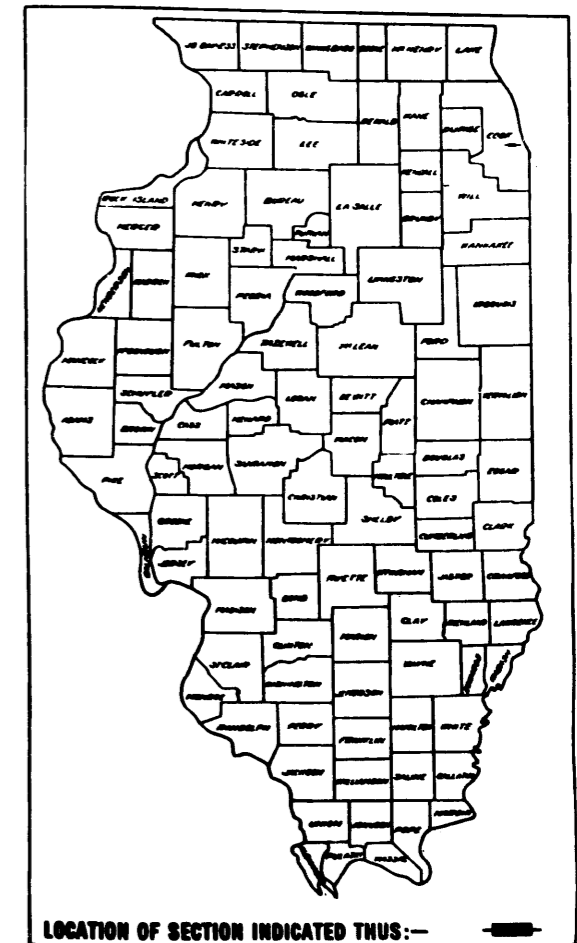


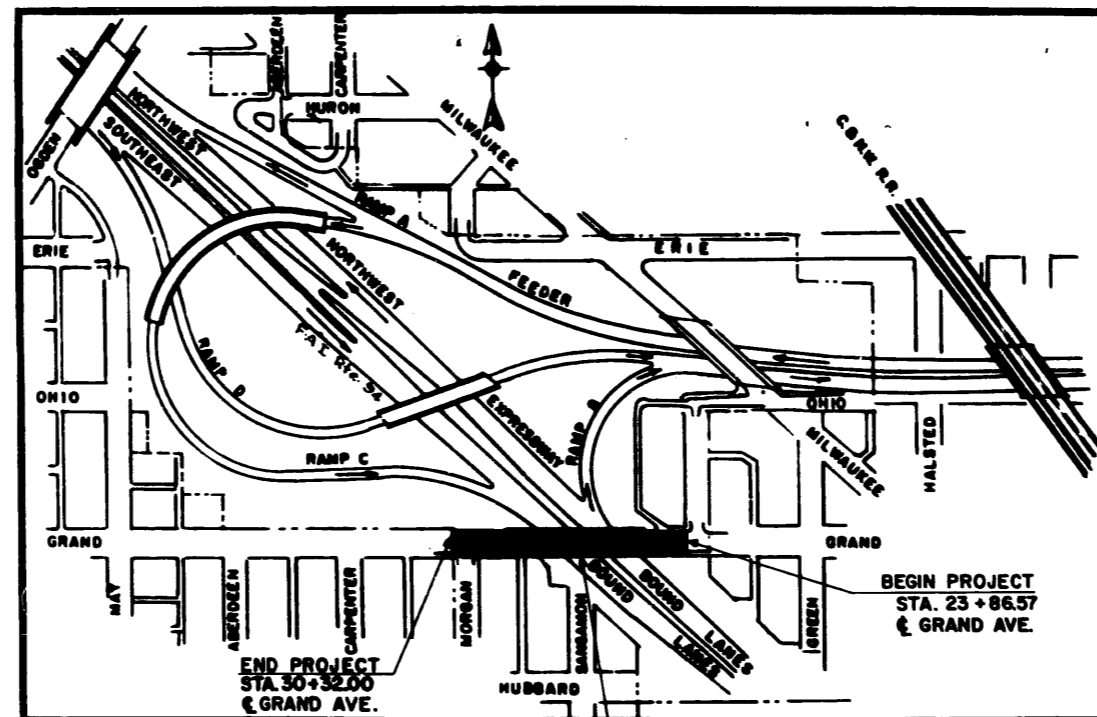
STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS  
DIVISION OF HIGHWAYS  
**PLANS FOR PROPOSED  
FEDERAL AID INTERSTATE HIGHWAY**  
NORTHWEST EXPRESSWAY  
ERIE STREET INTERCHANGE  
**GRAND AVENUE GRADE SEPARATION**  
F.A.I. ROUTE 94 SECTION 0303-476 H.B.,H.F.  
PROJECT 1-94-2(79)-49  
**COOK COUNTY**

FEDERAL AID ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
94	0303-476 H.B.,H.F.	COOK	36	1
ILLINOIS PROJECT 1-94-2(79)-49				



LOCATION OF SECTION INDICATED THUS: —

PREPARED BY: Robert E. Kronst  
EXPRESSWAY DESIGN ENGINEER  
EXAMINED BY: Elmer F. Beale 8-4-59  
DISTRICT CONSTRUCTION ENGINEER  
EXAMINED BY: Wm. F. Quabner 8-4-59  
EXPRESSWAY ENGINEER  
ENTIRE SECTION INSPECTED AND APPROVED  
AS TO POLICY BY: J.P. Inghill  
DISTRICT ENGINEER



LOCATION OF SECTION  
0303-476 H.B.  
NET LENGTH OF PROJECT =  
643.43 OR 0.1222 MI.

SECTION 0303-476 H.B.  
DESCRIPTION OF PROJECT  
SECTION 0303-476 H.B. INCLUDES THE COMPLETE CONSTRUCTION OF A FOUR SPAN WELDED GIRDER STRUCTURE OVER NORTHWEST EXPRESSWAY. IT ALSO INCLUDES THE RECONSTRUCTION OF EXISTING W. GRAND AVENUE.  
NOT INCLUDED IN THIS SECTION IS THE FURNISHING, FABRICATION AND DELIVERY OF STRUCTURAL STEEL.

NOTE:  
STRUCTURAL STEEL FOR STRUCTURE SHALL BE DELIVERED F.O.B. C.&N.W. RAILWAY, GRAND AVENUE YARDS, CHICAGO, ILLINOIS BY THE CONTRACTOR FOR SECTION 0303-476 H.F. EXCEPT THAT DELIVERY MAY BE MADE F.O.B. SITE BY TRUCKS IF SUITABLE ARRANGEMENTS ARE MADE WITH CONTRACTOR FOR SECTION 0303-476 H.B.

PLANS PREPARED BY  
**CONSOER, TOWNSEND & ASSOCIATES**  
CONSULTING ENGINEERS  
360 EAST GRAND AVENUE CHICAGO, ILLINOIS  
57-165



Carl W. Westphal

PLANS FOR STRUCTURES EXAMINED Aug 7 1959  
J.P. Inghill  
ENGINEER OF BRIDGE & TRAFFIC STRUCTURES

STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS  
DIVISION OF HIGHWAYS  
SUBMITTED 8-4-59  
EXAMINED August 13, 1959  
APPROVED August 13, 1959  
APPROVED August 13, 1959

DEPARTMENT OF COMMERCE  
BUREAU OF PUBLIC ROADS  
APPROVED \_\_\_\_\_  
DIVISION ENGINEER DATE

INDEX TO SHEETS

SUMMARY OF QUANTITIES

SECTION 0303-476 H.B.

ROUTE NO.	SIC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 134	0303-476 H.B.	COOK		2
FED. ROAD DIST. NO. 4 ILLINOIS FED. AID PROJECT				

SHEET NO.	DESCRIPTION	QUANTITY	UNIT	ITEM
1.	TITLE SHEET	40,100	CU. YDS.	SPECIAL EXCAVATION
2.	SHEET INDEX & SUMMARY OF QUANTITIES	460	CU. YDS.	CLASS "A" EXCAVATION FOR STRUCTURES
3.	GENERAL PLAN	1,596.2	CU. YDS.	CLASS "X" CONCRETE
4.	BORING LOGS	335,594	LBS.	REINFORCEMENT BARS
5.	EXISTING TOPOGRAPHY	1,743	LIN. FT.	SUB-PIER SHAFTS, 42" DIAMETER
6.	DETOUR-PLAN AND PROFILE	1,618	CU. FT.	SUB-PIER BELLS
7.	TYPICAL SECTIONS	5,400	LIN. FT.	FURNISHING METAL PILE SNELLS, 12"
8.	EAST APPROACH-PLAN AND PROFILE	5,400	LIN. FT.	DRIVING & FILLING SNELLS
9.	WEST APPROACH-PLAN AND PROFILE	2	EACH	TEST PILES (METAL SNELL)
10.	BRIDGE APPROACH SLAB-EAST ABUTMENT	1,345,450	LBS.	ERECTING STRUCTURAL STEEL
11.	BRIDGE APPROACH SLAB-WEST ABUTMENT	721	LIN. FT.	FURNISHING & ERECTING METAL HANDRAIL
12.	EAST ABUTMENT	4	CU. YDS.	HANDRAIL CONCRETE
13.	WEST ABUTMENT	180	EACH	INSERTS
14.	ABUTMENT DETAILS	1,460	LIN. FT.	3 1/2" Ø ASBESTOS CEMENT CONDUIT
15.	PIER ONE	628	LIN. FT.	3 1/2" Ø ASBESTOS CEMENT CONDUIT, ENCASED
16.	PIER TWO	902	SQ. YDS.	SLOPE WALL
17.	PIER THREE	7.2	M. ST. R. M.	MISCELLANEOUS TIMBER
18.	PIER DETAILS	12	MONTHS	PUMPING
19.	FRAMING PLAN	2	EACH	NAME PLATES
20.	STRUCTURAL DETAILS	100	TONS	BITUMINOUS CONCRETE BINDER COURSE
21.	BEARING DETAILS	100	TONS	BITUMINOUS CONCRETE SURFACE COURSE SUB-CLASS 1-11
22.	EXPANSION DEVICES	235	GALS.	BITUMINOUS MATERIALS (PRIME COAT)
23.	EXPANSION DEVICES	126	TONS	LEVELING BINDER (HAND METHOD)
24.	PAVEMENT ELEVATIONS	1,761	SQ. YDS.	PORTLAND CEMENT CONCRETE BASE COURSE (9 INCH)
25.	DECK REINFORCEMENT	2,800	SQ. YDS.	PORTLAND CEMENT CONCRETE PAVEMENT (8 INCH)
26.	DECK REINFORCEMENT	418	SQ. YDS.	PORTLAND CEMENT CONCRETE PAVEMENT (16 1/2" - 10 1/2" - 16 1/2")
27.	HANDRAIL	9,200	SQ. FT.	PORTLAND CEMENT CONCRETE SIDEWALKS (5 INCH)
28.	CONDUIT LOCATION PLAN	1,743	LIN. FT.	STEEL CASINGS, 42" DIAMETER
29.	CONDUIT HANGER DETAILS	6	IN. DIA.	TREE REMOVAL SPECIAL, (6" TO 15" DIA)
30.	ELECTRICAL MANHOLES	2,000	SQ. FT.	SHEET PILING
31.	NAME PLATE & FENCING	280	SQ. FT.	LONGITUDINAL CURB EXPANSION JOINT
32.	BASE LINES, TRAVERSE LINES & BENCH MARKS	610	LIN. FT.	COMBINATION CONCRETE CURB AND GUTTER, TYPE 3
33.	STD. 2134-1, 1972R, 1977-4, 2114	1,650	LIN. FT.	CONCRETE CURB, TYPE 4
34.	STD. 1514R, 1516S	470	SQ. YDS.	PAVEMENT FABRIC
35.	STD. 1686R, 1527S, 10-20	768	CU. YDS.	SUB-BASE GRANULAR MATERIAL, TYPE A
36.	STD. 1790F, 10-21B	2	EACH	CATCH BASINS TO BE ADJUSTED
		4	EACH	CATCH BASINS, TYPE A, 3'-0" DIA. WITH TYPE 5 FRAME & OPEN LID
		3	EACH	MANHOLES TYPE A, 4'-0" DIA. WITH TYPE 5 FRAME & OPEN LID
		7	EACH	INLET ASSEMBLIES WITH TYPE 4 GRATE AND BEND
		5	EACH	FILLING EXISTING CATCH BASINS
		204	CU. YDS.	TRENCH BACKFILL
		18	LIN. FT.	STORM SEWER, TYPE 1, 8 INCH
		273	LIN. FT.	STORM SEWER, TYPE 2, 10 INCH
		48	LIN. FT.	STORM SEWER, TYPE 2, 12 INCH
		82	LIN. FT.	STORM SEWER, TYPE 2, 18 INCH

SECTION 0303-476 H.F.

1,345,450	LBS.	FURNISHING STRUCTURAL STEEL
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GENERAL NOTES

CLASS "X" CONCRETE SHALL BE USED THROUGHOUT.  
 HANDRAIL CONCRETE SHALL BE USED IN HANDRAIL END POSTS AT ABUTMENTS.  
 THE CONCRETE FLOOR SLAB SHALL BE FINISHED IN ACCORDANCE WITH  
 ARTICLE 51.19 OF THE STANDARD SPECIFICATIONS.  
 LAYOUT OF SLOPE WALLS MAY BE VARIED TO SUIT GROUND CONDITIONS  
 IN THE FIELD, AS DIRECTED BY THE ENGINEER.  
 EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 3/4" UNLESS NOTED.  
 FIELD CONNECTIONS BOLTED, UNLESS NOTED.  
 RAILINGS SHALL BE ADJUSTED TO TRUE ALIGNMENT AFTER SIDEWALKS  
 HAVE BEEN POURED.  
 ALL METAL HANDRAILS INCLUDING RAIL POST ANCHORS SHALL BE  
 INCLUDED IN THE QUANTITY OF FURNISHING & ERECTING METAL HANDRAIL  
 ALL RAIL POSTS SHALL BE SO FABRICATED THAT THEY WILL BE IN A  
 VERTICAL POSITION AFTER ERECTION.  
 ALL ROLLERS, ROCKERS, BEARING PLATES, LEAD PLATES, PINTLES AND ANCHOR  
 BOLTS SHALL BE FABRICATED AND SET IN ACCORDANCE WITH ARTICLE 51.15  
 OF THE STANDARD SPECIFICATIONS AND ARE INCLUDED FOR PAYMENT IN  
 THE ITEM "ERECTING STRUCTURAL STEEL".  
 ANCHOR BOLTS SHALL BE SET BEFORE BOLTING DIAPHRAGMS OVER SUPPORTS.  
 EXCEPT AS OTHERWISE PROVIDED, ALL STRUCTURAL STEEL SHALL RECEIVE  
 ONE SHOP COAT OF RED LEAD PAINT AND TWO FIELD COATS OF  
 ALUMINUM PAINT. SEE SPECIAL PROVISIONS.  
 ALL PAINT SHALL BE FURNISHED AND APPLIED BY THE CONTRACTOR INVOLVED.  
 BORING DATA ARE SHOWN ONLY AS A GUIDE TO BIDDERS IN ESTIMATING SOIL  
 CONDITIONS WHICH MAY BE ENCOUNTERED IN THE WORK.  
 THE BACK FACES OF ABUTMENTS, WINGWALLS AND RETAINING WALLS SHALL BE  
 WATERPROOFED FROM TOP OF FOOTING TO TOP OF GROUND SURFACE IN  
 ACCORDANCE WITH ARTICLE 51.21 OF THE STAND. SPECIFICATIONS.  
 THE CONTRACTOR SHALL DRIVE ONE METAL SNELL TEST PILE AT EACH ABUTMENT  
 IN A PERMANENT LOCATION AS DIRECTED BY THE ENGINEER BEFORE ORDERING  
 THE REMAINDER OF THE PILES.

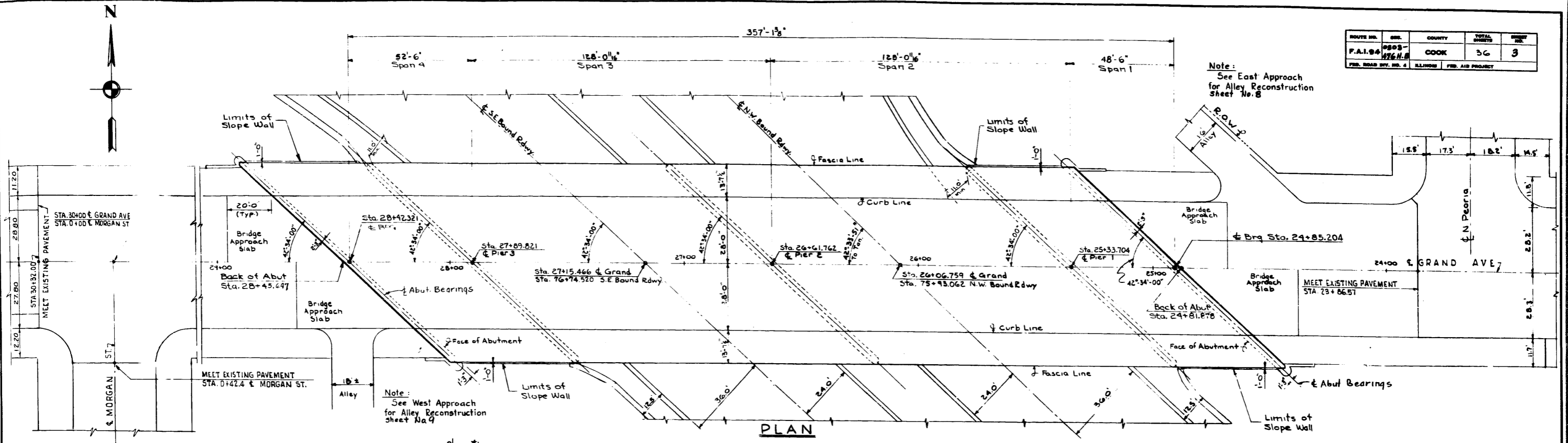
ILLINOIS DIVISION OF HIGHWAYS  
 NORTHWEST EXPRESSWAY  
 ERIE STREET INTERCHANGE  
 GRAND AVENUE GRADE SEPARATION  
 SHEET INDEX & SUMMARY OF QUANTITIES

SCALE: NONE

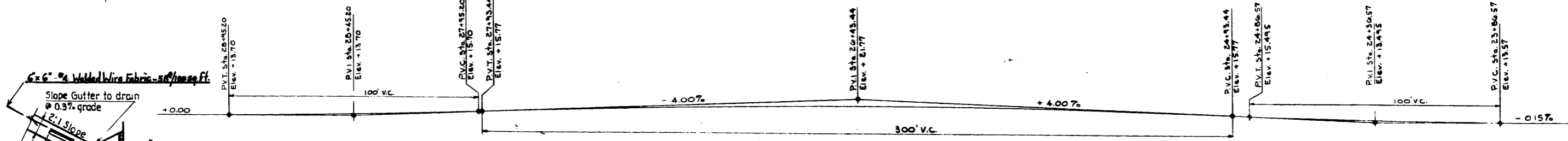
DATE: JULY 1969

ROUTE NO.	SHEET NO.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 94	9803-176.H.B.	COOK	36	3
FED. ROAD DIV. NO. 2	ILLINOIS	FED. AID PROJECT		

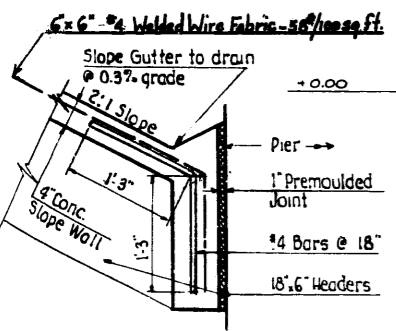
Note:  
See East Approach  
for Alley Reconstruction  
Sheet No. 8



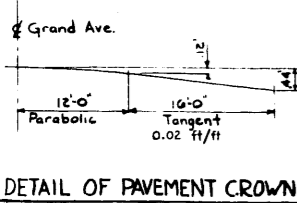
PLAN



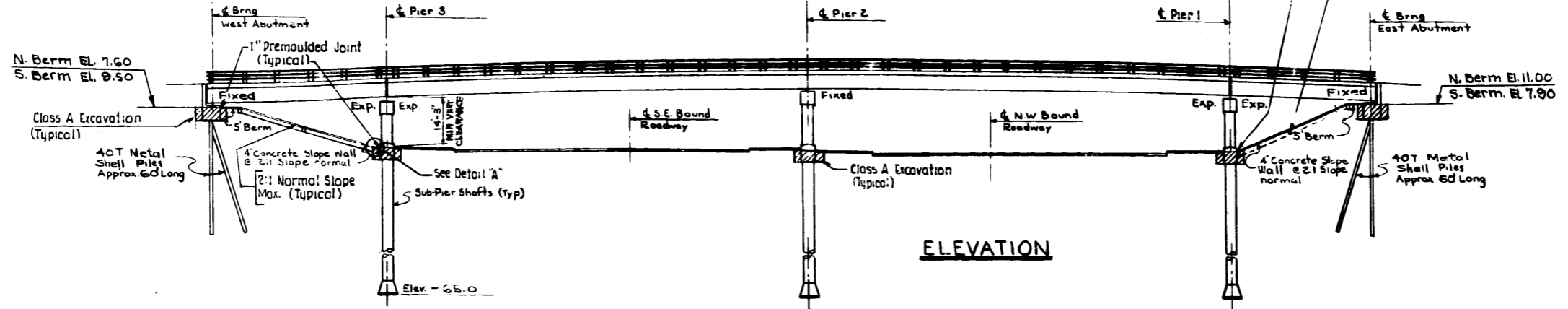
PROFILE



DETAIL A



DETAIL OF PAVEMENT CROWN



ELEVATION

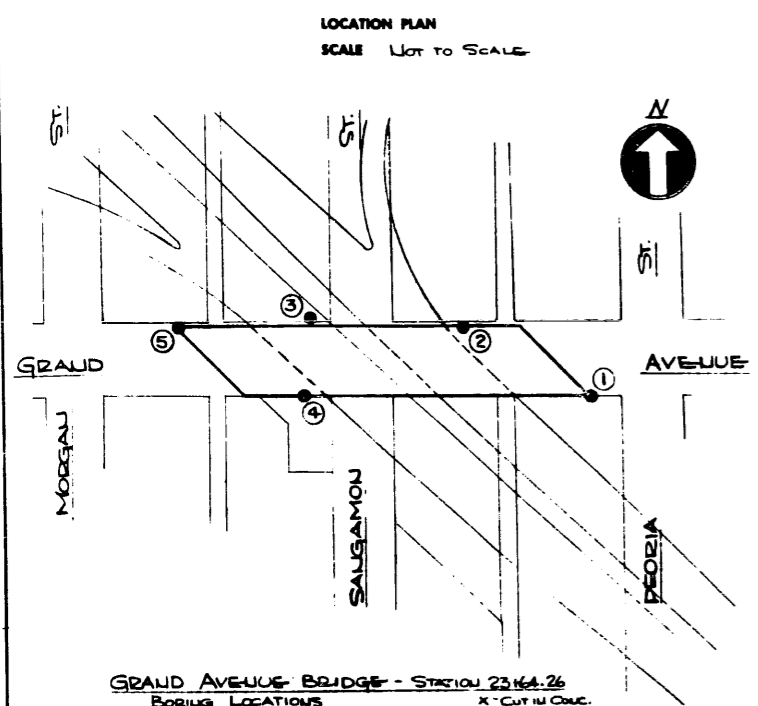
Note:  
Final Elevation of Sub-Pier Bells to  
be determined in  
Field during construction  
by the Engineer.

**DESIGN DATA**

Design Load (Live)	H20-S16-44
Specifications	A.A.S.H.O 1957 Edition
Concrete	$f_c = 3,500$ p.s.i.
Concrete with Earth Pressure	$f_c = 1,000$ p.s.i.
Concrete without Earth Pressure	$f_c = 1,400$ p.s.i.
Structural Steel	$f_s = 18,000$ p.s.i.
Reinforcement Steel	$f_s = 20,000$ p.s.i.
Modular Ratio	$n = 10$
Wearing Surface	2.5 p.s.f.
Pier-Sub Pier Bearing Pressure	12,000 p.s.f.
Lateral Earth Pressure	45 p.c.f.
Minimum Pile Bearing	40 Tons

ILLINOIS DIVISION OF HIGHWAYS  
NORTHWEST EXPRESSWAY  
ERIE STREET INTERCHANGE  
GRAND AVENUE GRADE SEPARATION  
GENERAL PLAN  
SCALE: NONE  
DATE: JULY 1959

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 104	8888-87688	COOK	36	4
FED. ROAD DIV. NO. 4		ILLINOIS FED. AID PROJECT		



GRAND AVENUE BRIDGE - STATION 23+4.26

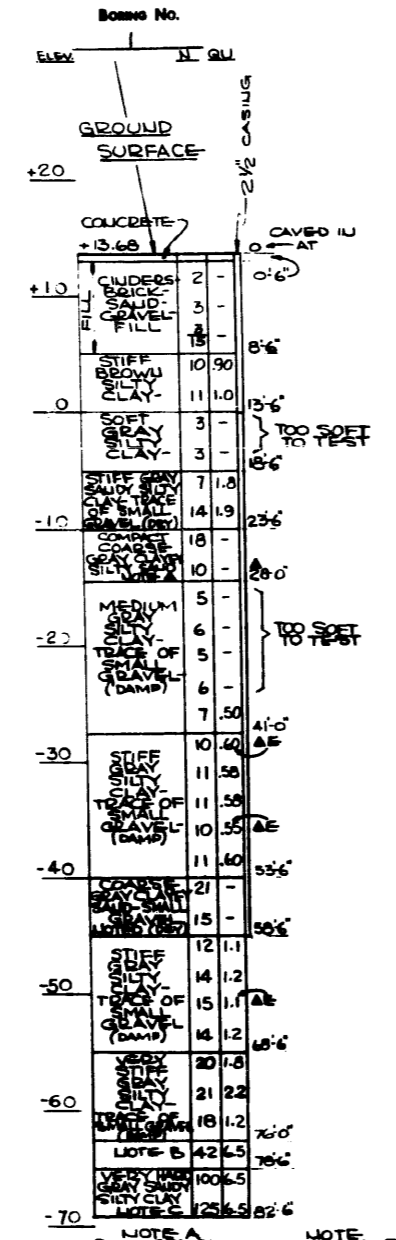
BORING LOCATIONS

ELEV.	STATION	HOLE NO.	DEPTH	REMARKS
13.68	24+34	1	53'	S. BASE LWS
13.68	25+73	2	U3'	U. BASE LWS
-	26+82.22	-	-	X-CUT IN CONC.
13.35	27+08.9	3	U 18.7'	U. BASE LWS
13.70	27+45	4	53'	S. BASE LWS
13.87	28+86	5	U3'	U. BASE LWS

NOTE: B3 Moved 57'-0" W 15'-0"

### GENERAL NOTES

- Figure shown in center column of each boring represents the number of blows required to drive a 2 inch outside diameter, 1 1/2 inch inside diameter split sample spoon a distance of 1 foot, employing a 140 pound weight having a free fall of 30 inches. (Standard Penetration Test) = 'U' VALUE.
- Where figure in center column of each boring is shown as a fraction, the numerator represents the number of blows required to drive a 2 inch outside diameter, 1 1/2 inch inside diameter split sample spoon a distance indicated in the denominator, in inches.
- Asterisk (\*) indicates loss of circulating wash water at strata indicated.
- ▲ indicates loss of sample at depth indicated.
- Water levels determined 240 hours after completion of each boring, or as noted. Precipitation, site topography, and porosity of the soil strata may cause periodic changes in these levels.
- All soil classifications are determined by visual analysis.
- QU = UNCOUPLED COMPRESSIVE STRENGTH TEST USING RIMAC SPRING TESTER - Model No. 67
- E indicates estimated UNCOUPLED COMPRESSIVE STRENGTH

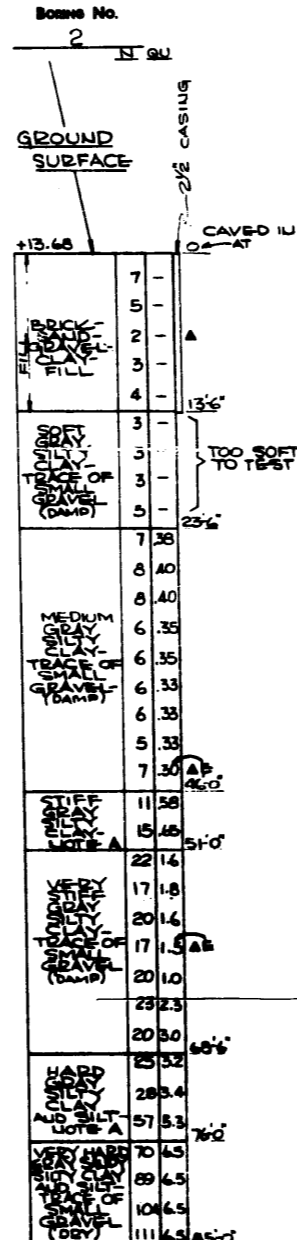


NOTE A: SMALL GRAVEL (DRY)

NOTE B: HARD GRAY SANDY SILTY CLAY AND SILTY TRACE OF SMALL GRAVEL (DAMP)

NOTE C: TRACE OF SMALL GRAVEL (DRY)

COMPLETED JULY 5, 1958

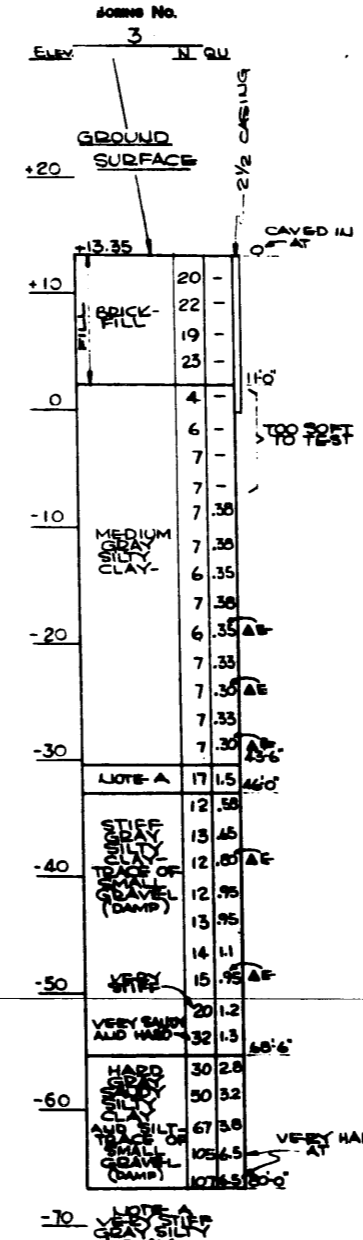


NOTE A: TRACE OF GRAVEL (DAMP)

NOTE B: HARD GRAY SANDY SILTY CLAY AND SILTY TRACE OF SMALL GRAVEL (DAMP)

NOTE C: TRACE OF SMALL GRAVEL (DRY)

COMPLETED MAY 27, 1958

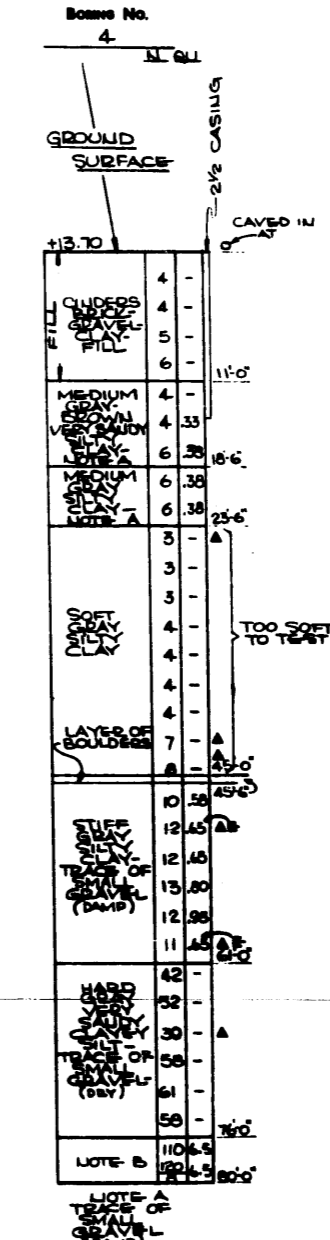


NOTE A: TRACE OF GRAVEL (DAMP)

NOTE B: HARD GRAY SANDY SILTY CLAY AND SILTY TRACE OF SMALL GRAVEL (DAMP)

NOTE C: TRACE OF SMALL GRAVEL (DRY)

COMPLETED MAY 27, 1958

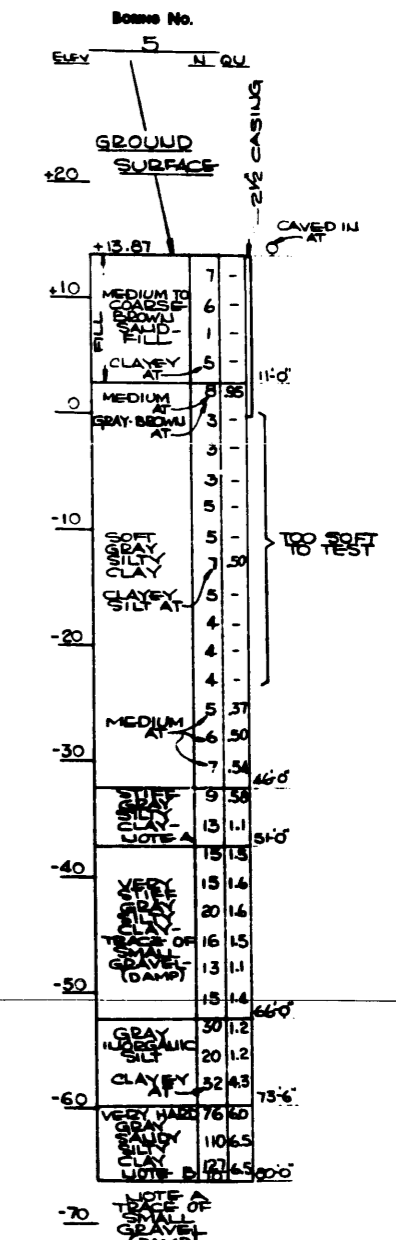


NOTE A: TRACE OF GRAVEL (DAMP)

NOTE B: HARD GRAY SANDY SILTY CLAY AND SILTY TRACE OF SMALL GRAVEL (DAMP)

NOTE C: TRACE OF SMALL GRAVEL (DRY)

COMPLETED JUNE 2, 1958



NOTE A: TRACE OF GRAVEL (DAMP)

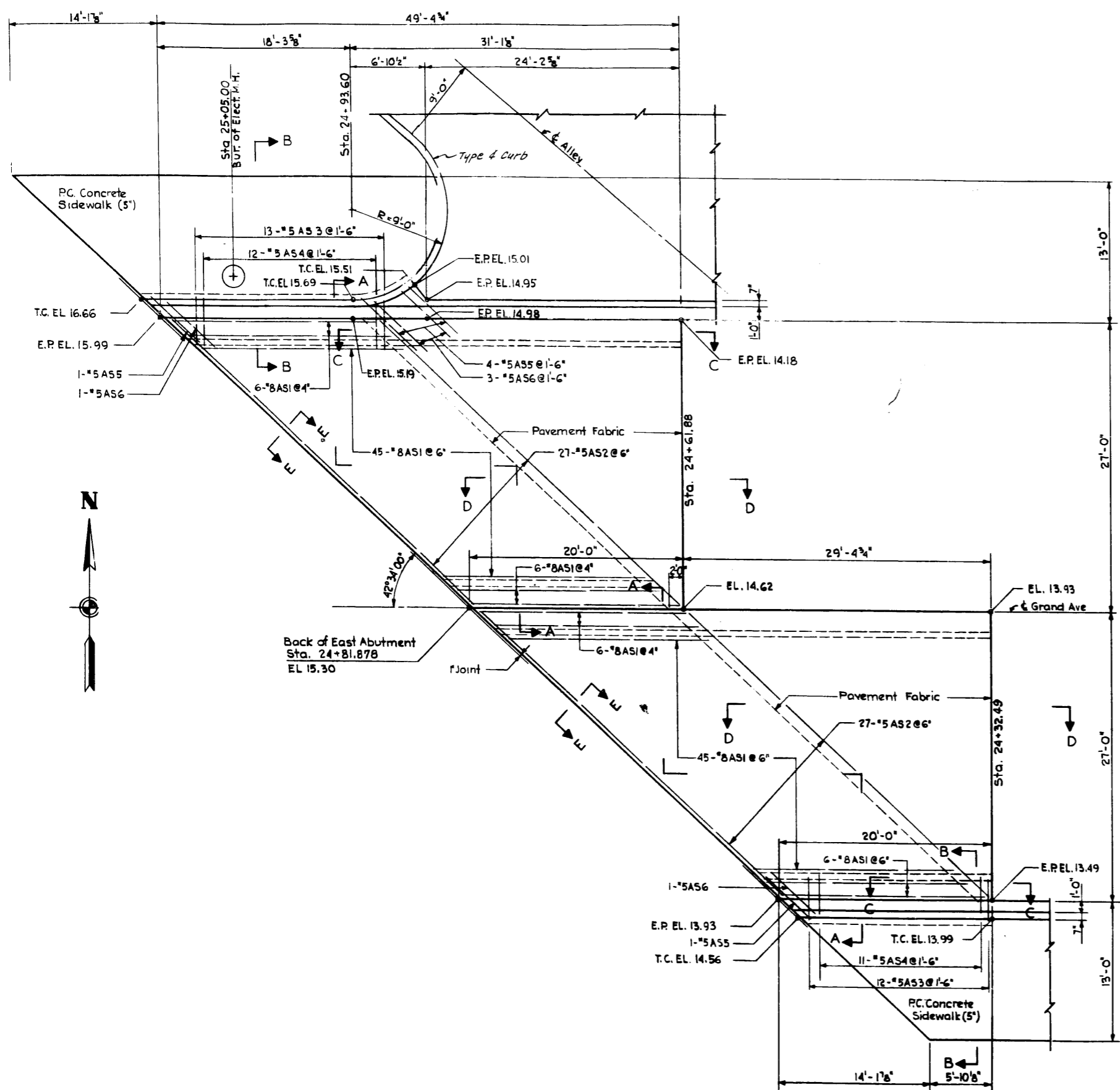
NOTE B: HARD GRAY SANDY SILTY CLAY AND SILTY TRACE OF SMALL GRAVEL (DAMP)

NOTE C: TRACE OF SMALL GRAVEL (DRY)

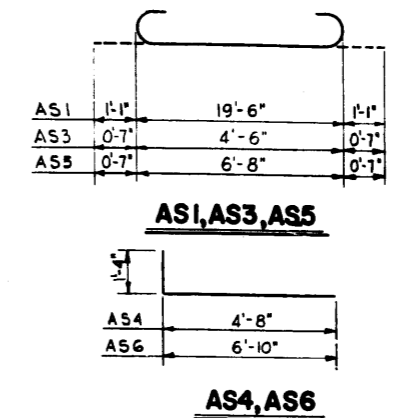
COMPLETED MAY 26, 1958

ILLINOIS DIVISION OF HIGHWAYS  
 NORTHWEST EXPRESSWAY  
 GRAND AVE. GRADE SEPARATION  
 BORING LOGS

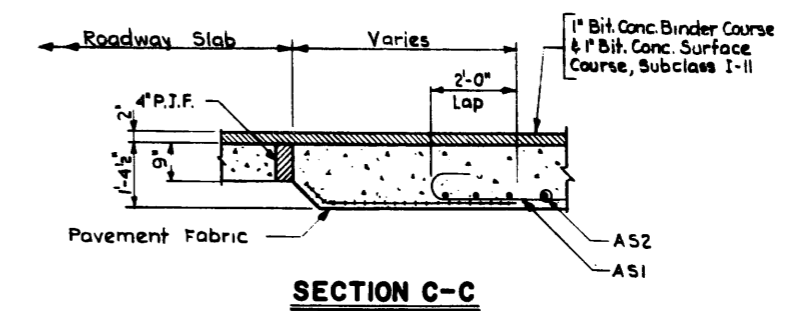
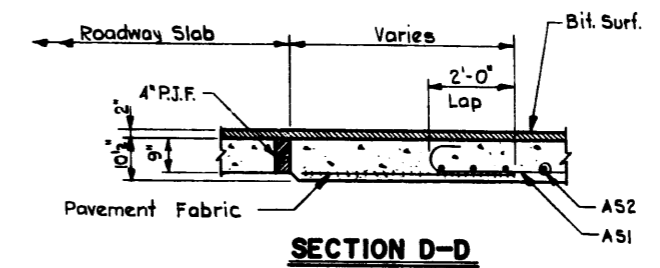
ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.R.	0308-476H	COOK	56	10
FED. ROAD DIST. NO. 4		ILLINOIS	FED. AID PROJECT	



**PLAN**  
APPROACH SLAB AT EAST ABUTMENT



BILL OF MATERIAL					
MARK	NO.	SIZE	LENGTH	SHAPE	
AS1	228	8	21'-8"		
AS2	108	5	39'-3"		
AS3	41	5	5'-8"		
AS4	37	5	6'-0"		
AS5	12	5	7'-10"		
AS6	10	5	8'-2"		
				Unit	Quantity
P.C.C. Pavement (16 1/2" - 10 1/2" - 16 1/2")			Sq. Yd.	416	
Reinforcement Bars			Lb.	14,292	
Pavement Fabric			Sq. Yd.	200	

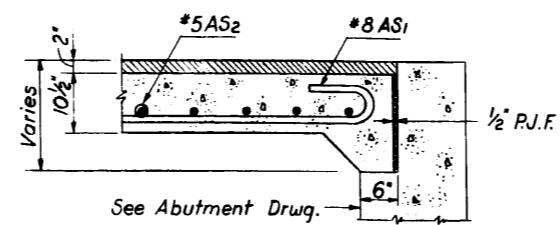
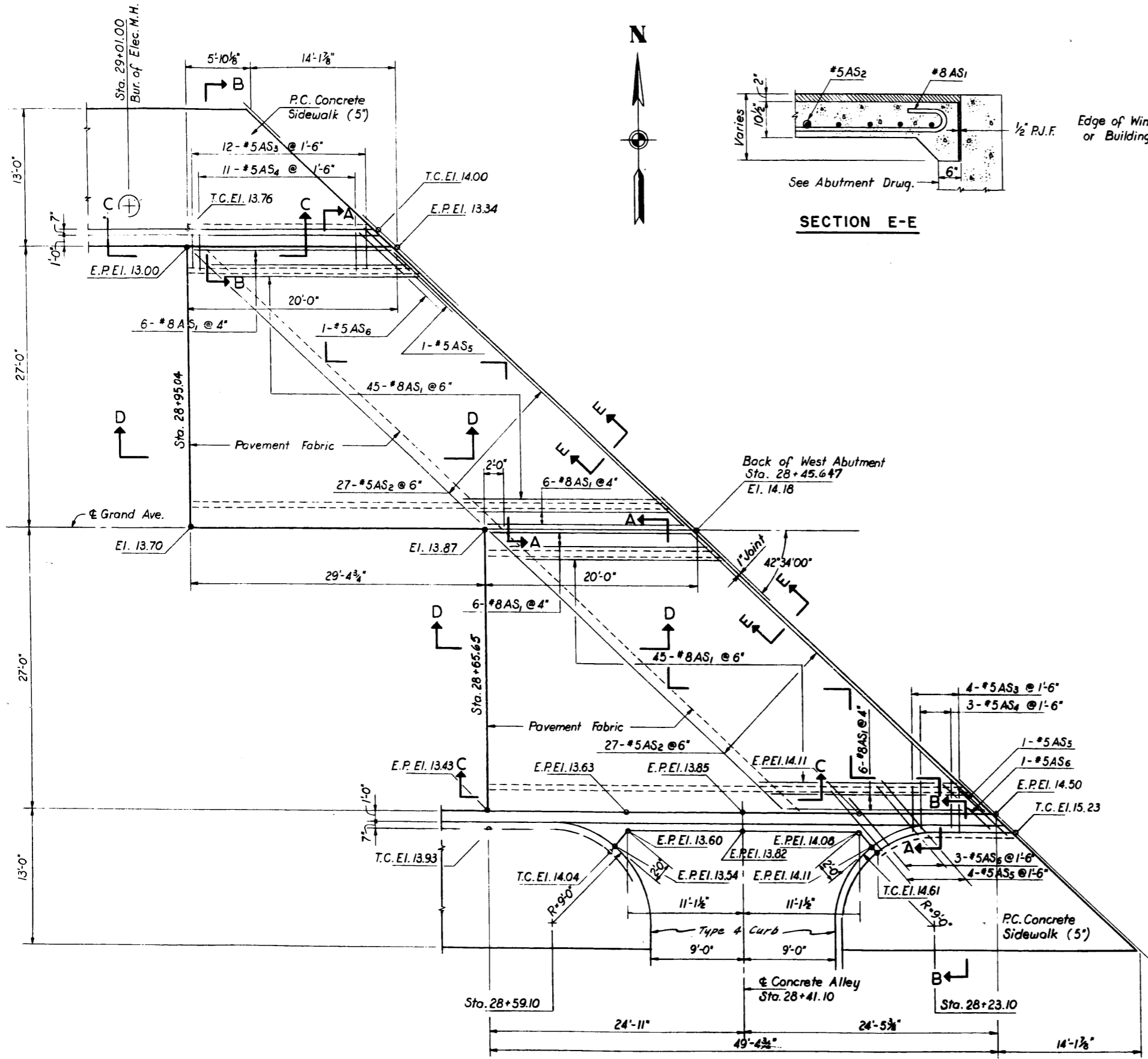


NOTE:  
For Section A-A, B-B and E-E and Construction Joint Details See Drwg. 11

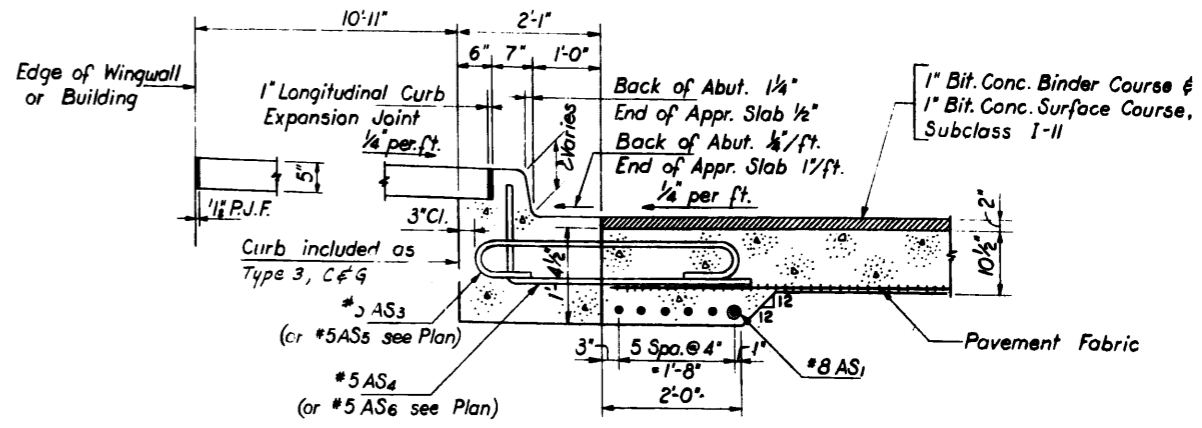
ILLINOIS DIVISION OF HIGHWAYS  
**NORTHWEST EXPRESSWAY**  
 ERIE STREET INTERCHANGE  
 GRAND AVENUE GRADE SEPARATION  
**BRIDGE APPROACH SLAB**  
 EAST ABUTMENT

SCALE: NONE      DATE: JULY 1969

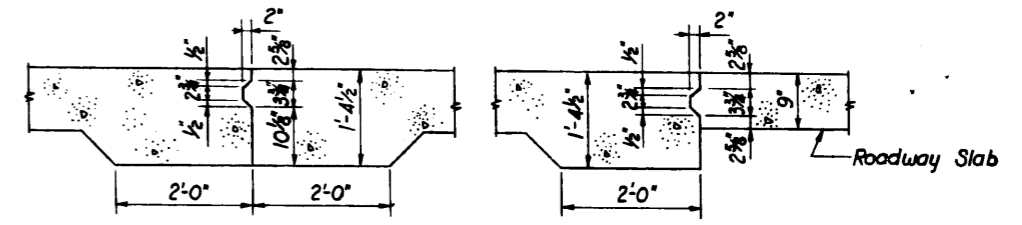
ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 1.04	0808-476HB	COOK	36	11
FED. ROAD DIV. NO. 4		ILLINOIS	FED. AID PROJECT	



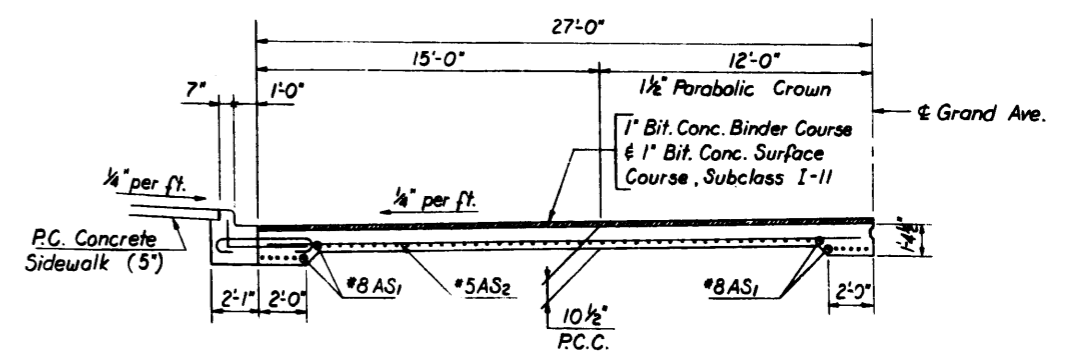
SECTION E-E



SECTION B-B



DETAIL OF CONSTRUCTION JOINTS



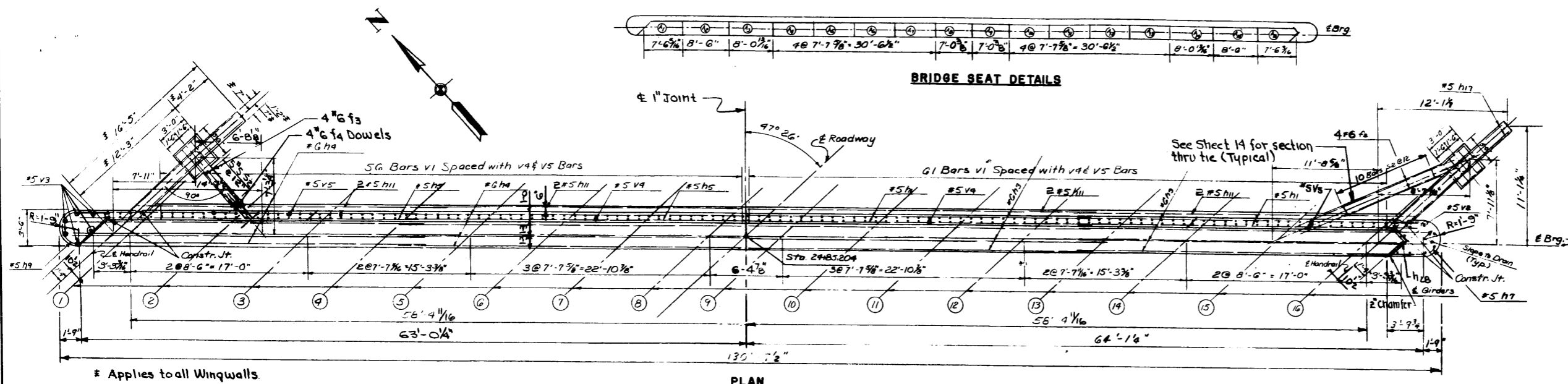
SECTION A-A

NOTE:  
For Section C-C and D-D  
see sheet No. 10

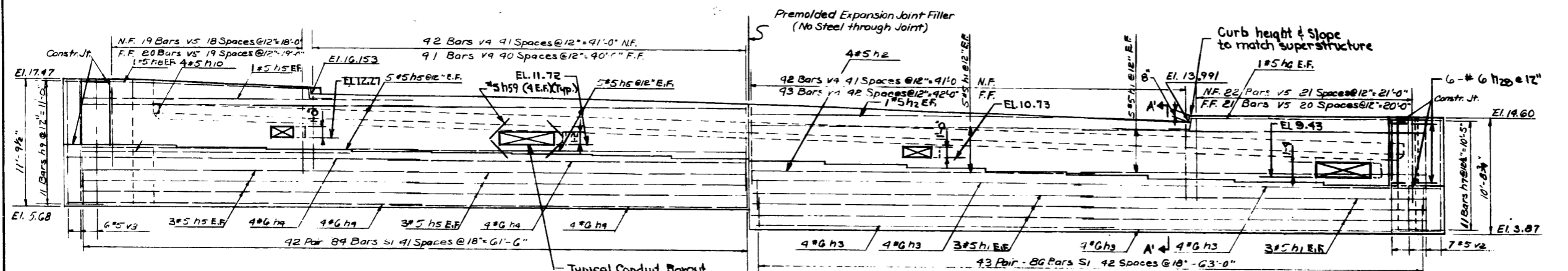
PLAN  
APPROACH SLAB AT WEST ABUTMENT

ILLINOIS DIVISION OF HIGHWAYS  
NORTHWEST EXPRESSWAY  
ERIE STREET INTERCHANGE  
GRAND AVENUE GRADE SEPARATION  
BRIDGE APPROACH SLAB  
WEST ABUTMENT  
SCALE: NONE DATE: JULY 1989

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 1.94	0303-476 H.B.	COOK	36	12
FED. ROAD DIV. NO. 4		ILLINOIS	FED. AID PROJECT	



PLAN

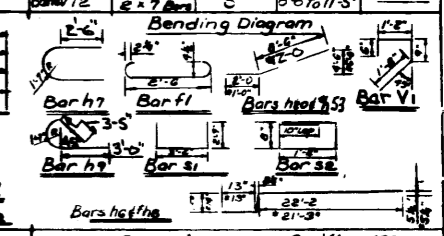


ELEVATION

**E.ABUT. REINFORCING BAR SCHEDULE**

Bar	No.	Size	Length	Shape
s1	172	#4	8'-8"	L
s2	15	#4	4'-6"	L
f1	32	#6	9'-2"	U
f2	4	#6	14'-0"	U
f3	4	#6	6'-6"	U
f4	4	#6	4'-0"	U
h1	32	#5	32'-4"	U
h2	8	#5	29'-11"	U
h3	16	#6	39'-3"	U
h4	16	#6	33'-11"	U
h5	34	#5	32'-0"	U
h6	2	#5	24'-6"	U
h7	11	#5	8'-5"	U
h8	2	#5	23'-0"	U
h9	12	#5	9'-10"	U
h10	4	#5	25'-3"	U
h11	8	#5	29'-4"	U
h12	4	#5	2'-5"	U
h13	4	#5	6'-10"	U
h14	4	#5	11'-8"	U
h15	4	#5	12'-9"	U
h16	4	#5	10'-7"	U
h17	18	#5	14'-7"	U
h18	2	#5	10'-6"	U
h19	2	#5	5'-8"	U
h20	2	#5	10'-6"	U
h21	6	#5	4'-0"	U
h22	24	#5	4'-6"	U
h23	2	#5	3'-0"	U
h24	18	#5	13'-4"	U
h25	2	#5	9'-0"	U
h26	2	#5	5'-0"	U
h27	2	#5	2'-6"	U
h28	2	#5	9'-6"	U
h29	32	#5	2'-0"	U
v1	117	#5	4'-1"	U
v2	7	#5	10'-7"	U
v3	6	#5	11'-9"	U
v4	168	#5	6'-2"	U
v5	32	#5	7'-2"	U
v6	4	#5	7'-2"	U
v7	32	#5	4'-3"	U
v8	28	#5	3'-6"	U
v9	12	#5	2'-9"	U
Band 10	28	#5	8'-11 1/2"	U
v11	28	#5	7'-3"	U
Band 12	28	#5	8'-8 1/2"	U

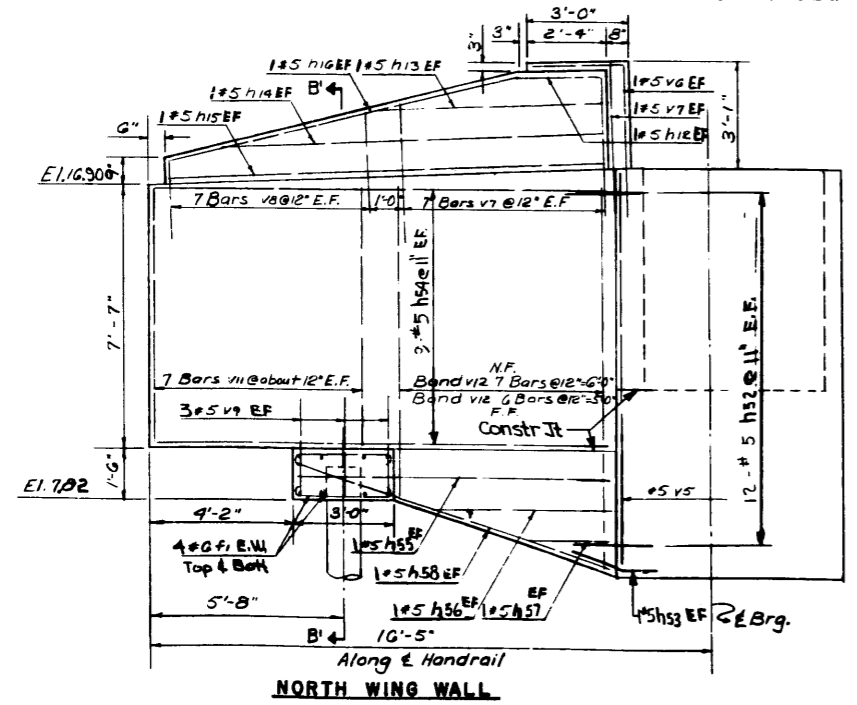
Mark	Elevation
A1	11.403
A2	11.206
A3	10.997
A4	10.905
A5	10.809
A6	10.695
A7	10.558
A8	10.374
A9	10.189
A10	9.938
A11	9.656
A12	9.358
A13	9.060
A14	8.756
A15	8.547
A16	8.373



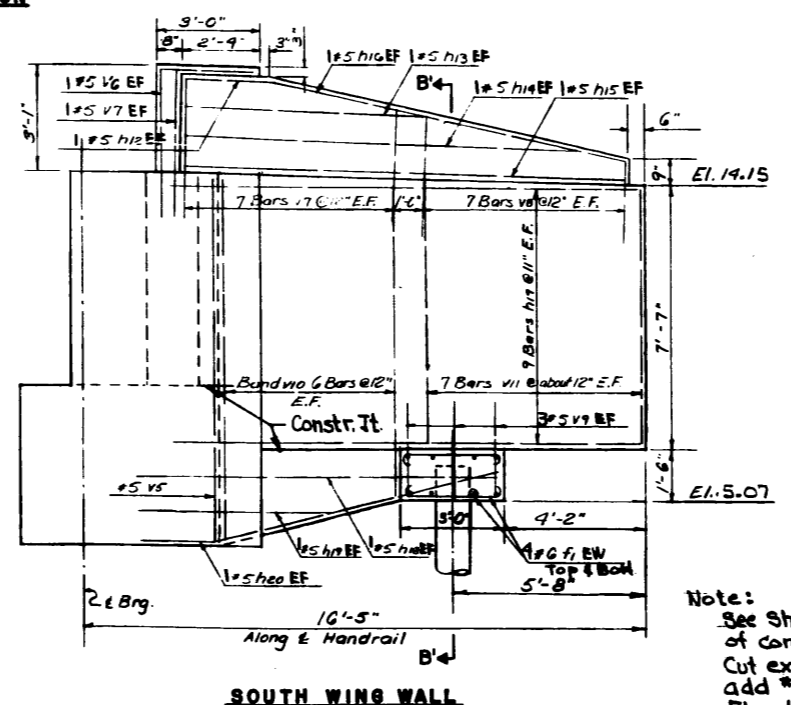
Class 'x' Concrete	Cu. Yds. 132.1
Reinforcement Bars	Lbs. 10,346
Furnishing Metal Shell Piles	Lin. Ft. 4700
Driving & Filling Shells	Lin. Ft. 2700
Class 'A' Exc. for Structures	Cu. Yds. 224

ILLINOIS DIVISION OF HIGHWAYS  
**NORTHWEST EXPRESSWAY**  
 ERIE STREET INTERCHANGE  
 GRAND AVENUE GRADE SEPARATION  
 EAST ABUTMENT

SCALE: NONE DATE: JULY 1958



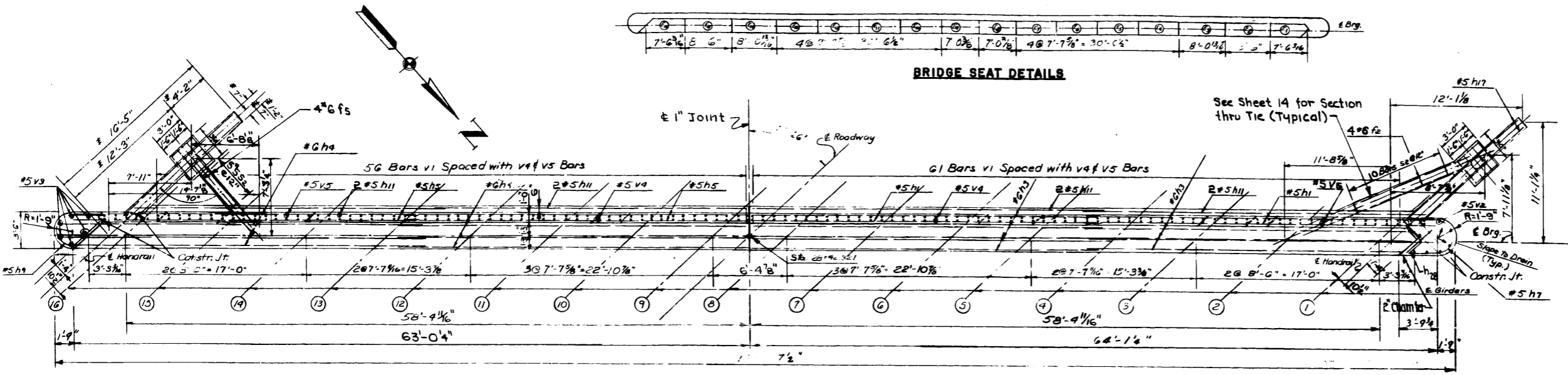
NORTH WING WALL



SOUTH WING WALL

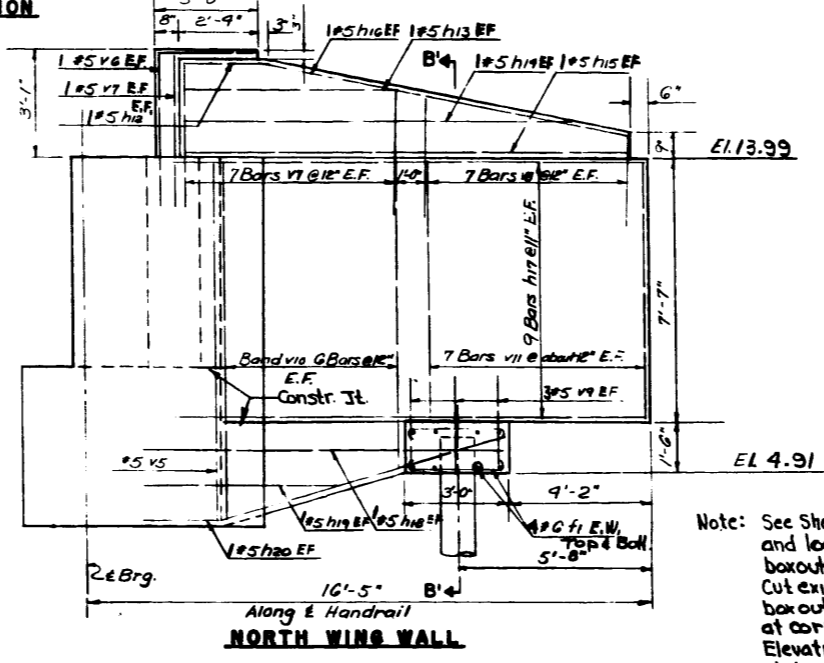
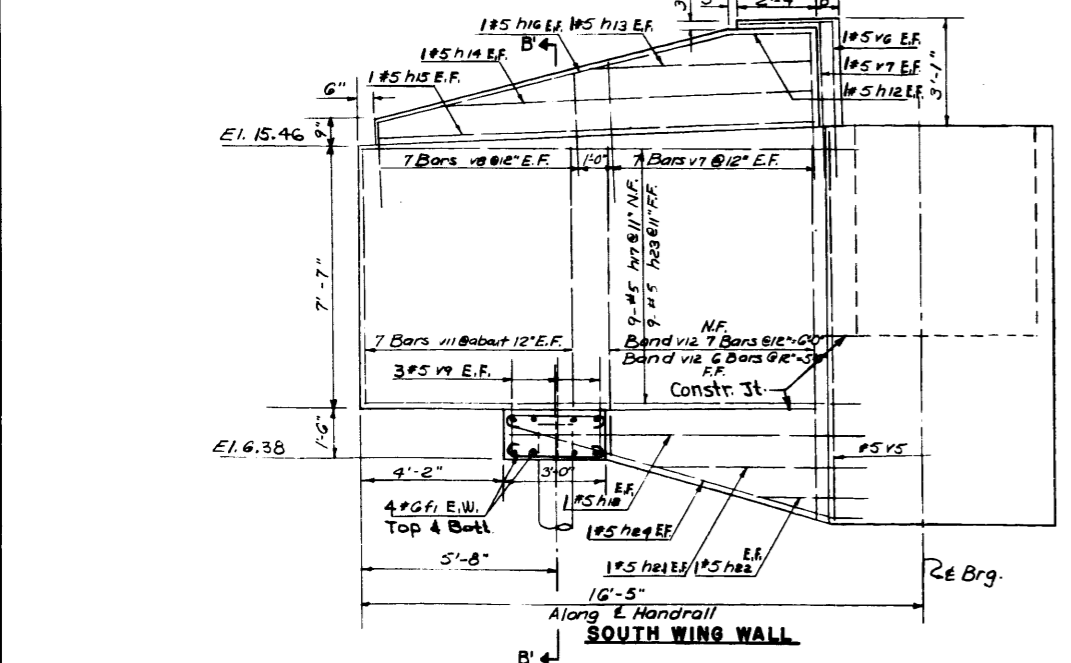
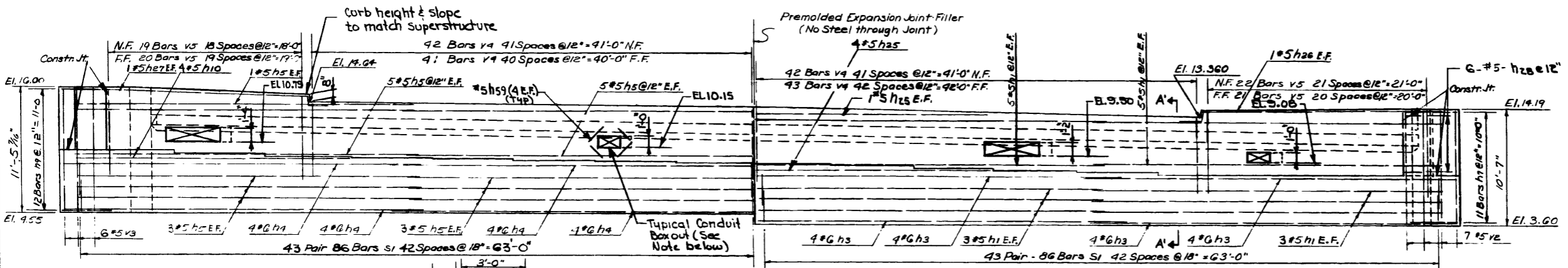
Note:  
 See Sheet 29 for size and location of conduit boxouts. Cut existing steel for boxout and add #5h59 at corners E.F. Elevations shown are e & Bearing, except at ends of wingwalls.

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 1.94	0505-476H.B.	COOK	54	13
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		



**WABUT. REINFORCING BAR SCHEDULE**

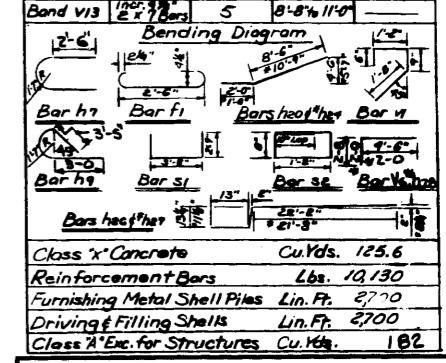
Bar No.	Size	Length	Shape
s1	172 #4	8'-8"	□
s2	15 4	9'-6"	□
f1	32 6	4'-2"	—
f2	4 6	15'-0"	—
f3	4 6	8'-0"	—
h1	32 5	32'-9"	—
h3	16 6	34'-3"	—
h4	16 6	33'-11"	—
h5	34 5	32'-0"	—
h7	11 5	8'-5"	—
h9	12 5	9'-10"	—
h10	4 5	25'-5"	—
h11	8 5	29'-4"	—
h12	4 5	2'-5"	—
h13	4 5	6'-10"	—
h14	4 5	11'-8"	—
h15	4 5	12'-9"	—
h16	4 5	10'-7"	—
h17	27 5	14'-7"	—
h18	4 5	10'-6"	—
h19	2 5	5'-8"	—
h20	2 5	10'-6"	—
h21	2 5	6'-6"	—
h22	2 5	3'-6"	—
h23	9 5	13'-10"	—
h24	2 5	11'-9"	—
h25	6 5	21'-9"	—
h26	2 5	24'-9"	—
h27	2 5	23'-5"	—
h28	6 5	4'-0"	—
h29	32 5	2'-0"	—



**Bridge Seat Elev.**

Mark	Elevation
E1	8.097
E2	8.116
E3	8.100
E4	8.259
E5	8.925
E6	8.612
E7	8.791
E8	8.941
E9	9.040
E10	9.129
E11	9.203
E12	9.298
E13	9.388
E14	9.472
E15	9.710
E16	9.942

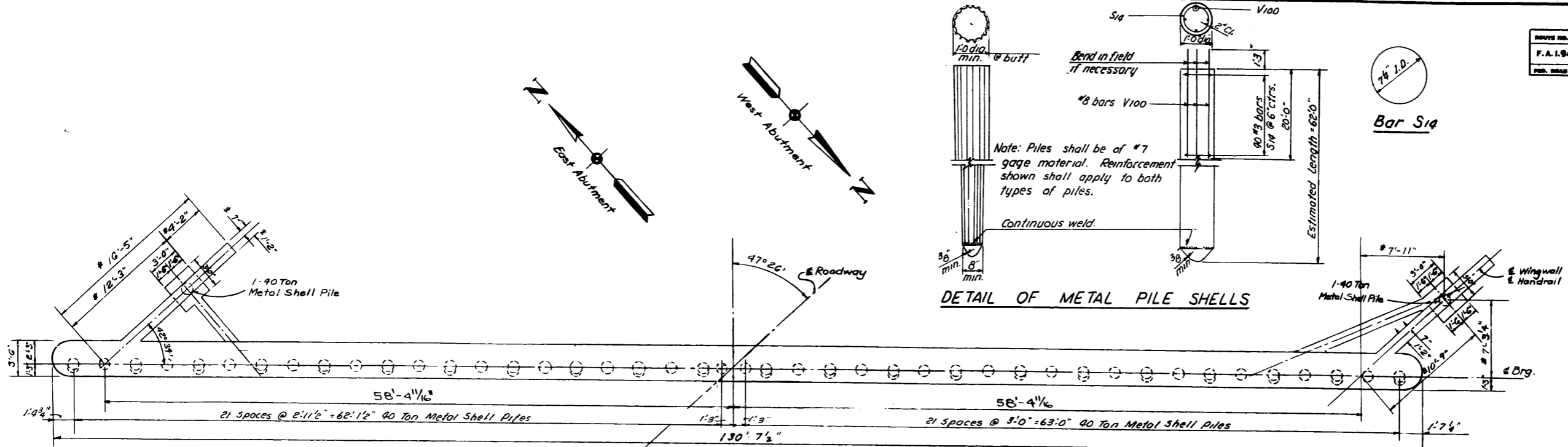
Note: See Sheet 29 for size and location of conduit boxouts. Cut existing steel for boxout and add #5hg at corners E.F. Elevations shown are at E Bearing, except at ends of Wingwalls.



Class 'x' Concrete Cu Yds. 125.6  
 Reinforcement Bars Lbs. 12,130  
 Furnishing Metal Shell Piles Lin. Ft. 2770  
 Driving & Filling Shells Lin. Ft. 2700  
 Class 'A' Exc. for Structures Cu Yds. 182

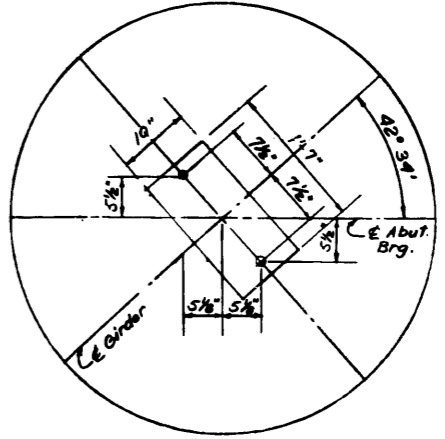
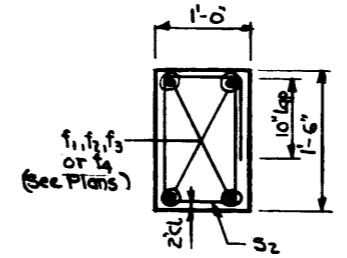
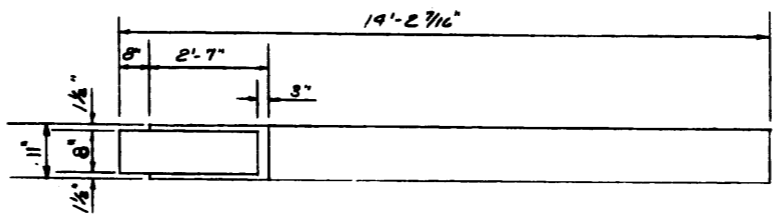
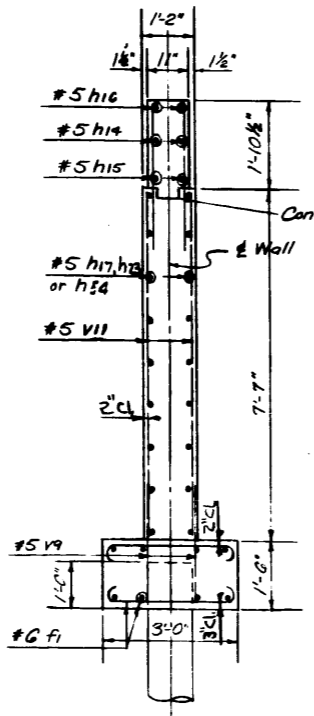
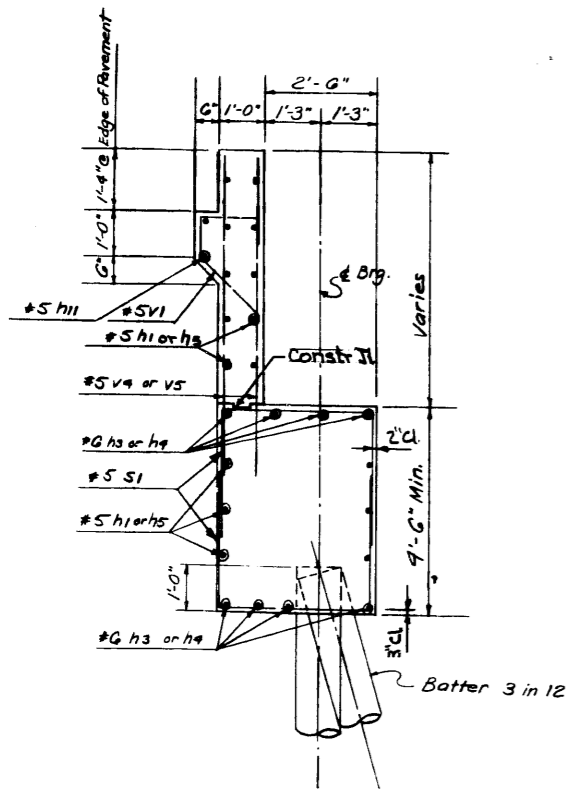


ROUTE NO.	NO.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 194	0503-476 H.B.	COOK	56	14
PUB. ROAD DIV. NO. 4		ILLINOIS	PUB. AID PROJECT	



# Applies To all Wingwalls

○ Vertical Pile  
 ⊗ Battered Pile (3 in 12)



ILLINOIS DIVISION OF HIGHWAYS  
 NORTHWEST EXPRESSWAY  
 ERIE STREET INTERCHANGE  
 GRAND AVENUE GRADE SEPARATION  
 ABUTMENT DETAILS  
 SCALE: NONE  
 DATE: JULY 1959

ROUTE NO.	DESIGN	COUNTY	TOTAL	SHEET
P.A. 184	0503-476 H.B.	COOK	5 C	15
FED. ROAD DIV. NO. 4		ILLINOIS	FED. AID PROJECT	

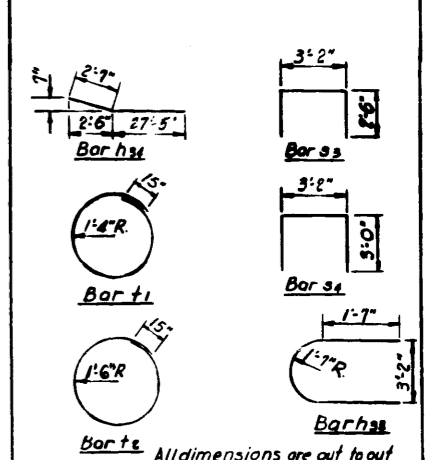
**CAP BEAM ELEVATIONS**

Mark	Elevation	Mark	Elevation
b1	11-844'	b9	11-184'
b2	11-725'	b10	10-970'
b3	11-544'	b11	10-703'
b4	11-544'	b12	10-410'
b5	11-505'	b13	10-109'
b6	11-505'	b14	9-801'
b7	11-441'	b15	9-562'
b8	11-323'	b16	9-315'

**PIER I REINFORCING BAR SCHEDULE**

Bar	No	Size	Length	Shape
h28	6	#8	24'-9"	—
h29	6	#8	37'-0"	—
h30	8	#8	10'-3"	—
h31	8	#8	10'-0"	—
h32	12	#8	10'-0"	—
h33	18	#5	8'-2"	—
h34	6	#6	30'-0"	—
h35	14	#5	37'-0"	—
h36	32	#6	9'-6"	—
h37	8	#6	9'-0"	—
h38	12	#5	22'-3"	—
h39	8	#5	23'-9"	—
h40	20	#5	37'-0"	—
h49	6	#6	31'-9"	—
h50	14	#6	24'-9"	—
s3	104	#4	8'-2"	—
s4	96	#4	9'-2"	—
v14	55	#9	12'-0"	—
v15	55	#9	10'-0"	—
v16	110	#9	7'-9"	—
v17	246	#1	33'-6"	—
t1	80	#4	9'-8"	○
t2	680	#4	11'-3"	○

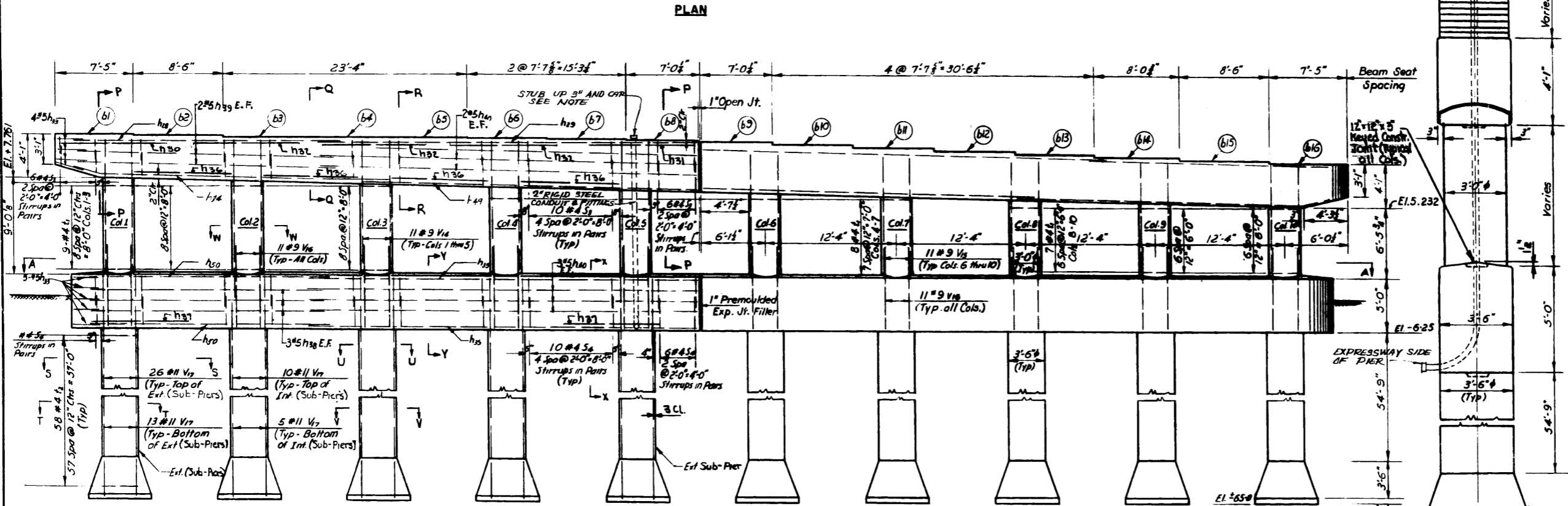
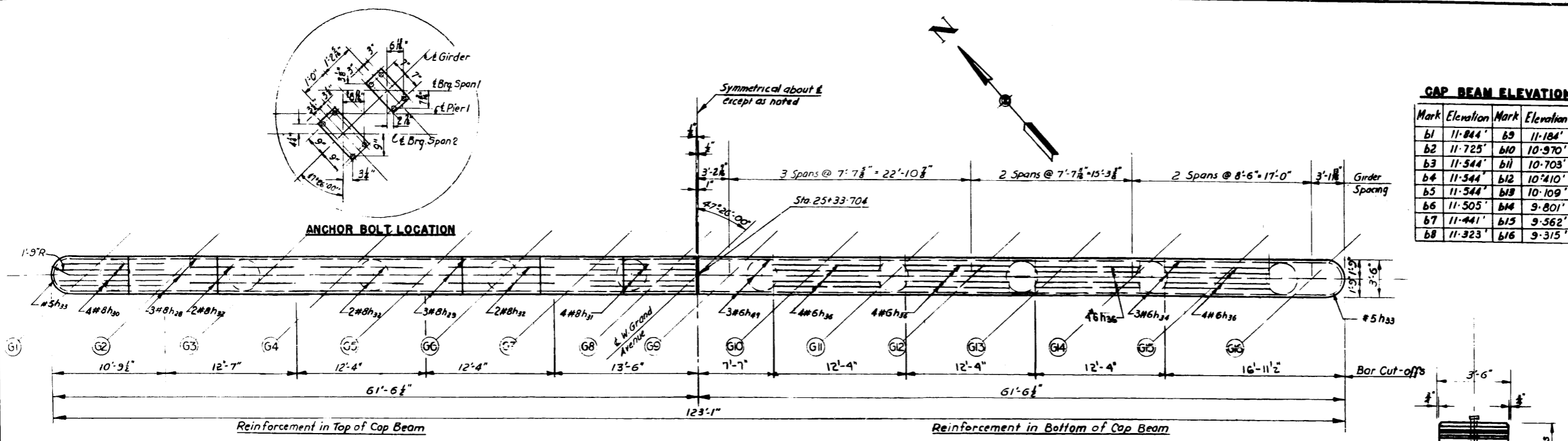
**Banding Diagrams**



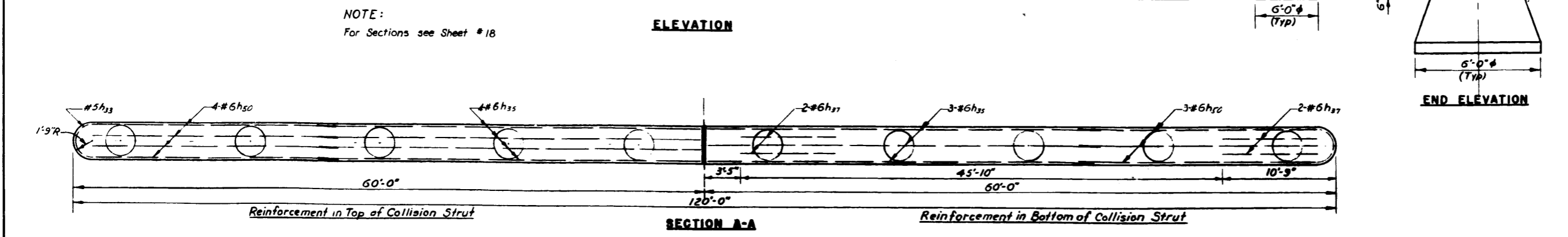
All dimensions are out to out  
 Class 'x' Concrete Cu. Yds. 167.5  
 Reinforcement Bars Lbs. 62,392  
 Sub-Pier Shafts, 42" Dia. Lin. Ft. 588  
 Sub-Pier Bells Cu. Ft. 420

NOTE:  
 2" RIGID STEEL CONDUIT & FITTINGS  
 TO BE INCIDENTAL TO CLASS 'X' CONCRETE

ILLINOIS DIVISION OF HIGHWAYS  
 NORTHWEST EXPRESSWAY  
 ERIE STREET INTERCHANGE  
 GRAND AVENUE GRADE SEPARATION  
 PIER I  
 SCALE: NONE DATE: JULY 1959

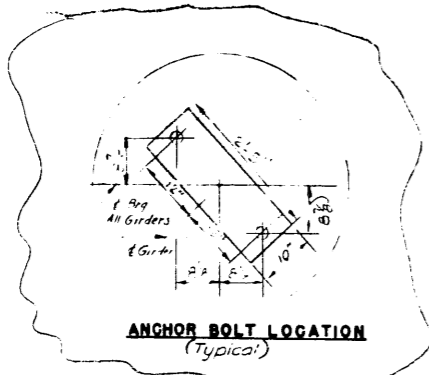


NOTE:  
 For Sections see Sheet #18



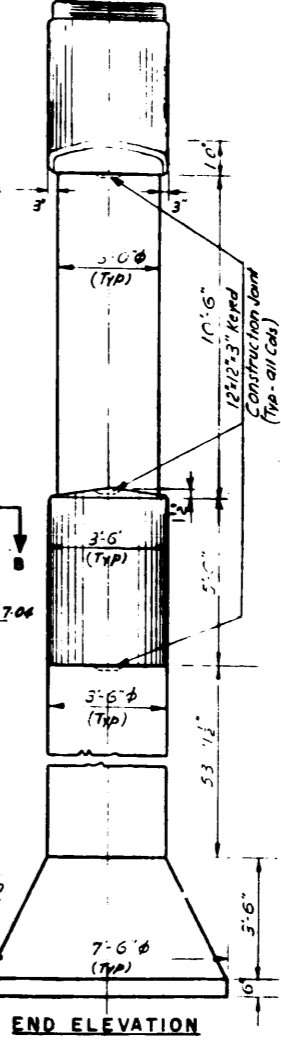
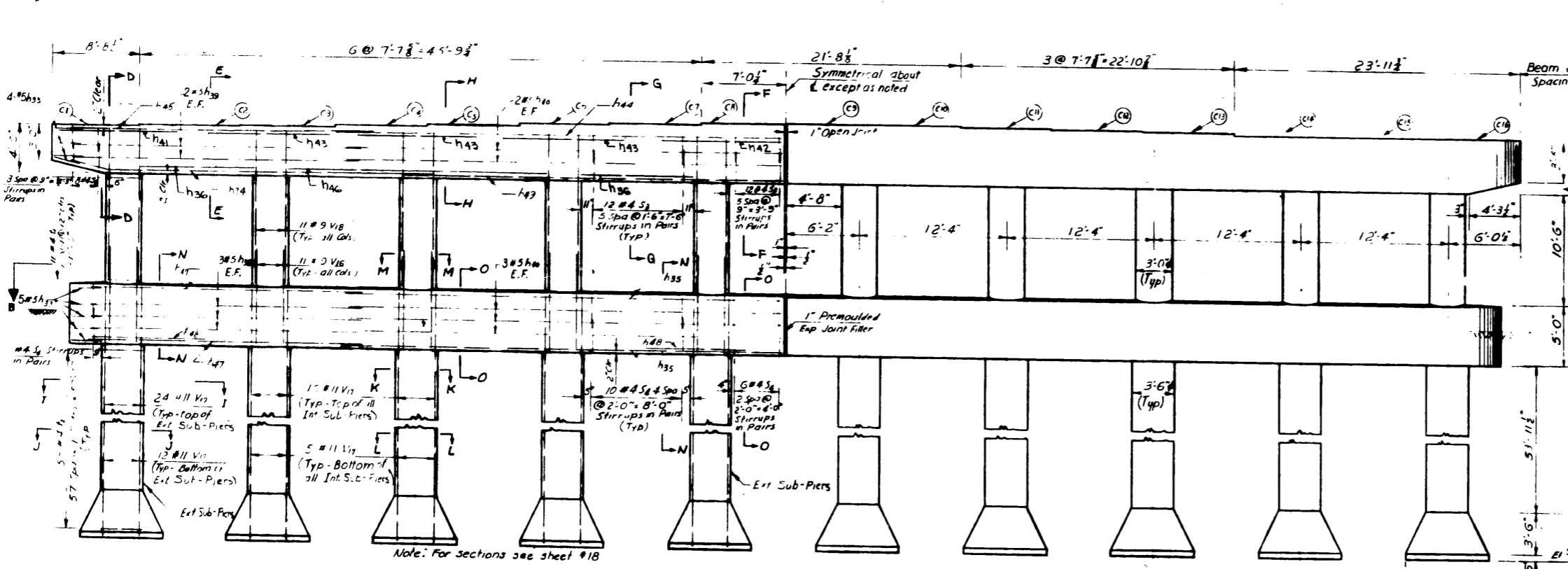
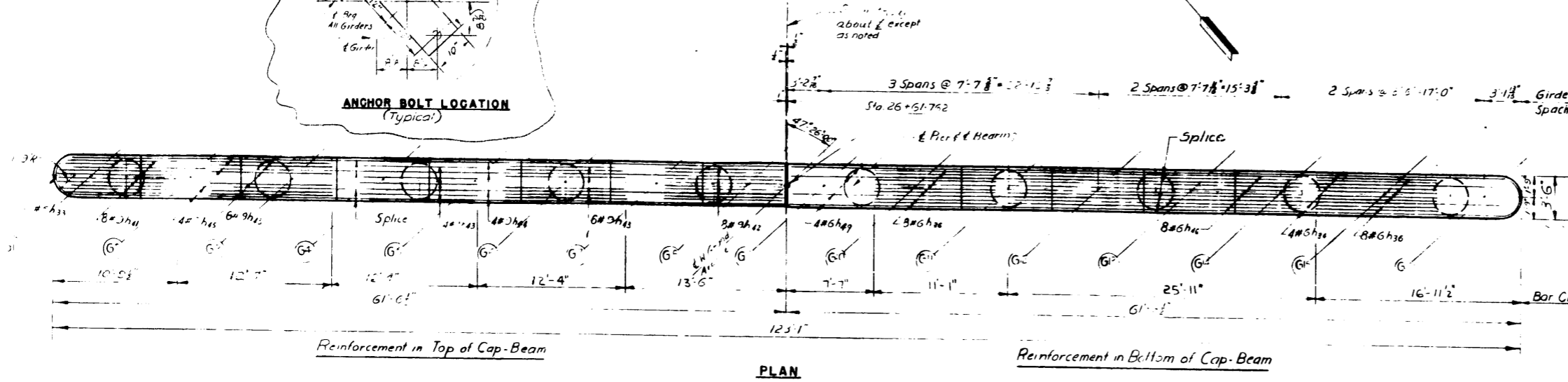
Reinforcement in Top of Collision Strut  
 Reinforcement in Bottom of Collision Strut

ROUTE NO.	DIST.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 194	0303-476 H.B.	COOK		16
FED. ROAD DIST. NO. 4		ILLINOIS	FED. AID PROJECT	



**GAP-BEAM ELEVATION**

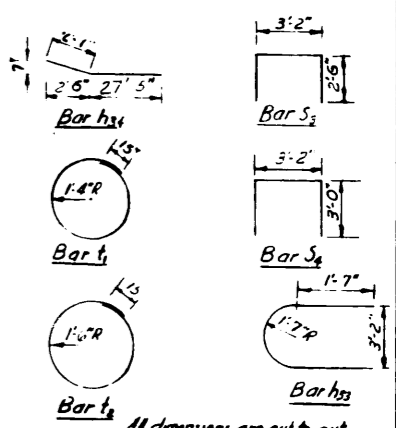
Mark	Elevation	Mark	Elevation
C1	13'-4"	C9	13'-1"
C2	12'-5 1/2"	C10	13'-1"
C3	12'-5 1/2"	C11	13'-1"
C4	11'-7 1/2"	C12	13'-1"
C5	12'-5 1/2"	C13	13'-1"
C6	11'-11"	C14	13'-1"
C7	13'-2 1/2"	C15	12'-8 1/2"
C8	12'-5 1/2"	C16	12'-8 1/2"



**PIER 2 REINFORCING BAR SCHEDULE**

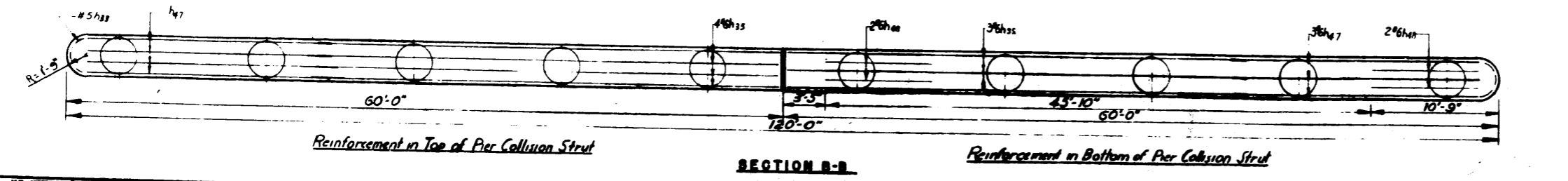
Bar	No	Size	Length	Shape
h25	16	#5	8'-2"	U
h24	5	#5	3'-0"	U
h23	4	#5	37'-0"	U
h26	5	#6	9'-0"	U
h28	10	#5	22'-3"	U
h29	6	#5	23'-9"	U
h20	20	#5	37'-0"	U
h21	16	#9	10'-3"	U
h22	16	#9	10'-0"	U
h23	50	#9	10'-0"	U
h24	8	#9	37'-0"	U
h25	8	#9	24'-6"	U
h26	16	#6	24'-6"	U
h27	14	#6	23'-0"	U
h28	8	#6	9'-0"	U
h29	8	#6	31'-9"	U
S3	136	#4	8'-2"	□
S4	96	#4	9'-2"	□
V6	110	#9	7'-9"	U
V7	234	#11	33'-6"	U
V8	110	#9	14'-3"	U
T1	110	#4	9'-8"	○
T2	580	#4	11'-3"	○

**Bending Diagram**



All dimensions are out to out

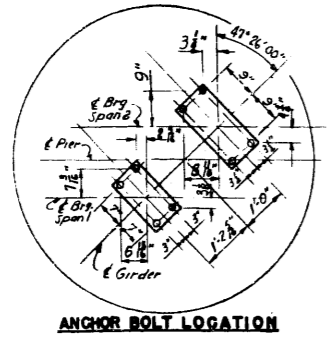
Class "A" Concrete	Cu Yds. 174.4
Reinforcement Bars	Lbs. 64,698
Class "A" Exc for Structures	Cu Yds. 19
Sub-Pier Shafts, 42" Dia.	Lin. Ft. 580
Sub-Pier Bells	Cu. Ft. 778



ILLINOIS DIVISION OF HIGHWAYS  
 NORTHWEST EXPRESSWAY  
 ERIE STREET INTERCHANGE  
 GRAND AVENUE GRADE SEPARATION  
 PIER 2  
 SCALE: NONE  
 DATE: JULY 1954

REVISED 11/2/54

DRUITS NO.	REV.	COUNTY	TOTAL SHEETS	SHEET NO.
F. A. 194	0303-478 H.B.	COOK	36	17
FED. ROAD DIV. DES. 4		ILLINOIS	FED. AID PROJECT	

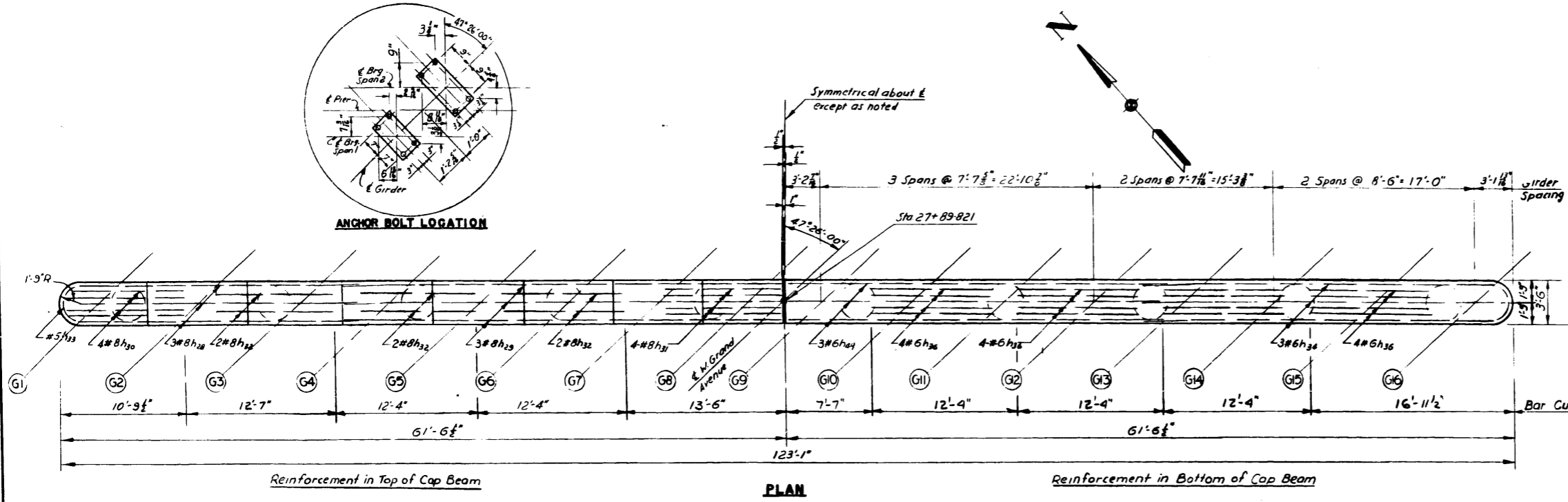


**GAP-BEAM ELEVATION**

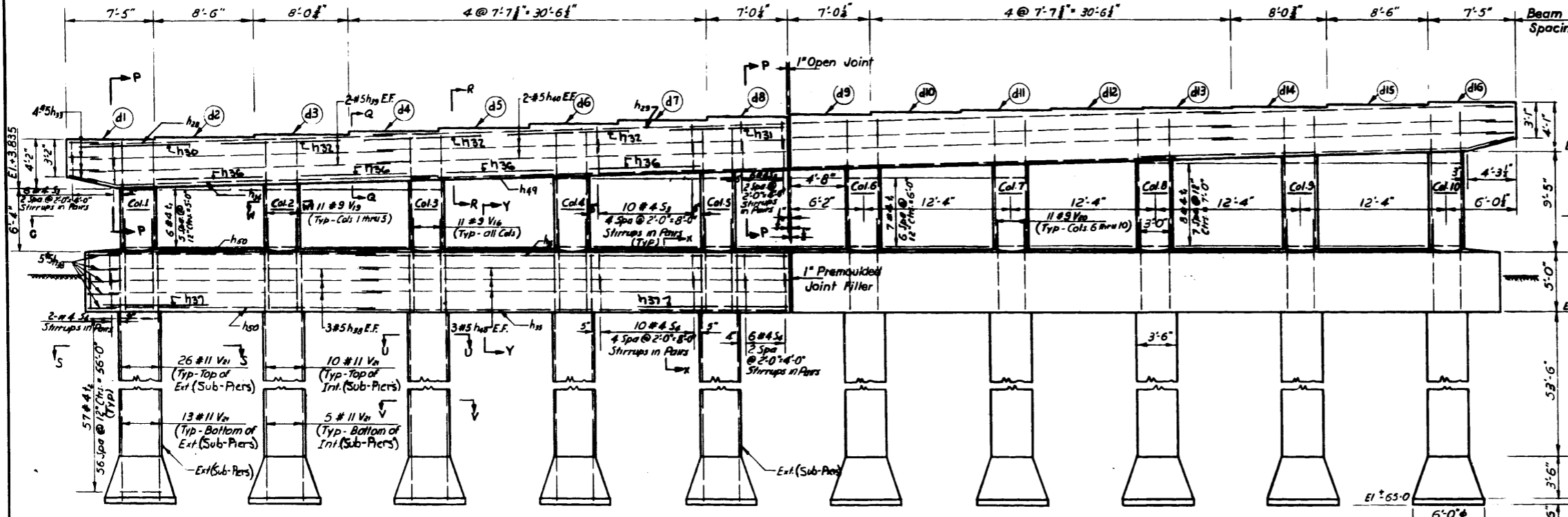
Mark	Elevation	Mark	Elevation
d1	8.002'	d9	10.014'
d2	8.194'	d10	10.221'
d3	8.386'	d11	10.371'
d4	8.662'	d12	10.463'
d5	8.960'	d13	10.546'
d6	9.259'	d14	10.621'
d7	9.555'	d15	10.821'
d8	9.818'	d16	11.001'

**PIER 3 REINFORCING BAR SCHEDULE**

Bar	No.	Size	Length	Shape
h28	6	#8	24'-9"	
h29	6	#8	37'-0"	
h30	8	#8	10'-3"	
h31	8	#8	10'-0"	
h32	12	#8	10'-0"	
h33	18	#5	8'-2"	
h34	6	#6	30'-0"	
h35	74	#6	57'-0"	
h36	32	#6	9'-6"	
h37	8	#6	9'-0"	
h38	12	#5	22'-3"	
h39	8	#5	23'-9"	
h40	20	#5	37'-0"	
h41	6	#6	31'-9"	
h50	14	#6	24'-9"	
S3	104	#4	8'-2"	
S4	96	#4	9'-2"	
V16	110	#9	7'-3"	
V19	55	#9	9'-0"	
V20	55	#9	10'-9"	
V4	246	#11	32'-3"	

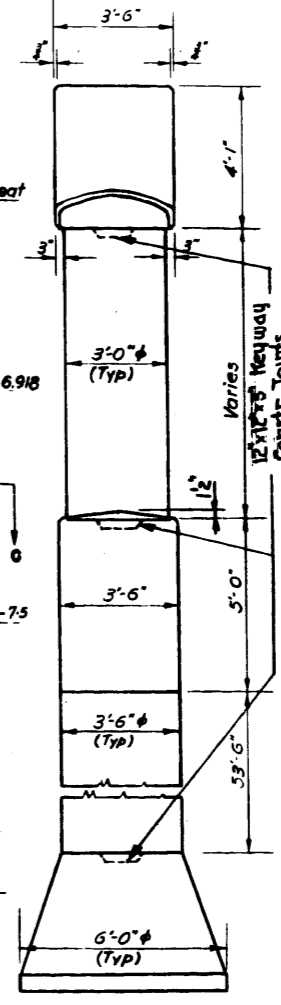


**PLAN**



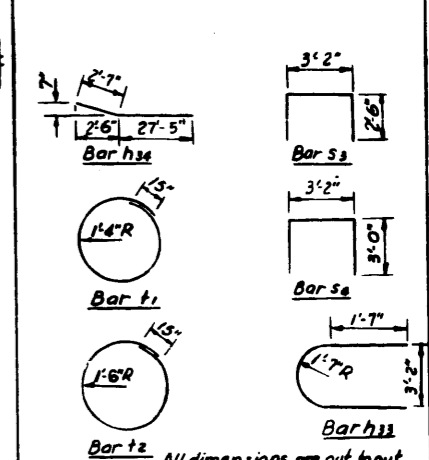
**ELEVATION**

NOTE:  
For Sections see Sheet #18

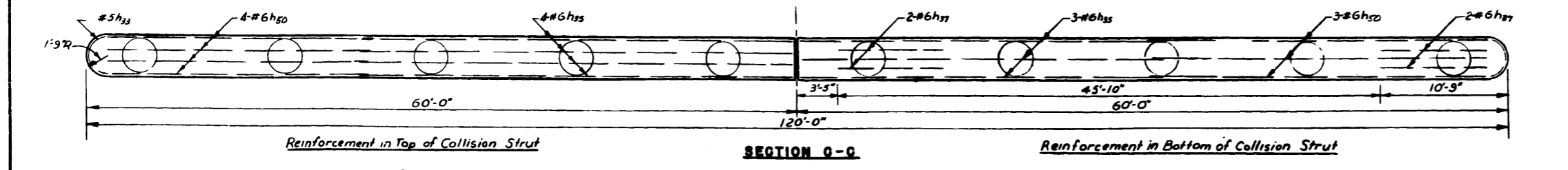


**END ELEVATION**

**Bending Diagram**



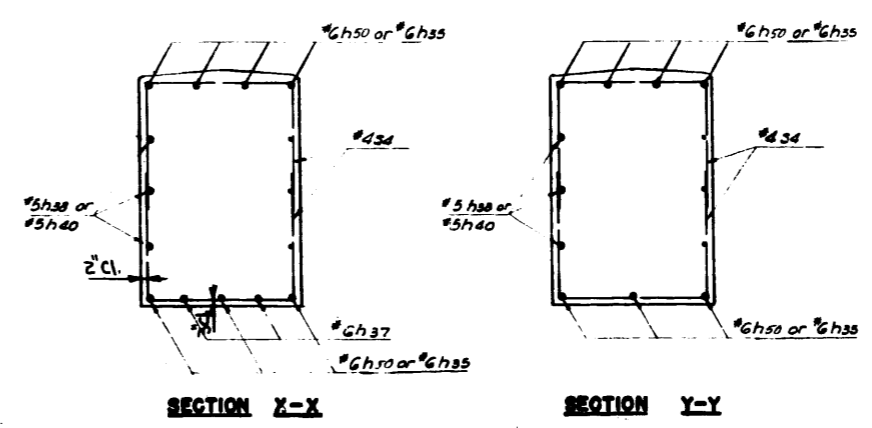
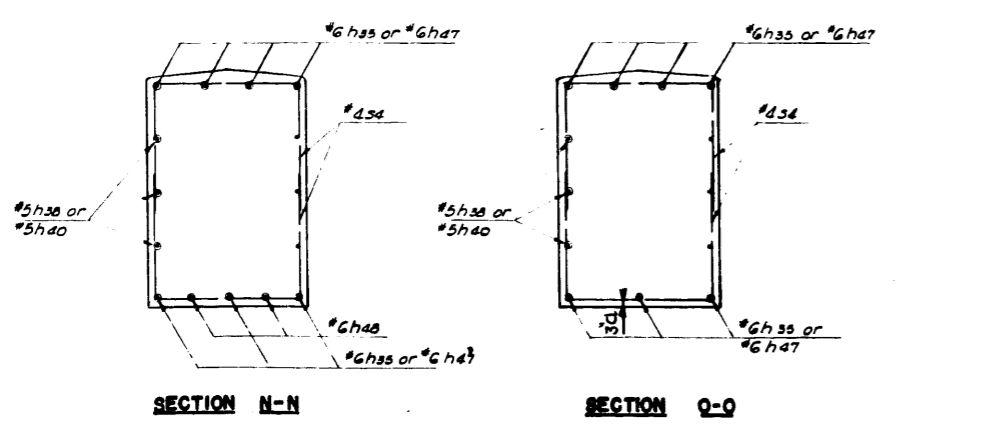
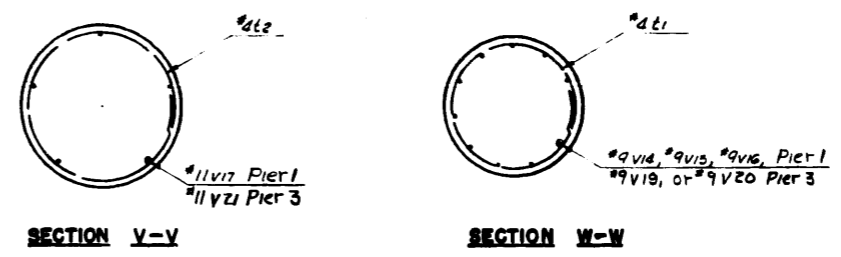
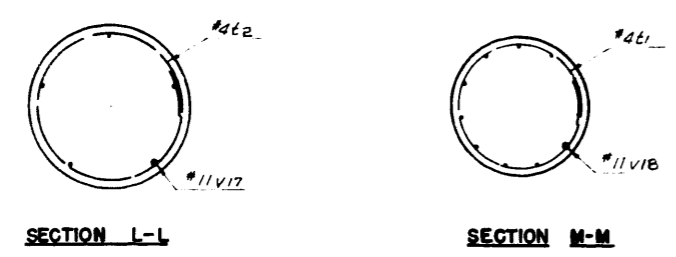
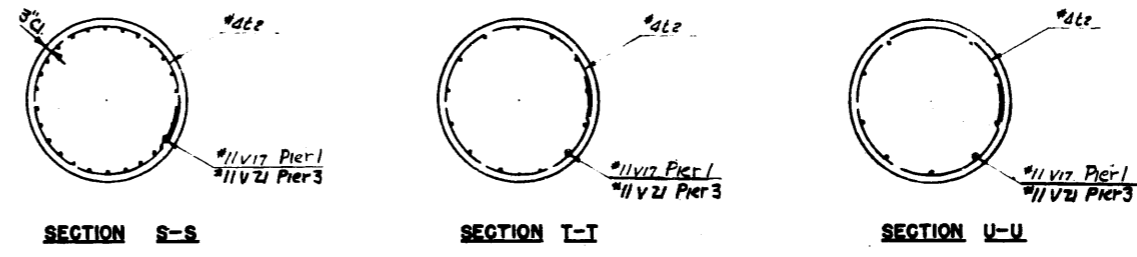
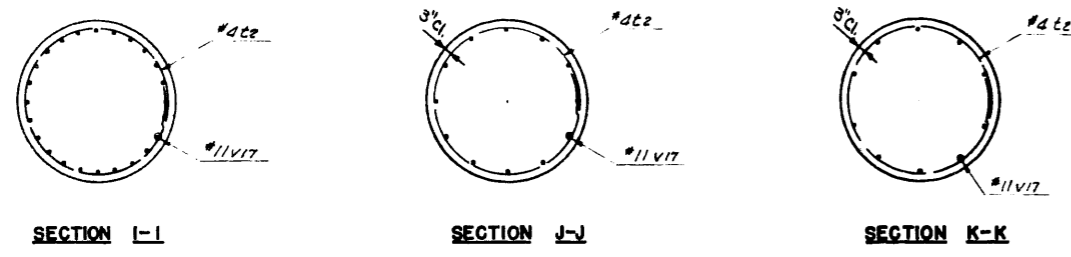
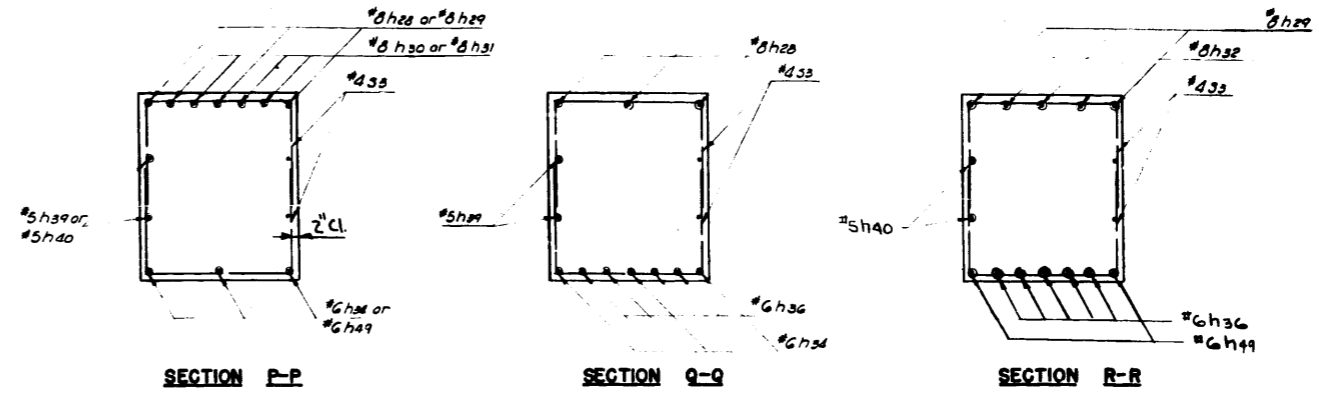
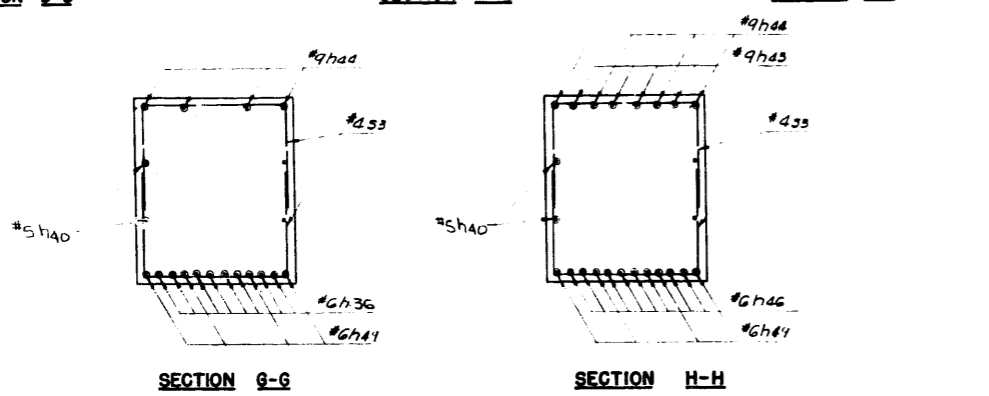
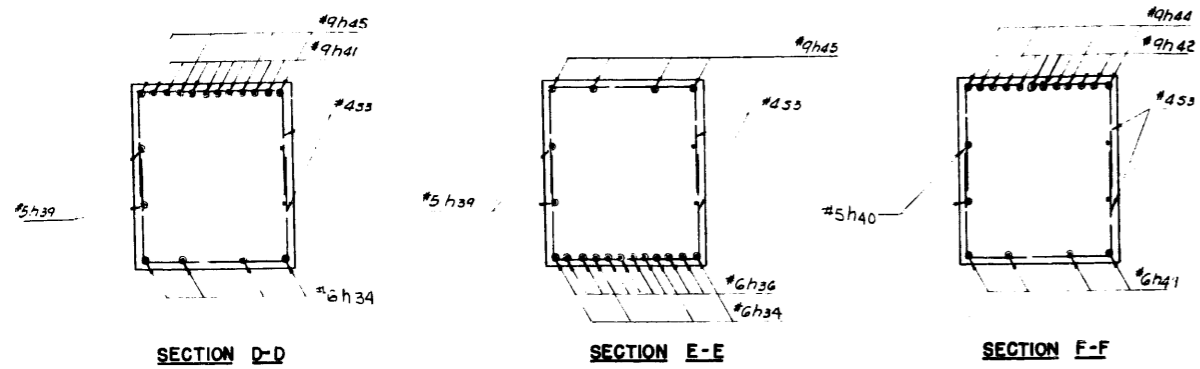
All dimensions are out to out	
Class "x" Concrete	Cu. Yds. 167.9
Reinforcement Bars	Lbs. 60,198
Class "A" Exc. for Structures	Cu. Yds. 35
Sub-Pier Shafts, 42" Dia.	Lin. Ft. 975
Sub-Pier Bells	Cu. Ft. 420



**SECTION 0-0**

ILLINOIS DIVISION OF HIGHWAYS  
**NORTHWEST EXPRESSWAY**  
 ERIE STREET INTERCHANGE  
 GRAND AVENUE GRADE SEPARATION  
**PIER 3**  
 SCALE: NONE      DATE: JULY 1959

ROUTE NO.	FILE	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 1.94	0508-476 H.B.	COOK	56	18
FED. ROAD DIV. NO. 4		ILLINOIS	FED. AID PROJECT	



SECTIONS - PIER 2

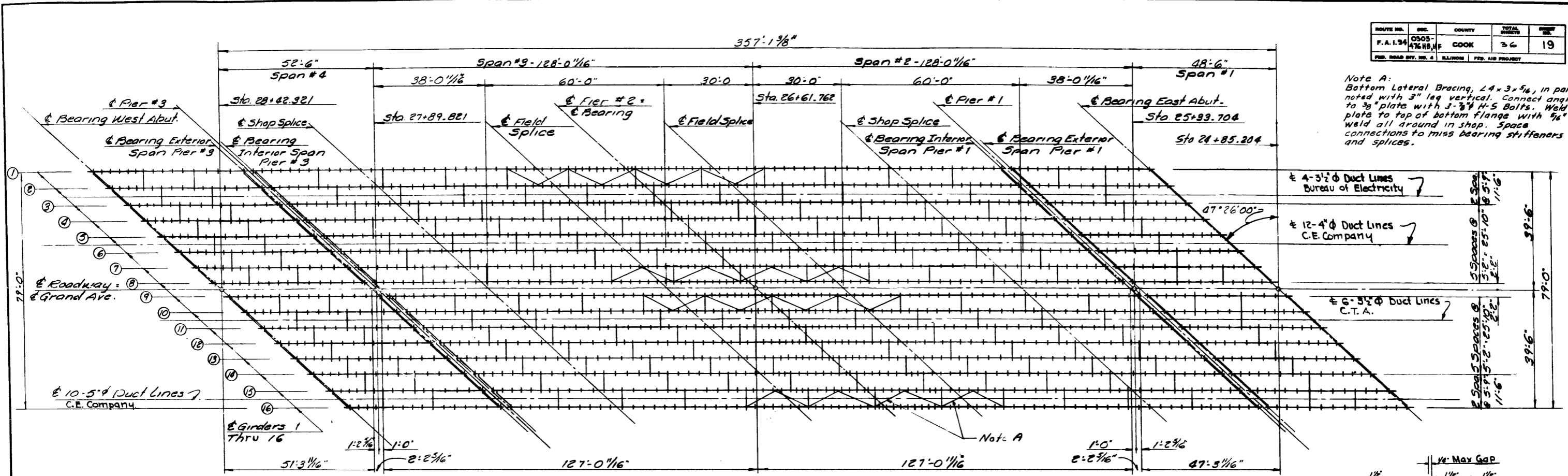
SECTIONS - PIERS 1 & 3

NOTE:  
All Edges to have a 3/4" Chamfer unless otherwise noted.

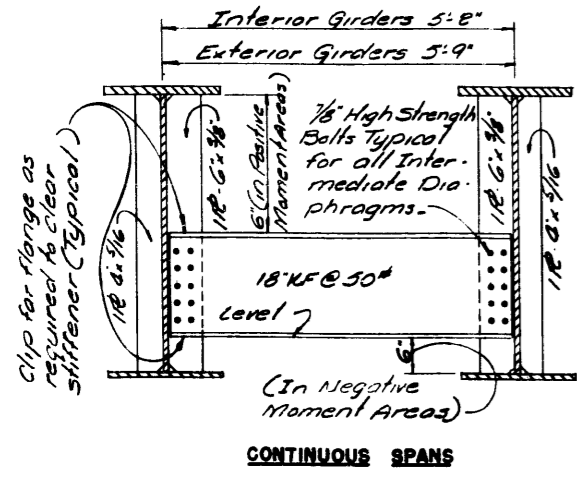
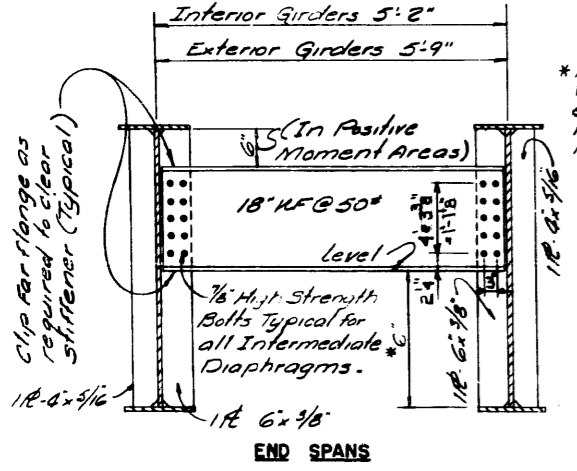
ILLINOIS DIVISION OF HIGHWAYS  
 NORTHWEST EXPRESSWAY  
 ERIE STREET INTERCHANGE  
 GRAND AVENUE GRADE SEPARATION  
 PIER DETAILS  
 SCALE: NONE DATE: JULY 1959

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 134	0303-476 NB	COOK	36	19
FED. ROAD DIV. NO. 4		ILLINOIS	FED. AID PROJECT	

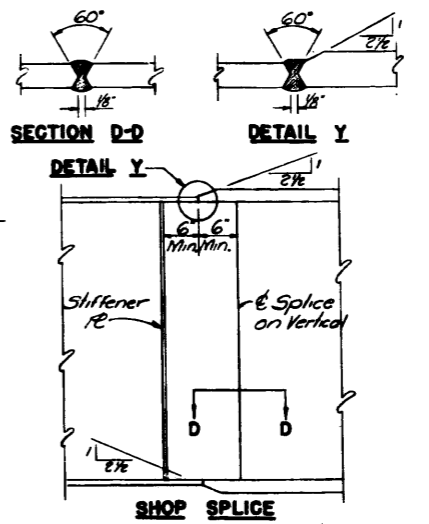
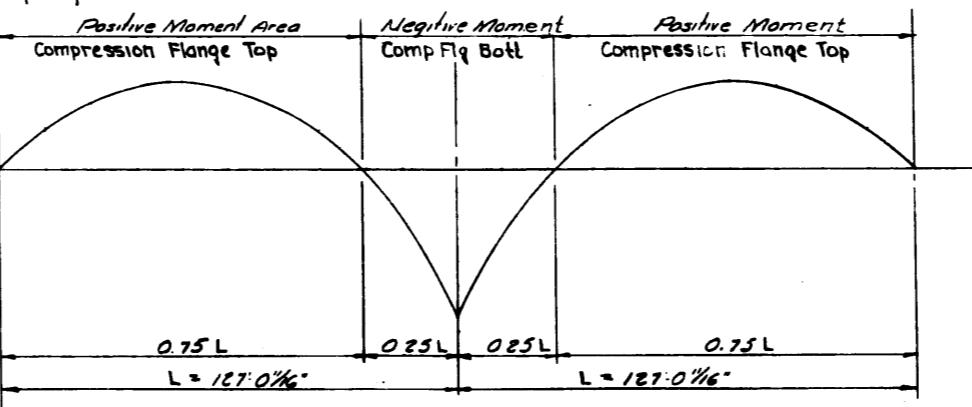
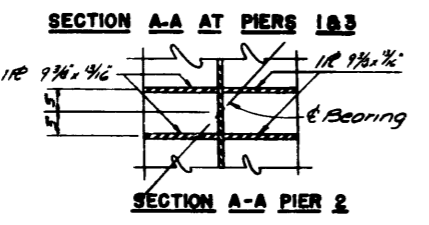
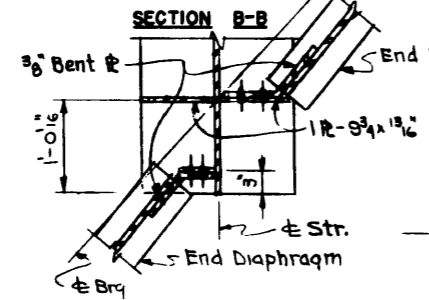
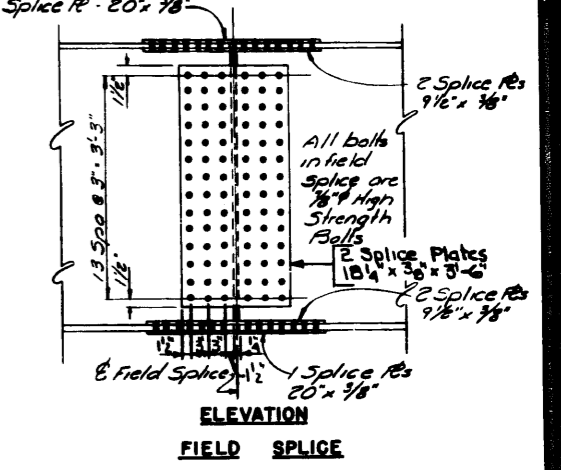
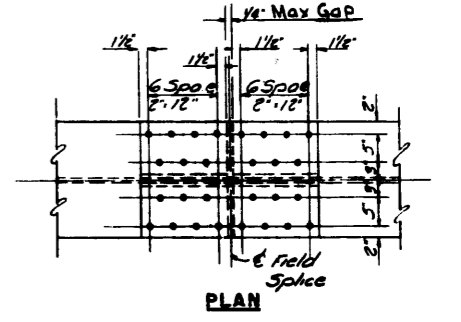
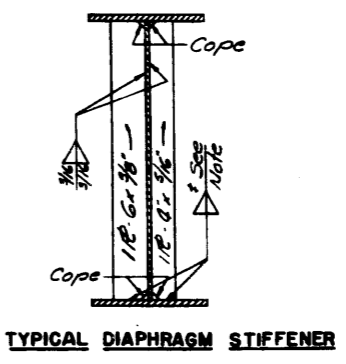
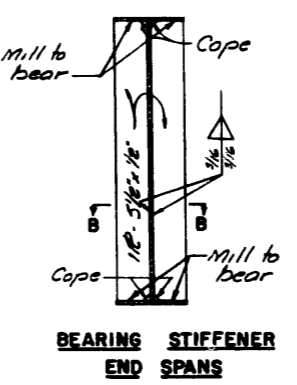
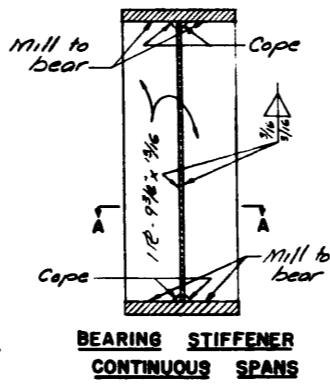
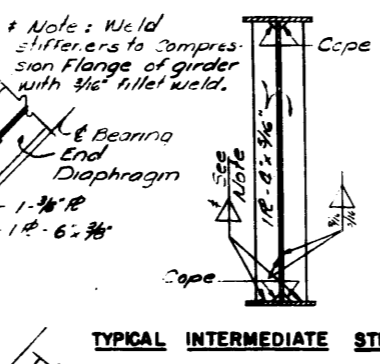
Note A:  
Bottom Lateral Bracing, 2x3x5/16, in panels noted with 3" leg vertical. Connect angles to 3/8" plate with 3-7/8" H-S Bolts. Weld plate to top of bottom flange with 5/16" weld all around in shop. Space connections to miss bearing stiffeners and splices.



**FRAMING PLAN**

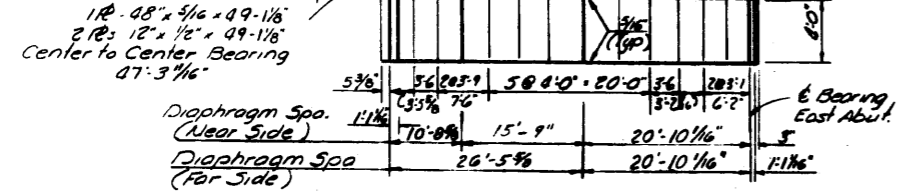
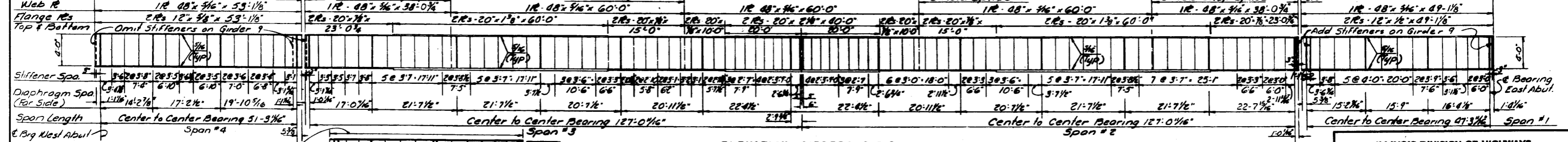
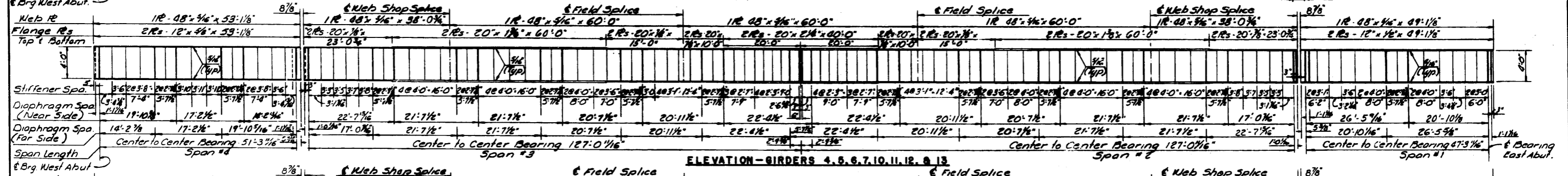
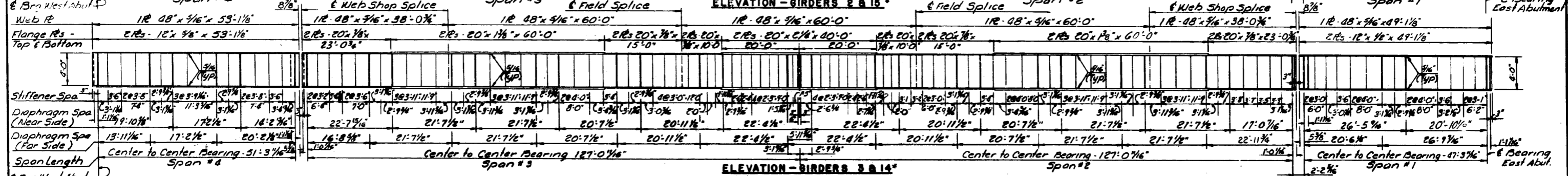
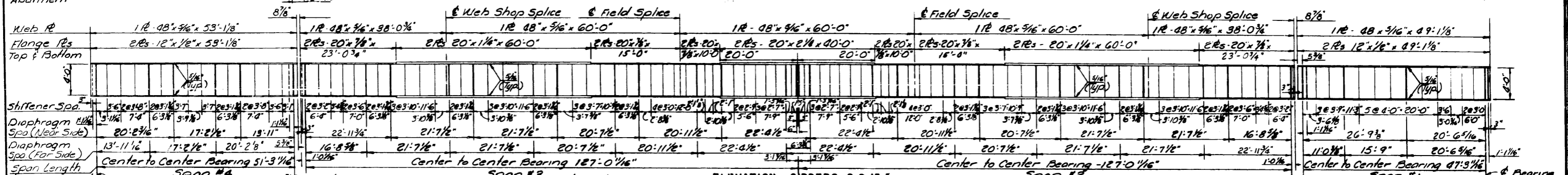
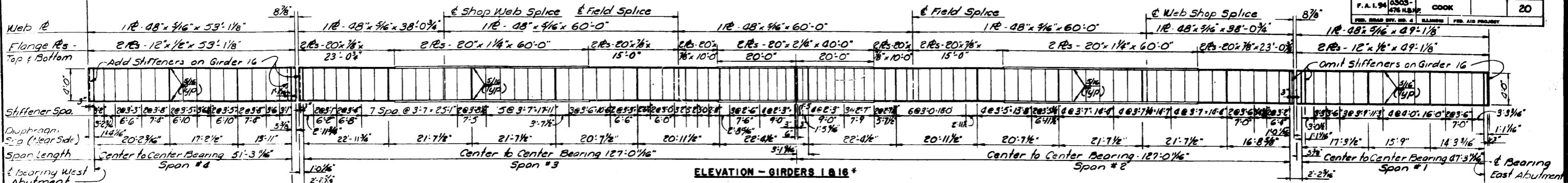


\* Between girders 2 & 3, 5 & 6, 10 & 11, and 15 & 16 where electrical conduit will run the minimum distance must be 1'-8"



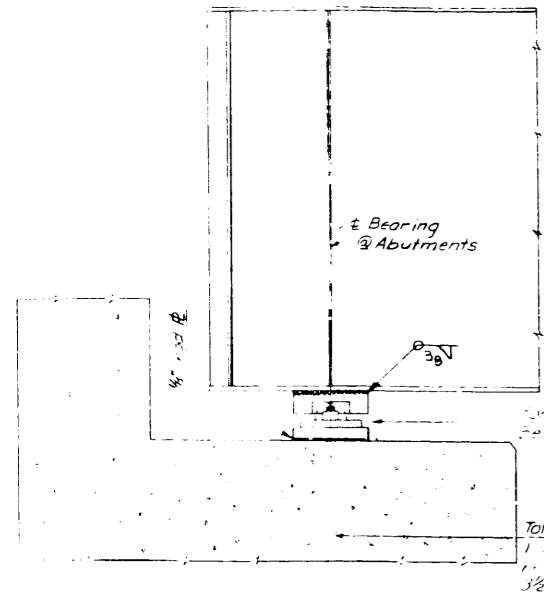
ILLINOIS DIVISION OF HIGHWAYS  
NORTHWEST EXPRESSWAY  
ERIE STREET INTERCHANGE  
GRAND AVENUE GRADE SEPARATION  
FRAMING PLAN  
SCALE: NONE  
DATE: JULY, 1959

ROUTE NO.	DESIGNATION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 194	0503-476 H.B.P.	COOK		20
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		

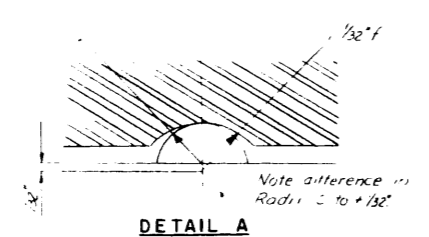


Notes:  
 \* Rotate about & of each individual girder 180°  
 Weight of Structural Steel 1,345,450 lbs.

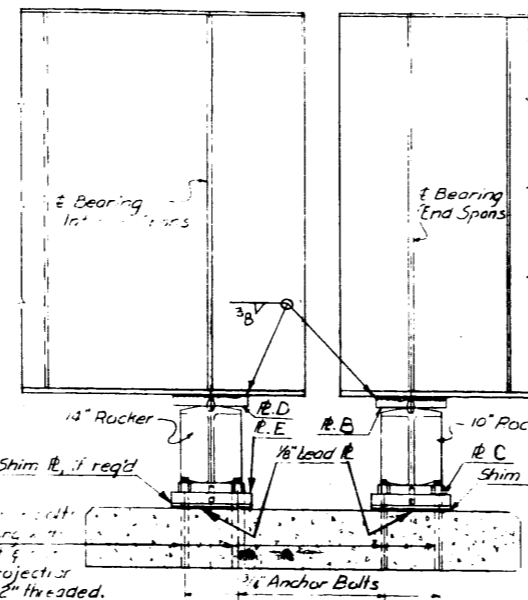
ILLINOIS DIVISION OF HIGHWAYS  
 NORTHWEST EXPRESSWAY  
 ERIE STREET INTERCHANGE  
 GRAND AVENUE GRADE SEPARATION  
 STRUCTURAL DETAILS  
 SCALE: NONE DATE: JULY 1959



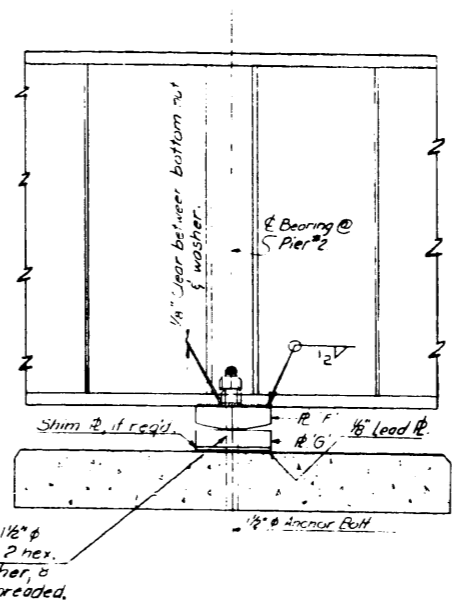
ELEVATION-ABUTMENTS



DETAIL A



ELEVATION-PIERS 1&3



ELEVATION-PIER 2

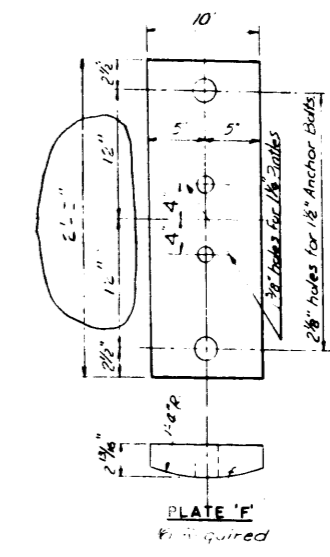


PLATE 'F'  
If Required

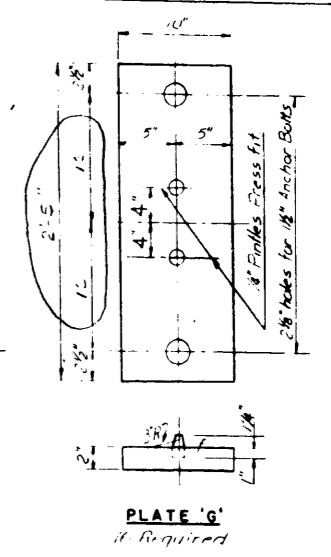
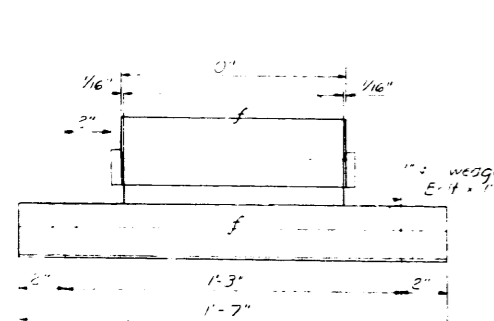
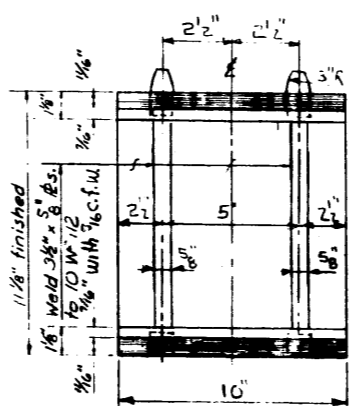
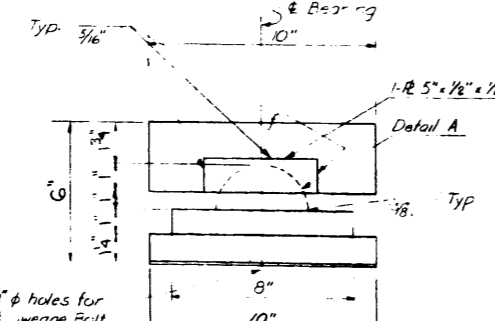


PLATE 'G'  
If Required

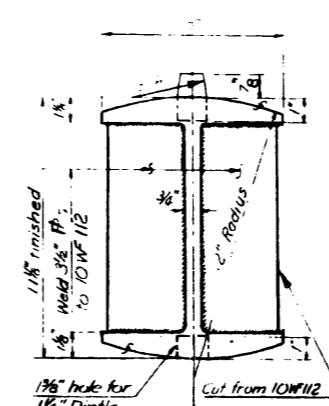
FIXED BEARING-PIER 2



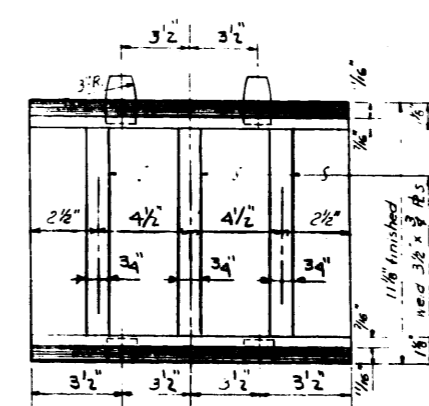
FIXED BEARING-ABUTMENTS  
32 Required



END SPANS-PIERS 1&3  
32 Required



END ELEVATION  
ROCKERS



INTERIOR SPANS-PIERS 1&3  
32 Required

TABLE OF BEARING SHIMS

Location Girder	Pier 1		Pier 3		Pier 2
	End Span	Int Span	Int Span	End Span	
1	0	0	0	0	0
2	0	3/16"	3/16"	0	0
3	5/8"	7/8"	9/16"	0	0
4	3/8"	11/16"	1/16"	0	0
5	0	5/16"	5/8"	0	0
6	0	3/8"	5/8"	0	0
7	0	1/16"	1/16"	0	0
8	0	7/16"	11/16"	0	0
9	0	1/2"	11/16"	0	5/16"
10	0	1/2"	11/16"	0	1/16"
11	0	4/16"	11/16"	0	0
12	0	4/16"	11/16"	0	0
13	0	4/16"	11/16"	0	0
14	0	4/16"	5/8"	0	7/16"
15	0	5/8"	1/2"	0	7/16"
16	0	5/8"	7/16"	0	0

No Shims at Abutments

NOTES

All surfaces marked f shall be finished in accordance with Section 55.4 of the Standard Specifications.  
 1/8" thick lead plate shall be placed under each bearing plate. The lead plate shall be of the same dimensions as the plate under which it is placed.  
 All anchor bolts to be set in drilled holes and grouted in. All anchor bolts to be 1/2" edged.  
 Weight of anchor bolts, bearing plates, rockers and lead plates is included in the weight of structural steel.

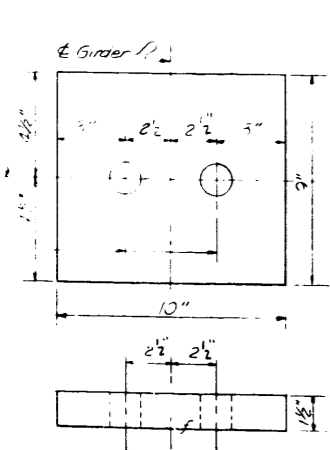


PLATE 'B'  
32 Required

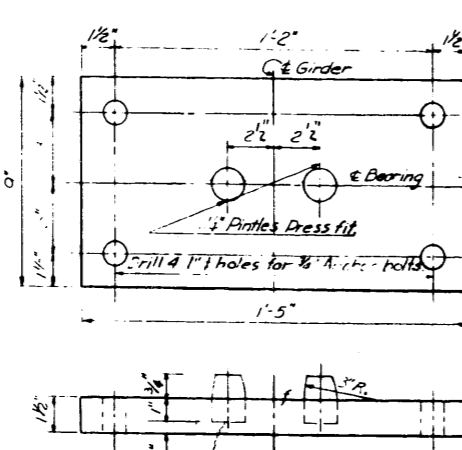


PLATE 'C'  
32 Required

END SPANS-PIERS 1&3

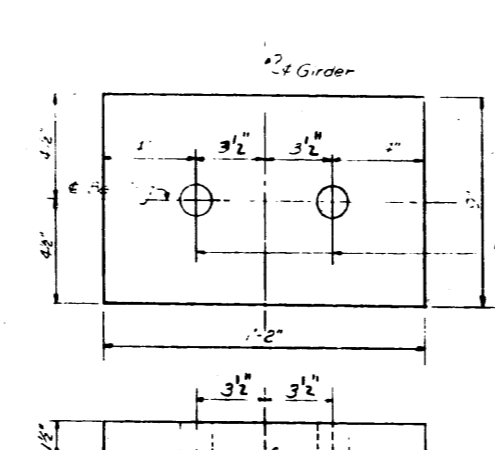


PLATE 'D'  
32 Required

INTERIOR SPANS-PIERS 1&3

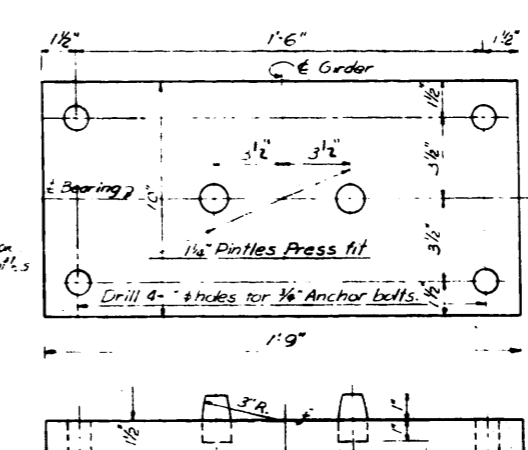
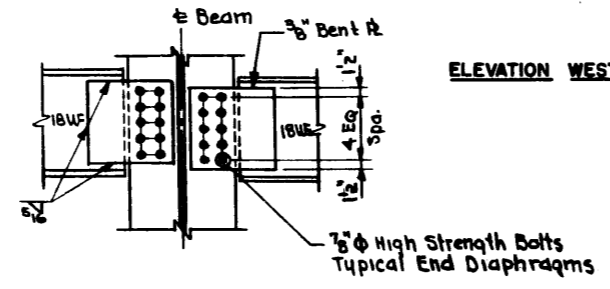
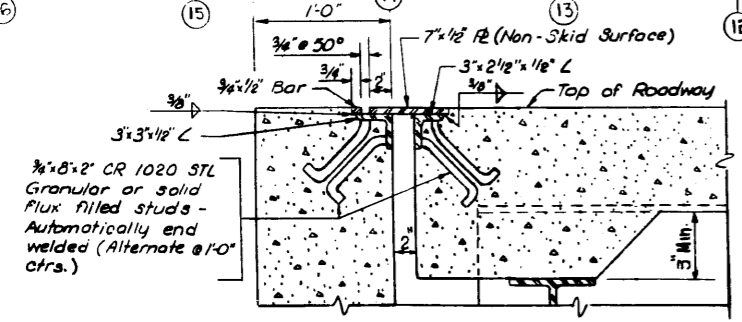
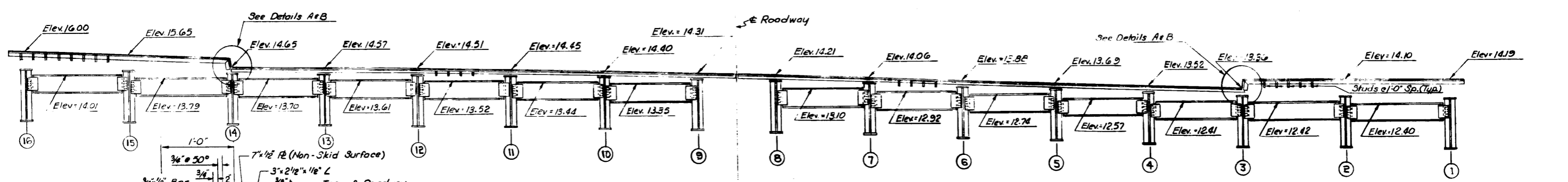
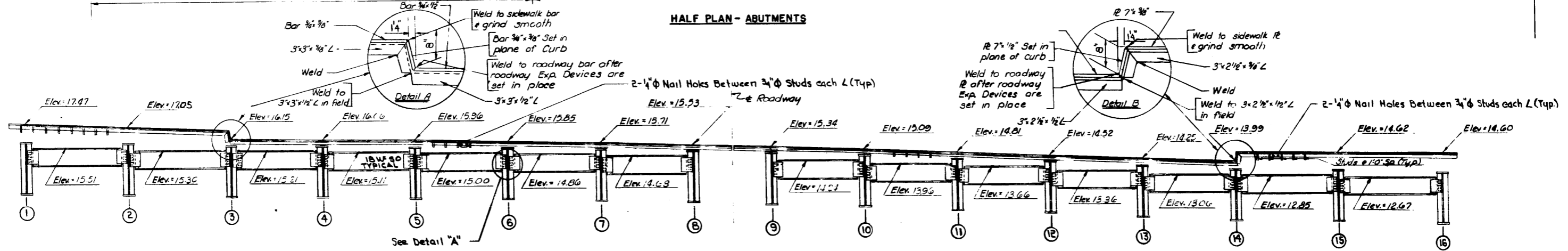
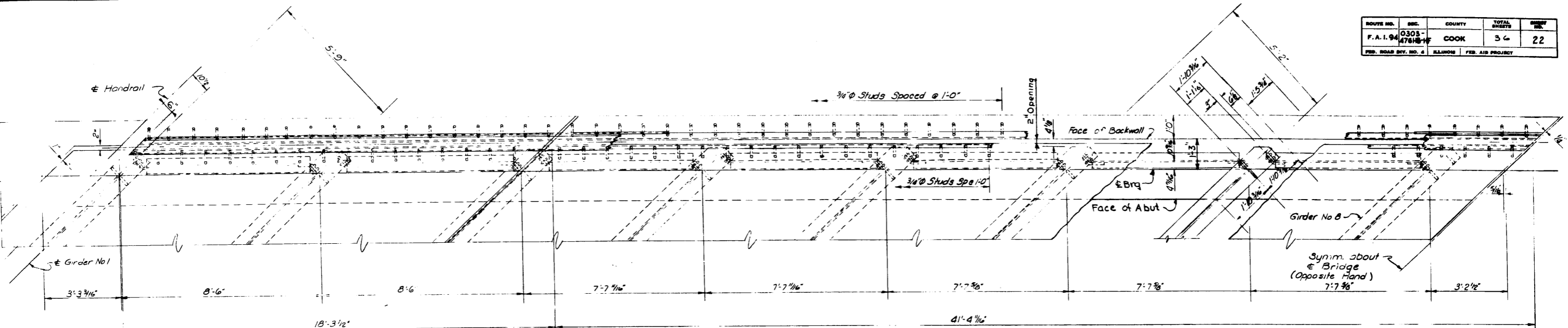


PLATE 'E'  
32 Required

ILLINOIS DIVISION OF HIGHWAYS  
 NORTHWEST EXPRESSWAY  
 ERIE STREET INTERCHANGE  
 GRAND AVENUE GRADE SEPARATION  
 BEARING DETAILS



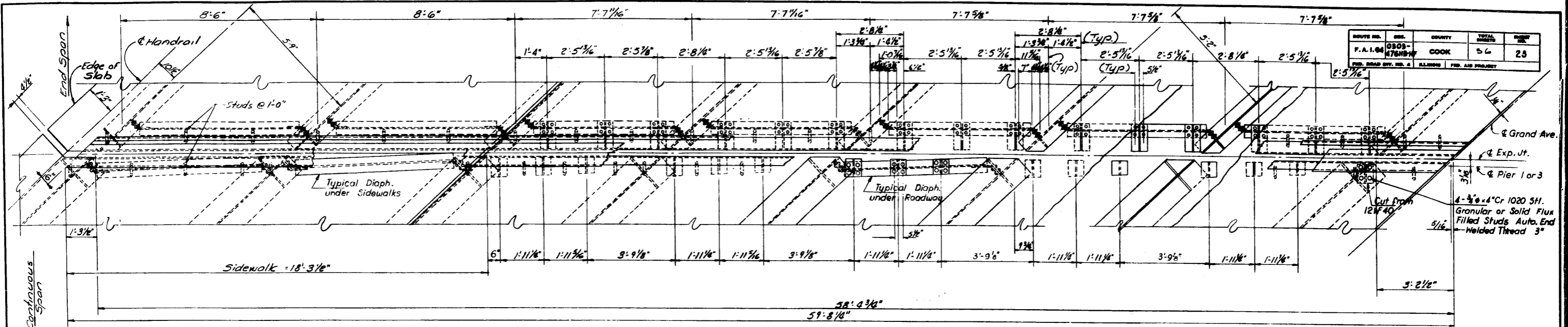
ROUTE NO.	ENC.	COUNTY	TOTAL SHEETS	SHEET NO.
F. A. 1.94	0305-47810-17	COOK	36	22
FED. ROAD DIV. NO. 4		ILLINOIS	FEB. AIR PROJECT	



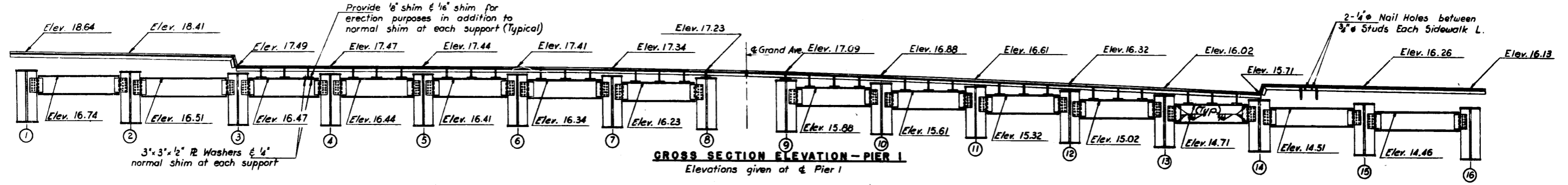
Note: Elevation shown for Top of Slab are at & Bearing.

ILLINOIS DIVISION OF HIGHWAYS  
 NORTHWEST EXPRESSWAY  
 ERIE STREET INTERCHANGE  
 GRAND AVENUE GRADE SEPARATION  
 EXPANSION DEVICES  
 SCALE: NONE  
 DATE: JULY 1959

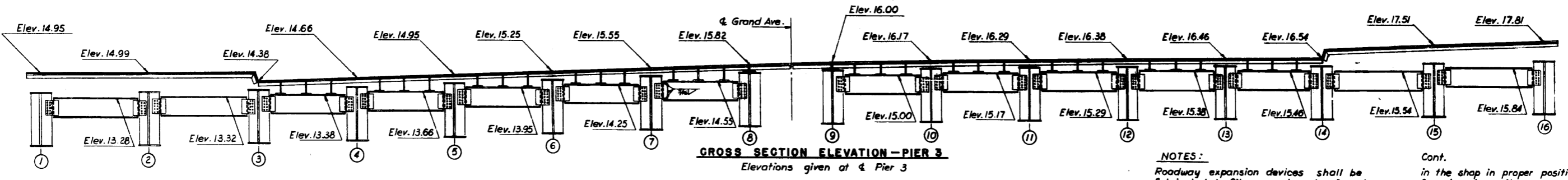
ROUTE NO.	DES.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 64	0803-475MB-17	COOK	56	23
PUB. ROAD DIV. DES. & ALLEYS P.B. AND PROJECT				



HALF PLAN EXPANSION JOINT - PIERS 1 & 3



CROSS SECTION ELEVATION - PIER 1  
Elevations given at & Pier 1



CROSS SECTION ELEVATION - PIER 3  
Elevations given at & Pier 3

NOTES:

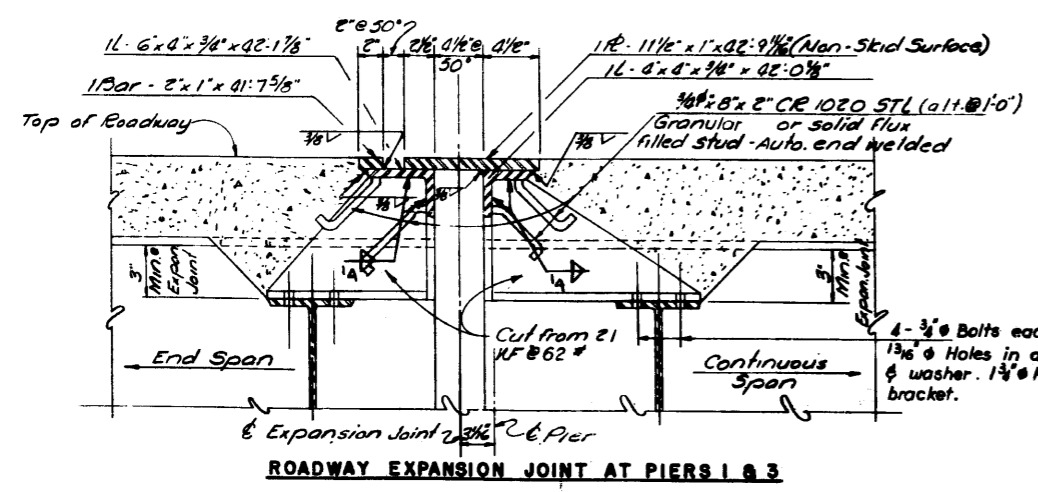
Roadway expansion devices shall be fabricated to fit crown & grade of roadway. Copper bearing steel (ASTM Designation A7 with 0.2% copper added) shall be used in the following R's & shapes: R's 11 1/2 x 1; L's 4 x 4 x 3/4; L's 6 x 4 x 3/4; Bars 2 x 1; R's 7 x 1/2; L's 3 x 2 1/2 x 1/2; L's 3 x 3 x 1/2; Bars 1 1/2 x 3/4; L's 3 x 3 x 3/8; L's 6 x 4 x 3/8 & Bars 2 x 3/8. Expansion devices shall be assembled

Cont.

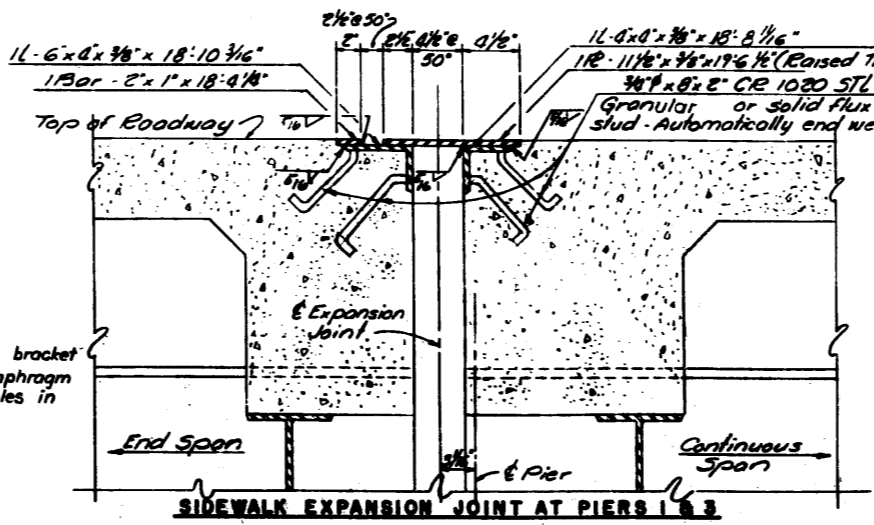
in the shop in proper position & left assembled for shop inspection. All welding shall comply with Art. 55.4(s) of the Standard Specifications. Paint surfaces that are inaccessible after erection with two shop coat of red lead paint except no paint shall be applied to the 3/4" bar anchors. Expansion devices shall be included in the quantity of structural steel.

NOTE:

End Diaphragms for Continuous Spans to be erected before End Diaphragms of End Spans.



ROADWAY EXPANSION JOINT AT PIERS 1 & 3



SIDEWALK EXPANSION JOINT AT PIERS 1 & 3

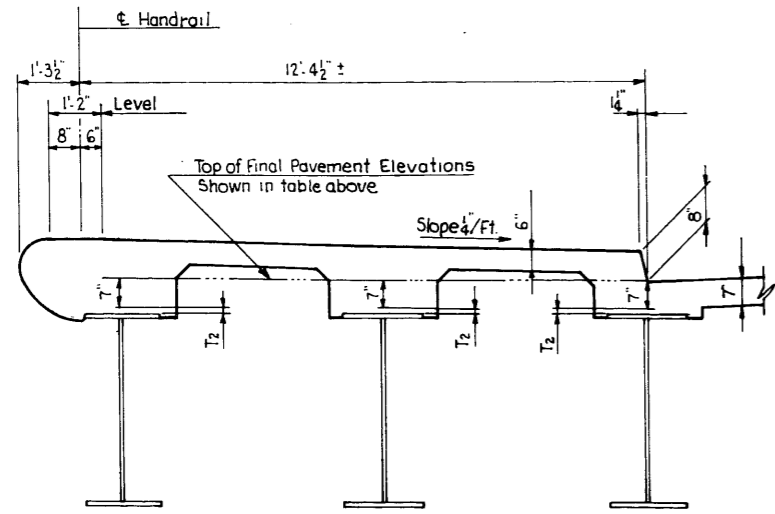
ILLINOIS DIVISION OF HIGHWAYS  
 NORTHWEST EXPRESSWAY  
 ERIE STREET INTERCHANGE  
 GRAND AVENUE GRADE SEPARATION  
 EXPANSION DEVICES  
 SCALE: NONE      DATE: JULY 1956

TABLE OF FINAL PAVEMENT ELEVATIONS

POINT GIRDER	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
1	13.279	13.343	13.450	13.602	13.798	14.038	14.293	14.585	14.912	15.276	15.666	16.030	16.367	16.677	16.961	17.217	17.448	17.651	17.828	17.978	18.102	18.199	18.269	18.312	18.329	18.319	18.283	18.220	18.135	18.026	17.893	17.736	17.551	17.340	17.105	16.845	16.559
2	13.312	13.401	13.535	13.713	13.935	14.202	14.481	14.796	15.148	15.524	15.897	16.244	16.564	16.858	17.124	17.365	17.578	17.765	17.925	18.059	18.166	18.246	18.299	18.326	18.326	18.300	18.247	18.167	18.066	17.941	17.792	17.619	17.418	17.191	16.940	16.663	16.362
3	13.360	13.476	13.636	13.840	14.089	14.381	14.684	15.024	15.396	15.760	16.117	16.447	16.751	17.028	17.278	17.501	17.698	17.868	18.012	18.129	18.219	18.282	18.319	18.329	18.313	18.270	18.200	18.109	17.987	17.846	17.681	17.492	17.275	17.032	16.764	16.471	16.153
4	13.520	13.660	13.843	14.071	14.343	14.660	14.984	15.345	15.718	16.068	16.410	16.725	17.013	17.275	17.510	17.719	17.901	18.056	18.184	18.286	18.361	18.410	18.432	18.427	18.395	18.337	18.252	18.141	18.010	17.855	17.676	17.472	17.240	16.983	16.701	16.393	16.061
5	13.693	13.856	14.063	14.315	14.611	14.950	15.296	15.671	16.031	16.367	16.694	16.994	17.267	17.514	17.734	17.928	18.094	18.235	18.348	18.435	18.495	18.529	18.535	18.516	18.469	18.396	18.296	18.169	18.024	17.855	17.662	17.444	17.197	16.926	16.629	16.307	15.960
6	13.878	14.065	14.296	14.571	14.890	15.254	15.620	15.990	16.336	16.657	16.969	17.254	17.513	17.744	17.950	18.128	18.280	18.405	18.504	18.575	18.621	18.639	18.631	18.596	18.534	18.446	18.331	18.190	18.031	17.847	17.639	17.407	17.146	16.860	16.549	16.212	15.851
7	14.058	14.268	14.523	14.822	15.165	15.552	15.927	16.283	16.614	16.921	17.218	17.488	17.732	17.948	18.138	18.302	18.439	18.549	18.632	18.689	18.719	18.723	18.700	18.650	18.573	18.470	18.340	18.184	18.010	17.812	17.590	17.344	17.068	16.768	16.442	16.091	15.714
8	14.206	14.441	14.719	15.041	15.408	15.816	16.181	16.523	16.840	17.132	17.414	17.669	17.896	18.100	18.275	18.423	18.545	18.640	18.709	18.751	18.766	18.754	18.716	18.651	18.560	18.441	18.297	18.125	17.937	17.725	17.489	17.228	16.938	16.623	16.282	15.917	15.530
9	14.306	14.560	14.858	15.200	15.587	16.000	16.353	16.683	16.988	17.269	17.538	17.780	17.996	18.186	18.348	18.484	18.593	18.676	18.732	18.761	18.764	18.740	18.689	18.611	18.507	18.376	18.219	18.035	17.835	17.611	17.363	17.090	16.788	16.460	16.108	15.730	15.345
10	14.396	14.673	14.995	15.361	15.769	16.171	16.510	16.825	17.116	17.382	17.637	17.864	18.065	18.239	18.387	18.508	18.602	18.670	18.710	18.725	18.712	18.673	18.607	18.515	18.396	18.250	18.078	17.879	17.664	17.426	17.164	16.877	16.560	16.218	15.851	15.464	15.064
11	14.454	14.755	15.100	15.490	15.903	16.289	16.614	16.915	17.191	17.443	17.683	17.895	18.081	18.240	18.373	18.479	18.558	18.611	18.637	18.636	18.608	18.554	18.473	18.366	18.232	18.071	17.884	17.670	17.441	17.189	16.912	16.611	16.279	15.923	15.541	15.159	14.762
12	14.506	14.831	15.200	15.610	16.010	16.381	16.691	16.978	17.240	17.478	17.702	17.900	18.071	18.215	18.332	18.423	18.488	18.525	18.536	18.520	18.478	18.409	18.313	18.191	18.042	17.865	17.663	17.432	17.171	16.885	16.574	16.238	15.877	15.491	15.091	14.678	14.251
13	14.572	14.920	15.313	15.725	16.109	16.464	16.760	17.032	17.280	17.504	17.713	17.896	18.052	18.181	18.284	18.359	18.409	18.431	18.427	18.396	18.339	18.255	18.144	18.007	17.843	17.652	17.434	17.190	16.933	16.652	16.347	16.017	15.657	15.273	14.885	14.484	14.068
14	14.649	15.022	15.433	15.831	16.199	16.539	16.821	17.078	17.312	17.522	17.716	17.883	18.024	18.139	18.226	18.287	18.321	18.329	18.310	18.264	18.192	18.092	17.967	17.814	17.635	17.429	17.197	16.938	16.667	16.371	16.052	15.708	15.333	14.946	14.549	14.140	13.719
15	14.866	15.264	15.674	16.054	16.405	16.727	16.993	17.235	17.453	17.646	17.824	17.975	18.099	18.197	18.267	18.312	18.329	18.320	18.284	18.222	18.133	18.017	17.874	17.705	17.509	17.287	17.038	16.762	16.475	16.164	15.828	15.469	15.082	14.711	14.379	14.086	13.831
16	15.098	15.512	15.904	16.267	16.600	16.905	17.155	17.381	17.583	17.761	17.922	18.056	18.163	18.244	18.298	18.326	18.327	18.301	18.248	18.169	18.063	17.931	17.772	17.586	17.373	17.134	16.868	16.576	16.273	15.946	15.594	15.220	14.838	14.492	14.185	13.917	13.688

TABLE OF DEAD LOAD DEFLECTIONS (FEET)

POINT	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
GIRDER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1,2,15,16 CONCRETE	0	.025	.041	.041	.025	0	.056	.108	.155	.185	.202	.203	.189	.162	.125	.084	.046	.017	0	.017	.046	.084	.125	.162	.189	.203	.202	.185	.155	.108	.056	0	.018	.029	.029	.018	0
STRUC. STEEL	0	.004	.006	.006	.004	0	.014	.027	.040	.048	.052	.052	.048	.042	.032	.021	.012	.005	0	.005	.012	.021	.032	.042	.048	.052	.048	.040	.027	.014	0	.003	.004	.004	.003	0	
TOTAL	0	.029	.047	.047	.029	0	.070	.135	.195	.233	.254	.255	.237	.204	.157	.105	.058	.022	0	.022	.058	.105	.157	.204	.237	.255	.254	.233	.195	.135	.070	0	.021	.033	.033	.021	0
3 THRU 14 CONCRETE	0	.017	.028	.028	.017	0	.043	.080	.109	.131	.142	.143	.132	.114	.087	.058	.031	.011	0	.011	.031	.058	.087	.114	.132	.143	.142	.131	.109	.080	.043	0	.015	.023	.023	.015	0
FUT. W. SUR.	0	.001	.002	.002	.001	0	.004	.008	.010	.012	.013	.013	.012	.010	.008	.005	.003	.001	0	.001	.003	.005	.008	.010	.012	.013	.013	.012	.010	.008	.004	0	.001	.002	.002	.001	0
STRUC. STEEL	0	.003	.005	.005	.003	0	.014	.027	.036	.043	.047	.047	.044	.037	.029	.019	.010	.004	0	.004	.010	.019	.029	.037	.044	.047	.043	.043	.036	.027	.014	0	.003	.004	.004	.003	0
TOTAL	0	.021	.035	.035	.021	0	.061	.115	.155	.186	.202	.203	.188	.161	.124	.082	.044	.016	0	.016	.044	.082	.124	.161	.188	.203	.202	.186	.155	.115	.061	0	.019	.029	.029	.019	0



FILLET DETAILS

METHOD TO DETERMINE FILLET HEIGHT "T<sub>2</sub>"

AFTER STRUCTURAL STEEL HAS BEEN ERECTED, ELEVATIONS OF THE FLANGE OF THE BEAMS SHALL BE TAKEN AT THE POINTS OF EACH SPAN SHOWN ON SHEET 24.

FROM THESE ELEVATIONS SUBTRACT THE INCREMENT OF DEFLECTION FOR THESE POINTS, DETERMINED FROM THE DEAD LOAD SLAB DEFLECTION DIAGRAM. THE ELEVATION SO ATTAINED, SUBTRACTED FROM THE THEORETICAL GRADE ELEVATIONS IN THE TABLE ON THIS SHEET, MINUS THE SLAB THICKNESS, EQUALS THE FILLET HEIGHTS "T<sub>2</sub>" ABOVE TOP OF BEAM.

SUPPLEMENTAL INFORMATION

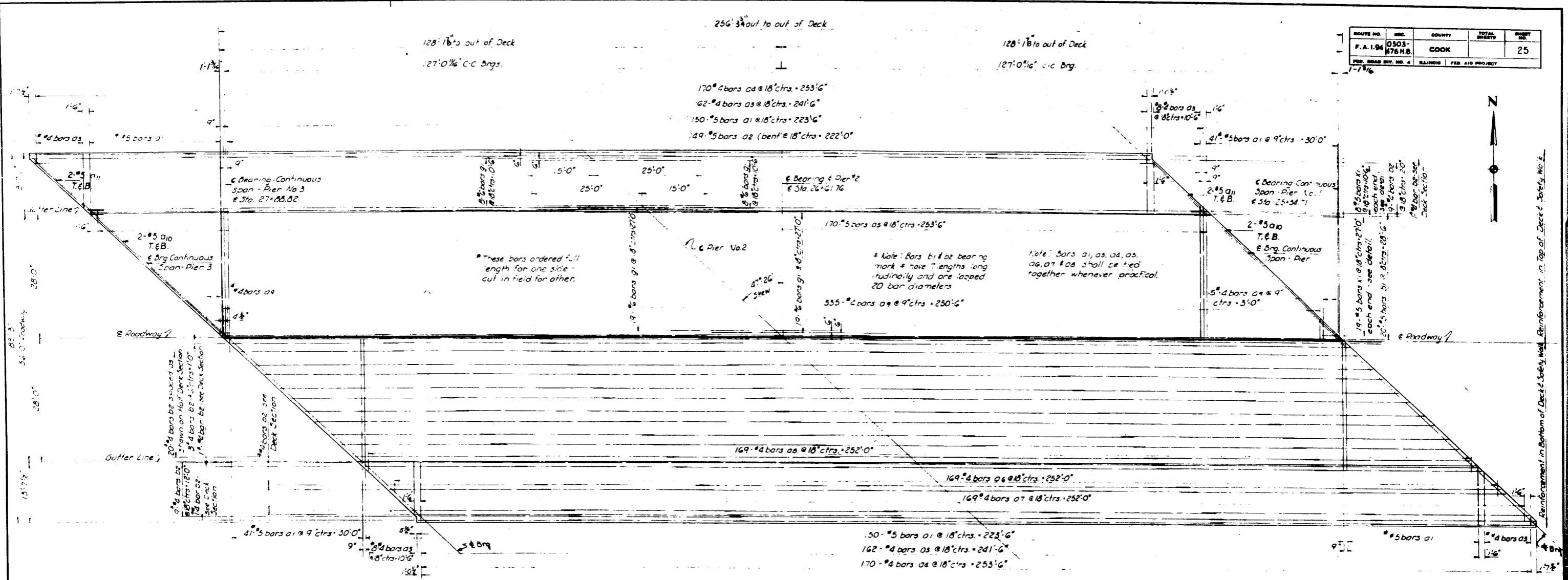
WORK THIS SHEET WITH SHEET 24

ILLINOIS DIVISION OF HIGHWAYS  
**NORTHWEST EXPRESSWAY**  
 ERIE STREET INTERCHANGE  
 GRAND AVENUE GRADE SEPARATION  
**PAVEMENT ELEVATIONS**

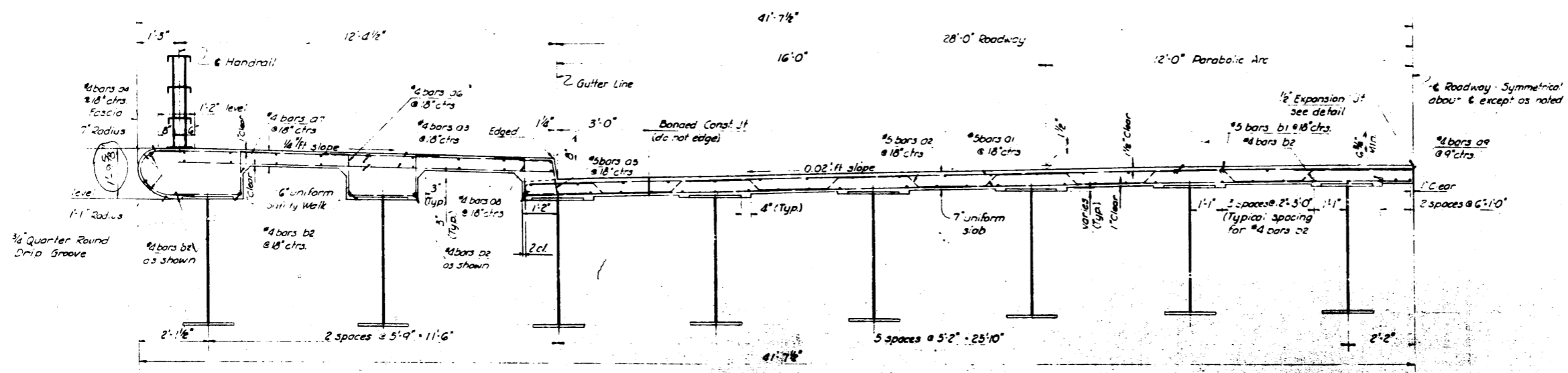
SCALE: NONE      DATE: MAY 1960



ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 194	0303-176 H.B.	COOK		25
FED. ROAD DIST. NO. 4	BLAINE	FED. AID PROJECT		
1-7-56				



**PLAN OF REINFORCEMENT IN DECK AND SIDEWALK**



**HALF DECK SECTION**

Note: All edges to have a 1/8" chamfer unless noted otherwise  
For details, Deck Reinforcing Bar Schedule and Quantities see Sheet #26

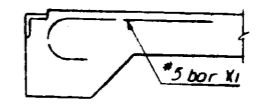
**ILLINOIS DIVISION OF HIGHWAYS**  
**NORTHWEST EXPRESSWAY**  
ERIE STREET INTERCHANGE  
GRAND AVENUE GRADE SEPARATION  
**DECK REINFORCEMENT**  
SCALE: NONE  
DATE: JULY 1959

REVISED 11/9/59

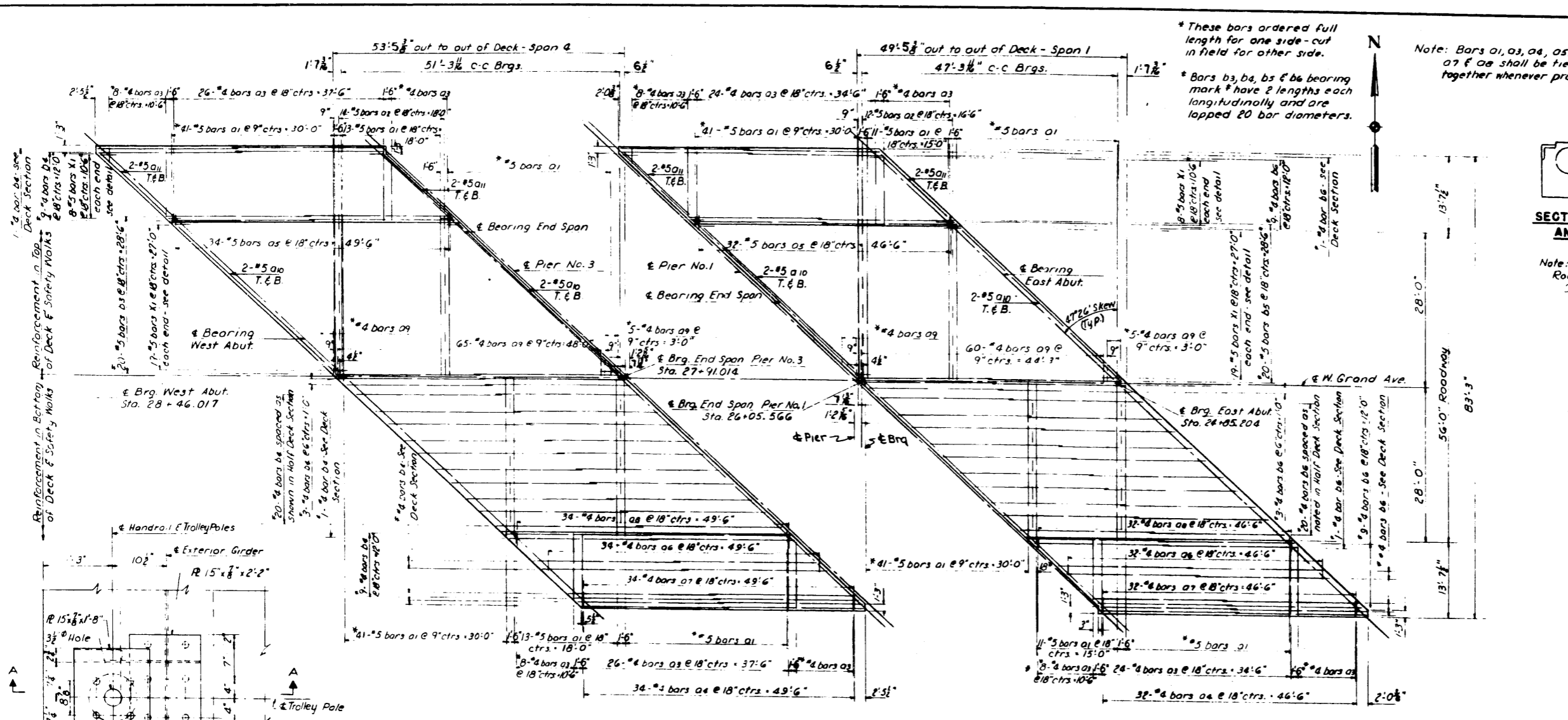
ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
P.A. 194	0303-	HE COOK		26
P.D. ROAD DIV. NO. 4				

Note: Bars a1, a3, a4, a5, a6, a7 & a8 shall be tied together whenever practical.

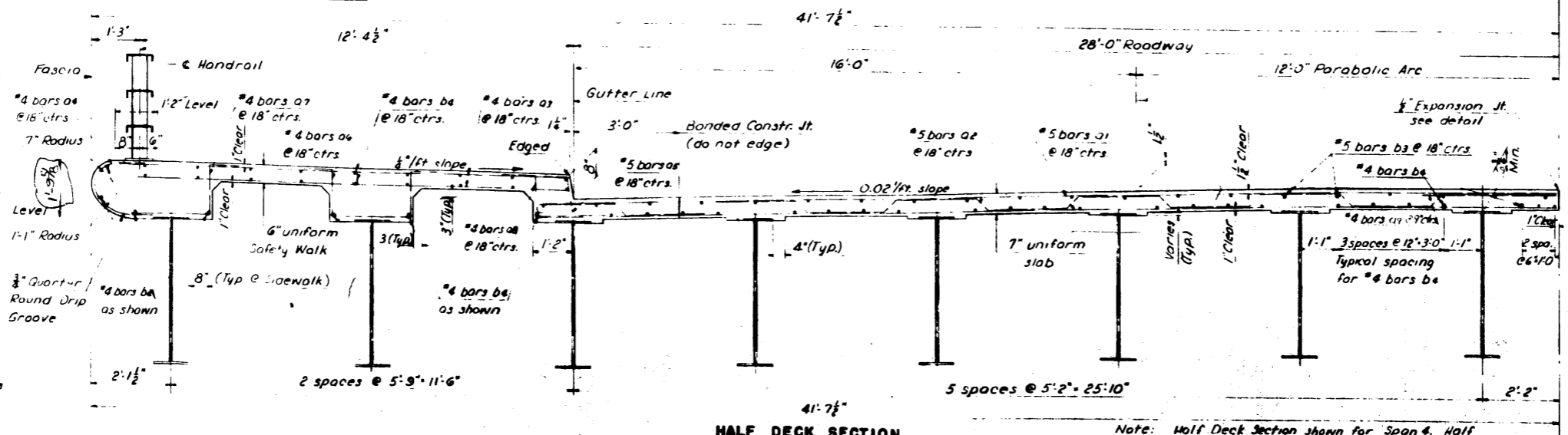
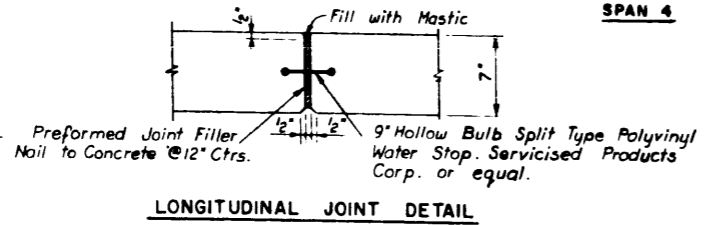
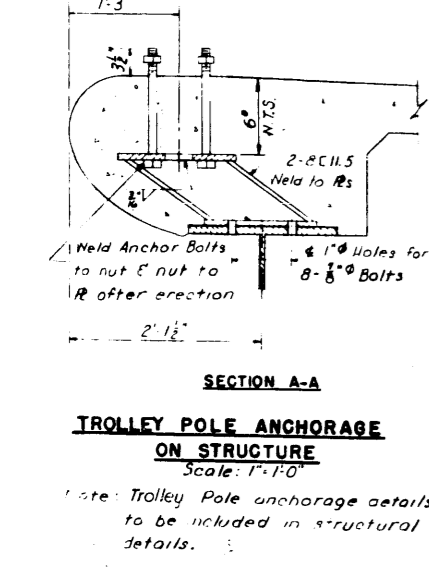
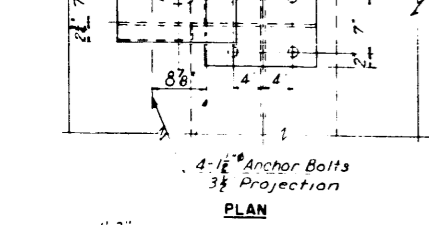
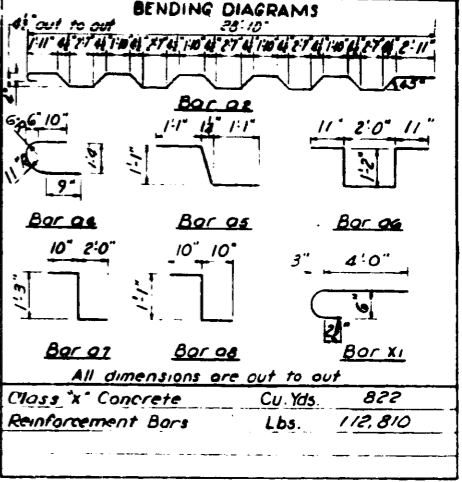
\* These bars ordered full length for one side - cut in field for other side.  
 \* Bars b3, b4, b5 & b6 bearing mark & have 2 lengths each longitudinally and are lapped 20 bar diameters.



SECTION AT ABUTMENTS AND PIERS 1 & 3 (Typ.)  
 Note: Section shown of Roadway. Similar at Side Walks.



DECK REINFORCING BAR SCHEDULE				
Bar	No.	Size	Length	Shape
a1	1188	#5	28'-9"	
a2	350	#5	30'-3"	
a3	944	#4	12'-9"	
a4	472	#4	3'-6"	
a5	472	#5	3'-3"	
a6	470	#4	6'-2"	
a7	470	#4	4'-1"	
a8	470	#4	2'-9"	
a9	938	#4	4'-9"	
a10	24	#5	38'-0"	
a11	24	#5	17'-0"	
b1	280	#5	37'-6"	
b2	672	#4	37'-3"	
b3	80	#5	27'-3"	
b4	192	#4	27'-3"	
b5	80	#5	25'-3"	
b6	192	#4	25'-3"	
g1	108	#6	40'-0"	
x1	324	#5	5'-0"	

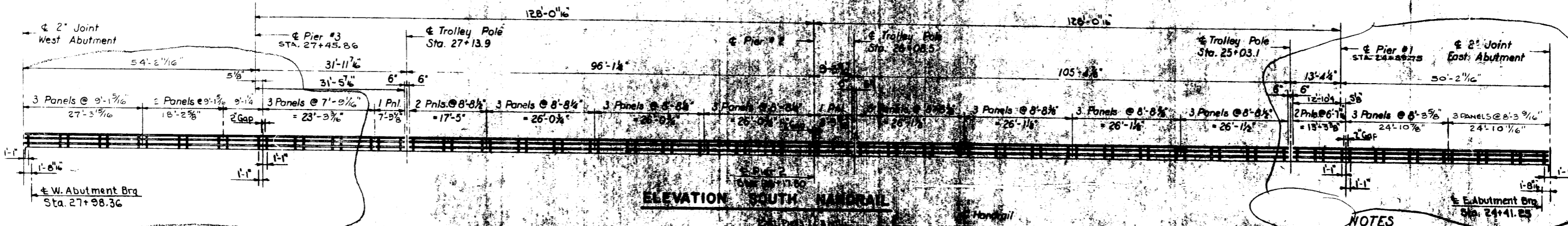
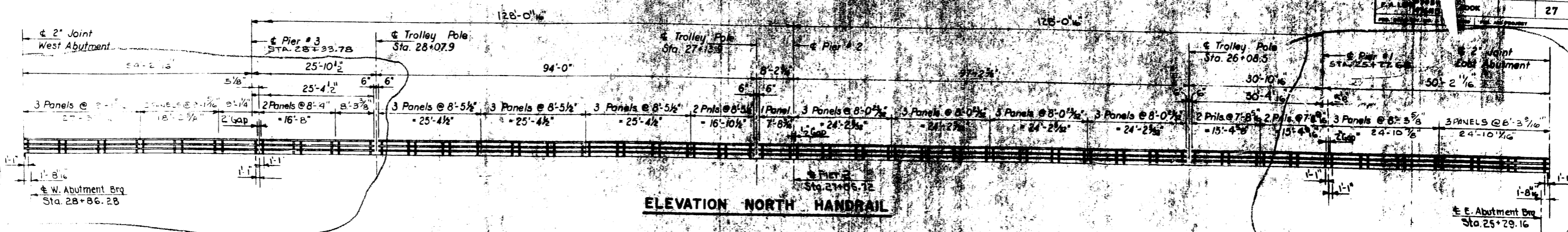


Note: All edges to have a 1/4" chamfer unless otherwise noted.

ILLINOIS DIVISION OF HIGHWAYS  
 NORTHWEST EXPRESSWAY  
 ERIE STREET INTERCHANGE  
 GRAND AVENUE GRADE DEPRESSION  
 DECK REINFORCEMENT  
 SCALE: NONE DATE: JULY 1959

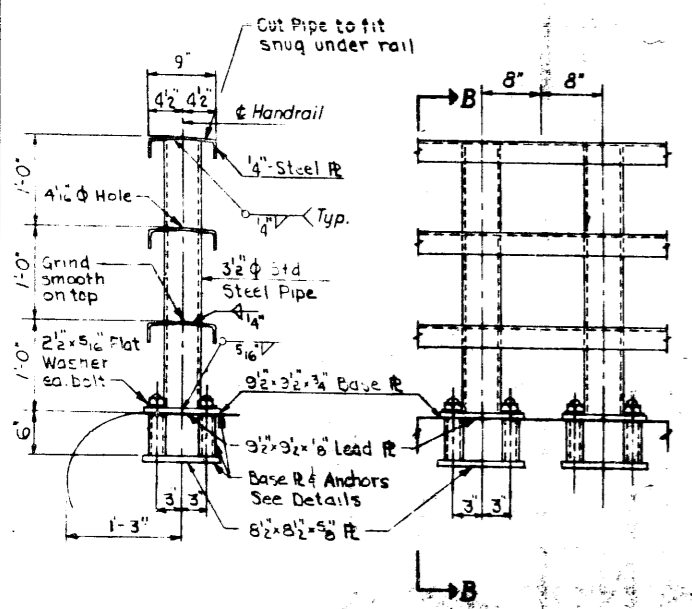
REVISED 11/9/59

NO.	DATE	BY	CHECKED
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27			

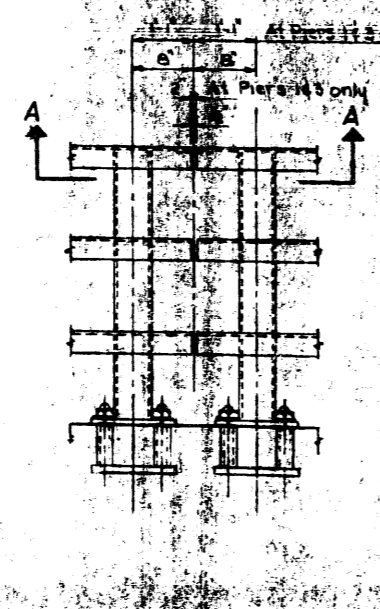


**NOTES**

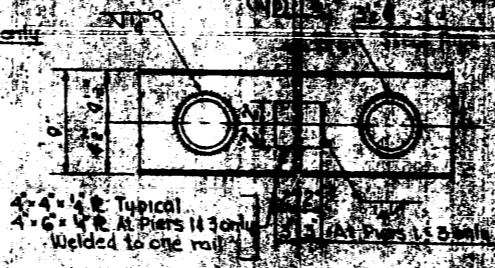
All dimensions are given along  $\epsilon$  of Handrail.  
 Rail shall be fabricated along chords between end posts of each panel.  
 Handrail posts to be fabricated and erected truly vertical.  
 Anchor bolt assemblies and lead plates to be furnished under item for Furnishing and Erecting Metal Handrail.  
 All bolts and washers shall be Hot-Dipped Galvanized.  
 Provide 1/8" and 2-1/16" shims for 50% of Posts.



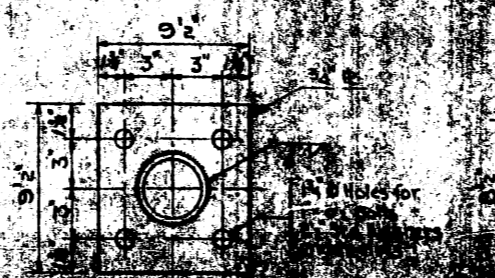
**POST A-A**



**POST B-B**



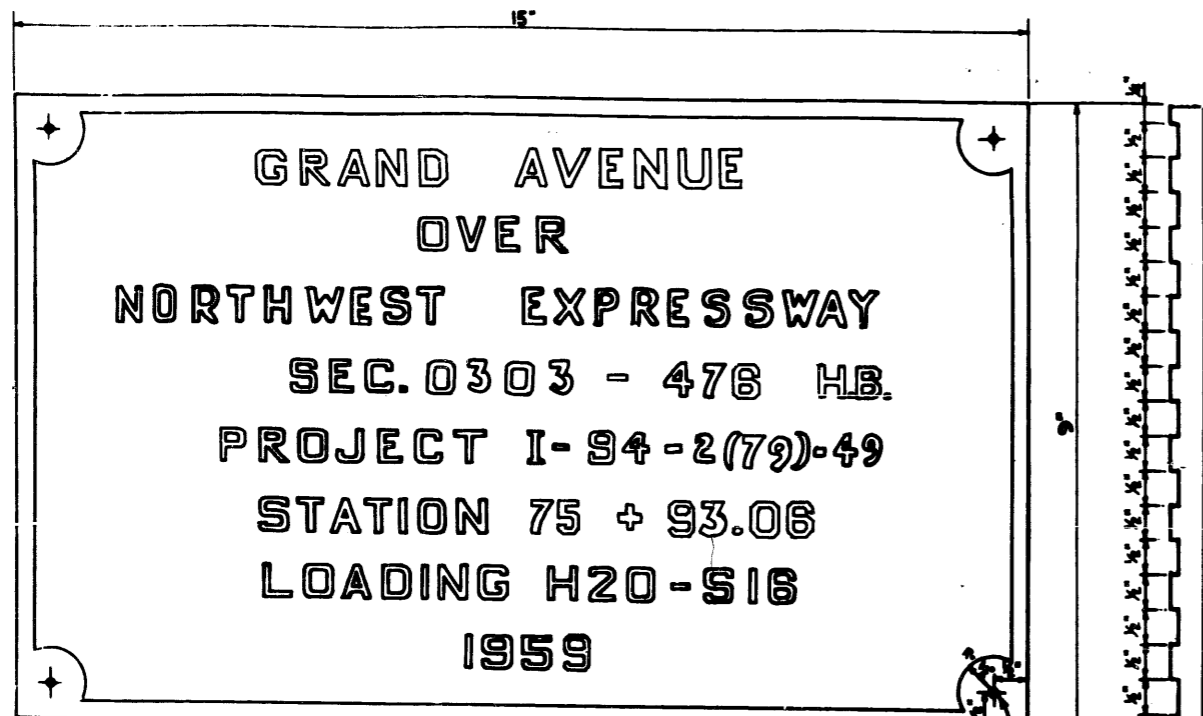
**SECTION A-A**



**PLAN OF RAIL CHANNELS AT END POST**

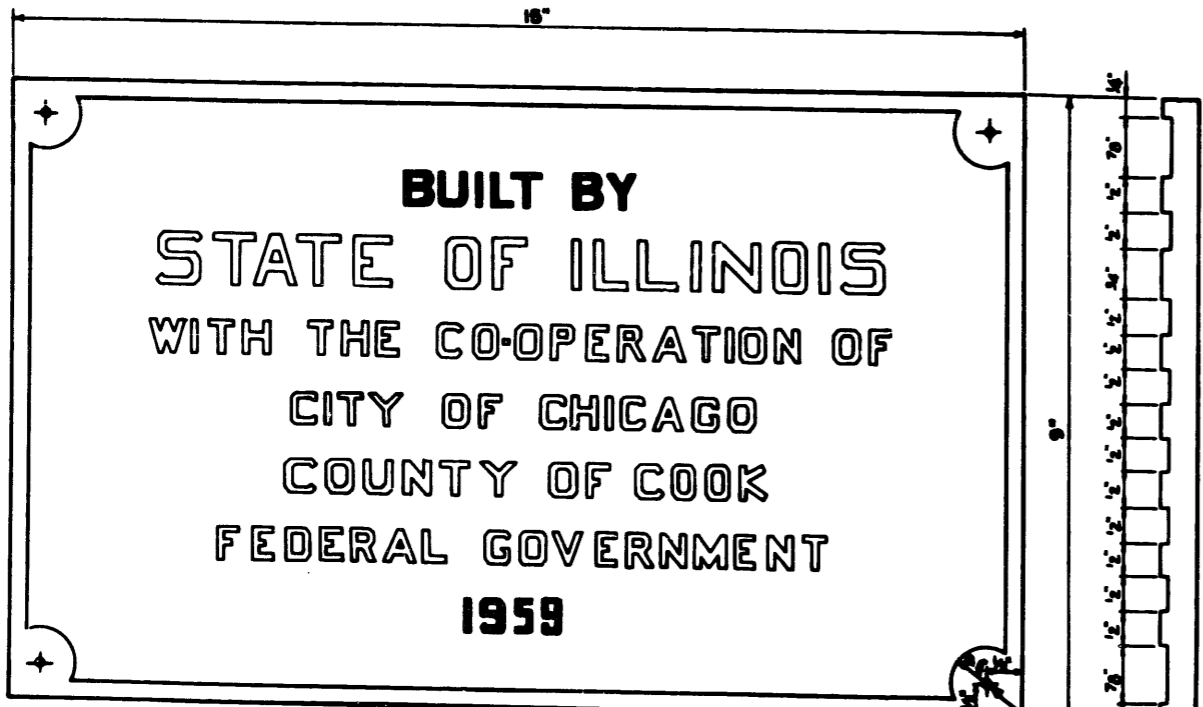
STATE OF CALIFORNIA  
 DEPARTMENT OF HIGHWAYS  
 SAN FRANCISCO OFFICE  
 PROJECT NO. 10-10-10  
 DRAWING NO. 10-10-10-10  
 DATE: JULY 1959

ROAD DISTRICT	SEC	COUNTY	TOTAL SHEETS	SHEET NO
F.A.L. 94	0288	COOK	56	31
FED. ROAD DIST. 103				



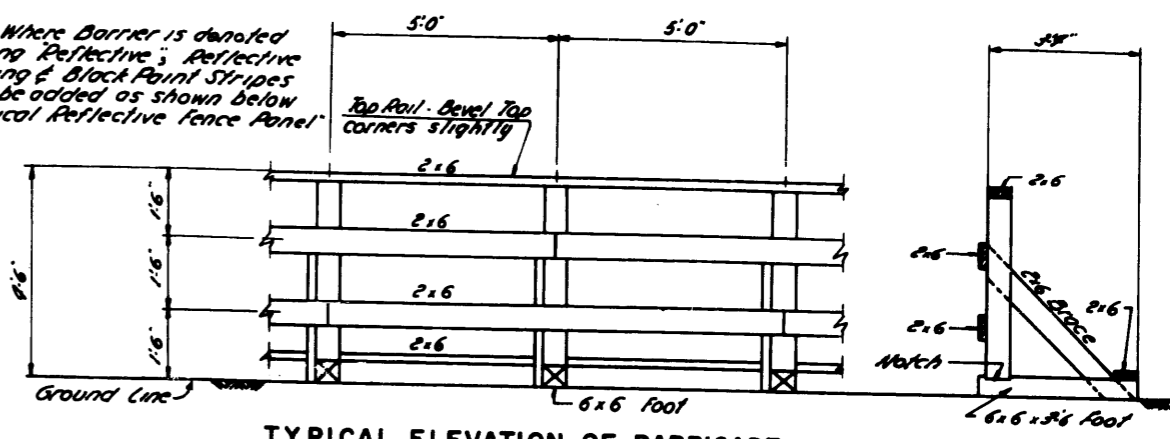
Center of 1/2" counter-sunk holes for bolts when required

**MATERIAL:** Best quality brass or bronze.  
**CORNER & LETTERING:** Raised 1/8" square cut and not tapered; top surface polished.  
**FASTENINGS - TO CONCRETE:** Four lugs of least 3" long, cast on back of plate.  
**TO STEEL:** Four 3/4" brass or bronze hex head bolts.  
 Place name plates at diagonally opposite locations on posts adjacent to expressway pavement on right hand side for approaching traffic.

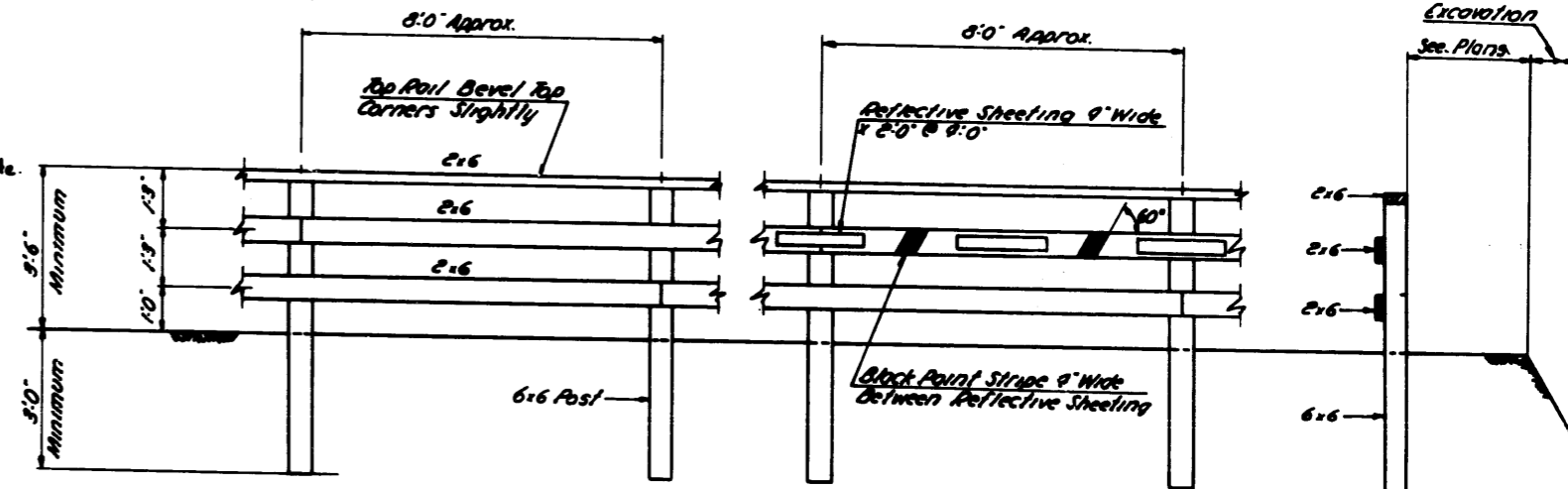


Center of 1/2" counter-sunk holes for bolts when required.

Note: Where Barrier is denoted as being Reflective; Reflective Sheeting & Black Paint Stripes shall be added as shown below in Typical Reflective Fence Panel



TYPICAL ELEVATION OF BARRICADE



TYPICAL FENCE PANEL TYPICAL REFLECTIVE FENCE PANEL

WOODEN GUARD FENCE

Notes: Fencing & Barricades will be paid for at the contract unit price for Miscellaneous Timber.

ILLINOIS DIVISION OF HIGHWAYS  
 NORTHWEST EXPRESSWAY  
 ERIE STREET INTERCHANGE  
 GRAND AVENUE GRADE SEPARATION  
 NAME PLATE & FENC'G