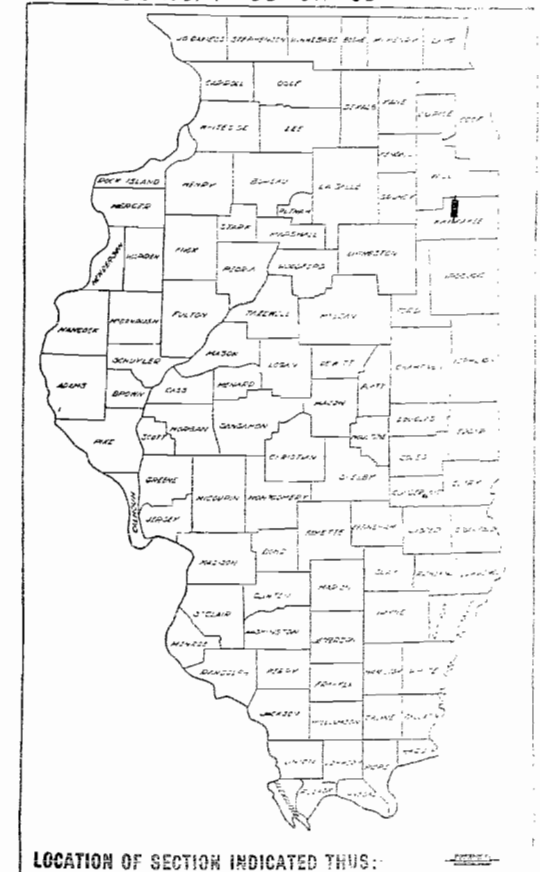


FOR INFORMATION ONLY

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

SECTION	SHEET	COUNTY	DATE	FOOT
45		KANKAKEE	107	
F-30				
15,16, R,W&RS, 16BR, 16BR-1				

JOB NO. P-93-011-63



SCALES

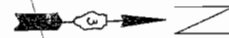
PLAN	1 INCH	100 FT.
PROFILE, HOR.	1 INCH	100 FT.
PROFILE, V. RT.	1 INCH	10 FT.
CROSS-SECTIONS	1 INCH	5 FT.

F.A. ROUTE 45
SECTION 15,16 (R,W&RS), 16 BR & 16 BR-1
PROJECT F-30 (8)
KANKAKEE COUNTY

C-93-033-65

INDEX OF SHEETS ON SHEET NO. 5

STATION 355+59.23 TO STATION 356+75.77
PROPOSED 3 SPAN PRECAST PRESTRESSED
CONCRETE BRIDGE DECK (OVER SOUTH BRANCH
OF ROCK CREEK) CENTER SPAN 37'-9 1/2",
2 END SPANS 37'-1 1/2", 116'-6 1/2" BK TO BK OF
ABUTMENTS, 46'-7" OUT TO OUT DECK

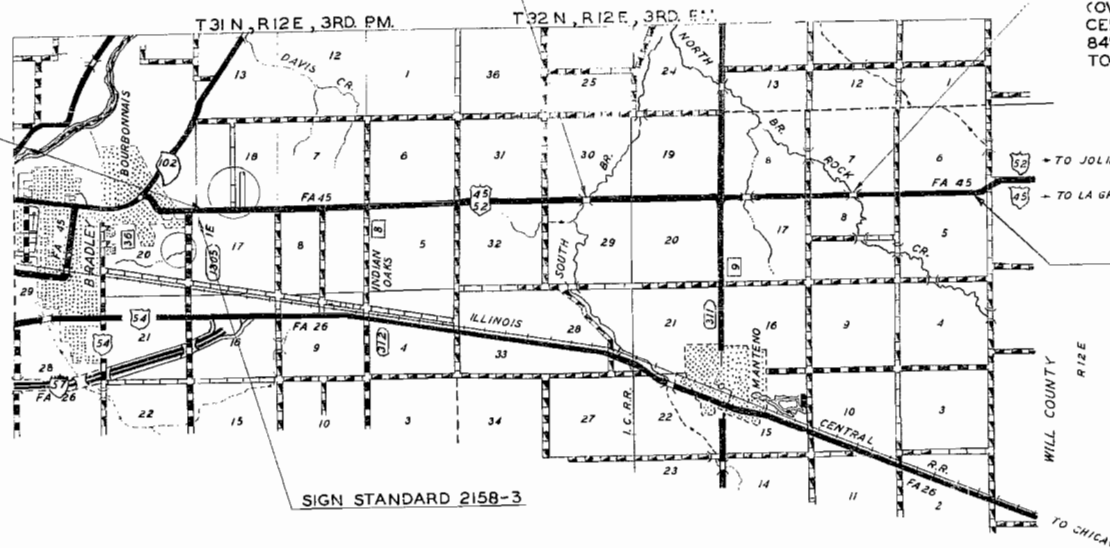


STATION 516+66.58 TO STATION 517+51.42
PROPOSED 3 SPAN CONTINUOUSLY
REINFORCED CONCRETE BRIDGE DECK
(OVER NORTH BRANCH OF ROCK CREEK)
CENTER SPAN 30'-10", 2 END SPANS 24'-7",
84'-10" BK TO BK OF ABUTMENTS, 46'-6" OUT
TO OUT DECK.

LOCATION OF SECTION INDICATED THUS:

HIGHWAY CLASSIFICATION
483 (B7)-C-4.2 (B-20)

IMPROVEMENT BEGINS AT
STATION 131+76.42



IMPROVEMENT ENDS AT
STATION 579+20.42

STATE OF ILLINOIS DEPARTMENT OF PUBLIC WORKS AND BUILDINGS DIVISION OF HIGHWAYS	
SUBMITTED	7-20-67
EXAMINED	7-20-67
PASSED	7-20-67
APPROVED	7-20-67
APPROVED	7-20-67

DEPARTMENT OF COMMERCE BUREAU OF PUBLIC UTILITIES	
APPROVED	
DIVISION	NUMBER
DATE	

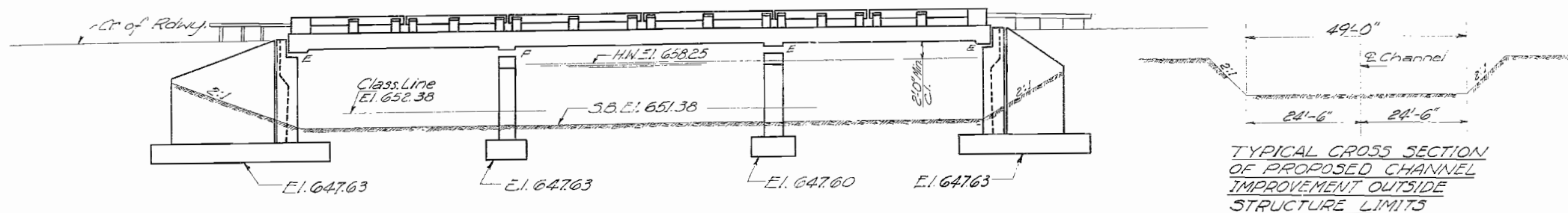
SCALE 1" = 1 MILE APPROX.
NET LENGTH = 44,744.00 FT. = 8.47424 MILES

PROJECT NO. 85246

S.M. No. 104 S.F.N. in P.P. 26' 2"
Sta. 514+75 Elev. 661.59
Existing Structure: Two span Reinf. Conc. thru girder
Rovly. Width ± 20'-6" on R.C. Abuts. & Piers will be
removed by Bridge Contractor before new construction
starts.

GENERAL NOTES

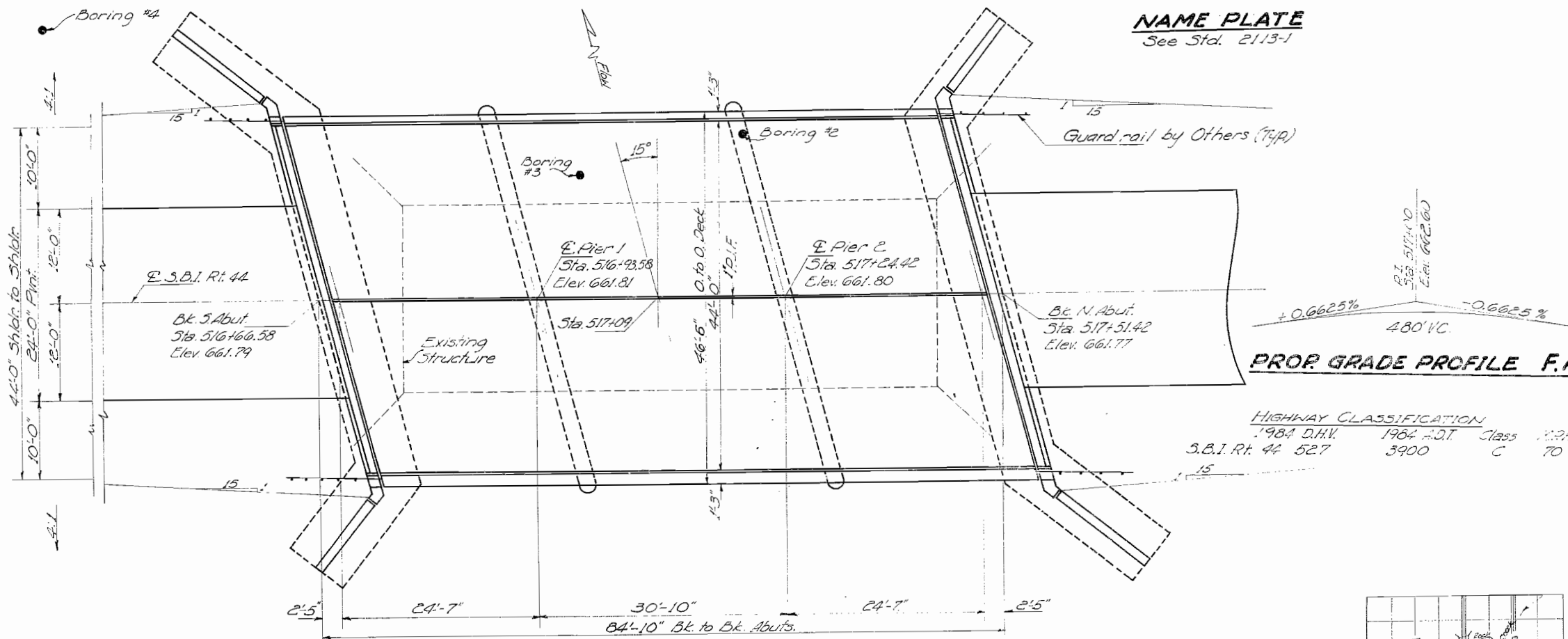
Class X Concrete shall be used thru out except as noted.
The handrail concrete in the rail post & railing shall be
poured in separate operations.
The concrete floor slab shall be finished in accordance
with Art. 51.19 of Std. Specifications.
All reinforcement bars shall be lapped a minimum of
20 diameters unless otherwise shown.
The exposed surface of expansion guards shall
be given two shop coats of red lead paint, the contact surface
shall be given one coat of red lead paint. Anchor studs
shall not be painted. All paints shall be furnished & applied
by the Contractor.
Expansion guards are included in the quantity of
Structural Steel. Est. weight 2400#
All structural steel shall comply with Specifications
for Structural Steel ASTM A36 & shall receive one shop
coat of red lead paint & two field coats of Aluminum paint.
See Art. 56-1 to 56-5 incl. of the Std. Specifications.
The back of bridge abuts & wing walls from the
ground line to the top of the footing shall be waterproofed.
Water proofing shall be done in accordance with Art. 5.121
of the Standard Specifications.



TYPICAL CROSS SECTION
OF PROPOSED CHANNEL
IMPROVEMENT OUTSIDE
STRUCTURE LIMITS

STATION 517+09
BUILT 196 BY
STATE OF ILLINOIS
F.A. RT. 45 SEC. 16BR-1
F.A. PROJ. F-30 (18)
LOADING H5-20

NAME PLATE
See Std. 2113-1



PROP GRADE PROFILE F.A. RT.45

TOTAL BILL OF MATERIAL

ITEM	SUB	SUB	TOTAL
Class X Concrete	Cu. Yds.	1,172	1,172
Class A Concrete	Cu. Yds.	1,078	1,078
Handrail Concrete	Cu. Yds.	5.2	5.2
Reinforcement Bars	Lbs.	16,480	16,480
Structural Steel	Lbs.	2,830	2,830
Class A Exc. for Structure	Cu. Yds.	1.56	1.56
Class B Exc. for Structure	Cu. Yds.	352	352
Rock Excavation	Cu. Yds.	42.7	42.7
Protective Coat	Sq. Yds.	2,883	2,883
Bridge Sealant	Lump Sum		
Name Plate			
Removal of Exis. Struct.	Ea.		

* Applied At Abutments Only.

DESIGNED *Bekoz Jarsh*
CHECKED *Lanning Chert*
DRAWN *A. Barraza*
CHECKED *L.M.C.*

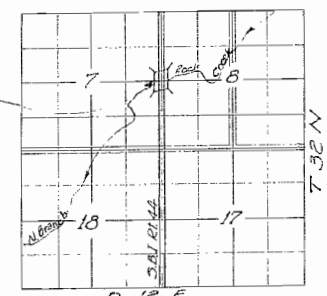
APRIL 26 1965
EXAMINED *J. E. Seely*
PASSED *J. E. Seely*
APPROVED *J. E. Seely*
CHIEF HIGHWAY ENGINEER

WATERWAY INFORMATION

Drainage Area — 18,984 Acres
Character — Level, rolling, cultivated
Required Opening — 492 Sq. Ft. (30 yrs flood)
Present Opening — 307 Sq. Ft.
Proposed Opening — 492 Sq. Ft.
Low Water El. 651.38

DESIGN STRESSES

$f_c = 1400$ psi Super.
 $f_c = 75$ psi Footing
 $f_s = 20,000$ psi Reinf.
 $f_s = 1,000$ psi Abut. & Wing Walls
 $n = 10$
LOADING H520-44



PROJ. F-30 (18)
GENERAL PLAN & ELEVATION
F.A. RT. 45 SEC. 16BR-1
KANKAKEE COUNTY
STA. 517+09

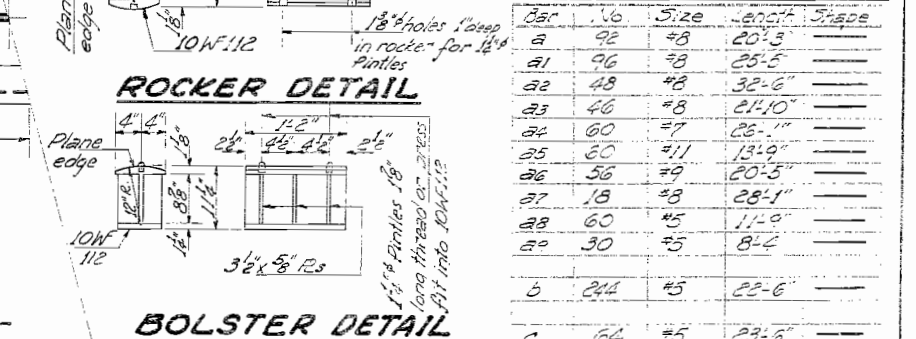
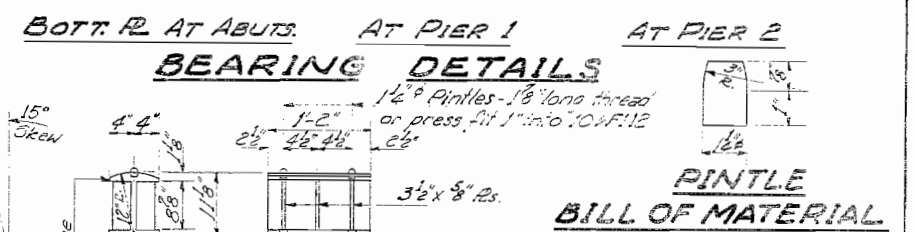
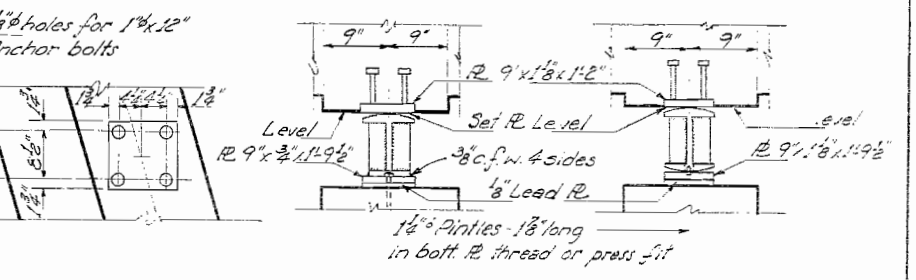
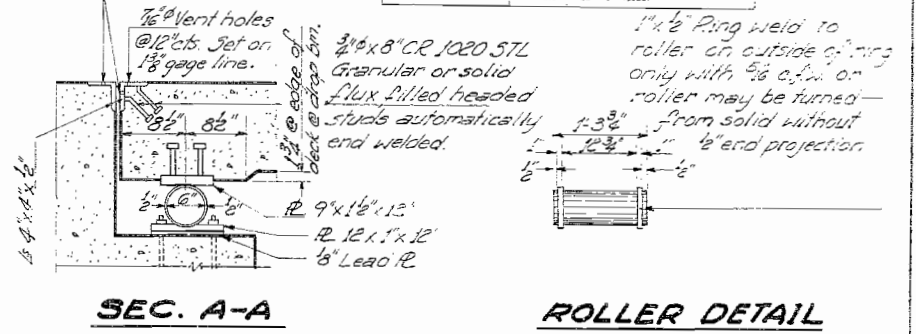
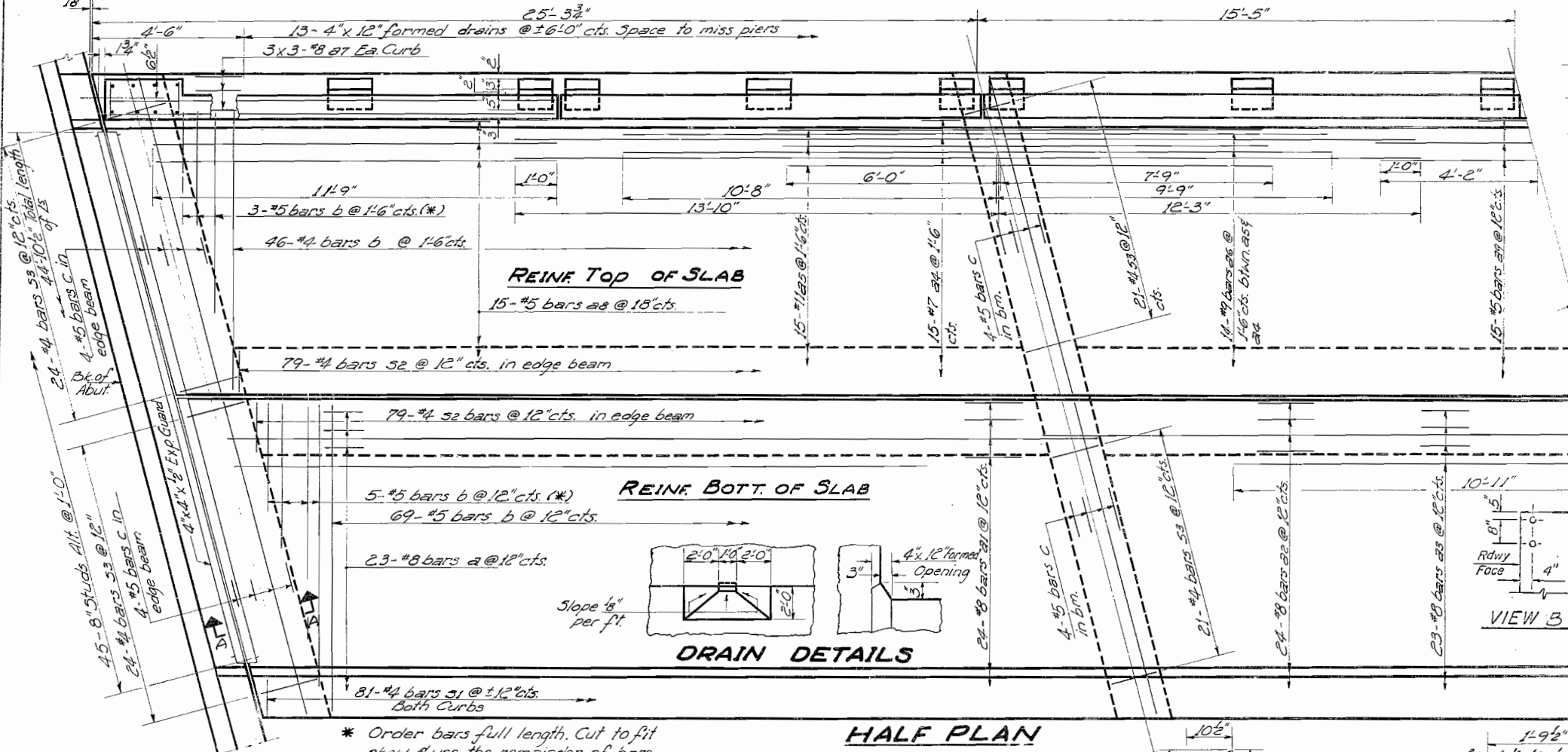
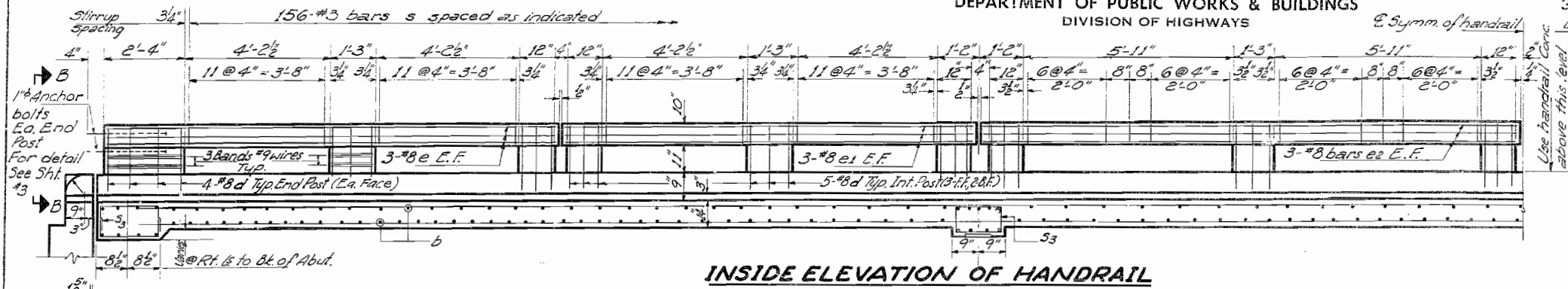
Rev. 9/17/67 End post, chgd. Added guard rail
quantity of Reinf. Bars chgd.

FOR INFORMATION ONLY

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

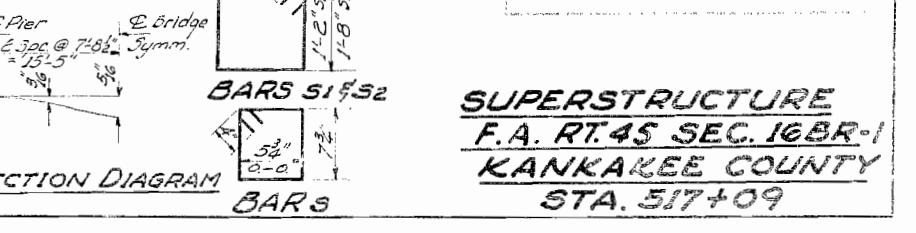
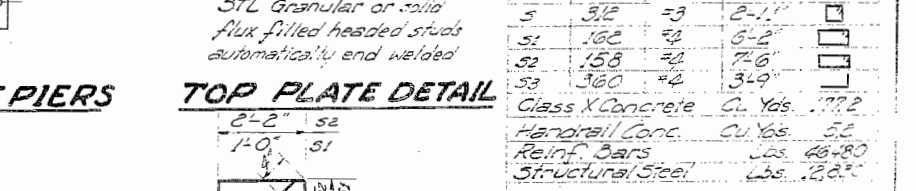
1/8" holes @ 12 cts. for 3/8" bolts set on 2 1/2" gage line. All bolts shall be burned, sawed, or chipped off flush with back of angles after forms are removed.

PROJECT NO.	SECTION	SHEET	DATE	SHEET NO.
45 168R-1	KKK	107 39		5 SHEETS



PINTLE BILL OF MATERIAL

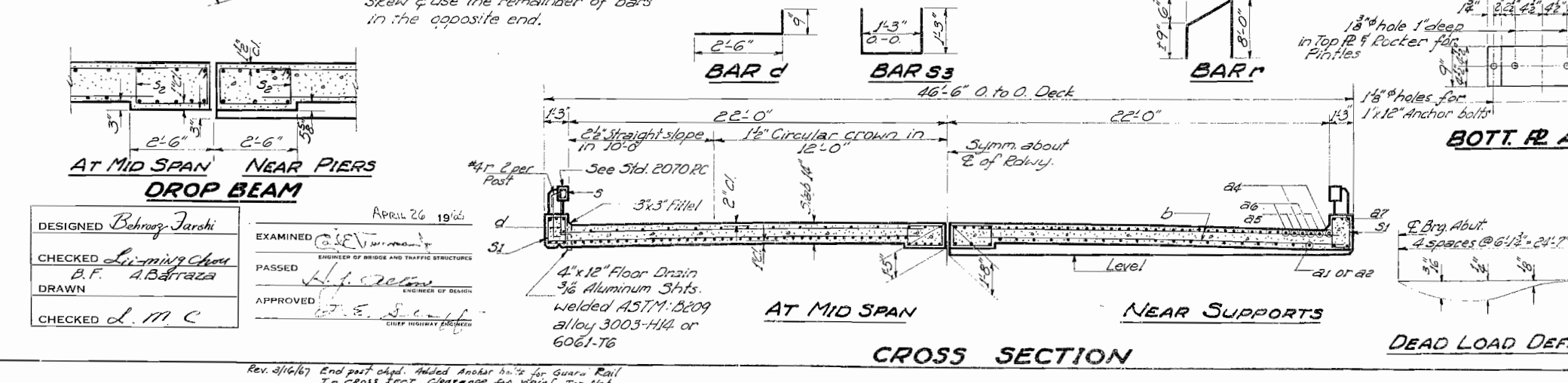
Bar	No	Size	Length	Shape
a	92	#8	20'-3"	
a1	96	#8	25'-5"	
a2	48	#8	32'-6"	
a3	46	#8	21'-10"	
a4	60	#7	25'-1"	
a5	60	#11	13'-9"	
a6	56	#9	20'-5"	
a7	18	#8	28'-1"	
a8	60	#5	11'-0"	
a9	30	#5	8'-2"	
b	24	#5	22'-6"	
c	64	#5	23'-8"	
d	192	#8	3'-3"	
e	24	#8	15'-2"	
e1	24	#8	11'-8"	
e2	24	#8	15'-1"	
f	64	#4	2'-6"	



STRUCTURE SUPERSTRUCTURE

Item	Quantity	Unit	Remarks
Glass Concrete	Cu Yds.	177.2	
Handrail Conc.	Cu Yds.	5.8	
Reinf. Bars	Lbs.	48480	
Structural Steel	Lbs.	72800	

STA. 517+09



DESIGNED	Behrooz Jarahi
CHECKED	Lic-ming Chou
DRAWN	B.F. A. BARRAZA
CHECKED	L.M.C.

APRIL 26 1966

EXAMINED	CHIEF ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES
PASSED	ENGINEER OF DESIGN
APPROVED	CHIEF HIGHWAY ENGINEER

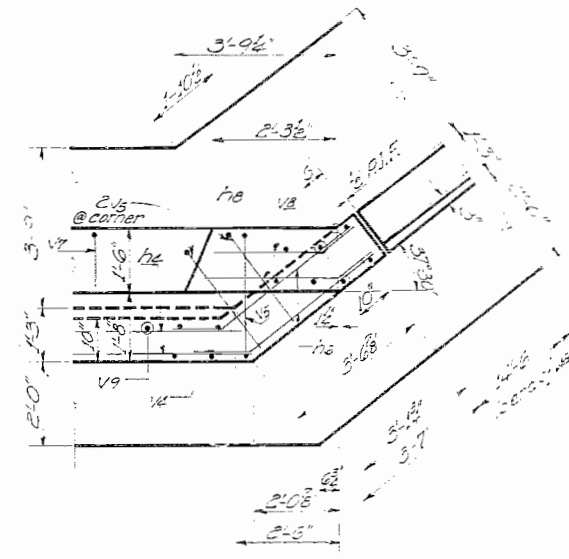
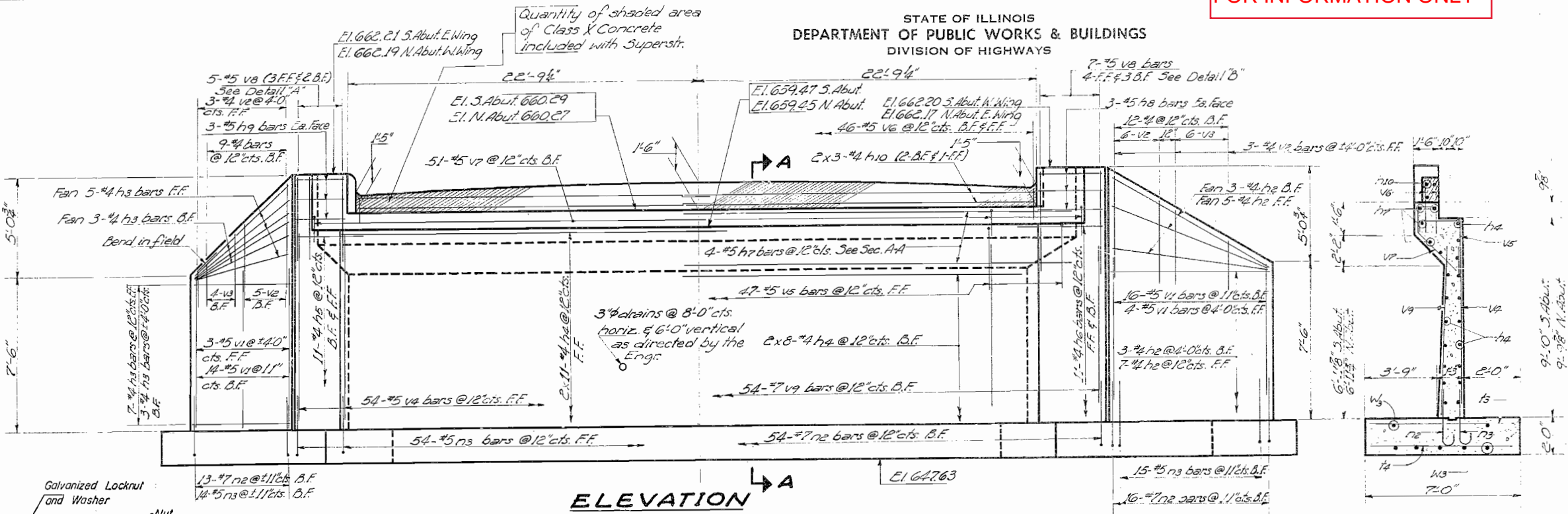
Rev. 3/16/67 End post chgd. Added Anchor bolts for Guard Rail in cross sect. Clearance for Hand. Top slab chgd. to 2". Quantity for Reinf. Bars chgd.

FOR INFORMATION ONLY

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

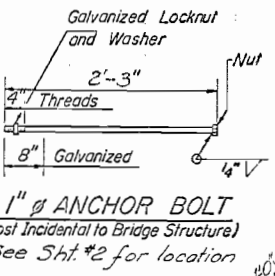
ROUTE NO.	SECTION	STATION	SHEET NO.	SHEET TOTAL
45	168R-1	K.K.K.	107	40

SHEET NO. 3
5 SHEETS

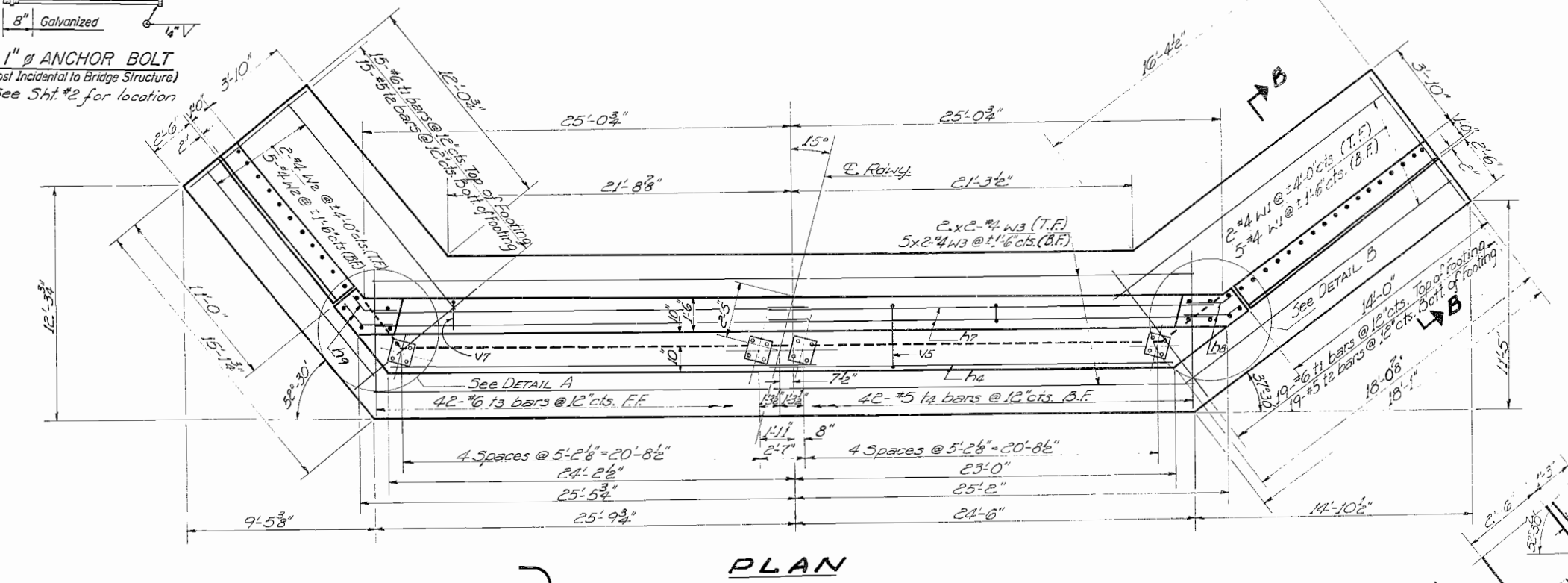


SEC. A-A

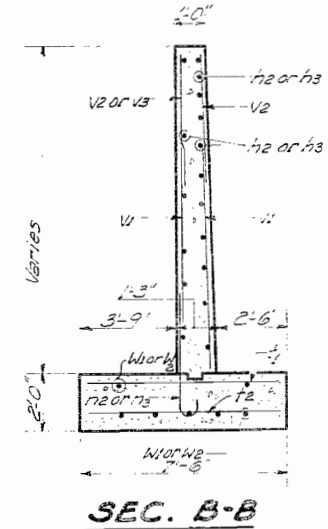
DETAIL B



ELEVATION



PLAN



SEC. B-B

TWO ABUTTS.
BILL OF MATERIAL

Bar	No.	Size	Length	Notes
12	36	#4	3'-8"	
13	36	#4	10'-8"	
14	76	#4	2'-0"	
15	24	#4	4'-0"	
16	42	#4	5'-0"	
17	16	#5	23'-8"	
18	12	#5	3'-0"	
19	12	#5	3'-0"	
20	12	#5	23'-8"	
21	166	#5	2'-0"	
22	166	#5	2'-8"	
23	68	#5	7'-0"	
24	68	#5	7'-0"	
25	84	#5	6'-8"	
26	84	#5	6'-8"	
27	72	#5	7'-0"	
28	32	#5	21'-0"	
29	20	#5	21'-0"	
30	102	#5	5'-8"	
31	102	#5	5'-8"	
32	102	#5	5'-7"	
33	28	#5	4'-5"	
34	28	#5	4'-5"	
35	108	#5	8'-0"	
36	24	#4	18'-6"	
37	28	#4	21'-8"	

Class X Concrete
Reinf. Bars

DESIGNED *Betrouz Farshi*
CHECKED *Liu-ming Chen*
B.F. A. Bauraza
DRAWN
CHECKED *L.M.C.*

EXAMINED *[Signature]*
PASSED *[Signature]*
APPROVED *[Signature]*
CHIEF HIGHWAY ENGINEER

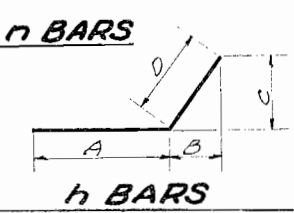
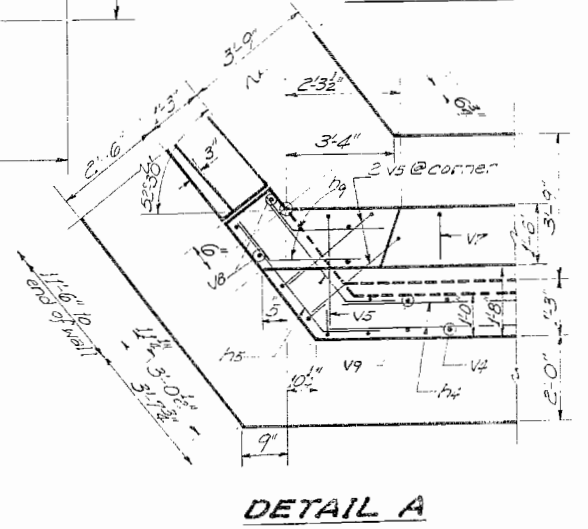
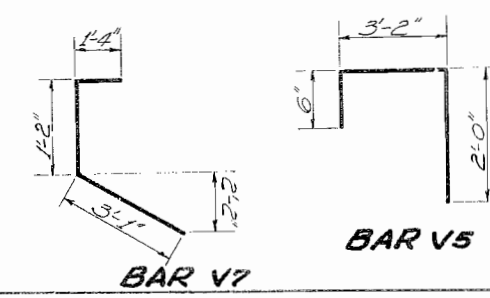


TABLE OF DIMENSIONS

Bar	A	B	C	D
h5	1'-6"	2'-0"	2'-7"	3'-3"
h6	1'-6"	3'-4"	2'-7"	4'-3"
h8	2'-0"	9"	7"	1'-0"
h7	2'-0"	7"	9"	1'-0"



DETAIL A

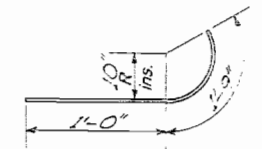
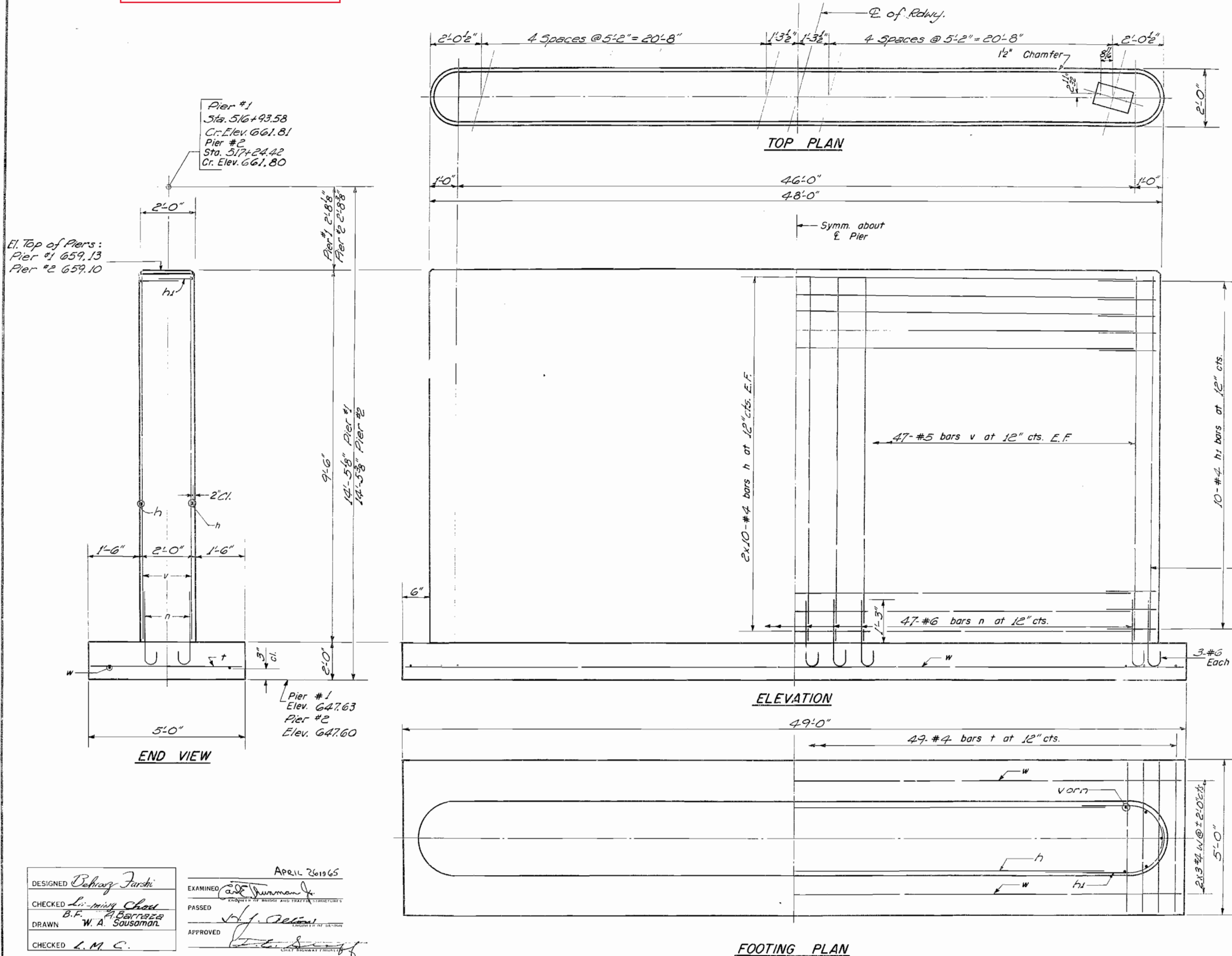
ABUTMENTS
F.A. RT. 45 SEC. 168R-1
KANKAKEE COUNTY
STA. 517+09

Rev. 3/12/27 Added Anchor Bolt detail.

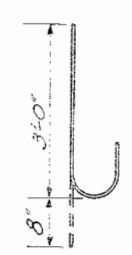
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STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	STATION	SHEET NO.	SHEET NO.
45	16BR-1	KKK	107	41	5 SHEETS



BAR h1



BAR n

TWO PIERS
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h	80	#4	23'-6"	—
h1	80	#4	2'-9"	—
n	200	#6	3'-3"	—
t	98	#4	4'-8"	—
v	200	#5	9'-1"	—
w	12	#4	24'-9"	—
Class A Concrete			Cu. Yds.	1078
Reinforcement Bars			Lbs.	4200

PIERS
F.A. RT. 45 SEC. 16BR-1
KANKAKEE COUNTY
STA. 517+09

DESIGNED *Behrang Farshi*
CHECKED *Li-ming Chou*
DRAWN *B.F. BARRAZA*
CHECKED *L.M.C.*

APRIL 26 1965
EXAMINED *Carl Thurman Jr.*
PASSED
APPROVED *H.J. Jensen*

FOR INFORMATION ONLY

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

Point	Station	Offset	Grade El.	Grade Elev. Adjusted for Defl.
Bl. South Abut.	51660.752	21.750	661.456	661.456
	51666.580	.000	661.790	661.790
	51672.408	21.750	661.467	661.467
E Brg. S. Abut.	51663.169	21.750	661.458	661.458
	51668.997	.000	661.792	661.792
	51674.825	21.750	661.468	661.468
1	51673.169	21.750	661.467	661.486
	51678.997	.000	661.799	661.818
	51684.825	21.750	661.474	661.493
2	51683.169	21.750	661.473	661.481
	51688.997	.000	661.803	661.811
	51694.825	21.750	661.477	661.485
E Pier 1	51687.752	21.750	661.475	661.475
	51693.580	.000	661.804	661.811
	51699.408	21.750	661.477	661.477
3	51697.752	21.750	661.477	661.496
	51703.580	.000	661.805	661.824
	51709.408	21.750	661.476	661.495
4	51707.752	21.750	661.476	661.496
	51713.580	.000	661.802	661.822
	51719.408	21.750	661.472	661.492
E Pier 2	51718.585	21.750	661.472	661.472
	51724.413	.000	661.797	661.797
	51730.241	21.750	661.465	661.465
5	51728.585	21.750	661.466	661.483
	51734.413	.000	661.789	661.806
	51740.241	21.750	661.455	661.472
6	51738.585	21.750	661.457	661.468
	51744.413	.000	661.778	661.789
	51750.241	21.750	661.442	661.454
E Brg. N. Abut.	51743.168	21.750	661.451	661.452
	51748.996	.000	661.772	661.772
	51754.824	21.750	661.436	661.436
Bl. North Abut.	51745.584	21.750	661.449	661.449
	51751.412	.000	661.769	661.769
	51757.240	21.750	661.432	661.432

Pier #1
Boring No. 1
Station 51742.5
Offset 23' Lt.

Elevation	N	Qu / s.t.	w (%)
Ground Surface 657.29 0			
Loose Yellowish Brown Sub-angular Fine to Coarse SAND			
653.79	6		
Medium Yellowish Brown & Gray CLAY w/ Limestone Fragments			
651.29	29	0.5 S	8
Medium Gray Sub-angular Fine to Coarse SAND			
648.79	22		
Very Dense Gray Thinly Bedded Argillaceous LIMESTONE; H.S. Augers Penetrated -10 very slowly			
646.13	100	7" / 200	
Augers Refused to Penetrate Below			
646.79			
-15			

Pier #2
Boring No. 2
Station 51720.0
Offset 18.5' Lt.

Elevation	N	Qu / s.t.	w (%)
Ground Surface 652.89 0			
Medium Olive Brown & Gray CLAY & Limestone Fragments			
649.39	30	0.4 S	11
Dense Gray CLAY & LIMESTONE Fragments			
651.29	61		
649.59	104	7"	
Very Dense Gray LIMESTONE, Thin to Moderate Bedding (See)			
70# Recovery			
-10			

S. Abut.
Boring No. 3
Station 51621.5
Offset 39' Lt.

Elevation	N	Qu / s.t.	w (%)
Ground Surface 657.19 0			
Medium Brownish Black SILTY CLAY			
652.69	9	0.3 S	23
Medium Lt. Brown SILTY LOAM & LIMESTONE Fragments			
651.19	23		
Very Dense Gray Thinly Bedded LIMESTONE (Argillaceous)			
300/6 1/2"			
Very Difficult to Penetrate with H.S. Augers			
-10			
300/6"			
642.19-15			
200/0"			
Refusal			

Pier #1
Boring No. 4
Station 51628
Offset 15.5' Lt.

Elevation	N	Qu / s.t.	w (%)
Ground Surface 652.79 0			
Yellowish Brown to Gray CLAY & LIMESTONE Fragments.			
(See Note)			
648.79 - 5			
LIMESTONE MURK			
647.79			
REFUSAL			

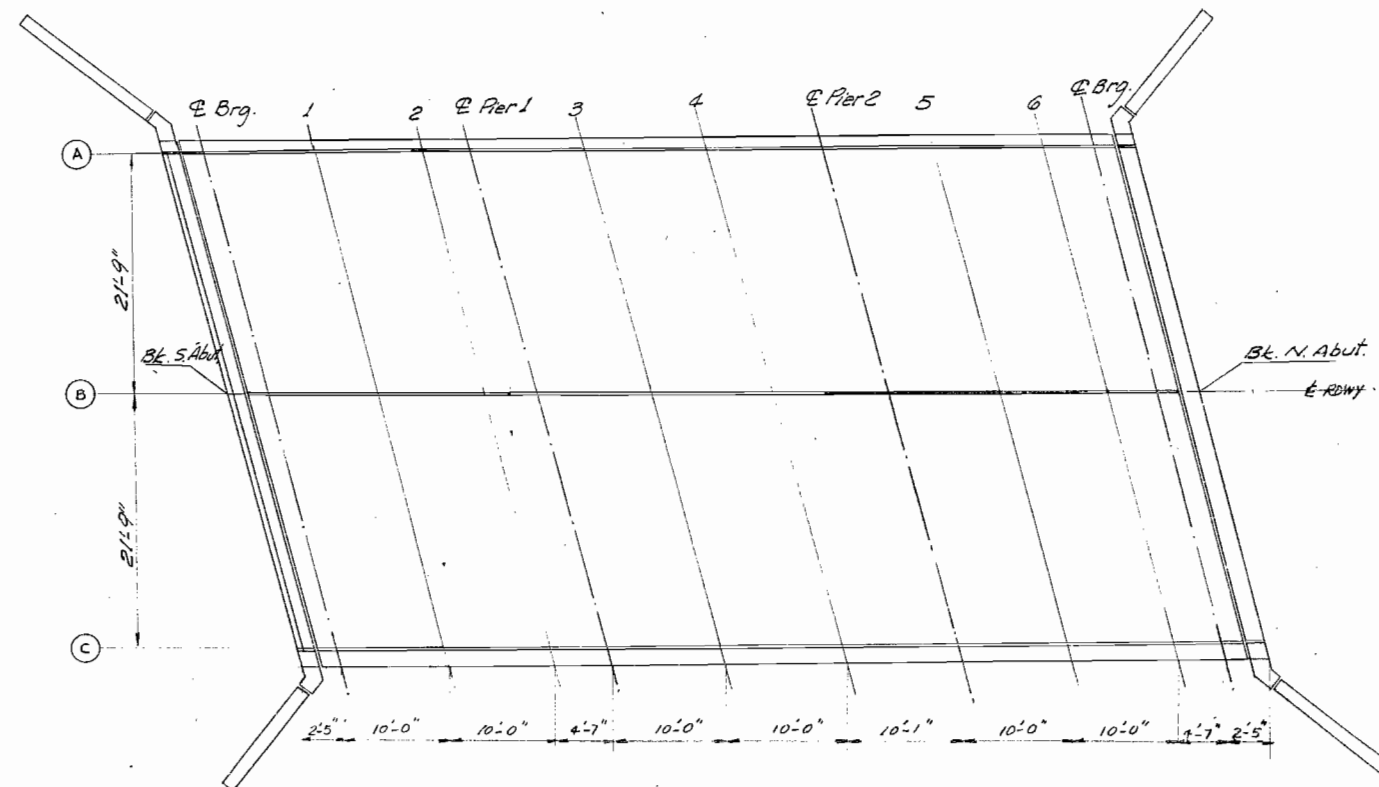
NOTE:
This boring was inaccessible to the foundation boring machine. A lightweight portable drill -10 was used to penetrate to the Limestone Surface.

Surface Water El.	651.89
Groundwater El. at Completion	651.29
After 20 Hours	651.79

Surface Water El.	651.89
Groundwater El. at Completion	651.89
After 42 Hours	

Surface Water El.	651.89
Groundwater El. at Completion	650.69
After 42 Hours	651.89

Surface Water El.	651.89
Groundwater El. at Completion	651.89
After 42 Hours	



N - Standard Penetration Test - Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140# hammer falling 30".
Qu - Unconfined Compressive Strength - 1/si
w - Water Content - percentage of oven dry weight - %
Type failure:
B - Bulge Failure
S - Shear Failure
E - Estimated Values

DESIGNED *Behrang Farshi*
EXAMINED *Carl Thurman*
CHECKED *L. M. C.*
DRAWN *B.F.*
APPROVED *J. E. ...*
APRIL 26 1965

ELEVATIONS & BORINGS
P.A. RT. 45 SEC. 16BR-1
KANKAKEE COUNTY
STA. 517+09