

SEE SHEET #5 FOR INDEX OF SHEETS.

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

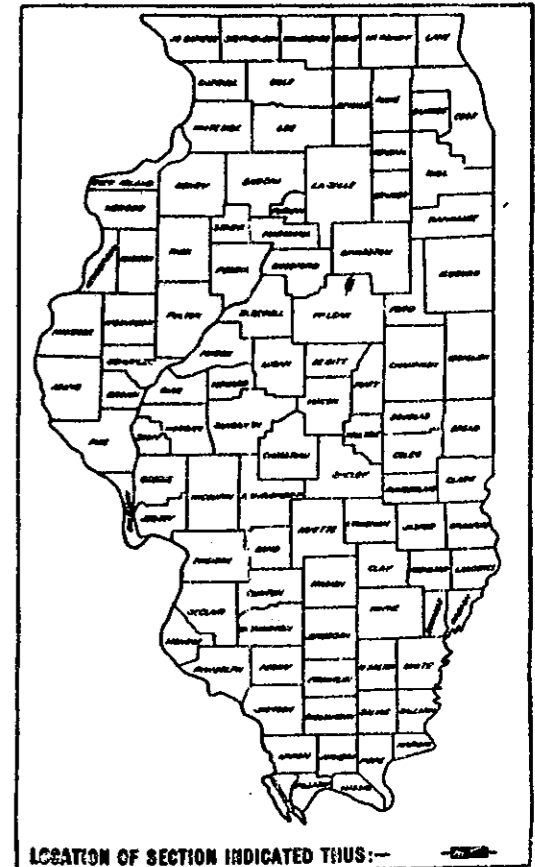
PROJECT NO.	SECTION	COUNTY	SCALE	DATE
F-1-55	57-2(1)	McLEAN	1/32"	7/74

P-93-032-68

PLANS FOR PROPOSED  
FEDERAL AID INTERSTATE HIGHWAY  
F.A.I. ROUTE 55  
SECTIONS

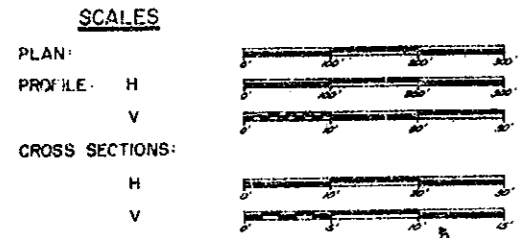
57-(1-2,1B,1HVB,2-1,2B)  
McLEAN COUNTY

PROJECT I-55-5(71)179  
C-93-008-73



LOCATION OF SECTION INDICATED THIS:—

SECTION 57-1HVB INCLUDES A  
SPECIAL BRIDGE DESIGN ON T.R. 43  
STATION 43+73.10 TO STATION 53+42.56  
REINFORCED CONCRETE DECK ON STEEL  
WELDED PLATE GIRDERS. FOUR SPANS,  
2 AT 104'-9" AND 2 AT 118'-4". WITH  
3 REINFORCED CONCRETE PIERS AND 2  
APPROACH SPANS AT 22'-8" AND 27'-8"  
ON VAULTED ABUTMENTS.



PROJECT I-55-5(71)179 &  
SECTION 57-2(1) BEGINS  
STA. 773+00.00

SECTION 57-2(1) ENDS STA. 784+99.19 =  
SECTION 57-1(2) BEGINS  
STA. 100+00.00

SECTION 57-1B  
INCLUDES A  
TRIPLE 10'x4' x 275'-6" R.C.  
BOX CULVERT UNDER F.A.I.  
55, 12° SKEW AT STATION  
290+51.00

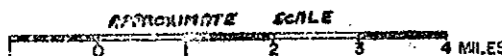
SECTION 57-2B  
INCLUDES A SPECIAL BRIDGE DESIGN  
DUAL 3 SPAN R.C. SLAB STRUCTURES  
SPANS 29'-0" - 36'-0" - 29'-0"  
AT STA. 781+50.00

T.R. 43 IMPROVEMENT BEGINS  
SECTION 57-1HVB BEGINS  
STA. 39+00

T.R. 45 IMPROVEMENT ENDS  
SECTION 57-1HVB ENDS  
STA. 67+59

PROJECT I-55-5(71)179 &  
SECTION 57-1(2) ENDS  
STATION 318+00.00

CONTRACT NO. 80549



SECTION 57-1HVB	NET LENGTH	220.40 FEET	0.668 MILES
SECTION 57-1(2)	NET LENGTH	240.00 FEET	0.727 MILES
SECTION 57-2(1)	NET LENGTH	1103.15 FEET	0.329 MILES
SECTION 57-2B	NET LENGTH	240.00 FEET	0.727 MILES
SECTION 57-1B	NET LENGTH	318.00 FEET	0.964 MILES
SECTION 57-1(1)	NET LENGTH	100.00 FEET	0.303 MILES
SECTION 57-2(2)	NET LENGTH	100.00 FEET	0.303 MILES
SECTION 57-1(2)	NET LENGTH	100.00 FEET	0.303 MILES

LEGEND  
EXISTING STREETS AND ROADS ———  
PROPOSED CONSTRUCTION ———

PLANS PREPARED BY  
JENKINS, MERCHANT & NANKVIL  
CONSULTING ENGINEERS  
SPRINGFIELD, ILLINOIS

*Carter Jenkins*  
CARTER JENKINS  
CONSULTING ENGINEER

*Charles H. Merchant*  
CHARLES H. MERCHANT  
STRUCTURAL ENGINEER

June 14, 1974  
DATE

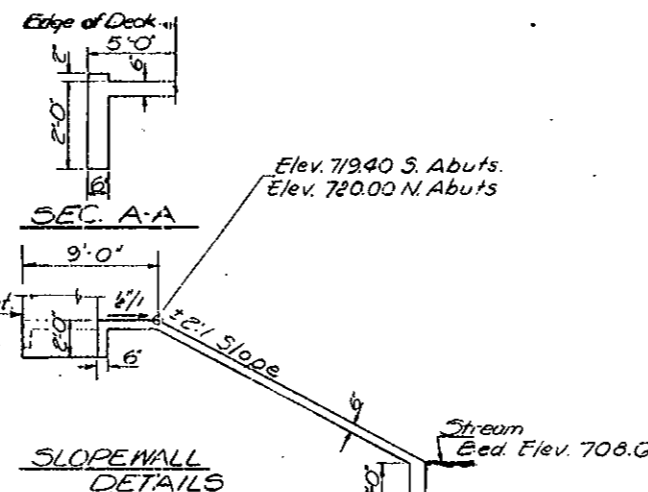
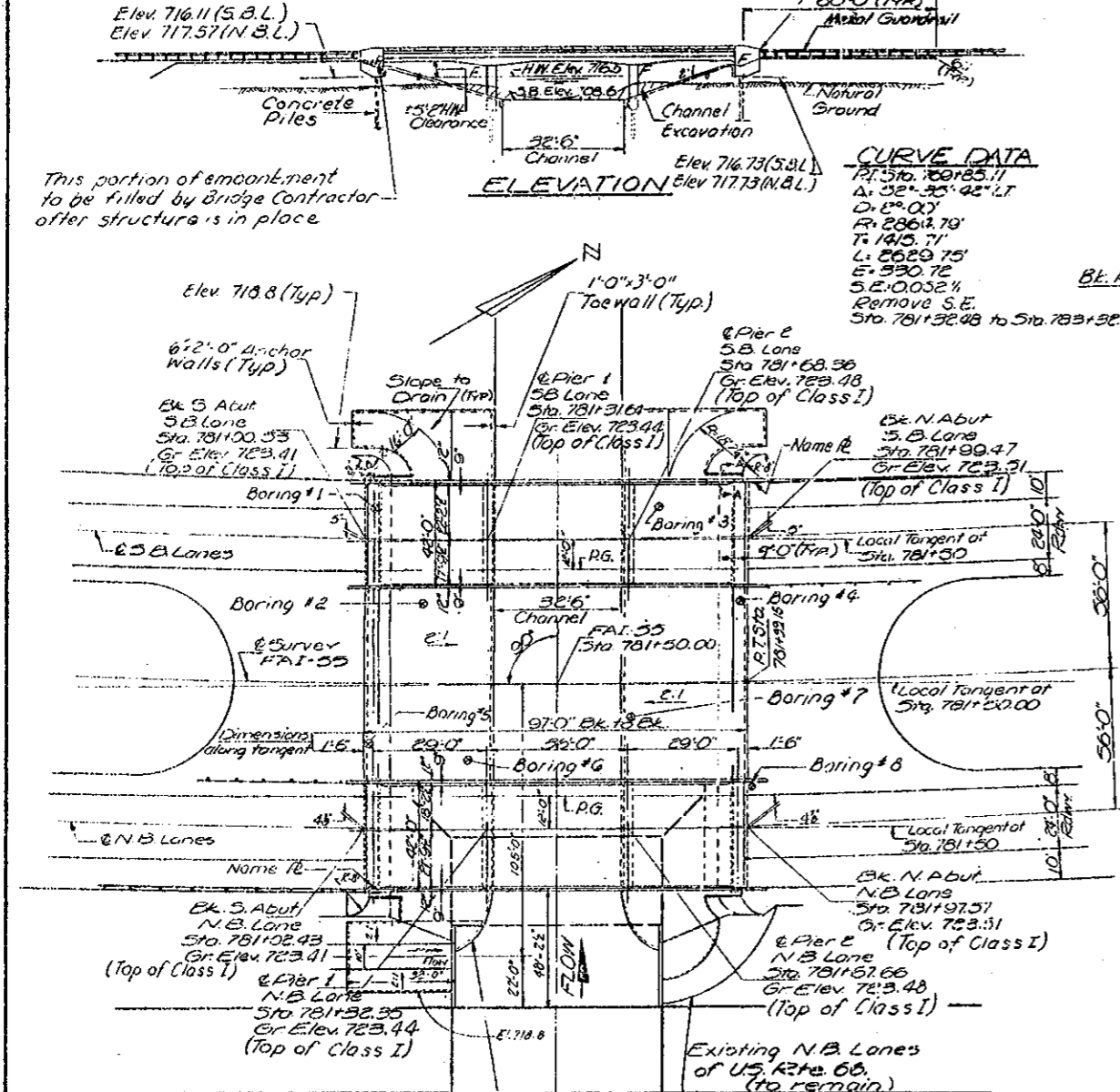
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	
APPROVED	DATE
<i>Charles H. Merchant</i>	June 14, 1974
CHARLES H. MERCHANT STRUCTURAL ENGINEER	

DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION	
APPROVED	DATE
<input type="checkbox"/>	<input type="checkbox"/>
DIVISION ENGINEER	

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

DATE	SECTION	QUANTITY	TOTAL	PERCENT	SHEET NO. /
F.A.T. 55	57-2B	McLean	132	22	13 SHEETS

E.M. #U-246 C.G.S.B.M. Disk on abut of railroad bridge Sta. 781+50 Elev. 717.70  
Exist S.B. Structure. Built as FA RTE. 5 Sec. 44B Sta. 2549+10 in 1944, Super. is 2 Span RC.  
Poured slab. Substr. is RC. Closed abutts and solid pier. Superstr. and vertical  
portions of abutts and inter-connecting retaining wall to be removed, prior to  
constr. by Br. Contr. No Salvage.  
Exist N.B. Structure to remain in place.



**GENERAL NOTES**  
All reinforcement bars shall be lap spliced unless otherwise specified.  
Concrete shall be reinforced with welded wire fabric 6"x6" mesh, weighing 1.5 lbs. per sq. ft. unless otherwise specified.  
The contractor shall be responsible for the protection of all existing structures and utilities.  
The contractor shall be responsible for the protection of all existing structures and utilities.  
The contractor shall be responsible for the protection of all existing structures and utilities.

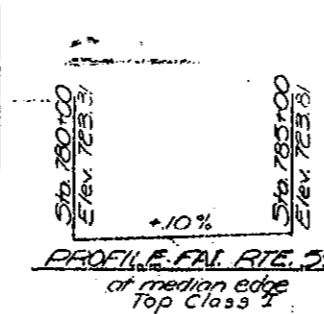
The Contractor shall drive two Concrete Test Piles in permanent locations, one at the So. Abut, So. Bd. Lanes, and one at Pier 2, No. Bd. Lanes as directed by the Engineer before ordering the remainder of piles.  
The Basic Lead Silico Chromate paint system shall be used for shop painting of Structural Steel.  
The top surface of the slab shall be finished in accordance with Art. 505.06 of the Std. Specifications except that the surface shall not be roughened by brooming. The finished surface shall be free of depression or high spots with sharp corners.

**TOTAL BILL OF MATERIAL**

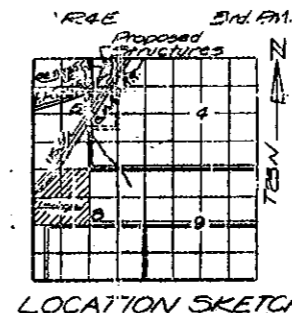
Item	Unit	Super	Sub	Total
Class I Concrete	Cu. Yds	435.3	236.9	672.2
Reinforcement Bars	Lbs.	105,620	21,140	126,760
Aluminum Bailing	Lin. Ft.	368		368
Concrete Piles	Lin. Ft.		1616	1616
Test Piles Concrete	Each		2	2
Slope Wall (6")	Sq. Yds		1777	1777
Name Plates	Each		2	2
Bit. Concrete Surf. Cse Class I	Tons	68		68
Waterproofing Membrane System	Sq. Yds	821		821
Channel Excavation	Cu. Yds		1000	1000
Removal of Exist Structs.	Each		1	1
Protective Coat	Sq. Yds	139		139
Structure Excavation	Cu. Yds		560	560
Structural Steel	Lbs.	1510		1510

**WATERWAY INFORMATION**  
Drainage Area: 11.9 Sq. Mi.  
Character: Rolling, Clay, Cultivated  
Present Opening: 480 Sq. Ft.  
Reald. Opening: 375 Sq. Ft.  
Proposed Opening: 375 Sq. Ft.  
Q(50) = 1420 cfs  
Created Head = 0.905'

STATION 781+50  
BUILT 197 BY  
STATE OF ILLINOIS  
F.A.T. RT. 55 SEC. 57-2B  
FA PROJ. 1-55-5(11)  
Loading HS20/ALT



**DESIGN STRESSES**  
fc = 1400 psi.  
fs = 20000 psi.  
vc = 75 psi. Footings  
n = 10  
Allow. 25\*/10' for future W.S.  
LOADING HS20-44, ALT.



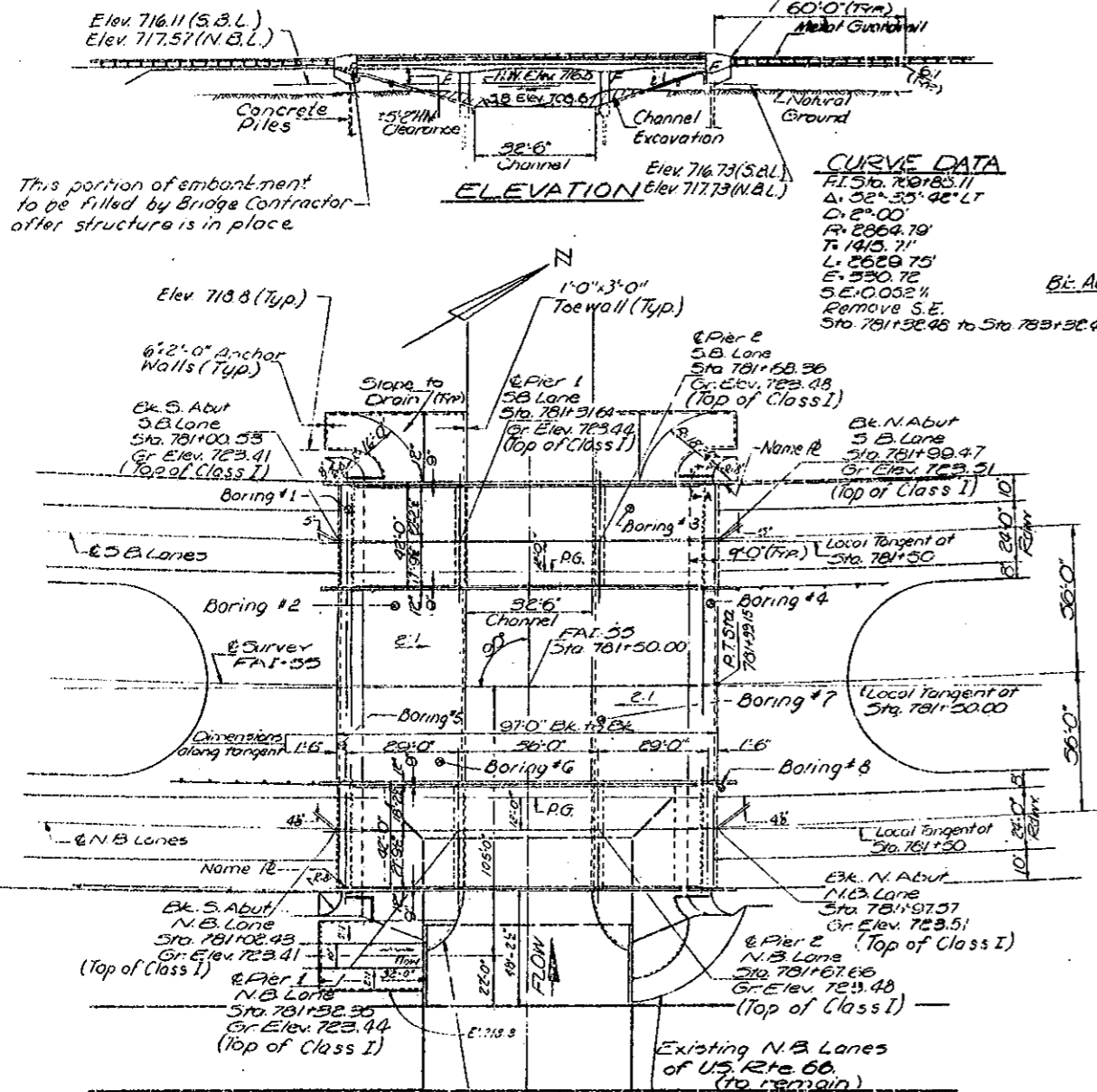
PROJECT 1-55-5(11)119  
GENERAL PLAN & ELEVATION  
F.A.T. 55 over BRANCH TURKEY CREEK  
F.A.T. RTE. 55 SEC. 57-2B  
MCLEAN COUNTY  
STA. 781+50

DESIGNED: [Signature]  
CHECKED: [Signature]  
DRAWN: F. Mercado  
CHECKED: [Signature]  
EXAMINED: [Signature]  
PASSED: [Signature]  
APPROVED: [Signature]

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	PROJECT	TOTAL SHEETS	SHEET NO.	SHEET NO. / SHEETS
F.A.R.T. 55	57-2B	McLean	132	22	13 SHEETS

B.M. "U-226 C. & G. S. B.M. Disk on abut. of railroad bridge Key Sta. 781+50 Elev. 717.70  
Exist. S.B. Structure: Built as FA RTE 5 Sec. 57-2B in 1927, Super is 2 Span RC  
Punched slab. Substr. is RC. Closed abut. and solid pier. Superstr and vertical  
portions of abut. and inter-connecting retaining wall to be removed, prior to  
const. by Br. Contr. No Salvage.  
Exist. N.B. Structure to remain in place.



**GENERAL NOTES**

1. All measurements from grid to be based on 3" dimensions unless otherwise noted.

2. All work to be performed and checked with 6" x 6" mesh, weighing 10 lbs. per sq. yd. in the field in all ground conditions.

3. All work to be checked by the Engineer before ordering the remainder of piles.

4. The Basic Lead Silico Chromate paint system shall be used for shop painting of Structural Steel.

5. The top surface of the slab shall be finished in accordance with Art. 505.06 of the Std. Specifications except that the surface shall not be roughened by brooming. The finished surface shall be free of depression or high spots with sharp corners.

The Contractor shall drive two Concrete Test Piles in permanent locations, one at the So. Abut., So. Bd. Lanes, and one at Pier 2, No. Bd. Lanes as directed by the Engineer before ordering the remainder of piles.

The Basic Lead Silico Chromate paint system shall be used for shop painting of Structural Steel.

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**TOTAL BILL OF MATERIAL**

Item	Unit	Super	Sub	Total
Class I Concrete	Cu.Yds	435.3	236.9	672.2
Reinforcement Bars	Lbs.	105,620	21,140	126,760
Aluminum Bailing	Lin. Ft.	368		368
Concrete Piles	Lin. Ft.		1616	1616
Test Piles Concrete	Each		2	2
Slope Wall (6')	Sq. Yds		1777	1777
Name Plates	Each		2	2
Bit. Concrete Surf. Cse Class I	Tons	68		68
Waterproofing Membrane System	Sq. Yds	821		821
Channel Excavation	Cu. Yds		1000	1000
Removal of Exist. Structs.	Each		1	1
Protective Coat	Sq. Yds	139		139
Structure Excavation	Cu. Yds		560	560
Structural Steel	Lbs.	1510		1510

**WATERWAY INFORMATION**

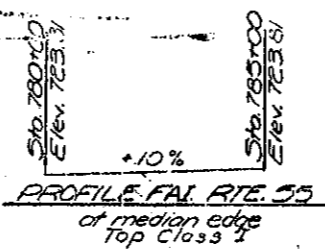
Drainage Area: 11.9 Sq. Mi.  
Character: Rolling, Clay, Cultivated  
Present Opening: 480 Sq. Ft.  
Reald. Opening: 375 Sq. Ft.  
Proposed Opening: 375 Sq. Ft.  
Q(150) = 1800 cfs.  
Created Head = 0.495'

**PLAN**

For Slope wall details See Sh. #3  
For details of this slope wall see sheet #6

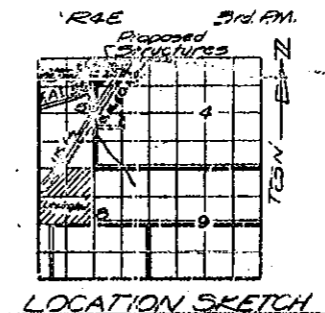
STATION 781+50  
BUILT 197 BY  
STATE OF ILLINOIS  
FA RTE 55 SEC. 57-2B

NAME PLATE  
See Std. 2113-1



**DESIGN STRESSES**

$f_c = 1400 \text{ psi}$   
 $f_s = 20,000 \text{ psi}$   
 $V_c = 75 \text{ psi}$  Footings  
 $n = 10$   
Allow. 25% for future W.S.  
LOADING HS20-44 ALT.



**PROJECT I-55-5(71)179**  
**GENERAL PLAN & ELEVATION**  
**FAI RTE 55 SEC. 57-2B**  
**MCLEAN COUNTY**  
**STA. 781+50**

DESIGNED: [Signature]  
CHECKED: [Signature]  
DRAWN: F. Mercado  
CHECKED: [Signature]

EXAMINED: [Signature]  
PASSED: [Signature]  
APPROVED: [Signature]

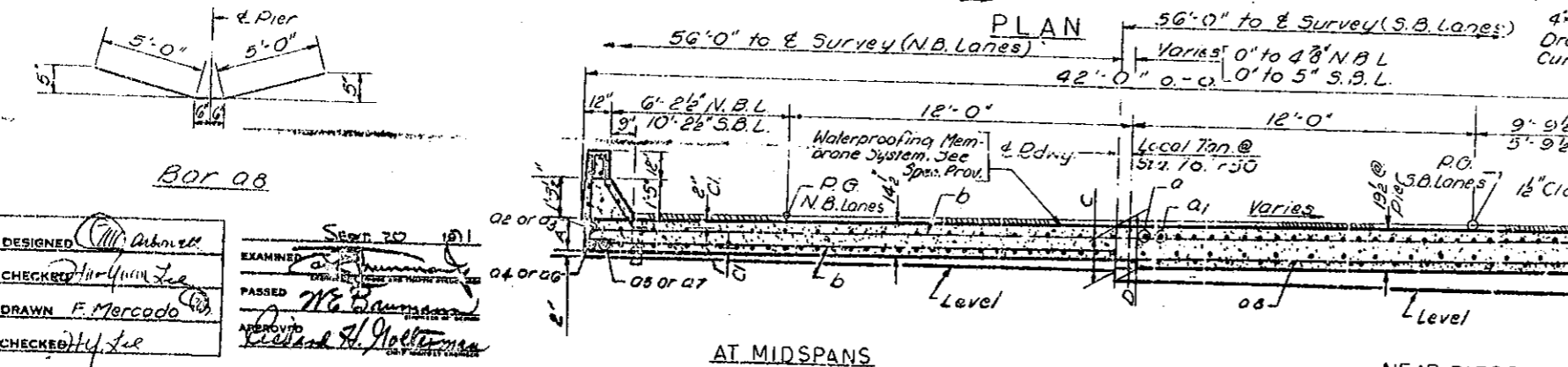
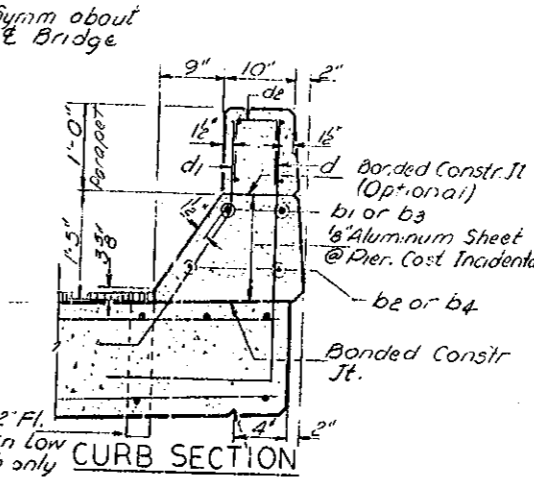
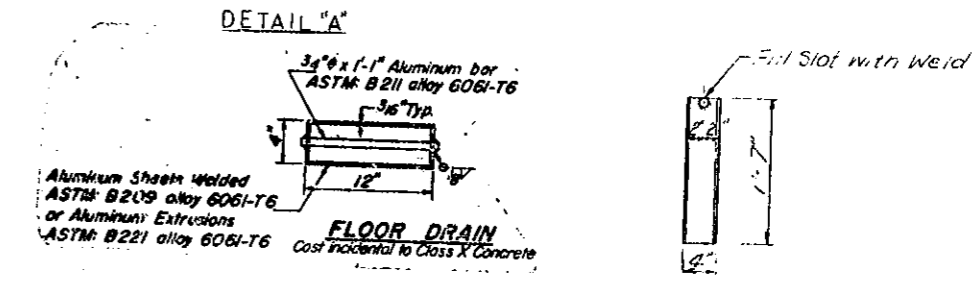
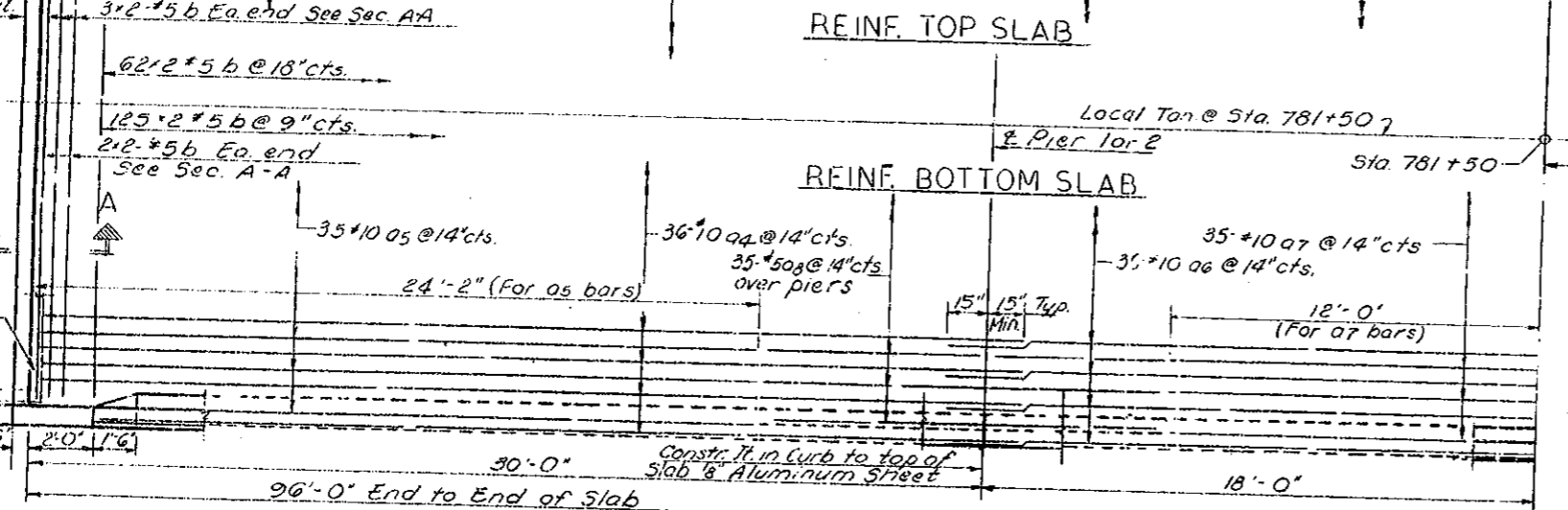
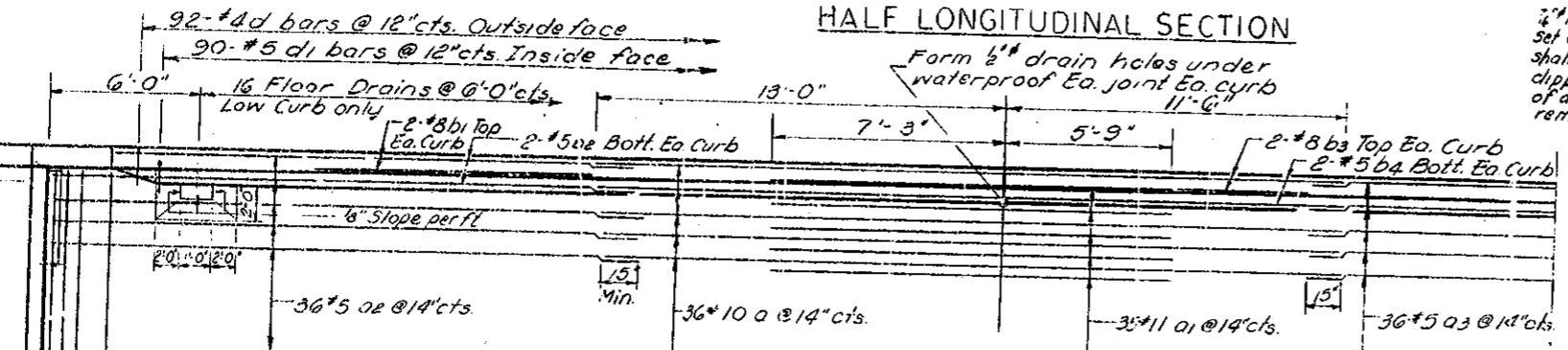
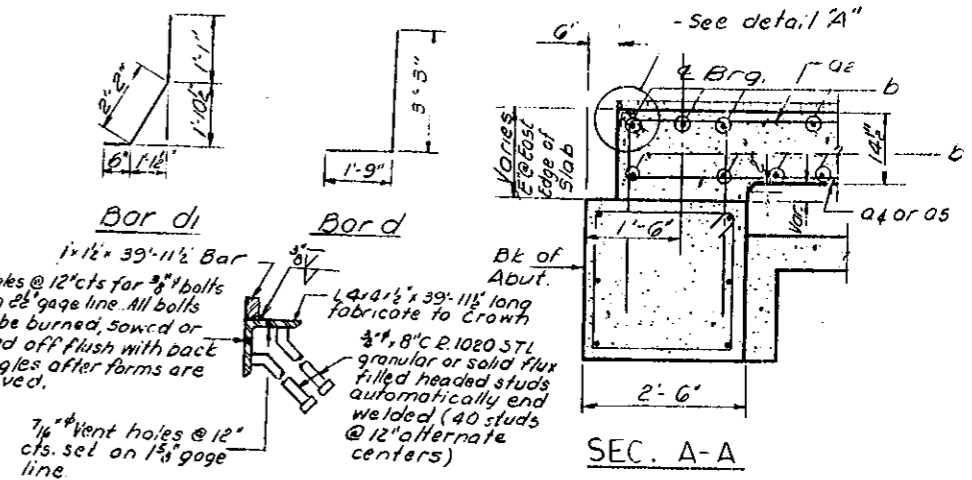
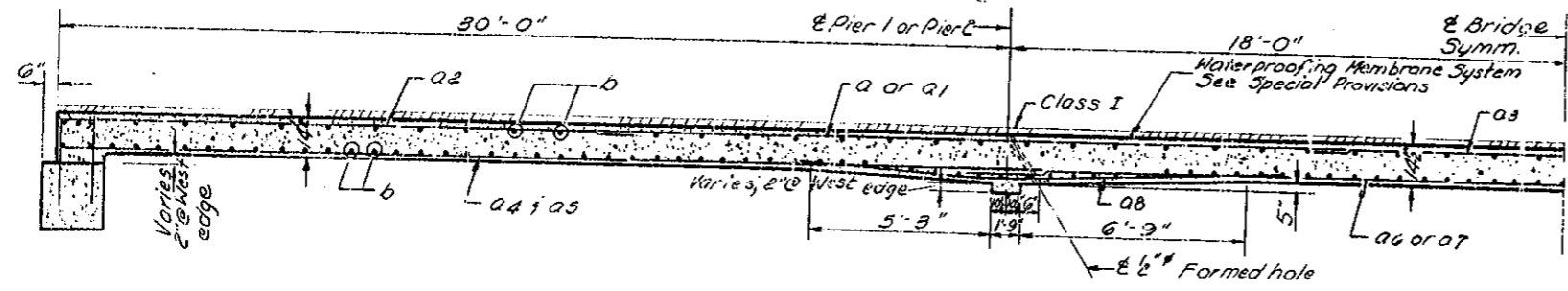
SEPTEMBER 20, 1971

VALUE OF "E"

	N. Abut.	S. Abut.
S.B.L.	2'-11 1/2"	3'-7"
N.B.L.	2'-10 1/4"	3'-7"

ROUTE NO.	SECTION	DATE	LOCAL SHEETS	SHEET NO.
RT. 55	57-2B	McLean	132	23

13 SHEETS



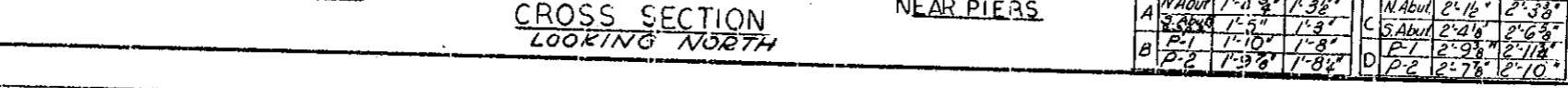
2 STRUCTURES  
BILL OF MATERIAL

Bar	No	Size	Length	Shape
a	144	#10	24'-6"	
a1	140	#10	13'-0"	
a2	144	#5	18'-3"	
a3	72	#5	15'-6"	
a4	144	#10	3'-3"	
a5	140	#10	24'-0"	
a6	72	#10	38'-6"	
a7	70	#10	24'-0"	
a8	140	#5	11'-0"	
b	788	#5	21'-6"	
b1	16	#8	27'-9"	
b2	16	#5	27'-9"	
b3	8	#8	35'-9"	
b4	8	#5	35'-9"	
d	368	#4	5'-0"	
d1	360	#5	3'-9"	
Class X Concrete Cuts 422.8				
Reinforcement Bars Lbs 10450				

Parapet reinforcement and Class X Concrete are billed on sheet 2

DESIGNED: [Signature]  
CHECKED: [Signature]  
DRAWN: F. Mercado  
CHECKED: [Signature]

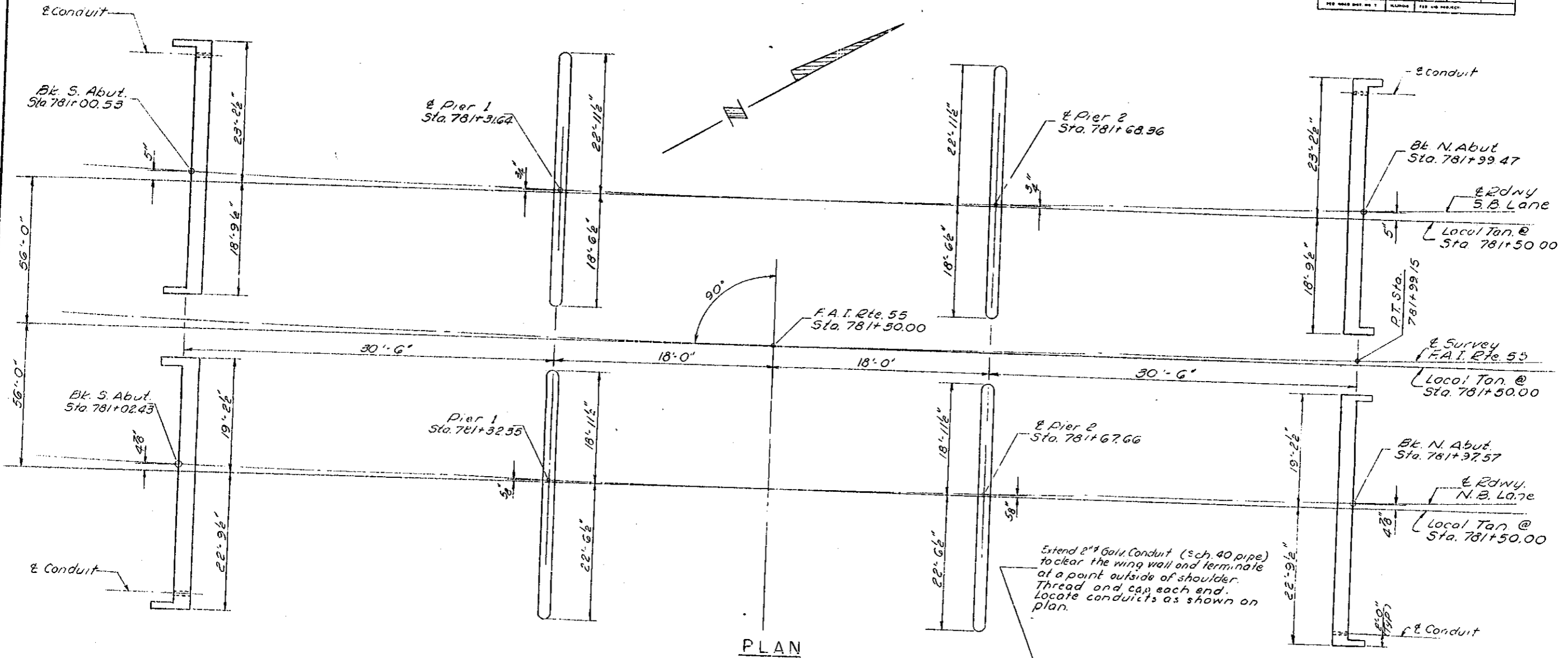
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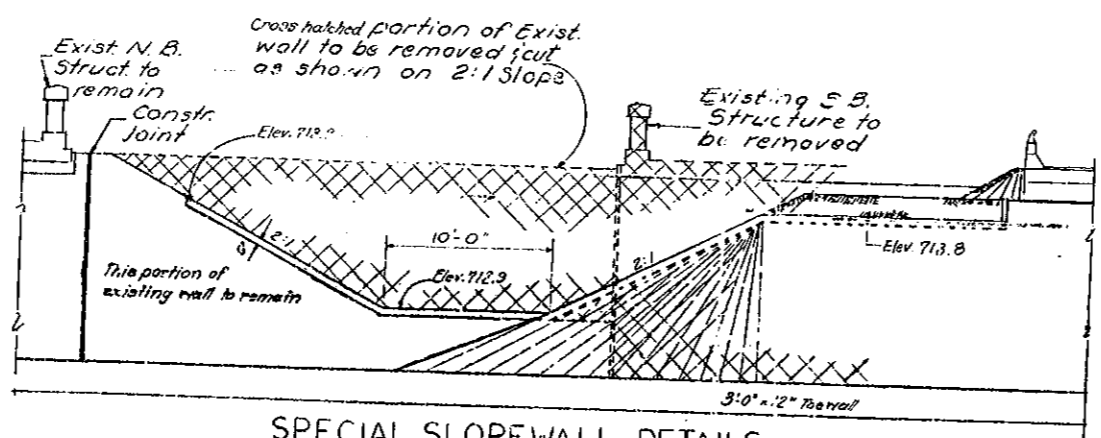
SUPERSTRUCTURE DETAILS  
F.A.I. RT. 55 SEC. 57-2 B  
MCLEAN COUNTY  
STA. 781+50

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
P.A.E. 55	57-2B	McLean	132	24
SHEET NO. 5		13 SHEETS		

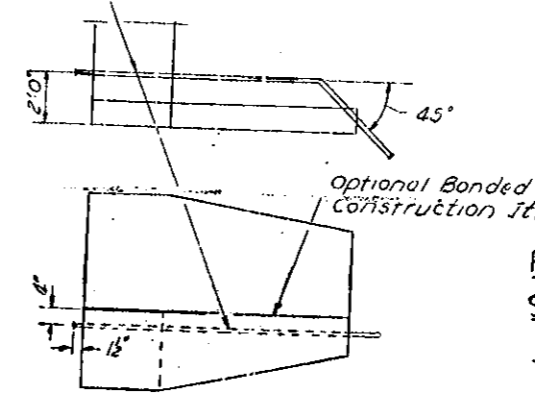


PLAN



SPECIAL SLOPEWALL DETAILS (Sp. Abut. No. Bound Lanes)

Extend 2" Galv. Conduit (sch. 40 pipe) to clear the wing wall and terminate at a point outside of shoulder. Thread and cap each end. Locate conduits as shown on plan.

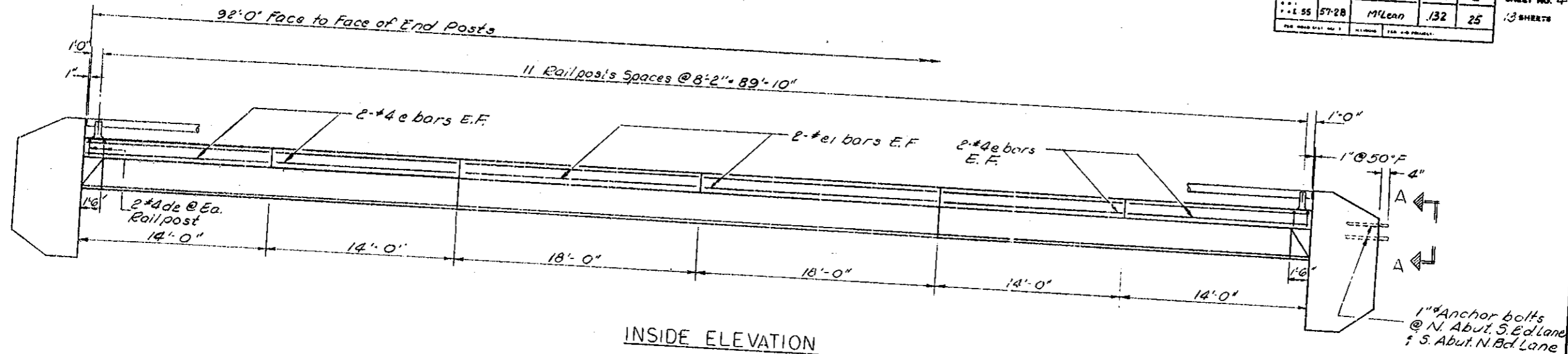


ELECTRICAL CONDUIT LOCATION

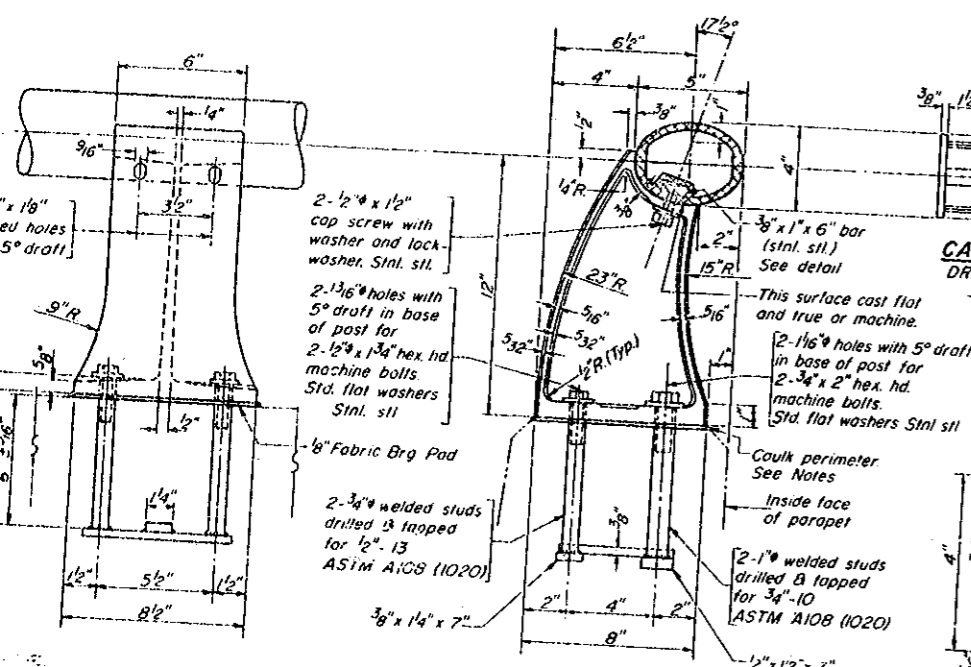
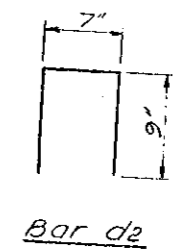
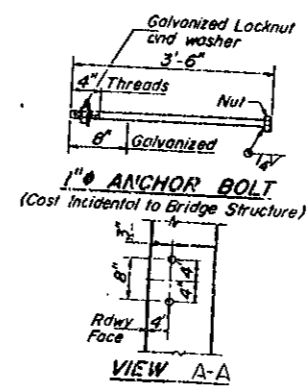
FOOTING LAYOUT & SPECIAL SLOPEWALL DETAILS  
F.A.I. RT. 55 SEC. 57-2 B  
MCLEAN COUNTY  
STA. 781+50

DESIGNED: *[Signature]*  
CHECKED: *[Signature]*  
DRAWN: F. Mercado  
CHECKED: *[Signature]*

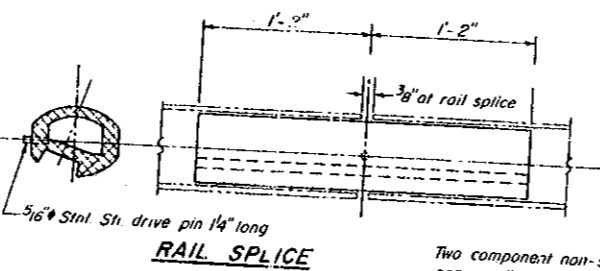
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EXAMINED: *[Signature]*  
PASSED: *[Signature]*  
APPROVED: *[Signature]*



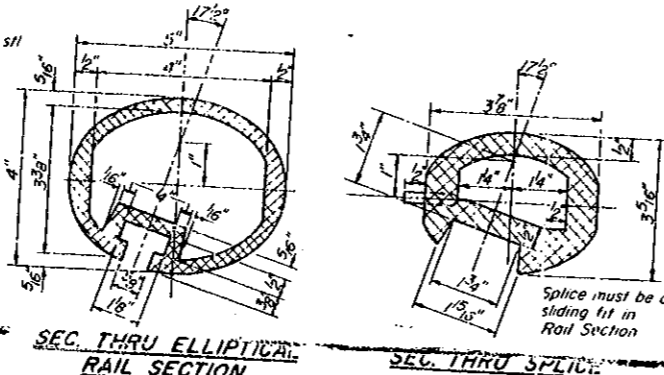
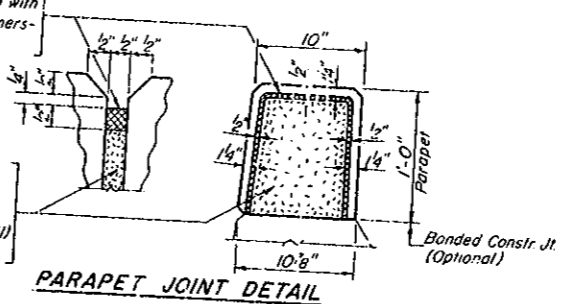
INSIDE ELEVATION



RAIL POST DETAILS



Two component non-staining gray sealing compound with polysulfide liquid polymers-gun grade with primer.



NOTES:  
All Aluminum Alloy Extruded Rail shall be supplied in modular lengths of 30 feet, except at the end of bridge or over open joints in bridge deck where the rail shall be attached to a minimum of 2 posts. If the rail is on a curve of 2300' radius or less, the modular lengths may be reduced but shall be attached to a minimum of 2 posts.  
All joints in rail shall be spliced per detail.  
Provide 1-1/2" and 2-1/8" Aluminum Shims for 25% of the Posts. Rail element shall be parallel to Grade - high spots shall be ground and low spots shimmed.  
Seal perimeter of base of post to parapet with two component non-staining gray sealing compound with polysulfide liquid polymers, gun grade with primer. Fabric Bearing Pad shall have same dimensions as base of post.  
Aluminum alloy rail shall conform to ASTM B221 alloy 6061-T6 or 6351-T5 with min yield 35 ksi, min tensile 38 ksi, and elongation of 10% in 2 inches.

PARAPETS & RAILS  
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
e	62	#4	13'-9"	
e1	32	#4	17'-9"	
d2	96	#4	2'-11"	
Reinforcement Bars		Lbs.	1100	
Class X Concrete		Cu Yds.	12.5	
Aluminum Railing		Lin Ft.	368	

ALUMINUM RAILING

F.A.I.R.T. 55 SEC. 57-2B  
MCLEAN COUNTY  
STA. 781+50.00

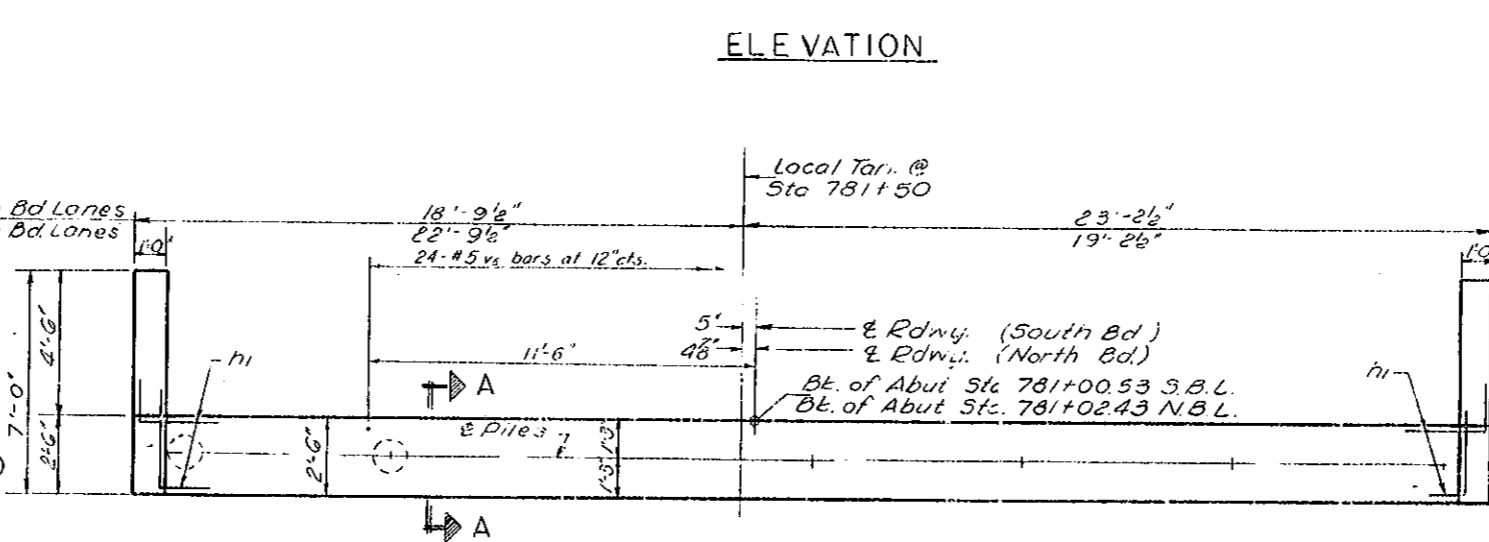
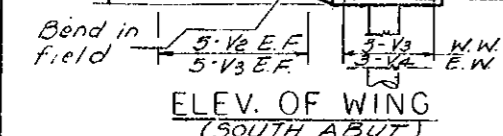
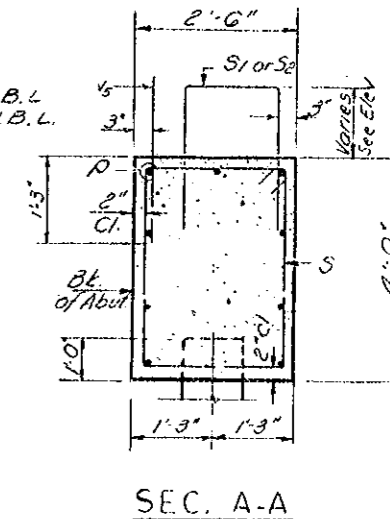
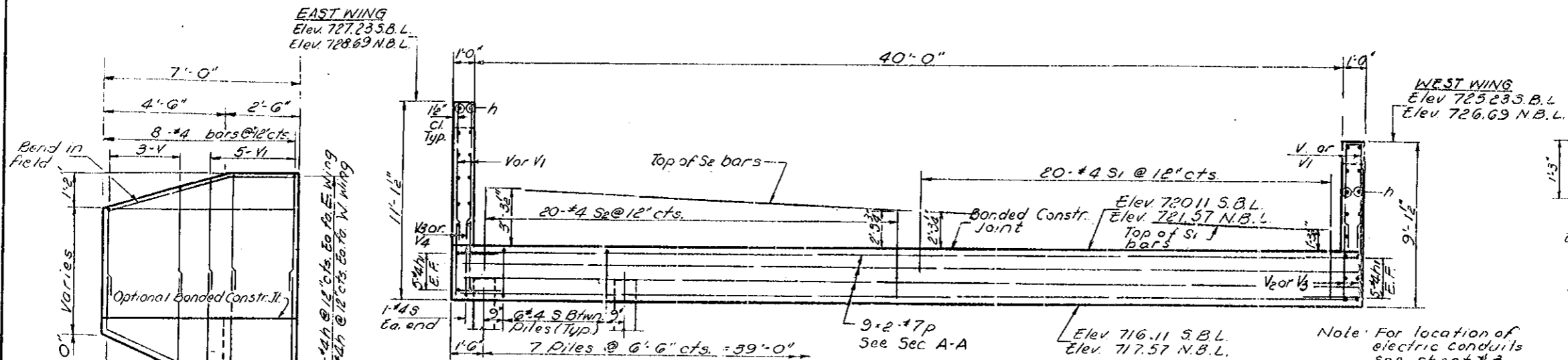
SIGNED: [Signature]  
EXAMINED: [Signature]  
PASSED: [Signature]  
APPROVED: [Signature]

4-22-68 9-18-69



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

PROJECT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
P.A. E. 55	57-2B	McLean	132	26	13 SHEETS
PREPARED BY	DESIGNED BY	ILLINOIS	PER. 618-4000/201		



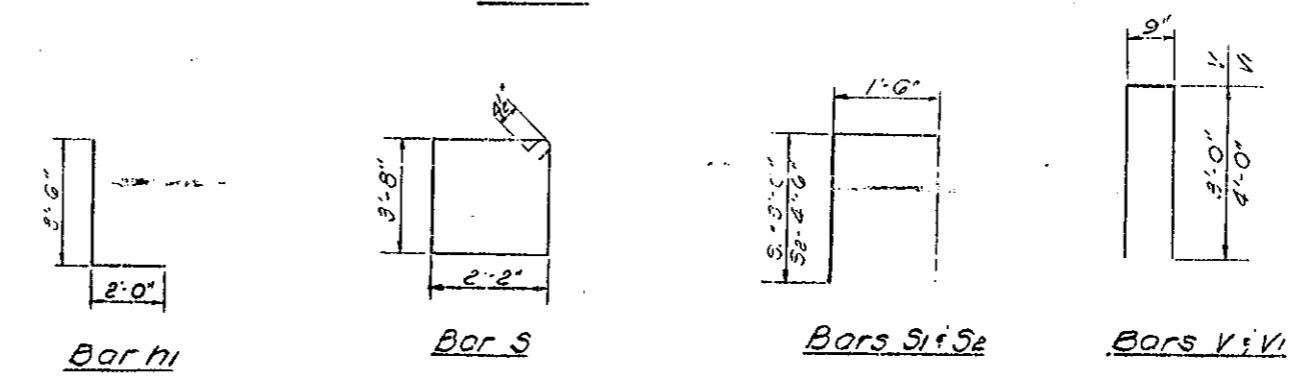
**PILE DATA**

Type Concrete Capacity 20 Tons.  
Est. Length - 19'-0" (N.B.L.) 20'-0" (S.B.L.)  
No. Req'd 14 (Incl. 1 Test Pile @ N.B.L.)

**2 ABUTMENTS BILL OF MATERIAL**

Bar	No	Size	Length	Shape
h	80	#4	6'-9"	—
h <sub>1</sub>	40	#4	5'-6"	⊥
h <sub>2</sub>	36	#7	21'-9"	—
S	76	#4	12'-5"	⊥
S <sub>1</sub>	40	#4	8'-6"	⊥
S <sub>2</sub>	40	#4	10'-6"	⊥
V	12	#4	6'-9"	⊥
V <sub>1</sub>	20	#4	8'-9"	⊥
V <sub>2</sub>	20	#4	7'-0"	⊥
V <sub>3</sub>	32	#4	6'-0"	⊥
V <sub>4</sub>	12	#4	8'-0"	⊥
V <sub>5</sub>	24	#5	2'-6"	⊥
Close Concrete				Cu Yds. 386
Reinforcement Bars				Lbs. 3,680
Concrete Piles				Liq. Ft. 254
Test Piles, Concrete				Each 1

\* Cost of V<sub>5</sub> bars shall be incidental to Bridge Contract.



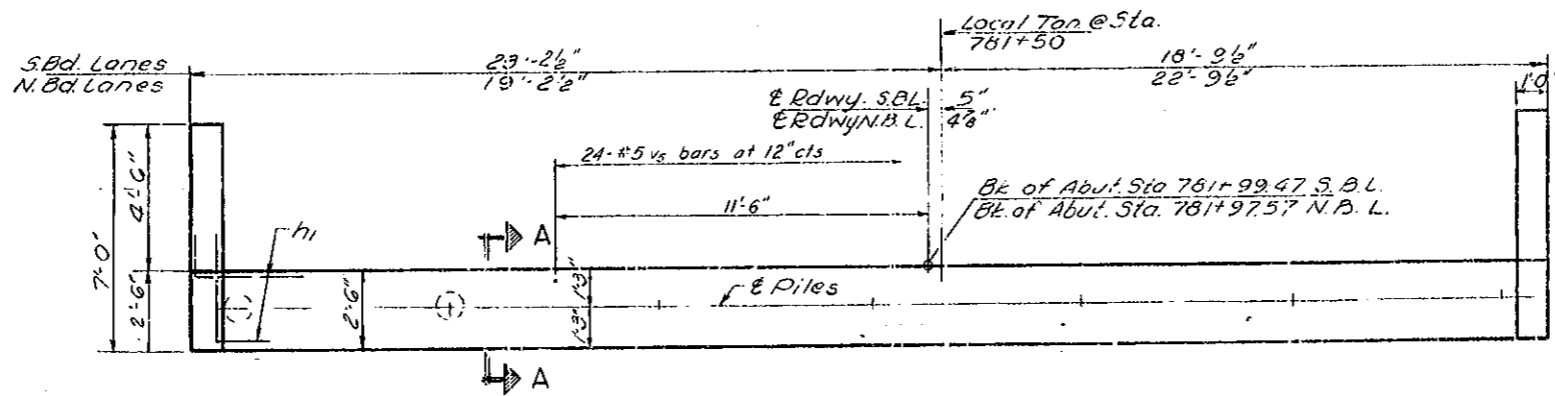
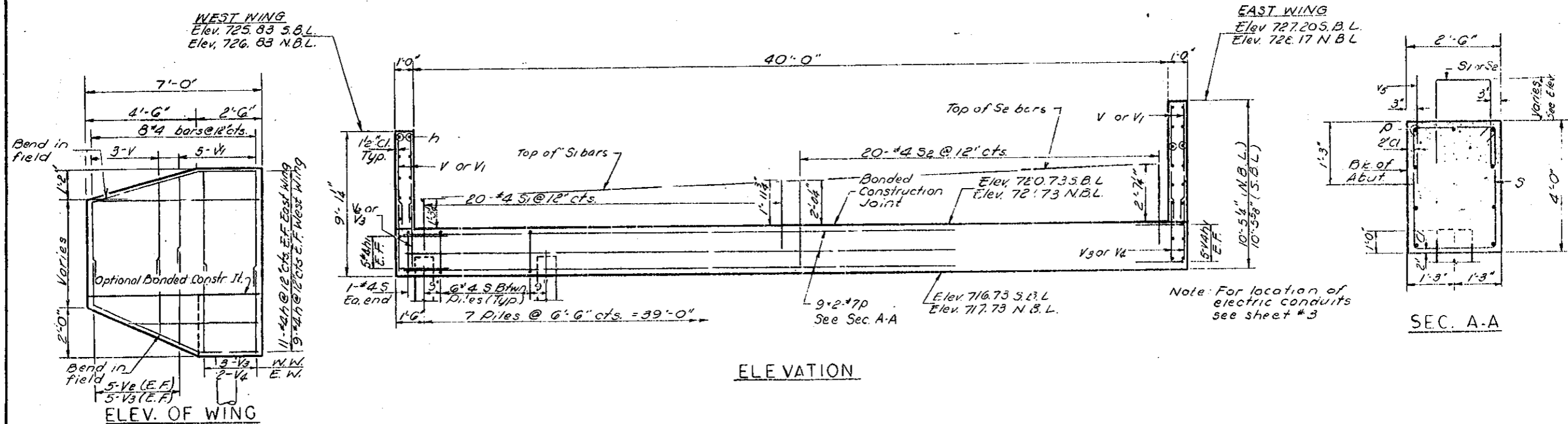
DESIGNED: [Signature]  
CHECKED: [Signature]  
DRAWN: F. Mercado  
CHECKED: [Signature]

EXAMINED: [Signature]  
PASSED: [Signature]

DATE: SEPT 30 1911

**SOUTH ABUTMENTS**  
SO. & NO. BOUND LANES  
FA. I. RT. 55 SEC. 57-2B  
MCLEAN COUNTY  
STA. 781+50

Work by this office added V<sub>5</sub> bars @ abut. 3-28-15



**PILE DATA**

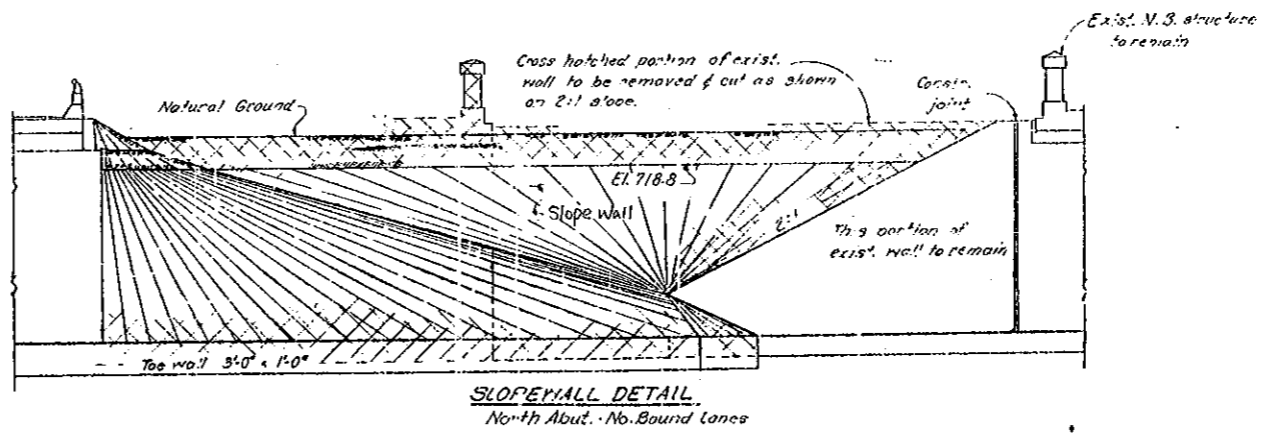
Type Concrete  
Capacity 20 Tons  
Est. Length; 24'(N.B.L.); 19'-0"(S.B.L.)  
No. Req'd 14

**2 ABUTMENTS**  
**BILL OF MATERIAL**

Bar	No	Size	Length	Shape
h	80	#4	6'-9"	—
h <sub>1</sub>	40	#4	5'-0"	L
p	3/2	#7	21'-9"	—
s	76	#4	12'-5"	□
s <sub>1</sub>	40	#4	8'-0"	□
s <sub>2</sub>	40	#4	10'-6"	□
v	12	#4	6'-9"	—
v <sub>1</sub>	20	#4	8'-9"	—
v <sub>2</sub>	20	#4	5'-0"	—
v <sub>3</sub>	3/2	#4	6'-0"	—
v <sub>4</sub>	12	#4	8'-0"	—
v <sub>5</sub>	24	#5	2'-6"	—

Class I Concrete Cu Yds 386  
Reinforcement Bars Lbs 3880  
Concrete Piles Lin Ft 301

\* Cost of 1/2 bars shall be incidental to Bridge Contract



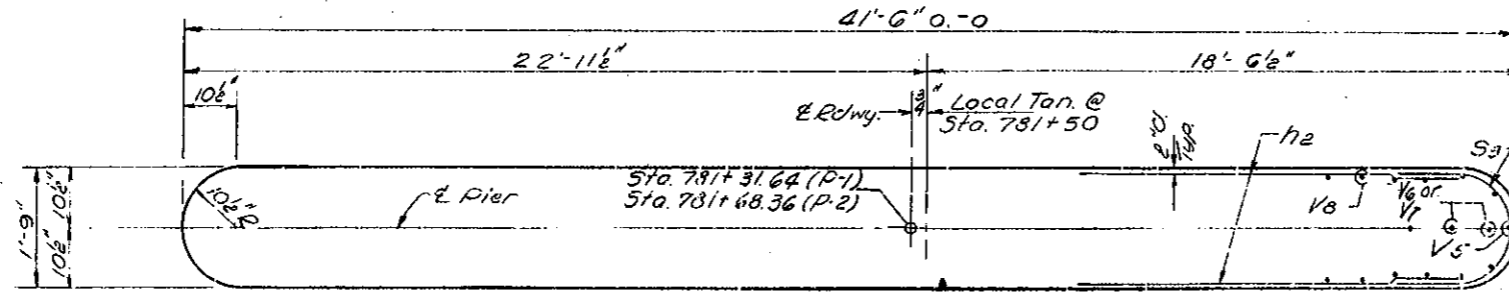
DESIGNED: *Alb. Arnold*  
CHECKED: *Harold Lee*  
APPROVED: *F. Mercado*  
DATE: 1/4/32

EXAMINED: *W. H. ...*  
PASSED: *W. H. ...*  
DATE: 1/20/32

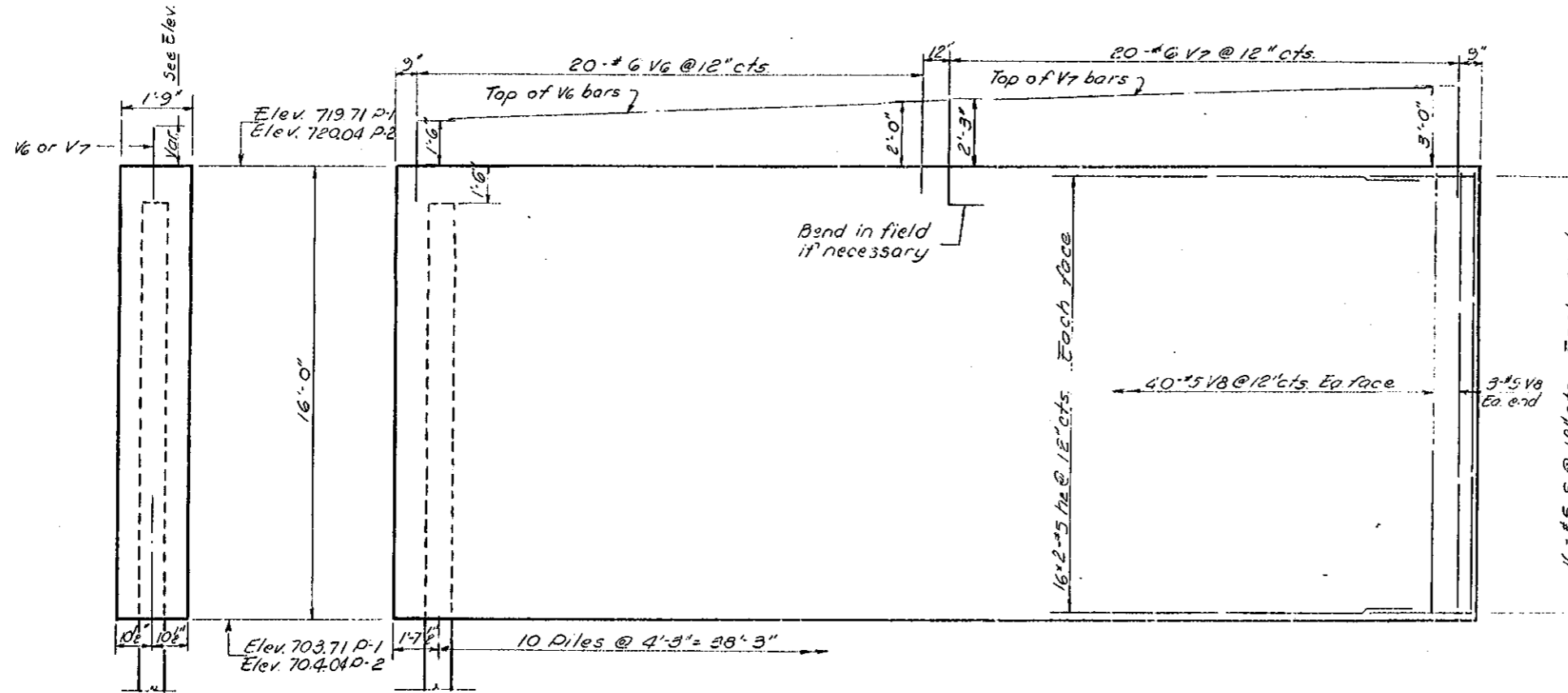
**NO. ABUTMENTS**  
**NO. SO. BOUND LANES**  
**FAI RT 55 SEC. 57-2 B**  
**M'CLEAN COUNTY**  
**STA. 781+50**

Rev. by Br. office - added V<sub>5</sub> bars @ abut. 3-23-35





TOP PLAN



END VIEW

ELEVATION  
LOOKING NORTH

PILE DATA

Type: Concrete  
Capacity: 35 Tons.  
Est. Length: 26'-0" (P-1); 27'-0" (P-2)  
No. Req'd: 20

2 PIERS  
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h2	144	#5	20'-6"	---
S3	72	#5	5'-2"	U
V6	40	#6	3'-0"	---
V7	40	#6	4'-6"	---
V8	172	#5	15'-9"	---
Class 1 Concrete			Cu Yds	76.9
Reinforcement Bars			Lbs.	6,780
Concrete Piles			Lin. Ft.	5.30

DESIGNED: *[Signature]*  
CHECKED: *[Signature]*  
DRAWN: *[Signature]*  
CHECKED: *[Signature]*

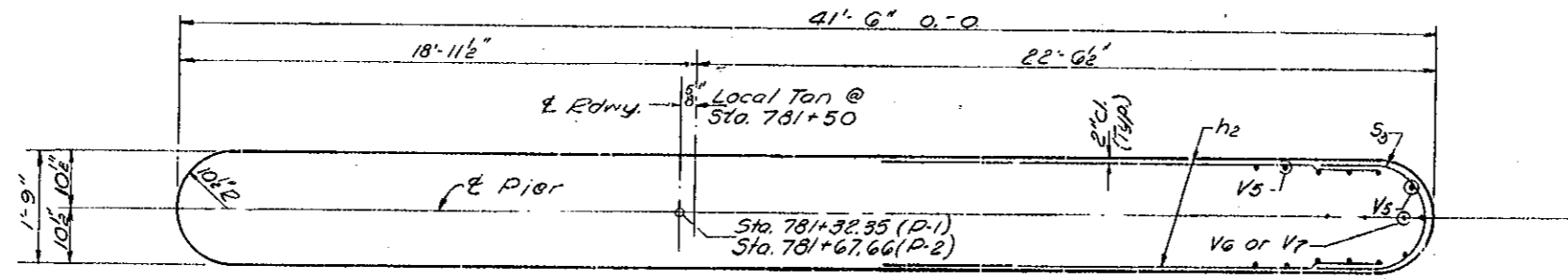
SEPT 20 1971  
EXAMINED: *[Signature]*  
PASSED: *[Signature]*  
*[Signature]*

PIERS  
SOUTH BOUND LANES  
F A I RT 55 SEC. 57-2 B  
MC LEAN COUNTY  
STA. 781+50

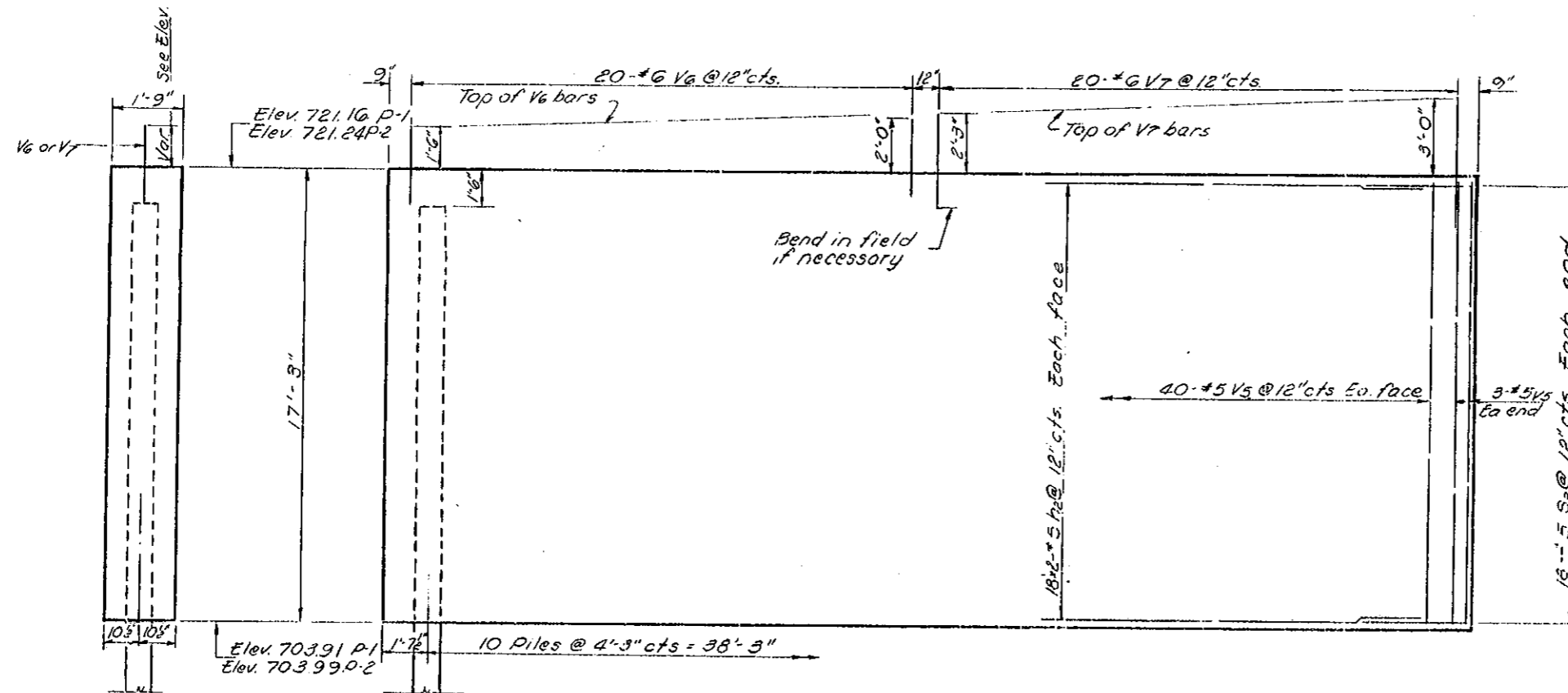
STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BUILDINGS  
DIVISION OF HIGHWAYS

ROUTE NO.	DISTRICT	COUNTY	TOTAL SHEETS	SHEET NO.
RT. 55	57-23	McLean	132	29
PROJECT NAME	ALIGNED	PER. AND PROJECT		

SHEET NO. 3  
13 SHEETS



TOP PLAN



END VIEW

ELEVATION  
LOOKING NORTH

SABOR

2 PIERS  
BILL OF MATERIAL

Bar	No.	Size	Length	Shape	
h2	144	#5	20'-6"	---	
S3	72	#5	5'-3"	C	
V5	172	#5	17'-0"	---	
V6	40	#6	3'-6"	---	
V7	40	#6	4'-6"	---	
Class X Concrete				Cu Yds.	820
Reinforcement Bars				Lbs.	7000
Concrete Piles				Lin. Ft.	531
Test Piles, Concrete				Each	1

PILE DATA

Type: Concrete  
Capacity: 35 Tons  
Est. Length: 27'-0" (P-1); 29'-0" (P-2)  
No. Piles: 20 (Including 1 Test Pile @ Pier 2)

DESIGNED	<i>[Signature]</i>
CHECKED	<i>[Signature]</i>
DRAWN	F. Mercado
CHECKED	<i>[Signature]</i>

EXAMINED	<i>[Signature]</i>
PASSED	<i>[Signature]</i>
APPROVED	<i>[Signature]</i>

PIERS  
NORTH BOUND LANES  
F A I RT. 55 SEC. 57-2 B  
MC LEAN COUNTY  
STA. 781+50