. (Top of Concrete)	
			U	V	W	X	Y	Z	A	B
West Abut. Rt.	597.65	610.24	610.85	610.63	613.35	612.51	593.15	605.13	598.65	598.65
West Abut. Lt.	597.65	610.24	610.85	610.63	613.35	612.51	593.15	605.13	598.65	598.65
East Abut. Rt.	582.05	594.56	595.18	594.17	597.68	595.83	577.55	589.67	583.05	583.05
East Abut. Lt.	582.05	594.56	595.18	594.17	597.68	595.83	577.55	589.67	583.05	583.05

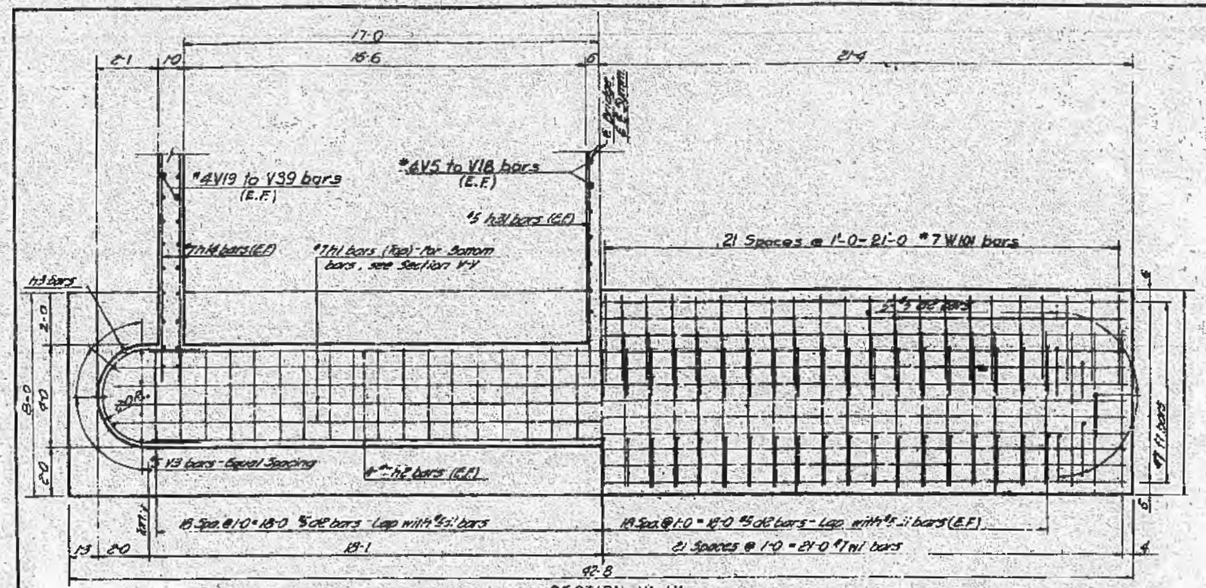
ESTIMATED LENGTHS & QUANTITIES OF PILES		
Abutment	Concrete Piles	
West Abut. Rt.	29 @ 30' = 870 Lin. Ft.	
West Abut. Lt.	30 @ 30' = 900 Lin. Ft.	
East Abut. Rt.	22 @ 60' = 1320 Lin. Ft. 8 @ 70' = 560 Lin. Ft.	
East Abut. Lt.	21 @ 60' = 1260 Lin. Ft. 8 @ 70' = 560 Lin. Ft.	
TOTAL	5470 Lin. Ft.	
Test Pile (@ W. Abut. Rt. & E. Abut. Lt.) Conc.		

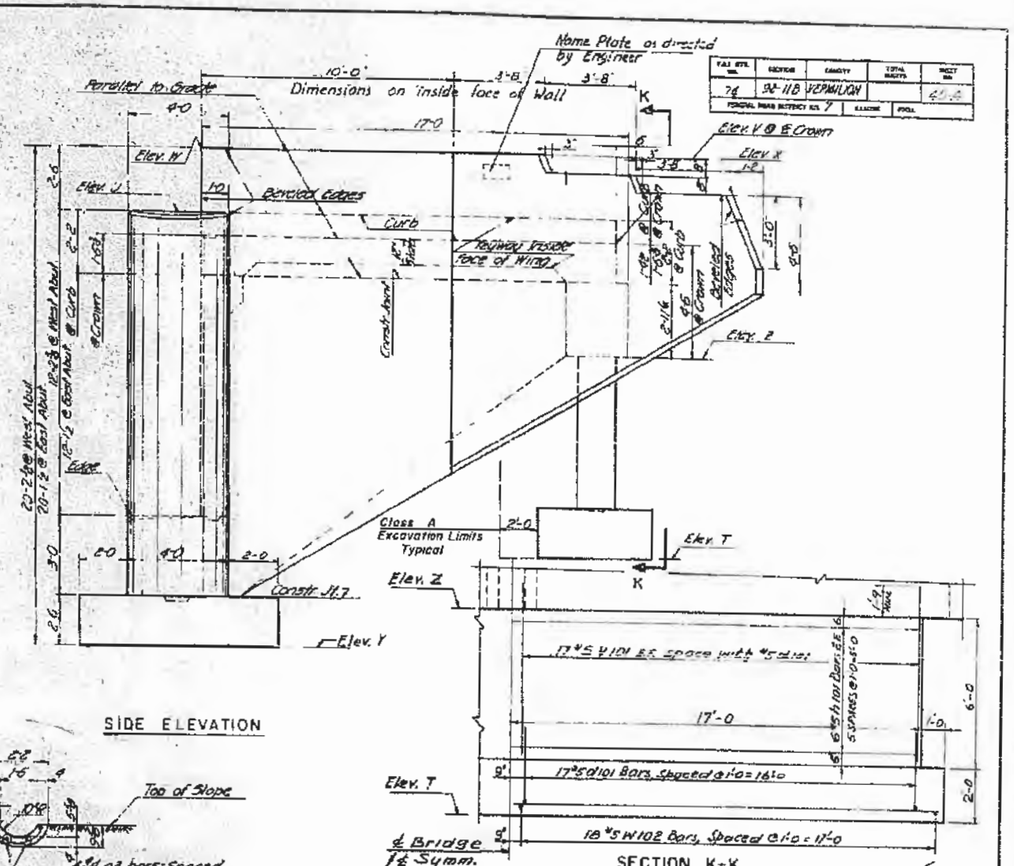
CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
FAI RT. 74 BRIDGE OVER VERMILION RIVER
FAI-74 SECTION 92-11B
VERMILION COUNTY STA. 1755+16

ABUTMENTS

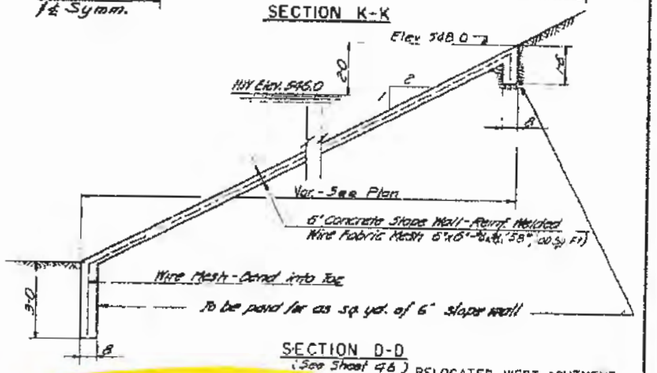
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.T.	J.T.	Q.S.	J.H. LDB	HSM	10-10-60	



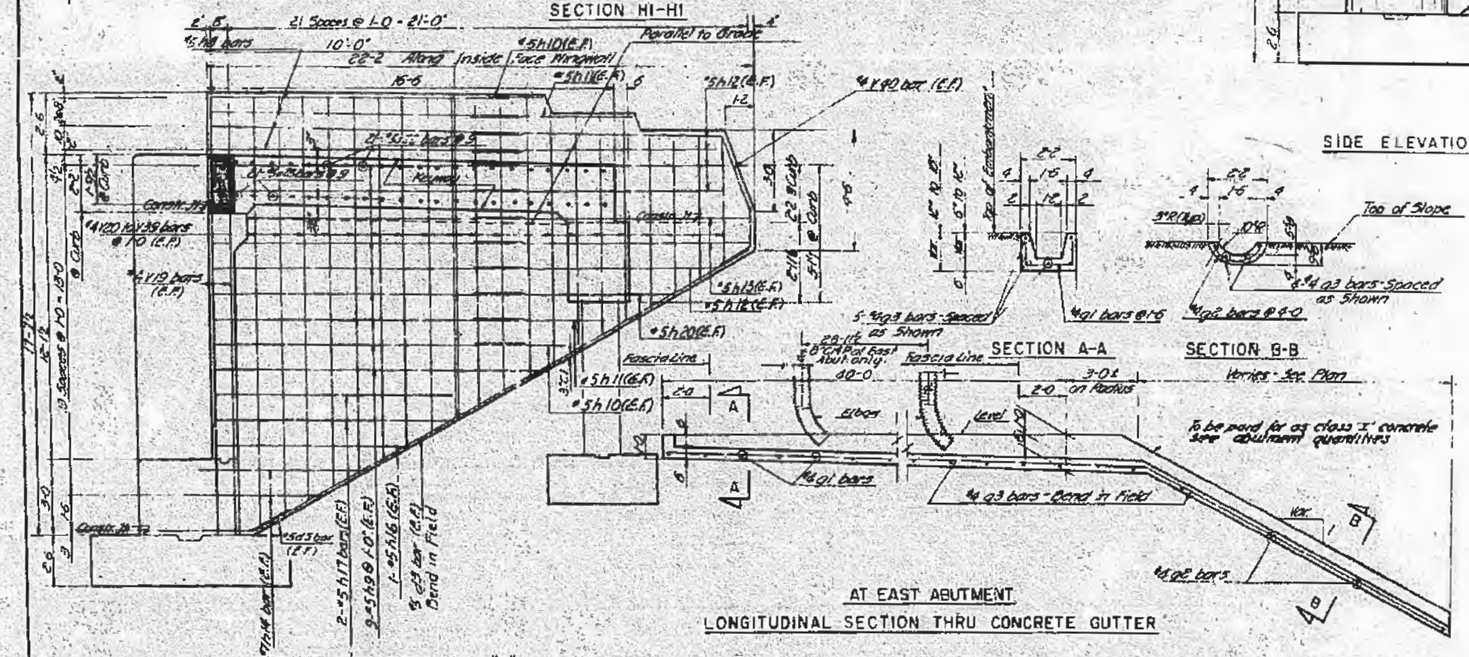


SIDE ELEVATION

SECTION K-K



SECTION D-D
(See Sheet 46) RELOCATED WEST ABUTMENT



SECTION A-A

SECTION B-B

AT EAST ABUTMENT
LONGITUDINAL SECTION THRU CONCRETE GUTTER

REINFORCING - WINGWALL "B"

SLOPE WALL ENDS

TABLE OF ELEVATIONS

Abutment	Berm Elev.	Crown Elev. Inside Face Backwall at ℄	Wingwall U	V	W	X	Y	E	Top Steel Elev. (Top of Corbels) A	B	T
West Abut. Rt.	599.95	612.52	613.13	612.91	615.63	614.79	595.43	608.41	600.92	600.92	600.41
West Abut. Lt.	599.95	612.52	613.13	612.91	615.63	614.79	595.43	608.41	600.92	600.92	600.41

AS BUILT

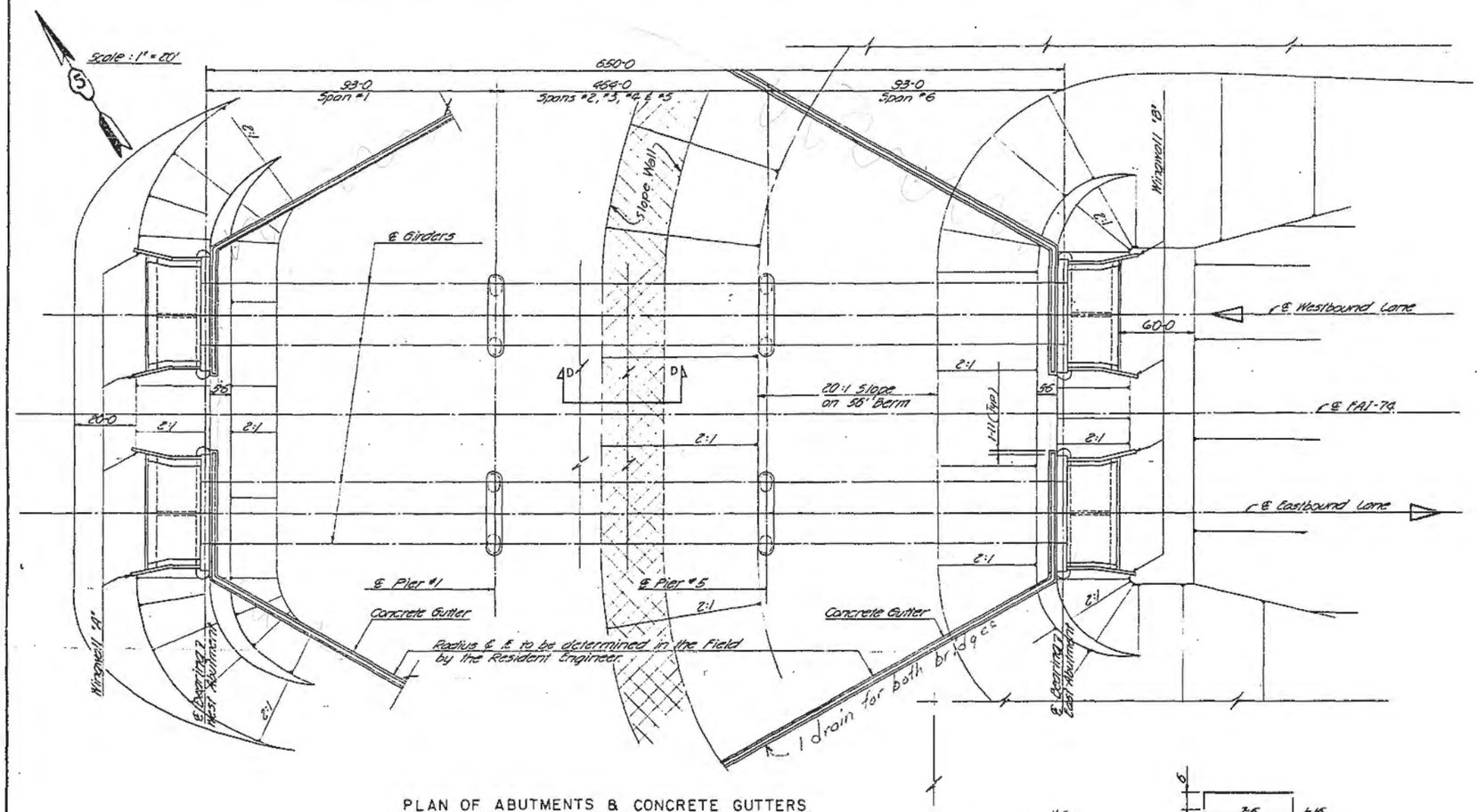
CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
FAI RT. 74 BRIDGE OVER VERMILION RIVER
FAI-74 SECTION 92-11B
VERMILION COUNTY STA. 1755+16

ABUTMENTS

DESIGNED	DRAWN	TRACED	CHECKED	REVISED	DATE	REVISED
ST J.T.	J.T.	Q.L.	J.H. LDB	IISM	12-5-62	

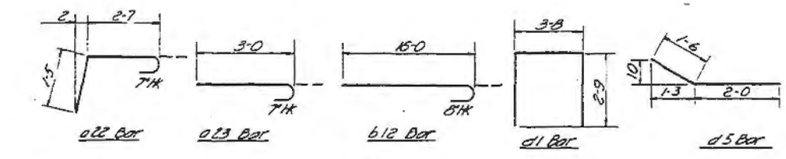
F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11B	VERMILION	93	46
FEDERAL ROAD DISTRICT NO. 7	ILLINOIS	PROJ.		

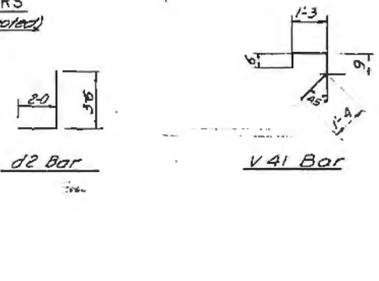


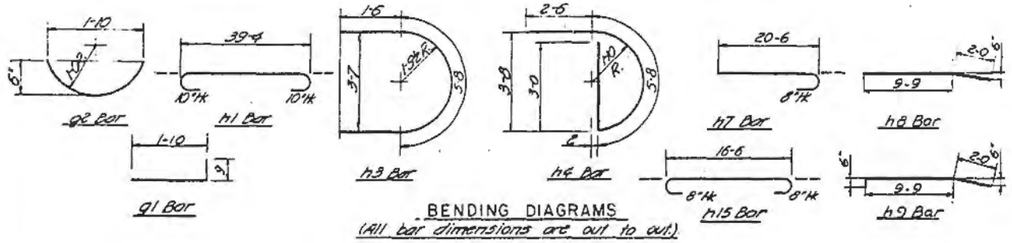
PLAN OF ABUTMENTS & CONCRETE GUTTERS

(Abutments are identical by 180° Rotation except as noted)

(For Section D-D See Sheet 45)

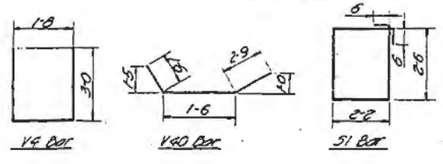






BENDING DIAGRAMS

(All bar dimensions are out to out.)



BAR SCHEDULE

Bar	No.	Size	Length	Spacing	Shape	Bar	No.	Size	Length	Spacing	Shape
a21	328	5	18-8	9	—	V1	260	4	12-0	1-0	—
a22	168	5	4-7	9	⌐	V2	32	4	13-9	1-0	—
a23	168	5	3-7	9	⌐	V3	56	5	15-0	As Shown	—
						V4	100	4	7-8	1-0	⊔
b11	196	5	150	9	—	V5	8	4	12-4		—
b12	232	6	16'-8	7	⌐	V6	8	4	13-6		—
b13	48	6	8-0	7	—	V7	8	4	12-9		—
d1	148	5	9'2	1-0	⊓	V8	8	4	12-0		—
d2	336	5	5-6	As Shown	⊔	V9	8	4	11-3		—
d3	16	5	23-6	As Shown	—	V10	8	4	10-6		—
d4	8	6	18-0	As Shown	—	V11	8	4	9-9		—
d5	24	5	3-6	As Shown	⌐	V12	8	4	9-0		—
f1	48	7	48-2	6	—	V13	8	4	8-3		—
						V14	8	4	7-6		—
g1	110	4	3-4	1-6	⊔	V15	8	4	6-9		—
g2	120	4	2-2	4-0	⌒	V16	8	4	6-0		—
g3	128	4	22-3	As Shown	—	V17	8	4	5-3		—
						V18	8	4	4-6		—
						V19	32	4	11-4		—
h1	16	7	41-0	8	⊂⊃	V20	16	4	11-0		—
h2	32	7	35-2	10	—	V21	16	4	16-4		—
h3	32	5	8-8	10	⊔	V22	16	4	15-10		—
h4	36	5	11-2	As Shown	⊔	V23	16	4	15-3		—
h5	40	5	39-0	10	—	V24	16	4	14-8		—
h6	40	5	36-2	10	—	V25	16	4	14-1		—
h7	104	6	21-2	As Shown	⊃	V26	16	4	13-5		—
h8	64	5	11-9		⊃	V27	16	4	13-0		—
h9	144	5	12-3		⌐	V28	16	4	12-5		—
h10	32	5	2-10		—	V29	16	4	11-8		—
h11	32	5	6-6		—	V30	16	4	11-2		—
h12	72	5	10-2		—	V31	16	4	10-8		—
h13	32	5	11-4	1-0	—	V32	16	4	9-6		—
h14	32	7	7-0	1-0	—	V33	16	4	9-0		—
h15	8	6	17-10	As Shown	⊃	V34	16	4	8-5		—
h16	16	5	8-0	1-0	⊏⊐	V35	16	4	7-9		—
h17	32	5	9-9		⊏⊐	V36	16	4	6-6		—
h18	8	5	8-8		—	V37	16	4	5-10		—
h19	8	5	5-5		—	V38	16	4	5-4		—
h20	8	5	8-2		—	V39	16	4	4-9		—
h21	16	4	18-3		—	V40	16	4	5-9	1-0	⊔
						V41	120	5	3'-10	1'-0	⊓
h23	24	5	17-0		⊏⊐						
h24	8	5	14-6		⊏⊐						
h25	8	5	13-0		⊏⊐						
h26	8	6	11-9		⊏⊐	51	128	4	10-4	1-0	⊓
h27	8	5	10-6		⊏⊐						
h28	8	5	9-3		⊏⊐						
h29	8	5	7-9		⊏⊐						
h30	8	5	6-6		⊏⊐	W1	172	7	6-0	1-0	—
h31	16	5	5-0	1-0	—						

ABUTMENT QUANTITIES

Class X Concrete	508.3 Cu.Yd.
Reinforcement Steel	56,830 Lbs.

NOTE: The above quantities are for four Abutments and Concrete Gutter. Estimated Length of Concrete Gutter @ 660 Lin.Ft.

Class A Excavation	165 Cu.Yd. West Abut.
Class A Excavation	370 Cu.Yd. Slope Wall Flg.

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

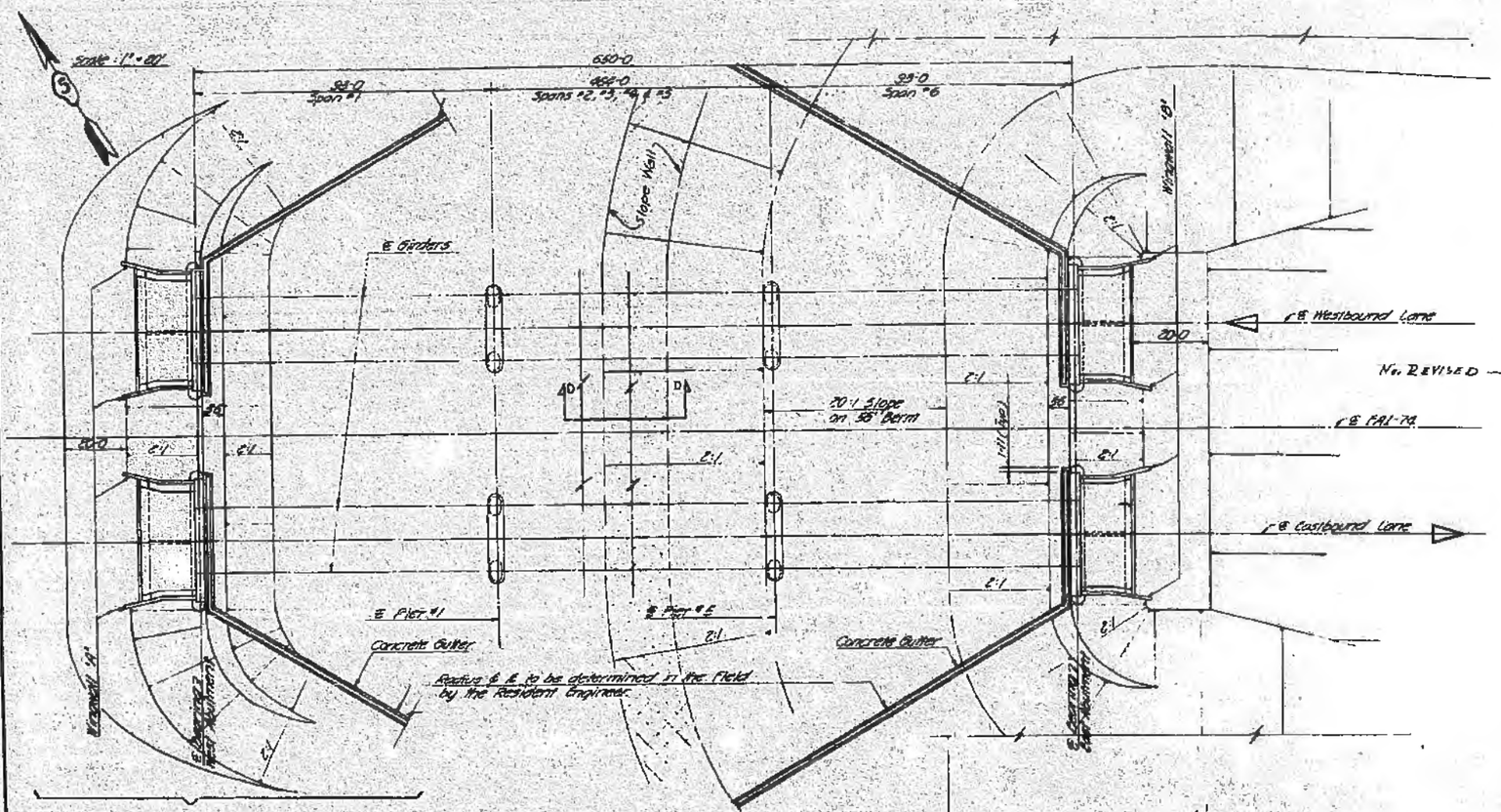
ILLINOIS DIVISION OF HIGHWAYS
FAI RT. 74 BRIDGE OVER VERMILION RIVER
FAI-74 SECTION 92-11B
VERMILION COUNTY STA. 1755+16

ABUTMENTS

DESIGNED	DRAWN	TRACED	CHECKED	REVISIONS	DATE	APPROVED
J.T.	J.T.	D.J.	J.H.			
			LDB	HSM	10-10-68	

Revised Berm Dimension 1-3-68 L.D.W.

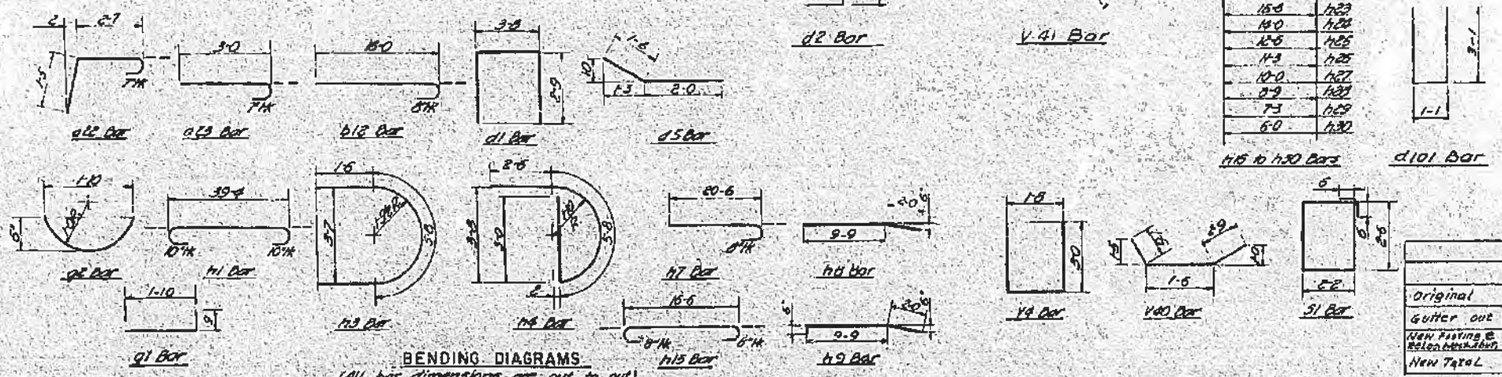
F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11B	VERMILION		45-A
VERMILION RIVER DISTRICT NO. 7		ILLINOIS	1962	



For Relocated West Abutments & Slopewalls see Sheet "Slopewall Plan"

PLAN OF ABUTMENTS & CONCRETE GUTTERS

(Abutments are identical by 180° Rotation except as noted)
(For Section D-D See Sheet 45)



BENDING DIAGRAMS

(All bar dimensions are out to out)

BAR SCHEDULE

Bar	No.	Size	Length	Spacing	Shape	Bar	No.	Size	Length	Spacing	Shape
a01	328	5	18-8	9		V1	280	4	12-0	1-0	
a02	168	5	4-7	9		V2	32	4	13-9	1-0	
a03	168	5	3-7	9		V3	56	5	15-0	As Shown	
						V4	100	4	7-8	1-0	
b11	136	5	15-0	9		V5	8	4	14-4		
b12	232	6	16-8	7		V6	8	4	13-6		
b13	18	6	8-0	7		V7	8	4	12-9		
d1	148	5	9-2	1-0		V8	8	4	12-0		
d2	336	5	5-6	As Shown		V9	8	4	11-3		
d3	16	5	23-6	As Shown		V10	8	4	10-6		
d4	8	6	18-0	As Shown		V11	8	4	9-9		
d5	24	5	3-6	As Shown		V12	8	4	9-0		
f1	48	7	40-2	6		V13	5	4	8-3		
						V14	0	4	7-6		
g1	55	4	3-4	1-6		V15	3	4	6-9		
g2	83	4	2-2	4-0		V16	8	4	6-0		
g3	68	4	22-3	As Shown		V17	0	4	5-3		
						V18	0	4	4-6		
						V19	32	4	17-4		
h1	16	7	41-0	8		V20	16	4	17-0		
h2	32	7	36-2	10		V21	16	4	16-4		
h3	32	5	8-8	10		V22	16	4	15-10		
h4	36	5	11-2	As Shown		V23	16	4	15-3		
h5	40	5	32-0	10		V24	16	4	14-8		
h6	40	5	36-2	10		V25	16	4	14-1		
h7	104	6	21-2	As Shown		V26	16	4	13-5		
h8	64	5	11-3			V27	16	4	13-0		
h9	144	5	12-3			V28	16	4	12-5		
h10	32	5	2-10			V29	16	4	11-8		
h11	32	5	6-6			V30	16	4	11-2		
h12	72	5	10-2			V31	16	4	10-8		
h13	32	5	11-4	1-0		V32	16	4	9-6		
h14	32	7	7-0	1-0		V33	16	4	9-0		
h15	8	6	17-10	As Shown		V34	16	4	8-5		
h16	16	5	6-0	1-0		V35	16	4	7-9		
h17	32	5	9-9			V36	16	4	6-6		
h18	8	5	8-8			V37	16	4	5-10		
h19	8	5	5-5			V38	16	4	5-4		
h20	8	5	8-2			V39	16	4	4-9		
h21	16	4	18'-3			V40	16	4	3-9	1-0	
						V41	120	5	3-10	1-0	
h23	24	5	17-0								
h24	8	5	13-5			W1	172	7	6-0	1-0	
h25	8	5	13-0								
h26	6	5	11-9			S1	128	4	10-4	1-0	
h27	8	5	10-6								
h28	8	5	9-3			W101	86	7	3-6	1-0	
h29	8	5	7-9			W102	72	5	4-0	1-0	
h30	8	5	6-6								
h31	16	5	5-0	1-0		d101	68	5	7-3	1-0	
						V101	136	5	7-6	1-0	
						f101	10	5	35-6	as shown	
						h101	24	5	33-6	1-0	

ABUTMENT QUANTITIES

Class X Concrete	508.3 Cu.Yd.
Reinforcement Steel	56,830 Lbs.

NOTE: The above quantities are for four Abutments and Concrete Gutter.
Estimated Length of Concrete Gutter @ 640 Lin.Ft.

Class A Excavation	165 Cu.Yd. West Abut.
Class A Excavation	370 Cu.Yd. Slope Wall Fig.

* Additional Reinforcement Steel at Relocated West Abutment.

	Class X Concrete	Reinforc. Steel	Class A Excavation
Original	508.3 cu.yd.	56,830 Lbs	165 cu.yd.
Gutter out	- 12.0 cu.yd.	- 1,067 Lbs	-
New Footing & Relocated Abut.	+ 29.3 cu.yd.	+ 3707 Lbs	151 cu.yd.
New Total	525.6 cu.yd.	59,470 Lbs	316 cu.yd.

RELOCATED WEST ABUTMENT

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
FAI RT. 74 BRIDGE OVER VERMILION RIVER
FAI-74 SECTION 92-11B
VERMILION COUNTY STA. 1755+16

ABUTMENTS

DESIGNED	DRAWN	TRACED	CHECKED	REVISED	DATE	VOUCHED
ST JT	J.T.	D.S.	J.H. LDB	MSM	12-9-62	

AS BUILT

F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11B	VERMILION	9	7
PROJECT NO.	DISTRICT NO. 7	ILLINOIS	STATE	

PLAN – TOP OF PIER

SECTION C-C

SECTION W-W

SECTION S-S

PIER ELEVATION

SECTION A-A

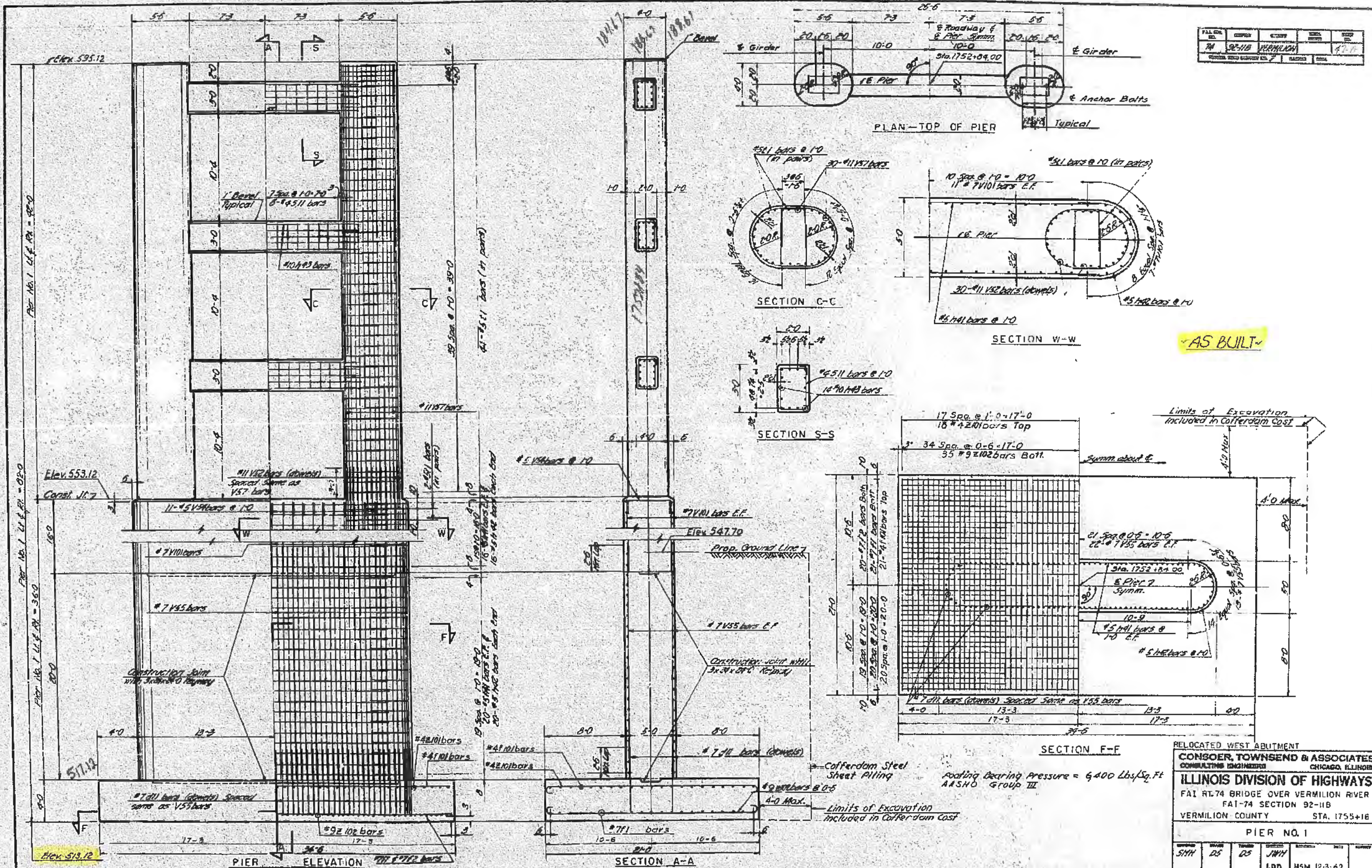
SECTION F-F

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
FAI RT. 74 BRIDGE OVER VERMILION RIVER
FAI-74 SECTION 92-11B
VERMILION COUNTY STA. 1755+16

PIER NO. 1

ENGINEER	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
SMH	DS	DS	JWH			
			LDB	HSM	10-10-62	



RELOCATED WEST ABUTMENT

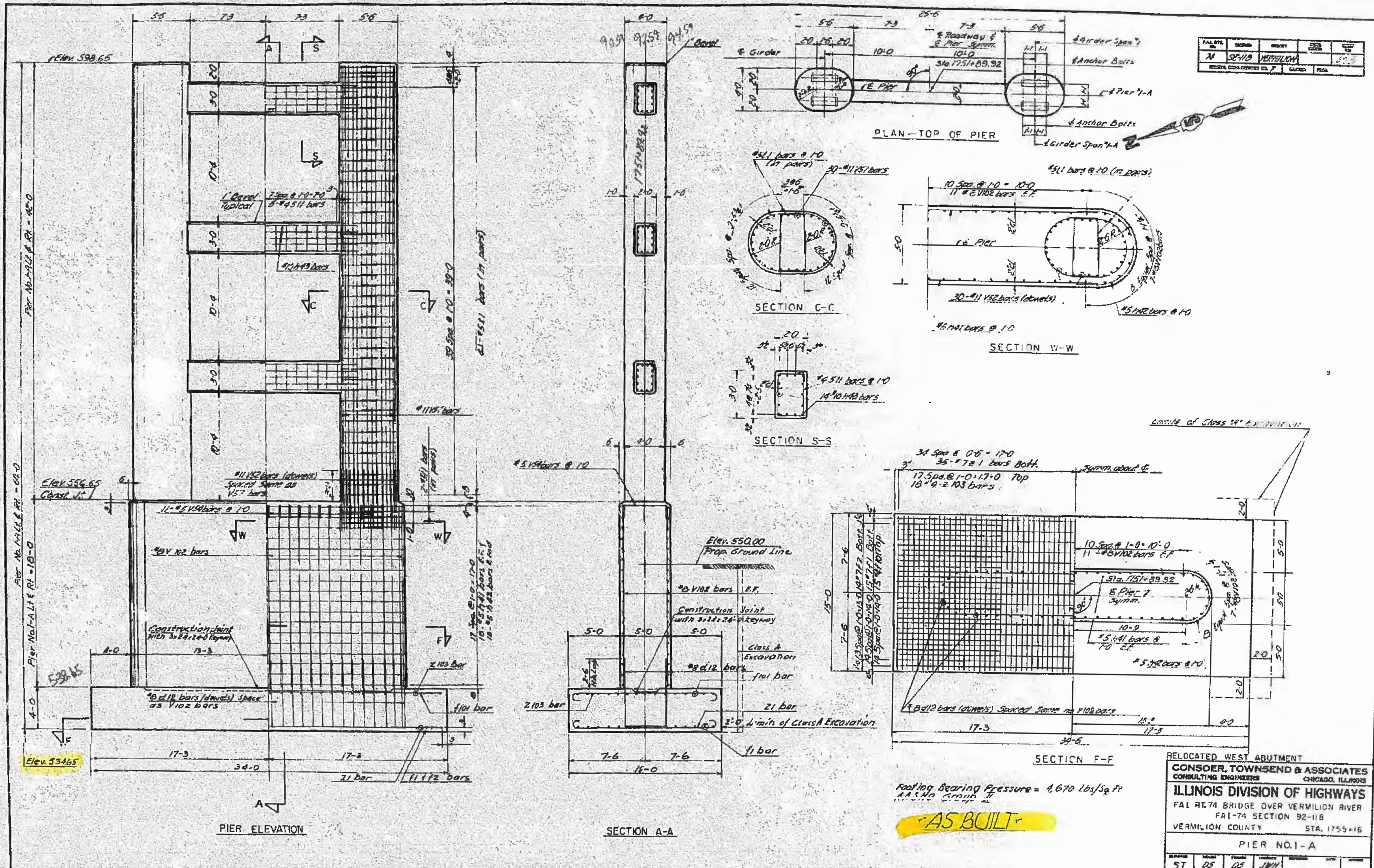
CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS — CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS

FAI RT. 74 BRIDGE OVER VERMILION RIVER
FAI-74 SECTION 92-11B
VERMILION COUNTY — STA. 1755+16

PIER NO. 1

SMH	DS	DS	JWH / LDD	HSM 12-3-62



Footing Bearing Pressure = 4,670 Lbs/Sq Ft
AASHO Group II

"AS BUILT"

RELOCATED WEST ABUTMENT

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS
CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
FAI RT. 74 BRIDGE OVER VERMILION RIVER
FAI-74 SECTION 92-118
VERMILION COUNTY STA. 1755+16

PIER NO. 1-A

ST J.T.	DS	DS	JWH	LDB	HSM	12-3-62

FAI RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11B	VERMILION	93	48
FEDERAL AID DISTRICT NO. 7		ILLINOIS	PROJ.	

PLAN—TOP OF PIER

SECTION C-C

SECTION W-W

SECTION S-S

SECTION F-F

PIER ELEVATION

SECTION A-A

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
FAI RT. 74 BRIDGE OVER VERMILION RIVER
FAI-74 SECTION 92-11B
VERMILION COUNTY STA. 1755+16

PIER NO. 2

DESIGNED	DRAWN	TRACED	CHECKED	REVISED	DATE	REVISED
S.H.H.	DS	DS	J.H.H.			
			L.D.B.	H.S.M.	10-10-72	

Revised footing 1-8-72 L.D.W.

FAI. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11B	VERMILION	93	49
FEDERAL ROAD DISTRICT NO. 7	ILLINOIS	FINAL		

PLAN — TOP OF PIER

SECTION C-C

SECTION W-W

SECTION S-S

PIER ELEVATION

SECTION A-A

SECTION F-F

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS

FAI RT. 74 BRIDGE OVER VERMILION RIVER
FAI-74 SECTION 92-11B
VERMILION COUNTY STA. 1755+16

PIER NO. 3

DESIGNED	DRAWN	TRACED	CHECKED	REVISION	DATE	REVISED
SMH	DS	DS	JWH LDB	HSM	10-10-60	

Revised footing 1-12-62 L.D.W.

FAI STE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-118	VERMILION	93	50
FEDERAL ROAD DISTRICT NO. 7	ILLINOIS	FINAL		

PLAN — TOP OF PIER

SECTION C-C

SECTION W-W

SECTION S-S

PIER ELEVATION

SECTION A-A

SECTION F-F

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
FAI RT. 74 BRIDGE OVER VERMILION RIVER
FAI-74 SECTION 92-118
VERMILION COUNTY STA. 1755+16

PIER NO. 4

DESIGNED	DRAWN	TRACED	CHECKED	REVISIONS	DATE	REVISED
SHH	DS	DS	SHH			
			LDB	HSM	10-10-73	

F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11B	VERMILION	93	51
FEDERAL ROAD DISTRICT NO. 7		ILLINOIS		

PLAN — TOP OF PIER

SECTION C-C

SECTION W W

SECTION S-S

PIER ELEVATION

SECTION A-A

SECTION F-F

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

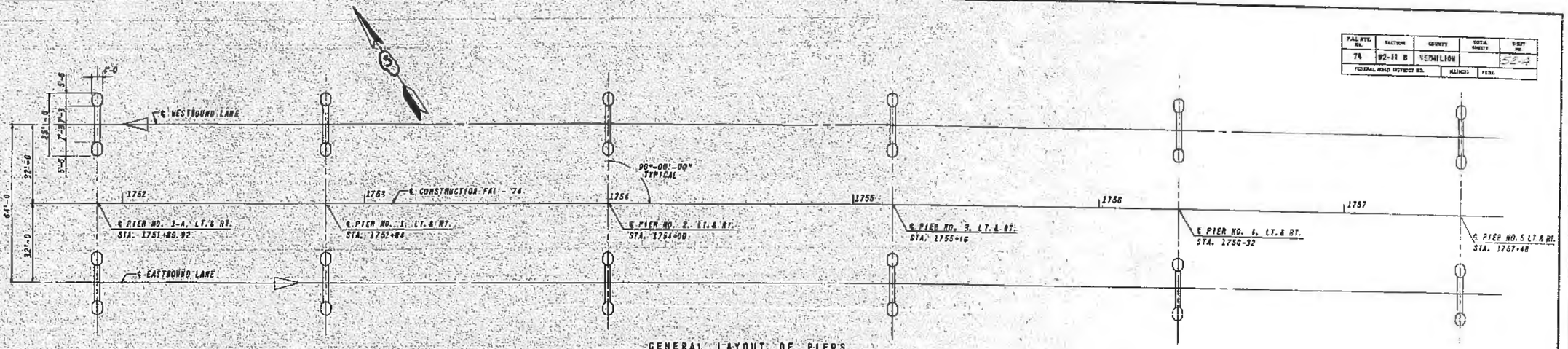
ILLINOIS DIVISION OF HIGHWAYS

FAI RT. 74 BRIDGE OVER VERMILION RIVER
FAI-74 SECTION 92-11B
VERMILION COUNTY STA. 1755+16

PIER NO. 5

DESIGNED	DRAWN	TRACED	CHECKED	REVISED	DATE	REVISED
SHH	DS	DS	JHH			
			LDB	HSM	10-10-60	

F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11 B	VERMILION		58-A
FEDERAL ROAD DISTRICT NO.	ILLINOIS	FED. AID PROJ.		



GENERAL LAYOUT OF PIERS

ORIGINAL BAR SCHEDULE

PIERS LT. & RT.	BAR	NO.	SIZE	LENGTH	SPACING	SHAPE
ALL	d11	784	7	6'-0	As Shown	
ALL	f 1	178	7	34'-0	1'-0	
ALL	f 2	336	7	10'-6	1'-0	
ALL	h41	608	5	21'-6	1'-0	
ALL	h42	808	5	10'-0	1'-0	
ALL	h43	936	10	22'-0	1'-0	
ALL	s11	960	4	9'-6	1'-0	
ALL	t 1	1,496	5	13'-9	1'-0	
1	u51	112	7	29'-8	1'-0	
1,2,3,4	u52	480	11	6'-0	As Shown	
1	u53	120	11	31'-9	As Shown	
ALL	u54	210	5	7'-6	1'-0	
2,3	u55	448	7	22'-6	0'-6	
2	u56	112	7	18'-8	1'-0	
2	u57	120	11	41'-9	As Shown	
3	u58	112	7	17'-8	1'-0	
3	u59	120	11	39'-9	As Shown	
4	u60	112	7	21'-8	1'-0	
4	u61	120	11	35'-9	As Shown	
5	u62	112	7	28'-8	1'-0	
5	u63	120	9	6'-0	As Shown	
5	u64	120	9	26'-9	As Shown	
1-5	x1	276	7	16'-2	0'-6	
2-3	x2	276	10	25'-4	0'-6	
4	x3	138	8	18'-8	0'-6	

PIER QUANTITIES

CLASS X CONCRETE	2,761.4	CU. YDS.
REINFORCEMENT BARS	324,070	LBS.
STEEL PILES (12" @ 53)	4,610	LIN. FT.
CLASS A EXCAVATION	1,800	CU. YDS.
TEST PILES	2	EACH

NOTE: ONE TEST PILE LOCATED AT PIER NO. 1 RT. & PIER NO. 5 RT.
QUANTITIES SHOWN ARE FOR 5 PIERS LT. & RT.

BAR SCHEDULE PIERS NO. 2 THRU NO. 5

PIERS LT. & RT.	BAR	NO.	SIZE	LENGTH	SPACING	SHAPE
ALL	d11	672	7	6'-0	As Shown	
ALL	f 1	148	7	34'-0	1'-0	
ALL	f 2	280	7	10'-6	1'-0	
ALL	h41	512	5	21'-6	1'-0	
ALL	h42	512	5	10'-0	1'-0	
ALL	h43	240	10	21'-0	1'-0	
ALL	s11	900	4	9'-6	1'-0	
ALL	t 1	1,248	5	13'-9	1'-0	
2,3,4	u52	360	11	6'-0	As Shown	
ALL	u54	168	5	7'-6	1'-0	
2,3	u55	448	7	22'-6	0'-6	
2	u56	112	7	18'-8	1'-0	
2	u57	120	11	41'-9	As Shown	
3	u58	112	7	17'-8	1'-0	
3	u59	120	11	39'-9	As Shown	
4	u60	112	7	21'-8	1'-0	
4	u61	120	11	35'-9	As Shown	
5	u62	112	7	28'-8	1'-0	
5	u63	120	9	6'-0	As Shown	
5	u64	120	9	26'-9	As Shown	
5	x1	138	7	16'-2	0'-6	
2-3	x2	276	10	25'-4	0'-6	
4	x3	138	8	18'-8	0'-6	

PIER QUANTITIES

CLASS X CONCRETE	2,281.2	CU. YDS.
REINFORCEMENT BARS	262,310	LBS.
STEEL PILES (12" @ 53)		LIN. FT.
CLASS A EXCAVATION	749	CU. YDS.
TEST PILES	1	EACH

NOTE: ONE TEST PILE LOCATED AT PIER NO. 5 RT.
QUANTITIES SHOWN ARE FOR PIERS NO. 2 THRU NO. 5 LT. & RT.

BAR SCHEDULE PIERS NO. 1-A & NO. 1

PIERS LT. & RT.	BAR	NO.	SIZE	LENGTH	SPACING	SHAPE
1	d11	224	7	6'-0	As Shown	
1-A	d12	112	8	6'-0	As Shown	
ALL	f 1	72	7	34'-0	1'-0	
ALL	f 2	136	7	10'-6	1'-0	
ALL	f101	72	4	34'-0	1'-0	
ALL	h41	216	5	21'-6	1'-0	
ALL	h42	216	5	10'-0	1'-0	
ALL	h43	168	10	21'-0	1'-0	
ALL	s11	180	4	9'-6	1'-0	
ALL	t 1	756	5	13'-9	1'-0	
ALL	u52	240	11	6'-0	As Shown	
ALL	u54	84	5	7'-6	1'-0	
1	u55	224	7	22'-6	0'-6	
ALL	u57	240	11	41'-9	As Shown	
1	u101	112	7	15'-6	1'-0	
1-A	u102	112	8	17'-6	1'-0	
1-A	x1	138	7	16'-2	0'-6	
1	x101	70	4	21'-6	1'-0	
1	x102	136	9	23'-0	0'-6	
1-A	x103	70	4	15'-6	1'-0	

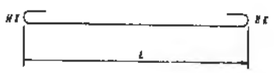
PIER QUANTITIES

CLASS X CONCRETE	1,146.7	CU. YDS
REINFORCEMENT BARS	145,790	LBS.
COFFERDAM PIER 1*	2	EACH
CLASS A EXCAVATION**	832	CU. YDS

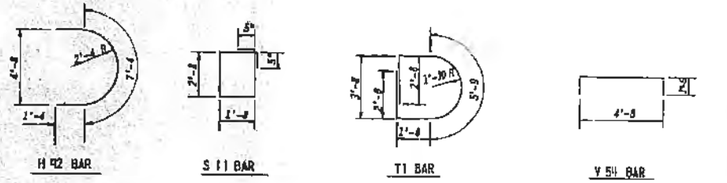
NOTE: QUANTITIES SHOWN ARE FOR PIERS NO. 1-A & NO. 1 LT. & RT.
* COFFERDAM AT PIER NO. 1 LT. & RT. (NECESSARY EXCAVATION INCIDENTAL TO COFFER DAM).
** CLASS A EXCAVATION AT PIER NO. 1-A LT. & RT. ONLY

DETAILING DIMENSIONS

BAR	SIZE	L	HK	LENGTH
x 1	7	14'-6	0'-10	16'-2
x 2	10	20'-6	1'-5	23'-4
x 3	8	16'-6	1'-1	18'-8
x 101	4	20'-6	0'-6	21'-6
x 102	9	20'-6	1'-5	23'-0
x 103	4	14'-6	0'-6	15'-6



x1, x2, x3, x101, x102 & x103 BARS



H 42 BAR S 11 BAR T1 BAR Y 54 BAR

BENDING DIAGRAMS
(ALL BAR DIMENSIONS ARE OUT TO OUT.)

AS BUILT

ADDITIONAL PIER QUANTITIES		
CLASS X CONCRETE	686.3	CU. YDS
REINFORCEMENT BARS	94,090	LBS.
COFFERDAM PIER 1	2	EACH
CLASS A EXCAVATION	832	CU. YDS

RELOCATED WEST ABUTMENT

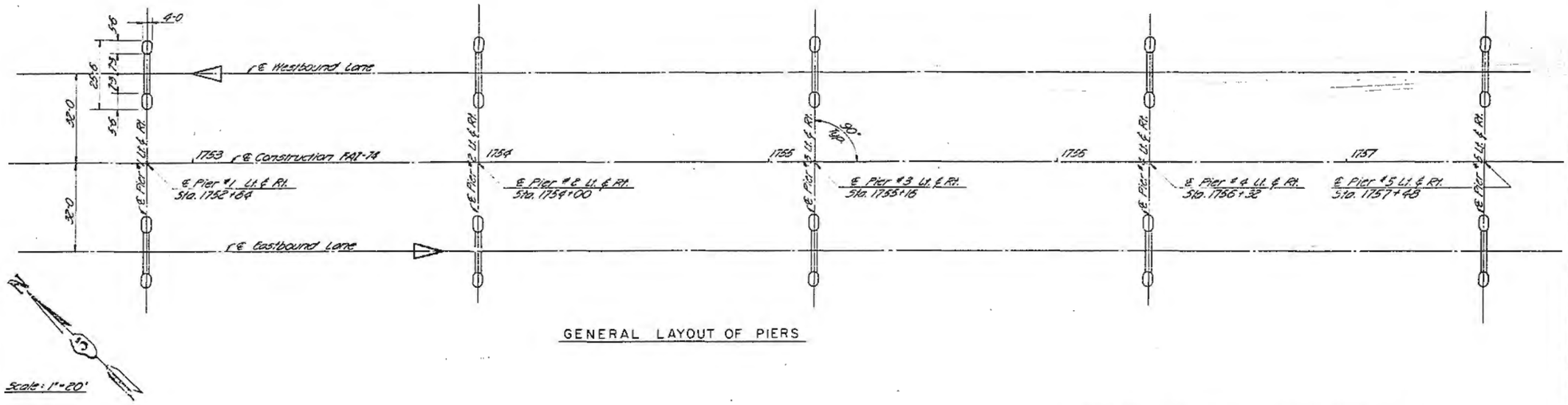
CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
F.A.I. RT. 74 BRIDGE OVER VERMILION RIVER
F.A.I.-74 SECTION 92-11B
VERMILION COUNTY STA. 1755+16

PIERS

DESIGNED	DRAWN	TRACED	CHECKED	ADDENDA	DATE	REVISED
ST.	EG		LDB		H.S.M. 12-3-62	

F.A.I. RTE. NO.	SECTION	COUNTY	TOT. SHTS.	SHEET NO.
74	92-11B	VERMILION	93	52
FEDERAL ROAD DISTRICT NO. 7	ILLINOIS	FHWA		



GENERAL LAYOUT OF PIERS

ESTIMATED LENGTHS & QUANTITIES STEEL PILES		
Pier #1 Rt.	47 @ 15	= 705 Lin. Ft.
Pier #1 Lt.	48 @ 10	= 480 Lin. Ft.
Pier #2 Rt.		
Pier #2 Lt.		
Pier #3 Rt.		
Pier #3 Lt.		
Pier #4 Rt.	38 @ 15	= 570 Lin. Ft.
Pier #4 Lt.	38 @ 15	= 570 Lin. Ft.
Pier #5 Rt.	47 @ 23	= 1081 Lin. Ft.
Pier #5 Lt.	48 @ 23	= 1104 Lin. Ft.
Test Piles @ Pier #1 Rt.		& Pier #5 Rt. 2 Each

BAR SCHEDULE

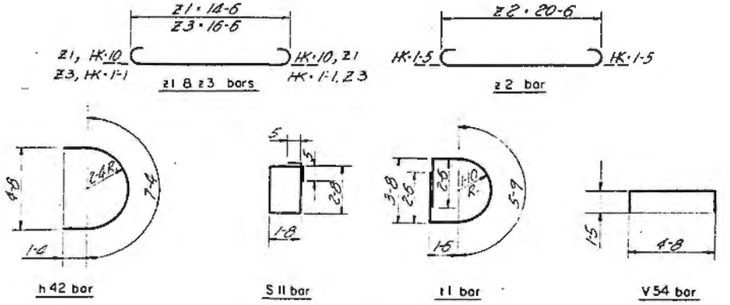
Piers (Lt. & Rt.)	Bar	No.	Size	Length	Spacing	Shape
All	d11	154	7	6-0	As Shown	—
All	f1	178	7	34-0	1-0	—
All	f2	336	7	10-6	1-0	—
All	h41	603	5	21-5	1-0	—
All	h42	608	5	10-0	1-0	⊃
All	h43	336	10	21-0	1-0	—
All	s11	360	4	9-6	1-0	□
All	t1	1496	5	13-9	1-0	⊐
1	V51	112	7	23-8	1-0	—
1,2,3,4	V52	480	11	6-0	As Shown	—
1	V53	120	11	31-9	As Shown	—
All	V54	210	5	7-6	1-0	⊏
2-3	V55	448	7	22-5	0-6	—
2	V56	112	7	18-8	1-0	—
2	V57	120	11	41-9	As Shown	—
3	V58	112	7	17-8	1-0	—
3	V59	120	11	39-9	As Shown	—
4	V60	112	7	21-8	1-0	—
4	V61	120	11	35-9	As Shown	—
5	V62	112	7	23-8	1-0	—
5	V63	120	9	6-0	As Shown	—
5	V64	120	9	16-9	As Shown	—
1-5	z1	276	7	16-2	0-6	⊂⊃
2-3	z2	276	10	23-4	0-6	⊂⊃
4	z3	138	8	18-8	0-6	⊂⊃

PIER QUANTITIES

Class X Concrete	2761.6	Cu. Yds.
Reinforcement Bars	314,070	Lbs.
Steel Piles (12" BP 53)	4,510	Lin. Ft.
Class 'A' Excavation	1800	Cu. Yds.
Class 'B' Excavation	970	Cu. Yds.
Test Piles	2	Each

Note: One Test Pile located at Pier No. 1 Rt. & Pier No. 5 Rt.

Quantities shown are for 5 Piers Lt. & Rt.



BENDING DIAGRAMS
(All bar dimensions are out to out.)

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
FAI RT 74 BRIDGE OVER VERMILION RIVER
FAI-74 SECTION 92-11B
VERMILION COUNTY STA. 1755+16

PIERS

DESIGNED	DRAWN	TRACED	CHECKED	REVISED	DATE	REVISED
SNH	DS	DS	JNH			
			LDB	HSM	10-10-60	

Revised Class A & B Excav. 12-12-61 L.D.W.
Revised Class X Conc., Piles, Test piles, Class B Excav. 1-2-62 L.D.W.

FEDERAL AID ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11	VERMILION	286	1
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT	I-UI-74-6(65)212	

DEPARTMENT OF PUBLIC WORKS AND BUILDINGS

DIVISION OF HIGHWAYS

PLANS FOR PROPOSED

FEDERAL AID INTERSTATE HIGHWAY

SCALES		
PLAN	1 INCH	100 FT.
PROFILE, HOR.	1 INCH	100 FT.
PROFILE, VERT.	1 INCH	10 FT.
CROSS-SECTIONS	1 INCH	5 FT.

FOR SUMMARY OF QUANTITIES - SEE SHEET NO. 7
FOR INDEX OF SHEETS - SEE SHEET NO. 6

F.A.I. ROUTE 74, SEC. 92-11, VERMILION COUNTY

PROJECT I-UI-74-6(65)212

DESIGN CLASSIFICATION 1350-T-70

PROJECT I-UI-74-6(65)212
SEC. 92-11
BEGINS STA. 1720+00

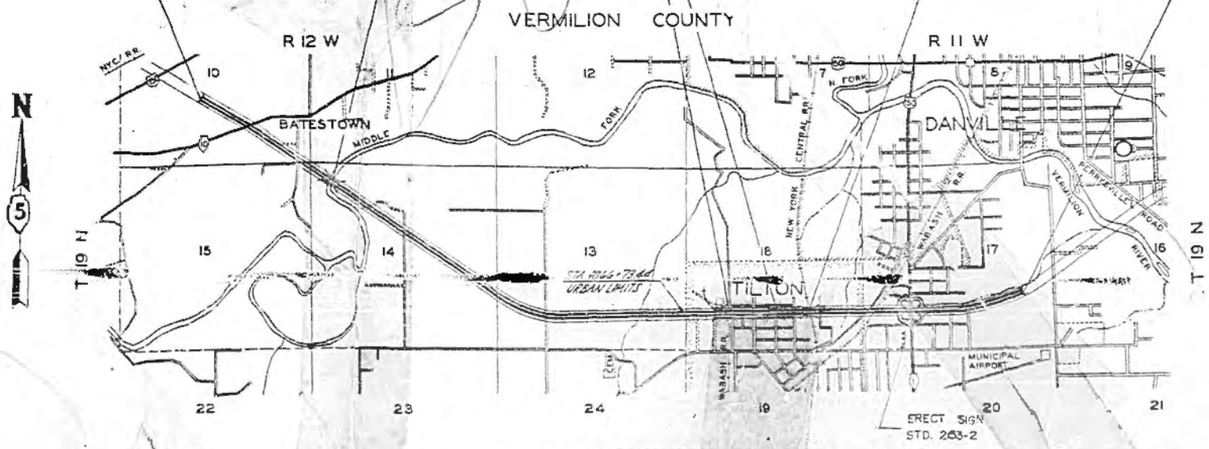
OMISSION 781.17 FT.
FROM PAVING ONLY
STA. 1750+77.83 TO STA. 1758+59

OMISSION 277.41 FT.
FROM PAVING ONLY
STA. 1876+24.92 TO STA. 1879+02.33

OMISSION 117.66 FT.
FROM PAVING ONLY
STA. 1890+61.75 TO STA. 1891+79.41

OMISSION 237.84 FT.
FROM PAVING ONLY
STA. 1899+91.07 TO STA. 1902+28.91

PROJECT I-UI-74-6(65)212
SEC. 92-11
ENDS STA. 1957+00



TOTAL LENGTH OF SECTION = 23,700 FT. = 4.489 MILES
NET LENGTH OF SECTION = 22,285.92 FT. = 4.221 MILES

TOTAL LENGTH OF PROJECT I-UI-74-6(65)212 = 23,700 FT. = 4.489 MILES
NET LENGTH OF PROJECT I-UI-74-6(65)212 = 22,285.92 FT. = 4.221 MILES

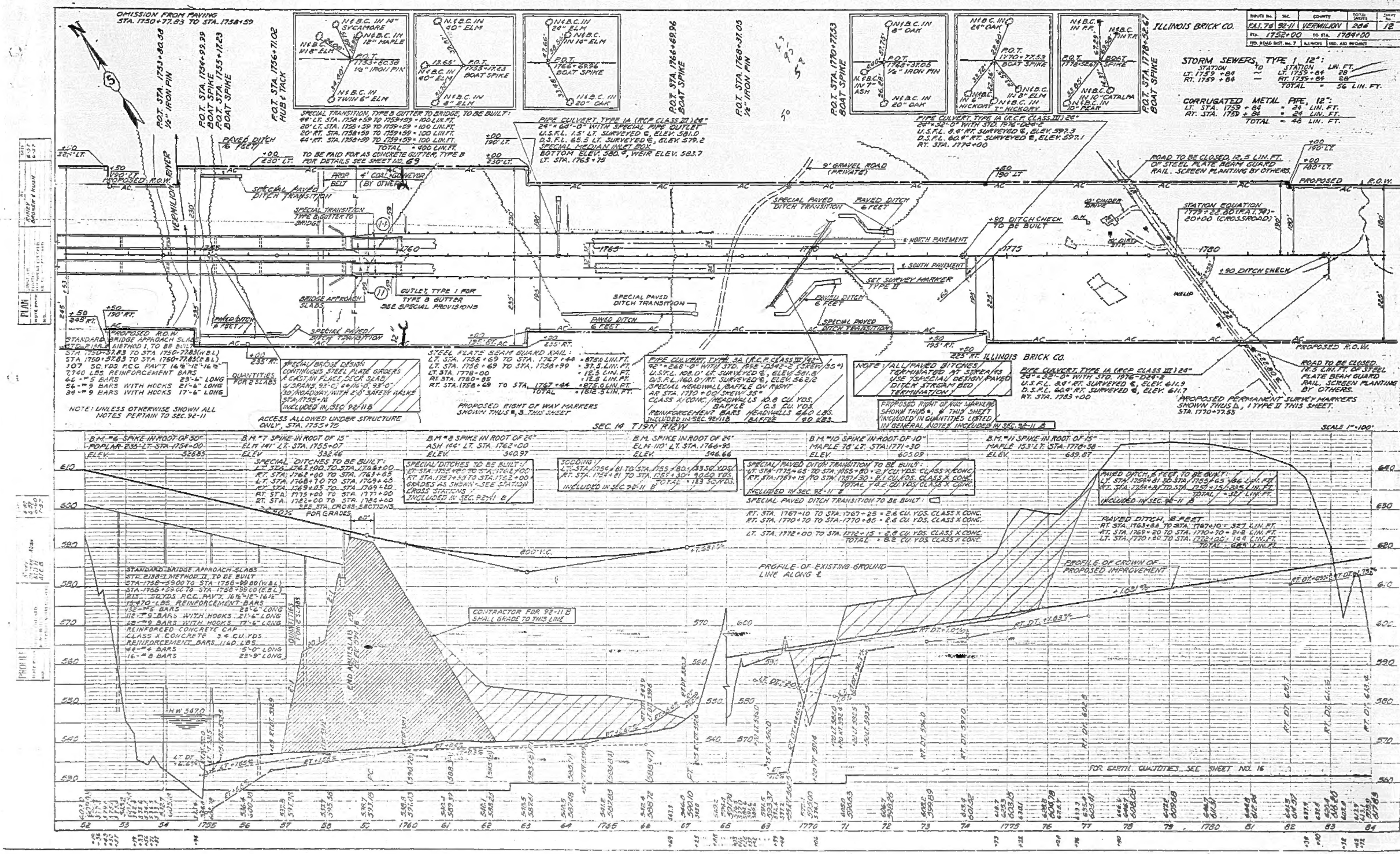
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS
SUBMITTED May 29, 1963
EXAMINED August 12, 1963
RECOMMENDED August 12, 1963
APPROVED August 12, 1963
APPROVED August 12, 1963

CONSOR, TOWNSEND & ADAMS
360 E. GRAND AVE., CHICAGO

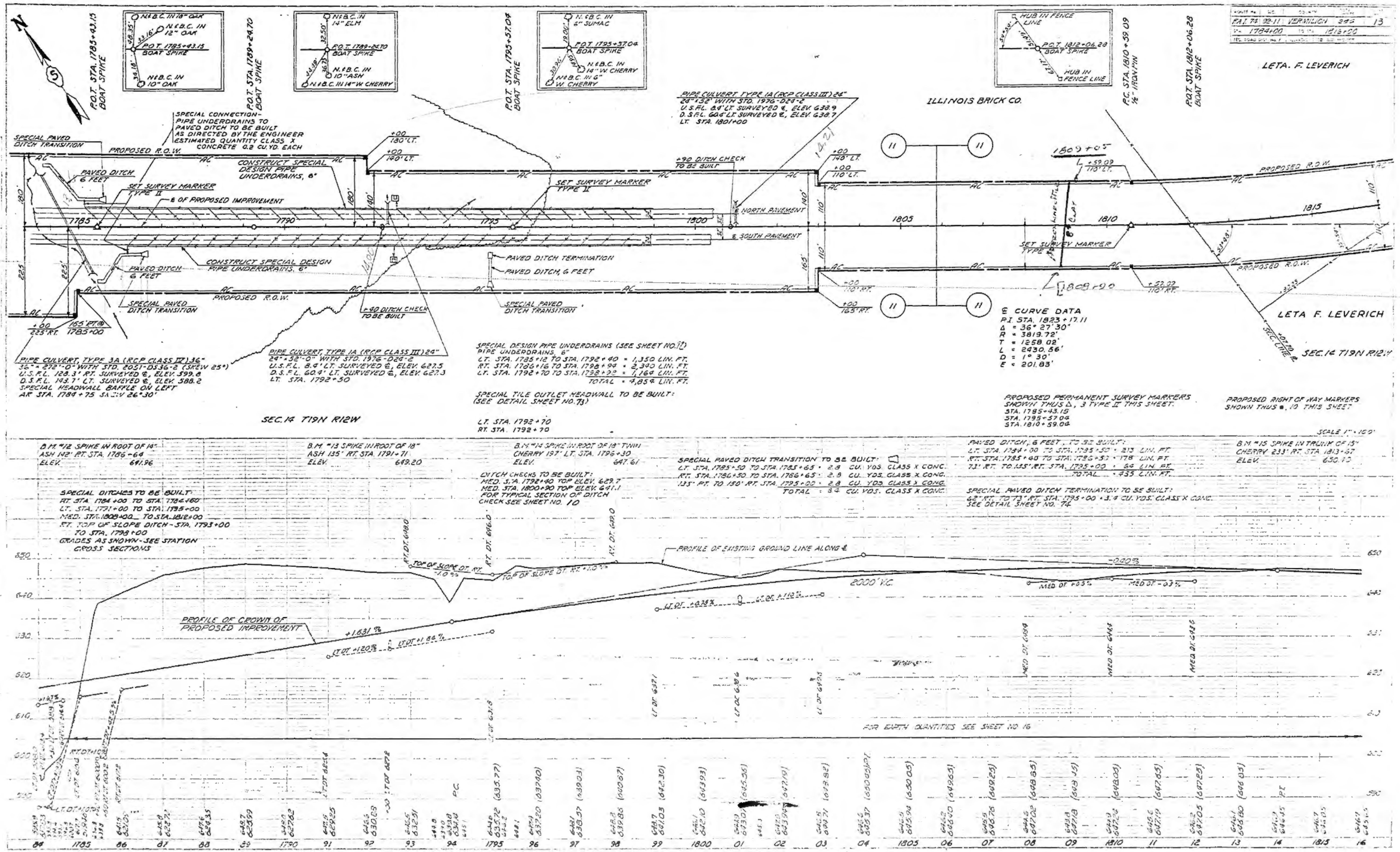
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
BUREAU OF PUBLIC ROADS
APPROVED
DIVISION ENGINEER

CONTRACT NO. 23136

VERMILION COUNTY SECTION 92-11 F. A. ROUTE 74



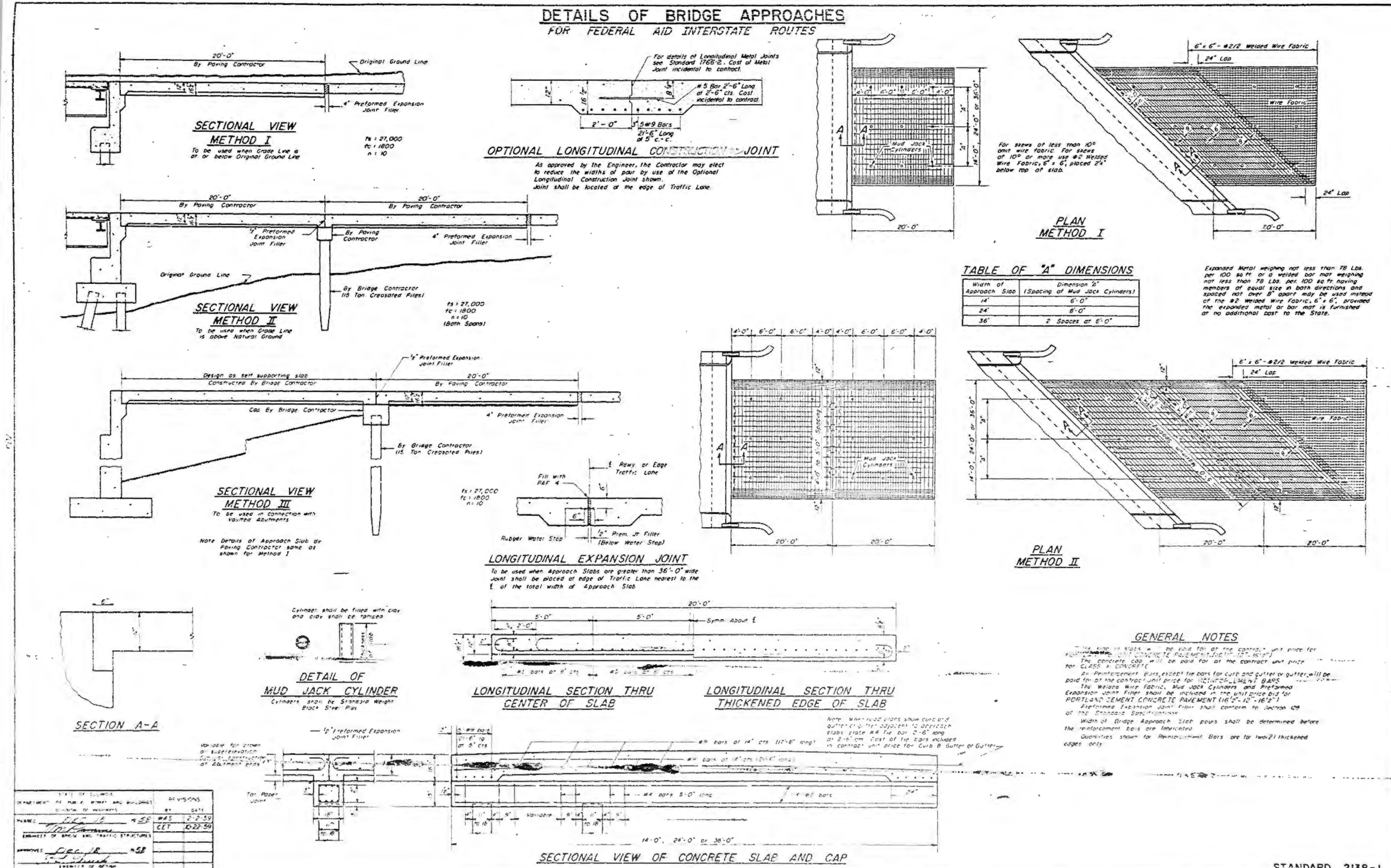
F.A.I. 74 | 92-11 | VERMILION | 286 | 12
STA. 1752+00 TO STA. 1784+00
ILLINOIS BRICK CO.
OMISSION FROM PAVING STA. 1750+77.83 TO STA. 1758+59
P.O.T. STA. 1753+80.38 ½" IRON PIN
P.O.T. STA. 1754+99.29 BOAT SPIKE
P.O.T. STA. 1755+17.23 BOAT SPIKE
P.O.T. STA. 1756+71.02 HUB & TACK
P.O.T. STA. 1766+69.96 BOAT SPIKE
P.O.T. STA. 1768+37.05 ½" IRON PIN
P.O.T. STA. 1770+77.53 BOAT SPIKE
P.O.T. STA. 1778+52.67 BOAT SPIKE
STORM SEWERS, TYPE 1 12":
LT. 1759+84 TO LT. 1759+84 28; RT. 1759+84 TO RT. 1759+84 28; TOTAL = 56 LIN. FT.
CORRUGATED METAL PIPE, 12":
LT. STA. 1759+84 = 24 LIN. FT.
RT. STA. 1759+84 = 24 LIN. FT.
TOTAL = 48 LIN. FT.
SPECIAL TRANSITION, TYPE B GUTTER TO BRIDGE, TO BE BUILT:
44' LT. STA. 1758+59 TO 1759+59 = 100 LIN. FT.
20' LT. STA. 1758+59 TO 1759+59 = 100 LIN. FT.
20' RT. STA. 1758+59 TO 1759+59 = 100 LIN. FT.
44' RT. STA. 1758+59 TO 1759+59 = 100 LIN. FT.
TOTAL = 400 LIN. FT.
TO BE PAID FOR AS CONCRETE GUTTER, TYPE B. FOR DETAILS SEE SHEET NO. 69
PIPE CULVERT, TYPE 1A (RCP CLASS III) 24"
24" x 64'-0" WITH SPECIAL PIPE OUTLET
U.S.F.L. 1.5' LT. SURVEYED ℄, ELEV. 581.0
D.S.F.L. 65.5 LT. SURVEYED ℄, ELEV. 579.2
SPECIAL MEDIAN INLET BOX
BOTTOM ELEV. 580.9, WEIR ELEV. 583.7
LT. STA. 1763+75
PIPE CULVERT, TYPE 1A (RCP CLASS III) 24"
24" x 52'-0" WITH STD. 1976-D24-2
U.S.F.L. 8.4' RT. SURVEYED ℄, ELEV. 597.3
D.S.F.L. 60.4' RT. SURVEYED ℄, ELEV. 597.1
RT. STA. 1774+00
VERMILION RIVER
PROPOSED R.O.W.
9' GRAVEL ROAD (PRIVATE)
ROAD TO BE CLOSED, 12.5 LIN. FT. OF STEEL PLATE BEAM GUARD RAIL. SCREEN PLANTING BY OTHERS.
STATION EQUATION 1779+22.80 (F.A.I. 74) = 20+00 (CROSSROAD)
+90 DITCH CHECK TO BE BUILT
+90 DITCH CHECK
SPECIAL PAVED DITCH TRANSITION
PAVED DITCH 6 FEET
SET SURVEY MARKER TYPE II
OUTLET, TYPE 1 FOR TYPE B GUTTER SEE SPECIAL PROVISIONS
BRIDGE APPROACH SLABS
PROPOSED R.O.W.
STANDARD BRIDGE APPROACH SLABS STD. 2136-4 METHOD I, TO BE BUILT
STA. 1750+57.83 TO STA. 1750+77.83 (W.B.L.)
STA. 1750+57.83 TO STA. 1750+77.83 (E.B.L.)
107 SQ. YDS. P.C.C. PAV'T 16½"-12"-16½"
7,740 LBS. REINFORCEMENT BARS
66 - #5 BARS 23'-6" LONG
56 - #9 BARS WITH HOOKS 21'-6" LONG
34 - #9 BARS WITH HOOKS 17'-6" LONG
QUANTITIES FOR 2 SLABS
NOTE: UNLESS OTHERWISE SHOWN ALL NOTES PERTAIN TO SEC. 92-11
SPECIAL BRIDGE DESIGN CONTINUOUS STEEL PLATE GIRDERS & CAST IN PLACE DECK SLAB 3 SPANS 93'-0", 146'-0", 93'-0" 30' ROADWAY WITH 2'-0" SAFETY WALKS STA. 1755-16 INCLUDED IN SEC. 92/11 B
ACCESS ALLOWED UNDER STRUCTURE ONLY, STA. 1755+75
STEEL PLATE BEAM GUARD RAIL:
LT. STA. 1758+69 TO STA. 1767+44 = 875.0 LIN. FT.
LT. STA. 1758+69 TO STA. 1758+99 = 37.5 LIN. FT.
LT. STA. 1778+00 = 12.5 LIN. FT.
RT. STA. 1780+85 = 12.5 LIN. FT.
RT. STA. 1758+69 TO STA. 1767+44 = 875.0 LIN. FT.
TOTAL = 1812.5 LIN. FT.
PROPOSED RIGHT OF WAY MARKERS SHOWN THUS ●, 3 THIS SHEET
PIPE CULVERT, TYPE 3A (R.C.P. CLASS III) 42"
92" x 268'-0" WITH STD. 1998-D342-2 (SKEW 35°)
U.S.F.L. 108.0' LT. SURVEYED ℄, ELEV. 581.8
D.S.F.L. 160.0' RT. SURVEYED ℄, ELEV. 562.2
SPECIAL HEADWALL BAFFLE ON RIGHT
RT STA. 1770+00 SKEW 35°
CLASS X CONC. HEADWALLS 10.8 CU. YDS. BAFFLE 0.3 CU. YDS.
REINFORCEMENT BARS HEADWALLS 640 LBS. BAFFLE 90 LBS.
INCLUDED IN SEC. 92/11 B
NOTE: ALL PAVED DITCHES TERMINATED AT STREAMS USE SPECIAL DESIGN PAVED DITCH STREAM BED TERMINATION
PROPOSED RIGHT OF WAY MARKERS SHOWN THUS ●, 6 THIS SHEET INCLUDED IN QUANTITIES LISTED IN GENERAL NOTES INCLUDED IN SEC. 92-11 B
+50 225' RT. ILLINOIS BRICK CO.
PIPE CULVERT, TYPE 1A (RCP CLASS III) 24"
24" x 52'-0" WITH STD. 1976-D24-2
U.S.F.L. 8.4' RT. SURVEYED ℄, ELEV. 611.9
D.S.F.L. 60.4' RT. SURVEYED ℄, ELEV. 611.7
RT. STA. 1783+00
ROAD TO BE CLOSED 12.5 LIN. FT. OF STEEL PLATE BEAM GUARD RAIL. SCREEN PLANTING BY OTHERS.
PROPOSED PERMANENT SURVEY MARKERS SHOWN THUS △, 1 TYPE II THIS SHEET. STA. 1770+77.53
SEC. 14 T19N R12W
SCALE 1" = 100'
B.M. #6 SPIKE IN ROOT OF 30" POPLAR 235' LT. STA. 1754+00 ELEV. 526.85
B.M. #7 SPIKE IN ROOT OF 15" ELM 141' LT. STA. 1755+07 ELEV. 532.46
B.M. #8 SPIKE IN ROOT OF 24" ASH 144' LT. STA. 1762+00 ELEV. 540.97
B.M. SPIKE IN ROOT OF 24" ELM 110' LT. STA. 1766+95 ELEV. 546.66
B.M. #10 SPIKE IN ROOT OF 10" MAPLE 78' LT. STA. 1771+30 ELEV. 605.09
B.M. #11 SPIKE IN ROOT OF 15" MAPLE 153' LT. STA. 1776+56 ELEV. 639.87
SPECIAL DITCHES TO BE BUILT: SEE STA. CROSS SECTIONS FOR GRADES
SODDING INCLUDED IN SEC. 92-11 B
SPECIAL PAVED DITCH TRANSITION TO BE BUILT: INCLUDED IN SEC. 92-11 B
SPECIAL PAVED DITCH TRANSITION TO BE BUILT:
RT. STA. 1767+10 TO STA. 1767+25 = 2.6 CU. YDS. CLASS X CONC.
RT. STA. 1770+70 TO STA. 1770+85 = 2.6 CU. YDS. CLASS X CONC.
LT. STA. 1772+00 TO STA. 1772+15 = 2.8 CU. YDS. CLASS X CONC.
TOTAL = 8.2 CU. YDS. CLASS X CONC.
PAVED DITCH, 6 FEET, TO BE BUILT: INCLUDED IN SEC. 92-11 B
PAVED DITCH, 6 FEET
TOTAL = 685 LIN. FT.
800' V.C.
STANDARD BRIDGE APPROACH SLABS STD. 2136-3 METHOD II, TO BE BUILT
STA. 1758+59.00 TO STA. 1758+99.00 (W.B.L.)
STA. 1758+59.00 TO STA. 1758+99.00 (E.B.L.)
215 SQ. YDS. P.C.C. PAV'T 16½"-12"-16½"
REINFORCED CONCRETE CAP
CLASS X CONCRETE 34 CU. YDS.
REINFORCEMENT BARS 1160 LBS.
QUANTITIES FOR 2 SLABS
CONTRACTOR FOR 92-11 B SHALL GRADE TO THIS LINE
END ABUT. SLAB
H.W. 547.0
PROFILE OF EXISTING GROUND LINE ALONG ℄
PROFILE OF CROWN OF PROPOSED IMPROVEMENT
FOR EARTH QUANTITIES SEE SHEET NO. 16
52 53 54 1755 56 57 58 59 1760 61 62 63 64 1765 66 67 68 69 1770 71 72 73 74 1775 76 77 78 79 1780 81 82 83 84
PLAN
PROFILE



F.A.I. 74 92-11 VERMILION
STA. 1784+00 TO STA. 1816+00
13
P.O.T. STA. 1785+43.15 BOAT SPIKE
P.O.T. STA. 1789+24.70 BOAT SPIKE
P.O.T. STA. 1795+57.04 BOAT SPIKE
P.C. STA. 1810+59.09 ½" IRON PIN
P.O.T. STA. 1812+06.28 BOAT SPIKE
N.&B.C. IN 18" OAK
N.&B.C. IN 12" OAK
N.&B.C. IN 10" OAK
N.&B.C. IN 14" ELM
N.&B.C. IN 10" ASH
N.&B.C. IN 14" W. CHERRY
N.&B.C. IN 6" SUMAC
N.&B.C. IN 14" W. CHERRY
N.&B.C. IN 6" W. CHERRY
HUB IN FENCE LINE
LETA F. LEVERICH
ILLINOIS BRICK CO.
SPECIAL CONNECTION-PIPE UNDERDRAINS TO PAVED DITCH TO BE BUILT AS DIRECTED BY THE ENGINEER ESTIMATED QUANTITY CLASS X CONCRETE 0.2 CU.YD. EACH
SPECIAL PAVED DITCH TRANSITION
PROPOSED R.O.W.
PAVED DITCH 6 FEET
SET SURVEY MARKER TYPE II
℄ OF PROPOSED IMPROVEMENT
CONSTRUCT SPECIAL DESIGN PIPE UNDERDRAINS, 6"
NORTH PAVEMENT
SOUTH PAVEMENT
+90 DITCH CHECK TO BE BUILT
+40 DITCH CHECK TO BE BUILT
PAVED DITCH TERMINATION
PAVED DITCH, 6 FEET
PIPE CULVERT TYPE 1A (RCP CLASS III) 24" 24"×32' WITH STD. 1976-024-2 U.S.F.L. 8.4' LT. SURVEYED ℄, ELEV. 638.9 D.S.F.L. 60.4' LT. SURVEYED ℄, ELEV. 638.7 LT. STA. 1801+00
PIPE CULVERT, TYPE 3A (RCP CLASS IV) 36" 36"×272'-0" WITH STD. 2001-DS36-2 (SKEW 25°) U.S.F.L. 128.3' RT. SURVEYED ℄, ELEV. 599.8 D.S.F.L. 143.7' LT. SURVEYED ℄, ELEV. 588.2 SPECIAL HEADWALL BAFFLE ON LEFT AT STA. 1784+75 SKEW 26°30'
PIPE CULVERT, TYPE 1A (RCP CLASS III) 24" 24"×52'-0" WITH STD. 1976-024-2 U.S.F.L. 8.4' LT. SURVEYED ℄, ELEV. 627.5 D.S.F.L. 60.4' LT. SURVEYED ℄, ELEV. 627.3 LT. STA. 1792+50
SPECIAL DESIGN PIPE UNDERDRAINS (SEE SHEET NO. 72) PIPE UNDERDRAINS, 6"
LT. STA. 1785+12 TO STA. 1792+40 = 1,350 LIN. FT.
RT. STA. 1786+16 TO STA. 1798+99 = 2,340 LIN. FT.
LT. STA. 1792+70 TO STA. 1798+99 = 1,164 LIN. FT.
TOTAL = 4,854 LIN. FT.
SPECIAL TILE OUTLET HEADWALL TO BE BUILT: (SEE DETAIL SHEET NO. 73)
LT. STA. 1792+70
RT. STA. 1792+70
SEC. 14 T19N R12W
℄ CURVE DATA
P.I. STA. 1823+17.11
Δ = 36° 27' 30"
R = 3819.72'
T = 1258.02'
L = 2430.56'
D = 1° 30'
E = 201.83'
PROPOSED PERMANENT SURVEY MARKERS SHOWN THUS Δ, 3 TYPE II THIS SHEET.
STA. 1785+43.15
STA. 1795+57.04
STA. 1810+59.09
PROPOSED RIGHT OF WAY MARKERS SHOWN THUS ●, 10 THIS SHEET
SCALE 1" = 100'
B.M. #12 SPIKE IN ROOT OF 14" ASH 142' RT. STA. 1786+64 ELEV. 641.96
B.M. #13 SPIKE IN ROOT OF 18" ASH 135' RT. STA. 1791+71 ELEV. 649.20
B.M. #14 SPIKE IN ROOT OF 18" TWIN CHERRY 197' LT. STA. 1796+30 ELEV. 647.61
B.M. #15 SPIKE IN TRUNK OF 15" CHERRY 233' RT. STA. 1813+67 ELEV. 650.10
SPECIAL PAVED DITCH TRANSITION TO BE BUILT:
LT. STA. 1785+50 TO STA. 1785+65 = 2.8 CU. YDS. CLASS X CONC.
RT. STA. 1786+50 TO STA. 1786+65 = 2.8 CU. YDS. CLASS X CONC.
135' RT. TO 150' RT. STA. 1795+00 = 2.8 CU. YDS. CLASS X CONC.
TOTAL = 8.4 CU. YDS. CLASS X CONC.
PAVED DITCH, 6 FEET, TO BE BUILT:
LT. STA. 1784+00 TO STA. 1785+50 = 213 LIN. FT.
RT. STA. 1785+40 TO STA. 1786+50 = 178 LIN. FT.
73' RT. TO 135' RT. STA. 1795+00 = 64 LIN. FT.
TOTAL = 455 LIN. FT.
SPECIAL PAVED DITCH TERMINATION TO BE BUILT:
68' RT. TO 73' RT. STA. 1795+00 = 3.4 CU. YDS. CLASS X CONC.
SEE DETAIL SHEET NO. 74
DITCH CHECKS TO BE BUILT:
MED. STA. 1792+40 TOP ELEV. 629.7
MED. STA. 1800+90 TOP ELEV. 641.1
FOR TYPICAL SECTION OF DITCH CHECK SEE SHEET NO. 10
SPECIAL DITCHES TO BE BUILT:
RT. STA. 1784+00 TO STA. 1784+60
LT. STA. 1791+00 TO STA. 1795+00
MED. STA. 1808+00 TO STA. 1812+00
RT. TOP OF SLOPE DITCH - STA. 1793+00 TO STA. 1798+00
GRADES AS SHOWN - SEE STATION CROSS SECTIONS
PROFILE OF EXISTING GROUND LINE ALONG ℄
PROFILE OF CROWN OF PROPOSED IMPROVEMENT
+1.631%
2000' V.C.
TOP OF SLOPE DT. RT.
FOR EARTH QUANTITIES SEE SHEET NO. 16
650
640
630
620
610
600
590
84
1785
86
87
88
89
1790
91
92
93
94
1795
96
97
98
99
1800
01
02
03
04
1805
06
07
08
09
1810
11
12
13
14
1815
16

DETAILS OF BRIDGE APPROACHES

FOR FEDERAL AID INTERSTATE ROUTES



SECTIONAL VIEW
METHOD I
To be used when Grade Line is at or below Original Ground Line
20'-0"
By Paving Contractor
Original Ground Line
4" Preformed Expansion Joint Filler
fs = 27,000
fc = 1800
n = 10
SECTIONAL VIEW
METHOD II
To be used when Grade Line is above Natural Ground
By Paving Contractor
½" Preformed Expansion Joint Filler
By Paving Contractor
4" Preformed Expansion Joint Filler
By Bridge Contractor (15 Ton Creosoted Piles)
(Both Spans)
SECTIONAL VIEW
METHOD III
To be used in connection with Vaulted Abutments
Design as self supporting slab Constructed By Bridge Contractor
Cap By Bridge Contractor
Note: Details of Approach Slab by Paving Contractor same as shown for Method I
OPTIONAL LONGITUDINAL CONSTRUCTION JOINT
For details of Longitudinal Metal Joints see Standard 1766-2. Cost of Metal Joint incidental to contract.
#5 Bar 2'-6" Long at 2'-6" cts. Cost incidental to contract.
5#9 Bars
2'-6" Long at 5" c.-c.
As approved by the Engineer, the Contractor may elect to reduce the widths of pour by use of the Optional Longitudinal Construction Joint shown. Joint shall be located at the edge of Traffic Lane.
LONGITUDINAL EXPANSION JOINT
Fill with P&F 4
℄ Pavt. or Edge Traffic Lane
Rubber Water Stop
½" Prem. Jt Filler (Below Water Stop)
To be used when Approach Slabs are greater than 36'-0" wide. Joint shall be placed at edge of Traffic Lane nearest to the ℄ of the total width of Approach Slab
PLAN
METHOD I
For skews of less than 10° omit wire fabric. For skews of 10° or more use #2 Welded Wire Fabric, 6" x 6", placed 2½" below top of slab.
6" x 6" - #2/2 Welded Wire Fabric
24" Lap
Wire Fabric
Mud Jack Cylinders
PLAN
METHOD II
Expanded Metal weighing not less than 78 Lbs. per 100 sq ft or a welded bar mat weighing not less than 78 Lbs. per 100 sq ft having members of equal size in both directions and spaced not over 8" apart may be used instead of the #2 Welded Wire Fabric, 6" x 6", provided the expanded metal or bar mat is furnished at no additional cost to the State.
SECTION A-A
DETAIL OF
MUD JACK CYLINDER
Cylinder shall be filled with clay and clay shall be tamped
Cylinders shall be Standard Weight Black Steel Pipe
LONGITUDINAL SECTION THRU CENTER OF SLAB
LONGITUDINAL SECTION THRU THICKENED EDGE OF SLAB
Symm. About ℄
SECTIONAL VIEW OF CONCRETE SLAB AND CAP
½" Preformed Expansion Joint Filler
14'-0", 24'-0" or 36'-0"
Note: When road plans show curb and gutter or gutter adjacent to approach slabs, place #4 Tie bar 2'-6" long at 2'-6" cts. Cost of tie bars included in contract unit price for Curb & Gutter or Gutter.
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS
ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES
REVISIONS

TABLE OF "A" DIMENSIONS

Width of Approach Slab	Dimension "A" (Spacing of Mud Jack Cylinders)
14'	6'-0"
24'	8'-0"
36'	2 Spaces at 6'-0"

GENERAL NOTES

The concrete cap will be paid for at the contract unit price for CLASS X CONCRETE.

Reinforcement Bars, except tie bars for curb and gutter or gutter, will be paid for at the contract unit price for REINFORCEMENT BARS.

The Welded Wire Fabric, Mud Jack Cylinders and Preformed Expansion Joint Filler shall be included in the unit price bid for PORTLAND CEMENT CONCRETE PAVEMENT (16'2"-12"-16'2").

Preformed Expansion Joint Filler shall conform to Section 129 of the Standard Specifications.

Width of Bridge Approach Slab pours shall be determined before the reinforcement bars are fabricated.

Quantities shown for Reinforcement Bars are for two (2) thickened edges only.

STANDARD 2138-1

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	*	VERMILION	165	1

*92(11RS,11BR,11VB-BR,11VB-1-BR)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
PLANS FOR PROPOSED
FEDERAL AID INTERSTATE HIGHWAY

AS BUILT PLANS

SCALES: PLAN; PROFILE HOR.; PROFILE VERT.; CROSS-SECTIONS

F.A.I. ROUTE 74, SECTION 92(11RS,11BR,11VB-BR,11VB-1-BR)

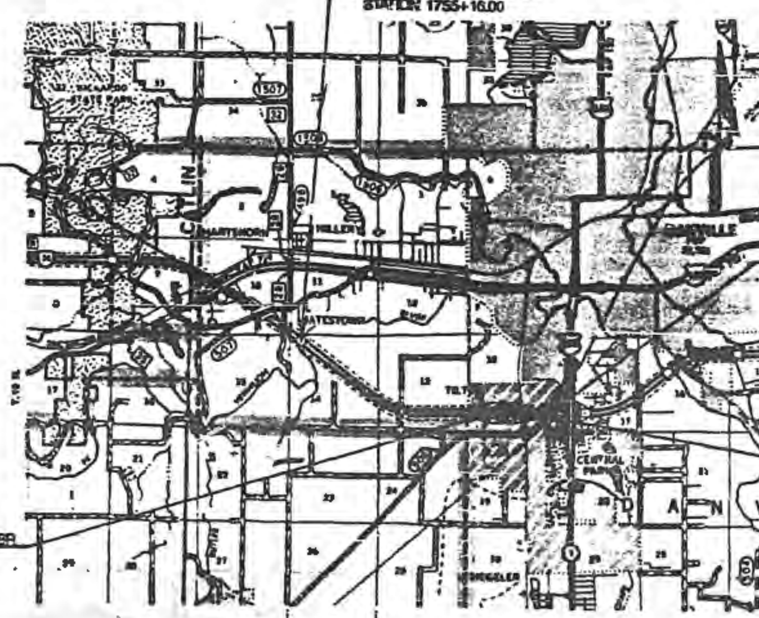
VERMILION COUNTY

C-95-067-90

INTERSTATE RESURFACING AND BRIDGE REHABILITATION

BRIDGE SECTION 92-11BR
STATION 1755+16.00

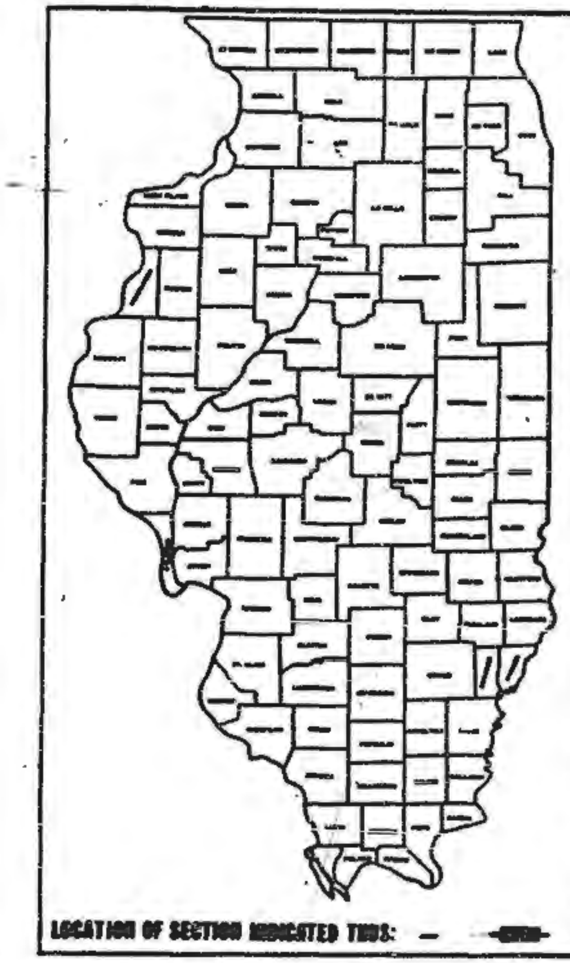
SECTION 92(11RS,11BR,11VB-BR,11VB-1-BR)
BEGINS STATION 1716+00



SECTION 92(11RS, 11BR, 11VB-BR, 11VB-1-BR)
ENDS STATION 1906+00

BRIDGE SECTION 91-11VB-1-BR
STATION 1900+60.59

BRIDGE SECTION 92-11VB-BR
STATION 1877+01.73



LOCATION OF SECTION INDICATED THUS:

RESIDENT ENGINEER	GERALD W. MILLER
CONTRACTOR	O'NEIL BROS. CONST. CO. &
JOINT VENTURE	McCALMAN CONST. CO.
STARTED	8-7-91
COMPLETED	3-14-95

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED April 25 1991
DISTRICT ENGINEER

EXAMINED 1991
ENGINEER OF PLANS AND SPECIFICATIONS

PASSED
ENGINEER OF DESIGN

APPROVED 1991
ENGINEER, BUREAU OF HIGHWAYS

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
APPROVED
DIVISION ADMINISTRATOR

DESIGN DESIGNATION
1630 (15) INTERSTATE 8.13(COMP.-6)

CONTRACT NO. 90165

TOLL FREE J.U.L.I.E. TELEPHONE NO
1-800-892-0123

TOTAL & NET LENGTH OF SECTION 92(11RS,11BR,11VB-BR,11VB-1-BR) = 19,200.00 FEET = 3.63 MILES

DANVILLE TOWNSHIP

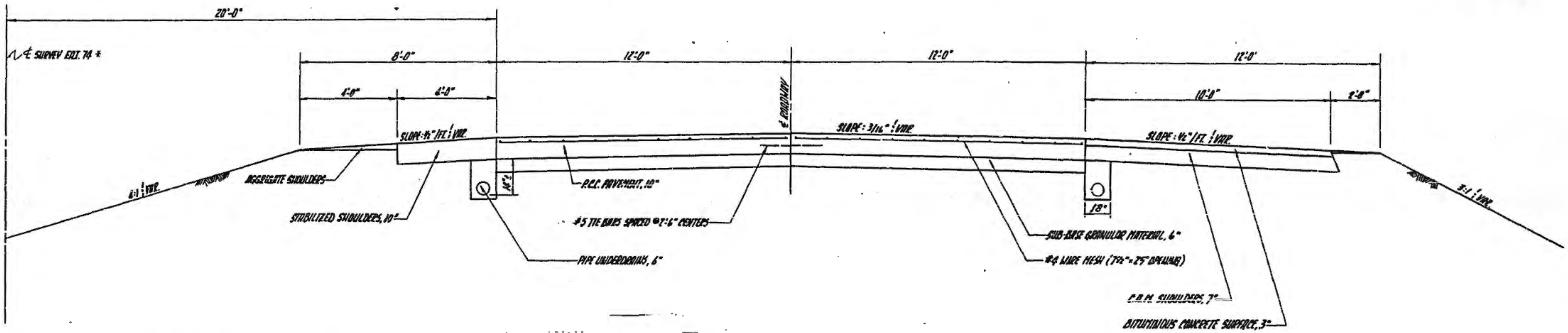
PROJECT ENGINEER: PAUL KOEHLER

SQUAD LEADER: DON

F.A.I. 74	*	VERMILION	165	2

* 92 (11RS, 11 BR, 11VB-BR, 11VB-1-BR)

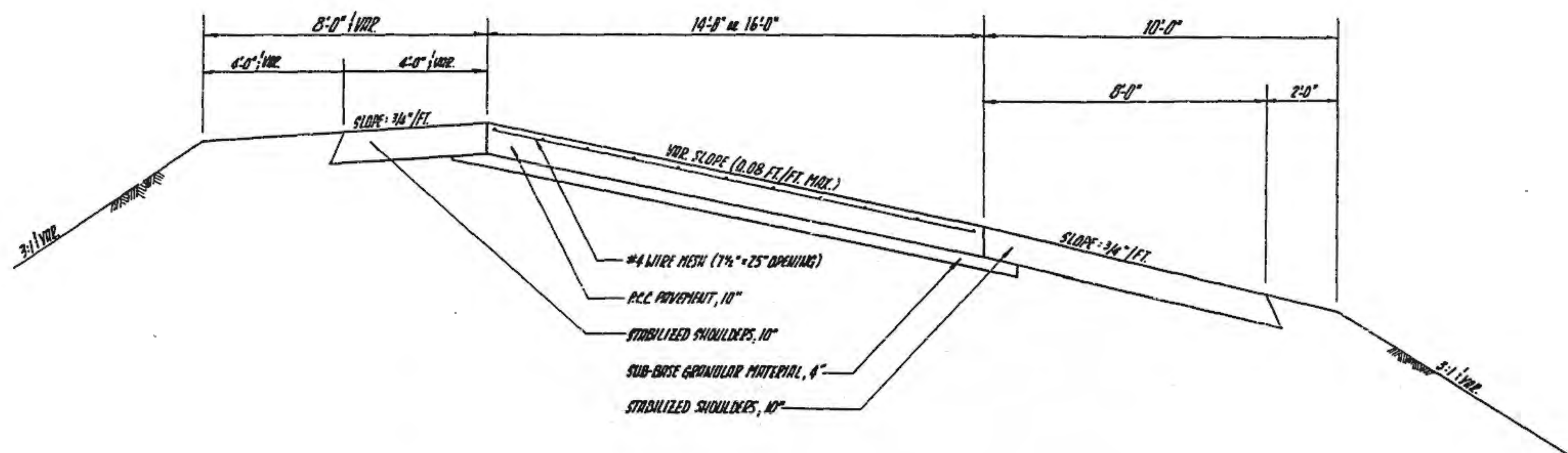
EXISTING TYPICAL CROSS SECTION



*—PAVEMENT SYMMETRICAL ABOUT ℄ SURVEY F.A.I. 74

NOTE: EXISTING PIPE UNDERDRAINS, 6" FROM STATION 1716 + 00 TO STATION 1871+50

EXISTING TYPICAL RAMP CROSS SECTION

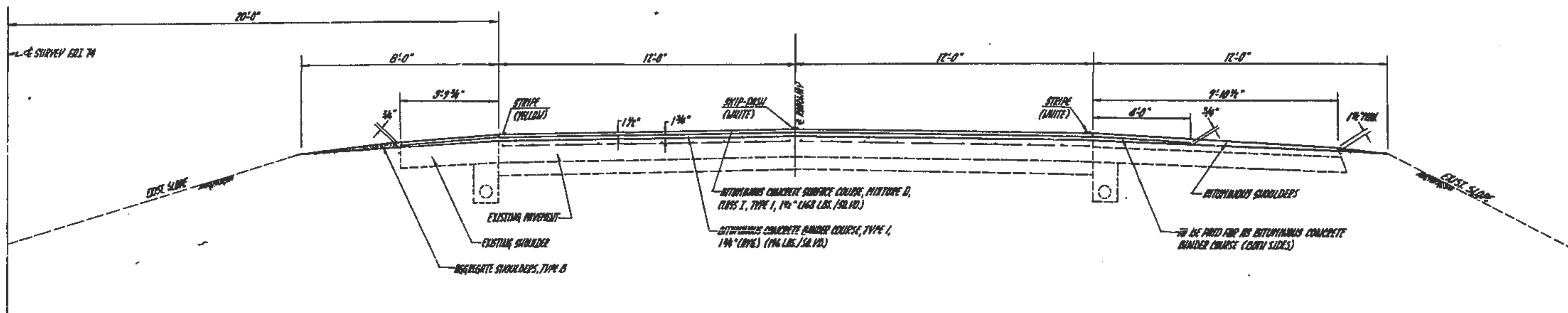


	NAME	DATE
DESIGNED BY		
CHECKED BY		
DRAFTED BY	JJ	2-91

PROPOSED TYPICAL CROSS SECTION

F.A.I. 74	*	VERMILION	45	3

* 92 (11 RS, 11 RP, 11 WN-RP, 11 WN-1-RP)



STRUCTURAL DESIGN TRAFFIC

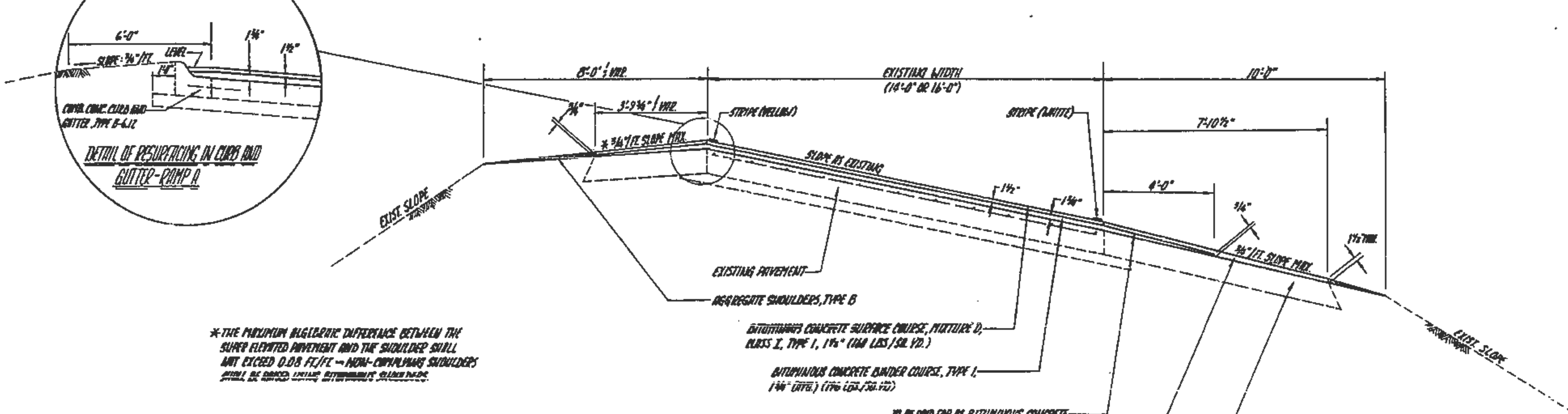
1996 A.D.T. = 15,820

P.C. = 11,707 (74.0%)	CBR = 3.0
S.U. = 1,107 (7.0%)	L_p = 32%
M.U. = 3,006 (19.0%)	U_s-U_m = 45%
CLASS I ROAD	TF = 6.00 (6 YEAR DESIGN)

NOTE: PROPOSED PIPE UNDERDRAINS, 4" FROM STATION 874+50 TO STATION 1357+00

PROPOSED TYPICAL RAMP CROSS SECTION

U.S. ROUTE 150 INTERCHANGE



* THE MAXIMUM ALGEBRAIC DIFFERENCE BETWEEN THE SUPER ELEVATED PAVEMENT AND THE SHOULDER SHALL NOT EXCEED 0.08 FT./FT. — NON-COMPLYING SHOULDERS SHALL BE RAISED USING BITUMINOUS SHOULDERS

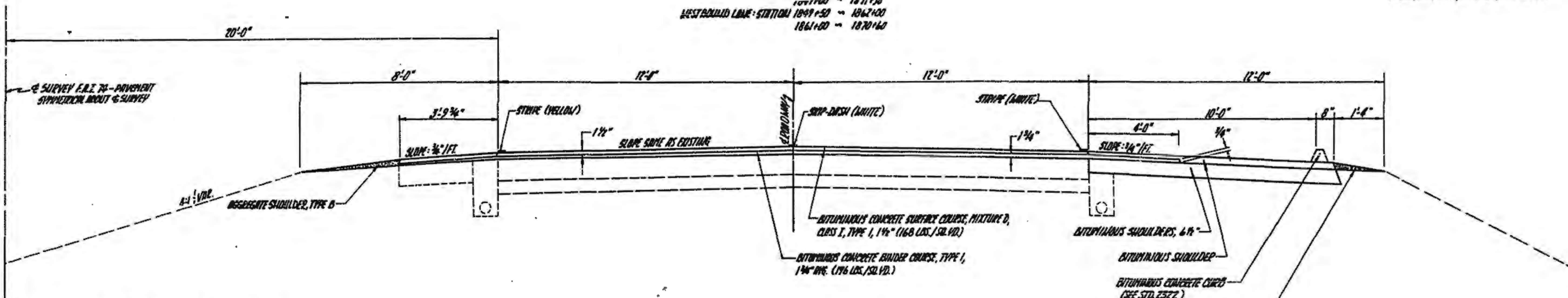
	NAME	DATE
DESIGNED BY		
CHECKED BY		
DRAFTED BY		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 74	*	VERMILION	165	4

* 92 (11RS, 11RR, 11VB-RR, 11VB-1-RR)

PROPOSED TYPICAL CROSS SECTION

EASTBOUND LANE: STATION 1746+25 – 1748+70
1783+50 – 1784+50
1805+00 – 1810+00
1849+00 – 1871+30
WESTBOUND LANE: STATION 1849+50 – 1862+00
1861+00 – 1870+60



NOTE: THE OUTER 4' OF THE STABILIZED SHOULDER IS TO BE REMOVED AND REPLACED WITH 4.67' OF STABILIZED SHOULDER, 6 1/2" AND BITUMINOUS CONCRETE CURB

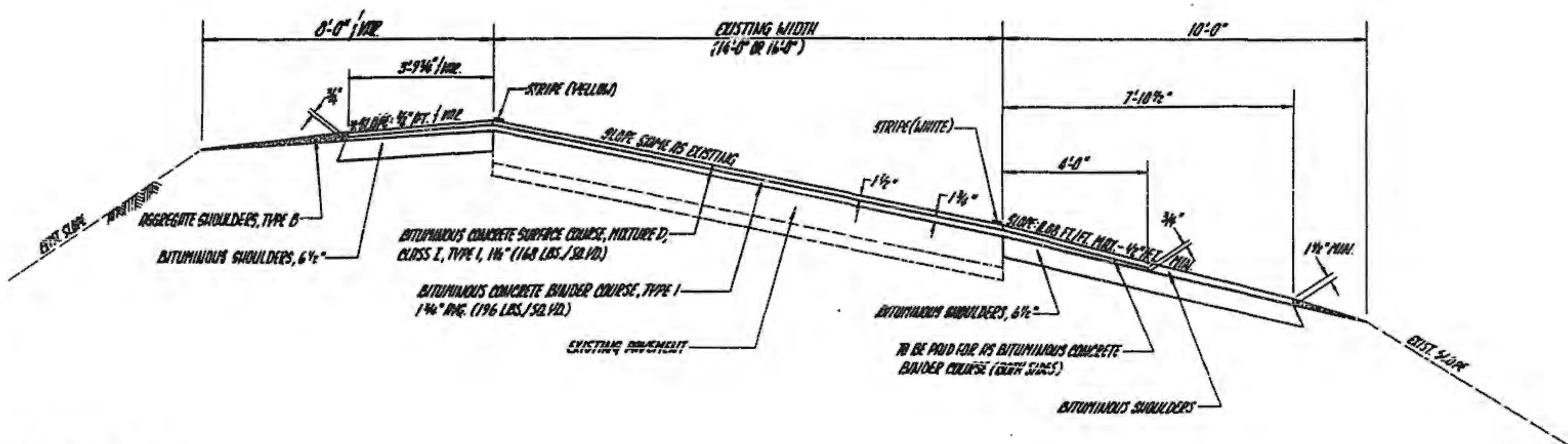
RT. STATION 1746+25 – RT. STATION 1748+70
RT. STATION 1849+00 – RT. STATION 1871+30
LT. STATION 1849+50 – LT. STATION 1862+00

THE OUTER 4' OF THE STABILIZED SHOULDER IS TO BE REMOVED AND REPLACED WITH 4' OF STABILIZED SHOULDER, 6 1/2" WITHOUT CURB.

RT. STATION 1783+50 – RT. STATION 1784+50
RT. STATION 1805+00 – RT. STATION 1810+00

PROPOSED TYPICAL RAMP CROSS SECTION

TILTON INTERCHANGE



* THE MAXIMUM ALGEBRAIC DIFFERENCE BETWEEN THE SUPER ELEVATED PAVEMENT AND THE SHOULDER SHALL NOT EXCEED 0.08 FT./FT. – NON-COMPLYING SHOULDERS SHALL BE RAISED USING BITUMINOUS SHOULDERS.

	NAME	DATE
DESIGNED BY		
CHECKED BY		
DRAFTED BY	JJ	4-91

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.74	*	VERMILION	165	5

*SEC. 92(11RS,11GR,11VB-BR,11VB-1-BR)

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DISTRICT FIVE

REVIEWED BY: James N. Fin
DISTRICT ENGINEER OF DESIGN

DATE: Nov 4, 1991

EXAMINED BY: Raymond L. Stanfield
DISTRICT ENGINEER OF CONST.

DISTRICT ENGINEER OF MAINT.

DISTRICT ENGINEER OF PLANNING

DISTRICT ENGINEER OF TRAFFIC

DISTRICT ENGINEER OF MATERIALS

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET OF
F.A.I.74	*	VERMILION	165	6

*SEC. 92(1)RS,1)BR,1)VB-BR,1)VB-1-BR)

GENERAL NOTES

G.N.-105.09
ALL ELEVATIONS SHOWN IN THE PLANS ARE BASED ON U.S.G.S. MEAN SEA LEVEL DATUM.

G.N.-107.09-A
THE VERTICAL CLEARANCE SHALL NOT BE REDUCED WHEN PROTECTING TRAFFIC FROM FALLING OBJECTS AND/OR MATERIALS.

G.N.-107.19-A
WHERE SECTION OR SUB SECTION MARKERS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKERS AND MONUMENTS UNTIL THE OWNER, AN AUTHORIZED AGENT OR LAND SURVEYOR HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATIONS.

G.N.-107.26-A
THE FOLLOWING IS A LIST OF UTILITY COMPANIES THAT HAVE UTILITIES LOCATED ALONG THIS SECTION.
THE UTILITY OWNERS MARKED WITH AN "*" BELONG TO J.U.L.I.E.

INTERSTATE WATER COMPANY
ILLINOIS POWER COMPANY

G.N. 107.26 B
EXISTING STATE-OWNED AND MAINTAINED UTILITY LINES ARE SHOWN ON THE PLANS TO INDICATE THEIR PRESENCE AND APPROXIMATE LOCATION. THE CONTRACTOR SHALL NOTIFY THE DISTRICT ENGINEER OF TRAFFIC TWO WEEKS PRIOR TO COMMENCING ANY EXCAVATION OR BORINGS IN THE VICINITY OF THESE LINES. THE STATE WILL THEN LOCATE AND MARK THE HORIZONTAL LOCATIONS OF THE LINES AND PROVIDE ANY AVAILABLE INFORMATION AS TO THEIR DEPTH. SHOULD ANY OF THE LINES BE DAMAGED BY THE CONTRACTOR'S OPERATION, THE CONTRACTOR SHALL REPAIR THEM TO THE SATISFACTION OF THE ENGINEER AND AT NO COST TO THE STATE.

G.N. 207-A
BENCHING PROCEDURES SHALL BE USED IN AREAS WHERE EXISTING EMBANKMENTS ARE WIDENED FOR THE PROPOSED PAVEMENT. STEPS SHALL BE CUT INTO THE EXISTING EMBANKMENT SLOPES AND SHALL HAVE THE FOLLOWING DIMENSIONS:
HORIZONTAL: 3.0 FEET (MINIMUM)
VERTICAL: 1 1/2 FEET

G.N.-406-A
THE QUANTITIES INCLUDED IN THE PLANS FOR BITUMINOUS CONCRETE RESURFACING ARE INTENDED TO GIVE THE COVERAGE SHOWN ON THE TYPICAL CROSS SECTIONS. IT IS NOT INTENDED TO INCREASE THE THICKNESS OF THE BITUMINOUS MIXTURE IN ORDER TO USE ALL OF THE QUANTITIES INCLUDED IN THE CONTRACT. DESIGN THICKNESSES CAN BE BACK CALCULATED USING THE CONVERSION FACTOR OF 1" THICKNESS = 112 POUNDS/SQUARE YARD.

G.N.-406-B
THE TOTAL AREA TO BE RESURFACED IS 121,226 SQ.YDS. OF WHICH 5,781 SQ.YDS. ARE VARIABLE WIDTH.
ESTIMATED QUANTITIES:

18,485	GALLONS	BITUMINOUS MATERIALS (PRIME COAT)
370	TONS	AGGREGATE (PRIME COAT)
15,640	TONS	BITUMINOUS CONCRETE BINDER COURSE, MIXTURE B, TYPE 1
10,690	TONS	BITUMINOUS CONCRETE SURFACE COURSE, MIXTURE D, CLASS I, TYPE 1

G.N.-406-D
PAVEMENT CLEANING SHALL BE PERFORMED ON THIS JOB TO REMOVE ANY LOOSE MATERIAL FROM SPALLED AREAS ON THE PAVEMENT AS DIRECTED BY THE ENGINEER. CLEANING OF THE AREA SHALL CONSIST OF THE APPLICATION OF COMPRESSED AIR, HAND PICK, AND BACKHOE TOOTH AS DIRECTED BY THE ENGINEER.

IMMEDIATELY AFTER CLEANING, THE SPALLED AREA SHALL BE HAND PRIMED WITH MATERIAL AS SPECIFIED IN ARTICLE 406.02 OF THE STANDARD SPECIFICATIONS. AFTER PRIMING, THE AREA SHALL BE FILLED WITH BITUMINOUS CONCRETE MEETING THE REQUIREMENTS OF ARTICLE 406.12 FOR SURFACE MIXTURE C. THE METHOD OF COMPACTION SHALL BE AS DIRECTED BY THE ENGINEER.

ALL LABOR, EQUIPMENT AND MATERIALS TO COMPLETE THE PAVEMENT CLEANING AND SUBSEQUENT POTHOLE FILLING AS DIRECTED BY THE ENGINEER WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04.

G.N.-511-A
BEFORE ORDERING PIPE CULVERTS AND PIPE DRAINS, THE CONTRACTOR SHALL CONSULT THE ENGINEER FOR THE EXACT LENGTHS.

G.N.-601-A
THE RIPRAP GRADATION FOR R.R.3 SHALL BE IN ACCORDANCE WITH THE GRADATION SPECIFIED IN THE PLANS OR, WITH APPROVAL OF THE ENGINEER, A RIPRAP GRADATION MEETING A D50 GREATER THAN OR EQUAL TO 0.3 FEET. D50 IS DEFINED AS THE MEAN ROCK SIZE AS DESCRIBED IN THE FHWA HYDRAULIC ENGINEERING CIRCULARS (HEC 11, HEC 14 AND HEC 15).

G.N.-601-A
THE RIPRAP GRADATION FOR R.R.2 SHALL BE IN ACCORDANCE WITH THE GRADATION SPECIFIED IN THE PLANS OR, WITH APPROVAL OF THE ENGINEER, A RIPRAP GRADATION MEETING A D50 GREATER THAN OR EQUAL TO 0.16 FEET. D50 IS DEFINED AS THE MEAN ROCK SIZE AS DESCRIBED IN THE FHWA HYDRAULIC ENGINEERING CIRCULARS (HEC 11, HEC 14 AND HEC 15).

G.N.-603-A
BEFORE ORDERING STORM SEWERS, THE CONTRACTOR SHALL CONSULT THE ENGINEER FOR THE EXACT LENGTHS.

G.N.-617-A
WHERE PROPOSED CONSTRUCTION ABUTS EXISTING APPURTENANCES, A SAW CUT SHALL BE MADE TO ACHIEVE A NEAT BUTT JOINT. SAW CUTS WILL NOT BE PAID FOR SEPARATELY. COST OF SAW CUTS SHALL BE INCLUDED IN THE TYPE WORK ENCOUNTERED.

G.N. 620-B
CLASS C PATCHES
WHERE ESTIMATED PATCHES ARE OVER 20 FEET LONG, THE EXPANSION TIE ANCHORS REQUIRED BY STANDARD 2426 SHALL BE INCLUDED IN THE PAYMENT FOR THE PATCHES. WHERE ADDITIONAL PATCHES OVER 20 FEET IN LENGTH ARE CONSTRUCTED OR WHERE ESTIMATED PATCHES "GROW" FROM LESS THAN 20 FEET TO MORE THAN 20 FEET, THE EXPANSION TIE ANCHORS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

PATCHES WHICH WILL REQUIRE TIE BARS (PATCHES IN BOTH LANES)

NUMBER	LENGTH
3	20'
2	30'
1	50'
1	60'

PATCHES WHICH WILL REQUIRE ANCHORS

NUMBER	LENGTH
1	40'
1	60'

CLASS D PATCHES, TYPE II, 10 INCH
THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 620 OF THE STANDARD SPECIFICATIONS AND STANDARD 2427 IN ORDER TO PROVIDE EXPANSION FOR THE EXISTING CONCRETE PAVEMENT. THE PATCHES SHALL BE CONSTRUCTED IN HALF WIDTHS, 4 FEET IN LENGTH, FULL WIDTH OF THE PAVEMENT, APPROXIMATELY 1,000 FEET APART AS DESIGNED BY THE ENGINEER.

THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD FOR CLASS D PATCHES, TYPE II, 10 INCH WHICH WILL BE PAYMENT IN FULL TO COMPLETE THE WORK AS SPECIFIED.

ESTIMATED QUANTITY
427 SQ.YD. CLASS D PATCHES, TYPE II, 10"

CLASS C PATCHES SHALL BE USED THROUGHOUT THIS SECTION EXCEPT FOR THE EXPANSION PATCHES. THERE ARE 6 TYPE I PATCHES, 107 TYPE II PATCHES AND 28 TYPE III PATCHES.

ESTIMATED QUANTITIES

27	SQ.YD.	CLASS C PATCHING, TYPE I, 10"
1,058	SQ.YD.	CLASS C PATCHING, TYPE II, 10"
910	SQ.YD.	CLASS C PATCHING, TYPE III, 10"

G.N.-628-A
GUARD RAIL DESIGN IN THESE PLANS WERE BASED ON THE FOLLOWING INFORMATION:
CLEAR ZONE WIDTH = 38-46' (FROM EDGE OF PAVEMENT).
OPERATING SPEED = 60 M.P.H. (POSTED SPEED LIMIT).
A.D.T. = 15,820 (1996).

G.N.-642-A
SHOULDERS, DITCHES, FORE-SLOPES, BACK-SLOPES AND OTHER PORTIONS OF THE RIGHT-OF-WAY HAVING INSUFFICIENT VEGETATION SHALL BE SEEDED AS LISTED ELSEWHERE IN THE PLANS.

G.N.-642-B
THE FOLLOWING APPLICATION RATES HAVE BEEN USED TO CALCULATE THE VARIOUS ITEMS NECESSARY FOR SEEDING:

FERTILIZER NUTRIENTS	CLASS 1, 2 & 2 SPECIAL SEEDING
NITROGEN	60 LBS. PER ACRE
PHOSPHORUS	200 LBS. PER ACRE
POTASSIUM	60 LBS. PER ACRE

G.N.-642-C
SEEDING DATES FOR ALL CLASSES OF SEEDING WILL BE AS LISTED BELOW:

CLASS OF SEEDING	BEGINNING DATES	TERMINATION DATES
1, 1A, 2, 2 SPECIAL, 2A, 3, 6, 6A (IN SPRING)	APRIL 1	MAY 15
1, 1A, 2, 2 SPECIAL, 2A, 3, 6, 6A (IN FALL)	AUGUST 15	OCTOBER 15
4 & 5 & 7		REFER TO ARTICLE 642.06

G.N.-643-A
ALL AREAS DISTURBED BY CONSTRUCTION OPERATIONS THAT ARE TO BE SEEDED SHALL ALSO BE MULCHED. THIS WORK SHALL CONFORM TO THE REQUIREMENTS OF SECTION 643 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION EXCEPT THAT THE CONTRACTOR WILL HAVE THE OPTION OF USING EITHER METHODS 2, 3, 4, 5, 6 OR 7 FOR PLACING THE MULCH. MULCH METHOD 1 SHALL NOT BE ALLOWED. MULCH WILL BE MEASURED IN ACRES OF SURFACE AREA MULCHED. THE EMULSIFIED ASPHALT USED IN METHOD 2, THE APPLICATION AND MATERIAL OF THE HYDRAULIC MULCH USED IN METHOD 5, THE CHEMICAL MULCH BINDER USED IN METHOD 6, OR THE WOOD OR PAPER FIBER HYDRAULIC MULCH USED IN METHOD 7 WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCLUDED IN THE CONTRACT UNIT PRICE PER ACRE FOR MULCH AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

WHEN THE WORK IS CONSTRUCTED ESSENTIALLY TO THE LINES, GRADES OR DIMENSIONS SHOWN ON THE PLANS AND THE CONTRACTOR AND THE ENGINEER HAVE AGREED IN WRITING THAT THE PLAN QUANTITIES FOR MULCH ARE ACCURATE, NO FURTHER MEASUREMENT WILL BE REQUIRED AND PAYMENT WILL BE MADE FOR THE QUANTITY SHOWN IN THE CONTRACT EXCEPT THAT IF ERRORS ARE DISCOVERED AFTER WORK HAS BEEN STARTED, APPROPRIATE ADJUSTMENTS WILL BE MADE.

WHEN THE PLANS HAVE BEEN ALTERED OR WHEN DISAGREEMENT EXISTS BETWEEN THE CONTRACTOR AND THE ENGINEER AS TO THE ACCURACY OF THE PLAN QUANTITY, EITHER PARTY SHALL, BEFORE ANY WORK IS STARTED WHICH WOULD AFFECT THE MEASUREMENT, HAVE THE RIGHT TO REQUEST IN WRITING AND THEREBY CAUSE THE QUANTITY INVOLVED TO BE MEASURED AS SPECIFIED.

THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER ACRE FOR MULCH MEASURED AS SPECIFIED HEREIN.

G.N.-643-B
THE APPLICATION RATE FOR STRAW IN MULCH, METHODS 1, 2, 3, 5, OR 6 SHALL BE 2 TONS PER ACRE.

G.N.-647-C
TEMPORARY PAVEMENT MARKING SHALL BE APPLIED TO THE PAVEMENT AFTER PLACING BITUMINOUS MATERIALS (PRIME COAT), (LEVEL) BINDER AND SURFACE. THE PRIME COAT AND (LEVEL) BINDER SHALL HAVE THE TEMPORARY PAVEMENT MARKING PLACED TO DELINEATE 2 LANES. THE SURFACE SHALL HAVE THE TEMPORARY PAVEMENT MARKING PLACED TO COINCIDE WITH THE FINAL STRIPING. USE 4 FEET PER 40 FEET (OR 100 PER STATION).
ESTIMATED QUANTITY:
14,298 LIN.FT. TEMPORARY PAVEMENT MARKING
(1,388 LIN.FT. YELLOW & 12,910 LIN.FT. WHITE)

G.N.-704.01
COARSE AGGREGATE GRADATION CA-10 MAY BE USED WHENEVER COARSE AGGREGATE CA-6 IS SPECIFIED IN THE STANDARD SPECIFICATIONS.

G.N.-T-500-A
FOR THE FINAL SURFACE, ONLY THE MATERIAL AND LAYOUT SCHEME SHOWN FOR THE PERMANENT PAVEMENT MARKING WILL BE ALLOWED FOR THE STANDARD MARKINGS. SHORT TERM MARKINGS SHALL BE AS SPECIFIED ELSEWHERE HEREIN.

G.N.-T501-A
THERMOPLASTIC PAVEMENT MARKINGS SHALL BE APPLIED TO THE FINAL PAVEMENT SURFACE.
ESTIMATED QUANTITIES:
YELLOW:
46,375 LIN.FT. THERMOPLASTIC PAVEMENT MARKING - LINE 4"

WHITE:
60,120 LIN.FT. THERMOPLASTIC PAVEMENT MARKING - LINE 4"
800 LIN.FT. THERMOPLASTIC PAVEMENT MARKING - LINE 8"

TOTALS:
106,495 LIN.FT. THERMOPLASTIC PAVEMENT MARKING - LINE 4"
800 LIN.FT. THERMOPLASTIC PAVEMENT MARKING - LINE 8"

G.N.-T-502-C
THE FOLLOWING QUANTITIES ARE ALLOWED FOR PLACING STANDARD PAVEMENT MARKINGS, IN ACCORDANCE WITH THE SPECIAL PROVISION ENTITLED 'SECTION 647, SHORT-TERM PAVEMENT MARKING AND NO-PASSING ZONE SIGNING,' ON THE MILLED SURFACE OR INTERMEDIATE LIFTS AND TO DELINEATE NO-PASSING ZONES DURING CONSTRUCTION. QUANTITIES FOR THE FINAL PAVEMENT MARKING ARE INCLUDED ELSEWHERE HEREIN.

ESTIMATED QUANTITIES:
YELLOW:
92,750 LIN.FT. PAINT PAVEMENT MARKING - LINE 4"

WHITE:
120,240 LIN.FT. PAINT PAVEMENT MARKING - LINE 4"

TOTALS:
212,990 LIN.FT. PAINT PAVEMENT MARKING - LINE 4"

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.74	*	VERMILION	165	7

*SEC. 92(11RS,11BR,11VB-BR,11VB-1-BR)

SUMMARY OF QUANTITIES

SAFETY CLASSIFICATION CODE: 2A
LOCATION OF WORK: 11BR STRUCTURES NO. 092-0006 NO. 092-0007 STATION 1755+16 RURAL; 11VB-BR STRUCTURES NO. 092-0008 NO. 092-0009 STATION 1877+01.3 URBAN; 11VB-1-BR STRUCTURES NO. 092-0012 NO. 092-0013 STATION 1900+80.5 URBAN; ROADWAY STA. 1716+00 TO STA. 1866+73.44 RURAL; ROADWAY STA. 1866+73.44 TO STA. 1908+00 URBAN
CONSTRUCTION TYPE CODE: X031; X571-5Ø; X571-5Ø; I000; I000

CODE NO	ITEM	UNIT	TOTAL QUANTITY					
50700400	FURNISHING AND ERECTING STRUCTURAL STEEL	LBS.	121,560.0	121,560.0				
50700100	FURNISHING AND ERECTING STRUCTURAL STEEL, [illegible]	L SUM	1.0		0.74	0.26		
X0301078	JACKING EXISTING STRUCTURE, NUMBER 5	L SUM	1.0			1.0		
X0301079	JACKING EXISTING STRUCTURE, NUMBER 6	L SUM	1.0			1.0		
X0301080	FLOATING BEARINGS, FIXED 650K	EACH	4.0	4.0				
X0301081	MODIFIED PORTLAND CEMENT MORTAR REPAIR	SQ FT	422.0	422.0				
X0301082	TIGHTEN HANGER ROD ASSEMBLIES	EACH	52.0	52.0				
X0301083	BOLT REMOVAL AND REPLACEMENT, 3/4"	EACH	50.0	50.0				
X0301084	BOLT REMOVAL AND REPLACEMENT, 7/8"	EACH	45.0	45.0				
X0301085	WELD REMOVAL	LIN FT	100.0	100.0				
X0301086	WELD PEENING	EACH	24.0		24.0			
X0301087	METAL ENERGY DISSIPATORS - 21" PIPE	EACH	1.0				1.0	
X0301088	METAL ENERGY DISSIPATORS - 36" PIPE	EACH	2.0				2.0	
20100100	TREE REMOVAL (6 TO 15 INCH DIAMETER)	IN DIA	62.0					62.0
20100200	TREE REMOVAL (OVER 15 INCH DIAMETER)	IN DIA	108.0					108.0
20200100	EARTH EXCAVATION	CU YD	1,029.0				941.0	88
20700100	EMBANKMENT	CU YD	1,138.0					1,138.0
20900100	POROUS GRANULAR EMBANKMENT	TON	3,800.0				3,800.0	
21300100	SUB-BASE GRANULAR MATERIAL, TYPE A	TON	459.0				459.0	
21500500	AGGREGATE SHOULDERS, TYPE A 6"	SQ YD	608.0				608.0	
21501200	AGGREGATE SHOULDERS, TYPE B	TON	2,639.0				1,997.0	642.0
21900410	BITUMINOUS SHOULDERS 6 1/2"	SQ YD	7,326.0				3,820.0	3,506.0
21901000	BITUMINOUS SHOULDERS	TON	8,195.0				5,470.0	2,725.0
30400700	PORTLAND CEMENT CONCRETE BASE COURSE 12"	SQ YD	485.0					485.0
30800900	BITUMINOUS BASE COURSE 12"	SQ YD	87.0					87.0
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	18,485.0				14,098.0	4,387.0
40600300	AGGREGATE (PRIME COAT)	TON	370.0				290.0	80.0
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	5.0				2.5	2.5
40600720	BITUMINOUS CONCRETE BINDER COURSE, MIXTURE B, TYPE 1	TON	15,640.0				12,300.0	3,340.0
40600820	BITUMINOUS CONCRETE SURFACE COURSE, MIXTURE D, CLASS I, TYPE 1	TON	10,690.0				8,273.0	2,417.0
40600855	CONSTRUCTING TEST STRIP	EACH	2.0				1.0	1.0
40601151	BITUMINOUS CONCRETE PAVEMENT (FULL-DEPTH), TYPE 1 13 1/2"	SQ YD	2,600.0				2,600.0	
40801150	BRIDGE APPROACH PAVEMENT (STANDARD 2382)	SQ YD	649.0					649.0
40801500	P.C. CONCRETE BRIDGE APPROACH SHOULDER PAVEMENT	SQ YD	151.0					151.0
41000300	PORTLAND CEMENT CONCRETE SHOULDERS 8"	SQ YD	74.0				56.0	18.0
50102400	CONCRETE REMOVAL	CU YD	157.9	32.0	46.8	79.1		
50102500	CONCRETE REMOVAL (SPECIAL)	CU YD	18.7					18.7
50102900	EXPANSION BOLTS 3/4 INCH	EACH	480.0		268.0	212.0		
50104100	BRIDGE HANDRAIL REMOVAL	LIN FT	5,124.0	2,991.0	1,190.0	943.0		
50104400	CONCRETE HEADWALL REMOVAL	EACH	1.0				1.0	
50105200	REMOVE EXISTING CULVERTS	EACH	1.0				1.0	
50200100	STRUCTURE EXCAVATION	CU YD	790.5		433.5	357.0		
50300100	FLOOR DRAINS	EACH	32.0		20.0	12.0		

Rev

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.T.74	*	VERMILION	165	8

*SEC. 92(11RS,11BR,11VB-BR,11VB-1-BR)

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	TOTAL QUANTITY	2A 11BR STRUCTURES NO. 092-0006 NO. 092-0007 STATION 1755+16 RURAL X031	11VB-BR STRUCTURES NO. 092-0008 NO. 092-0009 STATION 1877+01.3 URBAN X571-5Ø	11VB-1-BR STRUCTURES NO. 092-0012 NO. 092-0013 STATION 1900+80.5 URBAN X571-5Ø	ROADWAY STA. 1716+00 TO STA. 1866+73.44 RURAL 1000	ROADWAY STA. 1866+73.44 TO STA. 1908+00 URBAN 1000
SAFETY CLASSIFICATION CODE:								
LOCATION OF WORK:								
CONSTRUCTION TYPE CODE:								
50300130	PREFORMED JOINT SEAL 4"	LIN FT	421.0	72.0	145.0	204.0		
50300150	NEOPRENE EXPANSION JOINT 2"	LIN FT	172.0		172.0			
50300160	NEOPRENE EXPANSION JOINT 4"	LIN FT	142.0	142.0				
50300250	CLASS X CONCRETE SUPERSTRUCTURE	CU YD	3,479.6	1,892.4	863.7	723.5		
50300300	PROTECTIVE COAT	SQ YD	13,131.0	6,755.0	3,450.0	2,926.0		
50300310	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	78.0		46.0	32.0		
50300320	ELASTOMERIC BEARING ASSEMBLY, TYPE II	EACH	47.0		15.0	32.0		
50300330	ELASTOMERIC BEARING ASSEMBLY, TYPE III	EACH	7.0		7.0			
50300400	CONCRETE HEADWALL FOR PIPE DRAIN	EACH	27.0					27.0
50400300	CLASS X CONCRETE	CU YD	408.0	26.2	190.5	192.3		
50700500	STUD SHEAR CONNECTORS	EACH	15,922.0		5,298.0	10,624.0		
50701110	STRUCTURAL STEEL REMOVAL	POUND	71,370.0	71,370.0				
50801001	STEEL BRIDGE RAIL	LIN FT	1,637.0				1,404.0	233.0
50801002	STEEL BRIDGE RAIL (SPECIAL)	LIN FT	233.0					233.0
50801600	TEMPORARY BRIDGE RAIL	LIN FT	480.0		350.0			130.0
51100433	PIPE CULVERTS, TYPE 1 RCCP 18"	LIN FT	34.0				34.0	
51100439	PIPE CULVERTS, TYPE 1 RCCP 24"	LIN FT	4.0				4.0	
51115547	METAL END SECTIONS 12"	EACH	7.0				5.0	2.0
51115556	METAL END SECTIONS 21"	EACH	1.0				1.0	
51115571	METAL END SECTIONS 36"	EACH	2.0				2.0	
51200100	REINFORCEMENT BARS	POUND	66,230.0		18,140.0	14,990.0		33,100.0
51200200	REINFORCEMENT BARS, EPOXY COATED	POUND	939,910.0	552,150.0	200,200.0	187,560.0		
51301400	FURNISHING STEEL PILES HP10x42	LIN FT	489.0		489.0			
51302200	FURNISHING CONCRETE PILES	LIN FT	360.0		270.0	90.0		
51302700	DRIVING STEEL PILES	LIN FT	489.0		489.0			
51302800	DRIVING CONCRETE PILES	LIN FT	360.0		270.0	90.0		
51303400	TEST PILE STEEL HP10x42	EACH	2.0		2.0			
51304200	TEST PILE CONCRETE	EACH	3.0		2.0	1.0		
51305200	TEMPORARY SHEET PILING	SQ FT	3,712.0		1,336.0	2,376.0		
51400100	NAME PLATES	EACH	12.0	2.0	2.0	2.0	6.0	
60100103	STONE RIPRAP, CLASS A2	SQ YD	256.0		159.0	97.0		
60100105	STONE RIPRAP, CLASS A3	SQ YD	2,012.0	452.0			1,560.0	
60300500	STORM SEWERS, TYPE 1 12"	LIN FT	506.0				506.0	
60700200	PIPE DRAINS 6"	LIN FT	88.0				8.0	80.0
60700500	PIPE DRAINS 12"	LIN FT	594.0				398.0	196.0
60702300	PIPE DRAINS 21" (SPECIAL)	LIN FT	180.0				180.0	
60702800	PIPE DRAINS 36" (SPECIAL)	LIN FT	440.0				440.0	
60707600	PIPE UNDERDRAINS 4"	LIN FT	14,265.0					14,265.0
60708100	PIPE UNDERDRAINS 4" (SPECIAL)	LIN FT	422.0					422.0
61207600	CATCH BASINS, TYPE C, TYPE 8 GRATE	EACH	1.0				1.0	
61244400	FLUSH INLET BOX FOR MEDIAN (2240)	EACH	1.0				1.0	
61245400	INLET BOX, STANDARD 2247	EACH	1.0				1.0	

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.74	-	VERMILION	165	9

*SEC. 92(1)RS,11BR,11VB-BR,11VB-1-BR)

SUMMARY OF QUANTITIES

				SAFETY CLASSIFICATION CODE:		2A	2A	2A		
				LOCATION OF WORK:		11BR STRUCTURES NO. 092-0006 NO. 092-0007 STATION 1755+16 RURAL	11VB-BR STRUCTURES NO. 092-0008 NO. 092-0009 STATION 1877+01.3 URBAN	11VB-1-BR STRUCTURES NO. 092-0012 NO. 092-0013 STATION 1900+80.5 URBAN	ROADWAY STA. 1716+00 TO STA. 1866+73.44	ROADWAY STA. 1866+73.44 TO STA. 1908+00
				CONSTRUCTION TYPE CODE:		X031	X571-5Ø	X571-5Ø	RURAL 1000	URBAN 1000
CODE NO	ITEM			UNIT	TOTAL QUANTITY					
61246200	INLET BOX, STANDARD 2357			EACH	4.0				4.0	
61247115	TYPE E INLET BOX, STANDARD 2322			EACH	1.0					1.0
61247120	TYPE F INLET BOX, STANDARD 2322			EACH	6.0				5.0	1.0
61700100	PAVEMENT REMOVAL			SQ YD	2,774.0				1,512.0	1,262.0
61700600	SIDEWALK REMOVAL			SQ FT	72.0					72.0
61701000	BITUMINOUS CONCRETE SURFACE REMOVAL			SQ YD	4,842.0				2,406.0	2436.0
61704570	SHOULDER REMOVAL AND REPLACEMENT, 5"			LIN FT	5,711.0					5,711.0
61705000	STABILIZED SHOULDER REMOVAL			SQ YD	12,938.0				6,728.0	6,210.0
62001349	CLASS C PATCHES, TYPE I,	10	INCH	SQ YD	27.0				17.0	10.0
62001353	CLASS C PATCHES, TYPE II,	10	INCH	SQ YD	1,058.0				877.0	181.0
62001357	CLASS C PATCHES, TYPE III,	10	INCH	SQ YD	910.0				620.0	290.0
62001765	CLASS D PATCHES, TYPE II,	10	INCH	SQ YD	427.0				299.0	128.0
62400200	PORTLAND CEMENT CONCRETE SIDEWALK	5	INCH	SQ FT	72.0					72.0
62800000	STEEL PLATE BEAM GUARD RAIL, TYPE A			LIN FT	9,902.0				5,531.0	4,371.0
62800035	TRAFFIC BARRIER TERMINAL, TYPE 1			EACH	28.0				22.0	6.0
62800040	TRAFFIC BARRIER TERMINAL, TYPE 1A			EACH	8.0				8.0	
62800045	TRAFFIC BARRIER TERMINAL, TYPE 2			EACH	4.0				1.0	3.0
62800070	TRAFFIC BARRIER TERMINAL, TYPE 5			EACH	3.0					3.0
62800075	TRAFFIC BARRIER TERMINAL, TYPE 5A			EACH	6.0					6.0
62800085	TRAFFIC BARRIER TERMINAL, TYPE 6			EACH	9.0					9.0
62800095	TRAFFIC BARRIER TERMINAL, TYPE 8			EACH	1.0				1.0	
62800110	TRAFFIC BARRIER TERMINAL, TYPE 11			EACH	1.0					1.0
62800135	STEEL PLATE BEAM GUARD RAIL, TYPE B (SPECIAL)			LIN FT	150.0				150.0	
62800140	STEEL PLATE BEAM GUARD RAIL, TYPE C (SPECIAL)			LIN FT	125.0				125.0	
62800205	TRAFFIC BARRIER TERMINAL, TYPE 5A (SPECIAL)			EACH	12.0				12.0	
62800215	TRAFFIC BARRIER TERMINAL, TYPE 6 (SPECIAL)			EACH	6.0				6.0	
62900300	CHAIN LINK FENCE,	6'		LIN FT	251.0					251.0
62910100	CHAIN LINK FENCE (MODIFIED)			LIN FT	4,920.0					4,920.0
62910300	CHAIN LINK FENCE REMOVAL			LIN FT	261.0					261.0
63000100	WOVEN WIRE FENCE,	4'		LIN FT	246.0					246.0
63002300	WOVEN WIRE FENCE REMOVAL			LIN FT	256.0					256.0
63300300	STEEL PLATE BEAM GUARD RAIL REMOVAL			LIN FT	8,558.0				4,744.0	3,814.0
63301000	REMOVE AND RE-ERECT STEEL PLATE BEAM GUARD RAIL			LIN FT	7,508.0				5,079.0	2,429.0
64201000	SEEDING, CLASS 2 (SPECIAL)			ACRE	1.0				0.6	0.4
64600400	ENGINEER'S FIELD OFFICE, TYPE A			CAL MO	36.0				24.0	12.0
64700090	TEMPORARY PAVEMENT MARKING			LIN FT	14,298.0				9,650.0	4,648.0
64800410	TRAFFIC CONTROL AND PROTECTION, STANDARD 2417			EACH	2.0				2.0	
64800420	TRAFFIC CONTROL AND PROTECTION, STANDARD 2419			EACH	8.0					8.0

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.74	*	VERMILION	165	10

*SEC. 92(1)RS,11BR,11VB-BR,11VB-1-BR)

SUMMARY OF QUANTITIES

SAFETY CLASSIFICATION CODE:
LOCATION OF WORK:

CONSTRUCTION TYPE CODE:

CODE NO	ITEM	UNIT	TOTAL QUANTITY	2A 11BR STRUCTURES NO. 092-0006 NO. 092-0007 STATION 1755+16 RURAL X031	2A 11VB-BR STRUCTURES NO. 092-0008 NO. 092-0009 STATION 1877+01.3 URBAN X571-5Ø	2A 11VB-1-BR STRUCTURES NO. 092-0012 NO. 092-0013 STATION 1900+80.5 URBAN X571-5Ø	ROADWAY STA. 1716+00 TO STA. 1866+73.44 RURAL 1000	ROADWAY STA. 1866+73.44 TO STA. 1908+00 URBAN 1000
64800800	TRAFFIC CONTROL AND PROTECTION, STANDARD 2316	L SUM	1.0				0.3	0.7
64801600	TRAFFIC CONTROL AND PROTECTION, STANDARD 2316 (SPECIAL)	L SUM	1.0				0.3	0.7
64801620	TRAFFIC CONTROL AND PROTECTION U-1	L SUM	1.0					1.0
64801625	TRAFFIC CONTROL AND PROTECTION U-2	L SUM	1.0					1.0
64801630	TRAFFIC CONTROL AND PROTECTION U-3	L SUM	1.0					1.0
64801640	TRAFFIC CONTROL AND PROTECTION U-5	L SUM	1.0					1.0
65000100	MOBILIZATION	L SUM	1.0				0.4	0.6
65600100	TEMPORARY CONCRETE BARRIER	LIN FT	4,440.0				1,630.0	2,810.0
65600200	RELOCATE TEMPORARY CONCRETE BARRIER	LIN FT	4,444.0				1,634.0	2,810.0
65600300	TEMPORARY CONCRETE BARRIER, TERMINAL SECTION	EACH	6.0				2.0	4.0
67400100	BITUMINOUS CONCRETE CURB	LIN FT	7,462.0				5674.0	1,788.0
• T5010200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	LIN FT	106,495.0				92,261.0	14,234.0
• T5010500	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	LIN FT	800.0				400.0	400.0
• T5020200	PAINT PAVEMENT MARKING - LINE 4"	LIN FT	212,990.0				184,522.0	28,468.0
• T5020500	PAINT PAVEMENT MARKING - LINE 8"	LIN FT	1,600.0				800.0	800.0
X0300330	FURNISH CHANGEABLE MESSAGE SIGN	EACH	2.0				0.5	1.5
X0300331	INSTALL CHANGEABLE MESSAGE SIGN	CAL DAY	20.0				5.0	15.0
⚠1 X0300470	~~REMOVE AND REERECT HEADWALLS~~ FOR PIPE DRAINS	EACH	2.0				2.0	
X0320212	FLOATING BEARINGS, FIXED 300K	EACH	4.0	4.0				
X0320784	FLOATING BEARINGS, GUIDED EXPANSION 650K	EACH	16.0	16.0				
X0331900	REMOVAL OF EXISTING CONCRETE DECK NO 5	L SUM	1.0			1.0		
X0332000	REMOVAL OF EXISTING CONCRETE DECK NO 6	L SUM	1.0			1.0		
X0344600	REMOVAL OF EXISTING CONCRETE DECK NO 3	L SUM	1.0		1.0			
X0344700	REMOVAL OF EXISTING CONCRETE DECK NO 4	L SUM	1.0		1.0			
X0751100	REMOVAL OF EXISTING CONCRETE DECK NO 1	L SUM	1.0	1.0				
X0751200	REMOVAL OF EXISTING CONCRETE DECK NO 2	L SUM	1.0	1.0				
X0833800	JACKING EXISTING STRUCTURE NO. 1	L SUM	1.0	1.0				
X0833900	JACKING EXISTING STRUCTURE NO. 2	L SUM	1.0	1.0				
X0835100	JACKING EXISTING STRUCTURE NO. 3	L SUM	1.0		1.0			
X0835200	JACKING EXISTING STRUCTURE NO. 4	L SUM	1.0		1.0			

* SPECIALTY ITEM

⚠1 Rev. 6-6-91

Rev

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.74	*	VERMILION	165	11

*SEC. 92(11RS,11BR,11VB-BR,11VB-1-BR)

SUMMARY OF QUANTITIES

SAFETY CLASSIFICATION CODE: 2A
LOCATION OF WORK: 11BR STRUCTURES NO. 092-0006 NO. 092-0007 STATION 1755+16 RURAL

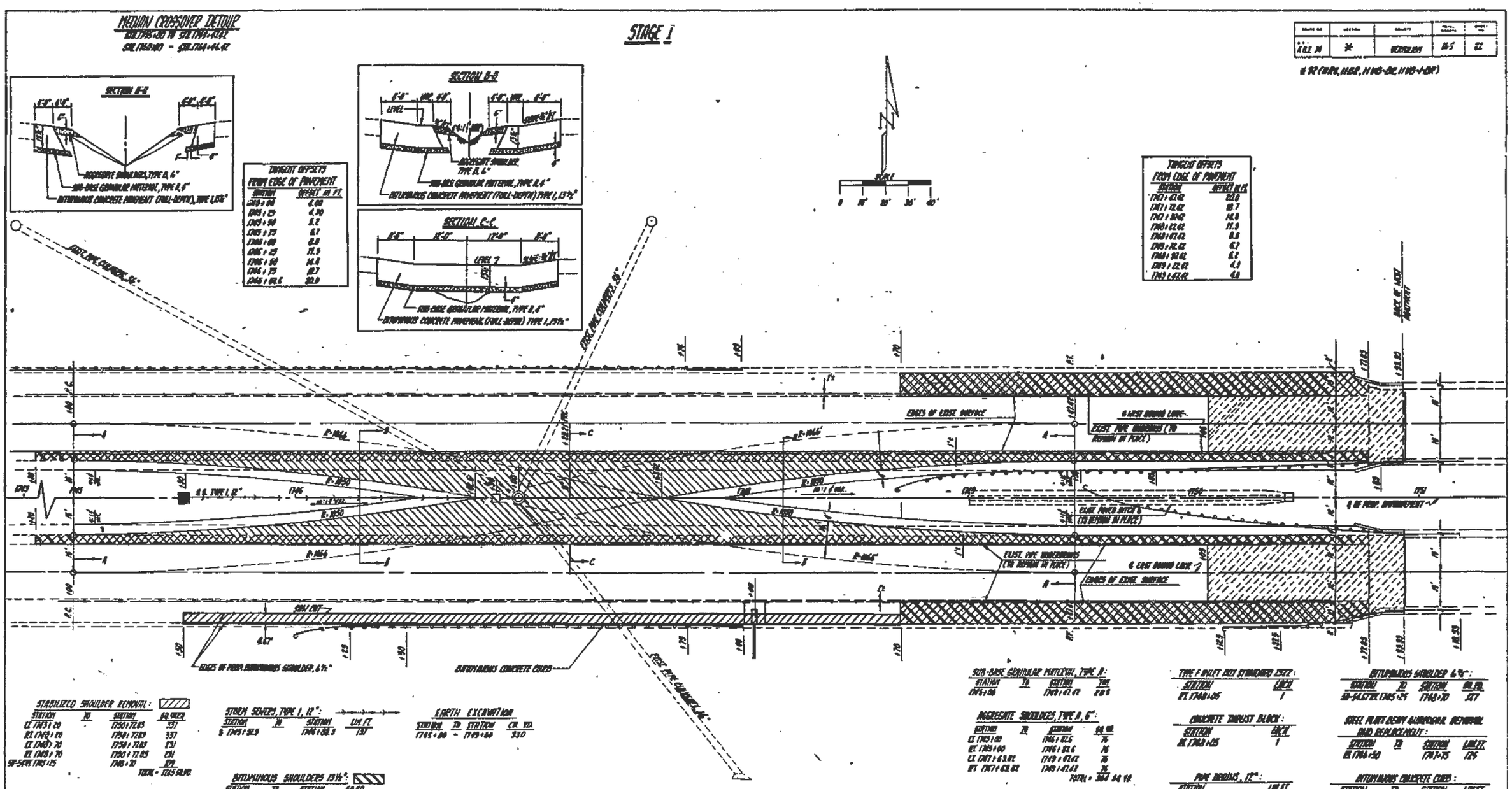
CONSTRUCTION TYPE CODE: X031

CODE NO	ITEM	UNIT	TOTAL QUANTITY	2A 11BR STRUCTURES NO. 092-0006 NO. 092-0007 STATION 1755+16 RURAL X031	2A 11VB-BR STRUCTURES NO. 092-0008 NO. 092-0009 STATION 1877+01.3 URBAN X571-5Ø	2A 11VB-1-BR STRUCTURES NO. 092-0012 NO. 092-0013 STATION 1900+80.5 URBAN X571-5Ø	ROADWAY STA. 1716+00 TO STA. 1866+73.44 RURAL 1000	ROADWAY STA. 1866+73.44 TO STA. 1908+00 URBAN 1000
X0859600	FLOATING BEARINGS, GUIDED EXPANSION 300K	EACH	12.0	12.0				
X2193300	BITUMINOUS SHOULDERS, 13 1/2"	SQ YD	6,463.0				1,590.0	4,873.0
Z0000120	ABUTMENT DRAINS	EACH	8.0					8.0
** Z0002000	ATTENUATOR BASE	SQ YD	183.0				183.0	
Z0007200	BRIDGE SEAT SEALER	L SUM	1.0	0.4	0.3	0.3		
Z0008300	CAISSON CONCRETE	CU YD	50.4			50.4		
Z0008600	CAISSON SHAFTS 30"	CU FT	177.0			177.0		
Z0008700	CAISSON SHAFTS 36"	CU FT	1,244.0			1,244.0		
Z0010800	COLD MILLING (LEVELING)	SQ YD	8,125.0				6,925.0	1,200.0
Z0013500	CONCRETE THRUST BLOCKS	EACH	7.0				5.0	2.0
Z0017900	DRAINAGE SCUPPERS	EACH	17.0	16.0	1.0			
Z0018800	DRAINAGE SYSTEM	L SUM	1.0		1.0			
Z0020300	EPOXY CRACK SEALING	LIN FT	48.0	48.0				
Z0020400	EPOXY MORTAR REPAIR	CU FT	37.8	12.0		25.8		
Z0024400	FILTER FABRIC	SQ YD	355.5		239.5	116.0		
Z0024405	FILTER FABRIC FOR USE WITH RIPRAP	SQ YD	680.0				680.0	
** Z0030200	INERTIAL BARRIER INSTALLATION	EACH	6.0				6.0	
Z0047300	PROTECTIVE SHIELD	SQ YD	3,144.0		1,000.0	2,144.0		
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1.0					1.0
Z0051800	REPAIR CONCRETE STRUCTURES	SQ FT	151.0		151.0			
Z0068300	STEEL CASINGS 36"	LIN FT	177.0			177.0		
(2) XZ0172800	BRIDGE DECK GROOVING	SQ YD	10,868.0	5,455.0	2,926.0	2,487.0		
Z0077800	WOOD POST	EACH	24.0				24.0	

* SPECIALTY ITEMS
** SFTY-3N

(2) Rev. 6-7-91

Rev.



MEDIAN CROSSOVER DETOUR

STA. 1745+00 TO STA. 1749+47.42
STA. 1748+00 – STA. 1764+46.42

STAGE I

F.A.I. 74	*	VERMILION	165	62

92 (...)

TANGENT OFFSETS FROM EDGE OF PAVEMENT

STATION	OFFSET IN FT.
1745+00	4.00
1745+25	4.70
1745+50	5.2
1745+75	6.7
1746+00	8.8
1746+25	11.9
1746+50	14.8
1746+75	18.7
1746+91.6	22.0

TANGENT OFFSETS FROM EDGE OF PAVEMENT

STATION	OFFSET IN FT.
1747+42.42	22.0
1747+72.42	18.7
1747+98.42	14.8
1748+22.42	11.9
1748+47.42	8.8
1748+72.42	6.7
1748+92.42	5.2
1749+22.42	4.9
1749+47.42	4.0

STABILIZED SHOULDER REMOVAL: ▨

STATION	TO	STATION	SQ. YDS.
LT 1743+20		1750+72.83	337
RT 1743+20		1750+72.83	337
LT 1748+70		1750+72.83	231
RT 1748+70		1750+72.83	231
SP-54RT 1745+25		1748+70	129
		TOTAL =	1265 SQ.YD.

STORM SEWERS, TYPE I, 12":

STATION	TO	STATION	LIN. FT.
℄ 1745+52.5		1746+88.5	137

EARTH EXCAVATION

STATION	TO	STATION	CU. YD.
1745+00	–	1749+60	330

FLUSH INLET BOX FOR MEDIAN (2280): ■

STATION	EACH
℄ 1745+50	1

BITUMINOUS SHOULDERS 13½": ▧

STATION	TO	STATION	SQ. YD.
LT 1743+20		1745+00	80
RT 1743+20		1745+00	80
LT 1748+70		1750+72.83	231
RT 1748+70		1750+72.83	231
LT 1749+47.42		1750+98.93	65
RT 1749+47.42		1750+98.93	65
		TOTAL =	752 SQ. YD.

BITUMINOUS CONCRETE SURFACE REMOVAL: ▨

STATION	TO	STATION	SQ. YD.
RT 1750+06.9		1750+98.93	196
LT 1750+06.9		1750+98.93	193
		TOTAL =	389 SQ. YD.

BITUMINOUS CONCRETE PAVEMENT: ▧
(FULL DEPTH), TYPE I, 13½"

STATION	TO	STATION	SQ. YD.
1745+00		1749+47.42	1,154

SUB-BASE GRANULAR MATERIAL, TYPE B:

STATION	TO	STATION	TON
1745+00		1749+47.42	283

AGGREGATE SHOULDERS, TYPE B, 6":

STATION	TO	STATION	SQ. YD.
LT 1745+00		1746+82.5	76
RT 1745+00		1746+82.6	76
LT 1747+63.82		1749+47.42	76
RT 1747+63.82		1749+47.42	76
		TOTAL =	304 SQ. YD.

TRAFFIC BARRIER TERMINAL, TYPE 6:

STATION	TO	STATION	EACH
LT 1750+62.83		1751+12.83	1

TRAFFIC BARRIER TERMINAL, TYPE 1:

STATION	TO	STATION	EACH
LT 1748+63.80		1748+92.8	1
RT 1746+00		1746+25	1
		TOTAL =	2 EACH

STEEL PLATE BEAM GUARDRAIL, TYPE A:

STATION	TO	STATION	LIN. FT.
LT 1748+92.8		1750+62.8	175
RT 1746+25		1746+50	25
		TOTAL =	200 LIN. FT.

TYPE F INLET BOX STANDARD 2332:

STATION	EACH
RT 1748+05	1

CONCRETE THRUST BLOCK:

STATION	EACH
RT 1748+05	1

PIPE DRAINS, 12":

STATION	LIN. FT.
RT 1748+05	82

METAL END SECTIONS, 12":

STATION	EACH
RT 1748+05	1

PORTLAND CEMENT CONCRETE SHOULDER, 8":

STATION	TO	STATION	SQ. YD.
RT 1748+00		1748+40	72

STEEL PLATE BEAM GUARDRAIL REMOVAL:

STATION	TO	STATION	LIN. FT.
RT 1746+25		1746+50	25
RT 1747+75		1748+00	25
		TOTAL =	50 LIN. FT.

BITUMINOUS SHOULDER 6½":

STATION	TO	STATION	SQ. YD.
SP-54.5 RT 1745+25		1748+70	127

STEEL PLATE BEAM GUARDRAIL REMOVAL AND REPLACEMENT:

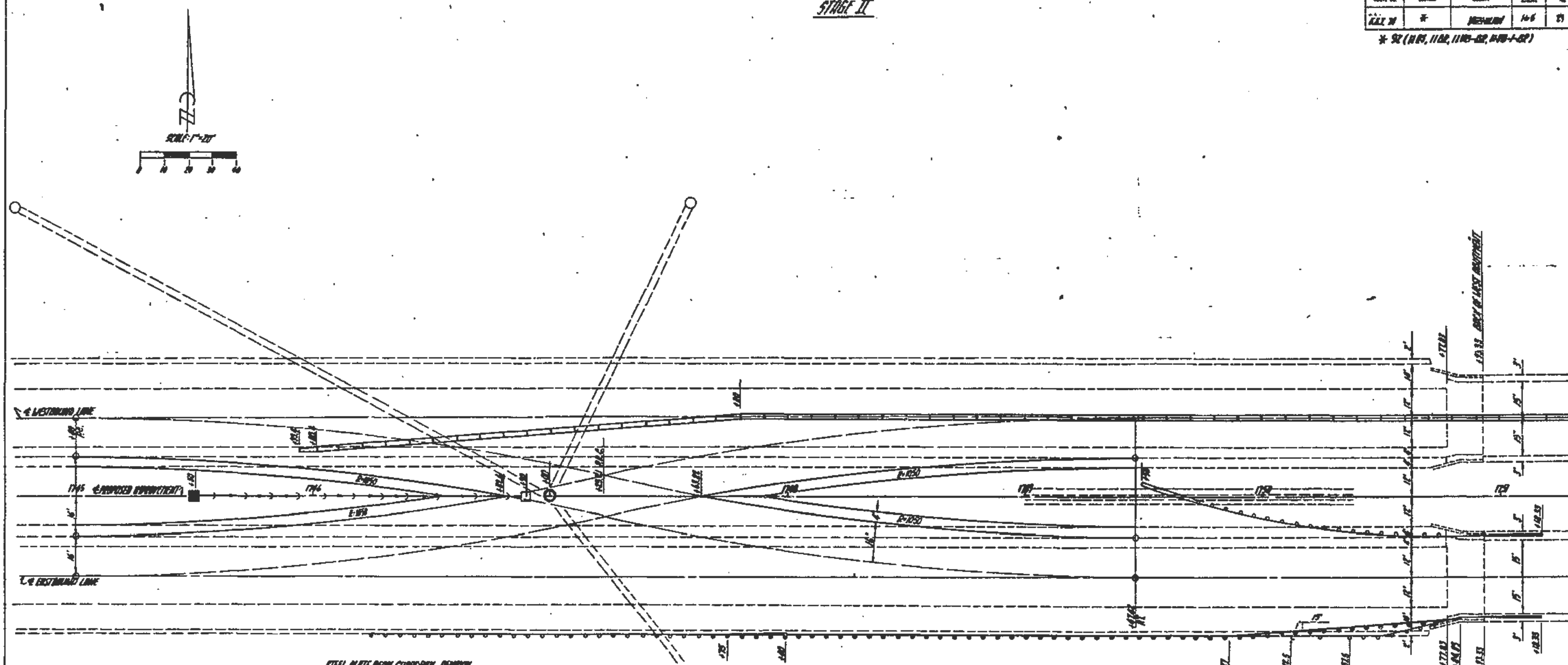
STATION	TO	STATION	LIN. FT.
RT 1746+50		1747+75	125

BITUMINOUS CONCRETE CURB:

STATION	TO	STATION	LIN. FT.
RT 1746+75		1748+80	175

	NAME	DATE
DESIGNED BY	R.R.C.	3-91
CHECKED BY		
DRAFTED BY	S.K.	3-91

STAGE II



STEEL PLATE BEAM GUARDRAIL REMOVAL

STATION	TO	STATION	LIN. FT.
RT. 1747+75	~	RT. 1748+00	25
LT. 1749+50	~	RT. 1751+18.33	168
RT. 1750+12.5	~	1751+18.33	106
		TOTAL =	299 LIN. FT.

TRAFFIC BARRIER TERMINAL, TYPE 6, (SPECIAL)

STATION	TO	STATION	EACH
RT. 1750+64.93	~	1750+91.64	1

STEEL PLATE BEAM GUARDRAIL, TYPE A

STATION	TO	STATION	LIN. FT.
RT. 1747+75		1750+64.93	290

TEMPORARY CONCRETE BARRIER

STATION	TO	STATION	LIN. FT.
LT. 1746+02.4	~	1758+00	1200

TEMPORARY CONCRETE BARRIER TERMINAL SECTION

STATION	TO	STATION	EACH
LT. 1745+83.4	~	1746+02.4	1

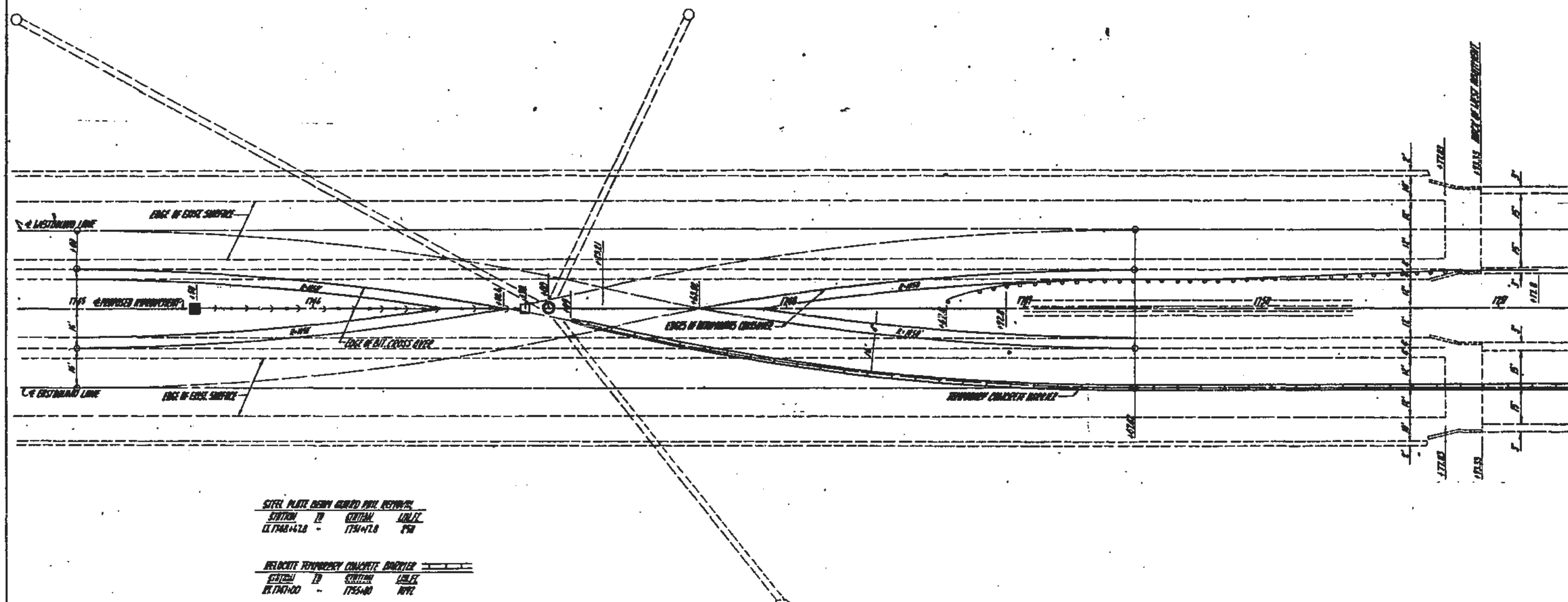
	NAME	DATE
DESIGNED BY		
CHECKED BY		
DRAFTED BY		

STAGE III

ILL 14	*	VERMILION	145	93

* 92 (1185, 1182, 1183-B2, 1178-1-B7)

SCALE: 1"=20'



STEEL PLATE BEAM GUARD RAIL REMOVAL

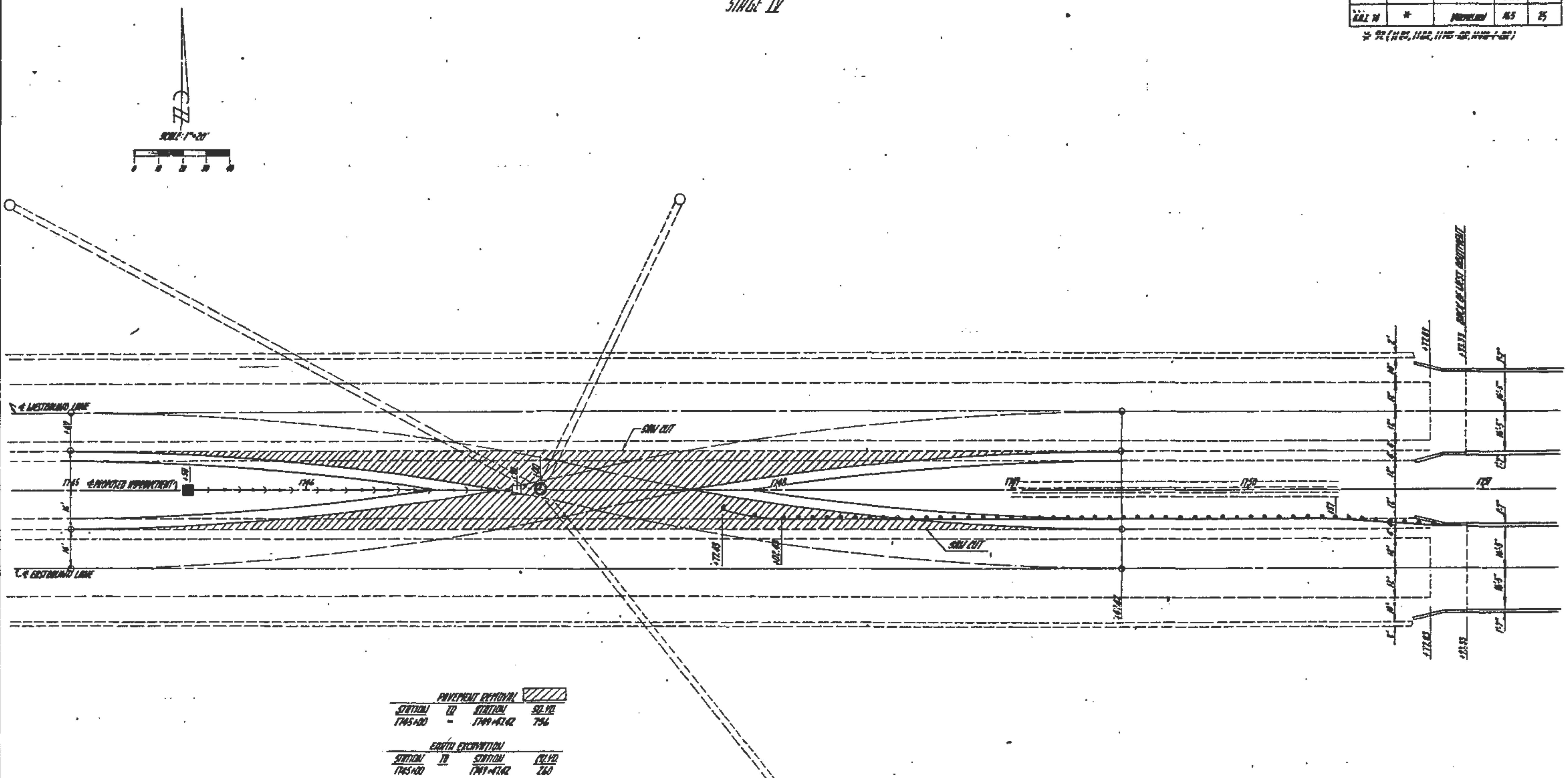
STATION	TO	STATION	LIN. FT.
EX. 1748+42.8	-	1751+72.8	250

RELOCATE TEMPORARY CONCRETE BARRIER

STATION	TO	STATION	LIN. FT.
EX. 1747+00	-	1755+80	1092

	NAME	DATE
DESIGNED BY		
CHECKED BY		
DRAFTED BY		

STAGE IV



PAVEMENT REMOVAL

STATION	TO	STATION	SQ. YD.
1745+00	–	1749+42.42	756

EARTH EXCAVATION

STATION	TO	STATION	CU. YD.
1745+00		1749+42.42	260

STEEL PLATE BEAM GUARDRAIL, TYPE A

STATION	TO	STATION	LIN. FT.
PC 1748+02.13		1750+64	262.5

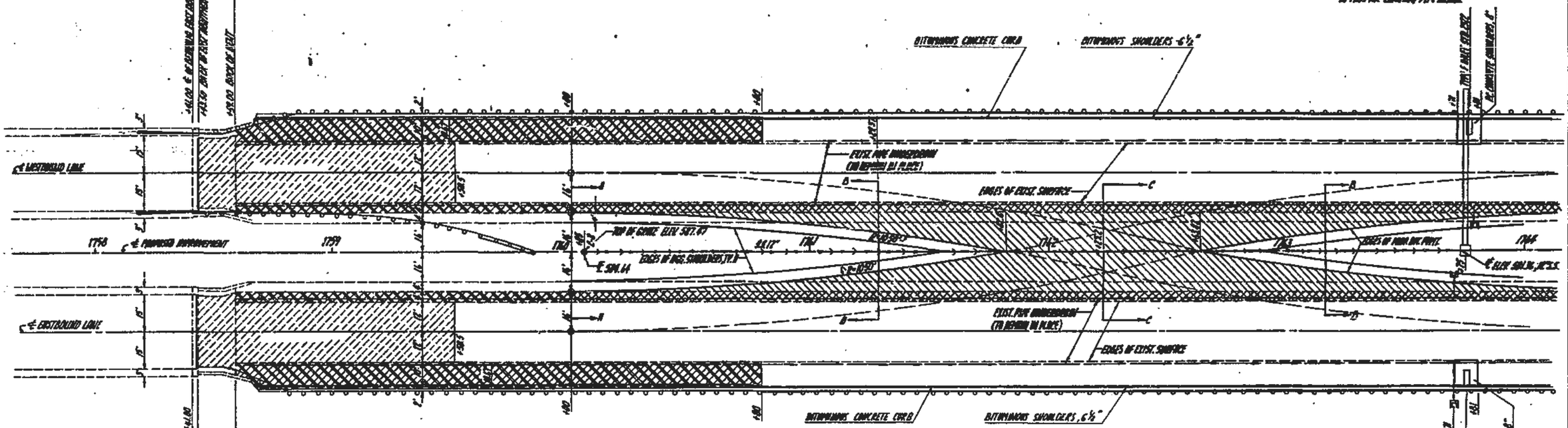
TRAFFIC BARRIER TERMINAL, TYPE 1

STATION	TO	STATION	EACH
BL 1747+72.43		1748+82.43	1

TRAFFIC BARRIER TERMINAL, TYPE 6 (SPECIAL)

STATION	TO	STATION	EACH
BL 1750+64.33		1750+91.44	1

	NAME	DATE
DESIGNED BY		
CHECKED BY		
DRAFTED BY		



TANGENT OFFSETS FROM EDGE OF PAVEMENT	
STATION	OFFSET IN FT.
1760+00	4.0
1760+25	4.3
1760+50	5.2
1760+75	6.7
1761+00	8.8
1761+25	11.5
1761+50	14.8
1761+75	18.7
1761+82.6	20.0

STAGE I

NOTE: FOR CROSS SECTION DETAIL A-A, B-B, AND C-C, SEE SHEET NO. ____

F.A.I. 74	*	VERMILION	165	86

* 92 (11RS, 11BR, 11VB-BR, 11VB-1-BR)

TANGENT OFFSETS FROM EDGE OF PAVEMENT	
STATION	OFFSET IN FT.
1762+62.82	20.0
1762+75	17.09
1763+00	14.26
1763+25	11.84
1763+50	8.44
1763+75	6.63
1764+00	5.03
1764+25	4.22
1764+46.62	4.00

NOTE: ADJUST THE PROPOSED 12" PIPE DRAIN TO MISS THE EXISTING PIPE DRAIN.

BITUMINOUS CONCRETE SURFACE REMOVAL: ▨

STATION	–	STATION	SQ. YD.
LT. 1758+43.00	–	1759+50.5	296
RT. 1758+43.00	–	1759+50.5	296

TOTAL=592 SQ. YD.

STABILIZED SHOULDER REMOVAL: ▨

STATION	TO	STATION	SQ. YD.
LT. 1758+59	–	1760+80	246
LT. 1758+59	–	1766+30	343
RT. 1758+59	–	1766+30	343
RT. 1758+59	–	1760+80	246

TOTAL=1178 SQ. YD.

BITUMINOUS CONCRETE PAVEMENT, FULL DEPTH, 13½": ▨

STATION	–	STATION	SQ. YD.
1760+00	–	1764+46.62	1,154

SUB-BASE GRANULAR MATERIAL, TYPE A:

STATION	–	STATION	TON
1760+00	–	1764+46.62	285

BITUMINOUS SHOULDERS, 13½": ▨

STATION	TO	STATION	SQ. YD.
LT. 1758+59	–	1760+80	262
LT. 1758+59	–	1760+00	63
RT. 1758+59	–	1760+00	63
RT. 1758+59	–	1760+80	262
LT. 1764+46.62	–	1766+30	82
RT. 1764+46.62	–	1766+30	82

TOTAL=814 SQ. YD.

AGGREGATE SHOULDERS, TYPE A, 6":

STATION	–	STATION	SQ. YD.
LT. 1760+00	–	1761+82.6	76
RT. 1760+00	–	1761+82.6	76
LT. 1762+63.82	–	1764+46.62	76
RT. 1762+63.82	–	1764+46.62	76

TOTAL=304 SQ. YD.

CATCH BASIN, TYPE C, TYPE 8 GRATE: ● C-1

STATION	EACH
℄ 1760+05	1

STORM SEWERS, TYPE 1, 12": 3.5.1%

STATION	STATION	LIN. FT.
℄ 1760+46	1763+75	349

PIPE DRAINS, 6":

STATION	LIN. FT.
RT. 1763+70	4
LT. 1763+80	4

TOTAL=8 LIN. FT.

REMOVE & RE-ERECT HEADWALL FOR PIPE DRAINS: ⊏

STATION	EACH
RT. 1763+70	1
LT. 1763+70	1

TOTAL = 2 EACH

PIPE DRAINS, 12":

STATION	LIN. FT.
LT. 1763+76	106
RT. 1763+76	102

TOTAL=208 LIN. FT.

TYPE F INLET BOX STANDARD 2322:

STATION	EACH
LT. 1763+76	1
RT. 1763+76	1

TOTAL = 2 EACH

PORTLAND CEMENT CONCRETE SHOULDERS, 8":

STATION	TO	STATION	SQ. YD.
LT. 1763+71		1763+81	12
RT. 1763+71		1763+81	12

TOTAL = 24 SQ. YD.

CONCRETE THRUST BLOCKS:

STATION	EACH
LT. 1763+76	1
RT. 1763+76	1

TOTAL = 2 EACH

METAL END SECTIONS, 12":

STATION	EACH
LT. 1763+76	1
RT. 1763+76	1

TOTAL = 2 EACH

EARTH EXCAVATION

STATION	TO	STATION	CU. YD.
1760+00	–	1764+50	360

REMOVE & RE-ERECT STEEL PLATE BEAM GUARDRAIL

STATION	TO	STATION	LIN. FT.
LT. 1760+00	–	1764+00	400
RT. 1760+00	–	1764+00	320

TOTAL 720 LIN. FT.

BITUMINOUS CONCRETE CURB

STATION	TO	STATION	LIN. FT.
LT. 1760+00	–	1763+71	371
RT. 1760+00	–	1763+71	291
LT. 1763+81	–	1764+00	19
RT. 1763+81	–	1764+00	19

TOTAL 700 LIN. FT.

BITUMINOUS SHOULDERS 6½"

STATION	TO	STATION	SQ. YD.
LT. 1760+80	–	1763+71	65
RT. 1760+80	–	1763+71	65
LT. 1763+81	–	1764+00	4
RT. 1763+81	–	1764+00	4

TOTAL 138 SQ. YD.

NOTE: SEE DETAIL OF 6½" SHOULDER
SEE SHEET NO. 27

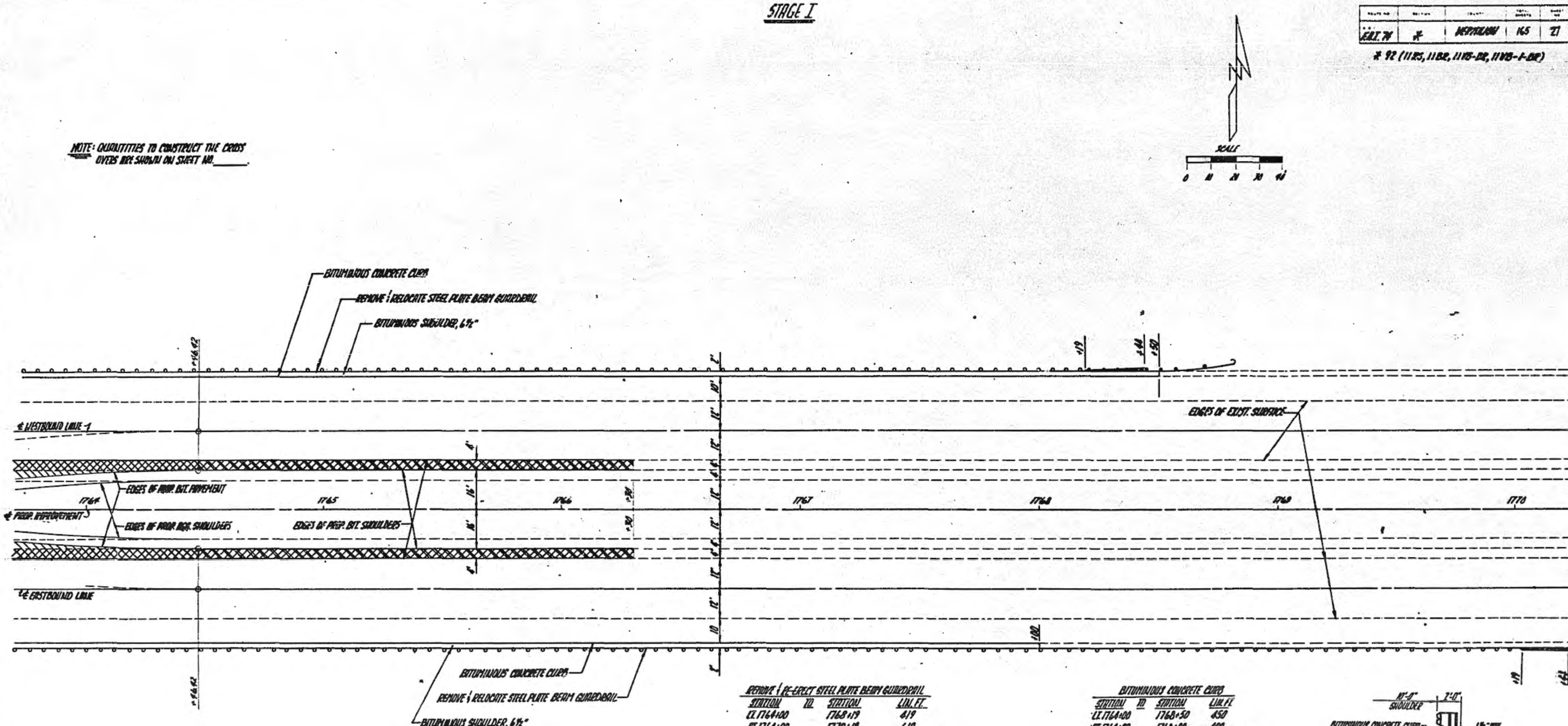
	NAME	DATE
DESIGNED BY		
CHECKED BY		
DRAFTED BY		

STAGE I

F.A.I. 74	*	[illegible]	165	27

* 92 (11RS, 11BR, 11VB-BR, 11VB-I-BR)

NOTE: QUANTITIES TO CONSTRUCT THE CROSS OVERS ARE SHOWN ON SHEET NO._____.



REMOVE & RE-ERECT STEEL PLATE BEAM GUARDRAIL

STATION	TO	STATION	LIN. FT.
LT. 1764+00		1768+19	419
RT. 1764+00		1770+19	619
		TOTAL =	1038 LIN. FT.

STEEL PLATE BEAM GUARDRAIL REMOVAL

STATION	TO	STATION	LIN. FT.
LT. 1768+19	-	1768+44	25
RT. 1770+19		1770+44	25
		TOTAL =	50 LIN. FT.

TRAFFIC BARRIER TERMINAL, TYPE I

STATION	TO	STATION	EACH
LT. 1768+56.5		1768+81.5	1
RT. 1770+19		1770+44	1
		TOTAL =	2 EACH

STEEL PLATE BEAM GUARDRAIL, TYPE A

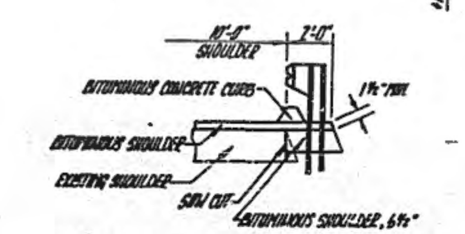
STATION	TO	STATION	LIN. FT.
LT. 1768+19		1768+56.5	37.5

BITUMINOUS CONCRETE CURB

STATION	TO	STATION	LIN. FT.
LT. 1764+00		1768+50	450
RT. 1764+00		1768+00	400
		TOTAL =	850 LIN. FT.

BITUMINOUS SHOULDER, 6½"

STATION	TO	STATION	SQ. YD.
5'-5.5" LT. 1764+00		1768+50	100
5'-5.6" RT. 1764+00		1768+00	89
		TOTAL =	189 SQ. YD.



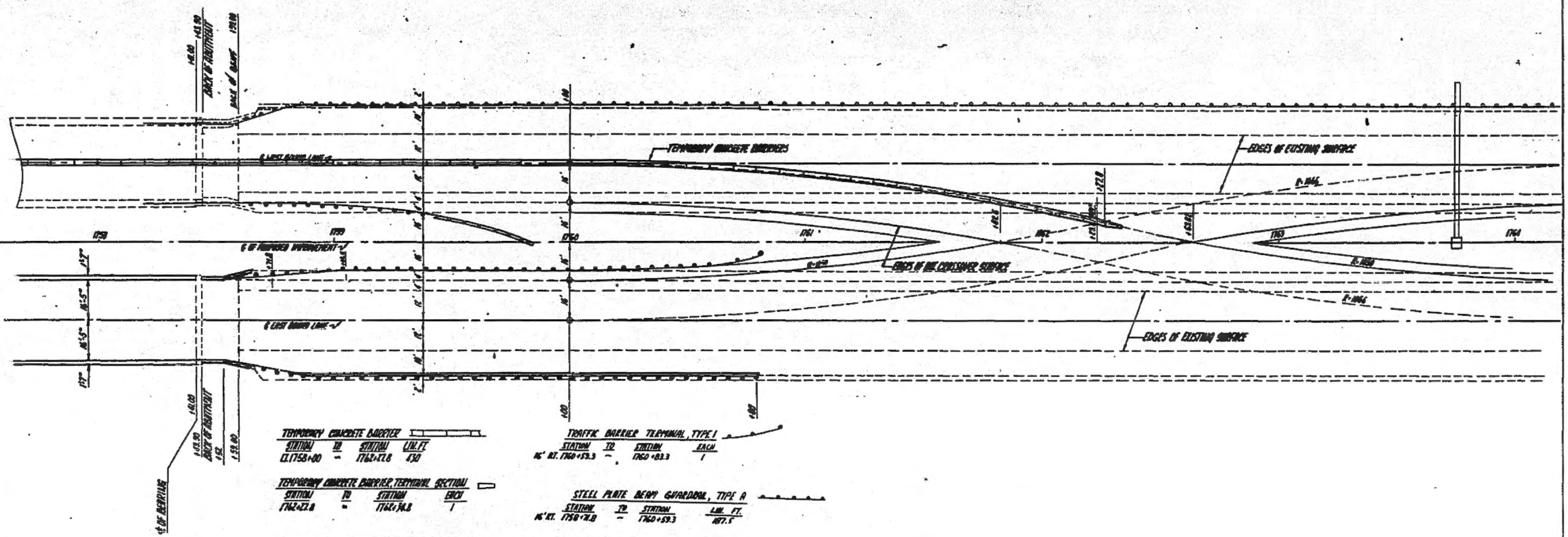
DETAIL OF PROPOSED BITUMINOUS CONCRETE CURB

NOTE: BITUMINOUS CONCRETE CURB AND RE-ERECTED GUARDRAIL TO BE CONSTRUCTED IN ACCORDANCE WITH STANDARD 2322.

	NAME	DATE
DESIGNED BY		
CHECKED BY		
DRAFTED BY		

STAGE II

I. 74	[illegible]	[illegible]	165	23



TEMPORARY CONCRETE BARRIER			
STATION	TO	STATION	LIN. FT.
CL.1758+00	–	1762+27.8	430

TEMPORARY CONCRETE BARRIER, TERMINAL SECTION			
STATION	TO	STATION	EACH
1762+27.8	–	1762+34.8	1

REMOVE AND RE-ERECT STEEL PLATE BEAM GUARD RAIL			
STATION	TO	STATION	LIN. FT.
RT.1758+57		1760+80	235

TRAFFIC BARRIER TERMINAL, TYPE 6 (SPECIAL)				
	STATION	TO	STATION	EACH
48'	RT.1758+45.21		1758+71.82	1
16'	RT.1758+45.21		1758+71.82	1
			TOTAL	2 EACH

TRAFFIC BARRIER TERMINAL, TYPE 1			
STATION	TO	STATION	EACH
16' RT. 1760+59.3	–	1760+83.3	1

STEEL PLATE BEAM GUARDRAIL, TYPE A			
STATION	TO	STATION	LIN. FT.
16' RT. 1758+71.8	–	1760+59.3	187.5

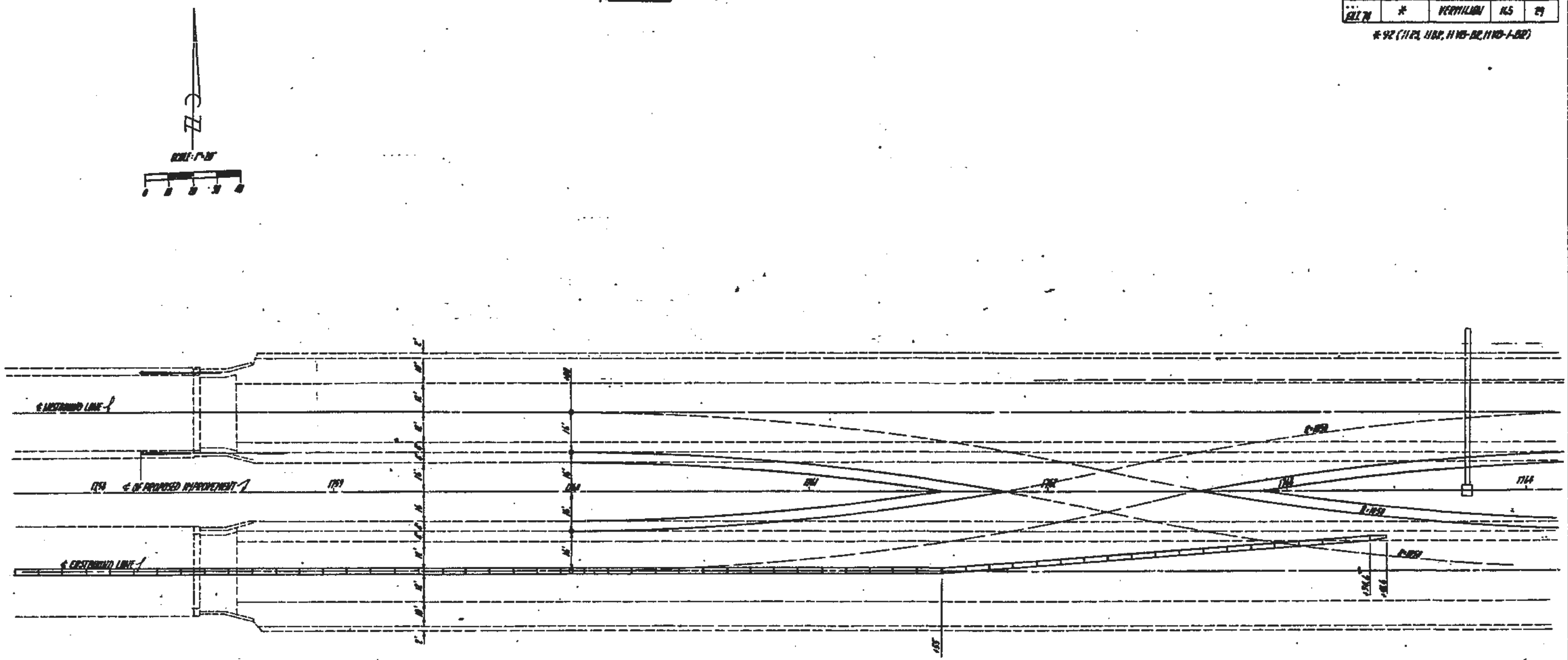
BITUMINOUS CONCRETE CURB			
STATION	TO	STATION	LIN. FT.
RT. 1758+59	–	1760+80	221

	NAME	DATE
DESIGNED BY		
CHECKED BY		
DRAFTED BY		

STAGE III

FAI 74	*	VERMILION	165	29

* 92 (11 RS, 11 BR, I-1 VB-BR, I-1 VB-1-BR)



RELOCATE TEMPORARY CONCRETE BARRIER

STATION	TO	STATION	LIN. FT.
EX 1758+00		1765+41.6	542

TRAFFIC BARRIER TERMINAL, TYPE 6 (SPECIAL)

STATION	TO	STATION	EACH
48' LT. 1758+45.21	~	1758+71.82	1

STEEL PLATE BEAM GUARDRAIL REMOVAL

STATION	TO	STATION	LIN. FT.
16' LT. 1758+19	~	1759+85	166
56' LT. 1758+19	~	1759+00	81
		TOTAL	247 LIN. FT.

BITUMINOUS CONCRETE CURB

STATION	TO	STATION	LIN. FT.
LT. 1758+59	~	1760+00	141

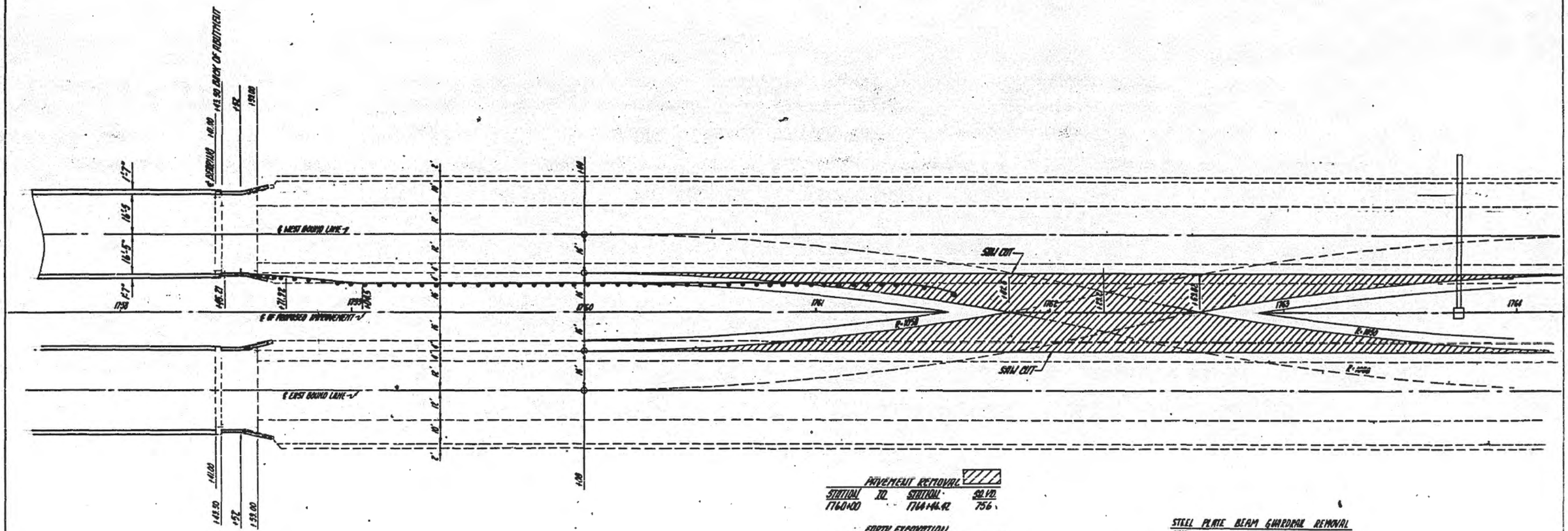
REMOVE & RE-ERECT STEEL PLATE BEAM GUARDRAIL

STATION	TO	STATION	LIN. FT.
56' LT. 1759+00	~	1760+00	100

STEEL PLATE BEAM GUARDRAIL, TYPE A

STATION	TO	STATION	LIN. FT.
56' RT. 1758+71.82	~	1759+00	28

	NAME	DATE
DESIGNED BY		
CHECKED BY		
DRAFTED BY		



F.A.I. 74	*	VERMILION	165	30

* 92 (11RS, 11BR, 11VB-BR, 11VB-1-BR)

STAGE IV

PAVEMENT REMOVAL ▨

STATION	TO	STATION	SQ. YD.
1760+00		1764+46.42	756

EARTH EXCAVATION

STATION	TO	STATION	CU. YD.
1760+00		1764+46.42	217

STEEL PLATE BEAM GUARDRAIL, TYPE A

STATION	TO	STATION	LIN. FT.
LT 1758+71.92		1761+34.42	262.5

TRAFFIC BARRIER TERMINAL, TYPE 1

STATION	TO	STATION	EACH
1761+34.42		1761+59.42	1

TRAFFIC BARRIER TERMINAL, TYPE 6

STATION	TO	STATION	EACH
LT 1758+45.21		1758+71.92	1

STEEL PLATE BEAM GUARDRAIL REMOVAL

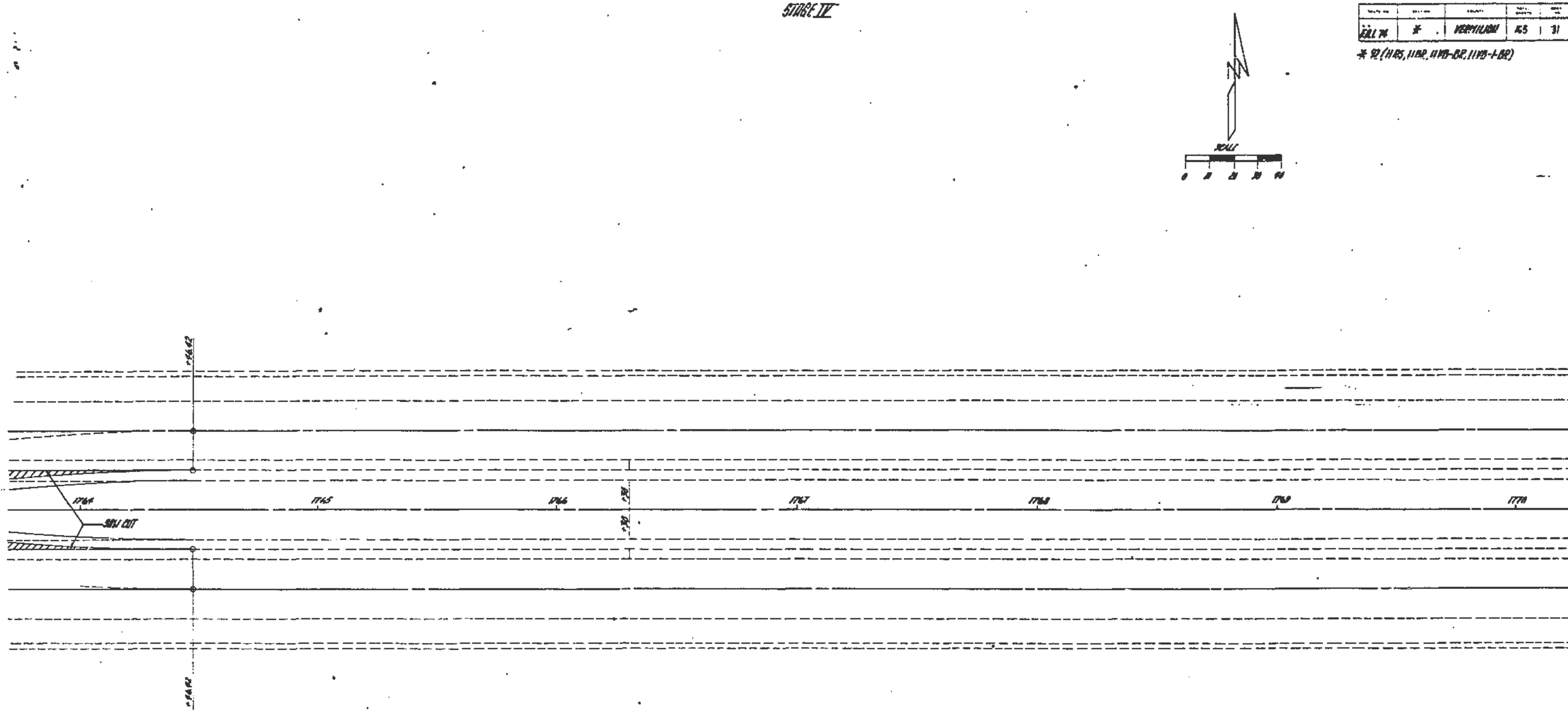
	STATION	TO	STATION	LIN. FT.
16' RT.	1758+45.21	~	1760+83.3	238

	NAME	DATE
DESIGNED BY		
CHECKED BY		
DRAFTED BY		

STAGE IV

FAI. 74	*	VERMILION	155	31

* 92 (11RS, 11BR, 11VB-BR, 11VB-1-BR)



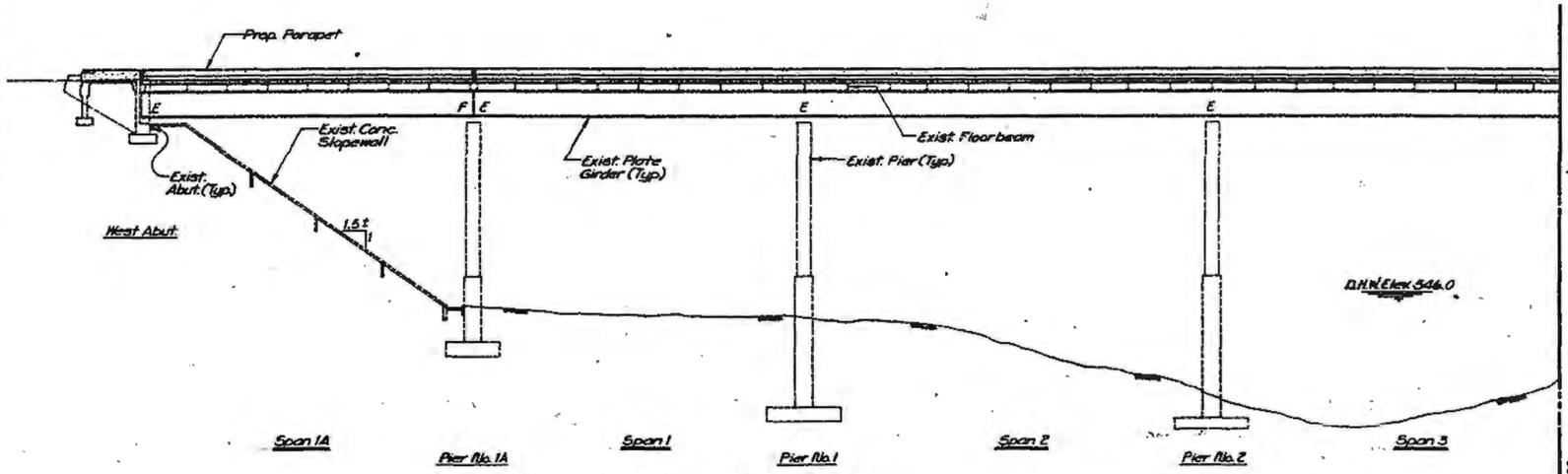
	NAME	DATE
DESIGNED BY		
CHECKED BY		
DRAFTED BY		

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-74	92-11BR	Vermilion	165	62
STA.		TO STA.		
FED. ROAD DIST. NO.		ILL. ROAD	PROJECT	

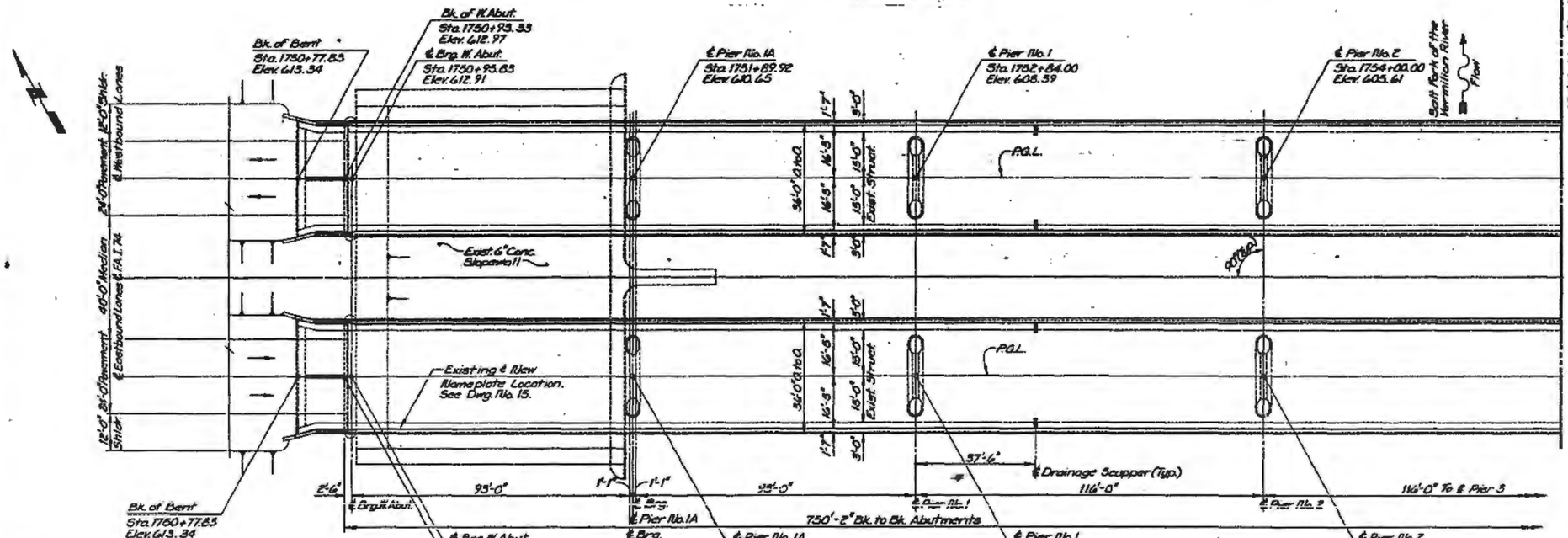
Dwg. No. 1 of 28

BENCH MARK: PERMANENT SURVEY MARKER, TYPE II
STATION 1742 + 40, TOP OF BRASS PLUG, ELEV. 625.41

EXISTING STRUCTURE:
STRUCTURE NOS. 092-0006 & 092-0007 WERE BUILT IN 1964 AS FAI 74, SECTION 92-11B, 11F. REPAIRS PERFORMED IN 1977 INCLUDED DECK PATCHING, EXPANSION DEVICE RECONSTRUCTION, INSTALLATION OF WATERPROOFING MEMBRANE SYSTEM AND BITUMINOUS OVERLAY. EACH STRUCTURE CONSISTS OF ONE SINGLE 93' SPAN AND SIX CONTINUOUS SPANS (93', 4 @ 116', 93') OF TWO STEEL PLATE GIRDERS WITH STEEL FLOORBEAMS AND REINFORCED CONCRETE DECK SUPERSTRUCTURE WITH DOUBLE COLUMN PIERS AND VAULTED ABUTMENTS. OVERALL LENGTH IS 750'-2" AND CLEAR ROADWAY WIDTH IS 30'-0". TRAFFIC TO BE MAINTAINED BY BUILDING CROSS-OVERS & WORKING ON ONE STRUCTURE AT A TIME. HANDRAIL TO BE SALVAGED. BRIDGE CONTRACTOR TO STOCKPILE ON STATE ROW FOR REMOVAL BY DISTRICT MAINTENANCE FORCES. SALVAGE NAME PLATE AND INCORPORATE INTO NEW CONSTRUCTION.



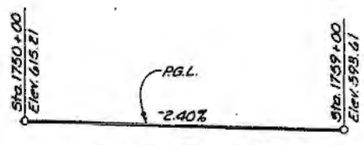
ELEVATION



PLAN

LEGEND

F = Fixed Brg
E = Exp. Brg
P.G.L. = Profile Grade Line



FAI 74 PROFILE GRADE
(Along ℄ Pavement)

DESIGN SPECIFICATIONS
AASHTO 1989 and applicable interims (1990) and Seismic Retrofitting Guidelines for Highway Bridges.
LOADING
HS 20-44 & ALTERNATE MILITARY
WITH ALLOWANCE FOR 25 psf. FWS.

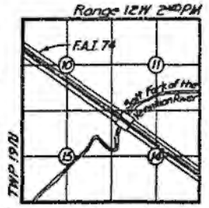
DESIGN STRESSES (EXISTING ELEMENTS TO BE REUSED)
f'_c = 3,500 psi E_c = 1400 psi
f_s = 20,000 psi (REINF. BARS)
F_y = 40,000 psi (REINF. BARS)
F_y = 36,000 psi (STRUCTURAL STEEL)
F_y = 20,000 psi (STRUCTURAL STEEL)

DESIGN STRESSES (NEW CONSTRUCTION)
f'_c = 3,500 psi
F_y = 60,000 psi (REINF. BARS)
F_y = 36,000 psi (STRUCTURAL STEEL)

WATERWAY INFORMATION

DRAINAGE AREA:	970 SQ. MI.
WATERWAY REQUIRED:	5650 SQ. FT.
WATERWAY PROVIDED (BELOW DHW):	5380 SQ. FT.
DHW:	546.0

NOTE: BRIDGE GRADE NOT CONTROLLED BY HIGHWATER



LOCATION SKETCH

GENERAL NOTES

1. FASTENERS SHALL BE HIGH STRENGTH BOLTS 3/4"ø, OPEN HOLES 13/16"ø, UNLESS OTHERWISE NOTED.
2. CALCULATED WEIGHT OF STRUCTURAL STEEL = 125,000 LBS.
3. THE FIRST TWO COATS OF THE LEAD AND CHROMATE FREE ALKYD PAINT SYSTEM SHALL BE USED FOR SHOP AND FIELD PAINTING OF NEW STRUCTURAL STEEL.
   Prior to pouring the new concrete for the deck, all loose rust, loose mill scale, and all other foreign material shall be removed from the embedded portions of flanges of stringers. The removal shall be accomplished in accordance with the requirements of the SSPC Surface Preparation Specifications SP-11 for Power tool cleaning or SP-2 for Hand tool cleaning. Cost shall be incidental to concrete removal.
5. ALL CONTACT SURFACES OF NEW AND EXISTING STRUCTURAL STEEL SHALL BE FREE OF PAINT OR LACQUER.
6. FIELD WELDING OF CONSTRUCTION ACCESSORIES WILL NOT BE PERMITTED TO THE BOTTOM FLANGE OF FLOORBEAMS OR GIRDERS AT ANY LOCATION, NOR TO THE TOP FLANGE FOR A DISTANCE EQUAL TO ONE-FOURTH THE SPAN LENGTH EACH WAY FROM SUPPORTS, NOR TO THE TOP FLANGE OF FLOORBEAM CANTILEVERS. FIELD WELDING IN OTHER AREAS WILL BE PERMITTED ONLY WHEN APPROVED BY THE ENGINEER.
7. NEW ANCHOR BOLTS SHALL BE INSTALLED PRIOR TO REPAIRING CROSS FRAMES OVER SUPPORTS.
8. REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-31, M-42 OR M-53 GRADE 60.
9. LAYOUT OF SLOPE PROTECTION SYSTEM MAY BE VARIED IN THE FIELD TO SUIT GROUND CONDITIONS AS DIRECTED BY THE ENGINEER.
10. PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING STRUCTURE HAVE BEEN TAKEN FROM EXISTING PLANS 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.
12. THE CONTRACTOR WILL BE REQUIRED TO MARK ON TOP OF THE CONCRETE DECK THE LOCATIONS OF THE TOP FLANGE OF ALL STEEL FLOORBEAMS, PRIOR TO ANY REMOVAL OF THE BRIDGE DECK. SAW CUTTING DIRECTLY OVER THE TOP OF FLOORBEAM FLANGES IS NOT PERMITTED.
13. THE BEARING SEATS AT THE ABUTMENTS AND AT PIERS 1A SHALL HAVE BRIDGE SEAT SEALER APPLIED IN ACCORDANCE WITH THE SPECIAL PROVISIONS.
14. STRUCTURAL STEEL SHALL ONLY BE CLEANED AND PAINTED AS REQUIRED BY THE SPECIAL PROVISIONS "CLEANING AND PAINTING NEW STEEL AND ADJACENT AREAS OF EXISTING STEEL STRUCTURES".

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Licensed Structural Engineer

STATE OF ILLINOIS — RICHARD D. PAYNE — No. 4647 — REGISTERED STRUCTURAL ENGINEER

DESIGNED BY:	RDP	6-90
DRAWN BY:	WEM	6-90
CHECKED BY:	JRF	6-90
APPROVED BY:	RDP	6-90

ESCA CONSULTANTS, INC.

GENERAL PLAN & ELEVATION

FAI 74 OVER SALT FORK
FAI RTE. 74 SECTION 92-11BR
VERMILION COUNTY
STATION 1755+16.00
STRUCTURE NO. 092-0007(WB)
STRUCTURE NO. 092-0006(EB)

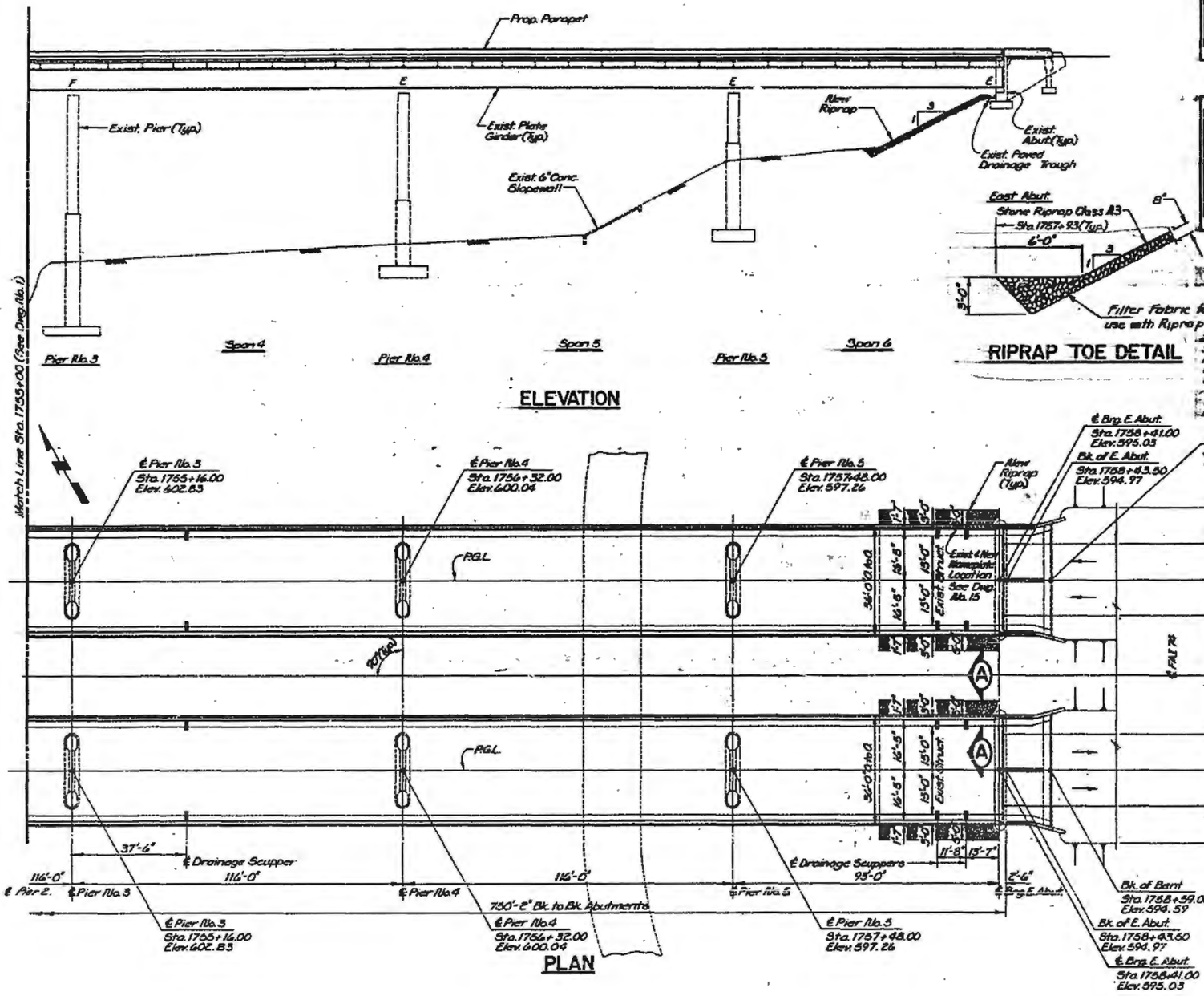
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-74	92-11BR	Vermilion	165	63
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	PROJECT	
		Dwg. No. 2 of 26		

STATION 1755+16.00
RE-BUILT 199_ BY
STATE OF ILLINOIS
FAURTE. 74 SECTION 92-11BR
LOADING HS20 & ALT.
STR. NO. 092-0007

WESTBOUND

STATION 1755+16.00
RE-BUILT 199_ BY
STATE OF ILLINOIS
FAI RTE. 74 SECTION 92-11BR
LOADING HS20 & ALT.
STR. NO. 092-0006

EASTBOUND



ELEVATION

RIPRAP TOE DETAIL

NEW NAME PLATES (1 EA. REQ'D)
(SEE STD. 2113)

Salvage Existing Name Plates and Mount Adjacent to New Name Plates on New Parapet as shown on Std. 2113. The cost of salvaging & incorporating exist. Name Plates into new work is incidental to Name Plates.

PLAN

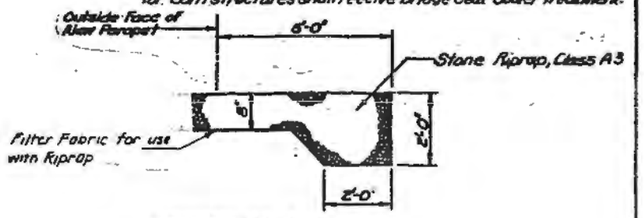
TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER-STRUCTURE	SUB-STRUCTURE	TOTAL
Protective Coat	Sq.Yd.	1221	-	1221
Concrete Removal	Cu.Yd.	-	32	32
Class X Concrete Superstructure	Cu.Yd.	1892.4	-	1892.4
Class X Concrete	Cu.Yd.	-	26.2	26.2
Filter Fabric for use with Riprap	Sq.Yd.	-	452	452
Stone Riprap, Class A3	Sq.Yd.	-	452	452
Reinforcement Bars, Epoxy Coated	Lbs.	551,228	922	552,150
Removal of Exist. Conc. Deck No. 1	L.Sum	1	-	1
Removal of Exist. Conc. Deck No. 2	L.Sum	1	-	1
Floating Bearings, Guided Exp. 650k	Each	16	-	16
Floating Bearings, Guided Exp. 300k	Each	12	-	12
Floating Bearings, Fixed 650k	Each	4	-	4
Floating Bearings, Fixed 300k	Each	4	-	4
Mod. Portland Cement Mortar Repair	Sq.Ft.	-	422	422
Neoprene Expansion Joint, 4"	Lin.Ft.	142	-	142
Preformed Joint Seal, 4"	Lin.Ft.	72	-	72
Tighten Hanger Rod Assemblies	Each	52	-	52
Bolt Removal & Replacement (¾"ø)	Each	50	-	50
Bolt Removal & Replacement (⅞"ø)	Each	45	-	45
Weld Removal	Lin.Ft.	100	-	100
Drainage Scuppers	Each	16	-	16
Name Plates	Each	2	-	2
Bridge Seat Sealer	L.Sum	-	0.2	0.2
Structural Steel Removal	Lbs.	71,370	-	71,370
Epoxy Mortar Repair	Cu.Ft.	-	12	12
Epoxy Crack Sealing	Lin.Ft.	-	48	48
FURN. & ERECT. STRUCT. STEEL	Lbs.	121,360	-	121,360
Bridge Deck Grooving	Sq.Yd.	5455	-	5455
JACK EXIST. STRUCTURE NO. 1	L.SUM	1	-	1
JACK EXIST. STRUCTURE NO. 2	L.SUM	1	-	1

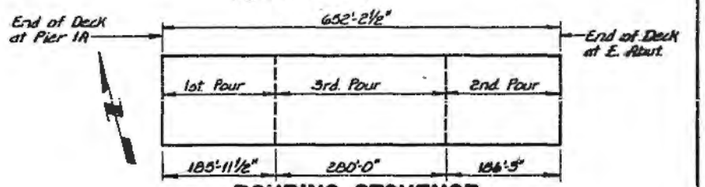
* Quantity includes top and inside faces of parapets only.

** CALCULATED AREA OF BRIDGE SEAT SEALER = 297.98 SQ. FT.

*** All top surfaces of the Abutment seats and Pier 1 seats for both structures shall receive Bridge Seat Sealer treatment.



SECTION A-A
(Typ. @ 4 Locations)



POURING SEQUENCE
(Typ. Ea. Structure)

WHEN THE DECK POUR IS STOPPED FOR THE DAY AT ONE OR MORE OF THE TRANSVERSE BONDED CONSTRUCTION JOINTS IN THE DECK POURING SEQUENCE AS SHOWN, THE NEXT POUR SHALL NOT BE MADE UNTIL BOTH OF THE FOLLOWING REQUIREMENTS ARE MET:

1. AT LEAST 72 HOURS SHALL HAVE ELAPSED FROM THE END OF THE PREVIOUS POUR.
2. THE CONCRETE STRENGTH SHALL HAVE ATTAINED A MINIMUM MODULUS OF RUPTURE OF 650 P.S.I. OR A MINIMUM COMPRESSIVE STRENGTH OF 3500 P.S.I.

ESCA
CONSULTANTS, INC.

DESIGNED BY:	RDP	4-90
DRAWN BY:	WEM	4-90
CHECKED BY:	JRF	4-90
APPROVED BY:	RDP	4-90

GENERAL PLAN & ELEVATION (CONT.)

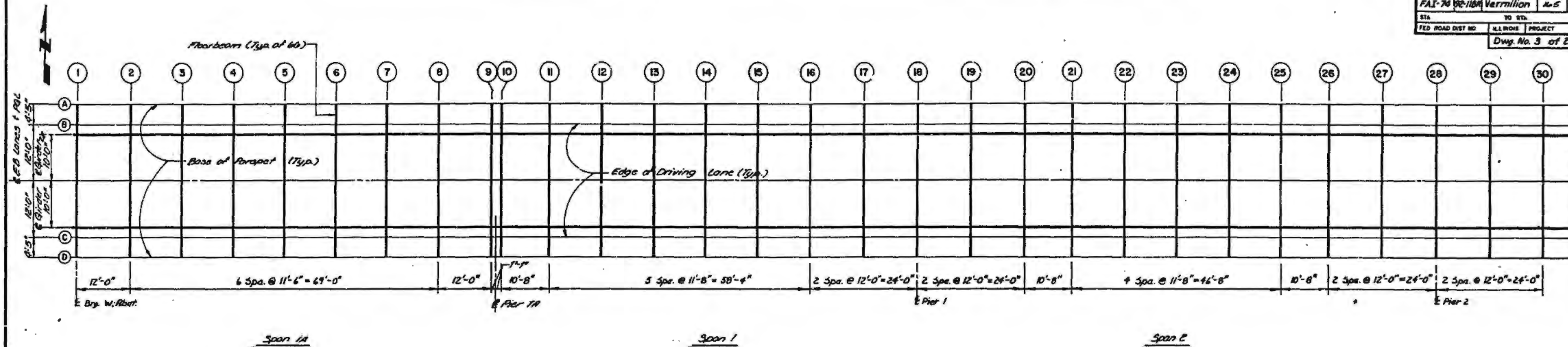
FAI 74 OVER SALT FORK
FAI RTE. 74 SECTION 92-11BR
VERMILION COUNTY
STATION 1755+16.00
STRUCTURE NO 092-0006(EB)
STRUCTURE NO. 092-0007(WB)

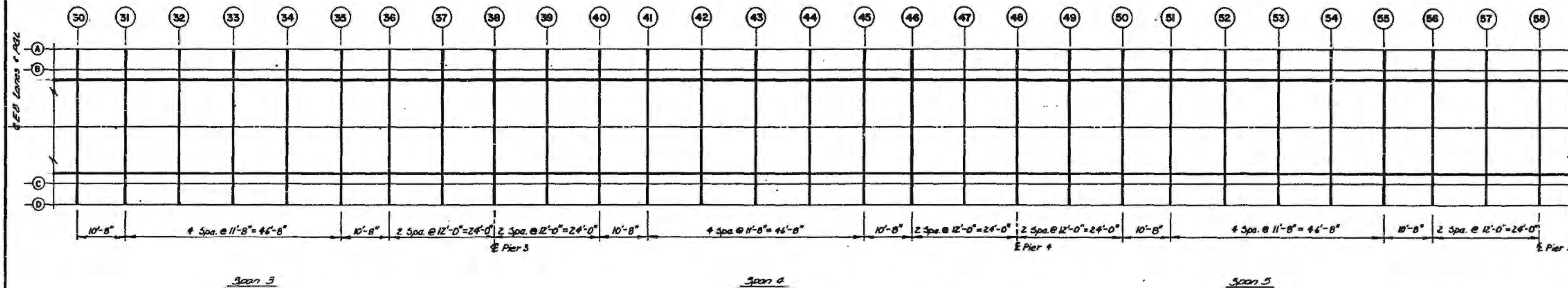
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-74	92-11BR	Vermilion	[illegible]	[illegible]

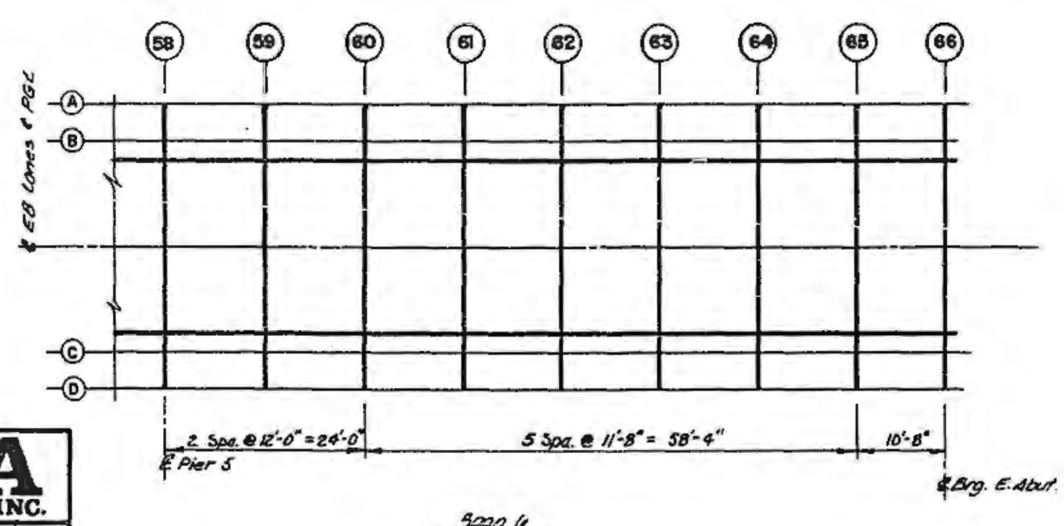
STA TO STA

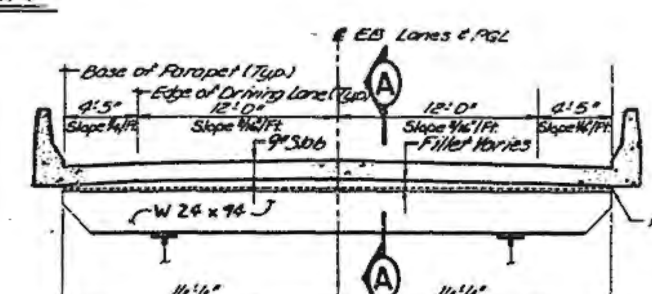
FED ROAD DIST NO | ILLINOIS | PROJECT

Dwg. No. 3 of 28

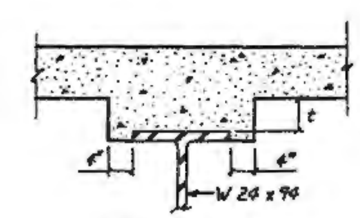








CROSS SECTION



SECTION A-A

TO DETERMINE "t"

AFTER ALL STRUCTURAL STEEL HAS BEEN ERECTED, ELEVATIONS OF THE TOP FLANGE OF EACH FLOORBEAM SHALL BE TAKEN AT INTERVALS SHOWN ABOVE. THESE ELEVATIONS SUBTRACTED FROM THE "THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION" SHOWN ON DWG'S 4 & 5 MINUS SLAB THICKNESS, EQUALS THE FILLET HEIGHTS "t" ABOVE TOP FLANGE OF BEAMS.

FILLET HEIGHTS

ESCA CONSULTANTS, INC.

DESIGNED BY:	KMR	6-90
DRAWN BY:	PDV	6-90
CHECKED BY:	JAG	6-90
APPROVED BY:	RDP	6-90

TOP OF SLAB ELEVATIONS (E B)

FAI 74 OVER SALT FORK

FAI RTE. 74 SECTION 92-11BR

VERMILION COUNTY

STATION 1755+16.00

STRUCTURE NO. 092-0006(EB)

STRUCTURE NO. 092-0007(WB)

FILLETS

DECK GRADES REVISED +.02 ON 4/29/93
ROUTE FAI-74
SECTION 92-11B EAST BOUND
COUNTY VERMILION
JOB NO. C-95-067-90

DECK THICKNESS FT.- 0.75

STATION	LOCATION	BEAM ELEV DCK	LINE ELEV STL	A SHOT	FILLET
175095.83	1	613.014	612.264	612.24	0.024
175107.83	2	612.752	612.002	611.95	0.052
175119.33	3	612.492	611.742	611.71	0.032
175130.83	4	612.226	611.476	611.45	0.026
175142.33	5	611.952	611.202	611.19	0.012
175153.83	6	611.668	610.918	610.90	0.018
175165.33	7	611.377	610.627	610.65	-0.023
175176.83	8	611.079	610.329	610.32	0.009
175188.83	9	610.76	610.01	610.01	0
175191	10	610.707	609.957	609.93	0.027
175201.67	11	610.467	609.717	609.67	0.047
175213.33	12	610.196	609.446	609.33	0.116
175225	13	609.92	609.17	609.03	0.14
175236.67	14	609.636	608.886	608.73	0.156
175248.33	15	609.346	608.596	608.44	0.156
175260	16	609.053	608.303	608.15	0.153
175272	17	608.752	608.002	607.88	0.122
175284	18	608.456	607.706	607.65	0.056
175296	19	608.17	607.42	607.30	0.12
175308	20	607.889	607.139	606.94	0.199
175318.67	21	607.642	606.892	606.69	0.202
175330.33	22	607.366	606.616	606.41	0.206
175342	23	607.087	606.337	606.12	0.217
175353.67	24	606.801	606.051	605.82	0.231
175365.33	25	606.509	605.759	605.51	0.249
175376	26	606.241	605.491	605.26	0.231
175388	27	605.94	605.19	605.06	0.13
175400	28	605.644	604.894	604.85	0.044
175412	29	605.358	604.608	604.50	0.108
175424	30	605.077	604.327	604.19	0.137
175434.67	31	604.829	604.079	603.94	0.139
175446.33	32	604.554	603.804	603.65	0.154
175458	33	604.275	603.525	603.34	0.185
175469.67	34	603.989	603.239	603.06	0.179
175481.33	35	603.696	602.946	602.79	0.156
175492	36	603.429	602.679	602.52	0.159
175504	37	603.128	602.378	602.28	0.098
175516	38	602.832	602.082	602.05	0.032
175528	39	602.546	601.796	601.70	0.096
175540	40	602.265	601.515	601.33	0.185
175550.67	41	602.016	601.266	601.05	0.216
175562.33	42	601.742	600.992	600.77	0.222
175574	43	601.463	600.713	600.47	0.243
175585.67	44	601.177	600.427	600.17	0.257
175597.33	45	600.884	600.134	599.87	0.264
175608	46	600.617	599.867	599.63	0.237
175620	47	600.316	599.566	599.41	0.156
175632	48	600.02	599.27	599.20	0.07
175644	49	599.734	598.984	598.83	0.154
175656	50	599.453	598.703	598.54	0.163
175666.67	51	599.205	598.455	598.23	0.225
175678.33	52	598.93	598.18	597.93	0.25
175690	53	598.651	597.901	597.65	0.251
175701.67	54	598.365	597.615	597.35	0.265
175713.33	55	598.073	597.323	597.08	0.243
175724	56	597.804	597.054	596.82	0.234
175736	57	597.504	596.754	596.56	0.194
175748	58	597.208	596.458	596.34	0.118
175760	59	596.922	596.172	595.99	0.182
175772	60	596.641	595.891	595.65	0.241
175783.67	61	596.369	595.619	595.36	0.259
175795.33	62	596.092	595.342	595.09	0.252
175807	63	595.811	595.061	594.83	0.231
175818.67	64	595.523	594.773	594.59	0.183
175830.33	65	595.226	594.476	594.36	0.116
175841	66	594.95	594.2	594.13	0.07

FILLETS

DECK GRADES REVISED +.02 ON 4/29/93
ROUTE FAI-74
SECTION 92-11B EAST BOUND
COUNTY VERMILION
JOB NO. C-95-067-90

DECK THICKNESS FT.- 0.75

STATION	LOCATION	BEAM ELEV DCK	LINE ELEV STL	B SHOT	FILLET
175095.83	1	613.104	612.354	612.22	0.134
175107.83	2	612.84	612.09	611.94	0.15
175119.33	3	612.58	611.83	611.70	0.13
175130.83	4	612.314	611.564	611.45	0.114
175142.33	5	612.04	611.29	611.18	0.11
175153.83	6	611.756	611.006	610.92	0.086
175165.33	7	611.465	610.715	610.65	0.065
175176.83	8	611.167	610.417	610.33	0.087
175188.83	9	610.85	610.1	610.01	0.09
175191	10	610.797	610.047	609.93	0.117
175201.67	11	610.555	609.805	609.65	0.155
175213.33	12	610.284	609.534	609.33	0.204
175225	13	610.007	609.257	609.02	0.237
175236.67	14	609.724	608.974	608.72	0.254
175248.33	15	609.434	608.684	608.43	0.254
175260	16	609.14	608.39	608.14	0.25
175272	17	608.839	608.089	607.89	0.199
175284	18	608.544	607.794	607.65	0.144
175296	19	608.257	607.507	607.30	0.207
175308	20	607.976	607.226	606.95	0.276
175318.67	21	607.73	606.98	606.69	0.29
175330.33	22	607.454	606.704	606.40	0.304
175342	23	607.174	606.424	606.12	0.304
175353.67	24	606.889	606.139	605.82	0.319
175365.33	25	606.597	605.847	605.52	0.327
175376	26	606.328	605.578	605.27	0.308
175388	27	606.027	605.277	605.07	0.207
175400	28	605.732	604.982	604.84	0.142
175412	29	605.445	604.695	604.50	0.195
175424	30	605.164	604.414	604.18	0.234
175434.67	31	604.917	604.167	603.92	0.247
175446.33	32	604.642	603.892	603.64	0.252
175458	33	604.362	603.612	603.33	0.282
175469.67	34	604.077	603.327	603.06	0.267
175481.33	35	603.784	603.034	602.77	0.264
175492	36	603.516	602.766	602.51	0.256
175504	37	603.215	602.465	602.27	0.195
175516	38	602.92	602.17	602.03	0.14
175528	39	602.633	601.883	601.68	0.203
175540	40	602.352	601.602	601.33	0.272
175550.67	41	602.104	601.354	601.04	0.314
175562.33	42	601.83	601.08	600.76	0.32
175574	43	601.55	600.8	600.47	0.33
175585.67	44	601.265	600.515	600.17	0.345
175597.33	45	600.972	600.222	599.87	0.352
175608	46	600.704	599.954	599.63	0.324
175620	47	600.403	599.653	599.41	0.243
175632	48	600.108	599.358	599.19	0.168
175644	49	599.821	599.071	598.84	0.231
175656	50	599.54	598.79	598.55	0.24
175666.67	51	599.293	598.543	598.22	0.323
175678.33	52	599.018	598.268	597.93	0.338
175690	53	598.738	597.988	597.65	0.338
175701.67	54	598.453	597.703	597.36	0.343
175713.33	55	598.161	597.411	597.09	0.321
175724	56	597.891	597.141	596.82	0.321
175736	57	597.591	596.841	596.58	0.261
175748	58	597.296	596.546	596.35	0.196
175760	59	597.009	596.259	595.99	0.269
175772	60	596.728	595.978	595.65	0.328
175783.67	61	596.457	595.707	595.37	0.337
175795.33	62	596.18	595.43	595.10	0.33
175807	63	595.898	595.148	594.84	0.308
175818.67	64	595.611	594.861	594.60	0.261
175830.33	65	595.314	594.564	594.37	0.194
175841	66	595.04	594.29	594.13	0.16

FILLETS

DECK GRADES REVISED +0.2 ON 4/29/93
ROUTE FAI-74
SECTION 92-11B EAST BOUND
COUNTY VERMILION
JOB NO. C-95-067-90

DECK THICKNESS FT.- 0.75

PROPOSED GRADE LINE P G L

STATION	LOCATION	ELEV DCK	BOT DECK	SHOT	FILLET
175095.83	1	613.291	612.541	612.20	0.341
175107.83	2	613.023	612.273	611.93	0.343
175119.33	3	612.763	612.013	611.68	0.333
175130.83	4	612.498	611.748	611.43	0.318
175142.33	5	612.223	611.473	611.16	0.313
175153.83	6	611.94	611.19	610.92	0.27
175165.33	7	611.648	610.898	610.65	0.248
175176.83	8	611.35	610.6	610.33	0.27
175188.83	9	611.037	610.287	610.03	0.257
175191	10	610.984	610.234	609.92	0.314
175201.67	11	610.738	609.988	609.63	0.358
175213.33	12	610.467	609.717	609.33	0.387
175225	13	610.191	609.441	609.02	0.421
175236.67	14	609.907	609.157	608.73	0.427
175248.33	15	609.618	608.868	608.42	0.448
175260	16	609.324	608.574	608.14	0.434
175272	17	609.022	608.272	607.90	0.372
175284	18	608.731	607.981	607.66	0.321
175296	19	608.44	607.69	607.30	0.39
175308	20	608.16	607.41	606.96	0.45
175318.67	21	607.912	607.162	606.69	0.472
175330.33	22	607.638	606.888	606.41	0.478
175342	23	607.358	606.608	606.13	0.478
175353.67	24	607.072	606.322	605.83	0.492
175365.33	25	606.78	606.03	605.55	0.48
175376	26	606.512	605.762	605.30	0.462
175386	27	606.21	605.46	605.07	0.39
175400	28	605.919	605.169	604.83	0.339
175412	29	605.628	604.878	604.49	0.388
175424	30	605.347	604.597	604.15	0.447
175434.67	31	605.1	604.35	603.89	0.46
175446.33	32	604.825	604.075	603.59	0.485
175458	33	604.545	603.795	603.30	0.495
175469.67	34	604.259	603.509	603.02	0.489
175481.33	35	603.968	603.218	602.72	0.498
175492	36	603.7	602.95	602.47	0.48
175504	37	603.398	602.648	602.23	0.418
175516	38	603.107	602.357	602.00	0.357
175528	39	602.816	602.066	601.63	0.436
175540	40	602.536	601.786	601.31	0.476
175550.67	41	602.287	601.537	601.02	0.517
175562.33	42	602.013	601.263	600.75	0.513
175574	43	601.733	600.983	600.45	0.533
175585.67	44	601.447	600.697	600.17	0.527
175597.33	45	601.156	600.406	599.86	0.546
175608	46	600.887	600.137	599.61	0.527
175620	47	600.586	599.836	599.39	0.446
175632	48	600.295	599.545	599.18	0.365
175644	49	600.004	599.254	598.83	0.424
175656	50	599.724	598.974	598.56	0.414
175666.67	51	599.475	598.725	598.23	0.495
175678.33	52	599.202	598.452	597.94	0.512
175690	53	598.922	598.172	597.65	0.522
175701.67	54	598.636	597.886	597.37	0.516
175713.33	55	598.344	597.594	597.10	0.494
175724	56	598.075	597.325	596.84	0.485
175736	57	597.774	597.024	596.60	0.424
175748	58	597.483	596.733	596.36	0.373
175760	59	597.192	596.442	596.01	0.432
175772	60	596.912	596.162	595.67	0.492
175783.67	61	596.639	595.889	595.38	0.509
175795.33	62	596.364	595.614	595.12	0.494
175807	63	596.082	595.332	594.86	0.472
175818.67	64	595.793	595.043	594.61	0.433
175830.33	65	595.498	594.748	594.37	0.378
175841	66	595.227	594.477	594.14	0.337

FILLETS

DECK GRADES REVISED +0.2 ON 4/29/3
ROUTE FAI–74
SECTION 92–11B EAST BOUND
COUNTY VERMILION
JOB NO. C–95–067–90

DECK THICKNESS FT.– 0.75

STATION	LOCATION	BEAM ELEV DCK	LINE ELEV STL	C SHOT	FILLET
175095.83	1	613.104	612.354	612.18	0.174
175107.83	2	612.84	612.09	611.91	0.18
175119.33	3	612.58	611.83	611.67	0.16
175130.83	4	612.314	611.564	611.42	0.144
175142.33	5	612.04	611.29	611.16	0.13
175153.83	6	611.756	611.006	610.91	0.096
175165.33	7	611.465	610.715	610.65	0.065
175176.83	8	611.167	610.417	610.33	0.087
175188.83	9	610.85	610.1	610.02	0.08
175191	10	610.797	610.047	609.9	0.147
175201.67	11	610.555	609.805	609.63	0.175
175213.33	12	610.284	609.534	609.33	0.204
175225	13	610.007	609.257	609.02	0.237
175236.67	14	609.724	608.974	608.72	0.254
175248.33	15	609.434	608.684	608.41	0.274
175260	16	609.14	608.39	608.14	0.25
175272	17	608.839	608.089	607.91	0.179
175284	18	608.544	607.794	607.67	0.124
175296	19	608.257	607.507	607.32	0.187
175308	20	607.976	607.226	606.96	0.266
175318.67	21	607.73	606.98	606.69	0.29
175330.33	22	607.454	606.704	606.41	0.294
175342	23	607.174	606.424	606.14	0.284
175353.67	24	606.889	606.139	605.84	0.299
175365.33	25	606.597	605.847	605.58	0.267
175376	26	606.326	605.576	605.32	0.256
175388	27	606.027	605.277	605.08	0.197
175400	28	605.732	604.982	604.83	0.152
175412	29	605.445	604.695	604.47	0.225
175424	30	605.164	604.414	604.11	0.304
175434.67	31	604.917	604.167	603.86	0.307
175446.33	32	604.642	603.892	603.57	0.322
175458	33	604.362	603.612	603.27	0.342
175469.67	34	604.077	603.327	602.98	0.347
175481.33	35	603.784	603.034	602.69	0.344
175492	36	603.516	602.766	602.44	0.326
175504	37	603.215	602.465	602.19	0.275
175516	38	602.92	602.17	601.96	0.21
175528	39	602.633	601.883	601.61	0.273
175540	40	602.352	601.602	601.28	0.322
175550.67	41	602.104	601.354	601.01	0.344
175562.33	42	601.83	601.08	600.73	0.35
175574	43	601.55	600.8	600.43	0.37
175585.67	44	601.265	600.515	600.15	0.365
175597.33	45	600.972	600.222	599.85	0.372
175608	46	600.704	599.954	599.61	0.344
175620	47	600.403	599.653	599.38	0.273
175632	48	600.108	599.358	599.17	0.188
175644	49	599.821	599.071	598.83	0.241
175656	50	599.54	598.79	598.56	0.23
175666.67	51	599.293	598.543	598.24	0.303
175678.33	52	599.018	598.268	597.94	0.328
175690	53	598.738	597.988	597.64	0.348
175701.67	54	598.453	597.703	597.38	0.323
175713.33	55	598.161	597.411	597.11	0.301
175724	56	597.891	597.141	596.85	0.291
175736	57	597.591	596.841	596.62	0.221
175748	58	597.296	596.546	596.38	0.166
175760	59	597.009	596.259	596.03	0.229
175772	60	596.728	595.978	595.69	0.288
175783.67	61	596.457	595.707	595.4	0.307
175795.33	62	596.18	595.43	595.13	0.3
175807	63	595.898	595.148	594.88	0.268
175818.67	64	595.611	594.861	594.63	0.231
175830.33	65	595.314	594.564	594.37	0.194
175841	66	595.04	594.29	594.13	0.16

FILLETS

DECK GRADES REVISED +.02 ON 4/29/93
ROUTE FAI–74
SECTION 92–11B EAST BOUND
COUNTY VERMILION
JOB NO. C–95–067–90

DECK THICKNESS FT.– 0.75

STATION	LOCATION	BEAM ELEV DCK	LINE ELEV STL	D SHOT	FILLET
175095.83	1	613.014	612.264	612.17	0.094
175107.83	2	612.752	612.002	611.91	0.092
175119.33	3	612.492	611.742	611.66	0.082
175130.83	4	612.226	611.476	611.4	0.076
175142.33	5	611.952	611.202	611.16	0.042
175153.83	6	611.668	610.918	610.92	–0.002
175165.33	7	611.377	610.627	610.65	–0.023
175176.83	8	611.079	610.329	610.33	–0.001
175188.83	9	610.76	610.01	610.02	–0.01
175191	10	610.707	609.957	609.9	0.057
175201.67	11	610.467	609.717	609.64	0.077
175213.33	12	610.196	609.446	609.33	0.116
175225	13	609.92	609.17	609.02	0.15
175236.67	14	609.636	608.886	608.72	0.166
175248.33	15	609.346	608.596	608.42	0.176
175260	16	609.053	608.303	608.13	0.173
175272	17	608.752	608.002	607.91	0.092
175284	18	608.456	607.706	607.68	0.026
175296	19	608.17	607.42	607.33	0.09
175308	20	607.889	607.139	606.96	0.179
175318.67	21	607.642	606.892	606.69	0.202
175330.33	22	607.366	606.616	606.41	0.206
175342	23	607.087	606.337	606.16	0.177
175353.67	24	606.801	606.051	605.84	0.211
175365.33	25	606.509	605.759	605.59	0.169
175376	26	606.241	605.491	605.32	0.171
175388	27	605.94	605.19	605.09	0.1
175400	28	605.644	604.894	604.84	0.054
175412	29	605.358	604.608	604.46	0.148
175424	30	605.077	604.327	604.1	0.227
175434.67	31	604.829	604.079	603.86	0.219
175446.33	32	604.554	603.804	603.56	0.244
175456	33	604.275	603.525	603.26	0.265
175469.67	34	603.989	603.239	602.97	0.269
175481.33	35	603.696	602.946	602.69	0.256
175492	36	603.429	602.679	602.42	0.259
175504	37	603.128	602.378	602.18	0.198
175516	38	602.832	602.082	601.96	0.122
175528	39	602.546	601.796	601.61	0.186
175540	40	602.265	601.515	601.26	0.255
175550.67	41	602.016	601.266	601.01	0.256
175562.33	42	601.742	600.992	600.73	0.262
175574	43	601.463	600.713	600.43	0.283
175585.67	44	601.177	600.427	600.14	0.287
175597.33	45	600.884	600.134	599.85	0.284
175608	46	600.617	599.867	599.61	0.257
175620	47	600.316	599.566	599.38	0.186
175632	48	600.02	599.27	599.17	0.1
175644	49	599.734	598.984	598.84	0.144
175656	50	599.453	598.703	598.55	0.153
175666.67	51	599.205	598.455	598.25	0.205
175678.33	52	598.93	598.18	597.94	0.24
175690	53	598.651	597.901	597.65	0.251
175701.67	54	598.365	597.615	597.38	0.235
175713.33	55	598.073	597.323	597.12	0.203
175724	56	597.804	597.054	596.87	0.184
175736	57	597.504	596.754	596.63	0.124
175748	58	597.208	596.458	596.39	0.068
175760	59	596.922	596.172	596.03	0.142
175772	60	596.641	595.891	595.71	0.181
175783.67	61	596.369	595.619	595.42	0.199
175795.33	62	596.092	595.342	595.14	0.202
175807	63	595.811	595.061	594.88	0.181
175818.67	64	595.523	594.773	594.63	0.143
175830.33	65	595.226	594.476	594.38	0.096
175841	66	594.95	594.2	594.13	0.07

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
FAI-74	92-1BR	Vermilion	45	45
STA		TO STA		
FED ROAD DIST NO	ILLINOIS	PROJECT		
			Dwg No. 4 of 28	

A

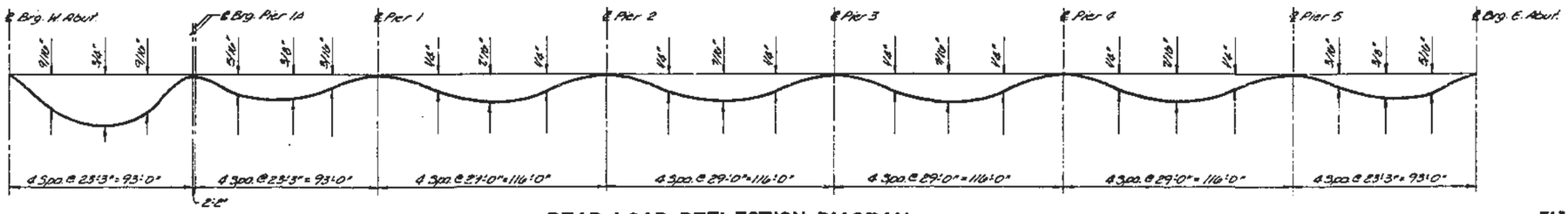
LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
℄ Brg. W. Abut (1)	1750+95.83	-16.417	612.631	612.634
2	1751+07.83	-16.417	612.343	612.375
3	1751+19.33	-16.417	612.067	612.118
4	1751+30.83	-16.417	611.791	611.854
5	1751+42.33	-16.417	611.515	611.583
6	1751+53.83	-16.417	611.239	611.302
7	1751+65.33	-16.417	610.963	611.014
8	1751+76.83	-16.417	610.687	610.719
℄ Brg. Pier 1A (9)	1751+88.83	-16.417	610.399	610.402
℄ Brg. Pier 1A (10)	1751+91.00	-16.417	610.346	610.349
11	1752+01.67	-16.417	610.090	610.111
12	1752+13.33	-16.417	609.811	609.844
13	1752+25.00	-16.417	609.530	609.570
14	1752+36.67	-16.417	609.250	609.289
15	1752+48.33	-16.417	608.971	609.002
16	1752+60.00	-16.417	608.690	608.711
17	1752+72.00	-16.417	608.402	608.413
℄ Pier 1 (18)	1752+84.00	-16.417	608.114	608.120
19	1752+96.00	-16.417	607.826	607.837
20	1753+08.00	-16.417	607.538	607.559
21	1753+18.67	-16.417	607.282	607.314
22	1753+30.33	-16.417	607.003	607.042
23	1753+42.00	-16.417	606.722	606.765
24	1753+53.67	-16.417	606.442	606.482
25	1753+65.33	-16.417	606.163	606.194
26	1753+76.00	-16.417	605.906	605.927
27	1753+88.00	-16.417	605.618	605.629
℄ Pier 2 (28)	1754+00.00	-16.417	605.330	605.336
29	1754+12.00	-16.417	605.042	605.053
30	1754+24.00	-16.417	604.754	604.775
31	1754+34.67	-16.417	604.498	604.529
32	1754+46.33	-16.417	604.219	604.258
33	1754+58.00	-16.417	603.938	603.981
34	1754+69.67	-16.417	603.658	603.698
35	1754+81.33	-16.417	603.379	603.409
36	1754+92.00	-16.417	603.122	603.143
37	1755+04.00	-16.417	602.834	602.845
℄ Pier 3 (38)	1755+16.00	-16.417	602.546	602.552
39	1755+28.00	-16.417	602.258	602.269
40	1755+40.00	-16.417	601.970	601.992
41	1755+50.67	-16.417	601.714	601.745
42	1755+62.33	-16.417	601.435	601.474
43	1755+74.00	-16.417	601.154	601.197
44	1755+85.67	-16.417	600.874	600.914
45	1755+97.33	-16.417	600.595	600.625
46	1756+08.00	-16.417	600.338	600.359
47	1756+20.00	-16.417	600.050	600.061
℄ Pier 4 (48)	1756+32.00	-16.417	599.762	599.768
49	1756+44.00	-16.417	599.474	599.485
50	1756+56.00	-16.417	599.186	599.207
51	1756+66.67	-16.417	598.930	598.962
52	1756+78.33	-16.417	598.651	598.690
53	1756+90.00	-16.417	598.370	598.413
54	1757+01.67	-16.417	598.090	598.130
55	1757+13.33	-16.417	597.811	597.842
56	1757+24.00	-16.417	597.554	597.575
57	1757+36.00	-16.417	597.266	597.277
℄ Pier 5 (58)	1757+48.00	-16.417	596.978	596.984
59	1757+60.00	-16.417	596.690	596.701
60	1757+72.00	-16.417	596.402	596.423
61	1757+83.67	-16.417	596.122	596.154
62	1757+95.33	-16.417	595.843	595.881
63	1758+07.00	-16.417	595.562	595.602
64	1758+18.67	-16.417	595.282	595.316
65	1758+30.33	-16.417	595.003	595.023
℄ Brg. E. Abut. (66)	1758+41.00	-16.417	594.746	594.749

B

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
℄ Brg. W. Abut (1)	1750+95.83	-12.000	612.723	612.724
2	1751+07.83	-12.000	612.435	612.463
3	1751+19.33	-12.000	612.159	612.206
4	1751+30.83	-12.000	611.883	611.942
5	1751+42.33	-12.000	611.607	611.671
6	1751+53.83	-12.000	611.331	611.390
7	1751+65.33	-12.000	611.055	611.102
8	1751+76.83	-12.000	610.779	610.807
℄ Brg. Pier 1A (9)	1751+88.83	-12.000	610.491	610.492
℄ Brg. Pier 1A (10)	1751+91.00	-12.000	610.439	610.440
11	1752+01.67	-12.000	610.182	610.199
12	1752+13.33	-12.000	609.903	609.932
13	1752+25.00	-12.000	609.623	609.658
14	1752+36.67	-12.000	609.342	609.377
15	1752+48.33	-12.000	609.063	609.090
16	1752+60.00	-12.000	608.783	608.799
17	1752+72.00	-12.000	608.495	608.501
℄ Pier 1 (18)	1752+84.00	-12.000	608.207	608.209
19	1752+96.00	-12.000	607.919	607.925
20	1753+08.00	-12.000	607.631	607.647
21	1753+18.67	-12.000	607.374	607.402
22	1753+30.33	-12.000	607.095	607.130
23	1753+42.00	-12.000	606.815	606.853
24	1753+53.67	-12.000	606.534	606.570
25	1753+65.33	-12.000	606.255	606.282
26	1753+76.00	-12.000	605.999	606.015
27	1753+88.00	-12.000	605.711	605.717
℄ Pier 2 (28)	1754+00.00	-12.000	605.423	605.425
29	1754+12.00	-12.000	605.135	605.141
30	1754+24.00	-12.000	604.847	604.863
31	1754+34.67	-12.000	604.590	604.627
32	1754+46.33	-12.000	604.311	604.346
33	1754+58.00	-12.000	604.031	604.069
34	1754+69.67	-12.000	603.750	603.786
35	1754+81.33	-12.000	603.471	603.497
36	1754+92.00	-12.000	603.215	603.231
37	1755+04.00	-12.000	602.927	602.933
℄ Pier 3 (38)	1755+16.00	-12.000	602.639	602.641
39	1755+28.00	-12.000	602.351	602.357
40	1755+40.00	-12.000	602.063	602.079
41	1755+50.67	-12.000	601.806	601.833
42	1755+62.33	-12.000	601.527	601.562
43	1755+74.00	-12.000	601.247	601.285
44	1755+85.67	-12.000	600.966	601.002
45	1755+97.33	-12.000	600.687	600.713
46	1756+08.00	-12.000	600.431	600.447
47	1756+20.00	-12.000	600.143	600.149
℄ Pier 4 (48)	1756+32.00	-12.000	599.855	599.857
49	1756+44.00	-12.000	599.567	599.573
50	1756+56.00	-12.000	599.279	599.295
51	1756+66.67	-12.000	599.022	599.050
52	1756+78.33	-12.000	598.743	598.778
53	1756+90.00	-12.000	598.463	598.501
54	1757+01.67	-12.000	598.182	598.218
55	1757+13.33	-12.000	597.903	597.930
56	1757+24.00	-12.000	597.647	597.663
57	1757+36.00	-12.000	597.359	597.365
℄ Pier 5 (58)	1757+48.00	-12.000	597.071	597.073
59	1757+60.00	-12.000	596.783	596.789
60	1757+72.00	-12.000	596.495	596.511
61	1757+83.67	-12.000	596.214	596.242
62	1757+95.33	-12.000	595.935	596.969
63	1758+07.00	-12.000	595.655	596.690
64	1758+18.67	-12.000	595.374	595.404
65	1758+30.33	-12.000	595.095	595.111
℄ Brg. E. Abut. (66)	1758+41.00	-12.000	594.839	594.840

PGL

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
℄ Brg. W. Abut (1)	1750+95.83	0.00	612.910	612.909
2	1751+07.83	0.00	612.622	612.646
3	1751+19.33	0.00	612.346	612.389
4	1751+30.83	0.00	612.070	612.126
5	1751+42.33	0.00	611.794	611.854
6	1751+53.83	0.00	611.518	611.574
7	1751+65.33	0.00	611.242	611.285
8	1751+76.83	0.00	610.966	610.990
℄ Brg. Pier 1A (9)	1751+88.83	0.00	610.678	610.677
℄ Brg. Pier 1A (10)	1751+91.00	0.00	610.626	610.625
11	1752+01.67	0.00	610.370	610.383
12	1752+13.33	0.00	610.090	610.115
13	1752+25.00	0.00	609.810	609.842
14	1752+36.67	0.00	609.530	609.561
15	1752+48.33	0.00	609.250	609.274
16	1752+60.00	0.00	608.970	608.983
17	1752+72.00	0.00	608.682	608.684
℄ Pier 1 (18)	1752+84.00	0.00	608.394	608.392
19	1752+96.00	0.00	608.106	608.108
20	1753+08.00	0.00	607.818	607.831
21	1753+18.67	0.00	607.562	607.585
22	1753+30.33	0.00	607.282	607.314
23	1753+42.00	0.00	607.002	607.037
24	1753+53.67	0.00	606.722	606.754
25	1753+65.33	0.00	606.442	606.465
26	1753+76.00	0.00	606.186	606.199
27	1753+88.00	0.00	605.898	605.900
℄ Pier 2 (28)	1754+00.00	0.00	605.610	605.608
29	1754+12.00	0.00	605.322	605.324
30	1754+24.00	0.00	605.034	605.046
31	1754+34.67	0.00	604.778	604.801
32	1754+46.33	0.00	604.498	604.529
33	1754+58.00	0.00	604.218	604.252
34	1754+69.67	0.00	603.938	603.969
35	1754+81.33	0.00	603.658	603.681
36	1754+92.00	0.00	603.402	603.415
37	1755+04.00	0.00	603.114	603.116
℄ Pier 3 (38)	1755+16.00	0.00	602.826	602.824
39	1755+28.00	0.00	602.538	602.540
40	1755+40.00	0.00	602.250	602.263
41	1755+50.67	0.00	601.994	602.017
42	1755+62.33	0.00	601.714	601.745
43	1755+74.00	0.00	601.434	601.468
44	1755+85.67	0.00	601.154	601.185
45	1755+97.33	0.00	600.874	600.897
46	1756+08.00	0.00	600.618	600.630
47	1756+20.00	0.00	600.330	600.332
℄ Pier 4 (48)	1756+32.00	0.00	600.042	600.040
49	1756+44.00	0.00	599.754	599.756
50	1756+56.00	0.00	599.466	599.479
51	1756+66.67	0.00	599.210	599.233
52	1756+78.33	0.00	598.930	598.962
53	1756+90.00	0.00	598.650	598.685
54	1757+01.67	0.00	598.370	598.402
55	1757+13.33	0.00	598.090	598.113
56	1757+24.00	0.00	597.834	597.847
57	1757+36.00	0.00	597.546	597.548
℄ Pier 5 (58)	1757+48.00	0.00	597.258	597.256
59	1757+60.00	0.00	596.970	596.972
60	1757+72.00	0.00	596.682	596.695
61	1757+83.67	0.00	596.402	596.425
62	1757+95.33	0.00	596.122	596.151
63	1758+07.00	0.00	595.842	595.874
64	1758+18.67	0.00	595.562	595.587
65	1758+30.33	0.00	595.282	595.295
℄ Brg. E. Abut. (66)	1758+41.00	0.00	595.026	595.025



DEAD LOAD DEFLECTION DIAGRAM

(INCLUDES WEIGHT OF CONCRETE ONLY)

NOTE: THE ABOVE DEFLECTIONS ARE NOT TO BE USED IN THE FIELD IF THE ENGINEER IS WORKING FROM THE GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS AS SHOWN ON DWG'S 4 & 5.

VOID

TOP OF SLAB ELEVATIONS (EB)

FAI 74 OVER SALT FORK
FAI RTE. 74 SECTION 92-1BR
VERMILION COUNTY
STATION 1755+16.00
STRUCTURE NO 092-0006(EB)
STRUCTURE NO. 092-0007(WB)

ESCA CONSULTANTS, INC.		
DESIGNED BY:	KMR	6/90
DRAWN BY:	CJG	6/90
CHECKED BY:	JRF	6/90
APPROVED BY:	RDP	6/90

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
FAI-74	92-11BR	Vermilion	165	66
STA		TO STA		
FED ROAD DIST NO	ILLINOIS	PROJECT		

Dwg. No. 5 of 28

C

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
℄ Brg. W. Abut (1)	1750+95.83	+12.000	612.723	612.724
2	1751+07.83	+12.000	612.435	612.463
3	1751+19.33	+12.000	612.159	612.206
4	1751+30.83	+12.000	611.883	611.942
5	1751+42.33	+12.000	611.607	611.671
6	1751+53.83	+12.000	611.331	611.390
7	1751+65.33	+12.000	611.055	611.102
8	1751+76.83	+12.000	610.779	610.807
℄ Brg. Pier 1A (9)	1751+88.83	+12.000	610.491	610.492
℄ Brg. Pier 1A (10)	1751+91.00	+12.000	610.439	610.440
11	1752+01.67	+12.000	610.182	610.199
12	1752+13.33	+12.000	609.903	609.932
13	1752+25.00	+12.000	609.623	609.658
14	1752+36.67	+12.000	609.342	609.377
15	1752+48.33	+12.000	609.063	609.090
16	1752+60.00	+12.000	608.783	608.799
17	1752+72.00	+12.000	608.495	608.501
℄ Pier 1 (18)	1752+84.00	+12.000	608.207	608.209
19	1752+96.00	+12.000	607.919	607.925
20	1753+08.00	+12.000	607.631	607.647
21	1753+18.67	+12.000	607.374	607.402
22	1753+30.33	+12.000	607.095	607.130
23	1753+42.00	+12.000	606.815	606.853
24	1753+53.67	+12.000	606.534	606.570
25	1753+65.33	+12.000	606.255	606.282
26	1753+76.00	+12.000	605.999	606.015
27	1753+88.00	+12.000	605.711	605.717
℄ Pier 2 (28)	1754+00.00	+12.000	605.423	605.425
29	1754+12.00	+12.000	605.135	605.141
30	1754+24.00	+12.000	604.847	604.863
31	1754+34.67	+12.000	604.590	604.617
32	1754+46.33	+12.000	604.311	604.346
33	1754+58.00	+12.000	604.031	604.069
34	1754+69.67	+12.000	603.750	603.786
35	1754+81.33	+12.000	603.471	603.497
36	1754+92.00	+12.000	603.215	603.231
37	1755+04.00	+12.000	602.927	602.933
℄ Pier 3 (38)	1755+16.00	+12.000	602.639	602.641
39	1755+28.00	+12.000	602.351	602.357
40	1755+40.00	+12.000	602.063	602.079
41	1755+50.67	+12.000	601.806	601.833
42	1755+62.33	+12.000	601.527	601.562
43	1755+74.00	+12.000	601.247	601.285
44	1755+85.67	+12.000	600.966	601.002
45	1755+97.33	+12.000	600.687	600.713
46	1756+08.00	+12.000	600.431	600.447
47	1756+20.00	+12.000	600.143	600.149
℄ Pier 4 (48)	1756+32.00	+12.000	599.855	599.857
49	1756+44.00	+12.000	599.567	599.573
50	1756+56.00	+12.000	599.279	599.295
51	1756+66.67	+12.000	599.022	599.050
52	1756+78.33	+12.000	598.743	598.778
53	1756+90.00	+12.000	598.463	598.501
54	1757+01.67	+12.000	598.182	598.218
55	1757+13.33	+12.000	597.903	597.930
56	1757+24.00	+12.000	597.647	597.663
57	1757+36.00	+12.000	597.359	597.365
℄ Pier 5 (58)	1757+48.00	+12.000	597.071	597.073
59	1757+60.00	+12.000	596.783	597.789
60	1757+72.00	+12.000	596.495	596.511
61	1757+83.67	+12.000	596.214	596.242
62	1757+95.33	+12.000	595.935	596.969
63	1758+07.00	+12.000	595.655	596.690
64	1758+18.67	+12.000	595.374	595.404
65	1758+30.33	+12.000	595.095	595.111
℄ Brg. E. Abut. (66)	1758+41.00	+12.000	594.839	594.840

D

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
℄ Brg. W. Abut (1)	1750+95.83	16.417	612.631	612.634
2	1751+07.83	16.417	612.343	612.375
3	1751+19.33	16.417	612.067	612.118
4	1751+30.83	16.417	611.791	611.854
5	1751+42.33	16.417	611.515	611.583
6	1751+53.83	16.417	611.239	611.302
7	1751+65.33	16.417	610.963	611.014
8	1751+76.83	16.417	610.687	610.719
℄ Brg. Pier 1A (9)	1751+88.83	16.417	610.399	610.402
℄ Brg. Pier 1A (10)	1751+91.00	16.417	610.346	610.349
11	1752+01.67	16.417	610.090	610.111
12	1752+13.33	16.417	609.811	609.844
13	1752+25.00	16.417	609.530	609.570
14	1752+36.67	16.417	609.250	609.289
15	1752+48.33	16.417	608.971	609.002
16	1752+60.00	16.417	608.690	608.711
17	1752+72.00	16.417	608.402	608.413
℄ Pier 1 (18)	1752+84.00	16.417	608.114	608.120
19	1752+96.00	16.417	607.826	607.837
20	1753+08.00	16.417	607.538	607.559
21	1753+18.67	16.417	607.282	607.314
22	1753+30.33	16.417	607.003	607.042
23	1753+42.00	16.417	606.722	606.765
24	1753+53.67	16.417	606.442	606.482
25	1753+65.33	16.417	606.163	606.194
26	1753+76.00	16.417	605.906	605.927
27	1753+88.00	16.417	605.618	605.629
℄ Pier 2 (28)	1754+00.00	16.417	605.330	605.336
29	1754+12.00	16.417	605.042	605.053
30	1754+24.00	16.417	604.754	604.775
31	1754+34.67	16.417	604.498	604.529
32	1754+46.33	16.417	604.219	604.258
33	1754+58.00	16.417	603.938	603.981
34	1754+69.67	16.417	603.658	603.698
35	1754+81.33	16.417	603.379	603.409
36	1754+92.00	16.417	603.122	603.143
37	1755+04.00	16.417	602.834	602.845
℄ Pier 3 (38)	1755+16.00	16.417	602.546	602.552
39	1755+28.00	16.417	602.258	602.269
40	1755+40.00	16.417	601.970	601.991
41	1755+50.67	16.417	601.714	601.745
42	1755+62.33	16.417	601.435	601.474
43	1755+74.00	16.417	601.154	601.197
44	1755+85.67	16.417	600.874	600.914
45	1755+97.33	16.417	600.595	600.625
46	1756+08.00	16.417	600.338	600.359
47	1756+20.00	16.417	600.050	600.061
℄ Pier 4 (48)	1756+32.00	16.417	599.762	599.768
49	1756+44.00	16.417	599.474	599.485
50	1756+56.00	16.417	599.186	599.207
51	1756+66.67	16.417	598.930	598.962
52	1756+78.33	16.417	598.651	598.690
53	1756+90.00	16.417	598.370	598.413
54	1757+01.67	16.417	598.090	598.130
55	1757+13.33	16.417	597.811	597.842
56	1757+24.00	16.417	597.554	597.575
57	1757+36.00	16.417	597.266	597.277
℄ Pier 5 (58)	1757+48.00	16.417	596.978	596.984
59	1757+60.00	16.417	596.690	596.701
60	1757+72.00	16.417	596.402	596.423
61	1757+83.67	16.417	596.122	596.154
62	1757+95.33	16.417	595.843	595.881
63	1758+07.00	16.417	595.562	595.602
64	1758+18.67	16.417	595.282	595.316
65	1758+30.33	16.417	595.003	595.023
℄ Brg. E. Abut. (66)	1758+41.00	16.417	594.746	594.749

VOIP

TOP OF SLAB ELEVATIONS (EB)

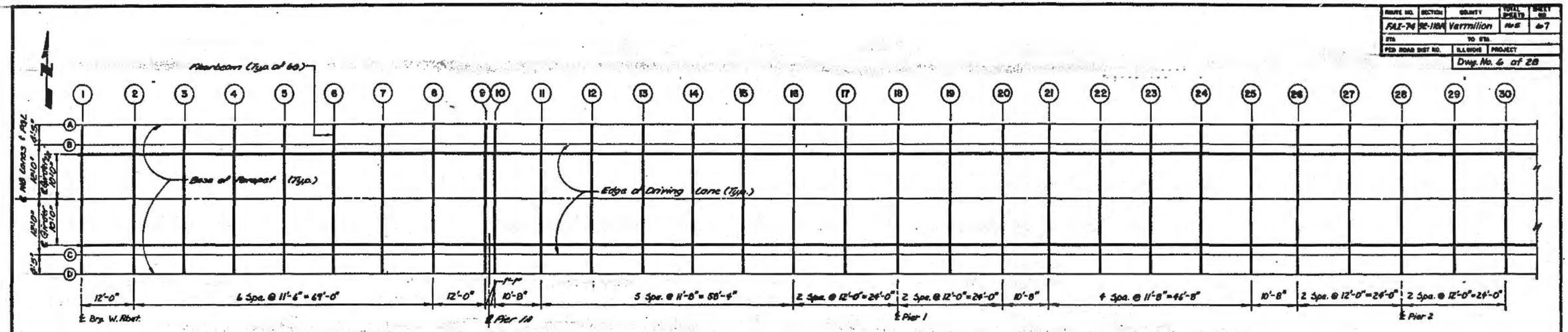
FAI 74 OVER SALT FORK
FAI RTE. 74 SECTION 92-11BR
VERMILION COUNTY
STATION 1755+16.00
STRUCTURE NO 092-0006(EB)
STRUCTURE NO. 092-0007(WB)

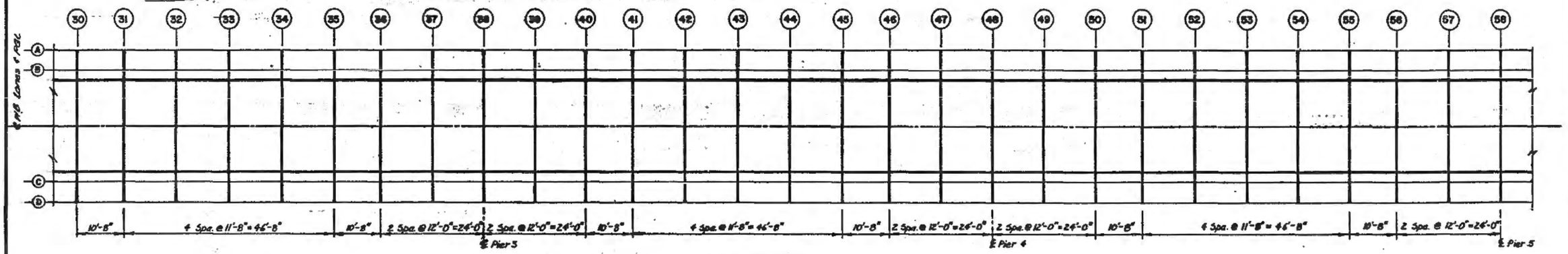
ESCA CONSULTANTS, INC.

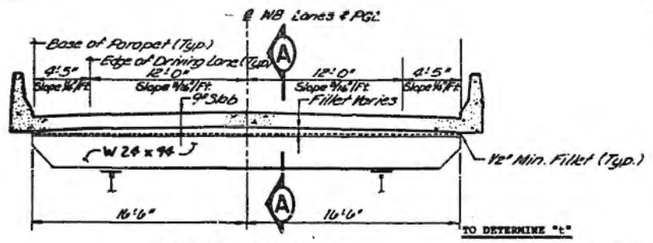
DESIGNED BY:	NMR	6/90
DRAWN BY:	CJG	6/90
CHECKED BY:	JRF	6/90
APPROVED BY:	RDP	6/90

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-74	92-1BR	Vermilion	No. 6	6 of 7
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	PROJECT	

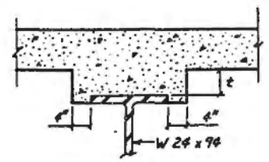
Dwg. No. 6 of 28







CROSS SECTION



SECTION A-A

TO DETERMINE "t"

AFTER ALL STRUCTURAL STEEL HAS BEEN ERECTED, ELEVATIONS OF THE TOP FLANGE OF EACH FLOORBEAM SHALL BE TAKEN AT INTERVALS SHOWN ABOVE. THESE ELEVATIONS SUBTRACTED FROM THE "THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION" SHOWN ON DWG'S 7 & 8 MINUS SLAB THICKNESS, EQUALS THE FILLET HEIGHTS "t" ABOVE TOP FLANGE OF BEAMS.

FILLET HEIGHTS

DESIGNED BY:	KMR	6-90
DRAWN BY:	PDV	6-90
CHECKED BY:	JAG	6-90
APPROVED BY:	RDP	6-90

ESCA
CONSULTANTS, INC.

TOP OF SLAB ELEVATIONS (WB)

FAI 74 OVER SALT FORK
FAI RTE. 74 SECTION 92-1BR
VERMILION COUNTY
STATION 1755+16.00
STRUCTURE NO. 092-0006(EB)
STRUCTURE NO. 092-0007(WB)

FILLETS
DECK GRADES REVISED 7/9/92 +.23 & +.023
ROUTE FAI-74
SECTION 92-11B WEST BOUND
COUNTY VERMILION
JOB NO. C-95-067-90

DECK THICKNESS FT.- 0.75

STATION	LOCATION	BEAM ELEV DCK	LINE ELEV STL	A SHOT	FILLET
175095.6	1	612.687	612.137	612.14	-0.003
175107.6	2	612.628	611.878	611.89	-0.012
175119.3	3	612.371	611.621	611.65	-0.029
175130.8	4	612.107	611.357	611.38	-0.023
175142.3	5	611.836	611.086	611.11	-0.024
175153.6	6	611.555	610.805	610.8	0.005
175165.3	7	611.267	610.517	610.52	-0.003
175176.8	8	610.972	610.222	610.22	0.002
175188.8	9	610.855	609.905	609.91	-0.005
175191	10	610.602	609.852	609.78	0.072
175201.6	11	610.364	609.614	609.49	0.124
175213.3	12	610.097	609.347	609.22	0.127
175225	13	609.823	609.073	608.87	0.203
175236.6	14	609.542	608.792	608.6	0.192
175248.3	15	609.255	608.505	608.3	0.205
175260	16	608.964	608.214	608.02	0.194
175272	17	608.668	607.918	607.77	0.148
175284	18	608.373	607.623	607.55	0.073
175296	19	608.09	607.34	607.23	0.11
175308	20	607.812	607.062	606.89	0.172
175318.6	21	607.567	606.817	606.63	0.187
175330.3	22	607.295	606.545	606.34	0.205
175342	23	607.018	606.268	606.05	0.218
175353.6	24	606.735	605.985	605.75	0.235
175365.3	25	606.447	605.697	605.5	0.197
175376	26	606.18	605.43	605.21	0.22
175388	27	605.882	605.132	605.02	0.112
175400	28	605.569	604.819	604.77	0.069
175412	29	605.306	604.556	604.44	0.116
175424	30	605.028	604.278	604.1	0.176
175434.6	31	604.782	604.032	603.85	0.182
175446.3	32	604.511	603.761	603.57	0.191
175456	33	604.234	603.484	603.31	0.174
175469.6	34	603.951	603.201	603.03	0.171
175481.3	35	603.65	602.9	602.76	0.14
175492	36	603.388	602.638	602.51	0.128
175504	37	603.098	602.348	602.25	0.098
175516	38	602.805	602.055	601.99	0.065
175528	39	602.522	601.772	601.64	0.132
175540	40	602.244	601.494	601.3	0.194
175550.6	41	601.998	601.248	601.03	0.218
175562.3	42	601.727	600.977	600.72	0.257
175574	43	601.442	600.692	600.43	0.262
175585.6	44	601.159	600.409	600.13	0.279
175597.3	45	600.671	600.121	599.84	0.281
175608	46	600.604	599.854	599.59	0.264
175620	47	600.306	599.556	599.4	0.156
175632	48	600.014	599.264	599.16	0.104
175644	49	599.73	598.98	598.83	0.15
175656	50	599.453	598.703	598.51	0.193
175668.6	51	599.207	598.457	598.24	0.217
175678.3	52	598.936	598.186	597.92	0.266
175690	53	598.659	597.909	597.63	0.279
175701.6	54	598.376	597.626	597.33	0.296
175713.3	55	598.087	597.337	597.06	0.277
175724	56	597.821	597.071	596.79	0.281
175736	57	597.522	596.772	596.61	0.162
175748	58	597.23	596.48	596.41	0.07
175760	59	596.946	596.196	596.09	0.106
175772	60	596.669	595.919	595.76	0.159
175783.6	61	596.399	595.649	595.49	0.159
175795.3	62	596.127	595.377	595.21	0.167
175807	63	595.846	595.096	594.97	0.126
175818.6	64	595.561	594.811	594.7	0.111
175830.3	65	595.269	594.519	594.43	0.089
175841	66	594.999	594.249	594.2	0.049

FILLETS
REVISED DECK GRADES 6/17/92 +.23
ROUTE FAI-74
SECTION 92-11B WEST BOUND
COUNTY VERMILION
JOB NO. C-95-067-90

DECK THICKNESS FT.- 0.75

STATION	LOCATION	BEAM ELEV DCK	LINE ELEV STL	B SHOT	FILLET
175095.6	1	612.954	612.204	612.15	0.054
175107.6	2	612.693	611.943	611.66	0.063
175119.3	3	612.436	611.686	611.64	0.046
175130.8	4	612.17	611.42	611.35	0.07
175142.3	5	611.901	611.151	611.08	0.071
175153.8	6	611.62	610.87	610.8	0.07
175165.3	7	611.332	610.582	610.51	0.072
175176.8	8	611.037	610.287	610.23	0.057
175188.8	9	610.722	609.972	609.92	0.052
175191	10	610.67	609.92	609.78	0.14
175201.6	11	610.429	609.679	609.5	0.179
175213.3	12	610.162	609.412	609.21	0.202
175225	13	609.888	609.138	608.88	0.258
175236.6	14	609.607	608.857	608.59	0.267
175248.3	15	609.32	608.57	608.3	0.27
175260	16	609.029	608.279	608.01	0.269
175272	17	608.731	607.981	607.77	0.211
175284	18	608.439	607.689	607.55	0.139
175296	19	608.155	607.405	607.23	0.175
175308	20	607.877	607.127	606.88	0.247
175318.6	21	607.632	606.882	606.63	0.252
175330.3	22	607.36	606.61	606.33	0.28
175342	23	607.083	606.333	606.05	0.283
175353.6	24	606.8	606.05	605.79	0.29
175365.3	25	606.512	605.762	605.49	0.272
175378	26	606.245	605.495	605.21	0.285
175388	27	605.947	605.197	605.02	0.177
175400	28	605.655	604.905	604.78	0.125
175412	29	605.371	604.621	604.44	0.181
175424	30	605.093	604.343	604.1	0.243
175434.6	31	604.847	604.097	603.84	0.257
175446.3	32	604.576	603.826	603.57	0.256
175456	33	604.299	603.549	603.3	0.249
175469.6	34	604.016	603.266	603.02	0.246
175481.3	35	603.727	602.977	602.73	0.247
175492	36	603.461	602.711	602.51	0.201
175504	37	603.163	602.413	602.25	0.163
175516	38	602.671	602.121	602	0.121
175528	39	602.587	601.837	601.65	0.187
175540	40	602.309	601.559	601.3	0.259
175550.6	41	602.063	601.313	601.03	0.283
175562.3	42	601.792	601.042	600.74	0.302
175574	43	601.515	600.765	600.44	0.325
175585.6	44	601.232	600.482	600.14	0.342
175597.3	45	600.943	600.193	599.87	0.323
175608	46	600.677	599.927	599.62	0.307
175620	47	600.379	599.629	599.39	0.239
175632	48	600.087	599.337	599.16	0.177
175644	49	599.803	599.053	598.83	0.223
175656	50	599.525	598.775	598.49	0.285
175668.6	51	599.28	598.53	598.23	0.3
175678.3	52	599.008	598.258	597.92	0.338
175690	53	598.731	597.981	597.63	0.351
175701.6	54	598.448	597.698	597.33	0.366
175713.3	55	598.16	597.41	597.05	0.36
175724	56	597.893	597.143	596.8	0.343
175736	57	597.595	596.845	596.62	0.225
175748	58	597.303	596.553	596.41	0.143
175760	59	597.019	596.269	596.08	0.189
175772	60	596.741	595.991	595.76	0.231
175783.6	61	596.472	595.722	595.5	0.222
175795.3	62	596.176	595.426	595.22	0.206
175807	63	595.917	595.167	594.95	0.217
175818.6	64	595.634	594.884	594.7	0.184
175830.3	65	595.341	594.591	594.44	0.151
175841	66	595.07	594.32	594.21	0.11

FILLETS
DECK GRADES REVISED 6/17/92 +.23
ROUTE FAI-74
SECTION 92-11B WEST BOUND
COUNTY VERMILION
JOB NO. C-95-067-90

DECK THICKNESS FT.- 0.75

STATION	LOCATION	PROPOSED ELEV DCK	GRADE BOT DECK	LINE SHOT	P G L FILLET
175095.8	1	613.139	612.389	612.16	0.229
175107.8	2	612.876	612.128	611.88	0.248
175119.3	3	612.619	611.869	611.63	0.239
175130.8	4	612.356	611.606	611.34	0.266
175142.3	5	612.084	611.334	611.07	0.264
175153.8	6	611.804	611.054	610.8	0.254
175165.3	7	611.515	610.765	610.52	0.245
175176.8	8	611.22	610.47	610.22	0.25
175188.8	9	610.907	610.157	609.92	0.237
175191	10	610.855	610.105	609.79	0.315
175201.6	11	610.613	609.863	609.51	0.353
175213.3	12	610.345	609.595	609.2	0.395
175225	13	610.072	609.322	608.88	0.442
175236.6	14	609.791	609.041	608.59	0.451
175248.3	15	609.504	608.754	608.3	0.454
175260	16	609.213	608.463	608.01	0.453
175272	17	608.914	608.164	607.77	0.394
175284	18	608.622	607.872	607.55	0.322
175296	19	608.338	607.588	607.22	0.368
175308	20	608.061	607.311	606.86	0.451
175318.6	21	607.815	607.065	606.61	0.455
175330.3	22	607.544	606.794	606.32	0.474
175342	23	607.267	606.517	606.06	0.457
175353.6	24	606.984	606.234	605.77	0.464
175365.3	25	606.695	605.945	605.49	0.455
175376	26	606.429	605.679	605.24	0.439
175388	27	606.13	605.38	605.02	0.36
175400	28	605.838	605.088	604.76	0.308
175412	29	605.554	604.804	604.45	0.354
175424	30	605.276	604.526	604.12	0.406
175434.6	31	605.031	604.281	603.86	0.421
175446.3	32	604.759	604.009	603.57	0.439
175458	33	604.482	603.732	603.29	0.442
175469.6	34	604.199	603.449	602.99	0.459
175481.3	35	603.911	603.161	602.71	0.451
175492	36	603.645	602.895	602.48	0.415
175504	37	603.346	602.596	602.23	0.366
175516	38	603.054	602.304	602.01	0.294
175528	39	602.77	602.02	601.66	0.36
175540	40	602.493	601.743	601.32	0.423
175550.6	41	602.247	601.497	601.07	0.427
175562.3	42	601.975	601.225	600.78	0.445
175574	43	601.698	600.948	600.48	0.468
175585.6	44	601.415	600.665	600.19	0.475
175597.3	45	601.127	600.377	599.92	0.457
175608	46	600.86	600.11	599.67	0.44
175620	47	600.562	599.812	599.42	0.392
175632	48	600.27	599.52	599.18	0.34
175644	49	599.986	599.236	598.82	0.416
175656	50	599.709	598.959	598.47	0.489
175666.6	51	599.463	598.713	598.21	0.503
175678.3	52	599.192	598.442	597.91	0.532
175690	53	598.915	598.165	597.63	0.535
175701.6	54	598.632	597.882	597.35	0.532
175713.3	55	598.343	597.593	597.07	0.523
175724	56	598.077	597.327	596.83	0.497
175736	57	597.778	597.028	596.64	0.388
175748	58	597.486	596.736	596.41	0.326
175760	59	597.202	596.452	596.09	0.362
175772	60	596.925	596.175	595.77	0.405
175783.6	61	596.655	595.905	595.5	0.405
175795.3	62	596.383	595.633	595.23	0.403
175807	63	596.104	595.354	594.96	0.394
175818.6	64	595.817	595.067	594.7	0.367
175830.3	65	595.525	594.775	594.45	0.325
175841	66	595.255	594.505	594.2	0.305

FILLETS
DECK GRADES REVISED 6/17/92 +.23
ROUTE FAI-74
SECTION 92-11B WEST BOUND
COUNTY VERMILION
JOB NO. C-95-067-90

DECK THICKNESS FT.- 0.75

STATION	LOCATION	BEAM ELEV DCK	LINE ELEV STL	C SHOT	FILLET
175095.8	1	612.954	612.204	612.17	0.034
175107.8	2	612.693	611.943	611.88	0.063
175119.3	3	612.436	611.686	611.63	0.056
175130.8	4	612.17	611.42	611.33	0.09
175142.3	5	611.901	611.151	611.06	0.091
175153.8	6	611.62	610.87	610.79	0.08
175165.3	7	611.332	610.582	610.51	0.072
175176.8	8	611.037	610.287	610.2	0.087
175188.8	9	610.722	609.972	609.91	0.062
175191	10	610.67	609.92	609.76	0.16
175201.6	11	610.429	609.679	609.49	0.189
175213.3	12	610.162	609.412	609.2	0.212
175225	13	609.888	609.136	608.87	0.288
175236.6	14	609.607	608.857	608.58	0.277
175248.3	15	609.32	608.57	608.29	0.28
175260	16	609.029	608.279	608.01	0.269
175272	17	608.731	607.981	607.78	0.201
175284	18	608.439	607.689	607.55	0.139
175296	19	608.155	607.405	607.22	0.185
175308	20	607.877	607.127	606.85	0.277
175318.6	21	607.632	606.882	606.61	0.272
175330.3	22	607.38	606.61	606.33	0.26
175342	23	607.083	606.333	606.05	0.283
175353.6	24	606.8	606.05	605.78	0.29
175365.3	25	606.512	605.762	605.48	0.282
175376	26	606.245	605.495	605.27	0.225
175388	27	605.947	605.197	605.02	0.177
175400	28	605.655	604.905	604.79	0.115
175412	29	605.371	604.621	604.47	0.151
175424	30	605.093	604.343	604.14	0.203
175434.6	31	604.847	604.097	603.89	0.207
175446.3	32	604.576	603.826	603.58	0.246
175458	33	604.299	603.549	603.3	0.249
175469.6	34	604.016	603.266	602.98	0.286
175481.3	35	603.727	602.977	602.7	0.277
175492	36	603.461	602.711	602.48	0.251
175504	37	603.163	602.413	602.23	0.183
175516	38	602.871	602.121	602.01	0.111
175528	39	602.587	601.837	601.67	0.167
175540	40	602.309	601.559	601.34	0.219
175550.6	41	602.063	601.313	601.12	0.193
175562.3	42	601.792	601.042	600.82	0.222
175574	43	601.515	600.765	600.52	0.245
175585.6	44	601.232	600.482	600.23	0.252
175597.3	45	600.943	600.193	599.97	0.223
175608	46	600.677	599.927	599.71	0.217
175620	47	600.379	599.629	599.45	0.179
175632	48	600.067	599.337	599.19	0.147
175644	49	599.803	599.053	598.81	0.243
175656	50	599.525	598.775	598.44	0.335
175666.6	51	599.28	598.53	598.18	0.35
175678.3	52	599.008	598.258	597.9	0.358
175690	53	598.731	597.981	597.64	0.341
175701.6	54	598.448	597.698	597.35	0.348
175713.3	55	598.16	597.41	597.1	0.31
175724	56	597.893	597.143	596.85	0.293
175736	57	597.595	596.845	596.65	0.195
175748	58	597.303	596.553	596.41	0.143
175760	59	597.019	596.269	596.08	0.189
175772	60	596.741	595.991	595.76	0.231
175783.6	61	596.472	595.722	595.5	0.222
175795.3	62	596.176	595.426	595.22	0.206
175807	63	595.917	595.167	594.95	0.217
175818.6	64	595.634	594.884	594.7	0.184
175830.3	65	595.341	594.591	594.44	0.151
175841	66	595.07	594.32	594.19	0.13

FILLETS
DECK GRADES REVISED 7/9/92 - +.23 +.023
ROUTE FAI-74
SECTION 92-11B WEST BOUND
COUNTY VERMILION
JOB NO. C-95-067-90

DECK THICKNESS FT.- 0.75

STATION	LOCATION	BEAM ELEV DCK	LINE ELEV STL	D SHOT	FILLET
175095.6	1	612.687	612.137	612.16	-0.043
175107.6	2	612.628	611.876	611.88	-0.002
175119.3	3	612.371	611.621	611.63	-0.009
175130.6	4	612.107	611.357	611.33	0.027
175142.3	5	611.636	611.086	611.07	0.016
175153.6	6	611.555	610.805	610.8	0.005
175165.3	7	611.287	610.517	610.5	0.017
175176.6	8	610.972	610.222	610.2	0.022
175188.6	9	610.655	609.905	609.91	-0.005
175191	10	610.602	609.852	609.74	0.112
175201.6	11	610.364	609.614	609.48	0.134
175213.3	12	610.097	609.347	609.2	0.147
175225	13	609.823	609.073	608.86	0.213
175236.6	14	609.542	608.792	608.58	0.212
175248.3	15	609.255	608.505	608.29	0.215
175260	16	608.964	608.214	608.02	0.194
175272	17	608.666	607.916	607.76	0.156
175284	18	608.373	607.623	607.54	0.083
175296	19	608.09	607.34	607.23	0.11
175308	20	607.812	607.062	606.85	0.212
175318.6	21	607.567	606.817	606.6	0.217
175330.3	22	607.295	606.545	606.32	0.225
175342	23	607.016	606.266	606.04	0.226
175353.6	24	606.735	605.985	605.74	0.245
175365.3	25	606.447	605.697	605.49	0.207
175376	26	606.16	605.43	605.29	0.14
175388	27	605.862	605.132	605.03	0.102
175400	28	605.589	604.839	604.79	0.049
175412	29	605.306	604.556	604.46	0.096
175424	30	605.028	604.278	604.14	0.138
175434.6	31	604.782	604.032	603.91	0.122
175446.3	32	604.511	603.761	603.58	0.181
175458	33	604.234	603.484	603.3	0.184
175469.6	34	603.951	603.201	602.97	0.231
175481.3	35	603.662	602.912	602.7	0.212
175492	36	603.396	602.646	602.44	0.206
175504	37	603.098	602.348	602.22	0.128
175516	38	602.605	602.055	602	0.055
175528	39	602.522	601.772	601.67	0.102
175540	40	602.244	601.494	601.36	0.134
175550.6	41	601.998	601.248	601.14	0.108
175562.3	42	601.727	600.977	600.84	0.137
175574	43	601.442	600.692	600.55	0.142
175585.6	44	601.159	600.409	600.26	0.149
175597.3	45	600.871	600.121	599.98	0.141
175608	46	600.604	599.854	599.74	0.114
175620	47	600.306	599.556	599.47	0.086
175632	48	600.014	599.264	599.2	0.064
175644	49	599.73	598.98	598.81	0.17
175656	50	599.453	598.703	598.44	0.263
175666.6	51	599.207	598.457	598.18	0.277
175678.3	52	598.936	598.186	597.89	0.296
175690	53	598.659	597.909	597.65	0.259
175701.6	54	598.376	597.626	597.35	0.276
175713.3	55	598.087	597.337	597.11	0.227
175724	56	597.821	597.071	596.86	0.211
175736	57	597.522	596.772	596.65	0.122
175748	58	597.23	596.48	596.4	0.08
175760	59	596.946	596.196	596.06	0.116
175772	60	596.669	595.919	595.75	0.169
175783.6	61	596.399	595.649	595.51	0.139
175795.3	62	596.127	595.377	595.22	0.157
175807	63	595.848	595.098	594.96	0.138
175818.6	64	595.561	594.811	594.7	0.111
175830.3	65	595.269	594.519	594.44	0.079
175841	66	594.999	594.249	594.19	0.059

ABATE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
FAI-74	92-1BR	Vermilion	105	40
STA		TO STA		
FED ROAD DIST NO		ILLINOIS	PROJECT	

Dwg No. 7 of 28

A

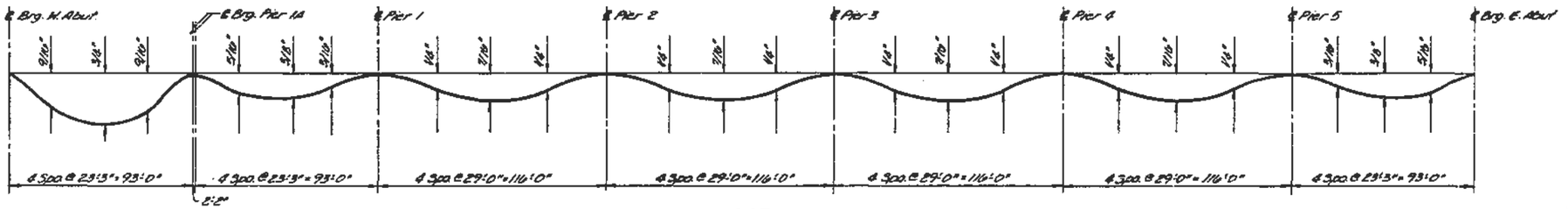
LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
℄ Brg. W. Abut (1)	1750+95.83	-16.417	612.631	612.634
2	1751+07.83	-16.417	612.343	612.375
3	1751+19.33	-16.417	612.067	612.318
4	1751+30.83	-16.417	611.791	611.854
5	1751+42.33	-16.417	611.515	611.583
6	1751+53.83	-16.417	611.239	611.302
7	1751+65.33	-16.417	610.963	611.014
8	1751+76.83	-16.417	610.687	610.716
℄ Brg. Pier 1A (9)	1751+88.83	-16.417	610.399	610.402
℄ Brg. Pier 1A (10)	1751+91.00	-16.417	610.346	610.349
11	1752+01.67	-16.417	610.090	610.111
12	1752+13.33	-16.417	609.811	609.844
13	1752+25.00	-16.417	609.530	609.576
14	1752+36.67	-16.417	609.250	609.289
15	1752+48.33	-16.417	608.971	609.002
16	1752+60.00	-16.417	608.690	608.711
17	1752+72.00	-16.417	608.402	608.413
℄ Pier 1 (18)	1752+84.00	-16.417	608.114	608.110
19	1752+96.00	-16.417	607.826	607.837
20	1753+08.00	-16.417	607.538	607.559
21	1753+18.67	-16.417	607.282	607.314
22	1753+30.33	-16.417	607.003	607.042
23	1753+42.00	-16.417	606.722	606.765
24	1753+53.67	-16.417	606.442	606.482
25	1753+65.33	-16.417	606.163	606.194
26	1753+76.00	-16.417	605.905	605.927
27	1753+88.00	-16.417	605.618	605.629
℄ Pier 2 (28)	1754+00.00	-16.417	605.330	605.334
29	1754+12.00	-16.417	605.042	605.053
30	1754+24.00	-16.417	604.754	604.775
31	1754+34.67	-16.417	604.498	604.529
32	1754+46.33	-16.417	604.218	604.258
33	1754+58.00	-16.417	603.938	603.981
34	1754+69.67	-16.417	603.658	603.698
35	1754+81.33	-16.417	603.379	603.409
36	1754+92.00	-16.417	603.122	603.143
37	1755+04.00	-16.417	602.834	602.845
℄ Pier 3 (38)	1755+16.00	-16.417	602.546	602.552
39	1755+28.00	-16.417	602.258	602.269
40	1755+40.00	-16.417	601.970	601.991
41	1755+50.67	-16.417	601.714	601.745
42	1755+62.33	-16.417	601.435	601.474
43	1755+74.00	-16.417	601.154	601.197
44	1755+85.67	-16.417	600.874	600.916
45	1755+97.33	-16.417	600.595	600.625
46	1756+08.00	-16.417	600.338	600.359
47	1756+20.08	-16.417	600.050	600.061
℄ Pier 4 (48)	1756+32.00	-16.417	599.762	599.748
49	1756+44.00	-16.417	599.474	599.485
50	1756+56.00	-16.417	599.186	599.207
51	1756+66.67	-16.417	598.930	598.962
52	1756+78.33	-16.417	598.651	598.690
53	1756+90.00	-16.417	598.370	598.413
54	1757+01.67	-16.417	598.090	598.130
55	1757+13.33	-16.417	597.811	597.862
56	1757+24.00	-16.417	597.554	597.575
57	1757+36.00	-16.417	597.266	597.277
℄ Pier 5 (58)	1757+48.00	-16.417	596.978	596.984
59	1757+60.00	-16.417	596.690	596.701
60	1757+72.00	-16.417	596.402	596.423
61	1757+83.67	-16.417	596.122	596.154
62	1757+95.33	-16.417	595.843	595.881
63	1758+07.00	-16.417	595.562	595.602
64	1758+18.67	-16.417	595.282	595.316
65	1758+30.33	-16.417	595.003	595.023
℄ Brg. E. Abut. (66)	1758+41.00	-16.417	594.746	594.749

B

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
℄ Brg. W. Abut (1)	1750+95.83	-12.000	612.723	612.724
2	1751+07.83	-12.000	612.435	612.463
3	1751+19.33	-12.000	612.159	612.206
4	1751+30.83	-12.000	611.883	611.942
5	1751+42.33	-12.000	611.607	611.671
6	1751+53.83	-12.000	611.331	611.398
7	1751+65.33	-12.000	611.055	611.102
8	1751+76.83	-12.000	610.779	610.807
℄ Brg. Pier 1A (9)	1751+88.83	-12.000	610.491	610.492
℄ Brg. Pier 1A (10)	1751+91.00	-12.000	610.439	610.440
11	1752+01.67	-12.000	610.182	610.199
12	1752+13.33	-12.000	609.903	609.932
13	1752+25.00	-12.000	609.623	609.658
14	1752+36.67	-12.000	609.342	609.377
15	1752+48.33	-12.000	609.063	609.090
16	1752+60.00	-12.000	608.783	608.799
17	1752+72.00	-12.000	608.495	608.501
℄ Pier 1 (18)	1752+84.00	-12.000	608.207	608.205
19	1752+96.00	-12.000	607.919	607.925
20	1753+08.00	-12.000	607.631	607.647
21	1753+18.67	-12.000	607.376	607.402
22	1753+30.33	-12.000	607.095	607.130
23	1753+42.00	-12.000	606.815	606.853
24	1753+53.67	-12.000	606.534	606.570
25	1753+65.33	-12.000	606.255	606.282
26	1753+76.00	-12.000	605.999	606.015
27	1753+88.00	-12.000	605.711	605.717
℄ Pier 2 (28)	1754+00.00	-12.000	605.423	605.425
29	1754+12.00	-12.000	605.135	605.141
30	1754+24.00	-12.000	604.847	604.863
31	1754+34.67	-12.000	604.591	604.617
32	1754+46.33	-12.000	604.311	604.346
33	1754+58.00	-12.000	604.031	604.069
34	1754+69.67	-12.000	603.750	603.786
35	1754+81.33	-12.000	603.471	603.497
36	1754+92.00	-12.000	603.215	603.231
37	1755+04.00	-12.000	602.927	602.933
℄ Pier 3 (38)	1755+16.00	-12.000	602.639	602.641
39	1755+28.00	-12.000	602.351	602.357
40	1755+40.00	-12.000	602.063	602.079
41	1755+50.67	-12.000	601.806	601.833
42	1755+62.33	-12.000	601.527	601.562
43	1755+74.00	-12.000	601.247	601.285
44	1755+85.67	-12.000	600.966	601.002
45	1755+97.33	-12.000	600.687	600.713
46	1756+08.00	-12.000	600.431	600.447
47	1756+20.08	-12.000	600.143	600.149
℄ Pier 4 (48)	1756+32.00	-12.000	599.855	599.857
49	1756+44.00	-12.000	599.567	599.573
50	1756+56.00	-12.000	599.279	599.295
51	1756+66.67	-12.000	599.022	599.050
52	1756+78.33	-12.000	598.743	598.778
53	1756+90.00	-12.000	598.463	598.501
54	1757+01.67	-12.000	598.182	598.218
55	1757+13.33	-12.000	597.903	597.930
56	1757+24.00	-12.000	597.647	597.663
57	1757+36.00	-12.000	597.359	597.365
℄ Pier 5 (58)	1757+48.00	-12.000	597.071	597.073
59	1757+60.00	-12.000	596.783	596.789
60	1757+72.00	-12.000	596.495	596.511
61	1757+83.67	-12.000	596.214	596.242
62	1757+95.33	-12.000	595.935	596.969
63	1758+07.00	-12.000	595.655	596.690
64	1758+18.67	-12.000	595.374	595.404
65	1758+30.33	-12.000	595.095	595.111
℄ Brg. E. Abut. (66)	1758+41.00	-12.000	594.839	594.840

PGL

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
℄ Brg. W. Abut (1)	1750+95.83	0.00	612.910	612.909
2	1751+07.83	0.00	612.622	612.648
3	1751+19.33	0.00	612.346	612.389
4	1751+30.83	0.00	612.070	612.126
5	1751+42.33	0.00	611.794	611.854
6	1751+53.83	0.00	611.518	611.574
7	1751+65.33	0.00	611.242	611.285
8	1751+76.83	0.00	610.966	610.990
℄ Brg. Pier 1A (9)	1751+88.83	0.00	610.678	610.677
℄ Brg. Pier 1A (10)	1751+91.00	0.00	610.626	610.625
11	1752+01.67	0.00	610.370	610.383
12	1752+13.33	0.00	610.090	610.115
13	1752+25.00	0.00	609.810	609.847
14	1752+36.67	0.00	609.530	609.561
15	1752+48.33	0.00	609.250	609.274
16	1752+60.00	0.00	608.970	608.983
17	1752+72.00	0.00	608.682	608.681
℄ Pier 1 (18)	1752+84.00	0.00	608.394	608.392
19	1752+96.00	0.00	608.106	608.105
20	1753+08.00	0.00	607.818	607.831
21	1753+18.67	0.00	607.562	607.585
22	1753+30.33	0.00	607.282	607.314
23	1753+42.00	0.00	607.002	607.037
24	1753+53.67	0.00	606.722	606.754
25	1753+65.33	0.00	606.442	606.465
26	1753+76.00	0.00	606.186	606.199
27	1753+88.00	0.00	605.898	605.900
℄ Pier 2 (28)	1754+00.00	0.00	605.610	605.608
29	1754+12.00	0.00	605.322	605.324
30	1754+24.00	0.00	605.034	605.046
31	1754+34.67	0.00	604.778	604.801
32	1754+46.33	0.00	604.498	604.538
33	1754+58.00	0.00	604.218	604.252
34	1754+69.67	0.00	603.938	603.969
35	1754+81.33	0.00	603.658	603.681
36	1754+92.00	0.00	603.402	603.415
37	1755+04.00	0.00	603.114	603.116
℄ Pier 3 (38)	1755+16.00	0.00	602.826	602.824
39	1755+28.00	0.00	602.538	602.540
40	1755+40.00	0.00	602.250	602.263
41	1755+50.67	0.00	601.994	602.017
42	1755+62.33	0.00	601.714	601.745
43	1755+74.00	0.00	601.434	601.468
44	1755+85.67	0.00	601.154	601.185
45	1755+97.33	0.00	600.876	600.897
46	1756+08.00	0.00	600.618	600.630
47	1756+20.08	0.00	600.330	600.332
℄ Pier 4 (48)	1756+32.00	0.00	600.042	600.040
49	1756+44.00	0.00	599.754	599.756
50	1756+56.00	0.00	599.466	599.478
51	1756+66.67	0.00	599.210	599.233
52	1756+78.33	0.00	598.930	598.962
53	1756+90.00	0.00	598.650	598.685
54	1757+01.67	0.00	598.370	598.402
55	1757+13.33	0.00	598.090	598.113
56	1757+24.00	0.00	597.834	597.847
57	1757+36.00	0.00	597.546	597.548
℄ Pier 5 (58)	1757+48.00	0.00	597.258	597.256
59	1757+60.00	0.00	596.970	596.972
60	1757+72.00	0.00	596.682	596.695
61	1757+83.67	0.00	596.402	596.425
62	1757+95.33	0.00	596.122	596.153
63	1758+07.00	0.00	595.842	595.874
64	1758+18.67	0.00	595.562	595.587
65	1758+30.33	0.00	595.282	595.295
℄ Brg. E. Abut. (66)	1758+41.00	0.00	595.026	595.025



DEAD LOAD DEFLECTION DIAGRAM

(INCLUDES WEIGHT OF CONCRETE ONLY)

NOTE: THE ABOVE DEFLECTIONS ARE NOT TO BE USED IN THE FIELD IF THE ENGINEER IS WORKING FROM THE GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS AS SHOWN ON DWG'S 7 & 8.

VOID

TOP OF SLAB ELEVATIONS (WB)

FAI 74 OVER SALT FORK
FAI RTE. 74 SECTION 92-1IBR
VERMILION COUNTY
STATION 1755+16.00
STRUCTURE NO 092-0006(EB)
STRUCTURE NO. 092-0007(WB)

ESCA CONSULTANTS, INC.		
DESIGNED BY:	KMR	6/90
DRAWN BY:	CJG	6/90
CHECKED BY:	JRF	6/90
APPROVED BY:	RDP	6/90

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-74	92-1BR	Vermilion	105	69
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	PROJECT		
		Dwg. No. 6 of 28		

C

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
℄ Brg. N. Abut (1)	1750+95.83	+12.000	612.723	612.724
2	1751+07.83	+12.000	612.435	612.463
3	1751+19.33	+12.000	612.159	612.206
4	1751+30.83	+12.000	611.883	611.942
5	1751+42.33	+12.000	611.607	611.671
6	1751+53.83	+12.000	611.331	611.390
7	1751+65.33	+12.000	611.055	611.102
8	1751+76.83	+12.000	610.779	610.807
℄ Brg. Pier 1A (9)	1751+88.83	+12.000	610.491	610.492
℄ Brg. Pier 1A (10)	1751+91.00	+12.000	610.439	610.440
11	1752+01.67	+12.000	610.182	610.199
12	1752+13.33	+12.000	609.903	609.932
13	1752+25.00	+12.000	609.623	609.658
14	1752+36.67	+12.000	609.342	609.377
15	1752+48.33	+12.000	609.063	609.090
16	1752+60.00	+12.000	608.783	608.799
17	1752+72.00	+12.000	609.495	608.501
℄ Pier 1 (18)	1752+84.00	+12.000	608.207	608.209
19	1752+96.00	+12.000	607.919	607.925
20	1753+08.00	+12.000	607.631	607.647
21	1753+18.67	+12.000	607.374	607.403
22	1753+30.33	+12.000	607.095	607.130
23	1753+42.00	+12.000	606.815	606.853
24	1753+53.67	+12.000	606.534	606.570
25	1753+65.33	+12.000	606.255	606.282
26	1753+76.00	+12.000	605.999	606.015
27	1753+88.00	+12.000	605.711	605.717
℄ Pier 2 (28)	1754+00.00	+12.000	605.423	605.425
29	1754+12.00	+12.000	605.135	605.141
30	1754+24.00	+12.000	604.847	604.863
31	1754+34.67	+12.000	604.590	604.617
32	1754+46.33	+12.000	604.311	604.346
33	1754+58.00	+12.000	604.031	604.069
34	1754+69.67	+12.000	603.750	603.786
35	1754+81.33	+12.000	603.471	603.497
36	1754+92.00	+12.000	603.215	603.231
37	1755+04.00	+12.000	602.927	602.933
℄ Pier 3 (38)	1755+16.00	+12.000	602.639	602.641
39	1755+28.00	+12.000	602.351	602.357
40	1755+40.00	+12.000	602.063	602.079
41	1755+50.67	+12.000	601.806	601.833
42	1755+62.33	+12.000	601.527	601.562
43	1755+74.00	+12.000	601.247	601.285
44	1755+85.67	+12.000	600.966	601.002
45	1755+97.33	+12.000	600.687	600.713
46	1756+08.00	+12.000	600.431	600.447
47	1756+20.00	+12.000	600.143	600.149
℄ Pier 4 (48)	1756+32.00	+12.000	599.855	599.857
49	1756+44.00	+12.000	599.567	599.573
50	1756+54.00	+12.000	599.279	599.285
51	1756+66.67	+12.000	599.022	599.050
52	1756+78.33	+12.000	598.743	598.778
53	1756+90.00	+12.000	598.463	598.501
54	1757+01.67	+12.000	598.182	598.218
55	1757+13.33	+12.000	597.903	597.930
56	1757+24.00	+12.000	597.647	597.663
57	1757+36.00	+12.000	597.359	597.365
℄ Pier 5 (58)	1757+48.00	+12.000	597.071	597.073
59	1757+60.00	+12.000	596.783	597.789
60	1757+72.00	+12.000	596.495	596.511
61	1757+83.67	+12.000	596.214	596.242
62	1757+95.33	+12.000	595.935	596.969
63	1758+07.00	+12.000	595.655	596.690
64	1758+18.67	+12.000	595.374	595.404
65	1758+30.33	+12.000	595.095	595.111
℄ Brg. R. Abut. (66)	1758+41.00	+12.000	594.839	594.840

D

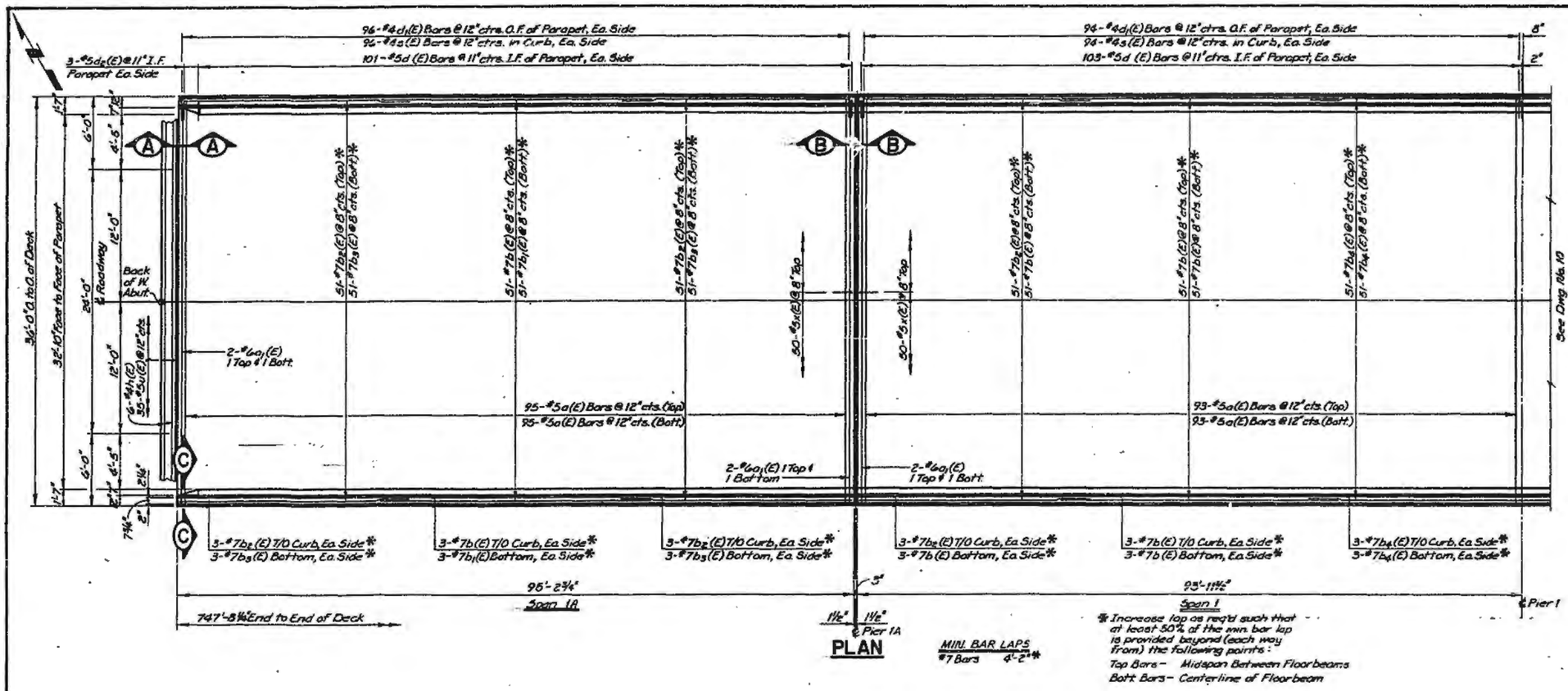
LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
℄ Brg. N. Abut (1)	1750+95.83	16.417	612.631	612.634
2	1751+07.83	16.417	612.343	612.375
3	1751+19.33	16.417	612.067	612.118
4	1751+30.83	16.417	611.791	611.854
5	1751+42.33	16.417	611.515	611.583
6	1751+53.83	16.417	611.239	611.302
7	1751+65.33	16.417	610.963	611.014
8	1751+76.83	16.417	610.687	610.719
℄ Brg. Pier 1A (9)	1751+88.83	16.417	610.399	610.402
℄ Brg. Pier 1A (10)	1751+91.00	16.417	610.346	610.349
11	1752+01.67	16.417	610.090	610.111
12	1752+13.33	16.417	609.811	609.844
13	1752+25.00	16.417	609.530	609.570
14	1752+36.67	16.417	609.250	609.269
15	1752+48.33	16.417	608.971	609.002
16	1752+60.00	16.417	608.690	608.711
17	1752+72.00	16.417	608.402	608.413
℄ Pier 1 (18)	1752+84.00	16.417	608.114	608.120
19	1752+96.00	16.417	607.826	607.837
20	1753+08.00	16.417	607.538	607.559
21	1753+18.67	16.417	607.282	607.314
22	1753+30.33	16.417	607.003	607.042
23	1753+42.00	16.417	606.722	606.765
24	1753+53.67	16.417	606.442	606.482
25	1753+65.33	16.417	606.163	606.194
26	1753+76.00	16.417	605.906	605.927
27	1753+88.00	16.417	605.618	605.629
℄ Pier 2 (28)	1754+00.00	16.417	605.330	605.336
29	1754+12.00	16.417	605.042	605.053
30	1754+24.00	16.417	604.754	604.775
31	1754+34.67	16.417	604.498	604.529
32	1754+46.33	16.417	604.219	604.258
33	1754+58.00	16.417	603.938	603.981
34	1754+69.67	16.417	603.658	603.698
35	1754+81.33	16.417	603.379	603.409
36	1754+92.00	16.417	603.122	603.143
37	1755+04.00	16.417	602.834	602.845
℄ Pier 3 (38)	1755+16.00	16.417	602.546	602.552
39	1755+28.00	16.417	602.258	602.269
40	1755+40.00	16.417	601.970	601.991
41	1755+50.67	16.417	601.714	601.745
42	1755+62.33	16.417	601.435	601.474
43	1755+74.00	16.417	601.154	601.197
44	1755+85.67	16.417	600.874	600.914
45	1755+97.33	16.417	600.595	600.625
46	1756+08.00	16.417	600.338	600.359
47	1756+20.00	16.417	600.050	600.061
℄ Pier 4 (48)	1756+32.00	16.417	599.762	599.768
49	1756+44.00	16.417	599.474	599.485
50	1756+54.00	16.417	599.186	599.207
51	1756+66.67	16.417	598.930	598.962
52	1756+78.33	16.417	598.651	598.690
53	1756+90.00	16.417	598.370	598.413
54	1757+01.67	16.417	598.090	598.130
55	1757+13.33	16.417	597.811	597.842
56	1757+24.00	16.417	597.554	597.575
57	1757+36.00	16.417	597.266	597.277
℄ Pier 5 (58)	1757+48.00	16.417	596.978	596.984
59	1757+60.00	16.417	596.690	596.701
60	1757+72.00	16.417	596.402	596.423
61	1757+83.67	16.417	596.122	596.154
62	1757+95.33	16.417	595.843	595.881
63	1758+07.00	16.417	595.562	595.602
64	1758+18.67	16.417	595.282	595.316
65	1758+30.33	16.417	595.003	595.023
℄ Brg. R. Abut. (66)	1758+41.00	16.417	594.746	594.749

VOID

TOP OF SLAB
ELEVATIONS (WB)
FAI 74 OVER SALT FORK
FAI RTE. 74 SECTION 92-1(BR
VERMILION COUNTY
STATION 1755+16.00
STRUCTURE NO 092-0006(EB)
STRUCTURE NO. 092-0007(WB)

ESCA CONSULTANTS, INC.		
DESIGNED BY:	KMR	6/90
DRAWN BY:	CJG	6/90
CHECKED BY:	JRF	6/90
APPROVED BY:	RDP	6/90

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-74	92-1BR	Vermilion	145	70
STA.		TO STA.		
FED. ROAD DIST. NO. 8	ILLINOIS	PROJECT		
		Dwg. No. 9 of 28		

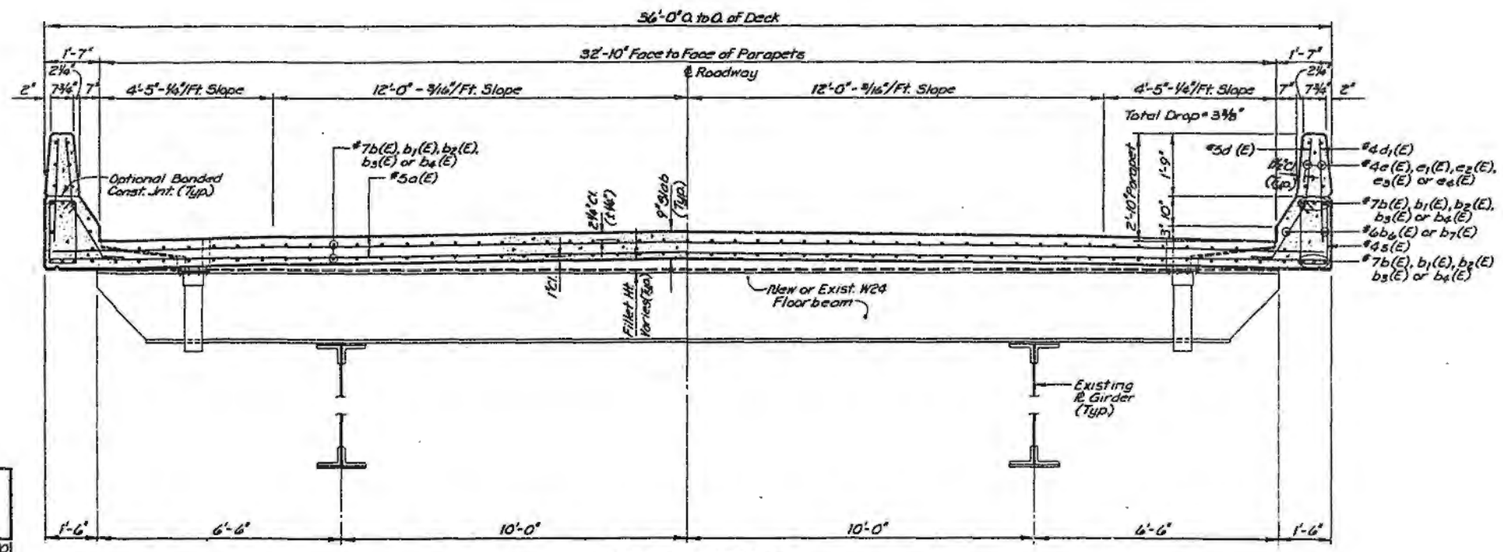


PLAN

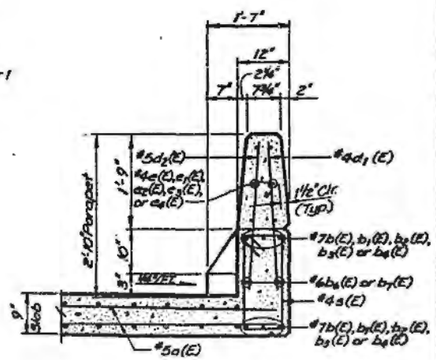
MIN. BAR LAPS
#7 Bars 4'-2"*

NOTES

1. FOR CONTINUATION OF SUPERSTRUCTURE PLAN, SEE SHTS. 10& 11.
2. REINFORCEMENT DESIGNATED (E) SHALL BE EPOXY COATED.
3. SEE DWG. NO. 15 FOR SECTIONS A-A & B-B.
4. EXISTING REINFORCEMENT WHICH EXTENDS INTO CONCRETE REMOVAL AREAS SHALL BE CLEANED AND INCORPORATED INTO THE NEW CONSTRUCTION. COST INCIDENTAL.
5. JOINTS IN PARAPET NOT SHOWN. SEE DWG. NO. 15.
6. SEE DWG. NO. 16 FOR SUPERSTRUCTURE BILL OF MATERIAL.



CROSS SECTION
(LOOKING EAST)



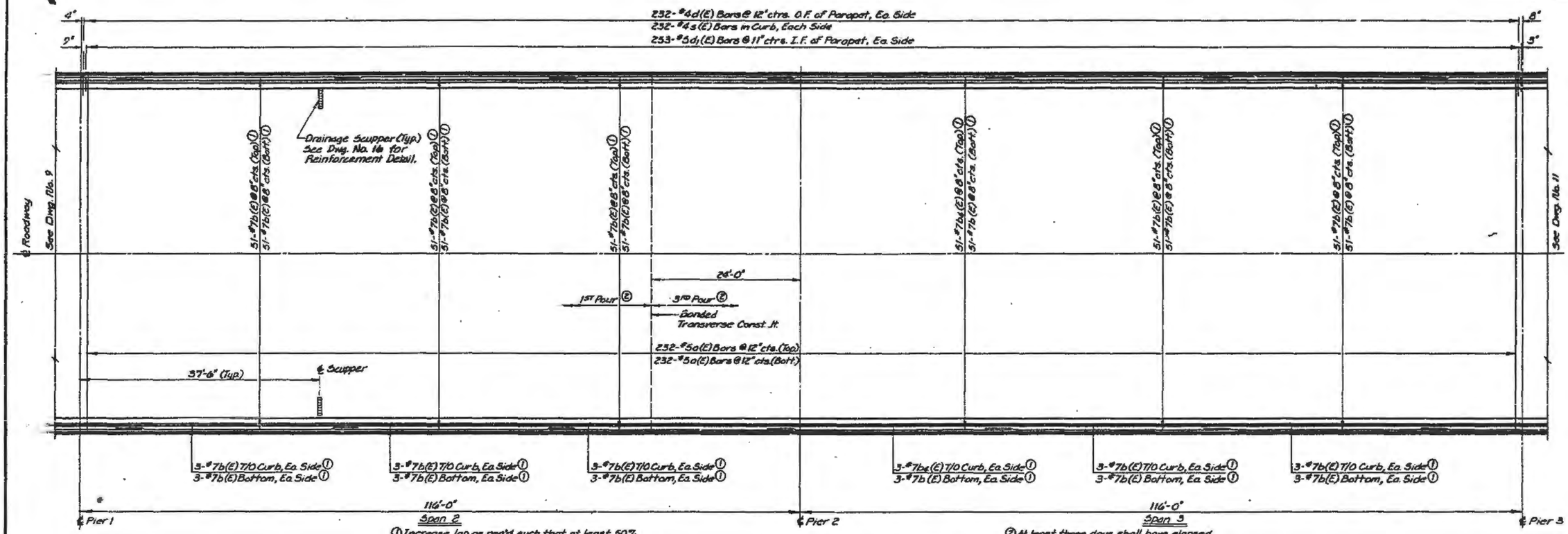
SECTION C-C

ESCA
CONSULTANTS, INC.

DESIGNED BY:	RDP	6-90
DRAWN BY:	WEM	6-90
CHECKED BY:	JRF	6-90
APPROVED BY:	RDP	6-90

EASTBOUND LANES
SUPERSTRUCTURE
FAI 74 OVER SALT FORK
FAI RTE. 74 SECTION 92-1BR
VERMILION COUNTY
STATION 1755+16.00
STRUCTURE NO 092-0006(EB)
STRUCTURE NO. 092-0007(WB)

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-74	92-11BR	Vermilion	165	71
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	PROJECT	
			Dwg. No. 10 of 28	

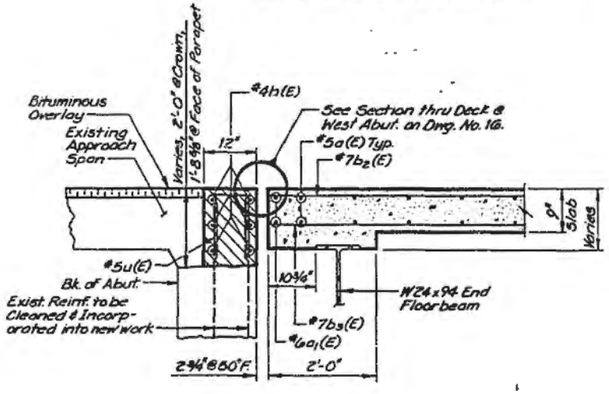


(1) Increase lap as req'd such that at least 50% of the min. bar lap is provided beyond (each way from) the following points:
Top Bars - Midspan Between Floorbeams
Bott. Bars - Centerline of Floorbeam

PLAN

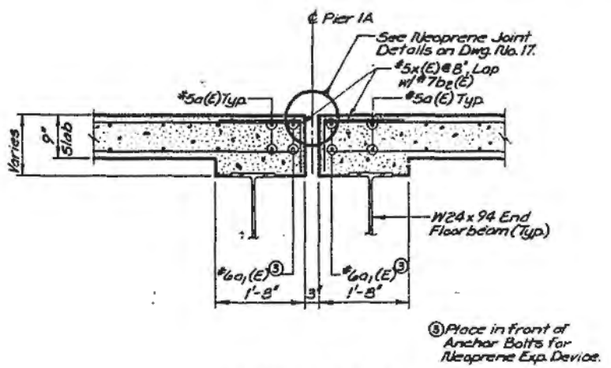
MIN BAR LAPS #7 Bars 4'-2" (1)

(2) At least three days shall have elapsed since completion of the previous pour before the next pour can be commenced. The previous pour shall have attained a minimum compression strength of 3500 p.s.i. or minimum modulus of rupture of 650 p.s.i. prior to commencing the next pour.



SECTION A-A

(See Dwg. No. 9 for Location)



(3) Place in front of Anchor Bolts for Neoprene Exp. Device.

SECTION B-B

(See Dwg. No. 9 for Location)

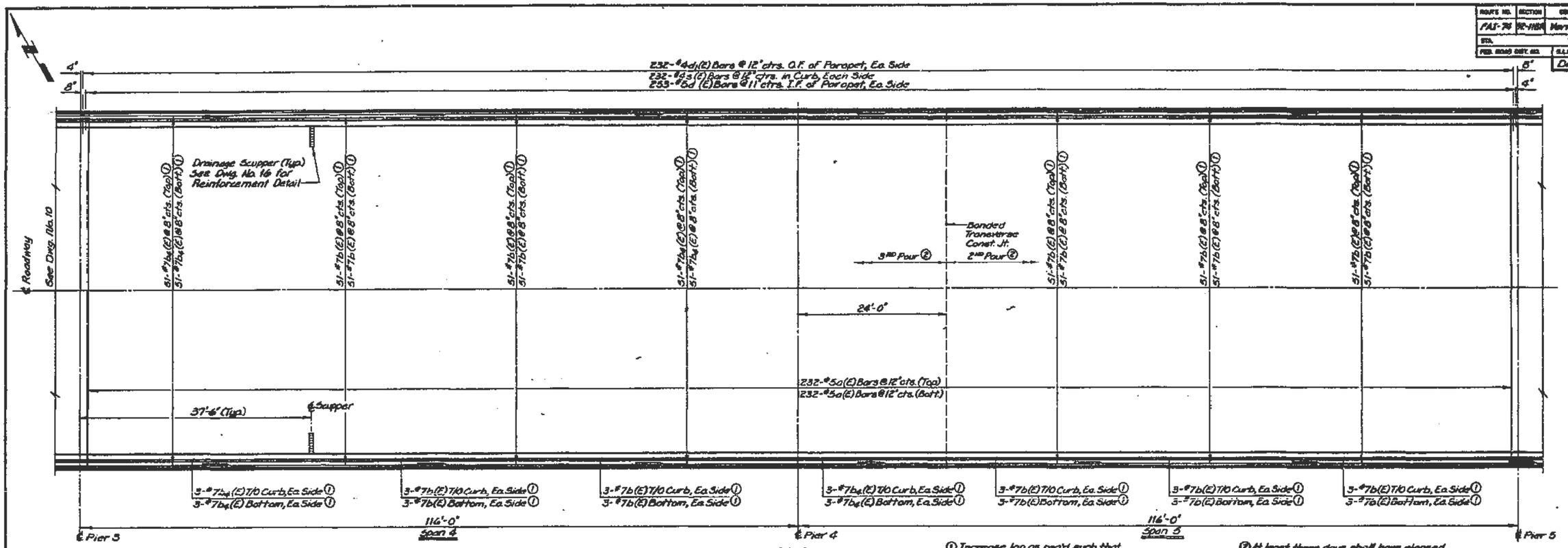
ESCA CONSULTANTS, INC.

DESIGNED BY:	RDP	6-90
DRAWN BY:	WEM	6-90
CHECKED BY:	JRF	6-90
APPROVED BY:	RDP	6-90

EASTBOUND LANES SUPERSTRUCTURE (CONT.)
FAI 74 OVER SALT FORK
FAI RTE. 74 SECTION 92-11BR
VERMILION COUNTY
STATION 1755+16.00
STRUCTURE NO. 092-0006(EB)
STRUCTURE NO. 092-0007(WB)

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-74	92-11BR	Vermilion	165	72
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	PROJECT	

Dwg No. 11 of 28

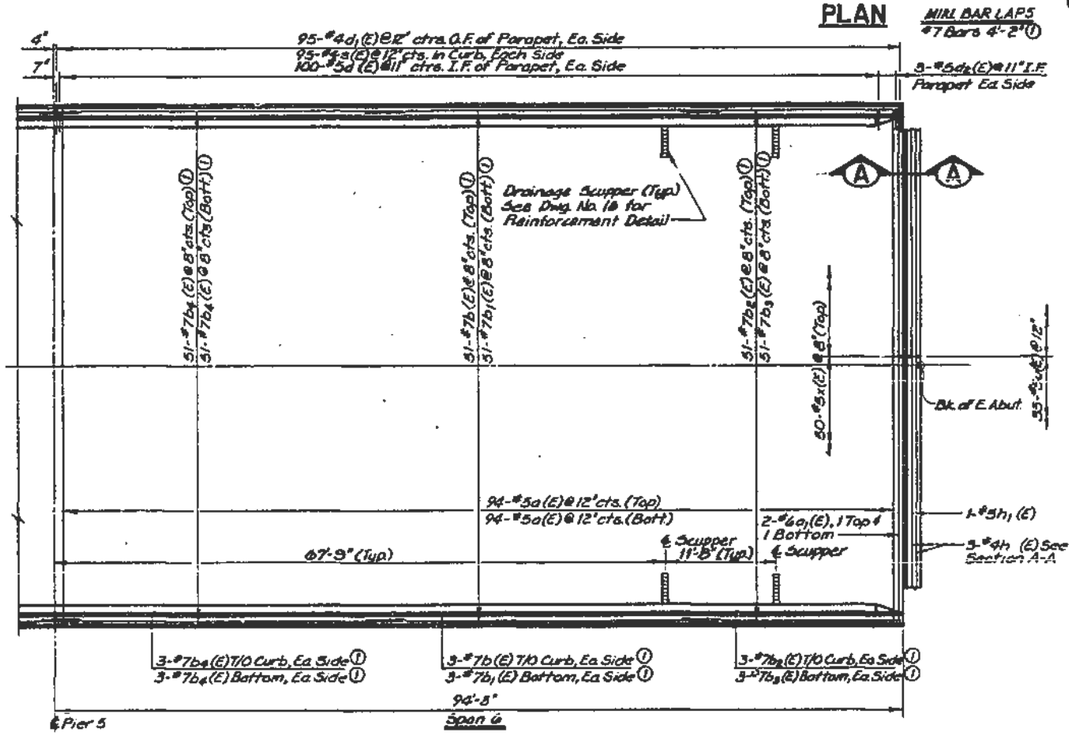


PLAN

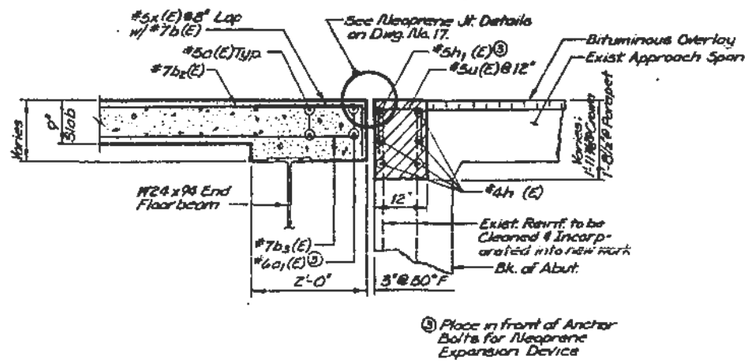
MIN. BAR LAPS
#7 Bars 4'-2" ①

① Increase lap as req'd such that at least 50% of the min. bar lap is provided beyond (each way from) the following points :
Top Bars – Midspan Between Floorbeams
Bott Bars – Centerline of Floorbeam

② At least three days shall have elapsed since completion of the previous pour before the next pour can be commenced. The previous pour shall have attained a minimum compression strength of 3500 p.s.i. or a minimum modulus of rupture of 650 p.s.i. prior to commencing the next pour.



PLAN



③ Place in front of Anchor Bolts for Neoprene Expansion Device

SECTION A-A

ESCA CONSULTANTS, INC.

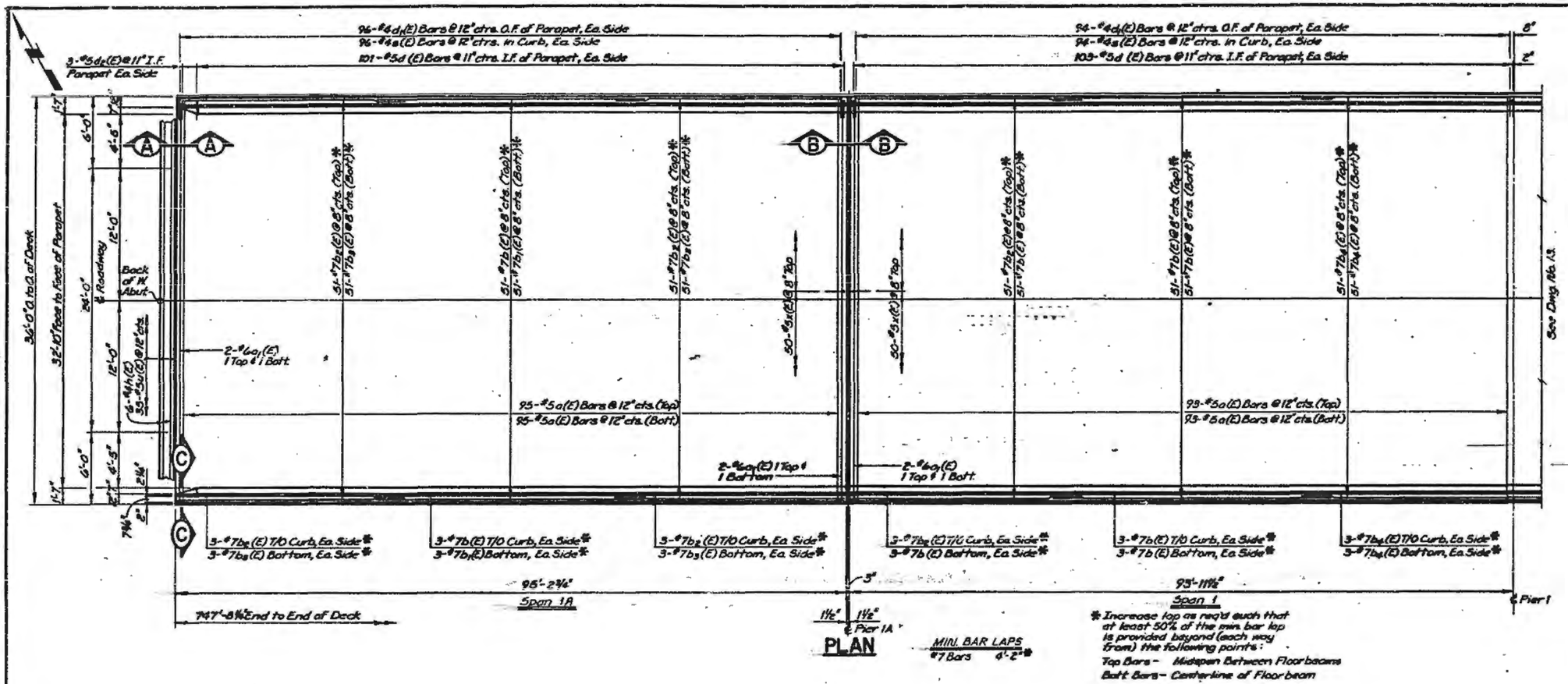
DESIGNED BY:	RDP	6-90
DRAWN BY:	WEH	6-90
CHECKED BY:	JRF	6-90
APPROVED BY:	RDP	6-90

EASTBOUND LANES SUPERSTRUCTURE (CONT.)

FAI 74 OVER SALT FORK
FAI RTE. 74 SECTION 92-11BR
VERMILION COUNTY
STATION 1755+16.00
STRUCTURE NO 092-0005(EB)
STRUCTURE NO. 092-0007(WB)

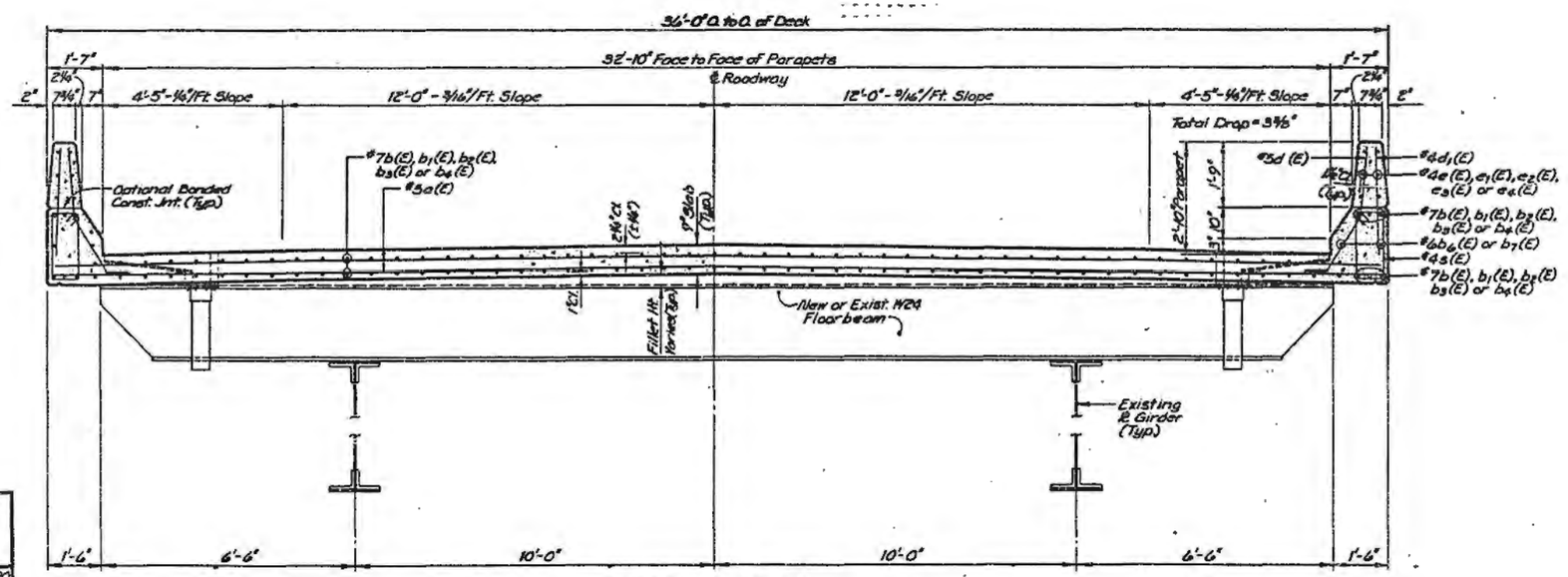
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-74	92-11BR	Vermilion	41-5	23
FED. ROAD DIST. NO. 8	ILLINOIS	PROJECT		

Dwg. No. 12 of 28

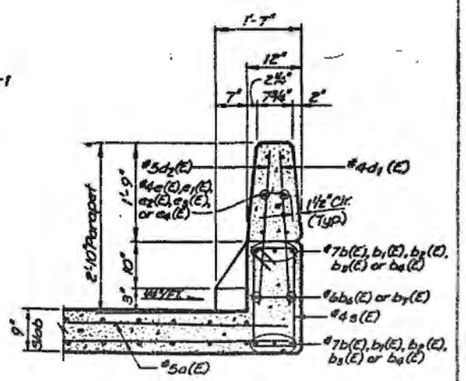


NOTES

1. FOR CONTINUATION OF SUPERSTRUCTURE PLAN, SEE DWGS. 13 & 14.
2. REINFORCEMENT DESIGNATED (E) SHALL BE EPOXY COATED.
3. SEE DWG. NO. 13 FOR SECTIONS A-A & B-B.
4. EXISTING REINFORCEMENT WHICH EXTENDS INTO CONCRETE REMOVAL AREAS SHALL BE CLEANED AND INCORPORATED INTO THE NEW CONSTRUCTION. COST INCIDENTAL.
5. JOINTS IN PARAPET NOT SHOWN. SEE DWG. NO. 15A.
6. SEE DWG. NO. 16 FOR SUPERSTRUCTURE BILL OF MATERIAL.



CROSS SECTION
(LOOKING EAST)



SECTION C-C

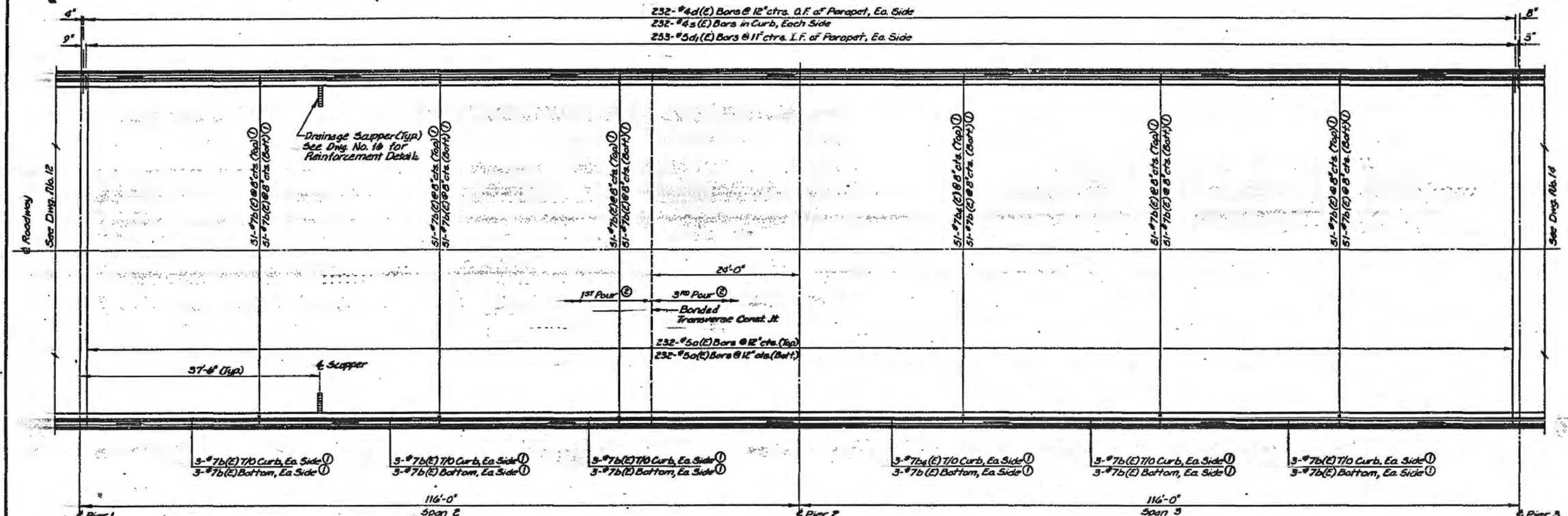
DESIGNED BY:	RDP	6-90
DRAWN BY:	WEM	6-90
CHECKED BY:	JRF	6-90
APPROVED BY:	RDP	6-90

ESCA CONSULTANTS, INC.

WESTBOUND LANES
SUPERSTRUCTURE
FAI 74 OVER SALT FORK
FAI RTE. 74 SECTION 92-11BR
VERMILION COUNTY
STATION 1755+16.00
STRUCTURE NO. 092-0006(EB)
STRUCTURE NO. 092-0007(WB)

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-74	92-1HBR	Vermilion	145	74
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	PROJECT	

Dwg. No. 13 of 28

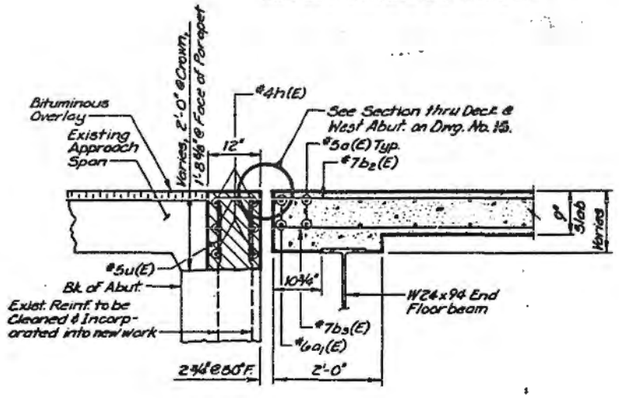


① Increase lap as req'd such that at least 50% of the min. bar lap is provided beyond (each way from) the following points:
Top Bars - Midspan Between Floorbeams
Bott. Bars - Centerline of Floorbeam

PLAN

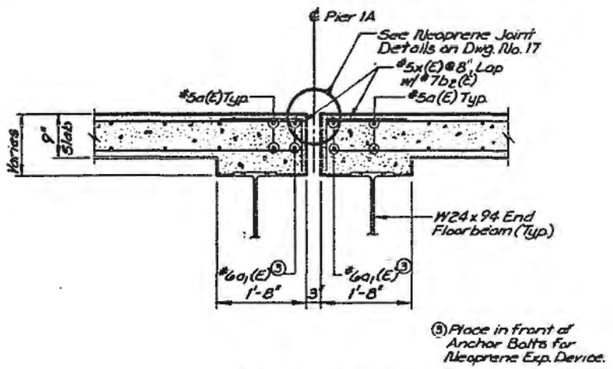
MIN BAR LAPS
#7 Bars 4'-2" ①

② At least three days shall have elapsed since completion of the previous pour before the next pour can be commenced. The previous pour shall have attained a minimum compression strength of 3500 p.s.i. or a minimum modulus of rupture of 650 p.s.i. prior to commencing the next pour.



SECTION A-A

(See Dwg. No. 12 for Location)



⑤ Place in front of Anchor Bolts for Neoprene Exp. Device.

SECTION B-B

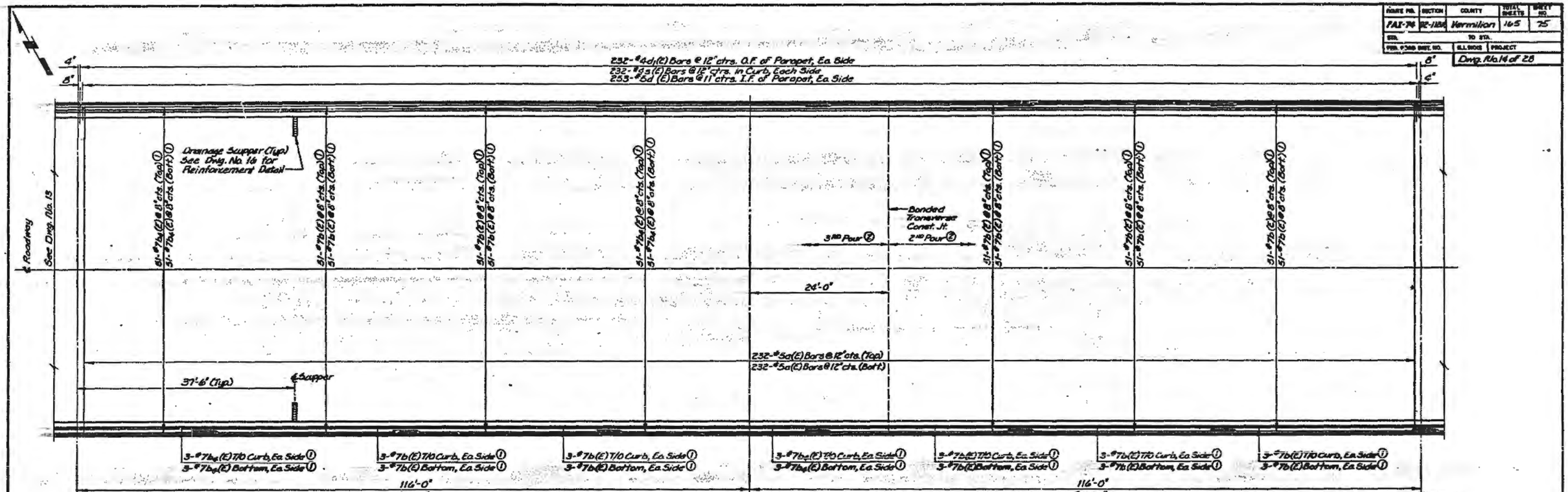
(See Dwg. No. 12 for Location)

ESCA CONSULTANTS, INC.		
DESIGNED BY:	RDP	6-90
DRAWN BY:	WEM	6-90
CHECKED BY:	JRF	6-90
APPROVED BY:	RDP	6-90

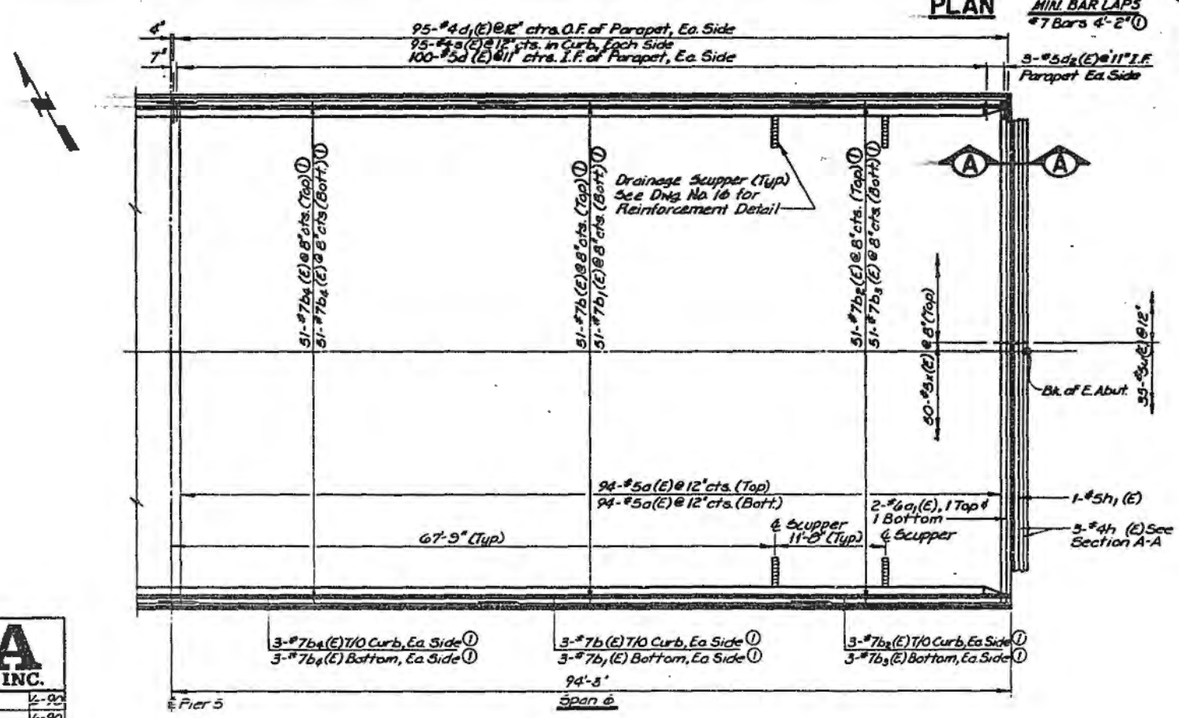
WESTBOUND LANES SUPERSTRUCTURE (CONT.)

FAI 74 OVER SALT FORK
FAI RTE. 74 SECTION 92-1HBR
VERMILION COUNTY
STATION 1755+16.00
STRUCTURE NO. 092-0006(EB)
STRUCTURE NO. 092-0007(WB)

ROUTE FAI-74	SECTION 92-11BR	COUNTY Vermilion	TOTAL SHEETS 165	SHEET NO. 75
STA.	TO STA.			
FED. PROJ. SHEET NO.	ILL. SHEET NO.	PROJECT		
		Dwg. No. 14 of 28		



PLAN

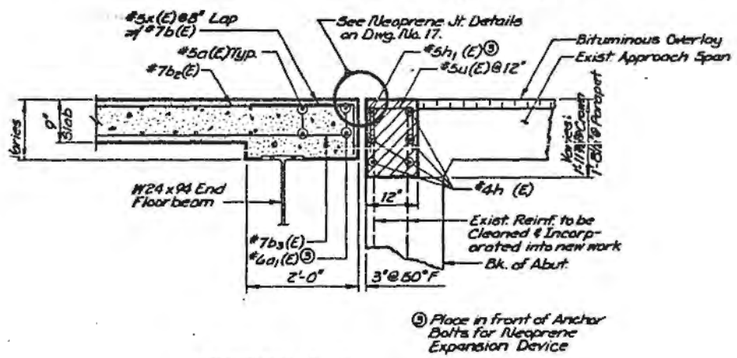


PLAN

MIN. BAR LAPS
#7 Bars 4'-2" ①

① Increase lap as req'd such that at least 50% of the min. bar lap is provided beyond (each way from) the following points:
Top Bars - Midspan Between Floorbeams
Bott Bars - Centerline of Floorbeam

② At least three days shall have elapsed since completion of the previous pour before the next pour can be commenced. The previous pour shall have attained a minimum compression strength of 3500 p.s.i. or minimum modulus of rupture of 650 p.s.i. prior to commencing the next pour.



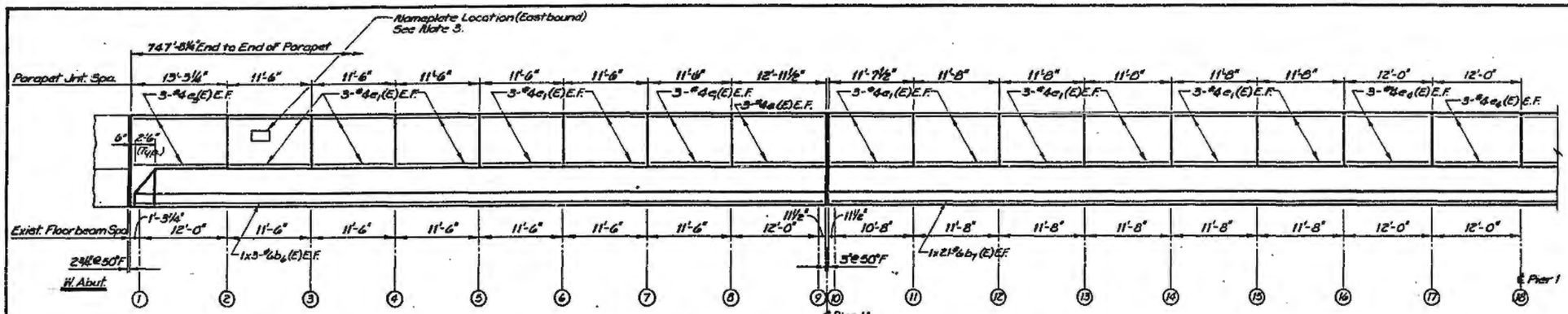
③ Place in front of Anchor Bolts for Neoprene Expansion Device

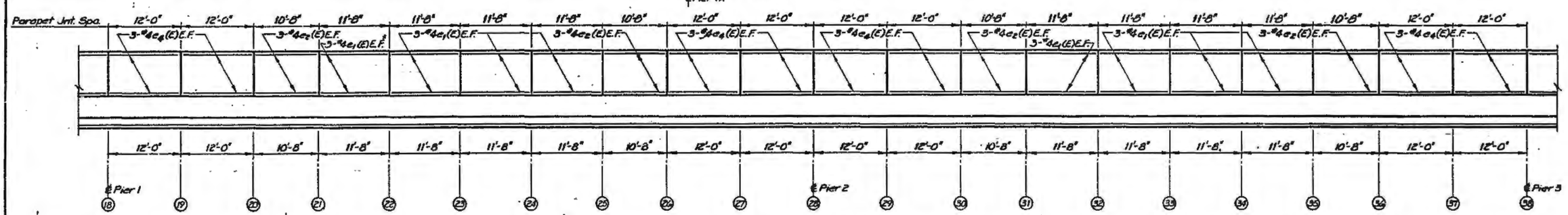
SECTION A-A

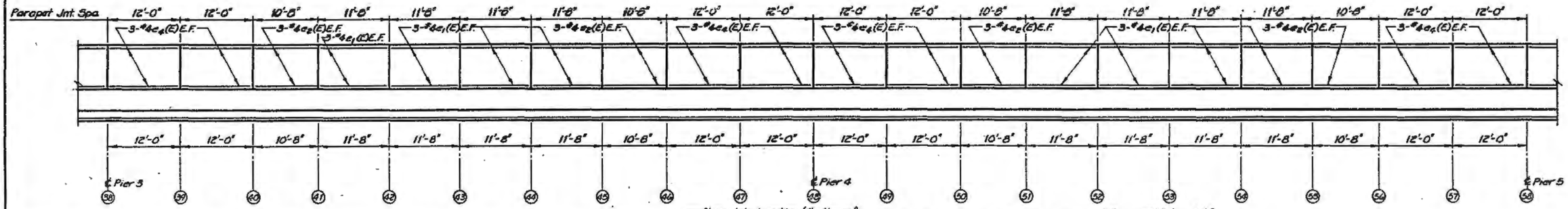
ESCA CONSULTANTS, INC.		
DESIGNED BY:	RDP	6-90
DRAWN BY:	WEM	6-90
CHECKED BY:	JRF	6-90
APPROVED BY:	RDP	6-90

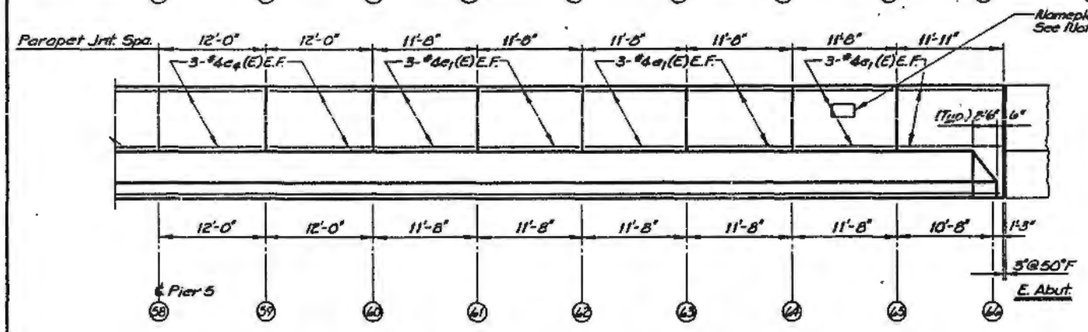
WESTBOUND LANES
SUPERSTRUCTURE (CONT.)
FAI 74 OVER SALT FORK
FAI RTE. 74 SECTION 92-11BR
VERMILION COUNTY
STATION 1755+16.00
STRUCTURE NO. 092-0006(EB)
STRUCTURE NO. 092-0007(WB)

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-74	92-1BR	Vermilion	105	76
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	PROJECT	
		Dwg. No. 15 of 28		







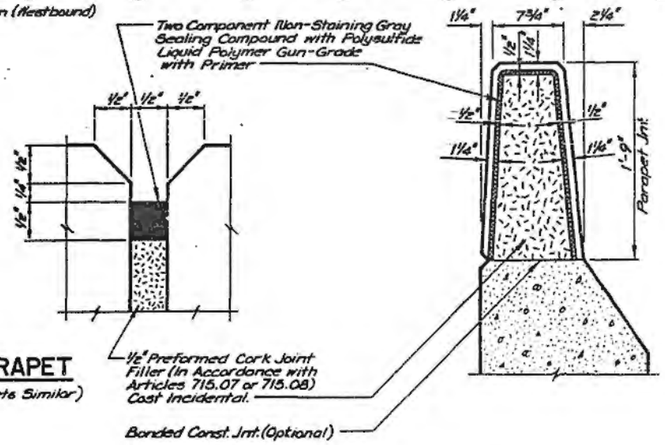


NOTES

1. REINFORCEMENT DESIGNATED (E) SHALL BE EPOXY COATED.
2. AFTER FIELD VERIFICATION OF FLOORBEAM SPACING, RELOCATE PARAPET JOINTS AS REQUIRED SUCH THAT JOINTS ARE POSITIONED OVER CENTERLINE OF FLOORBEAMS.
3. SALVAGE EXISTING NAME PLATES, CLEAN, & INCORPORATE INTO NEW PARAPETS. LOCATE AS SHOWN ON STD. 2113 ADJACENT TO NEW NAME PLATES. SEE DRAWING NO. 2.
4. BARS DENOTED THUS: 1X3 #5b6 (E) INDICATES ONE LINE OF BARS WITH THREE LENGTHS PER LINE.

INSIDE ELEVATION OF PARAPET

(Looking at North Parapets, South Parapets Similar)



DETAILS OF PARAPET JOINTS

MINIMUM BAR LAPS	
#6 Bar	3'-1"
#8 Bar	5'-6"

ESCA CONSULTANTS, INC.		
DESIGNED BY:	RDP	6-90
DRAWN BY:	WEM	6-90
CHECKED BY:	JRF	6-90
APPROVED BY:	RDP	6-90

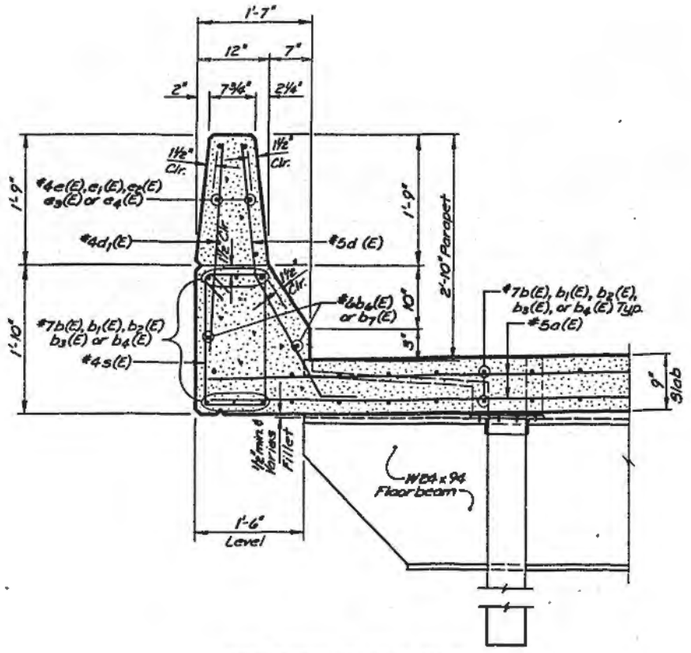
SUPERSTRUCTURE DETAILS

FAI 74 OVER SALT FORK
FAI RTE. 74 SECTION 92-1BR
VERMILION COUNTY
STATION 1755+15.00
STRUCTURE NO 092-0006(EB)
STRUCTURE NO. 092-0007(WB)

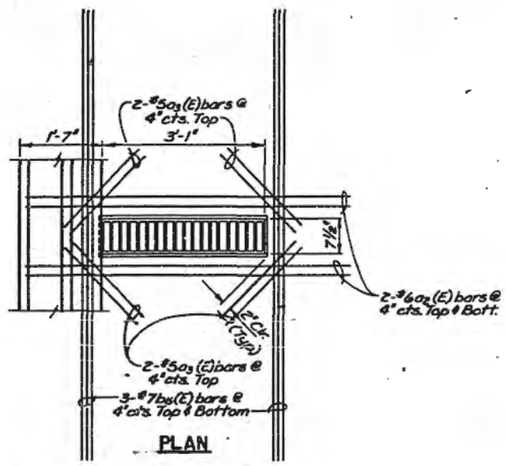
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-74	92-11BR	Vermilion	165	77
STA		TO STA		
FED ROAD DIST NO.	ILLINOIS	PROJECT		
		Dwg No. 16 of 28		

NOTES

1. REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.

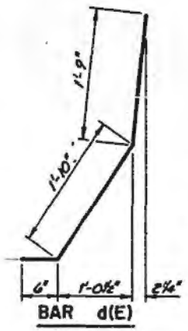


SECTION THRU PARAPET

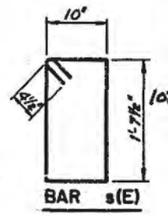


PLAN

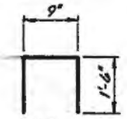
ADDITIONAL REINFORCING AT SCUPPERS



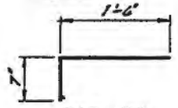
BAR d(E)



BAR s(E)



BAR u(E)



BAR x(E)

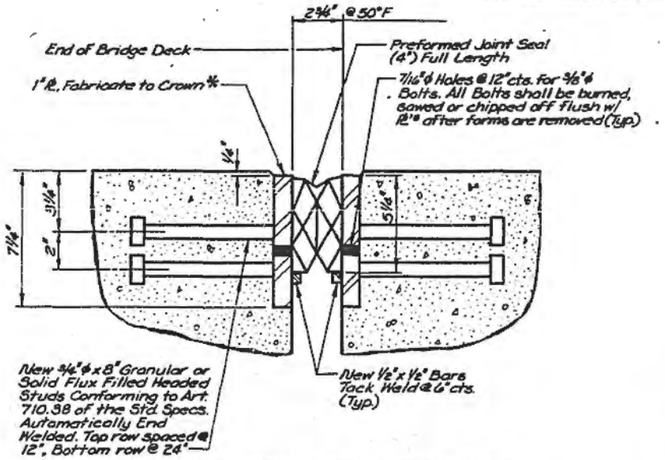
BAR BENDING DETAILS

BILL OF MATERIAL
(TWO SUPERSTRUCTURES)

BAR	NO.	SIZE	LENGTH	SHAPE
a(E)	2984	#5	35'-4"	——
a1(E)	16	#6	35'-4"	——
a2(E)	128	#6	6'-0"	——
a3(E)	128	#5	2'-0"	——
b(E)	2964	#7	39'-2"	——
b1(E)	228	#7	27'-6"	——
b2(E)	456	#7	32'-6"	——
b3(E)	342	#7	38'-3"	——
b4(E)	~~342~~	#7	40'-2"	——
b5(E)	192	#7	8'-0"	——
b6(E)	24	#6	35'-8"	——
b7(E)	168	#6	34'-0"	——
d(E)	3240	#5	4'-1"	⌐
d1(E)	2996	#4	2'-9"	——
d2(E)	24	#5	2'-10"	——
e(E)	24	#4	12'-7"	——
e1(E)	816	#4	11'-2"	——
e2(E)	192	#4	10'-2"	——
e3(E)	24	#4	12'-11"	——
e4(E)	480	#4	11'-8"	——
h(E)	22	#6	35'-4"	——
h1(E)	2	#5	35'-4"	——
s(E)	2996	#4	5'-8"	□
u(E)	140	#5	3'-9"	⊓
x(E)	300	#5	2'-1"	T

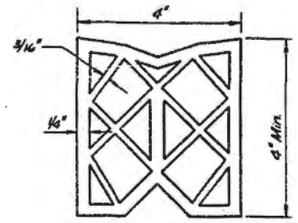
ITEM	UNIT	QUANTITY
Reinforcement Bars (Epoxy Coated)	Lbs.	~~561,228~~ 561,524
Protective Coat	Sq. Yds.	6755
Class X Conc. Superstructure	Cu. Yds.	1892.4
Neoprene Exp. Jnt. (4")	Lin. Ft.	142
Drainage Scuppers	Each	16
P.J.S. 4"	Lin. Ft.	72

** Quantity includes top and inside faces of parapets only.

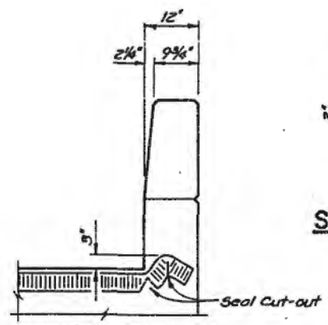


SECTION THRU DECK AT W. ABUT.

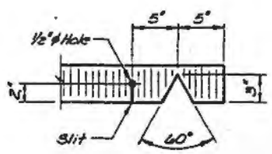
*FURNISH IN SEGMENTS OF 20' MAX. LENGTH. MAXIMUM SPACE BETWEEN INSTALLED SEGMENTS SHALL BE 3/16". SEAL SPACES W/SILICONE SEALANT SUITABLE FOR STRUCTURAL STEEL. AFTER FABRICATION, ALL SURFACES OF THE STEEL PLATES SHALL BE GIVEN ONE SHOP COAT OF PAINT SPECIFIED FOR STRUCTURAL STEEL.



4" P.J.S. DETAILS



TYPICAL END OF SEAL TREATMENT



SEAL CUT-OUT DETAIL

ESCA CONSULTANTS, INC.		
DESIGNED BY:	RDP	6-90
DRAWN BY:	WEM	6-90
CHECKED BY:	JRF	6-90
APPROVED BY:	RDP	6-90

SUPERSTRUCTURE DETAILS

FAI 74 OVER SALT FORK
FAI RTE. 74 SECTION 92-11BR
VERMILION COUNTY
STATION 1755+16.00
STRUCTURE NO 092-0006(EB)
STRUCTURE NO. 092-0007(WB)

Joint Size	"C" at 50°F	"D" at 50°F
4	3"	2½" min

INSTALLATION NOTES

Use anchor blocks and continuous seal as anchor bolt location templates.

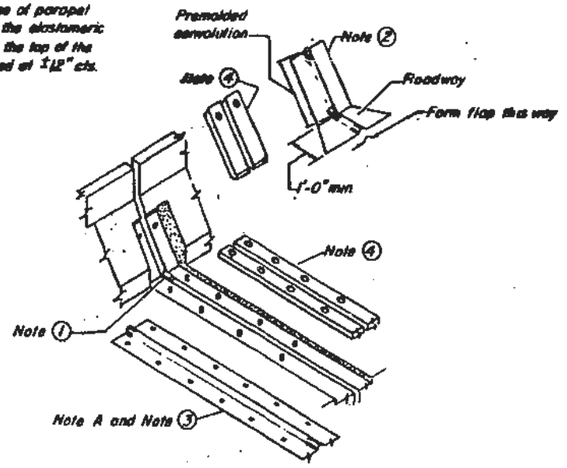
1. Install sponge mandrels into positions shown to form flap convolution.
2. Install parapet or sidewalk piece (trim roadway flap to fit before applying epoxy).
3. Install continuous seal in roadway.
4. Install anchor blocks as indicated.

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

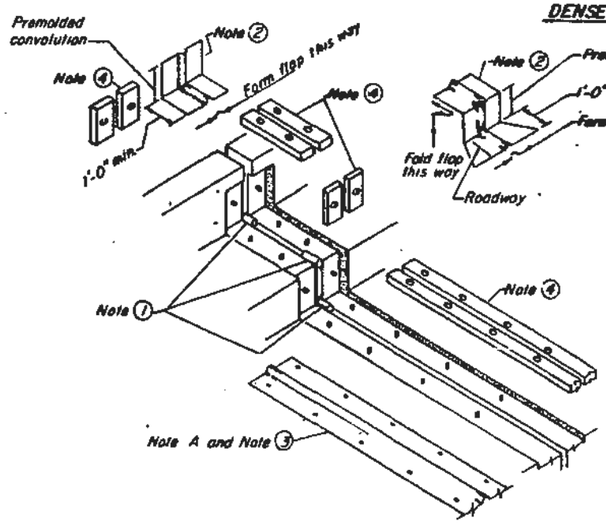
SKEW LIMITATIONS

The details of the anchor blocks and the elastomeric membrane in the parapet, as shown, are for up to 50° skews.

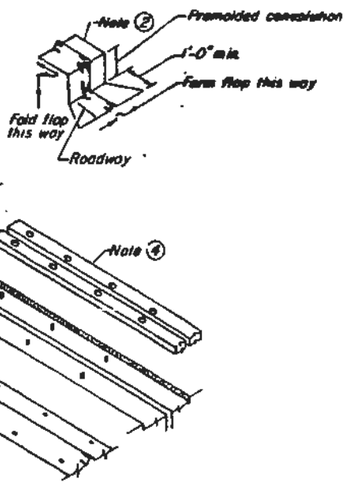
For skews greater than 50°, the anchor blocks and the elastomeric membrane, installed in accordance with dimension "D", might require modifications to insure a minimum clearance of 1½" from centerline of anchor studs to edge of parapet opening. The anchor blocks and the elastomeric membrane shall also be installed to the top of the parapet with the anchor studs spaced at 1'-0" cts.

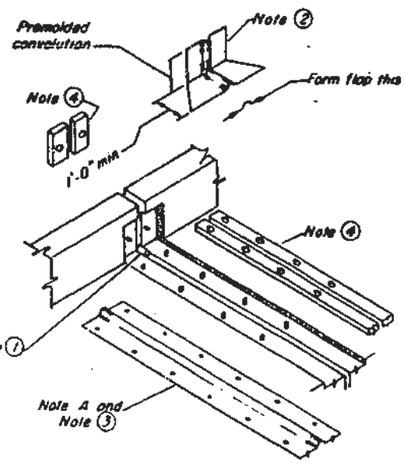


AT PARAPET

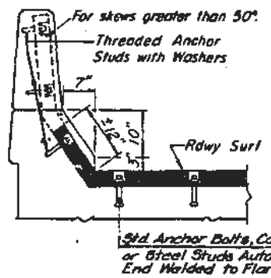


AT SIDEWALK or MEDIAN

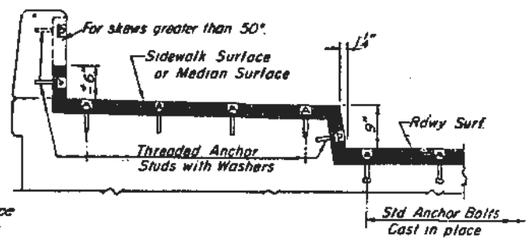




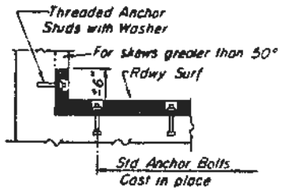
AT WALL



AT PARAPET

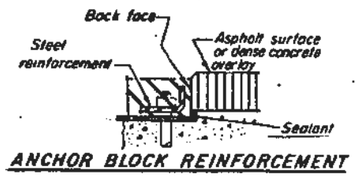


AT SIDEWALK or MEDIAN

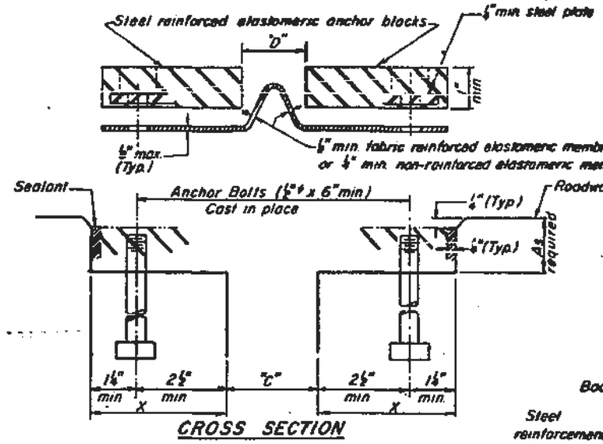


AT WALL

TYPICAL END TREATMENTS



ANCHOR BLOCK REINFORCEMENT with ASPHALT SURFACE OR DENSE CONCRETE OVERLAY



CROSS SECTION

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. See Special Provisions.

The elastomeric membrane shall be premolded with a single or a double upward convolution that will have a "memory" to return to its molded position upon joint closure.

The steel reinforcement must extend up the back face of anchor blocks when asphalt surfaces are used but is optional in concrete blockout.

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 in accordance with Article 503.07(c) of the Standard Specifications when the deck is poured at an ambient temperature other than 50° F.

The parapet and sidewalk flaps may be furnished factory vulcanized to the roadway membrane provided the centerline of the convolution is maintained and the process and method meet the approval of the Engineer.

SHEET NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-74	92-1(BR)	Vermilion	45	28
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	PROJECT	
		Dwg. No. 17 of 28		

DESIGNED BY:	RDP	6-90
DRAWN BY:	WEM	6-90
CHECKED BY:	JRF	6-90
APPROVED BY:	RDP	6-90

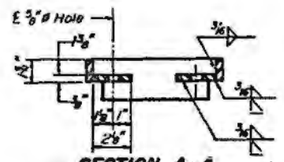
ESCA CONSULTANTS, INC.

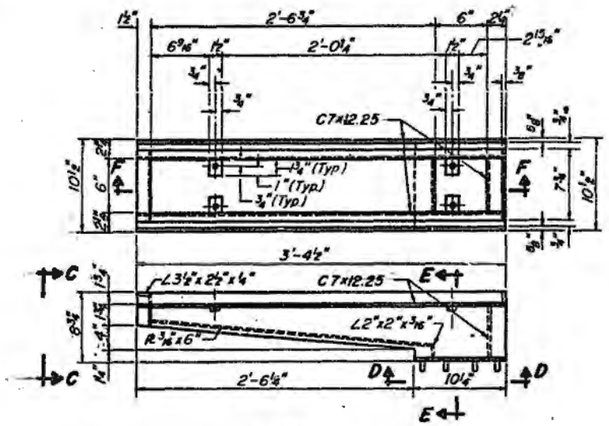
CONTINUOUS SEAL TYPE NEOPRENE EXPANSION JOINTS

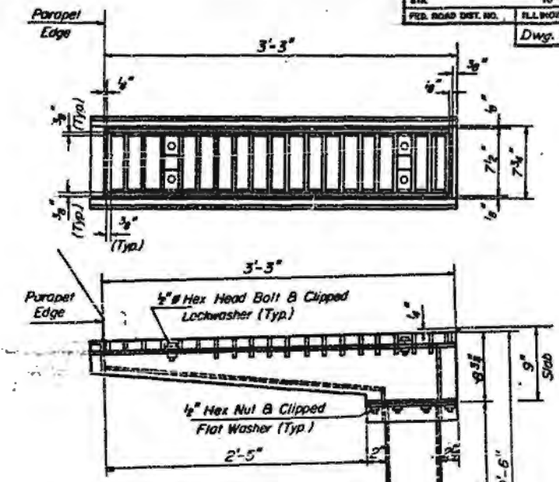
FAI 74 OVER SALT FORK
FAI RTE. 74 SECTION 92-1(BR)
VERMILION COUNTY
STATION 1755+16.00
STRUCTURE NO. 092-0006(EB)
STRUCTURE NO. 092-0007(WB)

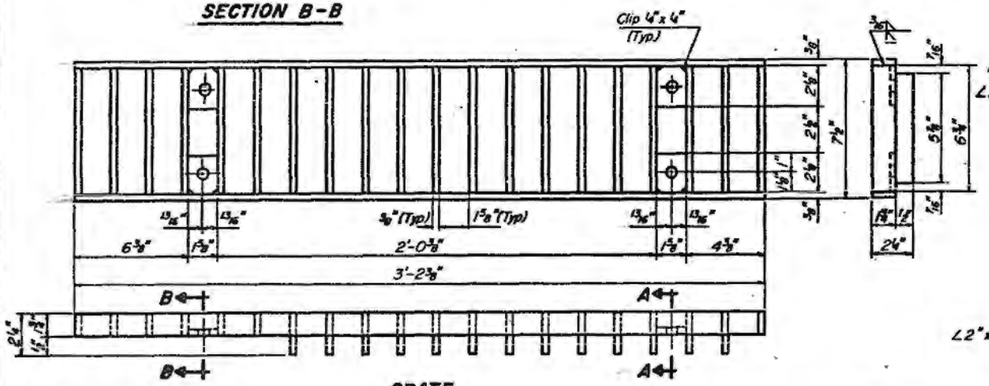
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-74	92-11BR	Vermilion	1of5	79
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	PROJECT	

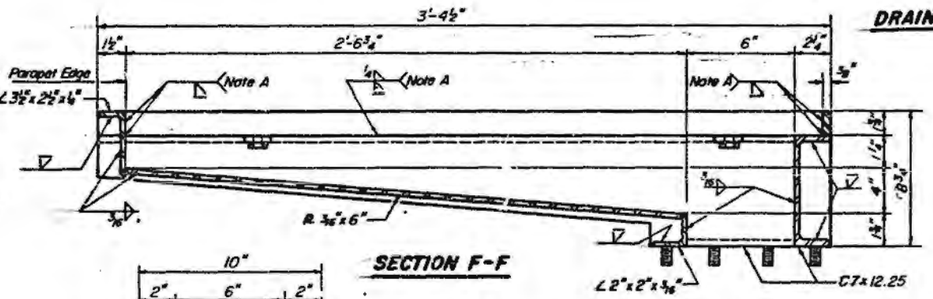
Dwg. No. 18 of 28



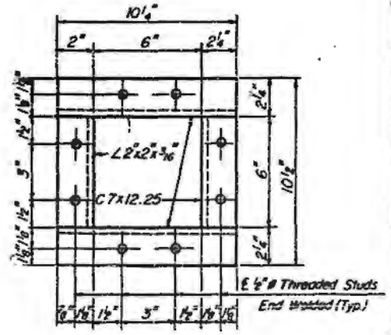


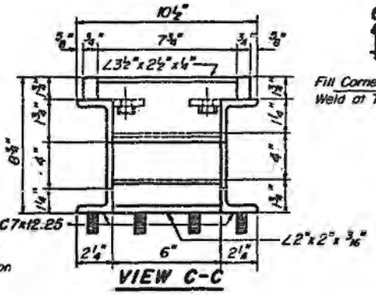


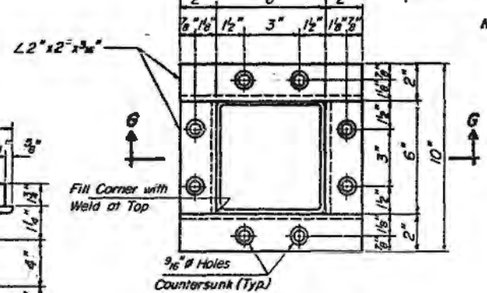


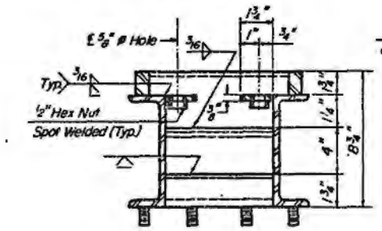


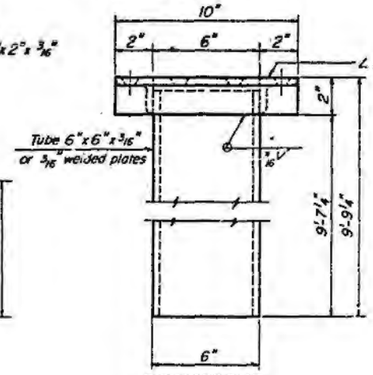
Note A: Surface of welds shall be recessed 1/16" Max. or placed flush with inside face of bars to provide clearance for Grate.

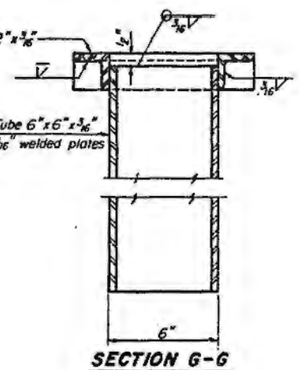












Notes:

Hollow structural steel tubing shall conform to the requirements of A.S.T.M. designation A-500 Grade B, or A-501 Structural Steel Tubing.

All other shapes, plates and bars shall conform to the requirements of A.A.S.H.T.O. M 183.

Bolts, studs, washers and nuts shall conform to the requirements of A.S.T.M. A-307.

The Grate, Frame, and Downspout shall be galvanized after shop fabrication in accordance with A.A.S.H.T.O. M-111 & A.S.T.M. A-385

All bolts, washers and nuts shall be galvanized in accordance with A.A.S.H.T.O. M 232.

Cost of the Grate, Frame, Downspout, Bolts, Washers and Nuts including complete installation of Scupper shall be paid for at the unit bid price for "DRAINAGE SCUPPERS".

BILL OF MATERIAL

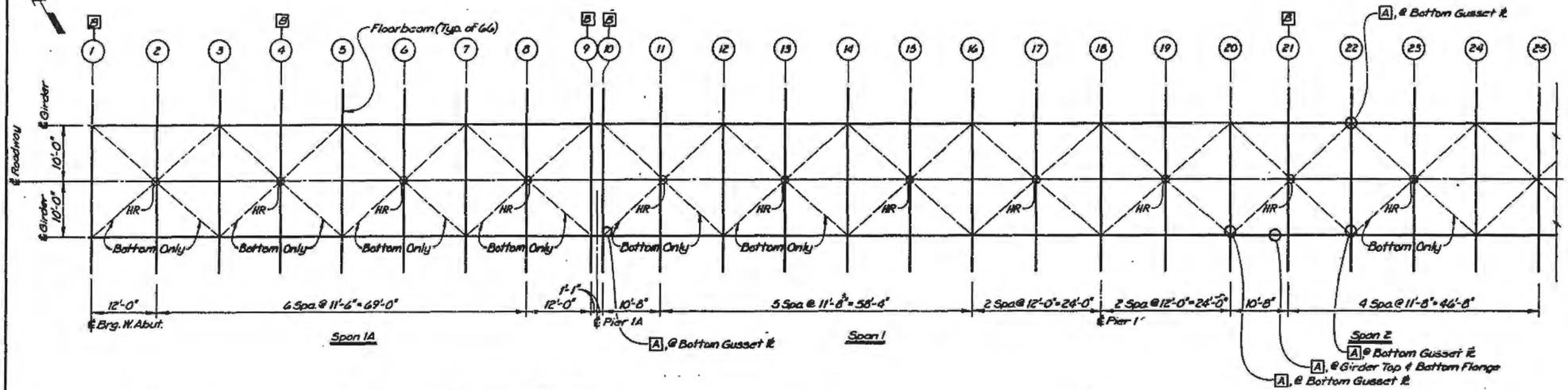
ITEM	UNIT	QUANTITY
Drainage Scupper	Each	16

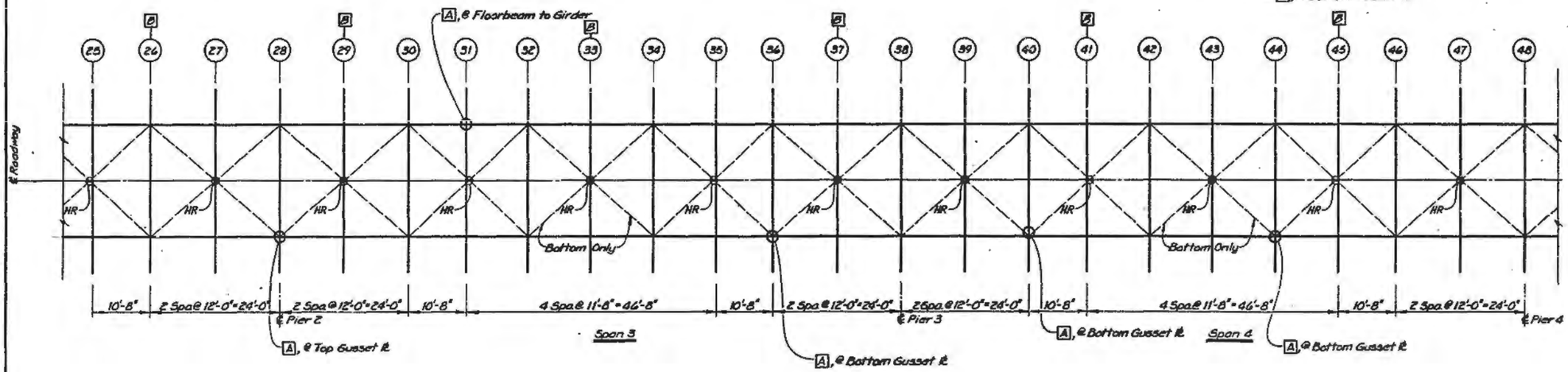
DRAINAGE SCUPPER
FAI 74 OVER SALT FORK
FAI RTE. 74 SECTION 92-11BR
VERMILION COUNTY
STATION 1755+16.00
STRUCTURE NO 092-0006(EB)
STRUCTURE NO. 092-0007(WB)

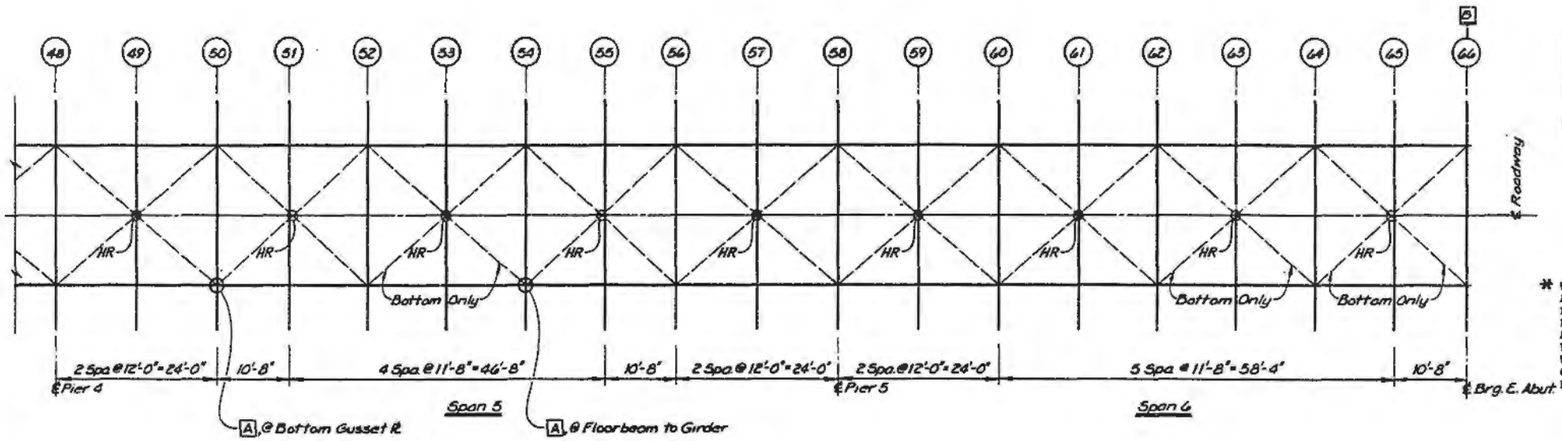
ESCA CONSULTANTS, INC.

DESIGNED BY:	RDP	6-90
DRAWN BY:	PDV	6-90
CHECKED BY:	JRF	6-90
APPROVED BY:	RDP	6-90

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-74	92-11BR	Vermilion	165	80
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	PROJECT		
		Dwg. No. 19 of 28		







NOTES

1. BOTTOM LATERAL BRACING EXISTS AS SHOWN BY DASHED LINES THROUGHOUT LENGTH OF STRUCTURE; TOP LATERAL BRACING EXISTS IN ALL PANELS EXCEPT WHERE "BOTTOM ONLY" DESIGNATION APPEARS.
2. CROSS FRAMES BETWEEN GIRDERS ARE LOCATED TRANSVERSE TO ROADWAY AT EACH POINT WHERE LATERAL BRACING INTERSECTS GIRDERS.
3. HR INDICATES LOCATION OF HANGER ROD ASSEMBLY FOR BOTTOM LATERAL BRACING SYSTEM.
4. (1), (2), (3), etc., INDICATES FLOORBEAM DESIGNATION.
5. SEE DWG. NOS. 20 & 21 FOR ADDITIONAL DETAILS OF STRUCTURAL STEEL REPAIRS.
6. THE COST OF REMOVING FLOORBEAMS IS INCLUDED WITH "STRUCTURAL STEEL REMOVAL." THE COST OF ALL OTHER STRUCTURAL STEEL REMOVAL WORK (BEARINGS, ANCHOR BOLTS, ETC.) IS INCIDENTAL.
7. EXISTING BOLTS WHICH THE CONTRACTOR LOOSENS OR REMOVES TO FACILITATE THE WORK CANNOT BE REUSED. WHERE NEW FLOORBEAMS ARE PROVIDED (AND AT OTHER LOCATIONS - SEE SPECIAL PROVISIONS), THE COST OF REMOVING AND REPLACING BOLTS IS INCIDENTAL.

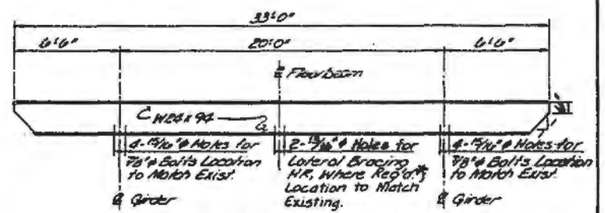
LEGEND

A Broken, Loose, or Missing Bolt Location.
B Floorbeam to be Replaced.

Note:
Repair locations indicated on this dwg. are as determined by field inspection conducted in October, 1986. Actual repairs required will be determined and/or ratified by the Engineer. The Contractor should not proceed with repairs until they are approved by the Engineer.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Furnish & Erect Structural Steel	Lbs.	37,225
Bolt Removal & Replacement, (3/4"ø)	Each	30
Bolt Removal & Replacement, (7/8"ø)	Each	20
Tighten Hanger Rod Assemblies	Each	25
Weld Removal	Lin. Ft.	30
Structural Steel Removal	Lbs.	33,685



FLOORBEAM DETAIL

* WHERE NEW FLOORBEAMS ARE PROVIDED AT EXISTING HANGER ROD LOCATIONS, PRESERVE & REUSE EXISTING HANGER ROD, FILL PLATES, GUSSET PLATES, AND 6" CHANNEL CONNECTION DEVICE. REMOVE EXISTING RIVETS & REPLACE WITH 2-NEW 3/4"ø BOLTS. THE COST OF REMOVING THE RIVETS IS INCIDENTAL TO STRUCTURAL STEEL REMOVAL.

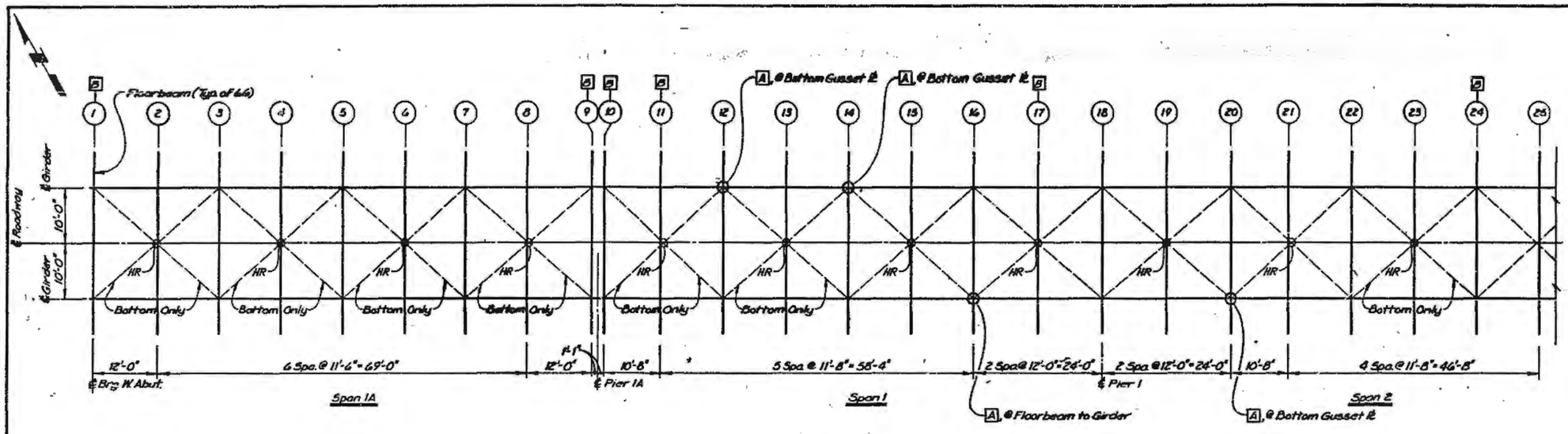
EASTBOUND LANES STEEL FRAMING PLAN

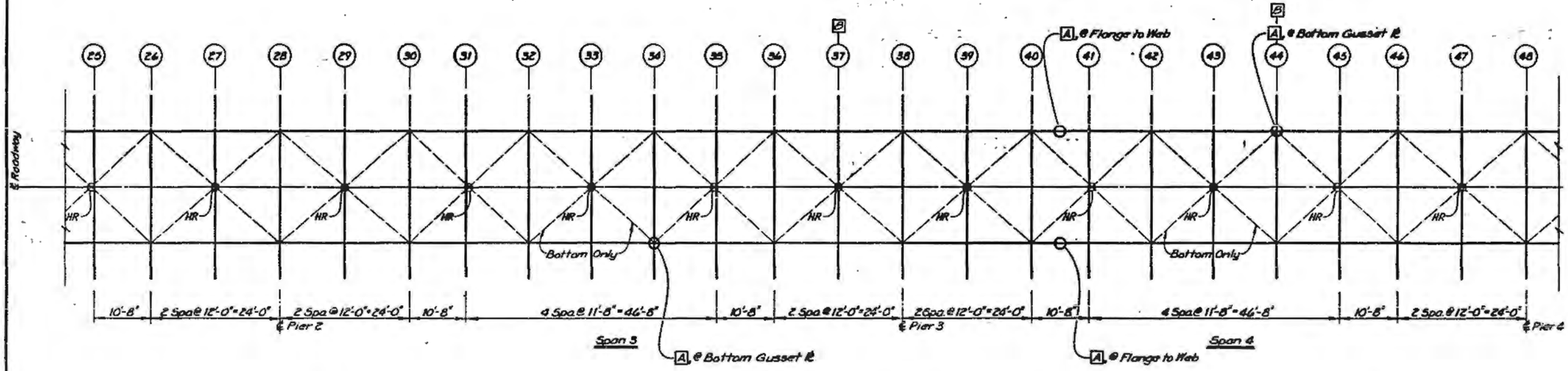
FAI 74 OVER SALT FORK
FAI RTE. 74 SECTION 92-11BR
VERMILION COUNTY
STATION 1755+16.00
STRUCTURE NO 092-0006(EB)
STRUCTURE NO. 092-0007(WB)

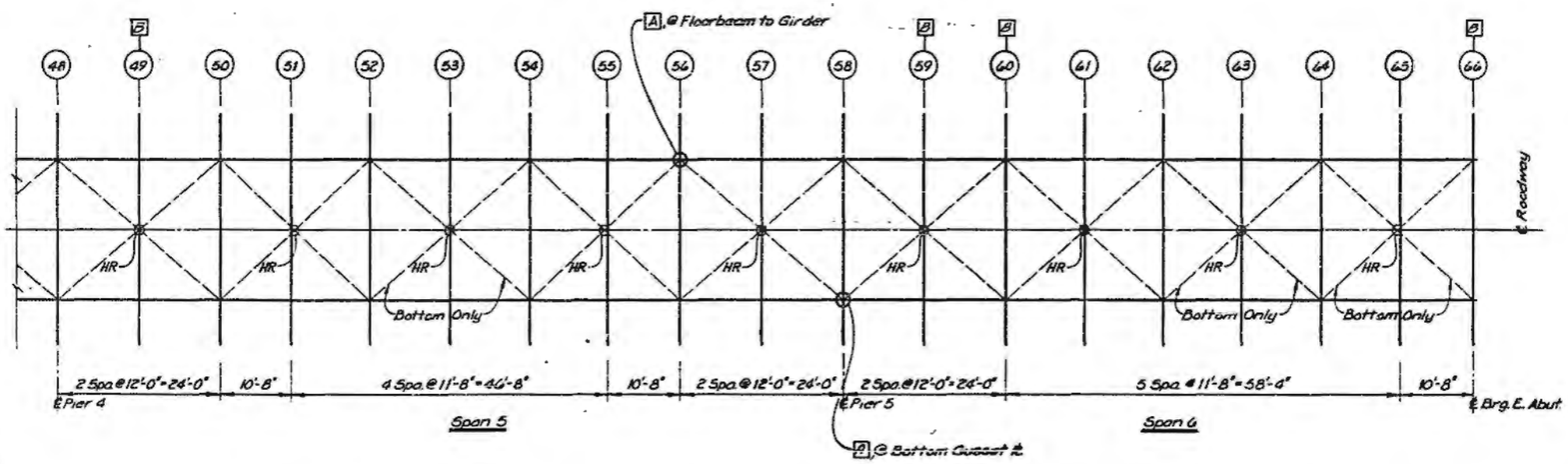
ESCA CONSULTANTS, INC.

DESIGNED BY:	RDP	6-90
DRAWN BY:	WEM	6-90
CHECKED BY:	JRF	6-90
APPROVED BY:	RDP	6-90

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-74	92-11BR	Vermilion	165	81
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	PROJECT	
		Dwg No-20 of 28		







NOTES

1. BOTTOM LATERAL BRACING EXISTS AS SHOWN BY DASHED LINES THROUGHOUT LENGTH OF STRUCTURE; TOP LATERAL BRACING EXISTS IN ALL PANELS EXCEPT WHERE "BOTTOM ONLY" DESIGNATION APPEARS.
2. CROSS FRAMES BETWEEN GIRDERS ARE LOCATED TRANSVERSE TO ROADWAY AT EACH POINT WHERE LATERAL BRACING INTERSECTS GIRDERS.
3. HR INDICATES LOCATION OF HANGER ROD ASSEMBLY FOR BOTTOM LATERAL BRACING SYSTEM.
4. (1), (2), (3), etc., INDICATES FLOORBEAM DESIGNATION.
5. SEE DWG. NOS. 19 & 21 FOR ADDITIONAL DETAILS OF STRUCTURAL STEEL REPAIRS.
6. SEE DWG. NO. 19 FOR DETAIL OF NEW FLOORBEAMS.
7. THE COST OF REMOVING FLOORBEAMS IS INCLUDED WITH "STRUCTURAL STEEL REMOVAL." THE COST OF ALL OTHER STRUCTURAL STEEL REMOVAL WORK (BEARINGS, ANCHOR BOLTS, ETC.) IS INCIDENTAL.

LEGEND

A Broken, Loose, or Missing Bolt Locations.
B Floorbeam to be Replaced.

Note:
Repair locations indicated on this dwg. are as determined by field inspection conducted in October, 1986. Actual repairs required will be determined and/or verified by the Engineer. The Contractor should not proceed with repairs until they are approved by the Engineer.

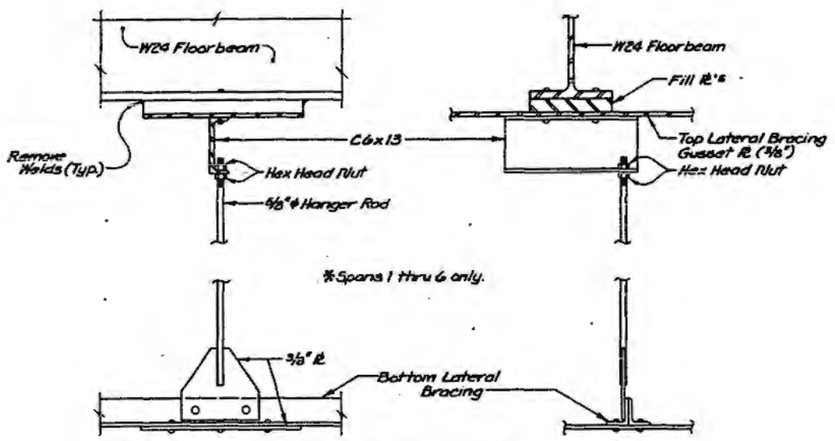
BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Furnish & Erect Structural Steel	Lbs	37,225
Bolt Removal & Replacement, (3/4"ø)	Each	20
Bolt Removal & Replacement, (7/8"ø)	Each	25
Tighten Hanger Rod Assemblies	Each	27
Weld Removal	Lin.Ft	50
Structural Steel Removal	Lbs.	856.5

ESCA CONSULTANTS, INC.		
DESIGNED BY:	RDP	6-90
DRAWN BY:	WEM	6-90
CHECKED BY:	JRF	6-90
APPROVED BY:	RDP	6-90

WESTBOUND LANES
STEEL FRAMING PLAN
FAI 74 OVER SALT FORK
FAI RTE. 74 SECTION 92-11BR
VERMILION COUNTY
STATION 1755+16.00
STRUCTURE NO 092-0006(EB)
STRUCTURE NO. 092-0007(WB)

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-74	92-1HBR	Vermilion	45	82
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	PROJECT		
		Dwg. No. 21 of 28		

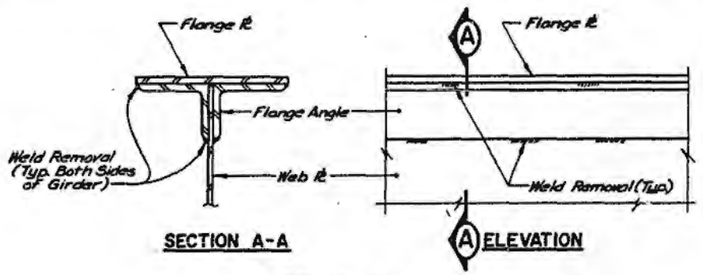


HANGER ROD TIGHTENING PROCEDURE

1. Loosen Bottom Nut.
2. Tighten Top Nut per Directions of the Engineer.
3. Tighten Bottom Nut.

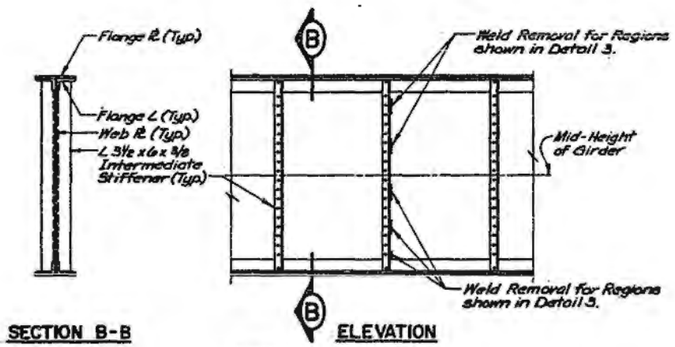
DETAIL 1

(Typ. as shown @ 20 locations each bridge; @ 12 add'l locations each bridge, detail is similar except no Top Lateral Bracing Gusset PL's exist. At these locations, remove any fillet welds between C6 & Bottom Flange of Floorbeam)



DETAIL 2

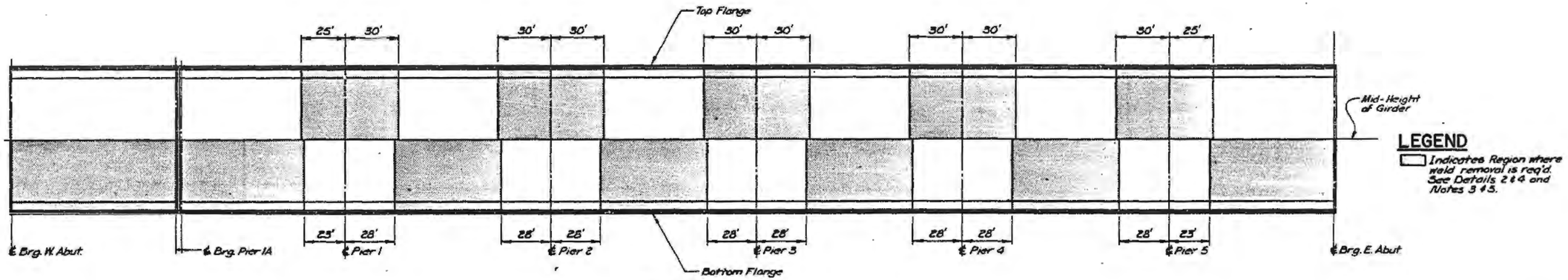
(Top Flange Shown; Bottom Flange Similar)



DETAIL 4

STRUCTURAL STEEL REPAIR NOTES

1. CHECK ALL HANGER ROD ASSEMBLIES FOR BOTTOM LATERAL BRACING SYSTEM, AND TIGHTEN PER THE DIRECTIONS OF THE ENGINEER. SEE DETAIL 1 THIS DRAWING AND SPECIAL PROVISIONS.
2. REMOVE ALL FILLET WELDS BETWEEN HANGER ROD ASSEMBLIES AND BOTTOM FLANGE OF FLOOR BEAMS. SEE DETAIL 1 THIS DRAWING AND SPECIAL PROVISIONS.
3. REMOVE TACK WELDS BETWEEN GIRDER WEB PLATES AND FLANGE ANGLES AND BETWEEN GIRDER FLANGE ANGLES AND FLANGE PLATES. SEE DETAILS 2 & 3 AND SPECIAL PROVISIONS.
4. REPLACE BROKEN, LOOSE, AND MISSING BOLTS AT LOCATIONS SHOWN ON DWGS. 19 & 20 AND AS DIRECTED BY THE ENGINEER. TYPES OF CONNECTIONS WHERE BOLT REPLACEMENT IS REQUIRED ARE:
   a) FLOORBEAM TO GIRDER CONNECTIONS (7/8"ø).
   b) GIRDER FLANGE TO WEB CONNECTIONS AT SPLICES (3/4"ø).
   c) LATERAL BRACING CONNECTIONS (3/4"ø).
   d) CROSS FRAME CONNECTIONS (3/4"ø).
5. REMOVE TACK WELDS BETWEEN GIRDER WEB AND STIFFENERS AT LOCATIONS SHOWN ON DETAILS 3 & 4 AND AS DIRECTED BY THE ENGINEER. SEE SPECIAL PROVISIONS.
6. RAISE EXISTING STRUCTURE AND PROVIDE NEW BEARINGS. SEE DWG. NO. 22.
7. PROVIDE NEW FLOORBEAMS AT LOCATIONS INDICATED ON DWG. NOS. 19 & 20, AND AS DIRECTED BY THE ENGINEER.



ELEVATION
(Looking North)

DETAIL 3

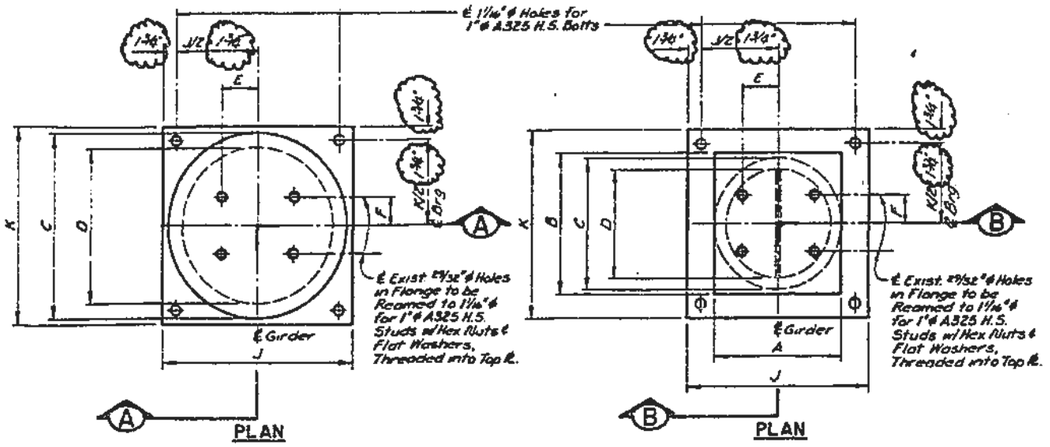
ESCA CONSULTANTS, INC.		
DESIGNED BY:	RDP	6-90
DRAWN BY:	WEM	6-90
CHECKED BY:	JRF	6-90
APPROVED BY:	RDP	6-90

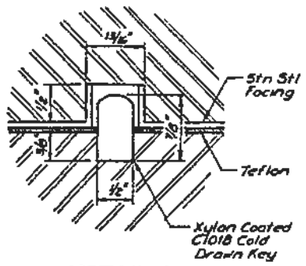
STRUCTURAL STEEL REPAIRS

FAI 74 OVER SALT FORK
FAI RTE. 74 SECTION 92-1HBR
VERMILION COUNTY
STATION 1755+16.00
STRUCTURE NO 092-0006(EB)
STRUCTURE NO. 092-0007(WB)

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
FAI-74	92-11BR	Vermilion		
STA		TO STA		
FED ROAD DIST NO		ILLINOIS	PROJECT	

Dwg No. 22 of 28





DETAIL 1

TABLE OF ELEVATIONS* — TOP OF STEEL FLOORBEAMS

LOCATION	ELEVATION
W. Abuts.	611.824
Piers 1A, Span 1A	609.498
Piers 1A, Span 1	609.451
Piers 1	607.323
Piers 2	604.539
Piers 3	601.755
Piers 4	598.971
Piers 5	596.187
E. Abuts.	593.851

* TOP OF FLOORBEAM ℄ GIRDER BEARING

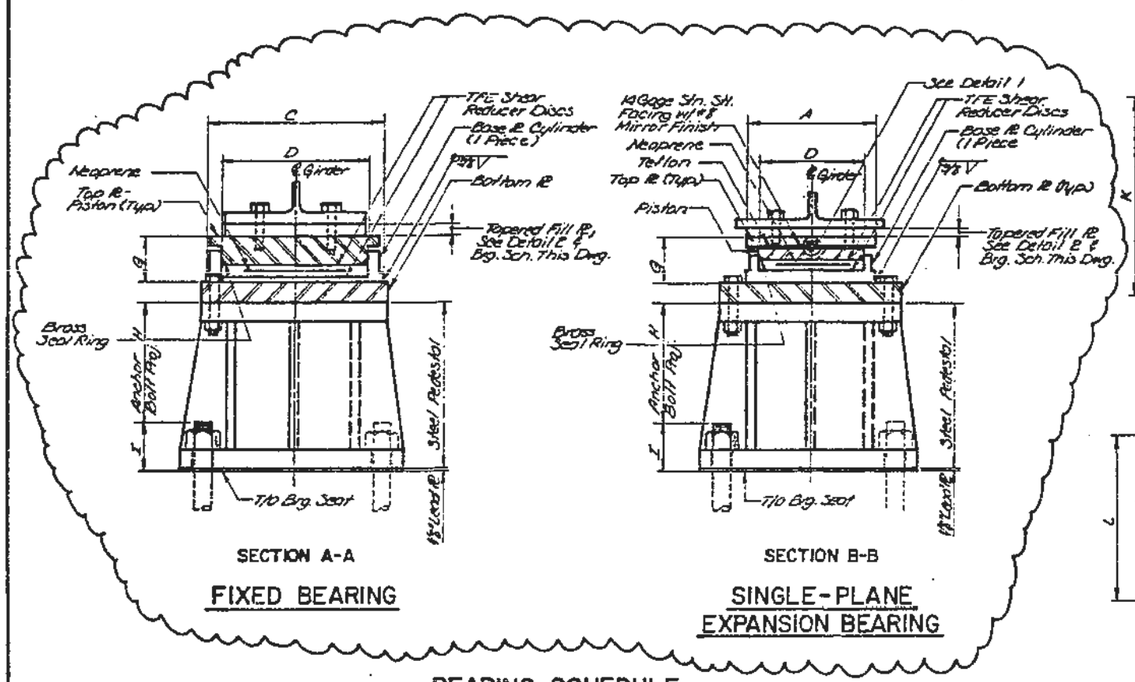
PROCEDURE

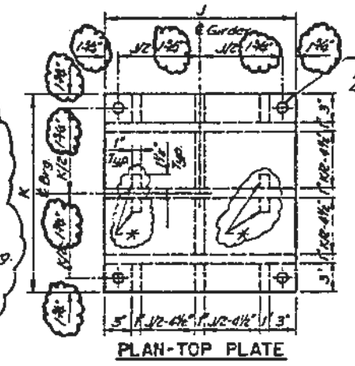
1. THE CONTRACTOR SHALL SUBMIT FOR APPROVAL BY THE ENGINEER, PLANS FOR RAISING EXISTING GIRDERS AND PROVIDING NEW BEARINGS AND PEDESTALS PRIOR TO COMMENCING ANY RELATED WORK. THIS WORK SHALL BE DONE AFTER EXISTING CONCRETE DECK IS REMOVED, AFTER STRUCTURAL STEEL REPAIRS HAVE BEEN PERFORMED, AND PRIOR TO POURING OF NEW CONCRETE DECK. MAXIMUM DEAD LOAD REACTION PER GIRDER (WEIGHT OF STEEL ONLY) IS AS FOLLOWS:

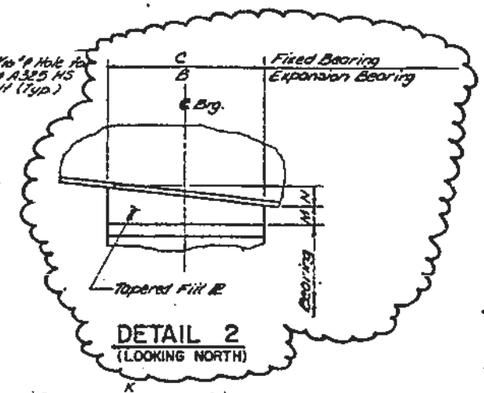
W. ABUTS.	36k	PIERS 3	79k
PIERS 1A, SPAN 1A	36k	PIERS 4	79k
PIERS 1A, SPAN 1	23k	PIERS 5	80k
PIERS 1	80k	E. ABUTS.	23k
PIERS 2	79k		

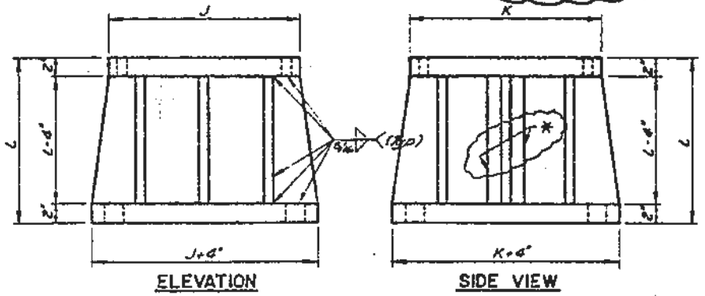
REMOVE NUTS ON ALL EXISTING BEARING ANCHOR BOLTS TO BE RAISED.

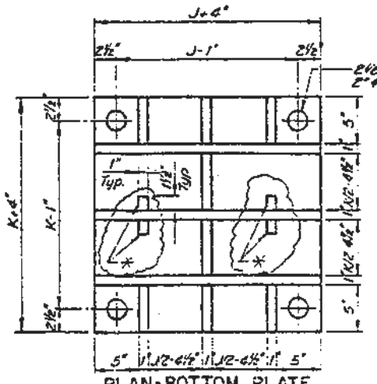
2. CUT OFF EXISTING ANCHOR BOLTS FLUSH WITH BEARING SEAT AT ALL BEARINGS AFTER RAISING.
3. RAISING SHALL BE DONE BY JACKING. MEASURES SHALL BE TAKEN TO PREVENT LATERAL OR LONGITUDINAL DISPLACEMENT OF GIRDERS DURING RAISING OPERATIONS. ALL GIRDERS AT A GIVEN SUBSTRUCTURE ELEMENT SHALL BE SLOWLY AND CONTINUALLY RAISED THE SAME AMOUNT SIMULTANEOUSLY, WITH THE MAXIMUM AMOUNT OF RAISE LIMITED TO 3" GREATER THAN THAT REQUIRED TO INSTALL NEW BEARINGS. ANY SWAY OF THE STEEL DURING RAISING OPERATIONS SHALL BE IMMEDIATELY CORRECTED.
4. THE STEEL SHALL BE RAISED IN INCREMENTS OF 1 1/2" AND SHALL BE BLOCKED IN POSITION UPON COMPLETION OF A RAISING INTERVAL. ADEQUATE BLOCKING MUST BE USED TO HOLD THE STRUCTURE IN PLACE WHILE JACKS ARE REPOSITIONED FOR THE NEXT LIFT.
5. PRIOR TO RAISING, ELEVATIONS OF EXISTING BEARING SEATS SHALL BE TAKEN AND THE ENGINEER SHALL VERIFY FILL PLATE THICKNESSES REQUIRED ABOVE EACH BEARING. THIS SHALL BE ACCOMPLISHED BY USING FIELD MEASUREMENTS ALONG WITH THE "TABLE OF ELEVATIONS - TOP OF STEEL FLOORBEAMS" ON THIS DWG.
6. RAISE BEAMS, REMOVE EXISTING BEARINGS AND ANCHOR BOLTS, INSTALL NEW LEAD PLATES, PEDESTALS, FILL PLATES, AND BEARINGS. INSTALL NEW ANCHOR BOLTS. ALL WORK REQUIRED TO RAISE THE GIRDERS SHALL BE PAID FOR AT THE LUMP SUM PRICE FOR "JACKING EXISTING STRUCTURES." SEE SPECIAL PROVISIONS.

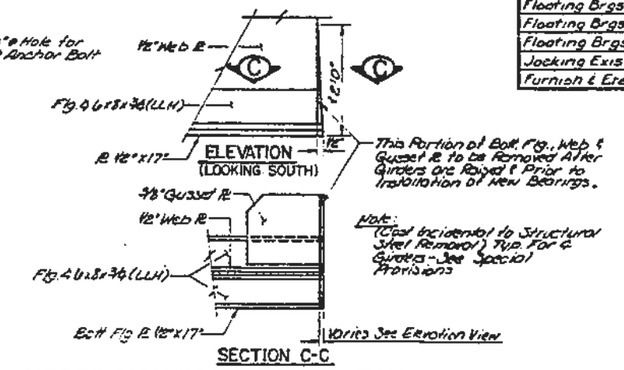












NOTES

1. THE BEARING CONFIGURATIONS AND DETAILS SHOWN ARE FOR GENERAL GUIDANCE FOR THE MANUFACTURER. SLIGHT VARIATIONS IN DIMENSIONS, ETC. WILL BE ALLOWED. SEE SPECIAL PROVISIONS.
2. BEARINGS ARE TO BE DESIGNED BY THE MANUFACTURER FOR THE MINIMUM LOADS GIVEN IN THE BEARING SCHEDULE ON THIS DWG. MANUFACTURER SHALL SUBMIT SHOP DWGS. & DESIGN CALCULATIONS TO THE ENGINEER FOR REVIEW.
3. CONTRACTOR IS RESPONSIBLE FOR ADJUSTING DIMENSIONS AS REQUIRED IN THE FIELD FOR THE ACTUAL BEARINGS USED.
4. EXPANSION BEARINGS SHALL BE SET AT 0" AT 50°F. ADJUST 1/8" PER 100 °F. OF EXPANSION PER 15°F VARIATION.
5. SEE DWG. NO. 23 FOR ANCHOR BOLT DETAILS.
6. THE STEEL PEDESTALS, FILL PLATES, & LEAD PLATES ARE INCLUDED IN "FURNISHING & ERECTING STRUCTURAL STEEL."

BILL OF MATERIAL

ITEM		UNIT	QUANTITY
Floating Brgs., Guided Exp	650k	Each	16
Floating Brgs., Guided Exp	300k	Each	12
Floating Brgs., Fixed	650k	Each	6
Floating Brgs., Fixed	300k	Each	4
Jacking Existing Structures		L. Sum	1
Furnish & Erect Structural Steel		LBS.	47,260

BEARING SCHEDULE

LOCATION	TYPE	VERTICAL LOAD	LATERAL LOAD①	NO REQ'D	A	B	C	D	E	F	G	H	I	J	K	L	M⑤	N
W. Abutments	Exp.	300k	30k	4	14"	15"	10"	11½"	4"	3"	3¾"	1½"	5"	20k	15k	13½"	5½"	7⅞"
Piers 1A, Span 1A	Fixed	300k	30k②	6	-	-	16"	11½"	4"	3"	3¾"	1½"	5"	40k	40k	13½"	17¾"	3⅞"
Piers 1A, Span 1	Exp	300k	30k	6	14"	15"	12"	11½"	4"	3"	3¾"	1½"	5"	20k	20k	13½"	14"	7⅞"
Piers 1	Exp	650k	45k	6	19¾"	20¼"	19¾"	16⅝"	4"	3"	5⅛"	1½"	5"	25k	25k	20"	12"	12"
Piers 2	Exp	650k	45k	6	19¾"	20¼"	19⅜"	16⅝"	4"	3"	5⅛"	1½"	5"	25k	25k	20"	12"	12"
Piers 3	Fixed	650k	45k②	6	-	-	19¾"	16⅝"	4"	3"	5⅛"	1½"	5"	21½"	21½"	17½"	3⅞"	12"
Piers 4	Exp	650k	45k	6	19¾"	20¼"	19¾"	16⅝"	4"	3"	5⅛"	1½"	5"	25k	25k	20"	12"	12"
Piers 5	Exp	650k	45k	6	19¾"	20¼"	19¾"	16⅝"	4"	3"	5⅛"	1½"	5"	25k	25k	20"	12"	12"
E. Abutments	Exp	300k	30k	6	14"	15"	14"	11½"	4"	3"	3½"	1½"	5"	20k	20k	13½"	16"	7⅞"

① At Right Angle to ℄ Girder unless noted otherwise
② Any Direction
③ Field Verify: See Note 5 under "PROCEDURE".

Delete all Ph 1½" Stiffeners when J<24"

Rev. 10/30/91 - RDP

BEARINGS

FAI 74 OVER SALT FORK
FAI RTE. 74 SECTION 92-11BR
VERMILION COUNTY
STATION 1755+16.00
STRUCTURE NO. 092-0006(EB)
STRUCTURE NO. 092-0007(WB)

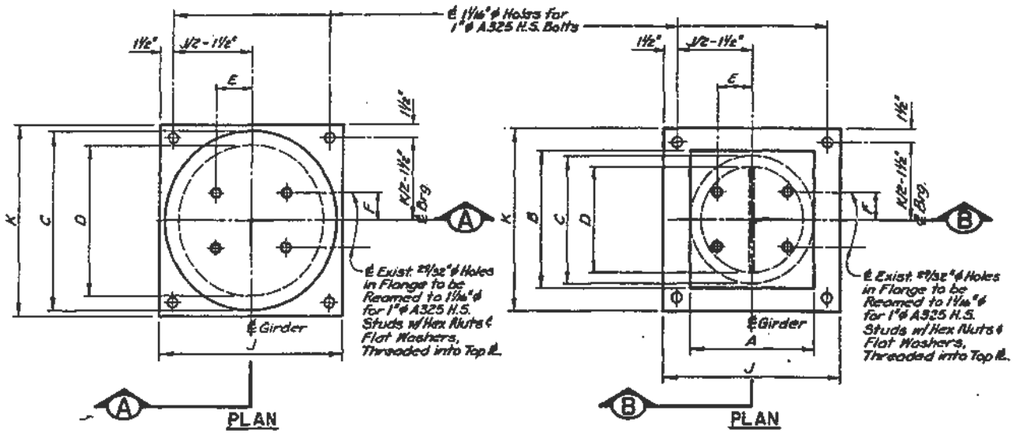
ESCA CONSULTANTS, INC.

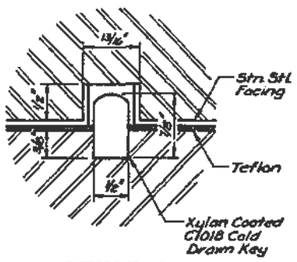
DESIGNED BY:	RDP	7/90
DRAWN BY:	WEM	7/90
CHECKED BY:	JRF	7/90
APPROVED BY:	RDP	7/90

STEEL PEDESTAL DETAILS GIRDER MODIFICATIONS AT WEST ABUTMENTS

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
FAI-74	92-1BR	Vermilion	105	83
STA	TO STA			
FED ROAD DIST NO	ILLINOIS	PROJECT		

Dwg. No. 22 of 28





DETAIL 1

TABLE OF ELEVATIONS* — TOP OF STEEL FLOORBEAMS

LOCATION	ELEVATION
W. Abuts.	611.824
Piers 1A, Span 1A	609.498
Piers 1A, Span 1	609.451
Piers 1	607.323
Piers 2	604.539
Piers 3	601.753
Piers 4	598.971
Piers 5	596.187
E. Abuts.	593.851

* TOP OF FLOORBEAM ℄ ℄ GIRDER BEARING

PROCEDURE

1. THE CONTRACTOR SHALL SUBMIT FOR APPROVAL BY THE ENGINEER, PLANS FOR RAISING EXISTING GIRDERS AND PROVIDING NEW BEARINGS AND PEDESTALS PRIOR TO COMMENCING ANY RELATED WORK. THIS WORK SHALL BE DONE AFTER EXISTING CONCRETE DECK IS REMOVED, AFTER STRUCTURAL STEEL REPAIRS HAVE BEEN PERFORMED, AND PRIOR TO POURING OF NEW CONCRETE DECK. MAXIMUM DEAD LOAD REACTION PER GIRDER (WEIGHT OF STEEL ONLY) IS AS FOLLOWS:

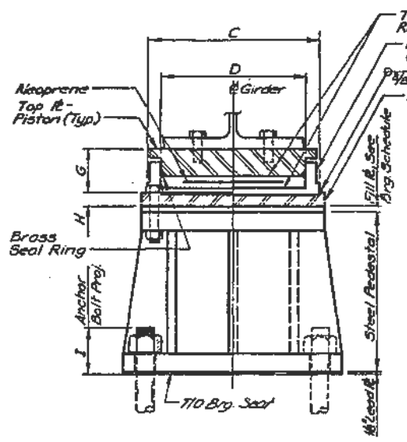
W. ABUTS.	36k	PIERS 3	79k
PIERS 1A, SPAN 1A	36k	PIERS 4	79k
PIERS 1A, SPAN 1	23k	PIERS 5	80k
PIERS 1	80k	E. ABUTS.	23k
PIERS 2	79k		

REMOVE NUTS ON ALL EXISTING BEARING ANCHOR BOLTS TO BE RAISED.

2. CUT OFF EXISTING ANCHOR BOLTS FLUSH WITH BEARING SEAT AT ALL BEARINGS AFTER RAISING.
3. RAISING SHALL BE DONE BY JACKING. MEASURES SHALL BE TAKEN TO PREVENT LATERAL OR LONGITUDINAL DISPLACEMENT OF GIRDERS DURING RAISING OPERATIONS. ALL GIRDERS AT A GIVEN SUBSTRUCTURE ELEMENT SHALL BE SLOWLY AND CONTINUALLY RAISED THE SAME AMOUNT SIMULTANEOUSLY, WITH THE MAXIMUM AMOUNT OF RAISE LIMITED TO 3" GREATER THAN THAT REQUIRED TO INSTALL NEW BEARINGS. ANY SWAY OF THE STEEL DURING RAISING OPERATIONS SHALL BE IMMEDIATELY CORRECTED.
4. THE STEEL SHALL BE RAISED IN INCREMENTS OF 1 1/2" AND SHALL BE BLOCKED IN POSITION UPON COMPLETION OF A RAISING INTERVAL. ADEQUATE BLOCKING MUST BE USED TO HOLD THE STRUCTURE IN PLACE WHILE JACKS ARE REPOSITIONED FOR THE NEXT LIFT.
5. PRIOR TO RAISING, ELEVATIONS OF EXISTING BEARING SEATS SHALL BE TAKEN AND THE ENGINEER SHALL VERIFY FILL PLATE THICKNESSES REQUIRED UNDER EACH BEARING. THIS SHALL BE ACCOMPLISHED BY USING FIELD MEASUREMENTS ALONG WITH THE "TABLE OF ELEVATIONS - TOP OF STEEL FLOORBEAMS" ON THIS DWG.
6. RAISE BEARS, REMOVE EXISTING BEARINGS AND ANCHOR BOLTS, INSTALL NEW LEAD PLATES, PEDESTALS, FILL PLATES, AND BEARINGS. INSTALL NEW ANCHOR BOLTS. ALL WORK REQUIRED TO RAISE THE GIRDERS SHALL BE PAID FOR AT THE LUMP SUM PRICE FOR "JACKING EXISTING STRUCTURES." SEE SPECIAL PROVISIONS.

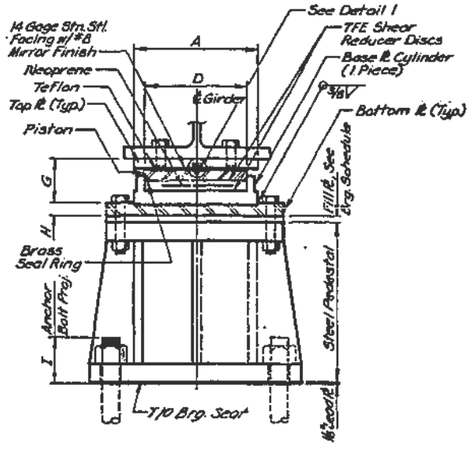
NOTES

1. THE BEARING CONFIGURATIONS AND DETAILS SHOWN ARE FOR GENERAL GUIDANCE FOR THE MANUFACTURER. SLIGHT VARIATIONS IN DIMENSIONS, ETC. WILL BE ALLOWED. SEE SPECIAL PROVISIONS.
2. BEARINGS ARE TO BE DESIGNED BY THE MANUFACTURER FOR THE MINIMUM LOADS GIVEN IN THE BEARING SCHEDULE ON THIS DWG. MANUFACTURER SHALL SUBMIT SHOP DWGS. & DESIGN CALCULATIONS TO THE ENGINEER FOR REVIEW.
3. CONTRACTOR IS RESPONSIBLE FOR ADJUSTING DIMENSIONS AS REQUIRED IN THE FIELD FOR THE ACTUAL BEARINGS USED.
4. EXPANSION BEARINGS SHALL BE SET AT 0" AT 50°F. ADJUST 1/8" PER 100 FT. OF EXPANSION PER 15°F VARIATION.
5. SEE DWG. NO. E3 FOR ANCHOR BOLT DETAILS.
6. THE STEEL PEDESTALS, FILL PLATES, & LEAD PLATES ARE INCLUDED IN "FURNISHING & ERECTING STRUCTURAL STEEL."



SECTION A-A

FIXED BEARING



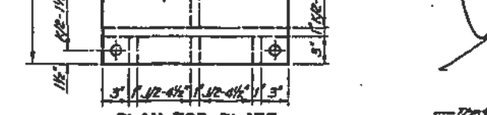
SECTION B-B

SINGLE-PLANE EXPANSION BEARING

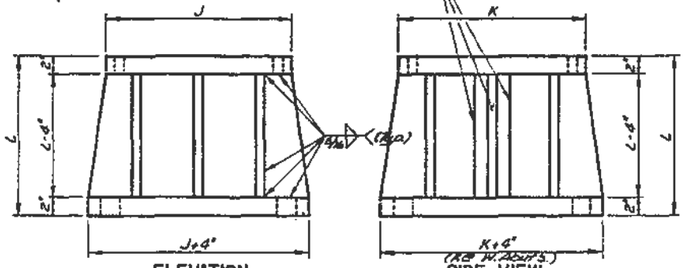
BEARING SCHEDULE

LOCATION	TYPE	VERTICAL LOAD	LATERAL LOAD①	NO REQ'D	A	B	C	D	E	F	G	H	I	J	K	L	Fill ℄ ③ Thickness
W. Abutments	Exp.	300k	30k	4	14"	15"	14"	11½"	4"	3"	3¾"	1½"	5"	20°	15°	13½"	½"
Piers 1A, Span 1A	Fixed	300k	30k②	4	-	-	14"	11½"	4"	3"	3⅛"	1½"	5"	16°	16°	13½"	1⅛"
Piers 1A, Span 1	Exp.	300k	30k	4	14"	15"	14"	11½"	4"	3"	3⅜"	1½"	5"	20°	20°	13½"	⅜"
Piers 1	Exp.	650k	65k	4	19¾"	20⅛"	19⅜"	16-⅜"	4"	3"	5⅛"	1½"	5"	25°	25°	26°	¾"
Piers 2	Exp.	650k	65k	4	19⅜"	20⅛"	19⅜"	16-⅜"	4"	3"	5⅛"	1½"	5"	25°	25°	26°	¾"
Piers 3	Fixed	650k	65k②	4	-	-	19¾"	16⅜"	4"	3"	4⅜"	1½"	5"	21°	21°	17½"	⅝"
Piers 4	Exp.	650k	65k	4	19¾"	20⅛"	19¾"	16-⅜"	4"	3"	5⅛"	1½"	5"	25°	25°	26°	¾"
Piers 5	Exp.	650k	65k	4	19¾"	20⅛"	19¾"	16-⅜"	4"	3"	5⅛"	1½"	5"	25°	25°	26°	⅝"
E. Abutments	Exp.	300k	30k	4	14"	15"	14"	11½"	4"	3"	3⅜"	1½"	5"	20°	20°	13½"	⅜"

① At Right Angle to ℄ Girder unless noted otherwise
② Any Direction
③ Field Verify; See Note 5 under "PROCEDURE".

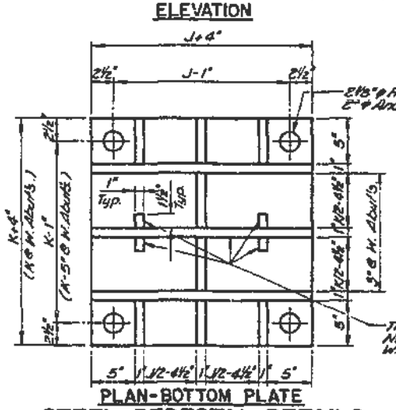


PLAN-TOP PLATE



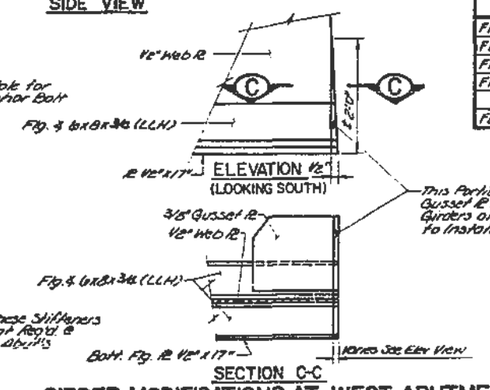
ELEVATION

SIDE VIEW



PLAN-BOTTOM PLATE

STEEL PEDESTAL DETAILS



GIRDER MODIFICATIONS AT WEST ABUTMENTS

(Cost Incidental to Structural Steel Removal) Typ. for 4 Girders - See Special Provisions

BILL OF MATERIAL

ITEM		UNIT	QUANTITY
Floating Brgs., Guided Exp.	650k	Each	16
Floating Brgs., Guided Exp.	300k	Each	12
Floating Brgs., Fixed	650k	Each	4
Floating Brgs., Fixed	300k	Each	4
Furnish & Erect Structural Steel		Lbs.	47,240

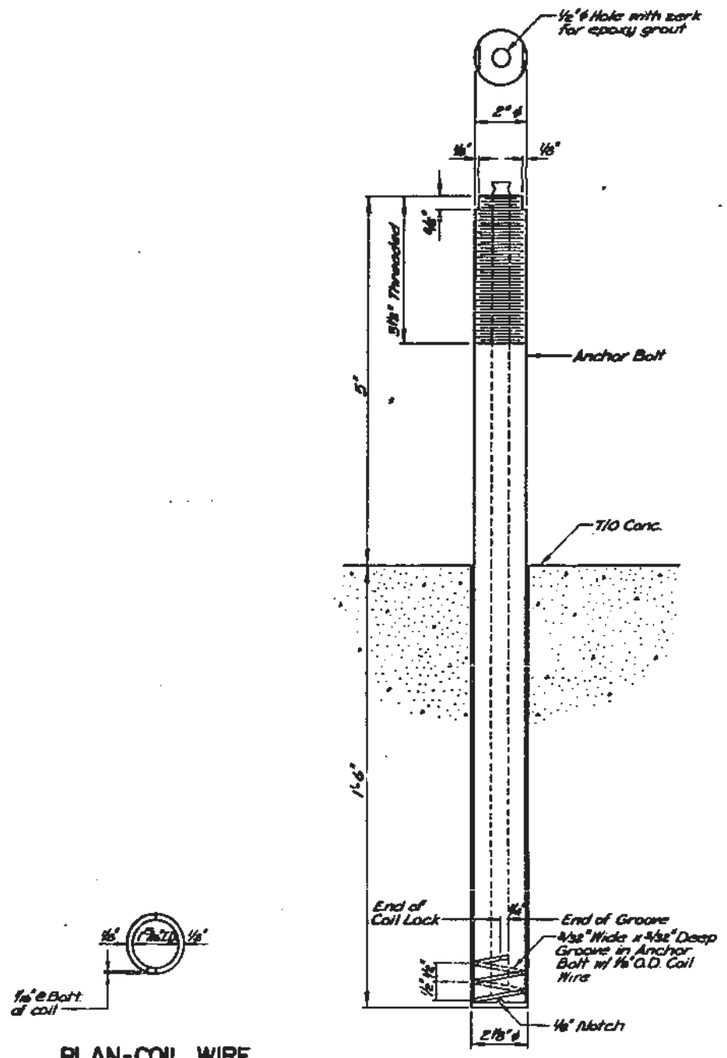
BEARINGS

FAI 74 OVER SALT FORK
FAI RTE. 74 SECTION 92-1BR
VERMILION COUNTY
STATION 1755+16.00
STRUCTURE NO. 092-0006(EB)
STRUCTURE NO. 092-C007(WB)

ESCA CONSULTANTS, INC.		
DESIGNED BY:	RDP	7/90
DRAWN BY:	WEM	7/90
CHECKED BY:	JAF	7/90
APPROVED BY:	RDP	7/90

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-74	92-11BR	Vermilion	165	84
STA.		TO STA.		
FED. ROAD DIST. NO.		ILL. PROJECT		

Dwg. No. 23 of 28



ILLINOIS COIL-LOCK ANCHOR BOLT

PLAN-COIL WIRE

MATERIALS FOR ILLINOIS COIL-LOCK ANCHOR BOLT

THE ANCHOR BOLT SHALL BE FABRICATED FROM COLD DRAWN OR HOT FINISHED SEAMLESS CARBON STEEL MECHANICAL TUBING CONFORMING TO ASTM A 519, GRADE 1026 AND SUPPLIED WITH HEXAGONAL NUTS AND CUT WASHERS.

THE COIL WIRE SHALL BE MADE OF ANY SUITABLE SOFT STEEL WIRE.

THE FINISHED ANCHOR BOLT SHALL BE CLEANED OF RUST AND OTHER FOREIGN MATERIALS AND WRAPPED OR PACKAGED TO PREVENT CONTAMINATION UNTIL THEY ARE INSTALLED.

THE EPOXY GROUT SHALL BE A TWO-COMPONENT, EPOXY RESIN BONDING SYSTEM CONFORMING TO ASTM C881, TYPE I, GRADE 1 AND OF A CLASS SUITABLE FOR THE TEMPERATURE OF INSTALLATION.

INSTALLATION PROCEDURE FOR ILLINOIS COIL-LOCK ANCHOR BOLT

1. WITH THE COIL WIRE IN PLACE, THE BOLT SHALL BE INSERTED INTO THE HOLE AND TURNED CLOCKWISE TO A SNUG FIT IN THE HOLE. NUT AND WASHER SHALL BE PLACED ON THE BOLT. THE NUT SHALL BE SELF-LOCKING AND SET FOR 1/4" FREE PLAY.
2. EPOXY GROUT SHALL BE PUMPED THROUGH THE HEXH FITTING WITH A PRESSURE GUN. PUMPING SHALL CONTINUE UNTIL THE EPOXY OVERFLOWS THE HOLE AROUND THE BOLT SHANK. AFTER PUMPING IS DISCONTINUED, EXCESS EPOXY SHALL BE IMMEDIATELY WIPED OFF.

ALTERNATE ANCHOR BOLTS

THE CONTRACTOR MAY USE, AT HIS OPTION, THE CAPSULE OR THE ADHESIVE CARTRIDGE TYPE ANCHOR RODS THAT HAVE BEEN PREVIOUSLY TESTED AND GIVEN A PRIOR APPROVAL BY THE DEPARTMENT. THE CONTRACTOR SHALL INSTALL THESE ANCHOR RODS IN PRE-DRILLED HOLES IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND PROCEDURES.

THE CAPSULE OR THE ADHESIVE CARTRIDGE TYPE ANCHOR RODS SHALL BE A TWO PART SYSTEM COMPOSED OF:

1. A THREADED ROD STUD WITH NUT AND WASHER CONFORMING TO ASTM A307.
2. A SEALED GLASS CAPSULE OR A SEALED GLASS ADHESIVE CARTRIDGE CONTAINING PREMEASURED AMOUNT OF THE ADHESIVE CHEMICAL.

GENERAL NOTES

1. HOLES DRILLED IN THE CONCRETE (THROUGH THE PEDESTAL PLATE HOLES) TO THE DIAMETER AND DEPTH SHOWN AND IN ACCORDANCE WITH THE ANCHOR BOLT MANUFACTURER'S RECOMMENDATIONS.
2. PRIOR TO SETTING THE BOLTS, THE HOLES SHALL BE DRY AND ALL DUST AND LOOSE PARTICLES SHALL BE REMOVED BY THE USE OF COMPRESSED AIR OR VACUUMING.
3. THE ANCHOR BOLTS, INCLUDING REMOVAL OF EXISTING ANCHOR BOLTS, DRILLING & PREPARATION OF HOLES, SETTING OF NEW ANCHOR BOLTS WITH EPOXY GROUT OR CAPSULES, SHALL BE PAID FOR AT THE UNIT PRICE BID PER POUND FOR FURNISHING & ERECTING STRUCTURAL STEEL.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Furnish & Erect Structural Steel	Lbs.	2,950

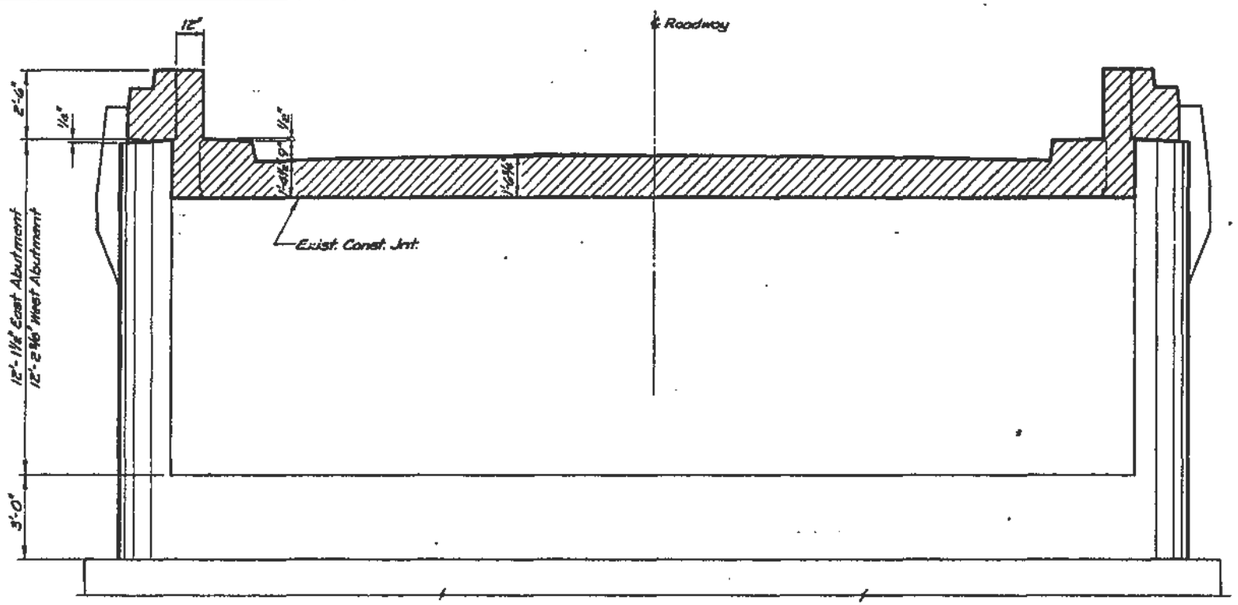
ESCA CONSULTANTS, INC.		
DESIGNED BY:	RDP	6-97
DRAWN BY:	WEM	6-97
CHECKED BY:	JRF	6-97
APPROVED BY:	RDP	6-97

NOTE

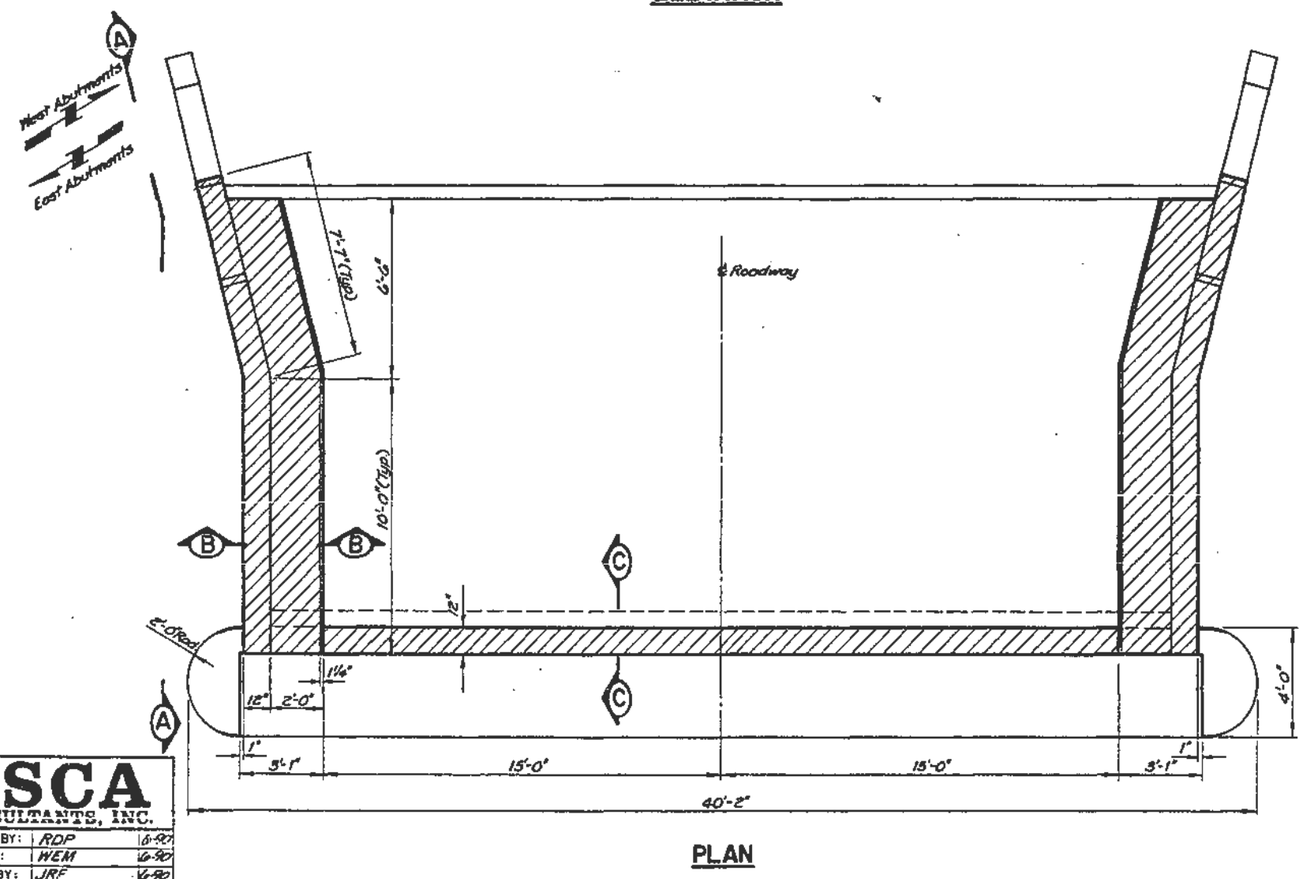
ANCHOR BOLT DETAILS FOR BRGS.

FAI 74 OVER SALT FORK
FAI RTE. 74 SECTION 92-11BR
VERMILION COUNTY
STATION 1755+16.00
STRUCTURE NO 092-0006(EB)
STRUCTURE NO. 092-0007(WB)

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-74	92-11BR	Vermilion	165	85
STA.		TO STA.		
FED. ROAD DIST. NO.		ILL. ROAD	PROJECT	
		Dmg. No. 24 of 28		



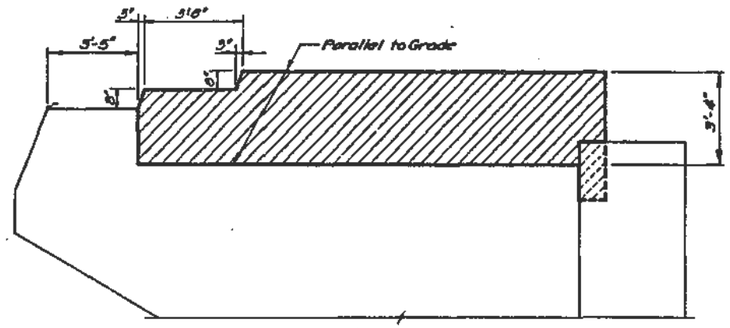
ELEVATION



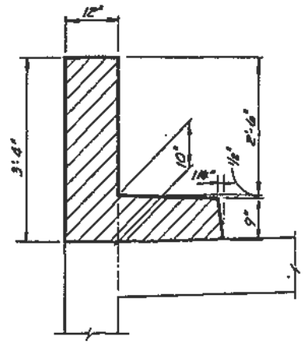
PLAN

NOTES

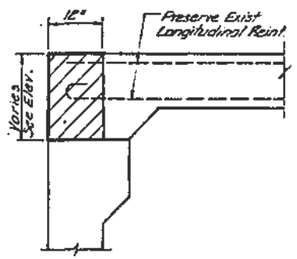
1. EXISTING REINFORCEMENT WHICH IS TO BE REUSED IN THE NEW CONSTRUCTION AND EXTENDS INTO REMOVAL AREAS SHALL BE PRESERVED.



SECTION A-A



SECTION B-B



SECTION C-C

LEGEND

Concrete Removal

BILL OF MATERIAL

(FOUR ABUTMENTS)

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yds.	32

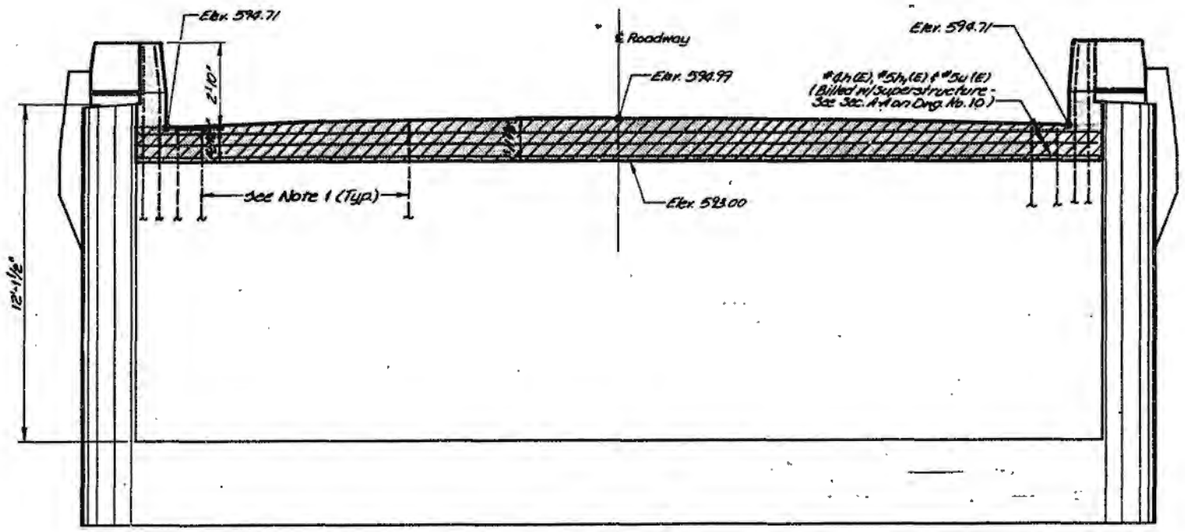
DESIGNED BY:	RDP	6-92
DRAWN BY:	WEM	6-92
CHECKED BY:	JRF	6-92
APPROVED BY:	RDP	6-92

ESCA CONSULTANTS, INC.

CONCRETE REMOVAL (ABUTMENTS)

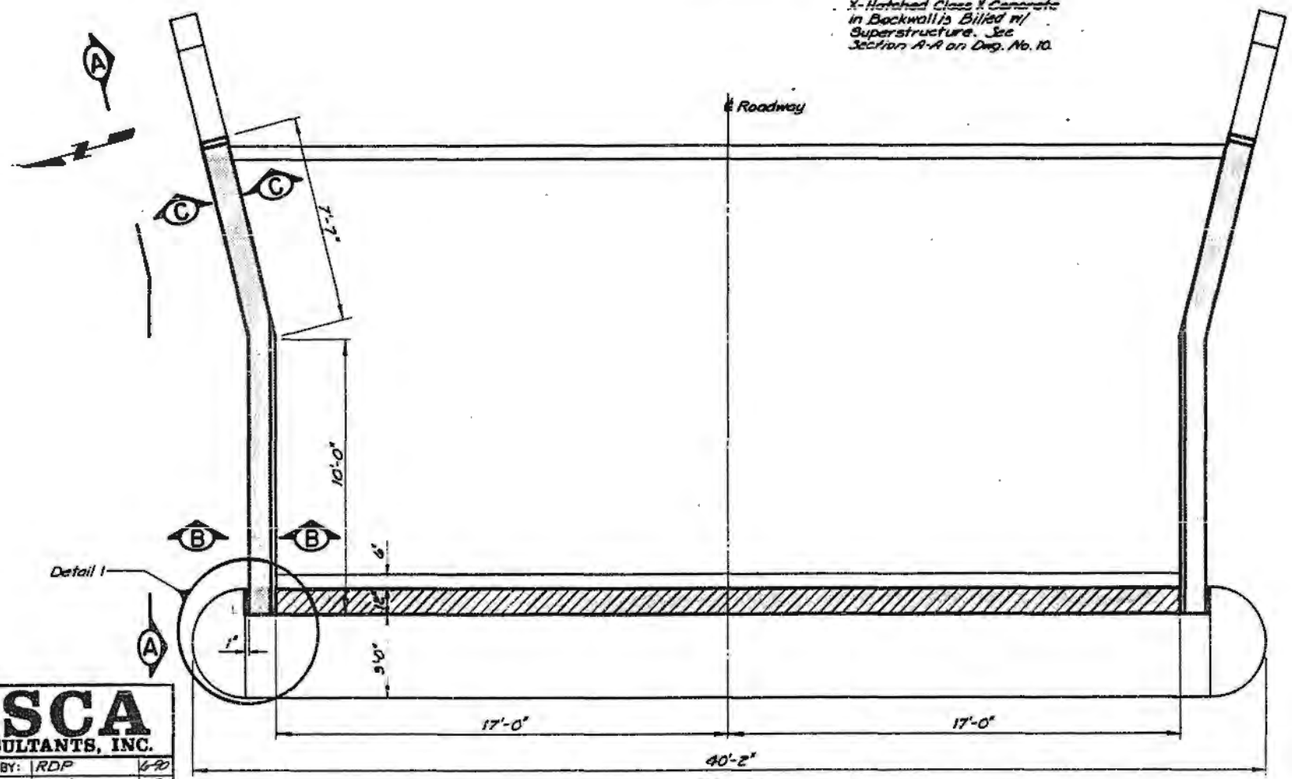
FAI 74 OVER SALT FORK
FAI RTE. 74 SECTION 92-11BR
VERMILION COUNTY
STATION 1755+16.00
STRUCTURE NO 092-0006(EB)
STRUCTURE NO. 092-0007(WB)

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-74	92-1BR	Vermilion	105	84
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	PROJECT	
		Dwg. No. 25 of 28		

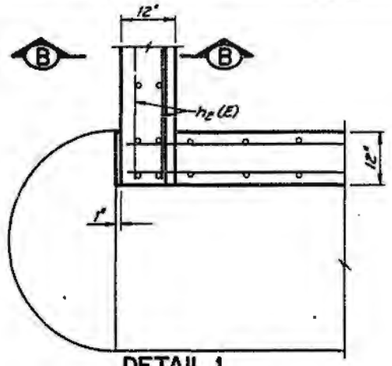


ELEVATION

Note
X-Hatched Class X Concrete in Backwalls Billed w/ Superstructure. See Section A-A on Dwg. No. 10.



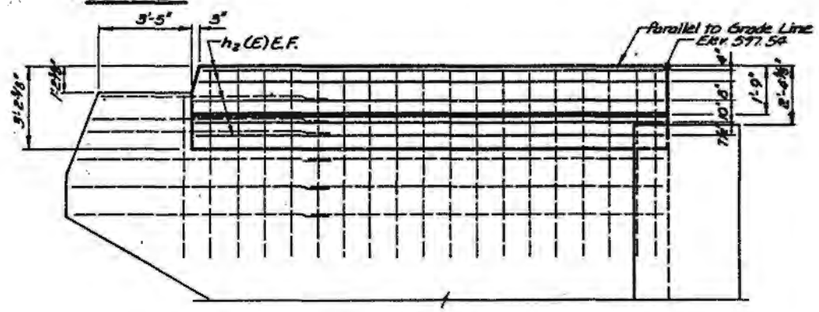
PLAN



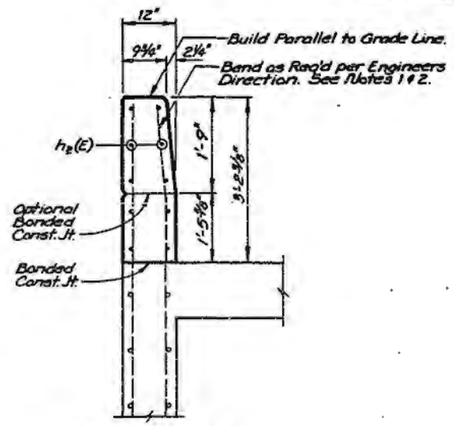
DETAIL 1

NOTES

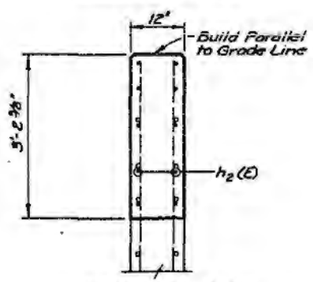
1. EXISTING REINFORCEMENT EXTENDING INTO REMOVAL AREA SHALL BE CLEANED, STRAIGHTENED OR BENT AND REALIGNED AS REQUIRED, AND INCORPORATED INTO NEW CONSTRUCTION. COST INCIDENTAL.
2. CUT OFF EXCESS LENGTH OF EXISTING REINFORCEMENT BARS AS DIRECTED BY THE ENGINEER TO PROVIDE 1-1/2" CLEAR COVER.
3. SHADED AREA SHALL BE POURED AFTER SUPERSTRUCTURE FORMS HAVE BEEN REMOVED.
4. EXISTING NAMEPLATE SHALL BE REMOVED, CLEANED AND REINSTALLED. SEE DWGS. 1 & 2 FOR LOCATIONS. COST INCIDENTAL TO CLASS X CONCRETE.
5. REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.



SECTION A-A



SECTION B-B



SECTION C-C

BILL OF MATERIAL
(TWO ABUTMENTS)

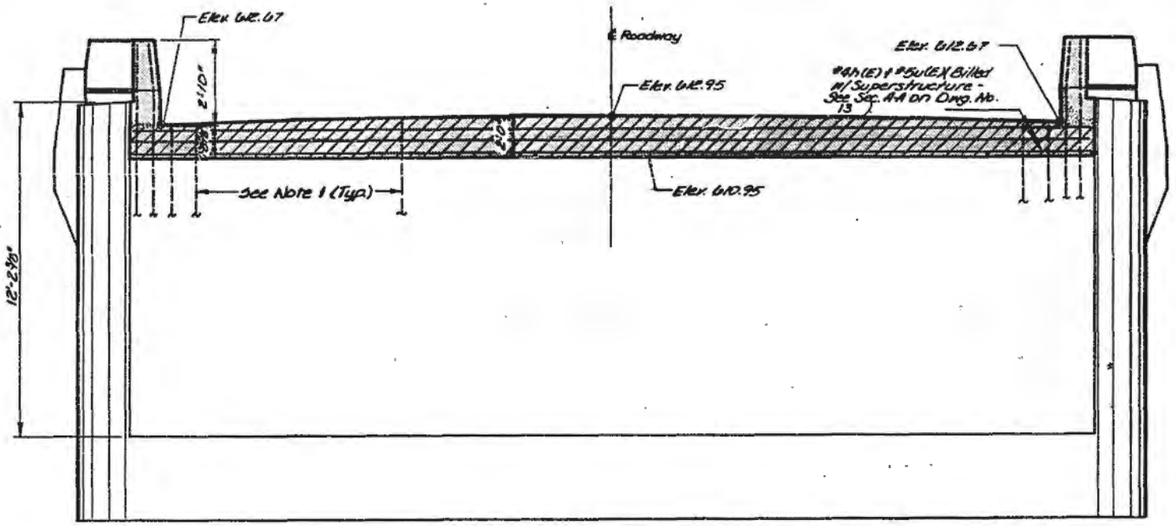
	BAR	NO.	SIZE	LENGTH	SHAPE
*	h2(E)	40	#6	17'-3"	—
	ITEM			UNIT	QUANTITY
	Reinforcement Bars (Epoxy Coated)			Lbs.	491
	Class X Concrete			Cu Yds.	13.1

* Field Bend as Req'd.

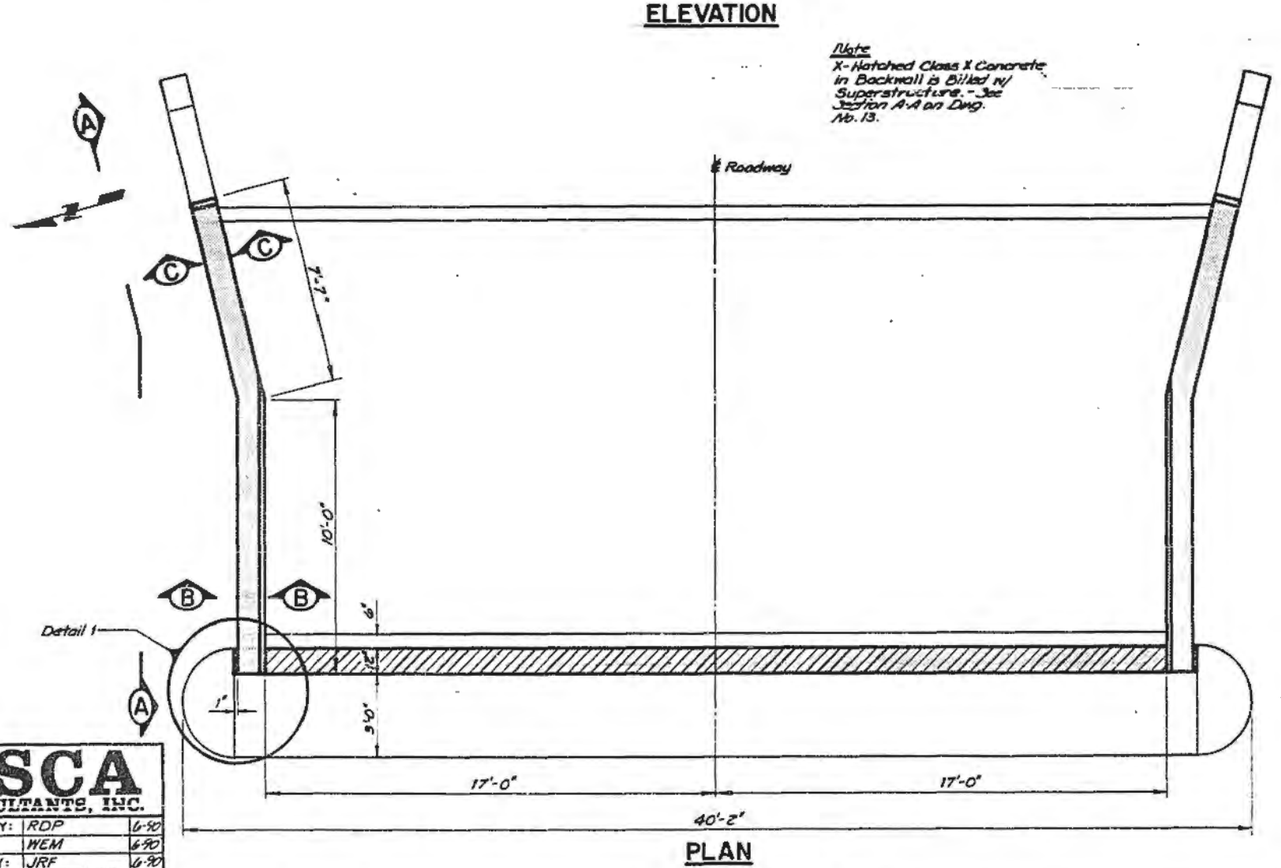
EAST ABUTMENTS
FAI 74 OVER SALT FORK
FAI RTE. 74 SECTION 92-1BR
VERMILION COUNTY
STATION 1755+16.00
STRUCTURE NO 092-0006(EB)
STRUCTURE NO. 092-0007(WB)

ESCA CONSULTANTS, INC.		
DESIGNED BY:	RDP	6-92
DRAWN BY:	WEM	6-92
CHECKED BY:	JRF	6-92
APPROVED BY:	RDP	6-92

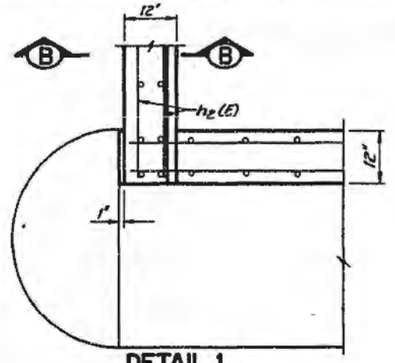
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-74	92-11BR	Vermilion	165	87
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	PROJECT	
			Dwg. No. 26 of 28	



ELEVATION



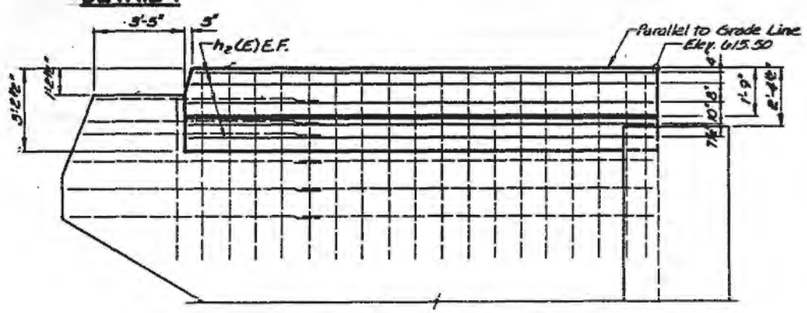
PLAN



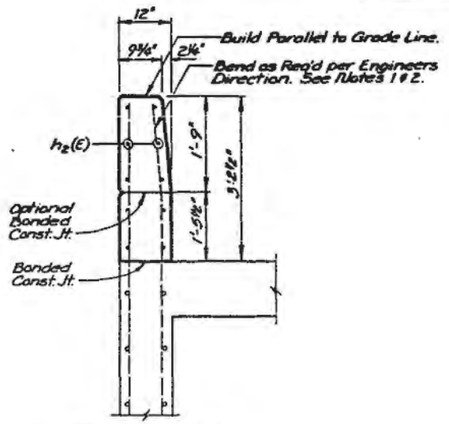
DETAIL 1

NOTES

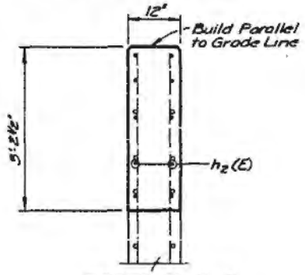
1. EXISTING REINFORCEMENT EXTENDING INTO REMOVAL AREA SHALL BE CLEANED, STRAIGHTENED OR BENT AND REALIGNED AS REQUIRED, AND INCORPORATED INTO NEW CONSTRUCTION. COST INCIDENTAL.
2. CUT OFF EXCESS LENGTH OF EXISTING REINFORCEMENT BARS AS DIRECTED BY THE ENGINEER TO PROVIDE 1-1/2" CLEAR COVER.
3. SHADED AREA SHALL BE POURED AFTER SUPERSTRUCTURE FORMS HAVE BEEN REMOVED.
4. EXISTING NAMEPLATE SHALL BE REMOVED, CLEANED AND REINSTALLED. SEE DWGS. 1 & 2 FOR LOCATIONS. COST INCIDENTAL TO CLASS X CONCRETE.
5. REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.



SECTION A-A



SECTION B-B



SECTION C-C

BILL OF MATERIAL
(TWO ABUTMENTS)

	BAR	No.	SIZE	LENGTH	SHAPE
*	h₂(E)	40	#4	17'-3"	—

ITEM	UNIT	QUANTITY
Reinforcement Bars (Epoxy Coated)	Lbs.	491
Class X Concrete	Cu.Yds.	13.1

* Field Bend as Req'd.

WEST ABUTMENTS
FAI 74 OVER SALT FORK
FAI RTE. 74 SECTION 92-11BR
VERMILION COUNTY
STATION 1755+16.00
STRUCTURE NO 092-0006(EB)
STRUCTURE NO. 092-0007(WB)

ESCA CONSULTANTS, INC.		
DESIGNED BY:	RDP	6-90
DRAWN BY:	WEM	6-90
CHECKED BY:	JRF	6-90
APPROVED BY:	RDP	6-90

ESCA CONSULTANTS

ESCA CONSULTANTS, INC.
1606 Willow View Road 2J
P.O. Box 159
URBANA, ILLINOIS 61801
(217) 384-0505
FAX (217) 384-0506

JOB 092-0006, 0007 Pier 1A
SHEET NO. 4 OF
CALCULATED BY RDP DATE 6/5/92
CHECKED BY JRF DATE 6/8/92
SCALE

BILL OF MATERIAL
(Total for 1 Pier)

Bar	No.	Size	Length	Shape
U(E)	16	#4	10'-4"	
V(E)	30	#9	14'-2"*	
V_1(E)	24	#6	7'-6"*	
V_2(E)	24	#6	6'-10"*	
V_3(E)	16	#5	8'-9"	

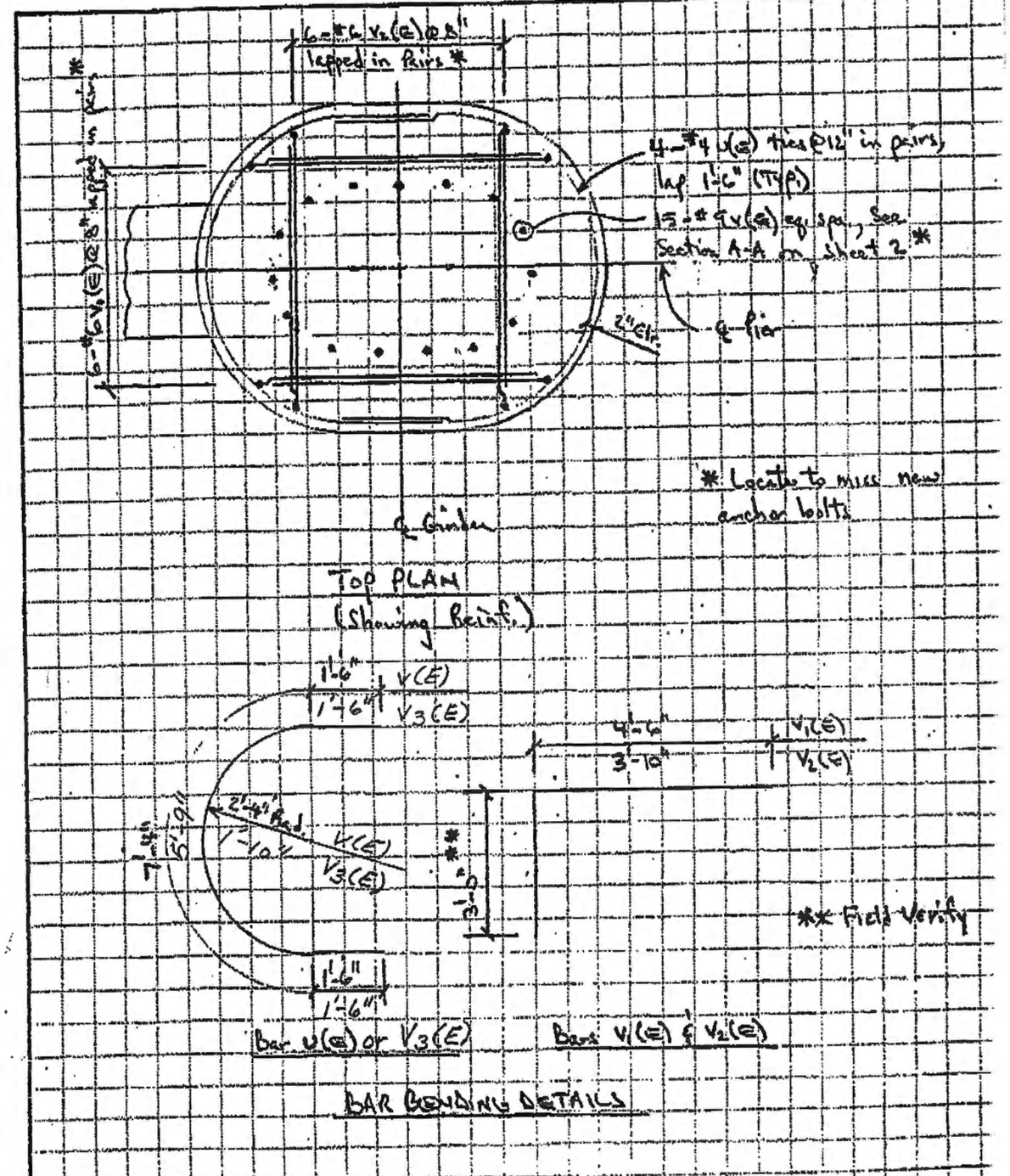
* Field Verify

Item	Unit	Quantity
Class X Concrete	Cu. Yds.	6.1*
Reinforcement Bars, Epoxy Ctd.	Lbs.	1200*
Concrete Removal	Cu. Yds.	2.8*

ESCA CONSULTANTS

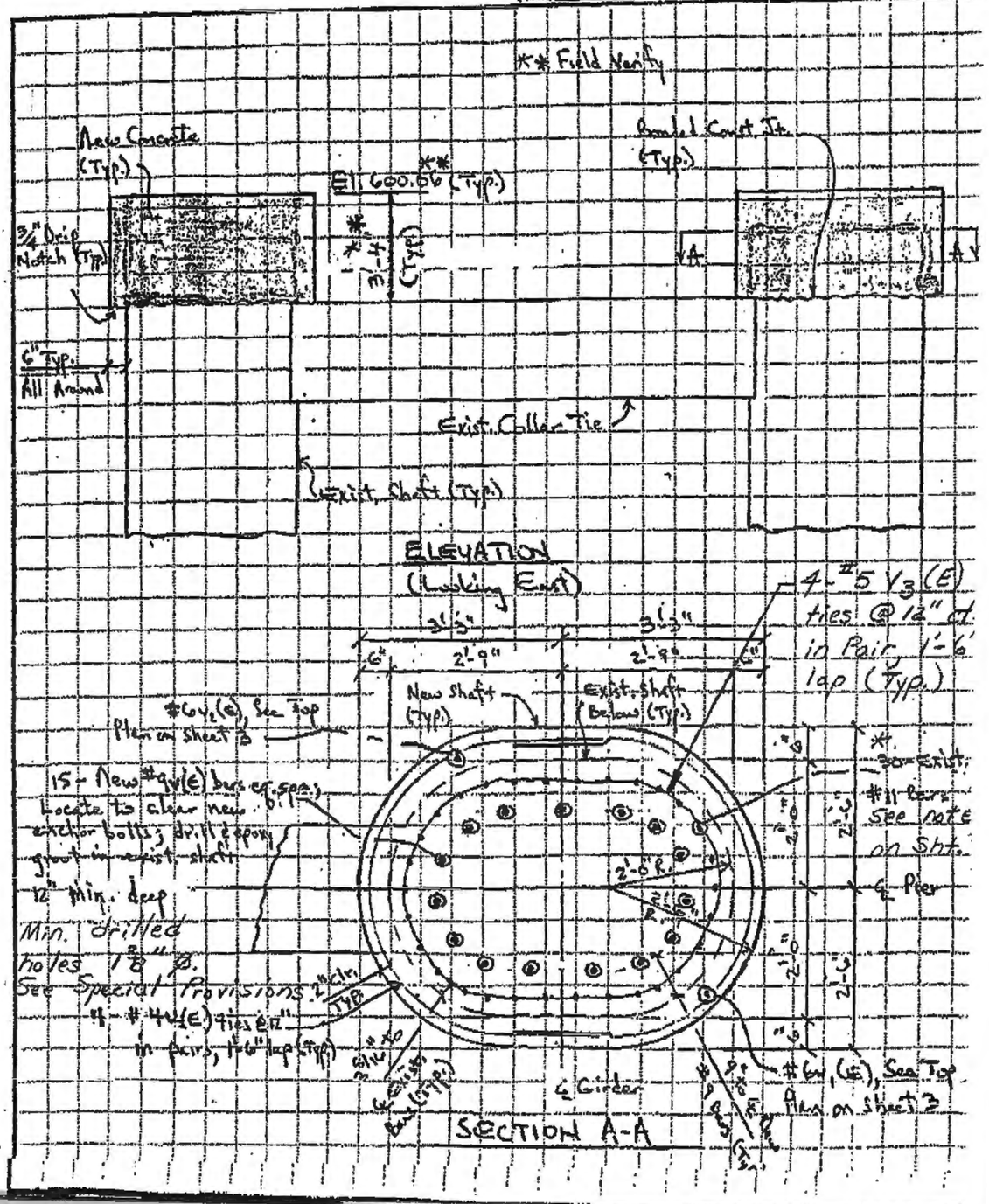
ESCA CONSULTANTS, INC.
1606 Willow View Road 2J
P.O. Box 159
URBANA, ILLINOIS 61801
(217) 384-0505
FAX (217) 384-0506

JOB 092-0006, 0007 Pier 1A
SHEET NO. 3 OF
CALCULATED BY RDP DATE 6/5/92
CHECKED BY JRF DATE 6/8/92
SCALE



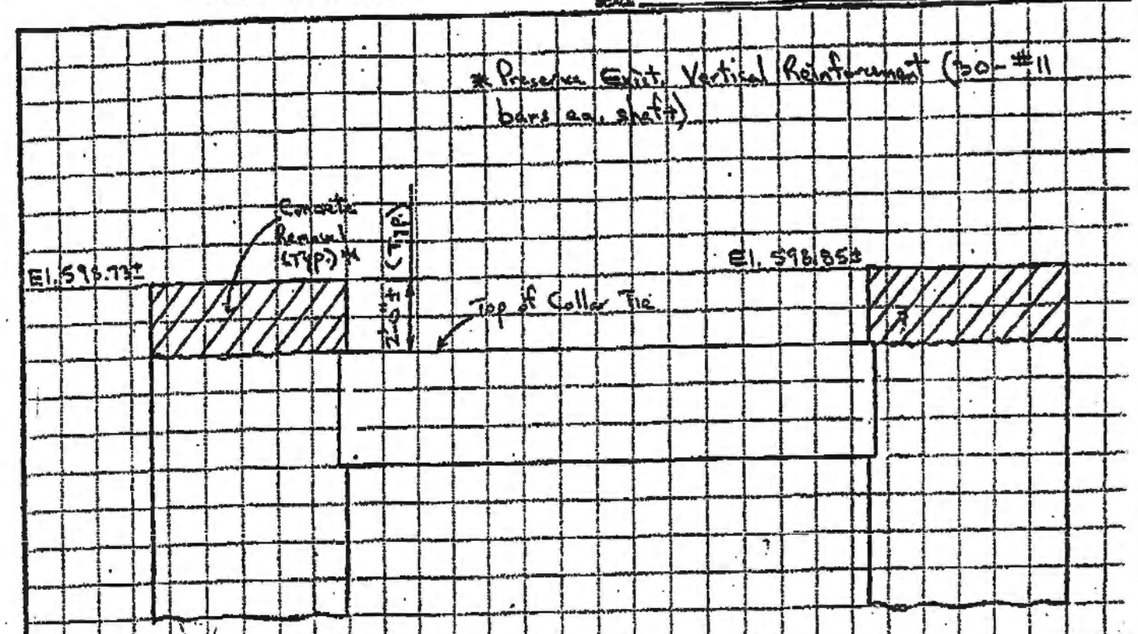
ESCA CONSULTANTS, INC.
1606 Willow View Road 2J
P.O. Box 159
URBANA, ILLINOIS 61801
(217) 384-0505
FAX (217) 384-0506

JOB 092-6006,000 SHEET NO. 2 OF
CALCULATED BY RDP DATE 6/3/92
CHECKED BY JRF DATE 6/8/92
SCALE



ESCA CONSULTANTS, INC.
1606 Willow View Road 2J
P.O. Box 159
URBANA, ILLINOIS 61801
(217) 384-0505
FAX (217) 384-0506

JOB 092-6006,000 SHEET NO. 1 OF
CALCULATED BY RDP DATE 6/3/92
CHECKED BY JRF DATE 6/8/92
SCALE



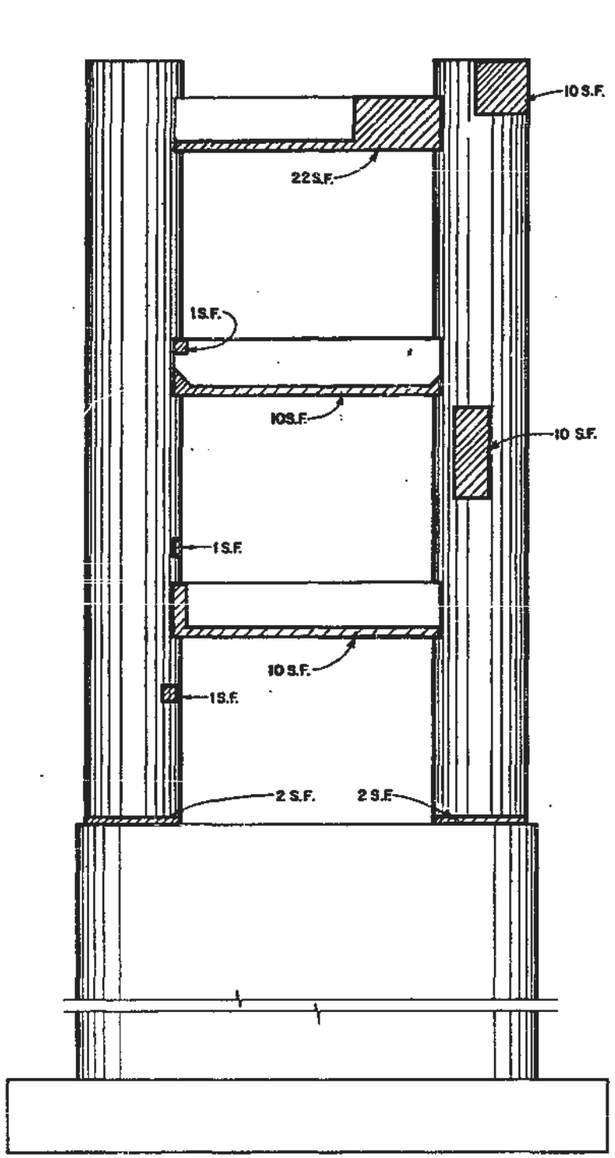
* Existing Vertical Reinforcement extending into new Construction shall be cleaned, straightened and incorporated into new construction.

NOTES

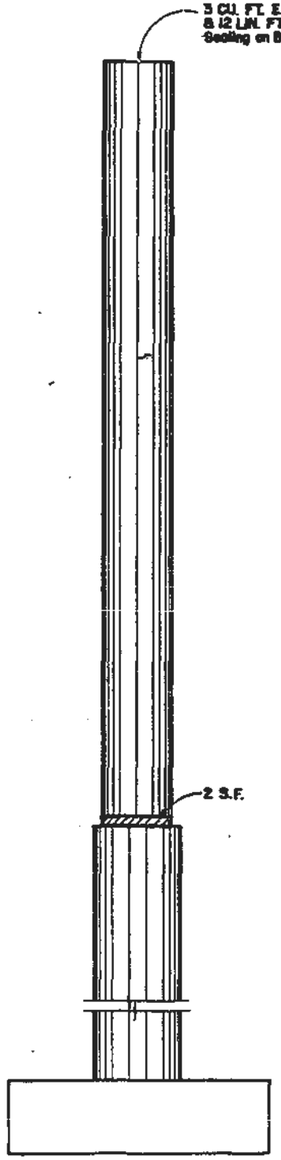
1. REPAIR LOCATIONS SHOWN ARE APPROXIMATE AND MUST BE VERIFIED IN THE FIELD BY THE ENGINEER. THE CONTRACTOR SHALL NOT COMMENCE ANY REMOVAL RELATED TO CONCRETE REPAIR UNTIL APPROVED BY THE ENGINEER.
2. SEE SPECIAL PROVISIONS FOR CONCRETE REPAIR METHODS.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-74	92-1IBR	Vermilion	165	88
STA.		TO STA.		
FED. ROAD DIST. NO.		STATE	PROJECT	

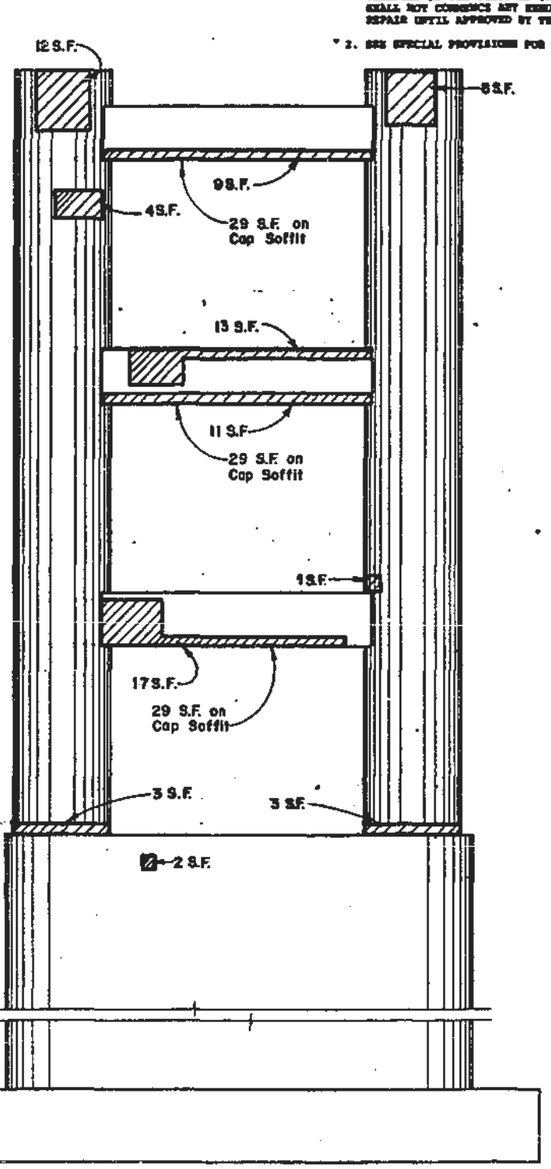
Dwg. No. 27 of 28



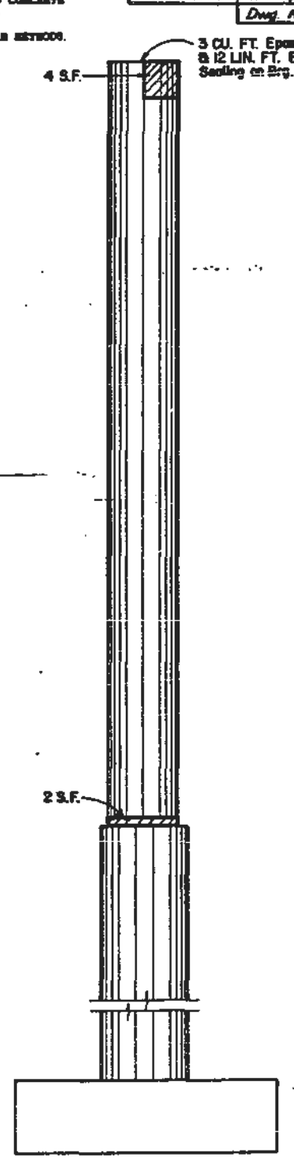
ELEVATION
(LOOKING WEST)



END VIEW
(LOOKING SOUTH)



ELEVATION
(LOOKING EAST)



END VIEW
(LOOKING NORTH)

ESCA
CONSULTANTS, INC.

DESIGNED BY:	RDP	6-92
DRAWN BY:	GGB	6-92
CHECKED BY:	JRF	6-92
APPROVED BY:	RDP	6-92

LEGEND

▨ MOD. PORT. CEM. MORTAR REPAIR

BILL OF MATERIAL

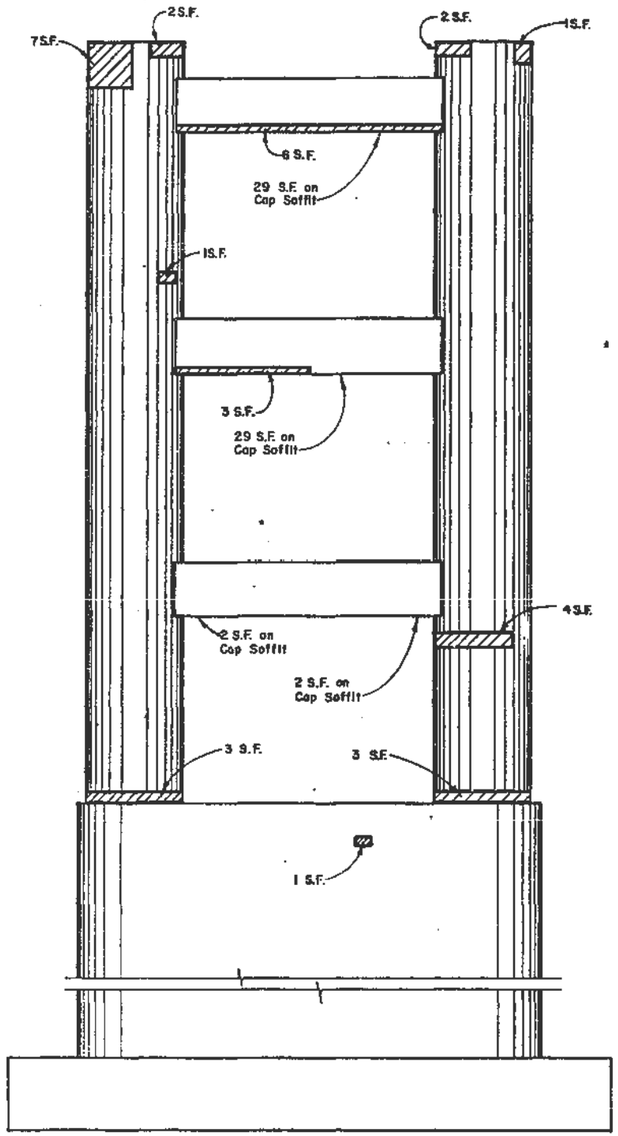
ITEM	UNIT	QUANTITY
Mod. Port. Cem. Mortar Repair	Sq. Ft.	247
Epoxy Mortar Repair	Cu. Ft.	6
Epoxy Crack Sealing	Lin. Ft.	24

EASTBOUND LANES
PIER 1A CONCRETE REPAIRS
FAI 74 OVER SALT FORK
FAI RTE. 74 SECTION 92-1IBR
VERMILION COUNTY
STATION 1755+16.00
STRUCTURE NO 092-0006(EB)
STRUCTURE NO. 092-0007(WB)

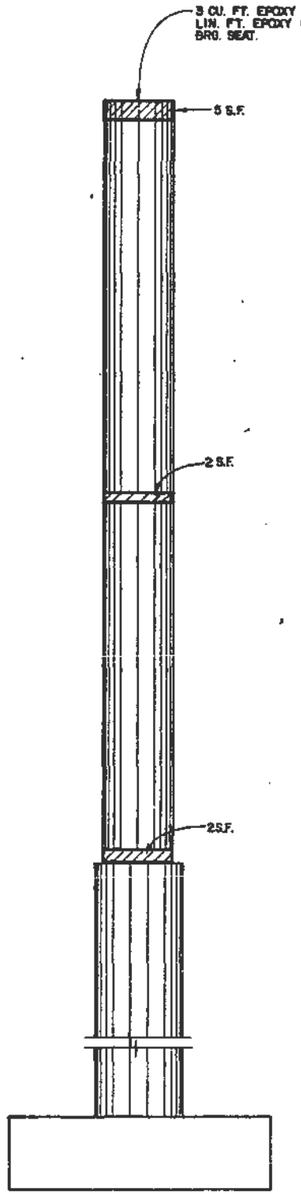
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-74	92-1BR	Vermilion	45	29
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	PROJECT	
		Dwg. No. 28 of 28		

NOTES

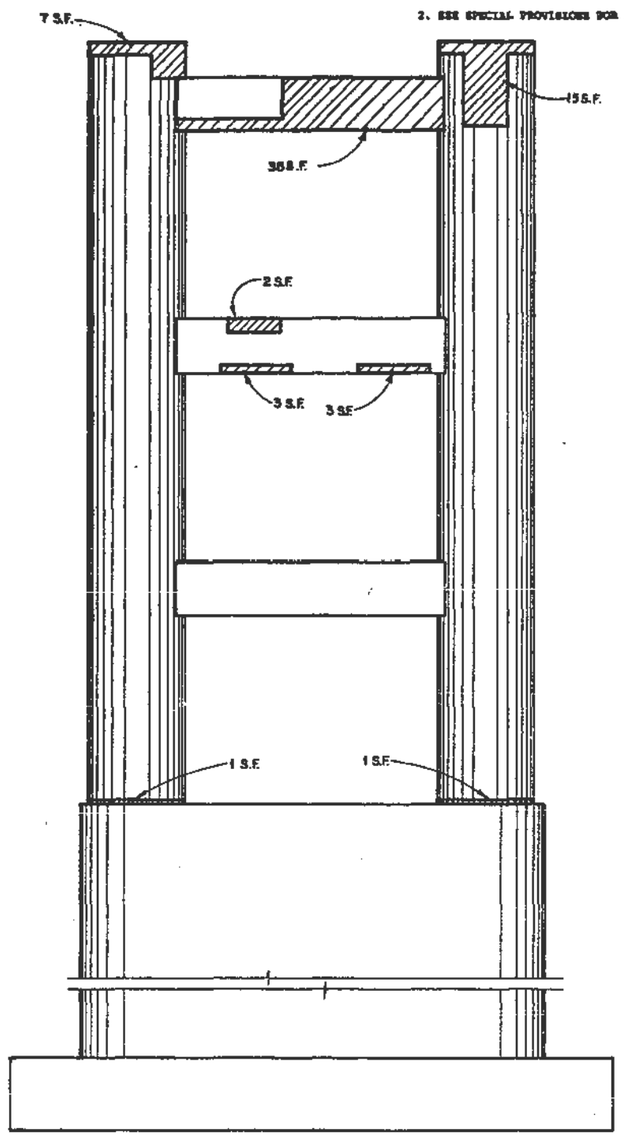
1. REPAIR LOCATIONS SHOWN ARE APPROXIMATE AND MUST BE VERIFIED IN THE FIELD BY THE ENGINEER. THE CONTRACTOR SHALL NOT COMMENCE ANY REMOVAL RELATED TO CONCRETE REPAIR UNTIL APPROVED BY THE ENGINEER.
2. SEE SPECIAL PROVISIONS FOR CONCRETE REPAIR METHODS.



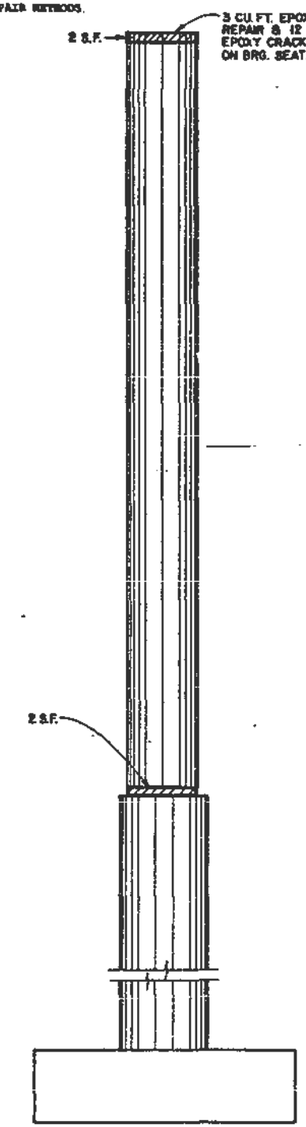
ELEVATION
(LOOKING WEST)



END VIEW
(LOOKING SOUTH)



ELEVATION
(LOOKING EAST)



END VIEW
(LOOKING NORTH)

ESCA
CONSULTANTS, INC.

DESIGNED BY:	RDP	6-90
DRAWN BY:	GGB	6-90
CHECKED BY:	JAF	6-90
APPROVED BY:	RDP	6-90

LEGEND

▨ MOD. PORT. CEM. MORTAR REPAIR

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Mod. Port. Cem. Mortar Repair	Sq. Ft.	175
Epoxy Mortar Repair	Cu. Ft.	6
Epoxy Crack Sealing	Lin. Ft.	24

WESTBOUND LANES
PIER 1A CONCRETE REPAIRS

FAI 74 OVER SALT FORK
FAI RTE. 74 SECTION 92-1IBR
VERMILION COUNTY
STATION 1755+16.00
STRUCTURE NO 092-0006(EB)
STRUCTURE NO. 092-0007(WB)

3/12/2008

F.A.I. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	*	VERMILION	12	1

* D5 SCOUR MITIGATION 2008-1 CONTRACT NO. 70013

6-13-08 Letting, Item 171

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS

F.A.I. ROUTE 74
SECTION D5 SCOUR MITIGATION 2008-1
VERMILION COUNTY

C-95-047-99

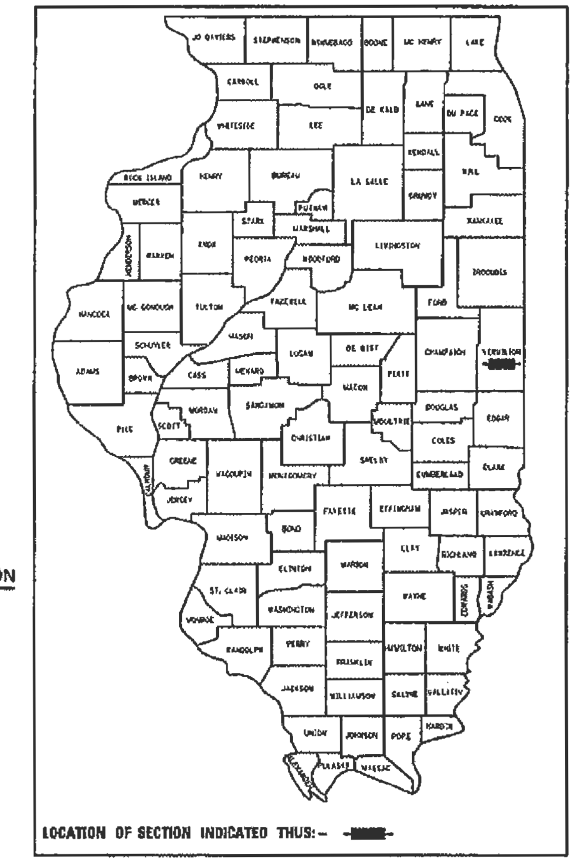
VARIOUS DISTRICT WIDE SCOUR MITIGATION

FOR INDEX OF SHEETS, SEE SHEET NO. 2
FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 4

AS-BUILT PLANS

Resident: T. Shane Robinson
Contractor: O'Neil Bros.
Date Started: Nov. 03, 2008
Date Completed: Dec. 03, 2008

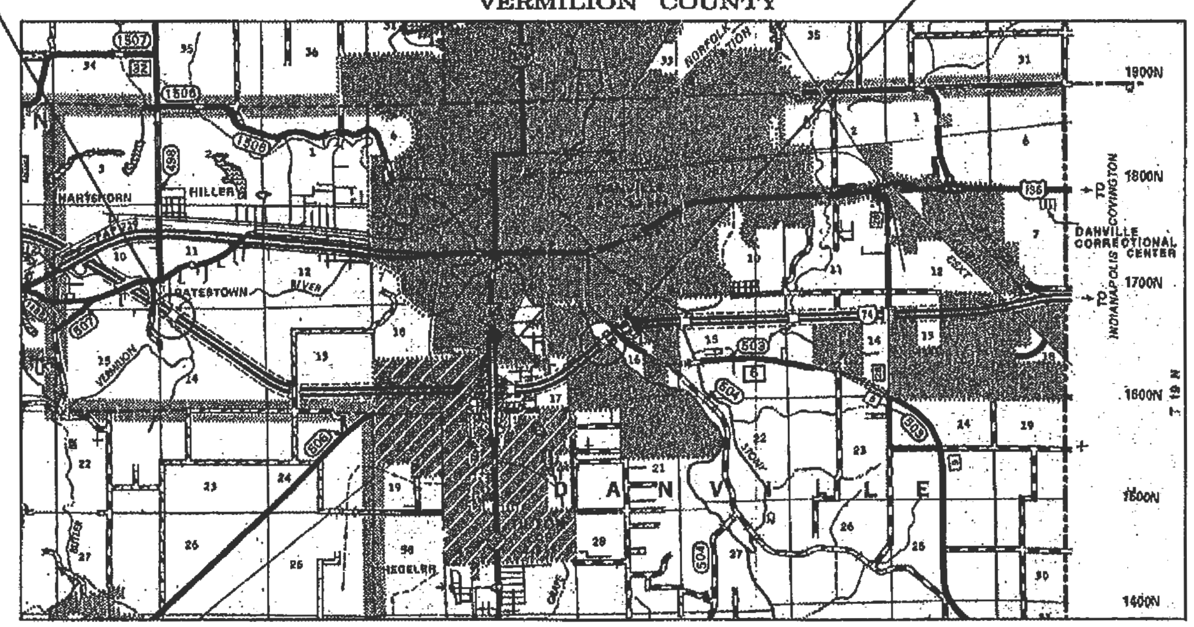
D-95-019-99



SECTION: D-5 SCOUR MITIGATION
LOCATION NO. 1
S.N. 092-0006 (EB) &
S.N. 092-0007 (WB)
STATION 1755+16.00

SECTION: D-5 SCOUR MITIGATION
LOCATION NO. 2
S.N. 092-0014 (WB) &
S.N. 092-0015 (EB)
STATION 1992+54.00

VERMILION COUNTY



SCALE: 0 1 2 3 4 5 MILES / 0 5000 10000 15000 20000 25000 FEET

CURRENT ADT /DESIGN ADT

CURRENT ADT 20,500 (2005) - LOCATION #1
CURRENT ADT 27,600 (2005) - LOCATION #2

DESIGN DESIGNATION

N/A

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

PROJECT ENGINEER: TIM BRANDENBURG
SQUAD LEADER: EURNIE GARVER
DESIGNER: BRIAN HOGAN
(217)465-4181

CONTRACT NO. 70013

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED 3/12 20 08
Joseph E. Crowe
DEPUTY DIRECTOR OF HIGHWAYS, REGION THREE ENGINEER
May 9, 20 08
Interim Eric E. Harm
ENGINEER OF DESIGN AND ENVIRONMENT
May 9, 20 08
Christine M. Reed
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

TOTAL LENGTH OF SECTION & PROJECT = N.A.
NET LENGTH OF SECTION & PROJECT = N.A.

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3/12/2008

F.A.I. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	*	VERMILION	12	2

* D5 SCOUR MITIGATION 2008-1 CONTRACT NO. 70013

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	INDEX OF SHEETS
2	LIST OF HIGHWAY STANDARDS
3	GENERAL NOTES
4	SUMMARY OF QUANTITIES
5	PLAN SHEET S.N. 092-0006 & 0007
6	PROFILE SHEET S.N. 092-0006 & 0007
7	PLAN SHEET S.N. 092-0014 & 0015
8	PROFILE SHEET S.N. 092-0014 & 0015
9-10	DETAILS
11-12	SUGGESTED CONTRACTOR ACCESS ROUTES

LIST OF HIGHWAY STANDARDS

STANDARD NO.	DESCRIPTION
000001-05	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
001006	DECIMAL OF AN INCH AND OF A FOOT
665001-01	WOVEN WIRE FENCE
701101-01	OFF-ROAD OPERATIONS, MULTILANE, 4.5 m (15') TO 600 mm (24") FROM PAVEMENT EDGE
701106-01	OFF-ROAD OPERATIONS, MULTILANE, MORE THAN 4.5 m (15') AWAY
701400-02	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
701406-04	LANE CLOSURE, FREEWAY/EXPRESSWAY, DAY OPERATIONS ONLY
701901	TRAFFIC CONTROL DEVICES

ILLINOIS DEPARTMENT OF TRANSPORTATION
INDEX OF SHEETS AND
LIST OF HIGHWAY STANDARDS
F.A.I. ROUTE 74
SECTION D5 SCOUR MITIGATION 2008-1
VERMILION COUNTY

SCALE: N/A DRAWN BY: CADD
DATE: 02-07-08 CHECKED BY

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5/13/2008

F.A.I. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	*	VERMILION	12	3
DISTRICT	SUBSEC	PROJECT		

* D5 SCOUR MITIGATION 2008-1 CONTRACT NO. 70813

GENERAL NOTES

G. N. -100
ENGLISH UNITS OF MEASUREMENT SHALL GOVERN OVER AND SUPERSEDE ANY METRIC UNITS SHOWN IN THIS CONTRACT. WHERE INCLUDED, METRIC UNITS ARE FOR INFORMATION ONLY.

G. N. -105.07B
EXISTING STATE-OWNED AND MAINTAINED UTILITY LINES ARE SHOWN ON THE PLANS TO INDICATE THEIR PRESENCE AND APPROXIMATE LOCATION. THE CONTRACTOR SHALL SECURE AN APPROVED LOCATING FIRM TO LOCATE STATE-OWNED UTILITIES PRIOR TO COMMENCING ANY EXCAVATION IN THE VICINITY OF THESE LINES IN ACCORDANCE TO SECTION 803 OF THE STANDARD SPECIFICATIONS. SHOULD ANY OF THE LINES BE DAMAGED BY THE CONTRACTOR'S OPERATION, THE CONTRACTOR SHALL REPAIR THEM TO THE SATISFACTION OF THE ENGINEER AT NO COST TO THE STATE.

ALSO THERE MAY BE UTILITIES PRESENT WHICH WERE INSTALLED BY THE STATE BUT ARE MAINTAINED BY OTHERS (CITY, TOWN, ETC.) THE APPROXIMATE LOCATIONS OF THESE LINES ARE ALSO SHOWN ON THE PLANS ALONG WITH THE NAME OF THE MAINTAINING AGENCY. THE CONTRACTOR SHALL COORDINATE THE LOCATION OF THESE LINES WITH THE LOCAL AGENCY PRIOR TO COMMENCING ANY EXCAVATION OR BORING IN THEIR VICINITY. SHOULD THESE LINES BE DAMAGED BY THE CONTRACTOR'S OPERATIONS, THE CONTRACTOR SHALL REPAIR THEM TO THE SATISFACTION OF, AND AT NO COST TO, THE LOCAL AGENCY AND THE STATE.

MR. ADRIAN GREENWELL - HIGHWAY LIGHTING
ILLINOIS DEPARTMENT OF TRANSPORTAIION
13473 IL HWY 133
P.O. BOX 610
PARIS, IL 61944

G. N. -105.09A
ALL ELEVATIONS SHOWN IN THE PLANS ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988. (NAVD 88)

G. N. -281
THE RIPRAP GRADATION SHALL BE IN ACCORDANCE WITH THE GRADATION SPECIFIED IN THE PLANS OR, WITH APPROVAL OF THE ENGINEER, A RIPRAP GRADATION MEETING A D50 GREATER THAN OR EQUAL TO 0.8 FEET FOR A4 AND 1.1 FEET FOR A5. D50 IS DEFINED AS THE MEAN ROCK SIZE AS DESCRIBED IN THE FHWA HYDRAULIC ENGINEERING CIRCULARS (HEC 11, HEC 14 AND HEC 15).

IF GRAVEL IS USED FOR THE BEDDING MATERIAL UNDER RIPRAP, THE GRAVEL SHALL BE CRUSHED AS ALLOWED UNDER ARTICLE 1005.01.

ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

F.A.I. ROUTE 74
SECTION D5 SCOUR MITIGATION 2008-1
VERMILION COUNTY

SCALE: N/A | DRAWN BY: CADD
DATE: 02-07-08 | CHECKED BY

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5/13/2008

F.A.I. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	*	VERMILION	12	4

* D5 SCOUR MITIGATION 2008-1 **CONTRACT NO. 70013**

SUMMARY OF QUANTITIES

LOCATION OF WORK: VERMILION COUNTY / URBAN MULTILANE / 100% STATE / MINOR / STRUCTURE / REPAIR

CONSTRUCTION TYPE CODE: SFTY-2A

CODE NO.	ITEM		UNIT		TOTAL QUANITY	LOCATION #1 (STR. #092-0006 & #092-0007)	LOCATION #2 (STR. #092-0014 & #092-0015)
28100107	STONE RIPRAP, CLASS A4		SQ YD	811.6	~~804.0~~	~~776.0~~ 783.8	~~28.0~~ 27.8
28100709	STONE DUMPED RIPRAP, CLASS A5		SQ YD	1069.7	~~1050.0~~	~~431.0~~ 412.1	~~619.0~~ 657.6
28200200	FILTER FABRIC		SQ YD	811.6	~~804.0~~	~~776.0~~ 783.8	~~28.0~~ 27.8
50102500	CONCRETE REMOVAL (SPECIAL)		CU YD		23.0	23.0	0.0
66500105	WOVEN WIRE FENCE, 4'	DELETED	FOOT	0	~~50.0~~	50.0	0.0
66502300	WOVEN WIRE FENCE REMOVAL	DELETED	FOOT	0	~~50.0~~	50.0	0.0
67100100	MOBILIZATION		L SUM		1.0	0.5	0.5
70100700	TRAFFIC CONTROL AND PROTECTION, STANDARD 701406	DELETED	L SUM	0	~~1.0~~	1.0	0.0
X0325888	TEMPORARY CULVERT 24"	DELETED	FOOT	0	~~100.0~~	100.0	0.0
X7015005	CHANGEABLE MESSAGE SIGN	DELETED	CAL DA	0	~~14.0~~	14.0	0.0
XX006681	REMOVE AND SALVAGE EROSION CONTROL BLOCK		L SUM		1.0	1.0	0.0

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITIES
F.A.I. ROUTE 74
SECTION D5 SCOUR MITIGATION 2008-1
VERMILION COUNTY
SCALE: N/A DRAWN BY: CADD
DATE: 02-07-08 CHECKED BY

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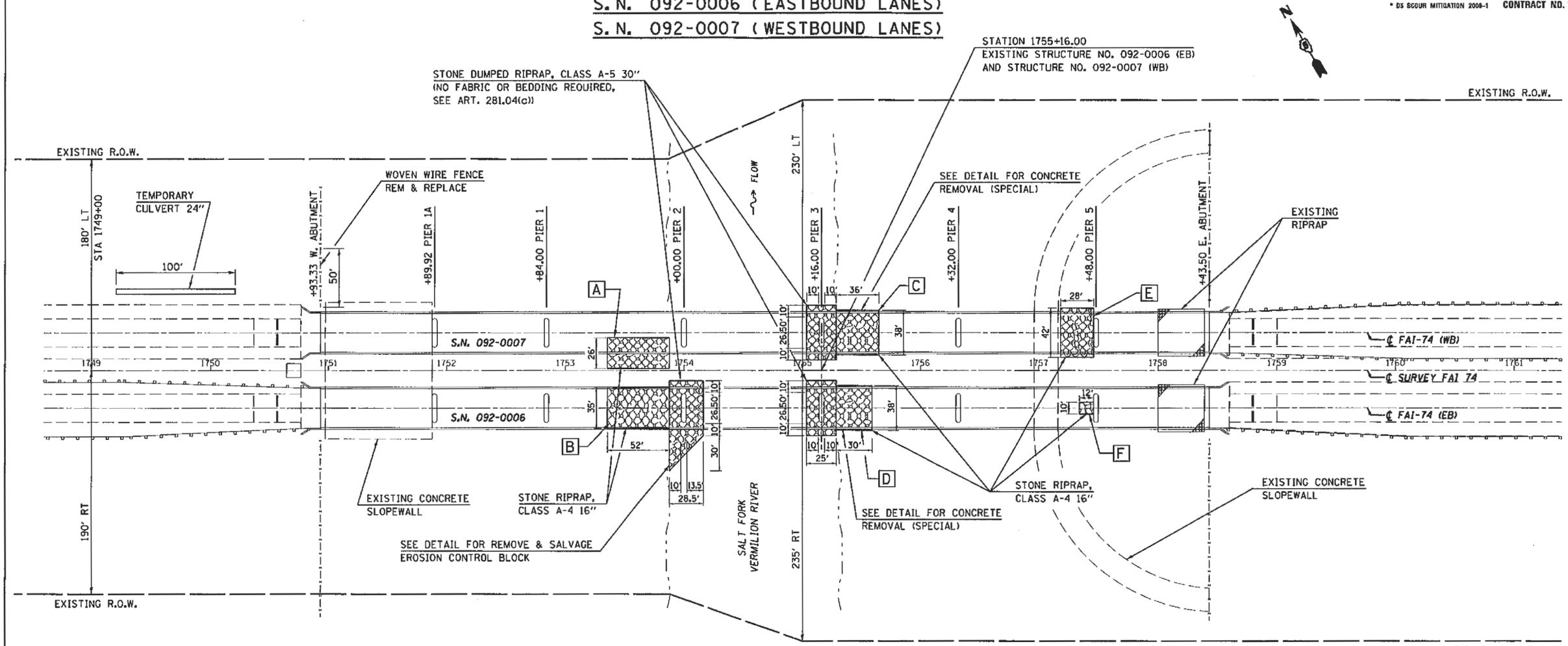
F.A.I. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	*	VERMILION	12	5
F.A.P.R. RTE.	ILLINOIS	PROJECT		

* D5 SCOUR MITIGATION 2008-1 CONTRACT NO. 70013

S. N. 092-0006 (EASTBOUND LANES)
S. N. 092-0007 (WESTBOUND LANES)



SCOUR REPAIR SCHEDULE

LOCATION	FABRIC AREA(SY)	REPAIR AREA(SY)	TYPE OF REPAIR	RIPRAP THICKNESS(IN)	BEDDING THICKNESS(IN)	RIPRAP ESTIMATED TONS	WOVEN WIRE FENCE(FT)	CONC. REMOVAL (SPECIAL)(CY)	REM & SALVAGE EROSION CONTROL BLOCK (L SUM)
PIER #2 (S)	0.0	185.0	A-5	30	0	238.0	50.0	0.0	1.0
PIER #3 (N)	0.0	123.0	A-5	30	0	157.5	0.0	0.0	0.0
PIER #3 (S)	0.0	123.0	A-5	30	0	157.5	0.0	0.0	0.0
A	150.0	150.0	A-4	16	6	101.0	0.0	0.0	0.0
B	202.0	202.0	A-4	16	6	135.0	0.0	0.0	0.0
C	152.0	152.0	A-4	16	6	101.0	0.0	11.5	0.0
D	127.0	127.0	A-4	16	6	85.0	0.0	11.5	0.0
E	131.0	131.0	A-4	16	6	88.0	0.0	0.0	0.0
F	14.0	14.0	A-4	16	6	9.0	0.0	0.0	0.0

NOTE:
UNDER NO CIRCUMSTANCES ARE THE BRIDGE PIER FOOTINGS TO BE UNCOVERED.

1"=40'
0' 10' 20' 30' 40' 80' 120'

ILLINOIS DEPARTMENT OF TRANSPORTATION
PLANS SHEETS
S.N. 092-0006 & S.N. 092-0007
F.A.I. ROUTE 74
SECTION D5 SCOUR MITIGATION 2008-1
VERMILION COUNTY
SCALE: N/A DRAWN BY: CADD
DATE: 02-07-08 CHECKED BY

3/12/2008

F.A.I. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	*	VERMILION	12	6
FAP/A.REG.	ILLINOIS	PROJECT		

* DS SCOUR MITIGATION 2008-1 CONTRACT NO. 70013

EXISTING ℄ GRADE F.A.I. 74

WEST ABUTMENT

EXISTING CONCRETE SLOPEWALL

EXISTING LOW BEAM GRADE

EAST ABUTMENT

EXISTING RIPRAP

EXISTING CHANNEL GRADE

EXISTING CONCRETE SLOPEWALL

534.65

535.12

533.99

524.77

508.34

509.31

10'

13.5'

10'

10'

30'

30'

PROFILE
SURVEYED
PLOTTED
CHECKED
GRADES CHECKED
NOTE BOOK
NO.
STRUCTURE NO FING CHKD
BY
DATE

PROFILE
SURVEYED
PLOTTED
CHECKED
GRADES CHECKED
NOTE BOOK
NO.
STRUCTURE NO FING CHKD
BY
DATE

S.N. 092-0006 (EASTBOUND LANES)
S.N. 092-0007 (WESTBOUND LANES)
PROFILE SHEET

CHANNEL ELEVATIONS	599.98	592.49	579.46	566.42	553.39	551.38	550.52	549.67	547.69	544.73	542.90	543.60	543.46	537.20	529.46	526.34	524.26	520.91	521.50	521.40	521.35	526.78	532.42	535.68	536.25	537.05	537.85	538.32	538.53	539.47	545.13	550.79	558.30	562.37	564.39	567.68	577.23
CENTER LINE ELEVATIONS	617.43	616.97	616.51	616.05	615.59	615.13	614.73	614.34	613.90	613.41	612.93	612.44	611.96	611.48	610.99	610.51	610.02	609.54	609.05	608.57	608.08	607.60	607.12	606.63	606.15	605.66	605.18	604.69	603.72	603.24	602.75	602.27	601.79	601.30	600.82	600.33	599.85	599.36	598.88	598.39	597.91	597.43	596.94	596.46	595.97	595.49	595.00	594.52	594.03	593.55	593.08	592.61	592.14	591.67	591.20	590.84	590.48	590.12	589.76	589.40
	1749+00	1749+50	1750+00	1750+50	1751+00	1751+50	1752+00	1752+50	1753+00	1753+50	1754+00	1754+50	1755+00	1755+50	1756+00	1756+50	1757+00	1757+50	1758+00	1758+50	1759+00	1759+50	1760+00	1760+50	1761+00													

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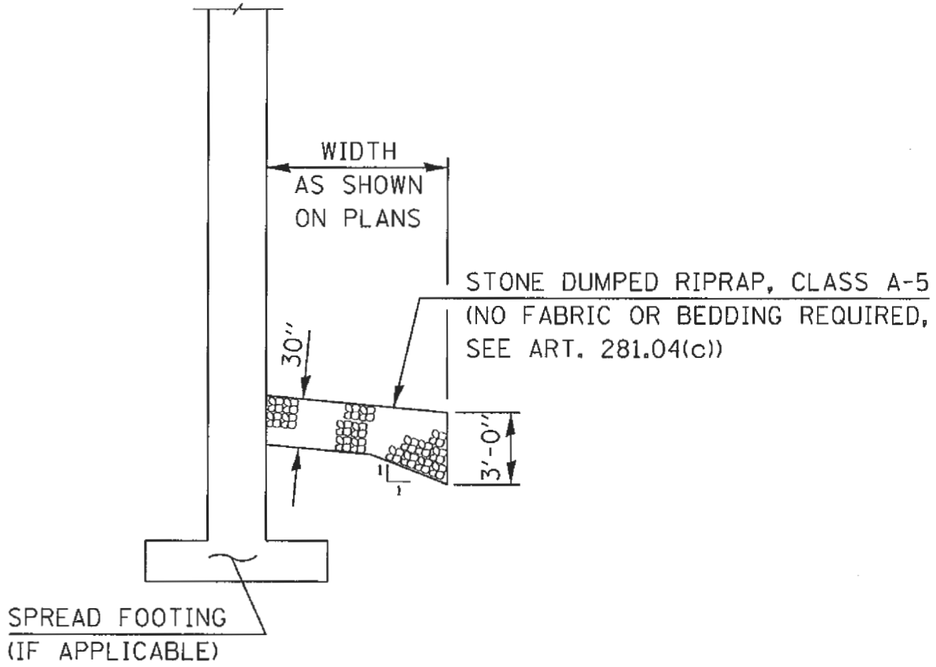
3/13/2008

F.A.I. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	*	VERMILION	12	9
F.A.P.R. RTE.	ILLINOIS	PROJECT		

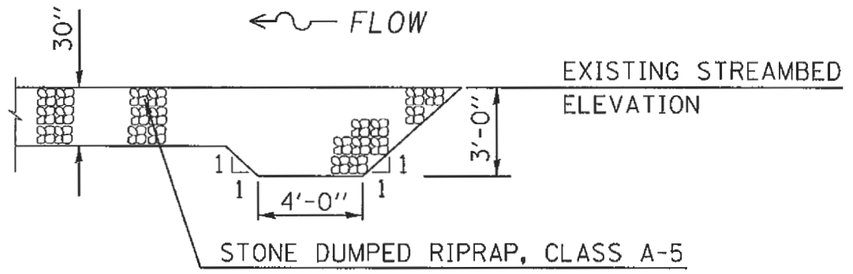
* D5 SCOUR MITIGATION 2008-1 CONTRACT NO. 70013

TYPICAL DETAIL FOR RIPRAP AT ABUTMENT OR PIER



NOTE:
UNDER NO CIRCUMSTANCES ARE THE BRIDGE PIER FOOTINGS TO BE UNCOVERED.

TYPICAL DETAIL FOR UPSTREAM EDGE OF RIPRAP



ILLINOIS DEPARTMENT OF TRANSPORTATION

DETAILS

F.A.I. ROUTE 74
SECTION D5 SCOUR MITIGATION 2008-1
VERMILION COUNTY

SCALE: N/A
DATE: 02-07-08

DRAWN BY: CADD
CHECKED BY

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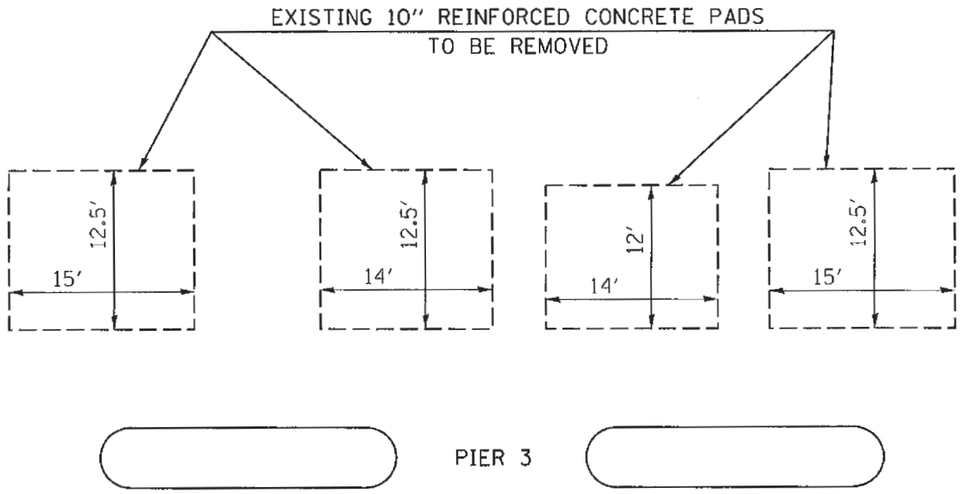
3/13/2008

F.A.I. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	*	VERMILION	12	10
F.A.P. RTE.	NUMBER	PROJECT		

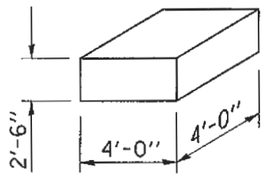
* D5 SCOUR MITIGATION 2008-1 CONTRACT NO. 70013

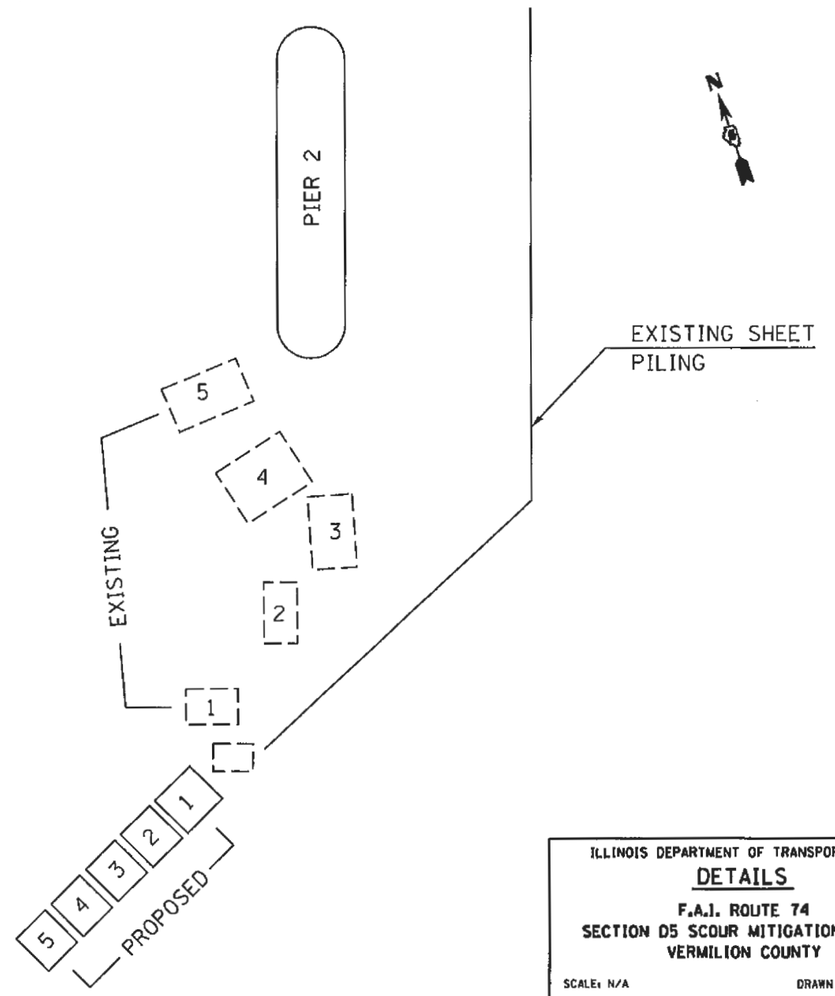
DETAIL FOR CONCRETE REMOVAL (SPECIAL) BETWEEN PIER 3 & PIER 4 S.N. 092-0006 & S.N. 092-0007



DETAIL FOR REMOVE AND SALVAGE EROSION CONTROL BLOCK PIER 2 S.N. 092-0006

EXISTING DIMENSIONS





ILLINOIS DEPARTMENT OF TRANSPORTATION

DETAILS

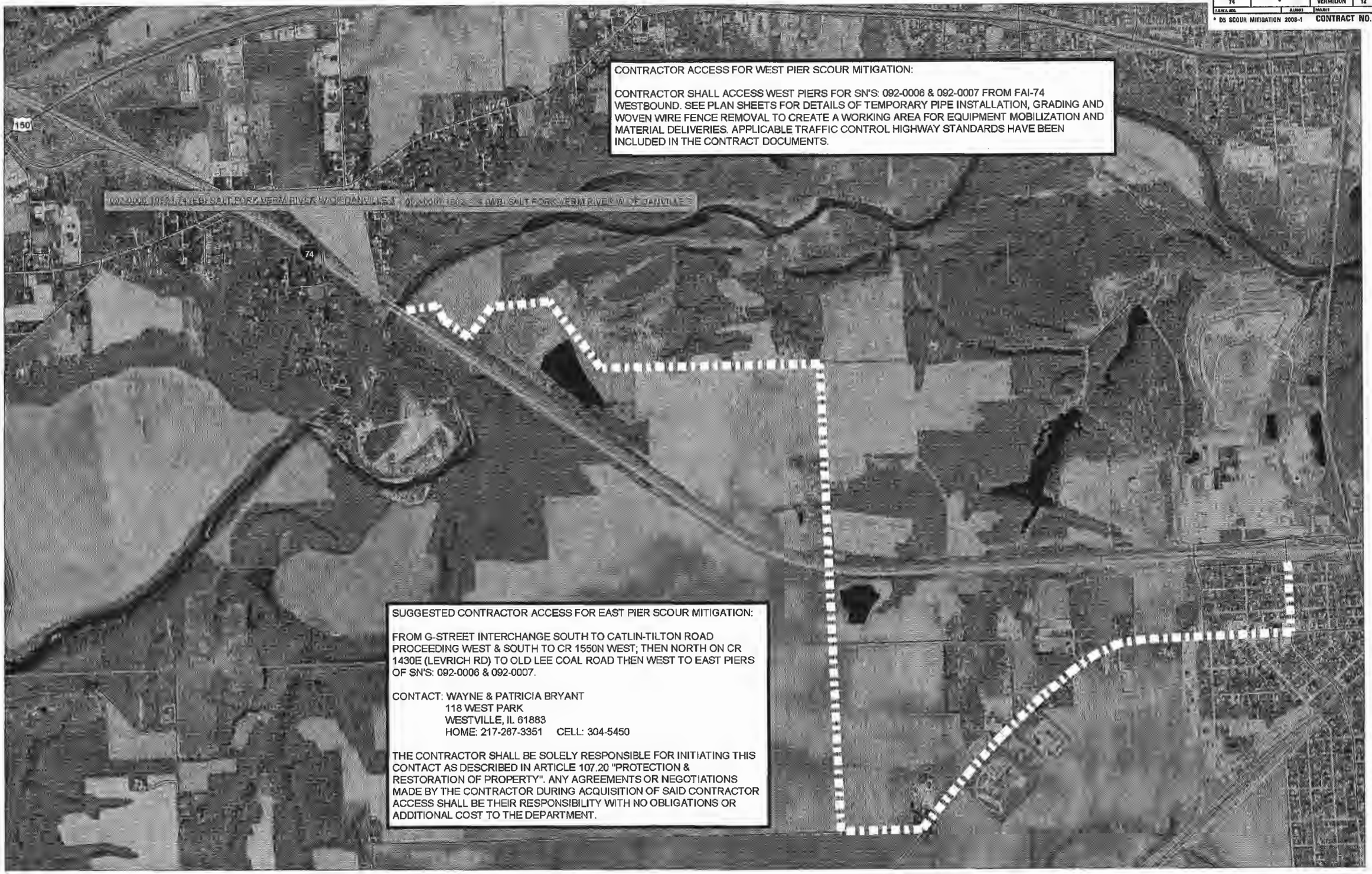
F.A.I. ROUTE 74
SECTION D5 SCOUR MITIGATION 2008-1
VERMILION COUNTY

SCALE: N/A
DATE: 02-07-08

DRAWN BY: CADD
CHECKED BY

c:\projects\d501999 tv81\scour8\scours.dgn

F.A.I. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	*	VERMILION	12	11
I.A.W.A. NO.	ALIGN	PROJECT		
* DS SCOUR MITIGATION 2008-1		CONTRACT NO. 70013		



CONTRACTOR ACCESS FOR WEST PIER SCOUR MITIGATION:

CONTRACTOR SHALL ACCESS WEST PIERS FOR SN'S: 092-0006 & 092-0007 FROM FAI-74 WESTBOUND. SEE PLAN SHEETS FOR DETAILS OF TEMPORARY PIPE INSTALLATION, GRADING AND WOVEN WIRE FENCE REMOVAL TO CREATE A WORKING AREA FOR EQUIPMENT MOBILIZATION AND MATERIAL DELIVERIES. APPLICABLE TRAFFIC CONTROL HIGHWAY STANDARDS HAVE BEEN INCLUDED IN THE CONTRACT DOCUMENTS.

SUGGESTED CONTRACTOR ACCESS FOR EAST PIER SCOUR MITIGATION:

FROM G-STREET INTERCHANGE SOUTH TO CATLIN-TILTON ROAD PROCEEDING WEST & SOUTH TO CR 1550N WEST; THEN NORTH ON CR 1430E (LEVRICH RD) TO OLD LEE COAL ROAD THEN WEST TO EAST PIERS OF SN'S: 092-0006 & 092-0007.

CONTACT: WAYNE & PATRICIA BRYANT
118 WEST PARK
WESTVILLE, IL 61883
HOME: 217-267-3351 CELL: 304-5450

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR INITIATING THIS CONTACT AS DESCRIBED IN ARTICLE 107.20 "PROTECTION & RESTORATION OF PROPERTY". ANY AGREEMENTS OR NEGOTIATIONS MADE BY THE CONTRACTOR DURING ACQUISITION OF SAID CONTRACTOR ACCESS SHALL BE THEIR RESPONSIBILITY WITH NO OBLIGATIONS OR ADDITIONAL COST TO THE DEPARTMENT.