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DRAWING NO SHEET NO

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

ROUTE NO	SEC	COUNTY	SHEET	TOTAL SHEETS
F A 99	0606.1	COOK	22	1
PROJECT NO. U.I. 146 (31)				

F. A. ROUTE 99 SEC. 0606.1 H.B., H.F., H
CHURCH STREET GRADE SEPARATION
OVER
EDENS SUPERHIGHWAY
COOK CO.
PROJECT U.I. 146 (31)

RETURN THIS PLAN
TO MAINTENANCE
ROOM 706
DRAWER

1B

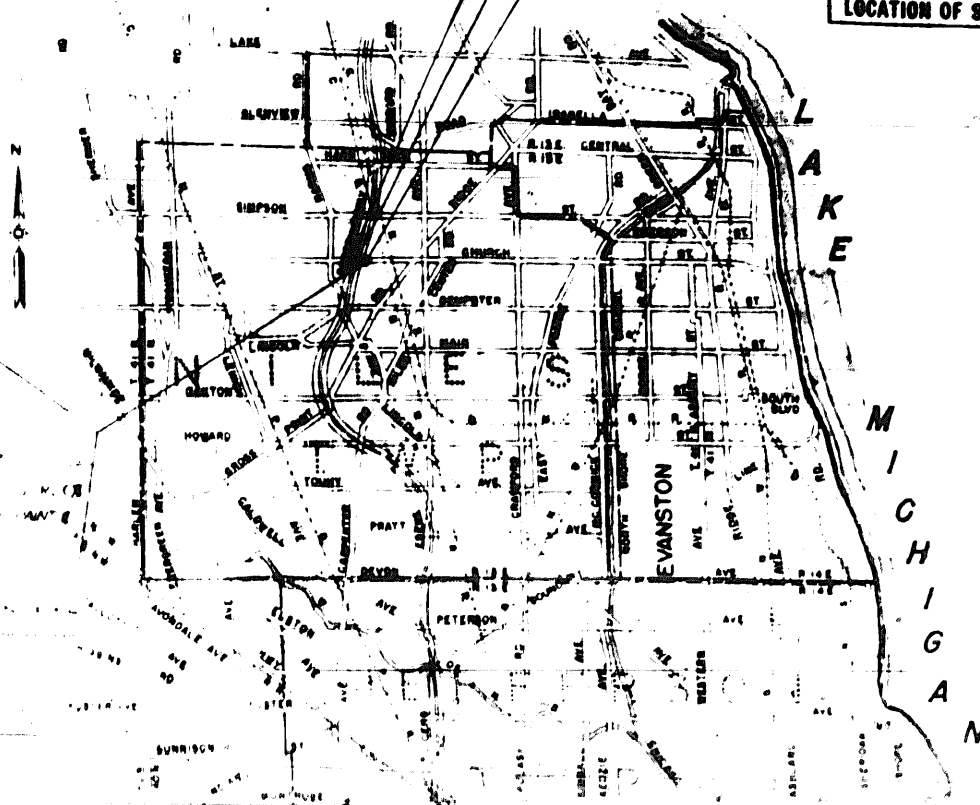


LOCATION OF SECTION INDICATED THIS: —

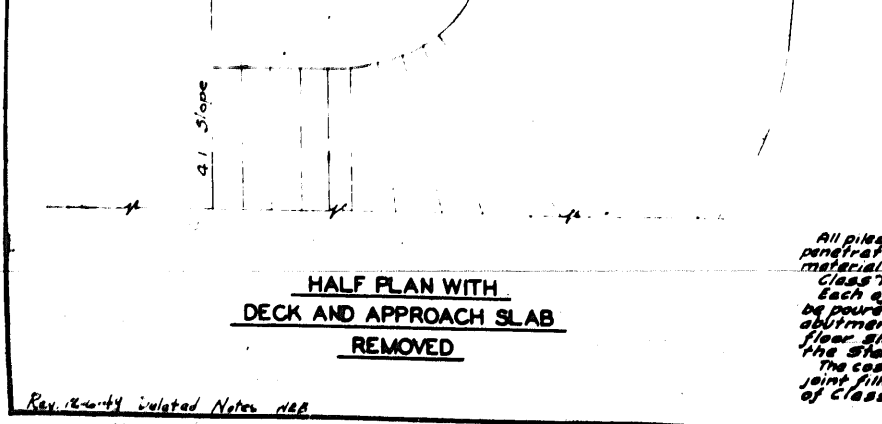
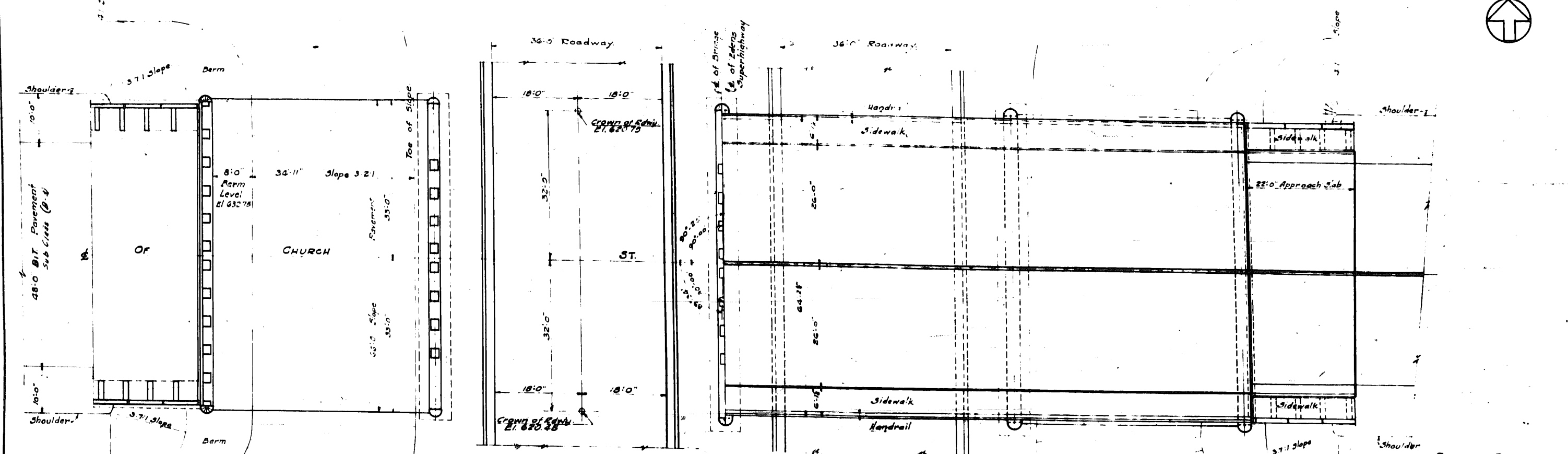
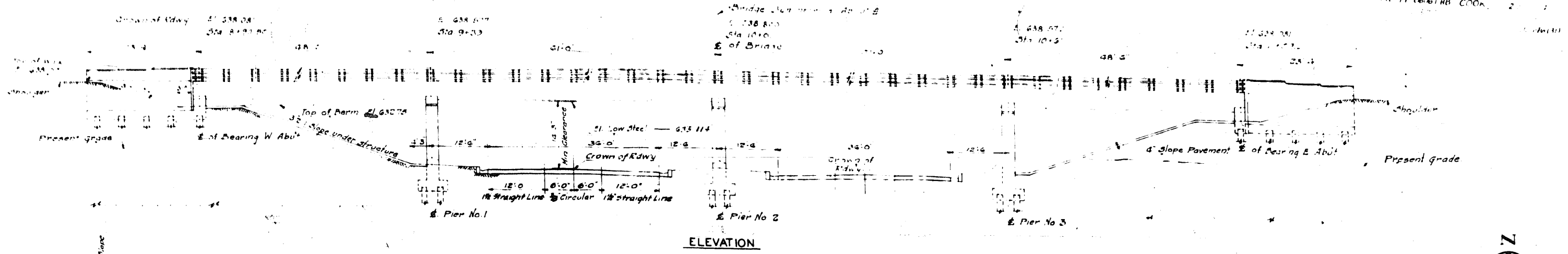
SEC 0606.1	SEC 0606.1	QUANTITIES	
		DAYS	BASE COURSE MAINTENANCE
		EACH	EAST IRON FRAMES AND GRATES TYPE 5 CLOSED LID
		EACH	EAST IRON FRAMES AND GRATES TYPE 1 CLOSED LID
700	5,170	CUYDS	CLASS X CONCRETE
1234.0		LBS	REINFORCEMENT BARS
793080		LBS	STRUCTURAL STEEL
4		EACH	TEST PILES
4230		LIN FT.	FURNISHING PILES
902		LIN FT.	DRIVING PILES 26'-0" LG
1511		LIN FT.	DRIVING PILES 33'-0" LG
121		LIN FT.	DRIVING PILES 40'-0" LG
962		LIN FT.	DRIVING PILES 37'-0" LG
	4800	SQ FT	PCC SIDEWALK (5")
	2	EACH	VALVE VAULTS TO BE RECONSTRUCTED
	2	SQ YDS	PAVEMENT REMOVAL
	12	LIN FT.	CAST IRON WATER MAIN
	1	EACH	FURNISHING & BRACING ROW MARKERS
	1	EACH	FILLING EXISTING CATCH BASINS
483		LIN FT.	METAL HANDRAIL
		EACH	NAME PLATES
			PROJECT MARKERS
	40	IN DIA	TREE REMOVAL - INCH DIAMETER (6" to 15" diam)
	1075	CUYDS	COMPACTION BY WATER SOAKING
	155	SQ YDS	PORTLAND CEMENT CONCRETE PAVEMENT - 10 1/2" - 10 1/2" - 10 1/2"
	18805	SQ FT	SIDEWALK REMOVAL
	88	LIN FT.	COMB CONCRETE CURB & GUTTER MODIFIED TYPE 6
	4792	TONS	CRUSHED STONE BASE COURSE
	1030	TONS	B TUMINUS SURFACE SUB CLASS B3
	637	CUYDS	EARTH EXCAVATION
	50	SQ YDS	SLOPE PAVEMENT
	23932	CUYDS	BORROW EXCAVATION
	1448	GALES	BITUMEN MATERIAL APPLIED PRIME COAT
	20	CYR CAP	PIPE EXCAVATION IN DIAM (6" - 15" DIA)
	45	CUYDS	
	1036	CUYDS	

From a point approximately 150 feet west of the intersection of Church Street and Edens Superhighway, a line is drawn along Church Street to the center line of Edens Superhighway in the Village of Skokie, Illinois.

SECTION 0606.1 H.B. INCLUDES
THE CONSTRUCTION OF AN I BEAM BRIDGE ON CHURCH ST. OVER EDENS SUPERHIGHWAY IN THE VILLAGE OF SKOKIE, 2 SPANS @ 48' 6" AND 2 SPANS @ 61' 0" AT STATION 239+65.6, A POINT APPROXIMATELY 140' WEST OF LONG AVENUE IN THE VILLAGE OF SKOKIE, ILLINOIS.



STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS
FEBRUARY 23, 48
C. H. APPLE
[Signature]



GENERAL NOTES

All bridge seats shall be constructed level and to exact elevations shown if abush hammer or grinding is necessary, this work shall be done at no extra charge.
 All bending detail dimensions are out to out of bars unless otherwise noted.
 See Special Provisions for Slope Pavement Specifications.
 Structural Steel shall be carbon steel and shall conform to A.S.T.M. A-7. Specifications.
 Knees for W beams shall be 3/4" with 1/8" open holes.
 All field connections shall be riveted.

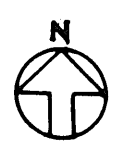
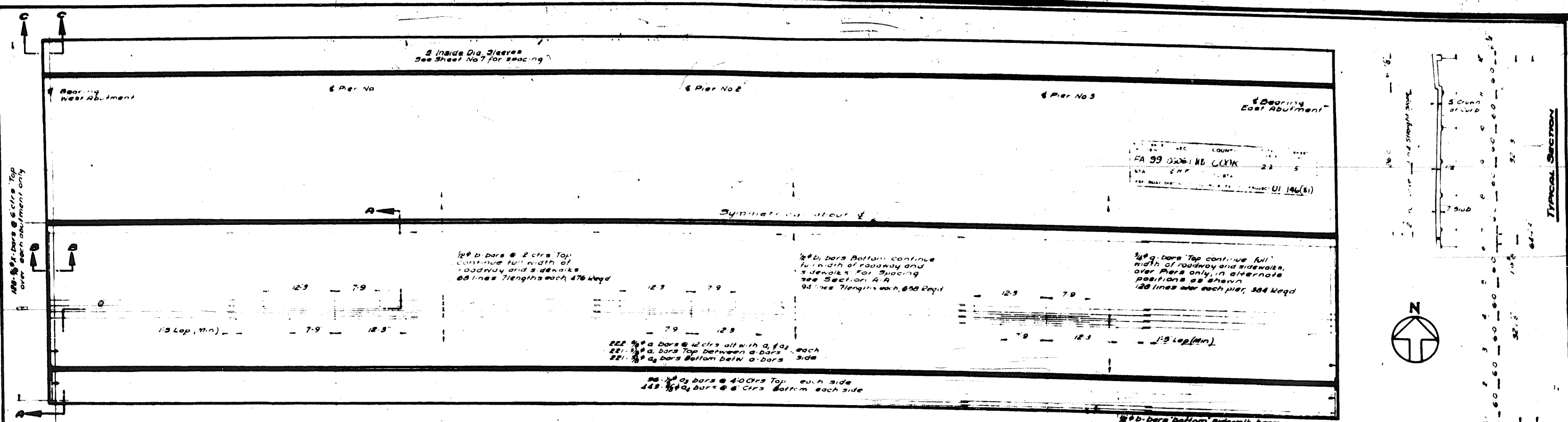
All spans shall be shop assembled to their proper alignment with or without diaphragms and the splices sub-punched, reamed and match marked. Assembled units shall be inspected by the Illinois Division of Highways before reaming.
 For rivets the holes shall be sub-punched and reamed to size.
 Welding shall conform to the latest Specif. of the American Welding Society for Welded Highway & Railway Bridges.
 Structural steel shall not be painted. See Specifications concerning inaccessible outside tops of beams that are to have concrete poured in contact with them shall not be painted, except that over abutments and piers such surfaces shall be painted for a distance of 5 feet each way from the center line of bearing.
 Structural steel shall be inspected by the Illinois Division of Highways before painting.
 The structural steel shall be given one coat of red lead paint and one coat of black primer paint. All field connections shall be inspected.

DESIGN DATA

Truck Loading	HTO-516-88
Earth Pressure	300 FLD
Structural Steel	18000/54 in
Reinforcing Steel	20000/54 in
Concrete (without earth pressure)	1800/54 in
Concrete (with earth pressure)	800/54 in

GENERAL PLAN CHURCH ST. GRADE SEPARATION OVER EDENS SUPERHIGHWAY

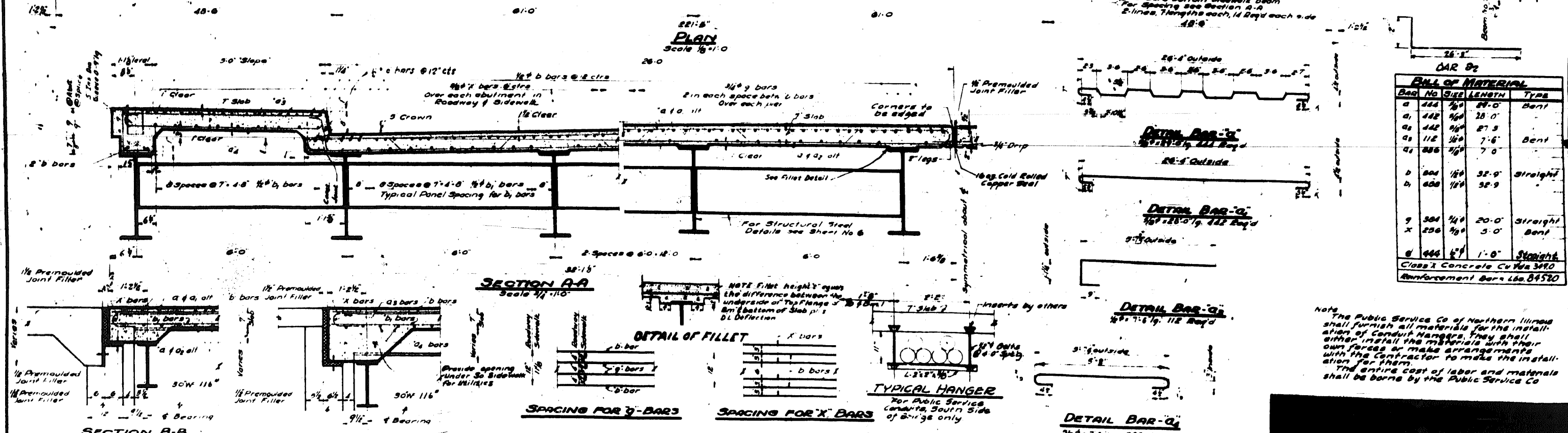
Rev. 12-21 Related Notes 158



BAR SCHEDULE

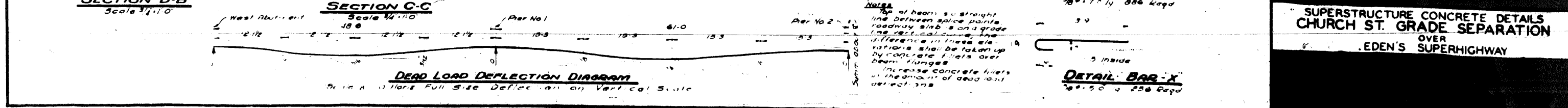
Bar No.	SIZE	LENGTH	TYPE
a	222	12'	Bent
a1	442	16'	28' 0"
a2	442	16'	27' 6"
a3	112	16'	7' 6"
a4	222	16'	7' 0"
b	608	16'	32' 9"
b1	608	16'	32' 9"
c	384	16'	20' 0"
x	256	16'	5' 0"
e	442	16'	1' 0"

Class II Concrete Cu No 3490
Reinforcement Bars L60 84520

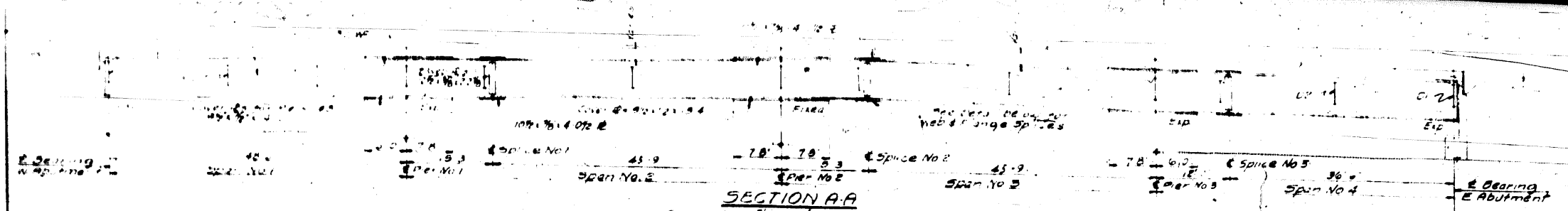


Note: The Public Service Co of Northern Illinois shall furnish all materials for the installation of Conduit Hangers. They shall either install the materials with their own forces or make arrangements with the Contractor to make the installation for them. The entire cost of labor and materials shall be borne by the Public Service Co

**SUPERSTRUCTURE CONCRETE DETAILS
CHURCH ST. GRADE SEPARATION
OVER
EDEN'S SUPERHIGHWAY**



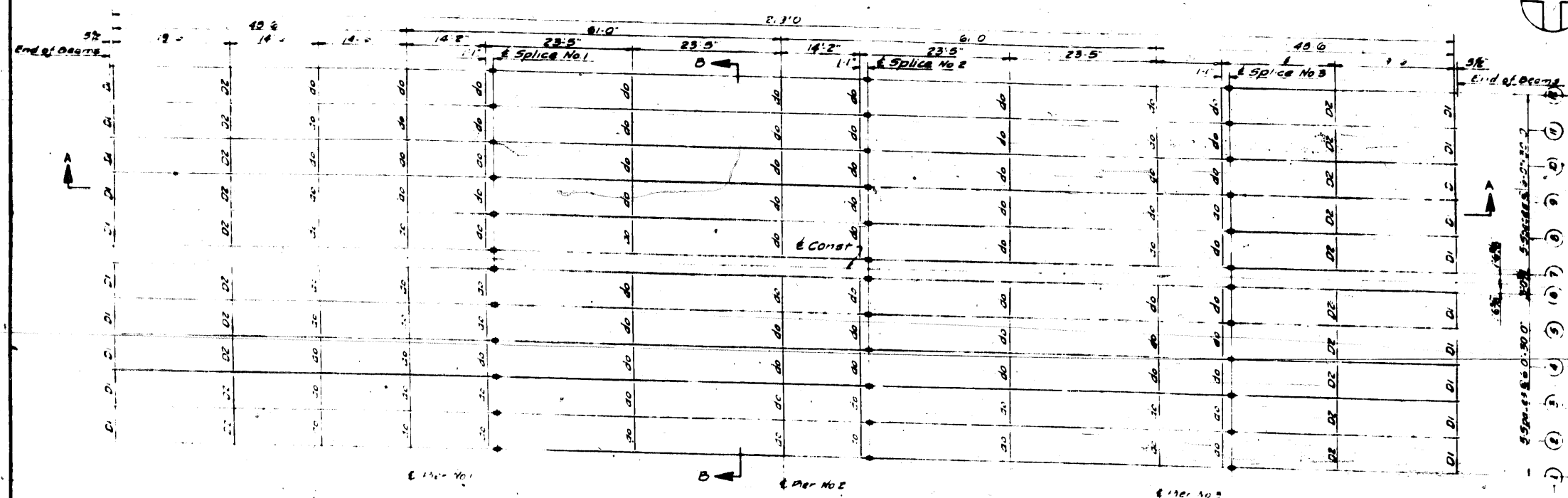
Note: Top of beam is a straight line between splice points roadway slab is on a grade line. If the difference in these elevations shall be taken up by concrete fillers over beam flanges. Increase concrete fillers in the amount of dead load deflections.



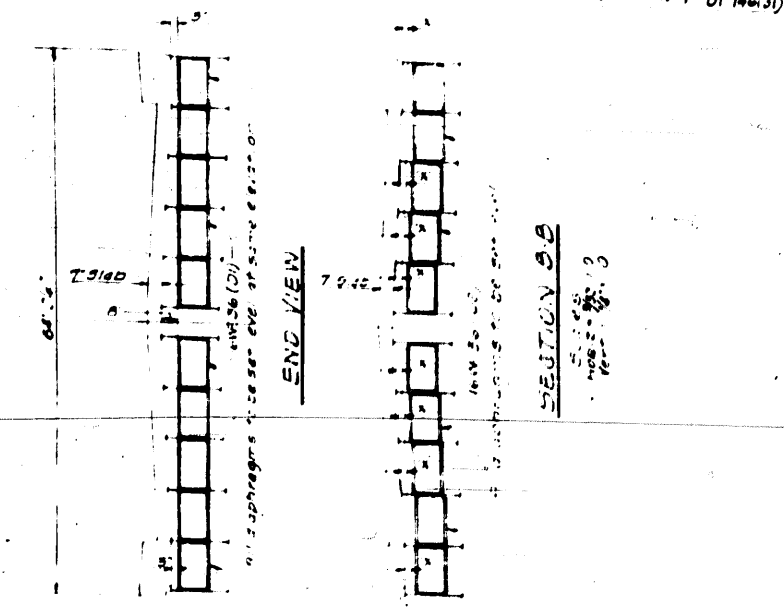
Beam No.	Span No.	Splice No.	Beam Length	Splice Length	Beam Weight	Splice Weight	Total Weight
1	2	1	45.9	7.8	63,442	1,100	64,542
2	2	2	45.9	7.8	63,442	1,100	64,542
3	2	3	45.9	7.8	63,442	1,100	64,542
4	2	4	45.9	7.8	63,442	1,100	64,542
5	2	5	45.9	7.8	63,442	1,100	64,542
6	2	6	45.9	7.8	63,442	1,100	64,542
7	2	7	45.9	7.8	63,442	1,100	64,542
8	2	8	45.9	7.8	63,442	1,100	64,542
9	2	9	45.9	7.8	63,442	1,100	64,542
10	2	10	45.9	7.8	63,442	1,100	64,542
11	2	11	45.9	7.8	63,442	1,100	64,542
12	2	12	45.9	7.8	63,442	1,100	64,542

No. of structural steel shown on this sheet 375-734

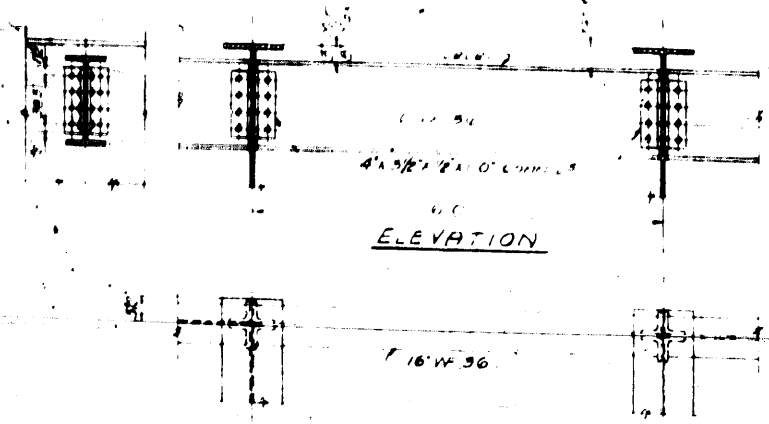
FA 99 06061 MS COOK 21 6
UI 146(3)



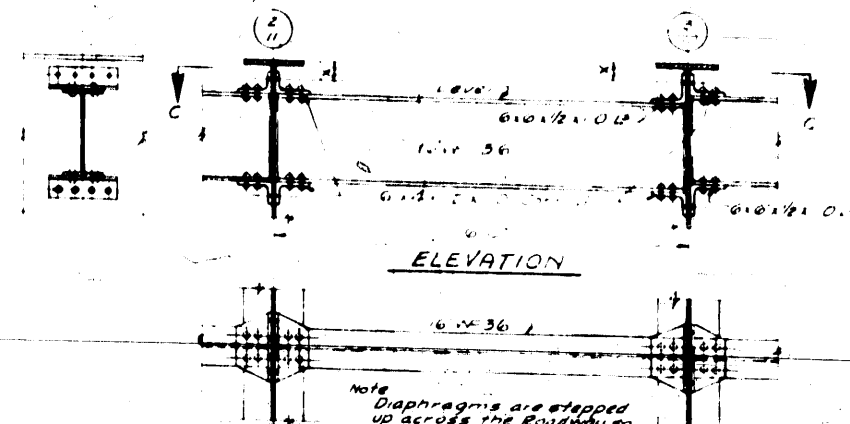
FRAMING PLAN
Scale 3/32"=1'-0"



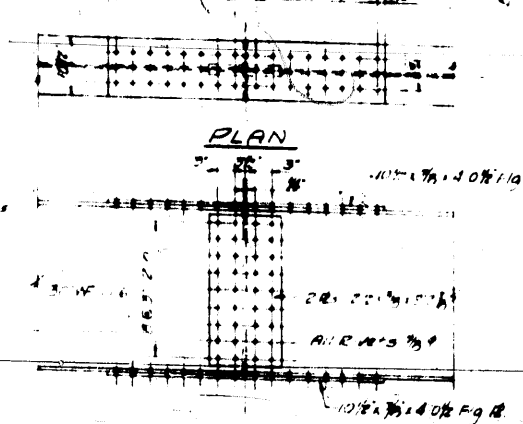
SECTION B-B
Scale 3/32"=1'-0"



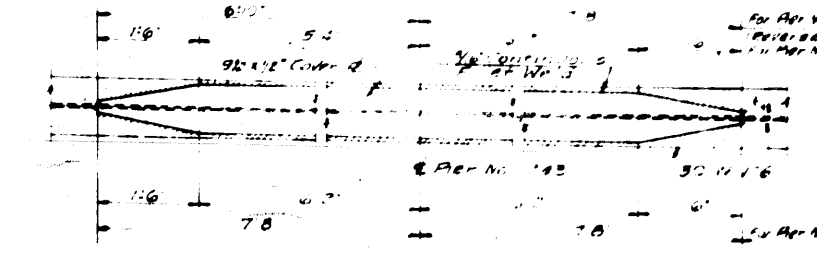
PLAN FOR D1
Scale 3/4"=1'-0"



SECTIONAL PLAN C-C
FOR D2
Scale 3/4"=1'-0"



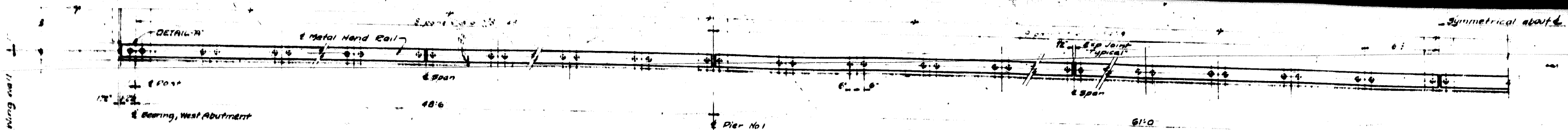
DETAIL OF SPLICE PLATES
Scale 3/4"=1'-0"



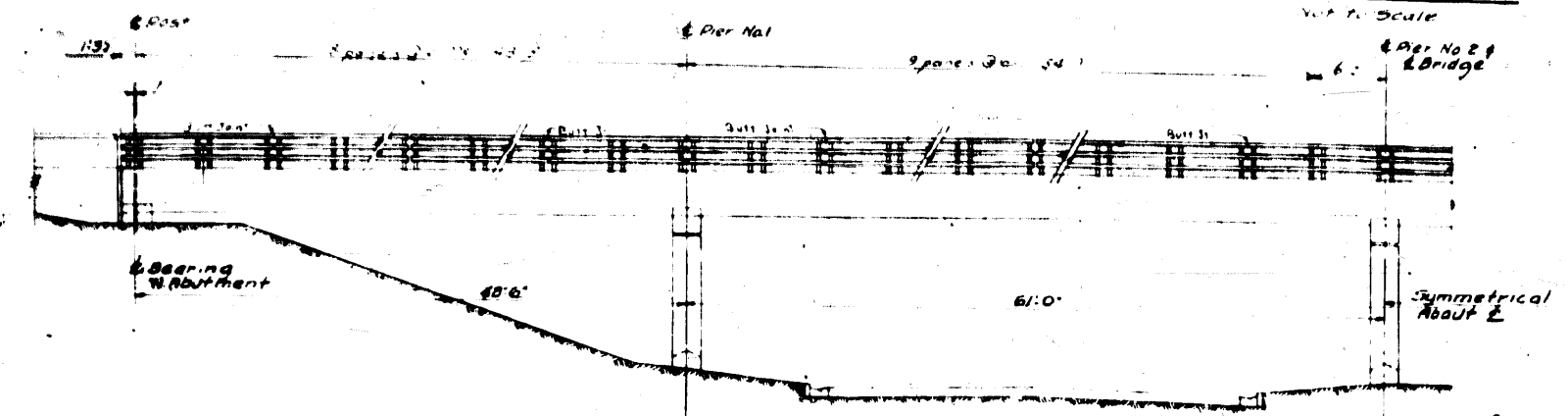
DETAIL OF COVER PLATES
Scale 3/4"=1'-0"

Note: No. 20-516 44 Load and Distribution used in design.

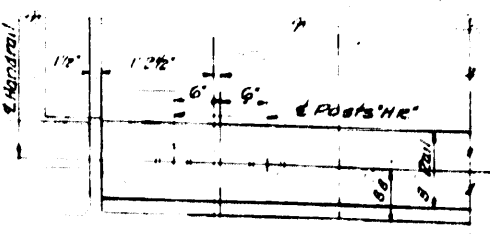
STRUCTURAL STEEL DETAILS
CHURCH ST. GRADE SEPARATION
OVER
EDENS SUPERHIGHWAY



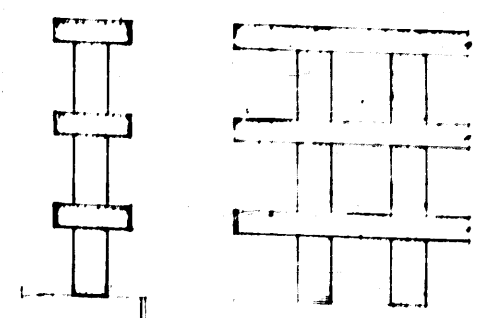
HALF-PLAN SOUTH HANDRAIL
Not to Scale



ELEVATION - HANDRAIL
Not to Scale



DETAIL - A
Scale 1 1/2" = 1'-0"



DETAIL OF END PANEL
Scale 1" = 1'-0"

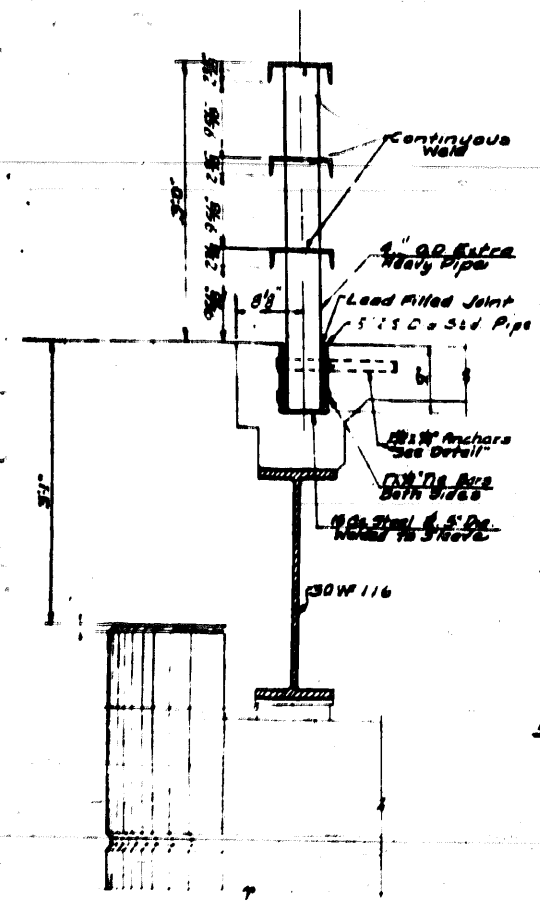


DETAIL BUTT JOINT FOR HANDRAIL
Scale 1 1/2" = 1'-0"

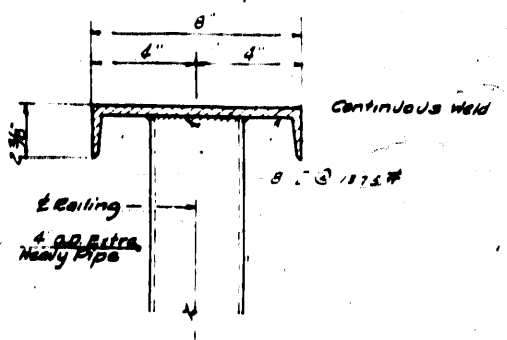
Note:
All posts shall be vertical and all horizontal rail members shall follow the vertical curve of the grade line. The cost of setting posts in Lead and Oakum, Pipe, sleeves, Strap Anchors, and all fittings and material required shall be included in the Unit Price Bid for Linear Foot of Metal Handrail.

Note:
Expansion joints in handrail shall be provided over piers, at midspans or as shown. Rail panels at points other than expansion shall be field welded and ground smooth.

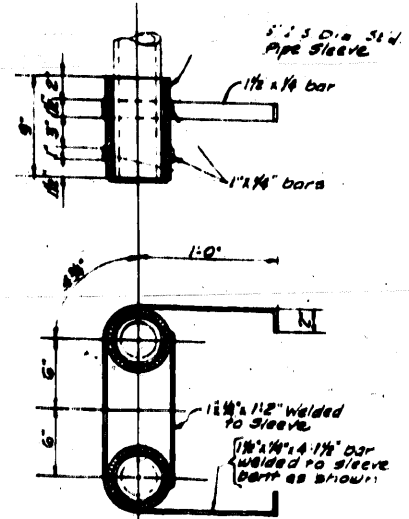
Hand rail shall be shop inspected before painting. All paint shall be furnished by the contractor. The handrail shall be given one shop coat of Red Lead Paint and two field coats of Suminam. Paint see Special Provisions.



TYPICAL SECTION
Scale 1" = 1'-0"



DETAIL OF HANDRAIL AND POST
Scale 3" = 1'-0"

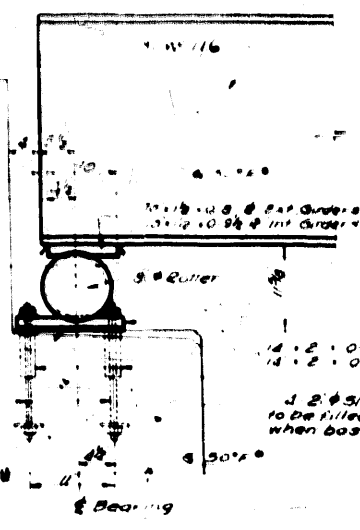


PIPE SLEEVE ANCHOR DETAIL
Scale 1 1/2" = 1'-0"

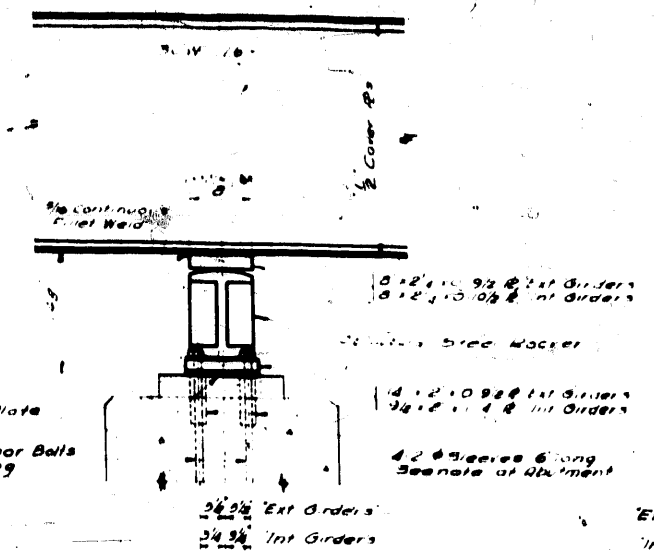
Pipe Sleeves, Regd 140
1 1/2" x 1/2" bars Regd 140
1 1/2" x 1/2" bars Regd 444

BILL OF MATERIALS
"610 - 117001" Lin. Ft. 442.10"

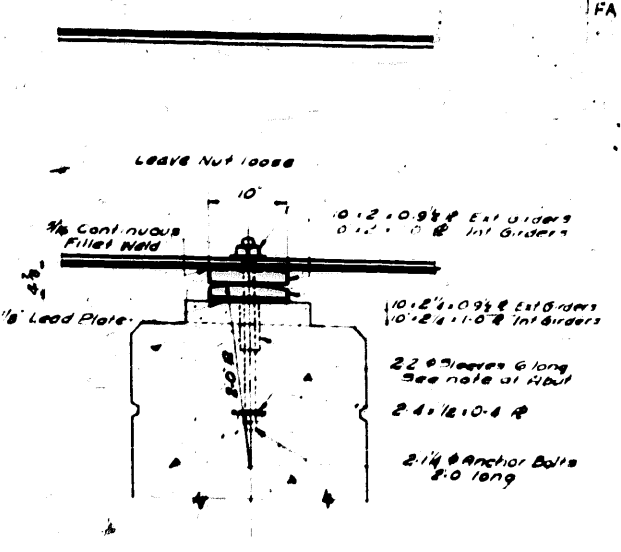
HANDRAIL DETAILS
CHURCH ST. GRADE SEPARATION
OVER
EDENS SUPERHIGHWAY



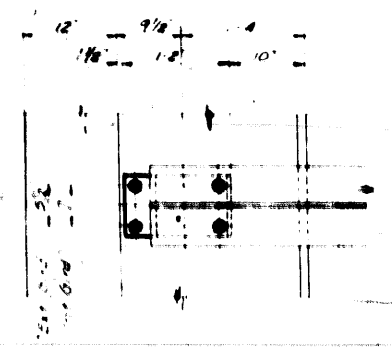
SECTION THRU ABUTMENT
 Scale 1/4" = 1'-0"



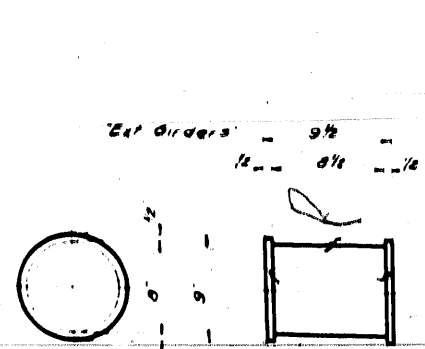
SECTION THRU PIER No. 1A
 Scale 1/4" = 1'-0"



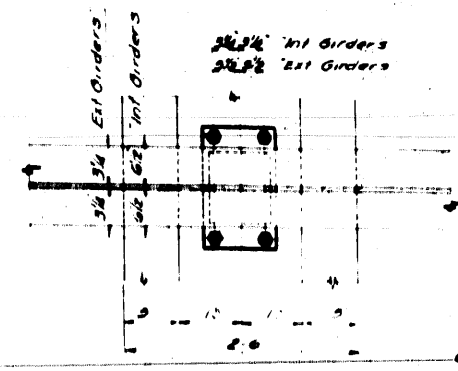
SECTION THRU PIER No. 2
 Scale 1/4" = 1'-0"



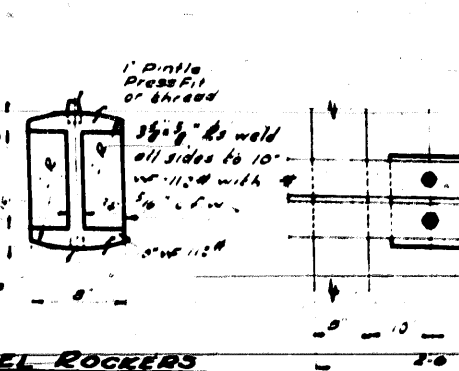
PLAN



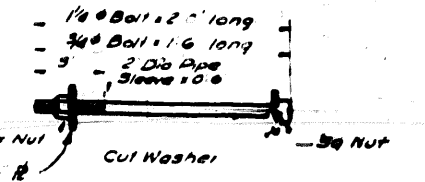
PLAN



DETAIL OF STRUCTURAL STEEL ROCKERS AT PIER No. 1A
 Scale 1/2" = 1'-0"

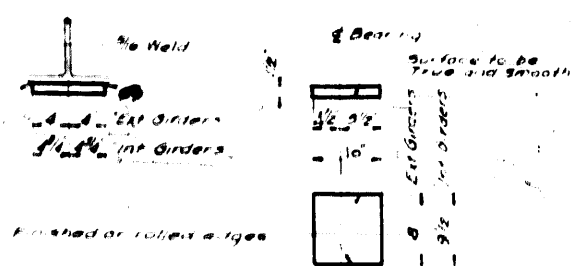


PLAN

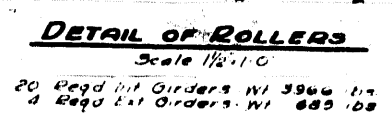


DETAIL OF ANCHOR BOLTS

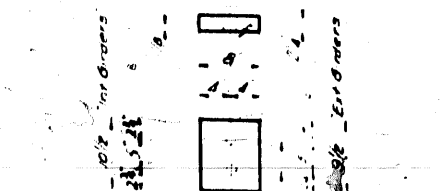
1/4" Bolt - 2' long	12
3/4" Bolt - 1'6" long	4
2" Dia Pipe Sleeve 10'0"	4
1/4" Nut	4
1/4" Washer	4
2" Dia Sleeves	4



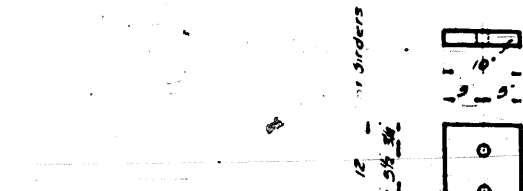
DETAIL OF TOP PLATE AT ABUTMENTS



DETAIL OF ROLLERS
 Scale 1/2" = 1'-0"

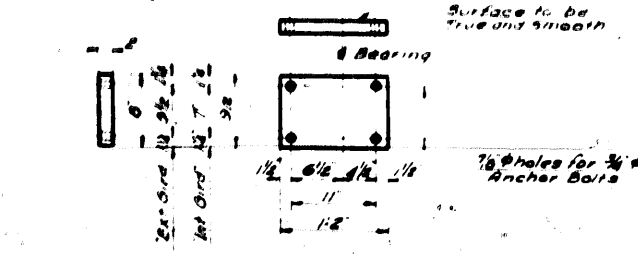


DETAIL OF TOP PLATES AT PIER No. 1A



DETAIL OF TOP PLATES AT PIER No. 2

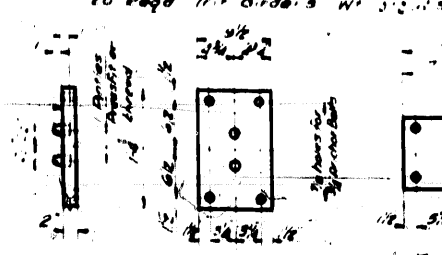
NOTES
 Rollers shall be turned down from a solid bar for a plate in contact with the rollers the edges adjacent to the rollers shall be rounded edges.
 Estimated weights of rollers, steel plates, lead plates and anchor bolts are included in the weight of structural steel.
 Total weight of structural steel is 17,100 lbs.



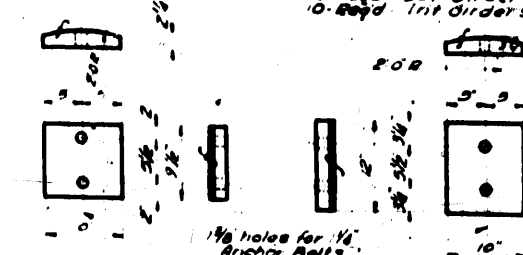
DETAIL OF BOTTOM PLATE AT ABUTMENTS



DETAIL OF PINTLE
 90 Reqd Wt 43 lbs

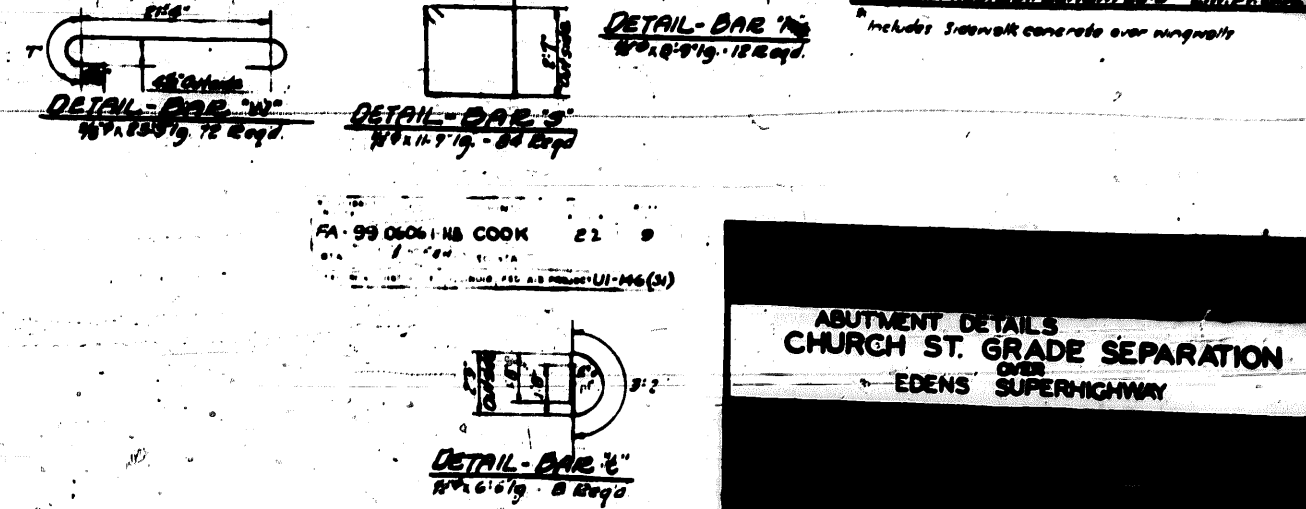
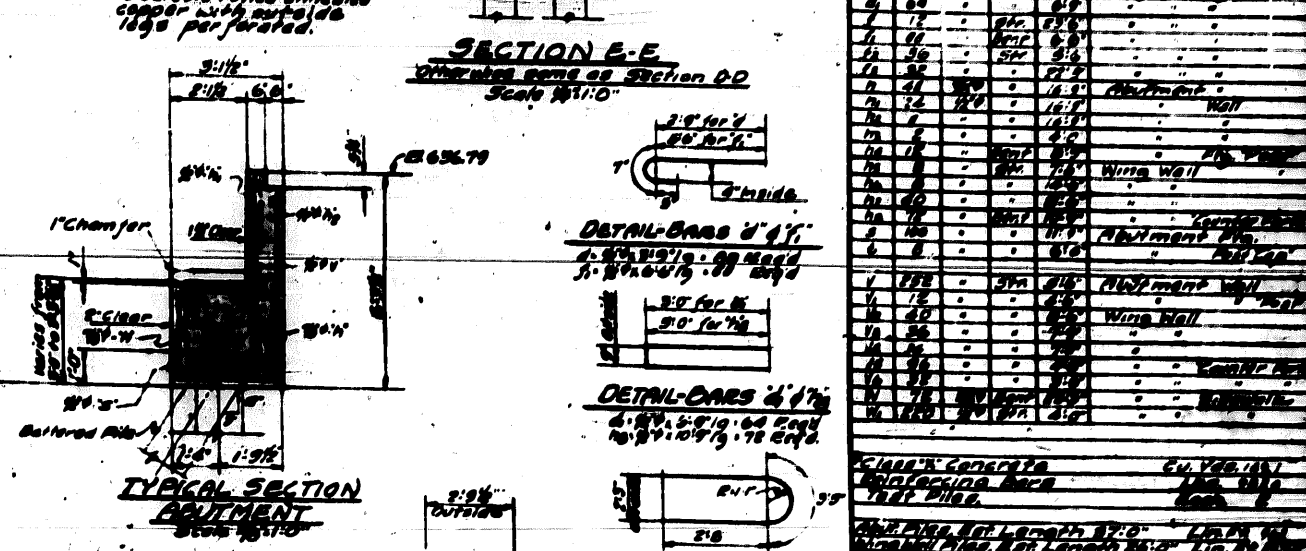
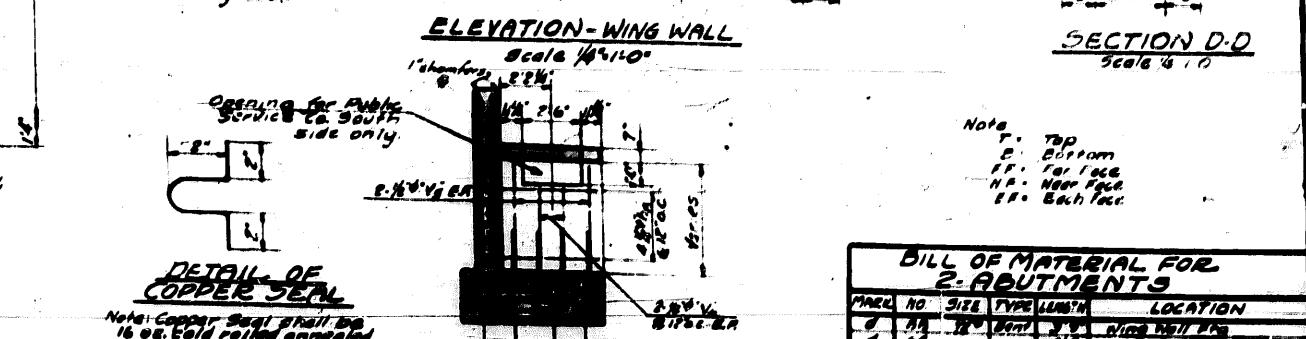
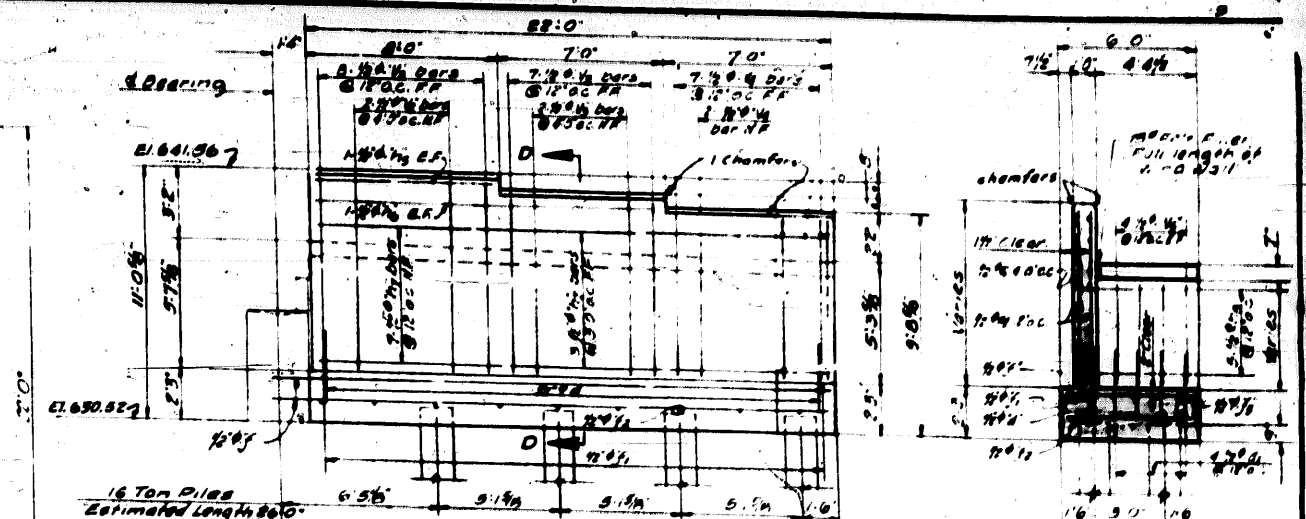
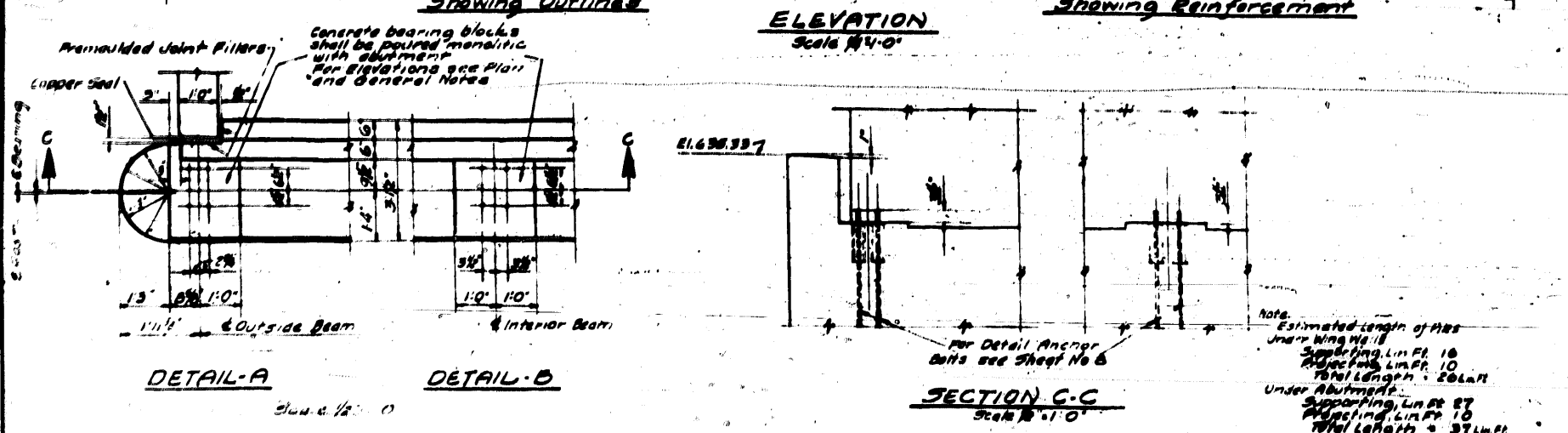
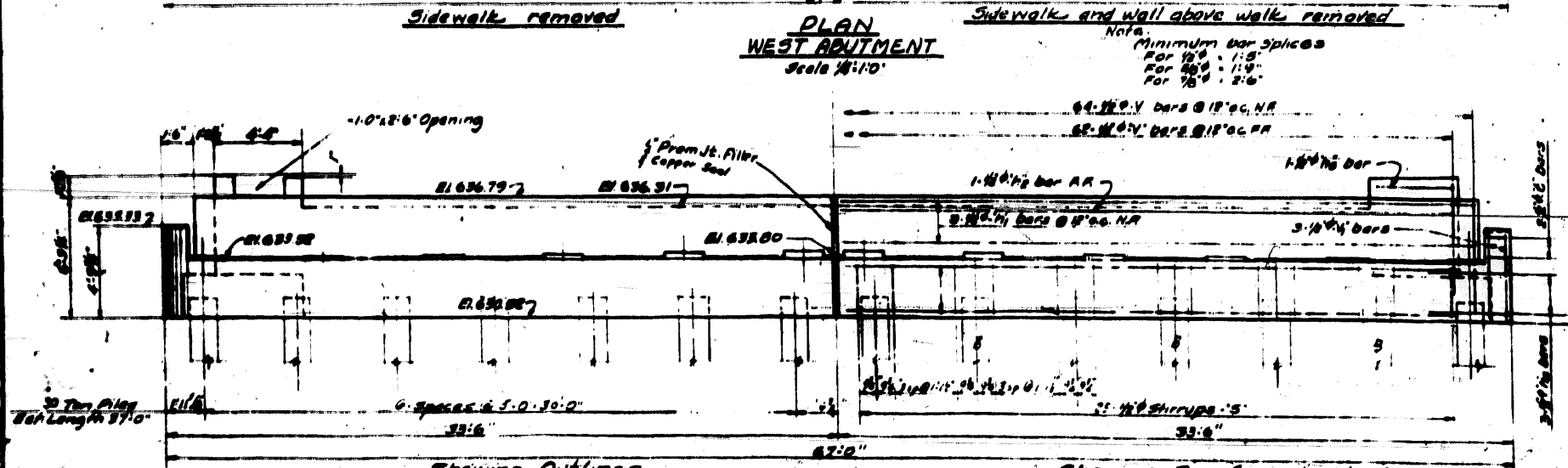
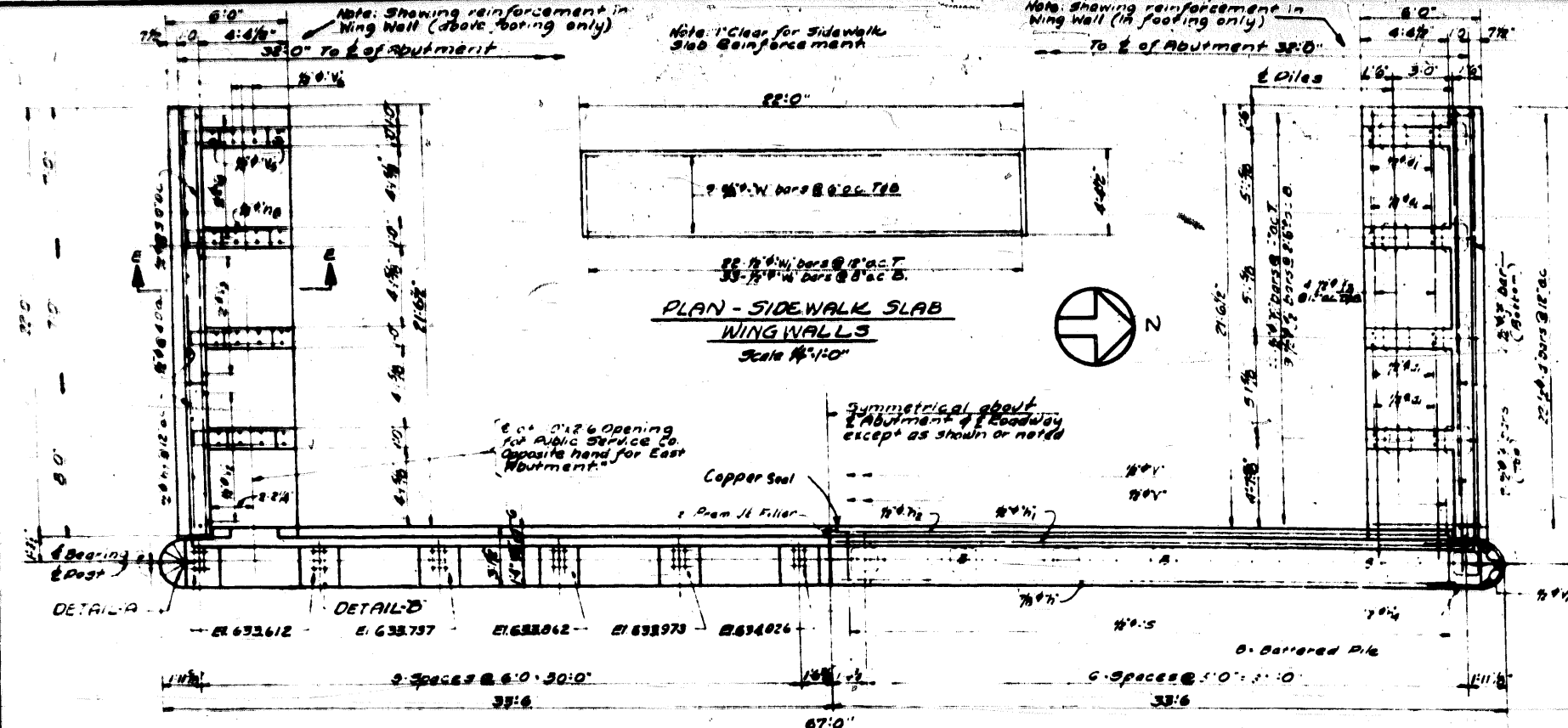


DETAIL OF BOTTOM PLATES AT PIER No. 1A



DETAIL OF BOTTOM PLATE AT PIER No. 2

ROCKERS ROLLERS AND BEARING PLATES
CHURCH ST. GRADE SEPARATION
 OVER
EDENS SUPERHIGHWAY



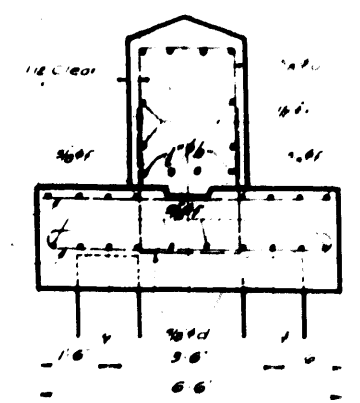
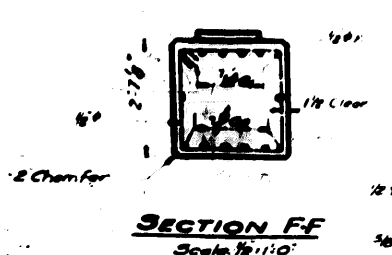
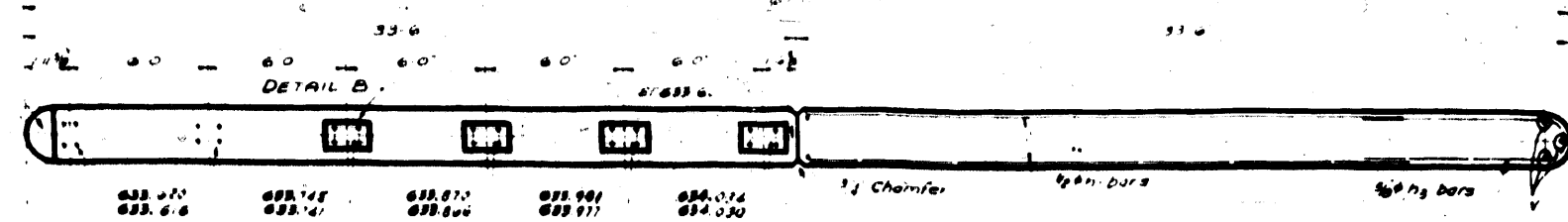
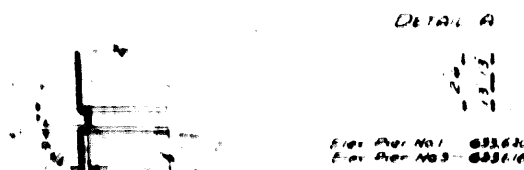
BILL OF MATERIAL FOR 2 ABUTMENTS

ITEM NO.	QTY	TYPE	LENGTH	LOCATION
1	12	#4	11.0	Wing Wall Pile
2	12	#4	11.0	Wing Wall Pile
3	12	#4	11.0	Wing Wall Pile
4	12	#4	11.0	Wing Wall Pile
5	12	#4	11.0	Wing Wall Pile
6	12	#4	11.0	Wing Wall Pile
7	12	#4	11.0	Wing Wall Pile
8	12	#4	11.0	Wing Wall Pile
9	12	#4	11.0	Wing Wall Pile
10	12	#4	11.0	Wing Wall Pile
11	12	#4	11.0	Wing Wall Pile
12	12	#4	11.0	Wing Wall Pile
13	12	#4	11.0	Wing Wall Pile
14	12	#4	11.0	Wing Wall Pile
15	12	#4	11.0	Wing Wall Pile
16	12	#4	11.0	Wing Wall Pile
17	12	#4	11.0	Wing Wall Pile
18	12	#4	11.0	Wing Wall Pile
19	12	#4	11.0	Wing Wall Pile
20	12	#4	11.0	Wing Wall Pile
21	12	#4	11.0	Wing Wall Pile
22	12	#4	11.0	Wing Wall Pile
23	12	#4	11.0	Wing Wall Pile
24	12	#4	11.0	Wing Wall Pile
25	12	#4	11.0	Wing Wall Pile
26	12	#4	11.0	Wing Wall Pile
27	12	#4	11.0	Wing Wall Pile
28	12	#4	11.0	Wing Wall Pile
29	12	#4	11.0	Wing Wall Pile
30	12	#4	11.0	Wing Wall Pile
31	12	#4	11.0	Wing Wall Pile
32	12	#4	11.0	Wing Wall Pile
33	12	#4	11.0	Wing Wall Pile
34	12	#4	11.0	Wing Wall Pile
35	12	#4	11.0	Wing Wall Pile
36	12	#4	11.0	Wing Wall Pile
37	12	#4	11.0	Wing Wall Pile
38	12	#4	11.0	Wing Wall Pile
39	12	#4	11.0	Wing Wall Pile
40	12	#4	11.0	Wing Wall Pile
41	12	#4	11.0	Wing Wall Pile
42	12	#4	11.0	Wing Wall Pile
43	12	#4	11.0	Wing Wall Pile
44	12	#4	11.0	Wing Wall Pile
45	12	#4	11.0	Wing Wall Pile
46	12	#4	11.0	Wing Wall Pile
47	12	#4	11.0	Wing Wall Pile
48	12	#4	11.0	Wing Wall Pile
49	12	#4	11.0	Wing Wall Pile
50	12	#4	11.0	Wing Wall Pile

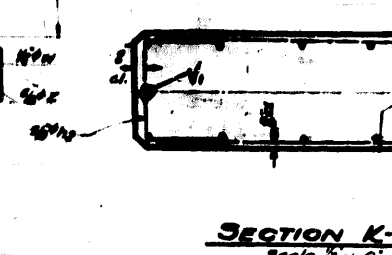
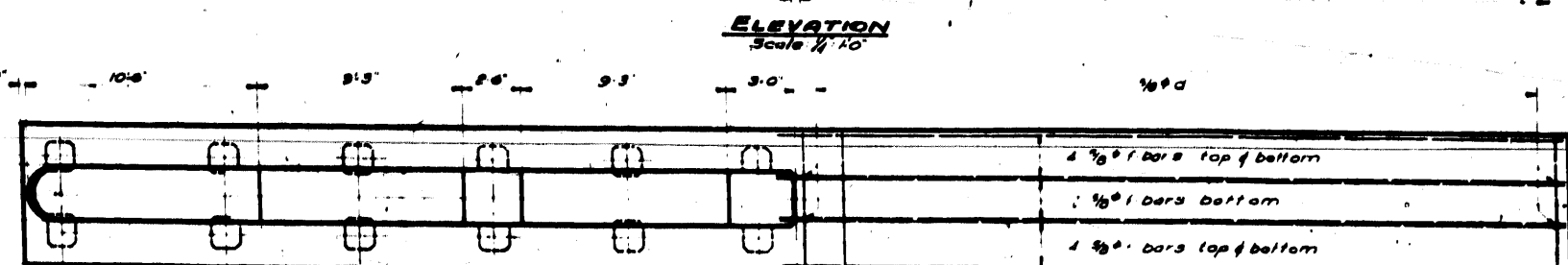
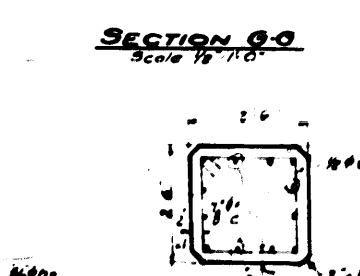
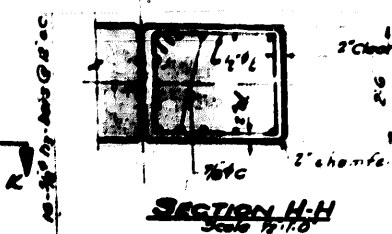
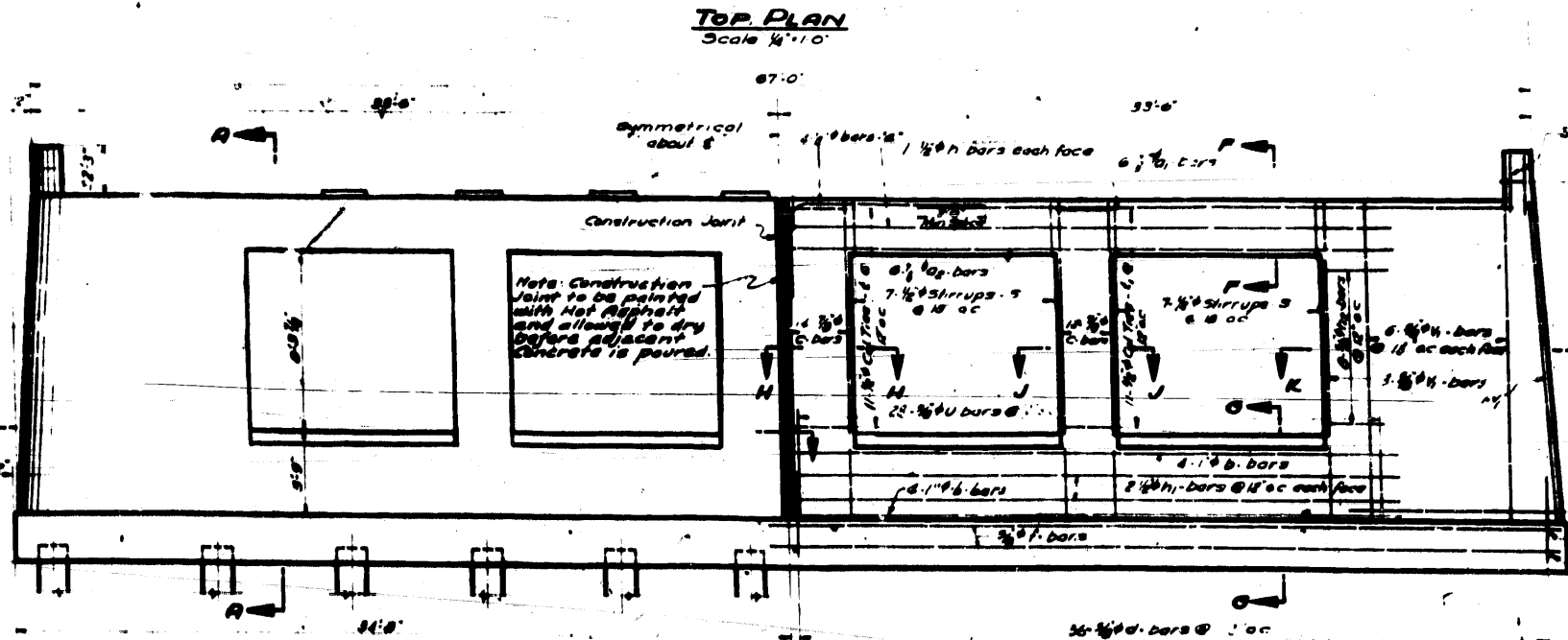
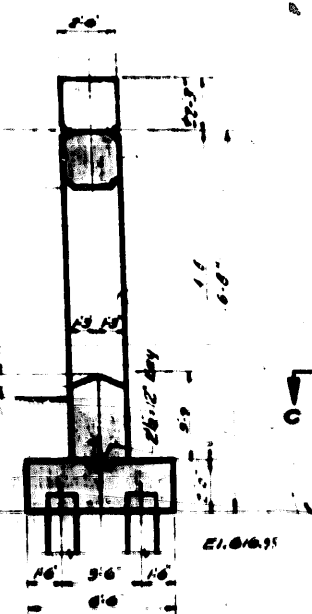
ABUTMENT DETAILS
CHURCH ST. GRADE SEPARATION
OVER
EDENS SUPERHIGHWAY

FA - 99 0606 - 18 COOK 22 9

Revised 8-28-57

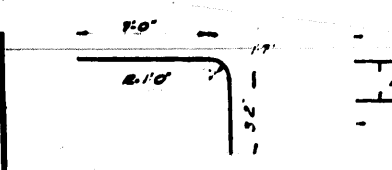


DETAIL OF ORNAMENTAL NOTCH



Check for LOCATION OF NERVE PLATE

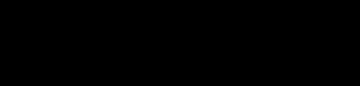
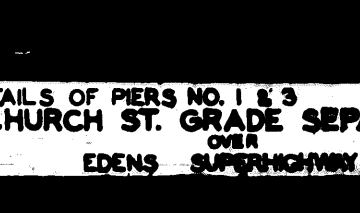
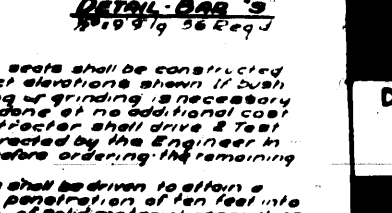
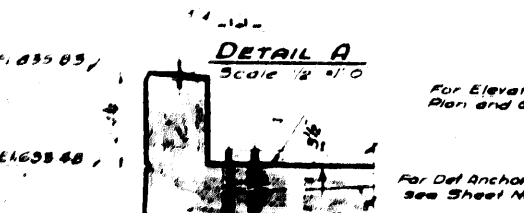
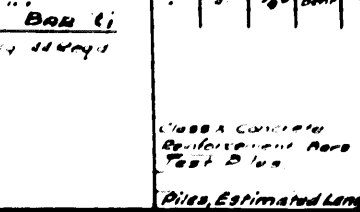
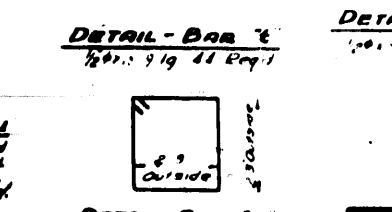
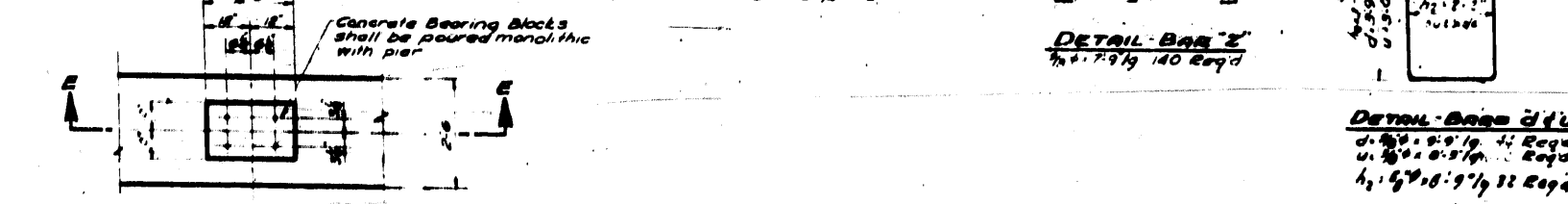
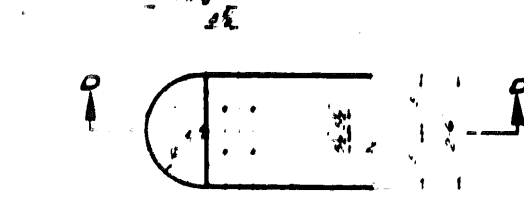
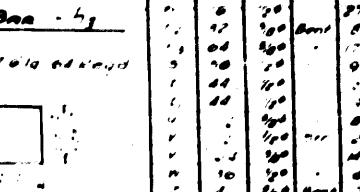
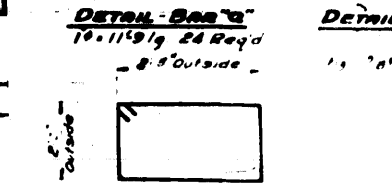
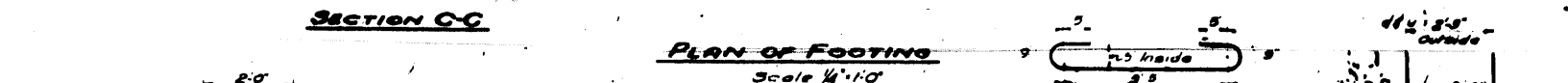
3 Ton Piles Est. Length 33'-0"



FA 99 0606-118 COOK 22 10
U1 146130

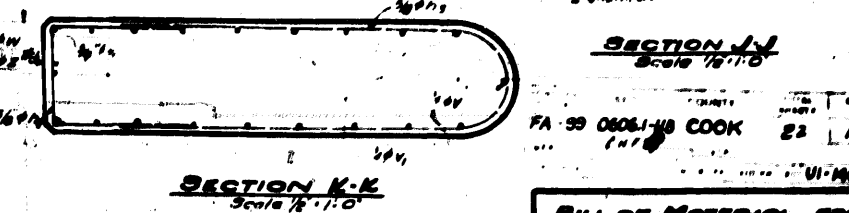
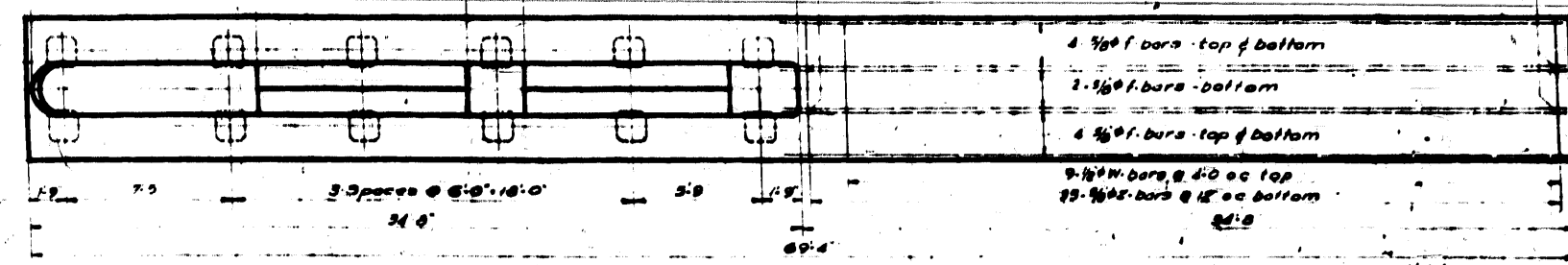
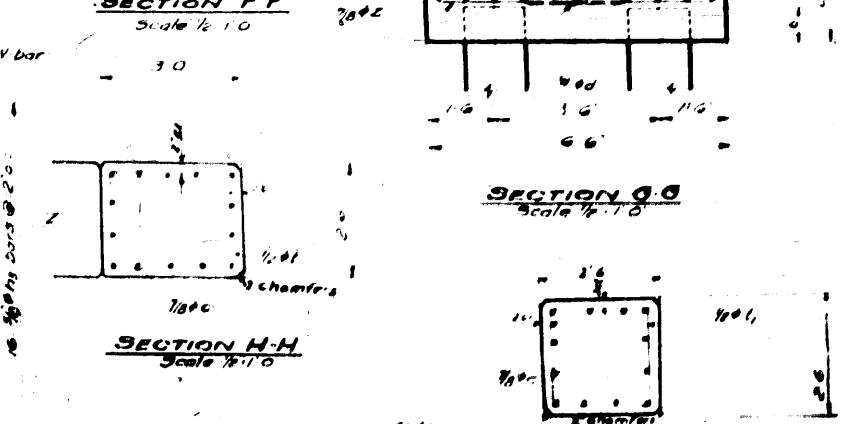
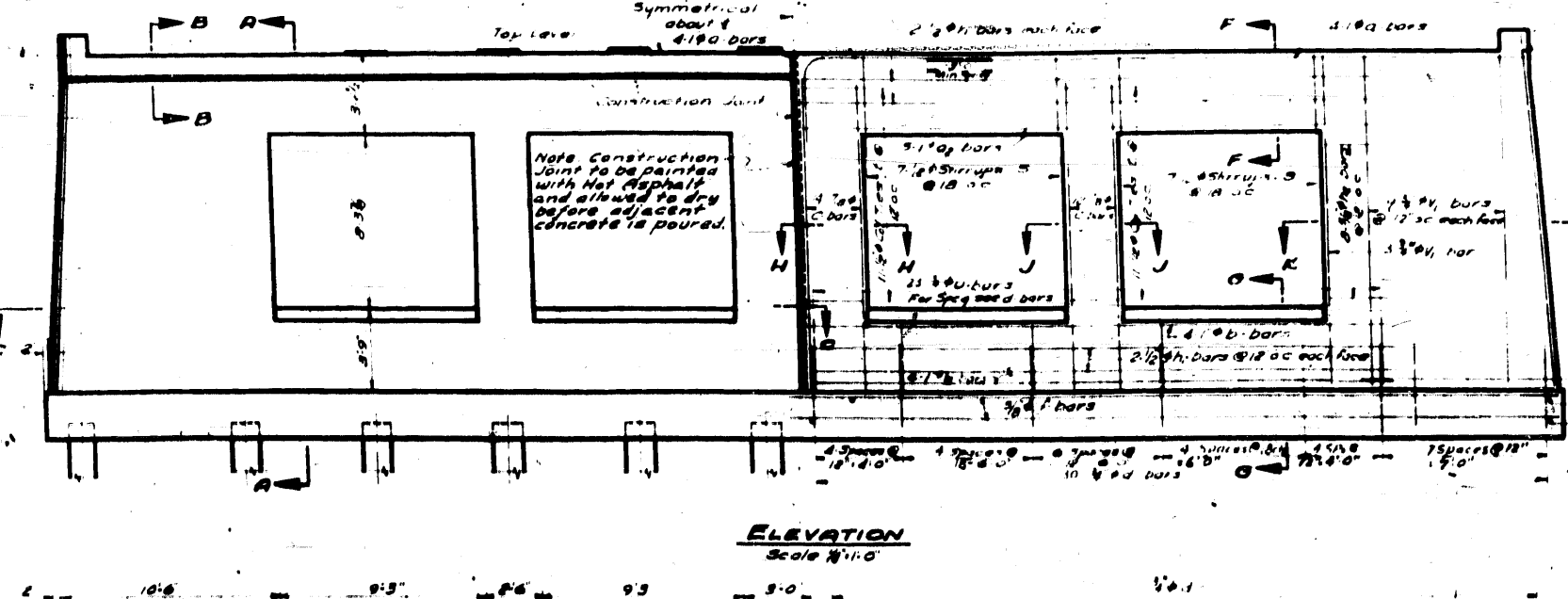
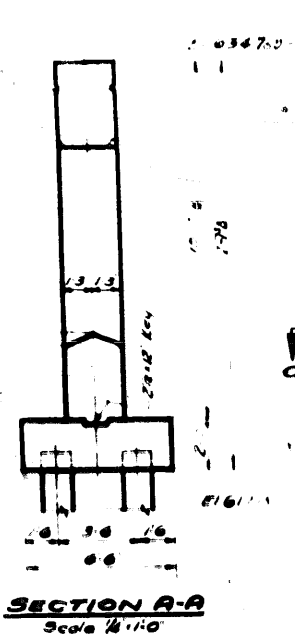
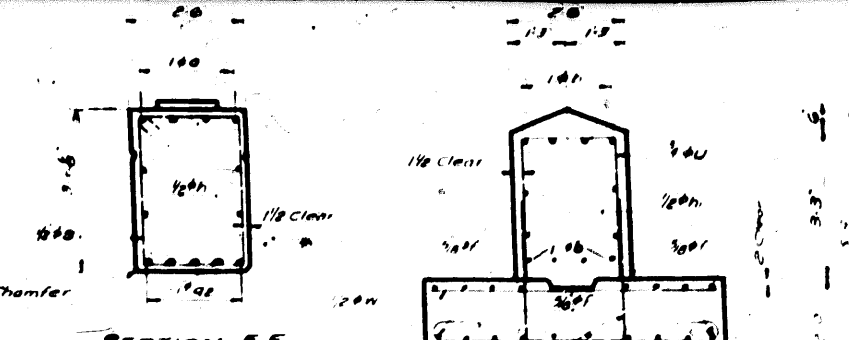
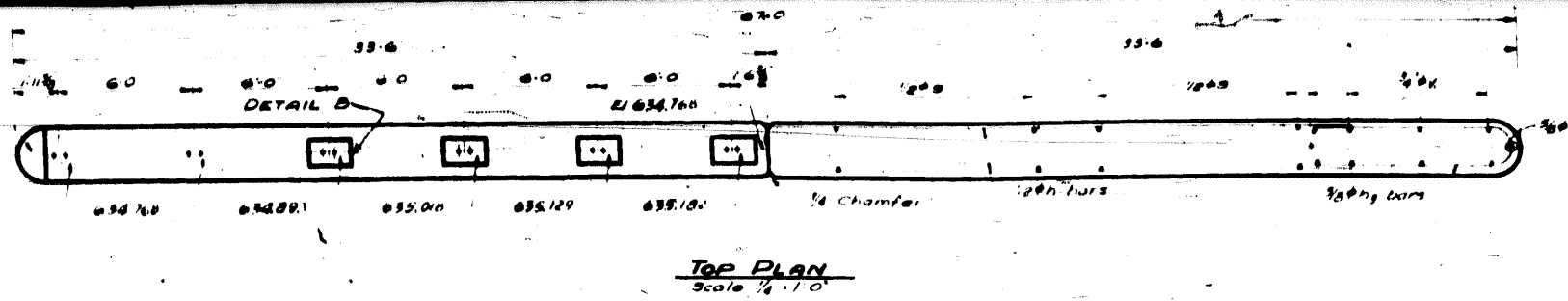
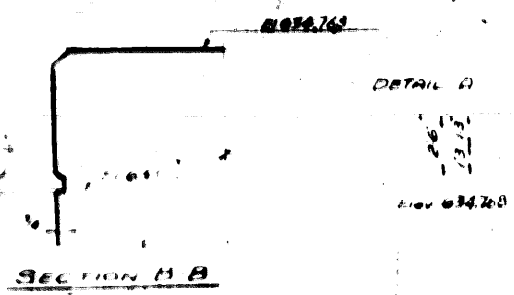
BILL OF MATERIAL FOR PIERS NO. 1 & 3

NO.	QTY.	UNIT	DESCRIPTION
1	11.9	Bar	Top Cap Beam
2	2.0	Bar	Top Cap Beam
3	2.0	Bar	Bottom Cap Beam
4	2.0	Bar	Top Bottom Bar
5	2.0	Bar	Top Column
6	2.0	Bar	Bottom Footing
7	2.0	Bar	Top Footing
8	2.0	Bar	Side Cap Beam
9	2.0	Bar	Side Bottom Bar
10	2.0	Bar	Est. Column
11	2.0	Bar	Top Int. Col.
12	2.0	Bar	Bottom Int. Col.
13	2.0	Bar	Top Bottom Bar
14	2.0	Bar	Support Bar
15	2.0	Bar	Support Bar
16	2.0	Bar	Top Footing
17	2.0	Bar	Bottom Footing

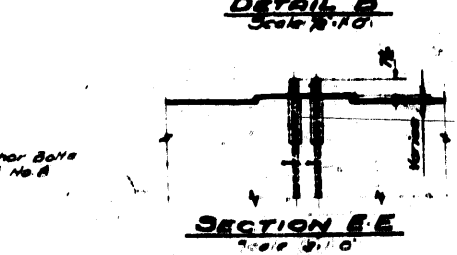
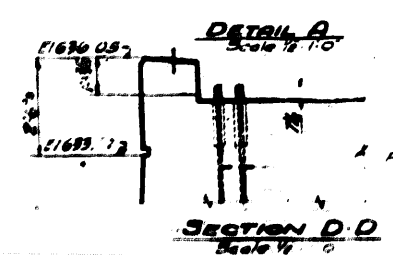
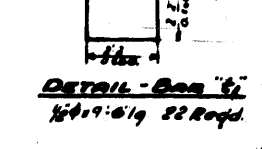
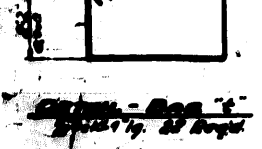
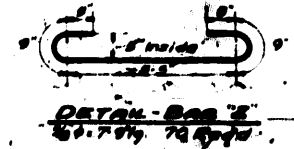
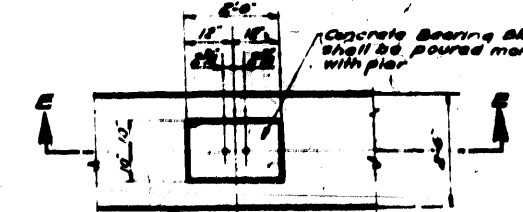


Notes:
 All bridge seats shall be constructed to the elevations shown if bush hammering or grinding is necessary it shall be done at no additional cost. The Contractor shall drive 2 Test Piles as directed by the Engineer in the field before ordering the remaining piles. The piles shall be driven to attain a minimum penetration of ten feet into a stratum of solid material regardless of bearing capacity developed.

DETAILS OF PIERS NO. 1 & 3 CHURCH ST. GRADE SEPARATION OVER EDENS SUPERHIGHWAY



PLAN OF FOOTING Scale 1/2" = 1'-0"



MARK	NO	QTY	UNIT	LOCATION
A	10	10	10	
B	10	10	10	
C	10	10	10	
D	10	10	10	
E	10	10	10	
F	10	10	10	
G	10	10	10	
H	10	10	10	
I	10	10	10	
J	10	10	10	
K	10	10	10	
L	10	10	10	
M	10	10	10	
N	10	10	10	
O	10	10	10	
P	10	10	10	
Q	10	10	10	
R	10	10	10	
S	10	10	10	
T	10	10	10	
U	10	10	10	
V	10	10	10	
W	10	10	10	
X	10	10	10	
Y	10	10	10	
Z	10	10	10	

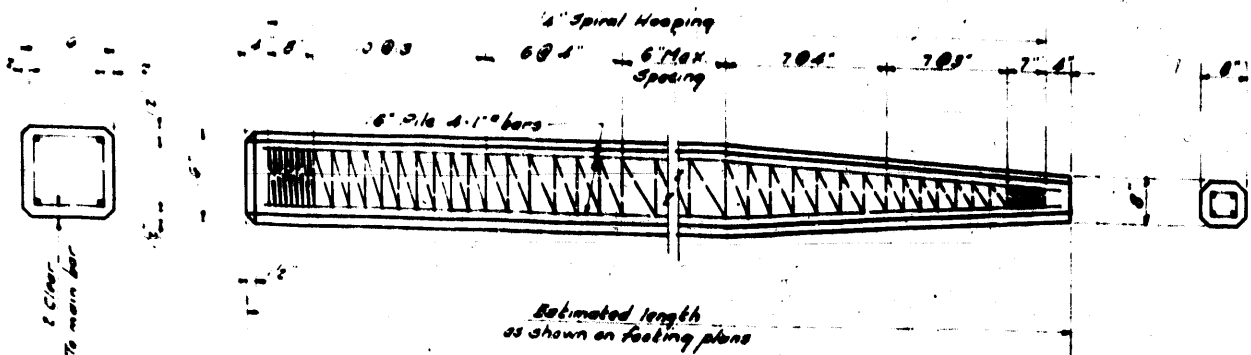
Notes:
1. All bridge work shall be constructed to the best construction obtain if such hammering or spalling is necessary it shall be done at no additional cost.
2. The Contractor shall provide and bear all expense of the Engineer in the field during the construction of the remaining pier.
3. The pier shall be driven to obtain a minimum penetration of ten feet into a stratum of solid material regardless of bearing capacity developed.

DETAILS OF PIER NO. 2
CHURCH ST. GRADE SEPARATION
OVER
EDENS SUPERHIGHWAY

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

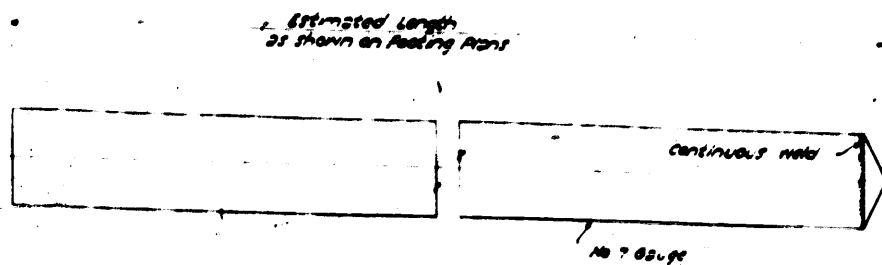
PILES

NOTE: Piles to be used shall be any one of the various piles shown below.

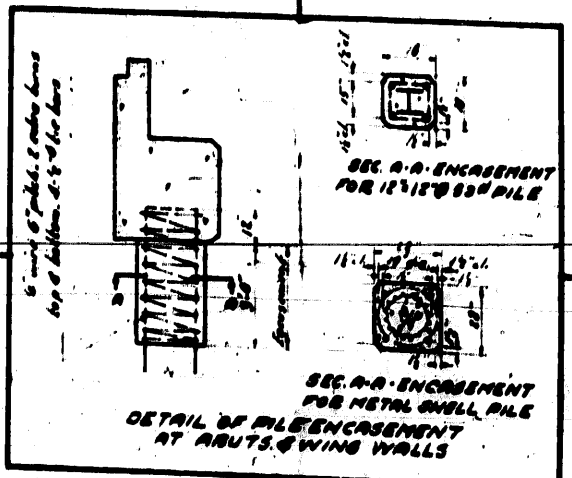


NOTE: For 18" piles over 45'-0" long, use 6-1" bars, 4 for the full length and 2 to the point of barrel. For 18" piles under 45'-0" long, use 4-1" bars the full length.

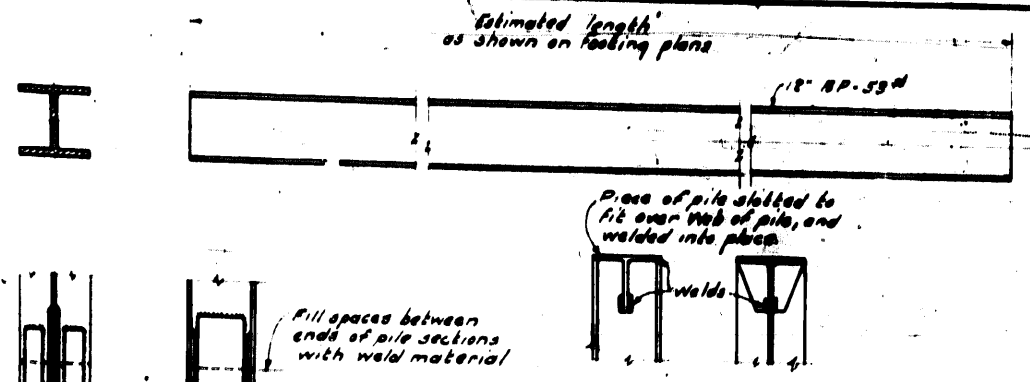
PRECAST CONCRETE PILE DETAIL
Scale 1/4" = 1'-0"



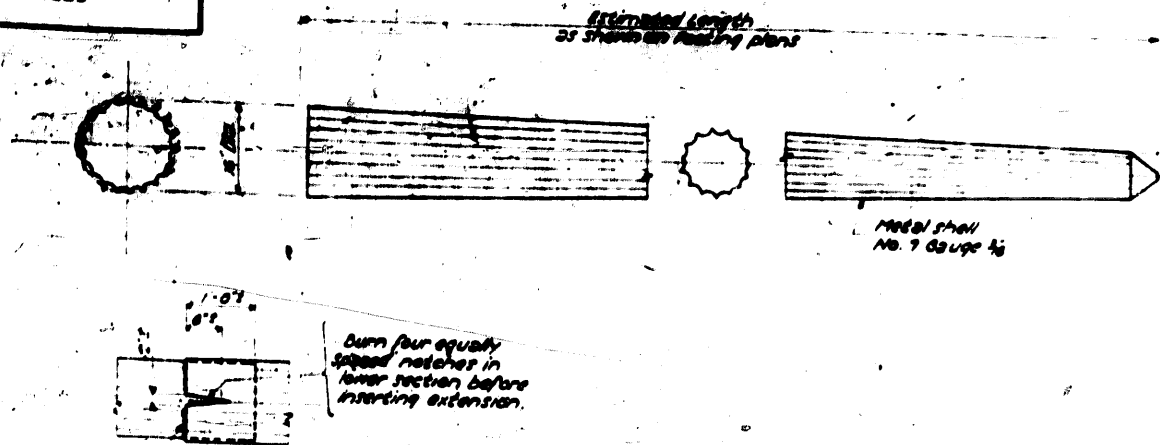
DETAIL OF SPIRALLY WELDED STEEL SHELL FOR CAST-IN-PLACE CONCRETE PILES
Scale 1/4" = 1'-0"



DETAIL OF PILE ENCASEMENT AT ABUTMENTS & WING WALLS



DETAIL OF CAP FOR PILES

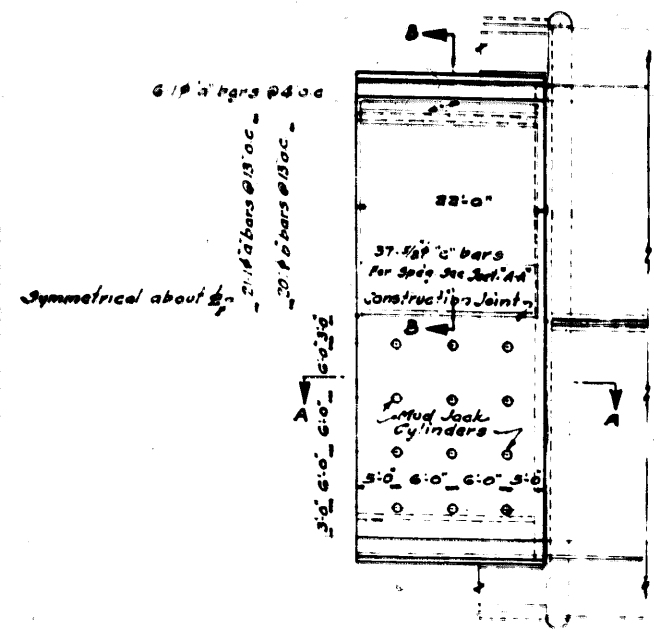


SPlice TO BE USED WHERE REQUIRED

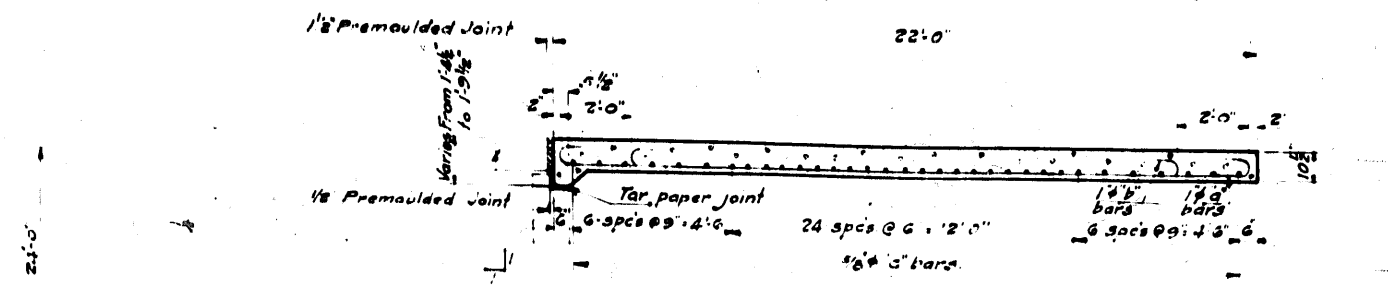
DETAIL OF METAL SHELL FOR CAST-IN-PLACE CONCRETE PILES
Scale 1/4" = 1'-0"

DETAIL OF 18" x 18" @ 53# PILE
Scale 1/4" = 1'-0"

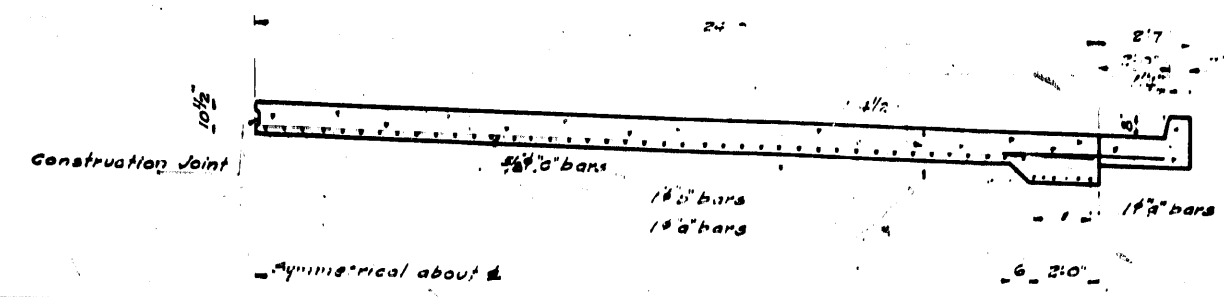
DESIGNED BY	DATE	APPROVED



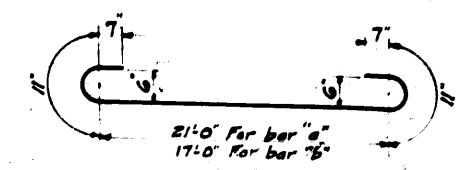
APPROACH SLAB PLAN
 Scale 1" = 10'-0"



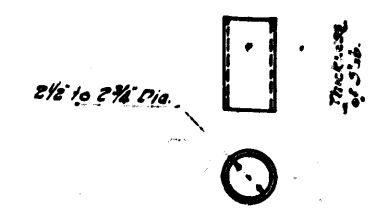
SECTION A-A
 Scale 1/4" = 1'-0"



SECTION B-B
 Scale 1/4" = 1'-0"

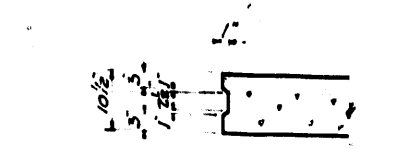


DETAIL BARS a&b
 a. 17' x 21'-0" @ 10# Req'd
 b. 17' x 17'-0" @ 8# Req'd



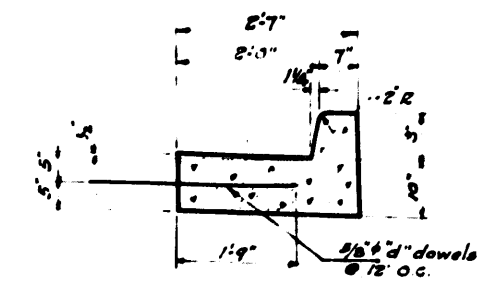
DETAIL OF MUD JACK CYLINDER

Cylinders shall be filled with clay, and clay shall be tamped. Cylinders shall be Standard Weight Black Steel Pipe.



DETAIL OF CONSTRUCTION JOINT
 Scale 3/4" = 1'-0"

Note:
 The slabs shall be paid for at the contract unit price for PC Concrete Pavement (6" to 10" thick).
 The modified Type 6 Curb & Gutter shall be paid for at the contract unit price for Combination Curb and Gutter Modified Type 6.
 All Reinforcement Bars, including the Curb & Gutter tie bars, shall be paid for at the contract unit price for Reinforcement Bars.
 The Mud Jack Cylinders shall be furnished and installed by the Paving Contractor and included in the contract unit price for PC Concrete Pavement (6" to 10" thick).
 The cost of Pre-moulded Joint Filler shall be included in the unit price for PC Concrete Pavement (6" to 10" thick).
 The Pre-moulded Joint Filler shall conform to the specifications specified in Part 115 of the Standard Specifications for Road and Bridge Construction.



MODIFIED TYPE 6 CURB & GUTTER
 Scale 1/4" = 1'-0"

BILL OF MATERIAL FOR 2 APPROACH SLABS

MARK	NO.	SIZE	TYPE	LENGTH
a	108	1 1/2"	Reinf.	22'-0"
b	80	1 1/2"	Reinf.	17'-0"
c	148	2 1/2"	slr.	22'-0"
d	88	2 1/2"	slr.	17'-0"

Reinforcement bars. Lbs. 15,170
 PC Pavement (6" to 10" thick) 59 Yds. 234.7
 Modified Type 6 C & G. Lin. Ft. 88

**DETAILS OF APPROACH SLAB
 CHURCH ST. GRADE SEPARATION
 OVER
 EDENS SUPERHIGHWAY**