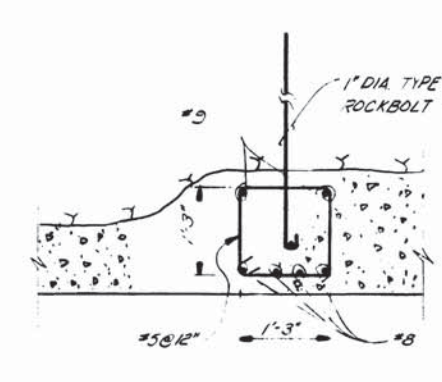
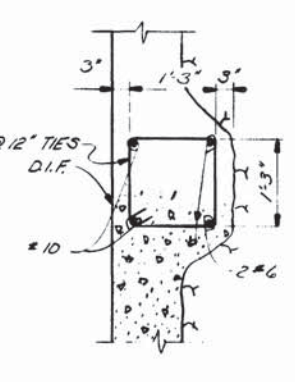
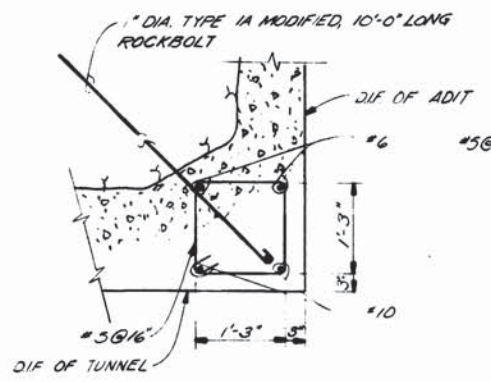
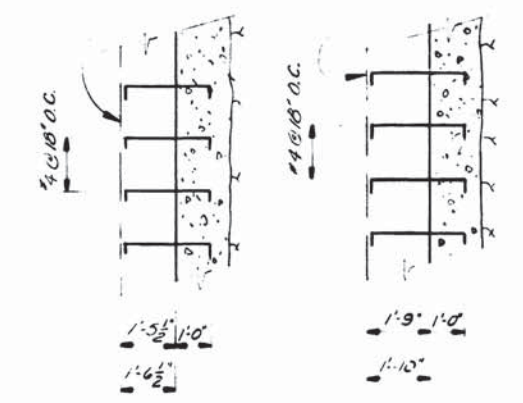
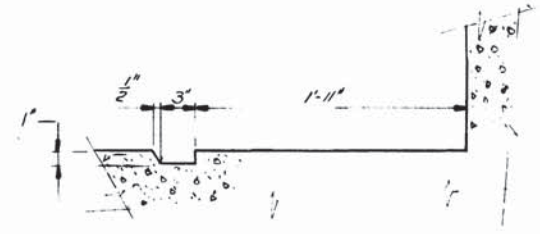
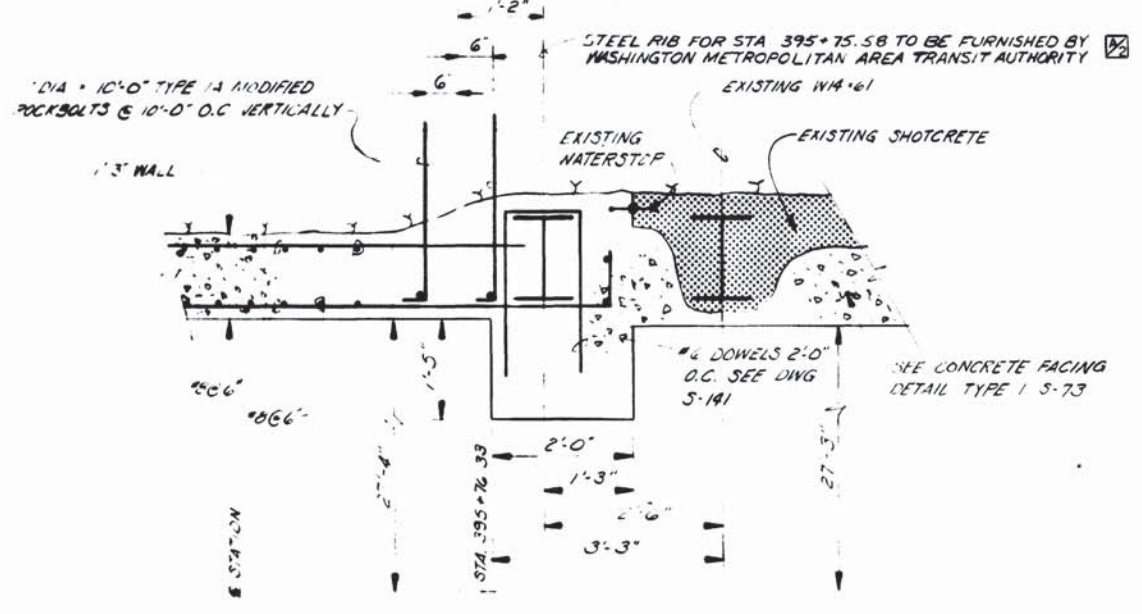


DETAIL 12
S-77
SCALE: 1/4" = 1'-0"



DETAIL 11
S-77
SCALE: 3/8" = 1'-0"



DESIGNED	T.P. SMIRNOFF	DATE	05-11-77
DRAWN	E.L. BURNETT	DATE	05-12-77
CHECKED	A.B. WIEGAND	DATE	05-13-77
APPROVED		DATE	

NUMBER	DESCRIPTION	DATE	BY	DESCRIPTION
		11/11/77	MFC	ADDED PARTITION TOL-L & DET. 10 & ADDED CALLOUT



WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

MATHEWS • CHATELAIN • BEALL
ENGINEERS AND ARCHITECTS
SECTION DESIGNER

DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT

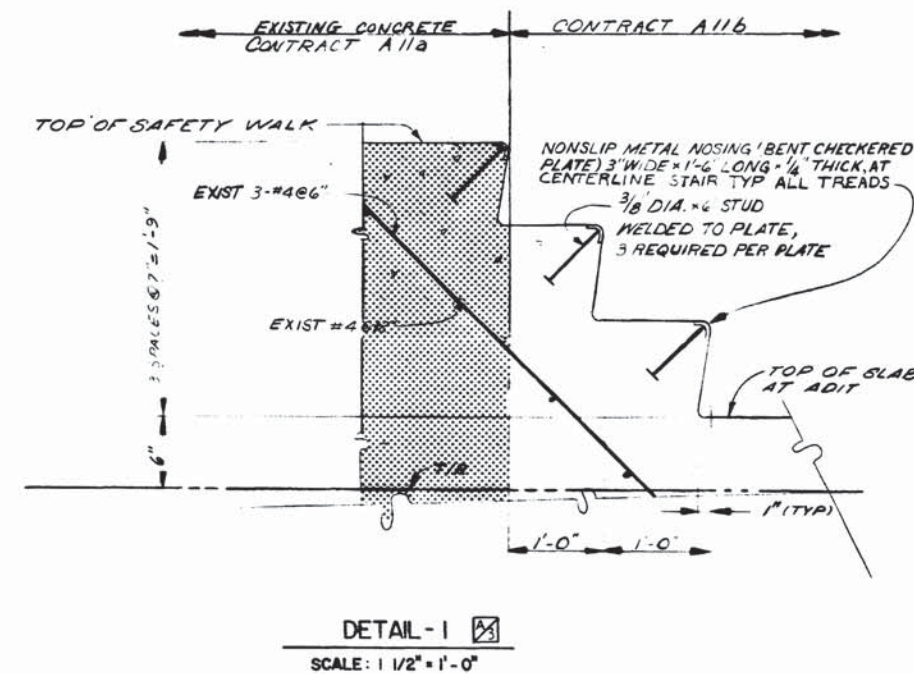
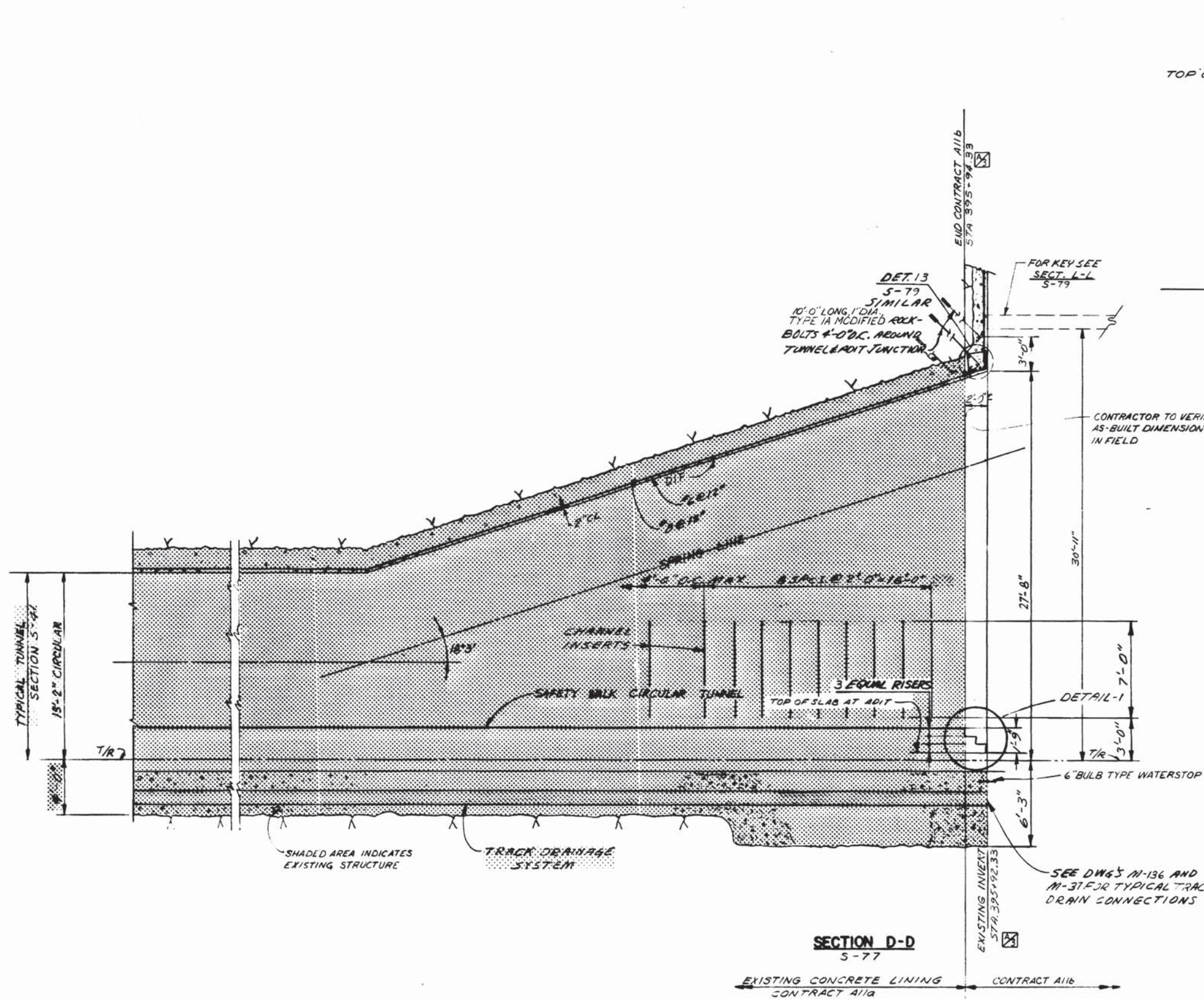
HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT

SUBMITTED *A.P. Clark* DATE 05-3-77 APPROVED *Kolbert*

ROCKVILLE ROUTE
BETHESDA STATION NORTH VENT SHAFT
CONCRETE LINING

SCALE: 3/4" = 1'-0" AND AS NOTED

DRAWING NO. A11b-S-79 M276-139



M
 AS BUILT
 BY: *[Signature]*
 DATE: 10/11/77

DESIGNED	DATE	NUMBER	DESCRIPTION	DATE	BY	DESCRIPTION
B.A. BUTLER	8-8-79	S-77	BETHESDA STATION NORTH VENT SHAFT	10/11/77	FLA	CHANGED END CONTRACT STATION
DRAWN	8-22-79	M-136	TRACK DRAINAGE			
CHECKED	10-10-79	M-37	TRACK DRAINAGE			
APPROVED						



WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

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 ENGINEERS AND ARCHITECTS
 SECTION DESIGNER

DE LEUW, CATHER & COMPANY
 GENERAL ENGINEERING CONSULTANT

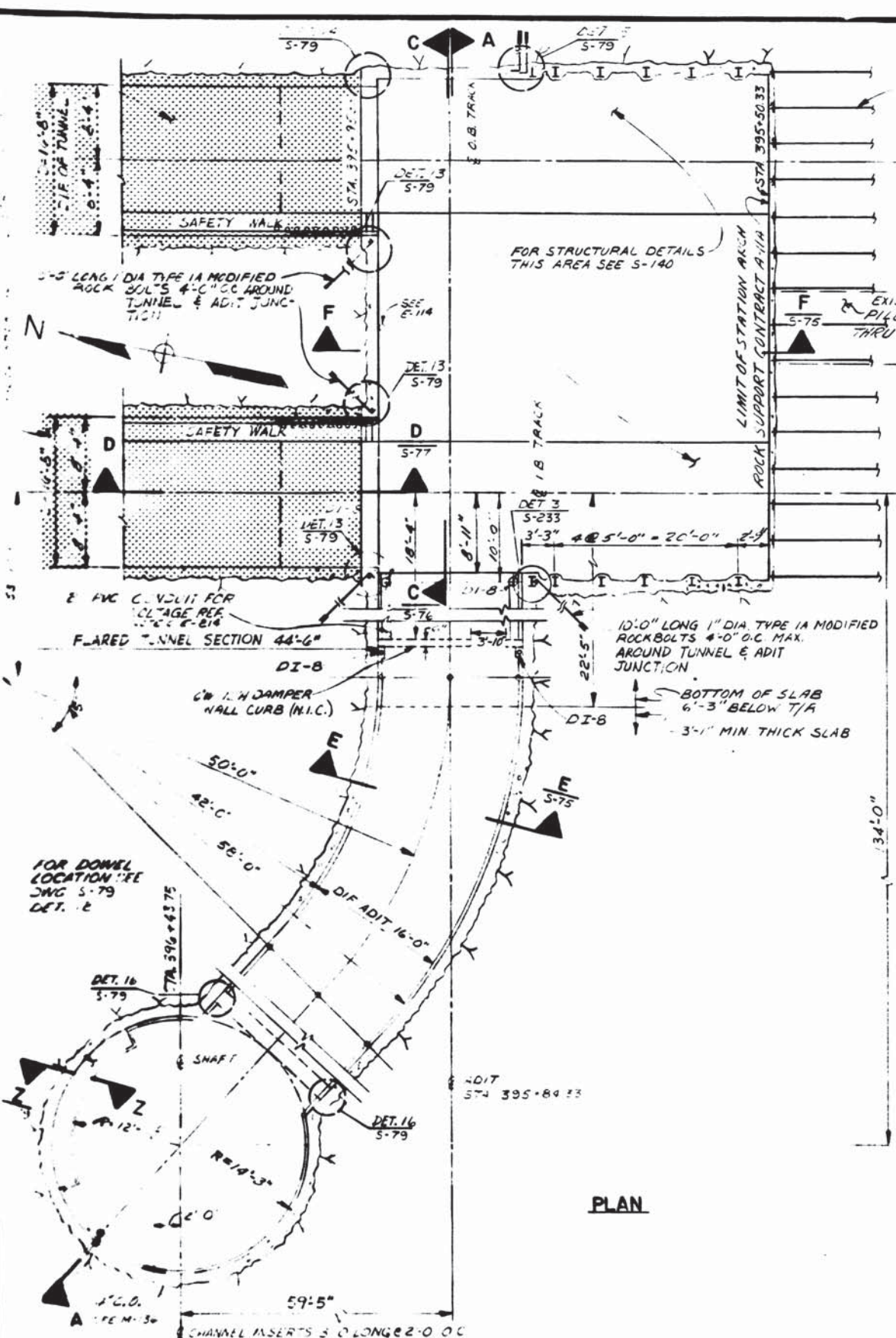
HARRY WEESE & ASSOCIATES
 GENERAL ARCHITECTURAL CONSULTANT

SUBMITTED: *[Signature]* DATE: 09-13-77 APPROVED: *[Signature]*

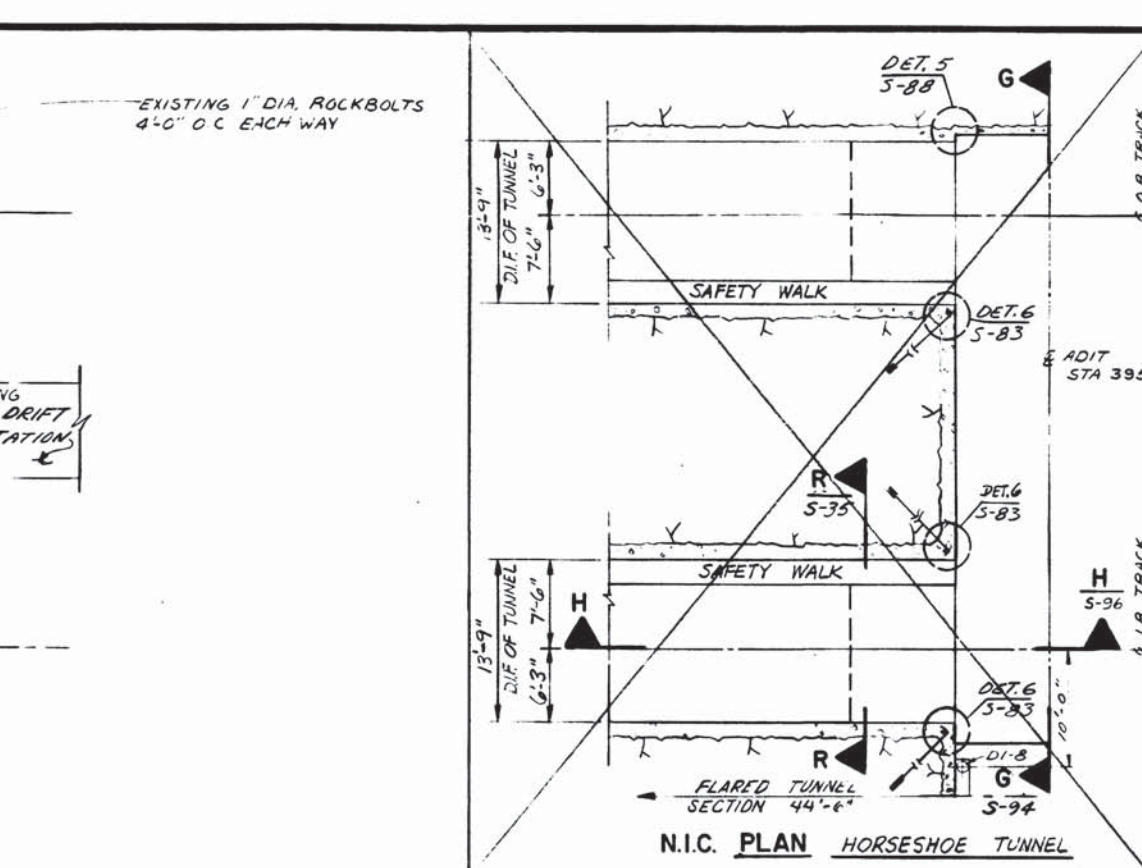
ROCKVILLE ROUTE
BETHESDA STATION NORTH VENT SHAFT
CONCRETE LINING

SCALE: 1/4" = 1'-0" AND AS NOTED

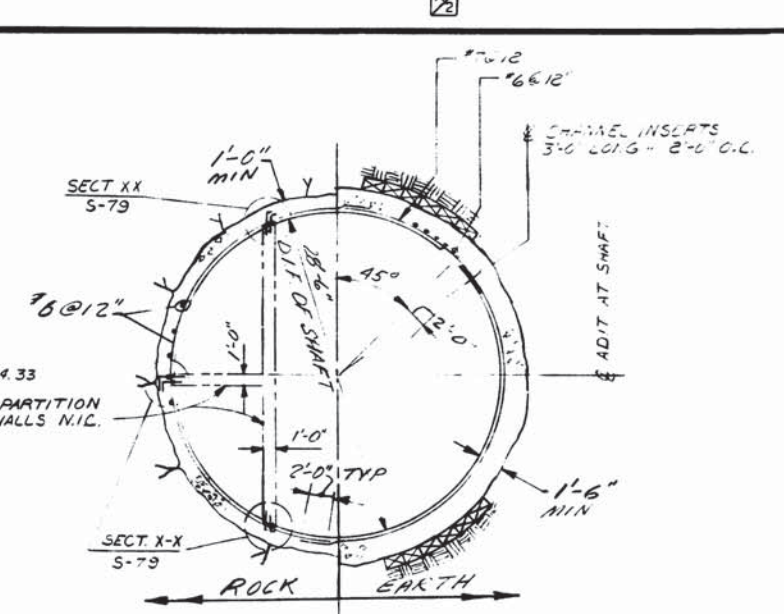
DRAWING NO. A11b-S-78 M276-138



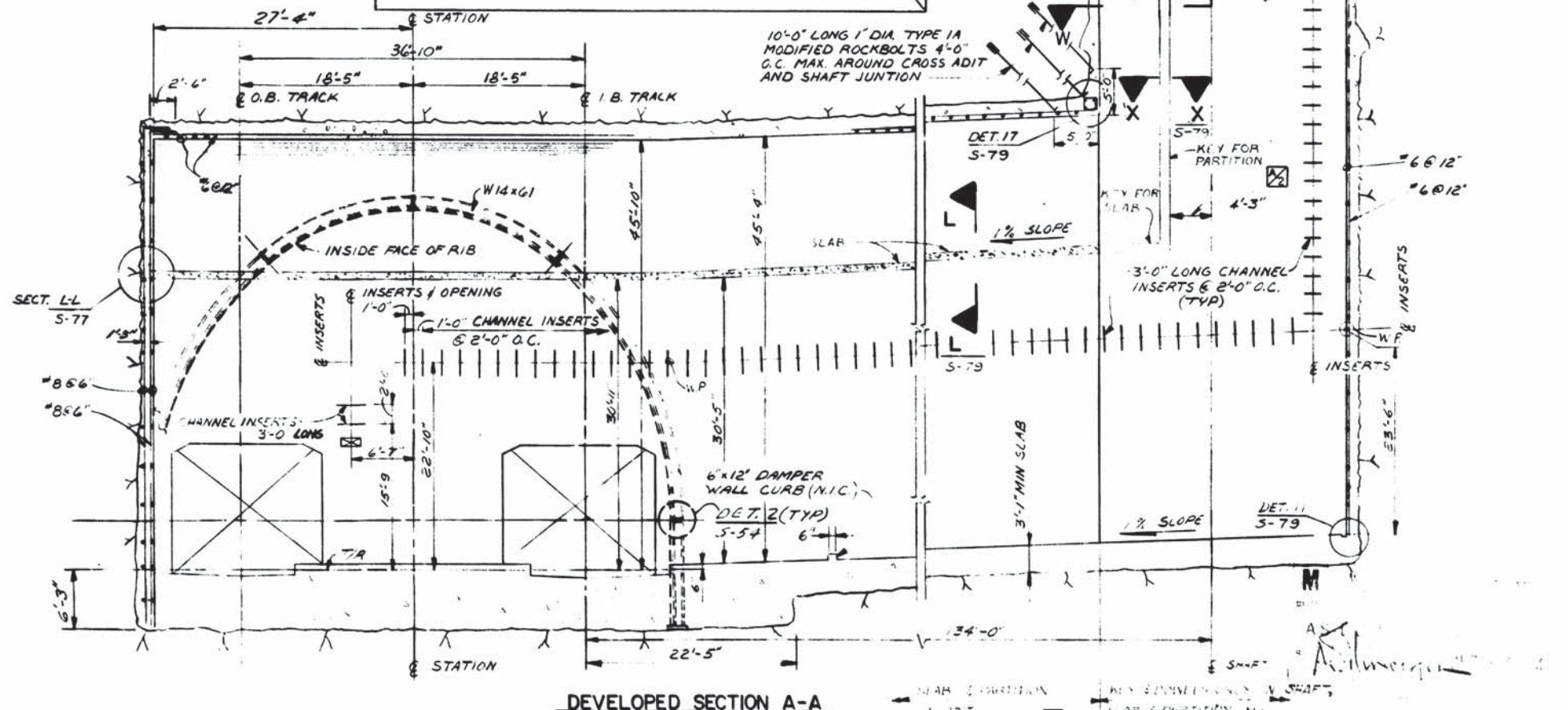
PLAN



N.I.C. PLAN HORSESHOE TUNNEL



SECTION W-W



DEVELOPED SECTION A-A

DESIGNED		DATE		REFERENCE DRAWINGS		REVISIONS	
NUMBER	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
1		7-11-77	MFC	ADDED SLAB & PARTITION IN ADIT			



WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

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ENGINEERS AND ARCHITECTS
SECTION DESIGNER

DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT

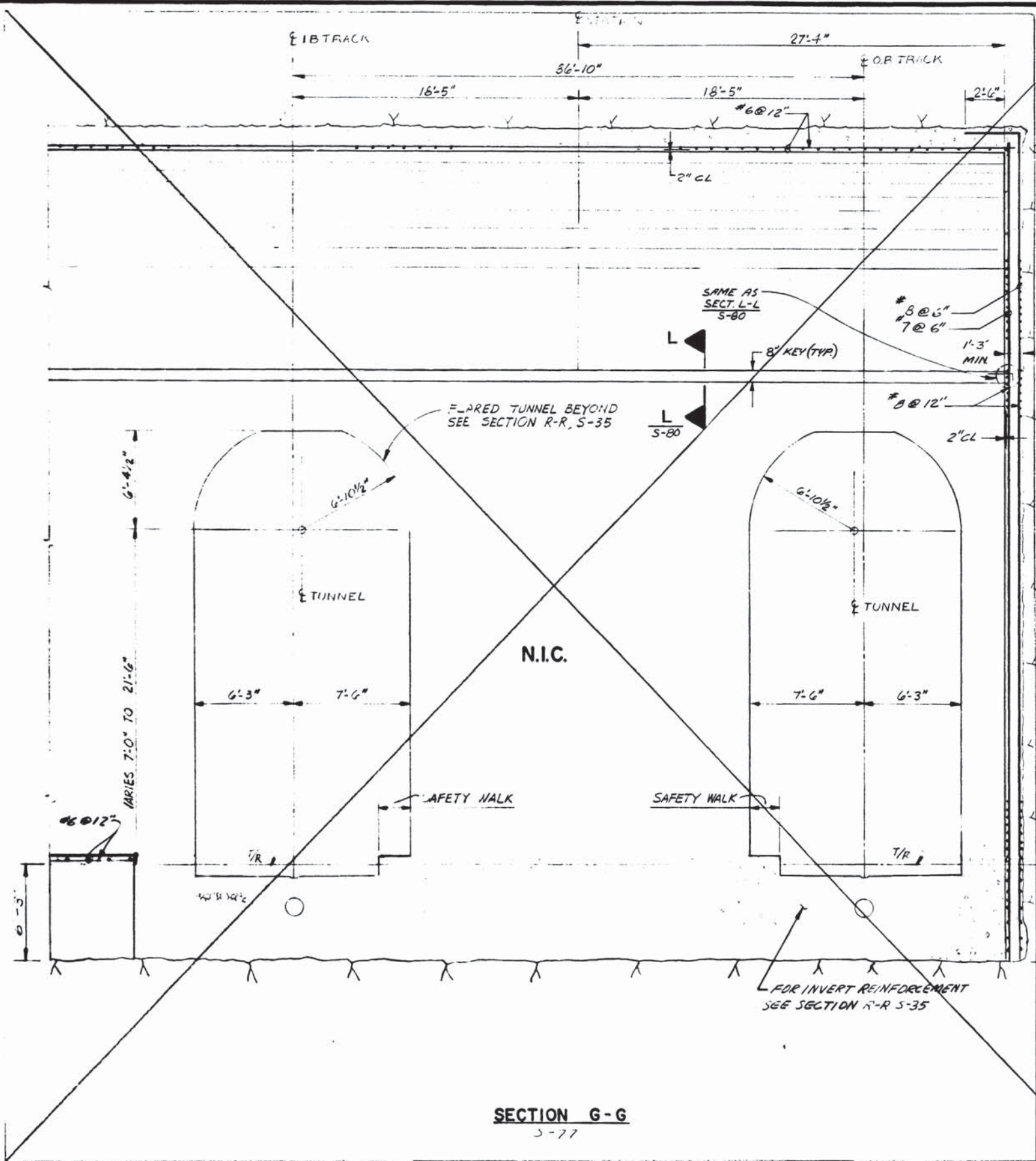
HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT

SUBMITTED *AP. Chase* DATE 02-13-77 APPROVED *Robert [Signature]*

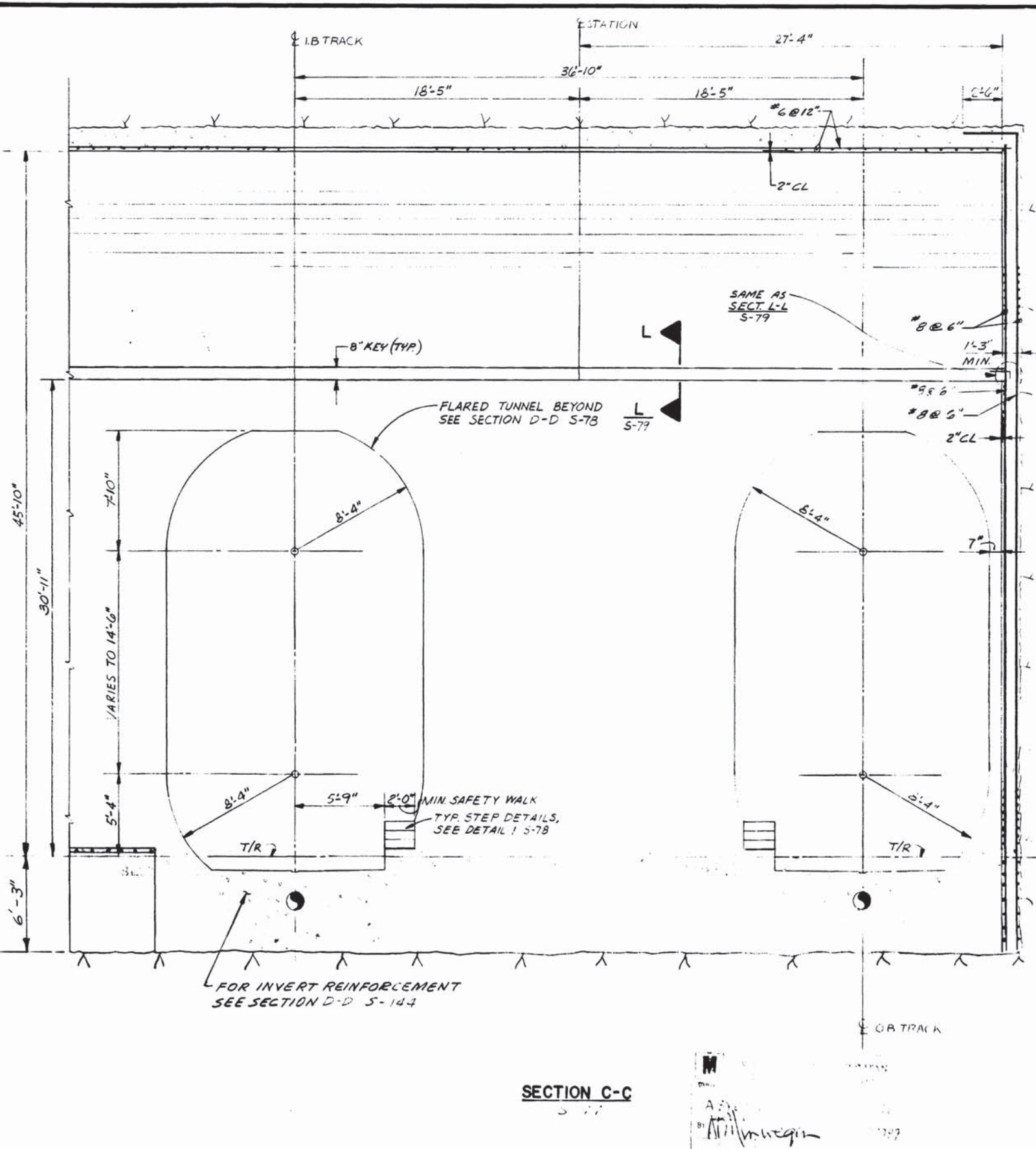
ROCKVILLE ROUTE
BETHESDA STATION NORTH VENT SHAFT
CONCRETE LINING

SCALE 1" = 1'-0" 10 2 4 8 16

DRAWING NO. A11b-S-77 M276-137



SECTION G-G
5-77



SECTION C-C
5-77

M
A
By *William*

DESIGNED	DATE	NUMBER	DESCRIPTION	DATE	BY	DESCRIPTION
J. E. MOMBEE	8-8-76	S-77	BETHESDA STATION NORTH VENT SHAFT			
H. C. MIN	8-28-76	ST-S-7	CONCRETE LINING			
R. A. BUTLER	10-1-74					



WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

MATHEWS • CHATELAIN • BEALL
ENGINEERS AND ARCHITECTS
SECTION DESIGNER

DE LEUW, CATHAR & COMPANY
GENERAL ENGINEERING CONSULTANT

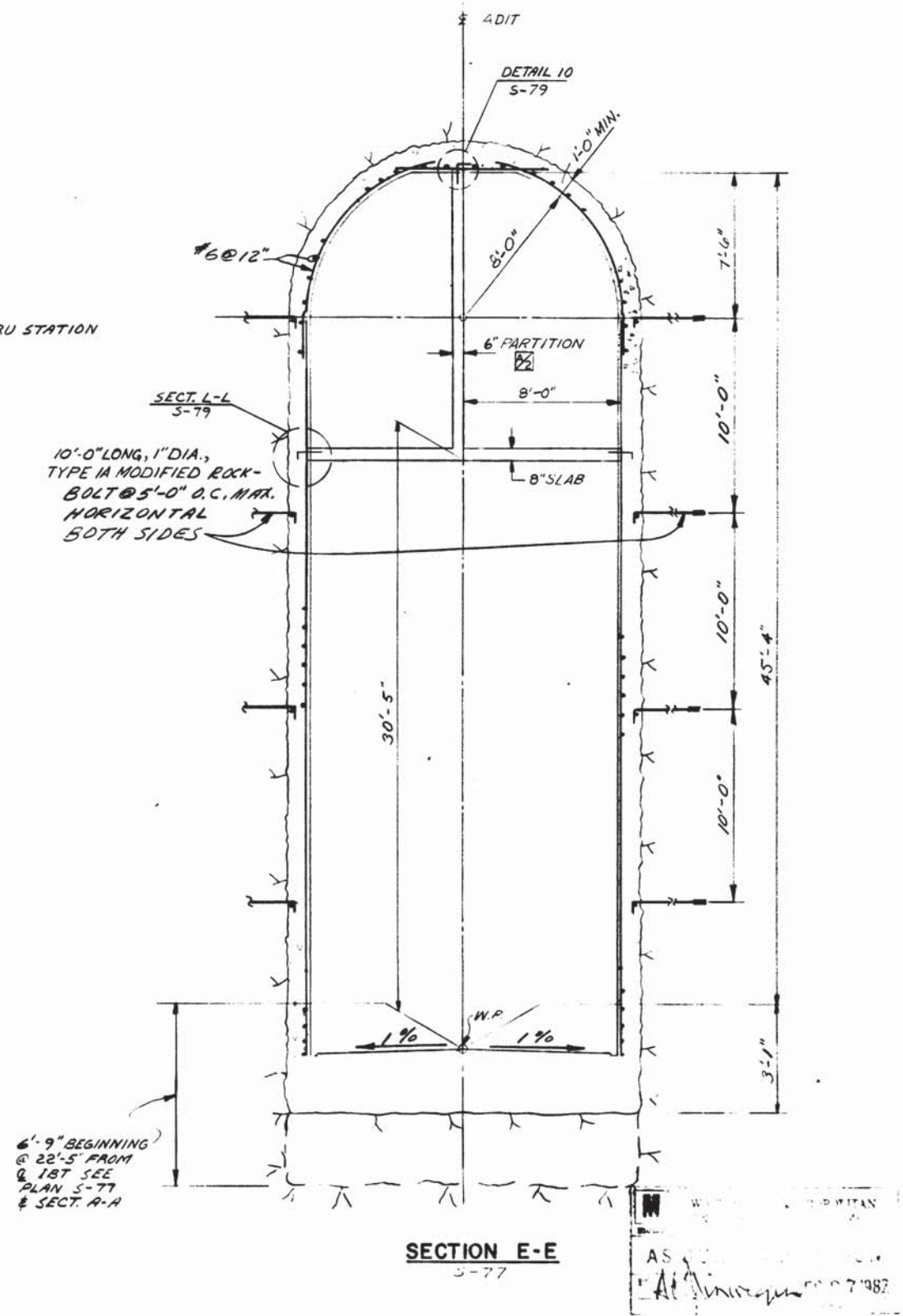
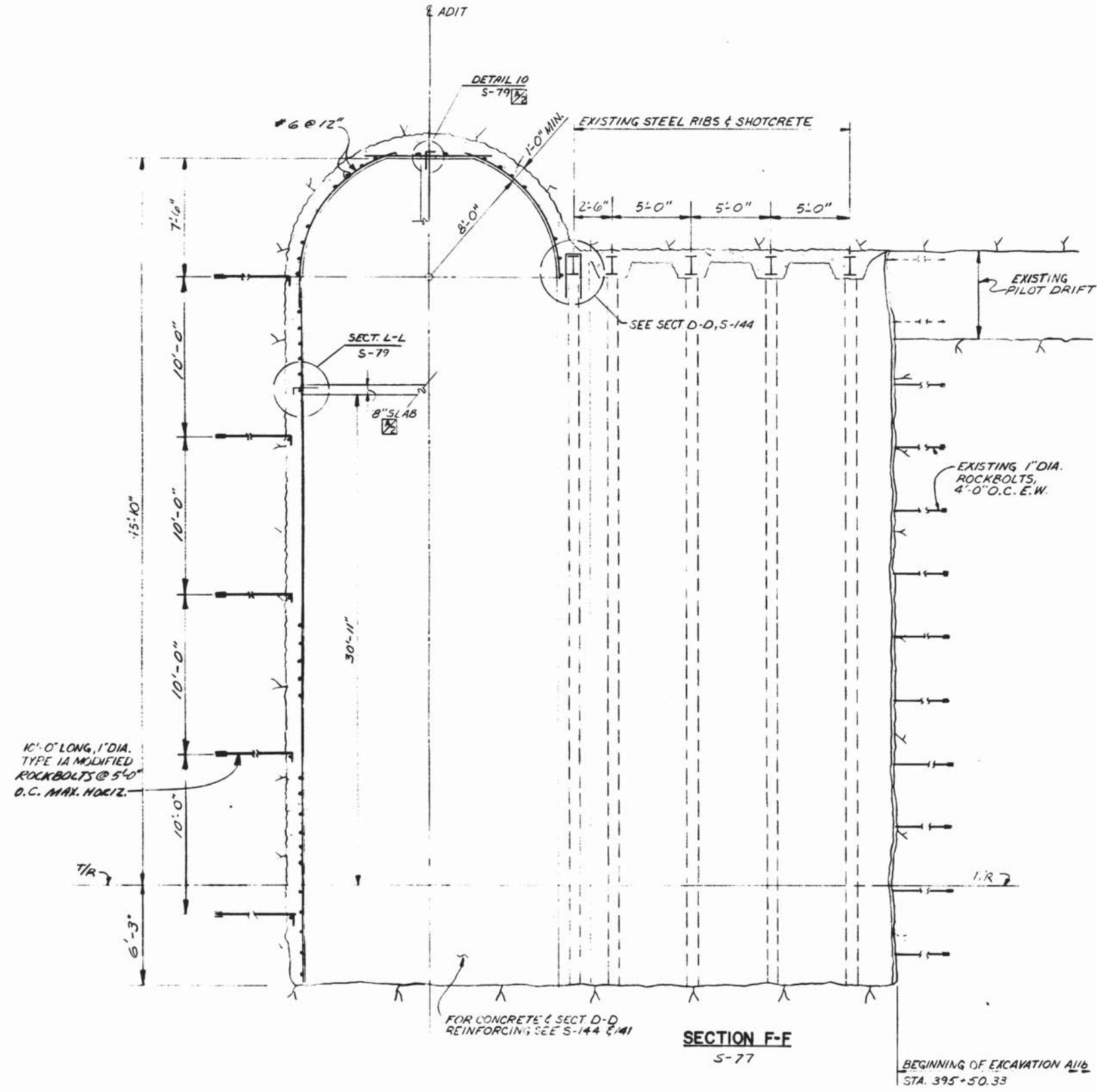
HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT

SUBMITTED *AP/1/77* DATE 05-12-77 APPROVED *Robert*

ROCKVILLE ROUTE
BETHESDA STATION NORTH VENT SHAFT
CONCRETE LINING

SCALE: 1/4" = 1'-0" 1 2 3 4 5

DRAWING NO. A11b-S-76 M276-136



DESIGNED J.E. MONROE DATE 8-12-79	REFERENCE DRAWINGS	REVISIONS		WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY		ROCKVILLE ROUTE			
DRAWN H.C. MIN DATE 8-27-79	NUMBER S-77 DESCRIPTION BETHESDA STATION NORTH VENT SHAFT	DATE 7/11/77 BY JLB DESCRIPTION ADDED SLAB & PARTITION		MATHEWS • CHATELAIN • BEALL ENGINEERS AND ARCHITECTS SECTION DESIGNER		DE LEUW, CATHER & COMPANY GENERAL ENGINEERING CONSULTANT		BETHESDA STATION NORTH VENT SHAFT CONCRETE LINING	
CHECKED B.A. BUTLER DATE 8-6-79				SUBMITTED <i>[Signature]</i> DATE 05-13-77		APPROVED <i>[Signature]</i>		SCALE 1/4" = 1'-0"	
APPROVED <i>[Signature]</i> DATE				DRAWING NO. A11b-S-75		M276-135		7/1987	

LATERAL PRESSURE DUE TO WEIGHT OF SOIL AND WATER

ADDITIONAL LATERAL PRESSURE DUE TO SURCHARGE LOADS

LOCATION	TOTAL DEPTH OF EXCAVATION	DEPTH FROM GROUND SURFACE TO BOTTOM OF EXCAVATION OR TOP OF WEATHERED ROCK	DEPTH FROM GROUND SURFACE TO G.W.T.	DEPTH FROM TOP OF WEATHERED ROCK TO BOTTOM OF EXCAVATION	DEWATERED SECTIONS				SECTIONS NOT DEWATERED					
					FLEXIBLE		RIGID		FLEXIBLE		RIGID			
					SHAPE OF PRESSURE DIAGRAM		SHAPE OF PRESSURE DIAGRAM		SHAPE OF PRESSURE DIAGRAM		SHAPE OF PRESSURE DIAGRAM			
STATION	D-H (FT.)	D (FT.)	d (FT.)	H (FT.)	P_D (PSF)	P_D (PSF)	P_D (PSF)	P_D (PSF)	P_D (PSF)	P_W (PSF)	P_D (PSF)	P_W (PSF)	P_D (PSF)	P_W (PSF)

TRAFFIC & CONSTRUCTION EQUIP. LOADS	BUILDING OR CONSTRUCTION LOADS																					
	DISTRIBUTION OF HORIZ. PRESSURE ON VERTICAL PLAN	DISTRIBUTION OF HORIZ. PRESSURE IN PLAN																				
<p>THIS LATERAL PRESSURE IS BASED ON AN ASSUMED TRAFFIC AND CONSTRUCTION EQUIPMENT SURCHARGE OF 600 P.S.F.</p> <p>FOR MORE SEVERE CONSTRUCTION LOADING SPECIAL ANALYSIS MUST BE MADE</p>	<table border="1"> <thead> <tr> <th>PARAMETERS</th> <th>n</th> <th>m</th> <th>P'_D</th> </tr> </thead> <tbody> <tr> <td>ISOLATED (INDIVIDUAL) FOOTING CONSIDERED AS POINT LOAD</td> <td>0.6</td> <td>0.4</td> <td>$(2.1-1.8a) Q'/D'^2$</td> </tr> <tr> <td>CONTINUOUS FOOTINGS CONSIDERED AS LINE LOAD PARALLEL TO RETAINING STRUCTURE</td> <td>0.4</td> <td>0.25</td> <td>$(1.1-0.5a) Q'/D'$</td> </tr> <tr> <td>AREAL LOAD</td> <td>0.4</td> <td>0.25</td> <td>$(0.8-0.5a) Q'/D'$</td> </tr> <tr> <td>CONTINUOUS FOOTING CONSIDERED AS LINE LOAD PERPENDICULAR TO RETAINING STRUCTURE</td> <td>0.6</td> <td>0.4</td> <td>$(1.4-1.2a) Q'/D'^2$</td> </tr> </tbody> </table> <p>HORIZONTAL PRESSURE ON RETAINING STRUCTURES NEED NOT BE CONSIDERED FOR SURCHARGE LYING AT A DISTANCE $a \geq 1$ FROM THE RETAINING STRUCTURE</p>	PARAMETERS	n	m	P'_D	ISOLATED (INDIVIDUAL) FOOTING CONSIDERED AS POINT LOAD	0.6	0.4	$(2.1-1.8a) Q'/D'^2$	CONTINUOUS FOOTINGS CONSIDERED AS LINE LOAD PARALLEL TO RETAINING STRUCTURE	0.4	0.25	$(1.1-0.5a) Q'/D'$	AREAL LOAD	0.4	0.25	$(0.8-0.5a) Q'/D'$	CONTINUOUS FOOTING CONSIDERED AS LINE LOAD PERPENDICULAR TO RETAINING STRUCTURE	0.6	0.4	$(1.4-1.2a) Q'/D'^2$	
PARAMETERS	n	m	P'_D																			
ISOLATED (INDIVIDUAL) FOOTING CONSIDERED AS POINT LOAD	0.6	0.4	$(2.1-1.8a) Q'/D'^2$																			
CONTINUOUS FOOTINGS CONSIDERED AS LINE LOAD PARALLEL TO RETAINING STRUCTURE	0.4	0.25	$(1.1-0.5a) Q'/D'$																			
AREAL LOAD	0.4	0.25	$(0.8-0.5a) Q'/D'$																			
CONTINUOUS FOOTING CONSIDERED AS LINE LOAD PERPENDICULAR TO RETAINING STRUCTURE	0.6	0.4	$(1.4-1.2a) Q'/D'^2$																			

MEDICAL CENTER SUBSTATION AND ESCALATORWAY

100 FT. FROM O.B. TRACK	150 FT. FROM O.B. TRACK	200 FT. FROM O.B. TRACK	250 FT. FROM O.B. TRACK	300 FT. FROM O.B. TRACK	P_D (PSF)	P_D (PSF)	P_D (PSF)	FROM GROUND SURFACE TO DEPTH OF 25 FEET USE 3 INCHES, BELOW 25 FEET USE 4 INCHES.	P_D (PSF)	P_W (PSF)	P_D (PSF)	P_D (PSF)	P_D (PSF)	P_W (PSF)	P_D (PSF)	P_W (PSF)
34.5'	32'	16'	2.8'	950	760	570		770	1,060	620	460	1,060				
101'	33'	15'	68'	960	770	580	IF SOLDIER PILE SPACING IS GREATER THAN 7 FEET OR THE PRESENCE OR UNUSUALLY HEAVY CONSTRUCTION SURCHARGE OR PARTICULARLY SOFT COHESIVE SOILS ARE ANTICIPATED, GREATER LAGGING THICKNESSES MAY BE REQUIRED.	770	1,130	820	460	1,130				
74'	30'	13'	44'	870	708	520		690	1,060	550	430	1,060				
42'	24'	9'	18'	700	560	420		530	940	420	320	940	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE
17'	17'	9'	—	500	400	300		420	500	340	250	500	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE

BETHESDA SUBSTATION, CHILLER PLANT & ESCALATORWAY

STA. 395+00	STA. 395+50	STA. 396+00	STA. 396+50	P_D (PSF)	P_D (PSF)	P_D (PSF)	FROM GROUND SURFACE TO DEPTH OF 25 FEET USE 3 INCHES, BELOW 25 FEET USE 4 INCHES.	P_D (PSF)	P_W (PSF)	P_D (PSF)	P_D (PSF)	P_D (PSF)	P_W (PSF)
47'	47'	20'	—	1,380	1,110	830		1,090	1,690	870	650	1,690	
91'	42'	20'	4'	1,280	1,020	770	IF SOLDIER PILE SPACING IS GREATER THAN 7 FEET OR THE PRESENCE OR UNUSUALLY HEAVY CONSTRUCTION SURCHARGE OR PARTICULARLY SOFT COHESIVE SOILS ARE ANTICIPATED, GREATER LAGGING THICKNESSES MAY BE REQUIRED.	1,030	1,380	820	620	1,380	
62'	43'	20'	19'	1,330	1,060	800		1,060	1,440	850	640	1,440	
45'	44'	20'	1'	1,320	1,060	790		1,100	1,500	880	660	1,500	

- MATERIALS SHOWN BY THE BIRKING LOGS TO HAVE STANDARD PENETRATION RESISTANCE OF 60 OR MORE BLOWS PER FOOT, ARE GENERALLY CEMENTED AND CONTAIN ROCK-LIKE REMNANTS. THE CONTRACTOR IS ADVISED THAT EXCAVATION SUPPORT USING FLEXIBLE SHEET PILE CONSTRUCTION METHODS (SECTIONS NOT DEWATERED) MAY NOT BE POSSIBLE.
- WORK TOGETHER WITH Dwg. S-211.
- LATERAL PRESSURE IN WEATHERED ROCK MAY DEVELOP IF ROCK WEDGES SLIP ALONG UNFAVORABLY DIPPING FOLIATION OR JOINT PLANES. CALCULATIONS ASSUMING A ROCK WEDGE DIPPING AT 60° FROM THE HORIZONTAL WITH AN AVERAGE FRICTION ANGLE OF 20° ALONG THE SURFACE IN WEATHERED ROCK INDICATE THAT THE SUPPORT SYSTEM SHOULD BE ABLE TO RESIST LATERAL PRESSURES (DEWATERED CONDITIONS) SUBJECT TO REVIEW BY THE ENGINEER. ROCK PRESSURES SHOULD BE ESTIMATED AS ILLUSTRATED BY THE MODEL AND SAMPLE CALCULATION ON S-211.

DEFINITION OF SYMBOLS:

- a_0 = DISTANCE FROM RETAINING STRUCTURE TO: (1) FOOTING LOAD, (2) PARALLEL LINE LOAD, (3) LEADING EDGE OF AREAL LOAD, (4) PERPENDICULAR LINE LOAD (FT.).
- B = LENGTH OF AREAL LOAD IN DIRECTION PARALLEL TO THE SIDE OF EXCAVATION (FT.).
- d = DEPTH FROM GROUND SURFACE TO G.W.T. (FT.).
- D = DEPTH FROM GROUND SURFACE TO BOTTOM OF EXCAVATION OR TOP OF WEATHERED ROCK (FT.).
- D' = DEPTH FROM HORIZONTAL LOADING PLANE TO BOTTOM OF EXCAVATION (FT.).
- GWT = GROUND WATER TABLE.
- P_D = CALCULATED LATERAL EARTH PRESSURE TO BE USED IN DESIGN OF TEMPORARY RETAINING STRUCTURES (P.S.F.). BUOYANT WEIGHT FOR SOIL BELOW THE G.W.T. ARE INCLUDED IN THE TABLE UNDER "SECTIONS NOT DEWATERED".
- P'_D = CALCULATED MAXIMUM LATERAL PRESSURE DUE TO SURCHARGE (P.S.F.).
- Q' = A SURCHARGE: (1) PARALLEL TO A RETAINING STRUCTURE AND AREAL LOAD (PLF), (2) FROM ISOLATED FOOTING (LBS), (3) PERPENDICULAR TO A RETAINING STRUCTURE (1-a) $D'w'$ (LBS).
- w' = LINEAR LINE LOAD (PLF) EXTENDING TO DISTANCE = D' PERPENDICULAR TO RETAINING STRUCTURE.
- a, m, n = DIMENSIONLESS FACTORS.
- P_w = HYDROSTATIC PRESSURE (P.S.F.)
- H = DEPTH FROM TOP OF WEATHERED ROCK TO BOTTOM OF EXCAVATION (FT.).

NOTES:

- CALCULATIONS MAY BE BASED ON THE ASSUMPTION THAT THE EXCAVATION IS DEWATERED, WHEN CONSTRUCTED WITH SOLDIER BEAMS AND LAGGING, OR WHEN OTHER POSITIVE METHODS OF DRAINING THE SOIL ARE USED.
- LOADS FROM STRUCTURES NOT UNDERPINNED ARE TO BE DETERMINED BY THE CONTRACTOR AND REVIEWED BY THE ENGINEER.
- FOR EVALUATION OF THE LATERAL PRESSURE UNDER A GIVEN SET OF CONDITIONS, LATERAL PRESSURE FROM SURCHARGE LOADS SHALL BE SUPERPOSED ON LATERAL PRESSURE FROM SOIL WEIGHT (TRAPEZOIDAL DIAGRAM) AND WATER (TRIANGULAR DIAGRAM).
- IF ANY LOADINGS OCCUR, WHICH ARE NOT DESCRIBED HEREON, ADEQUATE MEASURES MUST BE TAKEN FOR THESE CONDITIONS, SUBJECT TO REVIEW BY THE ENGINEER.
- PRESSURE TABULATED UNDER COLUMNS (A) TO BE USED FOR EXCAVATION SUPPORT DESIGN. PRESSURE TABULATED UNDER COLUMNS (B) TO BE USED FOR STRUT REMOVAL DESIGN FOLLOWING CONSTRUCTION OF INVERT SLAB.

MATHEWS • CHATELAIN • BEALL
 ENGINEERS AND ARCHITECTS
 SECTION DESIGNER
 AS APPLICABLE TO 271932

DESIGNED	DATE	NUMBER	DESCRIPTION	DATE	BY	DESCRIPTION
S.C.T.	12-75	S-211	FOR OTHER INFORMATION			
DRAWN	E.V.R.					
CHECKED	S.C.T.					
APPROVED	<i>Stewart & Beall</i>					



WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

MATHEWS • CHATELAIN • BEALL
 ENGINEERS AND ARCHITECTS
 SECTION DESIGNER

DE LEUW, CATHAR & COMPANY
 GENERAL ENGINEERING CONSULTANT

HARRY WEESE & ASSOCIATES
 GENERAL ARCHITECTURAL CONSULTANT

SUBMITTED *Stewart & Beall* DATE 5/16/77 APPROVED *Robert Willey*

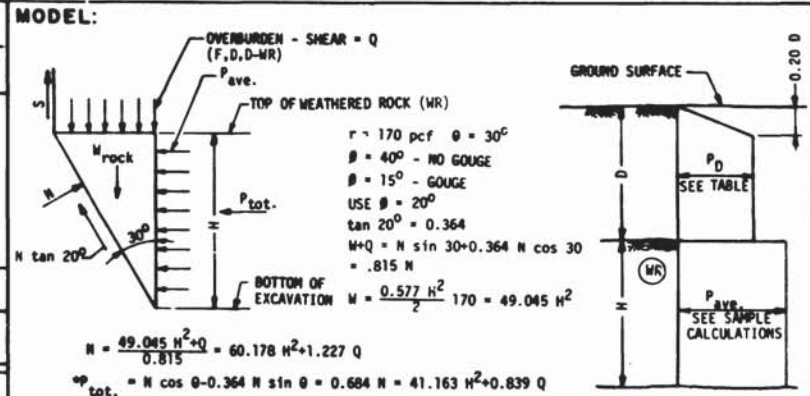
ROCKVILLE ROUTE
 LATERAL PRESSURES FOR THE DESIGN OF
 TEMPORARY EARTH RETAINING STRUCTURES

SCALE: NONE DRAWING NO. A11b-S-213 M276-134

LATERAL PRESSURE DUE TO WEIGHT OF SOIL AND WATER

LATERAL PRESSURE IN ROCK-OPEN CUT(S-213)

LOCATION	TOTAL DEPTH OF EXCAVATION	DEPTH FROM GROUND SURFACE TO BOTTOM OF EXCAVATION OR TOP OF WEATHERED ROCK	DEPTH FROM GROUND SURFACE TO G.M.T.	DEPTH FROM TOP OF WEATHERED ROCK TO BOTTOM OF EXCAVATION	DEWATERED SECTIONS				SECTIONS NOT DEWATERED					
					DEWATERED SECTIONS				FLEXIBLE			RIGID		
					SHAPE OF PRESSURE DIAGRAM				SHAPE OF PRESSURE DIAGRAM			SHAPE OF PRESSURE DIAGRAM		
STATIONS	D+H	D	d	H	P _D	P _D	P _D	P _D	P _D	P _M	P _D	P _M	P _D	P _M



UPPER CHAMBER OF SHAFTS

STATION	D	d	H	P _D	P _D	P _D	P _D	P _M	P _D	P _M	P _D	P _M
BELLEVUE DRIVE STA. 300+08	53'	33'	20'	980	790	590	840	810	670	500	810	
LOGGIST HILL ROAD STA. 488+55	20'	30'	30'	880	770	580	880	0	780	580	0	
NORTH DRIVE STA. 466+30	20'	30'	11'	820	740	560	690	1,190	650	420	1,190	
MEDICAL CENTER STATION SOUTH STA. 443+25.08	42'	36'	55'	1,100	880	660	900	1,060	720	640	1,060	
WEST VIRGINIA AVENUE STA. 418+60.83	26'	28'	26'	810	650	490	740	0	600	440	0	
ELM STREET STA. 308+58	25'	25'	20'	800	640	480	710	310	570	430	310	

BETHESDA STATION ELEVATOR SHAFT

BETHESDA STATION ELEVATOR SHAFT STA. 393+76.25	117.5'	44'	17'	63.5'	1,630	1,300	980	1,000	2,300	800	800	2,300
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NOTES

- FOR ADDITIONAL LATERAL PRESSURE DUE TO SURCHARGE LOADS SEE DWG. S-213.
- THE DESIGN PRESSURES FOR ALL MEMBERS SUPPORTING WEATHERED ROCK EXCAVATION SHALL BE OBTAINED BY MULTIPLYING THE BASIC AVERAGE PRESSURES BY 0.8 AS SHOWN IN THE SAMPLE CALCULATIONS.
- LATERAL PRESSURES IN SHAFTS IN WEATHERED ROCK MAY DEVELOP IF ROCK WEDGES SLIP ALONG UNFAVORABLY DIPPING FOLIATION OR JOINT PLANES. USE A LATERAL DESIGN PRESSURE OF 2.0 KSF FOR ROCK SHAFT SUPPORT SYSTEM UNLESS AN ALTERNATE PRESSURE CAN BE DEMONSTRATED BASED ON FIELD CONDITIONS.
- WORK TOGETHER WITH DWG. S-213.

AS B...
A. J. ...

DESIGNED G.C.T. 12-75
DRAWN R.V.B. 2-75
CHECKED G.C.T. 12-75
APPROVED [Signature] 5/11

REFERENCE DRAWINGS		REVISIONS	
NUMBER	DESCRIPTION	DATE	BY
S-213	FOR OTHER INFORMATION		



WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

MATHEWS • CHATELAIN • BEALL
ENGINEERS AND ARCHITECTS
SECTION DESIGNER

DE LEUW, CATHY & COMPANY
GENERAL ENGINEERING CONSULTANT

HARRY WEISE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT

SUBMITTED [Signature] DATE 5/16/77

APPROVED [Signature]

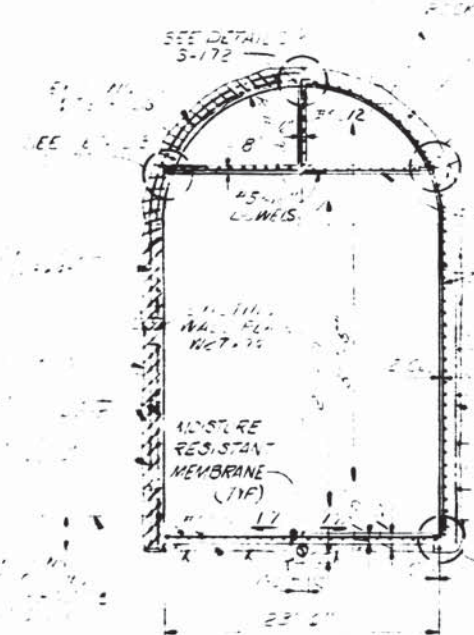
ROCKVILLE ROUTE

LATERAL PRESSURES FOR THE DESIGN OF TEMPORARY EARTH RETAINING STRUCTURES

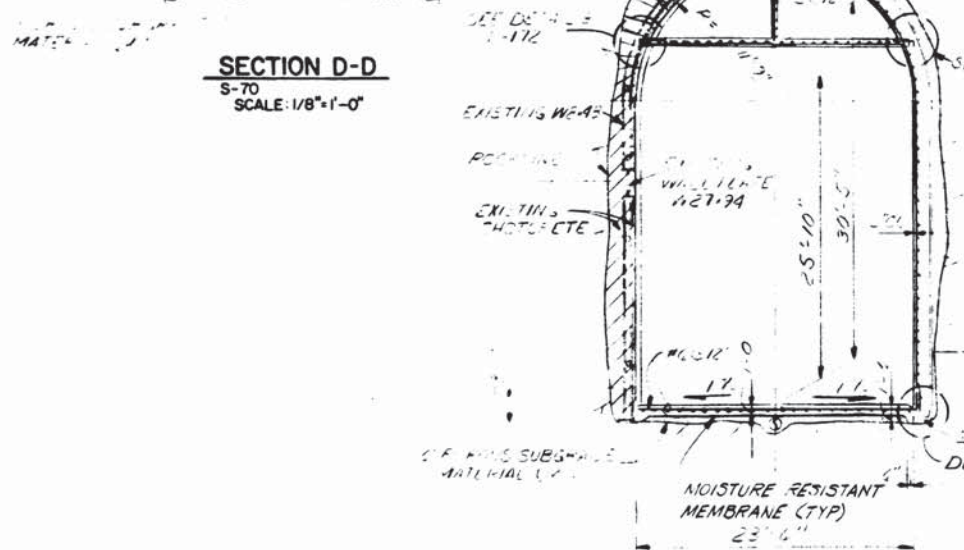
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WORKSHEET NO. A11b-S-211 M276-133

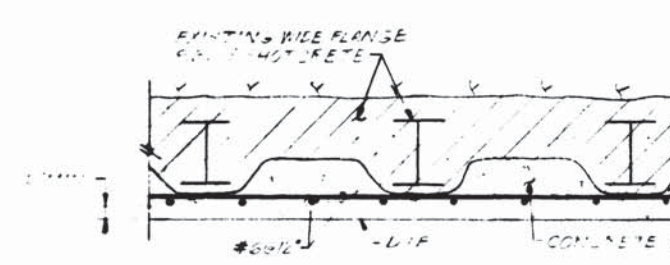
SYMM. ABOUT Q



SECTION D-D
S-70
SCALE: 1/8"=1'-0"



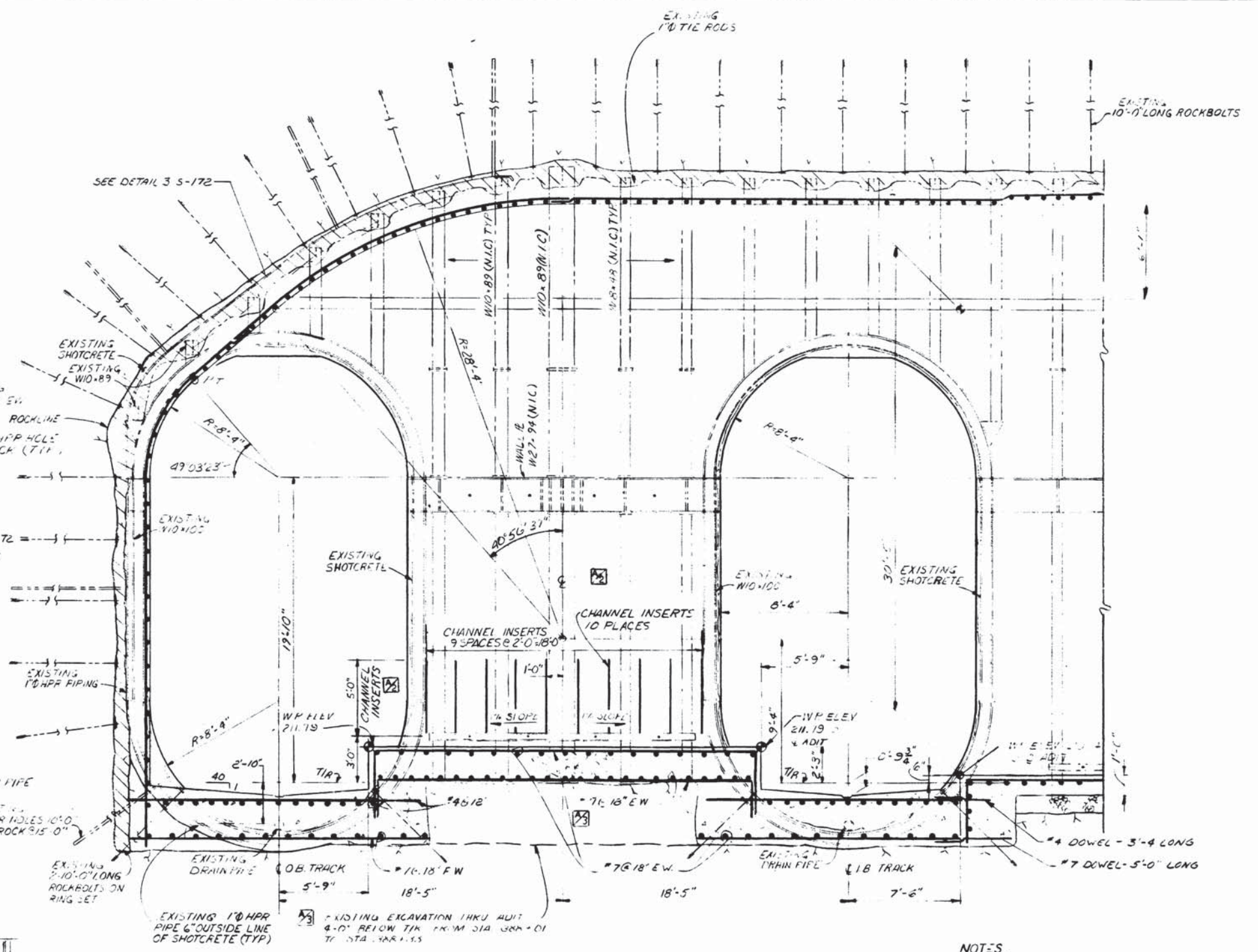
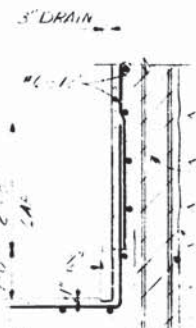
SECTION X-X
S-70
SCALE: 1/8"=1'-0"



TYPICAL REINFORCEMENT FOR SHAFT, ADIT, & CROSS ADIT
SCALE: 3/4"=1'-0"

DESIGNED	DATE	REFERENCE DRAWINGS		REVISIONS		
		NUMBER	DESCRIPTION	DATE	BY	DESCRIPTION
R.A. BUTLER	12-2-75	S-70	CONCRETE LINING	7/11/77	JLB	ADDED CHANNEL INSERTS
J.L. BISHOP	12-3-75	S-72	CONCRETE LINING	10/12/77	ELB	RAISED ADIT SLAB
A.B. WIEGAND	10-18-75	BT-S-7	BOULDER			
APPROVED	DATE					

DETAIL-2
SCALE: 3/4"=1'-0"



SECTION E-E
S-70

NOTES
1. HFR SYSTEM WAS INSTALLED BY OTHER



WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

MATHEWS • CHATELAIN • BEALL
ENGINEERS AND ARCHITECTS
SECTION DESIGNER

DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT

HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT

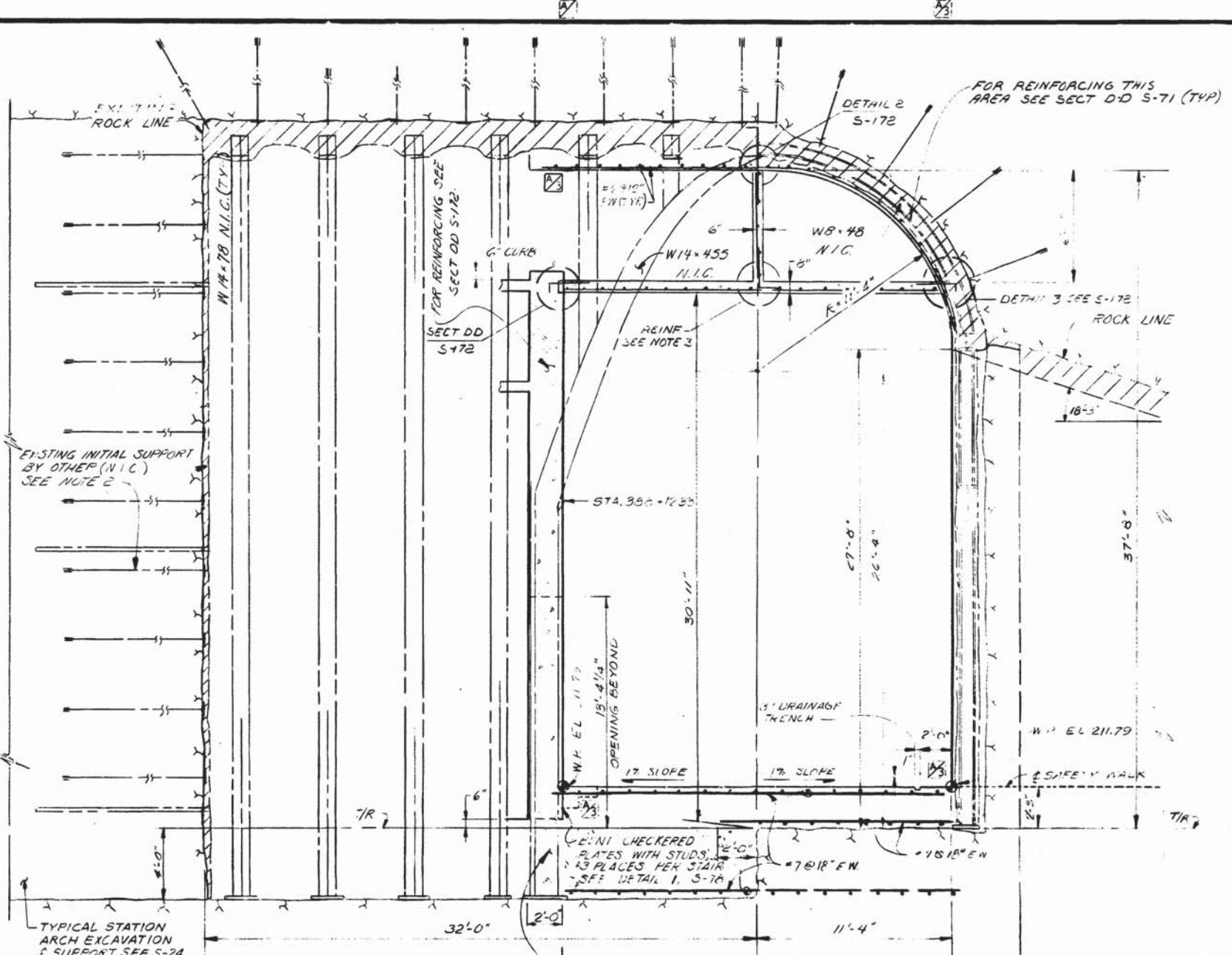
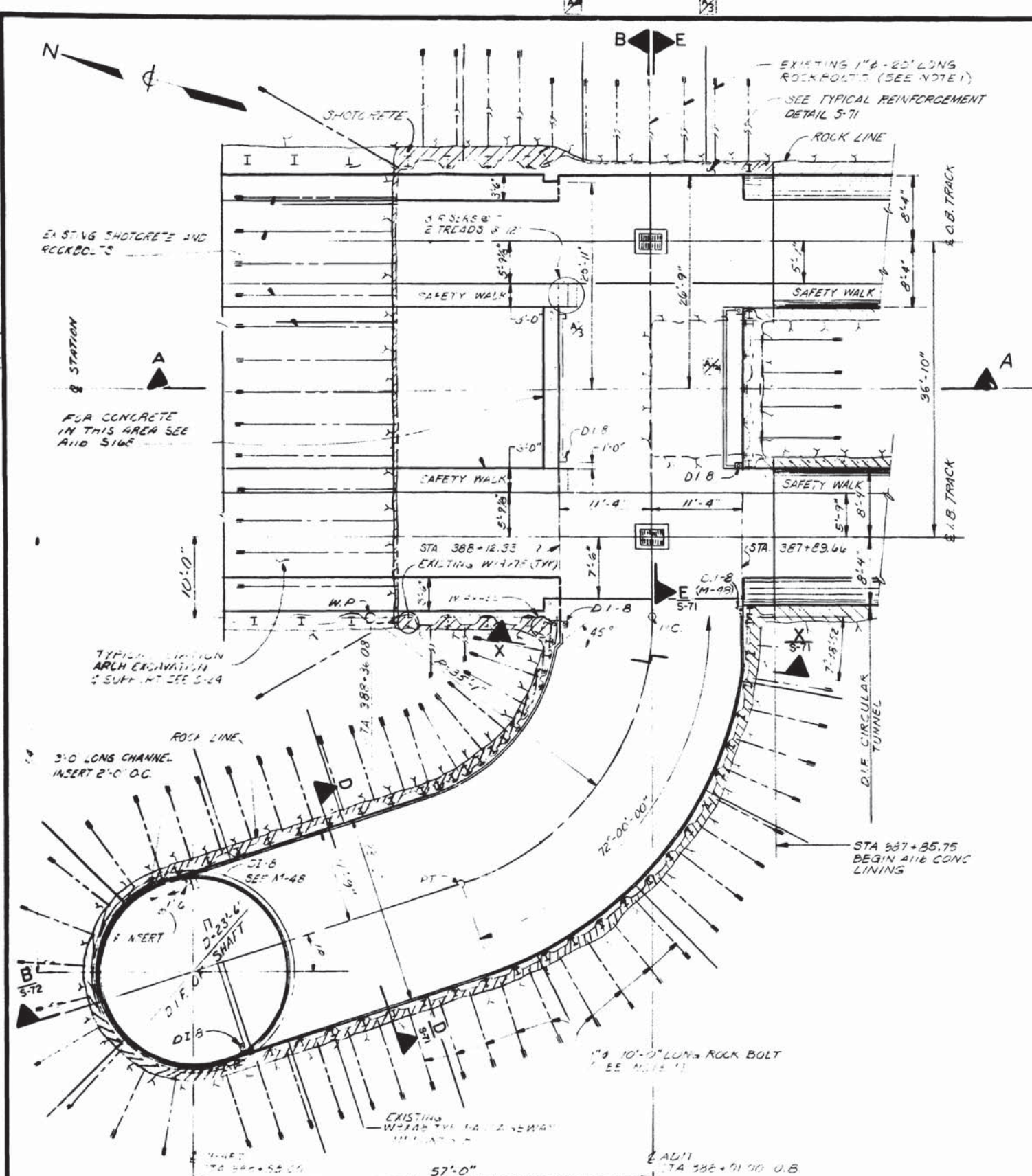
SUBMITTED *[Signature]* DATE 02-13-77 APPROVED *[Signature]*

ROCKVILLE ROUTE
ELM STREET VENT SHAFT
CONCRETE LINING

SCALE: 1/4"=1'-0" AND AS NOTED

DRAWING NO. **Allb-S-71**

M276-131



SECTION A-A
SCALE: 1/4" = 1'-0"

- NOTES:**
- EXISTING SHOTCRETE AREA, ROCK BOLTS AND STRUCTURAL STEEL TO REMAIN IN PLACE UNLESS NOTED.
 - EXISTING INITIAL SUPPORT BY OTHER (N.I.C.) TO BE REMOVED BY A.I.E. CONTRACTOR.
 - FOR REINFORCING IN THE PARTITION WALL AND SLAB OF THE CROSS ADIT SEE DWG S-172.

S-31	FLOATING SLAB TYPE AC PLAN SOUTH
S-71	CONCRETE LINING
S-72	CONCRETE LINING

REFERENCE DRAWINGS		REVISIONS		
NUMBER	DESCRIPTION	DATE	BY	DESCRIPTION
S-172	PETHESDA STATION SOUTH SERVICE AREA	10/12/77	ELB	RAISED ADIT SLAB
M-06	PETHESDA STATION ELM STREET VENT SHAFT			
F-9	PETHESDA STATION NORTH & SOUTH ANCILLARY SPACES			
S-169	SOUTH SERVICE AREA SECTION A-A			
M-48	DRAIN			

DESIGNED	R.A. BUTLER	DATE	10-7-76
DRAWN	J.L. BISHOP	DATE	10-19-76
CHECKED	A.B. WIEGAND	DATE	10-22-76
APPROVED		DATE	



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GENERAL ENGINEERING CONSULTANT

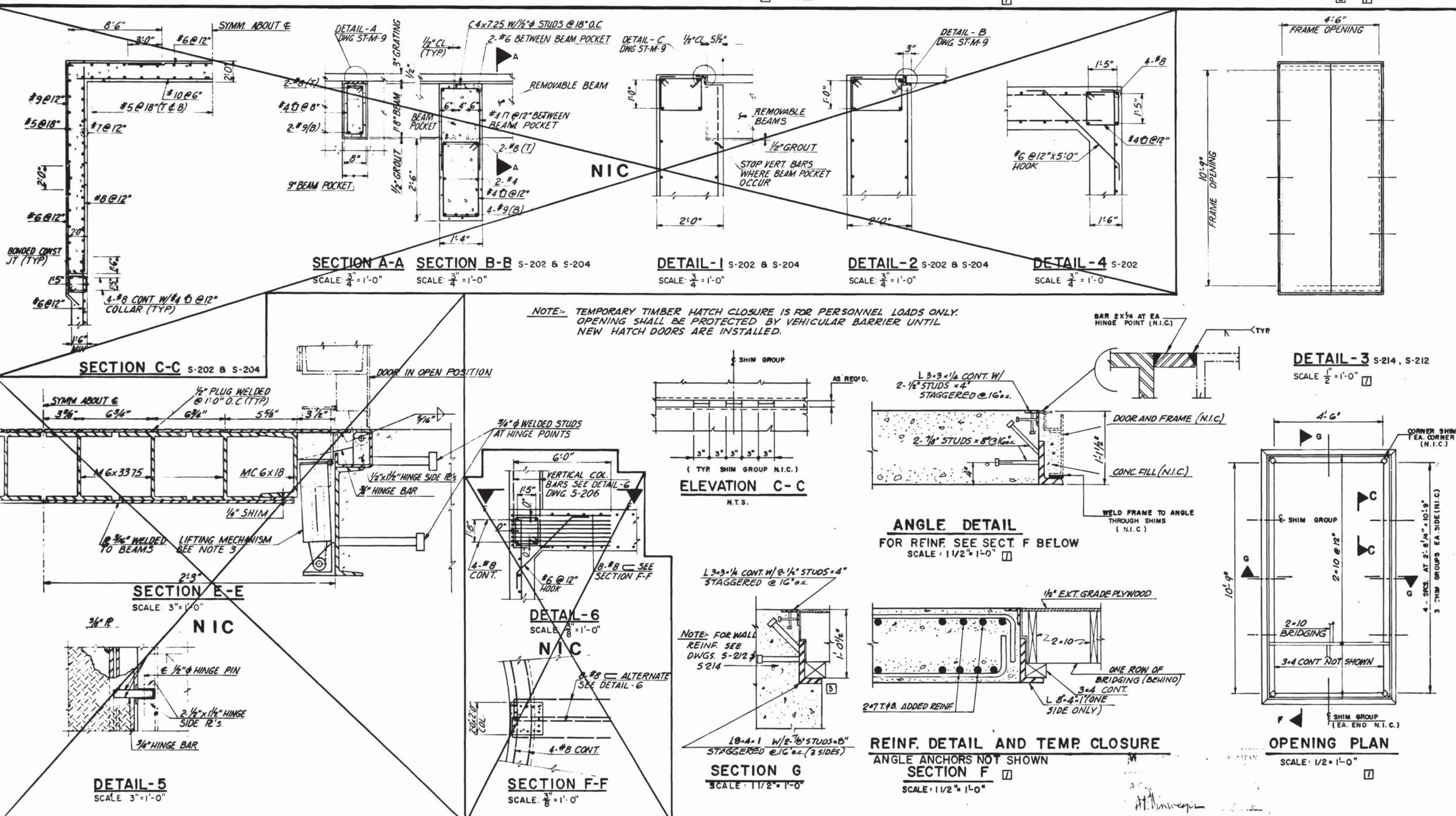
HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT

SUBMITTED: [Signature] DATE: 05-13-77 APPROVED: [Signature]

ROCKVILLE ROUTE
ELM STREET VENT SHAFT
CONCRETE LINING

SCALE: 1/4" = 1'-0" 10 2 4 6 8 10 AND AS NOTED

DRAWING NO. **Al1b-S-70** M276-130



DESIGNED	DATE	NUMBER	DESCRIPTION	DATE	BY	DESCRIPTION
8.C.T.	10-75	5-100	ABBREVIATIONS AND SYMBOLS	5-6-80	N.S.	PCO#12 - DELETE HS 20-44
DRAWN	10-75	5-101	STRUCTURAL NOTES			HATCH DOOR - ADDED DRG.
CHECKED	8-76			8-7-80	N.S.	SECTION 'G' ADDED [2]
APPROVED	5/77			12-21	W.K.	PCO#12 - SECTION 'G' MODIFIED

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

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ENGINEERS AND ARCHITECTS
SECTION DESIGNER

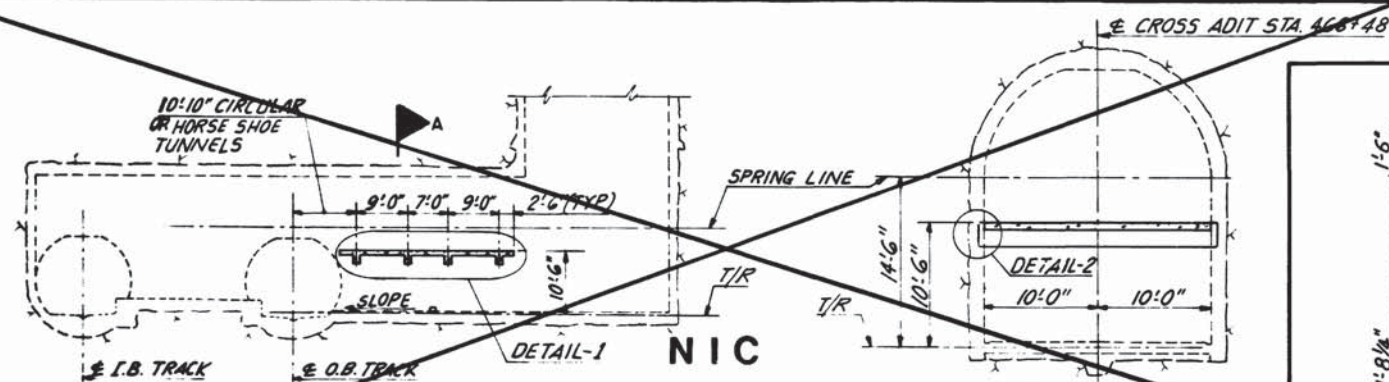
DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT

HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT

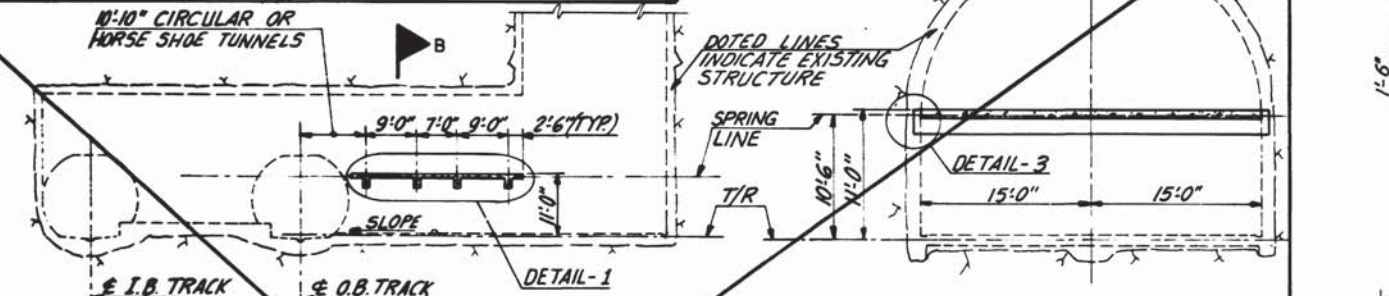
SUBMITTED *Stewart & Buce* DATE 5/16/77 APPROVED *Robert W. Weese*

ROCKVILLE ROUTE
MISCELLANEOUS SHAFT DETAILS

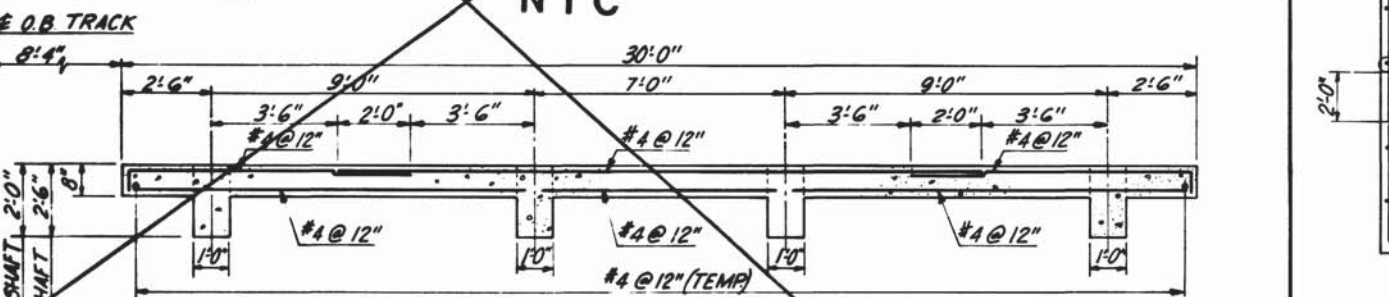
SCALE: AS NOTED DRAWING NO. **A11b-S-203** M276-129



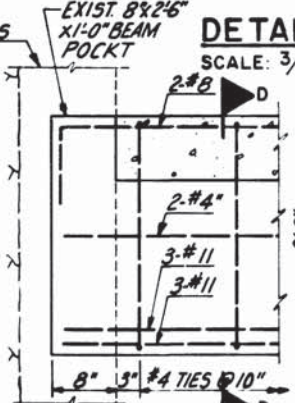
NORTH DRIVE FAN SHAFT
SECTION AT STA. 466+48
SCALE: 1/16" = 1'-0"



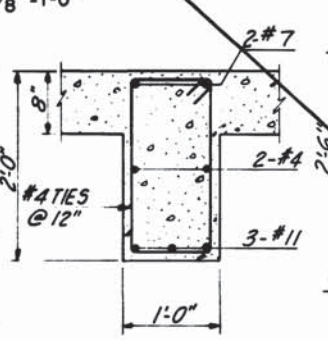
WEST VIRGINIA FAN SHAFT
SECTION AT STA. 419+50.83
SCALE: 1/16" = 1'-0"



DETAIL-2
SCALE: 1" = 1'-0"



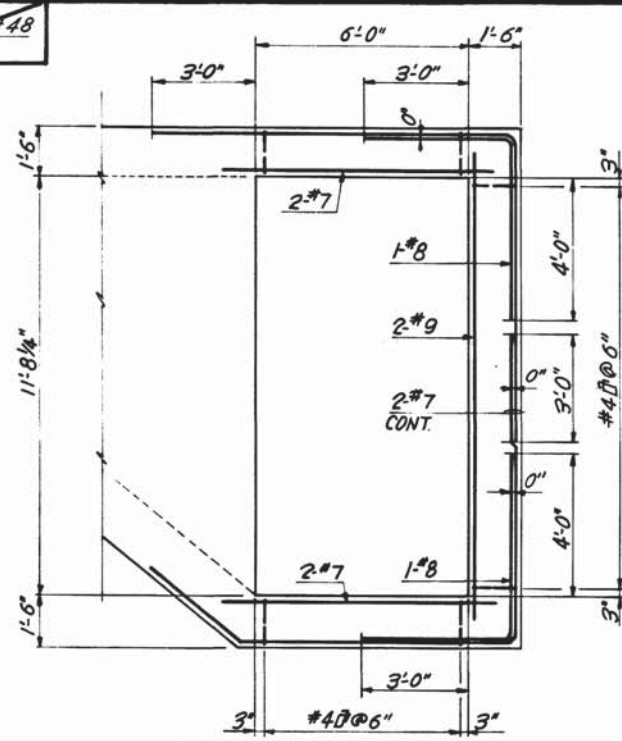
DETAIL-1
SCALE: 3/8" = 1'-0"



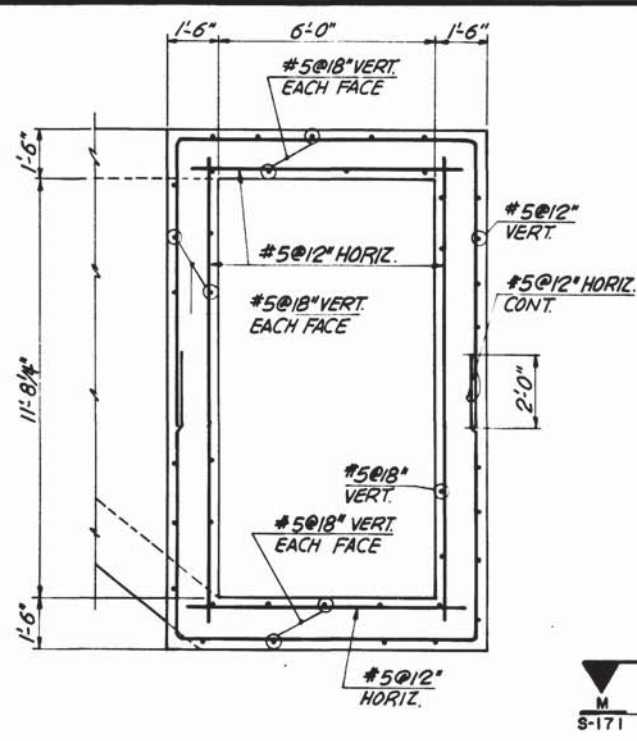
DETAIL-3
SCALE: 1" = 1'-0"



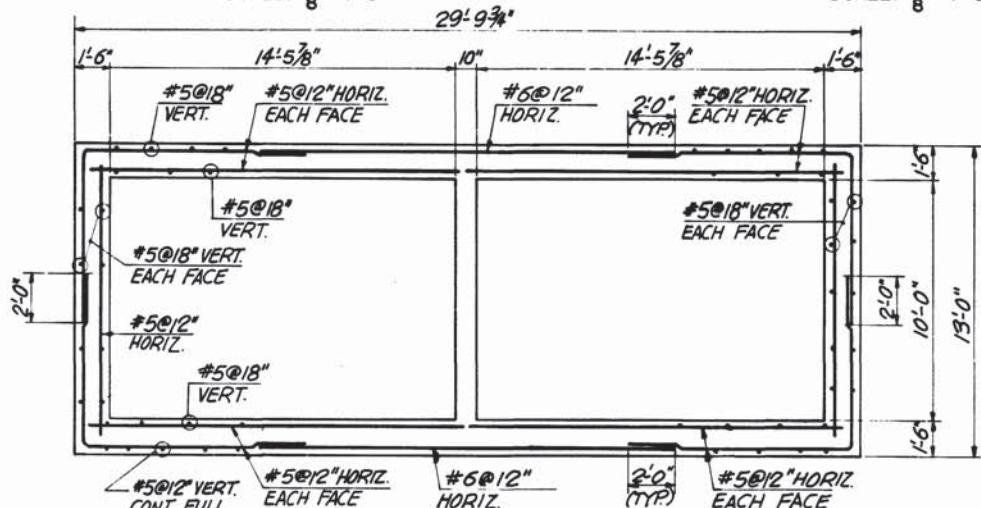
SECTION D-D
SCALE: 1" = 1'-0"



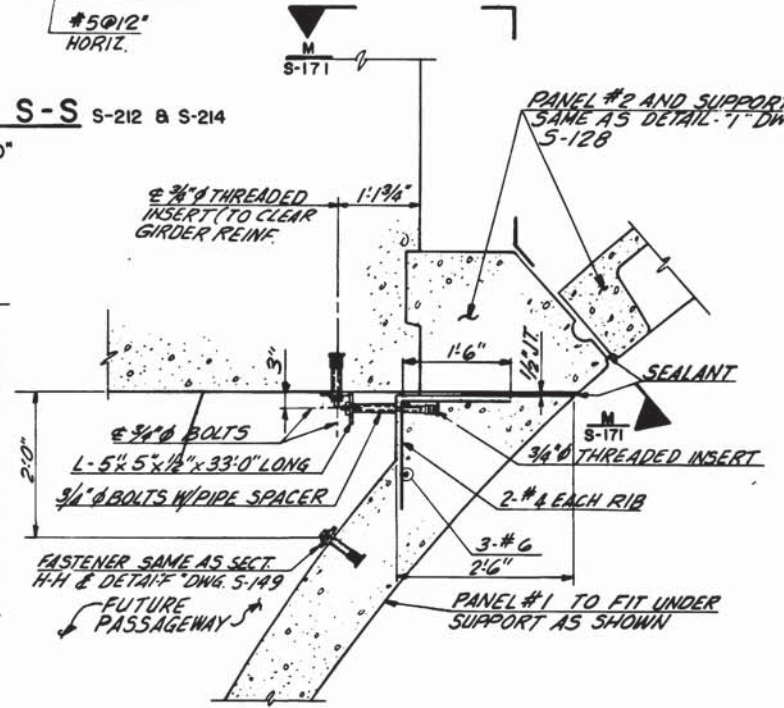
SECTION R-R S-212 & S-214
SCALE: 3/8" = 1'-0"



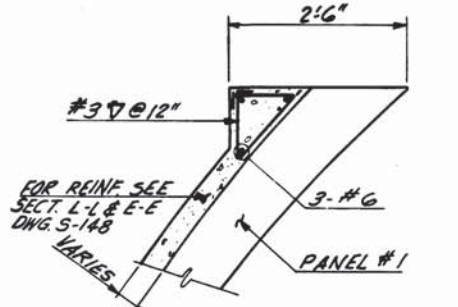
SECTION S-S S-212 & S-214
SCALE: 3/8" = 1'-0"



SECTION T-T S-212 & S-214
SCALE: 1/4" = 1'-0"



SECTION P-P S-169, S-171
S-157 & S-35
SCALE: 3/4" = 1'-0"



SECTION Q-Q S-150
SCALE: 3/4" = 1'-0"

DESIGNED	GCT	12-75	DATE	NUMBER	DESCRIPTION	DATE	BY	DESCRIPTION
DRAWN	EVR	12-75	DATE	5-100	ABBREVIATIONS AND SYMBOLS			
CHECKED	GCT	5-76	DATE	5-101	STRUCTURAL NOTES			
APPROVED	<i>[Signature]</i>	5/77	DATE					

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SECTION DESIGNER

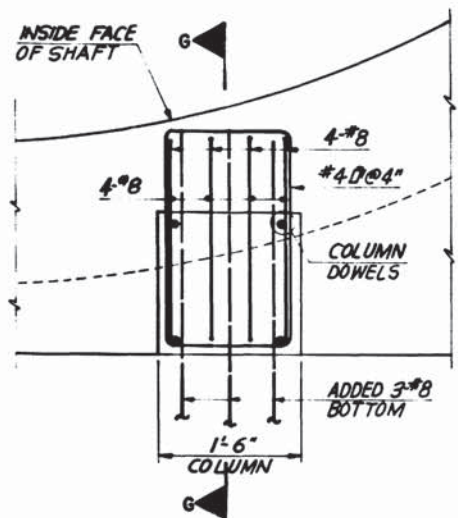
DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT

HARRY WESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT

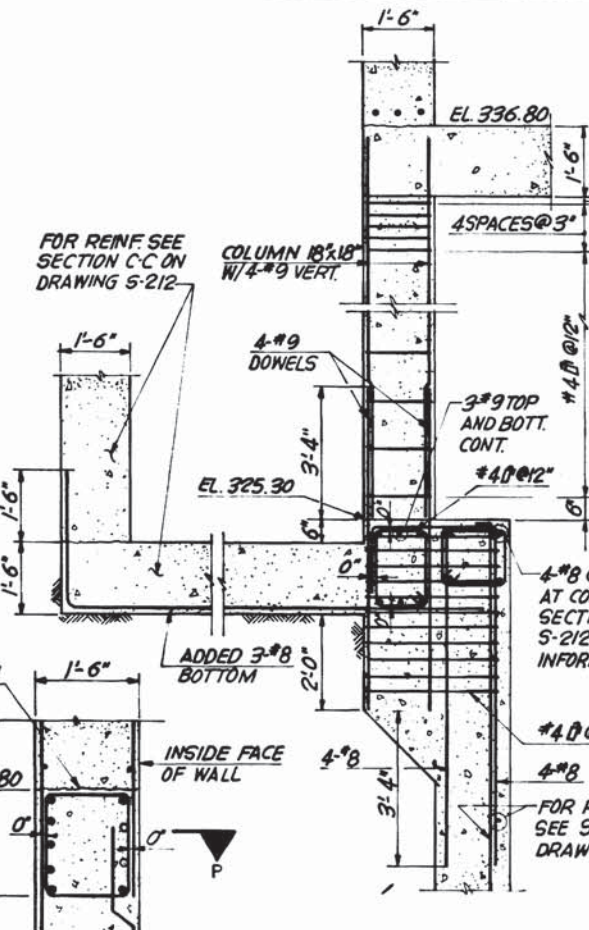
SUBMITTED *[Signature]* DATE 5/16/77 APPROVED *[Signature]*

ROCKVILLE ROUTE
MISCELLANEOUS SHAFT DETAILS

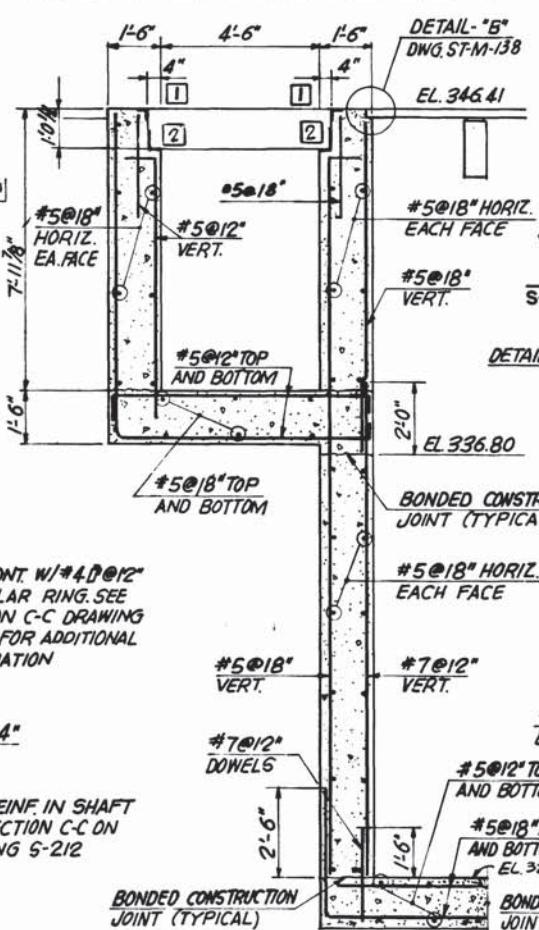
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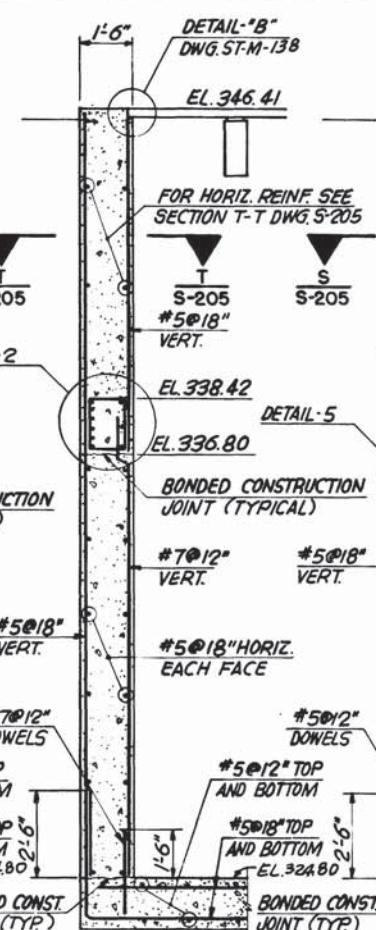
DETAIL-1 S-212
SCALE: 1" = 1'-0"



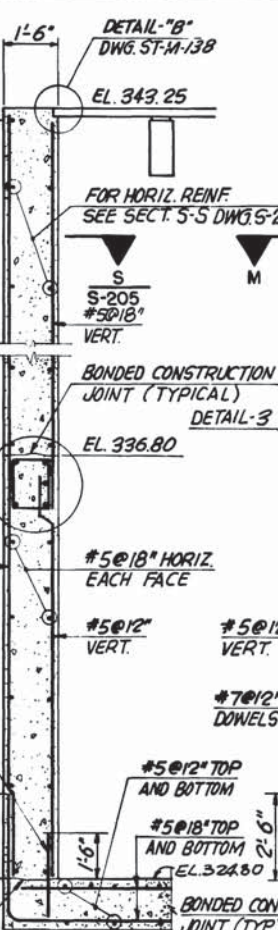
SECTION G-G S-212
SCALE: 1/2" = 1'-0"



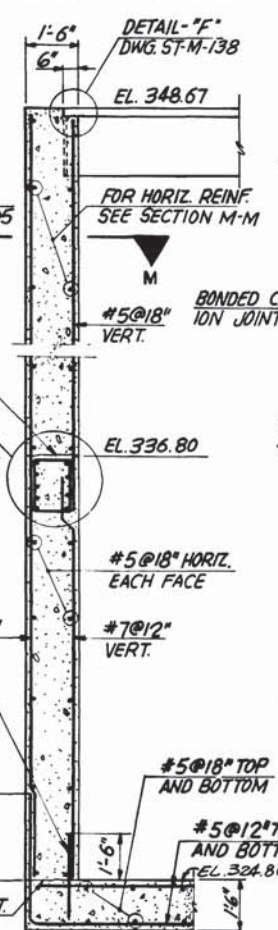
SECTION H-H S-212
SCALE: 3/8" = 1'-0"



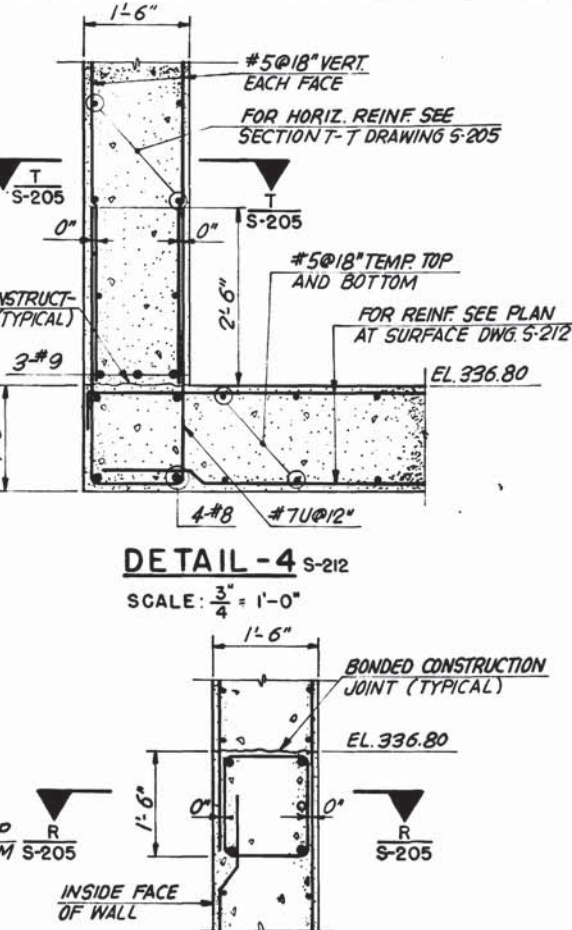
SECTION J-J S-212
SCALE: 3/8" = 1'-0"



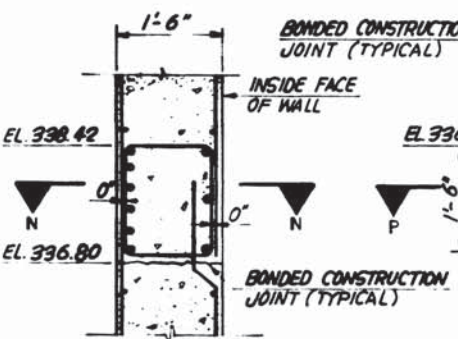
SECTION K-K S-212
SCALE: 3/8" = 1'-0"



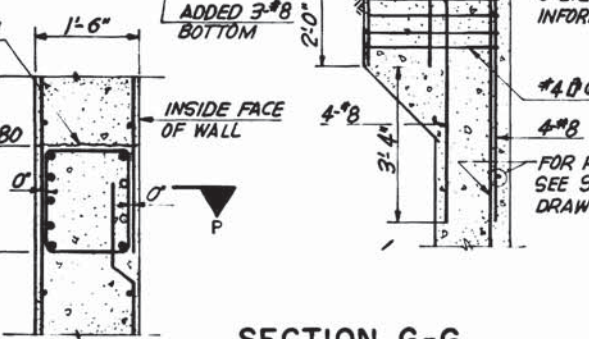
SECTION L-L S-212
SCALE: 3/8" = 1'-0"



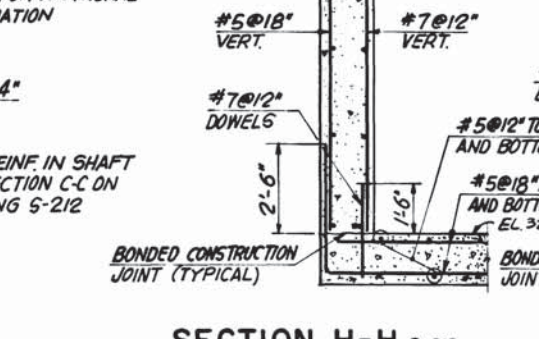
DETAIL-4 S-212
SCALE: 3/4" = 1'-0"



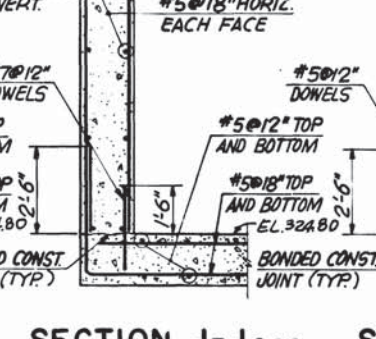
DETAIL-2 S-212
SCALE: 3/4" = 1'-0"



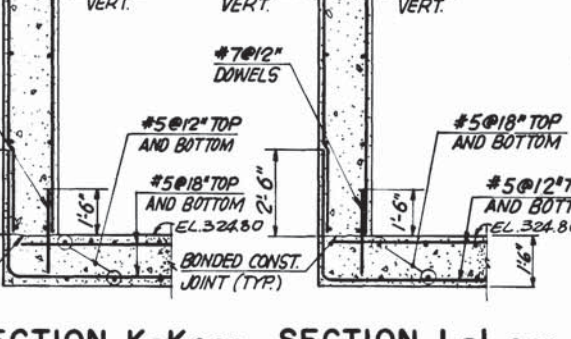
DETAIL-3 S-212
SCALE: 3/4" = 1'-0"



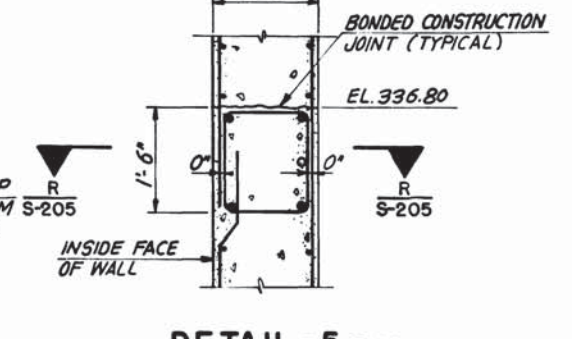
SECTION M-M S-212
SCALE: 3/8" = 1'-0"



SECTION N-N S-212
SCALE: 1/4" = 1'-0"



SECTION P-P S-212
SCALE: 3/8" = 1'-0"



SECTION Q-Q S-212
SCALE: 1/2" = 1'-0"

DESIGNED		DATE		REFERENCE DRAWINGS		REVISIONS	
NUMBER	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
5-100	ABBREVIATIONS AND SYMBOLS	12-4-80	W.S.	1) PCC #12 ACCESS HATCH DOOR REVISED. REV 1			
5-101	STRUCTURAL NOTES	2-2-81	W.K.	PCC #12 - DOOR RECESS REVISED 2			



WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

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ENGINEERS AND ARCHITECTS
SECTION DESIGNER

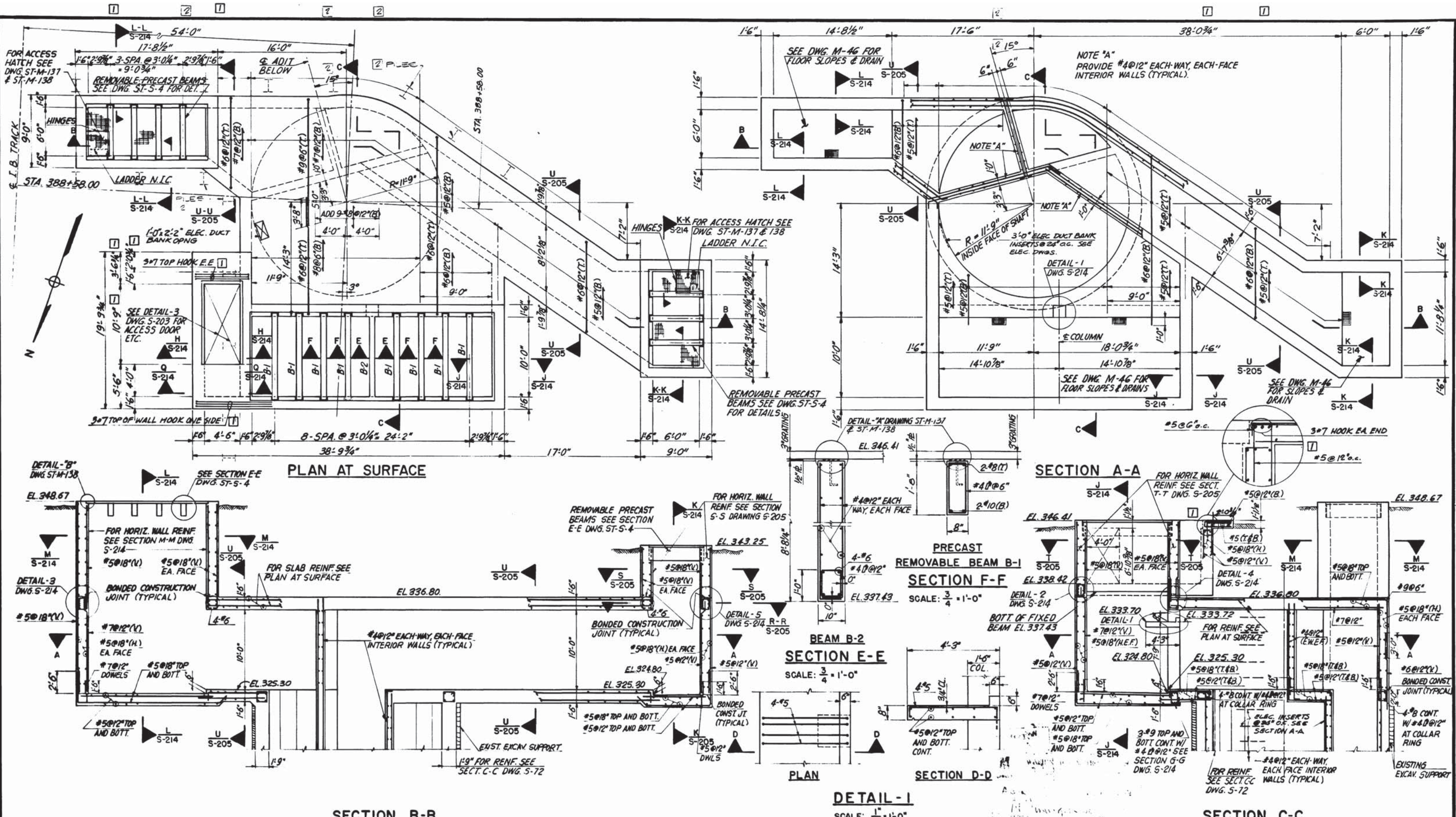
DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT

HARRY WEESSE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT

SUBMITTED *Stewart & Beall* DATE 5/16/77 APPROVED *Robert J. Beall*

ROCKVILLE ROUTE
ELM STREET VENT SHAFT
UPPER STRUCTURE DETAILS

SCALE: AS NOTED DRAWING NO. **A11b-S-214** M276-127



DESIGNED		DATE		REFERENCE DRAWINGS		REVISIONS	
G.C. TREE	1-75						
E.V. ROUCO	1-75	S-100	ABBREVIATIONS AND SYMBOLS	12-4-80	H.S.	1	ACCESS HATCH DOOR
G.C. TREE	8-75	S-101	STRUCTURAL NOTES				REVISED PCO #12 KEY 1
		SP-20	SHAFT LOCATION				2. REV PERK FIELD C.N.C. AS P.U.T
		M-46	MECHANICAL DWG.				
		S-10	KEY PLAN				



WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

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ENGINEERS AND ARCHITECTS
SECTION DESIGNER

DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT

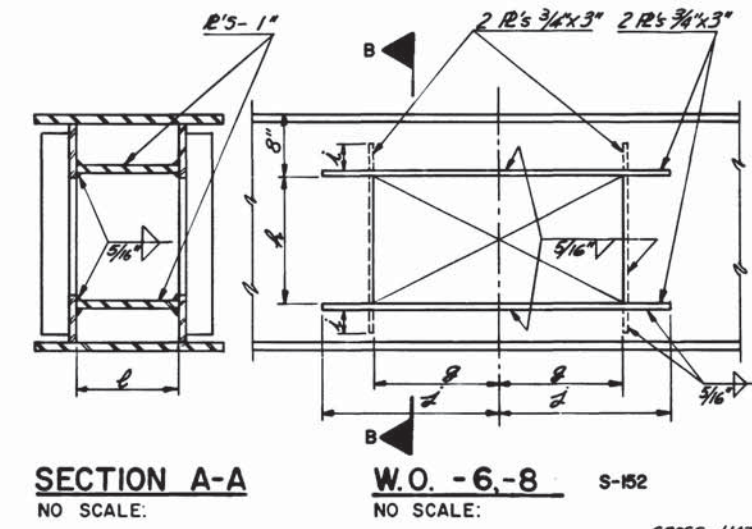
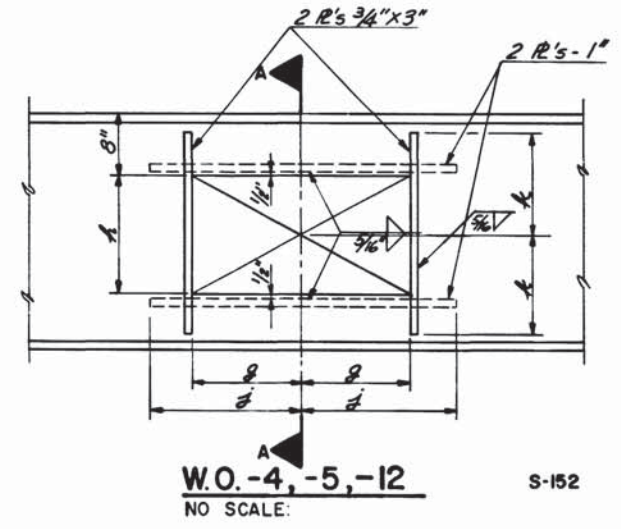
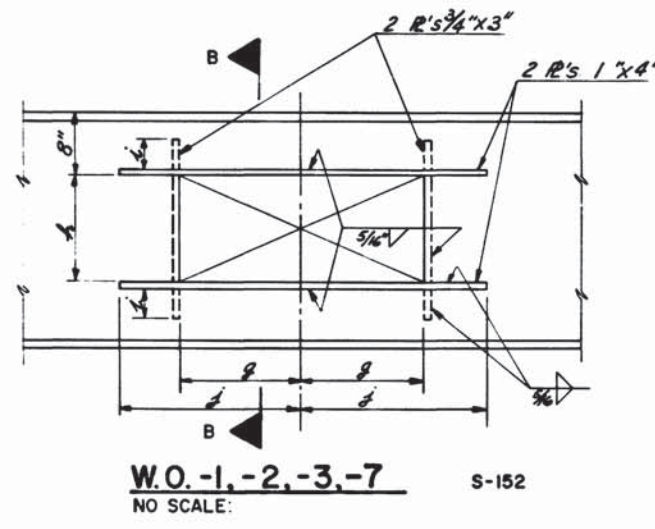
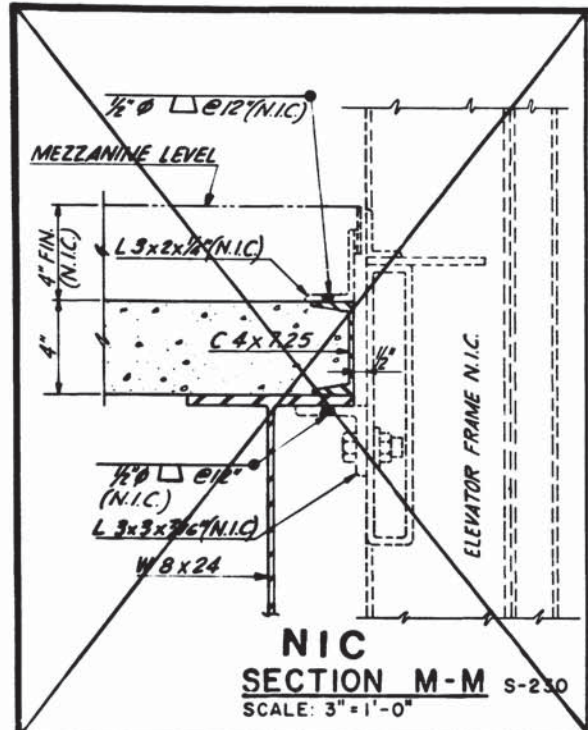
HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT

SUBMITTED *Stewart & Beall* DATE 5/16/77 APPROVED *Robert J. Weese*

ROCKVILLE ROUTE
ELM STREET VENT SHAFT
UPPER STRUCTURE PLAN AND SECTIONS

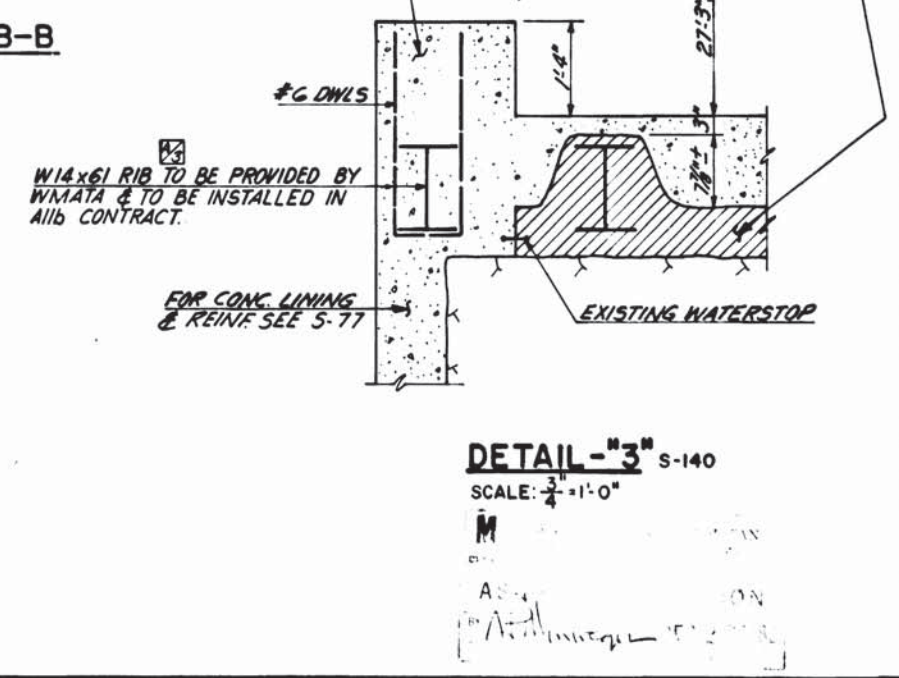
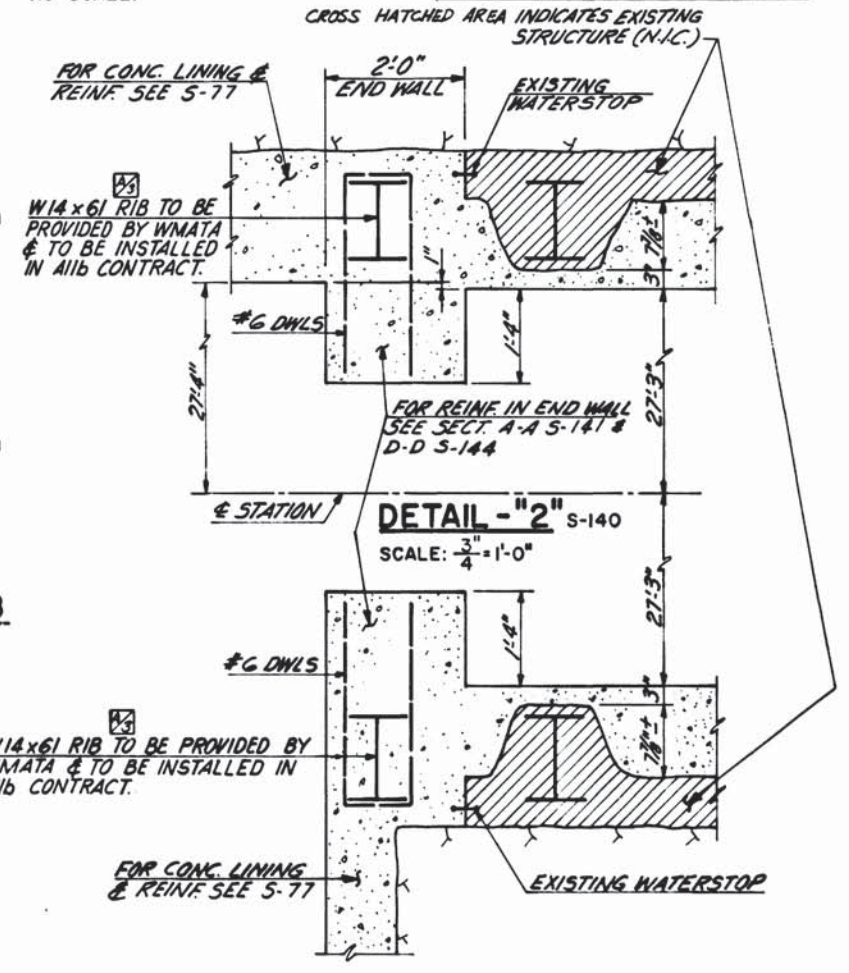
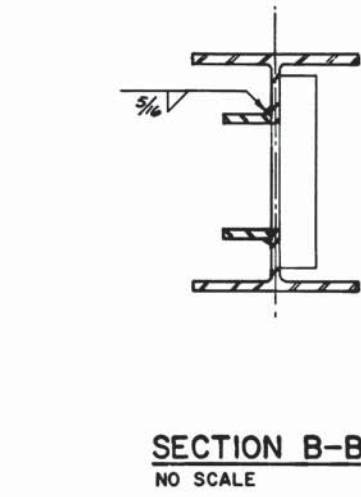
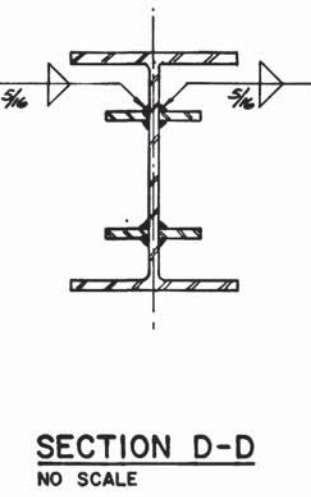
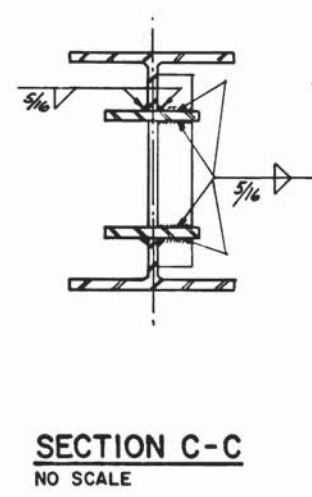
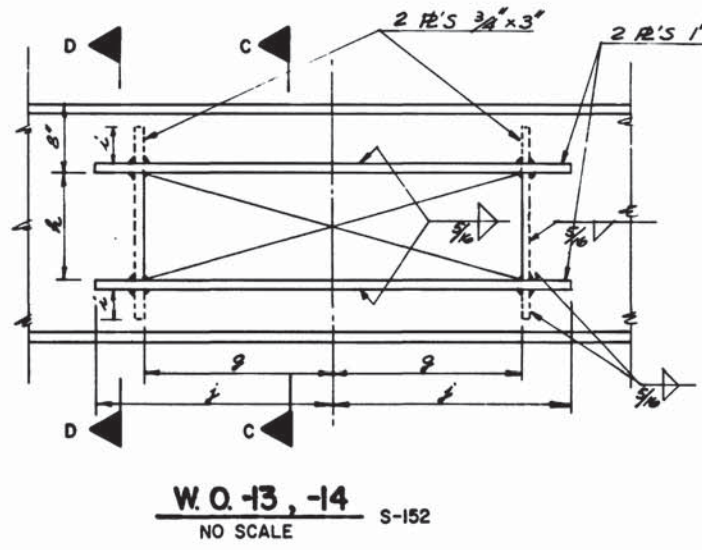
SCALE: 3/16" = 1'-0" 1 0 1 2 3 4 5 AND AS NOTED

DRAWING NO. **A11b-S-212** M276-126



NOTE: (E) INDICATES ELEC. OPNG.

SCHEDULE						
NO. OF W.O.	g	h	i	j	k	l
1	20"	16"	3"	30"	-	-
2	16"	16"	3"	26"	-	-
3	10"	10"	3"	20"	-	-
7 ^(E)	8"	14"	3"	18"	-	-
4	14"	15"	-	24"	12"	13"
5	10"	10"	-	20"	10"	14"
12 ^(E)	8"	14"	-	18"	12"	14"
6	10"	10"	3"	16"	-	-
13	27"	16"	3"	39"	-	-
14 ^(E)	16"	14"	3"	28"	-	-
8 ^(E)	8"	14"	3"	18"	-	-



DESIGNED	DATE	NUMBER	DESCRIPTION	DATE	BY	DESCRIPTION
G.C.T.	12-75	S-100	ABBREVIATIONS AND SYMBOLS	10/12/77	G.C.T.	REVISED DET. '2' & '3'
E.V.R.	1-75	S-101	STRUCTURAL NOTES			
G.C.T.	4-76	S-152	MEZZANINE PLAN			

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
PROFESSIONAL ENGINEER

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

MATHEWS • CHATELAIN • BEALL
ENGINEERS AND ARCHITECTS
SECT'ON DESIGNER

DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT

HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT

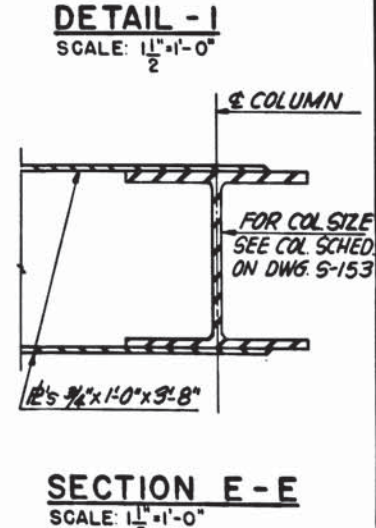
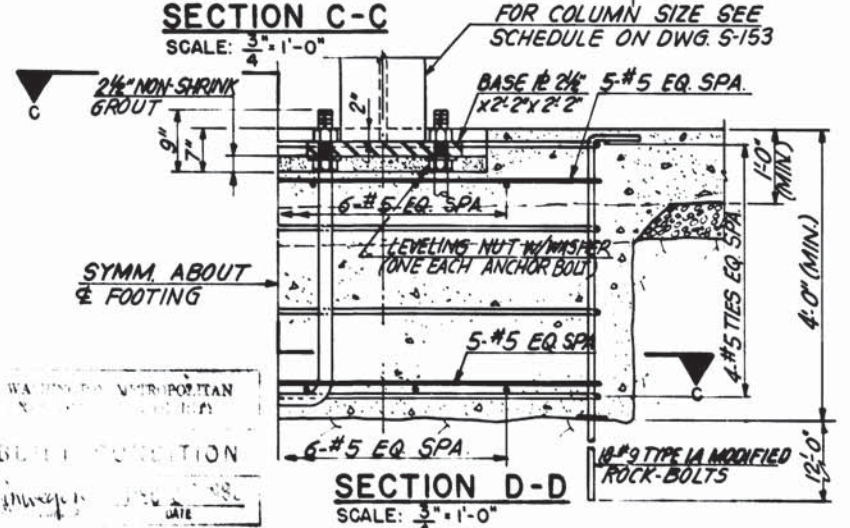
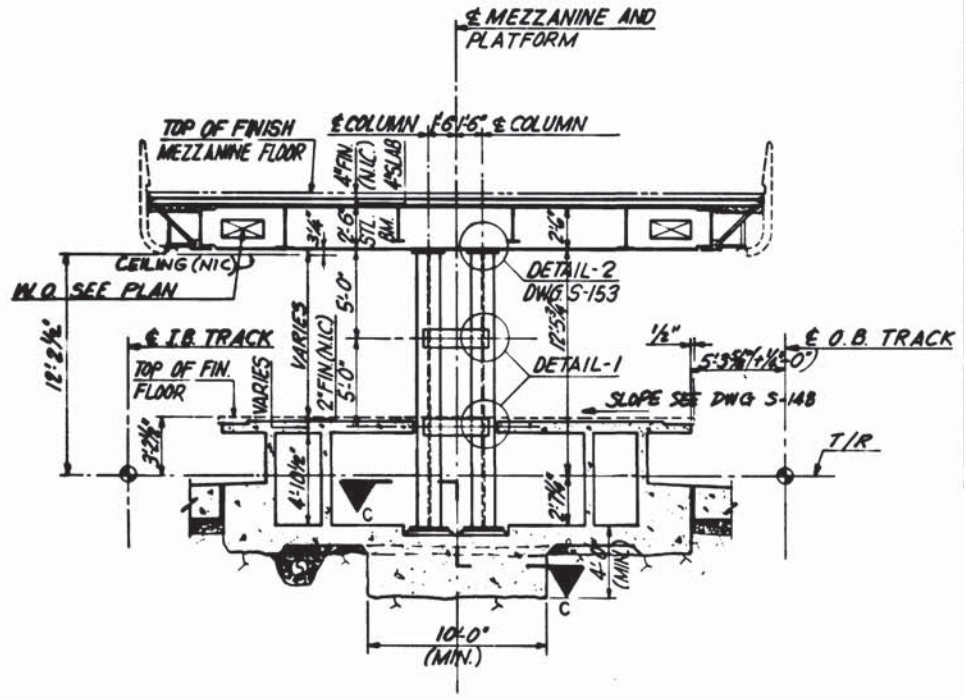
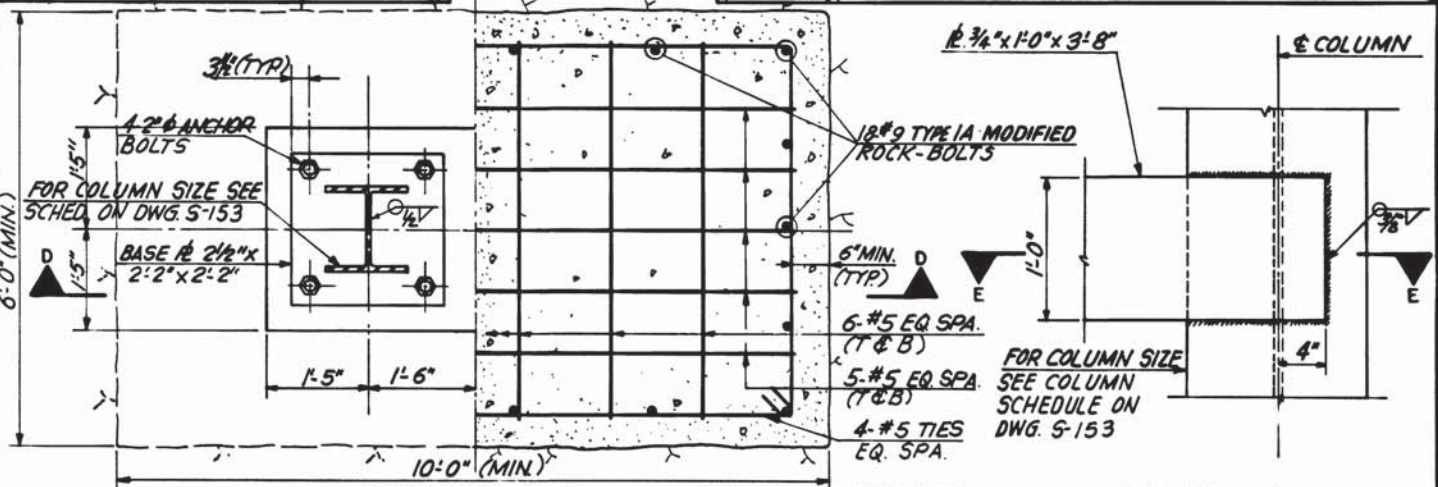
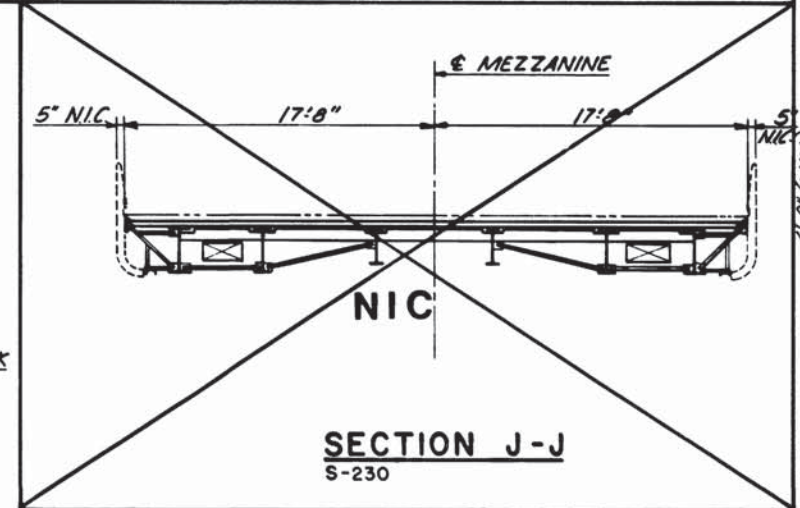
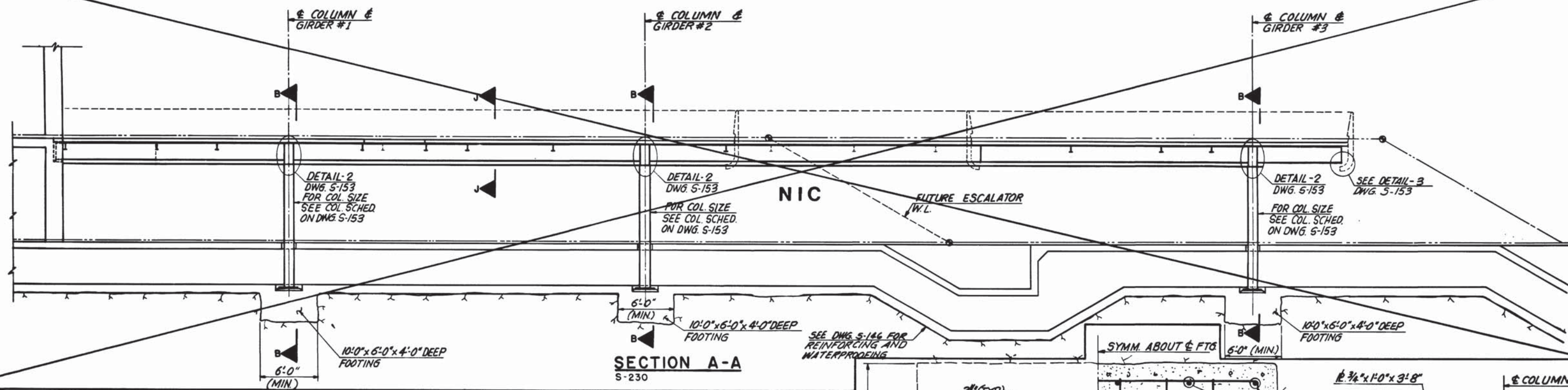
**ROCKVILLE ROUTE
MEZZANINE SECTIONS
AND DETAILS**

SCALE: AS NOTED

DRAWING NO. **A11b-S-233** M276-125

DESIGNED: G.C.T. DATE: 12-75
 DRAWN: E.V.R. DATE: 1-75
 CHECKED: G.C.T. DATE: 4-76
 APPROVED: *Stamatis Pappas* DATE: 5/17/77

SUBMITTED: *Stamatis Pappas* DATE: 5/16/77 APPROVED: *Robert J. ...*



SECTION B-B S-152 & S-153

SECTION A-A S-230

SECTION J-J S-230

SECTION C-C SCALE: 3/4" = 1'-0"

SECTION D-D SCALE: 3/4" = 1'-0"

SECTION E-E SCALE: 1/2" = 1'-0"

DESIGNED	DATE	NUMBER	DESCRIPTION	DATE	BY	DESCRIPTION
G.C.T.	1-75	5-100	ABBREVIATIONS & SYMBOLS			
E.VROUGO	1-75	5-101	STRUCTURAL NOTES			
G.C.TREE	12-75	5-152	MEZZANINE PLAN			
APPROVED	DATE					



WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

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SECTION DESIGNER

DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT

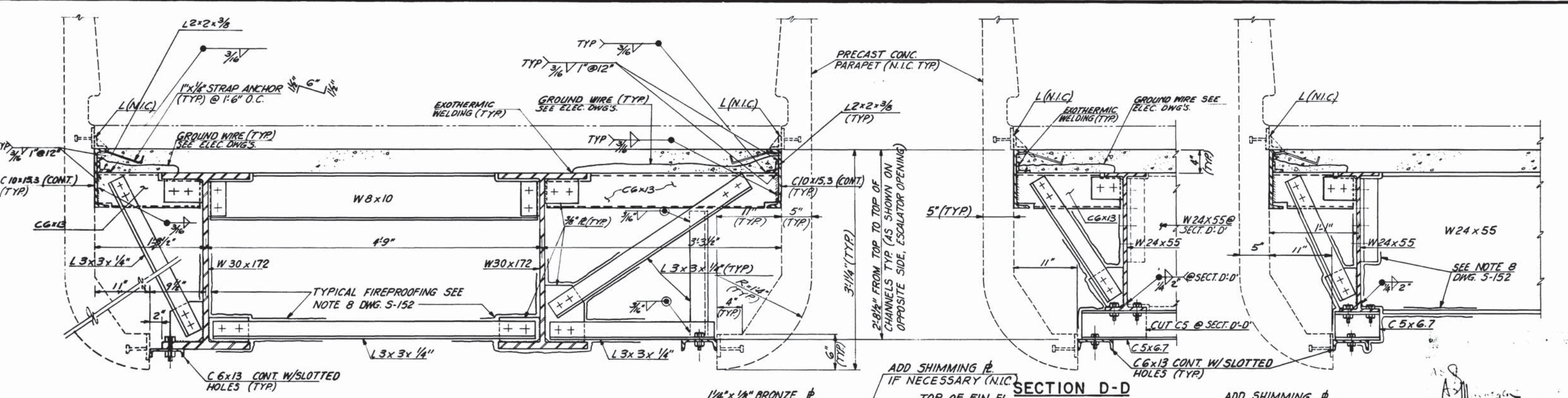
HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT

SUBMITTED *Stewart & Beall* DATE 5/16/77 APPROVED *Robert W. Weese*

**ROCKVILLE ROUTE
BETHESDA STATION - MEZZANINE
SECTIONS AND DETAILS**

SCALE: 3/4" = 1'-0" AND AS NOTED

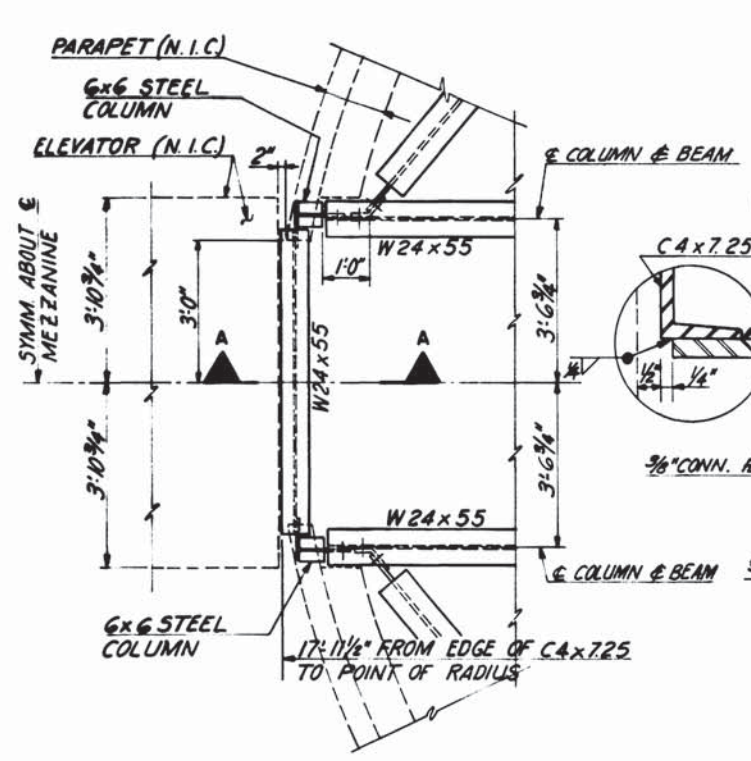
DRAWING NO. **A11b-S-232 M276-124**



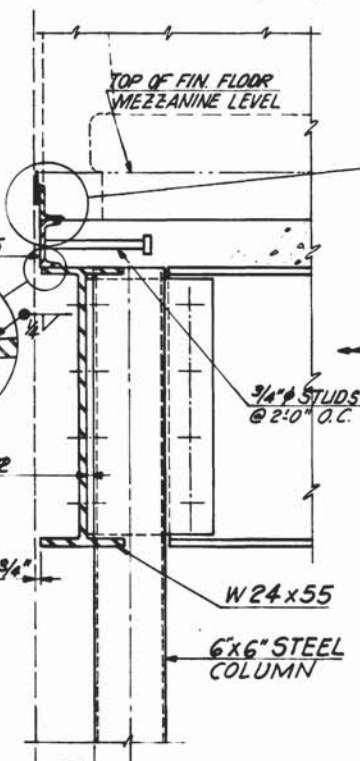
SECTION C-C
S-152

SECTION D-D
S-152

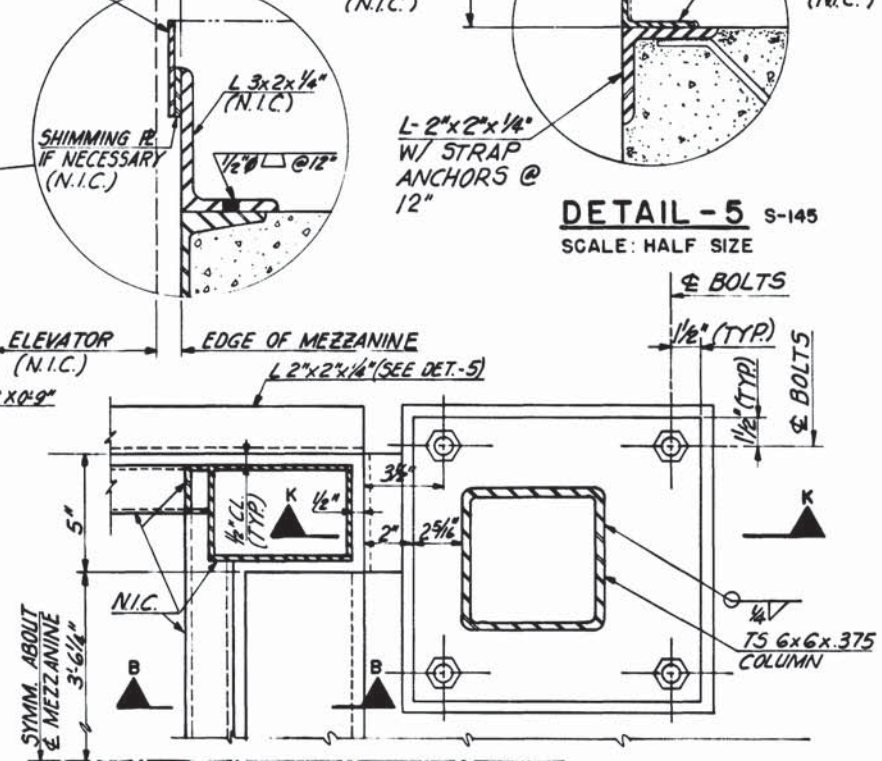
SECTION E-E
S-152



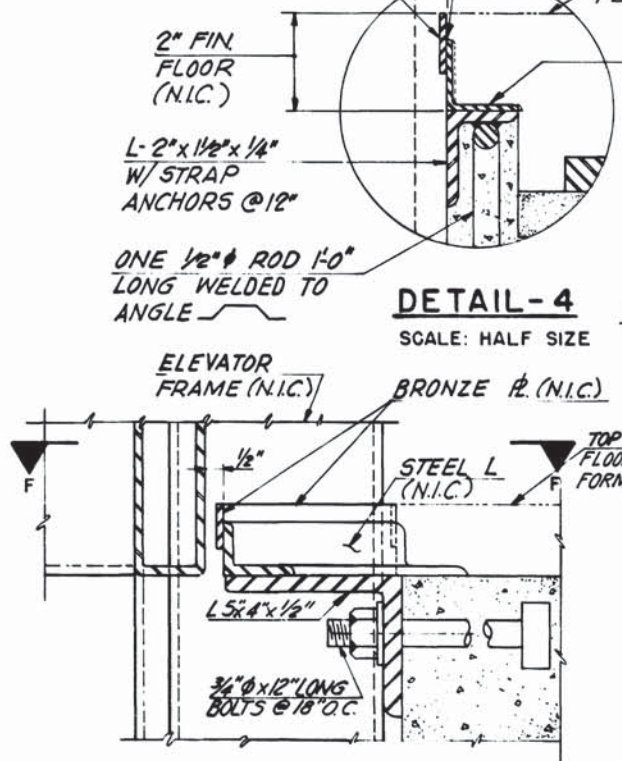
DETAIL-3 S-152
SCALE: 1/2" = 1'-0"



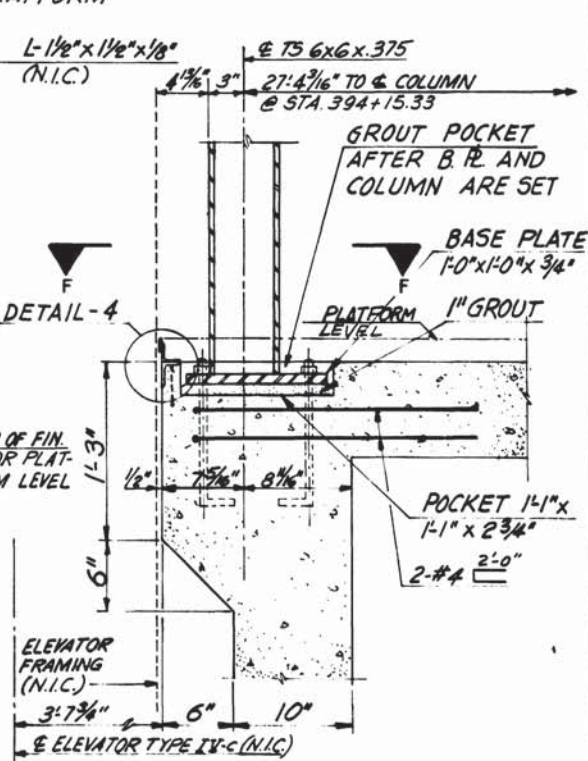
SECTION A-A
SCALE: 3" = 1'-0"



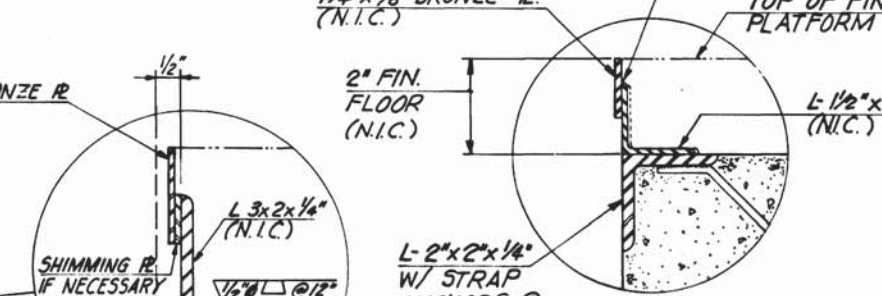
SECTION F-F
SCALE: 3" = 1'-0"



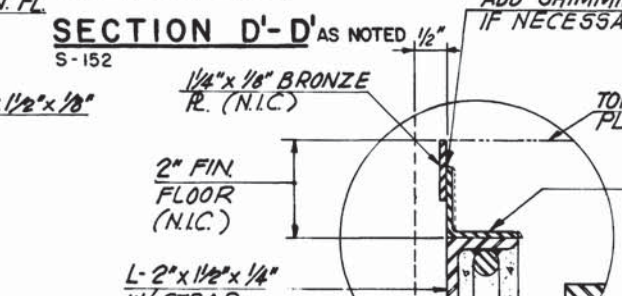
SECTION B-B
SCALE: 3/8" = 1"



SECTION K-K
S-145

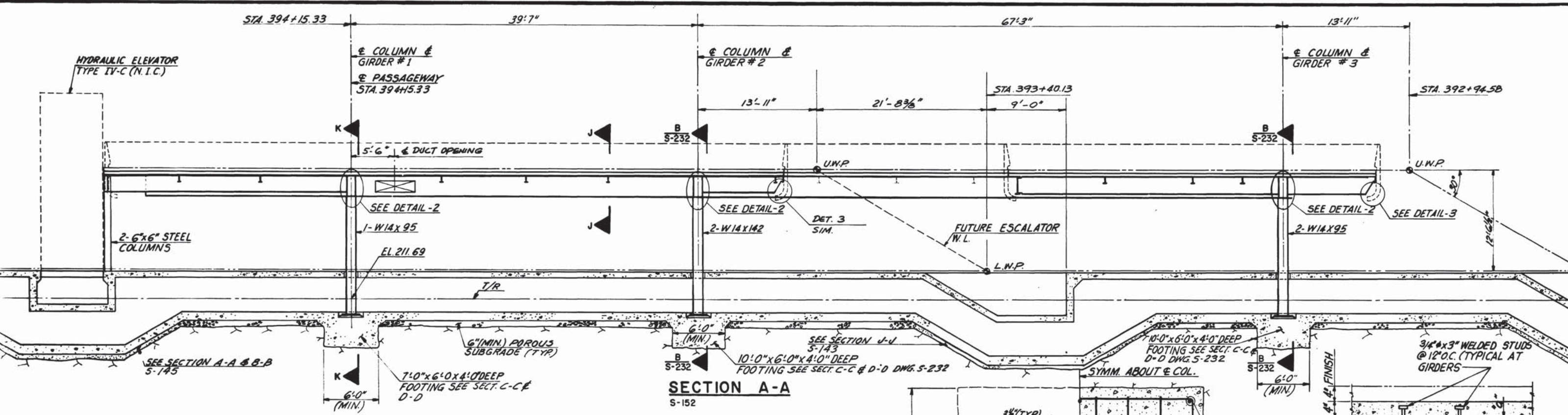


DETAIL-5 S-145
SCALE: HALF SIZE

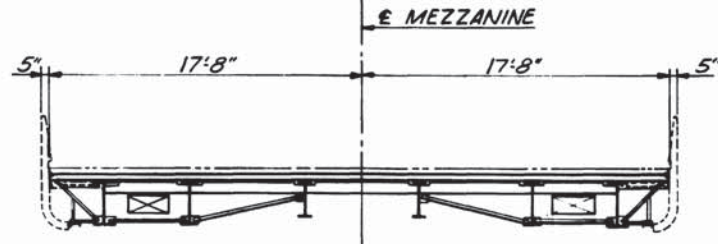


DETAIL-4
SCALE: HALF SIZE

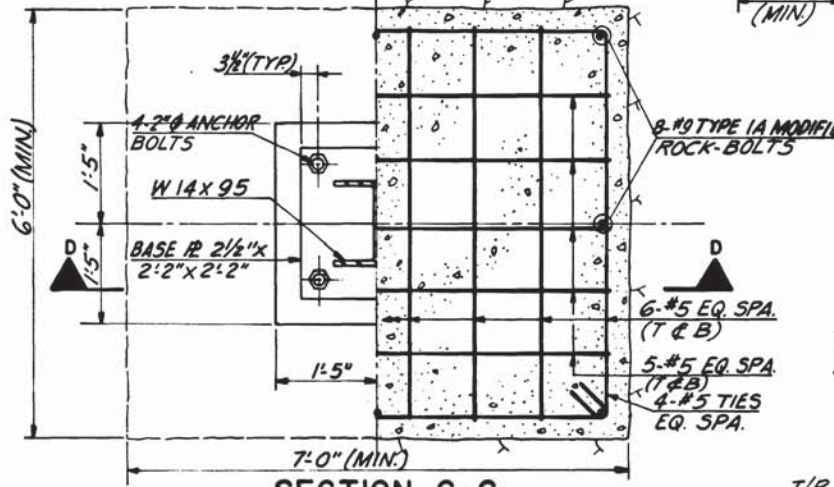
DESIGNED G.C.TREE 8-74 DATE	REFERENCE DRAWINGS	REVISIONS			WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY MATHEWS • CHATELAIN • BEALL ENGINEERS AND ARCHITECTS SECTION DESIGNER		DE LEUW, CATHER & COMPANY GENERAL ENGINEERING CONSULTANT HARRY WEESE & ASSOCIATES GENERAL ARCHITECTURAL CONSULTANT		ROCKVILLE ROUTE BETHESDA STATION - MEZZANINE SECTIONS AND DETAILS SCALE 1/2" = 1'-0" AND AS NOTED DRAWING NO. A11b-S-154 M276-122	
DRAWN E.V.R. 8-74 DATE	NUMBER DESCRIPTION	DATE BY DESCRIPTION								
CHECKED G.C.T. 3-76 DATE	5-100 ABBREVIATIONS & SYMBOLS									
APPROVED Stewart & Rice 5/77 DATE	5-101 STRUCTURAL NOTES									
	5-152 MEZZANINE PLAN									



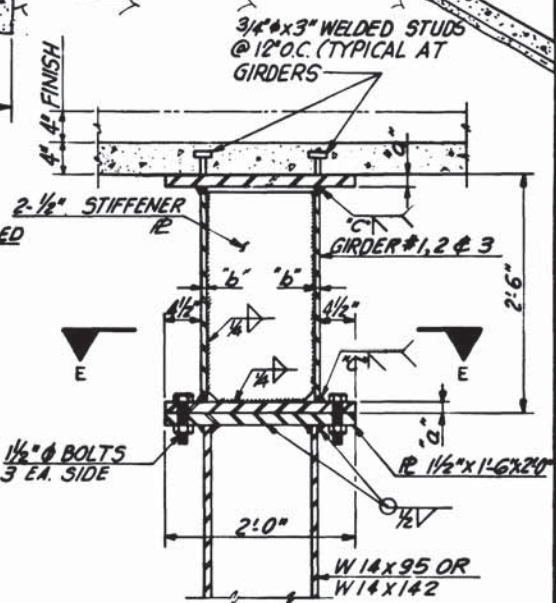
SECTION A-A
S-152



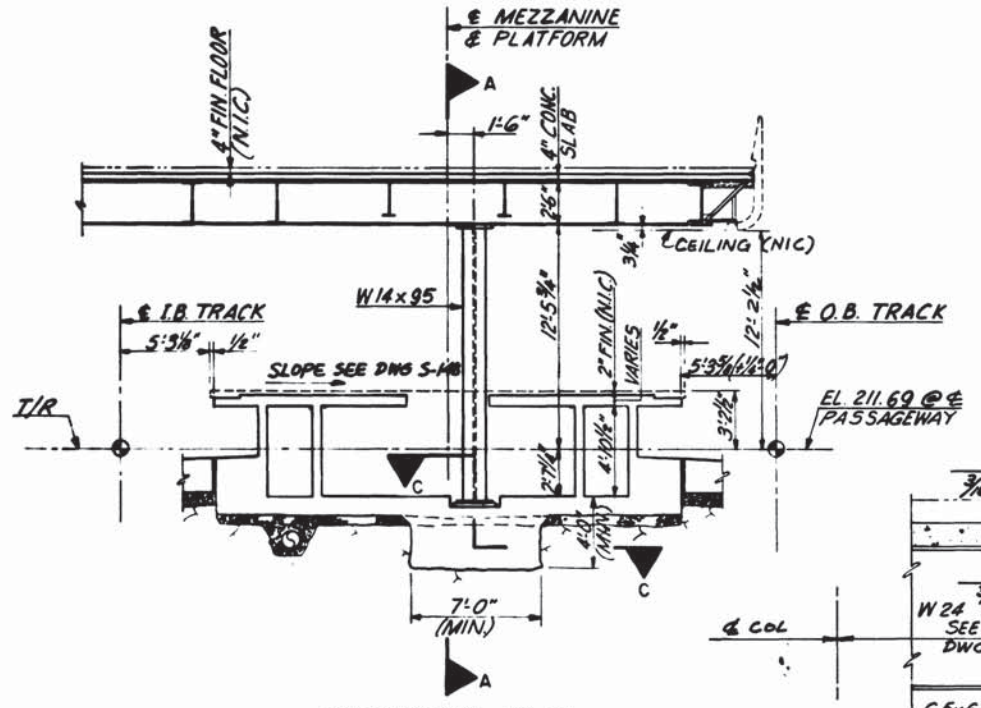
SECTION J-J
S-152



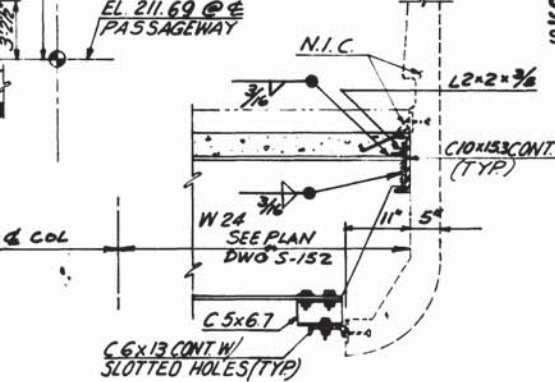
SECTION C-C
SCALE: 3/4" = 1'-0"



DETAIL -2
SCALE: 1" = 1'-0"

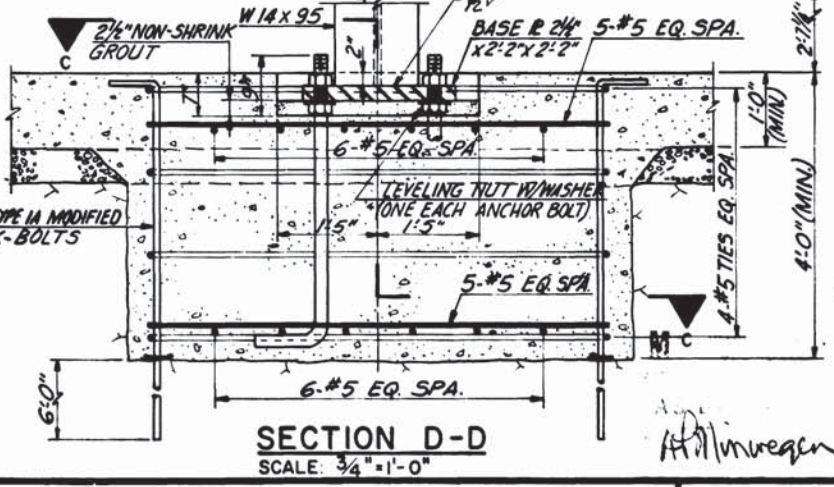


SECTION K-K
S-152

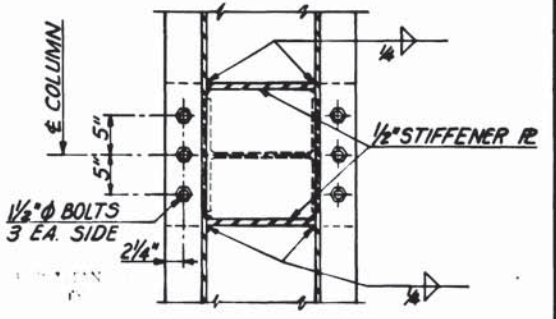


DETAIL -3
SCALE: 3/4" = 1'-0"

SCHEDULE				
BETHESDA STATION MEZZANINE				
GIRDER	"a"	"b"	"c"	COLUMN
#1	1/4"	1/2"	TC-U4	1-W14x95
#2	2 1/4"	1"	TC-U4	2-W14x142
#3	1/4"	1/2"	TC-U4	2-W14x95
MEDICAL CENTER STATION MEZZANINE				
GIRDER	"a"	"b"	"c"	COLUMN
#1	1"	1/4"	5/16"	2-W14x95
#2	2 1/4"	1"	1/2"	2-W14x142
#3	1/4"	1/2"	5/16"	2-W14x95



SECTION D-D
SCALE: 3/4" = 1'-0"



SECTION E-E
SCALE: 1" = 1'-0"

DESIGNED		DATE		REFERENCE DRAWINGS		REVISIONS	
NUMBER	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
G.C.T.	4-74	S-100		ABBREVIATIONS & SYMBOLS			
E.V. ROUCO	4-74	S-101		STRUCTURAL NOTES			
G.C.T.	1-76	S-152		MEZZANINE PLAN			
G.C.T.	5/22						



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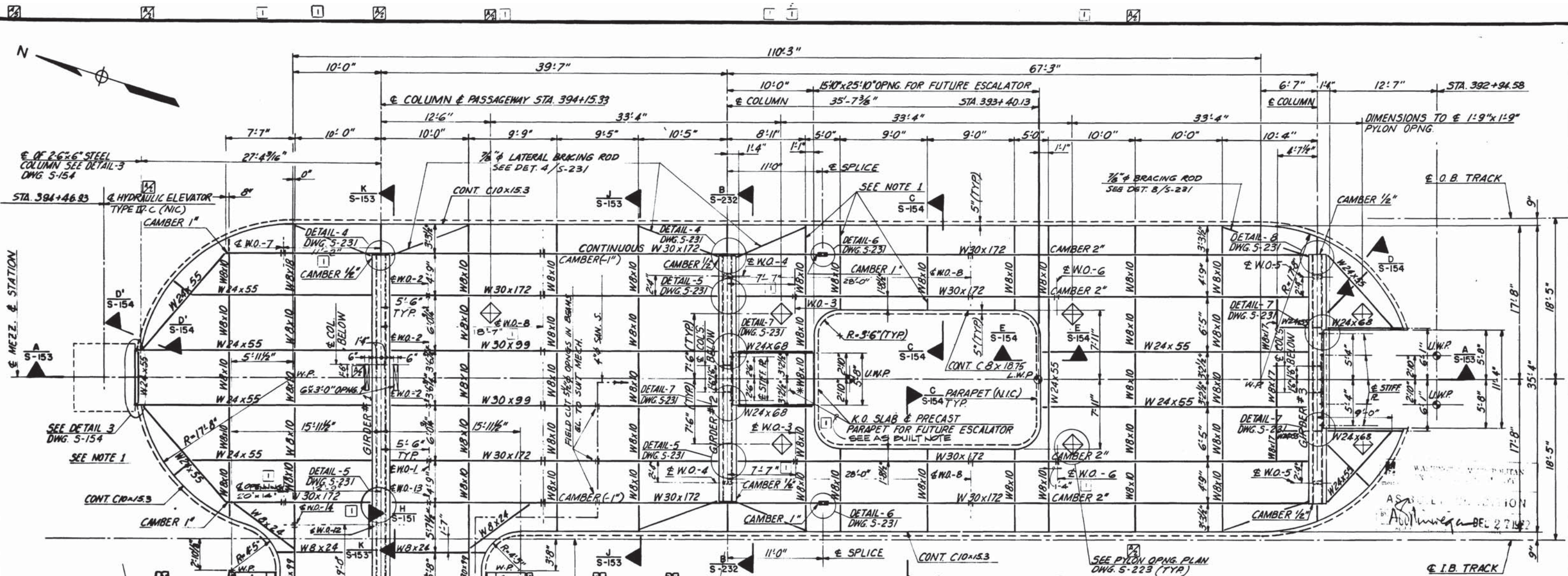
HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT

SUBMITTED *Stewart H. Beck* DATE 5/16/77 APPROVED *Kobert H. Nisul*

**ROCKVILLE ROUTE
BETHESDA STATION - MEZZANINE
SECTIONS AND DETAILS**

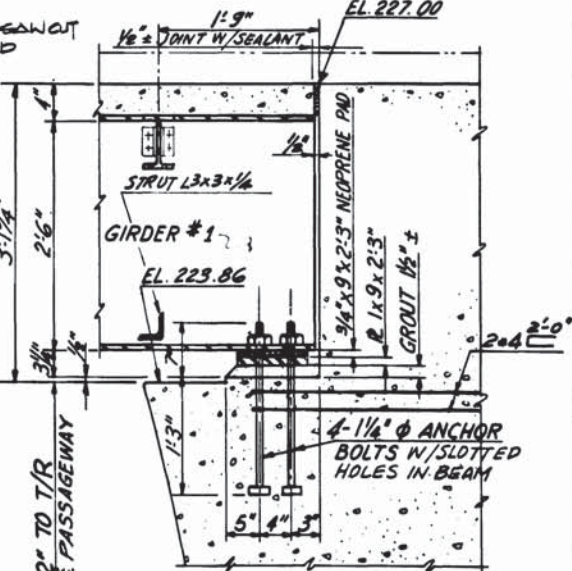
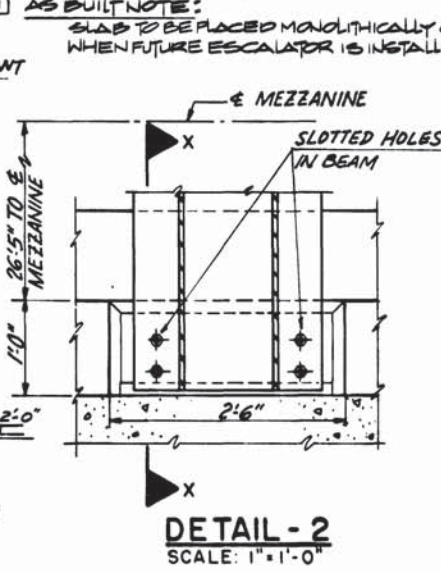
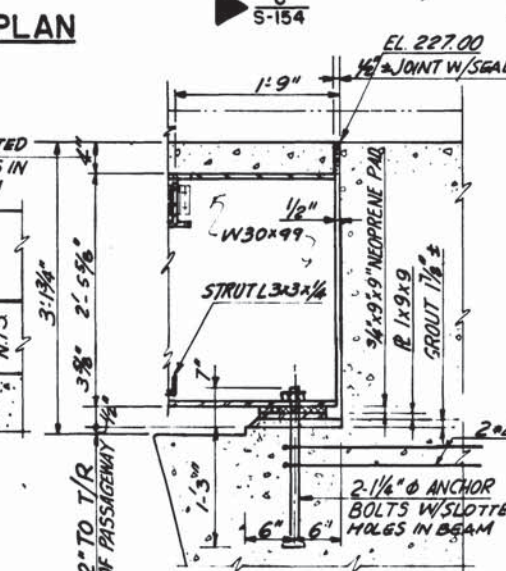
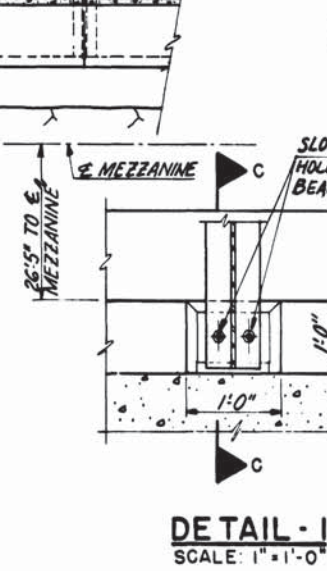
SCALE: 3/16" = 1'-0" AND AS NOTED

DRAWING NO. **A11b-S-153** M276-121



PLAN

- NOTES**
- STRUCTURAL STEEL MEMBERS NOT CALLED ON PLAN ARE TO BE 3"x3"x1/4" L.
 - * THIS MEMBER IS TO BE REMOVABLE FOR FUTURE ESCALATOR MACHINE ROOM.
 - UNLESS OTHERWISE SHOWN, INSTALL 3/8" x 3" WELDED STUDS @ 1'-6" O.C. AT C OF BEAMS 24" DEEP & LARGER.
 - UNLESS OTHERWISE NOTED: ALL CONNECTION R'S SHALL BE 3/8" THICK, WELDS TO BE 1/4" FILLET WELDS ALL AROUND.
 - UNLESS OTHERWISE NOTED, BEAM BOLTS SHALL BE 3/4" A 325-F.H.B. NO. OF BOLTS LISTED BELOW
 2-ROWS FOR W8, 4-ROWS FOR W24
 5-ROWS FOR W30x99 & W27
 6-ROWS FOR W30x172
 - UNLESS OTHERWISE SHOWN, TYP REINF. FOR THE STRUCTURAL SLAB SHALL BE #4@12"(T) CONT. & #4@12"(B) WITH #4@12" TEMP.
 - W.O.-XX INDICATES WEB OPENING SEE DETAIL DWG. S-233.
 - ALL STEEL WORK NOT ENCASED IN CONCRETE TO BE PROTECTED WITH SPRAYED FIREPROOFING, WHICH SHALL HAVE A TWO HOUR FIRE RESISTANCE RATING.



DESIGNED		DATE		REFERENCE DRAWINGS		REVISIONS		
DESIGNED	G.C.T.	4-74		NUMBER	DESCRIPTION	DATE	BY	DESCRIPTION
DRAWN	E.V.R.	4-74		A-28	ARCHITECTURAL	7/8/77	G.C.T.	ADDITIONAL INFO
CHECKED	G.C.T.	8-79		S-100	ABBREVIATIONS AND SYMBOLS	11/28/77	G.C.T.	REVISED NOTE-B
APPROVED	<i>[Signature]</i>	5/77		S-101	STRUCTURAL NOTES	01/82	HTN	REV. FOR FIELD COND. AS BUILT
				E-8	ELECTRICAL DWG.			



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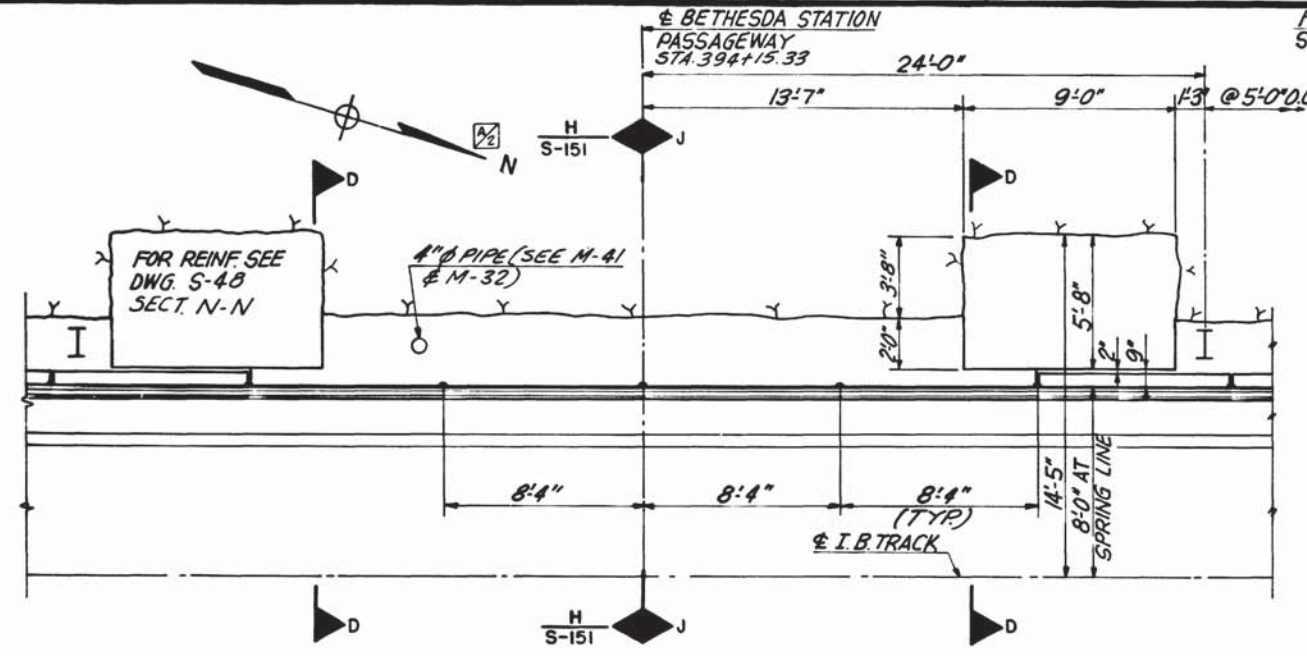
HARRY WEISE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT

SUBMITTED *[Signature]* DATE 5/16/77 APPROVED *[Signature]*

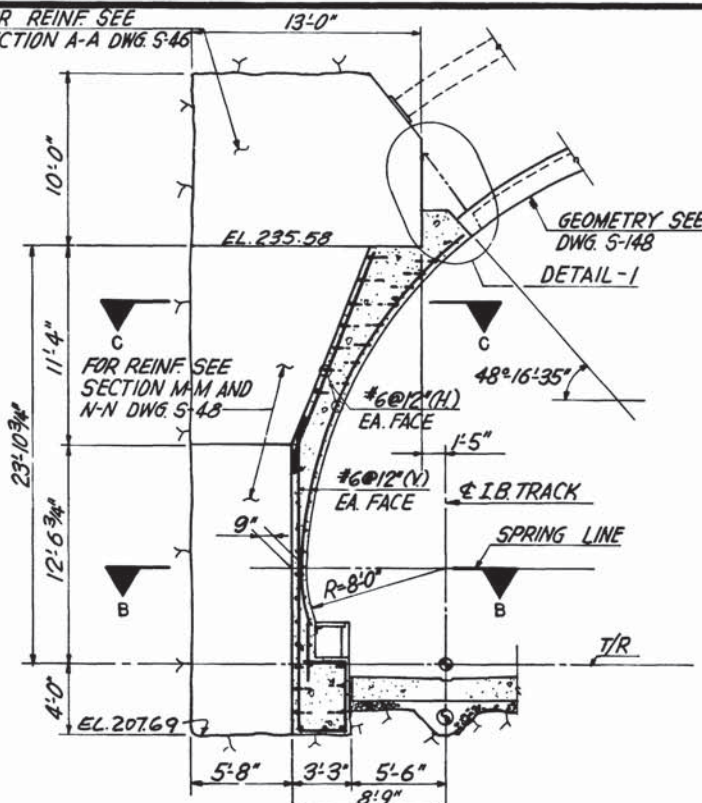
**ROCKVILLE ROUTE
BETHESDA STATION - MEZZANINE
FRAMING PLAN AND DETAILS**

SCALE: 3/16"=1'-0" AND AS NOTED

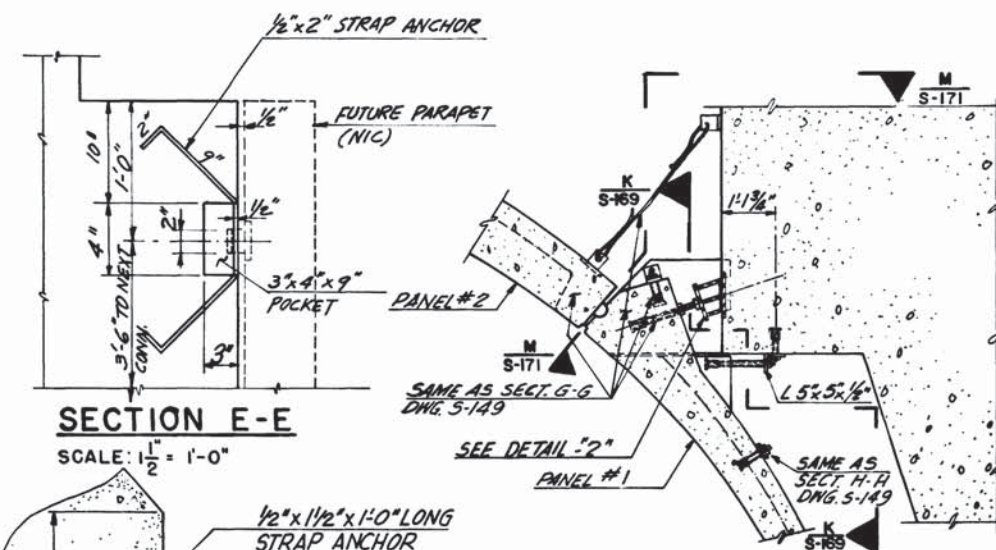
DRAWING NO. **A11b-S-152** M276-120



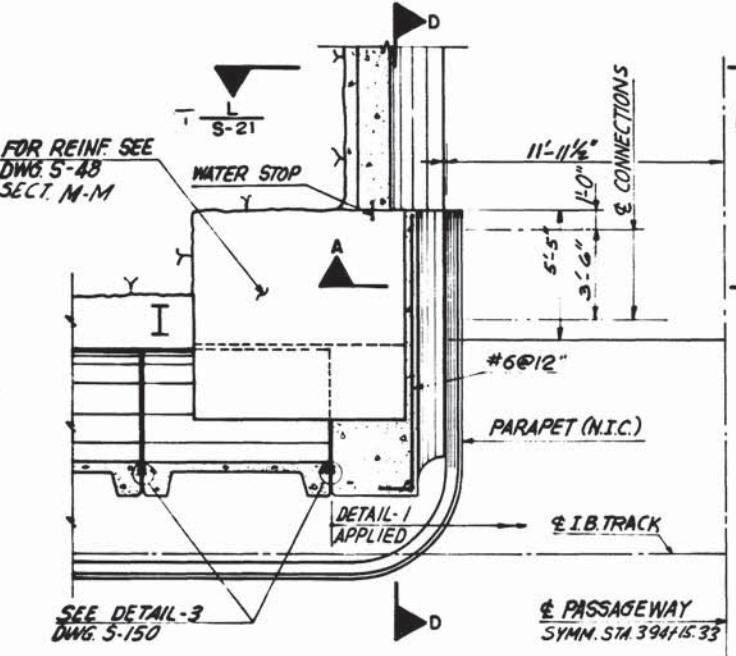
SECTION B-B S-157
SCALE: 1/4" = 1'-0"



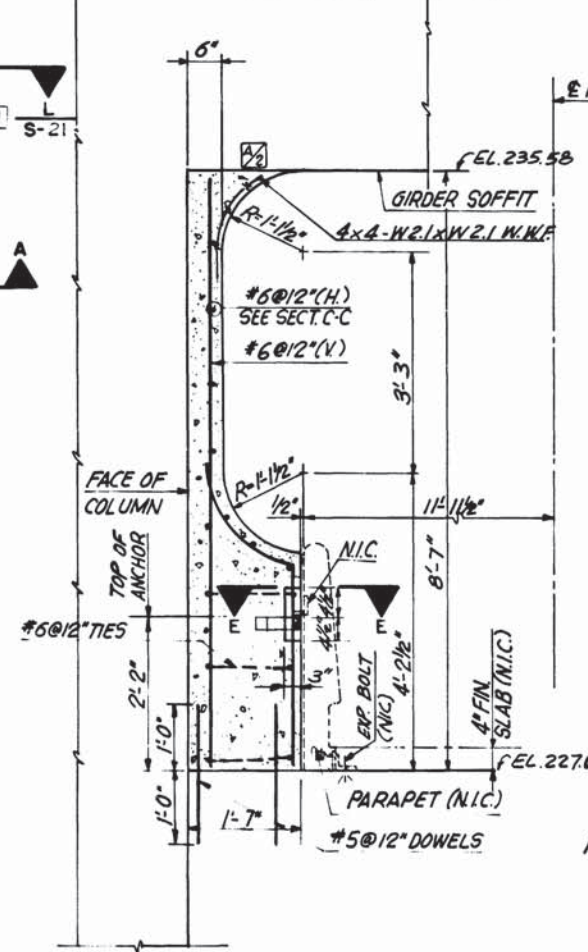
SECTION D-D S-157



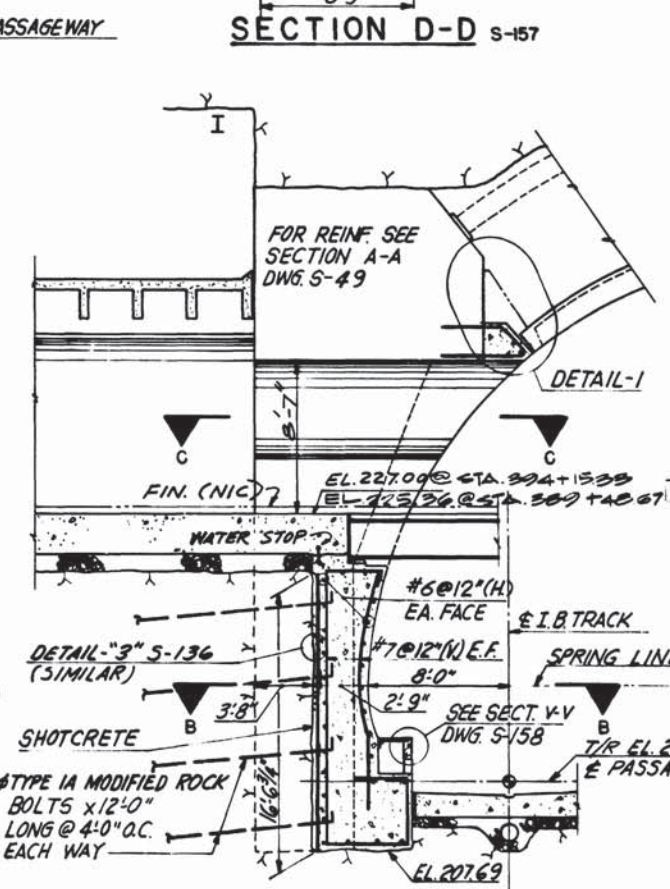
SECTION E-E
SCALE: 1/2" = 1'-0"



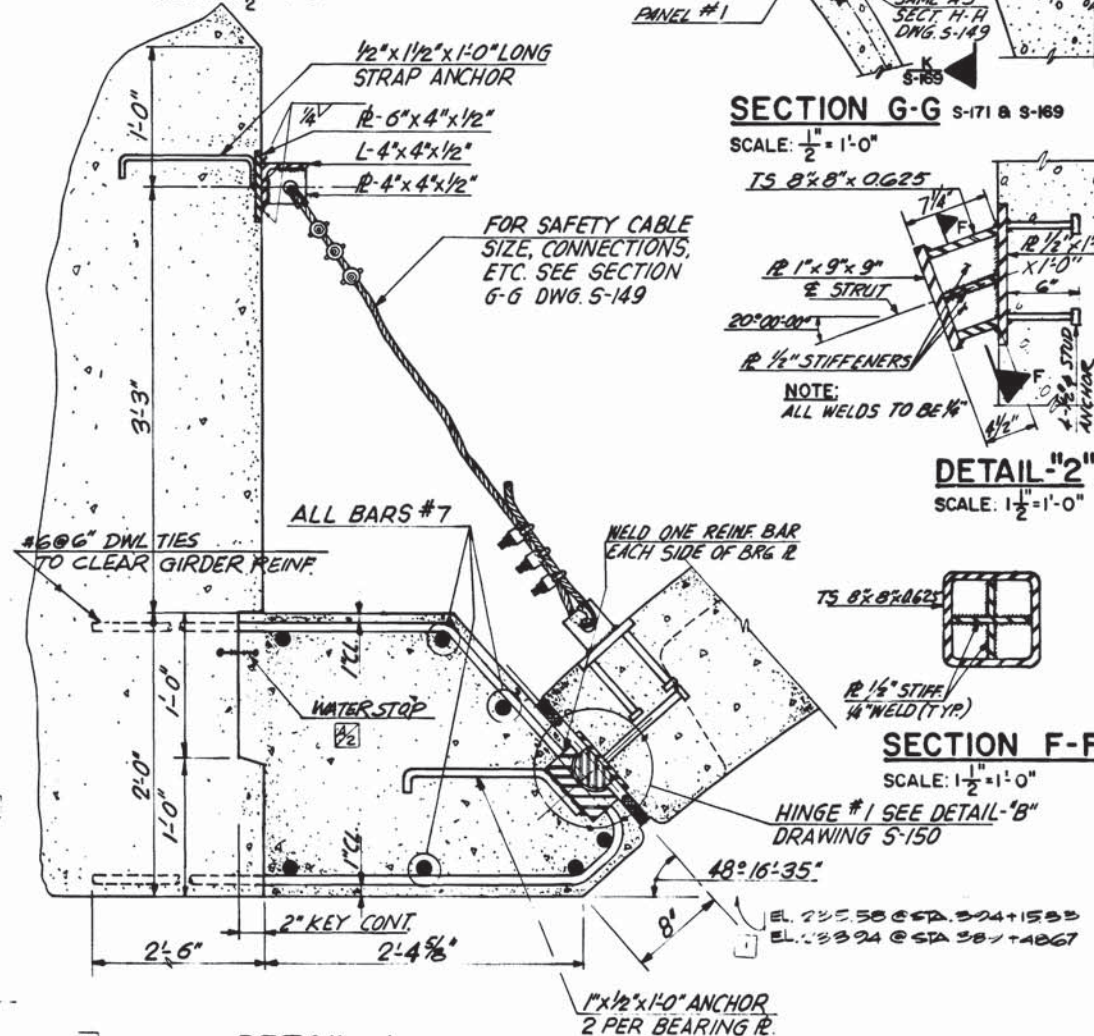
SECTION C-C S-157
SCALE: 1/4" = 1'-0"



SECTION A-A
SCALE: 3/4" = 1'-0"



SECTION J-J S-157



DETAIL-1
SCALE: 1/2" = 1'-0"

SECTION F-F
SCALE: 1/2" = 1'-0"

SECTION G-G S-171 & S-169
SCALE: 1/2" = 1'-0"

DETAIL-2
SCALE: 1/2" = 1'-0"

NOTE:
ALL EXPOSED STEEL SHALL BE GALVANIZED.

DESIGNED	DATE	NUMBER	DESCRIPTION	DATE	BY	DESCRIPTION
G. C. TREE	11-75	S-100	ABBREVIATION AND SYMBOLS	7/8/77	G.C.T.	REVISE SECT. A-A & N-N ARROW
F. V. ROJCO	11-75	S-101	STRUCTURAL NOTES	11/1/77	TJN	REV PER FIELD COND. AS BUILT
G. C. TREE	7-76					
APPROVED	DATE					



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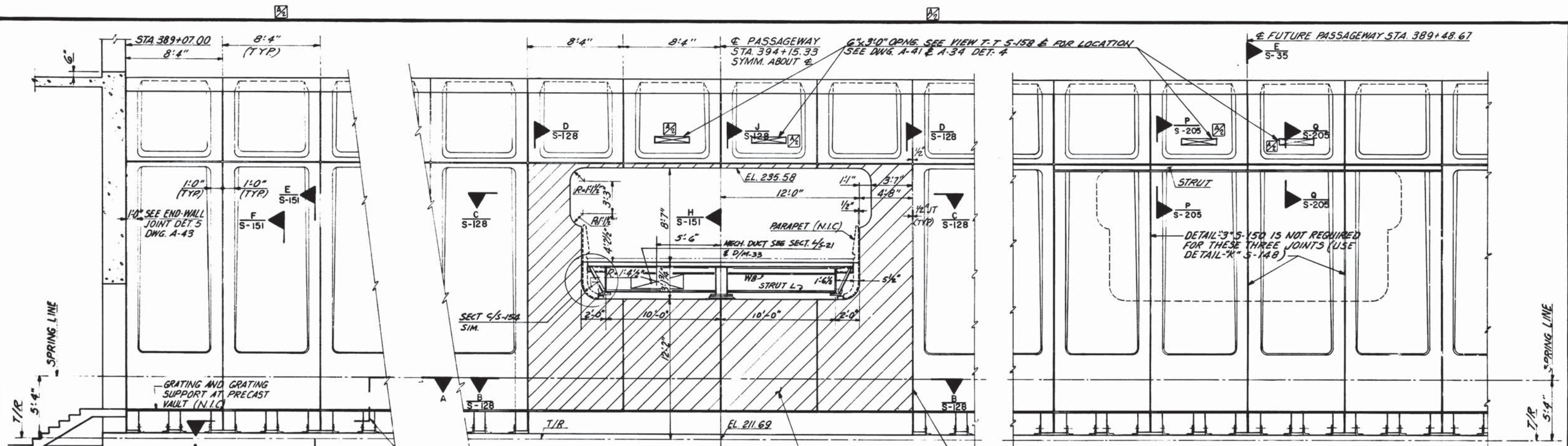
HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT

SUBMITTED *Matthew & Beall* DATE 5/16/77 APPROVED *K. H. ...*

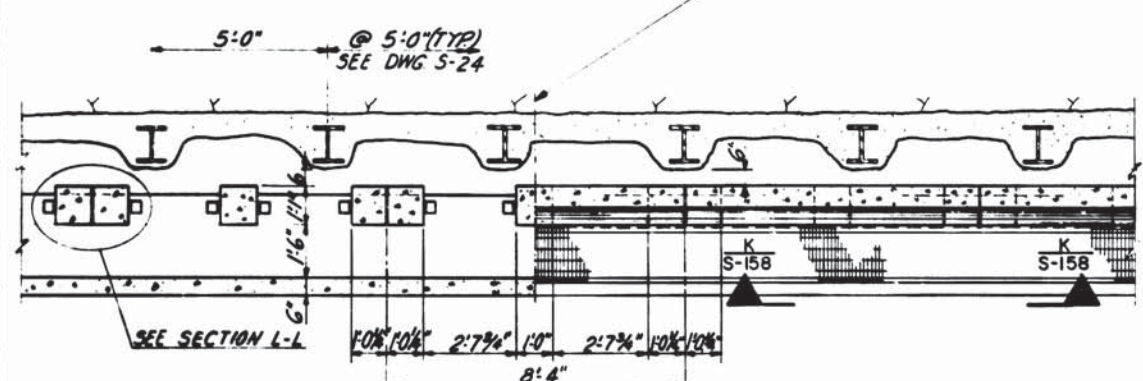
**ROCKVILLE ROUTE
BETHESDA STATION COLLAR
SECTIONS AND DETAILS**

SCALE: 1/16" = 1'-0" AND AS NOTED

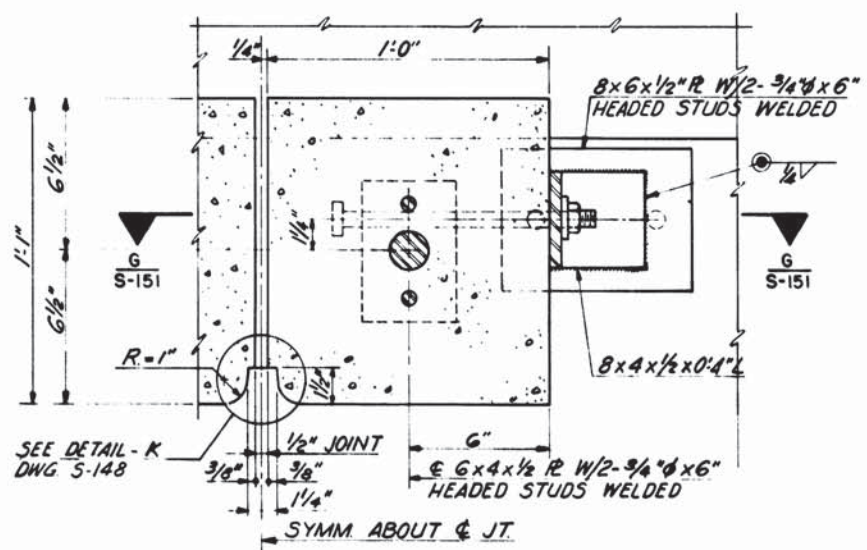
DRAWING NO. **A11b-S-128 M276-119**



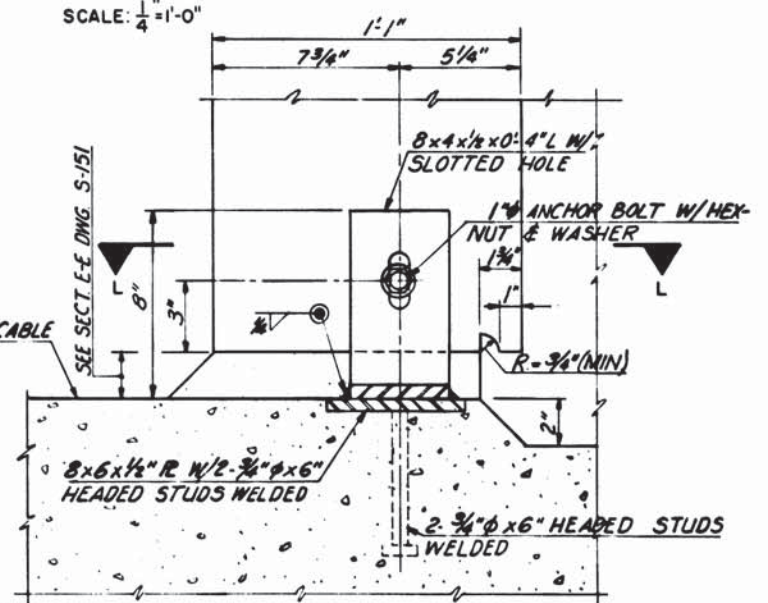
NOTE:
SHADED AREA TO BE CAST IN PLACE



SECTION A-A
SCALE: 3/8" = 1'-0"



SECTION L-L
SCALE: 3/8" = 1'-0"



DETAIL -2 S-151
SCALE: 3/8" = 1'-0"

DESIGNED	G.C.T.	8-74	DATE	NUMBER	DESCRIPTION	DATE	BY	DESCRIPTION
DRAWN	E.V.R.	8-74	DATE	S-100	ABBREVIATIONS AND SYMBOLS	7/8/77	G.C.T.	REVISE SECT. A-A & ADDED OPENING
CHECKED	G.C.T.	12-75	DATE	S-101	STRUCTURAL NOTES			SECT. D-D & M-M
APPROVED	<i>[Signature]</i>	5/77	DATE	A-43	ARCHITECTURAL DETAILS			



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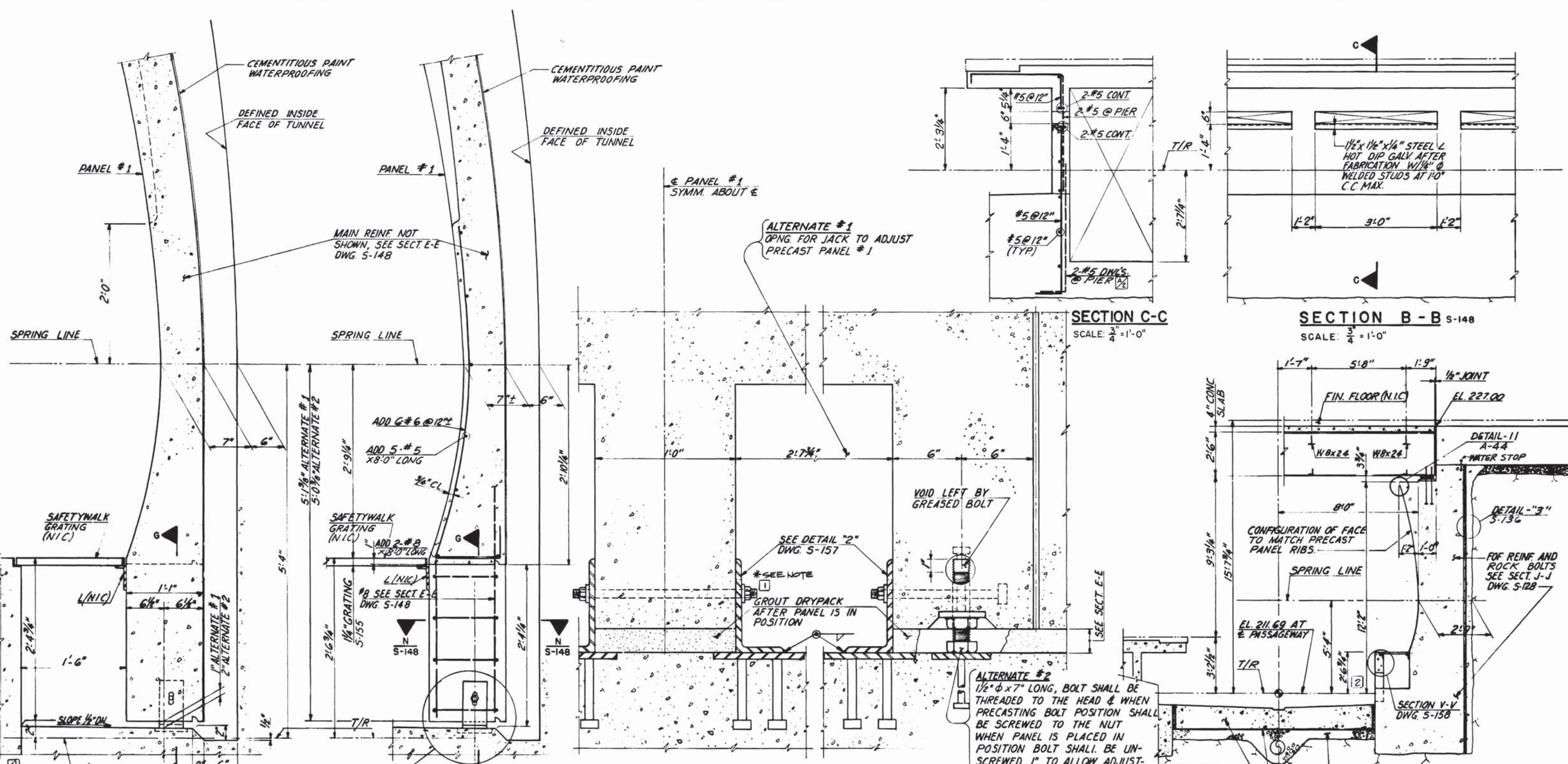
DE LEUW, CATHY & COMPANY
GENERAL ENGINEERING CONSULTANT

HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT

SUBMITTED *[Signature]* DATE 5/16/77 APPROVED *[Signature]*

ROCKVILLE ROUTE
BETHESDA STATION - MEZZANINE
PASSAGEWAY VAULT OPENING

SCALE: AS NOTED DRAWING NO. **A11b-S-157** M276-118



NOTES:
 - THE PRECASTING CONTRACTOR HAS THE OPTION OF ALTERNATE #1 OR ALT. #2 AS INDICATED IN SECTION G-G FOR THE POSITIONING OF PRECAST PANEL #1

① → THESE ANGLES MUST BE BOLTED & WELDED IN POSITION BEFORE ELECTION OF UP PER EACH PANEL

DESIGNED	EVR	8-74	DATE	NUMBER	DESCRIPTION	DATE	BY	REVISIONS	DESCRIPTION
DRAWN	EVR	8-74	DATE	S-100	ABBREVIATIONS AND SYMBOLS	7/8/77	G.C.T.	1	ADDED REINF.
CHECKED	G.C.T.	9-75	DATE	S-101	STRUCTURAL NOTES	10-13-80	H.N.	1	REV. PER SKD, AS BUILT
APPROVED	<i>[Signature]</i>	5/11	DATE					2	REV. PER FIELD CONDITION



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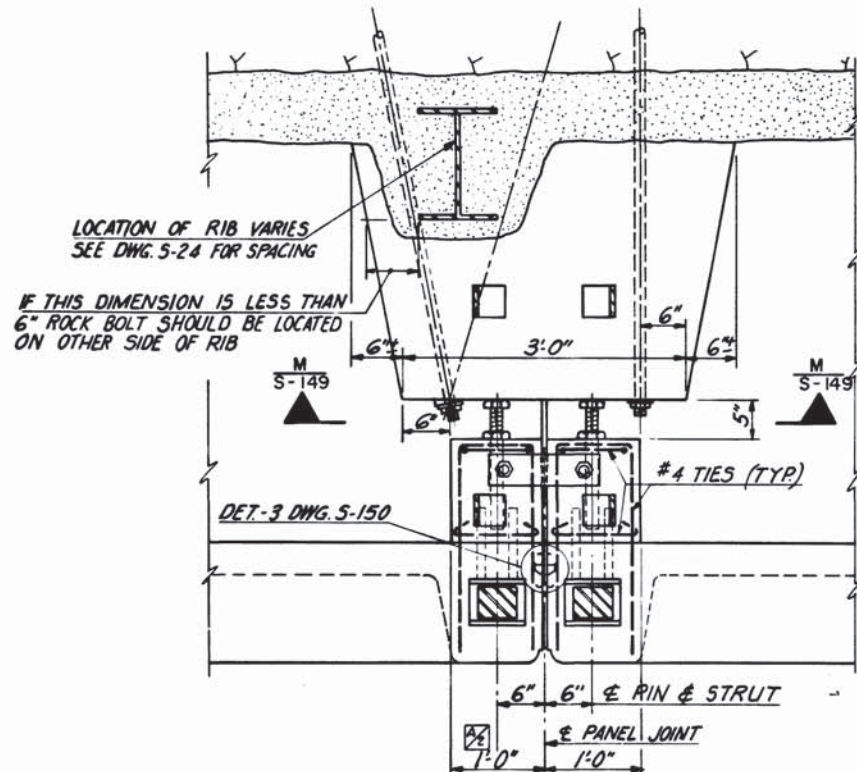
HARRY WEESE & ASSOCIATES
 GENERAL ARCHITECTURAL CONSULTANT

SUBMITTED *[Signature]* DATE 5/14/77 APPROVED *[Signature]*

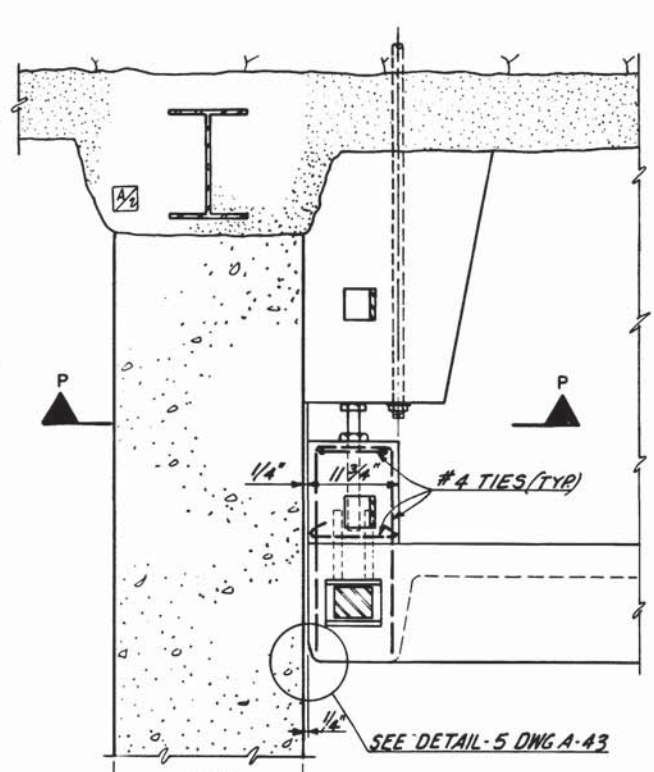
**ROCKVILLE ROUTE
 PRECAST VAULT
 DETAILS**

SCALE: 1/2" = 1'-0" AND AS NOTED

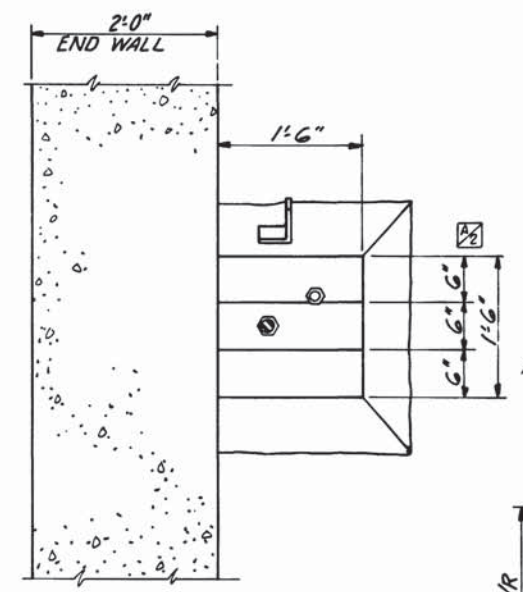
DRIVING NO. A11b-S-151 M276-117



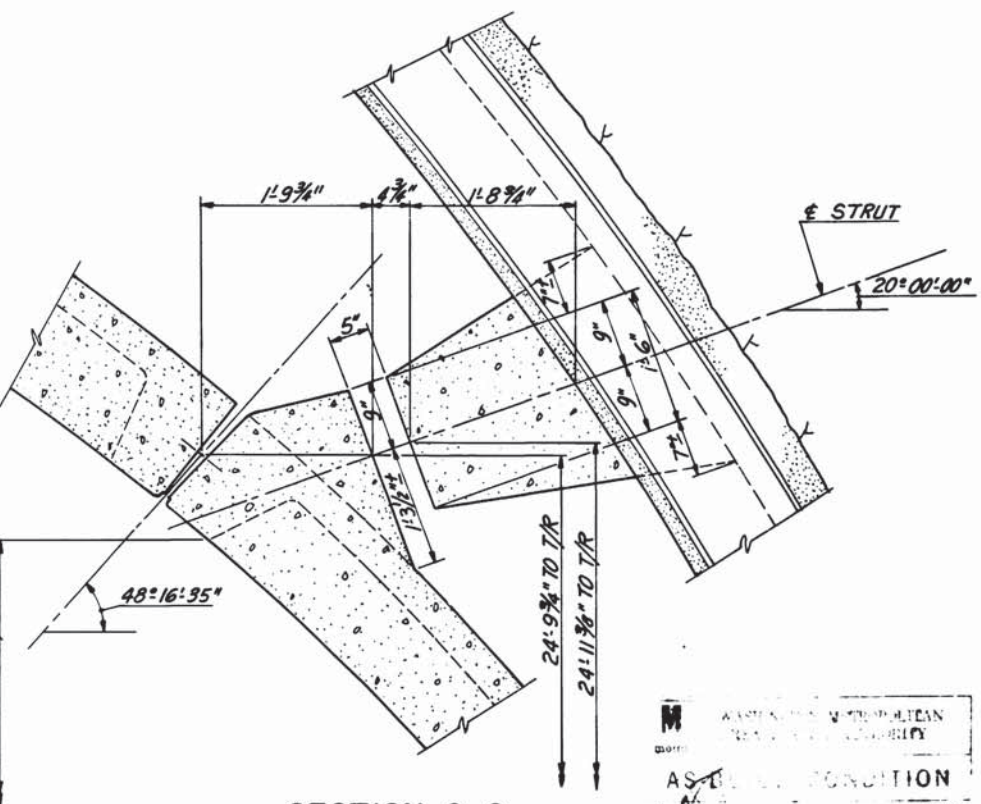
TYPICAL STRUT
SECTION N-N S-149
SCALE: 1"=1'-0"



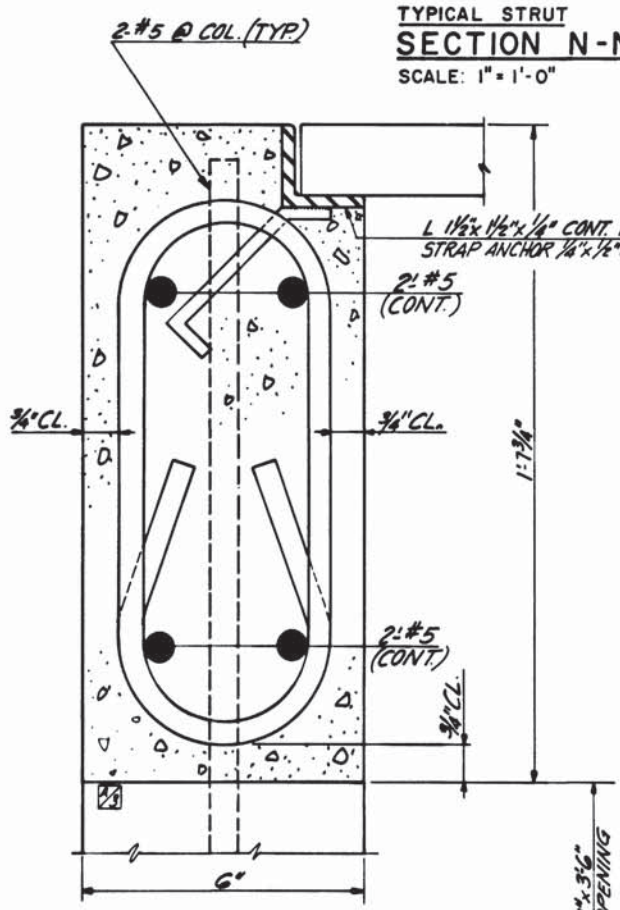
END STRUT
SECTION N-N S-149
SCALE: 1"=1'-0"



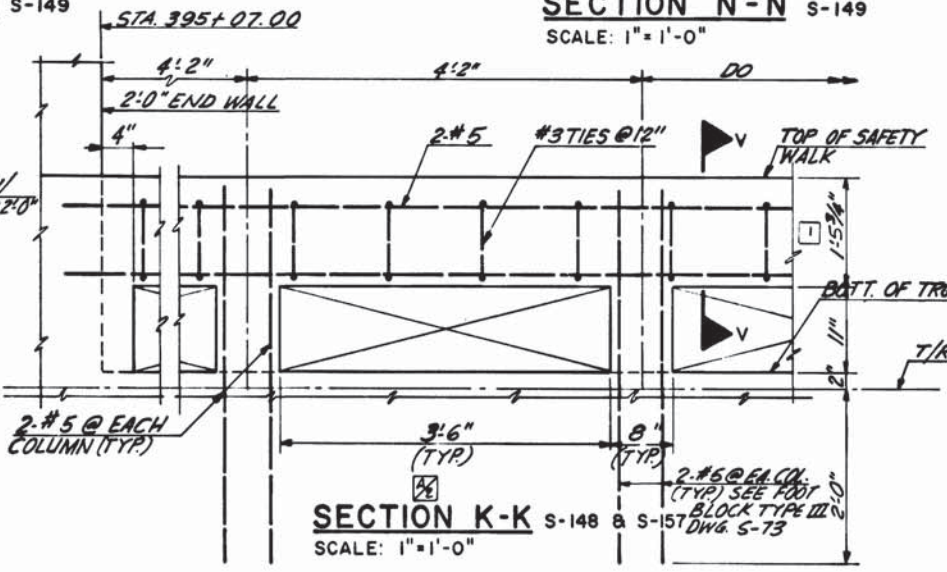
END STRUT
SECTION P-P S-149
SCALE: 1"=1'-0"



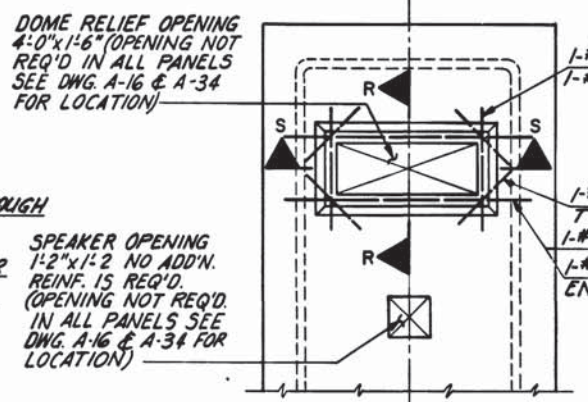
SECTION Q-Q S-148
SCALE: 1"=1'-0"



SECTION V-V
SCALE: 6"=1'-0"



SECTION K-K S-148 & S-157
SCALE: 1"=1'-0"

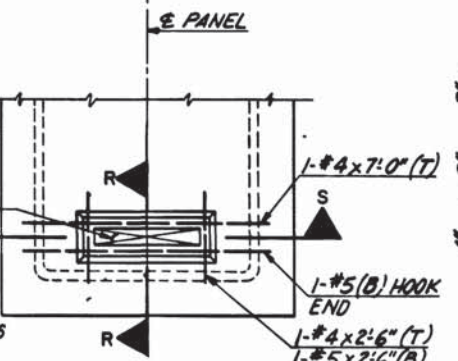


DOME RELIEF OPENING
4'-0" x 1'-6" (OPENING NOT REQ'D IN ALL PANELS SEE DWG. A-16 & A-34 FOR LOCATION)

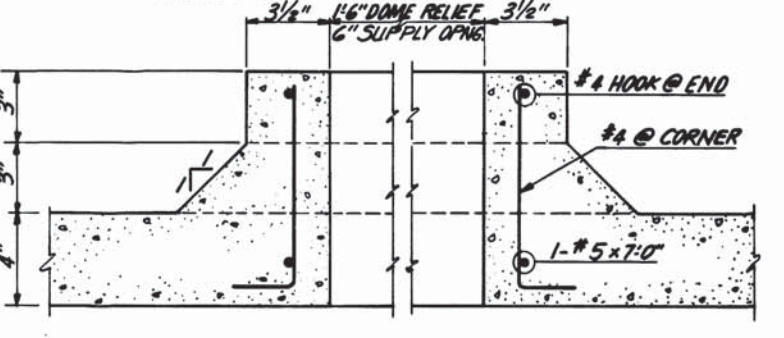
SPEAKER OPENING
1'-2" x 1'-2" NO ADD'N. REINF. IS REQ'D. (OPENING NOT REQ'D IN ALL PANELS SEE DWG. A-16 & A-34 FOR LOCATION)

SUPPLY OPENING
6" x 3'-0" (OPENING NOT REQ'D IN ALL PANELS SEE DWG. A-16 & A-34 FOR LOCATION)

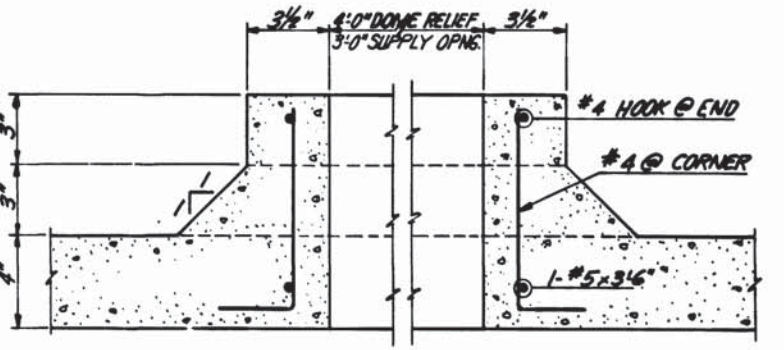
NOTE:
OPENINGS SHOWN ARE APPLICABLE FOR PANEL #2 ONLY NO OPENINGS IN PANEL #1.



VIEW T-T S-148
SCALE: 3/4"=1'-0"



SECTION R-R S-148
SCALE: 3"=1'-0"



SECTION S-S S-148
SCALE: 3"=1'-0"

DESIGNED		DATE		REFERENCE DRAWINGS		REVISIONS	
S.G.T.	8-75	8-75	8-75	S-100	ABBREVIATIONS AND SYMBOLS	7/9/77	G.C.T. ADDITIONAL INFO SECT K-K
E.V. ROUCO	8-75	8-75	8-75	S-101	STRUCTURAL NOTES	10/12/77	G.C.T. REVISED SECTION V-V
S.G.T.	8-76	8-76	8-76			12/1/82	HTN REV. PER FIELD CONR. AS BUILT
S.G.T.	3/77	3/77	3/77				



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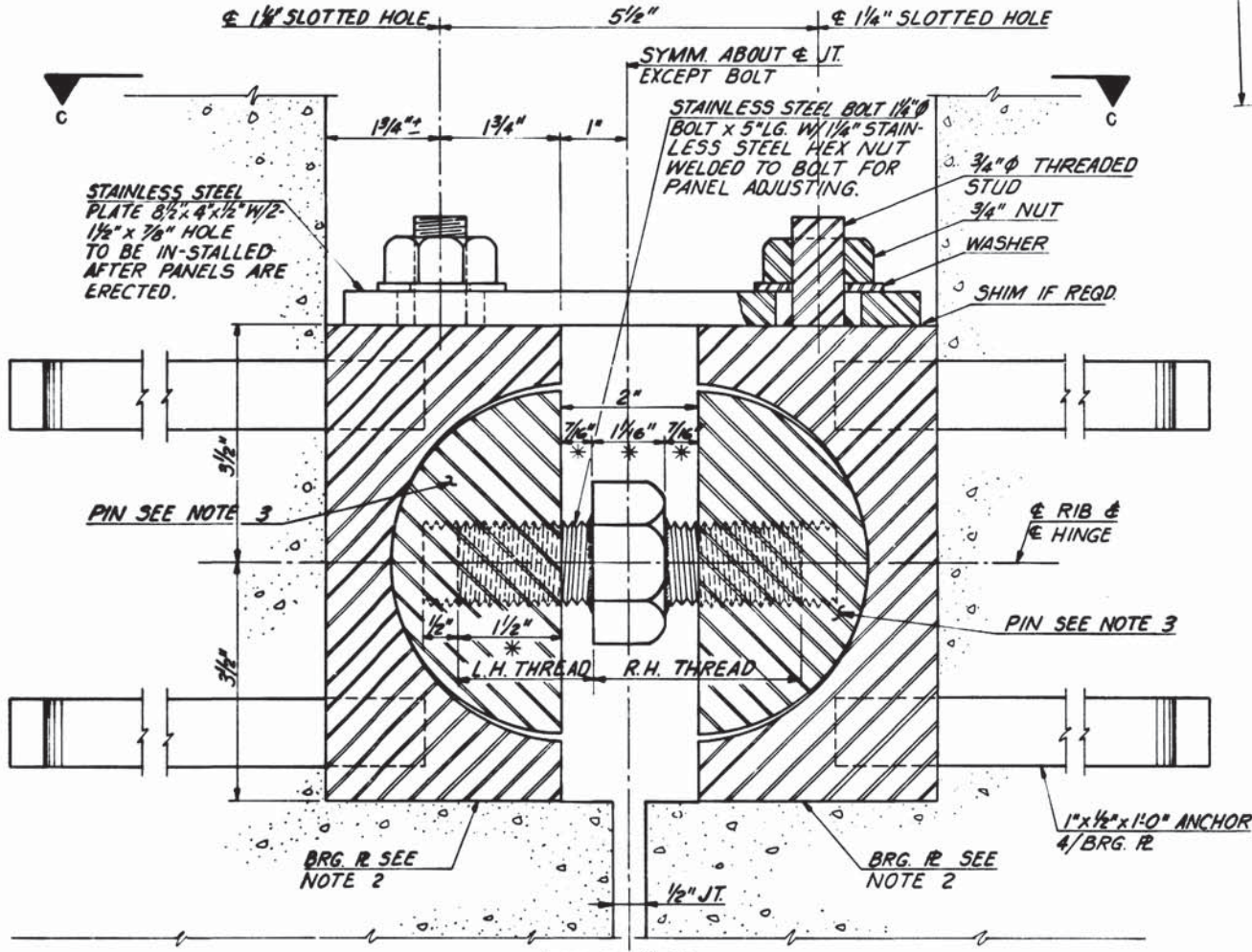
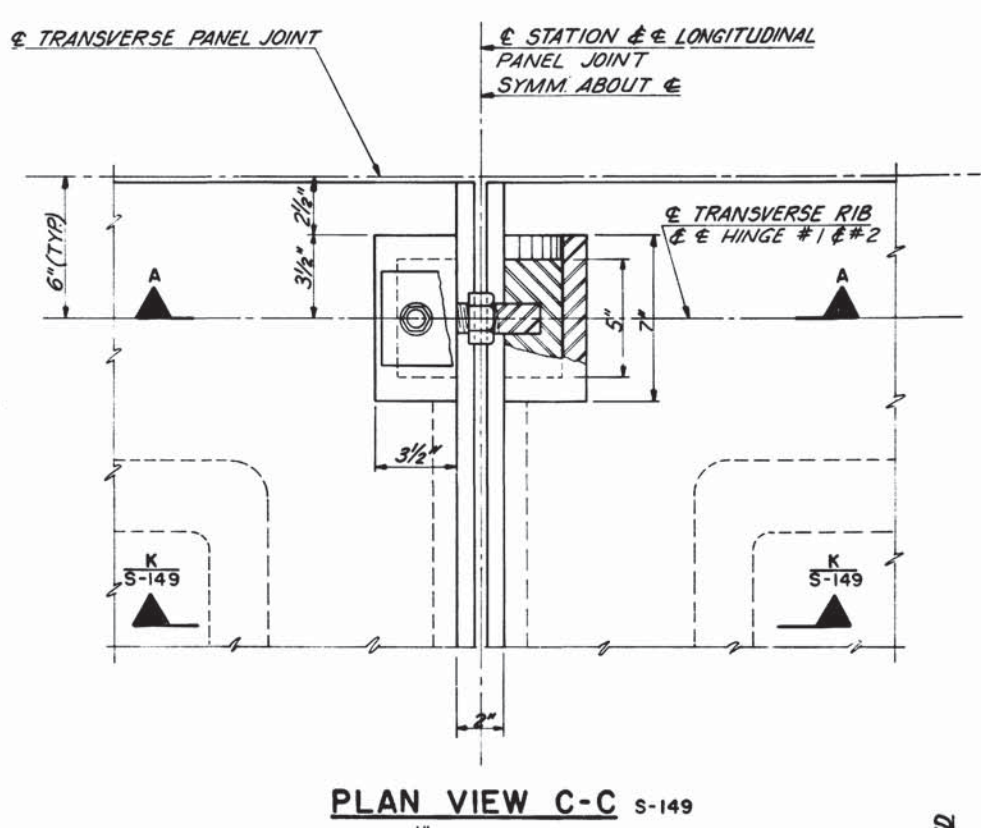
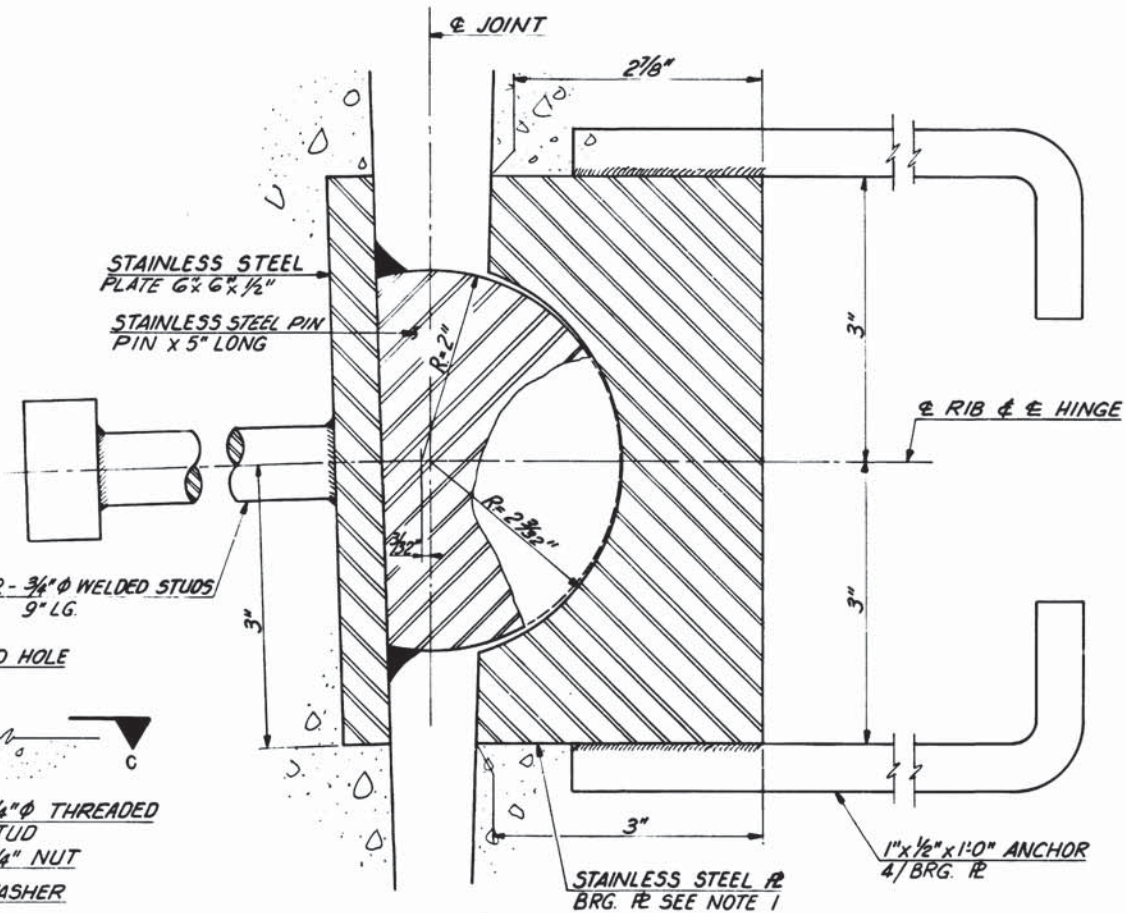
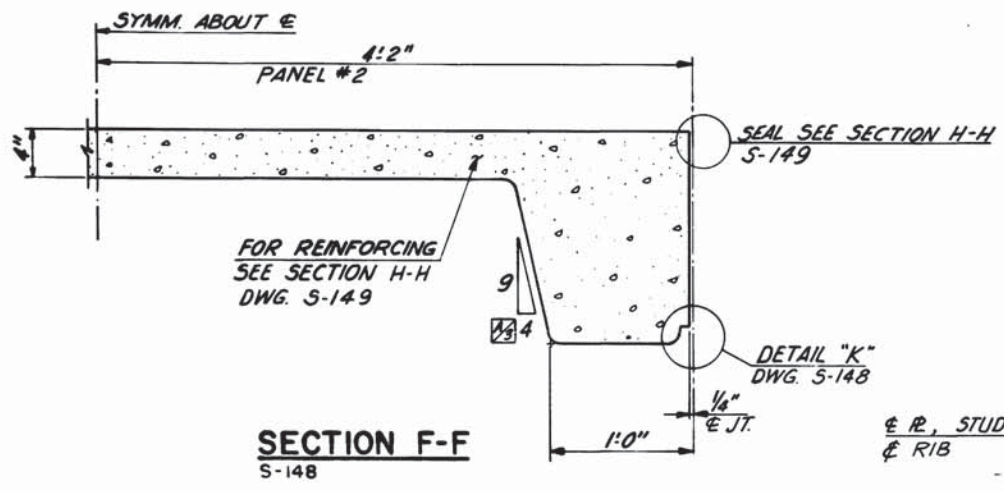
HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT

SUBMITTED *Stewart & Beall* DATE 5/16/77 APPROVED *Robert [Signature]*

**ROCKVILLE ROUTE
PRECAST VAULT DETAILS**

SCALE: AS NOTED

DRAWING NO. **Alb-S-158** M276-116

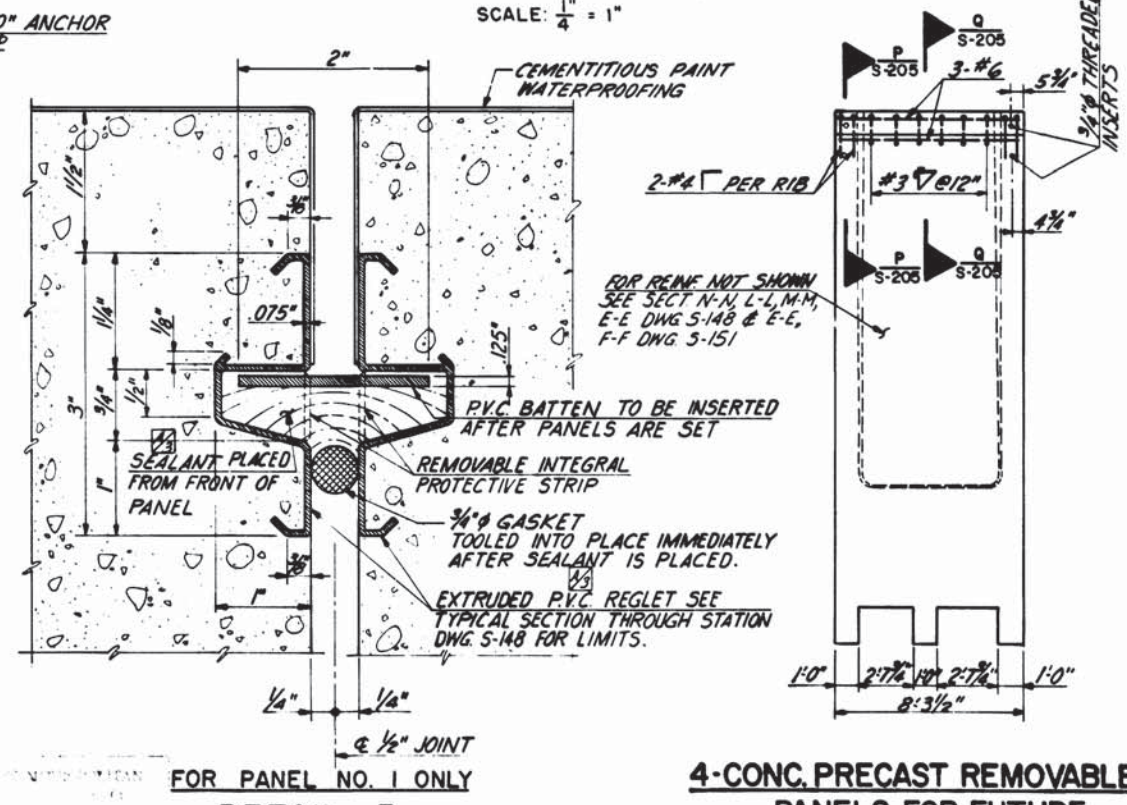


(HINGE # 1)
DETAIL "B" S-149
FULL SIZE

* THESE DIMENSIONS ARE TO BE SET BEFORE INSTALLING HINGE

NOTES:

1. MATERIAL OF BEARING R FOR HINGE #1 SHALL BE A 6" x 6" x 1/2" LG. STAINLESS STEEL BAR. DRILL A 4 7/16" Ø HOLE THROUGH CENTER AND CUT TO THE DIMENSIONS SHOWN ON DETAIL "B".
2. MATERIAL OF BEARING R'S FOR HINGE #2 SHALL BE A 7" x 7" x 7" STAINLESS STEEL BAR DRILL A 5 1/4" Ø HOLE THROUGH CENTER AND CUT IN HALF AS SHOWN ON DETAIL "A".
3. PIN SHALL BE A 5" DIAMETER x 5" LG. STAINLESS STEEL PIN CUT IN HALF W/ 1-2" DEEP THREADED HOLE AT CENTER AS SHOWN ON DETAIL "A".



4-CONC. PRECAST REMOVABLE PANELS FOR FUTURE PASSAGEWAY
SCALE: 1/4" = 1'-0"

DESIGNED	DATE	NUMBER	DESCRIPTION	DATE	BY	DESCRIPTION
E.V. ROUCO	4-74	S-100	ABBREVIATIONS & SYMBOLS	10/12/77	G.C.T.	CORRECTED KEY WORD ON DET.-3
E.V. ROUCO	4-74	S-101	STRUCTURAL NOTES			& REVISED SECTION F-F
G.C.T.	8-75					
APPROVED	DATE					



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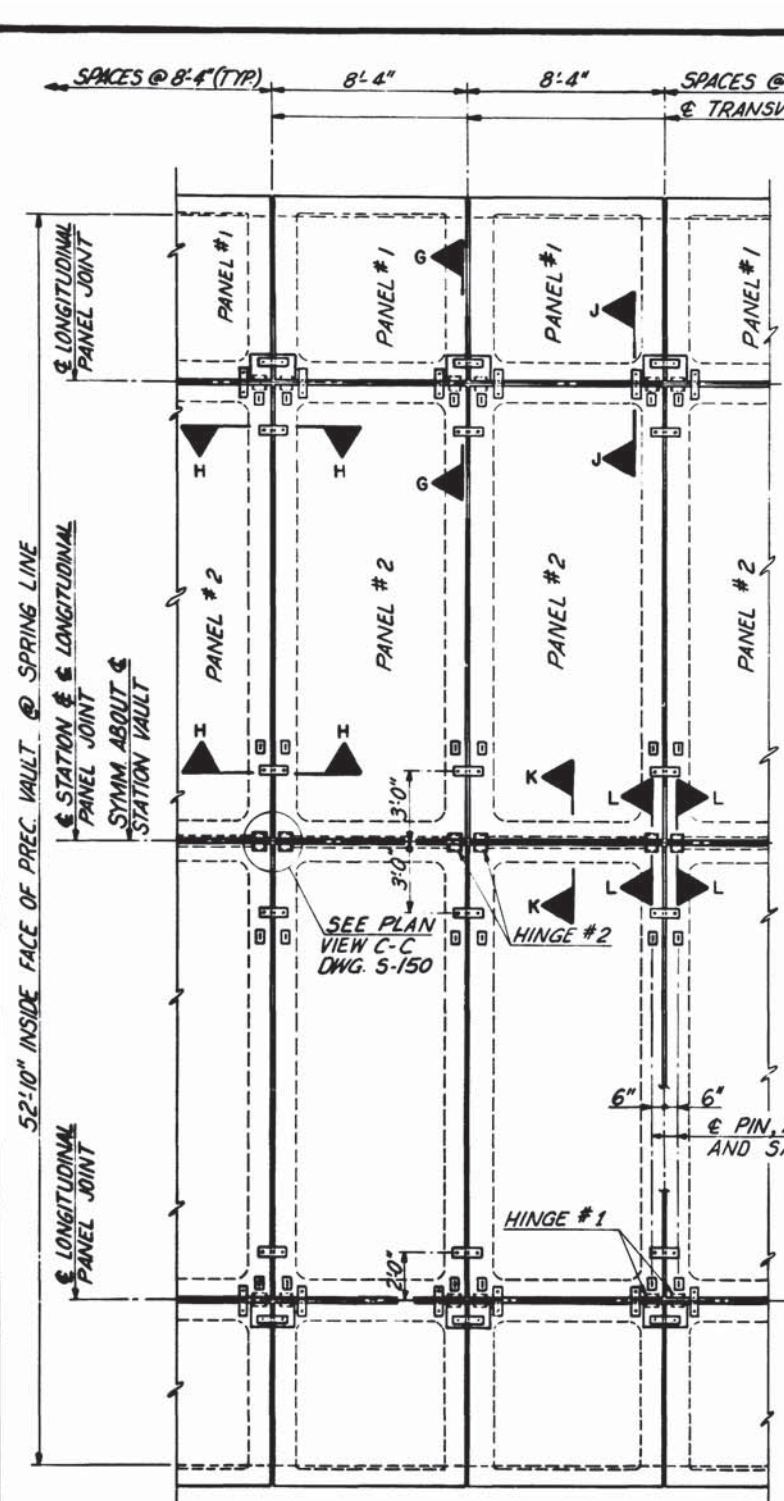
HARRY WEESER & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT

SUBMITTED *Stewart & Lane* DATE 5/16/77 APPROVED *Kobayashi*

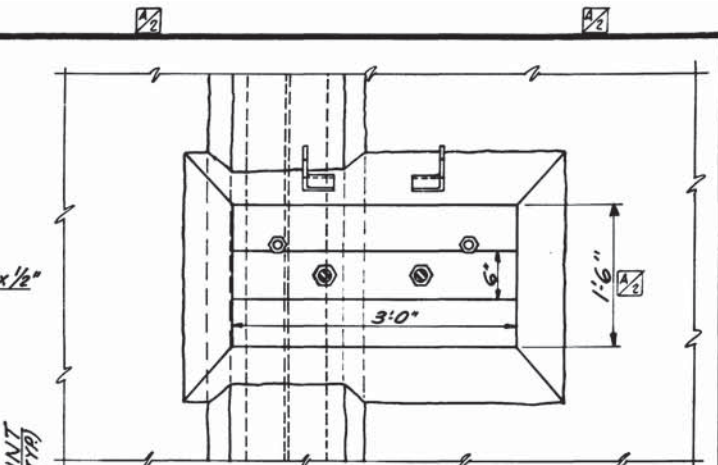
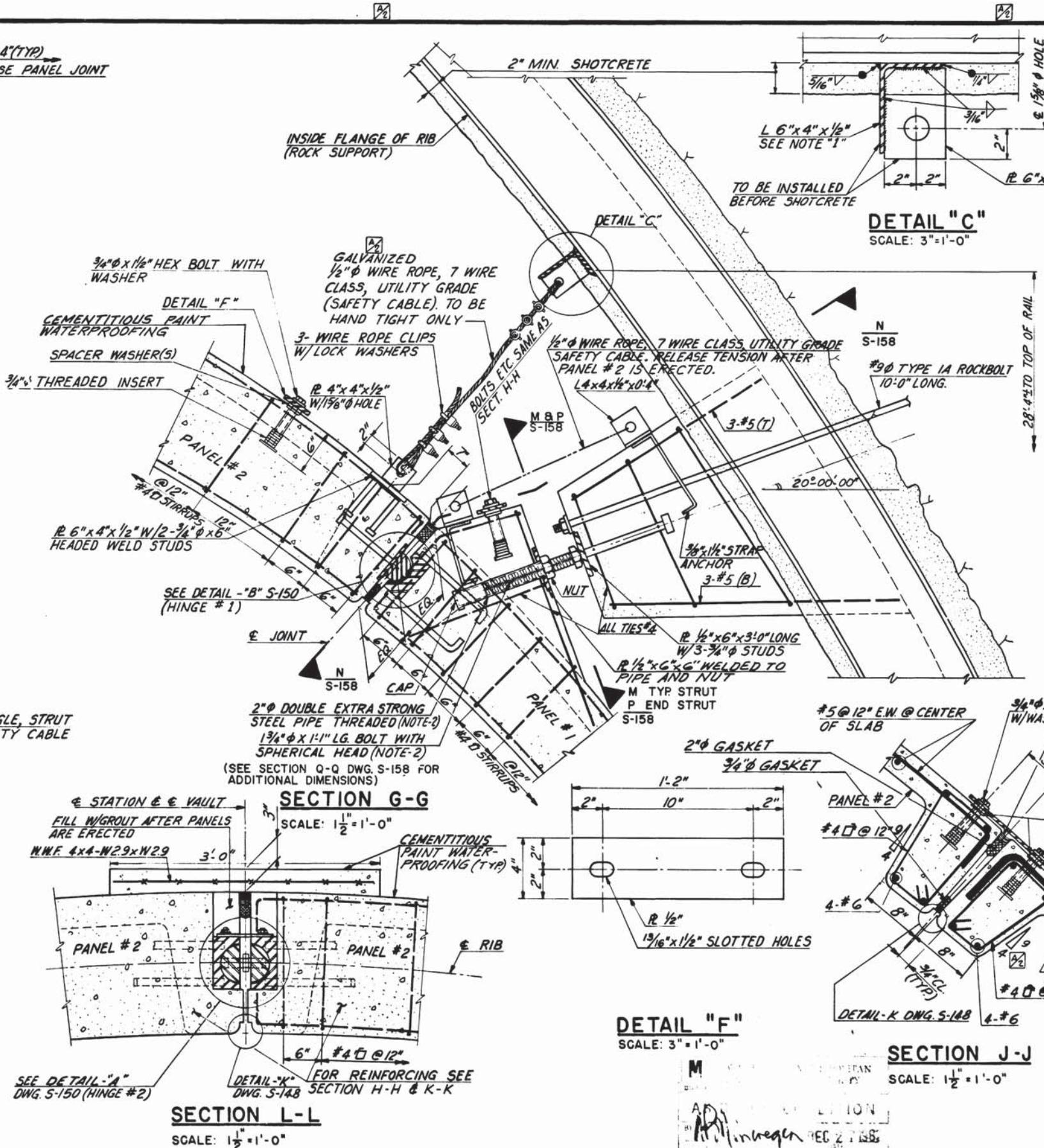
ROCKVILLE ROUTE PRECAST VAULT DETAILS

SCALE 1/4" = 1'-0" AND AS NOTED

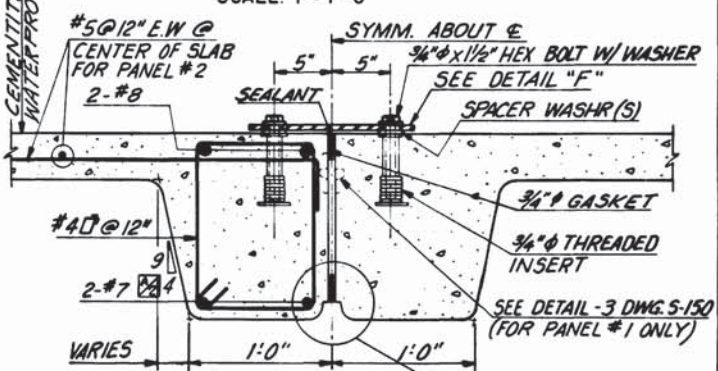
DRAWING NO. A11b-S-150 M276-115



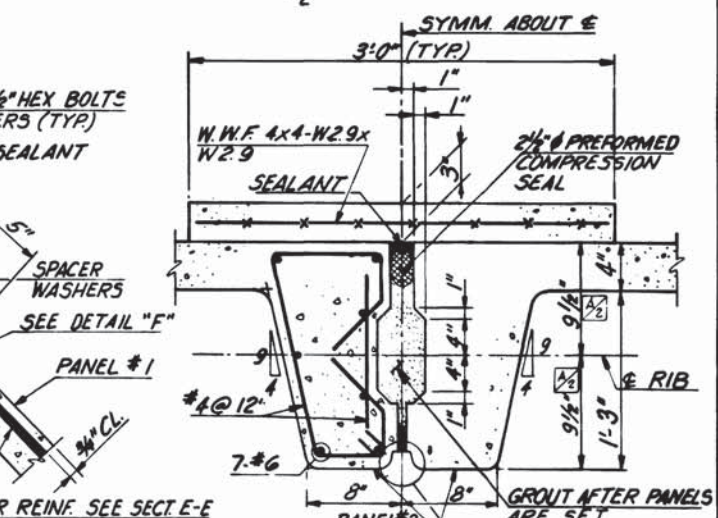
PARTIAL VAULT PLAN



TYPICAL STRUT ELEVATION M-M
SCALE: 1" = 1'-0"

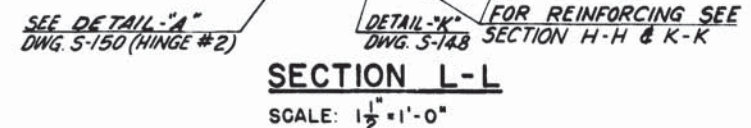


SECTION H-H
SCALE: 1/2" = 1'-0"



SECTION K-K
SCALE: 1/2" = 1'-0"

NOTES:
 1. INSTALL CONT. ANGLE BEFORE SHOTCRETE COVER IS APPLIED TO ROCK SUPPORT RIBS. ANGLE JOINTS SHALL FALL ON RIB.
 2. ALL EXPOSED METAL PARTS SHALL BE GALVANIZED.
 3. CEMENTITIOUS PAINT ON OUTER FACE OF PRECAST VAULT PANEL NOT SHOWN SEE TYPICAL SECTION THROUGH STATION ON DWG S-148.



SECTION L-L
SCALE: 1/2" = 1'-0"

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SECTION DESIGNER

DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT

HARRY WEESSE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT

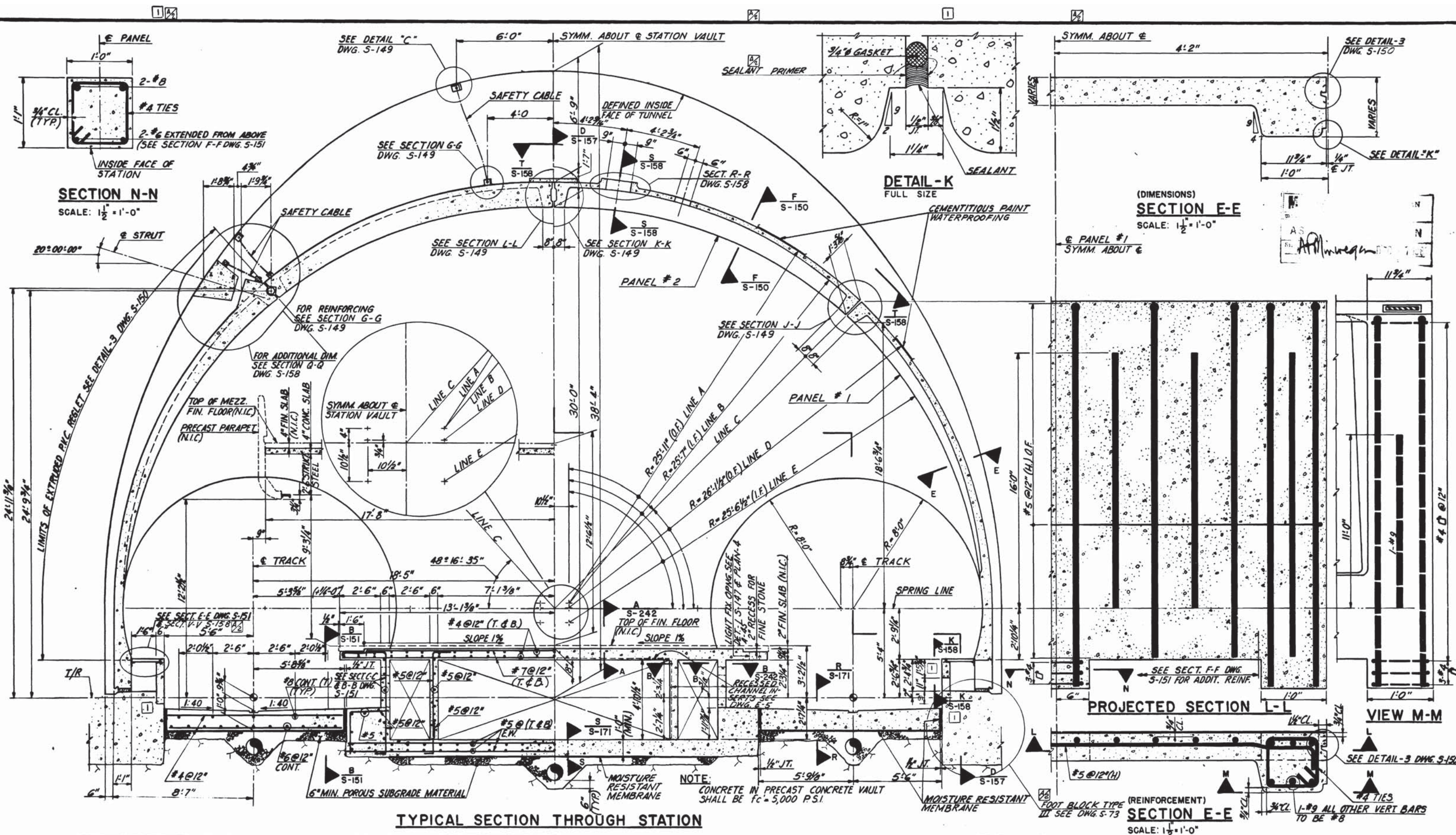
SUBMITTED *[Signature]* DATE 5/16/77 APPROVED *[Signature]*

**ROCKVILLE ROUTE
PRECAST VAULT
PARTIAL PLAN AND SECTIONS**

SCALE: 1/4" = 1'-0" AND AS NOTED

DRAWING NO. **A11b-S-149** M276-114

DESIGNED	DATE	REFERENCE DRAWINGS		REVISIONS	
		NUMBER	DESCRIPTION	DATE	DESCRIPTION
GCT & E.V.R.	4-74	A-43	ARCHITECTURAL DWG.	7/8/77	G.C.T. REVISED RIB SLOPE 4-9
DRAWN	4-74	S-100	ABBREVIATIONS & SYMBOLS		
CHECKED	9-75	S-101	STRUCTURAL NOTES		
APPROVED	5/77				



TYPICAL SECTION THROUGH STATION

SECTION E-E
SCALE: 1/2" = 1'-0"

DESIGNED		DATE		REFERENCE DRAWINGS		REVISIONS	
NUMBER	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
G.C.T.	2-74			A-41	ADDITIONAL VAULT INFO.	7/8/77	G.C.T.
E.V.R.	2-74			E-3-E-2	ELECTRICAL DWGS.	01/11/82	HTJ
G.C.T.	7-75			M-25	MECHANICAL DWG.		
S-100	ABBREVIATIONS & SYMBOLS			S-100	STRUCTURAL NOTES		
S-10	T/R SLOPE						



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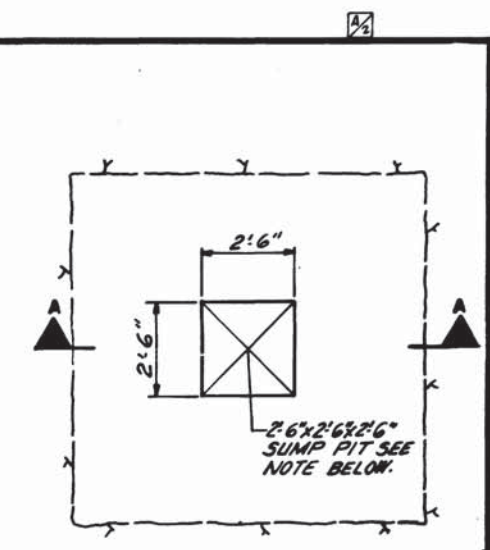
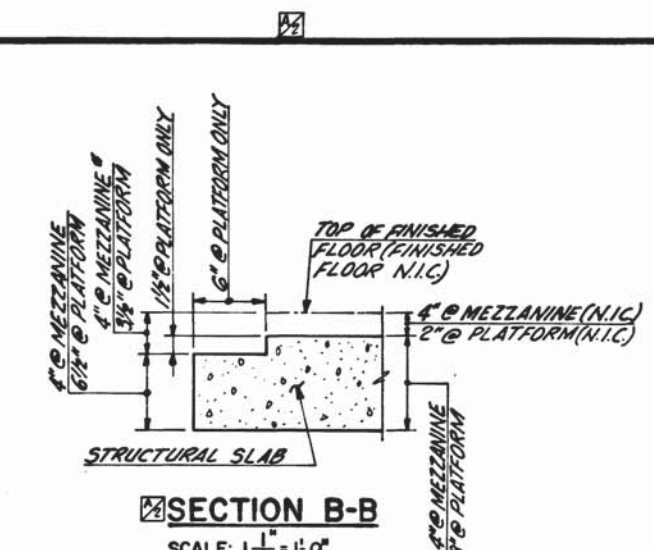
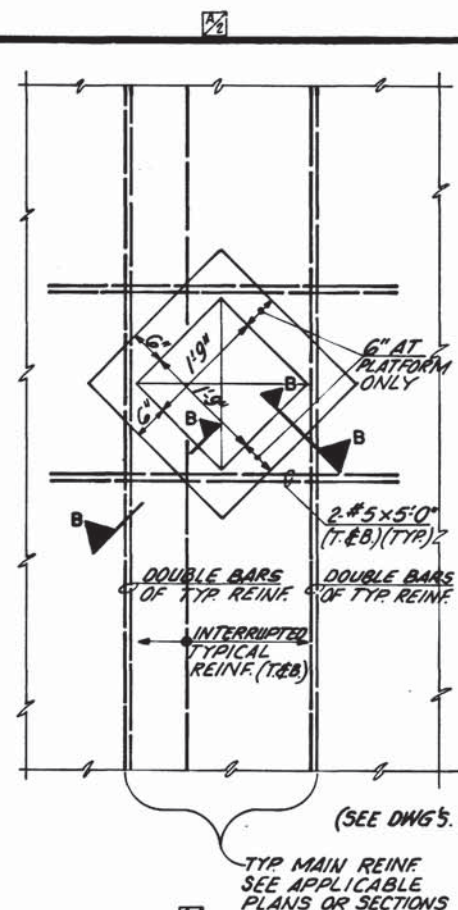
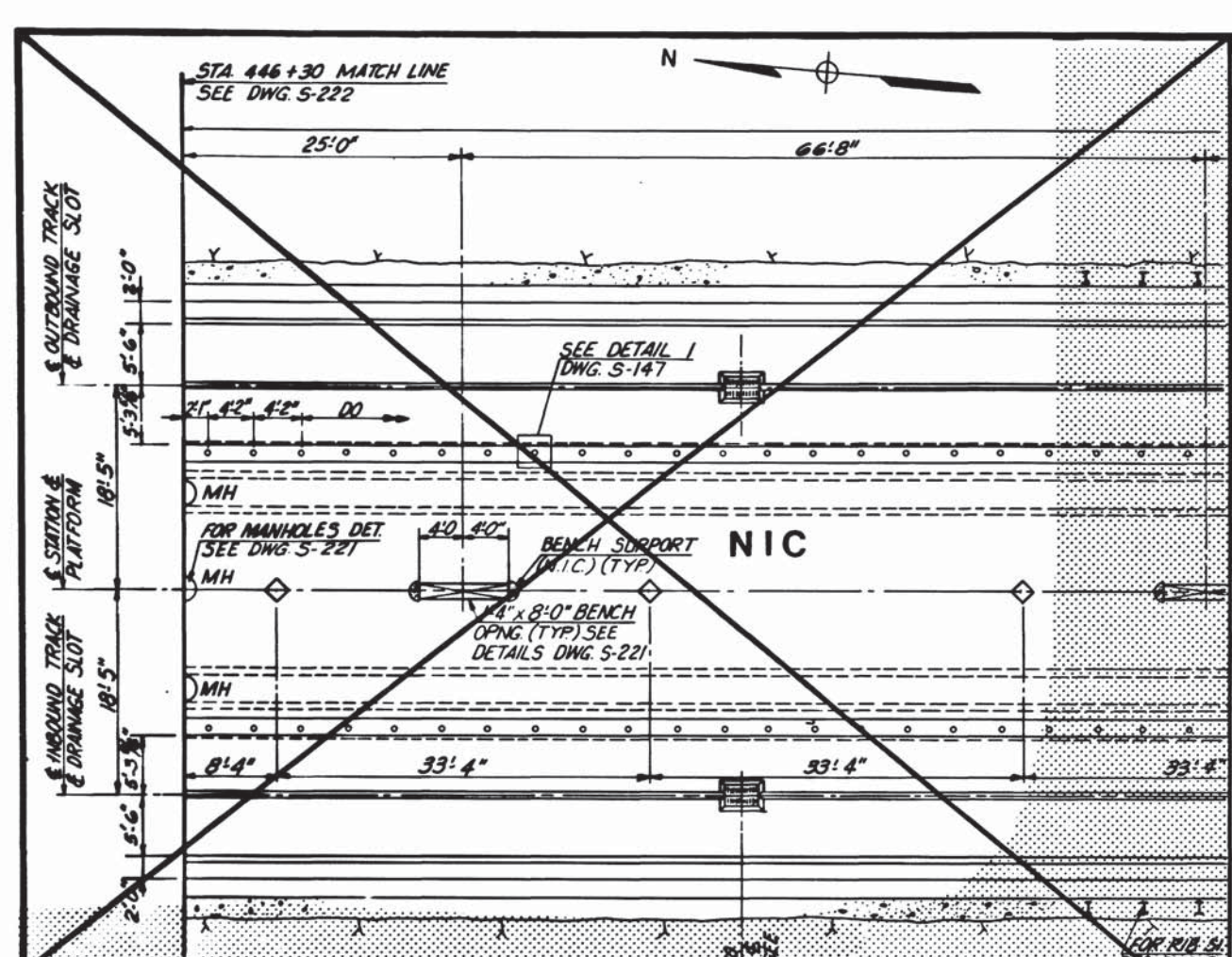
HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT

SUBMITTED *Shaw & Davis* DATE 5/16/77 APPROVED *K. J. Wood*

**ROCKVILLE ROUTE
PRECAST VAULT
AND PLATFORM DETAILS**

SCALE: 3/8" = 1'-0" AND AS NOTED

DRAWING NO. **A11b-S-148** M276-113

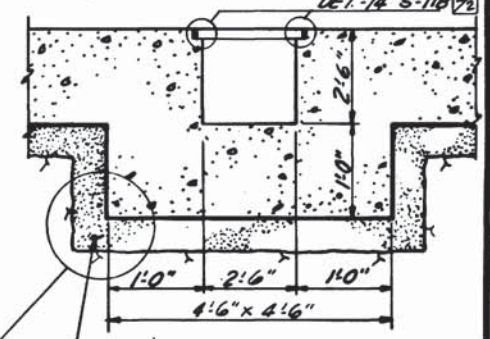


PYLON OPENING PLAN
SCALE: 3/4" = 1'-0"

SECTION B-B
SCALE: 1/2" = 1'-0"

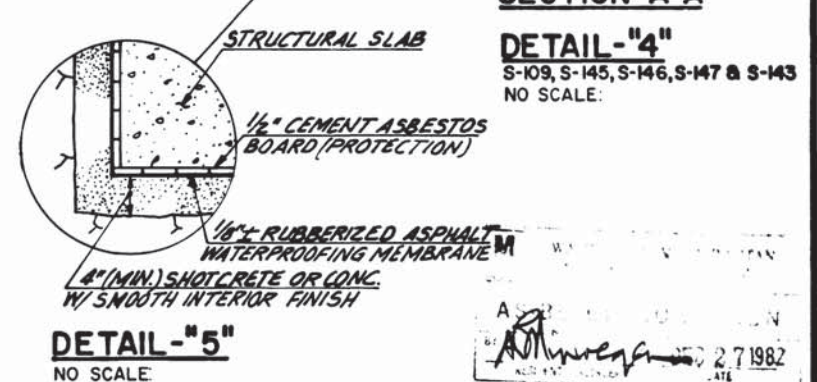
PLAN

NOTE:
FOR SUMP PIT LOCATIONS SEE MECHANICAL DWGS. DET. 14" S-118

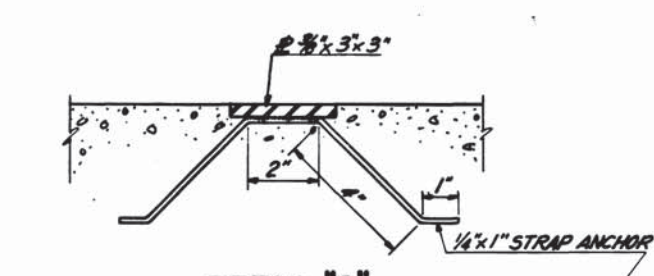


SECTION A-A

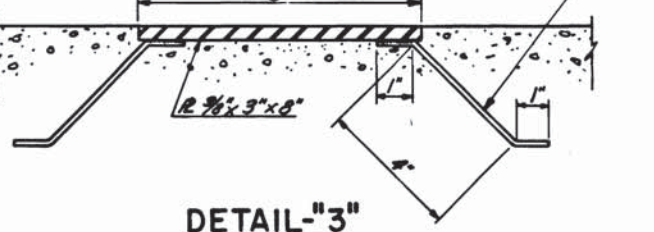
DETAIL - "4"
S-109, S-145, S-146, S-147 & S-143
NO SCALE.



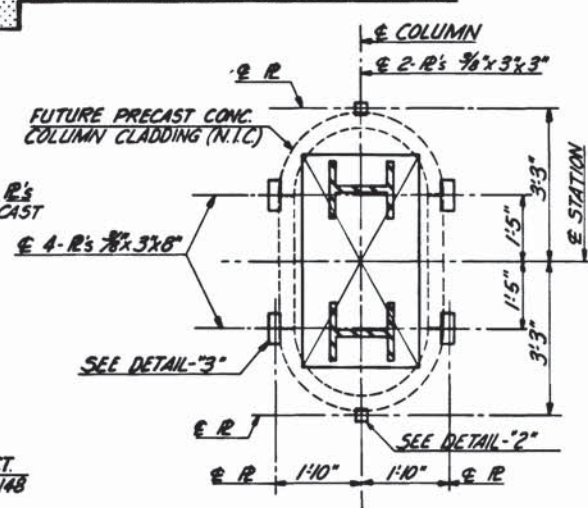
DETAIL - "5"
NO SCALE.



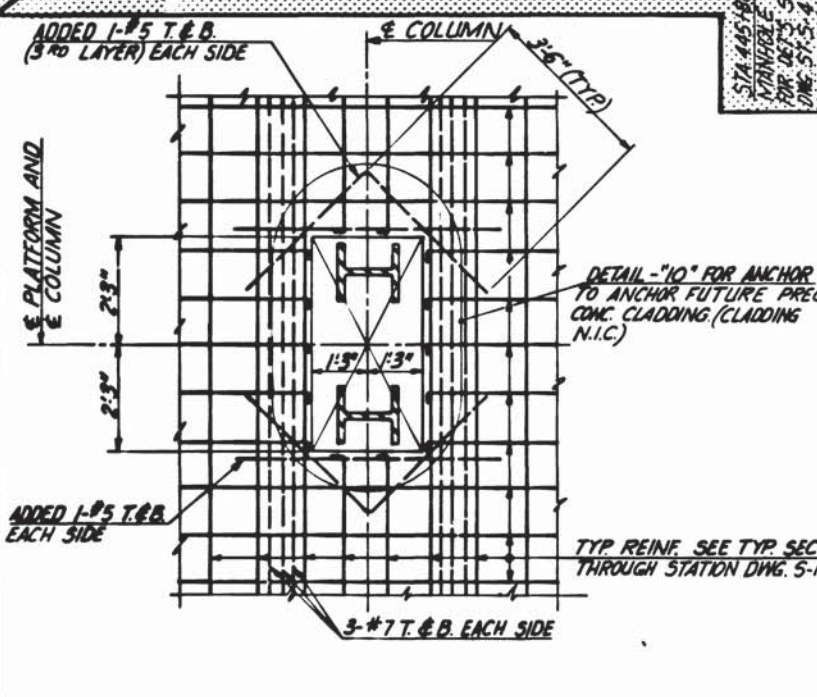
DETAIL - "2"
SCALE: 3/8" = 1"



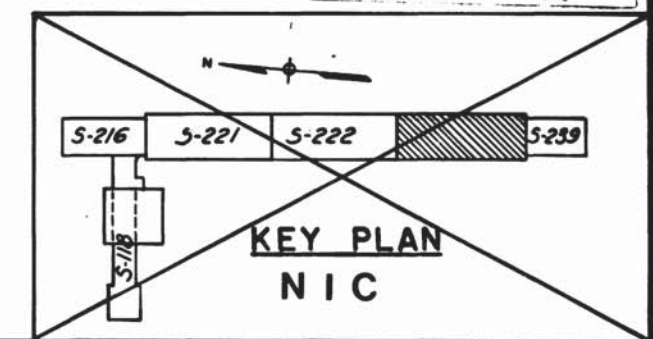
DETAIL - "3"
SCALE: 3/8" = 1"



DETAIL - "10"
SCALE: 1/2" = 1'-0"



DETAIL - "9" S-145
SCALE: 1/2" = 1'-0"



KEY PLAN
NIC

DESIGNED		REFERENCE DRAWINGS		REVISIONS	
S.C.T.	9-74	NUMBER	DESCRIPTION	DATE	BY
E.V. ROUSSO	9-74	S-100	ABBREVIATIONS & SYMBOLS	7/8/77	G.C.T.
S.C.T.	10-75	S-101	STRUCTURAL NOTES		
APPROVED	DATE				

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SECTION DESIGNER

DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT

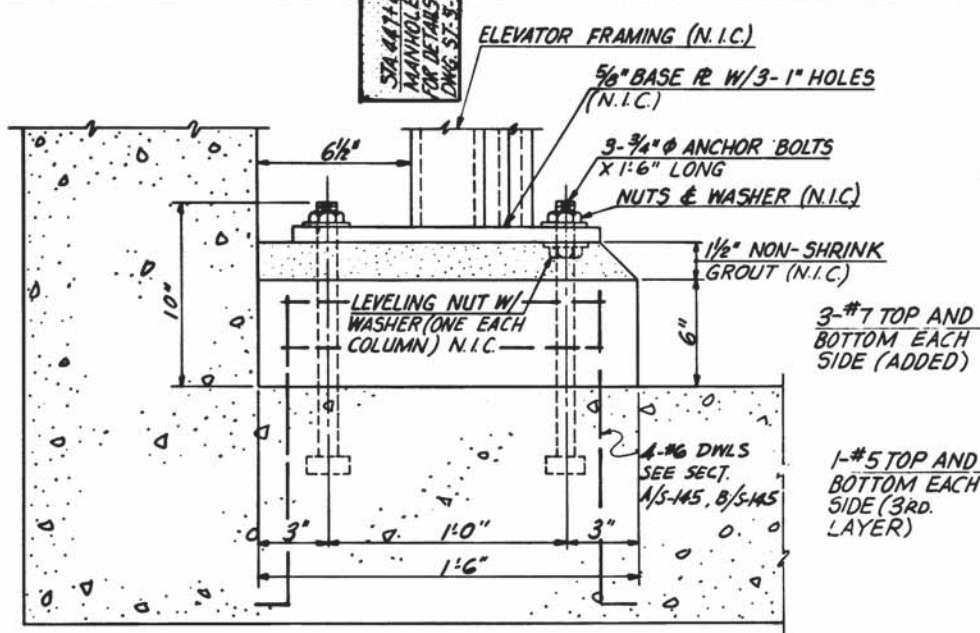
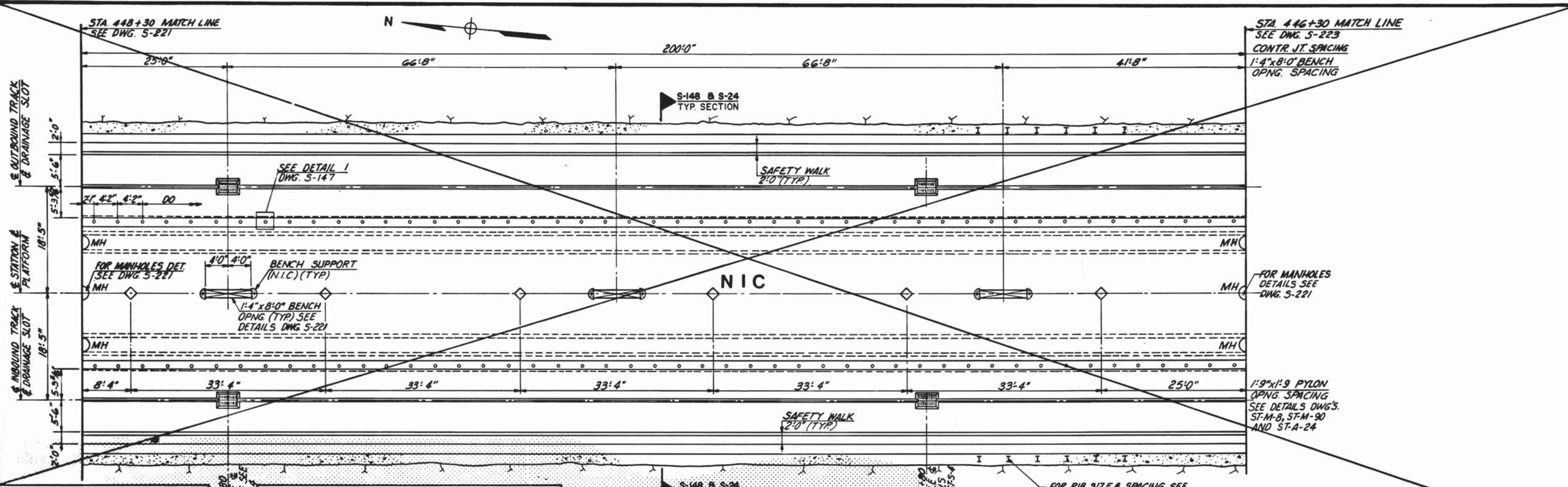
HARRY WESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT

SUBMITTED *Stewart H. Beall* DATE 5/16/77 APPROVED *Kobert J. Weese*

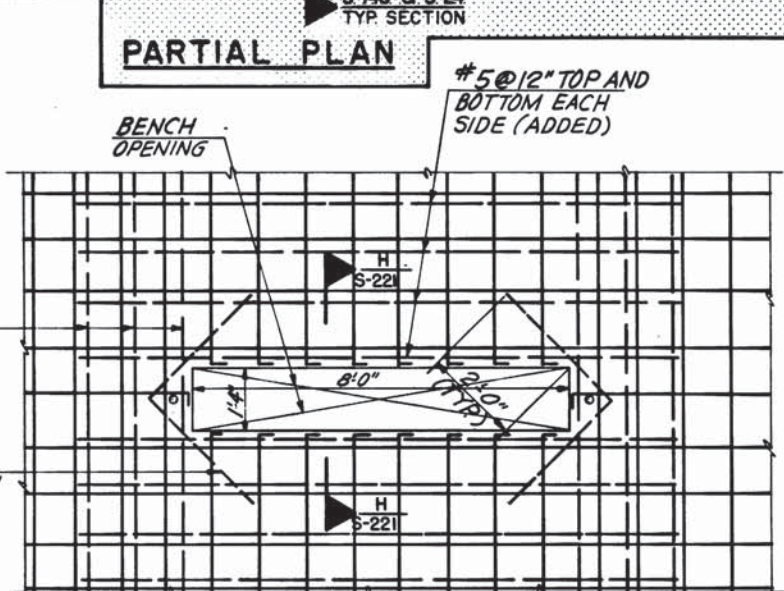
ROCKVILLE ROUTE
BETHESDA STATION PLATFORM
SECTIONS AND DETAILS

SCALE: 1" = 1'-0" AND AS NOTED

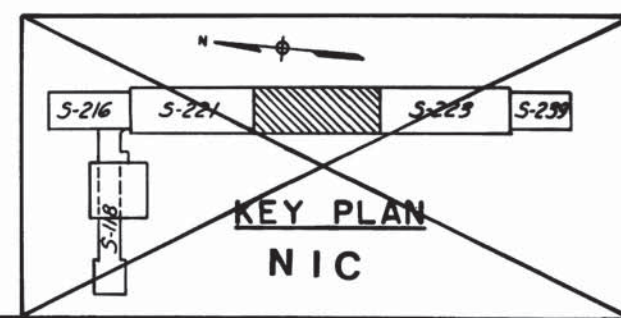
DRAWING NO. **A11b-S-223** M276-112



SECTION F-F S-145
SCALE: 3" = 1'-0"



PART PLAN TYPICAL REINFORCEMENT AROUND BENCH OPENING
SCALE: 1/2" = 1'-0"



DESIGNED	DATE	NUMBER	DESCRIPTION	DATE	BY	DESCRIPTION
G.C.TREE	9-74	5-100	ABBREVIATIONS & SYMBOLS			
E.V. ROUCO	9-74	5-101	STRUCTURAL NOTES			
G.C.TREE	10-75					
APPROVED	DATE					



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GENERAL ENGINEERING CONSULTANT

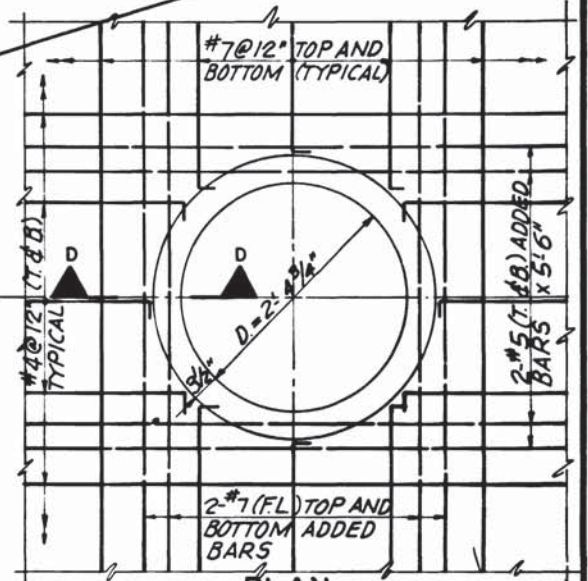
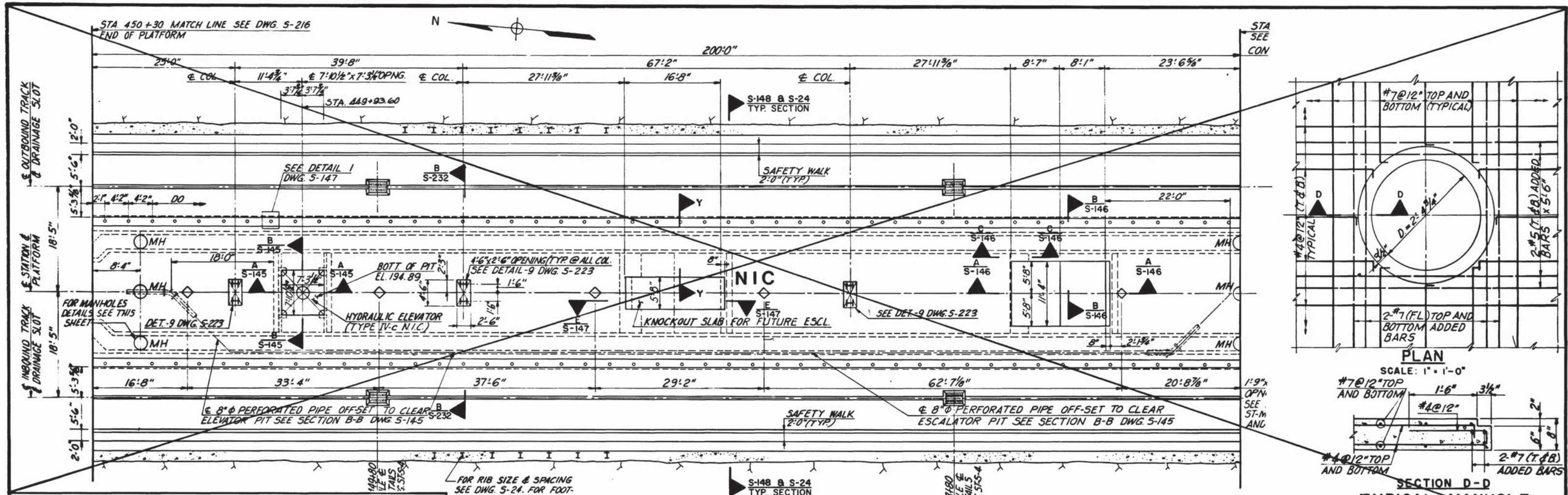
HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT

SUBMITTED *Stewart & Beall* DATE 5/16/77 APPROVED *Colin F. Kelly*

**ROCKVILLE ROUTE
BETHESDA STATION PLATFORM
SECTIONS AND DETAILS**

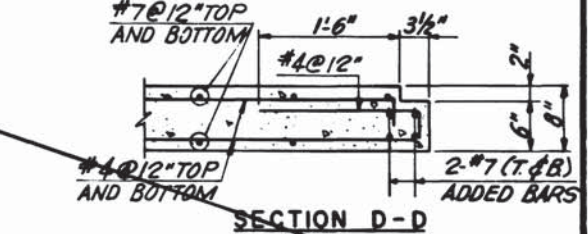
SCALE: 1" = 1'-0" 10 2 4 6 8 10 AND AS NOTED

DRAWING NO. **A11b-S-222** M276-III

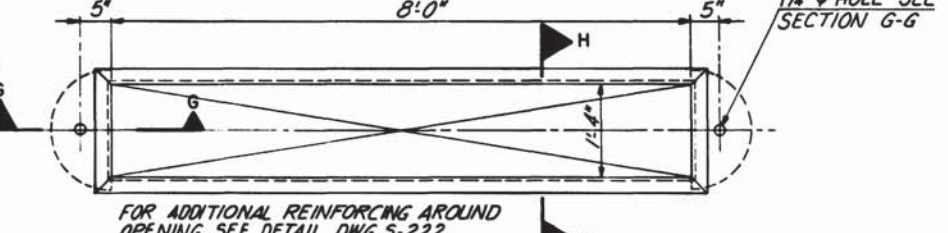


PLAN

SCALE: 1" = 1'-0"

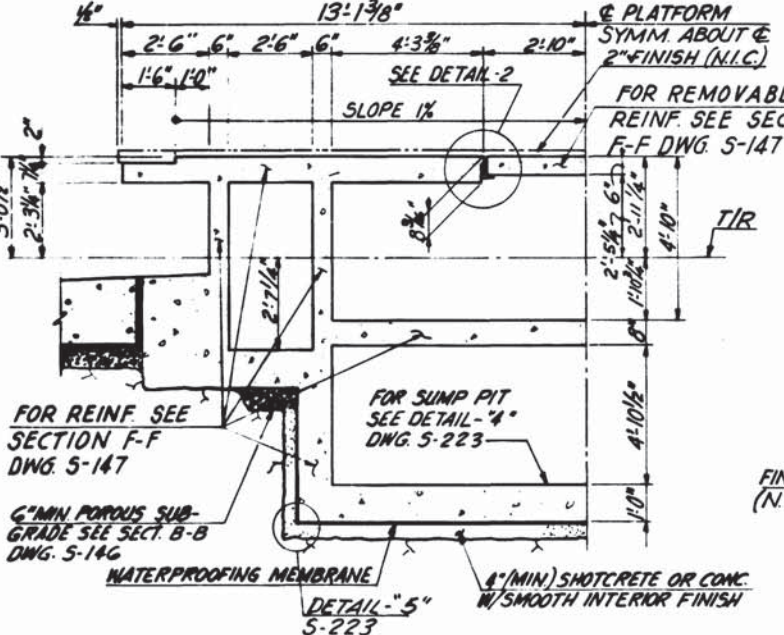


PARTIAL PLAN



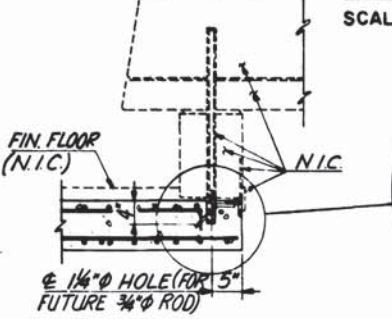
BENCH OPENING PLAN

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



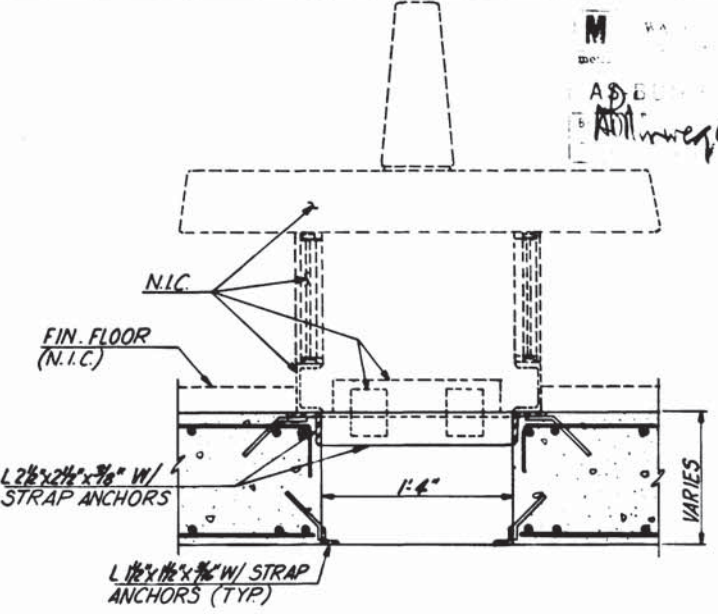
SECTION Y-Y

SCALE: 3/8" = 1'-0"



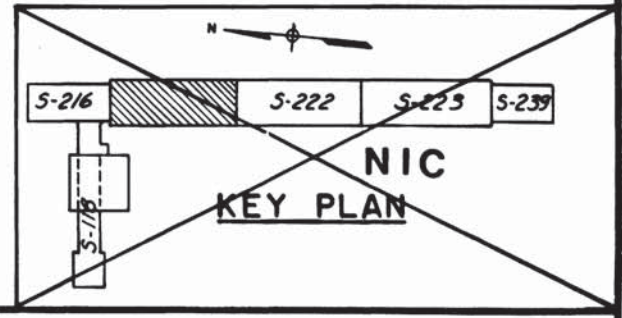
SECTION G-G

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



SECTION H-H

SCALE: 1 1/2" = 1'-0"



DESIGNED		DATE		REFERENCE DRAWINGS				REVISIONS			
NUMBER	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION				
G.C.T.	9-74	S-100		ABBREVIATIONS & SYMBOLS							
E.V. ROUGO	9-74	S-101		STRUCTURAL NOTES							
G.C.TREE	10-75										
STUART & DRESS	5/77										

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GENERAL ENGINEERING CONSULTANT

HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT

SUBMITTED *Stuart & Dress* DATE 5/16/77

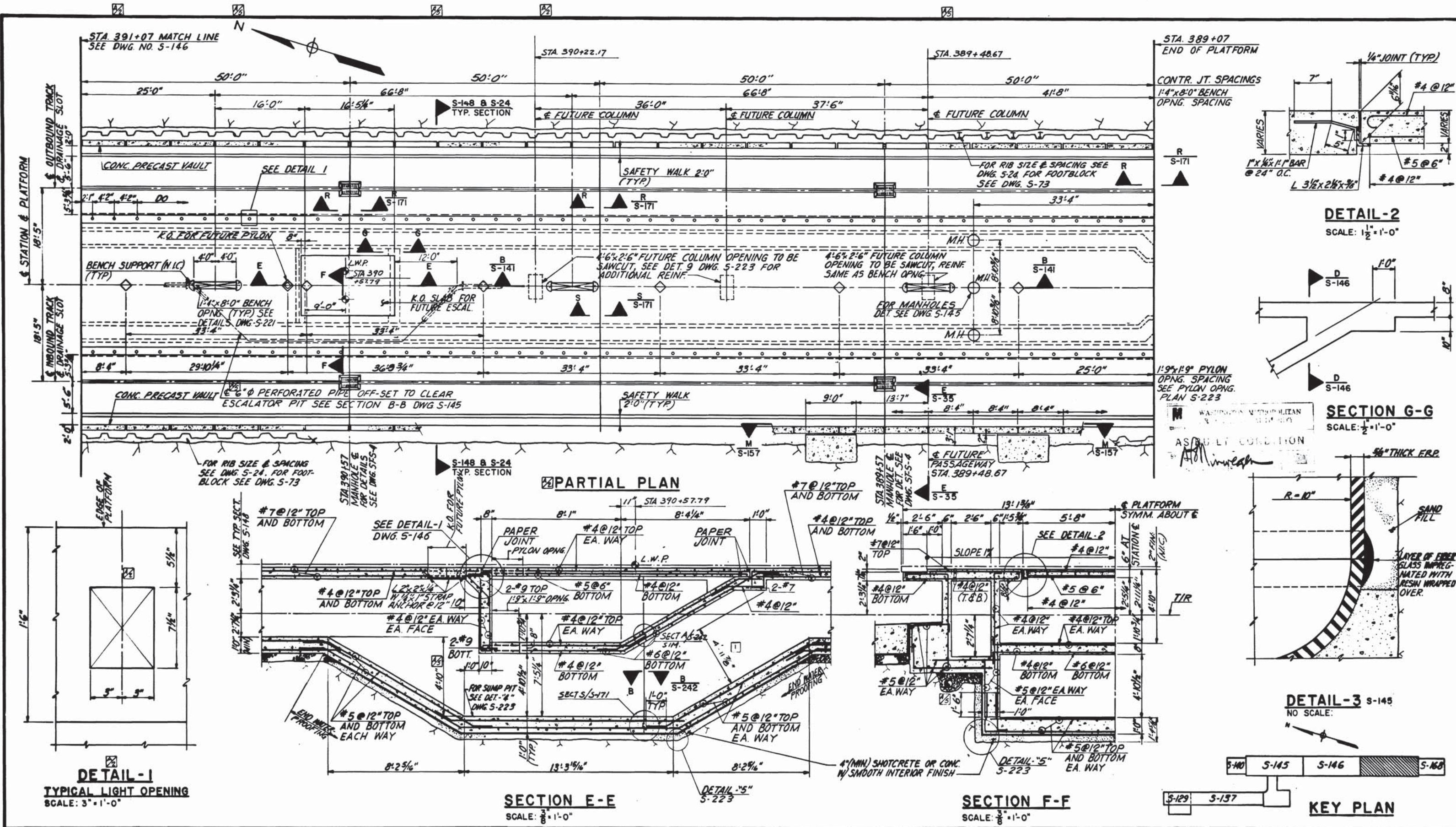
APPROVED *Robert P. W...*

**ROCKVILLE ROUTE
BETHESDA STATION PLATFORM
SECTIONS AND DETAILS**

SCALE: 1" = 1'-0"

DRAWING NO.
A11b-S-221

M276-110



DESIGNED	G.C.T.	1-74
DRAWN	E.V.R.	1-74
CHECKED	G.C.T.	9-75
APPROVED	<i>Stewart & Beall</i>	5-77

REFERENCE DRAWINGS		REVISIONS	
NUMBER	DESCRIPTION	DATE	BY
SF-5-4	STANDARD MANHOLE REINFORCING	7/8/77	G.C.T.
S-145	PLATFORM MANHOLES DETAILS		
A-26	PYLONS AND BENCH TYPES	11/28/77	G.C.T.
M-40	TRACK MANHOLES TYPES & LOCATIONS		
E-27	ELECTRICAL DWG.		
S-10	T/R SLOPE		



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SECTION DESIGNER

SUBMITTED *Stewart & Beall* DATE 5/16/77

DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT

HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT

ROCKVILLE ROUTE
BETHESDA STATION PLATFORM PLAN
STA. 391+07 TO STA. 389+07

DRAWING NO. **A11b-S-147** M276-109

DETAIL-1
TYPICAL LIGHT OPENING
SCALE: 3" = 1'-0"

SECTION E-E
SCALE: 3/8" = 1'-0"

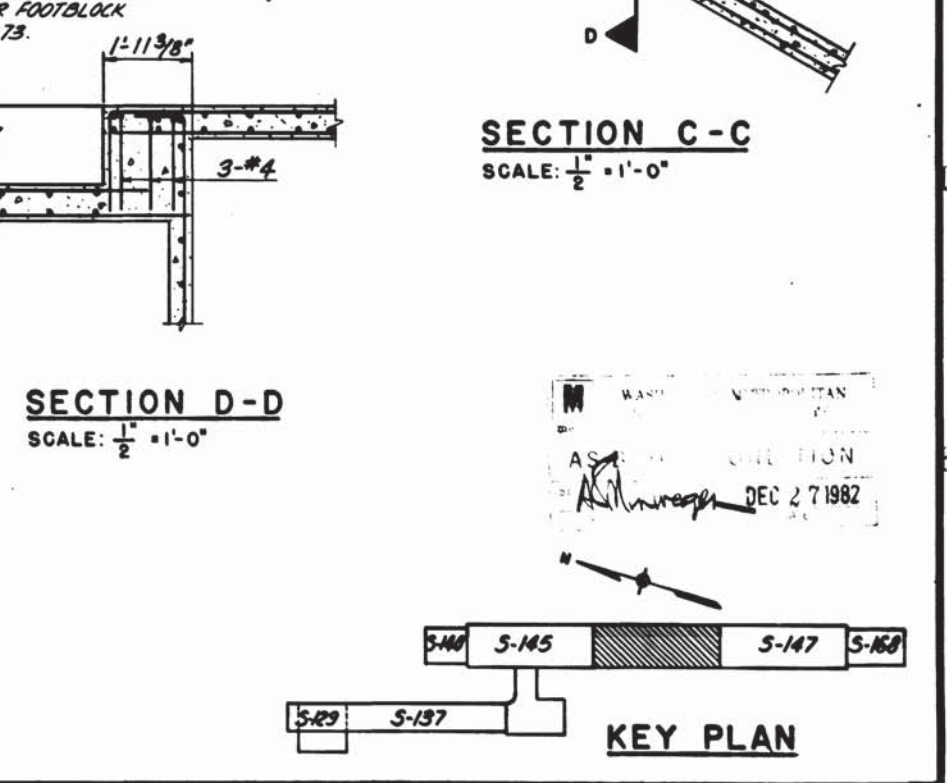
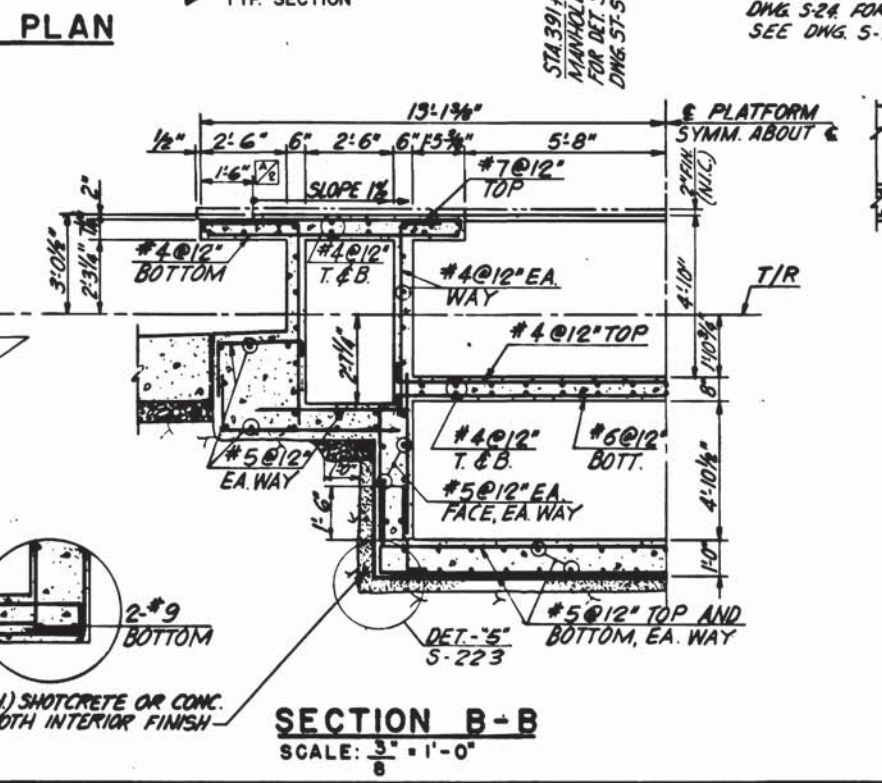
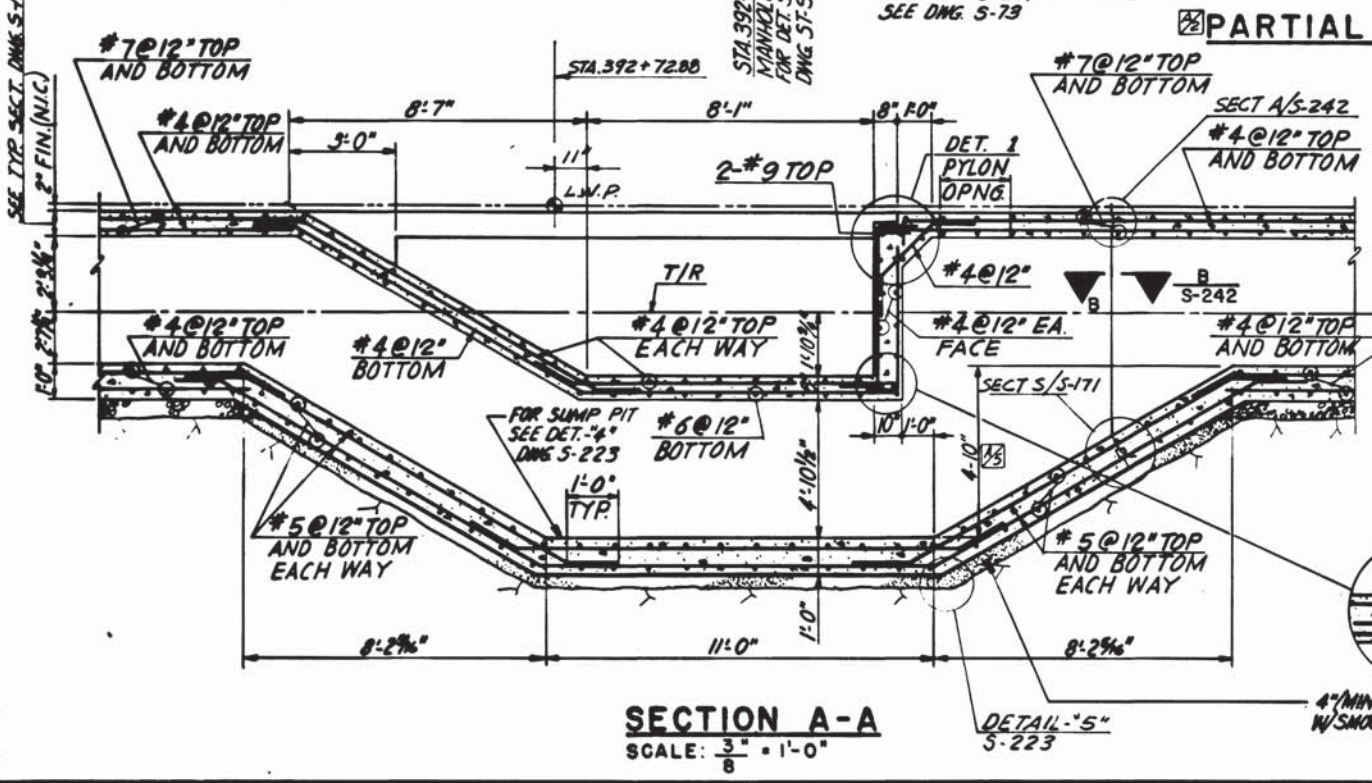
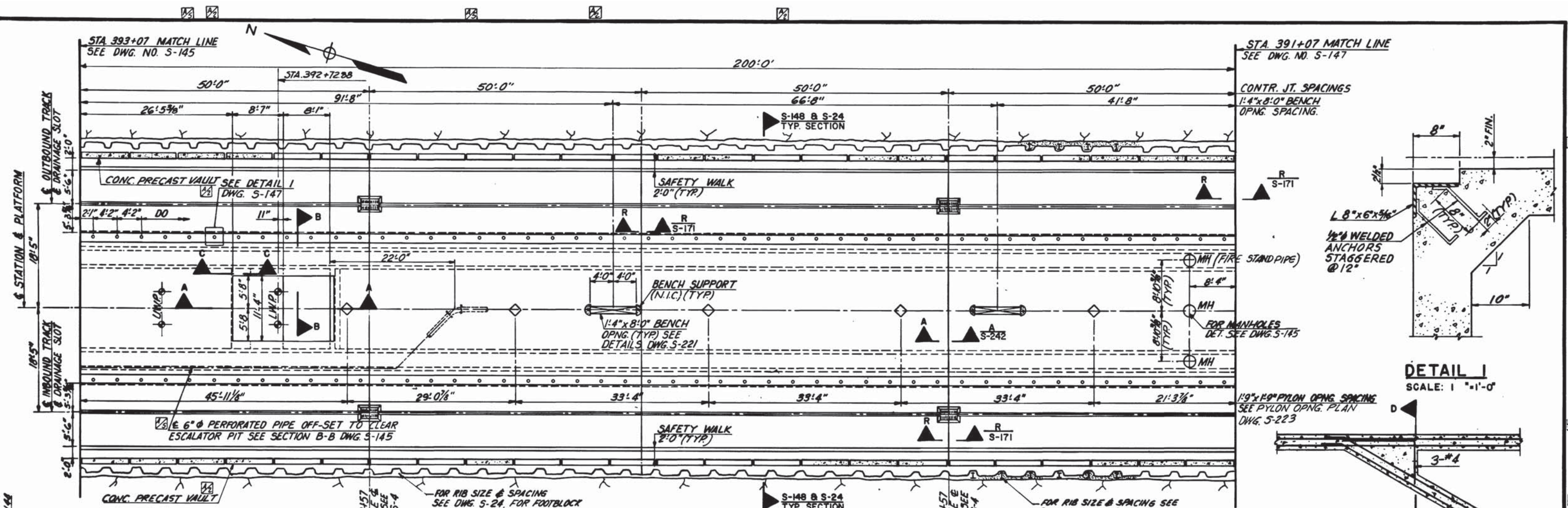
SECTION F-F
SCALE: 3/8" = 1'-0"

KEY PLAN

DETAIL-2
SCALE: 1/2" = 1'-0"

SECTION G-G
SCALE: 1/2" = 1'-0"

DETAIL-3
NO SCALE



DESIGNED	S.C.T.	1-74	DATE
DRAWN	E.V.R.	1-74	DATE
CHECKED	S.C.T.	9-75	DATE
APPROVED	<i>Stewart & Beall</i>	5/77	DATE

REFERENCE DRAWINGS		REVISIONS	
NUMBER	DESCRIPTION	DATE	BY
SFS-4	STANDARD MANHOLE REINFORCING	7/9/77	G.C.T.
S-145	PLATFORM MANHOLES DETAILS	11/28/77	G.C.T.
A-25	PYLON AND BENCH TYPES		
M-39	TRACK MANHOLES TYPES & LOCATIONS		
E-28	ELECTRICAL DWG.		
S-10	T/R SLOPE		



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GENERAL ENGINEERING CONSULTANT

HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT

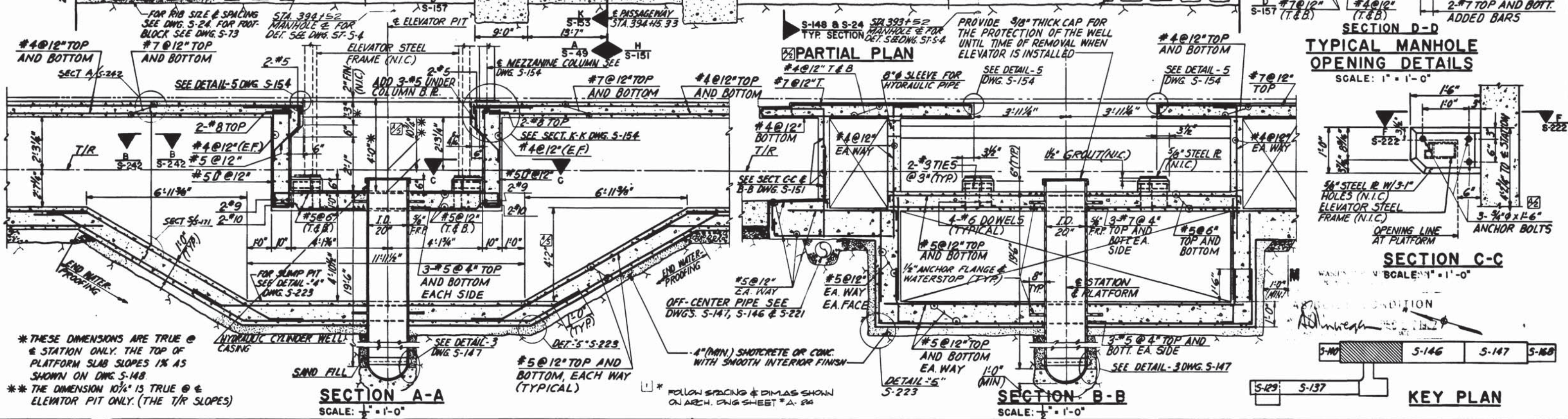
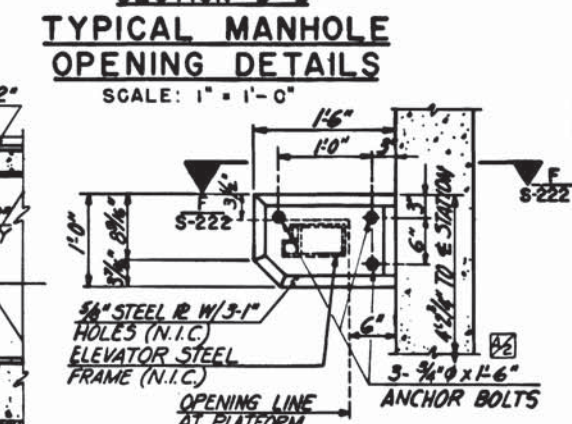
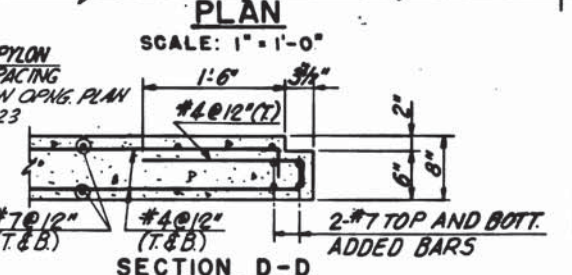
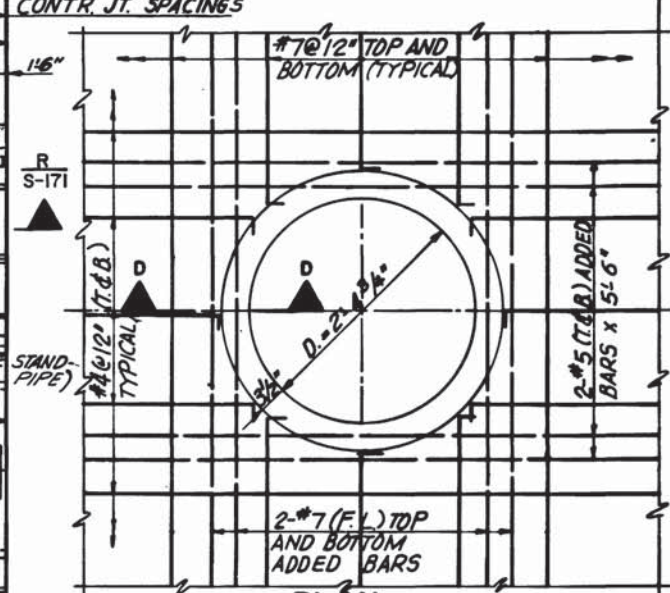
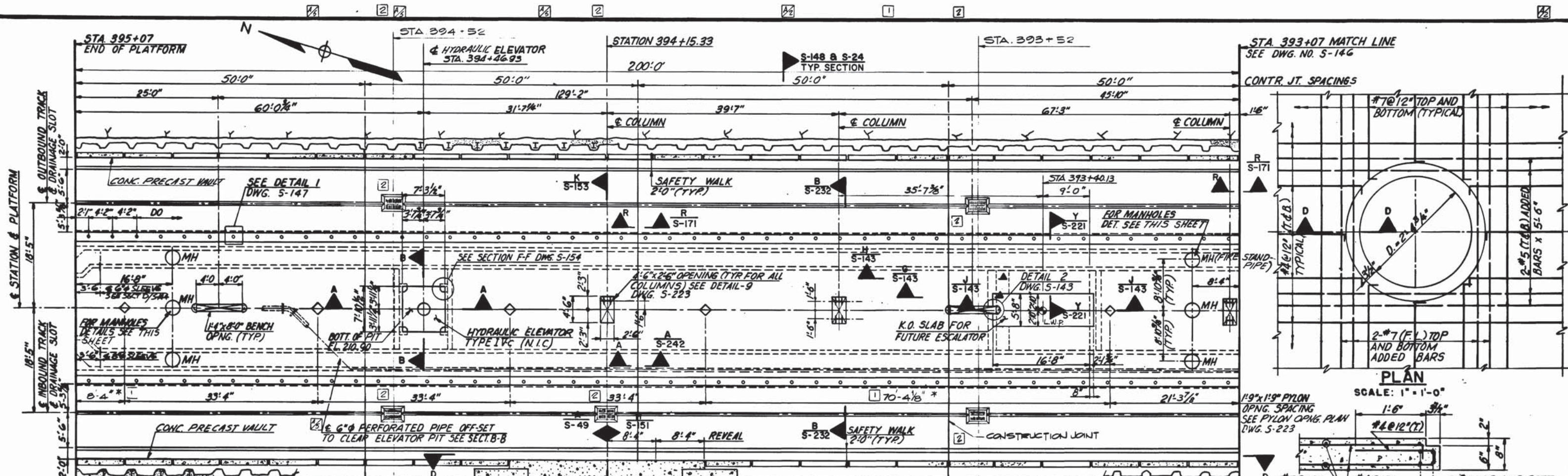
SUBMITTED *Stewart & Beall* DATE 5/16/77 APPROVED *Robert J. Weese*

ROCKVILLE ROUTE
BETHESDA STATION PLATFORM PLAN
STA. 393+07 TO STA. 391+07

SCALE: 1/4" = 1'-0" 10 2 4 6 8 10 INCHES AND AS NOTED

DRAWING NO. **A11b-S-146** M276-108

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
AS NOTED
Alvin...
DEC 27 1982



* THESE DIMENSIONS ARE TRUE @ STATION ONLY. THE TOP OF PLATFORM SLAB SLOPES 1% AS SHOWN ON DWG S-148.
 ** THE DIMENSION 10 1/2\"/>

DESIGNED		DATE		REFERENCE DRAWINGS		REVISIONS	
G.C.T.	1-74	NUMBER	DATE	DESCRIPTION	DATE	BY	DESCRIPTION
E.V.R.	1-74	ST-5-4	7/8/77	STANDARD MANHOLE REINFORCING	7/8/77	G.C.T.	ADDITIONAL INFO.
G.C.T.	8-73	S-10	11/28/77	T/R SLOPE		G.C.T.	REVISED DIMENSIONS SECT. A-A @ 8\"/>
G.C.T.	8-73	A-24		PLYONS AND BENCH TYPES			DRAIN PIPE TO 6\"/>
G.C.T.	5-77	E-38	10/1/84	ELECTRICAL DWG.	10/1/84	H.T.N.	REV. PER FIELD COND. AS BUILT
G.C.T.	5-77	M-21	10/1/82	MECHANICAL DWG.	10/1/82	H.T.N.	REV. PER PCD-17, AS BUILT

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ENGINEERS AND ARCHITECTS
SECTION DESIGNER

DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT

HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT

ROCKVILLE ROUTE
BETHESDA STATION PLATFORM PLAN
STA. 395+07 TO STA. 393+07

SCALE: 1" = 1'-0" AND AS NOTED

DRAWING NO. A11b-S-145 M276-107