

PLAN EXTRAS

DATE

As Built

AMT.

UNIT

ITEM

ITEM	UNIT	AMT.	As Built	Auth.	Auth. Res.	DATE	DESCRIPTION	UNIT	ESTIMATE	QUANTITY
EAST GRAND BLVD OVER G.T.M.R.R. COUNTY JOB 508										
5364	3" GALVANIZED STEEL CONDUIT	47.7	45.7		36		Modified Linseed Oil Conc. Curing Compound Furnish & Place Auth. 8009, AE	SFT	46835	39058
6020	UNCLASSIFIED EXCAVATION	5,710	5786		36		Credit For Furnished Name Plates Auth. 4201	Ea	2	2
6073	TEMPORARY STEEL SHEET PILING	1,296	1296							
6074	STEEL SHEET PILING - LEFT IN PLACE	1,113	1114		36					
6089	CONCRETE-GRADE A CONCRETE SLEEVING	145.3	145.3							
6097	CONCRETE-GRADE A (6AA GRAVEL OR 6AA SLAB) SUBSTRUCTURE	5,244.2	5244.2							
6095	CLEAR PROTECTIVE COATING FOR - SUBSTRUCTURE CONCRETE	18,120	19179		36					
6100	CONCRETE-GRADE A (6AA GRAVEL OR 6AA SLAB) SUPERSTRUCTURE	1,471.3	1465.9		36					
6103	WATER-REDUCING RETARDING ADMIXTURE	188	197		36					
6104	PROTECTIVE TREATMENT FOR BRIDGE DECKS	46,835	44400		36					
6106	LOW TEMPERATURE PROTECTION - SUBSTRUCTURE CONCRETE	5,244.2	5530		36					
6107	LOW TEMPERATURE PROTECTION - SUPERSTRUCTURE CONCRETE	500	0		36					
6160	STEEL FABRICATING (6088 ROLLED)	712,378	692139		37					
6199	STRUCTURAL STEEL-FURNISHING AND FABRICATING (A688 ROLLED)	1,240,200	1254183		24					
6200	STRUCTURAL STEEL-DIRECTION (A688 ROLLED)	1,240,200	1254183		24					
6278	SHEAR DEVELOPERS		L.S.							
6290	1/4" JOINT FILLER	140	133		36					
6292	1/2" JOINT FILLER	264	264							
6296	1" JOINT FILLER	575	593		36					
6323	13-1/2" REINFORCED NEOPRENE EXPANSION JOINT SEAL	174	174							
6332	JOINT WATERPROOFING	1,565	1567							
6387	BRIDGE RAILING, SOLID PARAPET TYPE	2,649.7	2653.5		36					
6393	CONCRETE MEDIAN BARRIER-BRIDGE	487	487							
6470	EXPANSION JOINT DRAIN	244.3	244.3							
6477	CONDUIT, 4"	3,916	3924		36					
6467	6" FOUNDATION DRAINS	1,855	1900		36					
6483	MANHOLE FRAMES AND COVERS (6416)	6	6							
7032	FORMING, FINISHING AND CURING - SUPERSTRUCTURE CONCRETE		L.S.							
7033	NAME PLATE - FURNISH AND INSTALL	2	2		4001 (Credit)					

T4000(3)

COUNTY PROJECT COUNTY JOB
508

ISSUE NO. / SHEET NO.
1A

DATE 5-1-72

EAST GRAND BOULEVARD OVER
GRAND TRUNK RAILROAD
GRADE SEPARATION
BILL OF MATERIALS

WAYNE COUNTY ROAD COMMISSIONERS

BOARD OF
DESIGN DIVISION

CORRECT

CHECKED BY DATE
EJC 4-11-72

TRACED BY DATE

CORRECT

APPROVED BY
Robert Commis
SQUAD LEADER

ASSIST. ENGINEER OF DESIGN
APPROVED BY
P. Estlin
ENGINEER OF DESIGN

FILE

QUANTITY SHEET - E

AS CONSTRUCTED

AS PER PLANS

ITEM	UNIT	AMOUNT	As Built	AS PER PLANS		AS CONSTRUCTED		STATE	MICH	COUNTY	TWP	SHEET NO.	SHEET TOTAL
				Auth.	Rec.	Auth.	Rec.						
4729 24" C.I. Water Main (Trench Detail-12)	Lin. Ft.	15	13.8										
4745 6" D.I. Water Main (Trench Detail-11)	Lin. Ft.	120	56										
4746 6" D.I. Water Main (Trench Detail-12)	Lin. Ft.	204	230										
4754 8" D.I. Water Main (Trench Detail-12)	Lin. Ft.	1450	1514										
4762 10" D.I. Water Main (Trench Detail-12)	Lin. Ft.	6	14.5										
4770 12" D.I. Water Main (Trench Detail-12)	Lin. Ft.	13	18.5										
7064 16" Prestressed Conc. Emb. Cyl. Pipe (Trench Detail-12)	Lin. Ft.	6	5.8										
4861 24" Prestressed Conc. Emb. Cyl. Pipe (Trench Detail-12)	Lin. Ft.	1163	1154.1										
4865 24" Prestressed Conc. Emb. Cyl. Pipe (Trench Detail-12)	Lin. Ft.	101	99.7										
7065 12" A.S. TM C-70 C.I. Wall B Conc. Pipe Casting Jacked in Place	Lin. Ft.	80	78										
7066 Special Tunnel for 24" Water Main	Lin. Ft.	200	200										
7067 6" D.I. Water Main (In Tunnel)	Lin. Ft.	80	78										
7068 24" Prestressed Conc. Emb. Cyl. Pipe (In Tunnel)	Lin. Ft.	200	200										
4936 6" Gate Valves	each	1	0	1014									
4937 8" Gate Valves	each	6	8										
4949 6" Gate Wells	each	1	0										
4950 8" Gate Wells	each	7	9	1014									
4953 16" Gate Wells	each	1	1										
5005 8" Flanged Gate Valves	each	1	1										
5008 16" Flanged Gate Valves	each	1	1										
5032 6" Blow off Wells	each	9	12	1001									
5039 6" Fire Hydrants	each	9	9										
7069 6" Gate Valves & Boxes	each	10	9	1001									
7070 8" Gate Valves & Boxes	each	1	0	1001									
7071 6" Permanent Blow-offs	each	1	1										
5089 Contractors Connections (16" or less Dia.)	each	11	14										
5091 Contractors Connections (24" Dia.)	each	3	3										
7072 Abandon Gate Wells	each	2	0										
5109 Reconstruct Gate Wells	each	5	3										
5111 Adjust Gate Well Manhole Covers	each	6	7										
5113 Air Valve Wells	each	2	2										
5121 Adjust Gate Valve Boxes	each	3	3										
5131 Concrete Grade for Water Main Structures	cu. yds.	68	68.7										
5133 Steel Reinforcement for Water Main Structures	lbs.	2823	2920										
Extras													
#1 C.L. 4 Water Main To Class 6 Water Main	Cost Adjustment	0	\$834.04	4002									
Force Account for Water Main Work				2003									
#1 Rebuild 24" Gate Valve Vaults				2004									

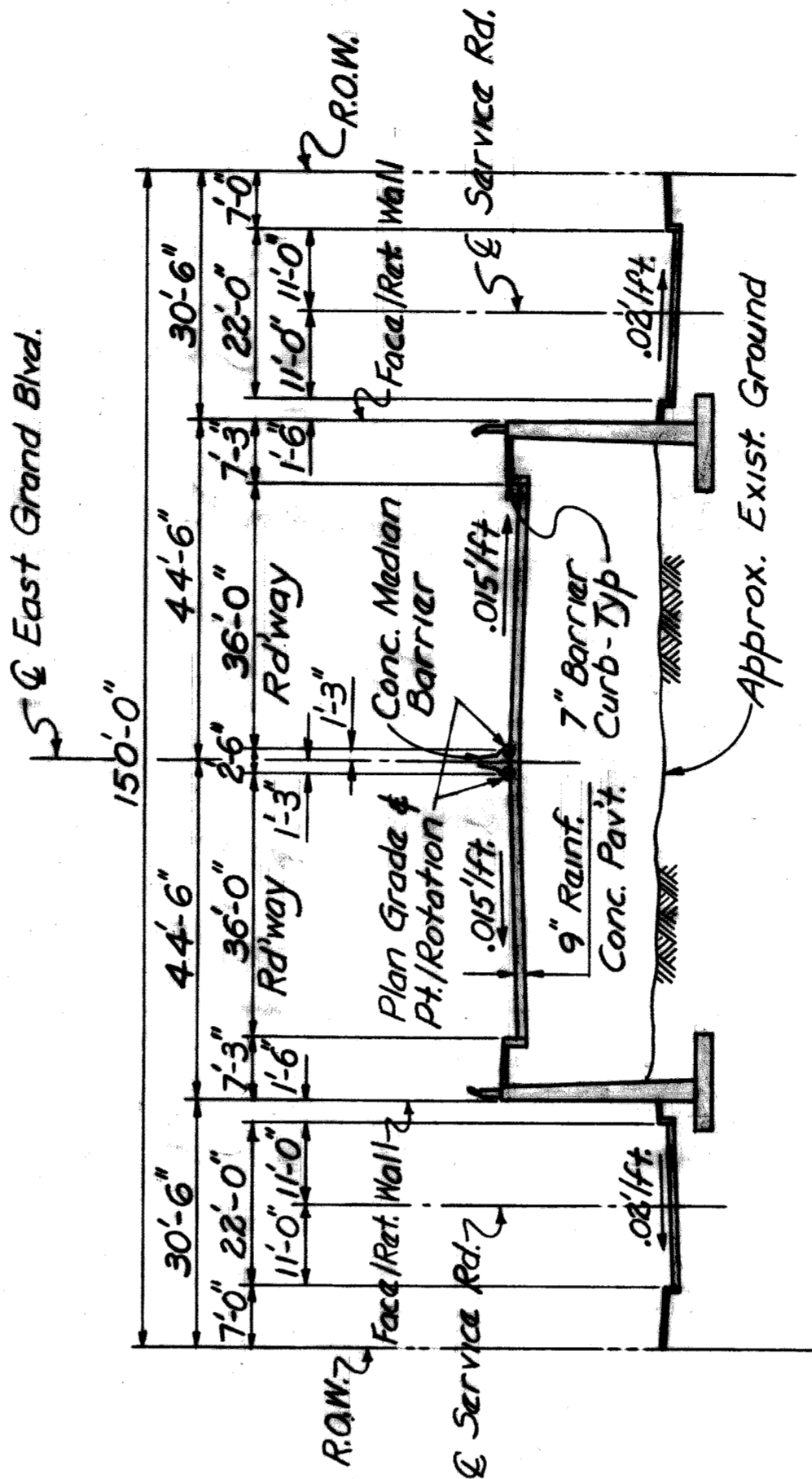
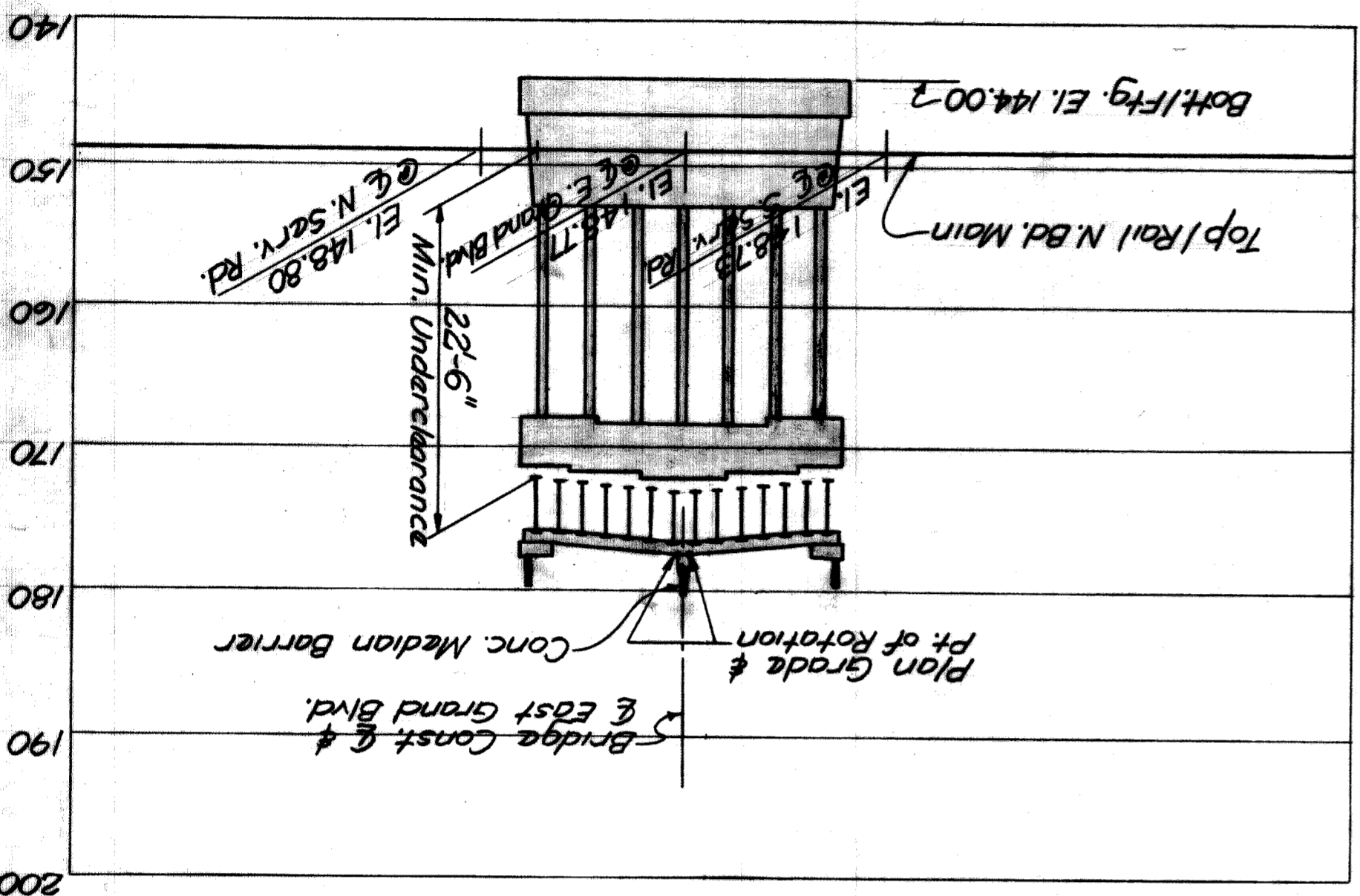
TRAIN MOVEMENT

Daily 7:00 A.M. to 7:00 P.M., 25 to 30 trains which includes 6 commuter trains.

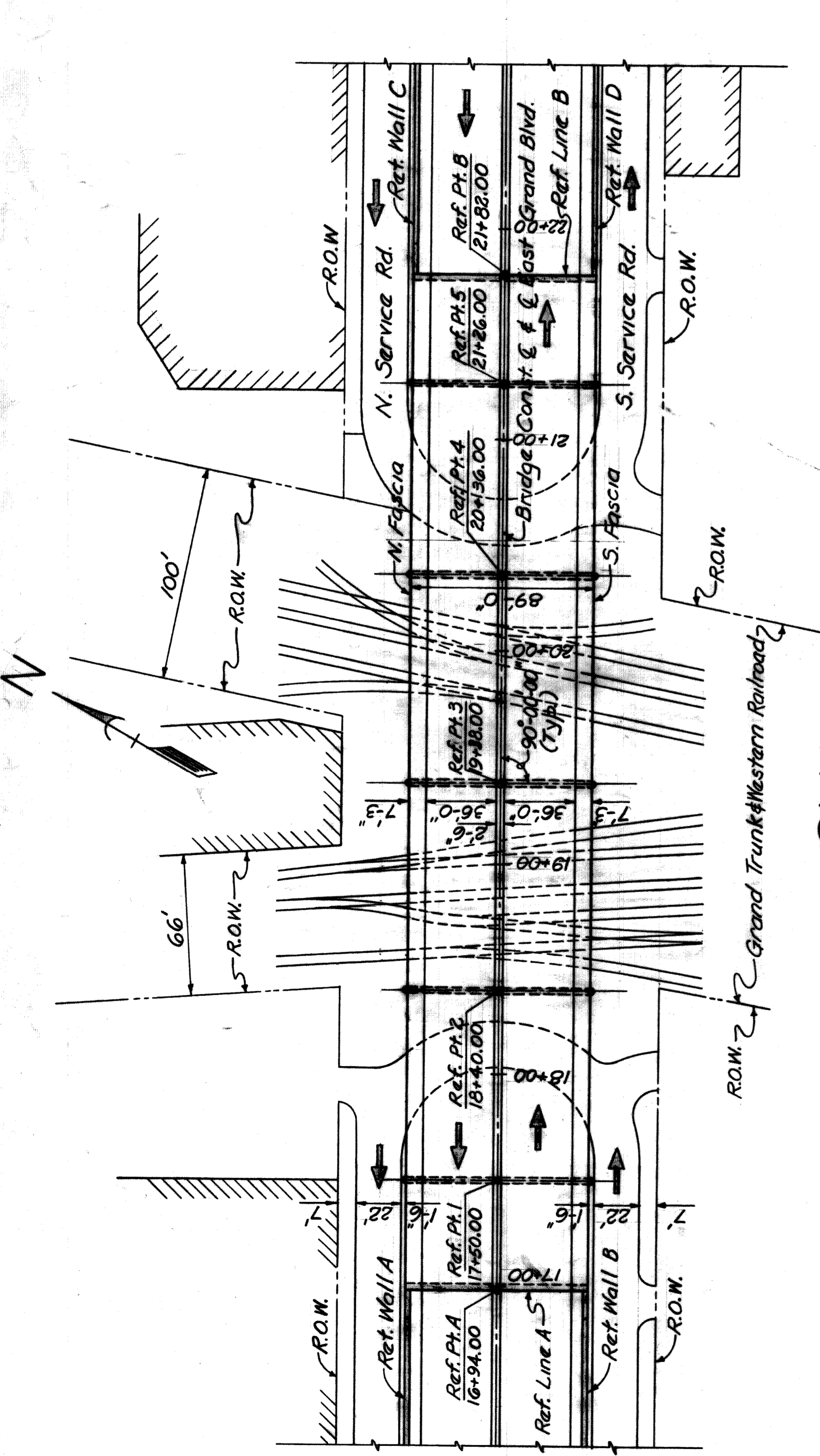
GENERAL NOTES

The work covered by these plans include construction of the proposed bridge and retaining walls to the limits shown. All work not listed is included with the Road Plans.
 For Bench Marks see Survey Plat. Sh #3, #4, #5
 Datum refers to City of Detroit Datum. To obtain U.S.C. & G.S. Precise Datum add 479.755'.
 For maintenance of traffic see Road Plans.
 Approximately 30% of the cost of this structure represents a hazard to railroad operations.
 The information concerning train movement does not represent a commitment by the G.T.W.R.R. to continue them unchanged inasmuch as they are subject to change without notice.
 The ground adjacent to the tracks and structure shall be graded by the road contractor to provide drainage.
 The Contractor shall locate all active underground utilities prior to starting work, and shall conduct his operations in such a manner as to insure that these utilities not requiring relocation will not be disturbed.

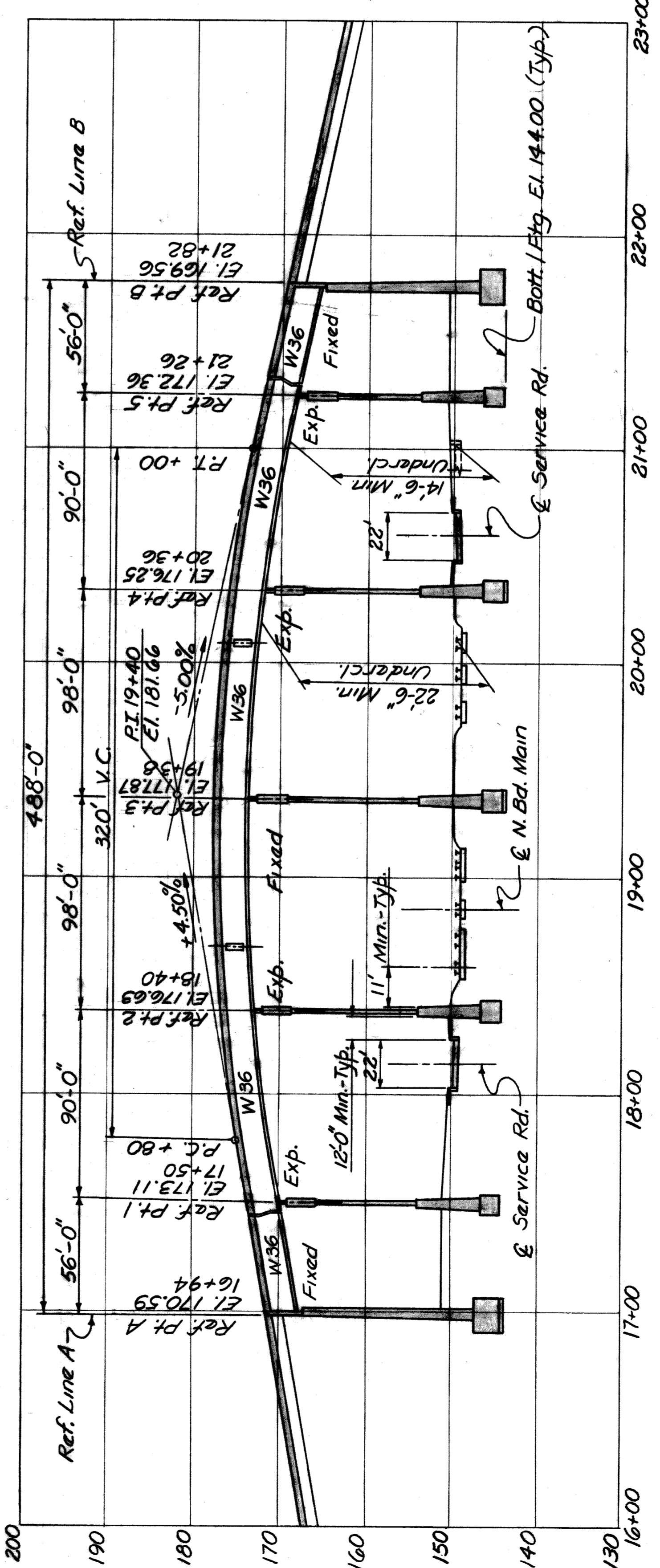
PROFILE - N. BD. MAIN
 Scales: Horiz. 1"=40'
 Vert. 1"=10'



TYPICAL SECTION THRU APPROACH
 Scale: 1"=20'



PLAN
 Scale: 1"=40'



PROFILE
 Scales: Horiz. 1"=40'
 Vert. 1"=10'

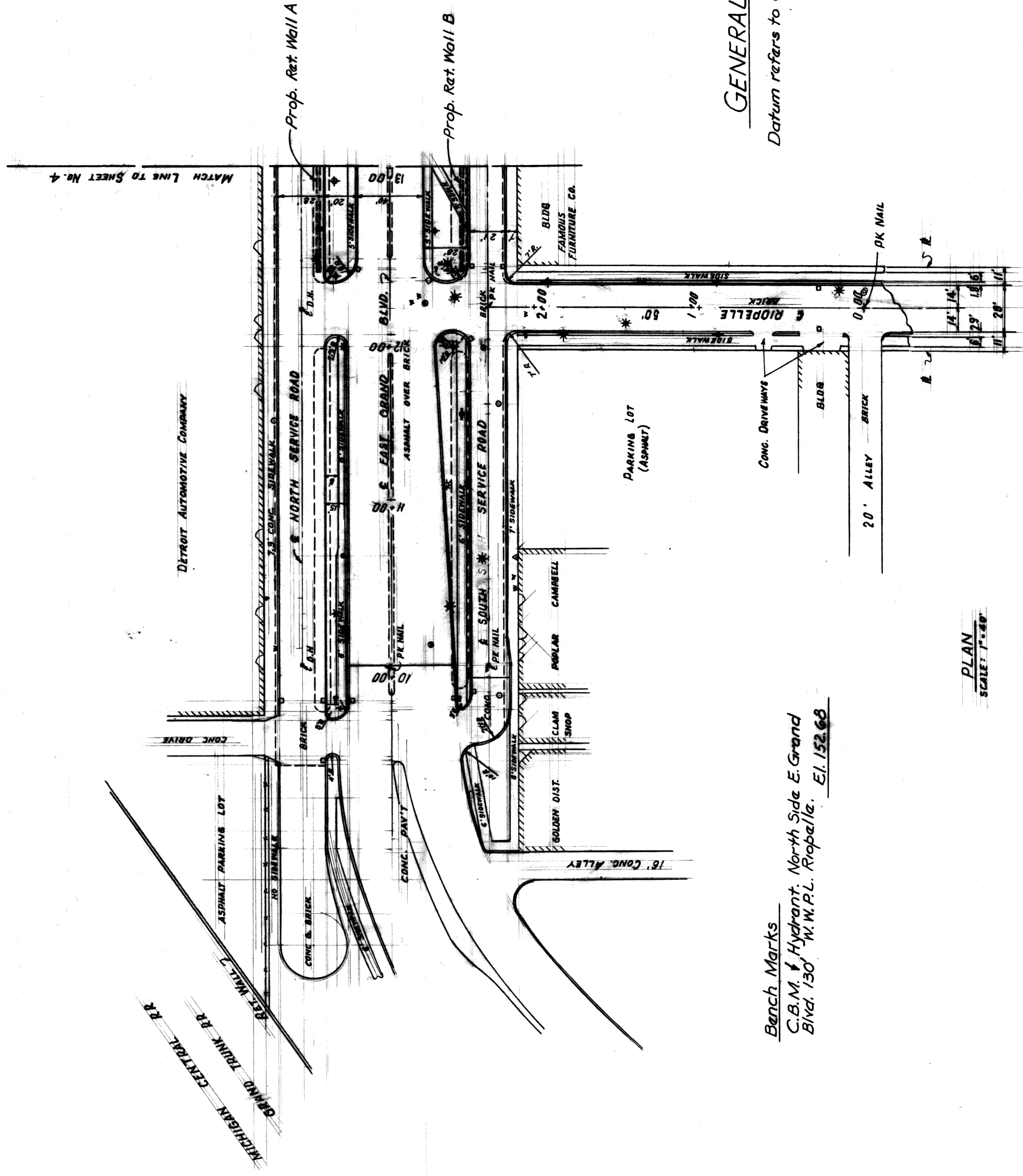
MDSH Revision 5-1-72	REVISIONS	DRAWN BY E. P. ATZ	CHECKED BY H. G. BROWN	DATE 9-23-71	APPROVED	PHILIP J. NEUDECK DIRECTOR OF HIGHWAYS AND TOWNSHIP	WAYNE COUNTY ROAD COMMISSIONERS DETROIT, MICHIGAN	EAST GRAND BOULEVARD OVER GRAND TRUNK RAILROAD GRADE SEPARATION GENERAL DRAWING	PROJECT	T4000(3)
									COUNTY JOB	508
						ISSUE NO.	2	SHEET NO.		2
						DATE		5-1-72		

LEGEND

- CATCH BASIN
- SEWER MANHOLE
- MICH. BELL TEL. CO. MANHOLE
- DETROIT EDISON CO. MANHOLE
- MICH. CONSOLIDATED GAS CO. MANHOLE
- PUBLIC LIGHTING COMM. MANHOLE
- MICH. BELL TEL. CO. POLE
- DETROIT EDISON CO. POLE
- LIGHTING POLE
- WATER GATE & WELL
- WATER GATE & BOX
- GAS VALVE
- W WATER SHUTOFF SERVICE (CURB COCK)
- POLICE BOX
- FIRE HYDRANT
- FENCE
- STREET OR ROAD SIGN
- FIRE ALARM BOX
- TRAFFIC SIGNAL BOX
- TRAFFIC SIGNAL POLE
- FIRE DEPT. MANHOLE
- FIRE DEPT. TELEPHONE POLE
- P.L.C. MANHOLE
- P.L.C. POLE (WITHOUT LIGHT)
- BORING
- COAL CHUTE

GENERAL NOTES

Datum refers to City of Detroit Datum.



Bench Marks
 C.B.M. & Hydrant, North Side E. Grand
 Bnd. 130' W. W.P.L. Ropelle. El. 152.63

PLAN
 SCALE: 1"=20'

STATE PROJECT	T4000(3)
COUNTY JOB	508
ISSUE NO.	1
SHEET NO.	3
DATE	4-2-22

**EAST GRAND BOULEVARD OVER
 GRAND TRUNK RAILROAD
 GRADE SEPARATION
 SURVEY PLAN**

WAYNE COUNTY ROAD COMMISSIONERS
 DETROIT, MICHIGAN

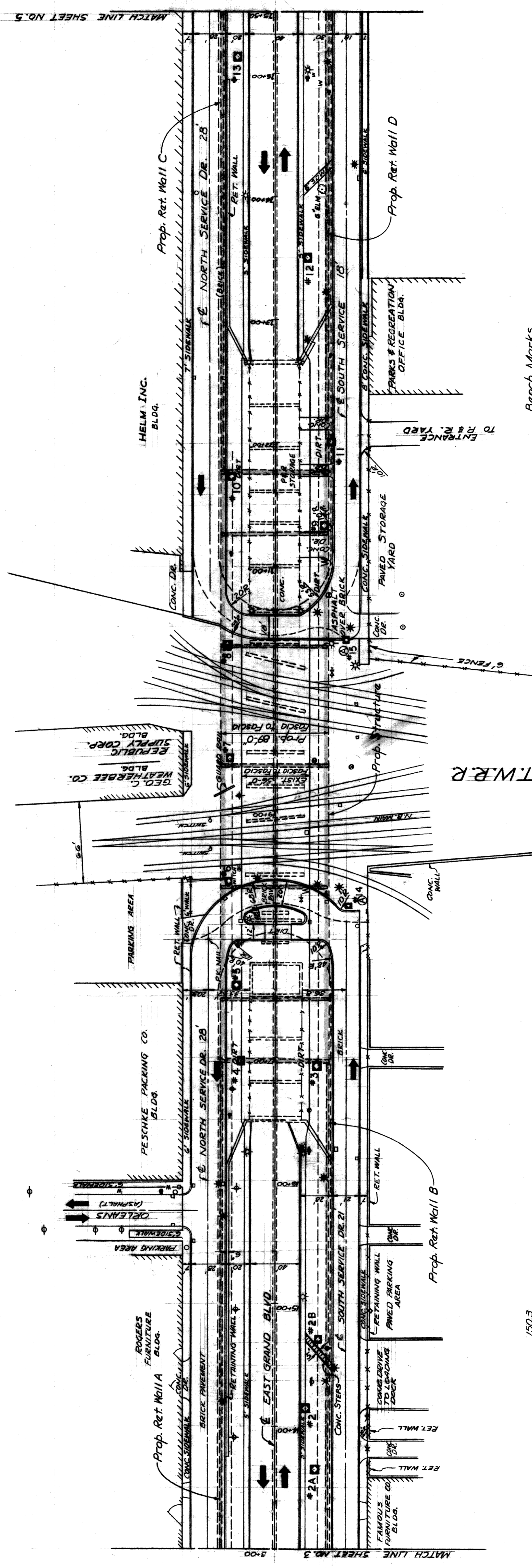
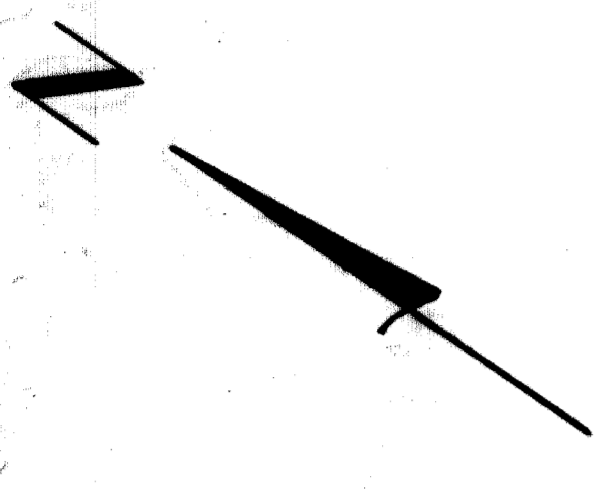
PHILIP J. NEUDORF
 FREDDIE G. BURTON

APPROVED	APPROVED
ENGINEER OF STRUCTURES AND FREWAYS	ENGINEER OF STRUCTURES AND FREWAYS
APPROVED	APPROVED
DATE	DATE
8-27-22	8-27-22
CHECKED BY	CHECKED BY
P. G. Galt	P. G. Galt
DATE	DATE
8-27-22	8-27-22
DESIGNED BY	DESIGNED BY
E. J. Galt	E. J. Galt
TRACED BY	TRACED BY
E. J. Galt	E. J. Galt
CORRECTED BY	CORRECTED BY
E. J. Galt	E. J. Galt
ENGINEER OF STRUCTURES AND FREWAYS	COUNTY HIGHWAY ENGINEER

REVISIONS

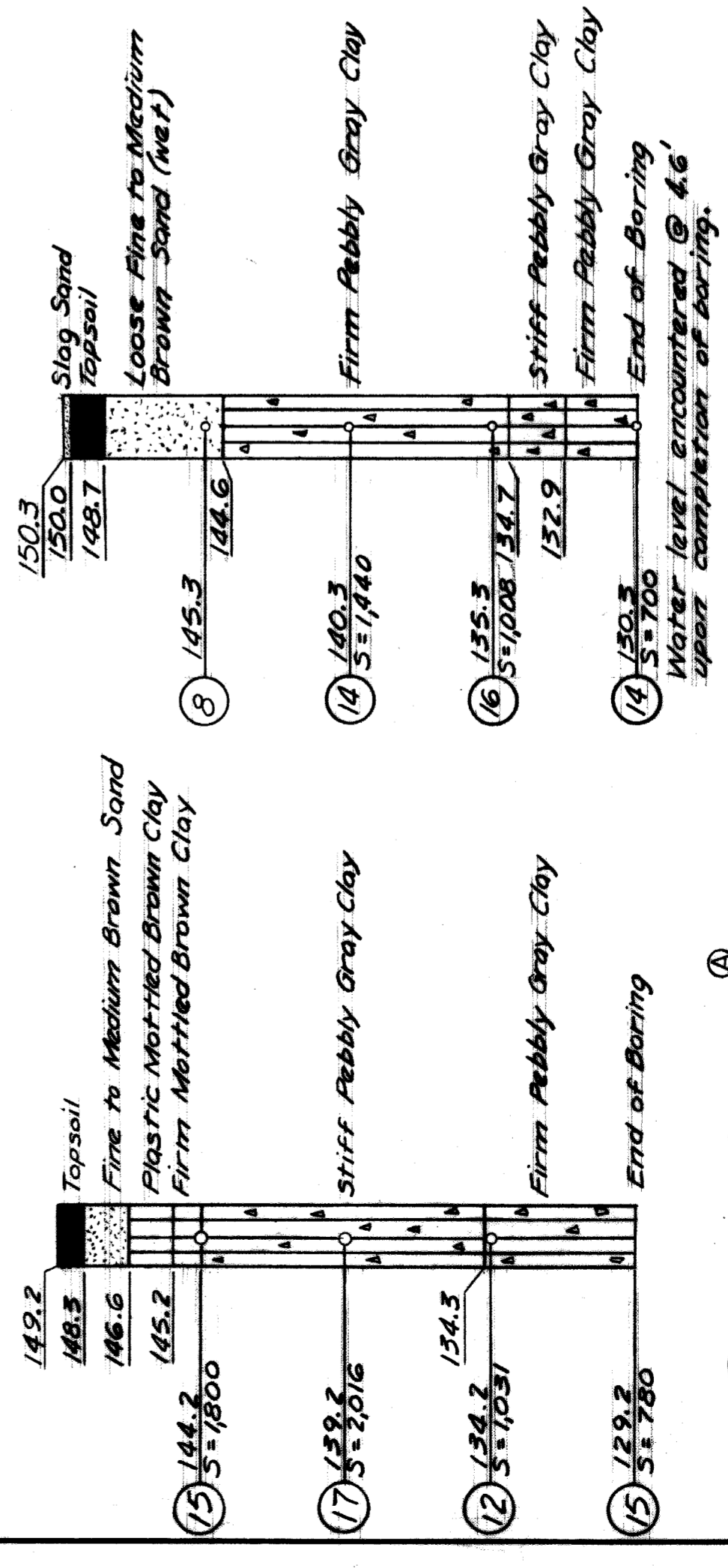
SOUD LEADER
 Robert Cummings

MICHAEL BERRY

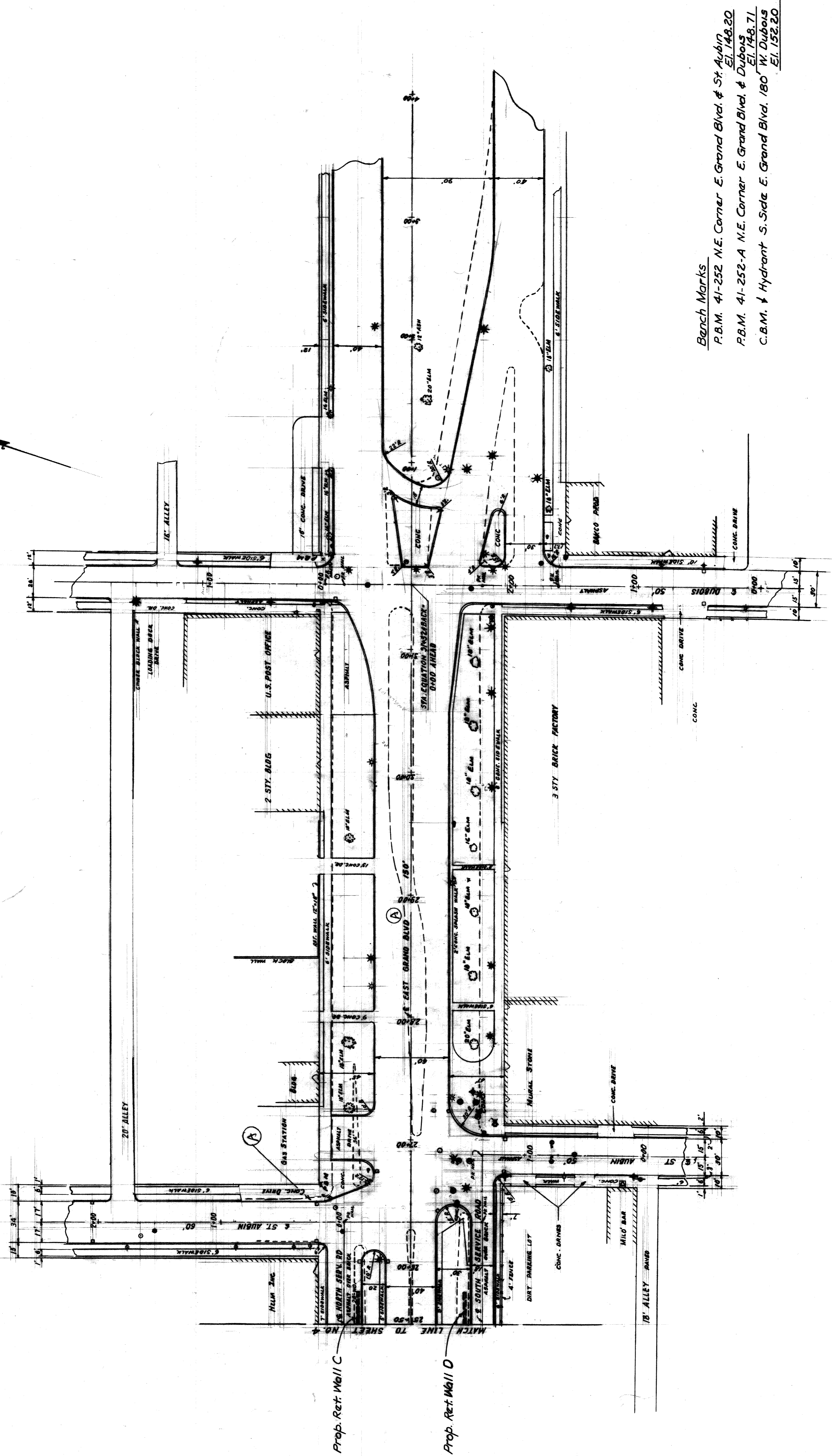


Bench Marks
 C.B.M. & Hydrant S. Side N. Serv. Dr. 55' E.E.P.L. Orleans El. 152.45
 C.B.M. & Hydrant N. Side S. Serv. Dr. 200' E.E.P.L. Ripelle El. 153.89
 C.B.M. & Hydrant S. Side N. Serv. Dr. opposite rear Helm Inc. El. 153.26
 C.B.M. & Hydrant N. Side S. Serv. Dr. at Railroad El. 152.29
 C.B.M. & Hydrant N. Side S. Serv. Dr. opposite House #2541 El. 152.48

PLAN
 SCALE 1" = 40'



REVISIONS 1. <i>Philip Berry</i> 6.25.22 2. <i>Robert Commins</i> 12.18.21		COUNTY HIGHWAY ENGINEER PHILIP J. NEUBECK
BOARD LEADER <i>Robert Commins</i> ENGINEER OF STRUCTURES AND HIGHWAYS APPROVED		COUNTY HIGHWAY ENGINEER PHILIP J. NEUBECK
WAYNE COUNTY ROAD COMMISSIONERS DETROIT, MICHIGAN		
BOARD OF EAST GRAND BOULEVARD OVER GRAND TRUNK RAILROAD GRADE SEPARATION SURVEY PLAN		
STATE PROJECT T4000(3)	COUNTY JOB 508	SHEET NO. 4
DATE 6-25-22		ISSUE NO. 1



Bench Marks
 P.B.M. 41-252 N.E. Corner E. Grand Blvd. & St. Aubin El. 148.20
 P.B.M. 41-252-A N.E. Corner E. Grand Blvd. & Dubois El. 148.71
 C.B.M. & Hydrant S. Side E. Grand Blvd. 180' W. Dubois El. 152.20

PLAN
 SCALE 1"=40'

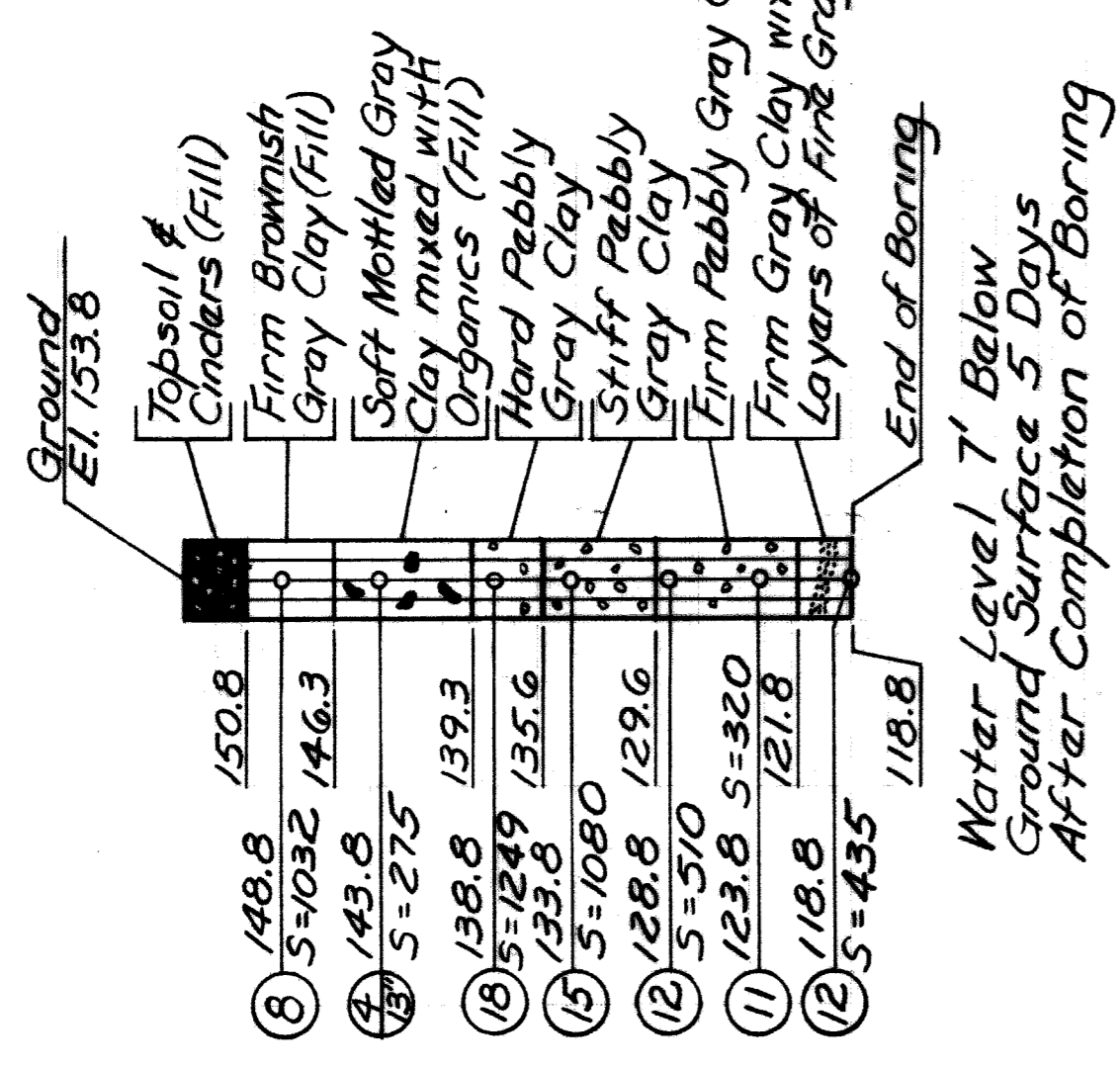
STATE PROJECT	T4000 (3)
COUNTY JOB	508
ISSUE NO.	1
SHEET NO.	5
DATE	4-3-72

EAST GRAND BOULEVARD OVER
 GRAND TRUNK RAILROAD
 GRADE SEPARATION
 SURVEY PLAN

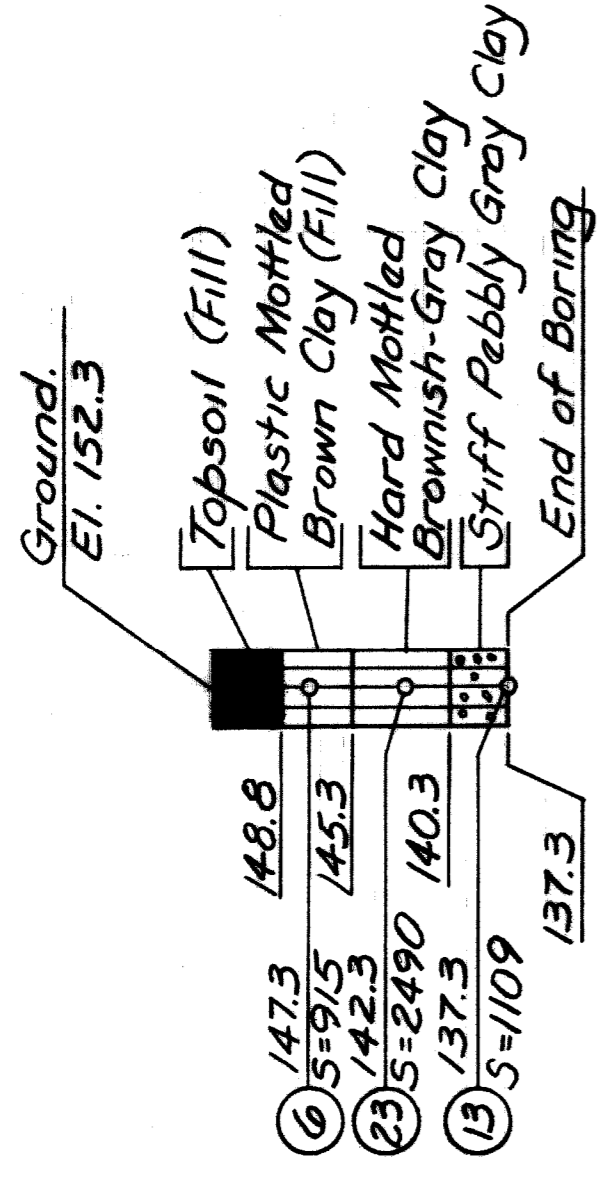
WAYNE COUNTY ROAD COMMISSIONERS
 DETROIT, MICHIGAN
 PHILIP J. NEUBERK
 FREDDIE G. BURTON
 MICHAEL BERRY

REVISIONS	APPROVED
ROAD LEADER Robert Cummins	APPROVED
DATE 8-23-71	ENGINEER OF STRUCTURES AND HIGHWAYS
CHECKED BY	APPROVED
DATE	COUNTY HIGHWAY ENGINEER
CORRECT	

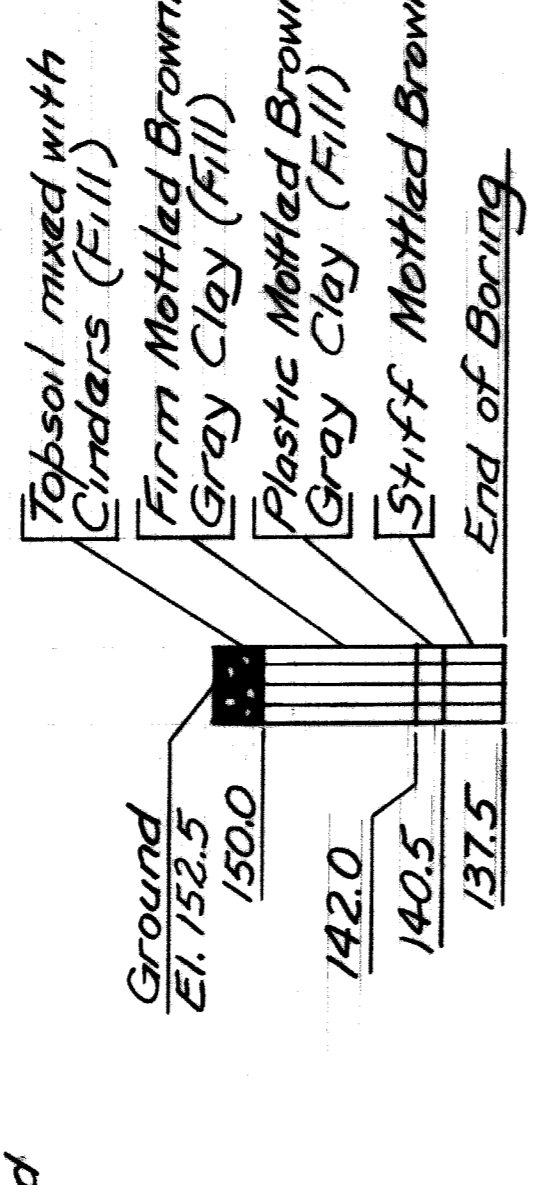
BORING 2



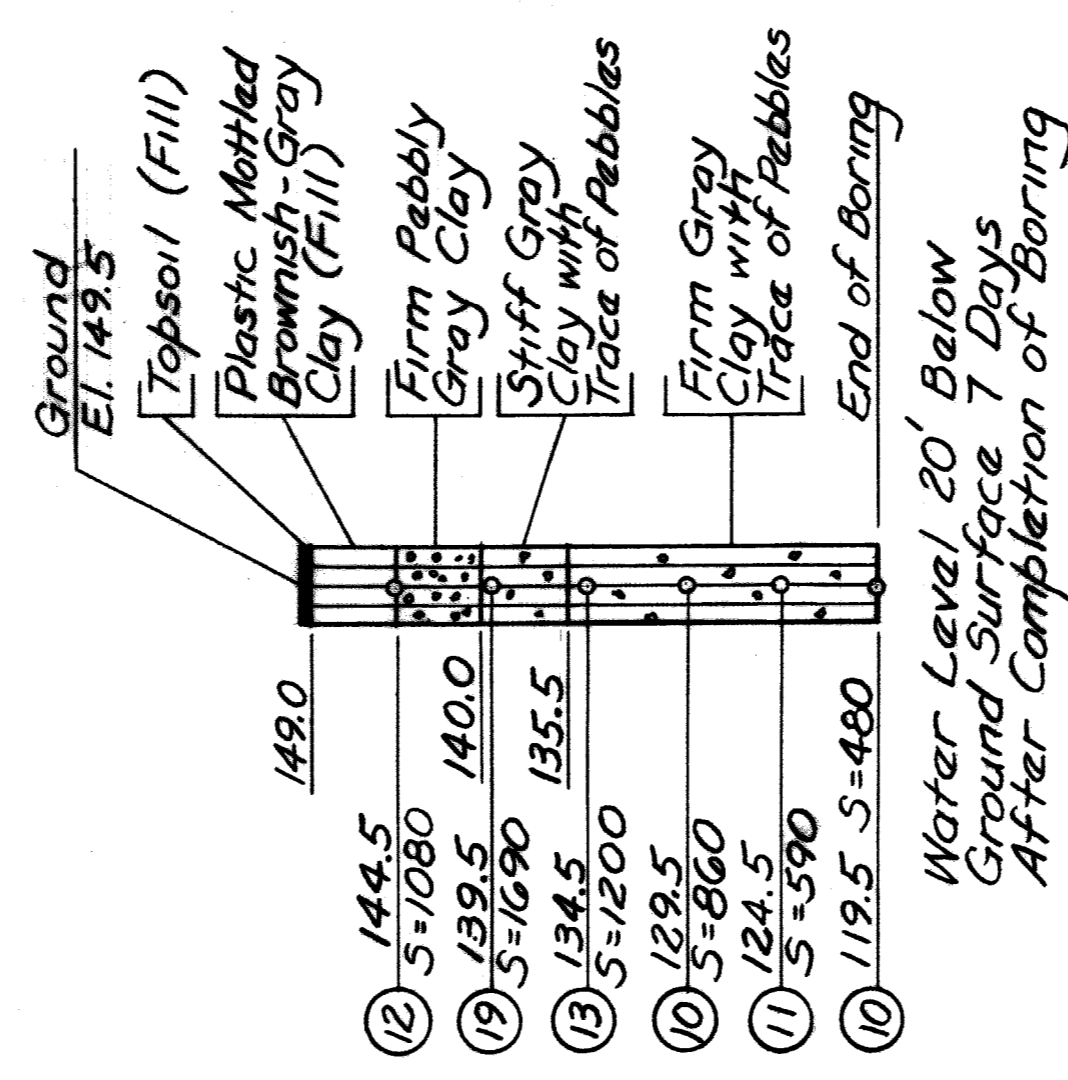
BORING 2A



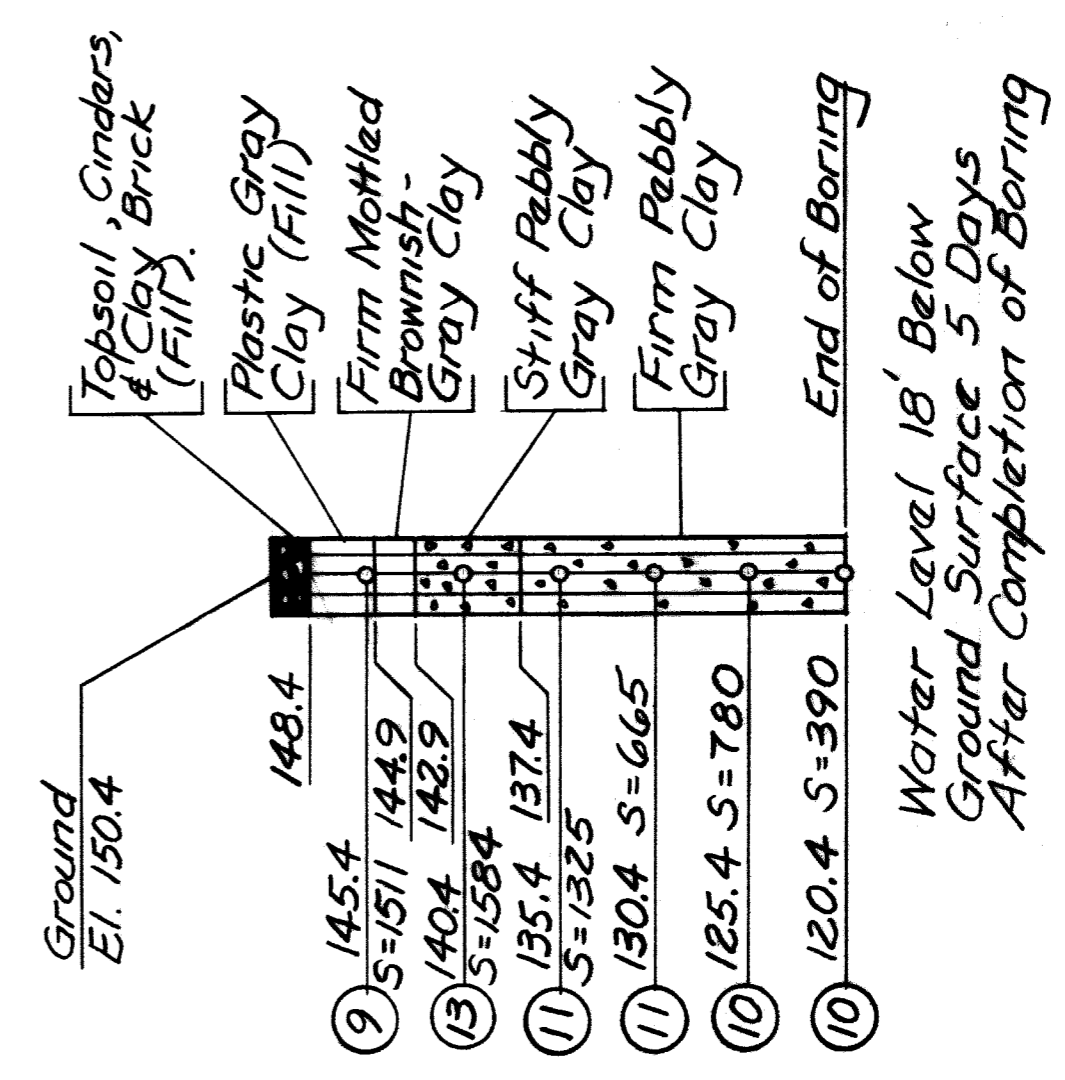
BORING 2B



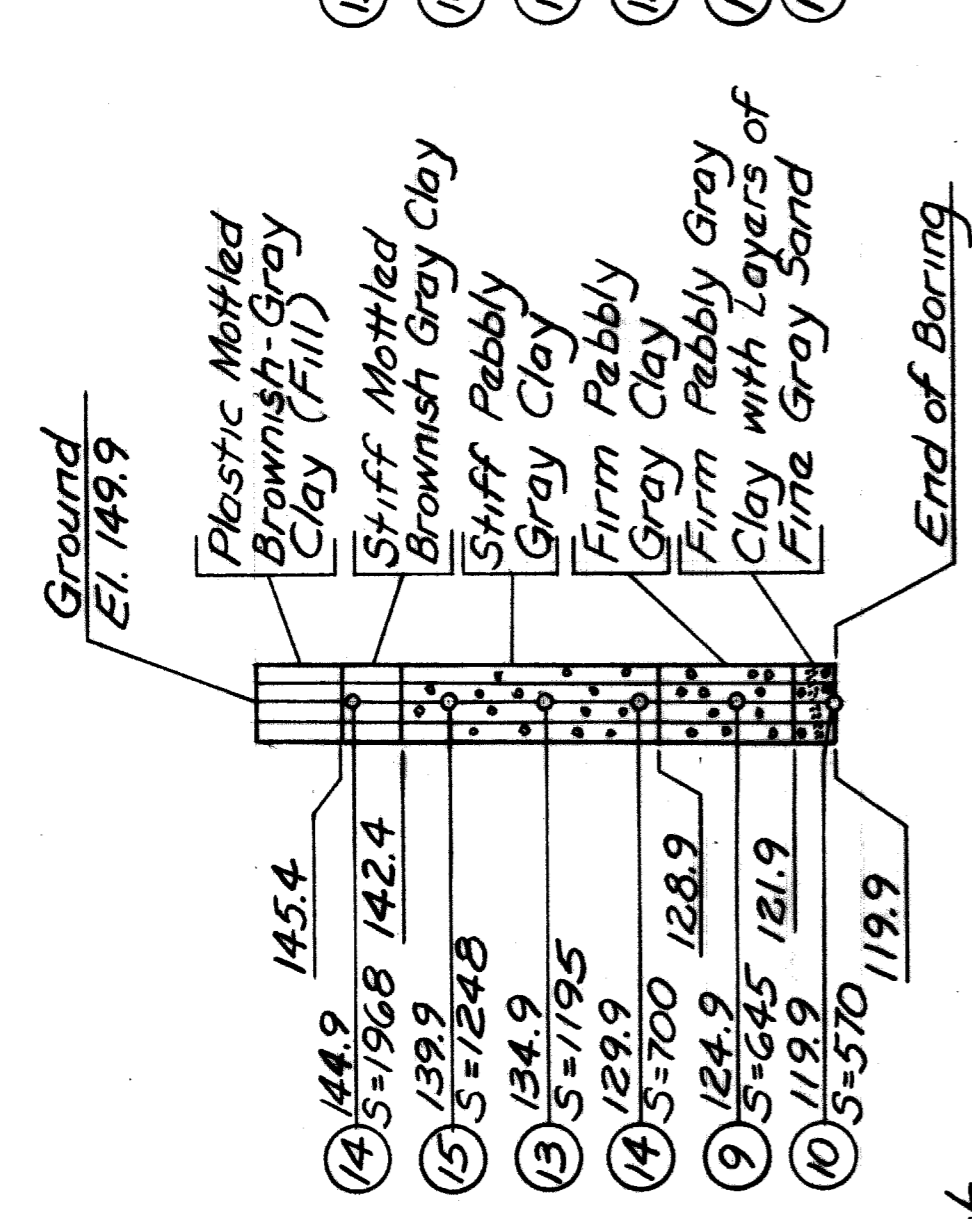
BORING 5



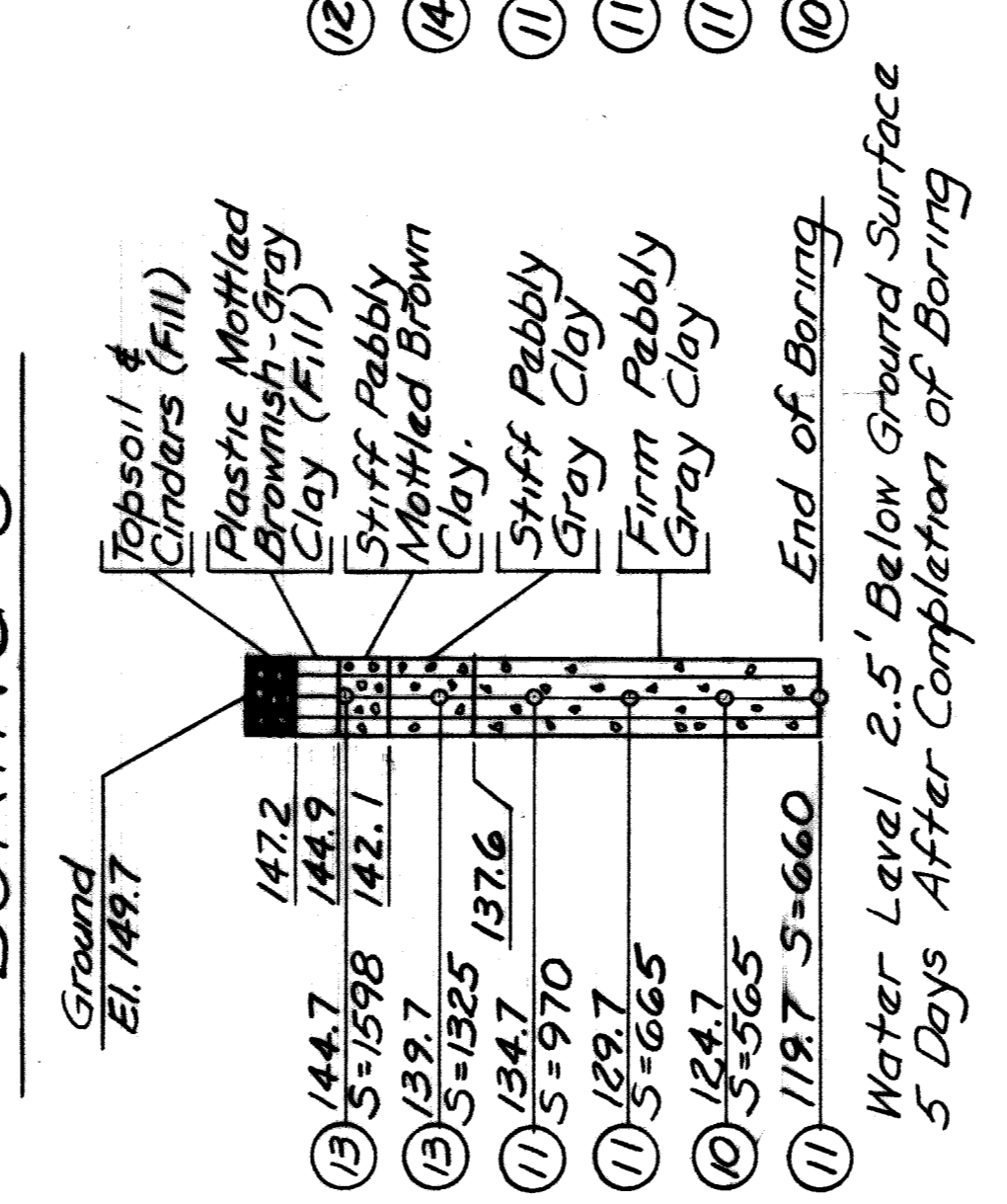
BORING 10



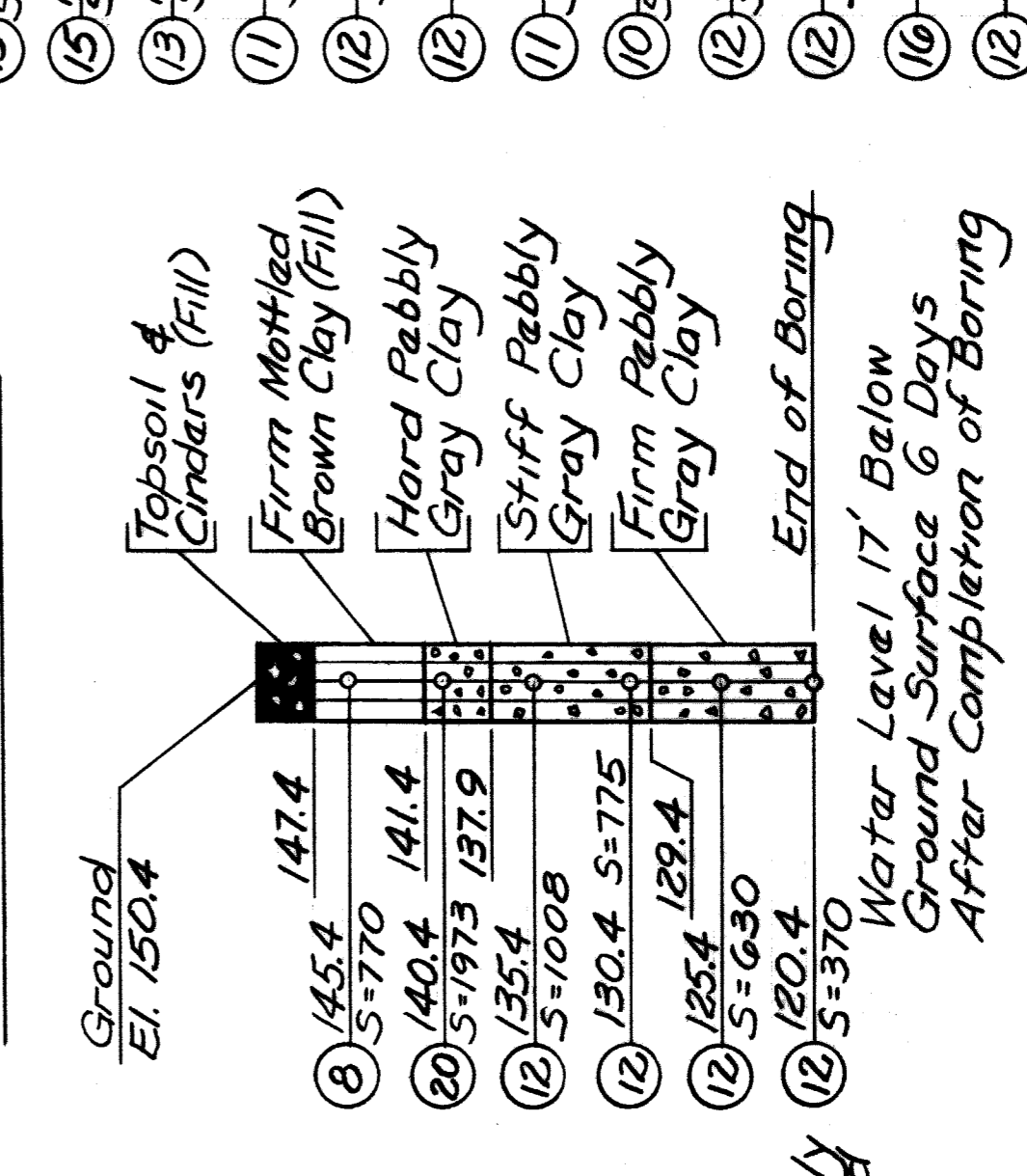
BORING 3



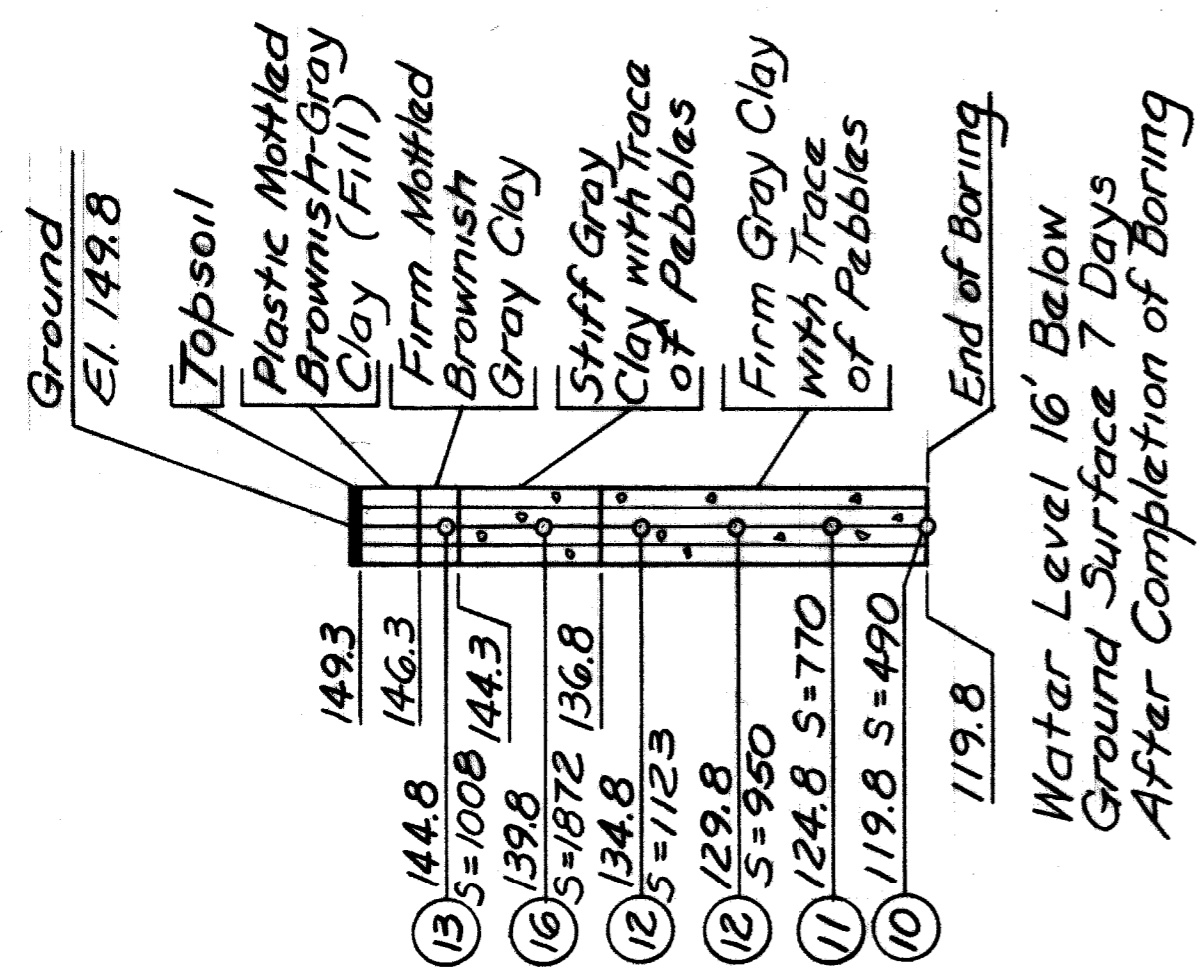
BORING 8



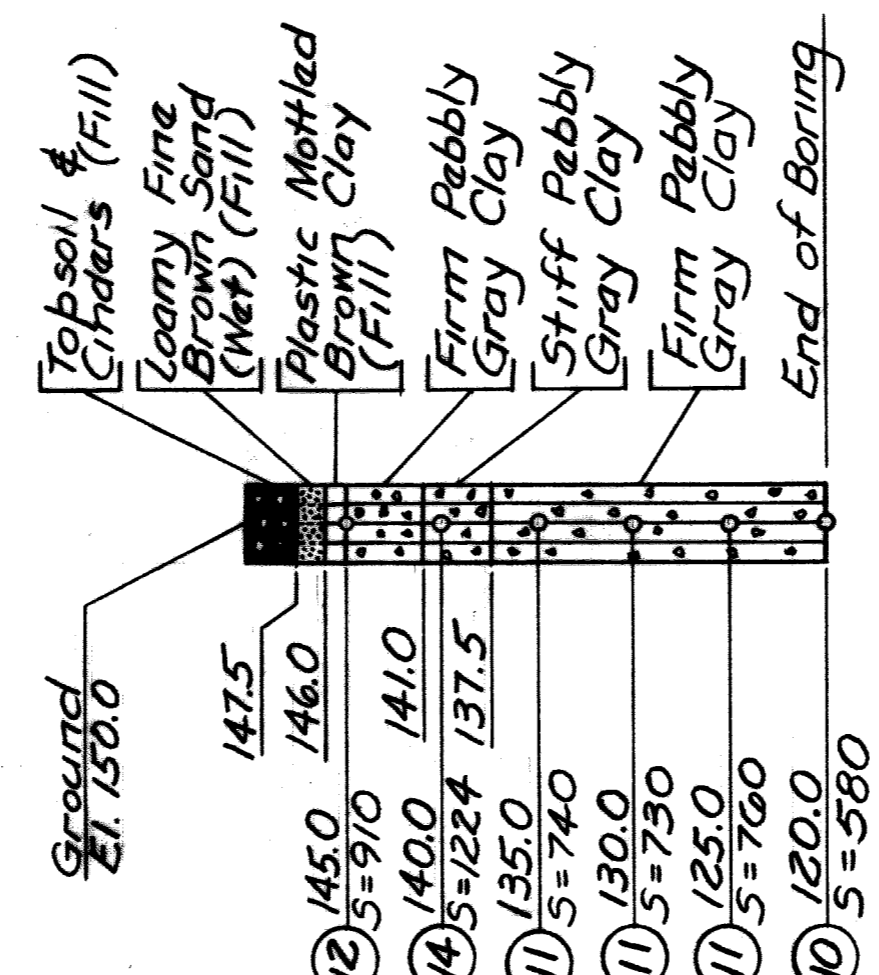
BORING 13



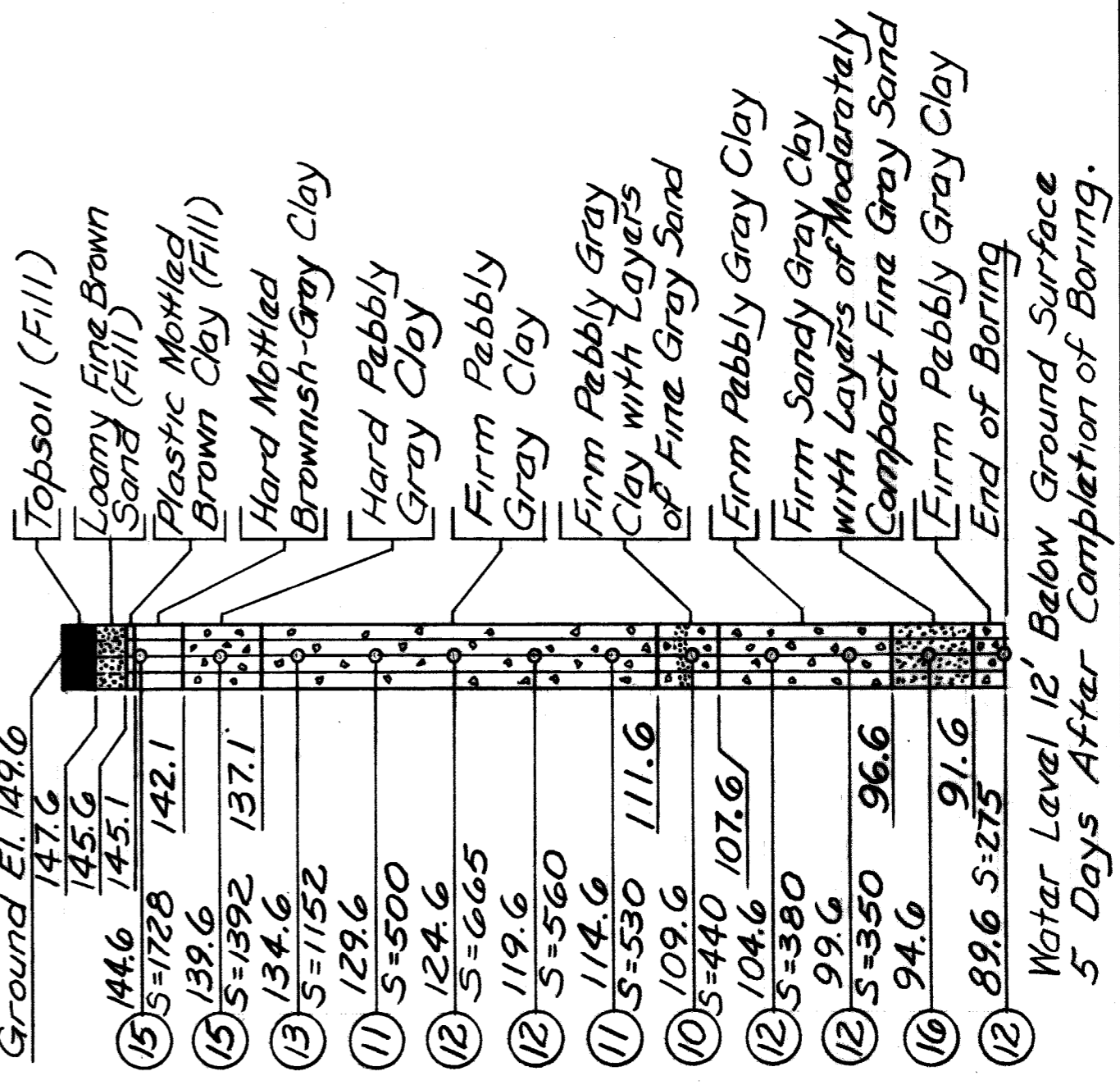
BORING 4



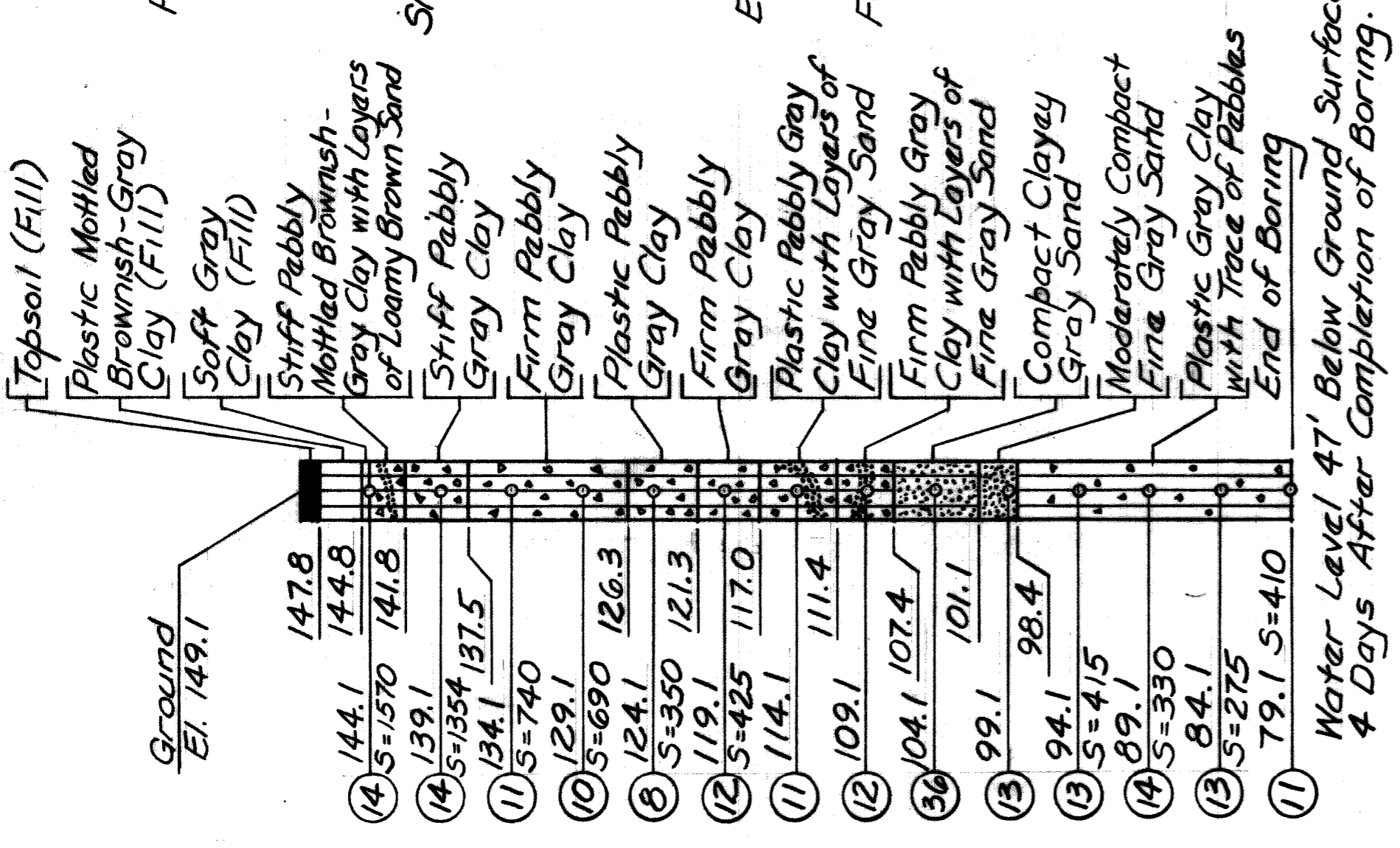
BORING 9



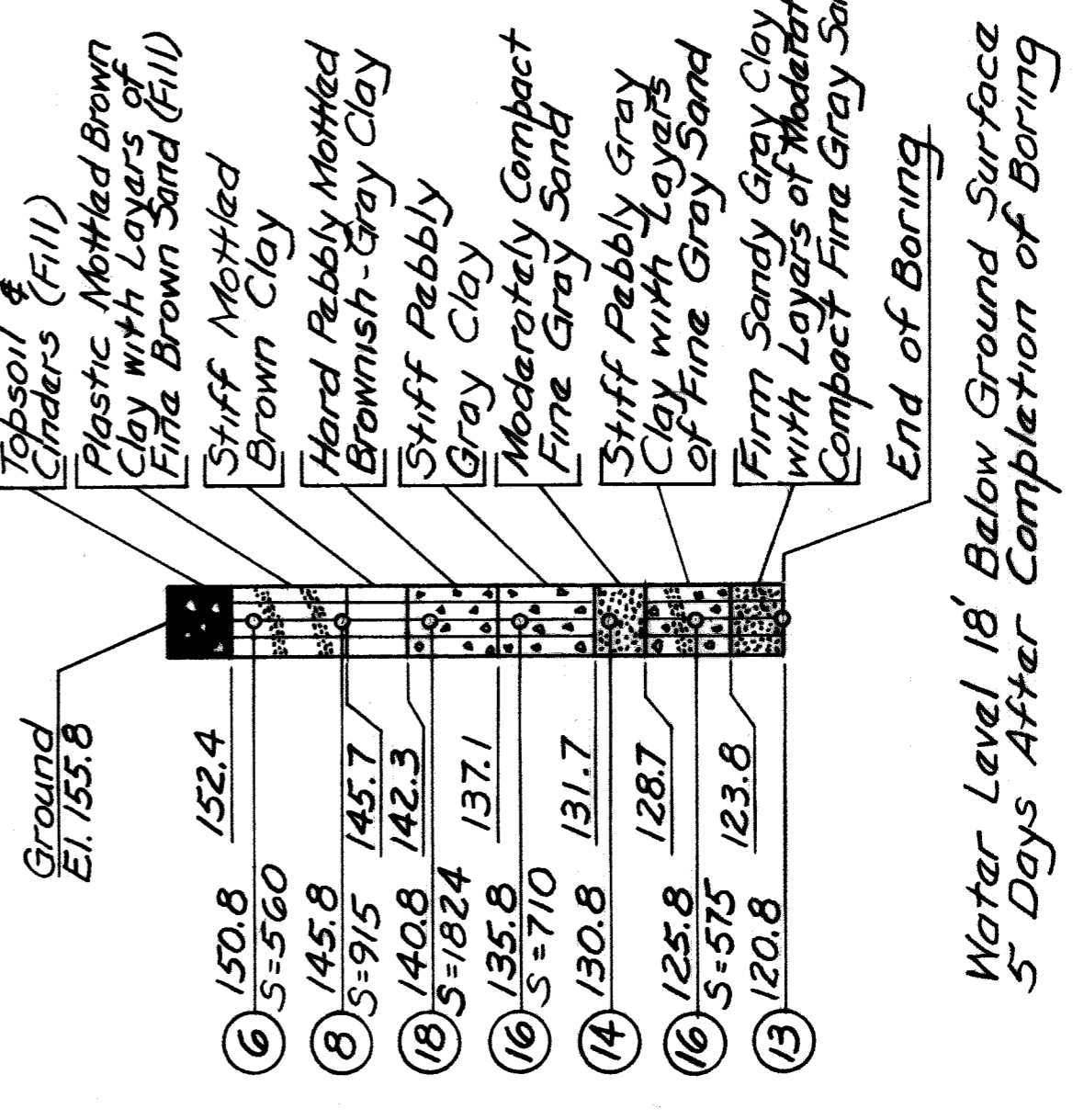
BORING 11



BORING 6



BORING 12



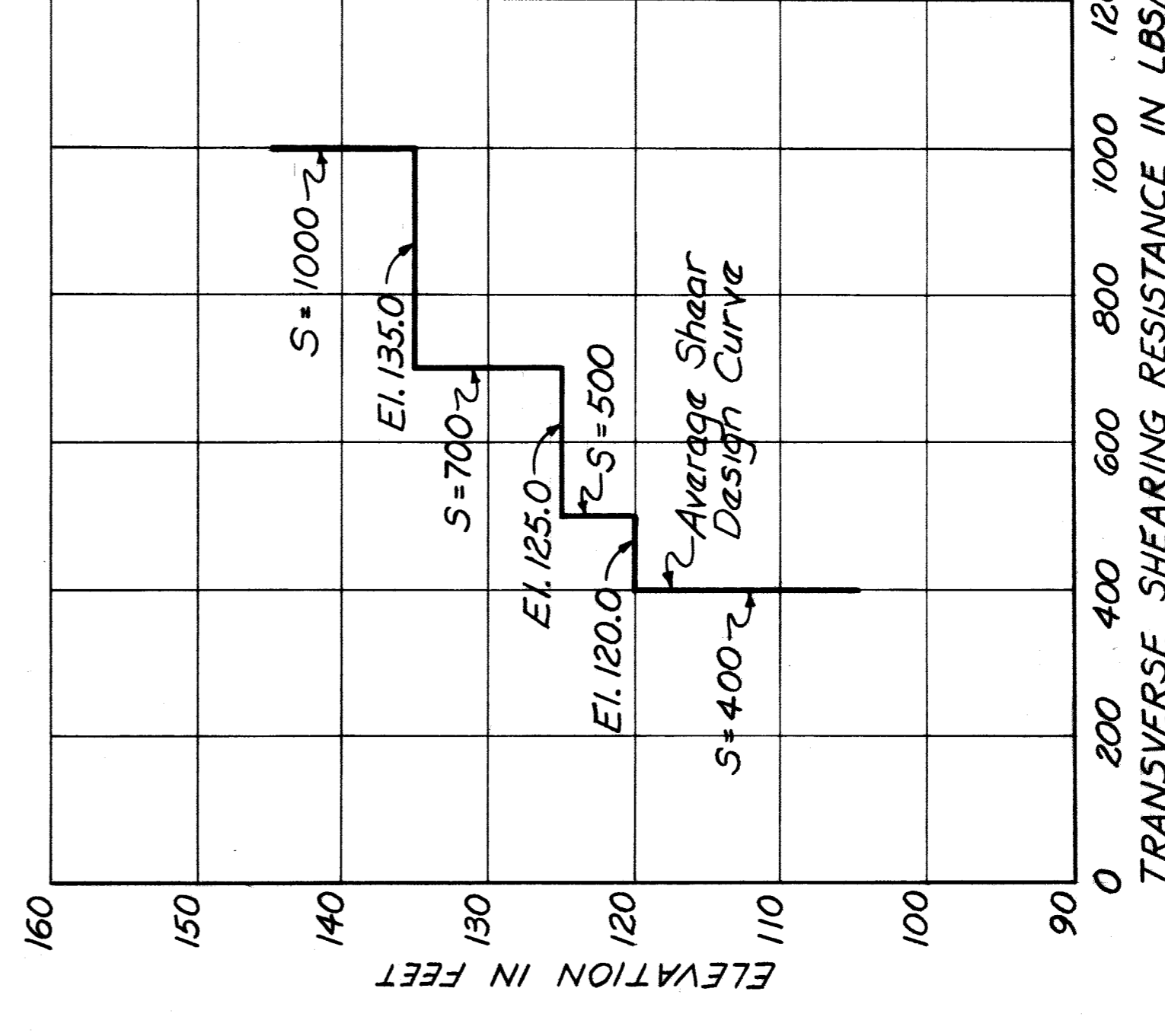
GENERAL NOTES

Penetration: Circled numbers indicate required number of blows to drive soil sampler one foot, using a 140 pound weight 30 inches. Where not shown sampler was hand driven.

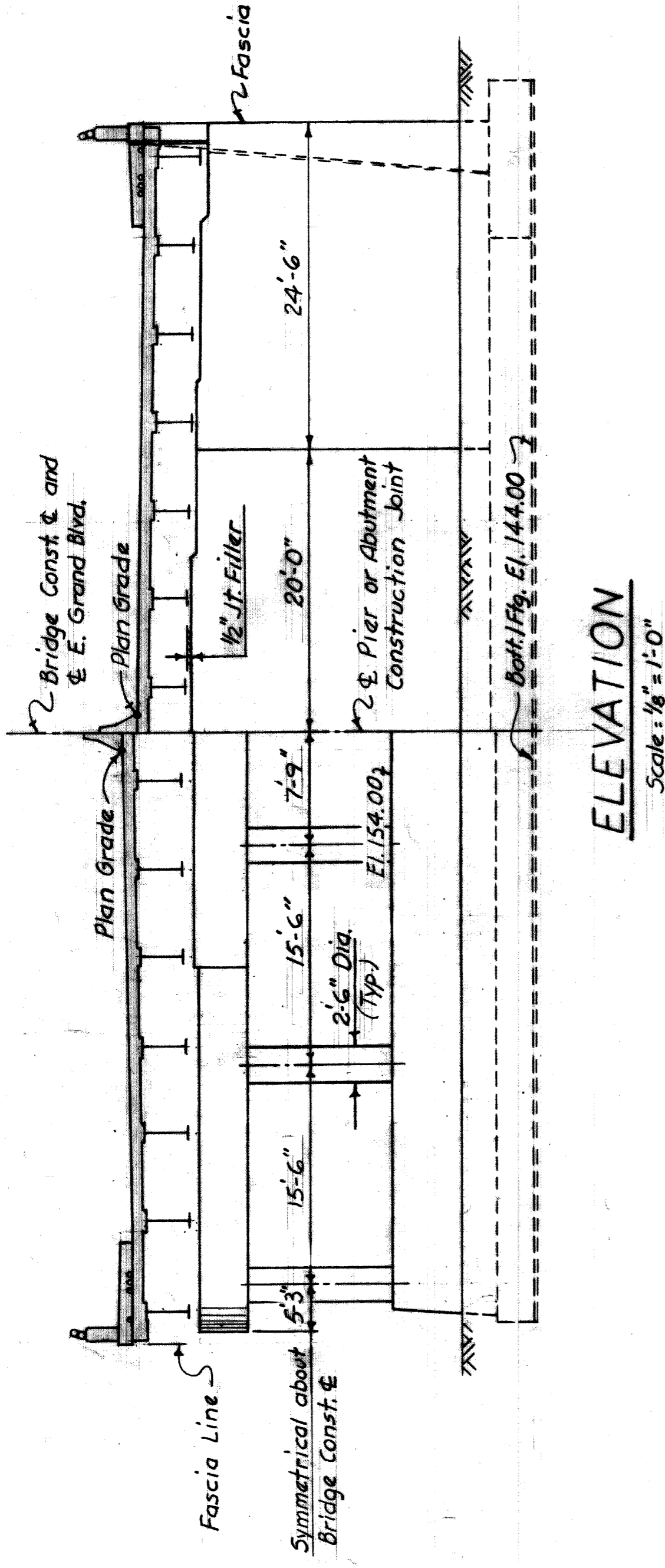
Shear: (S) numbers indicate Transverse Shearing Resistance in lbs per sq.ft. Shear values shown have been determined from samples at the W.C.R.C. Laboratory, using the "House" method.

Elevations refer to City of Detroit Datum.

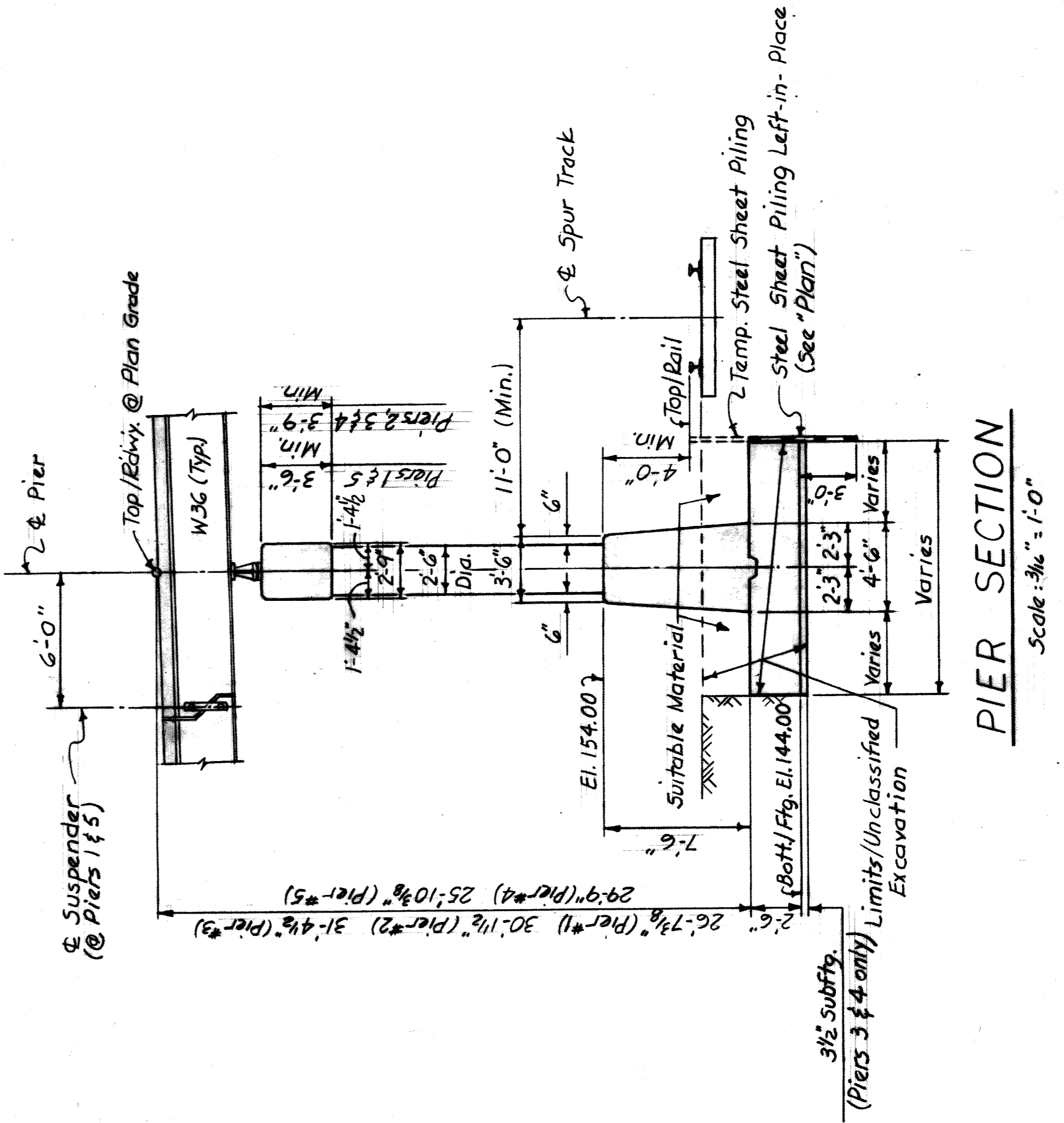
For Location of Borings see Survey Plan St. #4



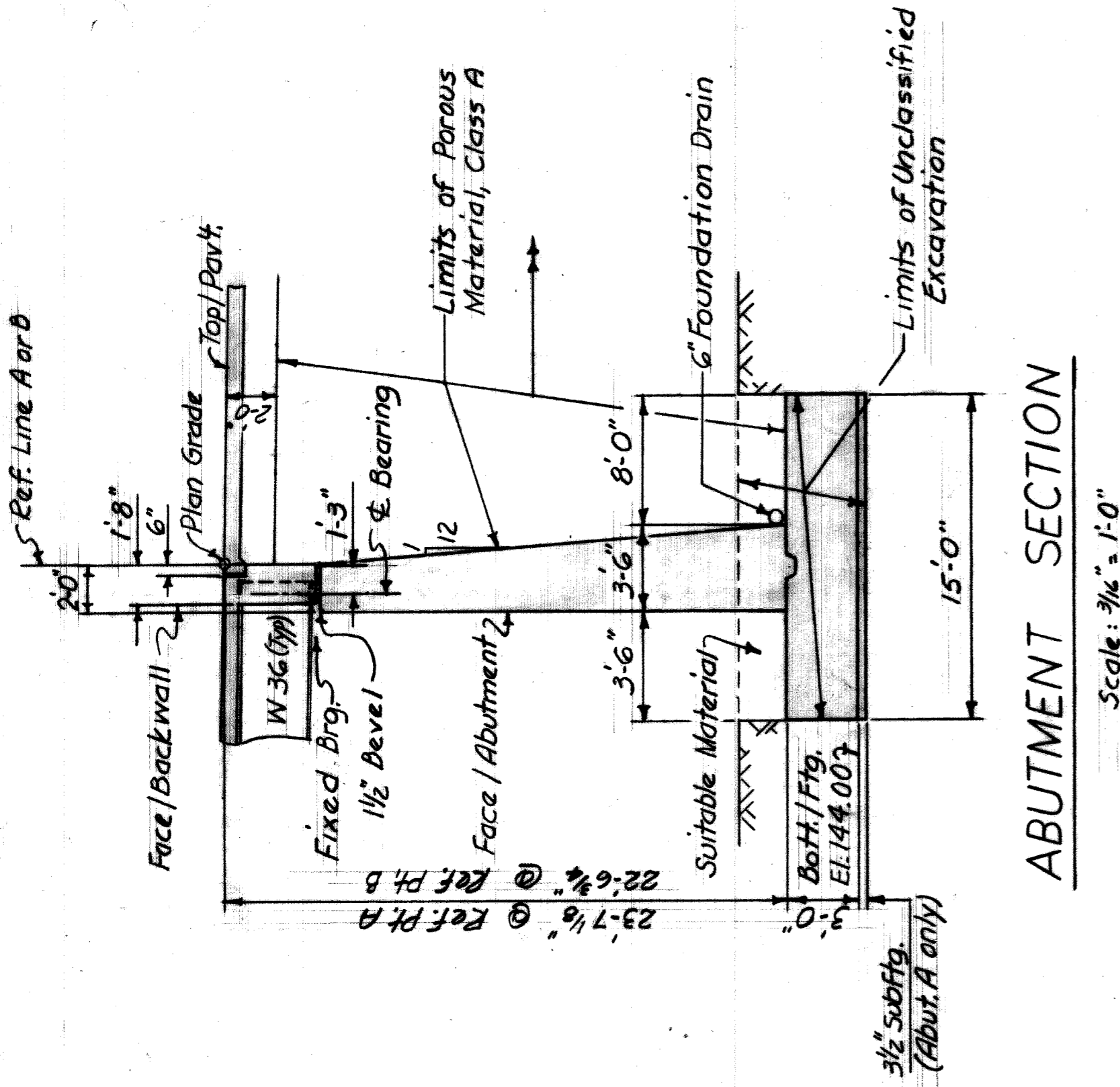
COMPOSITE SHEAR DIAGRAM



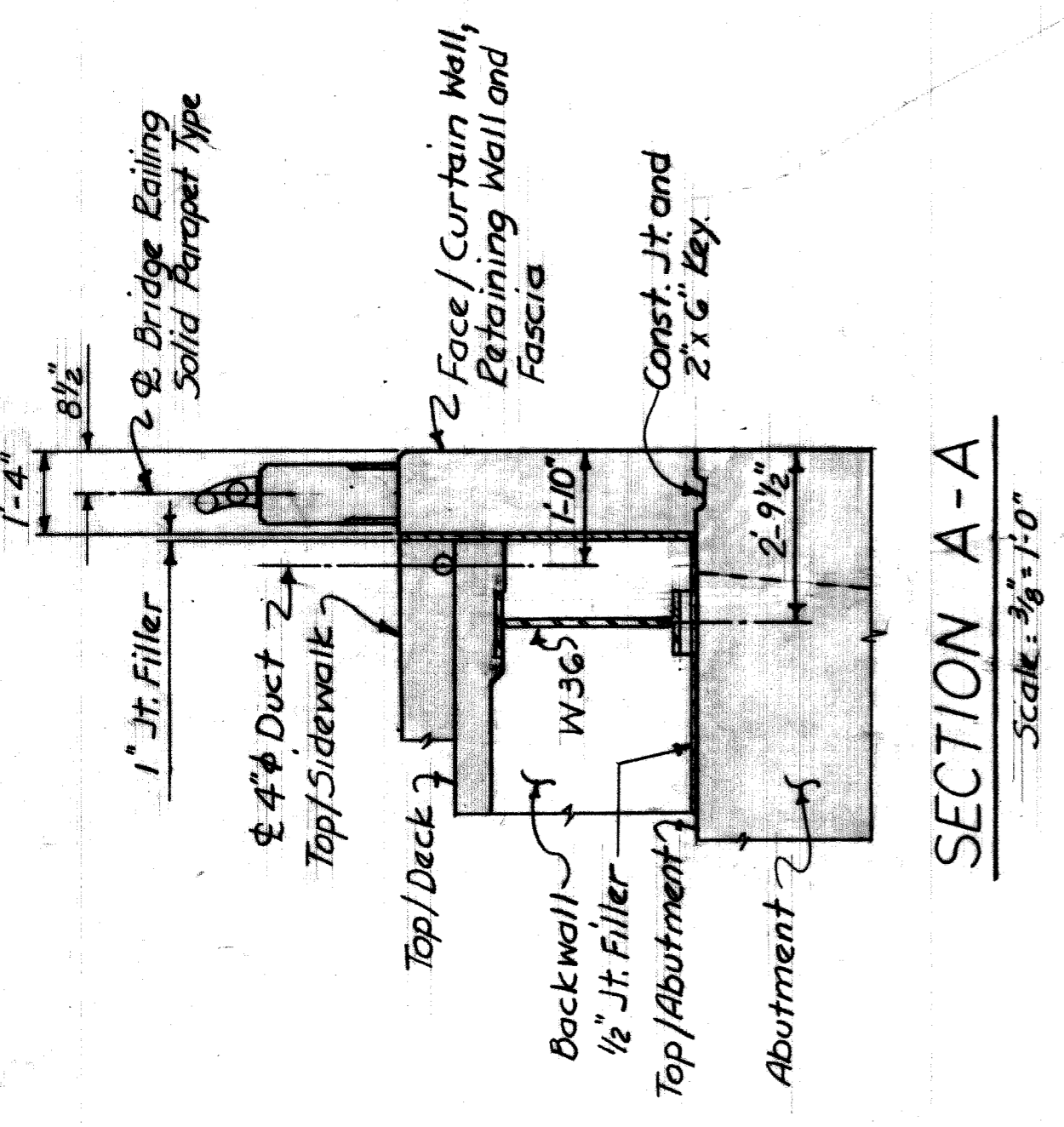
ELEVATION
Scale: 1/8" = 1'-0"



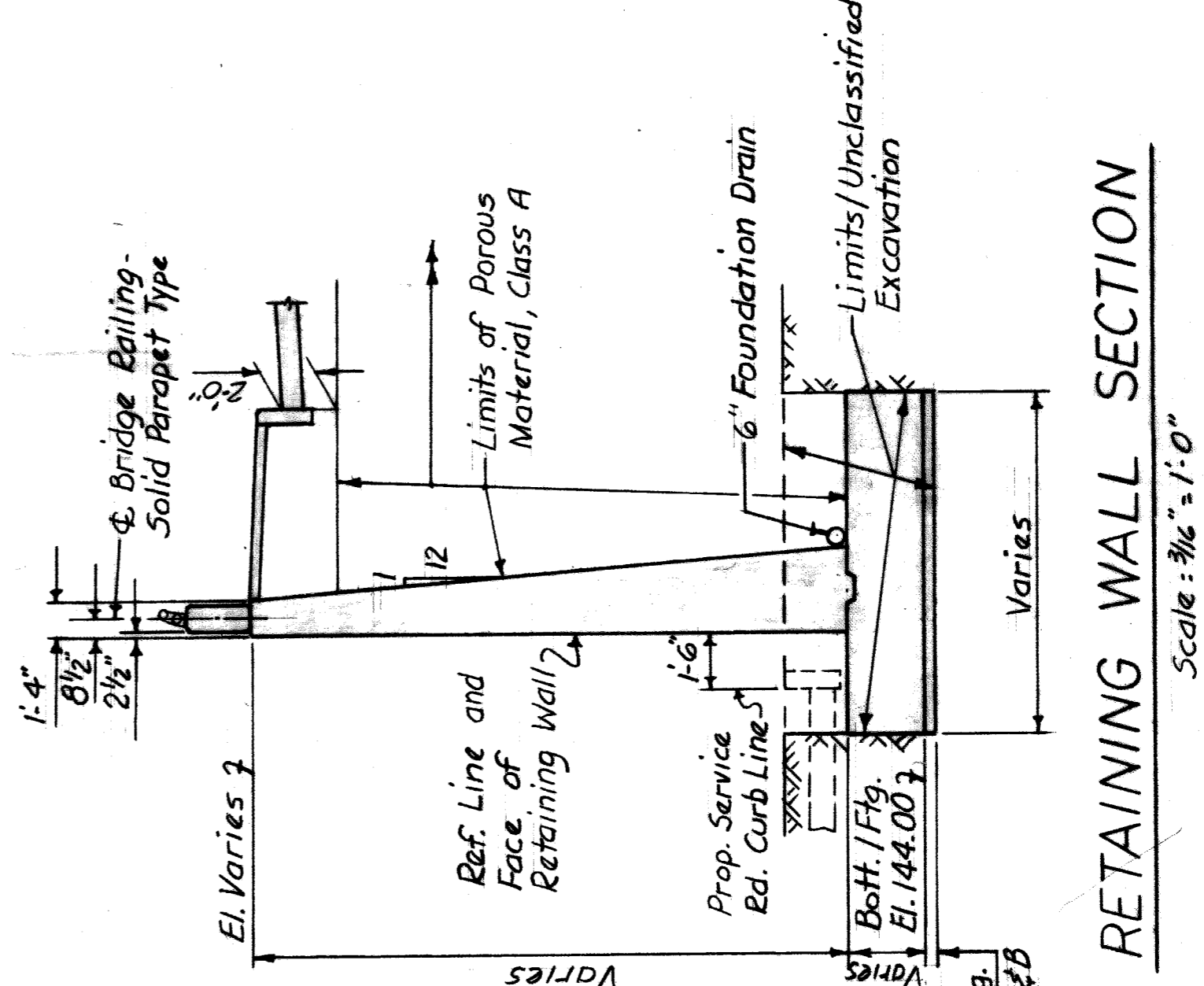
PIER SECTION
Scale: 3/16" = 1'-0"



ABUTMENT SECTION
Scale: 3/16" = 1'-0"

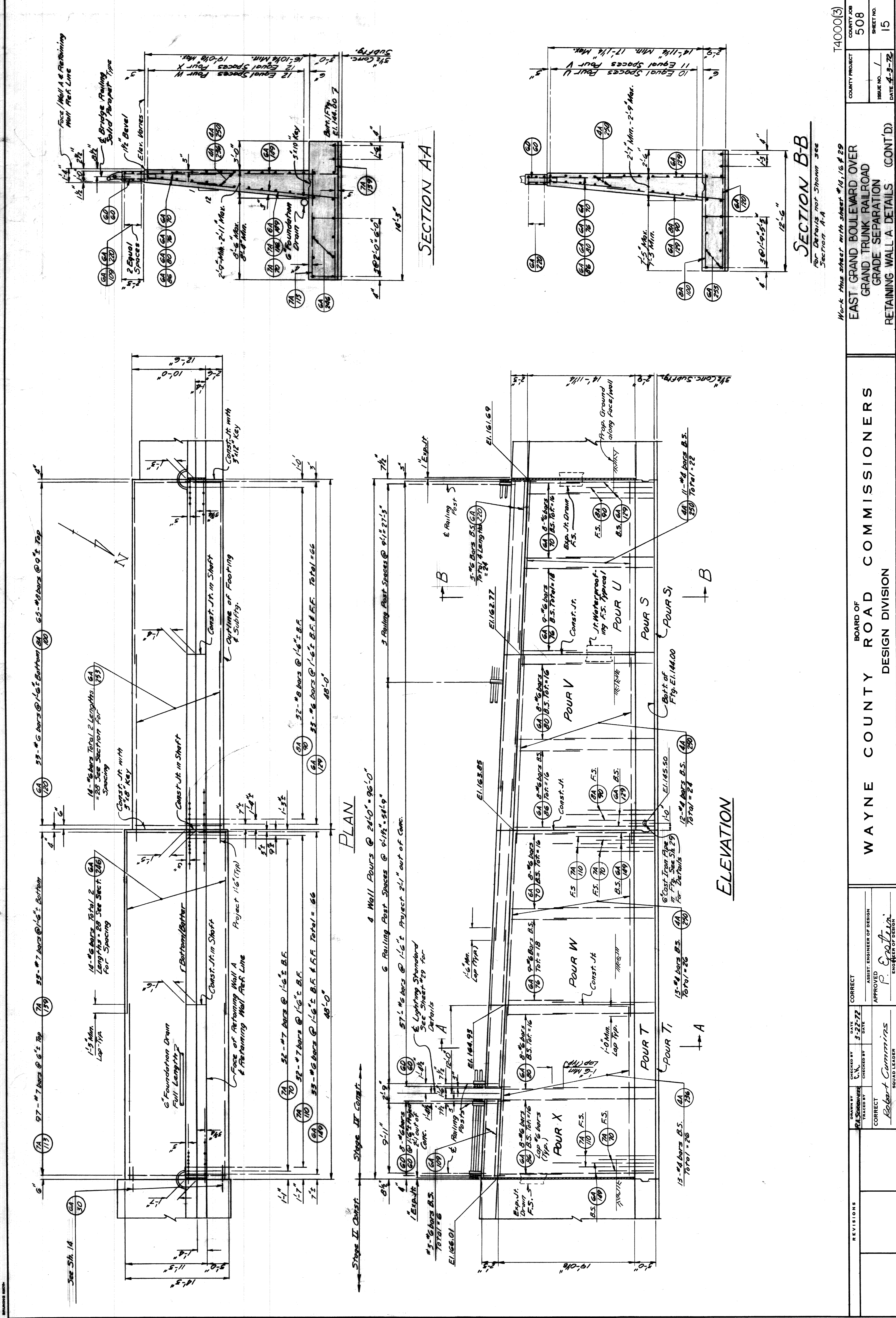


SECTION A-A
Scale: 3/16" = 1'-0"

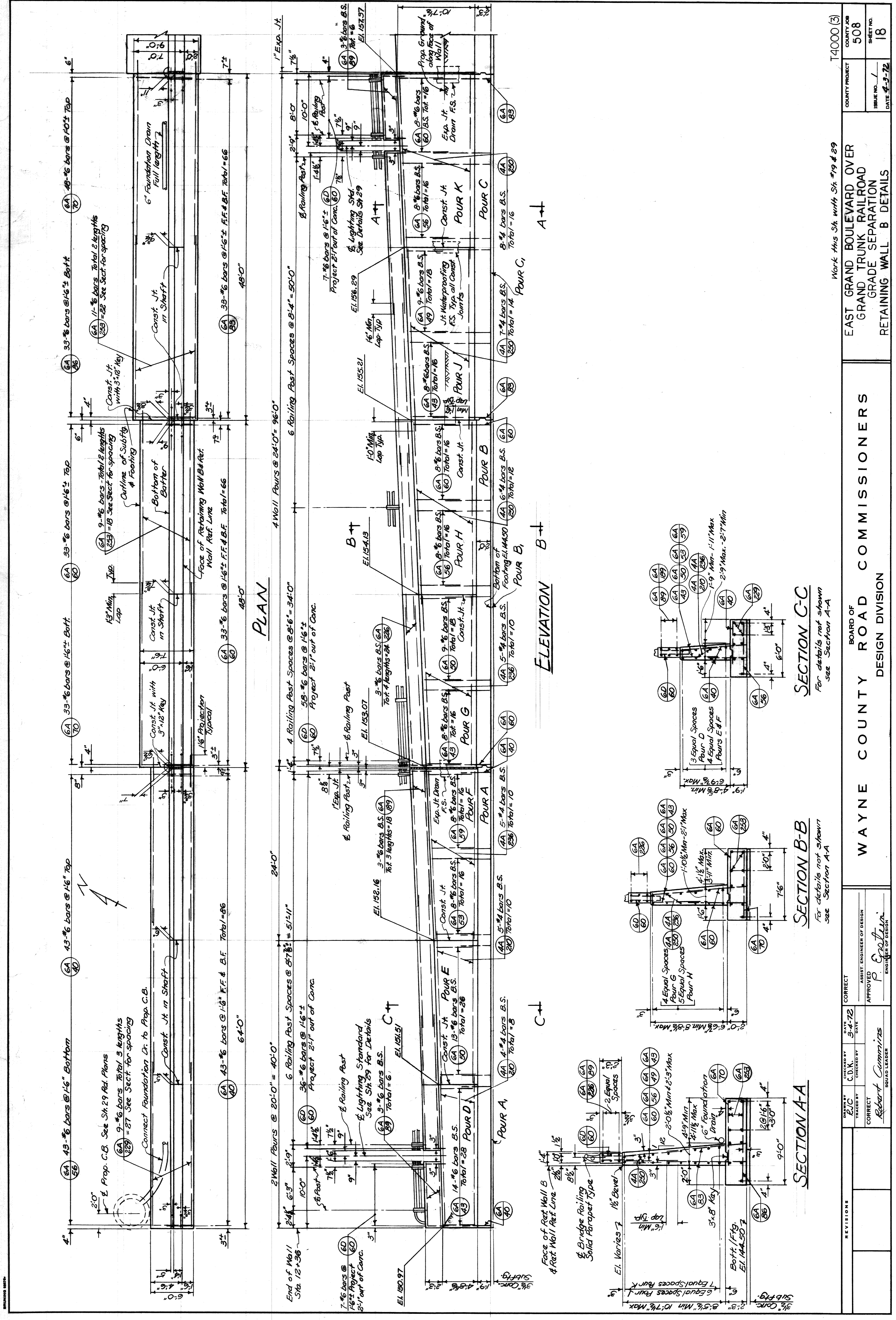


RETAINING WALL SECTION
Scale: 3/16" = 1'-0"

MISCELLANEOUS QUANTITIES		
Item	Unit	Amount
Unclassified Excavation	Cu. Yds.	5710



COUNTY PROJECT 508	COUNTY JOB 508	SHEET NO. 15	DATE 4-3-72	T4000(3)
WAYNE COUNTY ROAD COMMISSIONERS				
BOARD OF EAST GRAND BOULEVARD OVER GRAND TRUNK RAILROAD GRADE SEPARATION				
RETAINING WALL A DETAILS (CONT'D)				
DESIGN DIVISION				
DRAWN BY Robert Cummings SQUAD LEADER	CHECKED BY Robert Cummings CORRECT	DATE 3-22-72	ASSIST. ENGINEER OF DESIGN P. Galster APPROVED ENGINEER OF DESIGN	CORRECT



Work this Sh. with Sh. #19 & 29

BOARD OF

WAYNE COUNTY ROAD COMMISSIONERS

DESIGN DIVISION

APPROVED

Robert Cummings
SQUAD LEADER

APPROVED

ASSIST. ENGINEER OF DESIGN

REVISIONS

CHECKED BY: R/C
DATE: 3-4-72

CORRECT

DATE: 3-4-72

CORRECT

DATE: 3-4-72

COUNTY PROJECT: 508
SHEET NO.: 18
DATE: 3-3-72

EAST GRAND BOULEVARD OVER
GRAND TRUNK RAILROAD
GRADE SEPARATION
RETAINING WALL B DETAILS

FOR DETAILS NOT SHOWN
SEE SECTION A-A

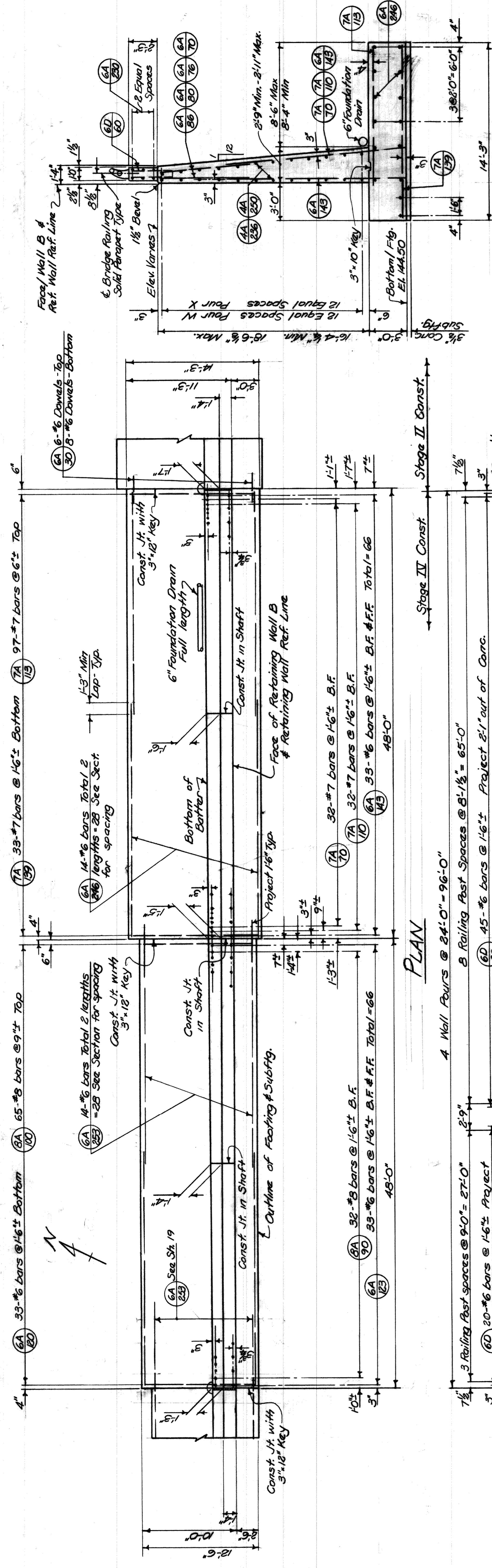
FOR DETAILS NOT SHOWN
SEE SECTION A-A

FOR DETAILS NOT SHOWN
SEE SECTION A-A

FOR DETAILS NOT SHOWN
SEE SECTION A-A

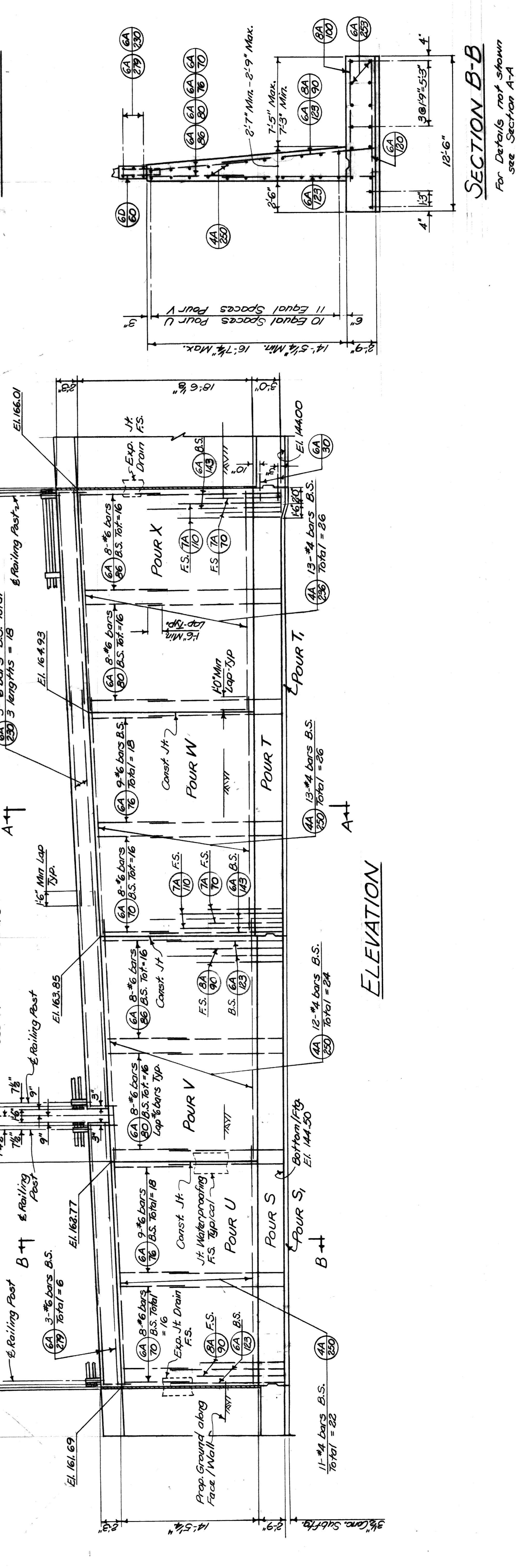
T4000 (3)

FILE

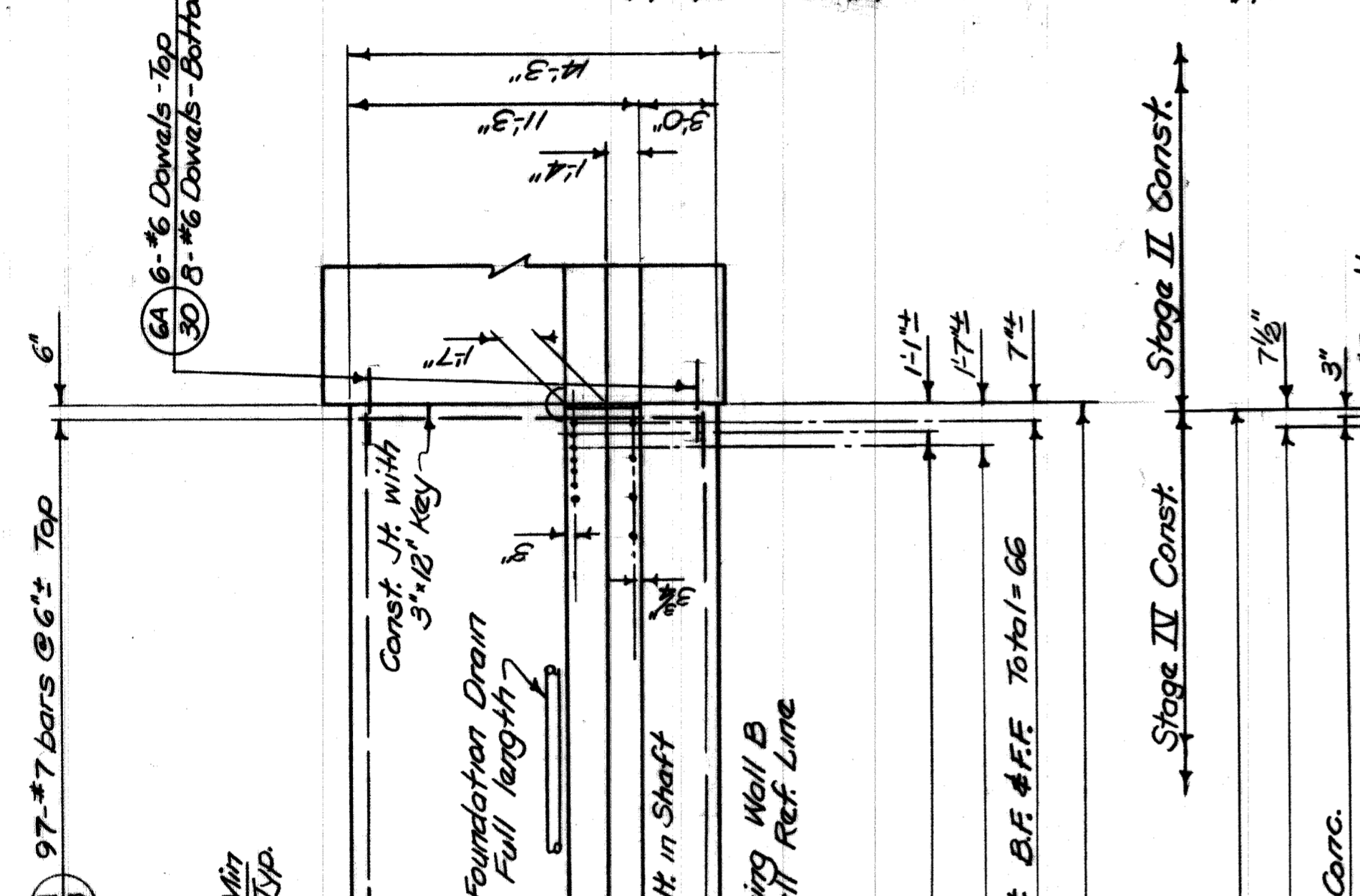


SECTION A-A

SECTION B-B

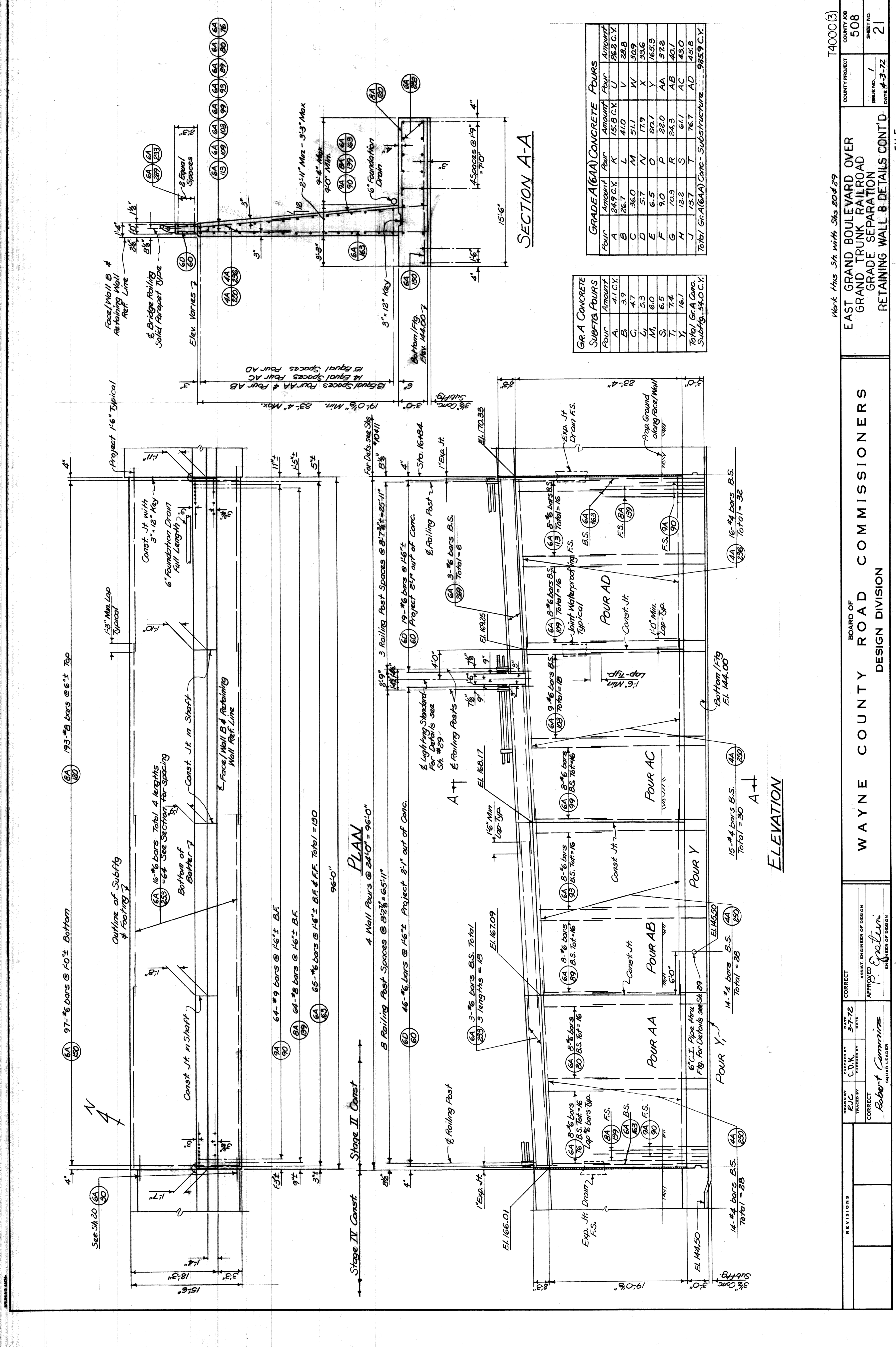


ELEVATION



PLAN

COUNTY PROJECT 14000(3)		COUNTY JOB 508	
ISSUE NO. 1		SHEET NO. 20	
DATE 4-3-72		FILE	
WAYNE COUNTY ROAD COMMISSIONERS BOARD OF DESIGN DIVISION			
PROJECT EAST GRAND BOULEVARD OVER GRAND TRUNK RAILROAD GRADE SEPARATION RETAINING WALL B DETAILS CONT'D		WORK THIS SHEET WITH SHEETS 19, 21, 29	
CHECKED BY C. D. W.	DATE 3-27-72	CORRECT	ASSIST. ENGINEER OF DESIGN
TRACED BY Robert Cummins	DATE	APPROVED	P. Epstein ENGINEER OF DESIGN
CORRECT	Robert Cummins	SQUARE LEADER	



Face/Wall B & Retaining Wall Ref. Line
 6" Bridge Railing Solid Parapet Type
 Elev. Varies 7'
 15 Equal Spaces Four AD
 14 Equal Spaces Four AC
 13 Equal Spaces Four AA & Four AB

Project 1'-6" Typical

19'-0" Min. 23'-4" Max.

3'-12" Key

Bottom/Ftg. Elev. 144.00-7

3'-0" Subty

9'-8"

9'-4" Min

9'-0" Min

6" Foundation Drain

4" Spaces @ 1'-9"

15'-6"

4"

1'-6"

4"

15'-6"

4"

15'-6"

4"

15'-6"

4"

15'-6"

SECTION A-A

GR. A CONCRETE SUBFTG. POURS		GRADE A (6AA) CONCRETE POURS	
Pour	Amount	Pour	Amount
A	41.0 C.Y.	K	15.8 C.Y.
B	3.9	L	41.0
C	4.7	M	51.1
D	5.3	N	17.9
E	6.0	O	20.1
F	6.5	P	22.0
G	7.4	R	24.3
H	16.1	S	61.1
Total Gr. A Conc.	Subty. 54.0 C.Y.	T	76.7
		Substructure	AD
			45.8
			985.9 C.Y.

GR. A CONCRETE SUBFTG. POURS	
Pour	Amount
A	41.0 C.Y.
B	3.9
C	4.7
D	5.3
E	6.0
F	6.5
G	7.4
H	16.1
Total Gr. A Conc.	Subty. 54.0 C.Y.

PLAN

4 Wall Pours @ 24'-0" = 96'-0"

8 Railing Post Spaces @ 8'-11" = 85'-11"

46'-6" bars @ 1'-6" ± B.F. & F.F. Total = 130

3-#6 bars B.S. Total 16'-0" lengths = 18

9-#6 bars B.S. Total 16'-0" lengths = 18

8-#6 bars B.S. Total 16'-0" lengths = 16

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8-#6 bars B.S. Total 16'-0" lengths = 16

8-#6 bars B.S. Total 16'-0" lengths = 16

ELEVATION

15-#4 bars B.S. Total = 30

14-#4 bars B.S. Total = 28

14-#4 bars B.S. Total = 28

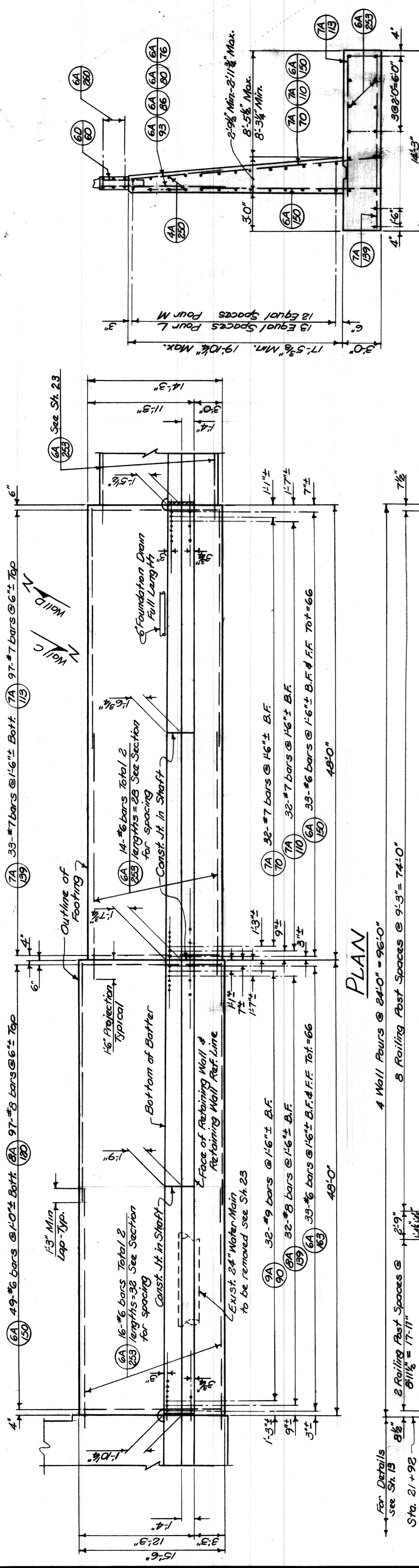
14-#4 bars B.S. Total = 28

14-#4 bars B.S. Total = 28

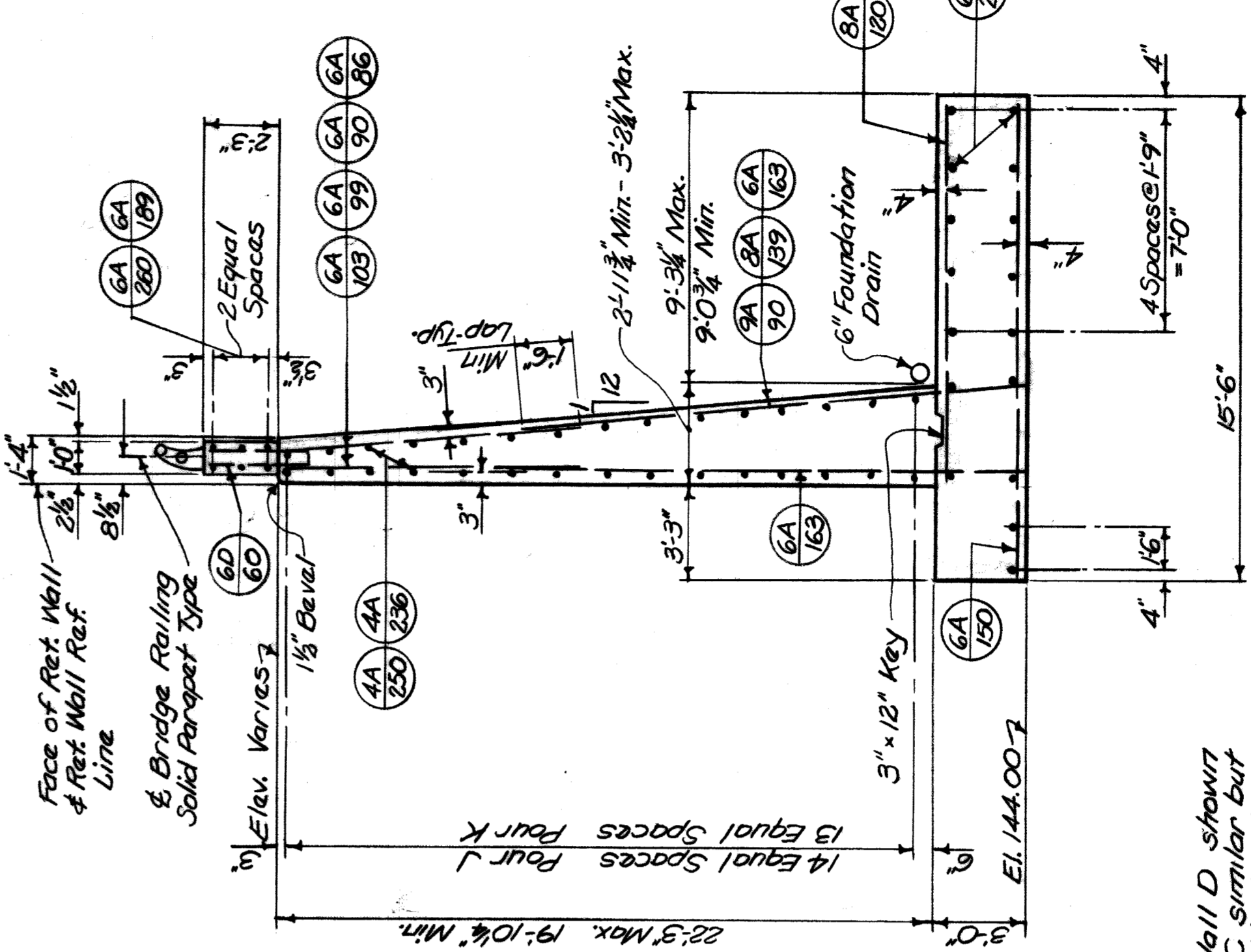
14-#4 bars B.S. Total = 28

14-#4 bars B.S. Total = 28

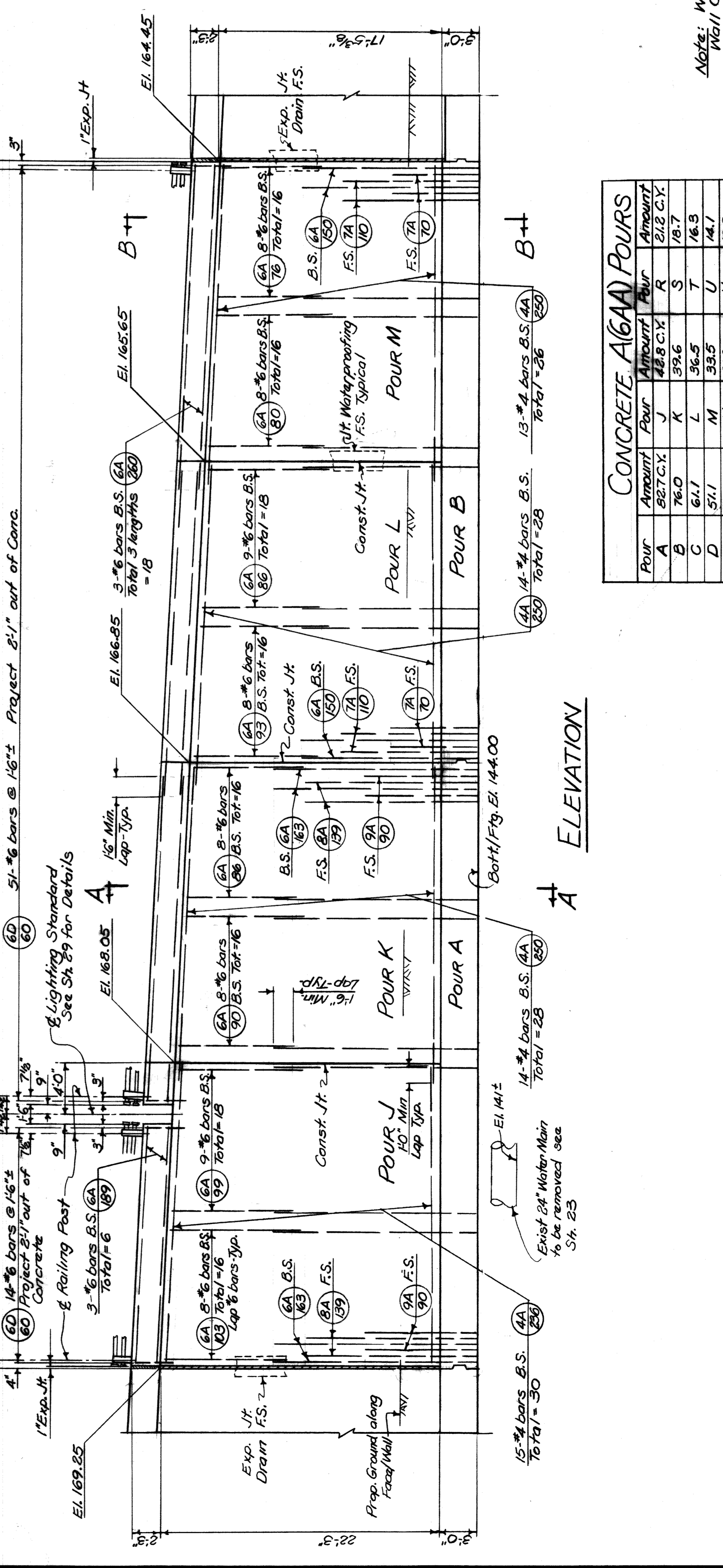
DRAWING NO. 14000(3)



SECTION B-B
For Details not shown see Section A-A



SECTION A-A



CONCRETE AIGAA POURS

Pour	Amount	Pour	Amount
A	82.7 C.Y.	J	48.8 C.Y.
B	76.0	K	39.6
C	61.7	L	36.5
D	57.1	M	33.5
E	41.0	N	31.0
F	36.0	O	28.1
G	26.7	P	25.9
H	19.7 C.Y.	Q	23.3 C.Y.
Total Gr. AIGAA		Total Gr. AIGAA	
762.4 C.Y.		762.4 C.Y.	

Work this Stk with Stk 23 & 29

WAYNE COUNTY ROAD COMMISSIONERS
DESIGN DIVISION

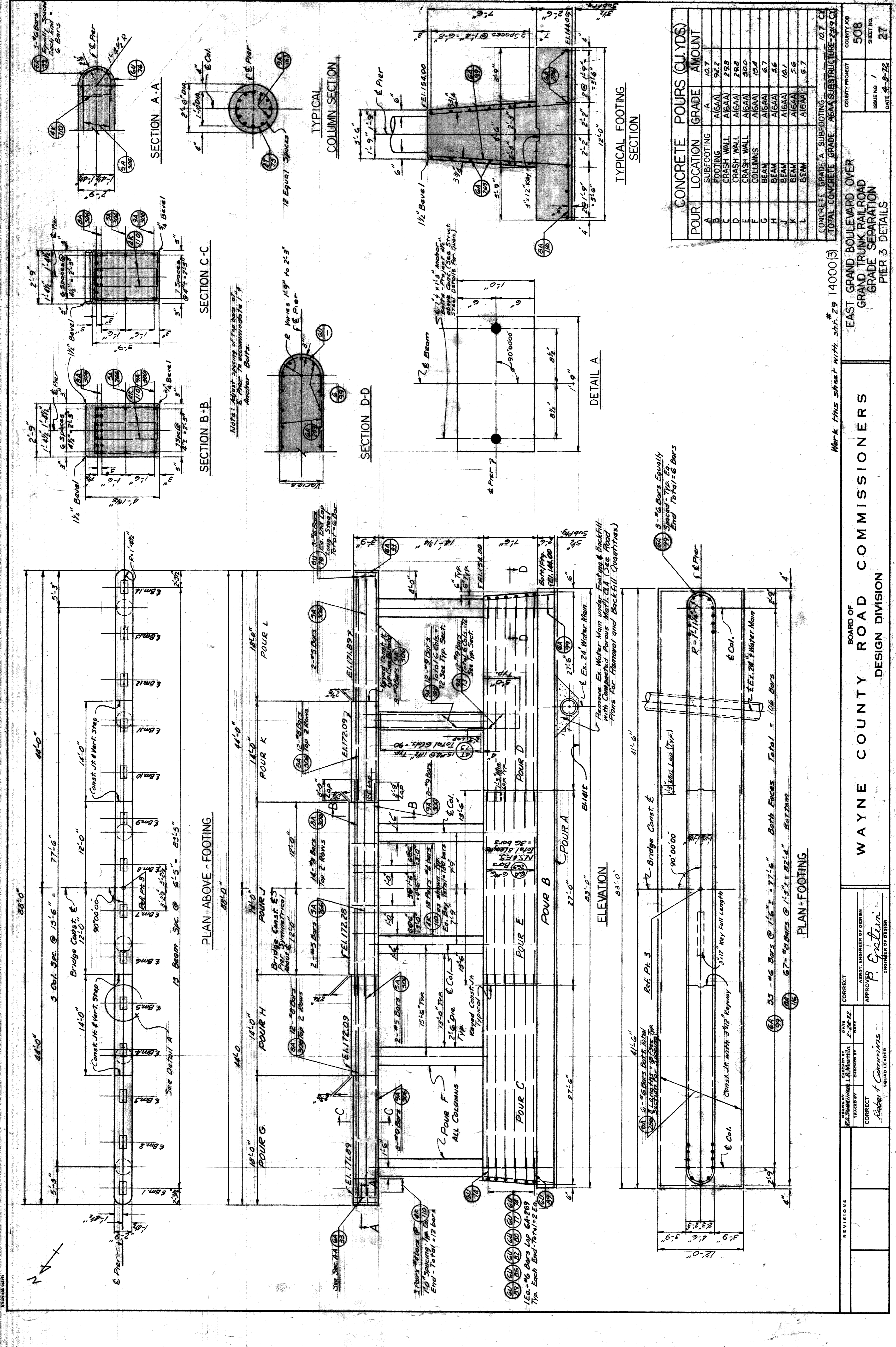
BOARD OF EAST GRAND BOULEVARD OVER GRAND TRUNK RAILROAD GRADE SEPARATION RETAINING WALLS C&D

14000(3) COUNTY PROJECT 508 SHEET NO. 22

DATE 4-3-72

ISSUED BY: C.K. [Signature]
CHECKED BY: [Signature]
APPROVED BY: Robert Cummings, SQUAD LEADER
CORRECTED BY: [Signature]
DATE: 3-27-72

FILE



PLAN ABOVE - FOOTING

ELEVATION

PLAN - FOOTING

SECTION A-A

SECTION B-B

SECTION C-C

SECTION D-D

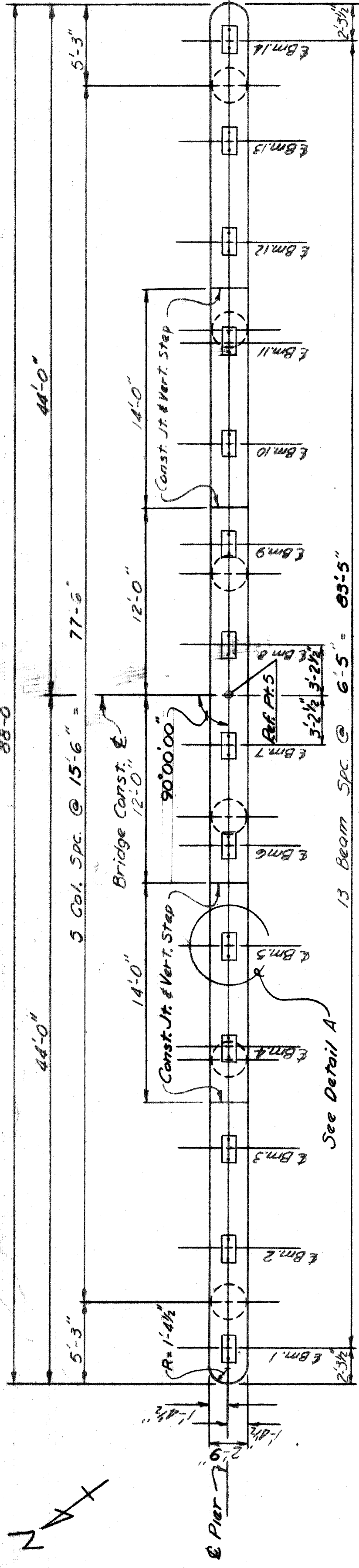
TYPICAL COLUMN SECTION

TYPICAL FOOTING SECTION

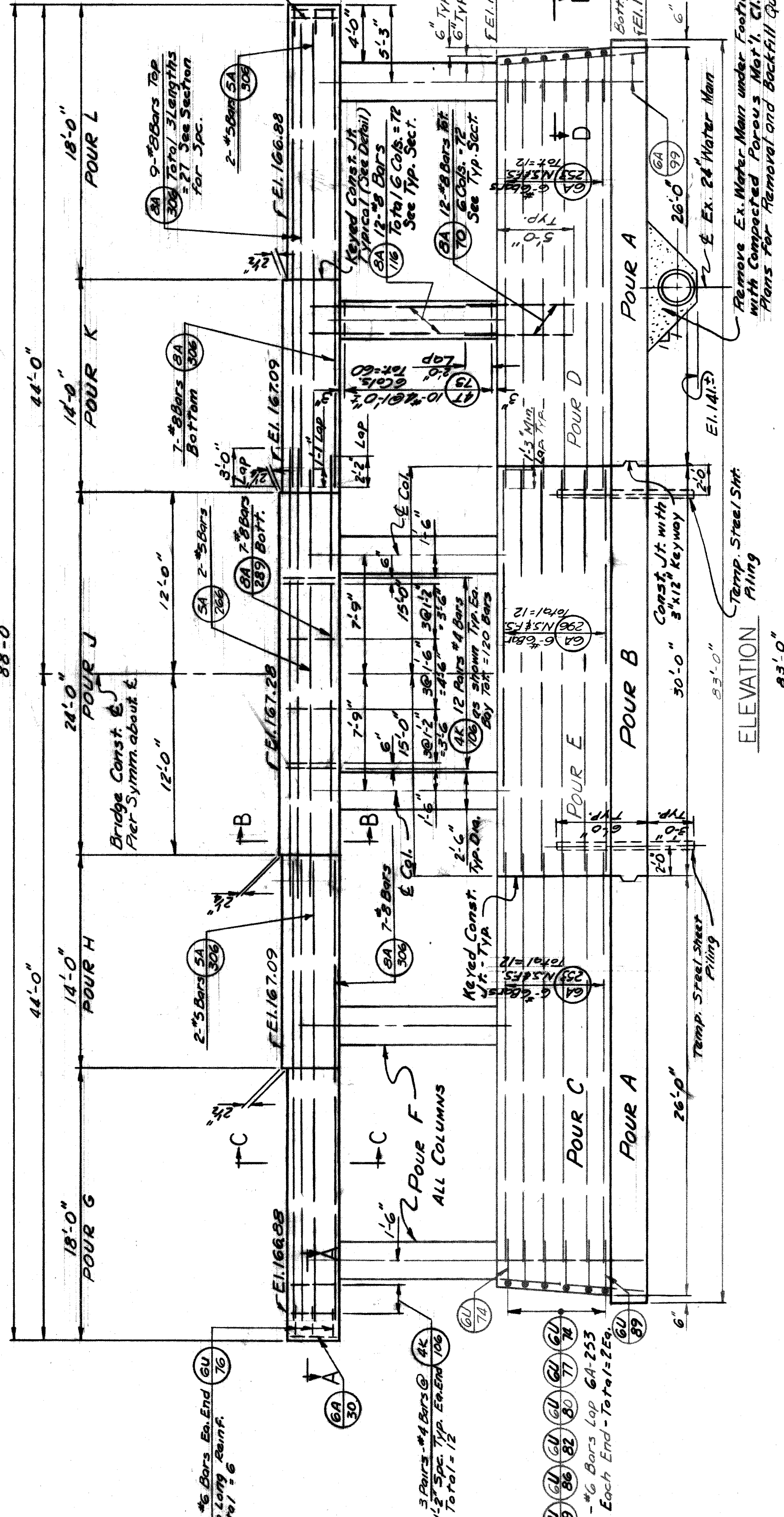
DETAIL A

POUR	LOCATION	GRADE	AMOUNT
A	SUBFOOTING	A	10.7
B	FOOTING	AIGAA	92.2
C	CRASH WALL	AIGAA	29.8
D	CRASH WALL	AIGAA	29.8
E	CRASH WALL	AIGAA	30.0
F	COLUMNS	AIGAA	15.4
G	BEAM	AIGAA	6.7
H	BEAM	AIGAA	5.6
J	BEAM	AIGAA	10.1
K	BEAM	AIGAA	5.6
L	BEAM	AIGAA	6.7
CONCRETE GRADE A SUBFOOTING			10.7 CY
TOTAL CONCRETE GRADE AIGAA SUBSTRUCTURE-229.9 CY			

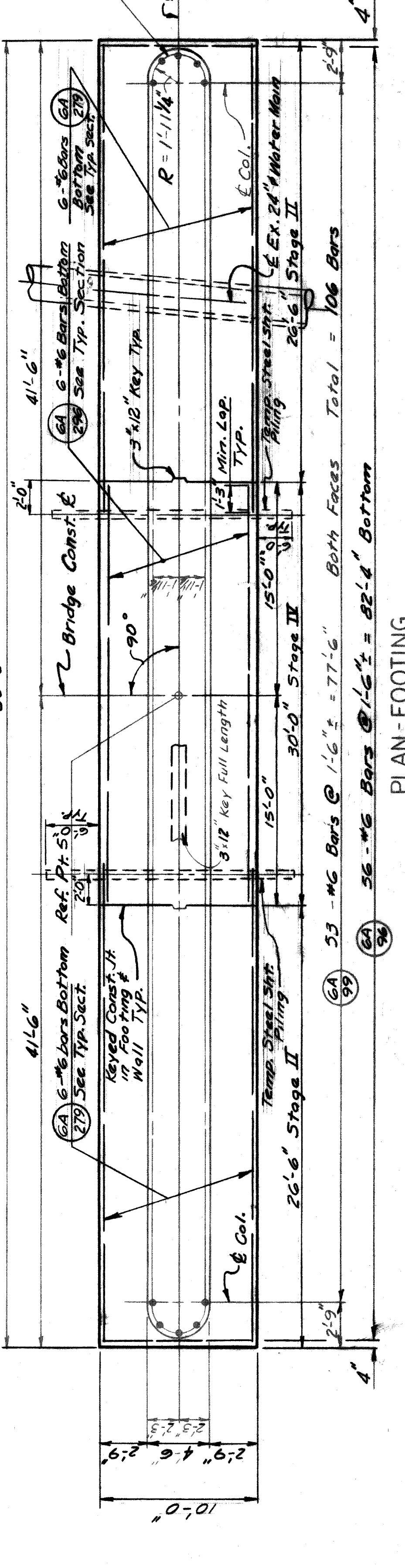
Work this sheet with sht. 29 T4000(3)



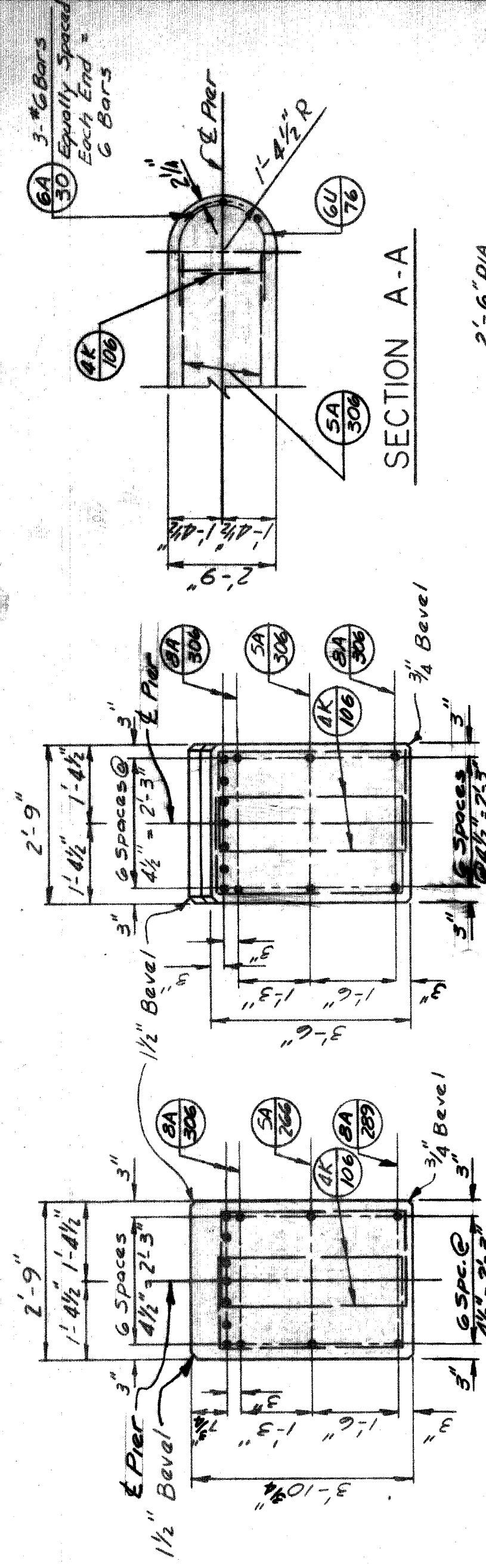
PLAN ABOVE - FOOTING



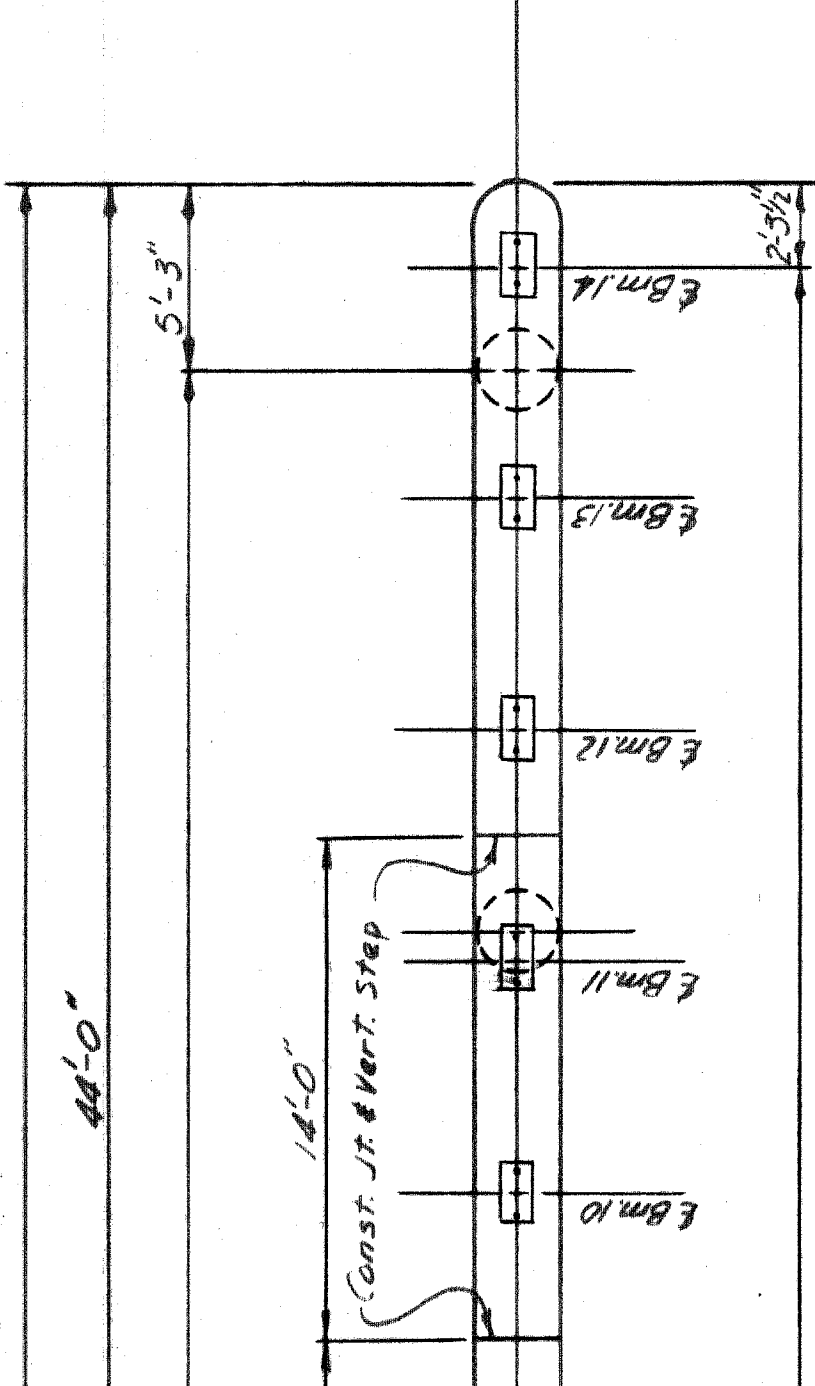
ELEVATION PILING



PLAN - FOOTING

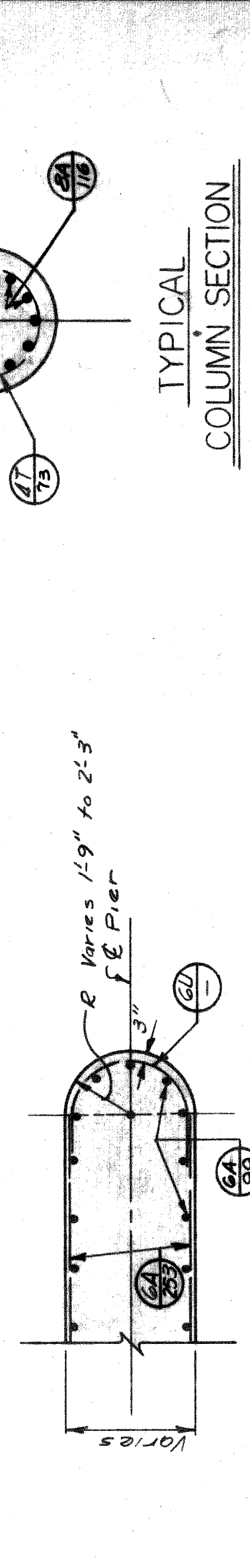


SECTION B-B



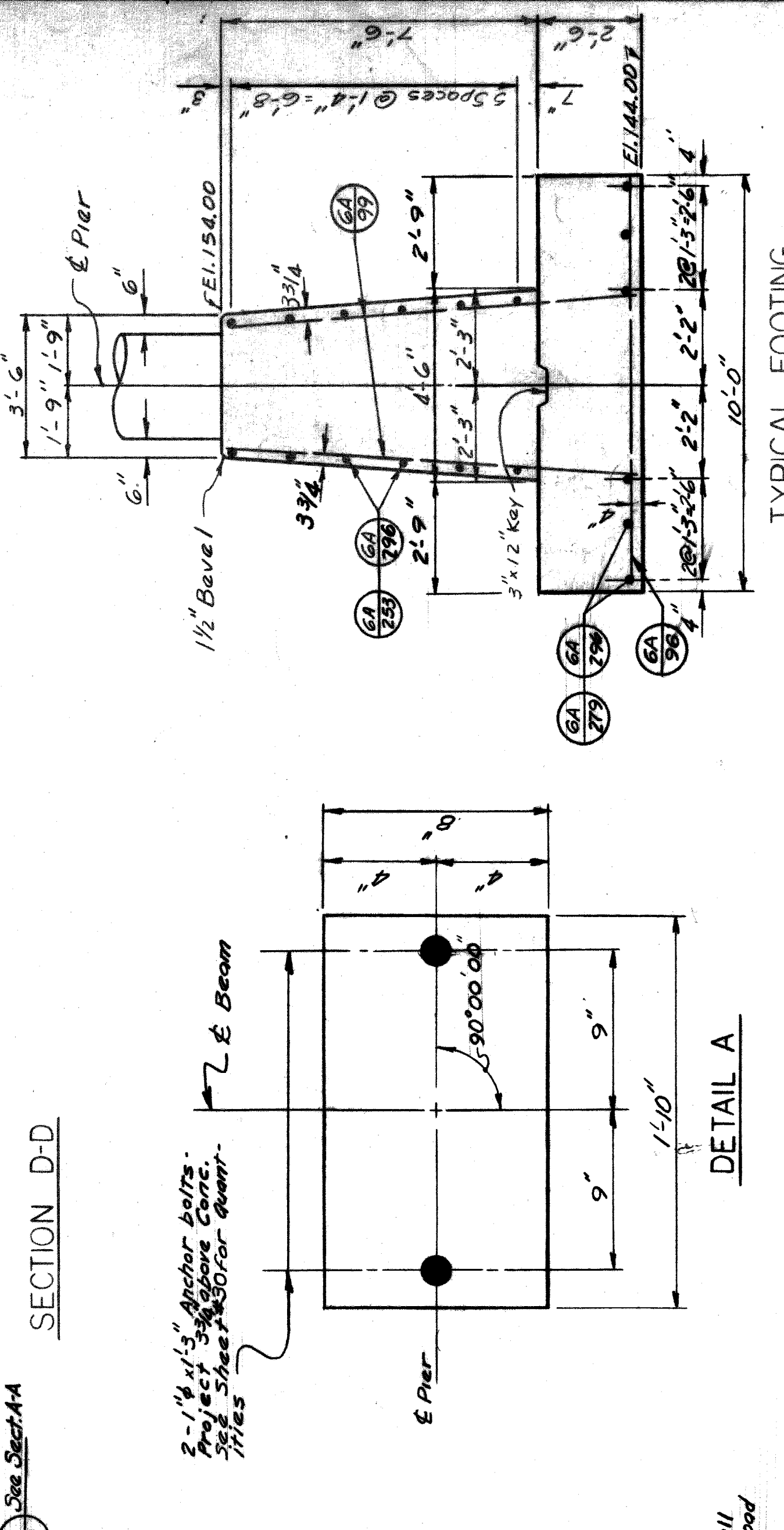
SECTION C-C

NOTE: Adjust spacing of top bars at E Pier to accommodate 1/4" Anchor Bolts.

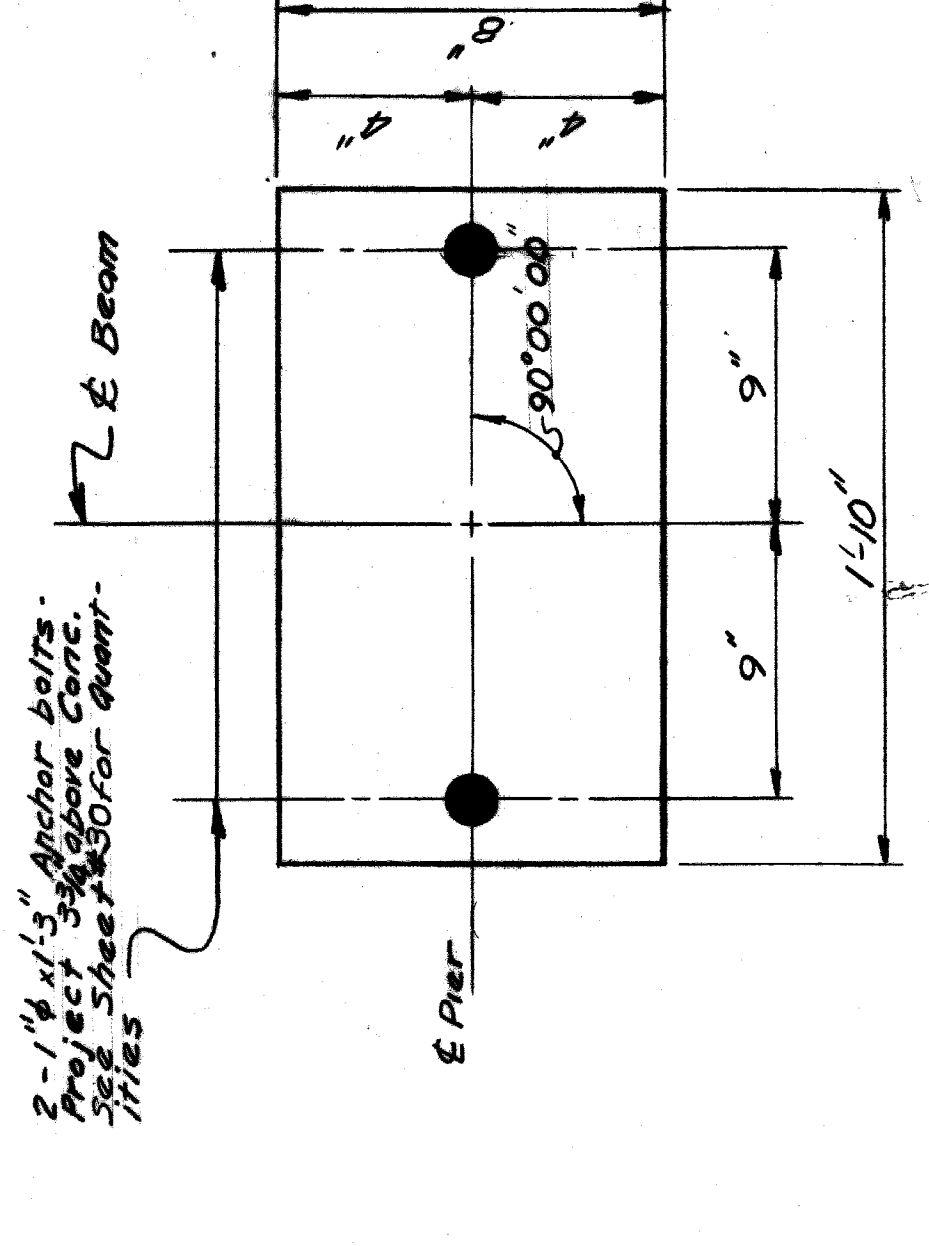


SECTION D-D

TYPICAL COLUMN SECTION



TYPICAL FOOTING SECTION



DETAIL A

POUR	LOCATION	GRADE	AMOUNT
A	FOOTING	A(6A)	2024.5 = 490
B	FOOTING	A(6A)	27.8
C	CRASH WALL	A(6A)	28.1
D	CRASH WALL	A(6A)	28.1
E	CRASH WALL	A(6A)	33.3
F	COLUMNS	A(6A)	10.2
G	BEAM	A(6A)	6.2
H	BEAM	A(6A)	5.3
J	BEAM	A(6A)	2.5
K	BEAM	A(6A)	3.3
L	BEAM	A(6A)	6.2

TOTAL CONCRETE GRADE A(6A) SUBSTRUCTURE - 2090 CY

Mark this sheet with sheet # 29 T4000 (3)

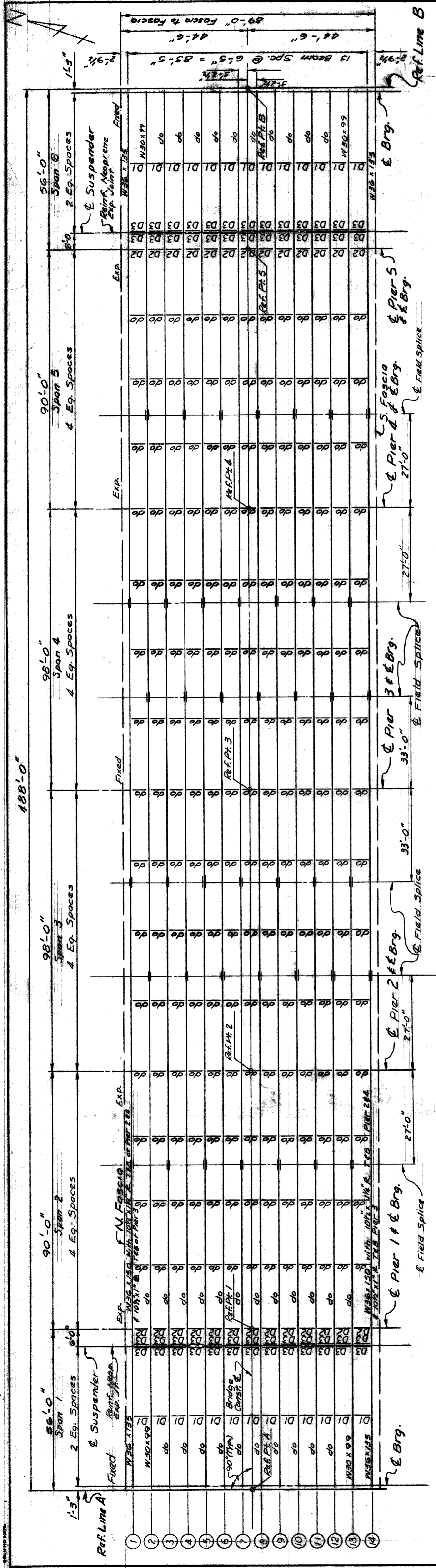
WAYNE COUNTY ROAD COMMISSIONERS
DESIGN DIVISION

BOARD OF EAST GRAND BOULEVARD OVER GRAND TRUNK RAILROAD GRADE SEPARATION
PIER 5 DETAILS

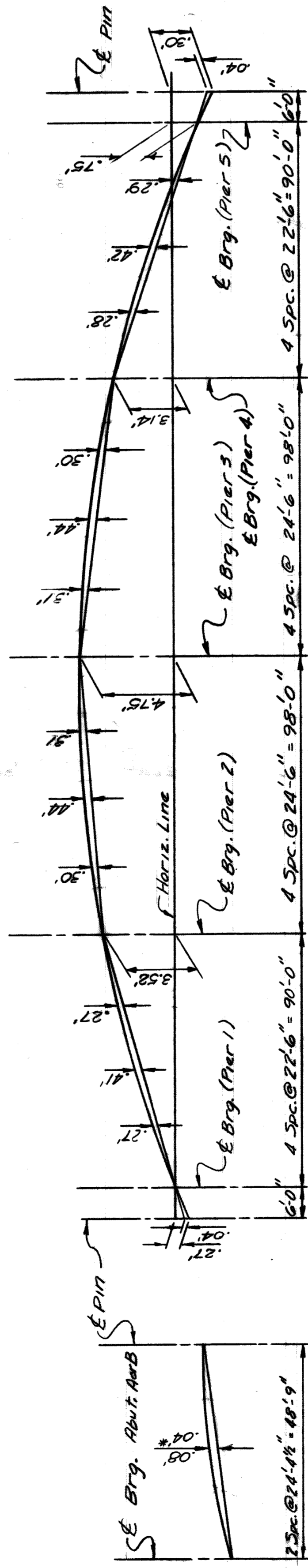
DATE: 2-24-72
DRAWN BY: L.R. Martelle
CHECKED BY: [Signature]
APPROVED: P. Gester, ENGINEER OF DESIGN

REVISIONS: [Table with 2 revisions]
CORRECT: [Signature]
APPROVED: [Signature]

COUNTY PROJECT: 508
SHEET NO: 28
ISSUE NO: 1
DATE: 4-3-72



ERECTION DIAGRAM



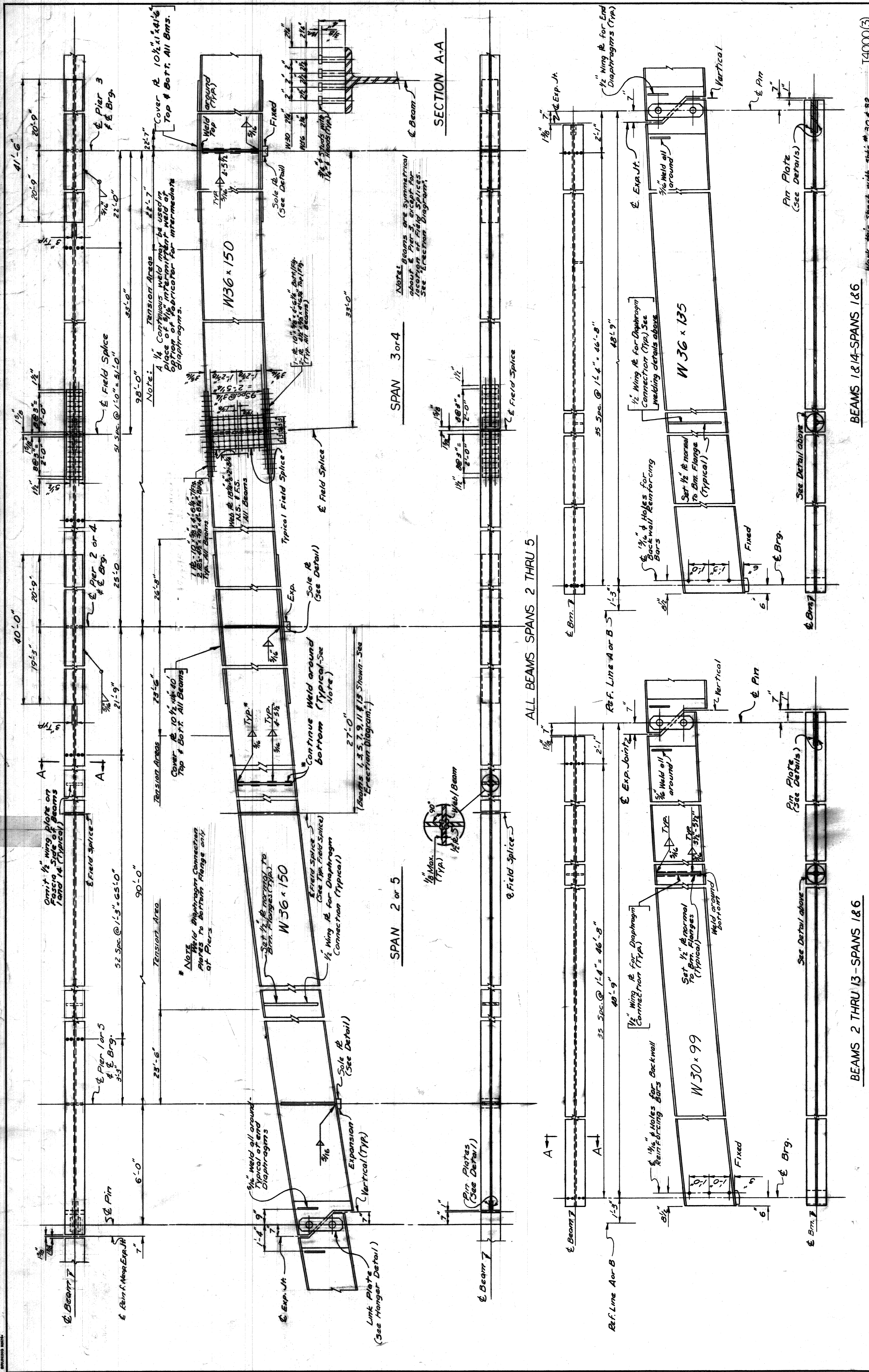
CAMBER DIAGRAM

Deflections due to Steel Wt Only
 4 Spans #1 = .01'
 4 Spans #45 = .03'
 4 Spans #44 = .01'

ITEM	UNIT	AMOUNT
Structural Steel - Furnishing & Fabricating	Lbs.	1,240,200
Structural Steel - Erection	Lbs.	1,240,200
Shear Developers	Lump Sum	

Note:
 The quantity Structural Steel
 Furnishing and Fabricating includes
 A588 Steel = 1,259,215 Lbs.
 Bronze = 68 Lbs.
 Lead = 919 Lbs.
 Total = 1,240,200 Lbs.

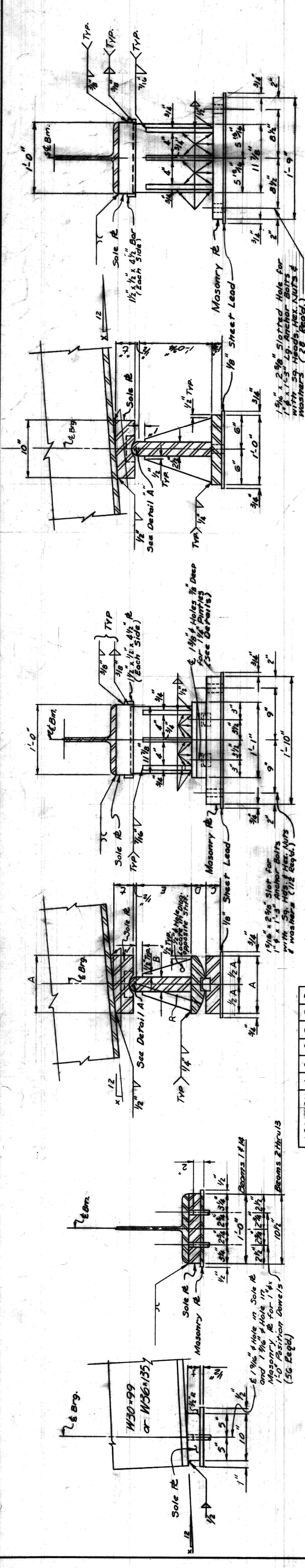
NOTES
 FABRICATION: Michigan Department of State Highways Standard Specifications for Highway Construction - 1970 Edition.
 DESIGN: M.D.S.H. Specifications for Design of Highway Bridges - 1958 Edition and A.A.S.H.O. Standard Specifications for Highway Bridges, current edition (HS20-44 Loading).
 CONNECTIONS: All Shop connections shall be welded as shown on the plans. Field connections, splices shall be bolted with 7/8" # high-strength bolts other connections shall be 3/4" # high-strength bolts.
 MATERIAL: All structural steel shall be A.S.T.M. A-588. Anchor bolts may be A.S.T.M. A307.
 GALVANIZING: All steel material used for bearings, with exception of portion welded to beams, shall be galvanized in accordance with ASTM Designation A123. Galvanizing shall be applied after fabrication or bearing. Mill scale and foreign material shall be removed prior to galvanizing.
 SOLE PLATES: Sole plates 3" or more in thickness may be built up by welding together plates not less than 1-1/2" in thickness. Edges must be beveled 1/4" and welded with a continuous weld for the full perimeter. Welds shall be ground flush with faces of plates.
 CAMBER: The beams in all spans are to have a camber as shown. This camber is to be measured with the beam lying on its side. Allowable camber tolerance for rolled beams is ± 1/4". Heating is to be used, if necessary, to assure camber permanency within the above limitations. Dead load deflections of the beams alone are as shown.
 MAGNETIC PARTICLE INSPECTION: Magnetic Particle inspection of welds is required and shall consist of 100% inspection of not less than one fabricated section selected at random for each ten sections or fractions thereof.
 ANCHOR BOLTS: Anchor Bolts and Position Dowels shall be galvanized in accordance with ASTM Designation A 153. Anchor Bolts and Position Dowels are included in the Structural Steel Weights.
 BRONZE: Bronze for washers shall be ASTM B100, Alloy No. 510 or No. 635.
 PINS: Steel for Pins shall be ASTM A568, ASTM A235 Class G or ASTM A108 having a minimum yield point of 50,000 psi.



DRAWING NO. 5-1-72
 COUNTY PROJECT 508
 COUNTY JOB 14000(3)
 SHEET NO. 31
 DATE 5-1-72

BOARD OF WAYNE COUNTY ROAD COMMISSIONERS DESIGN DIVISION	EAST GRAND BOULEVARD OVER GRAND TRUNK RAILROAD GRADE SEPARATION STRUCTURAL STEEL DETAILS (CONT'D)	COUNTY PROJECT 508 COUNTY JOB 14000(3) SHEET NO. 31 DATE 5-1-72
---	--	--

BEAMS 2 THRU 13 - SPANS 1 & 6
 BEAMS 1 & 4 - SPANS 1 & 6
 ALL BEAMS SPANS 2 THRU 5
 SPAN 2 or 5
 SPAN 3 or 4
 SECTION A-A
 WORK THIS SHEET WITH SHEET # 30 & 32

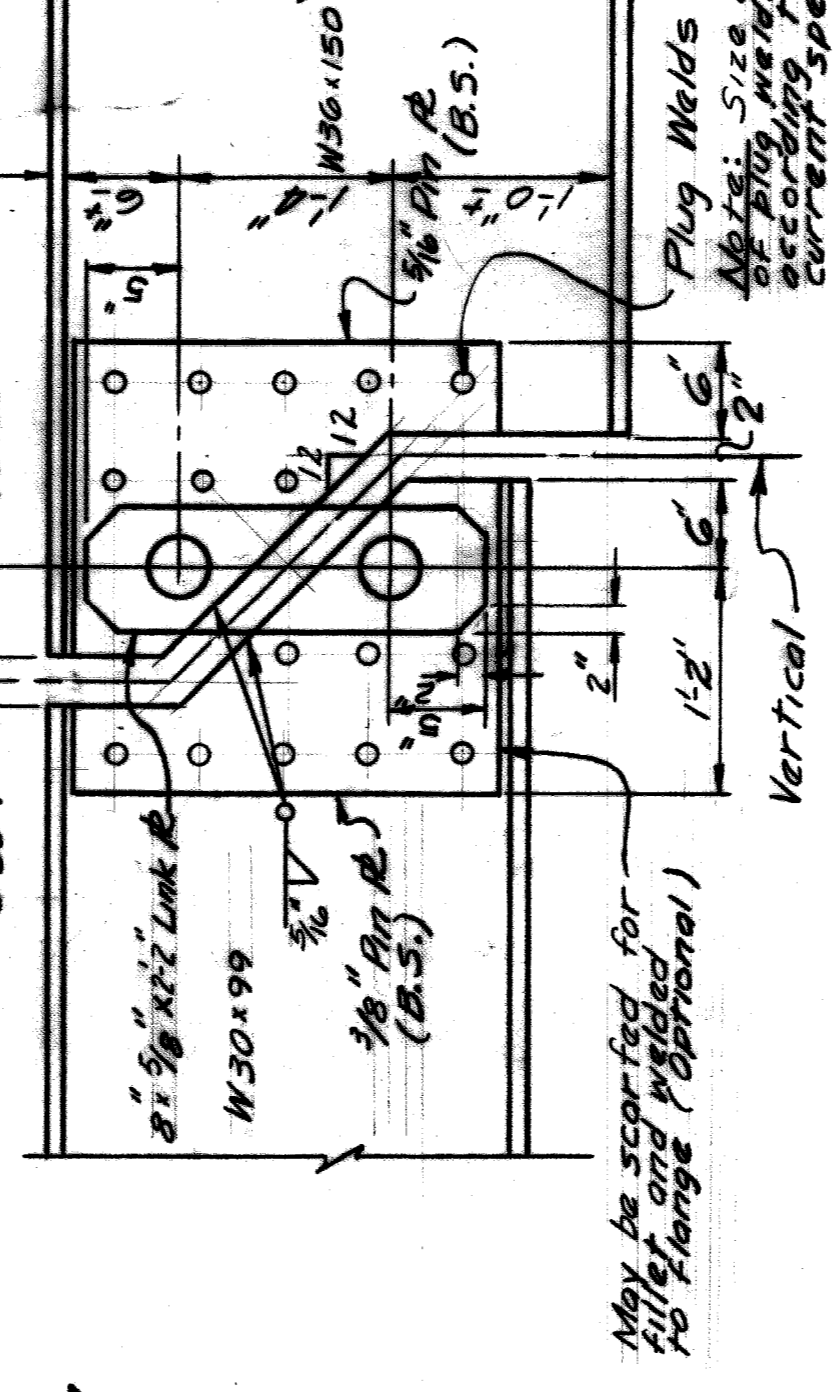
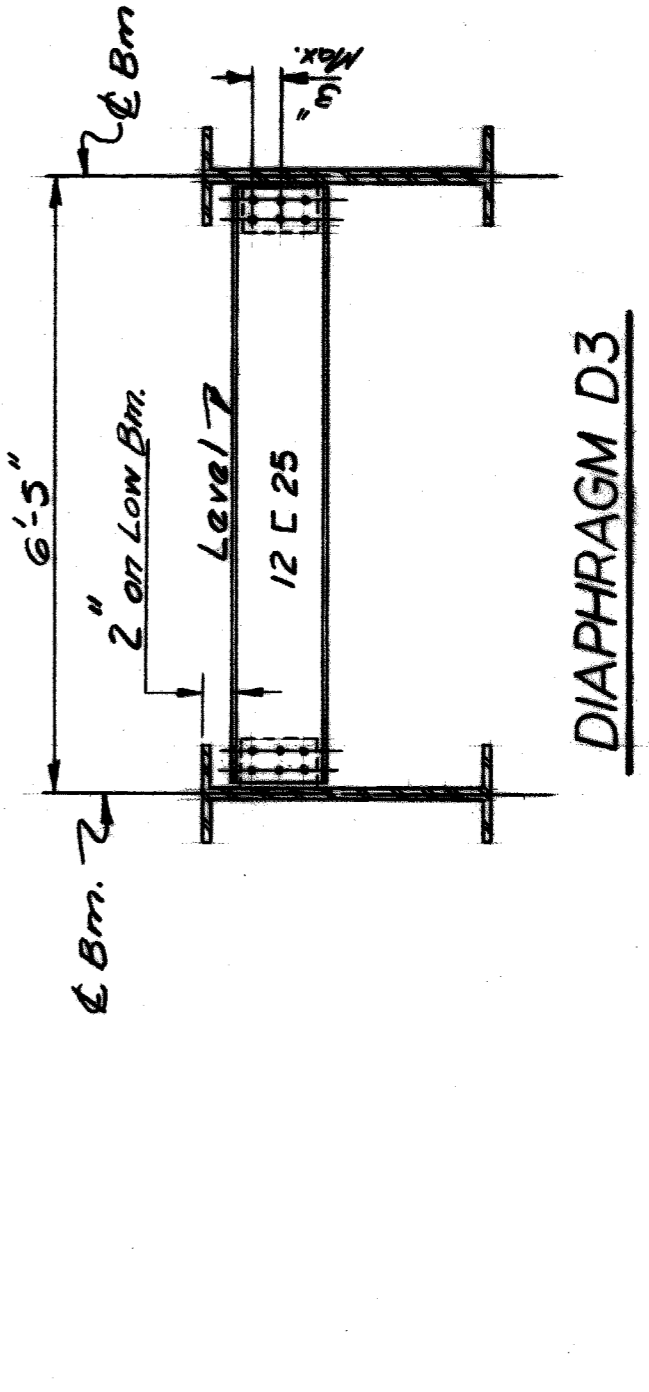
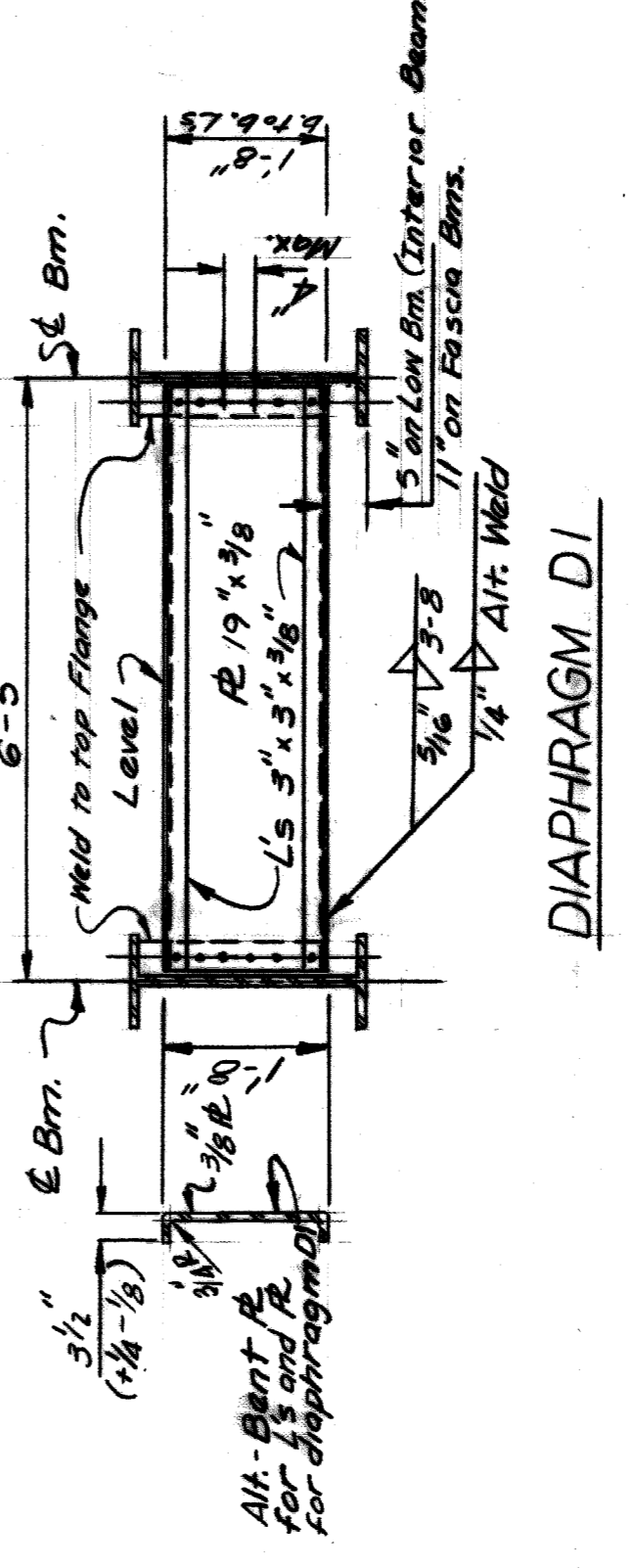
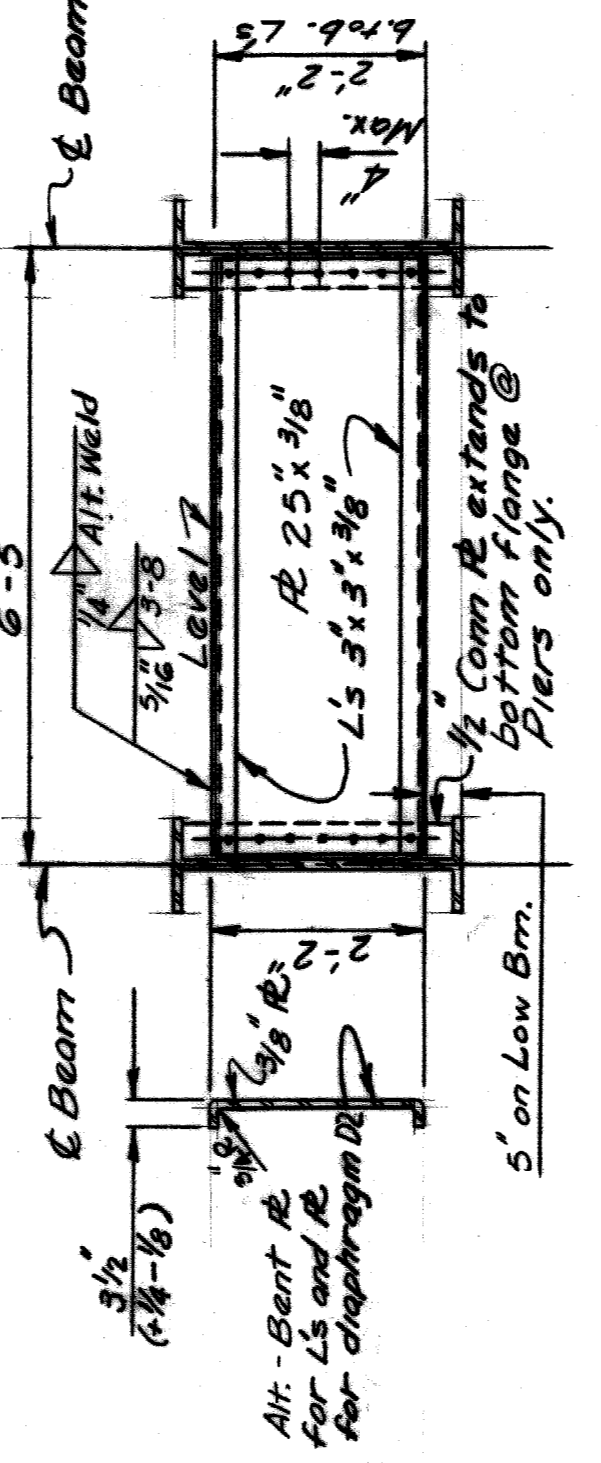
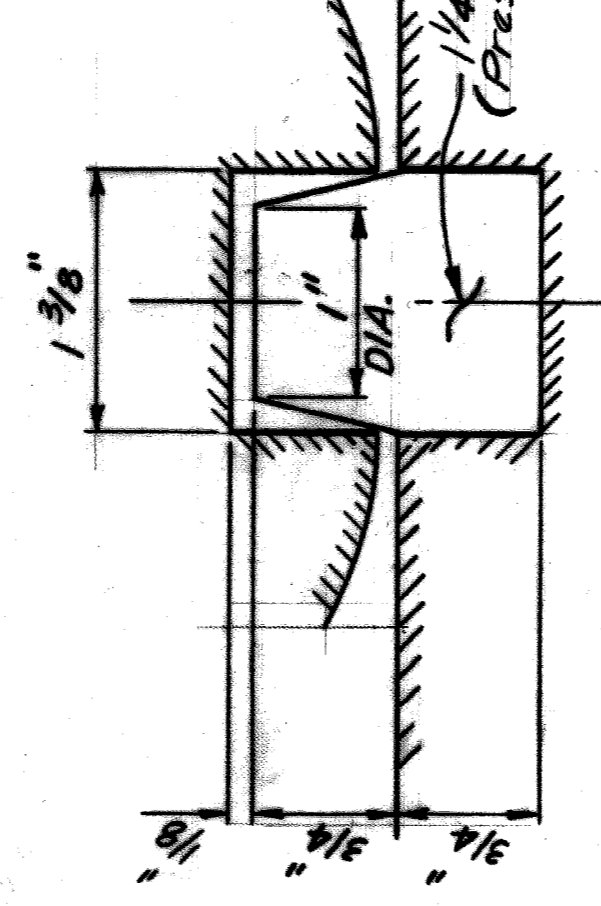


LOCATION	A	B	C	D	E	R
Piers 1&2	2 1/2"	2"	6"	8"		
Piers 3&4	10"	2 1/2"	2 1/2"	2 1/2"	9 1/2"	12"

FIXED BEARING DETAILS - ABUTMENTS

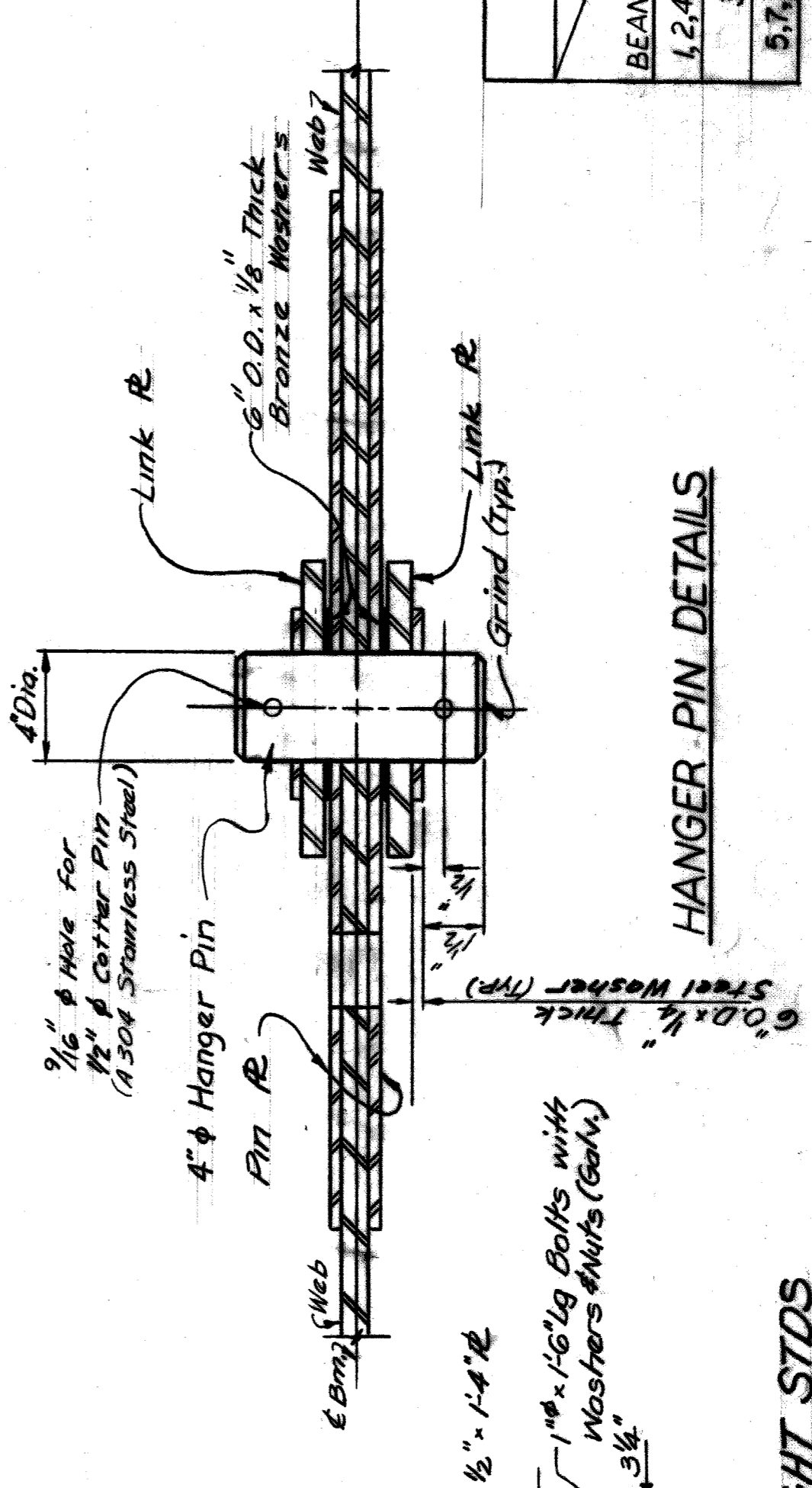
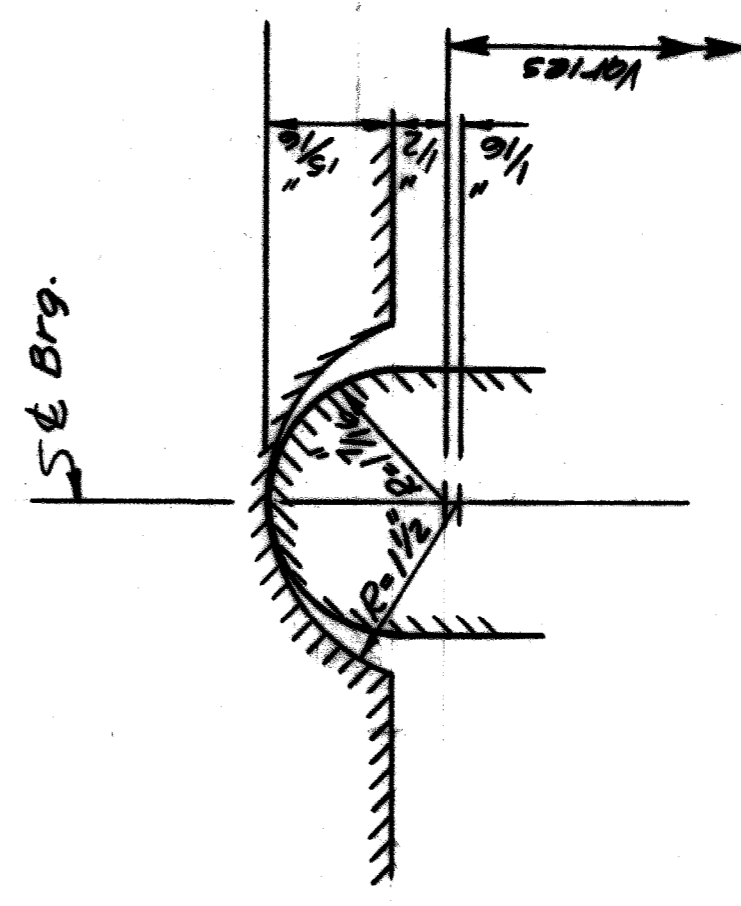
EXPANSION BEARING DETAILS - PIERS 1, 2 & 3

FIXED BEARING DETAILS - PIER 3



HANGER DETAILS

HANGER DETAILS



HANGER PIN DETAILS

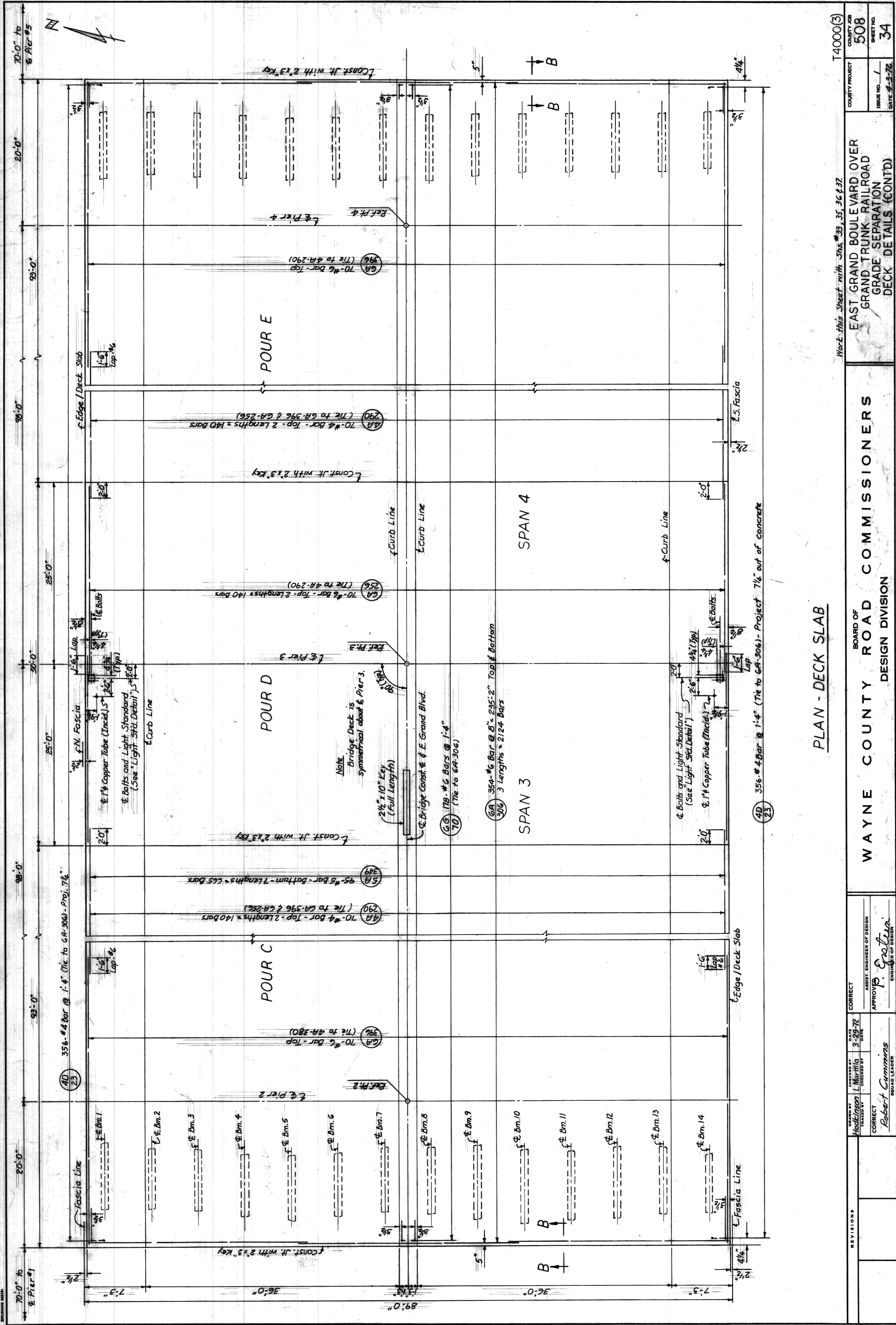
PLATE FOR LIGHT STDS

SOLE PLATE SLOPES

LOCATION	BEAMS X FOR ALL BEAMS
ABUT. & PIER 1	+ 9/16"
PIER 2	+ 9/16"
PIER 3	0"
PIER 4	- 3/8"
PIER 5 & ABUT. B	- 5/8"

SOLE PLATE THICKNESSES

LOCATION	ABUT. A OR B	PIERS 1 OR 3	PIERS 2, 3 OR 4
BEAMS	1"	1"	1"
1, 2, 4, 6, 9, 11, 13 & 14	2"	2 1/2"	3"
3 AND 12	3 1/4"	3 3/4"	4 1/4"
5, 7, 8 AND 10	3"	3 1/2"	4"

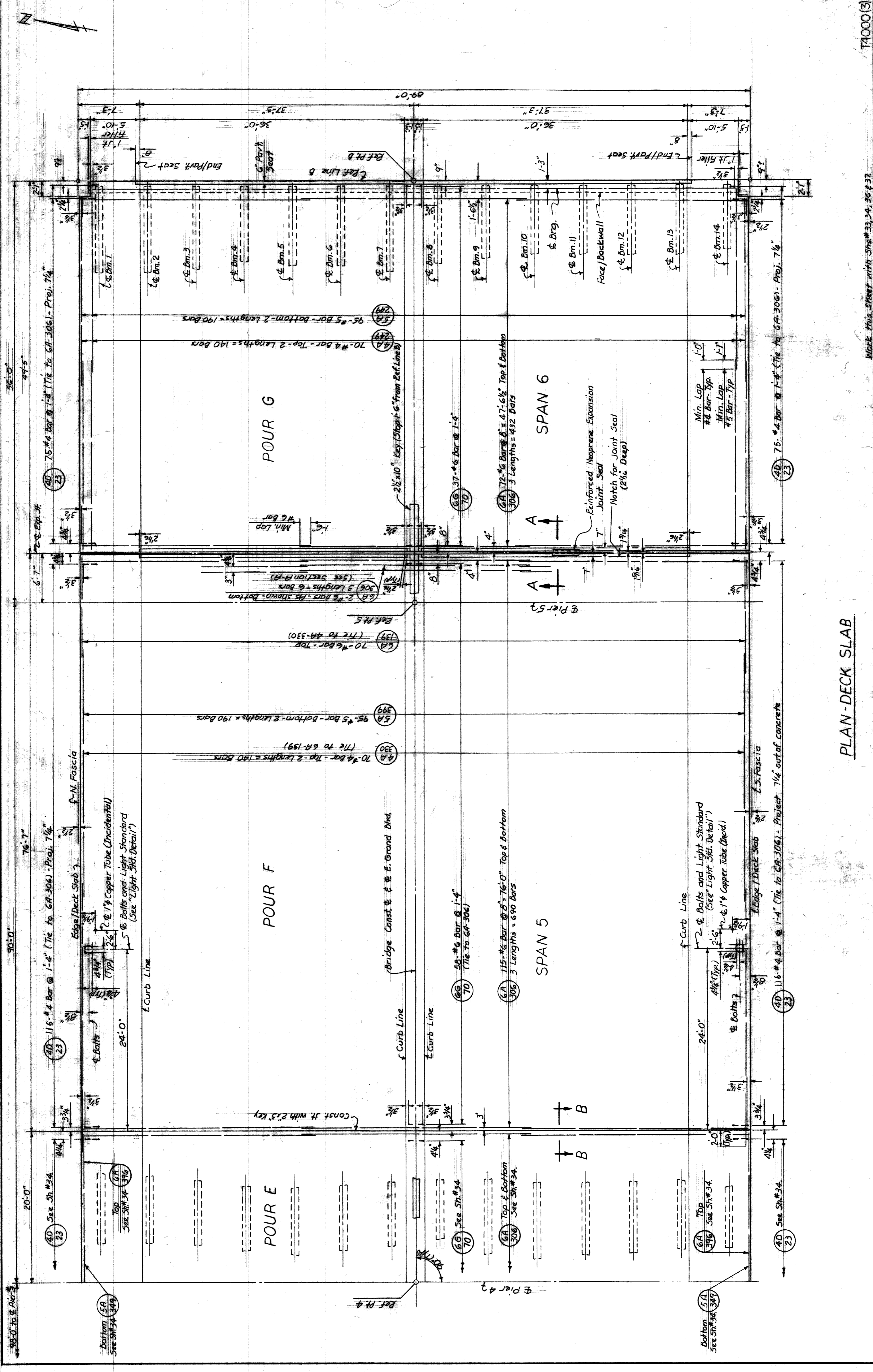


PLAN - DECK SLAB

DRAWN BY 4/10/72 TRACED BY CORRECT Robert Cummings BRIDGE LEADER	CHECKED BY 3-29-72 DATE APPROVED P. Epstein ASSIST. ENGINEER OF DESIGN ENGINEER OF DESIGN	CORRECT 3-29-72 DATE	COUNTY PROJECT EAST GRAND BOULEVARD OVER GRAND TRUNK RAILROAD GRADE SEPARATION DECK DETAILS (CONTD)	COUNTY JOB 508	SHEET NO. 34

Work this sheet with sheets 33, 35, 36 & 37

FILE

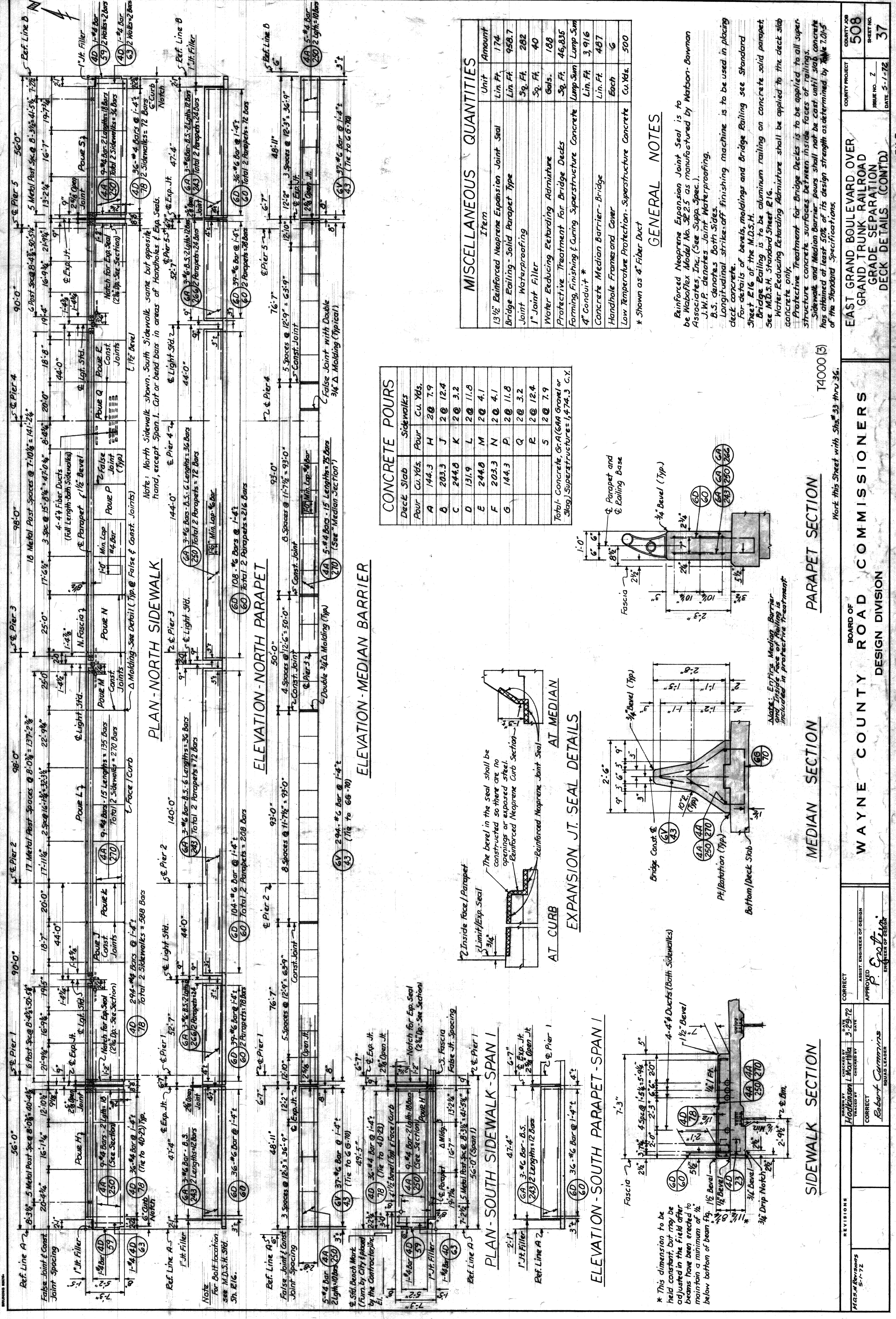


PLAN-DECK SLAB

DRAWN BY HOLLANDSON CHECKED BY Robert Cummings SQUARE LEADER	DATE 3-29-72	CORRECT	ASSIST. ENGINEER OF DESIGN P. E. Crater ENGINEER OF DESIGN	COUNTY PROJECT 508	COUNTY JOB 508	SHEET NO. 35	ISSUE NO. 1 DATE 4-3-72	T4000(3)

Work this Sheet with Sps #33, 34, 36 & 37

FILE



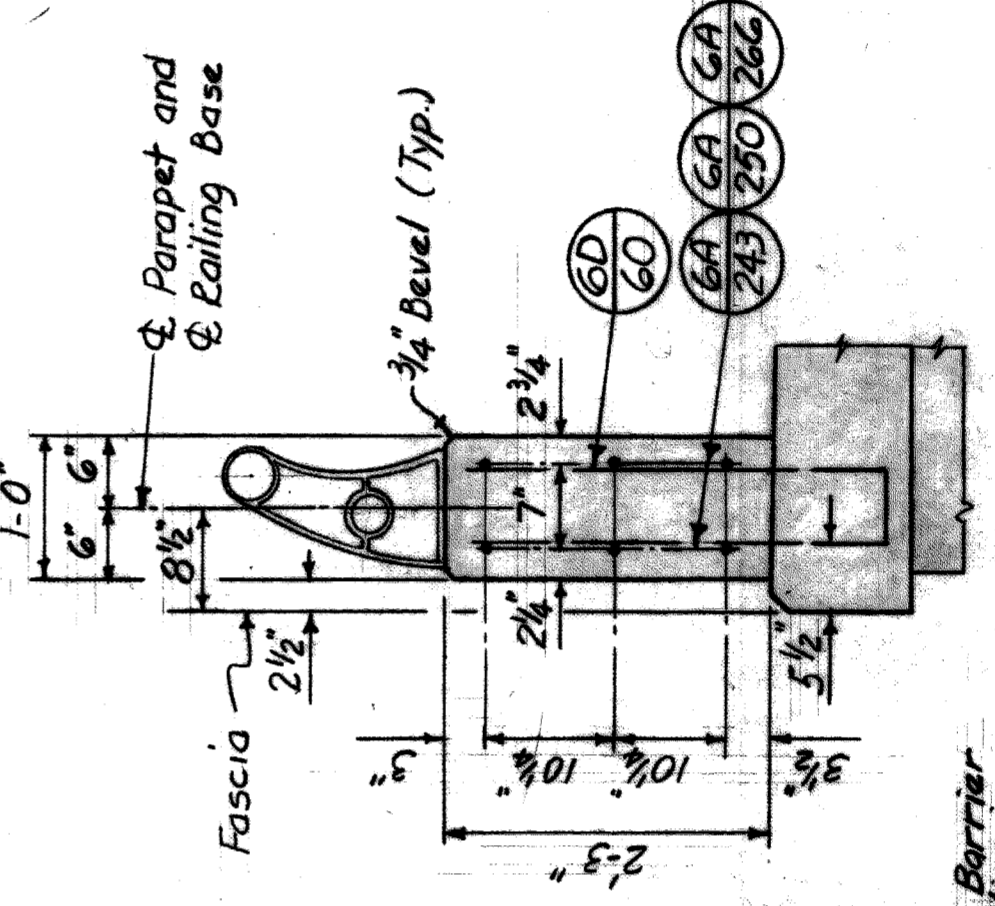
Deck Slab	Sidewalks
Pour Cu. Yds.	Pour Cu. Yds.
A 144.3	H 2 @ 7.9
B 203.3	J 2 @ 12.4
C 244.0	K 2 @ 3.2
D 131.9	L 2 @ 11.0
E 244.0	M 2 @ 4.1
F 203.3	N 2 @ 4.1
G 144.3	P 2 @ 3.2
	R 2 @ 12.4
	S 2 @ 7.9
Total - Concrete, Gr. A (60A Gravel or Slag) Superstructure = 1,474.3 C.Y.	

Item	Unit	Amount
13 1/2" Reinforced Neoprene Expansion Joint Seal	Lin. Ft.	174
Bridge Railing - Solid Parapet Type	Lin. Ft.	928.7
Joint Waterproofing	Sq. Ft.	282
1" Joint Filler	Sq. Ft.	40
Water Reducing Extending Admixture	Gals.	188
Protective Treatment for Bridge Decks	Sq. Ft.	46,835
Forming, Finishing & Curing Superstructure Concrete	Lump Sum	3,916
4" Conduit *	Lin. Ft.	487
Concrete Median Barrier - Bridge	Each	6
Handhole Frames and Cover	Cu. Yds.	500

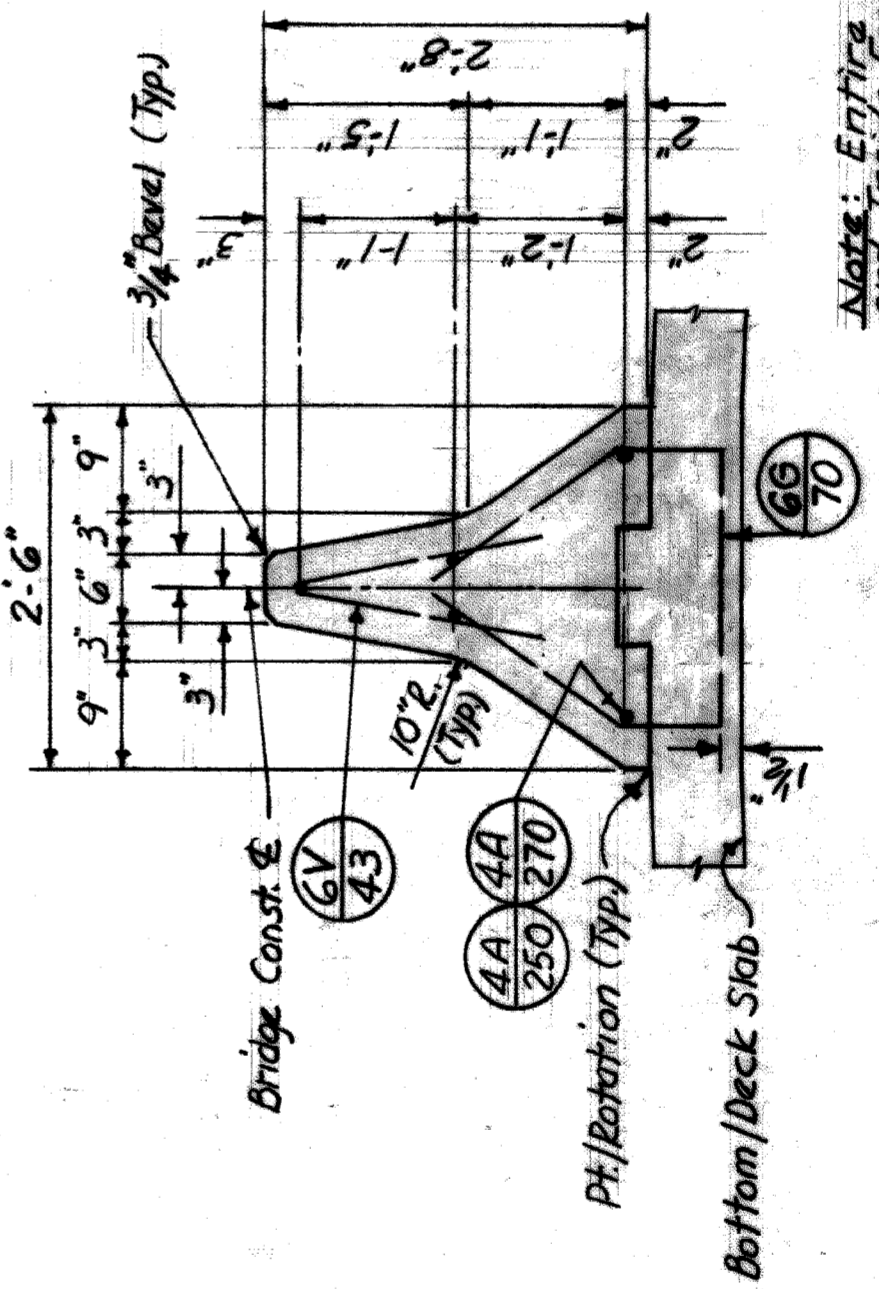
GENERAL NOTES

Reinforced Neoprene Expansion Joint Seal is to be Waboflex Model No. SE 2.5 as manufactured by Watson-Bowman Associates, Inc. (See Supp. Spec.).
 J.W.P. denotes Joint Waterproofing.
 B.S. denotes Both Sides.
 Longitudinal strike-off finishing machine is to be used in placing deck concrete.
 For details of bevels, moldings and Bridge Railing see Standard Sheet E16 of the M.D.S.H.
 Bridge Railing is to be aluminum railing on concrete solid parapet. See M.D.S.H. Standard Sheet E16.
 Water Reducing Extending Admixture shall be applied to the deck slab concrete only.
 Protective Treatment for Bridge Decks is to be applied to all superstructure concrete surfaces between inside faces of railings.
 Sidewalk and Median Barrier pours shall not be cast until slab concrete has attained at least 50% of its design strength as determined by M & T O.S. of the Standard Specifications.

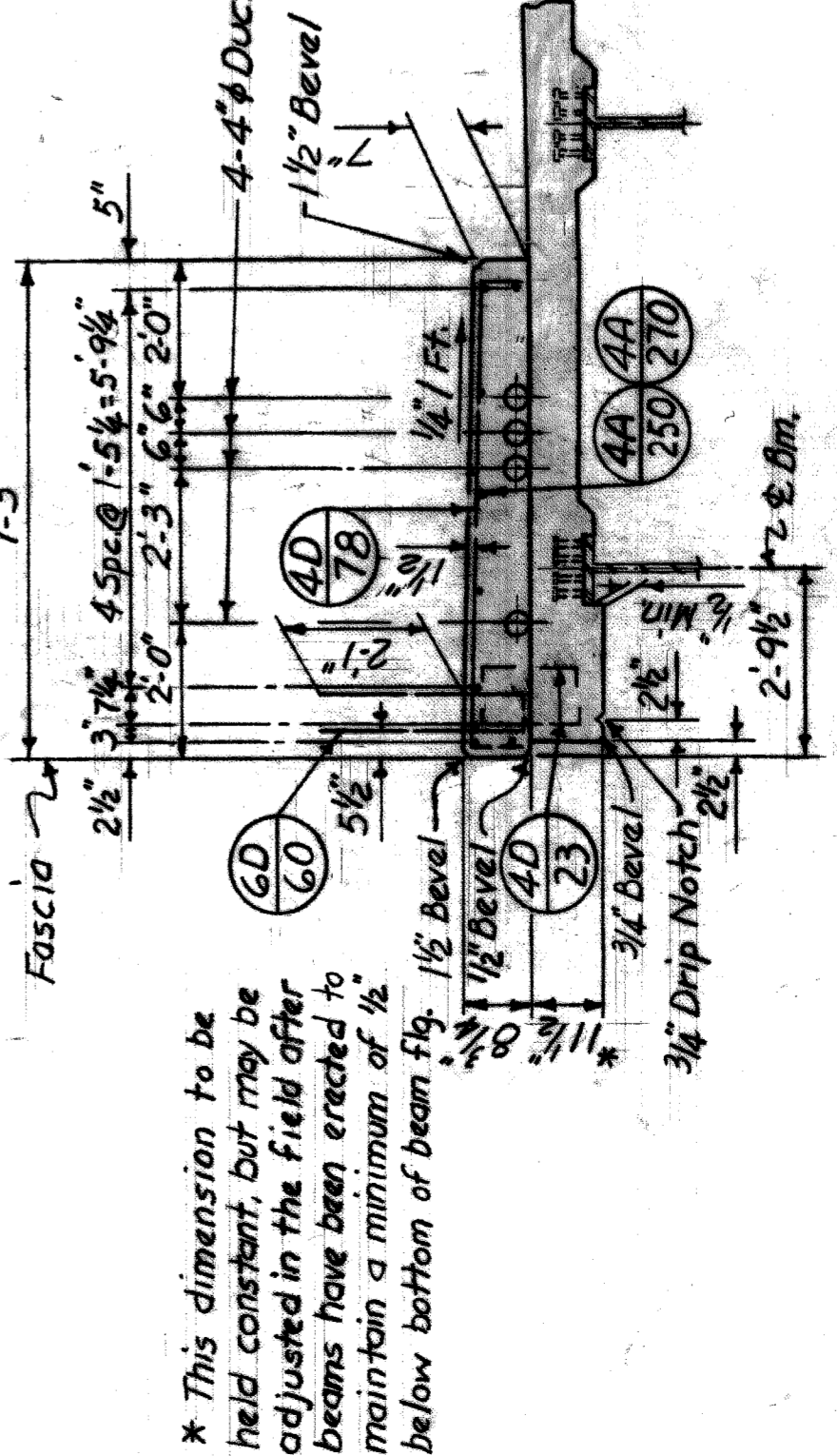
PARAPET SECTION



MEDIAN SECTION



SIDEWALK SECTION



* This dimension to be held constant, but may be adjusted in the field after beams have been erected to maintain a minimum of 1/2" below bottom of beam flg.

BOTTOM OF SLAB ELEVATION

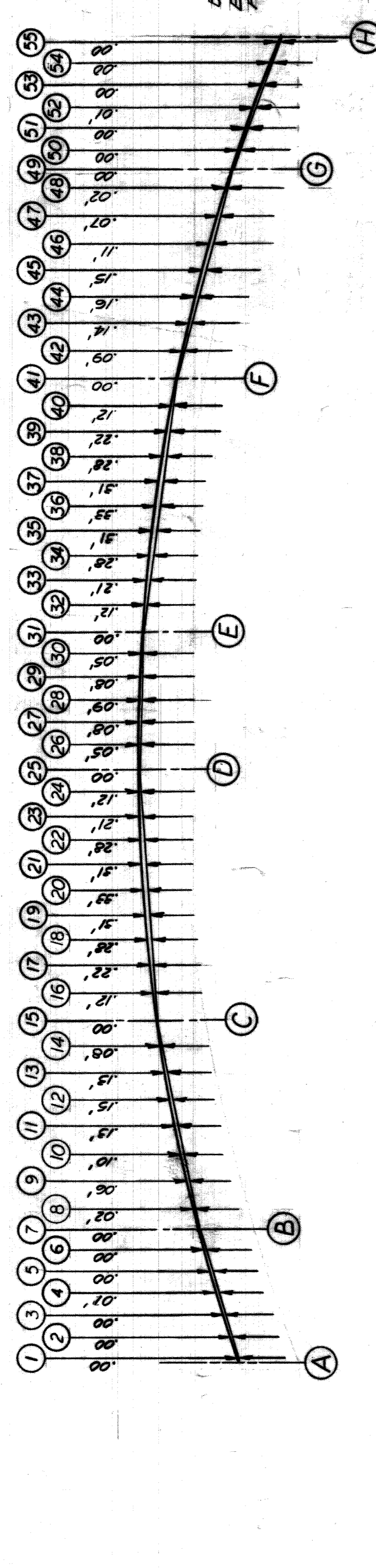
BEAM	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
1-14	169.36	170.11	170.87	171.63	172.39	173.15	173.91	174.67	175.43	176.19	176.95	177.71	178.47	179.23	180.00	180.76	181.52	182.28	183.04	183.80	184.56	185.32	186.08	186.84	187.60	188.36	189.12	189.88	190.64	191.40	192.16	192.92
2-13	169.39	170.17	170.94	171.71	172.48	173.25	174.02	174.79	175.56	176.33	177.10	177.87	178.64	179.41	180.18	180.95	181.72	182.49	183.26	184.03	184.80	185.57	186.34	187.11	187.88	188.65	189.42	190.19	190.96	191.73	192.50	193.27
3-12	169.48	170.27	171.05	171.83	172.61	173.39	174.17	174.95	175.73	176.51	177.29	178.07	178.85	179.63	180.41	181.19	181.97	182.75	183.53	184.31	185.09	185.87	186.65	187.43	188.21	188.99	189.77	190.55	191.33	192.11	192.89	193.67
4-11	169.58	170.38	171.17	171.96	172.75	173.54	174.33	175.12	175.91	176.70	177.49	178.28	179.07	179.86	180.65	181.44	182.23	183.02	183.81	184.60	185.39	186.18	186.97	187.76	188.55	189.34	190.13	190.92	191.71	192.50	193.29	194.08
5-10	169.67	170.47	171.26	172.05	172.84	173.63	174.42	175.21	176.00	176.79	177.58	178.37	179.16	179.95	180.74	181.53	182.32	183.11	183.90	184.69	185.48	186.27	187.06	187.85	188.64	189.43	190.22	191.01	191.80	192.59	193.38	194.17
6-9	169.77	170.57	171.36	172.15	172.94	173.73	174.52	175.31	176.10	176.89	177.68	178.47	179.26	180.05	180.84	181.63	182.42	183.21	184.00	184.79	185.58	186.37	187.16	187.95	188.74	189.53	190.32	191.11	191.90	192.69	193.48	194.27
7-8	169.87	170.67	171.46	172.25	173.04	173.83	174.62	175.41	176.20	176.99	177.78	178.57	179.36	180.15	180.94	181.73	182.52	183.31	184.10	184.89	185.68	186.47	187.26	188.05	188.84	189.63	190.42	191.21	192.00	192.79	193.58	194.37

SCREED TEMPLATE ELEVATION

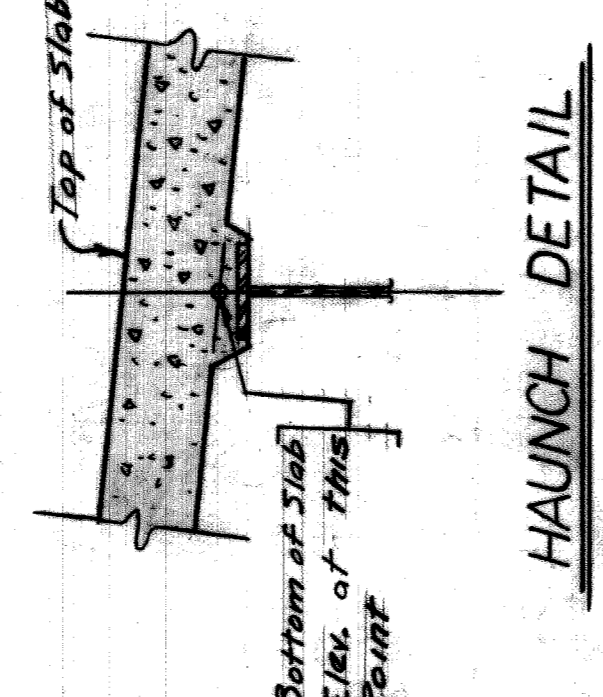
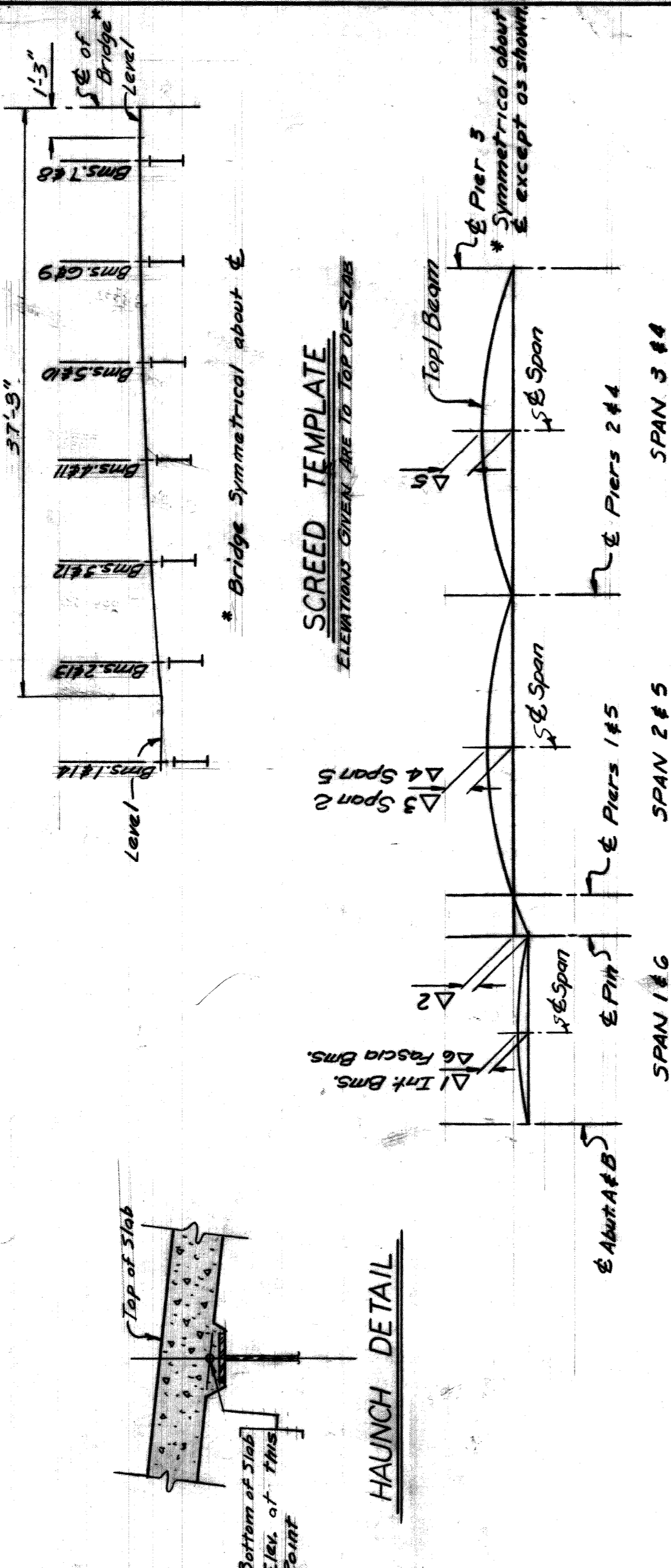
LINE	1-14	2-13	3-12	4-11	5-10	6-9	7-8
A-A	170.05	170.08	170.10	170.11	170.12	170.13	170.14
B-B	172.25	172.28	172.31	172.34	172.37	172.40	172.43
C-C	175.54	175.57	175.60	175.63	175.66	175.69	175.72
D-D	177.32	177.35	177.38	177.41	177.44	177.47	177.50
E-E	172.22	172.25	172.28	172.31	172.34	172.37	172.40
F-F	175.09	175.12	175.15	175.18	175.21	175.24	175.27
G-G	171.46	171.49	171.52	171.55	171.58	171.61	171.64
H-H	169.02	169.05	169.08	169.11	169.14	169.17	169.20

SCREED TEMPLATE ELEVATION

BEAM	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55
1-14	176.28	176.13	175.95	175.73	175.49	175.23	174.96	174.66	174.34	174.00	173.61	173.19	172.70	172.17	171.62	171.07	170.74	170.36	169.97	169.57	169.17	168.75	168.33
2-13	176.31	176.16	175.98	175.76	175.52	175.26	174.99	174.69	174.37	174.03	173.64	173.21	172.73	172.20	171.65	171.10	170.77	170.41	170.03	169.64	169.23	168.80	168.36
3-12	176.41	176.26	176.08	175.86	175.62	175.36	175.09	174.78	174.47	174.12	173.74	173.31	172.83	172.30	171.75	171.20	170.87	170.51	170.13	169.74	169.33	168.90	168.46
4-11	176.50	176.36	176.17	175.96	175.71	175.46	175.19	174.88	174.56	174.22	173.84	173.41	172.92	172.40	171.85	171.29	170.97	170.60	170.23	169.83	169.42	168.99	168.56
5-10	176.60	176.45	176.27	176.05	175.81	175.55	175.28	174.98	174.66	174.32	173.93	173.50	173.02	172.49	171.94	171.39	170.96	170.70	170.37	169.95	169.52	169.09	168.65
6-9	176.70	176.55	176.36	176.15	175.91	175.65	175.38	175.07	174.74	174.41	174.03	173.60	173.11	172.59	172.04	171.49	171.16	170.79	170.42	170.03	169.61	169.19	168.75
7-8	176.79	176.64	176.46	176.25	176.00	175.74	175.47	175.17	174.85	174.51	174.13	173.70	173.21	172.68	172.14	171.58	171.25	170.89	170.52	170.12	169.71	169.28	168.84



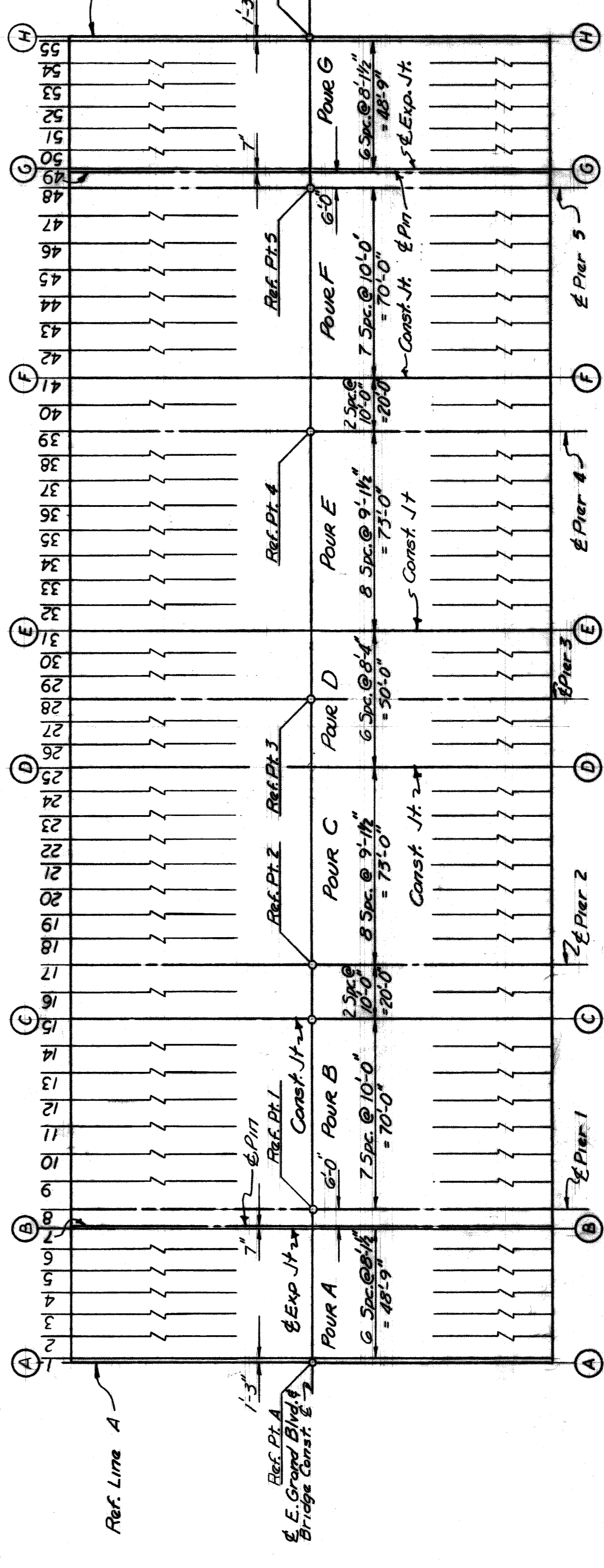
TOP OF SLAB OFFSETS FOR VERTICAL CURVE
Includes allowances for deflection due to Sidewalk and Railing.



CAMBER ORDINATE DIAGRAM

LOADING	Δ1	Δ2	Δ3	Δ4	Δ5	Δ6
Structural Steel erected (No other loads applied)	.07	.04	.37	.39	.43	.04
Forming & Steel Rein't in Place (All Spans)	.06	.04	.35	.37	.42	.03
Deck Slab Conc. Cast (All Spans)	.01	.01	.25	.27	.37	0
Sidewalk & Railing Conc. Cast (All Spans)	0	.01	.23	.25	.36	0

Note: Longitudinal strike-off finishing machine is to be used in placing deck concrete.
Screed template elevations are based on the condition that no deck concrete has been cast and that formwork steel reinforcement and shear developers are in place. Screeds affected by loads in other spans are to be set to the elevations shown before casting any concrete.
Bottom of slab elevations are based on the condition that all structural steel has been erected but no other loads applied. These elevations include allowances for deflections due to forms, steel reinforcement, shear developers in place, deck concrete and railing.
Four Sequence:
Pours A&G
Pours B&F
Pours C&E
Pour D

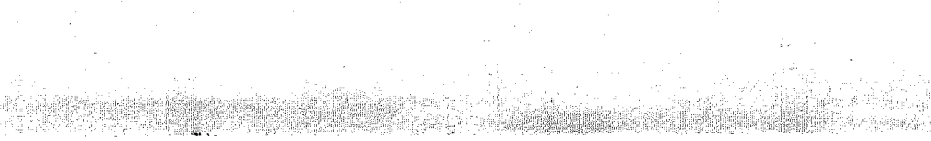
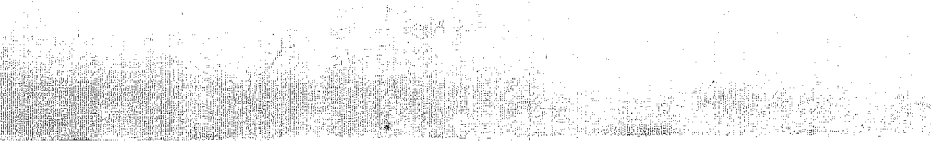
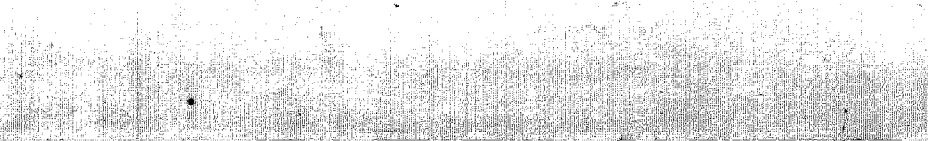
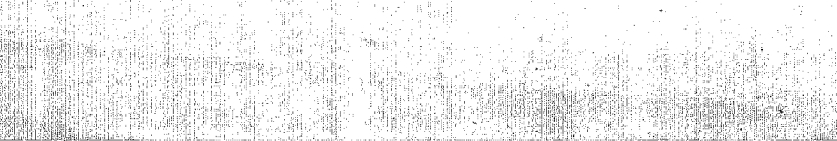
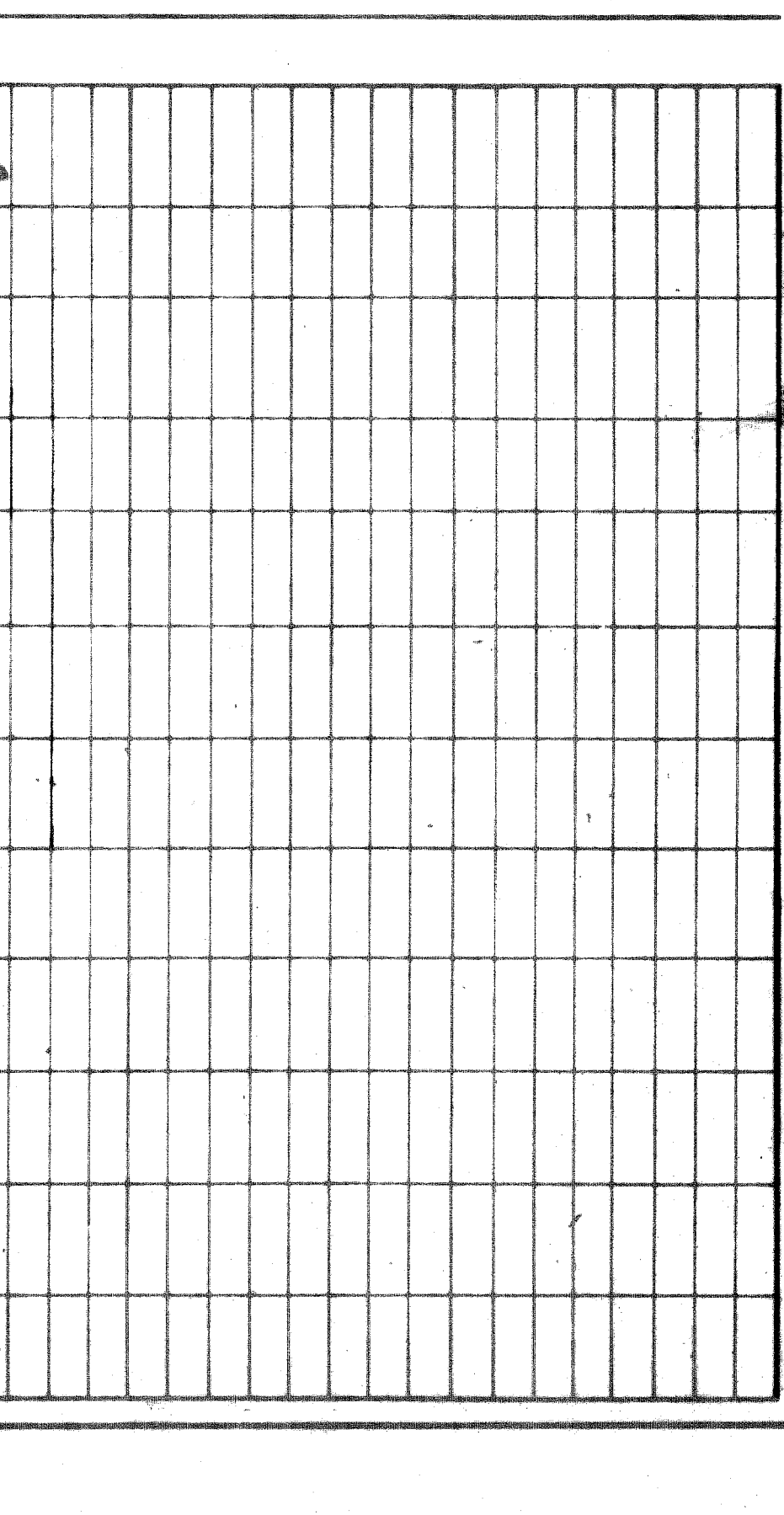
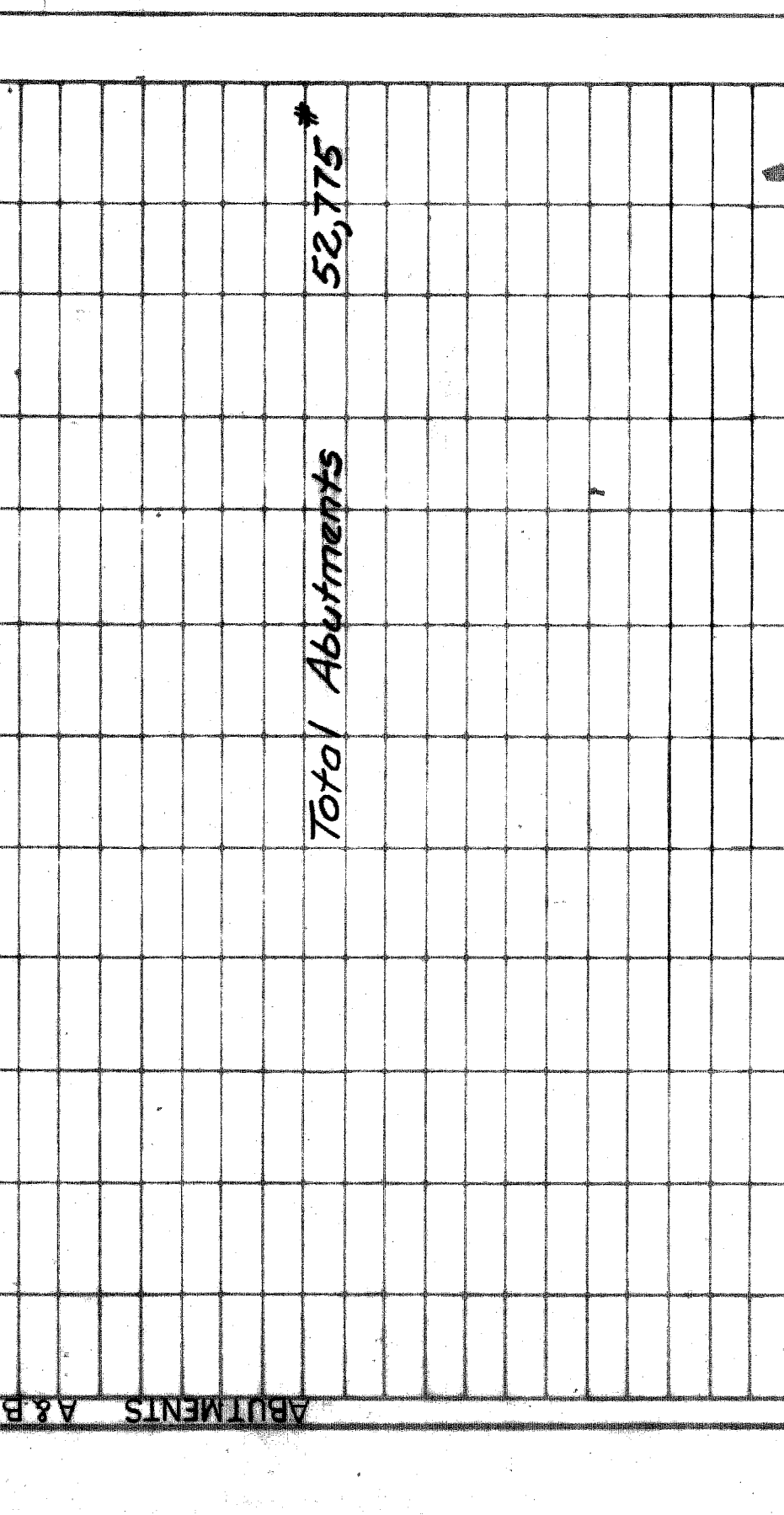
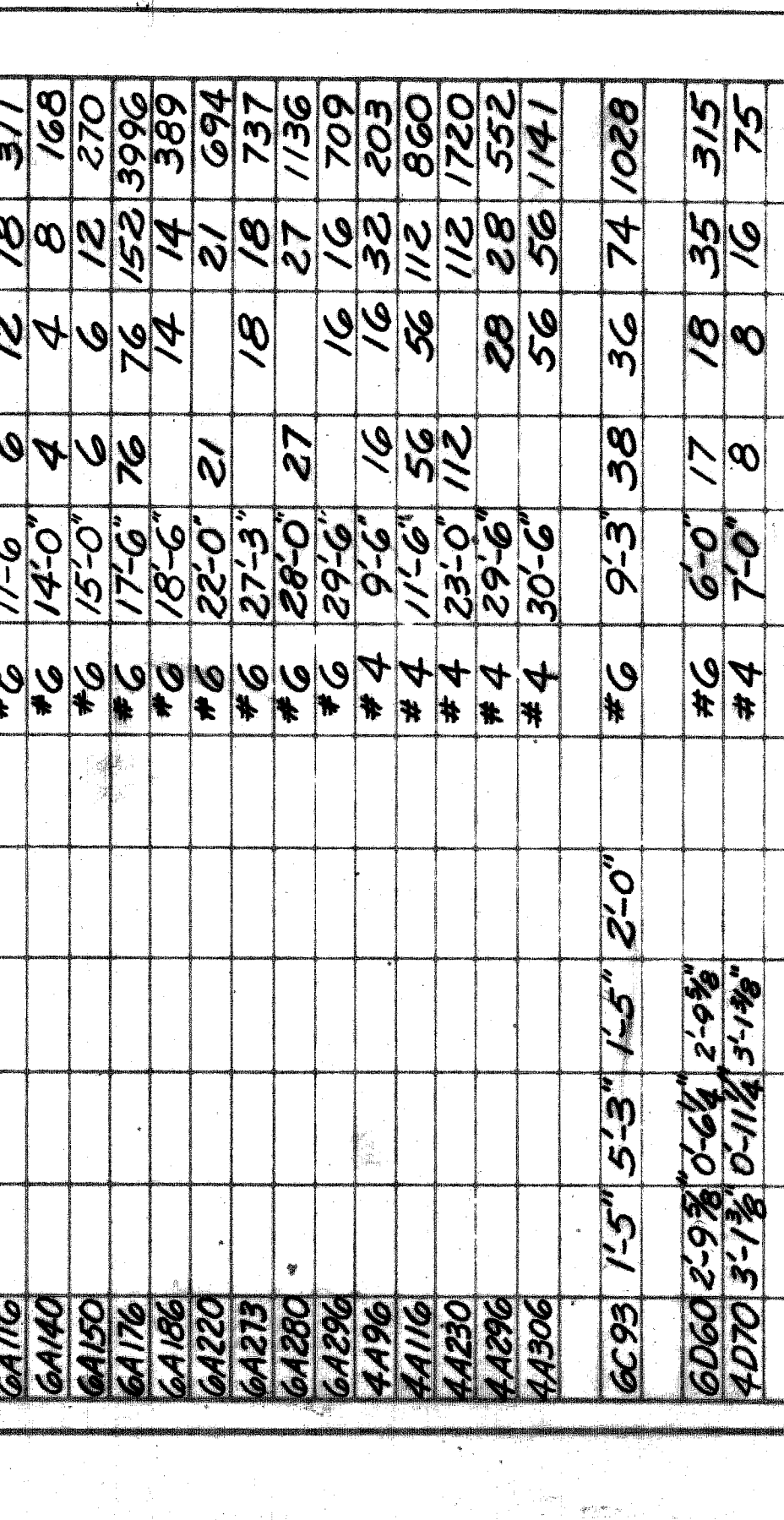
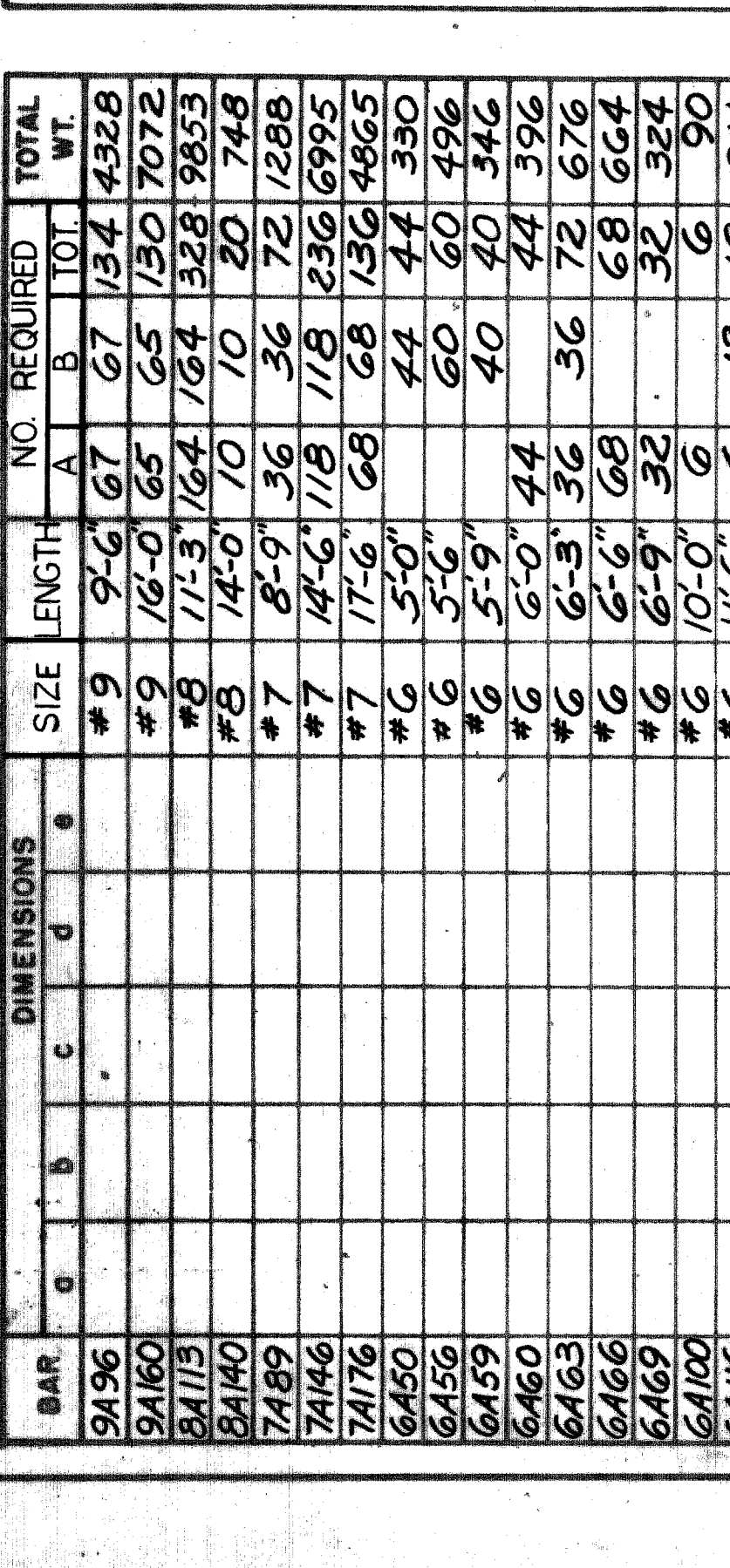
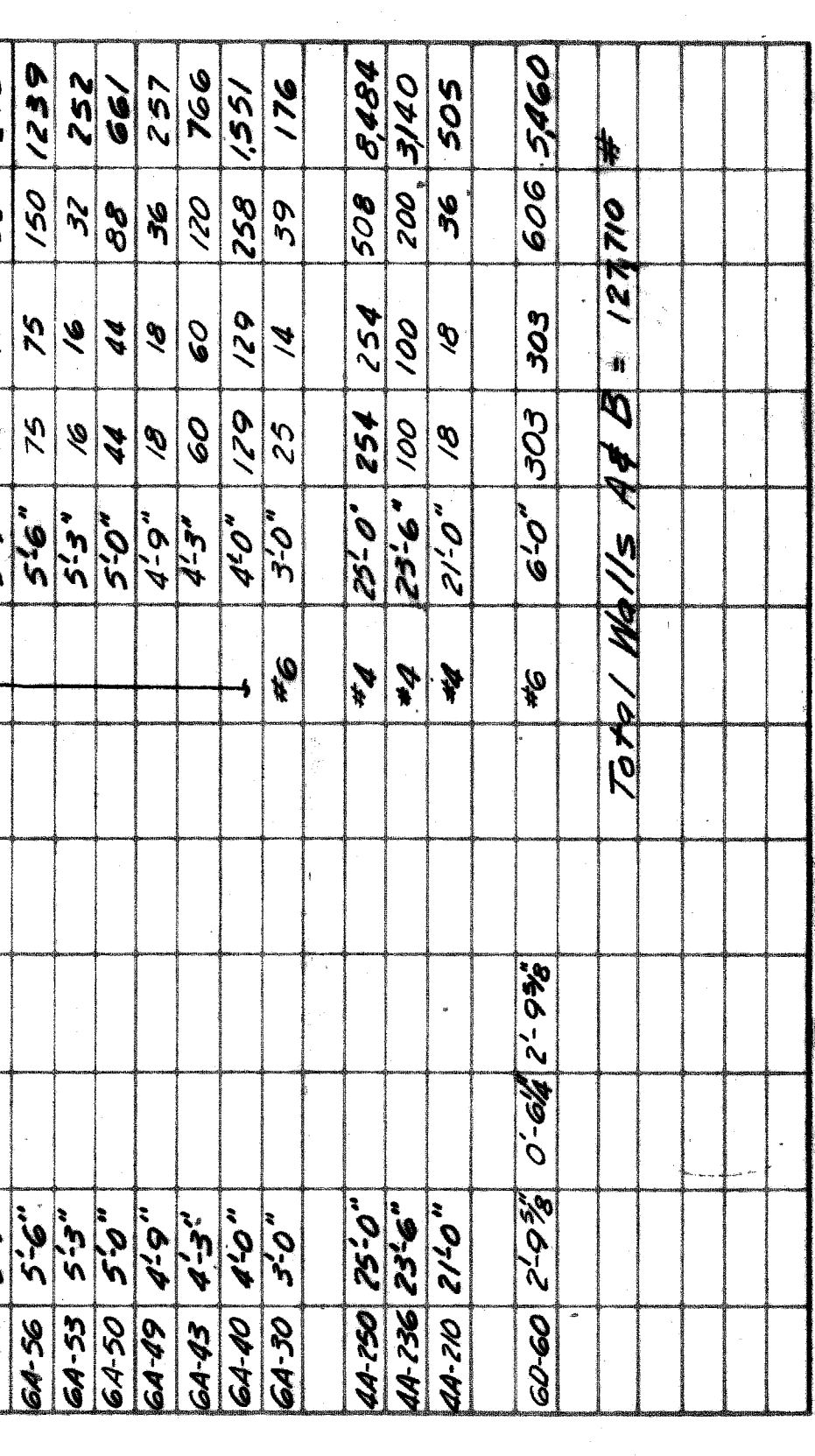
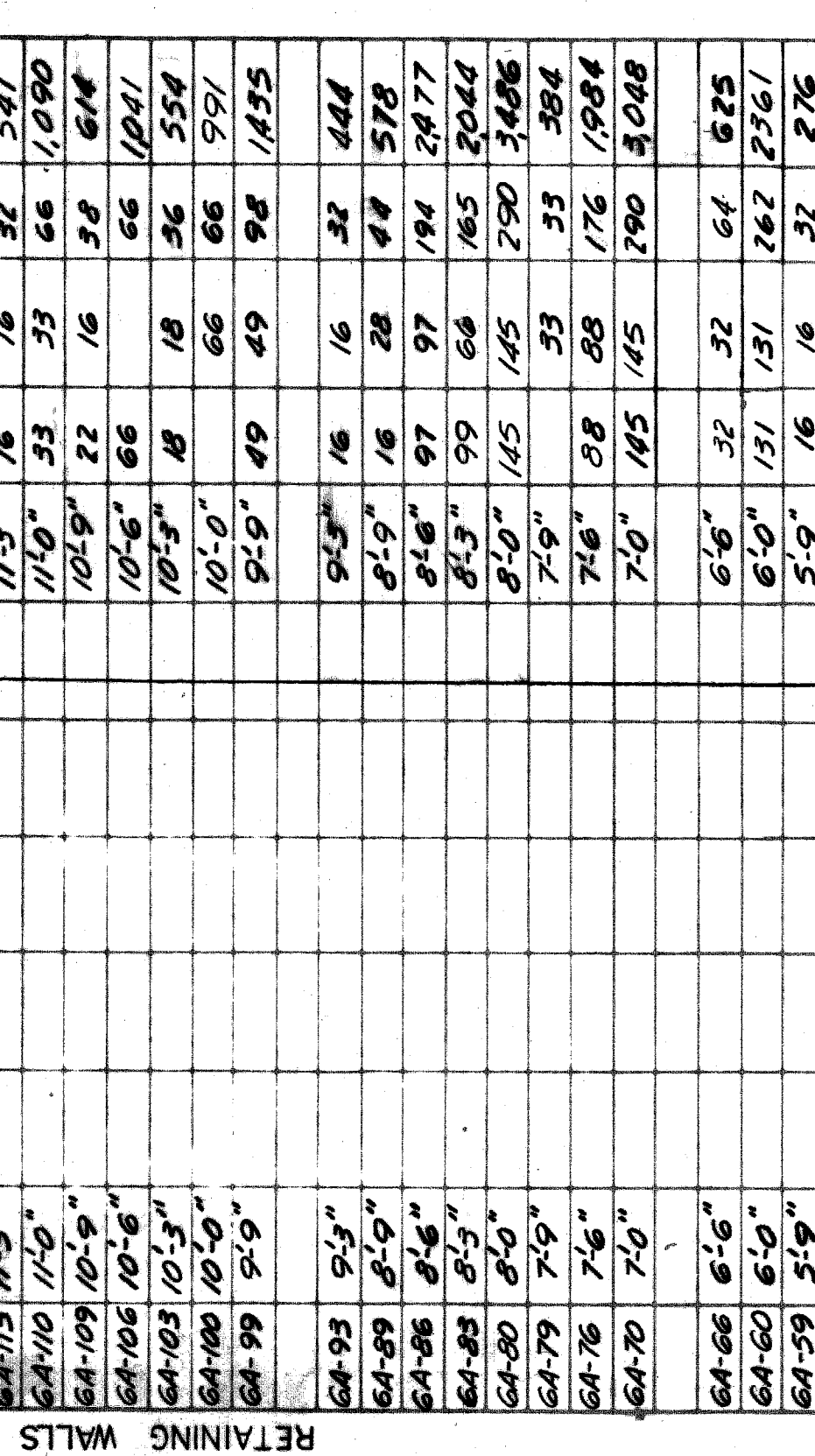
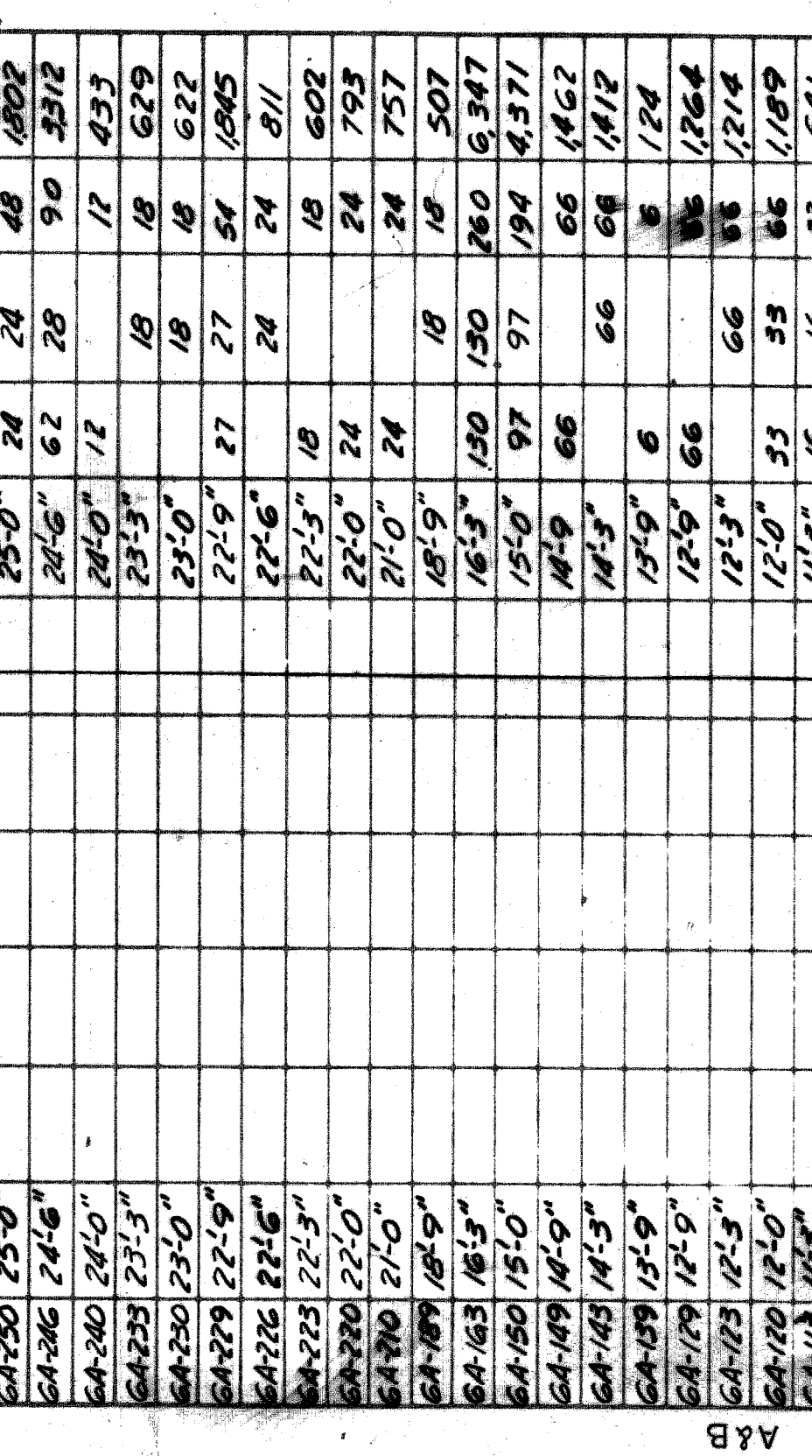
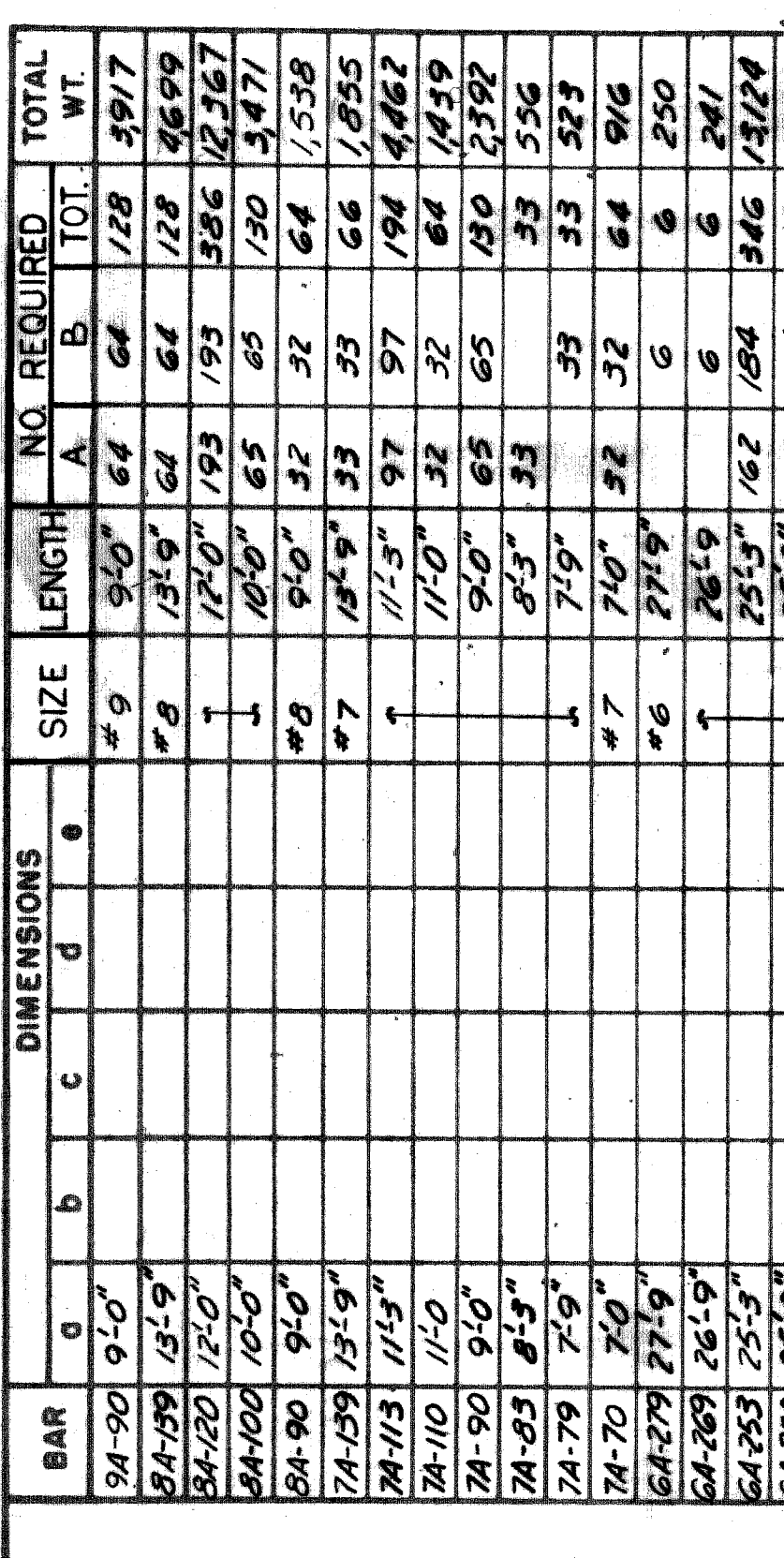
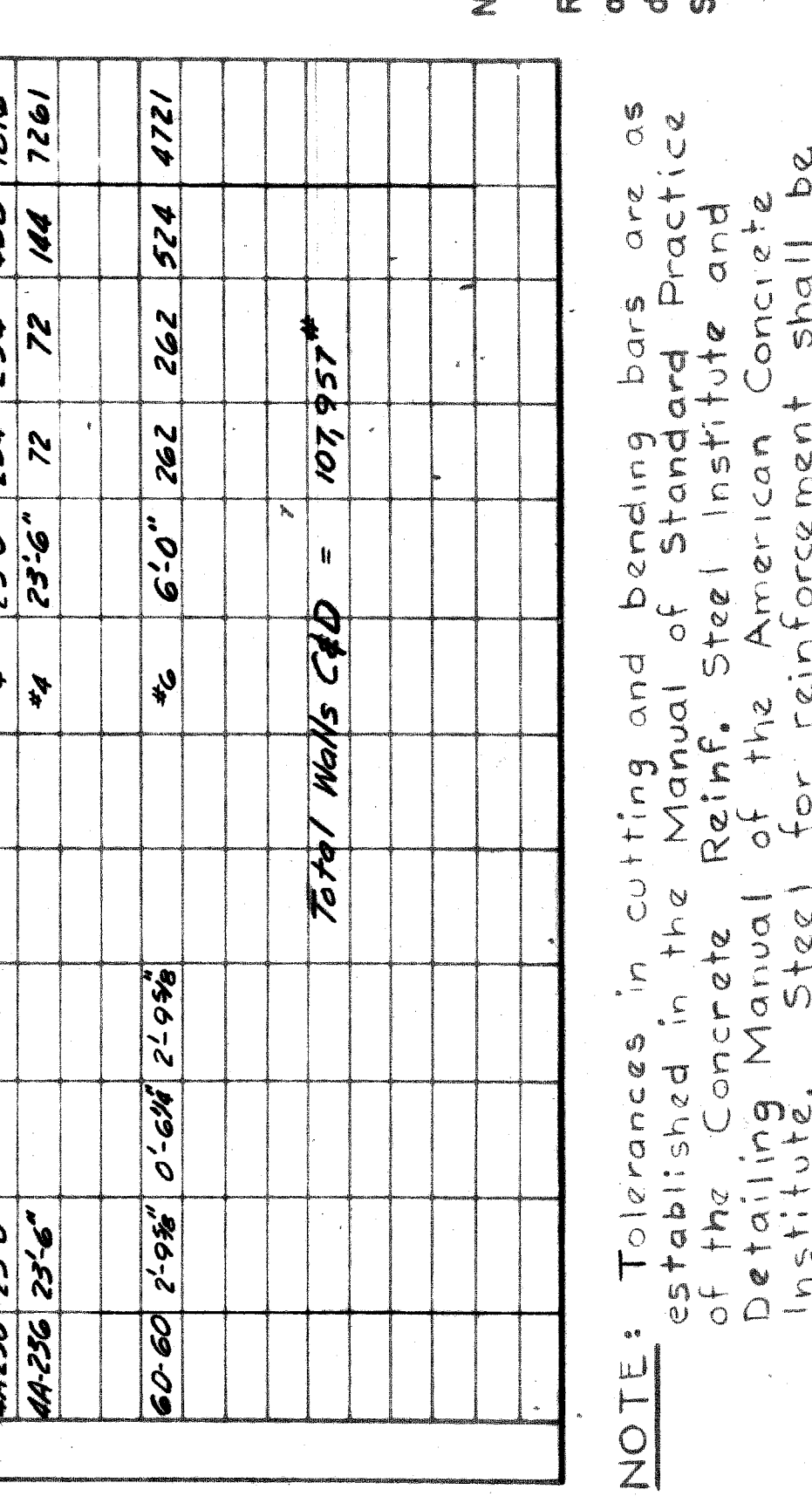
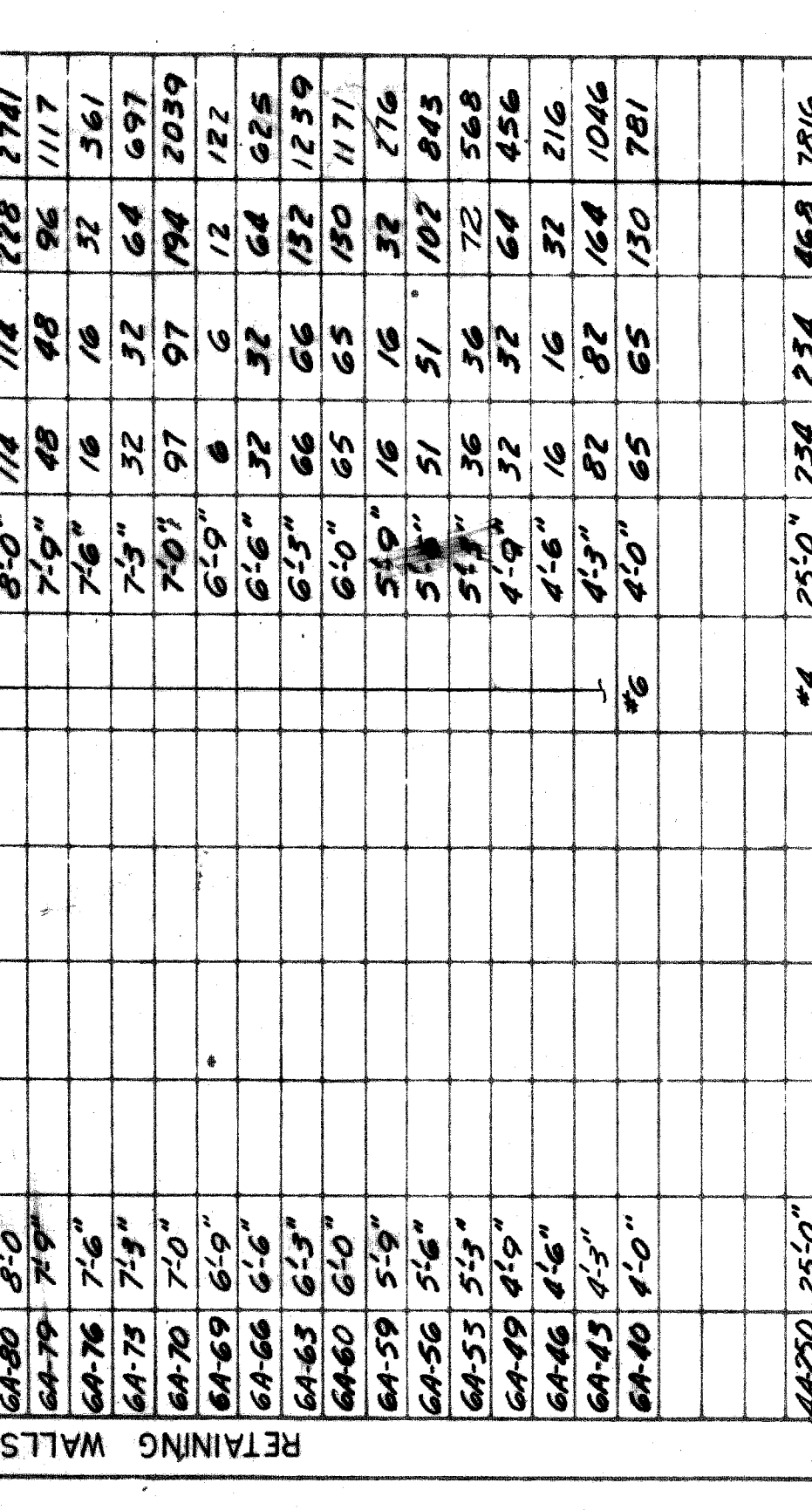
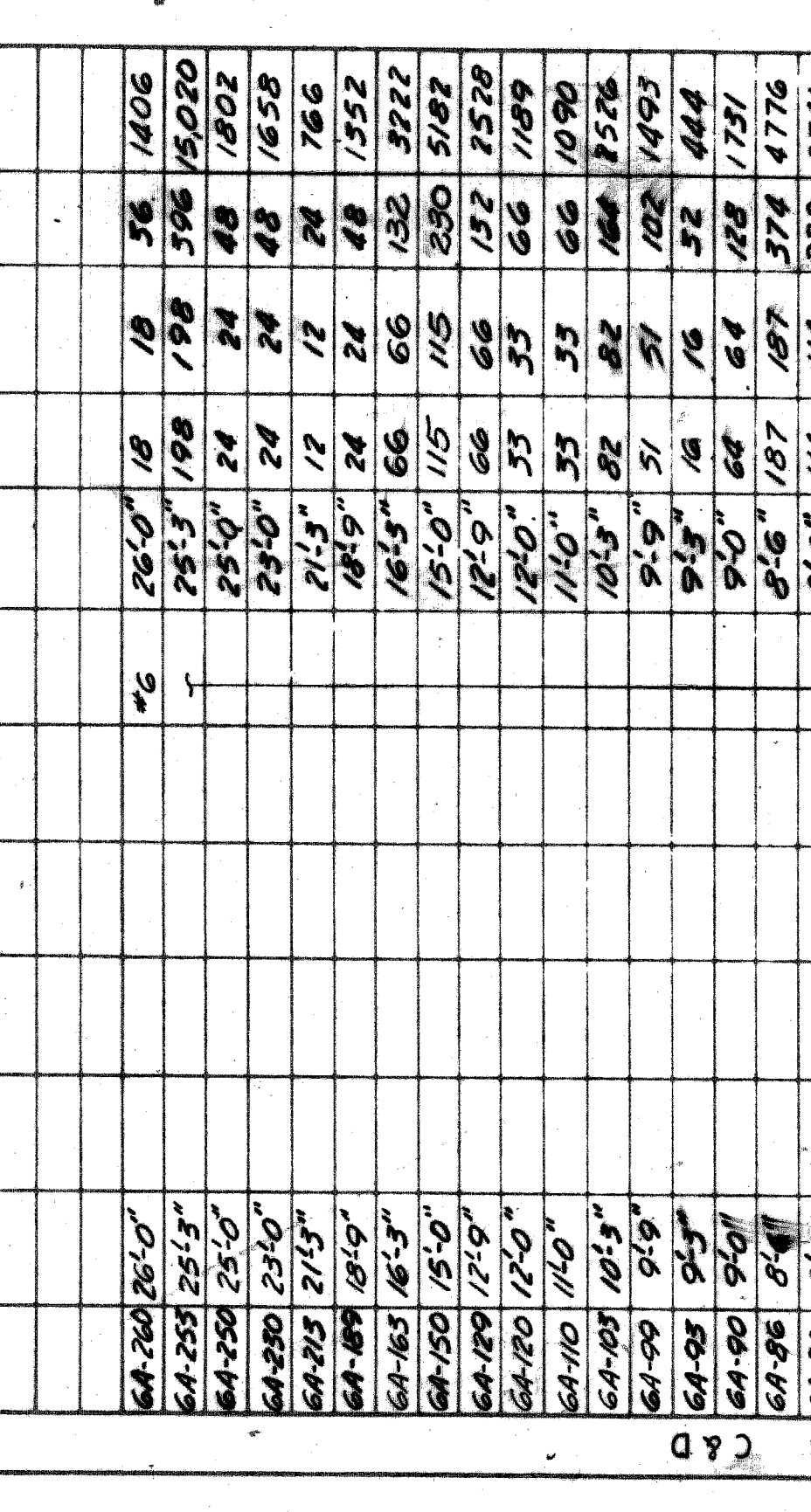
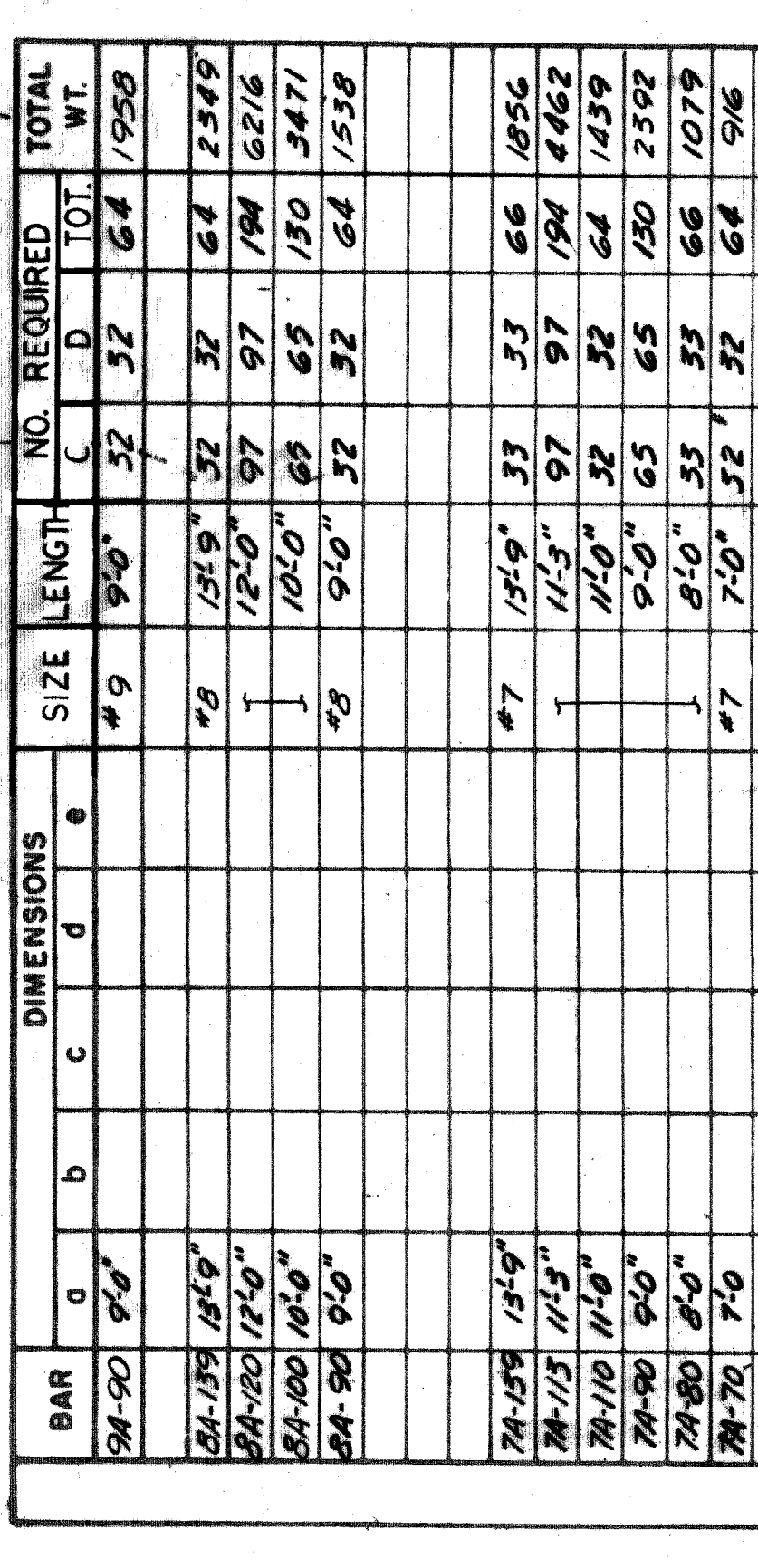
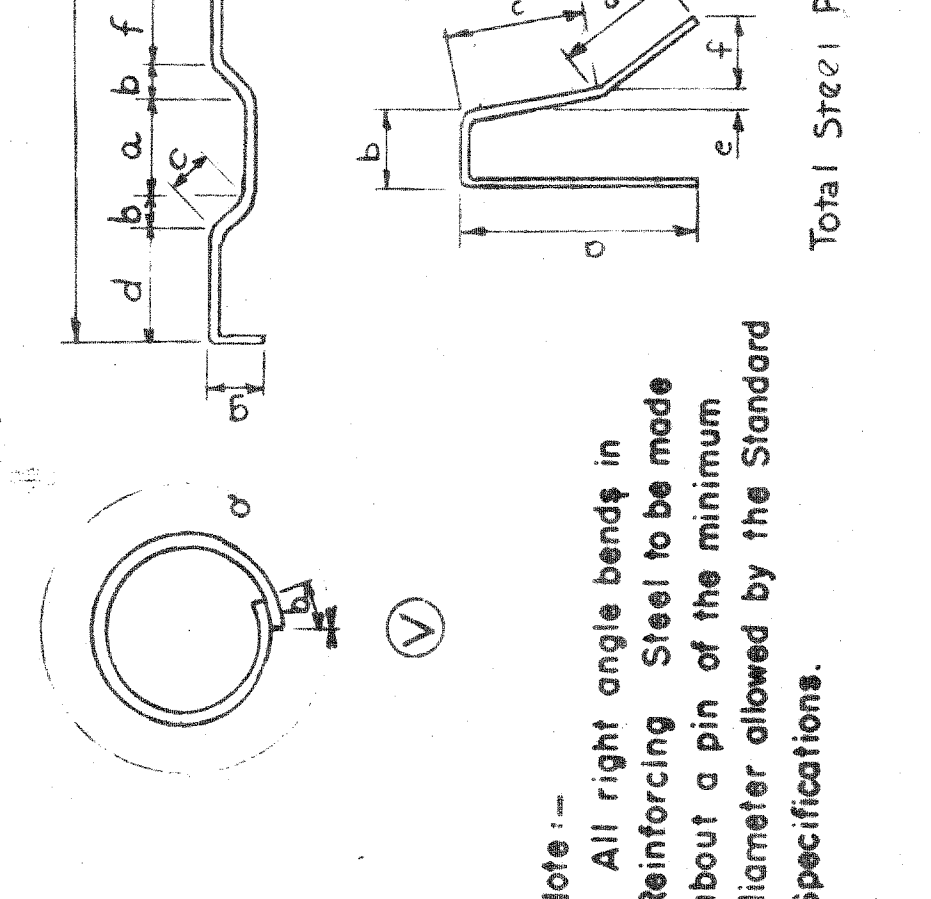
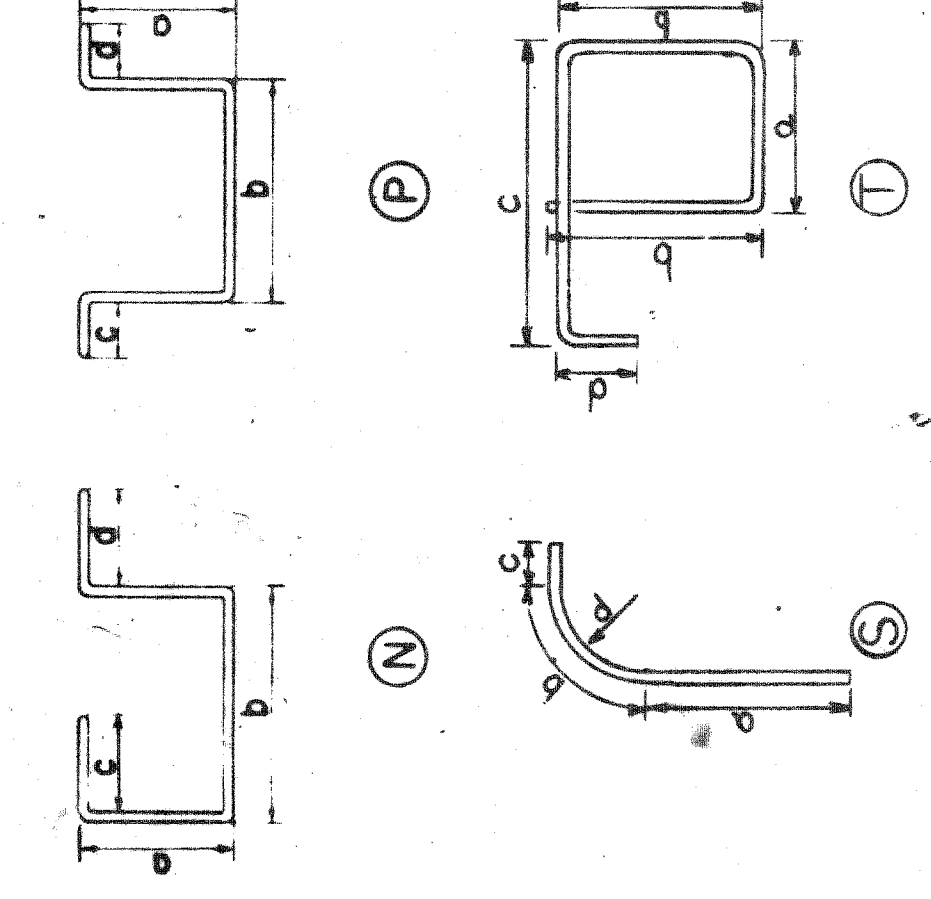
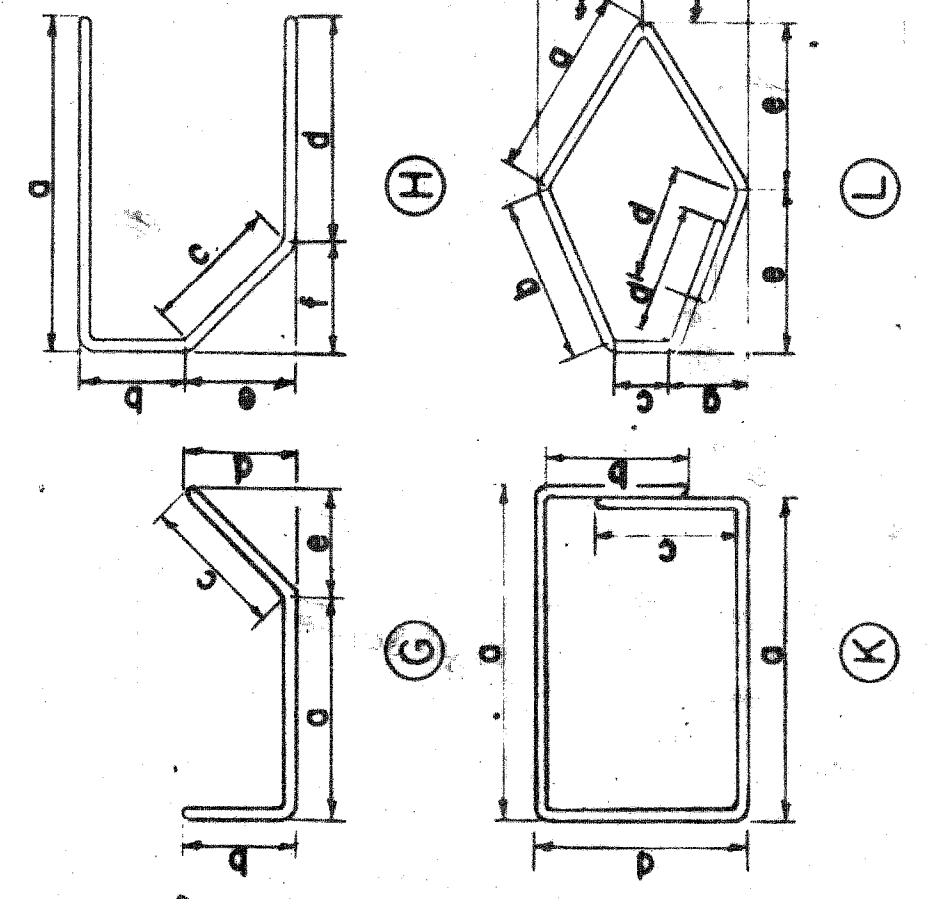
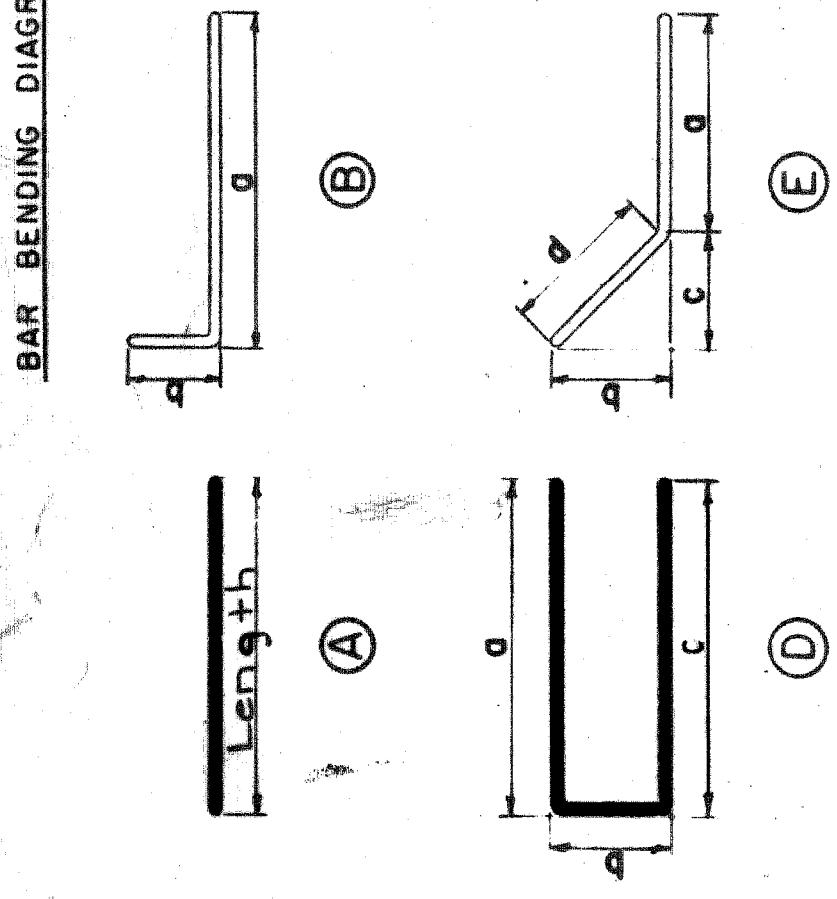


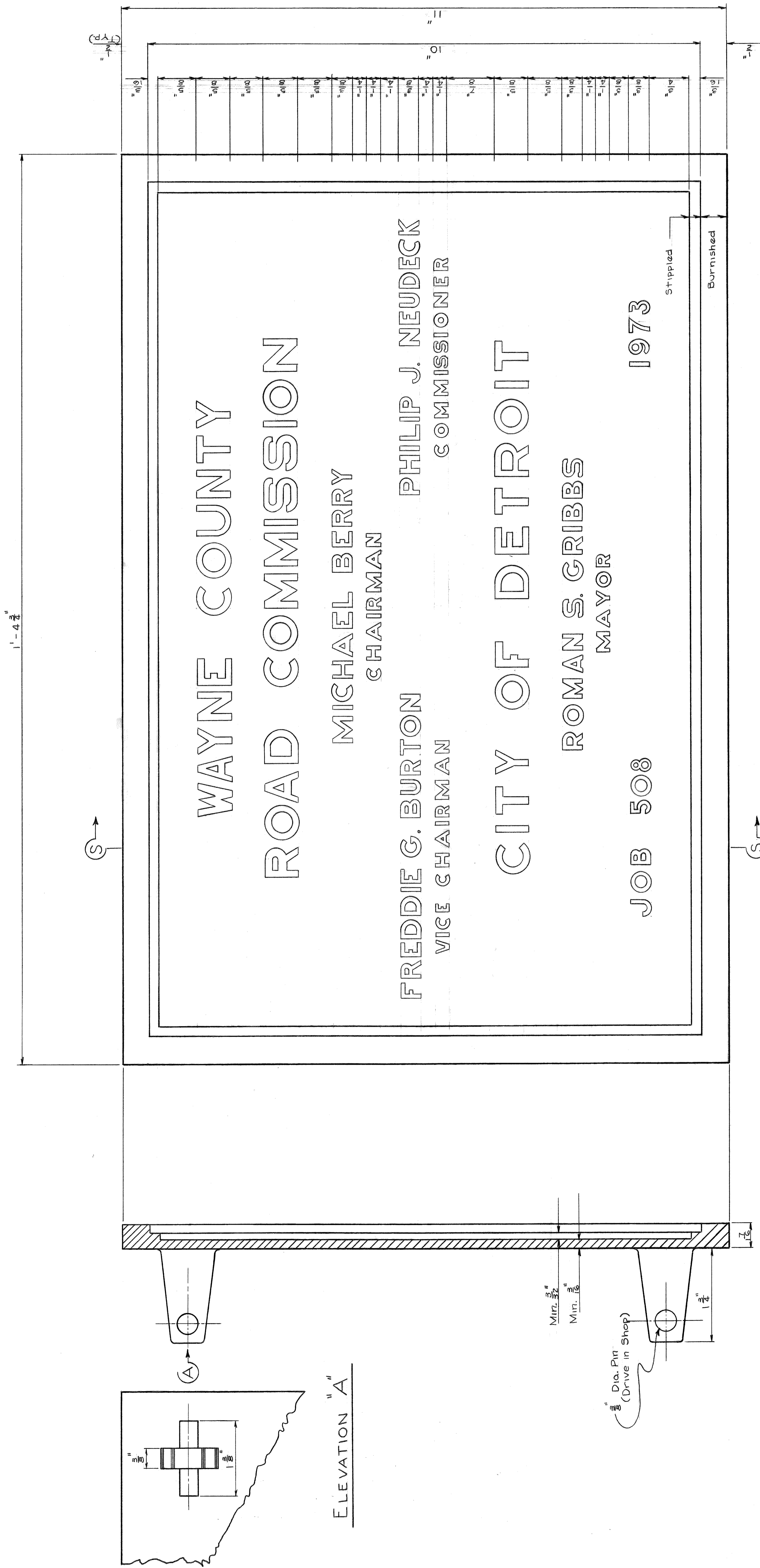
BAR	DIMENSIONS				SIZE	LENGTH	NO. REQUIRED			TOTAL WT.
	a	b	c	d			A	B	TOT.	
9A-90	9'-0"				#9	9'-0"	64	128	3917	
9A-99	13'-9"				#9	13'-9"	64	128	3917	
9A-120	12'-0"				#8	12'-0"	193	386	12367	
9A-100	10'-0"				#8	10'-0"	65	130	3471	
9A-90	9'-0"				#8	9'-0"	32	64	1538	
7A-109	11'-3"				#7	11'-3"	33	66	1855	
7A-110	11'-0"				#7	11'-0"	32	64	1822	
7A-90	9'-0"				#7	9'-0"	65	130	2392	
7A-80	8'-0"				#7	8'-0"	33	66	1079	
7A-70	7'-0"				#7	7'-0"	32	64	916	
6A-209	26'-0"				#6	26'-0"	18	36	1406	
6A-253	25'-3"				#6	25'-3"	198	396	15020	
6A-250	25'-0"				#6	25'-0"	24	48	1802	
6A-230	23'-0"				#6	23'-0"	24	48	1658	
6A-205	21'-5"				#6	21'-5"	12	24	766	
6A-183	18'-3"				#6	18'-3"	24	48	1552	
6A-150	15'-0"				#6	15'-0"	66	132	3722	
6A-129	12'-9"				#6	12'-9"	66	132	2528	
6A-120	12'-0"				#6	12'-0"	33	66	1189	
6A-110	11'-0"				#6	11'-0"	33	66	1090	
6A-109	10'-9"				#6	10'-9"	82	164	2526	
6A-99	9'-9"				#6	9'-9"	51	102	1493	
6A-98	9'-8"				#6	9'-8"	16	32	444	
6A-90	9'-0"				#6	9'-0"	64	128	1751	
6A-86	8'-6"				#6	8'-6"	187	374	2776	
6A-80	8'-0"				#6	8'-0"	114	228	2741	
6A-79	7'-9"				#6	7'-9"	48	96	1117	
6A-76	7'-6"				#6	7'-6"	16	32	561	
6A-75	7'-5"				#6	7'-5"	32	64	697	
6A-70	7'-0"				#6	7'-0"	97	194	2059	
6A-69	6'-9"				#6	6'-9"	6	12	122	
6A-68	6'-8"				#6	6'-8"	32	64	625	
6A-63	6'-3"				#6	6'-3"	66	132	1239	
6A-60	6'-0"				#6	6'-0"	65	130	1171	
6A-59	5'-9"				#6	5'-9"	16	32	276	
6A-56	5'-6"				#6	5'-6"	51	102	843	
6A-53	5'-3"				#6	5'-3"	36	72	568	
6A-49	4'-9"				#6	4'-9"	32	64	456	
6A-46	4'-6"				#6	4'-6"	16	32	216	
6A-43	4'-3"				#6	4'-3"	82	164	1046	
6A-40	4'-0"				#6	4'-0"	65	130	781	
4A-250	25'-0"				#4	25'-0"	234	468	7816	
4A-236	23'-6"				#4	23'-6"	72	144	7261	
60-60	6'-0"	2'-9 3/8	0'-6 1/2	2'-9 3/8	#6	6'-0"	262	524	4721	
Total Steel Reinforcement 288,442*										

BAR	DIMENSIONS				SIZE	LENGTH	NO. REQUIRED			TOTAL WT.
	a	b	c	d			A	B	TOT.	
9A-90	9'-0"				#9	9'-0"	64	128	3917	
9A-99	13'-9"				#9	13'-9"	64	128	3917	
9A-120	12'-0"				#8	12'-0"	193	386	12367	
9A-100	10'-0"				#8	10'-0"	65	130	3471	
9A-90	9'-0"				#8	9'-0"	32	64	1538	
7A-109	11'-3"				#7	11'-3"	33	66	1855	
7A-110	11'-0"				#7	11'-0"	32	64	1822	
7A-90	9'-0"				#7	9'-0"	65	130	2392	
7A-80	8'-0"				#7	8'-0"	33	66	1079	
7A-70	7'-0"				#7	7'-0"	32	64	916	
6A-209	26'-0"				#6	26'-0"	18	36	1406	
6A-253	25'-3"				#6	25'-3"	198	396	15020	
6A-250	25'-0"				#6	25'-0"	24	48	1802	
6A-230	23'-0"				#6	23'-0"	24	48	1658	
6A-205	21'-5"				#6	21'-5"	12	24	766	
6A-183	18'-3"				#6	18'-3"	24	48	1552	
6A-150	15'-0"				#6	15'-0"	66	132	3722	
6A-129	12'-9"				#6	12'-9"	66	132	2528	
6A-120	12'-0"				#6	12'-0"	33	66	1189	
6A-110	11'-0"				#6	11'-0"	33	66	1090	
6A-109	10'-9"				#6	10'-9"	82	164	2526	
6A-99	9'-9"				#6	9'-9"	51	102	1493	
6A-98	9'-8"				#6	9'-8"	16	32	444	
6A-90	9'-0"				#6	9'-0"	64	128	1751	
6A-86	8'-6"				#6	8'-6"	187	374	2776	
6A-80	8'-0"				#6	8'-0"	114	228	2741	
6A-79	7'-9"				#6	7'-9"	48	96	1117	
6A-76	7'-6"				#6	7'-6"	16	32	561	
6A-75	7'-5"				#6	7'-5"	32	64	697	
6A-70	7'-0"				#6	7'-0"	97	194	2059	
6A-69	6'-9"				#6	6'-9"	6	12	122	
6A-68	6'-8"				#6	6'-8"	32	64	625	
6A-63	6'-3"				#6	6'-3"	66	132	1239	
6A-60	6'-0"				#6	6'-0"	65	130	1171	
6A-59	5'-9"				#6	5'-9"	16	32	276	
6A-56	5'-6"				#6	5'-6"	51	102	843	
6A-53	5'-3"				#6	5'-3"	36	72	568	
6A-49	4'-9"				#6	4'-9"	32	64	456	
6A-46	4'-6"				#6	4'-6"	16	32	216	
6A-43	4'-3"				#6	4'-3"	82	164	1046	
6A-40	4'-0"				#6	4'-0"	65	130	781	
4A-250	25'-0"				#4	25'-0"	234	468	7816	
4A-236	23'-6"				#4	23'-6"	72	144	7261	
60-60	6'-0"	2'-9 3/8	0'-6 1/2	2'-9 3/8	#6	6'-0"	262	524	4721	
Total Steel Reinforcement 288,442*										

BAR	DIMENSIONS				SIZE	LENGTH	NO. REQUIRED			TOTAL WT.
	a	b	c	d			A	B	TOT.	
9A-90	9'-0"				#9	9'-0"	64	128	3917	
9A-99	13'-9"				#9	13'-9"	64	128	3917	
9A-120	12'-0"				#8	12'-0"	193	386	12367	
9A-100	10'-0"				#8	10'-0"	65	130	3471	
9A-90	9'-0"				#8	9'-0"	32	64	1538	
7A-109	11'-3"				#7	11'-3"	33	66	1855	
7A-110	11'-0"				#7	11'-0"	32	64	1822	
7A-90	9'-0"				#7	9'-0"	65	130	2392	
7A-80	8'-0"				#7	8'-0"	33	66	1079	
7A-70	7'-0"				#7	7'-0"	32	64	916	
6A-209	26'-0"				#6	26'-0"	18	36	1406	
6A-253	25'-3"				#6	25'-3"	198	396	15020	
6A-250	25'-0"				#6	25'-0"	24	48	1802	
6A-230	23'-0"				#6	23'-0"	24	48	1658	
6A-205	21'-5"				#6	21'-5"	12	24	766	
6A-183	18'-3"				#6	18'-3"	24	48	1552	
6A-150	15'-0"				#6	15'-0"	66	132	3722	
6A-129	12'-9"				#6	12'-9"	66	132	2528	
6A-120	12'-0"				#6	12'-0"	33	66	1189	
6A-110	11'-0"				#6	11'-0"	33	66	1090	
6A-109	10'-9"				#6	10'-9"	82	164	2526	
6A-99	9'-9"				#6	9'-9"	51	102	1493	
6A-98	9'-8"				#6	9'-8"	16	32	444	
6A-90	9'-0"				#6	9'-0"	64	128	1751	
6A-86	8'-6"				#6	8'-6"	187	374	2776	
6A-80	8'-0"				#6	8'-0"	114	228	2741	
6A-79	7'-9"				#6	7'-9"	48	96	1117	
6A-76	7'-6"				#6	7'-6"	16	32	561	
6A-75	7'-5"				#6	7'-5"	32	64	697	
6A-70	7'-0"				#6	7'-0"	97	194	2059	
6A-69	6'-9"				#6	6'-9"	6	12	122	
6A-68	6'-8"				#6	6'-8"	32	64	625	
6A-63	6'-3"				#6	6'-3"	66	132	1239	
6A-60	6'-0"				#6	6'-0"	65	130	1171	
6A-59	5'-9"				#6	5'-9"	16	32	276	
6A-56	5'-6"				#6	5'-6"	51	102	843	
6A-53	5'-3"				#6	5'-3"	36	72	568	
6A-49	4'-9"				#6	4'-9"	32	64	456	
6A-46	4'-6"				#6	4'-6"	16	32	216	
6A-43	4'-3"				#6	4'-3"	82	164	1046	
6A-40	4'-0"				#6	4'-0"	65	130	781	
4A-250	25'-0"				#4	25'-0"	234	468	7816	
4A-236	23'-6"				#4	23'-6"	72	144	7261	
60-60	6'-0"	2'-9 3/8	0'-6 1/2	2'-9 3/8	#6	6'-0"	262	524	4721	
Total Steel Reinforcement 288,442*										

NOTE: Tolerances in cutting and bending bars are as established in the Manual of Standard Practice of the Concrete Reinforcing Steel Institute and Detailing Manual of the American Concrete Institute. Steel for reinforcement shall be intermediate or hard grade only.





SECTION S-S

SPECIFICATION

Letters to set out as indicated on the drawing. The face of the letters and the border of the plate to be burnished and the background to be stippled and to have a dark oxidized finish. Name Plate to be of Government Bronze. A.S.T.M. No. B 1C-18

NAME PLATE REDRAWN 1-8-74	REVISIONS		DRAWN BY Schlotheiff	CHECKED BY RJC	DATE 9-8-72	CORRECT	BOARD OF ROAD COMMISSIONERS DESIGN DIVISION	COUNTY PROJECT EAST GRAND BOULEVARD OVER GRAND TRUNK RAILROAD GRADE SEPARATION NAME PLATE	COUNTY JOB 508
	APPROVED		CHECKED BY Robert Camminis	DATE 9-1-72	ASSIST. ENGINEER OF DESIGN	APPROVED	ENGINEER OF DESIGN	ISSUE NO. 1 DATE 9-1-72	SHEET NO. 41