

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

Date: 5/19/2020

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Structure Number: 092-0087 District: 5

Inventory Data

Facility Carried:	CS5735#4005	Bridge Name:		Sufficiency Rating:	46.3	Structure Length:	357.6
Feature Crossed:	I-74&CD16.23/16.33	Location:	IN TILTON	HBP Eligible:	Yes	AASHTO Bridge Length:	99.9
Bridge Remarks:	SPANS=50.0',51.52',74.91',76.06',50.28',49.75'			Replaced By:	092-0204	Length of Long Span:	76.1
Bridge Status:	5 OPEN-TEMP SHORING	StatusDate:	8/15/2017	Replaces:		Bridge Roadway Width:	30.0
Status Remarks:	Blocking installed per 2017 Load Rating Memo.			Last Update Date:	07/19/2019	Appr Roadway Width:	27.0
Maint County:	092 VERMILION	Maint Township:	05 DANVILLE	Parallel Structure:	None	Deck Width:	39.0
Maint Responsibility:	01 I.D.O.T.			Multi-Level Structure Nbr:		Sidewalk Width Right:	0.0
Service On/Under:	1 HIGHWAY	/	1 HIGHWAY	Skew Direction:	Right	Sidewalk Width Left:	5.0
Reporting Agency:	1 I.D.O.T. - BUREAU OF MAINTENANCE			Skew Angle:	41 D	Navigation Control:	N N/A
Main Span Matl/Type:	4 STEEL CONTINUOUS	/	02 STRINGER/MULTI-BEAM/GIRDER	Structure Flared:	No	Navigation Horiz Clear:	0
Nbr Of Main Spans:	6	Nbr Of Approach Spans:	0	Historical Significance:	No	Navigation Vert Clear:	0
Approaches				Border Bridge State:		Culvert Fill Depth:	0.0
Near #1 Matl/Type:		/		Bdr State SN:		Number Culvert Cells:	0
Near #2 Matl/Type:		/		Bdr State % Responsibility:	0	Culvert Opening Area:	0.0
Far #1 Matl/Type:		/		Structural Steel Wt:	423,000	Culvert Cell Height:	0.00
Far #2 Matl/Type:		/		Substructure Material:	55	Culvert Cell Width:	0.00
Median Width/Type:	0 Ft. / 0 None			Rated By:	3 Consultant	Rate Method:	6 LOAD FACTOR (LF) RE
Guardrail Type L/R:	0 None / 0 None			Inventory Rating:	1.020 (36)	Load Rating Date:	12/01/2016
Toll Facility Indicator:	0 No Toll			Operating Rating:	1.910 (68)	***Railroad Crossing Info***	
Latitude:	40.10516000	Longitude:	87.63979000	Design Load:	02 HS20	Crossing 1 Nbr:	
Deck Structure Type:	A CIP CON NRMLLY FORM	Deck Structure Thickness:	7.0	SD:	Y	FO:	Y
Sidewalks Under Structure:	0 None					RR Lateral Underclear:	0.0
						RR Vertical Underclear:	0 Ft 0 In

Key Route On Data

Key Route Nbr:	MUNICIPAL STREET	4005	Station:	0.2400
Appurtenances	Main Route	05735	Segment:	
Inventory County:	092 VERMILION	Linked:	Y	
Township/Road Dist	05 DANVILLE	Natl. Hwy System:	Not on NHS	
Municipality	5735 TILTON	Inventory Direction:		
Urban Area:	1395	Curr AADT Yr/Count:	2019 / 1850	
Functional Class:	7 LOCAL	Est Truck Percentage:	7	
** CLEARANCES **	South/East	North/West	Number Of Lanes:	2
Max Rdwy Width:	30.0		One Or Two Way:	2 Two-Way
Horizontal:	35.0	0.0	Bypass Length:	0
Min Vertical:	99Ft 11In	00Ft 00In	Future AADT Yr/Cnt:	2032 / 1643
10 Ft Vertical:	99Ft 11In	00Ft 00In	Designated Truck Rte:	NONE
Lateral:			Special Systems:	No

Key Route Under Data

FEDERAL-AID INTERSTATE	0074	Station:	16.3800	
Main Route	00000	Segment:		
Inventory County:	092 VERMILION	Linked:	Y	
Township/Road Dist	05 DANVILLE	Natl. Hwy System:	On NHS	
Municipality	5735 TILTON	Inventory Direction:		
Urban Area:	1395	Curr AADT Yr/Count:	2019 / 23700	
Functional Class:	1 INTERSTATE	Est Truck Percentage:	25	
** CLEARANCES **	South/East	North/West	Number Of Lanes:	4
Max Rdwy Width:	42.0		One Or Two Way:	2 Two-Way
Horizontal:	42.0	42.0	Bypass Length:	0
Min Vertical:	16Ft 00In	16Ft 08In	Future AADT Yr/Cnt:	2037 / 21944
10 Ft Vertical:	16Ft 01In	17Ft 00In	Designated Truck Rte:	CLASS I
Lateral:	0.0Ft	10.0Ft	Special Systems:	Yes

*** Marked Route On Data ***

	Designation	Kind	Number
Route #1:	1 Mainline	5 Municipal Streets	
Route #2:	1 Mainline		
Route #3:	1 Mainline		

*** Marked Route Under Data ***

	Designation	Kind	Number
	1 Mainline	1 Interstate Highway	074
	1 Mainline		
	1 Mainline		

**Illinois Department of Transportation
Structures Information Management System
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Structure Number: 092-0087 District: 5

Data Related to Inspection Information

Inspection Intervals
 Routine NBIS: MOS Underwater: MOS
 Fracture Critical: MOS Special: MOS

*** Maximum Allowable Posting Limits ***
 One Truck At A Time: Tons
 Single Unit Vehicles: Tons
 Combination Type 3S-1: Tons
 Combination Type 3S-2: Tons

Bridge Posting Level: No Posting Required

Inspection/Appraisal Information

Inspection Date:	<input type="text" value="04/27/2020"/>	Inspection Temperature:	<input type="text" value="64"/> Deg. F	Insp by (Name):	<input type="text" value="Dunn, Michael A"/>	** Actual Posted Limits **
Deck:	<input type="text" value="4"/>	POOR CONDITION - ADVANCED DETERIORATION		Insp by (Name):	<input type="text" value="Conklin, Shawn D"/>	Single Unit Vehicles: <input type="text" value=""/> Tons
Superstructure:	<input type="text" value="3"/>	SERIOUS CONDITION - SIGNIFICANT SECTION LOSS		Utilities Attached:	<input type="text" value="N"/> <input type="text" value="N/A"/>	Combination Type 3S-1: <input type="text" value=""/> Tons
Substructure:	<input type="text" value="4"/>	POOR CONDITION - ADVANCED DETERIORATION			<input type="text" value="N"/> <input type="text" value="N/A"/>	Combination Type 3S-2: <input type="text" value=""/> Tons
Culvert:	<input type="text" value="N"/>	NOT APPLICABLE			<input type="text" value="N"/> <input type="text" value="N/A"/>	One Truck At A Time: <input type="text" value="0"/>
Channel and Protection:	<input type="text" value="N"/>	NOT APPLICABLE		Deck Wearing Surf:	<input type="text" value="G"/> BITUMINOUS OVERLAY	Last Paint Type: <input type="text" value="F"/> <input type="text" value="LD FLD GRN&AL FNL"/>
Structural Evaluation:	<input type="text" value="3"/>	INTOLERABLE - HIGH PRIORITY FOR CORRECTION		Deck Membrane:	<input type="text" value="A"/> WATERPROOF MEM SYST	
Deck Geometry:	<input type="text" value="5"/>	BETTER THAN ADEQUATE TO BE LEFT IN PLACE		Deck Protection:	<input type="text" value="J"/> NONE	
Underclearance-Vert/Lat.:	<input type="text" value="4"/>	MINIMUM ADEQUACY TO BE LEFT IN PLACE		Total Deck Thick:	<input type="text" value="9.0"/>	
Waterway Adequacy:	<input type="text" value="N"/>	NOT APPLICABLE		Last Paint Date:	<input type="text" value="08/1984"/>	
Approach Roadway Align:	<input type="text" value="7"/>	BETTER THAN PRESENT MINIMUM CRITERIA		Inspection Remarks:		
Bridge Railing Appraisal:	<input type="text" value="3"/>	Meets Standards				
Approach Guardrail:	<input type="text" value="223"/>	<input type="text" value="Not Acceptable"/> <input type="text" value="Not Acceptable"/> <input type="text" value="Acceptable"/>				
Pier Navig Protection:	<input type="text" value="N"/>	N/A				

Underwater Inspection/Appraisal Information

Inspection Date:
 Temperature:
 Inspection Method:
 Inspected By:
 Inspected By: Appraisal Rating:
 Inspection Remarks:

Scour Critical Information

Rating:
 Analysis Date:
 Evaluation Method:
 Analysis By:

Miscellaneous

Fracture Critical Members: No
 Microfilm Data Recorded: Yes

Construction Information

Year: Original Reconstructed
 Route: Sta: Sta:
 Section Nbr:
 Contract Nbr:
 Fed Aid Pr #:
 Built By: I.D.O.T.

Proposed Improvement

Cost Estimate Year:	<input type="text" value=""/>	Length:	<input type="text" value=""/>	*** Costs in Dollars ***
Type of Work:	<input type="text" value=""/>	Bridge Cost:	<input type="text" value=""/>	
Done By:	<input type="text" value=""/>	Roadway Cost:	<input type="text" value=""/>	
Remarks:	<input type="text" value=""/>	Total Project Cost:	<input type="text" value=""/>	

Effective Date: 7/1/2016	ILLINOIS HIGHWAY INFORMATION SYSTEM		
	Structure Information and Procedure Manual		
NBIS Required: No	Item Name	LAST PAINT TYPE	Item No. 59B
History Kept: Yes			Sheet 1 of 2
Structures	Highway On		
Update Screen	Routine	SIMS Field Name	
SIMS Table(s)	SIMD002 & ISISummaryStateandLocal		PaintType

ITEM DESCRIPTION

This item indicates the type of paint used for the time it was painted as indicated in Last Paint Date (Item 59A). This item is required if an entry is made for Last Paint Date (Item 59A).

History is retained for this item based on each Inspection Date (Item 90).

CODING INSTRUCTIONS

Four, two-digit fields:

- 1st & 2nd position - most extensively used paint system
- 3rd & 4th position - second system
- 5th & 6th position - third system
- 7th & 8th position - handrail

Enter any combination of the codes listed below in the sequence listed above.

Code

Paint Type

- A Shop applied Basic Lead Silico Chromate or Red Lead primer/Maroon first field coat and interstate green* final coat.
- B Shop applied Basic Lead Silico Chromate or Red Lead primer/Aluminum first and final field coats.
- C Combination of A and B.
- D Field applied Basic Lead Silico Chromate or Red Lead primer/Maroon and interstate green* 2nd and final coats.
- E Field applied Basic Lead Silico Chromate or Red Lead primer/Aluminum 2nd and final coats.
- F Combination of D and E.
- G Shop applied Zinc Silicate and Field applied Vinyl paint system.
- H Field applied Zinc Silicate and Vinyl paint system.
- I Aluminum Epoxy Mastic Primer and Vinyl or Urethane overcoat system.

* Or any final color chosen by the district.

ILLINOIS HIGHWAY INFORMATION SYSTEM

Structure Information and Procedure Manual

Item Name	LAST PAINT TYPE	Item No.	59B
		Sheet	2 of 2

<u>CODE</u>	<u>PAINT TYPE</u>
J	Iron Oxide/Zinc Oxide Primer and Alkyd top coats.
K	Iron Oxide/Zinc Oxide Primer and Aluminum Phenolic top coats.
L	Miscellaneous Alkyd systems.
M	Miscellaneous Epoxy systems.
N	Miscellaneous Urethane primer systems.
O	Base weathering Steel.
P	Other coating systems.
Q	Other protective systems.
R	No protection system.
S	Shop applied Zinc Silicate and Field applied Acrylic paint system.
T	Field applied Zinc Silicate and Acrylic paint system.
U	Field applied Aluminum Epoxy and Acrylic.
V	Galvanized
W	Shop applied Metallizing & Field applied Polyurethane
X	Shop applied Zinc Silicate & Field applied Polyurethane
Y	Shop applied Organic Zinc and Field applied Epoxy & Polyurethane
Z	Field applied Organic Zinc, Epoxy & Polyurethane
AA	Field applied Moisture Cured Urethane
AB	Shop applied Organic Zinc, Epoxy, & Urethane
AC	Shop applied Metallizing (No top coat)
AD	Field applied Metallizing (No top coat)
AE	Shop applied Metallizing (Clear top coat)
AF	Shop applied Metallizing (Epoxy & Acrylic)
AG	Shop applied Metallizing (Epoxy & Urethane)

GENERAL NOTES

SUMMARY OF QUANTITIES

FED. HYL. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	02-1118-4	VERMILION	51	3
FEDERAL ROAD DISTRICT NO.		ALLENBY	PROJ.	

ROADWAY

BRIDGES

All elevations shown are on United States Geological Survey Datum.
All trees which interfere with construction operations shall be removed as directed by the Engineer.

ESTIMATED QUANTITY

115	In. Dia.	TREE REMOVAL (6" TO 15" DIA.)
1	Acre	TREE REMOVAL, ACRES

Sub-base Granular Material, Type A, shall be placed uniformly 4 inches thick, compacted, under the approach pavements at the ends of the bridge, and extending 1 foot beyond the edges of the pavement.

ESTIMATED QUANTITY

40	Tons	SUBBASE GRANULAR MATERIAL, TYPE A
----	------	-----------------------------------

A Gravel or Crushed Stone Surface Course, Type A, shall be placed uniformly 8 inches thick, compacted, on the Detour for Catlin Road, in accordance with the Typical Section shown.

ESTIMATED QUANTITY

850	Tons	GRAVEL OR CRUSHED STONE SURFACE COURSE, TYPE A
-----	------	--

A Protective Coat, in accordance with the Special Provisions, effective June 1, 1962, shall be applied, as directed to the Bridge Deck and Approach Pavements.

ESTIMATED QUANTITY

2,221	SQ. YDS.	PROTECTIVE COAT
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Existing pavement on Catlin Road shall be removed as indicated on the plans and as directed by the Engineer.

ESTIMATED QUANTITY

1,022	SQ. YDS.	PAYEMENT REMOVAL
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Existing Sidewalk, west of Catlin Road, shall be removed as indicated on the plans and as directed by the Engineer.

ESTIMATED QUANTITY

2,692	SQ. YDS.	SIDEWALK REMOVAL
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A Portland Cement Concrete Sidewalk shall be built uniformly 5 inches thick on locations indicated on the plans and as directed by the Engineer.

ESTIMATED QUANTITY

1,527	SQ. FT.	PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH
-------	---------	---

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

ESTIMATED QUANTITY

2	EACH	FURNISHING AND ERRECTING RIGHT OF WAY MARKERS
---	------	---

Before ordering pipe culverts, the Contractor shall consult the Engineer for exact lengths.

TYPICAL SECTIONS AND CROSS SECTIONS

Finished cross sections of the work shall conform to the Typical Cross Sections shown in the plans. Earthwork and other Quantities have been estimated on the basis of these typical sections.

Construction Sign, for Interstate Highway Improvement, Standard 2153-2 to be erected on Catlin Road at locations shown on the plans. One (1) sign will be required.

GENERAL NOTES SECTION 92-1118-4

Class X Concrete shall be used throughout.

Coarse Aggregate used in Parapet Walls and End Posts shall be free of Chert, Flint, Limonite, Lignite and Soft Sandstone.

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

Permanent forms will not be permitted in forming the concrete floor.

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

All Structural Steel, except as otherwise provided, shall receive two field coats of Aluminum paint. All paint to be furnished and applied by the Contractor and included in the Unit Price Bid for "F&E, Structural Steel". See Articles 56.1 to 56.5 of the Standard Specifications.

All Rivets shall be 3/4" x 13/16" holes, except in Beam Splices which shall be 7/8" x 15/16" holes in flange splice and 3/4" x 13/16" holes in web splice.

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

Concrete Slope Wall and Gutter shall be reinforced with Welded Wire Fabric 6" x 6" Mesh, #4 Wires, Weighing 58# per 100 Sq. Ft.

Two Test Piles shall be driven in permanent locations as shown on the Plans or as directed by the Engineer before ordering the remainder of the Piles. One Test Pile at the North Abutment and One Test Pile at the South Abutment.

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

All Structural Steel, except as otherwise provided, shall receive one shop coat of Red Lead Paint. All paint to be furnished and applied by the Contractor and included in the Unit Price Bid for "F&E, Structural Steel". See Articles 56.1 to 56.5 of the Standard Specifications.

All Surfaces of Expansion Guards that will be exposed after construction of the Bridge shall receive two shop coats of Red Lead Paint. The 3/4" x 8" welded stud anchors shall not be painted.

All Rivets shall be 3/4" x 13/16" holes, except in Beam Splices which shall be 7/8" x 15/16" holes in flange splice and 3/4" x 13/16" holes in web splice. All holes for Splices shall be subpunched 11/16" and reamed to 15/16" for 7/8" rivets and reamed to 13/16" for 3/4" rivets. Girders shall be assembled in shop in proper position and left assembled for shop inspection by Division of Highways.

All Structural Steel used in Girders, Diaphragms and Splices shall meet the requirements for A.S.T.M. A36 Steel.

All Structural Steel used in Bearing Devices and Expansion Joint Devices shall meet the requirements for A.S.T.M. A7 Steel.

DESIGN DATA

Design Specifications: A.A.S.H.O. 1961 Edition

Design Load: H20-S16-44

Design Slab, Piers, Footings and Abutments:

Steel

Structural Steel

A-7 Steel $f_s = 18,000$ psi
A-36 Steel $f_s = 20,000$ psi
Live Load Deflection (Plus Impact) $1/1000$ Max.

Reinforcing Steel $f_s = 20,000$ psi

Concrete

Ultimate Compression $f'_c = 3,500$ psi
Allowable Compression (No earth Pressure) $f_c = 1,400$ psi
Allowable Compression (With earth Pressure) $f_c = 1,000$ psi
Modular Ratio $n = 10$

Horizontal Earth Pressure: Equiv. Fluid Pressure $= 40$ lb/cu. ft.

Pier Footings, Shear $v = 75$ psi

Maximum Footing Pressure - Piers $= 5,200$ psf (Group III Loading)

Concrete Piles, Max. 29.4 Tons

(12" Metal Shell or 18" x 14" Precast)

QUANTITY	UNIT	PAY ITEM	CODE NUMBER
115	IN. DIA.	TREE REMOVAL (6" TO 15" DIA.)	010001
1.0	ACRES	TREE REMOVAL - ACRES	010005
40,087	CU. YD.	EARTH EXCAVATION	011001
426	TON	SUBBASE GRANULAR MATERIAL, TYPE A	024001
8473	TON	GRAVEL OR CRUSHED STONE SURFACE COURSE, TYPE A	036001
166	SQ. YD.	PORTLAND CEMENT CONCRETE PAYEMENT (16 1/2 - 10 1/2 - 16 1/2)	046011
807	CU. YD.	CLASS A EXCAVATION FOR STRUCTURES	050001
934.3	CU. YD.	CLASS X CONCRETE	052003
2,221	SQ. YDS.	PROTECTIVE COAT	052021
422,600	POUND	FURNISHING AND ERRECTING STRUCTURAL STEEL	054001
260	LIN. FT.	PIPE CULVERTS, TYPE 2A, 36 IN.	058038
112	LIN. FT.	PIPE CULVERTS, TYPE 2, 24 IN.	058225
141,180	POUND	REINFORCEMENT BARS	059001
604	LIN. FT.	DRIVING CONCRETE PILES	060043
364	LIN. FT.	FURNISHING CONCRETE PILES	060044
2	EACH	TEST PILES (CONCRETE)	060047
2	EACH	NAME PLATES	061001
1,022	SQ. YD.	PAYEMENT REMOVAL	082001
2,692	SQ. FT.	SIDEWALK REMOVAL	082006
606.1	SQ. YD.	SLOPE WALL 4 IN.	083002
1400.6	SQ. FT.	PORTLAND CEMENT CONCRETE SIDEWALK (5 IN.)	089003
200	LIN. FT.	STEEL PLATE BEAM GUARD RAIL	094001
332.55	TON	GRAVEL OR CRUSHED STONE	101002
7.45	TON	CALCIUM CHLORIDE APPLIED	102001
2	EACH	FURNISHING AND ERRECTING RIGHT OF WAY MARKERS	104001
710	LIN. FT.	ALUMINUM HANDRAIL TYPE-G	201153
710	LIN. FT.	METAL HANDRAIL TYPE-H	055016
359.8	LIN. FT.	DR. CONC. PILES / ABUT. PILES	060980

SUMMARY OF CLASS X CONCRETE

SIDE	STATION	TYPE OF STRUCTURE	CLASS X CONCRETE CU. YDS.
CL	52 + 12.69	SPECIAL BRIDGE	934.3
TOTAL			934.3

CLASS X CONCRETE - - - - - 934.3 CU. YDS.

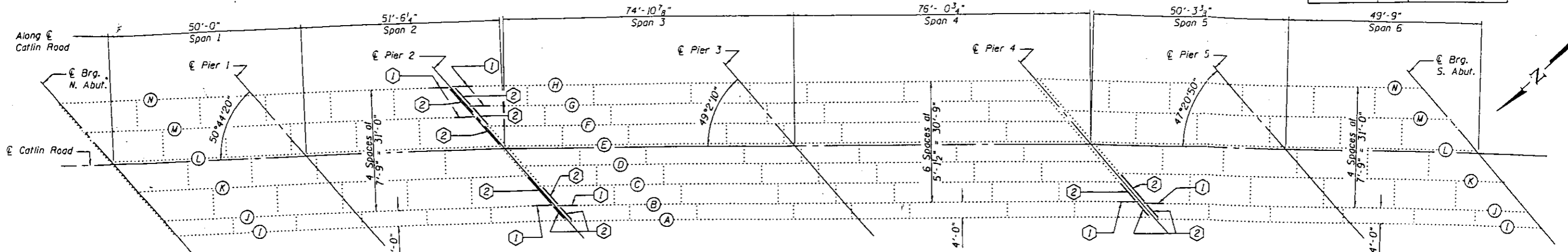
INDEX OF SHEETS

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1	Title Sheet
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3	General Notes, Summary of Quantities
3A	Summary of Class X Concrete
4-5	Combined Summary of Quantities Plan and Profile, Mainline
6	Plan and Profile, Catlin Road and Detour
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8	Stake Out Diagram
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1962 ORIG. PAINT NOTES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	SECTION	DATE	SCALE	SHEET NO.
		Vermilion		1 SHEETS
PROJECT NAME		PROJECT LOCATION		



FRAMING PLAN

- ① Plate End of Existing Beams, (8 Locations)
- ② Remove and Replace Existing Diaphragm with W12x40 x 7"

GENERAL NOTES

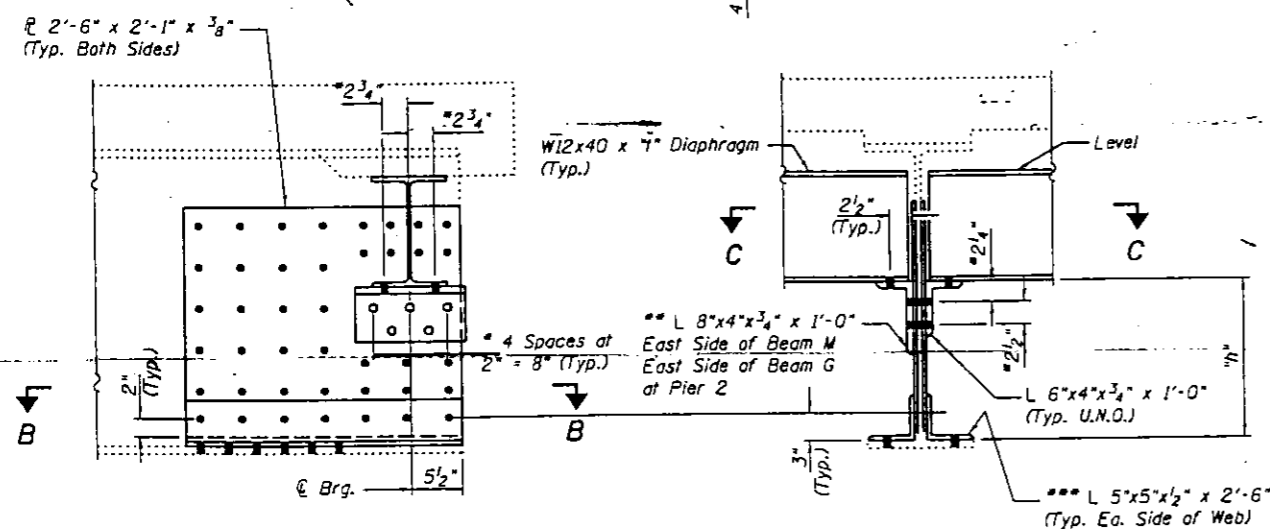
All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.
Fasteners shall be high strength bolts. Bolts 3/4" φ, open holes 1/2" φ, unless otherwise noted.
After the new diaphragm is in its final position the Engineer in the field shall check to see that the top flange is tight against the slab. If not, the Contractor shall inject epoxy between the existing concrete deck and the top flange of the diaphragm. See Special Provision "Epoxy Injection".
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.
Cost of removal and/or 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 in the cost of Structural Steel Repair.
The inorganic zinc rich primer/acrylic/acrylic paint system shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the acrylic finish coat shall be Gray, Munsell No. 5B 7/L. See Special Provision "Cleaning and Painting New Metal Structures".
The existing structural steel coating contains lead. The Contractor should 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 Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".
Gaps between existing steel and proposed steel plates / angles, due to pitting, shall be filled by placing a bead of silicone sealant suitable for structural steel near the perimeter of the proposed plates / angles, in areas with pitting, just prior to placement of the new plates / angles.

Table of "h" Dimensions

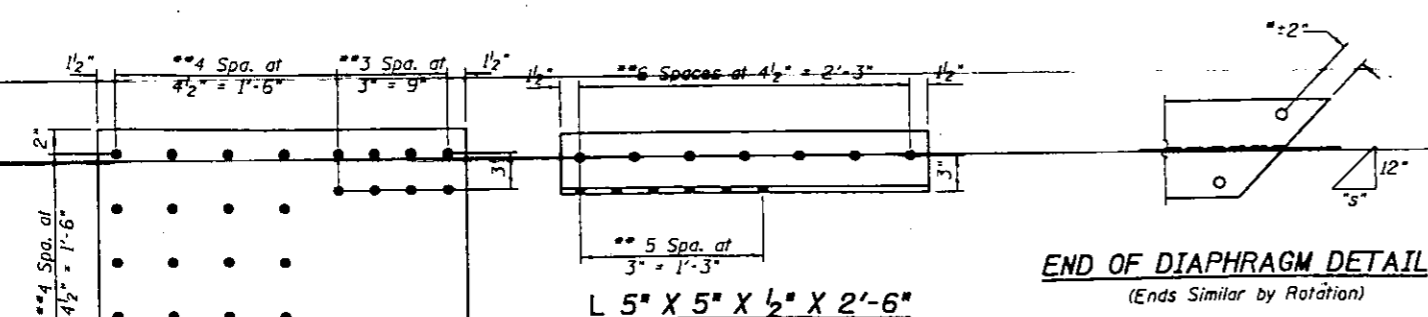
Beam	Pier	Span	"h" East Side	"h" West Side
B	2	3	1'-6 3/8"	1'-6 3/8"
G	2	3	1'-6 1/2"	1'-5 1/8"
H	2	3	1'-6"	1'-5 1/8"
J	2	2	1'-6"	1'-6"
M	2	2	1'-6 1/8"	1'-4 1/8"
N	2	2	1'-6 1/8"	1'-4 1/8"
B	4	4	1'-6 1/4"	1'-6 1/4"
J	4	5	1'-6"	1'-6"

Table of "t" and "s" Dimensions

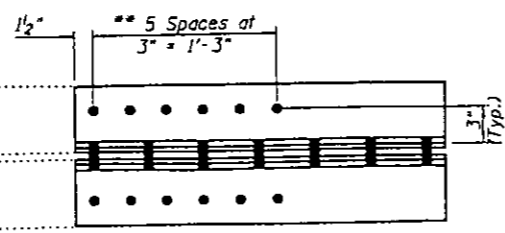
Between Beams	Pier	Span	"t"	"s"
A & B	2	3	5'-1 3/8"	10' 1/16"
B & C	2	3	6'-7 3/16"	10' 1/16"
F & G	2	3	6'-7 3/16"	10' 1/16"
G & H	2	3	6'-7 3/16"	10' 1/16"
I & J	2	2	4'-11 3/4"	9' 3/16"
J & K	2	2	9'-9 7/8"	9' 3/16"
L & M	2	2	9'-9 7/8"	9' 3/16"
M & N	2	2	9'-9 7/8"	9' 3/16"
A & B	4	4	5'-1 3/8"	10' 1/16"
B & C	4	4	6'-7 3/16"	10' 1/16"
I & J	4	5	5'-3 3/16"	11' 1/16"
J & K	4	5	10'-4 3/16"	11' 1/16"



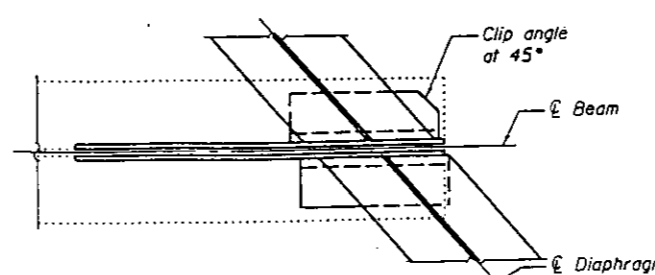
TYPICAL END OF BEAM ELEVATION



END OF DIAPHRAGM DETAIL
(Ends Similar by Rotation)



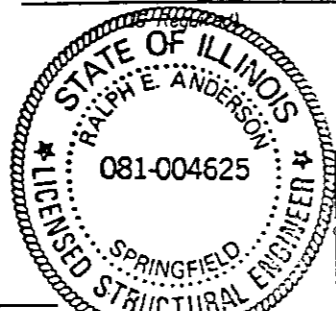
SECTION B-B



SECTION C-C

DESIGNED Victor H. Vekir
CHECKED Adrian Holloway
DRAWN [Signature]
CHECKED A.H.

EXAMINED John A. Moran
PASSED [Signature]
ENGINEER OF BRIDGES AND STRUCTURES



Expires 11-30-06

- * Field drill holes in new R's, diaphragms and existing beams using holes in new clip angles as a template.
- ** Field drill holes using new R's and angles as a template.
- *** Grind corners to fit.

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Steel Repair	Pound	6030

PLAN AND ELEVATION
F.A.I. RT. 74
VERMILION COUNTY
SN 092-0087

092-0087

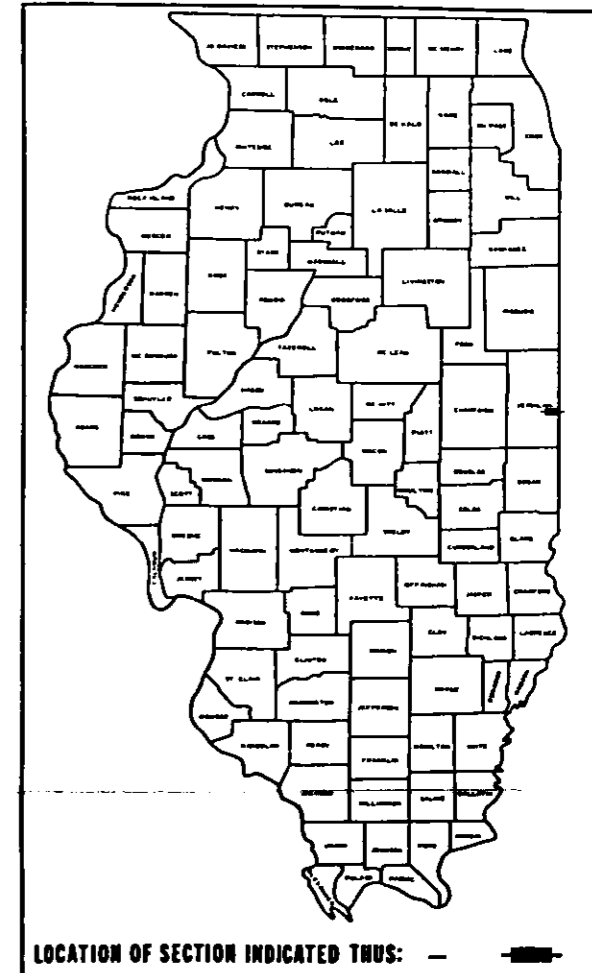
092-0087

DL

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
PLANS FOR PROPOSED
FEDERAL AID INTERSTATE HIGHWAY

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	*	VERMILION	361	1
F.H.W.A. REG.		ILLINOIS PROJECT		

* 92 (11,12,12-1)RS & (92-12HB-2)BRK
D-95-026-89

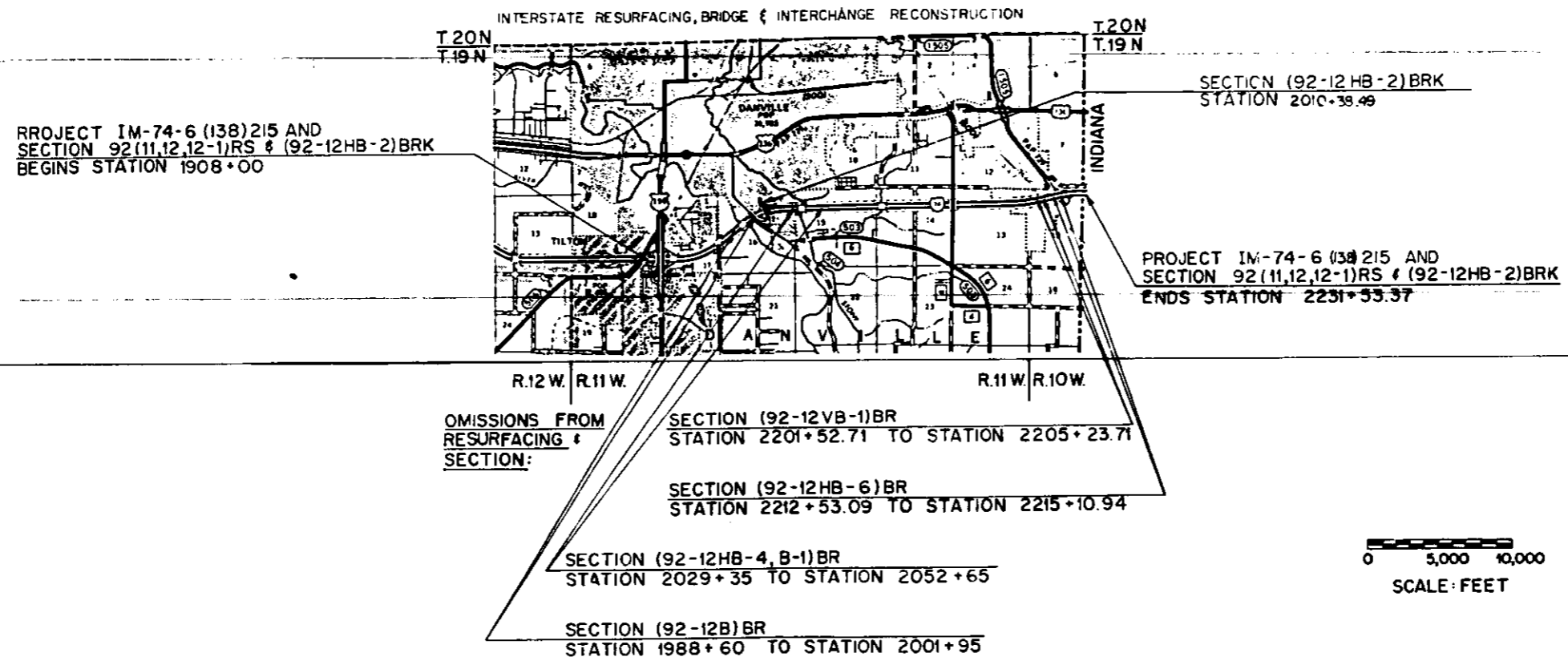


FOR INDEX OF SHEETS, SEE SHEET NO. 26-27
FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 31-39

SCALES { PLAN 1" = 20', 40', 50', 100'
PROFILE VERT. 1" = 20'
HORIZ. 1" = 5'
VERT. 1" = 10'

092-0087

F.A.I. ROUTE 74
SECTION 92 (11,12,12-1)RS & (92-12 HB-2)BRK
VERMILION COUNTY
PROJECT IM-74-6 (138) 215
C-95-126-90



DESIGN DESIGNATION
3140 (93) INTERSTATE - 7 08 (COMP-6)
1775 (93) INTERSTATE - 6 28 (COMP-6)

CONTRACT NO. 90216

092-0087

TOTAL LENGTH OF SECTION 92 (11,12,12-1)RS & (92-12HB-2)BRK = 32,353.37 FEET = 6.128 MILES
NET LENGTH OF SECTION 92 (11,12,12-1)RS & (92-12HB-2)BRK = 28,059.52 FEET = 5.314 MILES

TOLL FREE J.U.L.I.E. TELEPHONE NO.
1-800-892-0123
DANVILLE TOWNSHIP

PRINTED BY AUTHORITY OF THE STATE OF ILLINOIS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED December 23, 1992
J. J. Berman DISTRICT ENGINEER

EXAMINED _____
PASSED Jan. 29, 1993 Ray H. Gault ENGINEER OF PLANS AND CONTRACTS

APPROVED Jan. 29, 1993 _____ ENGINEER IN CHARGE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED _____
DIVISION ADMINISTRATOR DATE

5-169

DETAIL OF POST SPACING FOR STEEL BRIDGE RAIL

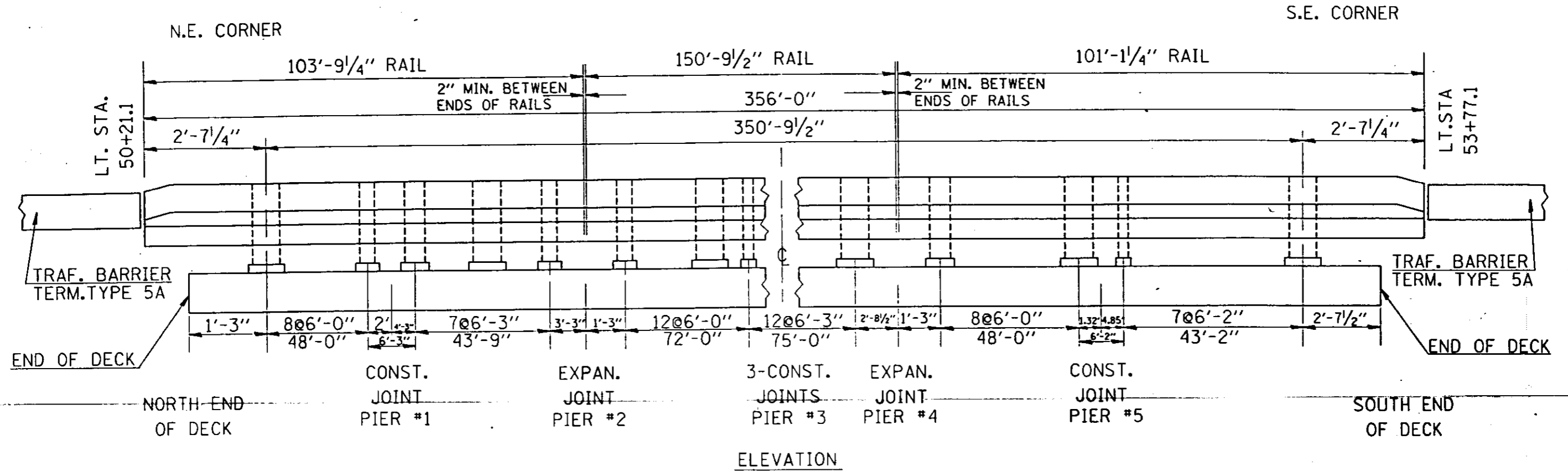
SCALE NO.	SECTION	COUNTY	TOWN	POST
FAI 74		VERMILION	36J	291

* 92(11,12,13)RS & (92-12HB-2)BRK

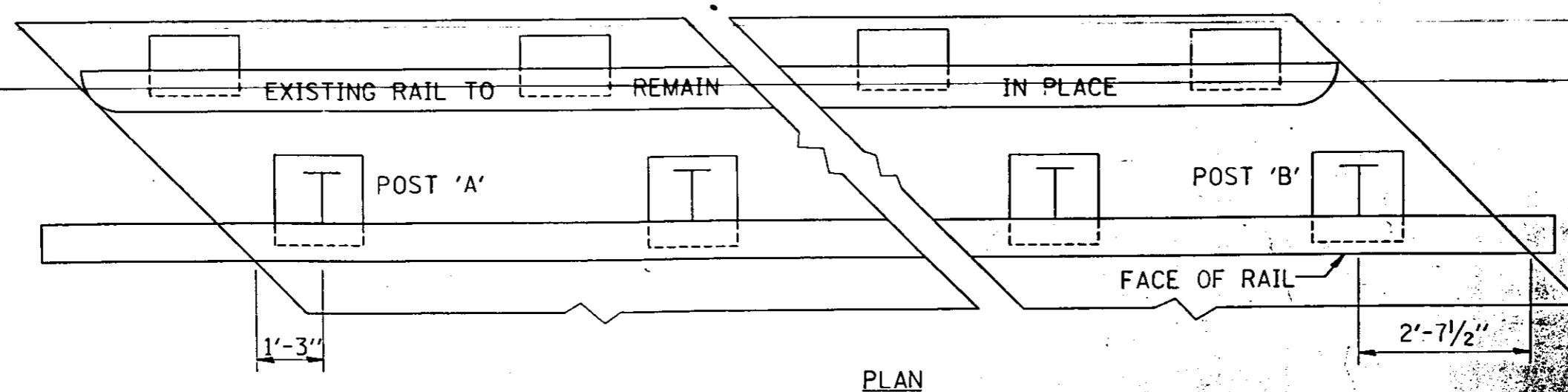
STRUCTURE: S.N. 092-0087

SEC. 92-11HB-4
CATLIN ROAD
A.R. STA. 1917+83.25

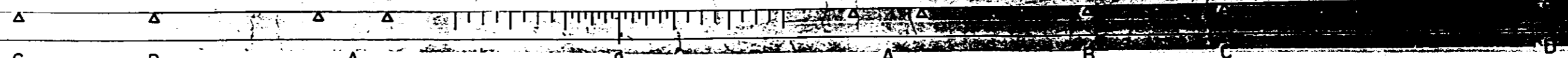
FOR EAST SIDE ONLY



FACE OF PROPOSED RAIL TO BE PLACED FLUSH WITH FACE OF EXISTING CURB



DESIGNED: FMS 1-91
CHECKED:

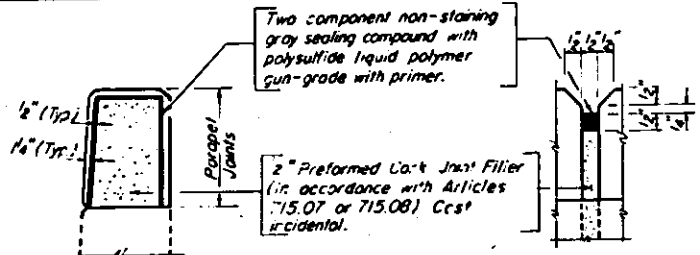


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

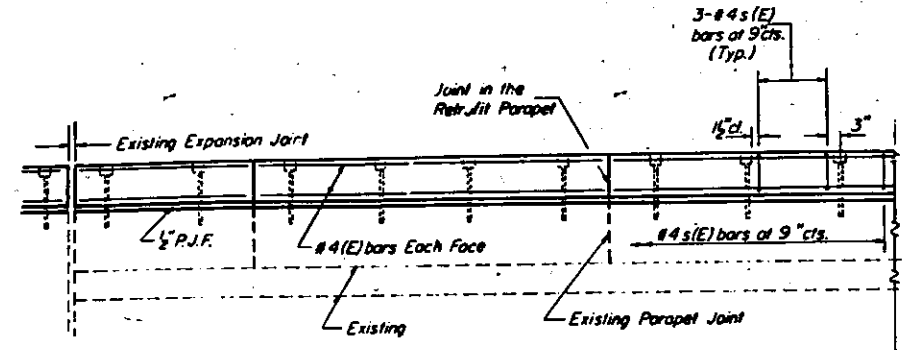
PROJECT NO.	SECTION	DATE	SHEET NO.
11-74	VERMILION	961	237
JOB NO. 11-74		JOB DATE	
* (12-11, 12, 12-1) RS & (12-12HB-2) BRK			

GENERAL NOTES

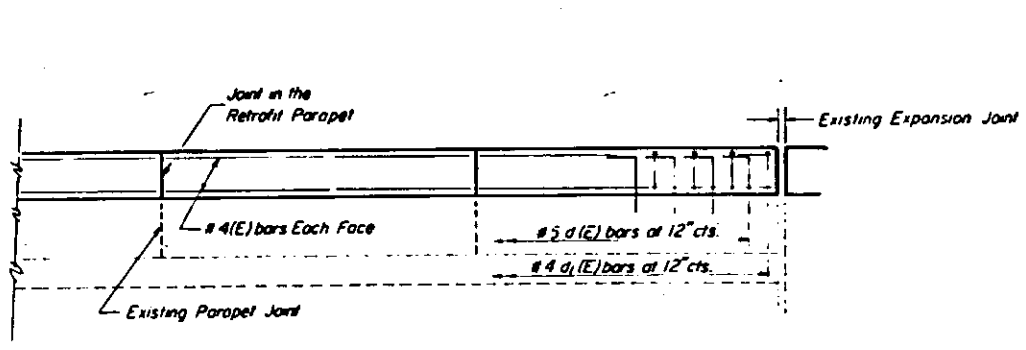
Class X Concrete shall be used throughout.
All exposed edges shall be chamfered $\frac{3}{8}$ ".
Class X Concrete, Reinforcement Bars (E), Threaded Anchor Rods, $\frac{1}{2}$ " P.J.F. and all other accessories needed for installation and erection will be paid for at the unit price per linear foot for Retrofit Concrete Parapet.
The Contractor shall use 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 shall be a sealed glass capsule or a sealed glass adhesive cartridge containing premeasured amount of adhesive chemical. The threaded rod stud with nut & washers shall conform to ASTM A-307.
The existing $\frac{3}{8}$ " and 1 " welded studs shall be burned, sawed or chipped off flush with the top of the existing parapet.
Holes for the dowel rods shall miss existing parapet joints.
The precast sections may be cast in units of 3', 5', 7' etc. length as desired. Where they overlap the joints in the parapet, the precast units shall be saw cut to line up with the joints in the parapet. The sawcut faces of the units shall be given a coat of boiled linseed oil mixture (Protective Coat).



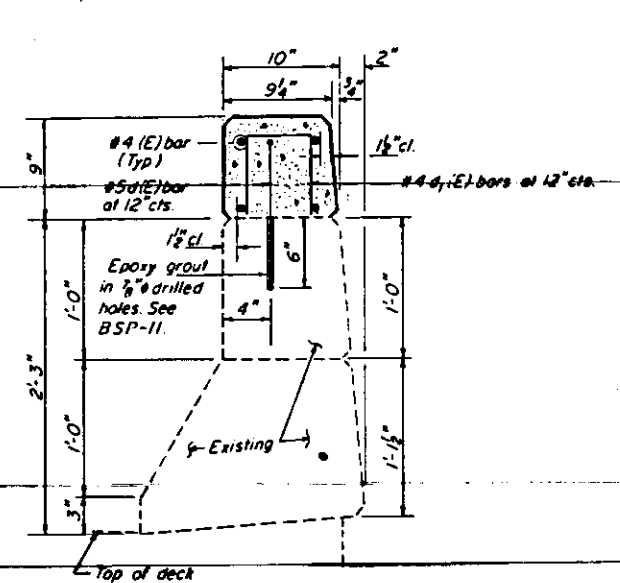
JOINT DETAIL



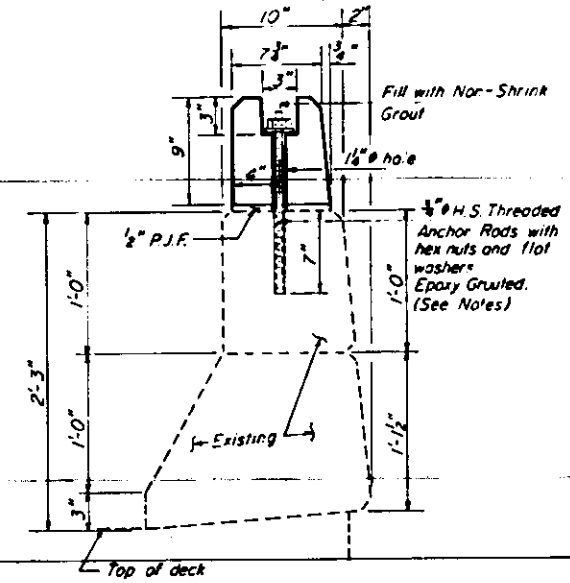
INSIDE ELEVATION OF PARAPET
PRECAST ALTERNATE



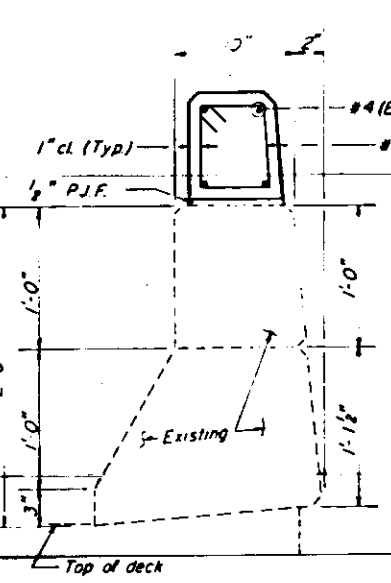
INSIDE ELEVATION OF PARAPET
CAST-IN-PLACE ALTERNATE



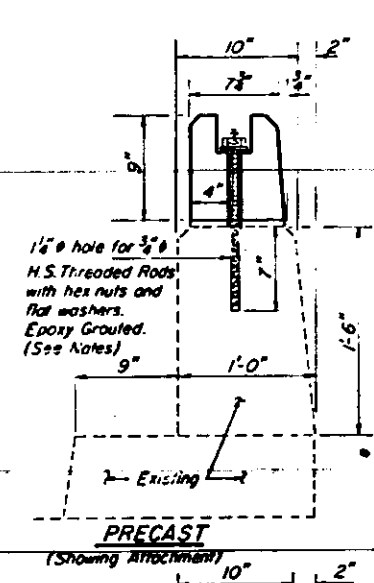
CAST-IN-PLACE



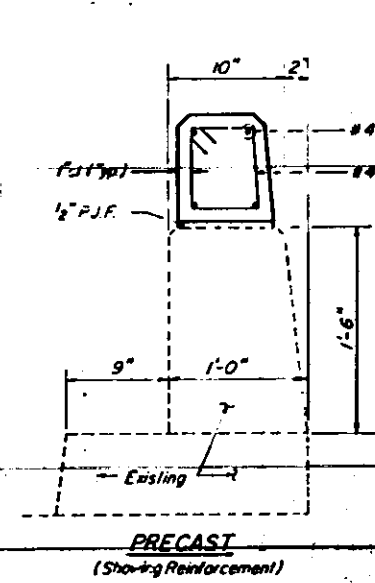
PRECAST
(Showing Attachment)



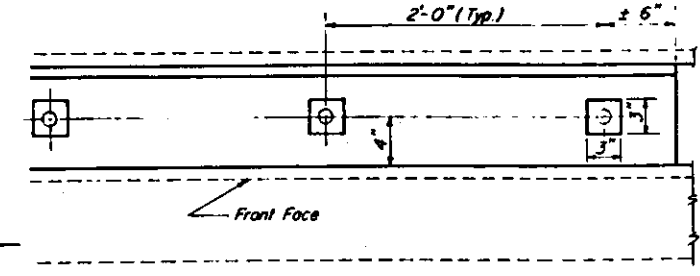
PRECAST
(Showing Reinforcement)



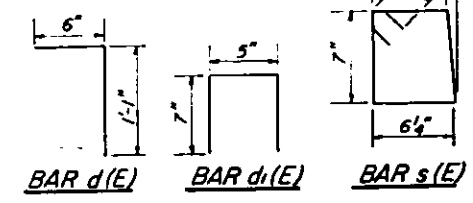
PRECAST
(Showing Attachment)



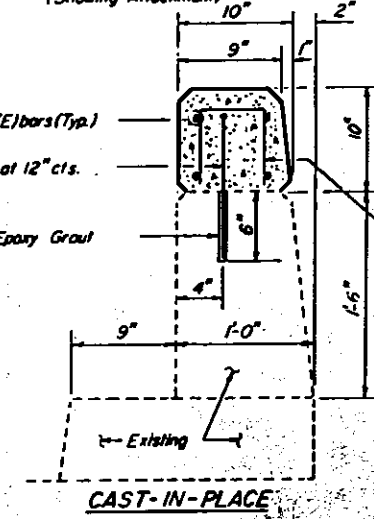
PRECAST
(Showing Reinforcement)



TOP VIEW
(Showing spacing of $\frac{3}{8}$ " H.S. Threaded Rods)



BAR d(E) BAR d1(E) BAR s(E)



CAST-IN-PLACE

BILL OF MATERIAL

LOCATION	ITEM	UNIT	QUANTITY
STRUCTURE NO. 012-001	Retrofit Concrete Parapet	Lin. Ft.	360.0
STRUCTURE NO. 012-001	RETROFIT CONCRETE PARAPET	LR. FT.	360.0

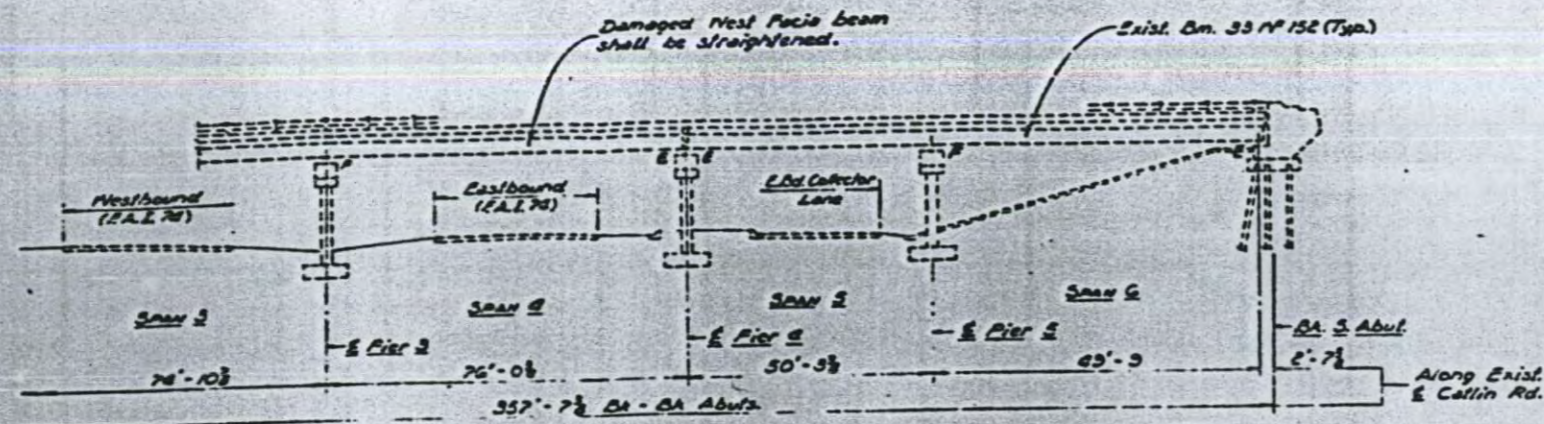
PARAPET RETROFIT FOR ALUM. HANDRAIL

DESIGNED	19
CHECKED	
DRAWN	
CHECKED	

EXAMINED	
PASSED	
APPROVED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

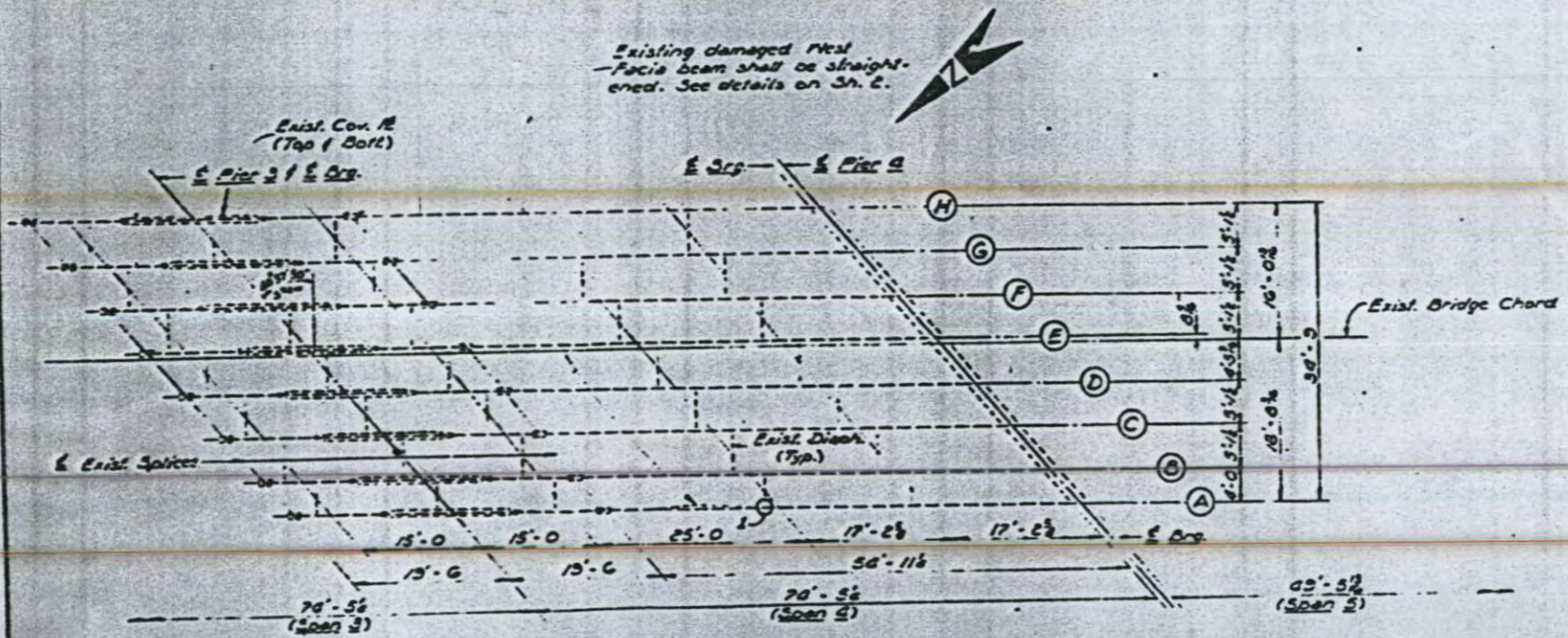
SHEET NO 1
2 SHEETS



ELEVATION
(Looking East)

GENERAL NOTES

All new structural steel shall conform to AASHTO Classification M-183.
All new high strength bolts shall be AASHTO Classification M-160.
Nuts may be subheaded or subdrilled $\frac{1}{2}$ " and reamed to $\frac{3}{4}$ " for $\frac{3}{4}$ " H.S. bolts in the field after new steel is properly fitted into position.
All metal to metal contact surfaces shall be free of paint or lacquer.
Oil and all loose paint shall be removed from the damaged beam in the area of impact.
The three coat lead and chromate free ethyl paint system shall be used for field painting structural steel. The color of the final finish coat shall be aluminum for interior structural steel and interstate green for exterior structural steel.
All areas of paint damage in the repair area shall be cleaned by Method II prior to painting as specified above.
The damaged beam shall be mechanically straightened. No heat will be used to facilitate the straightening process. See Special Provisions.
The Contractor shall have his method of straightening approved by the Engineer prior to ordering materials and installation.
All materials used in the straightening of the beam shall be included in the pay item, "Beam Straightening."
Grind existing ricks, gouges and shallow cracks in the damaged beams as shown by the detail on Sheet 2. Cost is incidental to "Beam Straightening." Ground surfaces shall be inspected for cracks by using Liquid Eye Penetrant. Any crack that cannot be removed by grinding approximately $\frac{1}{2}$ " deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition.



PARTIAL DECK FRAMING PLAN
(Note: Horizontal dimensions taken along Exist. Bridge Chord.)

1 - Existing bottom diaphragm connection angle shall be replaced. For details see Sheet E.

TOTAL BILL OF MATERIAL

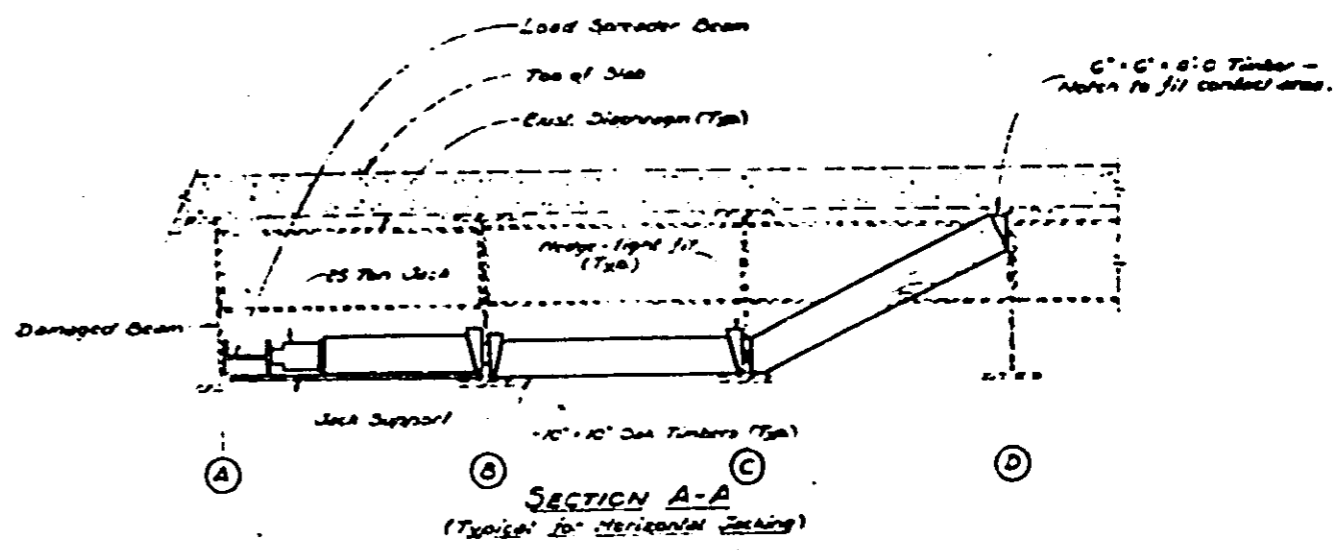
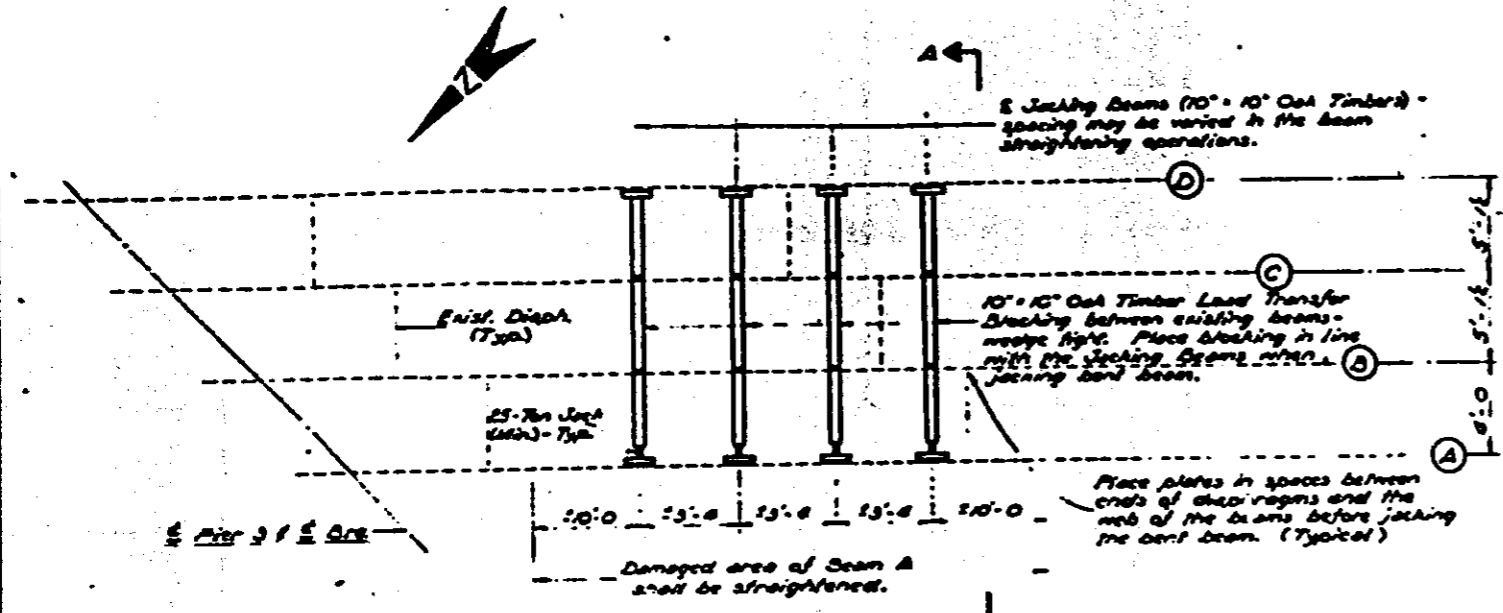
Item	Unit	Total
Beam Straightening	Lump Sum	L.S.
Traffic Control	Lump Sum	L.S.

BEAM STRAIGHTENING:
CATLIN RD. OVER F.A.I. RT 74
F.A.I. RT 74 SEC. 92-11 HB-4
VERMILION COUNTY
STA. 1917 + 63.25

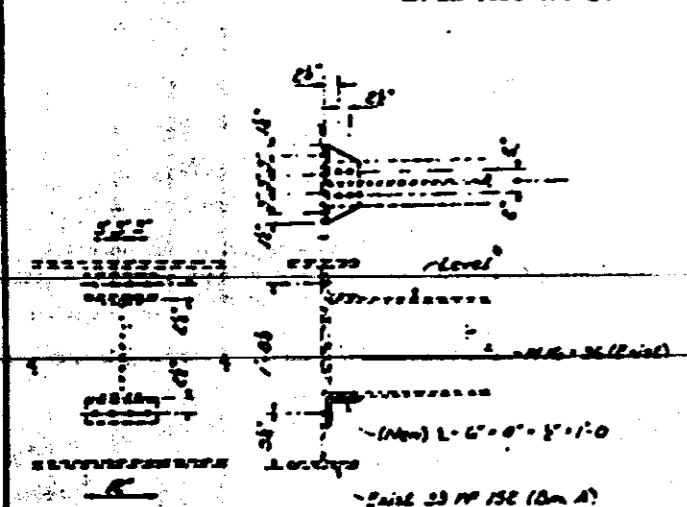
DESIGNED: L. ENGEL
CHECKED: RBC
DRAWN: R.A. CARBONELL
CHECKED: L. ENGEL

Aug 23 1977
EXAMINED: D.J. ROHR
TRUSTED BY STRUCTURAL ENGINEER PASSED
APPROVED:

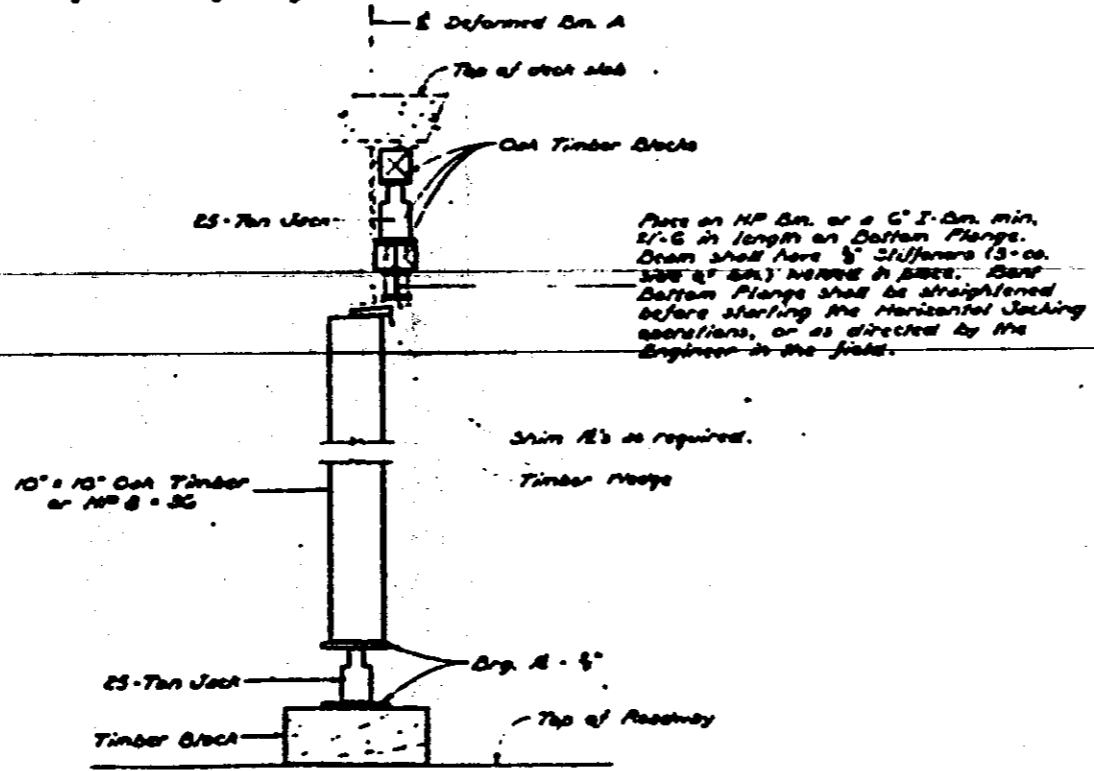
DJA
(S.N. 022-008?)



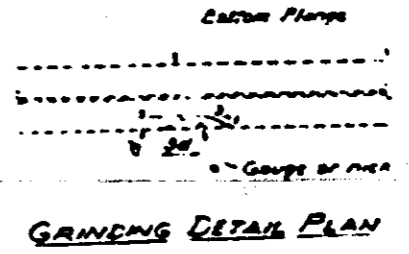
PARTIAL DECK FRAMING PLAN
SUGGESTED BEAM STRAIGHTENING METHOD
All materials and items used in the straightening of bent beam shall be incidental to "Beam Straightening". For details see this sheet. Jacking force shall be maintained on all load transfer blocking during beam straightening.



DIAPHRAGM DETAIL
(See Partial Deck Framing Plan - Sheet 1)
Beam: L 6" x 6" x 1/2"
Cast is incidental to "Beam Straightening".



ELEVATION VIEW
(for Vertical Jacking)



DESIGNED	L. J. [Signature]
CHECKED	RBC
DRAWN	G. C. [Signature]
CHECKED	L. J. [Signature]

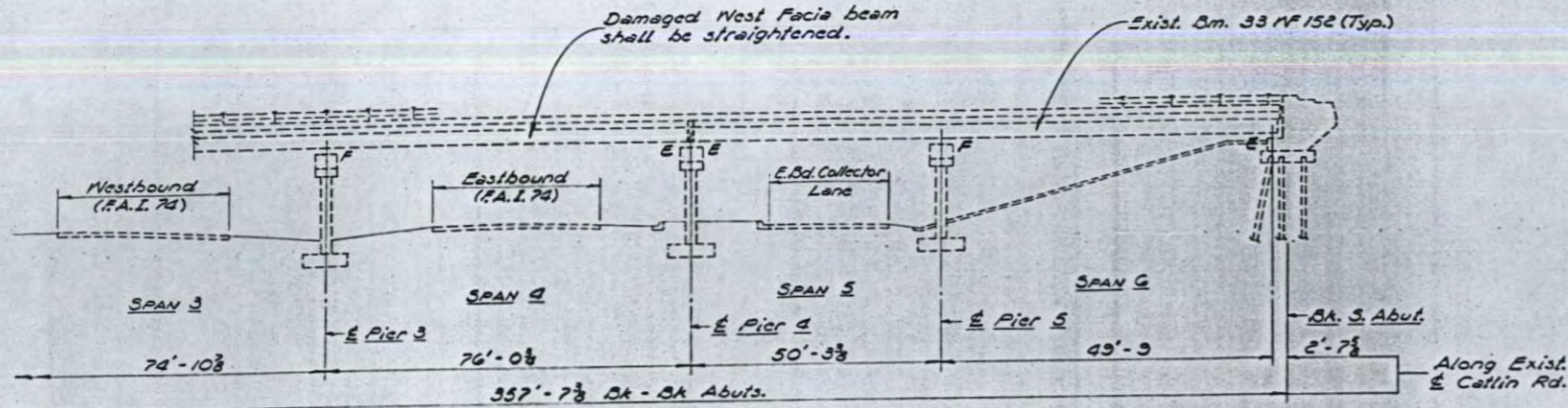
Aug 26 1959
 DRAWN BY G. C. [Signature]
 CHECKED BY L. J. [Signature]

FAI. RT 70 SEC. 92-11 HB-9
 VERMILION COUNTY
 STA. 1917 - 6325

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NO.	DATE	BY	REVISION

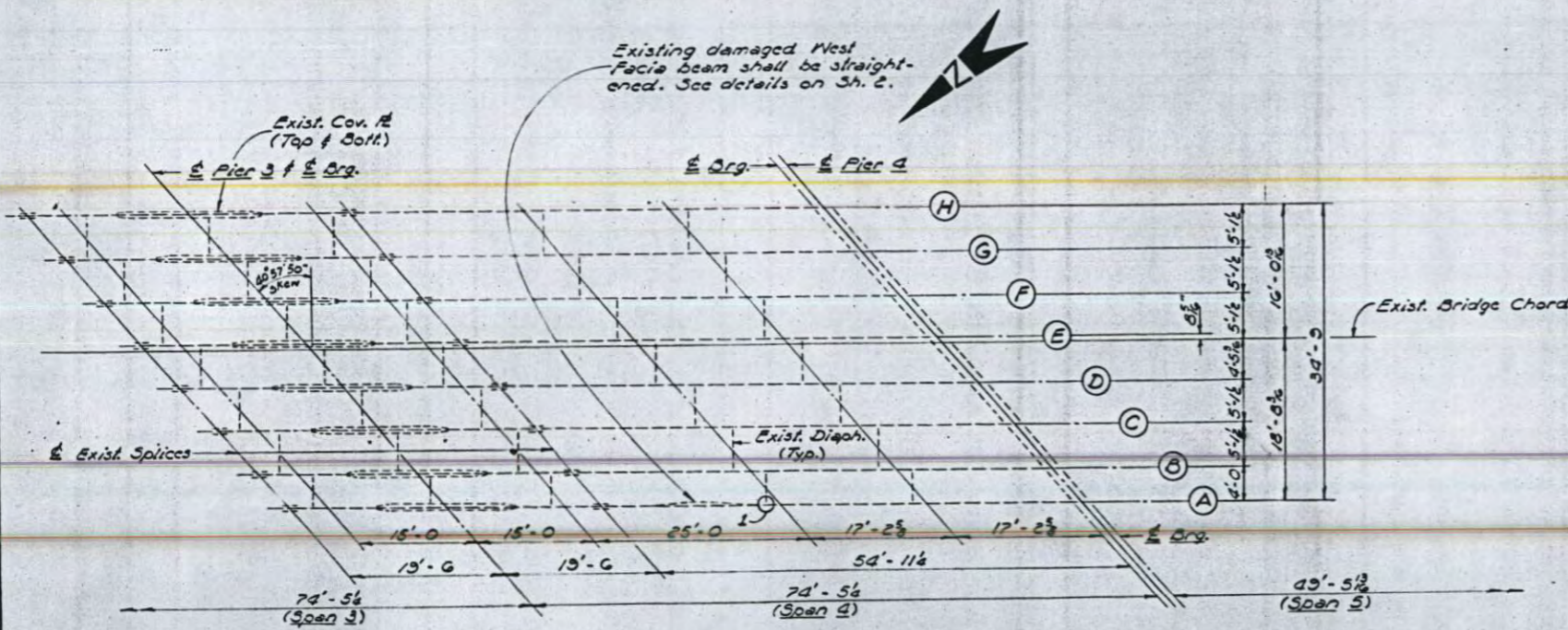
SHEET NO 1
2 SHEETS



ELEVATION
(Looking East)

GENERAL NOTES

- All new structural steel shall conform to AASHTO Classification M-103.
- All new high strength bolts shall be AASHTO Classification M-164.
- Bolts may be subpunched or subdrilled $\frac{1}{16}$ " ϕ and reamed to $\frac{1}{8}$ " ϕ for $\frac{3}{4}$ " ϕ H.S. bolts in the field after new steel is properly fitted into position.
- All metal to metal contact surfaces shall be free of paint or lacquer.
- Oil and all loose paint shall be removed from the damaged beam in the area of impact.
- The three coat lead and chromate free alkyd paint system shall be used for field painting structural steel. The color of the final finish coat shall be aluminum for interior structural steel and interstate green for exterior structural steel.
- All areas of paint damage in the repair area shall be cleaned by Method II prior to painting as specified above.
- The damaged beam shall be mechanically straightened. No heat will be used to facilitate the straightening process. See Special Provisions.
- The Contractor shall have his method of straightening approved by the Engineer prior to ordering materials and installation.
- All materials used in the straightening of the beam shall be included in the pay item, "Beam Straightening."
- Grind existing nicks, gouges and shallow cracks in the damaged beams as shown by the detail on Sheet 2. Cost is incidental to "Beam Straightening." Ground surfaces shall be inspected for cracks by using Liquid Dye Penetrant. Any crack that cannot be removed by grinding approximately $\frac{1}{4}$ " deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition.



PARTIAL DECK FRAMING PLAN

(Note: Horizontal dimensions taken along Exist. Bridge Chord.)

- 1- Existing bottom diaphragm connection angle shall be replaced. For details see Sheet 2.

TOTAL BILL OF MATERIAL

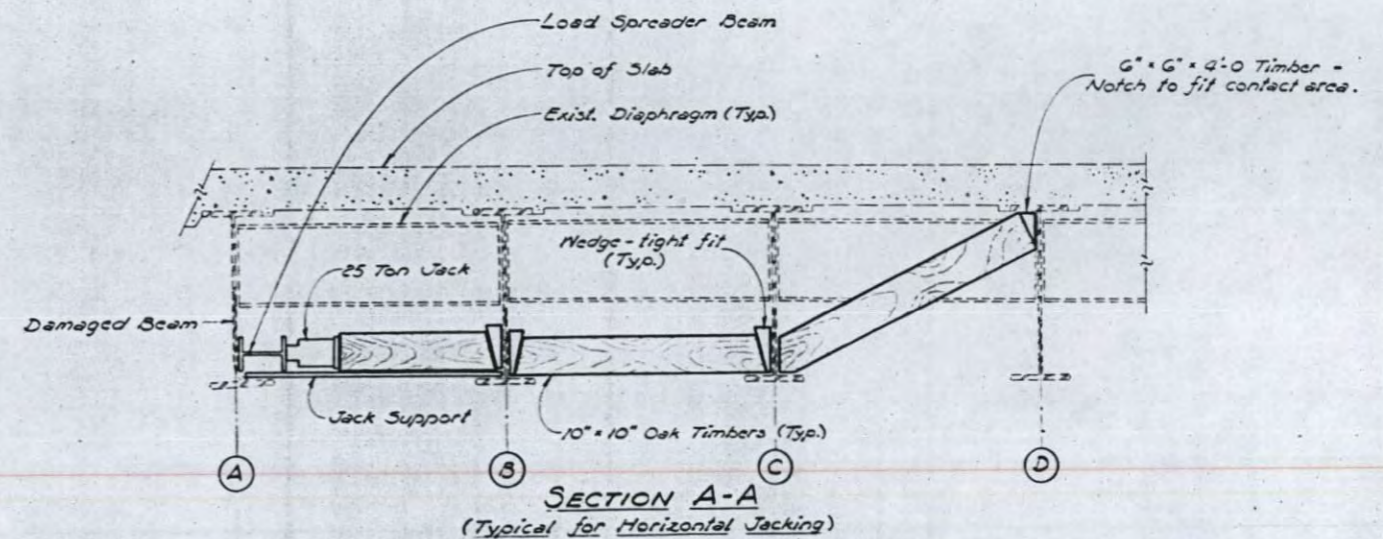
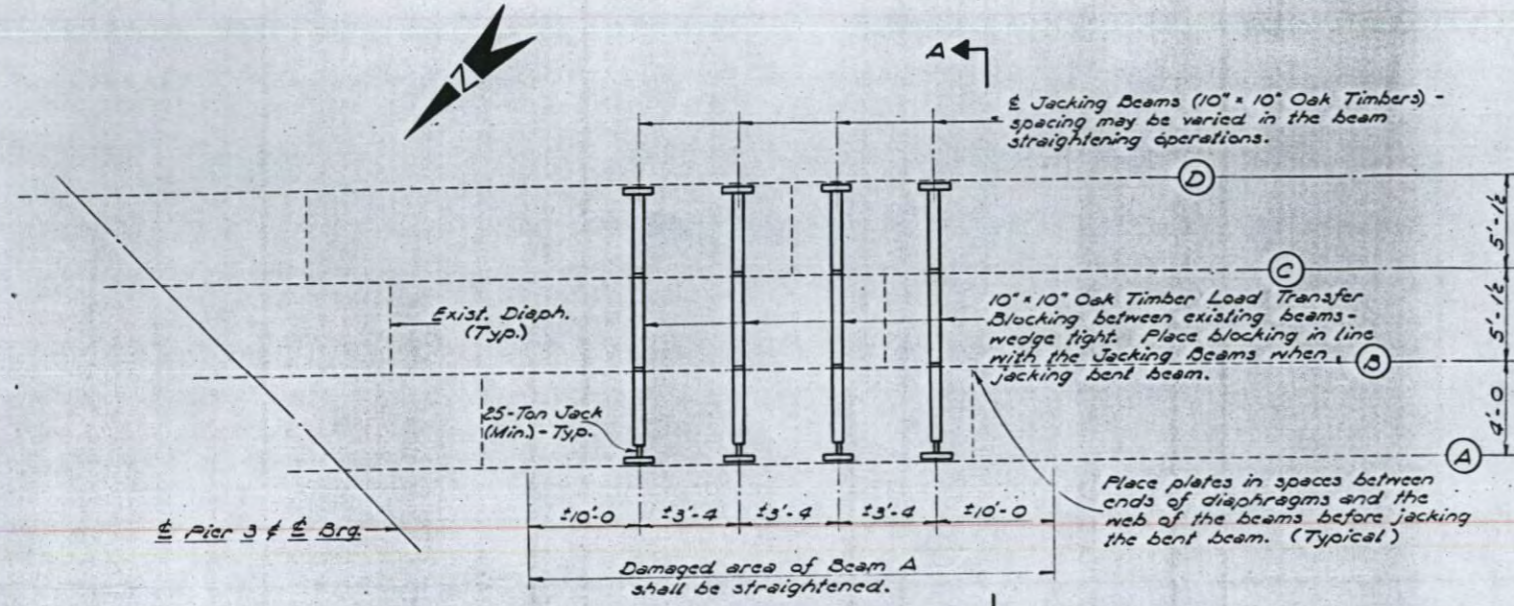
Item	Unit	Total
Beam Straightening	Lump Sum	L.S.
Traffic Control	Lump Sum	L.S.

BEAM STRAIGHTENING
CATLIN RD. OVER F.A.I. RT. 74
F.A.I. RT. 74 SEC. 92-11 HB-4
VERMILION COUNTY
STA. 1917 + 83.25

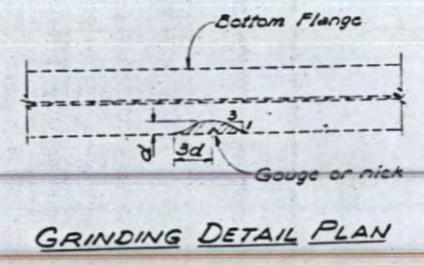
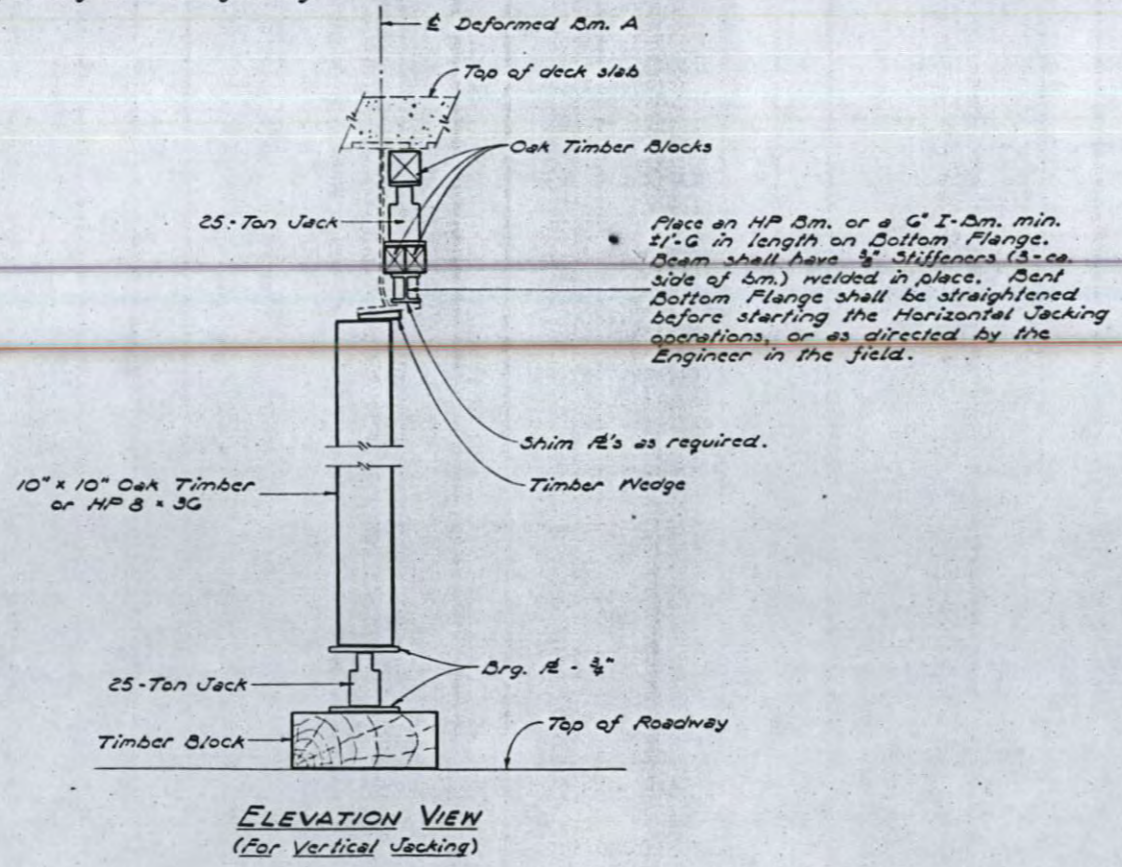
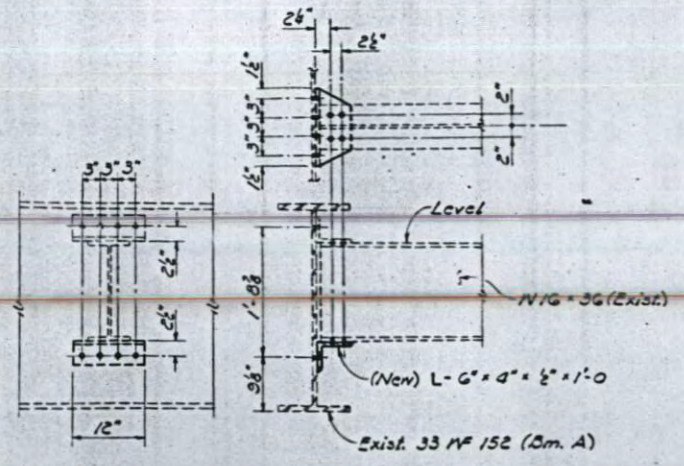
DESIGNED	S. Engez	Aug 22 1988
CHECKED	RBC	EXAMINED
DRAWN	r. b. carbonell	ENGINEER OF STRUCTURAL SERVICES
CHECKED	S. Engez	PASSED
		DIRECTOR OF BRIDGES AND STRUCTURES
		APPROVED
		DIRECTOR OF HIGHWAYS

180-Q

(S.N. 092-0087)



SUGGESTED BEAM STRAIGHTENING METHOD
All materials and items used in the straightening of bent beam shall be incidental to "Beam Straightening". For details see this sheet. Jacking force shall be maintained on all load transfer blocking during beam straightening.



DESIGNED	S. Engez
CHECKED	RBC
DRAWN	r. b. carbonell
CHECKED	S. Engez

Aug 22 1938

EXAMINED A. J. Rohrer
ENGINEER OF STRUCTURAL SERVICES
PASSED

APPROVED _____
SUPERVISOR OF BRIDGES AND STRUCTURES
DIRECTOR OF HIGHWAYS

FA. I. Rt. 74 SEC. 92-11 HB-4
VERMILION COUNTY
STA. 1917 + 83.25

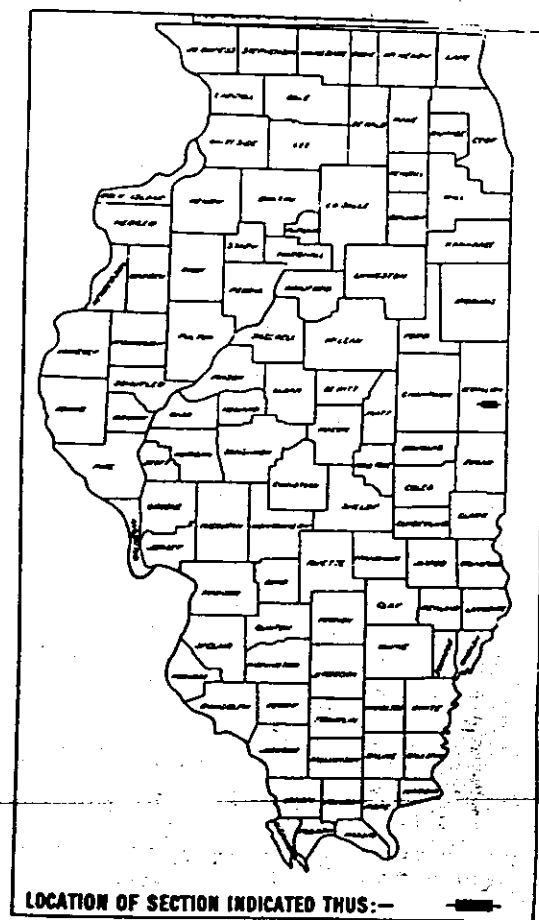
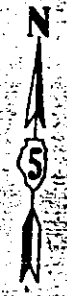
FOR INDEX OF SHEETS - SEE SHEET 3.
FOR SUMMARY OF QUANTITIES - SEE SHEET 3.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS
PLANS FOR PROPOSED
FEDERAL AID INTERSTATE HIGHWAY

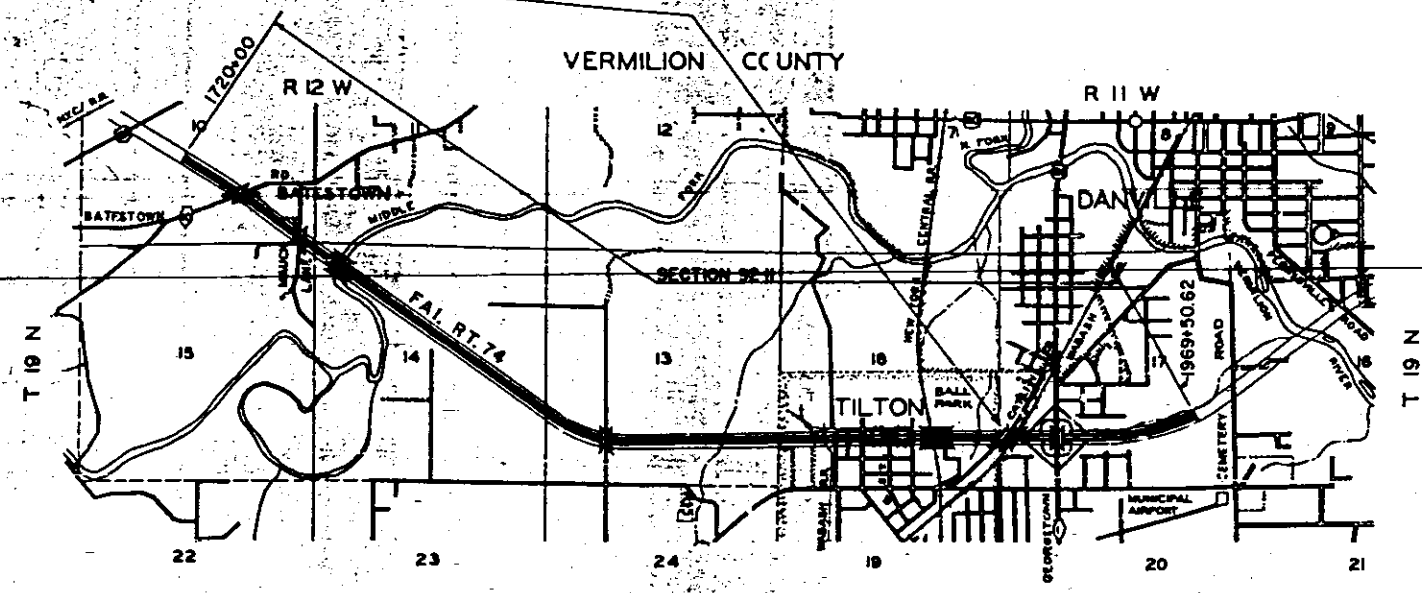
SECTION	COUNTY	SHEET NO.	TOTAL SHEETS
74	VERMILION	51	1

F.A.I. ROUTE 74, SECTION 92-II-HB-4 VERMILION COUNTY
PROJECT IG-74-6(40)216

SCALES
PLAN 1" = 100 FT
PROFILE HOR 1" = 100 FT
PROFILE VERT 1" = 10 FT
CROSS SECTIONS 1" = 5 FT



SECTION 92-II-HB-4 INCLUDES ONE 6 SPAN STEEL BEAM GRADE SEPARATION STRUCTURE, SPANS 50'-0", 51'-6 1/4", 74'-10 7/8", 76'-0 3/4", 50'-3 3/8", 49'-9", WITH 30'-0" ROADWAY, AND ONE 5'-0" SIDEWALK AND ONE 2'-0" SAFETY WALK ON REINFORCED CONCRETE PIERS AND ABUTMENTS AT STATION 1917 + 81.25 TOGETHER WITH APPROACH ROAD WORK



APPROVED
FOR STRUCTURAL ADEQUACY ONLY
W. B. Bauman 11/13/62
ENGINEER OF BRIDGES AND TRAFFIC STRUCTURES

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS
October 22, 62
J. J. C. C.
November 13, 62
W. B. Bauman
November 13, 62
W. B. Bauman
November 13, 62
W. B. Bauman

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.

092-0087

NET LENGTH OF SECTION = 0.00 FEET = 0.000 MILES
NET LENGTH OF PROJECT = 0.00 FEET = 0.000 MILES

ROUTE 74, SECTION 92-II-HB-4 VERMILION COUNTY IG-74-6(40)216



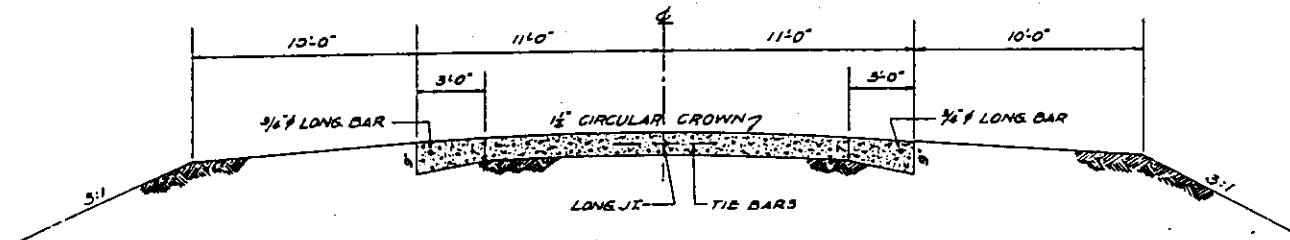
W. B. Bauman

5-37

Job No. 22754

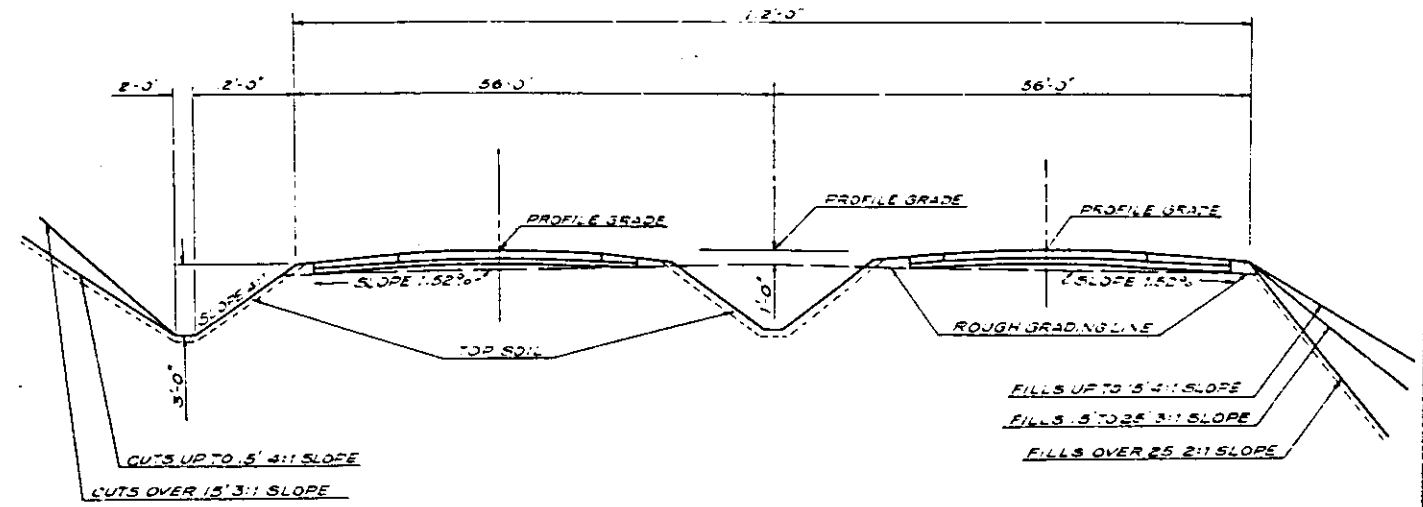
TYPICAL SECTION
EXISTING CATLIN ROAD

FEDERAL AID DISTRICT NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 174	92-11 NB-4	VERMILION	51	2



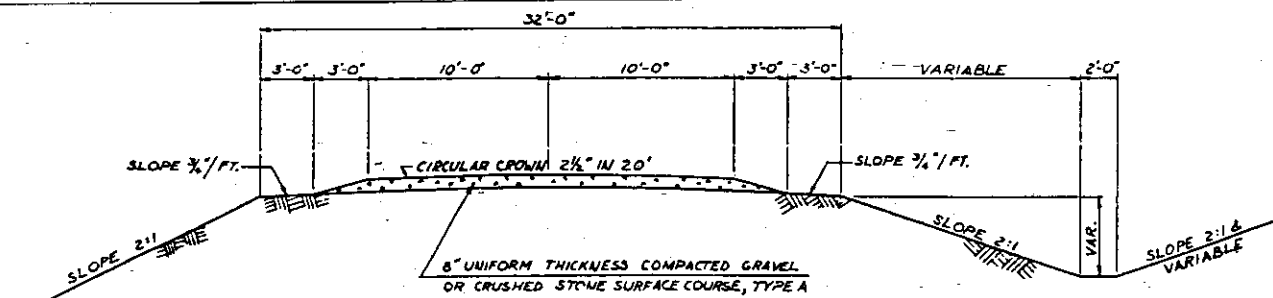
TYPICAL SECTION
ROUGH GRADING LINE
FOR
DUAL PORTLAND CEMENT CONCRETE PAVEMENT

FEDERAL AID DISTRICT NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 174	92-11 NB-4	VERMILION	51	2



TYPICAL CROSS SECTION
FOR
20 FT. GRAVEL OR CRUSHED STONE SURFACE COURSE, TYPE A
ON 32' ROADWAY

FEDERAL AID DISTRICT NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 174	92-11 NB-4	VERMILION	51	2



SCALE 1"=5'

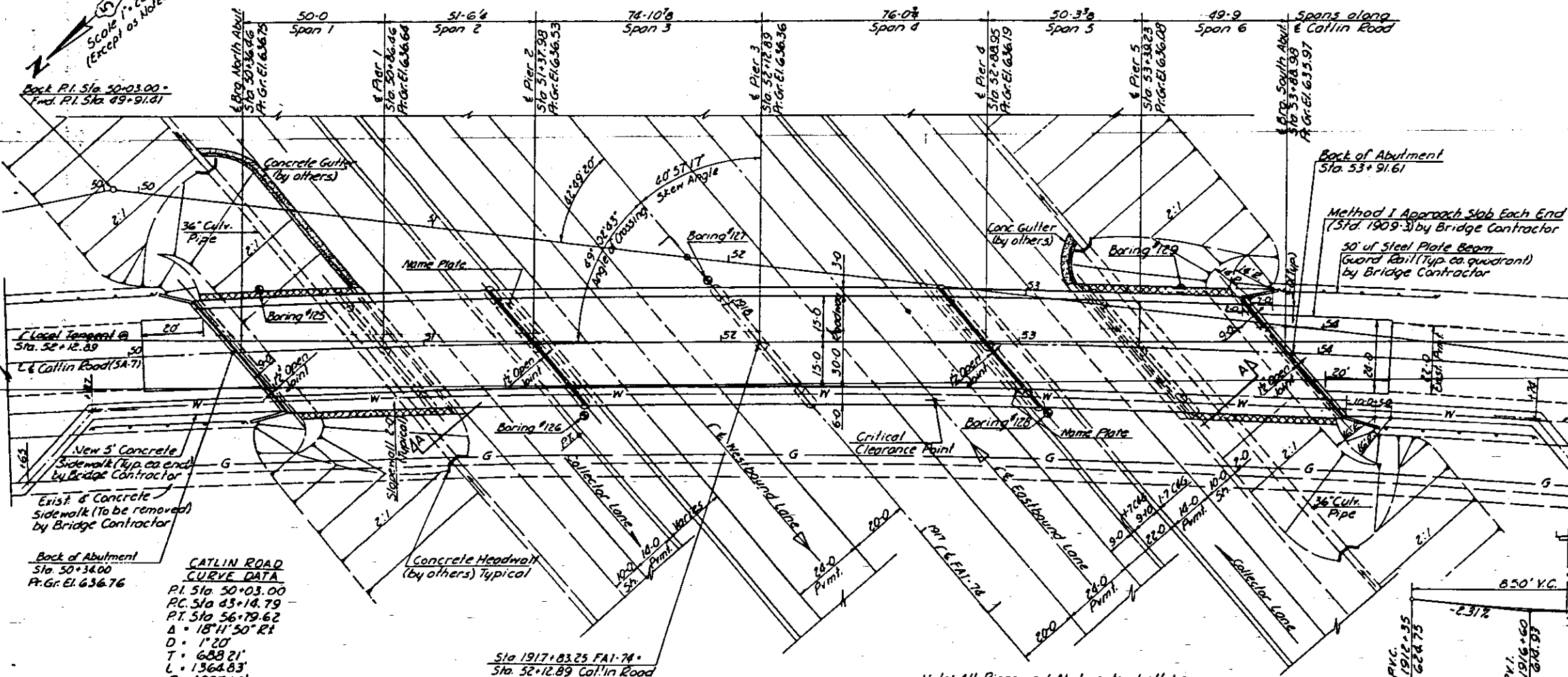
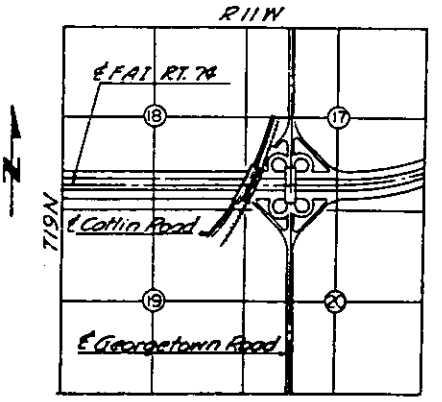
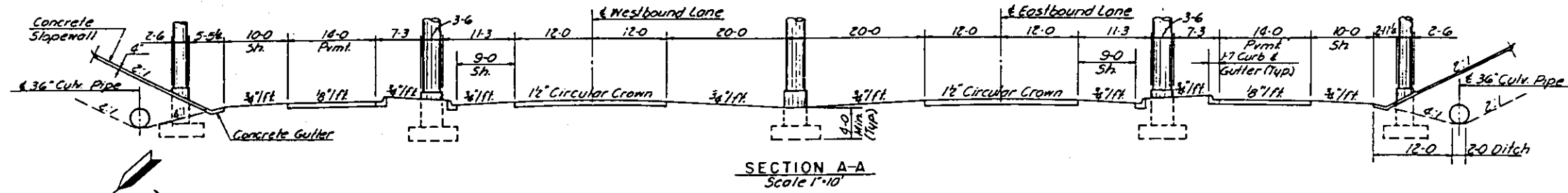
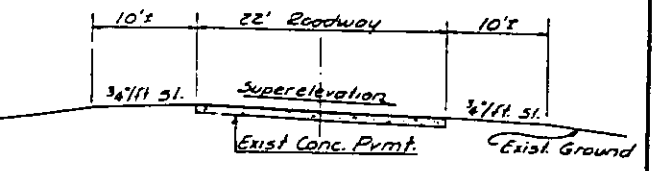
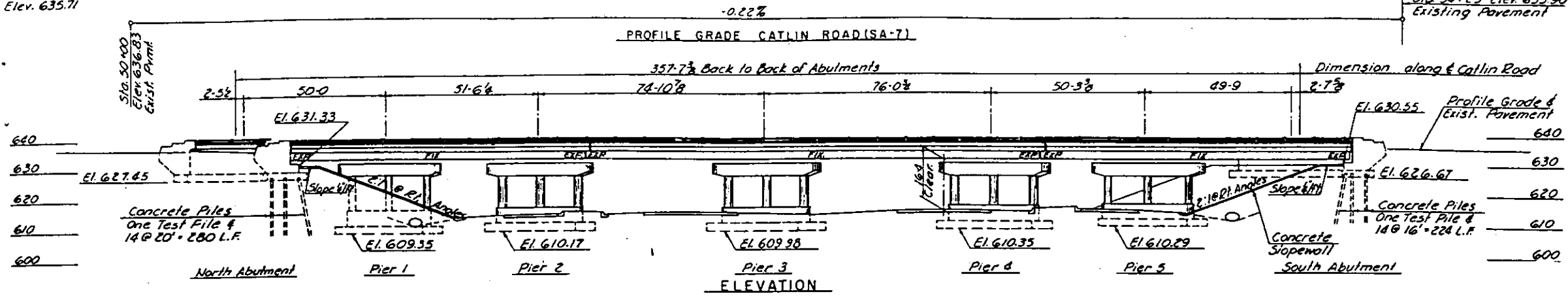
CATLIN ROAD DETOUR
STA. 45+21.43 TO STA. 56+95.69

THE NOMINAL THICKNESS FOR SUB-BASE, GRANULAR MATERIAL AND GRAVEL OR CRUSHED STONE SHOULDERS TYPE A; 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.

B.M. #29 Spike in Roof 15'
Twin Elm 125' Rt. Sta 1917+45
Elev. 635.71

Sta 54+25 Elev. 635.90
Existing Pavement

FILE NO.	SECTION	DATE	TOTAL SHEETS	SHEET NO.
74	92-11 HBAVERMILION	51	7	7

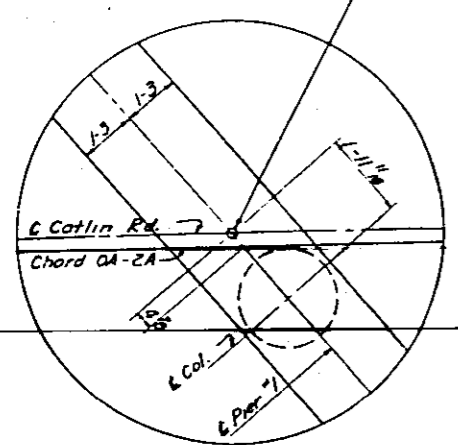
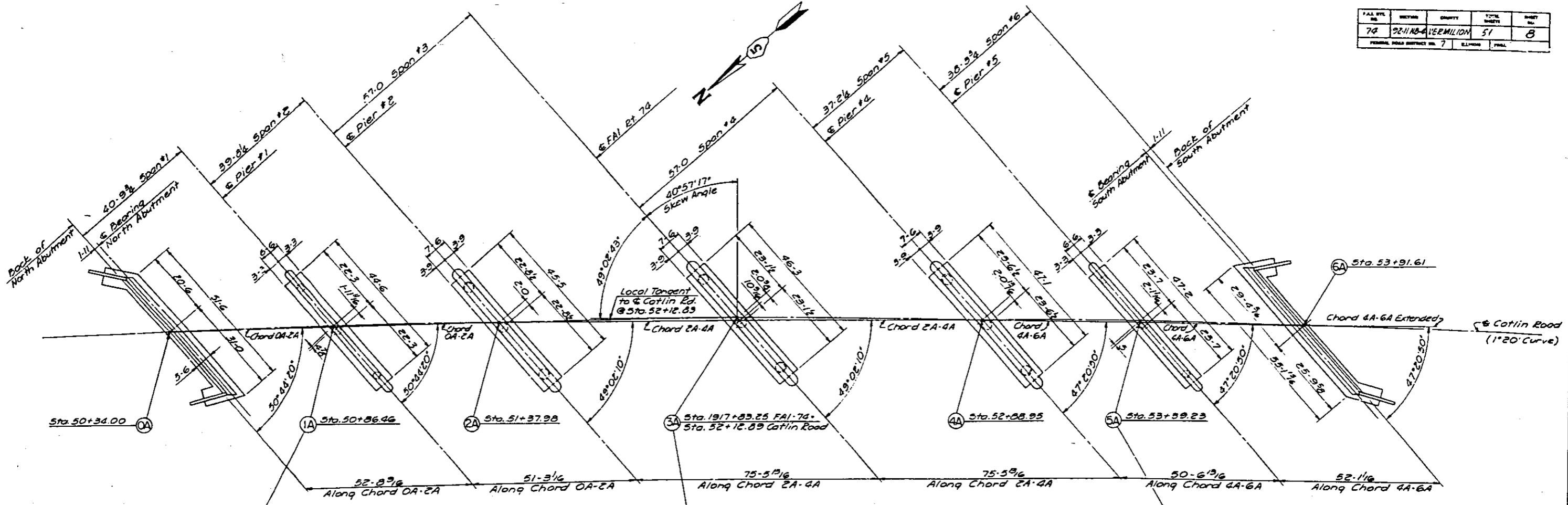


CATLIN ROAD CURVE DATA
P.I. Sta. 50+03.00
P.C. Sta. 43+14.79
P.T. Sta. 56+19.62
Δ = 18°1'50" Rt
D = 1" 20"
T = 688.21'
L = 1364.83'
R = 4297.29'
E = 54.74'

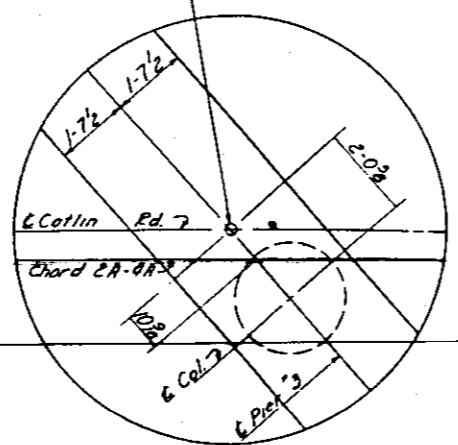
Note: All Piers and Abutments shall be skewed 40°57'17" to the Local Tangent of Sta. 52+12.89 Catlin Road. (Parallel to & FAI-74)

PROFILE OF CROWN FAI-74

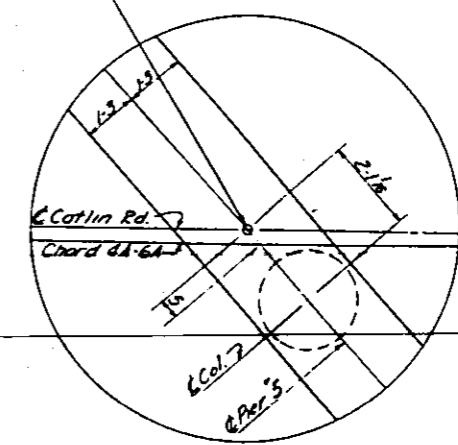
PLAN SHEET NO.	SECTION	QUANTITY	TOTAL SHEETS	SHEET NO.
74	92-118-4	VERMILION	51	8
FEDERAL ROAD DISTRICT NO. 7		ILLINOIS	FINAL	



PIER NO. 1



PIER NO. 3



PIER NO. 5

SUPERSTRUCTURE LAYOUT

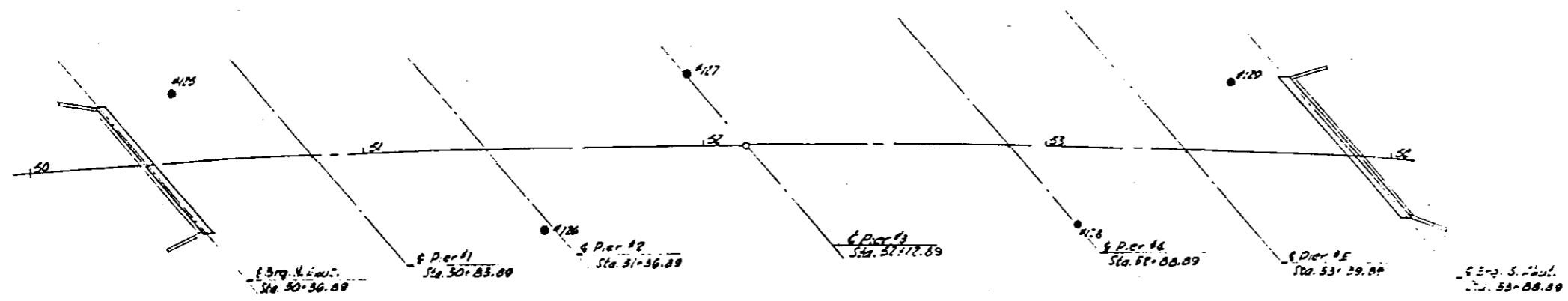
CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
CATLIN ROAD (SA-7) OVER FAI-74
FAI-74 SECTION 92-11 HB-4
VERMILION COUNTY STA. 1917+83.25

STAKE - OUT DIAGRAM

DESIGNED	CHECKED	DATE
SMH	RBS	JMG
DATE	DATE	DATE
		HSM 7.31.62





BORING NO.	STATION (CATLIN NO.)	DEPTH
125	50 + 44	20' L.
126	51 + 53	22' R.
127	51 + 96	20' L.
128	53 + 08	22' R.
129	53 + 52	20' L.

BORING NO. 125
DATE: 8-12-58
GROUND ELEVATION: +636.3'

DEPTH (FEET)	SOIL DESCRIPTION
36.3	1 - 26 - 0.8 SILT-SOME CLAY & SAND - TRACE OF GRAVEL & CINCH FILL - BROWN & DARK BROWN - MED. DENSE (H)
34.3	2 - 23 - 3.9 CLAY & SILT - TRACE OF SAND, GRAVEL & WISC. FILL - BROWN - MED. DENSE (H)
32.3	3 - 18 - 0.3 WATER LEVEL +629.8' AFTER CASING REMOVAL
29.3	4 - 3.4 - 0.4 WET CLAY - +627.6' AFTER CASING REMOVAL
28.3	5 - 3.6 - 0.8 SILT-SOME CLAY & SAND - TRACE OF GRAVEL - BROWN - MED. DENSE (H)
24.3	6 - 4.1 - 0.7 WATER LEVEL +624.8' BEFORE CASING REMOVAL
22.3	7 - 2.6 - 0.8 SILT-SOME CLAY & SAND - TRACE OF GRAVEL - GRAY - VERY DENSE (H)
19.3	8 - 1.9 - 1.0 MED. TO COARSE SAND - TRACE OF GRAVEL & SILT - BROWN - MED. DENSE (H)
17.3	9 - 0.1 - 0.1 SILT-SOME SAND & CLAY - TRACE OF GRAVEL - GRAY - DENSE (H)
16.3	10 - 1.0 - 1.0 FINE TO COARSE SAND - SOME GRAVEL - TRACE OF SILT - BROWN - VERY DENSE (H)
11.3	11 - 1.0 - 0.5 SILT & CLAY - TRACE OF SAND - GRAY - VERY DENSE (H)
09.3	12 - 1.0 - 0.5
07.3	13 - 1.0 - 0.5

END OF BORING 20' BY CASING

BORING NO. 126
DATE: 8-12-58
GROUND ELEVATION: +636.8'

DEPTH (FEET)	SOIL DESCRIPTION
34.8	1 - 27 - 0.7 BLACK TOP SOIL - MED. DENSE (H)
32.8	2 - 16 - 0.7 SILT & CLAY - TRACE OF SAND & GRAVEL - BROWN - MED. DENSE (H)
30.8	3 - 10 - 0.5 CLAY-SOME SILT - TRACE OF SAND & GRAVEL - BROWN - TOUCH (H)
28.8	4 - 15 - 1.3 - 0.2 WATER LEVEL +625.5' BEFORE CASING REMOVAL
26.8	5 - 20 - 1.8 - 1.0 SILT-SOME CLAY - TRACE OF SAND & GRAVEL - BROWN - MED. DENSE (H)
23.8	6 - 2.9 - 0.8 WATER LEVEL +623.5' AFTER CASING REMOVAL
21.8	7 - 5.0 - 0.8 SILT-SOME SAND & CLAY - TRACE OF GRAVEL - GRAY - DENSE (H)
19.8	8 - 5.9 - 0.8 SILT-SOME SAND & CLAY - TRACE OF GRAVEL - GRAY - DENSE (H)
18.8	9 - 0.4 - 0.4 FINE TO COARSE SAND - TRACE OF GRAVEL & SILT - GRAY - VERY DENSE (H)
14.8	10 - 3.6 - 0.5 MED. TO COARSE SAND - SOME GRAVEL - TRACE OF SILT - BROWN & GRAY - DENSE (H)
11.8	11 - 7.4 - 0.3 SILT & CLAY - TRACE OF SAND - GRAY - VERY DENSE (H)
09.8	12 - 1.3 - 0.8
07.8	13 - 1.3 - 0.8

END OF BORING 20' BY CASING

BORING NO. 127
DATE: 8-12-58
GROUND ELEVATION: +638.1'

DEPTH (FEET)	SOIL DESCRIPTION
36.1	1 - 26 - 0.5 DARK BROWN TOP SOIL & 0.5 FILL - MED. DENSE (H)
34.1	2 - 21 - 0.4 SILT-SOME SAND & CLAY - TRACE OF GRAVEL - DARK BROWN - FILL - MED. DENSE (H)
32.1	3 - 15 - 1.0 WATER LEVEL +631.25' 24 HRS. AFTER CASING REMOVAL
30.1	4 - 1.0 - 0.4 CLAY-SOME SILT - TRACE OF SAND & GRAVEL - BROWN - TOUCH (H)
29.1	5 - 1.0 - 0.4 WATER LEVEL +630.1' AFTER CASING REMOVAL
28.1	6 - 1.0 - 0.4 SILT-SOME SAND & CLAY - BROWN - LOOSE (H)
27.1	7 - 1.0 - 0.4 WATER LEVEL +629.1' BEFORE CASING REMOVAL
26.1	8 - 1.0 - 0.4 WATER LEVEL +628.1' WHILE CASING REMOVAL
25.1	9 - 2.5 - 1.8 SILT-SOME CLAY & SAND - TRACE OF GRAVEL - BROWN - MED. DENSE (H)
24.1	10 - 3.3 - 1.8
23.1	11 - 0.3 - 0.3 SILT-SOME CLAY & SAND - TRACE OF GRAVEL - BROWN - DENSE (H)
22.1	12 - 0.3 - 0.3
21.1	13 - 0.3 - 0.3
20.1	14 - 0.3 - 0.3
19.1	15 - 0.3 - 0.3
18.1	16 - 0.3 - 0.3
17.1	17 - 0.3 - 0.3
16.1	18 - 0.3 - 0.3
15.1	19 - 0.3 - 0.3
14.1	20 - 0.3 - 0.3
13.1	21 - 0.3 - 0.3
12.1	22 - 0.3 - 0.3
11.1	23 - 0.3 - 0.3
10.1	24 - 0.3 - 0.3
09.1	25 - 0.3 - 0.3
08.1	26 - 0.3 - 0.3
07.1	27 - 0.3 - 0.3
06.1	28 - 0.3 - 0.3
05.1	29 - 0.3 - 0.3
04.1	30 - 0.3 - 0.3
03.1	31 - 0.3 - 0.3
02.1	32 - 0.3 - 0.3
01.1	33 - 0.3 - 0.3

END OF BORING 20' BY CASING

BORING NO. 128
DATE: 8-12-58
GROUND ELEVATION: +635.0'

DEPTH (FEET)	SOIL DESCRIPTION
34.0	1 - 23 - 0.2 SILT-SOME CLAY & SAND - TRACE OF GRAVEL - BROWN - FILL - MED. DENSE (H)
32.0	2 - 11 - 0.3 CLAY-SOME SILT - TRACE OF SAND & GRAVEL - BROWN - TOUCH (H)
30.0	3 - 10 - 1.0 - 0.6 WATER LEVEL +629.2' AFTER CASING REMOVAL
28.0	4 - 8 - 1.0 SILT-SOME SAND & CLAY - TRACE OF GRAVEL - BROWN - LOOSE (H)
27.0	5 - 1.0 - 0.3 WATER LEVEL +628.2' AFTER CASING REMOVAL
26.0	6 - 0.4 - 0.8 SILT-SOME SAND & CLAY - TRACE OF GRAVEL - BROWN - MED. DENSE (H)
25.0	7 - 1.0 - 0.3 WATER LEVEL +626.1' BEFORE CASING REMOVAL
24.0	8 - 0.5 - 0.5 MED. TO COARSE SAND - SOME GRAVEL - TRACE OF SILT - BROWN & GRAY - VERY DENSE (H)
23.0	9 - 0.5 - 0.5
22.0	10 - 0.5 - 0.5
21.0	11 - 1.0 - 1.0
20.0	12 - 0.5 - 0.5
19.0	13 - 0.5 - 0.5
18.0	14 - 0.5 - 0.5
17.0	15 - 0.5 - 0.5
16.0	16 - 0.5 - 0.5
15.0	17 - 0.5 - 0.5
14.0	18 - 0.5 - 0.5
13.0	19 - 0.5 - 0.5
12.0	20 - 0.5 - 0.5
11.0	21 - 0.5 - 0.5
10.0	22 - 0.5 - 0.5
09.0	23 - 0.5 - 0.5
08.0	24 - 0.5 - 0.5
07.0	25 - 0.5 - 0.5
06.0	26 - 0.5 - 0.5
05.0	27 - 0.5 - 0.5
04.0	28 - 0.5 - 0.5
03.0	29 - 0.5 - 0.5
02.0	30 - 0.5 - 0.5
01.0	31 - 0.5 - 0.5

END OF BORING 20' BY CASING

BORING NO. 129
DATE: 8-12-58
GROUND ELEVATION: +635.7'

DEPTH (FEET)	SOIL DESCRIPTION
34.7	1 - 27 - 0.5 SILT & CLAY-SOME SAND - TRACE OF GRAVEL - DARK BROWN - FILL - MED. DENSE (H)
32.7	2 - 22 - 0.7 CLAY-SOME SILT & SAND - TRACE OF GRAVEL - BROWN - TOUCH (H)
30.7	3 - 18 - 0.2 WATER LEVEL +629.7' BEFORE CASING REMOVAL
29.7	4 - 8 - 0.2 SILT-SOME SAND & CLAY - TRACE OF GRAVEL - BROWN - LOOSE (H)
28.7	5 - 1.0 - 0.2 WATER LEVEL +628.2' AFTER CASING REMOVAL
27.7	6 - 1.0 - 0.2 WATER LEVEL +626.7' BEFORE CASING REMOVAL
26.7	7 - 1.0 - 0.2
25.7	8 - 1.0 - 0.2
24.7	9 - 1.0 - 0.2
23.7	10 - 0.7 - 1.2
22.7	11 - 0.7 - 1.2
21.7	12 - 0.7 - 1.2
20.7	13 - 0.7 - 1.2
19.7	14 - 0.7 - 1.2
18.7	15 - 0.7 - 1.2
17.7	16 - 0.7 - 1.2
16.7	17 - 0.7 - 1.2
15.7	18 - 0.7 - 1.2
14.7	19 - 0.7 - 1.2
13.7	20 - 0.7 - 1.2
12.7	21 - 0.7 - 1.2
11.7	22 - 0.7 - 1.2
10.7	23 - 0.7 - 1.2
09.7	24 - 0.7 - 1.2
08.7	25 - 0.7 - 1.2
07.7	26 - 0.7 - 1.2
06.7	27 - 0.7 - 1.2
05.7	28 - 0.7 - 1.2
04.7	29 - 0.7 - 1.2
03.7	30 - 0.7 - 1.2
02.7	31 - 0.7 - 1.2
01.7	32 - 0.7 - 1.2

END OF BORING 20' BY CASING

GENERAL NOTES

1950 CHICAGO BUILDING CODE SOIL CLASSIFICATIONS ARE USED.

E : ELEVATION
S : SAMPLE NUMBERS
P# : PENETRATION IN BLOWS PER FOOT OF 140 POUNDS NUMBER FALLING 30 INCHES
Q# : UNCONFINED COMPRESSIVE STRENGTH (1/2) IN T.
R : RECOVERY IN FEET
S# : SPLIT SPOON-SIZES 2" O.D. SIZE 1/8" I.D.
W : WET
D : DRY

*LOGS PREPARED BY
SOIL TESTING SERVICES, INC.
1827 N. HARLES AVE.
CHICAGO 36, ILL.

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

S.I.S. JOB NO. 7771-9

LOCATION # 17

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS
CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
CATLIN ROAD (SA-7) OVER FAI-74
FAI-74 SECTION 92-II-40A
VERMILION COUNTY JIM 1917-63 25

BORING LOGS

NO.	DATE	BY	CHECKED	DATE	REVISION
			LDB		
	HSM 10/28/58				

C	S	PH	QU	R	CLASSIFICATION

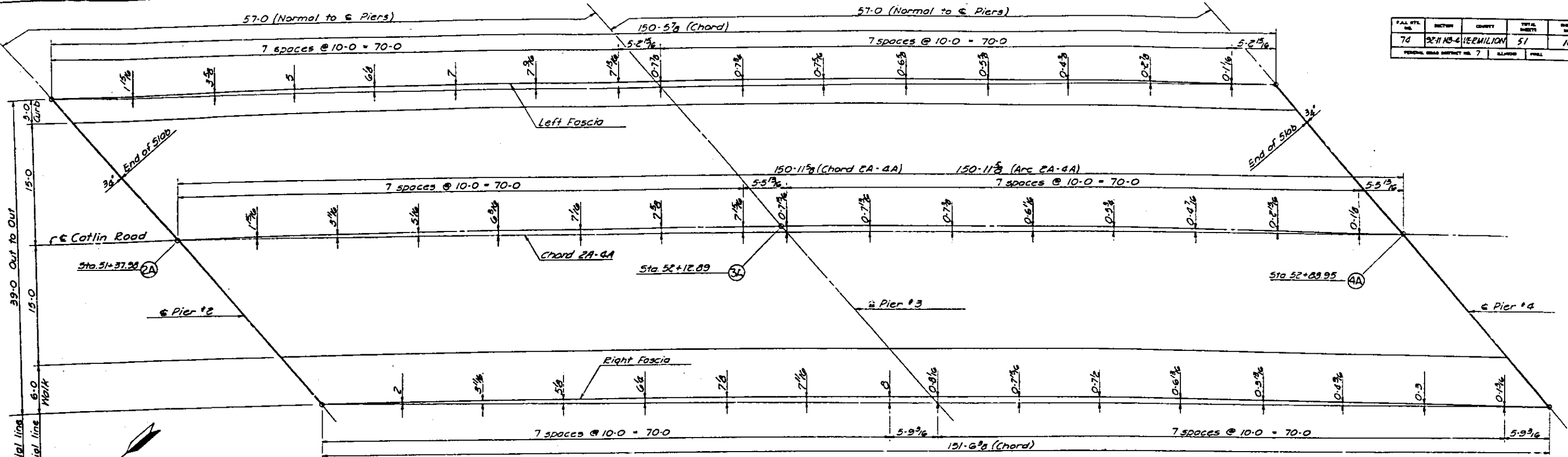
C	S	PH	QU	R	CLASSIFICATION

C	S	PH	QU	R	CLASSIFICATION

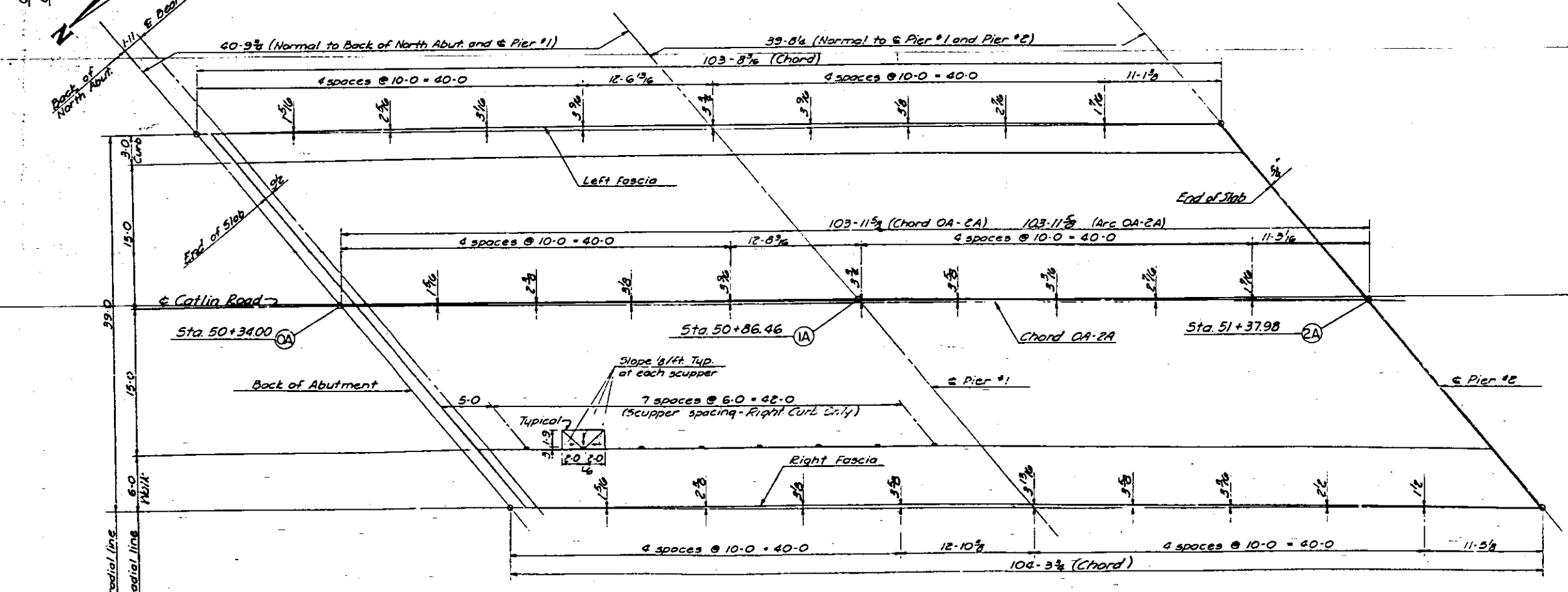
C	S	PH	QU	R	CLASSIFICATION

C	S	PH	QU	R	CLASSIFICATION

PAL. FILE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11 HB-4	VERMILION	51	10
VERMILION COUNTY HIGHWAY DISTRICT NO. 7				



SUPERSTRUCTURE LAYOUT - SPANS NO. 3 & 4



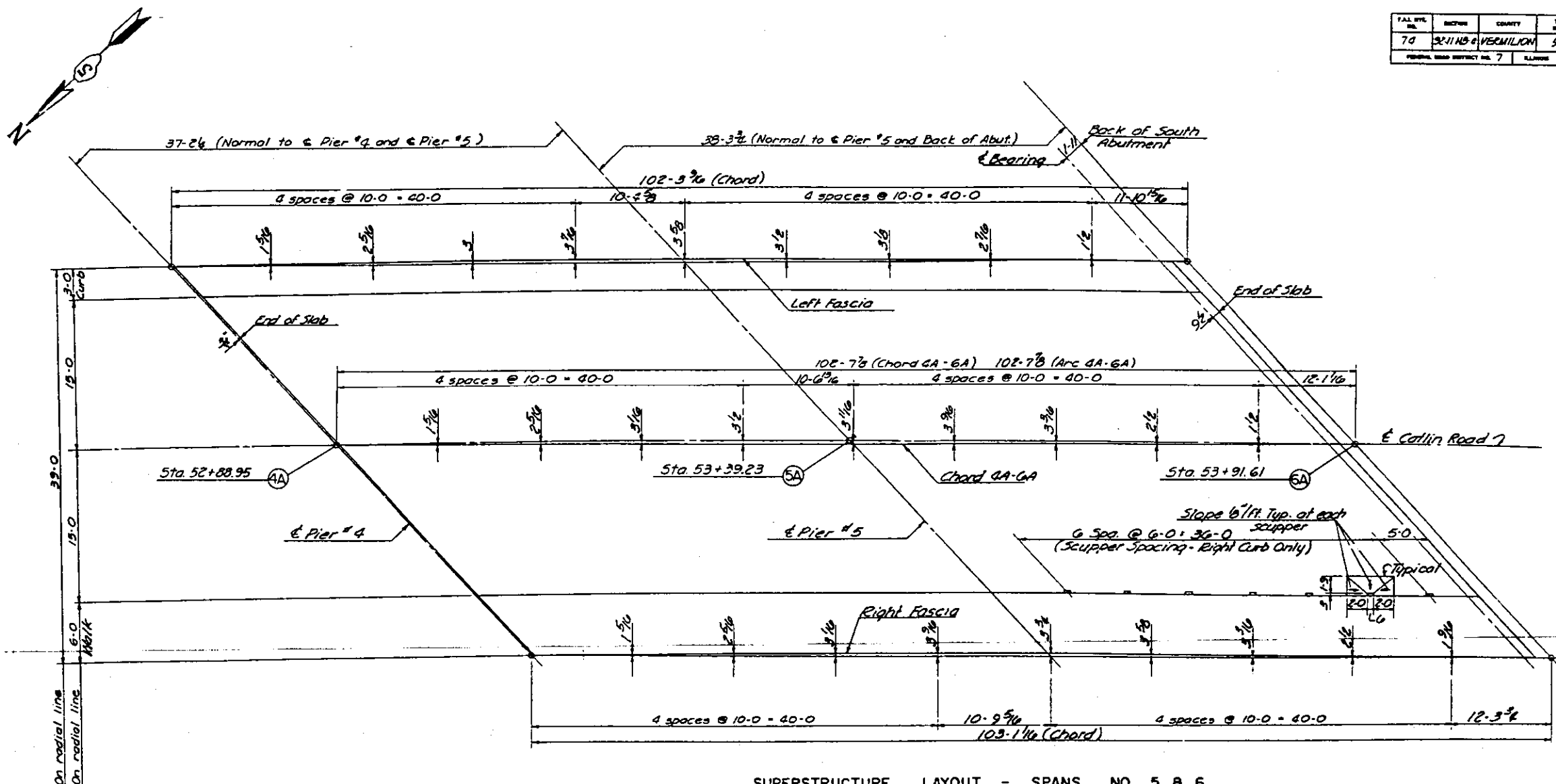
SUPERSTRUCTURE LAYOUT - SPANS NO. 1 & 2

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS
ILLINOIS DIVISION OF HIGHWAYS
CATLIN ROAD (SA-7) OVER FAI-74
FAI-74 SECTION 92-11 HB-4
VERMILION COUNTY - STA. 4917+83.25

SUPERSTRUCTURE DETAILS

DESIGNED RBS	DRAWN JMG	CHECKED JMG	APPROVED RBS LDB	DATE MAY 7, 1968
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F.A.I. SHEET NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11 HB-4	VERMILION	51	11
FEDERAL ROAD DISTRICT NO. 7		ILLINOIS	P.M.A.	



SUPERSTRUCTURE LAYOUT - SPANS NO. 5 & 6

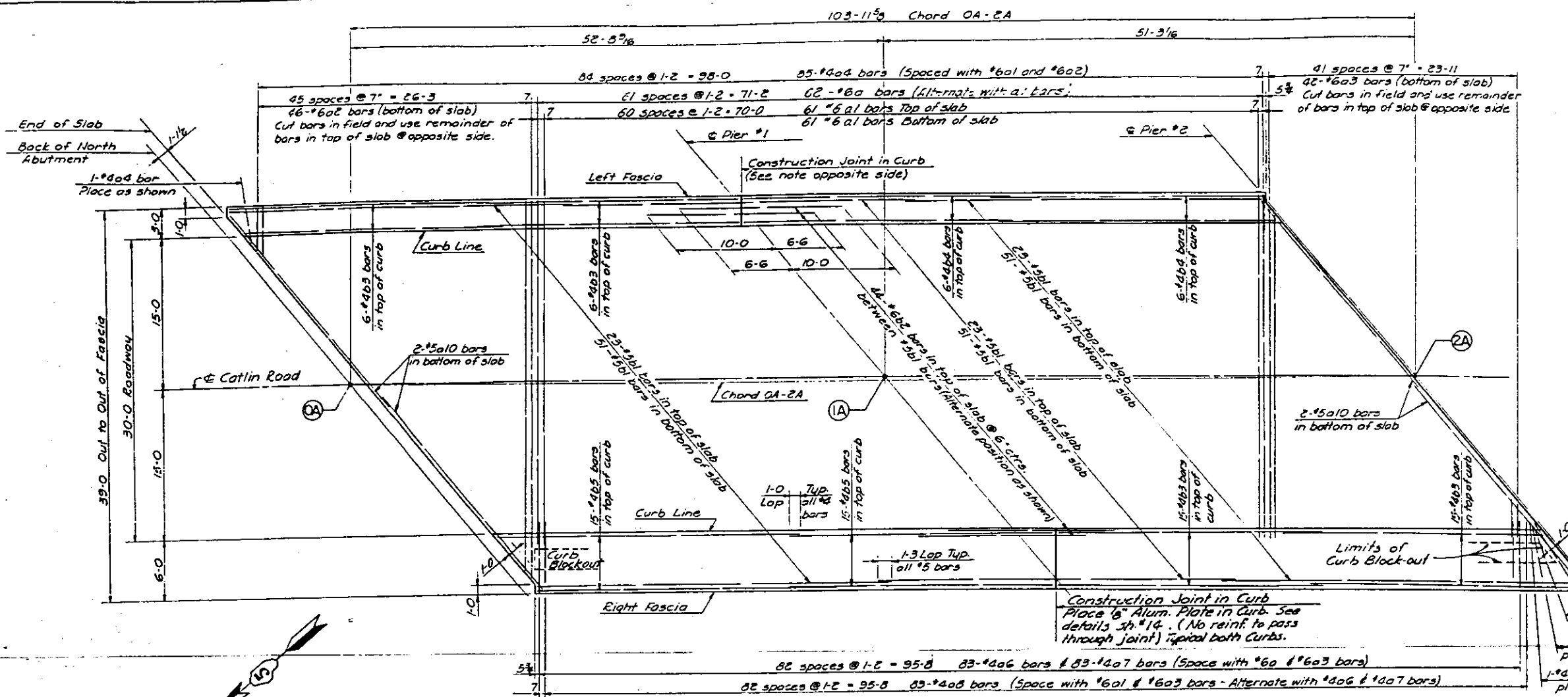
CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
CATLIN ROAD (SA-7) OVER FAI 74
FAI 74 SECTION 92-11 HB-4
VERMILION COUNTY STA. 1917+83.25

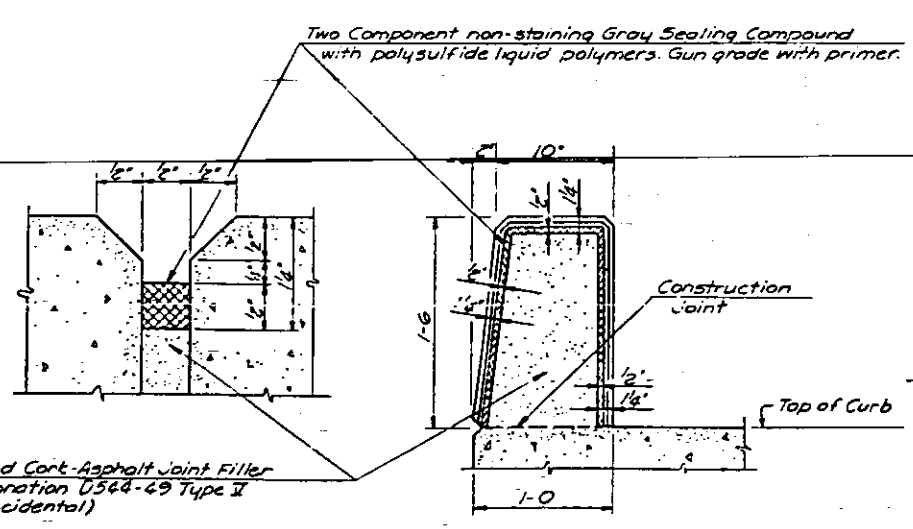
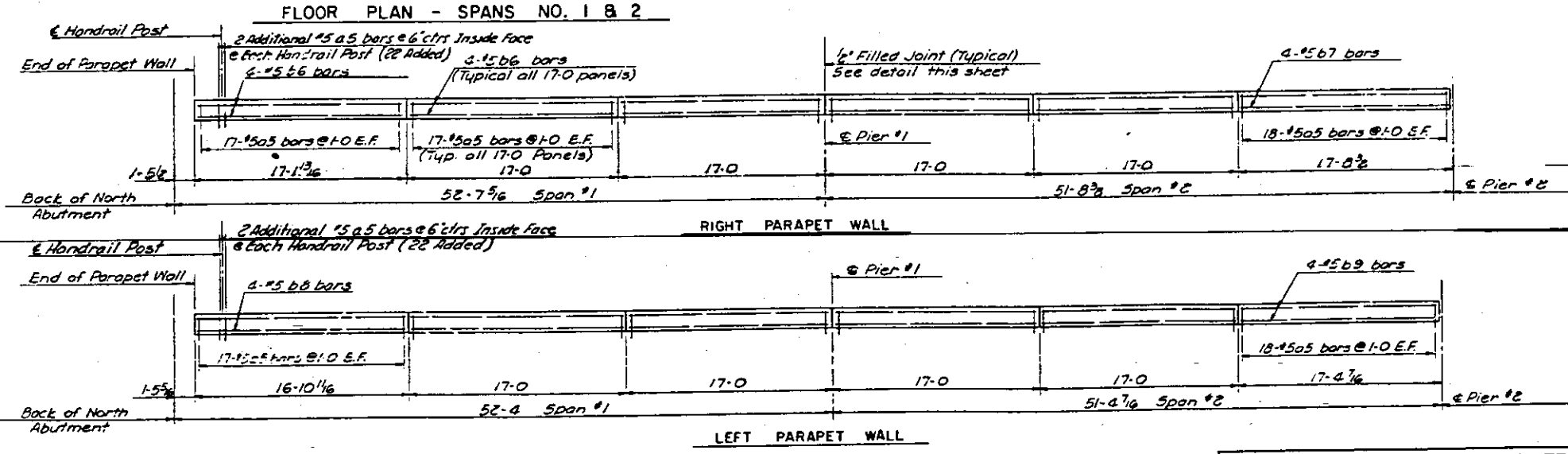
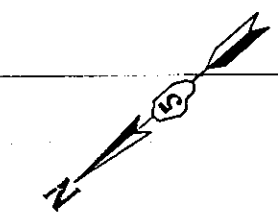
SUPERSTRUCTURE DETAILS

DESIGNED	DRAWN	CHECKED	APPROVED	DATE
RBS	JMG	JMG	RBS	HSM 7.31.62
			LDB	

F.A.L. SHEET NO.	DISTRICT	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11 HB-4	VERMILION	51	12
FEDERAL ROAD DISTRICT NO. 7		ILLINOIS	FINAL	



Note:
All transverse reinforcing is placed perpendicular to C of beams except as shown.
See Deck Section for spacing of reinforcing.



DETAIL OF JOINT IN PARAPET WALL

PARAPET WALL ELEVATIONS - SPANS NO. 1 & 2
(Dimensions are along inside face of parapet wall)

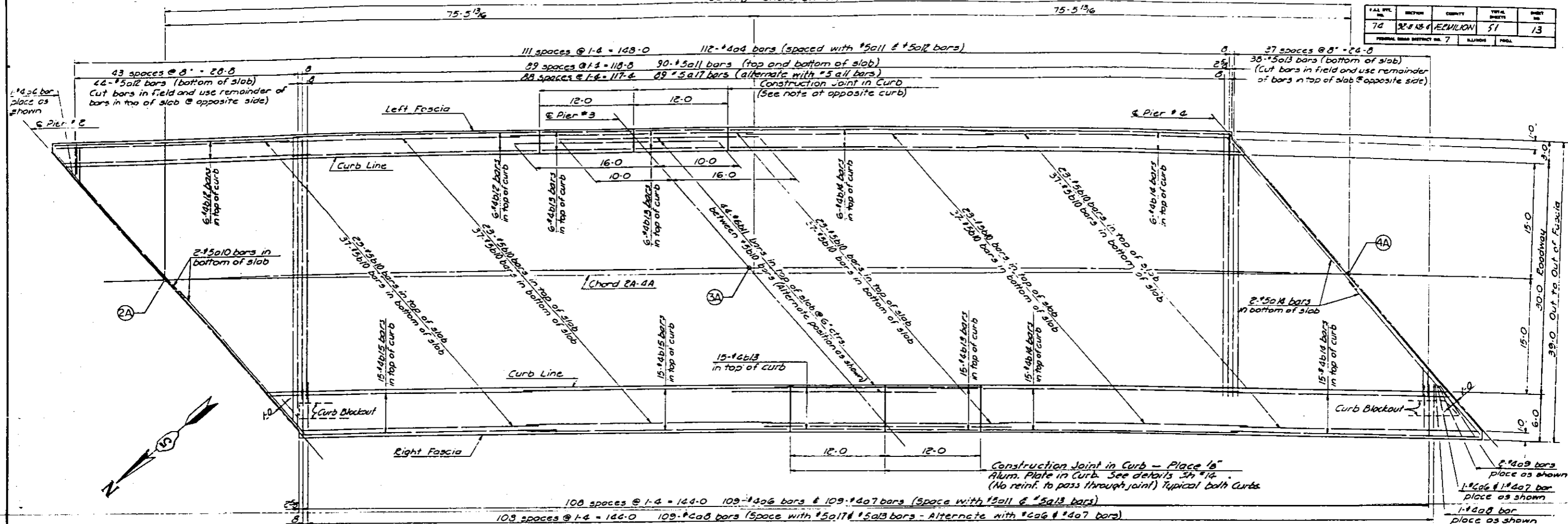
CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
CATLIN ROAD (SA-7) OVER FAI-74
FAI-74 SECTION 92-11 HB-4
VERMILION COUNTY STA. 1917+83.25

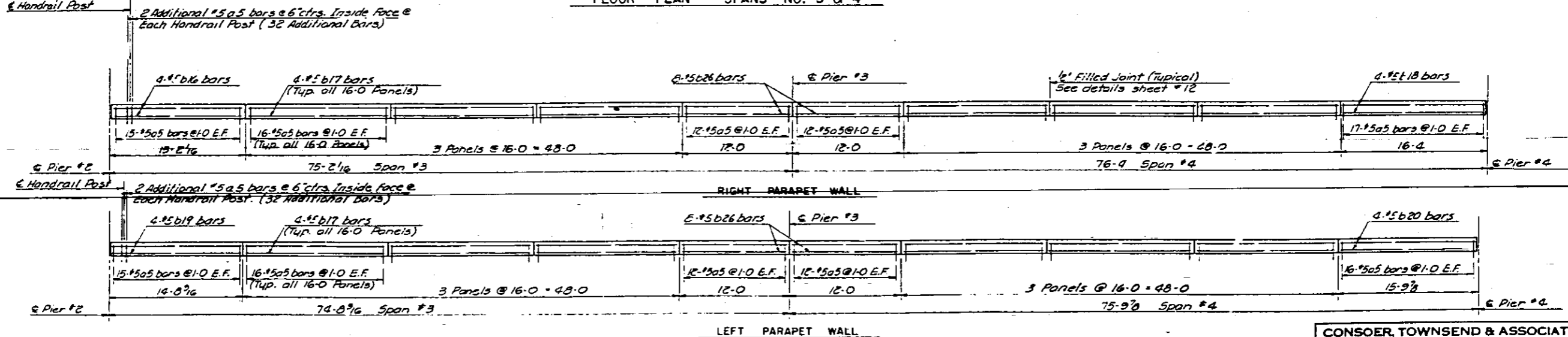
SUPERSTRUCTURE DETAILS

DESIGNED	DRAWN	CHECKED	APPROVED	DATE	REVISION
SMH	RBS	JMG	JWH	MSM 7.31.62	
		LDB			

SHEET NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-118-4	VERMILION	51	13
FEDERAL ROAD DISTRICT NO. 7 ILLINOIS				



FLOOR PLAN - SPANS NO. 3 & 4



PARAPET WALL ELEVATIONS - SPANS NO. 3 & 4
(Dimensions are along inside face of parapet wall)

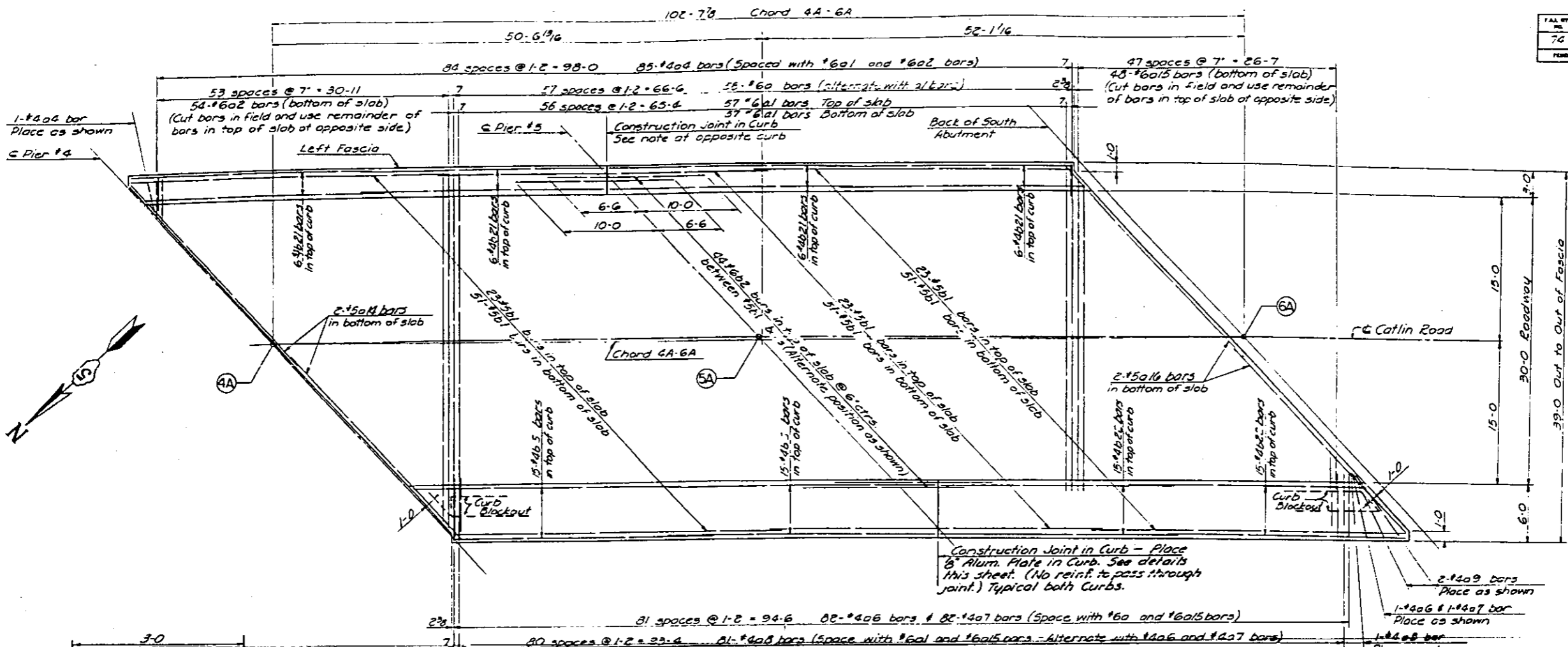
CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
CATLIN ROAD (SA-7) OVER FAI-74
FAI-74 SECTION 92-11 HB-4
VERMILION COUNTY STA. 1917+83.25

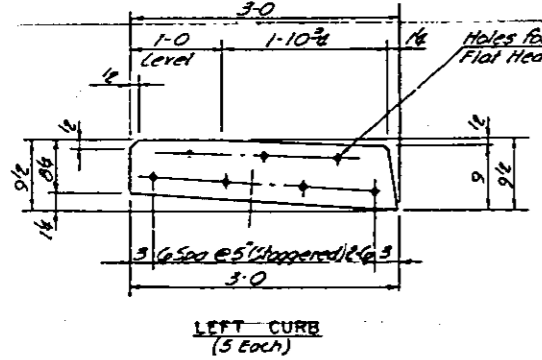
SUPERSTRUCTURE DETAILS

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
SMH	RBS	JMG	JWH	HSM	7.31.62	
			LDB			

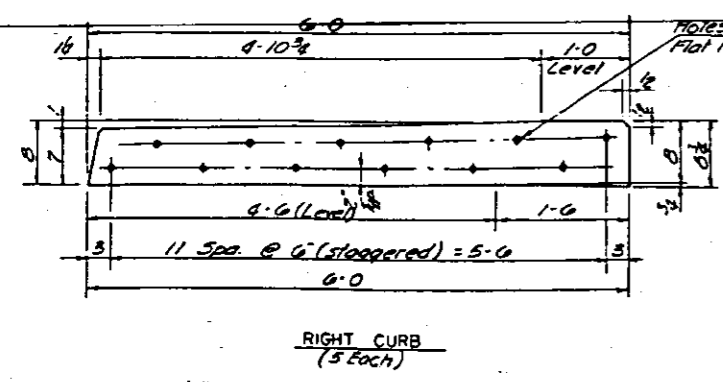
FILE NO.	SECTION	COUNT	TOTAL SHEETS	SHEET NO.
70	92-1118-4 VERMILION	51	14	14
FEDERAL ROAD DISTRICT NO. 7		ILLINOIS	PAUL	



FLOOR PLAN - SPANS NO. 5 & 6

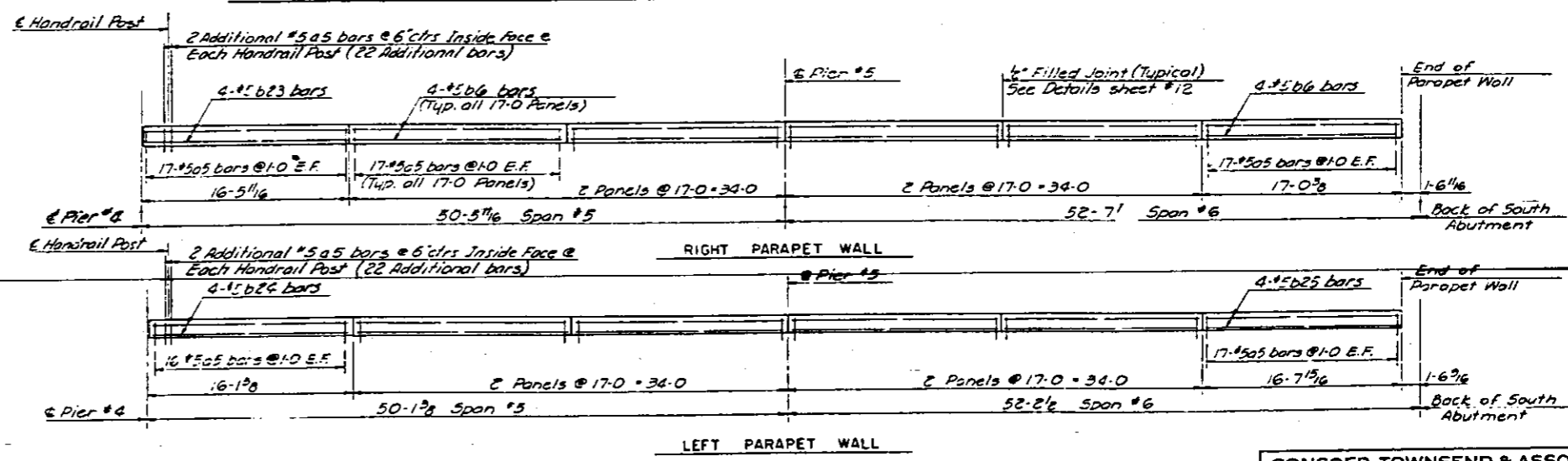


LEFT CURB (5 Each)



RIGHT CURB (5 Each)

DETAILS OF 1/8" ALUMINUM PLATES (3003 - H14)
 (For location of Plates see Sheets No 12, 13 & 14)
 (Cost Incidental)



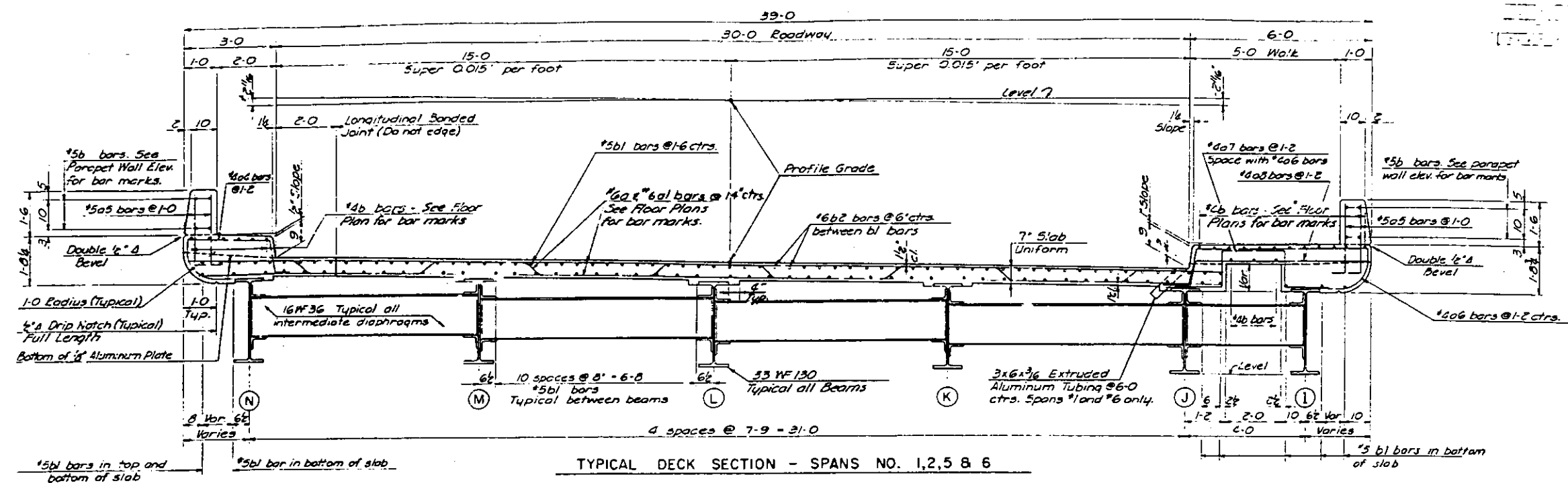
PARAPET WALL ELEVATIONS - SPANS NO. 5 & 6
 (Dimensions are along inside face of parapet wall)

CONSOER, TOWNSEND & ASSOCIATES
 CONSULTING ENGINEERS CHICAGO, ILLINOIS
 ILLINOIS DIVISION OF HIGHWAYS
 CATLIN ROAD (SA-7) OVER FAI-74
 FAI-74 SECTION 92-11 HB-4
 VERMILION COUNTY STA. 1917 + 83.25

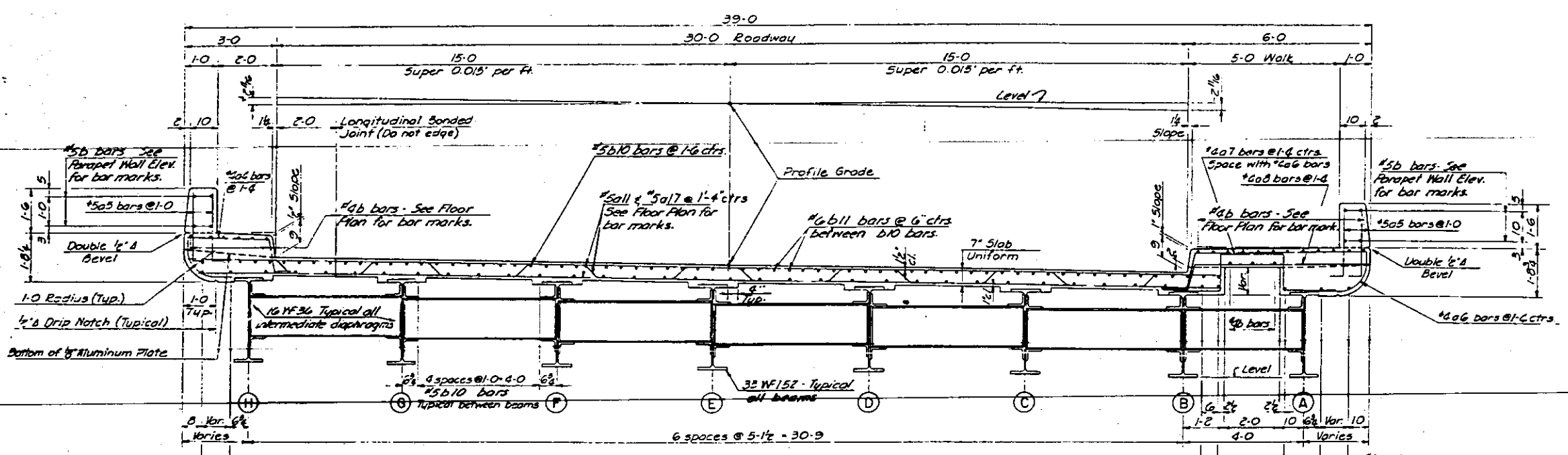
SUPERSTRUCTURE DETAILS

DESIGNED	CHECKED	TRACED	DESIGNED	REVISION	DATE	BY
SMH	RBS	JMG	JMH	HSM 7.31.62		
			LDB			

PLAN SHEET NO.	SECTION	QUANTITY	TOTAL SHEETS	SHEET NO.
74	92-11 HB-4 VERMILION	51	51	15



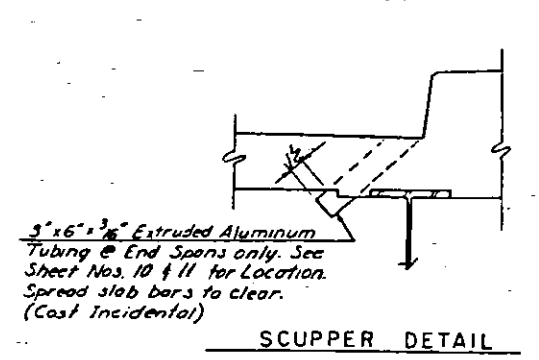
TYPICAL DECK SECTION - SPANS NO. 1, 2, 5 & 6



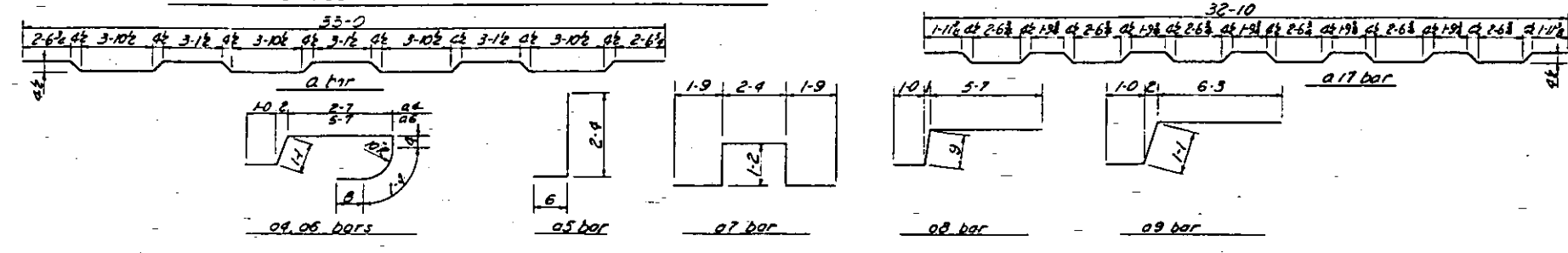
TYPICAL DECK SECTION - SPANS NO. 3 & 4

BAR SCHEDULE					
Bar No.	Size	Length	Spacing	Shape	
a	120	6	34-4	1-2	~
a1	236	6	33-0	1-2	~
a2	100	6	40-0	7	~
a3	42	6	36-0	7	~
a4	285	4	7-0	As Shown	J
a5	1576	5	2-10	1-0	J
a6	277	4	10-0	As Shown	J
a7	277	4	8-2	As Shown	J
a8	276	4	7-4	As Shown	J
a9	6	4	8-4	As Shown	J
a10	6	5	25-0	As Shown	~
a11	180	5	32-10	1-2	~
a12	44	5	40-0	8	~
a13	38	5	35-0	8	~
a14	4	5	26-0	As Shown	~
a15	48	6	35-0	7	~
a16	2	5	27-0	As Shown	~
a17	89	5	34-10	1-2	~
b1	444	5	35-6	As Shown	~
b2	88	6	15-6	As Shown	~
b3	42	4	26-6	As Shown	~
b4	12	4	21-0	As Shown	~
b5	60	4	28-0	As Shown	~
b6	72	5	16-9	As Shown	~
b7	4	5	17-4	As Shown	~
b8	4	5	16-7	As Shown	~
b9	4	5	17-0	As Shown	~
b10	300	5	31-4	As Shown	~
b11	44	6	26-0	As Shown	~
b12	12	4	31-6	As Shown	~
b13	22	4	11-9	As Shown	~
b14	42	4	32-6	As Shown	~
b15	30	4	33-6	As Shown	~
b16	4	5	14-10	As Shown	~
b17	48	5	15-9	As Shown	~
b18	4	5	15-0	As Shown	~
b19	4	5	14-4	As Shown	~
b20	4	5	15-6	As Shown	~
b21	24	4	26-0	As Shown	~
b22	30	4	24-9	As Shown	~
b23	4	5	16-2	As Shown	~
b24	4	5	15-10	As Shown	~
b25	4	5	16-4	As Shown	~
b26	16	5	11-8	As Shown	~

SUPERSTRUCTURE QUANTITIES	
Class x Concrete	420.5 Cu Yds.
Reinforcement Bars	90,580 Lbs.
Protective Coat	2055 Sq Yds.



SCUPPER DETAIL



BENDING DIAGRAMS
(All bar dimensions are out to out.)

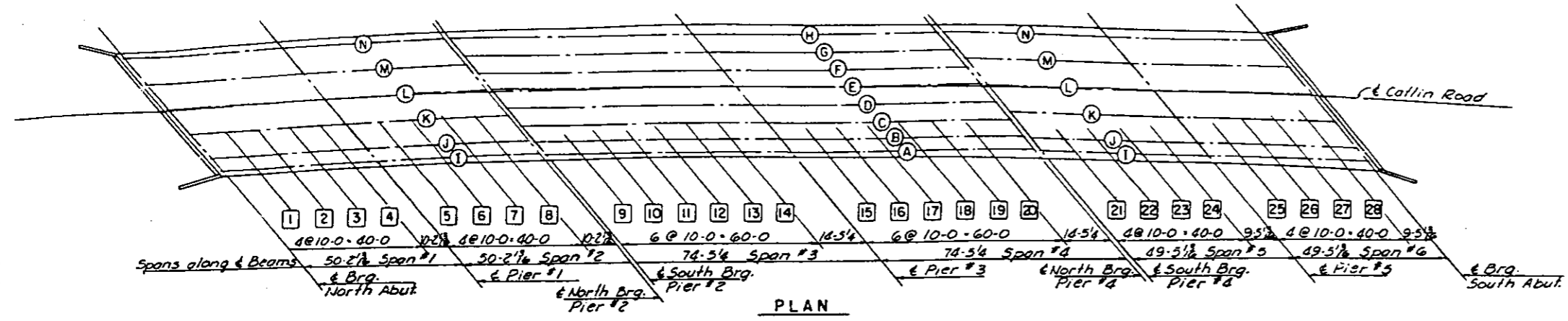
CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
CATLIN ROAD (SA-7) OVER FAI-74
FAI-74 SECTION 92-11 HB-4
VERMILION COUNTY STA. 1917+83.25

SUPERSTRUCTURE DETAILS

DESIGNED	SMH	CHECKED	RDS	TRACED	JMG	DATE	7.31.62
DESIGNED	JWH	CHECKED	LDB	TRACED	HSM	DATE	7.31.62

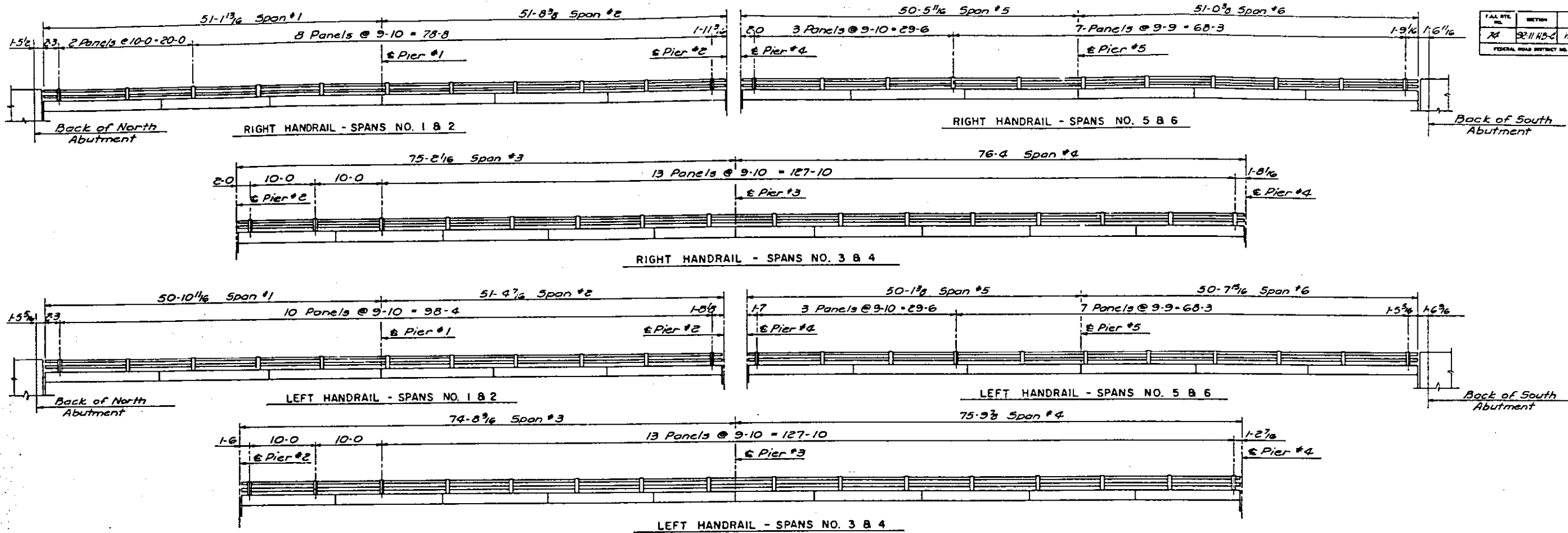
FALL RYS. NO.	SECTION	QUANTITY	TOTAL AMOUNT	UNIT
74	52-11HB OVERMILION	51	16	
FURNISH ROAD DISTRICT NO. 7		ILLINOIS	PAUL	



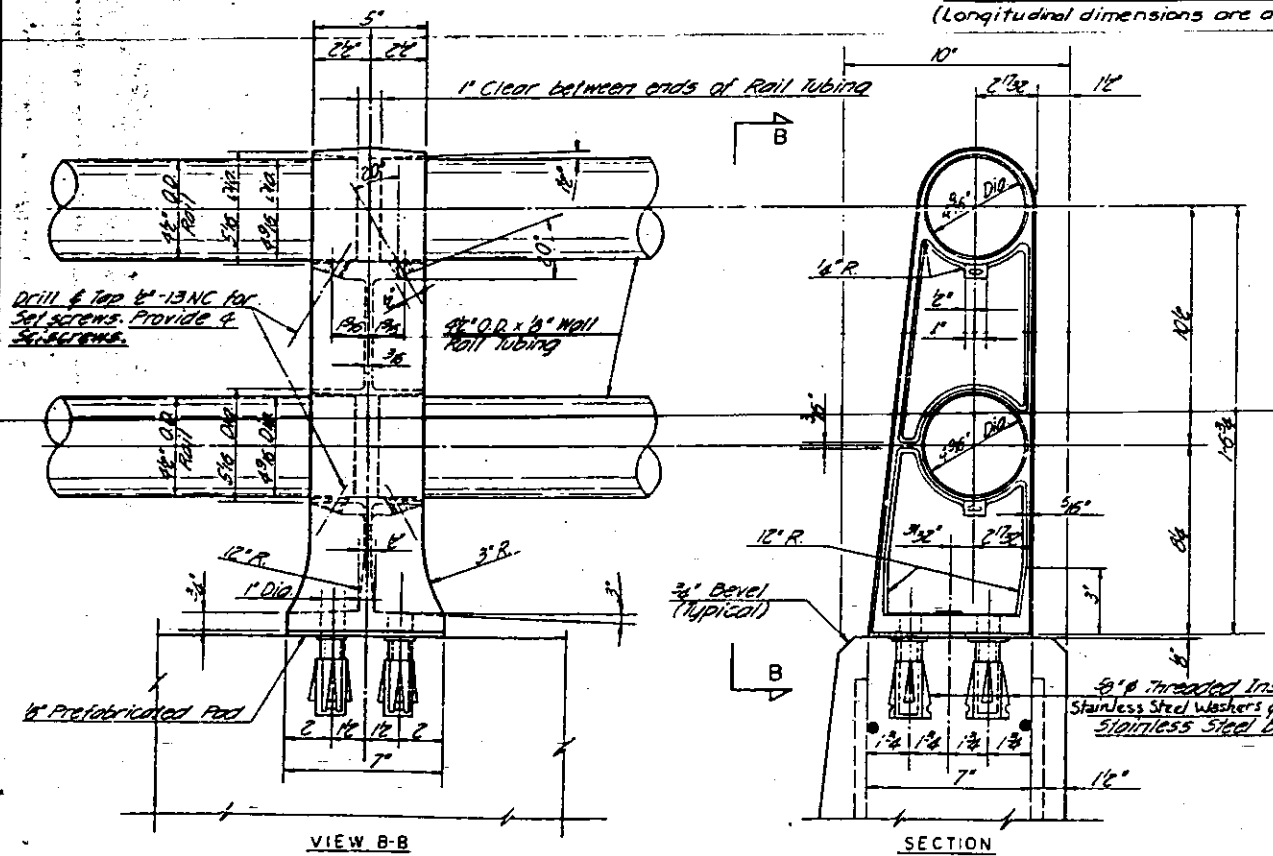
SLAB ELEVATIONS

SPANS NO. 1 & 2							SPAN NO. 3							SPAN NO. 4							SPANS NO. 5 & 6																																									
POINT	BEAM	STATION	OFFSET	ELEVATION			POINT	BEAM	STATION	OFFSET	ELEVATION			POINT	BEAM	STATION	OFFSET	ELEVATION			POINT	BEAM	STATION	OFFSET	ELEVATION																																					
				THEOR.	ADJUSTED						THEOR.	ADJUSTED						THEOR.	ADJUSTED						THEOR.	ADJUSTED																																				
N M L K J I	N M L K J I	50+23.490	+16.333	637.003	637.003		N M L K J I	H G F E D C B A	51+25.409	+16.312	636.779	636.779		N M L K J I	H G F E D C B A	51+99.356	+15.427	636.614	636.614		N M L K J I	N M L K J I	52+75.412	+16.317	636.449	636.449		N M L K J I	N M L K J I	52+82.433	+8.466	636.334	636.334		N M L K J I	N M L K J I	52+89.454	+0.626	636.203	636.203		N M L K J I	N M L K J I	52+96.517	-7.202	636.070	636.070		N M L K J I	N M L K J I	53+03.600	-15.018	635.937	635.937		N M L K J I	N M L K J I	53+07.267	-19.048	635.929	635.929	
		50+29.698	+8.496	636.892	636.892				51+29.742	+11.099	636.711	636.711				52+03.994	+10.289	636.535	636.535				52+82.433	+8.466	636.334	636.334				52+96.517	-7.202	636.070	636.070				53+03.600	-15.018	635.937	635.937																						
		50+35.928	+0.669	636.761	636.761				51+34.076	+5.890	636.623	636.623				52+08.432	+5.157	636.448	636.448				52+89.454	+0.626	636.203	636.203				53+07.267	-19.048	635.929	635.929																													
		50+42.178	-7.150	636.630	636.630				51+38.430	+0.686	636.535	636.535				52+12.899	+0.029	636.362	636.362				52+96.517	-7.202	636.070	636.070																																				
		50+48.449	-14.959	636.499	636.499				51+42.803	-4.514	636.448	636.448				52+17.328	-5.095	636.276	636.276				53+03.600	-15.018	635.937	635.937																																				
50+51.698	-18.986	636.491	636.491		51+47.180	-9.709	636.360	636.360		52+21.786	-10.213	636.189	636.189		53+07.267	-19.048	635.929	635.929																																												
50+53.448	+16.199	636.981	636.981		51+51.555	-14.900	636.273	636.273		52+26.265	-15.328	636.107	636.107																																																	
50+59.636	+8.379	636.849	636.849		51+54.993	-18.949	636.264	636.264		52+29.765	-19.316	636.100	636.100																																																	
50+65.928	+0.564	636.727	636.727		51+59.367	+16.118	636.757	636.757		52+33.932	+15.406	636.594	636.594																																																	
50+72.199	-7.240	636.606	636.606		51+63.742	+10.915	636.687	636.687		52+38.100	+10.279	636.513	636.513																																																	
50+78.491	-15.034	636.476	636.476		51+68.116	+5.717	636.599	636.599		52+42.269	+5.157	636.426	636.426																																																	
50+81.740	-18.197	636.469	636.469		51+72.491	+0.523	636.511	636.511		52+46.438	+0.039	636.340	636.340																																																	
50+83.447	+16.089	636.925	636.925		51+76.866	-4.467	636.424	636.424		52+50.607	-5.074	636.254	636.254																																																	
50+89.636	+8.379	636.849	636.849		51+81.241	-9.652	636.336	636.336		52+54.776	-10.183	636.167	636.167																																																	
50+95.928	+0.564	636.727	636.727		51+85.616	-15.033	636.249	636.249		52+58.945	-15.266	636.085	636.085																																																	
50+102.220	-7.307	636.603	636.603		51+90.004	-19.073	636.242	636.242		52+63.114	-19.366	636.077	636.077																																																	
50+108.512	-15.087	636.454	636.454		51+94.379	+15.948	636.735	636.735		52+67.283	+15.453	636.592	636.592																																																	
50+114.804	-19.120	636.425	636.425		51+98.754	+10.755	636.662	636.662		52+71.452	+10.291	636.491	636.491																																																	
50+121.096	+16.002	636.938	636.938		52+02.800	+5.567	636.573	636.573		52+75.621	+5.179	636.405	636.405																																																	
50+127.388	+8.209	636.821	636.821		52+06.969	+0.383	636.487	636.487		52+79.790	+0.072	636.319	636.319																																																	
50+133.680	+0.425	636.699	636.699		52+11.138	-4.797	636.400	636.400		52+83.951	-5.031	636.233	636.233																																																	
50+139.972	-7.349	636.561	636.561		52+15.307	-9.972	636.312	636.312		52+88.122	-10.129	636.146	636.146																																																	
50+146.264	-15.115	636.432	636.432		52+19.476	-15.142	636.225	636.225		52+92.293	-15.222	636.063	636.063																																																	
50+152.556	-19.120	636.424	636.424		52+23.645	-19.175	636.220	636.220		52+96.465	-19.194	636.055	636.055																																																	
50+158.848	+15.938	636.916	636.916		52+27.814	+15.801	636.713	636.713		52+100.634	+15.433	636.530	636.530																																																	
50+165.140	+8.140	636.799	636.799		52+31.983	+10.618	636.638	636.638		52+104.803	+10.322	636.470	636.470																																																	
50+171.432	+0.391	636.669	636.669		52+36.152	+5.440	636.551	636.551		52+108.972	+5.226	636.383	636.383																																																	
50+177.724	-7.370	636.538	636.538		52+40.321	+0.266	636.463	636.463		52+113.141	+0.129	636.298	636.298																																																	
50+184.016	-15.120	636.410	636.410		52+44.490	-4.964	636.376	636.376		52+117.310	-4.964	636.212	636.212																																																	
50+190.308	-19.117	636.403	636.403		52+48.659	-10.068	636.289	636.289		52+121.479	-10.051	636.125	636.125																																																	
50+196.600	+15.896	636.893	636.893		52+52.828	-15.228	636.202	636.202		52+125.648	-15.134	636.041	636.041																																																	
50+202.892	+8.133	636.776	636.776		52+56.997	-19.253	636.198	636.198		52+129.817	-19.088	636.033	636.033																																																	
50+209.184	+0.379	636.646	636.646		52+61.166	+15.676	636.691	636.691		52+133.986	+15.482	636.528	636.528																																																	
50+215.476	-7.366	636.516	636.516		52+65.335	+10.504	636.615	636.615		52+138.155	+10.366	636.449	636.449																																																	
50+221.768	-15.102	636.387	636.387		52+69.504	+5.336	636.527	636.527		52+142.324	+5.295	636.362	636.362																																																	
50+228.060	+19.090	636.880	636.880		52+73.673	+0.173	636.440	636.440		52+146.493																																																				

F.A.I. DIST. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11HB-4	VERMILION	51	17
FEDERAL ROAD DISTRICT NO. 7 ILLINOIS				



HANDRAIL ELEVATIONS
(Longitudinal dimensions are along inside face of Parapet Wall)



HANDRAIL POST DETAILS



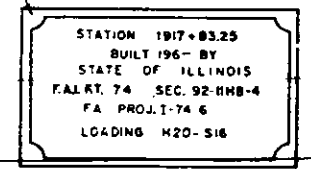
CAST END CAPS
DRIVE FIT TYPE

Incidental to Item "Aluminum Handrail"

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 50-70 B-76.
All Rail Tubing shall be of Aluminum conforming to A.S.T.M. Specification B-235 alloy 6061-T6.

Rail Tubing may be cut to random lengths.
Set screws shall be of Aluminum conforming to A.S.T.M. Specification B-211 alloy 2024-T4 for material composition of prefabricated pad see Art. 23.9 (F), Bearings and Anchorage, of the Standard Specifications.
Aluminum handrail will be paid for at the contract unit price per lineal foot for ALUMINUM HANDRAIL measured as specified, which price shall be payment in full for all materials, fabrication, transportation and erection.
Aluminum handrail shall be measured in lineal feet. The length paid for shall be the overall length along the top longitudinal railing member through all post and gaps.

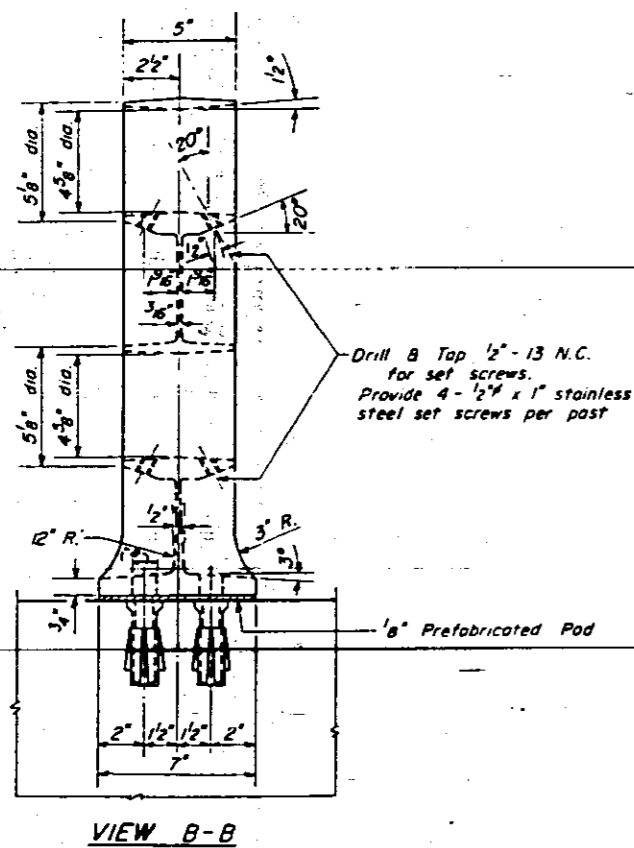
Brass or Bronze Name Plate, Illinois Highway Standard No. 2113 (Included with Plans)



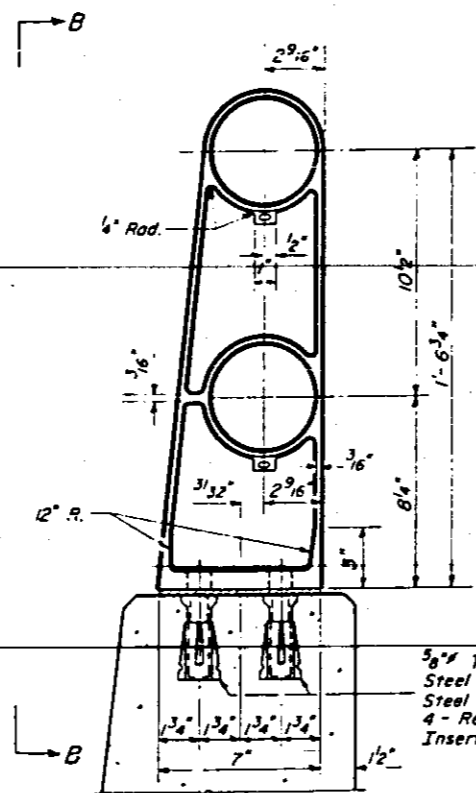
ELEVATION
BRIDGE NAME PLATE
(Provide 2)

ALUMINUM HANDRAIL 710 LIN. FT.

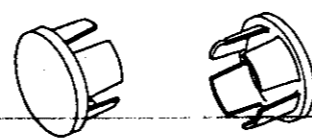
ALUMINUM HANDRAIL TYPE - G						
CONSOER, TOWNSEND & ASSOCIATES CONSULTING ENGINEERS			CHICAGO, ILLINOIS			
ILLINOIS DIVISION OF HIGHWAYS CATLIN ROAD OVER F.A.I. RT. 74						
FAI-74 SECTION 92-11HB-4						
VERMILION COUNTY STA. 1917+83.25						
HANDRAIL DETAILS						
DESIGNED RBS	DRAWN RBS	TRACED JMG	CHECKED JWH LDB	REVIEWED HSM	DATE 7.31.62	REVISED



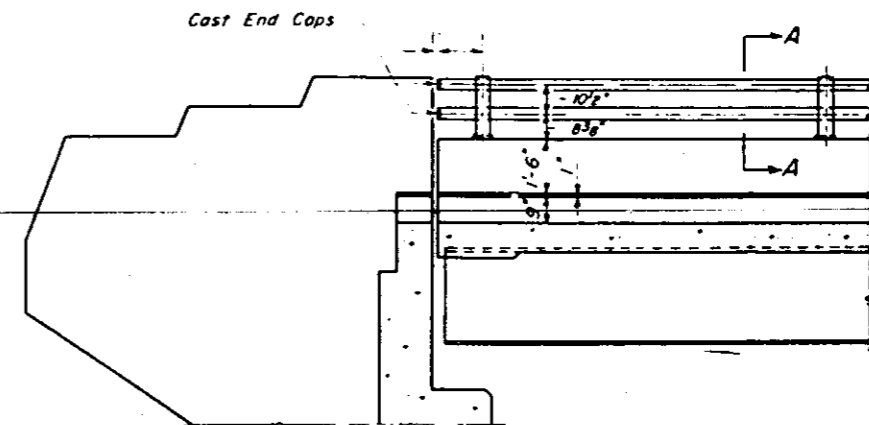
RAIL POST DETAILS



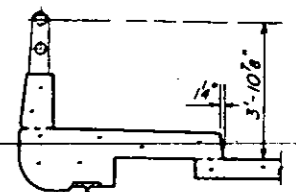
SECTION A-A



CAST END CAP
DRIVE FIT TYPE
24 - Required
Incidental to item "Metal Handrail," Galvanize to ASTM A-153.



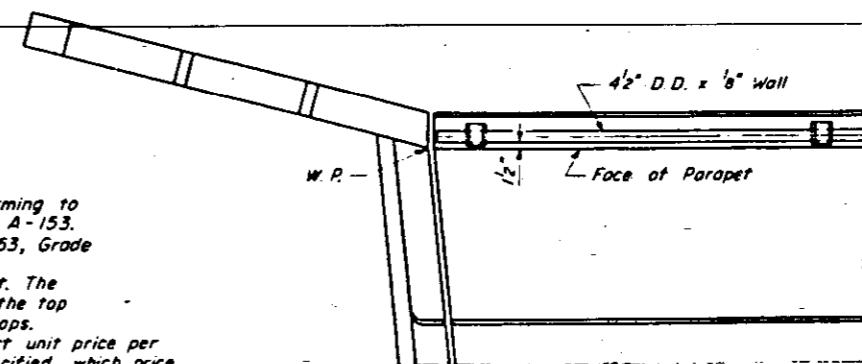
ELEVATION - END POST



SEC. THRU CURB

BILL OF MATERIAL

Item	Unit	Quantity
Metal Handrail	Ln. Ft.	710



PLAN - END POST

TYPE - H
METAL HANDRAIL

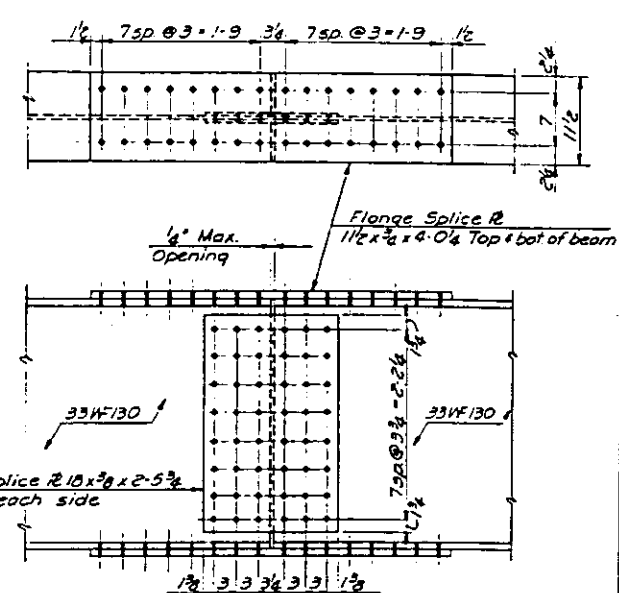
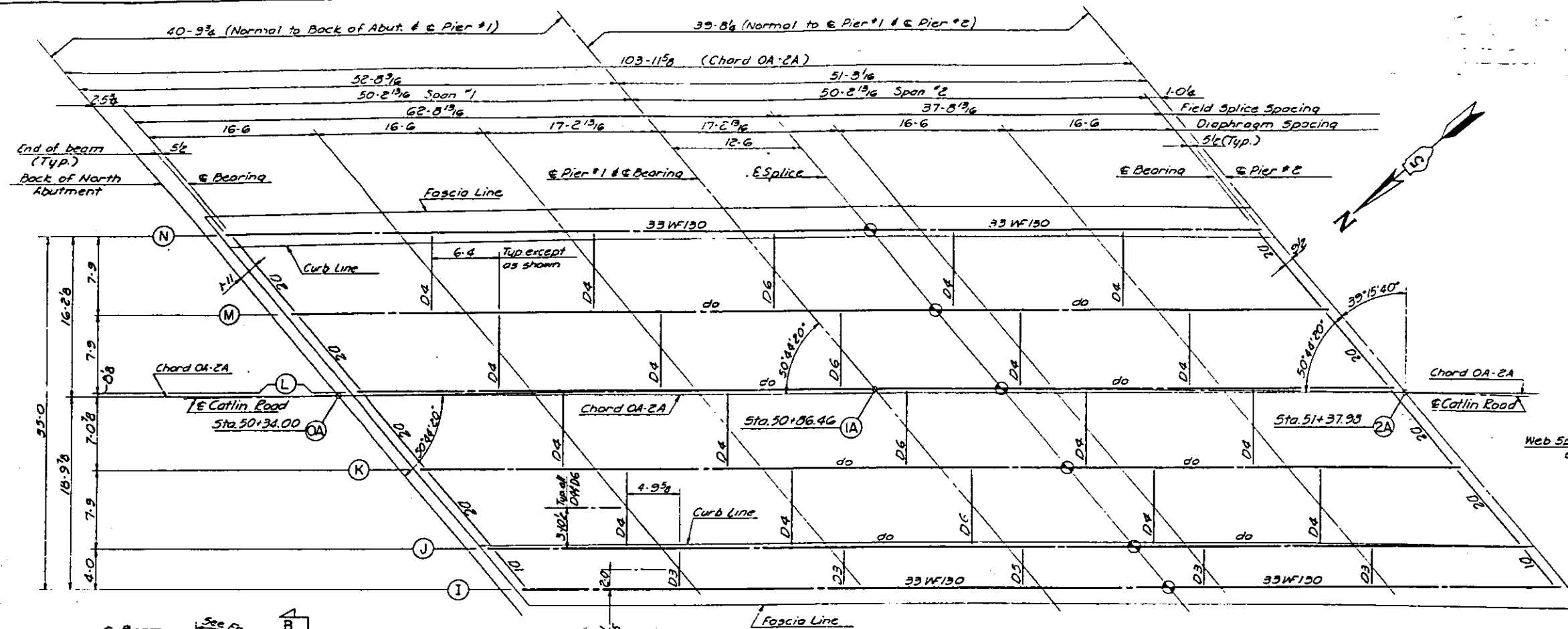
5/8" Threaded Inserts. Provide 1 - Stainless Steel Washer and 1 - 5/8" x 2 1/2" Stainless Steel Bolt with each Insert
4 - Required each post
Inserts shall be cast in place.

NOTES

All Posts shall be placed normal to parapet.
All Posts shall be malleable cast iron conforming to ASTM A-47, Grade 35018, galvanized to ASTM A-153.
All Rail Tubing shall conform to ASTM A-53, Grade B, (Pipe or Tube) galvanized to ASTM A-120.
Metal handrail shall be measured in lineal feet. The length paid for shall be the overall length along the top longitudinal railing member through all posts and gaps.
Metal handrail will be paid for at the contract unit price per lineal foot for METAL HANDRAIL, measured as specified, which price shall be payment in full for all materials, fabrication, transportation and erection.
If any of the galvanizing coat is damaged or removed during erection, the affected area shall be painted with one coat of zinc paint in accordance with Military Specification MIL-P-26915 Type I, air-dry cure.
Rail Tubing may be cut to random lengths.
For material composition of Prefabricated Pad, see Art. 54.9 (f), (Bearing and Anchorage), of the Standard Specifications.
Galvanized Railing shall not be painted.

DESIGNED	19
CHECKED	
DRAWN W. A. Sausamal	
CHECKED	

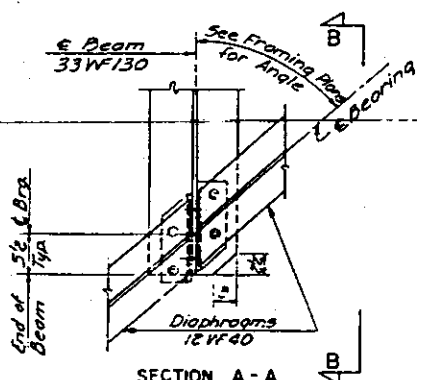
PLAN SHEET NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11-4	VERMILION	51	18
FURNISH FROM SHEET NO. 7		ALIGNED	FINAL	



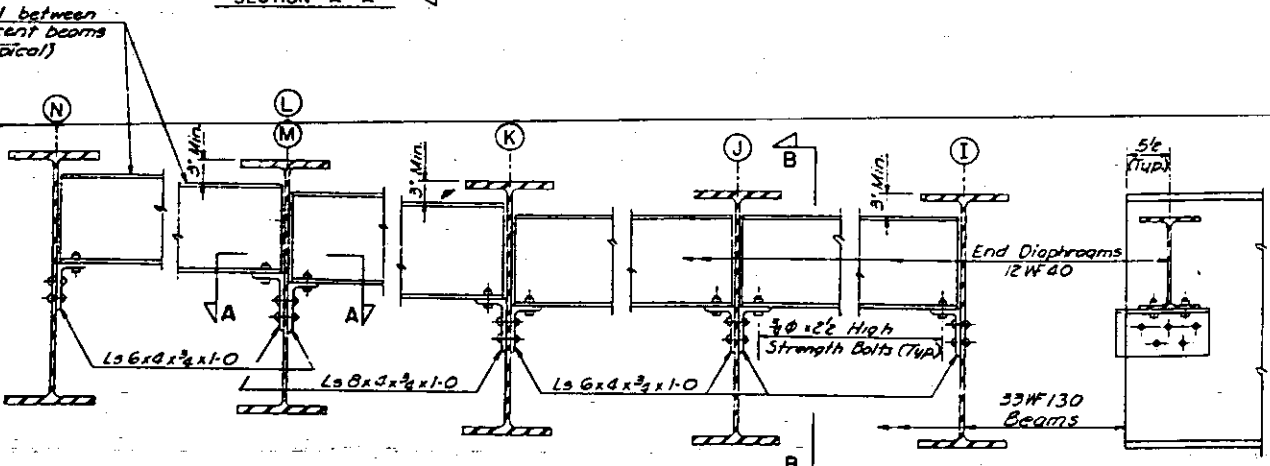
FIELD SPLICE DETAIL
1/2 Required

Note: All rivet holes to be reamed with all parts assembled to grade and all parts match marked.
3/4" Rivets in all web splices.
1/2" Rivets in all flange splices.

FRAMING PLAN - SPANS NO. 1 & 2



SECTION A-A

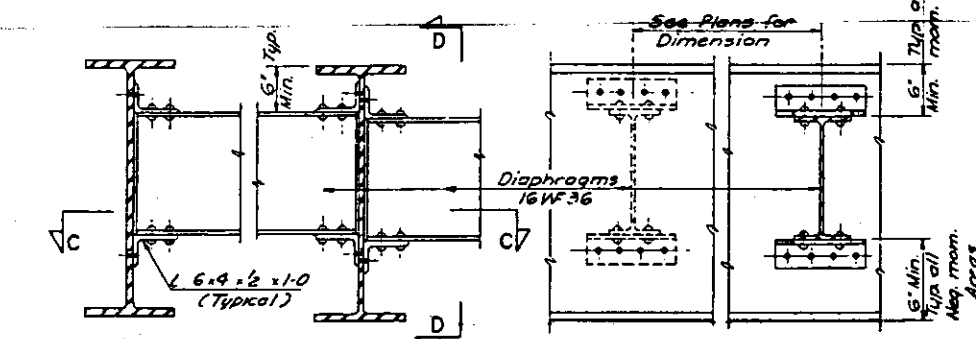


SECTION B-B

2-D1 DIAPHRAGMS
8-D2 DIAPHRAGMS

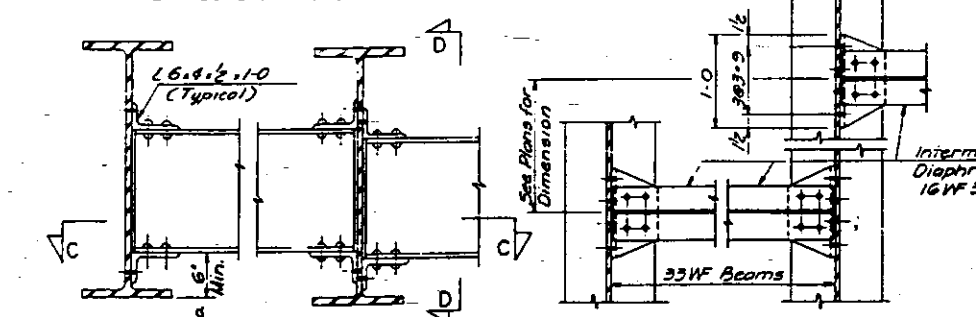
2-D11 DIAPHRAGMS
8-D12 DIAPHRAGMS

END DIAPHRAGMS - SPANS NO. 1, 2, 5 & 6



DIAPHRAGMS FOR POSITIVE MOMENT AREAS

12 - D3 DIAPHRAGMS
32 - D4 DIAPHRAGMS
24 - D9 DIAPHRAGMS



DIAPHRAGMS FOR NEGATIVE MOMENT AREAS

5 - D5 DIAPHRAGMS
8 - D6 DIAPHRAGMS
18 - D10 DIAPHRAGMS

INTERMEDIATE DIAPHRAGMS

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

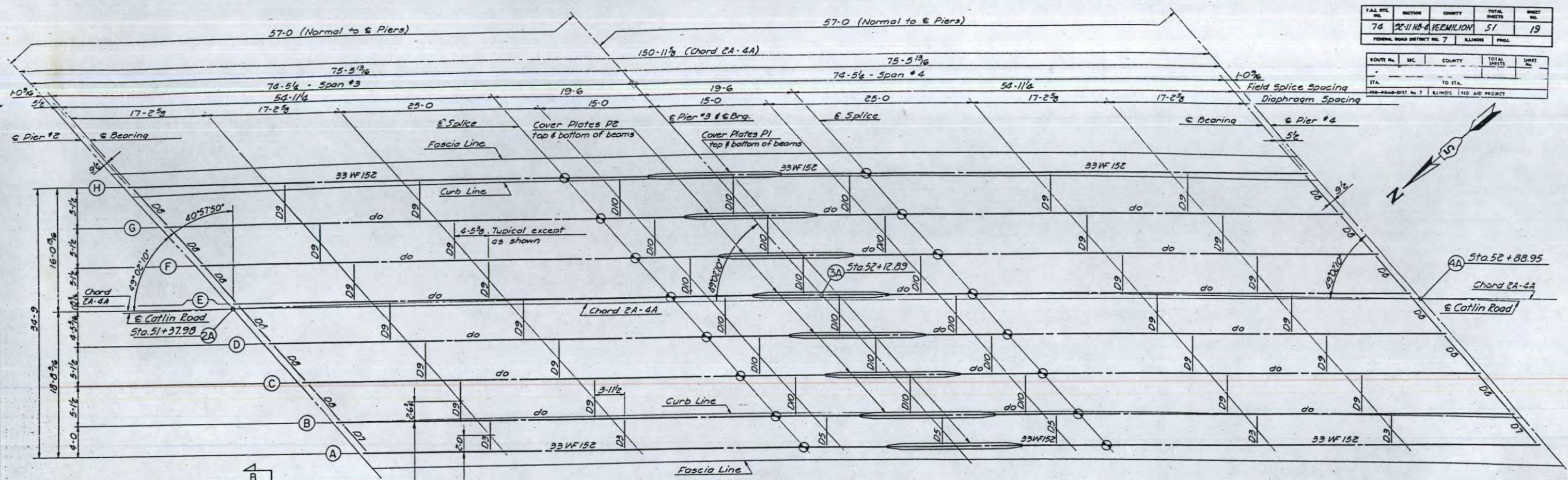
ILLINOIS DIVISION OF HIGHWAYS
CATLIN ROAD (SA-7) OVER FAI-74
FAI-74 SECTION 92-11 HB-4
VERMILION COUNTY STA. 1917+83.25

STRUCTURAL STEEL FRAMING PLAN

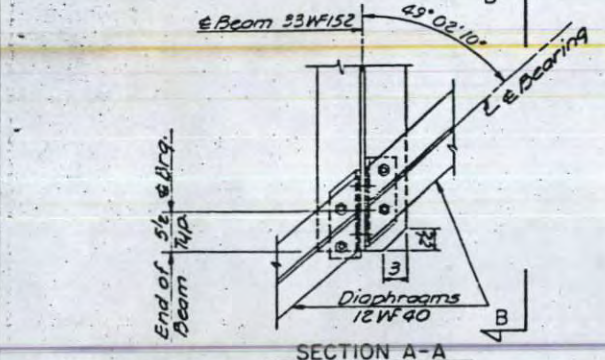
DESIGNED	CHECKED	TRACED	DATE	REVISION
SMH	RBS	JMG	JWH	HSM 7.31.62
			LDB	

PLAN SHEET NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	2C-11 HB-4	VERMILION	51	19
FEDERAL ROAD DISTRICT NO. 7		ALIGNED	PROJ.	

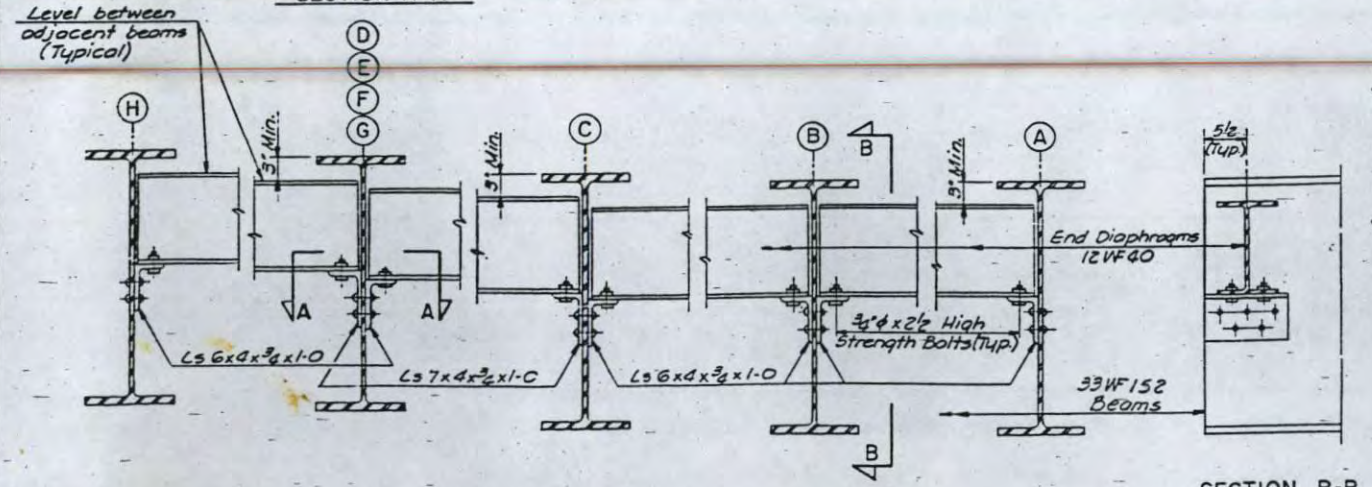
ROUTE NO.	MC	COUNTY	TOTAL SHEETS	SHEET NO.
STA.	TO STA.			
1917+83.25	1917+88.95			



FRAMING PLAN - SPANS NO. 3 & 4

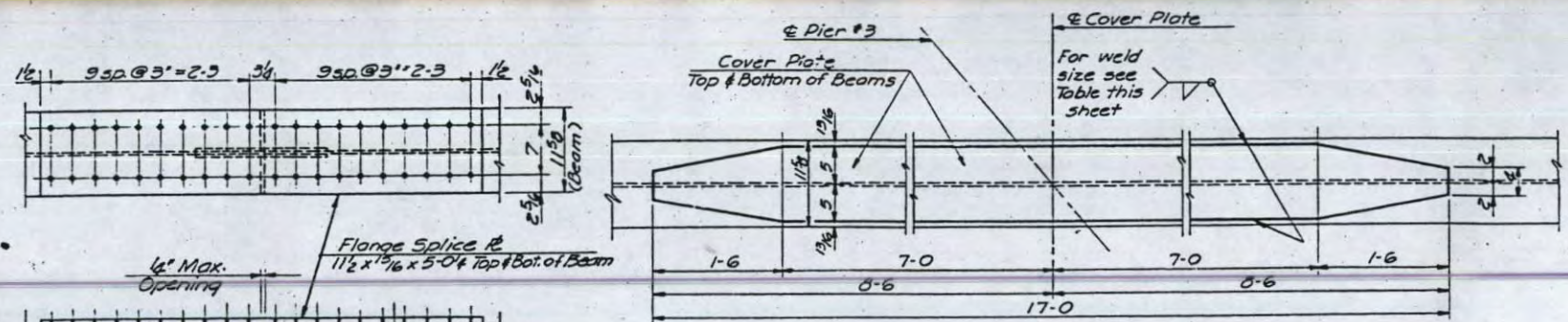


SECTION A-A



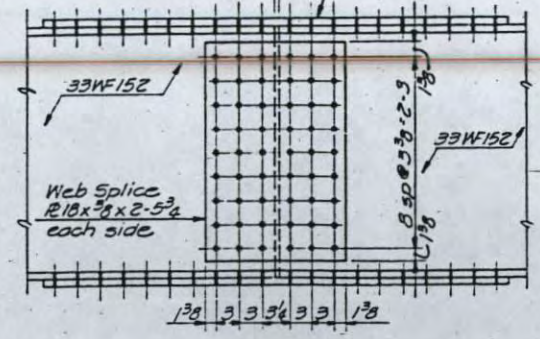
SECTION B-B

2-D7 DIAPHRAGMS
12-D8 DIAPHRAGMS
TYPICAL END DIAPHRAGMS



COVER PLATE DETAIL

MC	Thickness	Width	Weld Size	No. Req'd.
P1	3/8	10	1/4	4
P2	3/8	10	5/16	12



FIELD SPLICE DETAIL
(16-Required)

Note: All rivet holes to be reamed with all parts assembled to grade and all parts match marked.
3/4" Rivets in all web splices.
7/8" Rivets in all flange splices.

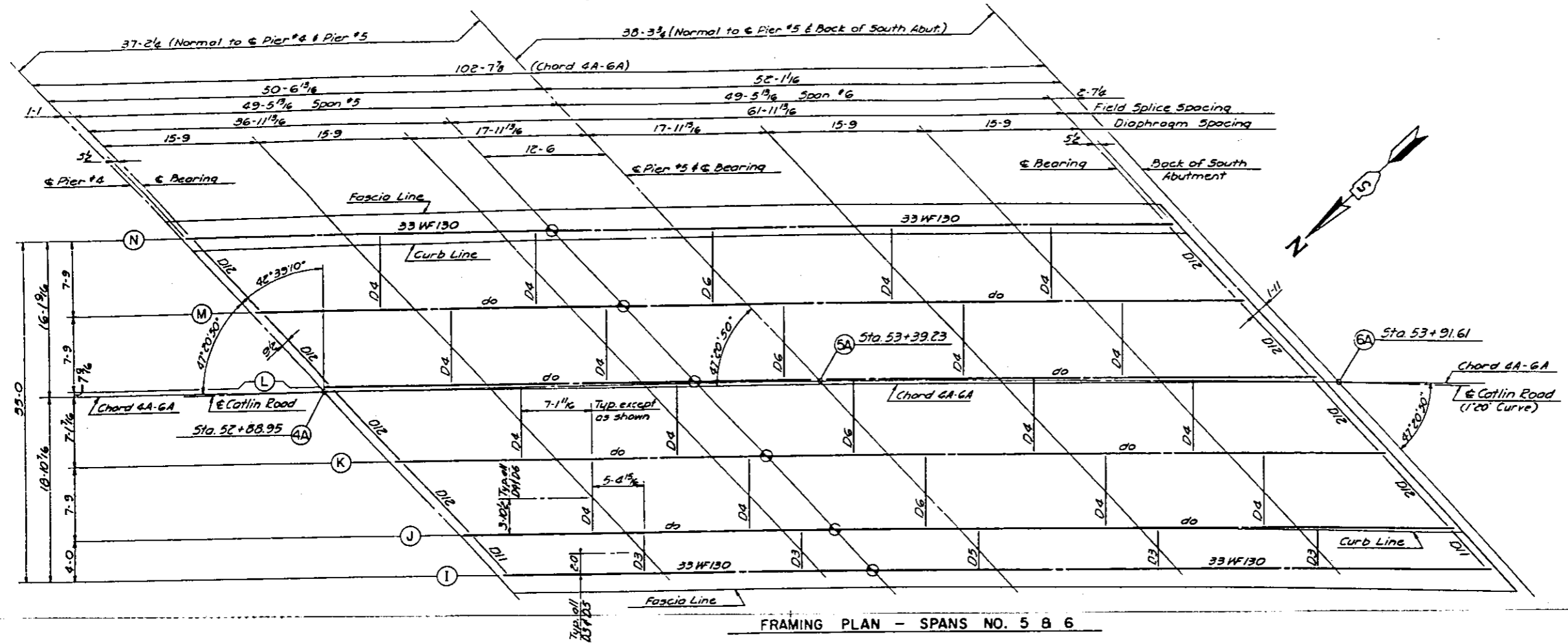
CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
CATLIN ROAD (SA-7) OVER FAI-74
FAI-74 SECTION 9211 HB-4
VERMILION COUNTY STA. 1917+83.25

DESIGNED	DRAWN	CHECKED	APPROVED	DATE	REVISION
JMH	RBS	JMG	JWH	HSM 7.31.62	
			LDB		

FALL RFL. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-II HB-4	VERMILION	51	20
FEDERAL ROAD DISTRICT NO. 7 ILLINOIS 1901				

ROUTE NO.	MC	COUNTY	TOTAL SHEETS	SHEET NO.
STATE ROAD DIST. NO. 7 ILLINOIS 1901				



FRAMING PLAN - SPANS NO. 5 & 6

Location Beams	North Abutment	Pier No. 1	Span No. 2 Splice Pier No. 2	Span No. 3 Pier No. 3 Splice	Pier No. 3	Span No. 4 Splice Pier No. 4	Span No. 5 Pier No. 5 Splice	Pier No. 5	South Abutment
A				635.602	635.479	635.437	635.395	635.273	
B				635.611	635.491	635.450	635.409	635.289	
C				635.628	635.578	635.536	635.495	635.375	
D				635.726	635.665	635.623	635.581	635.460	
E				635.873	635.751	635.709	635.668	635.546	
F				635.961	635.838	635.796	635.754	635.632	
G				636.049	635.925	635.883	635.841	635.717	
H				636.117	635.990	635.948	635.912	635.781	
I	635.845	635.734	635.706	635.623				635.283	635.201
J	635.853	635.744	635.717	635.636				635.291	635.211
K	635.984	635.874	635.847	635.765				635.424	635.343
L	636.115	636.008	635.977	635.894				635.557	635.475
M	636.246	636.134	636.107	636.023				635.690	635.607
N	636.357	636.247	636.220	636.137				635.803	635.722

Note: For fabrication use only, does not include deflection.
 * Top of beam flange without splice plates or cover plates.
 Elevations are at E of bearing except as noted.

TOTAL COMPUTED WEIGHT OF STEEL FRAMING
 STRUCTURAL STEEL 401,000 LBS.

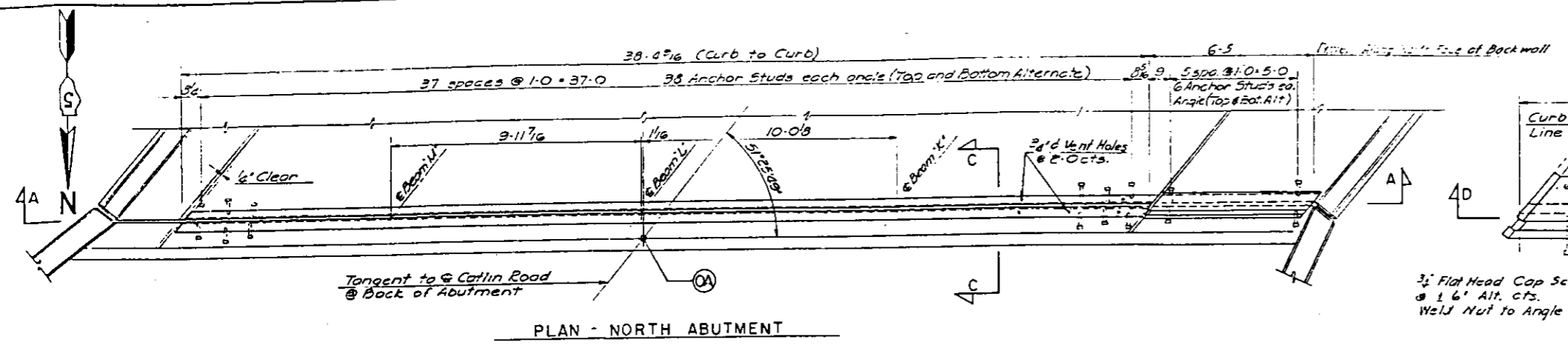
CONSOER, TOWNSEND & ASSOCIATES
 CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
 CATLIN ROAD (SA-7) OVER FAI-74
 FAI-74 SECTION 92-II HB-4
 VERMILION COUNTY STA. 1917+83.25

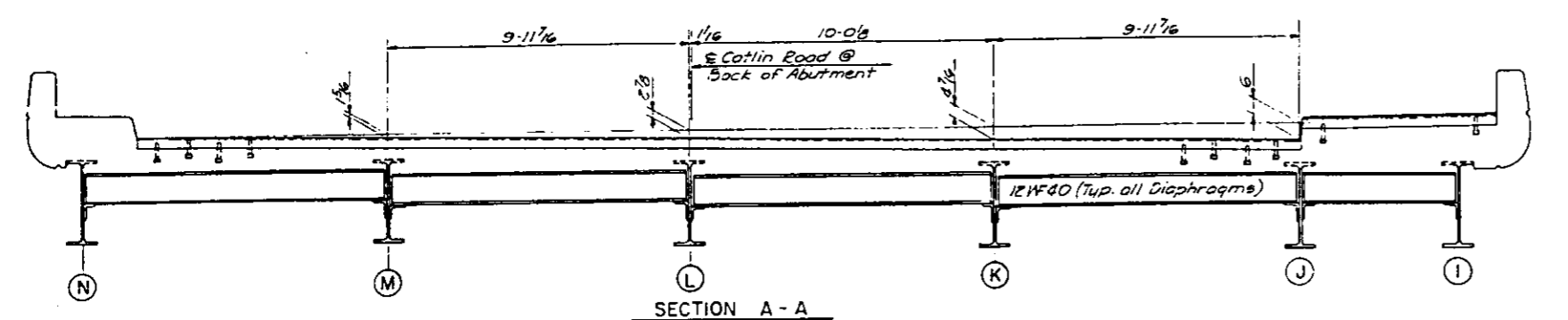
STRUCTURAL STEEL FRAMING PLAN

DESIGNED	SMH	CHECKED	RBS	DATE	7.31.62
DRAWN	JMG	APPROVED	LDB		

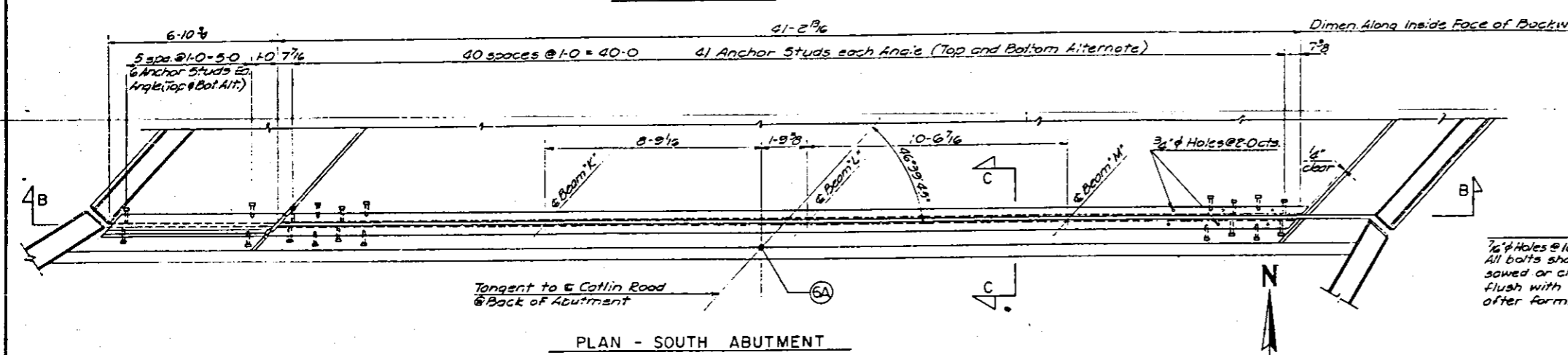
ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11	VERMILION	51	21
FEDERAL ROAD DISTRICT NO. 7 ILLINOIS				



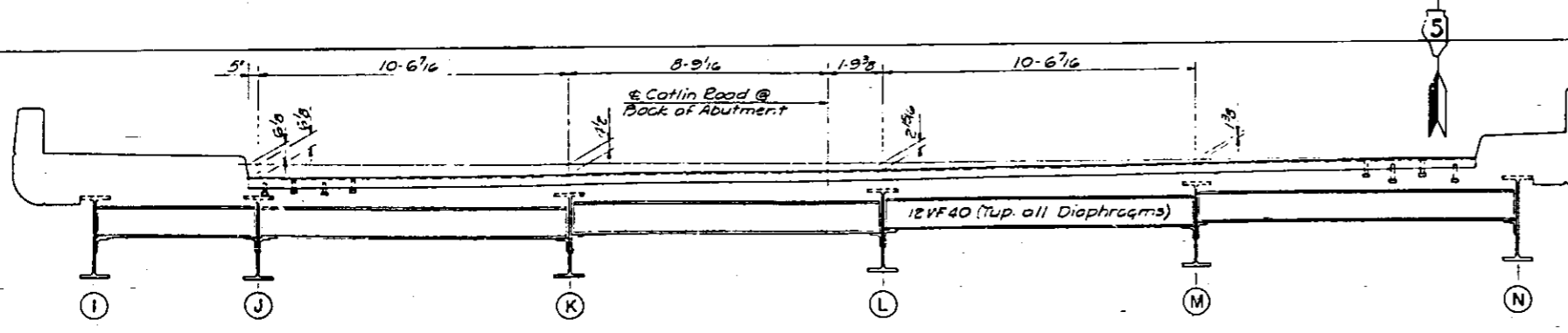
PLAN - NORTH ABUTMENT



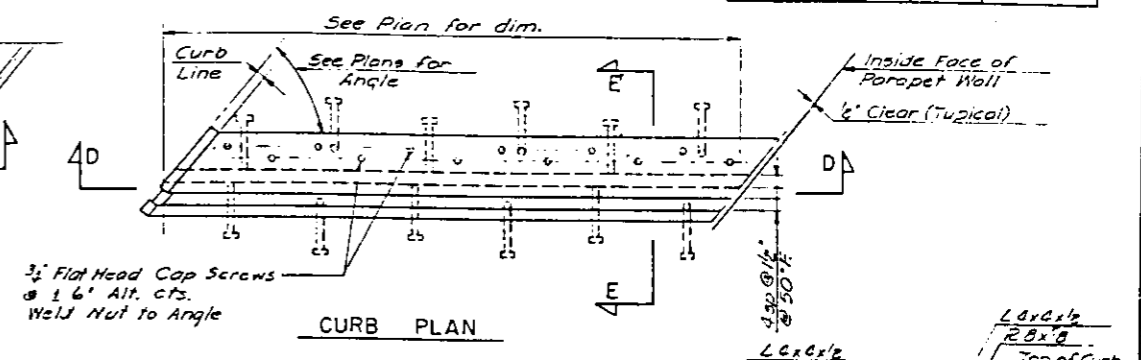
SECTION A-A



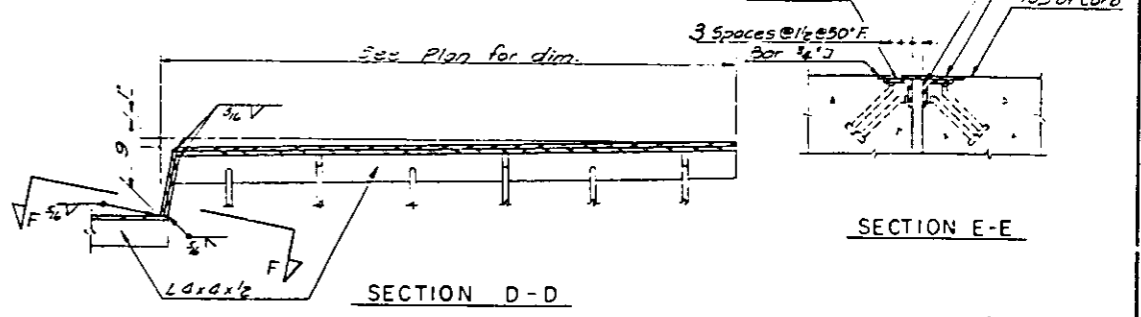
PLAN - SOUTH ABUTMENT



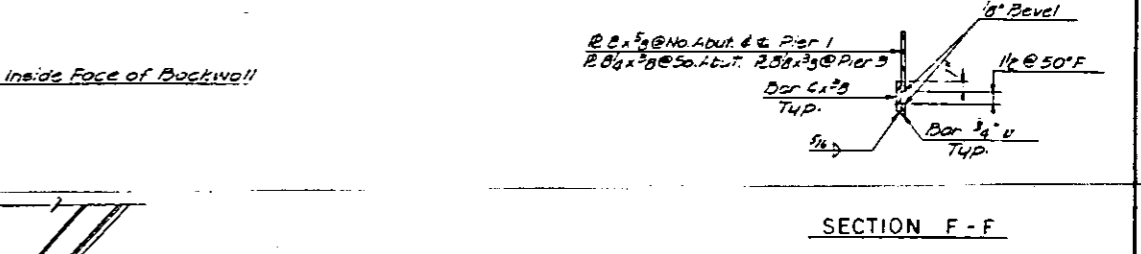
SECTION B-B



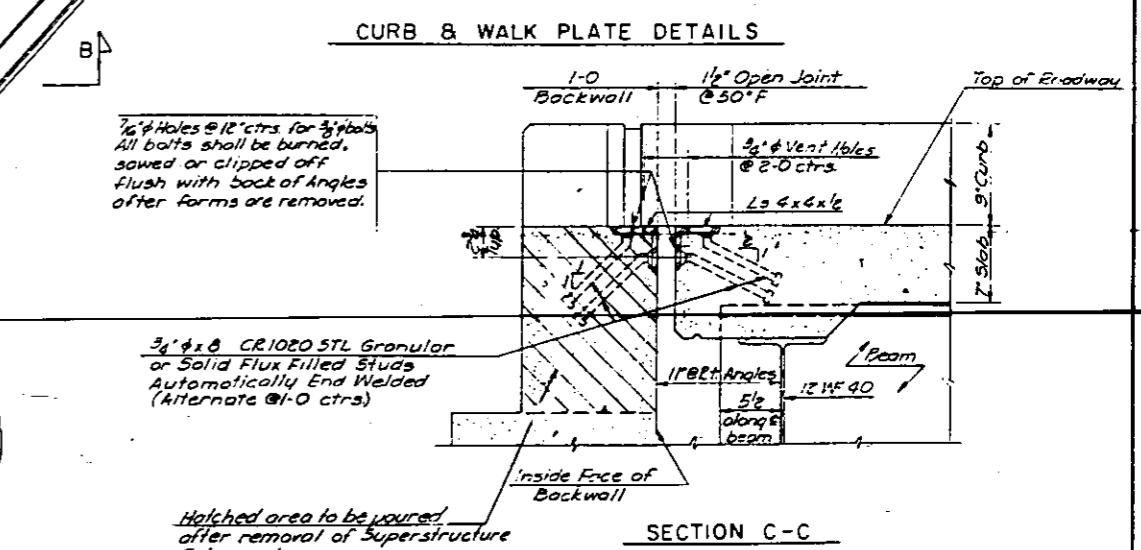
CURB PLAN



SECTION D-D



SECTION E-E



CURB & WALK PLATE DETAILS

SECTION C-C

1-0 Backwall
1 1/2" Open Joint @ 50°F
Top of Roadway
3/4" Vent Holes @ 2-0 ctrs.
L3 4x6x1/2
1" Beam
12WF40
5/8" along beam
Inside Face of Backwall

3/4" x 8 CR1020 STL Granular or Solid Flux Filled Studs Automatically End Welded (Alternate @ 1-0 ctrs)

Hatched area to be poured after removal of Superstructure falsework

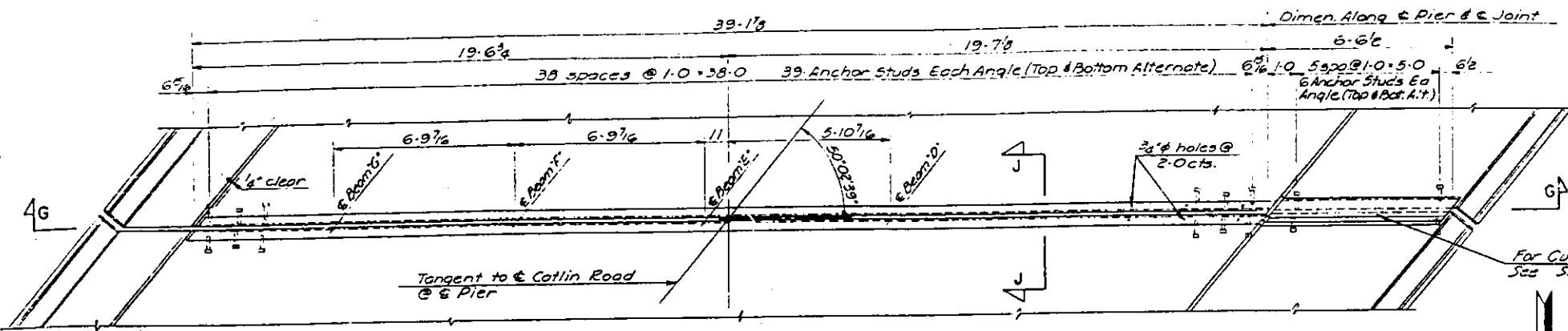
1/2" Holes @ 12" ctrs for 3/4" bolts. All bolts shall be burned, sawed or clipped off flush with back of angles after forms are removed.

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ILLINOIS DIVISION OF HIGHWAYS
CATLIN ROAD (SA-7) OVER FAI-74
FAI-74 SECTION 92-11 HB-4
VERMILION COUNTY STA. 1917+83.25
STRUCTURAL STEEL JOINT DETAILS

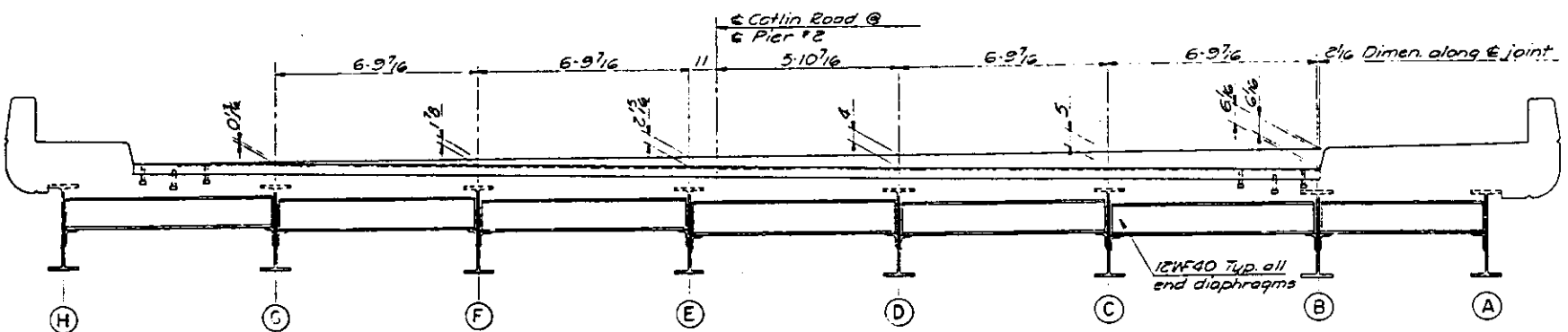
DESIGNED	CHECKED	APPROVED	DATE
SMH	RBS	JMG	7.31.62
		RBS	
		LOB	

F.A.I. SHEET NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11-HB-4	VERMILION	51	22
FEDERAL ROAD DISTRICT NO. 7				

ADDITIONAL SHEET NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FED. ROAD DIST. NO. 7				



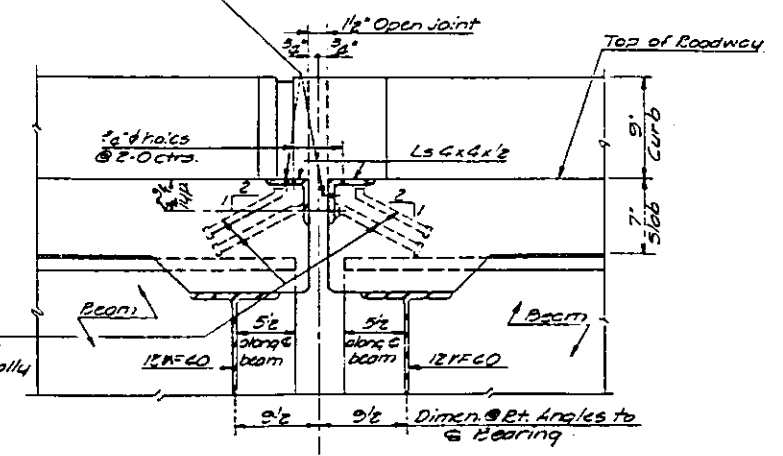
PLAN - PIER NO. 2



SECTION G - G

1/4" Holes @ 12" ctrs. for 3/8" Bolts
All bolts shall be burned, sawed or clipped off flush with back of angles after forms are removed

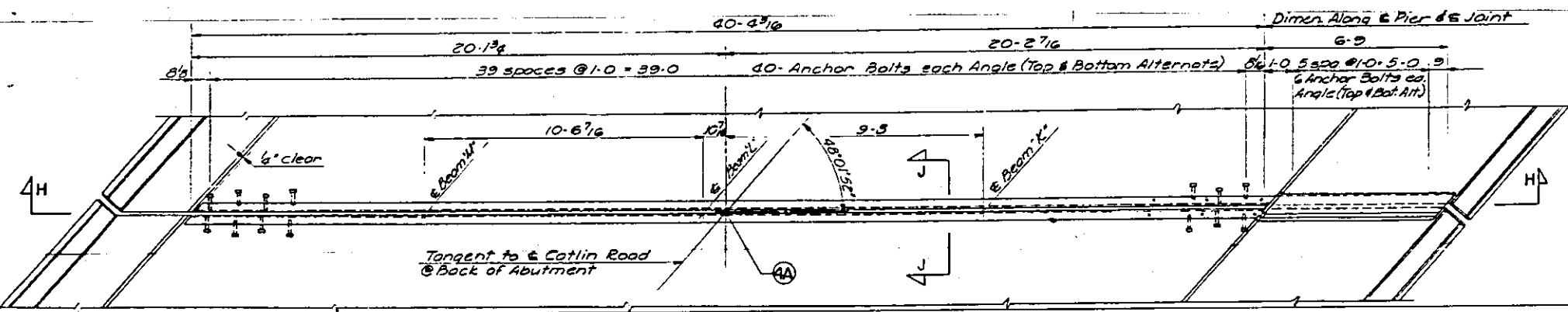
For Curb & Walk Plate Details See Sheet #21



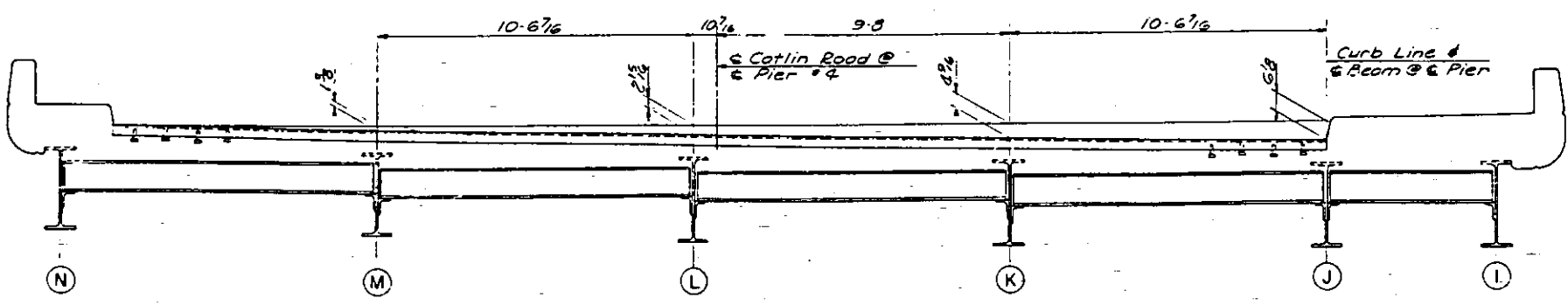
SECTION J - J

3/4" x 8" CR 1020 STL Granular or Solid Flux Filled Studs Automatically End Welded. (Alternate @ 1'-0" ctrs.)

NOTE:
Set curb and walk plates flush with plane of curb and weld to roadway angles as shown on Section D-D. Sheet No. 21.
Grind exposed weld smooth.
All welds are 3/16" fillet welds except as otherwise noted.
All 3/4" 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"



PLAN - PIER NO. 4



SECTION H - H

TOTAL COMPUTED WEIGHT OF JOINT DETAILS
STRUCTURAL STEEL 5,680 LBS.

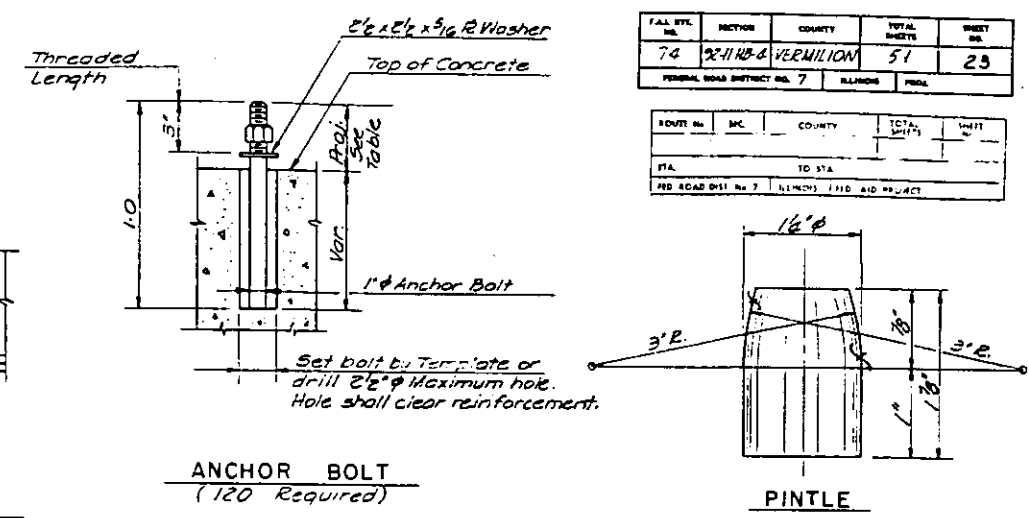
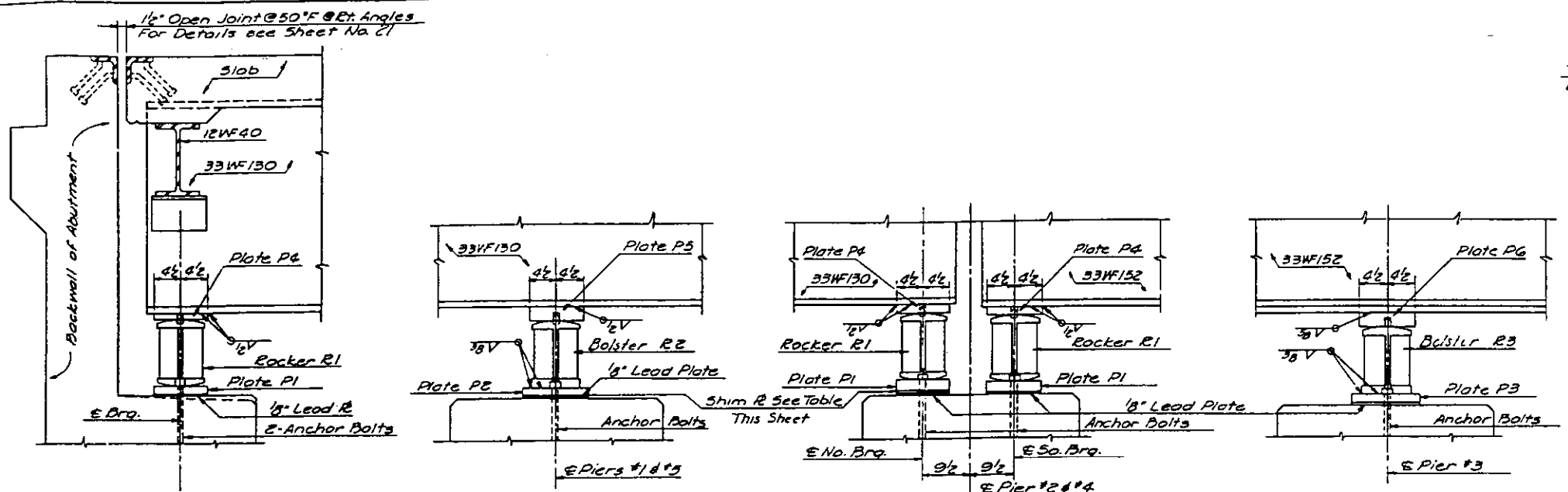
CONSOER, TOWNSEND & ASSOCIATES
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ILLINOIS DIVISION OF HIGHWAYS
CATLIN ROAD (SA-7) OVER FAI-74
FAI-74 SECTION 92-11-HB-4
VERMILION COUNTY STA. 1917+83.25

STRUCTURAL STEEL JOINT DETAILS

DESIGNED	REVISED	TRACED	CHECKED	REVIEWED	DATE	REVISED
SMH	RBS	JMG	RBS	LDB	HSM 7.31.62	

F.A.I. DIST. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-IHNB-4	VERMILION	51	23
FEDERAL ROAD DISTRICT NO. 7 ILLINOIS				
SOUTH IN. INC. COUNTY TOTAL SHEETS SHEET NO.				
I.T.A. TO STA.				
FED. ROAD DIST. NO. 7 ILLINOIS I.T.A. AND PROJECT				



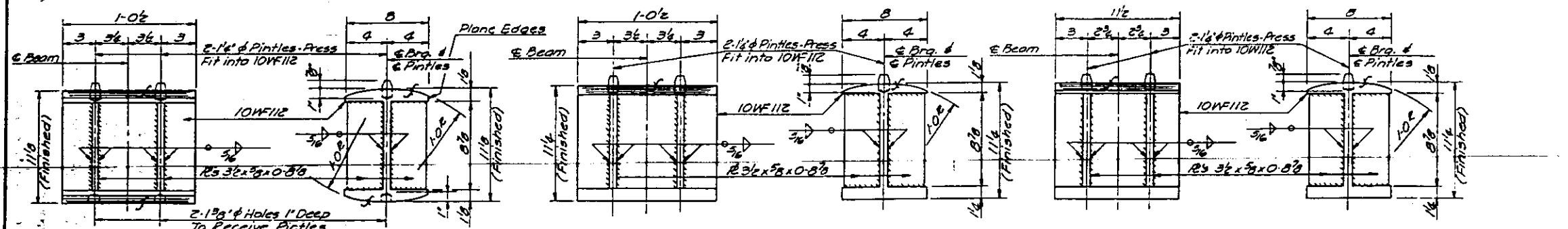
ANCHOR BOLT
(120 Required)

PINTLE

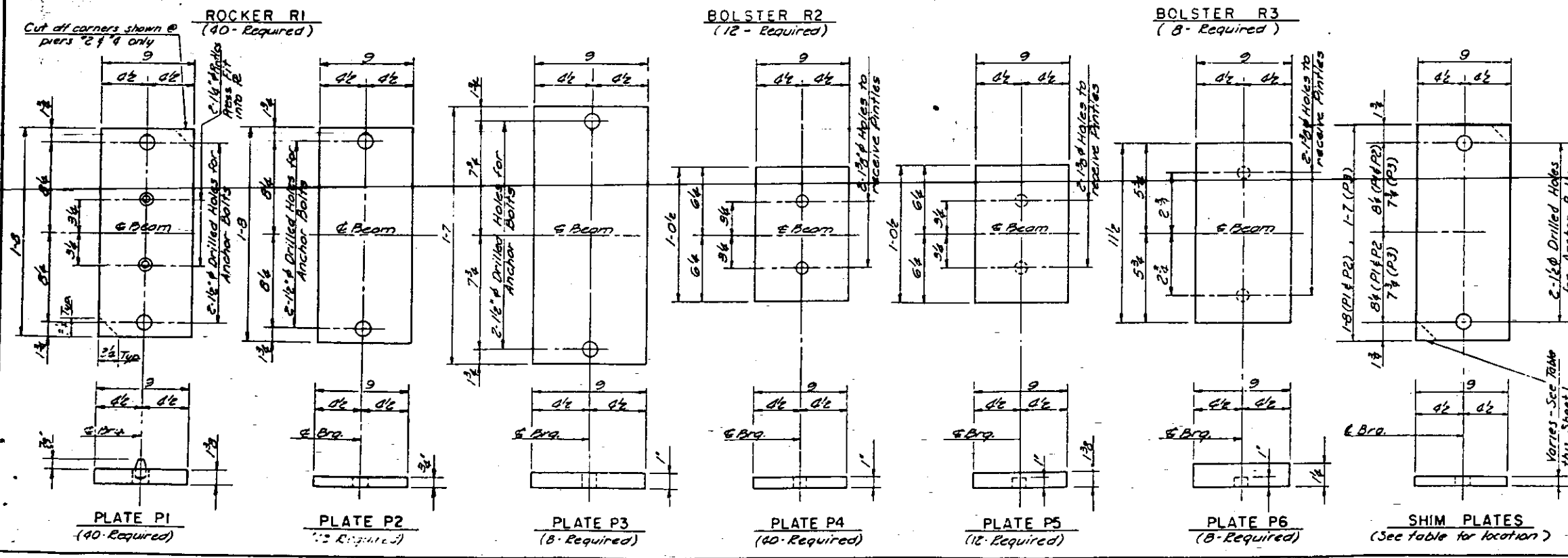
AT ABUTMENTS
AT PIERS NO. 1 & 5
AT PIERS NO. 2 & 4
AT PIER NO. 3

ELEVATION OF BEARING DEVICES

LOCATION	ANCHOR BOLT PROJECTIONS (INCH)													
	BEAM													
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
E. Bro. N. Abut.										3/4	3/4	3/4	3/4	3/4
E. Pier #1										2 1/2	2 1/2	2 1/2	2 1/2	2 1/2
C.N. Bro. Pier #2										4	3/4	3/4	3/4	3/4
E.S. Bro. Pier #2										3/4	3/4	3/4	3/4	3/4
E. Pier #3										2 1/2	2 1/2	2 1/2	2 1/2	2 1/2
C.N. Bro. Pier #4										3/4	3/4	3/4	3/4	3/4
E.S. Bro. Pier #4										3/4	3/4	3/4	3/4	3/4
E. Pier #5										2 1/2	2 1/2	2 1/2	2 1/2	2 1/2
E. Bro. S. Abut.										3/4	3/4	3/4	3/4	3/4



LOCATION	SHIM PLATE THICKNESSES (INCH)													
	BEAM													
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
E. Bro. N. Abut.										1/8				
E. Pier #1										1/8				
C.N. Bro. Pier #2										1/4	1/8	1/8	1/8	1/8
E.S. Bro. Pier #2										1/8	1/8	1/8	1/8	1/8
E. Pier #3										1/8				
C.N. Bro. Pier #4										1/8				
E.S. Bro. Pier #4										1/8	1/8	1/8	1/8	1/8
E. Pier #5										1/8				
E. Bro. S. Abut.										1/8				



TOTAL COMPUTED WEIGHT OF BEARING DEVICES
STRUCTURAL STEEL 15,920 LBS.

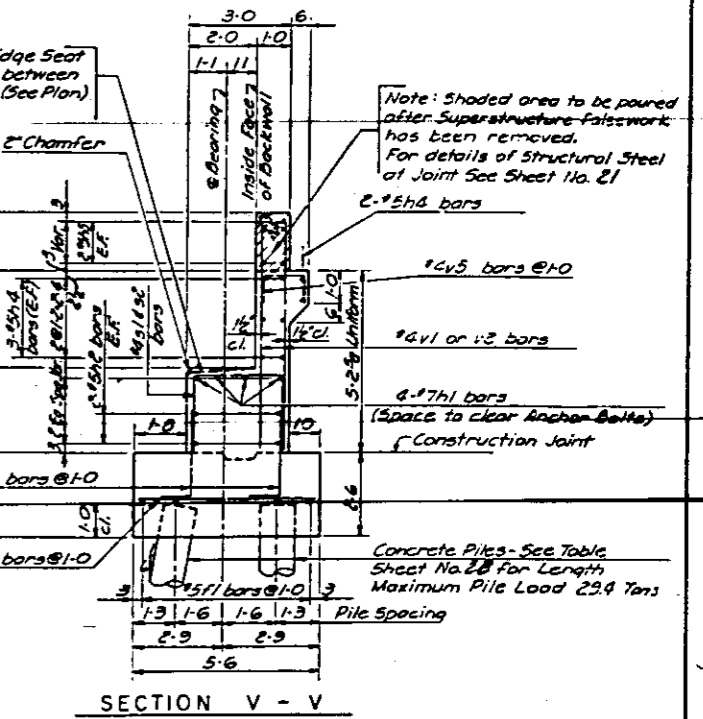
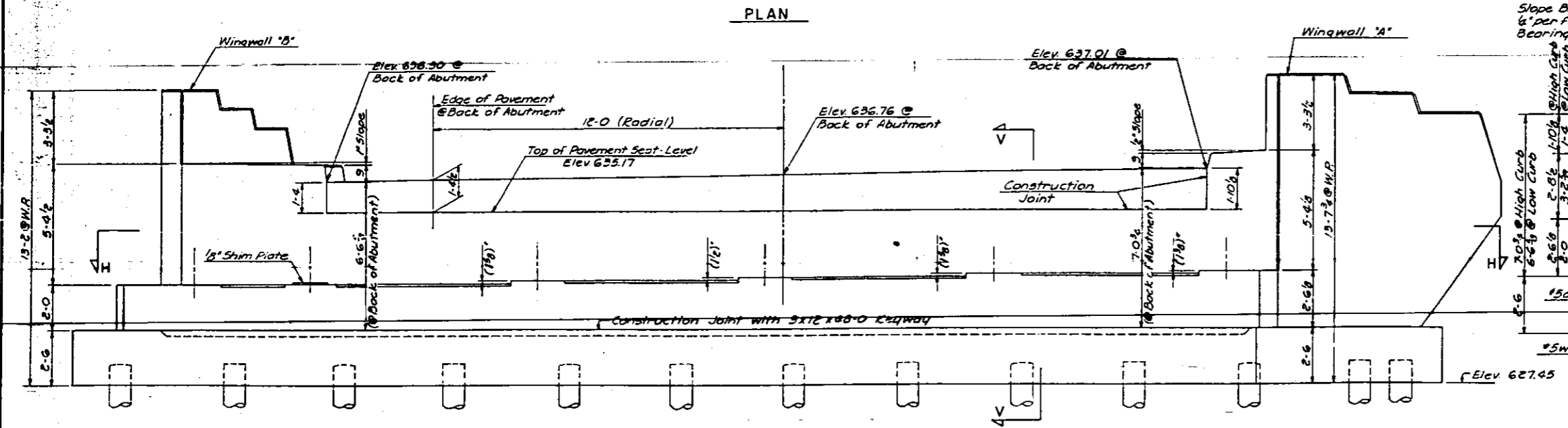
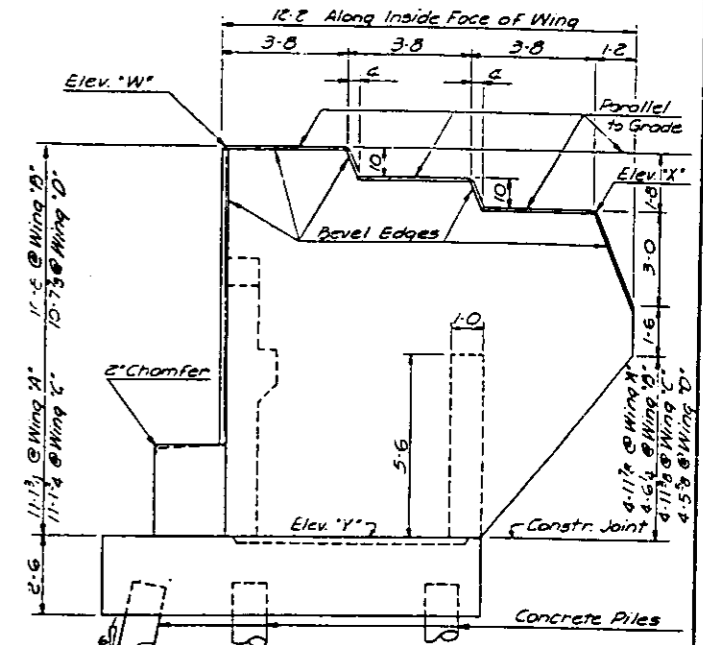
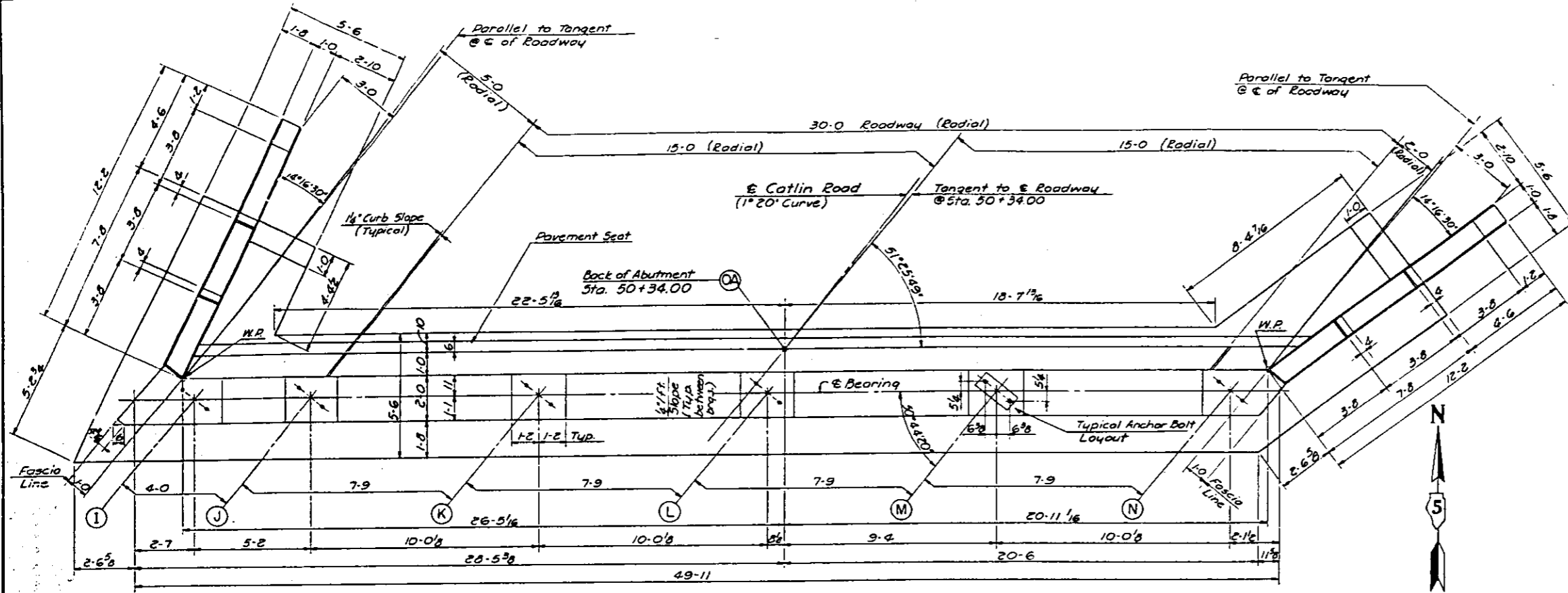
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CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
CATLIN ROAD (SA-7) OVER FAI-74
FAI-74 SECTION 92-IHNB-4
VERMILION COUNTY STA. 1917+83.25

STRUCTURAL STEEL BEARING DEVICES

SMH	RBS	JMG	RBS	REVIEWED	DATE
	LDB			HSM	7.31.62

TOTAL SHEET NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	92-11 HB-4 VERMILION	51	24	
FURNISH ROAD DISTRICT NO. 7				



Abutment	Berm Elev.	Prof. Elev. Back of Abut.	Bottom of Footing	WINGWALLS			WINGWALLS			BEARING SEAT ELEVATIONS (Top of Concrete)							
				Wing W	X	Y	Wing W	X	Y	I	J*	K	L	M	N		
North Abut.	631.33	636.76	627.45	A	641.09	639.44	629.95	B	640.62	638.97	629.95	631.93	631.93	632.09	632.22	632.35	632.46
South Abut.	630.55	635.97	626.67	C	640.91	638.62	629.17	D	639.83	638.16	629.17	631.17	631.17	631.31	631.44	631.57	631.69

* Provide 1/8" Shim Plate @ each Abutment.

Note: For Bar Schedule and Abutment Quantities See Sheet # 2B

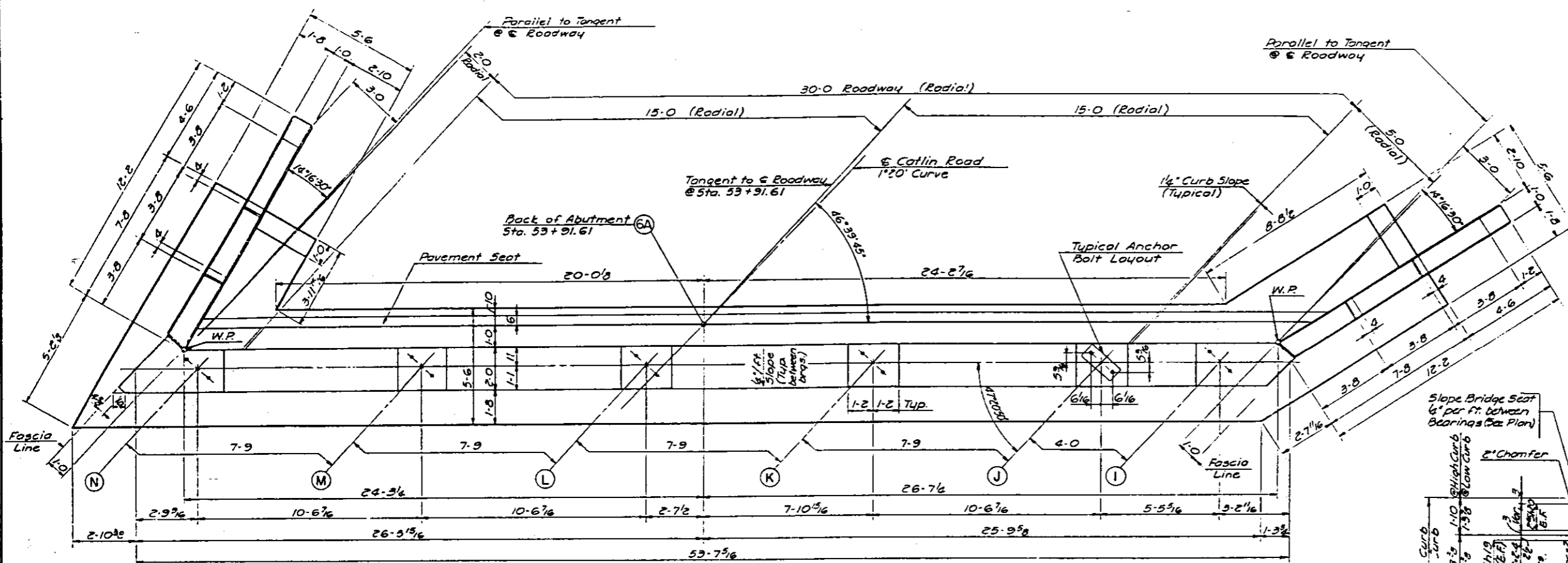
CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
CATLIN ROAD (SA-7) OVER FAI-74
FAI-74 SECTION 92-11 HB-4
VERMILION COUNTY STA 1917+83.25

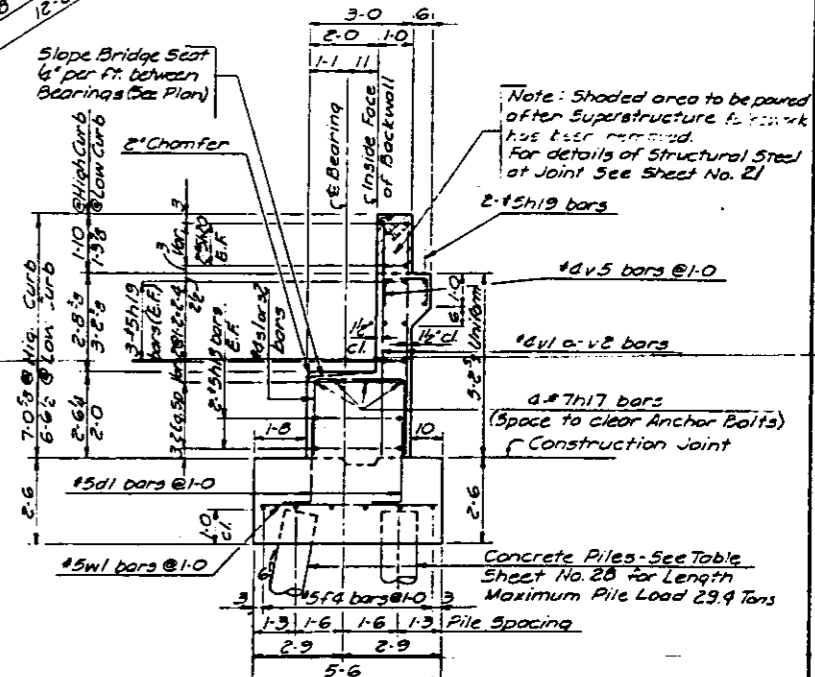
NORTH ABUTMENT

DESIGNED	CHECKED	TRACED	CHECKED	REVIEWED	DATE	REVISION
SMH	RBS	JMG	JWH	HSM	7.31.62	
			LDB			

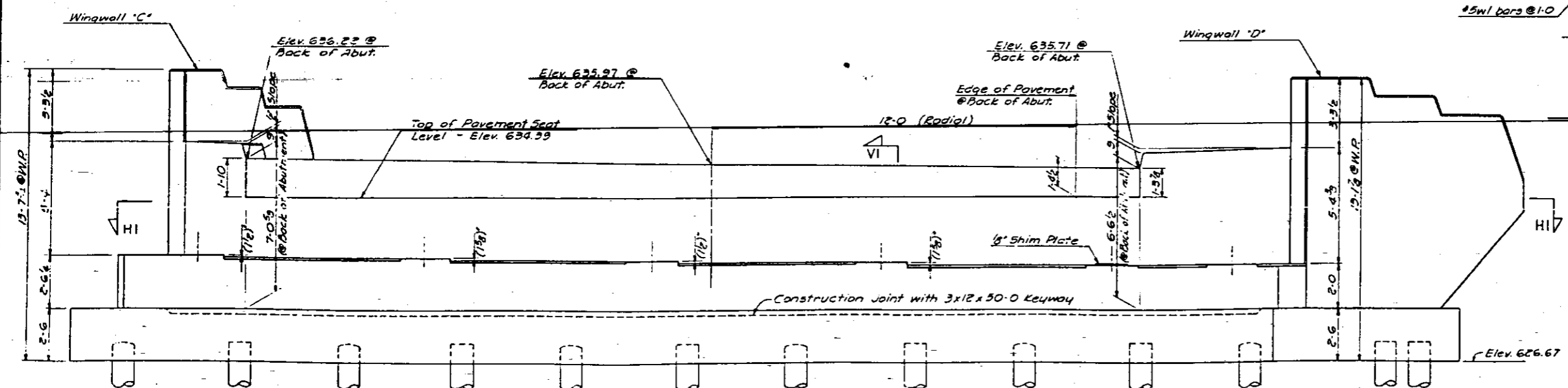
FALL RYS. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	92-11 HB-4	VERMILION	51	26
FEDERAL ROAD DISTRICT NO. 7 ILLINOIS PAUL				



PLAN



SECTION VI-VI



ELEVATION

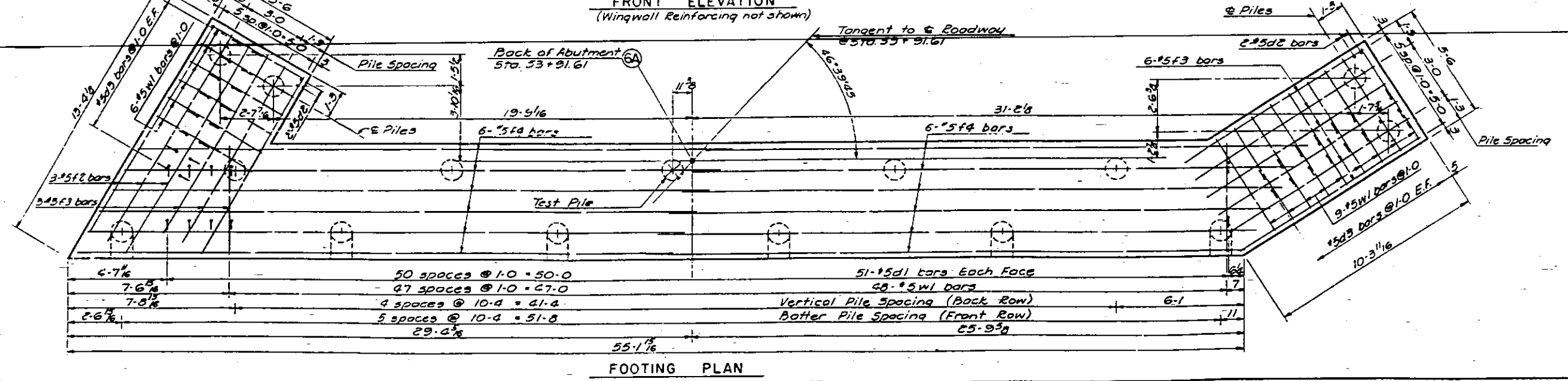
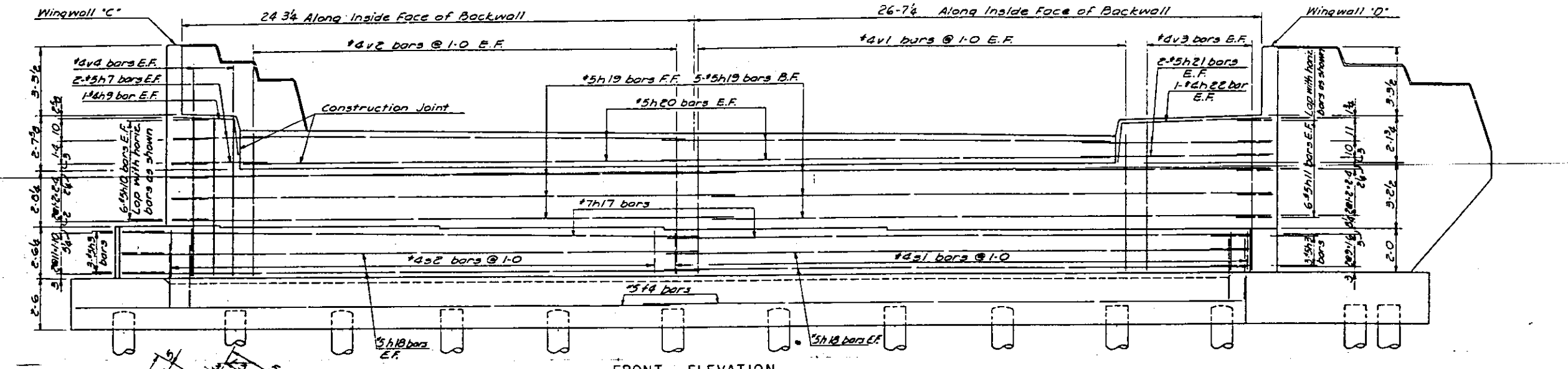
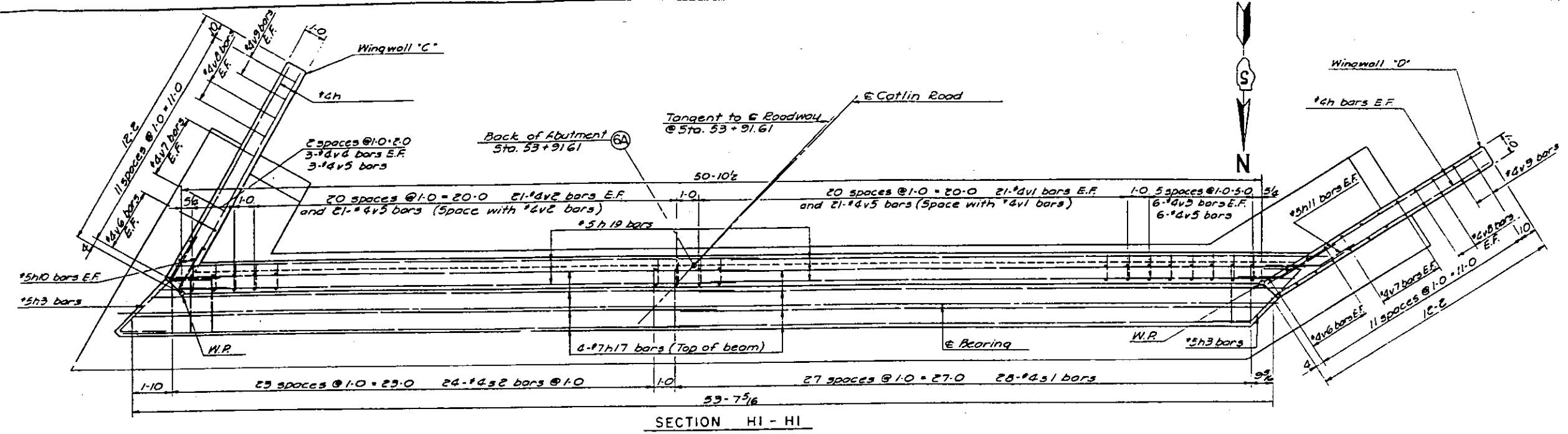
Note: For Bar Schedule and Abut. Quantities See Sheet #28

CONSOER, TOWNSEND & ASSOCIATES
 CONSULTING ENGINEERS CHICAGO, ILLINOIS
 ILLINOIS DIVISION OF HIGHWAYS
 CATLIN ROAD (SA-7) OVER FAI-74
 FAI-74 SECTION 92-11 HB-4
 VERMILION COUNTY STA. 1917+83.25

SOUTH ABUTMENT

DESIGNED	DRAWN	TRACED	CHECKED	APPROVED	DATE	REVISED
SMH	RBS	JMG	JWH LDB	HSM	7.31.62	

F.A.S. DIST. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11-HB-4	VERMILION	51	27
VERMILION ROAD DISTRICT NO. 7		ILLINOIS	PAUL	

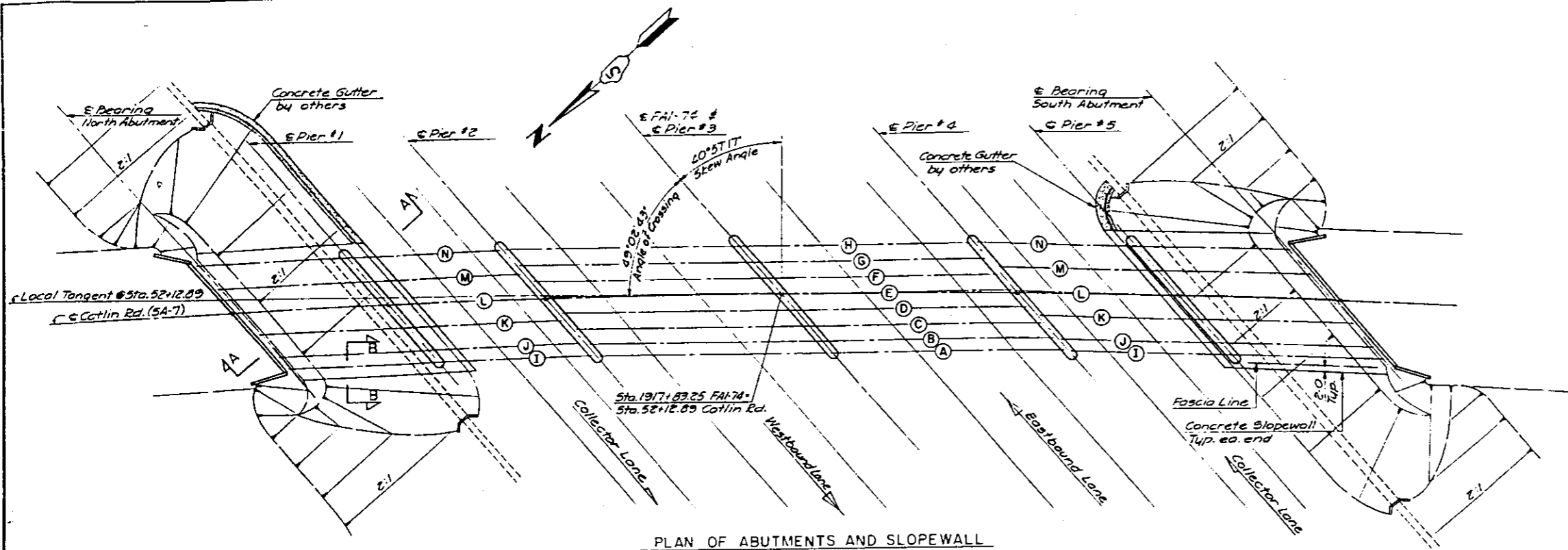


CONSER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS
CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
CATLIN ROAD (SA-7) OVER FAI-74
FAI-74 SECTION 92-11 HB-4
VERMILION COUNTY STA. 1917 + 83.25

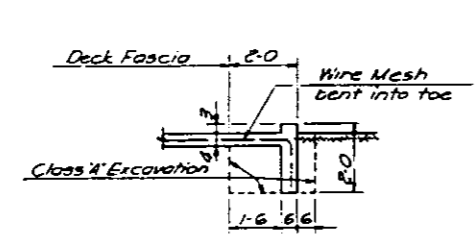
SOUTH ABUTMENT

DRAWN	CHECKED	DATE
SMH	RBS	JMG
JWH	LDB	HSM 7.31.62

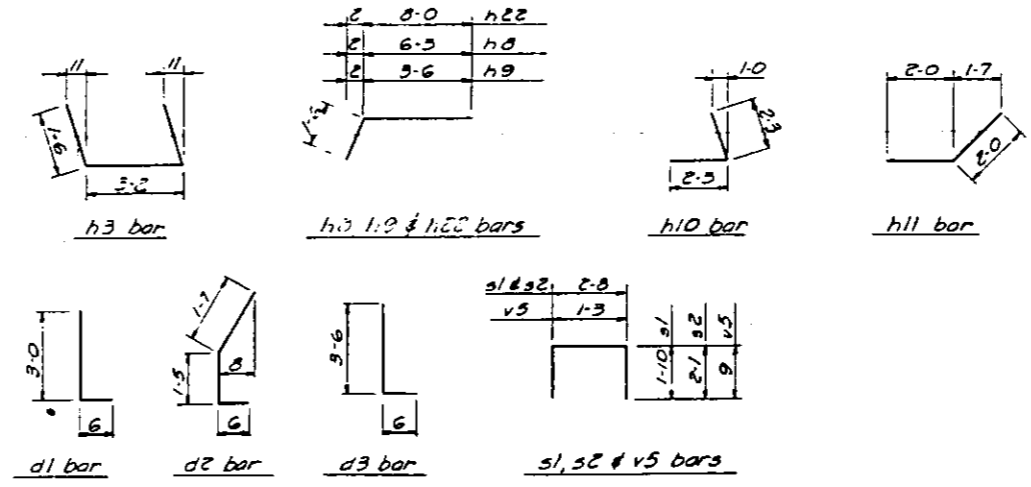


PLAN OF ABUTMENTS AND SLOPEWALL

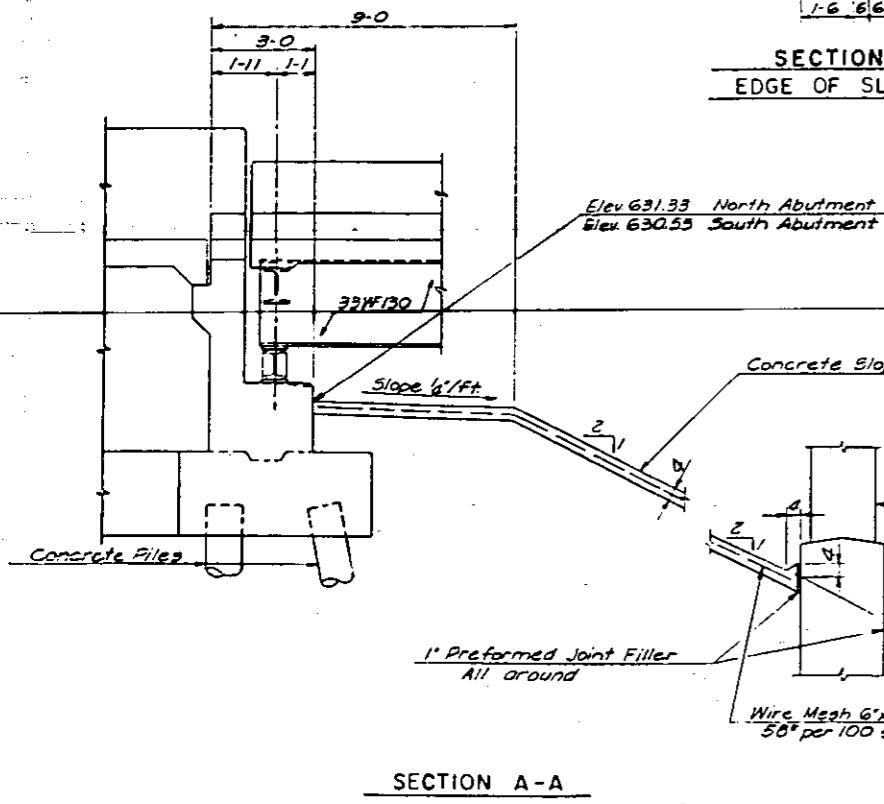
BAR SCHEDULE						
Bar	Number		Size	Length	Spacing	Shape
	N. Abut	S. Abut				
w1	60	63	5	5-0	1-0	---
f1	12	---	5	26-3	1-0	---
f2	3	3	5	11-3	1-0	---
f3	9	9	5	10-0	1-0	---
f4	---	12	5	28-3	1-0	---
d1	96	102	5	3-6	1-0	J
d2	4	4	5	3-6	As Shown	J
d3	32	32	5	4-0	As Shown	J
h1	8	---	7	25-9	As Shown	---
h2	8	---	5	25-6	---	---
h3	6	6	5	6-2	---	---
h4	16	---	5	26-0	---	---
h5	8	---	5	20-0	---	---
h6	4	---	5	8-6	---	---
h7	4	4	5	3-6	---	---
h8	2	---	4	7-9	---	---
h9	2	2	4	5-0	---	---
h10	12	12	5	4-6	---	L
h11	12	12	5	4-0	---	J
h12	4	4	4	3-4	---	---
h13	4	4	4	7-0	---	---
h14	4	4	4	10-6	As Shown	---
h15	20	20	4	11-0	1-0	---
h16	16	16	4	9-6	1-0	---
h17	---	8	7	27-8	As Shown	---
h18	---	8	5	27-6	---	---
h19	---	16	5	20-0	---	---
h20	---	8	5	21-3	---	---
h21	---	4	5	10-0	---	---
h22	---	2	4	9-6	As Shown	---
s1	25	28	4	6-4	1-0	J
s2	23	24	4	6-10	1-0	J
v1	40	42	4	6-5	1-0	---
v2	36	42	4	6-8	1-0	---
v3	12	12	4	7-2	1-0	---
v4	6	6	4	7-7	1-0	---
v5	47	51	4	2-9	1-0	J
v6	16	16	5	10-6	1-0	---
v7	16	16	5	9-8	1-0	---
v8	8	8	5	7-0	1-0	---
v9	8	8	4	6-0	1-0	---
v10	4	4	5	7-0	0-6	---



SECTION B-B
EDGE OF SLOPEWALL



BENDING DIAGRAMS
(All bar dimensions are out to out)



SECTION A-A

LOCATION	SUMMARY OF ABUTMENT QUANTITIES				
	Class 'X' Conc. Cu. Yds.	Reinf. Bars Lbs.	Slope Wall Sq. Yds.	Class 'A' Exc. Cu. Yds.	Concrete Piles * Lin. Ft.
North Abut.	62.5	6,180	299	166	14 @ 20 = 280
South Abut.	65.8	4,400	281	175	14 @ 16 = 224
TOTAL	128.3	10,580	580	341	504

* One test pile North abut. and one test pile South abut. (Not included in Schedule above.)

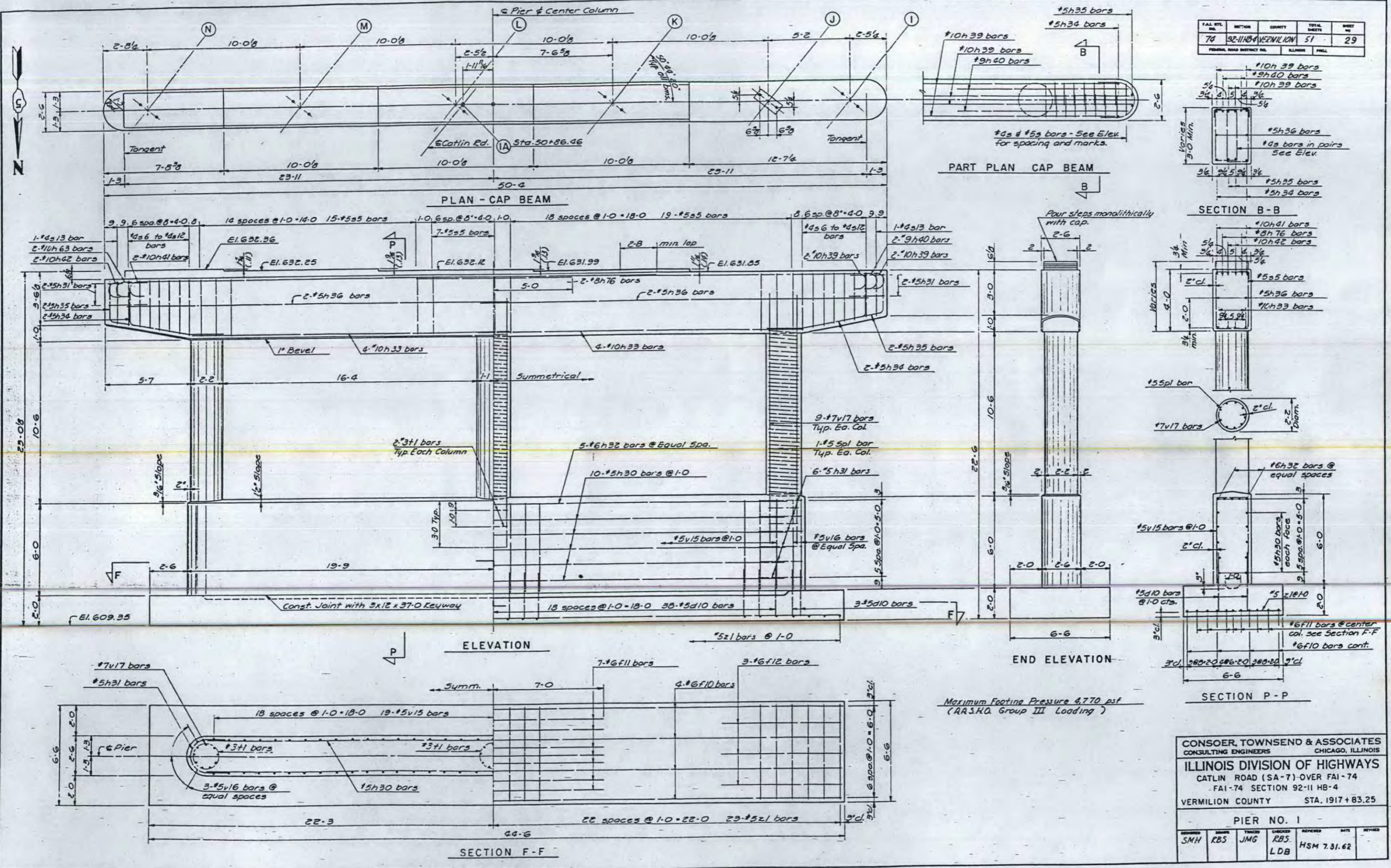
CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
CATLIN ROAD (SA-7) OVER FAI-74
FAI-74 SECTION 92-11 H-4
VERMILION COUNTY STA 1917+83.25

ABUTMENT DETAILS

DESIGNED	CHECKED	APPROVED	DATE
SMH	JMG	HSM 7.31.62	

FED. H.W. DIST. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11HB	VERMILION	51	29
FEDERAL ROAD DISTRICT NO.		ILLINOIS	PAUL	



Maximum Footing Pressure 4,770 psf
(AASHTO Group III Loading)

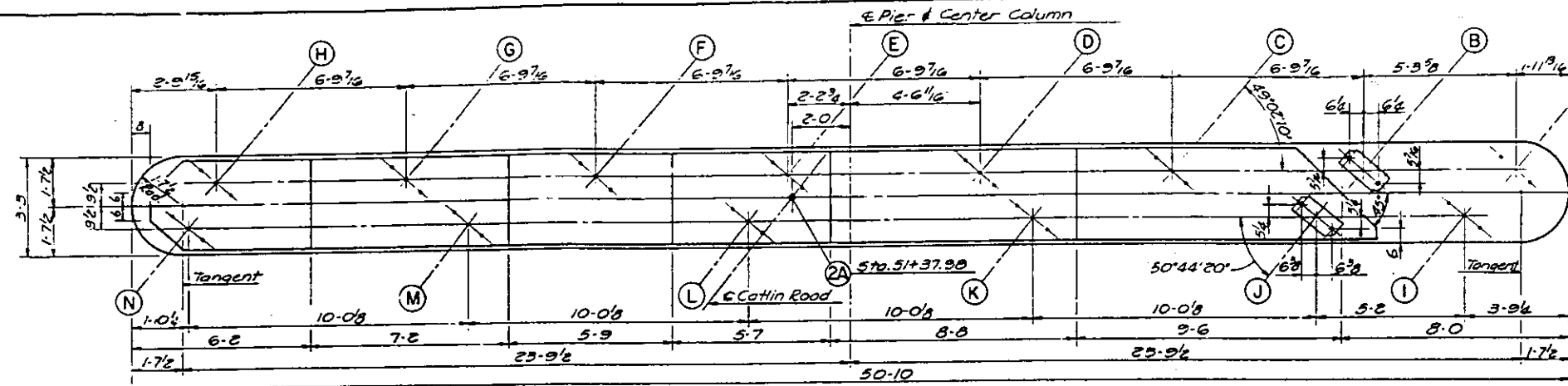
CONSOER, TOWNSEND & ASSOCIATES
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ILLINOIS DIVISION OF HIGHWAYS
CATLIN ROAD (SA-7) OVER FAI-74
FAI-74 SECTION 92-11 HB-4
VERMILION COUNTY STA. 1917+83.25

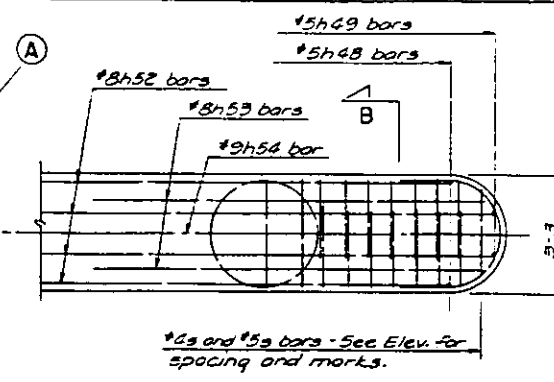
PIER NO. 1

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
SMH	RBS	JMG	RBS	LDB	HSM 7.31.62	

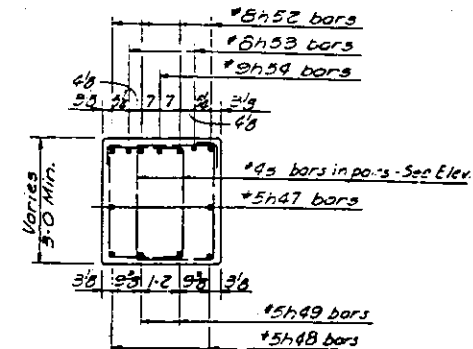
FULL SHEET NO.	SHEET NO.	COUNTY	TOTAL SHEETS	SHEET NO.
76	92-11B-0	VERMILION	51	30
FEDERAL ROAD DISTRICT NO. 7 ALIQUOT PAUL				



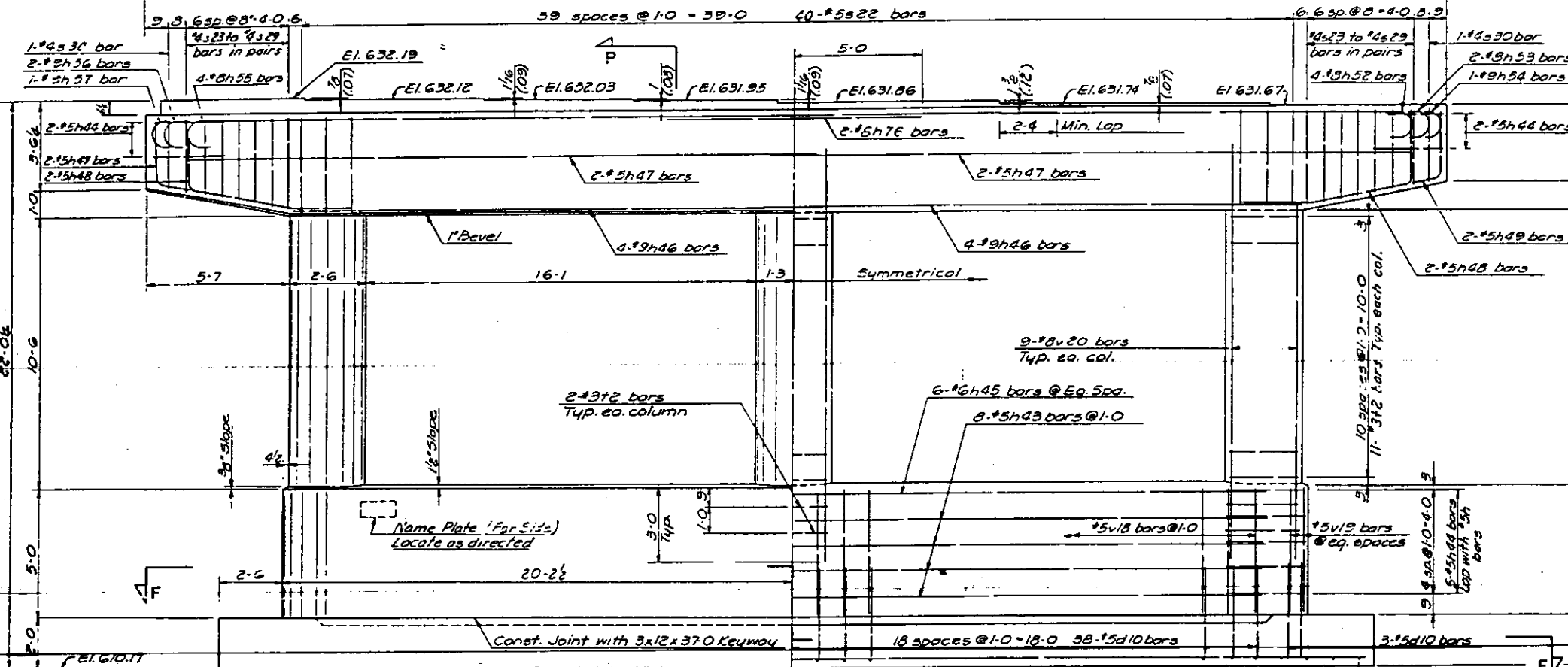
PLAN - CAP BEAM



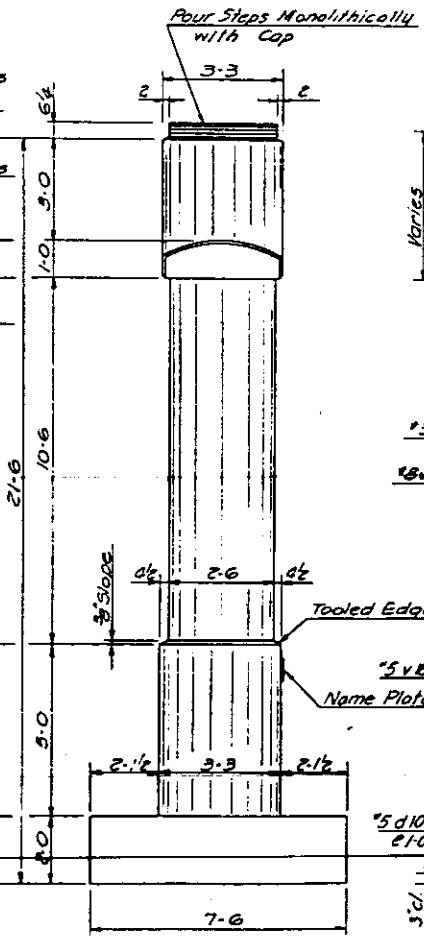
PART PLAN - CAP BEAM



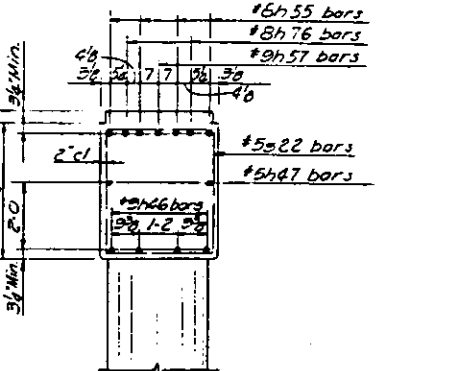
SECTION B - B



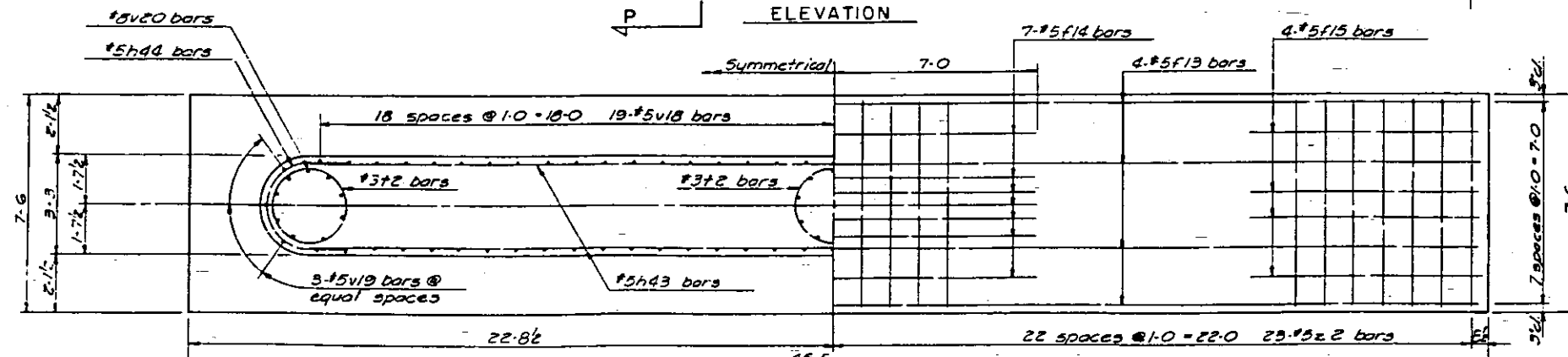
ELEVATION



END ELEVATION



SECTION P - P



SECTION F - F

Maximum Footing Pressure 3,260 psf
(A.A.S.H.O. Group II Loading)

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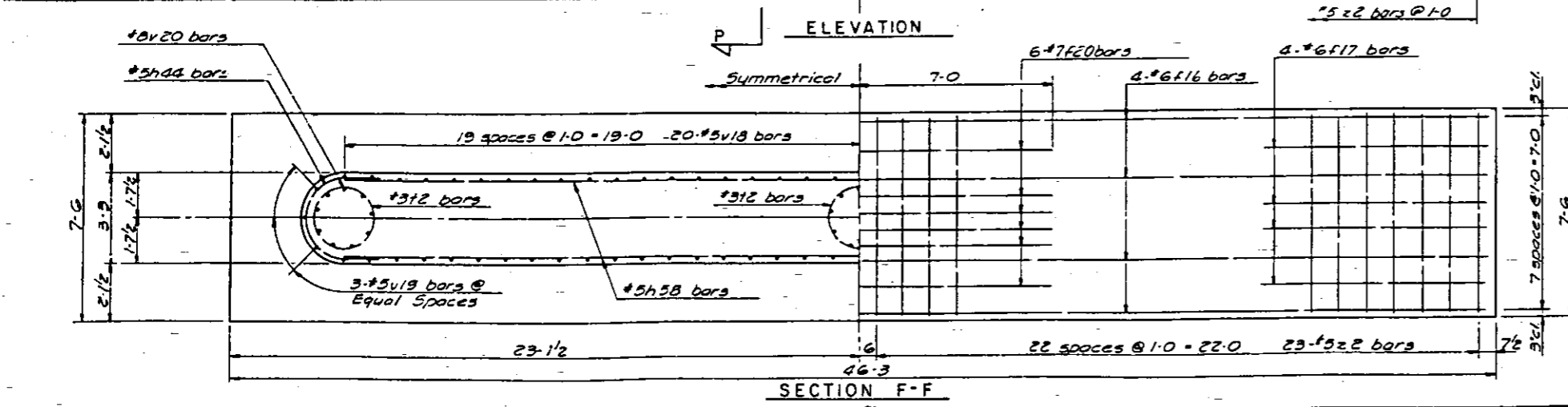
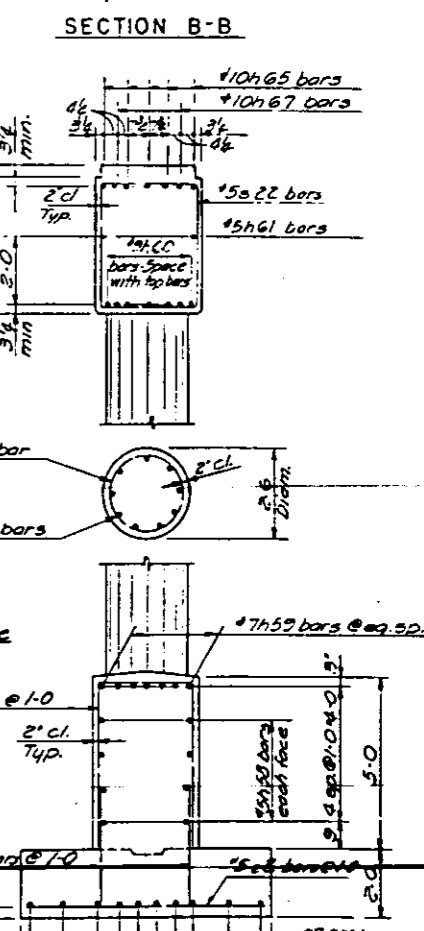
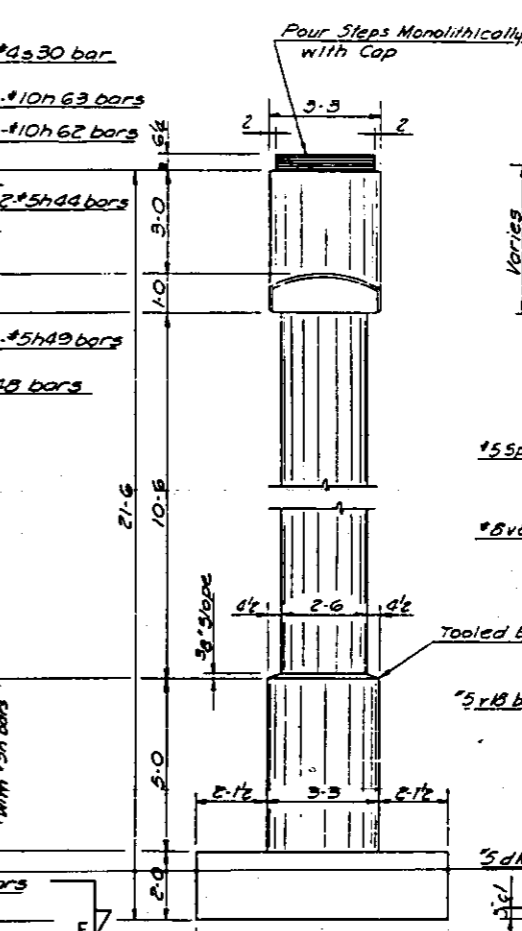
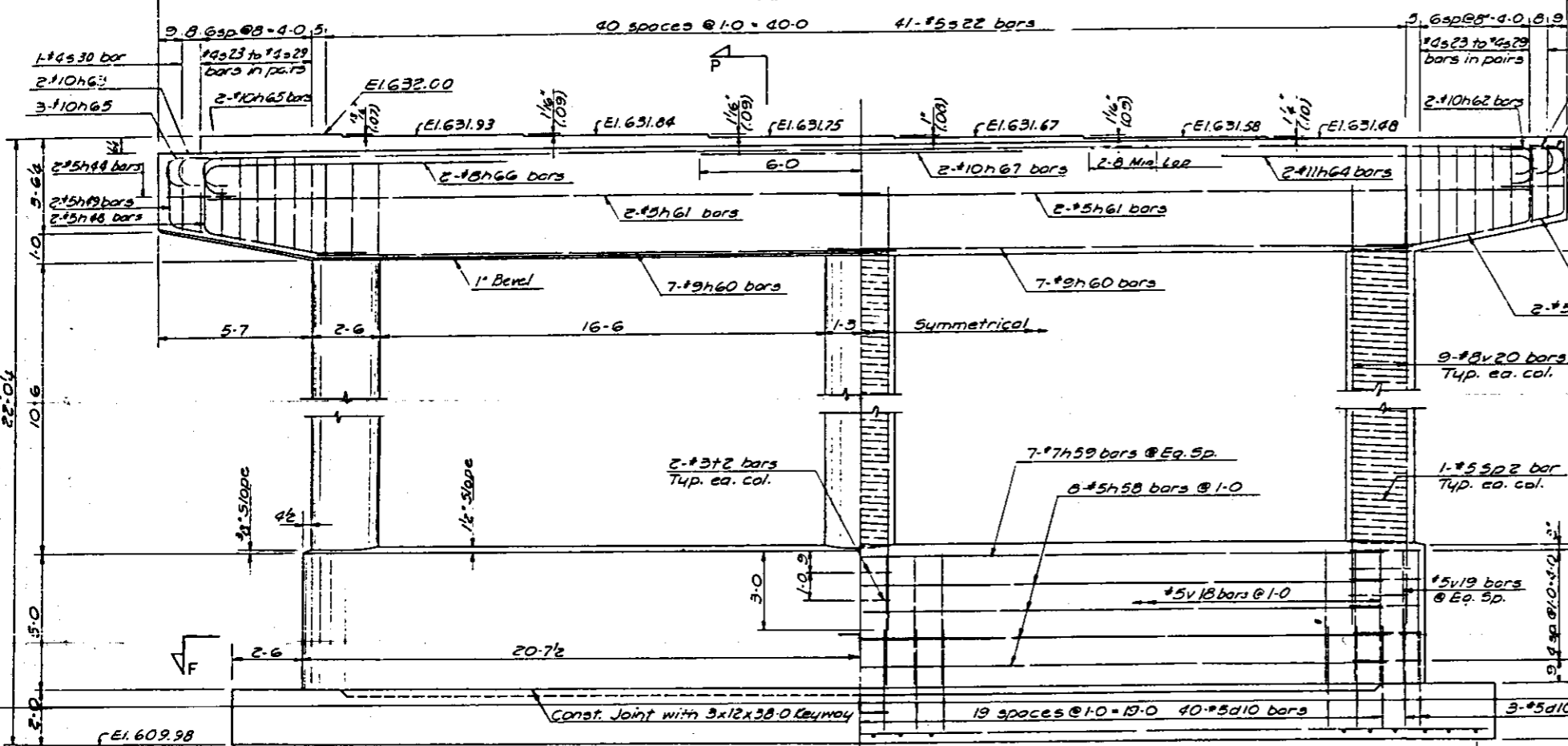
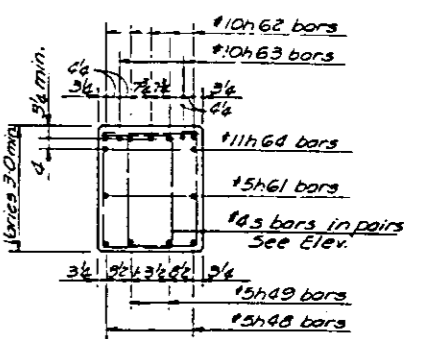
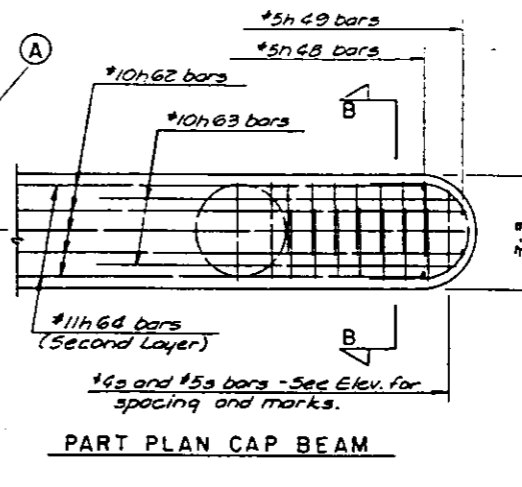
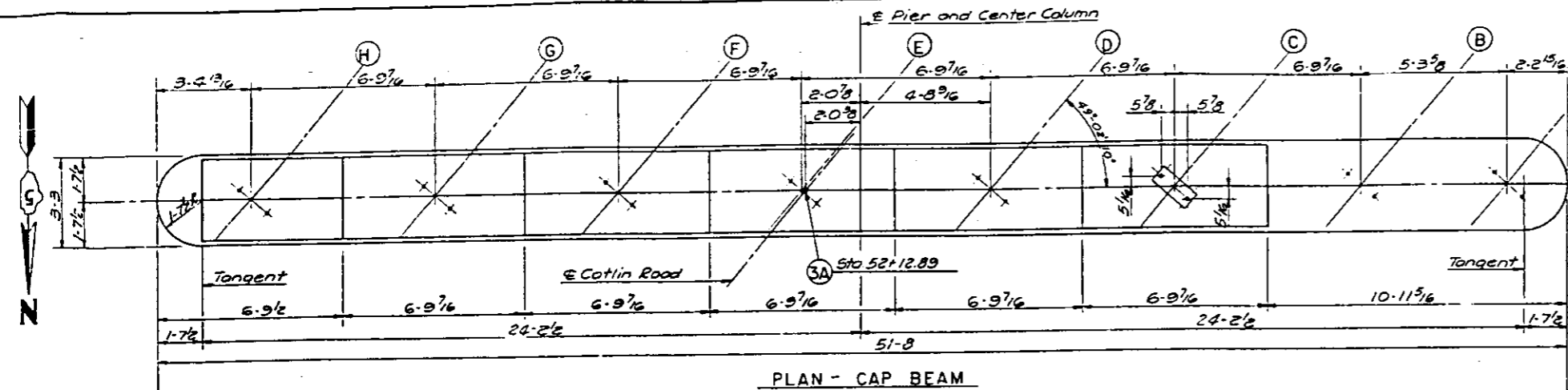
ILLINOIS DIVISION OF HIGHWAYS
CATLIN ROAD (SA-7) OVER FAI-74
FAI-74 SECTION 92-11 HB-4
VERMILION COUNTY STA. 1917+83.25

PIER NO. 2

DESIGNED	DRAWN	TITLE	CHECKED	REVISION	DATE	APPROVED
SMH	RBS	JMG	RBS	LDB	HSM 7.31.62	

TOTAL SHEET NO.	SECTION	QUANTITY	TOTAL SHEETS	SHEET NO.
74	92-11HB-4	VERMILION	51	31

PERMANENT ROAD DISTRICT NO. 7 ALLIANCE PERM.



Maximum Footing Pressure 5200 psf
(A.R.S.H.O Group III Loading)

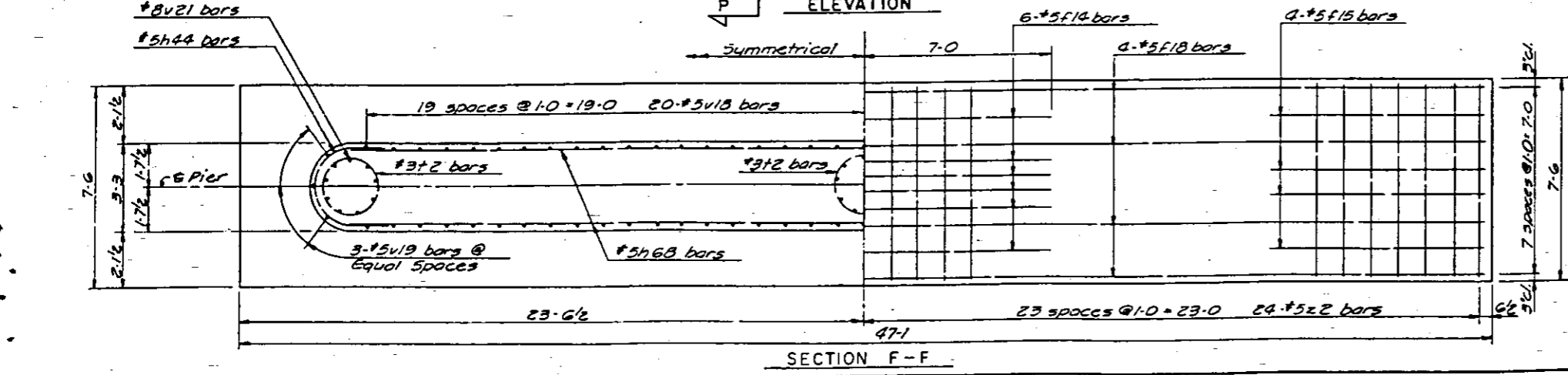
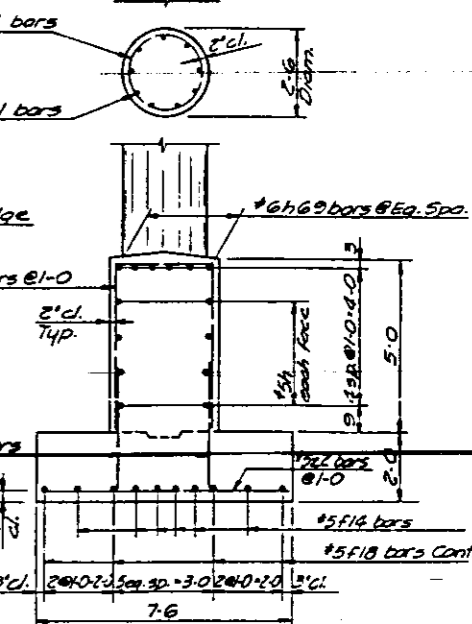
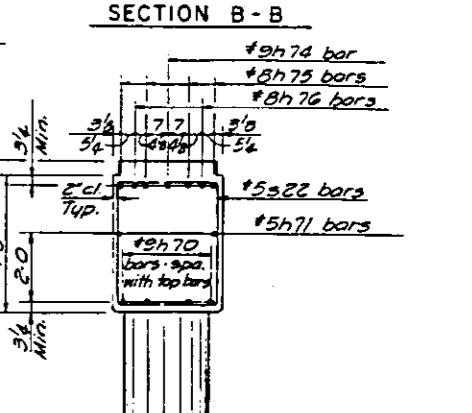
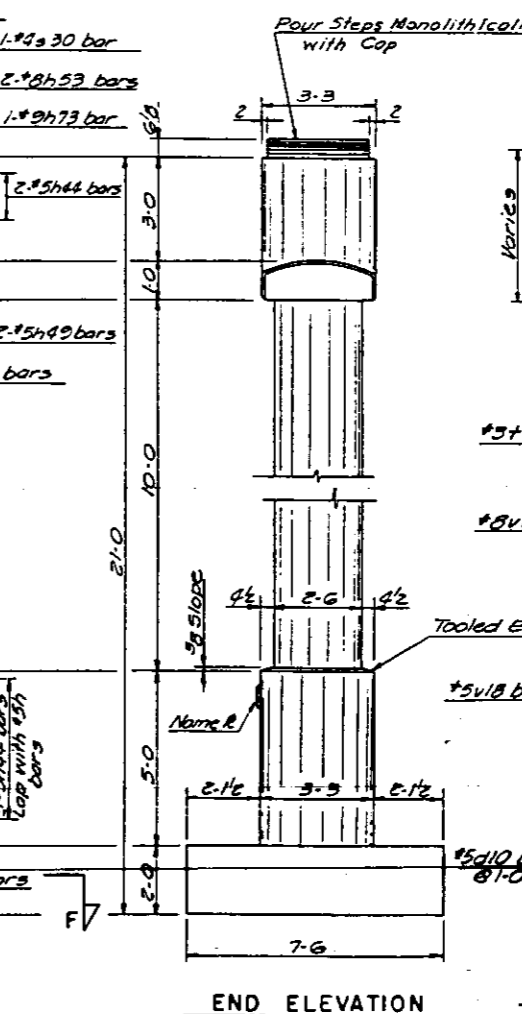
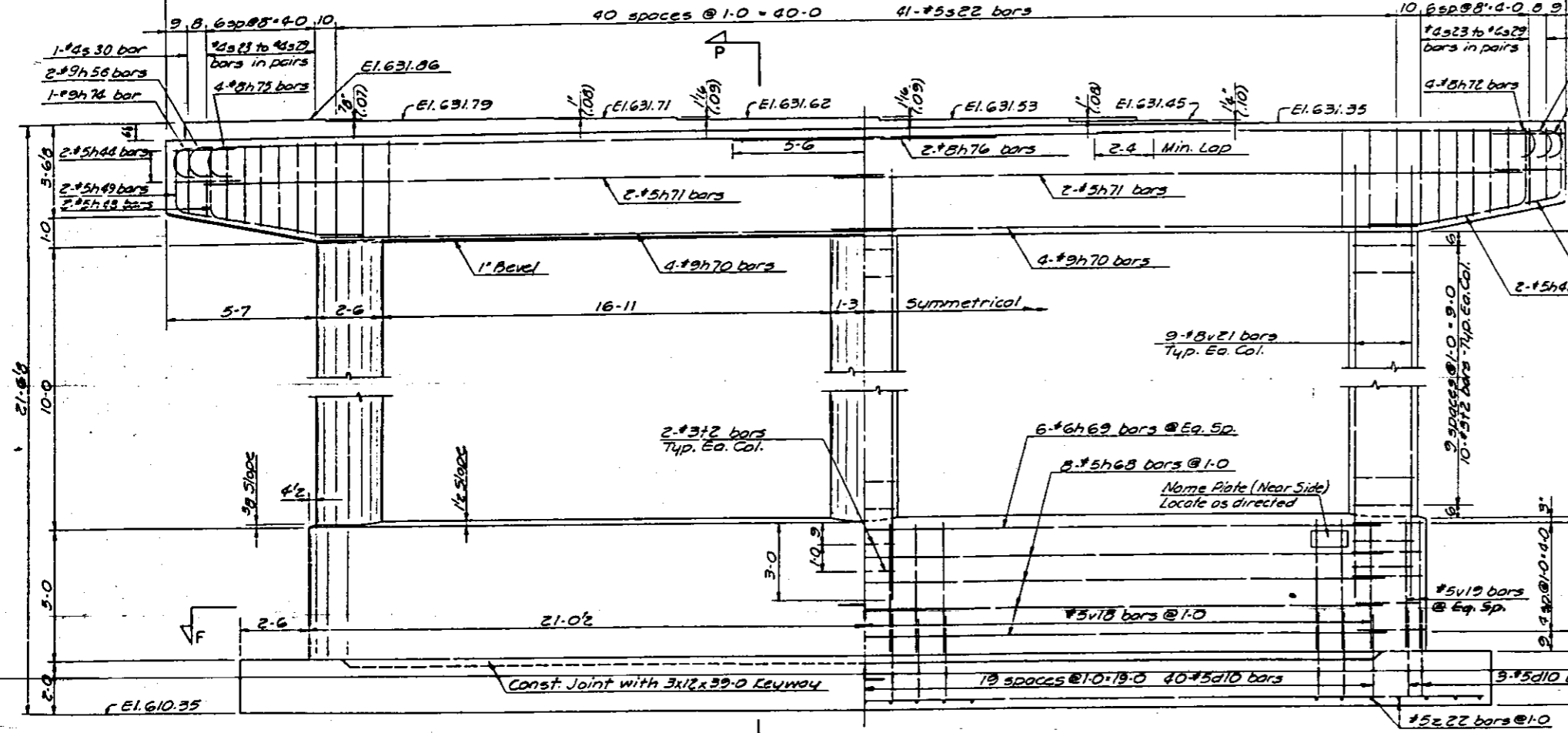
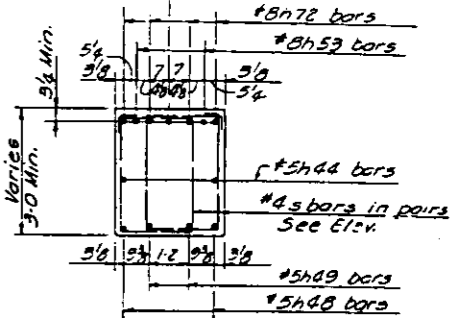
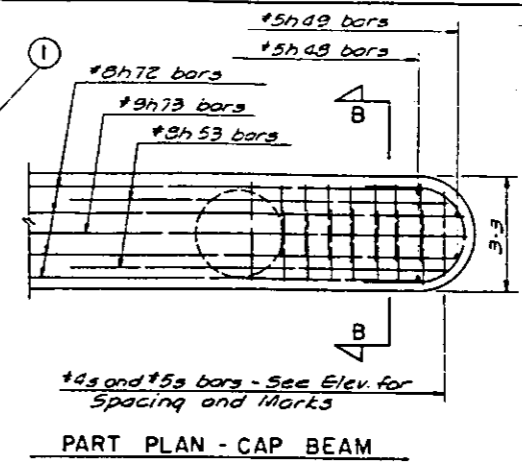
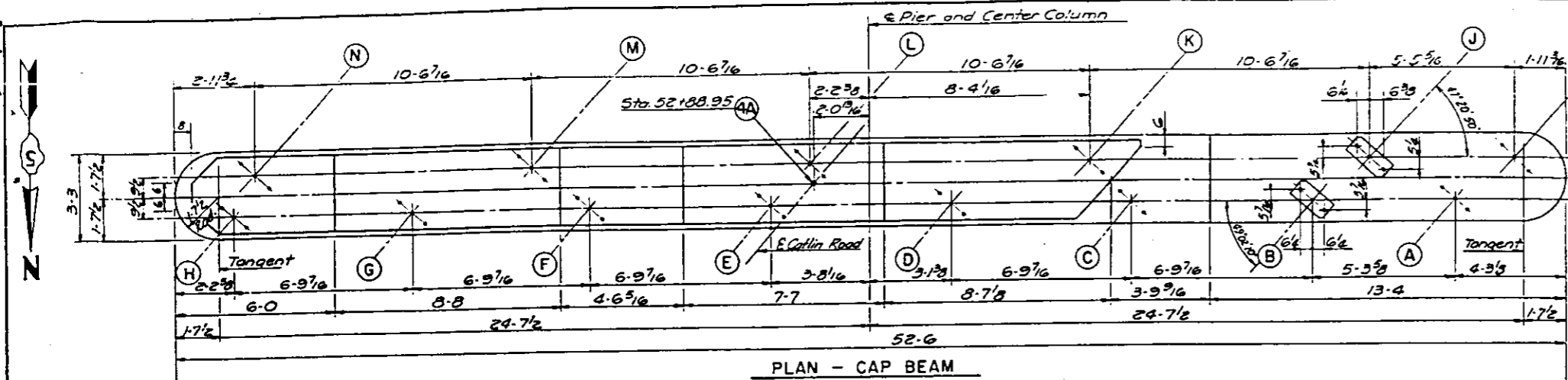
CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS
CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
CATLIN ROAD (SA-7) OVER FAI-74
FAI-74 SECTION 92-11HB-4
VERMILION COUNTY STA. 1917+83.25

PIER NO. 3

DESIGNED	CHECKED	APPROVED	DATE
SMH	RBS	JMG	7.31.62
		RBS	
		LDB	

FILE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
76	92-118-RV-E-CATLIN	51	32	32
FEDERAL ROAD DISTRICT NO. 7				



Maximum Footing Pressure 3260 psf
(A.A.S.H.O. Group II Loading)

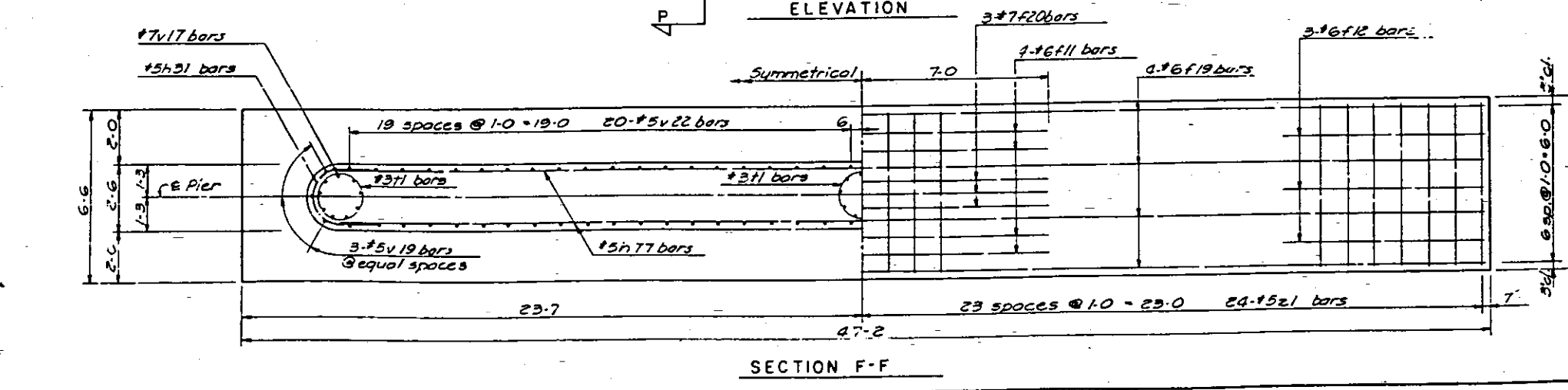
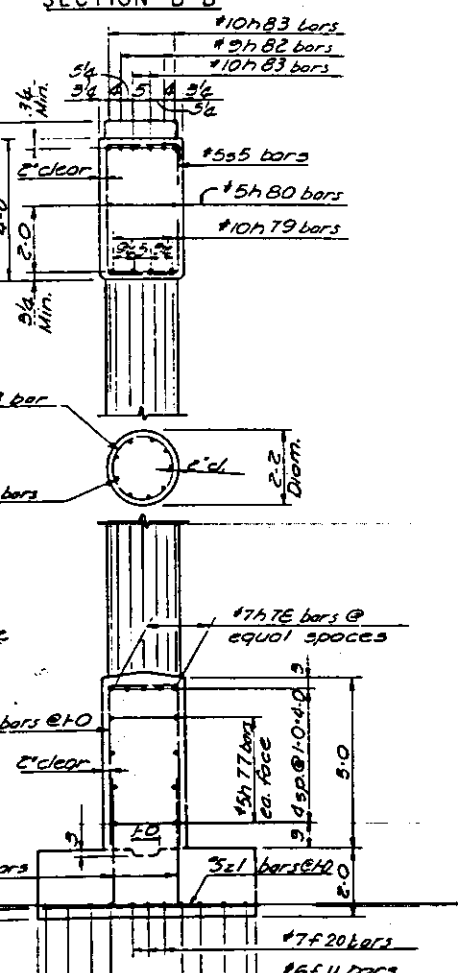
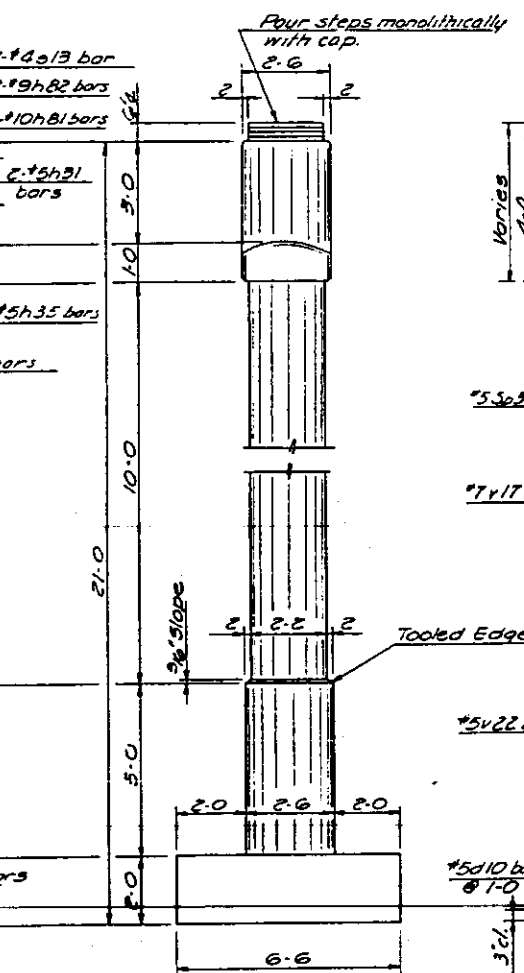
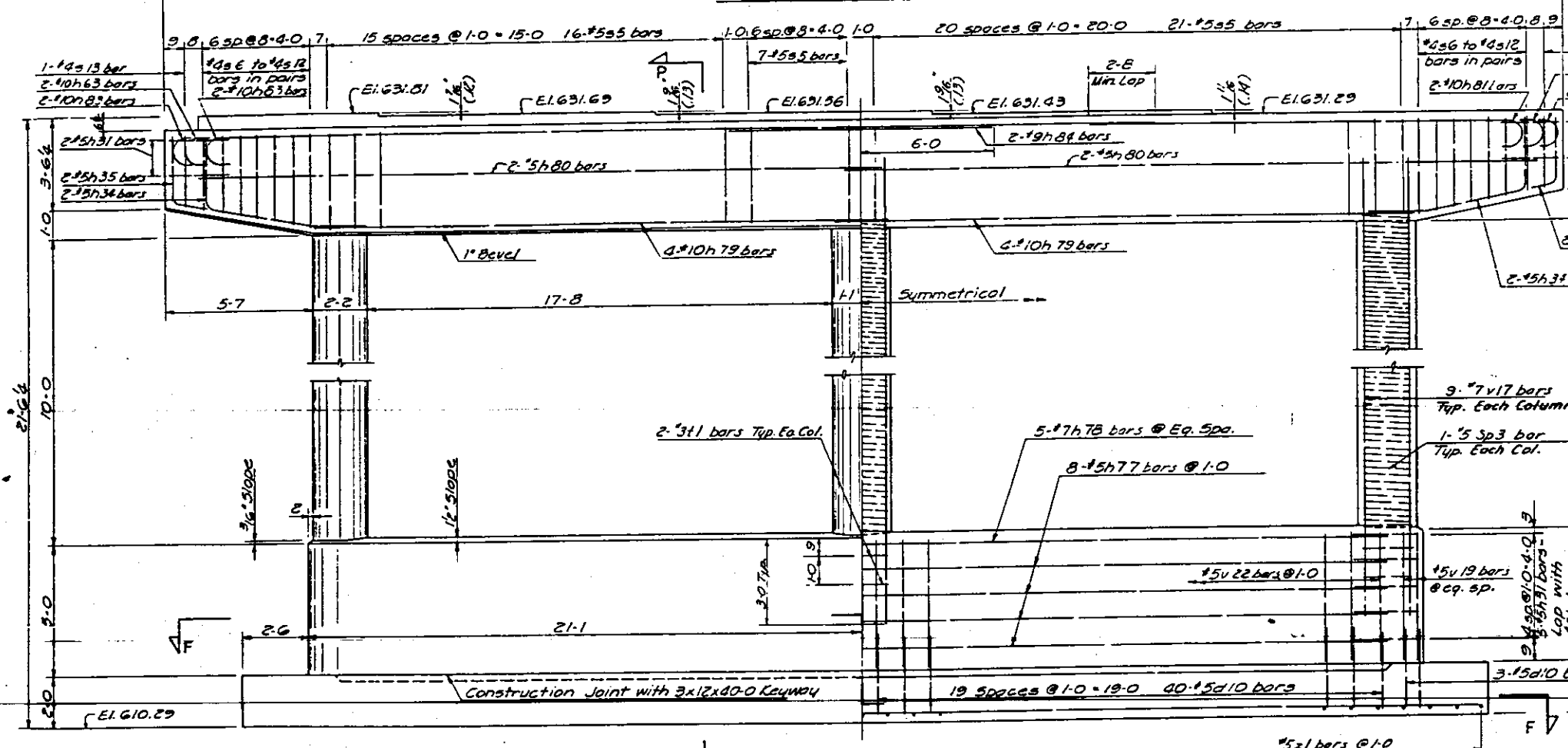
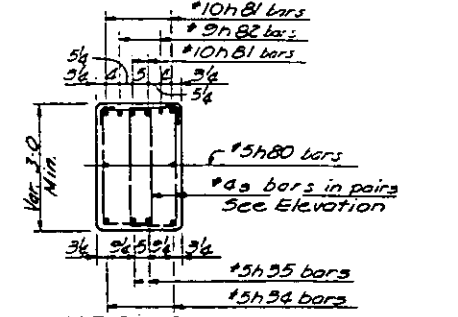
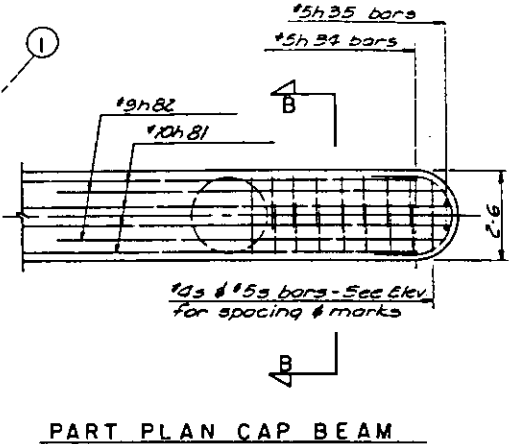
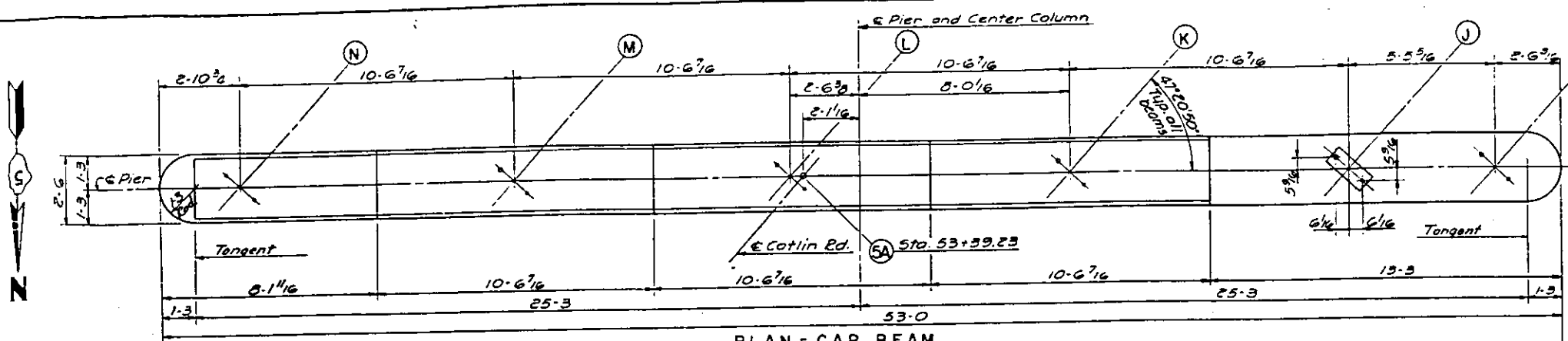
CONSOER, TOWNSEND & ASSOCIATES
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ILLINOIS DIVISION OF HIGHWAYS
CATLIN ROAD (SA-7) OVER FAI-74
FAI-74 SECTION 92-11HB-4
VERMILION COUNTY STA. 1917+83.25

PIER NO. 4

DESIGNED	CHECKED	APPROVED	DATE	REVISED
SMH	RBJ	JMG	RBS	LDB
MSM 7.31.62				

ALL SHEET NO.	SECTION	QUANTITY	TOTAL SHEETS	SHEET NO.
72	92-11 HB-4	VERMILION	51	35
FEDERAL ROAD DISTRICT NO. 7 ILLINOIS				



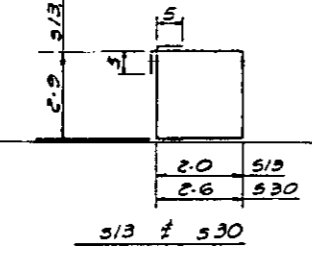
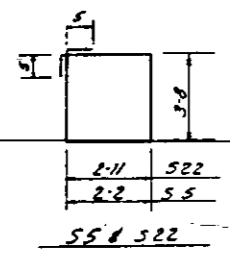
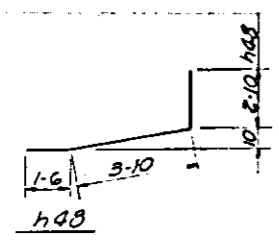
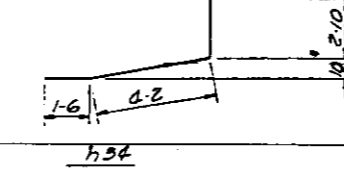
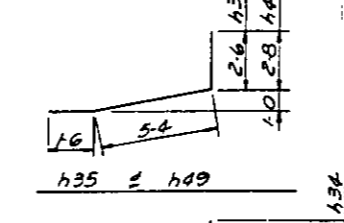
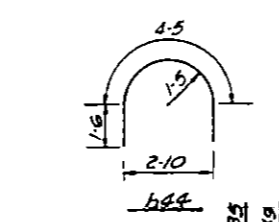
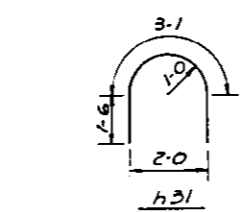
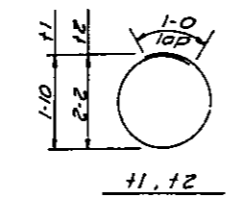
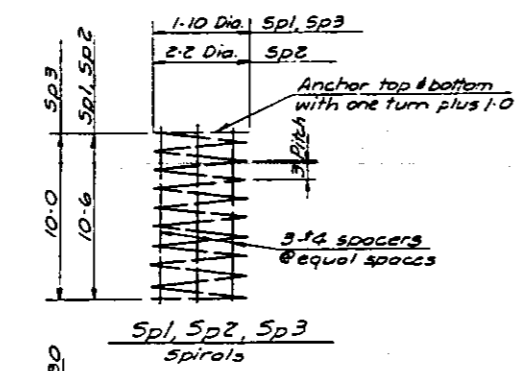
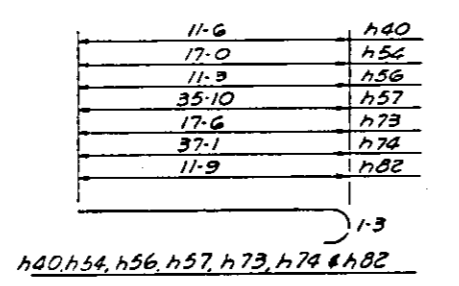
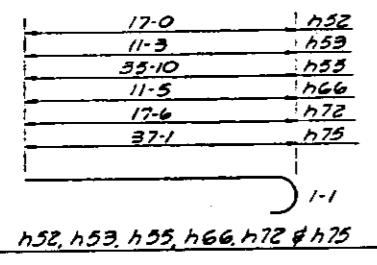
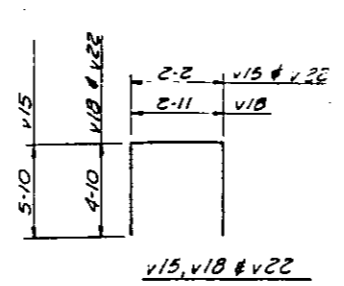
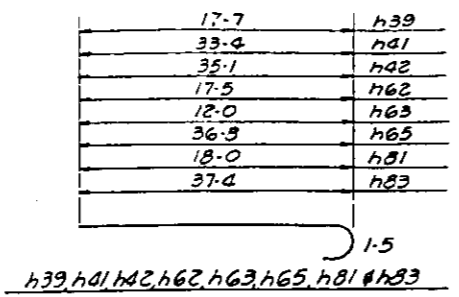
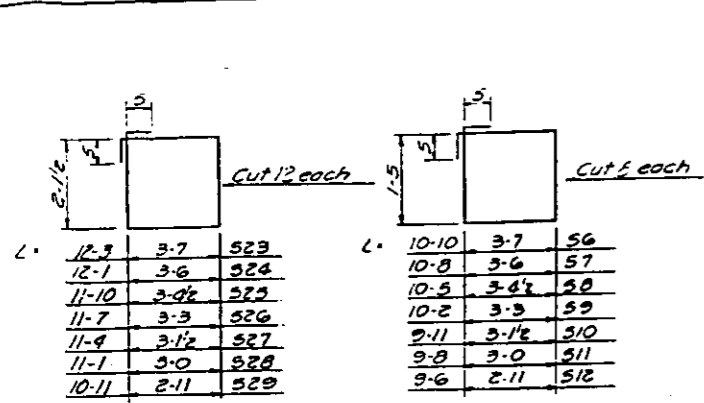
Maximum Footing Pressure 4,500 psf
(RASNO Group III Loading)

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ILLINOIS DIVISION OF HIGHWAYS
CATLIN ROAD (SA-7) OVER FAI-74
FAI-74 SECTION 92-11 HB-4
VERMILION COUNTY STA. 1917+83.25

PIER NO. 5

DESIGNED	CHECKED	DESIGNED	REVIEWED	DATE	REVISION
SMH	RBS	JMG	RBS	HSM 7.31.62	
			LDB		



BENDING DIAGRAMS
(All bar dimensions are out to out.)

BAR SCHEDULE																			
Bar	No. of Bars					Size	Length	Spacing	Shape	Bar	No. of Bars					Size	Length	Spacing	Shape
	#1	#2	#3	#4	Total						#1	#2	#3	#4	Total				
f10	4				4	6	44-0	2-0		h35	4				4	8	36-11	As Shown	
f11	7				7	6	14-0	As Shown		h36	2				2	9	12-6	As Shown	
f12	6				6	6	7-6	2-0		h37	1				1	9	37-1	As Shown	
f13		4			4	5	44-10	As Shown		h38		8			8	5	38-0	1-0	
f14		7			7	5	14-0	As Shown		h39		7			7	7	39-0	As Shown	
f15		8			8	5	8-0	As Shown		h60		14			14	9	21-6	As Shown	
f16			4		4	6	45-9	As Shown		h61			4		4	5	25-0	As Shown	
f17			8		8	6	8-0	1-0		h62			5		5	10	18-10	As Shown	
f18				4	4	5	46-6	As Shown		h63	2		4		2	8	10	13-5	As Shown
f19				4	4	6	46-8	2-0		h64			2		2	11	12-10	As Shown	
f20			6		6	3	9	7	14-0	As Shown									
z1	45				45	92	5	6-0	1-0										
z2	45	46	47		138	5	7-0	1-0											
d10	80	80	84	84	328	5	4-0	1-0											
v15	37				37	5	13-10	1-0											
v16	6				6	5	5-10	As Shown											
v17	27				27	5	7	16-0	As Shown										
v18	37	39	39		115	5	12-7	1-0											
v19	6	6	6	6	24	5	4-10	As Shown											
v20	27	27			54	8	16-0	As Shown											
v21			27		27	8	15-0	As Shown											
v22				40	40	5	11-10	1-0											
h30	10				10	5	37-0	1-0											
h31	16				16	30	5	6-1	1-0										
h32	5				5	6	37-0	As Shown											
h33	8				8	10	21-0	As Shown											
h34	4				4	8	5	8-6	As Shown										
h35	4				4	8	5	9-4	As Shown										
h36	4				4	5	24-8	As Shown											
h37																			
h38																			
h39	4				4	10	19-0	As Shown											
h40	2				2	9	12-9	As Shown											
h41	2				2	10	34-9	As Shown											
h42	2				2	10	36-6	As Shown											
h43	8				8	5	37-2	1-0											
h44	14	14	14		42	5	7-5	1-0											
h45	6				6	6	37-2	As Shown											
h46	8				8	9	21-0	As Shown											
h47	4				4	5	24-4	As Shown											
h48	4	4	4		12	5	8-2	As Shown											
h49	4	4	4		12	5	9-6	As Shown											
h50																			
h51																			
h52	4				4	8	18-1	As Shown											
h53	2		2		4	8	12-4	As Shown											
h54	1				1	9	18-3	As Shown											
s5	41				41	85	5	12-6	As Shown										
s6-s12	*				*	*	4	*	0-8										
s13	2				2	4	4	10-4	As Shown										
s14-s20																			
s21																			
s22	40	41	41		122	5	14-0	1-0											
s23-s29	*	*	*		*	4	*	0-8											
s30	2	2	2		6	4	11-4	As Shown											
Sp1	3				3	5	*	As Shown											
Sp2		3			3	5	*	As Shown											
Sp3			3		3	5	*	As Shown											

* See Bending Diagrams

SUMMARY OF PIER QUANTITIES			
LOCATION	ITEM		
	Class X Concrete Cu. Yds.	Reinf. Bars Lbs.	Class A Exc. Cu. Yds.
Pier No. 1	66.7	6,960	99
Pier No. 2	80.2	6,100	93
Pier No. 3	81.6	8,660	98
Pier No. 4	82.6	6,170	93
Pier No. 5	66.4	7,200	83
TOTAL ALL PIERS	377.5	35,090	468
Name Plates		2 Each	

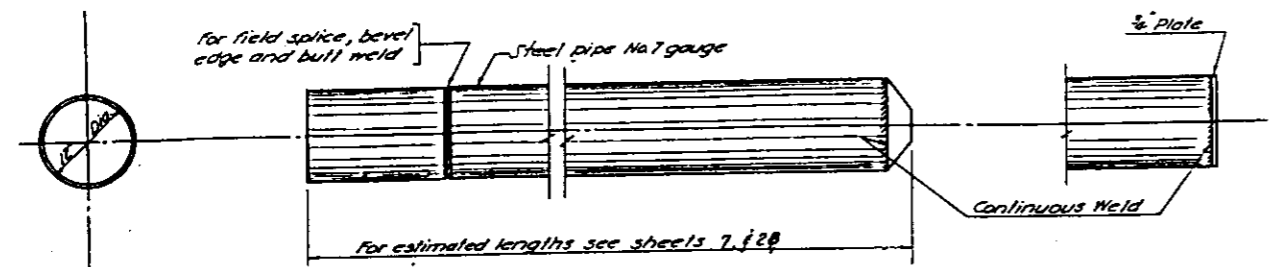
CONSOER, TOWNSEND & ASSOCIATES
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ILLINOIS DIVISION OF HIGHWAYS
CATLIN ROAD (SA-7) OVER FAI-74
FAI-74 SECTION 92-11HB-4
VERMILION COUNTY STA. 1917+83.25

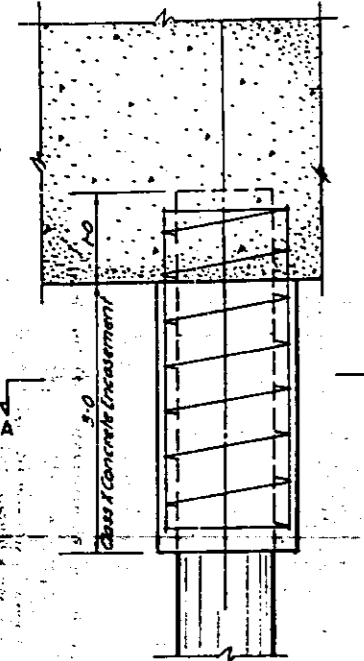
PIER DETAILS

DESIGNED	SMH	CHECKED	JMG	DATE	7.31.62
APPROVED	SMH	REVIEWED	RBS		
			LDB		

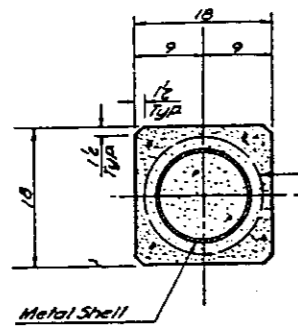
FILE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	SE-MB-4	VERMILION	51	35
FEDERAL ROAD DISTRICT NO. 7		ILLINOIS	PROJ.	



OPTIONAL FLAT END

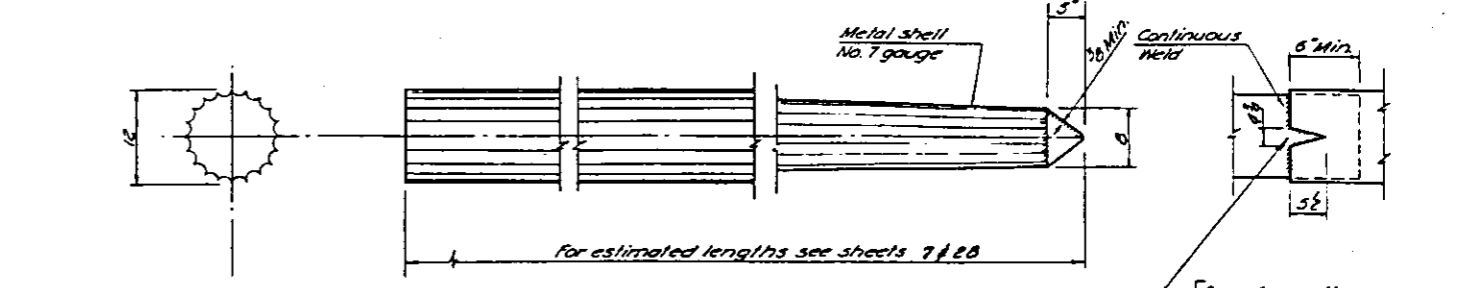


DETAIL OF CYLINDRICAL STEEL SHELL FOR CAST IN PLACE CONCRETE PILES



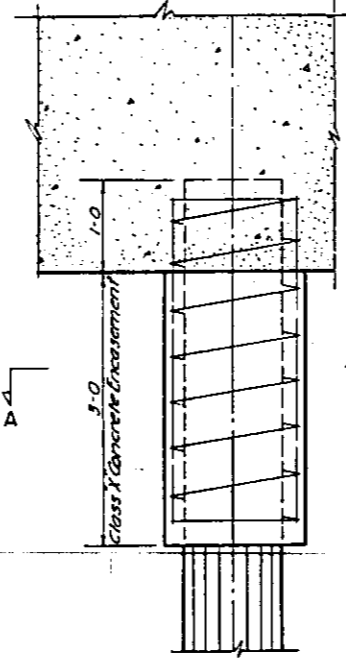
15" dia. spiral No. 2 wire 6" pitch & extra turns top and bottom. 4 No. 9 tie bars. The cost of class X concrete encasement and reinforcement is incidental to the cost of furnishing piles.

Note: Driving and bearing ends of pipe shall be cut square.

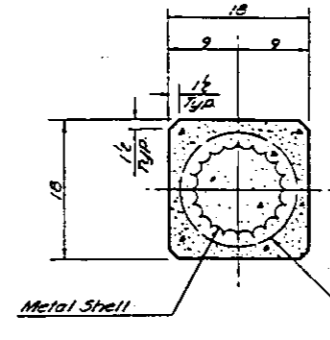


SPLICE TO BE USED AS REQUIRED

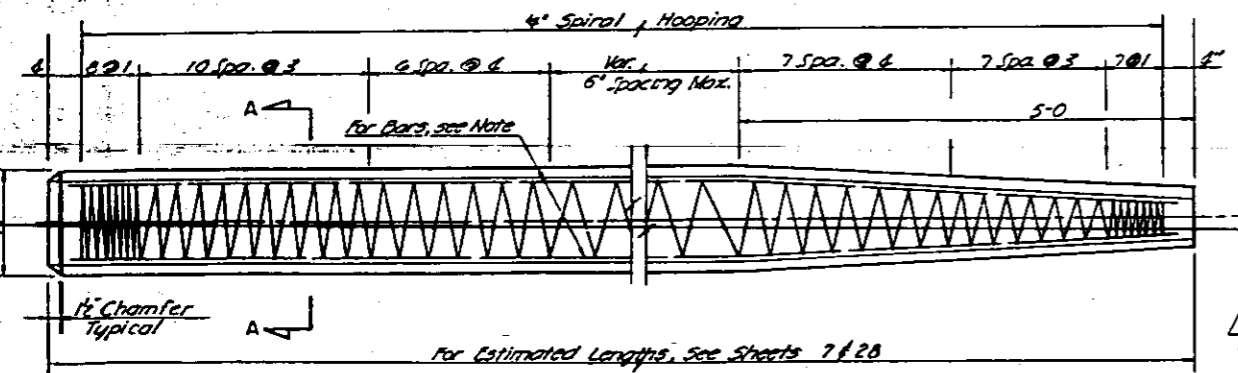
- ALLOWABLE TAPERS
1. Taper 1/2" per 6' for 10' x 12" Cylindrical Section Extension
 2. Taper 1/4" per 0" for 17' x 12" Cylindrical Section Extension
 3. Taper 1/7" per 0" for 30' x 12" Cylindrical Section Extension



DETAIL OF TAPERED METAL SHELL FOR CAST IN PLACE CONCRETE PILES



15" Dia. spiral No. 2 wire, 6" pitch & extra turns top and bottom. 4 No. 9 tie bars. The cost of class X concrete encasement and reinforcement is incidental to the cost of furnishing piles.

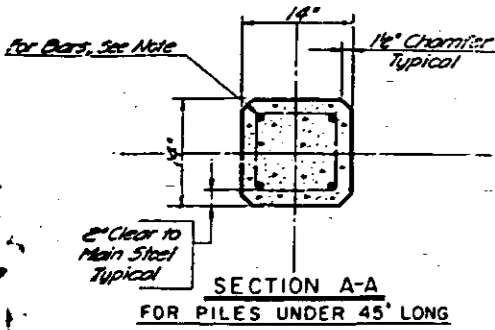


DETAIL OF PRECAST CONCRETE PILES

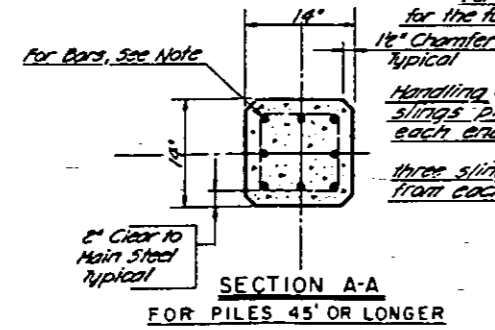
Note: For 14" Piles 45' long or longer, use 8-#8 bars (& for the full lengths & 4 to the point of bevel). For 14" Piles under 45' long, use 9-#9 bars for the full length.

Handling: For pile lengths up to 45 ft, use two slings placed at a distance of 0.21L* from each end. For pile lengths longer than 45 ft, use three slings placed at a distance of 0.12L* from each end and at midpoint of pile.

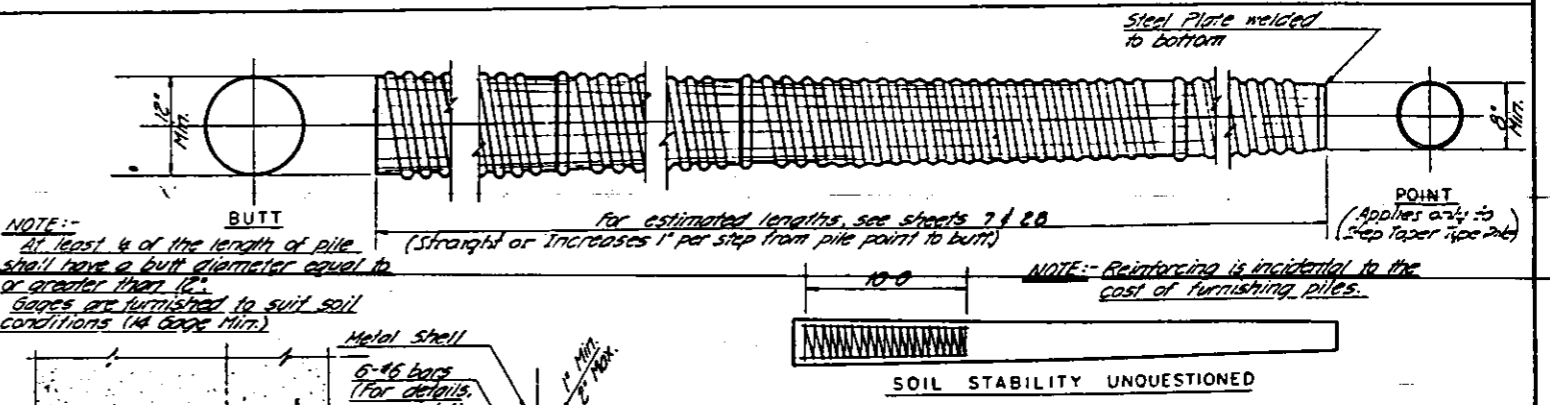
* L = Overall length of pile to be handled.



SECTION A-A FOR PILES UNDER 45' LONG



SECTION A-A FOR PILES 45' OR LONGER

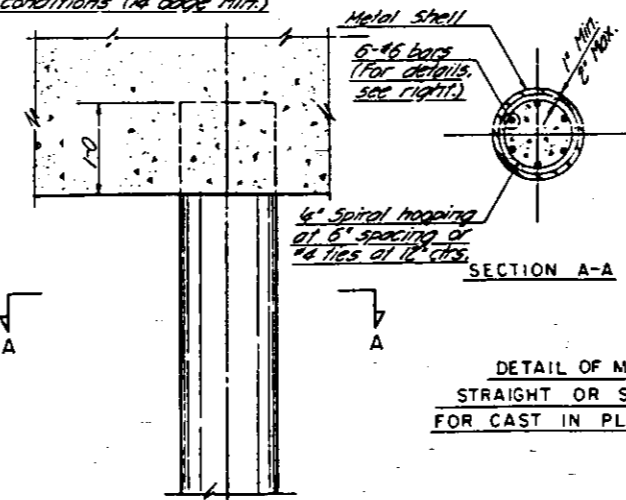


NOTE: At least 1/4 of the length of pile shall have a butt diameter equal to or greater than 12". Gages are furnished to suit soil conditions (14 degree Min).

for estimated lengths see sheets 7 & 28 (Straight or Increases 1" per step from pile point to butt)

NOTE: Reinforcing is incidental to the cost of furnishing piles.

SOIL STABILITY UNQUESTIONED



DETAIL OF MANDREL DRIVEN STRAIGHT OR STEP-TAPER PILES FOR CAST IN PLACE CONCRETE PILES

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ILLINOIS DIVISION OF HIGHWAYS
CATLIN ROAD (SA-7) OVER FAI-74
FAI-74 SECTION 92-11HB-4
VERMILION COUNTY STA. 1917+83.25

PILE DETAILS

DESIGNED	DRAWN	CHECKED	APPROVED	DATE	REVISION
JWH	JWH	DS	RBS		
			LDB	HSM 7.31.62	