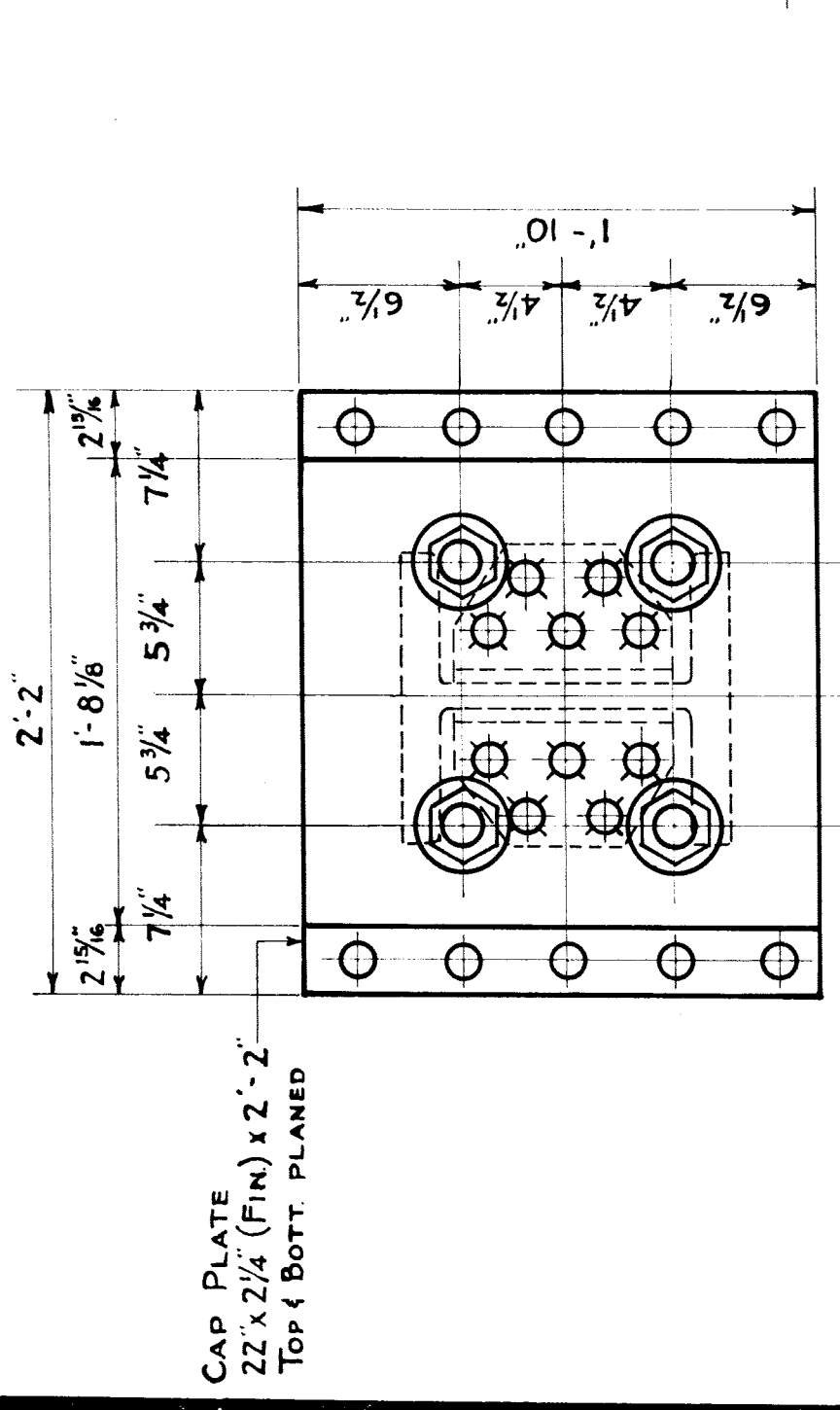


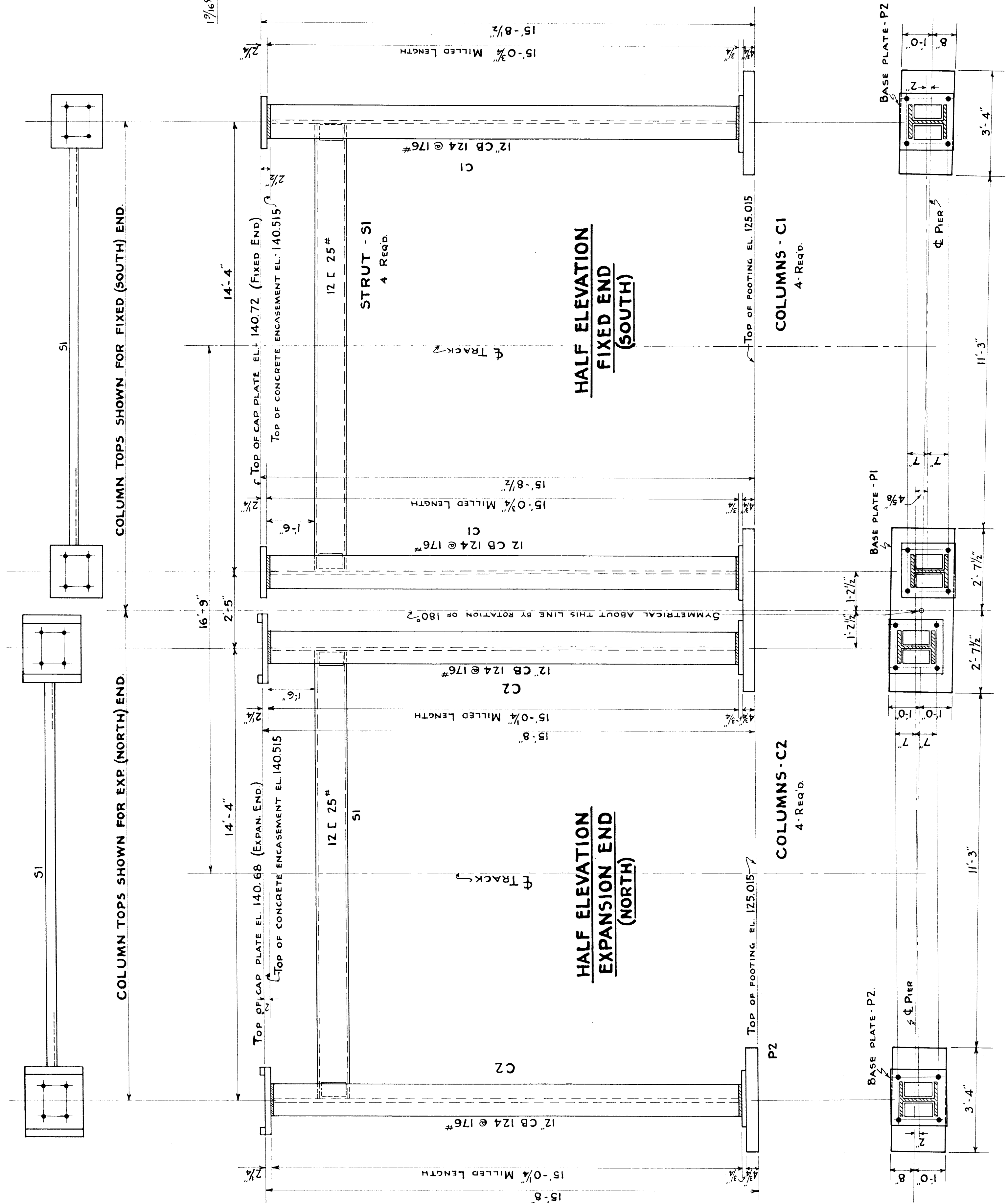
**DETAIL OF COLUMN TOP EXP. END. COLUMNS - C2.**  
SCALE: 1/2" = 1'-0"

NOTE: DETAILS NOT SHOWN ARE SAME AS FOR COL. C1.

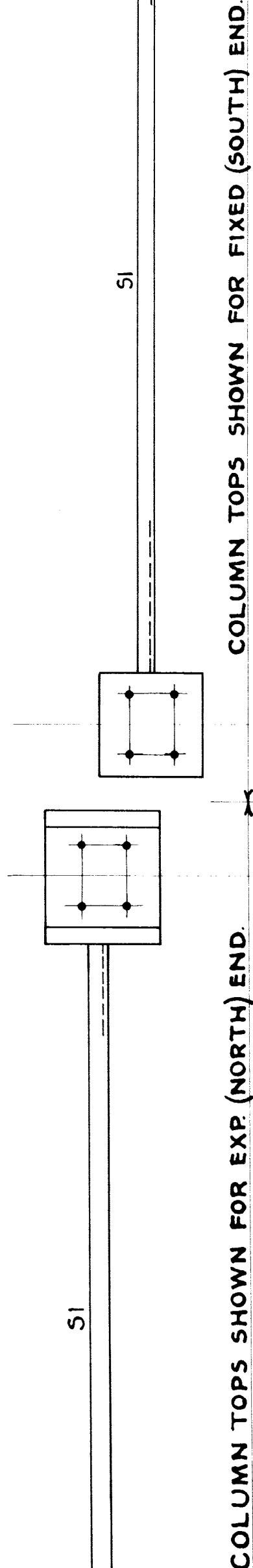


**DETAIL OF COLUMN TOP EXP. END. COLUMNS - C1.**  
SCALE: 1/2" = 1'-0"

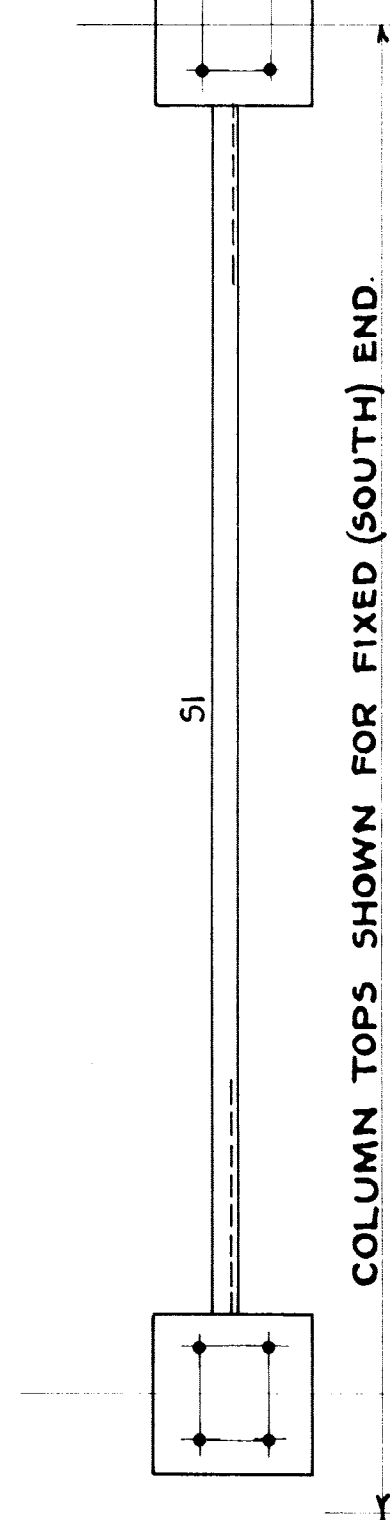
NOTE: DETAILS NOT SHOWN ARE SAME AS FOR COL. C1.



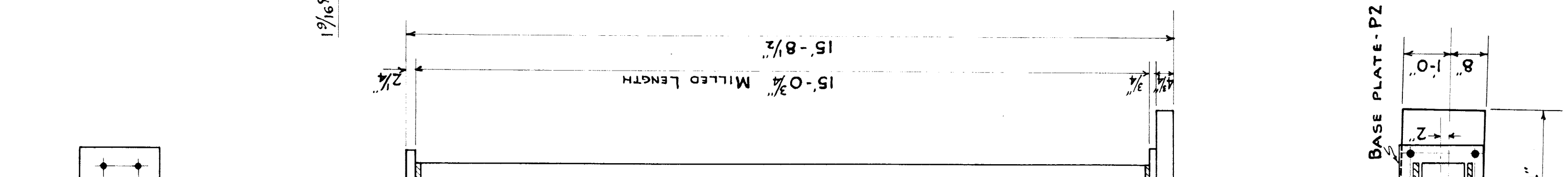
**HALF ELEVATION EXPANSION END (NORTH)**



COLUMN TOPS SHOWN FOR EXP. (NORTH) END.

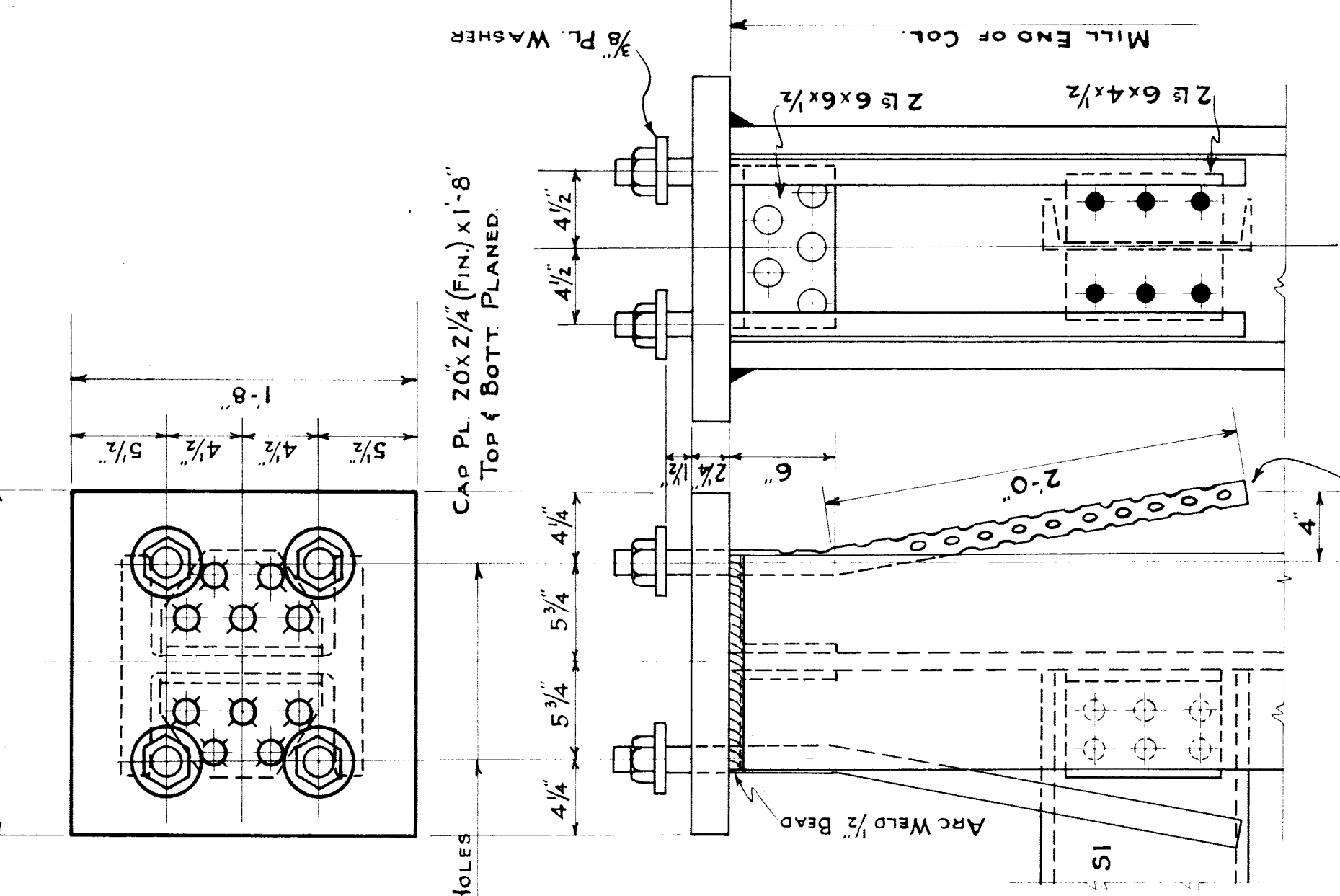


COLUMN TOPS SHOWN FOR FIXED (SOUTH) END.



**DETAIL OF COLUMN TOP FIXED END. COLUMNS - C1.**  
SCALE 1/2" = 1'-0"

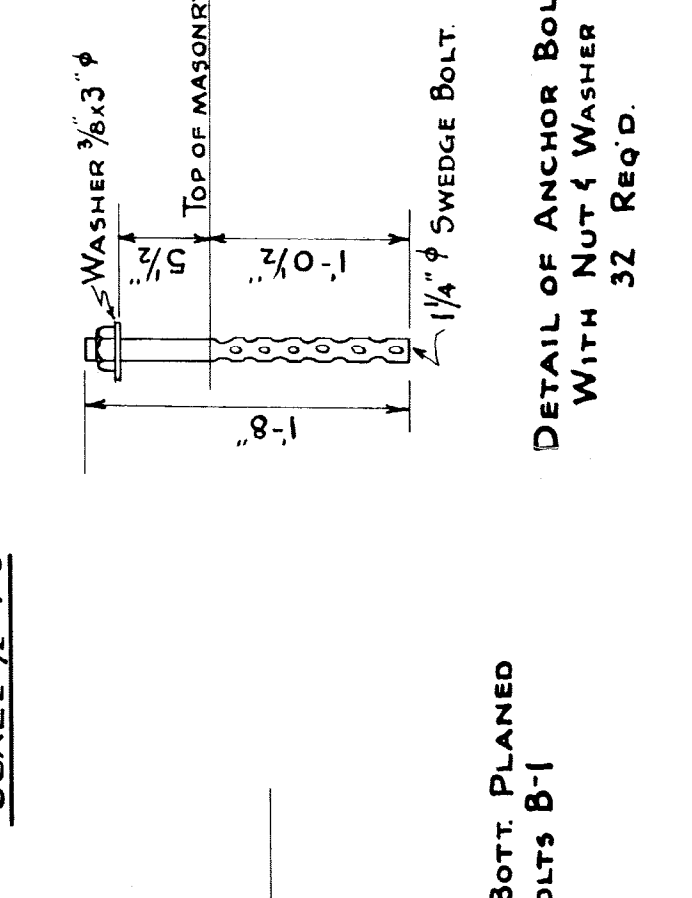
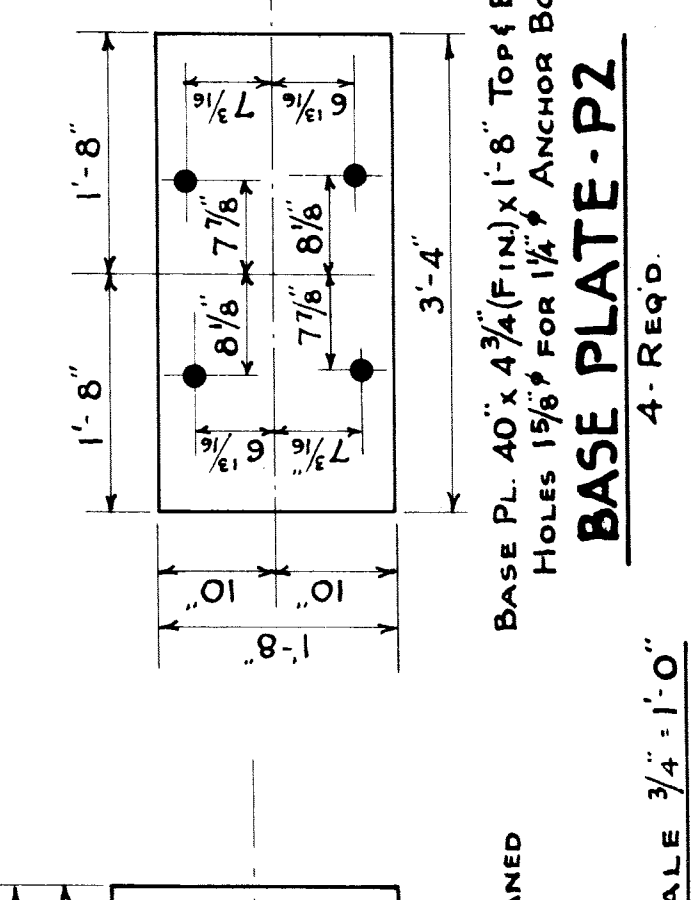
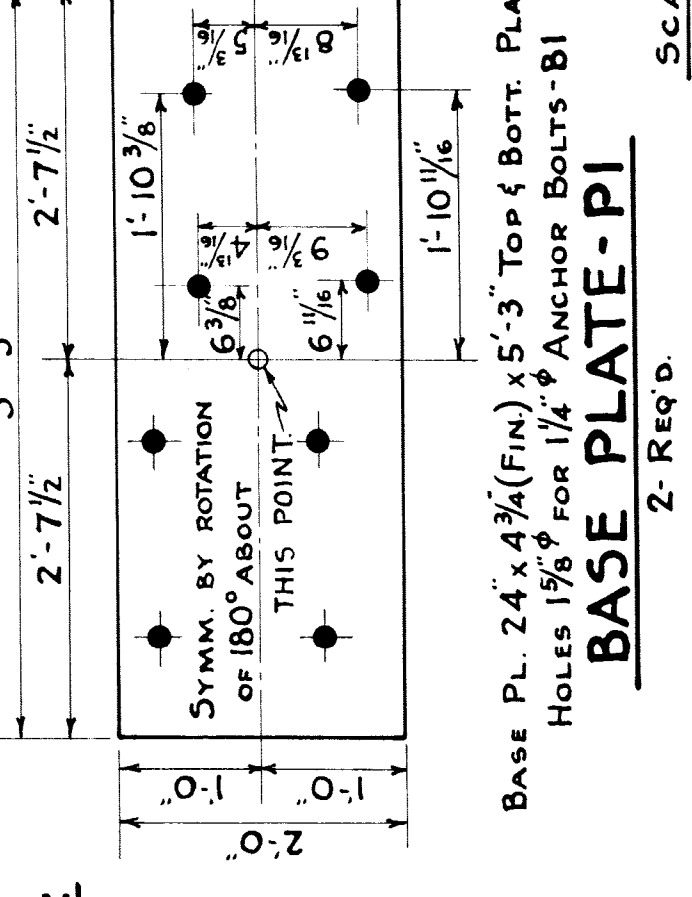
32 REQUIRED



**DETAIL OF COLUMN TOP FIXED END. COLUMNS - B2.**  
SCALE 1/2" = 1'-0"

32 REQUIRED

**DETAIL OF COLUMN BASE**  
SCALE 1/2" = 1'-0"



NOTES:  
RIVETS 3/8" DIA.  
OPEN HOLES 1/2" DIA. UNLESS NOTED.  
EQUIVALENT BETHLEHEM SECTIONS  
WILL BE ACCEPTABLE.

BASE PL. 24" x 4 3/4" (FIN) x 5'-3" TOP & BOTT. PLANNED  
HOLES 1 1/2" FOR 1 1/4" ANCHOR BOLTS - B1

BASE PL. 40" x 4 3/4" (FIN) x 1'-8" TOP & BOTT. PLANNED  
HOLES 1 1/2" FOR 1 1/4" ANCHOR BOLTS B-1

DETAIL OF ANCHOR BOLT B1  
WITH NUT & WASHER  
3/2" REQ'D.

NO.	REVISIONS	DATE	BY

MICHIGAN STATE HIGHWAY DEPARTMENT  
MURRAY D. VAN WAGONER - COMMISSIONER  
SEC. T. R. TWP. WAYNE CO.  
BRIDGE FILE NO. X4 OF 82-22-8 ROAD GRAND RIVER AVE. U.S. 16  
CROSSING GRAND TRUNK WESTERN R.R. CITY OF DETROIT

**STRUCTURAL STEEL**  
**DETAILS OF GT.W.R. BENTS & BASE PLATES**

APPROVED: *[Signature]* 11/20/23  
ENGINEER OF BRIDGE DESIGN

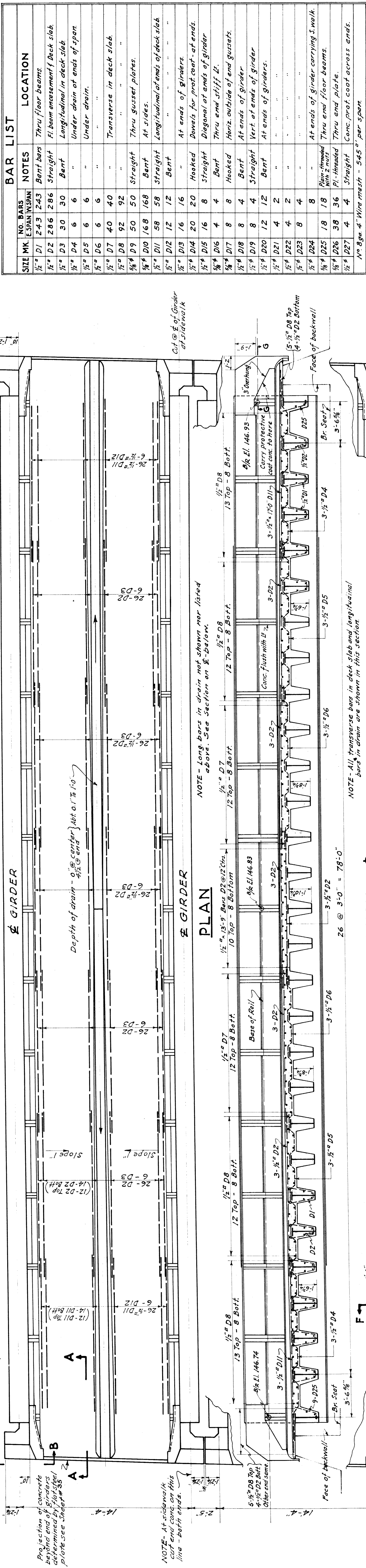
TRACED BY: E.R.S. 10/2/35  
CHECKED BY: T.H.J. 10/6/35  
SHEET 37 OF 44

X4 OF 82-22-8

File X016-80



NOTE- Concrete work identical for the two spans except for end detail at sidewalk.



SIZE	NO. BARS	NOTES	LOCATION
1/2" D1	243	Bent bars	Thru floor beams
1/2" D2	286	Straight	Fl. beam reinforcement Deck slab
1/2" D3	30	Bent	Longitudinal in deck slab
1/2" D4	6	"	Under drain at ends of span
1/2" D5	6	"	Under drain
1/2" D6	6	"	"
1/2" D7	40	"	Transverse in deck slab
1/2" D8	92	"	"
1/2" D9	50	Straight	Thru gusset plates
1/2" D10	168	Bent	At sides
1/2" D11	58	Straight	Longitudinal at ends of deck slab
1/2" D12	12	Bent	"
1/2" D13	16	"	At ends of girders
1/2" D14	20	Hooked	Dowels for prot. coat. at ends
1/2" D15	16	Straight	Diagonal at ends of girder
1/2" D16	4	Bent	Thru end stiff E.
1/2" D17	8	Hooked	Horiz. outside of end gussets
1/2" D18	8	Bent	At ends of girder
1/2" D19	4	Straight	Vert. at ends of girder
1/2" D20	12	Bent	At ends of girders
1/2" D21	4	"	"
1/2" D22	4	"	"
1/2" D23	8	"	"
1/2" D24	8	"	"
1/2" D25	18	Plain-headed with 2 ends	At ends of girder carrying S. walk
1/2" D26	38	Plain-headed	Thru end plate
1/2" D27	4	Straight	Thru end plate
1/2" D28	4	"	Conc. prot. coat across ends
1/2" D29	4	"	"
1/2" D30	4	"	"
1/2" D31	4	"	"
1/2" D32	4	"	"
1/2" D33	4	"	"
1/2" D34	4	"	"
1/2" D35	4	"	"
1/2" D36	4	"	"
1/2" D37	4	"	"
1/2" D38	4	"	"
1/2" D39	4	"	"
1/2" D40	4	"	"
1/2" D41	4	"	"
1/2" D42	4	"	"
1/2" D43	4	"	"
1/2" D44	4	"	"
1/2" D45	4	"	"
1/2" D46	4	"	"
1/2" D47	4	"	"
1/2" D48	4	"	"
1/2" D49	4	"	"
1/2" D50	4	"	"
1/2" D51	4	"	"
1/2" D52	4	"	"
1/2" D53	4	"	"
1/2" D54	4	"	"
1/2" D55	4	"	"
1/2" D56	4	"	"
1/2" D57	4	"	"
1/2" D58	4	"	"
1/2" D59	4	"	"
1/2" D60	4	"	"
1/2" D61	4	"	"
1/2" D62	4	"	"
1/2" D63	4	"	"
1/2" D64	4	"	"
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1/2" D91	4	"	"
1/2" D92	4	"	"
1/2" D93	4	"	"
1/2" D94	4	"	"
1/2" D95	4	"	"
1/2" D96	4	"	"
1/2" D97	4	"	"
1/2" D98	4	"	"
1/2" D99	4	"	"
1/2" D100	4	"	"

LOCATION	EAST SPAN	WEST SPAN	TOTAL CUYD
MAIN SLAB	A	83.94	167.12
SIDE PROT. COAT	B	5.09	10.18
END PROT. COAT	C	0.20	0.40
TOTALS		89.23	177.70

NOTE- COARSE AGGREGATE FOR CONCRETE PROTECTION COATS SHALL BE AS SPECIFIED IN THE STANDARD SPECIFICATIONS FOR COARSE AGGREGATE 17A

For bar details see sheet #40

MICHIGAN STATE HIGHWAY DEPARTMENT  
MURRAY D. VAN WAGONER - COMMISSIONER  
SEC. T. R. WAYNE CO.  
BRIDGE FILE NO. X4 82-22-8 ROAD GRAND RIVER AVE. U.S. 16  
CROSSING GRAND TRUNK WESTERN R.R. CITY OF DETROIT

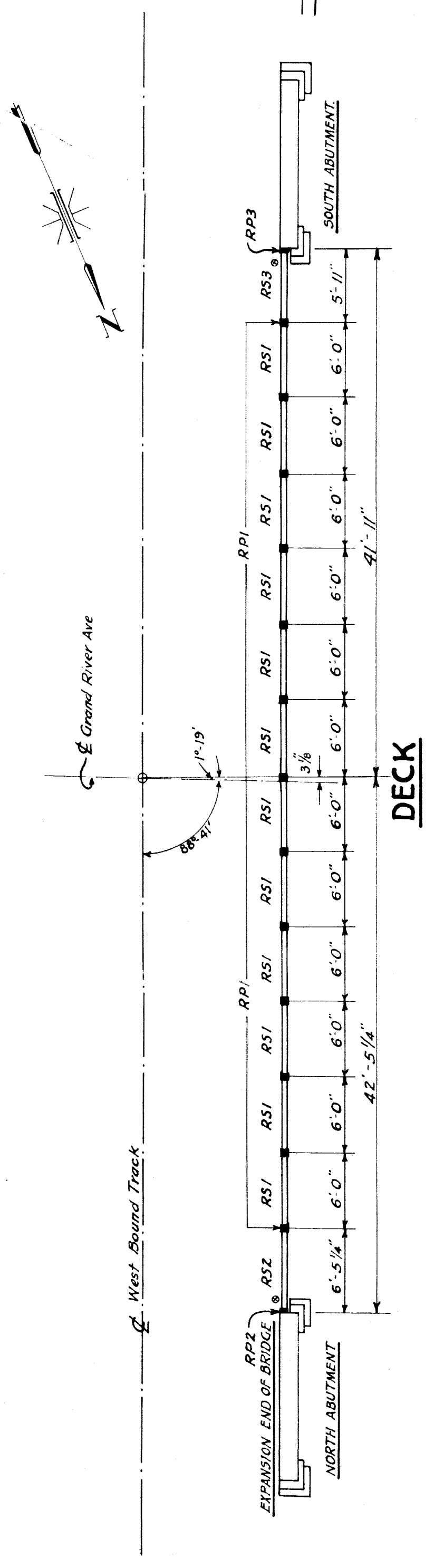
G.T.W.R.R. DECK CONC. DETAILS  
APPROVED: [Signature]  
CHIEF ENGINEER  
APPROVED: [Signature]  
ENGINEER OF BRIDGE DECK  
SHEET 33 OF 44  
X4 OF 82-22-8

NO.	DATE	DESCRIPTION

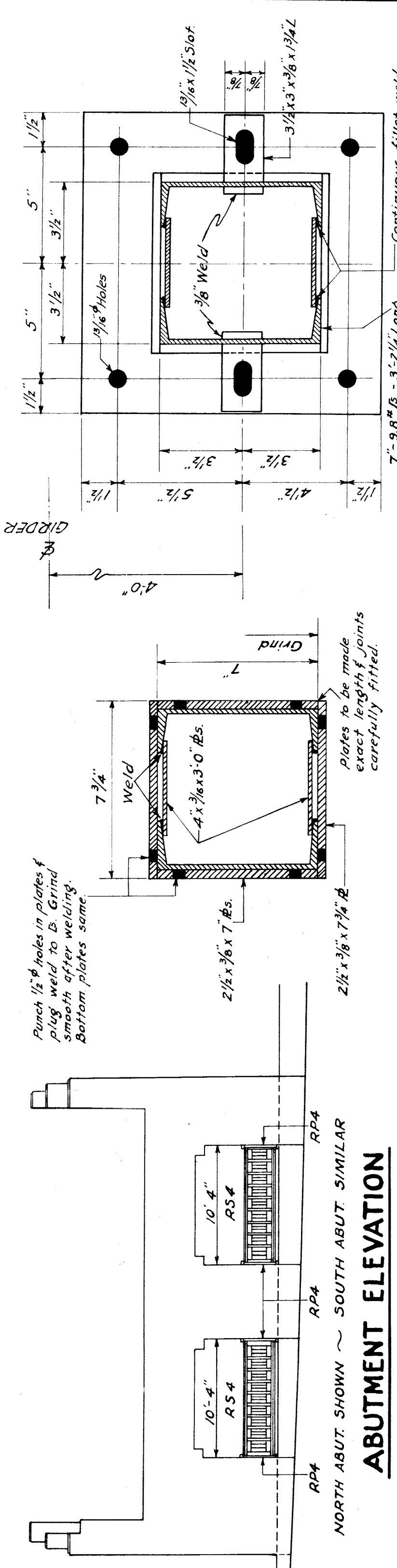
GENERAL NOTES  
Specifications for design A.R.E.A. for Masonry Structures-1929 Manual except for materials and loading.  
Loading: E-70 with full impact.

File XU 16-91



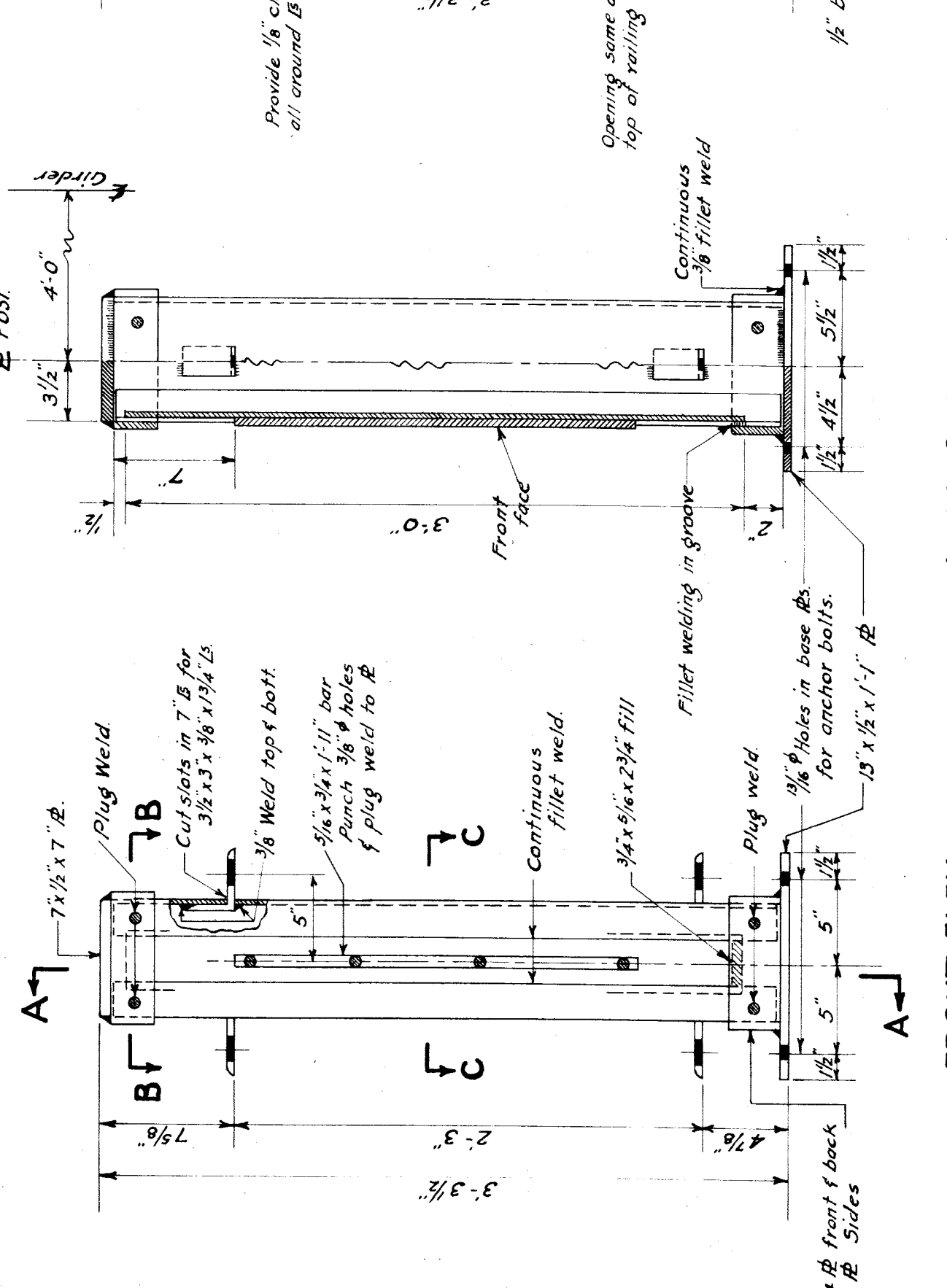


**RAILING ERECTION DIAGRAM**

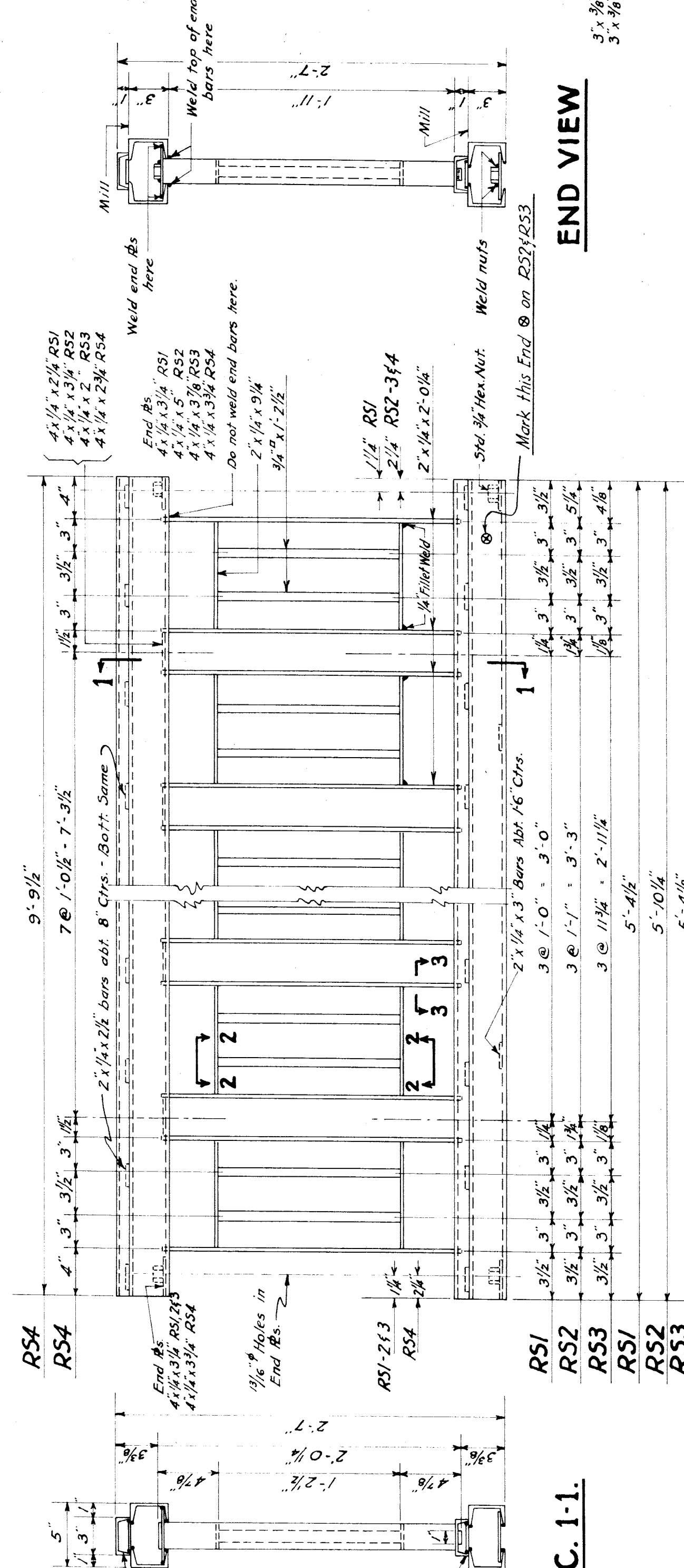
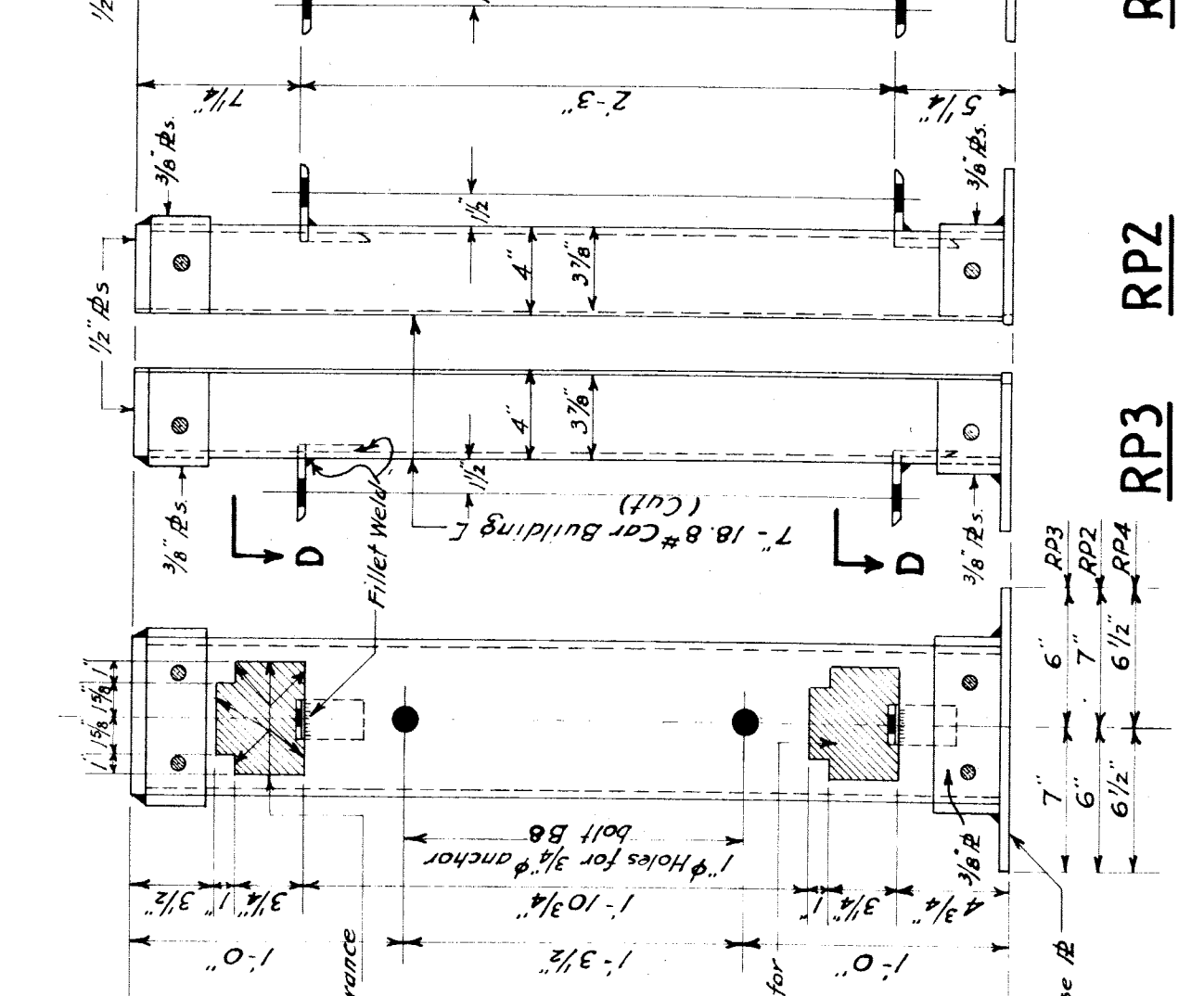


**ABUTMENT ELEVATION**

**SEC. BB**

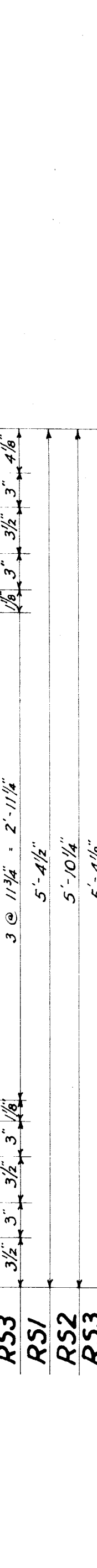


**SEC. CC**

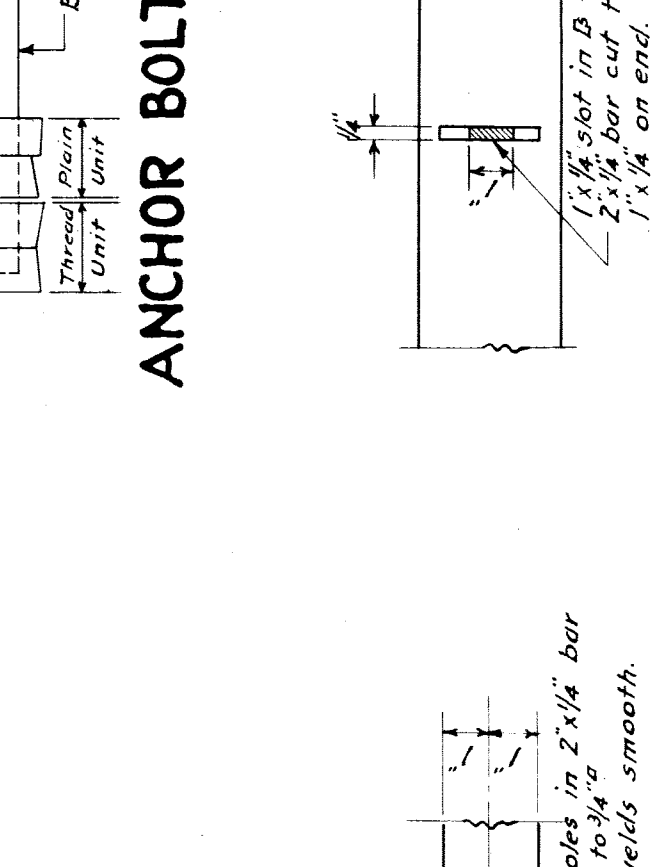


**SEC. 1-1**

**END VIEW**



**ANCHOR BOLT DETAIL**



**SEC. 2-2**

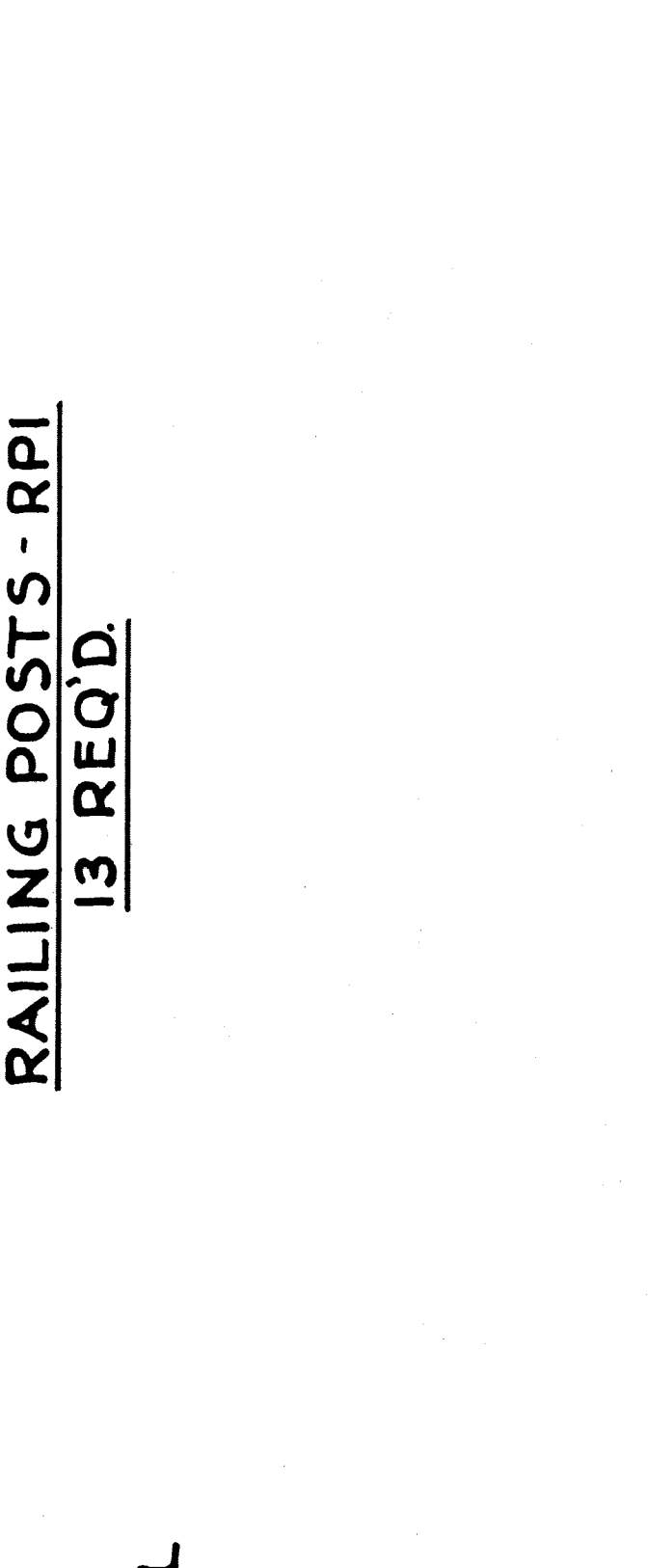
**SEC. 3-3**

**12 RAIL SECTIONS**

MARK	NO.	SIZE	LENGTH	NUTS	WASHERS	LOCATION
B5	26	3/4" x 4"	2 1/4"	26	52 Cut	Post to channel.
B6	26	3/4" x 4"	2"	26	52 Cut	Post to Z Bar.
B7	72	3/4" x 4"	2"	72	72 Lock Washers	Handrail sections to post
B8	20	3/4" x 4"	6 1/4"	None	20 Cut	End post Conc. anchorage.
U1	20	3/4" x 4"	6 1/4"	None	20 Cut	Threaded Unit.
U2	20	3/4" x 4"	6 1/4"	None	20 Cut	Plain Unit.

Note: All bolts standard hexagon heads.

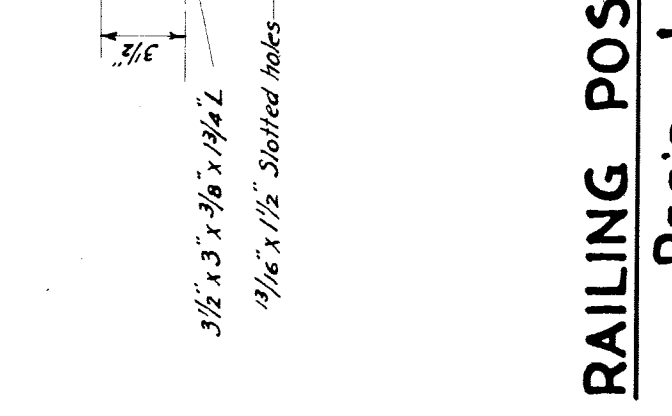
**HALF SEC. AA HALF S. ELEV.**



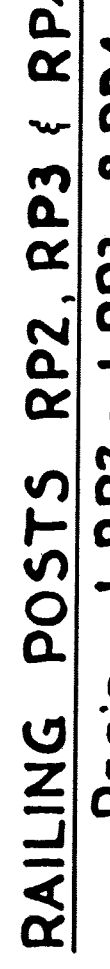
**RAILING POSTS - RPI**

**13 REQ'D.**

**SIDE ELEVATION**



**SECTION D-D**



**RAILING POSTS RP2, RP3 & RP4**

**REQ'D. - 1 RP2 - 1 RP3 - 8 RP4**

**RAILING BOLTS**

MARK	NO.	SIZE	LENGTH	NUTS	WASHERS	LOCATION
B5	26	3/4" x 4"	2 1/4"	26	52 Cut	Post to channel.
B6	26	3/4" x 4"	2"	26	52 Cut	Post to Z Bar.
B7	72	3/4" x 4"	2"	72	72 Lock Washers	Handrail sections to post
B8	20	3/4" x 4"	6 1/4"	None	20 Cut	End post Conc. anchorage.
U1	20	3/4" x 4"	6 1/4"	None	20 Cut	Threaded Unit.
U2	20	3/4" x 4"	6 1/4"	None	20 Cut	Plain Unit.

Note: All bolts standard hexagon heads.

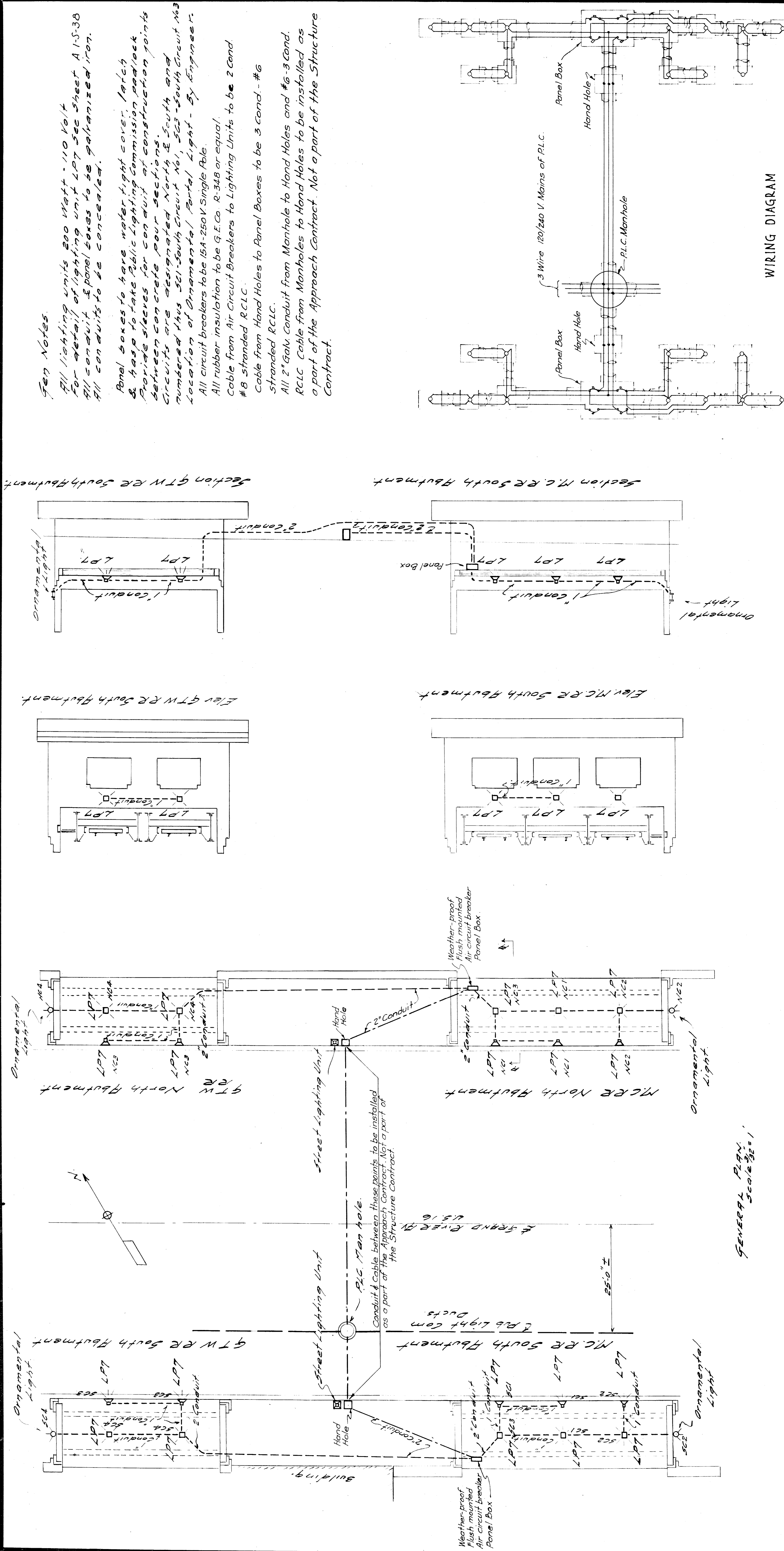
**GENERAL NOTES**  
 All Rail Sections and Posts to be "Electric Arc Welded" complete in Shop in a template so constructed as to prevent distortion.  
 Shop Paint: Shop paint shall be in accordance with M.S.H.D. Specifications as modified by Supplemental Specifications.

**MICHIGAN STATE HIGHWAY DEPARTMENT**  
**MURRAY D. VAN WAGONER - COMMISSIONER**  
 SEC. T. R. TWP. WAYNE CO.  
 BRIDGE FILE NO. X4 OF 82-22-8 ROAD GRAND RIVER AVE. U.S. 16  
 CROSSING GRAND TRUNK WESTERN R.R. CITY OF DETROIT  
**G.T.W.R. STEEL HANDRAILING DETAILS**

APPROVED: *[Signature]* DATE: 11/20/32  
 CHECKED BY: *[Signature]* DATE: 11/20/32  
 SHEET 39 OF 44  
**X4 OF 82-22-8**

File XU 16-42





GENERAL PLAN Scale 3/8" = 1'

Elevation.

**Gen Notes.**

All lighting units 200 Watt - 110 Volt  
 For detail of lighting unit LPT see sheet A 1-S-38  
 All conduit & panel boxes to be galvanized iron.  
 All conduits to be concealed.

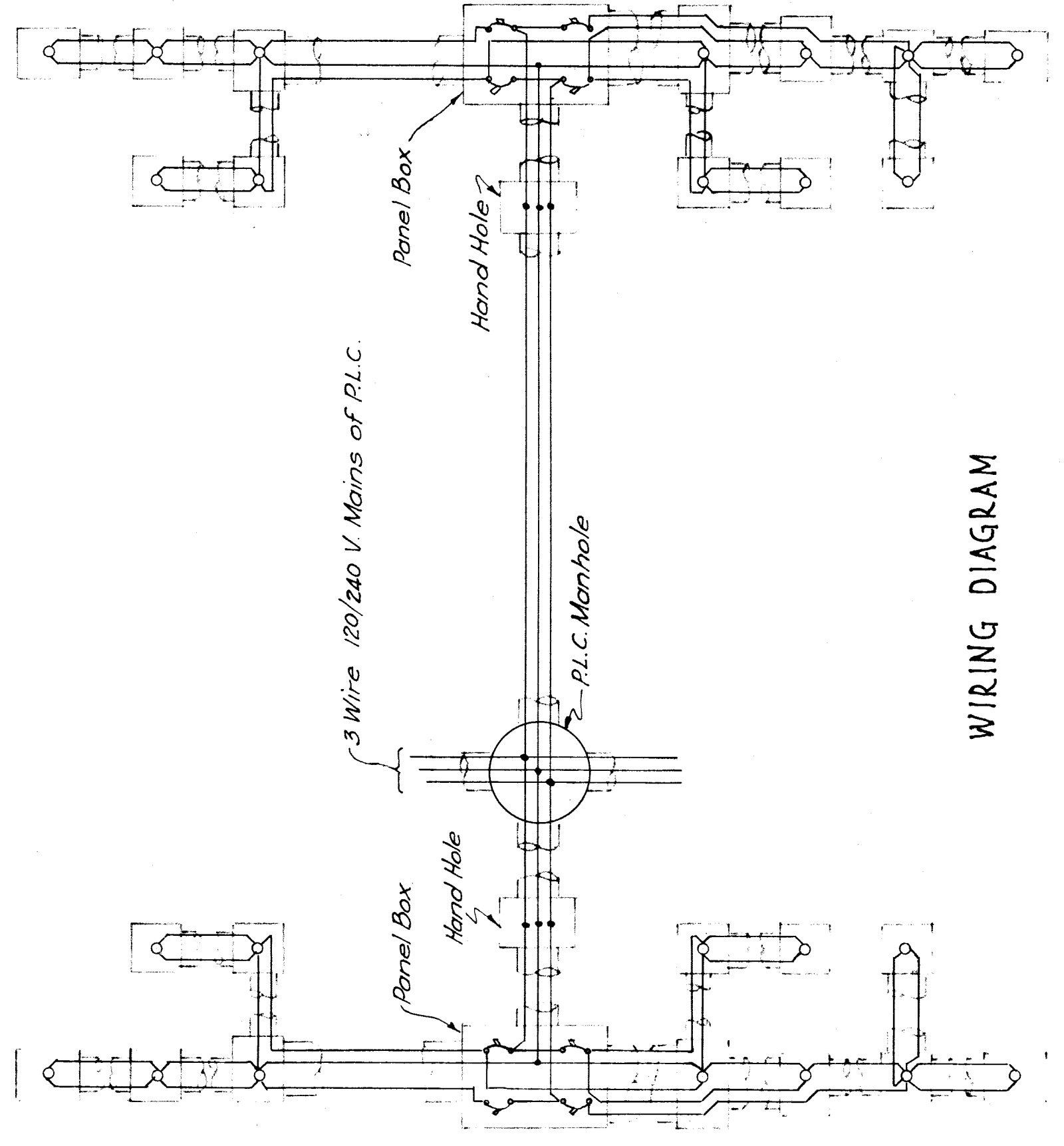
Panel boxes to have water tight cover, latch & hasp to take Public Lighting Commission padlock  
 Provide sleeves for conduit at construction points  
 between concrete pour sections.  
 Circuits are designated North & South and numbered thus 501-South Circuit No. 1, 503-South Circuit No. 3  
 location of Ornamental Panel Light - By Engineer.

All circuit breakers to be 15A-250V Single Pole.  
 All rubber insulation to be G.E. Co. R-348 or equal.  
 Cable from Air Circuit Breakers to Lighting Units to be 2 Cond.  
 #8 stranded RCLC.

Cable from Hand Holes to Panel Boxes to be 3 Cond. - #6  
 stranded RCLC.

All 2" Galv Conduit from Manhole to Hand Holes and #6-3 Cond.  
 RCLC Cable from Manholes to Hand Holes to be installed as  
 a part of the Approach Contract. Not a part of the Structure  
 Contract.

**WIRING DIAGRAM**



**MICHIGAN STATE HIGHWAY DEPARTMENT**  
**MURRAY D. VAN WAGONER - COMMISSIONER**  
 T. R. WAYNE, CO.  
 BRIDGE FILE NO. X4 OF 82-22-8 ROAD GRAND RIVER AVE., U.S. 16  
 CROSSING M.C. R.R. - N.Y.C. R.R. & G.T.W. R.R. - CITY OF DETROIT.

**LIGHTING PLAN**

APPROVED: *[Signature]* CHIEF ENGINEER  
 APPROVED: *[Signature]* ENGINEER OF BRIDGE DESIGN

DATE: 11/20/33

REVISIONS

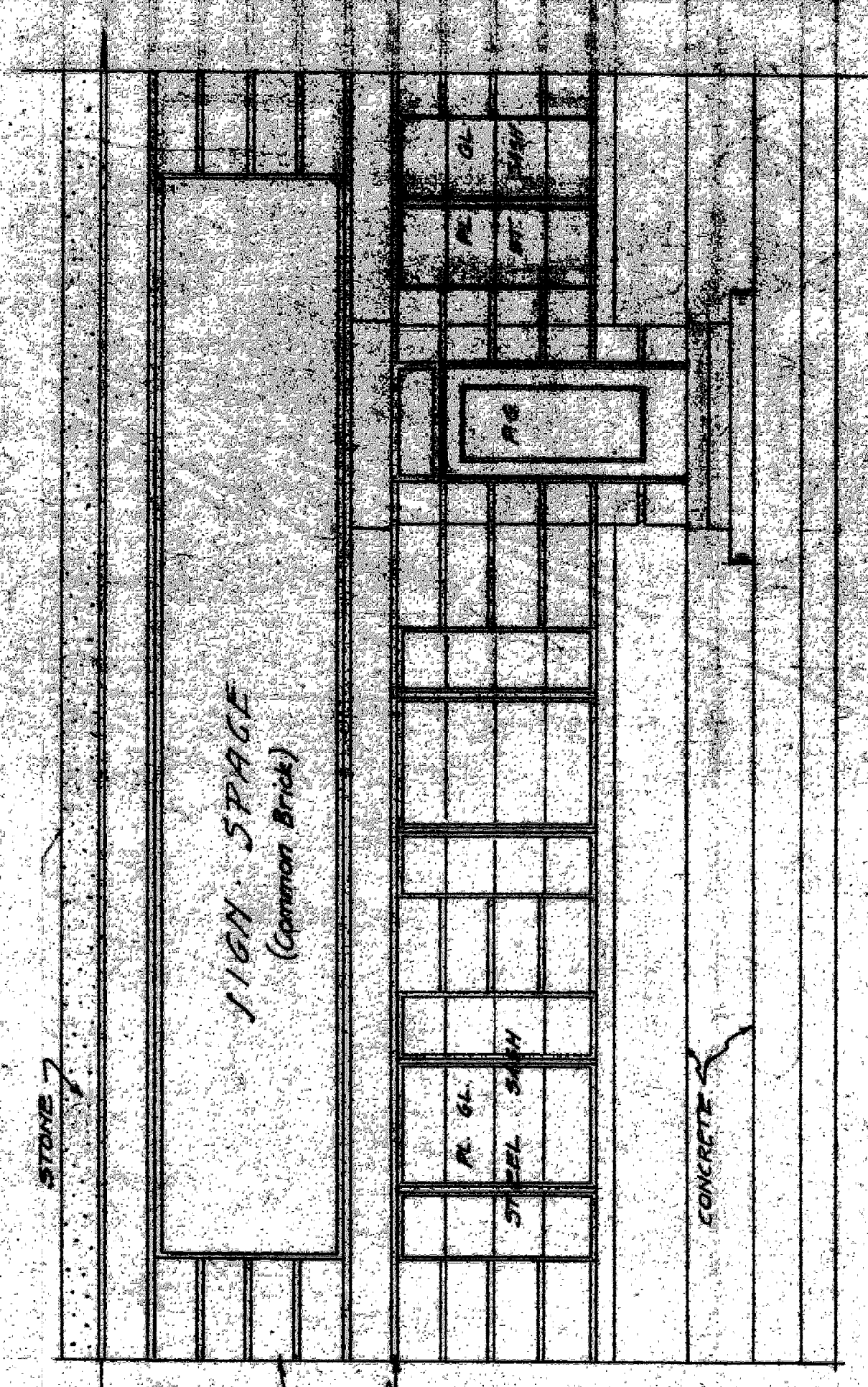
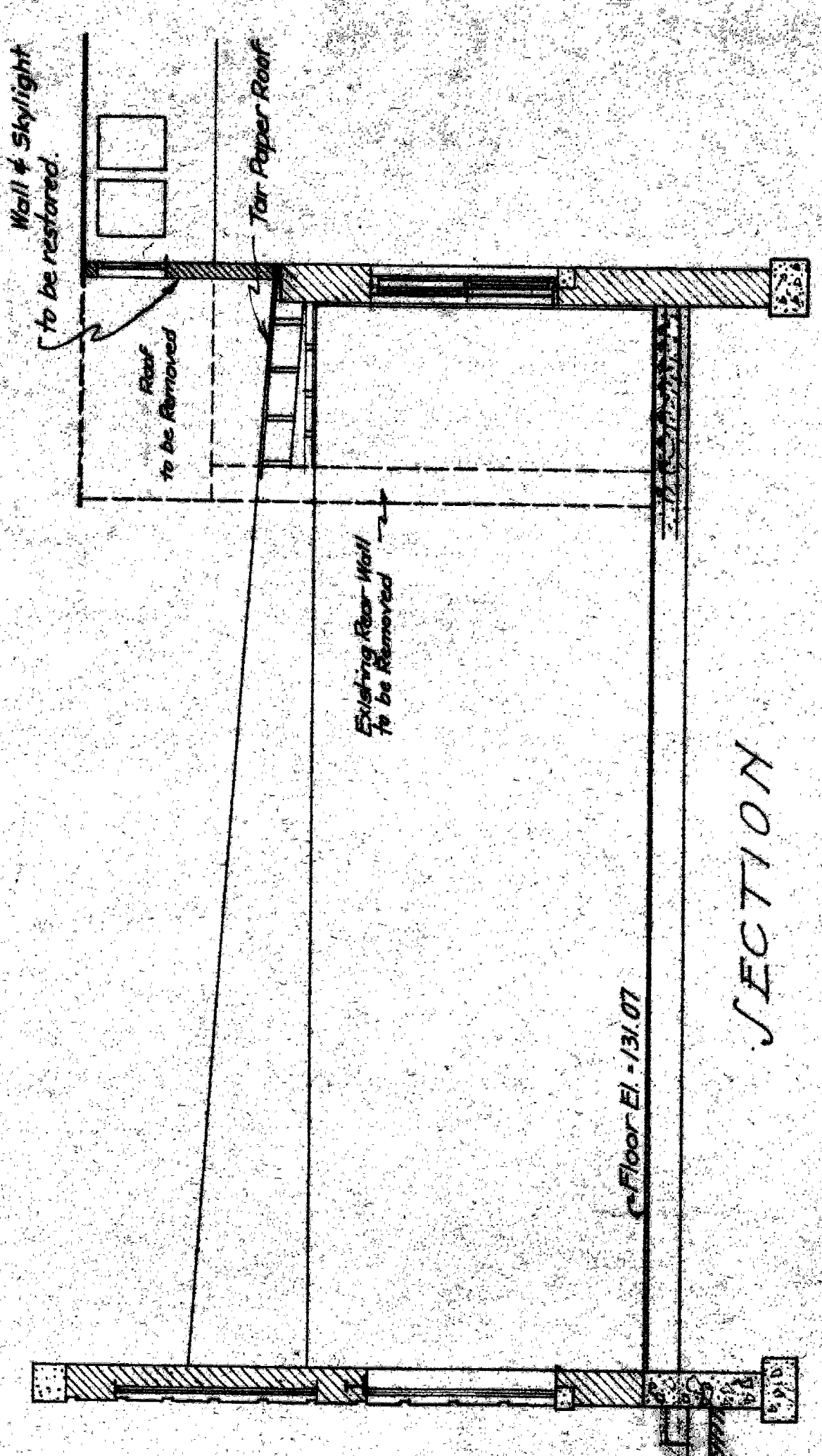
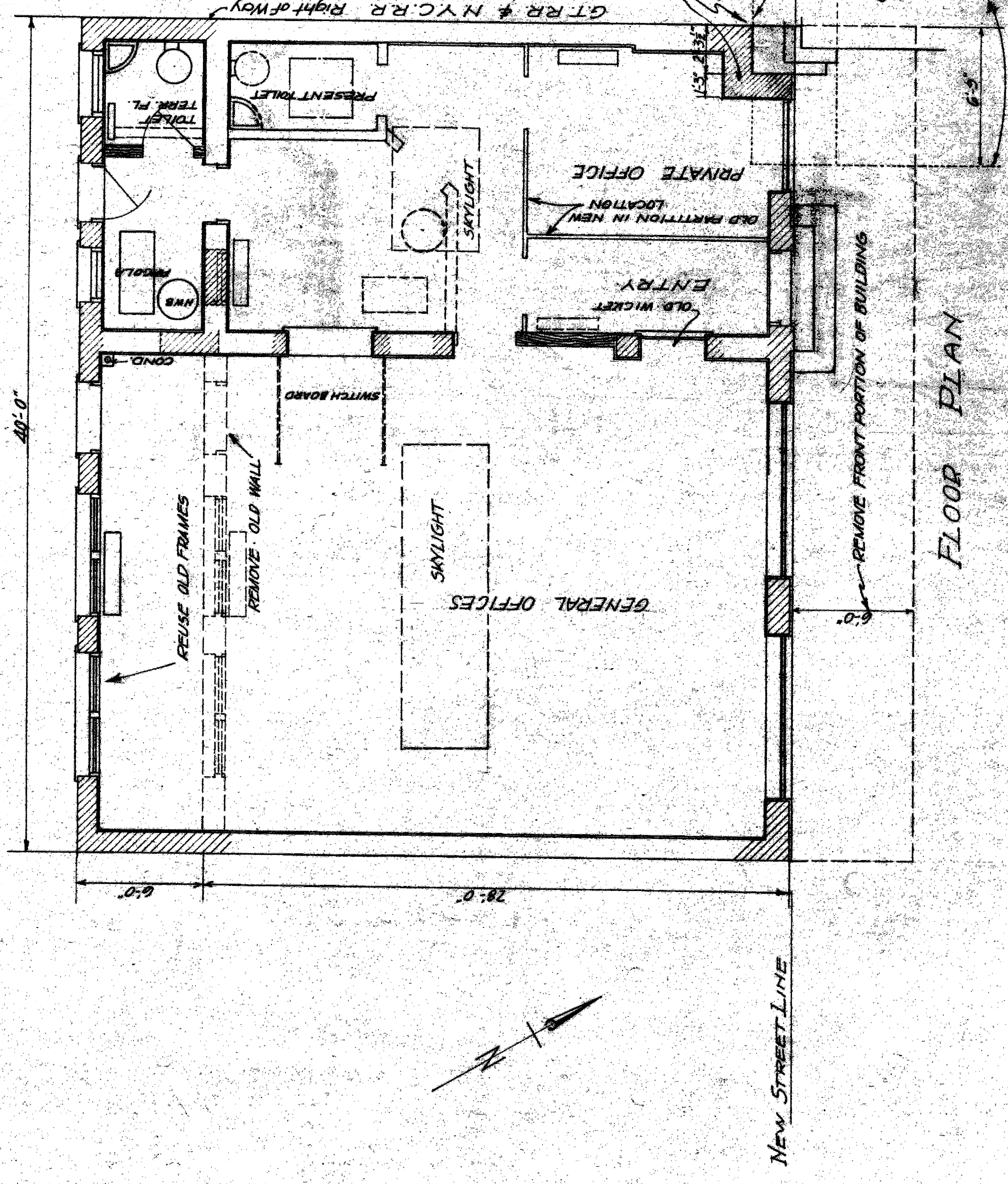
NO.	DESCRIPTION	DATE	BY

SHEET 41 OF 44

**X4 OF 82-22-8**

File XU 16-47





NO.	REVISIONS	DATE	BY

**MICHIGAN STATE HIGHWAY DEPARTMENT**  
**MURRAY D. VAN WAGONER - COMMISSIONER**  
 SEC. T. R. TWP. WAYNE, CO.  
 BRIDGE FILE NO. 24 OF 22-22-8 ROAD GRAND RIVERWAY - U.S. 16  
 CROSSING M.C.R.R. - N.Y.C. R.R. BRIDGE OF DETROIT

**OFFICE BUILDING ALTERATIONS**  
**J.S.T. HURLEY CO.**  
 APPROVED: *[Signature]* 11-20-25  
 APPROVED: *[Signature]* 11/20/25

SCALE: 1/4" = 1'-0"  
 FRONT ELEVATION

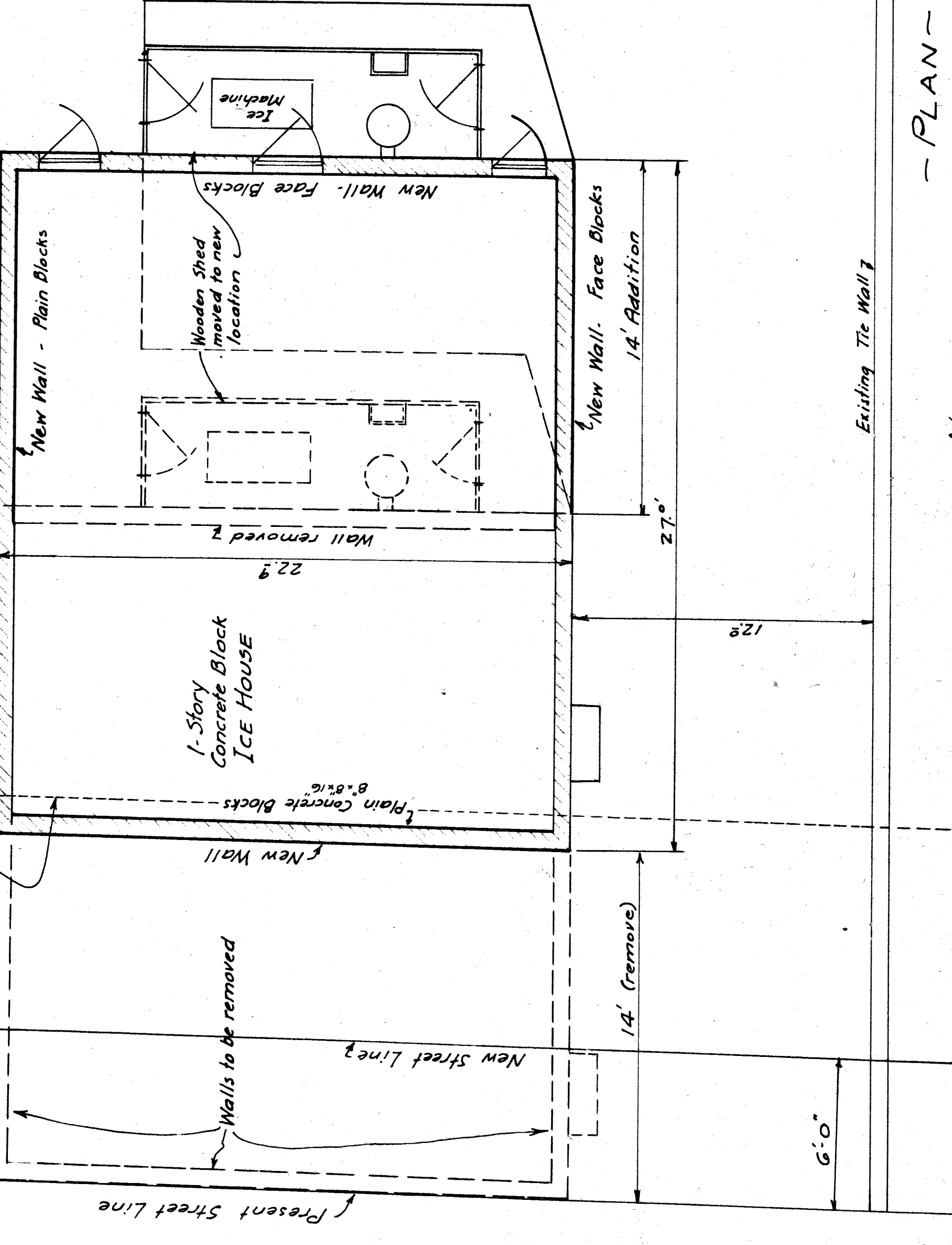
File XV-16-44



G.T.W.- N.Y.C. R.W. 1/2

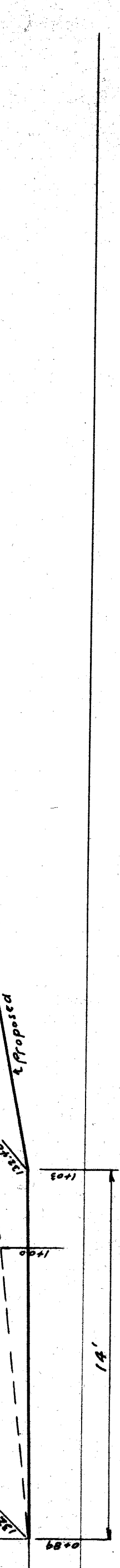
Existing Platform

Existing Concrete Pavement



PLAN

PROFILE OF PAVEMENT



Concrete pavement ABCDEFGH removed. Grade revised as indicated in profile. Repave Area ABKDELGH.

Fill to be dressed to new slope

Fill to be dressed to new slope

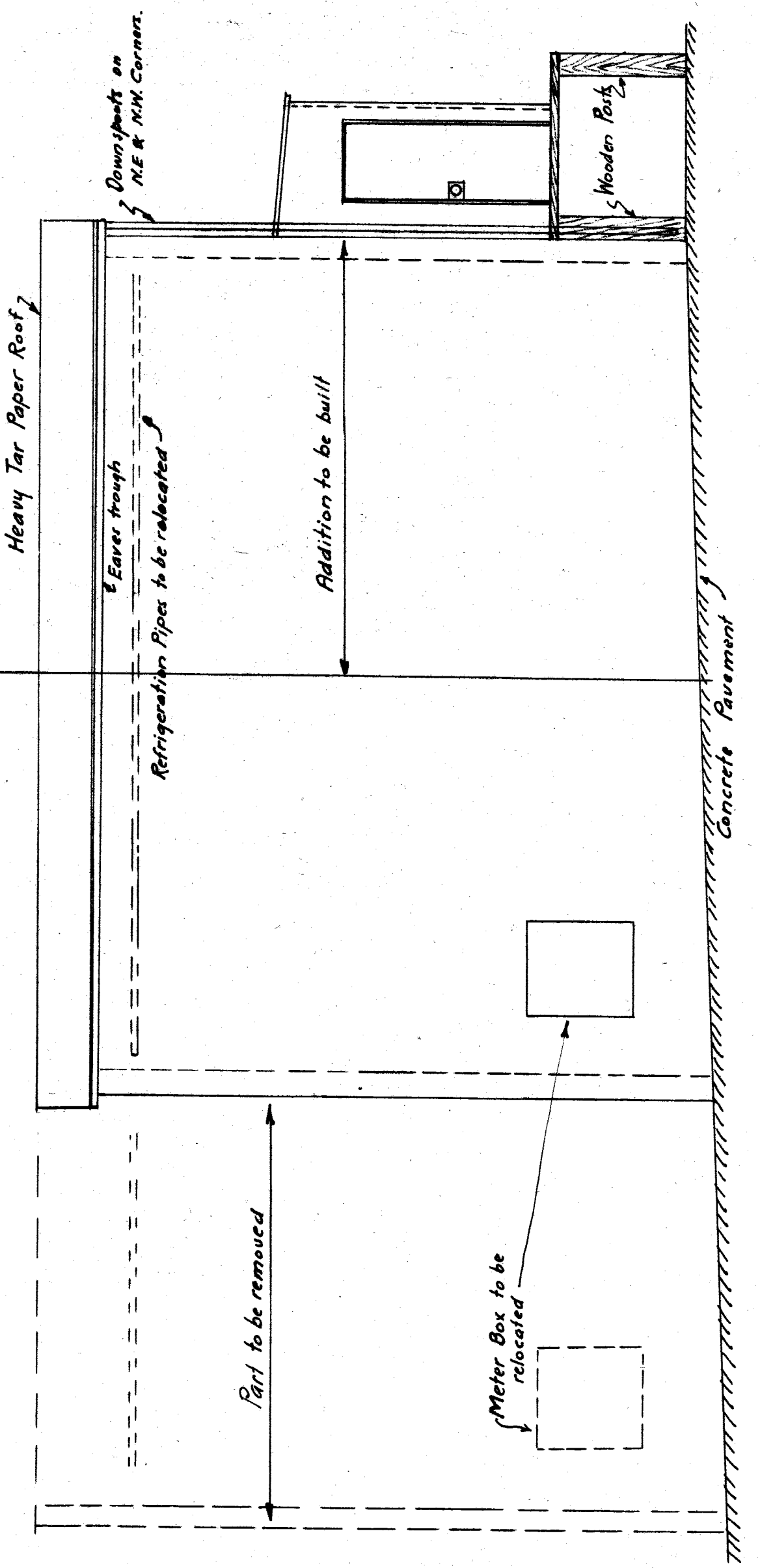
Tie Wall to be rebuilt. Fill removed

Tie Wall to be rebuilt. Fill removed

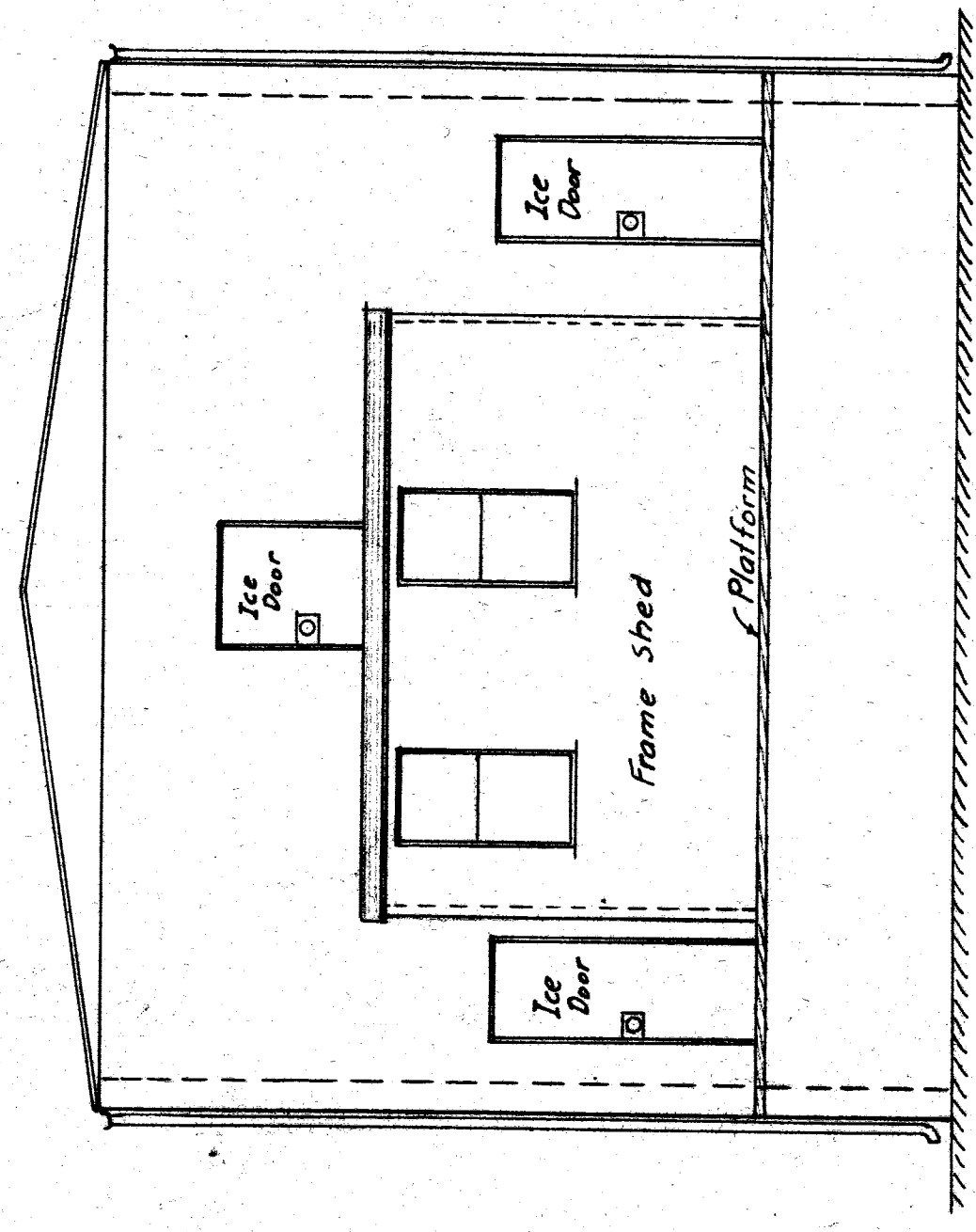
Wooden Shed to be moved

Platform to be extended 14'

SCALE 1/4"=1'-0"



EAST ELEVATION



NORTH ELEVATION

NO.	REVISIONS	DESCRIPTION	DATE	BY

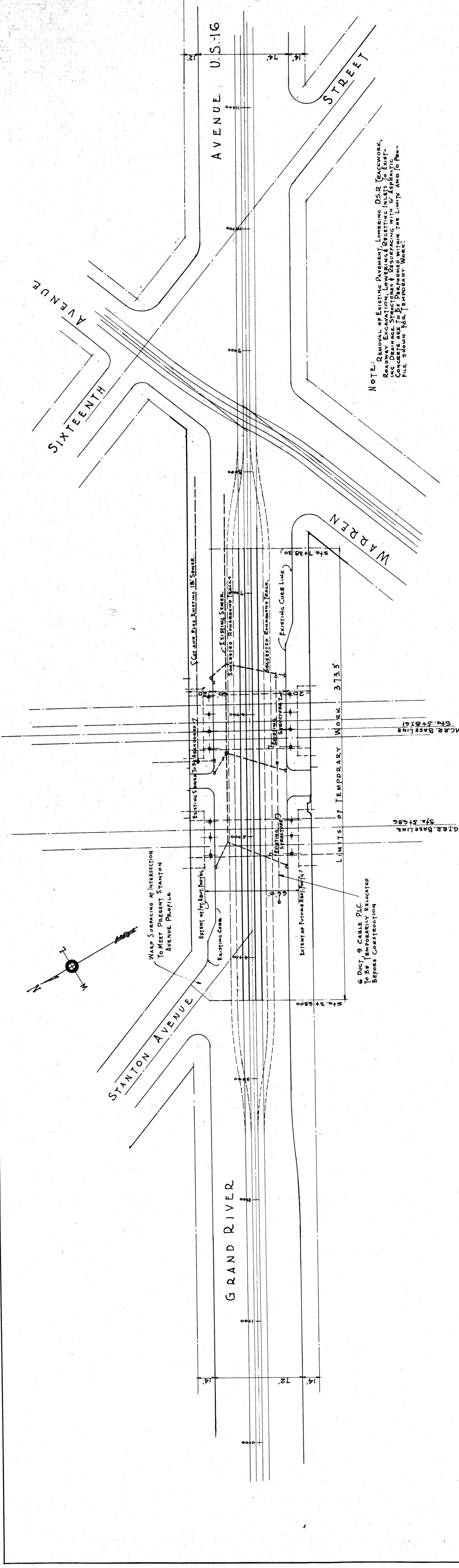
MICHIGAN STATE HIGHWAY DEPARTMENT  
 MURRAY D. VAN WAGONER - COMMISSIONER  
 SEC. T. R. TWP. WAYNE CO.  
 BRIDGE FILE NO. X4 OF 82-22-8 ROAD GRAND RIVER AVE. - U.S. 16.  
 CROSSING M.C.R.R. - N.Y.C.R.R. - CITY OF DETROIT

ICE HOUSE ALTERATIONS  
 J. & T. HURLEY CO.

APPROVED: *J. A. ...* 11/20/35  
 APPROVED: *J. A. ...* 11/20/35  
 CHIEF ENGINEER  
 ENGINEER OF BRIDGE DESIGN

SHEET 43 OF 44  
 X4 of 82-22-8

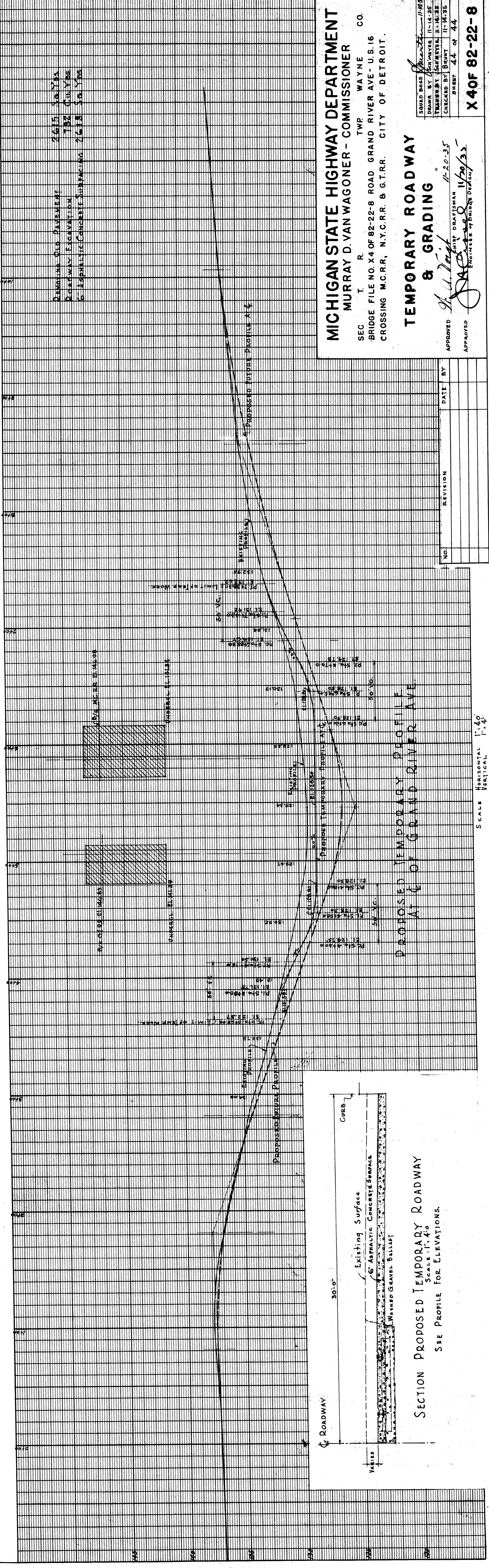




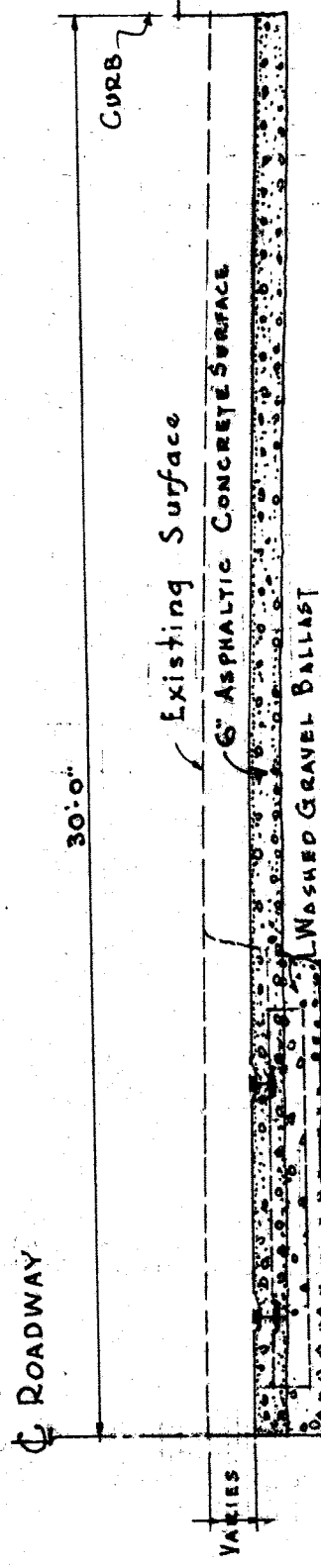
NOTE: REMOVAL OF EXISTING PAVEMENT, LOWERING D.S.R. TRACKWORK, ROADWAY EXCAVATION, LOWERING EXISTING UTILITIES TO EXISTING GRADE, AND CONCRETE CURBS TO BE PERFORMED WITHIN THE LIMITS AND TO BE FILE SHOWN FOR TEMPORARY WORK.

LIMITS OF TEMPORARY WORK 3133

DUCT, 9" CABLE P.L.C. TO BE TEMPORARILY EXCAVATED BEFORE CONSTRUCTION



SECTION PROPOSED TEMPORARY ROADWAY  
SCALE 1" = 40'  
SEE PROFILE FOR ELEVATIONS.



**MICHIGAN STATE HIGHWAY DEPARTMENT**  
**MURRAY D. VAN WAGONER - COMMISSIONER**  
 SEC. T. R. WAYNE CO.  
 BRIDGE FILE NO. X4 OF 82-22-8 ROAD GRAND RIVER AVE. U.S. 16  
 CROSSING M.C.R.R., N.Y.C.R.R. & G.T.R.R. CITY OF DETROIT.

**TEMPORARY ROADWAY & GRADING**

APPROVED: *[Signature]* CIVIL ENGINEER  
 APPROVED: *[Signature]* ENGINEER OF BRIDGE DESIGN

DATE BY REVISION NO.

SQUAD BASE: *[Signature]* 11-14-35  
 DRAWN BY: *[Signature]* 11-14-35  
 CHECKED BY: *[Signature]* 11-14-35  
 SHEET 44 OF 44

X40F 82-22-8



GRAND TRUNK RAILWAY SYSTEM  
 WESTERN LINES 20th DISTRICT DETROIT DIVISION  
 MASONRY PLANS FOR JOINT RETAINING WALL ON SOUTH  
 R.R.B. BETWEEN 16th AND 100th W. OF WARREN AVE.  
 DETROIT MICH.  
 OFFICE OF ASSISTANT ENGINEER

MARCH 23<sup>RD</sup> 1914

APPROVED  
 CHIEF ENGINEER GRAND TRUNK RY.

CONRECT  
 ASSISTANT ENGINEER

NOTE:  
 THIS TRACING HAS BEEN MADE FROM BLUE PRINT BEARING ABOVE TITLE  
 ON MARCH 9<sup>TH</sup> 1915. IT SHOWS THE WORK AS CONSTRUCTED

CHIEF ENGINEER L. S. AND M. S. RY.

CORRECTED JAN. 31<sup>ST</sup> 1915 TO SHOW WORK AS CONSTRUCTED

RETAINING WALL ON SOUTH R.R.B. SOUTHWESTERLY FROM WARREN AVE

309.65 CU YDS. CONCRETE  
 495.66 CU YDS. EXCAVATION

2.03 3635 CU YDS. CONCRETE  
 326 CU YDS. EXCAVATION M.O.R.L.

391.25 CU YDS. CONCRETE  
 694 CU YDS. EXCAVATION M.O.R.L.

399.9622 CU YDS. CONCRETE  
 532 CU YDS. EXCAVATION M.O.R.L.

92 YDS. CONCRETE  
 5 EXCAVATION M.O.R.L.

92.145 CU YDS. CONCRETE  
 142 CU YDS. EXCAVATION M.O.R.L.

94.4415 CU YDS. CONCRETE  
 136 CU YDS. EXCAVATION M.O.R.L.

77.2125 CU YDS. CONCRETE  
 123 CU YDS. EXCAVATION M.O.R.L.

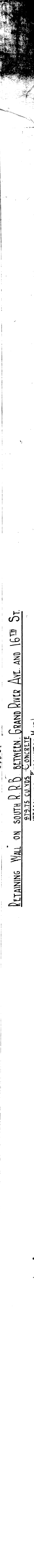
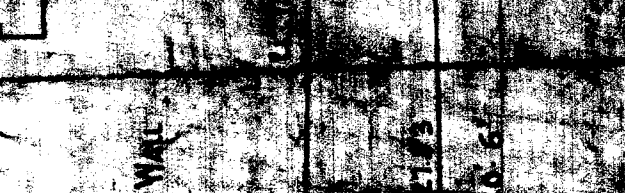
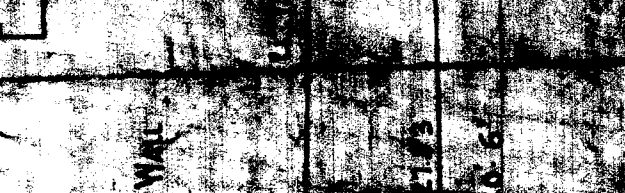
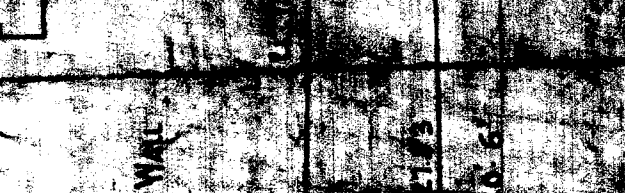
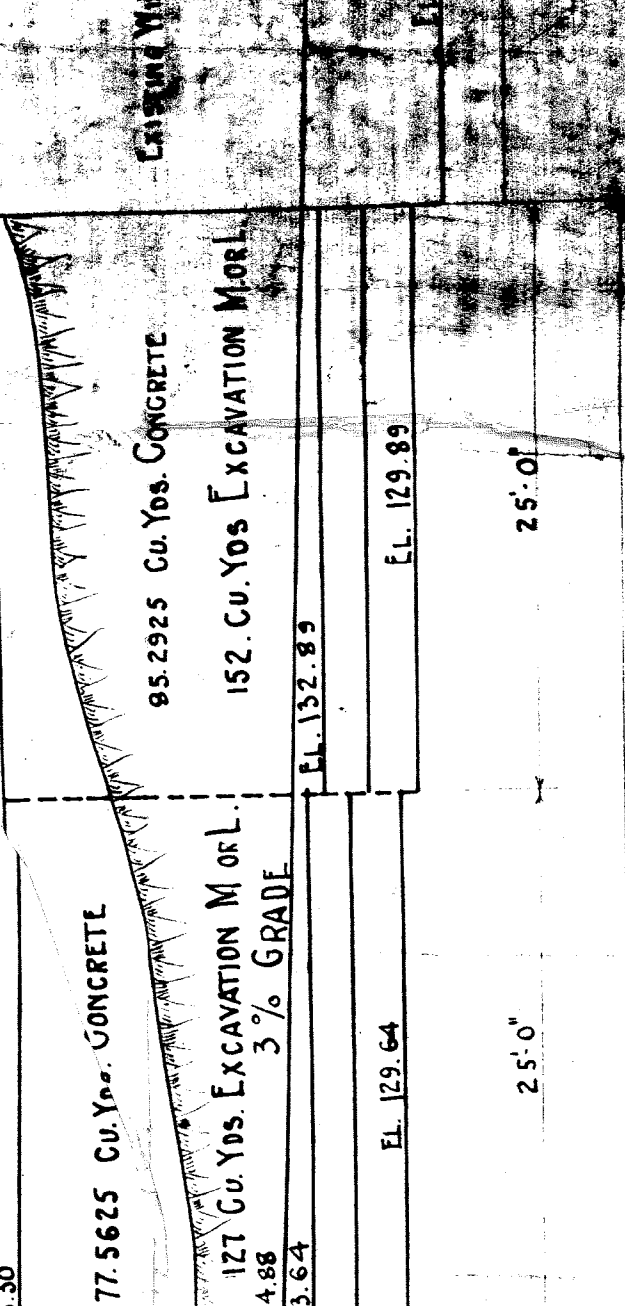
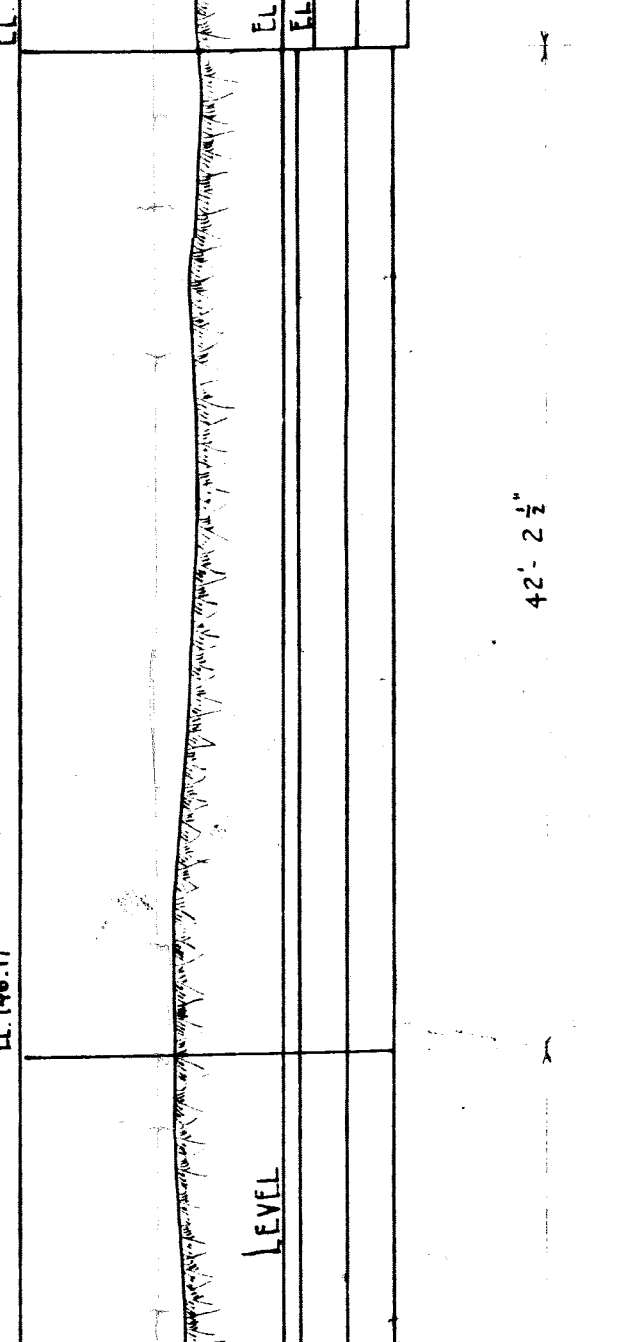
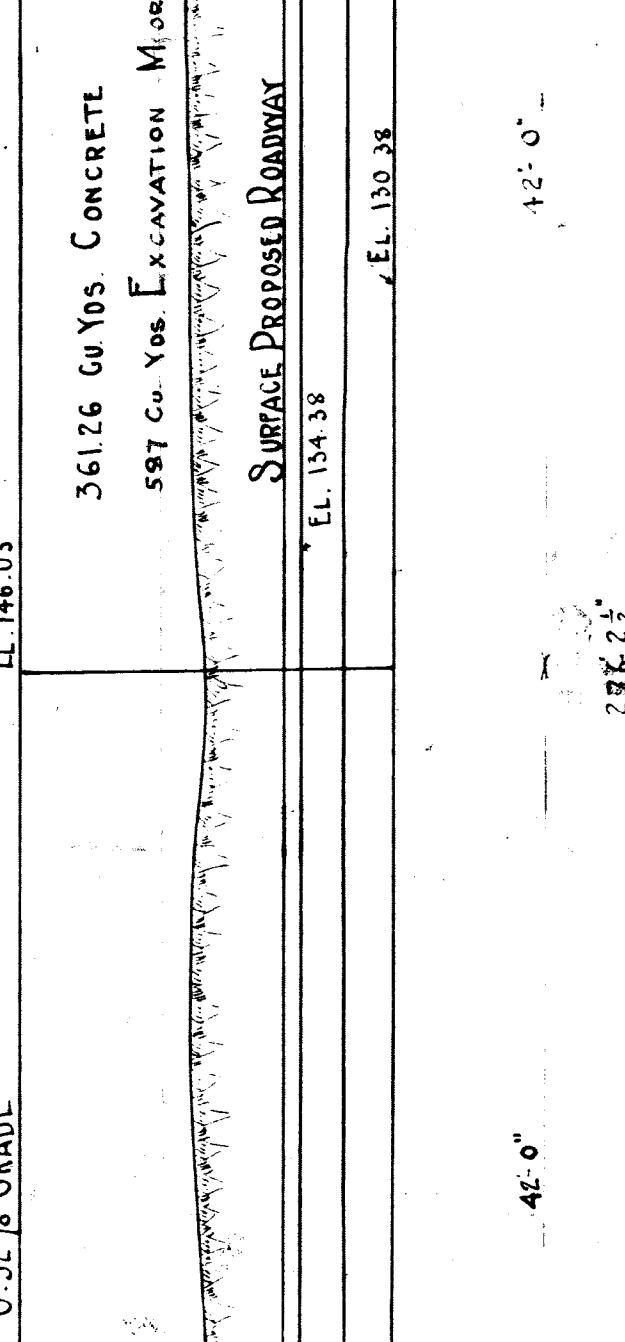
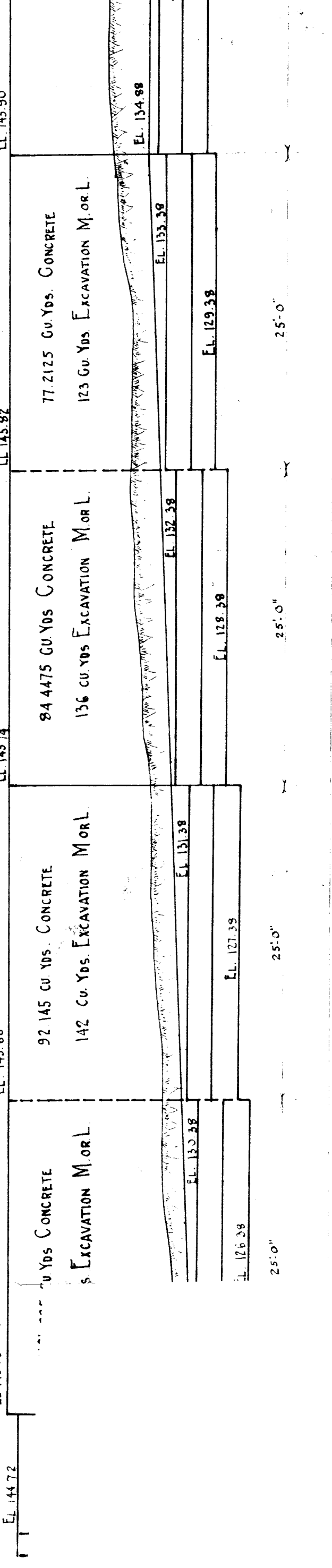
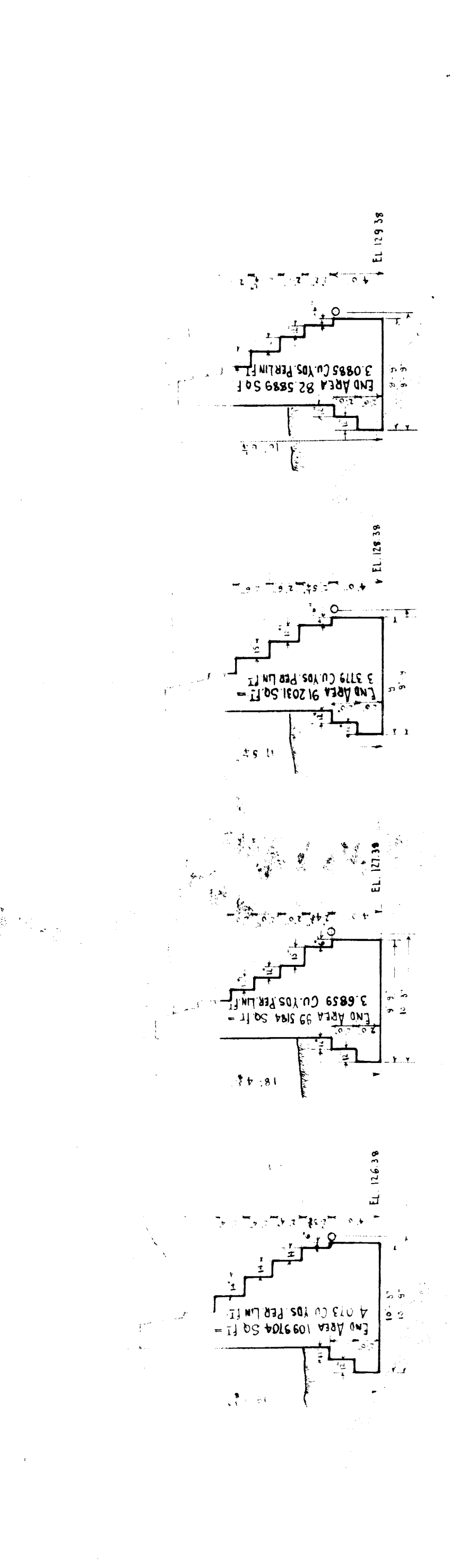
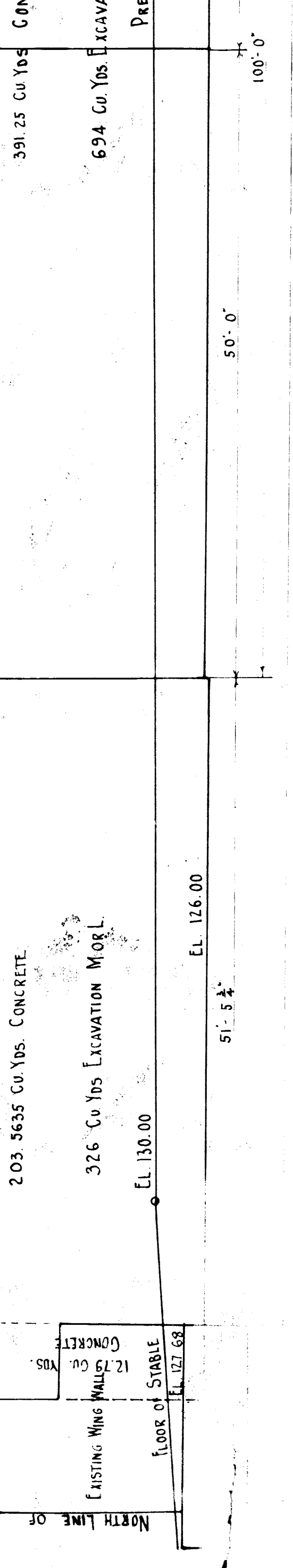
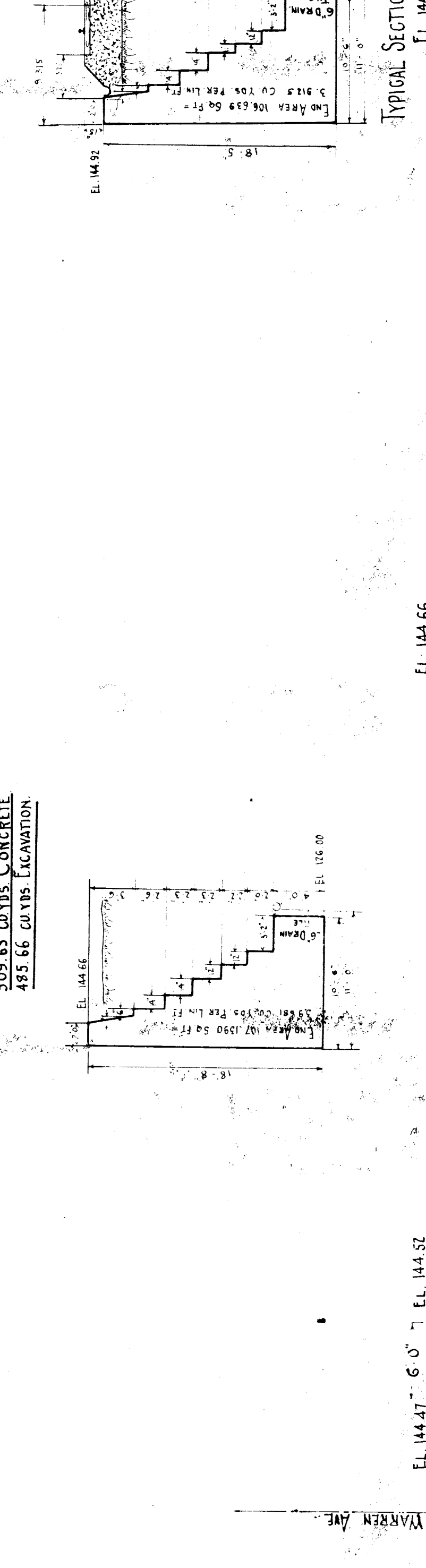
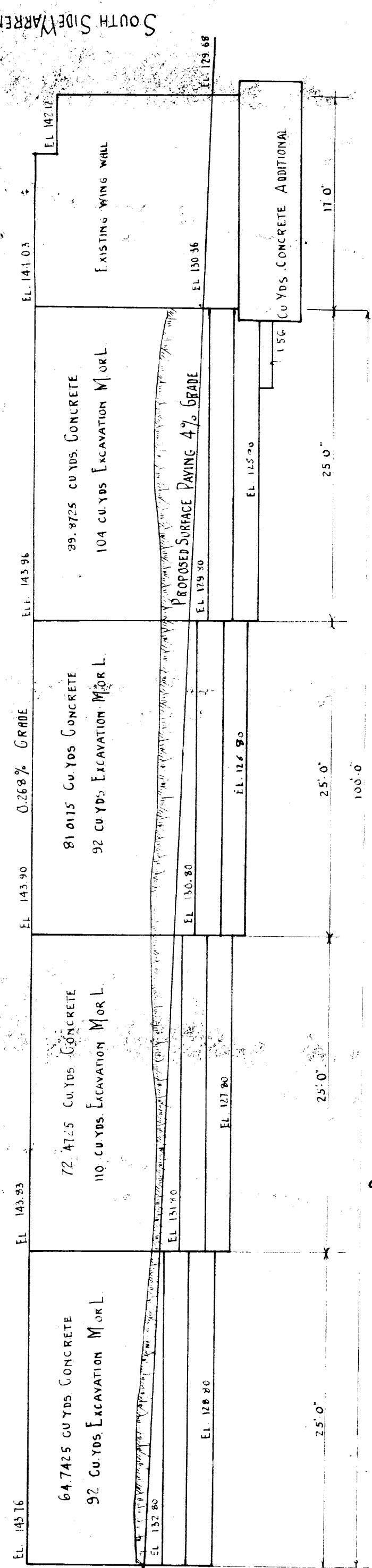
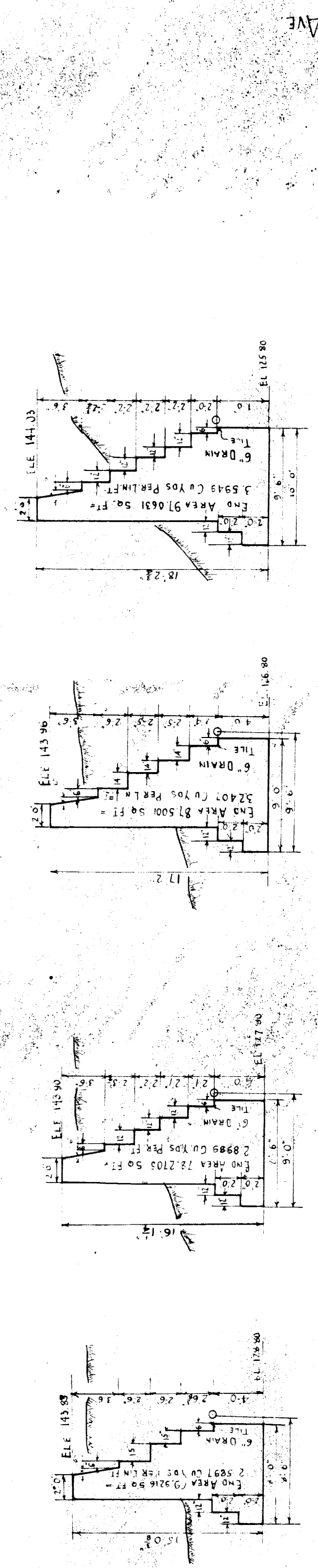
561.26 CU YDS. CONCRETE  
 597 CU YDS. EXCAVATION M.O.R.L.

77.5625 CU YDS. CONCRETE  
 127 CU YDS. EXCAVATION M.O.R.L.

95.2385 CU YDS. CONCRETE  
 152 CU YDS. EXCAVATION M.O.R.L.

RETAINING WALL ON SOUTH R.R.B. BETWEEN GRAND RIVER AVE AND 16<sup>TH</sup> ST.

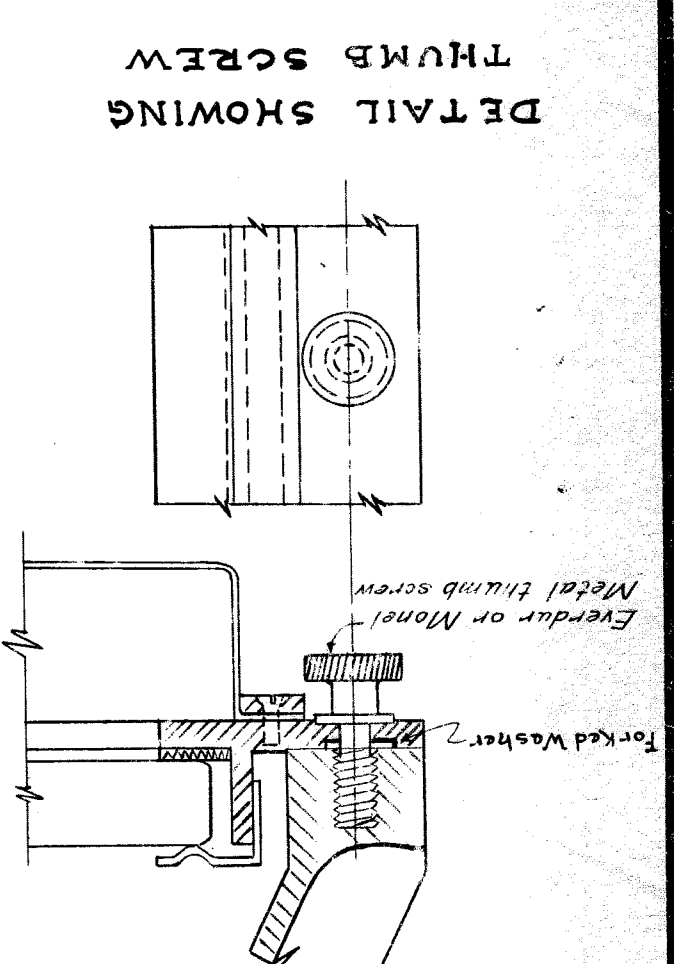
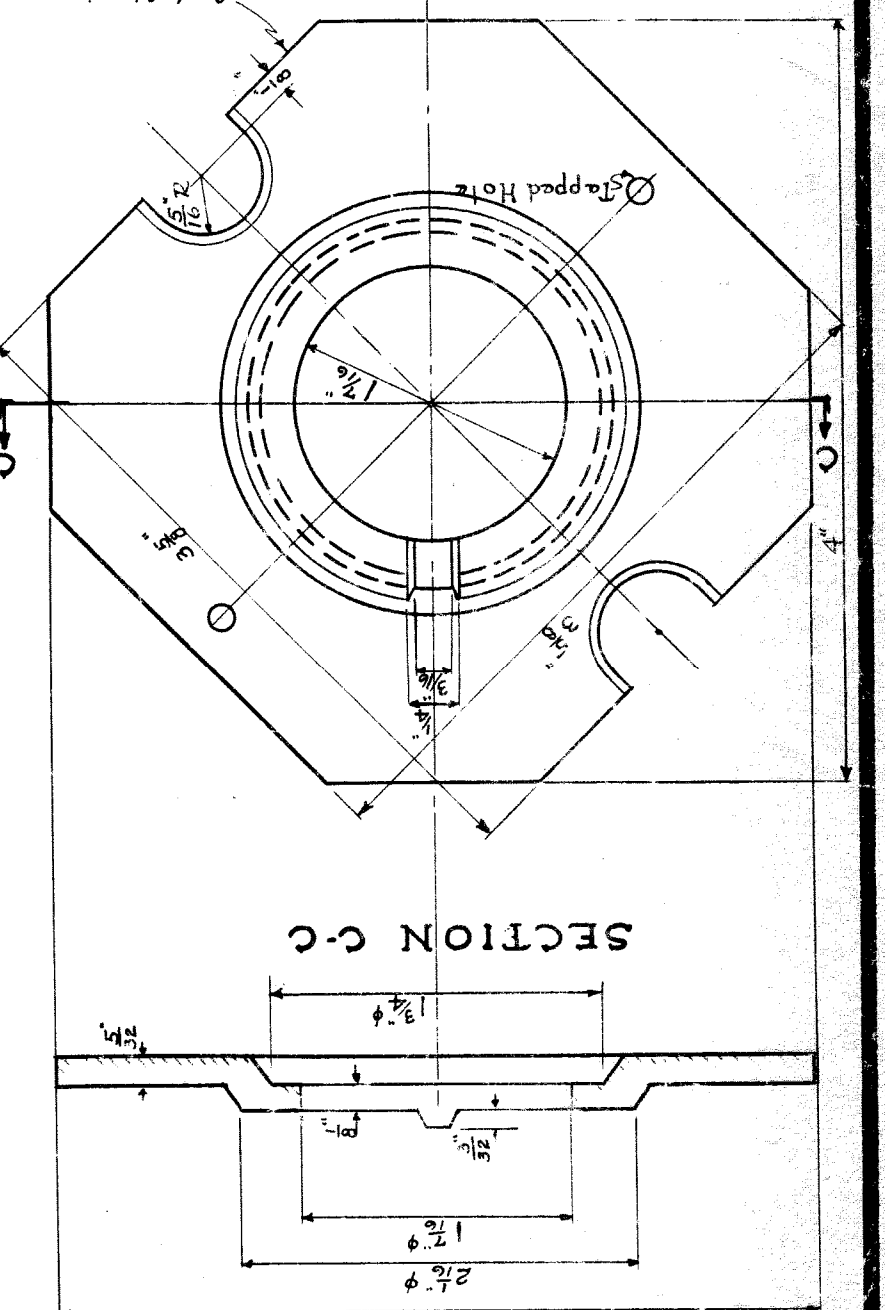
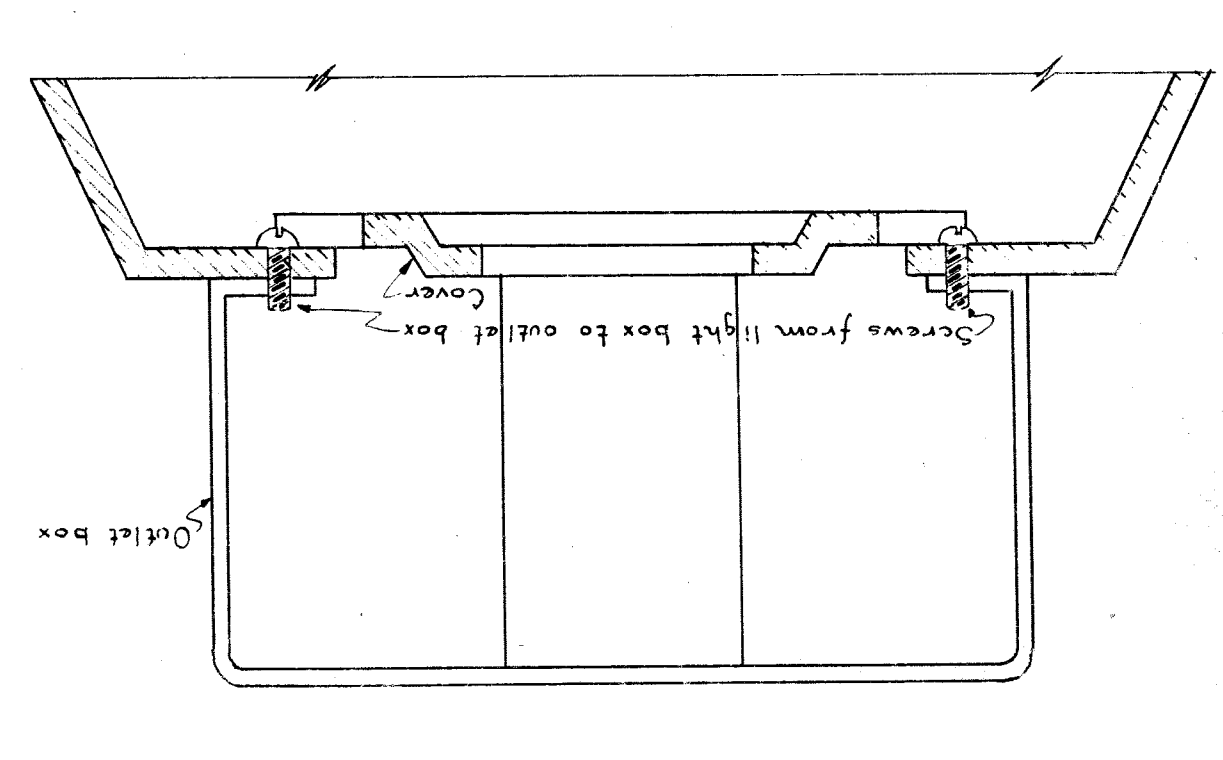
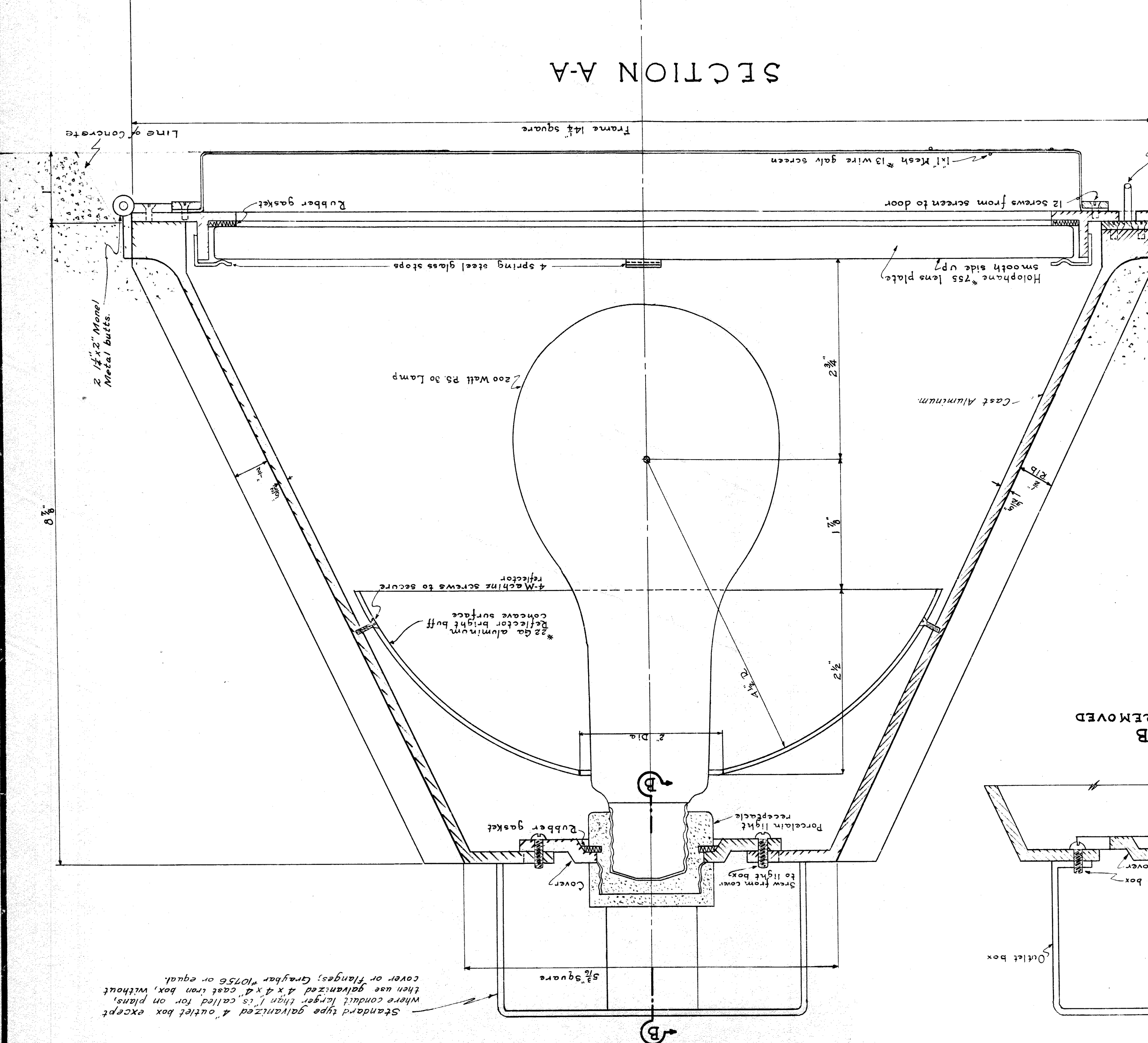
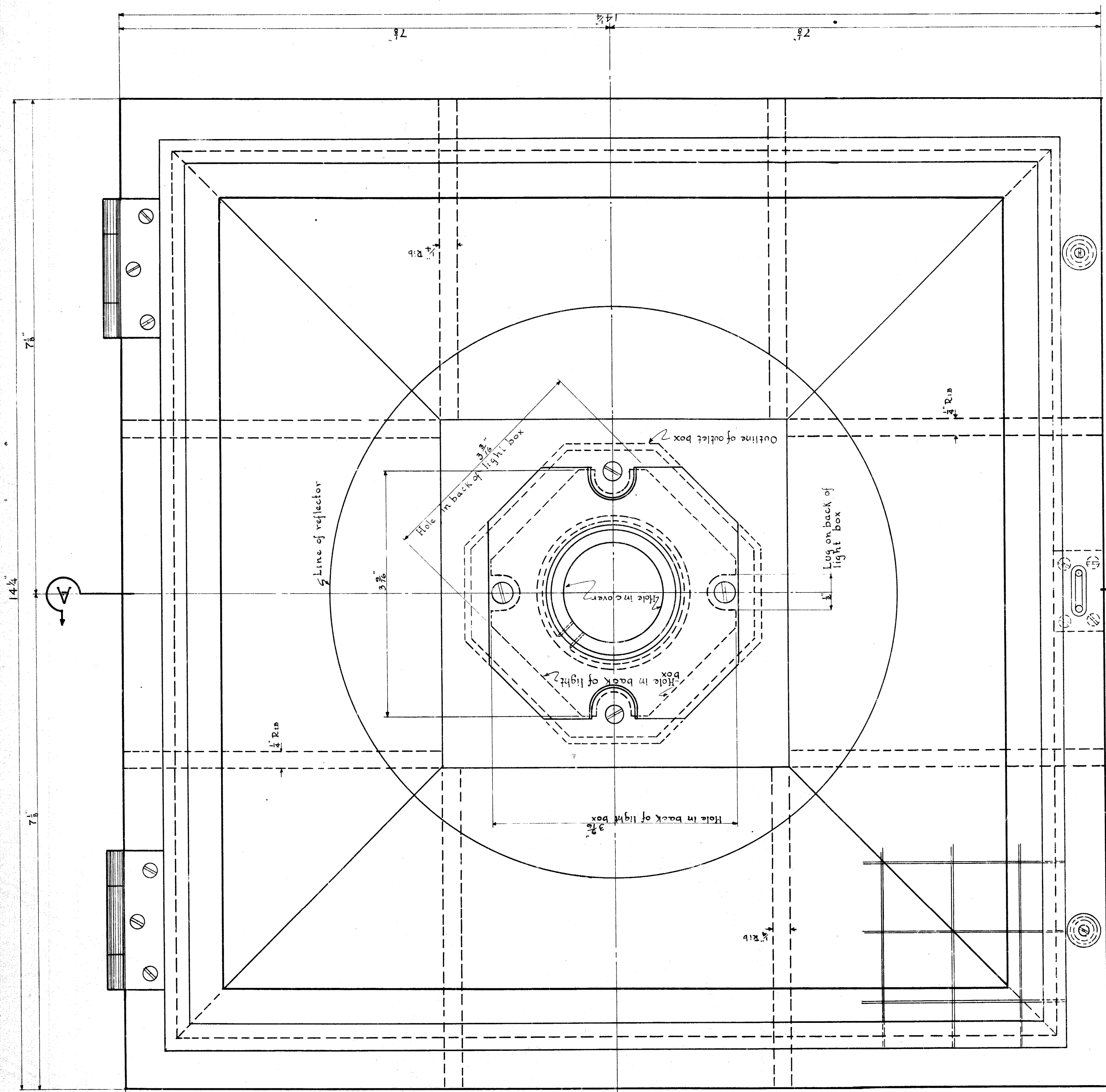
929.75 CU YDS. CONCRETE  
 1224.46 CU YDS. EXCAVATION M.O.R.L.









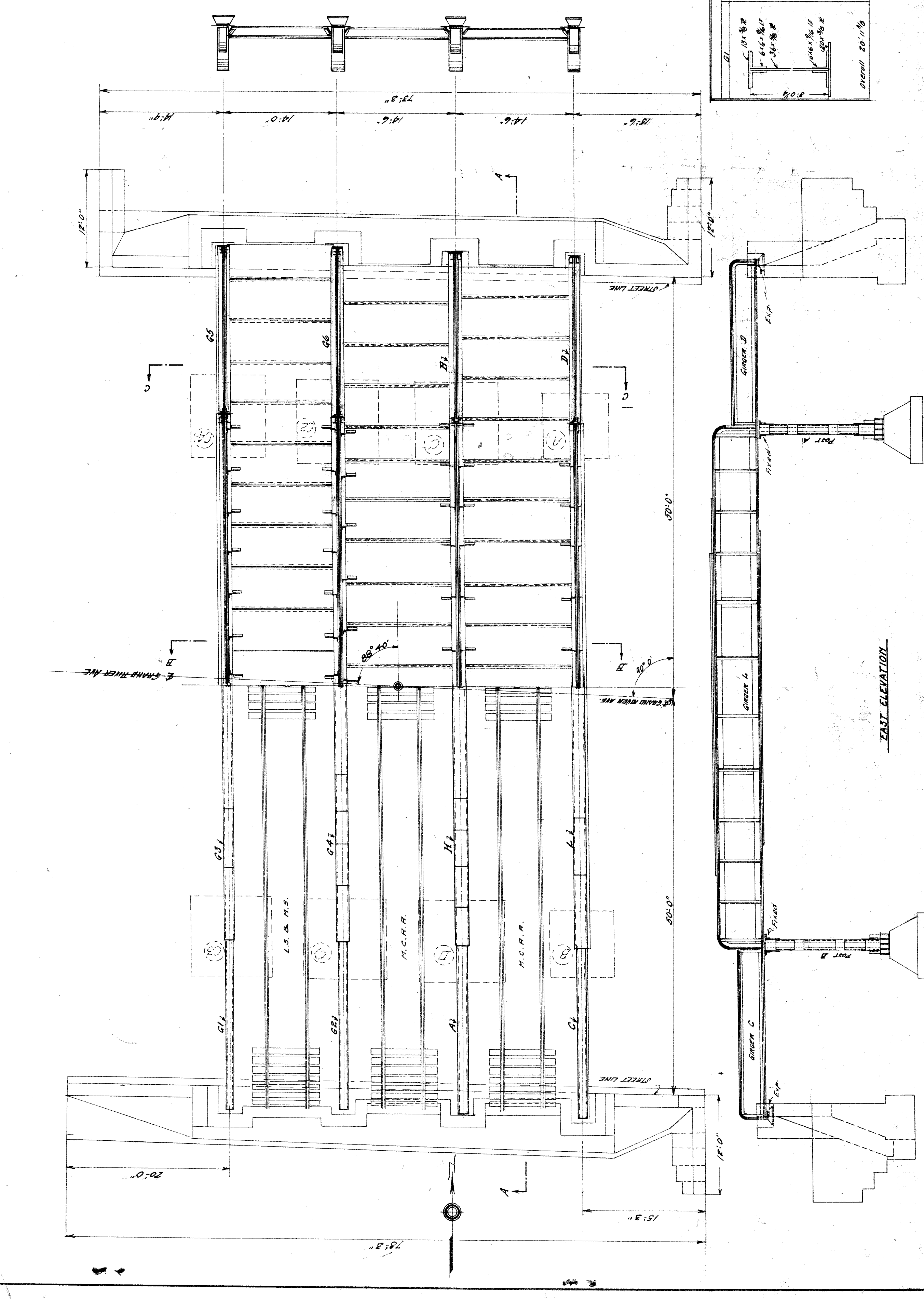
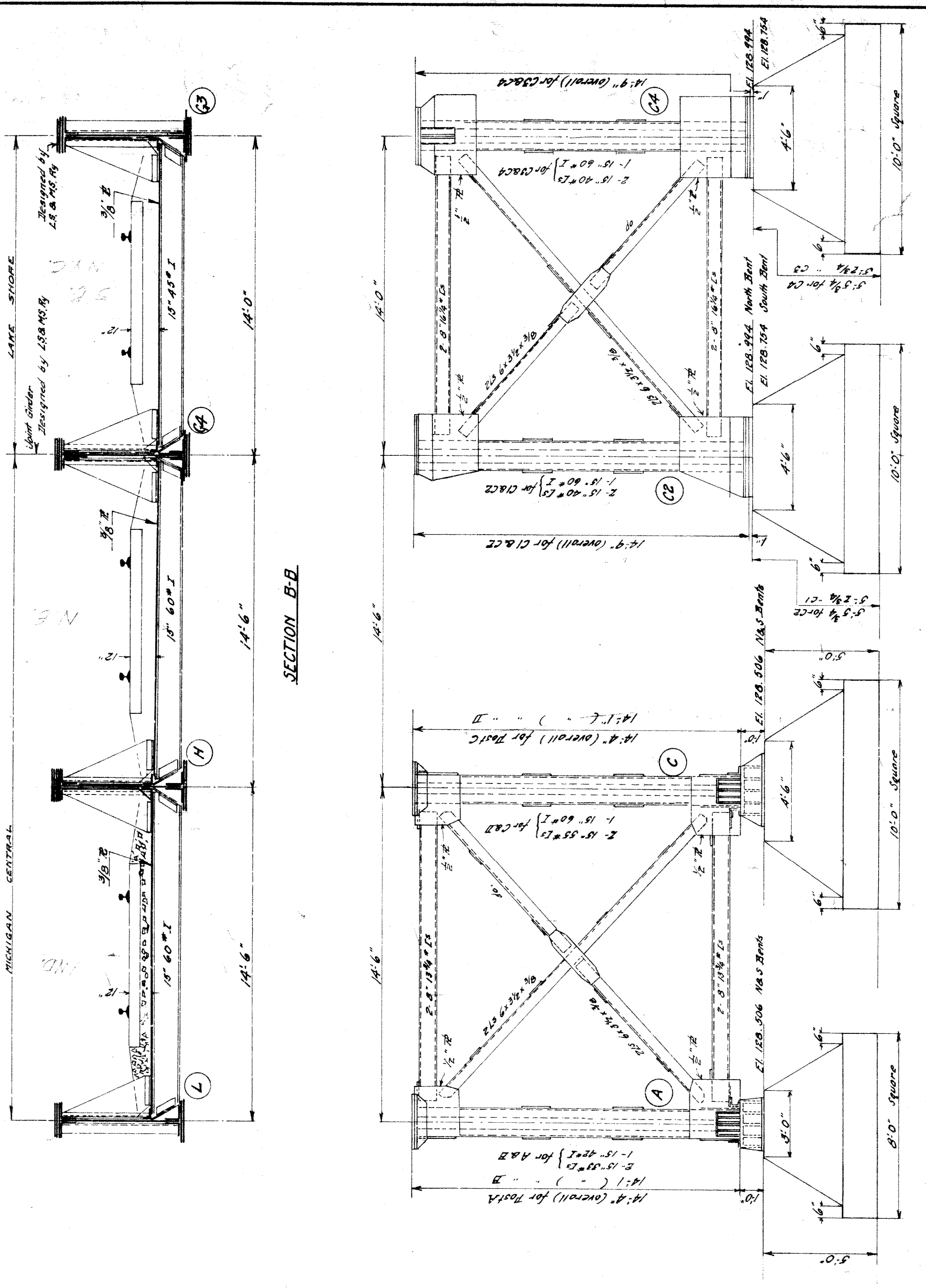


All bolts, nuts or machine screws 1/8" or less in diameter shall be Everdur or Monel Metal.  
 Drawn from Wayne County Road Commissioners' Standard Lighting Unit for Grade Separations April 14, 1932  
 Lighting Unit Box to be made of cast aluminum.

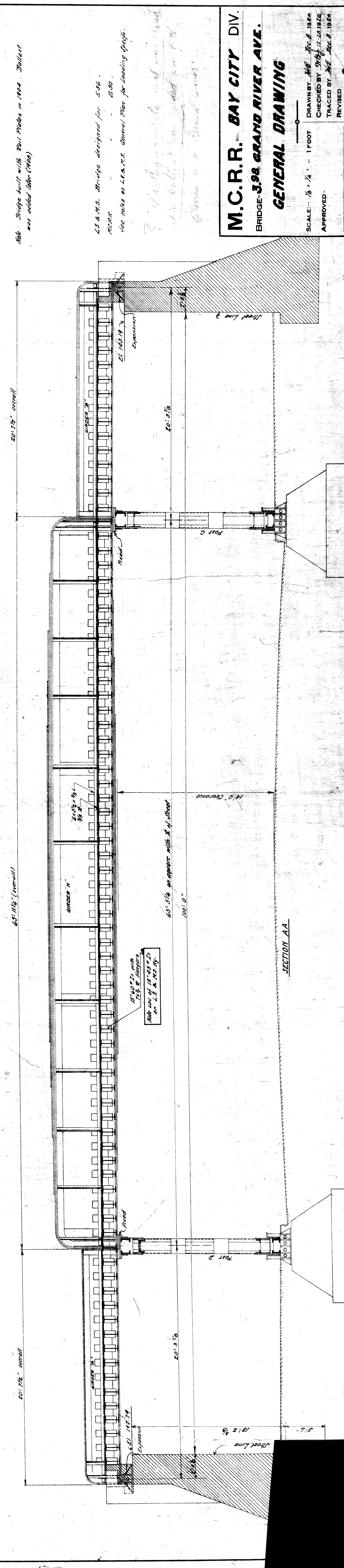
NO.	REVISIONS	DESCRIPTION	DATE	BY

Standard type galvanized outlet box except cover or flanges. Graybar #1056 or equal, then use galvanized 4 x 4 x 4 cast iron box, without cover or flanges. Graybar #1056 or equal.





DESIGNED BY L.S. & M.S.		DESIGNED BY M.C.R.R.	
A	B	A	B



Note: Bridge built with Rail Poles in 1904. Ballast was added later (1909).  
 L.S. & M.S. Bridge designed for 2500.  
 M.C.R.R. use notes on L.S. & M.S. General Plan for Loading Space.

**M.C.R.R. BAY CITY DIV.**  
**BRIDGE 398 GRAND RIVER AVE.**  
**GENERAL DRAWING**  
 SCALE: 1/4" = 1 FOOT  
 DRAWN BY: [Name]  
 CHECKED BY: [Name]  
 TRACED BY: [Name]  
 APPROVED: [Signature]  
 REVISIONS: [Table]  
 SHEET 9 OF 9  
 BRIDGE ENGINEER



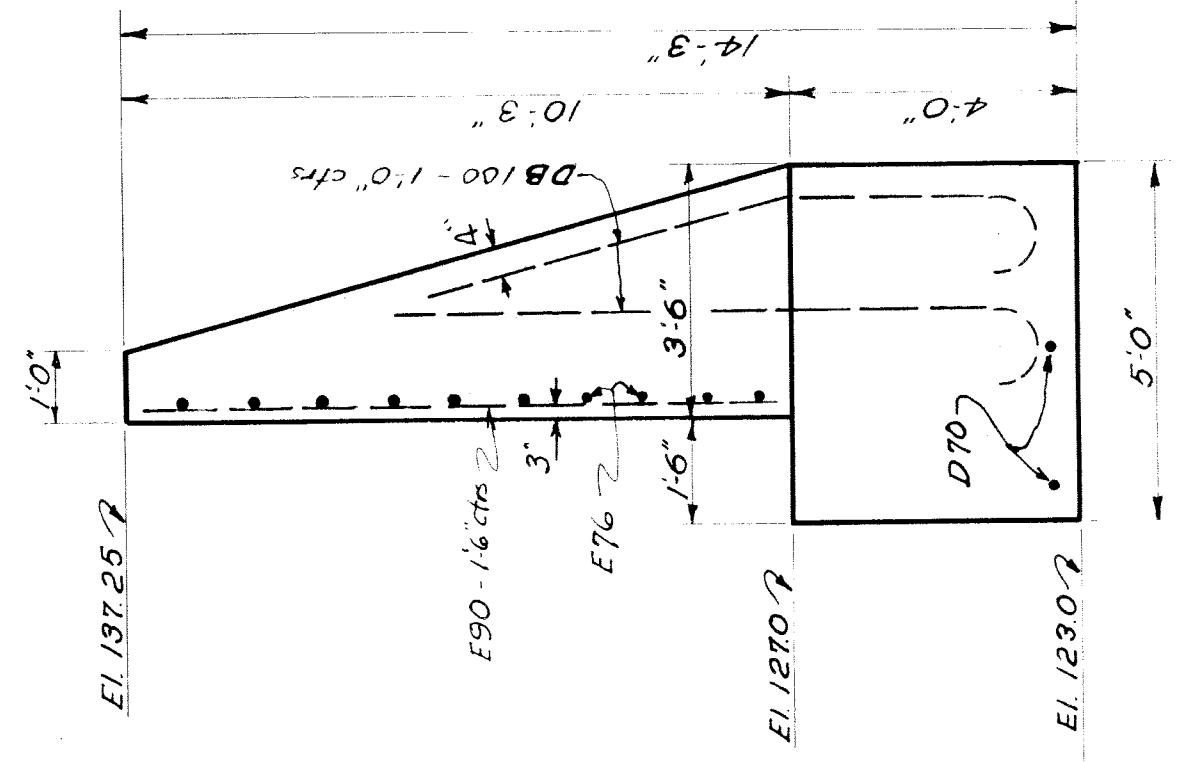
MISCELLANEOUS QUANTITIES  
 CHIPPING CONCRETE 0.6 CU. YDS.  
 BUSH-HAMMERING CONCRETE 50.0 SQ. FT.

**CONCRETE QUANTITIES**

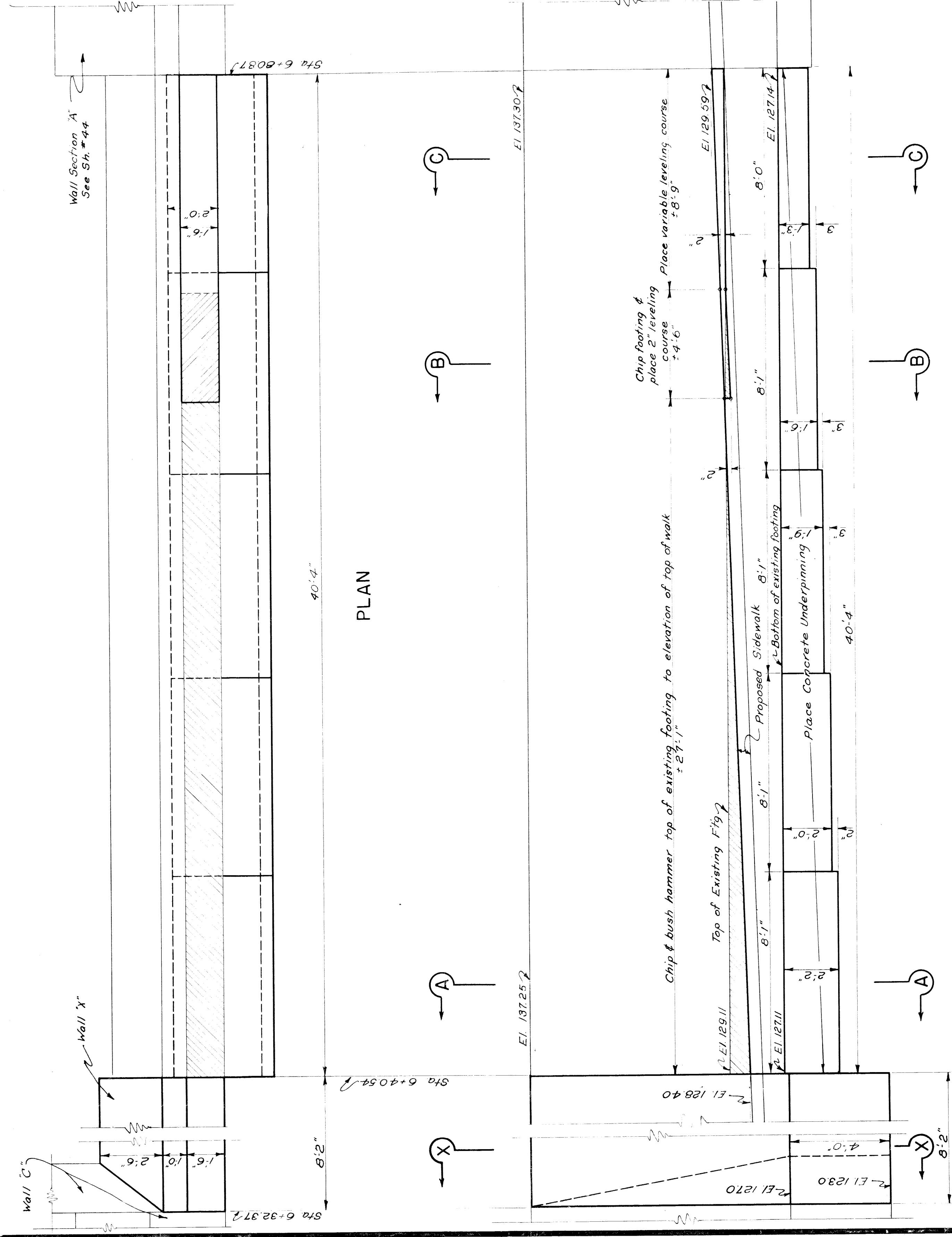
LOCATION	CU YDS. GR. "A" CONC.
UNDERPINNING	9.8
LEVELING COURSE	0.2
<b>WALL "X"</b>	<b>10.0</b>

**BAR LIST**

Mark	No.	Size	Length	Weight #	Qty. Wall
DB100	7	3/4"	10'-0"	105	7
D70	2	3/4"	7'-0"	21	2
E76	10	5/8"	7'-6"	78	10
E90	5	5/8"	9'-0"	47	5
Total Wall "X"					<b>251#</b>



SECTION X-X



PLAN

ELEVATION

Note: All excavation below the elevation of bottom of existing wall footing shall be backfilled with concrete underpinning.

Note: No two sections of concrete underpinning shall be constructed simultaneously.

REVISIONS

NO.	DESCRIPTION	DATE	BY

**MICHIGAN STATE HIGHWAY DEPARTMENT**  
 MURRAY D. VAN WAGONER - COMMISSIONER

SEC. T. R. WAYNE CO.  
 BRIDGE FILE NO. X4 OF 82-22-8 ROAD U.S. 16 GRAND RIVER AVE.  
 CROSSING M.C.R.R. & N.Y.C.R.R. IN CITY OF DETROIT

**RETAINING WALL ALTERATIONS**

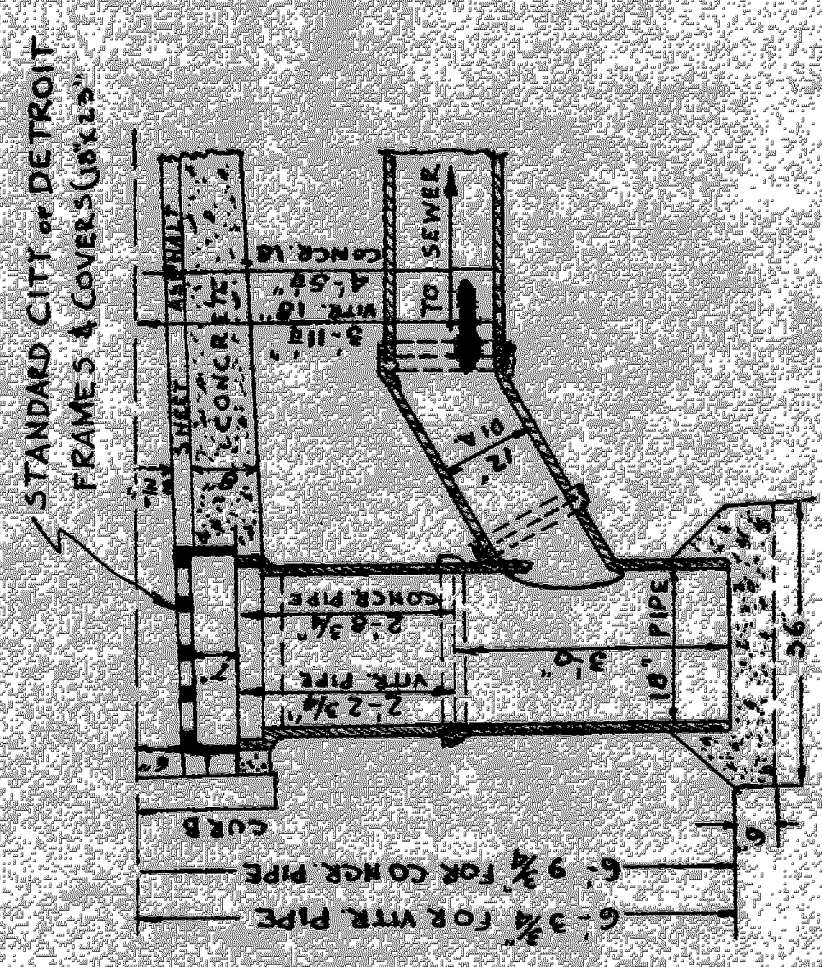
APPROVED: *[Signature]* CHIEF ENGINEER  
 APPROVED: *[Signature]* ENGINEER OF BRIDGE DESIGN

SHEET 17 A OF 44  
 DRAWN BY: JONES 4-7-37  
 CHECKED BY: GOLLON 4-7-37  
 SOLID BRSS: 4-12-37

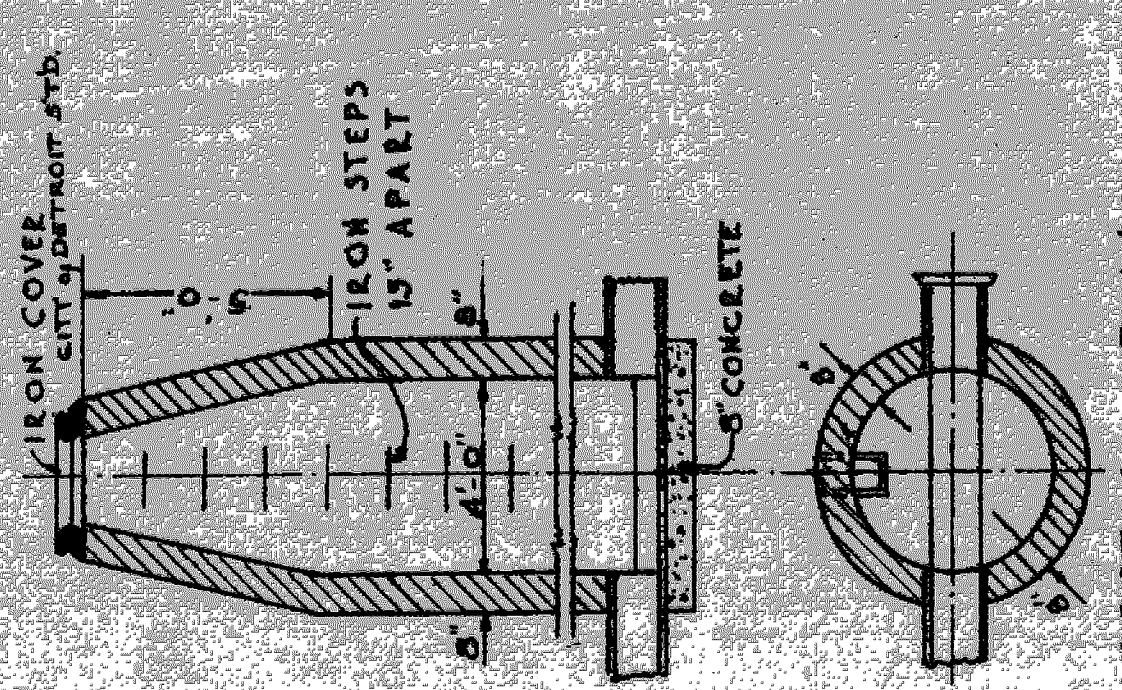
X4 of 82-22-8

File XU 16-51





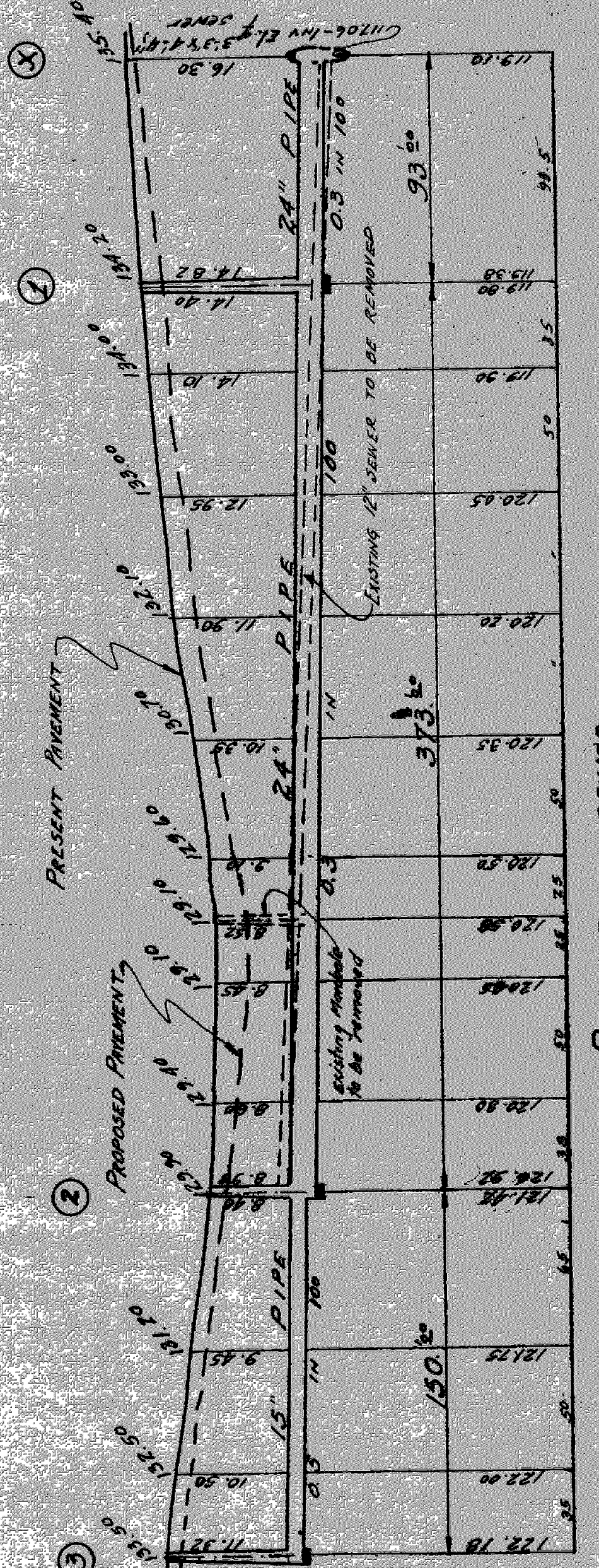
SECTION OF CATCH BASINS.



SECTION OF M.H.

DETAILS

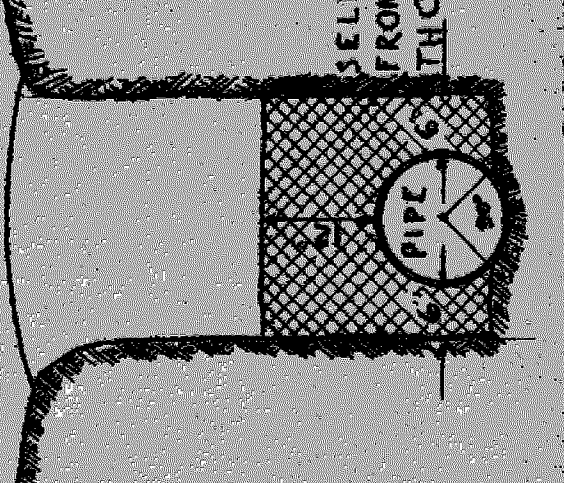
TOTAL LENGTH OF SEWER = 1111 FT. MORE OR LESS INC. 1' BAND  
 24" PIPE = 466  
 15" " 150  
 12" " 185  
 12" C.I. PIPE 12" 2-22" BENDS  
 THREE (3) MANHOLES INC. MANHOLE STEPS RINGS & COVERS  
 ELEVEN (11) CATCH BASINS AND 13 FRAMES & COVERS.



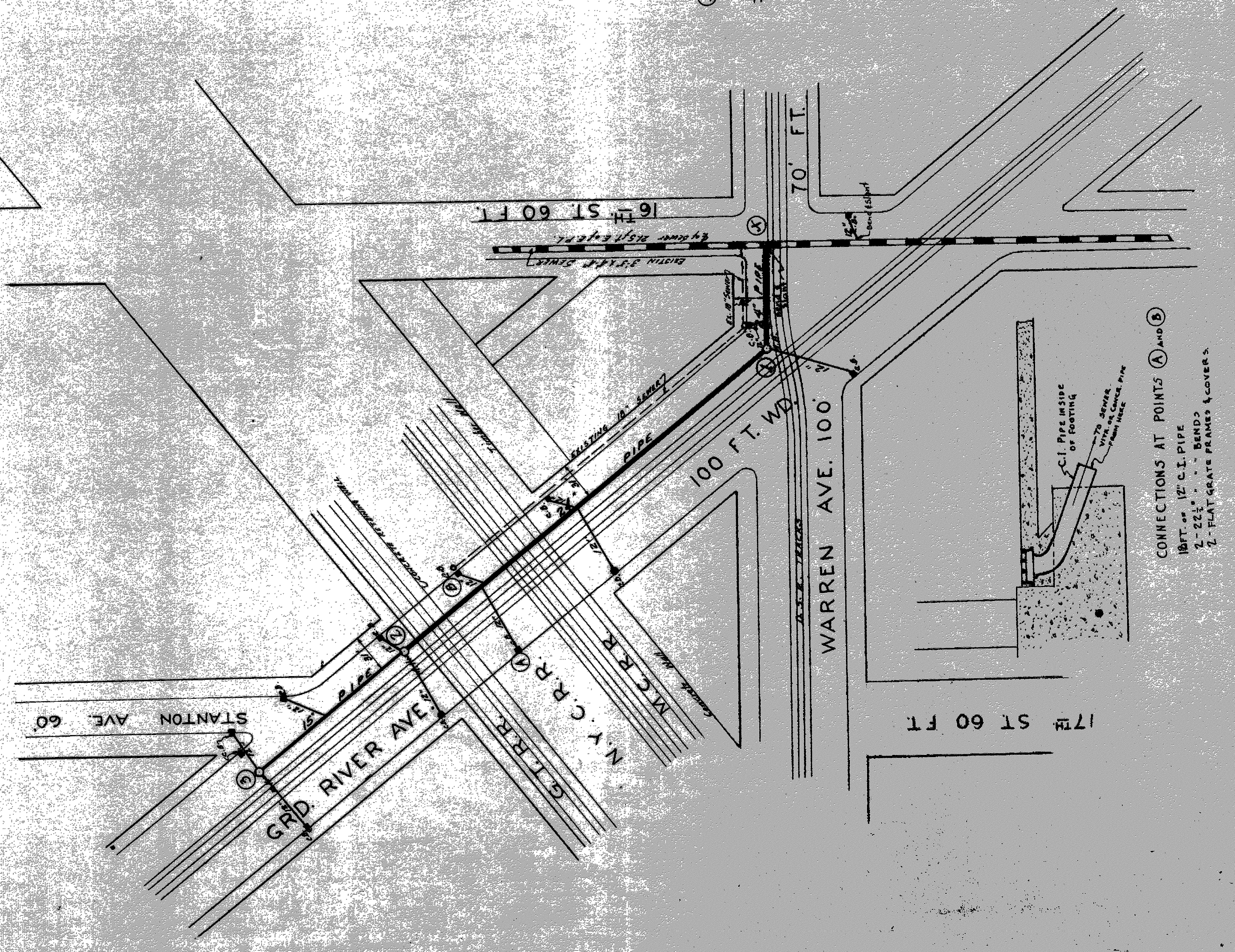
PROFILE OF SEWER  
 Scales: H-1"=50 FT.  
 V-1"=10'

Survey Book 5-564A p.60

NOTE: MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE REQUIREMENTS OF THE 1934 STANDARD OF SPEC. FOR ROAD AND BRIDGE CONSTRUCTION OF THE MICHIGAN STATE HIGHWAY DEPT.



SELECTED MATERIAL FROM EXCAVATION TO BE THOROUGHLY TAMPE  
 METHOD OF LAYING PIPE IN OPEN CUT  
 BOTTOM 50' SECTOR TO BE HAND-SHAPED TO EXACT FIT OF PIPES. ADDITIONAL EXCAVATION TO BE MADE FOR BELLS OF PIPES



CONNECTIONS AT POINTS (A) and (B)  
 18 FT. OF 12" C.I. PIPE  
 2-22" BENDS  
 2-FLAT GRATE FRAMES & COVERS

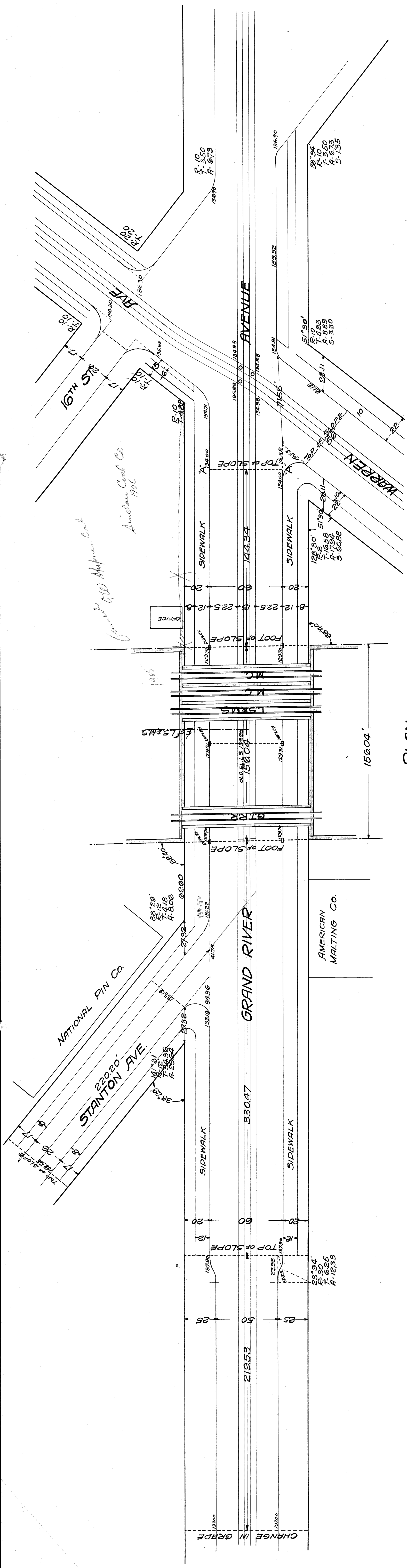
MICHIGAN STATE HIGHWAY DEPARTMENT  
 MURRAY D. VAN WAGONER - COMMISSIONER  
 SEC. T. R. ROAD MILES OF AT STA. CO.  
 BRIDGE FILE NO. CROSSING

APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_  
 CHIEF DRAFTSMAN  
 MANAGER OF BRIDGE SECTION

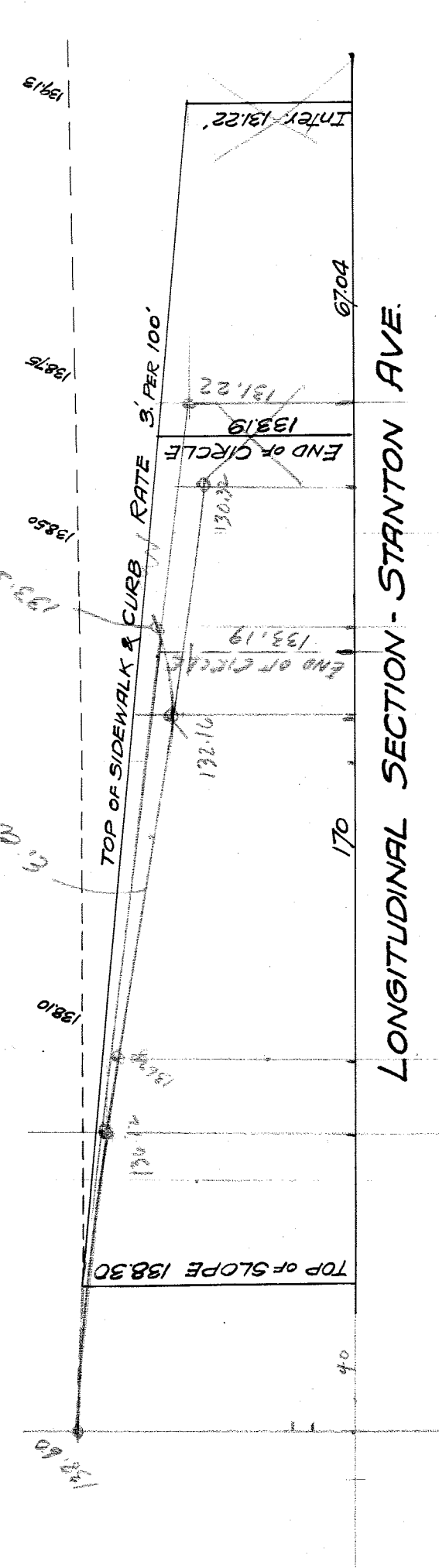
REVISIONS

NO.	DESCRIPTION	DATE	BY

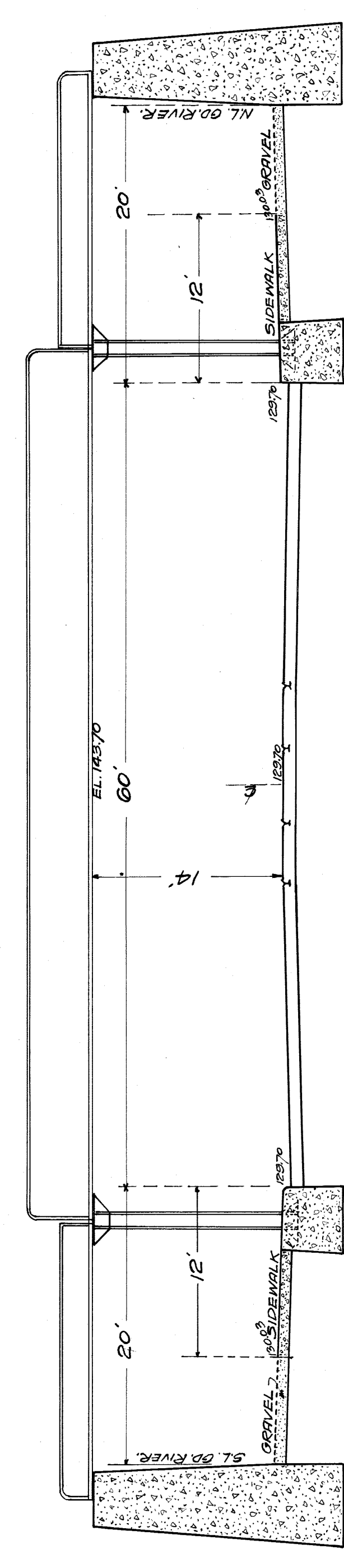




PLAN  
SCALE 1" = 40'



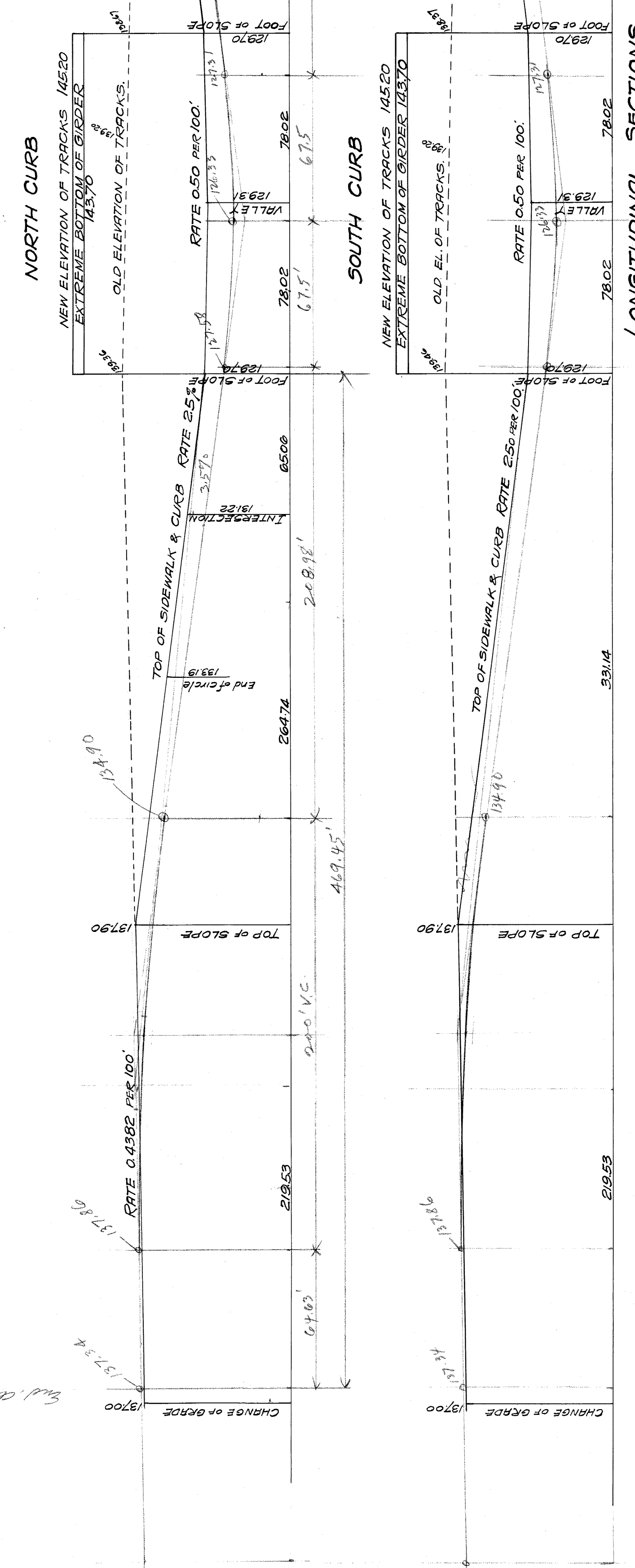
LONGITUDINAL SECTION - STANTON AVE.



SECTION ON E. LINE OF RIGHT OF WAY  
SCALE 1" = 8'

# GRAND RIVER AVE. SUBWAY AT CROSSING OF GRAND TRUNK, L.S. & M.S. AND D & B.C.R.R.'S.

CITY ENGINEER'S OFFICE  
THIS DRAWING TRACED FROM ORIGINAL 3/16.

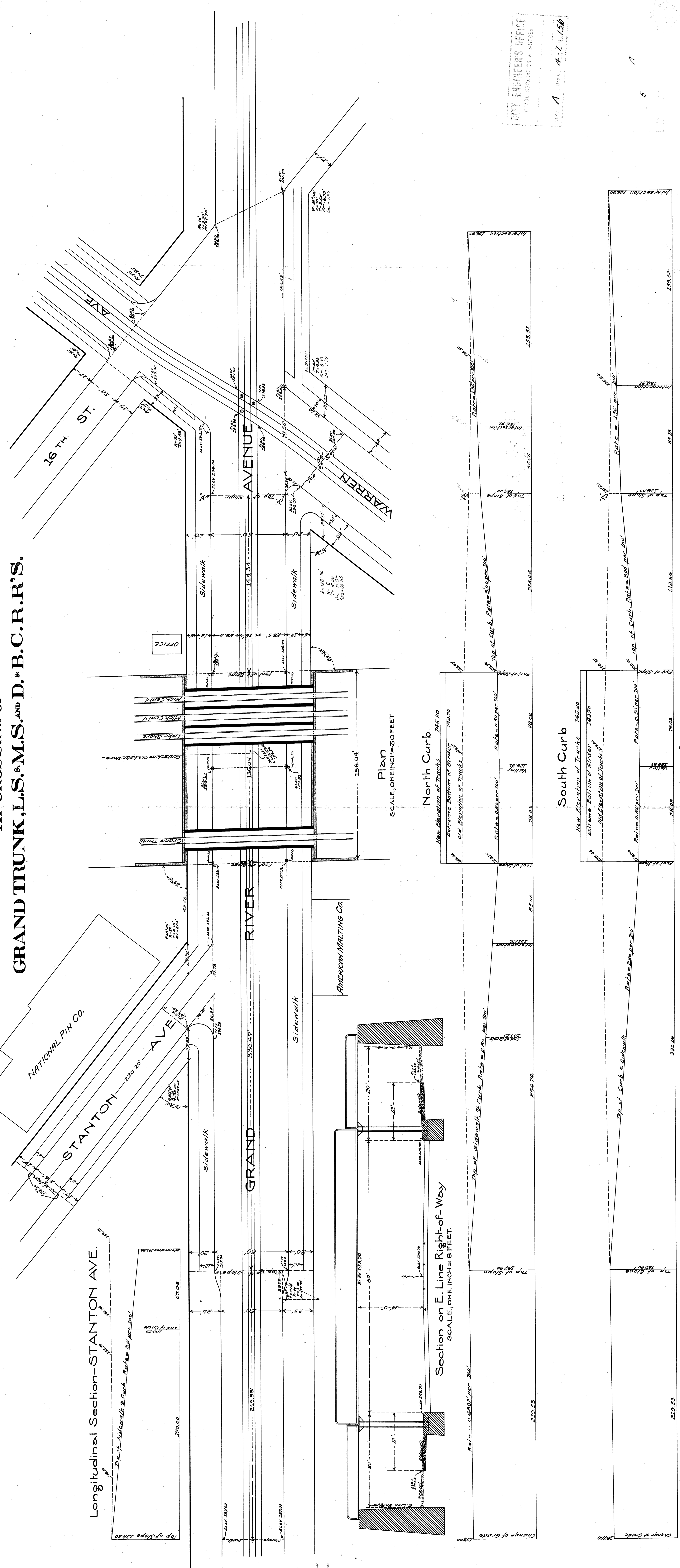


LONGITUDINAL SECTIONS  
HOR. SCALE 1" = 40'  
VER. " 1" = 10'

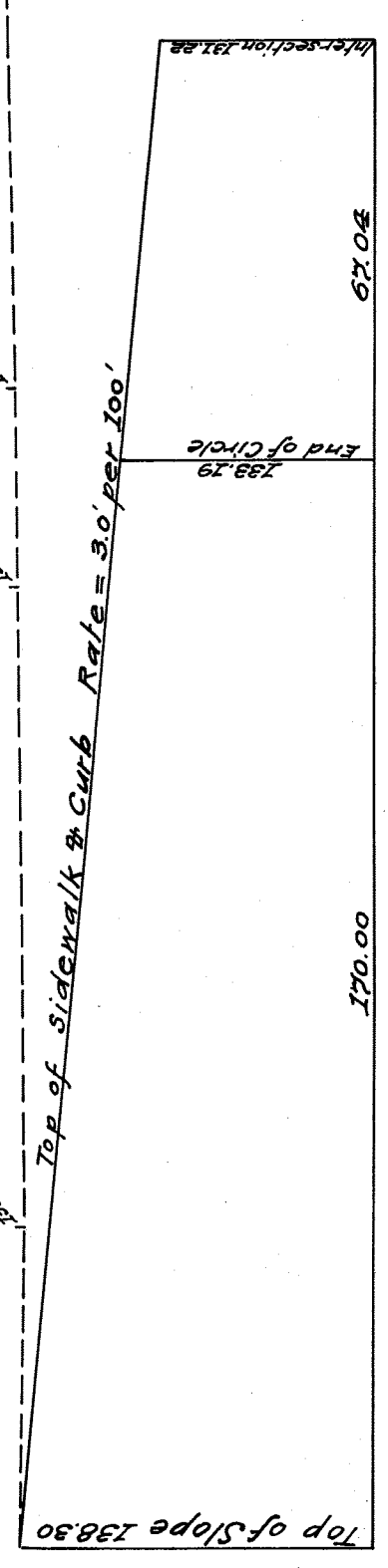
CITY ENGINEER'S OFFICE  
RECEIVED & APPROVED  
JAN 27 1904  
4-I-159  
A



# GRAND RIVER AVE. SUBWAY AT CROSSING OF GRAND TRUNK, I.S. & M.S. AND D. & B.C.R.R.'S.

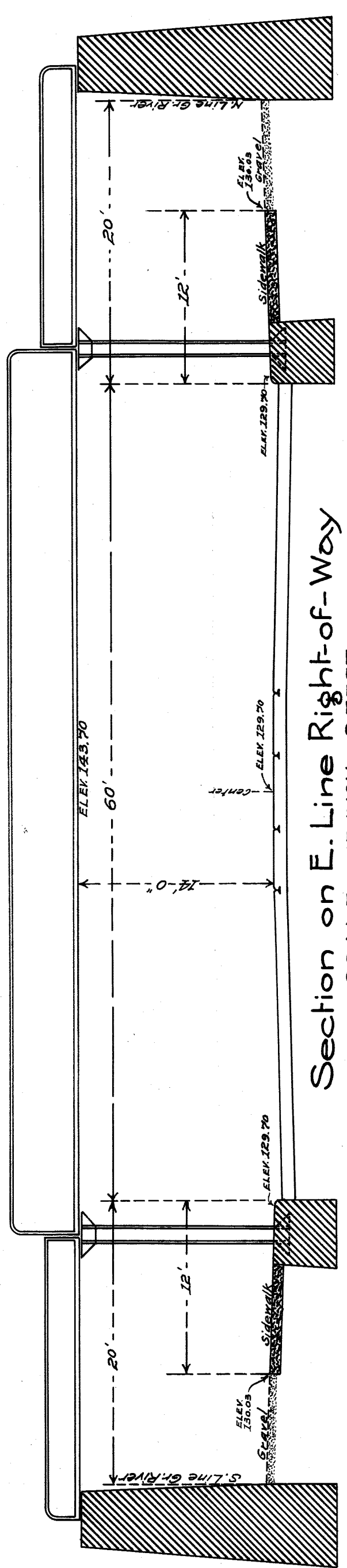


Longitudinal Section-STANTON AVE.

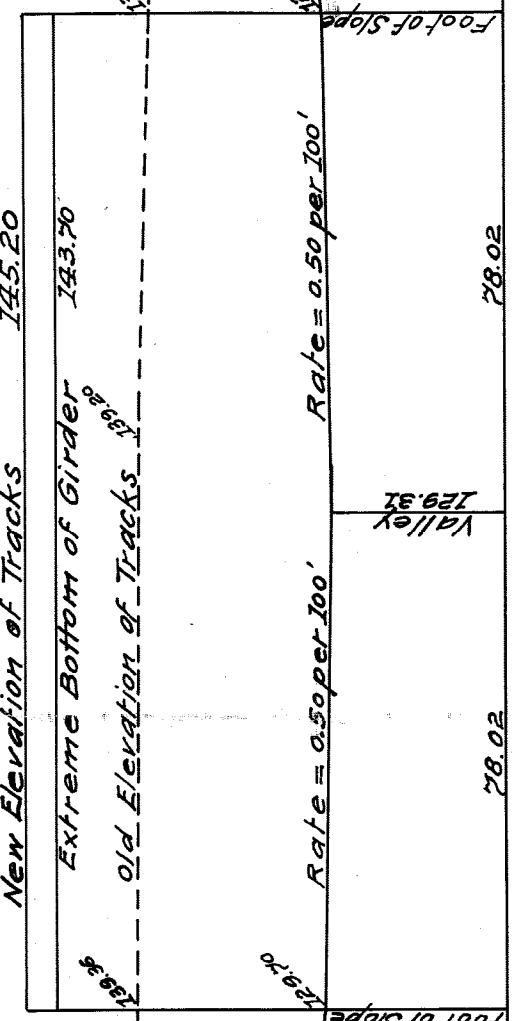


Plan  
SCALE, ONE INCH=30 FEET

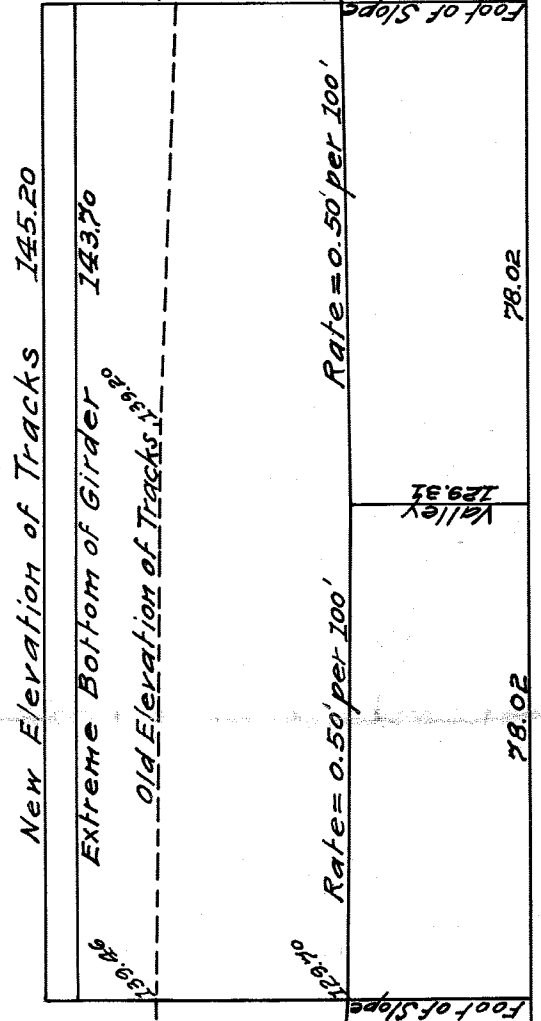
Section on E. Line Right-of-Way  
SCALE, ONE INCH=8 FEET.



North Curb



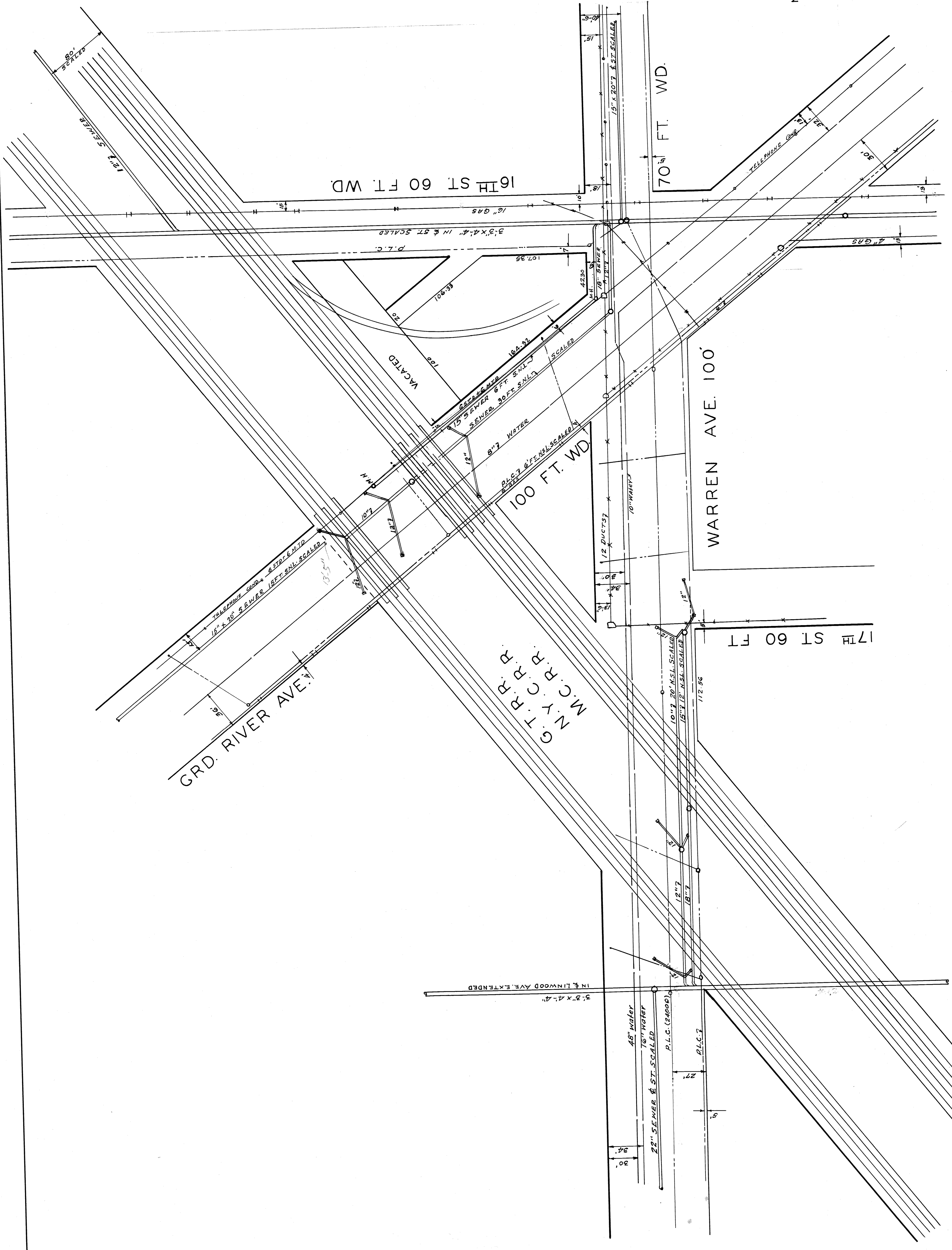
South Curb



Longitudinal Sections  
HOR. SCALE, ONE INCH=30 FEET.  
VER. " " " =10 "

CITY ENGINEERS OFFICE  
GRADE DEPARTMENT & BRIDGES  
Date: A  
Project: 4-I No. 156





**LEGEND**

- WATER MAINS
- EDISON CONDITS
- TELEPHONE CONDUITS
- PUBLIC LIGHT CONDUITS
- SEWERS
- GAS MAINS

NOTE LOCATIONS OF ALL UTILITIES WERE TAKEN FROM BEST AVAILABLE INFORMATION. CITY IS NOT RESPONSIBLE FOR VARIATIONS FROM LOCATIONS SHOWN.

**LOCATION OF UNDER GROUND STRUCTURES  
IN VICINITY OF WARREN & GRD. RIVER.**

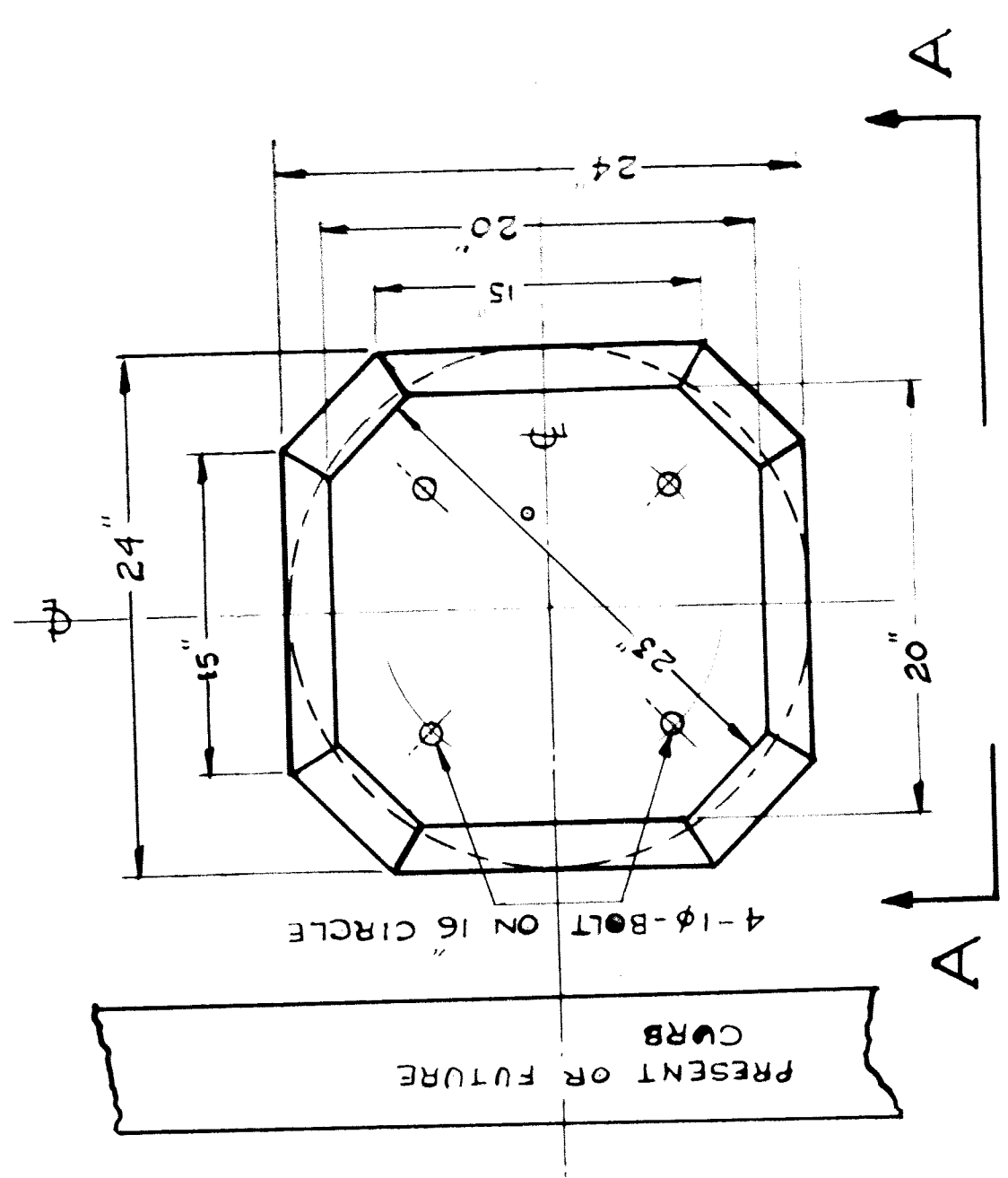
CITY OF DETROIT  
DEPT. OF PUBLIC WORKS  
CITY ENGINEERS OFFICE  
BUREAU OF PUBLIC STRUCTURES  
SCALE: 1" = 50'

File XU 16-55

153

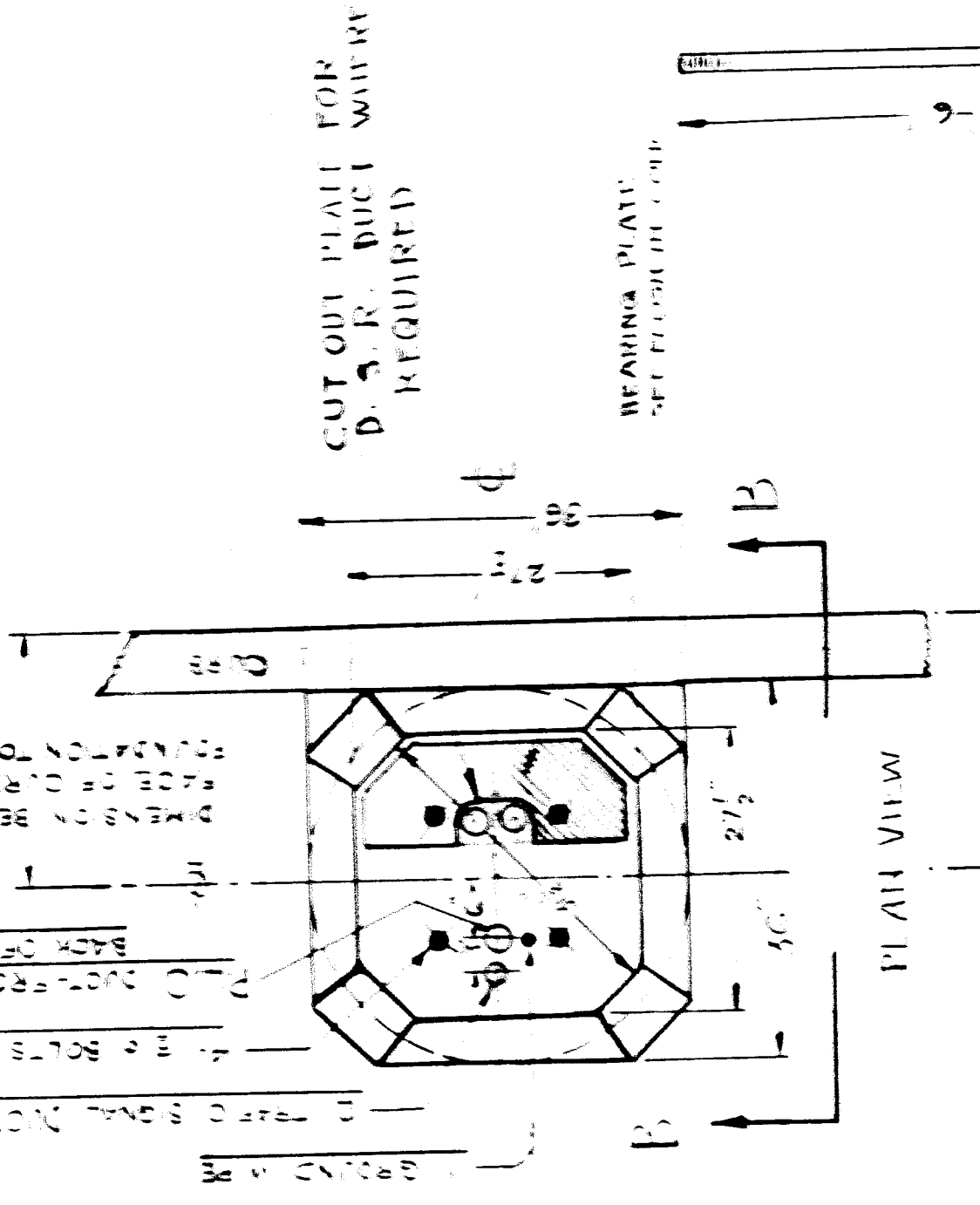


FED. ROAD DIST. NO.	STATE	PROJECT	CITY	SHEET NO.	TOTAL SHEETS
14067	MICH.	2293	Wayne	24	24
FED. ROAD DIST. NO.	STATE	PROJECT	CITY	SHEET NO.	TOTAL SHEETS
14067	MICH.	2293	Wayne	24	24
ROUTE	PROJECT	COUNTY	TWP.	SHEET NO.	TOTAL SHEETS
US 16	82-45	Wayne	Derfont	24	24



**ELEVATION A-A**  
SCALE - 1/2" = 1'-0"

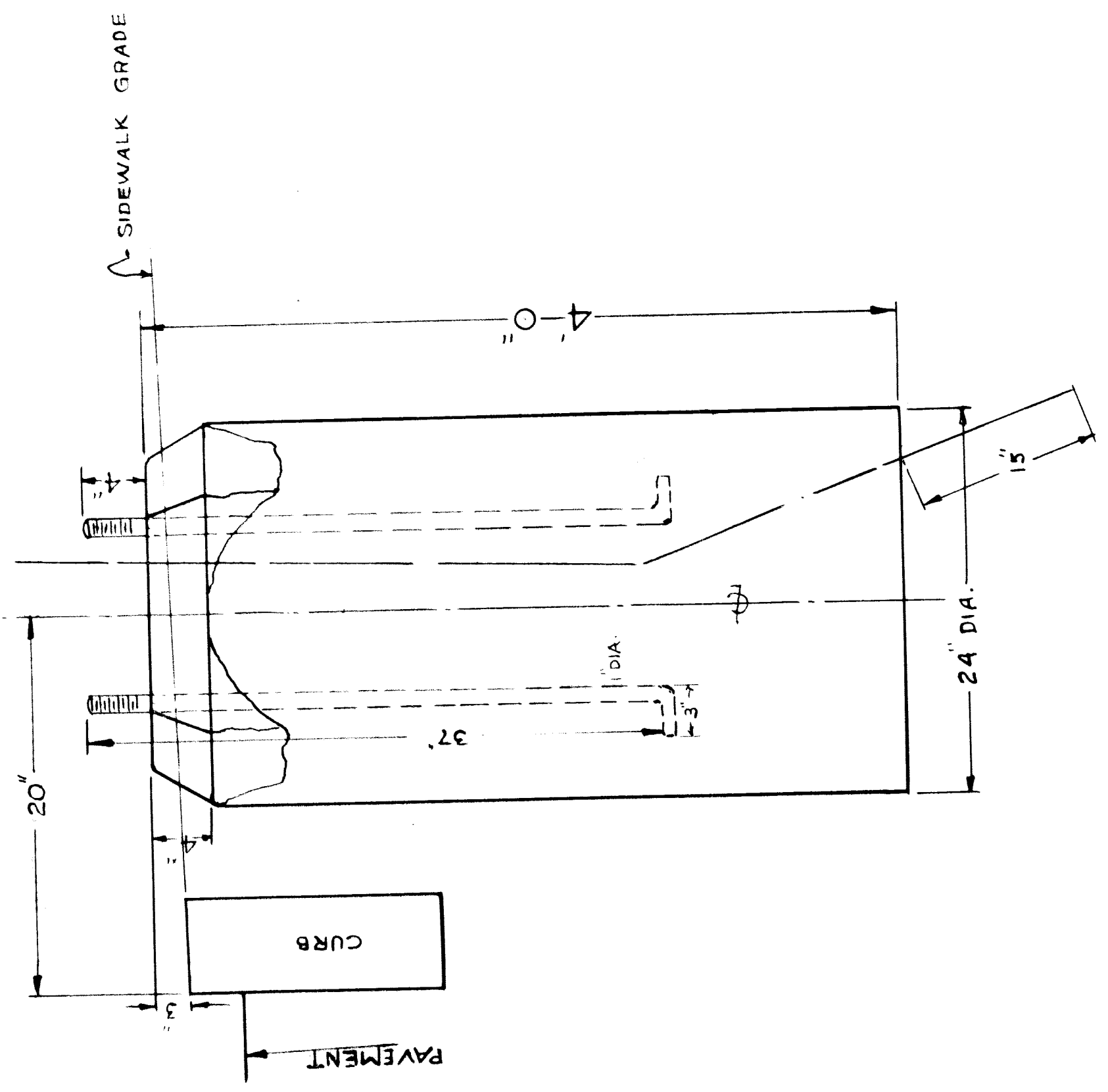
**FOUNDATION DETAIL #7**  
FOR LIGHTING STANDARD NO. 4951.



**DETAIL #1**

**FOUNDATION DETAIL #6**

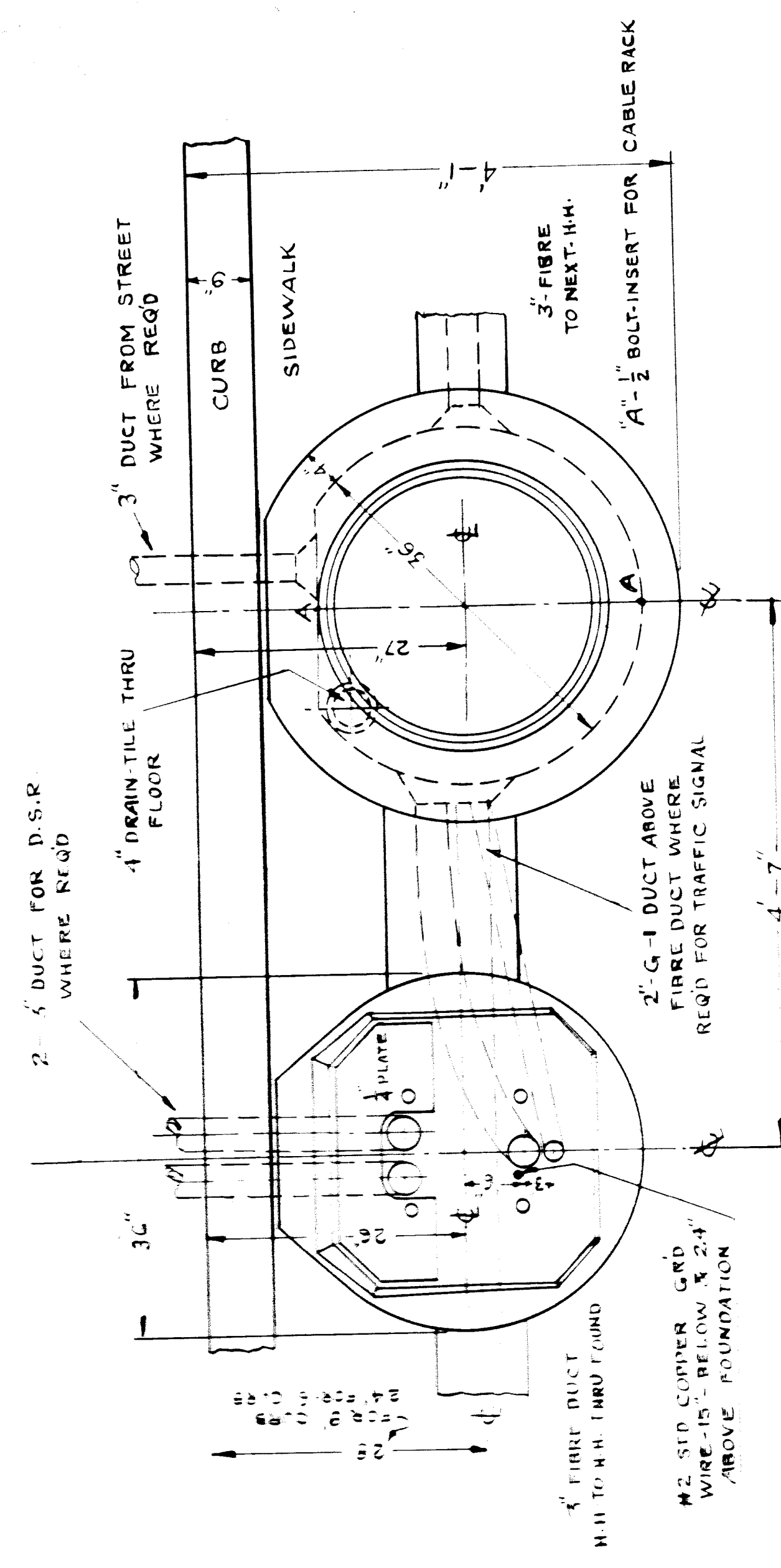
FOR LIGHTING STANDARD NO. 4190



**VIEW B-B**

SCALE - 3/4" = 1'-0"

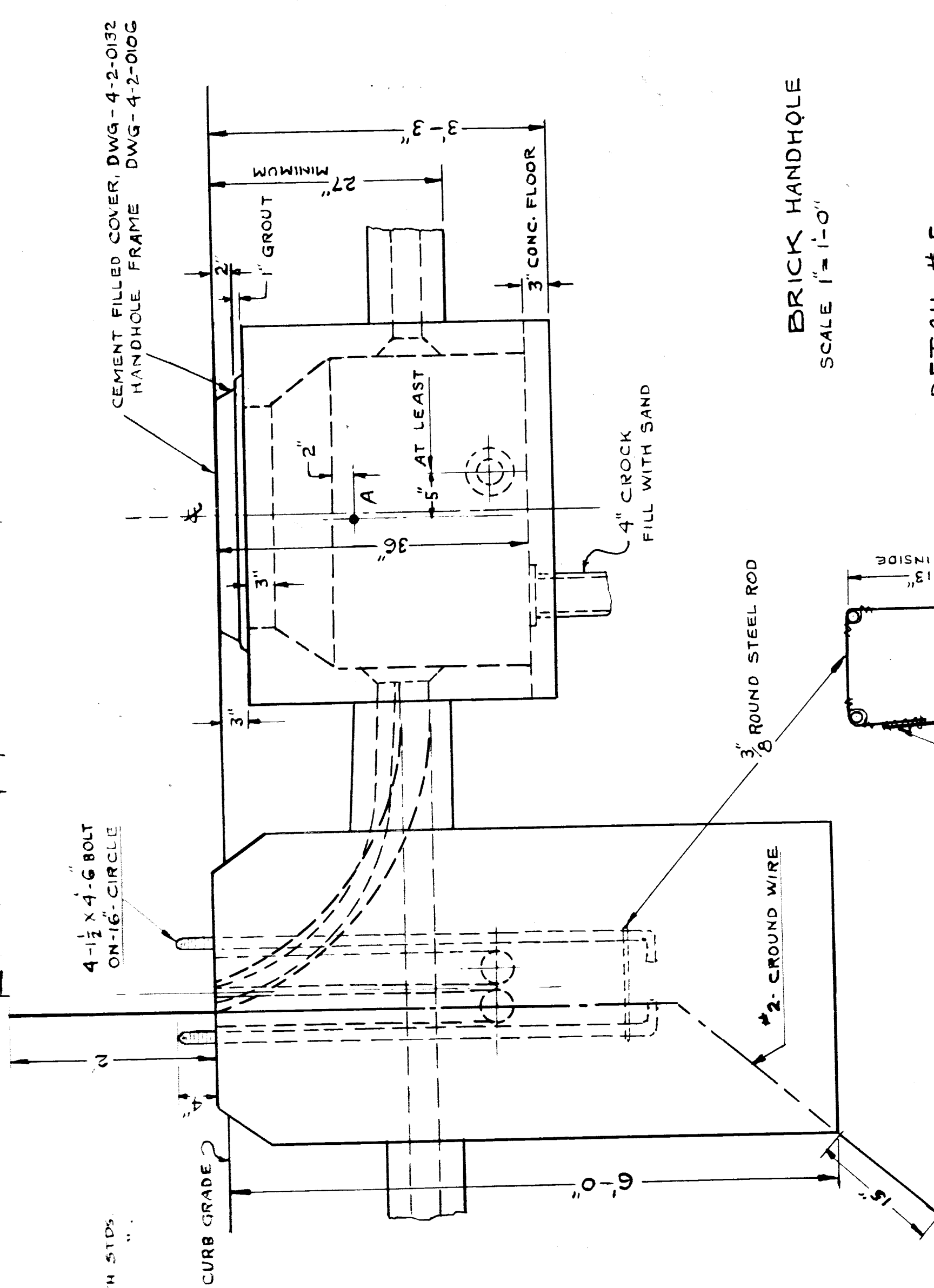
**DETAILS OF LIGHTING STANDARD FOUNDATIONS AND BRICK HANDHOLES**



**FOUNDATION SCALE - 1" = 1'-0"**

**DETAIL #5**

FOR LIGHTING STANDARD NO. 4790



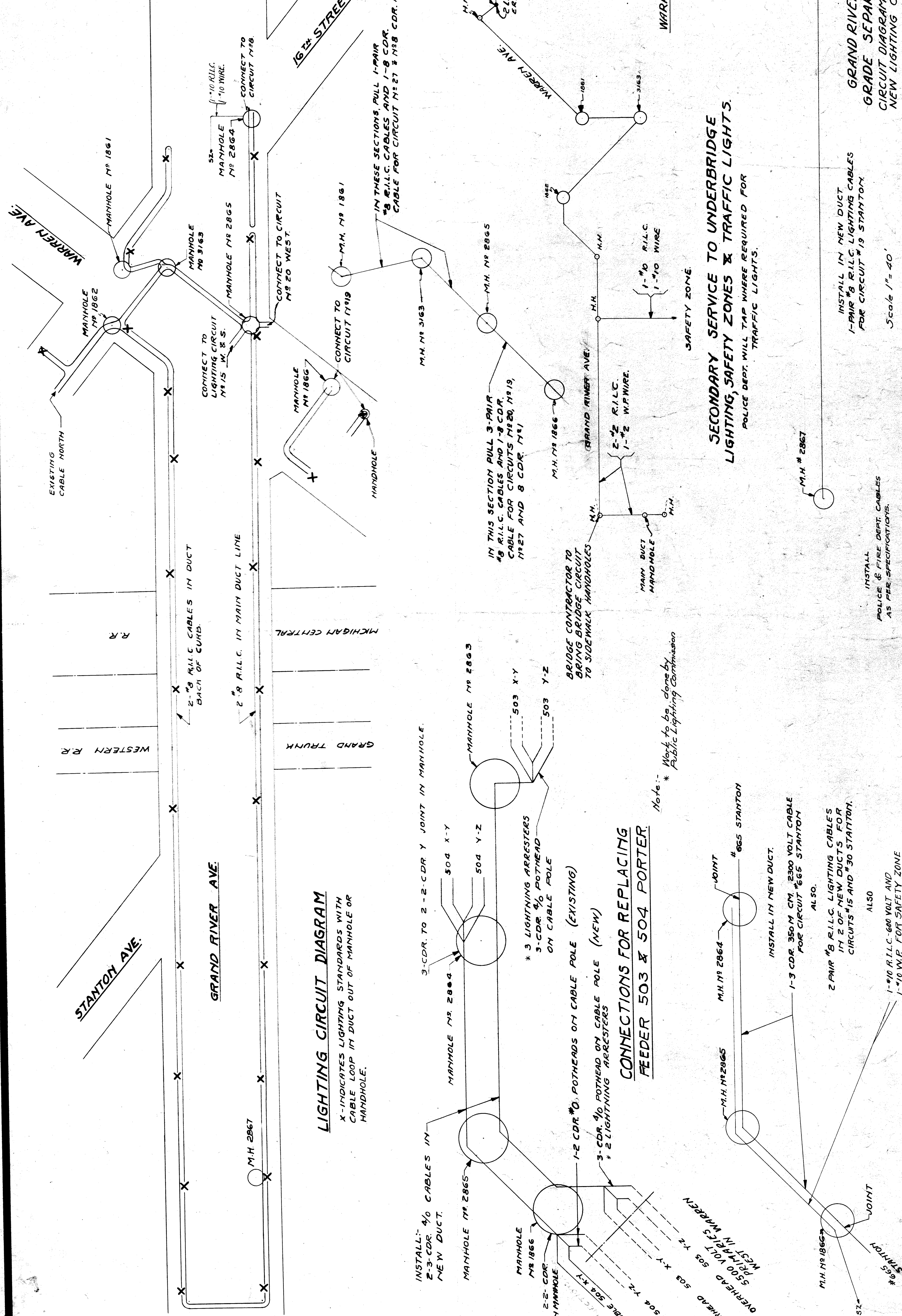
**BRICK HANDHOLE SCALE 1" = 1'-0"**

**#14 IRON WIRE BINDER**

FILE XU 16-59



FED. ROAD DIST. NO.	STATE	ROUTE	PROJECT	FISCAL YEAR	FEED. AID PROJ. NO.	TWP.	COUNTY	SHEET NO.	TOTAL SHEETS
7	MICH.	229	Wayne Detroit	23					



**LIGHTING CIRCUIT DIAGRAM**

X-INDICATES LIGHTING STANDARDS WITH CABLE LOOP IN DUCT OUT OF MANHOLE OR HANDHOLE.

**CONNECTIONS FOR REPLACING FEEDER 503 & 504 PORTER**

Work to be done by Public Lighting Commission

**SECONDARY SERVICE TO UNDERBRIDGE LIGHTING, SAFETY ZONES & TRAFFIC LIGHTS.**

POLICE DEPT. WILL TAP WHERE REQUIRED FOR TRAFFIC LIGHTS.

INSTALL IN NEW DUCT 1-PAIR #8 R.I.L.C. LIGHTING CABLES FOR CIRCUIT #19 STANTON.

Scale 1" = 40'

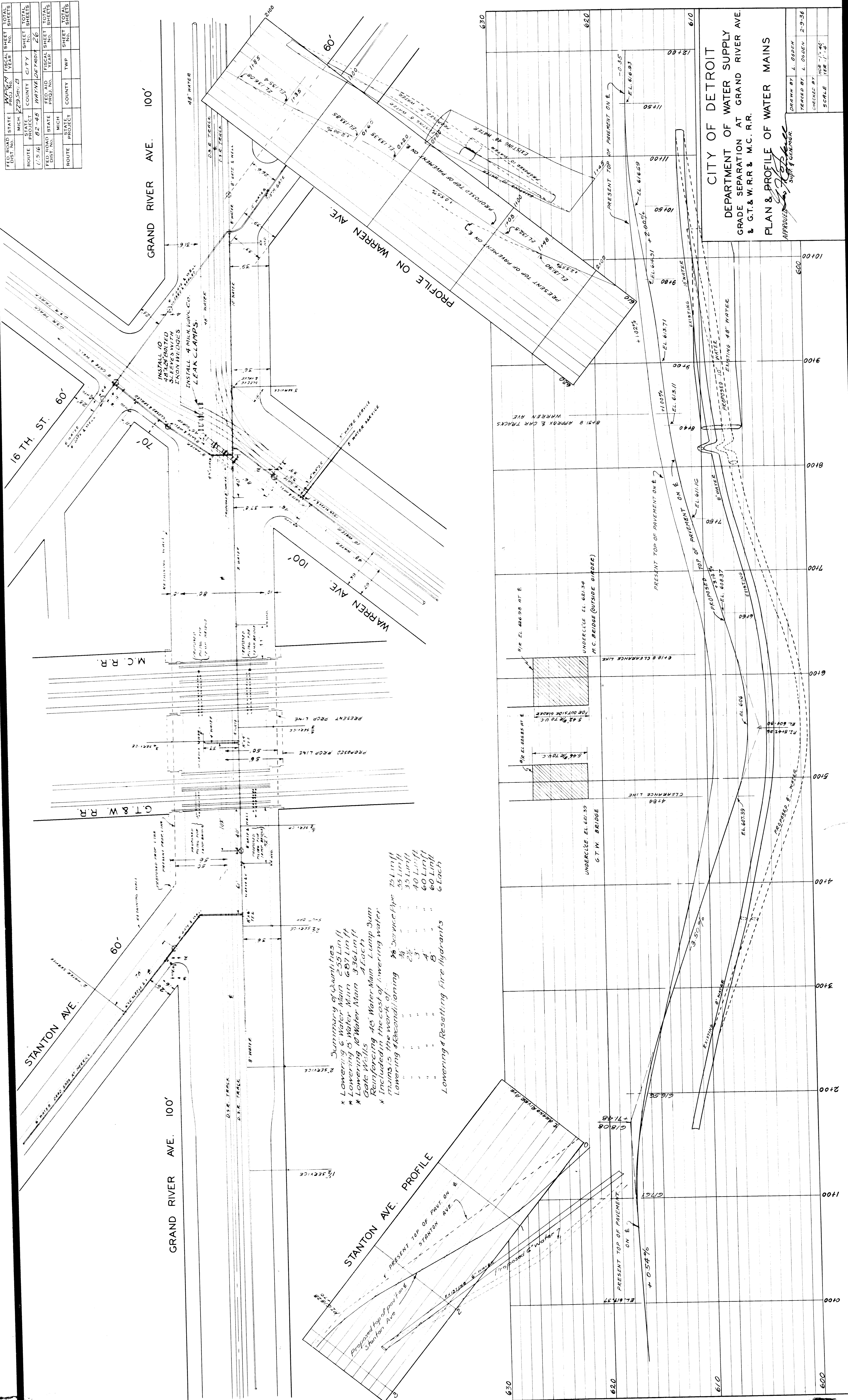
GRAND RIVER-M.C.R.R.-G.T.R.R. GRADE SEPARATION PROJECT CIRCUIT DIAGRAMS SHOWING CABLES IN NEW LIGHTING COMMISSION DUCTS



FED. ROAD DIST. NO.	STATE	ROUTE	PROJECT	CITY	SHEET NO.	TOTAL SHEETS
17516	MI.	229	WARREN	DETROIT	26	26
FED. ROAD DIST. NO.	STATE	ROUTE	PROJECT	CITY	SHEET NO.	TOTAL SHEETS
17516	MI.	229	WARREN	DETROIT	26	26

GRAND RIVER AVE. 100'

GRAND RIVER AVE. 100'



**Summary of Quantities**

- \* Lowering 6" Water Main 255 Lin. ft.
- \* Lowering 8" Water Main 607 Lin. ft.
- \* Lowering 10" Water Main 336 Lin. ft.
- \* Gate Wells
- \* Reinforcing 48" Water Main Lump Sum
- \* Included in the cost of lowering water mains is the work of:
  - Lowering & Reconditioning 75' Service Pipe
  - " " " " 35' Lift
  - " " " " 30' Lift
  - " " " " 40' Lift
  - " " " " 60' Lift
  - " " " " 60' Lift
  - " " " " 6' Each
- Lowering & Resetting Fire Hydrants

**CITY OF DETROIT**  
 DEPARTMENT OF WATER SUPPLY  
 GRADE SEPARATION AT GRAND RIVER AVE.  
 & G.T. & W.R. & M.C. R.R.

**PLAN & PROFILE OF WATER MAINS**

APPROVED: *[Signature]*  
 Supt. & Engineer

DRAWN BY: L. OGDEN  
 TRACED BY: L. OGDEN 2-9-36  
 CHECKED BY: [Blank] 10-17-40  
 SCALE: 1" = 1'-0"



FED. ROAD DIST. NO.	STATE	MICH.	PROJECT	ROUTE	US 10
FISCAL YEAR	2025	COUNTY	WAYNE	FED. AID PROJ. NO.	
SHEET NO.	29	CITY	DETROIT	FISCAL YEAR	
TOTAL SHEETS	29				

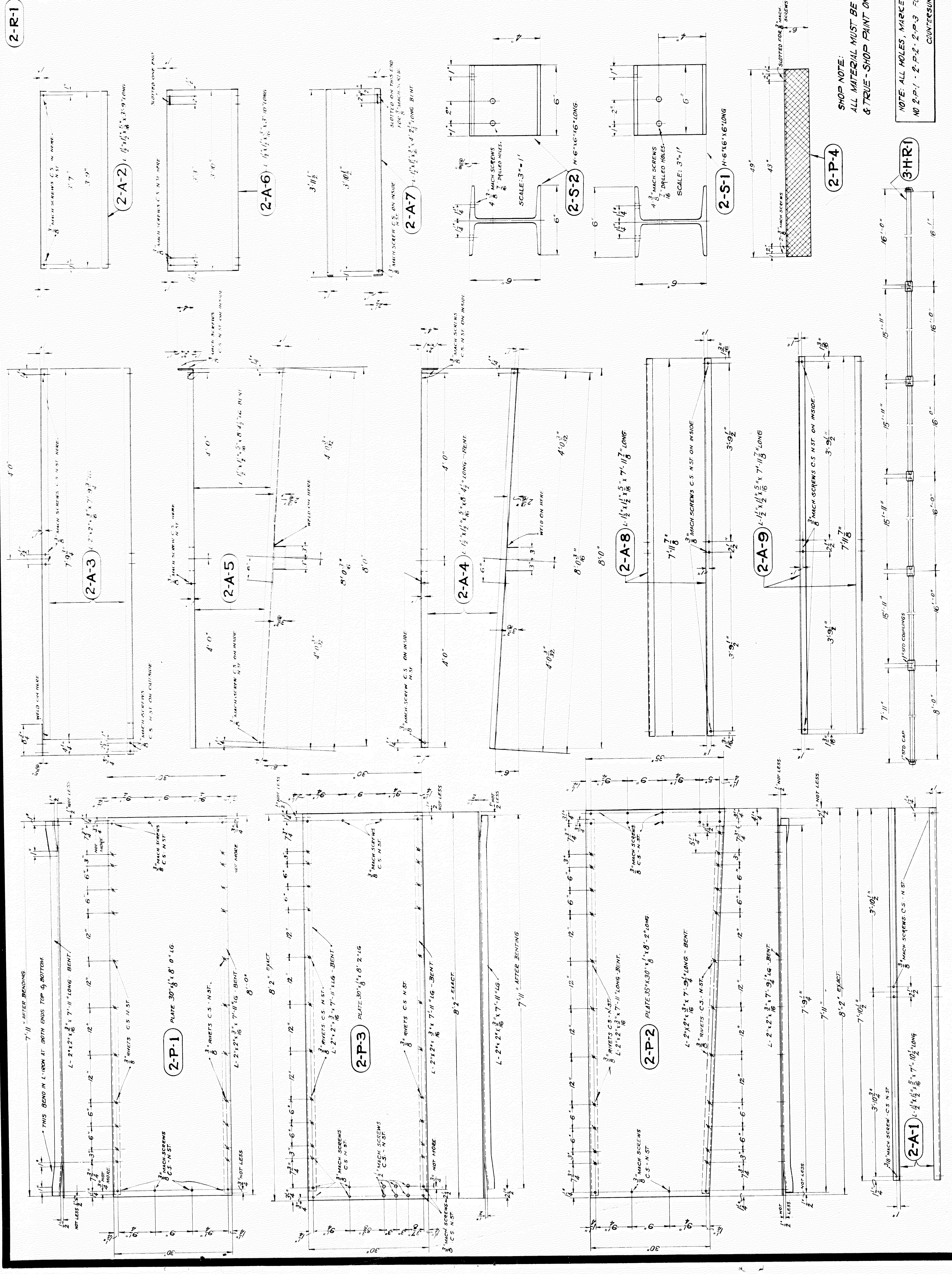
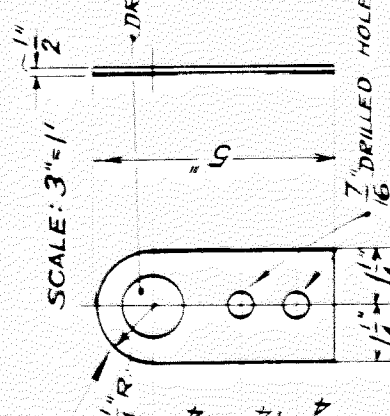
NO.	MATERIAL	QUANTITY	REMARKS	MILL ORDER NO.	LENGTH INCH	WEIGHT LB.
1	PLATE 30" x 1/8"	1304	EXACT SQUARE			
2	L-IRON 2" x 2" x 1/8"	24	BENT ON BOTH ENDS			
3	PLATE 30" x 3/8"	1304	EXACT SQUARE			
4	L-IRON 2" x 2" x 1/8"	244	BENT AT BOTH ENDS			
5	L-IRON 2" x 2" x 1/8"	260	" " " "			
6	PLATE 30" x 3/8"	1308	EXACT SQUARE			
7	L-IRON 2" x 2" x 1/8"	244	BENT ON BOTH ENDS			
8	PLATE 1/2" THICK x 49"	2	BENT SQUARE			
9	ANGLE IRON 2" x 4"	112	BENT SQUARE			
10	L-IRON 1/2" x 1/2" x 1/8"	28	BENT ONE END			
11	ANGLE IRON 2" x 4"	28	BENT ONE END			
12	L-IRON 1/2" x 1/2" x 1/8"	28	BENT ONE END			
13	ANGLE IRON 2" x 4"	28	BENT ONE END			
14	L-IRON 1/2" x 1/2" x 1/8"	28	BENT ONE END			
15	ANGLE IRON 2" x 4"	28	BENT ONE END			
16	L-IRON 1/2" x 1/2" x 1/8"	28	BENT ONE END			
17	ANGLE IRON 2" x 4"	28	BENT ONE END			
18	L-IRON 1/2" x 1/2" x 1/8"	28	BENT ONE END			
19	ANGLE IRON 2" x 4"	28	BENT ONE END			
20	L-IRON 1/2" x 1/2" x 1/8"	28	BENT ONE END			
21	ANGLE IRON 2" x 4"	28	BENT ONE END			
22	L-IRON 1/2" x 1/2" x 1/8"	28	BENT ONE END			
23	ANGLE IRON 2" x 4"	28	BENT ONE END			
24	L-IRON 1/2" x 1/2" x 1/8"	28	BENT ONE END			
25	ANGLE IRON 2" x 4"	28	BENT ONE END			
26	L-IRON 1/2" x 1/2" x 1/8"	28	BENT ONE END			
27	ANGLE IRON 2" x 4"	28	BENT ONE END			
28	L-IRON 1/2" x 1/2" x 1/8"	28	BENT ONE END			
29	ANGLE IRON 2" x 4"	28	BENT ONE END			
30	L-IRON 1/2" x 1/2" x 1/8"	28	BENT ONE END			
31	ANGLE IRON 2" x 4"	28	BENT ONE END			
32	L-IRON 1/2" x 1/2" x 1/8"	28	BENT ONE END			
33	ANGLE IRON 2" x 4"	28	BENT ONE END			
34	L-IRON 1/2" x 1/2" x 1/8"	28	BENT ONE END			
35	ANGLE IRON 2" x 4"	28	BENT ONE END			
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98	L-IRON 1/2" x 1/2" x 1/8"	28	BENT ONE END			
99	ANGLE IRON 2" x 4"	28	BENT ONE END			
100	L-IRON 1/2" x 1/2" x 1/8"	28	BENT ONE END			

**CITY OF DETROIT**  
 DEPARTMENT OF PUBLIC WORKS  
 CITY ENGINEERS OFFICE

THE DETROIT SAFETY ZONE (63' LONG)  
 CONSTRUCTION  
 DETAILS  
 PRINT NO. 2.

FEBRUARY 21-1936  
 DRAWN BY: H.SCH.  
 SCALE: 1" = 1' & 3/4" = 1'

DETAIL DRAWINGS  
 ALL OTHERS  
 APPROVED:



FILE NO. S-7-C-1  
 PROJECT SEC. NO. 82-43 B 29

SHOP NOTE:  
 ALL MATERIAL MUST BE EXACT STRAIGHT  
 & TRUE - SHOP PAINT ONE COAT GRAY.

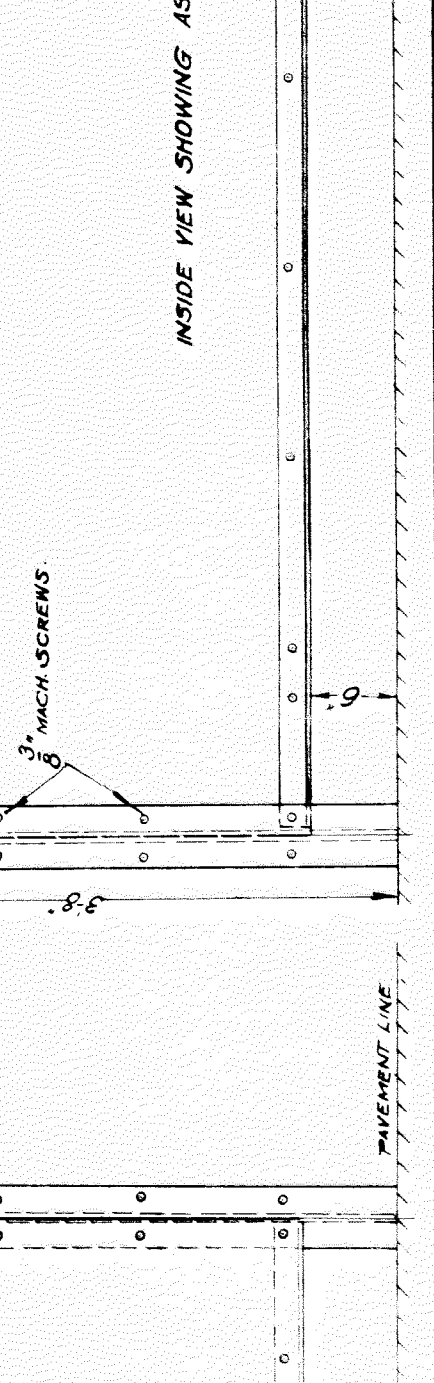
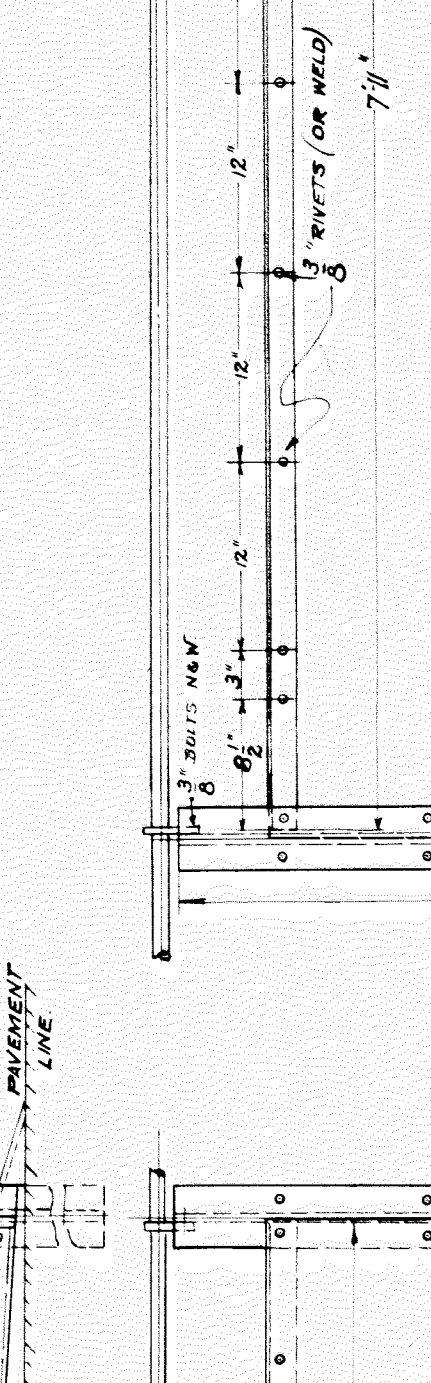
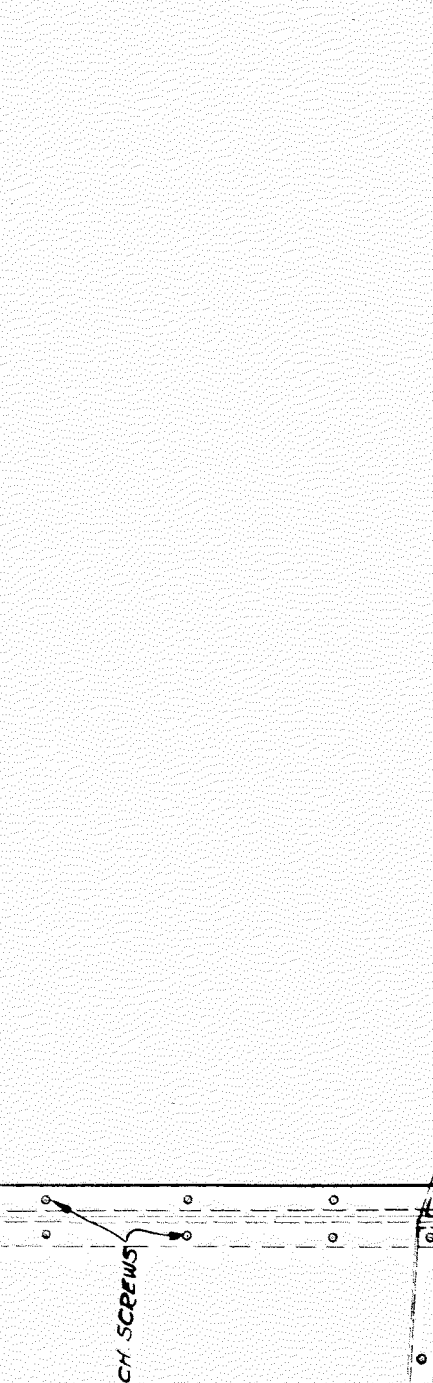
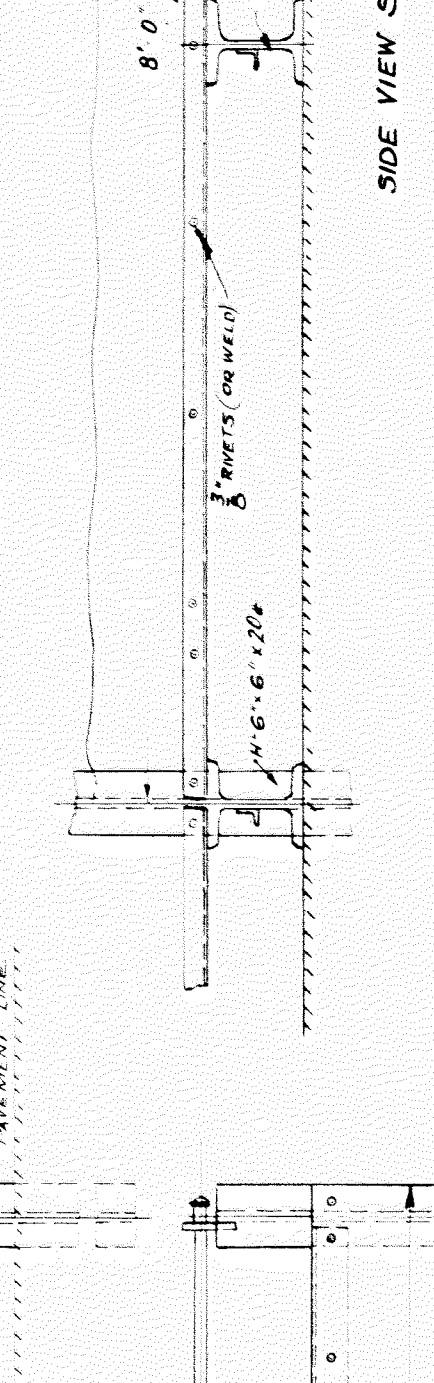
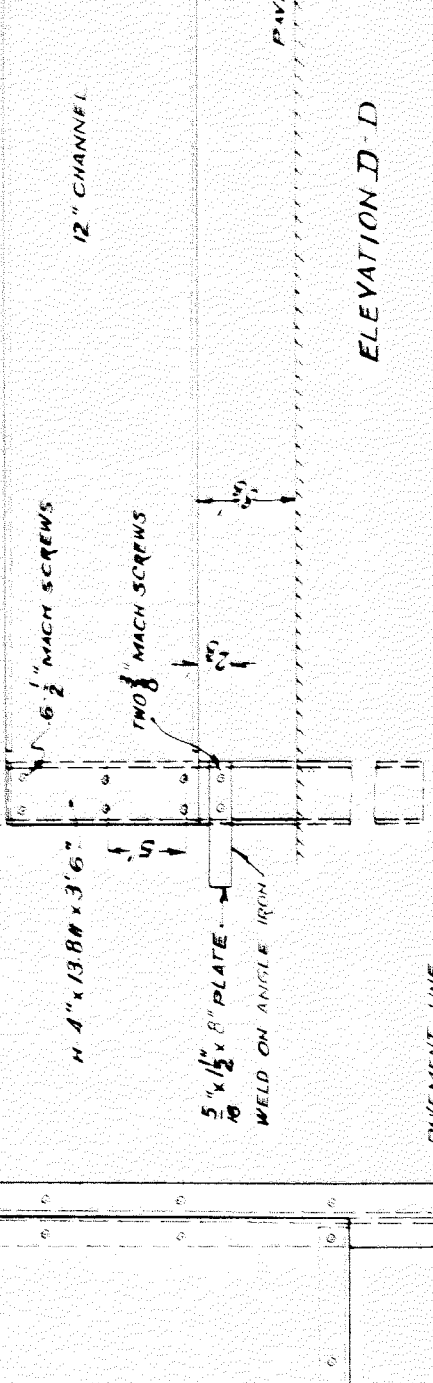
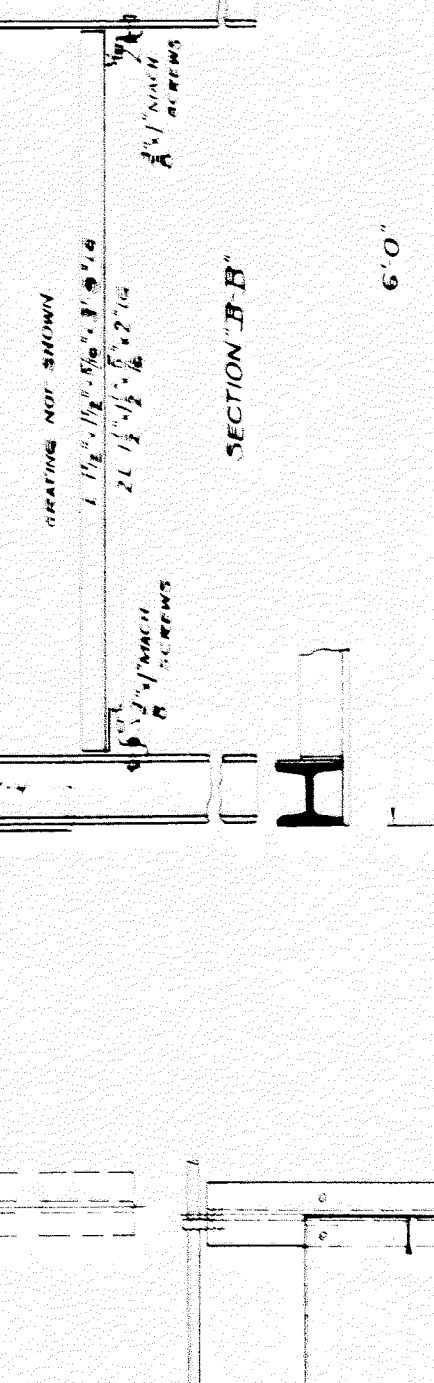
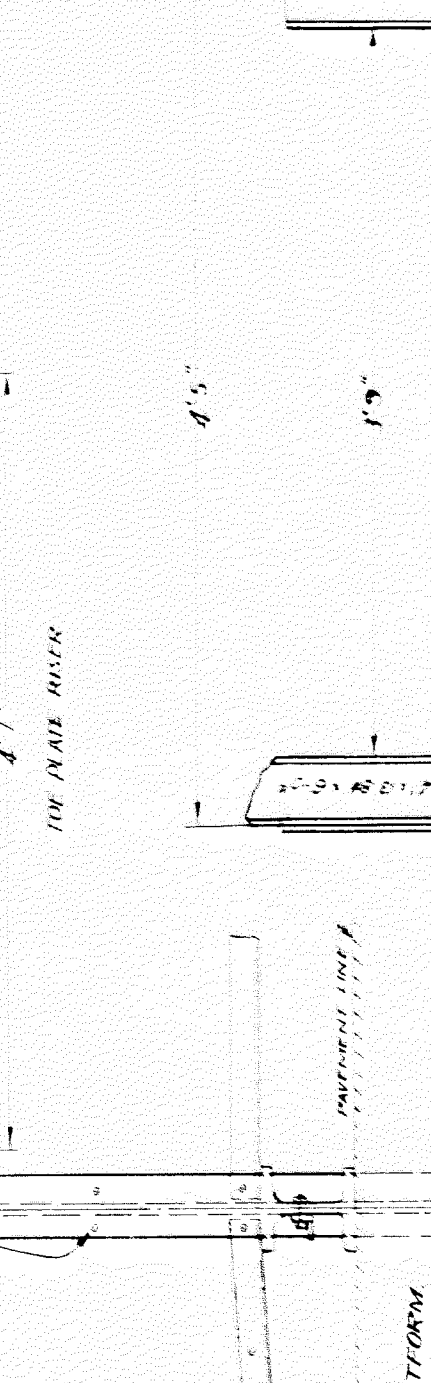
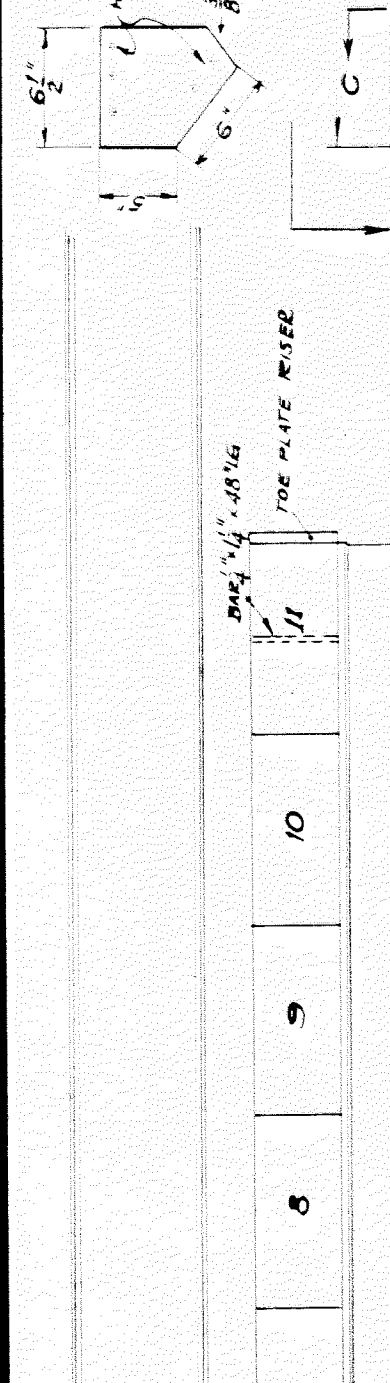
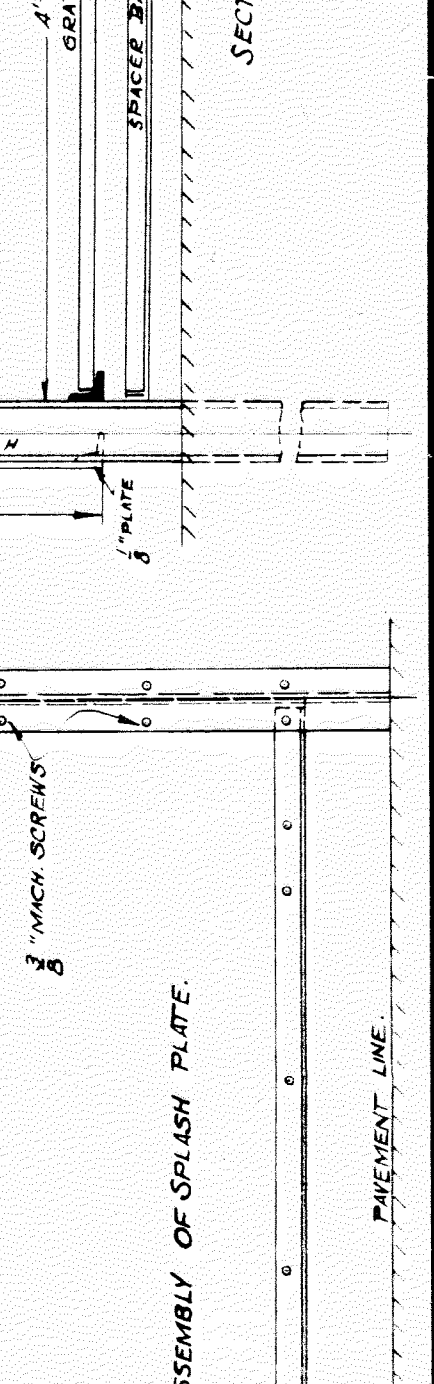
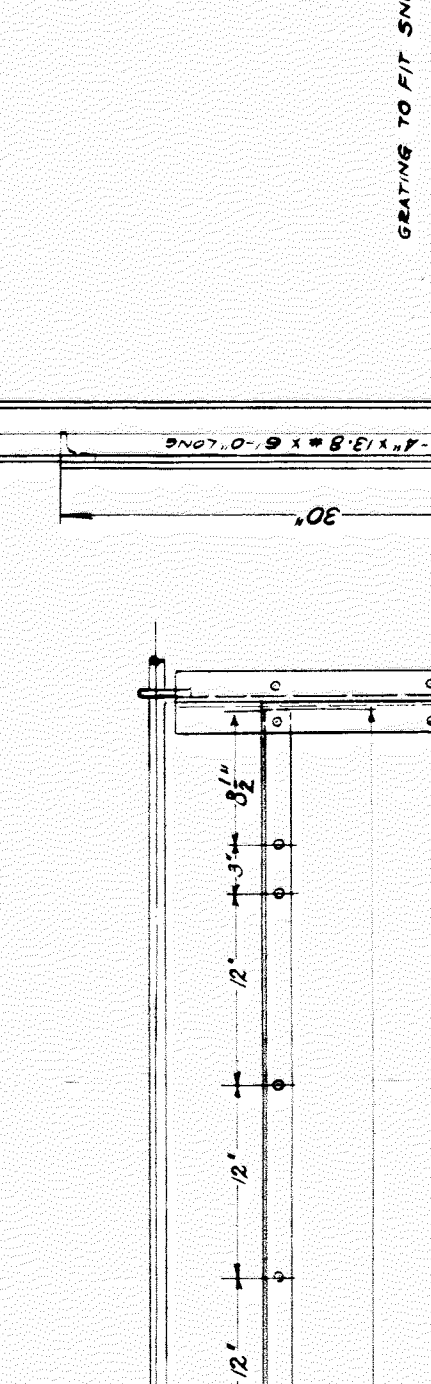
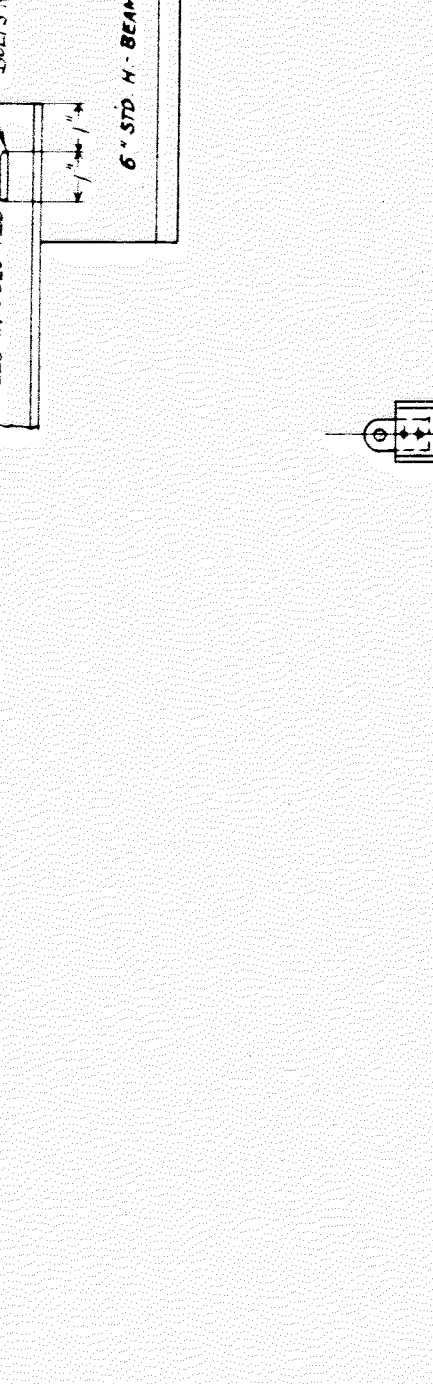
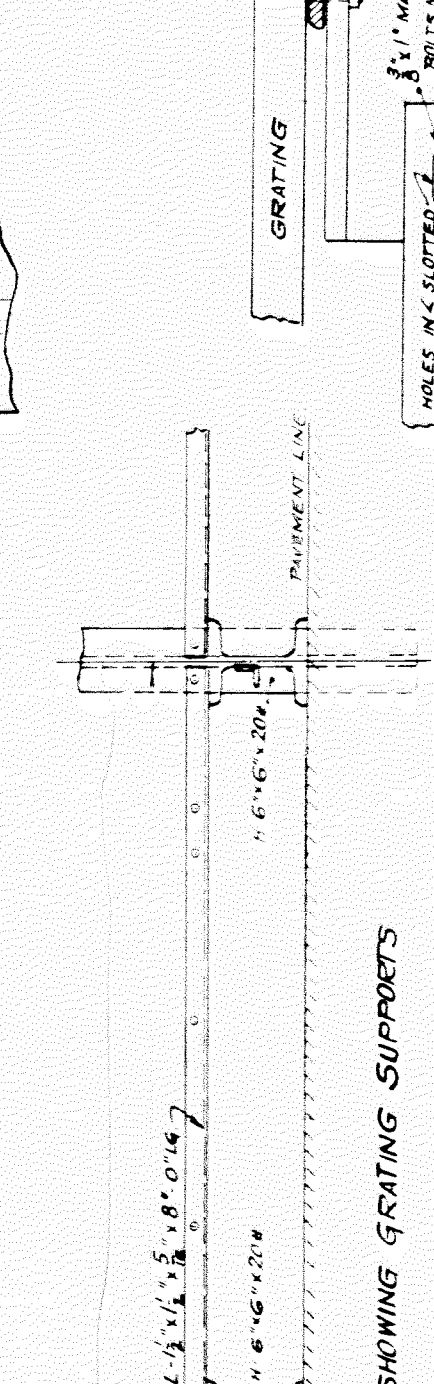
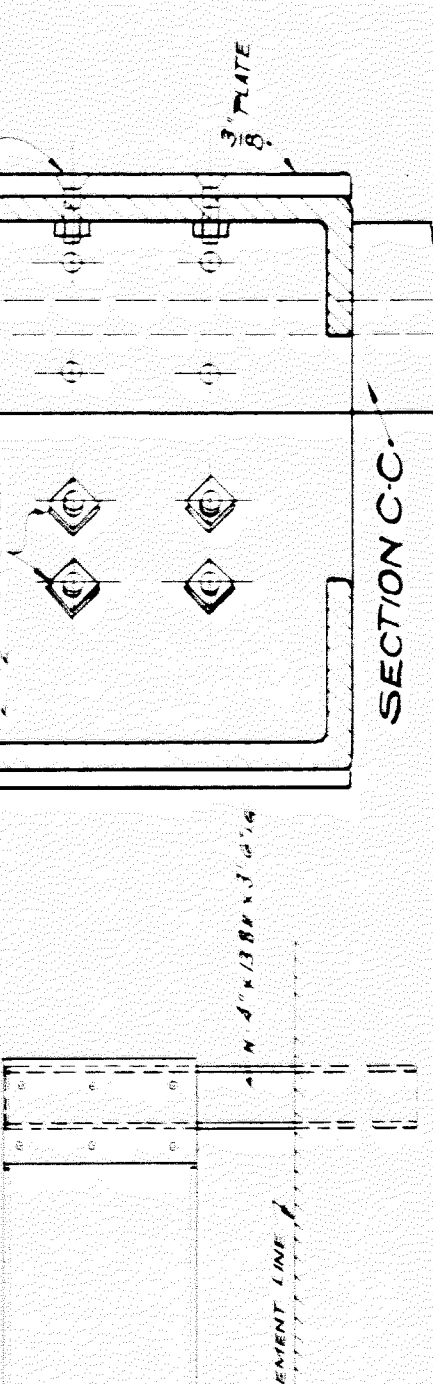
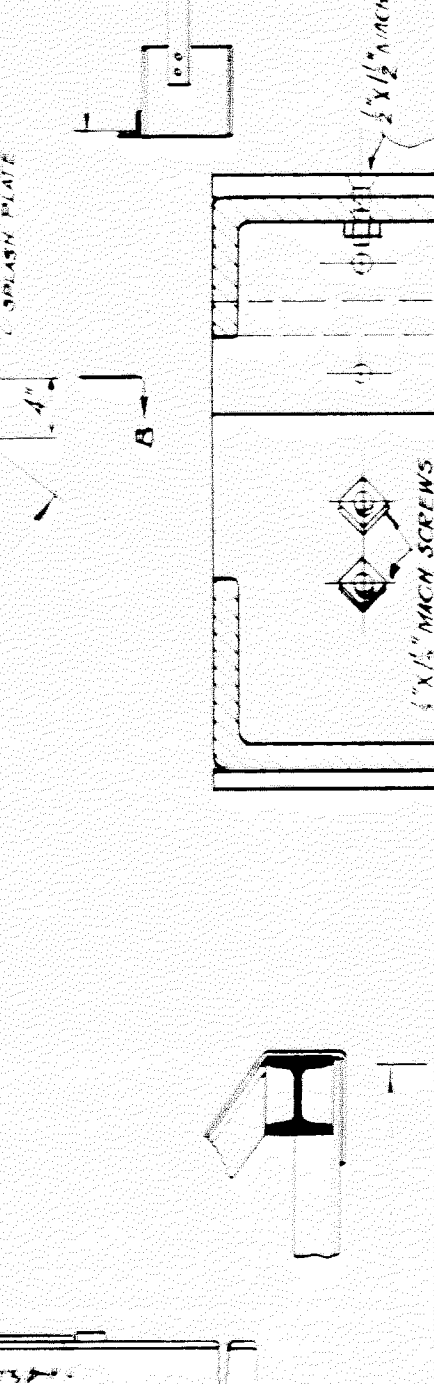
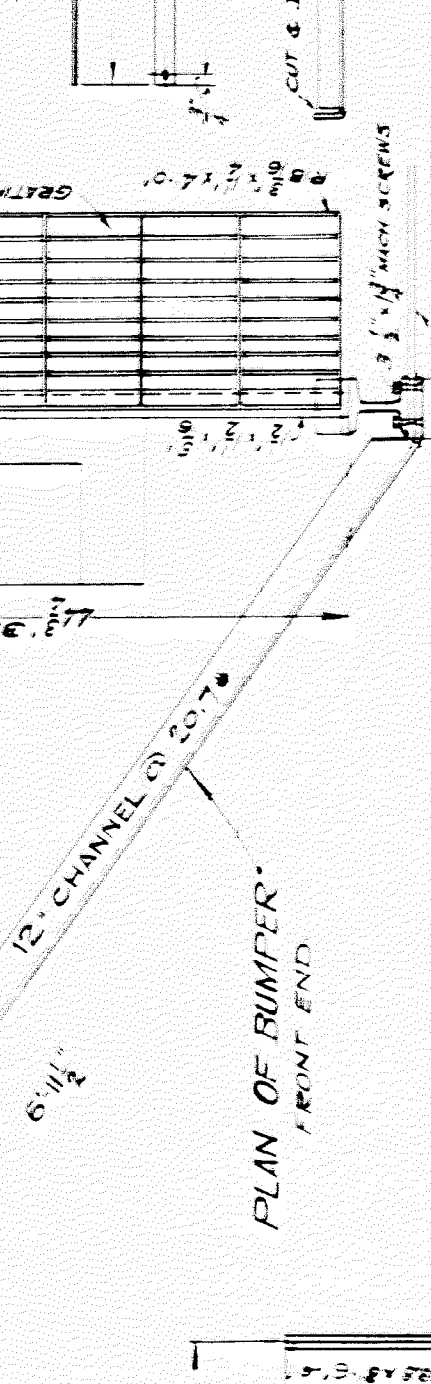
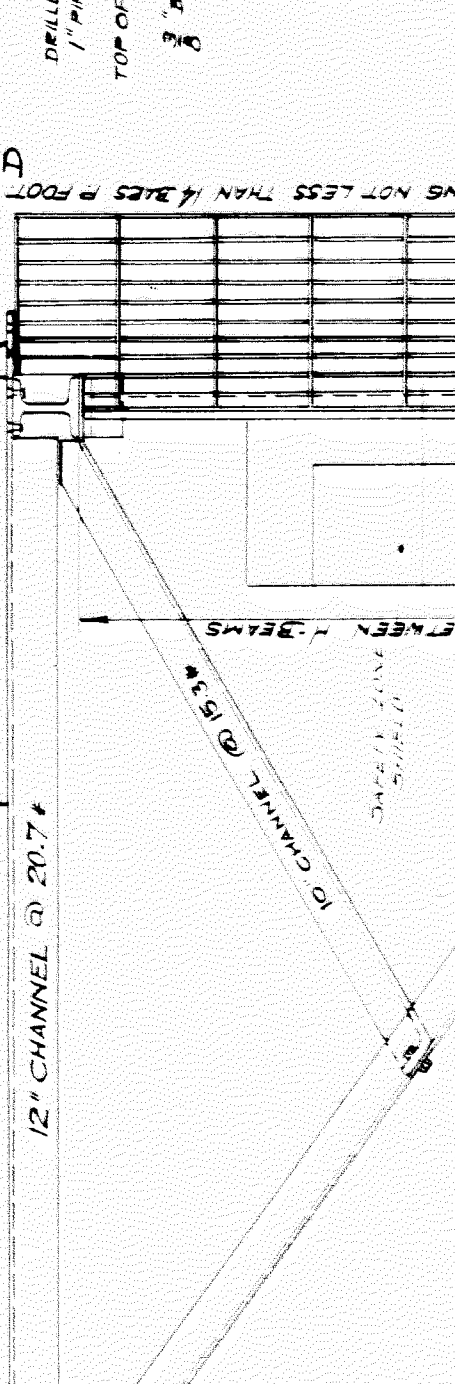
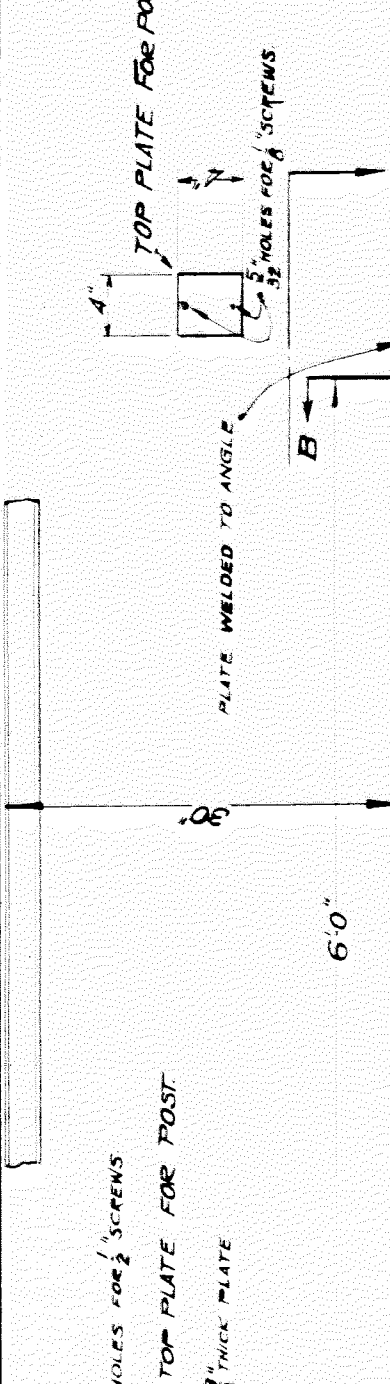
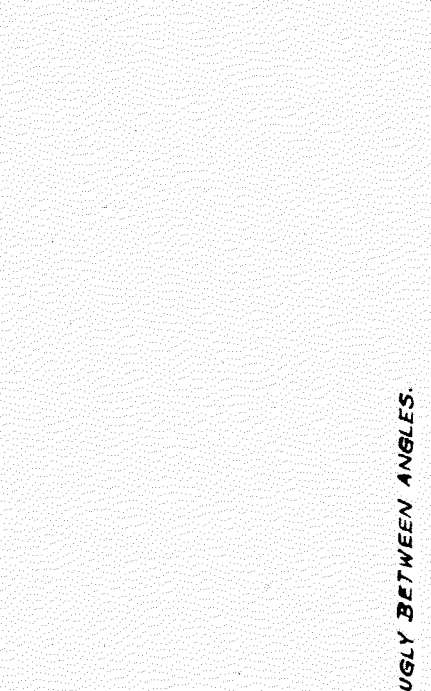
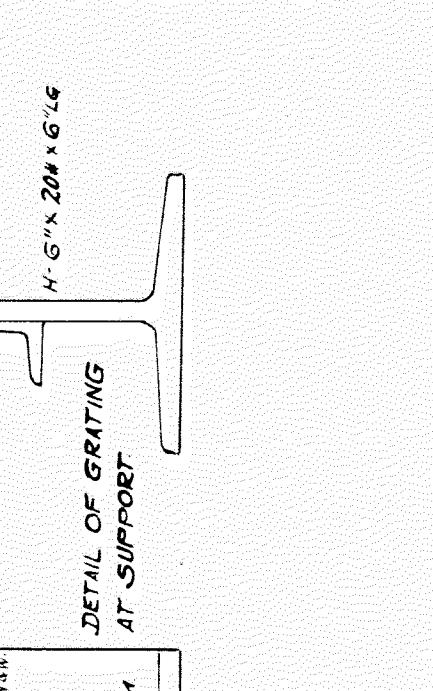
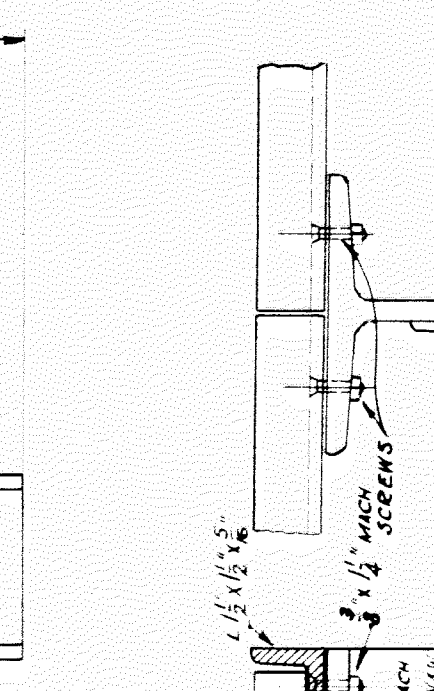
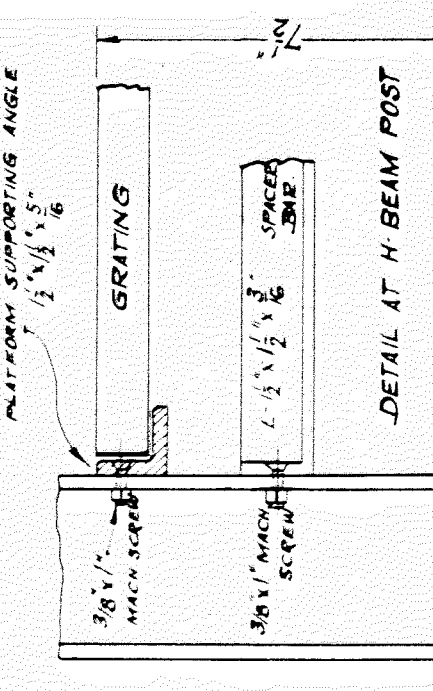
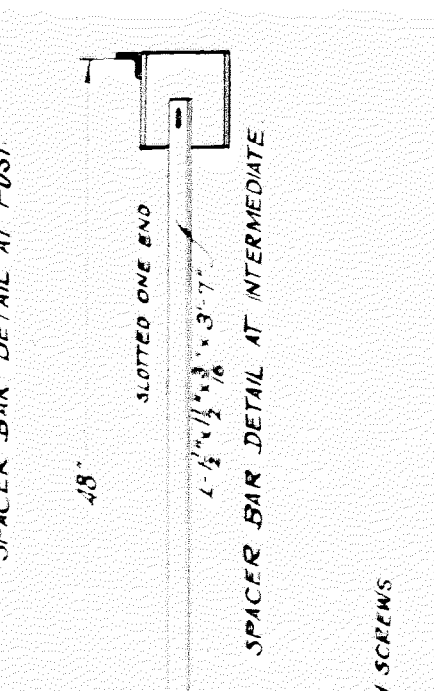
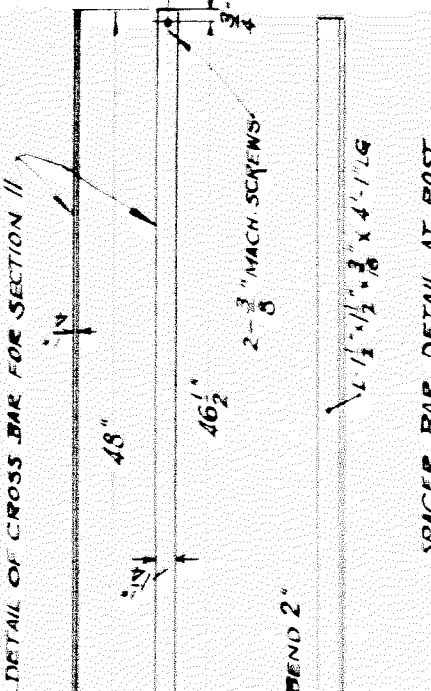
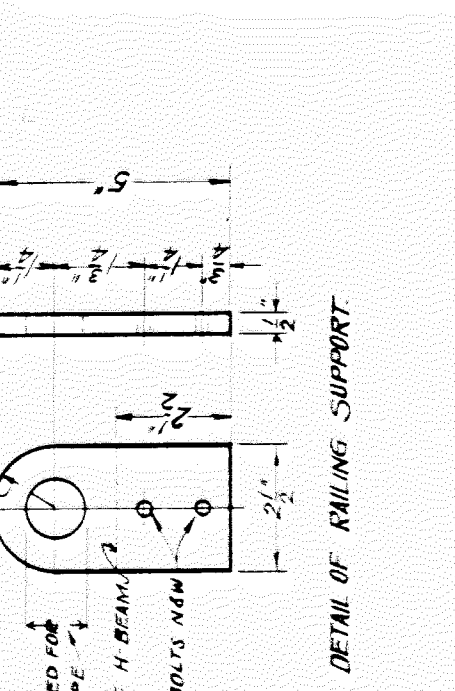
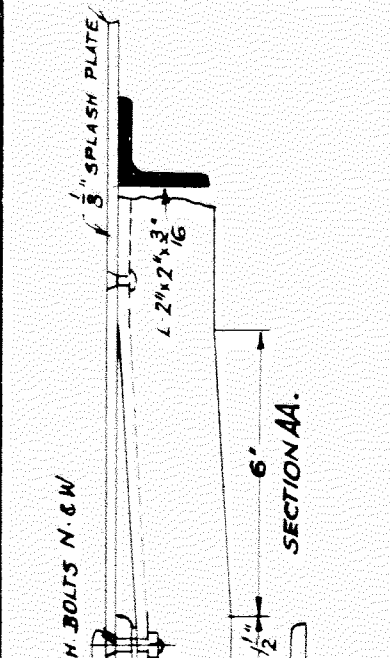
NOTE: ALL HOLES, MARKED O ON PLATES  
 NO 2-P-1 - 2-P-2 - 2-P-3 FOR 3/8" RIVETS  
 COUNTERSINK N ST. FLUSH



FED. ROAD DIST. NO.	STATE	TYPE	FISCAL YEAR	TOTAL SHEETS
7	MICH.	229 360 9	1936	30
COUNTY	CITY	TOTAL SHEETS		
WAYNE	DETROIT	30		
DIST. NO.	PROJ. NO.	SHEET NO.	TWP.	
82-45		30		
ROUTE	COUNTY	TWP.		

**BILL OF MATERIAL**

NO.	PIECE	MATERIAL	LENGTH FT. IN.	DIAM.	WEIGHT PER FOOT	THICKNESS	UNIT COST	TOTAL COST
1	RAILING PIPE	4" RAILING PIPE	11	4"				
2	RAILING PIPE CAP	RAILING PIPE CAP	1					
3	PIPE SUPPORTS	PIPE SUPPORTS	6					
4	SPACER BARS	SPACER BARS	1					
5	GRATING	GRATING	4					
6	ANCHORS	ANCHORS	1					
7	PLATE	PLATE	1					
8	SCREWS	SCREWS	1					
9	NUTS	NUTS	1					
10	LOCK WASHERS	LOCK WASHERS	1					
11	WELDED JOINTS	WELDED JOINTS	1					
12	WELDED JOINTS	WELDED JOINTS	1					
13	WELDED JOINTS	WELDED JOINTS	1					
14	WELDED JOINTS	WELDED JOINTS	1					
15	WELDED JOINTS	WELDED JOINTS	1					
16	WELDED JOINTS	WELDED JOINTS	1					
17	WELDED JOINTS	WELDED JOINTS	1					
18	WELDED JOINTS	WELDED JOINTS	1					
19	WELDED JOINTS	WELDED JOINTS	1					
20	WELDED JOINTS	WELDED JOINTS	1					



**DETAILED DESCRIPTION**  
 PLATFORM GRATING:  
 THE GRATING SHALL BE IN PANELS EITHER ONE OR TWO FEET IN WIDTH, WITH THE TWO FEET IN WIDTH PREFERRED & OF THE LENGTH SHOWN ON PLANS. BLAZED KNIFE SAFETY TREED NON SKID OR EQUAL. THERE SHALL BE NOT LESS THAN FOURTEEN BARS PER FOOT - HUNDRED (100) POUNDS PER SQUARE FOOT WITH A MAXIMUM DISTURBED LOAD OF THREE (3) TONS PER SQUARE FOOT. THE GRATING SHALL BE FURNISHED WITH A TYPE OF GRATING CONSISTING OF BARS & SPACERS OR ANY OTHER TYPE NOT IN STRICT CONFORMITY WITHIN THE LIMITS AS HERE OUTLINED OR AS SHOWN ON THE PLANS WILL NOT BE ACCEPTED.

ALL PIPE RAILING SECTIONS TO BE THREADED ON BOTH ENDS  
 ALL MACHINE SCREWS & BOLTS TO BE COUNTERSUNK WITH NUTS & LOCK WASHERS  
 ALL 6'-0" POSTS TO EXTEND 2'-4" BELOW PAVEMENT LINE  
 ALL 3'-6" POSTS TO EXTEND 1'-10" BELOW PAVEMENT LINE  
 HAND RAIL LIGHTS TO BE FURNISHED BY CITY  
 ALL BOLTS & NUTS TO BE GALVANIZED WITH FREE RUNNING THREADS.  
 ALL PARTS TO HAVE A SHOP-COAT OF STANDARD GREY PRIMAINT.

**CITY OF DETROIT**  
 DEPARTMENT OF PUBLIC WORKS  
 CITY ENGINEERS OFFICE

**THE DETROIT SAFETY ZONE (88' LONG)**  
 CONSTRUCTION  
 DETAILS

**PRINT NO: 3**  
 DRAWN BY: H.S.H.  
 FEBRUARY 19 1936  
 DETAIL DRAWINGS  
 ALL OTHERS APPROVED BY:

SCALE: 1"=1'  
 SCALE: 1/4"=1'

FILE NO. PROJECT SEC. SHEET NO. 30  
 82-45 B 30



FED. ROAD DIST. NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
7	MICH.	22956cB	27	27
ROUTE	COUNTY	CITY	SHEET NO.	TOTAL SHEETS
U.S. 16	WAYNE	DETROIT	27	27
FED. ROAD DIST. NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
7	MICH.	22956cB	27	27
ROUTE	COUNTY	CITY	SHEET NO.	TOTAL SHEETS
U.S. 16	WAYNE	DETROIT	27	27

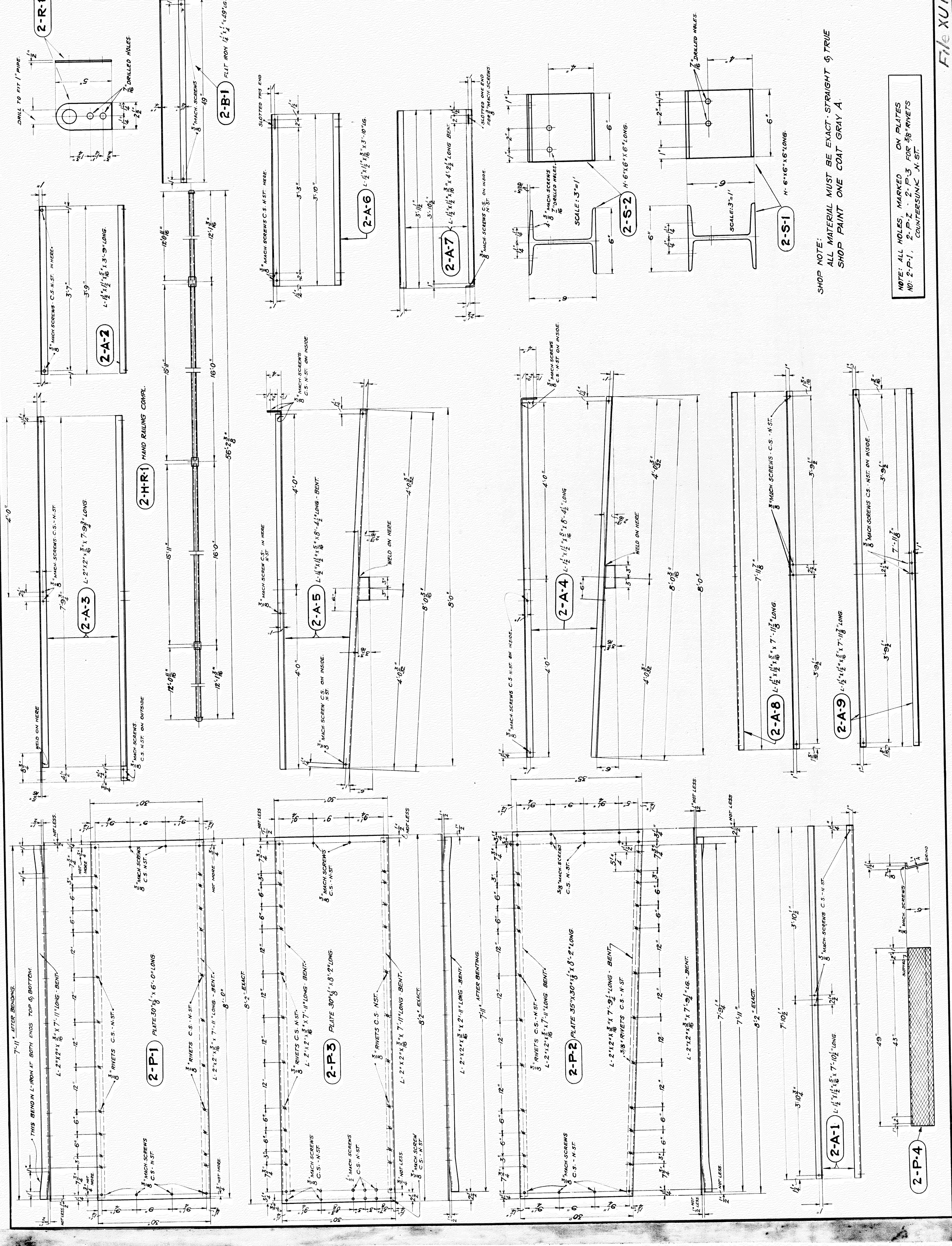
NO. OF PIECE	MATERIAL	QUANTITY	LENGTH	FOOT-LENGTH	REMARKS	MILL ORDER	
						NO.	LENGTH
5	PLATES 30"x1/2"	2-P-1	12.00	0	EXACT & SQUARE		
10	L-IRONS 2"x2"x1/2"	2-P-2	24.0	11	BENT ON BOTH ENDS		
1	PLATE 30"x3/4"	2-P-3	12.00	2	EXACT & SQUARE		
1	L-IRON 2"x2"x1/2"	2-P-4	24.0	7	BENT AT BOTH ENDS		
1	PLATE 30"x3/4"	2-P-5	12.00	2	EXACT & SQUARE		
2	L-IRONS 2"x2"x1/2"	2-P-6	24.0	7	BENT AT BOTH ENDS		
1	PLATE 1/2" THICK X 49"	2-P-7	11.2	2	BENT & GRIND		
1	ANGLE IRON 2"x4"	2-A-1	2.8	7			
1	L-IRON 1/2"x1/2"x1/8"	2-A-2	2.8	10			
1	ANGLE IRON 2"x4"	2-A-3	2.8	9			
1	L-IRON 1/2"x1/2"x1/8"	2-A-4	2.8	10			
1	ANGLE IRON 2"x4"	2-A-5	2.8	10			
1	L-IRON 1/2"x1/2"x1/8"	2-A-6	2.8	10			
6	ANGLE IRON 2"x4"	2-A-7	1.9	13			
6	L-IRONS 1/2"x1/2"x1/8"	2-A-8	1.9	13			
5	ANGLE IRON 2"x4"	2-A-9	2.8	7			
5	L-IRONS 1/2"x1/2"x1/8"	2-A-10	2.8	7			
8	RAILING SUPPORTS 2-R-1	2-R-1	1.4	8	WELDED ON FLAT IRON		
8	RAILING SUPPORTS 2-S-1	2-S-1	1.4	8			
18	SUPPORTS H-6"x6" 20 6	2-S-2	20	6			
1	CROSS BAR 2-B-1	2-B-1	4	1			
1	CROSS BAR 2-S-2	2-S-2	4	1			
1	SUPPORT H-6"x6" 20 6	2-H-1	20	6	BENT		
1	1" STD. PIPE	2-H-2	87	10			
2	1" STD. CAPS	2-H-3	2	1			
3	1" STD. COUPLINGS	2-H-4	3	1			

**CITY OF DETROIT**  
DEPARTMENT OF PUBLIC WORKS  
CITY ENGINEERS OFFICE

THE DETROIT SAFETY ZONE (56' LONG)  
CONSTRUCTION  
DETAILS

MARCH 23-1936  
DRAWN BY: J.L.SCH  
SCALE: 1"=1' & 3"=1'  
SCALE:  
ALL OTHERS:  
APPROVED:

FILE NO. 22-251-2-27  
PROJECT SEC. NO. S-7-C-1



SHOP NOTE:  
ALL MATERIAL MUST BE EXACT STRAIGHT & TRUE  
SHOP PAINT ONE COAT GRAY A.

NOTE: ALL HOLES, MARKED ON PLATES  
NO. 2-P-1, 2-P-2, 2-P-3 FOR 3/8" RIVETS  
COUNTERSUNK N-ST

FILE XU16-64



FED. ROAD STATE DIST. NO.	7	FISCAL YEAR	1936	FISCAL SHEET NO.	32
ROUTE	U.S. 16	COUNTY	WAYNE	CITY	DETROIT
FED. ROAD DIST. NO.	7	FISCAL YEAR	1936	FISCAL SHEET NO.	32
ROUTE	U.S. 16	COUNTY	WAYNE	CITY	DETROIT

MATERIAL	LENGTH FT.	WIDTH IN.	THICKNESS	UNIT COST	TOT. COST
RAILING IRONS	15 1/2	1 1/2			
STEEL PIPE CAS	6	10			
STEEL PLATE	10	12	3/8"		
STEEL SPACER BARS	10	12	3/8"		
STEEL RIVETS	10	12	3/8"		
ANGLE STIFFENERS	7	11	3/8"		
WELDS					

MATERIAL	LENGTH FT.	WIDTH IN.	THICKNESS	UNIT COST	TOT. COST
GRATING	4	10			
ANGLE	10	12	3/8"		
SPACER BARS	10	12	3/8"		
MACH. SCREWS	10	12	3/8"		
SPACER BARS	10	12	3/8"		
BOLTS	10	12	3/8"		
MACH. SCREWS	10	12	3/8"		
TOE PLATE	10	12	3/8"		
ANGLE STIFFENERS	10	12	3/8"		
CROSS BAR	10	12	3/8"		
ANGLE	10	12	3/8"		

MATERIAL	LENGTH FT.	WIDTH IN.	THICKNESS	UNIT COST	TOT. COST
IRONS	15 1/2	1 1/2			
STEEL PIPE CAS	6	10			
STEEL PLATE	10	12	3/8"		
STEEL SPACER BARS	10	12	3/8"		
STEEL RIVETS	10	12	3/8"		
ANGLE STIFFENERS	7	11	3/8"		
WELDS					

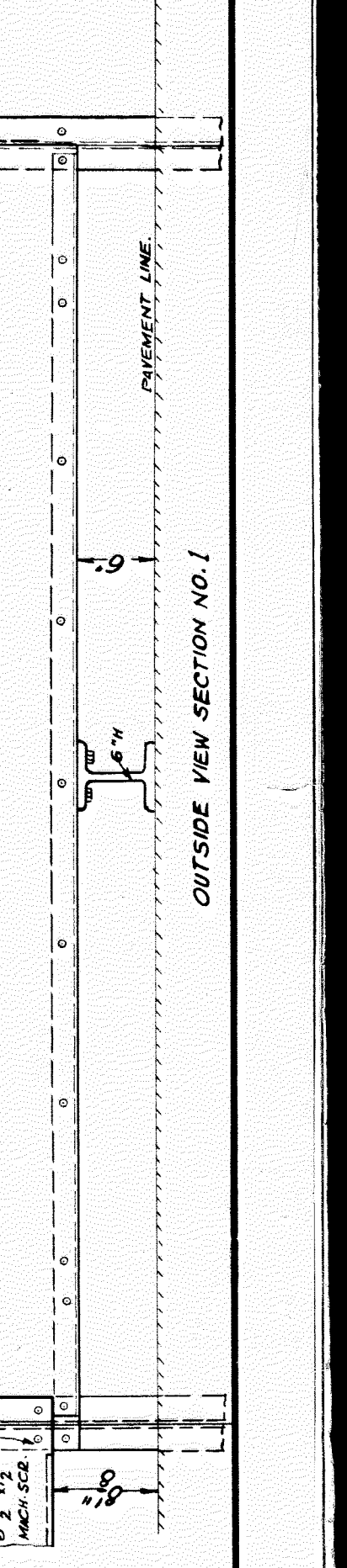
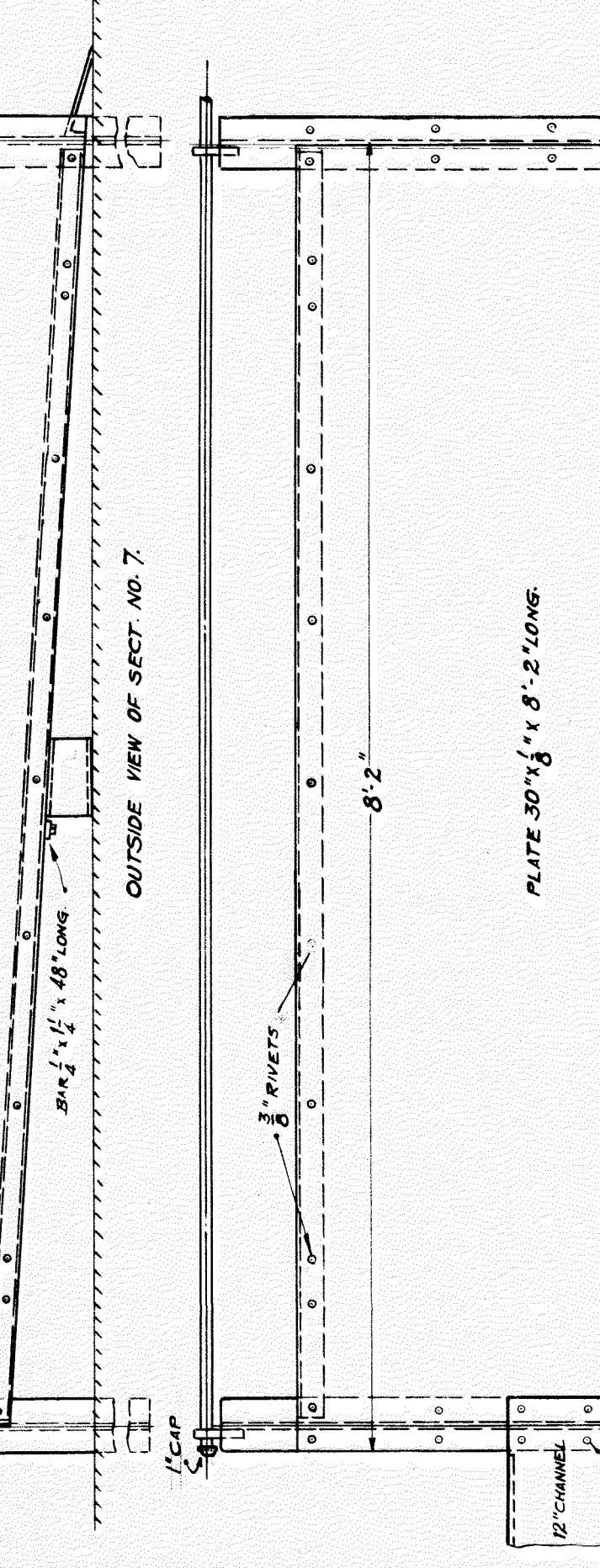
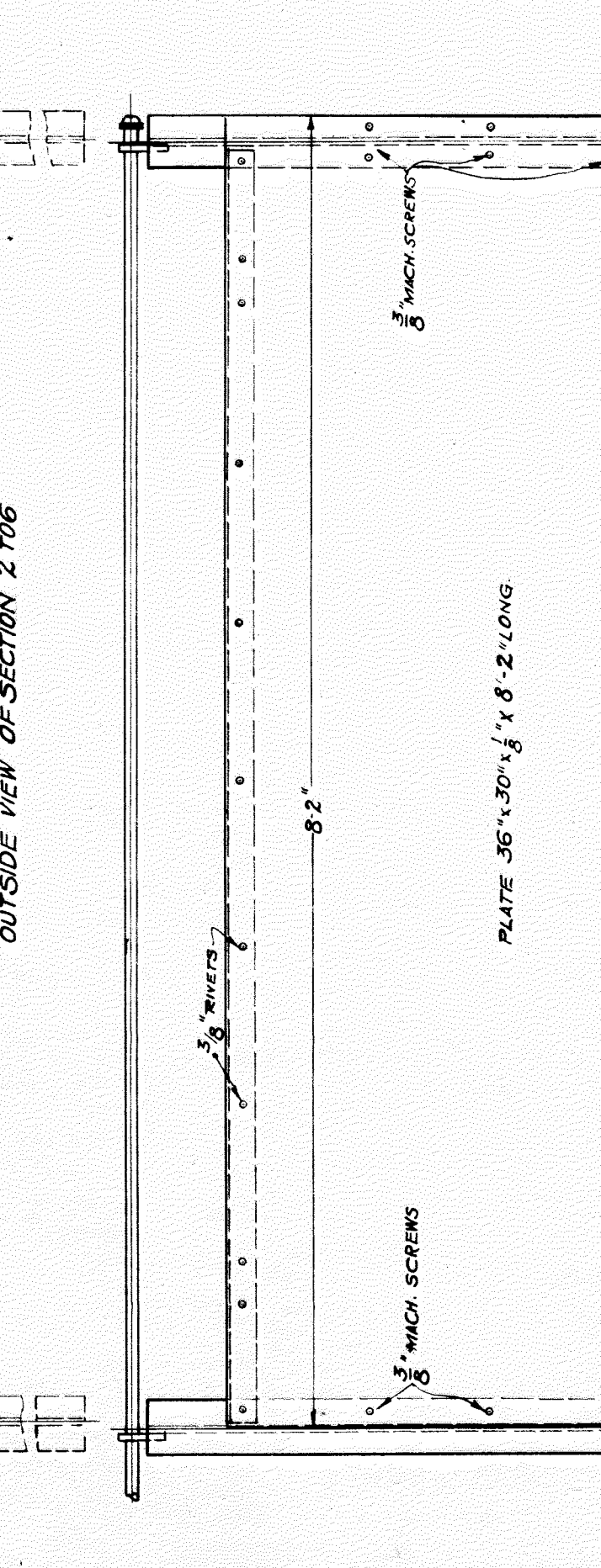
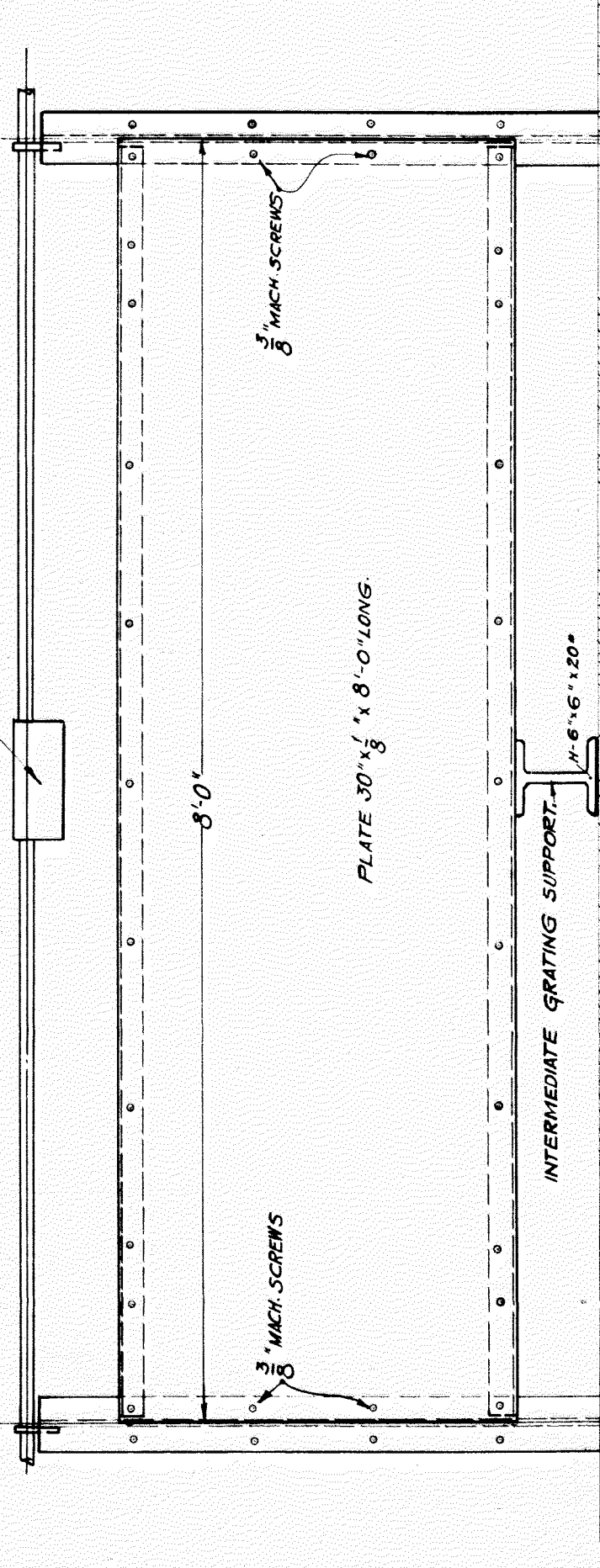
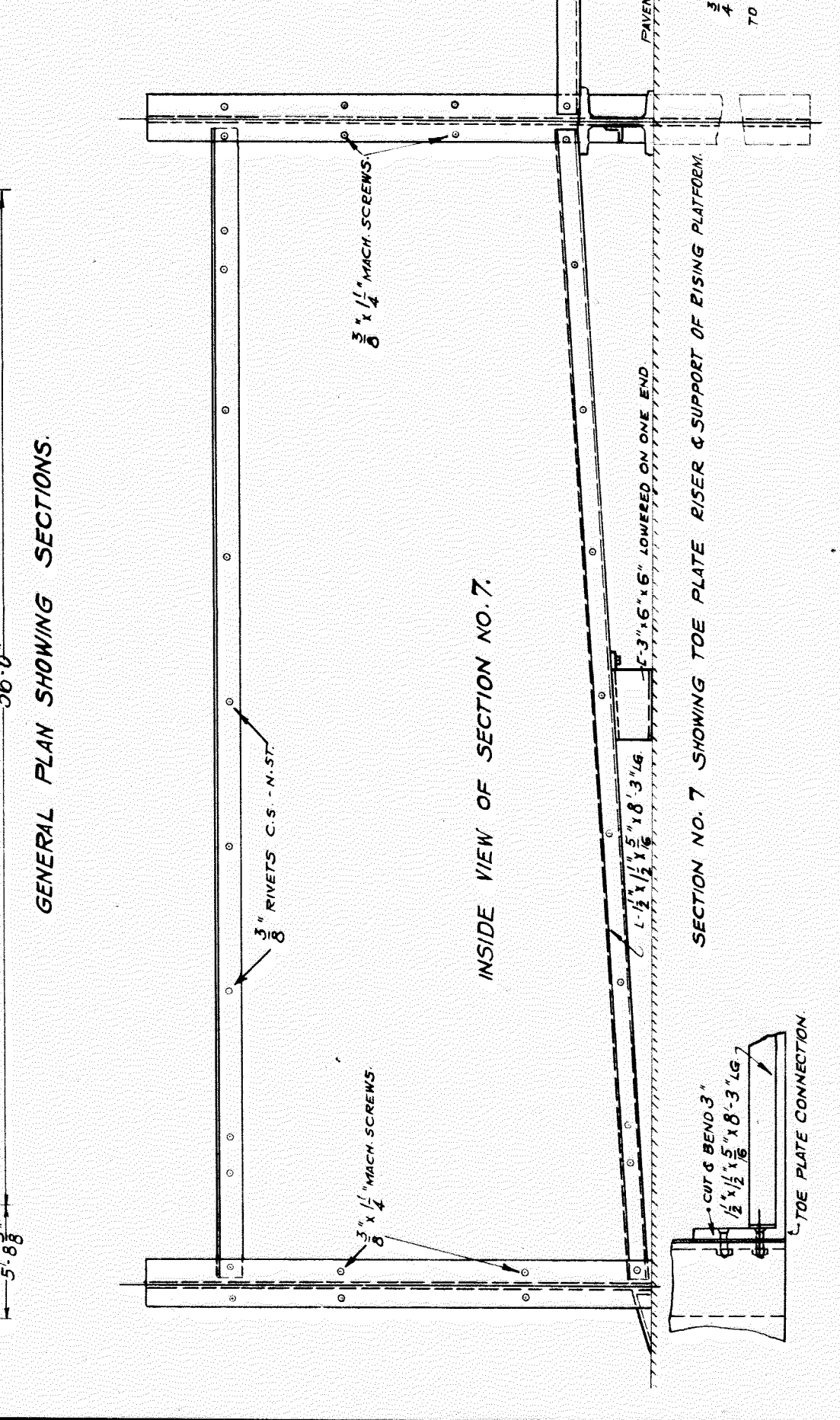
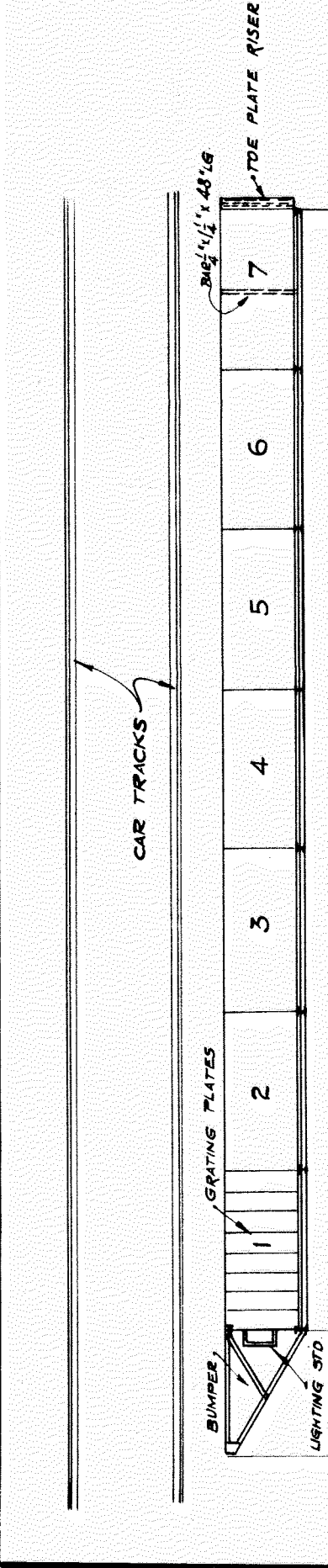
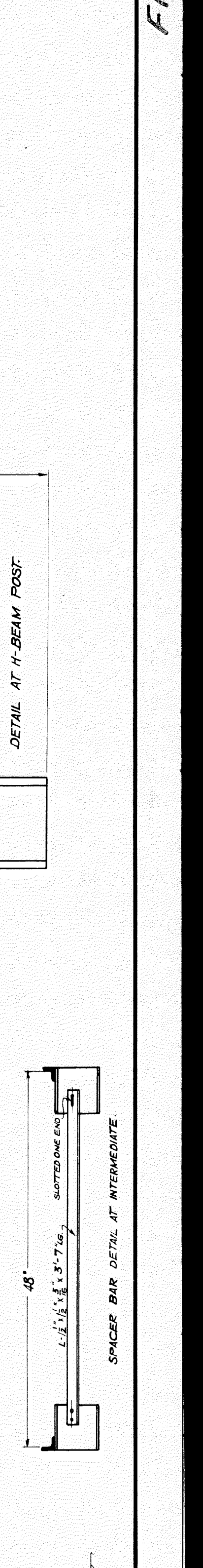
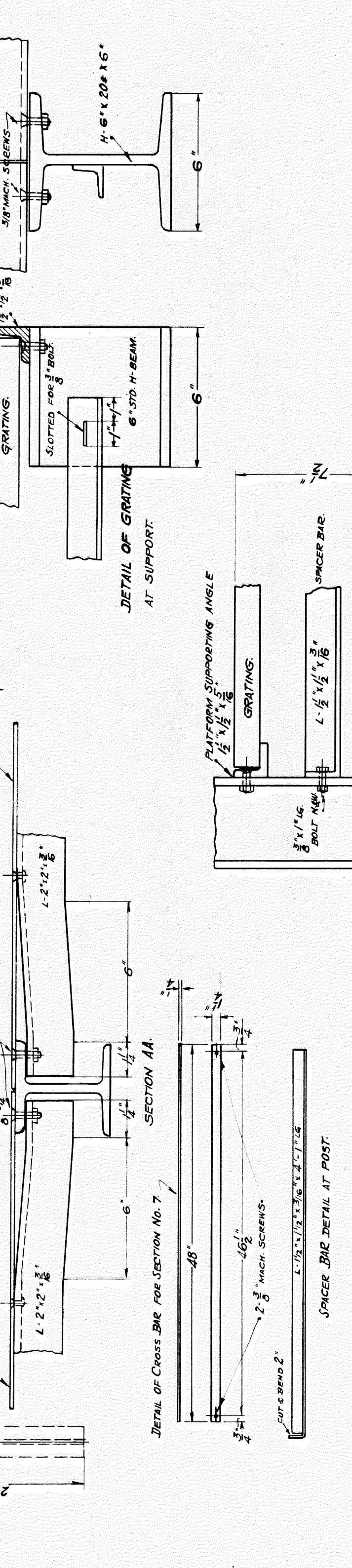
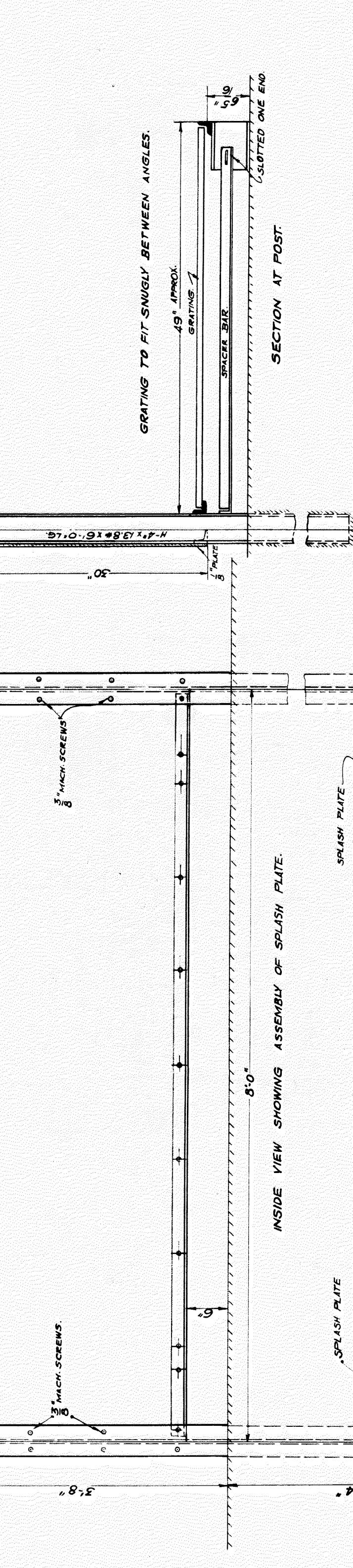
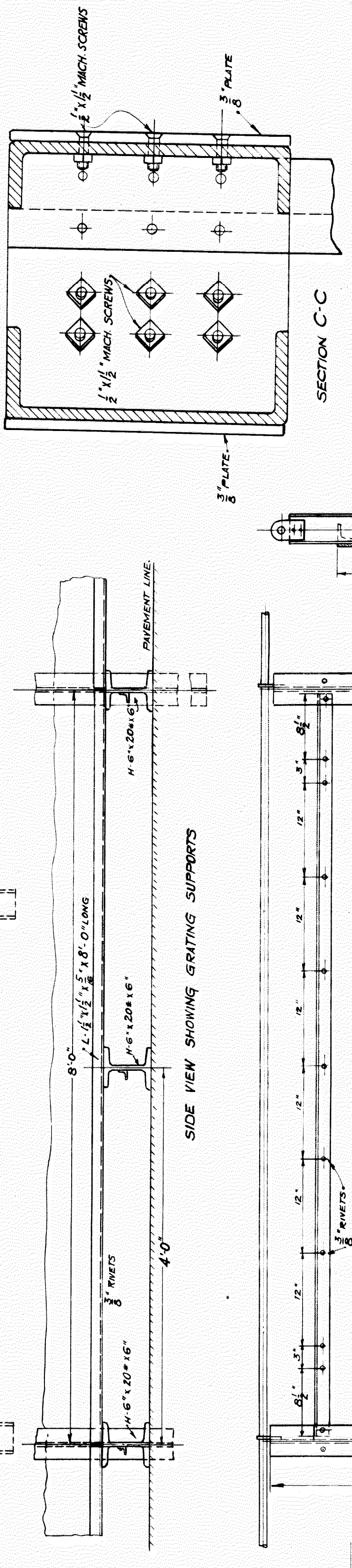
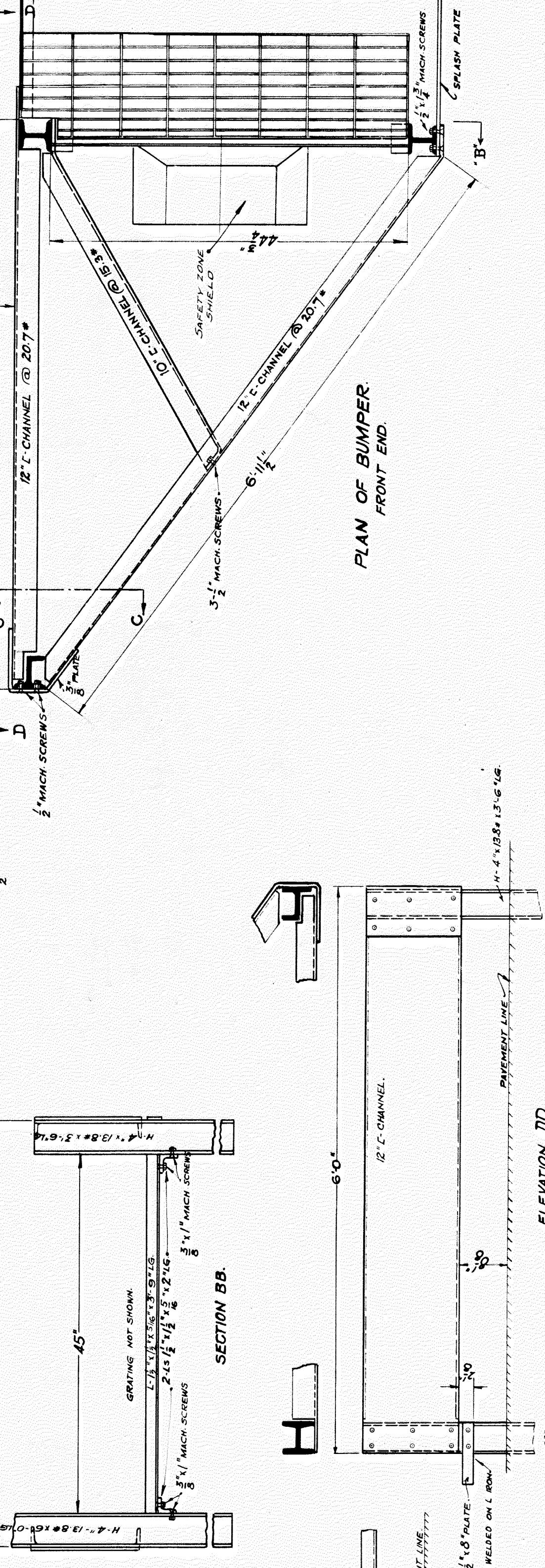
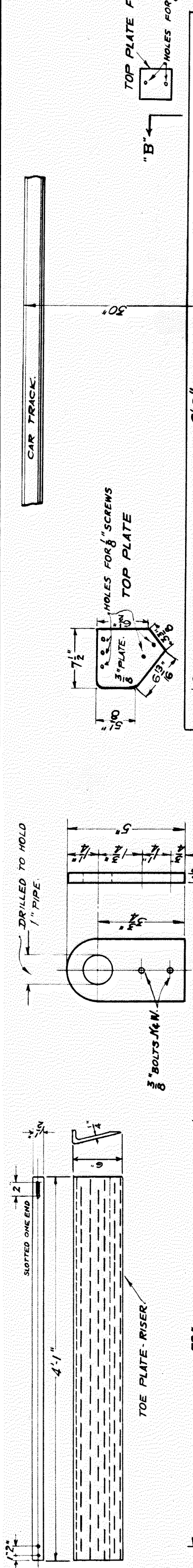
**DETAILED DESCRIPTION:**  
 PLATFORM GRATING SHALL BE IN PANELS EITHER ONE OR TWO FEET IN WIDTH, WITH THE TWO FEET WIDTH PREFERRED. THE GRATING SHALL BE NOT LESS THAN FOURTEEN BARS PER FOOT. THE GRATING MUST BE DESIGNED TO SUSTAIN A UNIFORMLY DISTRIBUTED LOAD OF 100 LBS. PER SQUARE FOOT WITH A MAXIMUM DEFLECTION OF 1/4" PER FOOT. THE GRATING SHALL BE SQUARE OR RECTANGULAR. THE ORDINARY FIRE ESCAPE TYPE OF GRATING CONSISTING OF RODS & SPACERS OR ANY OTHER TYPE NOT IN STRICT CONFORMITY WITH THE LIMITS AS HERE OUTLINED OR AS SHOWN ON THE PLANS WILL NOT BE ACCEPTED.

**NOTES:**  
 ALL PIPE RAILING SECTIONS TO BE THREADED ON BOTH ENDS.  
 ALL MACHINE SCREWS & BOLTS TO BE COUNTERSUNK.  
 ALL 6" H. POSTS TO EXTEND 2'-4" BELOW PAVEMENT LINE.  
 ALL 6" H. POSTS TO EXTEND 1'-0" ABOVE PAVEMENT LINE.  
 ALL BOLTS & NUTS TO BE GALVANIZED WITH FREE RUNNING THREAD.  
 ALL PARTS TO HAVE A SHOP COAT OF STANDARD GRAY PRIMER PAINT.

**CITY OF DETROIT**  
 DEPARTMENT OF PUBLIC WORKS  
 CITY ENGINEERS OFFICE

**THE DETROIT SAFETY ZONE (56' LONG)**  
 CONSTRUCTION

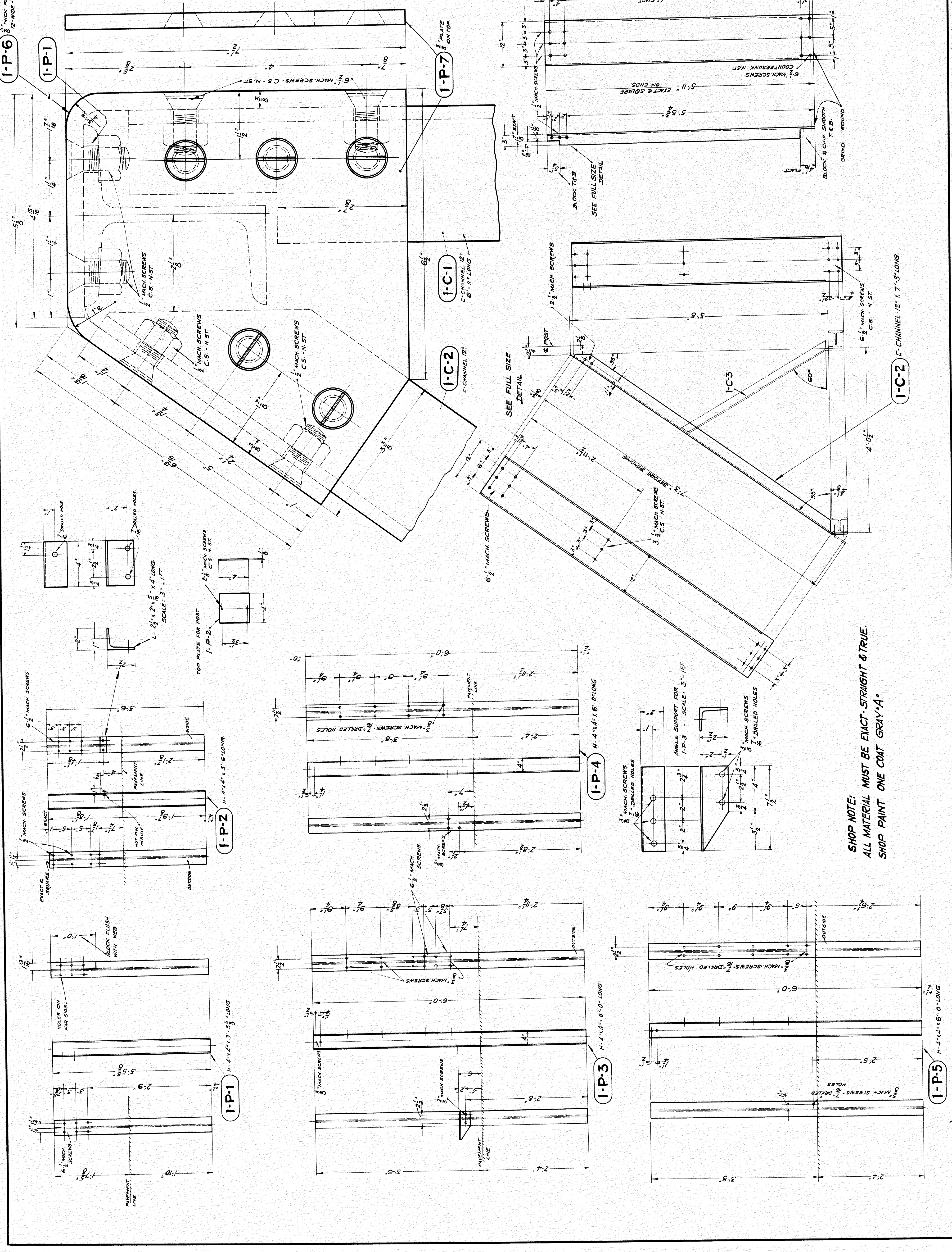
MARCH 24, 1936  
 DRAWN BY: H.S.C.  
 SCALE:  
 APPROVED:





FED. ROAD DIST. NO.	STATE	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	MICH.	1936	33	33
ROUTE	COUNTY	CITY	SHEET NO.	TOTAL SHEETS
US 16	WAYNE	DETROIT	33	33
FED. ROAD DIST. NO.	STATE	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	MICH.	1936	33	33
ROUTE	COUNTY	CITY	SHEET NO.	TOTAL SHEETS
US 16	WAYNE	DETROIT	33	33

NO. OF PIECE	MATERIAL	MARK	REMARKS	NO. OF LBS.	WEIGHT
1	POST H-4"x4"	1-P-1		138	3
1	POST H-4"x4"	1-P-2		138	3
1	POST H-4"x4"	1-P-3		138	3
1	PLATE 4"x4"	1-P-4		17	4
1	L-IRON 2 1/2"x2 1/2"x5"	1-P-5		45	4
1	POST H-4"x4"	1-P-6		138	3
1	L-IRON 2 1/2"x2 1/2"x5"	1-P-7		45	4
6	POSTS H-4"x4"	1-P-8		828	6
1	POST H-4"x4"	1-P-9		138	3
1	PLATE 12"x6"	1-P-10		153	1
1	PLATE 7 1/2"x4"	1-P-11		95	1
1	CHANNEL 12"x5"	1-C-1		207	5
1	CHANNEL 12"x5"	1-C-2		207	5
1	CHANNEL 12"x5"	1-C-3		207	5
1	CHANNEL 10"x6"	1-C-4		153	4



**CITY OF DETROIT**  
 DEPARTMENT OF PUBLIC WORKS  
 CITY ENGINEERS OFFICE

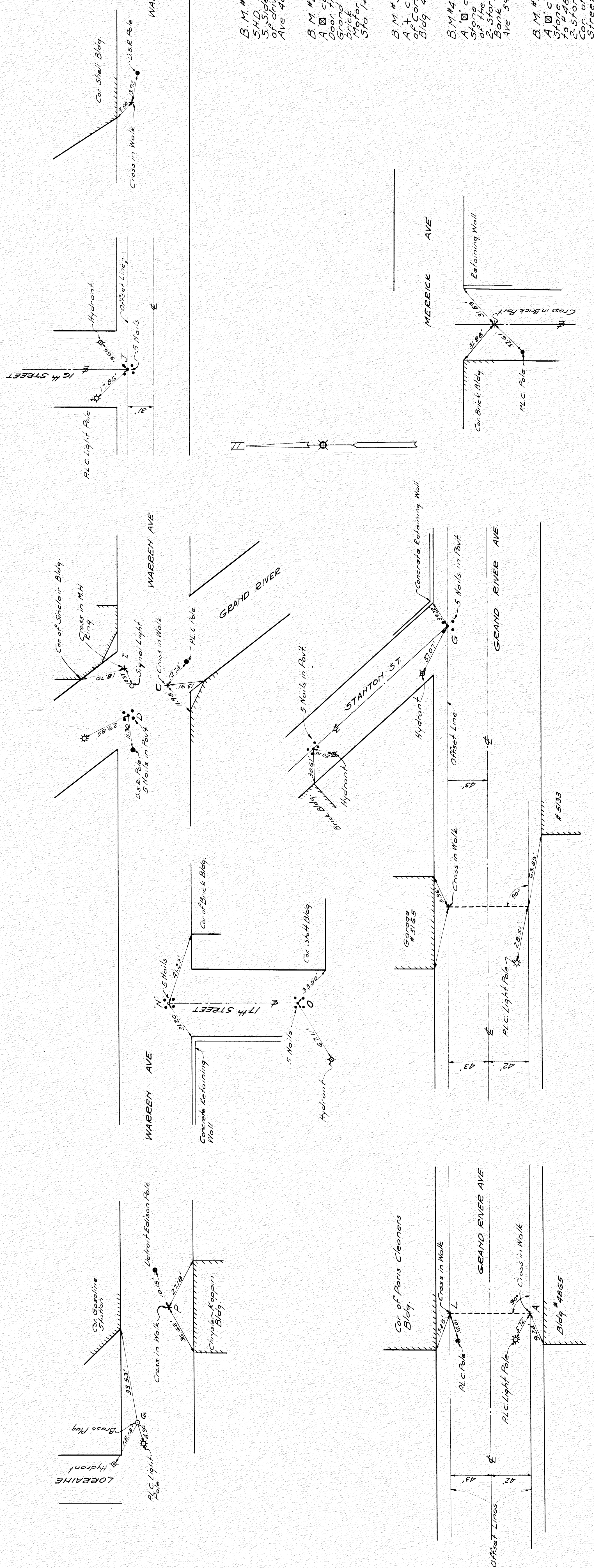
**THE DETROIT SAFETY ZONE (56' LONG)**  
 CONSTRUCTION  
 DETAILS

MARCH-19-1936  
 DRAWN BY: H. SCH  
 SCALE: FULL SIZE 6 1/4" = 1'  
 SCALE:  
 APPROVED:



# SKETCHES SHOWING TIES TO SURVEY POINTS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	MICH.	229,880	B		
ROUTE	STATE	COUNTY	CITY	SHEET NO.	TOTAL SHEETS
U.S. 76	82-45	WAYNE	DETROIT	34	
FED. ROAD DIST. NO.	STATE	FISCAL YEAR	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
ROUTE	STATE	COUNTY	TWP.	SHEET NO.	TOTAL SHEETS



B.M. # 1 El. 617.673  
 S.H.D. Top in roof of 24' Maple  
 Side of Grand River in front  
 of drive to # 5175 Grand River  
 Ave. 486' E of 00-124.5

B.M. # 2 El. 618.449  
 A cut on Wly end of Stone  
 Door tread at entrance to #5138  
 Grand River Ave. 0.1-Story  
 Water Tank Co. in building  
 Water Tank Corp. 50 E of 04

B.M. # 3 El. 613.400  
 A cut on face of Ely end  
 of Coac Wall of 5th St. Brick  
 Bldg. 49.5' E of 5th 445.5

B.M. # 4 El. 613.700  
 A cut on the Sly end of a  
 Stone Doorstep of the doorway  
 of the Ely cor. of Triangular  
 2-Story Stone Detroit Saving  
 Bank Bldg. #500 Grand River  
 Ave. 542' E of 5th 7.38

B.M. # 5 El. 617.596  
 A cut on the Ely end of a  
 Stone Doorstep of the entrance  
 to #489 Grand River Ave. a  
 Coac Brick Bldg. on the SW  
 Street 489.2' E of 5th 9.922



QUANTITY SHEET - D  
SURFACING (SQ. YD.) - CURB AND GUTTER (LIN. FT.)

7  
MICH 229 SR.B  
DETOIT 39

AS CONSTRUCTED

AS PER PLANS

STA. TO STA.	LENGTH	WIDTH	AS PER PLANS										REMARKS	STA. TO STA. LENGTH	WIDTH	EXPLANATION OF CHANGES		
			CONCRETE	GRAVEL	GRAVEL	GRAVEL	GRAVEL	GRAVEL	GRAVEL	GRAVEL	GRAVEL	GRAVEL					GRAVEL	
0-36	0-178.4	41.6	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	Grand River	
0-47	0-178.4	50.8	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	Grand River	
0-478	0-178.4	105.6															Intersection	
0-578	0-178.4	62.8	47.69	61.53	38.54	12.9	5.14										Intersection	
1-50	1-178.5	328.5	3682.9	503.5	202.5	50	19.9										Intersection	
1-185	1-178.5	31.5															Intersection	
3-582																	Stanton Ave. Gas Sta	
4-502																		
2-402	2-64.38	3+10	836	836	3.8	1.0	3.6										Grand River Ave	
3+10	3+22																Grand River Ave	
2+00	2+30																Grand River Ave	
0+64	1+30																Grand River Ave	
1+72	2+30																Grand River Ave	
0-368	1-178.5																Grand River, Stanton, 16th and Warren Avenues	
0+07	1-178.5																Grand River Ave	
0+578	1-178.5	678.2															Grand River Ave	
1+36	1-178.5	382.5															Grand River Ave	
Warren Ave	332.0	18															Warren Ave	
0+578	2+30	192.2															Grand River Ave	
2+50	4+13.98	219.98															Grand River Ave	
4+63	6+28.60	160.62															Warren Ave	
6+28.60	7+36	111.4															Grand River Ave	
7+36	1-178.5	382.5															Warren Ave	
Warren Ave	332.0	18															Warren Ave	
6+887	8+10	115															Retaining Wall	
4+50	6+50	444															Temporary Food	
TOTALS			9451.9	61.5	334.9	2.02	1948.3	2321.5	62.6	189	13070.5	262.9	1407.0	1149.7	2572	74	0.20	

AS CONSTRUCTED

AS PER PLANS

STA. TO STA.	LENGTH	WIDTH	AS PER PLANS										REMARKS	STA. TO STA. LENGTH	WIDTH	EXPLANATION OF CHANGES			
			CONCRETE	GRAVEL	GRAVEL	GRAVEL	GRAVEL	GRAVEL	GRAVEL	GRAVEL	GRAVEL	GRAVEL							
2+50	3+18																		
3+18	3+40																		
3+40	3+50																		
3+50	4+60																		
4+60	4+60																		
4+60	5+48																		
5+48	5+48																		
5+48	6+25																		
6+25	6+25																		
6+25	7+36																		
7+36	7+36																		
7+36	8+70																		
8+70	10+40																		
10+40	11+52																		
11+52	11+52																		
11+52	11+52																		
TOTALS			5	2	6	5	1	2	6	2	2012	470	169	364	1	7	3	2	TOTALS

PLAN ESTIMATE BY - L. Kukielka - DATE 4-96 - CHECKED BY - L. Raczynski - DATE 4-36 - PROJECT ENGINEER - DATE 4-36 - HISTORY CHECKED - ENTERED ON PLANS BY - DATE - PROJECT NO. S-7-C-1

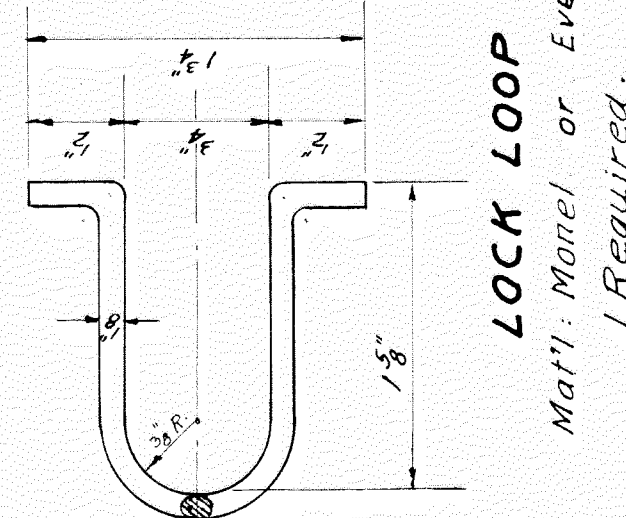
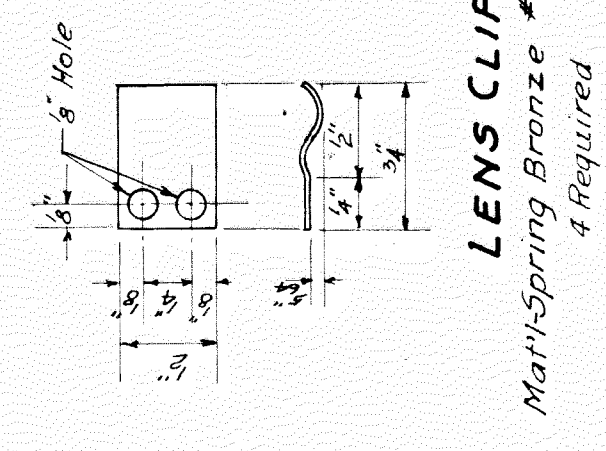
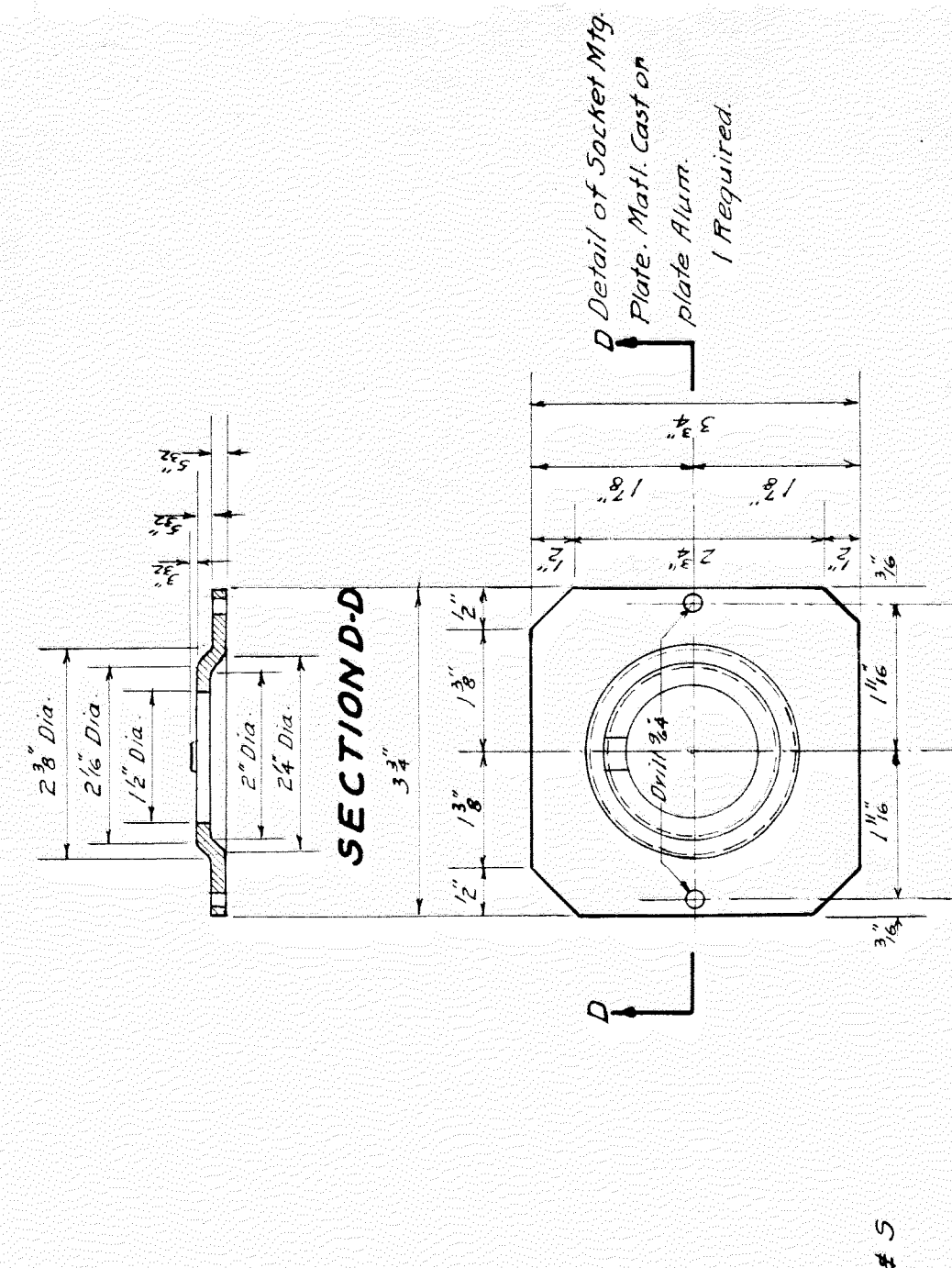




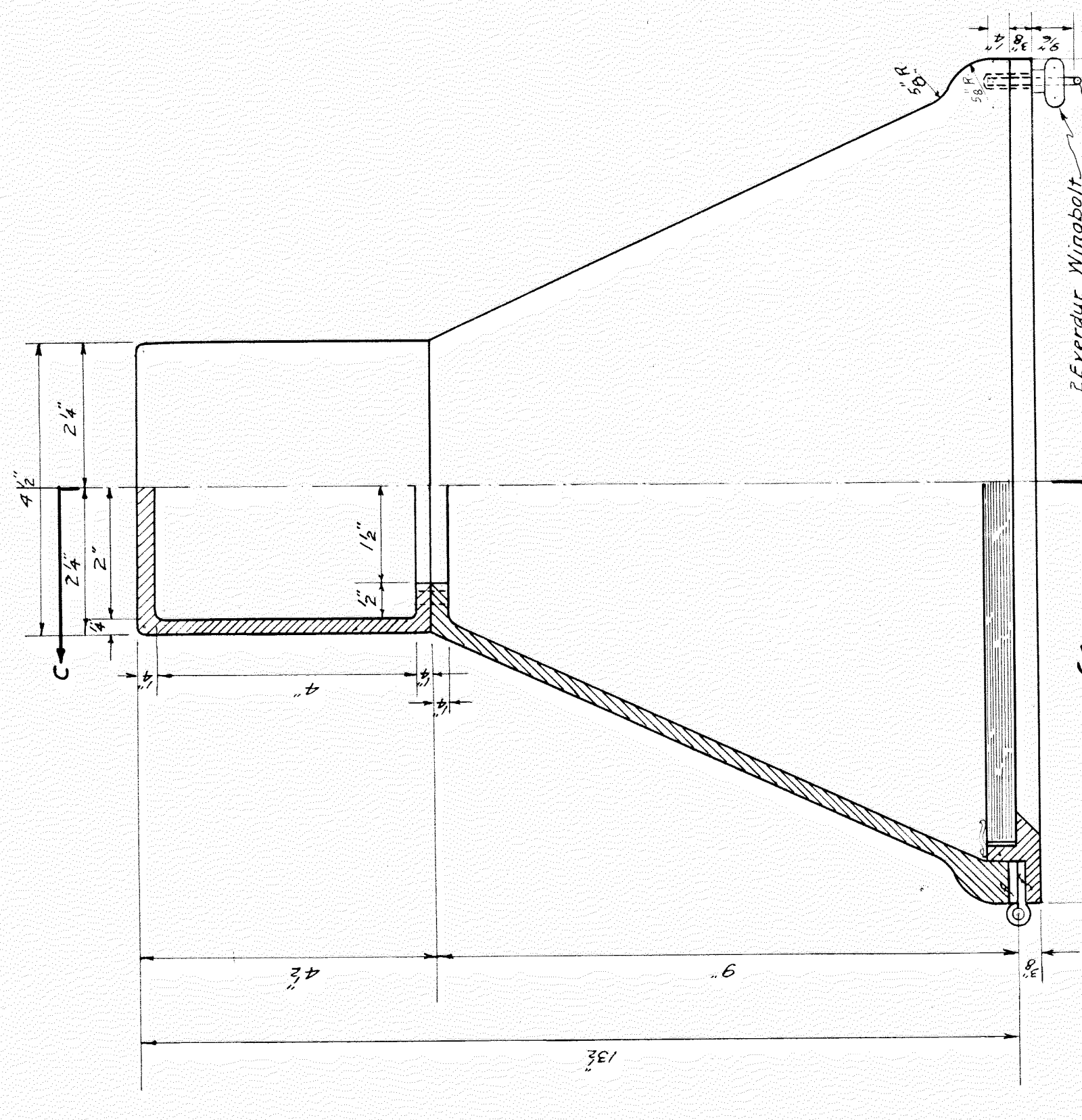
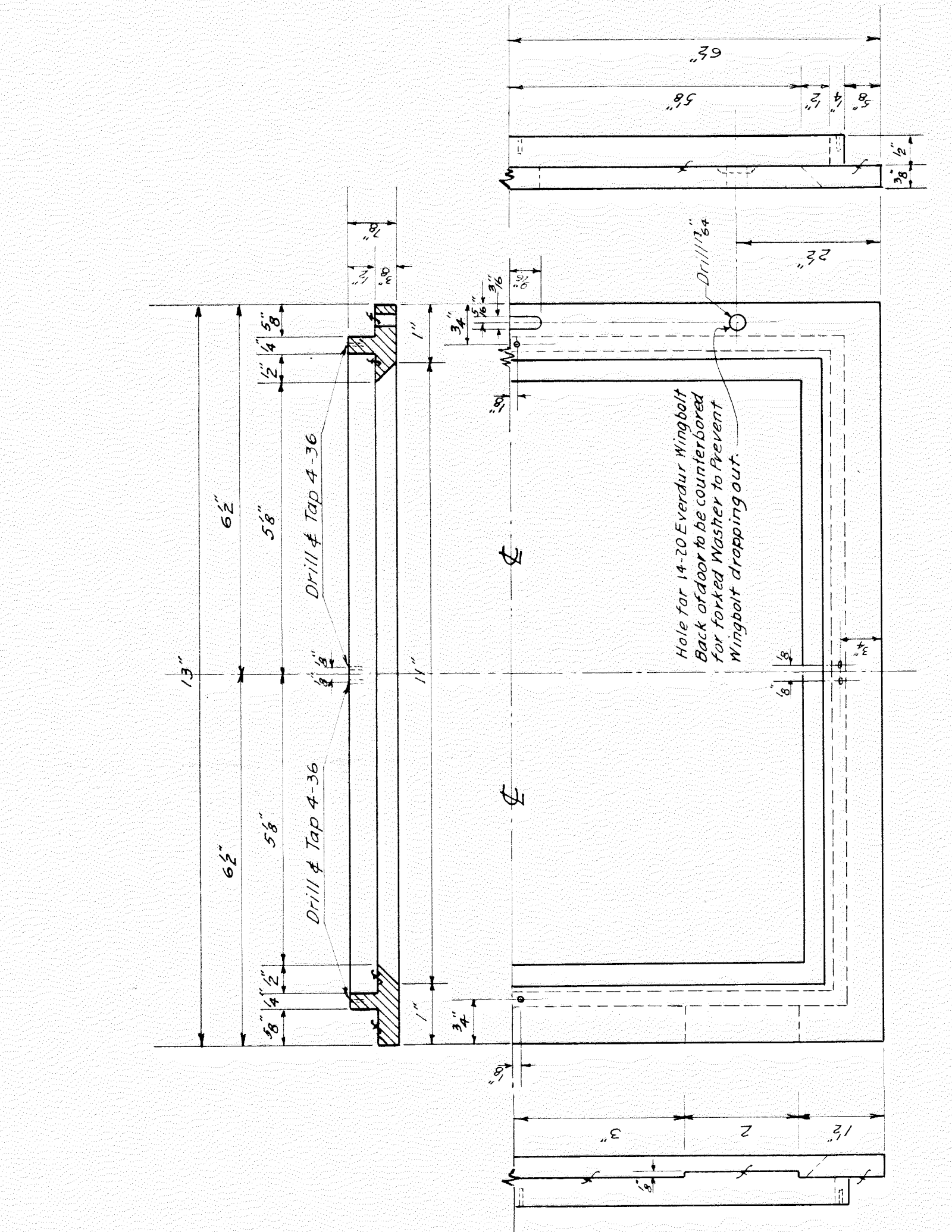


Manufacturer to submit detail drawings of fixtures for approval, showing lens, type of socket and any changes in design or materials. Hinges to be Monel/Metal or cast aluminum. Screws to be Everdur. Coat Everdur or Monel/Metal with red lead where in contact with aluminum. All fillers to be 8 rad.-min. Imperfect castings will not be accepted. Castings to be of new Aluminum and to have a minimum thickness of 1/4".  
 Note: Coat all Alum. surfaces in contact with concrete with one coat of red lead.

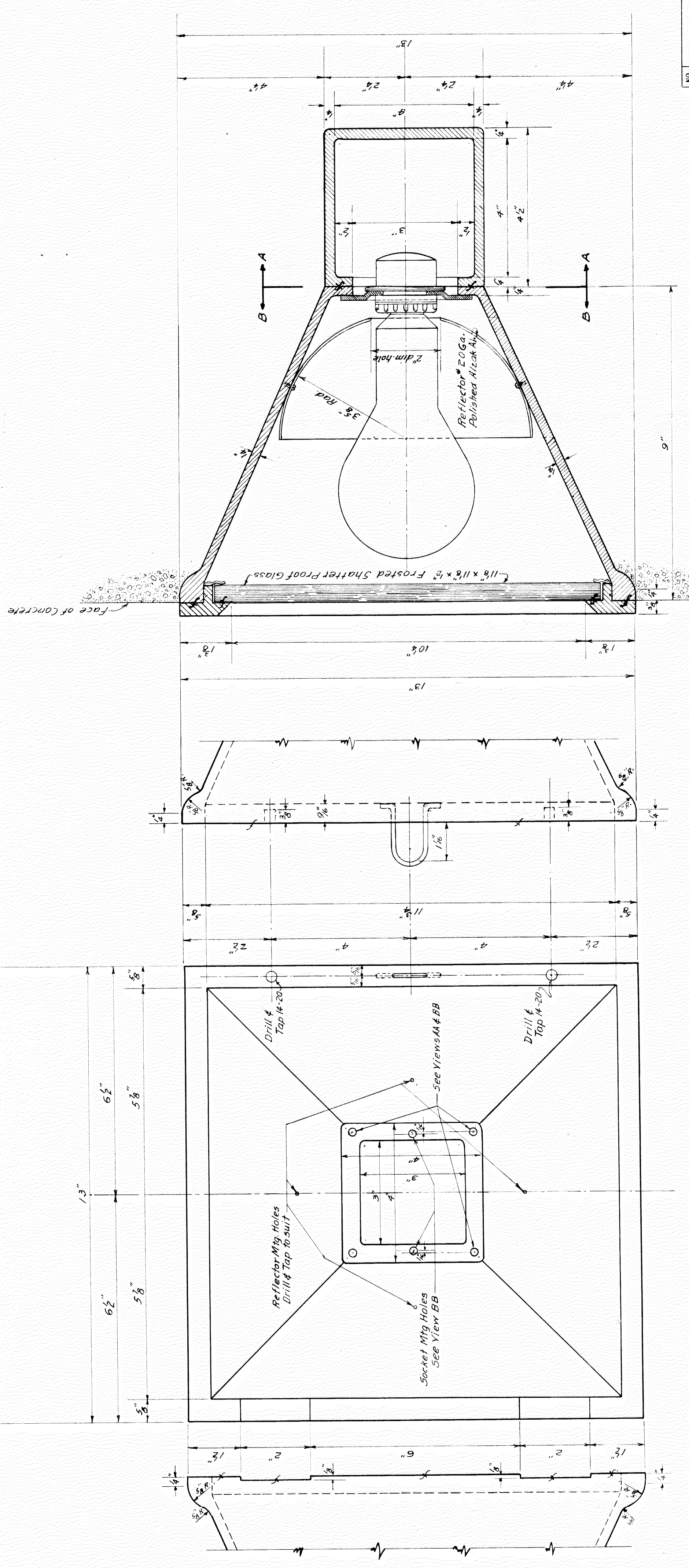
Cope out Concrete for Hinge Clearance.  
 Holes for conduit to be drilled in field. Do not thread box for Conduit, use Standard N.E.C. Lock nut and bushing Connection.



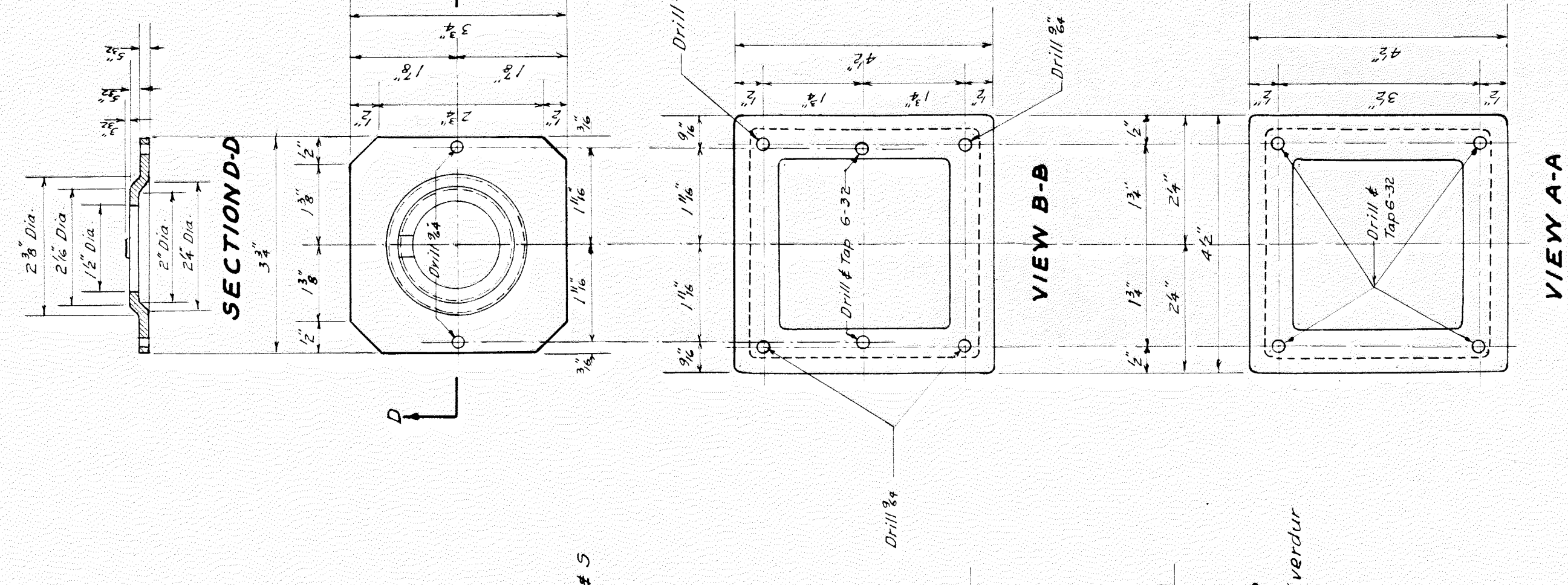
ELEVATION & SECTION OF DOOR FRAME  
 SYMMETRICAL ABOUT HORIZ. C-C



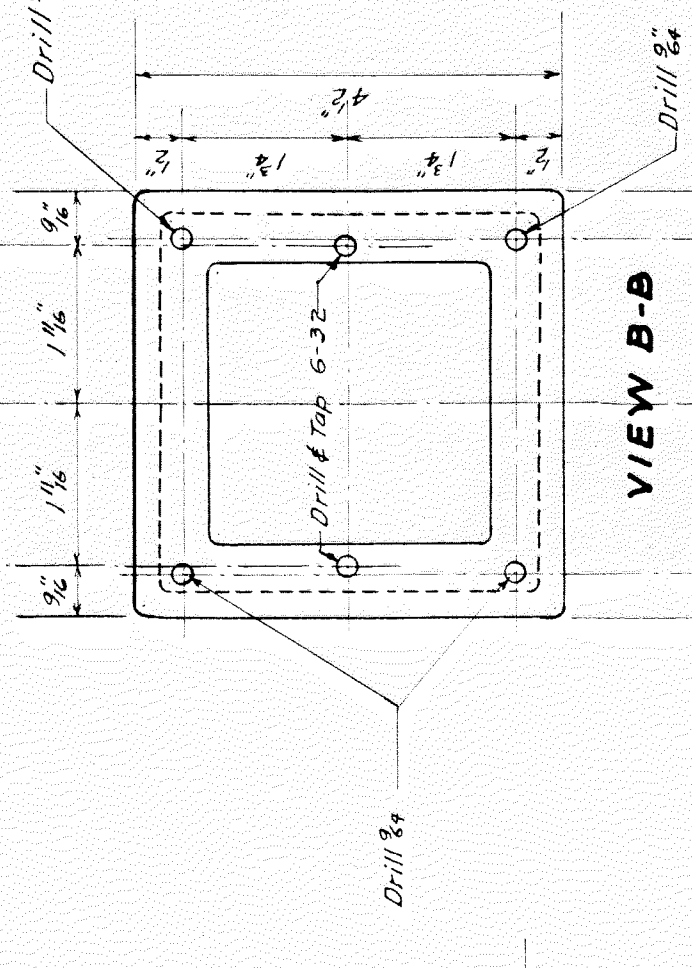
PLAN



FRONT ELEVATION  
 Door, Reflector & Socket not shown



VIEW A-A



VIEW B-B

MICHIGAN STATE HIGHWAY DEPARTMENT  
 MURRAY D. VAN WAGONER - COMMISSIONER

STANDARD LIGHTING UNIT H.M.36  
 FOR UNDERPASS AND GRADE SEPARATIONS  
 FOR MOUNTING IN UNDERSIDE OF DECKS  
 OVER SIDEWALKS OR ROADWAYS.

DESIGN BY CRANE APR 13 1932  
 DRAWN BY CRANE APR 15 1932  
 CHECKED BY THOMAS MAY 1 1932  
 CHECKED BY J. J. J. MAY 2 1932

APPROVED *[Signature]* 5-14-32  
 APPROVED *[Signature]* 5-15-32

BRIDGE STANDARD  
 A1-S-39

ENGINEER OF BRIDGE DEPT.

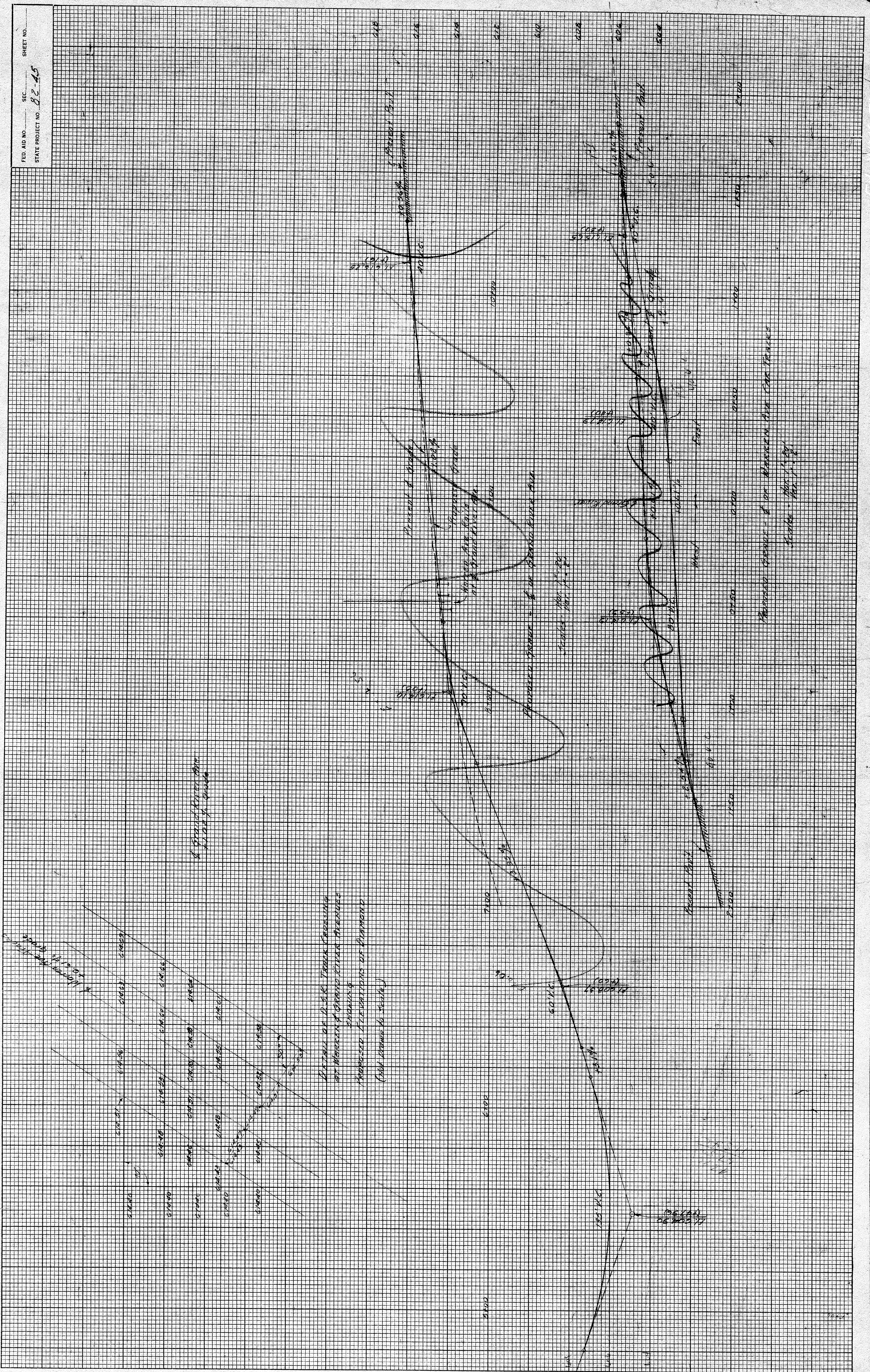
NO.	REVISIONS	DATE	BY

File X 167 70



NO.	AREAS CHECKED
NOTE BOOK	
TEMPLATE	
PLOTTED	
SURVEYED	
BY	DATE

NO.	AREAS CHECKED
NOTE BOOK	
TEMPLATE	
PLOTTED	
SURVEYED	
BY	DATE



Vertical Curve - 1000' at 1000'

Proposed Right-of-Way at 1000'

Proposed Bridge - 1000' at 1000'

Proposed Stream

Proposed Road

Proposed Grade

Existing Ground

Proposed Right-of-Way

Proposed Road