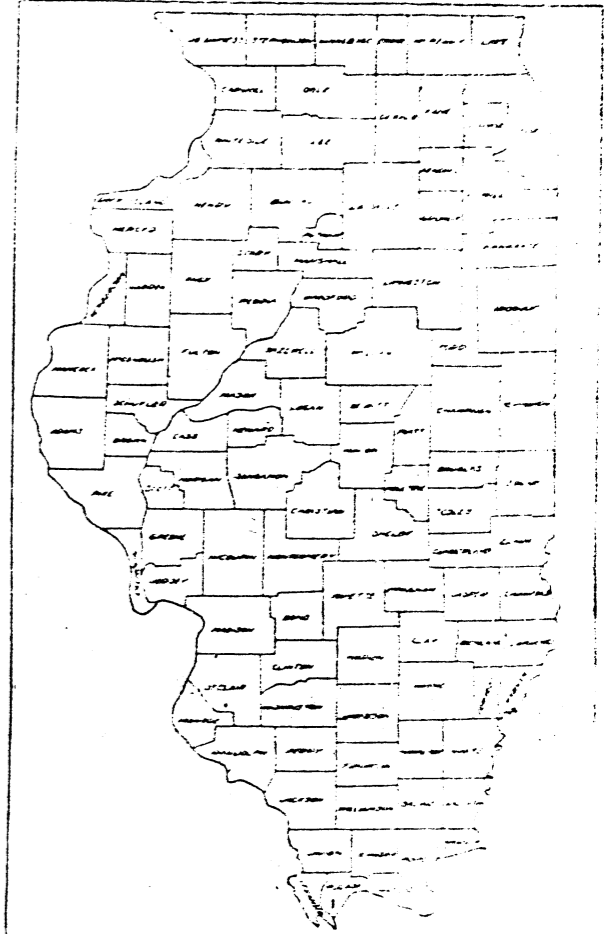


PULASKI 77-(3, 3HB-1)

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

SEC.	DATE	BY
PULASKI	128	1
77-3 3HB-1		

JOB NO. P-99-004-00



LOCATION OF SECTION INDICATED THIS --

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

F.A.I. ROUTE 57 SECTION 77-3 3HB-1 PULASKI COUNTY
 PROJECT I-57-1(79) 8

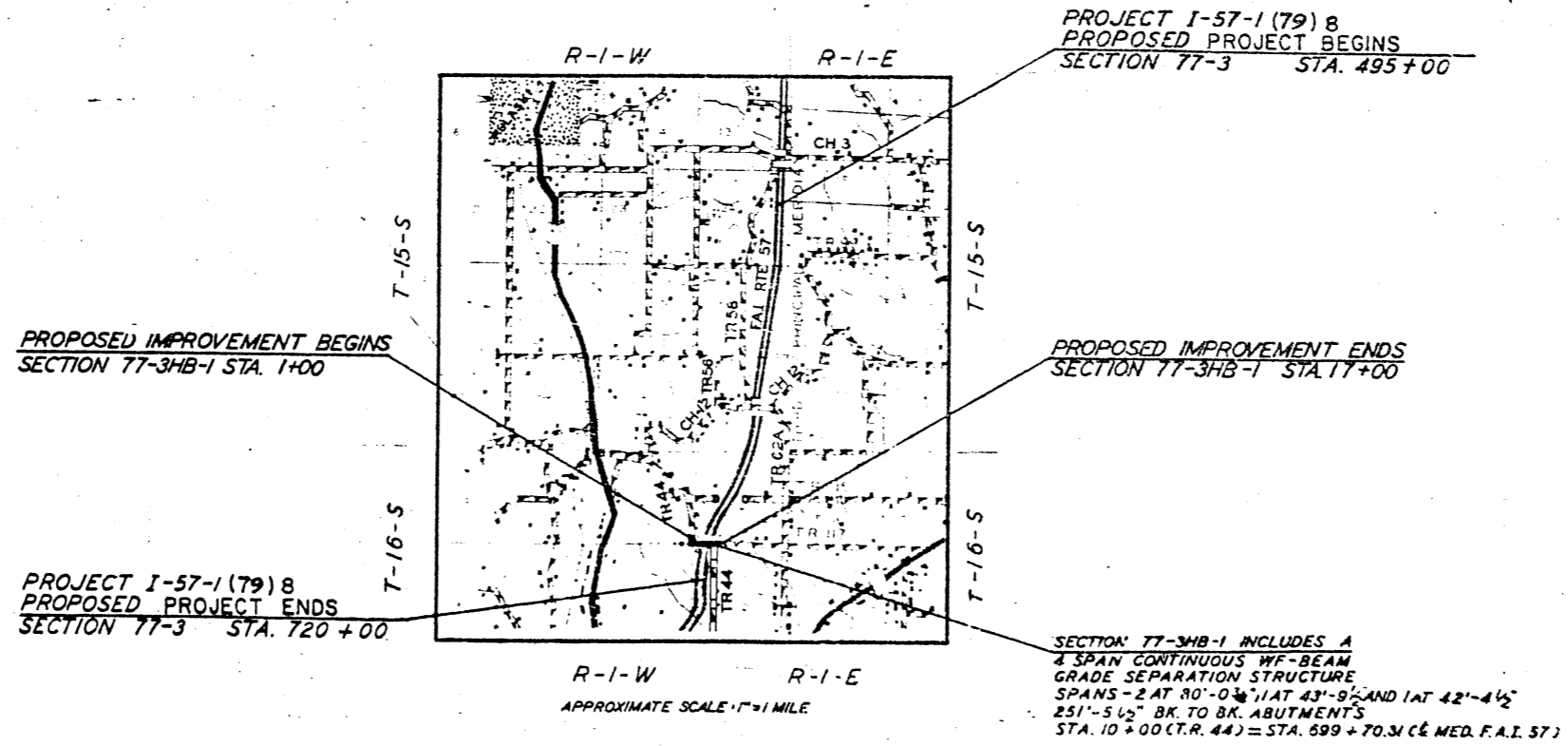
C-99-127-65

INDEX OF SHEETS SHEET NO. 5
 SUMMARY OF QUANTITIES SHEET NO. 6

077-0031

HIGHWAY CLASSIFICATION
 1245-T-70 (SECTION 77-3)
 35-P-30 (SECTION 77-3HB-1)

FILE COPY
 # 74
 7-1-66



Jan 11 66
 V. Vogel
 May 6 66
 A. W. Van Dusen
 May 16 66
 H. Alt
 May 26 66
 May 16 66
 Francis S. Long

DATE: _____

BY: _____

NET LENGTH SEC 77-3HB-1 = 1600.00 LIN. FT. = 0.303 MILES
 NET LENGTH SEC. 77-3 = 22,500.00 LIN. FT. = 4.261 MILES
 NET LENGTH PROJECT I-57-1(79) 8 = 22,500.00 LIN. FT. = 4.261 MILES

CONTRACT NO. 24630

REEL 9-53

SUMMARY OF QUANTITIES

CODE NUMBER	ITEM	UNIT	TOTAL QUANTITY	FAL 57	TR 44	SEC. 77-3HB-1	C.E. 58
				SEC. 77-3 ROAD	SEC. 77-3HB-1 ROAD	BRIDGE	
LOCATION OF WORK				STA. 495+00 TO STA. 720+00	STA. 1+00 TO STA. 8+73.56	STA. 10+00 TR44= STA. 11+25.62 TO STA. 17+00	FAL 57
CONSTRUCTION TYPE CODE				7223	2010	X771	C.E. 58
01000	TREE REMOVAL (6 TO 15 INCH DIAMETER)	IN. DIA.	5791	5025	766		
01002	TREE REMOVAL (OVER 15 INCH DIAMETER)	IN. DIA.	1193	1174	19		
01005	TREE REMOVAL, ACRES	ACRE	911	911			
01001	EARTH EXCAVATION	CU. YD.	1,026,269	1,008,828	17,441		
01018	MUCK REMOVAL	CU. YD.	4,353	4,353			
01200	CHANNEL EXCAVATION	CU. YD.	22,503	22,503			
01300	BORROW EXCAVATION	CU. YD.	13,065	13,065			
016003	WATER APPLIED	UNIT	260	255.4	4.6		
024016	STABILIZED SUB-BASE 4"	SQ. YD.	135,000	135,000			
01901	GRANULAR MATERIAL	CU. YD.	5,585	5,585			
029030	SIZE SA PAVING STONE	TON	221	221			
03100	GRAVEL OR CRUSHED STONE SURFACE COURSE, TYPE A	TON	1,360		1,360		
048018	REMOVING AND REPLACING CURING COVERING	UNIT	60	60			
052001	CLASS A EXCAVATION FOR STRUCTURES	CU. YD.	280		280		
052003	CLASS X CONCRETE	CU. YD.	1,266.9	801.7	465.2		
052016	CLASS X CONCRETE (HEADWALL)	CU. YD.	175.9	165.5	9.4		
052021	PROTECTIVE COAT	SQ. YD.	120,962	120,000	962		
054001	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	196,960		196,960		
056007	PIPE CULVERTS, TYPE 1A, 24"	LIN. FT.	50		50		
056200	PIPE CULVERTS, TYPE 1 18"	LIN. FT.	64	64			
058023	PIPE CULVERTS, TYPE 2A RCCP 18"	LIN. FT.	20	20			
058025	PIPE CULVERTS, TYPE 2A RCCP 24"	LIN. FT.	728	728			
058027	PIPE CULVERTS, TYPE 2A RCCP 36"	LIN. FT.	482	482			
058028	PIPE CULVERTS, TYPE 2A RCCP 42"	LIN. FT.	218	218			
058029	PIPE CULVERTS, TYPE 2A RCCP 54"	LIN. FT.	218	218			
058023	PIPE CULVERTS, TYPE 2A RCCP 72"	LIN. FT.	202	202			
158017	PIPE CULVERTS, TYPE 3A RCCP 18"	LIN. FT.	24	24			
158018	PIPE CULVERTS, TYPE 3A RCCP 36"	LIN. FT.	258	258			
158019	PIPE CULVERTS, TYPE 3A RCCP 54"	LIN. FT.	230	230			
158025	PIPE CULVERTS, TYPE 4A RCCP 18"	LIN. FT.	90	90			
158029	PIPE CULVERTS, TYPE 4A RCCP 36"	LIN. FT.	786	786			
158030	PIPE CULVERTS, TYPE 4A RCCP 42"	LIN. FT.	532	532			
158032	PIPE CULVERTS, TYPE 4A RCCP 54"	LIN. FT.	252	252			
158035	PIPE CULVERTS, TYPE 4A RCCP 72"	LIN. FT.	292	292			
158028	PIPE CULVERTS, TYPE 7A RCCP 18"	LIN. FT.	48	48			
158027	PIPE CULVERTS, TYPE 7A RCCP 66"	LIN. FT.	402	402			
059001	REINFORCEMENT BARS	POUND	2,23,440	152,630	260	70,550	
060004	FURNISHING CREOSOTED PILES, UP TO 20 FEET	LIN. FT.	836			836	
058034	PIPE CULVERTS, TYPE 2A, 36"	LIN. FT.	192		192		

CODE NUMBER	ITEM	UNIT	TOTAL QUANTITY	FAL 57	TR 44	SEC. 77-3HB-1	C.E. 58
				SEC. 77-3 ROAD	SEC. 77-3HB-1 ROAD	BRIDGE	
LOCATION OF WORK				STA. 495+00 TO STA. 720+00	STA. 1+00 TO STA. 8+73.56	STA. 10+00 TR44= STA. 11+25.62 TO STA. 17+00	FAL 57
CONSTRUCTION TYPE CODE				7223	2010	X771	C.E. 58
060007	TEST PILE TIMBER	EACH	1			1	
060008	DRIVING TIMBER PILES	LIN. FT.	836			836	
060042	METAL SHOES	EACH	44			44	
060043	DRIVING CONCRETE PILES	LIN. FT.	612			612	
060044	FURNISHING CONCRETE PILES	LIN. FT.	612			612	
060047	TEST PILE CONCRETE	EACH	1			1	
061001	NAME PLATES	EACH	2			2	
075160	INLETS, SPECIAL, TYPE 1	EACH	44	44			
075163	INLETS, SPECIAL, TYPE 2	EACH	1	1			
083002	SLOPE WALL 4 INCH	SQ. YD.	380			380	
083003	SLOPE WALL 6 INCH	SQ. YD.	378	378			
091002	PAVED DITCH 3 FEET	LIN. FT.	9162	9162			
091003	PAVED DITCH 4 FEET	LIN. FT.	4128	4128			
091004	PAVED DITCH 5 FEET	LIN. FT.	2,135	2,135			
091005	PAVED DITCH 6 FEET	LIN. FT.	735	735			
091006	PAVED DITCH 7 FEET	LIN. FT.	235	235			
048033	CONTINUOUSLY REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT, 7"	SQ. YD.	120,000	120,000			
094001	STEEL PLATE BEAM GUARD RAIL	LIN. FT.	5,587.5	5,137.5	450		
104001	FURNISHING AND ERECTING RIGHT OF WAY MARKERS	EACH	95	78	17		
110004	COMPLETE SEEDING	ACRE	1135	1110	26		
110005	FERTILIZER NUTRIENTS	TON	91	89	02		
110006	AGRICULTURAL GROUND LIMESTONE	TON	341	333	8		
111002	STRAW FOR ASPHALT-COATED MULCH	TON	309.4	302.6	6.8		
111003	EMULSIFIED ASPHALT	GAL.	25,526	24,965	561		
K00015	JUTE MATTING	SQ. YD.	16,044	15,952	92		
K00020	CROWN VETCH SEEDING	ACRE	2	2			
Z00004	ALUMINUM HANDRAIL	LIN. FT.	496		496		
Z01028	WOVEN WIRE FENCE	LIN. FT.	45,605	45,605			
Z01029	WOVEN WIRE GATES	EACH	48	48			
Z01379	ENGINEER'S FIELD LABORATORY	EACH	1			1	
Z01398	ENGINEER'S FIELD OFFICE TYPE A	EACH	1			1	
048042	PAVEMENT REINFORCEMENT, (7")	SQ. YD.	120,000	120,000			
Z00350	PERMANENT SURVEY MARKERS, TYPE 1	EACH	24	24			
Z01383	STABILIZED SHOULDERS, (11")	SQ. YD.	70,000	70,000			

JESSE CONNER
NE 1/4, SW 1/4, SEC. 1
T16S, R1W

W.E. SHUMAKER
SE 1/4, SW 1/4, SEC. 1
T16S, R1W

LHAS HUMPHREY
SW 1/4, SW 1/4, SEC. 1
T16S, R1W

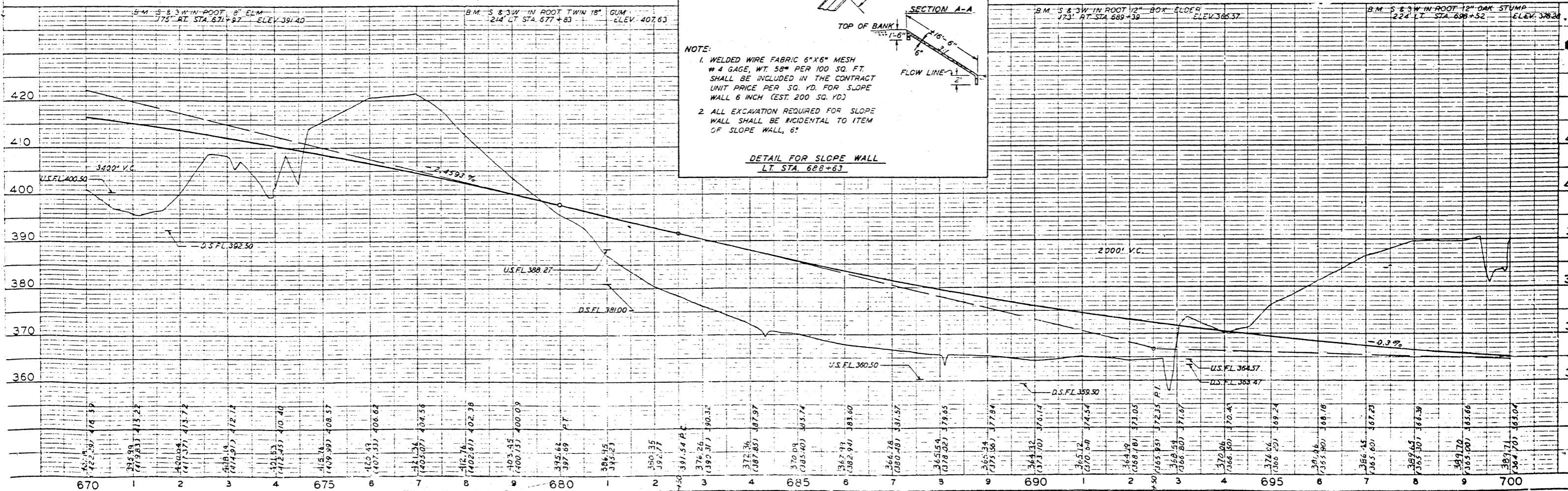
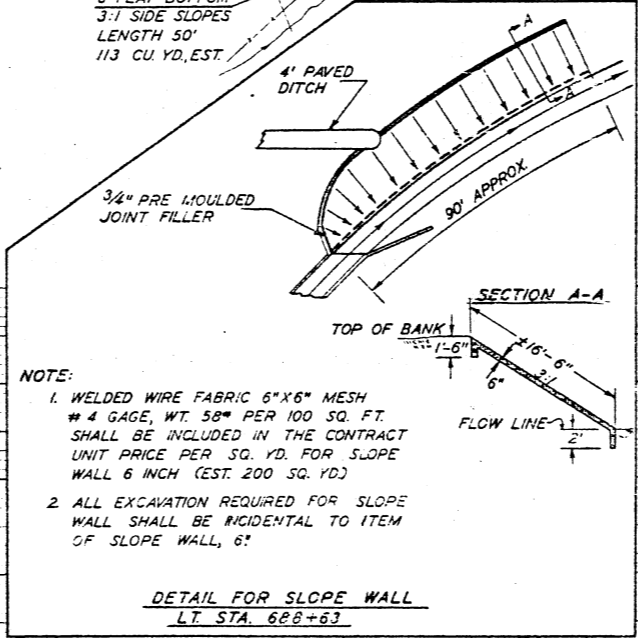
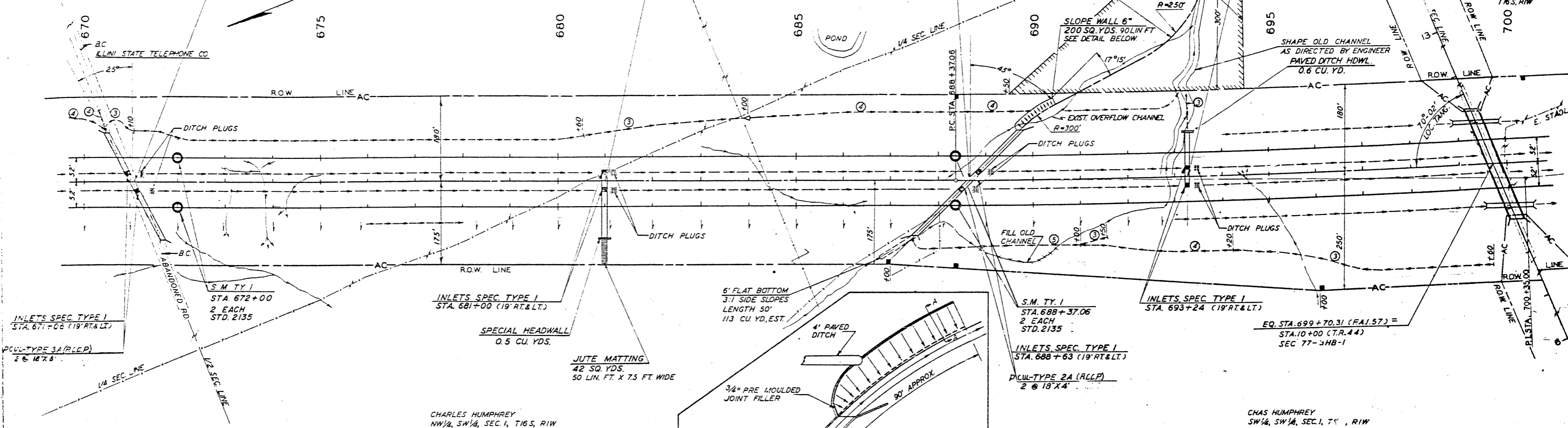
PCUL-TYPE 3A (RCCP) STA 671+06
36" X 258", RT 139'-7", LT 118'-5"
STC 2051 DS-36-2

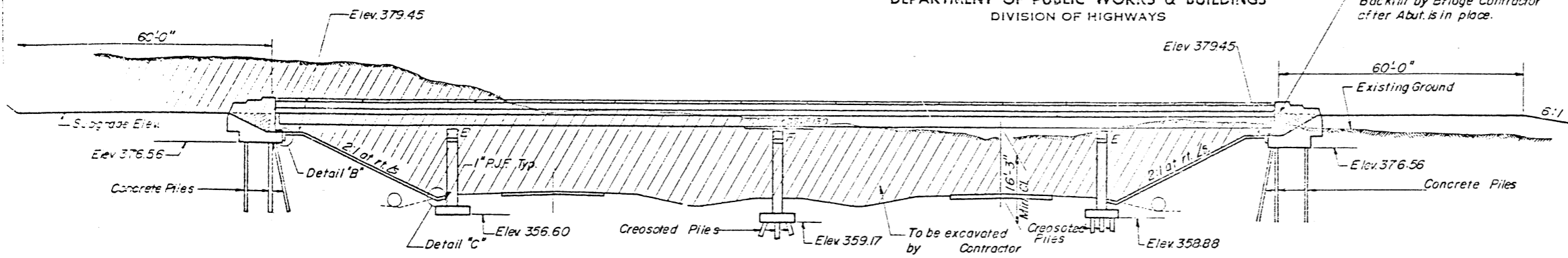
PCUL-TYPE 2A (RCCP) STA 681+00
24" X 138", RT 120'-0", LT 118'-0"

BOX CULVERT STA 688+63
8' X 8' X 315'-9", RT 166'-4", LT 149'-5"
HOWLS' SEE SHEET NO 41 A

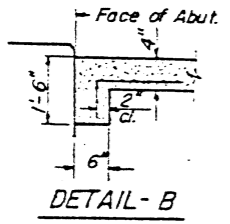
PCUL-TYPE 2A (RCCP) STA 693+24
24" X 110", RT 118'-0", LT 92'-0"

CLAUDE HAYDEN
NW 1/4, NW 1/4, SEC. 12
T16S, R1W

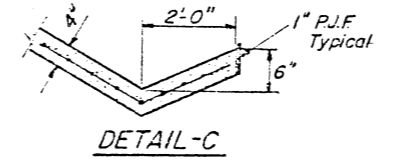




ELEVATION



DETAIL - B

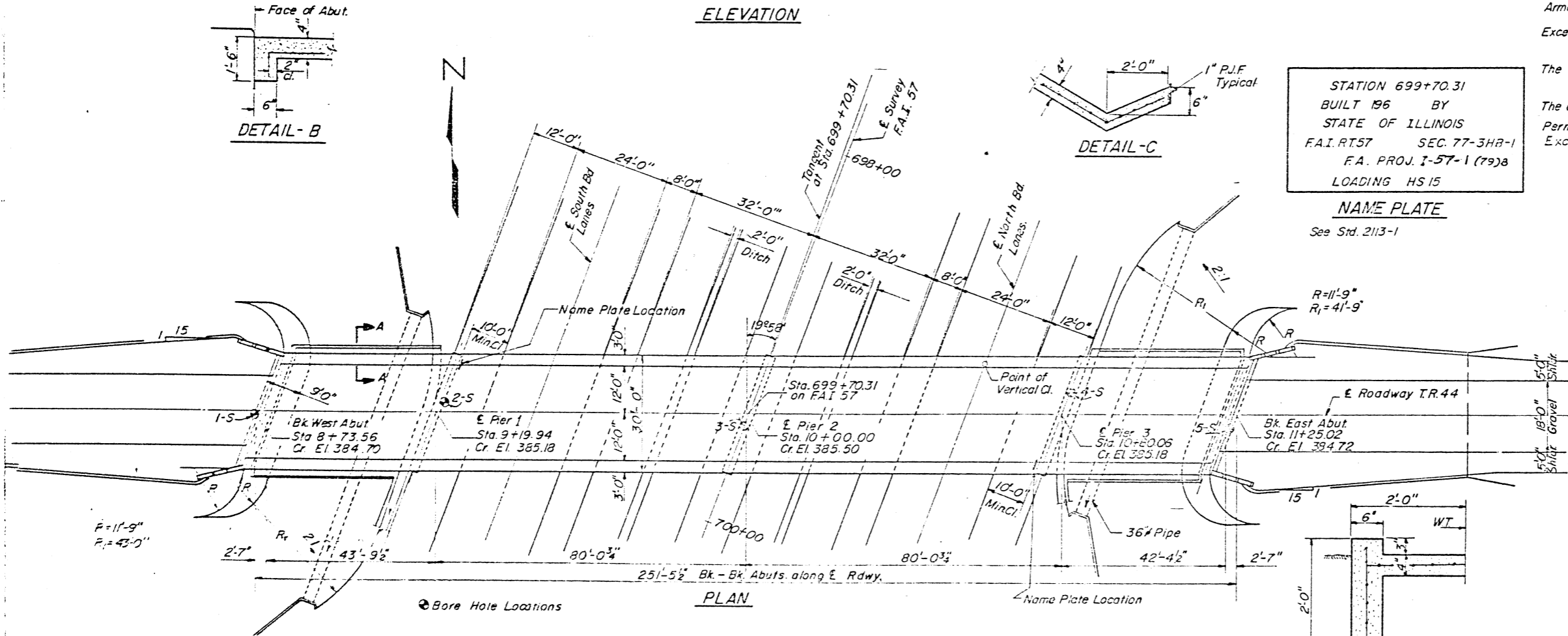


DETAIL - C

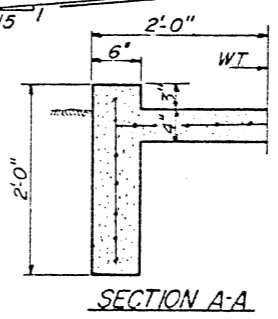
STATION 699+70.31
BUILT 196 BY
STATE OF ILLINOIS
FAI RT 57 SEC. 77-3HB-1
F.A. PROJ. I-57-1 (79)B
LOADING HS 15

NAME PLATE

See Std. 2113-1



PLAN



SECTION A-A

GENERAL NOTES

Coarse Aggregate to be used in parapet handrails and wingwalls must be absolutely free of chert, flint, limonite, lignite and soft sandstone. The concrete floor slab shall be finished in accordance with Art. 51.19 of the Standard Specifications.

Slope walls shall be reinforced with welded wire fabric 6"x6" mesh, weighing 58# per 100 Sq. Ft.

All reinforcement bars shall be lapped 20 diameters unless otherwise noted. All Structural Steel shall conform to ASTM Specifications for Structural Steel designation A-36.

Rivets 3/8", Open holes 1/8" unless otherwise noted. Anchor bolts shall be set before riveting diaphragms over supports. The exposed surfaces of the armor angles shall be given two shop coats of red lead paint, the contact surfaces shall be given one coat of red lead paint. Anchor studs shall not be painted.

Armor angles are included in the quantity of Structural Steel. Estimated weight 710 Lbs.

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

The contractor shall drive one timber test pile in the vicinity of pier 2 and one concrete test pile in a permanent location at the East Abutment, as directed by the Engineer before ordering the remainder of piles. The contractor shall use metal pile shoes in driving the timber piles.

Permanent forms will not be permitted in forming the concrete floor. Excavation for portions of Structures in the embankments shall not be classified.

STRESS TABLES

Table of Moments & Reactions - Interior Beams							
DL	Moments = Ft-Kips			Reactions = Kips		Shears = Kip	
	4 Sp. 1	5 Sp. 2	Pier 2	Abut.	Pier 1		Pier 2
DL	50.70	293.90	203.4	47.97	9.40	50.0	63.50
* S.D.L.	18.50	68.9	72.1	108.9	2.80	13.50	17.0
L.L.	184.50	192.0	361.0	261.0	23.90	30.60	30.0
- Imp.	55.40	52.0	87.2	70.3	7.0	7.50	7.40
Total	309.10	608.80	723.7	919.9	43.10	101.60	117.90

Properties: Spans 283 Composite
10'6"x12'x17'-6" Cover Plates at Pier 2

$I_s = 6,699 \text{ in}^4$ $I_c = 15,974 \text{ in}^4$
 $S_s = 404.8 \text{ in}^3$ $S_c = 1,357 \text{ in}^3$
 $S_s \text{ at Pier 2} = 566.6 \text{ in}^3$ $S_c = 563.5 \text{ in}^3$

* S.D.L. = Superimposed Dead Load

STUD SHEAR CONNECTORS ON THE BEAM FLANGES SHALL BE PLACED IN THE FIELD AFTER THE STEEL HAS BEEN ERECTED AND THE DECK FORMS ARE IN PLACE.

TOTAL BILL OF MATERIALS

Item	Unit	Super.	Sub.	Total
* Class A Excavation for Structures	Cu. Yds.		280	280
Class x Concrete	Cu. Yds.	237.5	227.7	465.2
Structural Steel	Lbs.	196,960		196,960
Aluminum Handrail	Lin. Ft.	496		496
Pipe Culverts Type 2A	36" Lin. Ft.		192	192
Reinforcement Bars	Lbs.	49,250	21,300	70,550
Creosoted Piles	Lin. Ft.		836	836
Test Piles (Timber)	Each		1	1
Concrete Piles	Lin. Ft.		612	612
Test Piles (Concrete)	Each		1	1
Metal Shoes	Each		44	44
Name Plates	Each		2	2
Slope Wall	Sq. Yds.		380	380
Protective Coat	Sq. Yds.	962		962

* Includes Excavation for Slope walls.

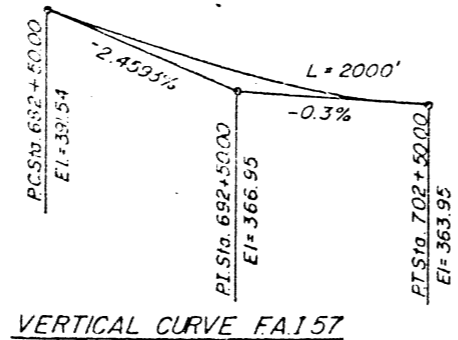
HORIZ CURVE DATA - FAI 57

$L = 500'$ $T = 197.54$
 $S = 20.5$ $L = 2393.33$
 $R = 22,9833$ $E = 31.29$

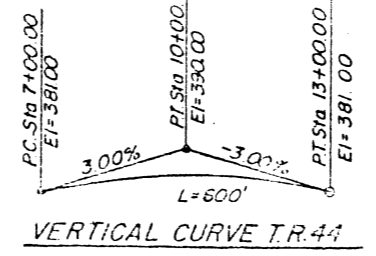
DESIGN STRESSES

$f_c = 1400 \text{ psi}$ (Super & Sub)
 $f_s = 20,000 \text{ psi}$ (Reinf.)
 $f_s = 20,000 \text{ psi}$ (Struct.)
 $w_c = 75 \text{ pcf}$ (Figs.)
 $n = 10$
 $L/4$ Composite
 $L/4$ Non-Composite

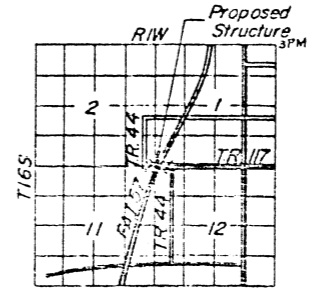
LOADING HS15-44



VERTICAL CURVE FAI 57



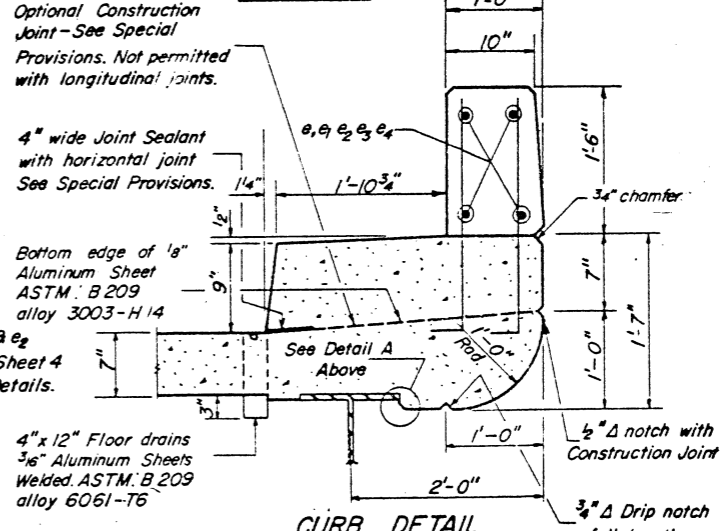
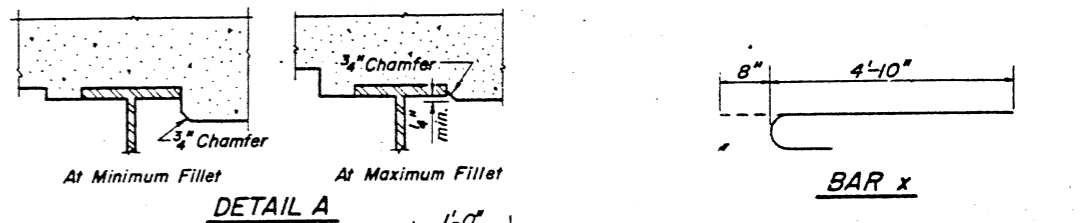
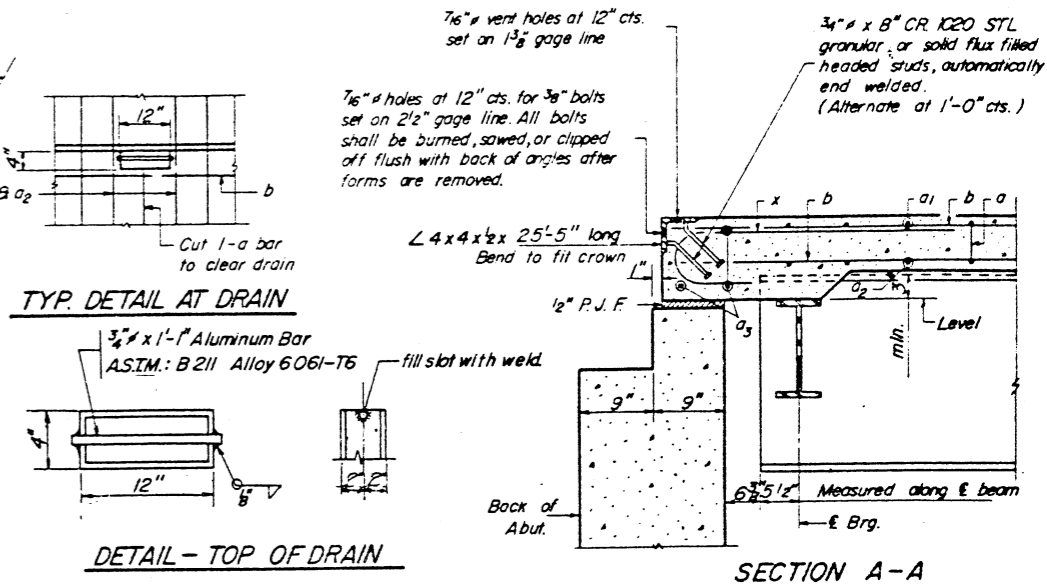
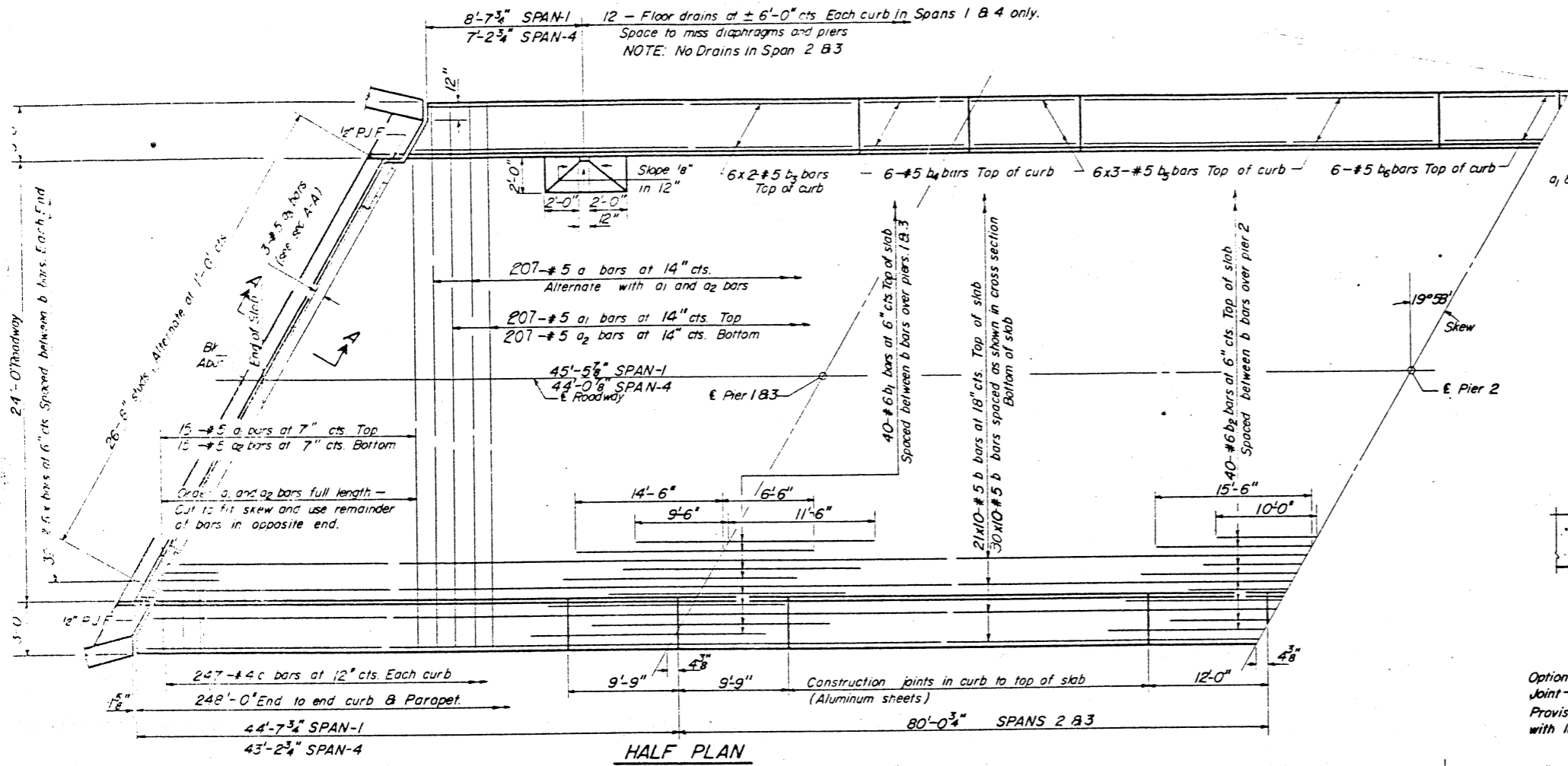
VERTICAL CURVE T.R.44



LOCATION SKETCH

DESIGNED BY	1965
CHECKED BY	
APPROVED BY	

GENERAL PLAN & ELEVATION
T.R.44 over FAI 57
FAI RT. 57 SEC. 77-3HB-1
PULASKI COUNTY
STATION 699+70.31
F.A. PROJECT I-57-1(79)B

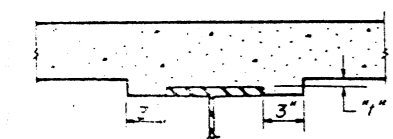


BILL OF MATERIAL

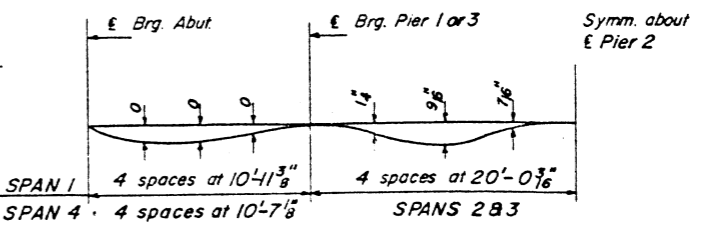
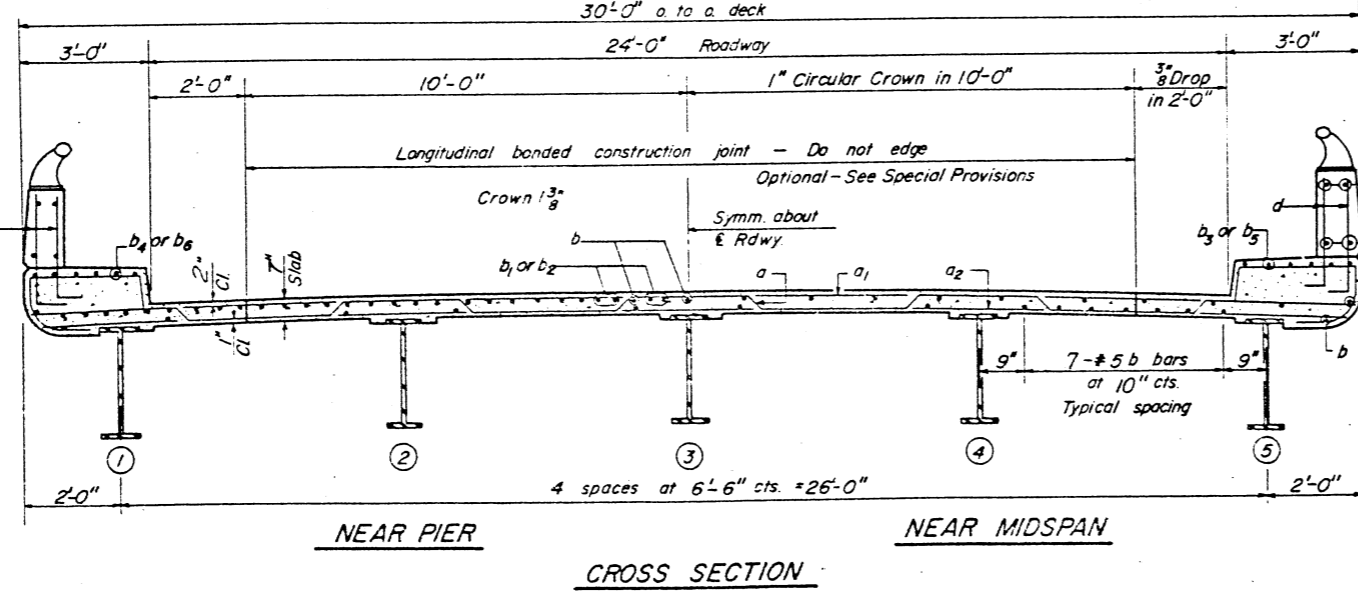
Bar	No.	Size	Length	Shape
a	207	#5	30'-6"	~
a1	222	#5	29'-6"	~
a2	222	#5	28'-9"	~
a3	6	#5	25'-3"	~
b	510	#5	26'-6"	~
b1	80	#6	21'-0"	~
b2	40	#6	25'-6"	~
b3	48	#5	18'-6"	~
b4	48	#5	9'-6"	~
b5	72	#5	20'-6"	~
b6	24	#5	11'-9"	~
c	494	#4	5'-9"	~
d	1104	#5	2'-9"	~
x	64	#6	5'-6"	~
Reinforcement Bars				Lbs. 47,210
Structural Steel				Lbs. 156,960
Class "X" Concrete				Cu. Yd. 2375

* Weight of bearing assemblies with lead plates, and anchor bolts are included as structural steel. Est. Wt = 6900 Lbs.
** Includes parapet quantity.

note:
Bars indicated thus 20x3-#5 etc. indicate 20 lines of bars with 3 lengths per line.
Min. dia. 1025 = 20 dia.



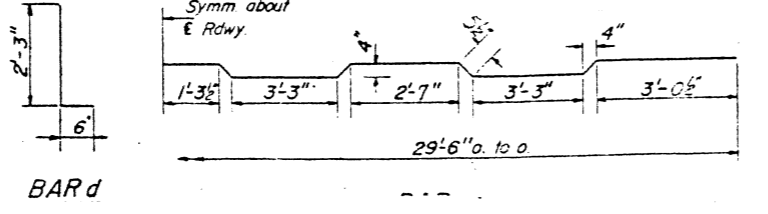
note:
After all structural steel has been set, elevations of the top flanges of the beams to be left at intervals shown on sheet 5. These minus subtracted from the "Grade Elevations Adjusted Less Load Deflections" shown on sheet 5, minus thickness, equals the fillet heights "f" above top beams.



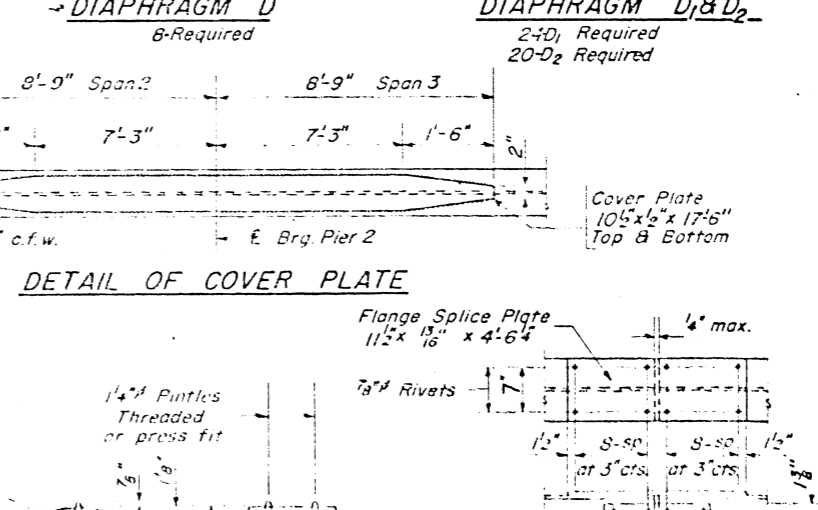
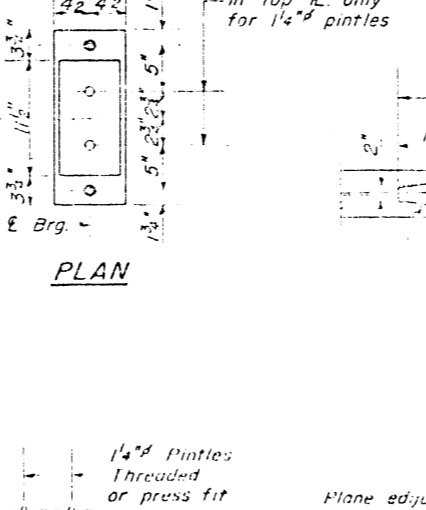
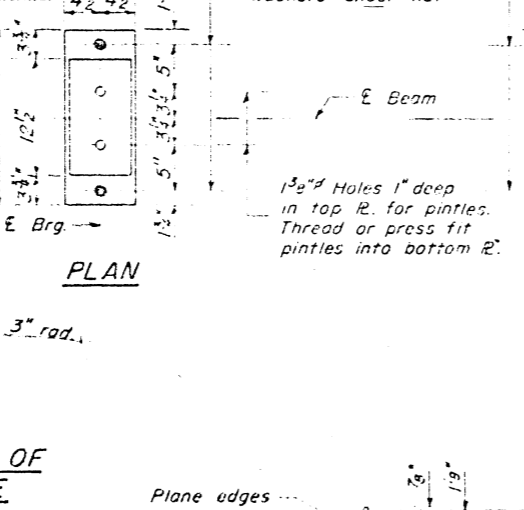
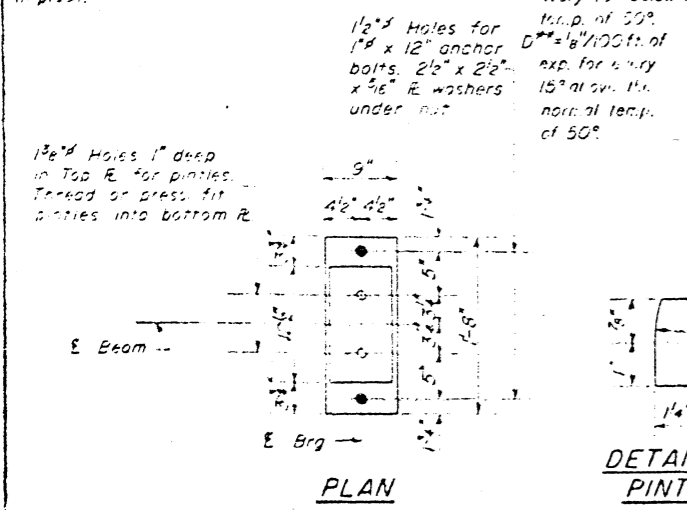
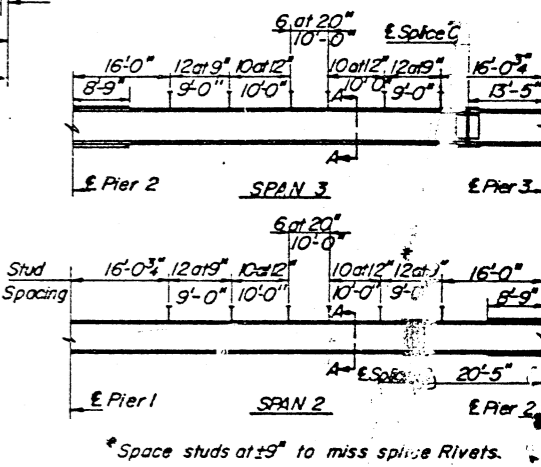
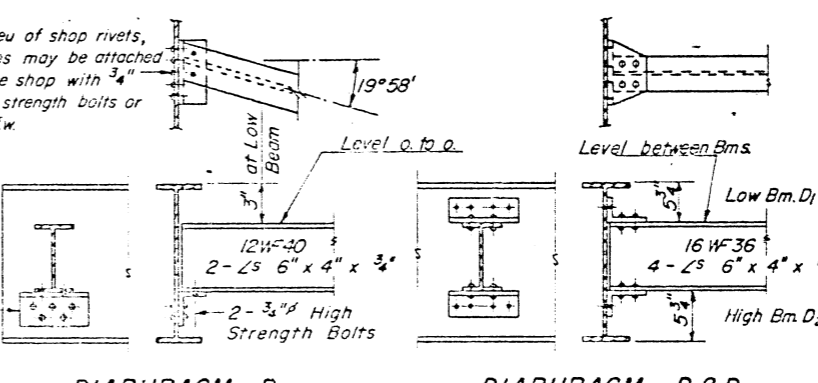
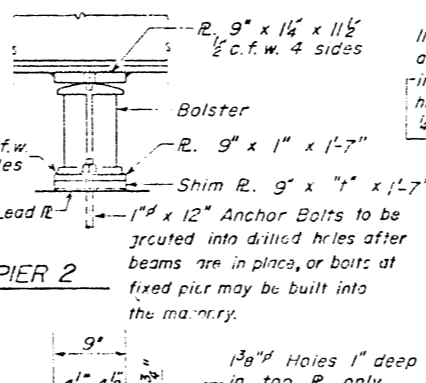
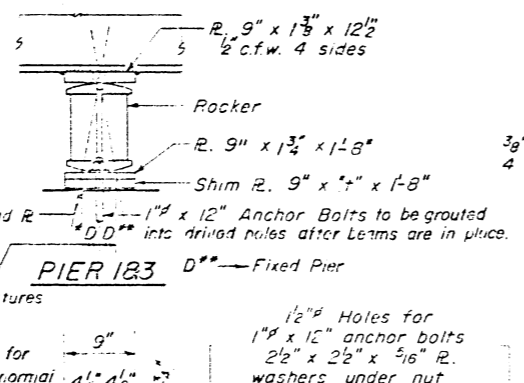
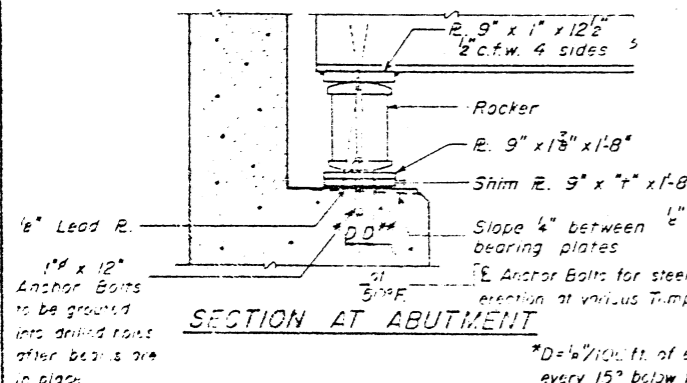
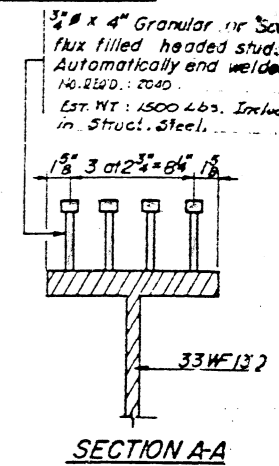
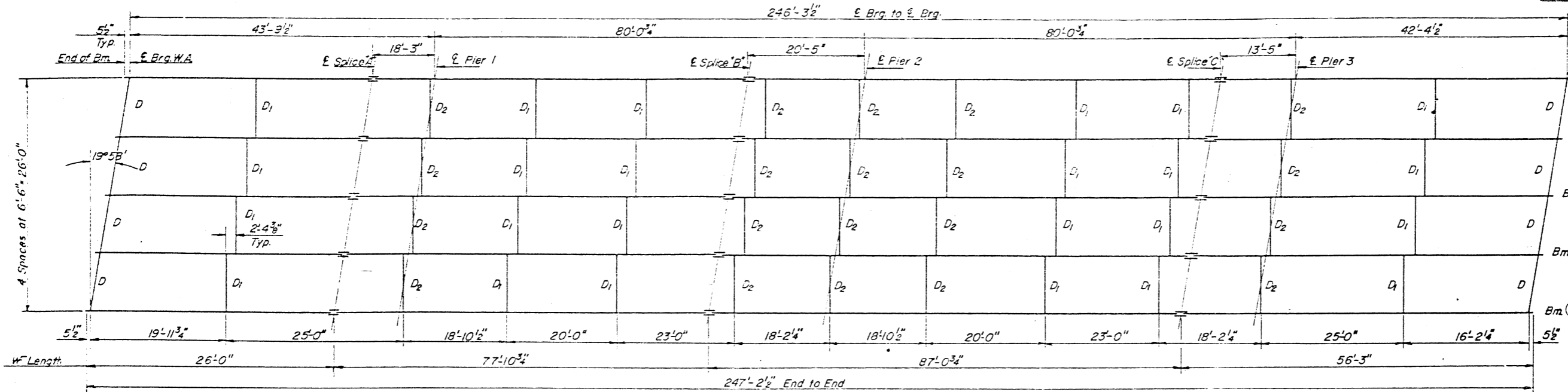
DEAD LOAD DEFLECTION DIAGRAM
(Includes weight of concrete only)
Note: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on sheet 5.

DESIGNED	Kasper
CHECKED	Boerner
BY	R. Ferrando
DATE	1945

EXAMINED	Aug 18 1945
APPROVED	Carl E. Johnson
CHECKED	H. Ferrando
DATE	1945



SUPERSTRUCTURE
T.R. 44 over F.A.I. 57
FAI.RI.57 SEC. 77-348-1
PULASKI COUNTY
STATION 699+70.31



ELEVATION TOP OF WF

Locations	Bm. 1	Bm. 2	Bm. 3	Bm. 4	Bm. 5
End of Brg. W. Abut.	383.96	384.08	384.15	384.08	383.96
Splice A	384.20	384.32	384.39	384.32	384.20
End of Brg. Pier 1	384.31	384.43	384.50	384.43	384.31
Splice B	384.66	384.78	384.85	384.78	384.66
End of Brg. Pier 2	384.61	384.73	384.80	384.73	384.61
Splice C	384.46	384.58	384.65	384.58	384.46
End of Brg. Pier 3	384.34	384.46	384.53	384.46	384.34
End of Brg. E. Abut.	383.96	384.08	384.15	384.08	383.96

DESIGNED BY: J. Kasper
CHECKED BY: J. Kasper
APPROVED BY: J. Kasper

DESIGNED BY: J. Kasper
CHECKED BY: J. Kasper
APPROVED BY: J. Kasper

DESIGNED BY: J. Kasper
CHECKED BY: J. Kasper
APPROVED BY: J. Kasper

DESIGNED BY: J. Kasper
CHECKED BY: J. Kasper
APPROVED BY: J. Kasper

TABLE OF "T" DIMENSIONS:

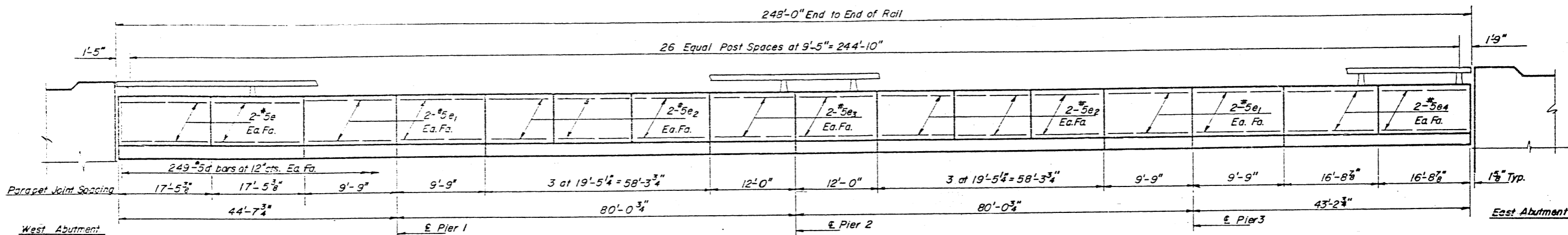
Locations	Bm. 1	Bm. 2	Bm. 3	Bm. 4	Bm. 5
End of Brg. W. Abut.	0	0	0	0	0
End of Brg. Pier 1	0	0	0	0	0
End of Brg. Pier 2	0	0	0	0	0
End of Brg. Pier 3	0	0	0	0	0
End of Brg. E. Abut.	0	0	0	0	0

STRUCTURAL STEEL
TR-44 over FAI 57
FAI RT 57 SEC. 77-3HS-1
PULASKI COUNTY
STATION 699+70.31

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

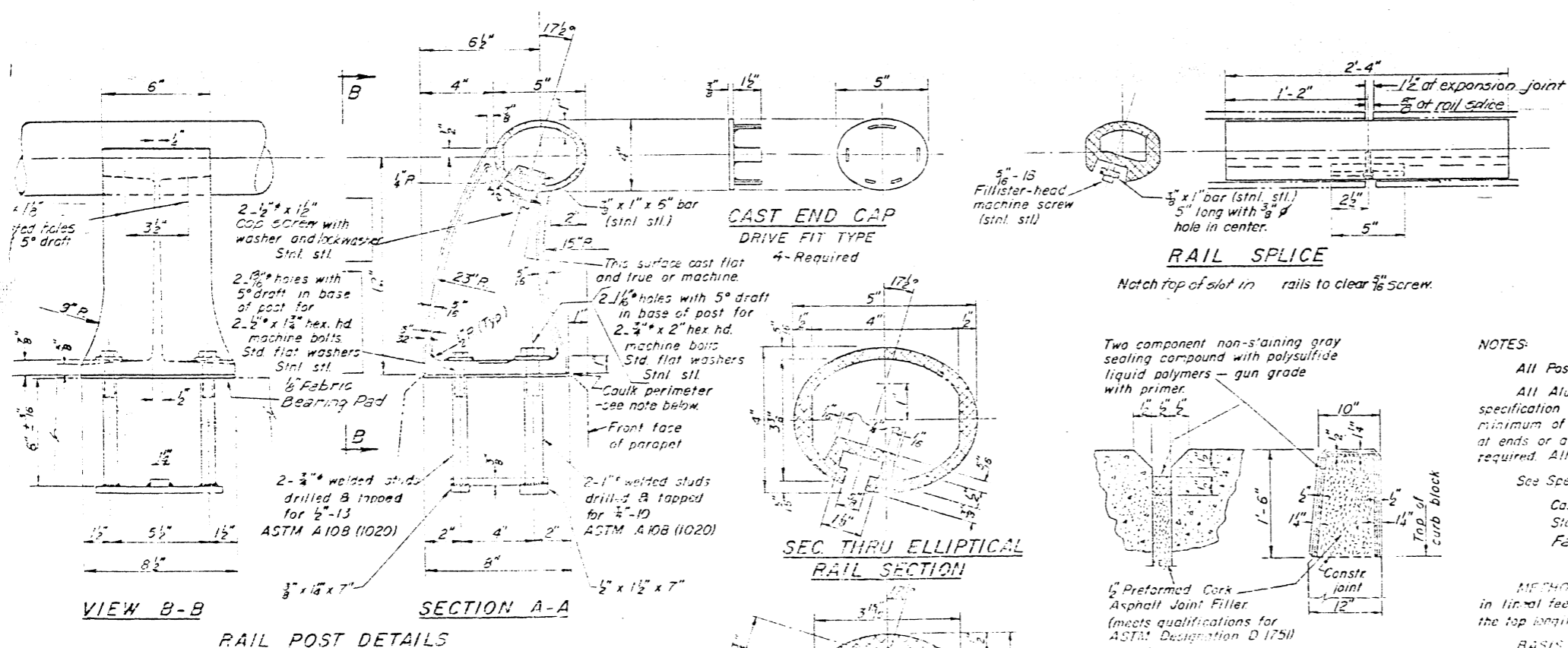
PROJECT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
P.A.I. 57	71/3	PULASKI	138	30
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 4
12 SHEETS



ELEVATION

NOTE:
Place two additional #5d Bars
at inside face of parapet at each post.
#5 bars are banded with Superstructure.



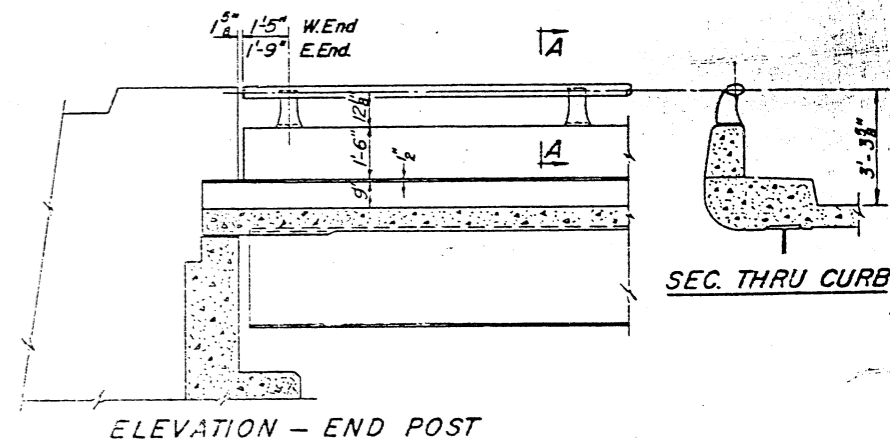
VIEW B-B

RAIL POST DETAILS

SECTION A-A

SEC. THRU ELLIPTICAL
RAIL SECTION

PARAPET JOINT DETAIL



ELEVATION - END POST

SEC. THRU CURB

NOTES:

All Posts shall be normal to parapet.

All Aluminum Alloy Extruded Rail shall conform to ASTM specification B-221 alloy 6061-T6 and shall extend a minimum of 2 panel lengths (attached to minimum of 3 posts) except at ends or at open joints where a minimum of 1 panel length is required. All joints in railing must be spliced per detail.

See Special Provisions for following Material Specifications:

- Cast Aluminum Alloy Bridge Post—Alloy A344-T4.
- Stainless Steel Welded Stud Bolts, Washers, and Locknuts
- Fabric Bearing Pads.

METHOD OF MEASUREMENT: Aluminum handrail shall be measured in linear feet. The length paid for shall be the over all length along the top longitudinal railing member thru all posts and gaps.

BASIS OF PAYMENT: Aluminum handrail shall be paid for at the contract unit price per linear foot for ALUMINUM HANDRAIL, measured as specified, which price shall be payment in full for all materials, fabrication, transportation, and erection.

Cost of rail splice, end caps, and hardware to be incidental to item ALUMINUM HANDRAIL.

Provide 1-#4 and 2-#6 Aluminum Slits in 25% of the Posts. Rail slits shall be parallel to Grade — no spots shall be ground, and low spots shimmed.

BILL OF MATERIAL

Item	Unit	Quantity
ALUMINUM HANDRAIL	Lin. Ft.	496

BAR LIST

BAR	No.	SIZE	LENGTH	SHAPE
e	15	#5	17'-3"	—
e1	32	#5	9'-6"	—
e2	48	#5	19'-3"	—
e3	16	#5	11'-9"	—
e4	16	#5	16'-2"	—
Reinforcement Bars			Lts.	2040

ALUMINUM HANDRAIL
TR 44 over FAI 57
FAI RT 57 SEC 77-3HB-1
PULASKI COUNTY
STATION 699 + 7031

DESIGNED	I. Kasper
CHECKED	W. Kasper
DRAWN	W. Kasper
APPROVED	P. Ferrara

EXAMINED	
PASSED	
APPROVED	

NOTE:
Seal perimeter of base of post to contact with two component non-staining gray sealing compound with polysulfide liquid polyurea — gun grade with primer.

Splice must be a sliding fit in Rail Section

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

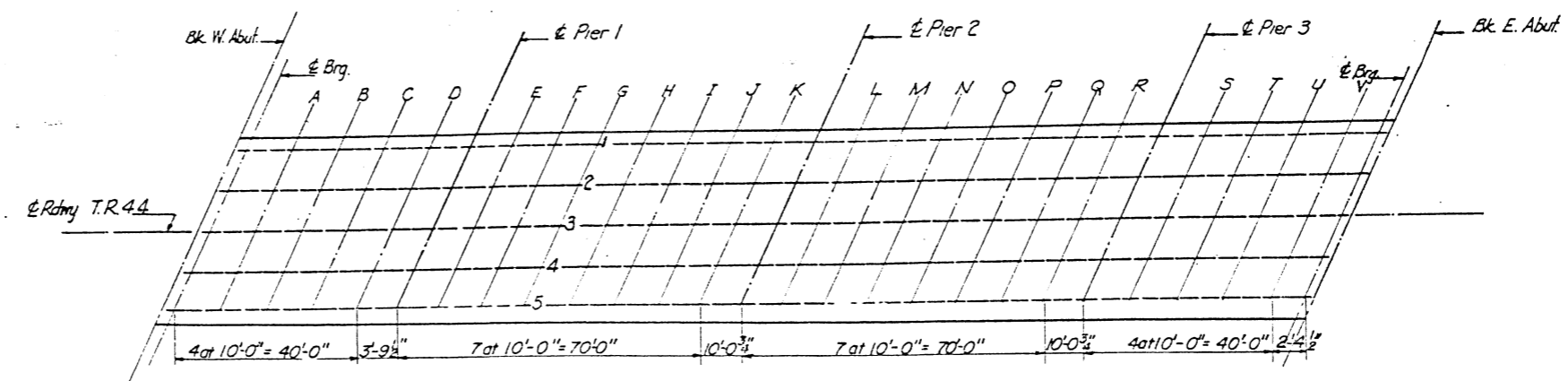
ROUTE NO.	SECTION	COUNTY	TOTAL AREA	SHEET NO.
77(3)	77(3) (WB-1)	PULASKI	138	31
RD. 57		PULASKI COUNTY		

SHEET NO. 5
12 SHEETS

Location	Sta.	Station	Offset	Theoretical Grade Elev.	Theor. Grade Elev. Adj. for Q. Defl.
Sk. W. Abut.	5	865.937	13.000	384.507	384.507
	4	871.198	6.500	384.535	384.535
	3	873.560	.000	384.701	384.701
	2	875.922	6.500	384.895	384.895
	1	875.263	13.000	384.626	384.626
Brg. W. Abut.	5	871.420	13.000	384.540	384.540
	4	873.782	6.500	384.668	384.668
	3	875.143	.000	384.733	384.733
	2	877.505	6.500	384.727	384.727
	1	880.866	13.000	384.657	384.657
A	5	881.420	13.000	384.664	384.664
	4	883.782	6.500	384.734	384.734
	3	885.143	.000	384.852	384.854
	2	887.505	6.500	384.842	384.845
	1	890.866	13.000	384.771	384.772
B	5	891.420	13.000	384.777	384.778
	4	893.782	6.500	384.901	384.901
	3	896.143	.000	384.981	384.981
	2	898.505	6.500	384.950	384.950
	1	900.866	13.000	384.875	384.876
C	5	901.420	13.000	384.881	384.881
	4	903.782	6.500	385.000	385.002
	3	906.143	.000	385.060	385.060
	2	908.505	6.500	385.046	385.046
	1	910.866	13.000	384.969	384.969
D	5	911.420	13.000	384.974	384.974
	4	913.782	6.500	385.093	385.093
	3	916.143	.000	385.145	385.148
	2	918.505	6.500	385.133	385.133
	1	920.866	13.000	385.054	385.054
E Pier 1	5	915.212	13.000	385.007	385.007
	4	917.573	6.500	385.125	385.125
	3	919.935	.000	385.179	385.179
	2	922.297	6.500	385.163	385.163
	1	924.658	13.000	385.083	385.083
E	5	925.212	13.000	385.087	385.089
	4	927.573	6.500	385.203	385.214
	3	929.935	.000	385.255	385.256
	2	932.297	6.500	385.236	385.247
	1	934.658	13.000	385.153	385.155
F	5	935.212	13.000	385.157	385.180
	4	937.573	6.500	385.270	385.293
	3	939.935	.000	385.320	385.343
	2	942.297	6.500	385.298	385.321
	1	944.658	13.000	385.214	385.237
G	5	945.212	13.000	385.217	385.251
	4	947.573	6.500	385.327	385.362
	3	949.935	.000	385.375	385.409
	2	952.297	6.500	385.351	385.385
	1	954.658	13.000	385.264	385.298

Location	Sta.	Station	Offset	Theoretical Grade Elev.	Theor. Grade Elev. Adj. for Q. Defl.
H	5	955.212	13.000	385.258	385.312
	4	957.573	6.500	385.375	385.421
	3	959.935	.000	385.420	385.465
	2	962.297	6.500	385.394	385.440
	1	964.658	13.000	385.304	385.350
I	5	965.212	13.000	385.305	385.347
	4	967.573	6.500	385.412	385.453
	3	969.935	.000	385.455	385.496
	2	972.297	6.500	385.422	385.467
	1	974.658	13.000	385.335	385.375
J	5	975.212	13.000	385.336	385.371
	4	977.573	6.500	385.440	385.474
	3	979.935	.000	385.480	385.515
	2	982.297	6.500	385.445	385.484
	1	984.658	13.000	385.359	385.390
K	5	985.212	13.000	385.386	385.419
	4	987.573	6.500	385.487	385.515
	3	989.935	.000	385.525	385.572
	2	992.297	6.500	385.492	385.549
	1	994.658	13.000	385.385	385.433
E Pier 2	5	995.212	13.000	385.366	385.366
	4	997.573	6.500	385.455	385.455
	3	999.935	.000	385.500	385.500
	2	1002.297	6.500	385.465	385.465
	1	1004.658	13.000	385.366	385.366
L	5	1005.212	13.000	385.366	385.366
	4	1007.573	6.500	385.462	385.472
	3	1009.935	.000	385.505	385.512
	2	1012.297	6.500	385.457	385.474
	1	1014.658	13.000	385.356	385.372
M	5	1015.212	13.000	385.355	385.390
	4	1017.573	6.500	385.442	385.484
	3	1019.935	.000	385.480	385.515
	2	1022.297	6.500	385.440	385.474
	1	1024.658	13.000	385.336	385.371
N	5	1025.212	13.000	385.335	385.375
	4	1027.573	6.500	385.427	385.467
	3	1029.935	.000	385.455	385.495
	2	1032.297	6.500	385.412	385.453
	1	1034.658	13.000	385.306	385.347
O	5	1035.212	13.000	385.305	385.350
	4	1037.573	6.500	385.394	385.440
	3	1039.935	.000	385.420	385.465
	2	1042.297	6.500	385.375	385.421
	1	1044.658	13.000	385.257	385.213
P	5	1045.212	13.000	385.284	385.299
	4	1047.573	6.500	385.351	385.365
	3	1049.935	.000	385.375	385.410
	2	1052.297	6.500	385.329	385.362
	1	1054.658	13.000	385.217	385.252

Location	Sta.	Station	Offset	Theoretical Grade Elev.	Theoretical Grade Elev. Adj. for Q. Defl.
Q	5	1055.274	13.000	385.214	385.237
	4	1057.535	6.500	385.292	385.322
	3	1059.998	.000	385.320	385.343
	2	1062.359	6.500	385.270	385.293
	1	1064.721	13.000	385.157	385.180
R	5	1065.274	13.000	385.154	385.165
	4	1067.535	6.500	385.236	385.248
	3	1069.998	.000	385.255	385.267
	2	1072.359	6.500	385.203	385.215
	1	1074.721	13.000	385.088	385.099
E Pier 3	5	1075.337	13.000	385.083	385.083
	4	1077.698	6.500	385.163	385.163
	3	1080.060	.000	385.180	385.180
	2	1082.422	6.500	385.125	385.125
	1	1084.783	13.000	385.007	385.007
S	5	1085.337	13.000	385.003	385.003
	4	1087.698	6.500	385.080	385.080
	3	1090.060	.000	385.094	385.094
	2	1092.422	6.500	385.038	385.038
	1	1094.783	13.000	384.918	384.918
T	5	1095.337	13.000	384.912	384.912
	4	1097.698	6.500	384.988	384.988
	3	1100.060	.000	384.999	384.999
	2	1102.422	6.500	384.940	384.940
	1	1104.783	13.000	384.818	384.818
U	5	1105.337	13.000	384.812	384.813
	4	1107.698	6.500	384.885	384.885
	3	1110.060	.000	384.894	384.895
	2	1112.422	6.500	384.833	384.834
	1	1114.783	13.000	384.708	384.709
V	5	1115.337	13.000	384.702	384.702
	4	1117.698	6.500	384.772	384.772
	3	1120.060	.000	384.779	384.780
	2	1122.422	6.500	384.715	384.716
	1	1124.783	13.000	384.588	384.588
E Pier 4	5	1117.712	13.000	384.674	384.674
	4	1120.073	6.500	384.744	384.744
	3	1122.435	.000	384.750	384.750
	2	1124.797	6.500	384.686	384.686
	1	1127.158	13.000	384.558	384.558
Sk. E. Abut.	5	1120.295	13.000	384.643	384.643
	4	1122.657	6.500	384.713	384.713
	3	1125.018	.000	384.719	384.719
	2	1127.380	6.500	384.654	384.654
	1	1129.741	13.000	384.525	384.525



DESIGNED I. Kasper
CHECKED David...
DRAWN I.K.
EXAMINED...
PASSED...
APPROVED...

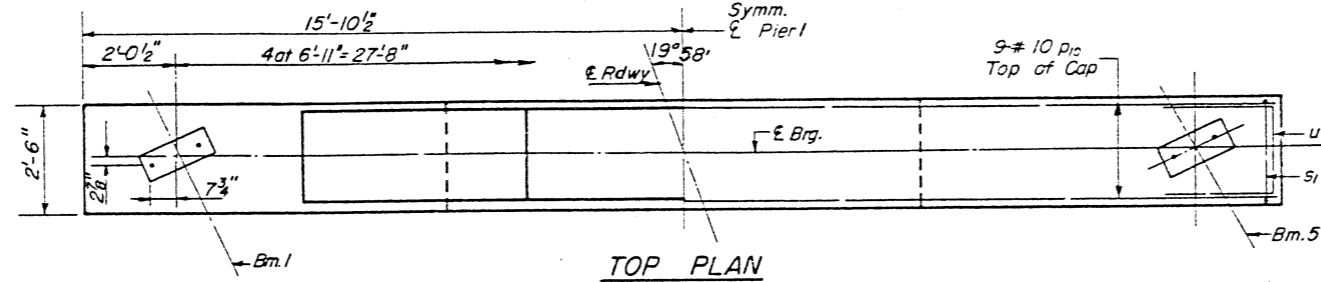
TOP OF SLAB ELEVATION.
FA. I. RT. 57 SEC. 77-3rd-
PULASKI COUNTY
STA. 699 + 70.31

PLAN

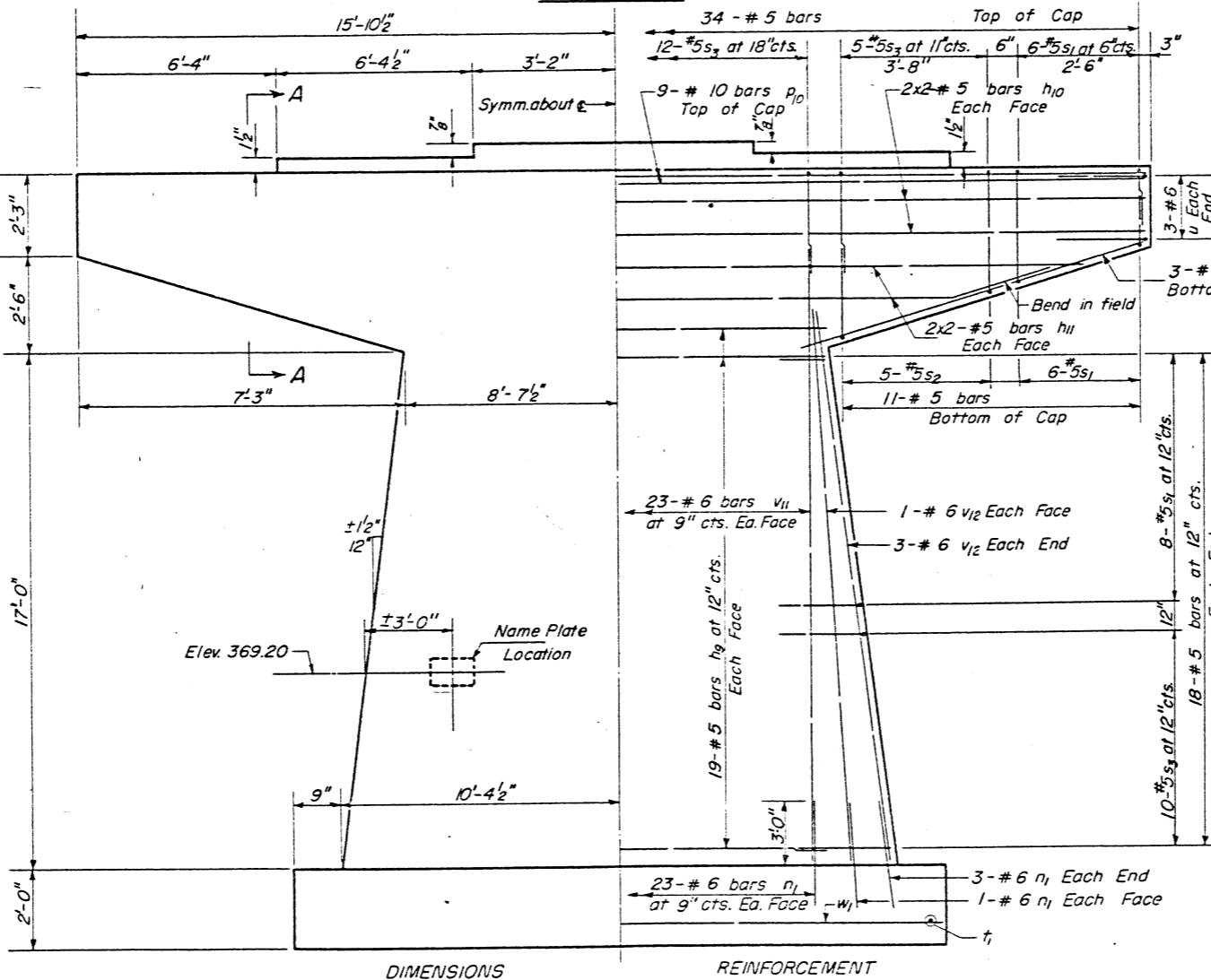
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	SHEET NO.	TOTAL SHEETS
77/3 PULASKI	138	32		

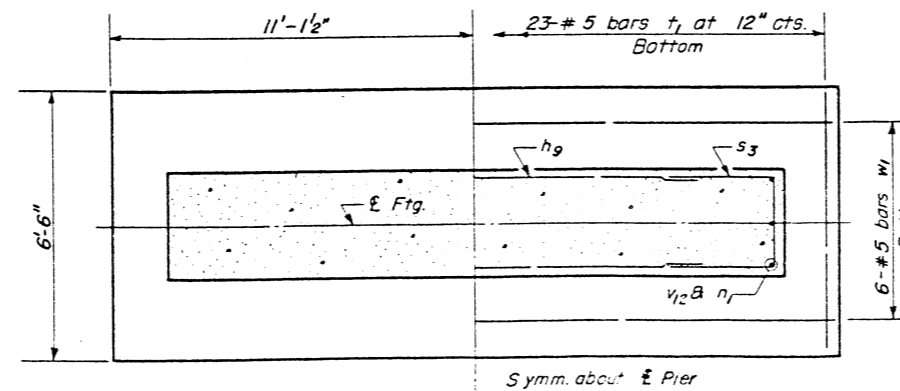
SHEET NO. 138
OF 138 SHEETS



TOP PLAN



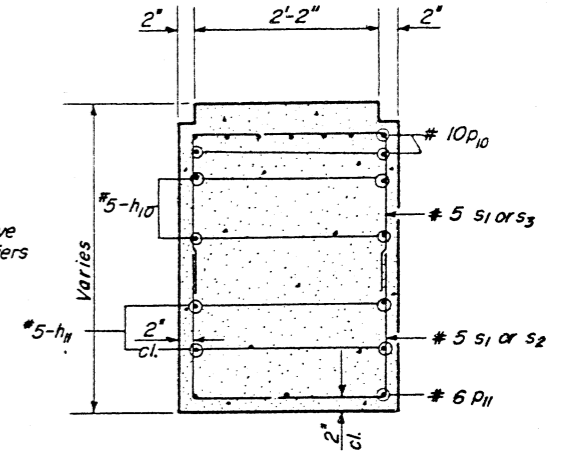
ELEVATION



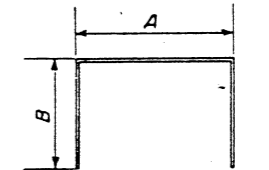
DIMENSIONS

REINFORCEMENT

Note: All edges shall have standard 3/4" chamfers except footings.



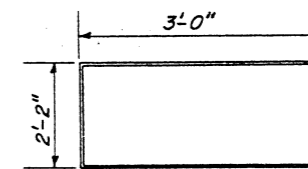
SECTION A-A



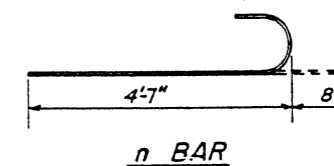
A & B DIMENSIONS

Bar	A	B
s ₁	2'-2"	2'-0"
s ₂	2'-2"	2'-6"
s ₃	2'-2"	3'-0"

s BARS



u BAR

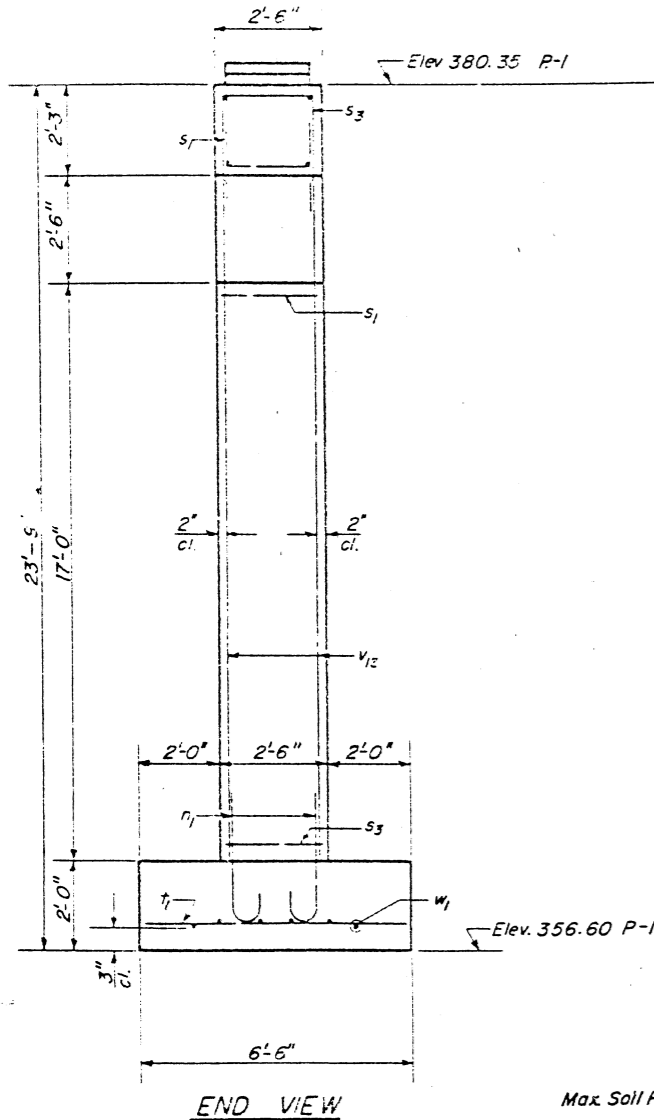


n BAR

PIER 1
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h _g	38	#5	17'-0"	—
h _l	8	#5	16'-6"	—
h _{ll}	8	#5	14'-6"	—
n ₁	56	#6	5'-3"	⌋
p ₁₀	9	#10	3'-6"	—
p ₁₁	6	#6	8'-3"	—
s ₁	40	#5	6'-2"	⌋
s ₂	10	#5	7'-2"	⌋
s ₃	42	#5	8'-2"	⌋
t ₁	23	#5	6'-3"	—
u	6	#6	8'-2"	⌋
v ₁₁	46	#6	19'-6"	—
v ₁₂	10	#6	18'-6"	—
w ₁	6	#5	22'-0"	—
Class "x" Concrete				Cu. Yds. 53.1
Reinforcement Bars				Lbs. 5340

PIER-1
T.R.44 over F.A.I.R.T. 57
F.A.I.R.T. 57 SEC. 77-3HB
PULASKI COUNTY



END VIEW

Max. Soil Pressure = 2.4 T₁₁

DESIGNED	I. Kaspar
CHECKED	R. Ferrando
DRAWN	W.A. Souders
CHECKED	S.J.

EXAMINED	1915
PASSED	
APPROVED	

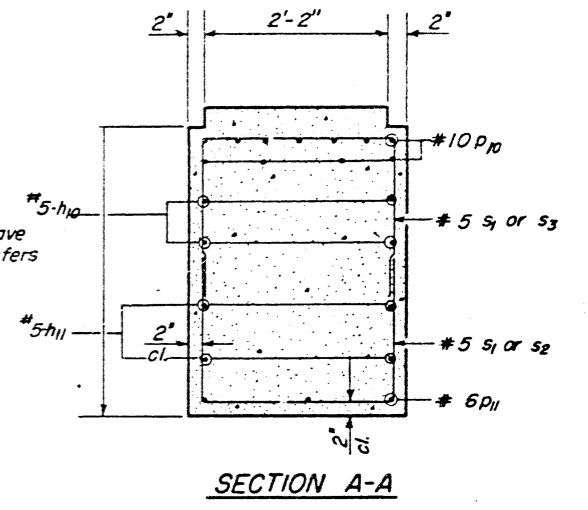
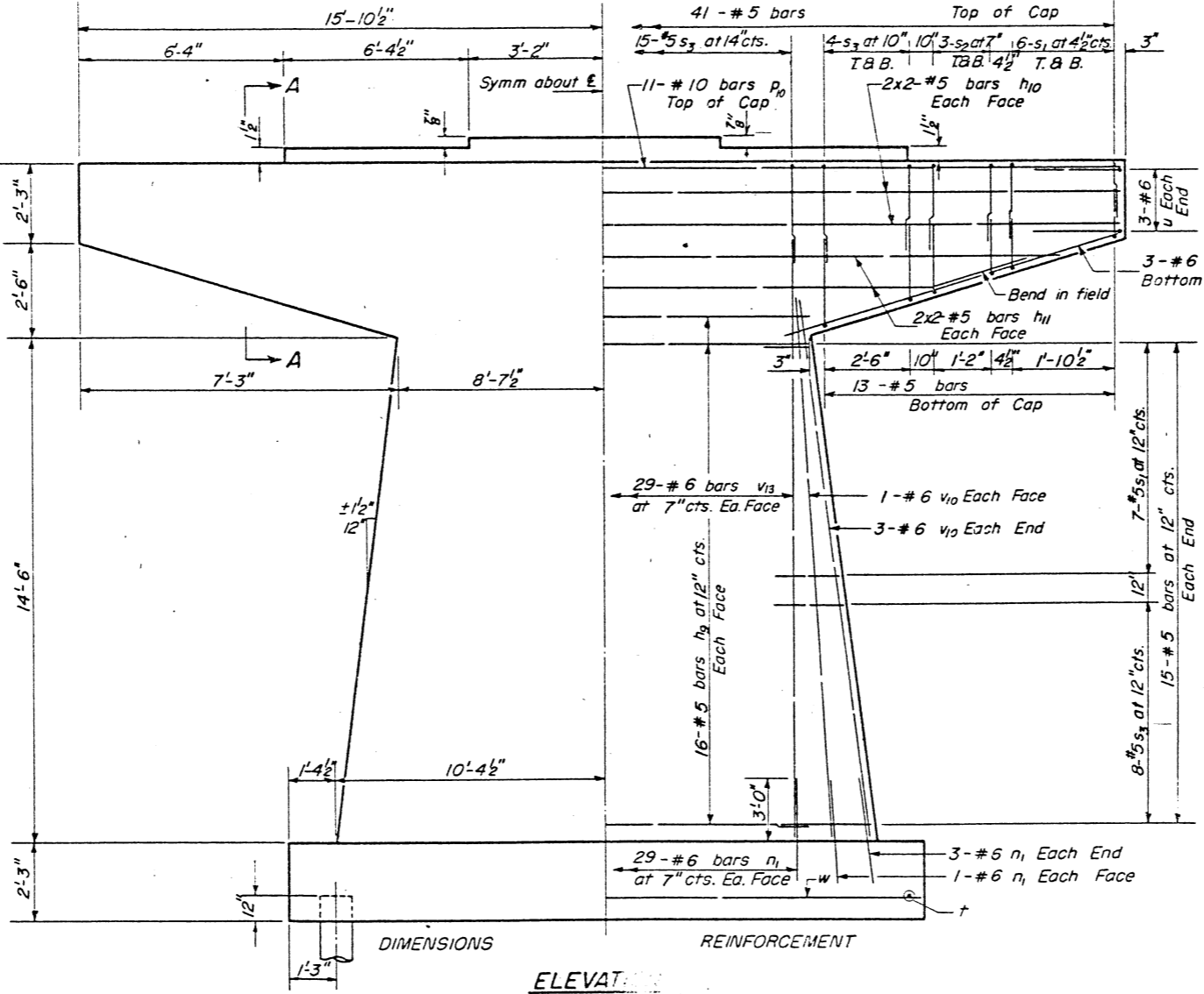
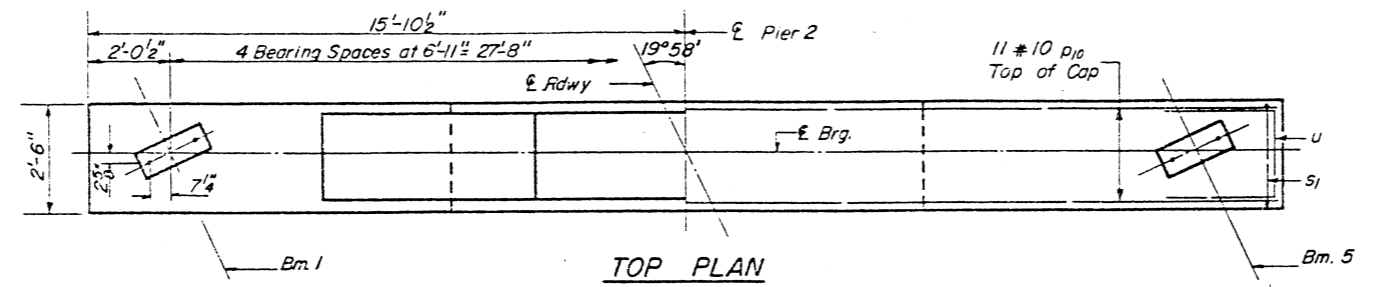
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1-57	77-3 3HB-1	PULASKI	138	33
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

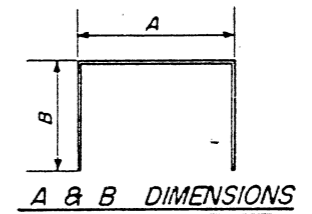
SHEET NO. 12 SHE.

PILE DATA

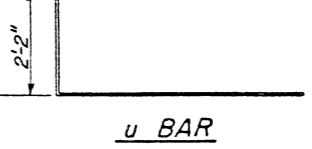
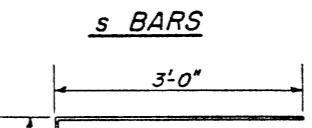
Type: *Crossed with Metal Pile Shoes*
Capacity: 22 Tons
Est. Length: 19 ft.
No. Req'd: 24 + 1 Test Pile



Note: All edges shall have standard 3/4\"/>

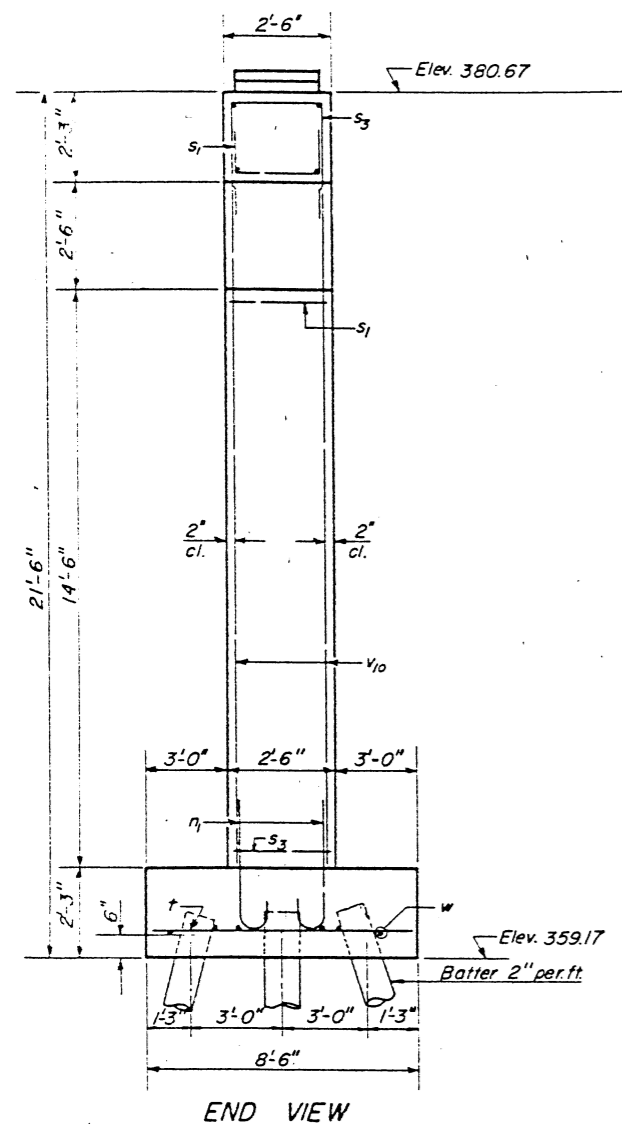


Bar	A	B
s1	2'-2"	2'-0"
s2	2'-2"	2'-6"
s3	2'-2"	3'-0"



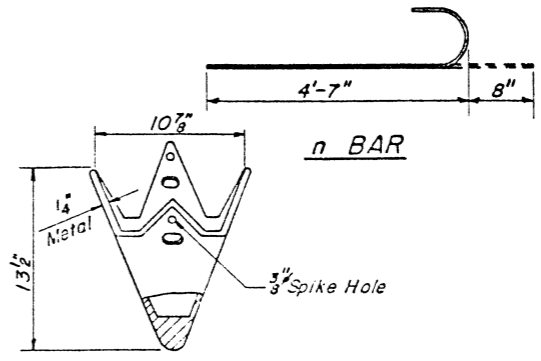
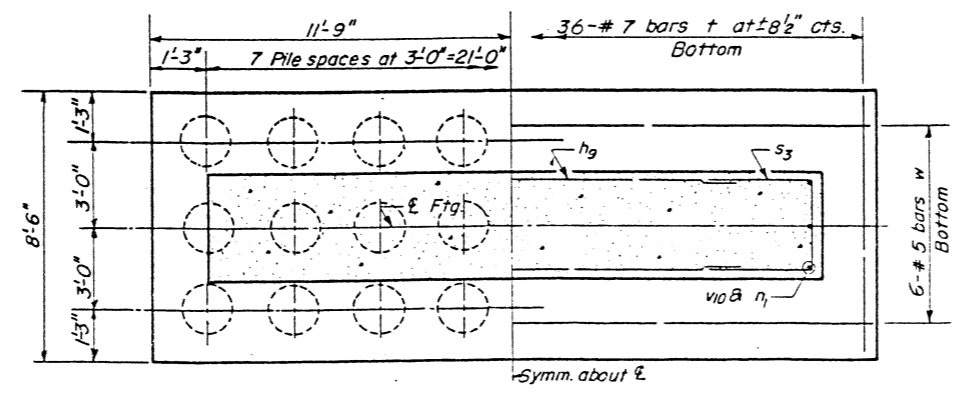
**PIER-2
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h9	32	#5	17'-0"	—
h10	8	#5	16'-6"	—
h11	8	#5	14'-6"	—
n1	68	#6	5'-3"	⌋
p12	11	#10	3'-6"	⌋
p11	6	#6	8'-3"	—
s1	38	#5	6'-2"	⌋
s2	12	#5	7'-2"	⌋
s3	47	#5	8'-2"	⌋
t	36	#7	8'-3"	—
u	6	#6	8'-2"	⌋
v13	58	#6	17'-0"	—
v10	10	#6	15'-6"	—
w	6	#5	23'-3"	—
Class "X" Concrete			Cu. Yds.	54.2
Reinforcement Bars			Lbs.	6190
Creosoted Piles			Lin. Ft.	456
Test Piles (Timber)			Each	1
Metal Shoes			Each	24



NOTE:
The Contractor shall use Metal Pile Shoes in driving the Piles.
The Contractor is cautioned against over-driving the piles in order to minimize chances of pile damage.

DESIGNED	I. Kasper	EXAMINED	D. E. Johnson
CHECKED	F. Ferrando	PASSED	H. J. ...
DESIGN	W. Sausaman	APPROVED	J. E. ...



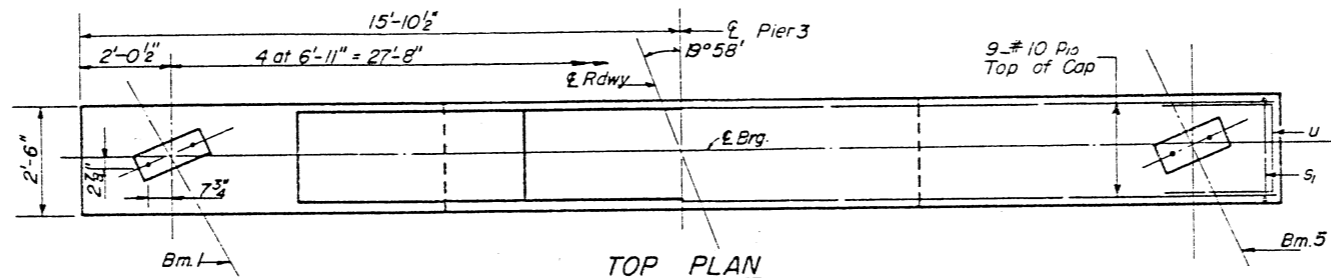
PIER-2
T.R. 44 over F.A.I. RT 57
F.A.I. RT 57 SEC. 77-3HB-1
PULASKI COUNTY
STATION 699+70.31

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

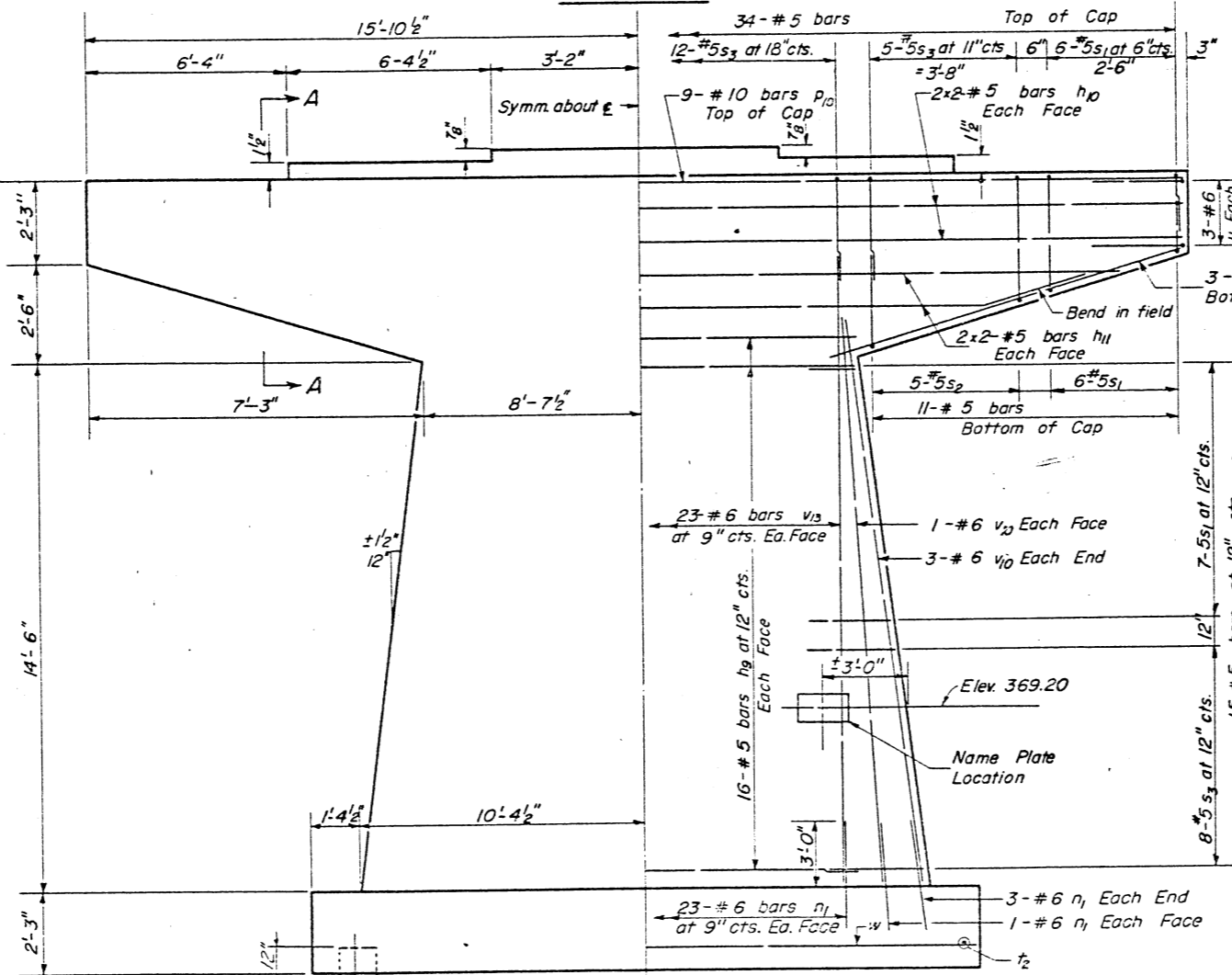
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
77/3	3A(2-1)	PULASKI	138	2
FAI-57				12 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

FILE DATA

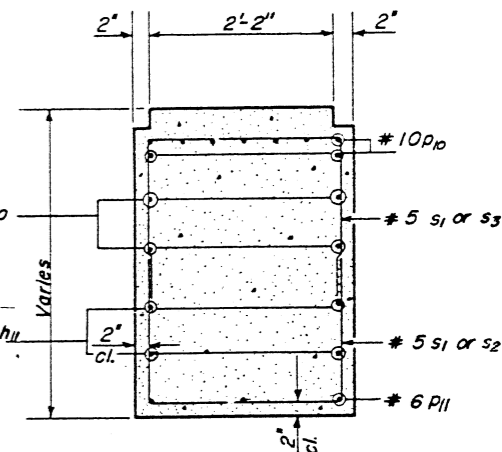
Top: Erected with metal shoes
Quantity: 20 Tons
Set Length: 19 Ft.
No. Piles: 20



TOP PLAN

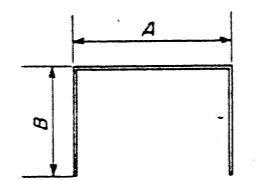


ELEVATION



SECTION A-A

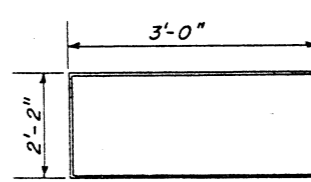
Note: All edges shall have standard 3/4\"/>



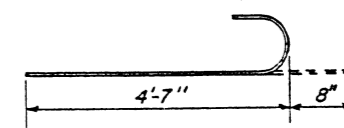
A & B DIMENSIONS

Bar	A	B
s ₁	2'-2"	2'-0"
s ₂	2'-2"	2'-6"
s ₃	2'-2"	3'-0"

s BARS



u BAR



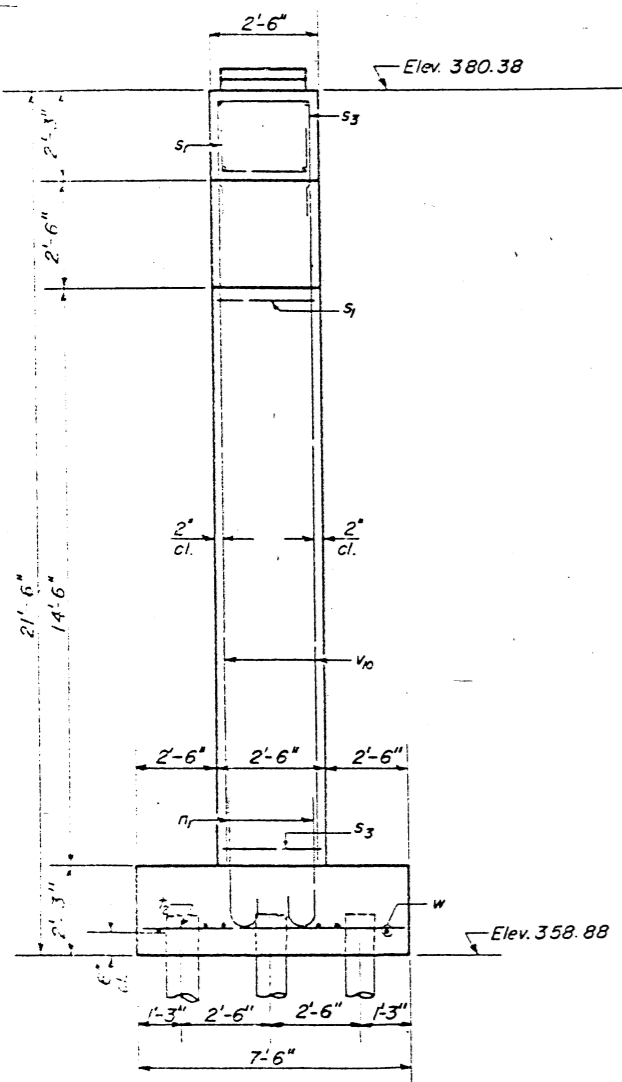
n BAR

PIER-3
BILL OF MATERIAL

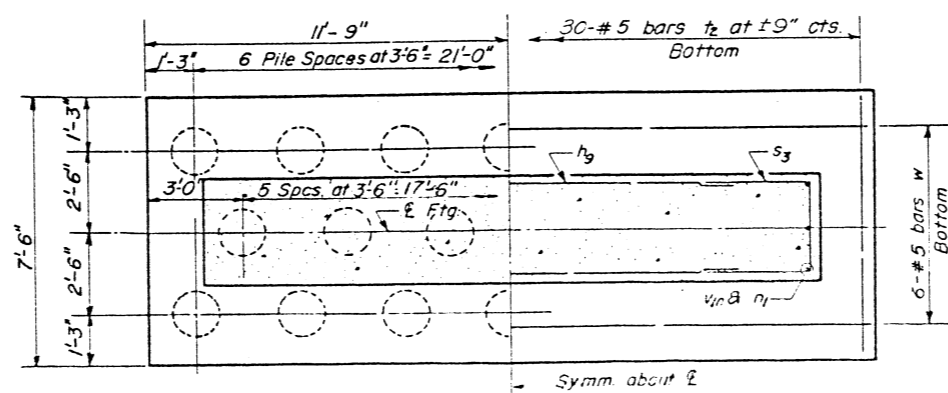
Bar	No.	Size	Length	Shape
h ₉	32	#5	17'-0"	—
h ₁₀	8	#5	16'-6"	—
h ₁₁	8	#5	14'-6"	—
n ₁	56	#6	5'-3"	U
p ₁₀	9	#10	31'-6"	—
p ₁₁	6	#6	8'-3"	—
s ₁	38	#5	6'-2"	□
s ₂	10	#5	7'-2"	□
s ₃	38	#5	8'-2"	□
t ₂	30	#5	7'-3"	—
u	6	#6	8'-2"	□
v ₁₃	46	#6	17'-0"	—
v ₁₀	10	#6	15'-6"	—
w	6	#5	23'-3"	—
Class x Concrete			Cu. Yds.	52.3
Reinforcement Bars			Lbs.	5050
Crossed Piles			Li. Ft.	350
Metal Shoes			Each	20

NOTE:
For Details of Metal Piles
Shoes see Sheet 7...

PIER 3
T.R. 44 over FAI RT. 57
FAI RT. 57 SEC. 77-3HB
PULASKI COUNTY



END VIEW



DIMENSIONS

REINFORCEMENT

DESIGNED	I. Kosar
CHECKED	R. Ferris
DATE	11/18/57

EXAMINED	Carl E. Thomson
PASSED	H. J. [Signature]
APPROVED	J. C. [Signature]

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

COUNTY Pulaski				
Boring No.	Station	Offset	Elevation	N
1-5	772	9' Rt.	390.70	
Ground Surface				
Medium moist brown silty clay A-6(10-11)				
			387.7	
			12	0.98 27
			-3	1.08 27
Medium moist brown silty clay loam A-4(8)				
			18	0.85 26
			-	1.08 26
			13	1.05 21
			-10	1.03 21
			11	0.68 27
			-	0.68 27
Medium very moist brown silt loam A-4(8)				
			10	0.88 28
			775.415	0.88 28
			9	1.08 24
			-	1.38 24
Medium to stiff moist brown silty clay loam A-4(8) to A-6(9)				
			10	1.48 23
			-20	1.38 23
			9	1.28 23
			-	1.18 23
See previous column				
			8	1.88 30
			365.425	1.68 30
Stiff moist brown silty clay A-6(11)				
			8	1.28 26
			362.7	1.48 26
Medium to stiff very moist to moist silty clay loam A-4(8)				
			7	0.68 33
			360.930	1.18 33
Stiff moist brown clay loam A-6(10)				
			12	1.28 16
			358.2	-
Dense very moist brown coarse sand				
			28	2.98 21
			-35	2.38 21
			28	3.38 21
			-	2.98 21
Very stiff to hard moist white mottled yellow clay A7-6(17)				
			24	2.48 21
			-40	2.48 21

COUNTY Pulaski				
Boring No.	Station	Offset	Elevation	N
2-5	922	6' Lt.	388.00	
Ground Surface				
Medium moist brown silty clay loam A-4(8)				
			22	2.48 21
			-	2.98 21
			27	2.18 24
			45	2.18 24
Very stiff to hard moist white mottled yellow clay A7-6(17)				
			26	2.08 24
			-	4.48 24
			15	0.78 23
			379.0	1.08 24
			-80	1.38 24
Medium moist brown silty clay loam A-4(8)				
			22	2.18 24
			-	7.38 24
Stiff moist brown silty clay loam A-6(9-10)				
			27	3.38 24
			8-45	4.98 24
Medium wet brown fine sand				
			21	-
			-	-
			10	1.48 23
Very dense brown fine grained sand				
			100 blows in 9 inches	23
			328.7	100 blows in 9 inches
Very dense light brown fine to coarse grained sand				
			70	1.28 22
Stiff moist brown mottled grey sandy clay loam A-2-4(3)				
			323.7	11
Stiff moist grey clay A7-6(20)				
			322.7	11
Bottom of hole = 68.0 feet				
During drilling operations, it appeared that free water was encountered at 31.5 feet.				
Washing procedure was used in drilling between 58.0 and 64.0 feet.				
Location: S47, S84, Sec. 1, T16S, R1W				

Surface Water El. None
Groundwater El. at Completion 338.7
After 2 Hours -

COUNTY Pulaski				
Boring No.	Station	Offset	Elevation	N
2-5	922	6' Lt.	388.00	
Ground Surface				
Hard to stiff damp grey mottled brown and red clay A7-6(17)				
			33	3.18 18
Medium moist brown mottled grey silty loam to silty clay loam A-4(8)				
			-3	16 0.98 19
			15	0.78 23
			379.0	0.68 26
Medium moist brown silty clay loam A-4(8)				
			10	1.68 24
Stiff moist brown silty clay loam A-6(9-10)				
			-15	11 1.38 23
Medium wet brown fine sand				
			10	1.48 23
Stiff moist brown silty clay to clay A7-6(15)				
			-20	11 1.88 24
Stiff moist brown mottled grey silty clay loam A-6(9-10)				
			10	1.08 31
Stiff moist brown mottled black silty clay A-6(10-11)				
			-25	9 1.48 25
Medium moist brown mottled black clay loam and gravel A-6(11-12)				
			17	0.58 19
Dense moist reddish brown coarse grained SAND with clay LOAM binder				
			-30	45 - 10
Stiff moist grey mottled red silty clay loam to clay loam A-6(9-10)				
			28	1.68 16
Dense wet reddish brown coarse grained sand with clay loam binder				
			-35	42 - 12
Hard to stiff damp grey mottled brown and red clay A7-6(17)				
			38	9.88 15
			-40	28 3.88 18

COUNTY Pulaski				
Boring No.	Station	Offset	Elevation	N
3-5	928	6' Lt.	387.70	
Ground Surface				
Hard to stiff damp grey mottled brown and red clay A7-6(17)				
			33	3.18 18
Medium moist brown mottled grey silt loam to silty clay loam A-4(8)				
			-3	13 0.48 28
			6	0.38 19
			374.7	0.78 28
Medium moist brown silty clay loam A-4(8)				
			-10	8 0.78 28
Medium to stiff moist brown mottled grey and black silty clay loam A-6(10)				
			8	1.08 24
Medium brown mottled grey fine grained sand				
			-15	9 1.38 25
Medium moist brown mottled grey sandy clay loam A-4(5)				
			7	1.18 22
Stiff moist brown mottled grey clay A7-6(20*)				
			-20	10 1.38 32
Stiff moist brown mottled grey silty clay loam A-6(9-10)				
			9	1.08 31
Stiff moist grey clay A7-6(20*)				
			-25	14 2.08 56
Very stiff moist grey clay SHALE				
			23	2.78 -
Bottom of hole = 70.0 ft.				
			34	5.48 -
During drilling operations, it appeared that free water was encountered at 34.0 ft.				
Washing procedure was used in drilling from 50.0 to 59.0 ft.				

COUNTY Pulaski				
Boring No.	Station	Offset	Elevation	N
3-5	928	6' Lt.	387.70	
Ground Surface				
Medium moist brown silty clay loam A-4(8)				
			-3	13 0.48 28
			6	0.38 19
			374.7	0.78 28
Medium moist brown silty clay loam A-4(8)				
			-10	8 0.78 28
Medium to stiff moist brown mottled grey and black silty clay loam A-6(10)				
			8	1.08 24
Medium brown mottled grey fine grained sand				
			-15	9 1.38 25
Medium moist brown mottled grey sandy clay loam A-4(5)				
			7	1.18 22
Stiff moist brown mottled grey clay A7-6(20*)				
			-20	10 1.38 32
Stiff moist brown mottled grey silty clay loam A-6(9-10)				
			9	1.08 31
Stiff moist grey clay A7-6(20*)				
			-25	14 2.08 56
Very stiff moist grey clay SHALE				
			23	2.78 -
Bottom of hole = 70.0 ft.				
			34	5.48 -
During drilling operations, it appeared that free water was encountered at 34.0 ft.				
Washing procedure was used in drilling from 50.0 to 59.0 ft.				

COUNTY Pulaski				
Boring No.	Station	Offset	Elevation	N
3-5	928	6' Lt.	387.70	
Ground Surface				
See previous sheet				
			341.7	100 blows in 9 inches
Dense to very dense light brown coarse grained sand				
			45	100 blows in 11 inches
			337.2	24 0.78 -
Medium moist grey mottled brown sandy clay loam A-4(5)				
			334.7	56 2.48 17
Very stiff moist grey mottled brown clay A7-6(17)				
			332.2	37 0.78 22
Medium moist grey mottled brown sandy clay loam A-2-4(3)				
			329.7	20 0.98 24
Medium moist brown mottled grey sandy clay loam A-2-4(3)				
			17	0.88 26
Very stiff moist grey to mottled brown clay A7-6(20)				
			324.7	14 2.48 48
Bottom of hole = 60.0 feet				
			323.7	-

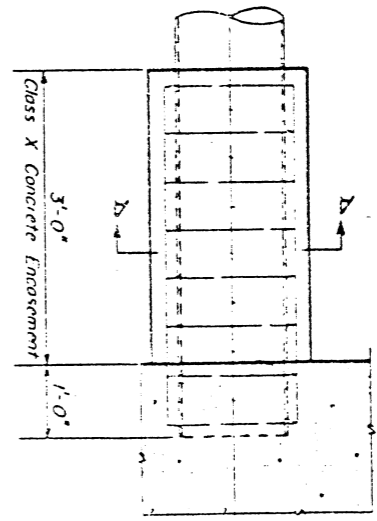
During drilling operations, it appeared that free water was encountered at 29.0 feet.
Washing procedure was used in drilling between 42.5 feet and 48.5 feet and between 52.5 feet and 53.5 feet

Surface Water El. None
Groundwater El. at Completion 360.3
After 2 Hours 361.3

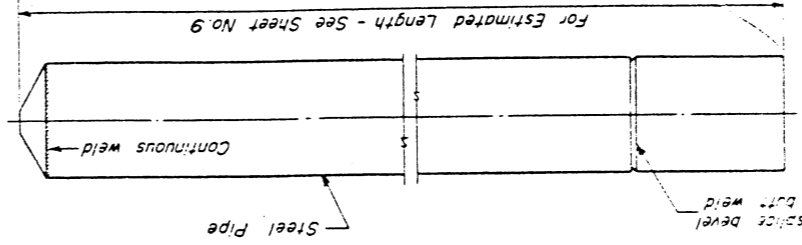
DESIGNED I. Kasper
EXAMINED Carl E. Johnson
CHECKED W. J. ...
DRAWN I.K.
APPROVED 175 8-1

N - Standard Penetration Test - Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140# hammer falling 10'.
Cu - Unconfined Compressive Strength - 1/si
w - Water Content - percentage of oven dry weight - %
Type failure: B - Bulge Failure, S - Shear Failure, E - Estimated Value

BORING DATA
F.A.I. RT. 57 SEC. 77-3
PULASKI COUNTY
STA. 699 + 70.31

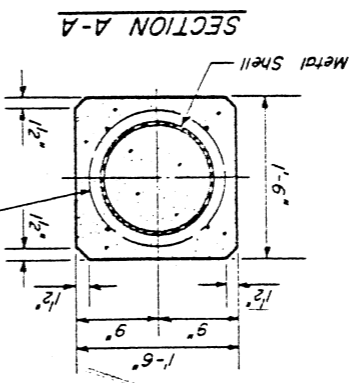


Class X Concrete Encasement
3'-0"

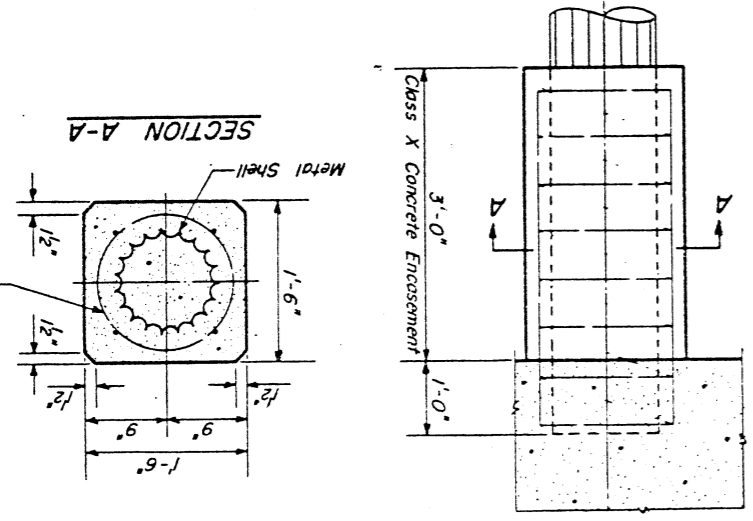


OPTIONAL FLAT END
Steel Pipe
3/4" Plate
Continuous weld

Note: Driving and bearing ends of pipe shall be cut square.
Welded wire fabric 6"x6" Mesh #4 wires - Wt. 58 #/100 sq. ft. plus 4-#4 tie bars. The cost of Class X Concrete Encasement and Reinforcement is incidental to the cost of furnishing piles. The thickness of the shell shall be .1793 inches with a tolerance of 5%.

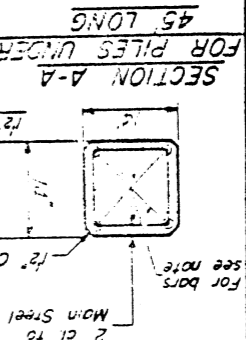


DETAIL OF CYLINDRICAL STEEL SHELL
FOR CAST IN PLACE CONCRETE PILES

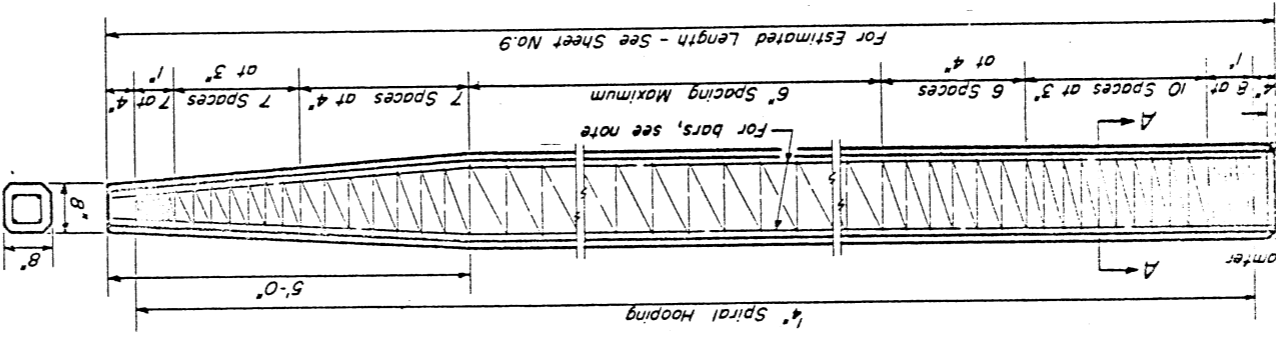


ALLO
1-Taper 1/2-6" for
2-Taper 1/4-0" for
3-Taper 1/7-0" for
Welded wire fabric 6"x6" Mesh #4 wires - Wt. 58 #/100 sq. ft. plus 4-#4 tie bars. The cost of Class X Concrete Encasement and Reinforcement is incidental to the cost of furnishing piles. The thickness of the shell shall be .1793 inches with a tolerance of 5%.

DETAIL
FOR CAST



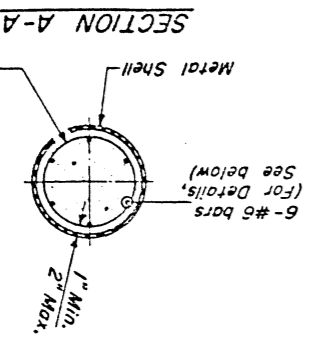
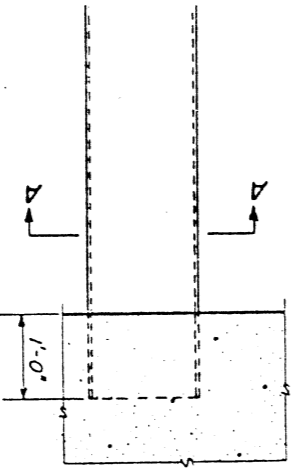
SECTION A-A
FOR PILES UNDER 45' LONG



Note: For 1" piles 45' long or more use 8-#8 bars 4 for the full length and 4 to the point of level. For 1" piles under 45' long use 4-#9 bars the full length.
Handling: For pile lengths up to 45', use two slings placed at a distance of 0.21 L* from each end. For piles longer than 45', use three slings placed at a distance of 0.12 L* from each end and of mid-point of pile.
*L = Over all length of pile to be handled.

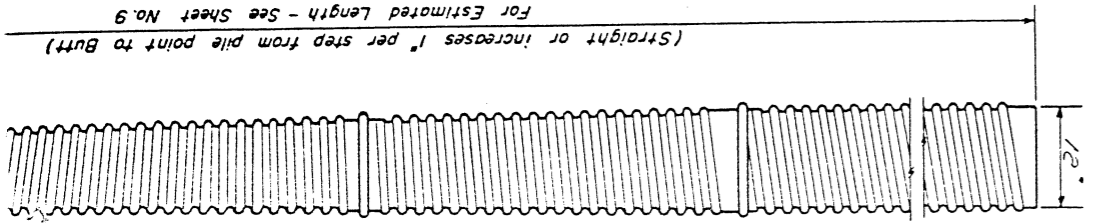
SECTION A-A
FOR PILES 45' OR MORE

DESIGNED	J. Carter
EXAMINED	W. E. T. [Signature]
CHECKED	[Signature]
PASSED	[Signature]



Reinforcement is incidental to the cost of furnishing piles.
6-#6 bars (For Details, See below)
Metal Shell
4" Spiral Hooping at 6" spacing or #4 Ties at 12" cts.

DETAIL OF
STRAIGHT OR
FOR CAST IN PL



(Straight or increases 1" per step from pile point to Butt)
For Estimated Length - See Sheet No. 9