76K16

8-28-2017 LETTING ITEM 169

ST. CLAIR

100%
11-25-2017

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-5VB-R-3	ST. CLAIR	20	1
	ILLINOIS	CONTRACT NO. 76K16		

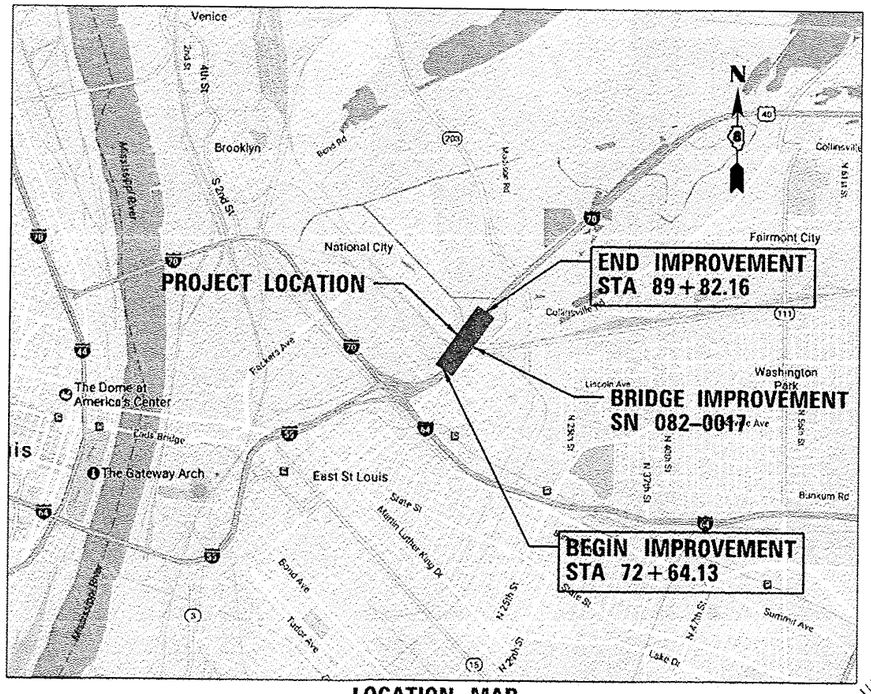
D-98-034-17

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED
HIGHWAY PLANS

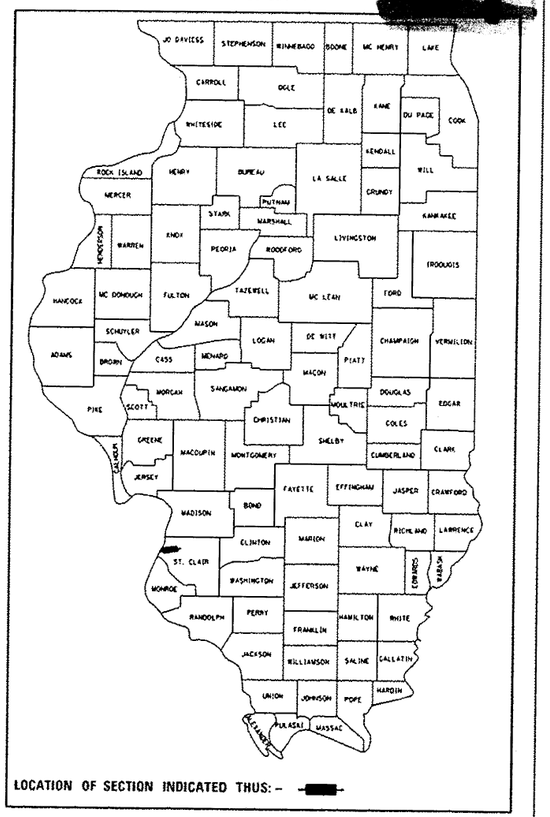
FAI ROUTE 70 (I–55 / I–70)
SECTION 82–5VB–R–3

I–55 /70 OVER B&O BRIDGE REPAIR
ST. CLAIR COUNTY
C–98–023–17



LOCATION MAP
SCALE: NOT TO SCALE

GROSS LENGTH = 1,718.03 FT. = 0.325 MILE
NET LENGTH = 1,718.03 FT. = 0.325 MILE



LOCATION OF SECTION INDICATED THUS: –

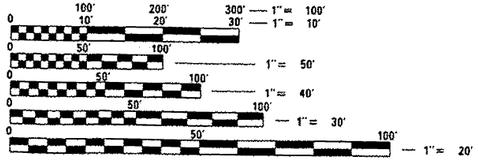
FUNCTIONAL CLASSIFICATION: INTERSTATE
2016 ADT: 70,200
2016 ADTT: 8,900
MU%: 9.3%
SU%: 3.3%

INDEX OF SHEETS

1. COVER SHEET
2. GENERAL NOTES
3. SUMMARY OF QUANTITIES
4–18. INTERSTATE WEEKEND CLOSURE, SPECIAL
19–20. BRIDGE PLANS

HIGHWAY STANDARDS

000001–06	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
701101–05	OFF–ROAD OPERATIONS, MULTILANE, 15' TO 24" FROM PAVEMENT EDGE
701400–09	APPROACH TO LANE CLOSURE, FREEWAY /EXPRESSWAY
701401–10	LANE CLOSURE, FREEWAY /EXPRESSWAY
701428–01	TRAFFIC CONTROL SETUP AND REMOVAL FREEWAY /EXPRESSWAY
701446–08	TWO LANE CLOSURE, FREEWAY /EXPRESSWAY
701451–04	RAMP CLOSURE, FREEWAY /EXPRESSWAY
701901–06	TRAFFIC CONTROL DEVICES
720001–01	SIGN PANEL MOUNT DETAILS
720006–04	SIGN PANEL ERECTION DETAILS



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1–800–892–0123
OR 811

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED Feb 1 20 17
Jeffrey Z. Kane
REGIONAL ENGINEER
Mar 24 20 17
Maureen M. Addis for
ENGINEER OF DESIGN AND ENVIRONMENT
Mar 24 20 17
DIRECTOR OF PROGRAM DEVELOPMENT

PROJECT ENGINEER: TIMOTHY PADGETT (618) 346–3325
PROJECT MANAGER: DON HAYDEN (618) 346–3181

CONTRACT NO. 76K16

Farnsworth GROUP
2211 W. BRADLEY AVENUE
CHAMPAIGN, ILLINOIS 61821
(217) 352-4708 / (217) 352-7409 Fax
www.f-w.com

JASON L. FRERICKS
062-059118
LICENSED
PROFESSIONAL
ENGINEER
10/27/2017

JASON L FRERICKS, P.E., CFM
LICENSED PROFESSIONAL ENGINEER
ILLINOIS NO. 062–059118 EXPIRES 11/30

DATE

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

GENERAL NOTES:

1. ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE ILLINOIS DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", ADOPTED APRIL 1, 2016. THESE PLANS AND THE SPECIAL PROVISIONS INCLUDED IN THE CONTRACT DOCUMENTS.

2. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR THE MEANS, METHODS, PROCEDURES, TECHNIQUES OR SEQUENCES OF CONSTRUCTION, NOR SAFETY ON THE JOB SITE, NOR SHALL THE ENGINEER BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. NEITHER THE PROFESSIONAL ACTIVITIES OF THE ENGINEER NOR THE PRESENCE OF THE ENGINEER AT A CONSTRUCTION SITE SHALL RELIEVE THE CONTRACTOR OF THEIR OBLIGATIONS, DUTIES AND RESPONSIBILITIES, INCLUDING ANY HEALTH AND SAFETY PRECAUTIONS REQUIRED BY ANY REGULATORY AGENCIES.

3. CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES BEFORE BEGINNING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL UTILITIES AND SHALL BE LIABLE FOR ANY DAMAGE TO THEM RESULTING FROM HIS OPERATIONS.

4. ILLINOIS STATE LAW REQUIRES A 48-HOUR NOTICE BE GIVEN TO ALL UTILITIES BEFORE DIGGING. FIELD MARKING OF FACILITIES MAY BE OBTAINED BY CONTACTING J.U.L.I.E. OR FOR NON-MEMBERS, THE UTILITY COMPANY DIRECTLY. AGENCIES KNOWN TO HAVE FACILITIES WITHIN THE PROJECT AREA ARE AS FOLLOWS:

   •AMEREN ILLINOIS (GAS AND ELECTRIC)
   •AT&T ILLINOIS (COMMUNICATIONS)
   •CENTURYLINK, INC. (COMMUNICATIONS)
   •CITY OF EAST ST. LOUIS (LIGHITNG)
   •MEDIACOM LLC CENTRAL (CABLE TV)
   •PEG BANDWIDTH IL, LLC (COMMUNICATIONS)

   MEMBERS OF J.U.L.I.E. (800)-892-0123 OR 811 ARE INDICATED BY •. NON J.U.L.I.E. MEMBERS MUST BE NOTIFIED INDIVIDUALLY.

5. ANY STANDARDS REFERENCED THROUGHOUT THE PLANS SHALL BE INTERPRETED TO BE THE LATEST HIGHWAY STANDARDS OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION AS SHOWN ON THE SCHEDULE OF HIGHWAY STANDARDS SHEET.

6. THE CONTRACTOR SHALL DISPOSE OF ALL REMOVAL ITEMS OFF OF THE RIGHT-OF-WAY.

7. THE ILLINOIS DEPARTMENT OF TRANSPORTATION STRONGLY ENCOURAGES THE PRIME CONTRACTOR AND THEIR APPROVED SUB-CONTRACTORS TO HIRE MINORITY, WOMEN AND DISADVANTAGED INDIVIDUALS FROM ITS FEDERALLY FUNDED HIGHWAY CONSTRUCTION CAREERS TRAINING PROGRAM (HCCTP) TO HELP MEET WORKFORCE AND TRAINEE GOALS. THIS PROGRAM IS TRAINING MINORITIES, WOMEN AND DISADVANTAGED INDIVIDUALS IN HIGHWAY CONSTRUCTION-RELATED SKILLS, E.G., MATH FOR THE TRADES, JOB READINESS, TECHNICAL SKILLS COURSEWORK (CARPENTRY, CONCRETE FLATWORK, BLUEPRINT READING, SITE PLANS, SITE WORK, TOOLS USE, ETC.) AND OSHA 10 HOUR CERTIFICATION, TO PREPARE THEM FOR A CAREER IN THE HIGHWAY CONSTRUCTION TRADES. GRADUATES ARE WELL-TRAINED AND READY TO BECOME PRODUCTIVE ENTRY-LEVEL CONSTRUCTION WORKERS. PLEASE CONTACT THE DISTRICT 8 EEO OFFICE AT 618-346-3360 AND/OR THE HCCTP COORDINATOR AT 618/874-6528 TO LEARN MORE ABOUT THE PROGRAM AND FOR ASSISTANCE IN MEETING WORKFORCE AND TRAINEE GOALS.

8. ALL REQUIRED TRAFFIC CONTROL SHALL BE CONDUCTED ACCORDING TO ALL CURRENT APPLICABLE IDOT POLICIES AND STANDARDS AND THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) IN EFFECT ON THE DATE OF THE INVITATION FOR BIDS.

9. THE CONTRACTOR SHALL NOTIFY THE ENGINEER THREE WEEKS IN ADVANCE OF EACH INTERSTATE WEEKEND DIRECTIONAL CLOSURE. THE CONTRACTOR IS REQUIRED TO ALSO NOTIFY THE RESIDENT ENGINEER 72 HOURS IN ADVANCE OF THE PLACEMENT OF ANY TRAFFIC CONTROL DEVICES.

10. ALL CONSTRUCTION SIGNS SHALL HAVE A BLACK LEGEND/BORDER ON A FLUORESCENT ORANGE REFLECTORIZED BACKGROUND. ALL MATERIAL AND LABOR RELATED TO SIGN INSTALLATION AND REMOVAL SHALL BE INCLUDED IN THE COST OF THE CONTRACT, NO ADDITIONAL COMPENSATION WILL BE PROVIDED. THE EXACT LOCATION OF ALL ADVANCE WARNING SIGNS SHALL BE APPROVED BY THE RESIDENT ENGINEER PRIOR TO PLACEMENT.

11. ALL TEMPORARY TRAFFIC CONTROL SIGNS SHALL BE POST-MOUNTED UNLESS THE SIGNS ARE LOCATED ON THE PAVEMENT. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ALL MOUNTED SIGNS MEET NCHRP 350, TEST LEVEL 3 GUIDELINES AND THAT ANY SUPPORT BASES ON ANY PAVEMENT MOUNTED SIGNS ARE PROPERLY WEIGHTED FOR THE EXISTING AND ANTICIPATED WIND CONDITIONS. IDOT SHALL BE HELD HARMLESS FOR NEGLIGENCE OF THE CONTRACTOR TO ADHERE TO THIS DIRECTIVE.

12. CHANGEABLE MESSAGE SIGNS SHALL BE PLACED TWO WEEKS PRIOR TO EACH INTERSTATE WEEKEND CLOSURES. ALL MESSAGES, INCLUDING DYNAMIC MESSAGE SIGNS, SHALL BE APPROVED BY THE RESIDENT ENGINEER AND COORDINATED WITH THE TRAFFIC MANAGEMENT CENTER (618-346-3279).

13. THE CONTRACTOR SHOULD NOTE THAT ADJACENT PROJECTS WILL BE CONSTRUCTED CONCURRENTLY WITH THIS PROJECT; WHICH MAY CONFLICT WITH THE SUGGESTED MAINTENANCE OF TRAFFIC PRESENTED IN THESE PLANS. THE CONTRACTOR SHALL COORDINATE THROUGH THE RESIDENT ENGINEER THREE WEEKS IN ADVANCE OF ANY LANE CLOSURES. PLEASE CONTACT BOTH THE IDOT DISTRICT 8 CONSTRUCTION ENGINEER AT (618) 346-3345 AND THE IDOT DISTRICT 8 TRAFFIC CONTROL TECHNICIAN AT (618) 346-3287.

14. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.

COMMITMENTS

NONE

MIXTURE REQUIREMENTS

ROUTE	FAI 70 (I-55 / I-70)
SECTION	82-5VB-R-3
COUNTY	ST. CLAIR
CONTRACT	76K16

DESCRIPTION:	JOINT REPLACEMENTS ON I-55 / I-70 BRIDGE OVER B&O, CONRAIL & TRRA RR IN E. ST. LOUIS - SN 082-0017

ADT (CONSTRUCTION YR):	36200
MU %	9.6
SU %	3.5
20 YR. ESAL'S	22.35

MIXTURE USE	BRIDGE APPROACH		
AC/PG	SBS PG76-22		
RAP % (MAX)	SEE SPECIAL PROVISION		
DESIGN AIR VOIDS	4.0% @ NDES = 90		
MIX COMPOSITION (GRADATION)	IL 9.5		
FRICTION AGG	MIXTURE "E"		
QUALITY MGMT PROGRAM	QC/QA		

MIXTURE USE	SHOULDERS > 2.25"	SHOULDERS < 2.25"	
AC/PG	PG 64-22	PG 64-22	
RAP % (MAX)	SEE SPECIAL PROVISION	SEE SPECIAL PROVISION	
DESIGN AIR VOIDS	4.0% @ NDES = 30	4.0% @ NDES = 30	
MIX COMPOSITION (GRADATION)	IL 19.0L	IL 9.5L	
FRICTION AGG			
QUALITY MGMT PROGRAM	QC/QA	QC/QA	

Farnsworth GROUP, INC.
2211 West Bradley Avenue
Champaign, Illinois 61821
217/352-7408, 217/352-7409 fax

USER NAME = $USER$	DESIGNED - KRS	REVISED -	
	DRAWN - SRL	REVISED -	
PLOT SCALE = $SCALE$	CHECKED - JLF	REVISED -	
PLOT DATE = $DATE$	DATE - 1/27/2017	REVISED -	

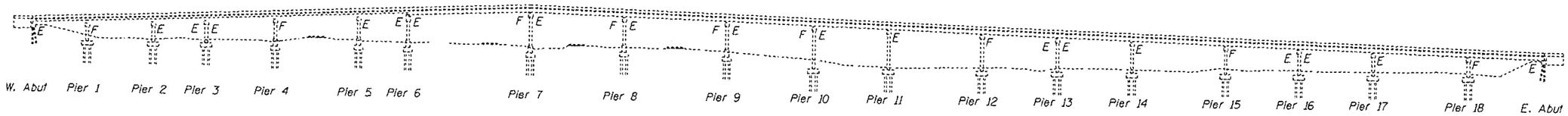
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

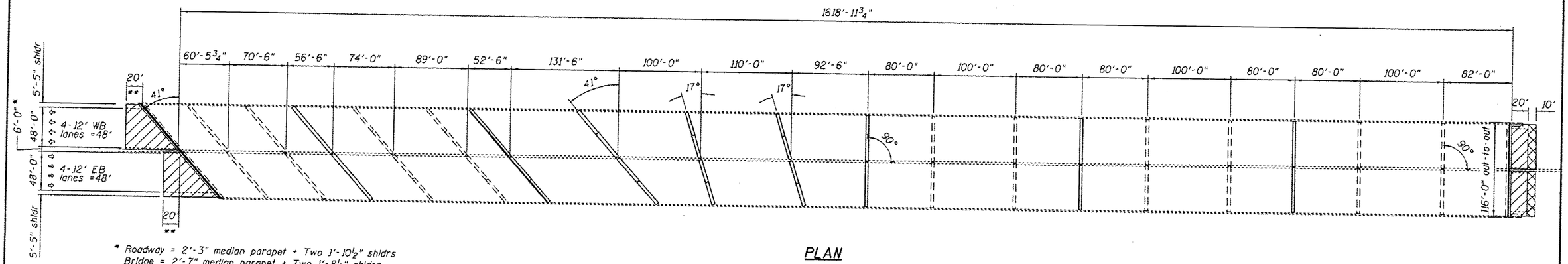
SCALE: NTS | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-5VB-R-3	ST. CLAIR	20	2
		CONTRACT NO. 76K16		
	ILLINOIS FED. AID PROJECT			

Existing Structure: Built in 1959 as a 19 span wide flange and riveted plate girder with multi-column pile supported piers, and pile bent abutments. In 1988 the deck and bearings were replaced. In 1997 seismic retrofits were installed and the neoprene joints were repaired with silicone and polymer at the abutments and piers 7, 8, and 9. All of the joints shall be replaced with new silicone with polymer concrete nosing. Areas of broken joint blockouts shall be repaired. The deck shall be partial depth patched. The approaches shall be repaired. The EB and WB lanes will be closed with traffic detoured on the weekends.



ELEVATION



PLAN

* Roadway = 2'-3" median parapet + Two 1'-10½" shldrs
Bridge = 2'-7" median parapet + Two 1'-8½" shldrs

** 20' at outside lane line next to shoulder
(Average length at center lane line = 40.863')

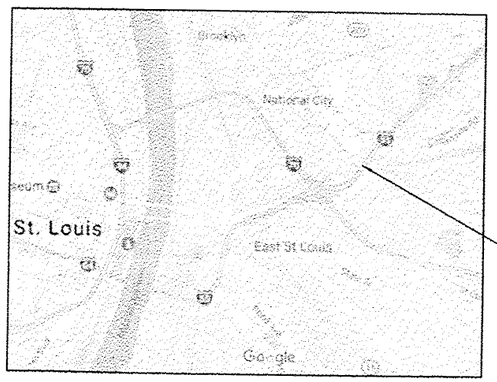
GENERAL NOTES

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

No field welding is permitted except as specified in the contract documents.

20' Concrete Approach - Partial Depth Removal & Patching

10' HMA east of E Approach - Partial Depth Removal & Patching



LOCATION SKETCH

TOTAL BILL OF MATERIAL

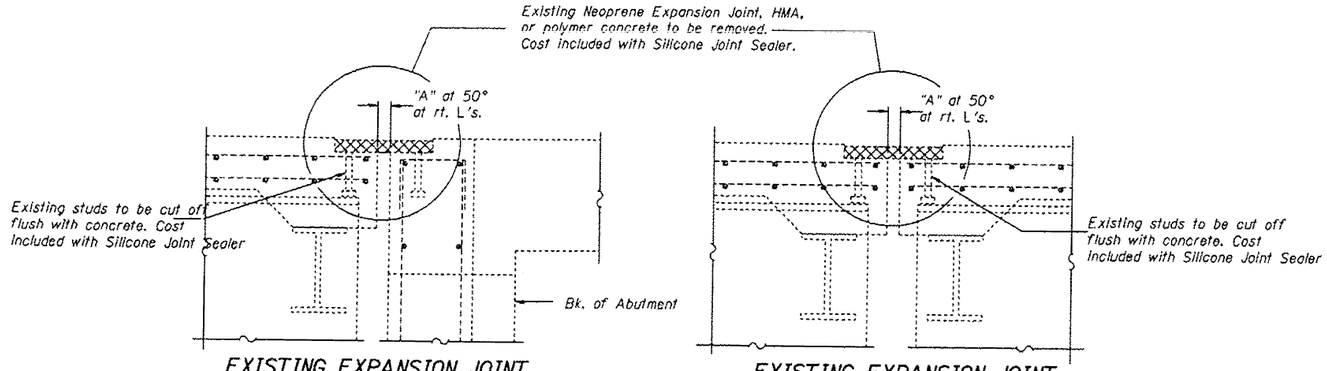
ITEM	UNIT	TOTAL
*** Deck Slab Repair (Partial)	Sq. Yd.	21
Silicone Joint Sealer, 1.5"	Foot	115
Silicone Joint Sealer, 2"	Foot	497
Silicone Joint Sealer, 2.5"	Foot	422
Silicone Joint Sealer, 3"	Foot	271
Polymer Concrete	Cu. Ft.	163
Partial Depth Patching	Ton	98
Partial Depth Removal, Type IV, 2"	Sq. Yd.	871

*** Quantities are estimated assuming 64'x0.5' = 4 sq.yd repairs at joints; in addition to 17 sq. yds estimated repairs in deck. The Engineer shall determine the actual locations, and record them in the As-Built plans.

DESIGNED - J. Uehle	EXAMINED	DATE - APRIL 28, 2017	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
CHECKED - ATH	ENGINEER OF STRUCTURAL SERVICES		
DRAWN - J. Uehle	PASSED	REVISED	
CHECKED - ATH	ENGINEER OF BRIDGES AND STRUCTURES	REVISED	

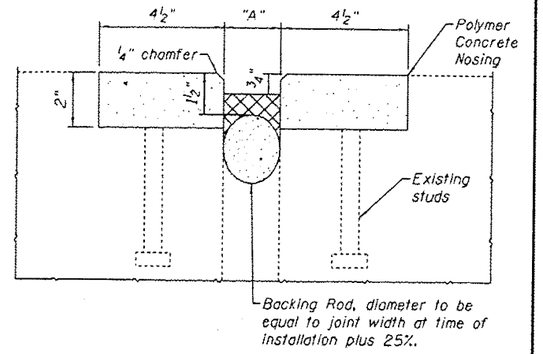
GENERAL PLAN AND ELEVATION
SN 082-0017 I-55/70 OVER RR YARD
SHEET NO. 1 OF 2 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55/70	82-5VB-R-3	ST. CLAIR	20	19
		CONTRACT NO. 76K16		
	ILLINOIS	FED. AID PROJECT		



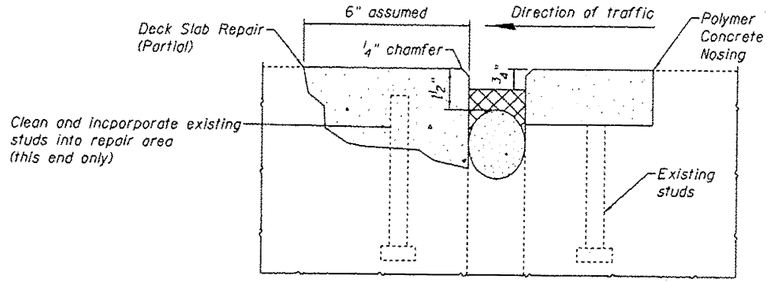
EXISTING EXPANSION JOINT REMOVAL AT ABUTMENTS

EXISTING EXPANSION JOINT REMOVAL AT PIERS 3, 6, 7, 8, 9, 10, 13 & 16



PROPOSED SILICONE JOINT SEALER

	"A" (in.)	Expansion Length (ft.)	skew (degrees)	Length along skew between parapets (ft.)	Silcone Joint Sealer (ft.) 1.5"	2.0"	2.5"	3.0"	EB Joints Repair Length (ft)	EB Joints Repair Length (ft)	Polymer Concrete (cu. ft.)
W Abut	2.0	56.5	41	146.1		151.1			8	3	18.6
P3	3.0	201.0	41	146.1				151.1	18	6	17.8
P6	2.5	273.0	41	146.1			151.1		4	3	18.9
P7	2.5	100.0	41	146.1			151.1				19.3
P8	3.0	110.0	17	115.3				120.3			15.5
P9	2.5	92.5	17	115.3			120.3		2		15.3
P10	2.0	180.0	0	110.3		115.3			6		14.4
P13	1.5	260.0	0	110.3	115.3				2		14.7
P16	2.0	260.0	0	110.3		115.3			3	3	14.4
E Abut	2.0	79.3	0	110.3		115.3			3	3	14.4
		1612	**TOTAL**	**1256**	**115**	**497**	**422**	**271**	**46**	**18**	**163**



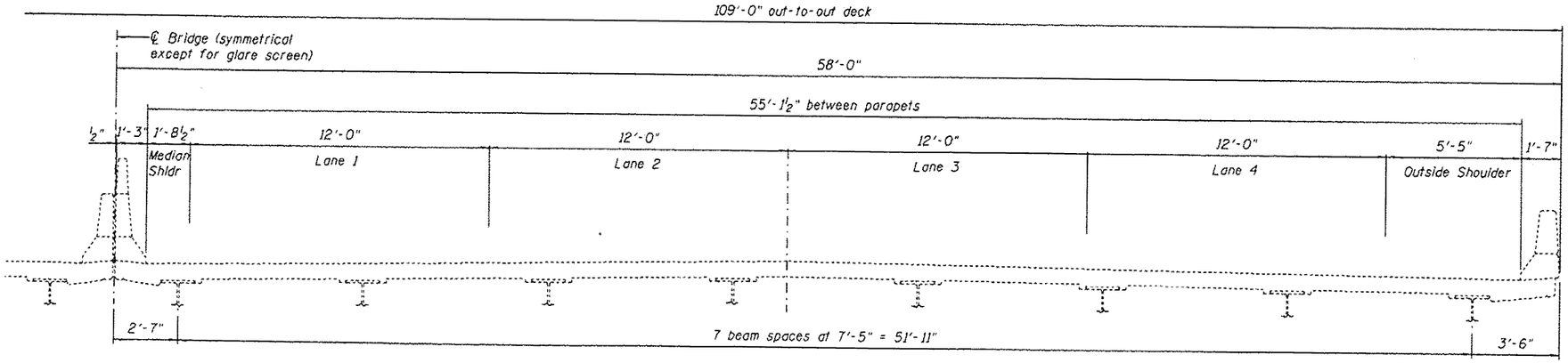
DECK SLAB REPAIR (PARTIAL)

(Various locations on departing side of joint)

NOTES

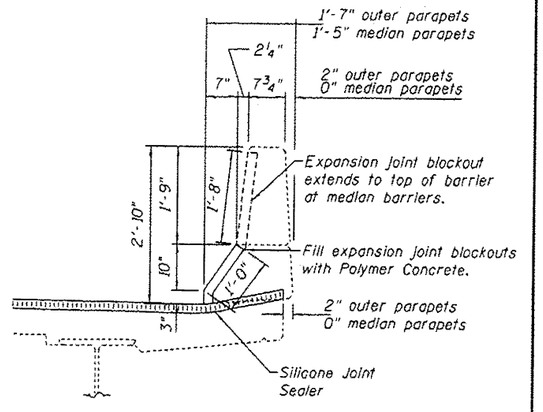
Length of silicone in parapets = 4 x (1' 3") = 5'-0"
Silicone Joint Sealer (ft.) = Length along skew + 5'-0"

Length of 2"x4½" polymer concrete in parapets = 4 x (1' 3" + 2' 11") = 16'-8"
Polymer concrete length = (2 x Length along skew) + 16'-8" - Repair Length
Polymer Concrete (cu. ft.) = length x (2/12) x (4.5/12)



CROSS SECTION

(WB - Looking West)
(EB - Looking East)



PARAPET DETAIL

Joint opening is parallel to skew out to the inside face of parapet, then turns 90° to ℄ of roadway. Special care shall be taken at this location to ensure that silicone forms a watertight seal with the concrete.

DESIGNED - J. Uehle	EXAMINED	DATE - APRIL 28, 2017	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**
CHECKED - ATH	ENGINEER OF STRUCTURAL SERVICES		
DRAWN - J. Uehle	PASSED	REVISED	**JOINT DETAILS SN 082-0017**
CHECKED - ATH	ENGINEER OF BRIDGES AND STRUCTURES	REVISED	SHEET NO. 2 OF 2 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55/70	82-5VB-R-3	ST. CLAIR	20	20
		CONTRACT NO. 76K16		
	ILLINOIS FED. AID PROJECT			

#96991 #107 8-1-97 FAI 70 St. Clair Co. 2 PR Copy #107

107 96% 1-10-98

S.N. 082-0017

082-0017

FAI ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-5VBR-I	ST CLAIR	27	1
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

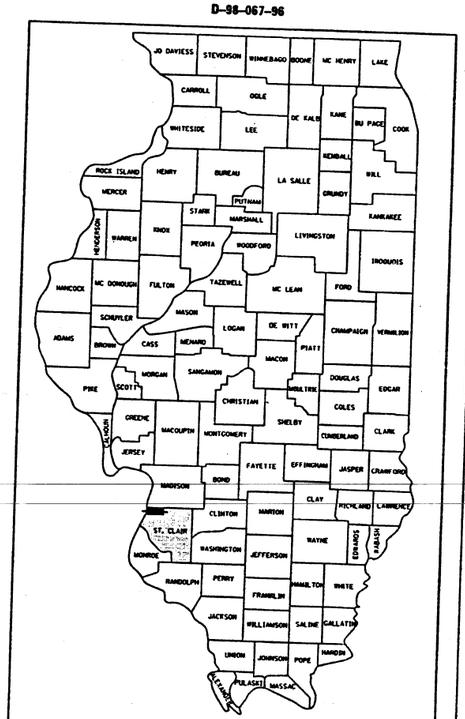
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED FEDERAL AID HIGHWAY

FOR INDEX OF SHEETS, SEE SHEET NO. 2

FAI ROUTE 70
SECTION 82-5VBR-I
ST CLAIR COUNTY
SEISMIC RETROFIT
C-98-087-96

D-98-067-96



LOCATION OF SECTION INDICATED THUS: –

MICROFILMED _____
REEL FILM _____
RESIDENT ENGINEER _____
AS BUILT CHANGES WERE MADE ON THE FOLLOWING SHEETS

METRIC RATIOS

1 m 0 2 m — 1 : 50

0 5 m 10 m — 1 : 100

10 m 0 20 m — 1 : 250

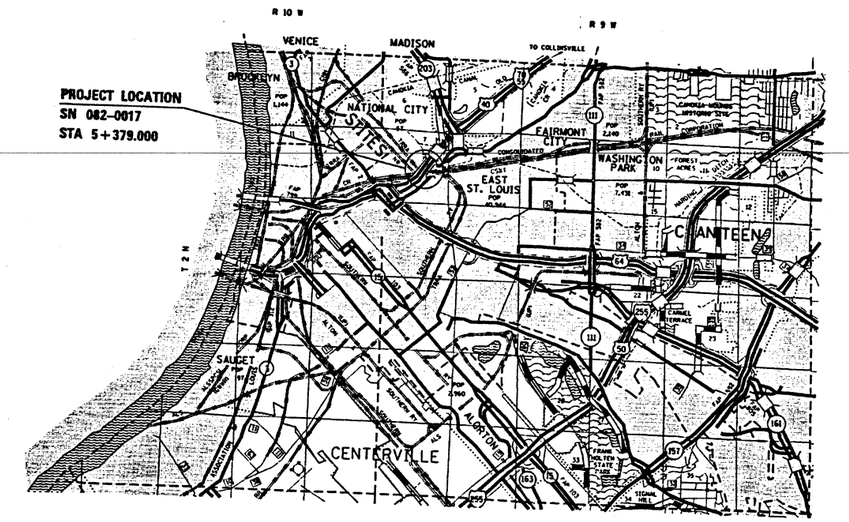
5 m 0 20 m — 1 : 500

0 50 m 100 m — 1 : 1000

FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES, REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES, IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123

PROJECT LOCATION
SN 082-0017
STA 5+379.000



DESIGN DESIGNATION /1995 ADT

		SU	MU
INTERSTATE	66500	2.2%	11.8%

LAYOUT
0 km 1 km 2 km 3 km 4 km 5 km
1:50000

GROSS LENGTH = 493.45 m
NET LENGTH = 493.45 m

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED MAY 16, 19 97
Dale L. Kloker (JTEC)
DISTRICT ENGINEER

PASSED JUNE 27 19 97
ENGINEER OF DESIGN AND ENVIRONMENT

APPROVED JUNE 27 19 97
DIRECTOR, DIVISION OF HIGHWAYS

PROJECT ENGINEER: BILL BOJE (618) 346-3179
SQUAD LEADER: JIM FRIERDICH (618) 346-3189

CONTRACT NO. 96991

082-0017

FAI ROUTE 70 SECTION 82-5VBR-I ST CLAIR COUNTY

8-227

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

PLOT DATE: Thu May 8 15:11:09 1997

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR-1	ST. CLAIR	27	9
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT=		

SHEET NO. 1
12 SHEETS

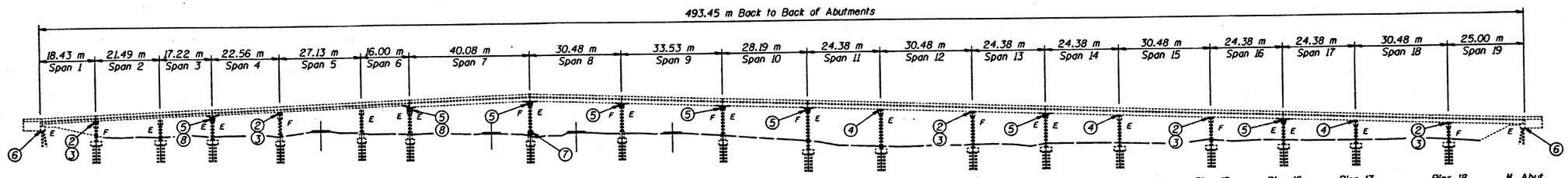
Bench Mark: Cut "x" in center of top of concrete footing. 37.5 m Rt. Sta. 5+362.2. Elev. 123.703

Existing Structure: SN 082-0017 originally built in 1959 as FAI Rte. 7, Section 82-5VB. Deck replaced 1988 as FAI 70, Section 82-5BR. The existing structure is a 19-span reinforced concrete deck on noncomposite steel wide flange beams or built-up riveted plate girders with pile supported open abutments and multiple column piers. Existing structure to be retrofitted to increase seismic resistance. Single lane closures to be utilized to maintain 2 lanes of traffic in each direction at all times.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

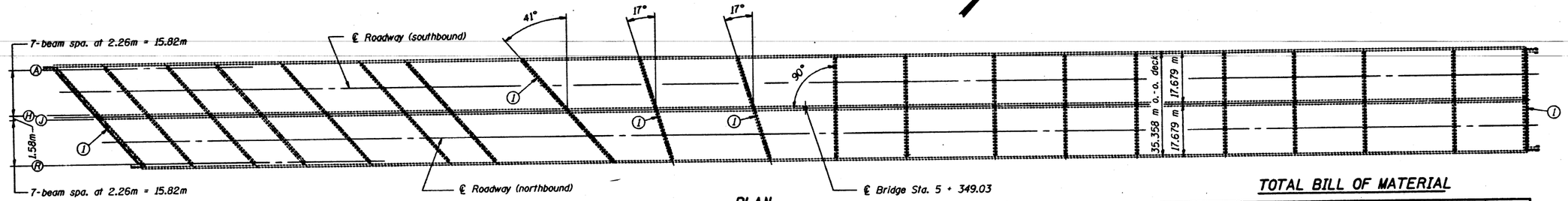
493.45 m Back to Back of Abutments

18.43 m Span 1	21.49 m Span 2	17.22 m Span 3	22.56 m Span 4	27.13 m Span 5	16.00 m Span 6	40.08 m Span 7	30.48 m Span 8	33.53 m Span 9	28.19 m Span 10	24.38 m Span 11	30.48 m Span 12	24.38 m Span 13	24.38 m Span 14	30.48 m Span 15	24.38 m Span 16	24.38 m Span 17	30.48 m Span 18	25.00 m Span 19



S.Abut. Pier 1 Pier 2 Pier 3 Pier 4 Pier 5 Pier 6 Pier 7 Pier 8 Pier 9 Pier 10 Pier 11 Pier 12 Pier 13 Pier 14 Pier 15 Pier 16 Pier 17 Pier 18 N. Abut.

ELEVATION



PLAN

GENERAL NOTES

Fasteners shall be high strength bolts. Bolts M22, open holes 24 mm ϕ, unless otherwise noted.

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 Interstate Green, Munsell No. 7.5G 4/8. See Special Provision "Cleaning and Painting New Metal Structures".

Reinforcement bars shall conform to the requirements of AASHTO M-31M, M-42M or M-53M Grade 400.

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.

Existing Structural steel shall only be cleaned and painted as required by the Special Provision "Cleaning and Painting Adjacent Areas of Existing Steel Structures".

All dimensions are in millimeters (mm) except as noted.

DESIGNED	John A. Ulsh
CHECKED	Richard T. Grant
DRAWN	KG
CHECKED	JAU RJC

June 9, 1997

EXAMINED Greg D. Kasper
ENGINEER OF BRIDGE DESIGN

PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
RALPH E. ANDERSON
081-004625
SPRINGFIELD
REGISTERED STRUCTURAL ENGINEER

EXPIRES 11-30-98

SCOPE OF WORK

① Remove existing 50 mm Neoprene Expansion Joints at North and South Abutments and Piers 7, 8 & 9, and replace with Silicone Joint Sealer, see details on Sheet 2 of 12.

② Construct concrete encasement around fixed bearings at Piers 1, 4, 12, 15 & 18. See details on Sheet 3 of 12.

③ Install steel bearing retainers at Piers 1, 4, 12, 15 & 18. See details on Sheet 4 of 12.

④ Install steel catch beams and side retainer angles at Piers 11, 14 & 17. See details on Sheet 5 of 12.

⑤ Install seismic restrainers at Piers 3, 6 thru 10, 13 & 16. See details on Sheets 6, 7 & 8 of 12.

⑥ Construct concrete bearing seat extensions at North and South Abutments. See details on Sheet 9 of 12.

⑦ Extend crash wall at Pier 7. See details on Sheet 10 of 12.

⑧ Repair concrete bearing pedestals at Piers 3 and 6. See details on Sheet 11 of 12.

LOADING MS18 & ALTERNATE

DESIGN SPECIFICATIONS

1996 AASHTO
1995 Seismic Retrofitting Manual for Highway Bridges (FHWA-RD-94-052)

DESIGN STRESSES

New Construction

f'_c = 24 MPa
f_y = 400 MPa (reinforcement)
f_y = 250 MPa (structural steel) (M270 Gr. 250)

Original Construction

f'_c = 24 MPa
f_y = 400 MPa (reinforcement)
f_s = 180 MPa (1988 construction)
f_s = 162 MPa (1959 construction)

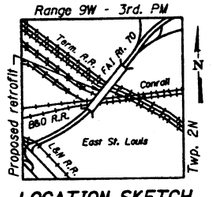
SEISMIC DATA

Seismic Performance Category (SPC) = B
Bedrock Acceleration Coefficient (A) = 0.105g
Site Coefficient (S) = 2.0

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Structures	m^3		102.1	102.1
Reinforcement Bars, Epoxy Coated	kg		6340	6340
Furnishing & Erecting Structural Steel	kg	36500		36500
Seismic Restrainer	Each	384		384
Concrete Removal	m^3		1.2	1.2
Polymer Concrete	m^3	1.9		1.9
Silicone Joint Sealer	m	203		203
* Formed Concrete Repair (Depth Less Than or Equal to 125 mm)	m^2		43	43

* Estimated Quantity



LOCATION SKETCH

GENERAL PLAN
I-55/70 OVER
TRRA R.R., CSX R.R. AND CONRAIL R.R.
FAI ROUTE 70 - SECTION 82-5VBR-1
ST. CLAIR COUNTY
STATION 5+349.03
STRUCTURE NO. 082-0017

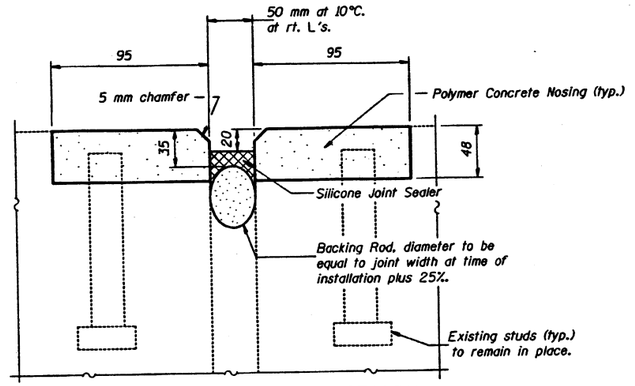
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR-1	ST. CLAIR	27	10
FED. ROAD DIST. NO. 9	ILLINOIS	FED. AID PROJECT=		

SHEET NO. 2
12 SHEETS

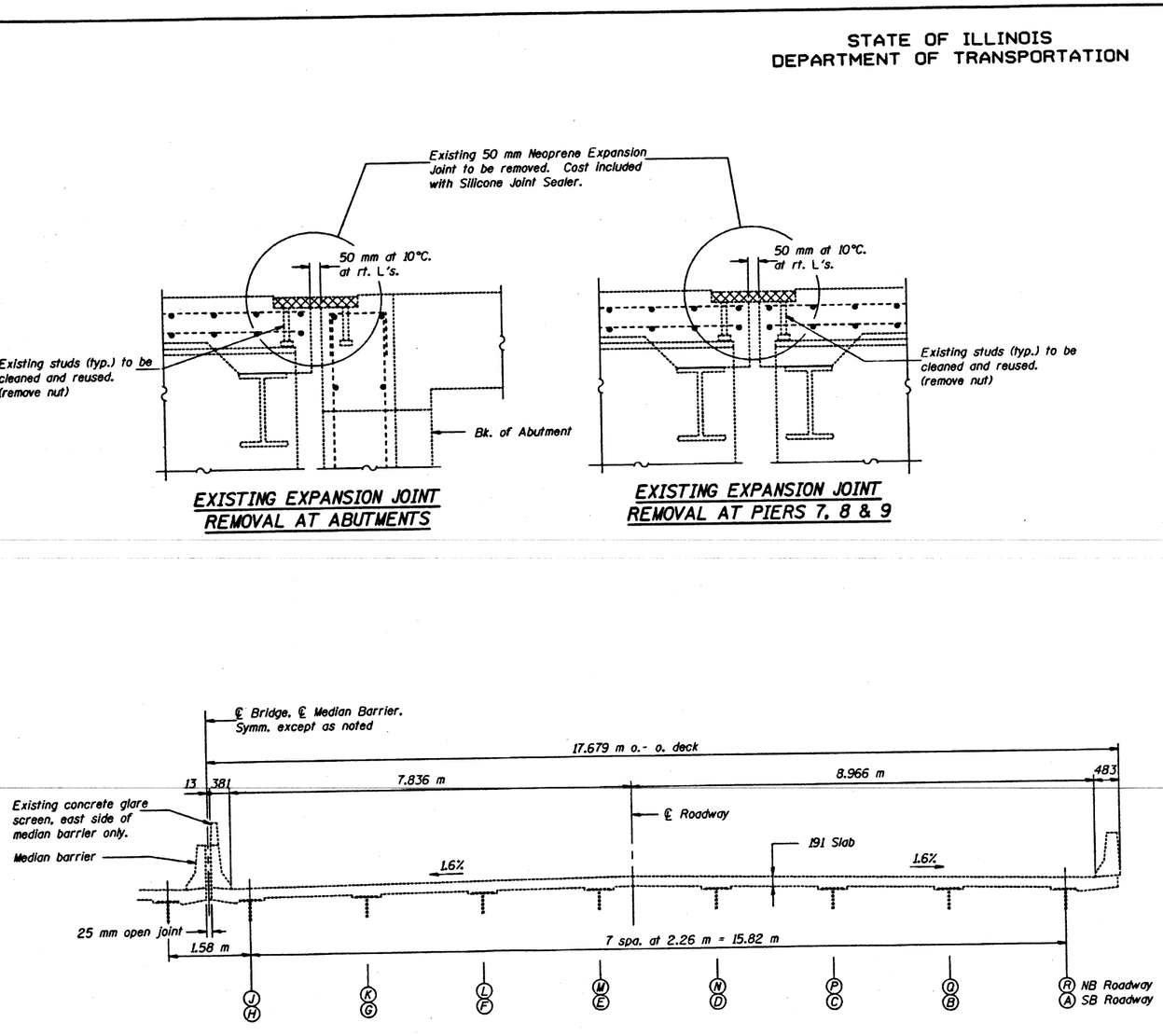
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING EXPANSION JOINT REMOVAL AT ABUTMENTS

EXISTING EXPANSION JOINT REMOVAL AT PIERS 7, 8 & 9

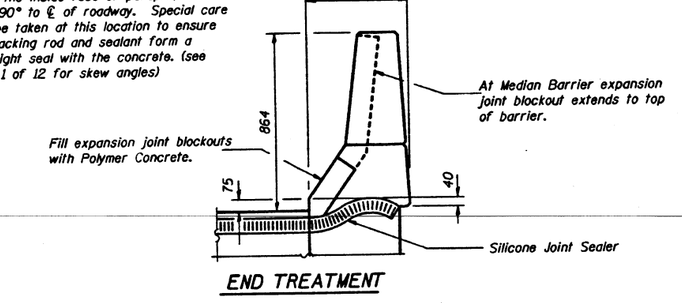


PROPOSED SILICONE JOINT SEALER



TYPICAL CROSS SECTION
(NB Roadway - Looking North)
(SB Roadway - Looking South)

Face of concrete runs parallel to skew out to the inside face of parapet, then turns 90° to ℄ of roadway. Special care shall be taken at this location to ensure that backing rod and sealant form a watertight seal with the concrete. (see sheet 1 of 12 for skew angles)



END TREATMENT

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Polymer Concrete	m^3	1.9
Silicone Joint Sealer	m	203

DESIGNED	John A Yerpe
CHECKED	Richard J. Chlpat
DRAWN	KG
CHECKED	JAG RJC

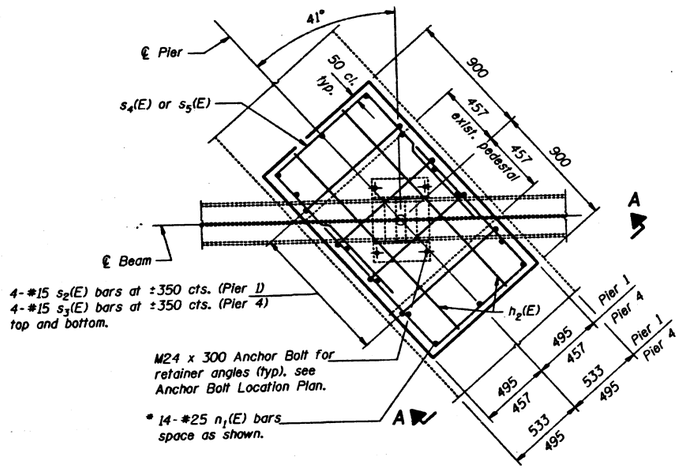
June 9, 1997
EXAMINED Engineer of Bridge Design
PASSED Engineer of Bridges and Structures

EXPANSION JOINT REMOVAL & REPLACEMENT DETAILS
F.A.I. ROUTE 70 - SECTION 82-5VBR-1
ST. CLAIR COUNTY
STATION 5 + 349.03

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

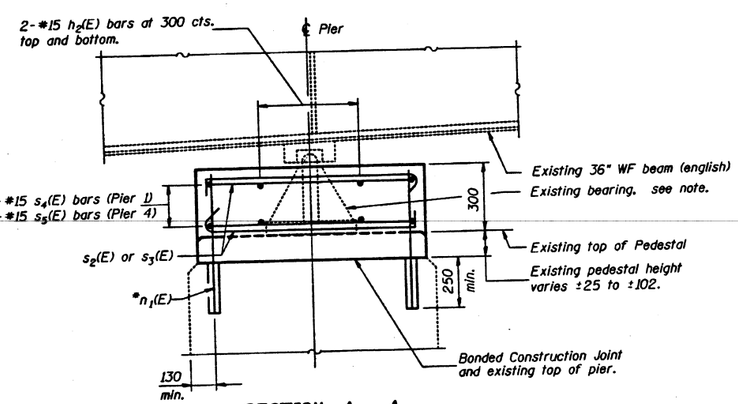
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR-1	ST. CLAIR	27	11
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 3
12 SHEETS



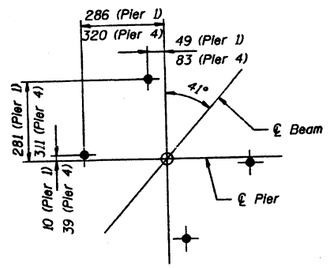
BEARING ENCASEMENT PLAN - PIERS 1 & 4

(24 Required - 12 each pier)
(Omit at exterior beam lines A, H, J and R.)



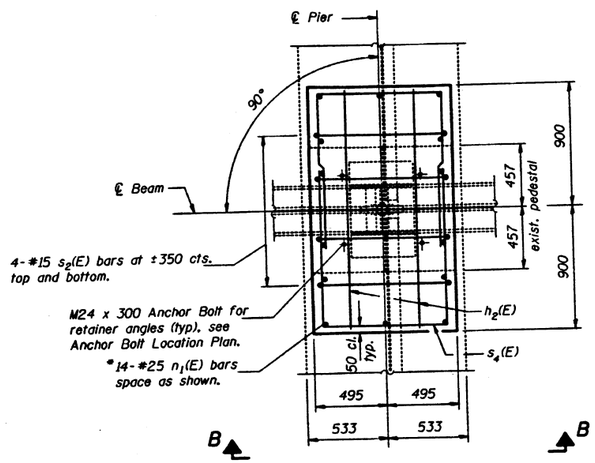
SECTION A - A

* Drill and grout $n_1(E)$ bars into existing pier in accordance with Article 584 of the Standard Specifications. Cost included with "Reinforcement Bars (Epoxy Coated)". Locate $n_1(E)$ bars to miss existing reinforcement bars.



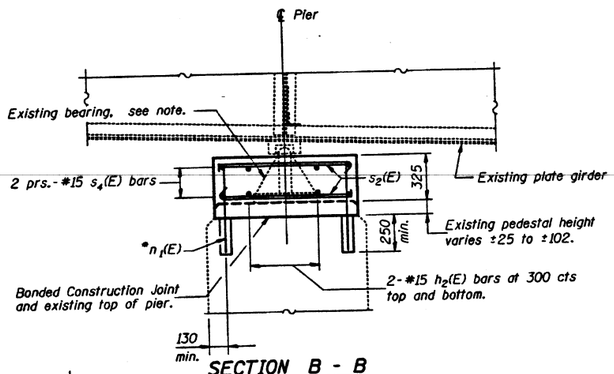
ANCHOR BOLT LOCATION PLAN

(Piers 1 & 4 only)

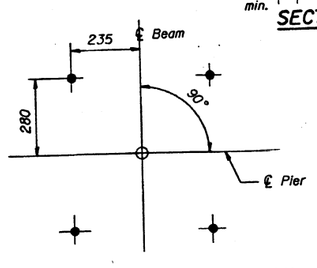


BEARING ENCASEMENT PLAN - PIERS 12, 15, & 18

(36 Required - 12 each pier)
(Omit at exterior beam lines A, H, J, and R)

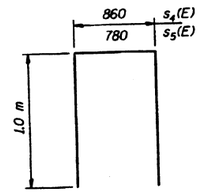


SECTION B - B

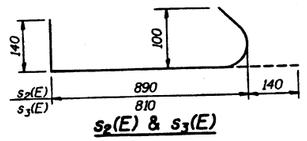


ANCHOR BOLT LOCATION PLAN

(Piers 12, 15 & 18)



$s_4(E)$ & $s_5(E)$



$s_2(E)$ & $s_3(E)$

Note:
Prior to pouring the new concrete for the bearing encasement, all loose rust, loose mill scale and all other loose, detrimental foreign material shall be removed from the portions of the existing bearings in contact with concrete. The removal shall be accomplished in accordance with the requirements of the SSPC Surface Preparation Specifications SP-3 for power tool cleaning or SP-2 for hand tool cleaning. Cost shall be included in the cost of "Concrete Structures".

BILL OF MATERIAL

Bar	No.	Size	Length (m)	Shape
$h_2(E)$	240	#15	1.72	
*$n_1(E)$	840	#15	0.51	
$s_2(E)$	384	#15	1.17	
$s_3(E)$	96	#15	1.09	
$s_4(E)$	192	#15	2.86	
$s_5(E)$	48	#15	2.78	
Concrete Structures			m^3	36.5
Reinf. Bars (Epoxy Coated)			kg.	3260

Reinforcement bars designated (E) shall be epoxy coated.
Work this sheet with Sheet 4 of 12.
See Sheet 12 of 12 for Anchor Bolt Details.

DESIGNED	JAV
CHECKED	Richard J Chpt
DRAWN	KG
CHECKED	JAV RJC

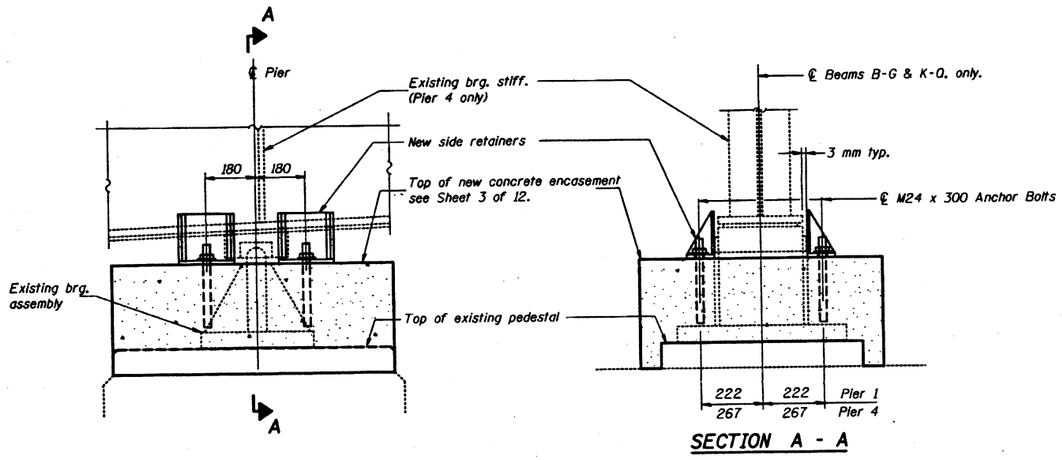
June 9 1997
EXAMINED Engineer of Bridge Design
PASSED Engineer of Bridges and Structures

FIXED BEARING ENCASEMENT
PIERS 1, 4, 12, 15 & 18
F.A.I. ROUTE 70 - SECTION 82-5VBR-1
ST. CLAIR COUNTY
STATION 5 + 349.03

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

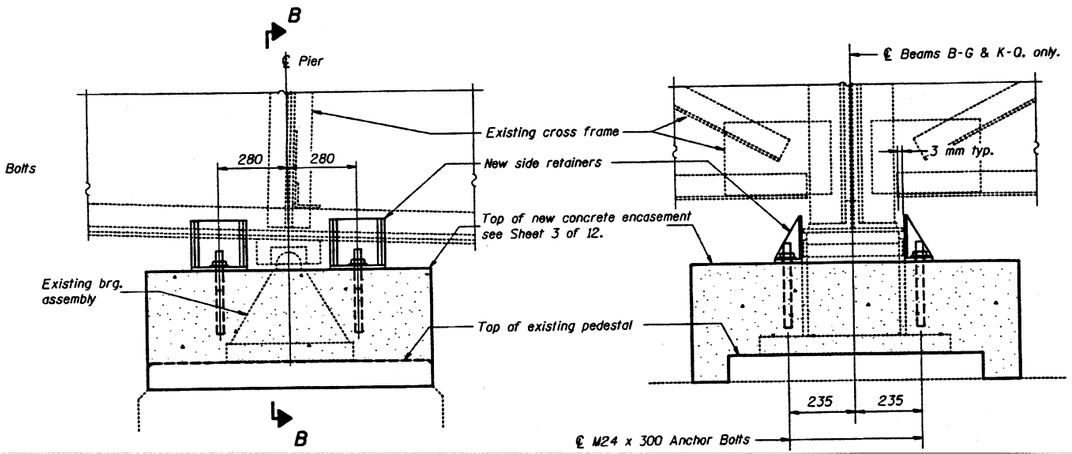
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR-1	ST. CLAIR	27	12
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 4
12 SHEETS



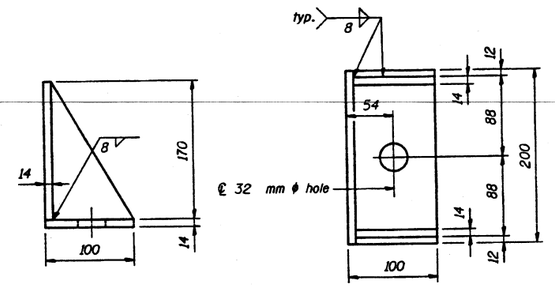
SIDE RETAINERS - PIERS 1 & 4

SECTION A - A



SIDE RETAINERS - PIERS 12, 15, & 18

SECTION B - B



SIDE RETAINERS
(240 Required)
Equivalent rolled angles with stiffeners will be allowed in lieu of welded plates.

Notes:
For anchor bolt locations, see Sheet 3 of 12.
See Sheet 12 of 12 for Anchor Bolt Details.

DESIGNED	JAH
CHECKED	Richard J. Chipot
DRAWN	KG
CHECKED	JAH RJC

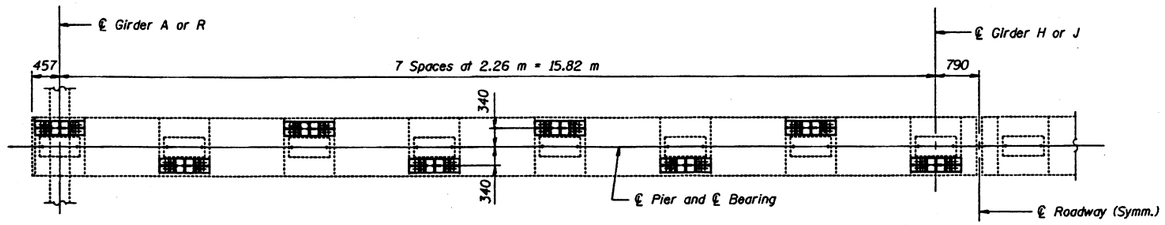
June 9, 1997
EXAMINED Engineer of Bridge Design
PASSED Engineer of Bridges and Structures

SIDE RETAINER DETAILS
PIERS 1, 4, 12, 15 & 18
F.A.I. ROUTE 70 - SECTION 82-5VBR-1
ST. CLAIR COUNTY
STATION 5 + 349.03

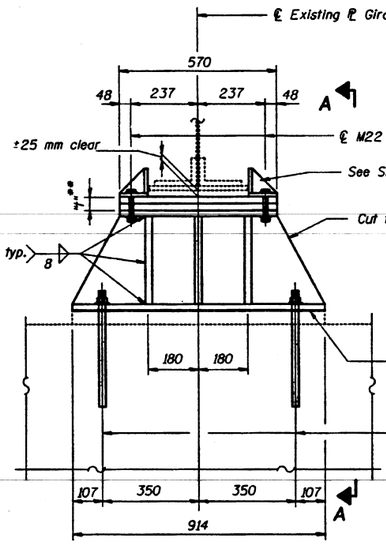
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR-1	ST. CLAIR	27	13
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 5
12 SHEETS



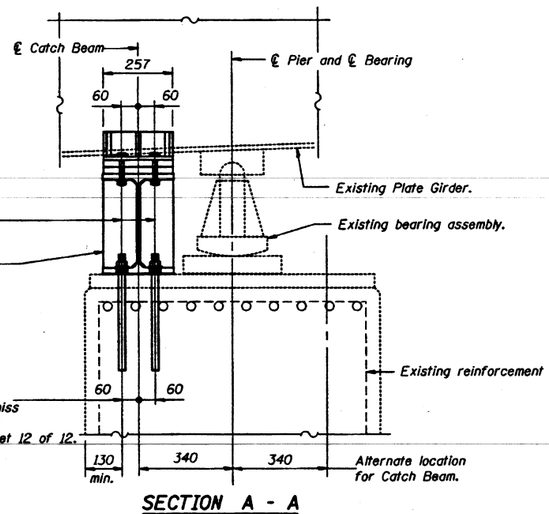
PLAN AT PIERS 11, 14 & 17



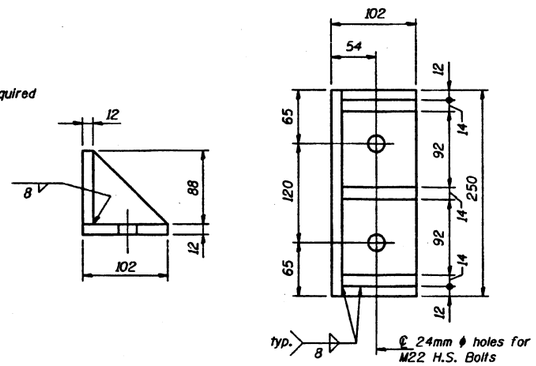
CATCH BEAM ASSEMBLY

(48 Required - 16 each pier)

** Dimension "t" is equal to the total thickness of shim plates. Use multiple 570 x 250 x 25 mm (min.) plates to attain the required ±25mm clearance from bottom of existing girder to top of plates. The exact number of shims required shall be determined in the field by the Contractor.



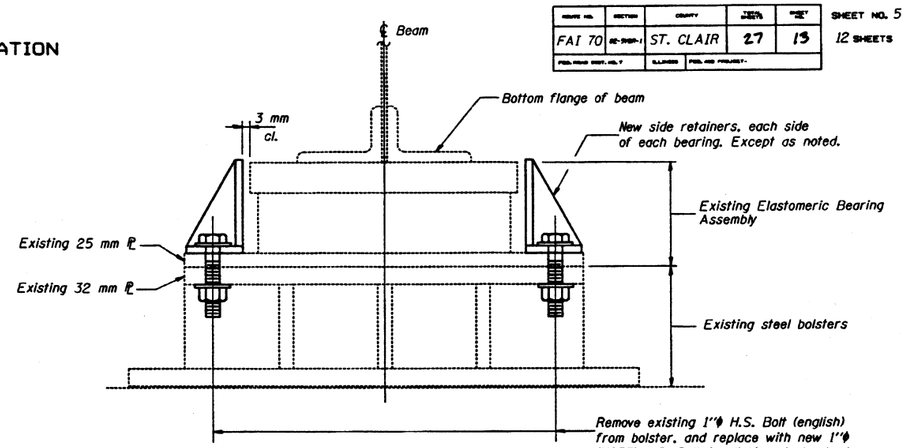
SECTION A - A



SIDE RETAINER AT CATCH BEAM ASSEMBLY

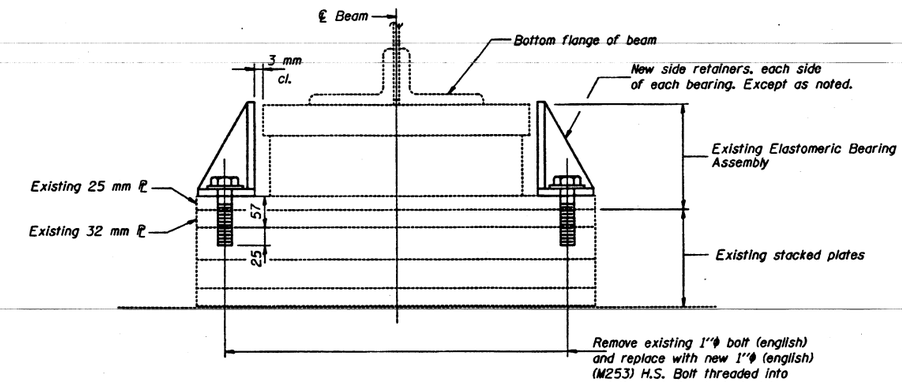
(96 Required)

Equivalent rolled angles with stiffeners will be allowed in lieu of welded plates.



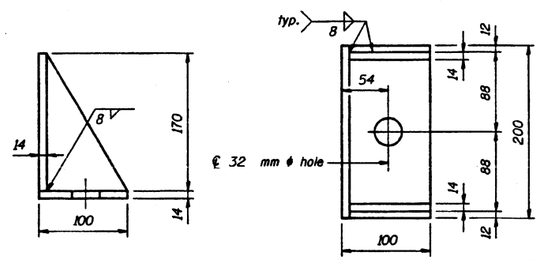
SIDE RETAINERS AT BOLSTERS

(Locations - Piers 2, 5, 6N, 7N, 8N and 9N)



SIDE RETAINERS AT STACKED PLATES

(Locations - So. Abut, No Abut, Piers 3N, 13S and 16S)



SIDE RETAINER AT BOLSTER & STACKED PLATES

(286 Required)

Equivalent rolled angles with stiffeners will be allowed in lieu of welded plates.

BOLSTER & STACKED PLATE NOTES

The existing side retainer angles are to remain in place, and are located along the interior faces of beams A, H, J, & K; and the exterior faces of beams D & N.

Remove existing 1"ϕ bolt (english), at all bearings and install new side retainer angles as indicated in side retainer details.

DESIGNED	JAH
CHECKED	Richard J. Chapat
DRAWN	KG
CHECKED	JAH RJC

June 9, 1997

EXAMINED Engineer of Bridge Design

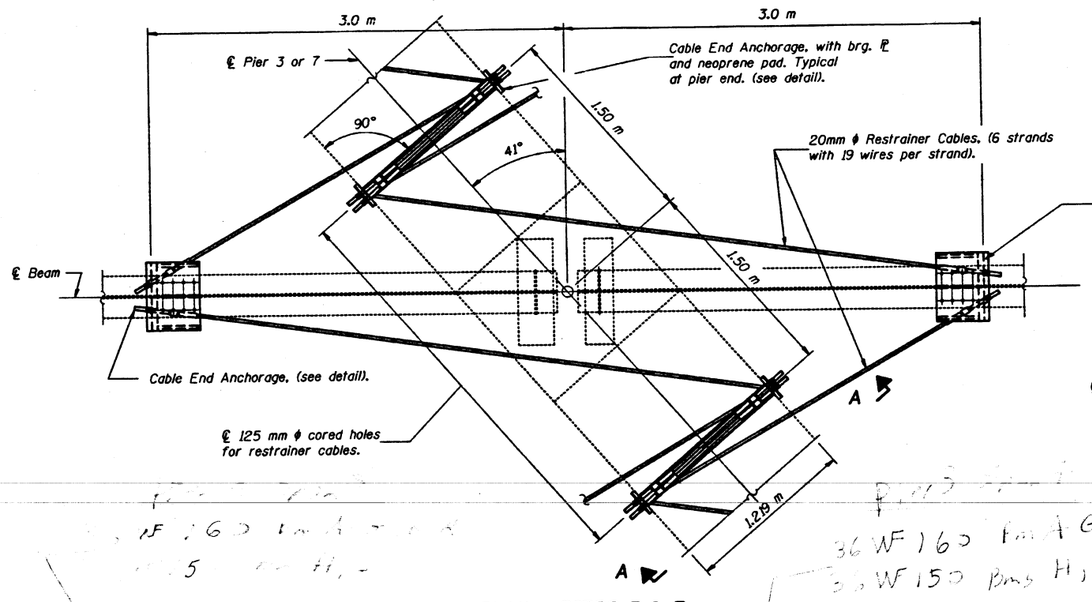
PASSED Engineer of Bridges and Structures

SIDE RETAINER & CATCH BEAM DETAILS
F.A.I. ROUTE 70 - SECTION 82-5VBR-1
ST. CLAIR COUNTY
STATION 5 + 349.03

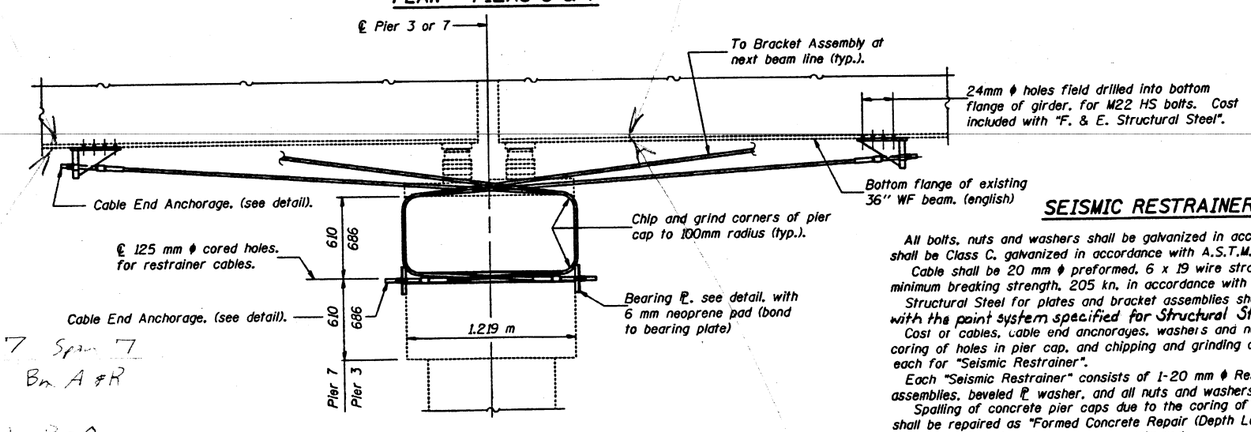
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAP RTE.	SECTION	COUNTY	TOTAL SHEET NO.	SHEET NO.
FAI 70	82-5VBR-1	ST. CLAIR	27	14
FED. ROAD DIST. NO. 9	ILLINOIS	FED. AID PROJECT-		

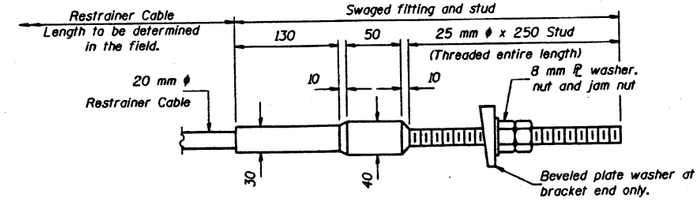
SHEET NO. 6
12 SHEETS



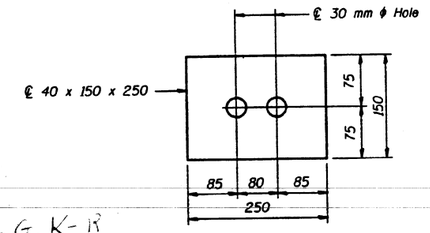
PLAN - PIERS 3 & 7



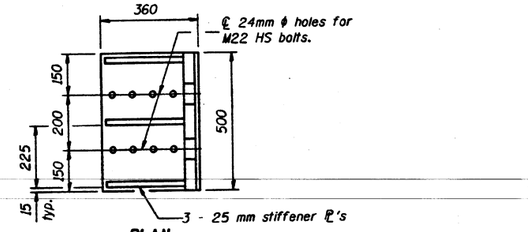
SECTION A - A
(Typical at 12 bays between beams)



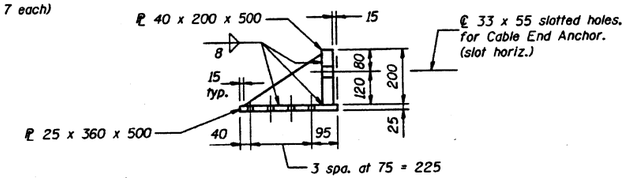
CABLE END ANCHORAGE
(2 Per Cable)



BEARING PLATE
(72 Required - 24 at Pier 3, 6 & 7 each)



PLAN



END VIEW

BRACKET ASSEMBLY
(216 Required - 32 at Piers 3, 6 & 7
- 24 at Pier 8, 9, 10, 13, & 16)

SEISMIC RESTRAINER NOTES

All bolts, nuts and washers shall be galvanized in accordance with AASHTO M232. Cables shall be Class C, galvanized in accordance with A.S.T.M. A741.

Cable shall be 20 mm ϕ preformed, 6 x 19 wire strand core or independent wire rope core, minimum breaking strength, 205 kn, in accordance with A.S.T.M. A603

Structural Steel for plates and bracket assemblies shall be M270 Grade 250, and shall be painted with the paint system specified for Structural Steel. Cost included with F & E Structural Steel.

Cost of cables, cable end anchorages, washers and nuts, including installation of restrainers, coring of holes in pier cap, and chipping and grinding corners will be paid for at the unit bid price each for "Seismic Restrainer".

Each "Seismic Restrainer" consists of 1-20 mm ϕ Restrainer Cable, with 2 Cable End Anchorage assemblies, beveled ℘ washer, and all nuts and washers shown.

Spalling of concrete pier caps due to the coring of holes and installation of cable restrainers shall be repaired as "Formed Concrete Repair (Depth Less Than or Equal To 125 mm). The Quantity indicated in these plans is estimated.

Core holes to miss existing reinforcement.

BILL OF MATERIAL

Item	Unit	Total
Seismic Restrainer	Each	96
* Formed Concrete Repair (Depth Less Than or Equal to 125 mm)	m^2	6

* Estimated quantity

Note: For seismic restrainer location Plan, see Sheet 7 of 12.

SEISMIC RESTRAINER INSTALLATION PROCEDURE

1. Core holes in pier cap, locate and attach brackets to beams, and install cables snug tight.
2. For restrainers at expansion bearings, back off the nut at bracket end of cable by "D" + 27 mm.
   "D" = + 1 mm per 10 m of expansion length for every 8°C. temperature rise above 10°C. Normal Temperature.
   "D" = - 1 mm per 10 m of expansion length for every 8°C. temperature drop below 10°C. Normal Temperature.
3. Tighten jam nuts.

DESIGNED	J.A.V.
CHECKED	Richard J. Chaput
DRAWN	K.G.
CHECKED	J.A.V. R.J.C.

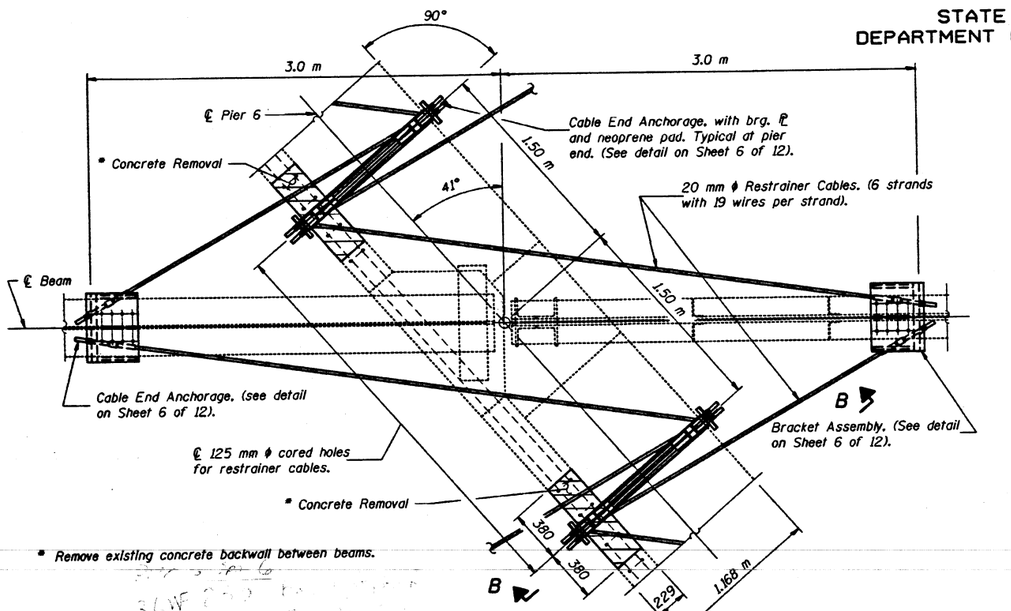
June 9, 1997
EXAMINED Engineer of Bridge Design
PASSED Engineer of Bridges and Structures

SEISMIC RESTRAINERS - PIERS 3 & 7
F.A.I. ROUTE 70 - SECTION 82-5VBR-1
ST. CLAIR COUNTY
STATION 5 + 349.03

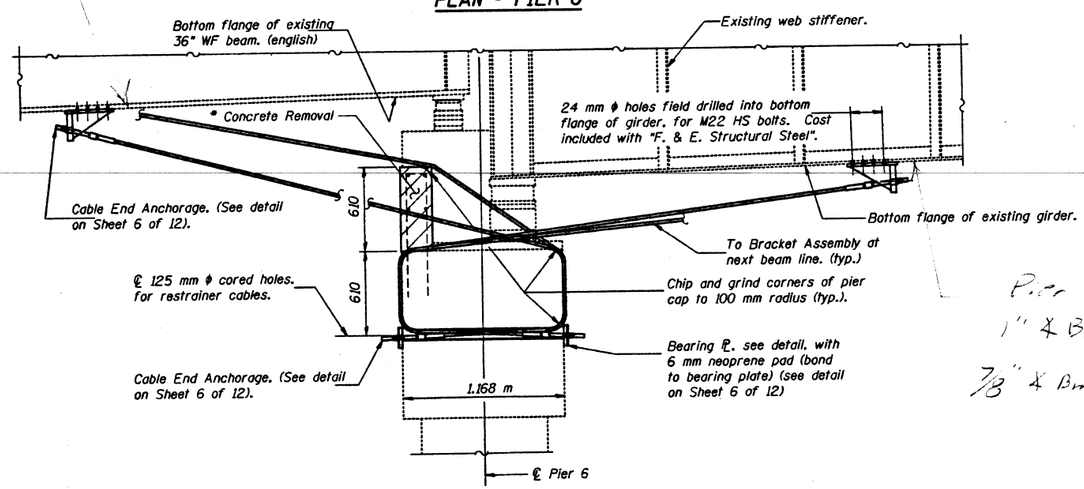
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR-1	ST. CLAIR	27	15
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 7
12 SHEETS

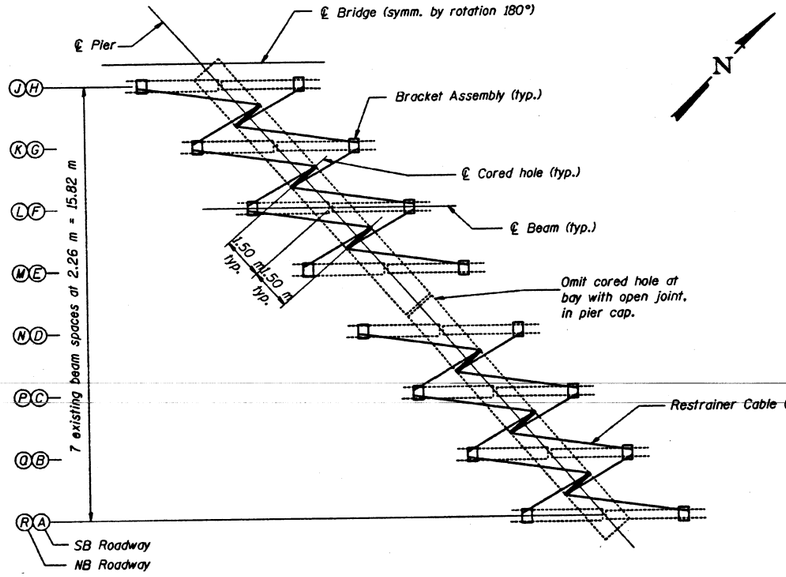


PLAN - PIER 6



SECTION B - B
(Typical at 12 bays between beams)

Pier is Span T
1" ϕ Bm's A & R
7/8" ϕ Bm's B-Q



SEISMIC RESTRAINER LOCATION PLAN

BILL OF MATERIAL

Item	Unit	Total
Seismic Restrainer	Each	48
Concrete Removal	m^3	1.2
** Formed Concrete Repair (Depth Less Than or Equal to 125 mm)	m^2	3

**Estimated quantity

Note:
For Restrainer Cable End Anchorage. Bearing plate and Bracket Assembly details. see Sheet 6 of 12.
See Sheet 6 of 12 for Seismic Restrainer Notes and Installation Procedure.
Existing reinforcement bars extending into removal area shall be flame cut. bar ends to be sealed with epoxy.

DESIGNED	J4u
CHECKED	Richard J. Chapat
DRAWN	KG
CHECKED	J4u

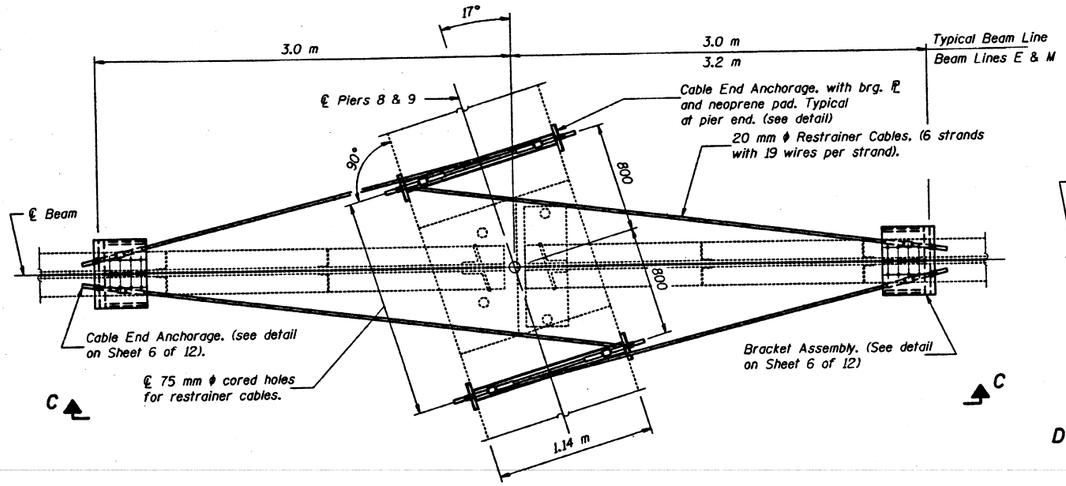
June 9, 1997
EXAMINED Raj D Kaspar
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

SEISMIC RESTRAINERS - PIER 6
F.A.I. ROUTE 70 - SECTION 82-5VBR-1
ST. CLAIR COUNTY
STATION 5 + 349.03

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR-1	ST. CLAIR	27	16
FED. ROAD DIST. NO. 9	ILLINOIS	FED. AID PROJECT-		

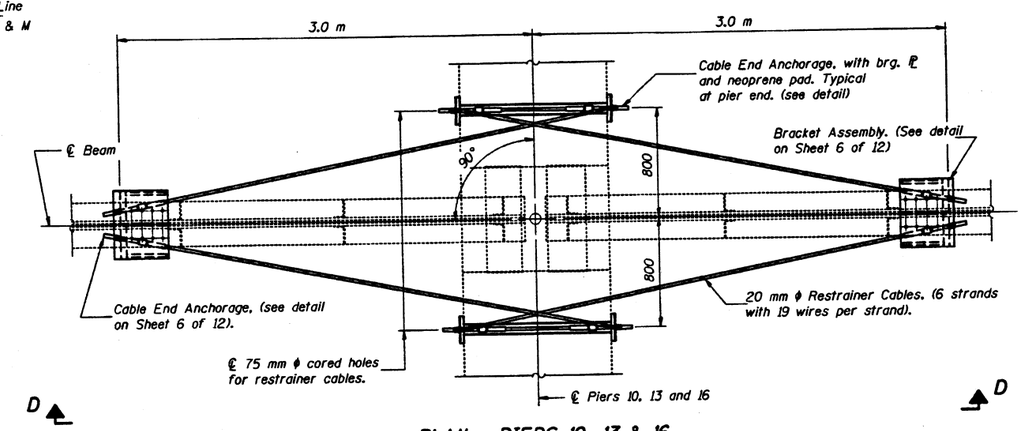
SHEET NO. 8
12 SHEETS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



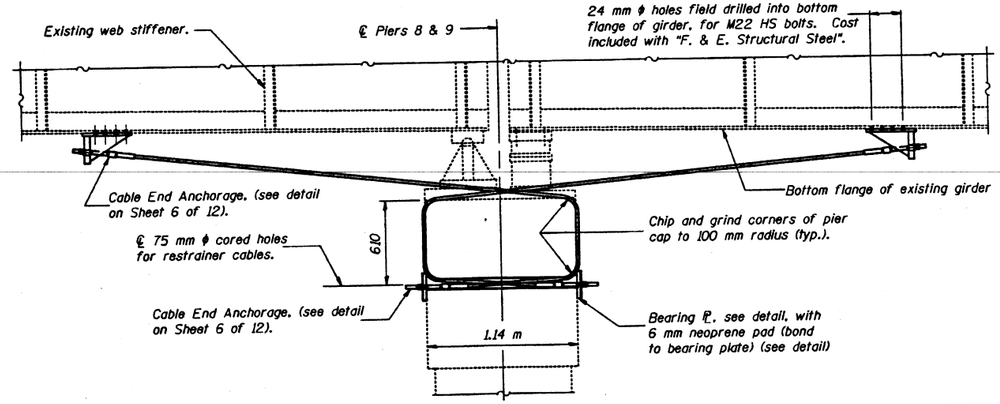
PLAN - PIERS 8 & 9

(Omit at exterior beam lines A, H, J & R)



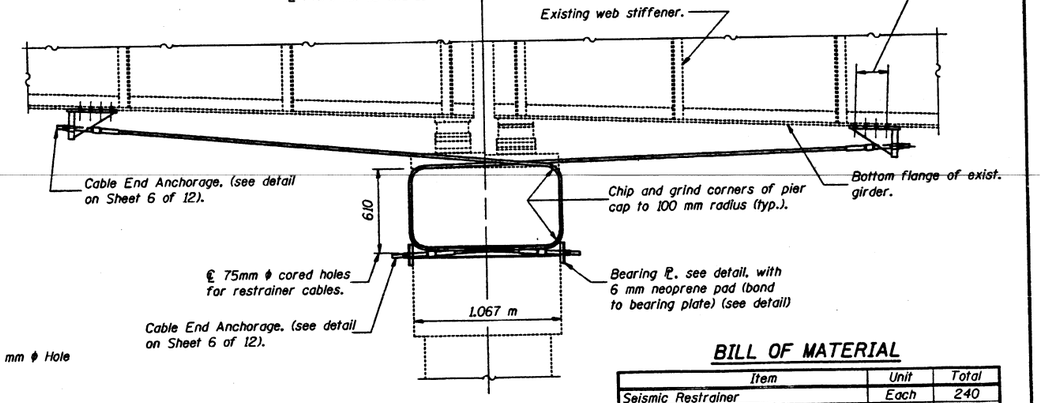
PLAN - PIERS 10, 13 & 16

(Omit at exterior beam lines A, H, J & R)



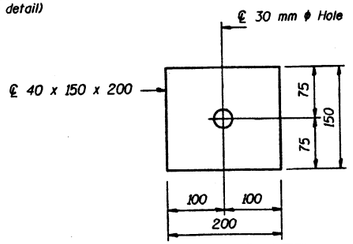
SECTION C - C

(Typical at 12 bays between beams)



SECTION D - D

(Typical at 12 bays between beams)



BEARING PLATE

(240 Required - 48 per pier at Piers 8, 9, 10, 13 & 16)

BILL OF MATERIAL

	Item	Unit	Total
	Seismic Restrainer	Each	240
*	Formed Concrete Repair (Depth Less Than or Equal to 125 mm)	m^2	30

* Estimated quantity

Note:
For Restrainer Cable End Anchorage, and Bracket Assembly details, see Sheet 6 of 12.
See Sheet 6 of 12 for Seismic Restrainer Notes and Installation Procedure.

DESIGNED	JAY
CHECKED	Richard J. Chaput
DRAWN	KG
CHECKED	JAY RJC

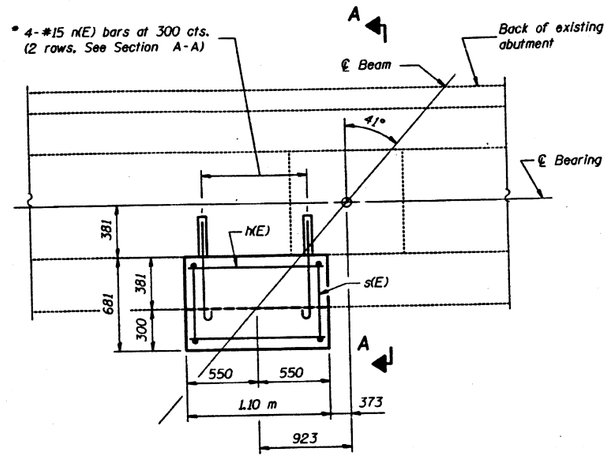
June 9, 1997
EXAMINED Greg D. Kapsar
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

SEISMIC RESTRAINERS - PIERS 8, 9, 10, 13 & 16
F.A.I. ROUTE 70 - SECTION 82-5VBR-1
ST. CLAIR COUNTY
STATION 5 + 349.03

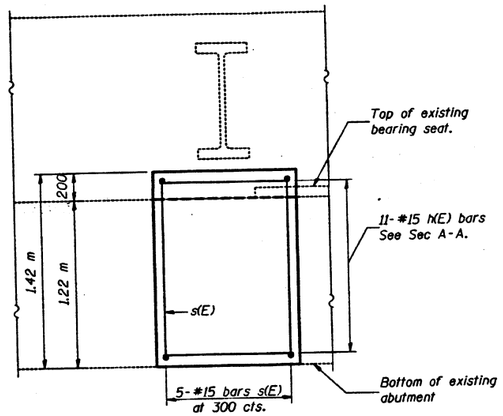
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR-1	ST. CLAIR	27	17
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT=		

SHEET NO. 9
12 SHEETS

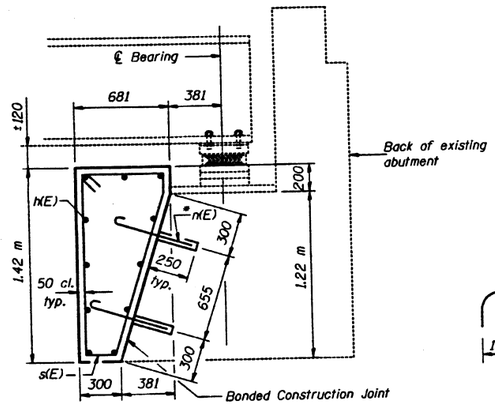
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



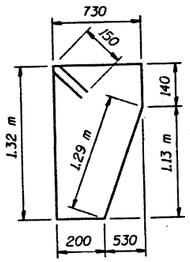
TYPICAL PLAN - SOUTH ABUT.
(Typical at all 16 bearing locations)



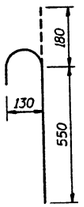
TYPICAL ELEVATION - SOUTH ABUTMENT



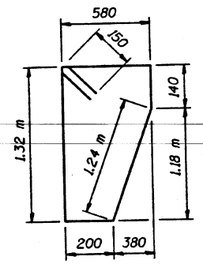
SECTION A - A



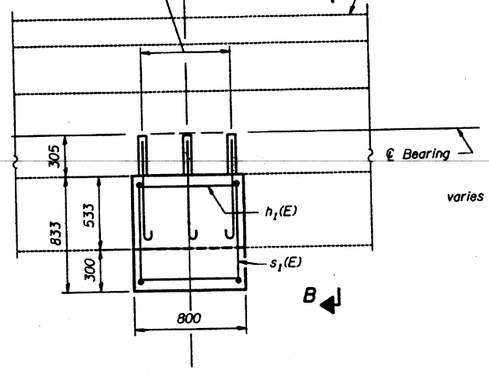
s_1(E) BAR



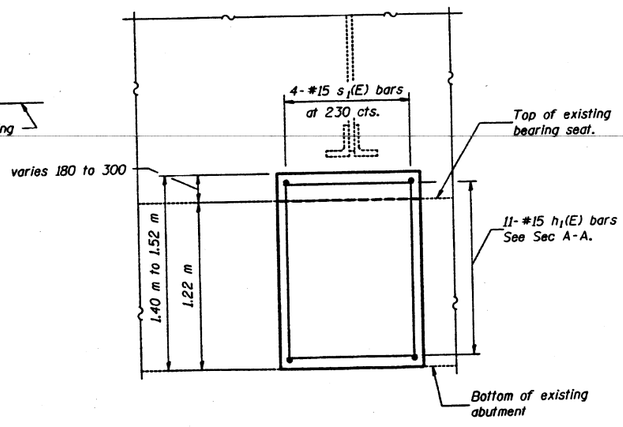
n(E) BAR



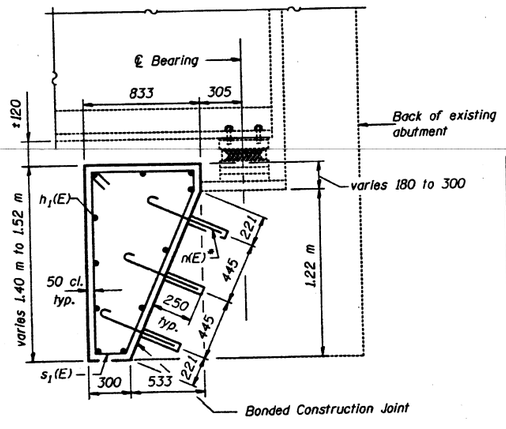
s(E) BAR



TYPICAL PLAN - NORTH ABUT.
(Typical at all 16 bearing locations)



TYPICAL ELEVATION - NORTH ABUTMENT



SECTION B - B

BILL OF MATERIAL - 2 ABUTMENTS

Bar	No.	Size	Length (m)	Shape
h(E)	176	#15	1.00	
h_1(E)	176	#15	0.70	
* n(E)	272	#15	0.73	
s(E)	80	#15	3.78	
s_1(E)	64	#15	3.98	
Concrete Structures			m^3	24.3
Reinf. Bars (Epoxy Coated)			kg.	1660

Reinforcement bars designated (E) shall be epoxy coated.

Note:
Cost of removal of riprap in areas of abutment extensions is included with "Concrete Structures".

DESIGNED	JAM
CHECKED	Richard J Chaput
DRAWN	KG
CHECKED	JAM RJC

June 9, 1997
EXAMINED Raj D. Kaspar ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson ENGINEER OF BRIDGES AND STRUCTURES

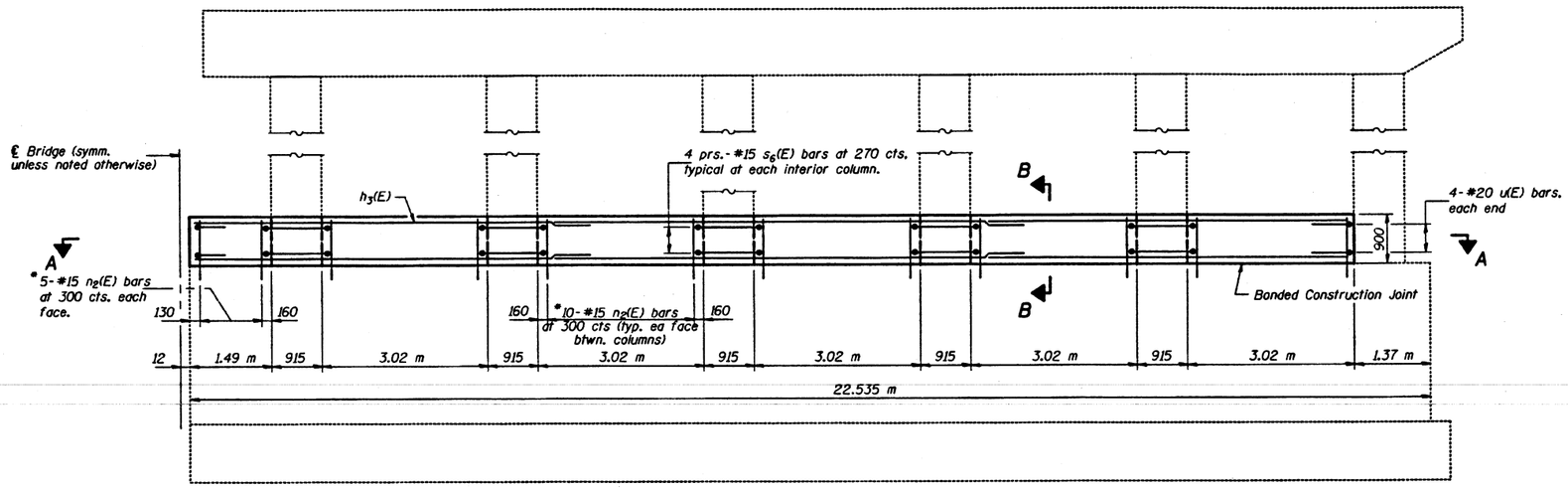
* Drill and Grout n(E) bars into existing abutment, in accordance with Article 584 of the Standard Specifications. Cost included with "Reinforcement Bars, Epoxy Coated". Locate n(E) bars to miss existing reinforcement.

ABUTMENT SEAT EXTENSIONS
F.A.I. ROUTE 70 - SECTION 82-5VBR-1
ST. CLAIR COUNTY
STATION 5 + 349.03

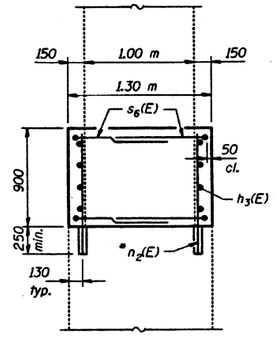
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR-1	ST. CLAIR	27	18
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 10
12 SHEETS



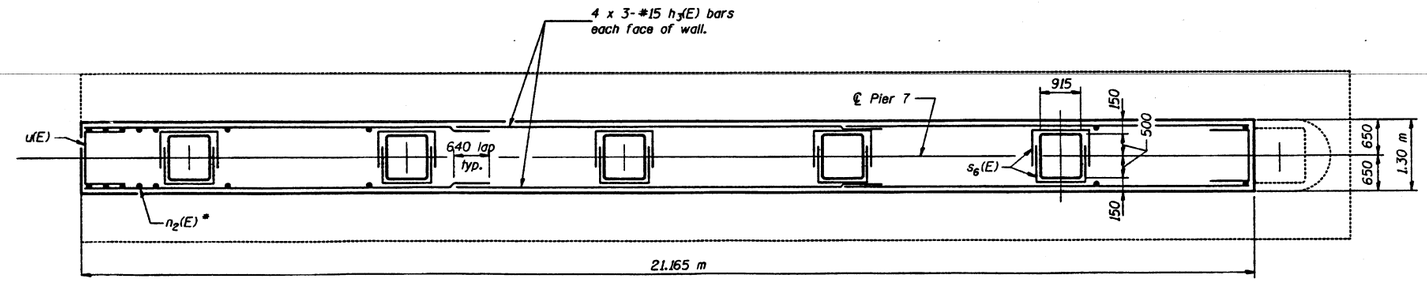
ELEVATION - PIER 7
(Showing NB Pier, SB Pier similar)



SECTION B - B

s_6(E) BAR

u(E) BAR



SECTION A - A

BILL OF MATERIAL

Bar	No.	Size	Length (m)	Shape
h_3(E)	48	#15	7.94	——
* n_2(E)	220	#15	1.11	——
s_6(E)	80	#15	2.97	⊓
u (E)	16	#15	2.48	⊓
Concrete Structures			m^3	41.3
Reinf. Bars (Epoxy Coated)			kg	1420

Reinforcement bars designated (E) shall be epoxy coated. Bars indicated thus 4 x 3-#15 etc. indicates 4 lines of bars with 3 lengths per line.

DESIGNED	JAY
CHECKED	Richard L. Chapt
DRAWN	KG
CHECKED	JAV RJC

June 9, 1997
EXAMINED Engineer of Bridge Design
PASSED Engineer of Bridges and Structures

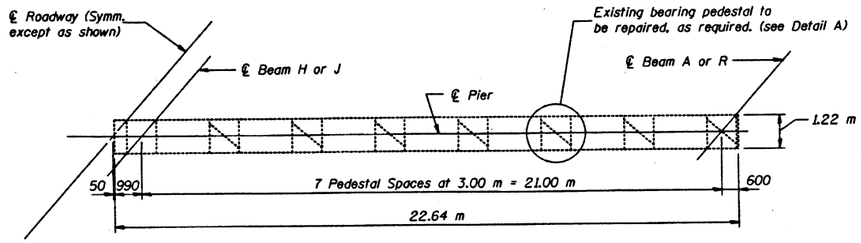
* Drill and grout n_2(E) bars into existing pier in accordance with Article 584 of the Standard Specifications. Cost included with "Reinforcement Bars (Epoxy Coated)". Locate n_2(E) bars to miss existing reinforcement bars.

PIER 7 - CRASH WALL EXTENSION
F.A.I. ROUTE 70 - SECTION 82-5VBR-1
ST. CLAIR COUNTY
STATION 5 + 349.03

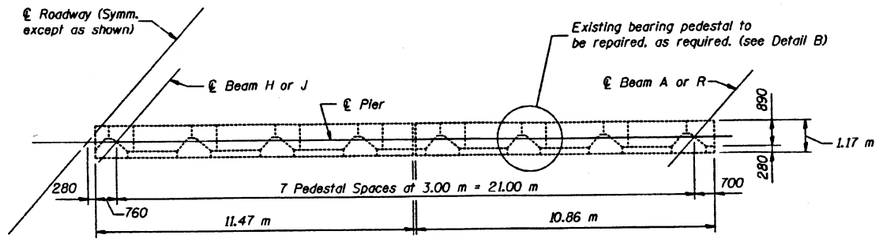
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR-1	ST. CLAIR	27	18A
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

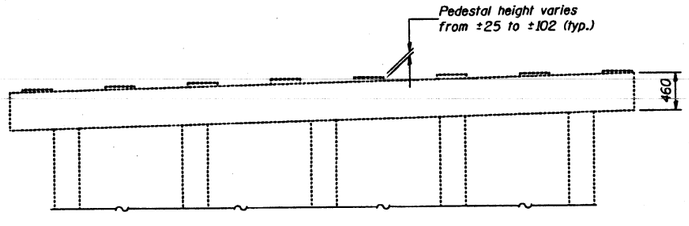
SHEET NO. 11
12 SHEETS



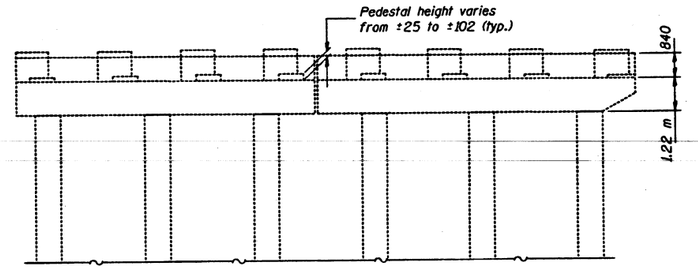
PLAN - PIER 3



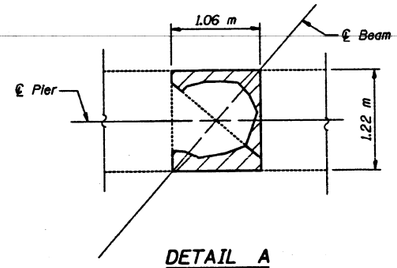
PLAN - PIER 6



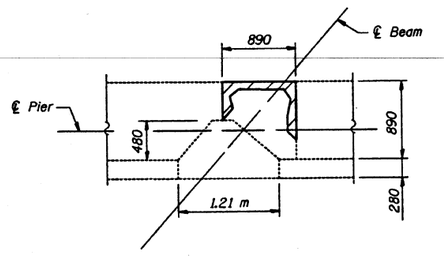
ELEVATION - PIER 3



ELEVATION - PIER 6



DETAIL A



DETAIL B

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Formed Concrete Repair (Depth Less Than or Equal to 125 mm)	m^2	4

* Estimated quantity

Note:
Hatched area indicates "Formed Conrete Repair (Depth less than or equal to 125 mm)". The exact number of pedestals to be repaired, and the extent of the repair shall be determined by the Engineer in the field.

DESIGNED	JAU
CHECKED	Richard J. Chyet
DRAWN	KG
CHECKED	JAU RJC

June 9, 1997
EXAMINED Raj. D Kaspar ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson ENGINEER OF BRIDGES AND STRUCTURES

PIER 3 & 6 FORMED CONCRETE REPAIR
F.A.I. ROUTE 70 - SECTION 82-5VBR-1
ST. CLAIR COUNTY
STATION 5 + 349.03

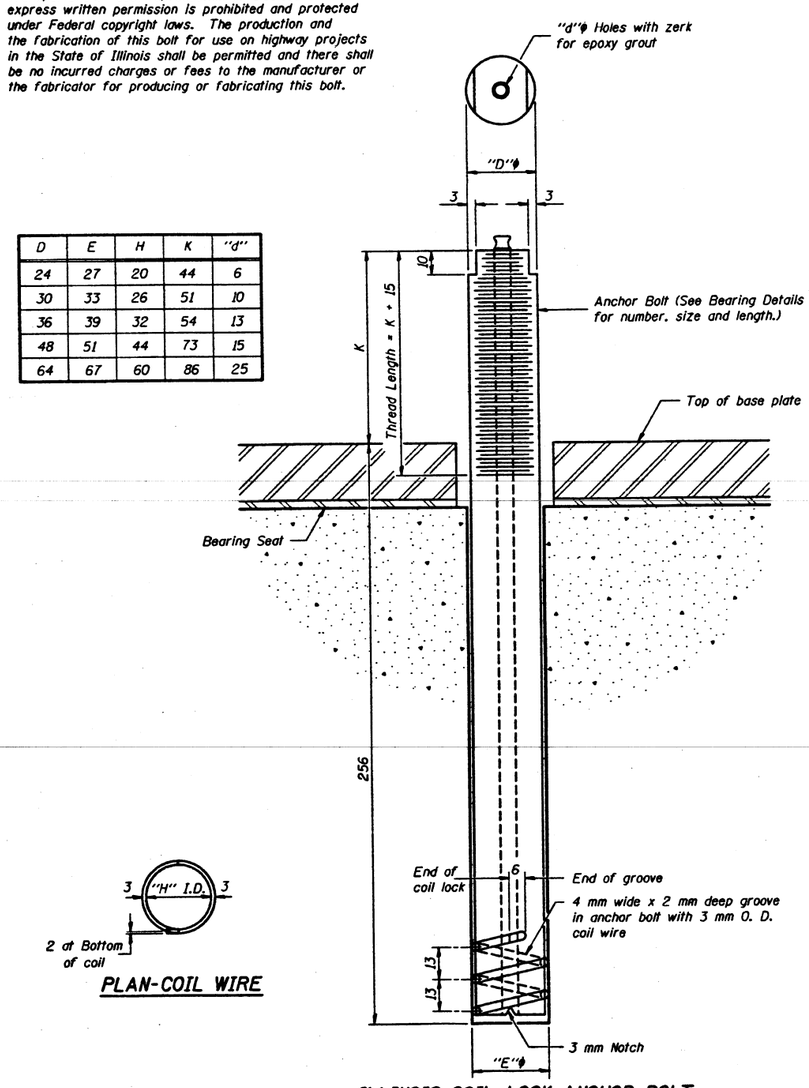
The Illinois Coil-Lock Anchor Bolt is a proprietary item which is the property of the Illinois Department of Transportation. Use, reproduction or disclosure without express written permission is prohibited and protected under Federal copyright laws. The production and the fabrication of this bolt for use on highway projects in the State of Illinois shall be permitted and there shall be no incurred charges or fees to the manufacturer or the fabricator for producing or fabricating this bolt.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR-1	ST. CLAIR	27	18
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 12
12 SHEETS

D	E	H	K	"d"
24	27	20	44	6
30	33	26	51	10
36	39	32	54	13
48	51	44	73	15
64	67	60	86	25



ILLINOIS COIL-LOCK ANCHOR BOLT

PLAN-COIL WIRE

MATERIALS FOR ILLINOIS COIL-LOCK ANCHOR BOLT

The anchor bolt shall be fabricated from cold drawn or hot finished seamless carbon steel mechanical tubing conforming to ASTM A519, Grade 1026 and supplied with hexagonal nuts and cut washers.

The coil wire shall be made of any suitable soft steel wire.

The finished anchor bolt shall be cleaned of rust and other foreign materials and wrapped or packaged to prevent contamination until they are installed.

The epoxy grout shall be a two-component, epoxy resin bonding system comforming to ASTM C881, Type I, Grade 1 and of a Class suitable for the temperature at installation.

INSTALLATION PROCEDURE for the ILLINOIS COIL-LOCK ANCHOR BOLT

1. With the coil wire in place,the bolt shall be inserted into the hole and turned clockwise to a snug fit in the hole. Nut and washer shall be placed on the bolt. The nut shall be tensioned until the steel base plates are held securely to the concrete bearing seat.
2. Epoxy grout shall be pumped through the zerk fitting with a pressure gun. Pumping shall continue until the epoxy overflows the hole around the bolt shank. After pumping is discontinued, excess epoxy shall be immediately wiped off.

ALTERNATE ANCHOR BOLTS

The Contractor may use, at his option, the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes in accordance with the manufacturer's recommendations and procedures.

The capsule or the adhesive cartridge type anchor rods shall be a two part system composed of:

1. A threaded rod stud with nut and washer conforming to ASTM A307.
2. A sealed glass capsule or a sealed glass adhesive cartridge containing premeasured amounts of the adhesive chemical.

GENERAL NOTES

Holes in the masonry for anchor bolts shall be drilled through the base plates to the diameter and depth shown or in accordance with the manufacturer's recommendation after beams or girders have been erected and adjusted.

Prior to setting the bolts, the holes shall be dry and all dust and loose particles shall be removed by the use of compressed air or vacuuming.

The anchor bolts, furnished and installed and including the epoxy grout or capsules shall not be paid for separately but shall be included in the unit bid price for "Furnishing and Erecting Structural Steel".

All dimensions are in millimeters (mm) except as noted.

DESIGNED	JAH
CHECKED	Richard J. Chval
DRAWN	KG
CHECKED	JAH RJC

June 9, 1997

EXAMINED Greg J. Krieger
ENGINEER OF BRIDGE DESIGN

PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

ABB-1 (M) 7-1-94

ANCHOR BOLT DETAILS FOR BEARINGS
F.A.I. ROUTE 70 - SECTION 82-5VBR-1
ST. CLAIR COUNTY
STATION 5 + 349.03

FAI ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Yo	82-5VBR-I	ST. CLAIR	27	19
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

Illinois Department of Transportation

District 8
Project Implementation
Materials

Structure Carrying FAI 70 Over TRRA
CSX and Conrail R.R.

CPT. Bridge Foundation
Boring Log
Sheet 1 of 1

Project:
Route: FAI 70
Section 82-5VBR-1
County: St. Clair Co.

CPT. Boring: Pier #1
Station: 5+133.8
O/S: 20.42 M Rt.

CPT Date: 10/22/96
Bored By: L. Ford
Check By: M. Lamie
Cone Used: 438TC

Total Unit Weight (Ave.): 16kN/m^3
Ground Surface: 126.31
Water table: 2 Meters

DEPTH		Qc (avg)	Fs (avg)	Rf (avg)	SIGV'	SOIL BEHAVIOR TYPE	Eq - Dr	PHI	SPT'	Su
meters	feet	kg/cm^2	kg/cm^2	%	kg/cm^2		%	deg.	N	kg/cm^2
0.25	0.82	7.14	0.58	7.84	0.02	clay	UNDFN	UNDF	7	0.5
0.50	1.64	7.88	0.63	8.00	0.06	clay	UNDFN	UNDF	7	UNDEFINED
0.75	2.46	8.20	0.61	7.41	0.10	clay	UNDFN	UNDF	8	0.8
1.00	3.28	10.24	0.65	6.37	0.14	clay	UNDFN	UNDF	10	0.8
1.25	4.10	11.74	0.70	5.93	0.18	clay	UNDFN	UNDF	11	0.9
1.50	4.92	6.90	0.46	6.72	0.22	clay	UNDFN	UNDF	7	0.5
1.75	5.74	8.58	0.52	6.11	0.26	clay	UNDFN	UNDF	8	0.6
2.00	6.56	7.62	0.06	1.10	0.30	clayey silt to silty clay	UNDFN	UNDF	7	0.5
2.25	7.38	9.00	0.44	4.84	0.33	clay	UNDFN	UNDF	9	0.7
2.50	8.20	40.16	0.48	1.20	0.34	silty sand to sandy silt	50-90	44-46	48	UNDEFINED
2.75	9.02	51.30	0.38	0.74	0.36	silty sand to sandy silt	60-70	44-46	48	UNDEFINED
3.00	9.84	86.70	0.87	1.01	0.37	sand to silty sand	70-80	>48	>50	UNDEFINED
3.25	10.66	73.12	0.68	0.93	0.38	sand to silty sand	70-80	46-48	>50	UNDEFINED
3.50	11.48	80.22	0.79	1.31	0.41	silty sand to sandy silt	60-70	44-46	>50	UNDEFINED
3.75	12.30	81.16	0.60	0.74	0.42	sand to silty sand	70-80	46-48	>50	UNDEFINED
4.00	13.12	82.40	0.70	0.85	0.44	sand to silty sand	70-80	46-48	>50	UNDEFINED
4.25	13.94	33.54	0.23	0.70	0.45	silty sand to sandy silt	40-50	40-42	32	UNDEFINED
4.50	14.76	11.74	0.10	0.85	0.47	sandy silt to clayey silt	UNDFN	UNDF	11	0.9
4.75	15.58	25.44	0.33	1.31	0.48	sandy silt to clayey silt	UNDFN	UNDF	24	2.0
5.00	16.40	90.52	0.77	0.86	0.50	sand to silty sand	70-80	46-48	>50	UNDEFINED
5.25	17.22	147.86	1.32	0.89	0.51	sand	80-90	>48	>50	UNDEFINED
5.50	18.04	152.14	1.42	0.94	0.53	sand	>90	>48	>50	UNDEFINED
5.75	18.86	178.18	1.64	0.92	0.54	sand	>90	>48	>50	UNDEFINED
6.00	19.69	211.52	1.82	0.86	0.56	sand	>90	>48	>50	UNDEFINED
6.25	20.51	147.14	1.35	0.92	0.56	sand	80-90	>48	>50	UNDEFINED
6.50	21.33	100.42	1.04	1.03	0.59	sand to silty sand	70-80	46-48	>50	UNDEFINED
6.75	22.15	152.72	1.13	0.74	0.61	sand	80-90	>48	>50	UNDEFINED
7.00	22.97	186.78	1.06	0.56	0.62	sand	>90	>48	>50	UNDEFINED

Blowcounts based on 63% hammer efficiency

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

Illinois Department of Transportation

District 8
Project Implementation
Materials

Structure Carrying FAI 70 Over TRRA
CSX and Conrail R.R.

CPT. Bridge Foundation
Boring Log
Sheet 1 of 1

Project:
Route: FAI 70
Section 82-5VBR-1
County: St. Clair Co.

CPT. Boring: Pier #2
Station: 5+128
O/S: 12.19 M Lt.

CPT Date: 10/22/96
Bored By: L. Ford
Check By: M. Lamie
Cone Used: 438TC

Total Unit Weight (Ave.): 16kN/m^3
Ground Surface: 126.61 M
Water table: 2 Meters

DEPTH		Qc (avg)	Fs (avg)	Rf (avg)	SIGV'	SOIL BEHAVIOR TYPE	Eq - Dr	PHI	SPT'	Su
meters	feet	kg/cm^2	kg/cm^2	%	kg/cm^2		%	deg.	N	kg/cm^2
0.25	0.82	11.38	0.91	8.00	0.02	clay	UNDFN	UNDF	11	UNDEFINED
0.50	1.64	11.36	0.91	8.00	0.06	clay	UNDFN	UNDF	13	UNDEFINED
0.75	2.46	13.50	1.08	8.00	0.10	clay	UNDFN	UNDF	15	1.2
1.00	3.28	15.21	1.09	7.15	0.14	clay	UNDFN	UNDF	15	1.2
1.25	4.10	15.63	0.50	3.22	0.18	silty clay to clay	UNDFN	UNDF	5	0.4
1.50	4.92	5.37	0.18	3.27	0.22	clay	UNDFN	UNDF	16	1.3
1.75	5.74	16.52	0.21	1.27	0.26	sandy silt to clayey silt	UNDFN	UNDF	18	1.5
2.00	6.56	18.96	0.19	0.98	0.30	sandy silt to clayey silt	UNDFN	UNDF	19	1.6
2.25	7.38	20.15	0.35	1.72	0.33	sandy silt to clayey silt	UNDFN	UNDF	35	3.0
2.50	8.20	37.25	0.71	1.92	0.34	sandy silt to clayey silt	70-80	46-48	>50	UNDEFINED
2.75	9.02	66.59	0.86	1.29	0.36	silty sand to sandy silt	70-80	46-48	>50	UNDEFINED
3.00	9.84	72.24	0.98	1.36	0.37	silty sand to sandy silt	70-80	46-48	>50	UNDEFINED
3.25	10.66	67.32	0.91	1.35	0.39	silty sand to sandy silt	60-70	46-48	>50	UNDEFINED
3.50	11.48	61.99	0.89	1.43	0.41	silty sand to sandy silt	60-70	44-46	49	UNDEFINED
3.75	12.30	51.62	0.76	1.47	0.42	silty sand to sandy silt	60-70	44-46	>50	UNDEFINED
4.00	13.12	99.96	0.85	0.85	0.44	sand to silty sand	70-80	46-48	>50	UNDEFINED
4.25	13.94	108.09	1.02	0.95	0.45	sand to silty sand	80-90	>48	>50	UNDEFINED
4.50	14.76	52.96	0.85	1.61	0.47	silty sand to sandy silt	50-60	42-44	>50	UNDEFINED
4.75	15.58	134.40	1.32	0.98	0.48	sand to silty sand	80-90	>48	>50	UNDEFINED
5.00	16.40	119.47	1.36	1.16	0.50	sand to silty sand	80-90	>48	>50	UNDEFINED
5.25	17.22	86.30	1.15	1.34	0.51	sand to silty sand	70-80	46-48	>50	UNDEFINED
5.50	18.04	65.15	0.78	1.19	0.53	silty sand to sandy silt	60-70	44-46	>50	UNDEFINED
5.75	18.86	121.38	1.14	0.94	0.54	sand to silty sand	80-90	46-48	>50	UNDEFINED
6.00	19.69	196.54	1.68	0.90	0.56	sand	>90	>48	>50	UNDEFINED
6.25	20.51	288.75	3.24	1.12	0.58	sand	>90	>48	>50	UNDEFINED
6.50	21.33	201.06	1.87	0.93	0.59	sand	>90	>48	>50	UNDEFINED
6.75	22.15	117.56	1.82	1.54	0.61	sand to silty sand	70-80	46-48	>50	UNDEFINED
7.00	22.97	170.67	1.44	0.84	0.62	sand	80-90	>48	>50	UNDEFINED
7.25	23.79	255.32	2.40	0.94	0.64	sand	>90	>48	>50	UNDEFINED
7.50	24.61	337.89	3.03	0.90	0.65	sand	>90	>48	>50	UNDEFINED
7.75	25.43	329.98	3.51	1.06	0.67	sand				

Blowcounts based on 63% hammer efficiency

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

Illinois Department of Transportation

District 8
Project Implementation
Materials

Structure Carrying FAI 70 Over TRRA
CSX and Conrail R.R.

CPT. Bridge Foundation
Boring Log
Sheet 1 of 1

Project:
Route: FAI 70
Section 82-5VBR-1
County: St. Clair Co.

CPT. Boring: Pier #5
Station: 5+219.3
O/S: 22.6 M Rt.

CPT Date: 11/15/96
Bored By: L. Ford
Check By: M. Lamie
Cone Used: 438TC

Total Unit Weight (Ave.): 16kN/m^3
Ground Surface: 128.84 M
Water table: 2 Meters

DEPTH		Qc (avg)	Fs (avg)	Rf (avg)	SIGV'	SOIL BEHAVIOR TYPE	Eq - Dr	PHI	SPT'	Su
meters	feet	kg/cm^2	kg/cm^2	%	kg/cm^2		%	deg.	N	kg/cm^2
0.25	0.82	11.57	0.12	1.04	0.02	sandy silt to clayey silt	UNDFN	UNDF	11	0.9
0.50	1.64	10.75	0.29	2.67	0.06	silty clay to clay	UNDFN	UNDF	10	0.8
0.75	2.46	11.00	0.42	3.81	0.10	clay	UNDFN	UNDF	10	0.8
1.00	3.28	7.83	0.61	8.00	0.14	clay	UNDFN	UNDF	7	UNDEFINED
1.25	4.10	8.28	0.62	8.00	0.18	clay	UNDFN	UNDF	8	UNDEFINED
1.50	4.92	8.70	0.69	7.98	0.22	clay	UNDFN	UNDF	8	UNDEFINED
1.75	5.74	8.88	0.71	8.00	0.26	clay	UNDFN	UNDF	9	UNDEFINED
2.00	6.56	9.50	0.76	8.00	0.30	clay	UNDFN	UNDF	8	UNDEFINED
2.25	7.38	8.38	0.67	8.00	0.33	clay	UNDFN	UNDF	9	UNDEFINED
2.50	8.20	9.00	0.72	8.00	0.34	clay	UNDFN	UNDF	10	0.8
2.75	9.02	10.94	0.84	7.66	0.36	clay	UNDFN	UNDF	11	0.8
3.00	9.84	11.43	0.71	6.18	0.37	clay	UNDFN	UNDF	12	0.9
3.25	10.66	12.72	0.72	5.62	0.39	clay	UNDFN	UNDF	6	0.4
3.50	11.48	6.43	0.38	5.97	0.41	clay	UNDFN	UNDF	10	0.8
3.75	12.30	10.68	0.40	3.73	0.42	clay	UNDFN	UNDF	10	0.8
4.00	13.12	10.66	0.32	3.04	0.44	silty clay to clay	UNDFN	UNDF	28	2.3
4.25	13.94	29.65	0.42	1.43	0.45	sandy silt to clayey silt	UNDFN	UNDF	28	2.3
4.50	14.76	44.76	0.45	1.01	0.47	silty sand to sandy silt	50-60	42-44	42	UNDEFINED
4.75	15.58	46.49	0.43	0.92	0.48	silty sand to sandy silt	50-60	42-44	44	UNDEFINED
5.00	16.40	34.27	0.29	0.86	0.50	silty sand to sandy silt	40-50	40-42	32	UNDEFINED
5.25	17.22	11.93	0.17	1.42	0.51	clayey silt to silty clay	UNDFN	UNDF	11	0.9
5.50	18.04	15.57	0.45	2.90	0.53	clayey silt to silty clay	UNDFN	UNDF	15	1.2
5.75	18.86	95.07	0.88	0.92	0.54	sand to silty sand	70-80	46-48	>50	UNDEFINED
6.00	19.69	76.72	1.18	1.54	0.56	silty sand to sandy silt	60-70	44-46	>50	UNDEFINED
6.25	20.51	90.87	0.77	0.95	0.58	sand to silty sand	70-80	46-48	>50	UNDEFINED
6.50	21.33	113.91	1.09	0.96	0.59	sand to silty sand	70-80	46-48	>50	UNDEFINED
6.75	22.15	172.71	1.81	1.05	0.61	sand	80-90	>48	>50	UNDEFINED
7.00	22.97	183.88	1.99	1.21	0.62	sand to silty sand	80-90	>48	>50	UNDEFINED
7.25	23.79	146.13	1.61	1.10	0.64	sand to silty sand	80-90	>48	>50	UNDEFINED
7.50	24.61	107.11	1.36	1.27	0.65	sand to silty sand	70-80	46-48	>50	UNDEFINED
7.75	25.43	65.03	1.01	1.56	0.67	silty sand to sandy silt	60-70	42-44	>50	UNDEFINED
8.00	26.25	23.55	0.53	2.25	0.68	sandy silt to clayey silt	UNDFN	UNDF	22	1.8
8.25	27.07	14.40	0.53	3.71	0.70	silty clay to clay	UNDFN	UNDF	13	1.0
8.50	27.89	77.09	0.63	0.81	0.71	sand to silty sand	60-70	42-44	>50	UNDEFINED
8.75	28.71	98.72	2.56	2.65	0.73	sandy silt to clayey silt	UNDFN	UNDF	>50	UNDEFINED

Blowcounts based on 63% hammer efficiency

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

Illinois Department of Transportation

District 8
Project Implementation
Materials

Structure Carrying FAI 70 Over TRRA
CSX and Conrail R.R.

CPT. Bridge Foundation
Boring Log
Sheet 1 of 1

Project:
Route: FAI 70
Section 82-5VBR-1
County: St. Clair Co.

CPT. Boring: Pier #6
Station: 5+212
O/S: 20.42 M Lt.

CPT Date: 10/23/96
Bored By: L. Ford
Check By: M. Lamie
Cone Used: 438TC

Total Unit Weight (Ave.): 16kN/m^3
Ground Surface: 127.35 M
Water table: 2 Meters

DEPTH		Qc (avg)	Fs (avg)	Rf (avg)	SIGV'	SOIL BEHAVIOR TYPE	Eq - Dr	PHI	SPT'	Su
meters	feet	kg/cm^2	kg/cm^2	%	kg/cm^2		%	deg.	N	kg/cm^2
0.25	0.82	10.14	0.38	3.71	0.02	clay	UNDFN	UNDF	8	UNDEFINED
0.50	1.64	8.00	0.64	8.00	0.06	clay	UNDFN	UNDF	8	UNDEFINED
0.75	2.46	8.09	0.64	8.00	0.10	clay	UNDFN	UNDF	8	UNDEFINED
1.00	3.28	9.25	0.74	8.00	0.14	clay	UNDFN	UNDF	11	0.9
1.25	4.10	11.26	0.87	7.71	0.18	clay	UNDFN	UNDF	16	UNDEFINED
1.50	4.92	10.25	0.82	8.00	0.22	clay	UNDFN	UNDF	11	0.8
1.75	5.74	11.22	0.81	7.20	0.26	clay	UNDFN	UNDF	10	0.8
2.00	6.56	10.52	0.70	6.65	0.30	clay	UNDFN	UNDF	8	0.6
2.25	7.38	8.60	0.46	8.91	0.33	clay	UNDFN	UNDF	8	0.6
2.50	8.20	8.38	0.46	5.44	0.34	clay	UNDFN	UNDF	10	0.8
2.75	9.02	10.46	0.17	1.61	0.36	clayey silt to silty clay	UNDFN	UNDF	8	0.6
3.00	9.84	8.82	0.11	1.27	0.37	clayey silt to silty clay	UNDFN	UNDF	5	0.4
3.25	10.66	5.94	0.14	2.38	0.39	silty clay to clay	UNDFN	UNDF	15	1.2
3.50	11.48	16.60	0.42	2.72	0.41	clayey silt to silty clay	UNDFN	UNDF	15	1.2
3.75	12.30	64.00	0.65	1.01	0.42	silty sand to sandy silt	60-70	44-46	>50	UNDEFINED
4.00	13.12	25.12	0.41	1.64	0.44	sandy silt to clayey silt	UNDFN	UNDF	24	2.0
4.25	13.94	103.32	0.91	0.88	0.45	sand to silty sand	70-80	46-48	>50	UNDEFINED
4.50	14.76	140.60	1.22	0.87	0.47	sand	80-90	>48	>50	UNDEFINED
4.75	15.58	142.72	1.23	0.86	0.48	sand	80-90	>48	>50	UNDEFINED
5.00	16.40	153.56	1.38	0.90	0.50	sand	80-90	>48	>50	UNDEFINED
5.25	17.22	89.16	0.80	0.90	0.51	sand to silty sand	70-80	46-48	>50	UNDEFINED
5.50	18.04	49.16	0.52	1.06	0.53	silty sand to sandy silt	50-60	42-44	>50	UNDEFINED
5.75	18.86	54.28	0.43	0.80	0.54	silty sand to sandy silt	50-60	42-44	>50	UNDEFINED
6.00	19.69	33.68	0.62	1.83	0.56	sandy silt to clayey silt	UNDFN	UNDF	32	2.6
6.25	20.51	14.04	0.35	2.49	0.58	clayey silt to silty clay	UNDFN	UNDF	13	1.0
6.50	21.33	83.94	0.96	1.15	0.59	sand to silty sand	60-70	44-46	>50	UNDEFINED
6.75	22.15	135.86	1.32	0.97	0.61	sand to silty sand	80-90	46-48	>50	UNDEFINED
7.00	22.97	130.28	1.15	0.89	0.62	sand to silty sand	80-90	46-48	>50	UNDEFINED
7.25	23.79	116.28	1.03	0.89	0.64	sand to silty sand	80-90	46-48	>50	UNDEFINED
7.50	24.61	140.56	1.11	0.79	0.65	sand	80-90	46-48	>50	UNDEFINED

Blowcounts based on 63% hammer efficiency

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

Illinois Department of Transportation

District 8
Project Implementation
Materials

Structure Carrying FAI 70 Over TRRA
CSX and Conrail R.R.

CPT. Bridge Foundation
Boring Log
Sheet 1 of 1

Project:
Route: FAI 70
Section 82-5VBR-1
County: St. Clair Co.

CPT. Boring: Pier #8 West
Station: 5+294
O/S: 17.66 M Rt.

CPT Date: 11/12/96
Bored By: L. Ford
Check By: M. Lamie
Cone Used: 438TC

Total Unit Weight (Ave.): 16kN/m^3
Ground Surface: 125.73 M
Water table: 2 Meters

DEPTH		Qc (avg)	Fs (avg)	Rf (avg)	SIGV'	SOIL BEHAVIOR TYPE	Eq - Dr	PHI	SPT'	Su
meters	feet	kg/cm^2	kg/cm^2	%	kg/cm^2		%	deg.	N	kg/cm^2
0.25	0.82	10.32	0.07	0.69	0.02	sandy silt to clayey silt	UNDFN	UNDF	10	0.8
0.50	1.64	9.66	0.16	1.64	0.06	clayey silt to silty clay	UNDFN	UNDF	9	0.7
0.75	2.46	11.24	0.34	3.01	0.10	silty clay to clay	UNDFN	UNDF	9	0.8
1.00	3.28	10.10	0.37	3.62	0.14	clay	UNDFN	UNDF	7	0.5
1.25	4.10	7.32	0.26	3.56	0.18	clay	UNDFN	UNDF	10	0.9
1.50	4.92	11.54	0.20	1.74	0.22	clayey silt to silty clay	UNDFN	UNDF	5	0.4
1.75	5.74	6.16	0.15	2.41	0.26	silty clay to clay	UNDFN	UNDF	8	0.6
2.00	6.56	8.46	0.52	6.13	0.30	clay	UNDFN	UNDF	8	0.7
2.25	7.38	9.56	0.48	5.01	0.33	clay	UNDFN	UNDF	8	0.6
2.50	8.20	8.90	0.45	5.02	0.34	clay	UNDFN	UNDF	8	0.7
2.75	9.02	9.26	0.41	4.43	0.36	clay	UNDFN	UNDF	8	0.6
3.00	9.84	8.62	0.40	4.58	0.37	clay	UNDFN	UNDF	9	0.7
3.25	10.66	9.62	0.56	5.69	0.39	clay	UNDFN	UNDF	10	0.8
3.50	11.48	10.88	0.63	5.75	0.41	clay	UNDFN	UNDF	9	0.5
3.75	12.30	8.94	0.45	6.48	0.42	clay	UNDFN	UNDF	5	0.3
4.00	13.12	5.48	0.28	5.14	0.44	clay	UNDFN	UNDF	5	0.4
4.25	13.94	5.88	0.24	4.09	0.46	clay	UNDFN	UNDF	7	0.5
4.50	14.76	7.54	0.19	2.57	0.47	silty clay to clay	70-80	46-48	>50	UNDEFINED
4.75	15.58	91.86	0.72	0.78	0.48	sand to silty sand	80-90	44-46	>50	UNDEFINED
5.00	16.40	77.12	0.92	1.19	0.50	sand to silty sand	UNDFN	UNDF	31	2.7
5.25	17.22	34.80	0.67	1.94	0.51	sandy silt to clayey silt	50-60	42-44	43	UNDEFINED
5.50	18.04	47.90	0.67	1.40	0.53	silty sand to sandy silt	UNDFN	UNDF	30	2.7
5.75	18.86	34.14	0.64	1.88	0.54	sandy silt to clayey silt	UNDFN	UNDF	25	2.2
6.00	19.69	28.32	0.48	1.69	0.56	sandy silt to clayey silt	UNDFN	UNDF	21	1.8
6.25	20.51	23.28	0.44	1.88	0.58	sandy silt to clayey silt	UNDFN	UNDF	20	1.7
6.50	21.33	22.28	0.41	1.86	0.59	sandy silt to clayey silt	UNDFN	UNDF	34	UNDEFINED
6.75	22.15	38.60	0.30	0.78	0.61	silty sand to sandy silt	40-50	40-42	39	UNDEFINED
7.00	22.97	43.66	0.36	0.86	0.62	silty sand to sandy silt	40-50	40-42	>50	UNDEFINED
7.25	23.79	67.36	0.58	0.87	0.64	sand to silty sand	60-70	42-44	>50	UNDEFINED
7.50	24.61	124.62	0.96	0.77	0.65	sand to silty sand	70-80	46-48	>50	UNDEFINED
7.75	25.43	169.32	1.12	0.66	0.67	sand	80-90	>48	>50	UNDEFINED
8.00	26.25	123.86	1.02	0.83	0.68	sand to silty sand	70-80	46-48	>50	UNDEFINED
8.25	27.07	39.42	0.71	1.81	0.70	sandy silt to clayey silt	UNDFN	UNDF	35	3.1
8.50	27.89	59.34	0.51	0.86	0.71	sand to silty sand	50-60	42-44	>50	UNDEFINED
8.75	28.71	176.18	1.42	0.81	0.73	sand	80-90	>48	>50	UNDEFINED
9.00	29.53	132.54	1.44	1.09	0.75	sand to silty sand	70-80	46-48	>50	UNDEFINED

Blowcounts based on 63% hammer efficiency

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

Blowcounts based on 63% hammer efficiency

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS
F.A.I. ROUTE 70
SECTION 82-5VBR-I
ST. CLAIR COUNTY

01/29/97
Wed Jan 29 10:14:19 1997
/usr/project/md06796/blogs01.dgn LV=1-63

FAI ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
70	82-5VBR-I	ST CLAIR	27	20
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

Illinois Department of Transportation

District 8
Project Implementation
Materials

Structure Carrying FAI 70 Over TRRA
CSX and Conrail R.R.

CPT. Bridge Foundation
Boring Log
Sheet 1 of 2

CPT Date: 10/23/96
Bored By: L. Ford
Check By: M. Lamie
Cone Used: 436TC

Project:
Route: FAI 70
Section 82-5VBR-1
County: St. Clair Co.

CPT. Boring: Pier #8 East
Station: 5+306.56
O/S: 18.9 M Rt.

Total Unit Weight (Ave.): 16kN/m^3
Ground Surface: 126.83 M
Water table: 2 Meters

DEPTH meters	DEPTH feet	Qc (avg) kg/cm^2	Fs (avg) kg/cm^2	Rf (avg) %	SIGV' kg/cm^2	SOIL BEHAVIOR TYPE	Eq - Dr %	PHI deg.	SPT* N	Su kg/cm^2
0.25	0.82	8.22	0.41	6.57	0.02	clay	UNDFN	UNDF	6	0.5
0.50	1.64	12.13	0.36	3.00	0.08	silty clay to clay	UNDFN	UNDF	11	0.9
0.75	2.46	40.05	0.69	1.73	0.10	sandy silt to clayey silt	UNDFN	UNDF	38	3.2
1.00	3.28	7.69	0.36	4.69	0.14	clay	UNDFN	UNDF	7	0.6
1.25	4.10	4.96	0.21	4.36	0.18	clay	UNDFN	UNDF	5	0.3
1.50	4.92	11.49	0.27	2.36	0.22	clayey silt to silty clay	UNDFN	UNDF	11	0.9
1.75	5.74	11.60	0.24	2.03	0.26	clayey silt to silty clay	UNDFN	UNDF	11	0.9
2.00	6.56	14.42	0.25	1.73	0.30	clayey silt to silty clay	UNDFN	UNDF	14	1.1
2.25	7.38	6.77	0.08	1.26	0.33	sensitive fine grained	UNDFN	UNDF	6	0.5
2.50	8.20	7.22	0.10	1.35	0.34	clayey silt to silty clay	UNDFN	UNDF	7	0.5
2.75	9.02	8.33	0.17	2.03	0.36	silty clay to clay	UNDFN	UNDF	8	0.6
3.00	9.84	4.80	0.21	4.30	0.37	clay	UNDFN	UNDF	5	0.3
3.25	10.66	4.65	0.26	5.63	0.39	clay	UNDFN	UNDF	4	0.3
3.50	11.48	5.37	0.28	5.26	0.41	clay	UNDFN	UNDF	5	0.3
3.75	12.30	16.69	0.43	2.56	0.42	clayey silt to silty clay	UNDFN	UNDF	18	1.3
4.00	13.12	3.61	0.28	7.82	0.44	organic material	UNDFN	UNDF	3	0.2
4.25	13.94	5.37	0.33	6.21	0.45	clay	UNDFN	UNDF	5	0.3
4.50	14.76	4.84	0.32	6.64	0.47	clay	UNDFN	UNDF	5	0.3
4.75	15.58	8.28	0.27	3.29	0.48	clay	UNDFN	UNDF	8	0.6
5.00	16.40	5.56	0.16	2.82	0.50	clay	UNDFN	UNDF	5	0.3
5.25	17.22	4.86	0.22	4.60	0.51	clay	UNDFN	UNDF	5	0.3
5.50	18.04	5.84	0.14	2.45	0.53	silty clay to clay	UNDFN	UNDF	5	0.4
5.75	18.86	6.65	0.17	2.54	0.54	silty clay to clay	UNDFN	UNDF	6	0.4
6.00	19.69	19.20	0.16	0.83	0.56	sandy silt to clayey silt	UNDFN	UNDF	18	1.4
6.25	20.51	7.69	0.23	2.99	0.58	silty clay to clay	UNDFN	UNDF	7	0.5
6.50	21.33	2.25	0.19	8.00	0.59	organic material	UNDFN	UNDF	2	UNDEFINED
6.75	22.15	14.95	0.26	1.71	0.61	clayey silt to silty clay	UNDFN	UNDF	14	1.1
7.00	22.97	14.46	0.40	2.74	0.62	clayey silt to silty clay	UNDFN	UNDF	14	1.0
7.25	23.79	5.10	0.17	3.28	0.64	clay	UNDFN	UNDF	5	0.3
7.50	24.61	5.33	0.32	6.05	0.65	clay	UNDFN	UNDF	5	0.3
7.75	25.43	5.22	0.20	3.89	0.67	clay	UNDFN	UNDF	5	0.3
8.00	26.25	3.57	0.20	5.48	0.68	clay	UNDFN	UNDF	3	0.1
8.25	27.07	12.32	0.30	2.47	0.70	clayey silt to silty clay	UNDFN	UNDF	11	0.8
8.50	27.89	6.97	0.19	2.78	0.71	silty clay to clay	UNDFN	UNDF	7	0.4
8.75	28.71	18.98	0.41	2.18	0.73	clayey silt to silty clay	UNDFN	UNDF	18	1.4
9.00	29.53	26.21	0.43	1.66	0.75	sandy silt to clayey silt	UNDFN	UNDF	25	2.0
9.25	30.35	19.66	0.20	1.01	0.76	sandy silt to clayey silt	UNDFN	UNDF	19	1.4
9.50	31.17	29.43	0.09	0.30	0.78	silty sand to sandy silt	<40	36-38	28	UNDEFINED

Blowcounts based on 63% hammer efficiency

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

Illinois Department of Transportation

District 8
Project Implementation
Materials

Structure Carrying FAI 70 Over TRRA
CSX and Conrail R.R.

CPT. Bridge Foundation
Boring Log
Sheet 2 of 2

CPT Date: 10/23/96
Bored By: L. Ford
Check By: M. Lamie
Cone Used: 436TC

Project:
Route: FAI 70
Section 82-5VBR-1
County: St. Clair Co.

CPT. Boring: Pier #8 East
Station: 5+306.56
O/S: 18.9 M Rt.

Total Unit Weight (Ave.): 16kN/m^3
Ground Surface: 126.83 M
Water table: 2 Meters

DEPTH meters	DEPTH feet	Qc (avg) kg/cm^2	Fs (avg) kg/cm^2	Rf (avg) %	SIGV' kg/cm^2	SOIL BEHAVIOR TYPE	Eq - Dr %	PHI deg.	SPT* N	Su kg/cm^2
9.75	31.99	33.89	0.49	1.43	0.79	sandy silt to clayey silt	UNDFN	UNDF	32	2.8
10.00	32.81	52.69	0.42	0.80	0.81	silty sand to sandy silt	50-60	40-42	>50	UNDEFINED
10.25	33.63	31.43	0.36	1.15	0.82	silty sand to sandy silt	<40	36-38	30	UNDEFINED
10.50	34.45	28.73	0.38	1.31	0.84	sandy silt to clayey silt	UNDFN	UNDF	27	2.2
10.75	35.27	34.85	0.32	0.90	0.85	silty sand to sandy silt	<40	36-38	33	UNDEFINED
11.00	36.09	24.78	0.48	1.93	0.87	sandy silt to clayey silt	UNDFN	UNDF	23	1.8
11.25	36.91	10.94	0.30	2.74	0.88	silty clay to clay	UNDFN	UNDF	10	0.7
11.50	37.73	6.90	0.16	2.29	0.90	silty clay to clay	UNDFN	UNDF	6	0.4
11.75	38.55	6.05	0.27	4.43	0.92	clay	UNDFN	UNDF	6	0.3
12.00	39.37	7.50	0.25	3.38	0.93	clay	UNDFN	UNDF	7	0.4
12.25	40.19	8.68	0.28	3.22	0.95	clay	UNDFN	UNDF	8	0.5
12.50	41.01	7.71	0.23	3.02	0.96	clay	UNDFN	UNDF	7	0.4
12.75	41.83	10.70	0.26	2.59	0.98	silty clay to clay	NDFND	NDFD	10	0.7
13.00	42.65	11.98	0.37	3.10	0.99	silty clay to clay	NDFND	NDFD	11	0.8
13.25	43.47	143.02	0.93	0.65	1.01	sand	70-80	44-46	>50	UNDEFINED
13.50	44.29	220.34	1.37	0.62	1.02	sand	80-90	46-48	>50	UNDEFINED
13.75	45.11	192.31	1.45	0.76	1.04	sand	80-90	46-48	>50	UNDEFINED
14.00	45.93	213.49	1.43	0.67	1.06	sand	80-90	46-48	>50	UNDEFINED
14.25	46.75	152.84	1.25	0.82	1.07	sand	70-80	44-46	>50	UNDEFINED
14.50	47.57	207.33	1.06	0.51	1.09	sand	80-90	46-48	>50	UNDEFINED

Blowcounts based on 63% hammer efficiency

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

Illinois Department of Transportation

District 8
Project Implementation
Materials

Structure Carrying FAI 70 Over TRRA
CSX and Conrail R.R.

CPT. Bridge Foundation
Boring Log
Sheet 1 of 2

CPT Date: 11/12/96
Bored By: L. Ford
Check By: M. Lamie
Cone Used: 436TC

Project:
Route: FAI 70
Section 82-5VBR-1
County: St. Clair Co.

CPT. Boring: Pier #9
Station: 5+322
O/S: 19.2 M Lt.

Total Unit Weight (Ave.): 16kN/m^3
Ground Surface: 126.31 M
Water table: 2 Meters

DEPTH meters	DEPTH feet	Qc (avg) kg/cm^2	Fs (avg) kg/cm^2	Rf (avg) %	SIGV' kg/cm^2	SOIL BEHAVIOR TYPE	Eq - Dr %	PHI deg	SPT* N	Su kg/cm^2
0.25	0.82	38.20	0.21	0.56	0.02	silty sand to sandy silt	>90	>48	36	UNDEFINED
0.50	1.64	28.04	0.14	0.55	0.05	silty sand to sandy silt	60-70	>48	25	UNDEFINED
0.75	2.46	12.38	0.07	0.53	0.10	sandy silt to clayey silt	UNDFN	UNDF	12	1.0
1.00	3.28	4.96	0.15	2.94	0.14	clay	UNDFN	UNDF	5	0.3
1.25	4.10	10.56	0.23	2.16	0.18	clayey silt to silty clay	UNDFN	UNDF	10	0.8
1.50	4.92	20.34	0.15	0.75	0.22	sandy silt to clayey silt	UNDFN	UNDF	19	1.6
1.75	5.74	16.56	0.24	1.43	0.26	sandy silt to clayey silt	UNDFN	UNDF	16	1.3
2.00	6.56	12.00	0.23	1.95	0.30	clayey silt to silty clay	UNDFN	UNDF	11	0.9
2.25	7.38	8.00	0.10	1.27	0.33	clayey silt to silty clay	UNDFN	UNDF	8	0.6
2.50	8.20	9.12	0.08	0.90	0.34	clayey silt to silty clay	UNDFN	UNDF	9	0.7
2.75	9.02	8.66	0.09	1.02	0.36	clayey silt to silty clay	UNDFN	UNDF	8	0.6
3.00	9.84	8.48	0.09	1.06	0.37	clayey silt to silty clay	UNDFN	UNDF	8	0.6
3.25	10.66	27.52	0.54	1.98	0.39	sandy silt to clayey silt	UNDFN	UNDF	26	2.2
3.50	11.48	39.10	1.08	2.75	0.41	sandy silt to clayey silt	UNDFN	UNDF	37	3.1
3.75	12.30	6.94	0.46	6.60	0.42	clay	UNDFN	UNDF	7	0.5
4.00	13.12	5.50	0.36	6.91	0.44	clay	UNDFN	UNDF	5	0.3
4.25	13.94	6.10	0.41	6.69	0.45	clay	UNDFN	UNDF	6	0.4
4.50	14.76	5.26	0.34	6.43	0.47	clay	UNDFN	UNDF	5	0.3
4.75	15.58	4.92	0.25	5.00	0.48	clay	UNDFN	UNDF	4	0.3
5.00	16.40	4.52	0.27	6.02	0.50	clay	UNDFN	UNDF	5	0.3
5.25	17.22	5.38	0.24	4.39	0.51	clay	UNDFN	UNDF	4	0.3
5.50	18.04	4.88	0.26	5.56	0.53	clay	UNDFN	UNDF	4	0.2
5.75	18.86	4.50	0.29	6.44	0.54	clay	UNDFN	UNDF	5	0.3
6.00	19.69	5.02	0.31	6.18	0.56	clay	UNDFN	UNDF	5	0.3
6.25	20.51	5.28	0.28	5.34	0.58	clay	UNDFN	UNDF	4	0.2
6.50	21.33	3.90	0.19	4.92	0.59	clay	UNDFN	UNDF	5	0.3
6.75	22.15	5.66	0.27	4.75	0.61	clay	UNDFN	UNDF	5	0.3
7.00	22.97	5.16	0.20	3.86	0.62	clay	UNDFN	UNDF	7	0.5
7.25	23.79	7.28	0.15	2.01	0.64	silty clay to clay	UNDFN	UNDF	4	0.2
7.50	24.61	4.68	0.12	2.65	0.65	clay	UNDFN	UNDF	8	0.5
7.75	25.43	8.58	0.25	2.94	0.67	silty clay to clay	UNDFN	UNDF	6	0.4
8.00	26.25	5.58	0.16	2.75	0.68	silty clay to clay	UNDFN	UNDF	5	0.3
8.25	27.07	5.74	0.10	1.67	0.70	silty clay to clay	UNDFN	UNDF	6	0.4
8.50	27.89	6.34	0.18	2.81	0.71	clay	UNDFN	UNDF	6	0.4
8.75	28.71	5.68	0.14	2.51	0.73	silty clay to clay	UNDFN	UNDF	5	UNDEFINED
9.00	29.53	5.76	0.14	2.36	0.75	silty clay to clay	UNDFN	UNDF	5	0.3
9.25	30.35	7.16	0.18	2.51	0.76	silty clay to clay	UNDFN	UNDF	7	0.4
9.50	31.17	71.72	0.54	0.76	0.78	sand to silty sand	60-70	42-44	>50	UNDEFINED

Blowcounts based on 63% hammer efficiency

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

Illinois Department of Transportation

District 8
Project Implementation
Materials

Structure Carrying FAI 70 Over TRRA
CSX and Conrail R.R.

CPT. Bridge Foundation
Boring Log
Sheet 2 of 2

CPT Date: 11/12/96
Bored By: L. Ford
Check By: M. Lamie
Cone Used: 436TC

Project:
Route: FAI 70
Section 82-5VBR-1
County: St. Clair Co.

CPT. Boring: Pier #9
Station: 5+322
O/S: 19.2 M Lt.

Total Unit Weight (Ave.): 16kN/m^3
Ground Surface: 126.31 M
Water table: 2 Meters

DEPTH meters	DEPTH feet	Qc (avg) kg/cm^2	Fs (avg) kg/cm^2	Rf (avg) %	SIGV' kg/cm^2	SOIL BEHAVIOR TYPE	Eq - Dr %	PHI deg.	SPT* N	Su kg/cm^2
9.75	31.99	38.68	0.69	1.79	0.79	sandy silt to clayey silt	UNDFN	UNDF	37	3.0
10.00	32.81	11.90	0.22	1.85	0.81	clayey silt to silty clay	UNDFN	UNDF	11	0.8
10.25	33.63	8.08	0.13	1.56	0.82	clayey silt to silty clay	UNDFN	UNDF	8	0.5
10.50	34.45	28.50	0.40	1.52	0.84	sandy silt to clayey silt	UNDFN	UNDF	25	2.0
10.75	35.27	25.40	0.27	1.08	0.85	sandy silt to clayey silt	UNDFN	UNDF	24	1.9
11.00	36.09	13.66	0.28	2.02	0.87	clayey silt to silty clay	UNDFN	UNDF	13	0.9
11.25	36.91	14.14	0.34	2.40	0.88	clayey silt to silty clay	UNDFN	UNDF	14	1.0
11.50	37.73	13.89	0.42	3.06	0.90	silty clay to clay	UNDFN	UNDF	13	0.9
11.75	38.55	11.28	0.29	2.61	0.92	silty clay to clay	UNDFN	UNDF	11	0.7
12.00	39.37	12.46	0.27	2.20	0.93	clayey silt to silty clay	UNDFN	UNDF	12	0.8
12.25	40.19	4.72	0.26	3.84	0.95	clay	UNDFN	UNDF	6	0.3
12.50	41.01	13.76	0.45	3.30	0.96	silty clay to clay	UNDFN	UNDF	13	0.9
12.75	41.83	8.00	0.25	3.13	0.98	clay	UNDFN	UNDF	8	0.4
13.00	42.65	8.02	0.19	2.39	0.99	silty clay to clay	UNDFN	UNDF	7	0.4
13.25	43.47	7.52	0.18	2.34	1.01	silty clay to clay	UNDFN	UNDF	7	0.4
13.50	44.29	7.50	0.17	2.32	1.02	silty clay to clay	UNDFN	UNDF	7	0.4

Blowcounts based on 63% hammer efficiency

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS
F.A.I. ROUTE 70
SECTION 82-5VBR-I
ST. CLAIR COUNTY

01/29/97
Wed Jan 29 10:14:19 1997
/usr/project/md06796/blogs01.dgn LV=1-63

FAI ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
70	82-5VBR-1	ST CLAIR	27	21
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

Illinois Department of Transportation

CPT. Bridge Foundation
Boring Log
Sheet 1 of 2

District 8
Project Implementation
Materials

Structure Carrying FAI 70 Over TRRA
CSX and Conrail R.R.

CPT Date: 10/28/96
Bored By: L. Ford
Check By: M. Lamie
Cone Used: 438TC

Project:
Route: FAI 70
Section 82-5VBR-1
County: St. Clair Co.

CPT. Boring: Pier #10
Station: 5+357.41
O/S: 23.77 M Rt.

Total Unit Weight (Ave.): 16kN/m^3
Ground Surface: 124.39 M
Water table: 2 Meters

DEPTH meters	DEPTH feet	Qc (avg) kg/cm^2	Fs (avg) kg/cm^2	Rf (avg) %	SIGV' kg/cm^2	SOIL BEHAVIOR TYPE	Eq - Dr %	PHI deg.	SPT' N	Su kg/cm^2
0.25	0.82	6.09	0.05	0.82	0.02	sensitive fine grained	UNDFN	UNDF	6	0.4
0.50	1.64	14.57	0.15	1.03	0.06	sandy silt to clayey silt	UNDFN	UNDF	14	1.1
0.75	2.46	4.91	0.30	6.16	0.10	clay	UNDFN	UNDF	5	0.3
1.00	3.28	8.54	0.25	2.97	0.14	silty clay to clay	UNDFN	UNDF	8	0.6
1.25	4.10	4.55	0.22	4.76	0.18	clay	UNDFN	UNDF	4	0.3
1.50	4.92	3.76	0.13	3.56	0.22	clay	UNDFN	UNDF	4	0.2
1.75	5.74	14.02	0.17	1.20	0.26	sandy silt to clayey silt	UNDFN	UNDF	13	1.1
2.00	6.56	7.47	0.17	2.31	0.30	silty clay to clay	UNDFN	UNDF	7	0.5
2.25	7.38	7.43	0.18	2.39	0.33	silty clay to clay	UNDFN	UNDF	7	0.5
2.50	8.20	5.54	0.15	2.70	0.34	clay	UNDFN	UNDF	5	0.4
2.75	9.02	5.16	0.13	2.49	0.36	clay	UNDFN	UNDF	5	0.3
3.00	9.84	10.11	0.20	2.00	0.37	clayey silt to silty clay	UNDFN	UNDF	10	0.7
3.25	10.66	10.07	0.21	2.05	0.39	clayey silt to silty clay	UNDFN	UNDF	9	0.7
3.50	11.48	4.63	0.14	3.05	0.41	clay	UNDFN	UNDF	4	0.3
3.75	12.30	2.63	0.18	6.71	0.42	organic material	UNDFN	UNDF	2	0.1
4.00	13.12	8.11	0.25	3.04	0.44	silty clay to clay	UNDFN	UNDF	8	0.6
4.25	13.94	6.05	0.27	3.34	0.45	clay	UNDFN	UNDF	8	0.6
4.50	14.76	2.46	0.16	6.60	0.47	organic material	UNDFN	UNDF	2	0.1
4.75	15.58	7.07	0.27	3.86	0.48	clay	UNDFN	UNDF	7	0.5
5.00	16.40	3.02	0.19	6.41	0.50	clay	UNDFN	UNDF	3	0.1
5.25	17.22	2.04	0.15	7.28	0.51	organic material	UNDFN	UNDF	2	9.8
5.50	18.04	3.33	0.20	5.90	0.53	clay	UNDFN	UNDF	3	0.2
5.75	18.86	3.72	0.19	5.21	0.54	clay	UNDFN	UNDF	4	0.2
6.00	19.69	2.38	0.14	5.74	0.56	organic material	UNDFN	UNDF	2	0.1
6.25	20.51	2.44	0.14	5.80	0.58	organic material	UNDFN	UNDF	2	0.1
6.50	21.33	2.44	0.13	5.53	0.59	clay	UNDFN	UNDF	2	0.1
6.75	22.15	1.72	0.12	7.14	0.61	organic material	UNDFN	UNDF	2	5.2
7.00	22.97	2.21	0.13	5.81	0.62	organic material	UNDFN	UNDF	2	8.9
7.25	23.79	2.53	0.14	5.54	0.64	clay	UNDFN	UNDF	2	0.1
7.50	24.61	2.63	0.15	5.63	0.65	clay	UNDFN	UNDF	2	0.1
7.75	25.43	2.74	0.15	5.32	0.67	clay	UNDFN	UNDF	3	0.1
8.00	26.25	3.82	0.17	4.33	0.68	clay	UNDFN	UNDF	4	0.2
8.25	27.07	3.29	0.15	4.48	0.70	clay	UNDFN	UNDF	3	0.1
8.50	27.89	2.95	0.15	5.08	0.71	clay	UNDFN	UNDF	3	0.1
8.75	28.71	3.46	0.17	4.88	0.73	clay	UNDFN	UNDF	3	0.1
9.00	29.53	3.82	0.16	4.25	0.75	clay	UNDFN	UNDF	4	0.1
9.25	30.35	4.46	0.17	3.79	0.76	clay	UNDFN	UNDF	4	0.2
9.50	31.17	22.68	0.28	1.22	0.78	sandy silt to clayey silt	UNDFN	UNDF	21	1.7

Blowcounts based on 63% hammer efficiency

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

Illinois Department of Transportation

CPT. Bridge Foundation
Boring Log
Sheet 2 of 2

District 8
Project Implementation
Materials

Structure Carrying FAI 70 Over TRRA
CSX and Conrail R.R.

CPT Date: 10/28/96
Bored By: L. Ford
Check By: M. Lamie
Cone Used: 438TC

Project:
Route: FAI 70
Section 82-5VBR-1
County: St. Clair Co.

CPT. Boring: Pier #10
Station: 5+357.41
O/S: 23.77 M Rt.

Total Unit Weight (Ave.): 16kN/m^3
Ground Surface: 124.39 M
Water table: 2 Meters

DEPTH meters	DEPTH feet	Qc (avg) kg/cm^2	Fs (avg) kg/cm^2	Rf (avg) %	SIGV' kg/cm^2	SOIL BEHAVIOR TYPE	Eq - Dr %	PHI deg.	SPT' N	Su kg/cm^2
9.75	31.99	110.14	0.53	0.48	0.79	sand	70-80	44-46	>50	UNDEFINED
10.00	32.81	224.82	1.16	0.52	0.81	sand	>90	>48	>50	UNDEFINED
10.25	33.63	207.96	0.80	0.38	0.82	sand	>90	>48	>50	UNDEFINED
10.50	34.45	145.84	0.51	0.35	0.84	sand	80-90	46-48	>50	UNDEFINED
10.75	35.27	82.06	0.74	0.91	0.85	sand to silty sand	60-70	42-44	>50	UNDEFINED
11.00	36.09	184.40	1.62	0.88	0.87	sand	80-90	46-48	>50	UNDEFINED
11.25	36.91	207.28	0.85	0.41	0.88	sand	80-90	>48	>50	UNDEFINED
11.50	37.73	231.90	1.10	0.47	0.90	sand	>90	>48	>50	UNDEFINED
11.75	38.55	306.34	-1.37	0.45	0.92	gravelly sand to sand	>90	>48	>50	UNDEFINED
12.00	39.37	222.48	0.58	0.26	0.93	gravelly sand to sand	>90	>48	>50	UNDEFINED
12.25	40.19	137.24	0.46	0.35	0.95	sand	70-80	44-46	>50	UNDEFINED
12.50	41.01	161.22	0.30	0.19	0.96	sand	80-90	46-48	>50	UNDEFINED
12.75	41.83	102.80	0.38	0.37	0.96	sand	60-70	42-44	>50	UNDEFINED
13.00	42.65	176.76	0.57	0.32	0.99	sand	80-90	46-48	>50	UNDEFINED
13.25	43.47	285.36	1.40	0.49	1.01	gravelly sand to sand	>90	>48	>50	UNDEFINED
13.50	44.29	342.94	1.39	0.40	1.02	gravelly sand to sand	>90	>48	>50	UNDEFINED
13.75	45.11	346.68	1.19	0.34	1.04	gravelly sand to sand	>90	>48	>50	UNDEFINED

Blowcounts based on 63% hammer efficiency

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

Illinois Department of Transportation

CPT. Bridge Foundation
Boring Log
Sheet 1 of 2

District 8
Project Implementation
Materials

Structure Carrying FAI 70 Over TRRA
CSX and Conrail R.R.

CPT Date: 10/29/96
Bored By: L. Ford
Check By: M. Lamie
Cone Used: 438TC

Project:
Route: FAI 70
Section 82-5VBR-1
County: St. Clair Co.

CPT. Boring: Pier #11
Station: 5+381.79
O/S: 19.2 M Rt.

Total Unit Weight (Ave.): 16kN/m^3
Ground Surface: 124.18 M
Water table: 2 Meters

DEPTH meters	DEPTH feet	Qc (avg) kg/cm^2	Fs (avg) kg/cm^2	Rf (avg) %	SIGV' kg/cm^2	SOIL BEHAVIOR TYPE	Eq - Dr %	PHI deg.	SPT' N	Su kg/cm^2
0.25	0.82	2.13	0.18	8.00	0.02	organic material	UNDFN	UNDF	2	UNDEFINED
0.50	1.64	5.22	0.37	7.12	0.06	clay	UNDFN	UNDF	5	0.4
0.75	2.46	3.70	0.26	7.09	0.10	organic material	UNDFN	UNDF	4	0.2
1.00	3.28	4.80	0.30	6.19	0.14	clay	UNDFN	UNDF	5	0.3
1.25	4.10	5.16	0.33	6.33	0.18	clay	UNDFN	UNDF	5	0.4
1.50	4.92	5.14	0.31	6.10	0.22	clay	UNDFN	UNDF	5	0.4
1.75	5.74	6.56	0.32	4.81	0.26	clay	UNDFN	UNDF	6	0.5
2.00	6.56	4.10	0.19	4.67	0.30	clay	UNDFN	UNDF	4	0.3
2.25	7.38	14.36	0.18	1.24	0.33	sandy silt to clayey silt	UNDFN	UNDF	14	1.1
2.50	8.20	5.96	0.22	3.62	0.34	clay	UNDFN	UNDF	6	0.4
2.75	9.02	8.06	0.23	3.86	0.36	clay	UNDFN	UNDF	6	0.4
3.00	9.84	31.48	0.21	0.66	0.37	silty sand to sandy silt	40-50	42-44	30	UNDEFINED
3.25	10.66	30.48	0.23	0.75	0.39	silty sand to sandy silt	40-50	40-42	29	UNDEFINED
3.50	11.48	16.18	0.27	1.69	0.41	sandy silt to clayey silt	UNDFN	UNDF	15	1.2
3.75	12.30	17.34	0.27	1.55	0.42	sandy silt to clayey silt	UNDFN	UNDF	16	1.3
4.00	13.12	5.76	0.20	3.40	0.44	clay	UNDFN	UNDF	5	0.4
4.25	13.94	3.84	0.13	3.55	0.45	clay	UNDFN	UNDF	3	0.2
4.50	14.76	6.62	0.19	2.94	0.47	clay	UNDFN	UNDF	6	0.4
4.75	15.58	5.94	0.18	3.01	0.48	clay	UNDFN	UNDF	6	0.4
5.00	16.40	4.26	0.15	3.47	0.50	clay	UNDFN	UNDF	4	0.2
5.25	17.22	2.68	0.10	3.56	0.51	clay	UNDFN	UNDF	2	0.1
5.50	18.04	4.06	0.15	3.65	0.53	clay	UNDFN	UNDF	4	0.2
5.75	18.86	3.84	0.11	2.74	0.54	clay	UNDFN	UNDF	4	0.2
6.00	19.69	4.14	0.10	2.45	0.56	clay	UNDFN	UNDF	4	0.2
6.25	20.51	4.10	0.09	2.18	0.58	clay	UNDFN	UNDF	4	0.2
6.50	21.33	4.50	0.09	1.96	0.59	silty clay to clay	UNDFN	UNDF	4	0.2
6.75	22.15	4.02	0.09	2.30	0.61	clay	UNDFN	UNDF	4	0.2
7.00	22.97	4.16	0.10	2.49	0.62	clay	UNDFN	UNDF	4	0.2
7.25	23.79	4.30	0.11	2.53	0.64	clay	UNDFN	UNDF	5	0.3
7.50	24.61	4.94	0.09	1.76	0.65	silty clay to clay	UNDFN	UNDF	5	0.3
7.75	25.43	4.96	0.12	2.46	0.67	clay	UNDFN	UNDF	5	0.3
8.00	26.25	5.96	0.12	1.96	0.68	silty clay to clay	UNDFN	UNDF	6	0.3
8.25	27.07	5.18	0.10	1.86	0.70	silty clay to clay	UNDFN	UNDF	5	0.3
8.50	27.89	5.08	0.11	2.19	0.71	silty clay to clay	UNDFN	UNDF	5	0.3
8.75	28.71	5.94	0.11	1.94	0.73	silty clay to clay	UNDFN	UNDF	6	0.3
9.00	29.53	5.36	0.11	2.08	0.75	silty clay to clay	UNDFN	UNDF	5	0.3
9.25	30.35	83.88	0.42	0.50	0.76	sand to silty sand	60-70	42-44	>50	UNDEFINED
9.50	31.17	217.86	1.02	0.47	0.78	sand	>90	>48	>50	UNDEFINED

Blowcounts based on 63% hammer efficiency

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

Illinois Department of Transportation

CPT. Bridge Foundation
Boring Log
Sheet 2 of 2

District 8
Project Implementation
Materials

Structure Carrying FAI 70 Over TRRA
CSX and Conrail R.R.

CPT Date: 10/29/96
Bored By: L. Ford
Check By: M. Lamie
Cone Used: 438TC

Project:
Route: FAI 70
Section 82-5VBR-1
County: St. Clair Co.

CPT. Boring: Pier #11
Station: 5+381.79
O/S: 19.2 M Rt.

Total Unit Weight (Ave.): 16kN/m^3
Ground Surface: 124.18 M
Water table: 2 Meters

DEPTH meters	DEPTH feet	Qc (avg) kg/cm^2	Fs (avg) kg/cm^2	Rf (avg) %	SIGV' kg/cm^2	SOIL BEHAVIOR TYPE	Eq - Dr %	PHI deg.	SPT' N	Su kg/cm^2
9.75	31.99	318.12	1.39	0.44	0.79	gravelly sand to sand	>90	>48	>50	UNDEFINED
10.00	32.81	315.90	1.45	0.46	0.81	gravelly sand to sand	>90	>48	>50	UNDEFINED
10.25	33.63	310.10	0.98	0.32	0.82	gravelly sand to sand	>90	>48	>50	UNDEFINED
10.50	34.45	213.00	0.94	0.44	0.84	sand	>90	>48	>50	UNDEFINED
10.75	35.27	199.50	1.03	0.52	0.85	sand	80-90	>48	>50	UNDEFINED
11.00	36.09	202.14	1.05	0.52	0.87	sand	80-90	>48	>50	UNDEFINED
11.25	36.91	219.82	1.00	0.45	0.88	sand	>90	>48	>50	UNDEFINED
11.50	37.73	319.14	1.80	0.56	0.90	gravelly sand to sand	>90	>48	>50	UNDEFINED
11.75	38.55	227.18	1.11	0.49	0.92	sand	>90	>48	>50	UNDEFINED
12.00	39.37	144.64	0.68	0.61	0.93	sand	70-80	44-46	>50	UNDEFINED
12.25	40.19	182.06	1.00	0.55	0.95	sand	80-90	46-48	>50	UNDEFINED
12.50	41.01	153.36	0.44	0.29	0.96	sand	70-80	44-46	>50	UNDEFINED
12.75	41.83	195.98	0.60	0.30	0.98	sand	80-90	46-48	>50	UNDEFINED
13.00	42.65	164.30	0.45	0.28	0.99	sand	80-90	46-48	>50	UNDEFINED

Blowcounts based on 63% hammer efficiency

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

01/29/97
Wed Jan 29 10:14:19 1997
/usr/project/md06796/blcgs01.dgn LV:I-63

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS
F.A.I. ROUTE 70
SECTION 82-5VBR-I
ST. CLAIR COUNTY

FAI ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
70	82-5VBR-I	ST CLAIR	27	22
STA.	TO STA.			
FED. ROAD DIST. NO.		STATE	FED. AID PROJECT	

Illinois Department of Transportation

District 8
Project Implementation
Materials

Structure Carrying FAI 70 Over TRRA
CSX and Conrail R.R.

CPT. Bridge Foundation
Boring Log
Sheet 1 of 2

Project:
Route: FAI 70
Section 82-5VBR-1
County: St. Clair Co.

CPT Date: 10/28/96
Bored By: L. Ford
Check By: M. Lamie
Cone Used: 438TC

CPT. Boring: Pier #12
Station: 5+412.27
O/S: 25.0 M Lt.

Total Unit Weight (Ave.): 16kN/m^3
Ground Surface: 124.24 M
Water table: 2 Meters

DEPTH meters	DEPTH feet	Qc (avg) kg/cm^2	Fs (avg) kg/cm^2	Rf (avg) %	SIGV' kg/cm^2	SOIL BEHAVIOR TYPE	Eq - Dr %	PHI deg.	SPT* N	Su kg/cm^2
0.25	0.82	5.35	0.18	3.37	0.02	clay	UNDFN	UNDF	5	0.4
0.50	1.64	3.42	0.10	2.92	0.06	clay	UNDFN	UNDF	3	0.2
0.75	2.46	1.50	0.12	8.00	0.10	organic material	UNDFN	UNDF	1	UNDEFINED
1.00	3.28	1.95	0.10	5.14	0.14	organic material	UNDFN	UNDF	2	0.1
1.25	4.10	1.25	0.10	8.00	0.18	organic material	UNDFN	UNDF	1	UNDEFINED
1.50	4.92	1.25	0.10	8.00	0.22	organic material	UNDFN	UNDF	1	UNDEFINED
1.75	5.74	2.65	0.18	6.80	0.26	organic material	UNDFN	UNDF	3	0.1
2.00	6.56	14.23	0.30	2.11	0.30	clayey silt to silty clay	UNDFN	UNDF	13	1.1
2.25	7.38	8.86	0.18	2.03	0.33	clayey silt to silty clay	UNDFN	UNDF	8	0.6
2.50	8.20	14.33	0.18	1.26	0.34	sandy silt to clayey silt	UNDFN	UNDF	14	1.1
2.75	9.02	2.97	0.14	4.72	0.36	clay	UNDFN	UNDF	3	0.2
3.00	9.84	1.40	0.04	2.86	0.37	clay	UNDFN	UNDF	1	0.0
3.25	10.66	23.32	0.20	0.86	0.39	sandy silt to clayey silt	UNDFN	UNDF	22	1.8
3.50	11.48	25.53	0.22	0.86	0.41	silty sand to sandy silt	40-50	40-42	24	UNDEFINED
3.75	12.30	8.64	0.28	3.24	0.42	clay	UNDFN	UNDF	8	0.6
4.00	13.12	4.91	0.16	3.26	0.44	clay	UNDFN	UNDF	5	0.3
4.25	13.94	11.23	0.16	1.43	0.48	clayey silt to silty clay	UNDFN	UNDF	11	0.8
4.50	14.76	3.27	0.16	5.51	0.47	clay	UNDFN	UNDF	3	0.2
4.75	15.58	2.46	0.10	4.07	0.48	clay	UNDFN	UNDF	2	0.1
5.00	16.40	6.82	0.20	2.93	0.50	clay	UNDFN	UNDF	6	0.4
5.25	17.22	9.28	0.34	3.66	0.51	clay	UNDFN	UNDF	9	0.6
5.50	18.04	6.75	0.20	2.96	0.53	clay	UNDFN	UNDF	6	0.4
5.75	18.86	4.63	0.16	3.46	0.54	clay	UNDFN	UNDF	4	0.3
6.00	19.68	8.52	0.34	5.21	0.56	clay	UNDFN	UNDF	6	0.4
6.25	20.51	22.81	0.38	1.67	0.58	sandy silt to clayey silt	UNDFN	UNDF	22	1.7
6.50	21.33	8.07	0.36	4.46	0.59	clay	UNDFN	UNDF	8	0.5
6.75	22.15	17.16	0.34	1.96	0.61	clayey silt to silty clay	UNDFN	UNDF	16	1.3
7.00	22.97	4.84	0.22	4.55	0.62	clay	UNDFN	UNDF	5	0.3
7.25	23.79	2.89	0.14	4.84	0.64	clay	UNDFN	UNDF	3	0.1
7.50	24.61	3.91	0.16	4.09	0.65	clay	UNDFN	UNDF	4	0.2
7.75	25.43	3.55	0.12	3.38	0.67	clay	UNDFN	UNDF	3	0.1
8.00	26.25	3.69	0.14	3.80	0.68	clay	UNDFN	UNDF	3	0.1
8.25	27.07	3.50	0.16	4.58	0.70	clay	UNDFN	UNDF	3	0.1
8.50	27.89	4.93	0.20	4.05	0.71	clay	UNDFN	UNDF	5	0.2
8.75	28.71	4.78	0.20	4.16	0.73	clay	UNDFN	UNDF	5	0.2
9.00	29.53	4.04	0.14	3.46	0.75	clay	UNDFN	UNDF	4	0.2
9.25	30.35	3.99	0.14	3.51	0.76	clay	UNDFN	UNDF	4	0.1
9.50	31.17	3.84	0.18	4.69	0.78	clay	UNDFN	UNDF	4	0.1

Blowcounts based on 63% hammer efficiency

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

Illinois Department of Transportation

District 8
Project Implementation
Materials

Structure Carrying FAI 70 Over TRRA
CSX and Conrail R.R.

CPT. Bridge Foundation
Boring Log
Sheet 2 of 2

Project:
Route: FAI 70
Section 82-5VBR-1
County: St. Clair Co.

CPT Date: 10/28/96
Bored By: L. Ford
Check By: M. Lamie
Cone Used: 438TC

CPT. Boring: Pier #12
Station: 5+412.27
O/S: 25.0 M Lt.

Total Unit Weight (Ave.): 16kN/m^3
Ground Surface: 124.24 M
Water table: 2 Meters

DEPTH meters	DEPTH feet	Qc (avg) kg/cm^2	Fs (avg) kg/cm^2	Rf (avg) %	SIGV' kg/cm^2	SOIL BEHAVIOR TYPE	Eq - Dr %	PHI deg.	SPT* N	Su kg/cm^2
9.75	31.99	4.42	0.20	4.52	0.79	clay	UNDFN	UNDF	4	0.2
10.00	32.81	4.38	0.20	4.56	0.81	clay	UNDFN	UNDF	4	0.2
10.25	33.63	6.24	0.22	3.53	0.82	clay	UNDFN	UNDF	6	0.3
10.50	34.45	135.02	0.48	0.36	0.84	sand	70-80	46-48	>50	UNDEFINED
10.75	35.27	280.80	1.20	0.43	0.85	gravelly sand to sand	>90	>48	>50	UNDEFINED
11.00	36.09	317.10	0.90	0.28	0.87	gravelly sand to sand	>90	>48	>50	UNDEFINED
11.25	36.91	269.59	0.80	0.30	0.88	gravelly sand to sand	>90	>48	>50	UNDEFINED
11.50	37.73	140.71	0.70	0.50	0.90	sand	70-80	44-46	>50	UNDEFINED
11.75	38.55	57.56	0.64	1.11	0.92	silty sand to sandy silt	50-60	40-42	>50	UNDEFINED
12.00	39.37	117.26	0.84	0.55	0.93	sand	70-80	44-46	>50	UNDEFINED
12.25	40.19	177.13	0.78	0.44	0.95	sand	80-90	46-48	>50	UNDEFINED
12.50	41.01	212.51	1.14	0.54	0.96	sand	80-90	46-48	>50	UNDEFINED
12.75	41.83	225.65	1.24	0.55	0.96	sand	>90	>48	>50	UNDEFINED
13.00	42.65	203.63	1.14	0.56	0.99	sand	80-90	46-48	>50	UNDEFINED
13.25	43.47	287.83	1.52	0.57	1.01	sand	>90	>48	>50	UNDEFINED
13.50	44.29	264.24	2.52	0.89	1.02	sand	>90	>48	>50	UNDEFINED
13.75	45.11	162.56	0.40	0.25	1.04	sand	80-90	44-46	>50	UNDEFINED
14.00	45.93	101.78	0.30	0.29	1.06	sand	60-70	42-44	>50	UNDEFINED
14.25	46.75	111.87	0.36	0.32	1.07	sand	60-70	42-44	>50	UNDEFINED
14.50	47.57	235.49	0.56	0.24	1.09	gravelly sand to sand	>90	46-48	>50	UNDEFINED
14.75	48.39	211.47	0.90	0.43	1.10	sand	80-90	46-48	>50	UNDEFINED

Blowcounts based on 63% hammer efficiency

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

Illinois Department of Transportation

District 8
Project Implementation
Materials

Structure Carrying FAI 70 Over TRRA
CSX and Conrail R.R.

CPT. Bridge Foundation
Boring Log
Sheet 1 of 2

Project:
Route: FAI 70
Section 82-5VBR-1
County: St. Clair Co.

CPT Date: 10/25/96
Bored By: L. Ford
Check By: M. Lamie
Cone Used: 438TC

CPT. Boring: Pier #13
Station: 5+438.44
O/S: 18.59 M Rt.

Total Unit Weight (Ave.): 16kN/m^3
Ground Surface: 123.29 M
Water table: 2 Meters

DEPTH meters	DEPTH feet	Qc (avg) kg/cm^2	Fs (avg) kg/cm^2	Rf (avg) %	SIGV' kg/cm^2	SOIL BEHAVIOR TYPE	Eq - Dr %	PHI deg.	SPT* N	Su kg/cm^2
0.25	0.82	15.52	0.33	2.16	0.02	clayey silt to silty clay	UNDFN	UNDF	14	1.2
0.50	1.64	5.25	0.45	8.00	0.06	clay	UNDFN	UNDF	5	UNDEFINED
0.75	2.46	3.98	0.28	7.14	0.10	clay	UNDFN	UNDF	4	0.3
1.00	3.28	3.50	0.29	8.00	0.14	organic material	UNDFN	UNDF	3	UNDEFINED
1.25	4.10	2.38	0.21	8.00	0.18	organic material	UNDFN	UNDF	2	UNDEFINED
1.50	4.92	2.63	0.18	8.00	0.22	organic material	UNDFN	UNDF	2	UNDEFINED
1.75	5.74	3.50	0.30	8.00	0.26	organic material	UNDFN	UNDF	3	UNDEFINED
2.00	6.56	3.13	0.27	8.00	0.30	organic material	UNDFN	UNDF	3	UNDEFINED
2.25	7.38	14.52	0.22	1.48	0.33	sandy silt to clayey silt	UNDFN	UNDF	13	1.1
2.50	8.20	6.30	0.20	3.23	0.34	clay	UNDFN	UNDF	6	0.4
2.75	9.02	2.62	0.10	3.80	0.36	clay	UNDFN	UNDF	3	0.1
3.00	9.84	2.39	0.19	7.83	0.37	organic material	UNDFN	UNDF	2	UNDEFINED
3.25	10.66	3.88	0.32	8.00	0.39	organic material	UNDFN	UNDF	4	UNDEFINED
3.50	11.48	3.75	0.32	8.00	0.41	organic material	UNDFN	UNDF	4	UNDEFINED
3.75	12.30	4.50	0.38	8.00	0.42	organic material	UNDFN	UNDF	4	UNDEFINED
4.00	13.12	11.38	0.28	2.46	0.44	clayey silt to silty clay	UNDFN	UNDF	10	0.8
4.25	13.94	5.42	0.27	4.97	0.45	clay	UNDFN	UNDF	5	0.3
4.50	14.76	5.02	0.30	6.07	0.47	clay	UNDFN	UNDF	4	0.3
4.75	15.58	8.92	0.20	2.27	0.48	silty clay to clay	UNDFN	UNDF	8	0.6
5.00	16.40	1.86	0.16	8.00	0.50	silty clay to clay	UNDFN	UNDF	2	UNDEFINED
5.25	17.22	1.86	0.14	7.57	0.51	organic material	UNDFN	UNDF	2	8.3
5.50	18.04	5.38	0.25	4.63	0.53	clay	UNDFN	UNDF	5	0.3
5.75	18.86	2.42	0.17	6.98	0.54	organic material	UNDFN	UNDF	2	0.1
6.00	19.69	4.72	0.22	4.56	0.56	clay	UNDFN	UNDF	4	0.3
6.25	20.51	2.32	0.18	7.72	0.58	organic material	UNDFN	UNDF	2	0.1
6.50	21.33	1.75	0.15	8.00	0.59	organic material	UNDFN	UNDF	2	UNDEFINED
6.75	22.15	2.96	0.15	5.13	0.61	clay	UNDFN	UNDF	3	0.1
7.00	22.97	3.12	0.18	5.73	0.62	clay	UNDFN	UNDF	3	0.1
7.25	23.79	2.68	0.15	5.52	0.64	clay	UNDFN	UNDF	2	0.1
7.50	24.61	2.38	0.14	5.97	0.65	organic material	UNDFN	UNDF	2	9.6
7.75	25.43	2.50	0.16	6.46	0.67	organic material	UNDFN	UNDF	2	0.1
8.00	26.25	3.02	0.16	5.25	0.68	clay	UNDFN	UNDF	3	0.1
8.25	27.07	3.62	0.17	4.62	0.70	clay	UNDFN	UNDF	3	0.1
8.50	27.89	3.14	0.15	4.66	0.71	clay	UNDFN	UNDF	3	0.1
8.75	28.71	3.64	0.16	4.40	0.73	clay	UNDFN	UNDF	3	0.1
9.00	29.53	4.24	0.17	4.00	0.75	clay	UNDFN	UNDF	4	0.2
9.25	30.35	3.88	0.17	4.30	0.76	clay	UNDFN	UNDF	4	0.1
9.50	31.17	4.50	0.21	4.76	0.78	clay	UNDFN	UNDF	4	0.2

Blowcounts based on 63% hammer efficiency

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

Illinois Department of Transportation

District 8
Project Implementation
Materials

Structure Carrying FAI 70 Over TRRA
CSX and Conrail R.R.

CPT. Bridge Foundation
Boring Log
Sheet 2 of 2

Project:
Route: FAI 70
Section 82-5VBR-1
County: St. Clair Co.

CPT Date: 10/25/96
Bored By: L. Ford
Check By: M. Lamie
Cone Used: 438TC

CPT. Boring: Pier #13
Station: 5+438.44
O/S: 18.59 M Rt.

Total Unit Weight (Ave.): 16kN/m^3
Ground Surface: 123.29 M
Water table: 2 Meters

DEPTH meters	DEPTH feet	Qc (avg) kg/cm^2	Fs (avg) kg/cm^2	Rf (avg) %	SIGV' kg/cm^2	SOIL BEHAVIOR TYPE	Eq - Dr %	PHI deg.	SPT* N	Su kg/cm^2
9.75	31.99	92.40	0.33	0.36	0.79	sand	60-70	44-46	>50	UNDEFINED
10.00	32.81	157.54	0.60	0.38	0.81	sand	80-90	46-48	>50	UNDEFINED
10.25	33.63	147.58	0.75	0.51	0.82	sand	80-90	46-48	>50	UNDEFINED
10.50	34.45	286.34	0.66	0.25	0.84	gravelly sand to sand	>90	>48	>50	UNDEFINED
10.75	35.27	325.06	1.20	0.37	0.85	gravelly sand to sand	>90	>48	>50	UNDEFINED
11.00	36.09	240.44	1.04	0.43	0.87	sand	>90	>48	>50	UNDEFINED
11.25	36.91	98.16	0.75	0.77	0.88	sand to silty sand	60-70	42-44	>50	UNDEFINED
11.50	37.73	65.92	0.44	0.67	0.90	sand to silty sand	50-60	40-42	>50	UNDEFINED
11.75	38.55	109.18	0.58	0.53	0.92	sand	70-80	44-46	>50	UNDEFINED
12.00	39.37	226.28	1.05	0.46	0.93	sand	>90	>48	>50	UNDEFINED
12.25	40.19	245.78	1.25	0.51	0.95	sand	>90	>48	>50	UNDEFINED
12.50	41.01	254.98	1.25	0.49	0.96	sand	>90	>48	>50	UNDEFINED
12.75	41.83	254.36	1.17	0.46	0.98	sand	>90	>48	>50	UNDEFINED
13.00	42.65	273.46	1.35	0.49	0.99	sand	>90	>48	>50	UNDEFINED
13.25	43.47	223.92	0.95	0.42	1.01	sand	80-90	46-48	>50	UNDEFINED
13.50	44.29	151.38	0.78	0.51	1.02	sand	70-80	44-46	>50	UNDEFINED
13.75	45.11	180.20	0.76	0.42	1.04	sand	80-90	46-48	>50	UNDEFINED
14.00	45.93	276.46	0.79	0.29	1.06	gravelly sand to sand	>90	>48	>50	UNDEFINED
14.25	46.75	365.46	1.64	0.45	1.07	gravelly sand to sand	>90	>48	>50	UNDEFINED
14.50	47.57	211.20	2.70	1.28	1.09	sand	80-90	46-48	>50	UNDEFINED
14.75	48.39	202.14	0.83	0.46	1.10	sand	80-90	46-48	>50	UNDEFINED
15.00	49.21	296.74	1.16	0.39	1.12	gravelly sand to sand	>90	>48	>50	UNDEFINED
15.25	50.03	417.38	3.10	0.74	1.13	gravelly sand to sand	>90	>48	>50	UNDEFINED

Blowcounts based on 63% hammer efficiency

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS
F.A.I. ROUTE 70
SECTION 82-5VBR-I
ST. CLAIR COUNTY

01/29/97
Wed Jan 29 10:14:19 1997
/usr/project/md06796/b ogs01.dgn LV=1-63

FAI ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
70	82-5VBR-1	ST CLAIR	27	23
STA.	TO STA.			
FED. ROAD INST. NO.	ILLINOIS	FED. AID PROJECT		

Illinois Department of Transportation

District 8
Project Implementation
Materials

CPT. Bridge Foundation
Boring Log
Sheet 1 of 2

Structure Carrying FAI 70 Over TRRA
CSX and Conrail R.R.

CPT Date: 10/25/96
Bored By: L. Ford
Check By: M. Lamie
Cone Used: 438TC

Project:
Route: FAI 70
Section 82-5VBR-1
County: St. Clair Co.

CPT. Boring: Pier #15
Station: 5+491.52
O/S: 19.2 M Rt.

Total Unit Weight (Ave.): 16kN/m^3
Ground Surface: 121.98 M
Water table: 2 Meters

DEPTH		Qc (avg)	Fs (avg)	Rf (avg)	SIGV'	SOIL BEHAVIOR TYPE	Eq - Dr	PHI	SPT*	Su
meters	feet	kg/cm^2	kg/cm^2	%	kg/cm^2		%	deg.	N	kg/cm^2
0.25	0.82	28.48	0.70	2.46	0.02	sandy silt to clayey silt	UNDFN	UNDF	25	2.3
0.50	1.64	6.62	0.51	7.89	0.06	clay	UNDFN	UNDF	6	0.5
0.75	2.46	6.25	0.53	8.00	0.10	organic material	UNDFN	UNDF	6	UNDEFINED
1.00	3.28	4.88	0.41	8.00	0.14	organic material	UNDFN	UNDF	5	UNDEFINED
1.25	4.10	2.25	0.24	8.00	0.18	organic material	UNDFN	UNDF	2	UNDEFINED
1.50	4.92	3.63	0.30	8.00	0.22	organic material	UNDFN	UNDF	3	UNDEFINED
1.75	5.74	2.88	0.24	8.00	0.26	organic material	UNDFN	UNDF	3	UNDEFINED
2.00	6.56	1.75	0.15	8.00	0.30	organic material	UNDFN	UNDF	2	UNDEFINED
2.25	7.38	1.13	0.09	8.00	0.33	organic material	UNDFN	UNDF	1	UNDEFINED
2.50	8.20	3.74	0.16	4.30	-0.34	clay	UNDFN	UNDF	3	0.2
2.75	9.02	6.14	0.21	3.43	0.36	clay	UNDFN	UNDF	5	0.4
3.00	9.84	4.00	0.12	3.06	0.37	clay	UNDFN	UNDF	4	0.2
3.25	10.66	3.22	0.10	3.07	0.39	clay	UNDFN	UNDF	3	0.2
3.50	11.48	4.76	0.23	4.81	0.41	clay	UNDFN	UNDF	4	0.3
3.75	12.30	6.44	0.23	3.52	0.42	clay	UNDFN	UNDF	6	0.4
4.00	13.12	7.68	0.28	3.70	0.44	clay	UNDFN	UNDF	7	0.5
4.25	13.94	3.86	0.24	6.32	0.45	clay	UNDFN	UNDF	3	0.2
4.50	14.76	12.98	0.41	3.17	0.47	silty clay to clay	UNDFN	UNDF	12	1.0
4.75	15.58	1.38	0.16	8.00	0.48	organic material	UNDFN	UNDF	2	UNDEFINED
5.00	16.40	1.74	0.11	6.38	0.50	organic material	UNDFN	UNDF	2	7.7
5.25	17.22	2.16	0.14	6.43	0.51	organic material	UNDFN	UNDF	2	0.1
5.50	18.04	3.46	0.16	4.74	0.53	clay	UNDFN	UNDF	3	0.2
5.75	18.86	1.88	0.15	8.00	0.54	organic material	UNDFN	UNDF	1	UNDEFINED
6.00	19.69	7.84	0.30	3.80	0.56	clay	UNDFN	UNDF	7	0.5
6.25	20.51	3.00	0.19	6.20	0.58	clay	UNDFN	UNDF	3	0.1
6.50	21.33	3.84	0.20	5.29	0.59	clay	UNDFN	UNDF	3	0.2
6.75	22.15	2.94	0.19	6.63	0.61	organic material	UNDFN	UNDF	3	0.1
7.00	22.97	3.08	0.17	5.49	0.62	clay	UNDFN	UNDF	3	0.1
7.25	23.79	2.64	0.16	6.21	0.64	organic material	UNDFN	UNDF	2	0.1
7.50	24.61	3.06	0.16	5.11	0.65	clay	UNDFN	UNDF	3	0.1
7.75	25.43	2.68	0.18	6.57	0.67	organic material	UNDFN	UNDF	2	0.1
8.00	26.25	3.28	0.20	5.96	0.68	clay	UNDFN	UNDF	3	0.1
8.25	27.07	3.36	0.17	5.12	0.70	clay	UNDFN	UNDF	3	0.1
8.50	27.89	3.48	0.17	4.90	0.71	clay	UNDFN	UNDF	3	0.1
8.75	28.71	3.92	0.18	4.67	0.73	clay	UNDFN	UNDF	4	0.2
9.00	29.53	3.26	0.18	5.55	0.75	clay	UNDFN	UNDF	3	0.1
9.25	30.35	5.10	0.22	4.35	0.76	clay	UNDFN	UNDF	5	0.2
9.50	31.17	95.56	0.44	0.46	0.78	sand to silty sand	60-70	44-46	>50	UNDEFINED

Blowcounts based on 63% hammer efficiency

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

Illinois Department of Transportation

District 8
Project Implementation
Materials

CPT. Bridge Foundation
Boring Log
Sheet 2 of 2

Structure Carrying FAI 70 Over TRRA
CSX and Conrail R.R.

CPT Date: 10/25/96
Bored By: L. Ford
Check By: M. Lamie
Cone Used: 438TC

Project:
Route: FAI 70
Section 82-5VBR-1
County: St. Clair Co.

CPT. Boring: Pier #15
Station: 5+491.52
O/S: 19.2 M Rt.

Total Unit Weight (Ave.): 16kN/m^3
Ground Surface: 121.98 M
Water table: 2 Meters

DEPTH		Qc (avg)	Fs (avg)	Rf (avg)	SIGV'	SOIL BEHAVIOR TYPE	Eq - Dr	PHI	SPT*	Su
meters	feet	kg/cm^2	kg/cm^2	%	kg/cm^2		%	deg.	N	kg/cm^2
9.75	31.99	133.64	1.12	0.84	0.79	sand to silty sand	70-80	46-48	>50	UNDEFINED
10.00	32.81	297.50	0.79	0.26	0.81	gravelly sand to sand	>90	>48	>50	UNDEFINED
10.25	33.63	282.22	1.10	0.39	0.82	gravelly sand to sand	>90	>48	>50	UNDEFINED
10.50	34.45	279.98	0.91	0.32	0.84	gravelly sand to sand	>90	>48	>50	UNDEFINED
10.75	35.27	243.52	1.61	0.66	0.85	sand	>90	>48	>50	UNDEFINED
11.00	36.09	299.74	1.34	0.45	0.87	gravelly sand to sand	>90	>48	>50	UNDEFINED
11.25	36.91	155.12	0.56	0.36	0.88	sand	80-90	46-48	>50	UNDEFINED
11.50	37.73	83.70	0.55	0.66	0.90	sand to silty sand	60-70	42-44	>50	UNDEFINED
11.75	38.55	87.30	0.65	0.75	0.92	sand to silty sand	60-70	42-44	>50	UNDEFINED
12.00	39.37	101.50	0.63	0.62	0.93	sand to silty sand	60-70	42-44	>50	UNDEFINED
12.25	40.19	179.14	0.94	0.53	0.95	sand	80-90	46-48	>50	UNDEFINED
12.50	41.01	302.64	1.57	0.52	0.96	gravelly sand to sand	>90	>48	>50	UNDEFINED
12.75	41.83	262.96	1.24	0.47	0.98	sand	>90	>48	>50	UNDEFINED
13.00	42.65	200.54	0.82	0.41	0.99	sand	80-90	46-48	>50	UNDEFINED
13.25	43.47	174.76	0.81	0.46	1.01	sand	80-90	46-48	>50	UNDEFINED
13.50	44.29	181.80	0.69	0.38	1.02	sand	80-90	46-48	>50	UNDEFINED
13.75	45.11	149.68	0.48	0.32	1.04	sand	70-80	44-46	>50	UNDEFINED
14.00	45.93	147.56	0.56	0.38	1.06	sand	70-80	44-46	>50	UNDEFINED
14.25	46.75	172.12	0.70	0.41	1.07	sand	80-90	46-48	>50	UNDEFINED
14.50	47.57	156.00	0.73	0.47	1.09	sand	70-80	44-46	>50	UNDEFINED
14.75	48.39	190.48	0.82	0.43	1.10	sand	80-90	46-48	>50	UNDEFINED
15.00	49.21	215.76	0.91	0.42	1.12	sand	80-90	46-48	>50	UNDEFINED
15.25	50.03	193.04	0.86	0.45	1.13	sand	80-90	46-48	>50	UNDEFINED
15.50	50.85	206.58	0.85	0.41	1.15	sand	80-90	46-48	>50	UNDEFINED
15.75	51.67	255.42	1.08	0.42	1.16	sand	>90	46-48	>50	UNDEFINED
16.00	52.49	262.64	1.10	0.42	1.18	gravelly sand to sand	>90	46-48	>50	UNDEFINED

Blowcounts based on 63% hammer efficiency

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

Illinois Department of Transportation

District 8
Project Implementation
Materials

CPT. Bridge Foundation
Boring Log
Sheet 1 of 2

Structure Carrying FAI 70 Over TRRA
CSX and Conrail R.R.

CPT Date: 10/24/96
Bored By: L. Ford
Check By: M. Lamie
Cone Used: 438TC

Project:
Route: FAI 70
Section 82-5VBR-1
County: St. Clair Co.

CPT. Boring: Pier #16
Station: 5+515.86
O/S: 20.73 M Lt.

Total Unit Weight (Ave.): 16kN/m^3
Ground Surface: 123.38 M
Water table: 2 Meters

DEPTH		Qc (avg)	Fs (avg)	Rf (avg)	SIGV'	SOIL BEHAVIOR TYPE	Eq - Dr	PHI	SPT*	Su
meters	feet	kg/cm^2	kg/cm^2	%	kg/cm^2		%	deg.	N	kg/cm^2
0.25	0.82	4.94	0.11	2.31	0.02	clay	UNDFN	UNDF	4	0.4
0.50	1.64	16.62	0.11	0.65	0.06	sandy silt to clayey silt	UNDFN	UNDF	15	1.3
0.75	2.46	15.46	0.16	1.02	0.10	sandy silt to clayey silt	UNDFN	UNDF	14	1.2
1.00	3.28	7.26	0.19	2.62	0.14	silty clay to clay	UNDFN	UNDF	7	0.5
1.25	4.10	4.20	0.14	3.40	0.18	clay	UNDFN	UNDF	4	0.3
1.50	4.92	4.40	0.17	3.90	0.22	clay	UNDFN	UNDF	4	0.3
1.75	5.74	4.84	0.19	3.96	0.26	clay	UNDFN	UNDF	4	0.3
2.00	6.56	4.30	0.18	4.18	0.30	clay	UNDFN	UNDF	4	0.3
2.25	7.38	7.34	0.22	3.06	0.33	clay	UNDFN	UNDF	7	0.5
2.50	8.20	10.46	0.26	2.44	0.34	silty clay to clay	UNDFN	UNDF	9	0.8
2.75	9.02	7.46	0.25	3.30	0.36	clay	UNDFN	UNDF	7	0.5
3.00	9.84	50.06	0.38	0.77	0.37	silty sand to sandy silt	60-70	44-46	45	UNDEFINED
3.25	10.66	38.82	0.54	1.38	0.39	silty sand to sandy silt	50-60	42-44	35	UNDEFINED
3.50	11.48	3.74	0.10	2.75	0.41	clay	UNDFN	UNDF	3	0.2
3.75	12.30	2.64	0.08	3.02	0.42	clay	UNDFN	UNDF	2	0.1
4.00	13.12	3.58	0.10	2.80	0.44	clay	UNDFN	UNDF	3	0.2
4.25	13.94	9.02	0.23	2.56	0.45	silty clay to clay	UNDFN	UNDF	8	0.6
4.50	14.76	6.62	0.23	3.45	0.47	clay	UNDFN	UNDF	6	0.4
4.75	15.58	4.28	0.18	4.15	0.48	clay	UNDFN	UNDF	4	0.2
5.00	16.40	3.44	0.12	3.62	0.50	clay	UNDFN	UNDF	3	0.2
5.25	17.22	4.16	0.16	3.78	0.51	clay	UNDFN	UNDF	4	0.2
5.50	18.04	5.26	0.15	2.91	0.53	clay	UNDFN	UNDF	5	0.3
5.75	18.86	3.84	0.10	2.81	0.54	clay	UNDFN	UNDF	3	0.2
6.00	19.69	3.80	0.12	3.11	0.56	clay	UNDFN	UNDF	3	0.2
6.25	20.51	4.28	0.12	2.89	0.58	clay	UNDFN	UNDF	4	0.2
6.50	21.33	4.42	0.13	3.03	0.59	clay	UNDFN	UNDF	4	0.2
6.75	22.15	3.98	0.11	2.74	0.61	clay	UNDFN	UNDF	3	0.2
7.00	22.97	3.80	0.12	3.15	0.62	clay	UNDFN	UNDF	3	0.2
7.25	23.79	4.36	0.12	2.87	0.64	clay	UNDFN	UNDF	4	0.2
7.50	24.61	4.04	0.12	3.02	0.65	clay	UNDFN	UNDF	4	0.2
7.75	25.43	5.02	0.15	2.91	0.67	clay	UNDFN	UNDF	5	0.3
8.00	26.25	74.52	0.39	0.53	0.68	sand to silty sand	60-70	42-44	>50	UNDEFINED
8.25	27.07	110.42	0.53	0.48	0.70	sand	70-80	44-46	>50	UNDEFINED
8.50	27.89	184.84	0.76	0.41	0.71	sand	80-90	>48	>50	UNDEFINED
8.75	28.71	209.30	1.03	0.49	0.73	sand	>90	>48	>50	UNDEFINED
9.00	29.53	126.44	0.64	0.50	0.75	sand	70-80	46-48	>50	UNDEFINED
9.25	30.35	152.20	0.59	0.39	0.76	sand	80-90	46-48	>50	UNDEFINED
9.50	31.17	202.84	0.53	0.26	0.78	sand	>90	>48	>50	UNDEFINED

Blowcounts based on 63% hammer efficiency

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

Illinois Department of Transportation

District 8
Project Implementation
Materials

CPT. Bridge Foundation
Boring Log
Sheet 2 of 2

Structure Carrying FAI 70 Over TRRA
CSX and Conrail R.R.

CPT Date: 10/24/96
Bored By: L. Ford
Check By: M. Lamie
Cone Used: 438TC

Project:
Route: FAI 70
Section 82-5VBR-1
County: St. Clair Co.

CPT. Boring: Pier #16
Station: 5+515.86
O/S: 20.73 M Lt.

Total Unit Weight (Ave.): 16kN/m^3
Ground Surface: 123.38 M
Water table: 2 Meters

DEPTH		Qc (avg)	Fs (avg)	Rf (avg)	SIGV'	SOIL BEHAVIOR TYPE	Eq - Dr	PHI	SPT*	Su
meters	feet	kg/cm^2	kg/cm^2	%	kg/cm^2		%	deg.	N	kg/cm^2
9.75	31.99	307.74	1.41	0.46	0.79	gravelly sand to sand	>90	>48	>50	UNDEFINED
10.00	32.81	310.18	1.14	0.37	0.81	gravelly sand to sand	>90	>48	>50	UNDEFINED
10.25	33.63	256.52	1.08	0.41	0.82	gravelly sand to sand	>90	>48	>50	UNDEFINED
10.50	34.45	224.22	1.12	0.50	0.84	sand	>90	>48	>50	UNDEFINED
10.75	35.27	241.36	1.28	0.52	0.86	sand	>90	>48	>50	UNDEFINED
11.00	36.09	253.26	1.36	0.54	0.87	sand	>90	>48	>50	UNDEFINED
11.25	36.91	263.20	1.13	0.43	0.88	gravelly sand to sand	>90	>48	>50	UNDEFINED
11.50	37.73	186.22	0.56	0.30	0.90	sand	80-90	46-48	>50	UNDEFINED
11.75	38.55	253.20	0.78	0.31	0.92	gravelly sand to sand	>90	>48	>50	UNDEFINED
12.00	39.37	279.46	0.72	0.26	0.93	gravelly sand to sand	>90	>48	>50	UNDEFINED
12.25	40.19	373.64	1.92	0.51	0.95	gravelly sand to sand	>90	>48	>50	UNDEFINED
12.50	41.01	357.88	2.21	0.62	0.96	gravelly sand to sand	>90	>48	>50	UNDEFINED

Blowcounts based on 63% hammer efficiency

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS
F.A.I. ROUTE 70
SECTION 82-5VBR-I
ST. CLAIR COUNTY

01/29/97
Wed Jan 29 10:14:19 1997
/usr/project/md06796/boqs01.dgn LV=1-63

FAI ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
70	82-5VBR-1	ST CLAIR	27	24
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

Illinois Department of Transportation

District 8
Project Implementation
Materials

Structure Carrying FAI 70 Over TRRA
CSX and Conrail R.R.

CPT. Bridge Foundation
Boring Log
Sheet 1 of 2

CPT Date: 10/24/96
Bored By: L. Ford
Check By: M. Lamie
Cone Used: 438TC

Project:
Route: FAI 70
Section 82-5VBR-1
County: St. Clair Co.

CPT. Boring: Pier #17
Station: 5+540.3
O/S: 18.9 M Rt.

Total Unit Weight (Ave.): 16kN/m^3
Ground Surface: 123.50 M
Water table: 2 Meters

DEPTH meters	DEPTH feet	Qc (avg) kg/cm^2	Fs (avg) kg/cm^2	Rf (avg) %	SIGV' kg/cm^2	SOIL BEHAVIOR TYPE	Eq - Dr %	PHI deg.	SPT* N	Su kg/cm^2
0.25	0.82	19.04	0.63	3.32	0.02	clayey silt to silty clay	UNDFN	UNDF	18	1.5
0.50	1.64	18.94	0.44	2.35	0.06	clayey silt to silty clay	UNDFN	UNDF	18	1.5
0.75	2.46	7.25	0.58	8.00	0.10	clay	UNDFN	UNDF	7	UNDEFINED
1.00	3.28	4.50	0.36	8.00	0.14	organic material	UNDFN	UNDF	4	UNDEFINED
1.25	4.10	5.38	0.43	8.00	0.18	clay	UNDFN	UNDF	5	UNDEFINED
1.50	4.92	5.25	0.42	8.00	0.22	clay	UNDFN	UNDF	4	UNDEFINED
1.75	5.74	4.38	0.35	8.00	0.26	organic material	UNDFN	UNDF	4	UNDEFINED
2.00	6.56	4.38	0.35	8.00	0.30	organic material	UNDFN	UNDF	4	UNDEFINED
2.25	7.38	4.00	0.32	8.00	0.33	organic material	UNDFN	UNDF	3	UNDEFINED
2.50	8.20	3.38	0.27	8.00	0.34	organic material	UNDFN	UNDF	3	UNDEFINED
2.75	9.02	2.75	0.22	8.00	0.36	organic material	UNDFN	UNDF	4	UNDEFINED
3.00	9.84	4.50	0.36	8.00	0.37	organic material	UNDFN	UNDF	4	UNDEFINED
3.25	10.66	3.88	0.31	8.00	0.39	organic material	UNDFN	UNDF	2	UNDEFINED
3.50	11.48	2.50	0.20	8.00	0.41	organic material	UNDFN	UNDF	2	UNDEFINED
3.75	12.30	2.00	0.16	8.00	0.42	organic material	UNDFN	UNDF	2	UNDEFINED
4.00	13.12	2.00	0.16	8.00	0.44	organic material	UNDFN	UNDF	2	UNDEFINED
4.25	13.94	1.75	0.14	8.00	0.45	organic material	UNDFN	UNDF	2	7.7
4.50	14.76	1.66	0.12	7.23	0.47	organic material	UNDFN	UNDF	1	UNDEFINED
4.75	15.58	1.13	0.09	8.00	0.48	organic material	UNDFN	UNDF	1	UNDEFINED
5.00	16.40	1.13	0.09	8.00	0.50	organic material	UNDFN	UNDF	1	UNDEFINED
5.25	17.22	0.88	0.07	8.00	0.51	organic material	UNDFN	UNDF	1	UNDEFINED
5.50	18.04	0.63	0.05	8.00	0.53	organic material	UNDFN	UNDF	1	UNDEFINED
5.75	18.86	1.13	0.09	8.00	0.54	organic material	UNDFN	UNDF	2	0.3
6.00	19.69	4.88	0.17	3.40	0.56	clay	UNDFN	UNDF	2	UNDEFINED
6.25	20.51	1.63	0.13	8.00	0.58	organic material	UNDFN	UNDF	1	UNDEFINED
6.50	21.33	1.38	0.11	8.00	0.59	organic material	UNDFN	UNDF	1	UNDEFINED
6.75	22.15	1.38	0.11	8.00	0.61	organic material	UNDFN	UNDF	2	UNDEFINED
7.00	22.97	1.75	0.14	8.00	0.62	organic material	UNDFN	UNDF	1	UNDEFINED
7.25	23.79	1.25	0.10	8.00	0.64	organic material	UNDFN	UNDF	1	UNDEFINED
7.50	24.61	1.00	0.08	8.00	0.65	organic material	UNDFN	UNDF	1	UNDEFINED
7.75	25.43	1.38	0.11	8.00	0.67	organic material	UNDFN	UNDF	1	UNDEFINED
8.00	26.25	1.38	0.11	8.00	0.68	organic material	UNDFN	UNDF	2	UNDEFINED
8.25	27.07	1.63	0.13	8.00	0.70	organic material	UNDFN	UNDF	2	UNDEFINED
8.50	27.89	1.63	0.13	8.00	0.71	organic material	UNDFN	UNDF	2	UNDEFINED
8.75	28.71	1.75	0.14	8.00	0.73	organic material	UNDFN	UNDF	2	2.5
9.00	29.53	1.76	0.14	7.86	0.75	organic material	UNDFN	UNDF	2	UNDEFINED
9.25	30.35	1.88	0.15	8.00	0.76	organic material	UNDFN	UNDF	2	UNDEFINED
9.50	31.17	33.10	0.21	0.62	0.78	silty sand to sandy silt	<40	36-38	31	UNDEFINED

Blowcounts based on 63% hammer efficiency

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

Illinois Department of Transportation

District 8
Project Implementation
Materials

Structure Carrying FAI 70 Over TRRA
CSX and Conrail R.R.

CPT. Bridge Foundation
Boring Log
Sheet 2 of 2

CPT Date: 10/24/96
Bored By: L. Ford
Check By: M. Lamie
Cone Used: 438TC

Project:
Route: FAI 70
Section 82-5VBR-1
County: St. Clair Co.

CPT. Boring: Pier #17
Station: 5+540.3
O/S: 18.9 M Rt.

Total Unit Weight (Ave.): 16kN/m^3
Ground Surface: 123.50 M
Water table: 2 Meters

DEPTH meters	DEPTH feet	Qc (avg) kg/cm^2	Fs (avg) kg/cm^2	Rf (avg) %	SIGV' kg/cm^2	SOIL BEHAVIOR TYPE	Eq - Dr %	PHI deg.	SPT* N	Su kg/cm^2
9.75	31.99	91.84	0.37	0.40	0.79	sand to silty sand	60-70	44-46	>50	UNDEFINED
10.00	32.81	105.72	0.41	0.38	0.81	sand	70-80	44-46	>50	UNDEFINED
10.25	33.63	107.06	0.55	0.51	0.82	sand	70-80	44-46	>50	UNDEFINED
10.50	34.45	127.48	0.74	0.58	0.84	sand	70-80	44-46	>50	UNDEFINED
10.75	35.27	212.38	0.78	0.37	0.85	sand	>90	>48	>50	UNDEFINED
11.00	36.09	202.62	0.56	0.28	0.87	sand	80-90	>48	>50	UNDEFINED
11.25	36.91	170.78	0.84	0.49	0.88	sand	80-90	46-48	>50	UNDEFINED
11.50	37.73	74.54	0.20	0.27	0.90	sand to silty sand	50-60	42-44	>50	UNDEFINED
11.75	38.55	95.14	0.38	0.40	0.92	sand	60-70	42-44	>50	UNDEFINED
12.00	39.37	145.78	0.65	0.45	0.93	sand	70-80	44-46	>50	UNDEFINED

Blowcounts based on 63% hammer efficiency

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

Illinois Department of Transportation

District 8
Project Implementation
Materials

Structure Carrying FAI 70 Over TRRA
CSX and Conrail R.R.

CPT. Bridge Foundation
Boring Log
Sheet 1 of 2

CPT Date: 10/23/96
Bored By: L. Ford
Check By: M. Lamie
Cone Used: 438TC

Project:
Route: FAI 70
Section 82-5VBR-1
County: St. Clair Co.

CPT. Boring: Pier #18
Station: 5+570.72
O/S: 20.42 M Lt.

Total Unit Weight (Ave.): 16kN/m^3
Ground Surface: 123.23 M
Water table: 2 Meters

DEPTH meters	DEPTH feet	Qc (avg) kg/cm^2	Fs (avg) kg/cm^2	Rf (avg) %	SIGV' kg/cm^2	SOIL BEHAVIOR TYPE	Eq - Dr %	PHI deg.	SPT* N	Su kg/cm^2
0.25	0.82	19.54	0.55	2.84	0.02	clayey silt to silty clay	UNDFN	UNDF	18	1.5
0.50	1.64	14.22	0.54	3.77	0.06	silty clay to clay	UNDFN	UNDF	13	1.1
0.75	2.46	11.44	0.45	3.97	0.10	clay	UNDFN	UNDF	11	0.9
1.00	3.28	7.54	0.29	3.79	0.14	clay	UNDFN	UNDF	7	0.6
1.25	4.10	15.04	0.23	1.53	0.18	sandy silt to clayey silt	UNDFN	UNDF	14	1.2
1.50	4.92	13.00	0.20	1.55	0.22	clayey silt to silty clay	UNDFN	UNDF	12	1.0
1.75	5.74	7.10	0.11	1.58	0.26	clayey silt to silty clay	UNDFN	UNDF	7	0.5
2.00	6.56	3.12	0.08	2.56	0.30	clay	UNDFN	UNDF	3	0.2
2.25	7.38	3.10	0.16	5.03	0.33	clay	UNDFN	UNDF	3	0.2
2.50	8.20	4.74	0.18	3.86	0.34	clay	UNDFN	UNDF	4	0.3
2.75	9.02	11.60	0.19	1.60	0.36	clayey silt to silty clay	UNDFN	UNDF	11	0.9
3.00	9.84	30.60	0.21	0.70	0.37	silty sand to sandy silt	40-50	40-42	29	UNDEFINED
3.25	10.66	14.10	0.23	1.62	0.39	clayey silt to silty clay	UNDFN	UNDF	13	1.1
3.50	11.48	6.14	0.19	3.09	0.41	clay	UNDFN	UNDF	6	0.4
3.75	12.30	12.28	0.18	1.45	0.42	clayey silt to silty clay	UNDFN	UNDF	12	0.9
4.00	13.12	21.98	0.27	1.25	0.44	sandy silt to clayey silt	UNDFN	UNDF	21	1.7
4.25	13.94	6.10	0.18	3.02	0.45	clay	UNDFN	UNDF	6	0.4
4.50	14.76	3.06	0.11	3.73	0.47	clay	UNDFN	UNDF	3	0.2
4.75	15.58	3.30	0.12	3.64	0.48	clay	UNDFN	UNDF	3	0.1
5.00	16.40	2.00	0.11	4.38	0.50	clay	UNDFN	UNDF	6	0.4
5.25	17.22	6.68	0.20	2.99	0.51	clay	UNDFN	UNDF	4	0.3
5.50	18.04	4.68	0.18	3.89	0.53	clay	UNDFN	UNDF	3	0.1
5.75	18.86	2.92	0.13	4.45	0.54	clay	UNDFN	UNDF	4	0.2
6.00	19.69	4.50	0.13	2.89	0.56	clay	UNDFN	UNDF	3	0.1
6.25	20.51	3.36	0.11	3.21	0.58	clay	UNDFN	UNDF	3	0.1
6.50	21.33	3.44	0.10	2.97	0.59	clay	UNDFN	UNDF	3	0.1
6.75	22.15	3.44	0.11	3.20	0.61	clay	UNDFN	UNDF	3	0.1
7.00	22.97	2.96	0.10	3.45	0.62	clay	UNDFN	UNDF	4	0.2
7.25	23.79	3.82	0.13	3.30	0.64	clay	70-80	46-48	>50	UNDEFINED
7.50	24.61	128.28	0.81	0.63	0.65	sand	>90	>48	>50	UNDEFINED
7.75	25.43	261.36	1.93	0.74	0.67	sand	>90	>48	>50	UNDEFINED
8.00	26.25	193.54	1.30	0.67	0.68	sand	>90	>48	>50	UNDEFINED
8.25	27.07	210.74	1.42	0.67	0.70	sand	>90	>48	>50	UNDEFINED
8.50	27.89	246.80	1.68	0.68	0.71	sand	80-90	46-48	>50	UNDEFINED
8.75	28.71	160.54	1.13	0.70	0.73	sand	70-80	46-48	>50	UNDEFINED
9.00	29.53	122.30	0.79	0.64	0.75	sand	70-80	44-46	>50	UNDEFINED
9.25	30.35	112.86	0.75	0.66	0.76	sand to silty sand	70-80	46-48	>50	UNDEFINED
9.50	31.17	131.26	0.54	0.41	0.78	sand	70-80	46-48	>50	UNDEFINED

Blowcounts based on 63% hammer efficiency

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

Illinois Department of Transportation

District 8
Project Implementation
Materials

Structure Carrying FAI 70 Over TRRA
CSX and Conrail R.R.

CPT. Bridge Foundation
Boring Log
Sheet 2 of 2

CPT Date: 10/23/96
Bored By: L. Ford
Check By: M. Lamie
Cone Used: 438TC

Project:
Route: FAI 70
Section 82-5VBR-1
County: St. Clair Co.

CPT. Boring: Pier #18
Station: 5+570.72
O/S: 20.42 M Lt.

Total Unit Weight (Ave.): 16kN/m^3
Ground Surface: 123.23 M
Water table: 2 Meters

DEPTH meters	DEPTH feet	Qc (avg) kg/cm^2	Fs (avg) kg/cm^2	Rf (avg) %	SIGV' kg/cm^2	SOIL BEHAVIOR TYPE	Eq - Dr %	PHI deg.	SPT* N	Su kg/cm^2
10.00	32.81	133.12	0.85	0.49	0.81	sand	70-80	46-48	>50	UNDEFINED
10.25	33.63	150.54	1.09	0.72	0.82	sand	80-90	46-48	>50	UNDEFINED
10.50	34.45	213.80	0.54	0.25	0.84	sand	>90	>48	>50	UNDEFINED
10.75	35.27	206.10	0.61	0.30	0.85	sand	80-90	>48	>50	UNDEFINED
11.00	36.09	156.78	0.55	0.35	0.87	sand	80-90	46-48	>50	UNDEFINED
11.25	36.91	222.38	1.56	0.71	0.88	sand	>90	>48	>50	UNDEFINED
11.50	37.73	298.92	1.37	0.46	0.90	gravelly sand to sand	>90	>48	>50	UNDEFINED
11.75	38.55	223.96	1.21	0.54	0.92	sand	>90	>48	>50	UNDEFINED
12.00	39.37	199.98	1.02	0.51	0.93	sand	80-90	46-48	>50	UNDEFINED
12.25	40.19	230.80	1.29	0.56	0.95	sand	>90	>48	>50	UNDEFINED
12.50	41.01	339.92	2.07	0.61	0.96	gravelly sand to sand	>90	>48	>50	UNDEFINED
12.75	41.83	250.02	0.83	0.33	0.98	gravelly sand to sand	>90	>48	>50	UNDEFINED
13.00	42.65	183.60	0.66	0.36	0.99	sand	80-90	46-48	>50	UNDEFINED
13.25	43.47	174.18	0.65	0.37	1.01	sand	80-90	46-48	>50	UNDEFINED
13.50	44.29	176.86	0.40	0.22	1.02	sand	80-90	46-48	>50	UNDEFINED
13.75	45.11	220.08	1.11	0.51	1.04	sand	80-90	46-48	>50	UNDEFINED
14.00	45.93	351.00	1.72	0.49	1.06	gravelly sand to sand	>90	>48	>50	UNDEFINED
14.25	46.75	306.60	0.84	0.27	1.07	gravelly sand to sand	>90	>48	>50	UNDEFINED
14.50	47.57	237.86	0.60	0.25	1.09	gravelly sand to sand	>90	46-48	>50	UNDEFINED
14.75	48.39	251.56	0.92	0.36	1.10	gravelly sand to sand	>90	46-48	>50	UNDEFINED

Blowcounts based on 63% hammer efficiency

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS
F.A.I. ROUTE 70
SECTION 82-5VBR-I
ST. CLAIR COUNTY

01/29/97
Wed Jan 29 10:14:19 1997
/usr/project/md06796/bicgs01.dgn LV=1-63

FAI ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
70	82-5VBR-1	ST. CLAIR	27	25
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

ILLINOIS DEPARTMENT OF TRANSPORTATION
District Eight Materials Depth Increment = 152.5mm
NW 1/4, SE 1/4, SECTION 7, T 2 N, R 9 W, 3RD P.M.
Bridge Foundation Boring Log
Sh. 1 of 2

PROJECT D-98-067-96 BRIDGE FAI 55/70 OVER TRRA, CSX, AND CONRAIL Date 11/20/96
ROUTE FAI 70 RAILROAD 5+349 Bored By LARRY FORD
SEC. 82-5VBR-1 STA. 81+42.68 (ENGLISH) Checked By MARY LAMIE

COUNTY St. Clair
Strct. No. 082-0017
Boring No. 4
Sta 5+154
O/S 18.29m Lt. C.L.

Surf Wat El. ____
Groundwater El. at Compl ____
At ____ Hrs ____

El.	N	Qu kPa	W %
Ground Surface 27.44 0m			
BROWN AND GRAY SILTY CLAY	1 2 5	143.58	31
124.54	3		
BROWN SILT LOAM	1 2 2	S/10 84.27	35
123.78			
BROWN FINE SAND (DRY)			
SEE GRADATION *1	4 6 6	NC	29
122.26	-5		
GRAY SAND LOAM			
121.19	3 5 9	S/10 21.07 NC	

El.	N	Qu kPa	W %
BROWN AND GRAY FINE SAND (DRY)			
SEE GRADATION *1	5 9 14	NC	
118.75 F.W.	9		
BEGIN ROTARY MUD	3 8 14	NC	
	11 16 18	NC	
	13		
	12 20 20	NC	

N 50 mm OD Sampler, Driven 305 mm
63.5Kg Hammer, 760 mm Fall (F.W.-Free Water B-Bulge S-Shear)

ILLINOIS DEPARTMENT OF TRANSPORTATION
District Eight Materials Depth Increment = 152.5mm
NW 1/4, SE 1/4, SECTION 7, T 2 N, R 9 W, 3RD P.M.
Bridge Foundation Boring Log
Sh. 1 of 2

PROJECT D-98-067-96 BRIDGE FAI 55/70 OVER TRRA, CSX, AND CONRAIL Date 11/19/96
ROUTE FAI 70 RAILROAD 5+349 Bored By LARRY FORD
SEC. 82-5VBR-1 STA. 81+42.68 (ENGLISH) Checked By MARY LAMIE

COUNTY St. Clair
Strct. No. 082-0017
Boring No. 6
Sta 5+239.4
O/S 19.2m Rt. C.L.

Surf Wat El. ____
Groundwater El. at Compl ____
At ____ Hrs ____

El.	N	Qu kPa	W %
Ground Surface 26.80 0m			
BLACK CINDERS	1 2 1	NC	37
124.67	-3		
BROWN SILTY CLAY	1 3 3	S/15 126.02	39
	1 1 1	S/15 99.49	37
121.62	-5		
FINE BROWN SAND (DRY)			
SEE GRADATION *4	6 10 12	NC	

El.	N	Qu kPa	W %
(WITH CLAY LENSE)	1 1 8	10 NC	
118.11 F.W.	9		
SAND CAME UP IN AUGERS 200mm BEGIN ROTARY MUD DRILLING	1 2 5	NC	
	13 14 19	NC	
	11		
	14 16 17	NC	
	13		
	1 8 7	NC	

N 50 mm OD Sampler, Driven 305 mm
63.5Kg Hammer, 760 mm Fall (F.W.-Free Water B-Bulge S-Shear)

ILLINOIS DEPARTMENT OF TRANSPORTATION
District Eight Materials Depth Increment = 152.5mm
NW 1/4, SE 1/4, SECTION 7, T 2 N, R 9 W, 3RD P.M.
Bridge Foundation Boring Log
Sh. 1 of 2

PROJECT D-98-067-96 BRIDGE FAI 55/70 OVER TRRA, CSX, AND CONRAIL Date 11/18/96
ROUTE FAI 70 RAILROAD 5+349 Bored By LARRY FORD
SEC. 82-5VBR-1 STA. 81+42.68 (ENGLISH) Checked By MARY LAMIE

COUNTY St. Clair
Strct. No. 082-0017
Boring No. 8
Sta 5+289.7
O/S 19.51m Lt. C.L.

Surf Wat El. ____
Groundwater El. at Compl ____
At ____ Hrs ____

El.	N	Qu kPa	W %
Ground Surface 26.31 0m			
GRAY AND BROWN SILTY CLAY WITH CINDERS ROCK AND RUBBLE	1 2 4	S/20 68.67	28
124.18	-3		
BROWN AND BLACK CINDERS	2 1 1	NC	37
122.96			
122.65 F.W.			
BROWN SILTY SAND WITH LOTS OF RUBBLE AND BRICKS	1 2 2	NR	
121.13	-5		
GRAY SILTY CLAY	1 1 3	S/10 49.16	40
119.60			

El.	N	Qu kPa	W %
GRAY FINE SAND WITH CLAY LENSES	4 5 4	NC	
SEE GRADATION *8			
BEGIN ROTARY MUD	3 4 3	NC	
	10 14 11	NC	
114.73			
GRAY SILTY CLAY		S/15	
114.12	0 14 15	43.11 NC	41
GRAY FINE SAND			
SEE GRADATION *9	13		

N 50 mm OD Sampler, Driven 305 mm
63.5Kg Hammer, 760 mm Fall (F.W.-Free Water B-Bulge S-Shear)

Project D-98-067-96
Route FAI 70
Sec. 82-5VBR-1
County St. Clair
Sh. 2 of 2

Boring No. 4
Sta 5+154
O/S 18.29m Lt. C.L.

El. m	N	Qu kPa	W %
113.27	14		
COARSE TO FINE SAND			
SEE GRADATION *2	8 9 8	NC	
111.90			
BROWN AND GRAY FINE SAND	16		
SEE GRADATION *3	22 29 32	NC	
	25		
	18 6 12 16	NC	
	27		
	10 10 10	NC	
	20		
	2 2 3	NC	

El. m	N	Qu kPa	W %
	13 13 20	NC	
104.58 END OF BORING	23		
	25		

Project D-98-067-96
Route FAI 70
Sec. 82-5VBR-1
County St. Clair
Sh. 2 of 2

Boring No. 6
Sta 5+239.4
O/S 19.2m Rt. C.L.

El. m	N	Qu kPa	W %
	14		
111.26			
GRAY FINE TO COARSE SAND	16		
SEE GRADATION *5	11 10 14	NC	
	18 10 12 17	NC	
108.26			
GRAY FINE SAND			
SEE GRADATION *6	10 20 22	NC	
106.68	20		
GRAY FINE TO COARSE SAND			
SEE GRADATION *7	20 21 23	NC	

El. m	N	Qu kPa	W %
	10 17 24	NC	
102.87 END OF BORING	23		
	25		
	27		

Project D-98-067-96
Route FAI 70
Sec. 82-5VBR-1
County St. Clair
Sh. 2 of 2

Boring No. 8
Sta 5+289.7
O/S 19.51m Lt. C.L.

El. m	N	Qu kPa	W %
	5 11 14 16	NC	
	16		
	10 16 31	NC	
	23 28 29	NC	
107.41	18		
GRAY FINE TO COARSE SAND WITH SOME LIGNITE	14 20 19	NC	
SEE GRADATION *10	9 20 10 15	NC	

El. m	N	Qu kPa	W %
	5 5 7	NC	
104.36			
GRAY FINE SAND			
SEE GRADATION *11	6 23 10	NC	
	10 13 16	NC	
101.62 END OF BORING	25		
	27		

02/05/97
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REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS

FAI ROUTE 70
SECTION 82-5VBR-1
ST. CLAIR COUNTY

FAI ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-5VBR-1	ST. CLAIR	27	28
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

ILLINOIS DEPARTMENT OF TRANSPORTATION — Bridge Foundation Boring Log
District Eight Materials — Depth Increment = 152.5mm
NW 1/4, SE 1/4, SECTION 7, T 2 N, R 9 W, 3RD P.M. — Sh. 1 of 2

PROJECT D-98-067-96 — BRIDGE FAI 55/70 OVER TRRA, CSX, AND CONRAIL RAILROAD — Date 11/21/96
ROUTE FAI 70 — Bored By LARRY FORD
SEC. 82-5VBR-1 — STA. 81+42.68 (ENGLISH) 5+349 — Checked By MARY LAMIE

COUNTY St. Clair
Strct. No. 082-0017
Boring No. 12
Sta 5+411.3
O/S 18.90m RT. C.L.

Surf Wat El. ____ Groundwater El. at Compl ____ At ____ Hrs ____

El.	N	Qu kPa	W %
Ground Surface 124.24 0m			
GRAY SILTY CLAY WITH CONSTRUCTION RUBBLE CONCRETE AND ROCK (FILL)			
123.17 F.W.	1 3 4	S/5 155.67	22
122.11			
GRAY SILTY CLAY LOAM	0 1 1	S/15 26.53	34
	0 0 0	S/10 59.69	41
	0 1 3	S/5 51.89	52
117.99		NC	37
GRAY SILT LOAM			

El.	N	Qu kPa	W %
117.23			
GRAY SILTY CLAY	0 1 1	S/20 37.46	59
	0 0 0	S/10 45.65	58
	0 0 0	S/15 26.53	54
112.66 BEGIN ROTARY MUD			
GRAY FINE TO COARSE SAND			
SEE GRADATION #12			
	11 12 11		NC

N 50 mm OD Sampler, Driven 305 mm
63.5Kg Hammer, 760 mm Fall (F.W.-Free Water B-Bulge S-Shear)

ILLINOIS DEPARTMENT OF TRANSPORTATION — Bridge Foundation Boring Log
District Eight Materials — Depth Increment = 152.5mm
SW 1/4, NE 1/4, SECTION 7, T 2 N, R 9 W, 3RD P.M. — Sh. 1 of 2

PROJECT D-98-067-96 — BRIDGE FAI 55/70 OVER TRRA, CSX & CONRAIL RR — Date 10/31/96
ROUTE FAI 70 — Bored By LARRY FORD
SEC. 82-5VBR-1 — STA. 81+42.68 (ENGLISH) 5+349 — Checked By MARY LAMIE

COUNTY St. Clair
Strct. No. 082-0017
Boring No. 14
Sta 5+461
O/S 19.5m LT. C.L.

Surf Wat El. ____ Groundwater El. at Compl ____ At ____ Hrs ____

El.	N	Qu kPa	W %
Ground Surface 124.30 0m			
ROCK AND CONSTRUCTION RUBBLE (FILL)			
GRAY LOAM	0 1 2	S/10 59.69	26
A-4(3)			
	0 1 2	S/15 71.79	30
	0 1 2	S/15 39.80	32
	0 1 2	S/15 43.11	35

El.	N	Qu kPa	W %
117.44			
GRAY SILTY CLAY	0 0 0	S/10 31.60	54
A-7-6(37)			
(W/ SILTY CL LENSES)	0 0 0	S/15 43.11	51
	0 0 0	S/15 46.43	59
112.72 SAND CAME UP IN AUGERS			
BEGIN ROTARY MUD			
FINE TO COARSE SAND			
SEE GRADATION #15			
	5 7 5		NC

N 50 mm OD Sampler, Driven 305 mm
63.5Kg Hammer, 760 mm Fall (F.W.-Free Water B-Bulge S-Shear)

ILLINOIS DEPARTMENT OF TRANSPORTATION — Bridge Foundation Boring Log
District Eight Materials — Depth Increment = 152.5mm
SW 1/4, NE 1/4, SECTION 7, T 2 N, R 9 W, 3RD P.M. — Sh. 1 of 2

PROJECT D-98-067-96 — BRIDGE FAI 55/70 OVER TRRA, CSX & CONRAIL RR — Date 10/30/96
ROUTE FAI ROUTE 70 — Bored By LARRY FORD
SEC. 82-5VBR-1 — STA. 81+42.68 (ENGLISH) 5+349 — Checked By MARY LAMIE

COUNTY St. Clair
Strct. No. 082-0017
Boring No. 18
Sta 5+568.28
O/S 18.59m RT. CL.

Surf Wat El. ____ Groundwater El. at Compl ____ At ____ Hrs ____

El.	N	Qu kPa	W %
Ground Surface 123.38 0m			
ROCK & CONSTRUCTION RUBBLE (FILL) GRAY SILTY CLAY LOAM W/ ROCK			
121.25 F.W.	3 5 4	S/5 66.72	21
GRAY SILTY CLAY	0 1 2	S/10 77.23	45
	0 0 1	S/5 18.53	52
	0 0 0	S/10 35.11	52

El.	N	Qu kPa	W %
	0 0 0	S/5 29.65	70
	0 0 0	S/10 38.63	71
113.47 BEGIN ROTARY MUD SAND CAME UP AUGERS 460mm			
GRAY FINE TO COARSE SAND			
SEE GRADATION #19			
	4 6 8		NC
110.58			
GRAY FINE SAND			
SEE GRADATION #20			
	11 13 14		NC

N 50 mm OD Sampler, Driven 305 mm
63.5Kg Hammer, 760 mm Fall (F.W.-Free Water B-Bulge S-Shear)

Project D-98-067-96
Route FAI 70
Sec. 82-5VBR-1
County St. Clair — Sh. 2 of 2

Boring No. 12
Sta 5+411.3
O/S 18.30m RT. C.L.

El. m	N	Qu kPa	W %
110.22	14		
GRAY FINE SAND	8 13 27		NC
SEE GRADATION #13	16		
	13 19 25		NC
	18		
	32 33 35		NC
	7 9 10		NC
	20		
	14 23 25		NC

El. m	N	Qu kPa	W %
102.60			
FINE TO COARSE SAND	15 16 11		NC
SEE GRADATION #14	23		
100.01	17 14 10		NC
END OF BORING	25		
	27		

Project D-98-067-96
Route FAI 70
Sec. 82-5VBR-1
County St. Clair — Sh. 2 of 2

Boring No. 14
Sta 5+461
O/S 19.5m LT. C.L.

El. m	N	Qu kPa	W %
110.28	14		
GRAY FINE TO MEDIUM SAND	5 6 6		NC
SEE GRADATION #16	16		
	9 9 12		NC
105.71	18		
FINE GRAY SAND	8 10 15		NC
SEE GRADATION #17	20		
	28 24 20		NC
	10 13 16		NC

El. m	N	Qu kPa	W %
102.05			
GRAY FINE TO COARSE SAND WITH SOME GRAVEL	14 16 16		NC
SEE GRADATION #18	23		
	11 12 13		NC
	25		
	14 23 27		NC
95.50 END OF BORING	27		
	13 16 18		NC
	10 17 21		NC

Project D-98-067-96
Route FAI ROUTE 70
Sec. 82-5VBR-1
County St. Clair — Sh. 2 of 2

Boring No. 18
Sta 5+568.28
O/S 18.59m RT. CL.

El. m	N	Qu kPa	W %
109.36	14		
GRAY FINE TO MEDIUM SAND	6 8 11		NC
SEE GRADATION #21	16		
107.53			
GRAY FINE SAND	13 13 17		NC
SEE GRADATION #22	18		
	10 12 14		NC
104.48	20		
GRAY FINE TO MEDIUM SAND	8 7 7		NC
SEE GRADATION #23			
	15 25 30		NC

El. m	N	Qu kPa	W %
SOME COBBLES	23		
	18 15 13		NC
	25		
	14 17 19		NC
	27		
	13 11 12		NC
94.42 END OF BORING	10 10 10		NC

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS

FAI ROUTE 70
SECTION 82-5VBR-I
ST. CLAIR COUNTY

02/05/97
Wed Feb 5 11:45:37 1997
/usr/project/rm006796/blogs01.dgn LV=1-63

FAI ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-5VBR-1	ST. CLAIR	27	27
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

ILLINOIS DEPARTMENT OF TRANSPORTATION
District Eight Materials

Bridge Foundation
Boring Logs

PROJECT D-98-067-96 BRIDGE FAI 70 OVER TRRA, CSX, AND CONRAIL RAILROADS 5+349.03 (METRIC)= Date 11/20/96
ROUTE FAI 70 Bored By LARRY FORD
SEC. 82-5VBR-1 STA. 81+42.68 (ENGLISH) Checked By MARY LAMIE
COUNTY ST. CLAIR
Struct. No. 082-0017

SOIL BORING SAND GRADATIONS

Boring No.	4	4	4
Sta.	5+154	5+154	5+154
O/S	18.29m LT. CL.	18.29m LT. CL.	18.29m LT. CL.
Gradation #	1	2	3
Depth:	3.65m - 14.17m	14.17m - 15.54m	15.54m - 22.9m

SIEVE	% PASSING	% PASSING	% PASSING
#20	98.5	70.2	92.3
#40	88.6	45.1	72.4
#60	63.0	25.3	53.6
#100	35.2	10.0	13.4
#200	10.7	2.7	4.8

Boring No.	6	6	6
Sta.	5+239.40	5+239.40	5+239.40
O/S	19.2m RT. CL.	19.2m RT. CL.	19.2m RT. CL.
Gradation #	4	5	6
Depth:	5.18m - 14.63m	15.5m - 18.59m	18.59m - 20.1m

SIEVE	% PASSING	% PASSING	% PASSING
#20	99.1	70.9	89.0
#40	97.5	38.0	60.1
#60	90.7	27.6	26.0
#100	50.3	9.3	14.8
#200	13.5	3.6	5.4

ILLINOIS DEPARTMENT OF TRANSPORTATION
District Eight Materials

Bridge Foundation
Boring Logs

PROJECT D-98-067-96 BRIDGE FAI 70 OVER TRRA, CSX, AND CONRAIL RAILROADS 5+349.03 (METRIC)= Date 11/20/96
ROUTE FAI 70 Bored By LARRY FORD
SEC. 82-5VBR-1 STA. 81+42.68 (ENGLISH) Checked By MARY LAMIE
COUNTY ST. CLAIR
Struct. No. 082-0017

SOIL BORING SAND GRADATIONS

Boring No.	12	12	14
Sta.	5+41[.3	5+41[.3	5+461
O/S	18.3m RT. CL.	18.3m RT. CL.	19.5m LT. CL.
Gradation #	13	14	15
Depth:	14.02m - 21.64m	21.64m - 24.25m	11.58m - 14.0m

SIEVE	% PASSING	% PASSING	% PASSING
#20	95.6	57.0	54.2
#40	77.9	25.5	30.1
#60	55.3	10.6	14.1
#100	14.3	5.2	9.5
#200	9.2	3.0	7.1

Boring No.	14	14	14
Sta.	5+461	5+461	5+461
O/S	19.5m LT. CL.	19.5m LT. CL.	19.5m LT. CL.
Gradation #	16	17	18
Depth:	14.02m - 18.59m	18.59m - 22.25m	22.25m - 28.8m

SIEVE	% PASSING	% PASSING	% PASSING
#20	64.2	93.9	76.8
#40	17.9	88.8	24.5
#60	9.0	81.1	14.4
#100	4.2	48.3	8.6
#200	2.4	10.5	4.8

ILLINOIS DEPARTMENT OF TRANSPORTATION
District Eight Materials

Bridge Foundation
Boring Logs

PROJECT D-98-067-96 BRIDGE FAI 70 OVER TRRA, CSX, AND CONRAIL RAILROADS 5+349.03 (METRIC)= Date 11/20/96
ROUTE FAI 70 Bored By LARRY FORD
SEC. 82-5VBR-1 STA. 81+42.68 (ENGLISH) Checked By MARY LAMIE
COUNTY ST. CLAIR
Struct. No. 082-0017

SOIL BORING SAND GRADATIONS

Boring No.	6	8	8
Sta.	5+239.40	5+289.7	5+289.7
O/S	19.2m LT. CL.	19.51m LT. CL.	19.51m LT. CL.
Gradation #	7	8	9
Depth:	20.12m - 23.93m	6.71m - 11.58m	12.19m - 18.9m

SIEVE	% PASSING	% PASSING	% PASSING
#20	72.7	99.3	99.6
#40	45.5	97.0	98.3
#60	25.8	87.6	89.3
#100	12.2	54.1	40.7
#200	8.0	20.7	10.3

Boring No.	8	8	12
Sta.	5+289.7	5+289.7	5+41[.3
O/S	19.51m LT. CL.	19.51m LT. CL.	18.3m RT. CL.
Gradation #	10	11	12
Depth:	18.90m - 21.95m	21.95m - 24.65m	11.58m - 14.0m

SIEVE	% PASSING	% PASSING	% PASSING
#20	46.1	84.8	52.6
#40	15.8	53.6	33.3
#60	9.3	43.6	29.9
#100	5.3	15.5	10.6
#200	3.1	3.5	4.9

ILLINOIS DEPARTMENT OF TRANSPORTATION
District Eight Materials

Bridge Foundation
Boring Logs

PROJECT D-98-067-96 BRIDGE FAI 70 OVER TRRA, CSX, AND CONRAIL RAILROADS 5+349.03 (METRIC)= Date 11/20/96
ROUTE FAI 70 Bored By LARRY FORD
SEC. 82-5VBR-1 STA. 81+42.68 (ENGLISH) Checked By MARY LAMIE
COUNTY ST. CLAIR
Struct. No. 082-0017

SOIL BORING SAND GRADATIONS

Boring No.	18	18	18
Sta.	5+568.28	5+568.28	5+568.28
O/S	18.59m RT. CL.	18.59m RT. CL.	18.59m RT. CL.
Gradation #	19	20	21
Depth:	9.91m - 12.80m	12.80m - 14.02m	14.02m - 15.9m

SIEVE	% PASSING	% PASSING	% PASSING
#20	56.8	94.8	78.8
#40	27.5	84.8	56.4
#60	15.5	62.7	51.1
#100	3.7	16.3	11.7
#200	1.7	4.6	2.3

Boring No.	18	18	
Sta.	5+568.28	5+568.28	
O/S	18.59m RT. CL.	18.59m RT. CL.	
Gradation #	22	23	
Depth:	15.85m - 18.90m	18.90m - 28.96m	

SIEVE	% PASSING	% PASSING	% PASSING
#20	99.1	62.3	
#40	98.3	29.1	
#60	91.1	14.0	
#100	13.5	5.0	
#200	3.9	2.7	

Boring No.	
Sta.	
O/S	
Gradation #	
Depth:	

SIEVE	% PASSING
#20	
#40	
#60	
#100	
#200	

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS

FAI ROUTE 70
SECTION 82-5VBR-1
ST. CLAIR COUNTY

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ST. CLAIR SEC. 82-5VBR I & R 2-5-87

INDEX OF SHEETS

1 COVER SHEET
2A SUMMARY OF QUANTITIES
3 TYPICAL SECTIONS
4-6 GRADING PLANS
7-9 EXISTING CONDITIONS
10 BRIDGE APPROACH PAVEMENT
11-12 STAGE CONSTRUCTION
13 REINFORCED LIDS FOR INLETS AND DRAINAGE STRUCTURES
14-85 BRIDGE PLANS
86 R.O.W. PLAN
87-88 UNDERPASS LIGHTING PLANS

STANDARDS

1686-4, 2113-6, 2130-9, 2213-4, 1527-9, 2228-4, 2298-7, 2299-10, 2300-3, 2308-4, 2314-5, 2316-10, 2323-7, 2324-6, 2333-3, 2349, 2341-1, 2354-1, 2381, 2382-2, 2383-1, 2384, 2385, 2389, 2396, 2397, 2419

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLANS FOR PROPOSED FEDERAL AID HIGHWAY

SCALE IN FEET

STANDARD SCALES
- PLAN: 0 20 40
- PROFILES: 0 50 100 | 0 5 10
- CROSS SECTIONS: 0 10 20 | 0 5 10 (HORIZ. | VERT.)

OTHERS AS NOTED IN PLANS

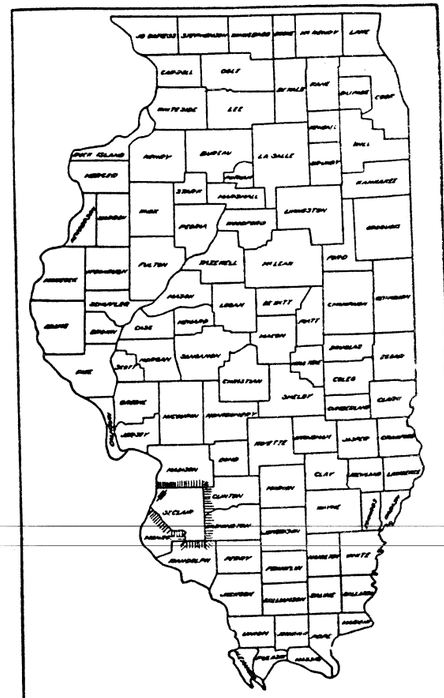
FAI ROUTE 70
SECTION 82-5VBR
PROJ. EBIR-70-1(154)3
ST. CLAIR COUNTY

C-98-107-86

SECTION 82-5VBR INCLUDES THE REHABILITATION OF THE STRUCTURE CARRYING FAI ROUTE 70 OVER THE B&O, CONRAIL, SOUTHERN, & TERMINAL RR AT STA. 81+42.68; 19 SPANS AT VARIOUS LENGTHS; TOTAL LENGTH = 1618'-11 3/4"

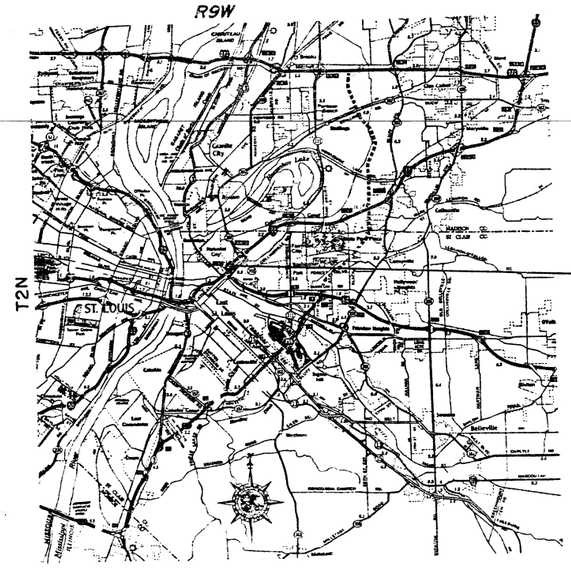
F.A. ROUTE NO.	SEC.	COUNTY	
FAI 70	82-5VBR	ST. CLAIR	88
	ILLINOIS	PROJECT: EBIR-70-1(154)3	

P-98-009-85



LOCATION OF SECTION INDICATED THUS:—

CANTEEN TOWNSHIP



LOCATION MAP
SCALE: 1" = 3 MILES

PROJECT
SECTION 82-5VBR
BEGINS STA. 73+16.51
ENDS STA. 89+71.66

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED December 15, 19 86
Duke Wicker
EXAMINED 12-30, 19 86
PASSED 12-30, 19 86
APPROVED 12-30, 19 86
DIRECTOR OF HIGHWAYS

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
APPROVED
DIVISION ADMINISTRATOR DATE

PROJECT LENGTH = 1655.2 FT. = 0.313 MILES

MICROFILMED
REEL NUMBER
AWARDED
RESIDENT ENGINEER
AS BUILT CHANGES WERE MADE ON THE FOLLOWING SHEETS

082-0017

STANLEY J. SKLNESTRAK 62-19140 REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS

CONTRACT NO. 42348

R COUNTY SECTION 82-5VBR TE 70

8-162

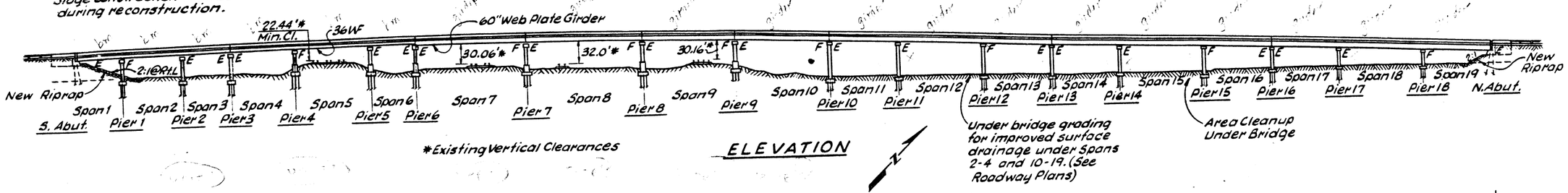
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR	ST. CLAIR	86	14
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

Sh. 72 SHEETS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Benchmark #3 "X" Cut in center of top of Concrete Footing 123' Rt. of Sta. 81+86.00 El. 405.85

Existing Structure: Structure No. 082-0017. Built as F.A.I. Rt. 7, Section 82-5VB at Sta. 81+42.68 in 1959. Bk. to bk. abuts. is 1618'-11¾". O. to out water table is 114'-4". The existing structure is a 19 Span reinforced concrete deck on non-composite steel wide flange beams or built-up riveted plate girders with pile supported open abuts. and multiple column piers. Existing deck was repaired, waterproofed and overlayed with bituminous concrete in 1973. Contractor shall remove existing deck and replace it with a new reinforced concrete deck. Stage construction shall be used in order to maintain two lanes of traffic in each direction during reconstruction.

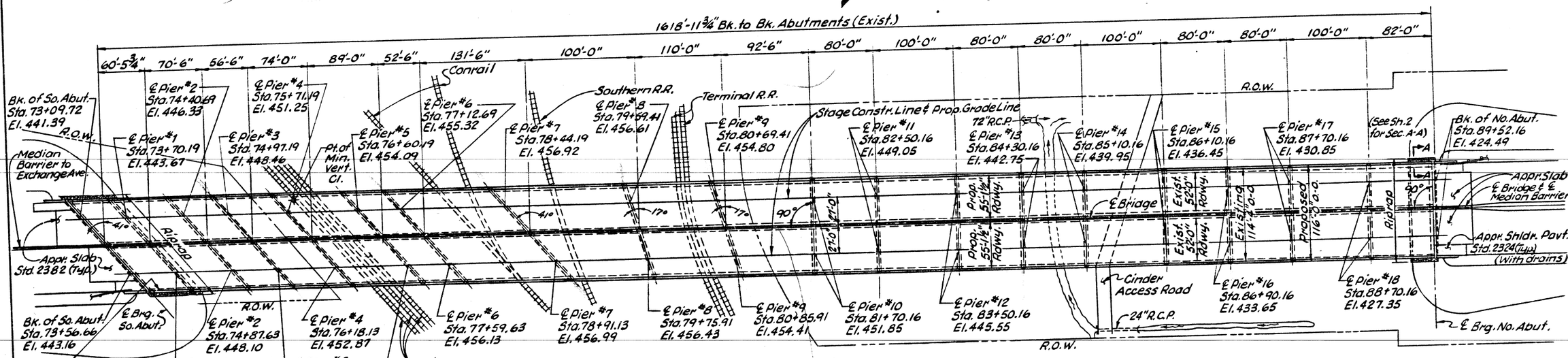


*Existing Vertical Clearances

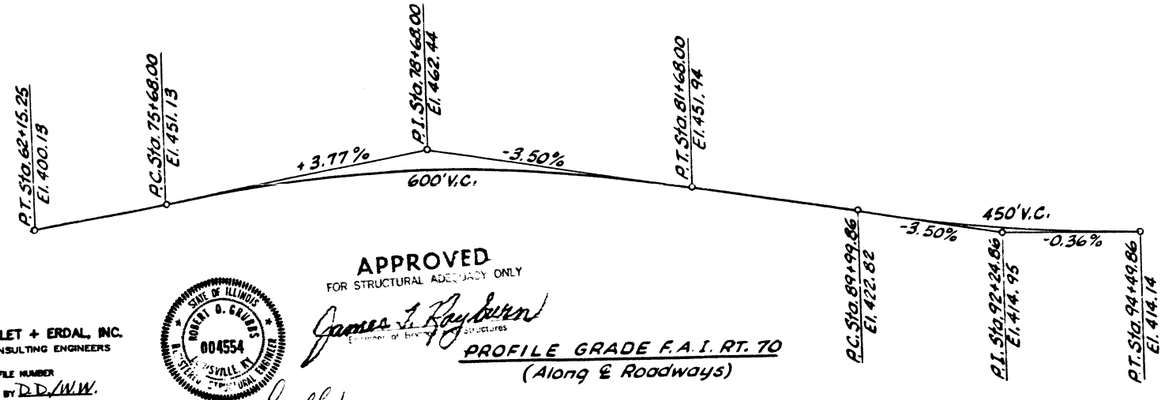
ELEVATION

Under bridge grading for improved surface drainage under Spans 2-4 and 10-19. (See Roadway Plans)

Area Cleanup Under Bridge



PLAN



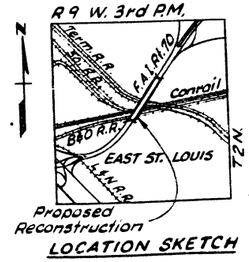
PROFILE GRADE F.A.I. RT. 70
(Along ℄ Roadways)

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
James L. Rayburn
Engineer of Bridges and Structures

STATE OF ILLINOIS
ROBERT O. GRUBBS
004554
REGISTERED PROFESSIONAL ENGINEER
BELLEVILLE, ILLINOIS

Robert O. Grubbs

HAZELET + ERDAL, INC.
CONSULTING ENGINEERS
FILE NUMBER
DRAWN BY D.D./W.W.
CHECKED BY Mr
APPROVED BY Rla.



LOCATION SKETCH

GENERAL PLAN AND ELEVATION
F.A.I. RT. 70 OVER
B&O. CONRAIL, SOUTHERN & TERMINAL R.R.
F.A.I. ROUTE 70 SEC. 82-5 VBR
STA. 81+42.68
ST. CLAIR COUNTY
STRUCTURE NO. 082-6

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR	ST. CLAIR	86	15
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

SHEET NO. 2

72 SHEETS

STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

GENERAL NOTES (BRIDGE)

FASTENERS SHALL BE HIGH STRENGTH BOLTS. BOLTS 3/4"ø, OPEN HOLES 13/16"ø, UNLESS OTHERWISE NOTED.

THE BASIC LEAD SILICO CHROMATE PAINT SYSTEM SHALL BE USED FOR SHOP AND FIELD PAINTING OF NEW STRUCTURAL STEEL EXCEPT WHERE OTHERWISE NOTED.

ALL EXISTING STRUCTURAL STEEL SHALL BE CLEANED BY METHOD 1 AND PAINTED WITH THE BASIC LEAD SILICO CHROMATE PAINT SYSTEM.

THE TOTAL ESTIMATED AMOUNT OF EXISTING STRUCTURAL STEEL TO BE CLEANED AND PAINTED IS 3860 TONS.

FIELD WELDING OF CONSTRUCTION ACCESSORIES WILL NOT BE PERMITTED TO THE BOTTOM FLANGE OF BEAMS OR GIRDERS NOR TO THE TOP FLANGE FOR A DISTANCE EQUAL TO ONE-FOURTH THE SPAN LENGTH EACH WAY FROM THE PIER SUPPORTS. FIELD WELDING IN OTHER AREAS WILL BE PERMITTED ONLY WHEN APPROVED BY THE ENGINEER.

NEW REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-31, M-42 OR M-53 GRADE 60.

SHOULDER TRANSITION TO WINGWALL SHALL BE SHAPED WITH BROKEN CONCRETE. COST INCIDENTAL.

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.

EXPANSION BOLTS SHALL CONSIST OF APPROVED EXPANSION ANCHORS, PROVIDING MINIMUM CERTIFIED PROOF LOAD = 4,080 LBS., AND 3/4"ø X 12" HOOKED BOLTS.

BEARING SEAT SURFACES SHALL BE CONSTRUCTED OR ADJUSTED TO THE DESIGNATED ELEVATIONS WITHIN A TOLERANCE OF 1/8 INCH. ADJUSTMENT SHALL BE MADE EITHER BY GRIDING THE SURFACE OR BY SHIMMING THE BEARING. TWO 1/8" ADJUSTING SHIMS, OF THE DIMENSIONS OF THE BOTTOM BEARING PLATE, SHALL BE PROVIDED FOR EACH BEARING IN ADDITION TO ALL OTHER PLATES OR SHIMS. (FOR TYPE I ELASTOMERIC BEARINGS, SHIMS OF THE DIMENSIONS OF TOP PLATE SHALL BE PROVIDED AND PLACED AS DETAILED).

CALCULATED WEIGHT OF NEW STRUCTURAL STEEL 91,000 LBS.

ALL CONTACT SURFACES OF JOINTS FOR DIAPHRAGMS, CROSS FRAMES AND/OR LATERAL BRACING SHALL BE FREE OF PAINT AND LACQUER.

ALL HIGH STRENGHT BOLT CONNECTIONS SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST ISSUE OF THE SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325(M164) OR A490(M253) BOLTS FOR SLIP-CRITICAL CONNECTIONS EXCEPT TIGHTENING METHODS USING EITHER THE LOAD INDICATING WASHERS OR THE CALIBRATED WRENCH ARE NOT ALLOWED.

ALL EXISTING TOP FLANGE SURFACES WHICH SHALL BE IN CONTACT WITH NEW CONCRETE SHALL BE CLEANED TO SATISFY ART.509.06(b) METHOD II. COST SHALL BE INCIDENTAL TO REMOVAL OF EXISTING CONCRETE DECK.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER.	SUBSTR.	TOTAL
CONCRETE REMOVAL	CU.YD		93	93
EXPANSION BOLTS 3/4 INCH X 12 INCH	EACH		178	178
BRIDGE HANDRAIL REMOVAL	L.SUM	1		1
REMOVAL OF EXISTING BEARINGS	EACH	256		256
REMOVAL OF EXISTING CONCRETE DECK	L.SUM	1		1**
STRUCTURE EXCAVATION	CU.YD.		92	92
FLOOR DRAINS	EACH	151		151
PREFORMED JOINT SEAL 2 1/2"	LIN FT.	1619		1619
PROTECTIVE COAT	SQ.YD.	11000		11000
ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	176		176
ELASTOMERIC BEARING ASSEMBLY, TYPE II	EACH	80		80
CLASS X CONCRETE	CU.YD.	5251.1	20.3	5271.4
FURNISHING AND ERECTING STRUCTURAL STEEL	L.SUM	1		1*
CLEANING AND PAINTING STEEL BRIDGE	L.SUM	1		1
REINFORCEMENT BARS	POUND		6920	6920
REINFORCEMENT BARS (EPOXY COATED)	POUND	1230760		1230760
NAME PLATES	EACH	1		1
STEEL PLATE BEAM GUARD RAIL REMOVAL, DBL.RAIL	LIN.FT.	1619		1619
DRAINAGE SYSTEM	L.SUM		1	1
DRAINAGE SCUPPERS	EACH	26		26
DRAINAGE STRUCTURE TO BE REMOVED	EACH	16		16
JACKING AND CRIBBING	EACH	64		64
NEOPRENE EXPANSION JOINT 2"	LIN.FT.	673		673
NEOPRENE EXPANSION JOINT 2 1/2"	LIN.FT.	119		119
NEOPRENE EXPANSION JOINT 4"	LIN.FT.	545		545
REPAIR CONCRETE STRUCTURES	SQ.FT.		5917	5917
RIVET REMOVAL AND REPLACEMENT	EACH	1800		1800
STONE RIPRAP	SQ.YD.		1800	1800

* CALCULATED WEIGHT OF STRUCTURAL STEEL REMOVED = 800 LBS. (INCIDENTAL TO FURNISHING AND ERECTING STRUCTURAL STEEL)

** INCLUDES APPROX. 4768 CU.YDS. CONCRETE DECK REMOVAL AND 18710 SQ.YDS. BITUMINOUS CONCRETE SURFACE REMOVAL.

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2	General Bridge Details
3	Stage Construction Details
4	Temporary Concrete Barrier
5	Deck Elevation Plan
6	Dead Load Deflection Diagram
7	Deck Elevations Spans 1-6
8	Deck Elevations Spans 1-6
9	Deck Elevations Spans 1-6
10	Deck Elevations Spans 1-6
11	Deck Elevations Spans 1-9
12	Deck Elevations Spans 7, 8, 9
13	Deck Elevations Spans 7, 8, 9
14	Deck Elevations Spans 7, 8, 9
15	Deck Elevations Spans 7, 8, 9
16	Deck Elevations Spans 10
17	Deck Elevations Spans 10
18	Deck Elevations Spans 11-13
19	Deck Elevations Spans 11-13
20	Deck Elevations Spans 11-16
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65	Substructure Repair Pier No. 11
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67	Substructure Repair Pier No. 13
68	Substructure Repair Pier No. 14
69	Substructure Repair Pier No. 15
70	Substructure Repair Pier No. 16
71	Substructure Repair Pier No. 17
72	Substructure Repair Pier No. 18

DESIGN DATA:

Design Loading: HS20-44 & Alternate.
Allowance for 25#/Sq. Ft. Future Wearing Surface

DESIGN STRESSES:

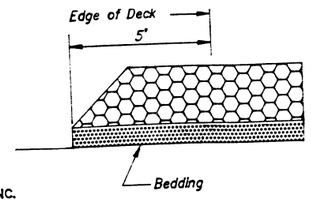
f'c = 9500 psi
fy = 60000 psi for Reinf. Steel
fs = 20000 psi for M183 Structural Steel (New).
fs = 18000 psi Existing Structural Steel
Use Load Factor Design for deck slab.

Design Specifications:

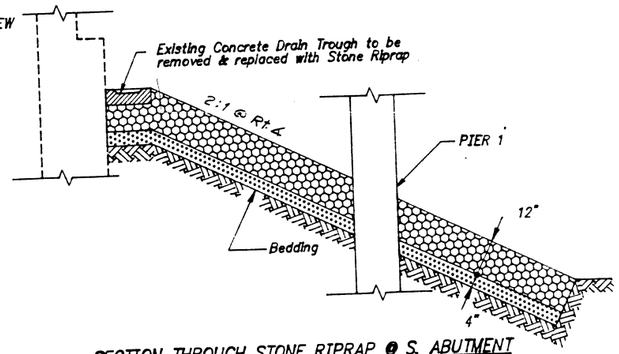
AASHTO (1983) and 1984 & 1985 Interims.

STATION 81 + 42.68
RECONSTRUCTED 198 BY
STATE OF ILLINOIS
FAI RT. 70 SEC. 82-5VBR
F.A. PROJ. EBIR-70-1(154)
LOADING HS20 & ALT.
STR. NO. 082-0017

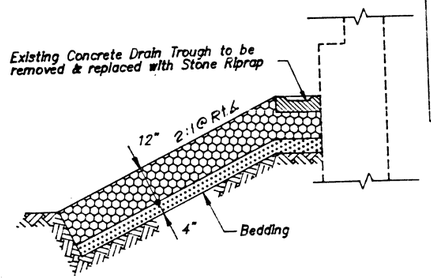
NAME PLATE
FOR DETAILS SEE STD. 2113



SECTION A-A
(See sheet #1 for location)



SECTION THROUGH STONE RIPRAP @ S. ABUTMENT



SECTION THROUGH STONE RIPRAP @ N. ABUTMENT

GENERAL BRIDGE DETAILS
F.A.I. RT 70 OVER
B & O, CONRAIL, SOUTHERN & TERMINAL RAILROAD
F.A.I. ROUTE 70 SEC. 82-5 VBR
ST. CLAIR COUNTY
STA. 81 + 42.68

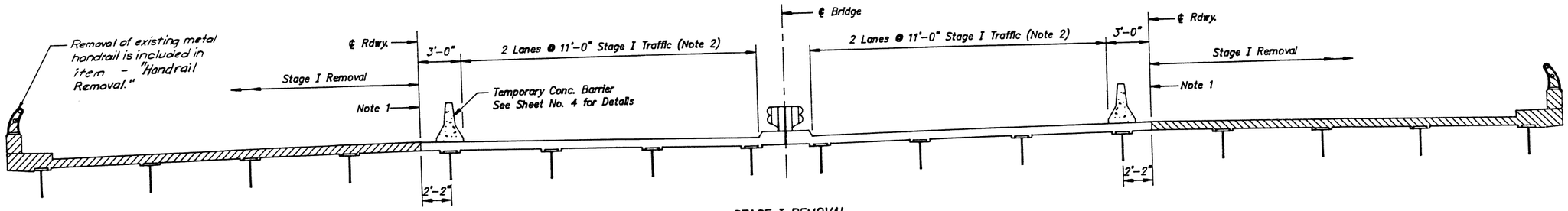
HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

FILE NUMBER
DRAWN BY
CHECKED BY
APPROVED BY

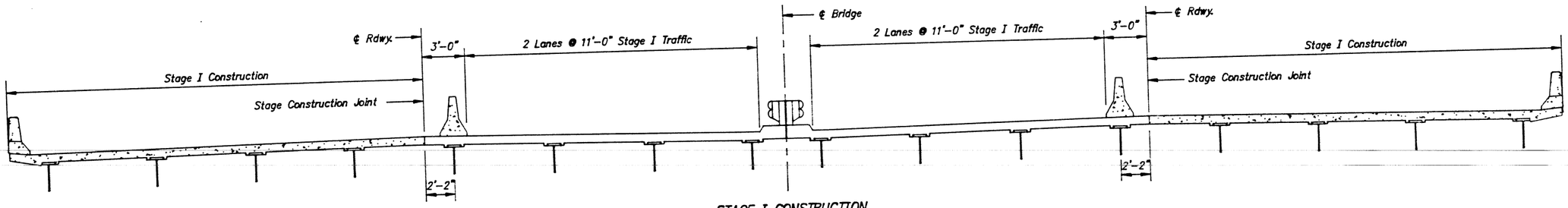
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR	ST. CLAIR	86	16
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

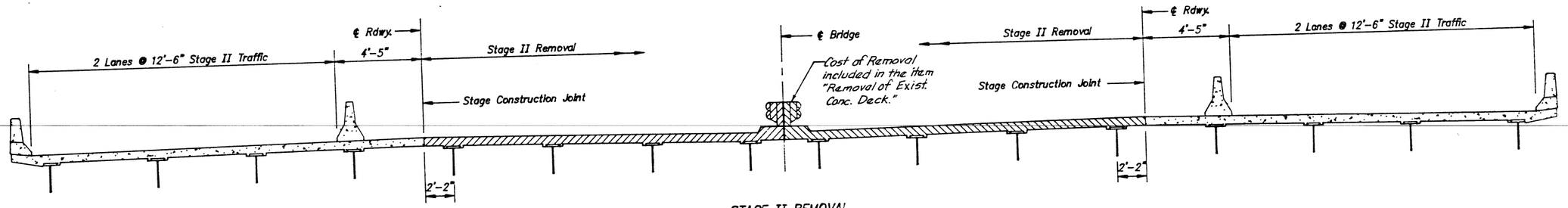
SHEET NO. 3
72 SHEETS



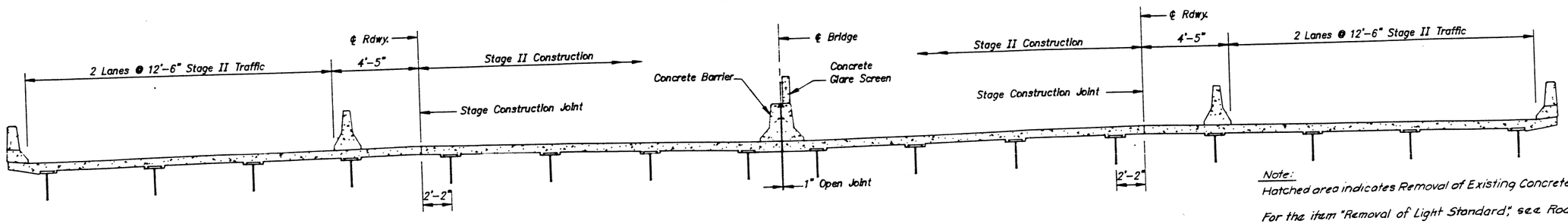
STAGE I REMOVAL



STAGE I CONSTRUCTION



STAGE II REMOVAL



STAGE II CONSTRUCTION

Note:
Hatched area indicates Removal of Existing Concrete Deck

For the item "Removal of Light Standard," see Road Plans

Note 1 : Sawcut existing slab full depth for removal (Typ.)

~~Note 2 : Removal Existing Surfacing down to Concrete on Stage I Traffic Lanes (22' Both Sides) and place 1 3/4" Bituminous Surfacing.~~

HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

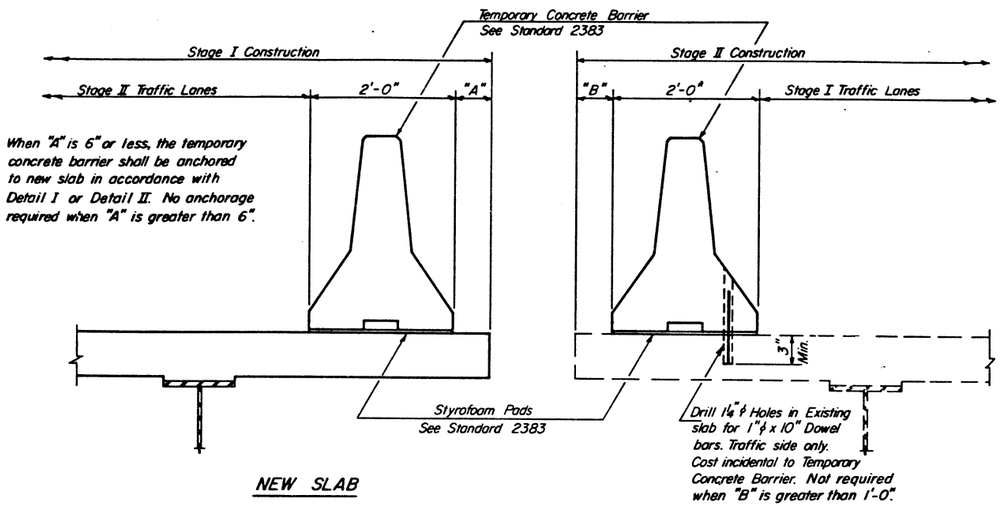
FILE NUMBER
DRAWN BY S.O.I.
CHECKED BY MR
APPROVED BY
REVISED 12-2-88

STAGE CONSTRUCTION DETAILS
F.A.I. ROUTE 70 SEC. 82-5VBR
ST. CLAIR COUNTY
STA. 81+42.68

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
FAI.70	82 5VBR	ST. CLAIR	86	17
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 4
72 SHEETS



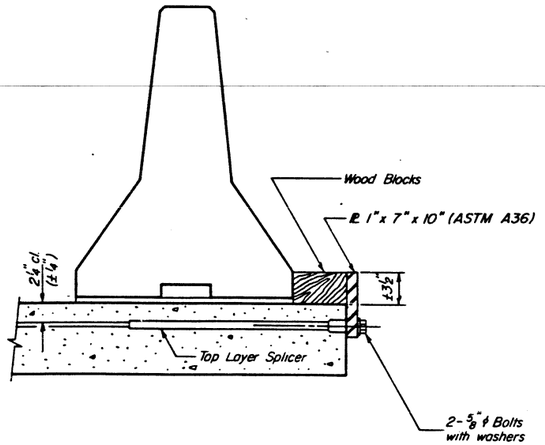
SECTIONS THRU SLAB

NOTES

Detail I - With Bar Splicer or Couplers:
Connect one (1) 1" x 7" x 10" steel PL to the top layer of couplers with 2-5/8" ϕ bolts screwed to coupler at approximate ℄ of each 10'-0" barrier panel.

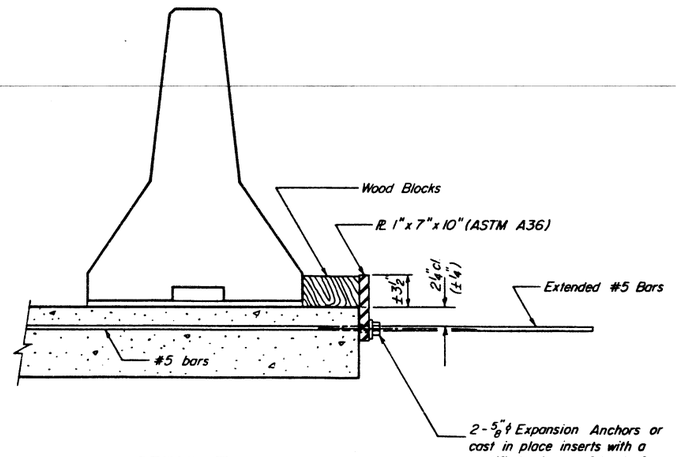
Detail II - With Extended Reinforcement Bars
Connect one (1) 1" x 7" x 10" steel PL to the concrete slab with 2-5/8" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ℄ of each 10'-0" barrier panel.

Cost of anchorage is incidental to Temporary Concrete Barrier.



DETAIL I

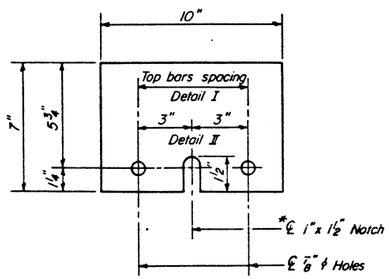
The 1"x 7"x 10" Plate shall not be removed until Stage II Construction forms and reinforcement bars are in place.



DETAIL II

The 1"x 7"x 10" Plate shall not be removed until Stage II Construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

Note: For pay item "Temporary Concrete Barrier" see Roadway plans



PL 1"x 7"x 10"

* Required only with Detail II

DESIGNED	
CHECKED	
DRAWN	CRB
CHECKED	Dla.

R-27 6-15-83

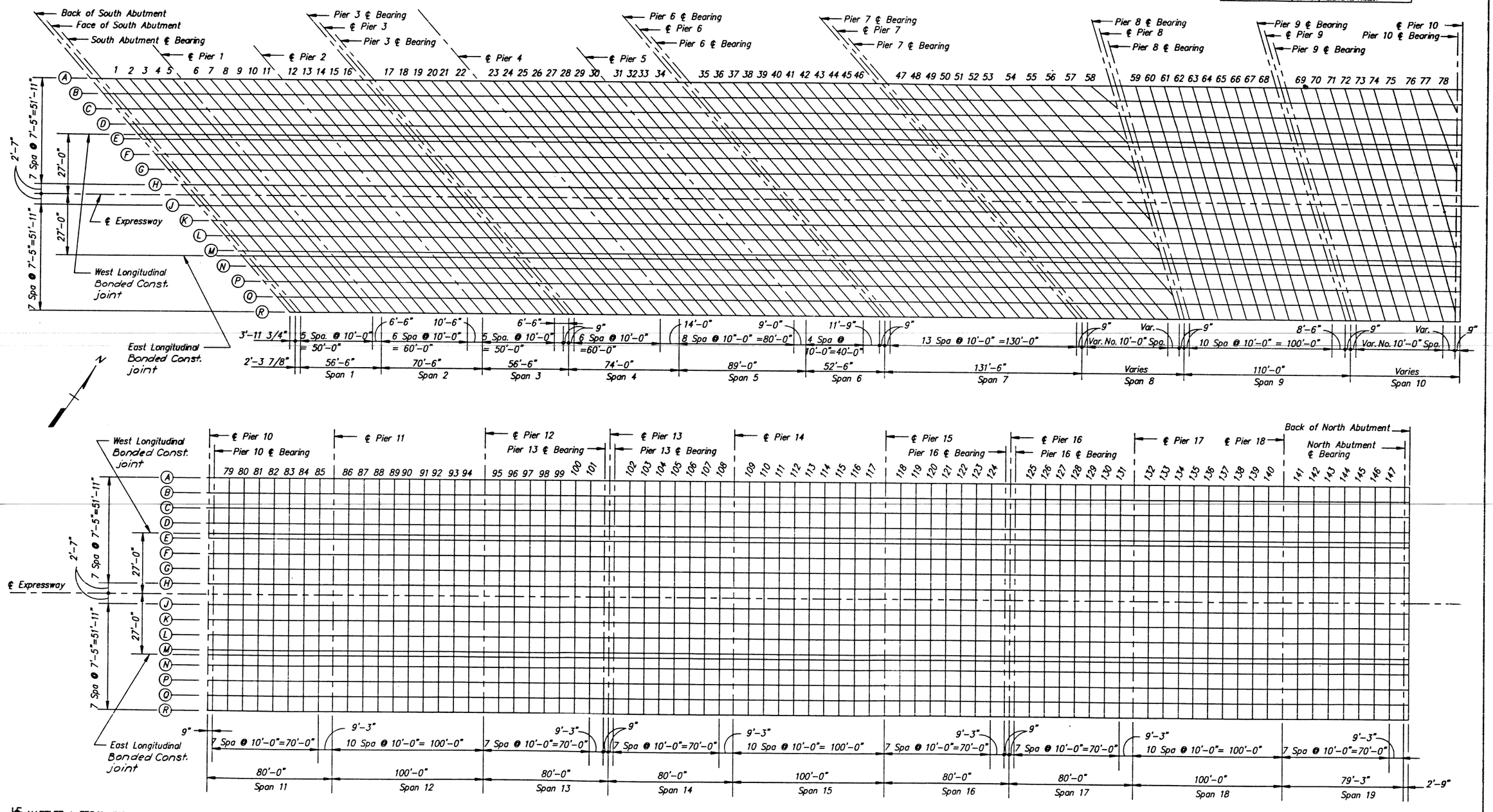
TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION

F.A.I. ROUTE 70 SEC. 82-5 VBR
ST. CLAIR COUNTY
STA. 81+42.68

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR	ST. CLAIR	86	18
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

SHEET NO. 5
72 SHEETS



HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

FILE NUMBER
DRAWN BY S.O.I.
CHECKED BY G.W.
APPROVED BY D.I.A.

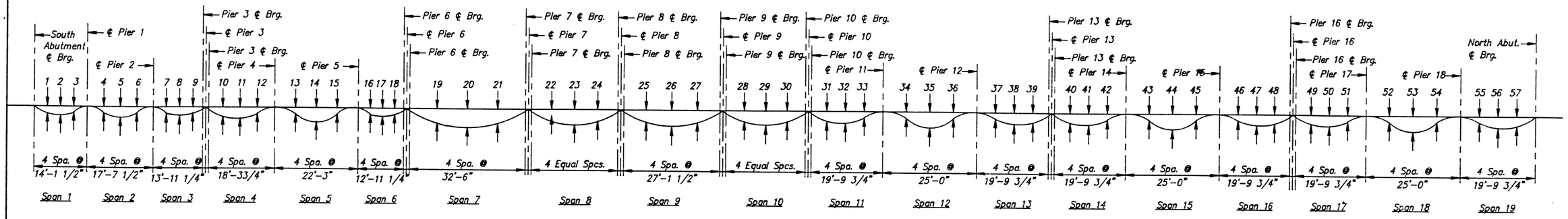
DECK ELEVATION PLAN

F.A.I. ROUTE 70 SEC. 82-5VBR
ST. CLAIR COUNTY
STA. 81+42.68

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR	ST. CLAIR	86	19
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

SHEET NO. 6
72 SHEETS



DEAD LOAD DEFLECTION DIAGRAM (Includes Weight of Concrete only)

SPANS 1–6

LOCATION	BEAM A–G, K–R	BEAM H & J
1	5/16"	3/8"
2	5/16"	3/8"
3	1/8"	1/8"
4	3/8"	3/8"
5	7/16"	9/16"
6	5/16"	5/16"
7	1/8"	3/16"
8	5/16"	3/8"
9	1/4"	5/16"
10	9/16"	3/4"
11	11/16"	7/8"
12	5/16"	3/16"
13	1/2"	11/16"
14	1"	1 5/16"
15	11/16"	11/16"
16	– 1/16"	– 1/16"
17	1/16"	1/16"
18	1/16"	1/16"

SPAN 7

LOCATION	BEAM A & R	BEAM B–G,K–Q	BEAM H & J
19	2 1/8"	2 1/4"	2 5/8
20	2 15/16"	3 1/4"	3 11/16"
21	2 1/16"	2 5/16"	2 1/2"

SPAN 8

LOCATION	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R
22	2 1/16"	2"	1 15/16"	1 15/16"	1 5/8"	1 9/16"	1 5/16"	1 5/16"	1 3/8"	15/16"	15/16"	13/16"	13/16"	5/8"	5/8"	7/16"
23	2 7/8"	2 13/16"	2 5/8"	2 5/8"	2 1/4"	2 1/4"	1 13/16"	1 13/16"	1 15/16"	1 5/16"	1 5/16"	1 1/8"	1 1/8"	7/8"	7/8"	5/8"
24	2 1/8"	2 1/16"	2"	1 15/16"	1 5/8"	1 5/8"	1 3/8"	1 5/16"	1 3/8"	15/16"	15/16"	13/16"	13/16"	5/8"	5/8"	7/16"

SPAN 9

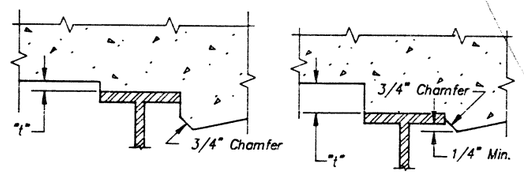
LOCATION	BEAM A & R	BEAM B–G,K–Q	BEAM H & J
25	1 3/8"	1 1/2"	1 11/16"
26	1 15/16"	2"	2 5/16"
27	1 1/2"	1 5/8"	1 7/8"

SPAN 10

LOCATION	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R
28	1 5/16"	1 5/16"	1 1/4"	1 1/4"	1 1/8"	1 1/8"	1"	1 1/8"	1 1/8"	13/16"	13/16"	13/16"	3/4"	5/8"	5/8"	5/8"
29	1 7/8"	1 13/16"	1 3/4"	1 3/4"	1 9/16"	1 9/16"	1 3/8"	1 9/16"	1 9/16"	1 1/8"	1 1/8"	1 1/8"	1 1/16"	15/16"	15/16"	7/8"
30	1 3/8"	1 5/16"	1 5/16"	1 1/4"	1 1/8"	1 1/8"	1"	1 1/8"	1 1/8"	13/16"	13/16"	13/16"	3/4"	5/8"	5/8"	5/8"

SPANS 11–19

LOCATION	BEAM A & R	BEAM B–G,K–Q	BEAM H & J
31	3/8"	3/8"	1/2"
32	7/16"	7/16"	9/16"
33	3/16"	3/16"	1/4"
34	5/16"	5/16"	3/8"
35	9/16"	9/16"	11/16"
36	5/16"	5/16"	3/8"
37	3/16"	3/16"	1/4"
38	7/16"	7/16"	9/16"
39	3/8"	3/8"	1/2"
40	3/8"	3/8"	1/2"
41	7/16"	7/16"	9/16"
42	3/16"	3/16"	1/4"
43	5/16"	5/16"	3/8"
44	9/16"	9/16"	11/16"
45	5/16"	5/16"	3/8"
46	3/16"	3/16"	1/4"
47	7/16"	7/16"	9/16"
48	3/8"	3/8"	1/2"
49	3/8"	3/8"	1/2"
50	7/16"	7/16"	9/16"
51	3/16"	3/16"	1/4"
52	5/16"	5/16"	3/8"
53	9/16"	9/16"	11/16"
54	5/16"	5/16"	3/8"
55	3/16"	3/16"	1/4"
56	7/16"	7/16"	9/16"
57	3/8"	3/8"	1/2"



AT MINIMUM FILLET AT MAXIMUM FILLET

To determine "t" after all steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown on Sheet No. 5. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on Sheets No. 7–24, minus slab thickness, equals the fillet heights "t" above top flanges of beams.

FILLET HEIGHTS

Note: The above deflections are not to be used in the field if the Engineer is working from the grade Elevations adjusted for dead load deflections as shown on Elevation Sheets No. 7–24.

MAZELET + ERDAL, INC.
CONSULTING ENGINEERS

FILE NUMBER
DRAWN BY S.O.I.
CHECKED BY GWS
APPROVED BY DMA

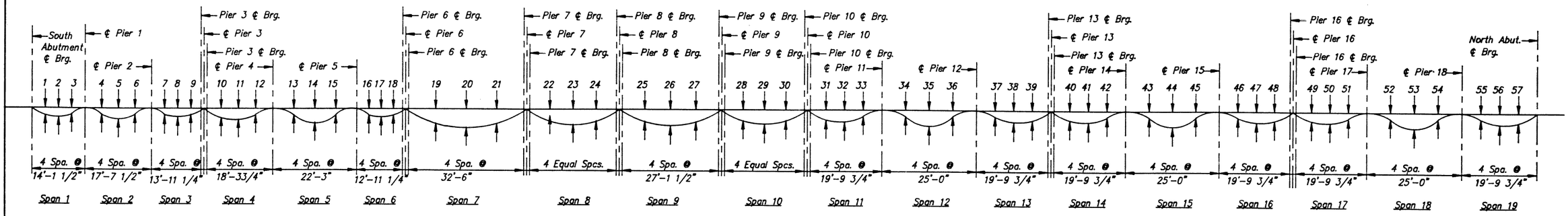
SSB\DECK-DEF 11-2-81

DEAD LOAD DEFLECTION DIAGRAM
F.A.I. ROUTE 70 SEC. 82–5VBR
ST. CLAIR COUNTY
STA. 81+42.68

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR	ST. CLAIR	86	19
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

SHEET NO. 6
72 SHEETS



DEAD LOAD DEFLECTION DIAGRAM (Includes Weight of Concrete only)

SPANS 1–6

LOCATION	BEAM A–G, K–R	BEAM H & J
1	5/16"	3/8"
2	5/16"	3/8"
3	1/8"	1/8"
4	3/8"	3/8"
5	7/16"	9/16"
6	5/16"	5/16"
7	1/8"	3/16"
8	5/16"	3/8"
9	1/4"	5/16"
10	9/16"	3/4"
11	11/16"	7/8"
12	5/16"	3/16"
13	1/2"	11/16"
14	1"	1 5/16"
15	11/16"	11/16"
16	- 1/16"	- 1/16"
17	1/16"	1/16"
18	1/16"	1/16"

SPAN 7

LOCATION	BEAM A & R	BEAM B–G,K–Q	BEAM H & J
19	2 1/8"	2 1/4"	2 5/8
20	2 15/16"	3 1/4"	3 11/16"
21	2 1/16"	2 5/16"	2 1/2"

SPAN 8

LOCATION	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R
22	2 1/16"	2"	1 15/16"	1 15/16"	1 5/8"	1 9/16"	1 5/16"	1 5/16"	1 3/8"	15/16"	15/16"	13/16"	13/16"	5/8"	5/8"	7/16"
23	2 7/8"	2 13/16"	2 5/8"	2 5/8"	2 1/4"	2 1/4"	1 13/16"	1 13/16"	1 15/16"	1 5/16"	1 5/16"	1 1/8"	1 1/8"	7/8"	7/8"	5/8"
24	2 1/8"	2 1/16"	2"	1 15/16"	1 5/8"	1 5/8"	1 3/8"	1 5/16"	1 3/8"	15/16"	15/16"	13/16"	13/16"	5/8"	5/8"	7/16"

SPAN 9

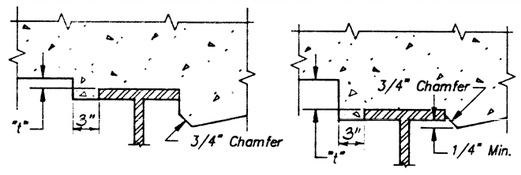
LOCATION	BEAM A & R	BEAM B–G,K–Q	BEAM H & J
25	1 3/8"	1 1/2"	1 11/16"
26	1 15/16"	2"	2 5/16"
27	1 1/2"	1 5/8"	1 7/8"

SPAN 10

LOCATION	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R
28	1 5/16"	1 5/16"	1 1/4"	1 1/4"	1 1/8"	1 1/8"	1"	1 1/8"	1 1/8"	13/16"	13/16"	13/16"	3/4"	5/8"	5/8"	5/8"
29	1 7/8"	1 13/16"	1 3/4"	1 3/4"	1 9/16"	1 9/16"	1 3/8"	1 9/16"	1 9/16"	1 1/8"	1 1/8"	1 1/8"	1 1/16"	15/16"	15/16"	7/8"
30	1 3/8"	1 5/16"	1 5/16"	1 1/4"	1 1/8"	1 1/8"	1"	1 1/8"	1 1/8"	13/16"	13/16"	13/16"	3/4"	5/8"	5/8"	5/8"

SPANS 11–19

LOCATION	BEAM A & R	BEAM B–G,K–Q	BEAM H & J
31	3/8"	3/8"	1/2"
32	7/16"	7/16"	9/16"
33	3/16"	3/16"	1/4"
34	5/16"	5/16"	3/8"
35	9/16"	9/16"	11/16"
36	5/16"	5/16"	3/8"
37	3/16"	3/16"	1/4"
38	7/16"	7/16"	9/16"
39	3/8"	3/8"	1/2"
40	3/8"	3/8"	1/2"
41	7/16"	7/16"	9/16"
42	3/16"	3/16"	1/4"
43	5/16"	5/16"	3/8"
44	9/16"	9/16"	11/16"
45	5/16"	5/16"	3/8"
46	3/16"	3/16"	1/4"
47	7/16"	7/16"	9/16"
48	3/8"	3/8"	1/2"
49	3/8"	3/8"	1/2"
50	7/16"	7/16"	9/16"
51	3/16"	3/16"	1/4"
52	5/16"	5/16"	3/8"
53	9/16"	9/16"	11/16"
54	5/16"	5/16"	3/8"
55	3/16"	3/16"	1/4"
56	7/16"	7/16"	9/16"
57	3/8"	3/8"	1/2"



AT MINIMUM FILLET AT MAXIMUM FILLET

To determine "t" after all steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown on Sheet No. 5. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on Sheets No. 7–24, minus slab thickness, equals the fillet heights "t" above top flanges of beams.

FILLET HEIGHTS

Note: *The above deflections are not to be used in the field if the Engineer is working from the grade Elevations adjusted for dead load deflections as shown on Elevation Sheets No. 7–24.*

MAZELET + ERDAL, INC.
CONSULTING ENGINEERS

FILE NUMBER
DRAWN BY S.O.I.
CHECKED BY GW
APPROVED BY
559\DECK-DEF 12-1-86

DEAD LOAD DEFLECTION DIAGRAM
F.A.I. ROUTE 70 SEC. 82–5VBR
ST. CLAIR COUNTY
STA. 81+42.68

REV. 1-22-87

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR	ST. CLAIR	86	20
FEDERAL ROAD DIST. NO.		ILLINOIS	FEDERAL AID PROJECT-	

SHEET NO. 7
72 SHEETS

BEAM A

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BACK OF SO. ABUT.	72+85.81	54.50	440.060	440.060
FACE OF BACKWALL	72+87.47	54.50	440.120	440.120
SO. ABUT. ℄ BRG.	72+89.79	54.50	440.210	440.210
1	72+99.79	54.50	440.587	440.601
2	73+09.79	54.50	440.964	440.986
3	73+19.79	54.50	441.341	441.361
4	73+29.79	54.50	441.718	441.729
5	73+39.79	54.50	442.095	442.097
PIER 1	73+46.29	54.50	442.340	442.340
6	73+56.29	54.50	442.717	442.723
7	73+66.29	54.50	443.094	443.111
8	73+76.29	54.50	443.471	443.496
9	73+86.29	54.50	443.848	443.873
10	73+96.29	54.50	444.225	444.239
11	74+06.29	54.50	444.602	444.609
PIER 2	74+16.79	54.50	444.998	444.998
12	74+26.79	54.50	445.375	445.380
13	74+36.79	54.50	445.752	445.768
14	74+46.79	54.50	446.129	446.149
15	74+56.79	54.50	446.506	446.524
16	74+66.79	54.50	446.883	446.891
PIER 3 ℄ BRG.	74+72.54	54.50	447.100	447.100
PIER 3	74+73.29	54.50	447.125	447.125
PIER 3 ℄ BRG.	74+74.03	54.50	447.150	447.150
17	74+84.03	54.50	447.527	447.547
18	74+94.03	54.50	447.904	447.938
19	75+04.03	54.50	448.281	448.320
20	75+14.03	54.50	448.658	448.692
21	75+24.03	54.50	449.035	449.058
22	75+34.03	54.50	449.412	449.420
PIER 4	75+47.28	54.50	449.911	449.911
23	75+57.28	54.50	450.288	450.297
24	75+67.28	54.50	450.665	450.691
25	75+77.28	54.50	451.037	451.080
26	75+87.28	54.50	451.397	451.451
27	75+97.28	54.50	451.745	451.800
28	76+07.28	54.50	452.080	452.127
29	76+17.28	54.50	452.403	452.435
30	76+27.28	54.50	452.715	452.727
PIER 5	76+36.28	54.50	452.984	452.984
31	76+46.28	54.50	453.273	453.269
32	76+56.28	54.50	453.549	453.548
33	76+66.28	54.50	453.813	453.816
34	76+76.28	54.50	454.064	454.065
PIER 6 ℄ BRG.	76+88.03	54.50	454.345	454.345
PIER 6	76+88.78	54.50	454.366	454.366

BEAM B

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BACK OF SO. ABUT.	72+92.26	47.08	440.419	440.419
FACE OF BACKWALL	72+93.91	47.08	440.480	440.480
SO. ABUT. ℄ BRG.	72+96.24	47.08	440.569	440.569
1	73+06.24	47.08	440.946	440.960
2	73+16.24	47.08	441.323	441.345
3	73+26.24	47.08	441.700	441.720
4	73+36.24	47.08	442.077	442.088
5	73+46.24	47.08	442.454	442.456
PIER 1	73+52.74	47.08	442.699	442.699
6	73+62.74	47.08	443.076	443.082
7	73+72.74	47.08	443.453	443.470
8	73+82.74	47.08	443.830	443.854
9	73+92.74	47.08	444.207	444.232
10	74+02.74	47.08	444.584	444.597
11	74+12.74	47.08	444.961	444.968
PIER 2	74+23.24	47.08	445.357	445.357
12	74+33.24	47.08	445.734	445.739
13	74+43.24	47.08	446.111	446.127
14	74+53.24	47.08	446.488	446.508
15	74+63.24	47.08	446.865	446.883
16	74+73.24	47.08	447.242	447.250
PIER 3 ℄ BRG.	74+78.99	47.08	447.458	447.458
PIER 3	74+79.74	47.08	447.485	447.485
PIER 3 ℄ BRG.	74+80.49	47.08	447.509	447.509
17	74+90.49	47.08	447.886	447.906
18	75+00.49	47.08	448.263	448.297
19	75+10.49	47.08	448.640	448.679
20	75+20.49	47.08	449.017	449.051
21	75+30.49	47.08	449.394	449.416
22	75+40.49	47.08	449.771	449.779
PIER 4	75+53.74	47.08	450.270	450.270
23	75+63.74	47.08	450.647	450.656
24	75+73.74	47.08	451.022	451.048
25	75+83.74	47.08	451.386	451.429
26	75+93.74	47.08	451.738	451.792
27	76+03.74	47.08	452.078	452.133
28	76+13.74	47.08	452.406	452.453
29	76+23.74	47.08	452.721	452.753
30	76+33.74	47.08	453.025	453.037
PIER 5	76+42.74	47.08	453.287	453.287
31	76+52.74	47.08	453.568	453.564
32	76+62.74	47.08	453.836	453.836
33	76+72.74	47.08	454.092	454.095
34	76+82.74	47.08	454.336	454.337
PIER 6 ℄ BRG.	76+94.49	47.08	454.607	454.607
PIER 6	76+95.24	47.08	454.628	454.628

BEAM C

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BACK OF SO. ABUT.	72+98.70	39.67	440.777	440.777
FACE OF BACKWALL	73+00.36	39.67	440.839	440.839
SO. ABUT. ℄ BRG.	73+02.68	39.67	440.927	440.927
1	73+12.68	39.67	441.304	441.319
2	73+22.68	39.67	441.681	441.703
3	73+32.68	39.67	442.058	442.078
4	73+42.68	39.67	442.435	442.447
5	73+52.68	39.67	442.812	442.815
PIER 1	73+59.18	39.67	443.058	443.058
6	73+69.18	39.67	443.435	443.441
7	73+79.18	39.67	443.812	443.828
8	73+89.18	39.67	444.189	444.213
9	73+99.18	39.67	444.566	444.590
10	74+09.18	39.67	444.943	444.956
11	74+19.18	39.67	445.320	445.327
PIER 2	74+29.68	39.67	445.715	445.715
12	74+39.68	39.67	446.092	446.097
13	74+49.68	39.67	446.469	446.486
14	74+59.68	39.67	446.846	446.866
15	74+69.68	39.67	447.223	447.242
16	74+79.68	39.67	447.600	447.608
PIER 3 ℄ BRG.	74+85.43	39.67	447.817	447.817
PIER 3	74+86.18	39.67	447.845	447.845
PIER 3 ℄ BRG.	74+86.93	39.67	447.867	447.867
17	74+96.93	39.67	448.244	448.264
18	75+06.93	39.67	448.621	448.655
19	75+16.93	39.67	448.998	449.037
20	75+26.93	39.67	449.375	449.410
21	75+36.93	39.67	449.752	449.775
22	75+46.93	39.67	450.129	450.138
PIER 4	75+60.18	39.67	450.629	450.629
23	75+70.18	39.67	451.006	451.015
24	75+80.18	39.67	451.374	451.400
25	75+90.18	39.67	451.730	451.773
26	76+00.18	39.67	452.074	452.128
27	76+10.18	39.67	452.406	452.461
28	76+20.18	39.67	452.726	452.773
29	76+30.18	39.67	453.034	453.065
30	76+40.18	39.67	453.329	453.342
PIER 5	76+49.18	39.67	453.585	453.585
31	76+59.18	39.67	453.858	453.854
32	76+69.18	39.67	454.118	454.118
33	76+79.18	39.67	454.366	454.369
34	76+89.18	39.67	454.603	454.604
PIER 6 ℄ BRG.	77+00.93	39.67	454.865	454.865
PIER 6	77+01.68	39.67	454.884	454.884

BEAM D

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BACK OF SO. ABUT.	73+05.15	32.25	441.136	441.136
FACE OF BACKWALL	73+06.81	32.25	441.198	441.198
SO. ABUT. ℄ BRG.	73+09.13	32.25	441.286	441.286
1	73+19.13	32.25	441.663	441.678
2	73+29.13	32.25	442.040	442.062
3	73+39.13	32.25	442.417	442.437
4	73+49.13	32.25	442.794	442.806
5	73+59.13	32.25	443.171	443.174
PIER 1	73+65.63	32.25	443.416	443.416
6	73+75.63	32.25	443.793	443.799
7	73+85.63	32.25	444.170	444.187
8	73+95.63	32.25	444.547	444.572
9	74+05.63	32.25	444.924	444.949
10	74+15.63	32.25	445.301	445.315
11	74+25.63	32.25	445.678	445.685
PIER 2	74+36.13	32.25	446.074	446.074
12	74+46.13	32.25	446.451	446.456
13	74+56.13	32.25	446.828	446.845
14	74+66.13	32.25	447.205	447.225
15	74+76.13	32.25	447.582	447.601
16	74+86.13	32.25	447.959	447.967
PIER 3 ℄ BRG.	74+91.88	32.25	448.176	448.176
PIER 3	74+92.63	32.25	448.204	448.204
PIER 3 ℄ BRG.	74+93.37	32.25	448.226	448.226
17	75+03.37	32.25	448.603	448.623
18	75+13.37	32.25	448.980	449.014
19	75+23.37	32.25	449.357	449.396
20	75+33.37	32.25	449.734	449.768
21	75+43.37	32.25	450.111	450.134
22	75+53.37	32.25	450.488	450.497
PIER 4	75+66.62	32.25	450.988	450.988
23	75+76.62	32.25	451.350	451.369
24	75+86.62	32.25	451.721	451.747
25	75+96.62	32.25	452.069	452.112
26	76+06.62	32.25	452.405	452.459
27	76+16.62	32.25	452.730	452.785
28	76+26.62	32.25	453.042	453.089
29	76+36.62	32.25	453.341	453.373
30	76+46.62	32.25	453.629	453.642
PIER 5	76+55.62	32.25	453.878	453.878
31	76+65.62	32.25	454.143	454.139
32	76+75.62	32.25	454.395	454.395
33	76+85.62	32.25	454.636	454.639
34	76+95.62	32.25	454.864	454.865
PIER 6 ℄ BRG.	77+07.37	32.25	455.117	455.117
PIER 6	77+08.12	32.25	455.137	455.137

HE HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

FILE NUMBER
DRAWN BY C.B./D.C.
CHECKED BY GW
APPROVED BY DLa

DECK ELEVATIONS
SPANS 1-6
F.A.I. ROUTE 70 SEC. 82-5VBR
ST. CLAIR COUNTY
STA. 81+42.68

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR	ST. CLAIR	86	21
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

SHEET NO. 8
72 SHEETS

CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BACK OF SO. ABUT.	73+09.72	27.00	441.390	441.390
FACE OF BACKWALL	73+11.38	27.00	441.452	441.452
SO. ABUT. ℄ BRG.	73+13.69	27.00	441.540	441.540
1	73+23.69	27.00	441.917	441.931
2	73+33.69	27.00	442.294	442.316
3	73+43.69	27.00	442.671	442.691
4	73+53.69	27.00	443.048	443.059
5	73+63.69	27.00	443.425	443.427
PIER 1	73+70.19	27.00	443.670	443.670
6	73+80.19	27.00	444.047	444.050
7	73+90.19	27.00	444.424	444.444
8	74+00.19	27.00	444.801	444.826
9	74+10.19	27.00	445.178	445.203
10	74+20.19	27.00	445.555	445.575
11	74+30.19	27.00	445.932	445.939
PIER 2	74+40.69	27.00	446.328	446.328
12	74+50.69	27.00	446.705	446.710
13	74+60.69	27.00	447.082	447.096
14	74+70.69	27.00	447.459	447.479
15	74+80.69	27.00	447.836	447.855
16	74+90.69	27.00	448.213	448.221
PIER 3 ℄ BRG.	74+96.44	27.00	448.430	448.430
PIER 3	74+97.18	27.00	448.457	448.457
PIER 3 ℄ BRG.	74+97.93	27.00	448.480	448.480
17	75+07.93	27.00	448.857	448.876
18	75+17.93	27.00	449.234	449.271
19	75+27.93	27.00	449.611	449.650
20	75+37.93	27.00	449.988	450.022
21	75+47.93	27.00	450.365	450.388
22	75+57.93	27.00	450.742	450.751
PIER 4	75+71.18	27.00	451.241	451.241
23	75+81.18	27.00	451.608	451.617
24	75+91.18	27.00	451.963	451.989
25	76+01.18	27.00	452.306	452.349
26	76+11.18	27.00	452.637	452.691
27	76+21.18	27.00	452.955	453.011
28	76+31.18	27.00	453.262	453.309
29	76+41.18	27.00	453.556	453.584
30	76+51.18	27.00	453.838	453.850
PIER 5	76+60.18	27.00	454.082	454.082
31	76+70.18	27.00	454.341	454.338
32	76+80.18	27.00	454.589	454.589
33	76+90.18	27.00	454.824	454.827
34	77+00.18	27.00	455.046	455.049
PIER 6 ℄ BRG.	77+11.93	27.00	455.293	455.293
PIER 6	77+12.69	27.00	455.312	455.312

BEAM E

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BACK OF SO ABUT.	73+11.60	24.83	441.427	441.427
FACE OF BACKWALL	73+13.26	24.83	441.490	441.490
SO. ABUT. ℄ BRG.	73+15.58	24.83	441.577	441.577
1	73+25.58	24.83	441.954	441.968
2	73+35.58	24.83	442.331	442.353
3	73+45.58	24.83	442.708	442.728
4	73+55.58	24.83	443.085	443.096
5	73+65.58	24.83	443.462	443.464
PIER 1	73+72.08	24.83	443.707	443.707
6	73+82.08	24.83	444.084	444.087
7	73+92.08	24.83	444.461	444.481
8	74+02.08	24.83	444.838	444.863
9	74+12.08	24.83	445.215	445.240
10	74+22.08	24.83	445.592	445.612
11	74+32.08	24.83	445.969	445.976
PIER 2	74+42.58	24.83	446.365	446.365
12	74+52.58	24.83	446.742	446.747
13	74+62.58	24.83	447.119	447.133
14	74+72.58	24.83	447.496	447.516
15	74+82.58	24.83	447.873	447.892
16	74+92.58	24.83	448.250	448.258
PIER 3 ℄ BRG.	74+98.33	24.83	448.467	448.467
PIER 3	74+99.07	24.83	448.494	448.494
PIER 3 ℄ BRG.	74+99.82	24.83	448.517	448.517
17	75+09.82	24.83	448.894	448.913
18	75+19.82	24.83	449.271	449.308
19	75+29.82	24.83	449.648	449.687
20	75+39.82	24.83	450.025	450.059
21	75+49.82	24.83	450.402	450.425
22	75+59.82	24.83	450.779	450.788
PIER 4	75+73.07	24.83	451.277	451.277
23	75+83.07	24.83	451.642	451.651
24	75+93.07	24.83	451.995	452.021
25	76+03.07	24.83	452.335	452.378
26	76+13.07	24.83	452.664	452.718
27	76+23.07	24.83	452.980	453.036
28	76+33.07	24.83	453.284	453.331
29	76+43.07	24.83	453.576	453.604
30	76+53.07	24.83	453.856	453.868
PIER 5	76+62.07	24.83	454.098	454.098
31	76+72.07	24.83	454.355	454.352
32	76+82.07	24.83	454.600	454.600
33	76+92.07	24.83	454.833	454.836
34	77+02.07	24.83	455.053	455.056
PIER 6 ℄ BRG.	77+13.82	24.83	455.297	455.297
PIER 6	77+14.57	24.83	455.316	455.316

BEAM F

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BACK OF SO. ABUT.	73+18.05	17.42	441.554	441.554
FACE OF BACKWALL	73+19.71	17.42	441.617	441.617
SO. ABUT. ℄ BRG.	73+22.03	17.42	441.705	441.705
1	73+32.03	17.42	442.082	442.096
2	73+42.03	17.42	442.459	442.481
3	73+52.03	17.42	442.836	442.856
4	73+62.03	17.42	443.213	443.224
5	73+72.03	17.42	443.590	443.592
PIER 1	73+78.53	17.42	443.835	443.835
6	73+88.53	17.42	444.212	444.215
7	73+98.53	17.42	444.589	444.609
8	74+08.53	17.42	444.966	444.991
9	74+18.53	17.42	445.343	445.368
10	74+28.53	17.42	445.720	445.740
11	74+38.53	17.42	446.097	446.104
PIER 2	74+49.03	17.42	446.493	446.493
12	74+59.03	17.42	446.870	446.875
13	74+69.03	17.42	447.247	447.261
14	74+79.03	17.42	447.624	447.644
15	74+89.03	17.42	448.001	448.020
16	74+99.03	17.42	448.378	448.386
PIER 3 ℄ BRG.	75+04.78	17.42	448.594	448.594
PIER 3	75+05.52	17.42	448.621	448.621
PIER 3 ℄ BRG.	75+06.27	17.42	448.645	448.645
17	75+16.27	17.42	449.022	449.041
18	75+26.27	17.42	449.399	449.436
19	75+36.27	17.42	449.776	449.815
20	75+46.27	17.42	450.153	450.187
21	75+56.27	17.42	450.530	450.553
22	75+66.27	17.42	450.907	450.916
PIER 4	75+79.52	17.42	451.398	451.398
23	75+89.52	17.42	451.755	451.764
24	75+99.52	17.42	452.100	452.126
25	76+09.52	17.42	452.433	452.476
26	76+19.52	17.42	452.753	452.807
27	76+29.52	17.42	453.062	453.118
28	76+39.52	17.42	453.358	453.405
29	76+49.52	17.42	453.643	453.671
30	76+59.52	17.42	453.915	453.927
PIER 5	76+68.52	17.42	454.149	454.149
31	76+78.52	17.42	454.399	454.396
32	76+88.52	17.42	454.636	454.636
33	76+98.52	17.42	454.861	454.864
34	77+08.52	17.42	455.073	455.076
PIER 6 ℄ BRG.	77+20.27	17.42	455.308	455.308
PIER 6	77+21.02	17.42	455.326	455.326

BEAM G

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BACK OF SO. ABUT.	73+24.50	10.00	441.682	441.682
FACE OF BACKWALL	73+26.15	10.00	441.744	441.744
SO. ABUT. ℄ BRG.	73+28.47	10.00	441.832	441.832
1	73+38.47	10.00	442.209	442.223
2	73+48.47	10.00	442.586	442.608
3	73+58.47	10.00	442.963	442.983
4	73+68.47	10.00	443.340	443.351
5	73+78.47	10.00	443.717	443.719
PIER 1	73+84.97	10.00	443.962	443.962
6	73+94.97	10.00	444.339	444.342
7	74+04.97	10.00	444.716	444.736
8	74+14.97	10.00	445.093	445.118
9	74+24.97	10.00	445.470	445.495
10	74+34.97	10.00	445.847	445.867
11	74+44.97	10.00	446.224	446.231
PIER 2	74+55.47	10.00	446.620	446.620
12	74+65.47	10.00	446.997	447.002
13	74+75.47	10.00	447.374	447.388
14	74+85.47	10.00	447.751	447.771
15	74+95.47	10.00	448.128	448.147
16	75+05.47	10.00	448.505	448.513
PIER 3 ℄ BRG.	75+11.22	10.00	448.722	448.722
PIER 3	75+11.97	10.00	448.749	448.749
PIER 3 ℄ BRG.	75+12.71	10.00	448.772	448.772
17	75+22.71	10.00	449.149	449.168
18	75+32.71	10.00	449.526	449.563
19	75+42.71	10.00	449.903	449.942
20	75+52.71	10.00	450.280	450.314
21	75+62.71	10.00	450.657	450.680
22	75+72.71	10.00	451.033	451.042
PIER 4	75+85.96	10.00	451.514	451.514
23	75+95.96	10.00	451.863	451.872
24	76+05.96	10.00	452.200	452.226
25	76+15.96	10.00	452.525	452.568
26	76+25.96	10.00	452.838	452.892
27	76+35.96	10.00	453.139	453.195
28	76+45.96	10.00	453.427	453.474
29	76+55.96	10.00	453.704	453.732
30	76+65.96	10.00	453.968	453.980
PIER 5	76+74.96	10.00	454.196	454.196
31	76+84.96	10.00	454.437	454.434
32	76+94.96	10.00	454.666	454.666
33	77+04.96	10.00	454.883	454.886
34	77+14.96	10.00	455.088	455.091
PIER 6 ℄ BRG.	77+26.71	10.00	455.314	455.314
PIER 6	77+27.46	10.00	456.332	456.332

HE HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

FILE NUMBER
DRAWN BY C.B./D.C.
CHECKED BY G.W.F.
APPROVED BY

DECK ELEVATIONS
SPANS 1-6
F.A.I. ROUTE 70 SEC. 82-5VBR
ST. CLAIR COUNTY
STA. 81+42.68

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR	ST. CLAIR	86	22
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

SHEET NO. 9
72 SHEETS

BEAM H

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BACK OF SO. ABUT.	73+30.95	2.58	441.809	441.809
FACE OF BACKWALL	73+32.60	2.58	441.872	441.872
SO. ABUT. ℄ BRG.	73+34.92	2.58	441.959	441.959
1	73+44.92	2.58	442.336	442.352
2	73+54.92	2.58	442.713	442.737
3	73+64.92	2.58	443.090	443.113
4	73+74.92	2.58	443.467	443.480
5	73+84.92	2.58	443.844	443.846
PIER 1	73+91.42	2.58	444.090	444.090
6	74+01.42	2.58	444.467	444.476
7	74+11.42	2.58	444.844	444.866
8	74+21.42	2.58	445.221	445.250
9	74+31.42	2.58	445.598	445.630
10	74+41.42	2.58	445.975	445.998
11	74+51.42	2.58	446.352	446.361
PIER 2	74+61.92	2.58	446.747	446.747
12	74+71.92	2.58	447.124	447.129
13	74+81.92	2.58	447.501	447.519
14	74+91.92	2.58	447.878	447.901
15	75+01.92	2.58	448.255	448.276
16	75+11.92	2.58	448.632	448.642
PIER 3 ℄ BRG.	75+17.67	2.58	448.849	448.849
PIER 3	75+18.42	2.58	448.877	448.877
PIER 3 ℄ BRG.	75+19.16	2.58	448.899	448.899
17	75+29.16	2.58	449.276	449.304
18	75+39.16	2.58	449.653	449.700
19	75+49.16	2.58	450.030	450.084
20	75+59.16	2.58	450.407	450.454
21	75+69.16	2.58	450.784	450.815
22	75+79.16	2.58	451.154	451.170
PIER 4	75+92.41	2.58	451.625	451.625
23	76+02.41	2.58	451.966	451.979
24	76+12.41	2.58	452.296	452.332
25	76+22.41	2.58	452.613	452.673
26	76+32.41	2.58	452.918	452.994
27	76+42.41	2.58	453.211	453.289
28	76+52.41	2.58	453.491	453.558
29	76+62.41	2.58	453.760	453.804
30	76+72.41	2.58	454.017	454.035
PIER 5	76+81.41	2.58	454.237	454.237
31	76+91.41	2.58	454.471	454.467
32	77+01.41	2.58	454.692	454.692
33	77+11.41	2.58	454.901	454.905
34	77+21.41	2.58	455.098	455.103
PIER 6 ℄ BRG.	77+33.16	2.58	455.315	455.315
PIER 6	77+33.91	2.58	455.332	455.332

BEAM J

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BACK OF SO. ABUT.	73+35.44	2.58	441.979	441.979
FACE OF BACKWALL	73+37.09	2.58	442.041	442.041
SO. ABUT. ℄ BRG.	73+39.41	2.58	442.129	442.129
1	73+49.41	2.58	442.506	442.522
2	73+59.41	2.58	442.883	442.907
3	73+69.41	2.58	443.260	443.283
4	73+79.41	2.58	443.637	443.650
5	73+89.41	2.58	444.014	444.016
PIER 1	73+95.91	2.58	444.259	444.259
6	74+05.91	2.58	444.636	444.645
7	74+15.91	2.58	445.013	445.035
8	74+25.91	2.58	445.390	445.419
9	74+35.91	2.58	445.767	445.799
10	74+45.91	2.58	446.144	446.167
11	74+55.91	2.58	446.521	446.530
PIER 2	74+66.41	2.58	446.917	446.917
12	74+76.41	2.58	447.294	447.299
13	74+86.41	2.58	447.671	447.689
14	74+96.41	2.58	448.048	448.071
15	75+06.41	2.58	448.425	448.446
16	75+16.41	2.58	448.802	448.812
PIER 3 ℄ BRG.	75+22.16	2.58	449.018	449.018
PIER 3	75+22.91	2.58	449.047	449.047
PIER 3 ℄ BRG.	75+23.65	2.58	449.069	449.069
17	75+33.65	2.58	449.446	449.474
18	75+43.65	2.58	449.823	449.870
19	75+53.65	2.58	450.200	450.254
20	75+63.65	2.58	450.577	450.624
21	75+73.65	2.58	450.952	450.983
22	75+83.65	2.58	451.316	451.332
PIER 4	75+96.90	2.58	451.780	451.780
23	76+06.90	2.58	452.116	452.129
24	76+16.90	2.58	452.439	452.475
25	76+26.90	2.58	452.751	452.811
26	76+36.90	2.58	453.051	453.127
27	76+46.90	2.58	453.338	453.416
28	76+56.90	2.58	453.613	453.680
29	76+66.90	2.58	453.877	453.921
30	76+76.90	2.58	454.128	454.146
PIER 5	76+85.90	2.58	454.343	454.343
31	76+95.90	2.58	454.571	454.567
32	77+05.90	2.58	454.787	454.787
33	77+15.90	2.58	454.991	454.995
34	77+25.90	2.58	455.183	455.188
PIER 6 ℄ BRG.	77+37.65	2.58	455.393	455.393
PIER 6	77+38.41	2.58	455.410	455.410

BEAM K

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BACK OF SO. ABUT.	73+41.88	10.00	442.337	442.337
FACE OF BACKWALL	73+43.54	10.00	442.400	442.400
SO. ABUT. ℄ BRG.	73+45.86	10.00	442.488	442.488
1	73+55.86	10.00	442.865	442.879
2	73+65.86	10.00	443.242	443.263
3	73+75.86	10.00	443.619	443.638
4	73+85.86	10.00	443.996	444.007
5	73+95.86	10.00	444.373	444.375
PIER 1	74+02.36	10.00	444.618	444.618
6	74+12.36	10.00	444.995	444.998
7	74+22.36	10.00	445.372	445.392
8	74+32.36	10.00	445.749	445.774
9	74+42.36	10.00	446.126	446.151
10	74+52.36	10.00	446.503	446.523
11	74+62.36	10.00	446.880	446.887
PIER 2	74+72.86	10.00	447.275	447.275
12	74+82.86	10.00	447.652	447.657
13	74+92.86	10.00	448.029	448.043
14	75+02.86	10.00	448.406	448.426
15	75+12.86	10.00	448.783	448.802
16	75+22.86	10.00	449.160	449.168
PIER 3 ℄ BRG.	75+28.61	10.00	449.377	449.377
PIER 3	75+29.36	10.00	449.406	449.406
PIER 3 ℄ BRG.	75+30.10	10.00	449.428	449.428
17	75+40.10	10.00	449.805	449.824
18	75+50.10	10.00	450.182	450.219
19	75+60.10	10.00	450.559	450.597
20	75+70.10	10.00	450.935	450.969
21	75+80.10	10.00	451.304	451.327
22	75+90.10	10.00	451.660	451.669
PIER 4	76+03.35	10.00	452.113	452.113
23	76+13.35	10.00	452.441	452.450
24	76+23.35	10.00	452.757	452.783
25	76+33.35	10.00	453.061	453.104
26	76+43.35	10.00	453.353	453.407
27	76+53.35	10.00	453.633	453.689
28	76+63.35	10.00	453.900	453.947
29	76+73.35	10.00	454.156	454.184
30	76+83.35	10.00	454.399	454.411
PIER 5	76+92.35	10.00	454.608	454.608
31	77+02.35	10.00	454.828	454.825
32	77+12.35	10.00	455.036	455.036
33	77+22.35	10.00	455.232	455.235
34	77+32.35	10.00	455.416	455.419
PIER 6 ℄ BRG.	77+44.10	10.00	455.617	455.617
PIER 6	77+44.85	10.00	455.633	455.633

BEAM L

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BACK OF SO. ABUT.	73+48.33	17.42	442.696	442.696
FACE OF BACKWALL	73+49.99	17.42	442.758	442.758
SO. ABUT. ℄ BRG.	73+52.30	17.42	442.846	442.846
1	73+62.30	17.42	443.223	443.237
2	73+72.30	17.42	443.600	443.622
3	73+82.30	17.42	443.977	443.997
4	73+92.30	17.42	444.354	444.365
5	74+02.30	17.42	444.731	444.733
PIER 1	74+08.80	17.42	444.976	444.976
6	74+18.80	17.42	445.353	445.356
7	74+28.80	17.42	445.730	445.750
8	74+38.80	17.42	446.107	446.132
9	74+48.80	17.42	446.484	446.509
10	74+58.80	17.42	446.861	446.881
11	74+68.80	17.42	447.238	447.245
PIER 2	74+79.30	17.42	447.634	447.634
12	74+89.30	17.42	448.011	448.016
13	74+99.30	17.42	448.388	448.402
14	75+48.30	17.42	449.765	449.785
15	75+19.30	17.42	449.142	449.161
16	75+29.30	17.42	449.519	449.527
PIER 3 ℄ BRG.	75+35.05	17.42	449.736	449.736
PIER 3	75+35.80	17.42	449.764	449.764
PIER 3 ℄ BRG.	75+36.54	17.42	449.786	449.786
17	75+46.54	17.42	450.163	450.182
18	75+56.54	17.42	450.540	450.577
19	75+66.54	17.42	450.917	450.956
20	75+76.54	17.42	451.290	451.324
21	75+86.54	17.42	451.650	451.673
22	75+96.54	17.42	451.999	452.008
PIER 4	76+09.79	17.42	452.442	452.442
23	76+19.79	17.42	452.762	452.771
24	76+29.79	17.42	453.070	453.096
25	76+39.79	17.42	453.367	453.410
26	76+49.79	17.42	453.650	453.704
27	76+59.79	17.42	453.922	453.978
28	76+69.79	17.42	454.182	454.229
29	76+79.79	17.42	454.430	454.458
30	76+89.79	17.42	454.665	454.677
PIER 5	76+98.79	17.42	454.867	454.867
31	77+08.79	17.42	455.079	455.076
32	77+18.79	17.42	455.279	455.279
33	77+28.79	17.42	455.468	455.471
34	77+38.79	17.42	455.644	455.647
PIER 6 ℄ BRG.	77+50.54	17.42	455.835	455.835
PIER 6	77+51.30	17.42	455.851	455.851

HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

FILE NUMBER
DRAWN BY C.B./D.C.
CHECKED BY GW
APPROVED BY DHE

DECK ELEVATIONS
SPANS 1-6
F.A.I. ROUTE 70 SEC. 82-5VBR
ST. CLAIR COUNTY
STA. 81+42.68

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR	ST. CLAIR	86	23
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

SHEET NO. 10
72 SHEETS

BEAM M

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BACK OF SO. ABUT.	73+54.78	24.83	443.055	443.055
FACE OF BACKWALL	73+56.43	24.83	443.117	443.117
SO. ABUT. ℄ BRG.	73+58.75	24.83	443.205	443.205
1	73+68.75	24.83	443.582	443.596
2	73+78.75	24.83	443.959	443.981
3	73+88.75	24.83	444.336	444.356
4	73+98.75	24.83	444.713	444.724
5	74+08.75	24.83	445.090	445.092
PIER 1	74+15.25	24.83	445.335	445.335
6	74+25.25	24.83	445.712	445.715
7	74+35.25	24.83	446.089	446.109
8	74+45.25	24.83	446.466	446.491
9	74+55.25	24.83	446.843	446.868
10	74+65.25	24.83	447.220	447.240
11	74+75.25	24.83	447.597	447.604
PIER 2	74+85.75	24.83	447.993	447.993
12	74+95.75	24.83	448.370	448.375
13	75+05.75	24.83	448.747	448.761
14	75+15.75	24.83	449.124	449.144
15	75+25.75	24.83	449.501	449.520
16	75+35.75	24.83	449.878	449.886
PIER 3 ℄ BRG.	75+41.50	24.83	450.095	450.095
PIER 3	75+42.25	24.83	450.123	450.123
PIER 3 ℄ BRG.	75+42.99	24.83	450.145	450.145
17	75+52.99	24.83	450.522	450.541
18	75+62.99	24.83	450.899	450.936
29	75+72.99	24.83	451.275	451.314
20	75+82.99	24.83	451.639	451.673
21	75+92.99	24.83	451.992	452.015
22	76+02.99	24.83	452.333	452.342
PIER 4	76+16.24	24.83	452.766	452.766
23	76+26.24	24.83	453.078	453.087
24	76+36.24	24.83	453.378	453.404
25	76+46.24	24.83	453.667	453.710
26	76+56.24	24.83	453.943	453.997
27	76+66.24	24.83	454.207	454.263
28	76+76.24	24.83	454.459	454.506
29	76+86.24	24.83	454.699	454.727
30	76+96.24	24.83	454.926	454.938
PIER 5	77+05.24	24.83	455.121	455.121
31	77+15.24	24.83	455.325	455.322
32	77+25.24	24.83	455.518	455.518
33	77+35.24	24.83	455.698	455.701
34	77+45.24	24.83	455.867	455.869
PIER 6 ℄ BRG.	77+56.99	24.83	456.049	456.049
PIER 6	77+57.75	24.83	456.064	456.064

CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BACK OF SO. ABUT.	73+56.66	27.00	443.159	443.159
FACE OF BACKWALL	73+58.32	27.00	443.222	443.222
SO. ABUT. ℄ BRG.	73+60.63	27.00	443.310	443.310
1	73+70.63	27.00	443.687	443.701
2	73+80.63	27.00	444.064	444.086
3	73+90.63	27.00	444.441	444.461
4	74+00.63	27.00	444.818	444.829
5	74+10.63	27.00	445.195	445.197
PIER 1	74+17.13	27.00	445.440	445.440
6	74+27.13	27.00	445.817	445.820
7	74+37.13	27.00	446.194	446.214
8	74+47.13	27.00	446.571	446.596
9	74+57.13	27.00	446.948	446.973
10	74+67.13	27.00	447.325	447.345
11	74+77.13	27.00	447.702	447.709
PIER 2	74+87.63	27.00	448.098	448.098
12	74+97.63	27.00	448.475	448.480
13	75+07.63	27.00	448.852	448.866
14	75+17.63	27.00	449.229	449.249
15	75+27.63	27.00	449.606	449.625
16	75+37.63	27.00	449.983	449.991
PIER 3 ℄ BRG.	75+43.39	27.00	450.200	450.200
PIER 3	75+44.13	27.00	450.226	450.226
PIER 3 ℄ BRG.	75+44.88	27.00	450.250	450.250
17	75+54.88	27.00	450.627	450.646
18	75+64.88	27.00	451.004	451.041
19	75+74.88	27.00	451.378	451.417
20	75+84.88	27.00	451.741	451.775
21	75+94.88	27.00	452.091	452.114
22	76+04.88	27.00	452.429	452.438
PIER 4	76+18.13	27.00	452.859	452.859
23	76+28.13	27.00	453.169	453.178
24	76+38.13	27.00	453.467	453.493
25	76+48.13	27.00	453.753	453.796
26	76+58.13	27.00	454.027	454.081
27	76+68.13	27.00	454.289	454.345
28	76+78.13	27.00	454.539	454.586
29	76+88.13	27.00	454.776	454.804
30	76+98.13	27.00	455.002	455.014
PIER 5	77+07.13	27.00	455.194	455.194
31	77+17.13	27.00	455.396	455.393
32	77+27.13	27.00	455.587	455.587
33	77+37.13	27.00	455.765	455.768
34	77+47.13	27.00	455.931	455.934
PIER 6 ℄ BRG.	77+58.88	27.00	456.110	456.110
PIER 6	77+59.63	27.00	456.125	456.125

BEAM N

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BACK OF SO. ABUT.	73+61.22	32.25	443.250	443.250
FACE OF BACKWALL	73+62.88	32.25	443.312	443.312
SO. ABUT. ℄ BRG.	73+65.20	32.25	443.400	443.400
1	73+75.20	32.25	443.777	443.791
2	73+85.20	32.25	444.154	444.176
3	73+95.20	32.25	444.531	444.551
4	74+05.20	32.25	444.908	444.919
5	74+45.20	32.25	445.285	445.287
PIER 1	74+21.70	32.25	445.530	445.530
6	74+31.70	32.25	445.907	445.910
7	74+41.70	32.25	446.284	446.304
8	74+51.70	32.25	446.661	446.686
9	74+61.70	32.25	447.038	447.063
10	74+71.70	32.25	447.415	447.435
11	74+81.70	32.25	447.792	447.799
PIER 2	74+92.20	32.25	448.188	448.188
12	75+02.20	32.25	448.565	448.570
13	75+12.20	32.25	448.942	448.956
14	75+22.20	32.25	449.319	449.339
15	75+32.20	32.25	449.696	449.715
16	75+42.20	32.25	450.073	450.081
PIER 3 ℄ BRG.	75+47.95	32.25	450.290	450.290
PIER 3	75+48.70	32.25	450.318	450.318
PIER 3 ℄ BRG.	75+49.44	32.25	450.340	450.340
17	75+59.44	32.25	450.717	450.736
18	75+69.44	32.25	451.094	451.131
19	75+79.44	32.25	451.463	451.502
20	75+89.44	32.25	451.820	451.854
21	75+99.44	32.25	452.165	452.188
22	76+09.44	32.25	452.498	452.507
PIER 4	76+22.69	32.25	452.920	452.920
23	76+32.69	32.25	453.225	453.234
24	76+42.69	32.25	453.518	453.544
25	76+52.69	32.25	453.798	453.841
26	76+62.69	32.25	454.066	454.120
27	76+72.69	32.25	454.323	454.379
28	76+82.69	32.25	454.567	454.614
29	76+92.69	32.25	454.799	454.827
30	77+02.69	32.25	455.018	455.030
PIER 5	77+11.69	32.25	455.206	455.206
31	77+21.69	32.25	455.403	455.400
32	77+31.69	32.25	455.587	455.587
33	77+41.69	32.25	455.760	455.763
34	77+51.69	32.25	455.921	455.924
PIER 6 ℄ BRG.	77+63.44	32.25	456.094	456.094
PIER 6	77+64.19	32.25	456.108	456.108

BEAM P

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BACK OF SO. ABUT.	73+67.67	39.67	443.377	443.377
FACE OF BACKWALL	73+69.33	39.67	443.439	443.439
SO. ABUT. ℄ BRG.	73+71.65	39.67	443.527	443.527
1	73+81.65	39.67	443.904	443.918
2	73+91.65	39.67	444.281	444.303
3	74+01.65	39.67	444.658	444.678
4	74+11.65	39.67	445.035	445.046
5	74+21.65	39.67	445.412	445.414
PIER 1	74+28.15	39.67	445.657	445.657
6	74+38.15	39.67	446.034	446.037
7	74+48.15	39.67	446.411	446.431
8	74+58.15	39.67	446.788	446.813
9	74+68.15	39.67	447.165	447.190
10	74+78.15	39.67	447.542	447.562
11	74+88.15	39.67	447.919	447.926
PIER 2	74+98.65	39.67	448.315	448.315
12	75+08.65	39.67	448.692	448.697
13	75+18.65	39.67	449.069	449.083
14	75+28.65	39.67	449.446	449.466
15	75+38.65	39.67	449.823	449.842
16	75+48.65	39.67	450.200	450.208
PIER 3 ℄ BRG.	75+54.40	39.67	450.417	450.417
PIER 3	75+55.15	39.67	450.445	450.445
PIER 3 ℄ BRG.	75+55.89	39.67	450.467	450.467
17	75+65.89	39.67	450.844	450.863
18	75+75.89	39.67	451.218	451.255
19	75+85.89	39.67	451.579	451.618
20	75+95.89	39.67	451.928	451.962
21	76+05.89	39.67	452.265	452.288
22	76+15.89	39.67	452.590	452.599
PIER 4	76+29.14	39.67	453.002	453.002
23	76+39.14	39.67	453.299	453.308
24	76+49.14	39.67	453.584	453.610
25	76+59.14	39.67	453.857	453.900
26	76+69.14	39.67	454.117	454.171
27	76+79.14	39.67	454.366	454.422
28	76+89.14	39.67	454.602	454.649
29	76+99.14	39.67	454.826	454.854
30	77+09.14	39.67	455.038	455.050
PIER 5	77+18.14	39.67	455.219	455.219
31	77+28.14	39.67	455.408	455.405
32	77+38.14	39.67	455.584	455.584
33	77+48.14	39.67	455.749	455.752
34	77+58.14	39.67	455.902	455.905
PIER 6 ℄ BRG.	77+69.89	39.67	456.066	456.066
PIER 6	77+70.64	39.67	456.080	456.080

HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

FILE NUMBER
DRAWN BY C.B./D.C.
CHECKED BY G.W.
APPROVED BY

DECK ELEVATIONS
SPANS 1-6
F.A.I. ROUTE 70 SEC. 82-5VBR
ST. CLAIR COUNTY
STA. 81+42.68

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR	ST. CLAIR	86	24
FEDERAL ROAD DIST. NO.		ILLINOIS	FEDERAL AID PROJECT-	

SHEET NO. 11
72 SHEETS

BEAM Q

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BACK OF SO. ABUT.	73+74.12	47.08	443.504	443.504
FACE OF BACKWALL	73+75.78	47.08	443.567	443.567
SO. ABUT. ℄ BRG.	73+78.09	47.08	443.655	443.655
1	73+88.09	47.08	444.032	444.046
2	73+98.09	47.08	444.409	444.431
3	74+08.09	47.08	444.786	444.806
4	74+18.09	47.08	445.163	445.174
5	74+28.09	47.08	445.540	445.542
PIER 1	74+34.59	47.08	445.785	445.785
6	74+44.59	47.08	446.162	446.165
7	74+54.59	47.08	446.539	446.559
8	74+64.59	47.08	446.916	446.941
9	74+74.59	47.08	447.293	447.318
10	74+84.59	47.08	447.670	447.690
11	74+94.59	47.08	448.047	448.054
PIER 2	75+05.09	47.08	448.443	448.443
12	75+15.09	47.08	448.820	448.825
13	75+25.09	47.08	449.197	449.211
14	75+35.09	47.08	449.574	449.594
15	75+45.09	47.08	449.951	449.970
16	75+55.09	47.08	450.328	450.336
PIER 3 ℄ BRG.	75+60.84	47.08	450.544	450.544
PIER 3	75+61.59	47.08	450.573	450.573
PIER 3 ℄ BRG.	75+62.33	47.08	450.595	450.595
17	75+72.33	47.08	450.971	450.990
18	75+82.33	47.08	451.336	451.373
19	75+92.33	47.08	451.690	451.729
20	76+02.33	47.08	452.031	452.065
21	76+12.33	47.08	452.361	452.384
22	76+22.33	47.08	452.678	452.687
PIER 4	76+35.58	47.08	453.080	453.080
23	76+45.58	47.08	453.369	453.378
24	76+55.58	47.08	453.646	453.672
25	76+65.58	47.08	453.910	453.953
26	76+75.58	47.08	454.163	454.217
27	76+85.58	47.08	454.404	454.460
28	76+95.58	47.08	454.632	454.679
29	77+05.58	47.08	454.848	454.876
30	77+15.58	47.08	455.053	455.065
PIER 5	77+24.58	47.08	455.226	455.226
31	77+34.58	47.08	455.407	455.404
32	77+44.58	47.08	455.576	455.576
33	77+54.58	47.08	455.733	455.736
34	77+64.58	47.08	455.878	455.881
PIER 6 ℄ BRG.	77+76.33	47.08	456.033	456.033
PIER 6	77+77.09	47.08	456.046	456.046

BEAM R

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BACK OF SO. ABUT.	73+80.57	54.50	443.632	443.632
FACE OF BACKWALL	73+82.22	54.50	443.694	443.694
SO. ABUT. ℄ BRG.	73+84.54	54.50	443.782	443.782
1	73+94.54	54.50	444.159	444.173
2	74+04.54	54.50	444.536	444.558
3	74+14.54	54.50	444.913	444.933
4	74+24.54	54.50	445.290	445.301
5	74+34.54	54.50	445.667	445.669
PIER 1	74+41.04	54.50	445.912	445.912
6	74+51.04	54.50	446.289	446.292
7	74+61.04	54.50	446.666	446.686
8	74+71.04	54.50	447.043	447.068
9	74+81.04	54.50	447.420	447.445
10	74+91.04	54.50	447.797	447.817
11	75+01.04	54.50	448.174	448.181
PIER 2	75+11.54	54.50	448.570	448.570
12	75+21.54	54.50	448.947	448.952
13	75+31.54	54.50	449.324	449.338
14	75+41.54	54.50	449.701	449.721
15	75+51.54	54.50	450.078	450.097
16	75+61.54	54.50	450.455	450.463
PIER 3 ℄ BRG.	75+67.29	54.50	450.672	450.672
PIER 3	75+68.04	54.50	450.700	450.700
PIER 3 ℄ BRG.	75+68.78	54.50	450.722	450.722
17	75+78.78	54.50	451.092	451.111
18	75+88.78	54.50	451.450	451.487
19	75+98.78	54.50	451.796	451.835
20	76+08.78	54.50	452.129	452.163
21	76+18.78	54.50	452.451	452.474
22	76+28.78	54.50	452.760	452.769
PIER 4	76+42.03	54.50	453.152	453.152
23	76+52.03	54.50	453.433	453.442
24	76+62.03	54.50	453.702	453.728
25	76+72.03	54.50	453.959	454.002
26	76+82.03	54.50	454.204	454.258
27	76+92.03	54.50	454.437	454.493
28	77+02.03	54.50	454.657	454.704
29	77+12.03	54.50	454.866	454.894
30	77+22.03	54.50	455.062	455.074
PIER 5	77+31.03	54.50	455.229	455.229
31	77+41.03	54.50	455.402	455.399
32	77+51.03	54.50	455.563	455.563
33	77+61.03	54.50	455.712	455.715
34	77+71.03	54.50	455.849	455.852
PIER 6 ℄ BRG.	77+82.78	54.50	455.995	455.995
PIER 6	77+83.54	54.50	456.008	456.008

BEAM A

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 6 ℄ BRG.	76+89.53	54.50	454.385	454.385
35	76+99.53	54.50	454.609	454.651
36	77+09.53	54.50	454.820	454.889
37	77+19.53	54.50	455.020	455.116
38	77+29.53	54.50	455.207	455.315
39	77+39.53	54.50	455.382	455.503
40	77+49.53	54.50	455.545	455.672
41	77+59.53	54.50	455.696	455.823
42	77+69.53	54.50	455.835	455.956
43	77+79.53	54.50	455.962	456.070
44	77+89.53	54.50	456.077	456.173
45	77+99.53	54.50	456.179	456.248
46	78+09.53	54.50	456.270	456.312
PIER 7 ℄ BRG.	78+19.53	54.50	456.348	456.348
PIER 7	78+20.28	54.50	456.352	456.352
PIER 7 ℄ BRG.	78+21.03	54.50	456.357	456.357
47	78+31.03	54.50	456.421	456.462
48	78+41.03	54.50	456.473	456.541
49	78+51.03	54.50	456.513	456.599
50	78+61.03	54.50	456.541	456.646
51	78+71.03	54.50	456.557	456.675
52	78+81.03	54.50	456.561	456.685
53	78+91.03	54.50	456.553	456.677
54	79+01.03	54.50	456.532	456.649
55	79+11.03	54.50	456.499	456.603
56	79+21.03	54.50	456.455	456.547
57	79+31.03	54.50	456.398	456.437
58	79+41.03	54.50	456.329	456.366
PIER 8 ℄ BRG.	79+50.25	54.50	456.255	456.255
PIER 8	79+51.00	54.50	456.248	456.248
PIER 8 ℄ BRG.	79+51.75	54.50	456.242	456.242
59	79+61.75	54.50	456.148	456.182
60	79+71.75	54.50	456.042	456.100
61	79+81.75	54.50	455.923	455.996
62	79+91.75	54.50	455.793	455.879
63	80+01.75	54.50	455.650	455.742
64	80+11.75	54.50	455.496	455.588
65	80+21.75	54.50	455.329	455.413
66	80+31.75	54.50	455.150	455.220
67	80+41.75	54.50	454.959	455.013
68	80+51.75	54.50	454.756	454.784
PIER 9 ℄ BRG.	80+60.25	54.50	454.574	454.574
PIER 9	80+61.00	54.50	454.558	454.558

BEAM B

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 6 ℄ BRG.	76+95.98	47.08	454.646	454.646
35	77+05.98	47.08	454.862	454.910
36	77+15.98	47.08	455.066	455.146
37	77+25.98	47.08	455.258	455.360
38	77+35.98	47.08	455.437	455.561
39	77+45.98	47.08	455.605	455.743
40	77+55.98	47.08	455.760	455.906
41	77+65.98	47.08	455.903	456.049
42	77+75.98	47.08	456.034	456.172
43	77+85.98	47.08	456.153	456.277
44	77+95.98	47.08	456.260	456.362
45	78+02.98	47.08	456.355	456.434
46	78+15.98	47.08	456.437	456.485
PIER 7 ℄ BRG.	78+25.98	47.08	456.508	456.508
PIER 7	78+26.73	47.08	456.511	456.511
PIER 7 ℄ BRG.	78+27.48	47.08	456.515	456.515
47	78+37.48	47.08	456.572	456.614
48	78+47.48	47.08	456.616	456.689
49	78+57.48	47.08	456.648	456.741
50	78+67.48	47.08	456.669	456.782
51	78+77.48	47.08	456.677	456.804
52	78+87.48	47.08	456.673	456.806
53	78+97.48	47.08	456.656	456.789
54	79+07.48	47.08	456.628	456.754
55	79+17.48	47.08	456.588	456.700
56	79+27.48	47.08	456.535	456.633
57	79+37.48	47.08	456.471	456.511
58	79+47.48	47.08	456.394	456.431
PIER 8 ℄ BRG.	79+52.52	47.08	456.351	456.351
PIER 8	79+53.27	47.08	456.344	456.344
PIER 8 ℄ BRG.	79+54.02	47.08	456.337	456.337
59	79+64.02	47.08	456.240	456.275
60	79+74.02	47.08	456.131	456.192
61	79+84.02	47.08	456.010	456.088
62	79+94.02	47.08	455.877	455.969
63	80+04.02	47.08	455.732	455.830
64	80+14.02	47.08	455.575	455.673
65	80+24.02	47.08	455.405	455.495
66	80+34.02	47.08	455.224	455.299
67	80+44.02	47.08	455.030	455.087
68	80+54.02	47.08	454.824	454.854
PIER 9 ℄ BRG.	80+62.52	47.08	454.640	454.640
PIER 9	80+63.27	47.08	454.623	454.623

HE HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

FILE NUMBER
DRAWN BY C.B./D.C.
CHECKED BY G.W.S.
APPROVED BY

DECK ELEVATIONS
SPANS 1-6
SPANS 7,8,9
F.A.I. ROUTE 70 SEC. 82-5VBR
ST. CLAIR COUNTY
STA. 81+42.68

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR	ST. CLAIR	86	25
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

SHEET NO. 12
72 SHEETS

BEAM C

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 6 ℄ BRG.	77+02.42	39.67	454.903	454.903
35	77+12.42	39.67	455.111	455.159
36	77+22.42	39.67	455.307	455.387
37	77+32.42	39.67	455.491	455.593
38	77+42.42	39.67	455.662	455.786
39	77+52.42	39.67	455.822	455.960
40	77+62.42	39.67	455.969	456.115
41	77+72.42	39.67	456.105	456.251
42	77+82.42	39.67	456.228	456.366
43	77+92.42	39.67	456.339	456.463
44	78+02.42	39.67	456.438	456.540
45	78+12.42	39.67	456.525	456.605
46	78+22.42	39.67	456.600	456.648
PIER 7 ℄ BRG.	78+32.42	39.67	456.662	456.662
PIER 7	78+33.17	39.67	456.665	456.665
PIER 7 ℄ BRG.	78+33.92	39.67	456.669	456.669
47	78+43.92	39.67	456.717	456.760
48	78+53.92	39.67	456.754	456.826
49	78+63.92	39.67	456.778	456.871
50	78+73.92	39.67	456.791	456.903
51	78+83.92	39.67	456.791	456.915
52	78+93.92	39.67	456.779	456.907
53	79+03.92	39.67	456.755	456.879
54	79+13.92	39.67	456.719	456.832
55	79+23.92	39.67	456.671	456.773
56	79+33.92	39.67	456.611	456.657
57	79+43.92	39.67	456.538	456.578
PIER 8 ℄ BRG.	79+54.78	39.67	456.446	456.446
PIER 8	79+55.53	39.67	456.439	456.439
PIER 8 ℄ BRG.	79+56.28	39.67	456.432	456.432
59	79+66.28	39.67	456.332	456.367
60	79+76.28	39.67	456.221	456.282
61	79+86.28	39.67	456.097	456.175
62	79+96.28	39.67	455.961	456.053
63	80+06.28	39.67	455.813	455.911
64	80+16.28	39.67	455.653	455.751
65	80+26.28	39.67	455.481	455.571
66	80+36.28	39.67	455.296	455.371
67	80+46.28	39.67	455.100	455.157
68	80+56.28	39.67	454.891	454.921
PIER 9 ℄ BRG.	80+64.78	39.67	454.705	454.705
PIER 9	80+65.53	39.67	454.688	454.688

BEAM D

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 6 ℄ BRG.	77+08.87	32.25	455.154	455.154
35	77+18.87	32.25	455.354	455.402
36	77+28.87	32.25	455.542	455.622
37	77+38.87	32.25	455.718	455.820
38	77+48.87	32.25	455.882	456.006
39	77+58.87	32.25	456.034	456.172
40	77+68.87	32.25	456.174	456.320
41	77+78.87	32.25	456.301	456.447
42	77+88.87	32.25	456.417	456.555
43	77+98.87	32.25	456.520	456.644
44	78+08.87	32.25	456.611	456.713
45	78+18.87	32.25	456.690	456.770
46	78+28.87	32.25	456.757	456.805
PIER 7 ℄ BRG.	78+38.87	32.25	456.812	456.812
PIER 7	78+39.62	32.25	456.814	456.814
PIER 7 ℄ BRG.	78+40.37	32.25	456.817	456.817
47	78+50.37	32.25	456.858	456.901
48	78+60.37	32.25	456.887	456.959
49	78+70.37	32.25	456.904	456.997
50	78+80.37	32.25	456.908	457.020
51	78+90.37	32.25	456.901	457.025
52	79+00.37	32.25	456.881	457.009
53	79+10.37	32.25	456.849	456.973
54	79+20.37	32.25	456.805	456.918
55	79+30.37	32.25	456.749	456.851
56	79+40.37	32.25	456.681	456.727
57	79+50.37	32.25	456.601	456.641
PIER 8 ℄ BRG.	79+57.05	32.25	456.540	456.540
PIER 8	79+57.80	32.25	456.533	456.533
PIER 8 ℄ BRG.	79+58.55	32.25	456.526	456.526
59	79+68.55	32.25	456.424	456.459
60	79+78.55	32.25	456.309	456.370
61	79+88.55	32.25	456.183	456.261
62	79+98.55	32.25	456.044	456.136
63	80+08.55	32.25	455.894	455.992
64	80+18.55	32.25	455.731	455.829
65	80+28.55	32.25	455.556	455.646
66	80+38.55	32.25	455.369	455.444
67	80+48.55	32.25	455.169	455.226
68	80+58.55	32.25	454.958	454.988
PIER 9 ℄ BRG.	80+67.05	32.25	454.769	454.769
PIER 9	80+67.80	32.25	454.752	454.752

CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 6 ℄ BRG.	77+13.43	27.00	455.329	455.329
35	77+23.43	27.00	455.523	455.571
36	77+33.43	27.00	455.706	455.786
37	77+43.43	27.00	455.877	455.979
38	77+53.43	27.00	456.035	456.159
39	77+63.43	27.00	456.181	456.319
40	77+73.43	27.00	456.315	456.461
41	77+83.43	27.00	456.437	456.583
42	77+93.43	27.00	456.547	456.685
43	78+03.43	27.00	456.645	456.769
44	78+13.43	27.00	456.731	456.833
45	78+23.43	27.00	456.804	456.884
46	78+33.43	27.00	456.866	456.914
PIER 7 ℄ BRG.	78+43.43	27.00	456.915	456.915
PIER 7	78+44.18	27.00	456.916	456.916
PIER 7 ℄ BRG.	78+44.93	27.00	456.919	456.919
47	78+54.93	27.00	456.955	456.992
48	78+64.93	27.00	456.978	457.042
49	78+74.93	27.00	456.989	457.071
50	78+84.93	27.00	456.988	457.090
51	78+94.93	27.00	456.975	457.081
52	79+04.93	27.00	456.950	457.057
53	79+14.93	27.00	456.912	457.012
54	79+24.93	27.00	456.863	456.950
55	79+34.93	27.00	456.801	456.872
56	79+44.93	27.00	456.728	456.774
57	79+54.93	27.00	456.642	456.682
PIER 8 ℄ BRG.	79+58.65	27.00	456.607	456.607
PIER 8	79+59.41	27.00	456.600	456.600
PIER 8 ℄ BRG.	79+60.15	27.00	456.592	456.592
59	79+70.15	27.00	456.488	456.523
60	79+80.15	27.00	456.372	456.433
61	79+90.15	27.00	456.243	456.321
62	80+00.15	27.00	456.103	456.195
63	80+10.15	27.00	455.950	456.048
64	80+20.15	27.00	455.785	455.883
65	80+30.15	27.00	455.608	455.698
66	80+40.15	27.00	455.419	455.494
67	80+50.15	27.00	455.218	455.275
68	80+60.15	27.00	455.005	455.035
PIER 9 ℄ BRG.	80+68.65	27.00	454.814	454.814
PIER 9	80+69.41	27.00	454.797	454.797

BEAM E

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 6 ℄ BRG.	77+15.32	24.83	455.333	455.333
35	77+25.32	24.83	455.525	455.573
36	77+35.32	24.83	455.705	455.785
37	77+45.32	24.83	455.873	455.975
38	77+55.32	24.83	456.030	456.154
39	77+65.32	24.83	456.174	456.311
40	77+75.32	24.83	456.305	456.451
41	77+85.32	24.83	456.425	456.571
42	77+95.32	24.83	456.533	456.671
43	78+05.32	24.83	456.628	456.752
44	78+15.32	24.83	456.712	456.814
45	78+25.32	24.83	456.783	456.863
46	78+35.32	24.83	456.842	456.890
PIER 7 ℄ BRG.	78+45.32	24.83	456.889	456.889
PIER 7	78+46.07	24.83	456.890	456.890
PIER 7 ℄ BRG.	78+46.82	24.83	456.893	456.893
47	78+56.82	24.83	456.926	456.963
48	78+66.82	24.83	456.947	457.011
49	78+76.82	24.83	456.956	457.038
50	78+86.82	24.83	456.953	457.055
51	78+96.82	24.83	456.937	457.043
52	79+06.82	24.83	456.910	457.017
53	79+16.82	24.83	456.870	456.970
54	79+26.82	24.83	456.819	456.905
55	79+36.82	24.83	456.755	456.826
56	79+46.82	24.83	456.679	456.725
PIER 8 ℄ BRG.	79+59.31	24.83	456.567	456.567
PIER 8	79+60.06	24.83	456.560	456.560
PIER 8 ℄ BRG.	79+60.81	24.83	456.552	456.552
59	79+70.81	24.83	456.447	456.482
60	79+80.81	24.83	456.330	456.391
61	79+90.81	24.83	456.201	456.279
62	80+00.81	24.83	456.059	456.151
63	80+10.81	24.83	455.906	456.004
64	80+20.81	24.83	455.740	455.838
65	80+30.81	24.83	455.563	455.653
66	80+40.81	24.83	455.373	455.448
67	80+50.81	24.83	455.171	455.228
68	80+60.81	24.83	454.957	454.987
PIER 9 ℄ BRG.	80+69.31	24.83	454.765	454.765
PIER 9	80+70.07	24.83	454.748	454.748

HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

FILE NUMBER
DRAWN BY C.B./D.C.
CHECKED BY GWS
APPROVED BY

DECK ELEVATIONS
SPANS 7,8,9
F.A.I. ROUTE 70 SEC. 82-5VBR
ST. CLAIR COUNTY
STA. 81+42.68

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR	ST. CLAIR	86	26
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

SHEET NO. 13
72 SHEETS

BEAM F

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 6 ℄ BRG.	77+21.77	17.42	455.342	455.342
35	77+31.77	17.42	455.527	455.575
36	77+41.77	17.42	455.699	455.779
37	77+51.77	17.42	455.860	455.962
38	77+61.77	17.42	456.008	456.132
39	77+71.77	17.42	456.144	456.282
40	77+81.77	17.42	456.268	456.414
41	77+91.77	17.42	456.380	456.526
42	78+01.77	17.42	456.480	456.618
43	78+11.77	17.42	456.568	456.692
44	78+21.77	17.42	456.643	456.745
45	78+31.77	17.42	456.707	456.787
46	78+41.77	17.42	456.758	456.806
PIER 7 ℄ BRG.	78+51.77	17.42	456.797	456.797
PIER 7	78+52.52	17.42	456.798	456.798
PIER 7 ℄ BRG.	78+53.27	17.42	456.800	456.800
47	78+63.27	17.42	456.825	456.862
48	78+73.27	17.42	456.838	456.900
49	78+83.27	17.42	456.840	456.924
50	78+93.27	17.42	456.828	456.933
51	79+03.27	17.42	456.805	456.913
52	79+13.27	17.42	456.770	456.880
53	79+23.27	17.42	456.723	456.826
54	79+33.27	17.42	456.663	456.752
55	79+43.27	17.42	456.591	456.660
56	79+53.27	17.42	456.508	456.554
PIER 8 ℄ BRG.	79+61.58	17.42	456.429	456.429
PIER 8	79+62.33	17.42	456.421	456.421
PIER 8 ℄ BRG.	79+63.08	17.42	456.414	456.414
59	79+73.08	17.42	456.306	456.341
60	79+83.08	17.42	456.186	456.247
61	79+93.08	17.42	456.054	456.132
62	80+03.08	17.42	455.910	456.002
63	80+13.08	17.42	455.754	455.852
64	80+23.08	17.42	455.585	455.683
65	80+33.08	17.42	455.405	455.495
66	80+43.08	17.42	455.212	455.287
67	80+53.08	17.42	455.008	455.065
68	80+63.08	17.42	454.791	454.821
PIER 9 ℄ BRG.	80+71.58	17.42	454.597	454.597
PIER 9	80+72.33	17.42	454.579	454.579

BEAM G

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 6 ℄ BRG.	77+28.21	10.00	455.347	455.347
35	77+38.21	10.00	455.524	455.572
36	77+48.21	10.00	455.688	455.768
37	77+58.21	10.00	455.841	455.943
38	77+68.21	10.00	455.982	456.106
39	77+78.21	10.00	456.110	456.248
40	77+88.21	10.00	456.226	456.372
41	77+98.21	10.00	456.330	456.476
42	78+08.21	10.00	456.422	456.560
43	78+18.21	10.00	456.502	456.626
44	78+28.21	10.00	456.570	456.672
45	78+38.21	10.00	456.625	456.705
46	78+48.21	10.00	456.669	456.717
PIER 7 ℄ BRG.	78+58.21	10.00	456.700	456.700
PIER 7	78+58.97	10.00	456.701	456.701
PIER 7 ℄ BRG.	78+59.71	10.00	456.702	456.702
47	78+69.71	10.00	456.719	456.752
48	78+79.71	10.00	456.725	456.785
49	78+89.71	10.00	456.718	456.793
50	78+99.71	10.00	456.699	456.787
51	79+09.71	10.00	456.668	456.761
52	79+19.71	10.00	456.625	456.718
53	79+29.71	10.00	456.570	456.651
54	79+39.71	10.00	456.503	456.559
55	79+49.71	10.00	456.423	456.467
PIER 8 ℄ BRG.	79+63.85	10.00	456.290	456.290
PIER 8	79+64.60	10.00	456.283	456.283
PIER 8 ℄ BRG.	79+65.35	10.00	456.275	456.275
59	79+75.35	10.00	456.164	456.199
60	79+85.35	10.00	456.041	456.102
61	79+95.35	10.00	455.907	455.985
62	80+05.35	10.00	455.760	455.852
63	80+15.35	10.00	455.601	455.699
64	80+25.35	10.00	455.430	455.528
65	80+35.35	10.00	455.247	455.337
66	80+45.35	10.00	455.051	455.126
67	80+55.35	10.00	454.844	454.901
68	80+65.35	10.00	454.624	454.654
PIER 9 ℄ BRG.	80+73.85	10.00	454.428	454.428
PIER 9	80+74.60	10.00	454.410	454.410

BEAM H

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 6 ℄ BRG.	77+34.66	2.58	455.347	455.347
35	77+44.66	2.58	455.516	456.056
36	77+54.66	2.58	455.673	455.763
37	77+64.66	2.58	455.817	455.939
38	77+74.66	2.58	455.950	456.100
39	77+84.66	2.58	456.070	456.239
40	77+94.66	2.58	456.179	456.356
41	78+04.66	2.58	456.275	456.452
42	78+14.66	2.58	456.359	456.528
43	78+24.66	2.58	456.431	456.581
44	78+34.66	2.58	456.491	456.613
45	78+44.66	2.58	456.539	456.629
46	78+54.66	2.58	456.575	456.629
PIER 7 ℄ BRG.	78+64.66	2.58	456.599	456.599
PIER 7	78+65.41	2.58	456.598	456.598
PIER 7 ℄ BRG.	78+66.16	2.58	456.599	456.599
47	78+76.16	2.58	456.609	456.644
48	78+86.16	2.58	456.606	456.670
49	78+96.16	2.58	456.592	456.672
50	79+06.16	2.58	456.565	456.659
51	79+16.16	2.58	456.526	456.625
52	79+26.16	2.58	456.475	456.574
53	79+36.16	2.58	456.412	456.499
54	79+46.16	2.58	456.337	456.397
55	79+56.16	2.58	456.250	456.297
PIER 8 ℄ BRG.	79+66.12	2.58	456.151	456.151
PIER 8	79+66.87	2.58	456.143	456.143
PIER 8 ℄ BRG.	79+67.62	2.58	456.135	456.135
59	79+77.62	2.58	456.022	456.063
60	79+87.62	2.58	455.896	455.972
61	79+97.62	2.58	455.759	455.854
62	80+07.62	2.58	455.609	455.721
63	80+17.62	2.58	455.447	455.567
64	80+27.62	2.58	455.274	455.394
65	80+37.62	2.58	455.088	455.198
66	80+47.62	2.58	454.890	454.982
67	80+57.62	2.58	454.679	454.751
68	80+67.62	2.58	454.457	454.493
PIER 9 ℄ BRG.	80+76.12	2.58	454.258	454.258
PIER 9	80+76.87	2.58	454.241	454.241

BEAM J

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 6 ℄ BRG.	77+39.15	2.58	455.424	455.424
35	77+49.15	2.58	455.588	456.128
36	77+59.15	2.58	455.739	455.829
37	77+69.15	2.58	455.878	456.000
38	77+79.15	2.58	456.006	456.155
39	77+89.15	2.58	456.121	456.290
40	77+99.15	2.58	456.224	456.401
41	78+09.15	2.58	456.315	456.492
42	78+19.15	2.58	456.393	456.562
43	78+29.15	2.58	456.460	456.610
44	78+39.15	2.58	456.514	456.636
45	78+49.15	2.58	456.557	456.647
46	78+59.15	2.58	456.587	456.641
PIER 7 ℄ BRG.	78+69.15	2.58	456.605	456.605
PIER 7	78+69.91	2.58	456.604	456.604
PIER 7 ℄ BRG.	78+70.65	2.58	456.605	456.605
47	78+80.65	2.58	456.609	456.676
48	78+90.65	2.58	456.601	456.691
49	79+00.65	2.58	456.581	456.685
50	79+10.65	2.58	456.549	456.657
51	79+20.65	2.58	456.505	456.606
52	79+30.65	2.58	456.448	456.532
53	79+40.65	2.58	456.380	456.438
54	79+50.65	2.58	456.299	456.327
55	79+60.65	2.58	456.207	456.207
PIER 8 ℄ BRG.	79+67.69	2.58	456.134	456.134
PIER 8	79+68.44	2.58	456.126	456.126
PIER 8 ℄ BRG.	79+69.19	2.58	456.118	456.118
59	79+79.19	2.58	456.003	456.044
60	79+89.19	2.58	455.875	455.951
61	79+99.19	2.58	455.736	455.831
62	80+09.19	2.58	455.584	455.696
63	80+19.19	2.58	455.421	455.541
64	80+29.19	2.58	455.245	455.365
65	80+39.19	2.58	455.057	455.167
66	80+49.19	2.58	454.857	454.949
67	80+59.19	2.58	454.645	454.717
68	80+69.19	2.58	454.421	454.457
PIER 9 ℄ BRG.	80+77.69	2.58	454.221	454.221
PIER 9	80+78.44	2.58	454.203	454.203

HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

FILE NUMBER
DRAWN BY C.B./D.C.
CHECKED BY G.W.
APPROVED BY

DECK ELEVATIONS
SPANS 7,8,9
F.A.I. ROUTE 70 SEC. 82-5VBR
ST. CLAIR COUNTY
STA. 81+42.68

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR	ST. CLAIR	86	27
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

SHEET NO. 14
72 SHEETS

BEAM K

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 6 ℄ BRG.	77+45.60	10.00	455.647	455.647
35	77+55.60	10.00	455.802	455.850
36	77+65.60	10.00	455.946	456.026
37	77+75.60	10.00	456.077	456.179
38	77+85.60	10.00	456.197	456.321
39	77+95.60	10.00	456.304	456.442
40	78+05.60	10.00	456.399	456.545
41	78+15.60	10.00	456.482	456.628
42	78+25.60	10.00	456.553	456.691
43	78+35.60	10.00	456.612	456.736
44	78+45.60	10.00	456.659	456.761
45	78+55.60	10.00	456.693	456.773
46	78+65.60	10.00	456.716	456.764
PIER 7 ℄ BRG.	78+75.60	10.00	456.726	456.726
PIER 7	78+76.35	10.00	456.725	456.725
PIER 7 ℄ BRG.	78+77.10	10.00	456.725	456.725
47	78+87.10	10.00	456.721	456.746
48	78+97.10	10.00	456.705	456.750
49	79+07.10	10.00	456.678	456.733
50	79+17.10	10.00	456.638	456.694
51	79+27.10	10.00	456.586	456.654
52	79+37.10	10.00	456.521	456.573
53	79+47.10	10.00	456.445	456.478
54	79+57.10	10.00	456.357	456.365
PIER 8 ℄ BRG.	79+69.96	10.00	456.225	456.225
PIER 8	79+70.71	10.00	456.217	456.217
PIER 8 ℄ BRG.	79+71.46	10.00	456.208	456.208
59	79+81.46	10.00	456.091	456.126
60	79+91.46	10.00	455.960	456.021
61	80+01.46	10.00	455.818	455.896
62	80+11.46	10.00	455.664	455.756
63	80+21.46	10.00	455.498	455.596
64	80+31.46	10.00	455.319	455.417
65	80+41.46	10.00	455.129	455.218
66	80+51.46	10.00	454.926	455.001
67	80+61.46	10.00	454.711	454.768
68	80+71.46	10.00	454.484	454.514
PIER 9 ℄ BRG.	80+79.96	10.00	454.281	454.281
PIER 9	80+80.71	10.00	454.263	454.263

BEAM L

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 6 ℄ BRG.	77+52.04	17.42	455.864	455.864
35	77+62.04	17.42	456.012	456.060
36	77+72.04	17.42	456.148	456.228
37	77+82.04	17.42	456.272	456.374
38	77+92.04	17.42	456.383	456.507
39	78+02.04	17.42	456.483	456.621
40	78+12.04	17.42	456.570	456.716
41	78+22.04	17.42	456.645	456.791
42	78+32.04	17.42	456.708	456.846
43	78+42.04	17.42	456.759	456.883
44	78+52.04	17.42	456.798	456.900
45	78+62.04	17.42	456.825	456.905
46	78+72.04	17.42	456.840	456.888
PIER 7 ℄ BRG.	78+82.04	17.42	456.842	456.842
PIER 7	78+82.79	17.42	456.840	456.840
PIER 7 ℄ BRG.	78+83.54	17.42	456.839	456.839
47	78+93.54	17.42	456.828	456.853
48	79+03.54	17.42	456.804	456.849
49	79+13.54	17.42	456.769	456.824
50	79+23.54	17.42	456.721	456.777
51	79+33.54	17.42	456.661	456.720
52	79+43.54	17.42	456.589	456.639
53	79+53.54	17.42	456.505	456.539
54	79+63.54	17.42	456.409	456.420
PIER 8 ℄ BRG.	79+72.23	17.42	456.316	456.316
PIER 8	79+72.98	17.42	456.307	456.307
PIER 8 ℄ BRG.	79+73.73	17.42	456.298	456.298
59	79+83.73	17.42	456.178	456.213
60	79+93.73	17.42	456.045	456.106
61	80+03.73	17.42	455.900	455.978
62	80+13.73	17.42	455.743	455.835
63	80+23.73	17.42	455.574	455.672
64	80+33.73	17.42	455.393	455.491
65	80+43.73	17.42	455.199	455.289
66	80+53.73	17.42	454.994	455.069
67	80+63.73	17.42	454.776	454.833
68	80+73.73	17.42	454.546	454.576
PIER 9 ℄ BRG.	80+82.23	17.42	454.342	454.342
PIER 9	80+82.98	17.42	454.323	454.323

BEAM M

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 6 ℄ BRG.	77+58.49	24.83	456.077	456.077
35	77+68.49	24.83	456.217	456.265
36	77+78.49	24.83	456.345	456.425
37	77+88.49	24.83	456.461	456.563
38	77+98.49	24.83	456.564	456.688
39	78+08.49	24.83	456.656	456.794
40	78+18.49	24.83	456.736	456.882
41	78+28.49	24.83	456.803	456.949
42	78+38.49	24.83	456.858	456.996
43	78+48.49	24.83	456.901	457.025
44	78+58.49	24.83	456.933	457.035
45	78+68.49	24.83	456.951	457.031
46	78+78.49	24.83	456.958	457.006
PIER 7 ℄ BRG.	78+88.49	24.83	456.953	456.953
PIER 7	78+89.24	24.83	456.950	456.950
PIER 7 ℄ BRG.	78+89.99	24.83	456.949	456.949
47	78+99.99	24.83	456.930	456.952
48	79+09.99	24.83	456.899	456.935
49	79+19.99	24.83	456.855	456.901
50	79+29.99	24.83	456.800	456.848
51	79+39.99	24.83	456.732	456.775
52	79+49.99	24.83	456.652	456.683
53	79+59.99	24.83	456.560	456.574
PIER 8 ℄ BRG.	79+74.50	24.83	456.405	456.405
PIER 8	79+75.25	24.83	456.397	456.397
PIER 8 ℄ BRG.	79+76.00	24.83	456.388	456.388
59	79+86.00	24.83	456.264	456.299
60	79+96.00	24.83	456.129	456.190
61	80+06.00	24.83	455.981	456.059
62	80+16.00	24.83	455.821	455.913
63	80+26.00	24.83	455.650	455.748
64	80+36.00	24.83	455.466	455.564
65	80+46.00	24.83	455.269	455.359
66	80+56.00	24.83	455.061	455.136
67	80+66.00	24.83	454.841	454.898
68	80+76.00	24.83	454.608	454.638
PIER 9 ℄ BRG.	80+84.50	24.83	454.401	454.401
PIER 9	80+85.25	24.83	454.383	454.383

CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 6 ℄ BRG.	77 60.38	27.00	456.138	456.138
35	77 70.38	27.00	456.276	456.324
36	77 80.38	27.00	456.401	456.481
37	77 90.38	27.00	456.515	456.617
38	78 00.38	27.00	456.616	456.740
39	78 10.38	27.00	456.706	456.844
40	78 20.38	27.00	456.783	456.929
41	78 30.38	27.00	456.848	456.994
42	78 40.38	27.00	456.901	457.039
43	78 50.38	27.00	456.942	457.066
44	78 60.38	27.00	456.971	457.073
45	78 70.38	27.00	456.988	457.068
46	78 80.38	27.00	456.992	457.040
PIER 7 ℄ BRG.	78 90.38	27.00	456.985	456.985
PIER 7	78+91.13	27.00	456.982	456.982
PIER 7 ℄ BRG.	78 91.88	27.00	456.980	456.980
47	79 01.88	27.00	456.959	456.981
48	79 11.88	27.00	456.925	456.961
49	79 21.88	27.00	456.879	456.925
50	79 31.88	27.00	456.822	456.870
51	79 41.88	27.00	456.752	456.795
52	79 51.88	27.00	456.670	456.701
53	79 61.88	27.00	456.575	456.589
PIER 8 ℄ BRG.	79 75.16	27.00	456.431	456.431
PIER 8	79+75.91	27.00	456.423	456.423
PIER 8 ℄ BRG.	79 76.66	27.00	456.414	456.414
59	79 86.66	27.00	456.290	456.325
60	79 96.66	27.00	456.153	456.214
61	80 06.66	27.00	456.005	456.083
62	80 16.66	27.00	455.844	455.936
63	80 26.66	27.00	455.672	455.770
64	80 36.66	27.00	455.487	455.585
65	80 46.66	27.00	455.290	455.380
66	80 56.66	27.00	455.081	455.156
67	80 66.66	27.00	454.860	454.917
68	80 76.66	27.00	454.626	454.656
PIER 9 ℄ BRG.	80+85.16	27.00	454.419	454.419
PIER 9	80+85.91	27.00	454.400	454.400

HE HAZELET + ERDAL, INC.
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SPANS 7,8,9
F.A.I. ROUTE 70 SEC. 82-5VBR
ST. CLAIR COUNTY
STA. 81+42.68

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR	ST. CLAIR	86	28
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

SHEET NO. 15
72 SHEETS

BEAM N

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 6 ℄ BRG.	77+64.94	32.25	456.120	456.120
35	77+74.94	32.25	456.253	456.301
36	77+84.94	32.25	456.373	456.453
37	77+94.94	32.25	456.481	456.583
38	78+04.94	32.25	456.577	456.701
39	78+14.94	32.25	456.661	456.799
40	78+24.94	32.25	456.732	456.878
41	78+34.94	32.25	456.792	456.938
42	78+44.94	32.25	456.839	456.977
43	78+54.94	32.25	456.875	456.999
44	78+64.94	32.25	456.898	457.000
45	78+74.94	32.25	456.909	456.989
46	78+84.94	32.25	456.908	456.956
PIER 7 ℄ BRG.	78+94.94	32.25	456.895	456.895
PIER 7	78+95.69	32.25	456.892	456.892
PIER 7 ℄ BRG.	78+96.44	32.25	456.890	456.890
47	79+06.44	32.25	456.863	456.885
48	79+16.44	32.25	456.824	456.860
49	79+26.44	32.25	456.773	456.819
50	79+36.44	32.25	456.709	456.757
51	79+46.44	32.25	456.634	456.677
52	79+56.44	32.25	456.546	456.577
53	79+66.44	32.25	456.446	456.460
PIER 8 ℄ BRG.	79+76.76	32.25	456.331	456.331
PIER 8	79+77.51	32.25	456.322	456.322
PIER 8 ℄ BRG.	79+78.26	32.25	456.313	456.313
59	79+88.26	32.25	456.187	456.222
60	79+98.26	32.25	456.048	456.109
61	80+08.26	32.25	455.898	455.976
62	80+18.26	32.25	455.735	455.827
63	80+28.26	32.25	455.561	455.659
64	80+38.26	32.25	455.374	455.472
65	80+48.26	32.25	455.175	455.265
66	80+58.26	32.25	454.964	455.039
67	80+68.26	32.25	454.741	454.798
68	80+78.26	32.25	454.506	454.536
PIER 9 ℄ BRG.	80+86.76	32.25	454.296	454.296
PIER 9	80+87.51	32.25	454.278	454.278

BEAM P

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 6 ℄ BRG.	77+71.39	39.67	456.091	456.091
35	77+81.39	39.67	456.216	456.264
36	77+91.39	39.67	456.328	456.408
37	78+01.39	39.67	456.428	456.530
38	78+11.39	39.67	456.516	456.640
39	78+21.39	39.67	456.593	456.730
40	78+31.39	39.67	456.656	456.802
41	78+41.39	39.67	456.708	456.854
42	78+51.39	39.67	456.748	456.886
43	78+61.39	39.67	456.775	456.899
44	78+71.39	39.67	456.791	456.893
45	78+81.39	39.67	456.794	456.874
46	78+91.39	39.67	456.785	456.833
PIER 7 ℄ BRG.	79+01.39	39.67	456.765	456.765
PIER 7	79+02.14	39.67	456.761	456.761
PIER 7 ℄ BRG.	79+02.89	39.67	456.758	456.758
47	79+12.89	39.67	456.723	456.745
48	79+22.89	39.67	456.677	456.713
49	79+32.89	39.67	456.617	456.663
50	79+42.89	39.67	456.546	456.594
51	79+52.89	39.67	456.463	456.506
52	79+62.89	39.67	456.368	456.399
53	79+72.89	39.67	456.260	456.274
PIER 8 ℄ BRG.	79+79.03	39.67	456.188	456.188
PIER 8	79+79.78	39.67	456.179	456.179
PIER 8 ℄ BRG.	79+80.53	39.67	456.170	456.170
59	79+90.53	39.67	456.041	456.076
60	80+00.53	39.67	455.900	455.961
61	80+10.53	39.67	455.747	455.825
62	80+20.53	39.67	455.581	455.673
63	80+30.53	39.67	455.404	455.502
64	80+40.53	39.67	455.214	455.312
65	80+50.53	39.67	455.013	455.103
66	80+60.53	39.67	454.799	454.874
67	80+70.53	39.67	454.573	454.630
68	80+80.53	39.67	454.335	454.365
PIER 9 ℄ BRG.	80+89.03	39.67	454.123	454.123
PIER 9	80+89.78	39.67	454.104	454.104

BEAM Q

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 6 ℄ BRG.	77+77.83	47.08	456.057	456.057
35	77+87.83	47.08	456.174	456.222
36	77+97.83	47.08	456.278	456.358
37	78+07.83	47.08	456.371	456.473
38	78+17.83	47.08	456.451	456.575
39	78+27.83	47.08	456.519	456.657
40	78+37.83	47.08	456.576	456.722
41	78+47.83	47.08	456.620	456.766
42	78+57.83	47.08	456.651	456.789
43	78+67.83	47.08	456.671	456.795
44	78+77.83	47.08	456.679	456.781
45	78+87.83	47.08	456.674	456.754
46	78+97.83	47.08	456.658	456.706
PIER 7 ℄ BRG.	79+07.83	47.08	456.629	456.629
PIER 7	79+08.58	47.08	456.624	456.624
PIER 7 ℄ BRG.	79+09.33	47.08	456.622	456.622
47	79+19.33	47.08	456.579	456.596
48	79+29.33	47.08	456.524	456.553
49	79+39.33	47.08	456.457	456.492
50	79+49.33	47.08	456.378	456.413
51	79+59.33	47.08	456.287	456.313
52	79+69.33	47.08	456.184	456.197
PIER 8 ℄ BRG.	79+81.30	47.08	456.044	456.044
PIER 8	79+82.05	47.08	456.035	456.035
PIER 8 ℄ BRG.	79+82.80	47.08	456.026	456.026
59	79+92.80	47.08	455.894	455.929
60	80+02.80	47.08	455.750	455.811
61	80+12.80	47.08	455.594	455.672
62	80+22.80	47.08	455.426	455.518
63	80+32.80	47.08	455.246	455.344
64	80+42.80	47.08	455.054	455.152
65	80+52.80	47.08	454.850	454.940
66	80+62.80	47.08	454.633	454.708
67	80+72.80	47.08	454.405	454.462
68	80+82.80	47.08	454.164	454.194
PIER 9 ℄ BRG.	80+91.30	47.08	453.950	453.950
PIER 9	80+92.05	47.08	453.930	453.930

BEAM R

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 6 ℄ BRG.	77+84.28	54.50	456.018	456.018
35	77+94.28	54.50	456.127	456.169
36	78+04.28	54.50	456.224	456.293
37	78+14.28	54.50	456.308	456.404
38	78+24.28	54.50	456.381	456.489
39	78+34.28	54.50	456.441	456.562
40	78+44.28	54.50	456.490	456.617
41	78+54.28	54.50	456.526	456.653
42	78+64.28	54.50	456.550	456.671
43	78+74.28	54.50	456.562	456.670
44	78+84.28	54.50	456.562	456.658
45	78+94.28	54.50	456.549	456.618
46	79+04.28	54.50	456.525	456.567
PIER 7 ℄ BRG.	79+14.28	54.50	456.488	456.488
PIER 7	79+15.03	54.50	456.483	456.483
PIER 7 ℄ BRG.	79+15.78	54.50	456.480	456.480
47	79+25.78	54.50	456.429	456.446
48	79+35.78	54.50	456.367	456.396
49	79+45.78	54.50	456.292	456.327
50	79+55.78	54.50	456.205	456.240
51	79+65.78	54.50	456.106	456.132
52	79+75.78	54.50	455.995	456.008
PIER 8 ℄ BRG.	79+83.57	54.50	455.900	455.900
PIER 8	79+84.32	54.50	455.891	455.891
PIER 8 ℄ BRG.	79+85.07	54.50	455.881	455.881
59	79+95.07	54.50	455.747	455.781
60	80+05.07	54.50	455.600	455.658
61	80+15.07	54.50	455.442	455.515
62	80+25.07	54.50	455.271	455.357
63	80+35.07	54.50	455.088	455.180
64	80+45.07	54.50	454.893	454.985
65	80+55.07	54.50	454.686	454.770
66	80+65.07	54.50	454.467	454.537
67	80+75.07	54.50	454.235	454.289
68	80+85.07	54.50	453.992	454.020
PIER 9 ℄ BRG.	80+93.57	54.50	453.775	453.775
PIER 9	80+94.32	54.50	453.756	453.756

HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

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F.A.I. ROUTE 70 SEC. 82-5VBR
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR	ST. CLAIR	86	29
FEDERAL ROAD DIST. NO.		ILLINOIS	FEDERAL AID PROJECT-	

SHEET NO. 16
72 SHEETS

BEAM A

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 9 ℄ BRG.	80+61.75	54.50	454.541	454.541
69	80+71.75	54.50	454.313	454.345
70	80+81.75	54.50	454.074	454.130
71	80+91.75	54.50	453.822	453.893
72	81+01.75	54.50	453.559	453.642
73	81+11.75	54.50	453.283	453.372
74	81+21.75	54.50	452.995	453.083
75	81+31.75	54.50	452.695	452.776
76	81+41.75	54.50	452.383	452.450
77	81+51.75	54.50	452.059	452.109
78	81+61.75	54.50	451.722	451.747
PIER 10 ℄ BRG.	81+69.42	54.50	451.456	451.456
PIER 10	81+70.17	54.50	451.430	451.430

BEAM B

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 9 ℄ BRG.	80+64.02	47.08	454.606	454.606
69	80+74.02	47.08	454.376	454.408
70	80+84.02	47.08	454.134	454.188
71	80+94.02	47.08	453.879	453.952
72	81+04.02	47.08	453.613	453.699
73	81+14.02	47.08	453.334	453.426
74	81+24.02	47.08	453.044	453.135
75	81+34.02	47.08	452.741	452.824
76	81+44.02	47.08	452.426	452.495
77	81+54.02	47.08	452.099	452.147
78	81+64.02	47.08	451.760	451.785
PIER 10 ℄ BRG.	81+69.42	47.08	451.572	451.572
PIER 10	81+70.17	47.08	451.546	451.546

BEAM C

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 9 ℄ BRG.	80+66.29	39.67	454.671	454.671
69	80+76.29	39.67	454.438	454.469
70	80+86.29	39.67	454.193	454.247
71	80+96.29	39.67	453.936	454.009
72	81+06.29	39.67	453.667	453.751
73	81+16.29	39.67	453.385	453.475
74	81+26.29	39.67	453.092	453.178
75	81+36.29	39.67	452.786	452.863
76	81+46.29	39.67	452.469	452.529
77	81+56.29	39.67	452.139	452.179
PIER 10 ℄ BRG.	81+69.42	39.67	451.688	451.688
PIER 10	81+70.17	39.67	451.662	451.662

BEAM D

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 9 ℄ BRG.	80+68.56	32.25	454.734	454.734
69	80+78.56	32.25	454.499	454.530
70	80+88.56	32.25	454.251	454.305
71	80+98.56	32.25	453.991	454.064
72	81+08.56	32.25	453.719	453.803
73	81+18.56	32.25	453.435	453.525
74	81+28.56	32.25	453.139	453.225
75	81+38.56	32.25	452.831	452.908
76	81+48.56	32.25	452.511	452.571
77	81+58.56	32.25	452.178	452.218
PIER 10 ℄ BRG.	81+69.42	32.25	451.803	451.803
PIER 10	81+70.17	32.25	451.778	451.778

CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 9 ℄ BRG.	80+70.16	27.00	454.779	454.779
69	80+80.16	27.00	454.542	454.573
70	80+90.16	27.00	454.292	454.346
71	81+00.16	27.00	454.030	454.103
72	81+10.16	27.00	453.757	453.841
73	81+20.16	27.00	453.471	453.561
74	81+30.16	27.00	453.173	453.259
75	81+40.16	27.00	452.862	452.939
76	81+50.16	27.00	452.540	452.600
77	81+60.16	27.00	452.206	452.246
PIER 10 ℄ BRG.	81+69.42	27.00	451.885	451.885
PIER 10	81+70.17	27.00	451.859	451.859

BEAM E

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 9 ℄ BRG.	80+70.82	24.83	454.730	454.730
69	80+80.82	24.83	454.492	454.522
70	80+90.82	24.83	454.241	454.295
71	81+00.82	24.83	453.979	454.046
72	81+10.82	24.83	453.704	453.774
73	81+20.82	24.83	453.417	453.499
74	81+30.82	24.83	453.119	453.196
75	81+40.82	24.83	452.808	452.873
76	81+50.82	24.83	452.484	452.535
77	81+60.82	24.83	452.149	452.174
PIER 10 ℄ BRG.	81+69.42	24.83	451.852	451.852
PIER 10	81+70.17	24.83	451.826	451.826

BEAM F

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 9 ℄ BRG.	80+73.09	17.42	454.562	454.562
69	80+83.09	17.42	454.320	454.350
70	80+93.09	17.42	454.067	454.121
71	81+03.09	17.42	453.802	453.869
72	81+13.09	17.42	453.525	453.595
73	81+23.09	17.42	453.235	453.317
74	81+33.09	17.42	452.933	453.010
75	81+43.09	17.42	452.620	452.685
76	81+53.09	17.42	452.294	452.345
77	81+63.09	17.42	451.956	451.981
PIER 10 ℄ BRG.	81+69.42	17.42	451.736	451.736
PIER 10	81+70.17	17.42	451.710	451.710

BEAM G

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 9 ℄ BRG.	80+75.36	10.00	454.392	454.392
69	80+85.36	10.00	454.148	454.175
70	80+95.36	10.00	453.893	453.943
71	81+05.36	10.00	453.624	453.686
72	81+15.36	10.00	453.344	453.415
73	81+25.36	10.00	453.052	453.124
74	81+35.36	10.00	452.748	452.814
75	81+45.36	10.00	452.431	452.485
76	81+55.36	10.00	452.102	452.139
PIER 10 ℄ BRG.	81+69.42	10.00	451.620	451.620
PIER 10	81+70.17	10.00	451.594	451.594

HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

FILE NUMBER
DRAWN BY C.B./D.C.
CHECKED BY G.W.
APPROVED BY

DECK ELEVATIONS
SPAN 10
F.A.I. ROUTE 70 SEC. 82-5VBR
ST. CLAIR COUNTY
STA. 81+42.68

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR	ST. CLAIR	86	30
FEDERAL ROAD DIST. NO.		ILLINOIS	FEDERAL AID PROJECT-	

SHEET NO. 17
72 SHEETS

BEAM H

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 9 ℄ BRG.	80+77.63	2.58	454.222	454.222
69	80+87.63	2.58	453.976	454.005
70	80+97.63	2.58	453.717	453.767
71	81+07.63	2.58	453.446	453.512
72	81+17.63	2.58	453.163	453.238
73	81+27.63	2.58	452.868	452.944
74	81+37.63	2.58	452.561	452.631
75	81+47.63	2.58	452.242	452.299
76	81+57.63	2.58	451.911	451.950
PIER 10 ℄ BRG.	81+69.42	2.58	451.504	451.504
PIER 10	81+70.17	2.58	451.479	451.479

BEAM J

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 9 ℄ BRG.	80+79.20	2.58	454.184	454.184
69	80+89.20	2.58	453.936	453.970
70	80+99.20	2.58	453.675	453.734
71	81+09.20	2.58	453.402	453.479
72	81+19.20	2.58	453.118	453.205
73	81+29.20	2.58	452.821	452.909
74	81+39.20	2.58	452.512	452.591
75	81+49.20	2.58	452.190	452.252
76	81+59.20	2.58	451.857	451.896
PIER 10 ℄ BRG.	81+69.42	2.58	451.504	451.504
PIER 10	81+70.17	2.58	451.479	451.479

BEAM K

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 9 ℄ BRG.	80+81.47	10.00	454.245	454.245
69	80+91.47	10.00	453.993	454.025
70	81+01.47	10.00	453.730	453.788
71	81+11.47	10.00	453.455	453.528
72	81+21.47	10.00	453.167	453.249
73	81+31.47	10.00	452.867	452.950
74	81+41.47	10.00	452.556	452.631
75	81+51.47	10.00	452.232	452.294
76	81+61.47	10.00	451.896	451.933
PIER 10 ℄ BRG.	81+69.42	10.00	451.620	451.620
PIER 10	81+70.17	10.00	451.594	451.594

BEAM L

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 9 ℄ BRG.	80+83.74	17.42	454.304	454.304
69	80+93.74	17.42	454.050	454.074
70	81+03.74	17.42	453.784	453.827
71	81+13.74	17.42	453.506	453.560
72	81+23.74	17.42	453.216	453.276
73	81+33.74	17.42	452.913	452.973
74	81+43.74	17.42	452.599	452.651
75	81+53.74	17.42	452.272	452.311
76	81+63.74	17.42	451.933	451.953
PIER 10 ℄ BRG.	81+69.42	17.42	451.736	451.736
PIER 10	81+70.17	17.42	451.710	451.710

BEAM M

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 9 ℄ BRG.	80+86.01	24.83	454.364	454.364
69	80+96.01	24.83	454.107	454.133
70	81+06.01	24.83	453.838	453.882
71	81+16.01	24.83	453.557	453.611
72	81+26.01	24.83	453.264	453.323
73	81+36.01	24.83	452.959	453.016
74	81+46.01	24.83	452.642	452.691
75	81+56.01	24.83	452.312	452.344
PIER 10 ℄ BRG.	81+69.42	24.83	451.852	451.852
PIER 10	81+70.17	24.83	451.826	451.826

CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 9 ℄ BRG.	80+86.67	27.00	454.381	454.381
69	80+96.67	27.00	454.123	454.149
70	81+06.67	27.00	453.854	453.898
71	81+16.67	27.00	453.572	453.626
72	81+26.67	27.00	453.278	453.337
73	81+36.67	27.00	452.972	453.029
74	81+46.67	27.00	452.654	452.703
75	81+56.67	27.00	452.324	452.356
PIER 10 ℄ BRG.	81+69.42	27.00	451.885	451.885
PIER 10	81+70.17	27.00	451.859	451.859

BEAM N

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 9 ℄ BRG.	80+88.27	32.25	454.258	454.258
69	80+98.27	32.25	453.999	454.025
70	81+08.27	32.25	453.727	453.770
71	81+18.27	32.25	453.444	453.499
72	81+28.27	32.25	453.148	453.208
73	81+38.27	32.25	452.840	452.898
74	81+48.27	32.25	452.520	452.568
75	81+58.27	32.25	452.188	452.221
PIER 10 ℄ BRG.	81+69.42	32.25	451.803	451.803
PIER 10	81+70.17	32.25	451.778	451.778

BEAM P

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 9 ℄ BRG.	80+90.54	39.67	454.085	454.085
69	81+00.54	39.67	453.823	453.845
70	81+10.54	39.67	453.548	453.587
71	81+20.54	39.67	453.262	453.311
72	81+30.54	39.67	452.963	453.016
73	81+40.54	39.67	452.653	452.701
74	81+50.54	39.67	452.330	452.367
75	81+60.54	39.67	451.995	452.015
PIER 10 ℄ BRG.	81+69.42	39.67	451.688	451.688
PIER 10	81+70.17	39.67	451.662	451.662

HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

FILE NUMBER
DRAWN BY C.B./D.C.
CHECKED BY G.W.S.
APPROVED BY D.L.S.

DECK ELEVATIONS
SPAN 10
F.A.I. ROUTE 70 SEC. 82-5VBR
ST. CLAIR COUNTY
STA. 81+42.68

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR	ST. CLAIR	86	31
FEDERAL ROAD DIST. NO.		ILLINOIS	FEDERAL AID PROJECT-	

SHEET NO. 18
72 SHEETS

BEAM Q

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 9 ℄ BRG.	80+92.81	47.08	453.911	453.911
69	81+02.81	47.08	453.646	453.668
70	81+12.81	47.08	453.369	453.408
71	81+22.81	47.08	453.080	453.130
72	81+32.81	47.08	452.778	452.832
73	81+42.81	47.08	452.465	452.514
74	81+52.81	47.08	452.139	452.176
75	81+62.81	47.08	451.802	451.822
PIER 10 ℄ BRG.	81+69.42	47.08	451.572	451.572
PIER 10	81+70.17	47.08	451.546	451.546

BEAM R

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 9 ℄ BRG.	80+95.08	54.50	453.736	453.736
69	81+05.08	54.50	453.468	453.489
70	81+15.08	54.50	453.189	453.225
71	81+25.08	54.50	452.897	452.943
72	81+35.08	54.50	452.593	452.640
73	81+45.08	54.50	452.276	452.318
74	81+55.08	54.50	451.948	451.978
PIER 10 ℄ BRG.	81+69.42	54.50	451.456	451.456
PIER 10	81+70.17	54.50	451.430	451.430

BEAM A & R

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 10 ℄ BRG.	81+70.92	54.50	451.404	451.404
79	81+80.92	54.50	451.054	451.067
80	81+90.92	54.50	450.704	450.726
81	82+00.92	54.50	450.354	450.380
82	82+10.92	54.50	450.004	450.028
83	82+20.92	54.50	449.654	449.673
84	82+30.92	54.50	449.304	449.314
85	82+40.92	54.50	448.954	448.957
PIER 11	82+50.17	54.50	448.630	448.630
86	82+60.17	54.50	448.280	448.284
87	82+70.17	54.50	447.930	447.942
88	82+80.17	54.50	447.580	447.602
89	82+90.17	54.50	447.230	447.259
90	83+00.17	54.50	446.880	446.912
91	83+10.17	54.50	446.530	446.559
92	83+20.17	54.50	446.180	446.202
93	83+30.17	54.50	445.830	445.842
94	83+40.17	54.50	445.480	445.484
PIER 12	83+50.17	54.50	445.130	445.130
95	83+60.17	54.50	444.780	444.783
96	83+70.17	54.50	444.430	444.440
97	83+80.17	54.50	444.080	444.099
98	83+90.17	54.50	443.730	443.755
99	84+00.17	54.50	443.380	443.406
100	84+10.17	54.50	443.030	443.051
101	84+20.17	54.50	442.680	442.689
PIER 13 ℄ BRG.	84+29.42	54.50	442.357	442.357
PIER 13	84+30.17	54.50	442.330	442.330

BEAM B & Q

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 10 ℄ BRG.	81+70.92	47.08	451.520	451.520
79	81+80.92	47.08	451.170	451.183
80	81+90.92	47.08	450.820	450.842
81	82+00.92	47.08	450.470	450.496
82	82+10.92	47.08	450.120	450.144
83	82+20.92	47.08	449.770	449.789
84	82+30.92	47.08	449.420	449.430
85	82+40.92	47.08	449.070	449.073
PIER 11	82+50.17	47.08	448.746	448.746
86	82+60.17	47.08	448.396	448.400
87	82+70.17	47.08	448.046	448.058
88	82+80.17	47.08	447.696	447.718
89	82+90.17	47.08	447.346	447.375
90	83+00.17	47.08	446.996	447.028
91	83+10.17	47.08	446.646	446.675
92	83+20.17	47.08	446.296	446.318
93	83+30.17	47.08	445.946	445.958
94	83+40.17	47.08	445.596	445.600
PIER 12	83+50.17	47.08	445.246	445.246
95	83+60.17	47.08	444.896	444.899
96	83+70.17	47.08	444.546	444.556
97	83+80.17	47.08	444.196	444.215
98	83+90.17	47.08	443.846	443.871
99	84+00.17	47.08	443.496	443.522
100	84+10.17	47.08	443.146	443.167
101	84+20.17	47.08	442.796	442.805
PIER 13 ℄ BRG.	84+29.42	47.08	442.472	442.472
PIER 13	84+30.17	47.08	442.446	442.446

BEAM C & P

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 10 ℄ BRG.	81+70.92	39.67	451.636	451.636
79	81+80.92	39.67	451.286	451.299
80	81+90.92	39.67	450.936	450.958
81	82+00.92	39.67	450.586	450.612
82	82+10.92	39.67	450.236	450.260
83	82+20.92	39.67	449.886	449.905
84	82+30.92	39.67	449.536	449.546
85	82+40.92	39.67	449.186	449.189
PIER 11	82+50.17	39.67	448.862	448.862
86	82+60.17	39.67	448.512	448.516
87	82+70.17	39.67	448.162	448.174
88	82+80.17	39.67	447.812	447.834
89	82+90.17	39.67	447.462	447.491
90	83+00.17	39.67	447.112	447.144
91	83+10.17	39.67	446.762	446.791
92	83+20.17	39.67	446.412	446.434
93	83+30.17	39.67	446.062	446.074
94	83+40.17	39.67	445.712	445.716
PIER 12	83+50.17	39.67	445.362	445.362
95	83+60.17	39.67	445.012	445.015
96	83+70.17	39.67	444.662	444.672
97	83+80.17	39.67	444.312	444.331
98	83+90.17	39.67	443.962	443.987
99	84+00.17	39.67	443.612	443.638
100	84+10.17	39.67	443.262	443.283
101	84+20.17	39.67	442.912	442.921
PIER 13 ℄ BRG.	84+29.42	39.67	442.588	442.588
PIER 13	84+30.17	39.67	442.562	442.562

BEAM D & N

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 10 ℄ BRG.	81+70.92	32.25	451.751	451.751
79	81+80.92	32.25	451.401	451.414
80	81+90.92	32.25	451.051	451.073
81	82+00.92	32.25	450.701	450.727
82	82+10.92	32.25	450.351	450.375
83	82+20.92	32.25	450.001	450.020
84	82+30.92	32.25	449.651	449.661
85	82+40.92	32.25	449.301	449.304
PIER 11	82+50.17	32.25	448.978	448.978
86	82+60.17	32.25	448.628	448.632
87	82+70.17	32.25	448.278	448.290
88	82+80.17	32.25	447.928	447.950
89	82+90.17	32.25	447.578	447.607
90	83+00.17	32.25	447.228	447.260
91	83+10.17	32.25	446.878	446.907
92	83+20.17	32.25	446.528	446.549
93	83+30.17	32.25	446.178	446.190
94	83+40.17	32.25	445.828	445.832
PIER 12	83+50.17	32.25	445.478	445.478
95	83+60.17	32.25	445.128	445.131
96	83+70.17	32.25	444.778	444.787
97	83+80.17	32.25	444.428	444.447
98	83+90.17	32.25	444.078	444.102
99	84+00.17	32.25	443.728	443.754
100	84+10.17	32.25	443.378	443.399
101	84+20.17	32.25	443.028	443.037
PIER 13 ℄ BRG.	84+29.42	32.25	442.704	442.704
PIER 13	84+30.17	32.35	442.678	442.678

HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

FILE NUMBER
DRAWN BY C.B./D.C.
CHECKED BY GWE
APPROVED BY

DECK ELEVATIONS
SPAN 10
SPAN 11-13
F.A.I. ROUTE 70 SEC. 82-5VBR
ST. CLAIR COUNTY
STA. 81+42.68

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR	ST. CLAIR	86	32
FEDERAL ROAD DIST. NO.		ILLINOIS	FEDERAL AID PROJECT-	

SHEET NO. 19
72 SHEETS

CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 10 ℄ BRG.	81+70.91	27.00	451.833	451.833
79	81+80.91	27.00	451.483	451.496
80	81+90.91	27.00	451.133	451.155
81	82+00.91	27.00	450.783	450.809
82	82+10.91	27.00	450.433	450.457
83	82+20.91	27.00	450.083	450.102
84	82+30.91	27.00	449.733	449.743
85	82+40.91	27.00	449.383	449.386
PIER 11	82+50.16	27.00	449.059	449.059
86	82+60.16	27.00	448.709	448.713
87	82+70.16	27.00	448.359	448.371
88	82+80.16	27.00	448.009	448.031
89	82+90.16	27.00	447.659	447.688
90	83+00.16	27.00	447.309	447.341
91	83+10.16	27.00	446.959	446.988
92	83+20.16	27.00	446.609	446.631
93	83+30.16	27.00	446.259	446.271
94	83+40.16	27.00	445.909	445.913
PIER 12	83+50.16	27.00	445.559	445.559
95	83+60.16	27.00	445.209	445.212
96	83+70.16	27.00	444.859	444.869
97	83+80.16	27.00	444.509	444.528
98	83+90.16	27.00	444.159	444.184
99	84+00.16	27.00	443.809	443.835
100	84+10.16	27.00	443.459	443.480
101	84+20.16	27.00	443.109	443.118
PIER 13 ℄ BRG.	84+29.41	27.00	442.786	442.786
PIER 13	84+30.16	27.00	442.759	442.759

BEAM E & M

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 10 ℄ BRG.	81+70.92	24.83	451.799	451.799
79	81+80.92	24.83	451.449	451.462
80	81+90.92	24.83	451.099	451.121
81	82+00.92	24.83	450.749	450.775
82	82+10.92	24.83	450.399	450.423
83	82+20.92	24.83	450.049	450.068
84	82+30.92	24.83	449.699	449.709
85	82+40.92	24.83	449.349	449.352
PIER 11	82+50.17	24.83	449.026	449.026
86	82+60.17	24.83	448.676	448.680
87	82+70.17	24.83	448.326	448.338
88	82+80.17	24.83	447.976	447.998
89	82+90.17	24.83	447.626	447.655
90	83+00.17	24.83	447.276	447.308
91	83+10.17	24.83	446.926	446.955
92	83+20.17	24.83	446.576	446.598
93	83+30.17	24.83	446.226	446.238
94	83+40.17	24.83	445.876	445.880
PIER 12	83+50.17	24.83	445.526	445.526
95	83+60.17	24.83	445.176	445.179
96	83+70.17	24.83	444.826	444.836
97	83+80.17	24.83	444.476	444.495
98	83+90.17	24.83	444.126	444.151
99	84+00.17	24.83	443.776	443.802
100	84+10.17	24.83	443.426	443.447
101	84+20.17	24.83	443.076	443.085
PIER 13 ℄ BRG.	84+29.42	24.83	442.752	442.752
PIER 13	84+30.17	24.83	442.726	442.726

BEAM F & L

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 10 ℄ BRG.	81+70.92	17.42	451.684	451.684
79	81+80.92	17.42	451.334	451.347
80	81+90.92	17.42	450.984	451.006
81	82+00.92	17.42	450.634	450.660
82	82+10.92	17.42	450.284	450.308
83	82+20.92	17.42	449.934	449.953
84	82+30.92	17.42	449.584	449.594
85	82+40.92	17.42	449.234	449.237
PIER 11	82+50.17	17.42	448.910	448.910
86	82+60.17	17.42	448.560	448.564
87	82+70.17	17.42	448.210	448.222
88	82+80.17	17.42	447.860	447.882
89	82+90.17	17.42	447.510	447.539
90	83+00.17	17.42	447.160	447.192
91	83+10.17	17.42	446.810	446.839
92	83+20.17	17.42	446.460	446.482
93	83+30.17	17.42	446.110	446.122
94	83+40.17	17.42	445.760	445.764
PIER 12	83+50.17	17.42	445.410	445.410
95	83+60.17	17.42	445.060	445.063
96	83+70.17	17.42	444.710	444.720
97	83+80.17	17.42	444.360	444.379
98	83+90.17	17.42	444.010	444.035
99	84+00.17	17.42	443.660	443.686
100	84+10.17	17.42	443.310	443.331
101	84+20.17	17.42	442.960	442.969
PIER 13 ℄ BRG.	84+29.42	17.42	442.636	442.636
PIER 13	84+30.17	17.42	442.610	442.610

BEAM G & K

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 10 ℄ BRG.	81+70.92	10.00	451.568	451.568
79	81+80.92	10.00	451.218	451.231
80	81+90.92	10.00	450.868	450.890
81	82+00.92	10.00	450.518	450.544
82	82+10.92	10.00	450.168	450.192
83	82+20.92	10.00	449.818	449.837
84	82+30.92	10.00	449.468	449.478
85	82+40.92	10.00	449.118	449.121
PIER 11	82+50.17	10.00	448.794	448.794
86	82+60.17	10.00	448.444	448.448
87	82+70.17	10.00	448.094	448.106
88	82+80.17	10.00	447.744	447.766
89	82+90.17	10.00	447.394	447.423
90	83+00.17	10.00	447.044	447.076
91	83+10.17	10.00	446.694	446.723
92	83+20.17	10.00	446.344	446.366
93	83+30.17	10.00	445.994	446.006
94	83+40.17	10.00	445.644	445.648
PIER 12	83+50.17	10.00	445.294	445.294
95	83+60.17	10.00	444.944	444.947
96	83+70.17	10.00	444.594	444.604
97	83+80.17	10.00	444.244	444.263
98	83+90.17	10.00	443.894	443.919
99	84+00.17	10.00	443.544	443.570
100	84+10.17	10.00	443.194	443.215
101	84+20.17	10.00	442.844	442.853
PIER 13 ℄ BRG.	84+29.42	10.00	442.520	442.520
PIER 13	84+30.17	10.00	442.494	442.494

HE HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

FILE NUMBER
DRAWN BY C.B./D.C.
CHECKED BY GWS
APPROVED BY

DECK ELEVATIONS
SPANS 11-13
F.A.I. ROUTE 70 SEC. 82-5VBR
ST. CLAIR COUNTY
STA. 81+42.68

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR	ST. CLAIR	86	33
FEDERAL ROAD DIST. NO.		ILLINOIS	FEDERAL AID PROJECT-	

SHEET NO. 20
72 SHEETS

BEAM H & J

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 10 ℄ BRG.	81+70.92	2.58	451.452	451.452
79	81+80.92	2.58	451.102	451.118
80	81+90.92	2.58	450.752	450.781
81	82+00.92	2.58	450.402	450.437
82	82+10.92	2.58	450.052	450.085
83	82+20.92	2.58	449.702	449.726
84	82+30.92	2.58	449.352	449.365
85	82+40.92	2.58	449.002	449.006
PIER 11	82+50.17	2.58	448.679	448.679
86	82+60.17	2.58	448.329	448.333
87	82+70.17	2.58	447.979	447.992
88	82+80.17	2.58	447.629	447.652
89	82+90.17	2.58	447.279	447.309
90	83+00.17	2.58	446.929	446.962
91	83+10.17	2.58	446.579	446.609
92	83+20.17	2.58	446.229	446.252
93	83+30.17	2.58	445.879	445.891
94	83+40.17	2.58	445.529	445.533
PIER 12	83+50.17	2.58	445.179	445.179
95	83+60.17	2.58	444.829	444.833
96	83+70.17	2.58	444.479	444.492
97	83+80.17	2.58	444.129	444.153
98	83+90.17	2.58	443.779	443.813
99	84+00.17	2.58	443.429	443.464
100	84+10.17	2.58	443.079	443.107
101	84+20.17	2.58	442.729	442.741
PIER 13 ℄ BRG.	84+29.42	2.58	442.405	442.405
PIER 13	84+30.16	2.58	442.379	442.379

BEAM A & R

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 13 ℄ BRG.	84+30.91	54.50	442.304	442.304
102	84+40.91	54.50	441.954	441.967
103	84+50.91	54.50	441.604	441.626
104	84+60.91	54.50	441.254	441.280
105	84+70.91	54.50	440.904	440.928
106	84+80.91	54.50	440.554	440.573
107	84+90.91	54.50	440.204	440.214
108	85+00.91	54.50	439.854	439.857
PIER 14	85+10.16	54.50	439.530	439.530
109	85+20.16	54.50	439.180	439.184
110	85+30.16	54.50	438.830	438.842
111	85+40.16	54.50	438.480	438.502
112	85+50.16	54.50	438.130	438.159
113	85+60.16	54.50	437.780	437.812
114	85+70.16	54.50	437.430	437.459
115	85+80.16	54.50	437.080	437.102
116	85+90.16	54.50	436.730	436.742
117	86+00.16	54.50	436.380	436.384
PIER 15	86+10.16	54.50	436.030	436.030
118	86+20.16	54.50	435.680	435.683
119	86+30.16	54.50	435.330	435.340
120	86+40.16	54.50	434.980	434.999
121	86+50.16	54.50	434.630	434.655
122	86+60.16	54.50	434.280	434.306
123	86+70.16	54.50	433.930	433.951
124	86+80.16	54.50	433.580	433.589
PIER 16 ℄ BRG.	86+89.41	54.50	433.257	433.257
PIER 16	86+90.16	54.50	433.230	433.230

BEAM B & Q

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 13 ℄ BRG.	84+30.91	47.08	442.420	442.420
102	84+40.91	47.08	442.070	442.083
103	84+50.91	47.08	441.720	441.742
104	84+60.91	47.08	441.370	441.396
105	84+70.91	47.08	441.020	441.044
106	84+80.91	47.08	440.670	440.689
107	84+90.91	47.08	440.320	440.330
108	85+00.91	47.08	439.970	439.973
PIER 14	85+10.16	47.08	439.646	439.646
109	85+20.16	47.08	439.296	439.300
110	85+30.16	47.08	438.946	438.958
111	85+40.16	47.08	438.596	438.618
112	85+50.16	47.08	438.246	438.275
113	85+60.16	47.08	437.896	437.928
114	85+70.16	47.08	437.546	437.575
115	85+80.16	47.08	437.196	437.218
116	85+90.16	47.08	436.846	436.858
117	86+00.16	47.08	436.496	436.500
PIER 15	86+10.16	47.08	436.146	436.146
118	86+20.16	47.08	435.796	435.799
119	86+30.16	47.08	435.446	435.456
120	86+40.16	47.08	435.096	435.115
121	86+50.16	47.08	434.746	434.771
122	86+60.16	47.08	434.396	434.422
123	86+70.16	47.08	434.046	434.067
124	86+80.16	47.08	433.696	433.705
PIER 16 ℄ BRG.	86+89.41	47.08	433.372	433.372
PIER 16	86+90.16	47.08	433.346	433.346

BEAM C & P

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 13 ℄ BRG.	84+30.91	39.67	442.536	442.536
102	84+40.91	39.67	442.186	442.199
103	84+50.91	39.67	441.836	441.858
104	84+60.91	39.67	441.486	441.512
105	84+70.91	39.67	441.136	441.160
106	84+80.91	39.67	440.786	440.805
107	84+90.91	39.67	440.436	440.446
108	85+00.91	39.67	440.086	440.089
PIER 14	85+10.16	39.67	439.762	439.762
109	85+20.16	39.67	439.412	439.416
110	85+30.16	39.67	439.062	439.074
111	85+40.16	39.67	438.712	438.734
112	85+50.16	39.67	438.362	438.391
113	85+60.16	39.67	438.012	438.044
114	85+70.16	39.67	437.662	437.691
115	85+80.16	39.67	437.312	437.334
116	85+90.16	39.67	436.962	436.974
117	86+00.16	39.67	436.612	436.616
PIER 15	86+10.16	39.67	436.262	436.262
118	86+20.16	39.67	435.912	435.915
119	86+30.16	39.67	435.562	435.572
120	86+40.16	39.67	435.212	435.231
121	86+50.16	39.67	434.862	434.887
122	86+60.16	39.67	434.512	434.538
123	86+70.16	39.67	434.162	434.183
124	86+80.16	39.67	433.812	433.821
PIER 16 ℄ BRG.	86+89.41	39.67	433.488	433.488
PIER 16	86+90.16	39.67	433.462	433.462

HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

FILE NUMBER
DRAWN BY C.B./D.C.
CHECKED BY GW
APPROVED BY HG

DECK ELEVATIONS
SPANS 11-13
SPANS 14-16
F.A.I. ROUTE 70 SEC. 82-5VBR
ST. CLAIR COUNTY
STA. 81+42.68

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR	ST. CLAIR	86	34
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

SHEET NO. 21
72 SHEETS

BEAM D & N

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 13 ℄ BRG.	84+30.91	32.25	442.651	442.651
102	84+40.91	32.25	442.301	442.314
103	84+50.91	32.25	441.951	441.973
104	84+60.91	32.25	441.601	441.627
105	84+70.91	32.25	441.251	441.275
106	84+80.91	32.25	440.901	440.920
107	84+90.91	32.25	440.551	440.561
108	85+00.91	32.25	440.201	440.204
PIER 14	85+10.16	32.25	439.878	439.878
109	85+20.16	32.25	439.528	439.532
110	85+30.16	32.25	439.178	439.190
111	85+40.16	32.25	438.828	438.850
112	85+50.16	32.25	438.478	438.507
113	85+60.16	32.25	438.128	438.160
114	85+70.16	32.25	437.778	437.806
115	85+80.16	32.25	437.428	437.450
116	85+90.16	32.25	437.078	437.090
117	86+00.16	32.25	436.728	436.732
PIER 15	86+10.16	32.25	436.378	436.378
118	86+20.16	32.25	436.028	436.030
119	86+30.16	32.25	435.678	435.688
120	86+40.16	32.25	435.328	435.347
121	86+50.16	32.25	434.978	435.003
122	86+60.16	32.25	434.628	434.654
123	86+70.16	32.25	434.278	434.299
124	86+80.16	32.25	433.928	433.937
PIER 16 ℄ BRG.	86+89.41	32.25	433.604	433.604
PIER 16	86+90.16	32.25	433.578	433.578

CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 13 ℄ BRG.	84+30.91	27.00	442.733	442.733
102	84+40.91	27.00	442.383	442.396
103	84+50.91	27.00	442.033	442.055
104	84+60.91	27.00	441.683	441.709
105	84+70.91	27.00	441.333	441.357
106	84+80.91	27.00	440.983	441.002
107	84+90.91	27.00	440.633	440.643
108	85+00.91	27.00	440.283	440.286
PIER 14	85+10.16	27.00	439.959	439.959
109	85+20.16	27.00	439.609	439.613
110	85+30.16	27.00	439.259	439.271
111	85+40.16	27.00	438.909	438.931
112	85+50.16	27.00	438.559	438.588
113	85+60.16	27.00	438.209	438.241
114	85+70.16	27.00	437.859	437.888
115	85+80.16	27.00	437.509	437.531
116	85+90.16	27.00	437.159	437.171
117	86+00.16	27.00	436.809	436.813
PIER 15	86+10.16	27.00	436.459	436.459
118	86+20.16	27.00	436.109	436.112
119	86+30.16	27.00	435.759	435.769
120	86+40.16	27.00	435.409	435.428
121	86+50.16	27.00	435.059	435.084
122	86+60.16	27.00	434.709	434.735
123	86+70.16	27.00	434.359	434.380
124	86+80.16	27.00	434.009	434.018
PIER 16 ℄ BRG.	86+89.41	27.00	433.686	433.686
PIER 16	86+90.16	27.00	433.659	433.659

BEAM E & M

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 13 ℄ BRG.	84+30.91	24.83	442.699	442.699
102	84+40.91	24.83	442.349	442.362
103	84+50.91	24.83	441.999	442.021
104	84+60.91	24.83	441.649	441.675
105	84+70.91	24.83	441.299	441.323
106	84+80.91	24.83	440.949	440.968
107	84+90.91	24.83	440.599	440.609
108	85+00.91	24.83	440.249	440.252
PIER 14	85+10.16	24.83	439.926	439.926
109	85+20.16	24.83	439.576	439.580
110	85+30.16	24.83	439.226	439.238
111	85+40.16	24.83	438.876	438.898
112	85+50.16	24.83	438.526	438.555
113	85+60.16	24.83	438.176	438.208
114	85+70.16	24.83	437.826	437.855
115	85+80.16	24.83	437.476	437.498
116	85+90.16	24.83	437.126	437.138
117	86+00.16	24.83	436.776	436.780
PIER 15	86+10.16	24.83	436.426	436.426
118	86+20.16	24.83	436.076	436.079
119	86+30.16	24.83	435.726	435.736
120	86+40.16	24.83	435.376	435.395
121	86+50.16	24.83	435.026	435.051
122	86+60.16	24.83	434.676	434.702
123	86+70.16	24.83	434.326	434.347
124	86+80.16	24.83	433.976	433.985
PIER 16 ℄ BRG.	86+89.41	24.83	433.652	433.652
PIER 16	86+90.16	24.83	433.626	433.626

BEAM F & L

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 13 ℄ BRG.	84+30.91	17.42	442.584	442.584
102	84+40.91	17.42	442.234	442.247
103	84+50.91	17.42	441.884	441.906
104	84+60.91	17.42	441.534	441.560
105	84+70.91	17.42	441.184	441.208
106	84+80.91	17.42	440.834	440.853
107	84+90.91	17.42	440.484	440.494
108	85+00.91	17.42	440.134	440.137
PIER 14	85+10.16	17.42	439.810	439.810
109	85+20.16	17.42	439.460	439.464
110	85+30.16	17.42	439.110	439.122
111	85+40.16	17.42	438.760	438.782
112	85+50.16	17.42	438.410	438.439
113	85+60.16	17.42	438.060	438.092
114	85+70.16	17.42	437.710	437.739
115	85+80.16	17.42	437.360	437.382
116	85+90.16	17.42	437.010	437.022
117	86+00.16	17.42	436.660	436.664
PIER 15	86+10.16	17.42	436.310	436.310
118	86+20.16	17.42	435.960	435.963
119	86+30.16	17.42	435.610	435.620
120	86+40.16	17.42	435.260	435.279
121	86+50.16	17.42	434.910	434.935
122	86+60.16	17.42	434.560	434.586
123	86+70.16	17.42	434.210	434.231
124	86+80.16	17.42	433.860	433.869
PIER 16 ℄ BRG.	86+89.41	17.42	433.536	433.536
PIER 16	86+90.16	17.42	433.510	433.510

HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

FILE NUMBER
DRAWN BY C.B./D.C.
CHECKED BY GWS
APPROVED BY

DECK ELEVATIONS
SPANS 14–16
F.A.I. ROUTE 70 SEC. 82–5VBR
ST. CLAIR COUNTY
STA. 81+42.68

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR	ST. CLAIR	86	35
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

SHEET NO. 22
72 SHEETS

BEAM G & K

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 13 ℄ BRG.	84+30.91	10.00	442.468	442.468
102	84+40.91	10.00	442.118	442.131
103	84+50.91	10.00	441.768	441.790
104	84+60.91	10.00	441.418	441.444
105	84+70.91	10.00	441.068	441.092
106	84+80.91	10.00	440.718	440.737
107	84+90.91	10.00	440.368	440.378
108	85+00.91	10.00	440.018	440.021
PIER 14	85+10.16	10.00	439.694	439.694
109	85+20.16	10.00	439.344	439.348
110	85+30.16	10.00	438.994	439.006
111	85+40.16	10.00	438.644	438.666
112	85+50.16	10.00	438.294	438.323
113	85+60.16	10.00	437.944	437.976
114	85+70.16	10.00	437.594	437.623
115	85+80.16	10.00	437.244	437.266
116	85+90.16	10.00	436.894	436.906
117	86+00.16	10.00	436.544	436.548
PIER 15	86+10.16	10.00	436.194	436.194
118	86+20.16	10.00	435.844	435.847
119	86+30.16	10.00	435.494	435.504
120	86+40.16	10.00	435.144	435.163
121	86+50.16	10.00	434.794	434.819
122	86+60.16	10.00	434.444	434.470
123	86+70.16	10.00	434.094	434.115
124	86+80.16	10.00	433.744	433.753
PIER 16 ℄ BRG.	86+89.41	10.00	433.420	433.420
PIER 16	86+90.16	10.00	433.394	433.394

BEAM H & J

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 13 ℄ BRG.	84+30.91	2.58	442.352	442.352
102	84+40.91	2.58	442.002	442.018
103	84+50.91	2.58	441.652	441.681
104	84+60.91	2.58	441.302	441.337
105	84+70.91	2.58	440.952	440.985
106	84+80.91	2.58	440.602	440.626
107	84+90.91	2.58	440.252	440.265
108	85+00.91	2.58	439.902	439.906
PIER 14	85+10.16	2.58	439.579	439.579
109	85+20.16	2.58	439.229	439.233
110	85+30.16	2.58	438.879	438.891
111	85+40.16	2.58	438.529	438.552
112	85+50.16	2.58	438.179	438.208
113	85+60.16	2.58	437.829	437.862
114	85+70.16	2.58	437.479	437.508
115	85+80.16	2.58	437.129	437.152
116	85+90.16	2.58	436.779	436.792
117	86+00.16	2.58	436.429	436.433
PIER 15	86+10.16	2.58	436.079	436.079
118	86+20.16	2.58	435.729	435.733
119	86+30.16	2.58	435.379	435.391
120	86+40.16	2.58	435.029	435.053
121	86+50.16	2.58	434.679	434.713
122	86+60.16	2.58	434.329	434.364
123	86+70.16	2.58	433.979	434.007
124	86+80.16	2.58	433.629	433.641
PIER 16 ℄ BRG.	86+89.41	2.58	433.305	433.305
PIER 16	86+90.16	2.58	433.279	433.279

BEAM A & R

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 16 ℄ BRG.	86+90.91	54.50	433.204	433.204
125	87+00.91	54.50	432.854	432.867
126	87+10.91	54.50	432.504	432.526
127	87+20.91	54.50	432.154	432.180
128	87+30.91	54.50	431.804	431.828
129	87+40.91	54.50	431.454	431.473
130	87+50.91	54.50	431.104	431.114
131	87+60.91	54.50	430.754	430.757
PIER 17	87+70.16	54.50	430.430	430.430
132	87+80.16	54.50	430.080	430.084
133	87+90.16	54.50	429.730	429.742
134	88+00.16	54.50	429.380	429.402
135	88+10.16	54.50	429.030	429.059
136	88+20.16	54.50	428.680	428.712
137	88+30.16	54.50	428.330	428.359
138	88+40.16	54.50	427.980	428.002
139	88+50.16	54.50	427.630	427.642
140	88+60.16	54.50	427.280	427.284
PIER 18	88+70.16	54.50	426.930	426.930
141	88+80.16	54.50	426.580	426.583
142	88+90.16	54.50	426.230	426.240
143	89+00.16	54.50	425.880	425.899
144	89+10.16	54.50	425.530	425.555
145	89+20.16	54.50	425.180	425.206
146	89+30.16	54.50	424.830	424.851
147	89+40.16	54.50	424.480	424.489
NO. ABUT. ℄ BRG.	89+49.41	54.50	424.157	424.157
BACK OF NO. ABUT.	89+52.16	54.50	424.060	424.060

BEAM B & Q

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 16 ℄ BRG.	86+90.91	47.08	433.320	433.320
125	87+00.91	47.08	432.970	432.983
126	87+10.91	47.08	432.620	432.642
127	87+20.91	47.08	432.270	432.296
128	87+30.91	47.08	431.920	431.944
129	87+40.91	47.08	431.570	431.589
130	87+50.91	47.08	431.220	431.230
131	87+60.91	47.08	430.870	430.873
PIER 17	87+70.16	47.08	430.546	430.546
132	87+80.16	47.08	430.196	430.200
133	87+90.16	47.08	429.846	429.858
134	88+00.16	47.08	429.496	429.518
135	88+10.16	47.08	429.146	429.175
136	88+20.16	47.08	428.796	428.828
137	88+30.16	47.08	428.446	428.475
138	88+40.16	47.08	428.096	428.118
139	88+50.16	47.08	427.746	427.758
140	88+60.16	47.08	427.396	427.400
PIER 18	88+70.16	47.08	427.046	427.046
141	88+80.16	47.08	426.696	426.699
142	88+90.16	47.08	426.346	426.356
143	89+00.16	47.08	425.996	426.015
144	89+10.16	47.08	425.646	425.671
145	89+20.16	47.08	425.296	425.322
146	89+30.16	47.08	424.946	424.967
147	89+40.16	47.08	424.596	424.605
NO. ABUT. ℄ BRG.	89+49.41	47.08	424.272	424.272
BACK OF NO. ABUT.	89+52.16	47.08	424.176	424.176

HE HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

FILE NUMBER
DRAWN BY C.B./D.C.
CHECKED BY GW
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DECK ELEVATIONS
SPANS 14–16
SPANS 17–19
F.A.I. ROUTE 70 SEC. 82–5VBR
ST. CLAIR COUNTY
STA. 81+42.68

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR	ST. CLAIR	86	36
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

SHEET NO. 23
72 SHEETS

BEAM C & P

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 16 ℄ BRG.	86+90.91	39.67	433.436	433.436
125	87+00.91	39.67	433.086	433.099
126	87+10.91	39.67	432.736	432.758
127	87+20.91	39.67	432.386	432.412
128	87+30.91	39.67	432.036	432.060
129	87+40.91	39.67	431.686	431.705
130	87+50.91	39.67	431.336	431.346
131	87+60.91	39.67	430.986	430.989
PIER 17	87+70.16	39.67	430.662	430.662
132	87+80.16	39.67	430.312	430.316
133	87+90.16	39.67	429.962	429.974
134	88+00.16	39.67	429.612	429.634
135	88+10.16	39.67	429.262	429.291
136	88+20.16	39.67	428.912	428.944
137	88+30.16	39.67	428.562	428.591
138	88+40.16	39.67	428.212	428.234
139	88+50.16	39.67	427.862	427.874
140	88+60.16	39.67	427.512	427.516
PIER 18	88+70.16	39.67	427.162	427.162
141	88+80.16	39.67	426.812	426.815
142	88+90.16	39.67	426.462	426.472
143	89+00.16	39.67	426.112	426.131
144	89+10.16	39.67	425.762	425.787
145	89+20.16	39.67	425.412	425.438
146	89+30.16	39.67	425.062	425.083
147	89+40.16	39.67	424.712	424.721
NO. ABUT. ℄ BRG.	89+49.41	39.67	424.388	424.388
BACK OF NO. ABUT.	89+52.16	39.67	424.292	424.292

CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 16 ℄ BRG.	86+90.91	27.00	433.633	433.633
125	87+00.91	27.00	433.283	433.296
126	87+10.91	27.00	432.933	432.955
127	87+20.91	27.00	432.583	432.609
128	87+30.91	27.00	432.233	432.257
129	87+40.91	27.00	431.883	431.902
130	87+50.91	27.00	431.533	431.543
131	87+60.91	27.00	431.183	431.186
PIER 17	87+70.16	27.00	430.859	430.859
132	87+80.16	27.00	430.509	430.513
133	87+90.16	27.00	430.159	430.171
134	88+00.16	27.00	429.809	429.831
135	88+10.16	27.00	429.459	429.488
136	88+20.16	27.00	429.109	429.141
137	88+30.16	27.00	428.759	428.788
138	88+40.16	27.00	428.409	428.431
139	88+50.16	27.00	428.059	428.071
140	88+60.16	27.00	427.709	427.713
PIER 18	88+70.16	27.00	427.359	427.359
141	88+80.16	27.00	427.009	427.012
142	88+90.16	27.00	426.659	426.669
143	89+00.16	27.00	426.309	426.328
144	89+10.16	27.00	425.959	425.984
145	89+20.16	27.00	425.609	425.635
146	89+30.16	27.00	425.259	425.280
147	89+40.16	27.00	424.909	424.918
NO. ABUT. ℄ BRG.	89+49.41	27.00	424.586	424.586
BACK OF NO. ABUT.	89+52.16	27.00	424.489	424.489

BEAM D & N

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 16 ℄ BRG.	86+90.91	32.25	433.551	433.551
125	87+00.91	32.25	433.201	433.214
126	87+10.91	32.25	432.851	432.873
127	87+20.91	32.25	432.501	432.527
128	87+30.91	32.25	432.151	432.175
129	87+40.91	32.25	431.801	431.820
130	87+50.91	32.25	431.451	431.461
131	87+60.91	32.25	431.101	431.104
PIER 17	87+70.16	32.25	430.778	430.778
132	87+80.16	32.25	430.428	430.432
133	87+90.16	32.25	430.078	430.090
134	88+00.16	32.25	429.728	429.750
135	88+10.16	32.25	429.378	429.407
136	88+20.16	32.25	429.028	429.059
137	88+30.16	32.25	428.678	428.707
138	88+40.16	32.25	428.328	428.350
139	88+50.16	32.25	427.978	427.990
140	88+60.16	32.25	427.628	427.632
PIER 18	88+70.16	32.25	427.278	427.278
141	88+80.16	32.25	426.928	426.931
142	88+90.16	32.25	426.578	426.588
143	89+00.16	32.25	426.228	426.247
144	89+10.16	32.25	425.878	425.903
145	89+20.16	32.25	425.528	425.554
146	89+30.16	32.25	425.178	425.199
147	89+40.16	32.25	424.828	424.837
NO. ABUT. ℄ BRG.	89+49.41	32.25	424.504	424.504
BACK OF NO. ABUT.	89+52.16	32.25	424.408	424.408

BEAM E & M

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 16 ℄ BRG.	86+90.91	24.83	433.599	433.599
125	87+00.91	24.83	433.249	433.262
126	87+10.91	24.83	432.899	432.921
127	87+20.91	24.83	432.549	432.575
128	87+30.91	24.83	432.199	432.223
129	87+40.91	24.83	431.849	431.868
130	87+50.91	24.83	431.499	431.509
131	87+60.91	24.83	431.149	431.152
PIER 17	87+70.16	24.83	430.826	430.826
132	87+80.16	24.83	430.476	430.480
133	87+90.16	24.83	430.126	430.138
134	88+00.16	24.83	429.776	429.798
135	88+10.16	24.83	429.426	429.455
136	88+20.16	24.83	429.076	429.108
137	88+30.16	24.83	428.726	428.755
138	88+40.16	24.83	428.376	428.398
139	88+50.16	24.83	428.026	428.038
140	88+60.16	24.83	427.676	427.680
PIER 18	88+70.16	24.83	427.326	427.326
141	88+80.16	24.83	426.976	426.979
142	88+90.16	24.83	426.626	426.636
143	89+00.16	24.83	426.276	426.295
144	89+10.16	24.83	425.926	425.951
145	89+20.16	24.83	425.576	425.602
146	89+30.16	24.83	425.226	425.247
147	89+40.16	24.83	424.876	424.885
NO. ABUT. ℄ BRG.	89+49.41	24.83	424.552	424.552
BACK OF NO. ABUT.	89+52.16	24.83	424.456	424.456

HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

FILE NUMBER
DRAWN BY C.B./D.C
CHECKED BY GWE
APPROVED BY

DECK ELEVATIONS
SPANS 17–19
F.A.I. ROUTE 70 SEC. 82–5VBR
ST. CLAIR COUNTY
STA. 81+42.68

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR	ST. CLAIR	86	57
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

SHEET NO. 24
72 SHEETS

BEAM F & L

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 16 ℄ BRG.	86+90.91	17.42	433.484	433.484
125	87+00.91	17.42	433.134	433.147
126	87+10.91	17.42	432.784	432.806
127	87+20.91	17.42	432.434	432.460
128	87+30.91	17.42	432.084	432.108
129	87+40.91	17.42	431.734	431.753
130	87+50.91	17.42	431.384	431.394
131	87+60.91	17.42	431.034	431.037
PIER 17	87+70.16	17.42	430.710	430.710
132	87+80.16	17.42	430.360	430.364
133	87+90.16	17.42	430.010	430.022
134	88+00.16	17.42	429.660	429.682
135	88+10.16	17.42	429.310	429.339
136	88+20.16	17.42	428.960	428.992
137	88+30.16	17.42	428.610	428.639
138	88+40.16	17.42	428.260	428.282
139	88+50.16	17.42	427.910	427.922
140	88+60.16	17.42	427.560	427.564
PIER 18	88+70.16	17.42	427.210	427.210
141	88+80.16	17.42	426.860	426.863
142	88+90.16	17.42	426.510	426.520
143	89+00.16	17.42	426.160	426.179
144	89+10.16	17.42	425.810	425.835
145	89+20.16	17.42	425.460	425.486
146	89+30.16	17.42	425.110	425.131
147	89+40.16	17.42	424.760	424.769
NO. ABUT. ℄ BRG.	89+49.41	17.42	424.436	424.436
BACK OF NO. ABUT.	89+52.16	17.42	424.340	424.340

BEAM G & K

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 16 ℄ BRG.	86+90.91	10.00	433.368	433.368
125	87+00.91	10.00	433.018	433.031
126	87+10.91	10.00	432.668	432.690
127	87+20.91	10.00	432.318	432.344
128	87+30.91	10.00	431.968	431.992
129	87+40.91	10.00	431.618	431.637
130	87+50.91	10.00	431.268	431.278
131	87+60.91	10.00	430.918	430.921
PIER 17	87+70.16	10.00	430.594	430.594
132	87+80.16	10.00	430.244	430.248
133	87+90.16	10.00	429.894	429.906
134	88+00.16	10.00	429.544	429.566
135	88+10.16	10.00	429.194	429.223
136	88+20.16	10.00	428.844	428.876
137	88+30.16	10.00	428.494	428.523
138	88+40.16	10.00	428.144	428.166
139	88+50.16	10.00	427.794	427.806
140	88+60.16	10.00	427.444	427.448
PIER 18	88+70.16	10.00	427.094	427.094
141	88+80.16	10.00	426.744	426.747
142	88+90.16	10.00	426.394	426.404
143	89+00.16	10.00	426.044	426.063
144	89+10.16	10.00	425.694	425.719
145	89+20.16	10.00	425.344	425.370
146	89+30.16	10.00	424.994	425.015
147	89+40.16	10.00	424.644	424.653
NO. ABUT. ℄ BRG.	89+49.41	10.00	424.320	424.320
BACK OF NO. ABUT.	89+52.16	10.00	424.224	424.224

BEAM H & J

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
PIER 16 ℄ BRG.	86+90.91	2.58	433.252	433.252
125	87+00.91	2.58	432.902	432.918
126	87+10.91	2.58	432.552	432.581
127	87+20.91	2.58	432.202	432.237
128	87+30.91	2.58	431.852	431.885
129	87+40.91	2.58	431.502	431.526
130	87+50.91	2.58	431.152	431.165
131	87+60.91	2.58	430.802	430.806
PIER 17	87+70.16	2.58	430.479	430.479
132	87+80.16	2.58	430.129	430.133
133	87+90.16	2.58	429.779	429.792
134	88+00.16	2.58	429.429	429.452
135	88+10.16	2.58	429.079	429.109
136	88+20.16	2.58	428.729	428.762
137	88+30.16	2.58	428.379	428.408
138	88+40.16	2.58	428.029	428.052
139	88+50.16	2.58	427.679	427.691
140	88+60.16	2.58	427.329	427.333
PIER 18	88+70.16	2.58	426.979	426.979
141	88+80.16	2.58	426.629	426.633
142	88+90.16	2.58	426.279	426.292
143	89+00.16	2.58	425.929	425.953
144	89+10.16	2.58	425.579	425.613
145	89+20.16	2.58	425.229	425.264
146	89+30.16	2.58	424.879	424.907
147	89+40.16	2.58	424.529	424.541
NO. ABUT. ℄ BRG.	89+49.41	2.58	424.205	424.205
BACK OF NO. ABUT.	89+52.16	2.58	424.109	424.109

HE HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

FILE NUMBER
DRAWN BY C.B./D.C.
CHECKED BY G.W.
APPROVED BY D.L.A.

DECK ELEVATIONS
SPANS 17–19
F.A.I. ROUTE 70 SEC. 82–5VBR
ST. CLAIR COUNTY
STA. 81+42.68

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR	ST. CLAIR	86	38
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

SHEET NO. 25
72 SHEETS

* Order a(E) & a1(E) bars full length. Cut to fit skew & use remainder of bars in opposite end.

NOTES:

See sheet #37 for superstructure details

See sheet #38 for Bill of Material

Reinforcement bars designated (E) shall be epoxy coated.

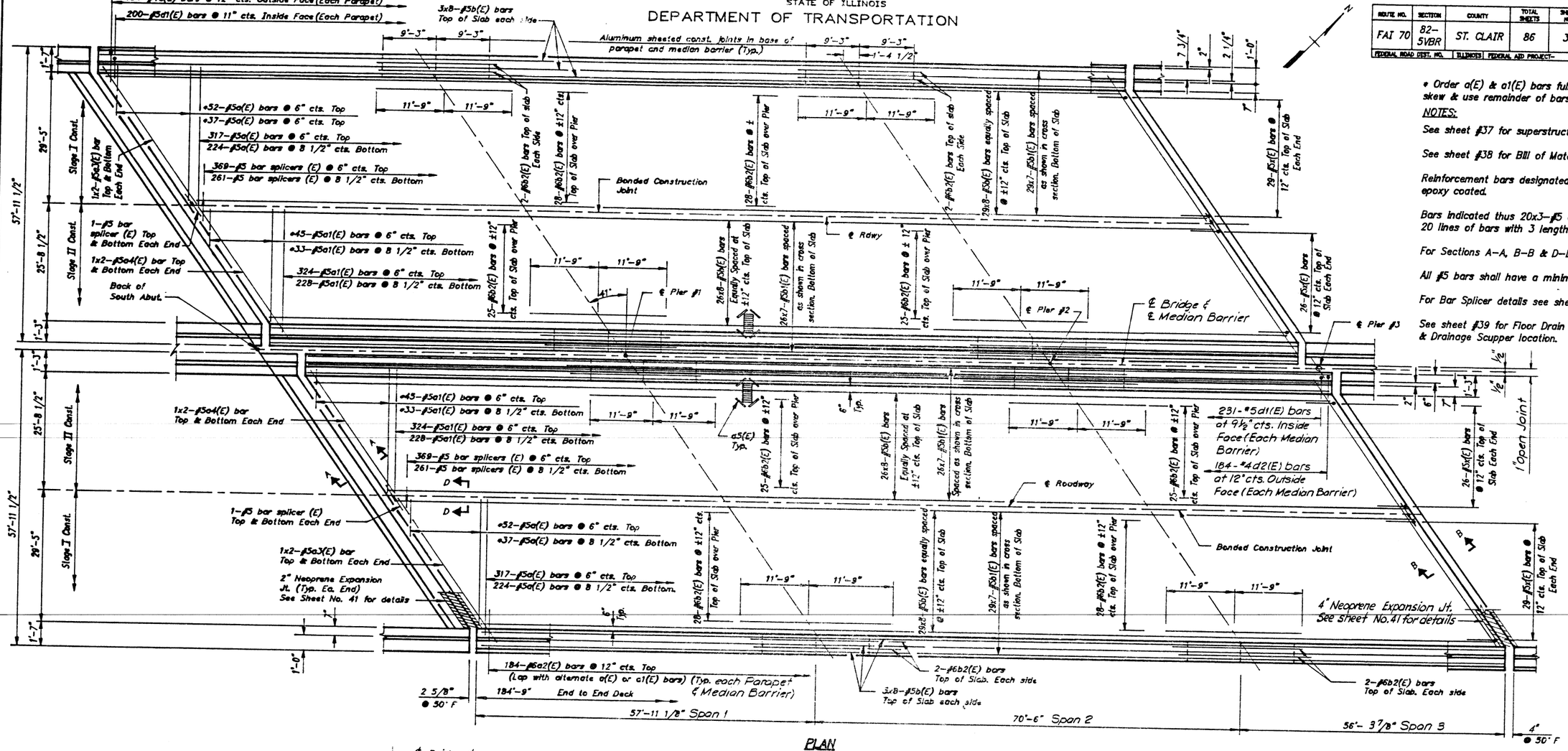
Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line.

For Sections A-A, B-B & D-D See sheet #37

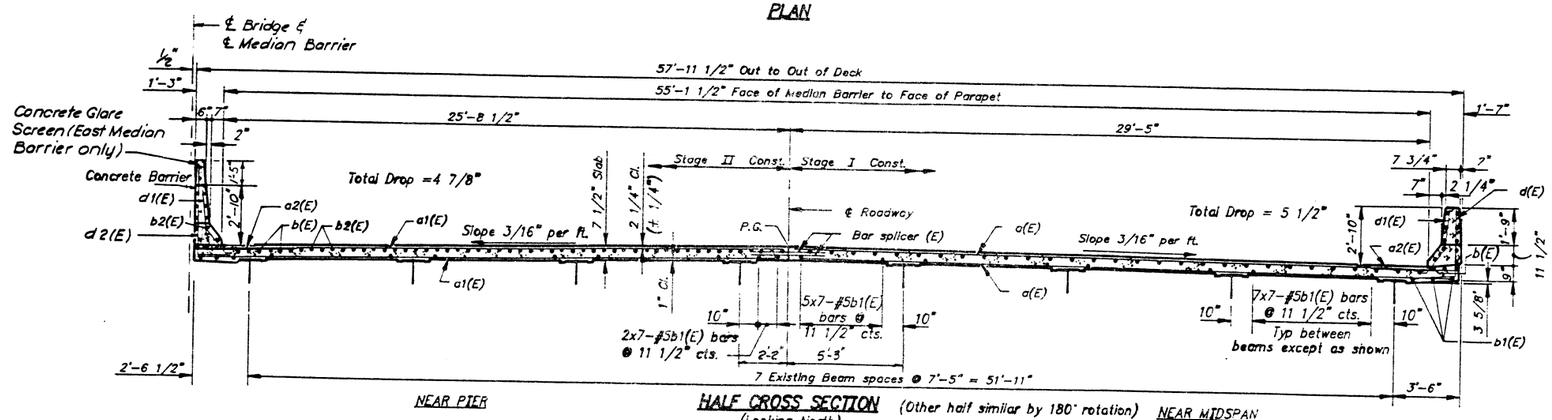
All #5 bars shall have a minimum lap of 1'-8"

For Bar Splicer details see sheet #42

See sheet #39 for Floor Drain spacing & Drainage Scupper location.



PLAN



NEAR PIER — **HALF CROSS SECTION** (Looking North) (Other half similar by 180° rotation) — NEAR MIDSPAN

HE HAZELET + ERDAL, INC.
CONSULTING ENGINEERS
FILE NUMBER
DRAWN BY D.D. / ET
CHECKED BY Mr
APPROVED BY

DECK REINFORCEMENT
SPANS 1-3
F.A.I. RT. 70 SEC. 82-5VBR
ST. CLAIR COUNTY
STATION 81+42.68

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR	ST. CLAIR	86	39
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

SHEET NO. 26
72 SHEETS

NOTES:

See sheet #37 for superstructure details.

See sheet #38 for Bill of Materials

Reinforcement bars designated (E) shall be epoxy coated.

Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line.

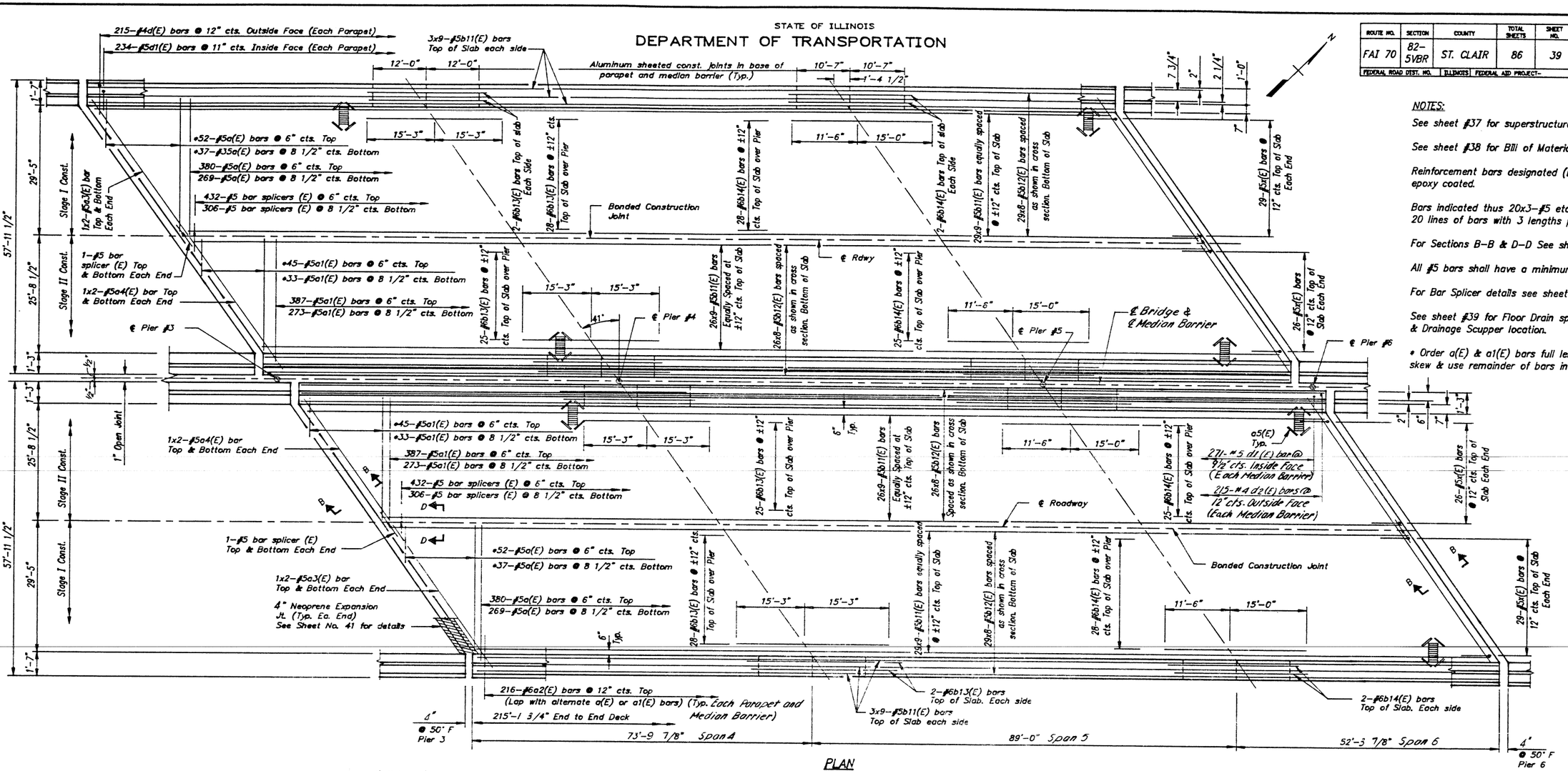
For Sections B-B & D-D See sheet #37

All #5 bars shall have a minimum lap of 1'-8"

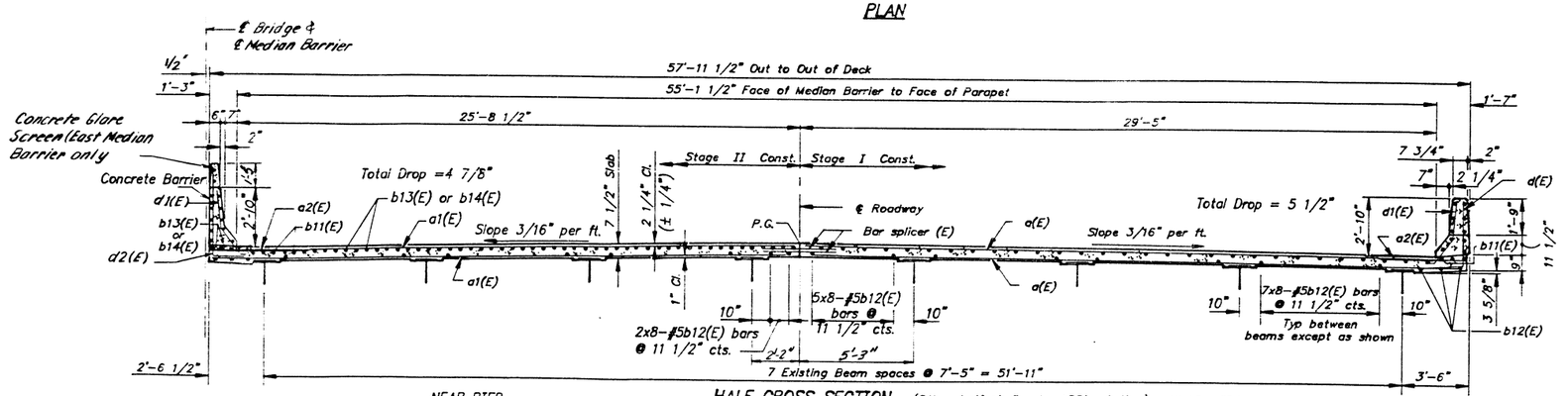
For Bar Splicer details see sheet #42

See sheet #39 for Floor Drain spacing & Drainage Scupper location.

* Order a(E) & a1(E) bars full length. Cut to fit skew & use remainder of bars in opposite end.



PLAN



NEAR PIER — HALF CROSS SECTION (Other half similar by 180° rotation) — NEAR MIDSPAN
(Looking North)

HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

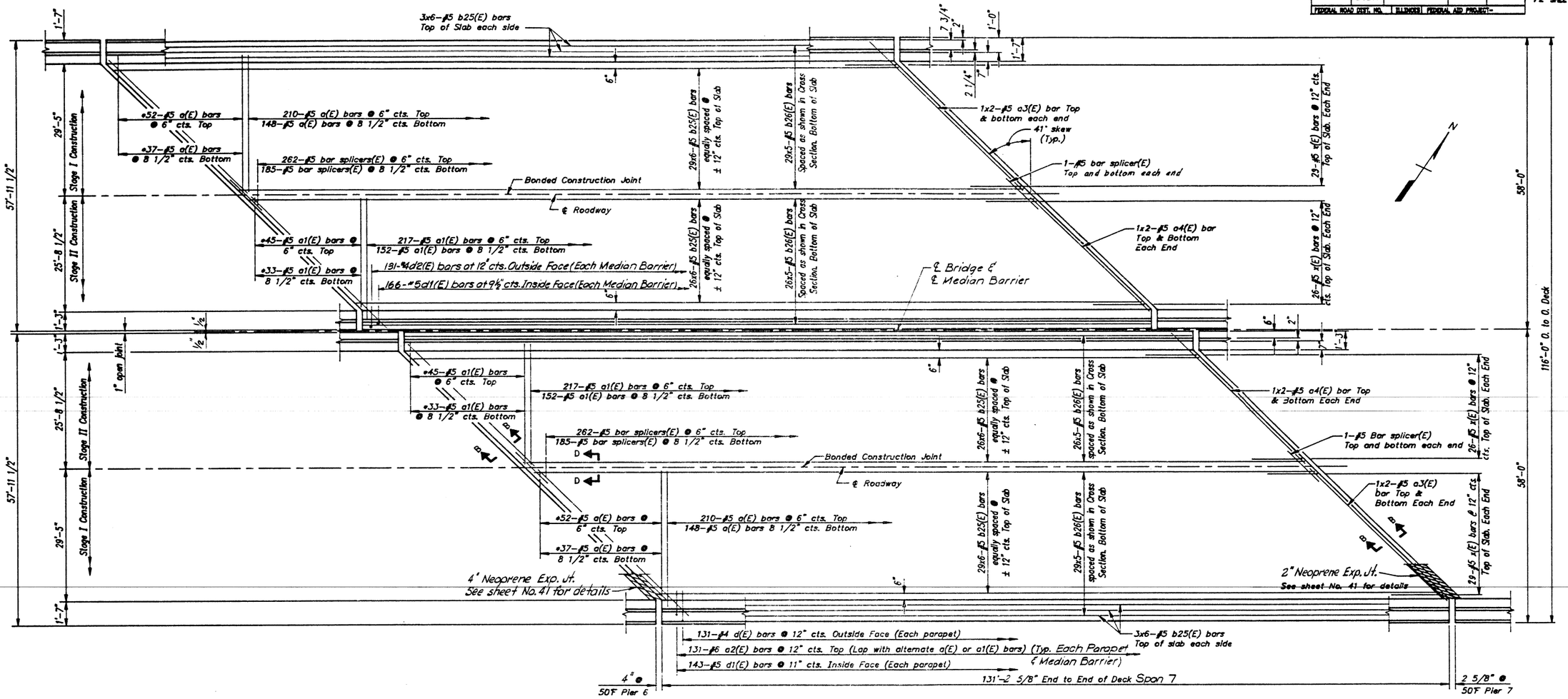
FILE NUMBER
DRAWN BY D.D. / EI
CHECKED BY MP
APPROVED BY

DECK REINFORCEMENT
SPANS 4-6
F.A.I. RT. 70 SEC. 82-5VBR
ST. CLAIR COUNTY
STATION 81+42.68

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR	ST. CLAIR	86	40
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

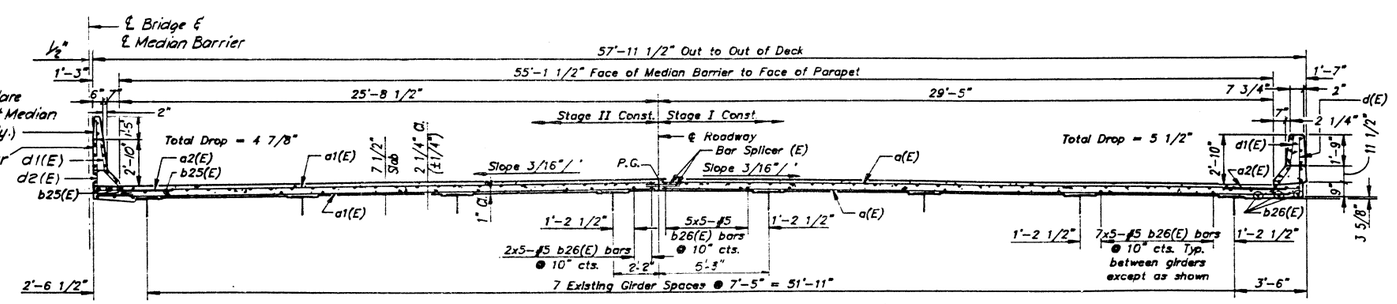
SHEET NO. 27
72 SHEETS



PLAN

• Order a(E) & a1(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.

NOTES: See sheet #37 for superstructure details.
See sheet #38 for Bill of Material
Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 20x3–#5 etc. indicates 20 lines of bars with 3 lengths per line.
All #5 bars shall have a minimum lap of 1'–8".
For Bar Splicer details see sheet #42
See sheet #39 for Floor Drain spacing and Drainage Scupper locations.
For Sections B–B & D–D see sheet #37.



HALF CROSS SECTION (Other half similar by 180° rotation)
(LOOKING NORTH)

HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

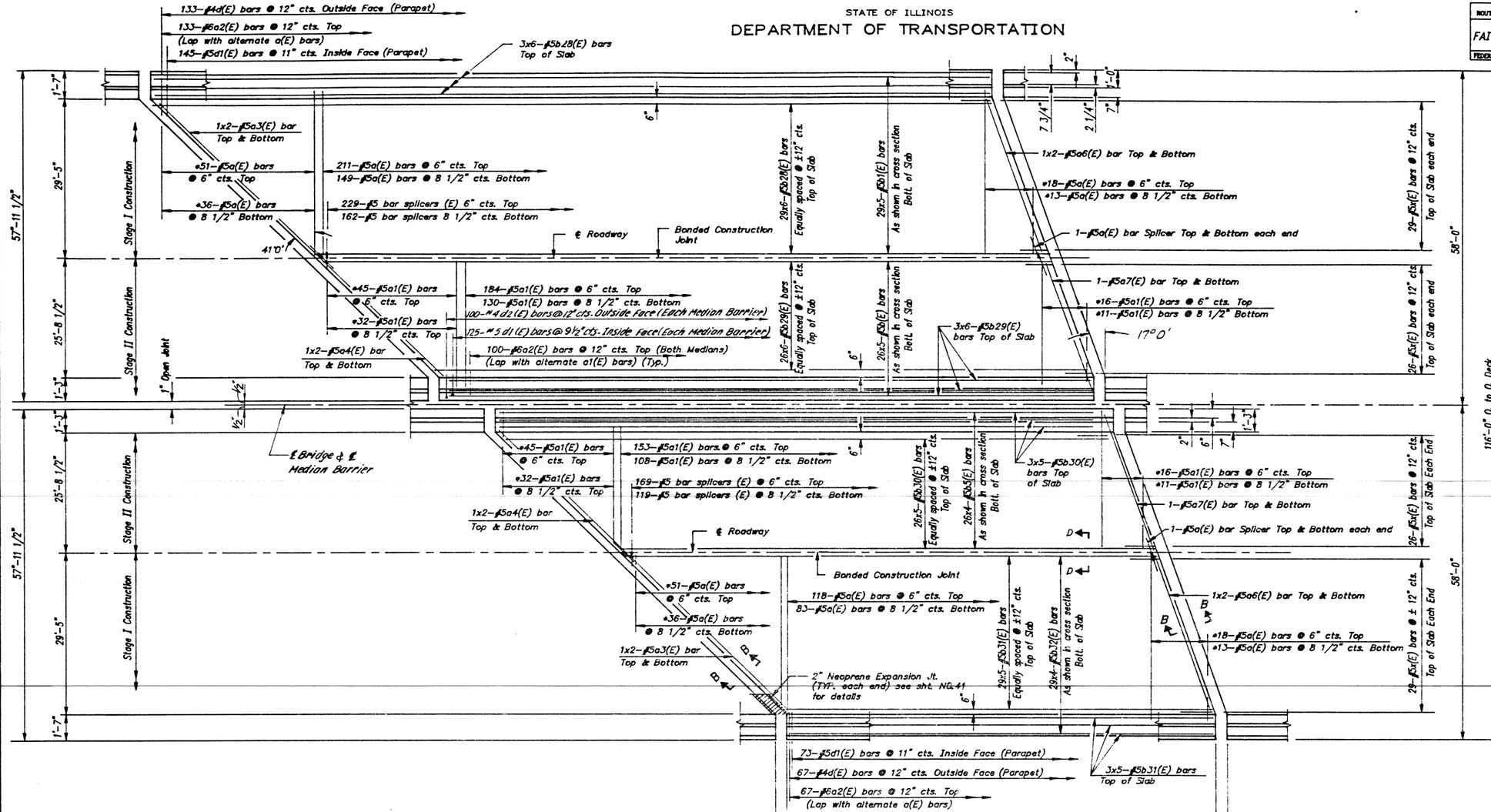
FILE NUMBER
DRAWN BY D.D./D.C.
CHECKED BY Mr
APPROVED BY

DECK REINFORCEMENT
SPAN 7
F.A.I. RT. 70 SEC. 82–5VBR
ST. CLAIR COUNTY
STA. 81+42.68

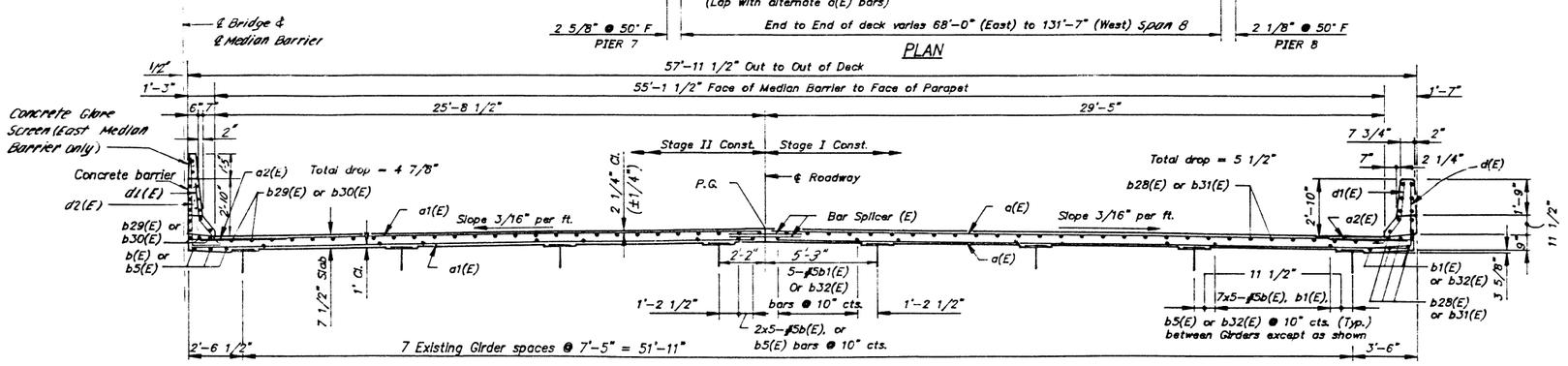
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR	ST. CLAIR	86	41
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

SHEET NO. 28
72 SHEETS



PLAN



HALF CROSS SECTION (Other half similar by 180° rotation)
(Looking North)

NOTES:

* Order a(E) & a1(E) bars full length. Cut to fit skew & use remainder of bars in south bound deck.
See sheet # 37 for Deck details.
See Sht. #38 for Bill of Materials.
Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 20x3–#5 etc. indicates 20 lines of bars with 3 lengths per line.
For section B–B & D–D see sht. #37.
For Bar Splicer details see sheet # 42.
See sheet # 39 For Floor Drain spacing & Drainage Scupper location.
All #5 bars shall have a min. lap of 1'–8".

HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

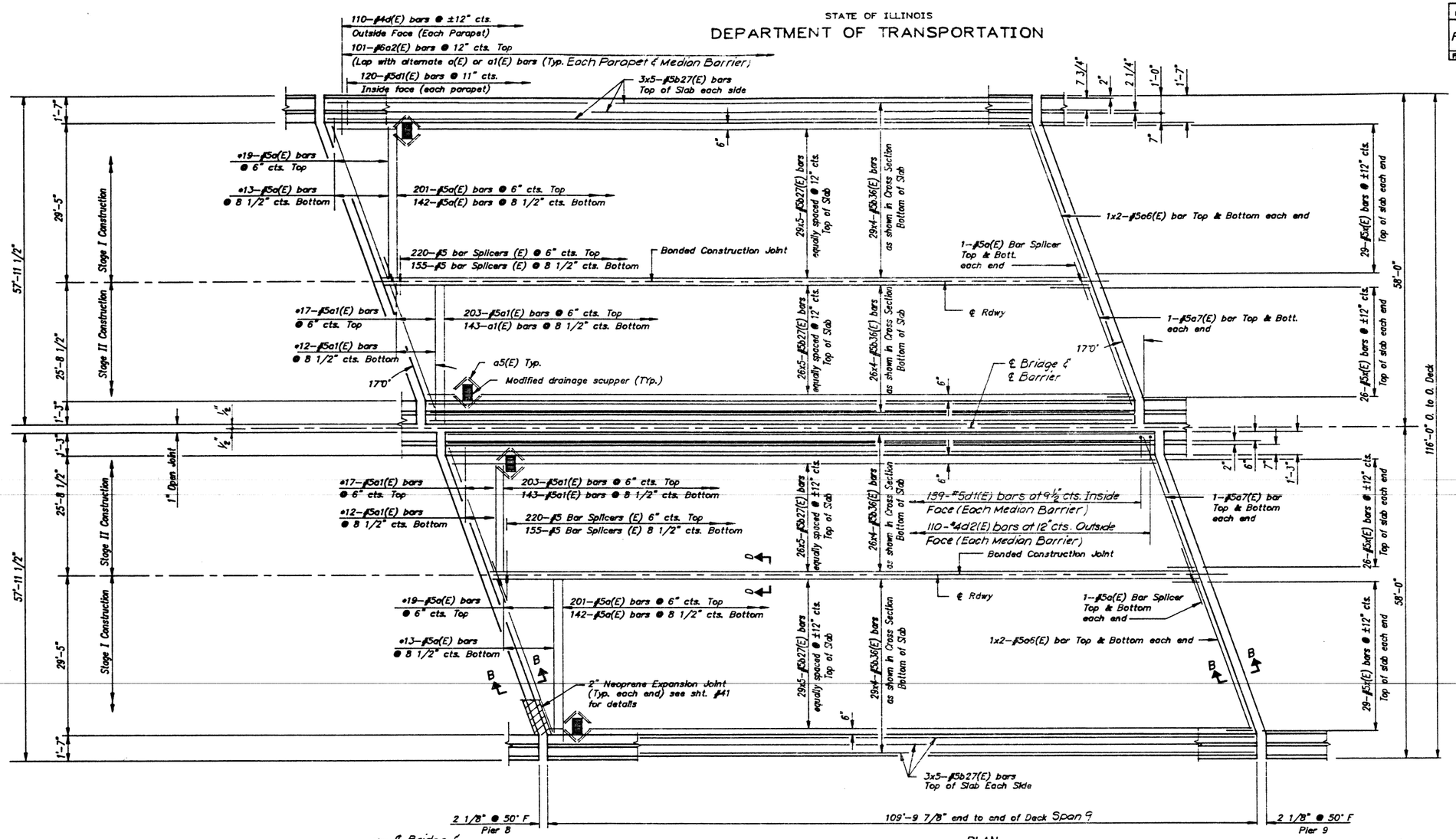
FILE NUMBER
DRAWN BY DD / EI
CHECKED BY MR
APPROVED BY

DECK REINFORCEMENT
SPAN 8
F.A.I. RT. 70 SEC 82–5VBR
ST. CLAIR COUNTY
STATION 81+42.68

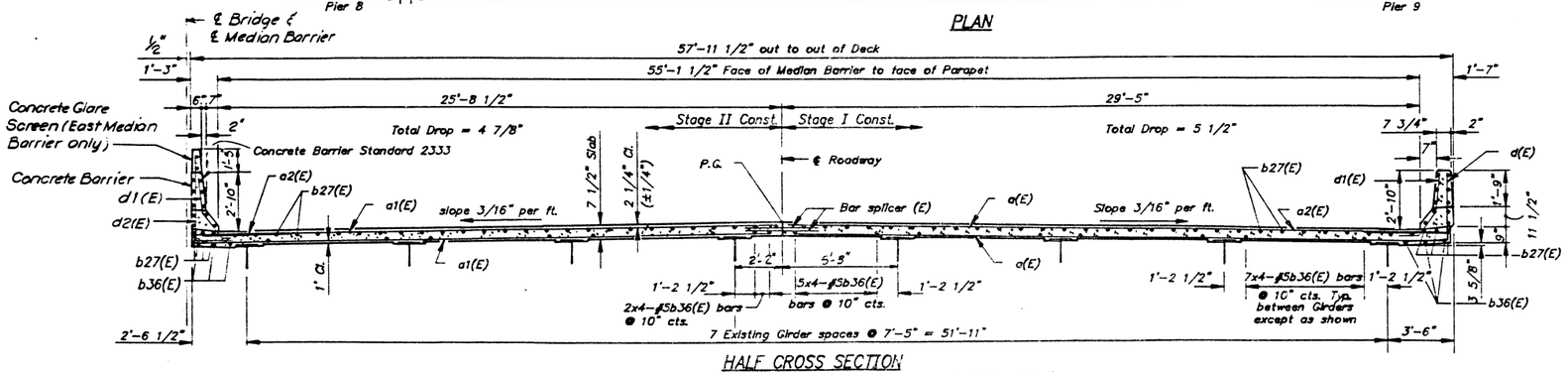
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR	ST. CLAIR	86	42
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

SHEET NO. 29
72 SHEETS



PLAN



HALF CROSS SECTION
(LOOKING NORTH) (Other half similar by 180° rotation)

NOTES:

- Order a(E) & a1(E) bars full length. Cut to fit skew & use remainder of bars in south bound deck.
- See sheet #37 for Deck details.
- See sheet #38 for Bill of Materials.
- Reinforcement bars designated (E) shall be epoxy coated.
- Bars indicated thus 20x3–#5 etc. indicates 20 lines of bars with 3 lengths per line.
- For section B–B & D–D see sheet #37.
- For Bar Splicer details see sheet #42.
- See sheet #39 for Floor Drain spacing & Drainage Scupper location.
- All #5 bars shall have a min. lap of 1'–8".

HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

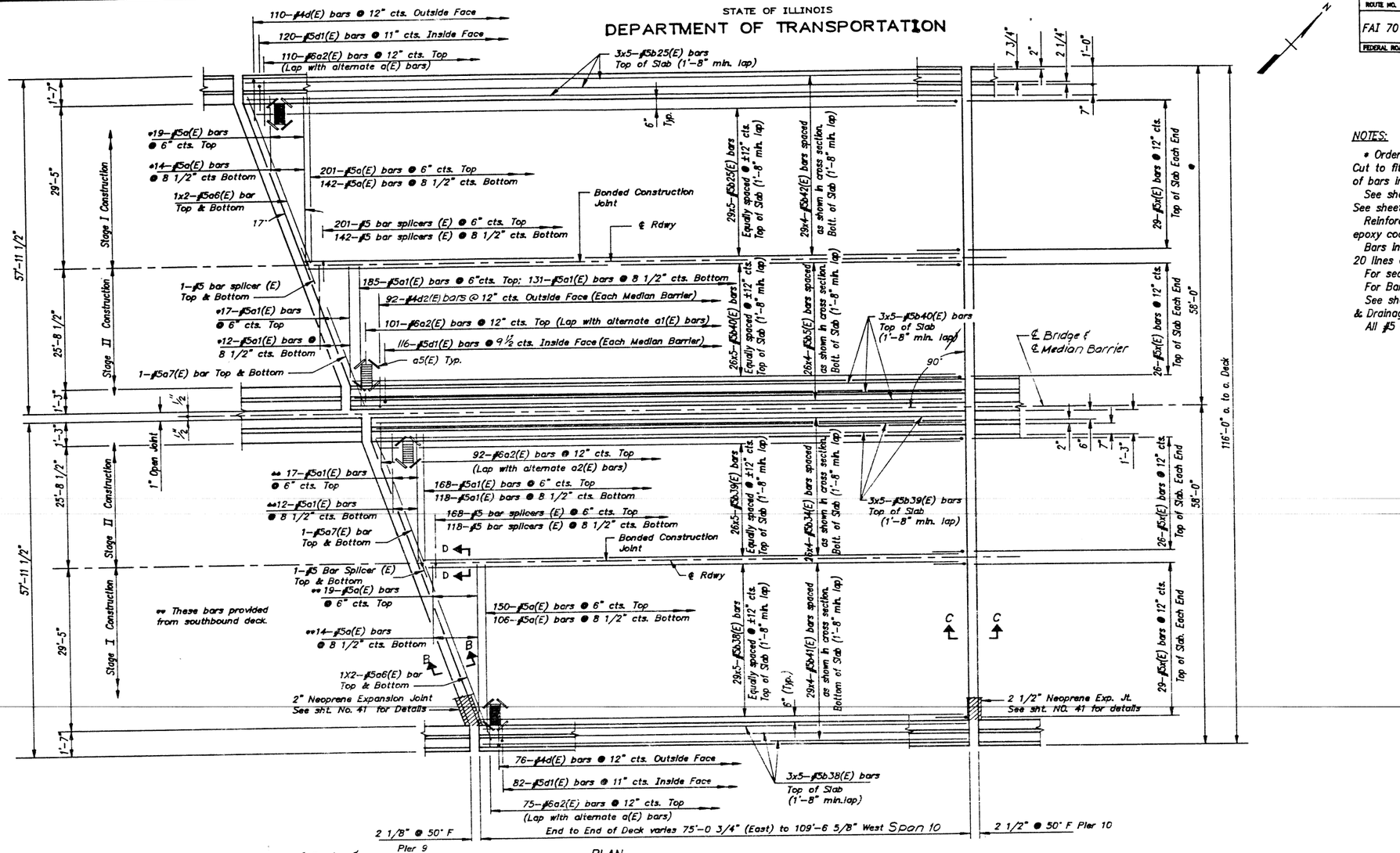
FILE NUMBER
DRAWN BY DD/EI
CHECKED BY MR
APPROVED BY

DECK REINFORCEMENT
SPAN 9
F.A.I. RT. 70 SEC. 82–5VBR
ST. CLAIR COUNTY
STATION 81+42.68

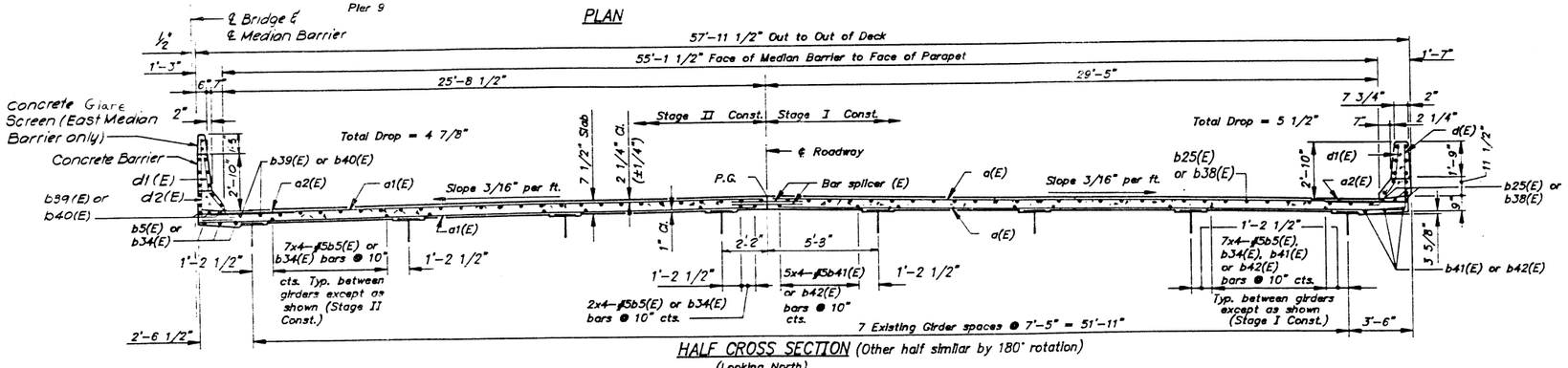
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR	ST. CLAIR	86	43
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

SHEET NO. 30
72 SHEETS



PLAN



HALF CROSS SECTION (Other half similar by 180° rotation)
(Looking North)

NOTES:

* Order a(E) & a1(E) bars full length Cut to fit skew & use remainder of bars in north bound deck
See sheet #37 for superstructure details.
See sheet #38 for Bill of Material.
Reinforcement bars designated (E) shall be epoxy coated.
Bars Indicated thus 20x3–#5 etc. indicates 20 lines of bars with 3 lengths per line.
For sections B–B, C–C & D–D see sheet #37.
For Bar Splicer details see sheet #42.
See sheet #39 for Floor Drain spacing. & Drainage Scupper location.
All #5 bars shall have a min. lap of 1'–8"

HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

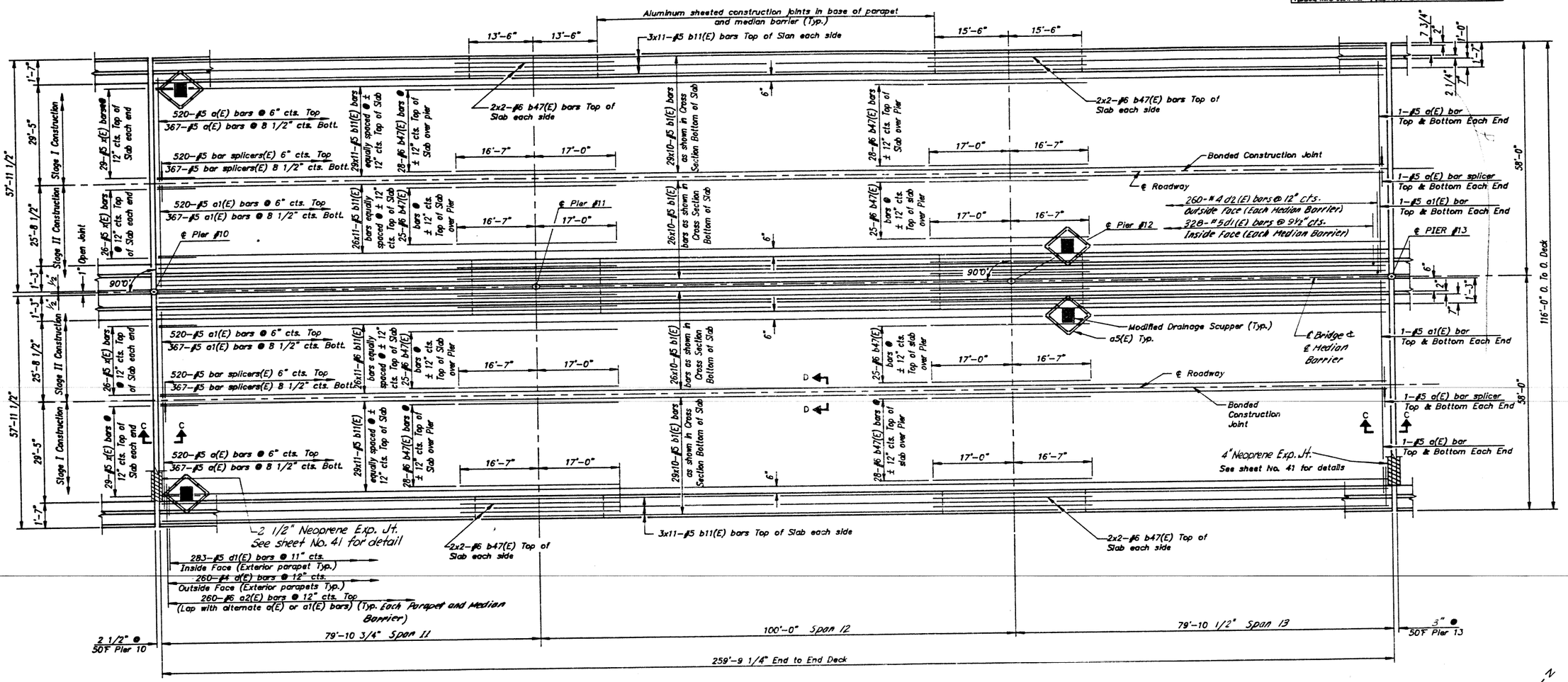
FILE NUMBER
DRAWN BY EI
CHECKED BY MP
APPROVED BY

DECK REINFORCEMENT
SPAN 10
F.A.I. RT. 70 SEC. 82–5VBR
ST. CLAIR COUNTY
STATION 81+42.68

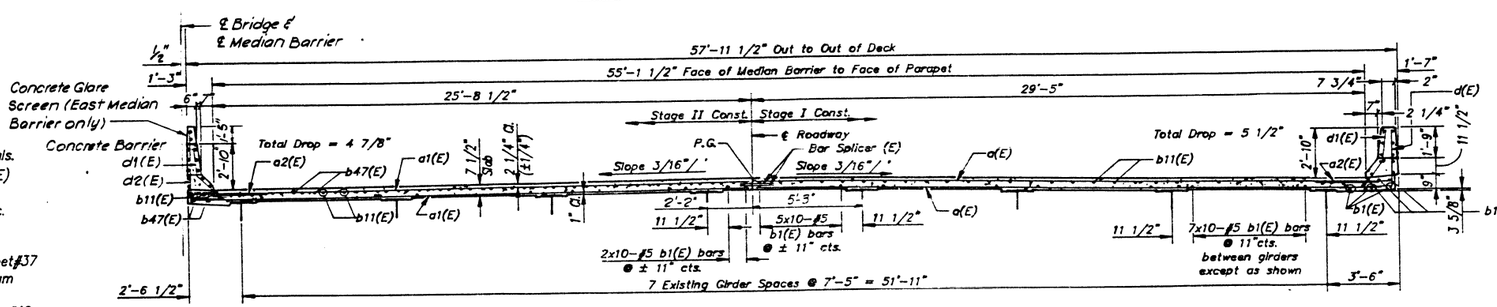
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR	ST. CLAIR	86	44
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

SHEET NO. 37
72 SHEETS



PLAN



HALF CROSS SECTION (Other half similar by 180° rotation)
(LOOKING NORTH)

NOTES:
See sheet #37 for deck details
See sheet #38 for Bill of Materials.
Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
For section C-C & D-D see sheet #37
All #5 bars shall have a minumum lap of 1'-8"
For bar splicer details see sheet #42
See sheet #39 for floor drain spacings & drainage scupper locations

HAZELET + ERDAL, INC.
CONSULTING ENGINEERS
FILE NUMBER
DRAWN BY D.D./D.C.
CHECKED BY Mr
APPROVED BY

DECK REINFORCEMENT
SPANS 11-13
F.A.I. RT. 70 SEC. 82-5VBR
ST. CLAIR COUNTY
STA. 81+42.68

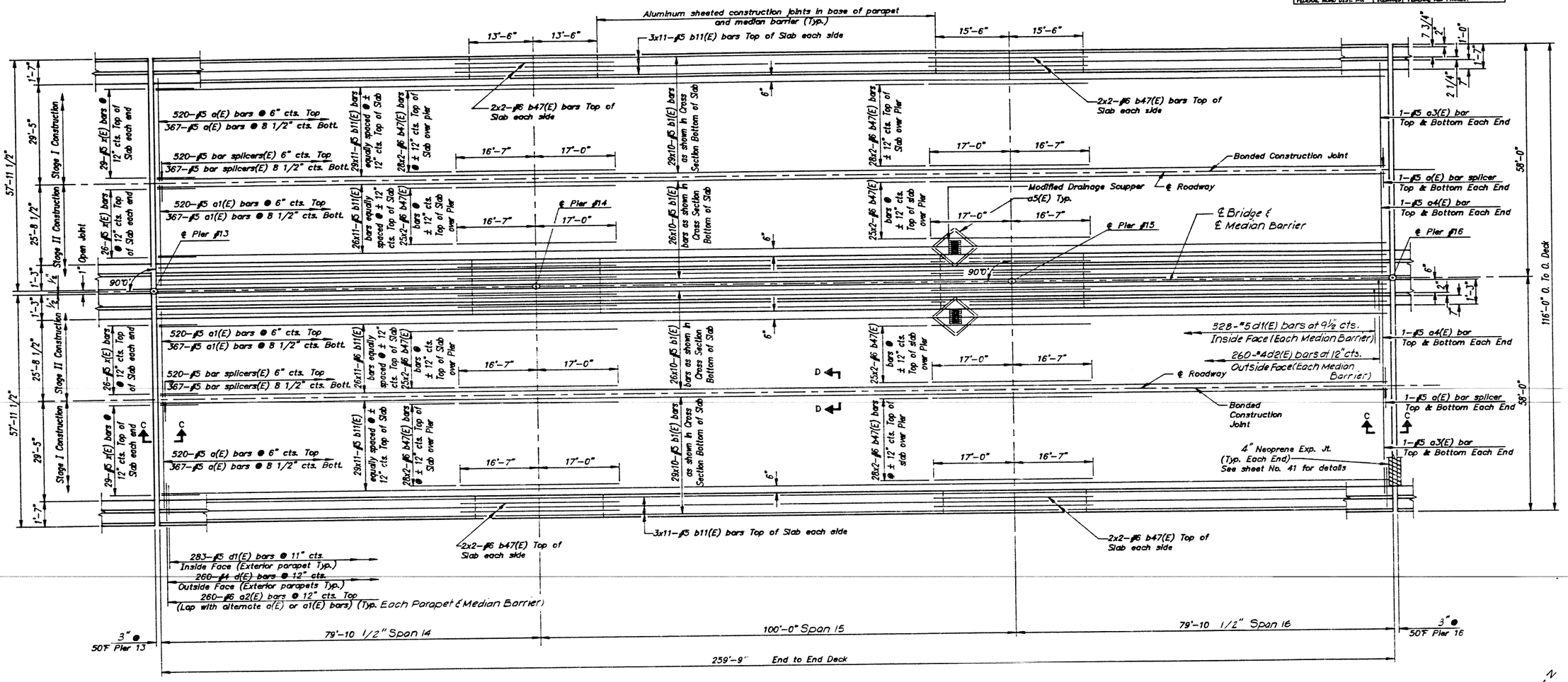
STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR	ST. CLAIR	86	45
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

SHEET NO. 32

72 SHEETS



PLAN

NOTES: See sheet #31 for cross section
See sheet #37 for deck details
See sheet #38 for Bill of Materials.
Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
For sections C-C & D-D see sheet #37
All #5 bars shall have a minumum lap of 1'-8"
For bar splicer details see sheet #42
See sheet #39 for floor drain spacings & drainage scupper locations

HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

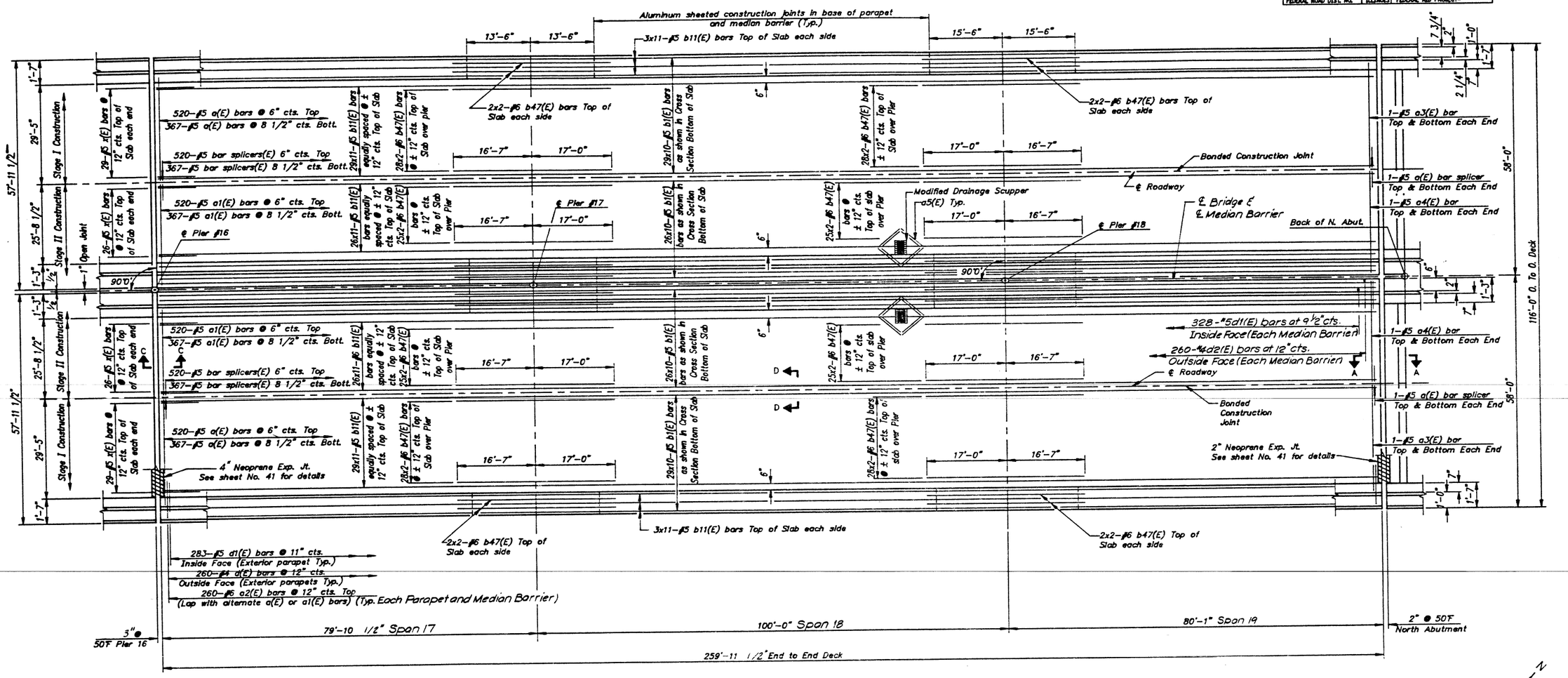
FILE NUMBER
DRAWN BY D.D./D.C.
CHECKED BY M.
APPROVED BY

DECK REINFORCEMENT
SPANS 14-16
F.A.I. RT. 70 SEC. 82-5VBR
ST. CLAIR COUNTY
STA. 81+42.68

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR	ST. CLAIR	86	46
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

SHEET NO. 33
72 SHEETS



PLAN

NOTES: See sheet #31 for cross section
See sheet #37 for deck details
See sheet #38 for Bill of Materials.
Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
For sections A-A, C-C & D-D see sheet #37
All #5 bars shall have a minumum lap of 1'-8"
For bar splicer details see sheet #42
See sheet #39 for floor drain spacings & drainage scupper locations

HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

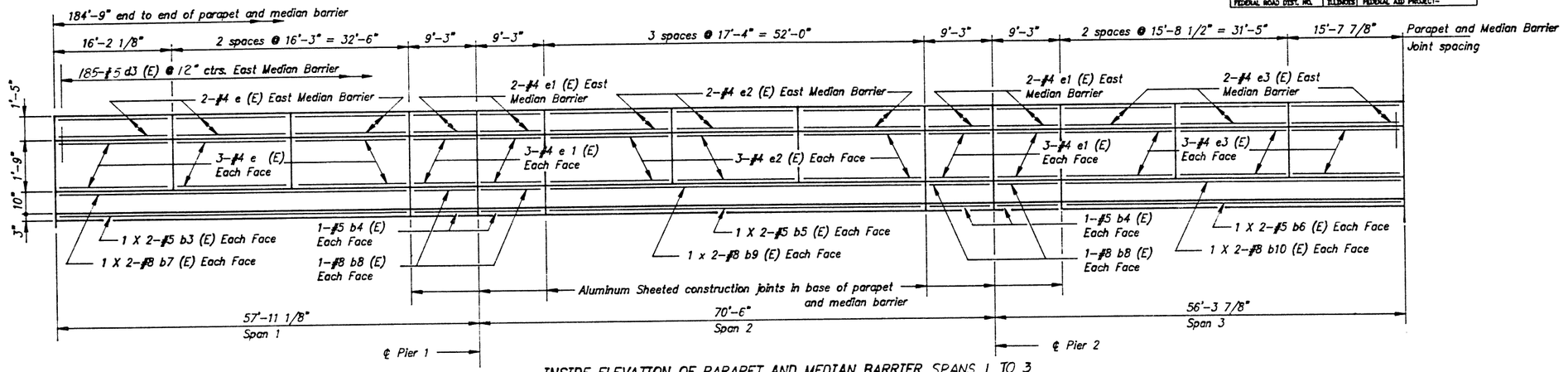
FILE NUMBER
DRAWN BY D.D./D.C.
CHECKED BY Mr
APPROVED BY

DECK REINFORCEMENT
SPANS 17-19
F.A.I. RT. 70 SEC. 82-5VBR
ST. CLAIR COUNTY
STA. 81+42.68

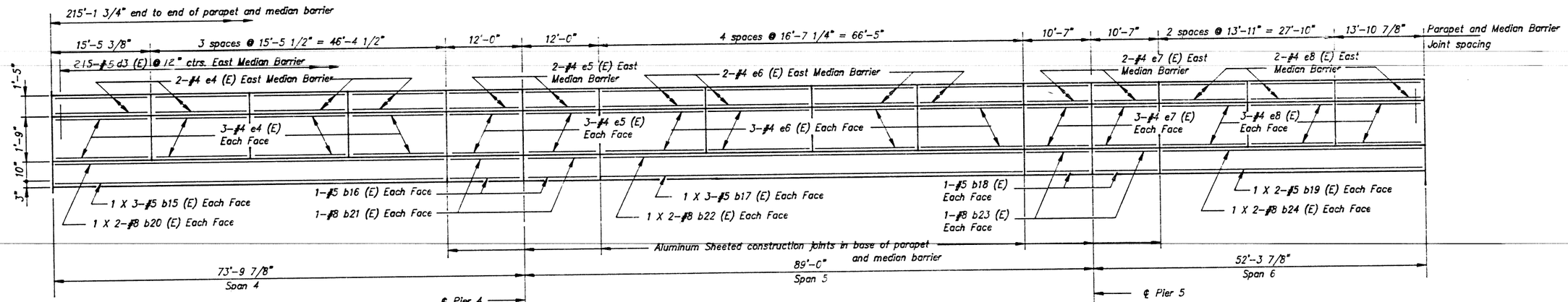
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR	ST. CLAIR	86	47
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

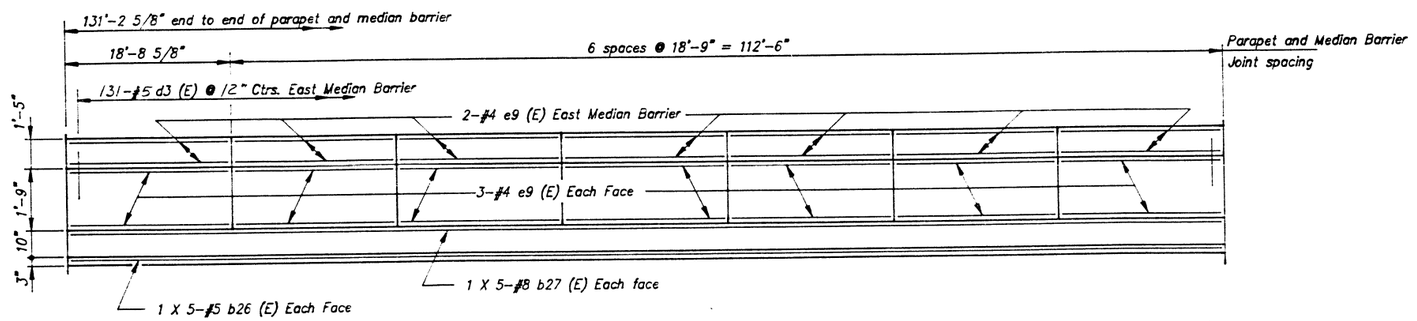
SHEET NO. 34
72 SHEETS



INSIDE ELEVATION OF PARAPET AND MEDIAN BARRIER SPANS 1 TO 3
(Dimensions are along toe of parapet and median barrier.)



INSIDE ELEVATION OF PARAPET AND MEDIAN BARRIER SPANS 4 TO 6
(Dimensions are along toe of parapet and median barrier.)



INSIDE ELEVATION OF PARAPET AND MEDIAN BARRIER SPAN 7
(Dimensions are along toe of parapet and median barrier.)

Notes:

Bars indicated thus 1 X 2- #5 etc. indicates 1 line of bars with 2 lengths per line.
Reinforcement bars designated (E) shall be epoxy coated.
See Sheet No. 38 for Bill of Material.
Minimum bar laps: #5 = 1'-8"
#8 = 3'-8"

See Sheet No. 37 for Sections through Parapet & Median Barrier.
See Sheet No. 37 for Parapet Joint Details and Median Barrier Details.
Top 1'-5" Concrete and Reinforcement are for East Median Barrier only.

MEDIAN BARRIER
ELEVATION & PARAPET ELEVATION
SPANS 1-7
F.A.I. RT. 70 SEC. 82-5VBR
ST. CLAIR COUNTY
STATION 81+42.68

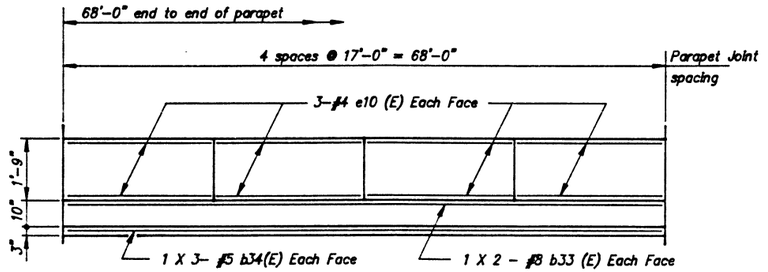
HE HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

FILE NUMBER
DRAWN BY S.O.I.
CHECKED BY MR
APPROVED BY

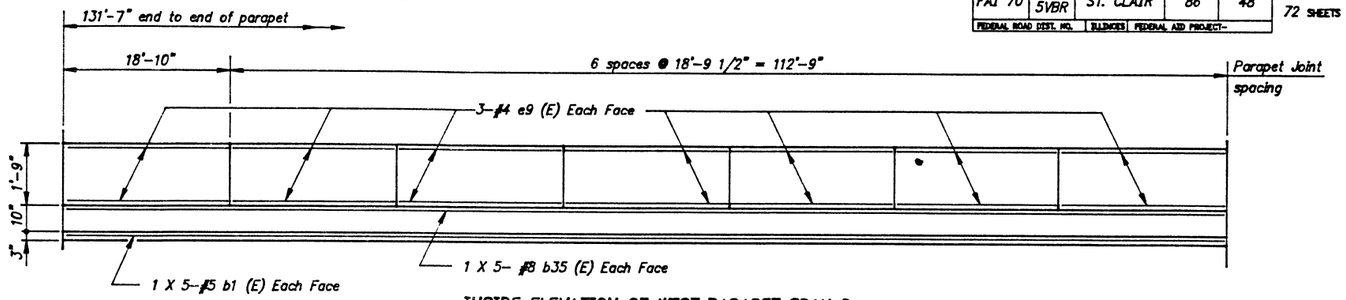
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR	ST. CLAIR	86	48
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

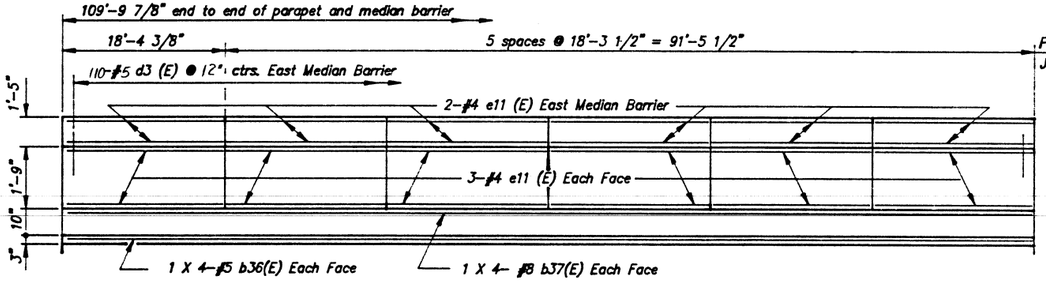
SHEET NO. 35
72 SHEETS



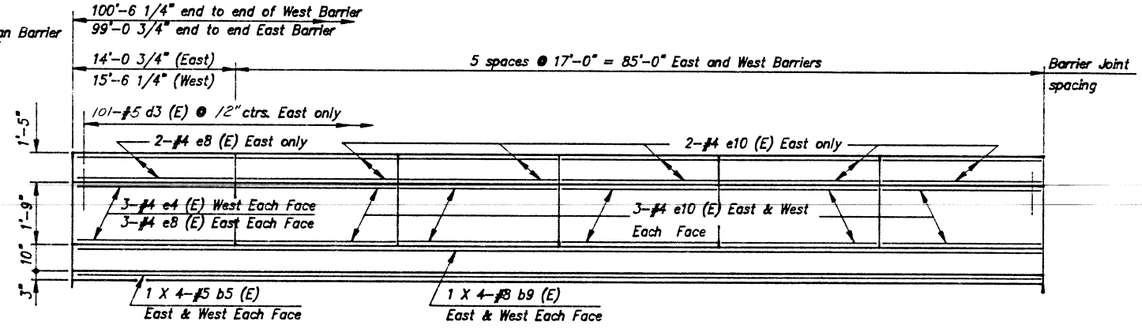
INSIDE ELEVATION OF EAST PARAPET SPAN 8
(Dimensions are along toe of parapet)



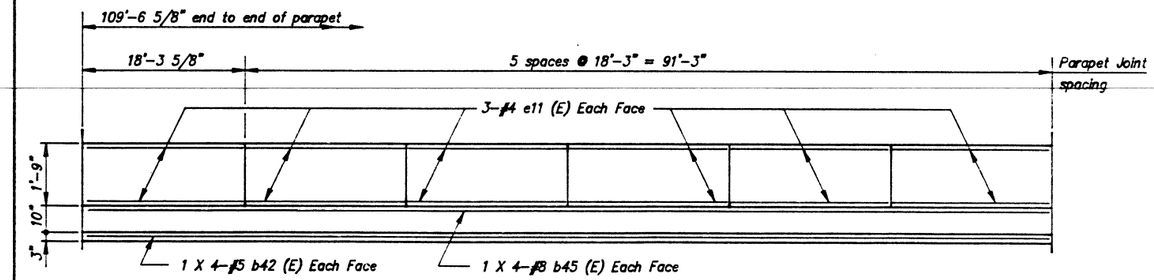
INSIDE ELEVATION OF WEST PARAPET SPAN 8
(Dimensions are along toe of parapet)



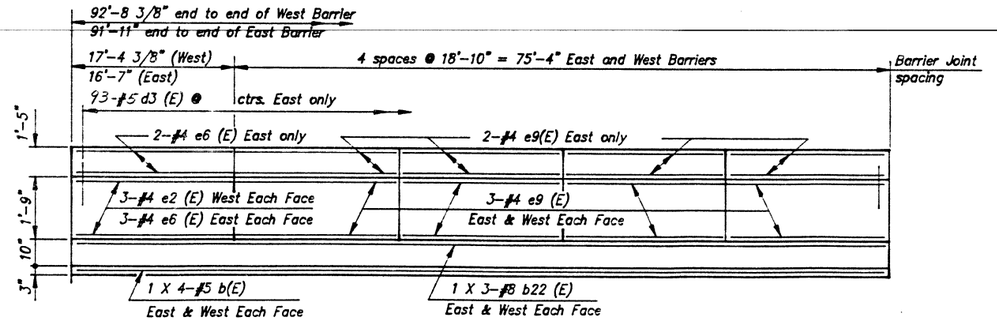
INSIDE ELEVATION OF PARAPET AND MEDIAN BARRIER SPAN 9
(Dimensions are along toe of parapet or median barrier)



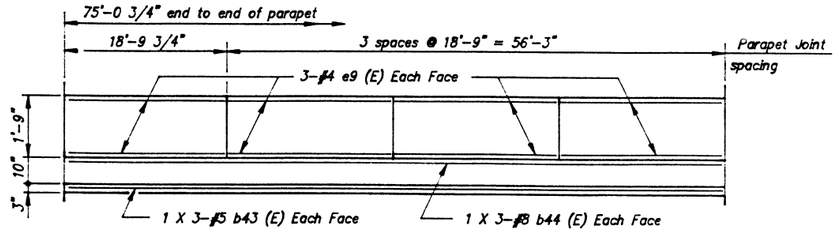
INSIDE ELEVATION SPAN 8 MEDIAN BARRIER
(Dimensions are along toe of median barrier)



INSIDE ELEVATION OF WEST PARAPET SPAN 10
(Dimensions are along toe of parapet)



INSIDE ELEVATION SPAN 10 MEDIAN BARRIER
(Dimensions are along toe of median barrier)



INSIDE ELEVATION OF EAST PARAPET SPAN 10
(Dimensions are along toe of parapet)

NOTES :

Bars indicated thus 1 X 3- #5 etc. indicates 1 line of bars with 2 lengths per line.
Reinforcement bars designated (E) shall be epoxy coated.
See Sheet No. 38 For Bill of Materials.
Minimum bar laps: #5 = 1'-6"
#8 = 3'-8"
See Sheet No. 37 for Parapet Joint and Median Barrier Details.
See Sheet No. 37 For Sections Thru Parapet & Median Barrier.
Top 1'-5" Concrete and Reinforcement are for East Median Barrier Only.

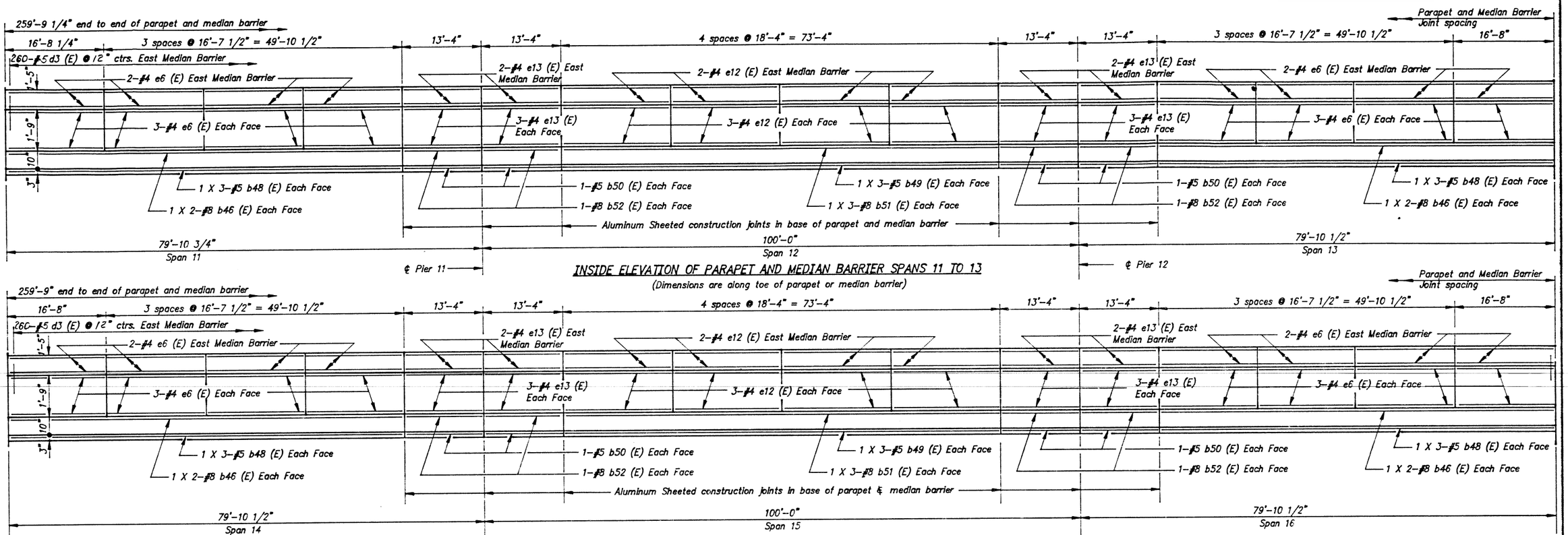
HE HAZELET + ERDAL, INC.
CONSULTING ENGINEERS
FILE NUMBER
DRAWN BY S.O.I.
CHECKED BY M.r
APPROVED BY

MEDIAN BARRIER
ELEVATION & PARAPET ELEVATION
SPANS 8-10
F.A.I. RT. 70 SEC. 82-5VBR
ST. CLAIR COUNTY
STATION 81+42.68

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

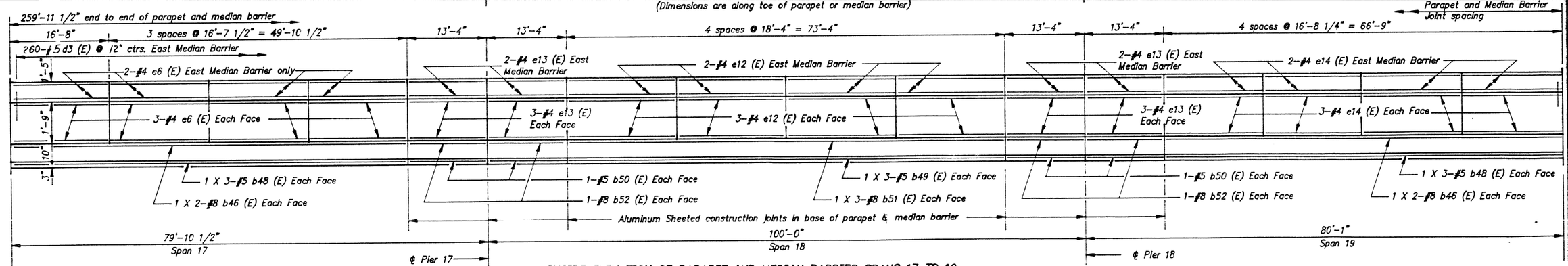
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR	ST. CLAIR	86	49
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

SHEET NO. 36
72 SHEETS



INSIDE ELEVATION OF PARAPET AND MEDIAN BARRIER SPANS 11 TO 13
(Dimensions are along toe of parapet or median barrier)

INSIDE ELEVATION OF PARAPET AND MEDIAN BARRIER SPANS 14 TO 16
(Dimensions are along toe of parapet or median barrier)



INSIDE ELEVATION OF PARAPET AND MEDIAN BARRIER SPANS 17 TO 19
(Dimensions are along toe of parapet or median barrier)

HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

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CHECKED BY Mr
APPROVED BY

Notes:

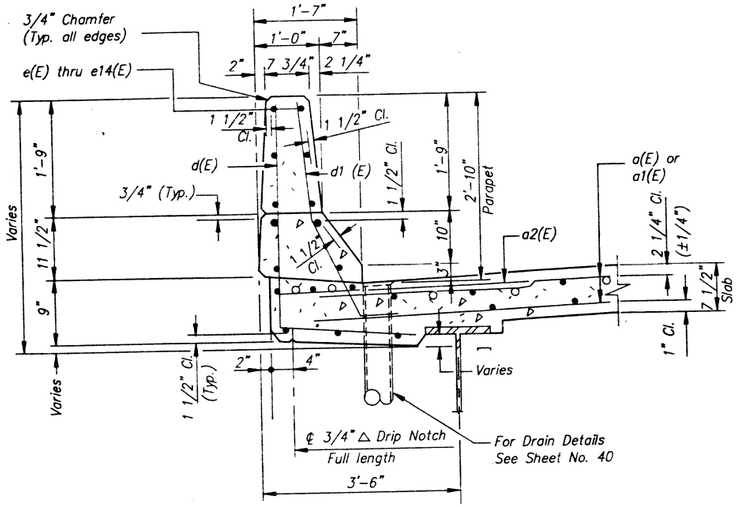
Bars indicated thus 1 X 2- #5 etc. indicates 1 line of bars with 2 lengths per line.
Reinforcement bars designated (E) shall be epoxy coated.
See Sheet No. 37 for Parapet Joint Details and Median Barrier Details.
See Sheet No. 38 for Bill of Material.
Minimum bar laps: #5 = 1'-8"
#8 = 3'-8"
See Sheet No. 37 for Sections thru Parapet and Median Barrier.
Top 1'-5" Concrete and Reinforcement are for East Median Barrier only.

MEDIAN BARRIER
ELEVATION & PARPAPET ELEVATION
SPANS 11-19
F.A.I. RT. 70 SEC. 82-5VBR
ST. CLAIR COUNTY
STATION 81+42.68

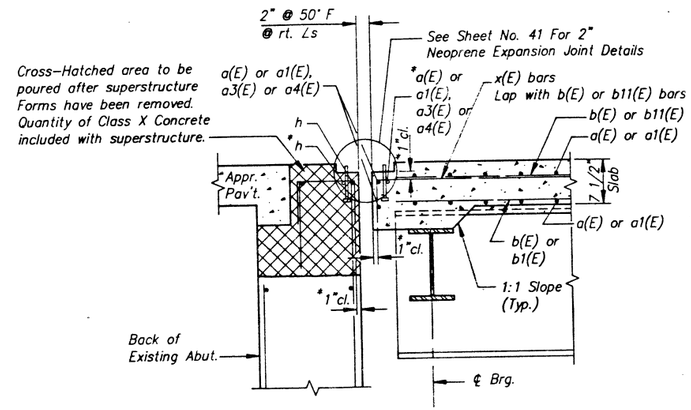
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR	ST. CLAIR	86	50
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

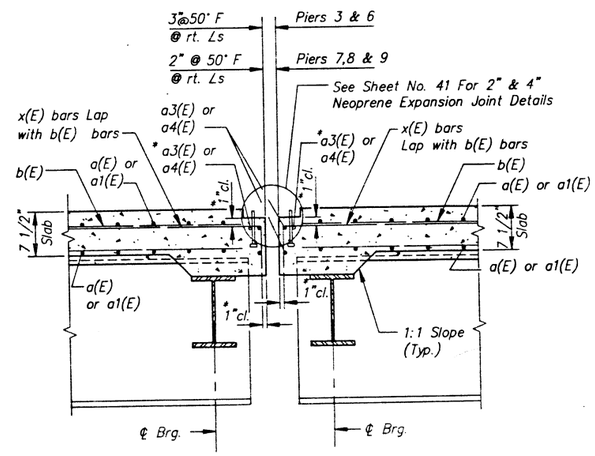
SHEET NO. 37
72 SHEETS



SECTION THRU PARAPET

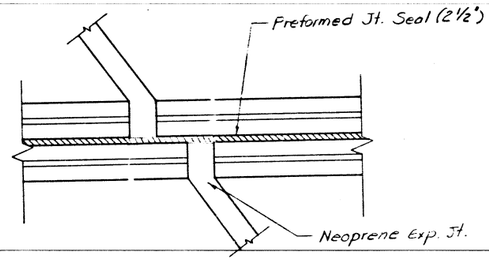


SECTION A-A

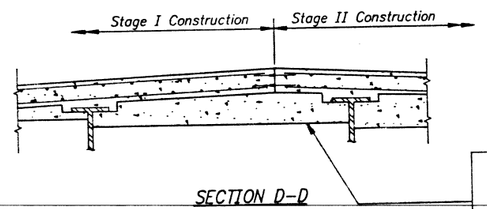


SECTION B-B

* Place a(E) or a1(E), a3(E) or a4(E) and h bars, as applicable, in back of anchor bolts as shown if required to maintain 1" cl. (+0-1/8"). Anchor bolts should be tied to a(E) or a1(E) and h bars.

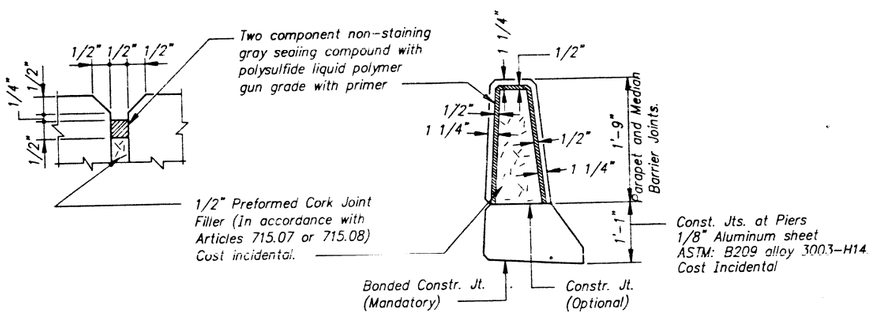


END LOCATION OF MEDIAN BARRIER SEAL



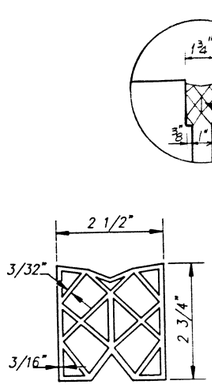
SECTION D-D

Concrete drop slab between beams or girders at Stage Construction line to be poured during Stage II Construction after all diaphragms or cross frames have been reconnected and the bolts tightened. Any voids are to be epoxy grouted. ~~If necessary, 2'-1" ø holes~~ may be drilled in the slab over diaphragms or cross frames in order to facilitate grouting work.

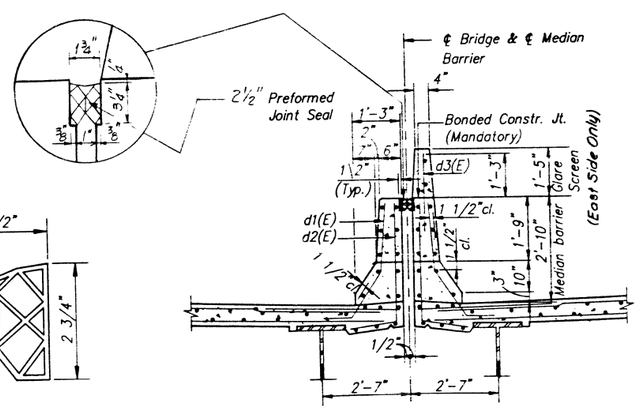


PARAPET AND MEDIAN BARRIER JOINT DETAILS

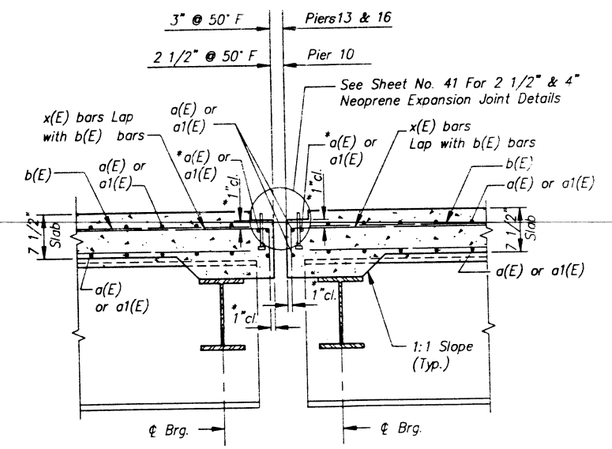
NOTE: The cost of Removal of existing expansion devices is incidental to the item "Removal of existing Concrete Deck". The holes in the existing steel diaphragms resulting from the removal of the stools of the expansion device shall be filled with H.S. Bolts.



PREFORMED JOINT SEAL (2 1/2")



SECTION THRU MEDIAN BARRIER



SECTION C-C

HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

FILE NUMBER
DRAWN BY S.O.I.
CHECKED BY Mr
APPROVED BY Ola

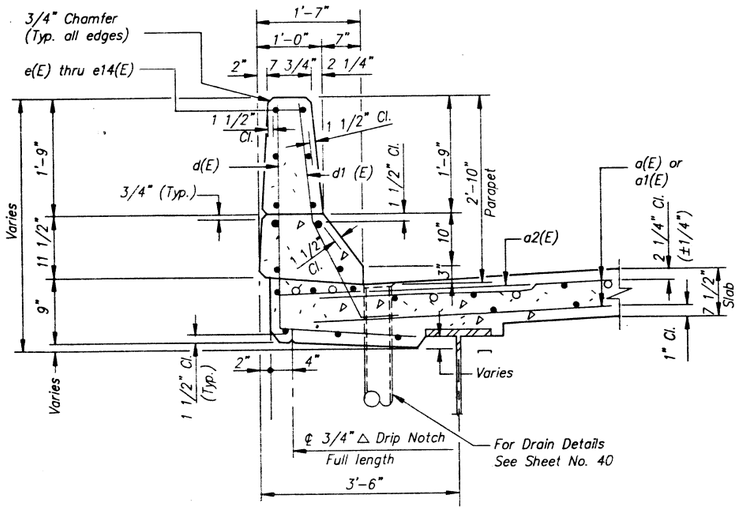
SUPERSTRUCTURE DETAILS
F.A.I. RT. 70 SEC. 82-5VBR
ST. CLAIR COUNTY
STATION 81+42.68

REV. 1-22-87

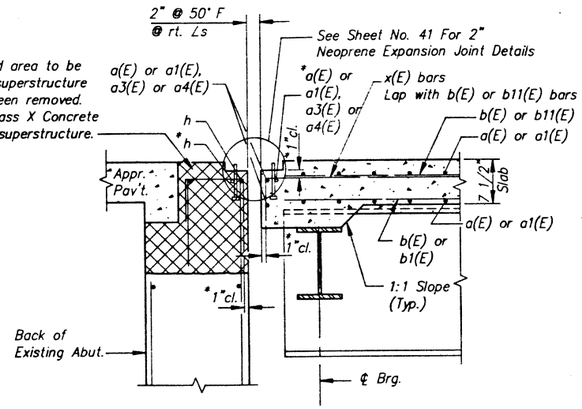
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR	ST. CLAIR	86	50
FEDERAL ROAD DIST. NO.	ILLINOIS FEDERAL AID PROJECT-			

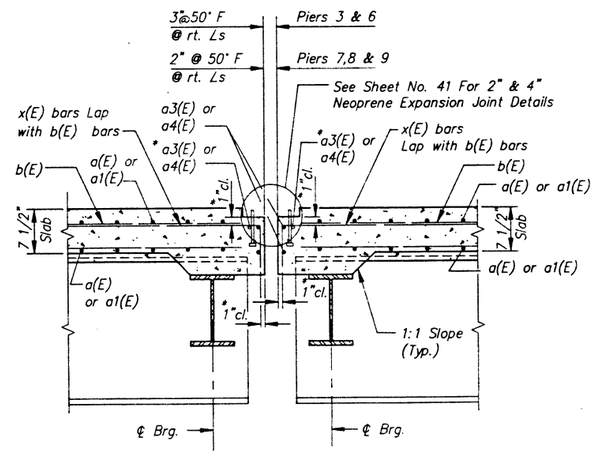
SHEET NO. 37
72 SHEETS



SECTION THRU PARAPET

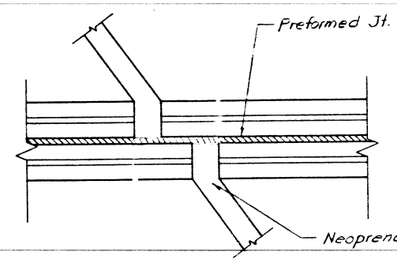


SECTION A-A

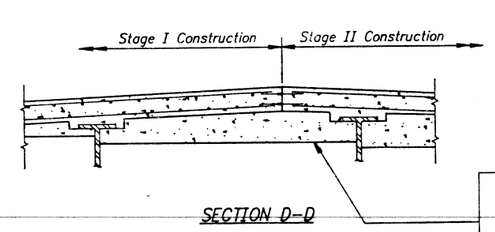


SECTION B-B

* Place a(E) or a1(E), a3(E) or a4(E) and h bars, as applicable, in back of anchor bolts as shown if required to maintain 1" cl. (+0-1/8"). Anchor bolts should be tied to a(E) or a1(E) and h bars.

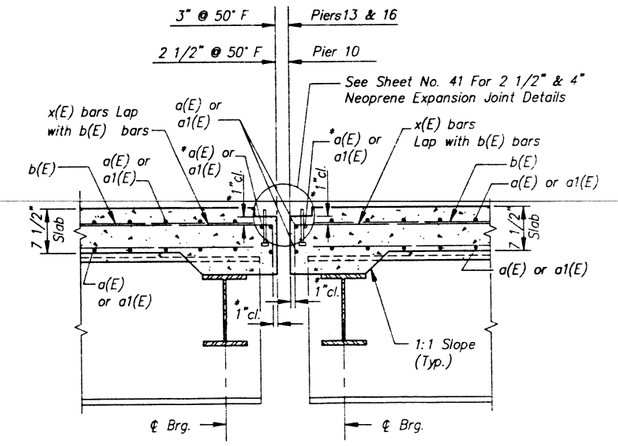


END LOCATION OF MEDIAN BARRIER SEAL

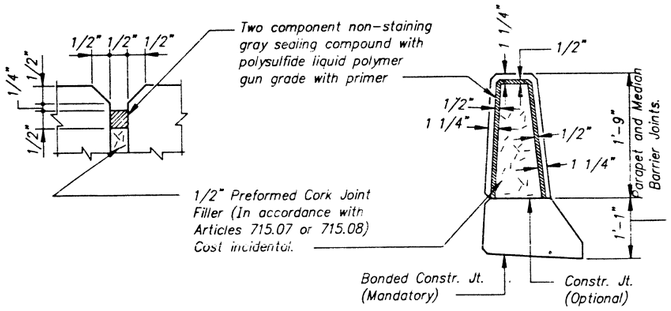


SECTION D-D

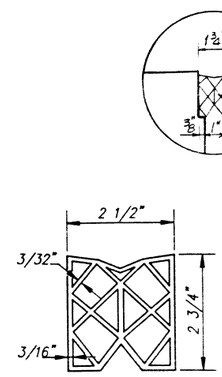
Concrete drop slab between beams or girders at Stage Construction line to be poured during Stage II Construction after all diaphragms or cross frames have been reconnected and the bolts tightened. Any voids are to be epoxy grouted. If necessary, 2'-1" ø holes may be drilled in the slab over diaphragms or cross frames in order to facilitate grouting work.



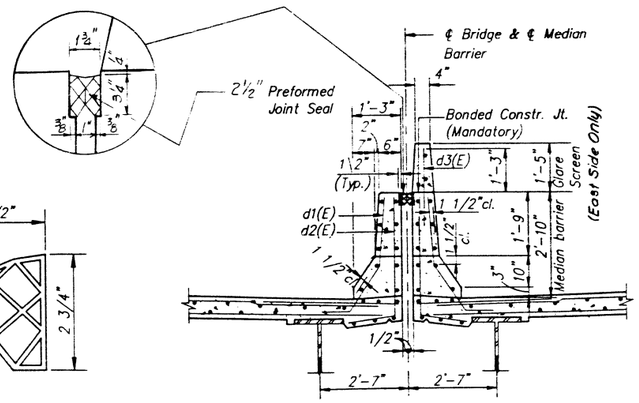
SECTION C-C



PARAPET AND MEDIAN BARRIER JOINT DETAILS



PREFORMED JOINT SEAL (2 1/2")



SECTION THRU MEDIAN BARRIER

NOTE: The cost of Removal of existing expansion devices is incidental to the item "Removal of existing Concrete Deck". The holes in the existing steel diaphragms resulting from the removal of the studs of the expansion device shall be filled with H.S. Bolts.

HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

FILE NUMBER
DRAWN BY S.O.I.
CHECKED BY M r
APPROVED BY

SUPERSTRUCTURE DETAILS
F.A.I. RT. 70 SEC. 82-5VBR
ST. CLAIR COUNTY
STATION 81+42.68

REV. 1-22-87

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR	ST. CLAIR	86	51
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

SHEET NO. 38
72 SHEETS

SPANS 1-3

BAR	NO.	SIZE	LENGTH	SHAPE
a(E)	1260	#5	30'-0"	——
a1(E)	1260	#5	26'-3"	——
a2(E)	736	#6	4'-0"	——
a3(E)	16	#5	20'-9"	——
a4(E)	16	#5	18'-3"	——
a5(E)	16	#5	2'-0"	——
b(E)	976	#5	24'-9"	——
b1(E)	770	#5	28'-0"	——
b2(E)	228	#6	23'-6"	——
b3(E)	16	#5	25'-0"	——
b4(E)	32	#5	9'-0"	——
b5(E)	16	#5	26'-9"	——
b6(E)	16	#5	24'-3"	——
b7(E)	16	#8	26'-0"	——
b8(E)	32	#8	9'-0"	——
b9(E)	16	#8	27'-9"	——
b10(E)	16	#8	25'-3"	——
d(E)	368	#4	6'-3"	⌐
d1(E)	862	#5	3'-11"	⌐
d2(E)	368	#4	4'-9"	⌐
d3(E)	185	#5	2'-0"	——
e(E)	78	#4	15'-11"	——
e1(E)	104	#4	9'-0"	——
e2(E)	78	#4	17'-1"	——
e3(E)	78	#4	15'-5"	——
x(E)	220	#5	4'-9"	⌐
Reinforcement Bars (Epoxy Coated)		Lbs.	151320	
Class X Concrete		Cu. Yds.	609.0	

SPANS 4-6

BAR	NO.	SIZE	LENGTH	SHAPE
a(E)	1476	#5	30'-0"	——
a1(E)	1476	#5	26'-3"	——
a2(E)	864	#6	4'-0"	——
a3(E)	16	#5	20'-9"	——
a4(E)	16	#5	18'-3"	——
a5(E)	64	#5	2'-0"	——
b11(E)	1098	#5	25'-6"	——
b12(E)	880	#5	28'-6"	——
b13(E)	114	#6	30'-6"	——
b14(E)	114	#6	26'-6"	——
b15(E)	24	#5	22'-3"	——
b16(E)	16	#5	11'-9"	——
b17(E)	24	#5	23'-9"	——
b18(E)	16	#5	10'-4"	——
b19(E)	16	#5	21'-7"	——
b20(E)	16	#8	32'-8"	——
b21(E)	16	#8	11'-9"	——
b22(E)	16	#8	34'-11"	——
b23(E)	16	#8	10'-4"	——
b24(E)	16	#8	22'-9"	——
d(E)	430	#4	6'-3"	⌐
d1(E)	1010	#5	3'-11"	⌐
d2(E)	430	#4	4'-9"	⌐
d3(E)	215	#5	2'-0"	——
e4(E)	104	#4	15'-2"	——
e5(E)	52	#4	11'-9"	——
e6(E)	104	#4	16'-4"	——
e7(E)	52	#4	10'-4"	——
e8(E)	78	#4	13'-8"	——
x(E)	220	#5	4'-9"	⌐
Reinforcement Bars (Epoxy Coated)		Lbs.	176370	
Class X Concrete		Cu. Yds.	696.6	

SPAN 7

BAR	NO.	SIZE	LENGTH	SHAPE
a(E)	894	#5	30'-0"	——
a1(E)	894	#5	26'-3"	——
a2(E)	524	#6	4'-0"	——
a3(E)	16	#5	20'-9"	——
a4(E)	16	#5	18'-3"	——
b25(E)	732	#5	23'-6"	——
b26(E)	590	#5	27'-11"	——
b27(E)	40	#8	29'-11"	——
d(E)	262	#4	6'-3"	⌐
d1(E)	618	#5	3'-11"	⌐
d2(E)	262	#4	4'-9"	⌐
d3(E)	131	#5	2'-0"	——
e9(E)	182	#4	18'-6"	——
x(E)	220	#5	4'-9"	⌐
Reinforcement Bars (Epoxy Coated)		Lbs.	102630	
Class X Concrete		Cu. Yds.	435.5	

SPANS 11-13

BAR	NO.	SIZE	LENGTH	SHAPE
a(E)	1782	#5	30'-0"	——
a1(E)	1782	#5	26'-3"	——
a2(E)	1040	#6	4'-0"	——
a5(E)	32	#5	2'-0"	——
b1(E)	100	#5	28'-0"	——
b11(E)	1342	#5	25'-6"	——
b46(E)	32	#8	35'-3"	——
b47(E)	228	#6	33'-7"	——
b48(E)	48	#5	24'-0"	——
b49(E)	24	#5	26'-3"	——
b50(E)	32	#5	13'-1"	——
b51(E)	24	#8	28'-3"	——
b52(E)	32	#8	13'-1"	——
d(E)	520	#4	6'-3"	⌐
d1(E)	1222	#5	3'-11"	⌐
d2(E)	520	#4	4'-9"	⌐
d3(E)	260	#5	2'-0"	——
e6(E)	208	#4	16'-4"	——
e12(E)	104	#4	18'-1"	——
e13(E)	104	#4	13'-1"	——
x(E)	220	#5	4'-9"	⌐
Reinforcement Bars (Epoxy Coated)		Lbs.	184100	
Class X Concrete		Cu. Yds.	836.8	

SPAN 8

BAR	NO.	SIZE	LENGTH	SHAPE
a(E)	797	#5	30'-0"	——
a1(E)	783	#5	26'-3"	——
a2(E)	400	#6	4'-0"	——
a3(E)	4	#5	20'-9"	——
a4(E)	4	#5	18'-3"	——
a6(E)	4	#5	16'-6"	——
a7(E)	4	#5	27'-5"	——
b(E)	130	#5	24'-9"	——
b1(E)	155	#5	28'-0"	——
b5(E)	120	#5	26'-9"	——
b9(E)	16	#8	27'-9"	——
b28(E)	192	#5	23'-8"	——
b29(E)	174	#5	21'-0"	——
b30(E)	145	#5	21'-8"	——
b31(E)	160	#5	18'-9"	——
b32(E)	116	#5	23'-3"	——
b33(E)	4	#8	36'-3"	——
b34(E)	6	#5	24'-6"	——
b35(E)	10	#8	30'-0"	——
d(E)	200	#4	6'-3"	⌐
d1(E)	468	#5	3'-11"	⌐
d2(E)	200	#4	4'-9"	⌐
d3(E)	101	#5	2'-0"	——
e4(E)	6	#4	15'-2"	——
e8(E)	6	#4	13'-8"	——
e9(E)	42	#4	18'-6"	——
e10(E)	64	#4	16'-9"	——
x(E)	220	#5	4'-9"	⌐
Reinforcement Bars (Epoxy Coated)		Lbs.	86690	
Class X Concrete		Cu. Yds.	328.4	

SPANS 14-16

BAR	NO.	SIZE	LENGTH	SHAPE
a(E)	1782	#5	30'-0"	——
a1(E)	1782	#5	26'-3"	——
a2(E)	1040	#6	4'-0"	——
a5(E)	16	#5	2'-0"	——
b1(E)	100	#5	28'-0"	——
b11(E)	1342	#5	25'-6"	——
b46(E)	32	#8	35'-3"	——
b47(E)	228	#6	33'-7"	——
b48(E)	48	#5	24'-0"	——
b49(E)	24	#5	26'-3"	——
b50(E)	32	#5	13'-1"	——
b51(E)	24	#8	28'-3"	——
b52(E)	32	#8	13'-1"	——
d(E)	520	#4	6'-3"	⌐
d1(E)	1222	#5	3'-11"	⌐
d2(E)	520	#4	4'-9"	⌐
d3(E)	260	#5	2'-0"	——
e6(E)	208	#4	16'-4"	——
e12(E)	104	#4	18'-1"	——
e13(E)	104	#4	13'-1"	——
x(E)	220	#5	4'-9"	⌐
Reinforcement Bars (Epoxy Coated)		Lbs.	184060	
Class X Concrete		Cu. Yds.	836.7	

SPAN 9

BAR	NO.	SIZE	LENGTH	SHAPE
a(E)	750	#5	30'-0"	——
a1(E)	750	#5	26'-3"	——
a2(E)	404	#6	4'-0"	——
a5(E)	32	#5	2'-0"	——
a6(E)	8	#5	16'-6"	——
a7(E)	8	#5	27'-5"	——
b27(E)	610	#5	23'-8"	——
b36(E)	472	#5	29'-3"	——
b37(E)	32	#8	31'-3"	——
d(E)	220	#4	6'-3"	⌐
d1(E)	518	#5	3'-11"	⌐
d2(E)	220	#4	4'-9"	⌐
d3(E)	110	#5	2'-0"	——
e11(E)	156	#4	18'-0"	——
x(E)	220	#5	4'-9"	⌐
Reinforcement Bars (Epoxy Coated)		Lbs.	85910	
Class X Concrete		Cu. Yds.	360.2	

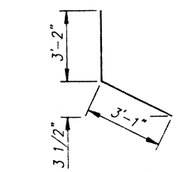
SPANS 17-19

BAR	NO.	SIZE	LENGTH	SHAPE
a(E)	1782	#5	30'-0"	——
a1(E)	1782	#5	26'-3"	——
a2(E)	1040	#6	4'-0"	——
a5(E)	16	#5	2'-0"	——
b1(E)	100	#5	28'-0"	——
b11(E)	1342	#5	25'-6"	——
b46(E)	32	#8	35'-3"	——
b47(E)	228	#6	33'-7"	——
b48(E)	48	#5	24'-0"	——
b49(E)	24	#5	26'-3"	——
b50(E)	32	#5	13'-1"	——
b51(E)	24	#8	28'-3"	——
b52(E)	32	#8	13'-1"	——
d(E)	520	#4	6'-3"	⌐
d1(E)	1222	#5	3'-11"	⌐
d2(E)	520	#4	4'-9"	⌐
d3(E)	260	#5	2'-0"	——
e6(E)	104	#4	16'-4"	——
e12(E)	104	#4	18'-1"	——
e13(E)	104	#4	13'-1"	——
e14(E)	104	#4	16'-5"	——
x(E)	220	#5	4'-9"	⌐
Reinforcement Bars (Epoxy Coated)		Lbs.	185200	
Class X Concrete		Cu. Yds.	845.5	

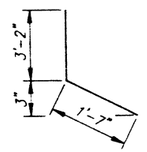
SPAN 10

BAR	NO.	SIZE	LENGTH	SHAPE
a(E)	632	#5	30'-0"	——
a1(E)	631	#5	26'-3"	——
a2(E)	378	#6	4'-0"	——
a5(E)	32	#5	2'-0"	——
a6(E)	8	#5	16'-6"	——
a7(E)	4	#5	27'-5"	——
b(E)	16	#5	24'-9"	——
b5(E)	104	#5	26'-9"	——
b22(E)	12	#8	34'-11"	——
b25(E)	160	#5	23'-6"	——
b34(E)	104	#5	24'-6"	——
b38(E)	160	#5	18'-5"	——
b39(E)	145	#5	20'-0"	——
b40(E)	145	#5	21'-9"	——
b41(E)	116	#5	22'-8"	——
b42(E)	124	#5	29'-0"	——
b43(E)	6	#5	26'-7"	——
b44(E)	6	#8	28'-7"	——
b45(E)	8	#8	31'-0"	——
d(E)	186	#4	6'-3"	⌐
d1(E)	434	#5	3'-11"	⌐
d2(E)	184	#4	4'-9"	⌐
d3(E)	93	#5	2'-0"	——
e2(E)	6	#4	17'-1"	——
e6(E)	8	#4	16'-4"	——
e9(E)	80	#4	18'-6"	——
e11(E)	36	#4	18'-0"	——
x(E)	220	#5	4'-9"	⌐
Reinforcement Bars (Epoxy Coated)		Lbs.	73980	
Class X Concrete		Cu. Yds.	302.4	

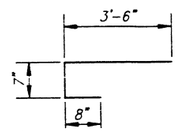
Note: Reinforcement bars designated (E) shall be epoxy coated.



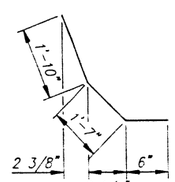
BAR d(E)



BAR d2(E)



BAR x(E)



BAR d1(E)

HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

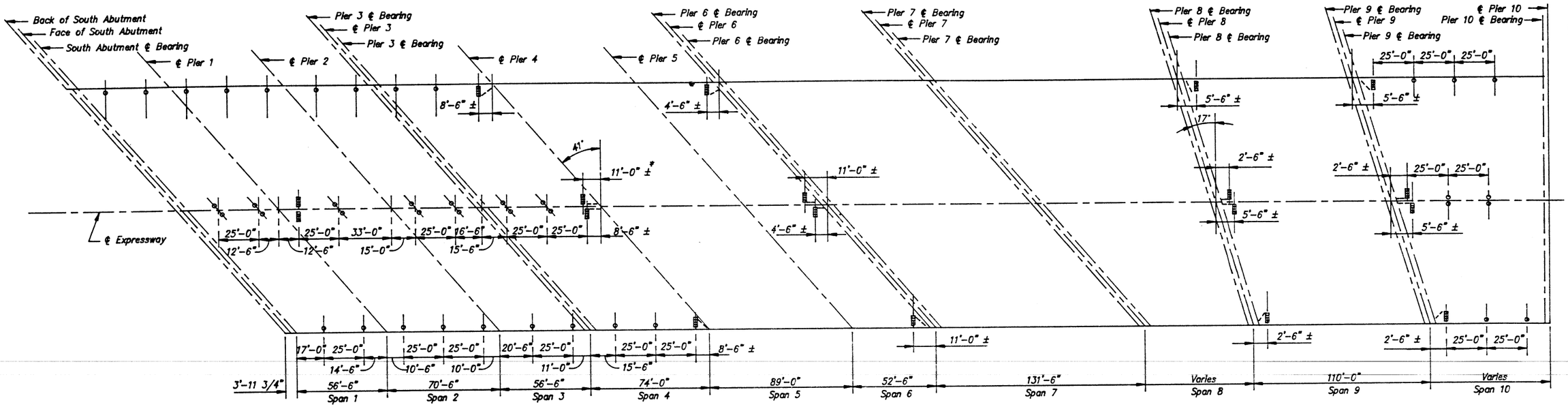
FILE NUMBER
DRAWN BY D.D./D.C
CHECKED BY M.r
APPROVED BY

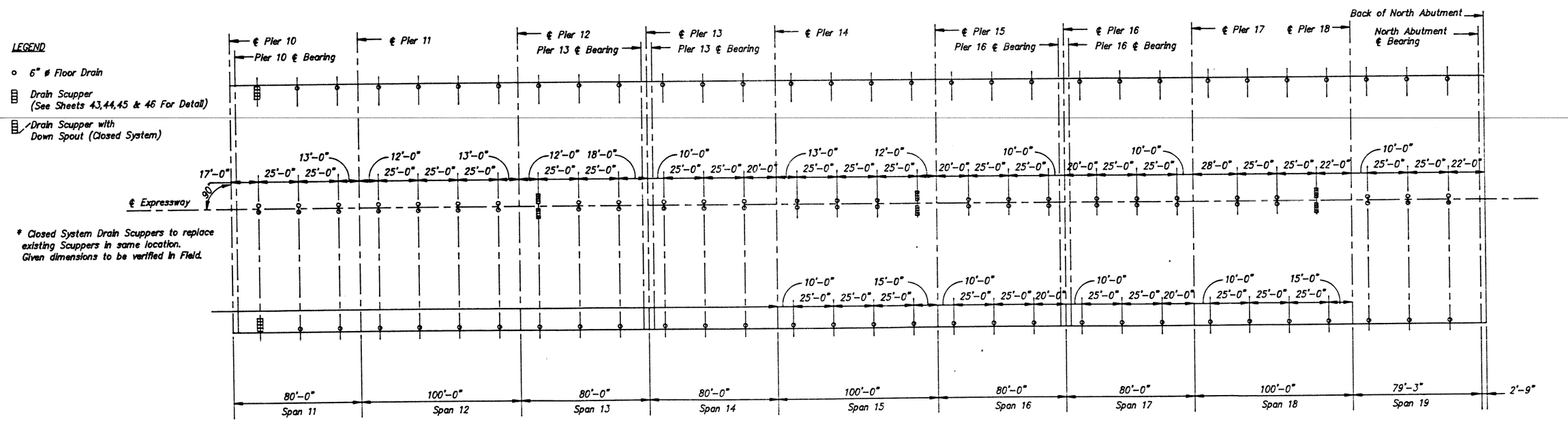
SUPERSTRUCTURE
REBAR SCHEDULE
F.A.I. RT. 70 SEC. 82-5VBR
ST. CLAIR COUNTY
STA. 81+42.68

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR	ST. CLAIR	86	52
FEDERAL ROAD DIST. NO.		ILLINOIS	FEDERAL AID PROJECT-	

SHEET NO. 39
72 SHEETS





LEGEND

- ○ 6" ø Floor Drain
- Drain Scupper (See Sheets 43,44,45 & 46 For Detail)
- Drain Scupper with Down Spout (Closed System)

* Closed System Drain Scuppers to replace existing Scuppers in same location. Given dimensions to be verified in Field.

HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

FILE NUMBER
DRAWN BY S.O.I.
CHECKED BY CRE
APPROVED BY DHE

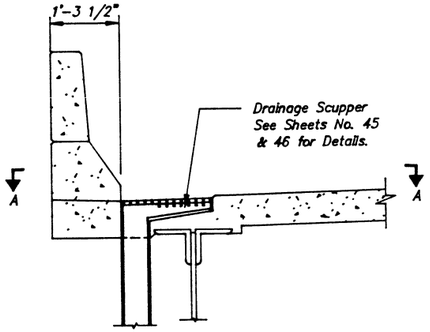
DRAINAGE LOCATION PLAN

F.A.I. ROUTE 70 SEC. 82-5VBR
ST. CLAIR COUNTY
STA. 81+42.68

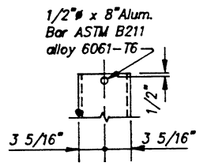
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR	ST. CLAIR	86	53
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

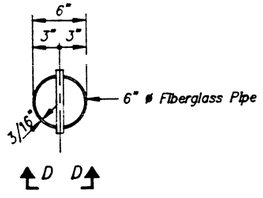
SHEET NO. 40
72 SHEETS



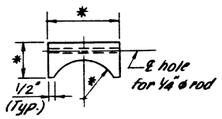
DRAIN SCUPPER AT MEDIAN



SECTION D - D

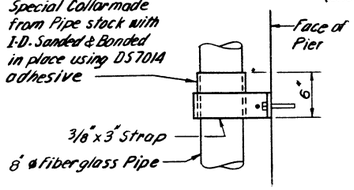


TOP PLAN - Floor Drain
(Showing Fiberglass Pipe)

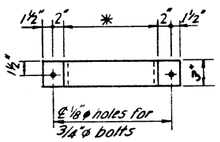


2" RUBBER SHIM
* Dimension as required by special collar.

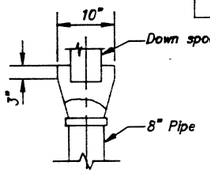
Special Collarmade from Pipe stock with I.D. Sanded & Bonded in place using DS7014 adhesive



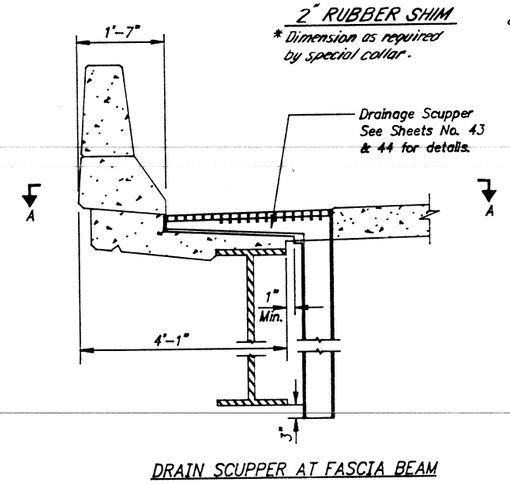
PIPE STRAP DETAIL



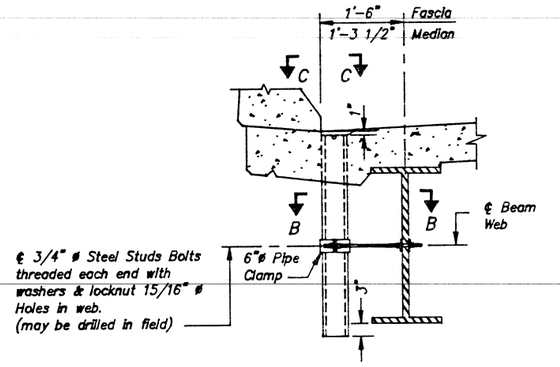
3/8"x3" STRAP



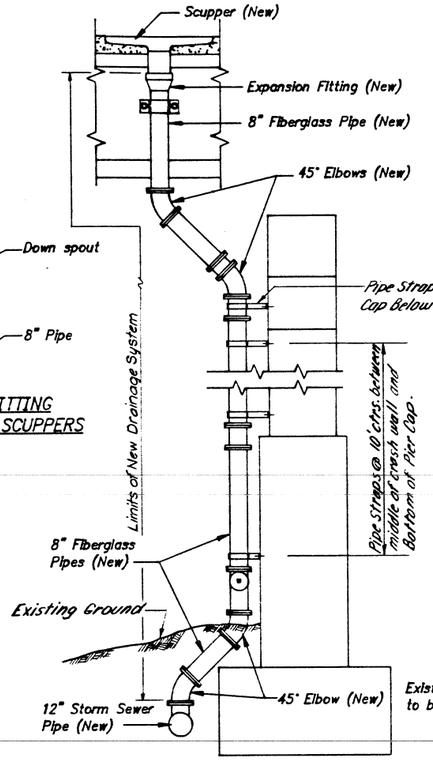
EXPANSION FITTING
TYPICAL FOR ALL SCUPPERS



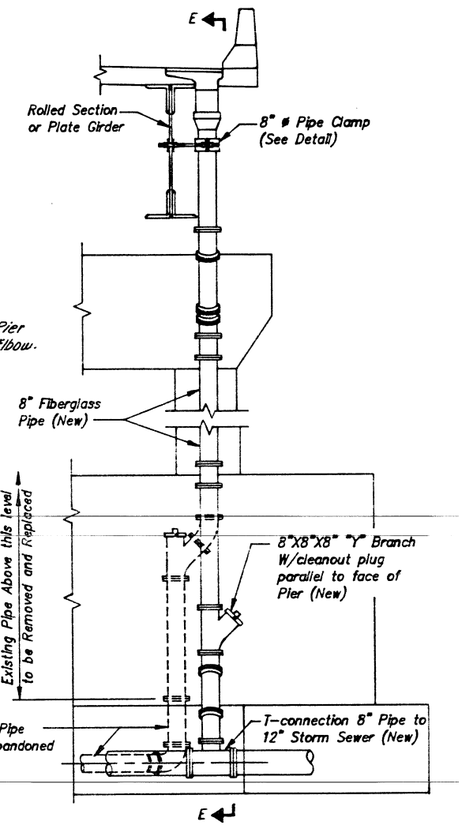
DRAIN SCUPPER AT FASCIA BEAM



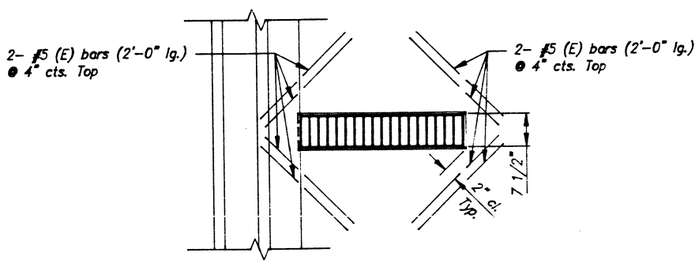
FLOOR DRAIN DETAILS
The surface of the Fiberglass pipe shall be free of bond inhibiting agents.



SECTION E-E

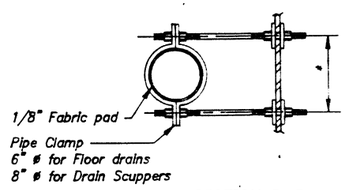


DRAINAGE AT PIERS

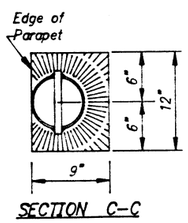


SECTION A-A

NOTE: Reinforcement bars designated (E) shall be epoxy coated.



SECTION B-B
* Dimension as required by Pipe Clamp



SECTION C-C

Notes:

The exterior surfaces of fiberglass Pipe drains shall be painted with one coat of Aluminium paint. Painting of the fiberglass Pipe Drains will not be required when the exterior surfaces of the furnished Drains are coated by the manufacturer with silver pigment or a pigment that matches the color of the concrete.

5/8" ø self drilling anchors shall be of the approved type and shall develop a mimimum capacity 23k in tension.

Bolts Washers and nuts for Drainage Scuppers & Drainage System shall conform to the requirements of ASTM A-307. All other hardware shall conform to the requirements of ASTM A36.

Fiberglass Pipe shall conform to ASTM: D2996, with short-time rupture strength hoop tensile stress of 30,000 psi. minimum.

All the hardware of the "Drainage system" & Scupper Downspout shall receive one shop coat of dull orange primer and two field coats of aluminum paint.

MAZELET + ERDAL, INC.
CONSULTING ENGINEERS

FILE NUMBER
DRAWN BY S.O.I.
CHECKED BY C.E.B.
APPROVED BY

DRAINAGE DETAILS
F.A.I. ROUTE 70 SEC. 82-5VBR
ST. CLAIR COUNTY
STA. 81+42.68

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82 5VBR	ST. CLAIR	86	54
FED. ROAD DIST. NO.	STATE	CONTRACT NO.		

SHEET NO. 41
72 SHEETS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Joint Size	"C" at 50°F	"D" at 50°F
2"	2"	1½" Min.
2½"	2½"	1¾" Min.
4"	3"	2½" Min.

INSTALLATION NOTES

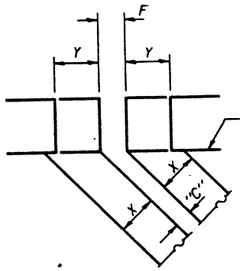
1. Install sponge mandrels into positions shown to form flap convolution.
2. Install parapet or sidewalk piece (trim roadway flap to fit before applying epoxy).
3. Install continuous seal in roadway.
4. Install anchor blocks as indicated.

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

SKEW LIMITATIONS

The details of the anchor blocks and the elastomeric membrane in the parapet, as shown, are for up to 50° skews.

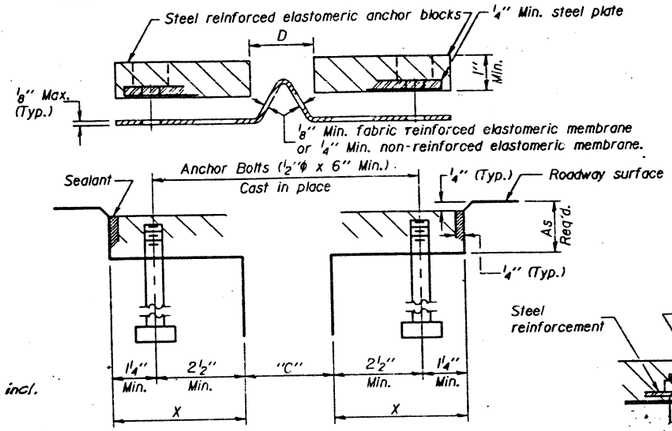
For skews greater than 50°, the anchor blocks and the elastomeric membrane, installed in accordance with dimension "D", might require modifications to insure a minimum clearance of 1½" from centerline of anchor studs to edge of parapet opening. The anchor blocks and the elastomeric membrane shall also be installed to the top of the parapet with the anchor studs spaced at ±12" cts.



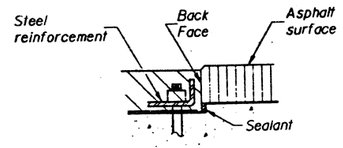
$Y = X - \left(\frac{F-C}{2}\right)$

For dimension "F" see sheet # 25 to 33 incl.

FORMING BLOCKOUT SKETCH



CROSS SECTION



ANCHOR BLOCK REINFORCEMENT WITH ASPHALT SURFACE

GENERAL NOTES

Continuous Seal Neoprene Expansion Joint shall consist of molded anchor blocks of elastomer and steel, field assembled over continuous lengths of elastomeric membrane. See Special Provisions.

The elastomeric membrane shall be premolded with a single or a double upward convolution that will have a "memory" to return to its molded position upon joint closure.

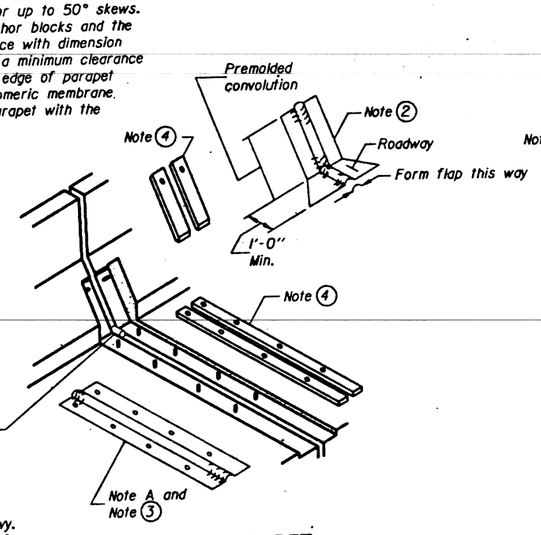
The steel reinforcement must extend up the back face of anchor blocks when asphalt surfaces are used but is optional in concrete blockout.

The convolution length shall be such that the extended length will not be greater than the manufactured length when the joint is fully expanded in its design range and will not protrude above the anchor blocks when the joint is fully compressed.

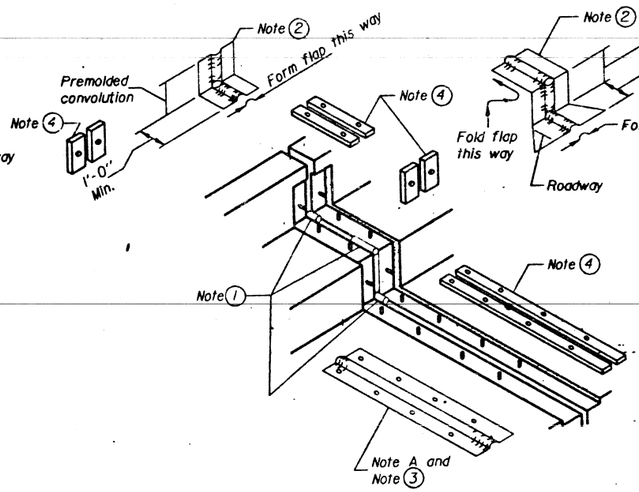
Joint openings shall be adjusted in accordance with Article 503.07(c) of the Standard Specifications when the deck is poured at an ambient temperature other than 50° F.

The parapet and sidewalk flaps may be furnished factory vulcanized to the roadway membrane provided the centerline of the convolution is maintained and the process and method meet the approval of the Engineer.

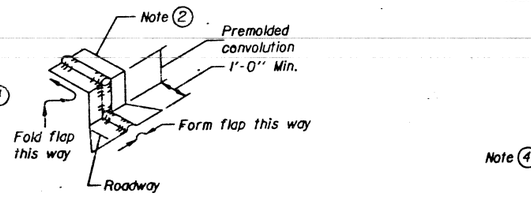
Anchor bolts, washers and nuts, to be plated against corrosion in accordance with the special provisions, shall be zinc-coated by the mechanical plating method conforming to ASTM B695, class 50. Zinc-coated nuts shall be tapped oversize in accordance with the requirements of AASHTO M291 and shall meet the supplementary requirements S1.1 thru S1.2.1 of the same specifications for lubricant and testing.

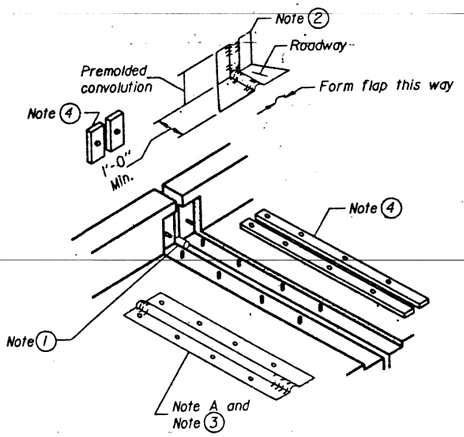


AT PARAPET

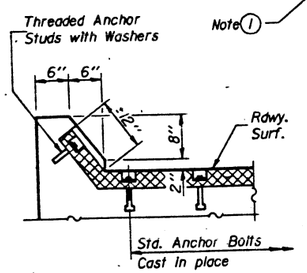


AT SIDEWALK OR MEDIAN

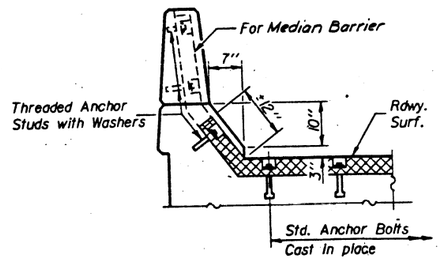




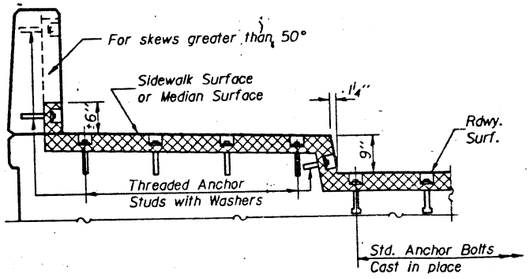
AT WALL



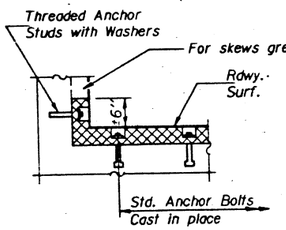
AT CURB



AT PARAPET



AT SIDEWALK OR MEDIAN



AT WALL

TYPICAL END TREATMENTS

DESIGNED	
CHECKED	
DRAWN	D.C.
CHECKED	D.L.a.

EJ-CS 12-1-83

CONTINUOUS SEAL TYPE NEOPRENE EXPANSION JOINTS

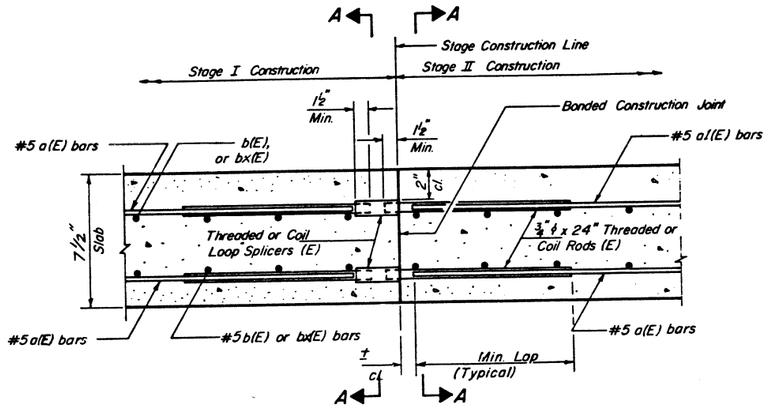
For 2", 2½" and 4" Movement

F.A.I. ROUTE 70 SEC. 82-5 VBR
ST. CLAIR COUNTY
STA. 81+42.68

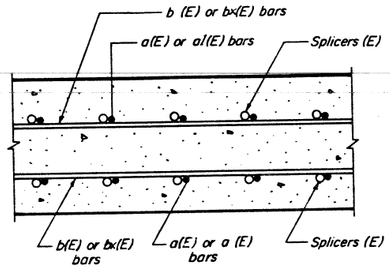
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
FAI 70	82 5VBR	ST. CLAIR	86	55
FED. ROAD DIST NO	ILLINOIS	FED. AID PROJECT		

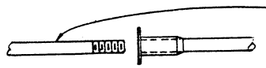
SHEET NO 42
72 SHEETS



SECTION THRU SLAB

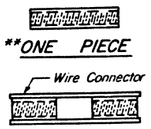


SECTION A-A



The diameter of this part of splicer is the same diameter as the bar spliced.

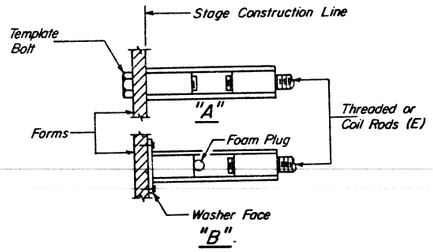
Rolled Thread Dowel Bar



WELDED SECTIONS

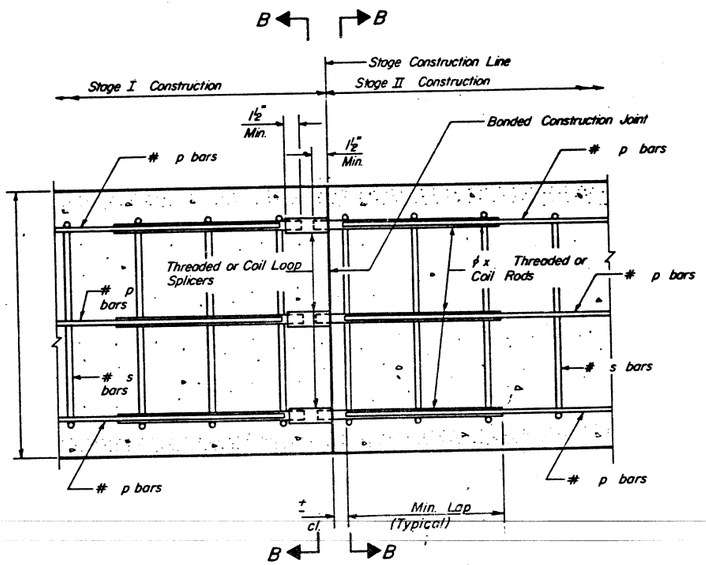
SPLICER ALTERNATIVES

** Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.



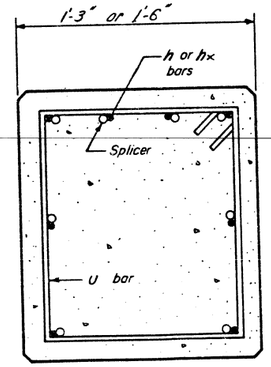
INSTALLATION AND SETTING METHODS

"A" : Set splicer by means of a template bolt.
"B" : Set splicer by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating, see Special Provisions.



SECTION THRU ABUTMENTS AND PIERS

No epoxy coating required.



SECTION B-B

SPLICER DETAILS
(No. Req'd. 16)
For h bar size and number see sheets 53 & 54.
Cost incidental to reinforcement bars.

BAR SPLICER (COUPLER) DETAILS AT STAGE CONSTRUCTION

SPLICER DETAILS
(No. Req'd. 11,060)
For b bar size and number see sheets 25 to 33 inclusive.

Cost incidental to reinforcement bars (Epoxy Coated).

NOTES

Steel Splicer (Coupler) assembly shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.

Steel Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length and have effective tensile stress area equal or greater than that of the lapped reinforcement bars.

Splicer rods shall extend minimum 1½ inches into the couplers.

All reinforcement bars shall be lapped and tied to the splicer rods.

Splicer (coupler) assembly in the slab shall be epoxy coated in accordance with the requirements for reinforcement bars.

Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed splicer (coupler) assembly satisfies the following requirements:

① Minimum Capacity = 1.25 x fy x A_t (Tension in kips)

② Minimum *Pull-out Strength = 1.25 x fs_{allow} x A_t (Tension in kips)

Where fy = Yield strength of lapped reinforcement bars in k.s.i.
fs_{allow} = Allowable tensile stress in lapped reinforcement bars in k.s.i. (Service Load)
A_t = Tensile stress area of lapped reinforcement bars.
* 28 day concrete

Typical Splicer (Coupler) Assembly Sizes:

In Slabs	#5 bar lap with ¾" ϕ Splicer (Coupler) x 2'-0" Splicer Rods	Minimum Capacity = 23.0 kips-tension; Minimum Pull-out Strength = 9.2 kips-tension
In Sub-structures	#5 bar lap with ¾" ϕ Splicer (Coupler) x 2'-0" Splicer Rods	Minimum Capacity = 23.0 kips-tension; Minimum Pull-out Strength = 9.2 kips-tension
	#6 bar lap with 7/8" ϕ Splicer (Coupler) x 2'-9" Splicer Rods	Minimum Capacity = 33.0 kips-tension; Minimum Pull-out Strength = 13.2 kips-tension

DESIGNED	
CHECKED	
DRAWN	E.I.
CHECKED	

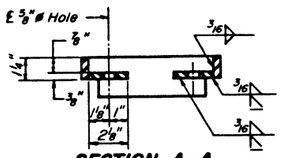
BSD-1 12-31-84

F.A.I. ROUTE 70 SEC. 82-5 VBR
ST. CLAIR COUNTY
STA. 81+42.68

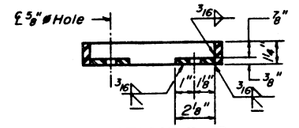
SHEET NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82 5VBR	ST. CLAIR	86	56
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET NO. 43
72 SHEETS

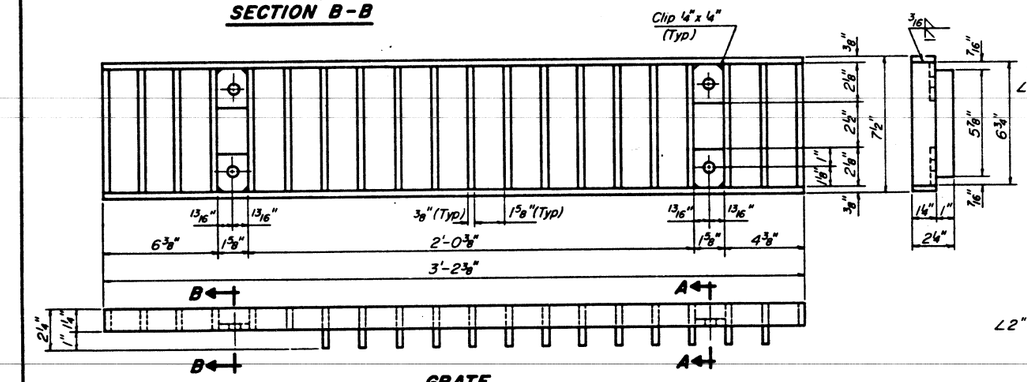
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



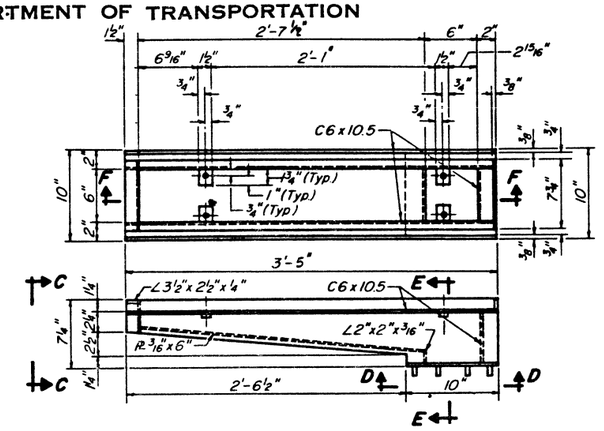
SECTION A-A



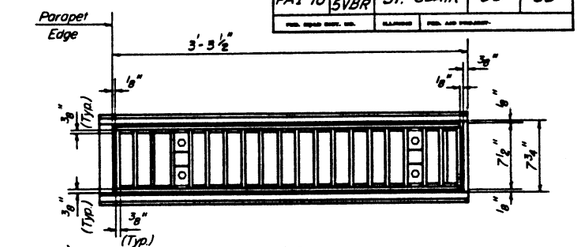
SECTION B-B

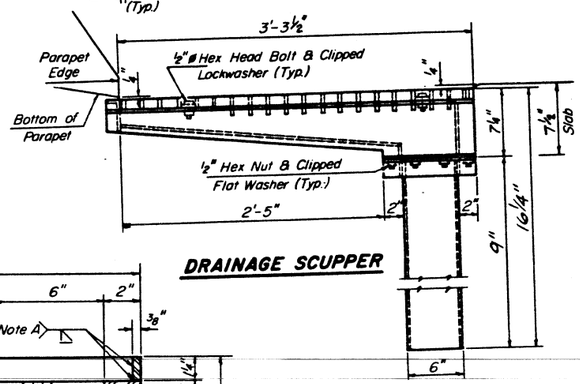


GRATE

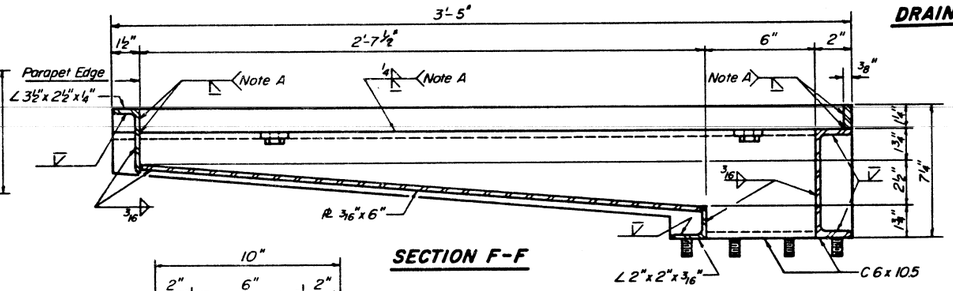


FRAME



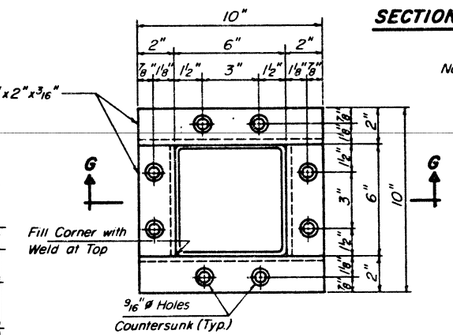


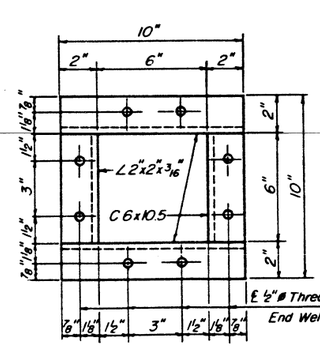
DRAINAGE SCUPPER



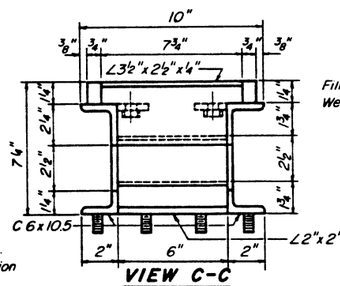
SECTION F-F

Note A: Surface of welds shall be recessed 1/16" Max. or placed flush with inside face of bars to provide clearance for Grate.

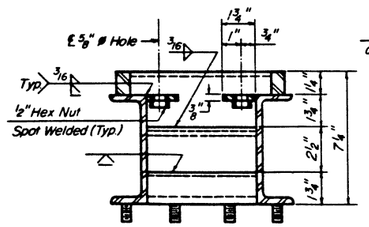




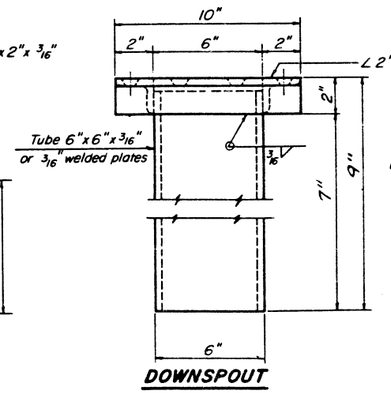
VIEW D-D



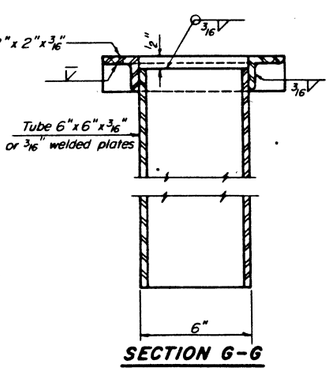
VIEW C-C



SECTION E-E



DOWNSPOUT



SECTION G-G

Notes:

Hollow structural steel tubing shall conform to the requirements of A.S.T.M. designation A-500 Grade B, or A-501 Structural Steel Tubing.

All other shapes, plates and bars shall conform to the requirements of A.A.S.H.T.O: M 183.

Bolts, studs, washers and nuts shall conform to the requirements of A.S.T.M: A-307.

The Grate, Frame, and Downspout shall be galvanized after shop fabrication in accordance with A.A.S.H.T.O: M-111 & A.S.T.M: A-385

All bolts, washers and nuts shall be galvanized in accordance with A.A.S.H.T.O: M 232.

Cost of the Grate, Frame, Downspout, Bolts, Washers and Nuts including complete installation of Scupper shall be paid for at the unit bid price for "DRAINAGE SCUPPERS".

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scupper	Each	10

DESIGNED	
CHECKED	
PB DRAWN	CRB
CHECKED	DLS

DS-3 12-1-83 (W.T. to inside of exterior stringer flange shall not be > 3'-11")

(Sheet 1 of 2)

STEEL DRAINAGE SCUPPER

AT FASCIA BEAM

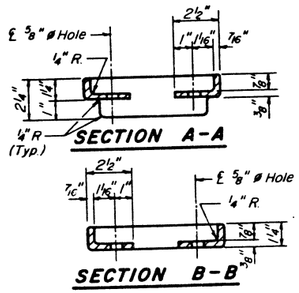
F.A.I. ROUTE 70 SEC. 82-5 VBR
ST. CLAIR COUNTY
STA. 81+42.68

43

SHEET NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82 SVBR	ST. CLAIR	86	57
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

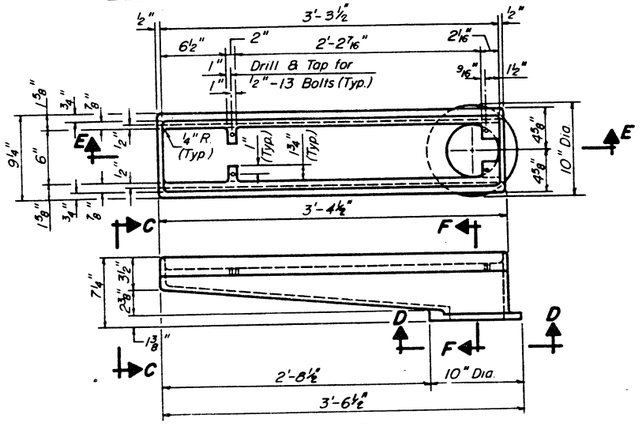
SHEET NO. 44
72 SHEETS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

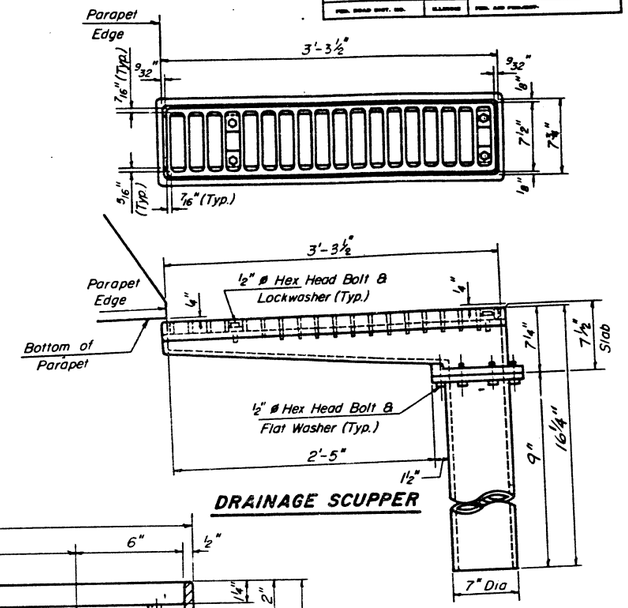


SECTION A-A

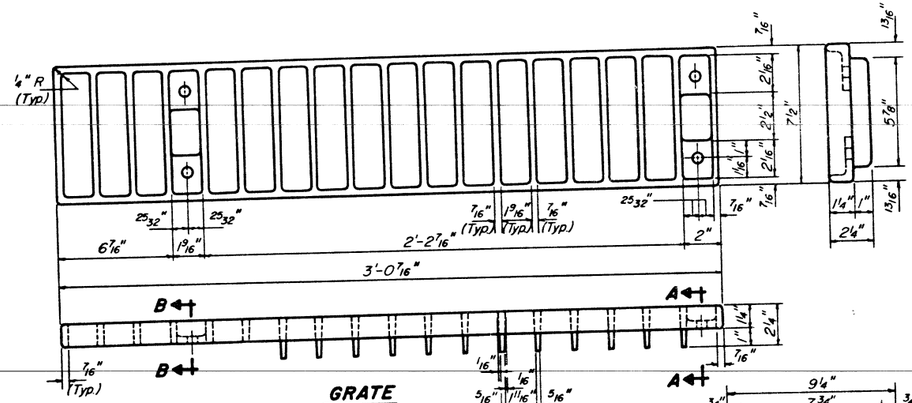
SECTION B-B



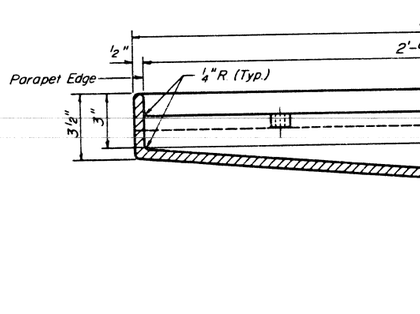
FRAME



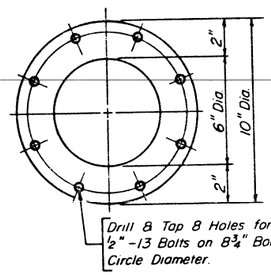
DRAINAGE SCUPPER



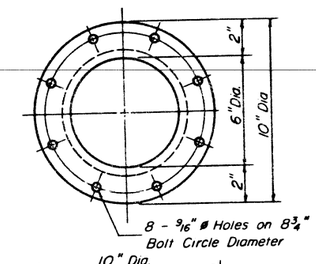
GRATE

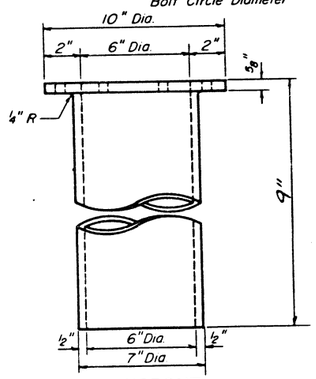


SECTION E-E

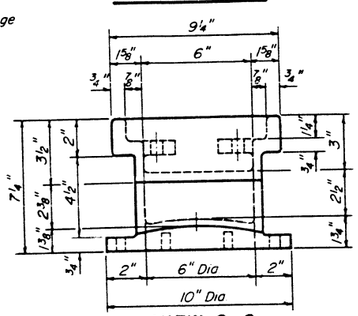


VIEW D-D

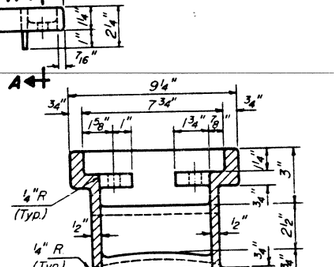




DOWNSPOUT



VIEW C-C



SECTION F-F

Notes:

All cast iron parts shall be gray iron conforming to the requirements of AASHTO M-105, Class 30.

Bolts and washers shall conform to the requirements of A.S.T.M.: A-307.

All bolts and washers shall be galvanized in accordance with A.A.S.H.T.O: M-232.

As an alternate bolts and washers may be stainless steel conforming to the requirements of A.S.T.M.: A-193. Type 304.

Cost of the Grate, Frame, Downspout, bolts and washers including complete installation of Scupper shall be paid for at the unit bid price for "DRAINAGE SCUPPERS".

The Contractor may use at his option steel drainage scuppers or cast iron drainage scuppers.

DESIGNED	
CHECKED	
PB DRAWN	CRB
CHECKED	Dla

DS-4 12-1-83 (W.T. to inside of exterior stringer flange shall not be > 3'-11")

(Sheet 2 of 2)

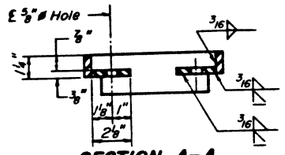
ALTERNATE - CAST IRON DRAINAGE SCUPPER AT FASCIA BEAM

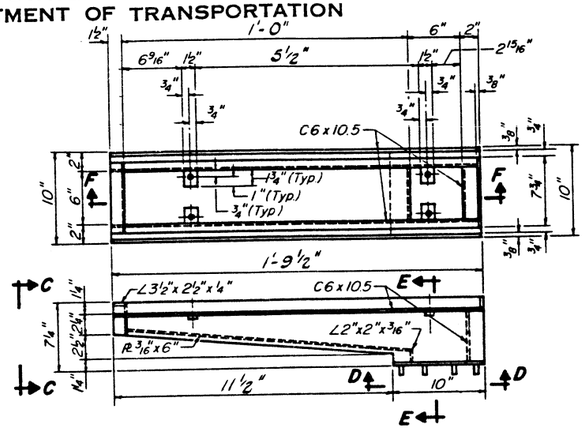
F.A.I. ROUTE 70 SEC. 82-5 VBR
ST. CLAIR COUNTY
STA. 81+42.68

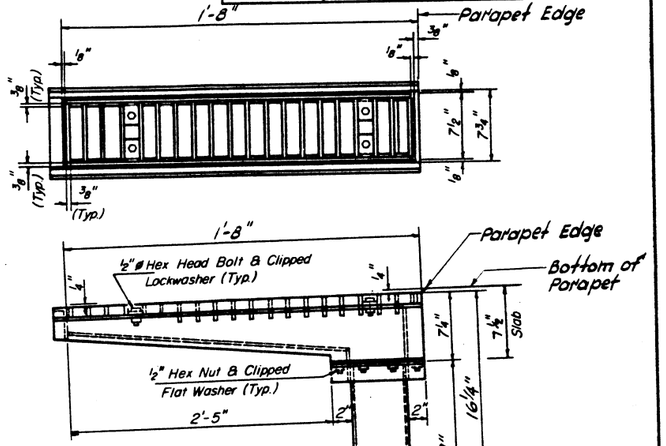
STATE ROAD NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82 5VBR	ST. CLAIR	86	58
FED. ROAD DIST. NO.	PLANNING	FED. AID PROJECT		

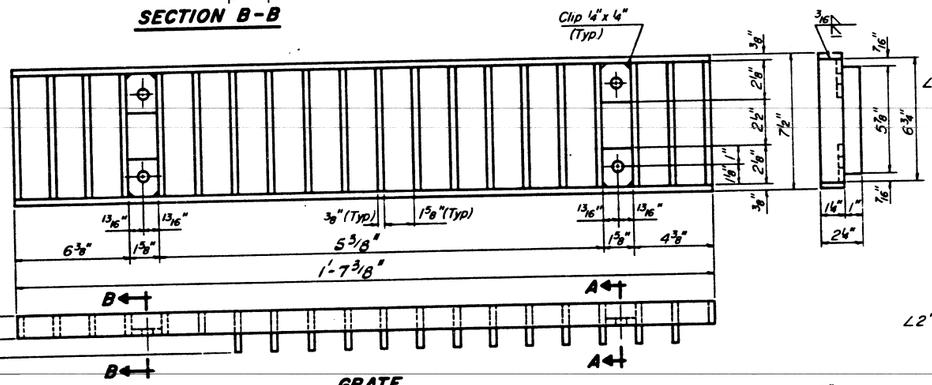
SHEET NO. 45
72 SHEETS

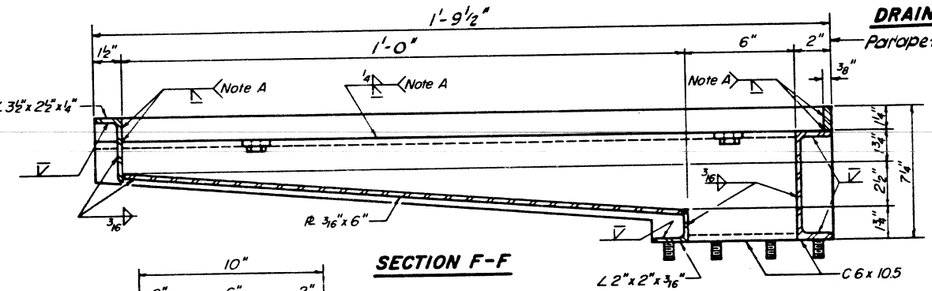
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



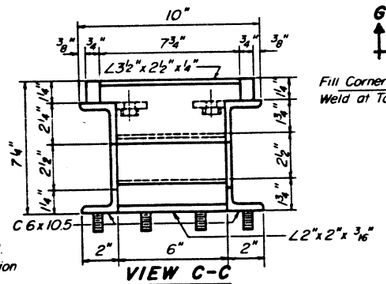


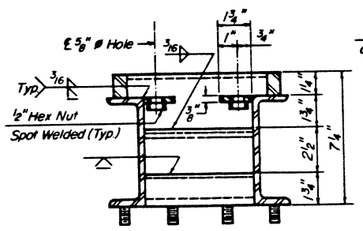


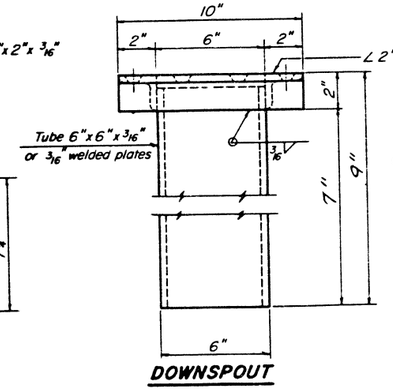


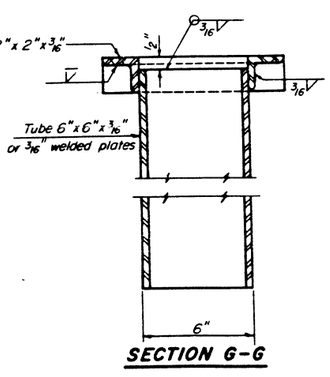


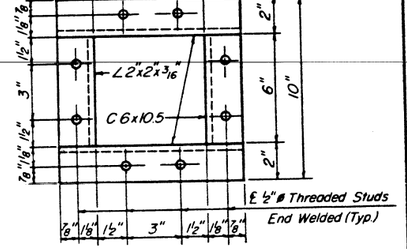
Note A: Surface of welds shall be recessed 1/16" Max. or placed flush with inside face of bars to provide clearance for Grate











Notes:

Hollow structural steel tubing shall conform to the requirements of A.S.T.M. designation A-500 Grade B, or A-501 Structural Steel Tubing.

All other shapes, plates and bars shall conform to the requirements of A.A.S.H.T.O: M 183.

Bolts, studs, washers and nuts shall conform to the requirements of A.S.T.M: A-307.

The Grate, Frame, and Downspout shall be galvanized after shop fabrication in accordance with A.A.S.H.T.O: M-111 & A.S.T.M: A-385.

All bolts, washers and nuts shall be galvanized in accordance with A.A.S.H.T.O: M 232.

Cost of the Grate, Frame, Downspout, Bolts, Washers and Nuts including complete installation of Scupper shall be paid for at the unit bid price for "DRAINAGE SCUPPERS".

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scupper	Each	16

DESIGNED	
CHECKED	
PB DRAWN	CRB
CHECKED	

(Sheet 1 of 2)

STEEL DRAINAGE SCUPPER AT MEDIAN

F.A.I ROUTE 70 SEC. 82-5 VBR
ST. CLAIR COUNTY
STA. 81+42.68

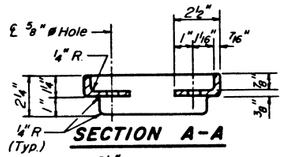
DS-3 12-1-83 (W.T. to inside of exterior stringer flange shall not be > 3'-11")

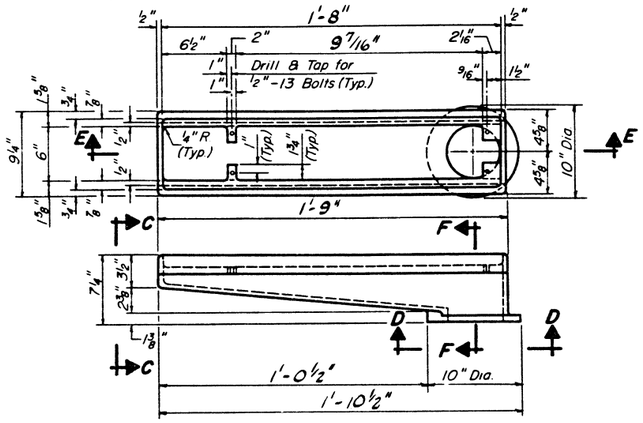
45

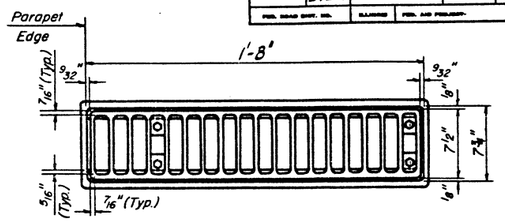
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82 SVBR	ST. CLAIR	86	59
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

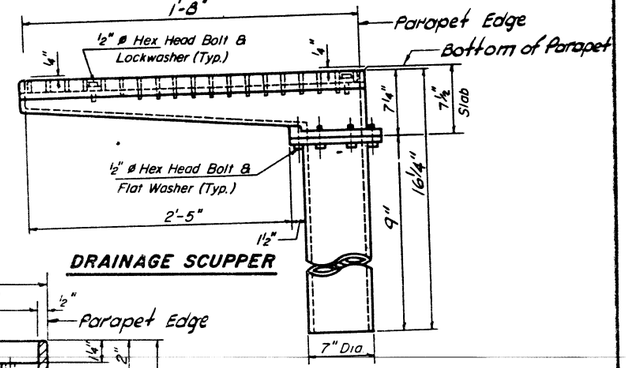
SHEET NO. 46
72 SHEETS

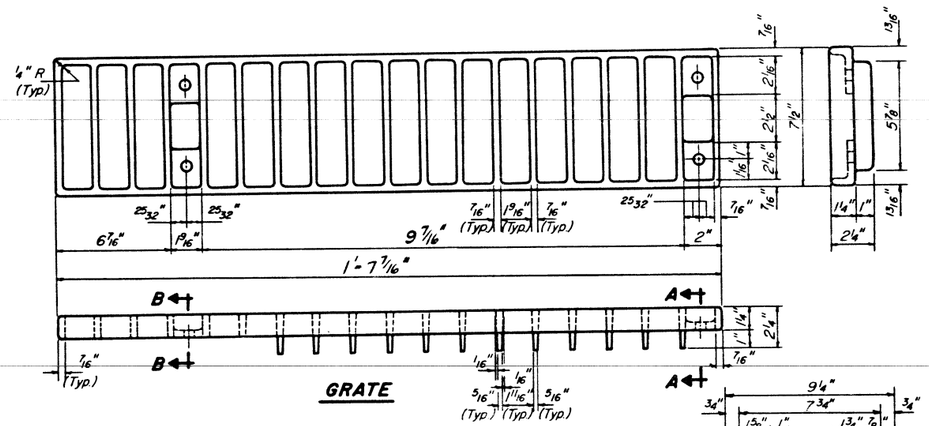
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

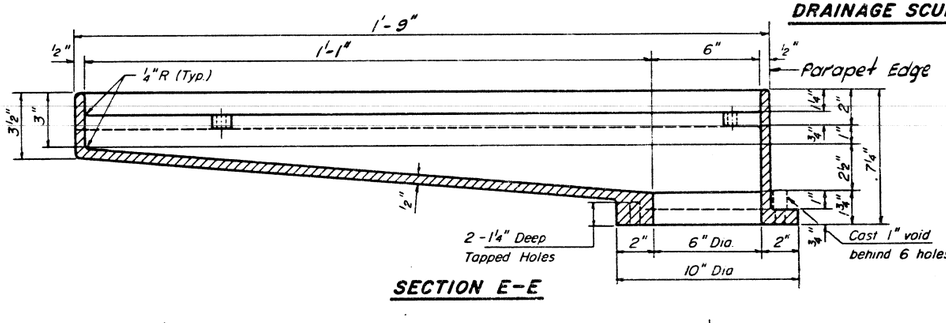


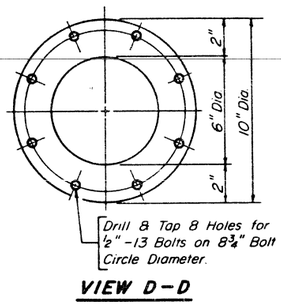


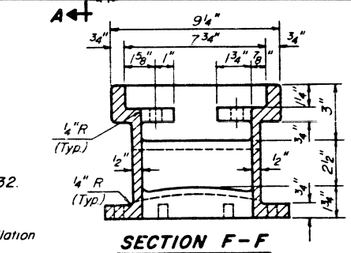


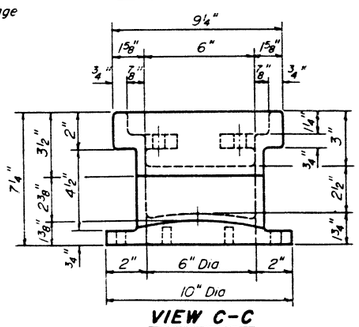


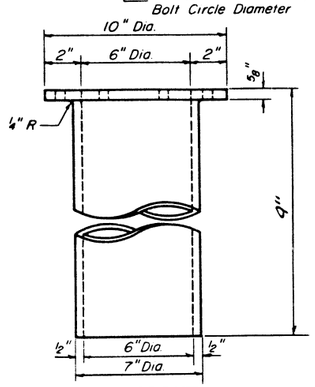












Notes:

All cast iron parts shall be gray iron conforming to the requirements of AASHTO: M-105, Class 30.

Bolts and washers shall conform to the requirements of A.S.T.M.: A-307.

All bolts and washers shall be galvanized in accordance with A.A.S.H.T.O.: M-232.

As an alternate bolts and washers may be stainless steel conforming to the requirements of A.S.T.M.: A-193. Type 304.

Cost of the Grate, Frame, Downspout, bolts and washers including complete installation of Scupper shall be paid for at the unit bid price for "DRAINAGE SCUPPERS".

The Contractor may use at his option steel drainage scuppers or cast iron drainage scuppers.

DESIGNED	
CHECKED	
PB DRAWN	CRB
CHECKED	Dla

DS-4 12-1-83 (W.T. to inside of exterior stringer flange shall not be > 3'-11")

(Sheet 2 of 2)

ALTERNATE - CAST IRON DRAINAGE SCUPPER

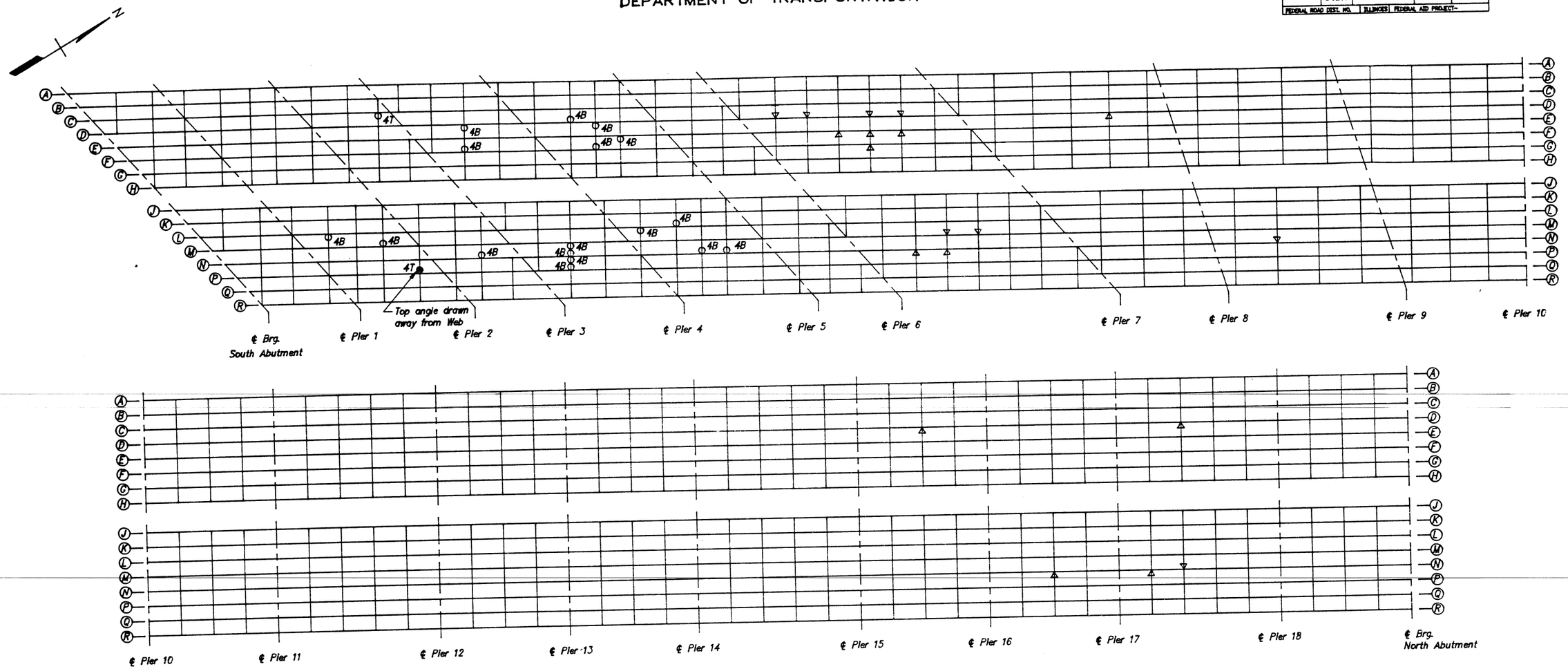
AT MEDIAN

F.A.I. ROUTE 70 SEC. 82-5VBR
ST. CLAIR COUNTY
STA 81+42.68

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR	ST. CLAIR	86	60
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

SHEET NO. 47
72 SHEETS



FRAMING PLAN

LEGEND

4B – Indicates location of rivet failures, number of rivets to be replaced and where the failure is located (Top or Bottom connection Angle)

△ – Indicates Location of Cracked Cross Frame Connection Angles.

HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

FILE NUMBER
DRAWN BY D.D. / S.O.I.
CHECKED BY D. B. M.
APPROVED BY

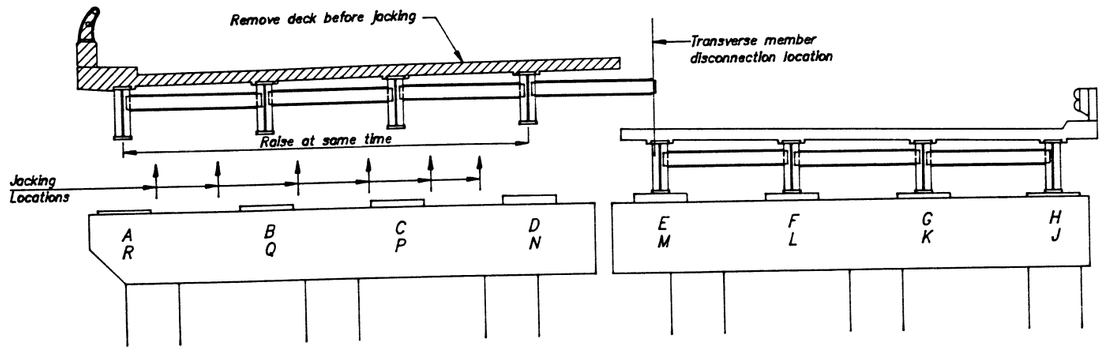
STRUCTURAL STEEL LOCATION PLAN
F.A.I. RT. 70 SEC. 82-5VBR
ST. CLAIR COUNTY
STATION 81+42.68

47

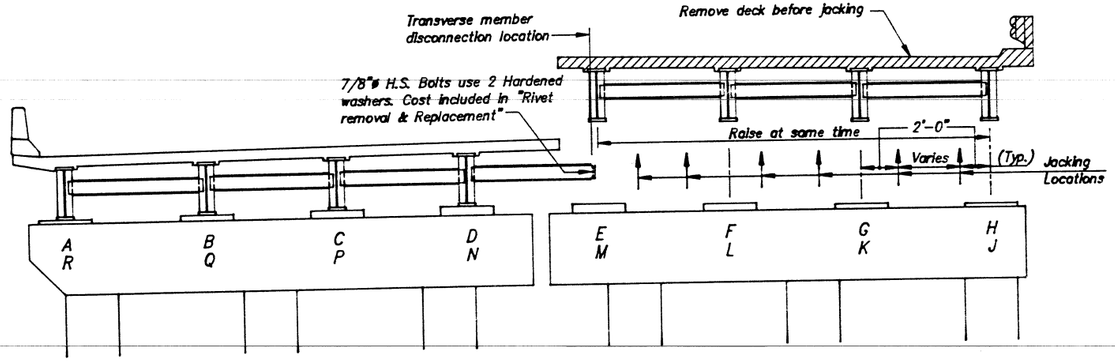
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR	ST. CLAIR	86	61
FEDERAL ROAD DIST. NO.	ILLINOIS FEDERAL AID PROJECT-			

SHEET NO. 48
72 SHEETS



STAGE I CONSTRUCTION

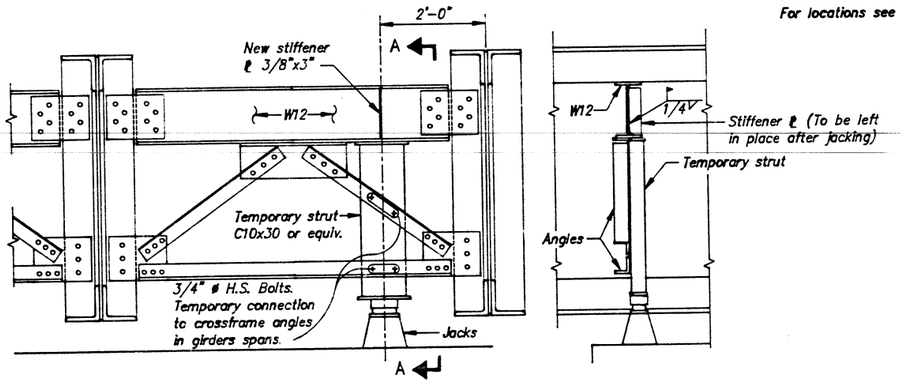


STAGE II CONSTRUCTION

Jacking Loads – One Beam			
Abut./Pier	Reaction (K)	Abut./Pier	Reaction (K)
S. Abut.	3.4	8(N)	17.9
Pier 2	11.6	9(N)	17.1
3(S)	3.3	10(N)	5.1
3(N)	6.3	13(S)	5.1
5	18.4	13(N)	5.1
6(S)	3.7	16(S)	5.1
6(N)	28.1	16(N)	5.1
7(N)	29.8	N. Abut.	5.1

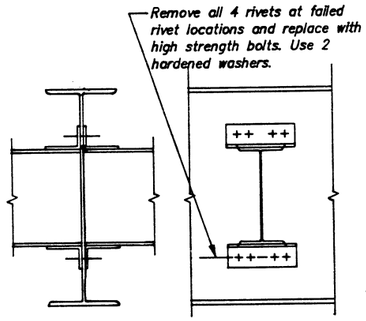
Procedure for expansion bearing replacement

1. Disconnect all end and intermediate diaphragms (or cross frames) at beam (or girder) E and M in the span to be jacked. The resulting separation of the eastbound and westbound roadways shall be maintained throughout the duration of deck reconstruction. When Stage II Construction has been completed, all transverse members members shall be reconnected with high strength bolts.
2. Remove concrete deck in span or spans contributing load to bearings to be replaced.
3. Install temporary struts and place jacks at sufficient locations to lift all four beams or girders at one time.
4. Raise span end sufficiently (1/2" maximum) to remove existing rocker bearings, top bearing plates, and masonry plates. Burn anchor bolts flush with top of concrete, grind underside of flange throughout area of new top plate.
5. Attach new top plates to beam or girder flanges. Install steel bolsters and remaining portions of elastomeric bearings. Drill holes and install anchor bolts where required. Install shims where required.
6. Release jacks and lower beams or girders onto new bearings.
7. Repeat steps 2 thru 6 at all bearing locations during Stage I and II.
8. Remove the temporary strut used for Jacking.



JACKING DETAILS
Cost of assembly included in Jacking & Cribbing.

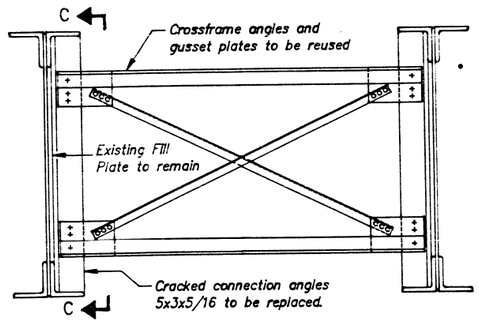
SECTION A-A



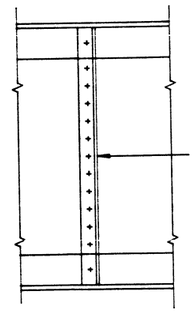
INTERMEDIATE DIAPHRAGM BEAM SPAN

SECTION B-B

RIVET REPLACEMENTS
For locations see sheet #47



INTERMEDIATE CROSS FRAME



SECTION C-C

CONNECTION ANGLE REPLACEMENTS
For locations see sheet #47

HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

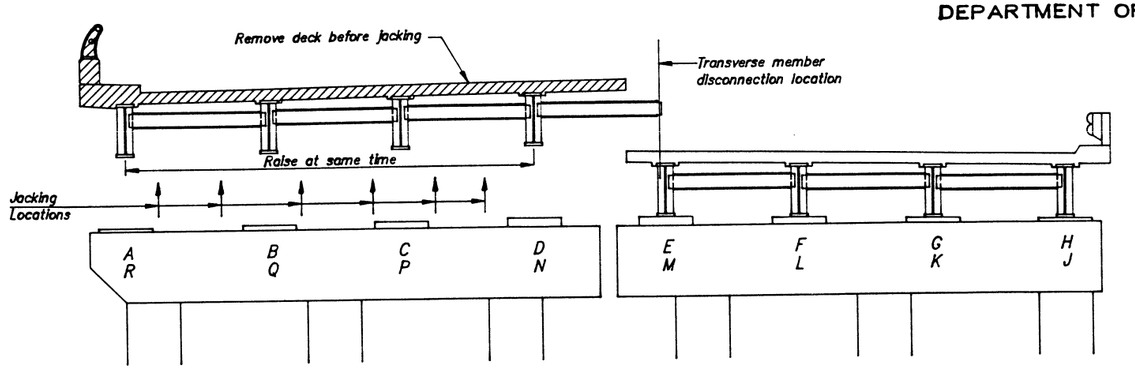
FILE NUMBER
DRAWN BY D.D. \ D.C.
CHECKED BY D.S.A.
APPROVED BY

STRUCTURAL STEEL DETAILS
F.A.I. ROUTE 70 SEC. 82-5VBR
ST. CLAIR COUNTY
STA. 81+42.68

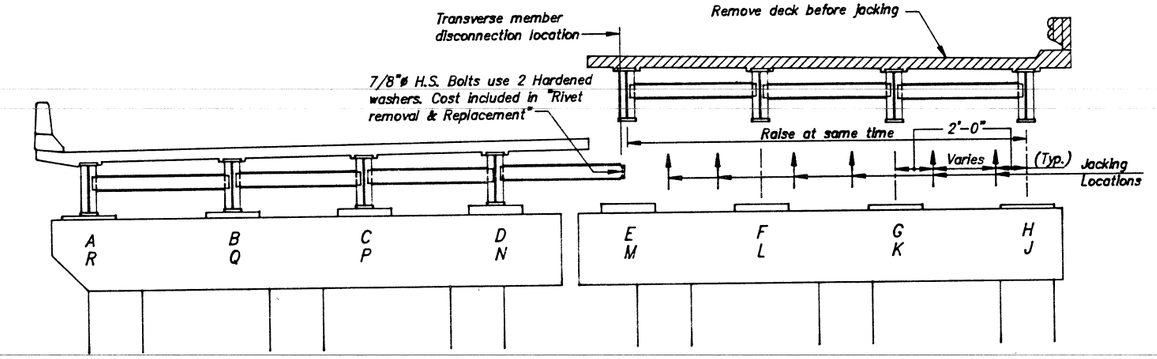
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR	ST. CLAIR	86	61
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

SHEET NO. 48
72 SHEETS



STAGE I CONSTRUCTION

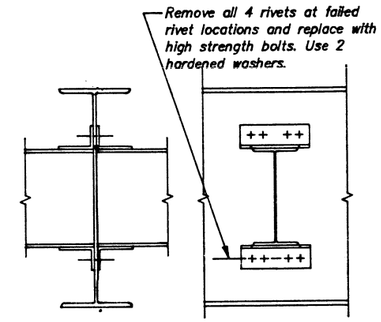


STAGE II CONSTRUCTION

Jacking Loads – One Beam			
Abut./Pier	Reaction (K)	Abut./Pier	Reaction (K)
S. Abut.	3.4	8(N)	17.9
Pier 2	11.6	9(N)	17.1
3(S)	3.3	10(N)	5.1
3(N)	6.3	13(S)	5.1
5	18.4	13(N)	5.1
6(S)	3.7	16(S)	5.1
6(N)	28.1	16(N)	5.1
7(N)	29.8	N. Abut.	5.1

Procedure for expansion bearing replacement

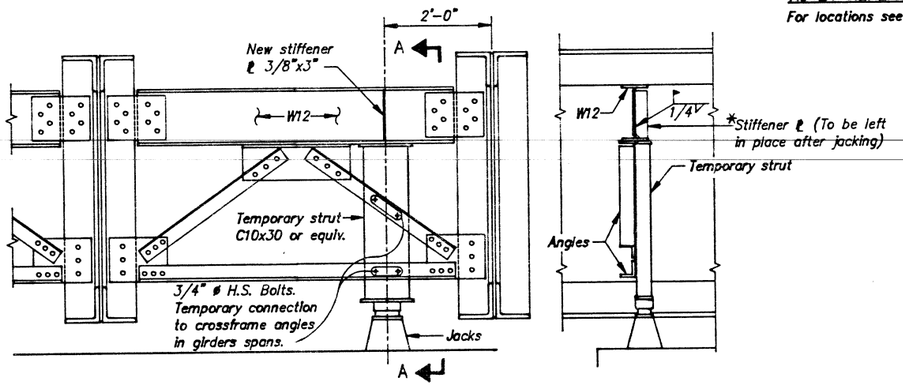
1. Disconnect all end and intermediate diaphragms (or cross frames) at beam (or girder) E and M in the span to be jacked. The resulting separation of the eastbound and westbound roadways shall be maintained throughout the duration of deck reconstruction. When Stage II Construction has been completed, all transverse members members shall be reconnected with high strength bolts.
2. Remove concrete deck in span or spans contributing load to bearings to be replaced.
3. Install temporary struts and place jacks at sufficient locations to lift all four beams or girders at one time.
4. Raise span end sufficiently (1/2" maximum) to remove existing rocker bearings, top bearing plates, and masonry plates. Burn anchor bolts flush with top of concrete, grind underside of flange throughout area of new top plate.
5. Attach new top plates to beam or girder flanges. Install steel bolsters and remaining portions of elastomeric bearings. Drill holes and install anchor bolts where required. Install shims where required.
6. Release jacks and lower beams or girders onto new bearings.
7. Repeat steps 2 thru 6 at all bearing locations during Stage I and II.
8. Remove the temporary strut used for Jacking.



INTERMEDIATE DIAPHRAGM BEAM SPAN — SECTION B–B

RIVET REPLACEMENTS

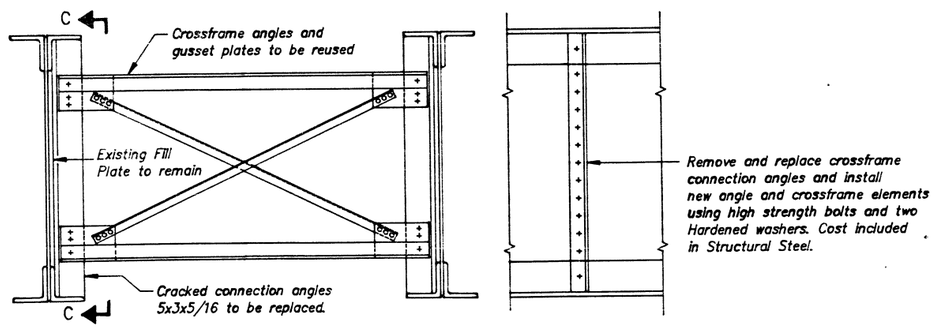
For locations see sheet #47



JACKING DETAILS
Cost of assembly included in Jacking & Cribbing.

SECTION A–A

*-The weight of stiffener plates is included in the item "Structural Steel."



INTERMEDIATE CROSS FRAME — SECTION C–C

CONNECTION ANGLE REPLACEMENTS

For locations see sheet #47

HE HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

FILE NUMBER
DRAWN BY D.D. \ D.C.
CHECKED BY DSA
APPROVED BY

STRUCTURAL STEEL DETAILS
F.A.I. ROUTE 70 SEC. 82-5VBR
ST. CLAIR COUNTY
STA. 81+42.68

REV. 1-22-87

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82 5VBR	ST. CLAIR	86	62
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

SHEET NO. 49
72 SHEETS

INTERIOR BEAM MOMENT TABLE					
		0.4 Sp.1	0.6 Sp.3	Pier 1 or 2	0.5 Sp.2
I	(in.⁴)	9738.8	9738.8	12449.0	9738.8
Q	(K/I)	1.163	1.163	1.163	1.163
MQ	(1K)	252.9	244.1	507.2	236.1
M4	(1K)	381.4	381.4	352.6	396.4
Imp.	(1K)	106.9	106.9	95.3	107.0
M TOTAL	(1K)	741.2	741.2	955.1	740.0
fs	(ksi)	16.4	16.4	17.0	16.4

INTERIOR BEAM REACTION TABLE					
		S. Abut.	Pier 1	Pier 2	Pier 3(S)
RQ	(K)	24.6	84.9	84.2	24.2
R4	(K)	36.3	47.0	46.9	36.3
Imp.	(K)	10.1	12.8	12.7	10.1
R TOTAL	(K)	71.0	144.7	143.8	70.6

SPAN 1-3

INTERIOR BEAM MOMENT TABLE						
		0.4 Sp.4	0.6 Sp.6	Pier 4	Pier 5	0.5 Sp.5
I	(in.⁴)	14988.0	14988.0	18439.0	14988.0	14988.0
Q	(K/I)	1.233	1.233	1.233	1.233	1.233
MQ	(1K)	447.8	156.1	929.1	655.9	461.4
M4	(1K)	540.2	361.5	517.3	426.2	525.7
Imp.	(1K)	135.0	101.2	124.2	110.8	136.7
M TOTAL	(1K)	1123.0	618.8	1570.6	1192.9	1123.8
fs	(ksi)	16.1	8.9	18.7	17.1	16.1

INTERIOR BEAM REACTION TABLE					
		Pier 3(N)	Pier 4	Pier 5	Pier 6(S)
RQ	(K)	33.7	118.9	98.7	20.1
R4	(K)	38.5	55.6	50.9	38.0
Imp.	(K)	9.6	13.3	13.2	11.0
R TOTAL	(K)	81.8	187.8	162.8	69.1

SPAN 4-6

INTERIOR GIRDER MOMENT TABLE			
		0.5 Sp.7	
I	(in.⁴)	110660.0	
Q	(K/I)	1.496	
MQ	(1K)	3160.8	
M4	(1K)	1388.3	
Imp.	(1K)	272.2	
M TOTAL	(1K)	4821.3	
fs	(KSI)	16.6	

INTERIOR GIRDER REACTION TABLE			
		Pier 6(N)	Pier 7(S)
RQ	(K)	94.5	94.5
R4	(K)	42.6	42.6
Imp.	(K)	11.9	11.9
R TOTAL	(K)	149.0	149.0

SPAN 7

INTERIOR GIRDER MOMENT TABLE			
		0.5 Sp.8	
I	(in.⁴)	100663.0	
Q	(K/I)	1.392	
MQ	(1K)	2718.8	
M4	(1K)	1328.0	
Imp.	(1K)	266.3	
M TOTAL	(1K)	4312.4	
fs	(ksi)	16.2	

INTERIOR GIRDER REACTION TABLE			
		Pier 7(N)	Pier 8(S)
RQ	(K)	87.0	87.0
R4	(K)	45.1	45.1
Imp.	(K)	9.0	9.0
R TOTAL	(K)	141.1	141.1

SPAN 8

INTERIOR GIRDER MOMENT TABLE			
		0.5 Sp.9	
I	(in.⁴)	81131.0	
Q	(K/I)	1.397	
MQ	(1K)	2056.6	
M4	(1K)	1127.5	
Imp.	(1K)	241.4	
M TOTAL	(1K)	3425.5	
fs	(ksi)	15.7	

INTERIOR GIRDER REACTION TABLE			
		Pier 8(N)	Pier 9(S)
RQ	(K)	74.4	74.4
R4	(K)	44.1	44.1
Imp.	(K)	9.7	9.7
R TOTAL	(K)	128.2	128.2

SPAN 9

INTERIOR GIRDER MOMENT TABLE			
		0.5 Sp.10	
I	(in.⁴)	76345.0	
Q	(K/I)	1.332	
MQ	(1K)	1849.7	
M4	(1K)	1087.5	
Imp.	(1K)	239.1	
M TOTAL	(1K)	3176.3	
fs	(ksi)	15.4	

INTERIOR GIRDER REACTION TABLE			
		Pier 9(N)	Pier 10(S)
RQ	(K)	70.2	70.2
R4	(K)	44.1	44.1
Imp.	(K)	9.7	9.7
R TOTAL	(K)	124.0	124.0

SPAN 10

INTERIOR GIRDER MOMENT TABLE					
		0.4 Sp.11 0.4 Sp.14 0.4 Sp.17	0.6 Sp.13 0.6 Sp.16 0.6 Sp.19	Pier 11 or 12 Pier 14 or 15 Pier 17 or 18	0.5 Sp.12 0.5 Sp.15 0.5 Sp.18
I	(in.⁴)	29998.0	29998.0	47408.0	29998.0
Q	(K/I)	1.200	1.200	1.289	1.200
MQ	(1K)	506.5	506.5	1064.2	482.4
M4	(1K)	601.7	601.7	633.7	624.5
Imp.	(1K)	144.5	144.5	146.5	137.4
M TOTAL	(1K)	1252.7	1252.7	1844.4	1244.3
fs	(ksi)	15.0	15.0	14.5	15.0

INTERIOR GIRDER REACTION TABLE					
		Pier 10(N) Pier 13(N) Pier 16(N)	Pier 11 Pier 14 Pier 17	Pier 12 Pier 15 Pier 18	Pier 13(S) Pier 16(S) N. Abut.
RQ	(K)	40.0	125.1	125.1	40.0
R4	(K)	41.2	67.8	67.8	41.2
Imp.	(K)	10.0	10.8	10.8	10.0
R TOTAL	(K)	91.2	203.7	203.7	91.2

SPAN 11-19

Notes:

I is the Moment of Inertia used in computing fs

MQ & M4 : Moments due to D.L. & L.L.

Imp.: Live Load Impact

RQ & R4 : Reactions due to D.L. & L.L.

fs : Sum of the Stresses due to MQ + M4 + Imp.

HE HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

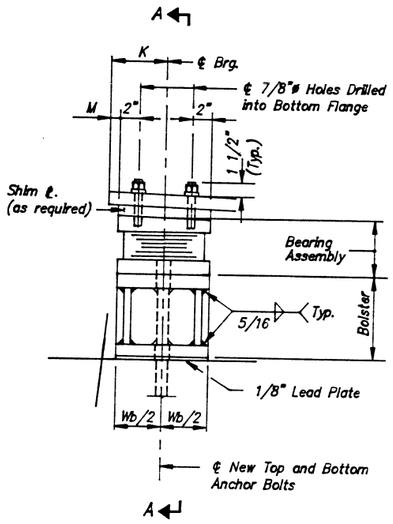
FILE NUMBER
DRAWN BY W²/D²
CHECKED BY GVE
APPROVED BY D.L.E.

MOMENT AND REACTION TABLES
F.A.I. ROUTE 70 SEC. 82-5VBR
ST. CLAIR COUNTY
STA. 81+42.68

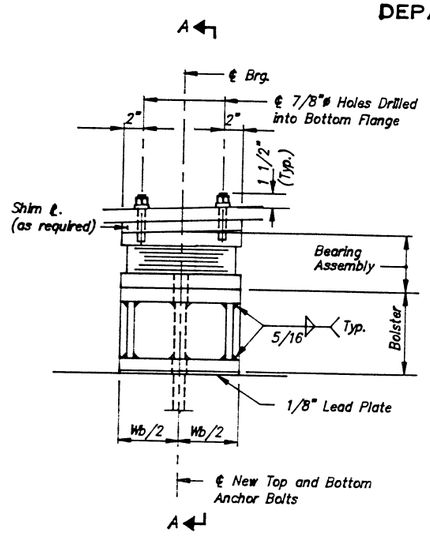
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR	ST. CLAIR	86	63
FEDERAL ROAD DIST. NO.	ILLINOIS FEDERAL AID PROJECT-			

SHEET NO. 50
72 SHEETS



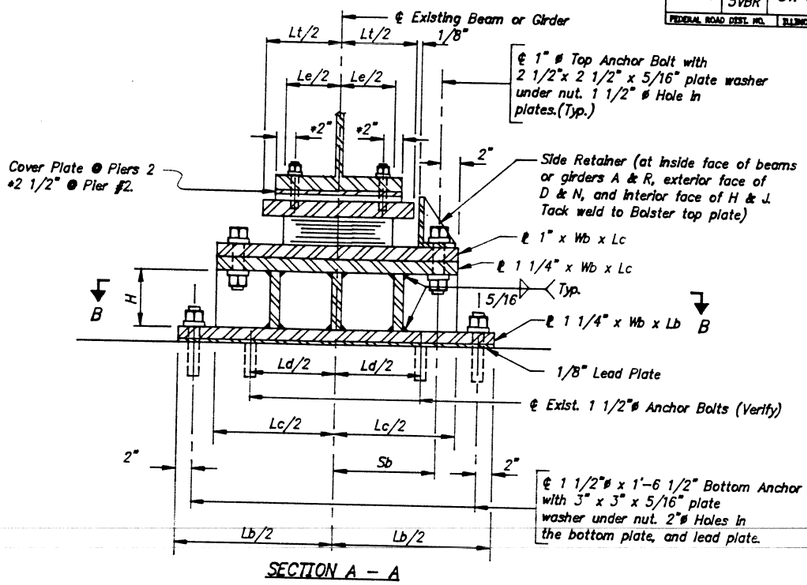
ELEVATION AT SOUTH & NORTH ABUTS. & PIERS 3, 6, 7, 8, 9, 13 & 16



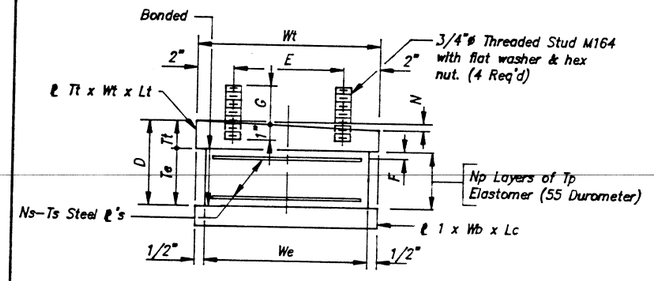
ELEVATION AT PIERS 2 & 5

TYPE I ELASTOMERIC BRG. WITH BOLSTER

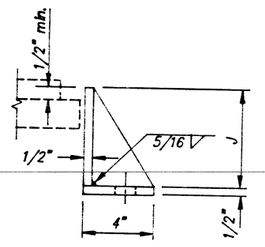
(Alignment of tapered top plate to match profile grade of beam or girder)



SECTION A – A

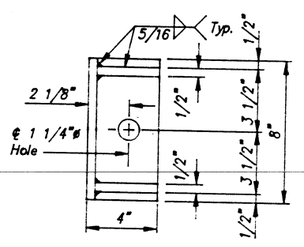


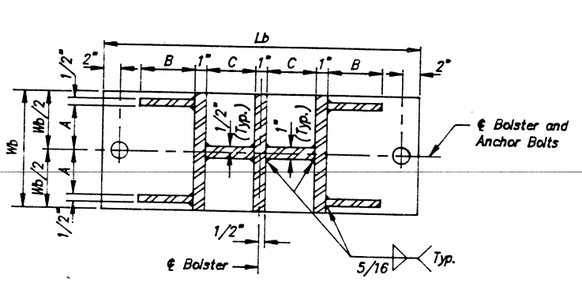
BEARING ASSEMBLY



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.





SECTION B – B

Notes:
1. See Sheet No. 52 for Anchor Bolt Installation
2. Contractor shall verify dimensions of existing Bearings before removal, and ordering of new Bearings, and fabrication of Bolsters.
3. Cost of Structural Steel for Bolsters is included for payment with Structural Steel.

TABLE OF VARIABLES FOR TYPE I EXPANSION BEARINGS WITH BOLSTERS

LOCATION	VARIABLE																								
	Te	We	Le	Np	Tp	Ns	Ts	Tt	Wt	Lt	Wb	Lb	Lc	Sb	Ld	A	B	C	D	E	F	G	H	J	K	M	N
South Abutment	1 3/4"	7"	1'-0"	4	3/8"	3	3/32"	1 5/8"	8"	1'-2"	8"	2'-6 1/2"	1'-10 1/2"	9 1/4"	1'-8"	3"	5 1/4"	4 1/2"	3 3/8"	4"	3/8"	2 1/2"	3 3/8"	3 1/2"	10"	6"	1/4"
Pier 2	2 3/8"	11"	1'-4"	4	1/2"	3	1/8"	2 3/4"	1'-0"	1'-6"	1'-0"	2'-10 1/2"	2'-2 1/2"	11 1/4"	1'-11"	5"	6 1/4"	5 1/2"	5 1/8"	8"	1/2"	3"	7 5/8"	5 1/8"	–	–	1/2"
Pier 3 (North)	2 1/4"	9"	1'-0"	5	3/8"	4	3/32"	1 5/8"	10"	1'-2"	10"	2'-6 1/2"	1'-10 1/2"	9 1/4"	1'-8"	4"	5 1/4"	4 1/2"	3 7/8"	6"	3/8"	2 3/4"	2 7/8"	3 7/8"	6"	1"	1/2"
Pier 5	2 13/16"	1'-0"	1'-6"	4	9/16"	3	3/16"	3"	1'-1"	1'-8"	1'-1"	3'-0 1/2"	2'-4 1/2"	1'-0 1/4"	1'-11"	5 1/2"	6 3/4"	6"	5 13/16"	9"	9/16"	2 3/4"	6 15/16"	5 7/8"	–	–	3/8"
Pier 6 (North)	4 5/16"	1'-0"	1'-6"	6	9/16"	5	3/16"	2 3/8"	1'-1"	1'-8"	1'-1"	3'-0 1/2"	2'-4 1/2"	1'-0 1/4"	1'-11"	5 1/2"	6 3/4"	6"	6 11/16"	9"	9/16"	2 1/2"	6 1/16"	6 3/4"	7"	1/2"	3/8"
Pier 7 (North)	4 5/16"	1'-0"	1'-6"	6	9/16"	5	3/16"	2 1/4"	1'-1"	1'-8"	1'-1"	3'-0 1/2"	2'-4 1/2"	1'-0 1/4"	1'-11"	5 1/2"	6 3/4"	6"	6 9/16"	9"	9/16"	2 1/2"	6 3/16"	6 5/8"	7"	1/2"	1/8"
Pier 8 (North)	3 5/8"	11"	1'-4"	6	1/2"	5	1/8"	2"	1'-0"	1'-6"	1'-0"	2'-10 1/2"	2'-2 1/2"	11 1/4"	1'-11"	5"	6 1/4"	5 1/2"	5 5/8"	8"	1/2"	2 1/2"	7 1/8"	5 5/8"	6"	0	1/8"
Pier 9 (North)	3 5/8"	11"	1'-4"	6	1/2"	5	1/8"	2"	1'-0"	1'-6"	1'-0"	2'-10 1/2"	2'-2 1/2"	11 1/4"	1'-11"	5"	6 1/4"	5 1/2"	5 5/8"	8"	1/2"	2 1/2"	7 1/8"	5 5/8"	6"	0	3/8"
Pier 13 (South)	3 3/16"	9"	1'-0"	7	3/8"	6	3/32"	1 1/2"	10"	1'-2"	10"	2'-6 1/2"	1'-10 1/2"	9 1/4"	1'-8"	4"	5 1/4"	4 1/2"	4 11/16"	6"	3/8"	2 1/4"	2 1/16"	4 3/4"	6"	1"	3/8"
Pier 16 (South)	3 3/16"	9"	1'-0"	7	3/8"	6	3/32"	1 1/2"	10"	1'-2"	10"	2'-6 1/2"	1'-10 1/2"	9 1/4"	1'-8"	4"	5 1/4"	4 1/2"	4 11/16"	6"	3/8"	2 1/4"	2 1/16"	4 3/4"	6"	1"	3/8"
North Abutment	3 3/16"	9"	1'-0"	7	3/8"	6	3/32"	1 1/2"	10"	1'-2"	10"	2'-6 1/2"	1'-10 1/2"	9 1/4"	1'-8"	4"	5 1/4"	4 1/2"	4 11/16"	6"	3/8"	2 1/4"	2 1/16"	4 3/4"	6"	1"	3/8"

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	176

HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

FILE NUMBER
DRAWN BY EJ
CHECKED BY GWL
APPROVED BY DLA

REPLACEMENT BEARING DETAILS
F.A.I. RT. 70 SEC. 82-5VBR
ST. CLAIR COUNTY
STATION 81+42.68

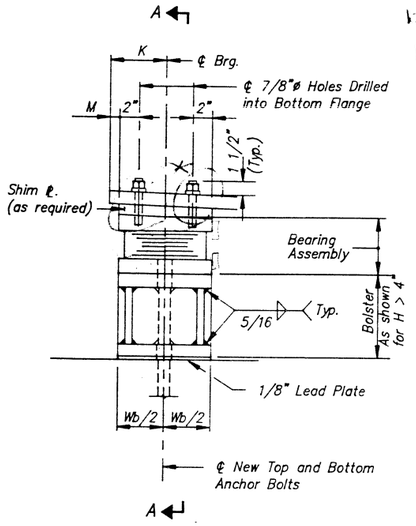
50

* Welding approved in lieu of bolts on spans 10-15 - See letter of 4/23/87

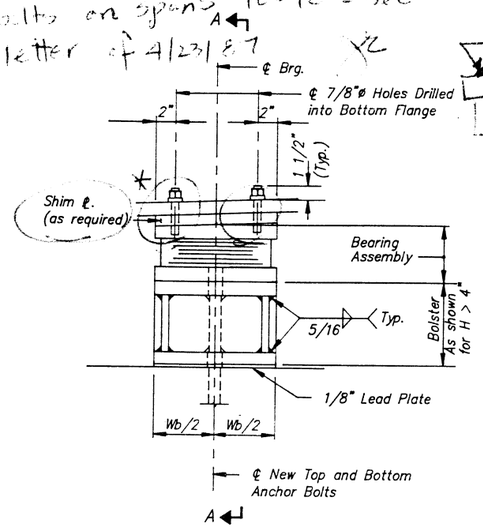
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR	ST. CLAIR	86	63
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

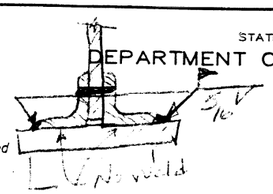
SHEET NO. 50
72 SHEETS

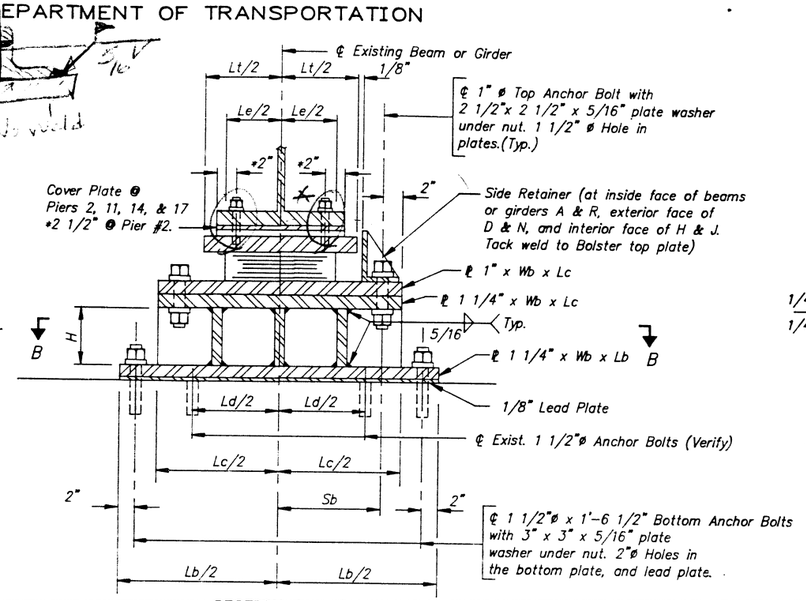


ELEVATION AT SOUTH & NORTH ABUTS. & PIERS 3, 6, 7, 8, 9, 13, & 16

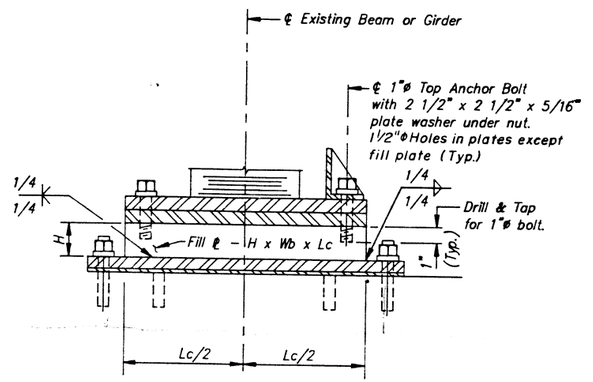


ELEVATION AT PIERS 2 & 5





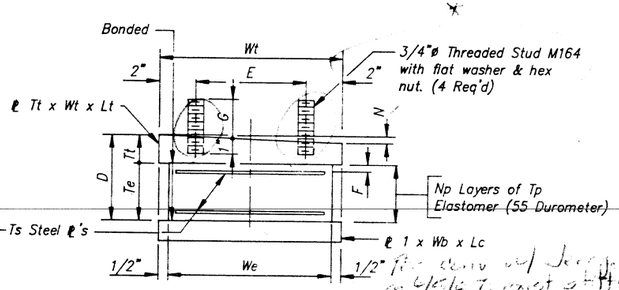
SECTION A – A
As shown for H > 4"



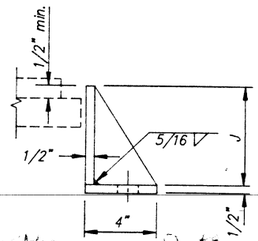
SECTION A–A
For H ≤ 4"
For details not shown, see section A–A for H > 4"

TYPE I ELASTOMERIC BRG. WITH BOLSTER

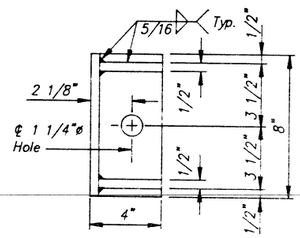
(Alignment of tapered top plate to match profile grade of beam or girder)

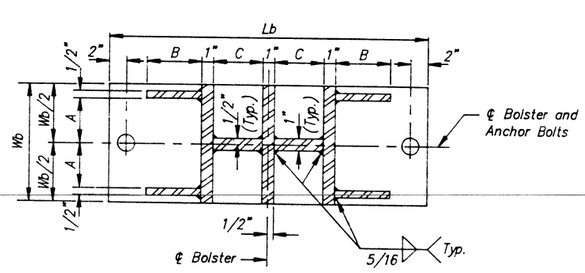


BEARING ASSEMBLY



SIDE RETAINER
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.





SECTION B – B

Notes:
1. See Sheet No. 52 for Anchor Bolt Installation
2. Contractor shall verify dimensions of existing Bearings before removal, and ordering of new Bearings, and fabrication of Bolsters.
3. Cost of Structural Steel for Bolsters is included for payment with Structural Steel.
4. For H > 4", use bolster; for H ≤ 4", use fill ℄ of thickness H.

TABLE OF VARIABLES FOR TYPE I EXPANSION BEARINGS WITH BOLSTERS

LOCATION	VARIABLE																										
	Te	We	Le	Np	Tp	Ns	Ts	Tt	Wt	Lt	Wb	Lb	Lc	Sb	Ld	A	B	C	D	E	F	G	H	J	K	M	N
South Abutment	1 3/4"	7"	1'-0"	4	3/8"	3	3/32"	1 5/8"	8"	1'-2"	8"	2'-6 1/2"	1'-10 1/2"	9 1/4"	1'-8"	3"	5 1/4"	4 1/2"	3 3/8"	4"	3/8"	2 1/2"	3 3/8"	3 1/2"	10"	6"	1/4"
Pier 2	2 3/8"	11"	1'-4"	4	1/2"	3	1/8"	2 3/4"	1'-0"	1'-6"	1'-0"	2'-10 1/2"	2'-2 1/2"	11 1/4"	1'-11"	5"	6 1/4"	5 1/2"	5 1/8"	8"	1/2"	3"	7 5/8"	5 1/8"	–	–	1/2"
Pier 3 (North)	2 1/4"	9"	1'-0"	5	3/8"	4	3/32"	1 5/8"	10"	1'-2"	10"	2'-6 1/2"	1'-10 1/2"	9 1/4"	1'-8"	4"	5 1/4"	4 1/2"	3 7/8"	6"	3/8"	2 3/4"	2 7/8"	3 7/8"	6"	1"	1/2"
Pier 5	2 13/16"	1'-0"	1'-6"	4	9/16"	3	3/16"	3"	1'-1"	1'-8"	1'-1"	3'-0 1/2"	2'-4 1/2"	1'-0 1/4"	1'-11"	5 1/2"	6 3/4"	6"	5 13/16"	9"	9/16"	2 3/4"	6 15/16"	5 7/8"	–	–	3/8"
Pier 6 (North)	4 5/16"	1'-0"	1'-6"	6	9/16"	5	3/16"	2 3/8"	1'-1"	1'-8"	1'-1"	3'-0 1/2"	2'-4 1/2"	1'-0 1/4"	1'-11"	5 1/2"	6 3/4"	6"	6 11/16"	9"	9/16"	2 1/2"	6 1/16"	6 3/4"	7"	1/2"	3/8"
Pier 7 (North)	4 5/16"	1'-0"	1'-6"	6	9/16"	5	3/16"	2 1/4"	1'-1"	1'-8"	1'-1"	3'-0 1/2"	2'-4 1/2"	1'-0 1/4"	1'-11"	5 1/2"	6 3/4"	6"	6 9/16"	9"	9/16"	2 1/2"	6 3/16"	6 5/8"	7"	1/2"	1/8"
Pier 8 (North)	3 5/8"	11"	1'-4"	6	1/2"	5	1/8"	2"	1'-0"	1'-6"	1'-0"	2'-10 1/2"	2'-2 1/2"	11 1/4"	1'-11"	5"	6 1/4"	5 1/2"	5 5/8"	8"	1/2"	2 1/2"	7 1/8"	5 5/8"	6"	0	1/8"
Pier 9 (North)	3 5/8"	11"	1'-4"	6	1/2"	5	1/8"	2"	1'-0"	1'-6"	1'-0"	2'-10 1/2"	2'-2 1/2"	11 1/4"	1'-11"	5"	6 1/4"	5 1/2"	5 5/8"	8"	1/2"	2 1/2"	7 1/8"	5 5/8"	6"	0	3/8"
Pier 13 (South)	3 3/16"	9"	1'-0"	7	3/8"	6	3/32"	1 1/2"	10"	1'-2"	10"	2'-6 1/2"	1'-10 1/2"	9 1/4"	1'-8"	4"	5 1/4"	4 1/2"	4 11/16"	6"	3/8"	2 1/4"	2 1/16"	4 3/4"	6"	1"	3/8"
Pier 16 (South)	3 3/16"	9"	1'-0"	7	3/8"	6	3/32"	1 1/2"	10"	1'-2"	10"	2'-6 1/2"	1'-10 1/2"	9 1/4"	1'-8"	4"	5 1/4"	4 1/2"	4 11/16"	6"	3/8"	2 1/4"	2 1/16"	4 3/4"	6"	1"	3/8"
North Abutment	3 3/16"	9"	1'-0"	7	3/8"	6	3/32"	1 1/2"	10"	1'-2"	10"	2'-6 1/2"	1'-10 1/2"	9 1/4"	1'-8"	4"	5 1/4"	4 1/2"	4 11/16"	6"	3/8"	2 1/4"	2 1/16"	4 3/4"	6"	1"	3/8"

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	176

HE HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

FILE NUMBER
DRAWN BY EI
CHECKED BY GW
APPROVED BY Dla

\555\bearing 12-8-86

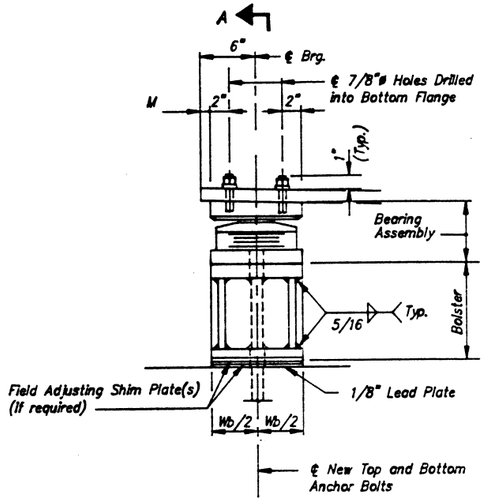
REPLACEMENT BEARING DETAILS
F.A.I. RT. 70 SEC. 82-5VBR
ST. CLAIR COUNTY
STATION 81+42.68

REV. 1-22-87

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR	ST. CLAIR	86	64
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

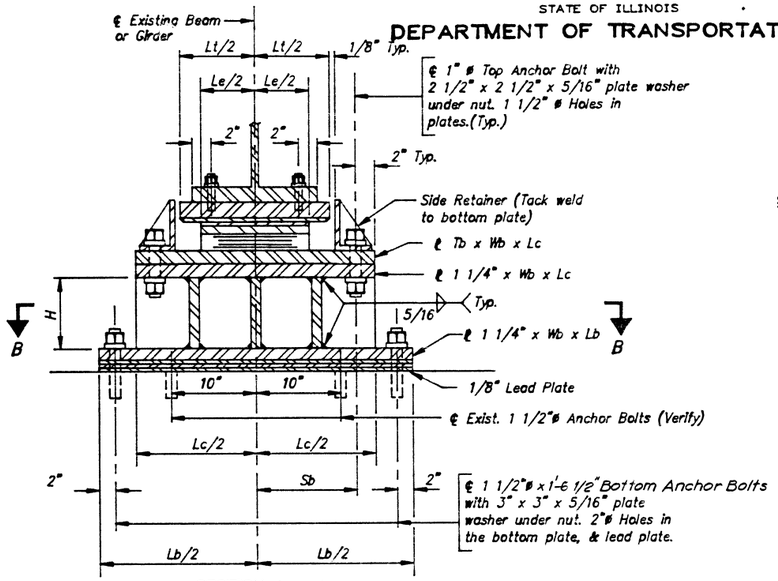
SHEET NO. 51
72 SHEETS



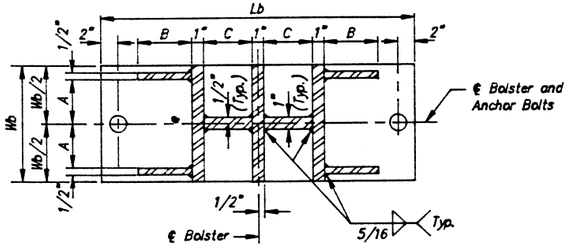
ELEVATION

TYPE II TFE ELASTOMERIC EXP. BRG. WITH BOLSTER

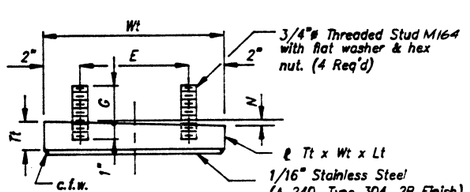
(Alignment of tapered top plate to match profile grade of beam or girder)



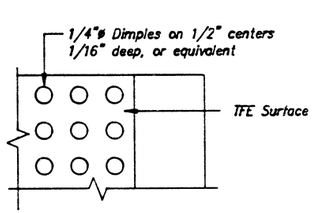
SECTION A – A



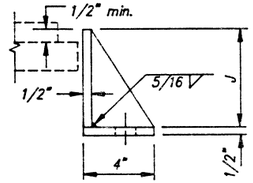
SECTION B – B



TOP BEARING ASSEMBLY

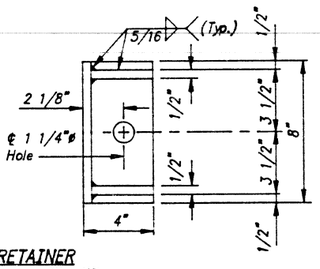


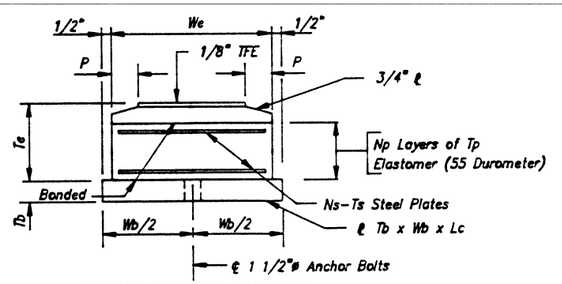
PLAN – TFE SURFACE



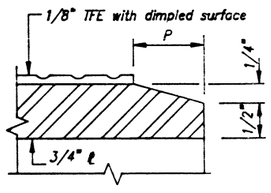
SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

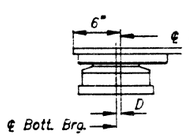




BOTTOM BEARING ASSEMBLY

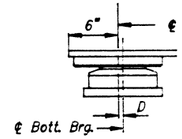


SECTION THRU TFE



BELOW 50° F

(Move bott. brg. away from fixed brg.)



ABOVE 50° F

(Move bott. brg. toward fixed brg.)

SETTING ANCHOR BOLTS AT EXP. BRG.

D=1/8" per each 100° of expansion for every 15° temp. change from the normal temp. of 50° F.

Notes:

1. See Sheet No. 52 for Anchor Bolt Installation.
2. The 1/8" TFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I.
   The bond agent shall be applied on the full area of the contact surfaces. Bonding of 1/8" TFE sheet during vulconizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.
3. Contractor shall verify dimensions of exist. Bearings before removal, and ordering of new Bearings, and fabrication of Bolsters.
4. Cost of Structural Steel for Bolsters is included for payment with Structural Steel.
5. All Steel plates shown on this sheet shall be AASHTO M-183 unless otherwise noted.
6. A fill plate of thickness "H" may be provided in lieu of the rib plates shown in the detail. For this option the fill plate shall be welded all around to the 1 1/4" thick top & bottom bolster plates with 1/4" fillet welds or partial penetration groove welds. The 1"ø top Anchor bolts fastening the bottom plate of the elastomeric bearing assembly will then require taping into the bolster plates.

TABLE OF VARIABLES FOR TYPE II EXPANSION BEARINGS WITH BOLSTERS

LOCATION	VARIABLE																							
	Te	We	Le	Np	Tp	Ns	Ts	Tt	Wt	Lt	Tb	Wb	Lb	Lc	Sb	A	B	C	E	G	H	J	M	N	P
Pier 3 (South)	3 1/8"	7"	1'-0"	5	3/8"	4	3/32"	1 5/8"	8 3/8"	1'-2"	1 1/4"	8"	2'-6 1/2"	1'-10 1/2"	9 1/4"	3"	5 1/4"	4 1/2"	4 3/8"	2"	1 3/4"	4 7/8"	1 13/16"	5/16"	1"
Pier 6 (South)	3 1/8"	7"	1'-0"	5	3/8"	4	3/32"	1 1/2"	8 3/4"	1'-4 1/2"	1 3/8"	8"	2'-9"	2'-1"	10 1/2"	3"	5 3/4"	5 1/4"	4 3/4"	2 1/4"	1 3/4"	4 3/4"	1 5/8"	1/4"	1"
Pier 10 (North)	4 1/8"	10"	1'-2"	6	7/16"	5	1/8"	1 3/4"	10"	1'-4"	1 1/8"	11"	2'-6 1/2"	2'-0 1/2"	10 1/4"	4 1/2"	5 1/4"	4 1/2"	6"	1 3/4"	3/4"	6"	1"	3/8"	1 1/2"
Pier 13 (North)	4 1/8"	10"	1'-2"	6	7/16"	5	1/8"	1 3/4"	10"	1'-4"	1 1/8"	11"	2'-6 1/2"	2'-0 1/2"	10 1/4"	4 1/2"	5 1/4"	4 1/2"	6"	1 3/4"	3/4"	6"	1"	3/8"	1 1/2"
Pier 16 (North)	4 1/8"	10"	1'-2"	6	7/16"	5	1/8"	1 3/4"	10"	1'-4"	1 1/8"	11"	2'-6 1/2"	2'-0 1/2"	10 1/4"	4 1/2"	5 1/4"	4 1/2"	6"	1 3/4"	3/4"	6"	1"	3/8"	1 1/2"

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type II	Each	80

HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

FILE NUMBER
DRAWN BY ET
CHECKED BY GW
APPROVED BY DHE

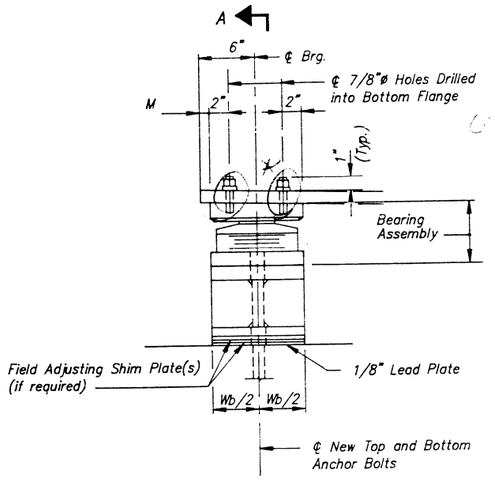
\333\82BRG 12-6-86

REPLACEMENT BEARING DETAILS
F.A.I. RT. 70 SEC. 82-5VBR
ST. CLAIR COUNTY
STATION 81+42.68

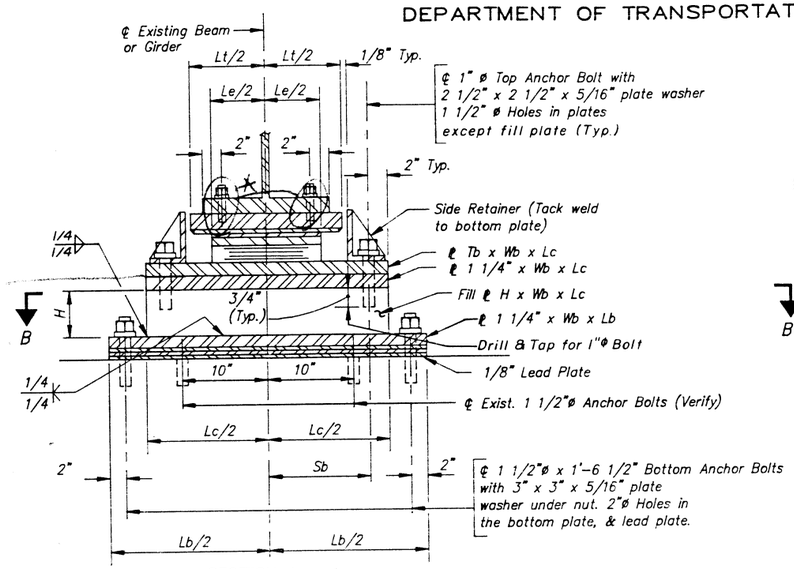
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR	ST. CLAIR	86	64
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

SHEET NO. 51
72 SHEETS



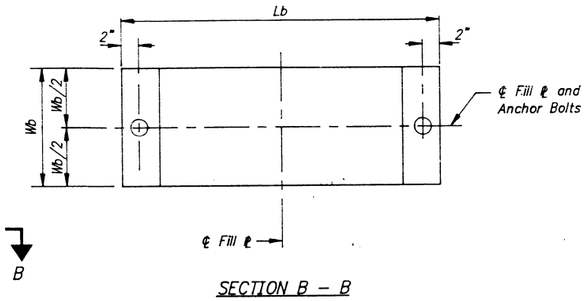
ELEVATION



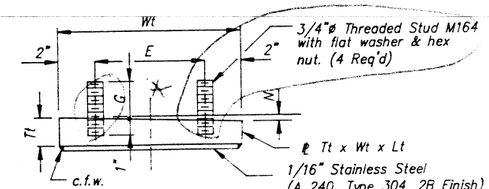
SECTION A – A

TYPE II TFE ELASTOMERIC EXP. BRG. WITH BOLSTER

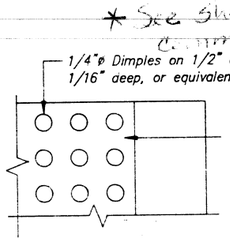
(Alignment of tapered top plate to match profile grade of beam or girder)



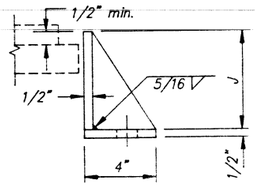
SECTION B – B

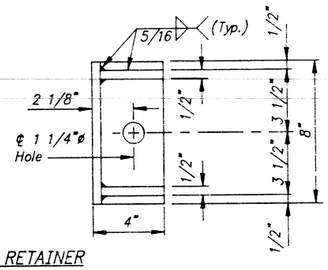


TOP BEARING ASSEMBLY



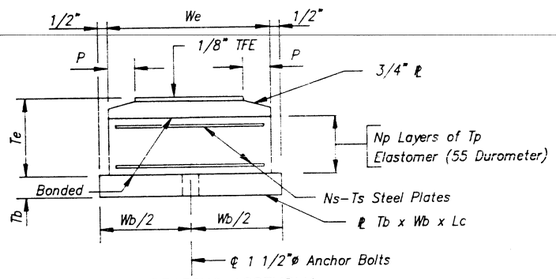
PLAN – TFE SURFACE



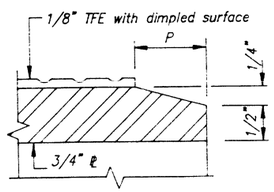


SIDE RETAINER

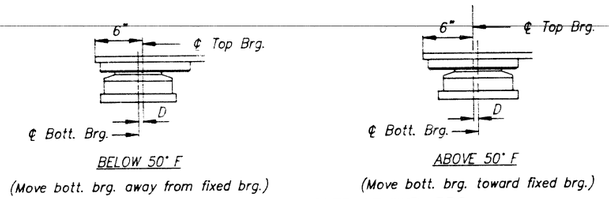
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



BOTTOM BEARING ASSEMBLY



SECTION THRU TFE



SETTING ANCHOR BOLTS AT EXP. BRG.

D=1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50° F.

Notes:

1. See Sheet No. 52 for Anchor Bolt Installation.
2. The 1/8" TFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces. Bonding of 1/8" TFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.
3. Contractor shall verify dimensions of exist. Bearings before removal, and ordering of new Bearings, and fabrication of Bolsters.
4. Cost of Structural Steel for Bolsters is included for payment with "Structural Steel Repair."
5. All Steel plates shown on this sheet shall be AASHTO M-183 unless otherwise noted.

TABLE OF VARIABLES FOR TYPE II EXPANSION BEARINGS WITH BOLSTERS

LOCATION	VARIABLE																								
	Te	We	Le	Np	Tp	Ns	Ts	Tt	Wt	Lt	Tb	Wb	Lb	Lc	Sb	A	B	C	E	G	H	J	M	N	P
Pier 3 (South)	3 1/8"	7"	1'-0"	5	3/8"	4	3/32"	1 5/8"	8 3/8"	1'-2"	1 1/4"	8"	2'-6 1/2"	1'-10 1/2"	9 1/4"	3"	5 1/4"	4 1/2"	4 3/8"	2"	1 3/4"	4 7/8"	1 13/16"	5/16"	1"
Pier 6 (South)	3 1/8"	7"	1'-0"	5	3/8"	4	3/32"	1 1/2"	8 3/4"	1'-4 1/2"	1 3/8"	8"	2'-9"	2'-1"	10 1/2"	3"	5 3/4"	5 1/4"	4 3/4"	2 1/4"	1 3/4"	4 3/4"	1 5/8"	1/4"	1"
Pier 10 (North)	4 1/8"	10"	1'-2"	6	7/16"	5	1/8"	1 3/4"	10"	1'-4"	1 1/8"	11"	2'-6 1/2"	2'-0 1/2"	10 1/4"	4 1/2"	5 1/4"	4 1/2"	6"	1 3/4"	3/4"	6"	1"	3/8"	1 1/2"
Pier 13 (North)	4 1/8"	10"	1'-2"	6	7/16"	5	1/8"	1 3/4"	10"	1'-4"	1 1/8"	11"	2'-6 1/2"	2'-0 1/2"	10 1/4"	4 1/2"	5 1/4"	4 1/2"	6"	1 3/4"	3/4"	6"	1"	3/8"	1 1/2"
Pier 16 (North)	4 1/8"	10"	1'-2"	6	7/16"	5	1/8"	1 3/4"	10"	1'-4"	1 1/8"	11"	2'-6 1/2"	2'-0 1/2"	10 1/4"	4 1/2"	5 1/4"	4 1/2"	6"	1 3/4"	3/4"	6"	1"	3/8"	1 1/2"

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type II	Each	80

HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

FILE NUMBER
DRAWN BY EI
CHECKED BY GW
APPROVED BY RHA

\555\ABRG 12-6-86

REPLACEMENT BEARING DETAILS
F.A.I. RT. 70 SEC. 82-5VBR
ST. CLAIR COUNTY
STATION 81+42.68

REV. 1-22-87

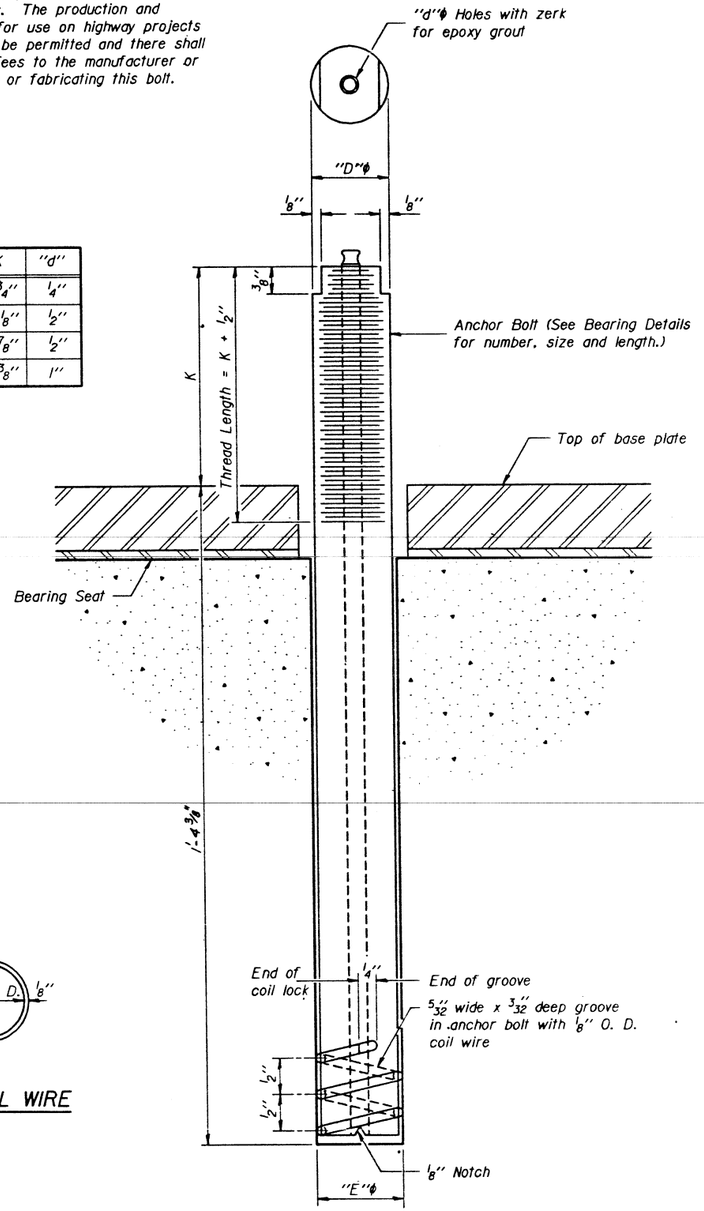
The Illinois Coil-Lock Anchor Bolt is a proprietary item which is the property of the Illinois Department of Transportation. Use, reproduction or disclosure without express written permission is prohibited and protected under Federal copyright laws. The production and the fabrication of this bolt for use on highway projects in the State of Illinois shall be permitted and there shall be no incurred charges or fees to the manufacturer or the fabricator for producing or fabricating this bolt.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

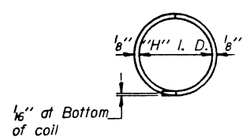
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82 5VBR	ST. CLAIR	86	65
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 52
72 SHEETS

D	E	H	K	"d"
1"	1 1/8"	13/16"	1 3/4"	1/4"
1 1/2"	1 5/8"	1 5/16"	2 1/8"	1/2"
2"	2 1/8"	1 13/16"	2 7/8"	1/2"
2 1/2"	2 5/8"	2 5/16"	3 3/8"	1"



ILLINOIS COIL-LOCK ANCHOR BOLT



PLAN-COIL WIRE

MATERIALS FOR ILLINOIS COIL-LOCK ANCHOR BOLT

The anchor bolt shall be fabricated from cold drawn or hot finished seamless carbon steel mechanical tubing conforming to ASTM A519, Grade 1026 and supplied with hexagonal nuts and cut washers.

The coil wire shall be made of any suitable soft steel wire.

The finished anchor bolt shall be cleaned of rust and other foreign materials and wrapped or packaged to prevent contamination until they are installed.

The epoxy grout shall be a two-component, epoxy resin bonding system comforming to ASTM C881, Type I, Grade I and of a Class suitable for the temperature at installation.

INSTALLATION PROCEDURE for the ILLINOIS COIL-LOCK ANCHOR BOLT

1. With the coil wire in place, the bolt shall be inserted into the hole and turned clockwise to a snug fit in the hole. Nut and washer shall be placed on the bolt. The nut shall be tensioned until the steel base plates are held securely to the concrete bearing seat.
2. Epoxy grout shall be pumped through the zerk fitting with a pressure gun. Pumping shall continue until the epoxy overflows the hole around the bolt shank. After pumping is discontinued, excess epoxy shall be immediately wiped off.

ALTERNATE ANCHOR BOLTS

The Contractor may use, at his option, the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes in accordance with the manufacturer's recommendations and procedures.

The capsule or the adhesive cartridge type anchor rods shall be a two part system composed of:

1. A threaded rod stud with nut and washer conforming to ASTM A307.
2. A sealed glass capsule or a sealed glass adhesive cartridge containing premeasured amounts of the adhesive chemical.

GENERAL NOTES

Holes in the masonry for anchor bolts shall be drilled through the base plates to the diameter and depth shown or in accordance with the manufacturer's recommendation after beams or girders have been erected and adjusted.

Prior to setting the bolts, the holes shall be dry and all dust and loose particles shall be removed by the use of compressed air or vacuuming.

The anchor bolts, furnished and installed and including the epoxy grout or capsules shall not be paid for separately but shall be included in the unit bid price for "Furnishing and Erecting Structural Steel".

DESIGNED	
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DRAWN	D D
CHECKED	Dla

ABB-1 12-1-83

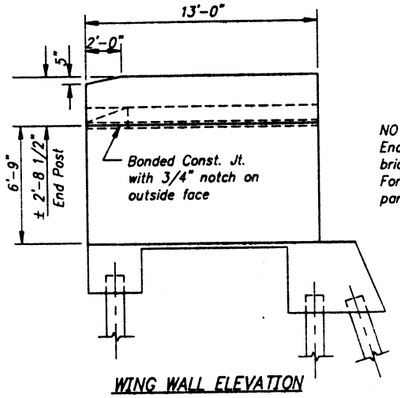
ANCHOR BOLT DETAILS FOR BEARINGS

F.A.I. ROUTE 70 SEC. 82-5 VBR
ST. CLAIR COUNTY
STA. 81+42.68

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

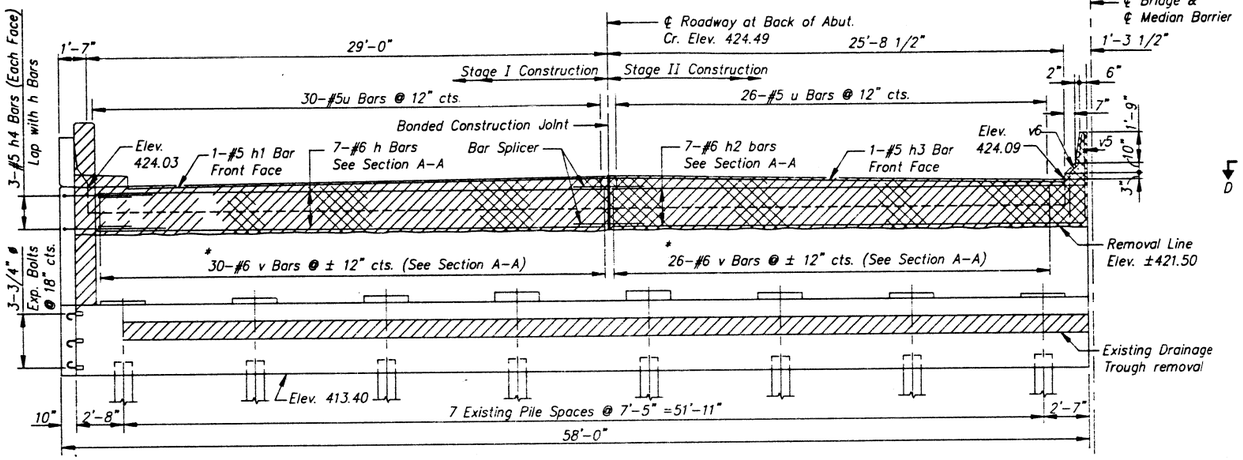
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR	ST. CLAIR	86	66
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

SHEET NO. 53
72 SHEETS



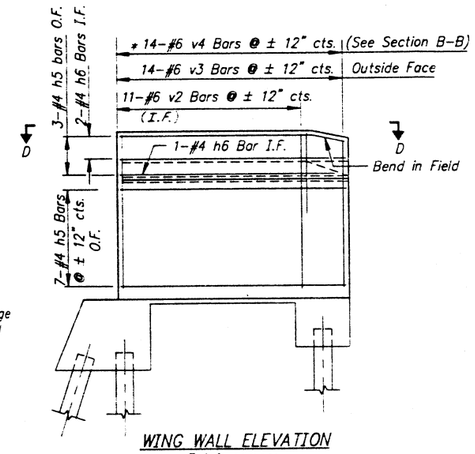
WING WALL ELEVATION

NOTE:
End Post shall be poured after bridge parapet is in place. Form top surface to match parapet grade.

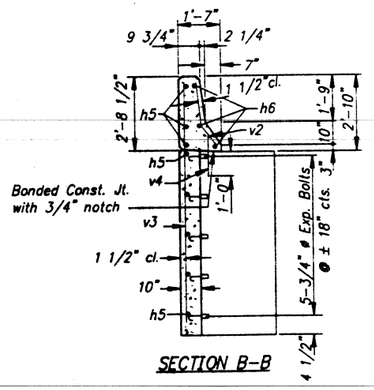


HALF ELEVATION
(Looking North)

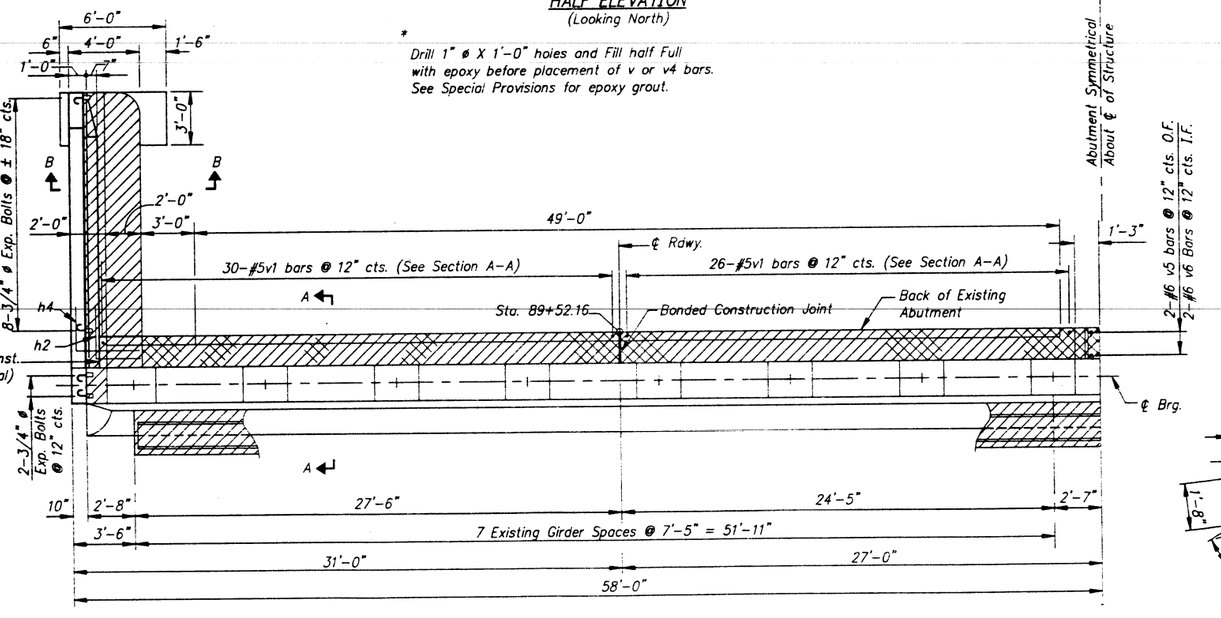
* Drill 1" ø X 1'-0" holes and Fill half Full with epoxy before placement of v or v4 bars. See Special Provisions for epoxy grout.



WING WALL ELEVATION
Reinforcement

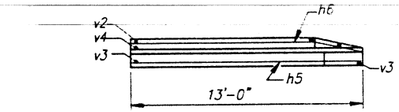


SECTION B-B



HALF PLAN

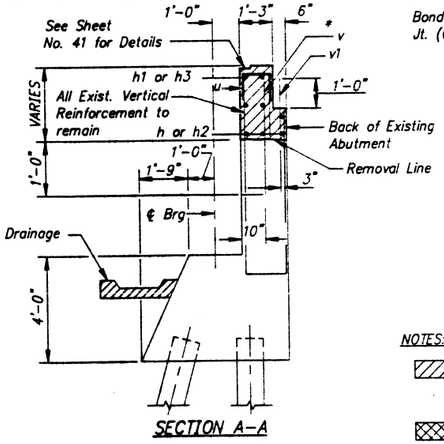
Abutment Symmetrical About ℄ of Structure



SECTION D-D

NORTH ABUTMENT
BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
h	14	# 6	29'-2"	
h1	2	# 5	29'-2"	
h2	14	# 6	26'-9"	
h3	2	# 5	26'-9"	
h4	12	# 5	5'-9"	
h5	20	# 4	12'-9"	
h6	6	# 4	12'-10"	
u	112	# 5	1'-4"	
v	112	# 6	3'-3"	
v1	112	# 5	2'-3"	
v2	22	# 6	2'-8"	
v3	28	# 6	9'-2"	
v4	28	# 6	2'-0"	
v5	4	# 6	4'-11"	
v6	4	# 6	4'-11"	
Concrete Removal			Cu.Yd.	41
Class X Concrete			Cu.Yd.	13.3
Reinforcement Bars			Pound	3180
Expansion Bolts 3/4 Inch			Each	92



SECTION A-A

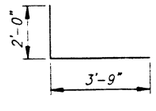
NOTES:

Indicates concrete removal. Reinforcement extending into removed area shall be cleaned and incorporated into the new construction.

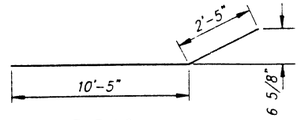
Shall be poured after superstructure forms are removed. Quantity of Class "X" Concrete in this area is billed with the Superstructure Bill of Material Spans 17-19.

Expansion bolts shall be anchored in sound concrete.

All edges shall have Standard 3/4" chamfer.

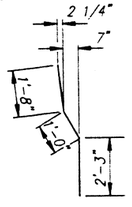


BAR h4

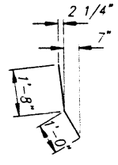


BAR h6

BAR u



BAR V6



BAR v2

HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

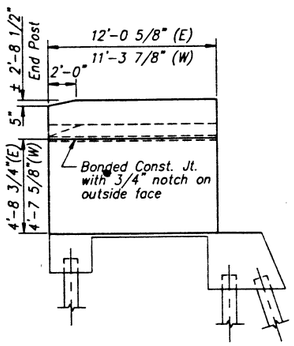
FILE NUMBER
DRAWN BY D.D. / S.O.I.
CHECKED BY Mr
APPROVED BY
555\ABUT 12-12-86

NORTH ABUTMENT
F.A.I. RT. 70 SEC. 82-5VBR
ST. CLAIR COUNTY
STATION 81+42.68

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

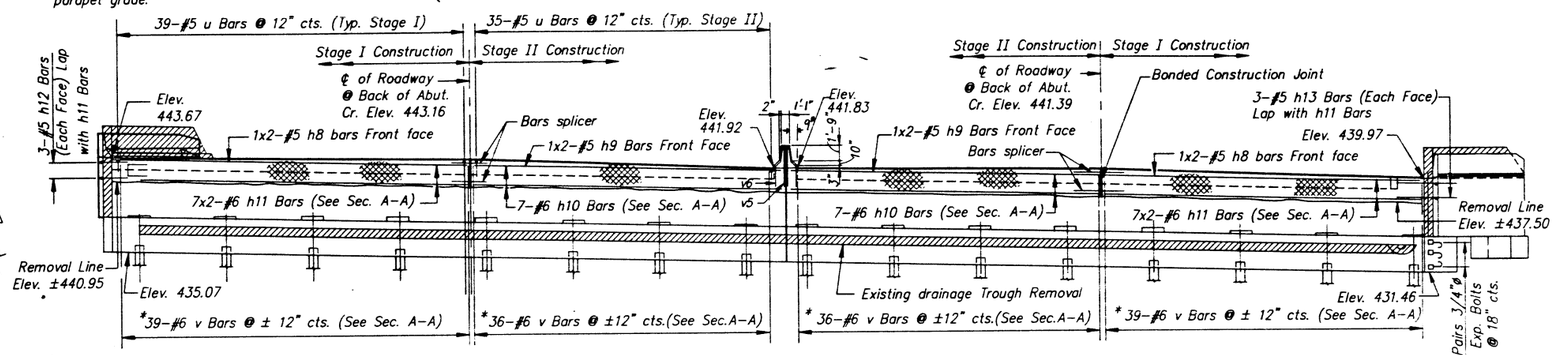
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-5VBR	ST. CLAIR	86	67
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

SHEET NO. 54
72 SHEETS

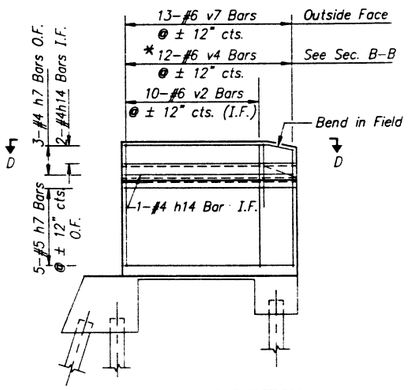


WING WALL ELEVATION

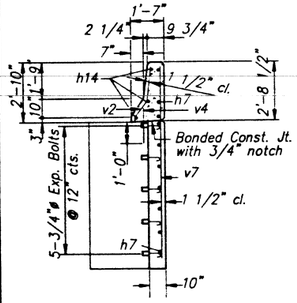
NOTE:
End Post shall be poured after bridge parapet is in place.
Form top surface to match parapet grade.



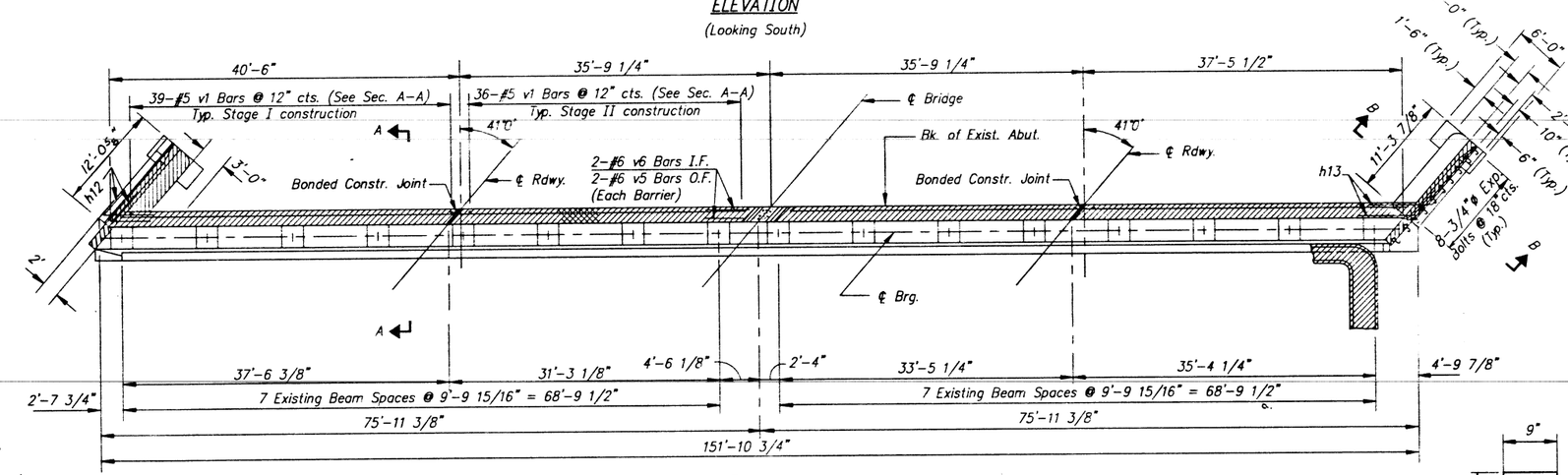
ELEVATION
(Looking South)



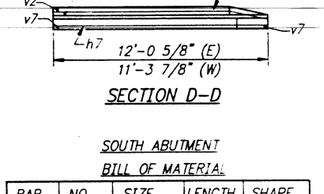
WING WALL ELEVATION
Reinforcement



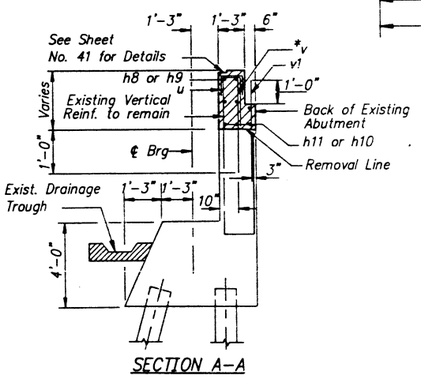
SECTION B-B



PLAN



SECTION D-D



SECTION A-A

* Drill 1" ø x 1'-0" holes and fill half full with epoxy before placement of v or v4 bars. See Special Provisions for epoxy grout.

NOTES:

Indicates concrete removal. Reinforcement extending into removed area shall be cleaned and incorporated into the new construction.

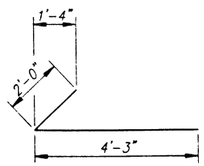
Shall be poured after superstructure forms are removed. Quantity of Class "X" Concrete in this area is billed with the Superstructure Bill of Material Spans 1-3.

Expansion bolts shall be anchored in sound concrete.

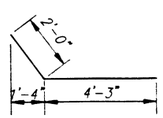
All edges shall have standard 3/4" chamfer.

Minimum bar laps; #5 = 1'-8"
#6 = 2'-0"

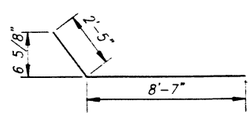
Bar indicated thus 1x2-#5 etc. indicates 1 line of bars with 2 lengths per line.



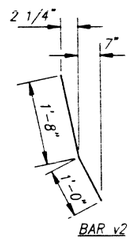
BAR h12



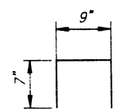
BAR h13



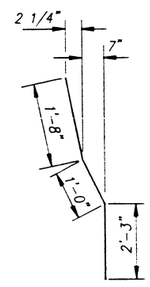
BAR h14



BAR v2



BAR U



BAR v6

SOUTH ABUTMENT
BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
h7	16	# 4	11'-1"	
h8	4	# 5	19'-5"	
h9	4	# 5	18'-7"	
h10	14	# 6	35'-6"	
h11	28	# 6	19'-7"	
h12	6	# 5	6'-3"	
h13	6	# 5	6'-3"	
h14	6	# 4	11'-0"	
u	148	# 5	1'-4"	
v	150	# 6	3'-3"	
v1	150	# 5	2'-3"	
v2	20	# 6	2'-8"	
v4	24	# 6	2'-0"	
v5	4	# 6	4'-11"	
v6	4	# 6	4'-11"	
v7	26	# 6	7'-0"	
Concrete Removal			Cu. Yd.	52
Class X Concrete			Cu. Yd.	7.0
Reinforcement Bars			Pound	3740
Expansion Bolts 3/4 Inch			Each	86

HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

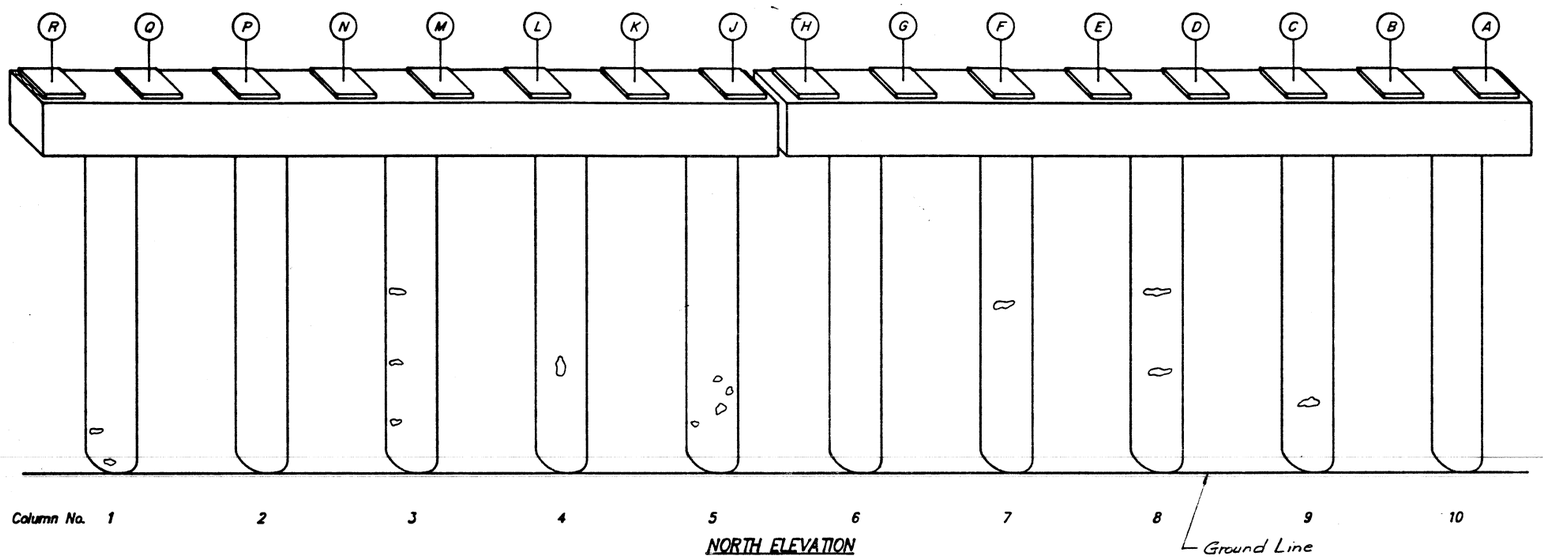
FILE NUMBER
DRAWN BY D.D. / S.O.J.
CHECKED BY M r
APPROVED BY

SOUTH ABUTMENT
F.A.I. RT. 70 SEC. 82-5VBR
ST. CLAIR COUNTY
STATION 81+42.68

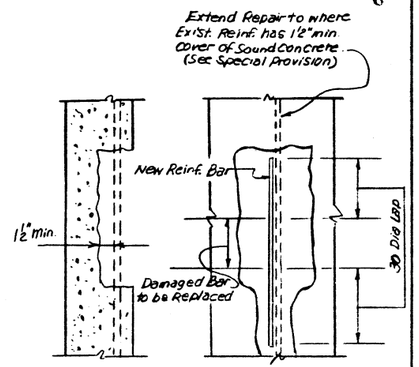
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82 SVBR	ST. CLAIR	86	68
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

SHEET NO. 55
72 SHEETS

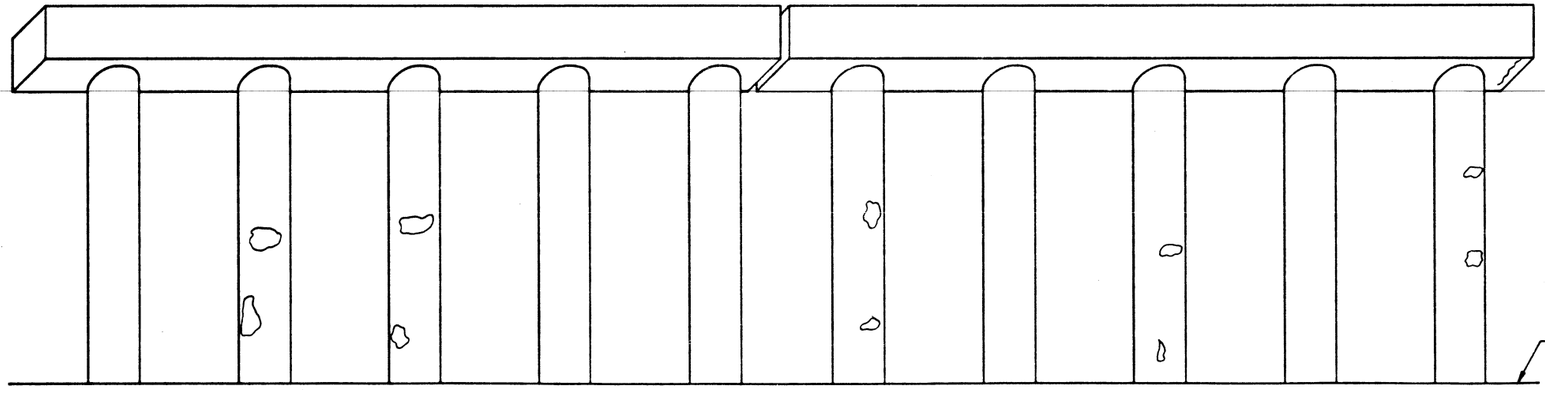


NORTH ELEVATION



DETAIL OF REPAIR CONCRETE STRUCTURES

Note:
Detail Applies Where Existing Reinforcement Is Exposed As a Result of Removing Unsound Concrete. Existing Reinforcement Having 25% or more of Cross Sectional Area Lost Due Corrosion or Damage During Concrete Removal Shall be Replaced by New Reinforcement Lapped As Shown. Payment for Added Reinforcement Steel Shall be at the Unit Price for Reinforcement Bars.



SOUTH ELEVATION

LEGEND

- Spalled Area
- Shallow Cracks
- Area to be Rehabilitated under item of "Repair Concrete Structures" (AxB) denotes estimated width and length.

ITEM	UNIT	QUANTITY
Repair Concrete Structures	Sq.Ft.	0

Note: See Special Provisions for the repair of spalled and cracked areas. Cost for the repair of Spalled and Cracked areas is to be incidental to Repair Concrete Structures.

HE HAZELET + ERDAL, INC.
CONSULTING ENGINEERS
FILE NUMBER
DRAWN BY S.O.L.
CHECKED BY D.E.M.
APPROVED BY D.I.G.

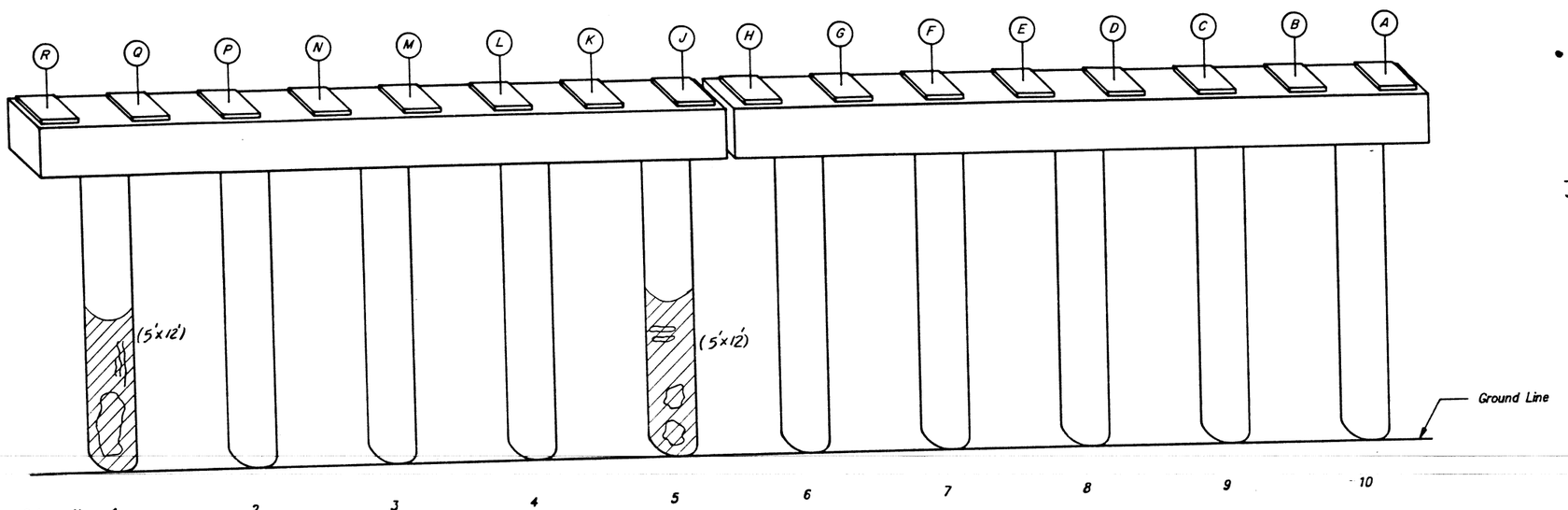
SUBSTRUCTURE REPAIR
PIER NO. 1

F.A.I. ROUTE 70 SECTION 82-5VB
ST. CLAIR COUNTY
STA. 81+42.68

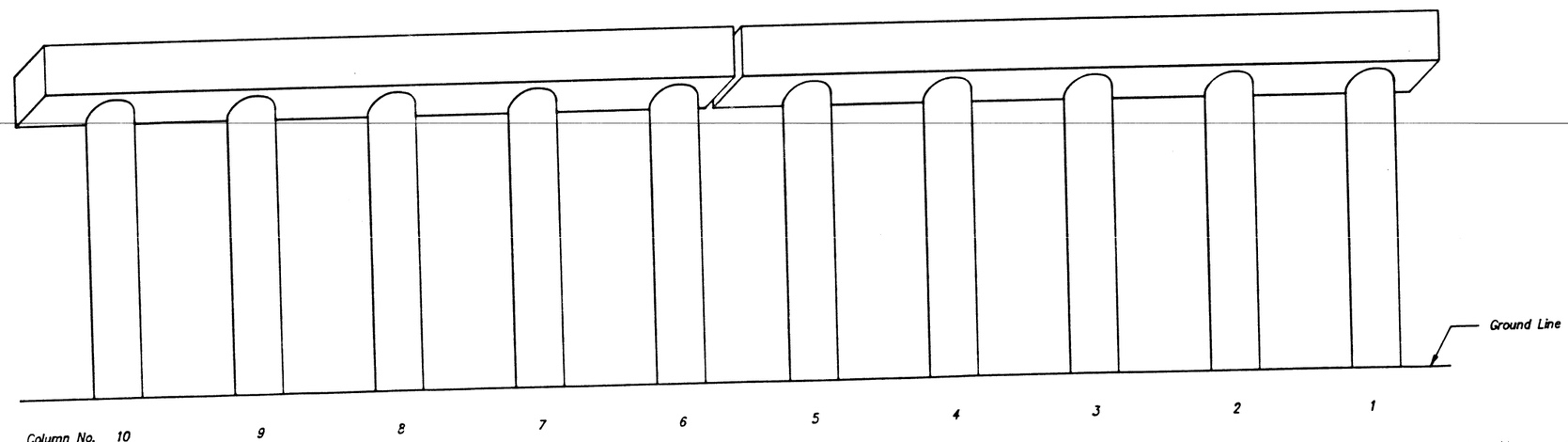
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82 5VBR	ST. CLAIR	86	69
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT		

SHEET NO. 56
72 SHEETS



NORTH ELEVATION



SOUTH ELEVATION

LEGEND

- Spalled Area
- Shallow Cracks
- Area to be Rehabilitated under item of "Repair Concrete Structures" (AxB) denotes estimated width and length.

ITEM	UNIT	QUANTITY
Repair Concrete Structures	Sq.Ft.	120

Note: See Special Provisions for the repair of spalled and cracked areas. Cost for the repair of Spalled and Cracked areas is to be incidental to Repair Concrete Structures.

SUBSTRUCTURE REPAIR
PIER NO. 2

F.A.I. ROUTE 70 SECTION 82-5VB
ST. CLAIR COUNTY
STA. 81+42.68

HE HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

FILE NUMBER
DRAWN BY S.O.I.
CHECKED BY DEM
APPROVED BY R.L.G.

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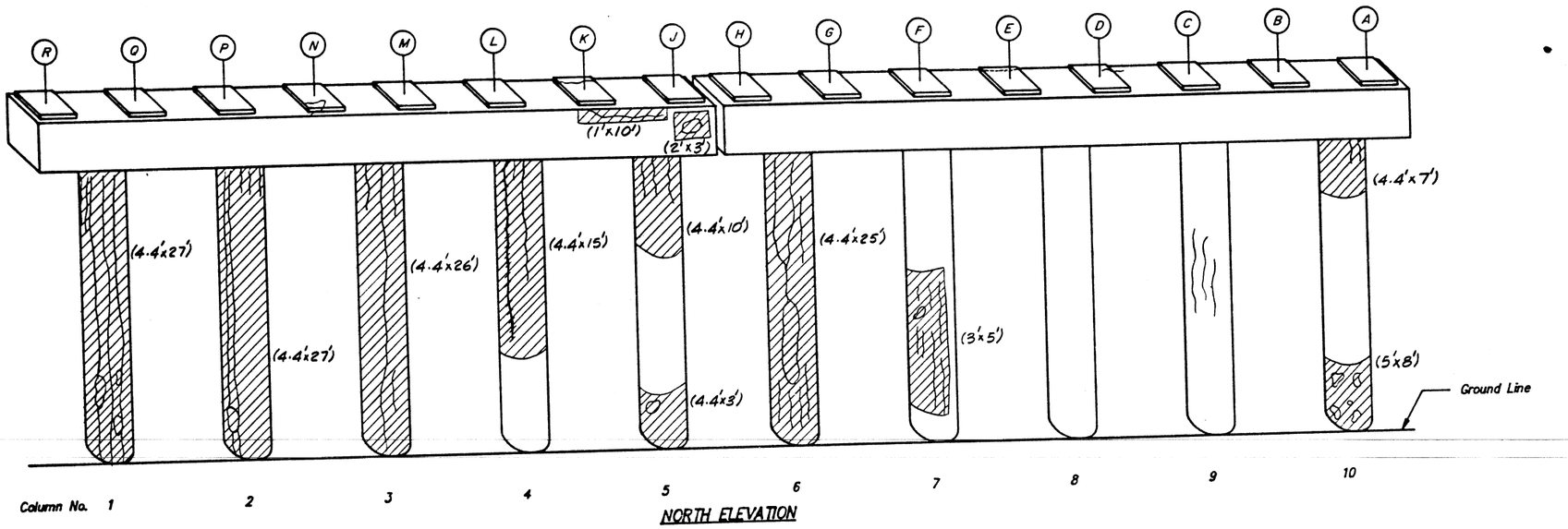
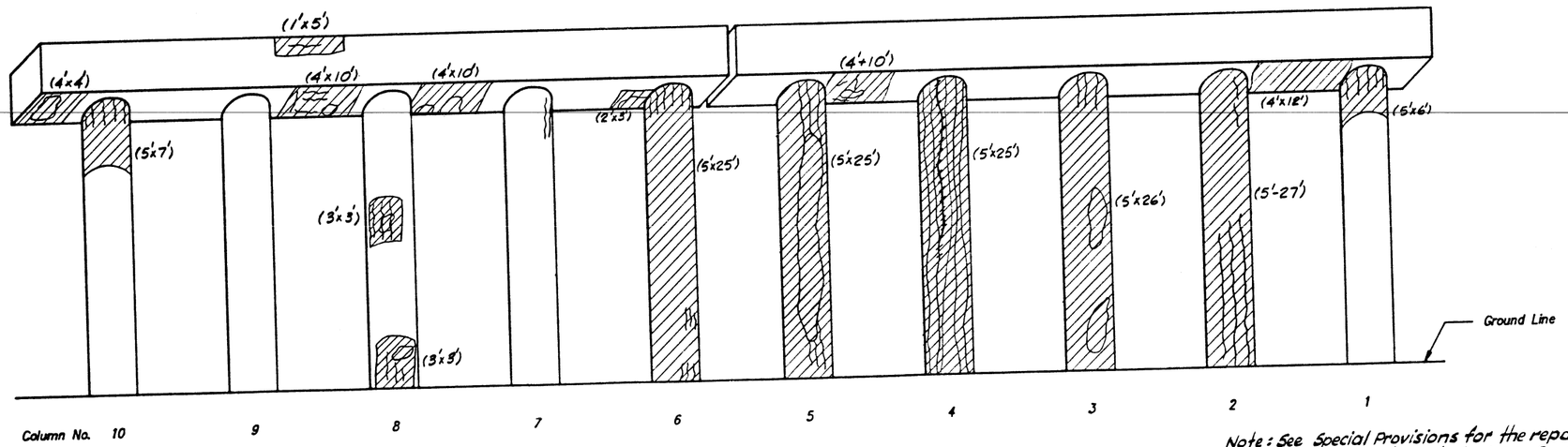
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82 5VBR	ST. CLAIR	86	70
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

SHEET NO. 57
72 SHEETS



NORTH ELEVATION



SOUTH ELEVATION

LEGEND

- Spalled Area
- Shallow Cracks
- Area to be Rehabilitated under item of "Repair Concrete Structures" (AxB) denotes estimated width and length.

ITEM	UNIT	QUANTITY
Repair Concrete Structures	Sq.Ft.	1605

Note: See Special Provisions for the repair of spalled and cracked areas. Cost for the repair of spalled and cracked areas is to be incidental to Repair Concrete Structures.

SUBSTRUCTURE REPAIR
PIER NO. 3

F.A.I. ROUTE 70 SECTION 82-5VB
ST. CLAIR COUNTY
STA. 81+42.68

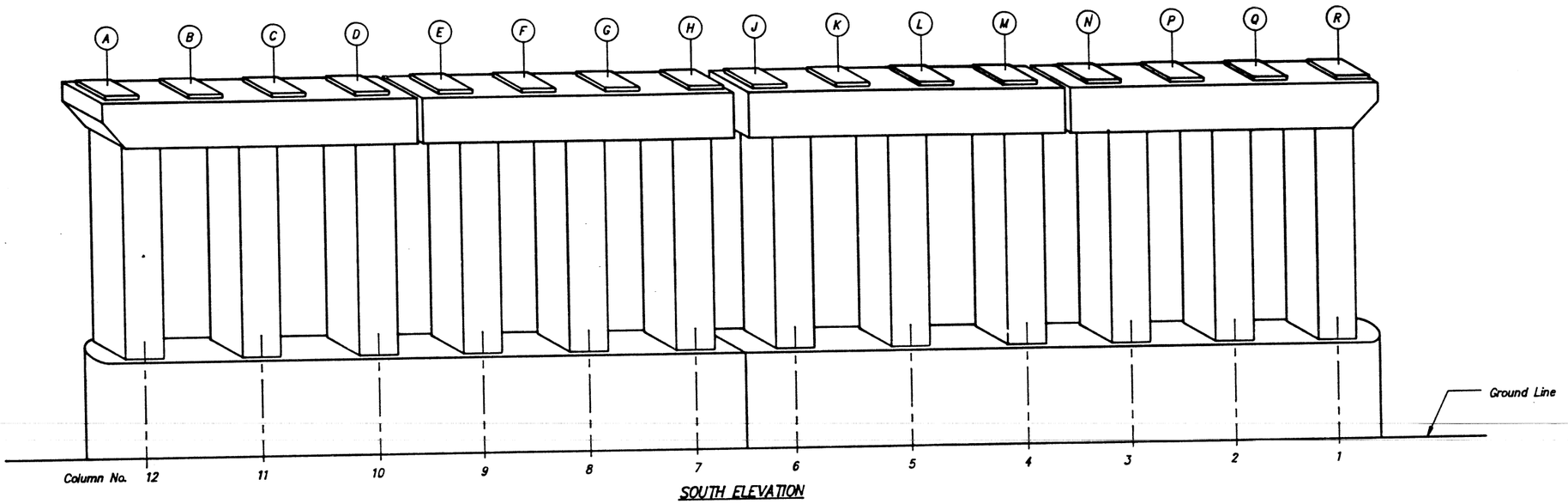
HE HAZELET + ERDAL, INC.
CONSULTING ENGINEERS
FILE NUMBER
DRAWN BY S.O.I.
CHECKED BY DEM
APPROVED BY DEM

51

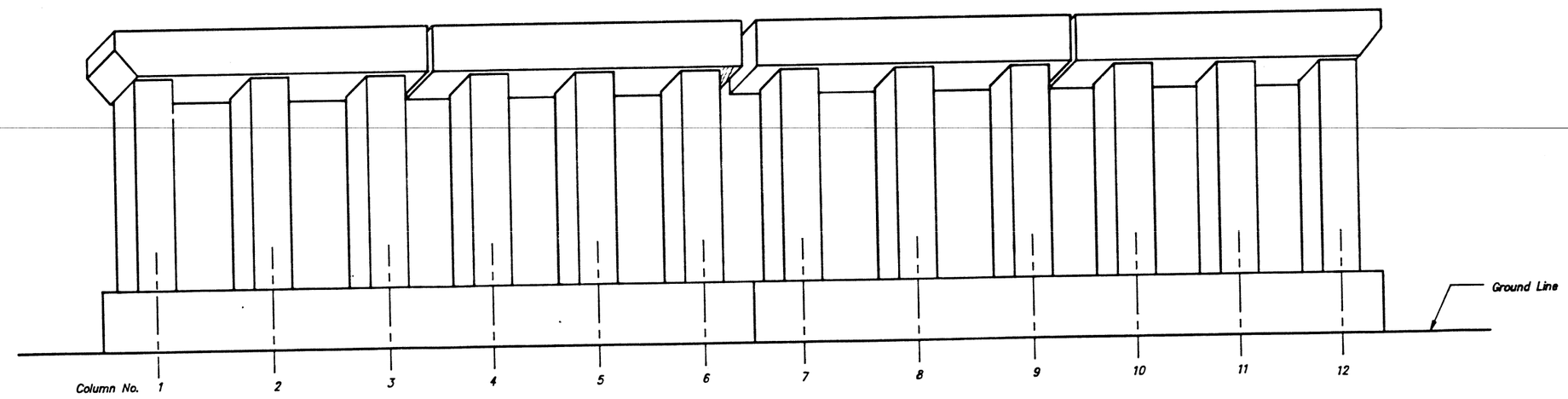
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82 SVBR	ST. CLAIR	86	71
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

SHEET NO. 58
72 SHEETS



SOUTH ELEVATION



NORTH ELEVATION

LEGEND

Spalled Area

Shallow Cracks

Area to be Rehabilitated under item of "Repair Concrete Structures" (AxB) denotes estimated width and length.

ITEM	UNIT	QUANTITY
REPAIR CONCRETE STRUCTURES	Sq.Ft.	0

Note: See Special Provisions for the repair of spalled and cracked areas. Cost for the repair of Spalled and Cracked Areas is to be incidental to Repair Concrete Structures.

SUBSTRUCTURE REPAIR
PIER NO. 4

F.A.I. ROUTE 70 SECTION 82-5VB
ST. CLAIR COUNTY
STA. 81+42.68

HE HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

FILE NUMBER
DRAWN BY S.O.I.
CHECKED BY DEM
APPROVED BY

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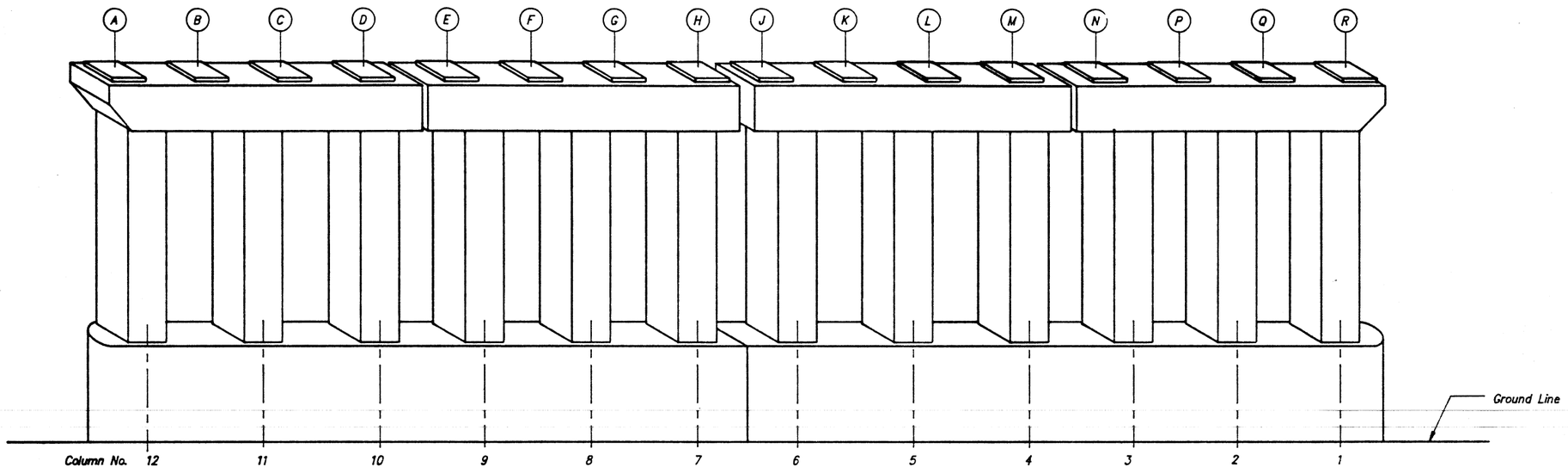
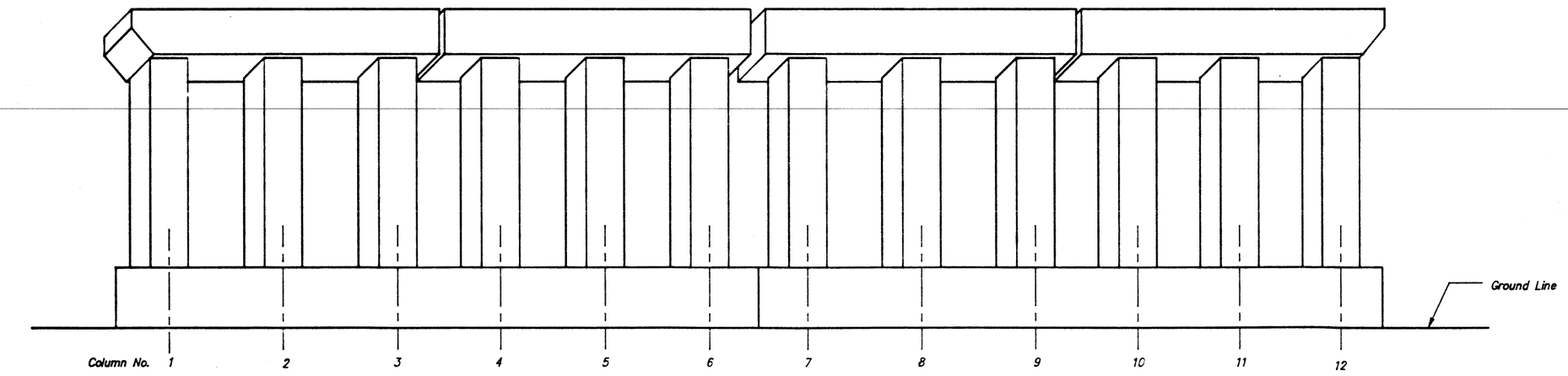
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82 5VB R	ST. CLAIR	86	72
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

SHEET NO. 59
72 SHEETS



SOUTH ELEVATION



NORTH ELEVATION

LEGEND

Spalled Area

Shallow Cracks

Area to be Rehabilitated under item of "Repair Concrete Structures" (AxB) denotes estimated width and length.

ITEM	UNIT	QUANTITY
REPAIR CONCRETE STRUCTURES	Sq.Ft.	0

Note: See Special Provisions for the repair of spalled and cracked areas. Cost for the repair of Spalled and Cracked areas is to be incidental to Repair Concrete Structures

SUBSTRUCTURE REPAIR
PIER NO. 5

F.A.I. ROUTE 70 SECTION 82-5VB
ST. CLAIR COUNTY
STA. 81+42.68

HE HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

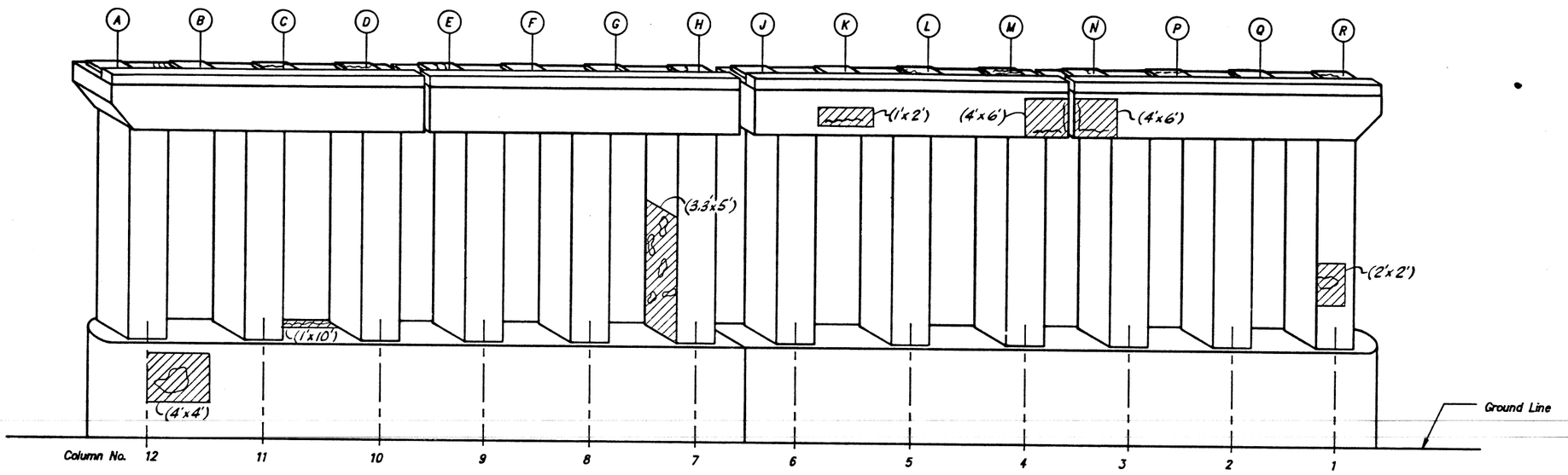
FILE NUMBER
DRAWN BY S.G.I.
CHECKED BY DE M
APPROVED BY

59

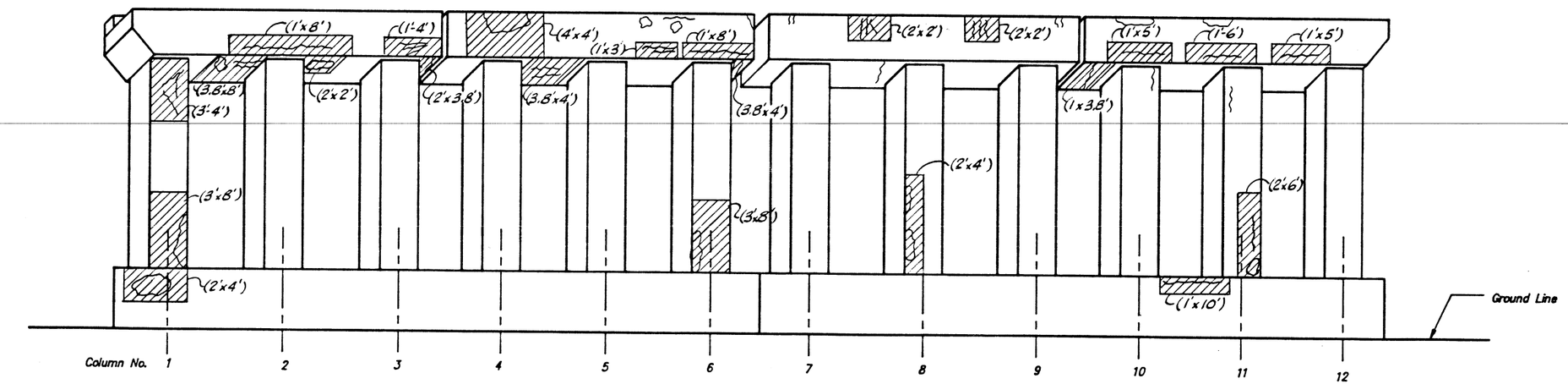
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82 5VBR	ST. CLAIR	86	73
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

SHEET NO. 60
72 SHEETS



SOUTH ELEVATION



NORTH ELEVATION

LEGEND

Spalled Area

Shallow Cracks

Area to be Rehabilitated under item of "Repair Concrete Structures" (AxB) denotes estimated width and length.

ITEM	UNIT	QUANTITY
REPAIR CONCRETE STRUCTURES	Sq.Ft.	334

Note: See Special Provisions for the repair of spalled and cracked areas. Cost for the repair of spalled and cracked areas is to be incidental to Repair Concrete Structures

SUBSTRUCTURE REPAIR
PIER NO. 6

F.A.I. ROUTE 70 SECTION 82-5VB
ST. CLAIR COUNTY
STA. 81+42.68

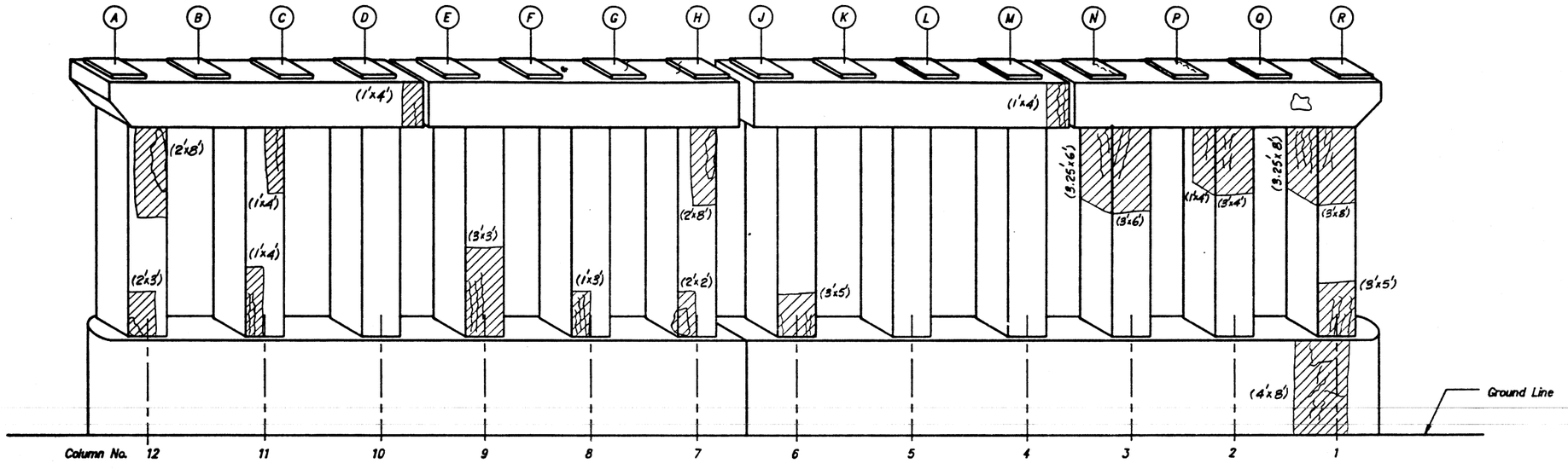
HE HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

FILE NUMBER
DRAWN BY S.Q.L.
CHECKED BY DEM
APPROVED BY

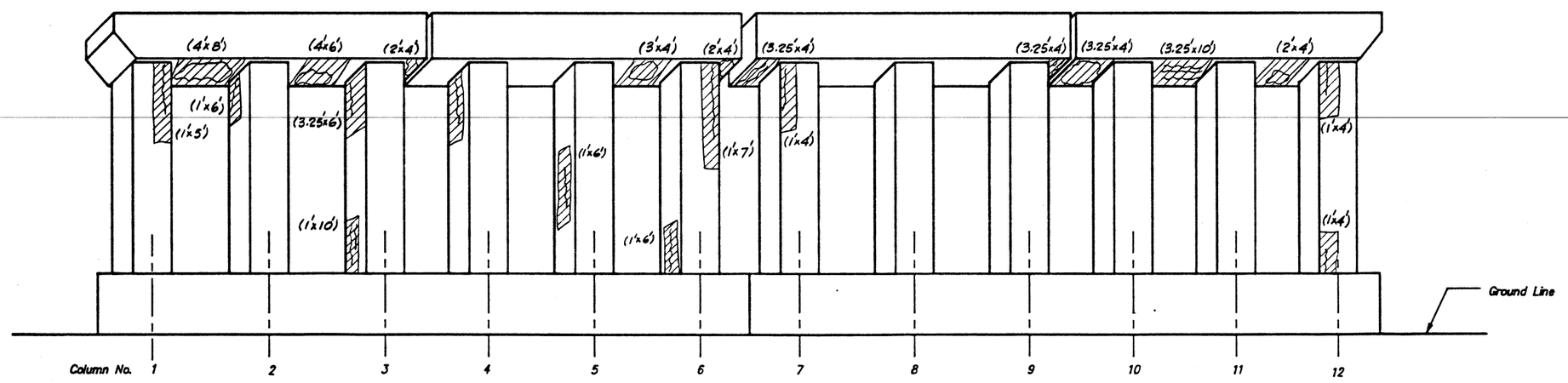
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82 5VBR	ST. CLAIR	86	74
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

SHEET NO. 61
72 SHEETS



SOUTH ELEVATION



NORTH ELEVATION

LEGEND

- Spalled Area
- Shallow Cracks
- Area to be Rehabilitated under item of "Repair Concrete Structures" (AxB) denotes estimated width and length.

ITEM	UNIT	QUANTITY
REPAIR CONCRETE STRUCTURES	Sq.Ft.	491

Note: See Special Provision for the repair of spalled and cracked areas. Cost for the repair of spalled and cracked areas is to be incidental to Repair Concrete Structures.

SUBSTRUCTURE REPAIR
PIER NO. 7

F.A.I. ROUTE 70 SECTION 82-5VB
ST. CLAIR COUNTY
STA. 81+42.68

HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

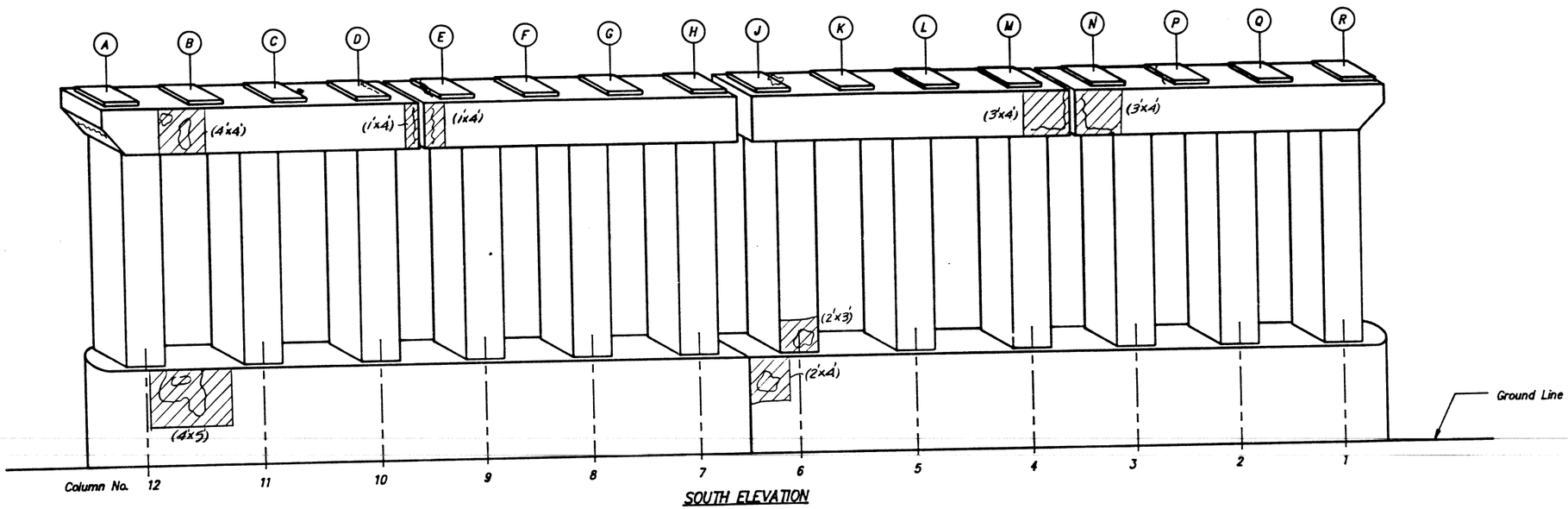
FILE NUMBER
DRAWN BY S.Q.L
CHECKED BY DEM
APPROVED BY

61

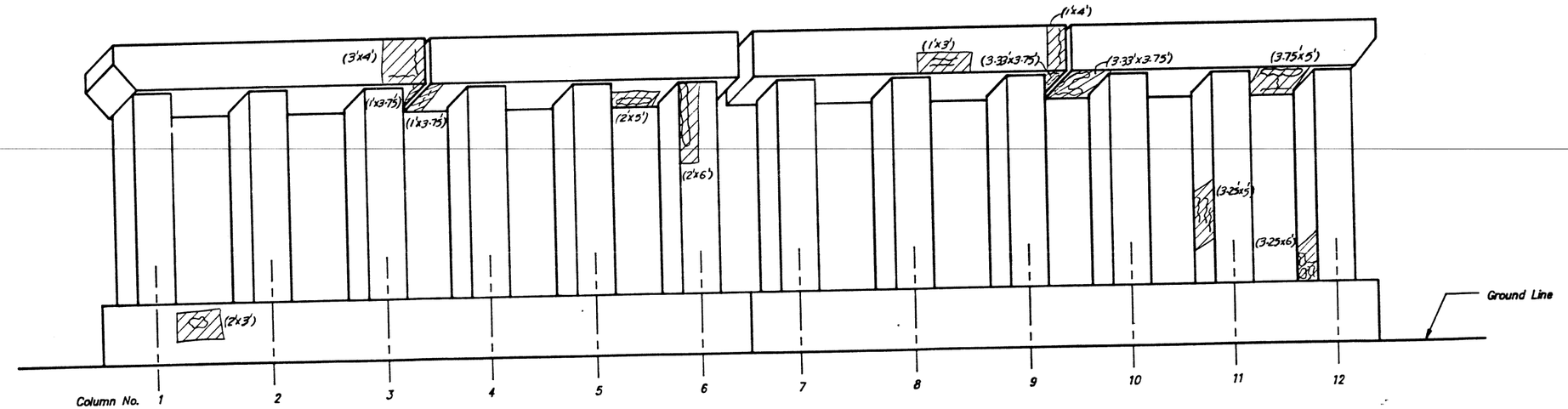
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82 5VBR	ST. CLAIR	86	75
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

SHEET NO. 62
72 SHEETS



SOUTH ELEVATION



NORTH ELEVATION

LEGEND

- Spalled Area
- Shallow Cracks
- Area to be Rehabilitated under item of "Repair Concrete Structures" (AxB) denotes estimated width and length.

ITEM	UNIT	QUANTITY
REPAIR CONCRETE STRUCTURES	Sq.Ft.	2/6

Note: See Special Provisions for the repair of spalled and cracked areas. Cost for the repair of Spalled and cracked areas is to be incidental to Repair Concrete Structures.

SUBSTRUCTURE REPAIR
PIER NO. 8

F.A.I. ROUTE 70 SECTION 82-5VB
ST. CLAIR COUNTY
STA. 81+42.68

HE HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

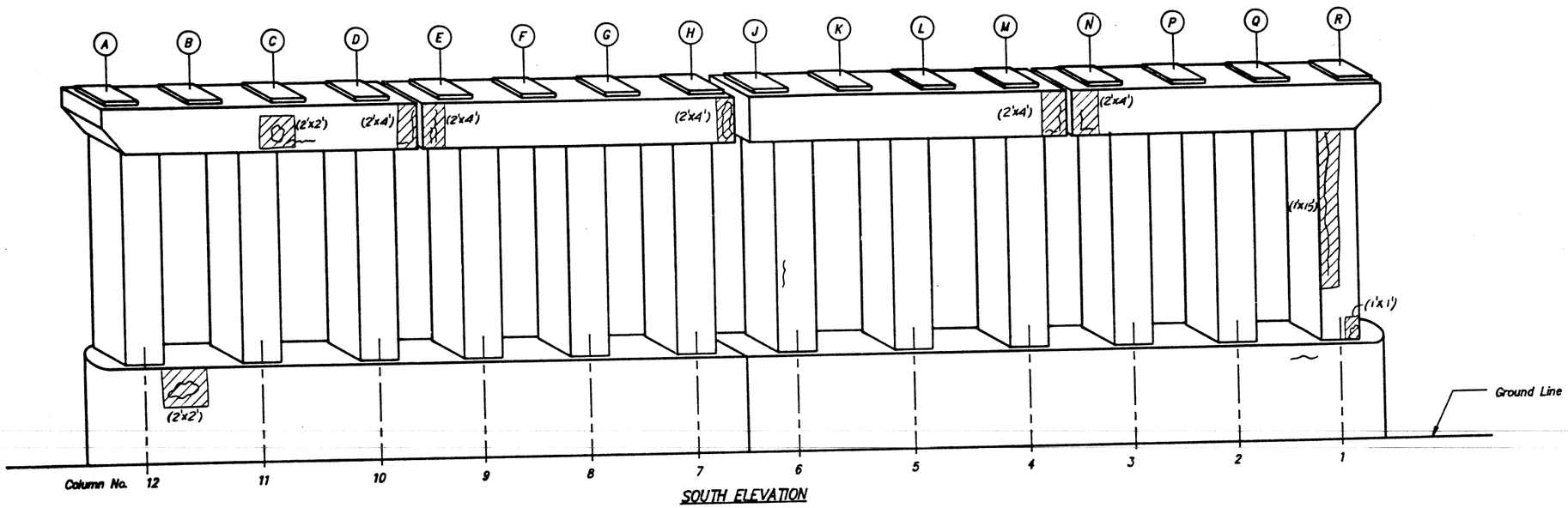
FILE NUMBER
DRAWN BY SQL
CHECKED BY DEM
APPROVED BY

62

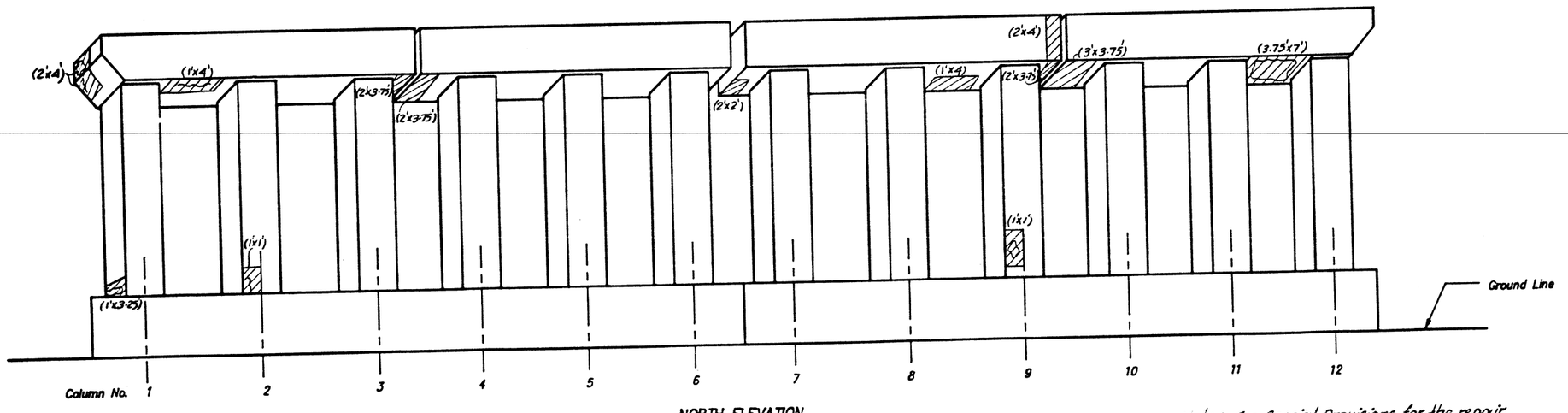
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82 SVBR	ST. CLAIR	86	76
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT		

SHEET NO. 63
72 SHEETS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SOUTH ELEVATION



NORTH ELEVATION

LEGEND

- Spalled Area
- Shallow Cracks
- Area to be Rehabilitated under item of "Repair Concrete Structures" (AxB) denotes estimated width and length.

ITEM	UNIT	QUANTITY
REPAIR CONCRETE STRUCTURES	Sq.Ft.	157

Note: See Special Provisions for the repair of spalled and cracked area. Cost for the repair of spalled and cracked areas is to be incidental to Repair Concrete Structures.

SUBSTRUCTURE REPAIR
PIER NO. 9

F.A.I. ROUTE 70 SECTION 82-5VB
ST. CLAIR COUNTY
STA. 81+42.68

HE HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

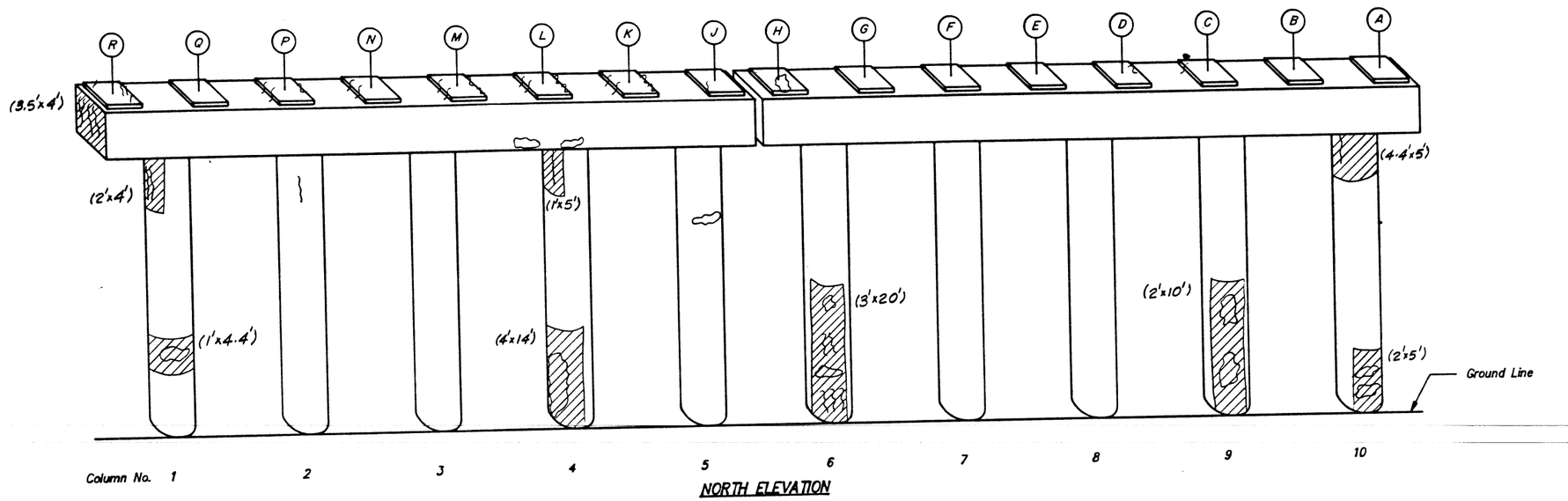
FILE NUMBER
DRAWN BY SQL
CHECKED BY DEM
APPROVED BY DLA

63

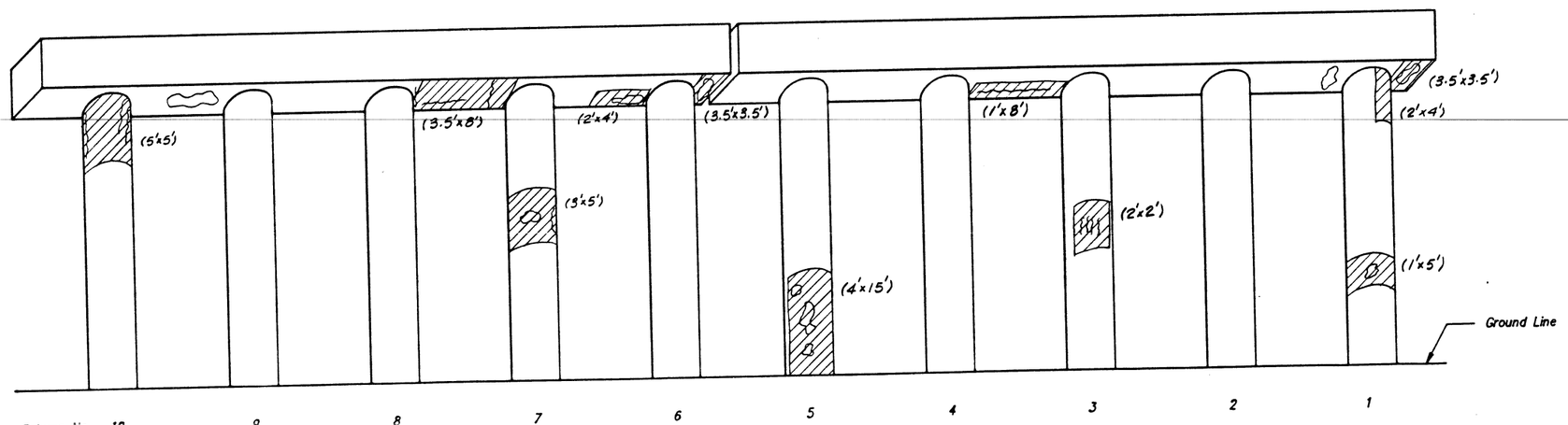
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82 SVBR	ST. CLAIR	86	77
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT--		

SHEET NO. 64
72 SHEETS



NORTH ELEVATION



SOUTH ELEVATION

LEGEND

- Spalled Area
- Shallow Cracks
- Area to be Rehabilitated under item of "Repair Concrete Structures" (AxB) denotes estimated width and length.

ITEM	UNIT	QUANTITY
Repair Concrete Structures	Sq.Ft.	386

Note: See Special Provisions for the repair of spalled and cracked areas. Cost for the repair of Spalled and cracked areas is to be incidental to Repair Concrete Structures.

SUBSTRUCTURE REPAIR
PIER NO. 10

F.A.I. ROUTE 70 SECTION 82-5VB
ST. CLAIR COUNTY
STA. 81+42.68

HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

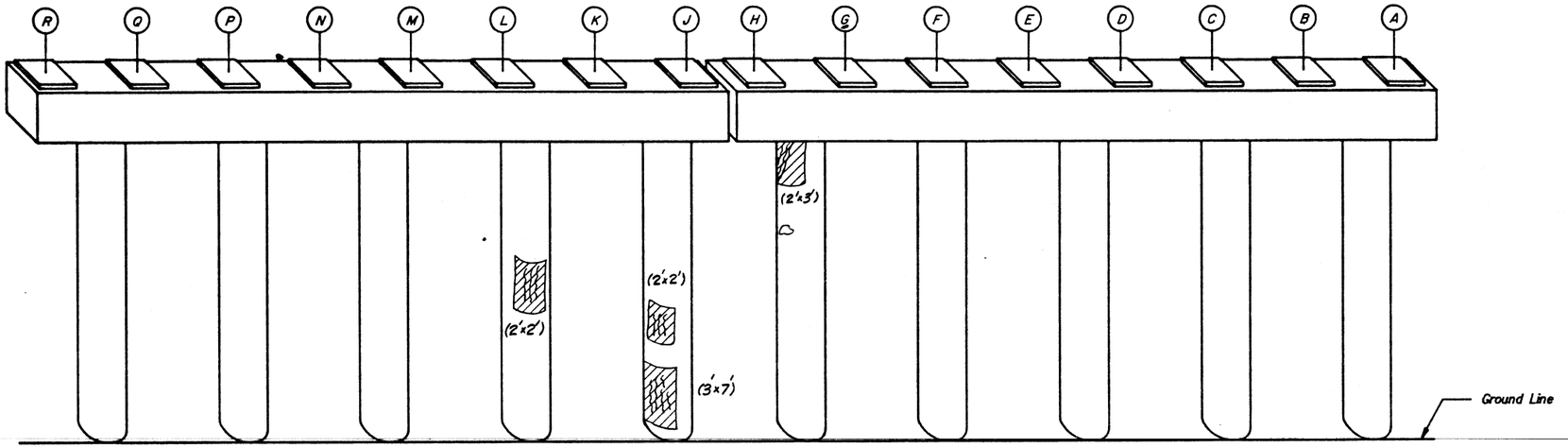
FILE NUMBER
DRAWN BY S.O.I.
CHECKED BY DEM
APPROVED BY

64

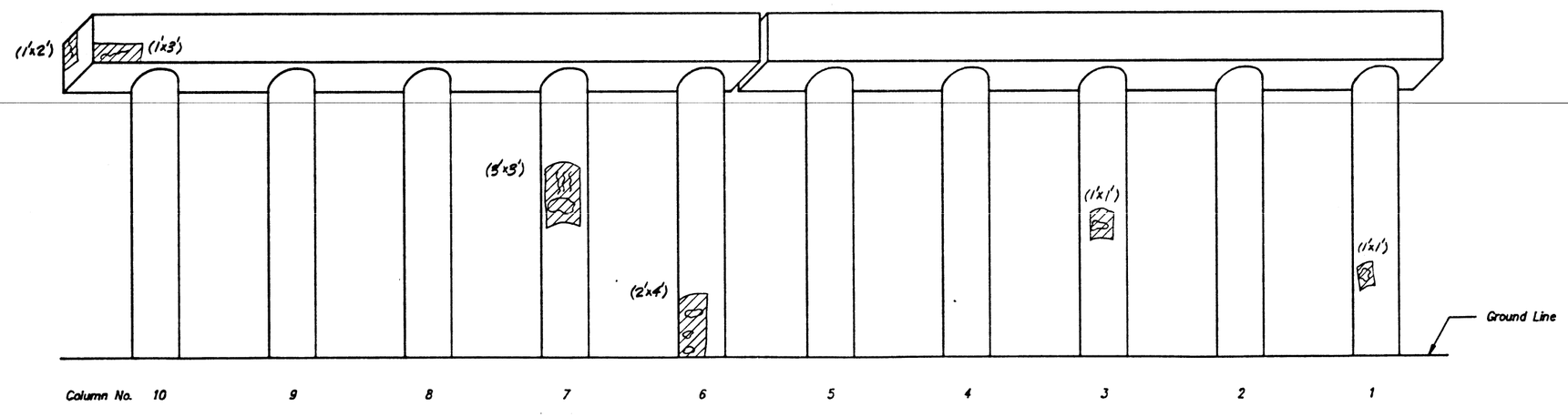
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82 5VBR	ST. CLAIR	86	78
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT--		

SHEET NO. 65
72 SHEETS



NORTH ELEVATION



SOUTH ELEVATION

LEGEND

- Spalled Area
- Shallow Cracks
- Area to be Rehabilitated under item of "Repair Concrete Structures" (AxB) denotes estimated width and length.

ITEM	UNIT	QUANTITY
Repair Concrete Structures	Sq.Ft.	59

Note: See Special Provisions for the repair of spalled and cracked areas. Cost for the repair of spalled and cracked areas is to be incidental to Repair Concrete Structures

SUBSTRUCTURE REPAIR
PIER NO. 11

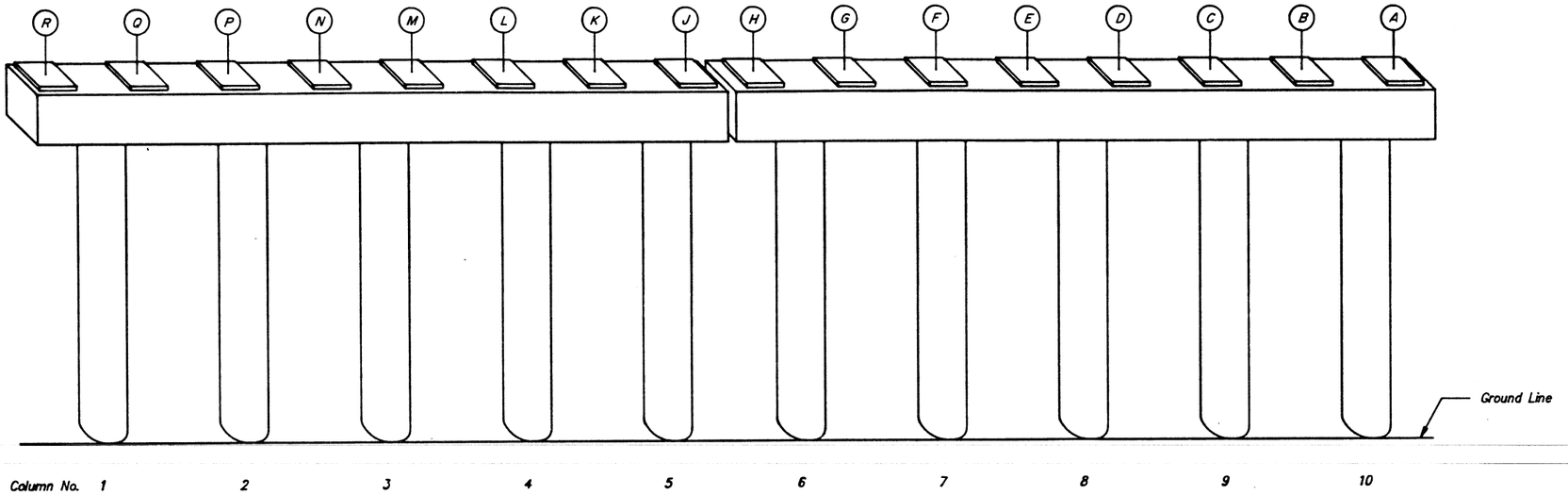
F.A.I. ROUTE 70 SECTION 82-5VB
ST. CLAIR COUNTY
STA. 81+42.68

HAZELET + ERDAL, INC.
CONSULTING ENGINEERS
FILE NUMBER
DRAWN BY S.O.L.
CHECKED BY DEM
APPROVED BY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

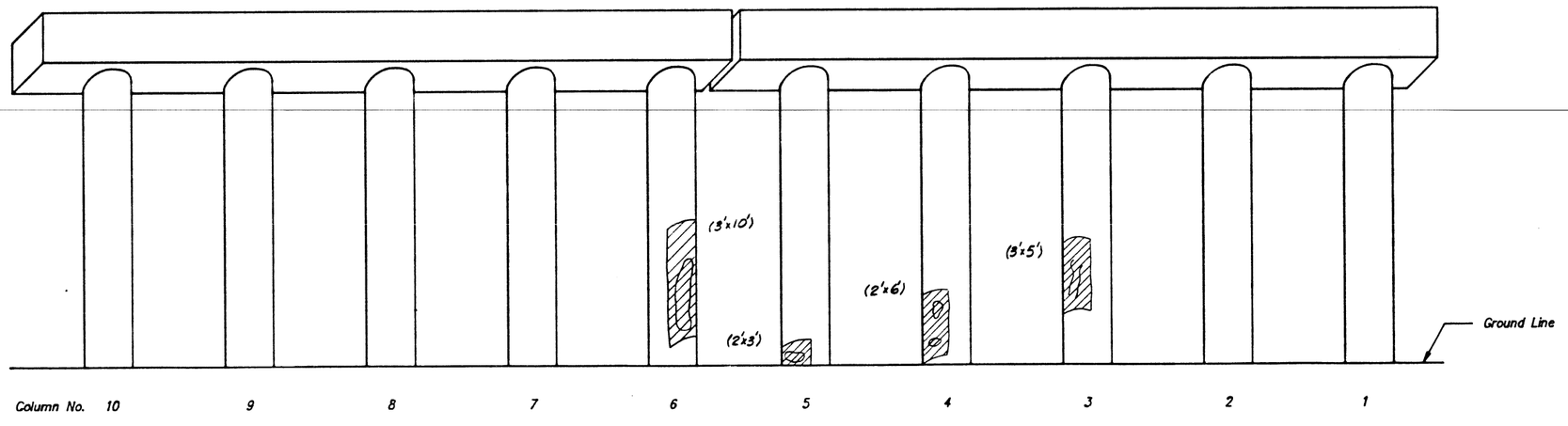
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82 5VBR	ST. CLAIR	86	79
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

SHEET NO. 66
72 SHEETS



Column No. 1 2 3 4 5 6 7 8 9 10

NORTH ELEVATION



Column No. 10 9 8 7 6 5 4 3 2 1

SOUTH ELEVATION

LEGEND

- Spalled Area
- Shallow Cracks
- Area to be Rehabilitated under item of "Repair Concrete Structures" (AxB) denotes estimated width and length.

ITEM	UNIT	QUANTITY
Repair Concrete Structures	Sq.Ft.	63

Note: See Special Provisions for the repair of spalled and cracked areas. Cost for the repair of spalled and cracked areas is to be incidental to Repair Concrete Structures

SUBSTRUCTURE REPAIR
PIER NO. 12

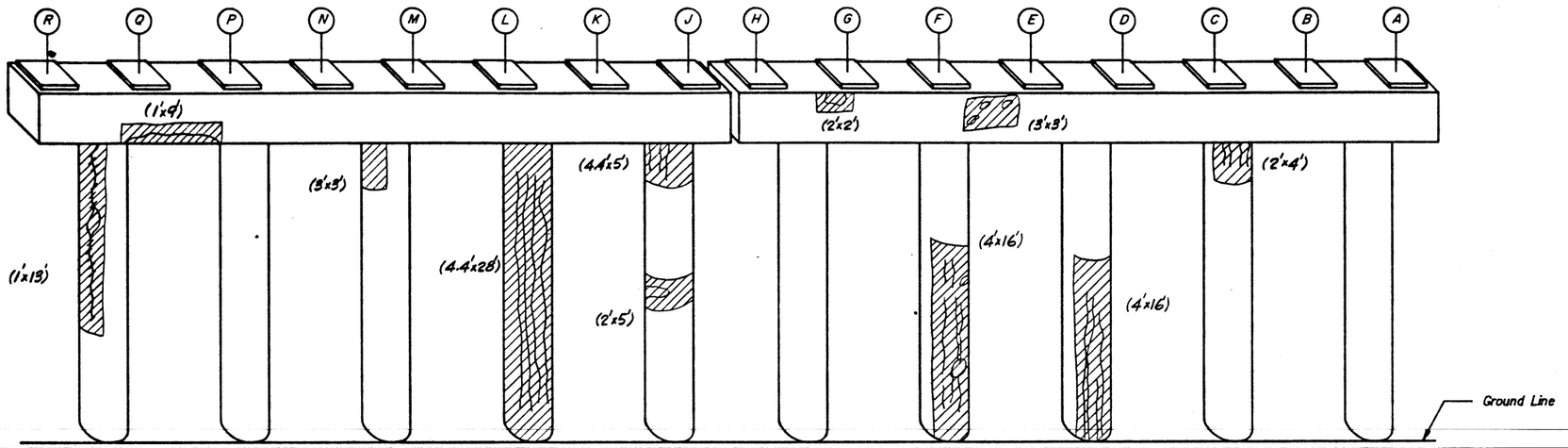
F.A.I. ROUTE 70 SECTION 82-5VB
ST. CLAIR COUNTY
STA. 81+42.68

HE HAZELET + ERDAL, INC.
CONSULTING ENGINEERS
FILE NUMBER
DRAWN BY S.O.I.
CHECKED BY DEM
APPROVED BY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82 5VBR	ST. CLAIR	86	80
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

SHEET NO. 67
72 SHEETS



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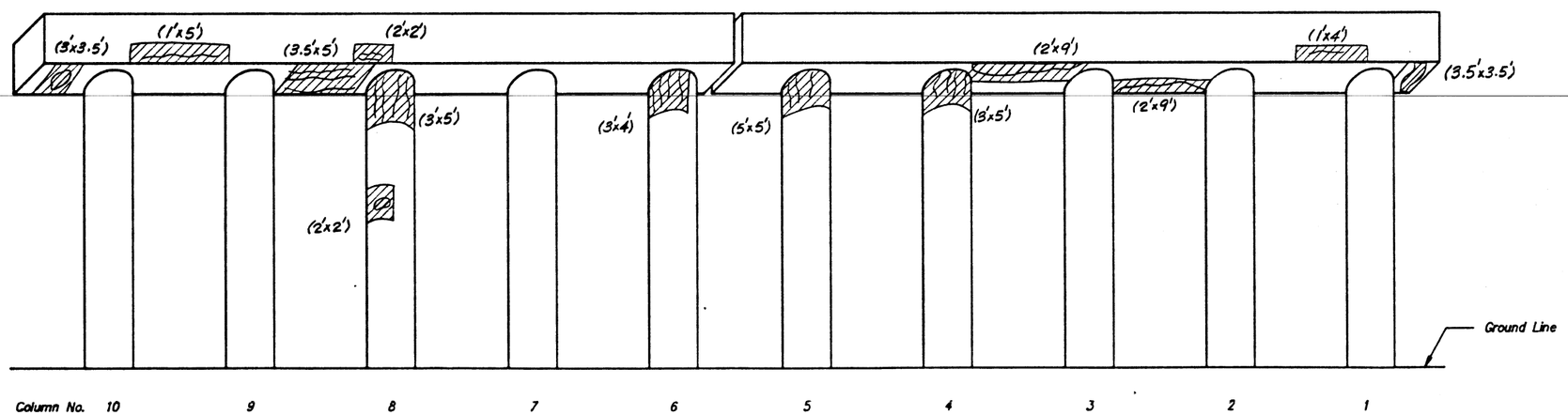


SOUTH ELEVATION

LEGEND

Spalled Area

Shallow Cracks

Area to be Rehabilitated under item of "Repair Concrete Structures" (AxB) denotes estimated width and length.

ITEM	UNIT	QUANTITY
Repair Concrete Structures	Sq.Ft.	496

Note: See Special Provisions for the repair of spalled and cracked areas. Cost for the repair of Spalled and Cracked area is to be incidental to Repair Concrete Structures.

HE HAZELET + ERDAL, INC.
CONSULTING ENGINEERS
FILE NUMBER
DRAWN BY S.O.L.
CHECKED BY DEM
APPROVED BY DLA

SUBSTRUCTURE REPAIR
PIER NO. 13

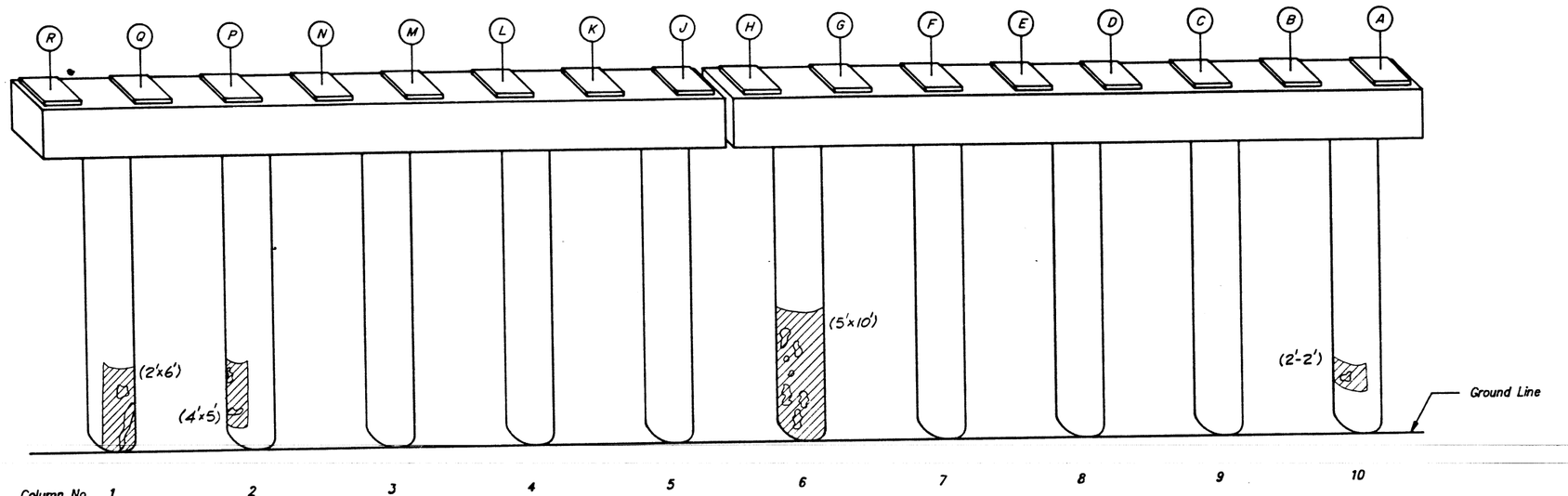
F.A.I. ROUTE 70 SECTION 82-5VB
ST. CLAIR COUNTY
STA. 81+42.68

67

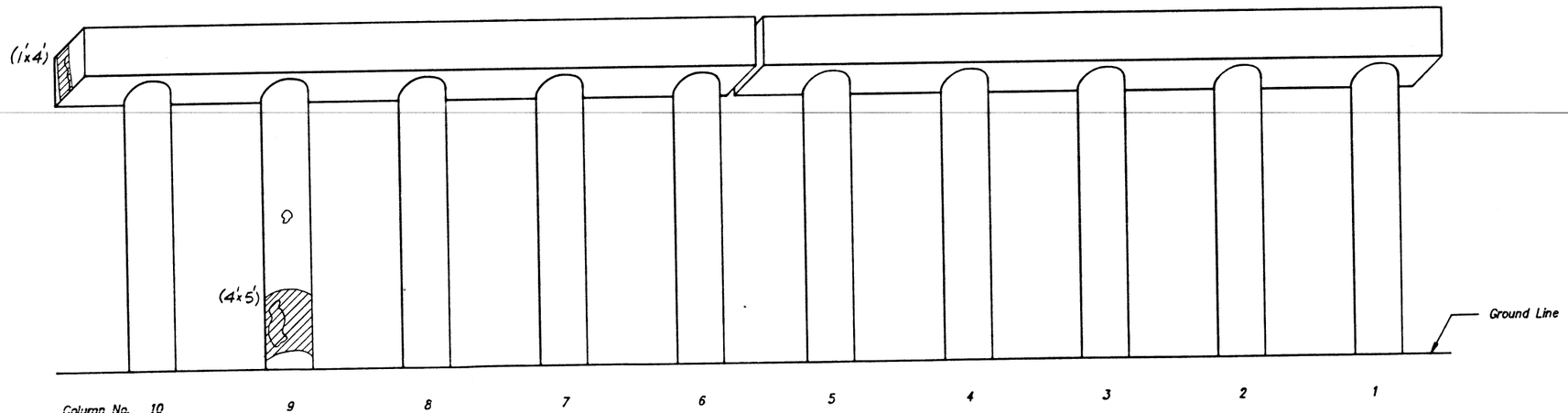
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82 5VBR	ST. CLAIR	86	81
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

SHEET NO. 68
72 SHEETS



NORTH ELEVATION



SOUTH ELEVATION

LEGEND

- Spalled Area
- Shallow Cracks
- Area to be Rehabilitated under item of "Repair Concrete Structures" (AxB) denotes estimated width and length.

ITEM	UNIT	QUANTITY
Repair Concrete Structures	Sq.Ft.	110

Note: See Special Provisions for the repair of spalled and cracked areas. Cost for the repair of spalled and cracked area is to be incidental to Repair Concrete Structures.

SUBSTRUCTURE REPAIR
PIER NO. 14

F.A.I. ROUTE 70 SECTION 82-5VB
ST. CLAIR COUNTY
STA. 81+42.68

HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

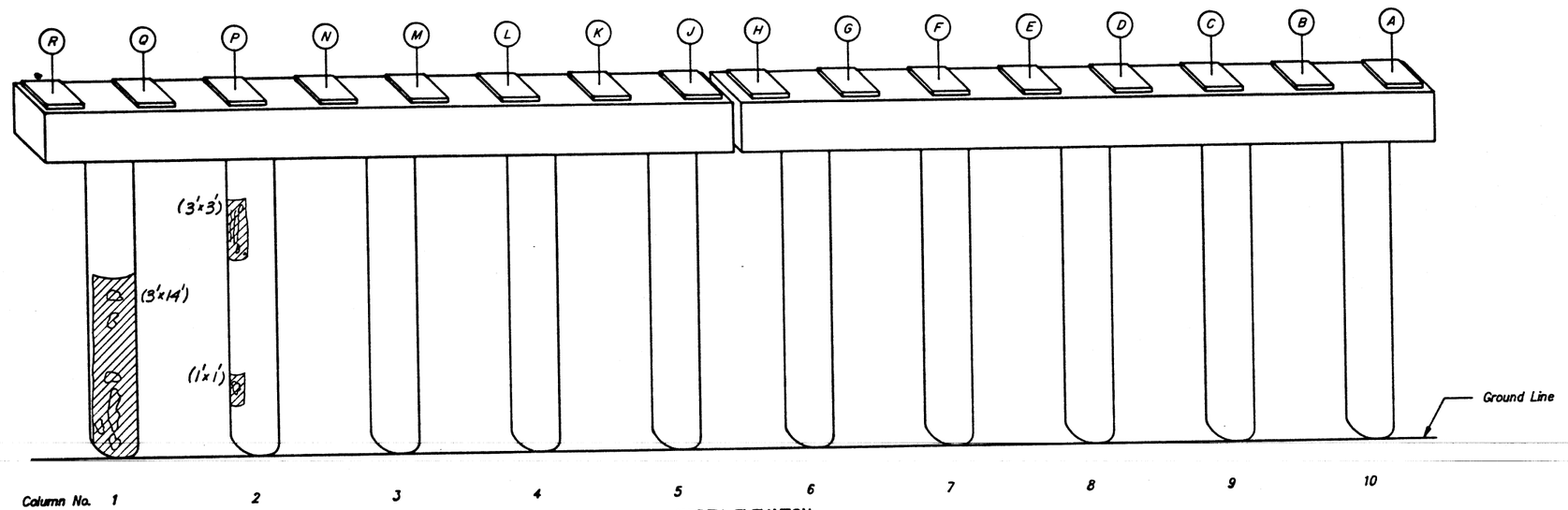
FILE NUMBER
DRAWN BY S.O.I.
CHECKED BY DEM
APPROVED BY

68

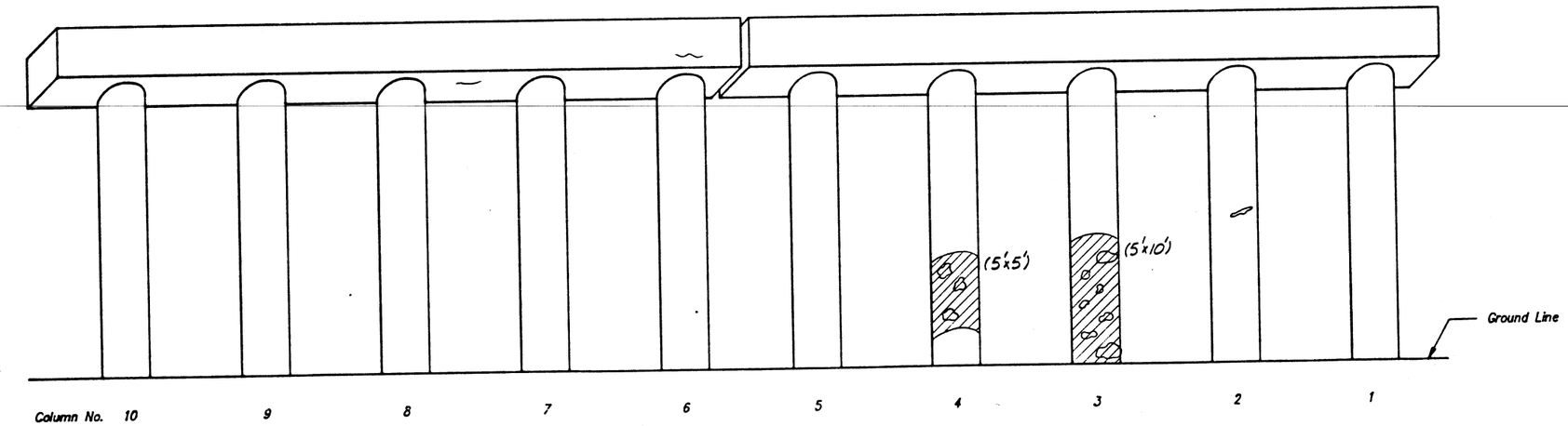
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82 5VBR	ST. CLAIR	86	82
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

SHEET NO. 69
72 SHEETS



NORTH ELEVATION



SOUTH ELEVATION

LEGEND

- Spalled Area
- Shallow Cracks
- Area to be Rehabilitated under item of "Repair Concrete Structures" (AxB) denotes estimated width and length.

ITEM	UNIT	QUANTITY
Repair Concrete Structures	Sq.Ft.	127

Note: See Special Provisions for the repair of spalled and cracked areas. Cost for the repair of Spalled and Cracked Area is to be incidental to Repair Concrete Structures.

HAZELET + ERDAL, INC.
CONSULTING ENGINEERS
FILE NUMBER
DRAWN BY S.O.I.
CHECKED BY DEM
APPROVED BY

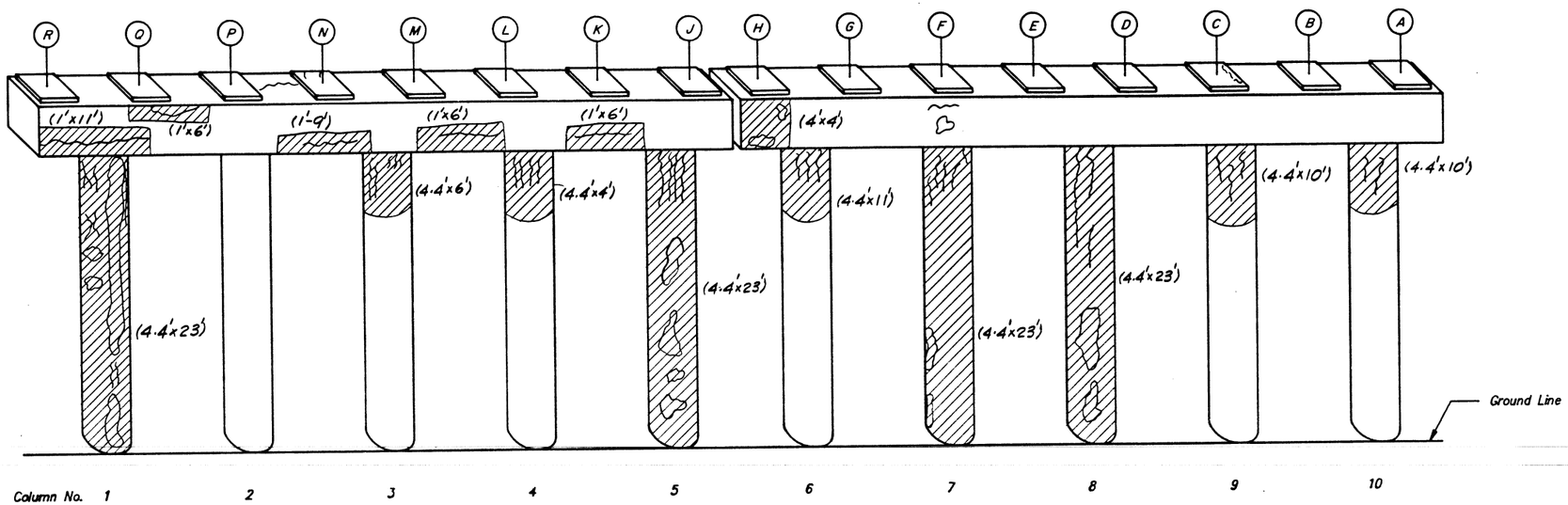
SUBSTRUCTURE REPAIR
PIER NO. 15

F.A.I. ROUTE 70 SECTION 82-5VB
ST. CLAIR COUNTY
STA. 81+42.68

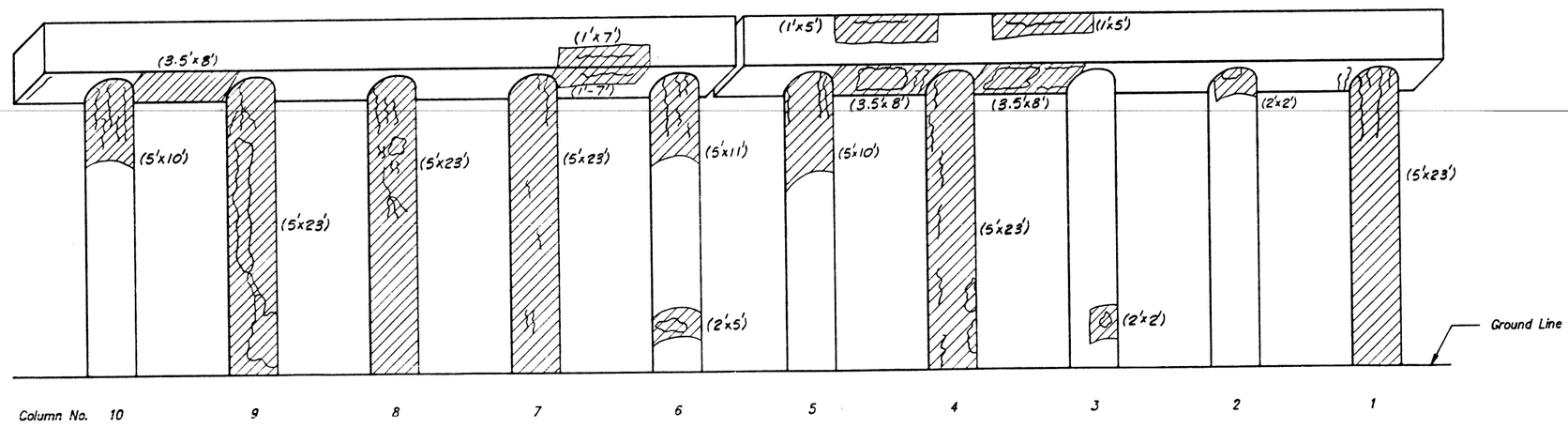
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82 5VBR	ST. CLAIR	86	83
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

SHEET NO. 70
72 SHEETS



NORTH ELEVATION



SOUTH ELEVATION

LEGEND

- Spalled Area
- Shallow Cracks
- Area to be Rehabilitated under item of "Repair Concrete Structures" (AxB) denotes estimated width and length.

ITEM	UNIT	QUANTITY
Repair Concrete Structures	Sq.Ft.	1495

Note: See Special Provisions for the repair of spalled and cracked areas. Cost for the repair of spalled and cracked areas is to be incidental to Repair Concrete Structures.

HE HAZELET + ERDAL, INC.
CONSULTING ENGINEERS
FILE NUMBER
DRAWN BY S.O.L.
CHECKED BY DEM
APPROVED BY
REVISED 5-10-00

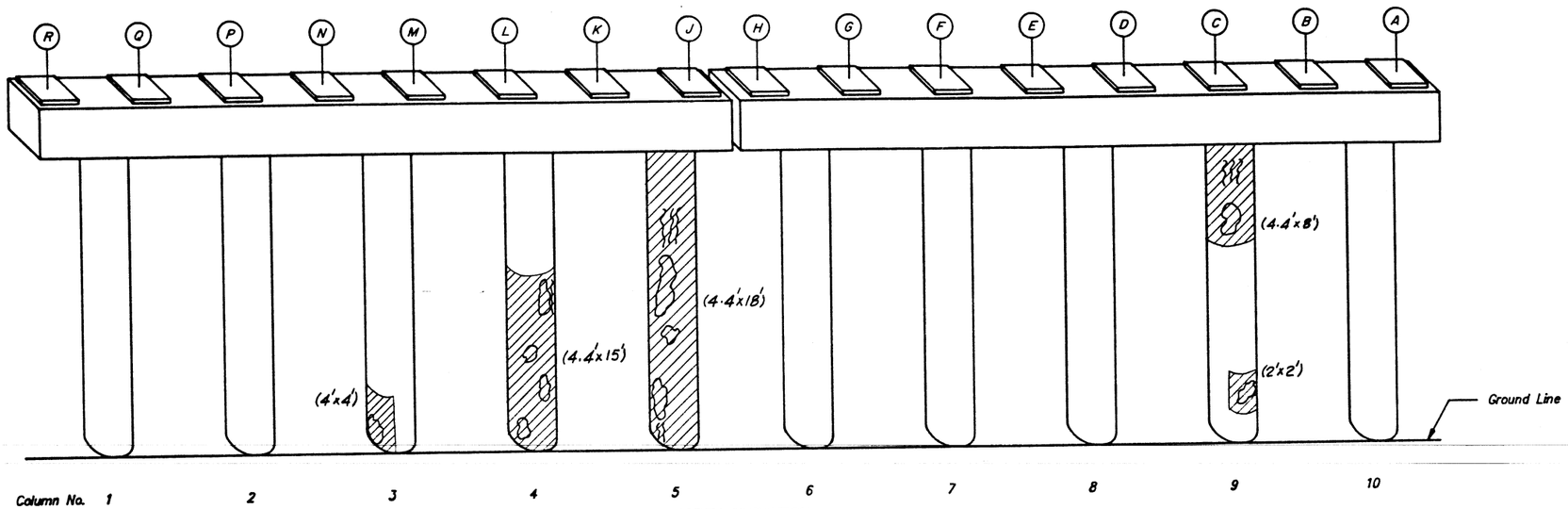
SUBSTRUCTURE REPAIR
PIER NO. 16

F.A.I. ROUTE 70 SECTION 82-5VB
ST. CLAIR COUNTY
STA. 81+42.68

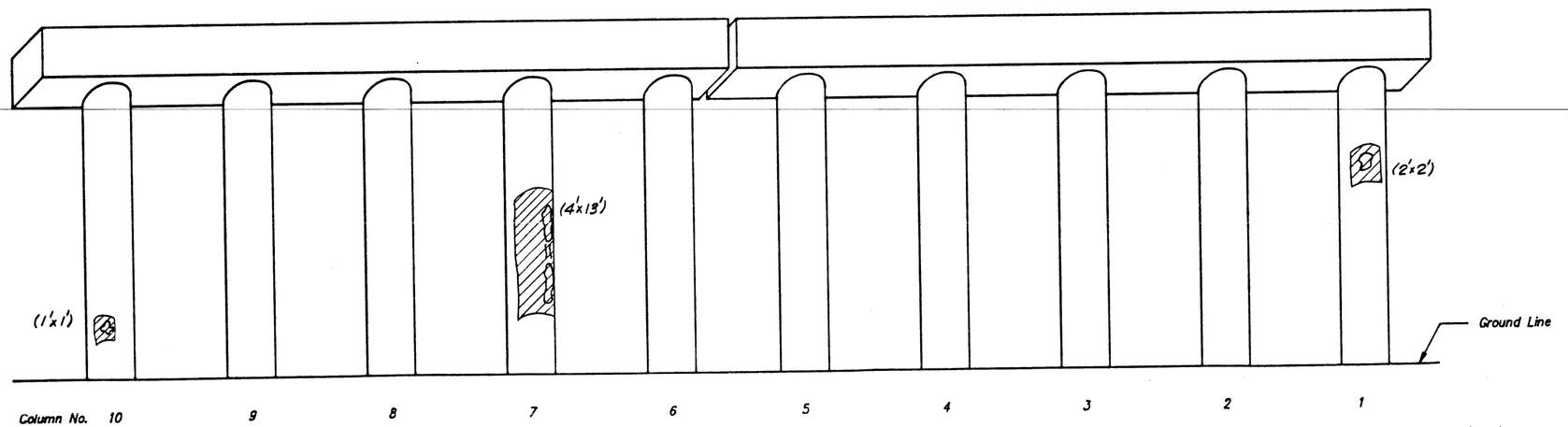
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82 5VBR	ST. CLAIR	86	84
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

SHEET NO. 71
72 SHEETS



NORTH ELEVATION



SOUTH ELEVATION

LEGEND

Spalled Area

Shallow Cracks

Area to be Rehabilitated under item of "Repair Concrete Structures" (AxB) denotes estimated width and length.

ITEM	UNIT	QUANTITY
Repair Concrete Structures	Sq.Ft.	258

Note: See Special Provisions for the repair of spalled areas. Cost for the repair of spalled areas is to be incidental to Repair Concrete Structures.

SUBSTRUCTURE REPAIR
PIER NO. 17

F.A.I. ROUTE 70 SECTION 82-5VB
ST. CLAIR COUNTY
STA. 81+42.68

HE HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

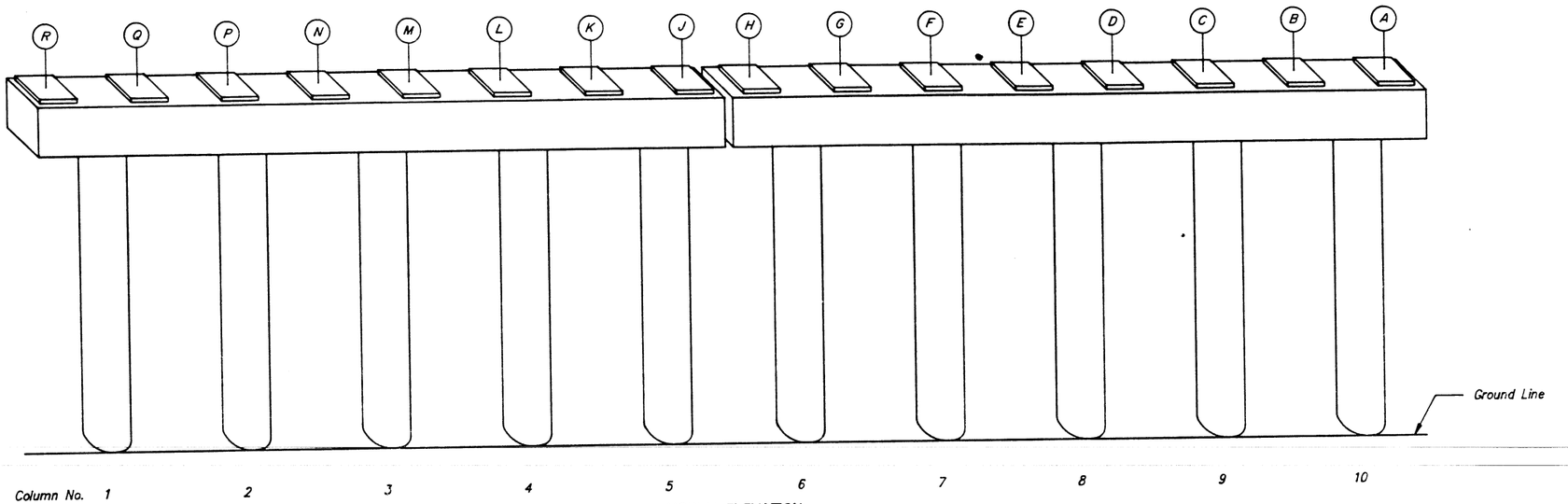
FILE NUMBER
DRAWN BY S.O.L.
CHECKED BY DEM
APPROVED BY

71

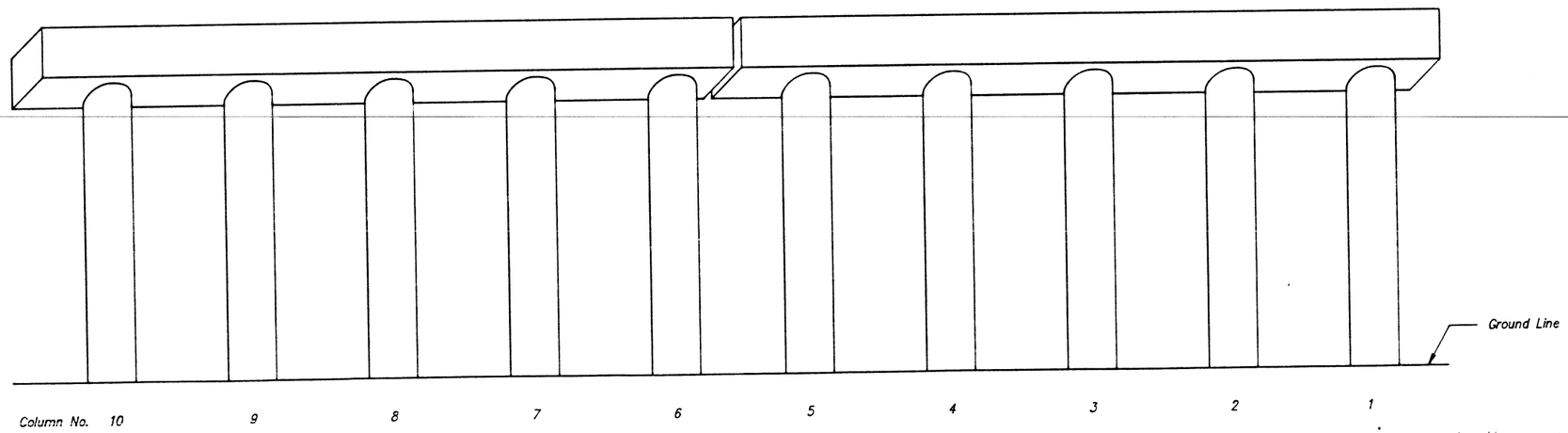
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82 5VBR	ST. CLAIR	86	85
FEDERAL ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT-		

SHEET NO. 72
72 SHEETS



NORTH ELEVATION



SOUTH ELEVATION

LEGEND

- Spalled Area
- Shallow Cracks
- Area to be Rehabilitated under item of "Repair Concrete Structures" (AxB) denotes estimated width and length.

ITEM	UNIT	QUANTITY
Repair Concrete Structures	Sq.Ft.	0

Note: See Special Provisions for the repair of spalled and cracked areas. Cost for the repair of Spalled and Cracked Areas is to be incidental to Repair Concrete Structures.

HAZELET + ERDAL, INC.
CONSULTING ENGINEERS

FILE NUMBER
DRAWN BY S.O.I.
CHECKED BY DEM
APPROVED BY

SUBSTRUCTURE REPAIR
PIER NO. 18

F.A.I. ROUTE 70 SECTION 82-5VB
ST. CLAIR COUNTY
STA. 81+42.68

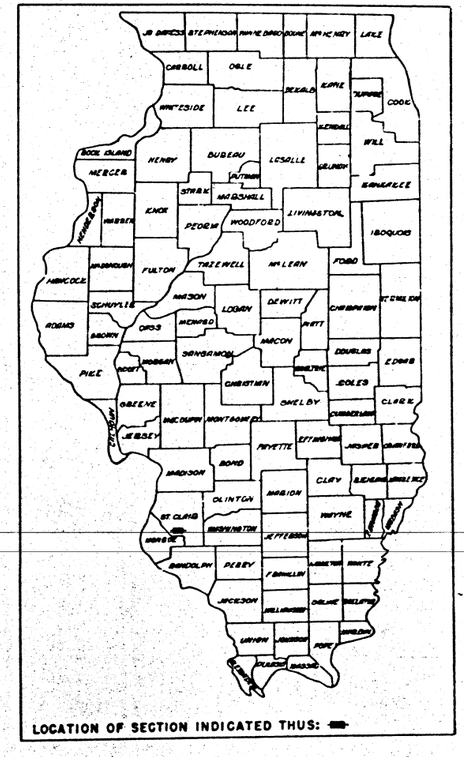
72

SEC. NO.	COUNTY	TOTAL SHEETS	SHEET NO.
82-5-VB	ST CLAIR	43	1
FAI-7			I-07-1(23)

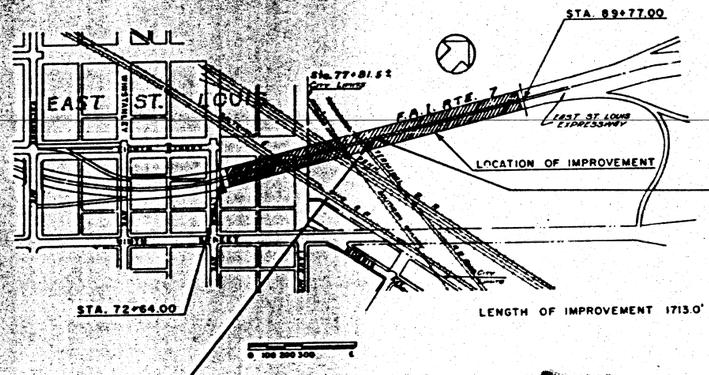
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS
PLANS FOR PROPOSED
FEDERAL AID HIGHWAY

F.A.I. ROUTE 7 SEC. 82-5 VB. VE
ST. CLAIR COUNTY
EAST ST. LOUIS EXPRESSWAY
OVERPASS STRUCTURE AT B. & O. R.R., PENN. R.R.,
SOUTHERN RY. AND TERMINAL RAILROAD ASSN.

PROJECT I-07-1(23)



LOCATION OF SECTION INDICATED THUS: ■



LENGTH OF IMPROVEMENT 1713.0'

SEC. 82-5-VB INCLUDES:-

A 19 span steel WF beam and deck plate girder Railroad Grade Separation Structure, on R.C. open piers and metal shell pile bent abutments (carrying F.A.I. Route 7 over B&O RR, Penn. R.R., Southern Railway and Terminal R.R. Assn.) spans 2 @ 56'-6", 1 @ 70'-6", 1 @ 74'-0", 1 @ 89'-0", 1 @ 52'-6", 1 @ 131'-6", 4 @ 100'-0", [redacted] and 1 @ 79'-3" at Sta. 81+42.68; with the exception of furnishing, fabricating, shop painting and delivery of the structural steel.

SEC. 82-5-VF INCLUDES:

FURNISHING, FABRICATING, SHOP PAINTING AND DELIVERY OF THE STRUCTURAL STEEL F.O.B. PENN. R.R. ROSELAKE YARD, EAST ST. LOUIS, FOR A 19-SPAN STEEL WF-BEAM AND DECK PLATE GIRDER RAILROAD GRADE SEPARATION STRUCTURE, ON R.C. PIERS AND METAL SHELL PILE BENT ABUTMENTS (CARRYING F.A.I. ROUTE 7 OVER THE B.&O. R.R., PENN. R.R., SOUTHERN R.R. AND TERMINAL R.R. ASSN. OF ST. LOUIS TRACKS) SPANS, 2 @ 56'-6", 1 @ 70'-6", 1 @ 74'-0", 1 @ 89'-0", 1 @ 52'-6", 1 @ 131'-6", 4 @ 100'-0", 1 @ 110'-0", 1 @ 92'-6", 5 @ 80'-0" AND 1 @ 79'-3" AT STATION 81+42.68.

PLANS EXAMINED [signature] APRIL 16 1957
ENGINEER OF BRIDGE & TRAFFIC STRUCTURES

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

SUBMITTED April 16, 19 57
E.W. Rieflin
District Engineer

EXAMINED April 16, 19 57
[signature]

PASSED April 16, 19 57
[signature]
Director of Design

APPROVED April 16, 19 57
[signature]
Chief Highway Engineer

APPROVED April 16, 19 57
[signature]
Director

8-43

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS
APPROVED [redacted]
DISTRICT ENGINEER DATE

H. W. LOCHNER, INC
ENGINEERS
CHICAGO, ILLINOIS

4-26-57 JES

ST. CLAIR COUNTY SECTION 82-5 [redacted] 82-5-VB F.A.I. ROUTE 7

FEDERAL HIGHWAY ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 7	82-5YB	ST. CLAIR	43	8
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

1618'-11¾" Back to back abutments

Back South Abutment Sta. 73+33.13

Paved ditch

Point of critical vertical clearance

E. St. Louis City Limits

Proposed storm sewer Not in this contr.

Concrete Pavement — Approach Slab — ℄ E. St. Louis Expressway — Concrete Pavement — Approach Slab — ℄ Top of Slope — ℄ Brg. S. Abut

R.O.W. — Proposed Access Road — R.O.W. — B&O R.R. R.O.W. — Penn. R.R. R.O.W. — Terminal R.R. Assn. of St. Louis R.O.W. — Southern R.R. R.O.W.

El. T/R 424.5 — El. T/R 424.6 — El. T/R 424.4 — El. T/R 419.7 — El. T/R 419.2 — El. T/R 419.1 — El. T/R 419.3 — El. T/R 419.6 — El. T/R 416.6 — El. T/R 414.0 — El. T/R 417.7 — El. T/R 417.3 — El. T/R 416.8 — El. T/R 416.7 — El. T/R 418.2 — El. T/Rail 418.4

B2-17 — B2-18 — B2-20 — B2-21 — B2-22 — B2-23 — B2-24 — B2-25 — B2-26 — B2-27 — B2-29 — B2-28

PLAN
Scale - 1" = 40'-0"

Profile of Roadway

Limits of Contract Sta. 72+64.00 — El. 442.30 — El. 444.43 — El. 447.09 — El. 449.22 Grade + 3.77% — El. 451.96 — El. 454.55 — El. 455.63 — El. 456.86 — El. 456.39 — El. 454.48 — El. 451.73 — El. 448.93 Top of Roadway — El. 445.43 — El. 442.63 Grade - 3.5%

El. Bottom of Struct. at Pier Min. Clearance 446.97

Existing Ground Line — Place fill prior to driving piles, See Note on Sh. No. 5.

Porous granular embankment - 44 c.y. Borrow excavation - 26,324 c.y.

Back to back abutments

Fix. — Exp. — El. 430.50 Top Rail Elev. See Plan — El. 430.00 — El. 425.50 — El. 424.50 — El. 424.00 — El. 421.81

V.C. = 600'

LONGITUDINAL SECTION
Scale: 1" = 40'

80'-0 — 100'-0 — 80'-0 — 80'-0 — 100'-0 — 79'-3

Existing Ditch — Existing Illinois Power Co. 10" Gas Main to be relocated.

℄ E. St. Louis Expressway — 26°-59' — Existing Cinder Road — Paved ditch — ℄ Brg. N. Abut

Back North Abutment Sta. 89+52.16

Concrete Pavement — Approach Slab — Sta. 89+49.41 — 90° — B2-30 — B2-31 — B2-32 — B2-33

PLAN
Scale - 1" = 40'-0"

Profile of Roadway

El. 442.63 — El. 439.83 — El. 436.33 — El. 435.33 — El. 430.73 — El. 427.33 — El. 424.46 Grade - 3.5% — Top of Roadway

Limits of Contract Sta. 89+77.00 — Approach Slabs & Roadway are not included in this contr.

Existing Ground Line — Place fill prior to driving piles, See Note on Sh. No. 5

Porous granular embankment - 46 c.y. Borrow excavation - 12,010 c.y.

LONGITUDINAL SECTION
Scale - 1" = 40'-0"

114'-4

3'-2 — 27'-0 — 25-0 — 20.20 — 25-0 — 27'-0 — 3'-2

℄ Expressway — 1" Open Joint — 7" Slab

Profile Grade — 3/16"/ft. — 2"/ft. — 1"/ft. — 2"/ft. — Profile Grade

Rolled Section or Plate Girder

2'-8 — 7 Spaces @ 7'-5 = 51'-11 — 2'-7 2'-7 — 7 Spaces @ 7'-5 = 51'-11 — 2'-8

TYPICAL CROSS SECTION
Scale ⅛" = 1'-0"

NOTE
For Existing Structures & Piers see Sh No. 36

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

GENERAL PLAN & PROFILE

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

Designed by A.T.
Drawn by V.B.
Checked by W.J.F.

Sheet 3 of 37

BOND ISSUE & ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 7	82-5-1B	ST. CLAIR	43	9
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

NO. B 2-19

GROUND SURFACE ELEV. 412.8 — 0'-0"

COAL, CINDERS & CLAY FILL	5	3'-0"
BROWN SILTY CLAY	7	
	6	9'-0"
BROWN FINE SAND	6	12'-0"
BROWN FINE SAND TR. CLAY	17	16'-6"
GREY FURRY SILTY FINE SAND	10	19'-0"
GREY FINE SAND	21	22'-0"
GREY VERY FINE TO COARSE SAND	63	27'-0"
	*	
	31	WL
GREY FINE TO COARSE SAND	33	
	33	40'-0"

BORING STOPPED BY CLIENT

USED 39' OF 2½" CASING

WATER LEVEL IS 31' BELOW GROUND SURFACE ½ HR. AFTER COMPLETION

4/19/56

NO. B 2-20

GROUND SURFACE ELEV. 414.0 — 0'-0"

CINDERS, SAND & COAL FILL	4	
	2	7'-0"
NOTE A	8	A'-0"
BROWN & GREY CLAY	9	
		15'-6"
BROWN FINE SAND	9	*
	24	
		25'-0"
GREY VERY FINE SILTY SAND	9	*
		27'-0"
	26	*
BROWN FINE SAND	28	
	31	
	28	
	32	
	31	50'-0"

NOTE A: BROWN & GREY SILTY CLAY TR. CINDERS

BORING STOPPED BY CLIENT

USED 24' OF 2½" CASING

BORING BAILED TO 43' BORING CAVED DRY AS 40'-6" 1 HR. AFTER COMPLETION

4/11/56

NO. B 2-21

GROUND SURFACE ELEV. 418.0 — 0'-0"

CINDERS & SAND FILL	3	
	1	7'-0"
NOTE A	4	8'-0"
BROWN & GREY CLAY	9	
		18'-0"
BROWN VERY FINE SILTY SAND	3	
		21'-0"
	16	*
BROWN	18	
	26	
FINE	25	
	28	
SAND	28	
	27	60'-0"

NOTE A: CINDERS & SAND FILL TRACE CLAY

BORING STOPPED BY CLIENT

USED 20' OF 2½" CASING

BORING CAVED DRY AS 40'-6" 18 HRS. AFTER COMPLETION

4/14/56

NO. B 2-22

GROUND SURFACE ELEV. 417.0 — 0'-0"

CINDER & CLAY FILL	3	5'-0"
BROWN SILTY CLAY W/VERY FINE SAND	8	
	13	9'-0"
	3	*
GREY SILTY CLAY	6	
		16'-0"
BROWN FINE SAND	9	
	21	
	29	
GREY FINE SAND	26	
	21	
	21	
	21	46'-0"

BORING STOPPED BY CLIENT

USED 44' OF 2½" CASING

5/4/56

NO. B 2-23

GROUND SURFACE ELEV. 407.5 — 0'-0"

CINDER FILL	3	3'-0"
GREY SILTY CLAY	9	
	10	9'-0"
BROWN FINE SAND	9	
		15'-0"
GREY VERY FINE SILTY SAND	3	
		19'-0"
BROWN FINE SAND	18	
		25'-0"
GREY FINE TO COARSE SAND	40	
	41	WL
		35'-0"
GREY FINE SAND	20	
	22	40'-0"

BORING STOPPED BY CLIENT

USED 39' OF 2½" CASING

WATER LEVEL IS 29' BELOW GROUND SURFACE 3 HR. AFTER COMPLETION

5/2/56

NO. B 2-24

GROUND SURFACE ELEV. 405.9 — 0'-0"

CINDER & CLAY FILL	5	4'-0"
BROWN SILTY CLAY W/VERY FINE SAND	4	8'-0"
GREY VERY FINE SAND	4	12'-0"
GREY SILTY CLAY	3	15'-6"
NOTE A	5	17'-0"
GREY VERY FINE SAND TRACE SILT	10	22'-0"
GREY FINE TO COARSE SAND	28	WL
		27'-0"
GREY SILTY CLAY, TRACE SAND	5	
		34'-0"
GREY FINE SAND	8	
		38'-0"
GREY FINE TO MEDIUM SAND	18	
	36	
	20	
		55'-0"
GREY MEDIUM TO COARSE SAND TRACE SMALL GRAVEL	9	
	21	60'-0"

BORING STOPPED BY CLIENT

NOTE ST. #2 (CONT'D) 17'-2" TOTAL 3 1/2" REC. 20

NOTE A: GREY FINE TO MEDIUM SAND

NO. B 2-25

GROUND SURFACE ELEV. 416.3 — 0'-0"

CINDER	8	
	3	
FILL	3	
	3	12'-0"
GREY CLAYEY SILT W/VERY FINE SAND	2	
		17'-0"
GREY	6	WL
SILTY	2	
CLAY		
VERY FINE SAND	4	32'-0"
GREY FINE TO MEDIUM SAND	6	
TRACE SILT & CLAY	5	
	7	46'-6"
GREY	49	
FINE		
SAND	47	
		58'-6"
GREY FINE TO COARSE SAND TR. SMALL GRAVEL & WOOD	9	
	12	71'-0"
GREY FINE TO MEDIUM SAND TRACE SILT	44	75'-0"

BORING STOPPED BY CLIENT

NOTE A: GREY FINE TO COARSE SAND, TRACE SMALL GRAVEL

NO. B 2-26

GROUND SURFACE ELEV. 416.9 — 0'-0"

CINDERS & SAND FILL	10	
	4	6'-0"
BROWN SILTY CLAY & CINDER FILL	4	
	4	13'-0"
BROWN SILTY CLAY	3	
		19'-0"
GREY SILTY CLAY W/VERY FINE SAND	3	
	4	26'-0"
GREY VERY FINE TO FINE SILTY SAND TRACE CLAY	4	
	11	
	4	
		45'-0"
GREY SILTY CLAY & VERY FINE SAND	4	47'-0"
GREY FINE TO MEDIUM SAND	29	
	28	
TRACE SILT		
NOTE A	22	69'-0"

BORING STOPPED BY CLIENT

NOTE A: GREY FINE TO COARSE SAND, TRACE SMALL GRAVEL

NO. B 2-27

GROUND SURFACE ELEV. 400.3 — 0'-0"

GREY SILTY CLAY TR. SAND	9	5'-6"
	9	8'-0"
BROWN & GREY SILTY CLAY & SILT	12	11'-0"
GREY CLAYEY SILT & VERY FINE SAND	7	13'-0"
GREY CLAYEY SILT W/VERY FINE SAND	2	22'-0"
	14	24'-0"
GREY CLAY	1	27'-0"
	2	
GREY FINE TO COARSE SAND TRACE SMALL GRAVEL	17	38'-0"
	35	40'-0"

BORING STOPPED BY CLIENT

NOTE ST. #8 (CONT'D) 33'-8" TOTAL 37'-10" REC. 12

NOTE A: GREY FINE SAND TR. SMALL GRAVEL & SILT

NO. B 2-28

GROUND SURFACE ELEV. 402.9 — 0'-0"

BROWN SILTY CLAY	11	
NOTE A	7	8'-0"
BROWN SILTY CLAY & VERY FINE SAND	3	11'-0"
WL		
GREY FINE SAND	5	WL
		18'-0"
GREY SILTY CLAY	4	
NOTE B	11	
GREY SILTY CLAY & VERY FINE SAND	4	
GREY CLAY	1	
NOTE C	2	
	25	*
GREY FINE TO COARSE SAND TRACE SMALL GRAVEL	38	
	11	
	35	50'-0"

BORING STOPPED BY CLIENT

NOTE A: BROWN SILTY CLAY TRACE SAND

NOTE B: GREY SILTY SANDY CLAY

NOTE C: GREY SILTY SANDY CLAY

NO. B 2-29

GROUND SURFACE ELEV. 400.0 — 0'-0"

BRO. & GR. SILTY CLAY WITH VERY FINE SAND	10	5'-6"
BRO. & GR. SILTY CLAY & VERY FINE SAND	21	8'-6"
GREY FINE SAND TR. SILT & CLAY	6	12'-0"
	2	16'-0"
GREY	2	
SILTY	2	
CLAY	6	27'-0"
	1	32'-0"
GREY FINE TO COARSE SAND TRACE SMALL GRAVEL	11	
	9	41'-0"
GREY FINE SAND	34	45'-0"

BORING STOPPED BY CLIENT

USED 14' OF 2½" CASING

WATER LEVEL IS 11' BELOW GROUND SURFACE 3 HR. AFTER COMPLETION

6/18-19/56

NO. B 2-30

GROUND SURFACE ELEV. 399.4 — 0'-0"

BRO. & GR. CLAYEY SILT & VERY FINE SAND	7	3'-0"
GREY SILTY CLAY TRACE WOOD	2	
	1	9'-0"
GREY SILTY CLAY VERY FINE SAND	3	12'-0"
WL		
GREY	1	
CLAYEY	1/10	
SILT	1	20'-0"
GREY FINE SILTY SAND TRACE CLAY	7	32'-0"
GREY FINE TO MEDIUM SAND	14	WL
		38'-0"
GREY MEDIUM TO COARSE SAND TRACE SILT	11	
	21	
	37	
		54'-0"
NOTE A	28	57'-0"
GREY FINE SAND	34	60'-0"

BORING STOPPED BY CLIENT

NOTE A: GREY FINE TO COARSE SAND TRACE SMALL GRAVEL

NO. B 2-31

GROUND SURFACE ELEV. 399.2 — 0'-0"

BLACK SILTY CLAY FILL & GRAY SILTY CLAY FINE SAND	4	2'-6"
		WL
GREY	3	
SILTY	2	
CLAY	2/16	
TRACE SHELL		18'-0"
BRO. & GREY SILTY CLAY & VERY FINE SAND	2	8'-0"
GREY VERY FINE SILTY SAND TRACE CLAY	1	12'-0"
GREY	2	16'-0"
SILTY CLAY	6	18'-0"
	3	20'-0"
GREY VERY FINE TO FINE SAND TRACE SILT	8	28'-0"
GREY SILTY CLAY	1	29'-0"
	2/18	32'-0"
GREY FINE TO COARSE SAND TRACE SMALL GVL.	9	38'-0"
GREY FINE SAND TRACE CLAY	24	41'-0"
GRAY FINE TO COARSE SAND	7	43'-6"
GREY FINE SAND	30	47'-0"
GREY MEDIUM TO COARSE SAND	13	
	6	57'-0"
FINE GREY SAND TRACE SILTY CLAY	27	60'-0"

BORING STOPPED BY CLIENT

NO. B 2-32

GROUND SURFACE ELEV. 399.8 — 0'-0"

BROWN SILTY CLAY FINE VERY FINE SAND	4	2'-6"
		WL
BRO. & GREY SILTY CLAY & VERY FINE SAND	2	8'-0"
GREY VERY FINE SILTY SAND TRACE CLAY	1	12'-0"
GREY	2	16'-0"
SILTY CLAY	4	18'-0"
	2	20'-0"
GREY VERY FINE TO FINE SAND TRACE SILT	8	28'-0"
GREY FINE SAND	23	32'-0"
GREY FINE TO COARSE SAND TRACE SMALL GRAVEL	9	39'-0"
NOTE A	22	40'-6"
GREY MEDIUM TO COARSE SAND	9	43'-6"
GREY FINE TO MEDIUM SAND TRACE SILT & CLAY	23	
	24	
	26	57'-0"
NOTE B	13	60'-0"

BORING STOPPED BY CLIENT

NOTE A: GREY FINE SAND

NOTE B: GREY FINE TO COARSE SAND TRACE CLAY

USED 60' OF 2½" CASING

WATER LEVEL IS 4' BELOW GROUND SURFACE 3 HRS. AFTER COMPLETION

6/20/56

NO. B217

GR. ELEV. 414.0 — 0'-0"

CINDERS & CLAY FILL	10	3'-0"
BROWN SILTY CLAY TRACE VERY FINE SAND	16	
	11	11'-0"
	6	
	16	
BROWN	19	
FINE	20	
SAND	32	WL
		34'-0"
GREY FINE TO MEDIUM SAND	22	
		39'-0"
NOTE A	22	40'-0"

BORING STOPPED BY CLIENT

NOTE A: GREY FINE TO COARSE SAND

USED 39' OF 2½" CASING

WATER LEVEL IS 30' BELOW GROUND SURFACE 1½ HRS. AFTER COMPLETION

4/18/56

NO. B2-18

GR. ELEV. 415.0 — 0'-0"

CINDER FILL	3	3'-5"
BROWN & GREY SILTY CLAY FILL	8	
	12	8'-6"
BROWN SILT CLAY & VERY FINE SAND	5	
		13'-2"
BROWN VERY	16	
FINE TO		
FINE SAND	18	
TR. SILT		21'-5"
GREY VERY FINE TO FINE SAND TR. SILT	25	28'-4"
GREY &	30	
BROWN FINE	40	
TO MEDIUM		
SAND	45	
TRACE		
SILT	53	45'-0"

BORING STOPPED BY CLIENT

USED 44' OF 2½" CASING

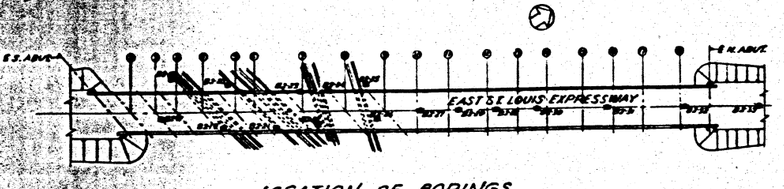
4/22/56

KEY:-
W.L. - WATER LEVEL
@ - INDICATES WATER LOSS IN STRATA
ST. - INDICATES SHELBY TUBE

NOTES
CLASSIFICATIONS ARE MADE BY VISUAL INSPECTION.
WATER LEVELS (W.L.) FIGURE INDICATES TIME OF READING (HOURS) AFTER COMPLETION OF BORING.
WATER LEVELS INDICATED ARE THOSE OBSERVED WHEN BORINGS WERE MADE, OR AS NOTED. POROSITY OF THE SOIL STRATA, VARIATIONS OF RAINFALL, SITE TOPOGRAPHY, ETC., MAY CAUSE CHANGES IN THESE LEVELS.
FIGURES IN RIGHT HAND COLUMN INDICATE NUMBER OF BLOWS REQUIRED TO DRIVE 2'O.D. SAMPLING PIPE ONE FOOT, USING 140-LB. WEIGHT FALLING 30 INCHES

SHELBY TUBE SAMPLES
Minutes — Recovery (inches) / Seconds / Weight (pounds)
STATIC PENETRATION RECORD

X / Y — Number of Blows using 140 pound weight falling 30 inches. / Resulting Penetration in inches for X Blows.
DYNAMIC PENETRATION RECORD

CLASSIFICATION OF SOIL CONTAINED IN SHELBY TUBES IS BASED ON OBSERVATION OF THE SOIL AT THE ENDS OF THE TUBES.

LOCATION OF BORINGS

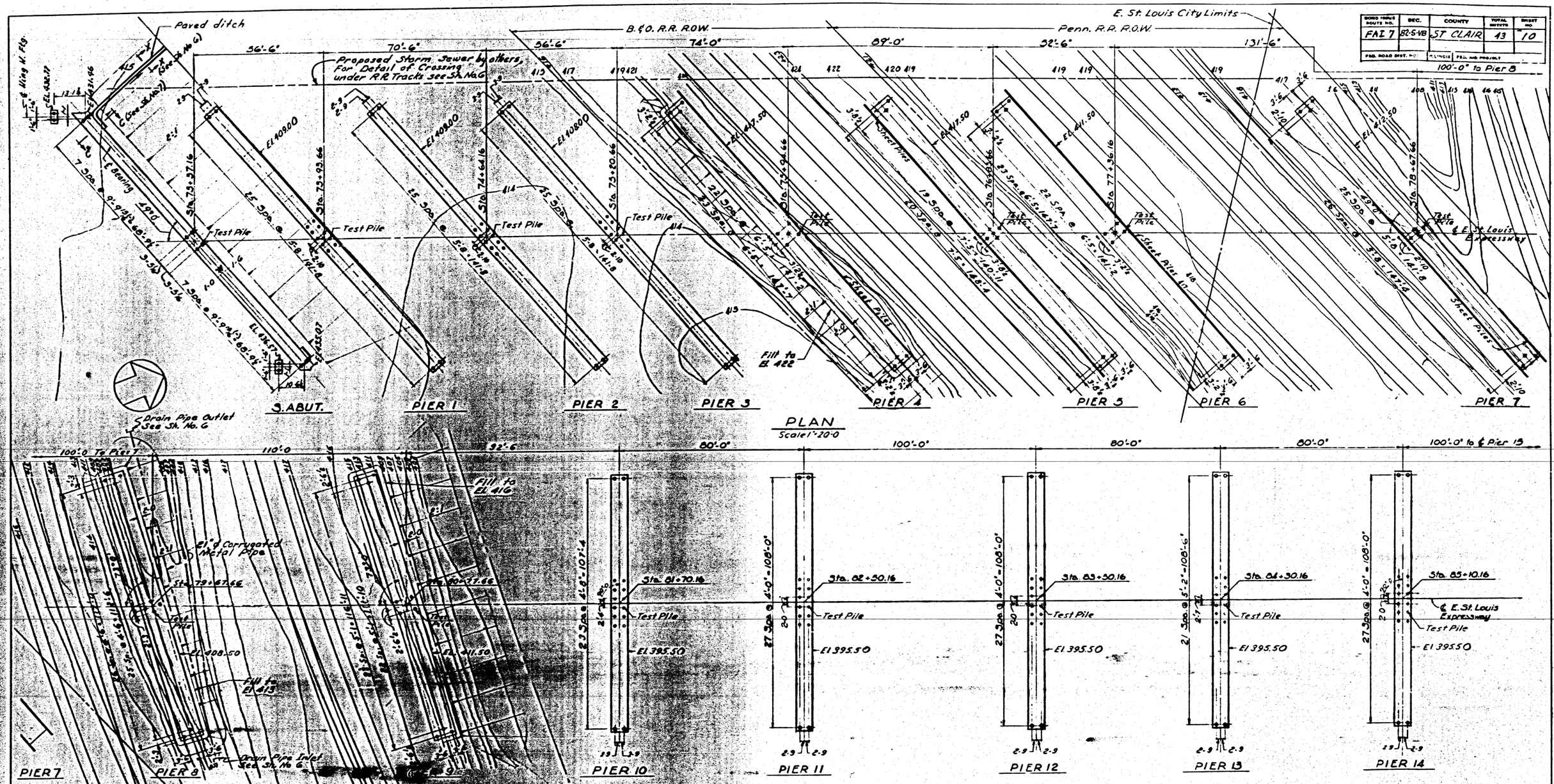
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

BORINGS AND SOIL ANALYSIS

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

BOND ISSUE ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 7	82-5-VB	ST CLAIR	43	10
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



ESTIMATED AVERAGE PAY LENGTH of PILES	
LOCATION	LENGTH in feet
N. & S. Abutment	61
Piers 1, 2 & 3	35
Piers 4, & 5	44
Piers 10 to 18 incl.	42
Pier 8	30
Pier 9	53
Piers 6 & 7	39

Designed by: W.L.F.
Drawn by P.K.
Checked by A.T.

Notes

All elevations shown are to bottom of footings.
Piles to be embedded 1-0.
For General Notes see Sh. No. 2
For S. Abut. & Piers see Sh. No. 7, 10, 12, 14, 15 & 17
Test piles at abutments shall be driven before embankment is placed or through prebored holes in the embankment to natural ground line.
All piles at abutments shall be driven through holes in the embankment that have been bored to natural ground line.
The contractor shall drive one test pile at the South Abutment, one test pile at the North Abutment and one test pile at each Pier in a permanent position as shown on Sheets 5 and 6
Place the fill @ N. Abut. S. Abut & Piers where required well in advance of the construction of the structure to accelerate the consolidation of the soft foundation material.
Fill to be made at Piers 8 & 9 to elevation shown.
Estimated Borrow Excavation — 1,766 cu. yds.

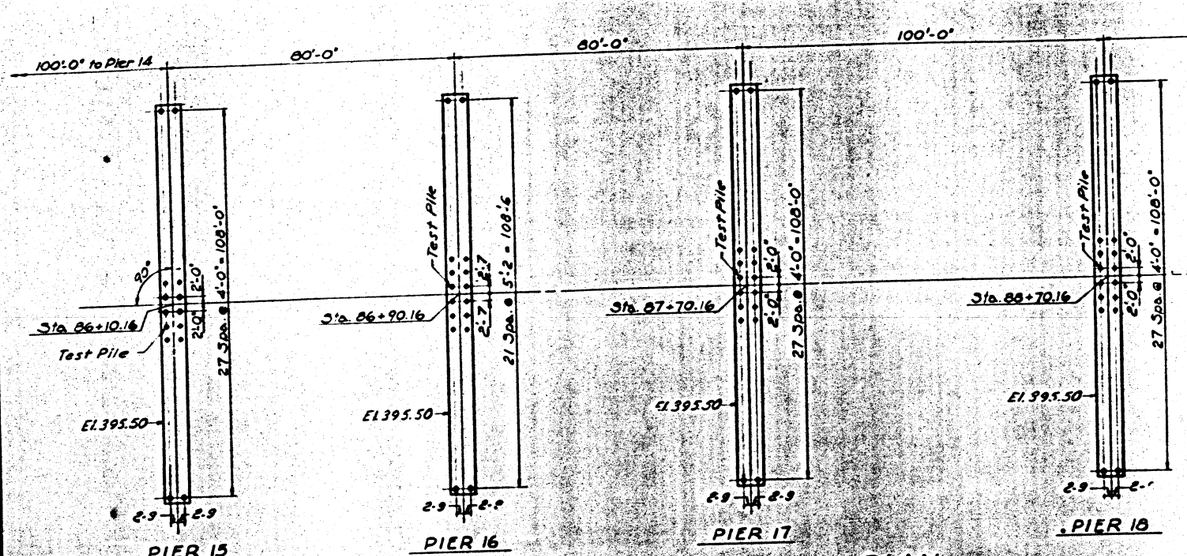
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

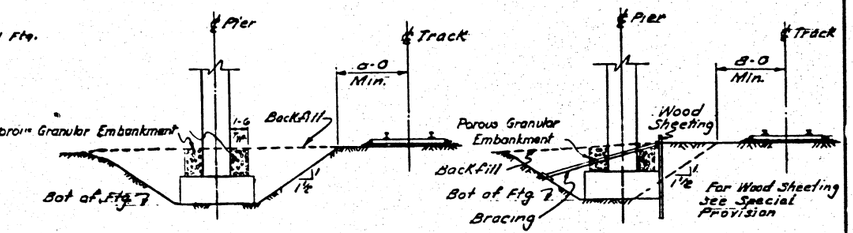
FOUNDATION PLAN FROM SOUTH ABUTMENT TO PIER 14

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

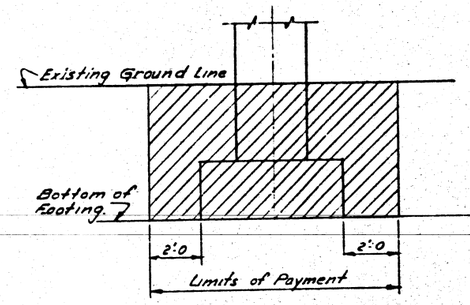
BOND ISSUE ROUTE NO.	SEC	COUNTY	SHEET NO.	TOTAL SHEETS
FAI 7	82-5-VB	ST. CLAIR	43	11
FED. ROAD DIST. NO.	ILLINOIS	STATE		



PLAN
Scale: 1"=20'

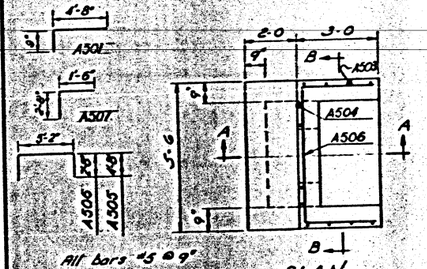


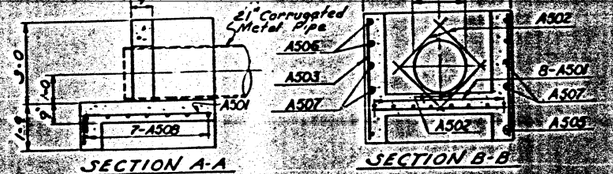
TYPICAL EXCAVATION @ R.R. TRACKS



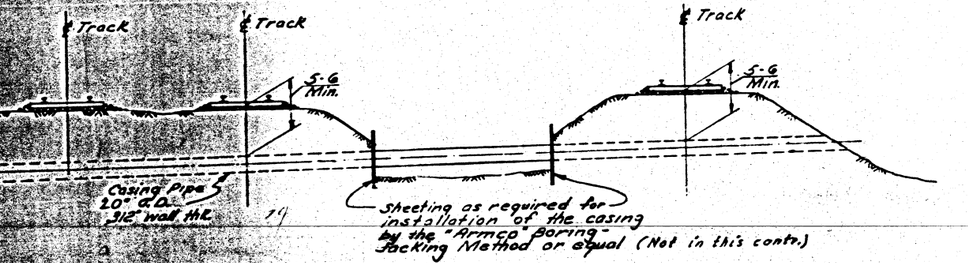
EXCAVATION LIMITS

BAR LIST for Drain Pipe Inlet & Outlet				
Mark	No. Req.	Length	Type	Weight
A501	16	5-5	Bc.	90
A502	8	3-0	St.	25
A503	16	4-5	St.	74
A504	8	3-5	St.	29
A505	2	14-6	Bc.	30
A506	4	10-6	Bc.	44
A507	8	4-2	Bc.	35
A508	14	5-2	St.	75
Total				402

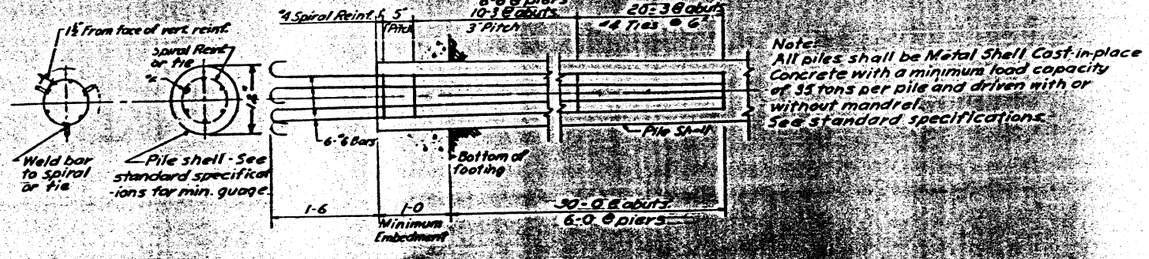




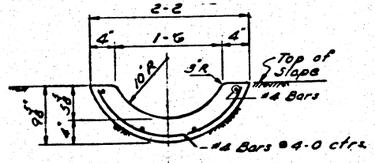
DRAIN PIPE INLET & OUTLET
Scale - 3/8" = 1'-0"



DETAIL of STORM SEWER CROSSING UNDER RAILWAY TRACKS



DETAIL OF REINFORCING FOR PILES



SECTION X-X
Scale - 1" = 1'-0"

BILL OF MATERIAL		
Description	Unit	Total
Class 'X' Concrete	C.Y.	4
Reinforcing Bars	Lb.	402
Paved Ditch	L.F.	330
Corrugated Metal Pipe (21 inch)	L.F.	145

Notes
For General Notes see Sh. No. 2.
For Piers & N. Abut. see Sh. No. 13 & 17
All elevations shown are to bottom of footings
Piles to be embedded 1-0
For Notes see Sh. No. 5

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

FOUNDATION PLAN FROM PIER 15 TO NORTH ABUTMENT AND DETAILS

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

Designed by: W. J. E.
Drawn by: P. K.
Checked by: A. T.

Sheet 6 of 37

BOND ISSUE ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 7	82-5-VB	ST. CLAIR	43	12
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

PLAN
Scale 3/16"=1'-0

DETAIL "E"

DETAIL "F"

ELEVATION
Scale 3/16"=1'-0

PLAN

SECTION B-B
Scale 1/2"=1'-0

VIEW A-A
Scale: 1/2"=1'-0

SECTION C-C
Scale 1/2"=1'-0

SECTION PAD DETAIL

VIEW G-G
Scale 1/2"=1'-0

NOTES:-
For General Notes see Sh. No. 2
For Constr. & Exp. Jt. Detail see Sh. No. 8
For Pile Plan see Sh. No. 6
For S. Abutment bar list see Sh. No. 9
All corners to be chamfered 3/4".
Curb and gutter elevations given at face of backwall.
End Posts included as Class X Concrete.

Designed by: A.T.
Drawn by: R.V.
Checked by: W.J.F.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

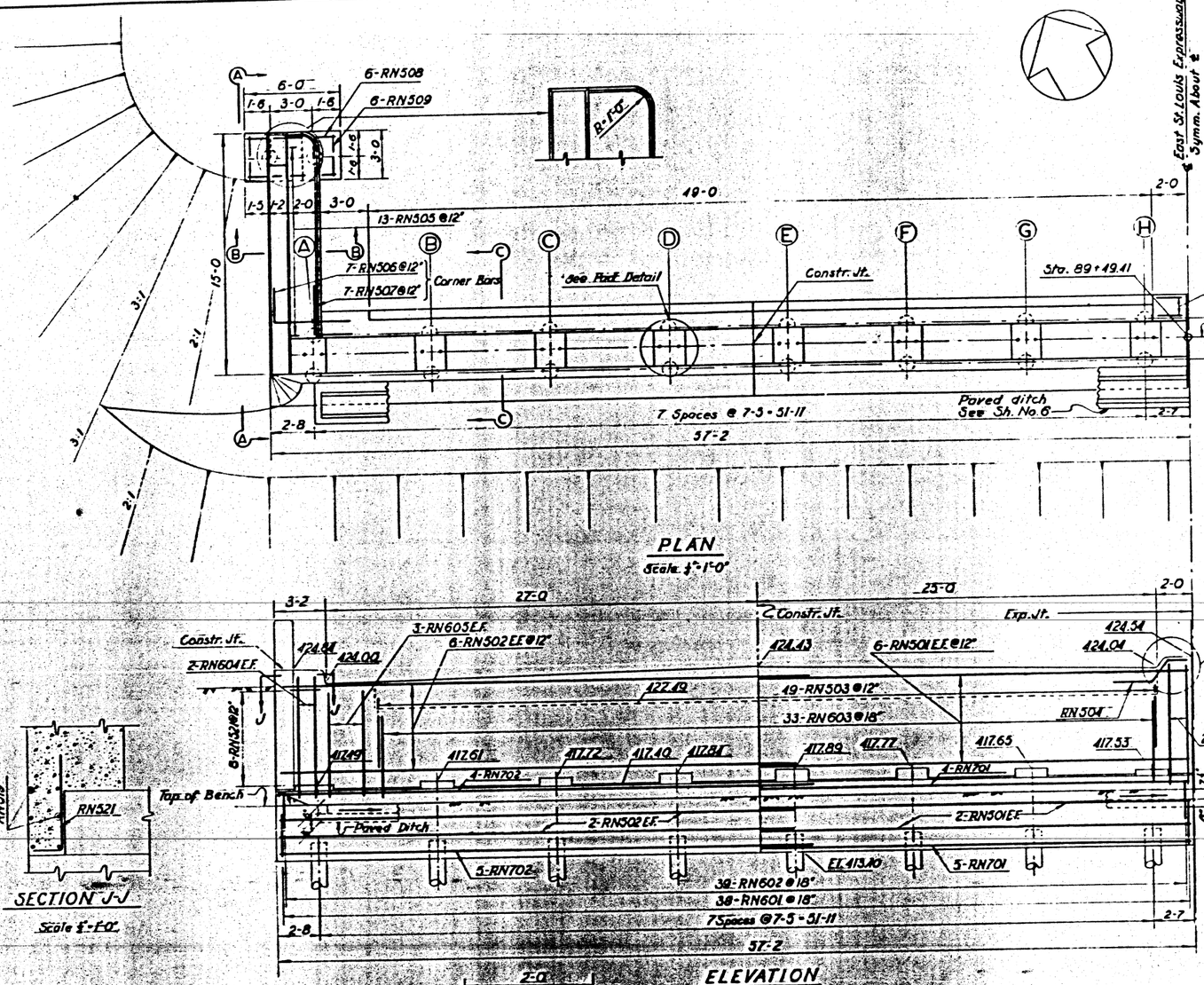
EAST ST. LOUIS EXPRESSWAY

SOUTH ABUTMENT

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

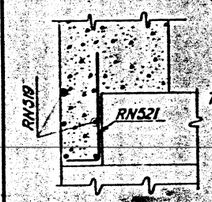
Sheet 7 of 37

BOND ISSUE ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 7	82-5YB	St. Clair	43	13
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



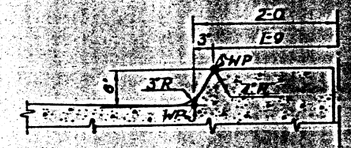
PLAN

Scale ½"=1'-0"

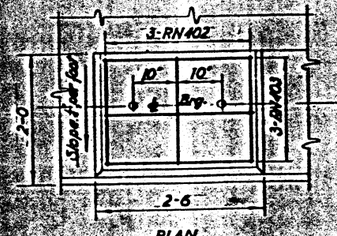


SECTION J-J

Scale ½"=1'-0"



CURB DETAIL



PLAN

PAD DETAIL

ELEVATION

Scale ½"=1'-0"

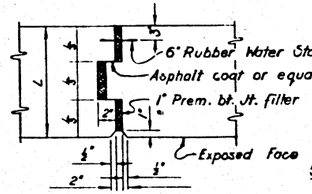
NOTES:

Curb & Gutter elevations given at face of Back Wall.
For general Notes see Sh. No. 2
For Pile Plan see Sh. No. 6
For Abutment Bar List see Sh. No. 9
End Posts included as Class "X" Concrete.

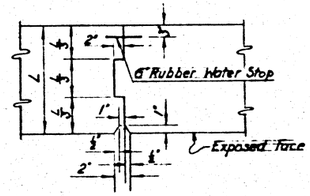
Designed by: A.T.
Drawn by: T.L.
Checked by: W.J.F.

Note: No Reinf. Steel to pass thru. Exp. Jt.

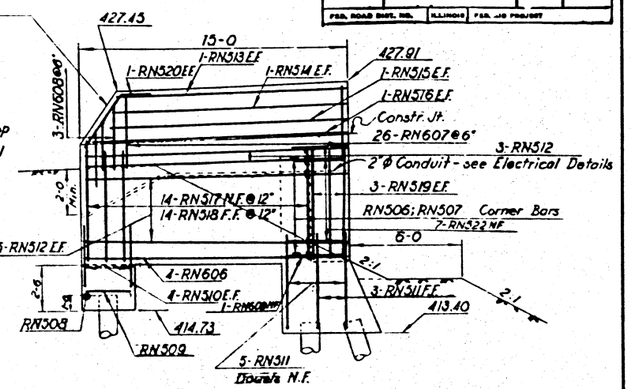
For End Wall Details see Sh. No. 33



TYPICAL EXPANSION JOINT

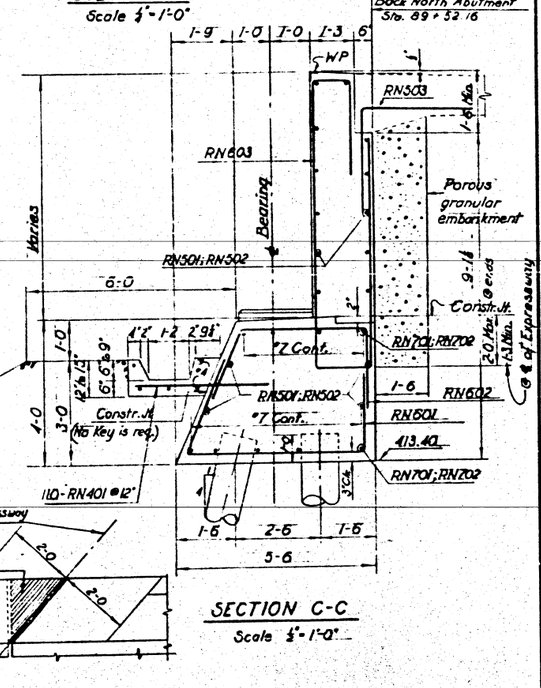


TYPICAL CONSTRUCTION JOINT



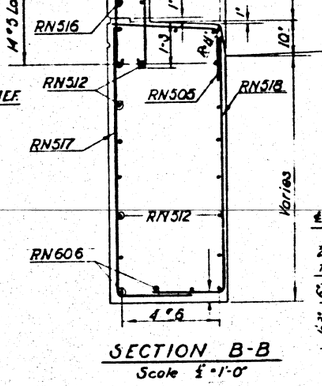
VIEW A-A

Scale ½"=1'-0"



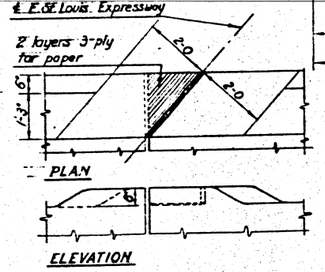
SECTION C-C

Scale ½"=1'-0"



SECTION B-B

Scale ½"=1'-0"

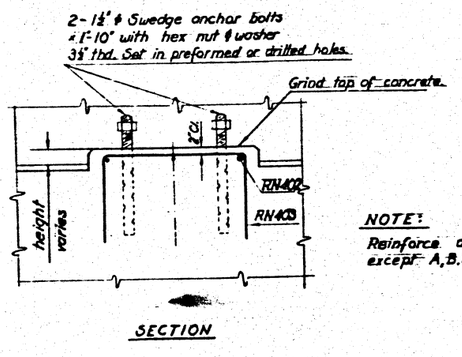


PLAN

ELEVATION

DETAIL D

Scale ½"=1'-0"



SECTION

NOTE:

Reinforce all Pads except A, B, H, J, Q and R.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST LOUIS

EAST ST LOUIS EXPRESSWAY

NORTH ABUTMENT

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

Sh. 8 of 37

BOARD MINUTE SHEETS NO.	SEC.	COUNTY	TOTAL	SHEET NO.
FAI 7	82-5-YB	St. Clair	43	14
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SOUTH ABUTMENT BAR LIST

Mark	No. Req.	Length	Type	Weight
RS401	143	3-6	St.	334
RS402	36	5-4	Bt.	128
RS403	36	5-2	Bt.	124
RS501	17	6-2	Bt.	109
RS502	16	3-7	Bt.	60
RS503	8	35-4	St.	295
RS504	8	41-6	St.	346
RS505	5	11-8	Bt.	61
RS506	4	12-9	St.	53
RS507	4	13-3	St.	55
RS508	4	13-9	St.	57
RS509	4	14-3	St.	59
RS510	14	5-2	St.	75
RS511	23	6-5	Bt.	154
RS512	23	6-4	Bt.	152
RS513	10	14-8	St.	153
RS514	5	16-0	Bt.	83
RS515	130	4-9	Bt.	644
RS516	6	8-4	Bt.	52
RS517	6	7-10	Bt.	49
RS518	16	35-4	St.	590
RS519	8	41-3	St.	344
RS520	12	2-6	St.	31
RS521	12	5-6	St.	69
RS522	6	3-8	Bt.	23
RS523	6	6-4	Bt.	40
RS524	6	8-1	Bt.	51
RS525	23	4-10	Bt.	116
RS526	4	4-8	Bt.	19
RS527	12	4-2	Bt.	52
RS528	1	11-4	St.	12
RS529	1	12-4	St.	13
RS530	1	10-4	St.	11
RS531	1	12-8	St.	15
RS532	8	39-10	St.	332
RS601	52	10-3	Bt.	801
RS602	151	10-8	Bt.	2420
RS603	161	8-2	Bt.	1853
RS604	95	14-2	Bt.	2022
RS605	6	13-9	Bt.	124
RS606	1	6-6	St.	10
RS607	11	8-9	St.	144
RS608	4	9-8	St.	58
RS609	4	12-4	St.	74
RS610	1	3-10	St.	6
RS701	18	43-0	St.	1582
RS702	18	35-4	St.	1300
Total:				15,153

BILL OF MATERIAL S. ABUTMENT

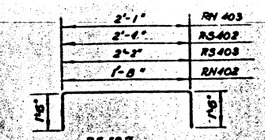
Description	Unit	Total
Class "X" Concrete	C.Y.	174
Reinforcement Bars	Lb.	15,153
Test Piles (Filled Metal Shells)	Ea.	1
Furnishing Metal Pile Shells	L.F.	2135
Driving and Filling Shells	L.F.	2135

NORTH ABUTMENT BAR LIST

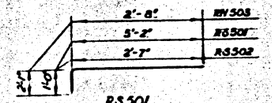
Mark	No. Req.	Length	Type	Weight
RN401	110	3-6	St.	265
RN402	30	4-8	Bt.	94
RN403	30	5-1	Bt.	102
RN501	32	26-8	St.	890
RN502	32	31-1	St.	1,037
RN503	98	4-9	Bt.	485
RN504	6	3-8	Bt.	23
RN505	26	4-10	Bt.	131
RN506	14	7-0	Bt.	102
RN507	14	5-3	Bt.	77
RN508	12	5-6	St.	69
RN509	12	2-6	St.	31
RN510	18	3-7	Bt.	60
RN511	16	6-0	Bt.	100
RN512	32	12-8	St.	423
RN513	4	12-9	St.	53
RN514	4	13-3	St.	55
RN515	4	13-9	St.	57
RN516	4	14-3	St.	59
RN517	28	8-11	Bt.	260
RN518	28	8-7	Bt.	250
RN519	12	7-1	St.	89
RN520	4	4-8	Bt.	19
RN521	16	4-2	Bt.	70
RN522	14	3-3	St.	47
RN601	28	10-9	Bt.	1259
RN602	78	8-0	Bt.	937
RN603	66	19-1	Bt.	1891
RN604	16	6-11	St.	166
RN605	12	6-5	St.	116
RN606	8	12-8	St.	152
RN607	52	10-3	Bt.	801
RN608	6	13-9	Bt.	124
RN609	2	3-6	St.	11
RN701	18	28-7	St.	978
RN702	18	32-2	St.	1,183
Total:				12,466

BILL OF MATERIAL N. ABUTMENT

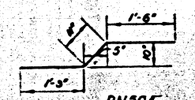
Description	Unit	Total
Class "X" Concrete	C.Y.	160
Reinforcement Bars	Lb.	12,466
Test Piles (Filled Metal Shells)	Ea.	1
Furnishing Metal Pile Shells	L.F.	2135
Driving and Filling Shells	L.F.	2135



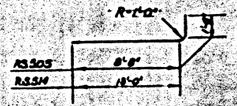
RS402
RS403
RN402
RN403



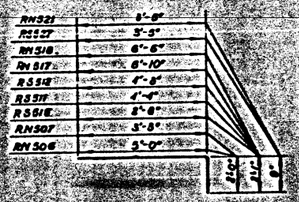
RS501
RS502
RN503



RN504
RS522

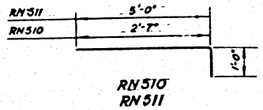


RS505
RS514

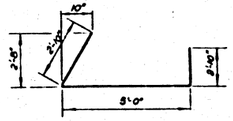


RN506 ; RN621 ;
RN507 ; RS 511 ;
RN517 ; RS 512 ;
RN518 ; RS 515 ;
RS 527 ;

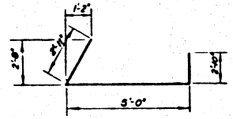
RN505
RS525



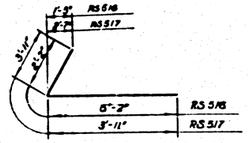
RN510
RN511



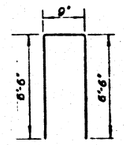
RS602



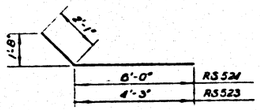
RN601



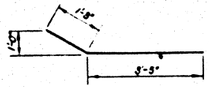
RS516
RS517



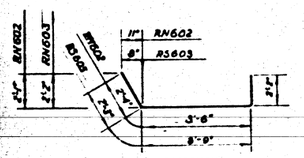
RS605
RN608



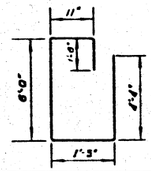
RS523
RS524



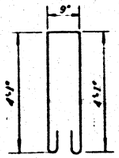
RN520
RS526



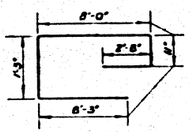
RN602
RS603



RS604



RS601
RN607



RN603

NOTE:

Bar size is indicated in the bar mark. The first digit where three digits are used indicates the bar size number. For example: RS603 is a number 6 size bar and is located @ South Abutment.

Designed by: A.T.
Drawn by: T.L.
Checked by: W.J.F.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

BAR LIST & BILL OF MATERIAL FOR SOUTH & NORTH ABUTMENTS

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

Sheet 9 of 37

FED. ROAD DIST. NO.	STATE	FED. AID PROJECT
	ILLINOIS	

ROAD DIST. ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 7	82-5-VB	ST. CLAIR	43	15

HALF PLAN PIER 1 & 2

HALF PLAN PIER 3

NOTE:
For Pad Elevations see Schedule Sh. No. 11

EL 437.00 Pier 1
EL 439.67 Pier 2
EL 442.33 Pier 3

EL 438.79 Pier 1
EL 441.46 Pier 2
EL 444.13 Pier 3

EL 440.58 Pier 1
EL 443.25 Pier 2
EL 445.93 Pier 3

East St. Louis Expressway

73-9½

74-0½

7 Spa @ 9-9 15/16" = 68-9½

See Pad Det 1

See Pad Det 2

1½ Chamfer

½" Prem. Bit. Jt. Filler

18x18x3 Key

Spiral 13P403 - 23P403 - 33P403 @ 3"

Spiral 13P408 - 23P408 - 33P408 @ 3"

Spiral 13P409 - 23P409 - 33P409

Spiral 13P410 - 23P410 - 33P410

Stirrups (Typ)

Dowels Typ.

Columns

4 Spa @ 15'-3" = 61'-0

3'-0 Dia.

#4 Spiral 3" Pitch

SECTION A-A

SECTION B-B

ELEVATION

Sym. about ℄ except as shown

EL. 409.00 Pier 1 & 2
EL. 408.00 Pier 3

HALF PLAN SHOWING TOP REINFORCEMENT

FOOTING PLAN

HALF PLAN SHOWING BOTTOM REINFORCEMENT

NOTE:
All corners to be chamfered ¾" unless otherwise noted.
In placing reinforcing steel in the bearing pad core shall be taken to clear anchor bolt holes.

NOTES:
For General Notes see Sh. No. 2
For Pile Plan & Details see Sh. No. 5 & No. 6
For Pad Elevation & Bar List see Sh. No. 11

PAD DETAIL 1

PAD DETAIL 2

SECTION D-D

SECTION E-E

SECTION C-C

For Elevations see Schedule
Grind Top of Pad

1½" ℄ Swedge Anchor Bolts 2'-2" Lg. 3½" Thd. Hex Nut & Washer Set in preformed or drilled holes

Reinf only when pad height exceeds 3"

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

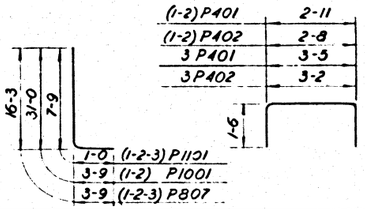
PIERS 1, 2 AND 3

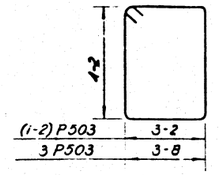
H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

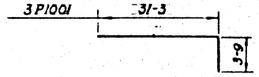
Designed by M.J.F.
Drawn by J.C.E.
Checked by H.M.M.

ROAD DIST'S ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 7	82S-YB	St. Clair	43	16
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PIER	STATION @ PIER		PAD ELEVATIONS A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R
1	73+93.66		437.21	437.57	437.93	438.29	438.58	438.71	438.83	439.03	439.20	439.49	439.83	440.21	440.40	440.53	440.66	440.78
2	74+64.16		439.87	440.23	440.59	440.95	441.24	441.37	441.49	441.69	441.86	442.15	442.51	442.87	443.06	443.19	443.32	443.44
3	75+20.66	S	442.48	442.84	443.20	443.56	443.85	443.98	444.10	444.27	444.41	444.76	445.12	445.48	445.67	445.80	445.93	446.05
		N	442.55	442.91	443.26	443.63	443.92	444.04	444.17	444.28	444.45	444.83	445.19	445.54	445.74	445.87	446.00	446.12







PIER 1
BAR LIST

Location	Mark	No. Req.	Length	Type	Weight
FOOTING	1P801	28	36-6	St.	2,729
	1P802	36	33-10	St.	5,058
	1P803	14	17-0	St.	635
	1P804	28	28-10	St.	2,155
	1P805	14	32-3	St.	1,206
	1P601	290	8-0	St.	3,485
	1P1101	180	8-9	Bt.	8,368
COLUMN	1P1102	36	23-9	St.	4,543
	1P1103	36	24-6	St.	4,686
	1P1104	18	25-0	St.	2,391
	1P1105	18	25-6	St.	2,439
	1P1106	36	26-0	St.	4,973
	1P1107	36	26-6	St.	5,069
CAP	1P1001	18	34-9	Bt.	2,692
	1P806	18	34-1	St.	1,638
	1P807	18	20-0	Bt.	961
	1P808	12	38-2	St.	1,223
	1P809	12	38-10	St.	1,244
	1P501	8	37-7	St.	314 ~~315~~
	1P502	8	38-3	St.	319 ~~320~~
	1P503	88	15-6	Bt.	1,423
	1P401	64	5-11	Bt.	253
	1P402	64	5-8	Bt.	242 ~~240~~
Total:					58,046 ~~58,044~~

PIER 2
BAR LIST

Location	Mark	No. Req.	Length	Type	Weight
FOOTING	2P801	28	36-6	St.	2,729
	2P802	56	33-10	St.	5,058
	2P803	14	17-0	St.	635
	2P804	28	28-10	St.	2,155
	2P805	14	32-3	St.	1,206
	2P601	290	8-0	St.	3,485
	2P1101	180	8-9	Bt.	8,368
COLUMN	2P1102	36	26-3	St.	5,021
	2P1103	36	27-0	St.	5,164
	2P1104	18	27-6	St.	2,650
	2P1105	18	28-0	St.	2,678
	2P1106	36	28-6	St.	5,451
	2P1107	36	29-0	St.	5,547
CAP	2P1001	18	34-9	Bt.	2,692
	2P806	18	34-1	St.	1,638
	2P807	18	20-0	Bt.	961
	2P808	12	38-2	St.	1,223
	2P809	12	38-10	St.	1,244
	2P501	8	37-7	St.	314 ~~315~~
	2P502	8	38-3	St.	319 ~~320~~
	2P503	88	15-6	Bt.	1,423
	2P401	64	5-11	Bt.	253
	2P402	64	5-8	Bt.	242 ~~240~~
Total:					60,436 ~~60,434~~

PIER 3
BAR LIST

Location	Mark	No. Req.	Length	Type	Weight
FOOTING	3P801	28	36-6	St.	2,729
	3P802	56	33-10	St.	5,058
	3P803	14	17-0	St.	635
	3P804	28	28-10	St.	2,155
	3P805	14	32-3	St.	1,206
	3P601	290	8-0	St.	3,485
	3P1101	180	8-9	Bt.	8,368
COLUMN	3P1102	36	29-0	St.	5,547
	3P1103	36	29-9	St.	5,690
	3P1104	18	30-3	St.	2,893
	3P1105	18	30-9	St.	2,941
	3P1106	36	31-3	St.	5,977
	3P1107	36	31-9	St.	6,073
CAP	3P1001	18	35-0	Bt.	2,711
	3P806	18	34-1	St.	1,638
	3P807	18	20-0	Bt.	961
	3P808	12	38-5	St.	1,231
	3P809	12	38-10	St.	1,244
	3P501	8	37-10	St.	316
	3P502	8	38-3	St.	319 ~~320~~
	3P503	88	16-6	Bt.	1,514
	3P401	64	6-5	Bt.	274
	3P402	64	6-2	Bt.	264 ~~260~~
Total:					63,229 ~~63,226~~

NOTES:

Work this Drawing with Drawing Sh. No. 10.
Location of bar is indicated by the number before the letter. Bar Size is indicated in the bar mark. The first digit where three digits are used, and first two digits where four digits are used indicates the bar size number.
For example: 3P803 is a number 8 size bar and is located @ Pier 3. 2P1106 is a number 11 size bar and is located @ Pier 2.

SPIRAL REINFORCING BARS.

The "LENGTH" shown in the steel list for the spiral bars is the distance from the top of the footing to the bottom of the pier cap.
The "No. of TURNS" shown in the steel list for the spiral bars is the "LENGTH" divided by the "PITCH" plus 3 turns (total number of closed coils), expressed as the nearest whole number.
Spiral reinforcing bars shall not have deformations but shall in other respects conform to Item No. 4.
1½ closed coils shall be provided at the ends of each spiral unit.
Four steel channels, tee or angle spacers, weighing approximately 0.75 lb. per lin. ft. of spacer, shall be provided for each spiral unit. They shall be equally spaced along the periphery of the coil. The number of pounds of these spacers, based on 0.75 lb. per lin. ft., will be paid for as reinforcing steel and is included in the tabulated quantity of spiral bars.

SPIRAL REINFORCING LIST — PIER 1

Mark	No.	Core Dia. & Spiral	Length Overall	Pitch	No. of Turns	Weight
1SP401	1	32	19-9	3"	82	518
1SP402	1	"	20-0	"	83	525 ~~526~~
1SP403	1	"	20-6	"	85	538 ~~539~~
1SP404	1	"	20-9	"	86	544 ~~545~~
1SP405	1	"	21-0	"	87	550
1SP406	1	"	21-6	"	89	563
1SP407	1	"	22-0	"	91	576 ~~575~~
1SP408	1	"	22-3	"	92	582
1SP409	1	"	22-6	"	93	588
1SP410	1	32	23-0	3"	93	600
Total:						~~3,570~~ 5584

SPIRAL REINFORCING LIST — PIER 2

Mark	No.	Core Dia. & Spiral	Length Overall	Pitch	No. of Turns	Weight
2SP401	1	32	22-3	3"	92	582
2SP402	1	"	22-6	"	93	588
2SP403	1	"	23-0	"	95	601 ~~600~~
2SP404	1	"	23-3	"	96	607
2SP405	1	"	23-6	"	97	614
2SP406	1	"	24-0	"	99	626
2SP407	1	"	24-6	"	101	639
2SP408	1	"	24-9	"	102	645 ~~644~~
2SP409	1	"	25-0	"	103	652 ~~651~~
2SP410	1	32	25-6	3"	105	665 ~~664~~
Total:						~~6,213~~ 6219

SPIRAL REINFORCING LIST — PIER 3

Mark	No.	Core Dia. & Spiral	Length Overall	Pitch	No. of Turns	Weight
3SP401	1	32	25-0	3"	103	652 ~~651~~
3SP402	1	"	25-3	"	104	658
3SP403	1	"	25-9	"	106	671 ~~670~~
3SP404	1	"	26-0	"	107	677 ~~676~~
3SP405	1	"	26-3	"	108	684 ~~683~~
3SP406	1	"	26-9	"	110	696 ~~695~~
3SP407	1	"	27-3	"	112	709 ~~708~~
3SP408	1	"	27-6	"	113	715
3SP409	1	"	27-9	"	114	722 ~~721~~
3SP410	1	32	28-3	3"	116	734
Total:						~~6,911~~ 6918

BILL OF MATERIAL PIER 1

Description	Unit	Total
Class "X" Concrete	C.Y.	326
Reinforcement Bars	Lb.	~~63,633~~ 63,630
Test Piles (Filled Metal Shells)	Ea.	1
Furnishing Metal Pile Shells	L.F.	1785
Driving and Filling Shells	L.F.	1785

BILL OF MATERIAL PIER 2

Description	Unit	Total
Class "X" Concrete	C.Y.	333
Reinforcement Bars	Lb.	~~66,640~~ 66,655
Test Piles (Filled Metal Shells)	Ea.	1
Furnishing Metal Pile Shells	L.F.	1785
Driving and Filling Shells	L.F.	1785

BILL OF MATERIAL PIER 3

Description	Unit	Total
Class "X" Concrete	C.Y.	353
Reinforcement Bars	Lb.	~~70,137~~ 70,147
Test Piles (Filled Metal Shells)	Ea.	1
Furnishing Metal Pile Shells	L.F.	1785
Driving and Filling Shells	L.F.	1785

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

BAR LIST & BILL OF MATERIAL FOR PIERS 1, 2 AND 3

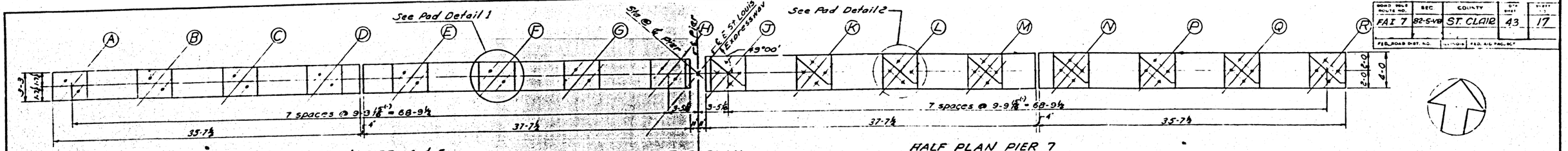
H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

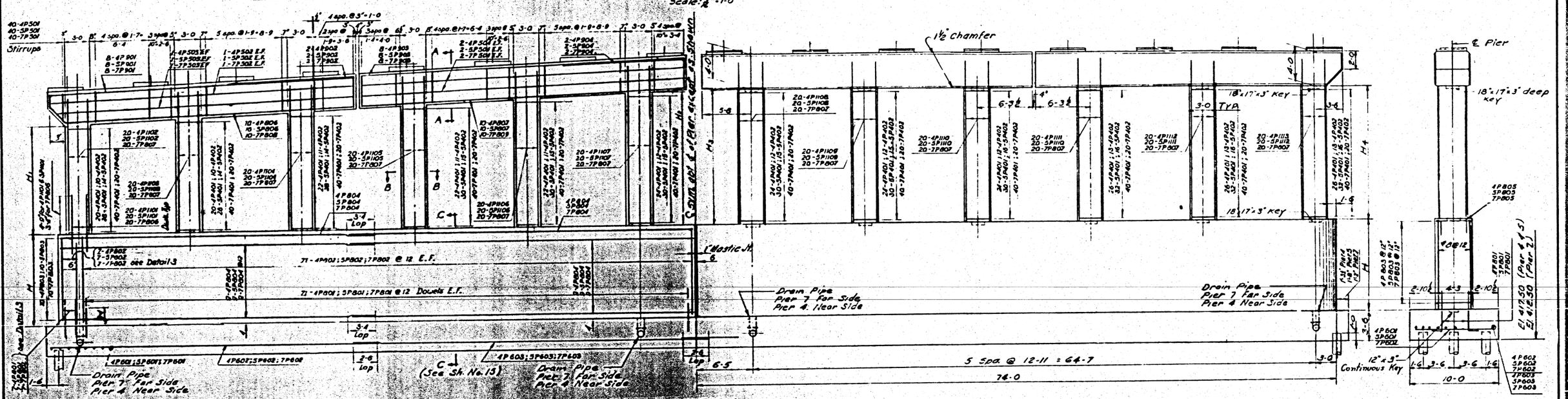
Sh. 11 of 37

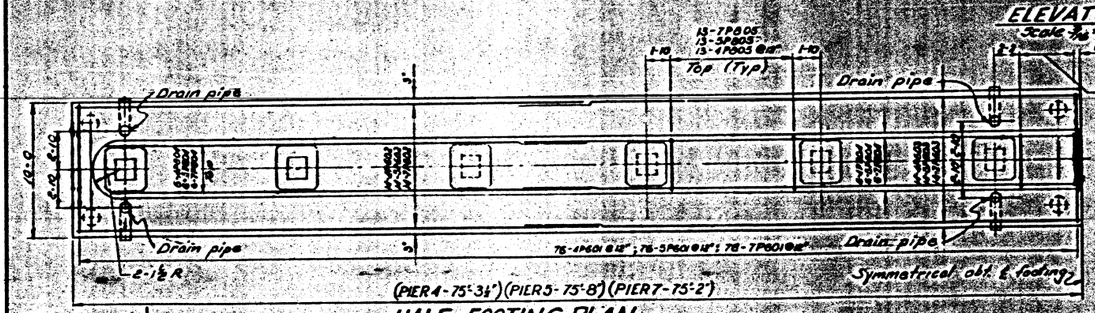
Designed by: A.T.
Drawn by: T.L.
Checked by: W.J.F.

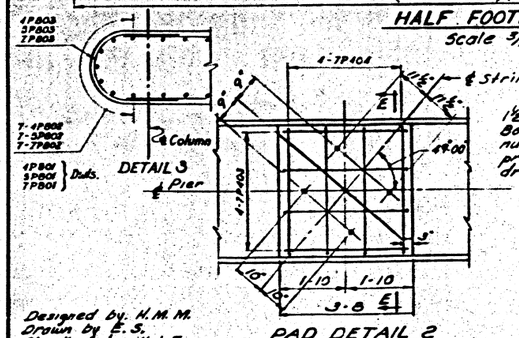
Revised - 3-20-58 - WJM - Revised quantities of Reinf. Bars in BAR LISTS, SPIRAL REINFORCING LISTS & BILLS OF MATERIAL. Original Figures "lined-out" but left legible.

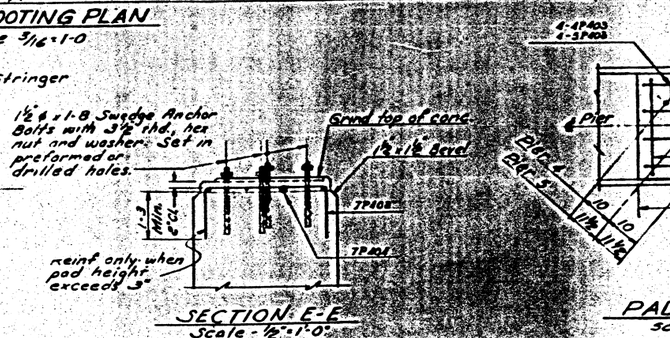
ROAD DIST. NO.	ROUTE NO.	SEC	COUNTY	SHEET NO.	SHEETS
FED. ROAD DIST. NO.	FAI 7	82-5-VB	ST. CLAIR	43	17
			ILLINOIS	FED. AID PROJECT	

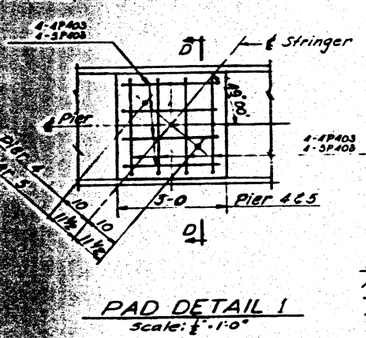


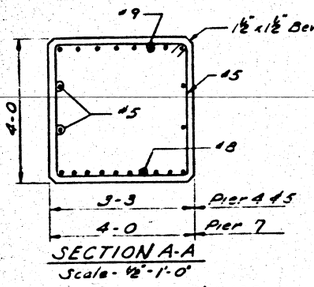


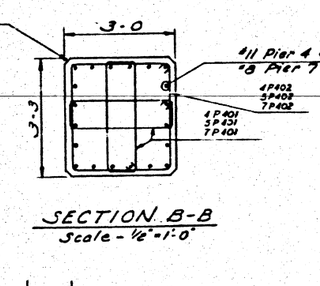


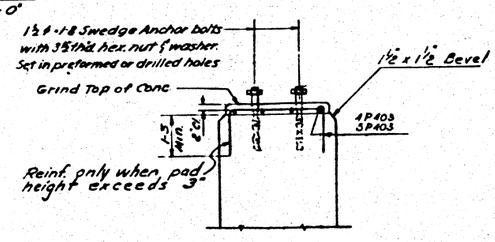


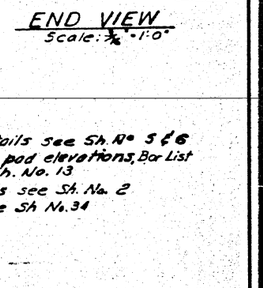












NOTES:
For Pile Plan & Details see Sh. No. 5 & 6
For Column heights, pad elevations, Bar List & Sta. of ℄ Pier See Sh. No. 13
For General Notes see Sh. No. 2
For Drain Pipe see Sh. No. 34

NOTE
All corners to be chamfered 3/4" unless otherwise noted.
In placing reinforcing steel in the bearing pad care shall be taken to clear anchor bolt holes.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST LOUIS

EAST ST. LOUIS EXPRESSWAY

PIERS 4, 5 & 7

H. W LOCHNER, INC
ENGINEERS
CHICAGO, ILLINOIS

FED. ROAD DIST. NO.	STATE	FED. AID PROJECT	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 7	82-5-V8		ST. CLAIR	43	17a
STA.	TO STA.				

HALF PLAN PIER 4 & 5

HALF PLAN PIER 7

TOP PLAN
Scale: 1/8" = 1'-0"

ELEVATION
Scale: 1/8" = 1'-0"

HALF FOOTING PLAN
Scale 5/16" = 1'-0"

SECTION A-A
Scale - 1/2" = 1'-0"

SECTION B-B
Scale - 1/2" = 1'-0"

SECTION C-C
(See Sh. No. 13)

SECTION D-D
Scale: 1/2" = 1'-0"

SECTION E-E
Scale - 1/2" = 1'-0"

END VIEW
Scale: 3/16" = 1'-0"

DETAIL 3

PAD DETAIL 1
Scale: 1/2" = 1'-0"

PAD DETAIL 2
Scale - 1/2" = 1'-0"

Designed by H. M. M.
Drawn by E. S.
Checked by W. J. F.

NOTES:
For Pile Plan & Details see Sh. No 5 & 6
For column heights, pad elevations, Bar List & Sta. of ℄ Pier see Sh. No. 13
For General Notes see Sh. No. 2
For Drain Pipe see Sh No. 34

NOTE
All corners to be chamfered .3/4" unless otherwise noted.
In placing reinforcing steel in the bearing pad care shall be taken to clear anchor bolt holes.

⚠	Jan 27, 1958
Revision	Date

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST LOUIS

EAST ST. LOUIS EXPRESSWAY

PIERS 4, 5 & 7

H. W. LOCHNER, INC
ENGINEERS
CHICAGO, ILLINOIS

Sh. 12a of 37

BOND ISSUE ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 7	82-5-VB	St. Clair	43	13
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PIER No.	℄ Brg.	PAD ELEVATIONS AT STRINGER A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R
4		444.81	445.16	445.52	445.88	446.17	446.29	446.40	446.49	446.68	447.00	447.33	447.65	447.81	447.89	447.97	448.05
5		447.91	448.21	448.51	448.80	449.02	449.07	449.12	449.14	449.24	449.53	449.79	450.04	450.13	450.14	450.15	450.25
7	South	449.09	449.26	449.41	449.56	449.64	449.55	449.45	449.39	449.40	449.48	449.59	449.70	449.64	449.51	449.38	449.23
	North	449.10	449.29	449.45	449.61	449.70	449.62	449.54	449.44	449.46	449.56	449.71	449.76	449.73	449.60	449.48	449.35

STATION at ℄ of PIER	Elev. Top of Ftg.	DIMENSIONS H	H_1	H_2	H_3	H_4
75 + 94.66	421.00	9.50	10.08	11.75	12.00	13.33
76 + 83.66	421.00	9.00	13.50	14.83	15.00	16.08
78 + 67.66	416.00	9.50	19.42	19.42	19.50	19.50

PIER 4
BAR LIST

Location	Mark	No. Req.	Length	Type	Weight
FOOTING	4P601	151	9-6	St.	2,155
	4P602	28	37-7	St.	1,580
	4P603	28	40-0	St.	1,682
	4P801	298	6-10	Bt.	5,434
CRASH WALL	4P802	298	9-3	St.	7,360
	4P803	20	12-9	Bt.	681
	4P804	96	39-6	St.	9,868
	4P805	140	10-7	Bt.	3,950
	4P1101	240	9-6	St.	12,114
COLUMN	4P1102	20	13-9	St.	1,461
	4P1103	20	14-0	St.	1,488
	4P1104	20	14-6	St.	1,541
	4P1105	20	14-9	St.	1,567
	4P1106	20	15-0	St.	1,594
	4P1107	20	15-6	St.	1,647
	4P1108	20	15-9	St.	1,674
	4P1109	20	16-0	St.	1,700
	4P1110	20	16-3	St.	1,727
	4P1111	20	16-6	St.	1,753
	4P1112	20	16-9	St.	1,780
	4P1113	20	17-0	St.	1,806
CAP	4P401	280	7-7	Bt.	1,418
	4P402	140	11-10	Bt.	1,106
	4P403	128	6-2	Bt.	527
	4P501	90	14-0	Bt.	1,314
	4P502	4	35-3	St.	147
	4P503	4	34-3	St.	143
	4P504	8	37-4	St.	313
	4P806	20	33-11	Bt.	1,918
	4P807	20	37-4	St.	1,993
	4P901	16	37-1	Bt.	2,017
	4P902	4	12-0	St.	163
	4P903	16	39-0	Bt.	2,122
	4P904	4	13-8	Bt.	186
Total:					77,929

BILL OF MATERIAL PIER 4

Description	Unit	Total
Class "X" Concrete	C.Y.	537
Reinforcement Bars	Lb.	77,929
Test Piles (Filled Metal Shells)	Ea.	1
Furnishing Metal Pile Shells	L.F.	3080
Driving and Filling Shells	L.F.	3080

PIER 5
BAR LIST

Location	Mark	No. Req.	Length	Type	Weight
FOOTING	5P601	152	9-6	St.	2,169
	5P602	28	38-0	St.	1,598
	5P603	28	40-0	St.	1,682
	5P801	298	6-10	Bt.	5,434
CRASH WALL	5P802	298	8-9	St.	6,962
	5P803	20	12-9	Bt.	681
	5P804	96	38-6	St.	987
	5P805	140	10-7	Bt.	3,950
	5P1101	240	9-6	St.	12,114
COLUMN	5P1102	20	17-3	St.	1,833
	5P1103	20	17-6	St.	1,860
	5P1104	20	17-9	St.	1,886
	5P1105	20	18-0	St.	1,913
	5P1106	20	18-3	St.	1,939
	5P1107	20	18-6	St.	1,966
	5P1108	20	18-9	St.	1,992
	5P1109	20	19-0	St.	2,019
	5P1110	40	19-3	St.	4,091
	5P1111	20	19-6	St.	2,072
	5P1112	20	19-9	St.	2,098
CAP	5P401	360	7-7	Bt.	1,823
	5P402	180	11-10	Bt.	1,422
	5P403	128	6-2	Bt.	527
	5P501	90	14-0	Bt.	1,314
	5P502	4	35-3	St.	147
	5P503	4	34-3	St.	143
	5P504	8	37-4	St.	313
	5P806	20	33-11	Bt.	1,918
	5P807	20	37-4	St.	1,993
	5P901	16	37-1	Bt.	2,017
	5P902	4	12-0	St.	163
	5P903	16	39-0	Bt.	2,122
	5P904	4	13-8	Bt.	186
Total:					73,334

BILL OF MATERIAL PIER 5

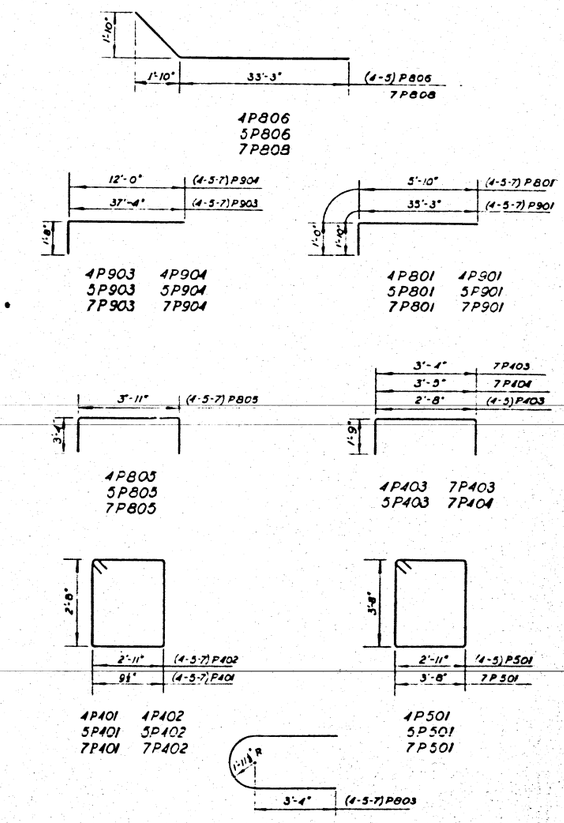
Description	Unit	Total
Class "X" Concrete	C.Y.	540
Reinforcement Bars	Lb.	73,334
Test Piles (Filled Metal Shells)	Ea.	1
Furnishing Metal Pile Shells	L.F.	2684
Driving and Filling Shells	L.F.	2684

PIER 7
BAR LIST

Location	Mark	No. Req.	Length	Type	Weight
FOOTING	7P601	151	9-6	St.	2,155
	7P602	28	37-6	St.	1,580
	7P603	28	40-0	St.	1,682
	7P801	298	6-10	Bt.	5,434
CRASH WALL	7P802	298	9-3	St.	7,360
	7P803	20	12-9	Bt.	681
	7P804	96	38-6	St.	987
	7P805	140	10-7	Bt.	3,950
	7P806	240	6-8	St.	4,274
	7P807	240	22-10	St.	14,629
COLUMN	7P401	180	7-7	Bt.	2,430
	7P402	240	11-10	Bt.	1,897
	7P403	64	6-10	Bt.	292
	7P404	64	6-11	Bt.	296
CAP	7P501	90	15-6	Bt.	1,454
	7P502	4	35-3	St.	147
	7P503	4	34-3	St.	143
	7P504	8	37-4	St.	313
	7P808	20	35-11	Bt.	1,918
	7P809	20	37-4	St.	1,993
	7P901	16	37-1	Bt.	2,017
	7P902	4	12-0	St.	163
	7P903	16	39-0	Bt.	2,122
	7P904	4	13-8	Bt.	186
Total:					58,103

BILL OF MATERIAL PIER 7

Description	Unit	Total
Class "X" Concrete	C.Y.	586
Reinforcement Bars	Lb.	58,103
Test Piles (Filled Metal Shells)	Ea.	1
Furnishing Metal Pile Shells	L.F.	3081
Driving and Filling Shells	L.F.	3081



NOTES:

Work this Drwg. with Drwg. Sh. No. 12.
See Notes on Sh. No. 11.

Designed by: A.T.
Drawn by: T.L.
Checked by: W.J.F.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

BAR LIST & BILL OF MATERIAL FOR PIERS 4, 5 AND 7

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

Sh. 13 of 37

BOND ISSUE ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 7	82-5-V8	St. Clair	43	13a
STA.	TO STA			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PIER No.	℄ Brg.	PAD ELEVATIONS AT STRINGER A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R
4		444.81	445.16	445.52	445.88	446.17	446.29	446.40	446.49	446.68	447.00	447.33	447.65	447.81	447.89	447.97	448.05
5		447.91	448.21	448.51	448.80	449.02	449.07	449.12	449.14	449.24	449.53	449.79	450.04	450.13	450.14	450.15	450.25
7	South	449.09	449.26	449.41	449.56	449.64	449.55	449.45	449.39	449.40	449.48	449.59	449.70	449.64	449.51	449.38	449.23
	North	449.10	449.29	449.45	449.61	449.70	449.62	449.54	449.44	449.46	449.58	449.71	449.76	449.73	449.60	449.48	449.35

STATION at ℄ of PIER	Elev. Top of Ftg.	DIMENSIONS H	H1	H2	H3	H4
75+94.66	421.00	9.50	10.08	11.75	12.00	13.33
76+83.66	421.00	9.00	13.50	14.83	15.00	16.08
78+67.66	416.00	9.50	19.42	19.42	19.50	19.50

PIER 4

BAR LIST

Location	Mark	No. Req.	Length	Type	Weight
FOOTING	4P601	151	9-6	St.	2,155
	4P602	28	37-7	St.	1581 ~~1580~~
	4P603	28	40-0	St.	1,682
	4P801	298	6-10	Bt.	5,434
CRASH WALL	4P802	298	9-3	St.	7,360
	4P803	20	12-9	Bt.	681
	4P804	96	38-6	St.	9,868
	4P805	140	10-7	Bt.	3455 ~~3,550~~
	4P1101	240	9-6	St.	12,114
COLUMN	4P1102	20	13-9	St.	1,461
	4P1103	20	14-0	St.	1,488
	4P1104	20	14-6	St.	1,541
	4P1105	20	14-9	St.	1,567
	4P1106	20	15-0	St.	1,594
	4P1107	20	15-6	St.	1,647
	4P1108	20	15-9	St.	1,674
	4P1109	20	16-0	St.	1,700
	4P1110	20	16-3	St.	1,727
	4P1111	20	16-6	St.	1,753
	4P1112	20	16-9	St.	1,780
	4P1113	20	17-0	St.	1,806
CAP	4P401	140	7-7	Bt.	769 ⚠1
	4P402	140	11-10	Bt.	1,106
	4P405	140	8-1	Bt.	756 ⚠1
	4P403	128	6-2	Bt.	528 ~~527~~
	4P501	90	14-0	Bt.	1,314
	4P502	4	35-3	St.	147
	4P503	4	34-3	St.	143
	4P504	8	37-4	St.	312 ~~313~~
	4P806	20	33-11	Bt.	1,918
	4P807	20	37-4	St.	1,993
	4P901	16	37-1	Bt.	2,017
	4P902	4	12-0	St.	163
	4P903	16	39-0	Bt.	2,122
	4P904	4	13-8	Bt.	186
Total:					77,982 ~~77,976~~ ⚠1

BILL OF MATERIAL PIER 4

Description	Unit	Total
Class "X" Concrete	C.Y.	537
Reinforcement Bars	LB. (77,982) ~~77,976~~	⚠1
Test Piles (Filled Metal Shells)	Ea.	7
Furnishing Metal Pile Shells	L.F.	3080
Driving and Filling Shells	L.F.	3080

PIER 5

BAR LIST

Location	Mark	No. Req.	Length	Type	Weight
FOOTING	5P601	152	9-6	St.	2,169
	5P602	28	38-0	St.	1,598
	5P603	28	40-0	St.	1,682
	5P801	298	6-10	Bt.	5,434
CRASH WALL	5P802	298	8-9	St.	6,962
	5P803	20	12-9	Bt.	681
	5P804	96	38-6	St.	9,868 ⚠1
	5P805	140	10-7	Bt.	3455 ~~3,550~~
	5P1101	240	9-6	St.	12,114
COLUMN	5P1102	20	17-3	St.	1,833
	5P1103	20	17-6	St.	1,860
	5P1104	20	17-9	St.	1,886
	5P1105	20	18-0	St.	1,913
	5P1106	20	18-3	St.	1,939
	5P1107	20	18-6	St.	1,966
	5P1108	20	18-9	St.	1,992
	5P1109	20	19-0	St.	2,019
	5P1110	40	19-3	St.	4,091
	5P1111	20	19-6	St.	2,072
	5P1112	20	19-9	St.	2044 ~~2,098~~
CAP	5P401	180	7-7	Bt.	(911 ~~772~~) ⚠1
	5P402	180	11-10	Bt.	1,422
	5P405	180	8-1	Bt.	(972 ~~771~~) ⚠1
	5P403	128	6-2	Bt.	528 ~~527~~
	5P501	90	14-0	Bt.	1,314
	5P502	4	35-3	St.	147
	5P503	4	34-3	St.	143
	5P504	8	37-4	St.	312 ~~313~~
	5P806	20	33-11	Bt.	1,918
	5P807	20	37-4	St.	1,993
	5P901	16	37-1	Bt.	2,017
	5P902	4	12-0	St.	163
	5P903	16	39-0	Bt.	2,122
	5P904	4	13-8	Bt.	186
Total:					(82,281) ~~82,275~~ ⚠1

BILL OF MATERIAL PIER 5

Description	Unit	Total
Class "X" Concrete	C.Y.	540
Reinforcement Bars	Lb. (82,281) ~~82,275~~	⚠1
Test Piles (Filled Metal Shells)	Ea.	1
Furnishing Metal Pile Shells	L.F.	2684
Driving and Filling Shells	L.F.	2684

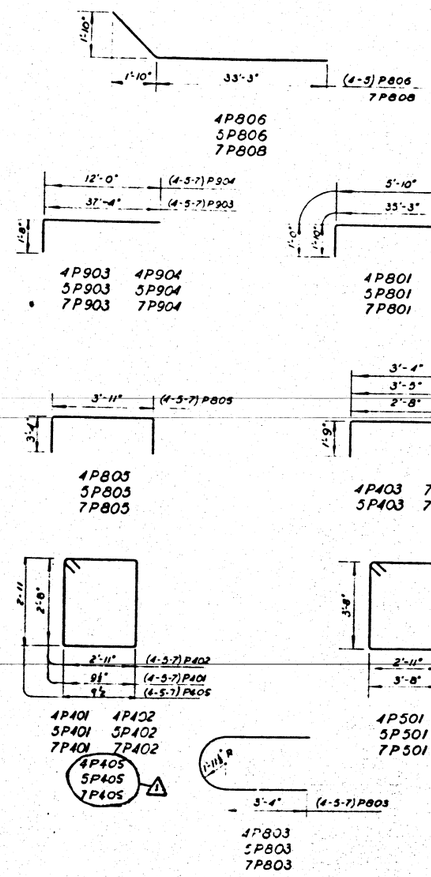
PIER 7

BAR LIST

Location	Mark	No. Req.	Length	Type	Weight
FOOTING	7P601	151	9-6	St.	2,155
	7P602	28	37-6	St.	1577 ~~1,580~~
	7P603	28	40-0	St.	1,682
	7P801	298	6-10	Bt.	5,434
CRASH WALL	7P802	298	9-3	St.	7,360
	7P803	20	12-9	Bt.	681
	7P804	96	38-6	St.	9,868 ⚠1
	7P805	140	10-7	Bt.	3455 ~~3,550~~
	7P806	240	6-8	St.	4,274
	7P807	240	22-10	St.	14,629
COLUMN	7P401	240	7-7	Bt.	1,215 ⚠1
	7P402	240	11-10	Bt.	1,897
	7P405	240	8-1	Bt.	1,295 ⚠1
	7P403	64	6-10	Bt.	292
	7P404	64	6-11	Bt.	296
CAP	7P501	90	15-6	Bt.	1455 ~~1,454~~
	7P502	4	35-3	St.	147
	7P503	4	34-3	St.	143
	7P504	8	37-4	St.	312 ~~313~~
	7P808	20	33-11	Bt.	1,918
	7P809	20	37-4	St.	1,993
	7P901	16	37-1	Bt.	2,017
	7P902	4	12-0	St.	163
	7P903	16	39-0	Bt.	2,122
	7P904	4	13-8	Bt.	186
Total:					67,066 ~~67,054~~ ⚠1

BILL OF MATERIAL PIER 7

Description	Unit	Total
Class "X" Concrete	C.Y.	526
Reinforcement Bars	Lb. (67,066) ~~67,054~~	⚠1
Test Piles (Filled Metal Shells)	Ea.	1
Furnishing Metal Pile Shells	L.F.	3081
Driving and Filling Shells	L.F.	3081



NOTES:

Work this Drwg. with Drwg. Sh. No. 12.
See Notes on Sh. No. 11.

⚠1	Jan 27, 1958
Revision	Date

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

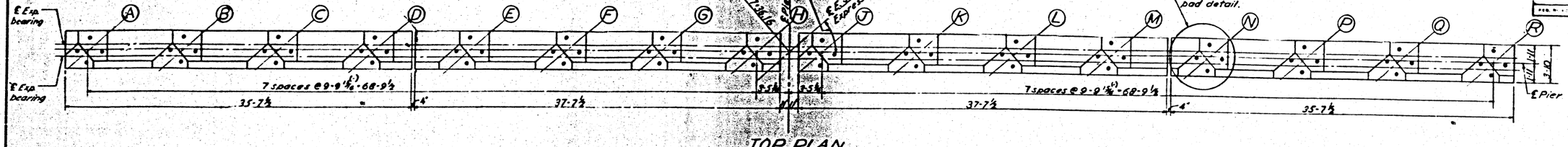
BAR LIST & BILL OF MATERIAL FOR PIERS 4, 5 AND 7

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

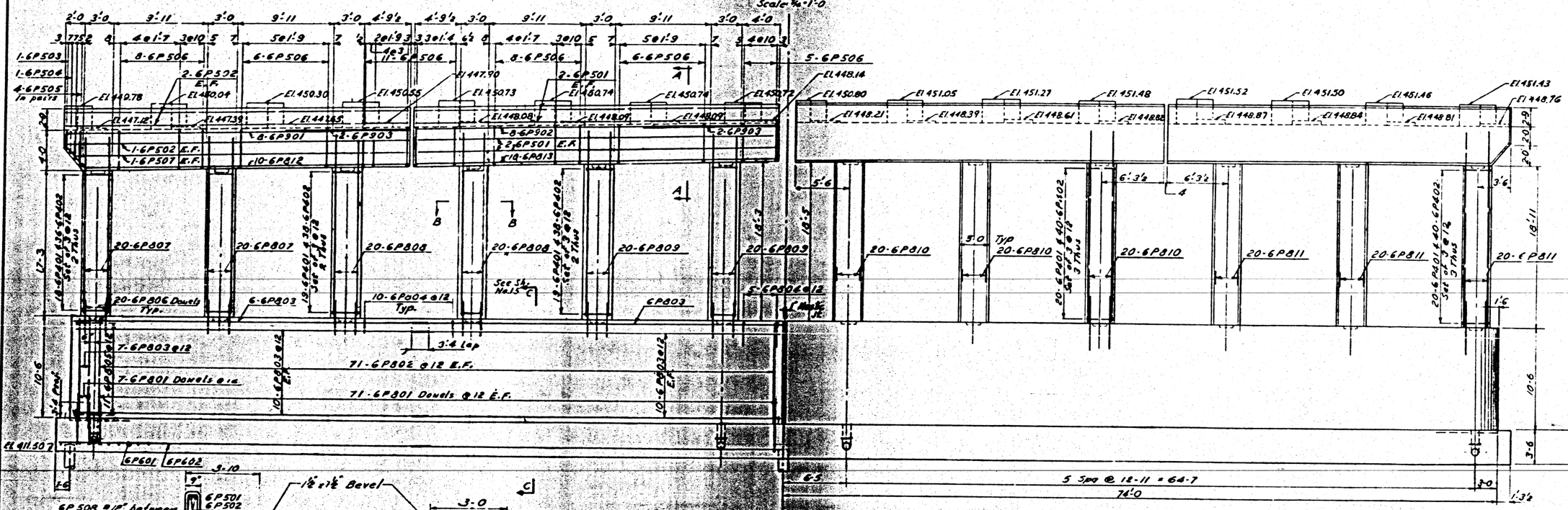
Sh. 13a of 37

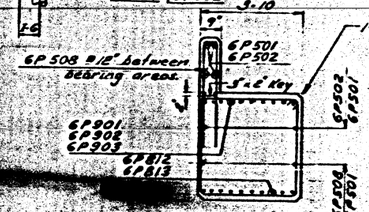
Original figures "struck out" but left legible.

BOND / IMPR. ROUTE NO.	SEC.	COUNTY	SHEET NO.	TOTAL SHEETS
FAI 7	82-5-VB	ST. CLAIR	43	19

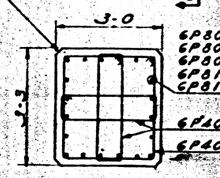


TOP PLAN
Scale: 3/16"=1'-0"

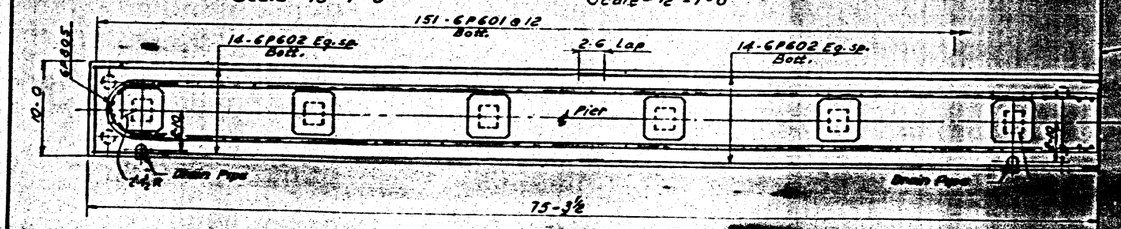




SECTION A-A
Scale - ⅜"=1'-0"

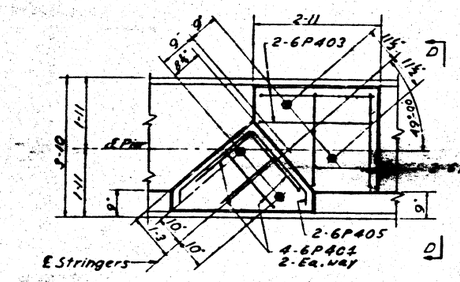


SECTION B-B
Scale - ½"=1'-0"

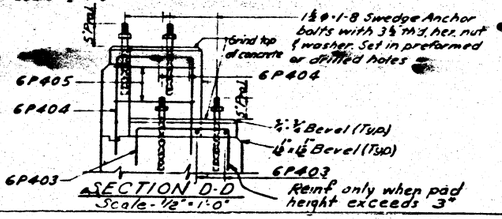


HALF FOOTING PLAN

ELEVATION
Scale: 3/16"=1'-0"



TYPICAL BEARING PAD DETAIL
Scale ½"=1'-0"



SECTION D-D
Scale - ½"=1'-0"

END VIEW
Scale: ¾"=1'-0"

NOTES
For pile plan & details see Sh. No. 5 & 6
For General Notes see Sh. No. 2
For Drain Pipe see Sh. No. 34
For Bar List see Sh. No. 16

NOTE
All corners to be chamfered ¾" unless otherwise shown.
In placing reinforcing steel in the bearing pad care shall be taken to clear anchor bolt holes.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

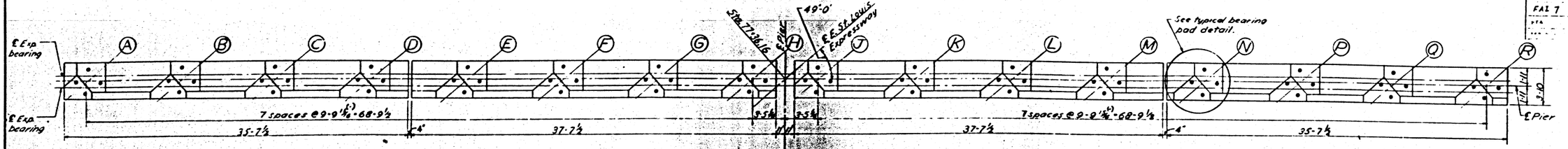
PIER 6

Designed by H.M.M.
Drawn by R.M.P.
Checked by W.J.F.

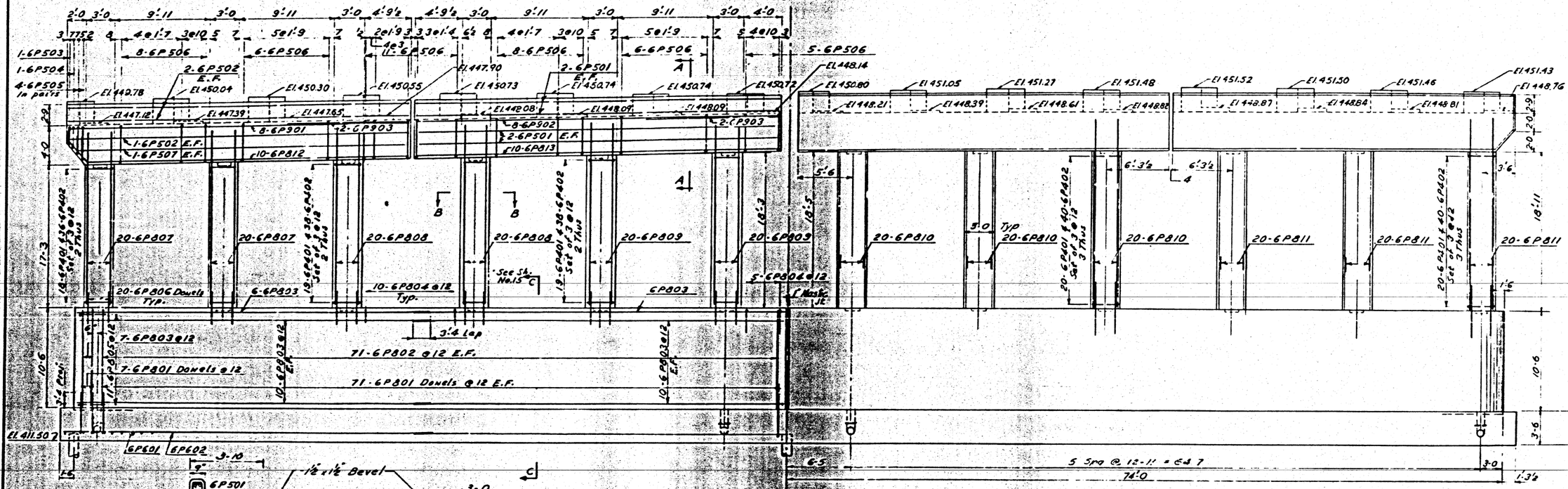
H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

Sh. 14 of 37

FAI 7 | 82-5-V8 | ST. CLAIR | 43 | 19



TOP PLAN
Scale: 1/8" = 1'-0"

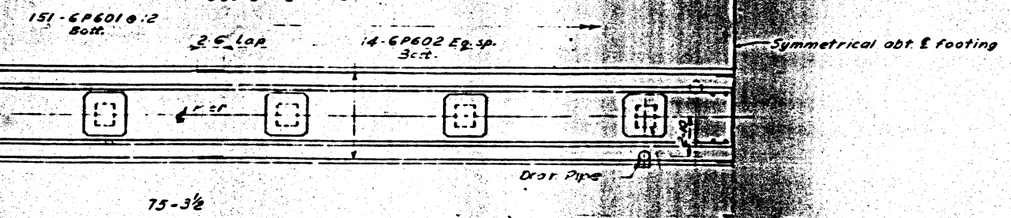


SECTION A-A
Scale - 3/8" = 1'-0"

SECTION B-B
Scale - 1/2" = 1'-0"

ELEVATION
Scale 1/8" = 1'-0"

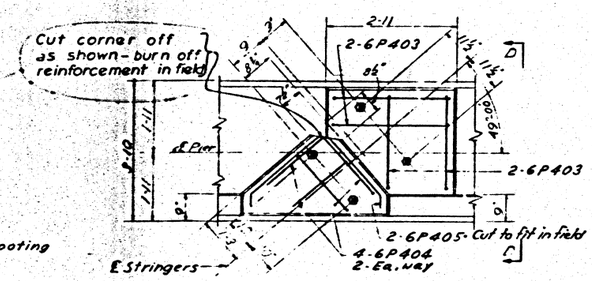
END VIEW
Scale: 3/8" = 1'-0"



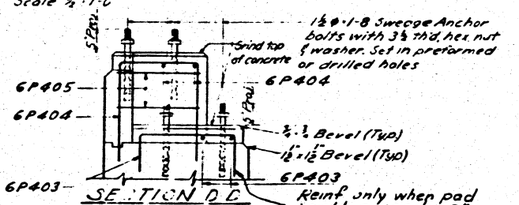
HALF FOOTING PLAN

Designed by H.M.M.
Drawn by R.M.R.
Checked by W.J.F.

Revision △



TYPICAL BEARING PAD DETAIL
Scale 1/2" = 1'-0"



NOTES
For pile plan & details see sh. No. 5 & 6
For General Notes see Sh. No. 2
For Drain Pipe see Sh. No. 34
For Bar List see Sh. No. 16

NOTE
All corners to be chamfered 3/4" unless otherwise shown.
In placing reinforcing steel in the bearing pad care shall be taken to clear anchor bolt holes.

Revision △ Dec. 17, 1957

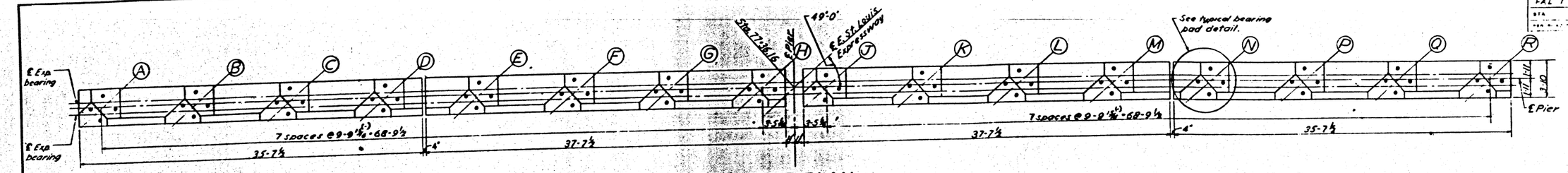
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

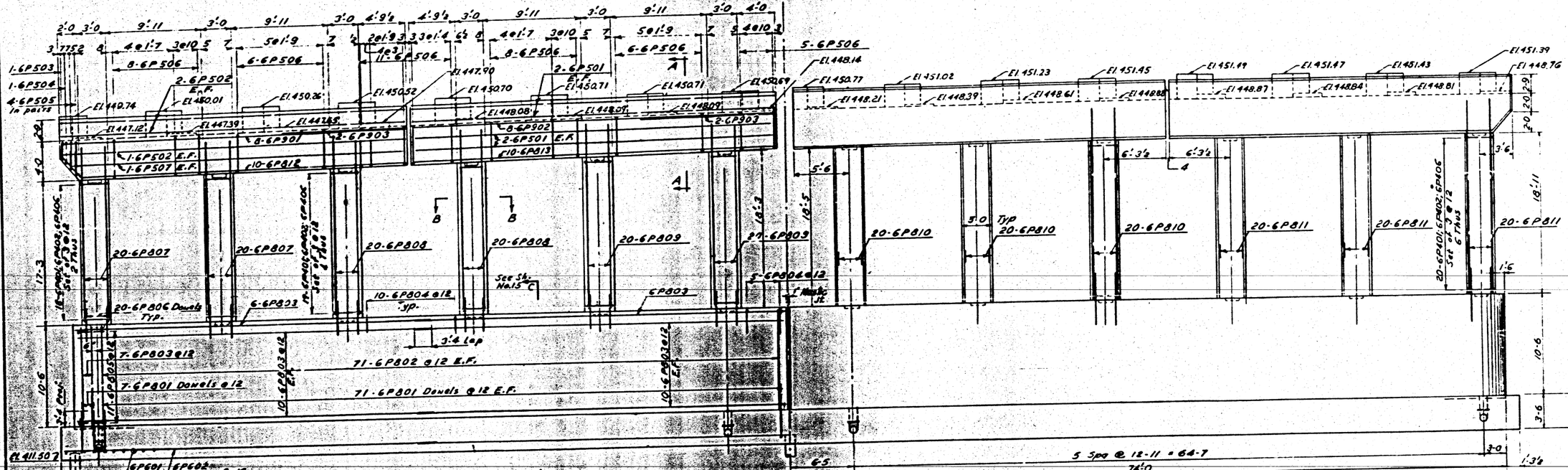
PIER 6

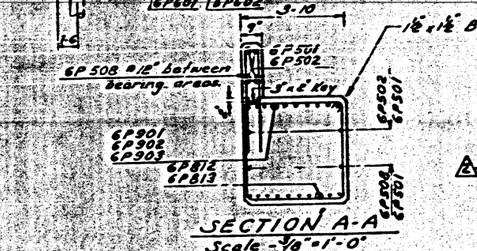
H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

BOND ISSUE ROUTE NO.	SEC.	COUNTY	SHEET NO.	TOTAL SHEETS
FAI 7	82-5-V8	ST. CLAIR	43	194
STA.				

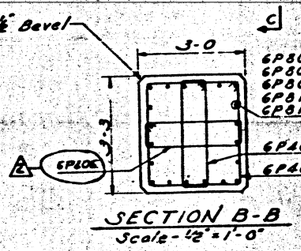


TOP PLAN
Scale: 3/16"=1'-0



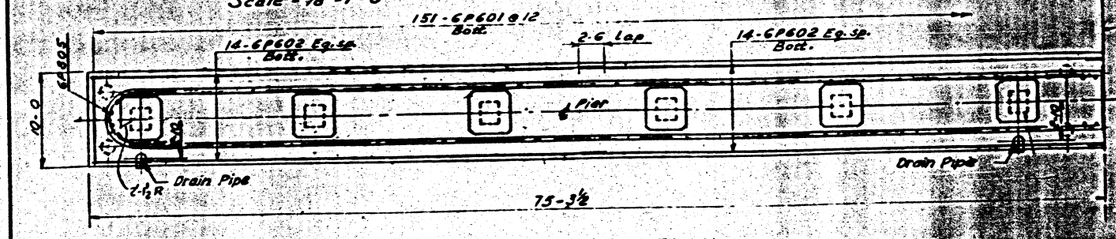


SECTION A-A
Scale -⅜"=1'-0"



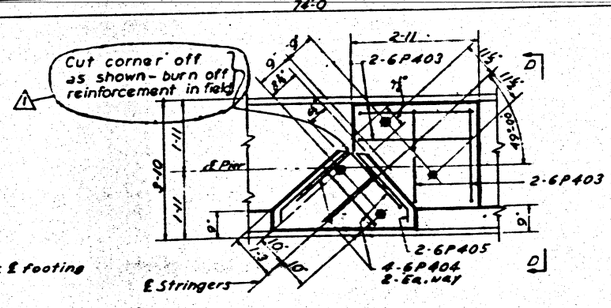
SECTION B-B
Scale - ½"=1'-0"

ELEVATION
Scale: 3/16"-1'-0

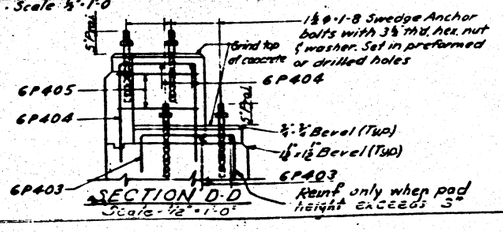


HALF FOOTING PLAN

Designed by H.M.M.
Drawn by R.M.R.
Checked by W.S.F.



TYPICAL BEARING PAD DETAIL
Scale ½"-1'-0



SECTION D-D
Scale - ½"=1'-0"

END VIEW
Scale: ⅜"=1'-0

NOTE
All corners to be chamfered ¾" unless otherwise shown. In placing reinforcing steel in the bearing pad care shall be taken to clear anchor bolt holes.

NOTES
For pile plan & details see sh. No. 5 & 6
For General Notes see Sh. No. 2
For Drain Pipe see Sh. No. 34
For Bar List see Sh. No. 16

Revision	Date
2	Jan. 27, 1958
1	Dec. 17, 1957

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

PIER 6

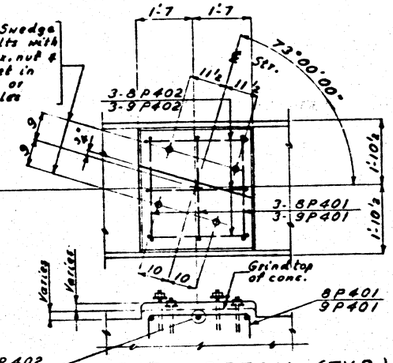
H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

Sh. 14 of 37

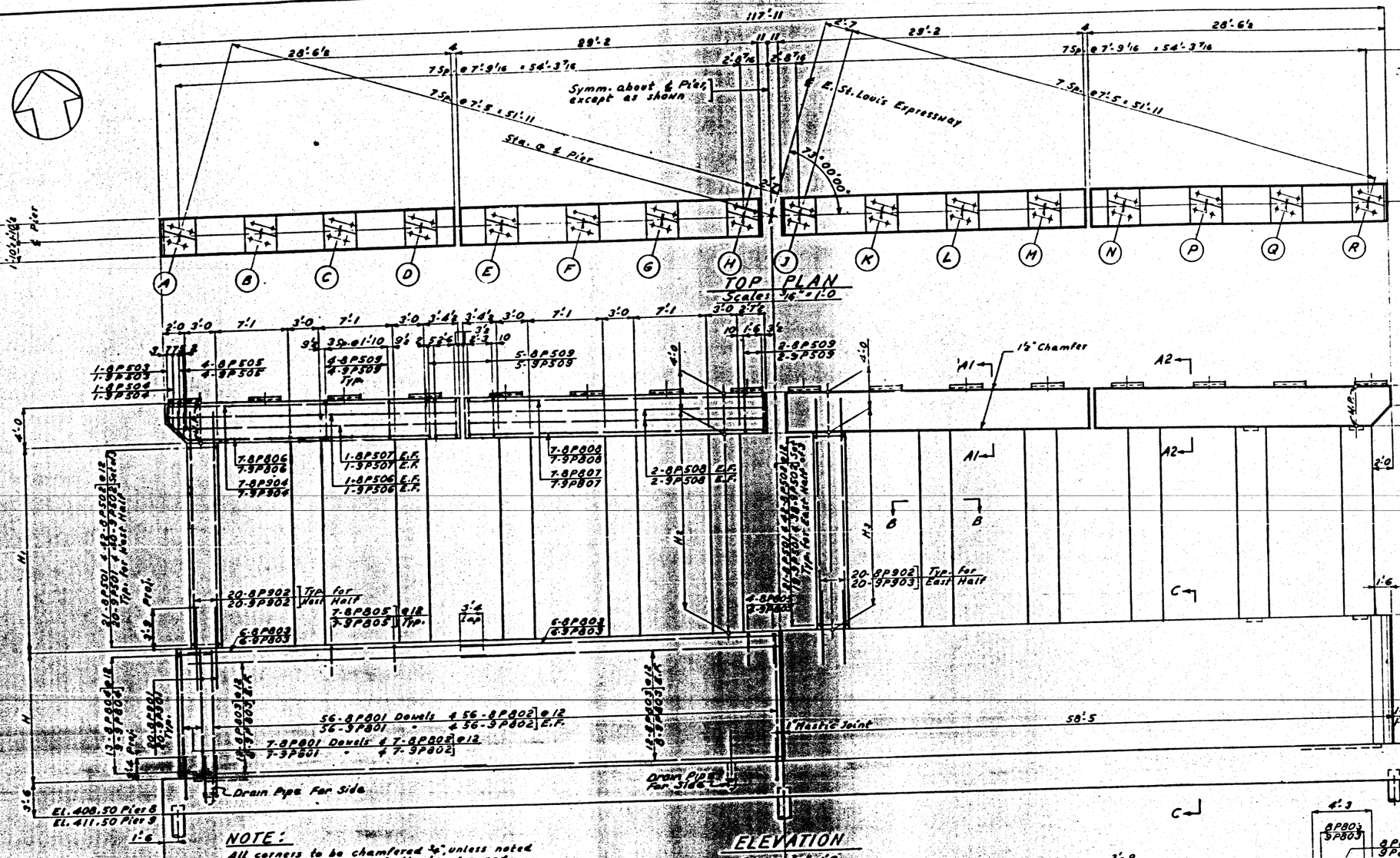
STATE HIGHWAYS ROUTE NO.	SECT.	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 7	82-5-VB	ST. CLAIR	43	20
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

Bearing Spacing

1½"ø = 1:8 Swedge Anchor bolts with 3½" thd. hex. nut & washer. Set in performed or drilled holes



PAD DETAIL (TYP.)
Scale: ½" = 1:0



NOTE:
All corners to be chamfered ¾" unless noted. In placing reinf. steel in the bearing pad care shall be taken to clear anchor bolt holes

ELEVATION
Scales 1/16" = 1:0

HALF FOOTING PLAN
Scale: 3/16" = 1:0

SECTION B-B
Scale: ½" = 1:0

SECTION A1-A1 OR A2-A2
Scale: ½" = 1:0

SECTION C-C
Scale: ½" = 1:0

END VIEW
Scale: 3/16" = 1:0

NOTES:
For General Notes see Sh. No. 2
For Pile Plan & Details see Sh. No. 5 & 6
For Pad Elevations & Bar List see Sh. No. 16

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

PIERS 8 & 9

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

Designed by H.M.M
Drawn by S.J.C.
Checked by W.J.F.

Sh. 15 of 37

SHEET NOS.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAE 7	92S-V6	ST. CLAIR	43	21
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PAD ELEVATIONS AT STRINGERS

PIER NO.	℄ Brg.	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R
8	South	449.00	449.12	449.23	449.33	449.34	449.25	449.12	449.00	448.99	449.08	449.18	449.22	449.17	449.03	448.90	448.77
	North	449.05	449.15	449.25	449.34	449.37	449.23	449.09	448.98	448.96	449.02	449.11	449.20	449.13	448.98	448.84	448.68
9	South	447.38	447.45	447.52	447.58	447.58	447.41	447.24	447.10	447.07	447.10	447.16	447.22	447.11	446.94	446.76	446.58
	North	447.34	447.43	447.51	447.57	447.58	447.42	447.25	447.08	447.05	447.11	447.12	447.18	447.09	446.92	446.76	446.59

STATION at ℄ OF PIER	Elev. Top of Ftg.	DIMENSIONS H	H1	H2	H3	H4
79+67.66	412.00	12.50	20.25	20.13	20.13	20.00
80+77.66	415.00	9.00	19.00	18.63	18.63	18.25

PIER 6 BAR LIST

Location	Mark	No. Req'd	Length	Type	Weight
FOOTING	6P601	151	9-6	Str.	2155
	6P602	56	39-5	Str.	3324
	6P801	298	6-10	B.	5437
CRASH WALL	6P802	298	10-3	Str.	8156
	6P803	104	37-6	Str.	10413
	6P804	110	10-7	B.	3108
	6P805	22	15-2	B.	891
	6P806	240	6-8	Str.	4272
COLUMN	6P401	232	11-10	B.	1839
	6P402	464	7-7	B.	2347
	6P807	40	21-0	Str.	2243
	6P808	40	21-5	Str.	2288
	6P809	40	21-9	Str.	2323
	6P810	60	22-3	Str.	3564
	6P811	60	22-6	Str.	3604
	6P501	88	37-3	Str.	3419
	6P502	12	35-3	Str.	442
	6P503	2	11-8	B.	24
	6P504	2	12-10	B.	27
	6P505	8	8-11	B.	75
	6P506	88	15-2	B.	1392
	6P507	4	34-3	Str.	143
	6P508	100	9-7	B.	1009
CAP	6P901	16	40-5	B.	2199
	6P902	16	37-3	Str.	2026
	6P903	8	15-8	B.	426
	6P812	20	36-2	B.	1931
	6P813	20	37-3	Str.	1989
	6P403	64	6-9	B.	289
	6P404	64	11-0	B.	470
	6P405	32	5-11	B.	126
Total:					71951

PIER 8 BAR LIST

Location	Mark	No. Req'd	Length	Type	Weight
FOOTING	8P601	42	41-6	Str.	2618
	8P602	121	9-6	Str.	1727
	8P801	238	6-10	B.	4342
CRASH WALL	8P802	238	12-3	Str.	7784
	8P803	120	30-8	Str.	9827
	8P804	26	15-2	B.	1053
	8P805	78	10-7	B.	2204
	8P901	240	7-6	Str.	6120
COLUMN	8P501	252	9-8	B.	2447
	8P502	504	10-6	B.	5520
	8P902	240	23-9	Str.	19380
CAP	8P503	2	11-6	B.	24
	8P504	2	12-8	B.	26
	8P505	8	8-11	B.	74
	8P506	4	28-2	Str.	113
	8P507	4	27-7	Str.	115
	8P508	8	28-10	Str.	241
	8P509	46	15-0	B.	720
	8P903	14	33-8	B.	1609
	8P806	14	28-11	B.	1081
	8P807	14	32-4	B.	1209
	8P808	14	28-10	Str.	1077
	8P401	48	6-2	B.	198
	8P402	48	5-10	B.	187
Total:					69701

PIER 9 BAR LIST

Location	Mark	No. Req'd	Length	Type	Weight
FOOTING	9P601	42	41-6	Str.	2618
	9P602	121	9-6	Str.	1727
	9P801	238	6-10	B.	4342
CRASH WALL	9P802	238	8-9	Str.	5560
	9P803	88	30-8	Str.	7205
	9P804	18	15-2	B.	729
	9P805	78	10-7	B.	2204
	9P901	240	7-6	Str.	6120
COLUMN	9P501	234	9-8	B.	2359
	9P502	468	10-6	B.	5125
	9P902	120	22-0	Str.	8976
	9P903	120	21-9	Str.	8874
CAP	9P503	2	11-6	B.	24
	9P504	2	12-8	B.	26
	9P505	3	3-11	B.	74
	9P506	4	28-2	Str.	118
	9P507	4	27-7	Str.	115
	9P508	8	28-10	Str.	241
	9P509	46	15-0	B.	720
	9P904	14	33-8	B.	1609
	9P806	14	28-11	B.	1081
	9P807	14	32-4	B.	1209
	9P808	14	28-10	Str.	1077
	9P401	48	6-2	B.	198
	9P402	48	5-10	B.	187
Total:					62518

BILL OF MATERIAL - PIER 6

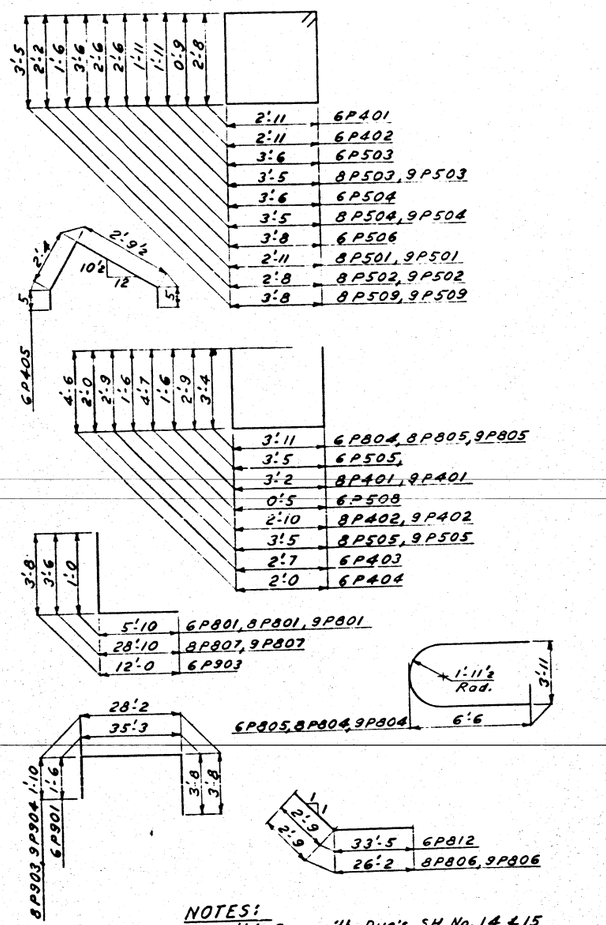
Description	Unit	Total
Class "X" Concrete	C.Y.	626
Reinforcing Bars	Lb.	71951
Test Piles (Filled Metal Shells)	Ea.	1
Furnishing Metal Pile Shells	L.F.	2730
Driving and Filling Shells	L.F.	2730

BILL OF MATERIAL - PIER 8

Description	Unit	Total
Class "X" Concrete	C.Y.	536
Reinforcing Bars	Lb.	69701
Test Piles (Filled Metal Shells)	Ea.	1
Furnishing Metal Pile Shells	L.F.	3950
Driving and Filling Shells	L.F.	3950

BILL OF MATERIAL - PIER 9

Description	Unit	Total
Class "X" Concrete	C.Y.	465
Reinforcing Bars	Lb.	62,518
Test Piles (Filled Metal Shells)	Ea.	1
Furnishing Metal Pile Shells	L.F.	3,710
Driving and Filling Shells	L.F.	3,710



NOTES:
Work this Dwg. with Dwg's SH. No. 14 & 15
See Notes on Sh. No. 11

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

BAR LIST & BILL OF MATERIAL FOR PIERS 6, 8 AND 9

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS Sh. 16 of 37

Designed by: A.T.
Drawn by: S.C.
Checked by: W.J.F.

SHEET NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 7	525-VB	ST. CLAIR	43	21a
STA.	TO STA			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PAD ELEVATIONS AT STRINGERS

PIER NO.	℄ Brg.	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	STATION at ℄ OF PIER	Elev. Top of Ftg.	DIMENSIONS H	H_1	H_2	H_3	H_4
8	South	449.00	449.12	449.23	449.33	449.34	449.25	449.12	449.00	448.99	449.08	449.18	449.22	449.17	449.03	448.90	448.77	79+67.66	412.00	12.50	20.25	20.13	20.13	20.00
	North	449.05	449.15	449.25	449.34	449.37	449.23	449.09	448.98	448.96	449.02	449.11	449.20	449.13	448.98	448.84	448.68							
9	South	447.38	447.45	447.52	447.58	447.58	447.41	447.24	447.10	447.07	447.10	447.16	447.22	447.11	446.94	446.76	446.58	80+77.66	415.00	9.00	19.00	18.63	18.63	18.25
	North	447.34	447.43	447.51	447.57	447.58	447.42	447.25	447.08	447.05	447.11	447.12	447.18	447.09	446.92	446.76	446.59							

PIER 6
BAR LIST

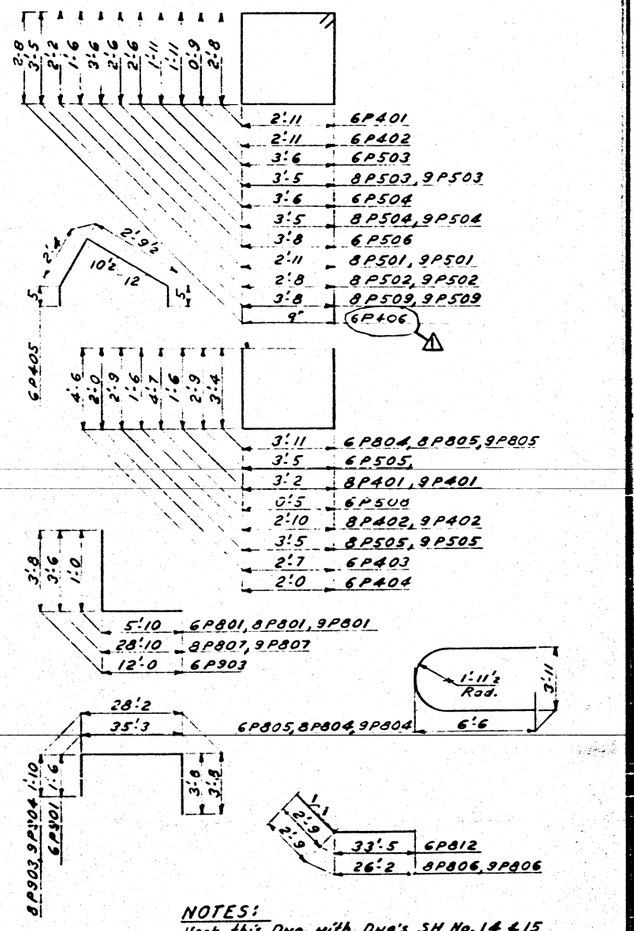
Location	Mark	No. Req'd	Length	Type	Weight
CRASH WALL FOOTING	6P601	151	9-6	Str.	2155
	6P602	56	39-5	Str.	3316 ~~3324~~
	6P801	298	6-10	B.	5434 ~~5437~~
CRASH WALL	6P802	298	10-3	Str.	8156
	6P803	104	37-6	Str.	10413
	6P804	110	10-7	B.	3107 ~~3108~~
	6P805	22	15-2	B.	891
	6P806	240	6-8	Str.	4274 ~~4278~~
COLUMN	6P401	232	11-10	B.	1833 1839
	6P402	232	8-1	B.	1252
	6P406	232	7-7	B.	1179 ~~1178~~
	6P807	40	21-0	Str.	2243
	6P808	40	21-5	Str.	2288
	6P809	40	21-9	Str.	2323
	6P810	60	22-3	Str.	3565 ~~3564~~
	6P811	60	22-6	Str.	3605 ~~3604~~
CAP	6P501	88	37-3	Str.	3419
	6P502	12	35-3	Str.	441 ~~442~~
	6P503	2	11-8	B.	24
	6P504	2	12-10	B.	27
	6P505	8	8-11	B.	74 ~~75~~
	6P506	88	15-2	B.	1392
	6P507	4	36-3	Str.	143
	6P508	100	9-7	B.	999 ~~1009~~
	6P901	16	40-5	B.	2199
	6P902	16	37-3	Str.	2026
	6P903	8	15-8	B.	426
	6P812	20	36-2	B.	1434 ~~1437~~
	6P813	20	37-3	Str.	1989
	6P403	64	6-9	B.	289
	6P404	64	11-0	B.	470
	6P405	32	5-11	B.	126
Total:					72,008 ~~72,032~~

PIER 8
BAR LIST

Location	Mark	No. Req'd	Length	Type	Weight
FOOTING	8P601	42	41-6	Str.	2618
	8P602	121	9-6	Str.	1727
	8P801	238	6-10	B.	4340 ~~4348~~
CRASH WALL	8P802	238	12-3	Str.	7784
	8P803	120	30-8	Str.	9827
	8P804	26	15-2	B.	1053
	8P805	78	10-7	B.	2203 ~~2204~~
COLUMN	8P901	240	7-6	Str.	6120
	8P501	252	9-8	B.	2442 ~~2447~~
	8P502	504	10-6	B.	5520
	8P902	240	23-9	Str.	19380
CAP	8P503	2	11-6	B.	24
	8P504	2	12-8	B.	26
	8P505	8	8-11	B.	74
	8P506	4	28-2	Str.	118
	8P507	4	27-7	Str.	115
	8P508	8	28-10	Str.	241
	8P509	46	15-0	B.	720
	8P903	14	33-8	B.	1603 ~~1609~~
	8P806	14	28-11	B.	1081
	8P807	14	32-4	B.	1209
	8P808	14	28-10	Str.	1078 ~~1077~~
	8P401	48	6-2	B.	198
	8P402	48	5-10	B.	187
Total:					69788 ~~69701~~

PIER 9
BAR LIST

Location	Mark	No. Req'd	Length	Type	Weight
FOOTING	9P601	42	41-6	Str.	2618
	9P602	121	9-6	Str.	1727
	9P801	238	6-10	B.	4340 ~~4342~~
CRASH WALL	9P802	238	8-9	Str.	5560
	9P803	88	30-8	Str.	7206 ~~7205~~
	9P804	18	15-2	B.	729
	9P805	78	10-7	B.	2203 ~~2204~~
COLUMN	9P901	240	7-6	Str.	6120
	9P501	234	9-8	B.	2360 ~~2359~~
	9P502	468	10-6	B.	5125
	9P902	120	22-0	Str.	8976
	9P903	120	21-9	Str.	8874
CAP	9P503	2	11-6	B.	24
	9P504	2	12-8	B.	26
	9P505	8	8-11	B.	74
	9P506	4	28-2	Str.	118
	9P507	4	27-7	Str.	115
	9P508	8	28-10	Str.	241
	9P509	46	15-0	B.	720
	9P904	14	33-8	B.	1603 ~~1609~~
	9P806	14	28-11	B.	1081
	9P807	14	32-4	B.	1209
	9P808	14	28-10	Str.	1078 ~~1077~~
	9P401	48	6-2	B.	198
	9P402	48	5-10	B.	187
Total:					62512 ~~62518~~



NOTES:
Work this Dwg. with Dwg's SH No. 14 & 15
See Notes on Sh. No. 11

BILL OF MATERIAL - PIER 6

Description	Unit	Total
Class "X" Concrete	C.Y.	626
Reinforcing Bars	Lb.	72,008 ~~72,032~~
Test Piles (Filled Metal Shells)	Ea.	1
Furnishing Metal Pile Shells	L.F.	2730
Driving and Filling Shells	L.F.	2730

BILL OF MATERIAL - PIER 8

Description	Unit	Total
Class "X" Concrete	C.Y.	536
Reinforcing Bars	Lb.	69788 ~~69701~~
Test Piles (Filled Metal Shells)	Ea.	1
Furnishing Metal Pile Shells	L.F.	3950
Driving and Filling Shells	L.F.	3950

BILL OF MATERIAL - PIER 9

Description	Unit	Total
Class "X" Concrete	C.Y.	465
Reinforcing Bars	Lb.	62512 ~~62518~~
Test Piles (Filled Metal Shells)	Ea.	1
Furnishing Metal Pile Shells	L.F.	3710
Driving and Filling Shells	L.F.	3710

⚠	Jan 27, 1958
Revision	Date

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

BAR LIST & BILL OF MATERIAL FOR PIERS 6, 8 AND 9

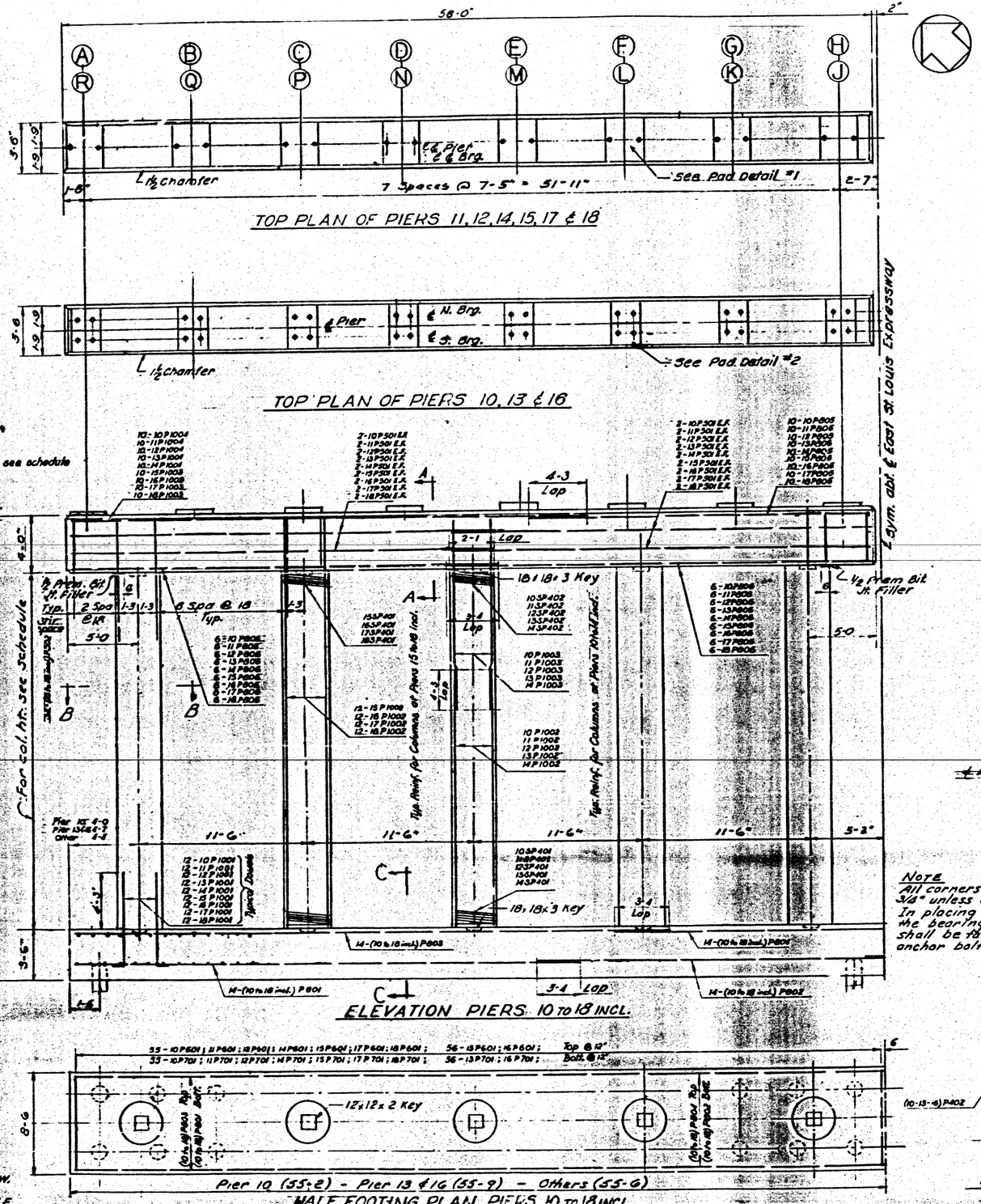
H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS Sh. 16a of 37

Revised - 2-7-58 - H.W.L. - Revised quantities of Round Bars in BAR LISTS & BILLS OF MATERIAL. Original figures "blocked out" but left legible.

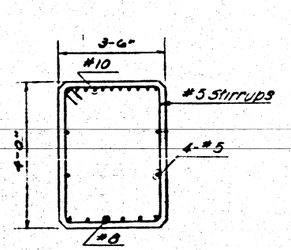
FAI ?	SEC 82-5-VB	CO. STR. ST. CLAIR	TOTAL SHEETS 43	SHEET NO 22

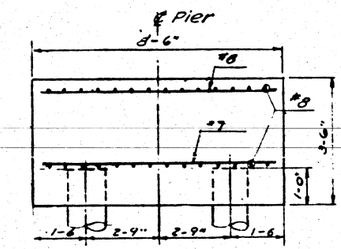
NOTE.
Pad elevations sym. abt. ℄ except Pier No. 10

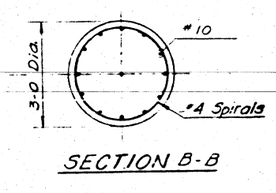
Pier No	Station at ℄ of Pier	℄ Brg.	Pad Elevations R	Q	P	N	M	L	K	J	Conc. Col. height	Elev top of Pier
10	81+70.16	So.	444.31	444.42	444.52	444.64	444.67	444.55	444.49	444.37	41.00	444.00
		No.	444.73	444.85	444.97	445.08	445.13	445.02	444.90	444.79		
			A	B	C	D	E	F	G	H		
		So.	444.26	444.40	444.52	444.64	444.70	444.59	444.48	444.36		
		No.	444.73	444.85	444.97	445.08	445.13	445.02	444.90	444.79		
11	82+50.16		441.32	441.45	441.57	441.69	441.73	441.62	441.50	441.39	38.16	441.16
12	83+50.16		437.82	437.95	438.07	438.19	438.23	438.12	438.00	437.89	34.66	437.66
13	84+30.16	So.	435.68	435.81	435.92	436.04	436.09	435.97	435.85	435.74	32.50	435.50
		No.	435.68	435.75	435.87	435.98	436.03	435.92	435.80	435.69		
14	85+10.16		432.22	432.35	432.47	432.59	432.63	432.52	432.40	432.29	29.08	432.08
15	86+10.16		428.72	428.85	428.97	429.09	429.13	429.02	428.90	428.79	25.58	428.58
16	86+90.16	So.	426.58	426.71	426.82	426.94	426.99	426.87	426.75	426.64	23.33	426.33
		No.	426.53	426.65	426.77	426.88	426.93	426.82	426.70	426.59		
17	87+70.16		423.12	423.25	423.37	423.49	423.53	423.42	423.30	423.19	20.00	423.00
18	88+70.16		419.62	419.75	419.87	419.99	420.03	419.92	419.80	419.69	16.50	419.50

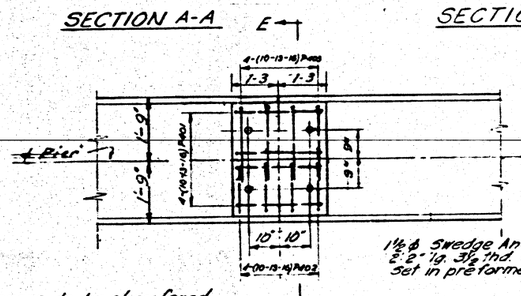


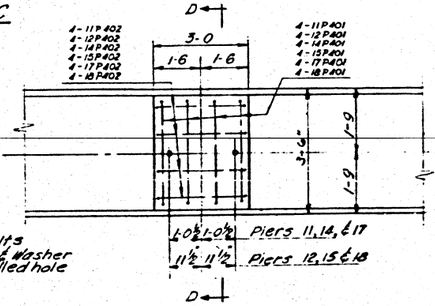
Designed by R.W.
Drawn by J.C.S.
Checked by W.J.F.

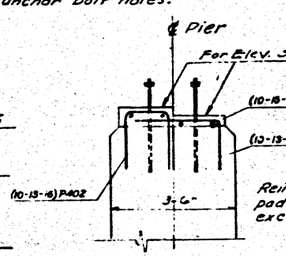


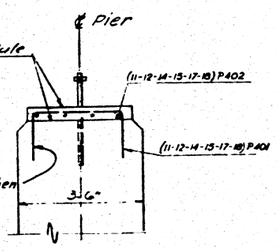












NOTES: For General Notes see Sh. No. 2
For Pile Plan & Details see Sh. No. 5 & 6
For Bar List see Sh. No. 18

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

PIERS 10 TO 18 INCL.

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

BOND ISSUE ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 7	82-5-VB	St. Clair	43	23
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PIER 10

BAR LIST

Loc.	Mark	No. Req.	Length	Type	Weight
FOOTING	10P601	110	8-0	St.	1,322
	10P801	28	34-3	St.	2,561
	10P802	28	25-9	St.	1,925
	10P803	28	40-0	St.	2,990
	10P804	14	36-8	St.	1,371
COL.	10P1001	120	7-9	Bt.	4,002
	10P701	110	8-0	St.	1,798
	10P1002	120	24-3	St.	12,522
	10P1003	120	24-9	St.	12,779
CAP	10P401	64	6-2	Bt.	263
	10P402	64	5-4	Bt.	226
	10P403	64	4-0	Bt.	171
	10P501	16	28-11	St.	483
	10P502	68	14-6	Bt.	1,028
	10P805	20	24-3	St.	1,295
	10P806	24	29-6	St.	1,890
	10P1004	20	35-9	St.	3,077
Total:					40,705

SPIRAL REINFORCING LIST

Mark	No. Req.	Core Dia. & Spiral	Length	Pitch	No. Turns	Weight
10SP401	10	32	20-0	3"	83	524
10SP402	10	32	21-0	3"	86	543
Total:						1,067

PIER 10

BILL OF MATERIAL PIER 10

Description	Unit	Total
Class "X" Concrete	C.Y.	290
Reinforcement Bars	Lb.	50,772
Test Piles (Filled Metal Shells)	Ea.	1
Furnishing Metal Pile Shells	L.F.	1974
Driving and Filling Shells	L.F.	1974

PIER 11

BAR LIST

Loc.	Mark	No. Req.	Length	Type	Weight
FOOTING	11P601	110	8-0	St.	1,322
	11P801	28	34-7	St.	2,585
	11P802	28	25-9	St.	1,925
	11P803	28	40-4	St.	3,015
	11P804	14	36-8	St.	1,371
COL.	11P1001	120	7-9	Bt.	4,002
	11P701	110	8-0	St.	1,798
	11P1002	120	24-3	St.	12,522
	11P1003	120	21-10	St.	11,272
CAP	11P401	48	6-5	Bt.	206
	11P402	48	6-2	Bt.	198
	11P501	16	28-11	St.	483
	11P502	68	14-6	Bt.	1,028
	11P805	20	24-3	St.	1,295
	11P806	24	29-6	St.	1,890
	11P1004	20	35-9	St.	3,077
Total:					47,990

SPIRAL REINFORCING LIST

Mark	No. Req.	Core Dia. & Spiral	Length	Pitch	No. Turns	Weight
11SP401	10	32	20-0	3"	83	524
11SP402	10	32	18-3	3"	75	474
Total:						998

PIER 11

BILL OF MATERIAL PIER 11

Description	Unit	Total
Class "X" Concrete	C.Y.	283
Reinforcement Bars	Lb.	48,988
Test Piles (Filled Metal Shells)	Ea.	1
Furnishing Metal Pile Shells	L.F.	2310
Driving and Filling Shells	L.F.	2310

PIER 12

BAR LIST

Loc.	Mark	No. Req.	Length	Type	Weight
FOOTING	12P601	110	8-0	St.	1,322
	12P801	28	34-7	St.	2,585
	12P802	28	25-9	St.	1,925
	12P803	28	40-4	St.	3,015
	12P804	14	36-8	St.	1,371
COL.	12P1001	120	7-9	Bt.	4,002
	12P701	110	8-0	St.	1,798
	12P1002	120	24-3	St.	12,522
	12P1003	120	18-5	St.	9,511
CAP	12P401	48	6-5	Bt.	206
	12P402	48	6-2	Bt.	198
	12P501	16	28-11	St.	483
	12P502	68	14-6	Bt.	1,028
	12P805	20	24-3	St.	1,295
	12P806	24	29-6	St.	1,890
	12P1004	20	35-9	St.	3,077
Total:					46,228

SPIRAL REINFORCING LIST

Mark	No. Req.	Core Dia. & Spiral	Length	Pitch	No. Turns	Weight
12SP401	10	32	20-0	3"	83	524
12SP402	10	32	14-9	3"	61	385
Total:						909

PIER 12

BILL OF MATERIAL PIER 12

Description	Unit	Total
Class "X" Concrete	C.Y.	274
Reinforcement Bars	Lb.	47,137
Test Piles (Filled Metal Shells)	Ea.	1
Furnishing Metal Pile Shells	L.F.	2310
Driving and Filling Shells	L.F.	2310

PIER 13

BAR LIST

Loc.	Mark	No. Req.	Length	Type	Weight
FOOTING	13P601	112	8-0	St.	1,346
	13P801	28	34-10	St.	2,604
	13P802	28	25-9	St.	1,925
	13P803	28	40-7	St.	3,034
	13P804	14	36-8	St.	1,371
COL.	13P1001	120	7-9	Bt.	4,002
	13P701	112	8-0	St.	1,831
	13P1002	120	24-3	St.	12,522
	13P1003	120	16-3	St.	8,391
CAP	13P401	44	5-8	Bt.	167
	13P402	44	4-10	Bt.	142
	13P403	44	3-9	Bt.	110
	13P501	16	28-11	St.	483
	13P502	68	14-6	Bt.	1,028
	13P805	20	24-3	St.	1,295
	13P806	24	29-6	St.	1,890
	13P1004	20	35-9	St.	3,077
Total:					45,218

SPIRAL REINFORCING LIST

Mark	No. Req.	Core Dia. & Spiral	Length	Pitch	No. Turns	Weight
13SP401	10	32	20-0	3"	83	524
13SP402	10	32	12-6	3"	52	329
Total:						853

PIER 13

BILL OF MATERIAL PIER 13

Description	Unit	Total
Class "X" Concrete	C.Y.	269
Reinforcement Bars	Lb.	46,071
Test Piles (Filled Metal Shells)	Ea.	1
Furnishing Metal Pile Shells	L.F.	1806
Driving and Filling Shells	L.F.	1806

PIER 14

BAR LIST

Loc.	Mark	No. Req.	Length	Type	Weight
FOOTING	14P601	110	8-0	St.	1,322
	14P801	28	34-7	St.	2,585
	14P802	28	25-9	St.	1,923
	14P803	28	40-4	St.	3,015
	14P804	14	36-8	St.	1,371
COL.	14P1001	120	7-9	Bt.	4,002
	14P701	110	8-0	St.	1,798
	14P1002	120	24-3	St.	12,522
	14P1003	120	12-10	St	6,625
CAP	14P401	48	6-5	Bt.	206
	14P402	48	6-2	Bt.	198
	14P501	16	28-11	St.	483
	14P502	68	14-6	Bt.	1,028
	14P803	20	24-3	St.	1,295
	14P806	24	29-6	St.	1,890
	14P1004	20	35-9	St.	3,077
Total:					43,342

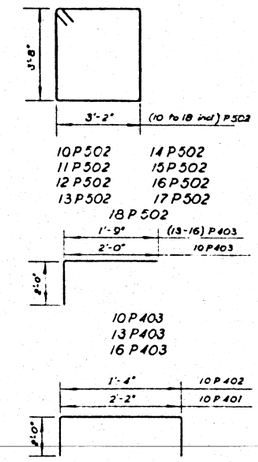
SPIRAL REINFORCING LIST

Mark	No. Req.	Core Dia. & Spiral	Length	Pitch	No. Turns	Weight
14SP401	10	32	20-0	3"	83	524
14SP402	10	32	9-0	3"	38	240
Total:						764

PIER 14

BILL OF MATERIAL PIER 14

Description	Unit	Total
Class "X" Concrete	C.Y.	260
Reinforcement Bars	Lb.	44,106
Test Piles (Filled Metal Shells)	Ea.	1
Furnishing Metal Pile Shells	L.F.	2310
Driving and Filling Shells	L.F.	2310



PIER 15

BAR LIST

Loc.	Mark	No. Req.	Length	Type	Weight
FOOTING	15P601	110	8-0	St.	1,322
	15P801	28	34-7	St.	2,585
	15P802	28	25-9	St.	1,923
	15P803	28	40-4	St.	3,015
	15P804	14	36-8	St.	1,371
COL.	15P1001	120	7-9	Bt.	4,002
	15P701	110	8-0	St.	1,798
	15P1002	120	29-4	St.	15,145
CAP	15P401	48	6-5	Bt.	206
	15P402	48	6-2	Bt.	198
	15P501	16	28-11	St.	483
	15P502	68	14-6	Bt.	1,028
	15P805	20	24-3	St.	1,295
	15P806	24	29-6	St.	1,890
	15P1003	20	35-9	St.	3,077
Total:					39,340

SPIRAL REINFORCING LIST

Mark	No. Req.	Core Dia. & Spiral	Length	Pitch	No. Turns	Weight
15SP401	10	32	25-7	3"	107	675
Total:						675

PIER 15

BILL OF MATERIAL PIER 15

Description	Unit	Total
Class "X" Concrete	C.Y.	251
Reinforcement Bars	Lb.	40,015
Test Piles (Filled Metal Shells)	Ea.	1
Furnishing Metal Pile Shells	L.F.	2310
Driving and Filling Shells	L.F.	2310

PIER 16

BAR LIST

Loc.	Mark	No. Req.	Length	Type	Weight
FOOTING	16P601	112	8-0	St.	1,346
	16P801	28	34-10	St.	2,604
	16P802	28	25-9	St.	1,925
	16P803	28	40-7	St.	3,034
	16P804	14	36-8	St.	1,371
COL.	16P1001	120	7-9	Bt.	4,002
	16P701	112	8-0	St.	1,831
	16P1002	120	27-1	St.	13,983
CAP	16P401	56	5-8	Bt.	212
	16P402	56	4-10	Bt.	181
	16P403	56	3-9	Bt.	140
	16P501	16	28-11	St.	483
	16P502	68	14-6	Bt.	1,028
	16P805	20	24-3	St.	1,295
	16P806	24	29-6	St.	1,890
	16P1003	20	35-9	St.	3,077
Total:					38,402

SPIRAL REINFORCING LIST

Mark	No. Req.	Core Dia. & Spiral	Length	Pitch	No. Turns	Weight
16SP401	10	32	23-3	3"	96	607
Total:						607

PIER 16

BILL OF MATERIAL PIER 16

Description	Unit	Total
Class "X" Concrete	C.Y.	245
Reinforcement Bars	Lb.	39,009
Test Piles (Filled Metal Shells)	Ea.	1
Furnishing Metal Pile Shells	L.F.	1806
Driving and Filling Shells	L.F.	1806

PIER 17

BAR LIST

Loc.	Mark	No. Req.	Length	Type	Weight
FOOTING	17P601	110	8-0	St.	1,322
	17P801	28	34-7	St.	2,585
	17P802	28	25-9	St.	1,925
	17P803	28	40-4	St.	3,015
	17P804	14	36-8	St.	1,371
COL.	17P1001	120	7-9	Bt.	4,002
	17P701	110	8-0	St.	1,798
	17P1002	120	23-9	St.	12,264
CAP	17P401	48	6-5	Bt.	206
	17P402	48	6-2	Bt.	198
	17P501	16	28-11	St.	483
	17P502	68	14-6	Bt.	1,028
	17P805	20	24-3	St.	1,295
	17P806	24	29-6	St.	1,890
	17P1003	20	35-9	St.	3,077
Total:					36,459

SPIRAL REINFORCING LIST

Mark	No. Req.	Core Dia. & Spiral	Length	Pitch	No. Turns	Weight
17SP401	10	32	20-0	3"	83	524
Total:						524

PIER 17

BILL OF MATERIAL PIER 17

Description	Unit	Total
Class "X" Concrete	C.Y.	236
Reinforcement Bars	Lb.	36,983
Test Piles (Filled Metal Shells)	Ea.	1
Furnishing Metal Pile Shells	L.F.	2310
Driving and Filling Shells	L.F.	2310

PIER 18

BAR LIST

Loc.	Mark	No. Req.	Length	Type	Weight
FOOTING	18P601	110	8-0	St.	1,322
	18P801	28	34-7	St.	2,585
	18P802	28	25-9	St.	1,925
	18P803	28	40-4	St.	3,015
	18P804	14	36-8	St.	1,371
COL.	18P1001	120	7-9	Bt.	4,002
	18P701	110	8-0	St.	1,798
	18P1002	120	20-3	St.	10,456
CAP	18P401	48	6-5	Bt.	206
	18P402	48	6-2	Bt.	198
	18P501	16	28-11	St.	483
	18P502	68	14-6	Bt.	1,028
	18P805	20	24-3	St.	1,295
	18P806	24	29-6	St.	1,890
	18P1003	20	35-9	St.	3,077
Total:					34,651

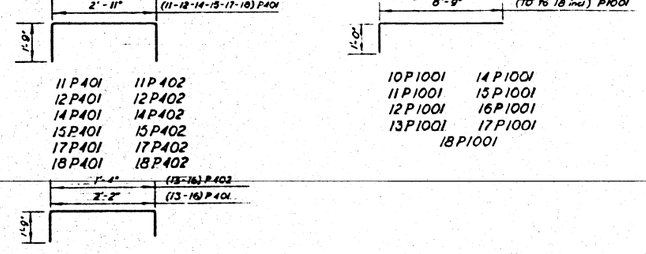
SPIRAL REINFORCING LIST

Mark	No. Req.	Core Dia. & Spiral	Length	Pitch	No. Turns	Weight
18SP401	10	32	16-6	3"	69	436
Total:						436

PIER 18

BILL OF MATERIAL PIER 18

Description	Unit	Total
Class "X" Concrete	C.Y.	227
Reinforcement Bars	Lb.	33,087
Test Piles (Filled Metal Shells)	Ea.	1
Furnishing Metal Pile Shells	L.F.	2310
Driving and Filling Shells	L.F.	2310



Designed by: A.T.
Drawn by: T.L.
Checked by: W.J.F.

NOTES:

Work this Drwg. with Drwg. Sh. No. 17
See notes Sh. No. 11

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

BAR LIST & BILL OF MATERIAL FOR PIERS 10 TO 18 INCL.

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

Sh. 18 of 37

BOND ISSUE ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 7	82-5-YB	St. Clair	43	23a
STA.		TO STA		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PIER 10

BAR LIST

Loc.	Mark	No. Req.	Length	Type	Weight
FOOTING	10P601	110	8-0	St.	1,322
	10P801	28	34-3	St.	2,581
	10P802	28	25-9	St.	1,925
	10P803	28	40-0	St.	2,990
	10P804	14	36-8	St.	1,371
	10P1001	120	7-9	Bt.	4,002
COL.	10P701	110	8-0	St.	1,799 ~~1,796~~
	10P1002	120	24-3	St.	12,522
	10P1003	120	24-9	St.	12,780 ~~12,779~~
CAP	10P401	64	6-2	Bt.	264 ~~263~~
	10P402	64	3-4	Bt.	228
	10P403	64	1-0	Bt.	171
	10P501	16	28-11	St.	483
	10P502	68	14-6	Bt.	1,028
	10P803	20	24-3	St.	1,295
	10P806	24	29-6	St.	1,890
	10P1004	20	35-9	St.	3,077
Total:					40,708 ~~40,703~~

SPIRAL REINFORCING LIST

Mark	No. Req.	Core Dia. Spacer	Length	Pitch	No. Turns	Weight
10SP401	10	32	20-0	3"	83	~~4705~~ 4703
10SP402	10	32	21-0	3"	~~8881~~ 8871	~~5035~~ 5029
Total:					(10790 ~~10820~~ 10774)	~~9740~~ 9732

PIER 10

BILL OF MATERIAL PIER 10

Description	Unit	Total
Class "X" Concrete	C.Y.	290
Reinforcement Bars	Lb.	~~51287~~ 51228
Test Piles (Filled Metal Shells)	Ea.	1
Furnishing Metal Pile Shells	L.F.	1974
Driving and Filling Shells	L.F.	1974

PIER 11

BAR LIST

Loc.	Mark	No. Req.	Length	Type	Weight
FOOTING	11P601	110	8-0	St.	1,322
	11P801	28	34-7	St.	2,585
	11P802	28	25-9	St.	1,925
	11P803	28	40-4	St.	3,015
	11P804	14	36-8	St.	1,371
	11P1001	120	7-9	Bt.	4,002
COL.	11P701	110	8-0	St.	1,799 ~~1,796~~
	11P1002	120	24-3	St.	12,522
	11P1003	120	21-10	St.	11,272
CAP	11P401	48	6-5	Bt.	206
	11P402	48	6-2	Bt.	198
	11P501	16	28-11	St.	483
	11P502	68	14-6	Bt.	1,028
	11P803	20	24-3	St.	1,295
	11P806	24	29-6	St.	1,890
	11P1004	20	35-9	St.	3,077
Total:					47,990 ~~47,990~~

SPIRAL REINFORCING LIST

Mark	No. Req.	Core Dia. Spacer	Length	Pitch	No. Turns	Weight
11SP401	10	32	20-0	3"	83	~~4705~~ 4703
11SP402	10	32	18-3	3"	~~7876~~ 7870	~~4466~~ 4463
Total:					(10052 ~~10106~~ 10044)	~~9171~~ 9166

PIER 11

BILL OF MATERIAL PIER 11

Description	Unit	Total
Class "X" Concrete	C.Y.	283
Reinforcement Bars	Lb.	~~51228~~ 51224
Test Piles (Filled Metal Shells)	Ea.	1
Furnishing Metal Pile Shells	L.F.	2310
Driving and Filling Shells	L.F.	2310

PIER 12

BAR LIST

Loc.	Mark	No. Req.	Length	Type	Weight
FOOTING	12P601	110	8-0	St.	1,322
	12P801	28	34-7	St.	2,585
	12P802	28	25-9	St.	1,925
	12P803	28	40-4	St.	3,015
	12P804	14	36-8	St.	1,371
	12P1001	120	7-9	Bt.	4,002
COL.	12P701	110	8-0	St.	1,799 ~~1,796~~
	12P1002	120	24-3	St.	12,522
	12P1003	120	18-5	St.	9,511
CAP	12P401	48	6-5	Bt.	206
	12P402	48	6-2	Bt.	198
	12P501	16	28-11	St.	483
	12P502	68	14-6	Bt.	1,028
	12P803	20	24-3	St.	1,295
	12P806	24	29-6	St.	1,890
	12P1004	20	35-9	St.	3,077
Total:					46,229 ~~46,228~~

SPIRAL REINFORCING LIST

Mark	No. Req.	Core Dia. Spacer	Length	Pitch	No. Turns	Weight
12SP401	10	32	20-0	3"	83	~~4705~~ 4703
12SP402	10	32	14-9	3"	~~6962~~ 6961	~~3955~~ 3954
Total:					(9163 ~~9180~~ 9157)	~~8660~~ 8657

PIER 12

BILL OF MATERIAL PIER 12

Description	Unit	Total
Class "X" Concrete	C.Y.	274
Reinforcement Bars	Lb.	~~51387~~ 51384
Test Piles (Filled Metal Shells)	Ea.	1
Furnishing Metal Pile Shells	L.F.	2310
Driving and Filling Shells	L.F.	2310

PIER 13

BAR LIST

Loc.	Mark	No. Req.	Length	Type	Weight
FOOTING	13P601	112	8-0	St.	1,346
	13P801	28	34-10	St.	2,604
	13P802	28	25-9	St.	1,925
	13P803	28	40-7	St.	3,034
	13P804	14	36-8	St.	1,371
	13P1001	120	7-9	Bt.	4,002
COL.	13P701	112	8-0	St.	1,831
	13P1002	120	24-3	St.	12,522
	13P1003	120	16-3	St.	8,391
CAP	13P401	44	5-8	Bt.	167
	13P402	44	4-10	Bt.	142
	13P403	44	3-9	Bt.	110
	13P501	16	28-11	St.	483
	13P502	68	14-6	Bt.	1,028
	13P805	20	24-3	St.	1,295
	13P806	24	29-6	St.	1,890
	13P1004	20	35-9	St.	3,077
Total:					45,218

SPIRAL REINFORCING LIST

Mark	No. Req.	Core Dia. Spacer	Length	Pitch	No. Turns	Weight
13SP401	10	32	20-0	3"	83	~~4705~~ 4703
13SP402	10	32	12-6	3"	~~3231~~ 3229	~~3444~~ 3442
Total:					(8591 ~~8606~~ 8585)	~~8149~~ 8147

PIER 13

BILL OF MATERIAL PIER 13

Description	Unit	Total
Class "X" Concrete	C.Y.	269
Reinforcement Bars	Lb.	~~51387~~ 51384
Test Piles (Filled Metal Shells)	Ea.	1
Furnishing Metal Pile Shells	L.F.	1806
Driving and Filling Shells	L.F.	1806

PIER 14

BAR LIST

Loc.	Mark	No. Req.	Length	Type	Weight
FOOTING	14P601	110	8-0	St.	1,322
	14P801	28	34-7	St.	2,585
	14P802	28	25-9	St.	1,925
	14P803	28	40-4	St.	3,015
	14P804	14	36-8	St.	1,371
	14P1001	120	7-9	Bt.	4,002
COL.	14P701	110	8-0	St.	1,799 ~~1,796~~
	14P1002	120	24-3	St.	12,522
	14P1003	120	12-10	St.	6,625
CAP	14P401	48	6-5	Bt.	206
	14P402	48	6-2	Bt.	198
	14P501	16	28-11	St.	483
	14P502	68	14-6	Bt.	1,028
	14P805	20	24-3	St.	1,295
	14P806	24	29-6	St.	1,890
	14P1004	20	35-9	St.	3,077
Total:					43343 ~~43,340~~

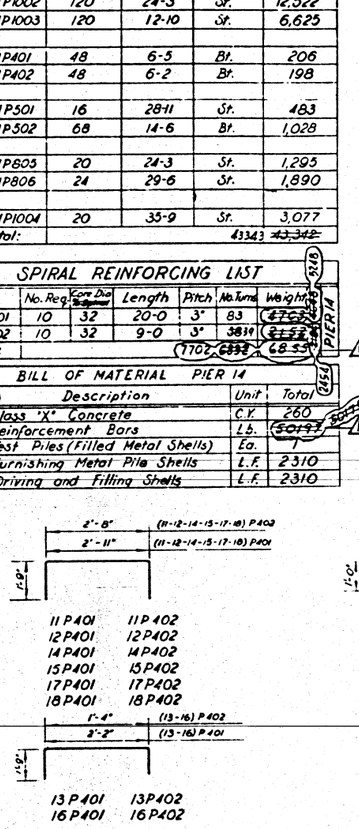
SPIRAL REINFORCING LIST

Mark	No. Req.	Core Dia. Spacer	Length	Pitch	No. Turns	Weight
14SP401	10	32	20-0	3"	83	~~4705~~ 4703
14SP402	10	32	9-0	3"	3839	~~2182~~ 2181
Total:					(7702 ~~7885~~ 7684)	~~6887~~ 6884

PIER 14

BILL OF MATERIAL PIER 14

Description	Unit	Total
Class "X" Concrete	C.Y.	260
Reinforcement Bars	Lb.	~~51045~~ 50997
Test Piles (Filled Metal Shells)	Ea.	1
Furnishing Metal Pile Shells	L.F.	2310
Driving and Filling Shells	L.F.	2310



PIER 15

BAR LIST

Loc.	Mark	No. Req.	Length	Type	Weight
FOOTING	15P601	110	8-0	St.	1,322
	15P801	28	34-7	St.	2,585
	15P802	28	25-9	St.	1,925
	15P803	28	40-4	St.	3,015
	15P804	14	36-8	St.	1,371
	15P1001	120	7-9	Bt.	4,002
COL.	15P701	110	8-0	St.	1,799 ~~1,796~~
	15P1002	120	29-4	St.	15,145
CAP	15P401	48	6-5	Bt.	206
	15P402	48	6-2	Bt.	198
	15P501	16	28-11	St.	483
	15P502	68	14-6	Bt.	1,028
	15P805	20	24-3	St.	1,295
	15P806	24	29-6	St.	1,890
	15P1003	20	35-9	St.	3,077
Total:					39,341 ~~38,340~~

SPIRAL REINFORCING LIST

Mark	No. Req.	Core Dia. Spacer	Length	Pitch	No. Turns	Weight
15SP401	10	32	25-7	3"	~~10744~~ 10743	~~6062~~ 6061
Total:					(6645 ~~9018~~ 6645)	~~5608~~ 5608

PIER 15

BILL OF MATERIAL PIER 15

Description	Unit	Total
Class "X" Concrete	C.Y.	251
Reinforcement Bars	Lb.	~~45406~~ 45394
Test Piles (Filled Metal Shells)	Ea.	1
Furnishing Metal Pile Shells	L.F.	2310
Driving and Filling Shells	L.F.	2310

PIER 16

BAR LIST

Loc.	Mark	No. Req.	Length	Type	Weight
FOOTING	16P601	112	8-0	St.	1,346
	16P801	28	34-10	St.	2,604
	16P802	28	25-9	St.	1,925
	16P803	28	40-7	St.	3,034
	16P804	14	36-8	St.	1,371
	16P1001	120	7-9	Bt.	4,002
COL.	16P701	112	8-0	St.	1,831
	16P1002	120	27-1	St.	13,983
CAP	16P401	56	5-8	Bt.	212
	16P402	56	4-10	Bt.	181
	16P403	56	3-9	Bt.	140
	16P501	16	28-11	St.	483
	16P502	68	14-6	Bt.	1,028
	16P805	20	24-3	St.	1,295
	16P806	24	29-6	St.	1,890
	16P1003	20	35-9	St.	3,077
Total:					38,402

SPIRAL REINFORCING LIST

Mark	No. Req.	Core Dia. Spacer	Length	Pitch	No. Turns	Weight
16SP401	10	32	23-3	3"	96	~~5439~~ 5436
Total:					(6074 ~~9576~~ 6074)	~~5440~~ 5440

PIER 16

BILL OF MATERIAL PIER 16

Description	Unit	Total
Class "X" Concrete	C.Y.	245
Reinforcement Bars	Lb.	~~43878~~ 43876
Test Piles (Filled Metal Shells)	Ea.	1
Furnishing Metal Pile Shells	L.F.	1806
Driving and Filling Shells	L.F.	1806

PIER 17

BAR LIST

Loc.	Mark	No. Req.	Length	Type	Weight
FOOTING	17P601	110	8-0	St.	1,322
	17P801	28	34-7	St.	2,585
	17P802	28	25-9	St.	1,925
	17P803	28	40-4	St.	3,015
	17P804	14	36-8	St.	1,371
	17P1001	120	7-9	Bt.	4,002
COL.	17P701	110	8-0	St.	1,799 ~~1,796~~
	17P1002	120	23-9	St.	12,264
CAP	17P401	48	6-5	Bt.	206
	17P402	48	6-2	Bt.	198
	17P501	16	28-11	St.	483
	17P502	68	14-6	Bt.	1,028
	17P805	20	24-3	St.	1,295
	17P806	24	29-6	St.	1,890
	17P1003	20	35-9	St.	3,077
Total:					36,460 ~~36,459~~

SPIRAL REINFORCING LIST

Mark	No. Req.	Core Dia. Spacer	Length	Pitch	No. Turns	Weight
17SP401	10	32	20-0	3"	83	~~4705~~ 4703
Total:					(9248 ~~9698~~ 9248)	~~3708~~ 3703

PIER 17

BILL OF MATERIAL PIER 17

Description	Unit	Total
Class "X" Concrete	C.Y.	236
Reinforcement Bars	Lb.	~~37762~~ 37758
Test Piles (Filled Metal Shells)	Ea.	1
Furnishing Metal Pile Shells	L.F.	2310
Driving and Filling Shells	L.F.	2310

PIER 18

BAR LIST

Loc.	Mark	No. Req.	Length	Type	Weight
FOOTING	18P601	110	8-0	St.	1,322
	18P801	28	34-7	St.	2,585
	18P802	28	25-9	St.	1,925
	18P803	28	40-4	St.	3,015
	18P804	14	36-8	St.	1,371
	18P1001	120	7-9	Bt.	4,002
COL.	18P701	110	8-0	St.	1,799 ~~1,796~~
	18P1002	120	20-3	St.	10,456
CAP	18P401	48	6-5	Bt.	206
	18P402	48	6-2	Bt.	198
	18P501	16	28-11	St.	483
	18P502	68	14-6	Bt.	1,028
	18P805	20	24-3	St.	1,295
	18P806	24	29-6	St.	1,890
	18P1003	20	35-9	St.	3,077
Total:					34,652 ~~34,651~~

SPIRAL REINFORCING LIST

Mark	No. Req.	Core Dia. Spacer	Length	Pitch	No. Turns	Weight
18SP401	10	32	16-6	3"	69	~~3905~~ 3904
					~~4359~~ 4358	
Total:					4359 ~~3861~~ 4358	~~3907~~ 3904

PIER 18

BILL OF MATERIAL PIER 18

Description	Unit	Total
Class "X" Concrete	C.Y.	227
Reinforcement Bars	Lb.	~~39016~~ 39011
Test Piles (Filled Metal Shells)	Ea.	1
Furnishing Metal Pile Shells	L.F.	2310
Driving and Filling Shells	L.F.	2310

⚠	Jan 27, 1958
Revision	Date

NOTES:

Work this Drwg. with Drwg. Sh. No. 17
See notes Sh. No. 11

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

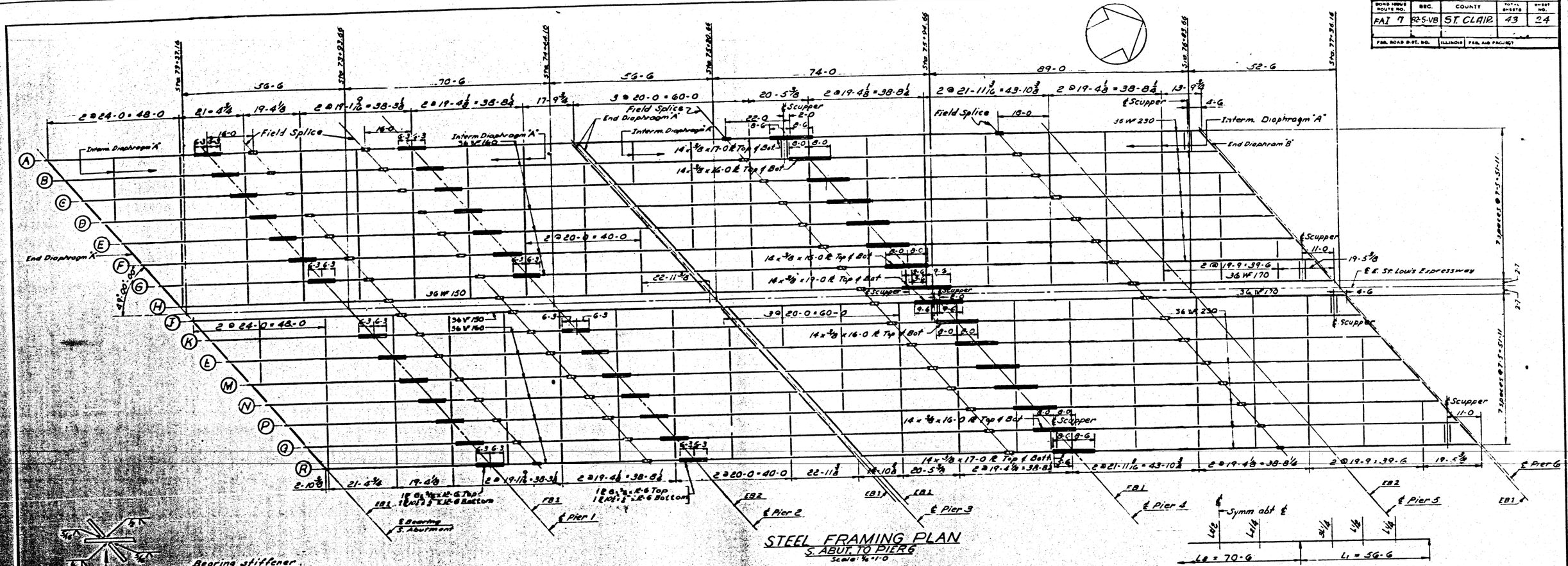
BAR LIST & BILL OF MATERIAL FOR PIERS 10 TO 18 INCL.

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

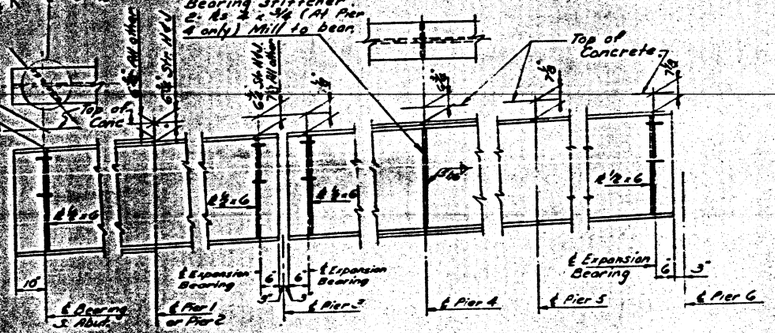
Sh. 18a of 37

Revised - 2-7-58-RWM - Revised quantities of Reinforcing Bars in BAR LISTS & BILLS OF MATERIAL to include Drilling Figures "rough-out" hole data.
Revised - 2-20-58-RWM - Revised quantities of Reinforcing Bars in SPIRAL REINFORCING LISTS & BILLS OF MATERIAL to include figures for spirals at abutments and wing walls on Sheet 21 of 43 (Sheet 16 of 43)

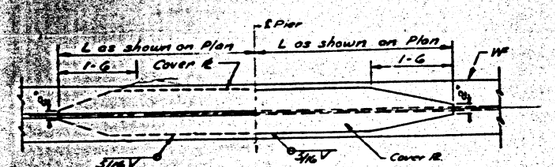
BOND ISSUE ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 9	82-5-VB	ST. CLAIR	43	24
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



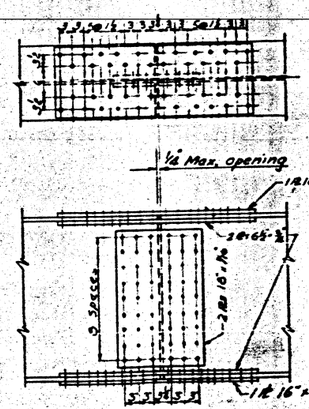
STEEL FRAMING PLAN
S. ABUT. TO PIER 6
Scale: 1/16" = 1'-0"



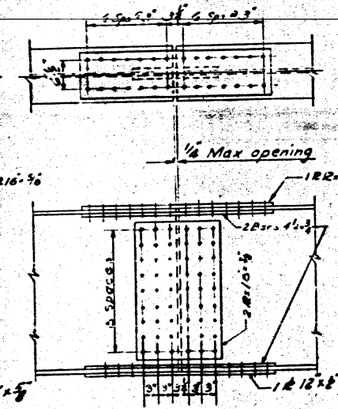
TYPICAL STRINGER ELEVATION



COVER PLATE DETAILS



SPLICE DETAIL FOR 36 WF 230



SPLICE DETAIL FOR 36 WF 150", 160", 170"

DEFLECTION & CAMBER OF STRINGERS SOUTH ABUTM. TO PIER 3

Location	Stringers A & A					Stringers B to E & B1 to D1					Stringers H & I				
	L1/4	L2/4	3L1/4	L2/4	L2/2	L1/4	L1/2	3L1/4	L1/4	L2/4	L1/4	L1/2	3L1/4	L2/4	L2/2
Deflection due to wt. of steel	1/16	1/16	0	1/16	1/16	1/16	1/16	0	1/16	1/16	1/16	1/16	0	1/16	1/16
Deflection due to wt. of conc. deck	3/8	1/2	1/4	3/8	5/8	3/16	1/4	5/16	3/16	3/8	1/4	5/16	1/8	1/4	7/16
Camber Req'd.	7/16	9/16	1/4	7/16	11/16	1/4	5/16	1/8	1/4	7/16	5/16	3/8	1/8	5/16	1/2

NOTE For General Notes see Sh. No. 2
For Bearing Details see Sh. No. 24
For Diaphragms see Sh No. 23
For Deflection & Camber of Stringers from Pier 3 to 6 incl see Sh. No. 22
For Notes see Sh No 22
For Scupper Support Details see Sh. No. 22

BILL OF MATERIAL		
Description	Unit	Total
Structural Steel	LB.	1,412,790

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

STEEL FRAMING PLAN FROM SOUTH ABUTMENT TO PIER 6

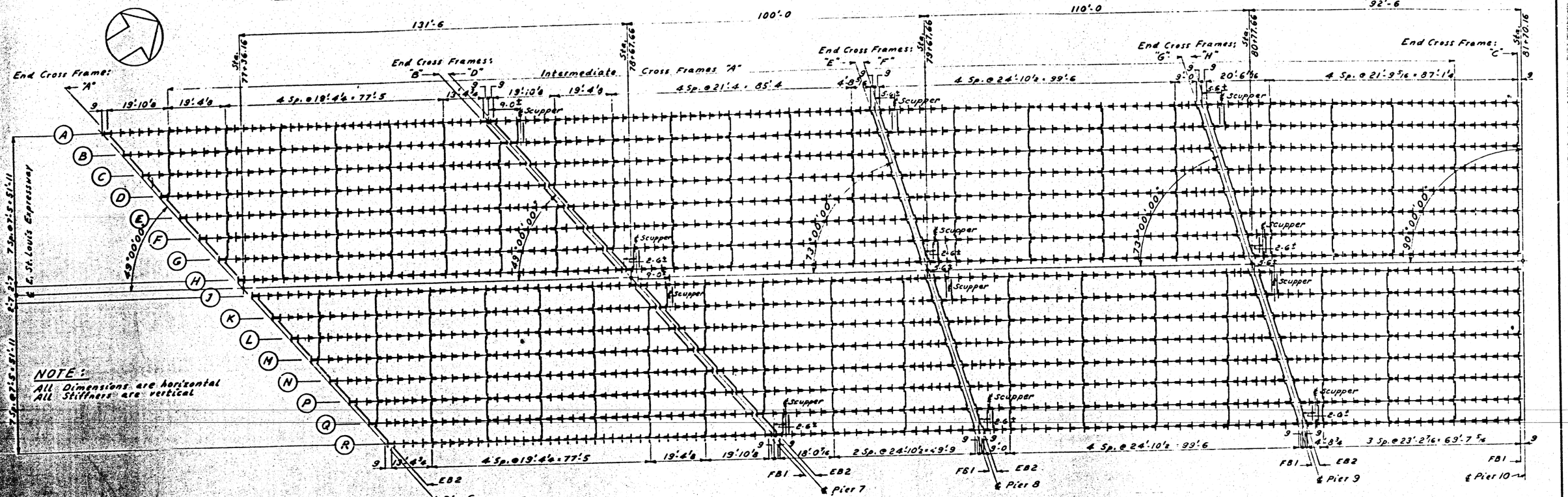
H W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

Sh. 19 of 27

Designed by A.T.
Drawn by E.S.
Checked by H.N. PE'd 4-30-57 V.M.R.

ROAD ISSUE ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 7	82-S-VB	ST. CLAIR	43	25
FED. ROAD DIST. NO.	STATE	FED. AID PROJECT		

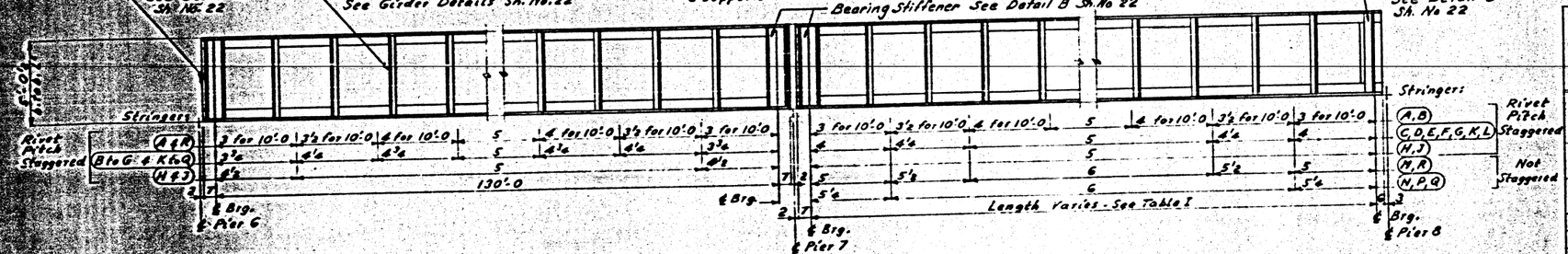
NOTE: If flange angles or web plates can not be furnished full length, fabricator shall furnish details of splices.



STEEL FRAMING PLAN - PIER 6 TO PIER 10

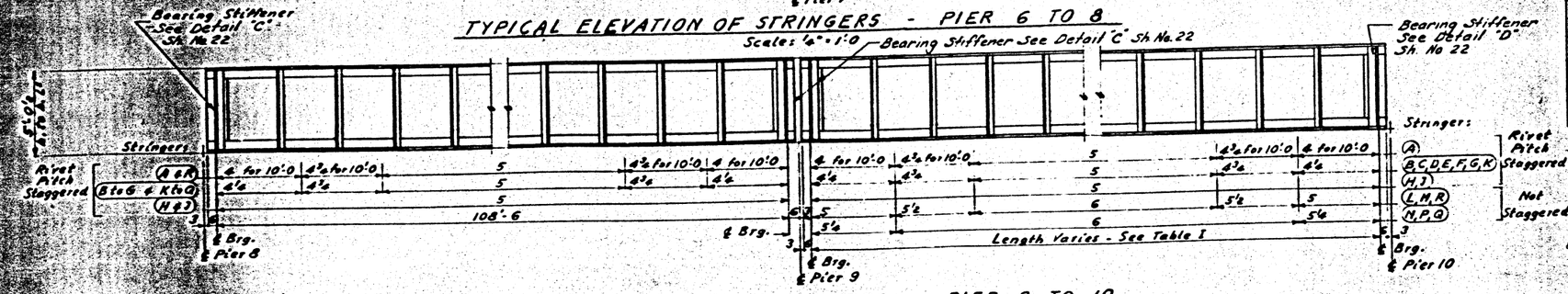
Scale: 1/16" = 1'-0

NOTE: For distance from top of concrete to top of steel @ supports see Detail-A



TYPICAL ELEVATION OF STRINGERS - PIER 6 TO 8

Scale: 1/16" = 1'-0



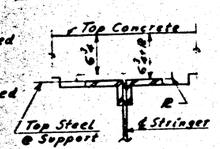
TYPICAL ELEVATION OF STRINGERS - PIER 8 TO 10

Scale: 1/16" = 1'-0

Designed by P.W.
Drawn by S.J.C.
Checked by A.T.

TABLE I

Stringer	SPANS @ to @ Brg. between Piers 7 & 8	9 & 10
A	123'-2 3/16	107'-7 15/16
B	125'-0 7/16	105'-4 3/8
C	120'-10 1/4	103'-1 1/2
D	116'-8 3/16	100'-10 5/16
E	112'-6	98'-7 1/8
F	108'-3 13/16	96'-3 7/8
G	104'-1 5/8	94'-0 1/16
H	99'-11 7/16	91'-9 1/2
J	97'-0 9/16	90'-2 1/2
K	92'-10 3/8	87'-11 5/16
L	88'-8 3/16	85'-8 1/8
M	84'-6 1/16	83'-4 7/8
N	80'-3 7/8	81'-1 11/16
P	76'-1 3/8	78'-10 1/2
Q	71'-11 5/16	76'-7 1/4
R	67'-9 7/16	74'-4 1/16



DETAIL - A

Scale: 1" = 1'-0

NOTES:

For General Notes see Sh. No. 2
For Deflection, Camber & Girder Details see Sh. No. 22
For Diaphragms see Sh. No. 23
For Bearing Details see Sh. No 24
For Notes see Sh. No. 22
For Scupper Support Details see Sh. No 22

BILL OF MATERIAL

Description	Unit	Total
Structural Steel	Lb.	3,001,610

STATE OF ILLINOIS
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&
CITY OF EAST ST. LOUIS

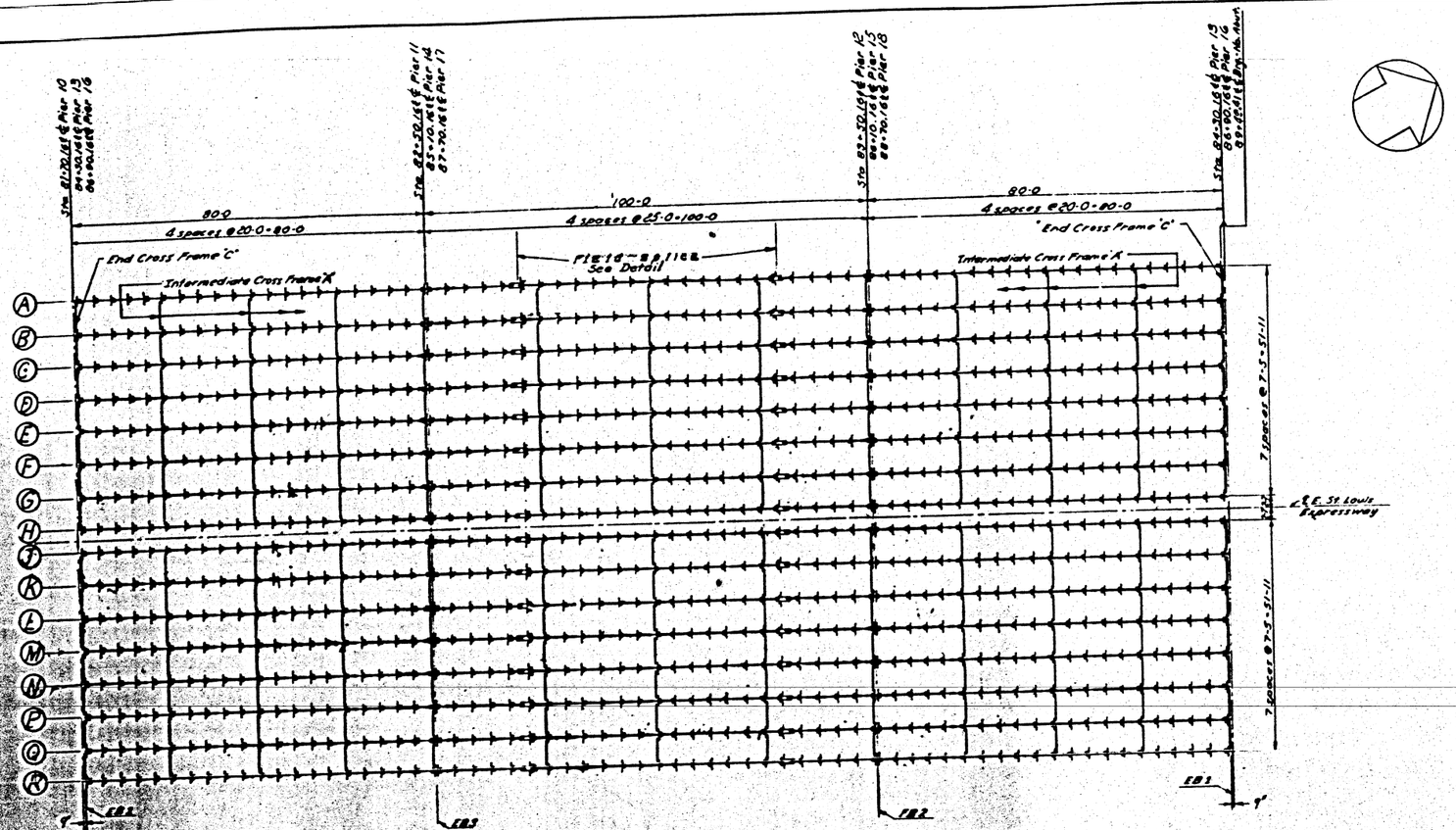
EAST ST. LOUIS EXPRESSWAY

STEEL FRAMING PLAN FROM PIER 6 TO PIER 10

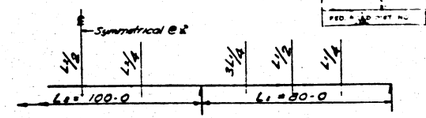
H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

Sh. 20 of 37

WIND ISBUS ROUTE NO.	SPC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 7	82-5-VB	ST. CLAIR	43	26
FED. AID PROJECT NO.				



STEEL FRAMING PLAN
PIER 10 TO N. ABUTMENT
Scale: 1/16"-1'-0"

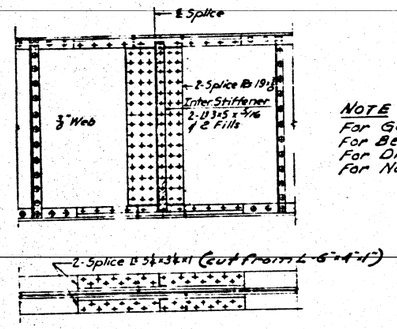


DEFLECTIONS & CAMBER

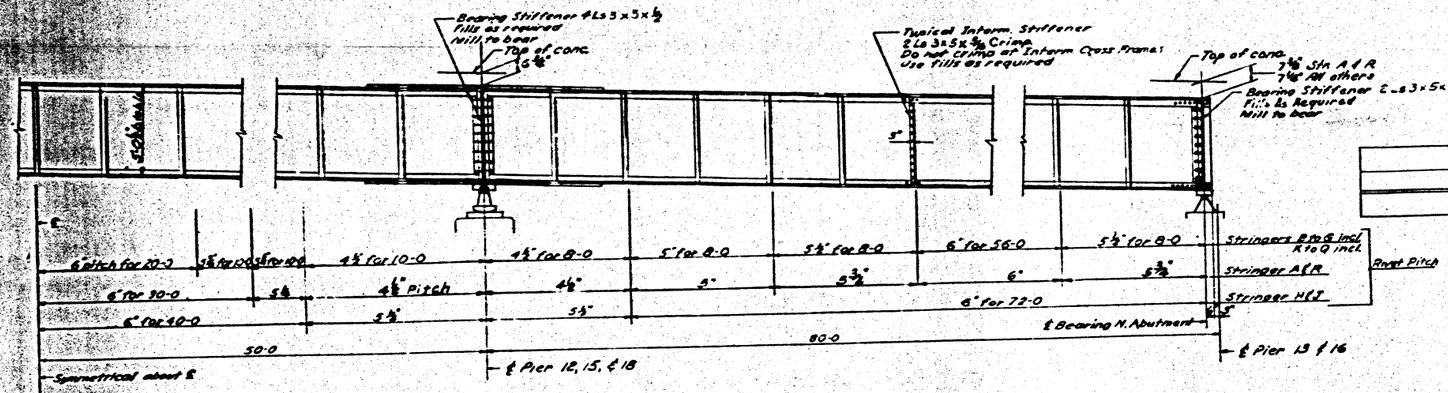
LOCATION	Stringers A & R					Stringers B to G incl. K to Q incl.					Stringers H & J				
	L/4	L/2	3L/4	L	L/2	L/4	L/2	3L/4	L	L/2	L/4	L/2	3L/4	L	L/2
DEFLECTION DUE TO WEIGHT OF STEEL	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8
DEFLECTION DUE TO CONCRETE DECK	11/16	13/16	3/8	1/2	1	3/8	7/16	3/16	1/4	5/8	0/16	11/16	5/16	7/16	7/8
CAMBER REQUIRED	13/16	15/16	7/16	0/16	1 1/8	1/2	9/16	1/4	5/16	3/4	11/16	13/16	3/8	1/2	1

MAIN MATERIAL

MATERIAL \ STRINGER	A & R	B to G incl. K to Q incl.	H & J
WEB	PL 60-3/8	PL 60-3/8	PL 60-3/8
FLANGE	4 LS 6X4X3/8	4 LS 6X4X3/8	4 LS 6X4X1/2
	4 COV. PS 14X3/8X13'-0	4 COV. PL 14X1/2X13'-0	4 COV. PS 14X1/2X13'-0



NOTE
For General Notes see Sh. No. 2
For Bearing Details see Sh. No. 24
For Diaphragms see Sh. No. 23
For Notes see Sh. No. 22



TYPICAL STRINGER ELEVATION

DETAIL OF SPLICE
(Continuous 2 Girder only)
Scale - 1/2" = 1'-0"

BILL OF MATERIAL

Description	Unit	Total
Structural Steel	Lb.	2,931,000

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

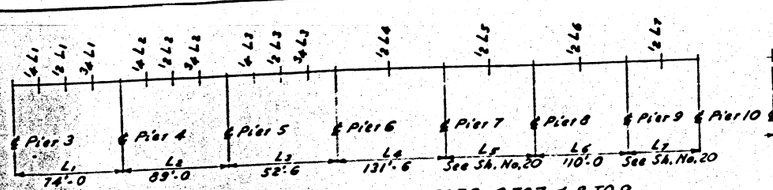
STEEL FRAMING PLAN FROM
PIER 10 TO NORTH ABUTMENT

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

Designed by A.T.
Drawn by V.B.
Checked by H.N.

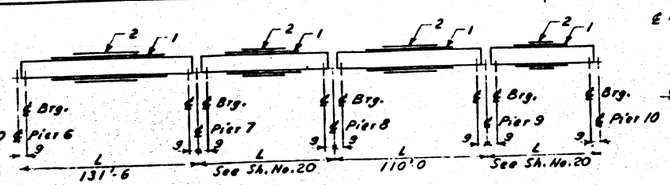
Rev: 7-20-51 V.M.K.

STATE HIGHWAY ROUTE NO.	SECT.	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 7	82-5-4B	ST. CLAIR	43	27
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



DEFLECTION & CAMBER OF STRINGERS FROM PIER 3 TO 7 & 8 TO 9

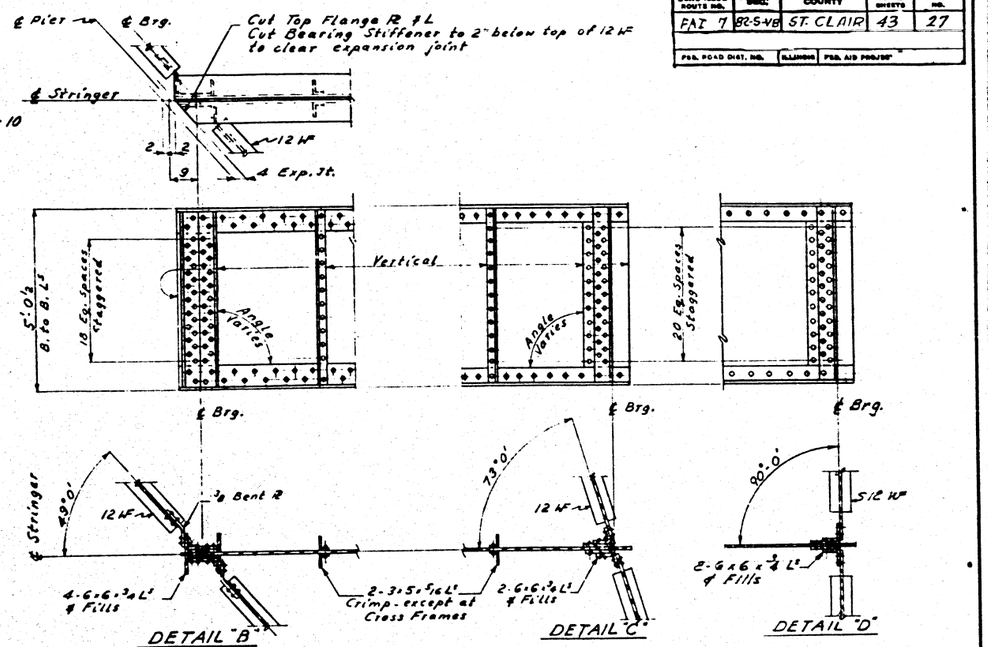
	Span	L_1			L_2			L_3			L_4	L_6
	Stringer	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/2	1/2
Deflection Due To Weight Of Steel	A & R	1/8	1/8	1/16	1/8	3/16	1/8	0	0	0	1'0	5/8
	H & J	1/8	3/16	1/16	1/8	1/4	1/8	0	0	0	1'3/16	15/16
	B to G & K to Q	1/8	1/8	1/16	1/8	3/16	1/8	0	0	0	1'3/16	3/16
Deflection Due To Weight Of Concrete	A & R	13/16	1	7/16	11/16	1'5/16	7/8	-1/16	1/16	1/8	3'1/4	2'3/8
	H & J	11/16	13/16	3/8	5/8	1'3/16	3/4	-1/16	1/16	1/16	2'7/8	2
	B to G & K to Q	7/16	1/2	1/4	3/8	3/4	1/2	0	0	1/16	2'5/8	1'3/8
Roadway Curvature	A	0	0	0	7/8	1'5/16	1	3/8	1/2	3/8	3'1/8	2'1/8
	B	0	0	0	1	1'3/8	1'1/16	3/8	1/2	3/8	3'1/8	2'1/8
	C	0	0	0	1'1/16	1'1/16	1'1/16	3/8	1/2	3/8	3'1/8	2'1/8
	D	0	0	0	1'1/16	1'1/16	1'1/16	3/8	1/2	3/8	3'1/8	2'1/8
	E	0	0	0	1'1/16	1'1/16	1'1/16	3/8	1/2	3/8	3'1/8	2'1/8
	F	0	1/16	1/16	1'1/16	1'1/16	1'1/16	3/8	1/2	3/8	3'1/8	2'1/8
	G	1/16	1/8	3/16	1'1/16	1'1/16	1'1/16	3/8	1/2	3/8	3'1/8	2'1/8
	H	1/8	1/4	5/16	1'1/16	1'1/16	1'1/16	3/8	1/2	3/8	3'1/8	2'1/8
	J	1/8	5/16	3/8	1'1/16	1'1/16	1'1/16	3/8	1/2	3/8	3'1/8	2'1/8
	K	1/4	5/16	1/2	1'1/16	1'1/16	1'1/16	3/8	1/2	3/8	3'1/8	2'1/8
	L	5/16	5/8	9/16	1'1/16	1'1/16	1'1/16	3/8	1/2	3/8	3'1/8	2'1/8
	M	7/16	3/4	5/8	1'1/16	1'1/16	1'1/16	3/8	1/2	3/8	3'1/8	2'1/8
	N	3/16	7/8	11/16	1'1/16	1'1/16	1'1/16	3/8	1/2	3/8	3'1/8	2'1/8
	P	11/16	15/16	3/4	1'1/16	1'1/16	1'1/16	3/8	1/2	3/8	3'1/8	2'1/8
	Q	3/4	1	3/4	1'1/16	1'3/16	1'1/16	3/8	1/2	3/8	3'1/8	2'1/8
	R	3/4	1	3/4	1'1/16	1'1/16	1'1/16	3/8	1/2	3/8	3'1/8	2'1/8
Camber Required	A	15/16	1'1/8	1/2	1'1/16	2'3/16	2	5/16	9/16	1/8	7'1/2	5'0
	B	9/16	5/8	5/16	1'1/2	2'5/16	1'11/16	3/8	1/2	7/16	6'7/16	4'1/16
	C	9/16	5/8	5/16	1'5/16	2'3/8	1'11/16	3/8	1/2	7/16	6'7/16	4'1/16
	D	9/16	5/8	5/16	1'5/16	2'3/8	1'11/16	3/8	1/2	7/16	6'7/16	4'1/16
	E	9/16	5/8	5/16	1'5/16	2'3/8	1'11/16	3/8	1/2	7/16	6'7/16	4'1/16
	F	9/16	11/16	3/8	1'5/16	2'3/8	1'11/16	3/8	1/2	7/16	6'7/16	4'1/16
	G	5/8	3/4	1/2	1'5/16	2'3/8	1'11/16	3/8	1/2	7/16	6'7/16	4'1/16
	H	15/16	1'1/4	3/4	1'13/16	2'7/8	1'15/16	5/16	9/16	7/16	7'3/16	5'1/16
	J	15/16	1'5/16	13/16	1'13/16	2'7/8	1'15/16	5/16	9/16	7/16	7'3/16	5'1/16
	K	13/16	1'1/16	13/16	1'5/16	2'3/8	1'11/16	3/8	1/2	7/16	6'7/16	4'1/16
	L	7/8	1'1/4	7/8	1'5/16	2'3/8	1'11/16	3/8	1/2	7/16	6'7/16	4'1/16
	M	1"	1'3/8	15/16	1'5/16	2'3/8	1'11/16	3/8	1/2	7/16	6'7/16	4'1/16
	N	1'1/8	1'3/4	1"	1'5/16	2'3/8	1'11/16	3/8	1/2	7/16	6'7/16	4'1/16
	P	1'1/4	1'5/16	1'1/16	1'5/16	2'3/8	1'11/16	3/8	1/2	7/16	6'7/16	4'1/16
	Q	1'5/16	1'5/8	1'1/16	1'5/16	2'3/8	1'11/16	3/8	1/2	7/16	6'7/16	4'1/16
	R	1'11/16	2'0	1'1/4	1'7/8	2'15/16	2'1/16	5/16	9/16	1/2	7'1/2	5'1/8



MAIN MATERIAL FOR STRINGERS FROM PIER 6 TO 10

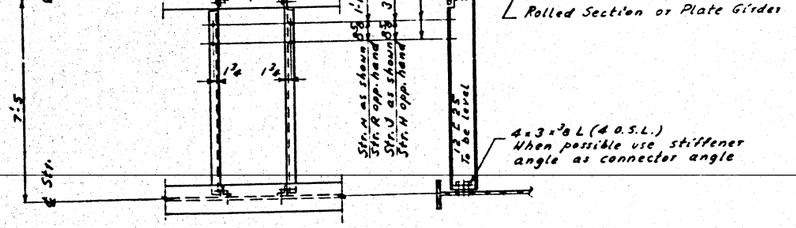
Span	Stringer	Web Plate	Angles	Cover Plates - Top / Bot. 1	Cover Plates - Top / Bot. 2
L4	A & R	1-60 × 3/8	4-8 × 8 × 1	1-20 × 1 × 98'-0	1-20 × 7/8 × 70'-0
	H & J	1-60 × 3/8	4-6 × 8 × 7/8	1-20 × 7/8 × 93'-0	1-20 × 5/8 × 73'-0
	B to G & K to Q	1-60 × 3/8	4-6 × 8 × 7/8	1-20 × 7/8 × 95'-0	1-20 × 7/8 × 73'-0
L5	A	1-60 × 3/8	4-8 × 8 × 1	1-20 × 1 × 98'-0	1-20 × 7/8 × 70'-0
	B	1-60 × 3/8	4-6 × 8 × 7/8	1-20 × 3/4 × 96'-0	1-20 × 3/4 × 70'-0
	C	1-60 × 3/8	4-6 × 8 × 7/8	1-20 × 3/4 × 87'-0	1-20 × 5/8 × 60'-0
	D	1-60 × 3/8	4-6 × 8 × 7/8	1-20 × 5/8 × 82'-0	1-20 × 5/8 × 60'-0
	E	1-60 × 3/8	4-6 × 8 × 7/8	1-20 × 5/8 × 76'-0	1-20 × 1/2 × 55'-0
	F	1-60 × 3/8	4-6 × 8 × 7/8	1-20 × 7/8 × 70'-0	
	G	1-60 × 3/8	4-6 × 8 × 7/8	1-20 × 3/4 × 64'-0	
	H	1-60 × 3/8	4-6 × 8 × 1/2	1-20 × 5/8 × 66'-0	
	J	1-60 × 3/8	4-6 × 8 × 1/2	1-20 × 1/2 × 63'-0	
	K	1-60 × 3/8	4-6 × 8 × 3/8	1-20 × 1/2 × 47'-0	
	L	1-60 × 3/8	4-6 × 8 × 3/8	1-20 × 3/8 × 41'-0	
	M	1-60 × 3/8	4-4 × 6 × 3/4	1-14 × 1/2 × 59'-0	1-14 × 1/2 × 42'-0
	N	1-60 × 3/8	4-4 × 6 × 3/4	1-14 × 3/8 × 47'-0	
	P	1-60 × 3/8	4-4 × 6 × 3/4	1-14 × 5/8 × 40'-0	
	Q	1-60 × 3/8	4-4 × 6 × 3/4	1-14 × 1/2 × 37'-0	
	R	1-60 × 3/8	4-4 × 6 × 3/4	1-14 × 3/8 × 17'-0	
L6	A & R	1-60 × 3/8	4-6 × 8 × 7/8	1-20 × 5/8 × 73'-6	1-20 × 1/2 × 51'-0
	H & J	1-60 × 3/8	4-6 × 8 × 7/8	1-20 × 5/8 × 54'-0	
	B to G & K to Q	1-60 × 3/8	4-6 × 8 × 7/8	1-20 × 1/2 × 71'-0	1-20 × 1/2 × 51'-0
L7	A	1-60 × 3/8	4-6 × 8 × 7/8	1-20 × 5/8 × 73'-6	1-20 × 1/2 × 51'-0
	B	1-60 × 3/8	4-6 × 8 × 7/8	1-20 × 7/8 × 67'-0	
	C	1-60 × 3/8	4-6 × 8 × 7/8	1-20 × 3/4 × 66'-0	
	D	1-60 × 3/8	4-6 × 8 × 7/8	1-20 × 3/4 × 61'-0	
	E	1-60 × 3/8	4-6 × 8 × 7/8	1-20 × 5/8 × 56'-0	
	F	1-60 × 3/8	4-6 × 8 × 7/8	1-20 × 1/2 × 51'-0	
	G	1-60 × 3/8	4-6 × 8 × 7/8	1-20 × 1/2 × 47'-0	
	H	1-60 × 3/8	4-6 × 8 × 1/2	1-20 × 1/2 × 54'-0	
	J	1-60 × 3/8	4-6 × 8 × 1/2	1-20 × 3/8 × 54'-0	
	K	1-60 × 3/8	4-6 × 8 × 3/8	1-20 × 3/8 × 41'-0	
	L	1-60 × 3/8	4-4 × 6 × 3/4	1-14 × 1/2 × 59'-0	1-14 × 1/2 × 42'-0
	M	1-60 × 3/8	4-4 × 6 × 3/4	1-14 × 1/2 × 56'-0	1-14 × 1/2 × 39'-0
	N	1-60 × 3/8	4-4 × 6 × 3/4	1-14 × 3/8 × 47'-0	
	P	1-60 × 3/8	4-4 × 6 × 3/4	1-14 × 3/8 × 45'-0	
	Q	1-60 × 3/8	4-4 × 6 × 3/4	1-14 × 5/8 × 44'-0	
	R	1-60 × 3/8	4-4 × 6 × 3/4	1-14 × 1/2 × 37'-0	

NOTE: Cover plates symmetrical about ℄ span L



TYPICAL GIRDER DETAILS

Scale: 1/2" = 1'-0



SCUPPER SUPPORT DETAIL

Scale: 3/8" = 1'-0

DEFLECTION & CAMBER OF STRINGERS:

FROM PIER 7 TO 8

	L_5																
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R
Deflection Due To Weight Of Steel	1'0	3/4	15/16	3/4	11/16	9/16	3/8	7/16	7/16	1/4	1/4	1/4	3/16	3/16	1/8	1/8
" " " Concrete	3'4	1'3/16	1'0	1'0	1'2	1'0	1'4	1'1/16	1'1/16	15/16	15/16	13/16	3/4	5/8	1/2	7/8
Reading Curvature	3	2'3/4	2'4	2'2	2'1/16	2'8	1'5/16	1'8	1'11/16	1'9/16	1'7/16	1'5/16	1'5/16	1'1/16	15/16	7/8
Camber Required	7'8	5'0	5'3/16	4'8	5'0	4'1/16	3'9/16	4	3'3/4	2'9/16	2'8	2'3	2'8	1'8	1'9/16	1'8

FROM PIER 9 TO 10

	L_7															
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R
Deflection Due To Weight Of Steel	5/8	7/16	3/8	7/16	5/16	3/8	3/8	5/16	5/16	1/4	1/4	1/4	3/16	3/16	3/16	3/16
" " " Concrete	2'8	2	1'5/8	1'8	1'3/8	1'8	1'11/16	1'5/16	1'3/16	1'1/16	1'1/16	1'1/16	13/16	13/16	3/4	1'0
Reading Curvature	2'8	1'4	1'4	1'8	1'8	1'8	1'8	1'8	1'8	1'8	1'8	1'8	1'8	1'8	1'8	1'8
Camber Required	5'8	3'11/16	3'3/16	3'3/16	3'3/16	3'3/16	3'0	3'3/16	3'1/2	2'7/16	2'3/8	2'4	2'0	1'11/16	1'8	2'5/16

Designed by P.K.
Drawn by S.T.C.
Checked by H.M.M.

NOTES

Rivets - 7/8" ℄. Open holes - 15/16" ℄ unless otherwise noted.

Field connections riveted unless otherwise noted.

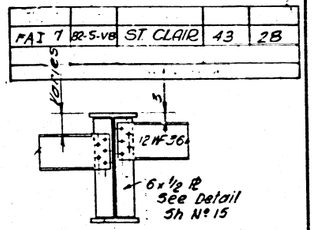
Except as otherwise provided all structural steel shall receive one shop coat of red lead paint and two field coats of paint. See Special Provisions for field paint.
All paint shall be furnished and applied by the contractor involved.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS
EAST ST. LOUIS EXPRESSWAY

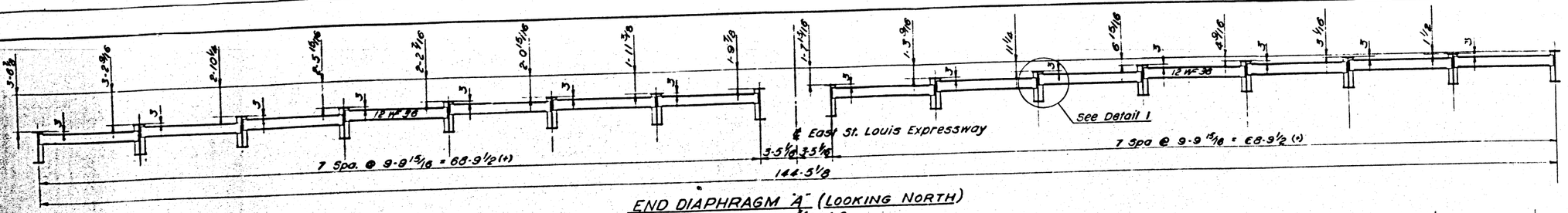
STEEL DETAILS

H. W. LOCHNER, INC
ENGINEERS
CHICAGO, ILLINOIS

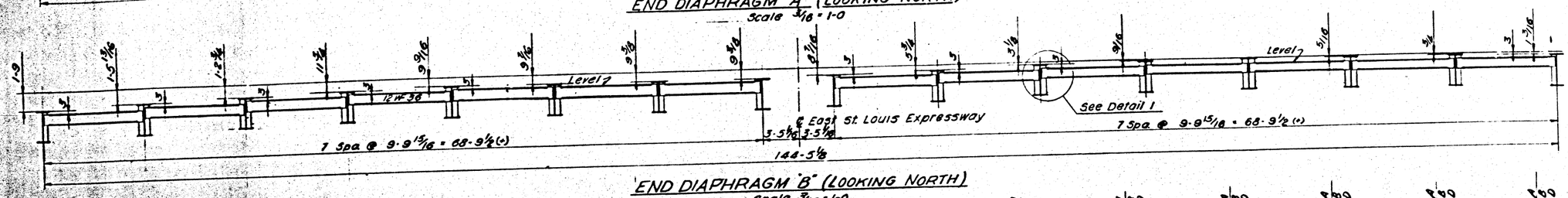
FAI 7	82-5-VB	ST CLAIR	43	2B



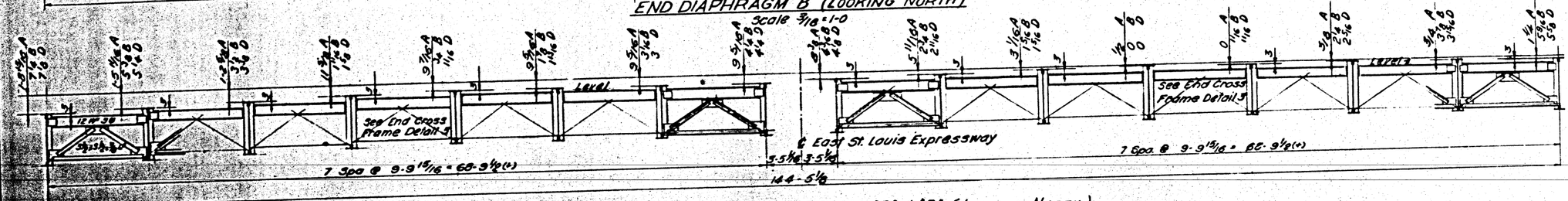
DETAIL 1
Scale 1/2 = 1-0



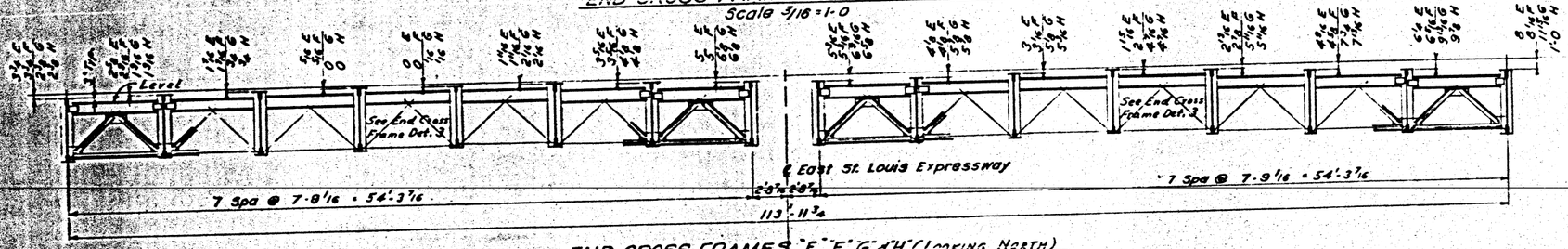
END DIAPHRAGM "A" (LOOKING NORTH)
Scale 3/16 = 1-0



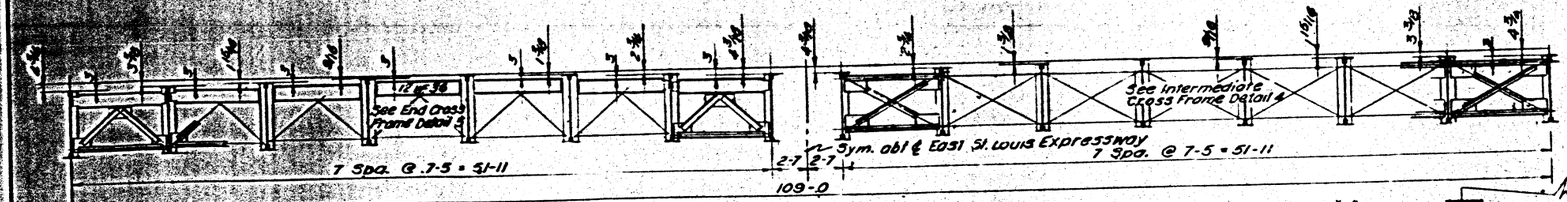
END DIAPHRAGM "B" (LOOKING NORTH)
Scale 3/16 = 1-0



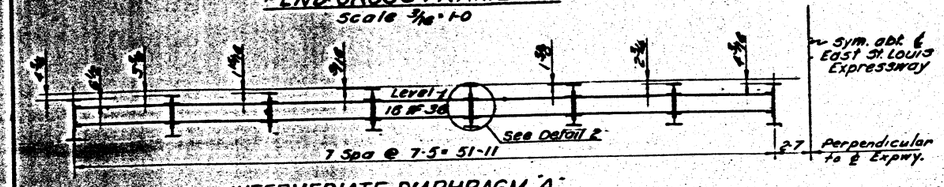
END CROSS FRAMES "A", "B" & "D" (LOOKING NORTH)
Scale 3/16 = 1-0



END CROSS FRAMES "E", "F", "G" & "H" (LOOKING NORTH)
Scale 3/16 = 1-0

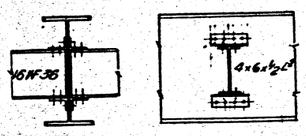


END CROSS FRAME "C"
Scale 3/16 = 1-0

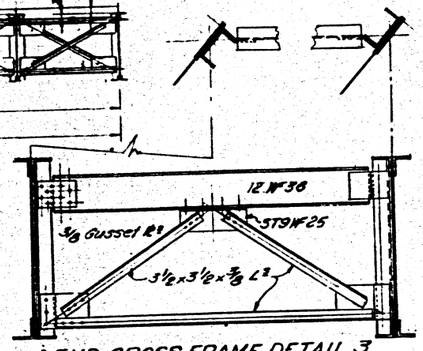


INTERMEDIATE DIAPHRAGM "A"
Scale 3/16 = 1-0

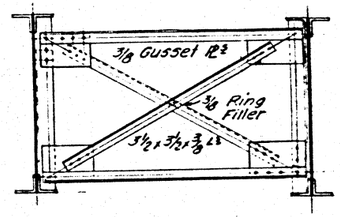
INTERMEDIATE CROSS FRAME "A"
Scale 3/16 = 1-0



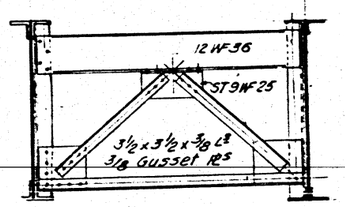
DETAIL 2
Scale 1/2 = 1-0



END CROSS FRAME DETAIL 3
Scale 1/2 = 1-0



INTERMEDIATE CROSS FRAME DETAIL 4
Scale 1/2 = 1-0



END CROSS FRAME DETAIL 5
Scale 1/2 = 1-0

NOTE
For Notes see Sh No 22

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

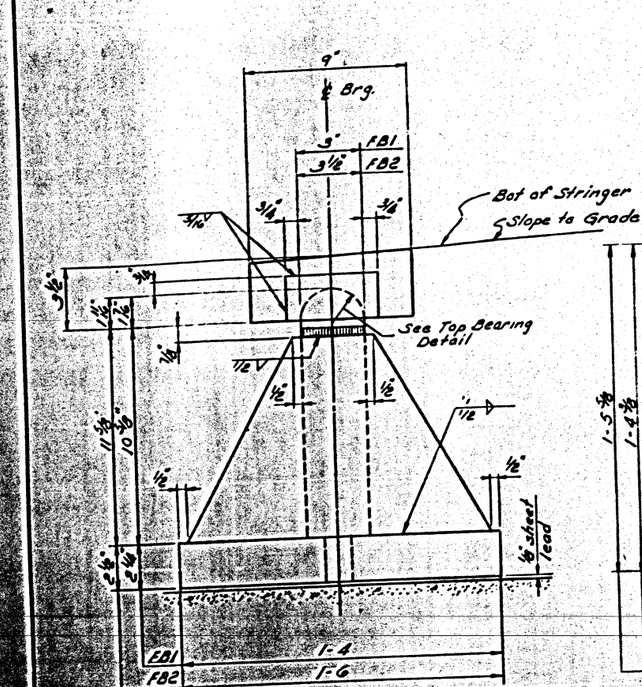
CROSS FRAMES AND DIAPHRAGMS

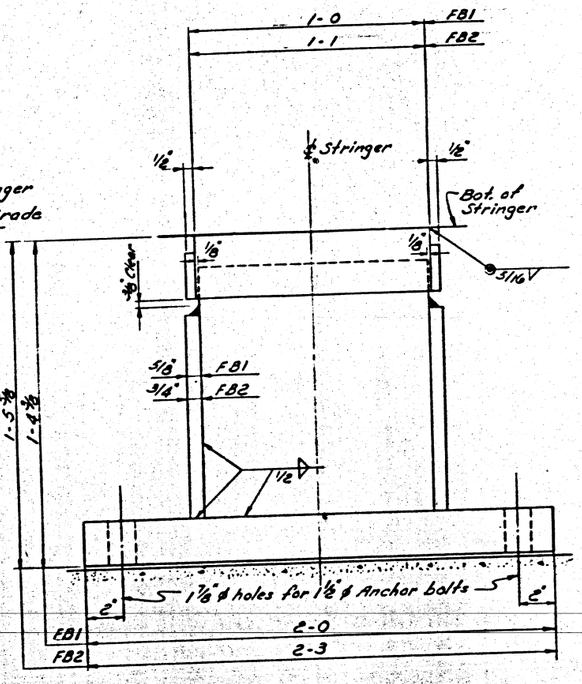
H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

Sheet 23 of 37

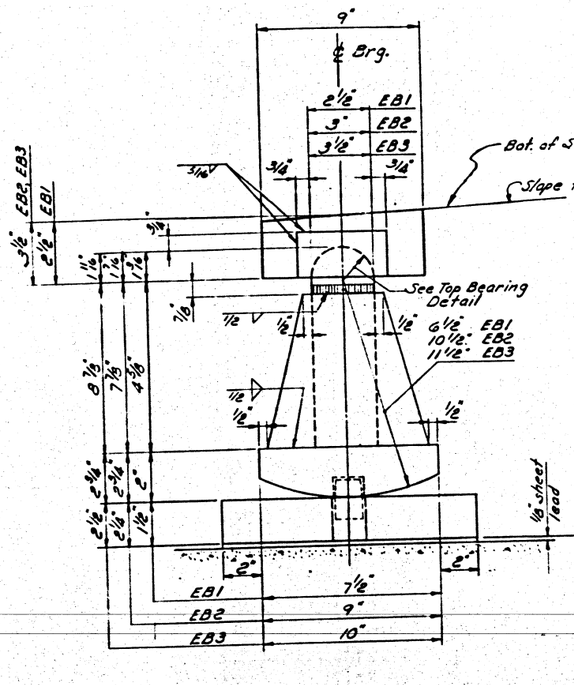
Designed by T.T.
Drawn by J.C.O
Checked by A.T.

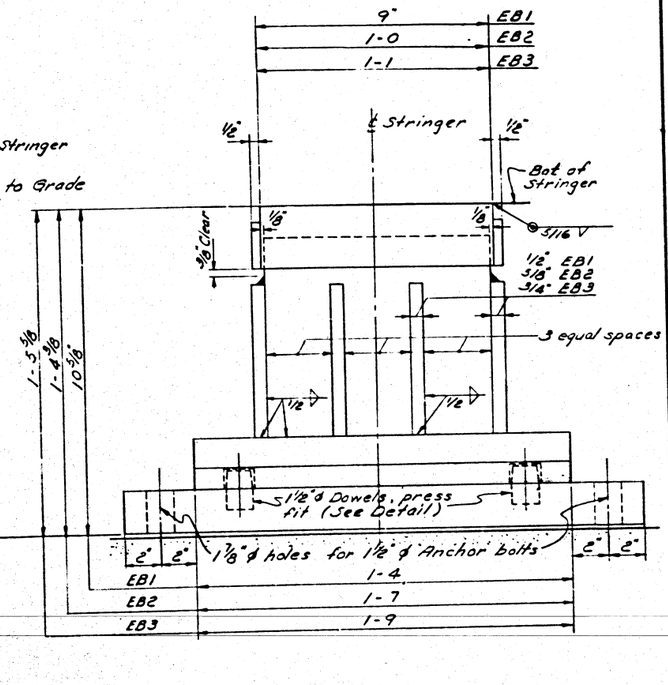
BOND ISSUE ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 7	82-5-V8	ST. CLAIR	43	29
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJ. NO.		



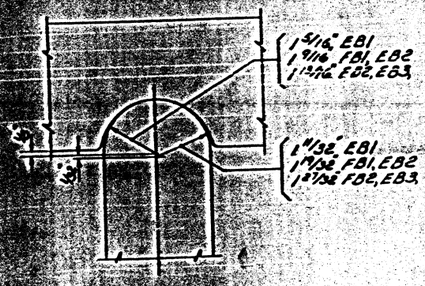


FIXED BEARINGS
FB1 & FB2

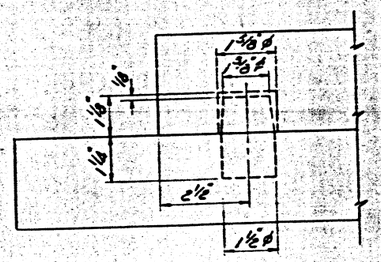




EXPANSION BEARINGS
EB1, EB2 & EB3

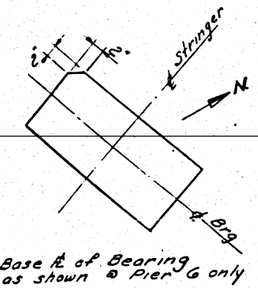


TOP BEARING DETAIL



DOWEL DETAIL

BILL OF MATERIAL		
Description	Unit	Total
Structural Steel	Lb.	216,800



Cut Base ℄ of Bearing EB2 as shown @ Pier 6 only

NOTES

All bearing assemblies, lead plates, pintles, and anchor bolts shall be fabricated and set in accordance with Article 511.4 of the Standard Specifications and are included in quantity of Structural Steel.

Anchor bolts shall be set before riveting diaphragms over supports.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

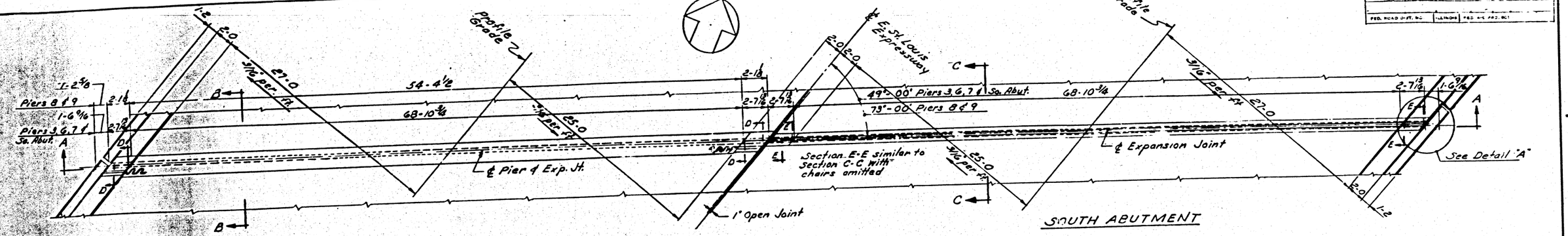
BEARINGS

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

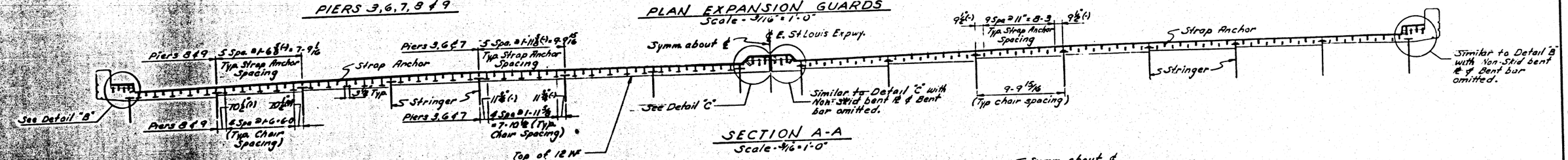
Sheet 24 of 37

Designed by T.T.
Drawn by A.J.G.
Checked by A.T.

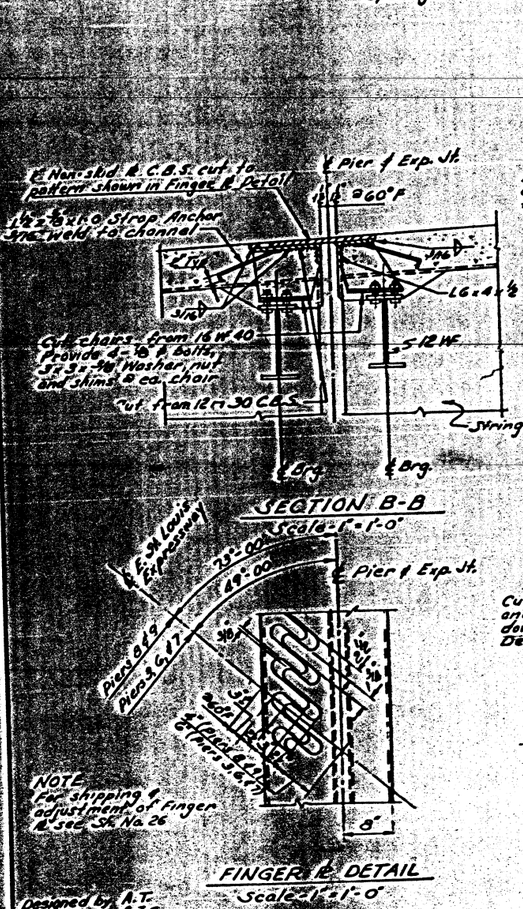
FED. ROAD DIST. NO.	STATE	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 7	82-5-VB	ST. CLAIR	43	30
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

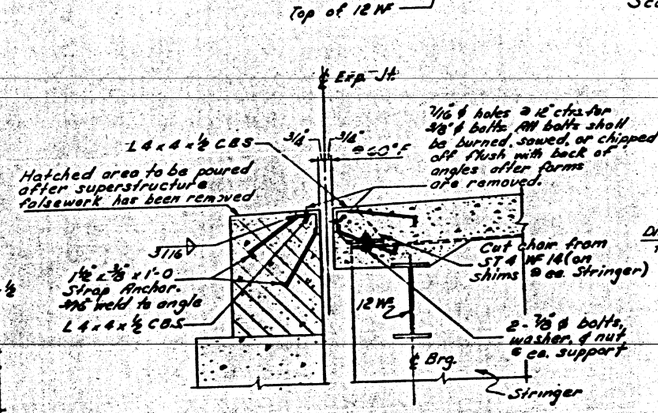


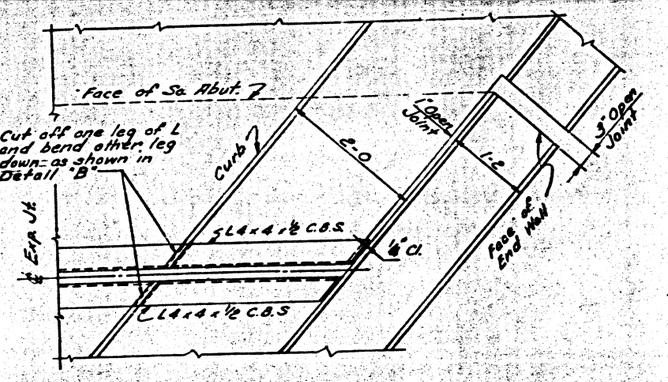
PLAN EXPANSION GUARDS
Scale - 3/16" = 1'-0"

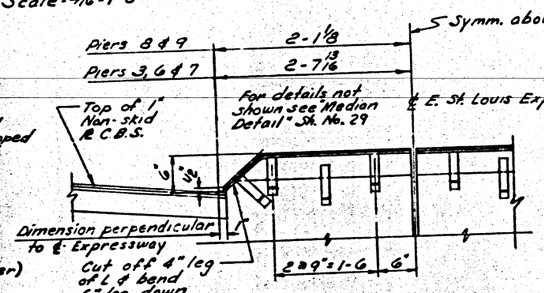


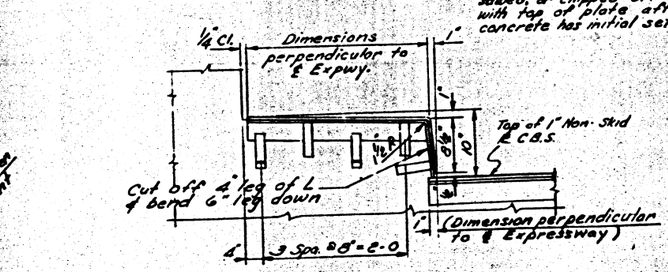
SECTION A-A
Scale - 3/16" = 1'-0"

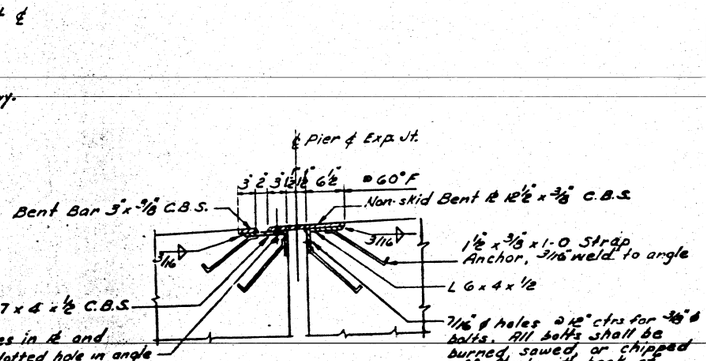












NOTES
All plates, angles, & channels marked C.B.S. to be copper bearing steel with 0.2% Cu
All strap anchors to be placed parallel to ℄ Expressway.
The roadway expansion guards shall be fabricated and erected to fit the crown of roadway.
Roadway expansion guards shall be assembled in the shop in proper position with the adjacent ends in place and shall be left assembled for shop inspection.
Plate shall be flame cut as provided in Article 55.4(a) of the Standard Specifications.
Exposed surfaces of expansion guards shall be given two shop coats of red lead paint.
Expansion guards are included on quantity of Structural Steel: Est. Wt. 186,500 lbs.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

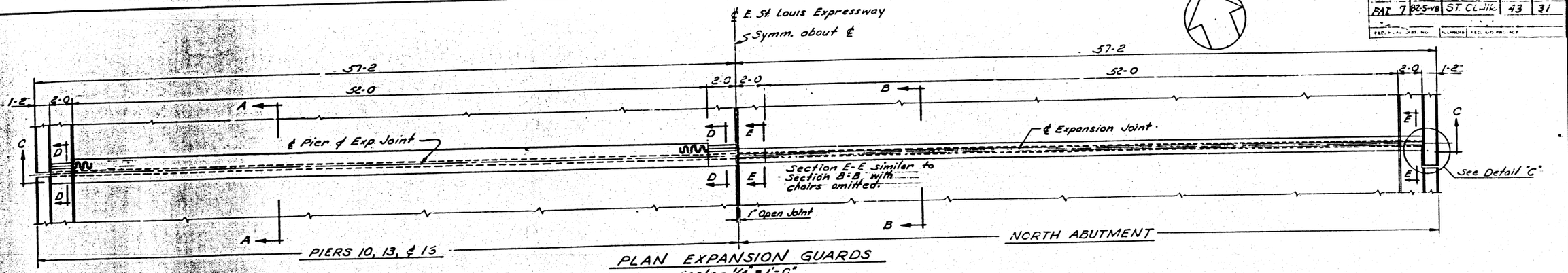
EXPANSION DETAILS AT SOUTH ABUTMENT AND PIERS 3, 6, 7, 8, & 9

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

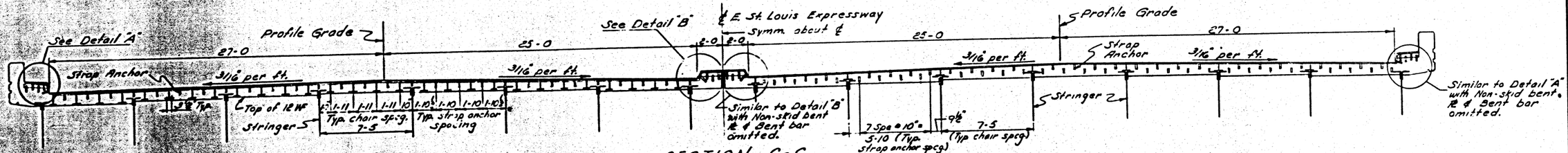
Designed by A.T.
Drawn by A.J.C.
Checked by H.M.M.

Sheet 25 of 37

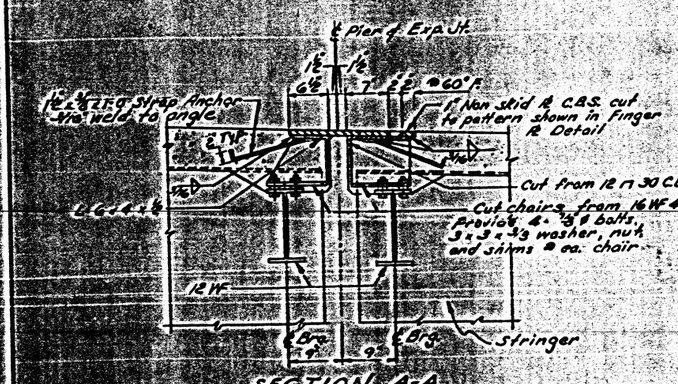
FAI ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 7	82-5-VB	ST. CLAIR	43	31
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



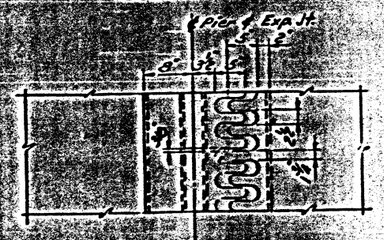
PLAN EXPANSION GUARDS
Scale - 1/4" = 1'-0"



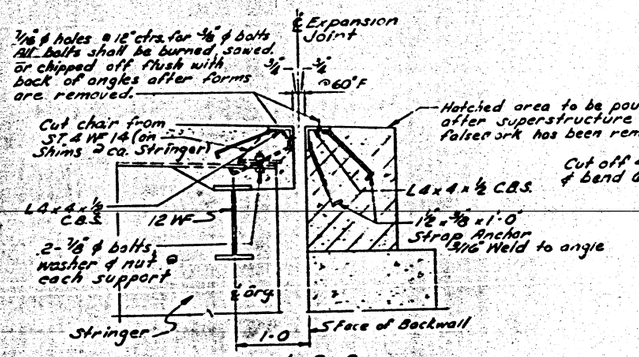
SECTION C-C
Scale - 1/4" = 1'-0"



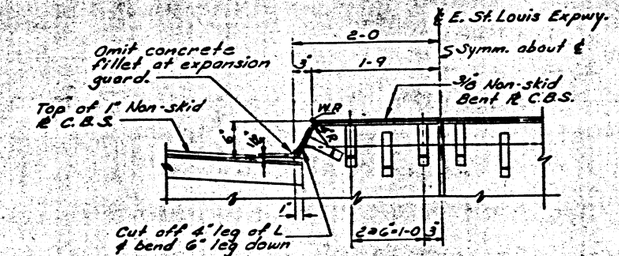
SECTION A-A
Scale - 1" = 1'-0"



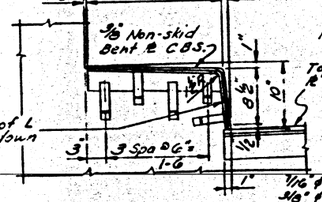
FINGER ℞ DETAIL
Scale - 1" = 1'-0"



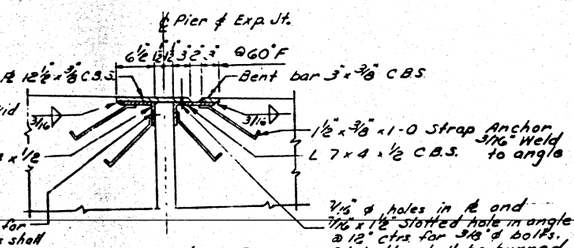
SECTION B-B
Scale - 1" = 1'-0"



DETAIL B
Scale - 1" = 1'-0"

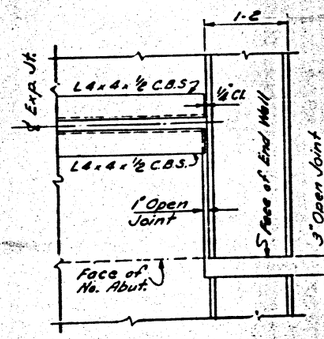


DETAIL A
Scale - 1" = 1'-0"

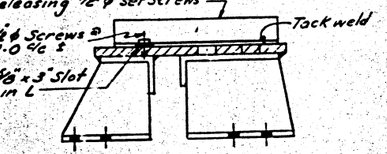


SECTION D-D
Scale - 1" = 1'-0"

NOTE
All plates, angles & channels marked C.B.S. to be copper bearing steel with 0.2% Cu.
For Notes see Sh. No. 35



DETAIL C
Scale - 1" = 1'-0"



SHIPPING & ADJUSTING DETAIL of FINGER ℞

Designed by A.T.
Drawn by A.J.C.
Checked by H.M.M.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

EXPANSION DETAILS AT PIERS
10, 13, 16 AND NORTH ABUTMENT

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

Sheet 26 of 37

BOND ISSUE ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 7	82-5-VB	ST. CLAIR	43	32
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

ROADWAY PLAN
Scale - 1/16" = 1'-0"

ROADWAY PLAN
Scale - 1/16" = 1'-0"

NOTES:

For General Notes see Sh. No. 2
For Section thru Roadway see Sh. No. 29
For Handrail Post & Deflection Joint Details see Sh No. 33
For Scupper Details see Sh. No. 34
For Location of Scuppers see Steel Framing Plans
For Electrical Details see Sh. No 35
The concrete floor slab shall be finished in accordance with Article 51.18(a) of the Standard Specifications.

For Reinforcement see Sh. No. 30
For Bill of Material see Sh. No. 32

For continuation of Roadway Plan see Sh No 28

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

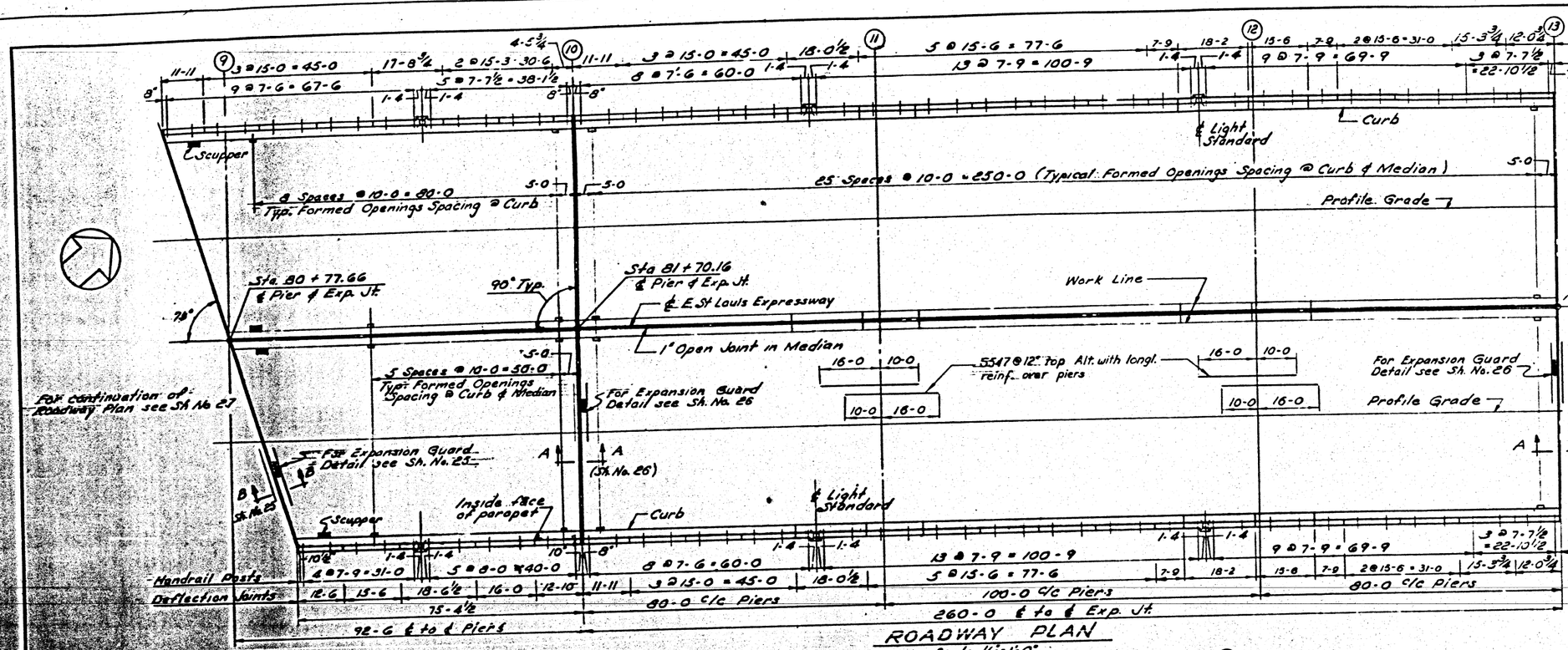
ROADWAY PLAN FROM
SOUTH ABUTMENT TO PIER 9

H. W LOCHNER, INC
ENGINEERS
CHICAGO, ILLINOIS

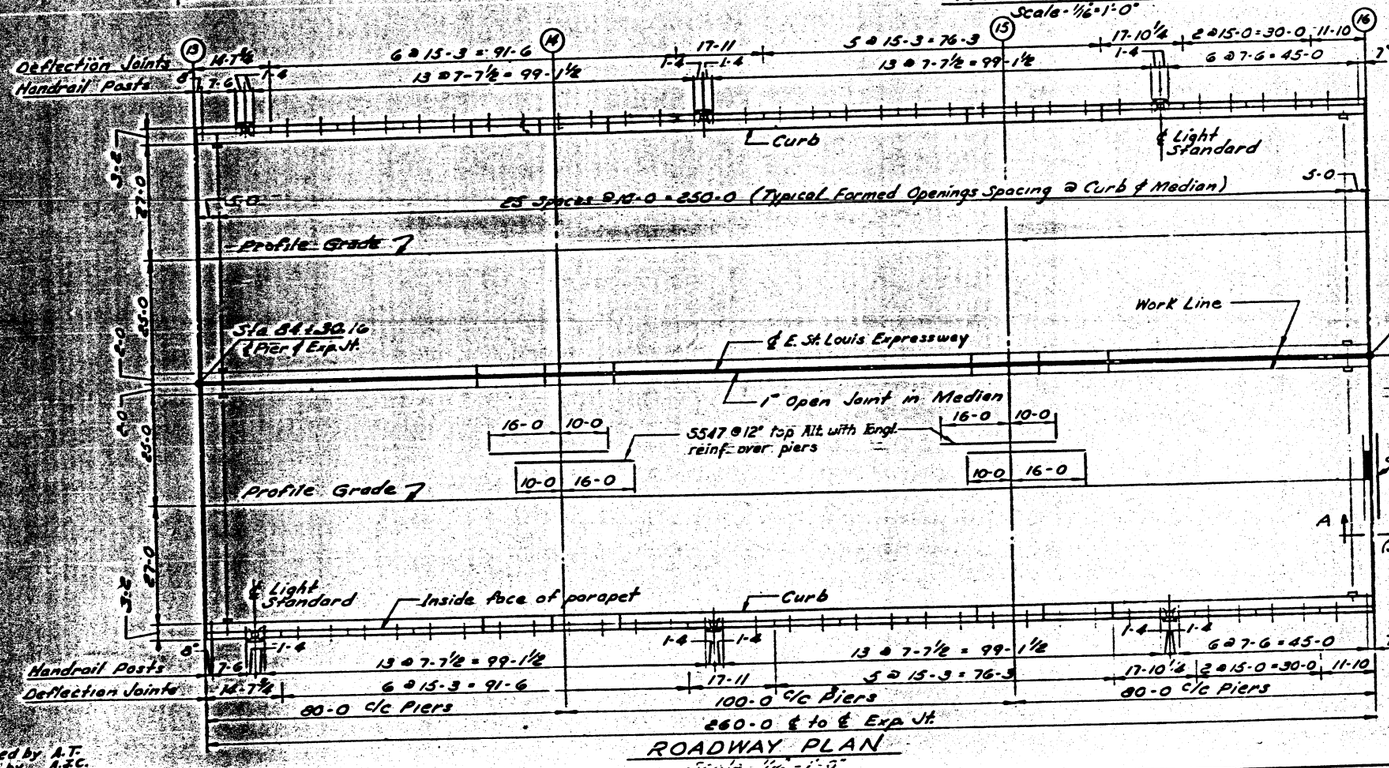
Sheet 27 of 37

Designed by A.T.
Drawn by A.J.C.
Checked by H.M.M

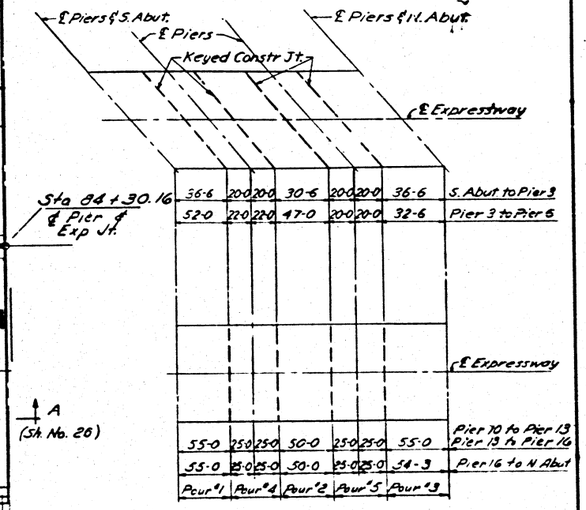
WORK TYPE ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 7	82-5-VB	ST. CLAIR	43	33
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



ROADWAY PLAN
Scale - 1/16" = 1'-0"

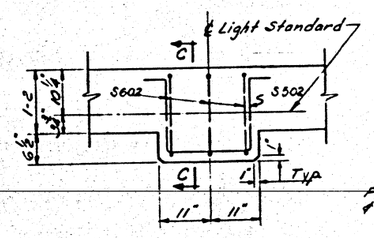


ROADWAY PLAN
Scale - 1/16" - 1'-0"

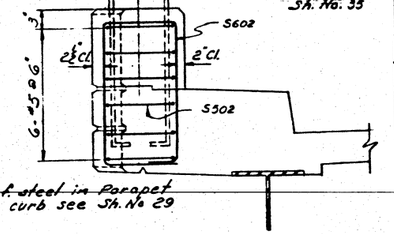


DECK CONSTRUCTION PROCEDURE

Continuous pour between Expansion joints and longitudinal bonded joints



PLAN



SECTION C-C

ENLARGEMENT OF PARAPET & SAFETY CURB AT LIGHT STANDARD

Scale - 3/4" = 1'-0"

NOTES:

For Notes see Sh. No. 27
For Bill of Material see Sh. No. 32
For Reinforcement see Sh. No. 31

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

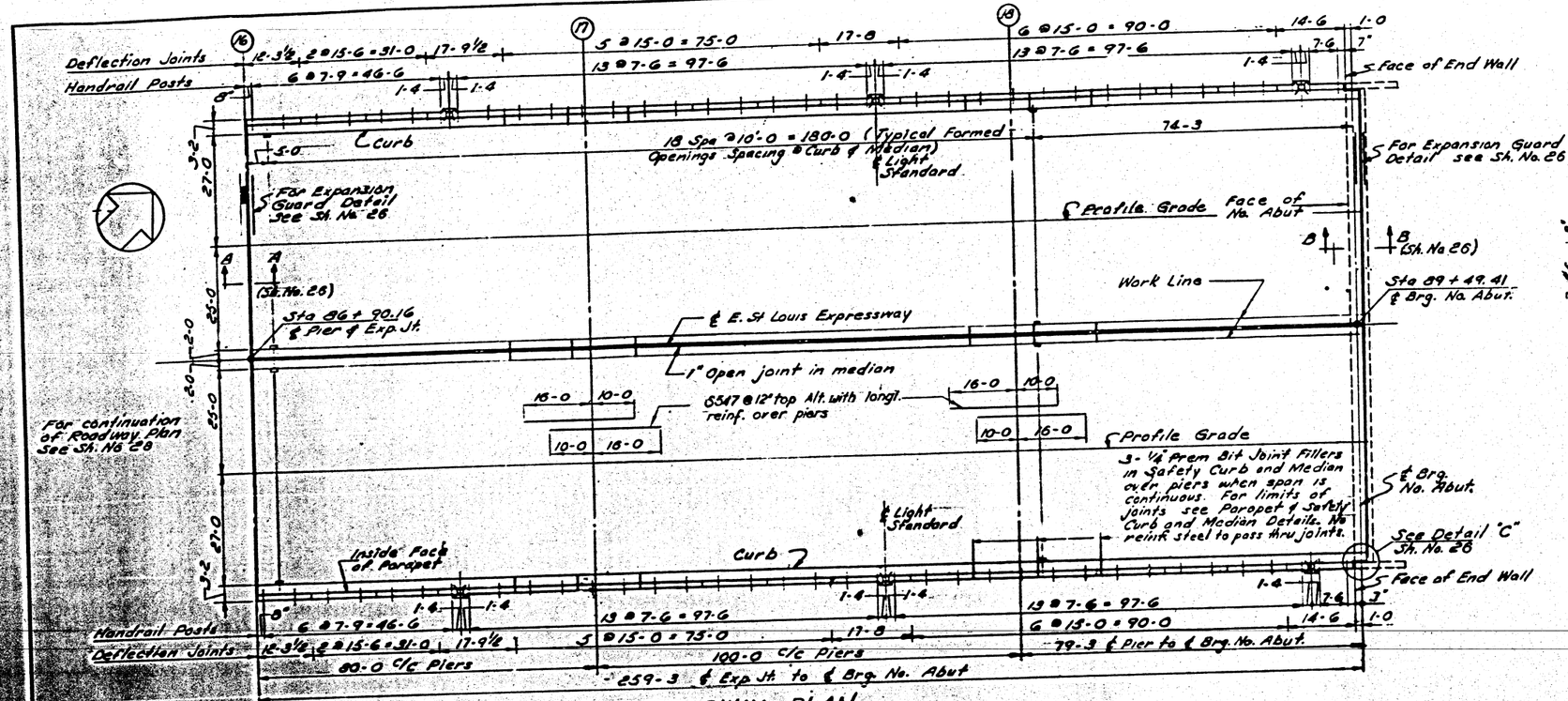
ROADWAY PLAN FROM
PIER 9 TO PIER 16

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

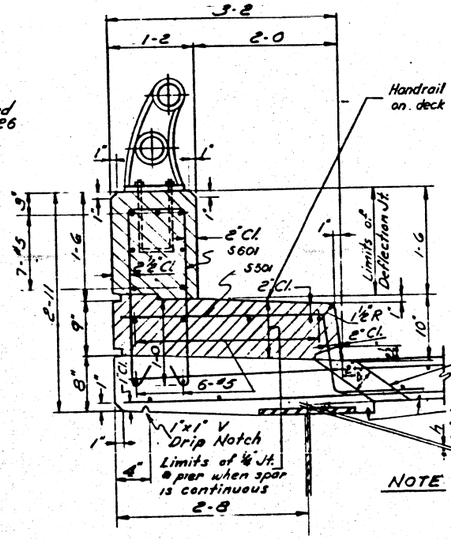
Designed by A.T.
Drawn by A.Z.C.
Checked by H.M.M.

Sh. 28 of 37

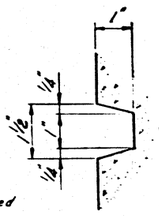
BOND ISSUE ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 7	82-5-VB	ST CLAIR	43	34
F.A.S. ROAD DIST. NO.	ILLINOIS	F.A.S. A.B PROJECT		



ROADWAY PLAN
Scale - 1/16" = 1'-0"

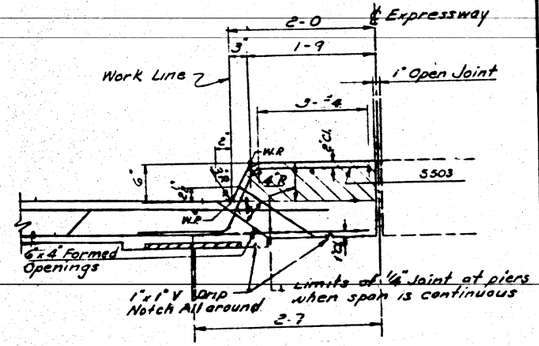


PARAPET AND SAFETY CURB DETAIL
Scale - 1" = 1'-0"



RUSTICATION DETAIL

NOTE After all structural steel has been erected, elevations of the top flanges of the beams and girders shall be taken at intervals not to exceed 10'-0. The elevations so attained substracted from the theoretical grade elevations minus slab thickness equals fillet height "h"


2-0
3"
1-9
℄ Expressway
Work Line
1" Open Joint
3-¾
#4 R
#5 R
#4 R
#5 R
#4 R
#5 R

BOND ISSUE ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 7	82-3-VB	St. Clair	43	35
FED. ROUTE NO.			FED. AID PROJECT	

PLAN A

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

REINFORCING FOR ROADWAY SLAB
FROM SOUTH ABUTMENT TO PIER 9

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

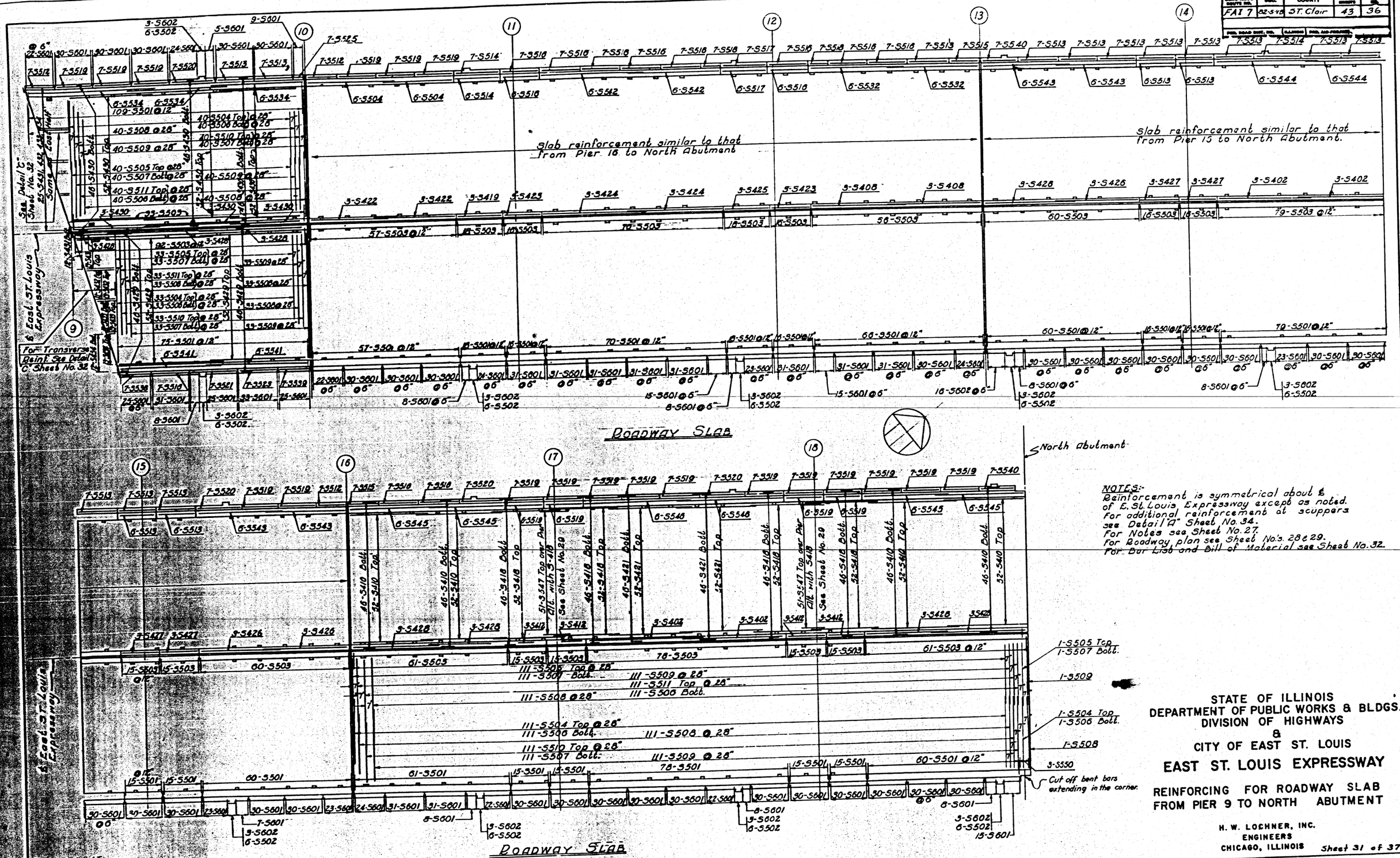
Sheet 30 of 37

NOTES:

Reinforcement is symmetrical about ℄ of E. St. Louis Expressway except as noted.
Transverse Slab Reinforcement in Panel 7 to 8 is shown on Plan A.
For additional Scupper Reinf. see Det. 'A' Sh. No. 34.
For Notes see Sh. No. 27.
For Roadway Plan see Sh. No. 27.
For Bar List & Bill of Material see Sh. No. 32.

Designed by: A.F.
Drawn by: T.L.
Checked by: W.J.F.

STATE HIGHWAY ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 7	82-5-Y6	ST. Clair	43	36
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT NO.	



STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

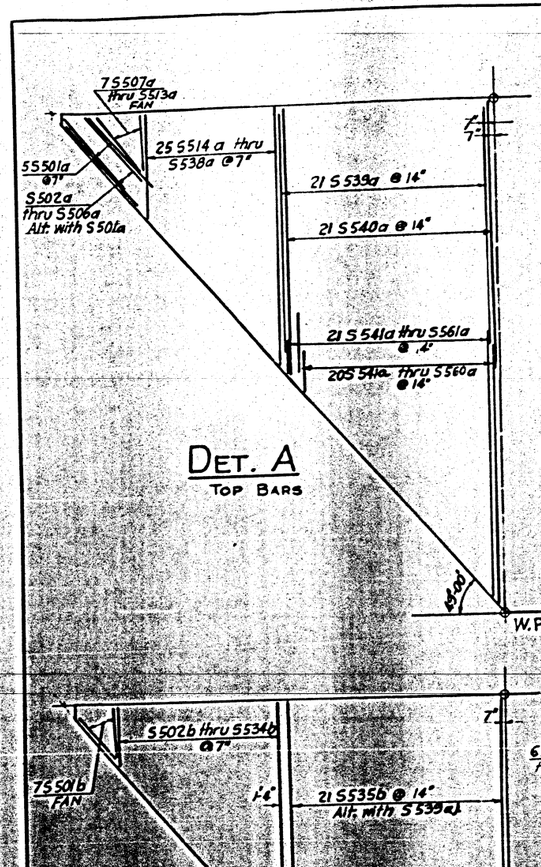
REINFORCING FOR ROADWAY SLAB FROM PIER 9 TO NORTH ABUTMENT

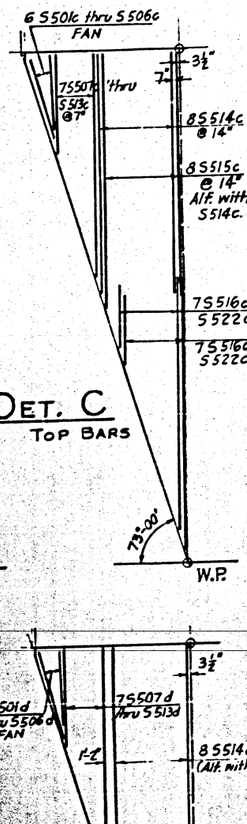
H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

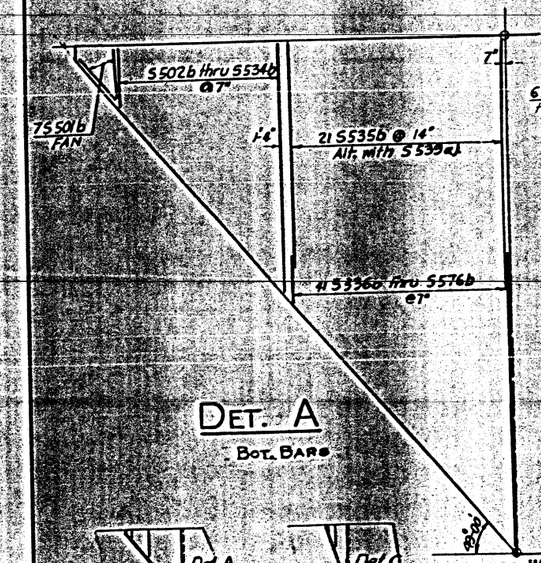
Designed by: A.I.
Drawn by: R.Y.
Checked by: W.J.F.

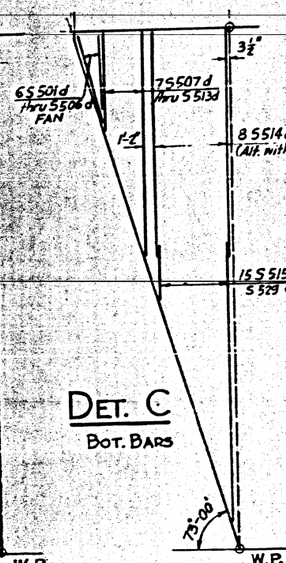
Sheet 31 of 37

BOND ISSUE ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 7	82-5-VB	ST. CLAIR	43	37
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		









NOTE: Reinforcing for Detail B is same, for both top and bottom, as Detail A, except rotated 180°. Reinforcing for Detail D is same, for both top and bottom as Detail C, except rotated 180°.

Designed by	A.T.
Drawn by	L.F.
Checked by	W.J.F.

BAR SCHEDULE

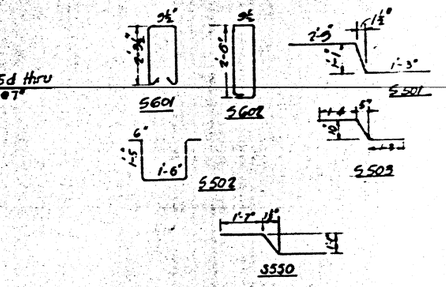
Mark	No Reqd	Length	Type	Weight
S 501a	40	10-0	St.	417
S 502a thru S 506a	40 of Ea.	8'-10 to 13'-10 (Incr. 1')		473
S 507a thru S 513a	56 8 of Ea.	6-0 to 8-6 (Incr. 5")		423
S 514a thru S 538a	200 8 of Ea.	11-10 to 27-10 (Incr. 8")		4137
S 539a	168	27-8	Bt.	4,848
S 540a	168	29-2	St.	5,110
S 541a thru S 560a	(18 of ea) 320	2-6 to 27-10 (Incr. 6")		5,062
S 561a	8	29-2	"	243
S 501b	42	6-0	St.	263
S 502b thru S 534b	198 6 of Ea.	6-6 to 27-10 (Incr. 8")		3,545
S 535b	126	25-4	St.	3,329
S 536b thru S 576 b	6 of Ea. 216	5-3 to 31-11 (Incr. 8")		4,768
S 501c thru S 506c	4 of Ea. 24	10-0 to 12-1	St. (Incr. 5")	276
S 507c thru S 513c	4 of Ea. 28	13-0 to 24-6	St. (Incr. 1-11")	547
S 514c	32	27-8	Bt.	923
S 515c	32	29-3	St.	976
S 516c thru S 522c	8 of Ea. 56	5-2 to (20 3) 28-2 (Incr. 3-10)	"	973
S 501d thru S 506d	4 of Ea. 24	10-0 to 12-1 (Incr. 5")	St.	276
S 507d thru S 513d	4 of Ea. 28	13-0 to 24-6 (Incr. 1-11")	St.	545
S 514d	32	25-4	St.	846
S 515d thru S 529d	4 of Ea. 60	4-11 to 31-9 (Incr. 1-11")	"	1,147
Total:				39,128

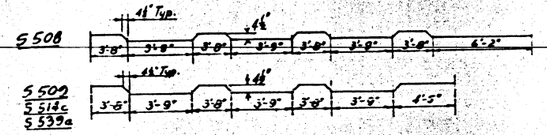
BAR SCHEDULE

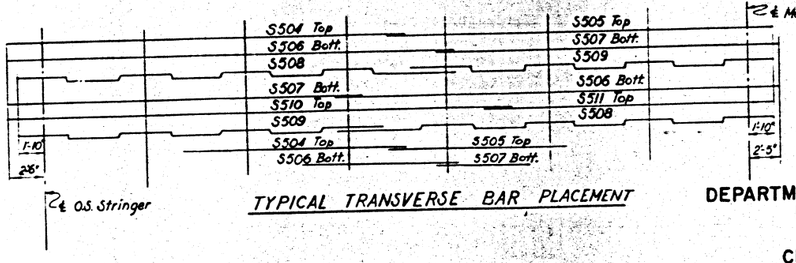
Mark	No Reqd	Length	Type	Weight
S 601	6230	5-4	Bt.	59,264
S 602	99	7-1	Bt.	978
S 501	3208	5-1	Bt.	17,008
S 502	198	5-4	Bt.	1,101
S 503	3217	3-6	Bt.	11,744
S 504	1241	29-1	St.	37,641
S 505	1217	28-5	"	36,070
S 506	2421	32-9	"	82,697
S 507	2421	25-6	"	63,969
S 508	2415	33-3	Bt.	83,752
S 509	2415	27-8	Bt.	69,688
S 510	1204	36-6	St.	45,836
S 511	1204	21-0	"	26,371
S 512	98	11-6	"	1,175
S 513	418	15-1	"	6,576
S 514	75	17-9	"	1,388
S 515	63	11-9	"	772
S 516	382	15-4	"	6,109
S 517	66	18-0	"	1,239
S 518	56	7-7	"	443
S 519	426	14-10	"	6,591
S 520	70	17-6	"	1,278
S 521	14	18-4	"	268
S 522	7	4-5	"	32
S 523	28	15-10	"	462
S 524	7	4-7	"	33
S 525	21	4-0	"	88
S 526	24	25-0	"	626
S 527	12	30-4	"	380
S 528	24	23-6	"	588
S 529	24	31-0	"	776
S 530	24	29-3	"	707
S 531	24	19-3	"	482
S 532	96	33-0	"	3,388
S 533	12	35-6	"	444
S 534	54	37-6	"	2,112
S 535	204	23-6	"	5,000
S 536	102	27-0	"	2,872
S 537	102	24-6	"	2,606
S 538	7	12-1	"	88
S 539	7	12-5	"	91
S 540	28	14-3	"	416
S 541	12	38-6	St.	482
Total:				583,634

BAR SCHEDULE

Mark	No Reqd	Length	Type	Weight
S 542	24	35-6	Str.	889
S 543	48	30-9	"	1,539
S 544	24	40-0	"	1,001
S 545	48	31-6	"	1,577
S 546	24	39-6	"	989
S 547	612	26-0	"	16,596
S 548	60	6-9	"	422
S 549	120	6-0	St	751
S 550	12	3-11	Bt.	49
S 601	196	39-0	St.	5,106
S 602	612	39-10	"	16,285
S 603	196	33-0	"	4,321
S 604	196	37-9	"	4,943
S 605	392	27-3	"	7,136
S 606	392	22-10	"	5,978
S 607	416	24-9	"	6,878
S 608	1066	33-10	"	24,069
S 609	606	37-6	"	15,180
S 610	2352	28-6	"	44,777
S 611	18	11-10	"	142
S 612	54	14-10	"	534
S 613	6	40-4	"	161
S 614	12	31-0	"	248
S 615	12	30-0	"	240
S 616	12	21-9	"	174
S 617	508	35-3	"	11,962
S 618	2400	25-10	"	41,411
S 619	54	17-9	"	638
S 620	50	9-9	"	325
S 621	1176	26-3	"	20,621
S 622	12	29-1	"	233
S 623	12	15-4	"	123
S 624	12	35-6	"	285
S 625	6	18-0	"	72
S 626	24	30-9	"	493
S 627	24	15-1	"	242
S 628	33	21-6	"	695
S 629	196	38-6	"	5,041
S 630	303	32-0	"	6,477
S 631	50	18-6	"	618
S 632	48	14-0	"	449
S 633	48	9-3	"	297
S 634	50	5-3	St.	176
Total:				250,163







TYPICAL TRANSVERSE BAR PLACEMENT

BILL OF MATERIAL FOR RUNWAY SLAB

Description	Unit	TOTAL
Class "X" Concrete	C.Y.	1,558
Handrail Concrete	C.Y.	210
Reinforcement Bars	Lbs	872,925
Aluminum Handrail	L.F.	3725

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

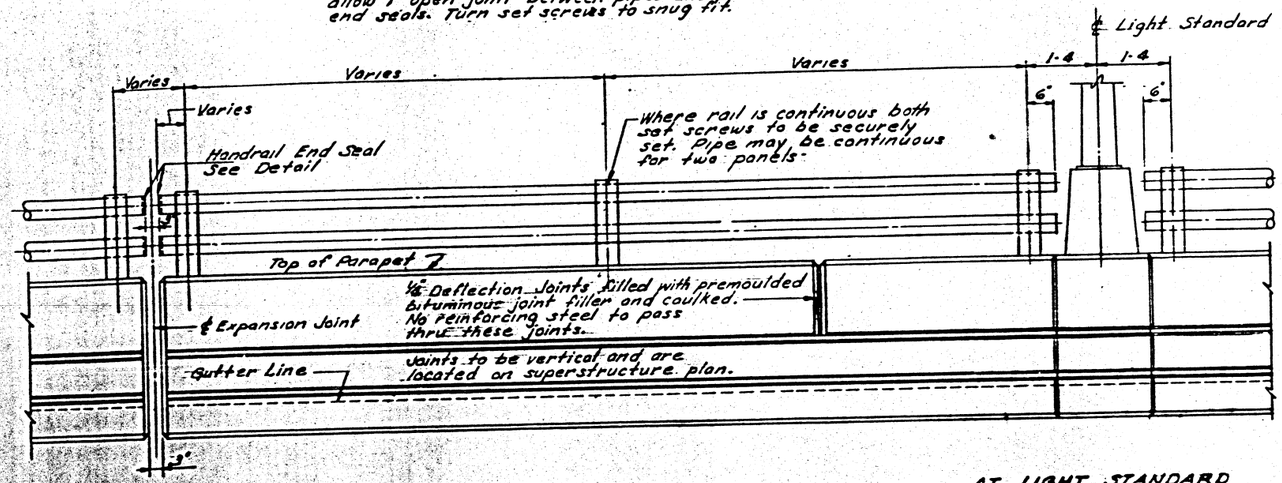
BAR LIST & BILL OF MATERIAL FOR ROADWAY SLAB

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

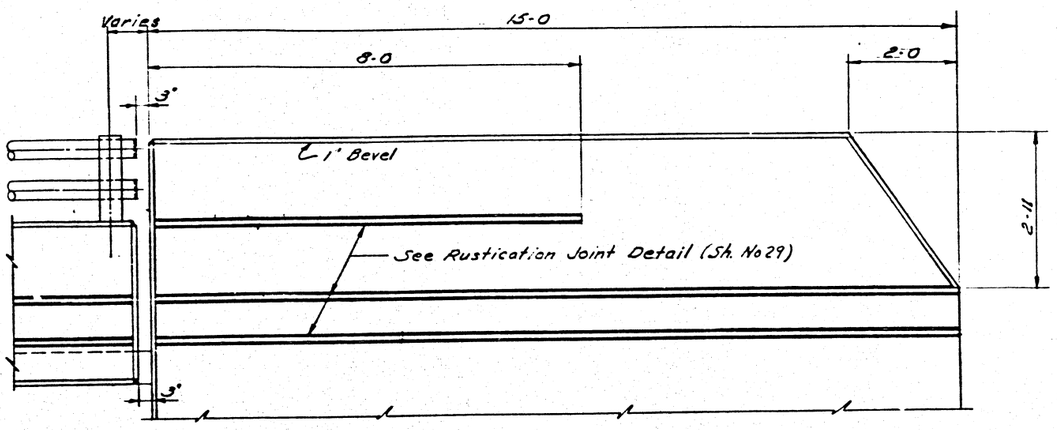
Sheet 32 of 37

BOND NUMBER ROUTE NO.	SEC.	COUNTY	SHEET NO.	SHEET NO.
FAI 7	82-5-VR	ST. CLAIR	43	38
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJ. NO.		

NOTE
For light standard and handrail post spacing see superstructure plans. At intermediate posts where pipe is not continuous allow 1" open joint between pipes and provide handrail end seals. Turn set screws to snug fit.



AT EXPANSION JOINTS

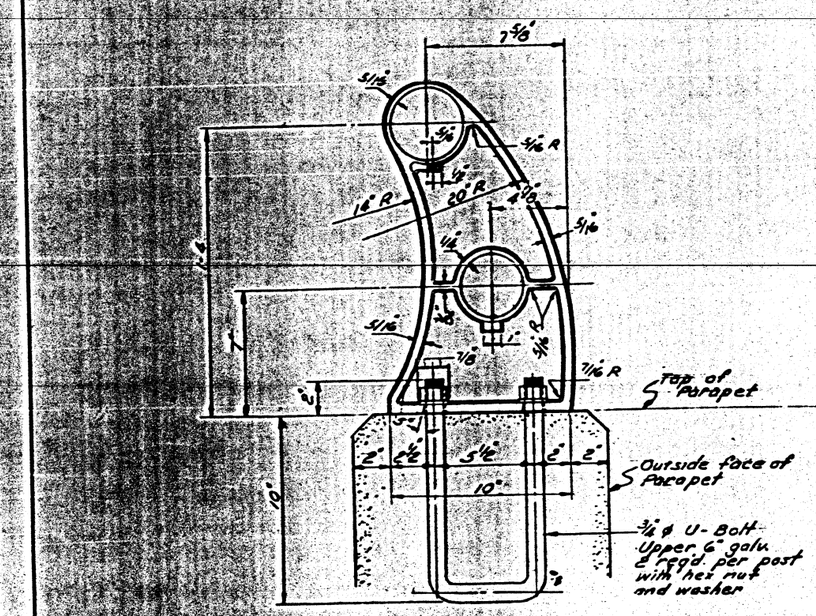


AT END WALL

AT LIGHT STANDARD

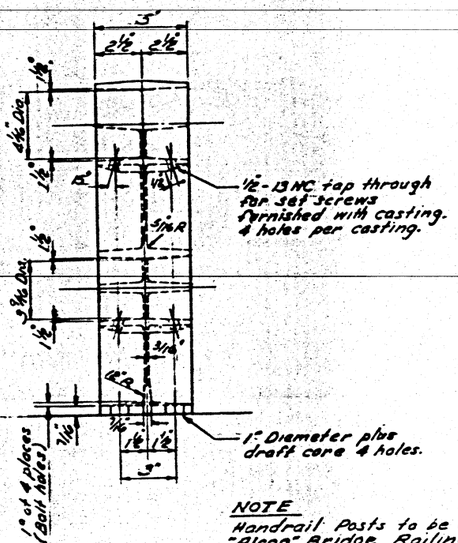
TYPICAL HANDRAIL PANEL DETAIL

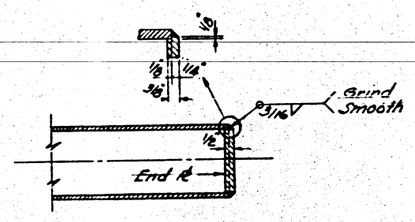
Scale - 3/4" = 1'-0"



TYPICAL HANDRAIL POST DETAILS

Scale - 3" = 1'-0"





HANDRAIL END SEAL DETAIL

NOTE
Handrail Posts to be cast aluminum, "Alcoa" Bridge Railing Design 2001 or equal. Top rail to be 2" O.D. x 1/8" and bottom rail 3 1/2" O.D. x 1/8" extruded aluminum tubing.

Railing posts shall be shimmed and caulked to a position perpendicular to the grade. Aluminum shim plates shall be used where necessary.

Bottom of handrail posts and all aluminum in contact with steel or concrete to be thoroughly coated with aluminum impregnated caulking compound.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

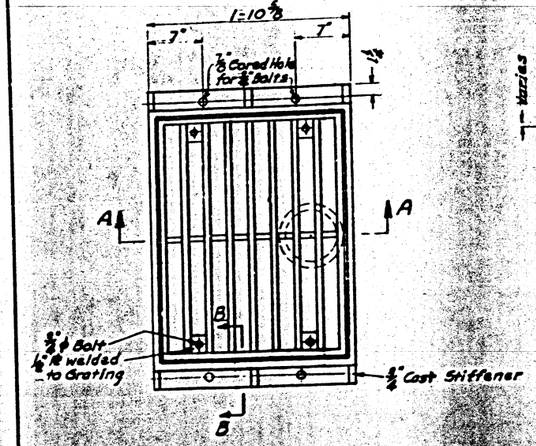
EAST ST. LOUIS EXPRESSWAY

HANDRAIL DETAILS

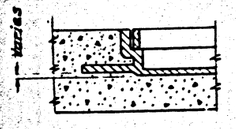
H W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

Designed by A.T.C.
Drawn by A.T.C.
Checked by H.M.M.

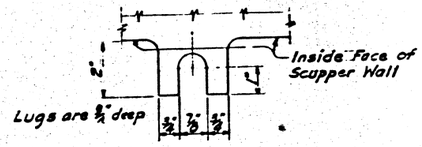
BOND ISSUE ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO
FAI 7	82-5-VB	ST. CLAIR	43	39
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT.		

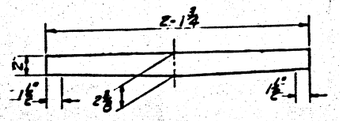


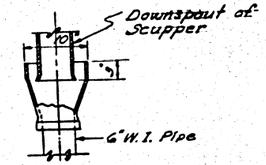
PLAN



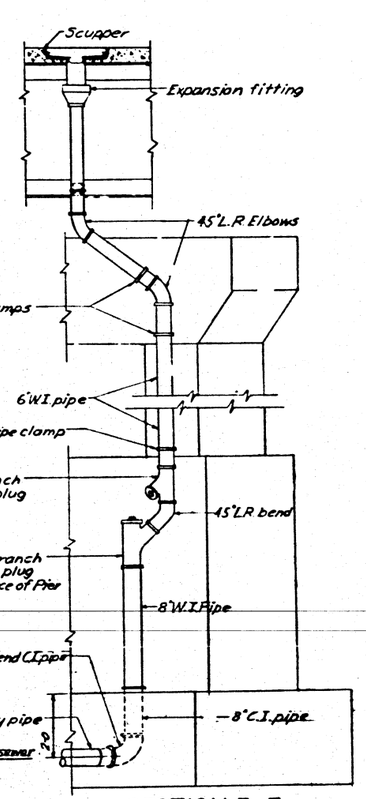
SECTION B-B



DETAIL "Y"
Scale: ⅜"=1"

DETAIL "X"

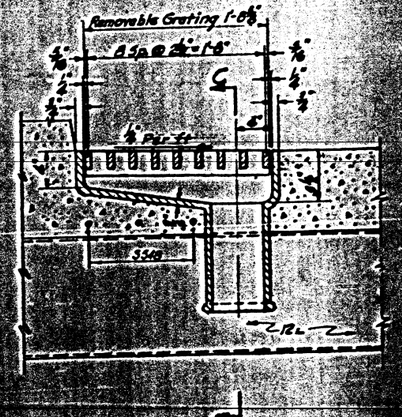


EXPANSION FITTING
TYPICAL FOR ALL SCUPPERS
Scale 1"=1'-0"

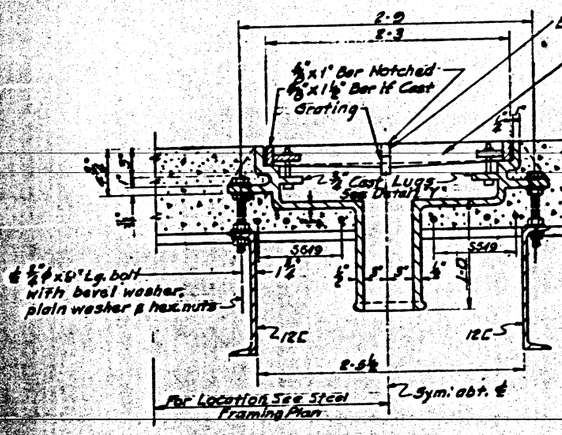


VIEW G-G
Scale: ⅜"=1'-0"

SECTION F-F
DRAINAGE AT PIERS
Scale: ⅜"=1'-0"

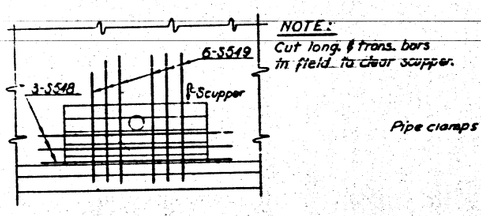


SECTION A-A



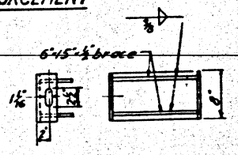
SECTION C-C

SCUPPER
Scale: 1⅛"=1'-0"



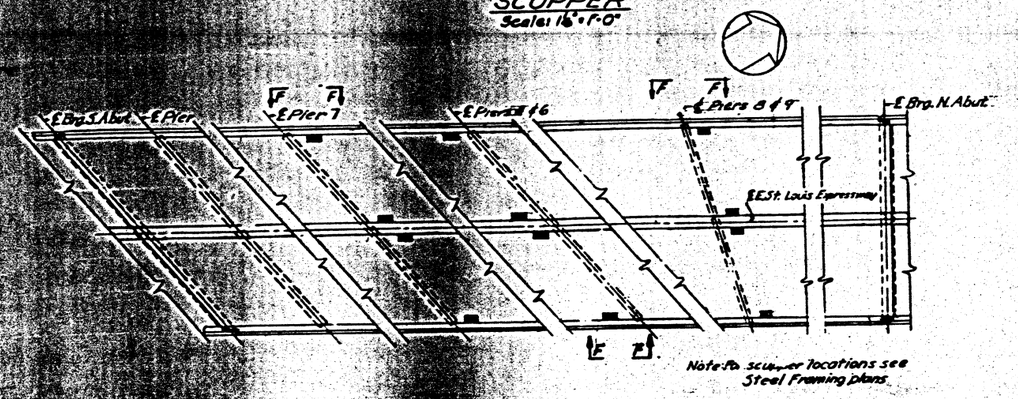
NOTE:
Cut long. & trans. bars in field to clear scupper.

TYPICAL SCUPPER REINFORCEMENT



DETAIL "A"

DETAIL OF CHANNEL BRACKET
Scale 1"=1'-0"



DRAINAGE PLAN
Scale: 1"=10'-0"

BILL OF MATERIAL		
Description	Unit	Total
Scuppers	Ea.	20
Wrought Iron Pipe Drain (6 inch)	L.F.	800
Wrought Iron Pipe Drain (8 inch)	L.F.	300

NOTES

Scupper frame shall be cast iron.
Scupper grating shall be cast iron or fillet welded or electro-pressure welded steel, galvanized after fabrication. The finished frames and grates shall have the bearing surfaces finished so that all surfaces bear uniformly and so that grates shall fit frames without wedging and shall be interchangeable. All castings shall be thoroughly cleaned and given one coat of bituminous enamel.
Grating bolts shall be stainless steel or cadmium plated. (A.S.T.M. "B")

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

SCUPPER AND DRAINAGE DETAILS

H. W. LOCHNER, INC
ENGINEERS
CHICAGO, ILLINOIS

Designed by A.T.
Drawn by E.S.
Checked by A.J.C.

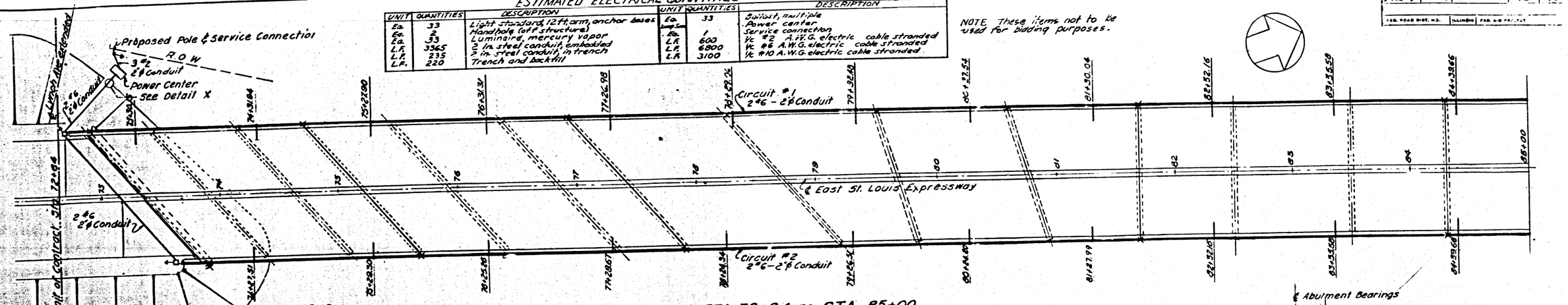
SECTION NUMBER & ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 7	82-5-VB	ST CLAIR	43	40
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

ESTIMATED ELECTRICAL QUANTITIES

UNIT	QUANTITIES	DESCRIPTION
Ea.	33	Light standard, 12 ft. arm, anchor bases
Ea.	2	Handhole (off structure)
Ea.	33	Luminaire, mercury vapor
L.F.	3565	2 in. steel conduit, embedded
L.F.	235	2 in. steel conduit, in trench
L.F.	220	Trench and backfill

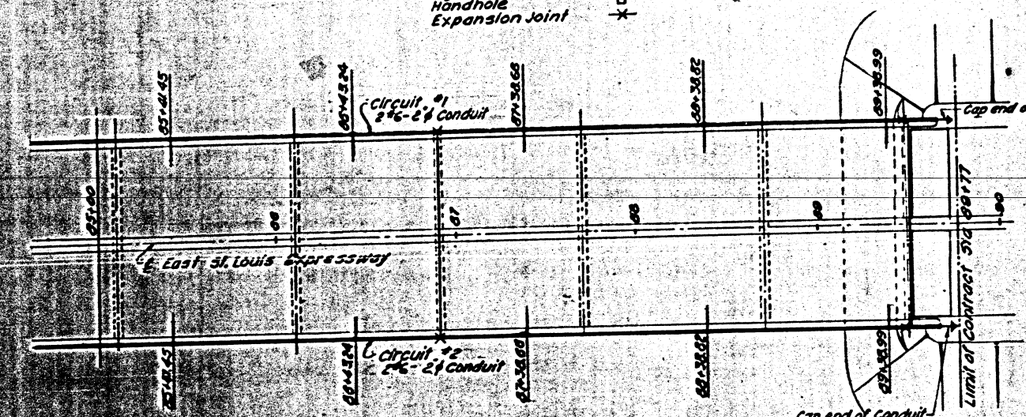
UNIT	QUANTITIES	DESCRIPTION
Ea.	33	Ballast, multiple
Lump Sum		Power center
Ea.	1	Service connection
L.F.	600	Vc #2 A.W.G. electric cable stranded
L.F.	6800	Vc #6 A.W.G. electric cable stranded
L.F.	3100	Vc #10 A.W.G. electric cable stranded

NOTE These items not to be used for bidding purposes.

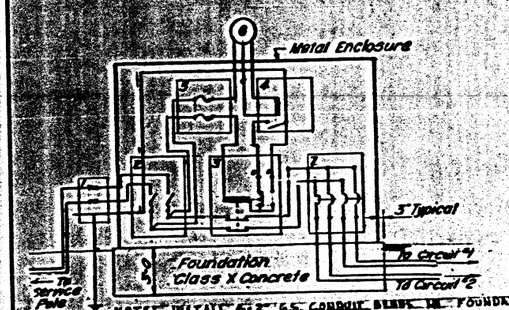


LEGEND
Light Standard
Handhole
Expansion Joint

PLAN STA 72+64 TO STA 85+00
Scale 1"=40'-0"



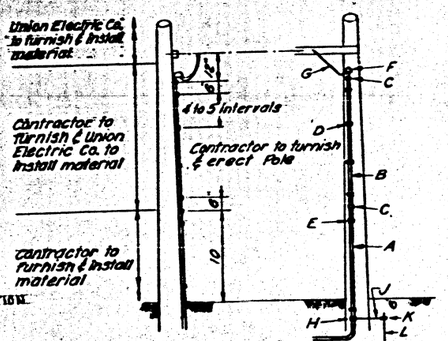
PLAN STA 85+00 TO STA 89+77
Scale 1"=40'-0"



SCHEMATIC DIAGRAM FOR POWER CENTER
No Scale

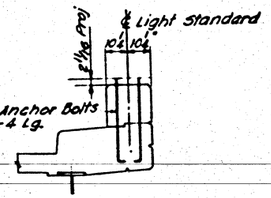
KEY	DESCRIPTION
1	Waterproof Meter enclosure & Meter
2	100 Amp. 2 Pole + Solid neutral, Type A Fused switch
3	Automatic Switch Co. 100 Amp. 2 pole Type 920 mechanically-held contactor
4	10 Amp. single-pole, double-throw relay
5	5 Amp. Fuses in 30 Amp. Fuse Block
6	Time Switch
7	70 Amp. 2 Pole Type AB enclosed case Circuit Breaker

Designed by: A.J.
Drawn by: J.G.S.
Checked by: N.S.

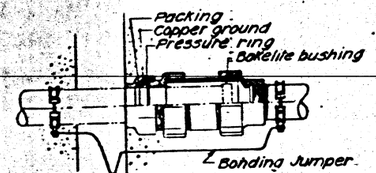


SERVICE CONNECTION

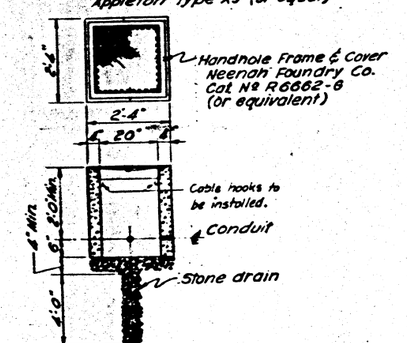
KEY	DESCRIPTION	QUAN.
A	Galv. Iron pipe bend (min. radius 12")	1
B	Fiber Conduit	as reqd
C	Connector for Conduit	2
D	Perforated Copper Strap & Copper nails	as reqd
E	Galv. pipe hooks	4
F	Service entrance head or terminal	1
G	Cable (extend 3' beyond service head)	as reqd
H	Ground clamp on service Conduit	1
J	#6 Bare Copper Wire	as reqd
K	Ground rod clamp	1
L	5/8"ϕ Copperweld ground rod	1



SECTION A-A
1" = 1'-0"

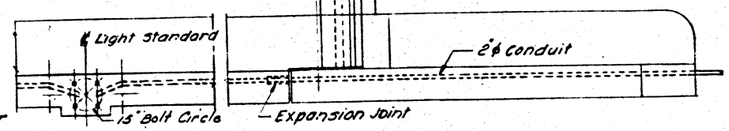


EXPANSION JOINT
Appleton Type XJ (or equal)

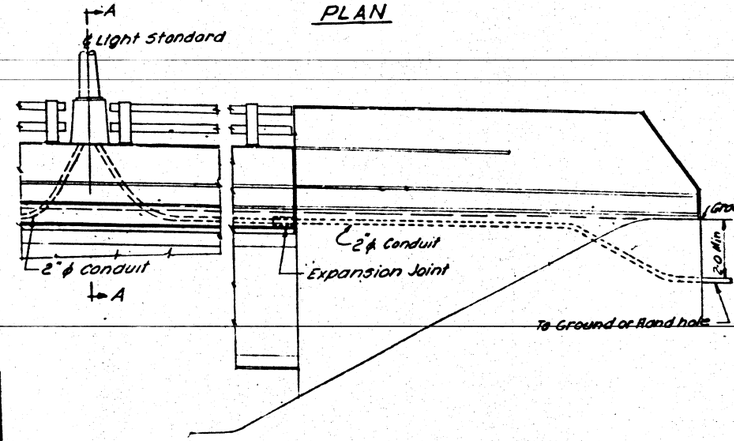


HANDHOLE DETAIL

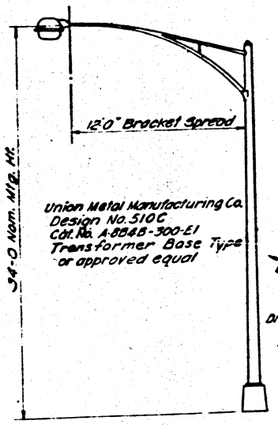
NOTE
Anchor bolt data given is for general guidance only. A drawing, giving complete information for setting anchor bolts, should be furnished by Light Standard Manufacturer



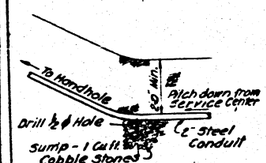
PLAN



ELEVATION
TYPICAL INSTALLATION DETAILS ON STRUCTURE
Scale 3/8"=1'-0"



LIGHT STANDARD DETAIL



DETAIL X

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

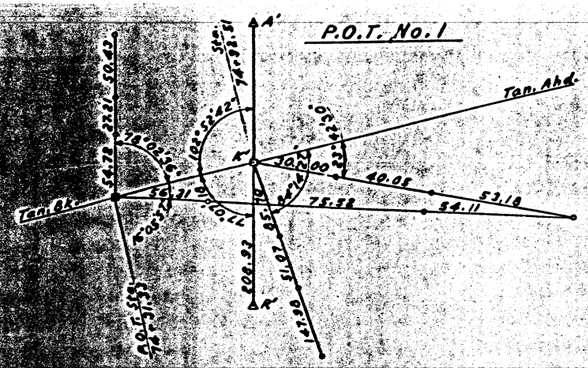
EAST ST. LOUIS EXPRESSWAY

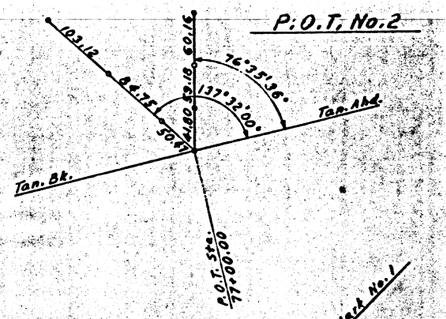
ELECTRICAL DETAILS

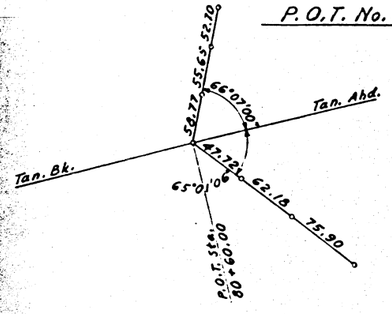
H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

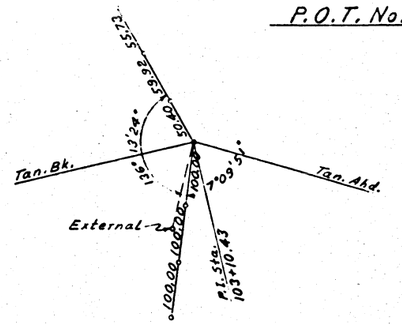
Sheet 35 of 37

ROUTE	SEC.	CO.	TOTAL SHEETS	SHEET NO.
FAI 7 (I-55-VB)		ST CLAIR	43	41
PROJECT				









NOTE:
All points 5/8"ø x 2'-0 iron pins guarded & flagged

Bench Mark No. 4