

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

FEDERAL AID ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 61	531-3HB	COOK	29	1
ILLINOIS PROJECT U-184(40)				
JOB NO. P-90-001-64				

SCALES  
 PLAN 1 INCH 100 FT.  
 PROFILE HOR. 1 INCH 100 FT.  
 PROFILE VERT. 1 INCH 10 FT.  
 CROSS-SECTIONS 1 INCH 5 FT.

(S.B.I. ROUTE 53) F.A. ROUTE 61 SECTION 531-3HB - COOK COUNTY  
 PROJECT U-184 (40)

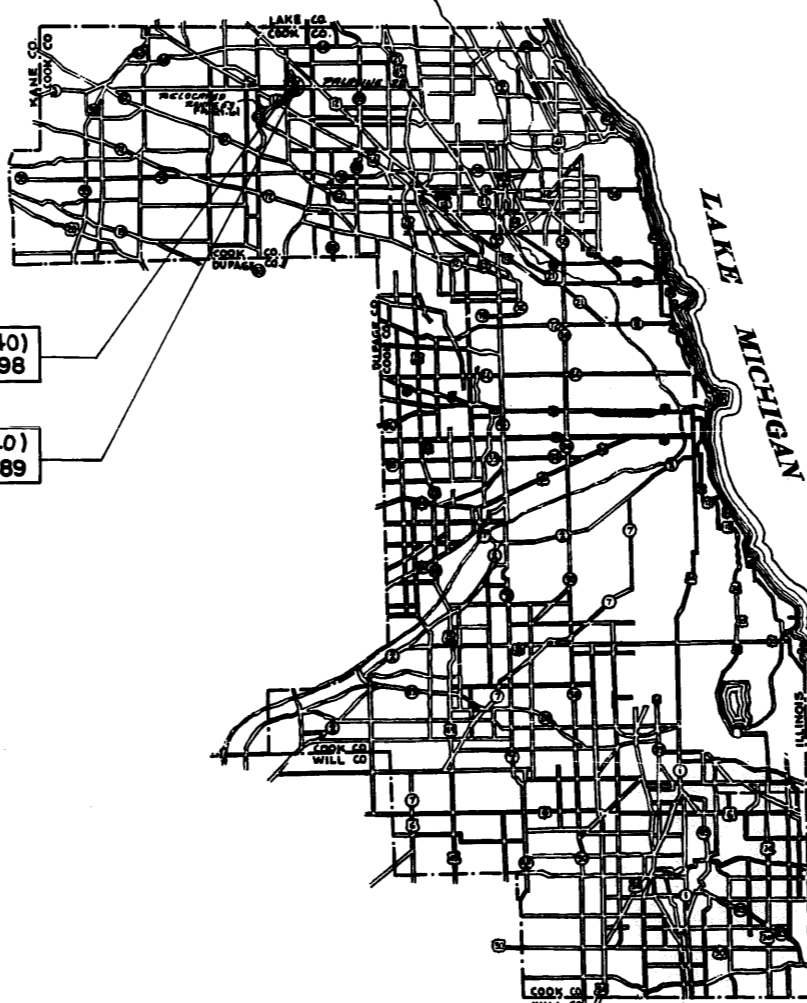
C - 90 - 442 - 64

**DUAL STRUCTURES OVER PALATINE ROAD**  
**RELOCATED ROUTE 53**

PROJECT LENGTH 205.09 LIN. FT. OR 0.039 MILES

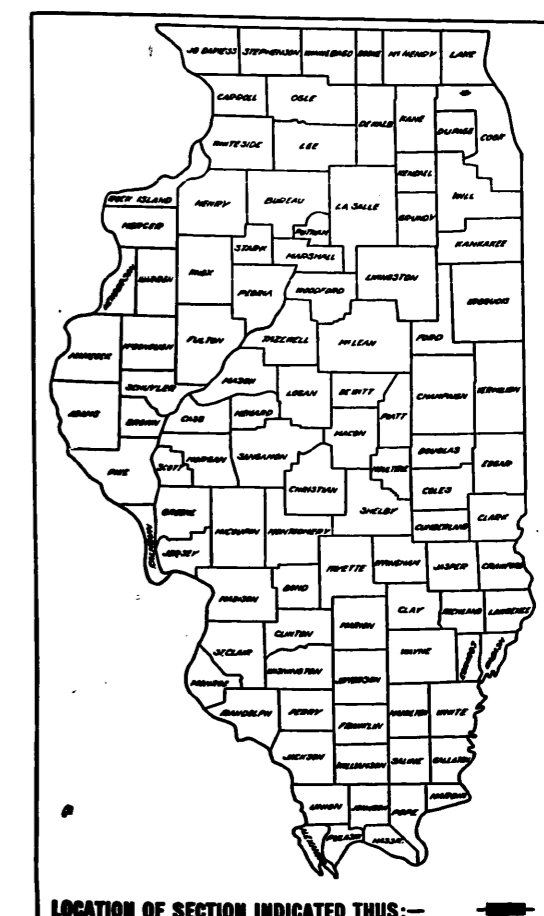
INDEX OF SHEETS ON SHEET 2

SECTION 531-3HB INCLUDES THE CONSTRUCTION OF DUAL 4-SPAN CONTINUOUS WIDE FLANGE BEAM GRADE SEPARATION STRUCTURES (TO CARRY RELOCATED ROUTE 53 OVER PALATINE ROAD), WITH SPANS 2@ 60'-9" AND 2@ 39'-3", ON OPEN R.C. ABUTMENTS AND R.C. PIERS, IN THE VILLAGE OF ARLINGTON HEIGHTS.



PROJECT U-184(40)  
 ENDS STA. 330+20.98

PROJECT U-184(40)  
 BEGINS STA. 328+15.89



STATE OF ILLINOIS  
 DEPARTMENT OF PUBLIC WORKS AND BUILDINGS  
 DIVISION OF HIGHWAYS  
 SUBMITTED August 31 1964  
 C.A. Tenover  
 EXAMINED Sept. 11 1964  
 W. Van Dusen  
 FARMER Sept. 11 1964  
 APPROVED Sept. 11 1964  
 APPROVED Sept. 11 1964

DEPARTMENT OF COMMERCE  
 BUREAU OF PUBLIC ROADS  
 APPROVED  
 DIVISION ENGINEER DATE

R. KENNEDY

JOB NUMBER CONTRACT NO. 23867

COUNTY COOK SECTION 531-3HB F. A. ROUTE 61

PLANS PREPARED BY BUREAU OF DESIGN  
 APPROVED BY ASST DISTRICT ENGINEER - ENGINEERING  
 EXAMINED BY BUREAU OF CONSTRUCTION  
 EXAMINED BY BUREAU OF MAINTENANCE  
 EXAMINED BY BUREAU OF TRAFFIC  
 EXAMINED BY BUREAU OF MATERIALS  
 ENTIRE SECTION INSPECTED AND APPROVED  
 AS TO POLICY DISTRICT ENGINEER

*Albert J. Jones* DATE 8-28-64  
*John C. Manning* DATE 8-31-64  
*Joseph A. Young* DATE 8-28-64  
*W. H. ...* DATE 8-28-64  
*W. Spraul* DATE 8-28-64  
*C. A. Benowitz* DATE 8-31-64

ROAD DISTRICT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA-61 (SB-55)	591-3HB	COOK	29	2
STA.		TO STA.		
U.S. DEPT. OF TRANSPORTATION DIV. OF HIGHWAYS PROJECT				

### SUMMARY OF QUANTITIES

PAY ITEM	UNIT	TOTAL QUANTITY	CODE NO.
POROUS GRANULAR EMBANKMENT	CU YD	300	019001
CLASS A EXCAVATION FOR STRUCTURES	CU YD	600	050001
CLASS X CONCRETE	CU YD	1,552.0	052003
PROTECTIVE COAT	SQ YD	3,560	052021
FURNISHING AND ERECTING STRUCTURAL STEEL REINFORCEMENT BARS	POUND	636,420	054001
FURNISHING CREDOSOTED PILES, UP TO 20 FEET	POUND	324,185	059001
DRIVING TIMBER PILES	LIN FT	750	060004
DRIVING CONCRETE PILES	LIN FT	750	060008
FURNISHING CONCRETE PILES	LIN FT	2,000	060043
TEST PILES, CONCRETE	LIN FT	2,000	060044
NAME PLATES	EACH	2	060047
PAVEMENT REMOVAL	EACH	2	061001
SLOPE WALL, 4 INCH	SQ YD	100	082001
ALUMINUM HANDRAIL	SQ YD	1,381	083002
	LIN FT	806	200004

### INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1.	COVER SHEET
2.	INDEX OF SHEETS, SUMMARY OF QUANTITIES, SIGNATURES
3.	EXISTING TOPOGRAPHY & PLAN OF PROPOSED IMPROVEMENT
4.	PROFILES & ROADWAY SECTIONS
5.	DETAIL OF SPECIAL INLET
6.	GENERAL PLAN & ELEVATION OF STRUCTURES
7 - 8.	SUPERSTRUCTURE DETAILS
9.	HANDRAIL LAYOUT
10.	HANDRAIL & LIGHTING DETAILS
11 - 12.	TOP OF SLAB ELEVATIONS
13.	STRUCTURAL STEEL - FRAMING PLANS
14.	STRUCTURAL STEEL DETAILS
15.	EXPANSION DEVICE DETAILS
16 - 21.	PIER DETAILS
22 - 23.	ABUTMENT DETAILS
24.	WING WALL DETAILS
25.	PILE DETAILS
26 - 27.	BORING DATA
28.	STANDARD 1686-2 (SYMBOLS); STANDARD 2113-1 (NAME PLATE)
29.	STANDARD 1971-3 ("ROAD UNDER CONSTRUCTION" SIGN); STANDARD 2114 (FLAGMAN SIGN); STANDARD 2158-2 (F.A. PROJECT SIGN)

ONE (1) SIGN CONFORMING TO STANDARD 2158-2 SHALL BE ERECTED AT LOCATIONS SHOWN ON SHEET 3 OR AS DIRECTED BY THE ENGINEER.

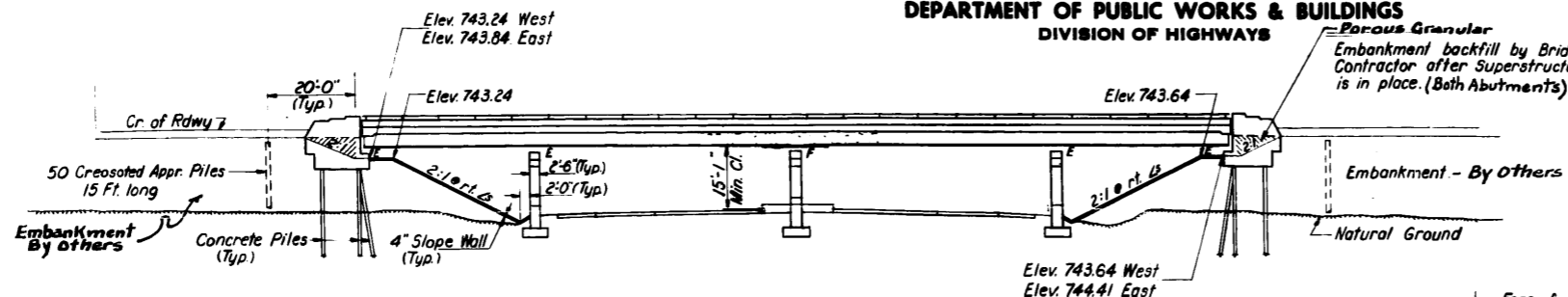
NOTE: THE "STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION" ADOPTED JANUARY 2, 1956 AND THE "SUPPLEMENTAL SPECIFICATIONS" EFFECTIVE MARCH 2, 1964, SHALL GOVERN THE CONSTRUCTION OF THIS WORK

AXLE LOAD LIMITS: DHV-20 - CLASSIFICATION - DESIGN SPEED  
 SINGLE - 18,000 LBS 6387 H 70  
 TANDEM - 24,000 LBS

B.M.: RR Spike in E. Face P.P. of N.W.  
Corner Palatine Rd. & Wilke Rd.  
Elev. 730.55

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 1
61	531-3HB	COOK	29	6	22 SHEETS
ILLINOIS		FED. AID PROJECT: U-184(40)			



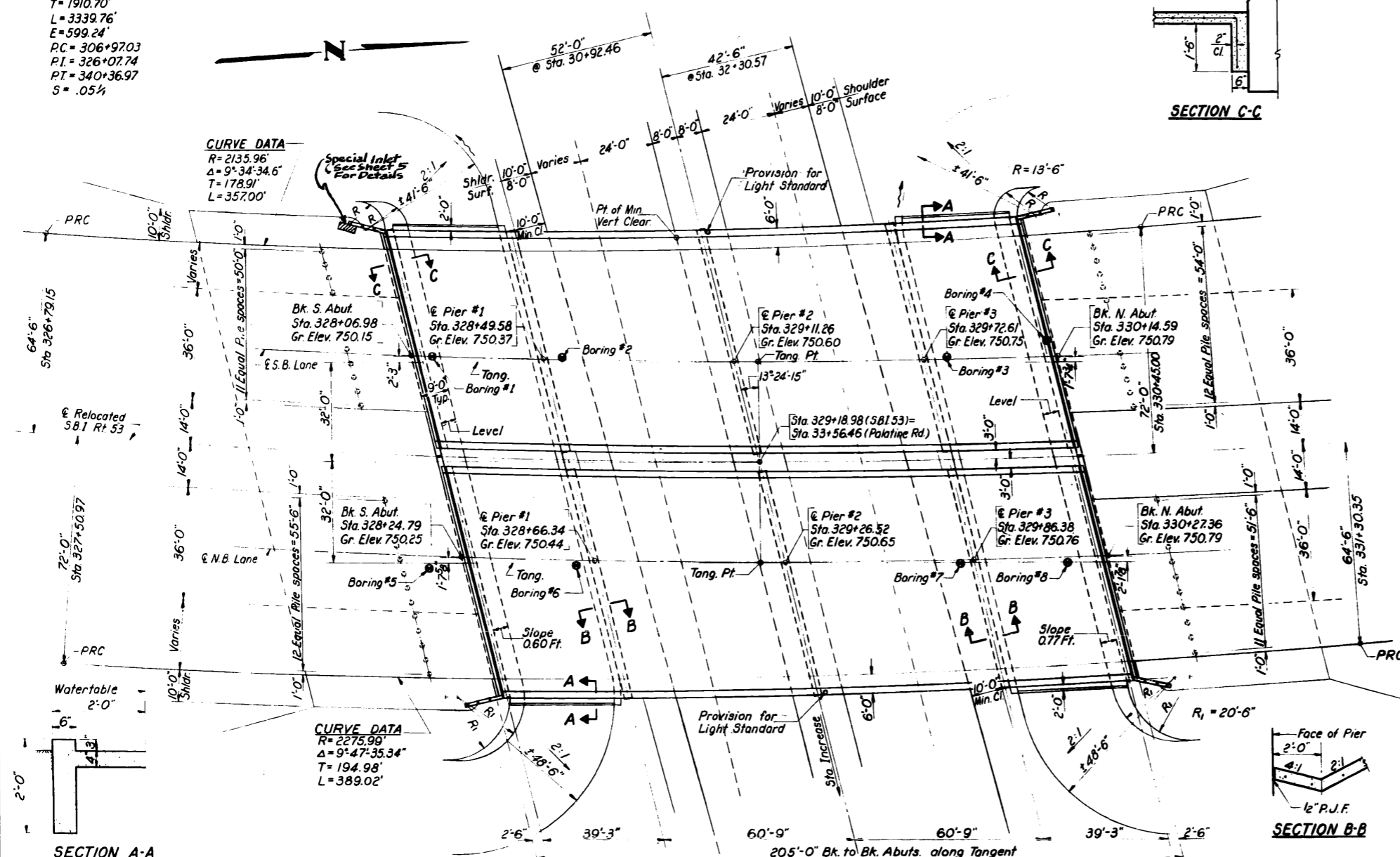
HORIZ. CURVE DATA

SBI RT. 53  
 $\Delta = 69^\circ 35'$   
 $D = 2^\circ 05'$   
 $R = 2750'$   
 $T = 1910.70'$   
 $L = 3339.76'$   
 $E = 599.24'$   
 $PC = 306+97.03$   
 $PI = 326+07.74$   
 $PT = 340+36.97$   
 $S = .054$

CURVE DATA  
 $R = 2135.96'$   
 $\Delta = 9^\circ 34' 34.6''$   
 $T = 178.91'$   
 $L = 357.00'$

ELEVATION

SECTION C-C



GENERAL NOTES

Coarse aggregate to be used in parapet handrails and end post must be free of chert, flint, limonite, lignite and soft sandstone. The concrete floor slab shall be finished in accordance with Article 51.19 of the Standard Specifications. Slope Wall 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 shown. Permanent forms will not be permitted in forming the concrete floor. All structural steel shall conform to A.S.T.M. Specifications Designation A-36. Rivets 3/4", Open Holes 1 1/16" unless otherwise noted. Anchor bolts shall be set before riveting diaphragms over supports. Roadway expansion guards shall be assembled in the shop in proper position with the ends in place and shall be left assembled for shop inspection. The exposed surfaces of the expansion guards 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. Expansion guards are included in quantity of Structural Steel. Estimated Weight = 37,780 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 concrete test pile in a permanent location at each abutment as directed by the Engineer before ordering the remainder of piles. Concrete piles at abutments shall be driven in holes precored through the embankment in accordance with Article 60.9(c) of the Standard Specifications.

PROFILE OF RELOCATED RT. 53



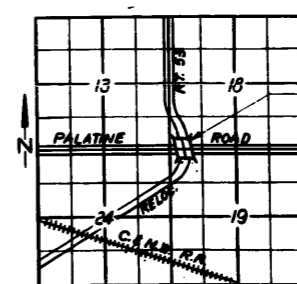
PROFILE OF PALATINE ROAD

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub	Total
Porous Granular Embankment	Cu. Yds.		300	300
* Class A Excavation for Structures	Cu. Yds.		600	600
Class X Concrete	Cu. Yds.	746.0	804.9	1550.9
Structural Steel	Lbs.	636,420		636,420
Aluminum Handrail	Lin. Ft.	806		806
Reinforcement Bars	Lbs.	239,700	84,450	324,150
Creosoted Piles	Lin. Ft.	750		750
Concrete Piles	Lin. Ft.		2000	2000
Test Piles (Concrete)	Each		2	2
Name Plates	Each		2	2
Slope Wall (4')	Sq. Yds.		1381	1381
Protective Coat	Sq. Yds.		3560	3560

\*Includes excavation for slope wall

SECTION B-B



LOCATION PLAN

PROJ. U-184(40)  
 GENERAL PLAN & ELEVATION  
 RELOCATED SBI RT. 53 (FA RT. 61)  
 OVER PALATINE ROAD  
 F.A. RT. 61 SEC. 531-3-HB  
 COOK COUNTY  
 STA. 329+18.98 (SBI. 53)

DESIGN STRESSES  
 $f_c = 1400$  psi. Super & Sub  
 $f_v = 75$  psi. Footing  
 $f_s = 20,000$  psi. Reinf.  
 $f_s = 20,000$  psi. Struct. (A-36)  
 $n = 10$   
 LOADING HS 20-44

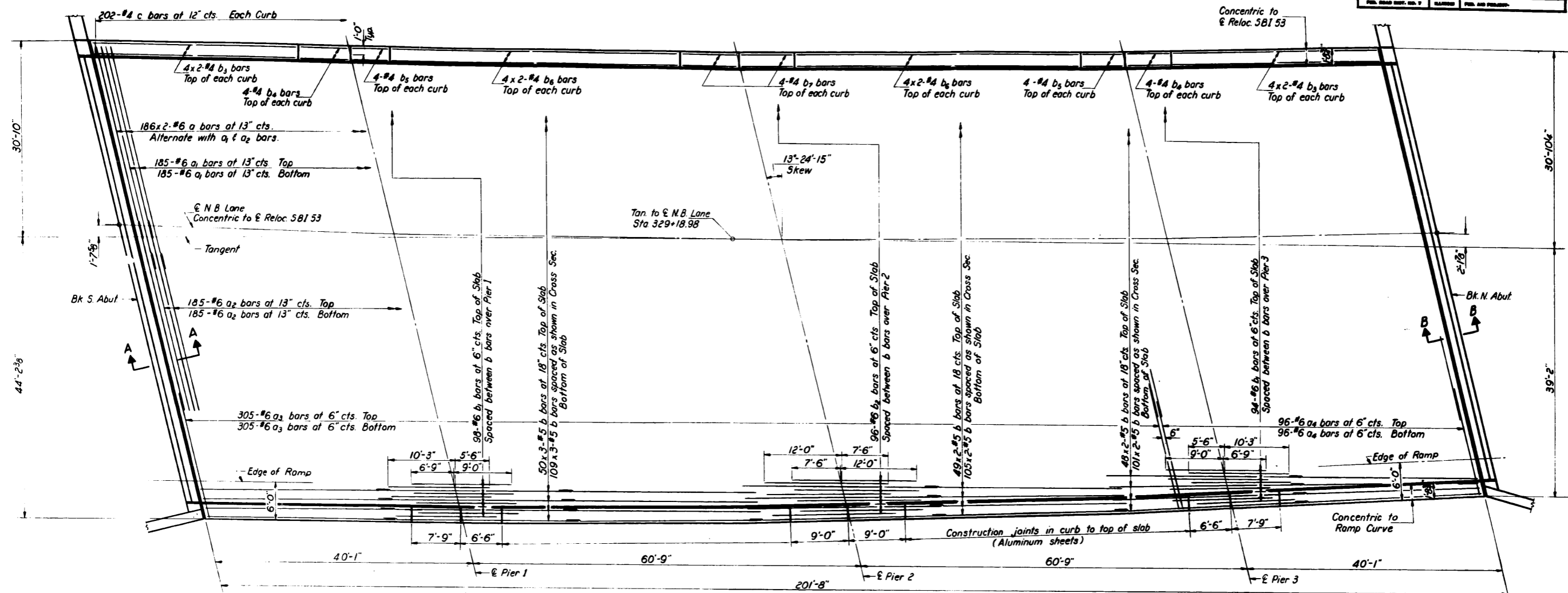
DESIGNED W.L. Perry  
 CHECKED R.K. Kowal  
 DRAWN J.L. Armstrong  
 CHECKED R.K.  
 EXAMINED H.E. Beaman  
 PASSED E. H. ...  
 APPROVED U.E. ...

STATION 329+18.98  
 BUILT 196 BY  
 STATE OF ILLINOIS  
 F.A. RT. 61 SEC. 531-3-HB  
 F.A. PROJ. U-184(40)  
 LOADING HS 20  
 NAME PLATE LETTERING  
 See Std. 2113-1

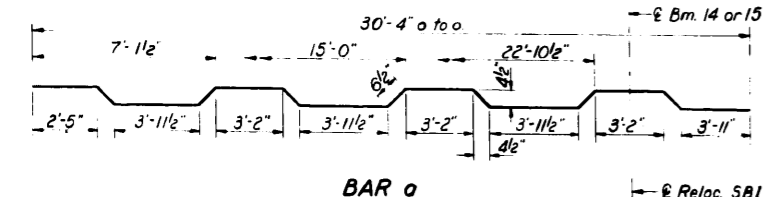
Road Classification (Relocated SBI 53):  
 Class A-1  
 D.H.V. 6387

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

PROJECT NO.	DESIGN	QUANTITY	TOTAL	SHEET NO.
P.A. 61	531-3HB	COOK	29	7
PUB. ROAD DIST. NO. 7		CLASS	PUB. AND PROJECT	
			SHEET NO. 2	
			22 SHEETS	



PLAN

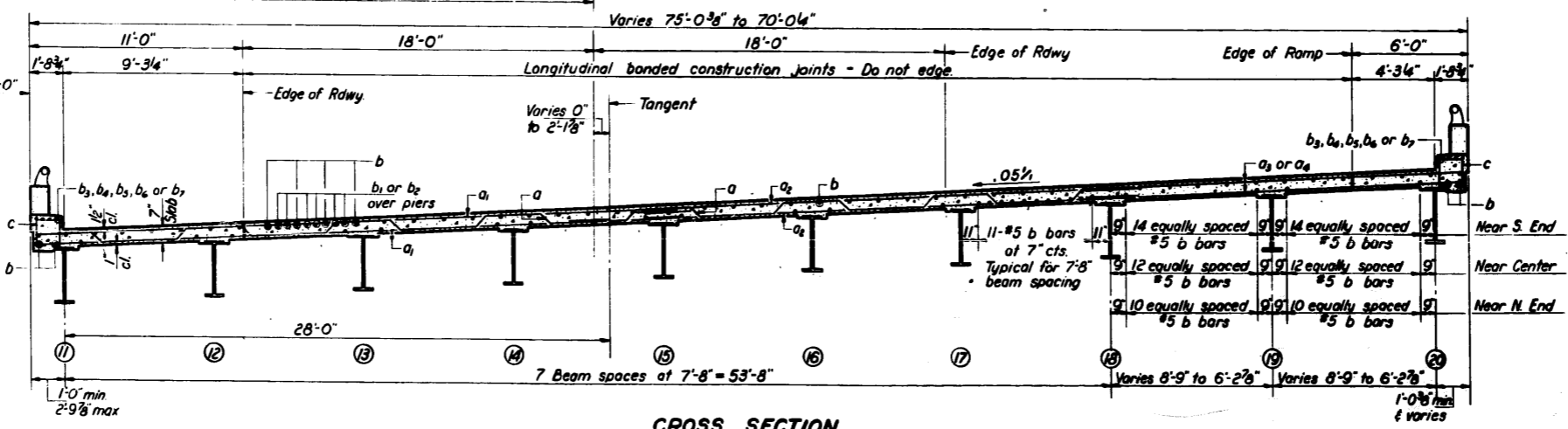
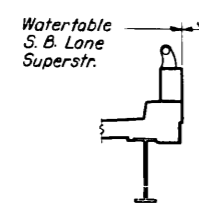


BAR a

BAR c

- \* Includes weight of N.B. Lane Bar List shown on sheet #4
- \*\* Weight of bearing assemblies with lead plates, and anchor bolts are included as structural steel. Est. Weight = 13,740 #
- \*\* Weight of expansion device is included as structural steel. Est. Weight = 18,940 #

Note:  
Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line.  
Min. bar laps = 20 dia.  
See sheet #3 for Curb Detail.  
See sheet #10 for Section A-A and Section B-B.



CROSS SECTION

BILL OF MATERIAL

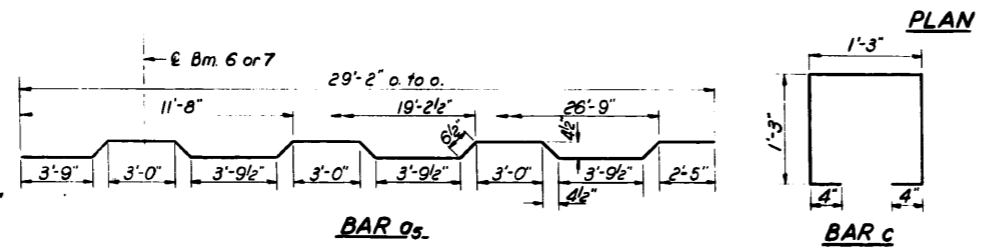
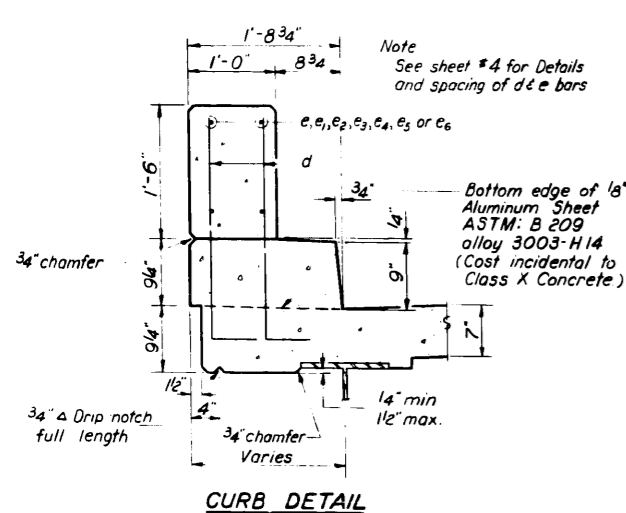
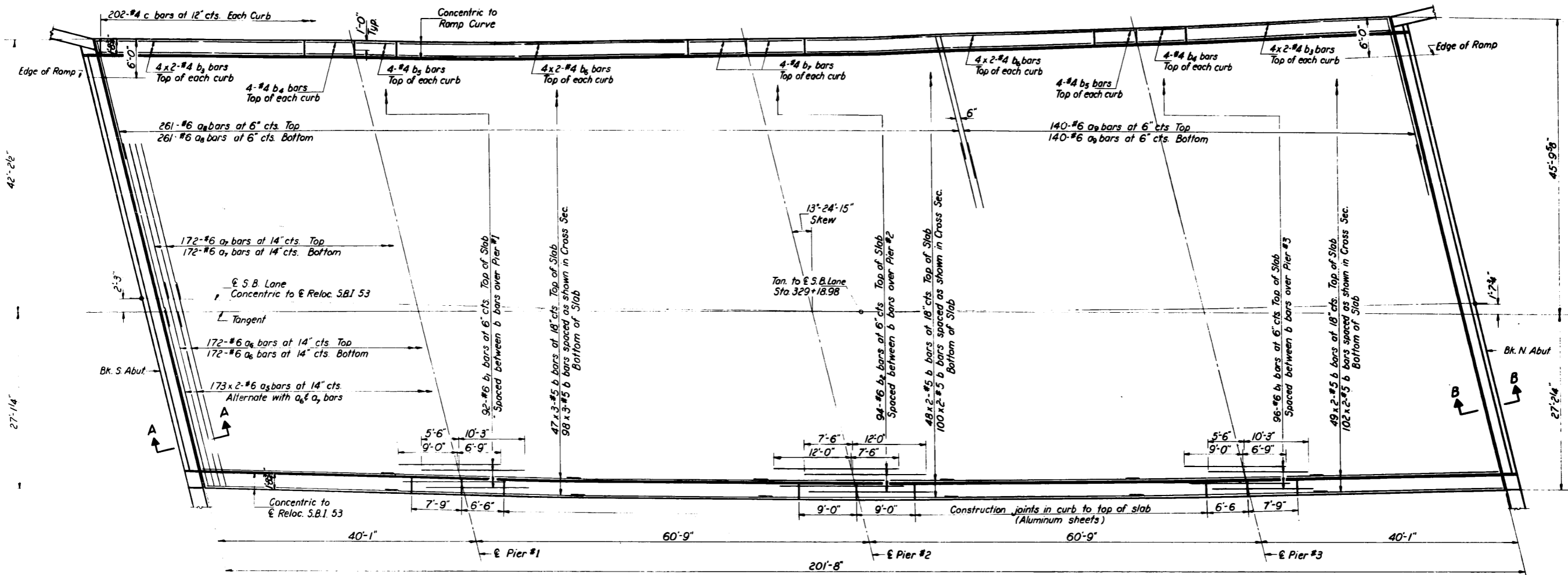
Bar	No.	Size	Length	Shape
a	372	#6	31'-6"	—
a1	370	#6	35'-6"	—
a2	370	#6	26'-3"	—
a3	610	#6	20'-0"	—
a4	192	#6	17'-6"	—
b	1083	#5	30'-0"	—
b1	192	#6	15'-9"	—
b2	96	#6	19'-6"	—
b3	32	#4	17'-0"	—
b4	16	#4	7'-6"	—
b5	16	#4	6'-3"	—
b6	32	#4	23'-3"	—
b7	16	#4	8'-9"	—
c	404	#4	4'-5"	□
* Reinforcement Bars			Lbs.	123,300
** Structural Steel			Lbs.	318,700
Class X Concrete			Cu.Yds.	376.1

DESIGNED	Walter Perry
CHECKED	R. Lownd
DRAWN	J. L. Armstrong
CHECKED	RK
EXAMINED	W. E. Baumann
PASSED	U. E. Duff
APPROVED	U. E. Duff

N. B. LANE  
SUPERSTRUCTURE  
F.A. RT. 61 SEC. 531-3-HB  
COOK COUNTY  
STA. 329+18.98

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

PROJECT NO.	591-348	CITY	COOK	DATE	29 8	SHEET NO.	3
DATE	6/1	DESIGNED BY	W. J. BERRY	CHECKED BY	J. L. ARMSTRONG	TOTAL SHEETS	22



**Notes:**  
Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line.  
Min. bar laps = 20 dia.  
For Section A-A and Section B-B see sheet #10.

\* Includes weight of S.B. Lane Bar List shown on sheet #4  
\*\* Weight of bearing assemblies with lead plates and anchor bolts are included as structural steel.  
Est. Weight = 13,740#  
\*\*\* Weight of expansion device is included as structural steel  
Est. Weight = 18,840#

**BILL OF MATERIAL**

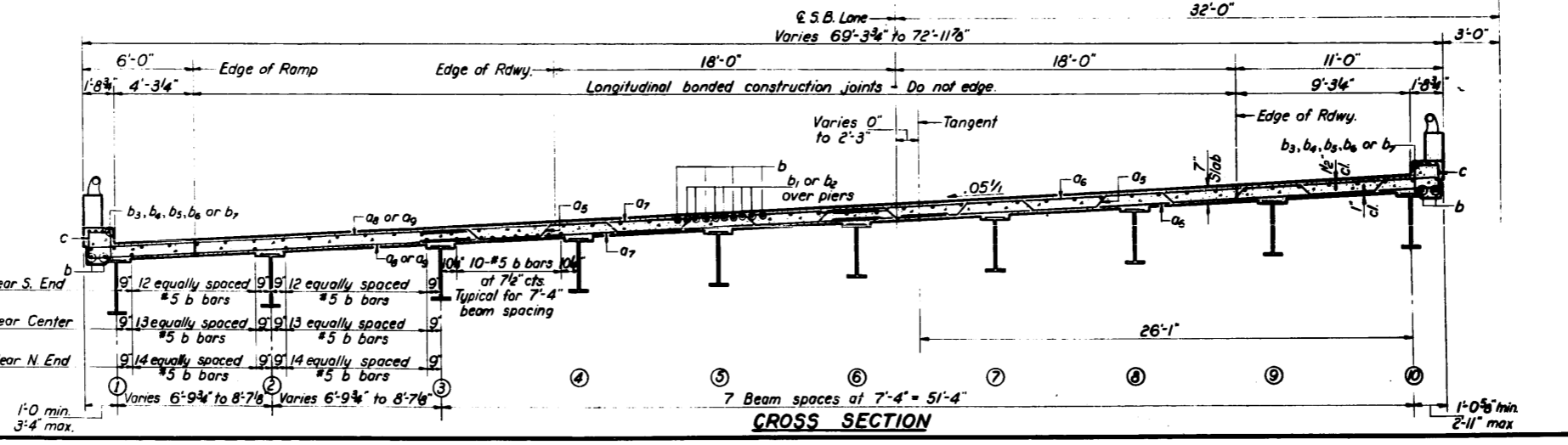
Bar	No.	Size	Length	Shape
a <sub>5</sub>	346	#6	30'-4"	~
a <sub>6</sub>	344	#6	31'-3"	~
a <sub>7</sub>	344	#6	25'-3"	~
a <sub>8</sub>	522	#6	19'-9"	~
a <sub>9</sub>	200	#6	23'-0"	~
b	1033	#5	30'-0"	~
b <sub>1</sub>	188	#6	15'-9"	~
b <sub>2</sub>	94	#6	19'-6"	~
b <sub>3</sub>	32	#4	17'-0"	~
b <sub>4</sub>	16	#4	7'-6"	~
b <sub>5</sub>	16	#4	6'-3"	~
b <sub>6</sub>	32	#4	23'-3"	~
b <sub>7</sub>	16	#4	8'-9"	~
c	404	#4	4'-5"	□

• Reinforcement Bars Lbs. 116,400  
•• Structural Steel Lbs. 317,720  
••• Glass X Concrete Cu. Yds. 369.9

DESIGNED *Walter Berry*  
CHECKED *J. L. Armstrong*  
DRAWN *J. L. Armstrong*  
CHECKED *OK*

EXAMINED *W. E. Benning*  
PASSED *W. E. Benning*  
APPROVED *W. E. Benning*

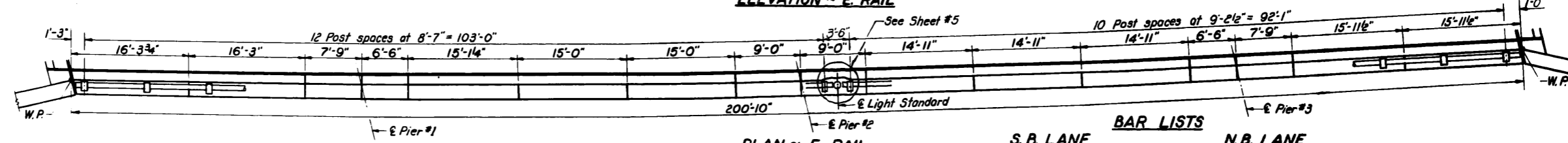
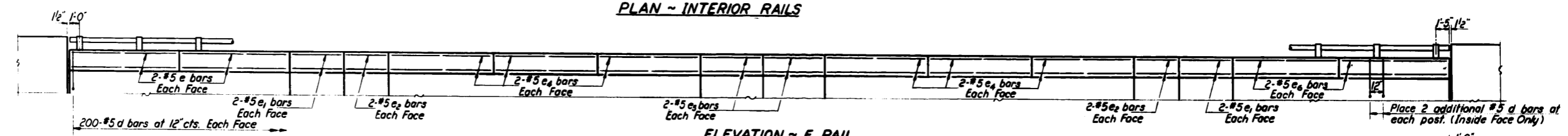
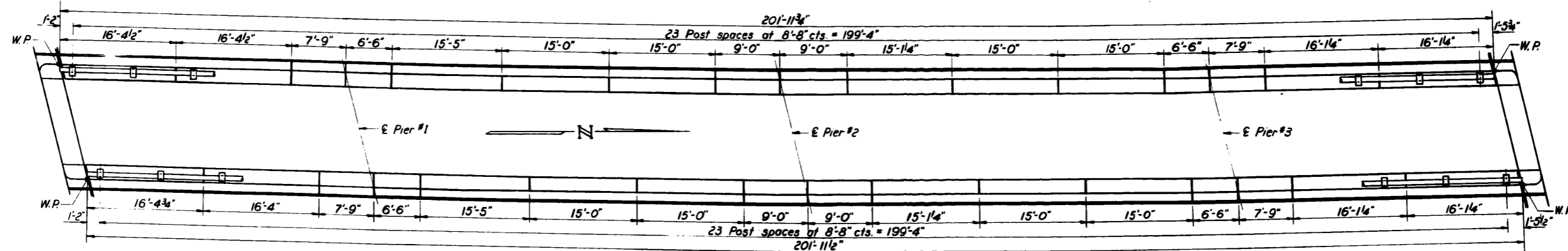
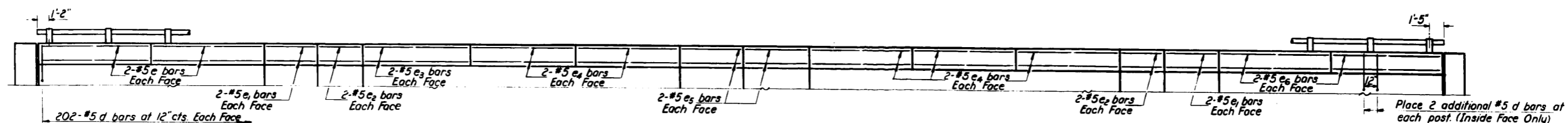
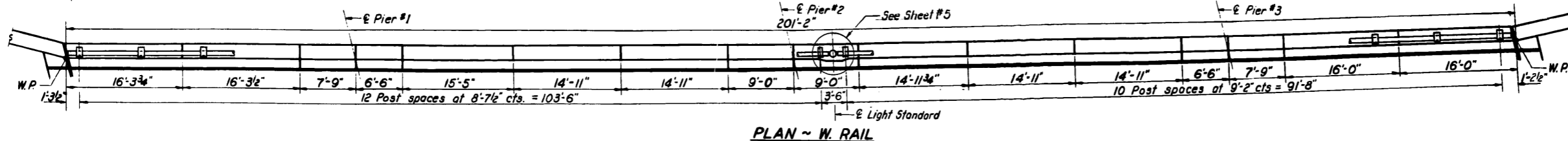
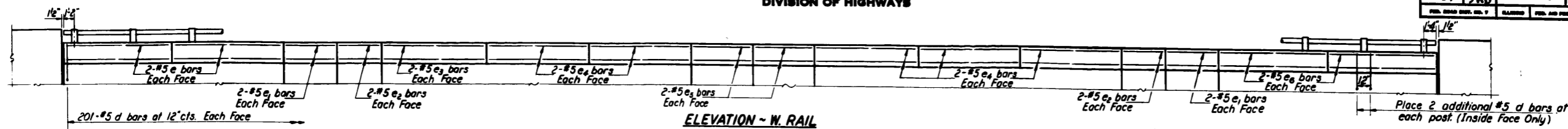
JULY 31 1944



**S. B. LANE  
SUPERSTRUCTURE  
F.A. RT. 61 SEC. 531-3-HB  
COOK COUNTY  
STA. 329+18.98**

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

PROJECT NO.	531-3HB	COUNTY	COOK	SECTION	29	SHEET NO.	4
DATE	7/31/64	DESIGNED BY	W.A. Perry	DRAWN BY	J.L. Armstrong	CHECKED BY	R.K.
TOTAL SHEETS		22 SHEETS					



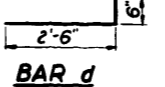
**BAR LISTS**

S.B. LANE					N.B. LANE				
Bar	No.	Size	Length	Shape	Bar	No.	Size	Length	Shape
d	904	#5	3'-0"	□	d	904	#5	3'-0"	□
e	16	#5	16'-1"	□	e	16	#5	16'-1"	□
e <sub>1</sub>	16	#5	7'-6"	□	e <sub>1</sub>	16	#5	7'-6"	□
e <sub>2</sub>	16	#5	6'-3"	□	e <sub>2</sub>	16	#5	6'-3"	□
e <sub>3</sub>	8	#5	15'-2"	□	e <sub>3</sub>	4	#5	15'-2"	□
e <sub>4</sub>	40	#5	14'-8"	□	e <sub>4</sub>	44	#5	14'-8"	□
e <sub>5</sub>	16	#5	8'-9"	□	e <sub>5</sub>	16	#5	8'-9"	□
e <sub>6</sub>	16	#5	15'-9"	□	e <sub>6</sub>	16	#5	15'-9"	□

DESIGNED *Walter Perry*  
EXAMINED *W.C. Baumann*  
CHECKED *R.K.*  
DRAWN *J.L. Armstrong*  
APPROVED *J.E. Gaff*

JULY 31 1964

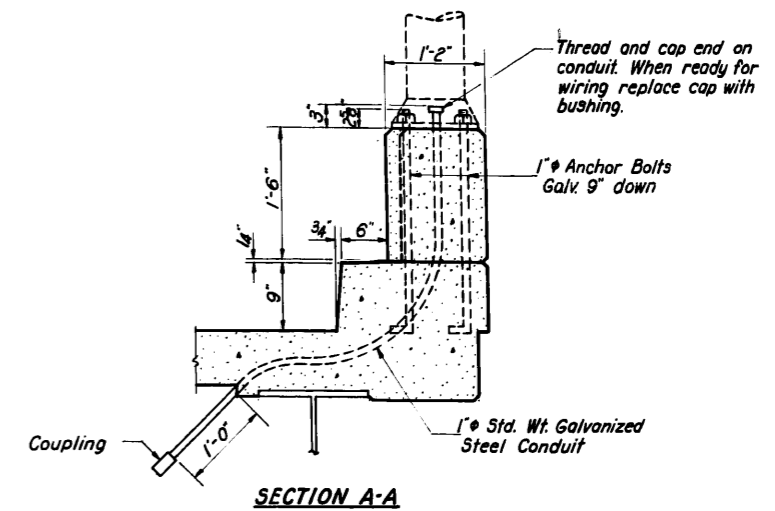
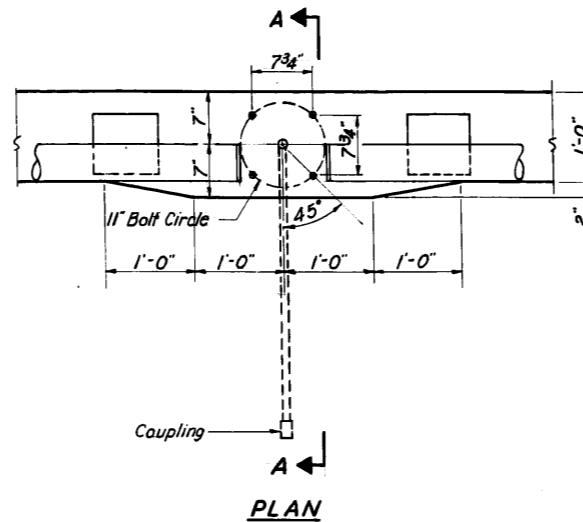
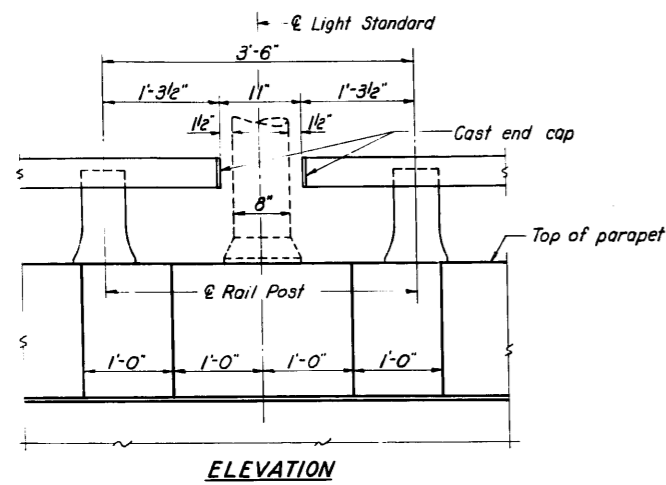
Note: See sheet #5 for Handrail and Parapet Joint Details.



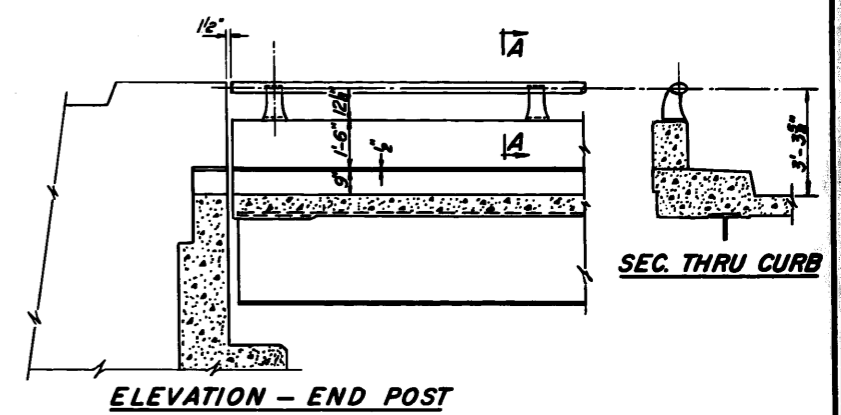
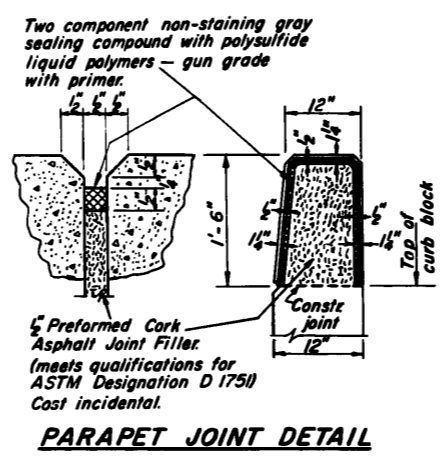
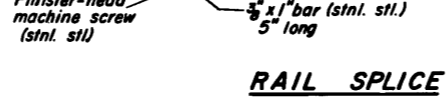
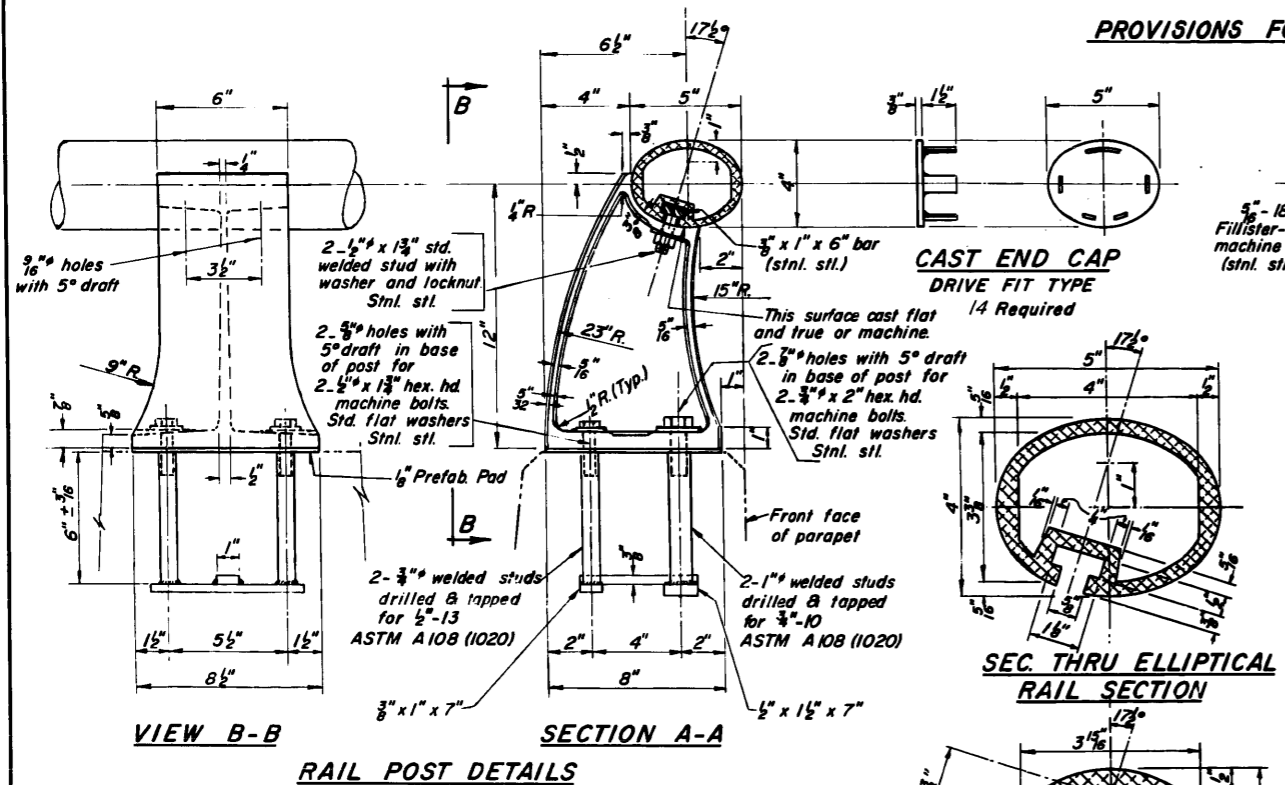
**HANDRAIL LAYOUT**  
F.A. RT. 61 SEC. 531-3-HB  
COOK COUNTY  
STA. 329+18.98

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 5 22 SHEETS
531-3-HB		COOK	29	10	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			



PROVISIONS FOR LIGHT STANDARDS



NOTES:

All Posts shall be normal to parapet.

All Aluminum Alloy Extruded Rail shall conform to ASTM specification B-235 alloy 6061-T6, or 6062-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 344-T4.  
Stainless Steel Welded Stud Bolts, Washers, and Locknuts

For material composition of Prefabricated Pad, see Article 54.9(f), (Bearing and Anchorage), of the Standard Specifications.

METHOD OF MEASUREMENT: Aluminum handrail shall be measured in lineal 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 lineal 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, and caps, and hardware to be incidental to item ALUMINUM HANDRAIL.

BILL OF MATERIAL

Item	Unit	Quantity
ALUMINUM HANDRAIL	Lin. Ft.	806

ALUMINUM HANDRAIL

HANDRAIL & LIGHTING DETAILS  
F.A. RT. 61 SEC. 531-3-HB  
COOK COUNTY  
STA. 329+18.98

DESIGNED	Walter Perry	EXAMINED	JULY 31 1964
CHECKED	R. Kowert	PASSED	
DRAWN	Wm. M. Best	APPROVED	
CHECKED	RK		

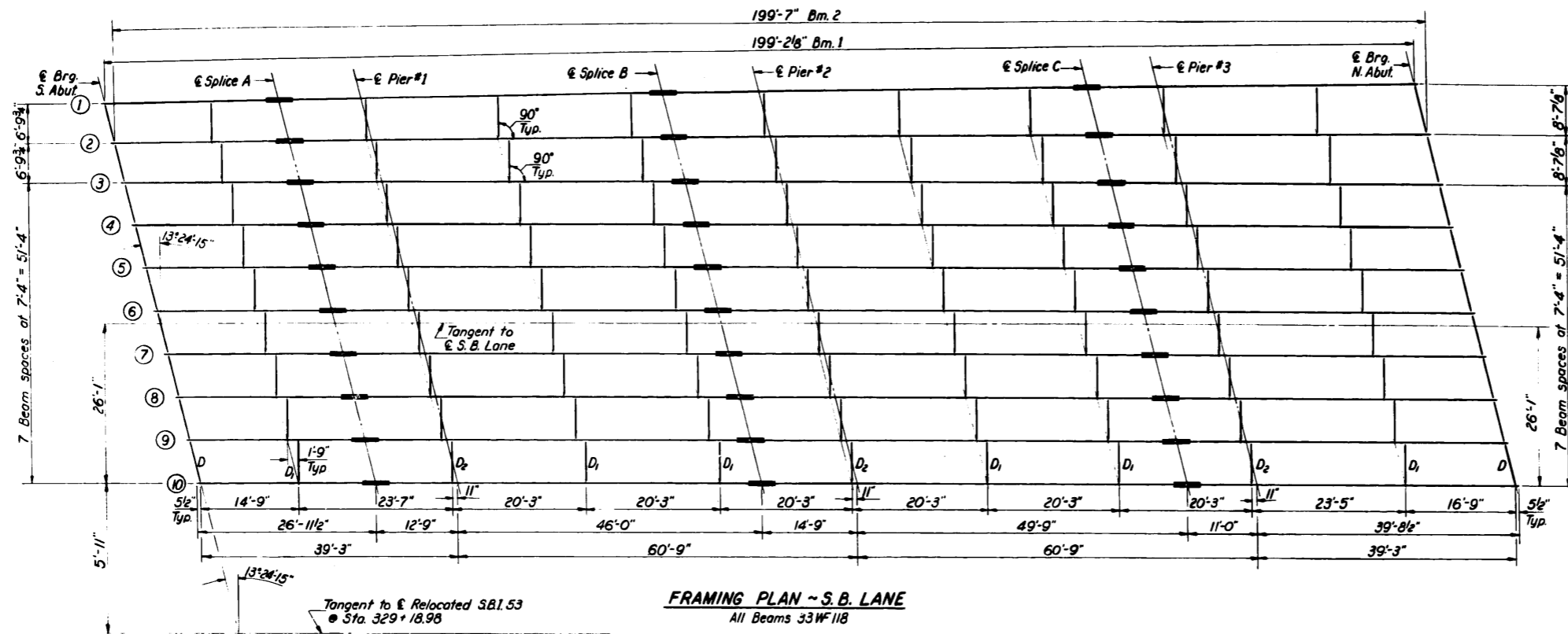




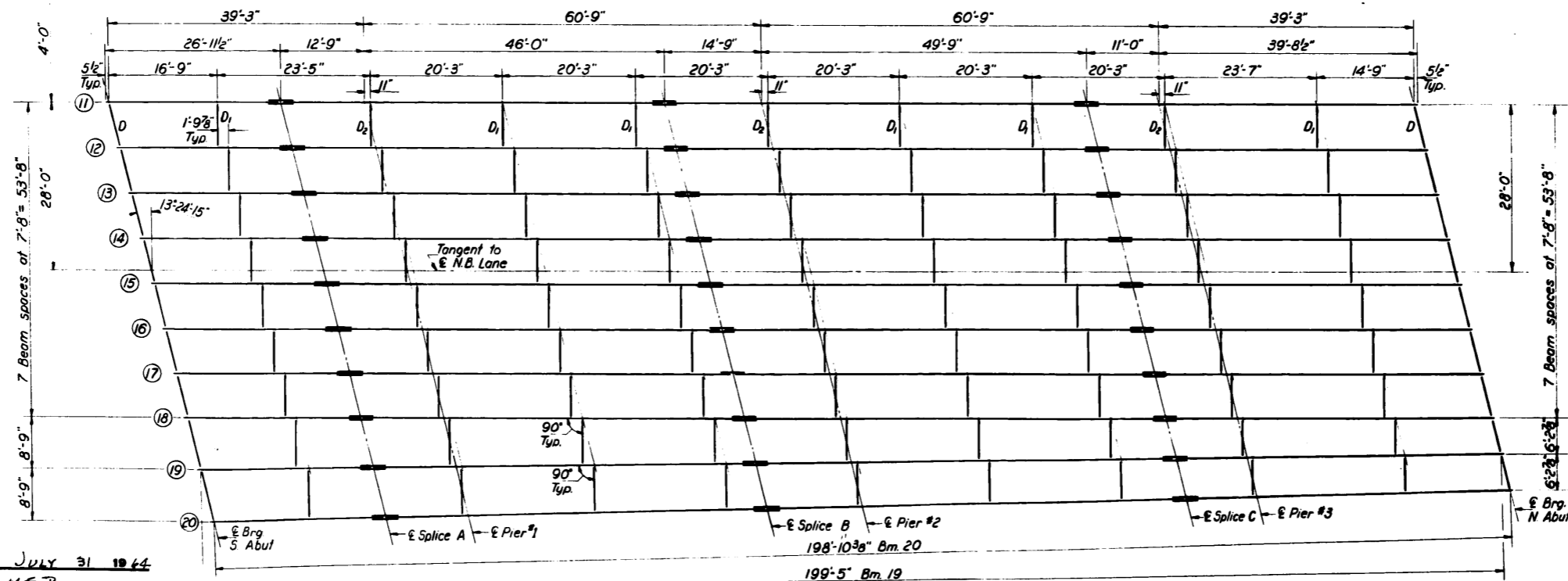


STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BUILDINGS  
DIVISION OF HIGHWAYS

PROJECT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
531-3HB	61	COOK	29	13
SHEET NO. 8 22 SHEETS				



**FRAMING PLAN ~ S.B. LANE**  
All Beams 33WF118



**FRAMING PLAN ~ N.B. LANE**  
All Beams 33WF118

DESIGNED *Walter Perry*  
CHECKED *L. Howard*  
DRAWN *J. L. Armstrong*  
CHECKED *R.L.*

JULY 31 1944  
EXAMINED *H.E. Bauman*  
PASSED *[Signature]*  
APPROVED *V.E. Cliff*

**STRUCTURAL STEEL**  
**F.A. RT. 61 SEC. 531-3-HB**  
**COOK COUNTY**  
**STA. 329+18.98**

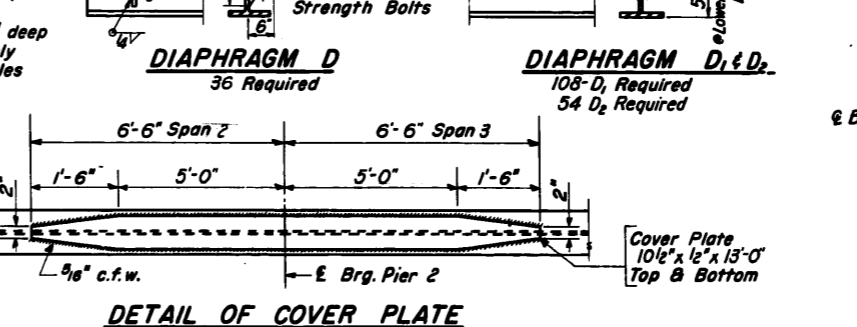
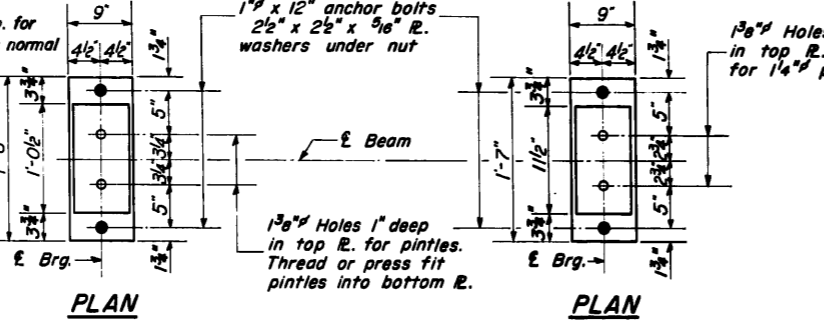
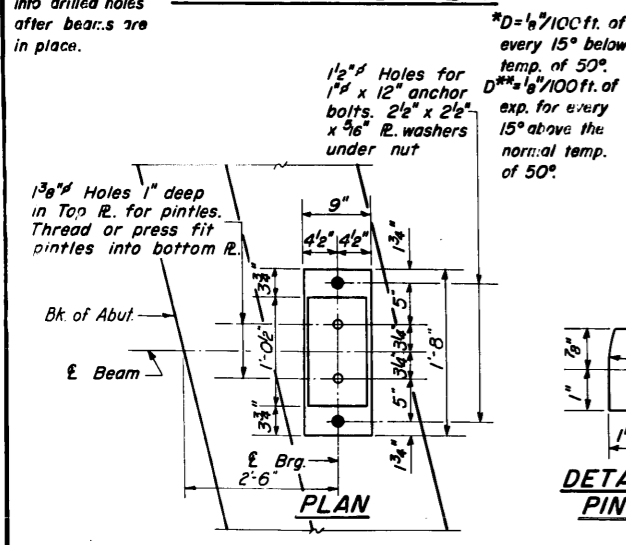
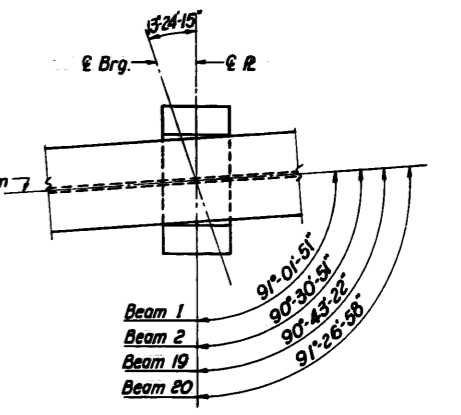
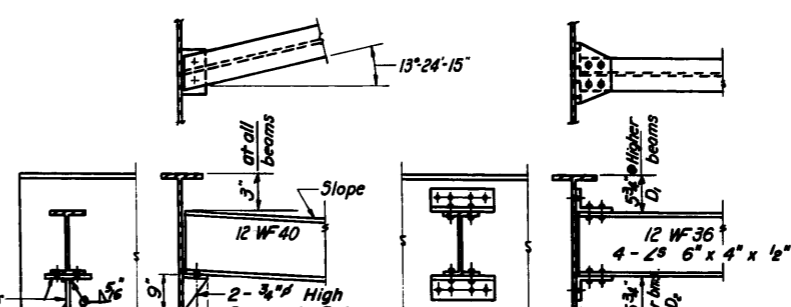
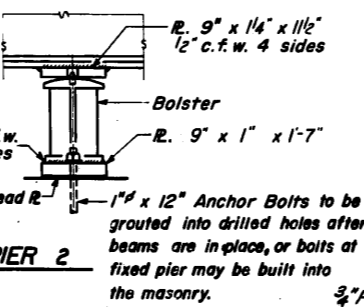
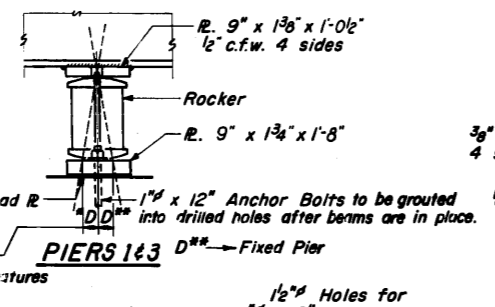
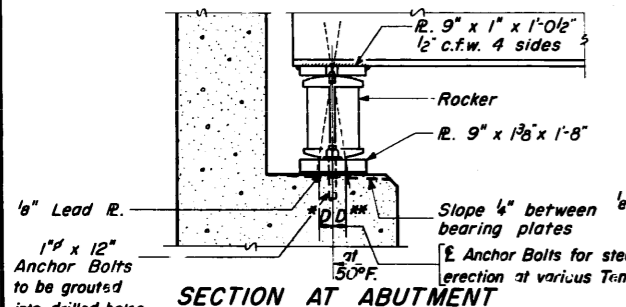
STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BUILDINGS  
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 61	531-3HB	COOK	29	14
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	

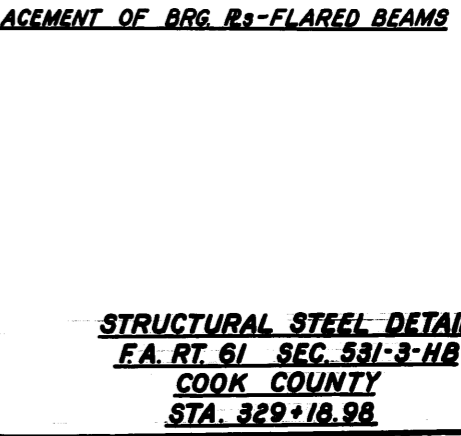
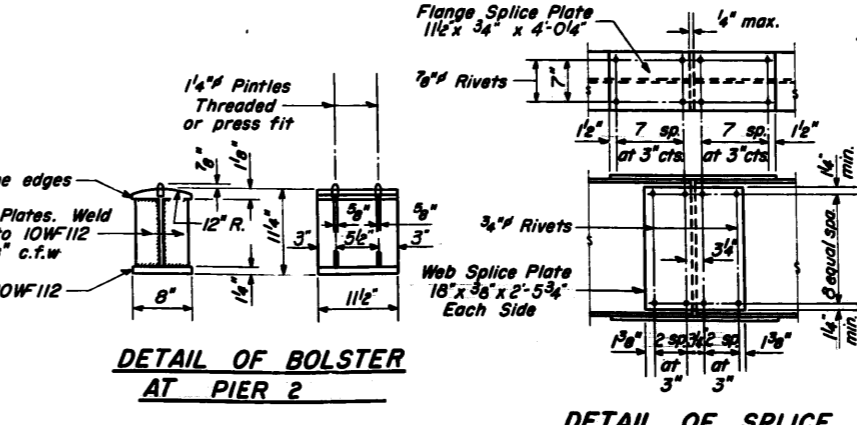
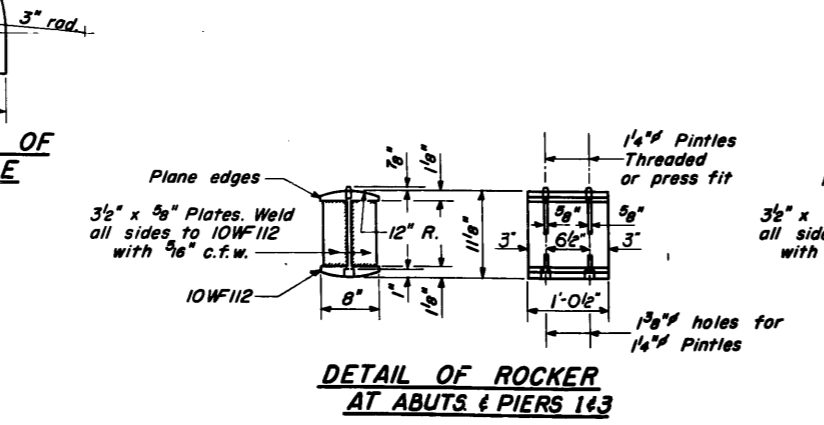
SHEET NO. 9  
22 SHEETS

TOP OF WF ELEVATIONS

Location Beam	S. B. LANE										N. B. LANE									
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
€ Brq. S. Abut.	747.72	748.06	748.40	748.77	749.14	749.51	749.88	750.25	750.62	750.99	748.33	748.72	749.11	749.50	749.89	750.28	750.67	751.06	751.51	751.96
€ Splice A	747.76	748.11	748.46	748.83	749.20	749.57	749.94	750.31	750.68	751.05	748.38	748.77	749.16	749.55	749.94	750.33	750.72	751.11	751.54	751.97
€ Pier #1	747.80	748.15	748.50	748.87	749.24	749.61	749.98	750.35	750.72	751.09	748.42	748.81	749.20	749.59	749.98	750.37	750.76	751.15	751.57	751.99
€ Splice B	747.90	748.28	748.66	749.03	749.40	749.77	750.14	750.51	750.88	751.25	748.56	748.95	749.34	749.73	750.12	750.51	750.90	751.29	751.68	752.07
€ Pier #2	747.92	748.31	748.70	749.07	749.44	749.81	750.18	750.55	750.92	751.29	748.60	748.99	749.38	749.77	750.16	750.55	750.94	751.33	751.71	752.09
€ Splice C	748.01	748.43	748.85	749.22	749.59	749.96	750.33	750.70	751.07	751.44	748.73	749.12	749.51	749.90	750.29	750.68	751.07	751.48	751.80	752.14
€ Pier #3	748.03	748.46	748.89	749.26	749.63	750.00	750.37	750.74	751.11	751.48	748.77	749.16	749.55	749.94	750.33	750.72	751.11	751.50	751.89	752.16
€ Brq. N. Abut.	748.13	748.57	749.01	749.38	749.75	750.12	750.49	750.86	751.23	751.60	748.88	749.27	749.66	750.05	750.44	750.83	751.22	751.61	751.92	752.23



DESIGNED *Walter Perry*  
 CHECKED *R. K. Bennett*  
 DRAWN *J. L. Armstrong*  
 JULY 31 1964  
 EXAMINED *W. E. Burmann*  
 PASSED *[Signature]*  
 APPROVED *[Signature]*

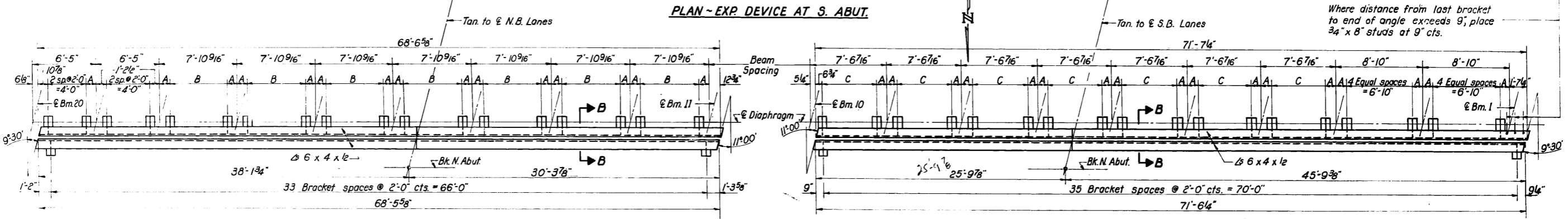
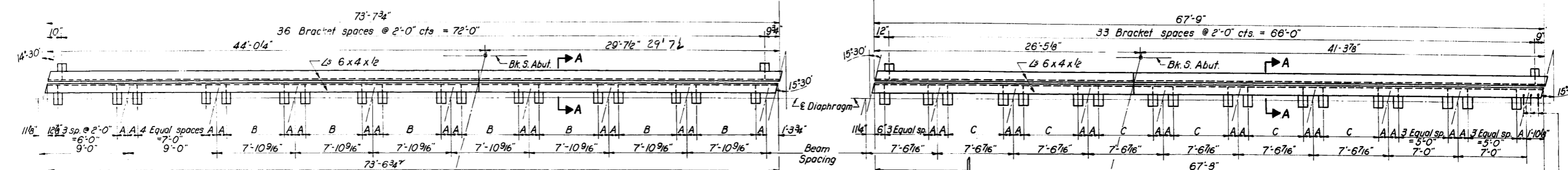
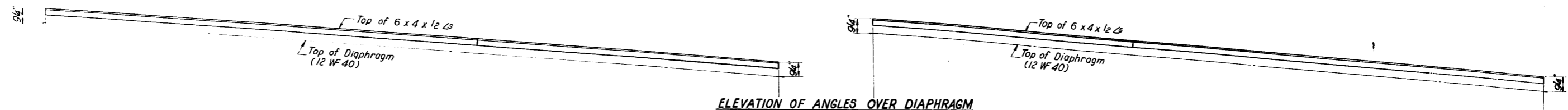


I-2-C 7-2-62 Rev. 11-9-62 Rev. 8-16-63 Rev. 12-10-63

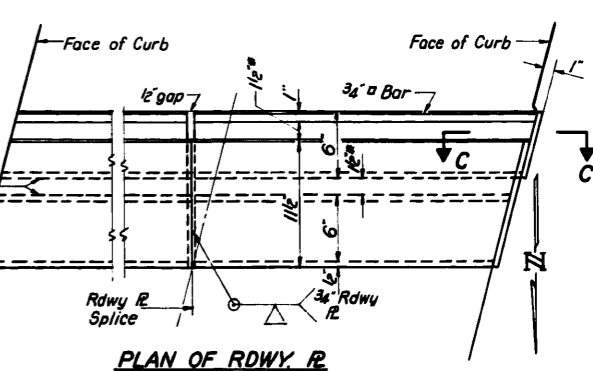
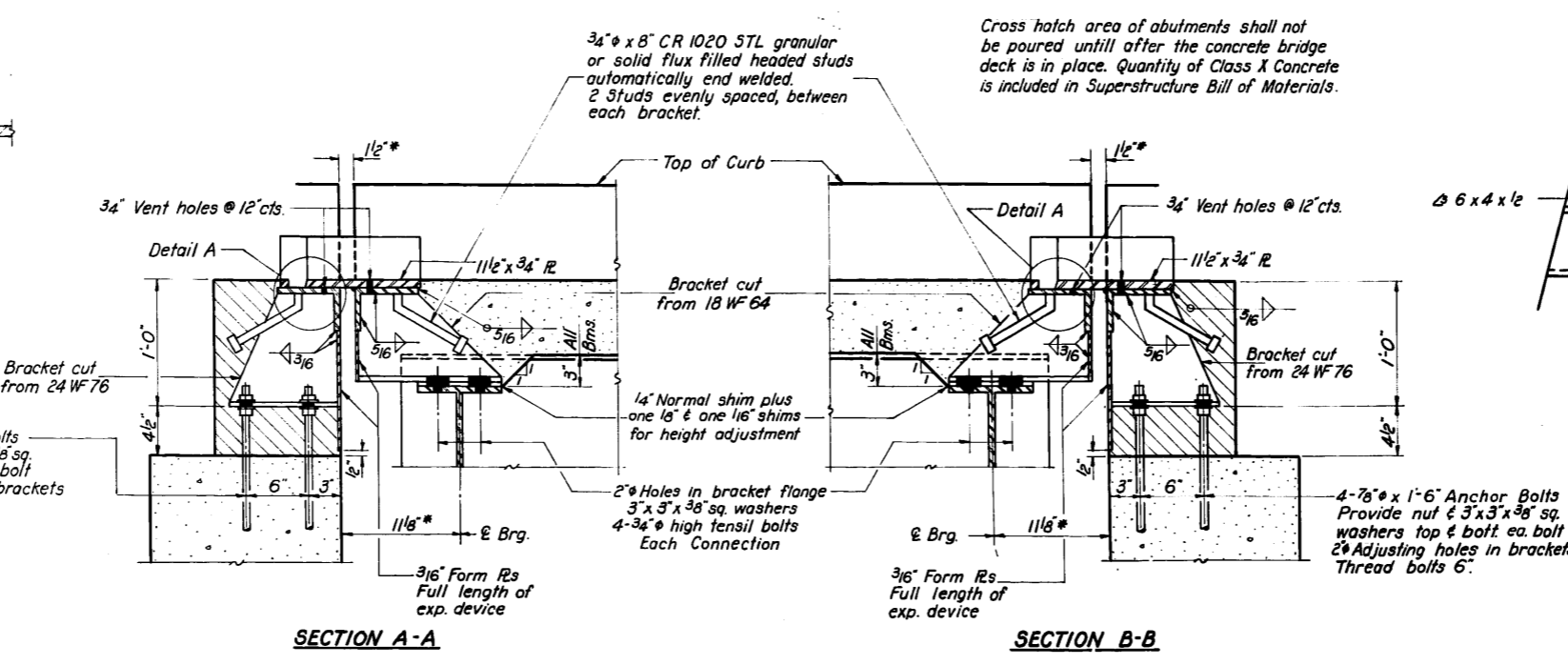
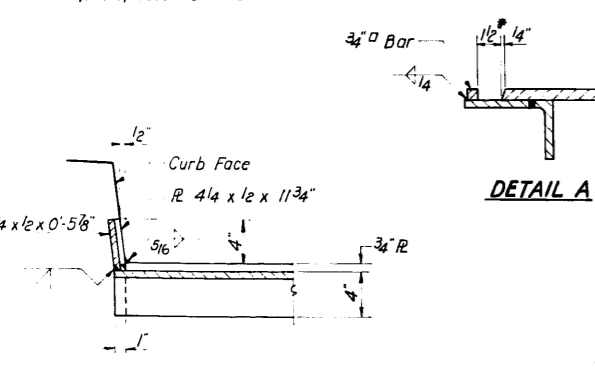
STRUCTURAL STEEL DETAILS  
 F.A. RT. 61 SEC. 531-3-HB  
 COOK COUNTY  
 STA. 329+18.98

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 10
F.A. 61	531-3 HB	COOK	29	15	22 SHEETS
ILLINOIS		FED. AID PROJECT.			



A = 1'-0"  
B = 3 Equal spaces = 5'-10 9/16"  
C = 3 Equal spaces = 5'-6 7/16"



DESIGNED *Walter Perry*  
CHECKED *R. Kowal*  
DRAWN *J.L. Armstrong*  
CHECKED *R.K.*

EXAMINED *W.E. Beermann*  
PASSED *E. H. ...*  
APPROVED *O.E. ...*

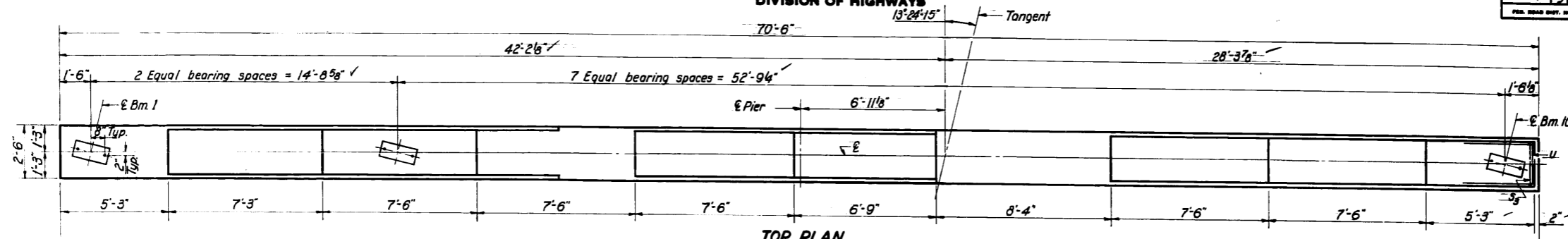
JULY 31 1964

EXPANSION DEVICE  
F.A. RT. 61 SEC. 531-3 HB  
COOK COUNTY  
STA. 329+18.98

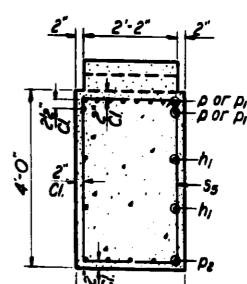
\* Normal temp. of 50°F

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

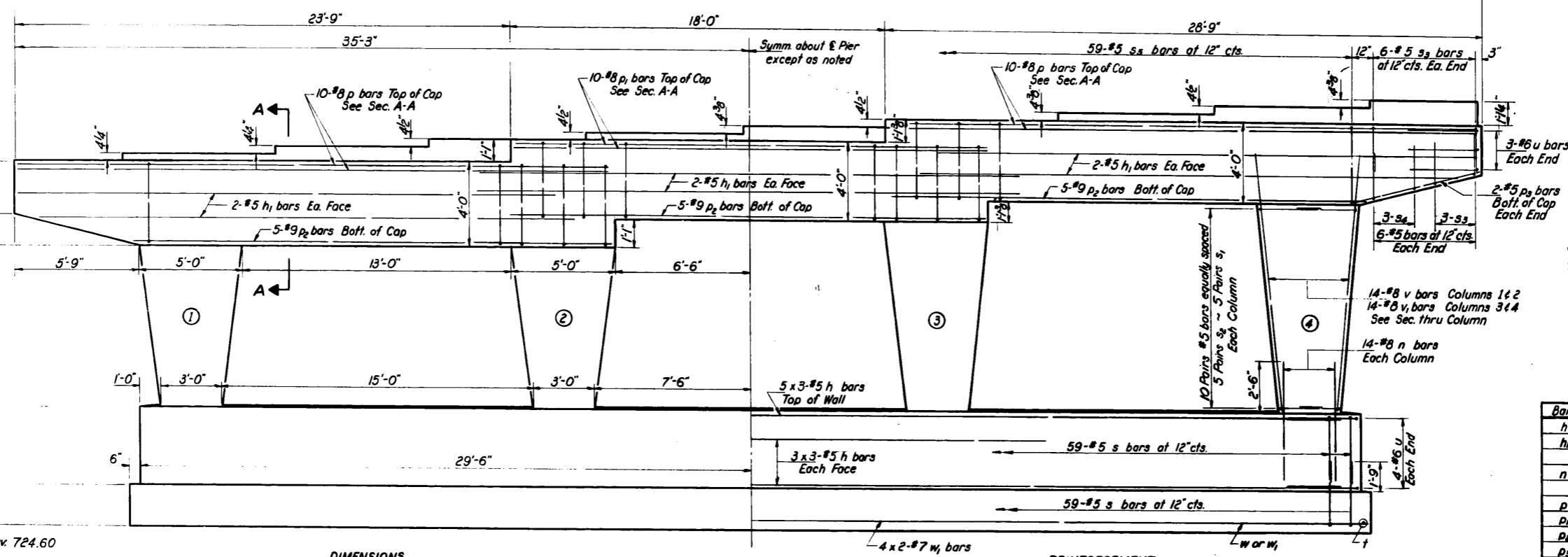
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291-3-11B	COOK	29	16	22	SHEETS
FED. ROAD DIST. NO. 7					



TOP PLAN

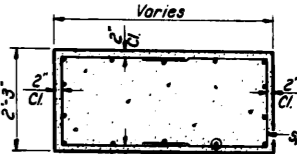


SECTION A-A

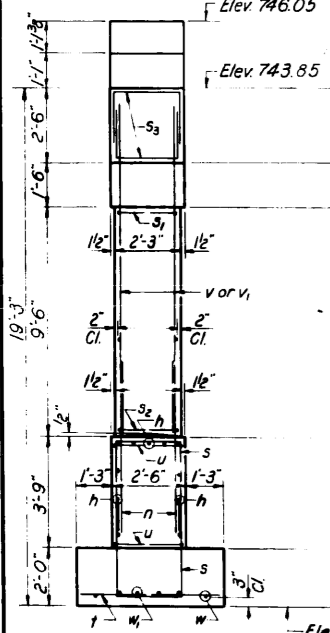


ELEVATION

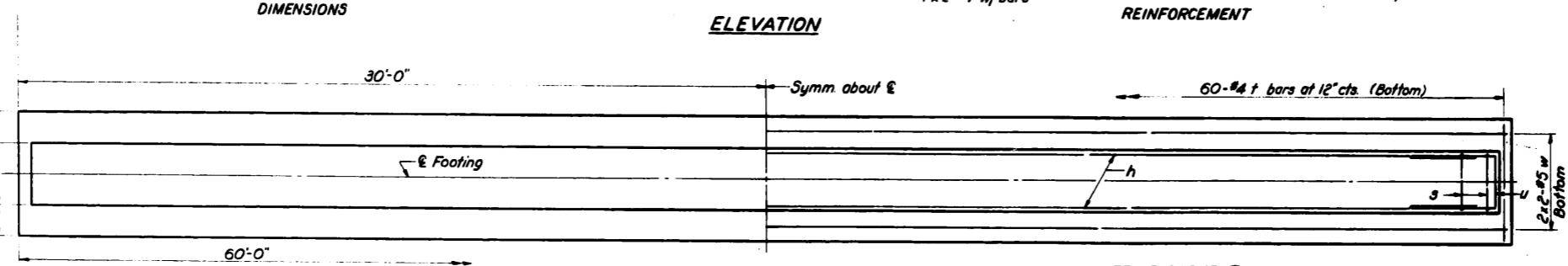
REINFORCEMENT



SECTION THRU COLUMN



END VIEW



DIMENSIONS

ELEVATION

REINFORCEMENT

DIMENSIONS

FOOTING PLAN

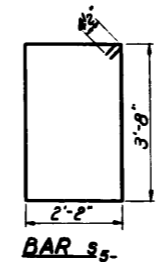
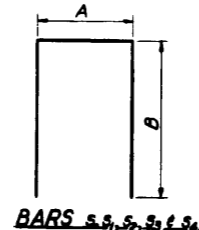
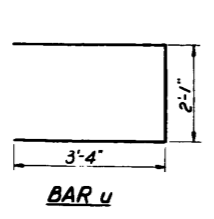
REINFORCEMENT

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h	33	#5	19'-9"	—
hi	12	#5	26'-0"	—
n	56	#8	6'-0"	—
p	20	#8	28'-6"	—
pi	10	#8	22'-6"	—
ps	15	#9	23'-0"	—
ps	4	#5	6'-0"	—
s	118	#5	9'-2"	□
si	40	#5	7'-7"	□
se	40	#5	6'-9"	□
si	18	#5	6'-6"	□
si	6	#5	7'-2"	□
si	59	#5	12'-5"	□
t	60	#4	4'-9"	—
u	14	#6	8'-9"	□
v	28	#8	13'-0"	—
vi	28	#8	14'-3"	—
w	4	#5	30'-6"	—
wi	8	#7	30'-9"	—
Class X Concrete				Cu. Yds. 85.2
Reinforcement Bars				Lbs. 10,920

**A & B DIMENSIONS**

Bar	A	B
s	2'-2"	3'-6"
si	1'-11"	2'-10"
se	1'-11"	2'-5"
si	2'-2"	2'-2"
si	2'-2"	2'-6"



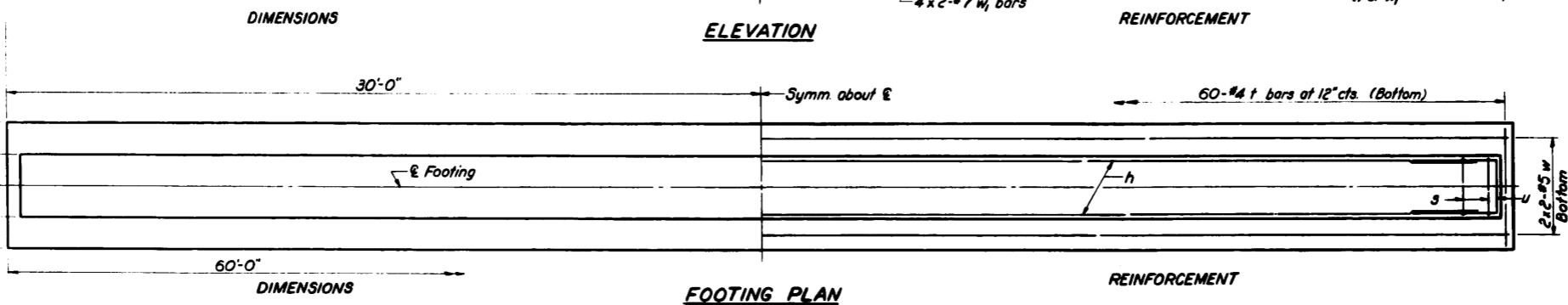
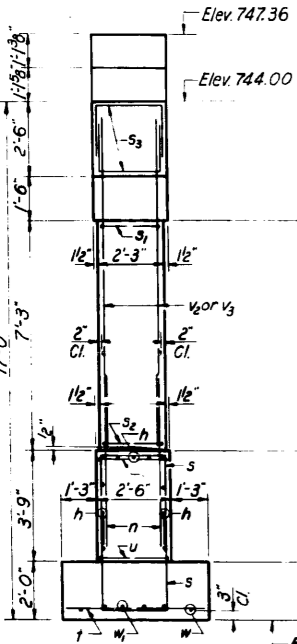
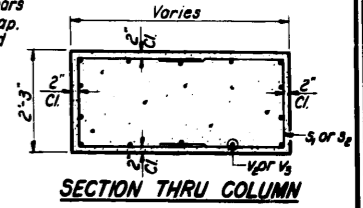
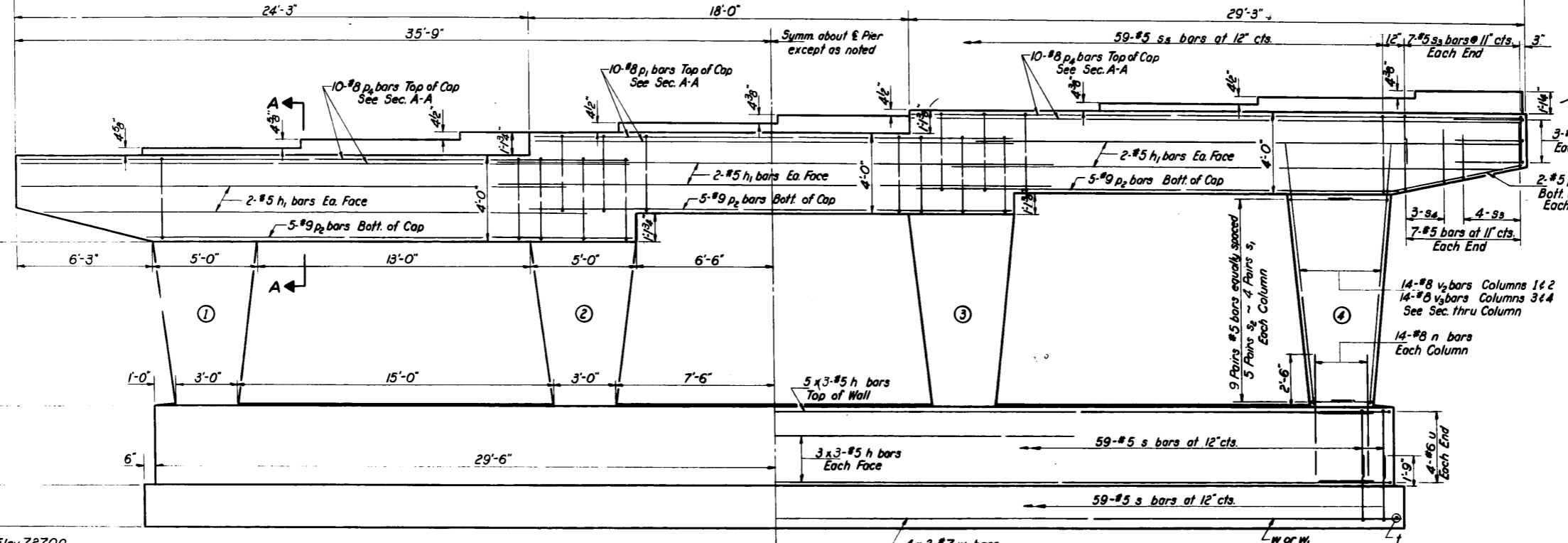
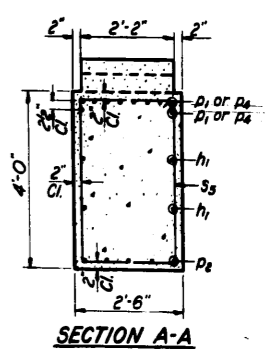
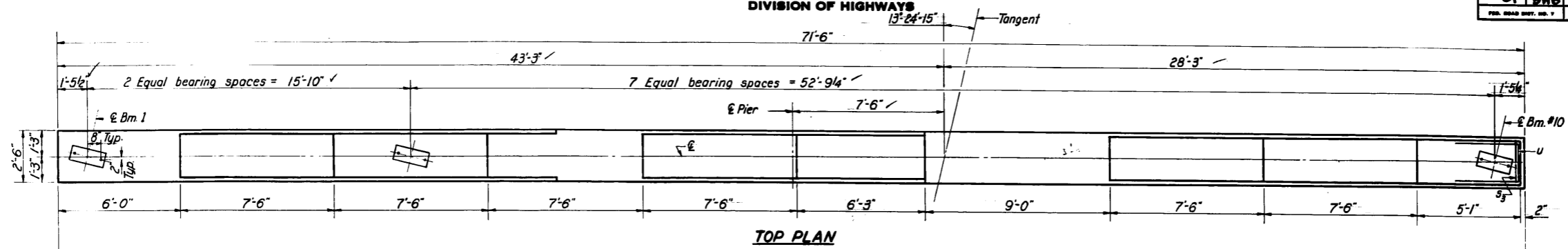
Note:  
Space reinforcement in cap to miss anchor bolts.  
Min. bar laps = 20 dia. unless otherwise noted.  
All edges shall have standard 3/4" chamfers except as noted.  
Pour steps monolithically with cap.  
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.  
Max. Soil Pressure = 2.0 T/ft<sup>2</sup>

DESIGNED *Wallin Perry*  
CHECKED *RK*  
DRAWN *J.L. Armstrong*  
CHECKED *RK*  
EXAMINED *W.E. Blum*  
PASSED *[Signature]*  
APPROVED *U.E. Bluff*

PIER #1 - S. B. LANE  
F.A. RT. 61 SEC. 531-3-HB  
COOK COUNTY  
STA. 329+18.98

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

ROUTE NO.	SECTION	QUANTITY	TOTAL SHEETS	SHEET NO.	SHEET NO. 12
61	531-3HB	COOK	29	17	22 SHEETS

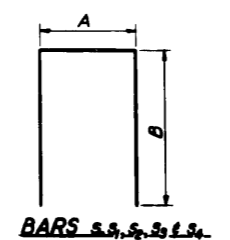
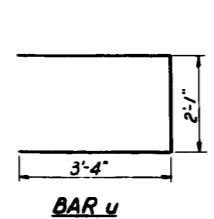


BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h	33	#5	18'-9"	—
h1	12	#5	26'-0"	—
n	56	#8	6'-0"	—
p1	10	#8	22'-6"	—
p2	15	#9	23'-0"	—
p4	20	#8	29'-0"	—
p5	4	#5	6'-6"	—
s	118	#5	9'-2"	□
s1	32	#5	7'-7"	□
s2	40	#5	6'-9"	□
s3	22	#5	6'-6"	□
s4	6	#5	7'-2"	□
s5	59	#5	12'-5"	□
t	60	#4	4'-9"	—
u	14	#6	8'-9"	□
v2	28	#8	10'-9"	—
v3	28	#8	12'-0"	—
w	4	#5	30'-6"	—
w1	8	#7	30'-9"	—
Class X Concrete				Cu. Yds. 82.5
Reinforcement Bars				Lbs. 10,580

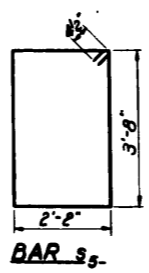
DESIGNED *Walter Perry*  
CHECKED *R. K.*  
DRAWN *J. L. Armstrong*  
CHECKED *R. K.*

EXAMINED *H. G. Plummer*  
PASSED *[Signature]*  
APPROVED *[Signature]*  
JULY 31 1964



A & B DIMENSIONS

Bar	A	B
s	2'-2"	3'-6"
s1	1'-11"	2'-10"
s2	1'-11"	2'-5"
s3	2'-2"	2'-2"
s4	2'-2"	2'-6"

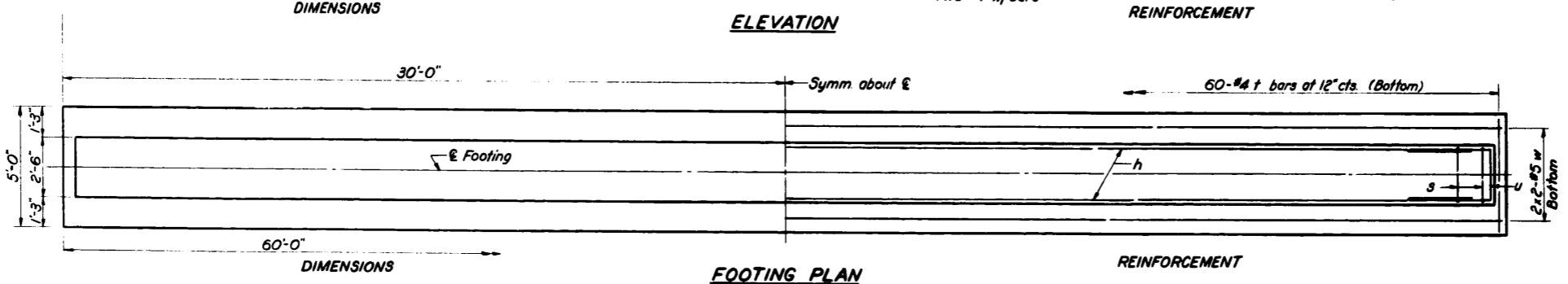
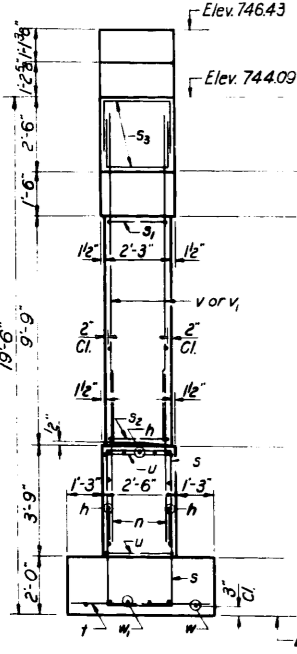
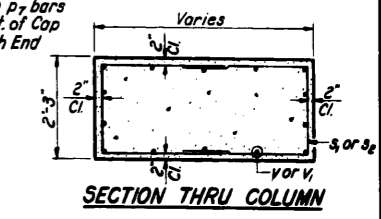
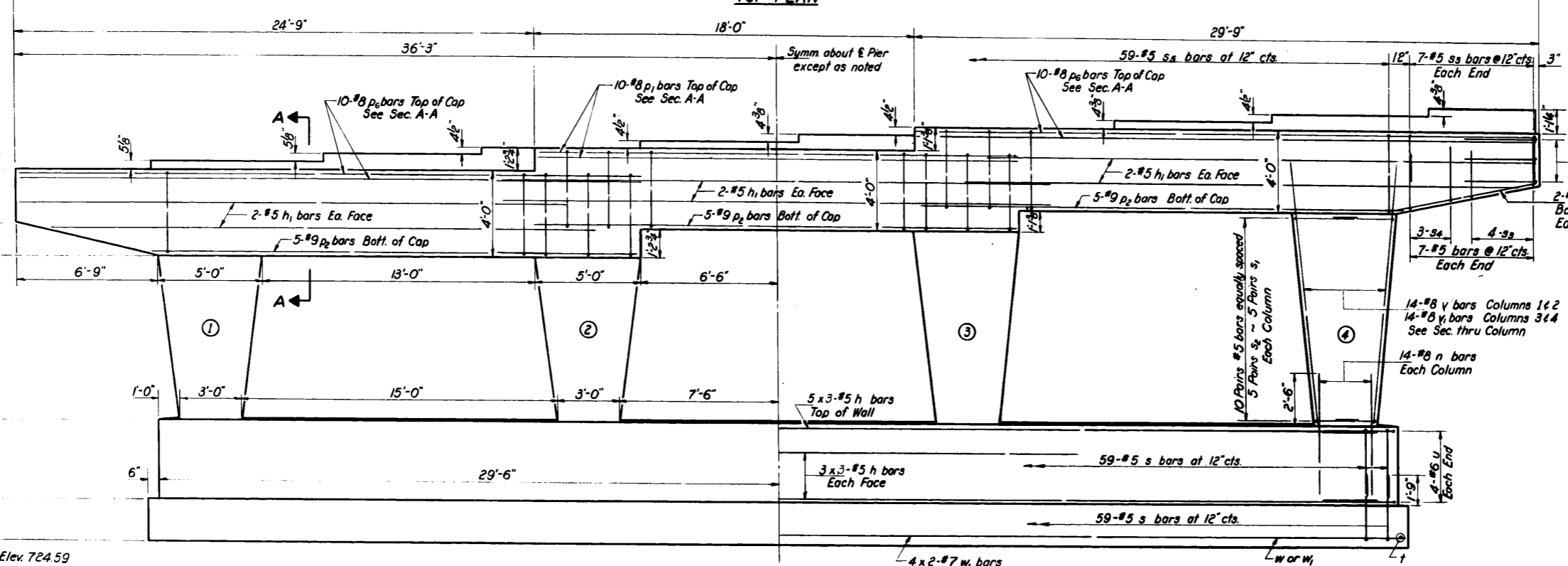
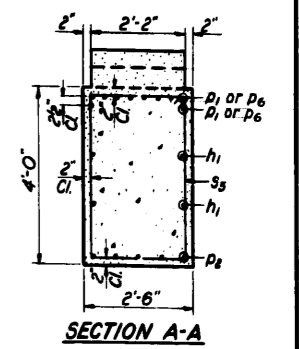
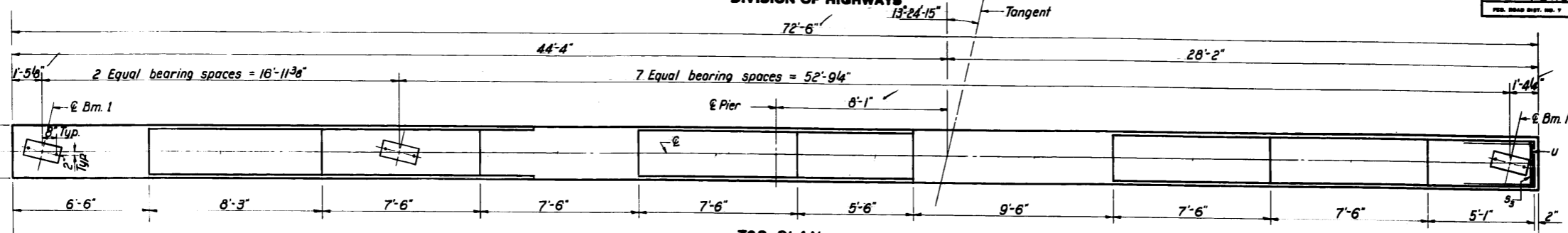


Note:  
Space reinforcement in cap to miss anchor bolts.  
Min. bar laps = 20 dia. unless otherwise noted.  
All edges shall have standard 3/4" chamfers except as noted.  
Pour steps monolithically with cap.  
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.  
Max. Soil Pressure = 3.2 T/ft<sup>2</sup>

PIER #2 ~ S.B. LANE  
F.A. RT. 61 SEC. 531-3-HB  
COOK COUNTY  
STA. 329+18.98

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
531-3-HB	29	COOK	18	22
SHEET NO. 13				
22 SHEETS				



**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h	33	#5	19'-9"	
h1	12	#5	26'-0"	
n	56	#8	6'-0"	
p1	10	#8	22'-6"	
p2	15	#9	23'-0"	
p3	20	#8	29'-6"	
p7	4	#5	7'-0"	
s	118	#5	9'-2"	
s1	40	#5	7'-7"	
s2	40	#5	6'-9"	
s3	22	#5	6'-6"	
s4	6	#5	7'-2"	
s5	59	#5	12'-5"	
t	60	#4	4'-9"	
u	14	#6	8'-9"	
v	28	#8	13'-0"	
v1	28	#8	14'-3"	
w	4	#5	30'-6"	
w1	8	#7	30'-9"	
Class X Concrete			Cu Yds.	86.7
Reinforcement Bars			Lbs.	11,010

DESIGNED *Walter Perry*  
CHECKED *R. Hawk*  
DRAWN *J. L. Armstrong*  
CHECKED *RK*

EXAMINED *W.C. Baumgartner*  
PASSED *[Signature]*  
APPROVED *J.E. Olcott*

JULY 31 1964

**A & B DIMENSIONS**

Bar	A	B
s	2'-2"	3'-6"
s1	1'-11"	2'-10"
s2	1'-11"	2'-5"
s3	2'-2"	2'-2"
s4	2'-2"	2'-6"

BAR u: 3'-4" x 2'-1"

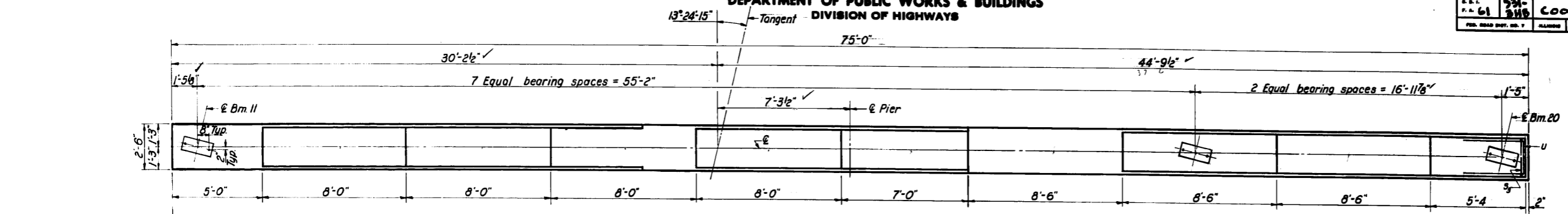
BARS s, s1, s2, s3 & s4: 2'-2" x 3'-9"

Note:  
Space reinforcement in cap to miss anchor bolts.  
Min. bar laps = 20 dia. unless otherwise noted.  
All edges shall have standard 3/4" chamfers except as noted.  
Pour steps monolithically with cap.  
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.  
Max. Soil Pressure = 2.0 T/ft<sup>2</sup>

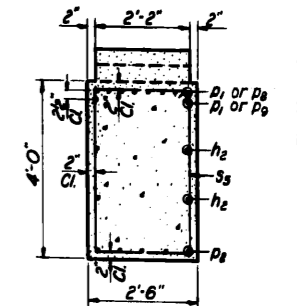
**PIER #3 - S.B. LANE**  
**F.A. RT. 61 SEC. 531-3-HB**  
**COOK COUNTY**  
**STA. 329+18.98**

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

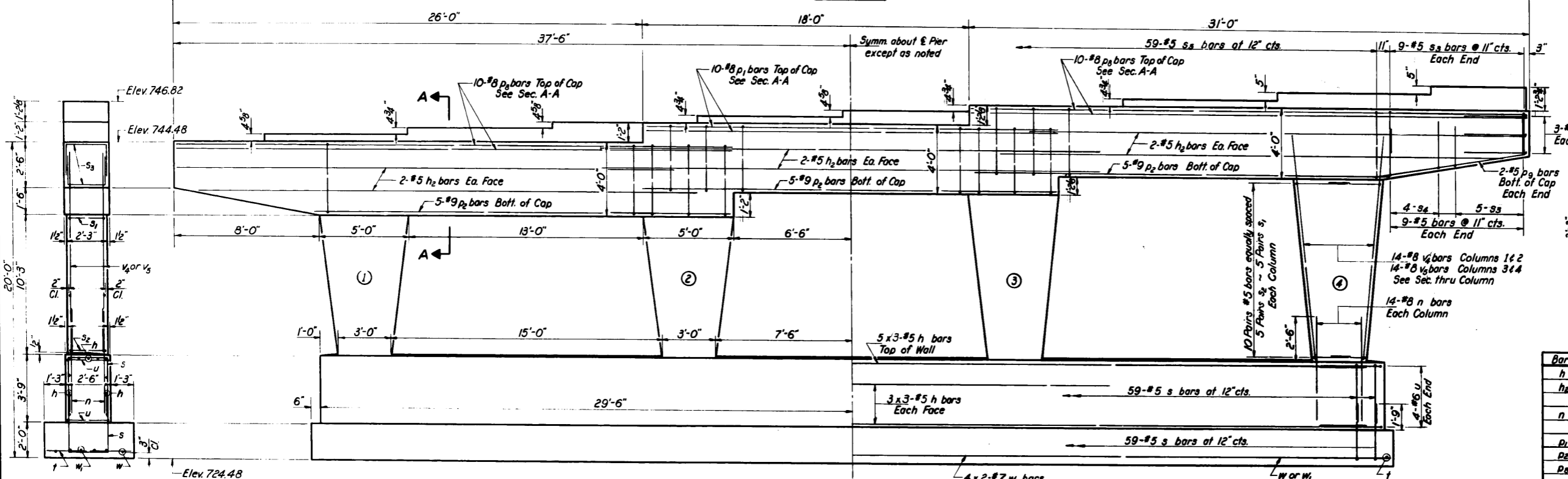
STATE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 14
61	531-3HB	COOK	29	19	22 SHEETS



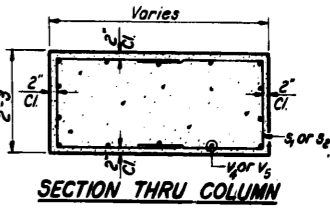
TOP PLAN



SECTION A-A



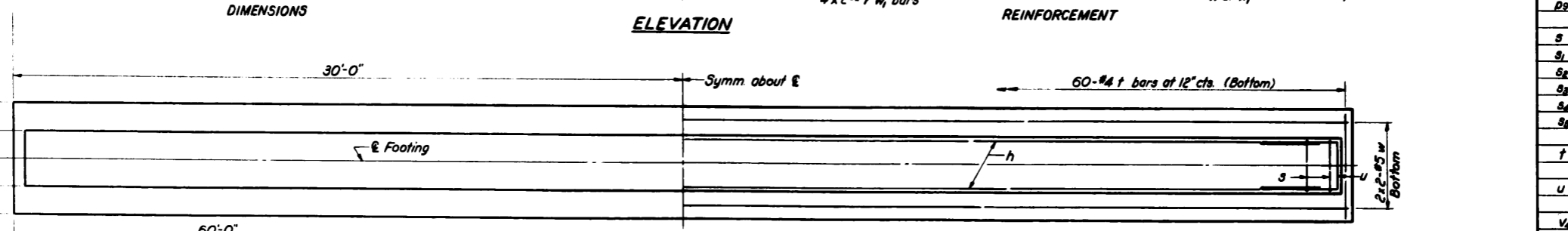
ELEVATION



SECTION THRU COLUMN



END VIEW



DIMENSIONS

FOOTING PLAN

REINFORCEMENT

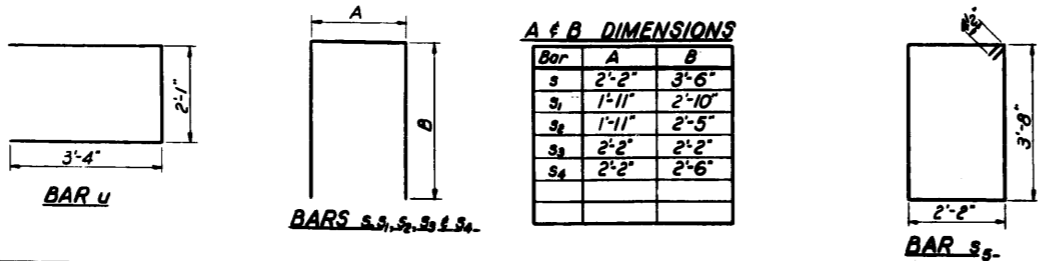
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h	33	#5	19'-9"	—
h2	12	#5	27'-6"	—
n	56	#8	6'-0"	—
p1	10	#8	22'-6"	—
p2	15	#9	23'-0"	—
p3	20	#8	30'-9"	—
p4	4	#5	8'-3"	—
s	118	#5	9'-2"	□
s1	40	#5	7'-7"	□
s2	40	#5	6'-9"	□
s3	28	#5	6'-6"	□
s4	8	#5	7'-2"	□
s5	59	#5	12'-5"	□
t	60	#4	4'-9"	—
u	14	#6	8'-9"	□
v4	28	#8	14'-0"	—
v5	28	#8	15'-3"	—
w	4	#5	30'-6"	—
w1	8	#7	30'-9"	—
Class X Concrete		Cu Yds.	88.7	
Reinforcement Bars		Lbs.	11,500	

DESIGNED *Walter Perry*  
CHECKED *R. Kuntz*  
DRAWN *J. L. Armstrong*  
CHECKED *RK*

EXAMINED *H. C. Baumann*  
PASSED *[Signature]*  
APPROVED *[Signature]*

JULY 31 1964



Bar	A	B
s	2'-2"	3'-6"
s1	1'-11"	2'-10"
s2	1'-11"	2'-5"
s3	2'-2"	2'-2"
s4	2'-2"	2'-6"

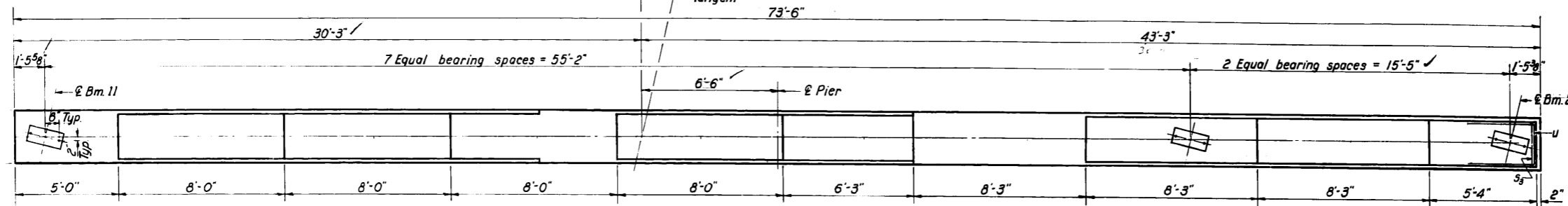
Note:  
Space reinforcement in cap to miss anchor bolts.  
Min. bar laps = 20 dia. unless otherwise noted.  
All edges shall have standard 3/4" chamfers except as noted.  
Four steps monolithically with cap.  
Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line.  
Max. Soil Pressure = 2.0 T/ft²

PIER #1 ~ N.B. LANE  
F.A. RT. 61 SEC. 531-3-HB  
COOK COUNTY  
STA. 329+18.98

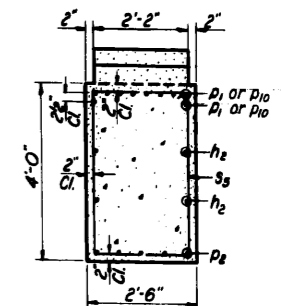


STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BUILDINGS  
DIVISION OF HIGHWAYS

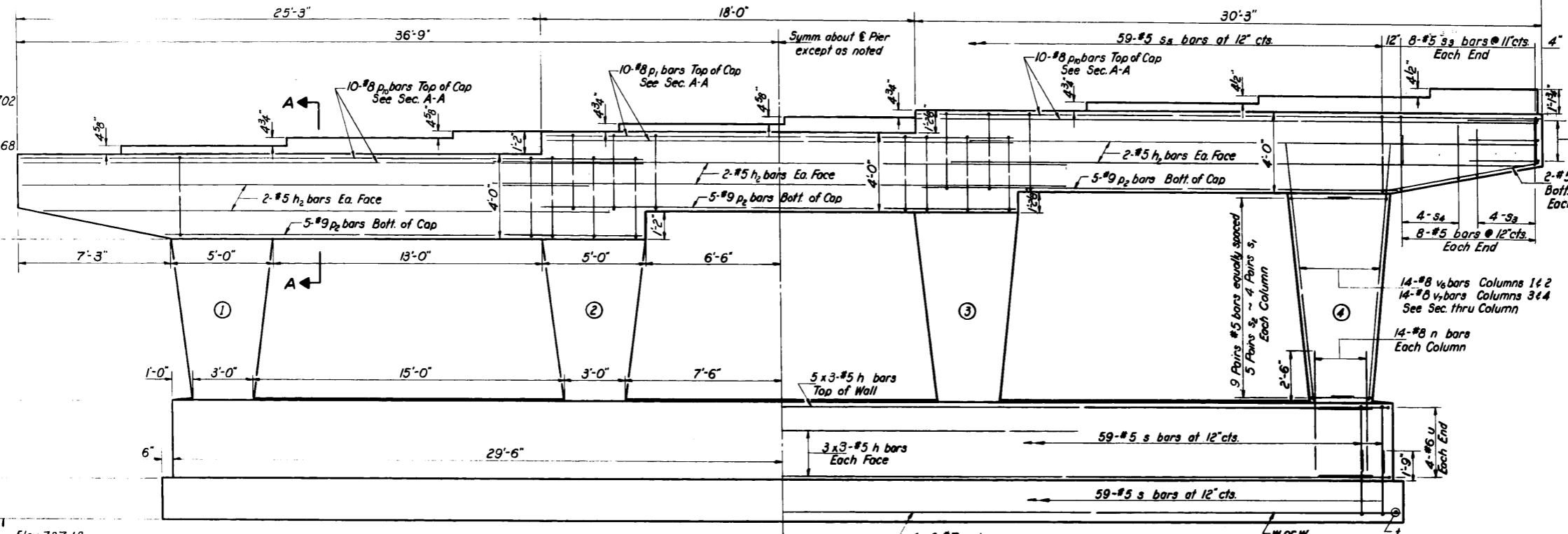
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 15
61	531-3-HB	COOK	29	20	22 SHEETS
ILLINOIS		FED. AID PROJECT			



TOP PLAN

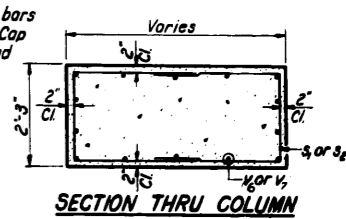


SECTION A-A

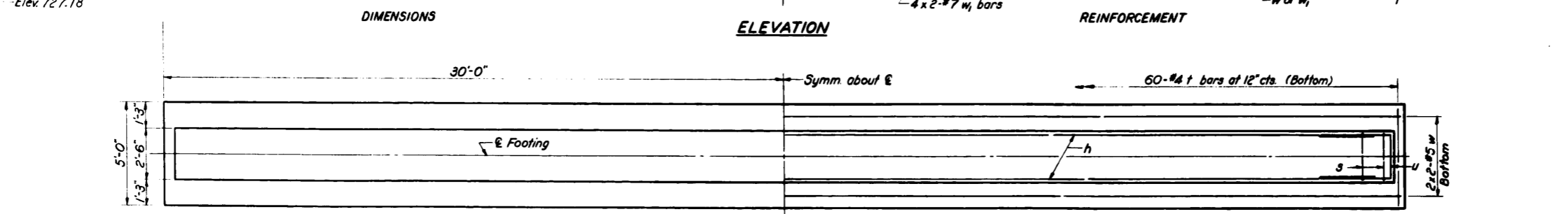


ELEVATION

REINFORCEMENT



SECTION THRU COLUMN



FOOTING PLAN

REINFORCEMENT

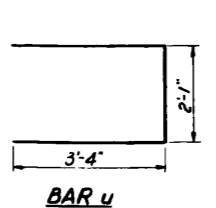
**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h	33	#5	19'-9"	—
h <sub>e</sub>	12	#5	27'-6"	—
n	56	#8	6'-0"	—
D <sub>1</sub>	10	#8	22'-6"	—
D <sub>2</sub>	15	#9	23'-0"	—
D <sub>10</sub>	20	#8	30'-0"	—
D <sub>11</sub>	4	#5	7'-6"	—
s	118	#5	9'-2"	□
s <sub>1</sub>	32	#5	7'-7"	□
s <sub>2</sub>	40	#5	6'-9"	□
s <sub>3</sub>	24	#5	6'-6"	□
s <sub>4</sub>	8	#5	7'-2"	□
s <sub>5</sub>	59	#5	12'-5"	□
t	60	#4	4'-9"	—
u	14	#6	8'-9"	□
v <sub>6</sub>	28	#8	11'-3"	—
v <sub>7</sub>	28	#8	12'-6"	—
w	4	#5	30'-6"	—
w <sub>1</sub>	8	#7	30'-9"	—
Class X Concrete			Cu. Yds.	84.7
Reinforcement Bars			Lbs.	10,760

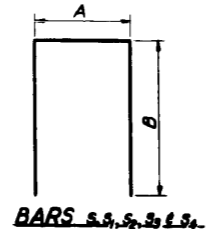
Note:  
Space reinforcement in cap to miss anchor bolts.  
Min. bar laps = 20 dia. unless otherwise noted.  
All edges shall have standard 3/4" chamfers except as noted.  
Pour steps monolithically with cap.  
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.  
Max. Soil Pressure = 3.2 T/ft

DESIGNED *Walter Perry*  
CHECKED *R. K.*  
DRAWN *J. L. Armstrong*  
CHECKED *RK*

EXAMINED *W. G. Baumann*  
PASSED *[Signature]*  
APPROVED *[Signature]*



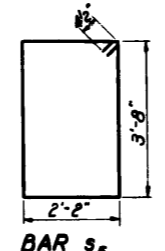
BAR U



BARS s, s<sub>1</sub>, s<sub>2</sub>, s<sub>3</sub>, s<sub>4</sub>, s<sub>5</sub>

**A & B DIMENSIONS**

Bar	A	B
s	2'-2"	3'-6"
s <sub>1</sub>	1'-11"	2'-10"
s <sub>2</sub>	1'-11"	2'-5"
s <sub>3</sub>	2'-2"	2'-2"
s <sub>4</sub>	2'-2"	2'-6"

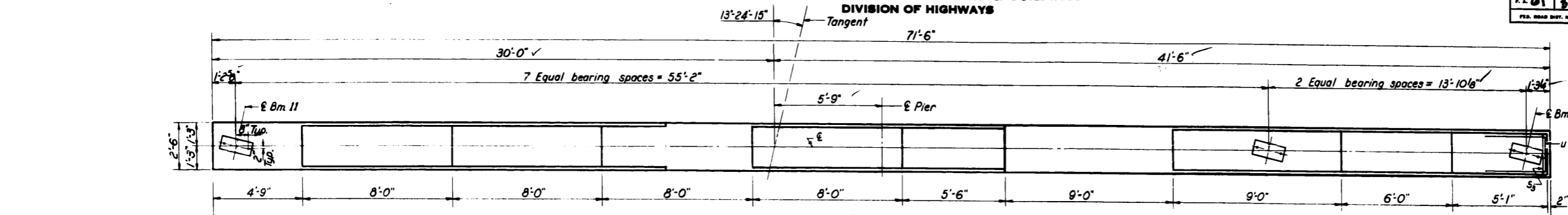


BAR s<sub>5</sub>

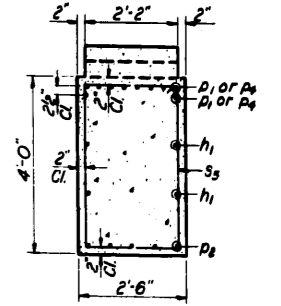
PIER #2-N. B. LANE  
F.A. RT. 61 SEC. 531-3-HB  
COOK COUNTY  
STA. 329+18.98

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

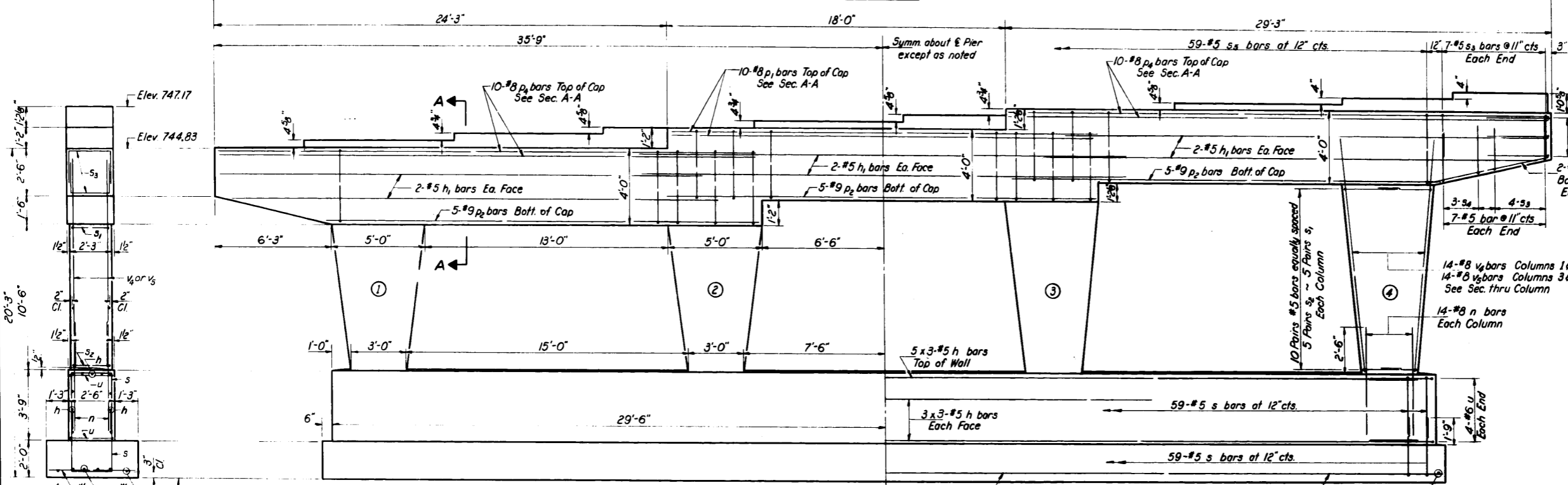
ROUTE NO. I.R.T. 61	SECTION 531-3-HB	COUNTY Cook	TOTAL SHEETS 29	SHEET NO. 21	SHEET NO. 16 22 SHEETS
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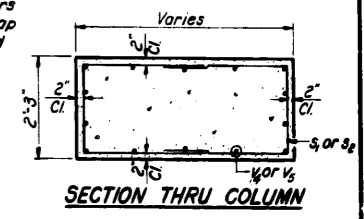
**TOP PLAN**



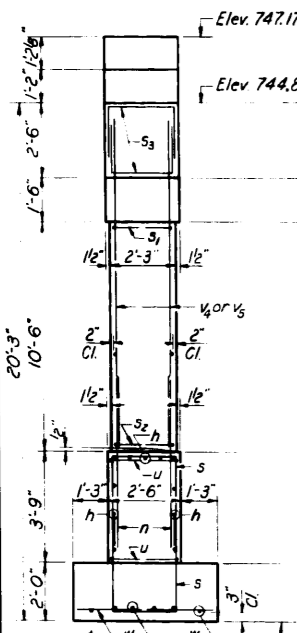
**SECTION A-A**



**ELEVATION**



**SECTION THRU COLUMN**

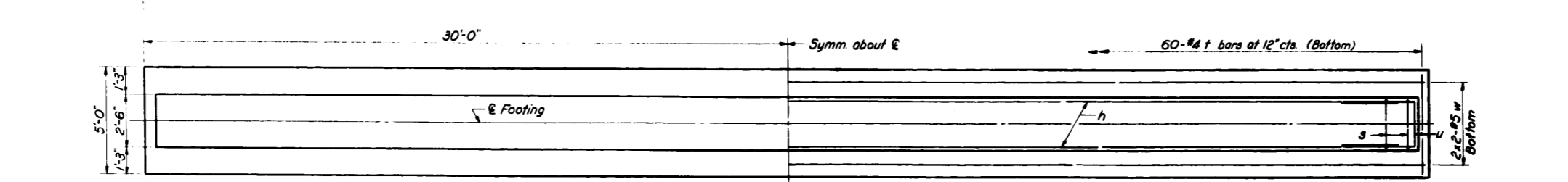


**END VIEW**



**DIMENSIONS**

**REINFORCEMENT**



**FOOTING PLAN**

**REINFORCEMENT**

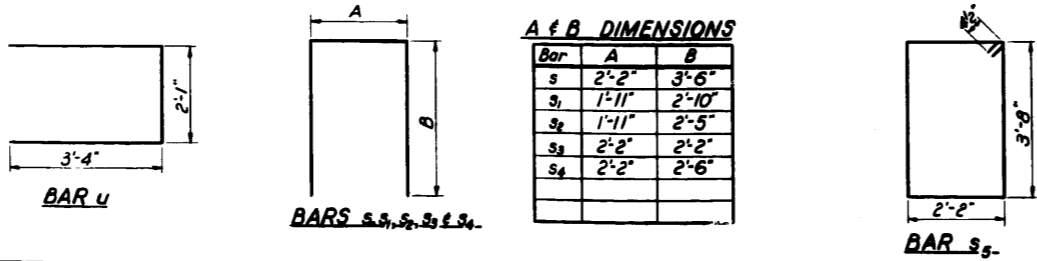
**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h	33	#5	10'-9"	□
h1	12	#5	26'-0"	□
n	56	#8	6'-0"	□
p1	10	#8	22'-6"	□
p2	15	#9	23'-0"	□
p3	20	#8	29'-0"	□
p4	4	#5	6'-6"	□
s	118	#5	9'-2"	□
s1	40	#5	7'-7"	□
s2	40	#5	6'-9"	□
s3	18	#5	6'-6"	□
s4	6	#5	7'-2"	□
s5	59	#5	12'-5"	□
t	60	#4	4'-9"	□
u	14	#6	8'-9"	□
v1	28	#8	14'-0"	□
v2	28	#8	15'-3"	□
w	4	#5	30'-6"	□
w1	8	#7	30'-9"	□
Class X Concrete		Cu. Yds.	87.4	
Reinforcement Bars		Lbs.	11,100	

DESIGNED Walter Perry  
CHECKED R. Kowert  
DRAWN J. L. Armstrong  
CHECKED RK

EXAMINED W. G. Bannerman  
PASSED Edmund  
APPROVED J. E. Kelly

JULY 31 1964



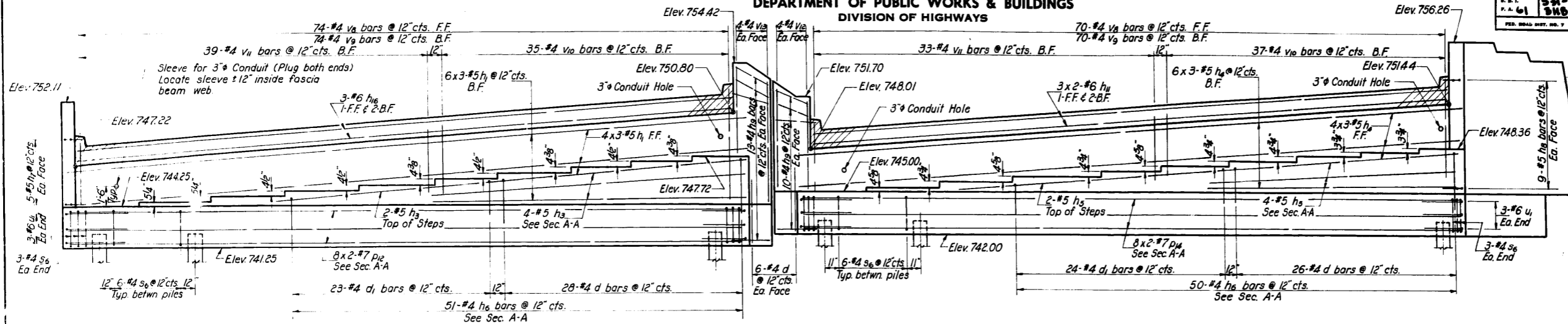
Note:  
Space reinforcement in cap to miss anchor bolts.  
Min. bar laps = 20 dia. unless otherwise noted.  
All edges shall have standard 3/4" chamfers except as noted.  
Pour steps monolithically with cap.  
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.  
Max. Soil Pressure = 2.07/ft<sup>2</sup>

**PIER #3 ~ N.B. LANE**  
**F.A. RT. 61 SEC. 531-3-HB**  
**COOK COUNTY**  
**STA. 329+18.98**

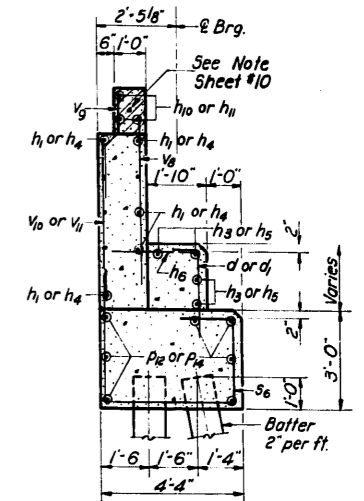


STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BUILDINGS  
DIVISION OF HIGHWAYS

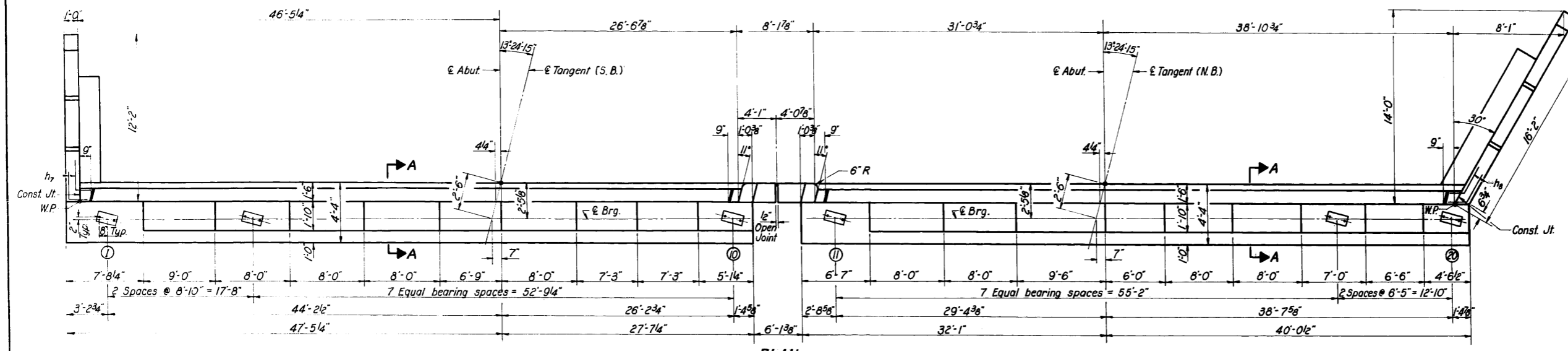
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
61	531-3HB	COOK	29	23
SHEET NO. 18				
22 SHEETS				



ELEVATION

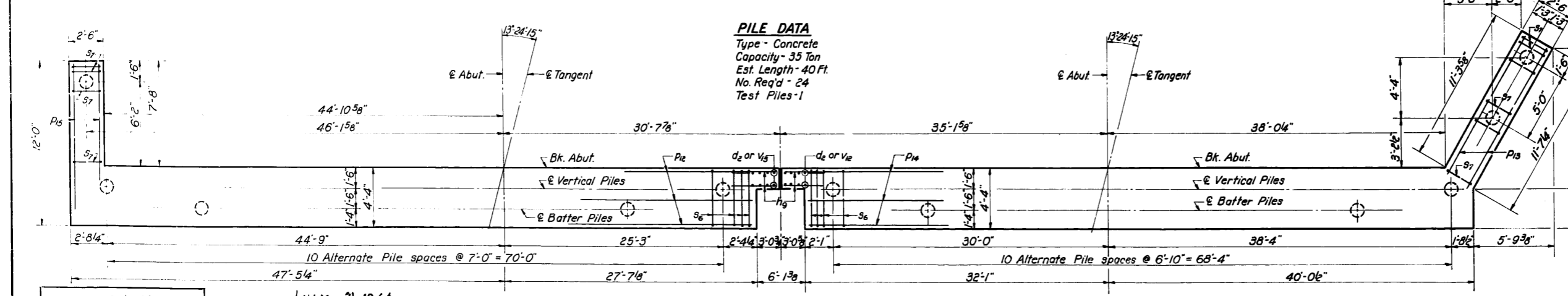


SECTION A-A



PLAN

**PILE DATA**  
Type - Concrete  
Capacity - 35 Ton  
Est. Length - 40 Ft.  
No. Req'd - 24  
Test Piles - 1



PLAN - PILE CAP

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
d	34	#4	5'-0"	U
d1	47	#4	3'-6"	U
d2	12	#4	5'-3"	U
h1	30	#5	26'-0"	U
h2	6	#5	31'-6"	U
h3	30	#5	24'-9"	U
h4	6	#5	29'-3"	U
h5	103	#4	3'-0"	U
h7	10	#5	2'-6"	U
h8	18	#5	2'-6"	U
h9	46	#4	4'-0"	U
h10	6	#6	38'-0"	U
h11	6	#6	35'-0"	U
h12	2	#4	4'-3"	U
h13	2	#4	9'-3"	U
h14	6	#4	14'-3"	U
h15	14	#4	15'-5"	U
h16	2	#4	6'-6"	U
h17	6	#4	10'-3"	U
h18	6	#4	11'-5"	U
P12	16	#7	39'-6"	U
P13	6	#7	12'-6"	U
P14	16	#7	36'-9"	U
P15	6	#7	9'-6"	U
s6	132	#4	12'-6"	U
s7	21	#4	10'-5"	U
u1	12	#6	10'-9"	U
v9	144	#4	3'-9"	U
v9	144	#4	3'-9"	U
v10	72	#4	4'-6"	U
v11	72	#4	2'-9"	U
v12	8	#4	6'-6"	U
v13	8	#4	7'-9"	U
v14	32	#4	9'-6"	U
v15	26	#4	6'-0"	U
Class X Concrete	Cu. Yds.	143.8		
Reinforcement Bars	Lbs.	9330		
Concrete Piles	Lin. Ft.	960		
Test Piles (Concrete)	Each	1		

DESIGNED *Walter Perry*  
CHECKED *R. Rownt*  
DRAWN *J.L. Armstrong*  
CHECKED *RK*

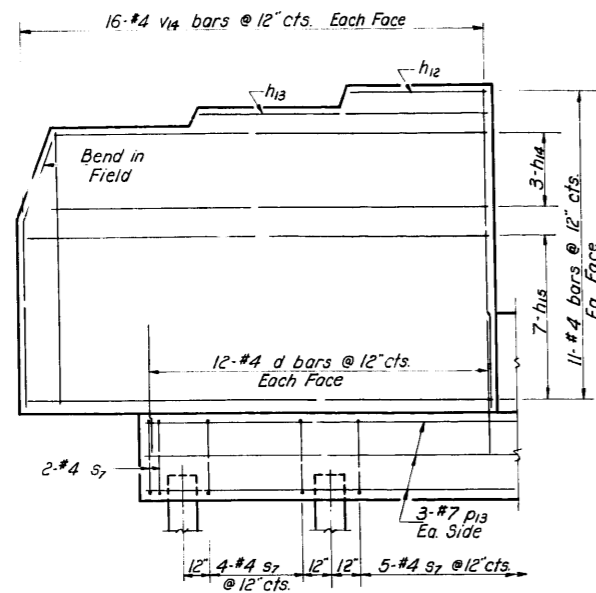
JULY 31 1964  
EXAMINED *W.E. Benemann*  
PASSED *Edmund*  
APPROVED *W.E. Benemann*

Note:  
For details of Wing Walls  
see sheet #19.  
For details of d, d1, h7, h8,  
s6, s7, u1 & v9 bars see sheet #17.

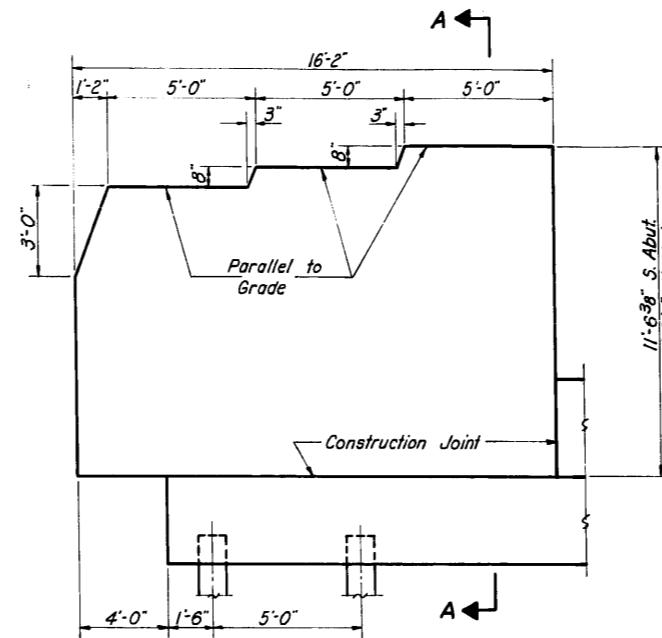
**NORTH ABUTMENT**  
**F.A. RT. 61 SEC. 531-3HB**  
**COOK COUNTY**  
**STA. 329 +18.98**

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

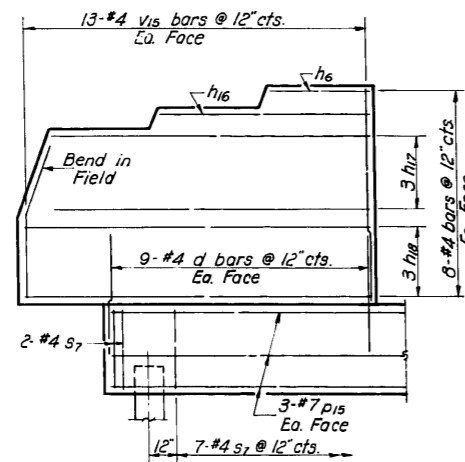
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 19/
61	531-3-HB	COOK	29	2A	22 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT.	



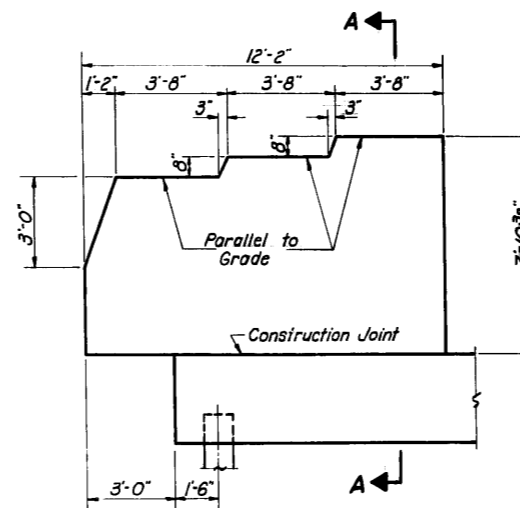
REINFORCEMENT



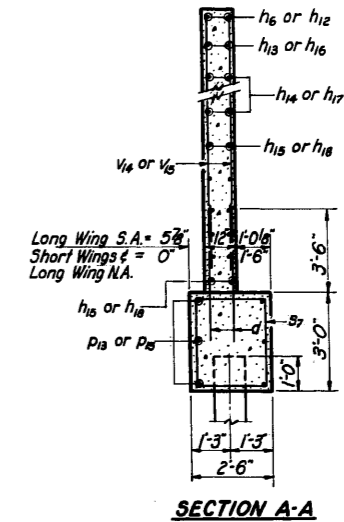
DIMENSIONS



REINFORCEMENT



DIMENSIONS



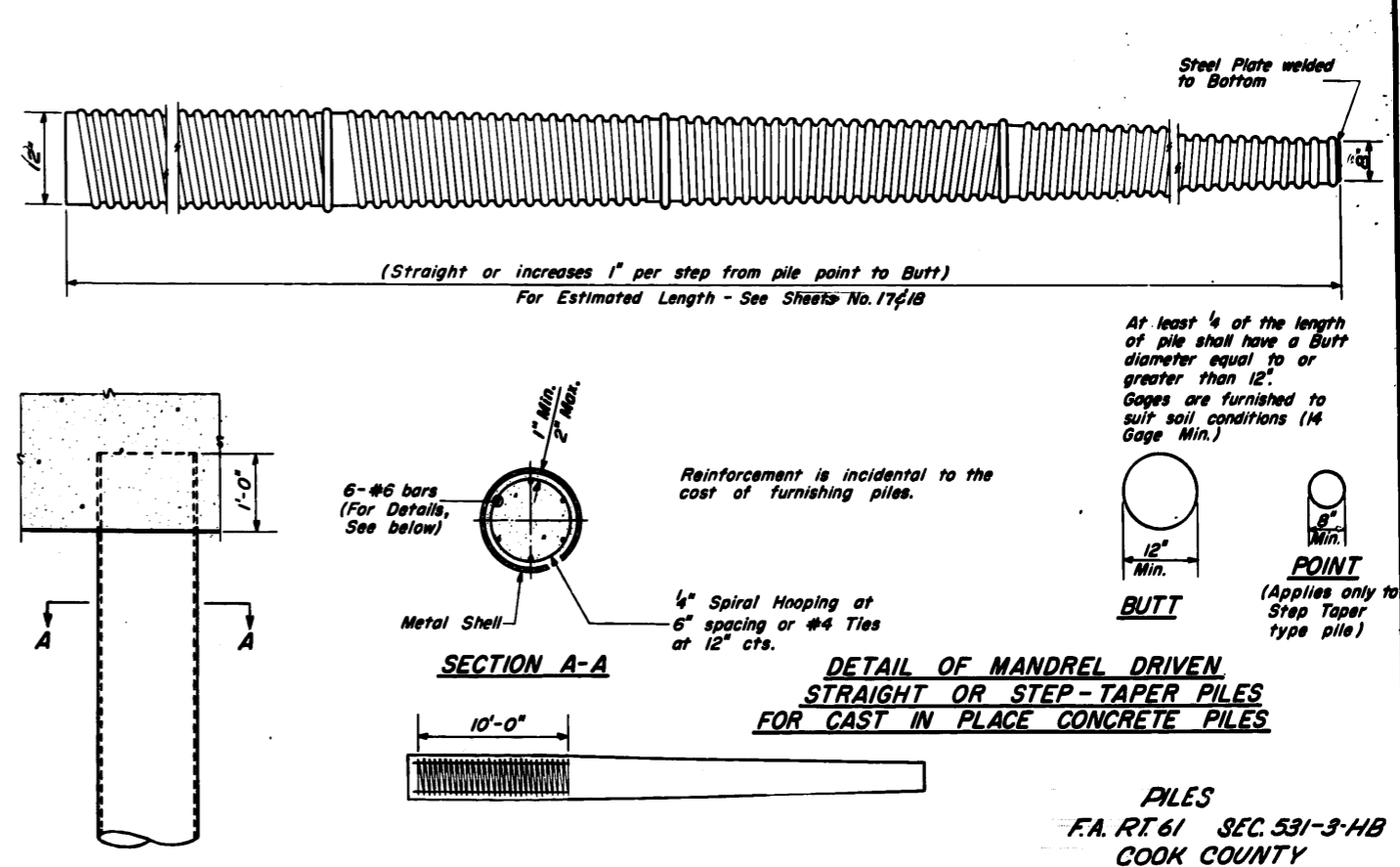
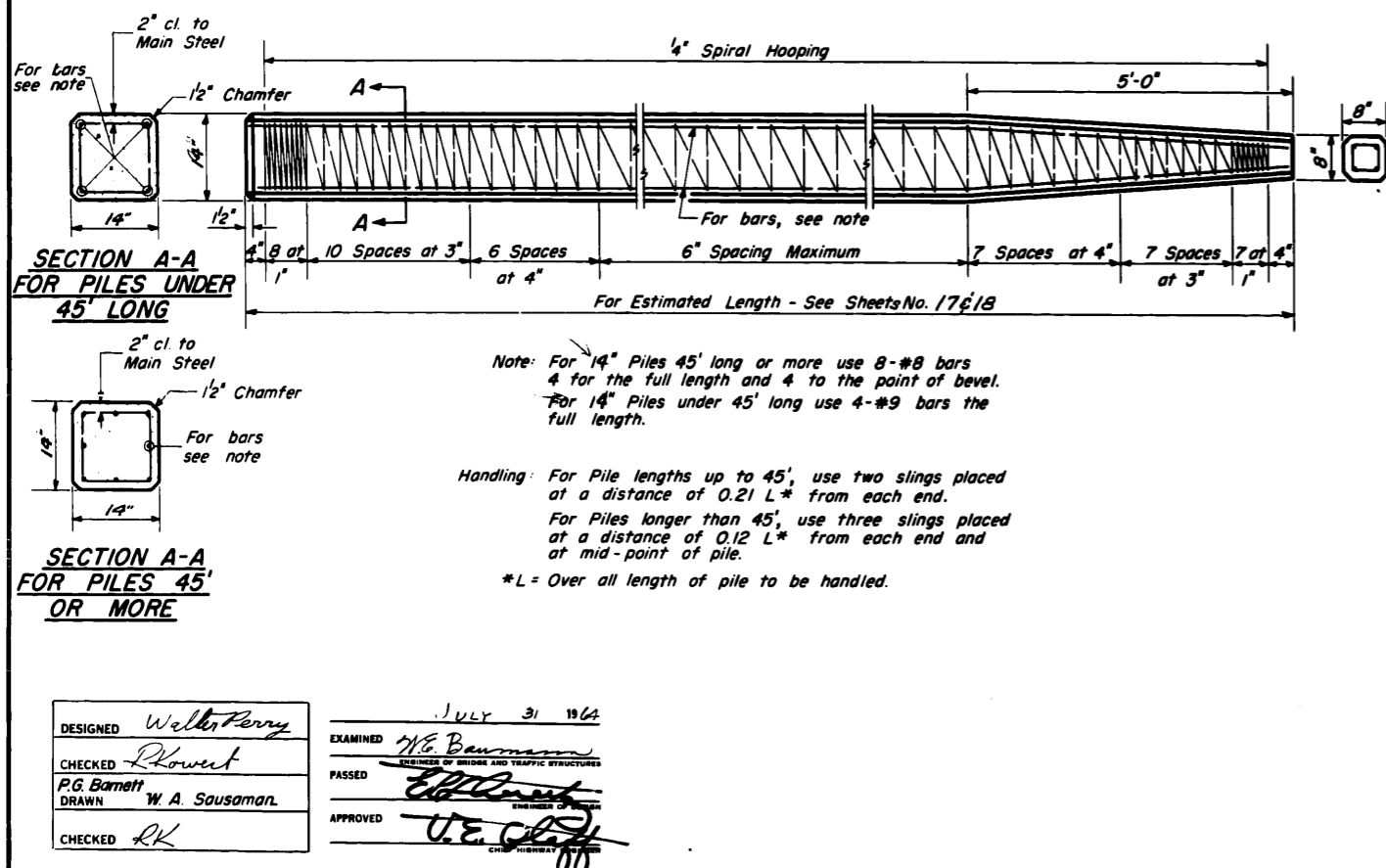
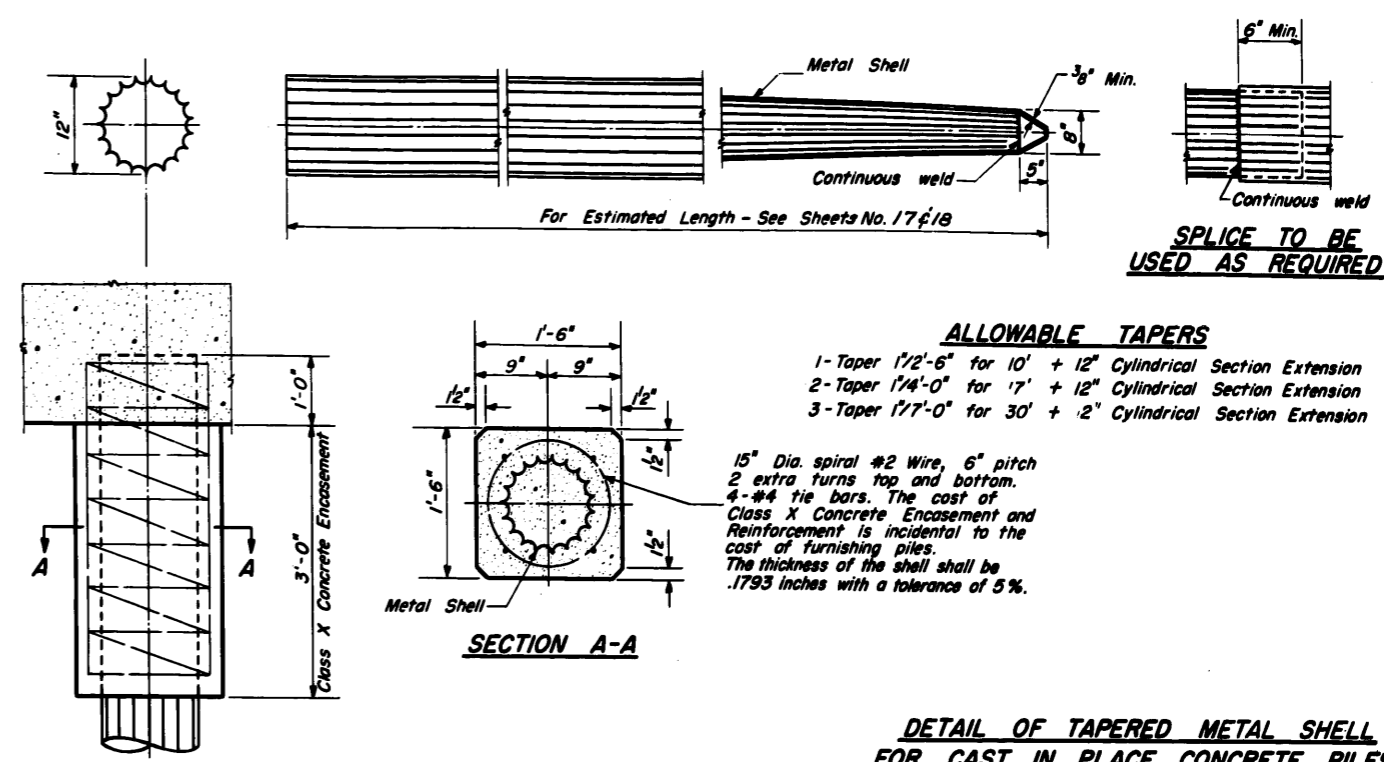
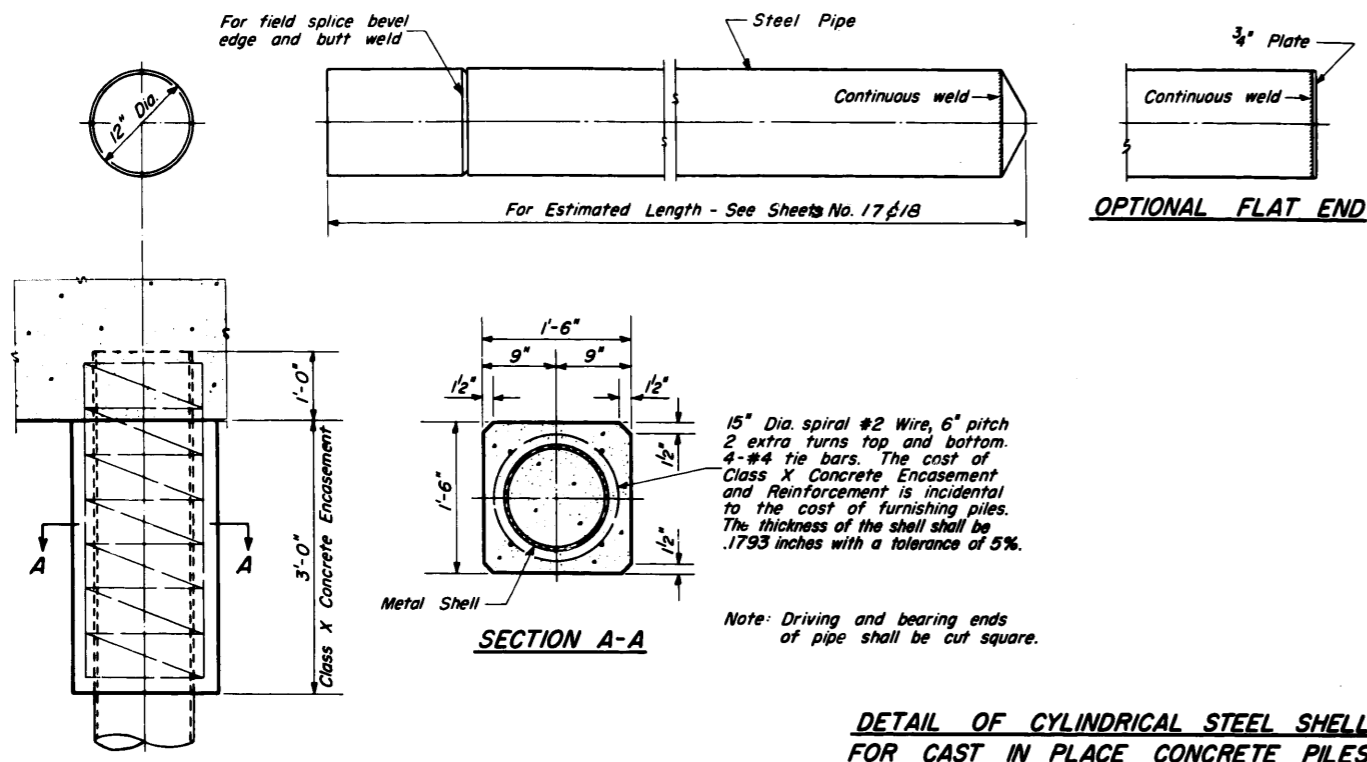
SECTION A-A

DESIGNED	Walter Perry	EXAMINED	July 31, 1964
CHECKED	R. K.	PASSED	
DRAWN	J.L. Armstrong	APPROVED	V.E. O'Connell
CHECKED	R.K.		

WING WALL DETAILS  
F.A. RT. 61 SEC. 531-3-HB  
COOK COUNTY  
STA. 329+18.96

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 20 22 SHEETS
F.A. 61	531-3HB	COOK	19	19	
FED. ROAD DIST. NO. 1		ALIGNED	TYP. AND PROJECT		



X-1 Rev. 5-12-61 9-27-62 4-20-64

DESIGNED *Walter Perry*  
CHECKED *R. Kowert*  
DRAWN *P.G. Barnett*  
CHECKED *RK*

EXAMINED *W.E. Baumann*  
PASSED *Ed. ...*  
APPROVED *U.E. ...*

JULY 31 1962

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

PROJECT NO.	SECTION	ROUTE	TOTAL SHEETS	SHEET NO.	SHEET NO. 21 22 SHEETS
P.A. 61	531-3HB	COOK	29	26	
JOB NAME		JOB NO.		JOB DATE	
P.O. ROAD DIST. NO. 7		ILLINOIS		PER. AND PROJECT	

Boring No. B-1  
Station 328 + 11  
Offset 33' W of C.L. of 53

Depth	N	Q <sub>u</sub> / s.f.	w (%)
0			
0			
13			
14	7.03	S	
-5			
11			
17	4.80	S	
9			
15	6.11	S	
-10			
9			
17	2.47	S	
11			
19	1.73	S	
-15			
6	6.91	B	
(LIVERY)	H20		
8	1.04	S	
10			
10	1.04	S	
-20			
8			
11	.49	B	
-25			
8			
12			
H20			
14			
18			
-30			
6			
5			
5			
-35			
5			
8	1.11	B	
5			
8			
-40			
8			
17			
13			
18			
-45			
8			
11	2.91	B	

Surface Water El. \_\_\_\_\_  
Groundwater El. at Completion 10'  
After \_\_\_\_\_ Hours \_\_\_\_\_

Boring No. B-2  
Station 328 + 58  
Offset 33' W of C.L. of 53

Depth	N	Q <sub>u</sub> / s.f.	w (%)
0			
0			
10			
11	4.35	S	
-5			
9			
13	6.18	S	
19			
19	6.98	B	
-10			
11			
18	6.98	B	
10			
12	3.93	B	
12	2.33	B	
-15			
5			
8	2.33	B	
-5			
8	2.33	B	
-20			
8			
7	1.17	B	
10			
-25			
5			
5			
8	2.33	B	
8			
9	1.17	B	
H20			
11	1.50	B	
-35			
11	1.61	B	
13			
13			
-40			
10			
11			

Surface Water El. \_\_\_\_\_  
Groundwater El. at Completion 3.2'  
After \_\_\_\_\_ Hours \_\_\_\_\_

Boring No. B-3  
Station 329 + 77  
Offset 33' W of C.L. of 53

Depth	N	Q <sub>u</sub> / s.f.	w (%)
0			
0			
20	10.30	B	
-5			
18			
28	10.30	B	
20			
28	9.31	B	
-10			
18			
20	7.68	B	
20			
20	7.76	B	
-15			
17	5.24	B	
6			
10	2.91	B	
-20			
16	2.68	B	
8			
8	1.63	B	
-25			
8	3.30	B	
8	2.88	B	
H20			
15	1.75	P	
-20			
8	2.50	B	
10			
10	3.88	B	
-35			
15	3.88	B	
15			
15	3.88	B	
-40			
13			
14	3.88	B	

Surface Water El. \_\_\_\_\_  
Groundwater El. at Completion 27'  
After \_\_\_\_\_ Hours \_\_\_\_\_

Boring No. B-4  
Station 330 + 13  
Offset 33' W of C.L. of 53

Depth	N	Q <sub>u</sub> / s.f.	w (%)
0			
0			
25			
26	9.71	S	
-5			
25			
26	8.48	B	
13			
20	8.29	B	
20	9.80	B	
-10			
14			
19	8.66	B	
11			
21	6.59	B	
-15			
15	4.15	B	
14	4.38	B	
5			
5	2.91	B	
-20			
8	2.52	B	
H20			
8	.48	B	
-25			
3			
4	2.33	B	
9			
12			
-30			
6			
6	.88	B	
8			
10	3.88	B	
-35			
11	2.33	B	
11	3.68	B	
-40			
11	3.88	B	
15	3.88	B	
-45			
10	3.88	B	
10	3.88	B	
15	3.10	B	
30	9.70	B	

Surface Water El. \_\_\_\_\_  
Groundwater El. at Completion 27'  
After \_\_\_\_\_ Hours \_\_\_\_\_

DESIGNED *Walter Perry*  
CHECKED *R. Howard*  
DRAWN J.L.A.  
CHECKED RK

EXAMINED *W.G. Beumann*  
PASSED *W.G. Beumann*  
APPROVED *U.E. Olf*

JULY 31 1964

N - Standard Penetration Test - Blows per foot to drive 2" O.D. Split Spore Sampler 12" with 100# hammer falling 30".

Q<sub>u</sub> - Unconfined Compressive Strength - 1/d

w - Water Content - percentage of oven dry weight - %

Type follows:  
B - Ridge Failure  
S - Sheet Pile  
I - Estimated Value

BORING DATA  
F.A. RT. 61 SEC. 531-3-HB  
COOK COUNTY  
STA. 329+16.98

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

FA 61	531-3HB	Cook	29	21	22 SHEETS
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Boring No. B-5 Station 320 + 13 Offset 33' E of C.L. of S									
Ground Surface	Elevation	ft	Qu (t/sf)	w (%)	Surface Water B. Groundwater B. of Completion After Hours	ft	ft	Qu (t/sf)	w (%)
730.2	0					0			
BLACK ORGANIC CLAY						10	2.33	B	
BROWN & GRAY MOTTLED CLAY	11	6.98				10	2.33	B	
BROWN CLAY	13	5.67				10	2.33	B	
BROWN TO GRAY CLAY	17	6.18				10	2.33	B	
GRAY CLAY	17	7.99				10	2.33	B	
GRAY CLAY	13	4.27				10	2.33	B	
GRAY CLAY	9	2.91				10	2.33	B	
GRAY CLAY	7	2.92				10	2.52	B	
GRAY CLAY	11	2.33				10	2.72	B	
GRAY CLAY	7	2.52				10	2.52	B	
GRAY GRITTY CLAY GRAY CLAYEY GRAVEL	10	2.52				10	2.52	B	
END OF BORING									

Boring No. B-6 Station 328 + 58 Offset 33' E of C.L. of S									
Ground Surface	Elevation	ft	Qu (t/sf)	w (%)	Surface Water B. Groundwater B. of Completion After Hours	ft	ft	Qu (t/sf)	w (%)
750.2	0					0			
BLACK ORGANIC CLAY						10	2.33	B	
BROWN CLAY	6	6.55				10	2.33	B	
BROWN CLAY	6	6.33				10	2.50	B	
BROWN CLAY	12	6.33				10	2.50	B	
BROWN SANDY SILTY CLAY	12	1.87				10	2.68	B	
BROWN CLAY	13	8.15				10	2.68	B	
GRAY CLAY	8	2.52				10	2.68	B	
GRAY CLAY	7	2.11				10	2.68	B	
GRAY CLAY	4	2.11				10	2.52	B	
GRAY CLAY	7	2.11				10	2.52	B	
GRAY CLAY	4	2.52				10	2.52	B	
GRAY CLAY	7	2.52				10	2.52	B	
GRAY GRITTY CLAY	9					10	2.52	B	
END OF BORING									

Boring No. B-8 Station 330 + 13 Offset 33' E of C.L. of S									
Ground Surface	Elevation	ft	Qu (t/sf)	w (%)	Surface Water B. Groundwater B. of Completion After Hours	ft	ft	Qu (t/sf)	w (%)
729.2	0					0			
BLACK ORGANIC CLAY						12	2.33	B	
BROWN (CRUMBLY) CLAY						12	1.30	B	
BROWN (CRUMBLY) CLAY						12	1.30	B	
BROWN CLAY						10	1.50	B	
BROWN CLAY						10	1.30	B	
BROWN CLAY						10	1.30	B	
BROWN CLAY						10	1.50	B	
BROWN CLAY						10	1.50	B	
BROWN CLAY						10	1.50	B	
BROWN CLAY						10	1.50	B	
BROWN CLAY						10	1.50	B	
GRAY STONEY CLAY						17	5.04	B	
GRAY (LIVERRY) SILTY CLAY GRAY CLAY						7	1.63	B	
GRAY (LIVERRY) SILTY CLAY						13	2.33	B	
GRAY GRAVELLY CLAY						16	1.60	B	
END OF BORING									

Boring No. B-7 Station 329 + 77 Offset 33' E of C.L. of S									
Ground Surface	Elevation	ft	Qu (t/sf)	w (%)	Surface Water B. Groundwater B. of Completion After Hours	ft	ft	Qu (t/sf)	w (%)
750.2	0					0			
BLACK ORGANIC CLAY						10	2.13	B	
CRUMBLY						10	2.13	B	
BROWN SILTY CLAY	21	6.98				10	2.78	B	
CRUMBLY						10	2.78	B	
BROWN SILTY CLAY	17	8.51				10	2.78	B	
BROWN CLAY	10	7.76				10	2.78	B	
BROWN CLAY	10	5.77				10	2.78	B	
BROWN CLAY	13	5.82				10	2.78	B	
GRAY CLAY	10	3.49				10	2.78	B	
GRAY STONEY SANDY CLAY	17	4.50				10	2.78	B	
LAYER OF GRAY SAND GRAY CLAY	7	2.52				10	2.78	B	
GRAY CLAY GRAY GRAVELLY CLAY	10					10	3.00	B	
END OF BORING									

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

DESIGNED <u>Walters</u>	EXAMINED <u>July 31 1964</u>
CHECKED <u>R. K.</u>	PREPARED <u>W. B.</u>
DRAWN <u>J.L.A.</u>	APPROVED <u>J.E. [Signature]</u>
CHECKED <u>R.K.</u>	