



F

SHEET ID	TITLE
REFERENCE DRAWINGS VOLUME 1 - FREIGHT ELEVATOR	
REF 1	COVER SHEET AND DRAWING INDEX
REF 2	EXISTING CONDITIONS PLAN
REF 3	NEW AND EXISTING CONDITIONS TRANSVERSE SECTIONS
REF 4	NEW CONDITIONS PLAN
REF 5	ELEVATOR HOISTWAY DETAIL SHEET 1
REF 6	ELEVATOR HOISTWAY DETAIL SHEET 2
REF 7	ELEVATOR HOISTWAY ENCLOSURE SHEET 1
REF 8	ELEVATOR HOISTWAY ENCLOSURE SHEET 2
REF 9	FREIGHT ELEVATOR HOISTWAY CODE DEFICIENCIES
REF 10	ELEVATOR HOISTWAY ENCLOSURE POWERHOUSE SHOPS 1
REF 11	ELEVATOR HOISTWAY ENCLOSURE POWERHOUSE SHOPS 2
REF 12	ELEVATOR HOISTWAY ENCLOSURE POWERHOUSE SHOPS 3
REF 13	PLANS AND SECTIONS EL 769-827.5
REF 14	LOWER ELEVATOR HOIST
REF 15	UPPER ELEVATOR HOIST
REF 16	UPPER ELEVATOR HOIST
REF 17	LOWER ELEVATOR HOIST
REF 18	DEMOLITION PLANS EL 785
REF 19	FEEDER DETAILS EL 785, 798 & 763
REF 20	FEEDER DETAILS EL 785
REF 21	ELEVATOR & FIRST AID ROOM EL 785
REF 22	CONTACT SHEET
REF 23	HOISTWAY & CAR TOP HYDRO FREIGHT
REF 24	MACHINE ROOM
REF 25	STANDARD CAR OPERATING PANEL
REF 26	HALL STA WITH DOOR CLOSED
REF 27	HALL STA CALL W-FIRE
REF 28	INDIVIDUAL HYDRO FREIGHT
REF 29	ELEVATOR HOISTWAY OPENING
REF 30	EXTERIOR WINDOWS AND DOORS
REF 31	DOUBLE END FREIGHT CAB
REF 32	HOISTWAY LAYOUT
REF 33	DETAIL PLATE
REF 34	INDIVIDUAL POWER
REF 35	ELEVATOR HOISTWAY OPENING
REF 36	STATION SERVICE
REF 37	STATION SERVICE BAY EL 785 UPSTREAM HALF
REF 38	STATION SERVICE BAY EL 785 DOWNSTREAM HALF
REF 39	MAIN UNIT BAY NO 13 UPSTREAM HALF
REF 40	MAIN UNIT BAY NO 13 DOWNSTREAM HALF
REF 41	PIPING ARRANGMENT
REF 42	STATION SERVICE BAY PART PLAN EL 763 & COLUMNS
REF 43	STATION SERVICE BAY FLOOR EL 785
REF 44	STATION SERVICE BAY FLOOR EL 810
REF 45	SERVICE BAYS FLOOR EL 810
REF 46	SERVICE BAYS FLOOR EL 785
REF 47	SERVICE BAYS FLOOR EL 769
REF 48	SERVICE BAYS FLOOR EL 747
REF 49	STATION SERVICE BAY SUMP WALLS & FLOOR EL 721
REF 50	STATION SERVICE BAY SUMP WALLS ELEV & SECTION
REF 51	STATION SERVICE BAY FLOOR EL 763 & 758
REF 52	STATION SERVICE BAY TRANSVERSE SECTION
REF 53	STATION SERVICE BAY LONG SECTION & MAIN UNITS
REF 54	STATION SERVICE BAY PLAN EL 735
REF 55	BILL OF MATERIAL
REF 56	BILL OF MATERIAL
REF 57	BILL OF MATERIAL
REF 58	PLANS & SECTIONS EL 769 & 827.5
REF 59	LOWER ELEVATOR HOIST
REF 60	UPPER ELEVATOR HOIST
REF 61	UPPER ELEVATOR HOIST
REF 62	LOWER ELEVATOR HOIST
REF 63	DEMOLITION PLANS EL 785
REF 64	FEEDER DETAILS EL 785, 798 & 763
REF 65	FEEDER DETAILS EL 785
REF 66	ELEVATOR & FIRST AID ROOM EL 785

C

B

A

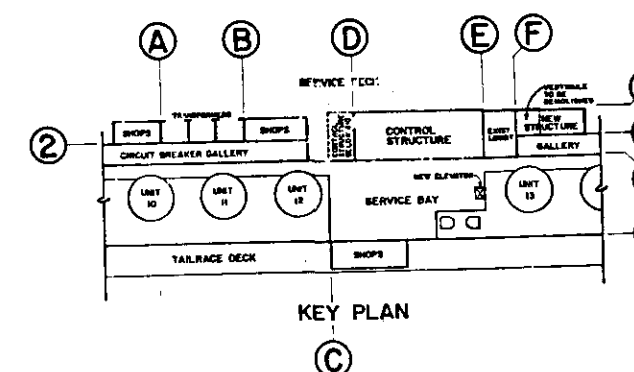
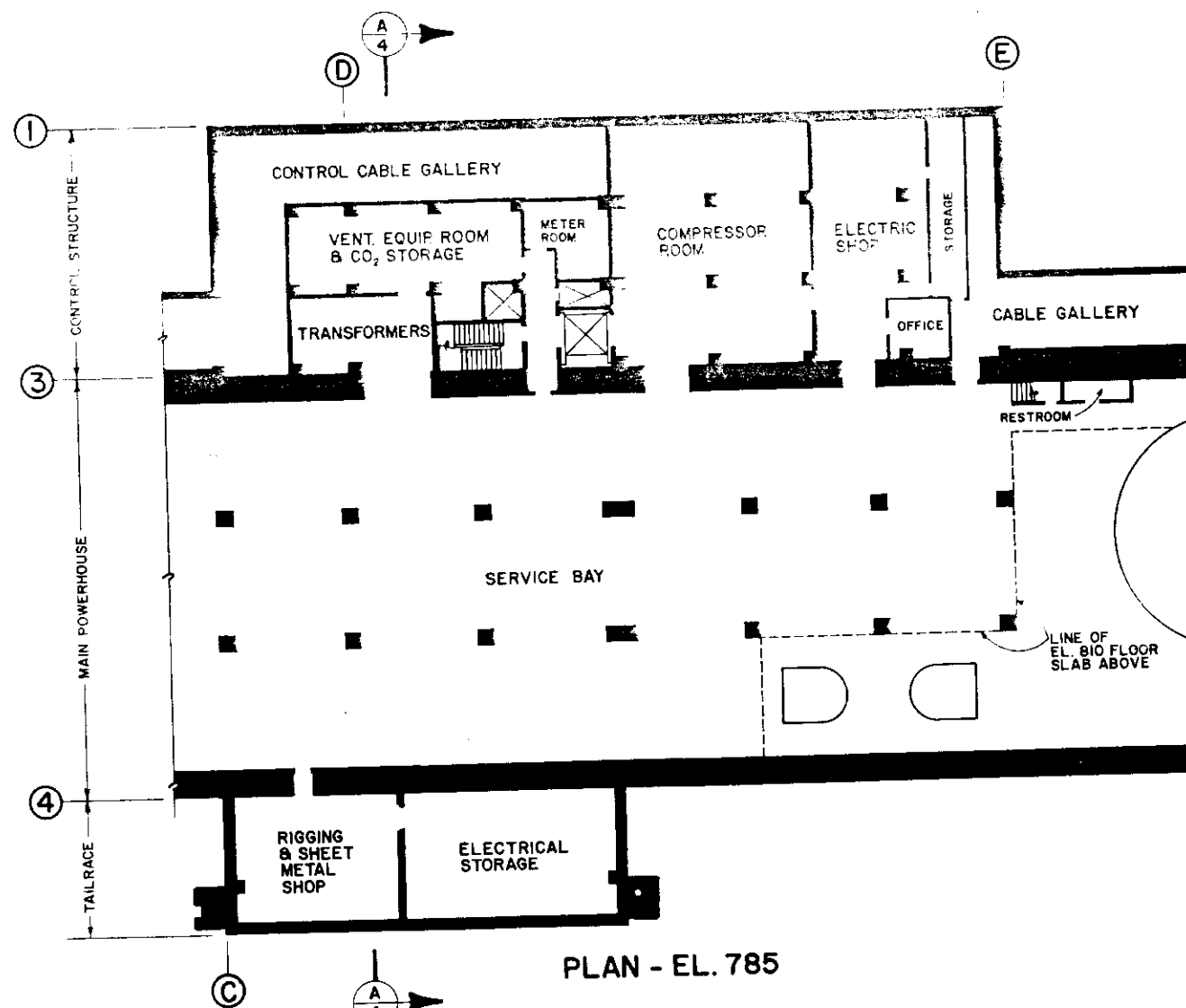
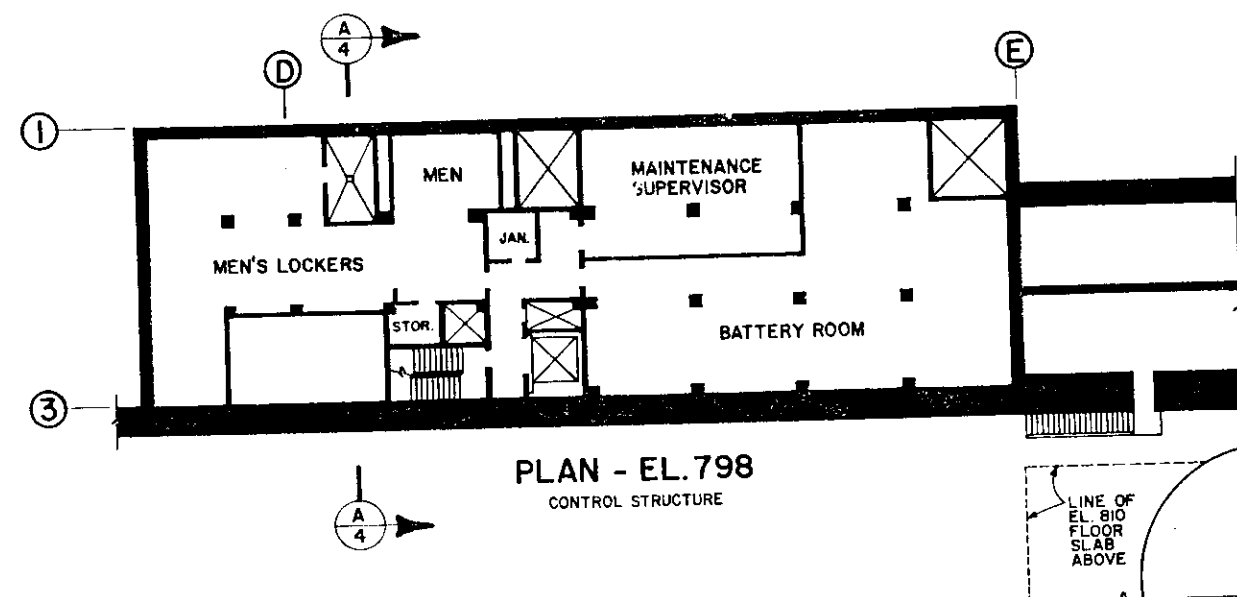
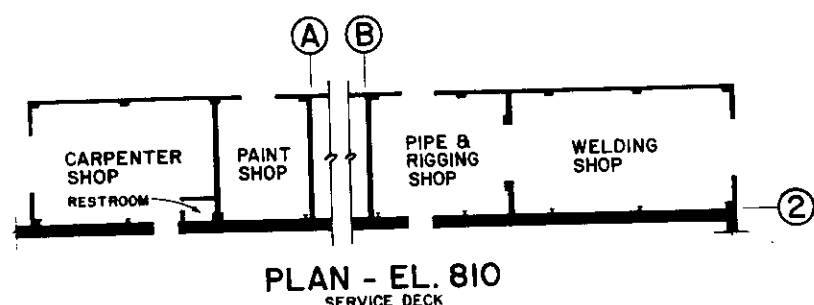
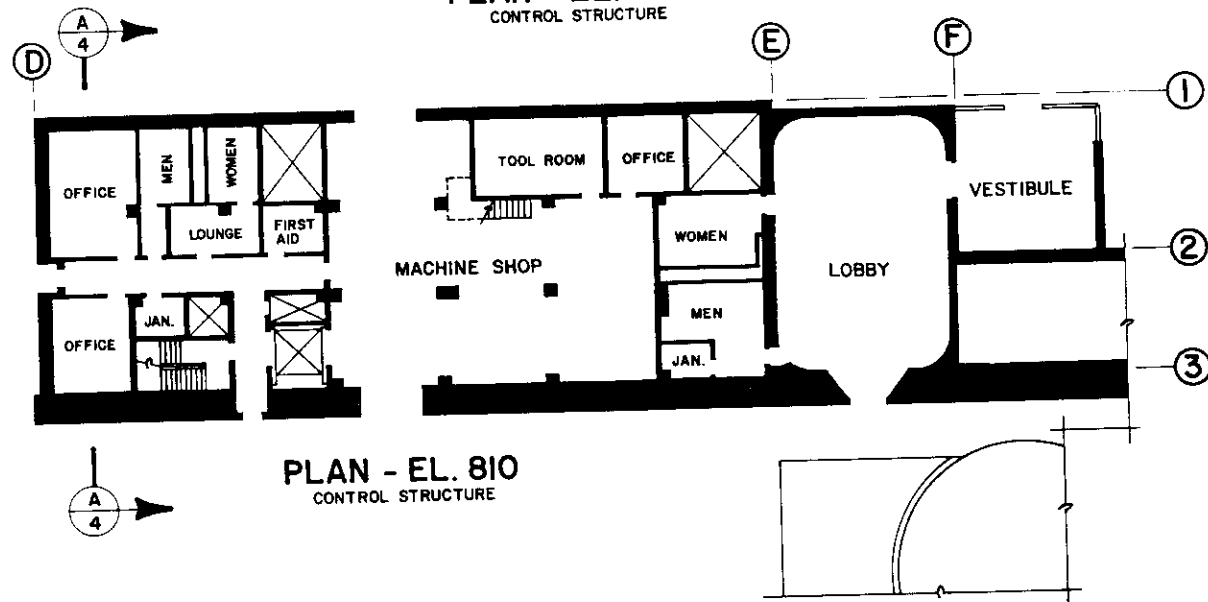
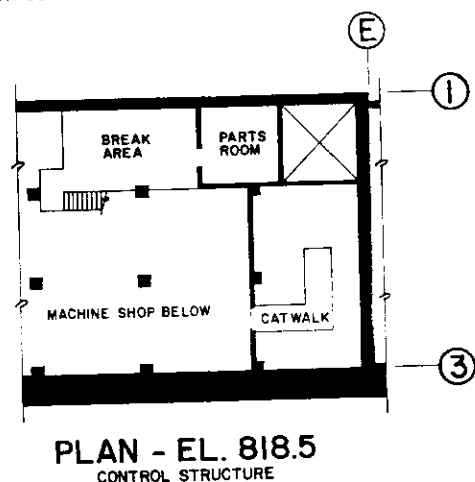
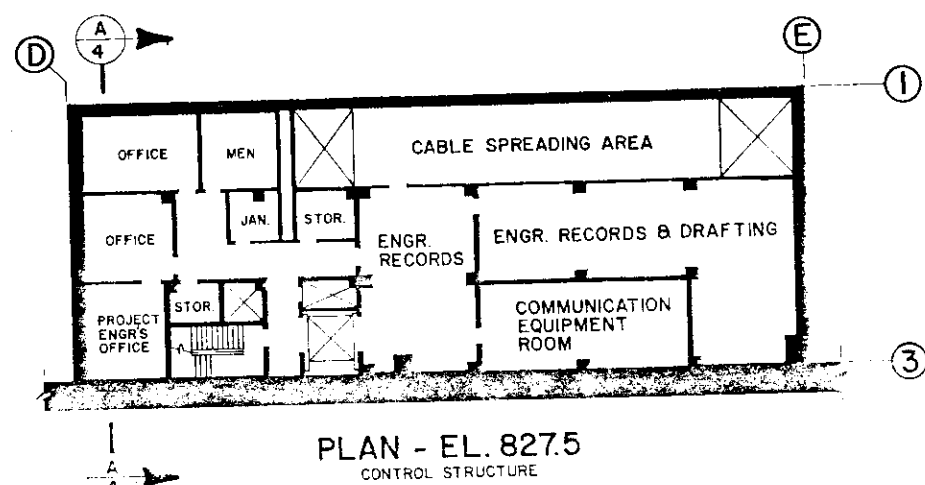
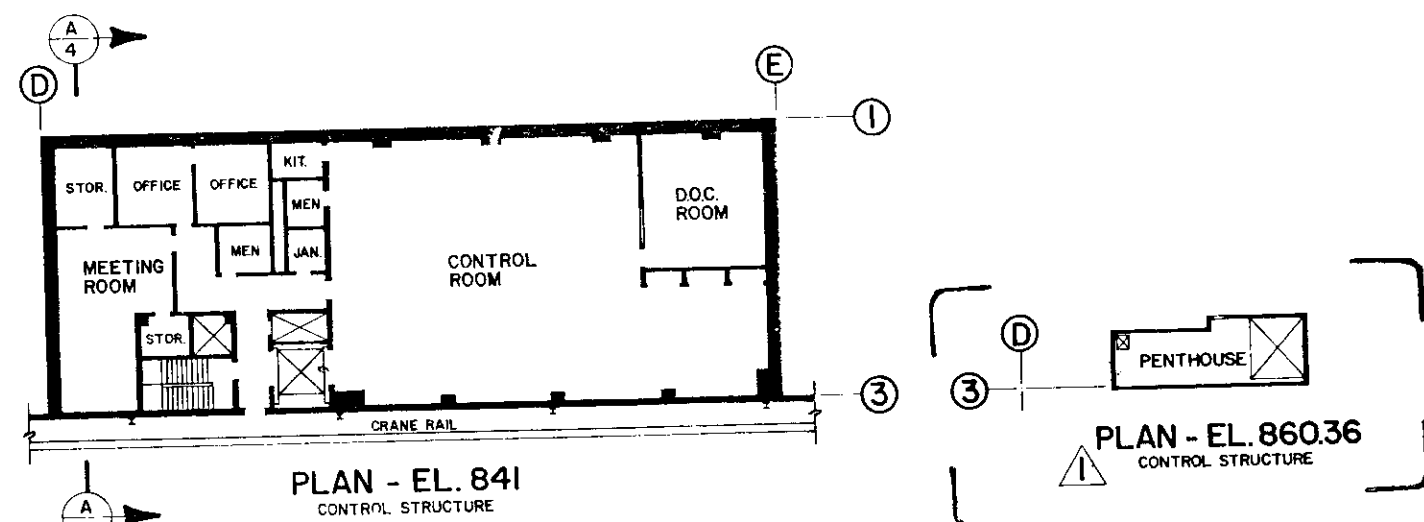
[illegible]

SEATTLE DISTRICT 4735 EAST MARGINAL WAY SOUTH SEATTLE, WASHINGTON 98134	DRAWN BY: J. L. LUTIN B. SOUTHERLIN CHECKED BY: J. CHECKER	SOLIDIFICATION NO.: W912DW2R0002 CONTRACT NO.: - FILE NUMBER: E-31267-0
SUBMITTED BY: MICHAEL S. BROWER		DATE: 12/1/01
BY:		ANSI D

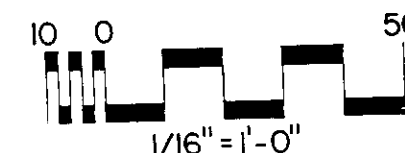
CHIEF JOSEPH DAM POWERHOUSE
PASSENGER & FREIGHT ELEVATORS REPLACEMENT
CHIEF JOSEPH DAM, BRIDGEPORT, WASHINGTON

SHEET ID
HEIGHT
ELEVATOR
REF

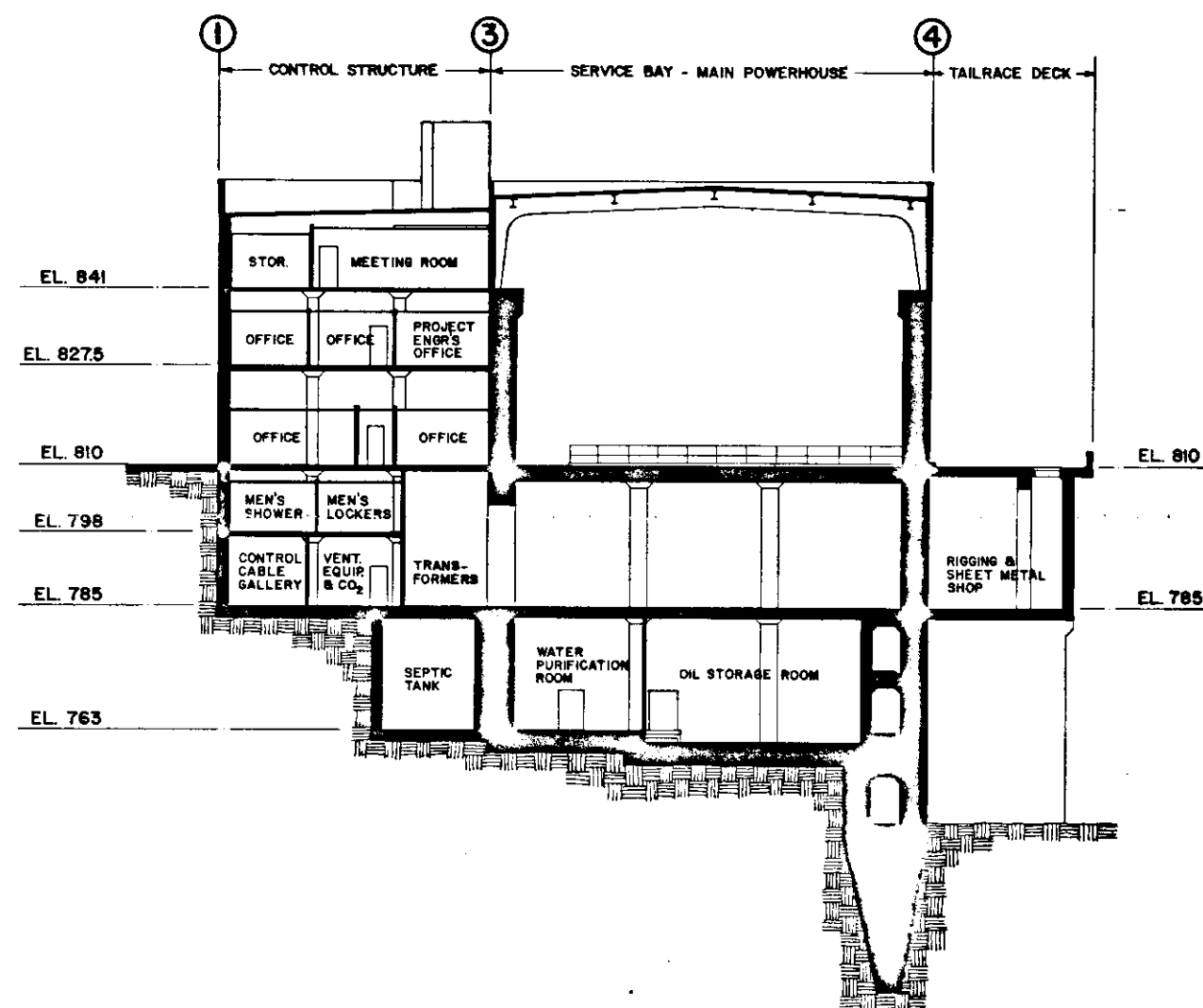
Plot Date: 2006/12/29 11:14:11



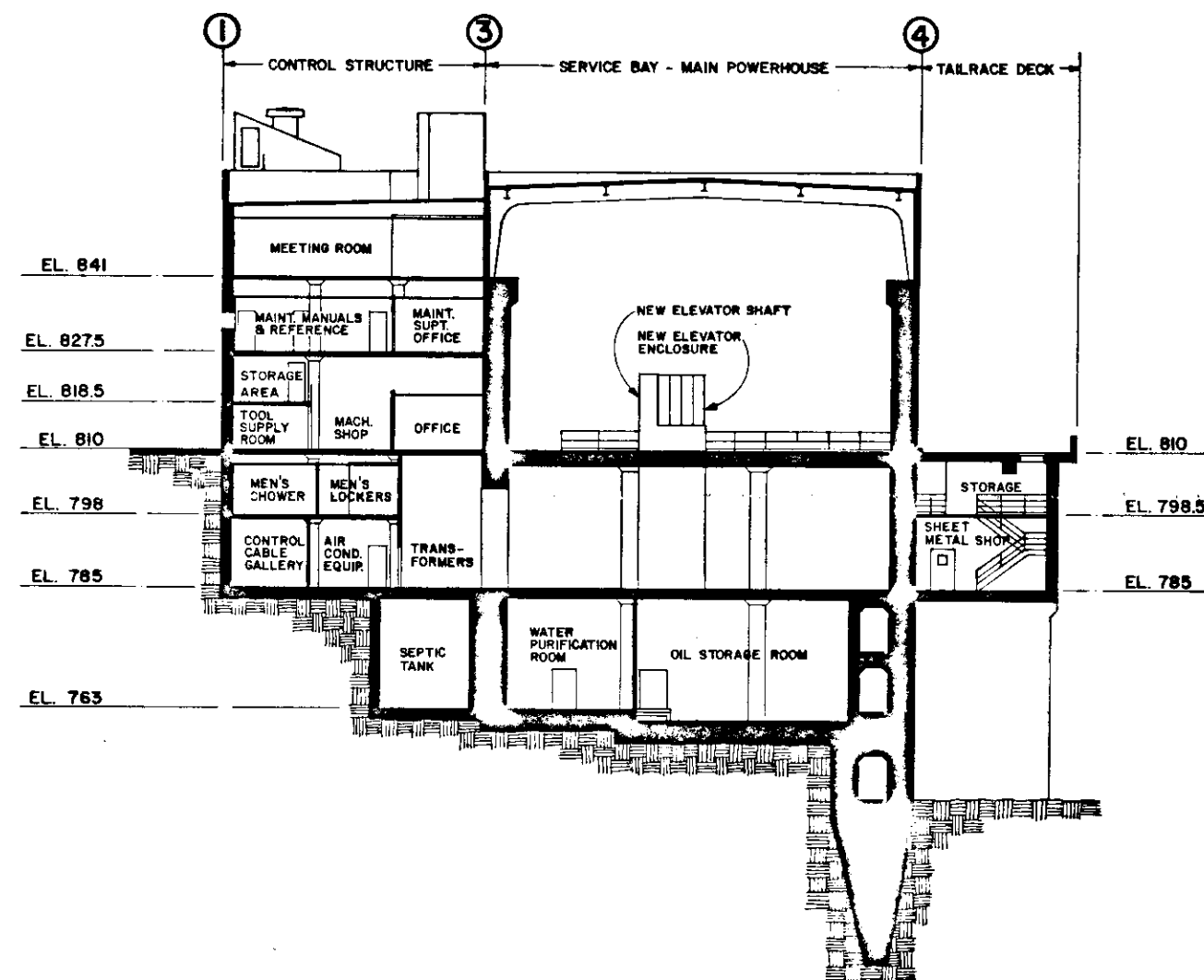
REFERENCE DRAWING 2



REVISION	DATE	DESCRIPTION
1	21 APR 88	ADD PLAN EL. 860.36
U. S. ARMY ENGINEER DIVISION, N. P. PORTLAND, OREGON		
DESIGNED BY: JS	CHIEF JOSEPH DAM	
DRAWN BY: JS	COLUMBIA RIVER WASHINGTON	
CHECKED BY: DLT	POWERHOUSE SHOPS	
PREPARED BY: [Signature]	ARRANGEMENT	
APPROVED BY: [Signature]	EXISTING CONDITIONS	
SCALE AS SHOWN		SHEET 2
CJP-1.16-0-0/2		630
E-51-20-39		850159 5.2-3-

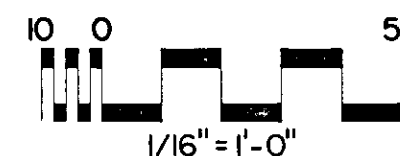


EXISTING CONDITIONS
TRANSVERSE SECTION A-A
1/16" = 1'-0"

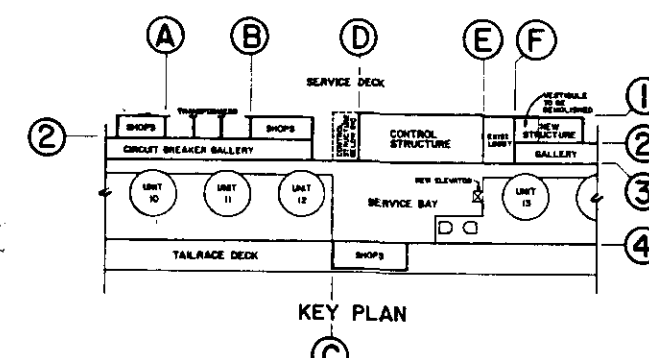
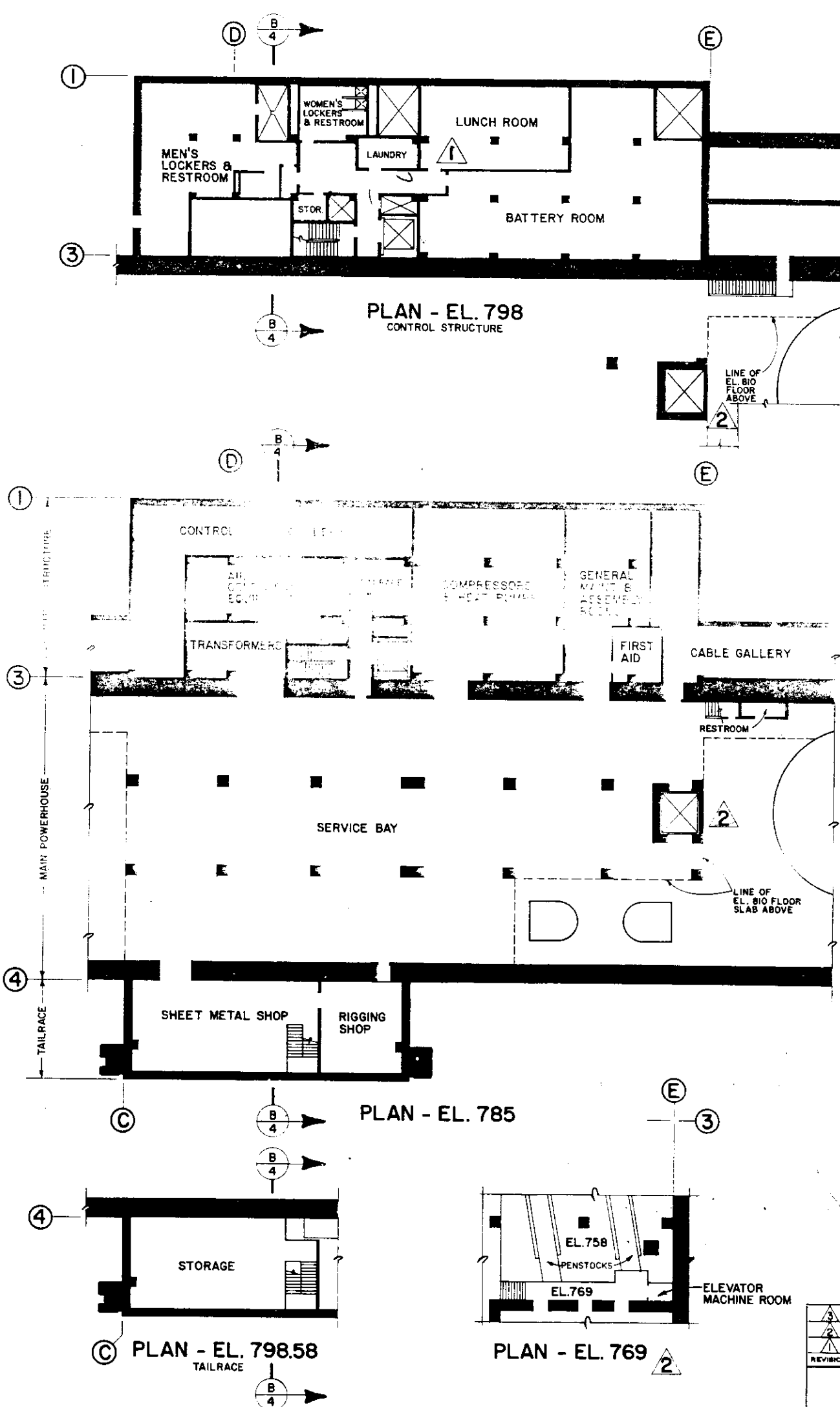
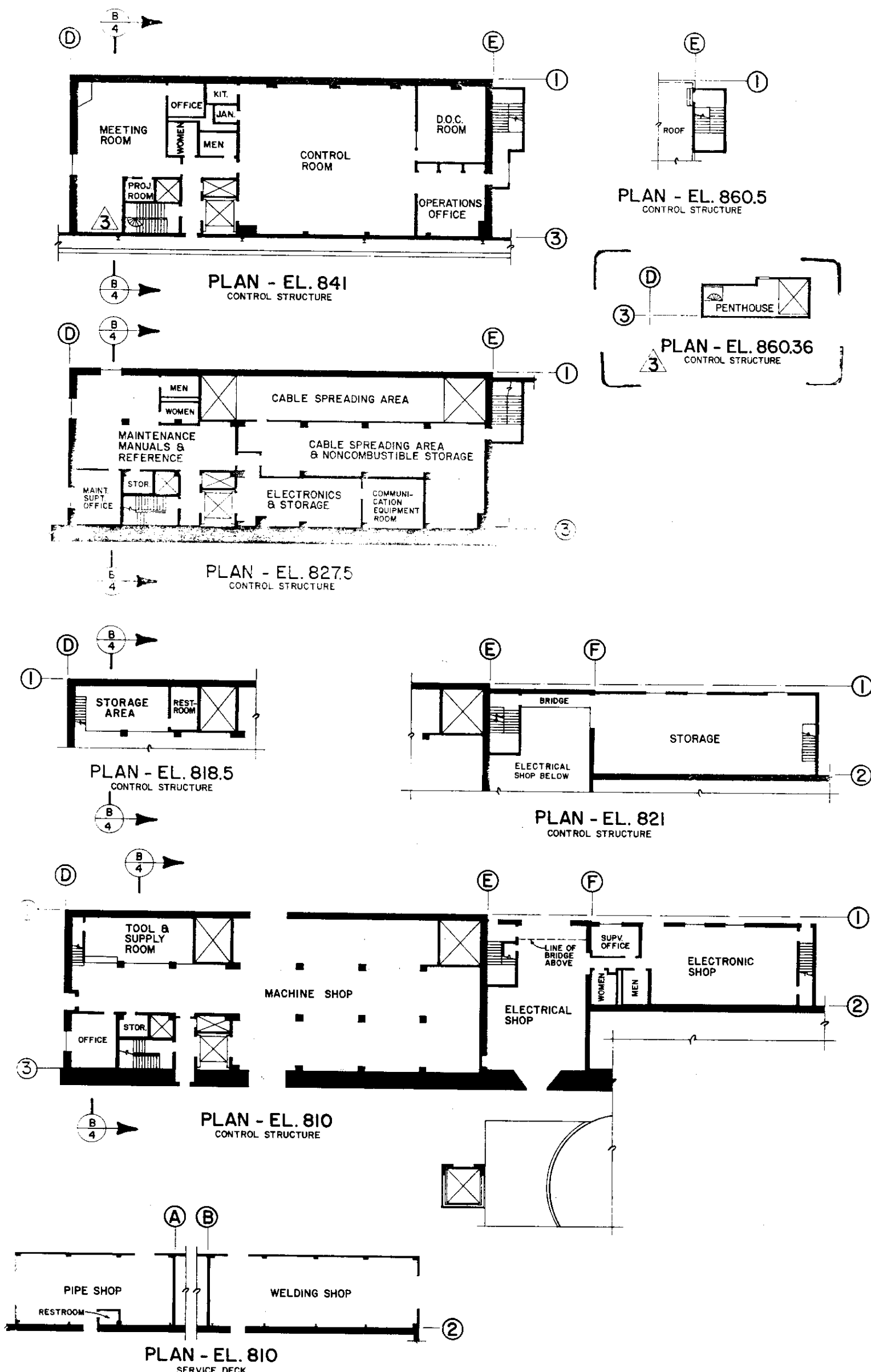


NEW CONDITIONS
TRANSVERSE SECTION B-B
1/16" = 1'-0"

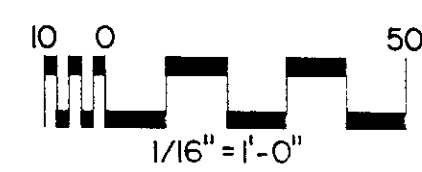
REFERENCE DRAWING 3



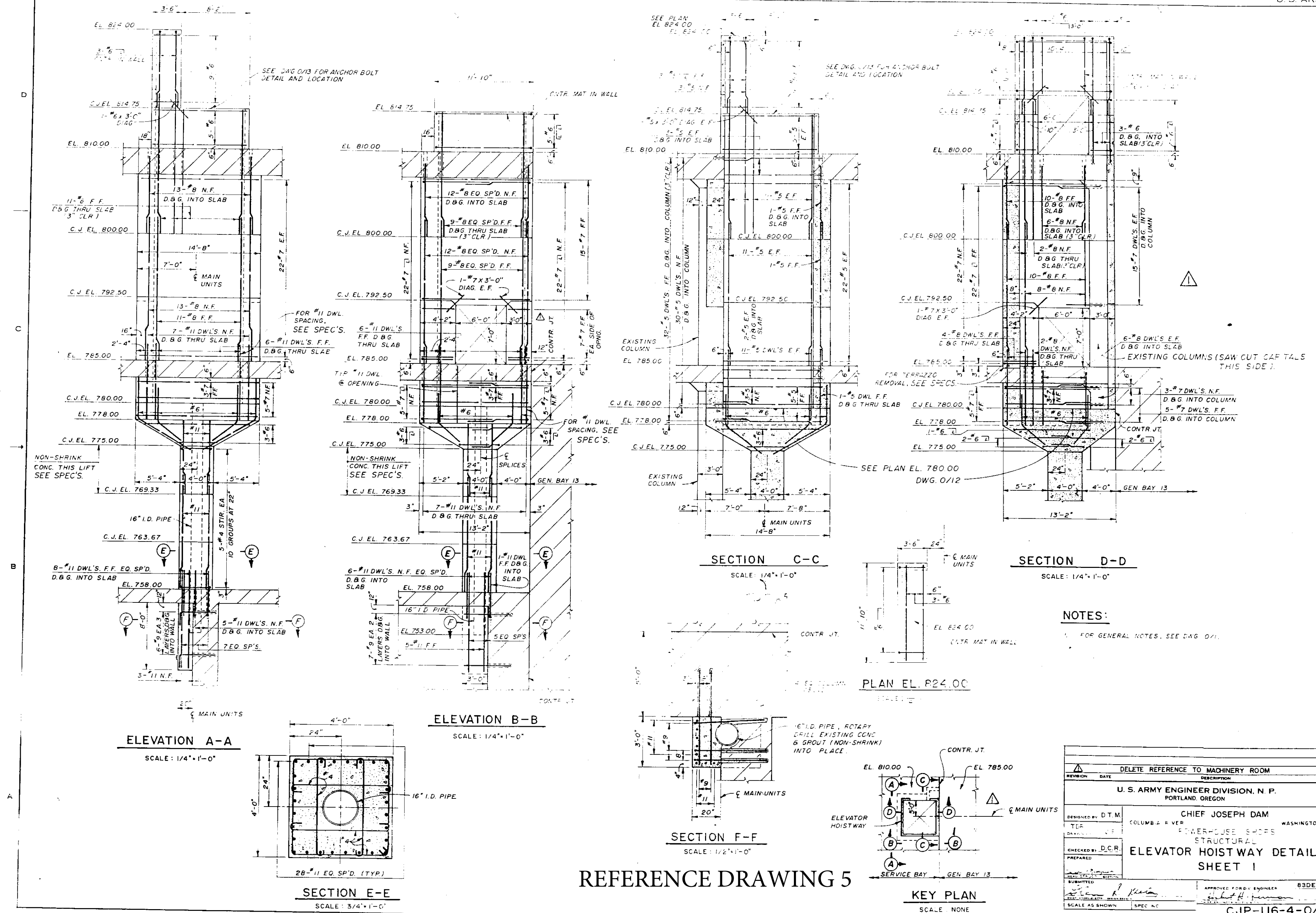
REVISION	DATE	DESCRIPTION	BY
U. S. ARMY ENGINEER DIVISION, N. P. PORTLAND, OREGON			
DESIGNED BY	JS	CHIEF JOSEPH DAM COLUMBIA RIVER WASHINGTON	
DRAWN BY	JS	POWERHOUSE SHOPS ARRANGEMENT	
CHECKED BY	DLT	NEW & EXISTING CONDITIONS TRANSVERSE SECTIONS	
PREPARED BY	APPROVED FOR DIV. ENGINEER DATE 83DEC14		
SUBMITTED BY		SCALE AS SHOWN	
CJP-1.16-0-0/4		SHEET 4	

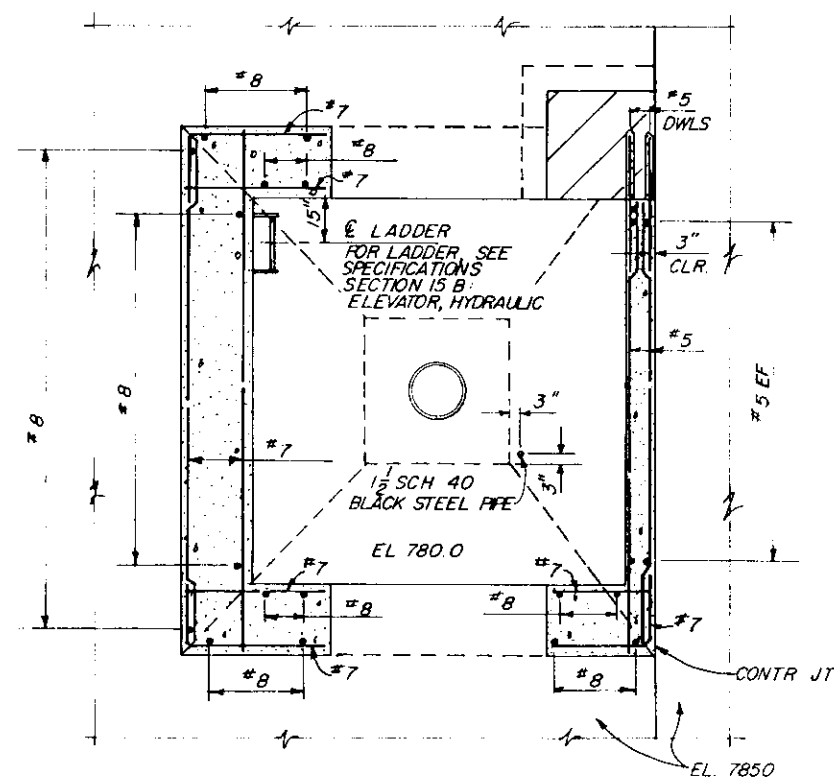


REFERENCE DRAWING 4

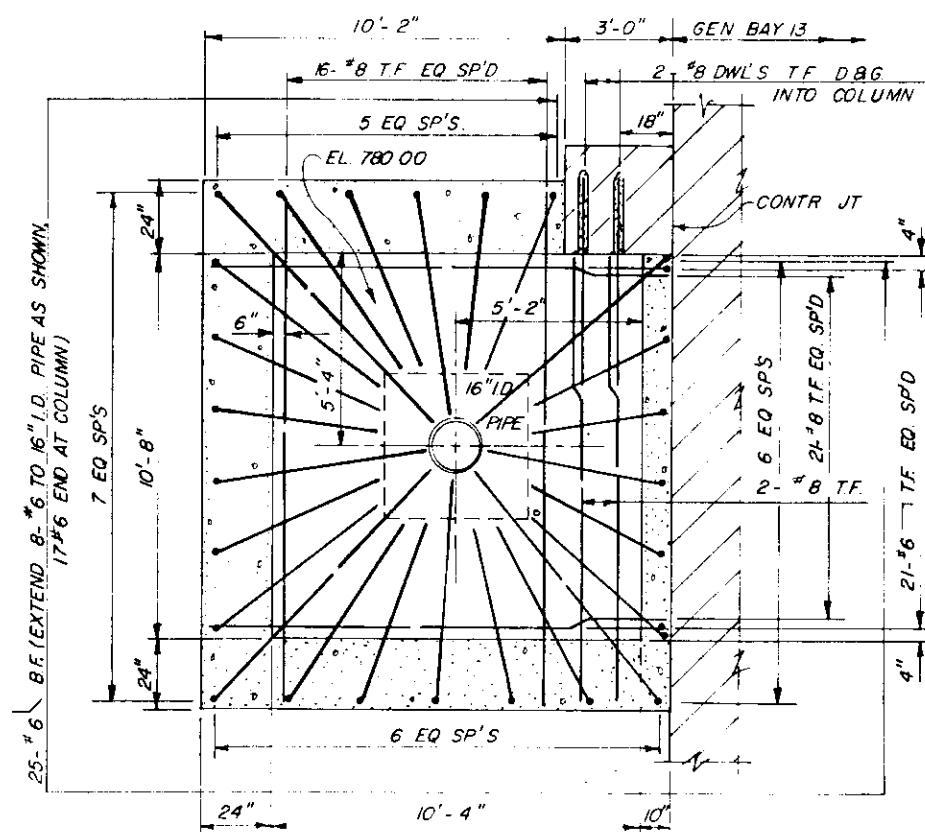


DESIGNED BY	JS	CHIEF JOSEPH DAM
DRAWN BY	JS	COLUMBIA RIVER
CHECKED BY	DLT	WASHINGTON
PREPARED BY		POWERHOUSE SHOPS
DATE		ARRANGEMENT
		NEW CONDITIONS
		PLANS
APPROVED FOR DIV. ENGINEER		DATE 83DEC14
SCALE AS SHOWN		
CJP-116-0-C/3		
SHEET 3		

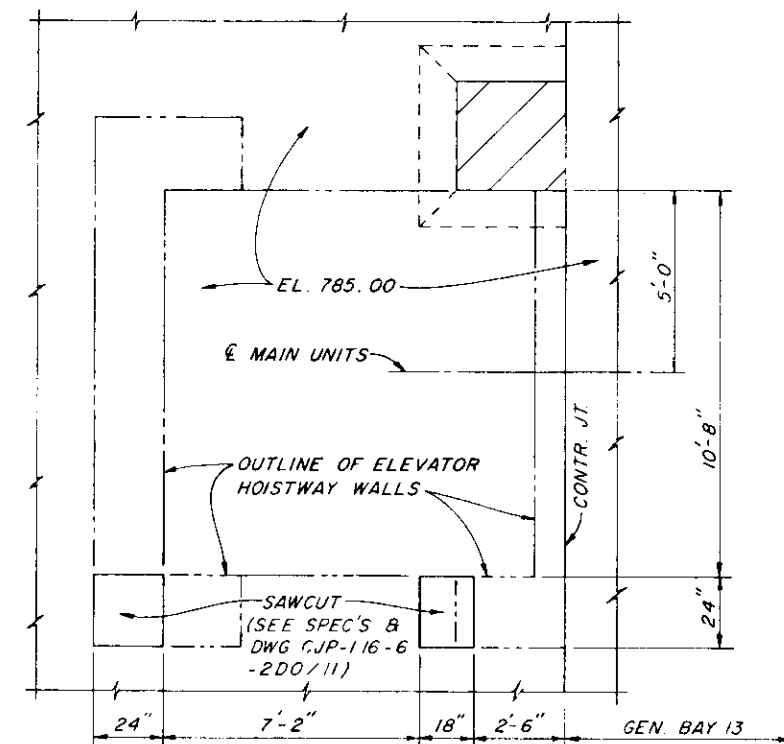




PLAN EL 785.00
SCALE $\frac{3}{8}'' = 1'-0''$



PLAN - EL 780.00
SCALE $\frac{3}{8}'' = 1'-0''$



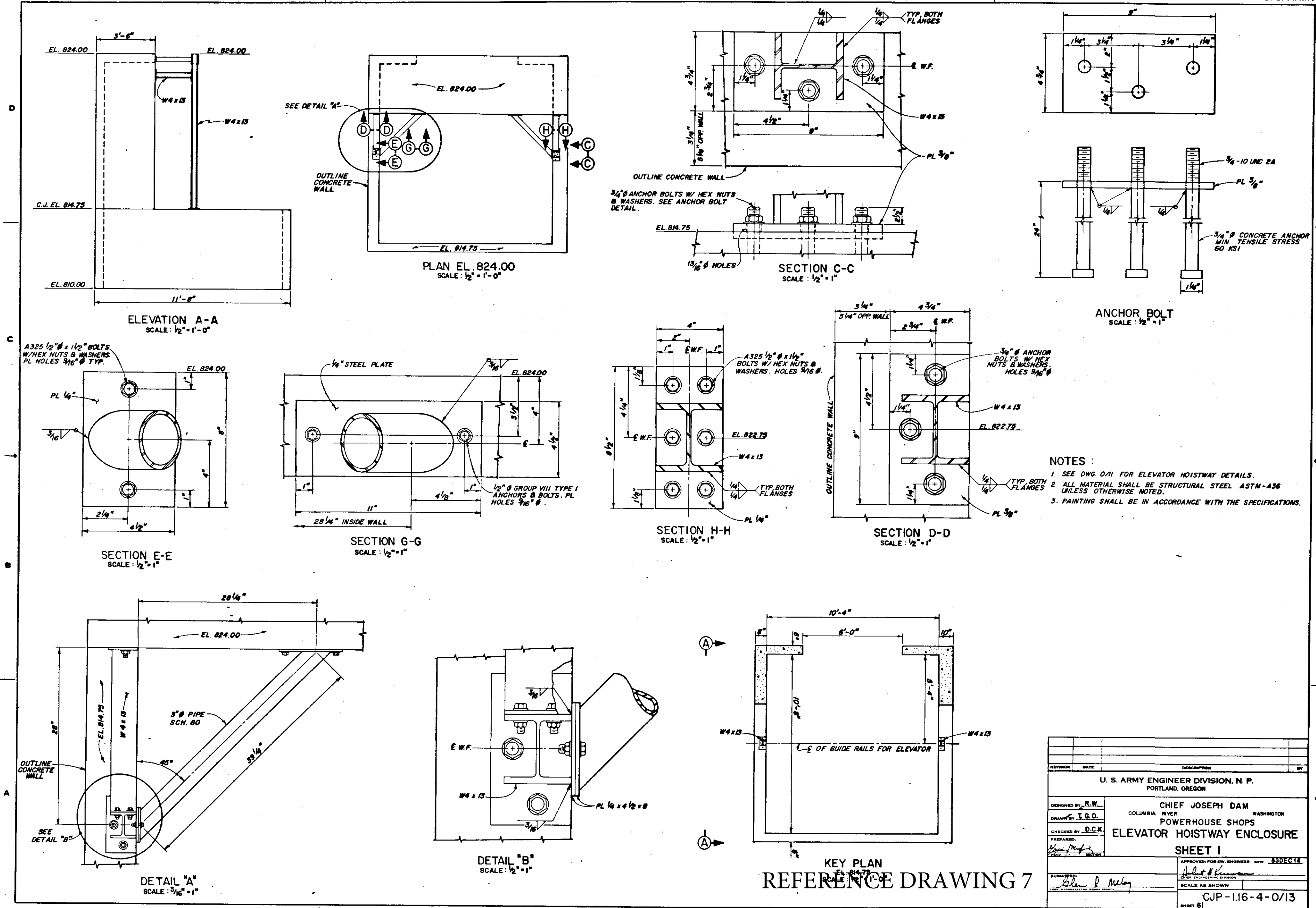
PLAN EL 785.00
SAWCUT FOR CONDUIT LOCATIONS
SCALE: $\frac{3}{8}'' = 1'-0''$

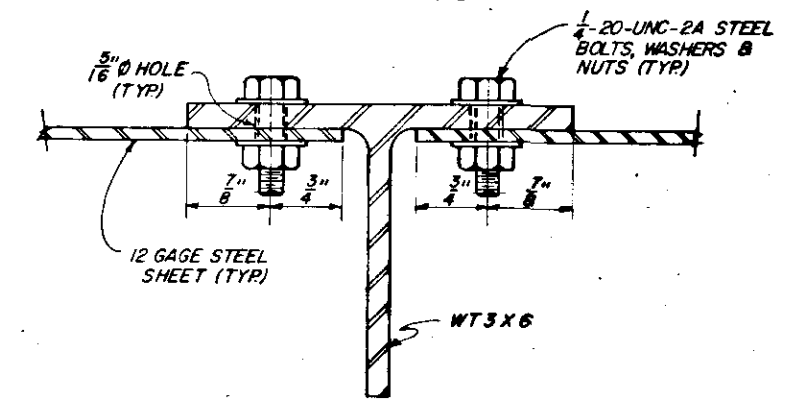
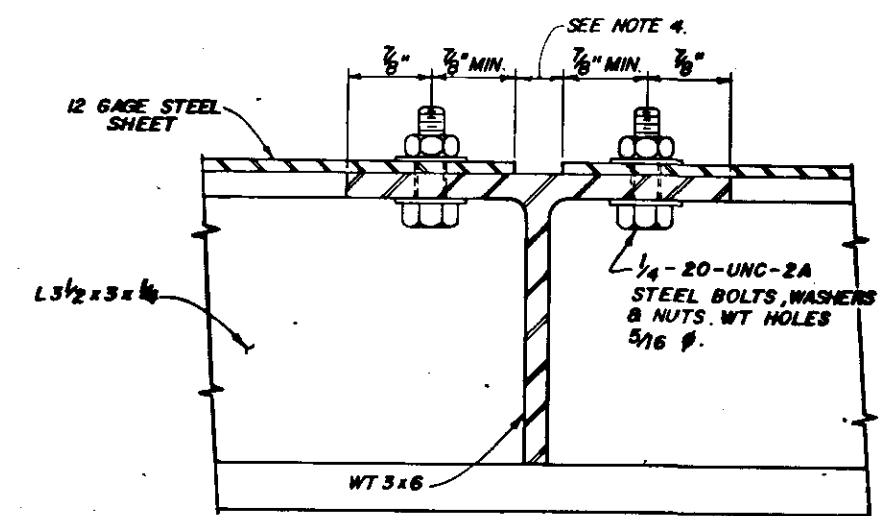
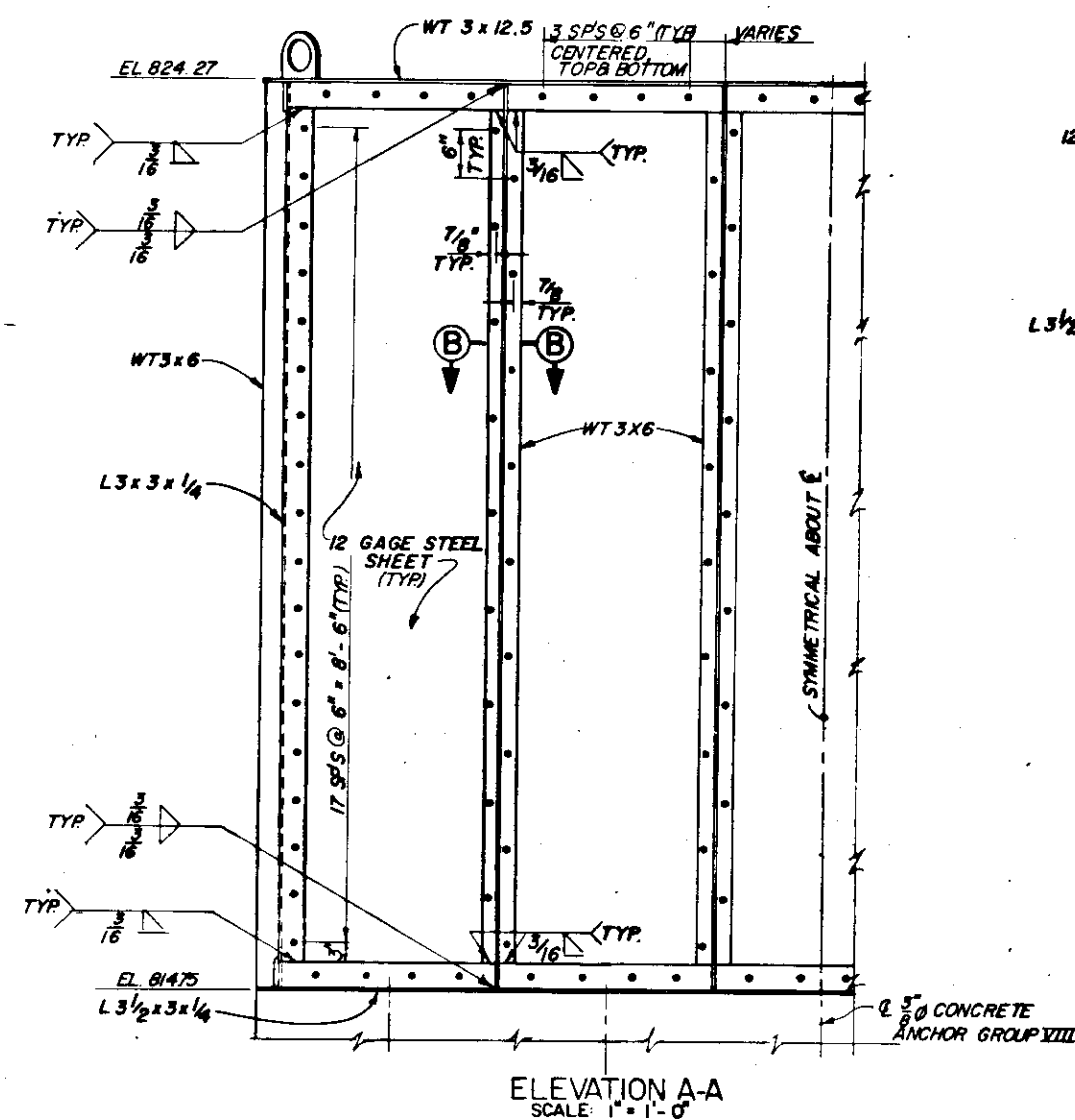
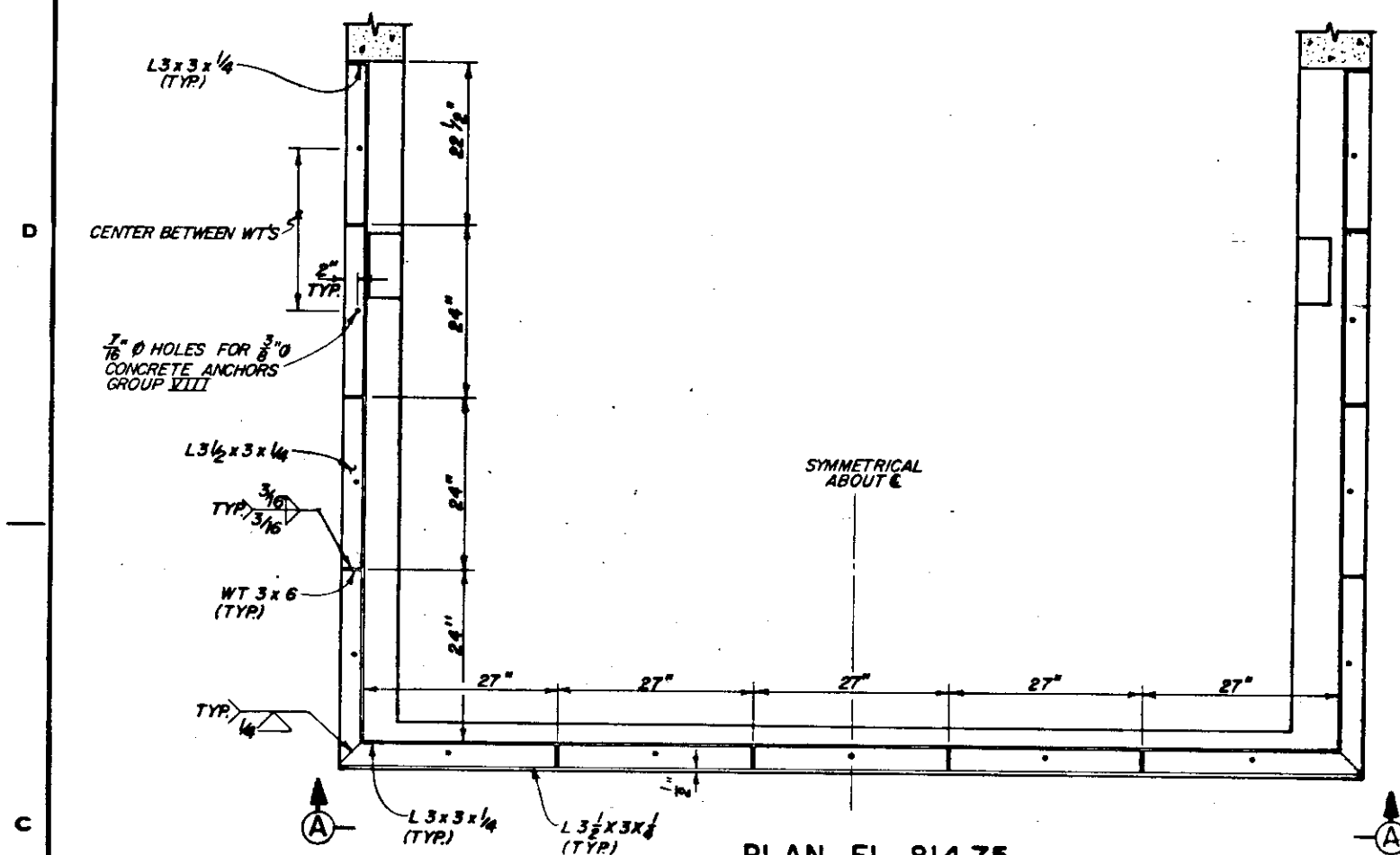
NOTES:

1. FOR GENERAL NOTES, SEE DWG. 0/1.
2. HOLES TO BE DRILLED INTO EXISTING COLUMN WILL BE DONE USING NON-IMPACT, ROTARY CORE DRILL. DRILLING THROUGH EXISTING REINFORCING WILL NOT BE PERMITTED. WHEN EXISTING REINFORCING IS ENCOUNTERED IN A HOLE BEING DRILLED FOR THE PURPOSE OF GROUTING A REINFORCING BAR, THE DRILL BIT SHALL BE RETRACTED AND A HOLE DRILLED AT A NEW LOCATION AS DIRECTED.

REFERENCE DRAWING 6

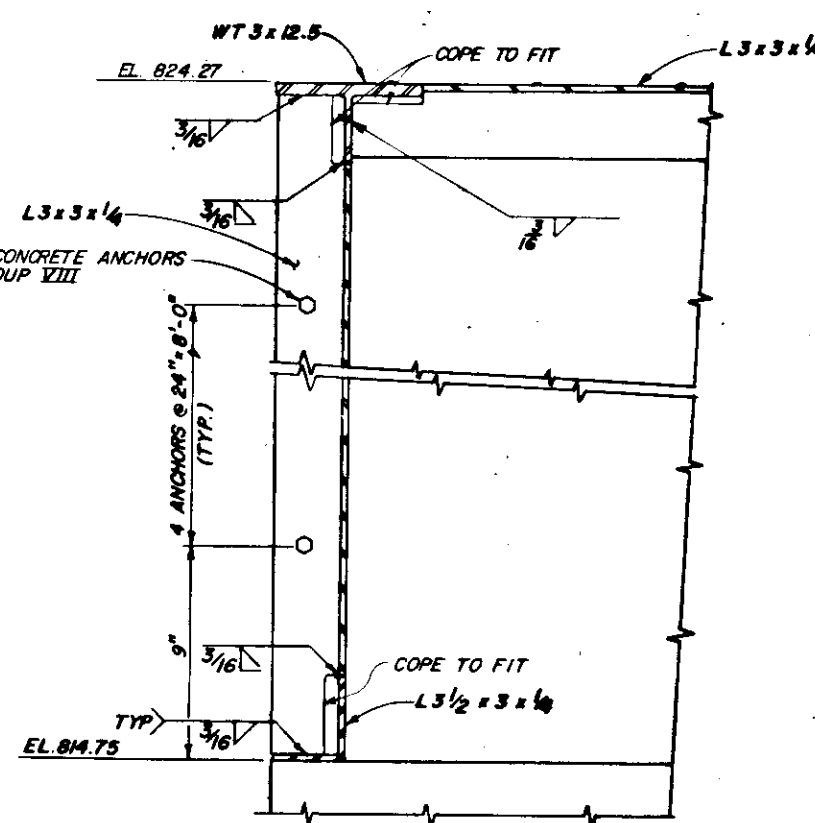
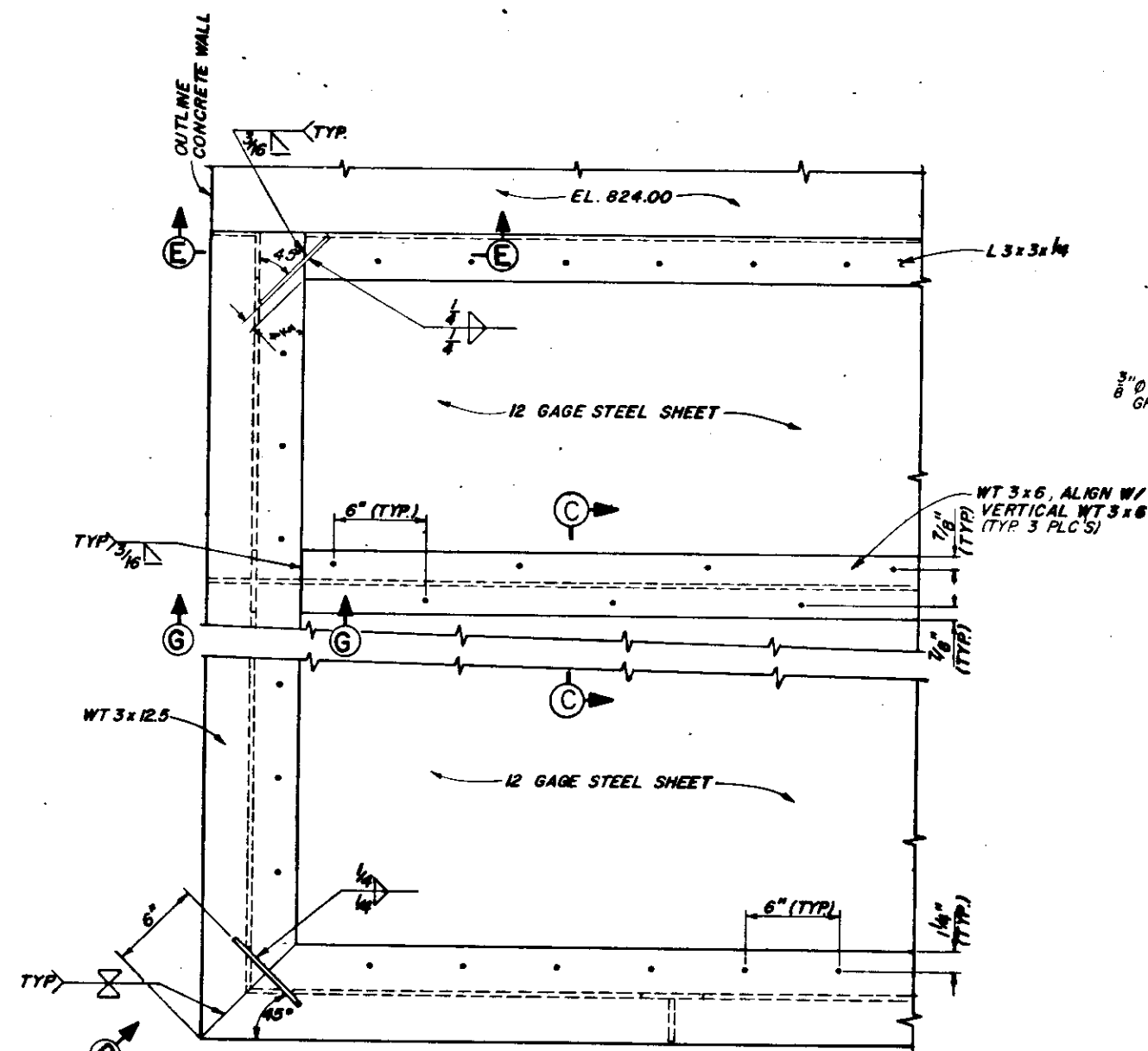
REVISION	DATE	DESCRIPTION	RL
DELETED MACHINERY ROOM PLAN & SECTION			
U. S. ARMY ENGINEER DIVISION, N. P. PORTLAND, OREGON			
DESIGNED BY: D.T.M.	CHIEF JOSEPH DAM		
DRAWN BY: J.P.	COLUMBIA RIVER WASHINGTON		
CHECKED BY: D.C.R.	POWERHOUSE SHOPS		
PREPARED BY: J.P.	ELEVATOR HOISTWAY DETAILS		
SHEET 2			APPROVED FOR DIV ENGINEER DATE 83DEC14
SUBMITTED BY: J.P. McLaughlin			SCALE AS SHOWN
CJP-116-4-042			SHEET 6



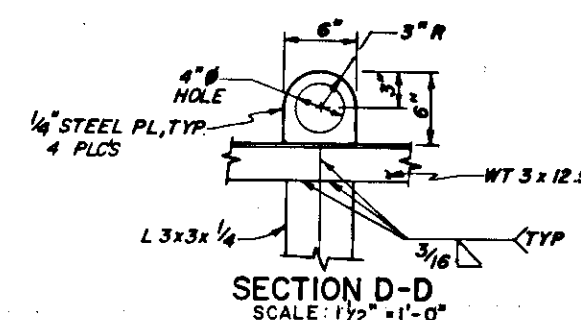
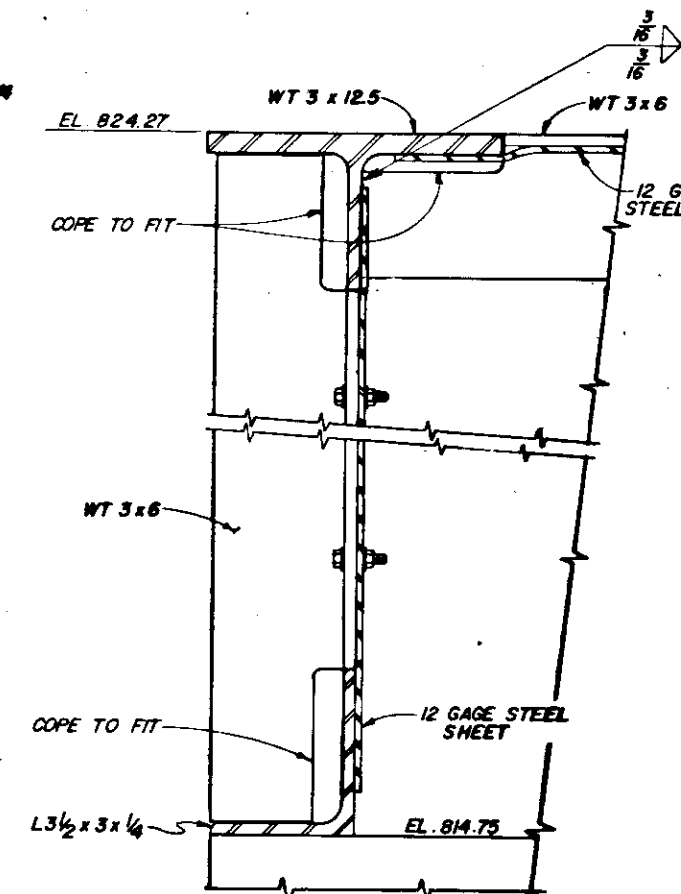


NOTES:

1. SEE DWG. 0/1 FOR ELEVATOR HOISTWAY DETAILS.
2. ALL MATERIAL SHALL BE STRUCTURAL STEEL ASTM-A36 UNLESS OTHERWISE NOTED.
3. PAINTING SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS.
4. AT CONTRACTOR'S OPTION, STEEL SHEET MAY BE CONTINUOUS RATHER THAN AS SHOWN IN SECTION B-B.

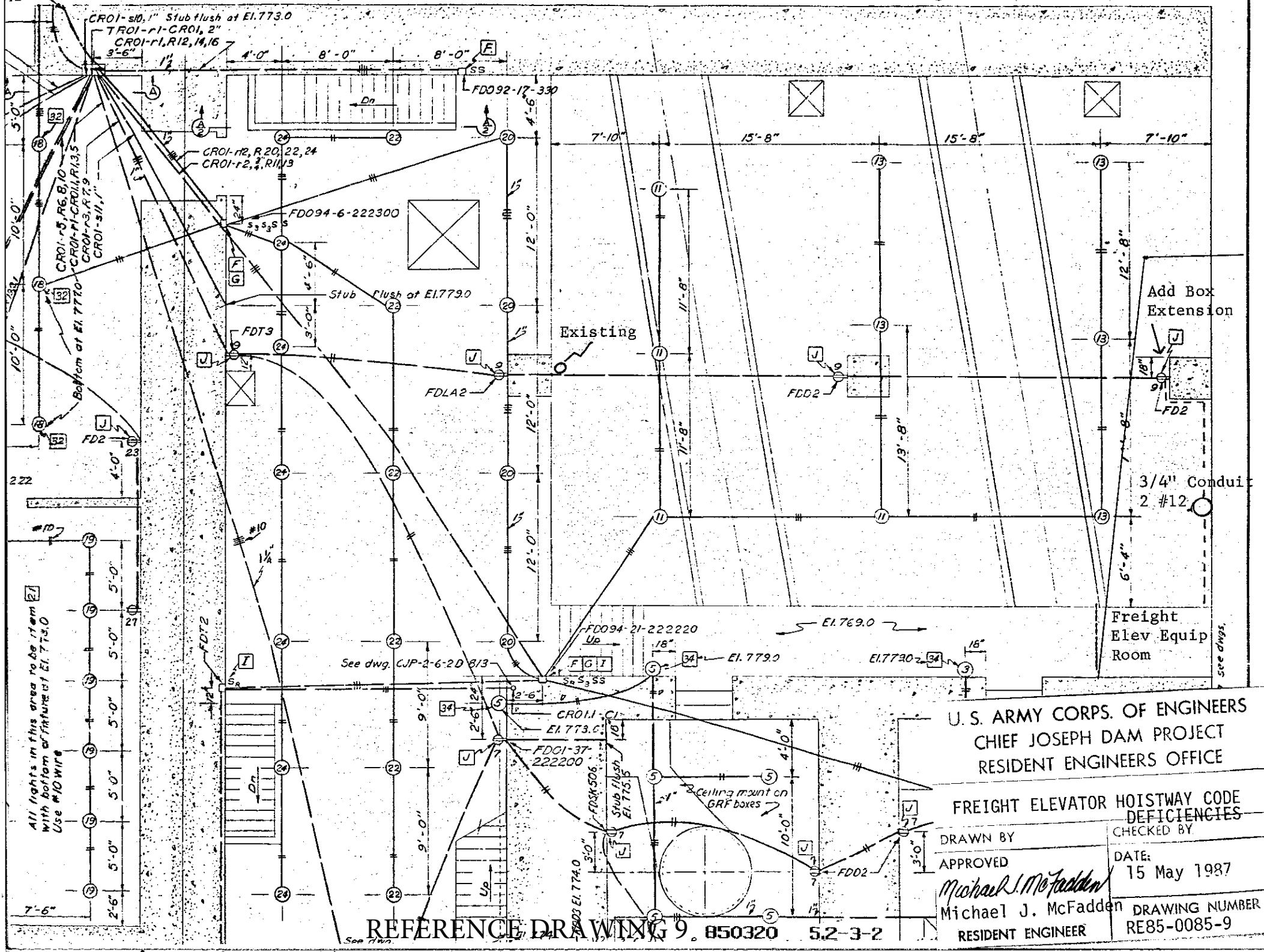


SHEET METAL NOT SHOWN FOR CLARITY



REFERENCE DRAWING 8

REVISION	DATE	DESCRIPTION	BY
U. S. ARMY ENGINEER DIVISION, N. P. PORTLAND, OREGON			
DESIGNED BY: R.W.		CHIEF JOSEPH DAM COLUMBIA RIVER WASHINGTON	
DRAWN BY: T.G.O.		POWERHOUSE SHOPS	
CHECKED BY: D.C.K.		ELEVATOR HOISTWAY ENCLOSURE	
PREPARED:		SHEET 2	
APPROVED FOR DIV. ENGINEER: DATE 83DEC14		SCALE AS SHOWN	
CJP-1.16-4-0/14		SHEET 61A	



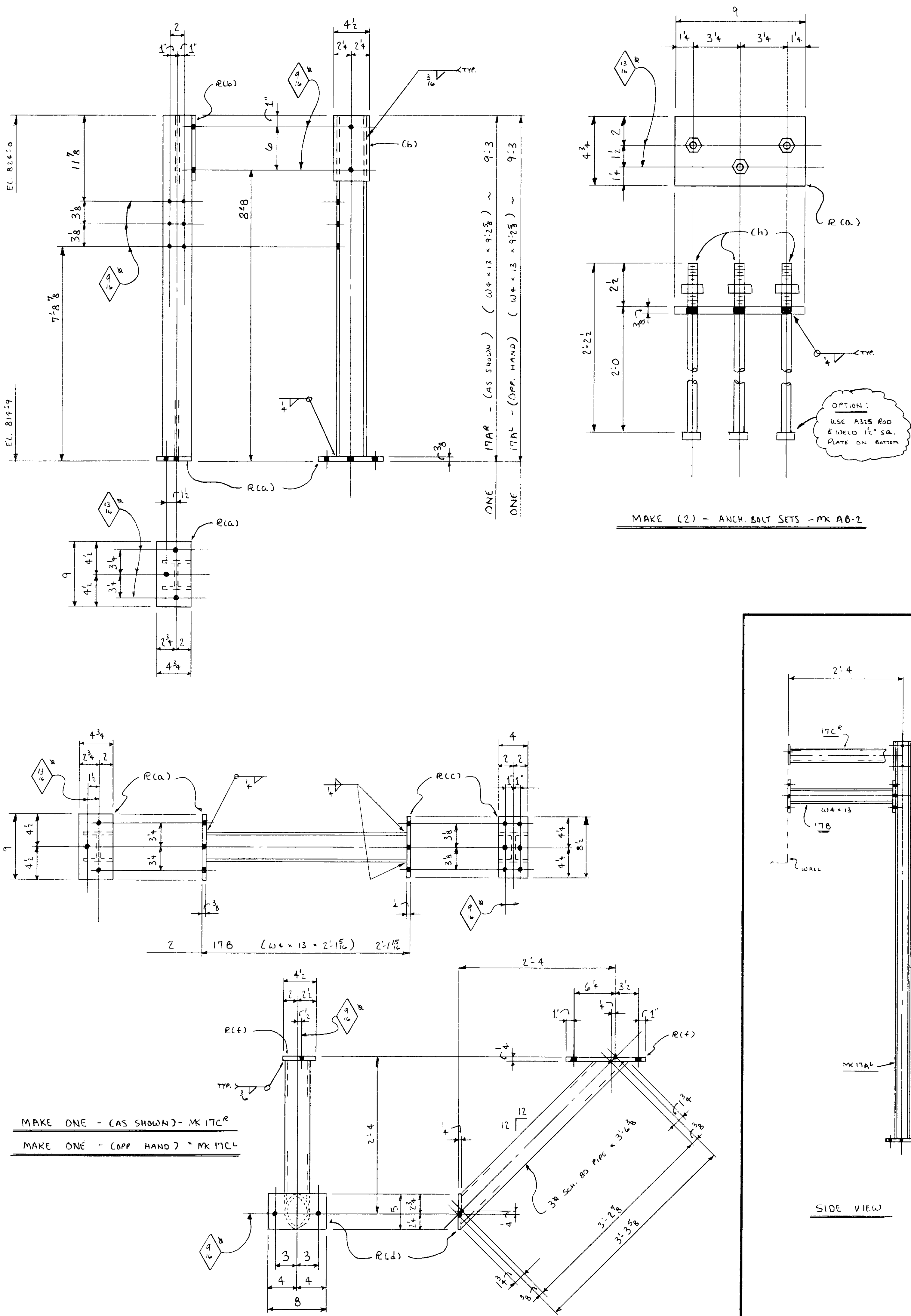
U. S. ARMY CORPS. OF ENGINEERS
CHIEF JOSEPH DAM PROJECT
RESIDENT ENGINEERS OFFICE

FREIGHT ELEVATOR HOISTWAY CODE DEFICIENCIES

DRAWN BY	CHECKED BY
APPROVED	DATE:
Michael J. McFadden	15 May 1987
Michael J. McFadden	DRAWING NUMBER
RESIDENT ENGINEER	RE85-0085-9

BILL OF MATERIAL

NO TO SHIP	SHIP MARK	ABSY MARK	NO PCS	SECTION	LENGTH FT. IN.	TOT. FT.	UNIT WT.	REMARKS		
ONE	17A ^c		1	W 4 x 13	9 2 ⁵ / ₈					
ONE	17A ^c		1	do	9 2 ⁵ / ₈					
		a	2	R 3/8 x 4 3/4	0 9					
		b	2	R 1/2 x 4 1/2	0 8					
2	17B		2	W 4 x 13	2 1 ⁵ / ₁₆					
		a	2							
		c	2	R 1/2 x 4	0 8 1/2					
ONE	17C ^c		1	3" SCH 80 Pipe	3 6 3/8					
ONE	17C ^c		1	do	3 6 3/8					
		d	2	R 1/2 x 5	0 8					
		f	2	R 1/2 x 4 1/2	0 11 3/4					
2	AB-2									
		a	2							
		h	6	3/8" H.S.B.	2 2 1/2			(MIN. TENSIL STRESS 60 KSI)		
				(OR USE) →						
				3/8" A315 ROD	2 2 1/2					
				W/R 3/4" x 1 1/2"	0 1 1/2					
				WELDED TO BOTTOM						



REFERENCE DRAWING 10

BILL OF MATERIAL

NO TO SHIP	SHIP MARK	ASSY MARK	NO PCS	SECTION	LENGTH FT.	IN.	TOT. FT.	UNIT WT.	REMARKS
1	19A	QF	2	23X13X4	8	12			P/E
		L	2	23X3X4	9	5 1/2			COPE 2E
		C	10	WT3X6	9	5 1/2			C/L 2E
		J	2	23X3X4	9	0 1/2			
		CF	2	WT3X12.5	8	1 1/2			E/W
		F	1	23X12.5	11	3			COPE 2E
		Q	3	V	11	3			C/L 2E
		H	1	WT3X12.5	11	3			E/E
		K	1	23X12.5	11	3			E/E
		M	4	E2	11	6			1/2" x 1/2"
		N	2	12GA X 21	9	3 1/2			
		P	4	12GA X 23 1/2	9	3 1/2			
		Q	2	12GA X 22 1/2	9	3 1/2			
		S	1	12GA X 21	11	0 1/2			
		T	2	12GA X 23 1/2	11	0 1/2			
		V	1	12GA X 22 1/2	11	0 1/2			
		W	2	12GA X 25 1/2	9	3 1/2			
		Y	2	12GA X 26 1/2	9	3 1/2			
		Z	1	12GA X 26 1/2	9	3 1/2			
		42A	4	X1 MB					
		34B	4	Cut W/iron					

NOTE: 12GA. SHEET FASTENED TO INSIDE OF V. ALL FRAMING & UNDER SIDE OF ROOF FRAMING. SHOP TO CLAMP SHEETS ON FRAME AND DRILL ASSEMBLY HOLES TO MATCH. LOCATE 12 GA SHEET ACCORDING TO CIRCLED PIECE MARKS.

CERT. WELDERS	PRINTS
SUP. REQ'D.	DATE
END & EDGE DIST. 3	ALT.
OPEN HOLES	APPL.
WELDS 3/4	SHOP
PAINT	EREC.
DEL. PROMISE	ACCT.
	CONF.

6 EAST WASHINGTON AVE.
P.O. BOX 1369
YAKIMA, WN 98907

PHONE (509) 575-1570

YAKIMA STEEL FABRICATORS INC.

MERV WARK, GEN. MGR. 223-02 YA-KI-MI-2340D LEONARD JETTON, JR., V.P.

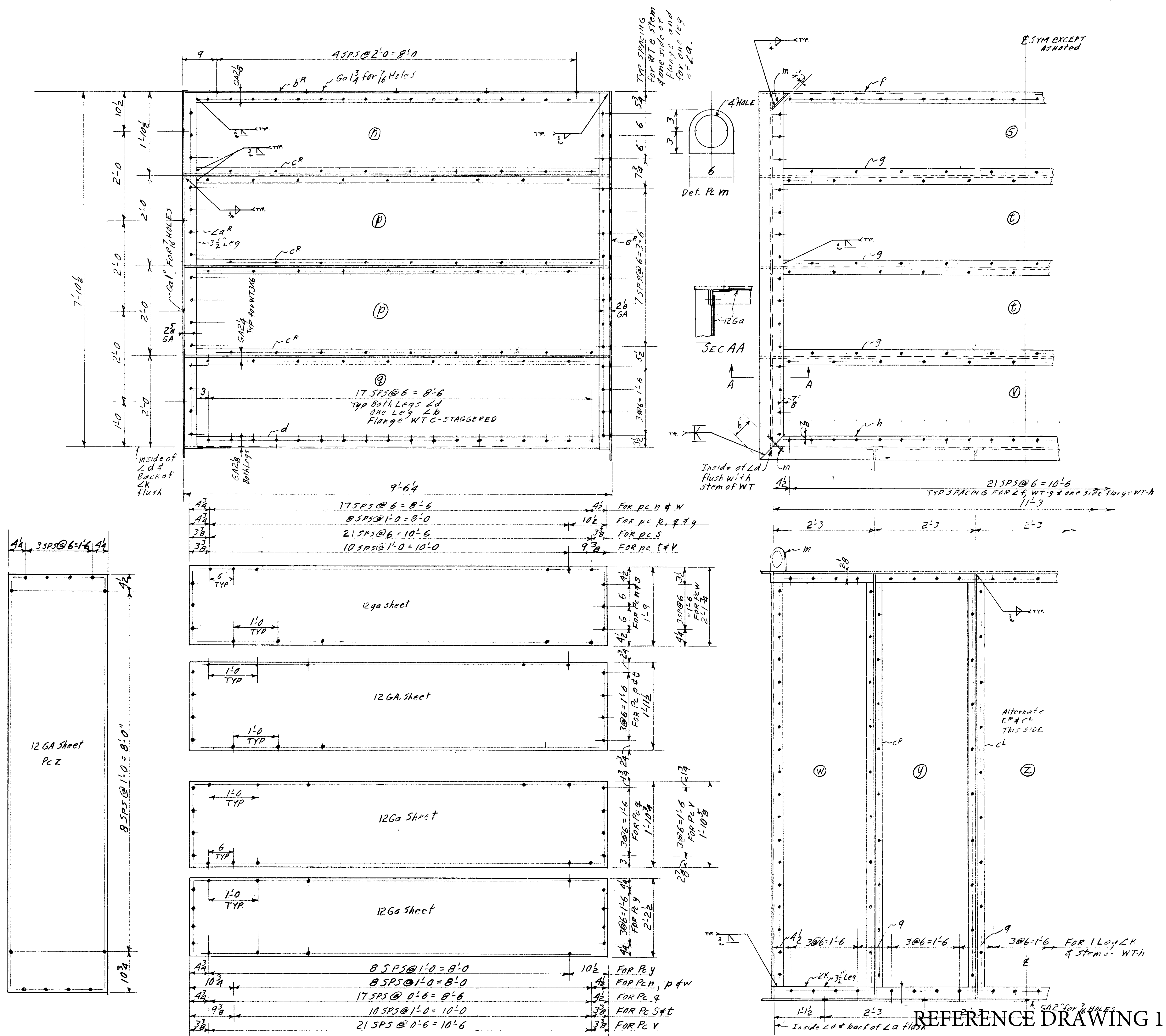
ITEM **ELEVATOR HOISTWAY ENCLOSURE**

JOB **POWERHOUSE SHOPS**

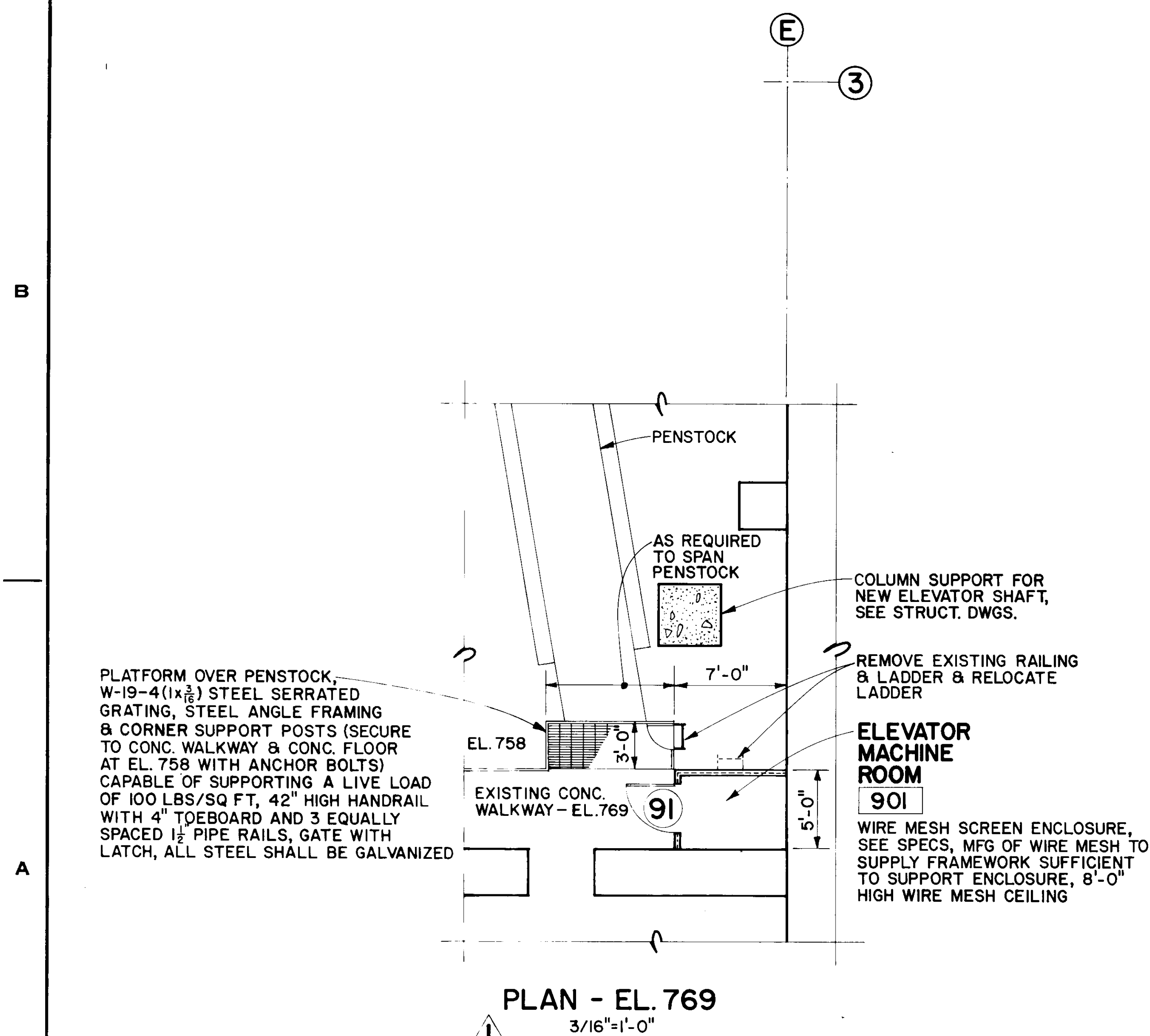
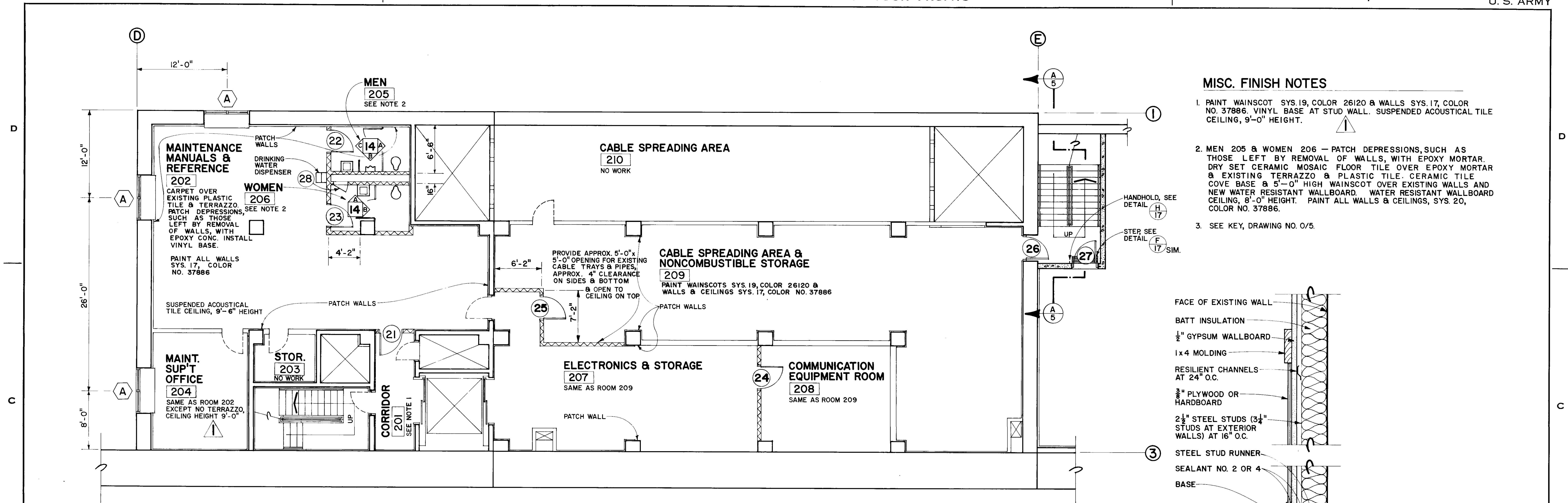
LOCATION **CHIEF JOSEPH DAM**

CONTR. **GARZA CONST.** STL. EREC. Y.S.F. JOB NO. **5079**

DRWN. BY **JD** CHKD. BY **ALT.** DRWG NO. **198224**



REFERENCE DRAWING 11

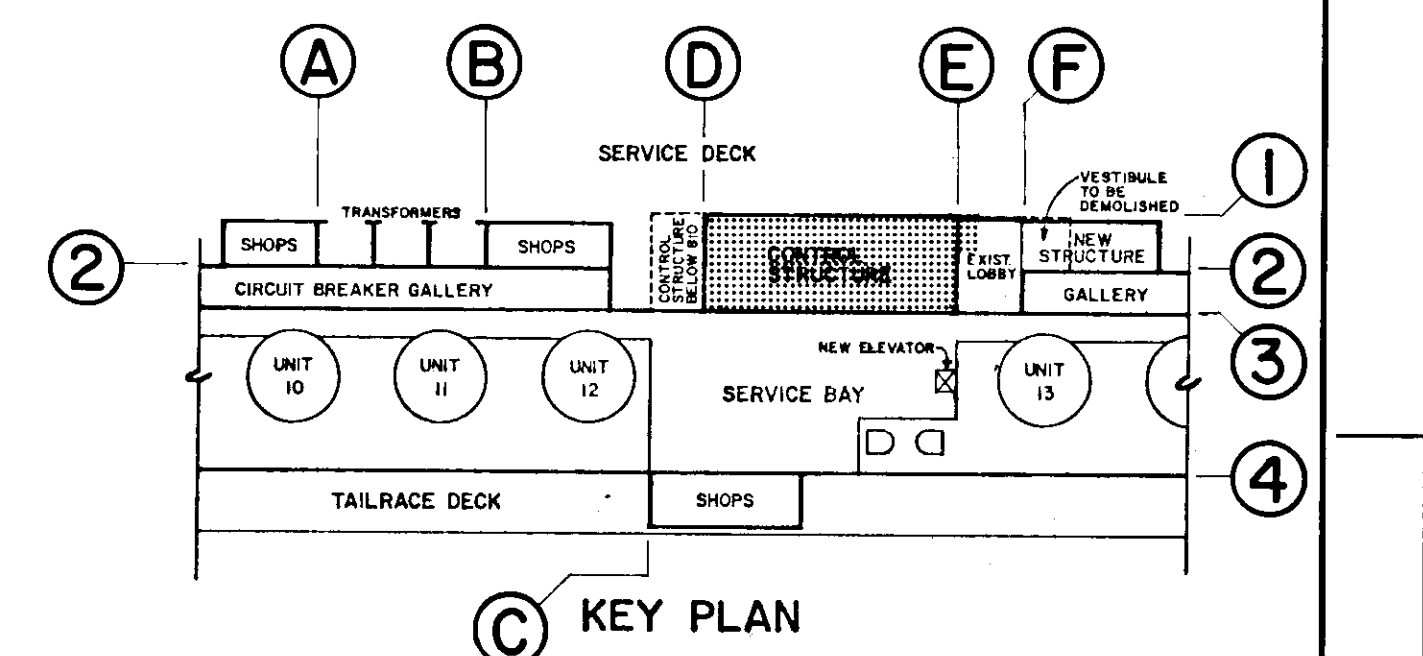


LEGEND

EXISTING NEW CONSTRUCTION

CONCRETE CMU GYP BD. ON STEEL STUDS WIRE MESH PARTITION DOORS

5 0 5 10 15
3/16" = 1'-0"



DESIGNED BY	JS	CHIEF JOSEPH DAM
DRAWN BY	JS	COLUMBIA RIVER POWERHOUSE SHOPS
CHECKED BY	DLT	ARCHITECTURAL
PREPARED BY	DLT	PLANS & SECTIONS
SUBMITTED BY	DLT	EL. 769/827.5
APPROVED FOR DIV. ENGINEER	DLT	DATE 83DEC14
CHIEF ENGINEERING DIVISION	DLT	SCALE AS SHOWN
CJP-1.16-2-0/6		SHEET 10

REFERENCE DRAWING 13

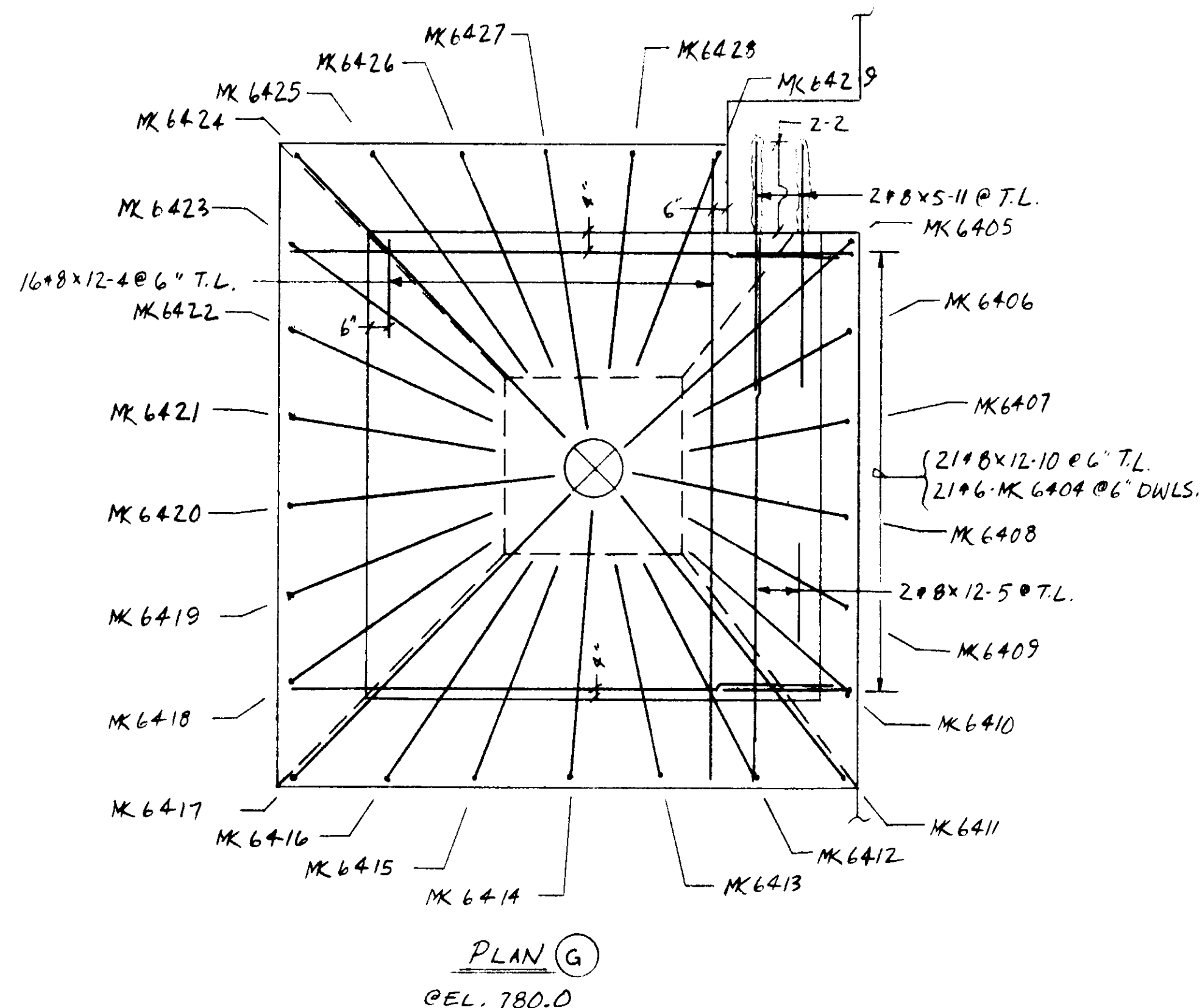
copies issued		for	
no.	date	no.	date
6	12/13	APPL	✓
2	2/7	FIELD	✓
19/18	12/74	CONTR	US

job	CHIEF JOSEPH DAM - POWERHOUSE SHOPS
title	ELEVATOR HOISTWAY - LOWER SECTION
contractor	GARZA CONST.

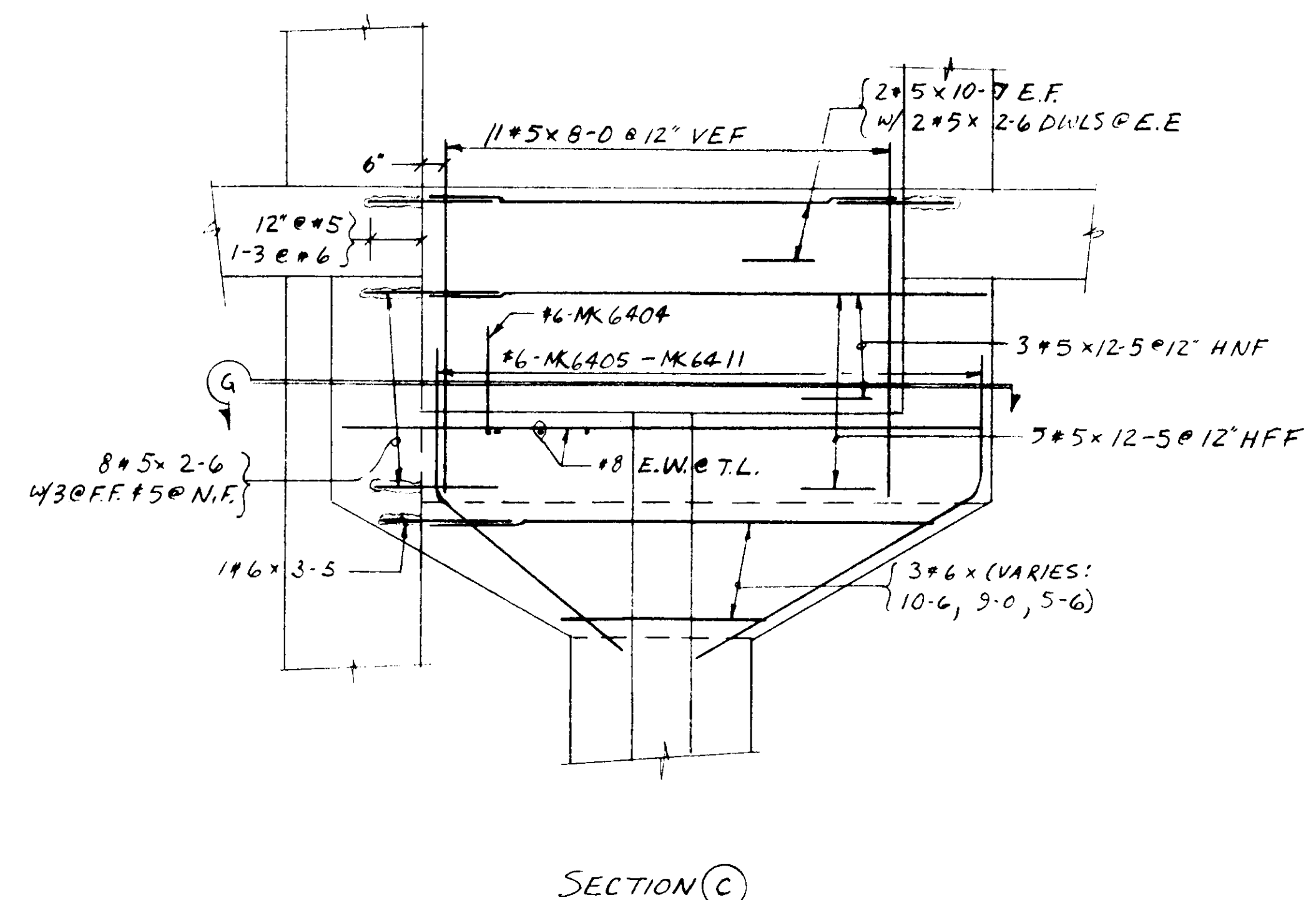
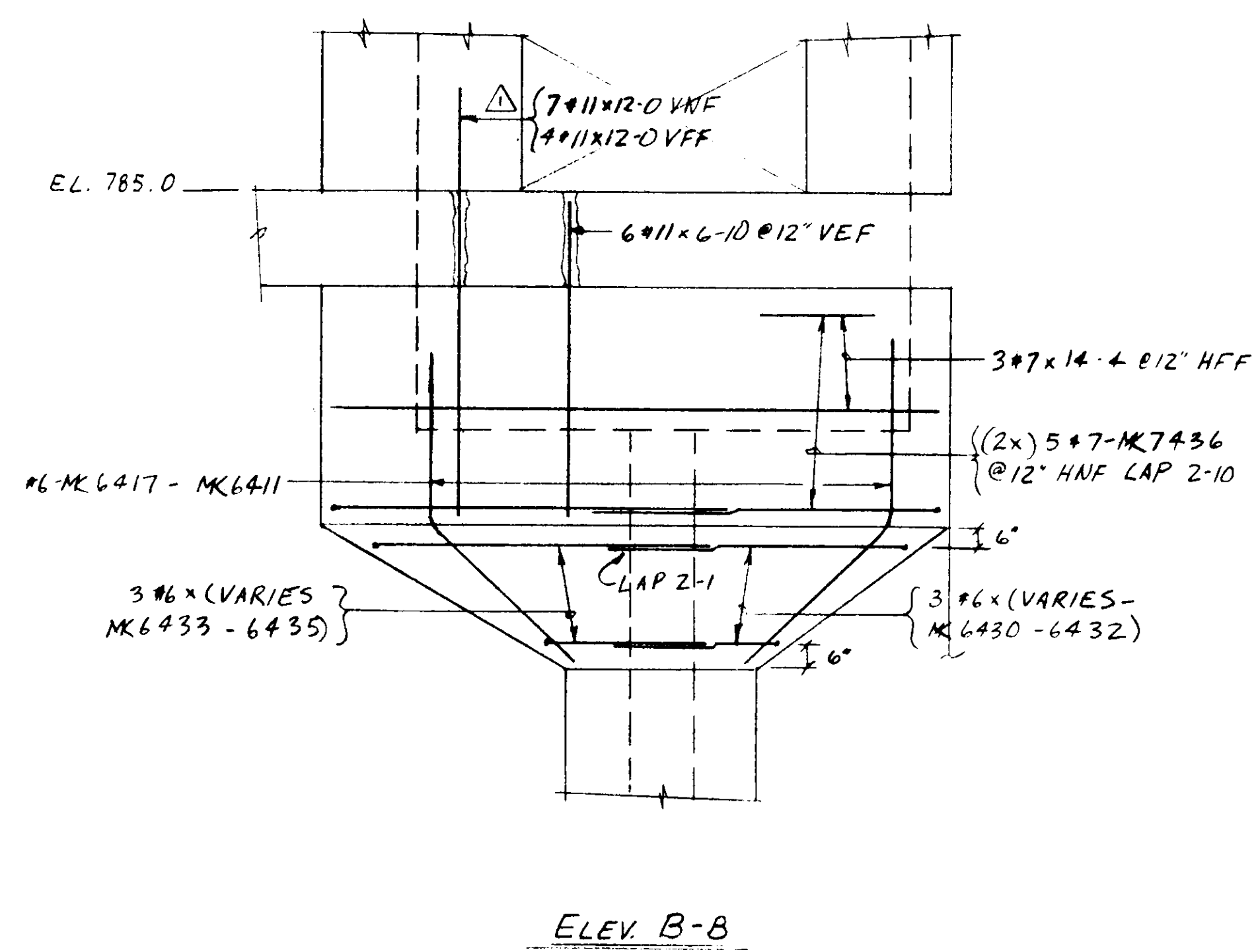
gram steel

Reinforcing Structural and Miscellaneous Steel - PO Box 696 - Kirkland, Washington 98033 - Phone (206) 823-5656

revision	2/12/86	per	APPL
drawn by	S. LINDEMAYER	date	12/11/85
architect		title	LOWER ELEV. HOIST
contract number	185-11449	drawing number	7

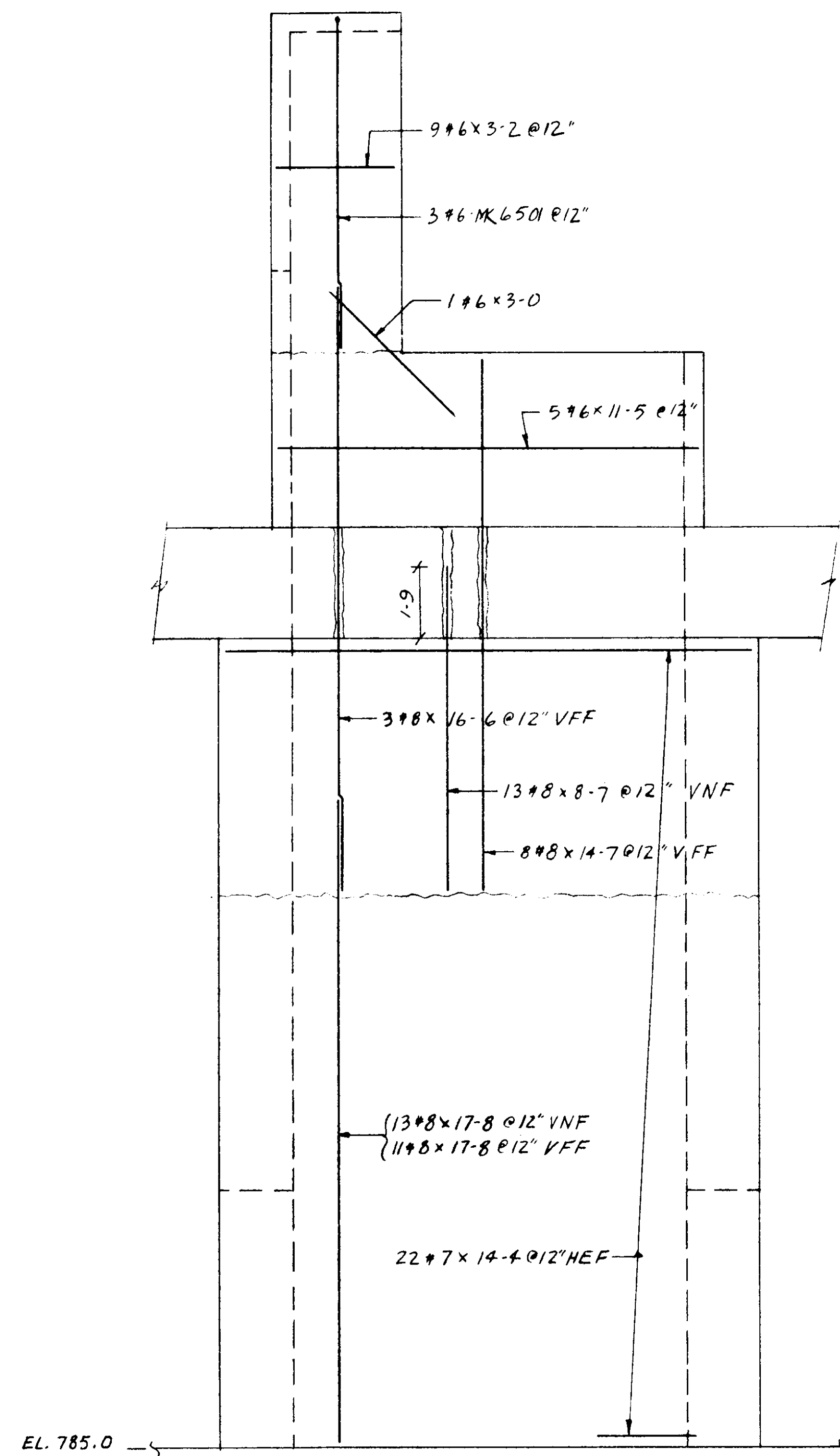


NOTE 2" CLEAR @ #6 & LARGER
1 1/2" CLEAR @ #5 & SMALLER
SEE DWG. #6 FOR KEY PLAN
SEE DWG. #8 FOR UPPER HOISTWAY

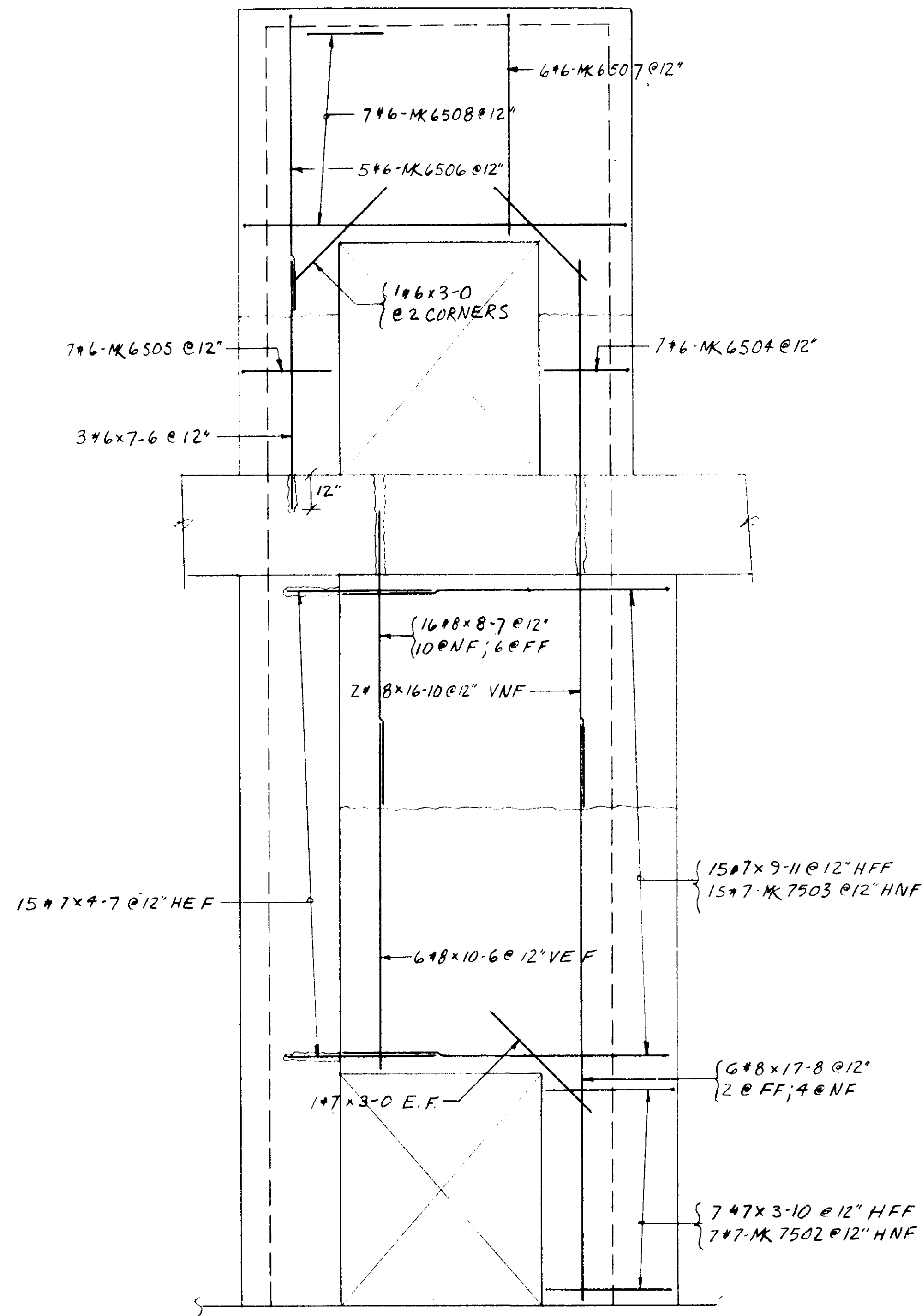


1-3		A		H	
#6-MK 6405 TO MK 6429					
MK	A	H			
6405	8-11	3-10			
6406	5-9	3-0			
6407	4-11	3-0			
6408	6-7	3-10			
6409	5-10	3-0			
6410	7-2	3-0			
6411	9-6	3-10			
6412	6-7	3-0			
6413	6-1	3-0			
6414	7-6	3-8			
6415	6-0	3-0			
6416	7-6	3-0			
6417	10-9	3-8			
6418	7-8	3-0			
6419	6-7	3-0			
6420	7-5	3-8			
6421	5-10	3-0			
6422	6-7	3-0			
6423	7-8	3-0			
6424	10-9	3-8			
6425	7-11	3-0			
6426	6-8	3-0			
6427	7-7	3-8			
6428	6-0	3-0			
6429	6-7	3-0			

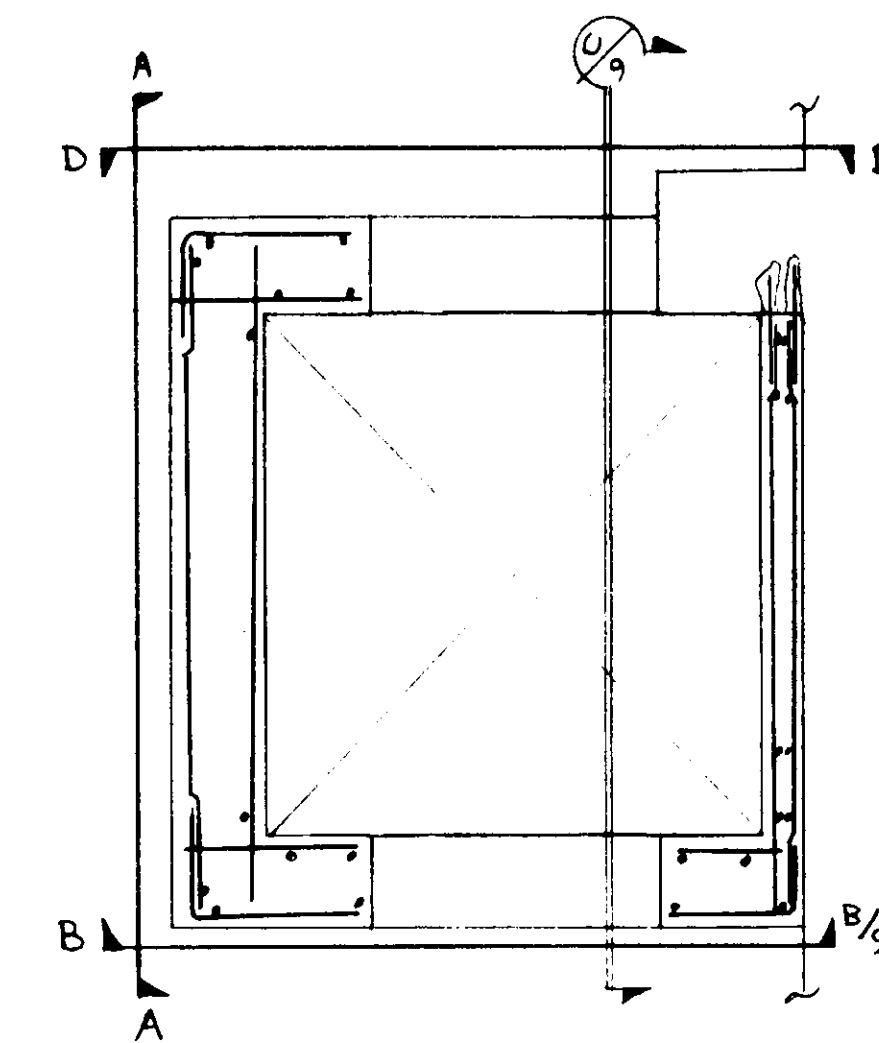
CONTRACT # DACW-67-85-C-0085



ELEV. A-A



ELEV. D-D



KEY PLAN

NOTE: 2" CLEAR @ #6 # LARGER
1 1/2" CLEAR @ #5 # SMALLER
SEE DWGS # 6 & 7 FOR LOWER HOISTWAY

2-1	2-1
11-6	
#6 MK 6508	
3-0	6-9
#6 MK 6507	
3-0	9-0
#6 MK 6506	
2-1	2-8
#6 MK 6505	
2-1	2-6
#6 MK 6504	
2-10	9-11
#7 MK 7503	
2-10	5-10
#7 MK 7502	
1-9	9-1
#6 MK 6501	

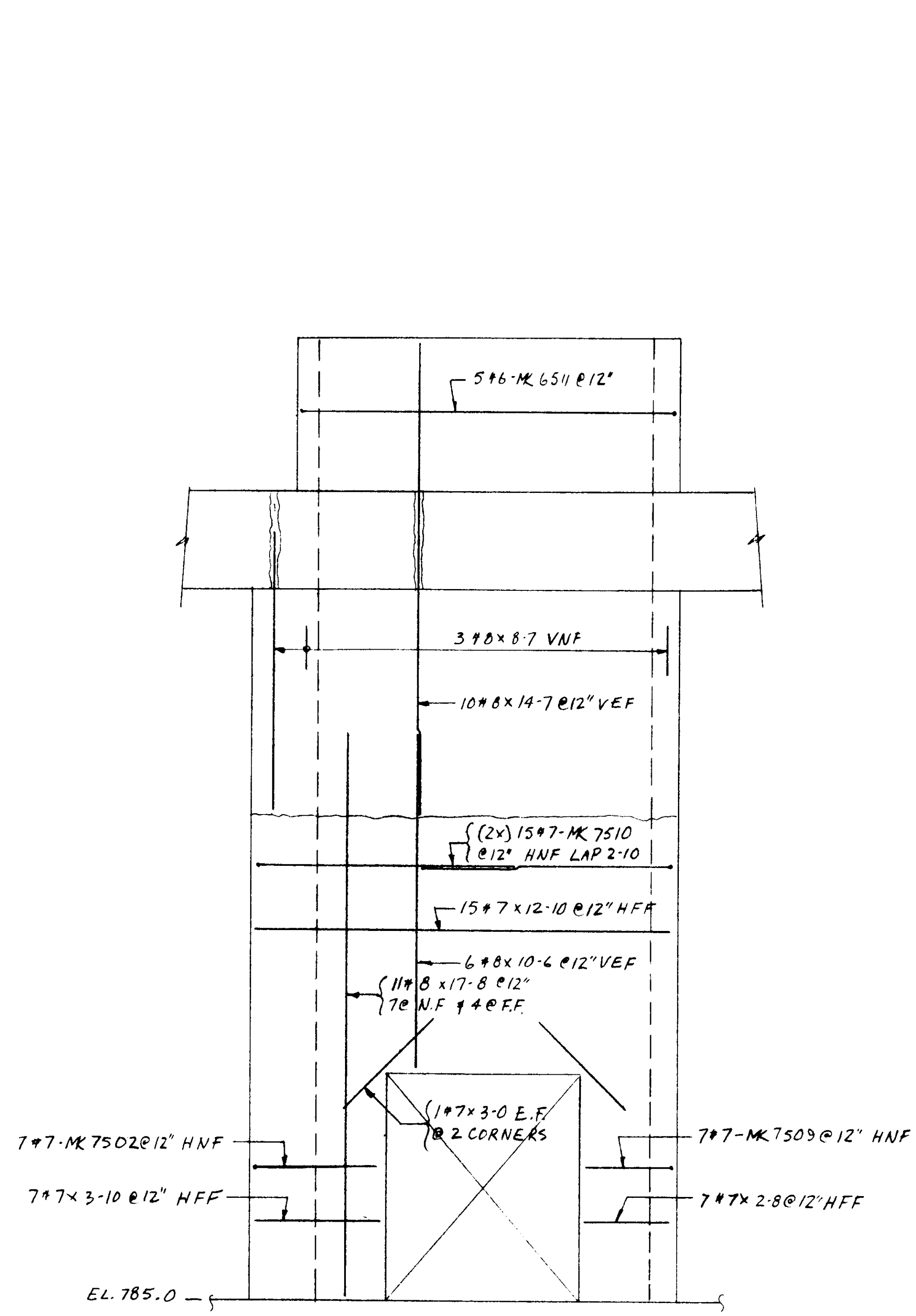
CONTRACT # DACW 67-85-C-0085

REFERENCE DRAWING 15

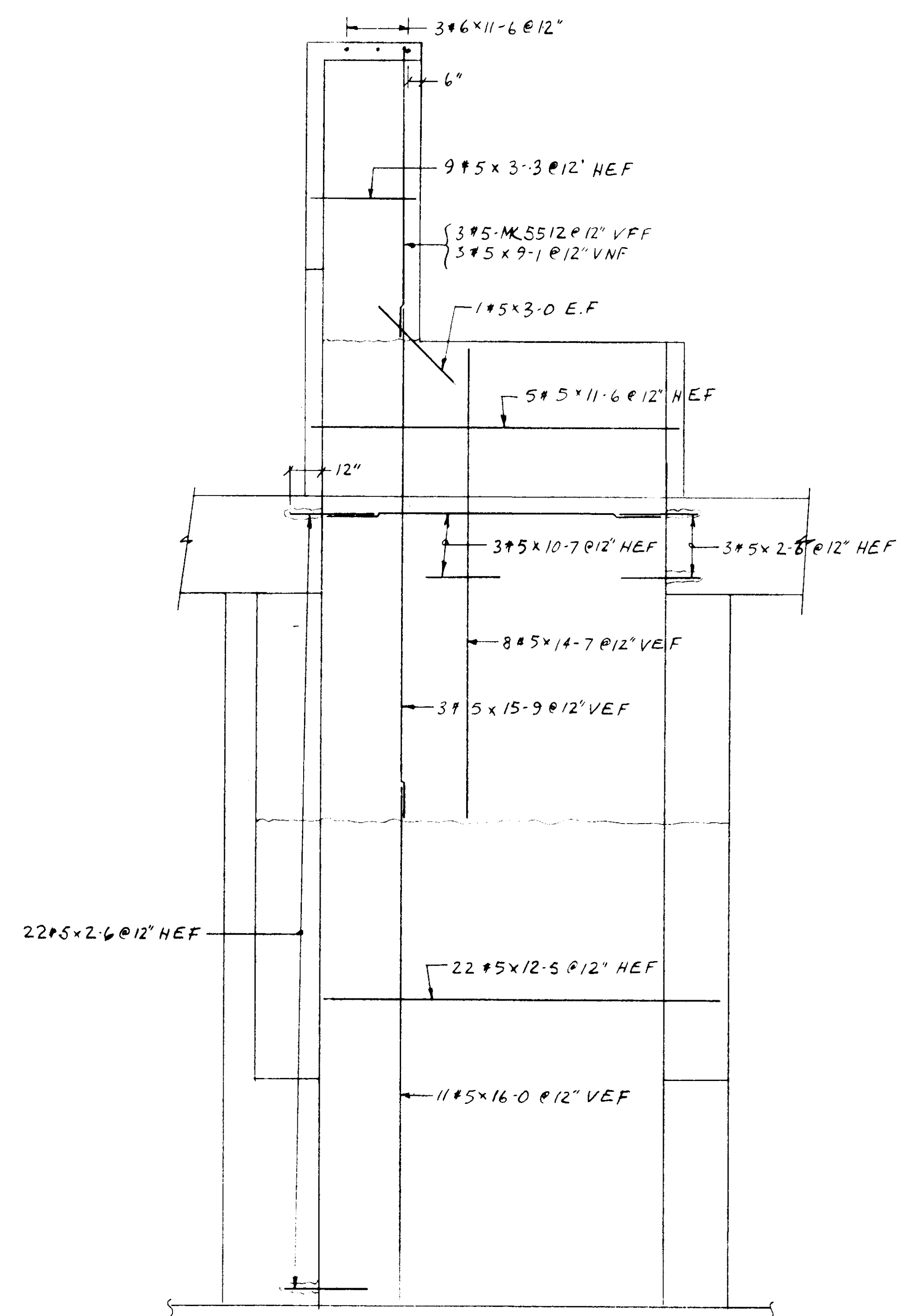
job CHIEF JOSEPH DAM - POWERHOUSE SHOPS
title ELEVATOR HOISTWAY - UPPER SECTION
contractor GARZA CONST.

graham steel
Reinforcing Structural and Miscellaneous Steel
P.O. Box 858 • Kirkland, Washington 98033 • Phone (206) 823-6656

drawn by S. LINDEMAYER
date 12/12/85
architect
title UPPER
ELEV. HOIST
contract number
185-11449
drawing number
8



ELEV. B-B



SECTION C

NOTE: SEE DWG. #8 FOR KEY PLAN
2" CLEAR FOR #6 # LARGER
1 1/2" CLEAR FOR #5 # SMALLER

1-0	9-1
*5-MK 5512	
2-1	12-1
*6-MK 6511	
7-10	12-10
*7-MK 7510	
2-10	3-10
*7-MK 7502	
2-8	1-5
*7-MK 7509	

CONTRACT: #DACH-67-85-C-0085

REFERENCE DRAWING 16

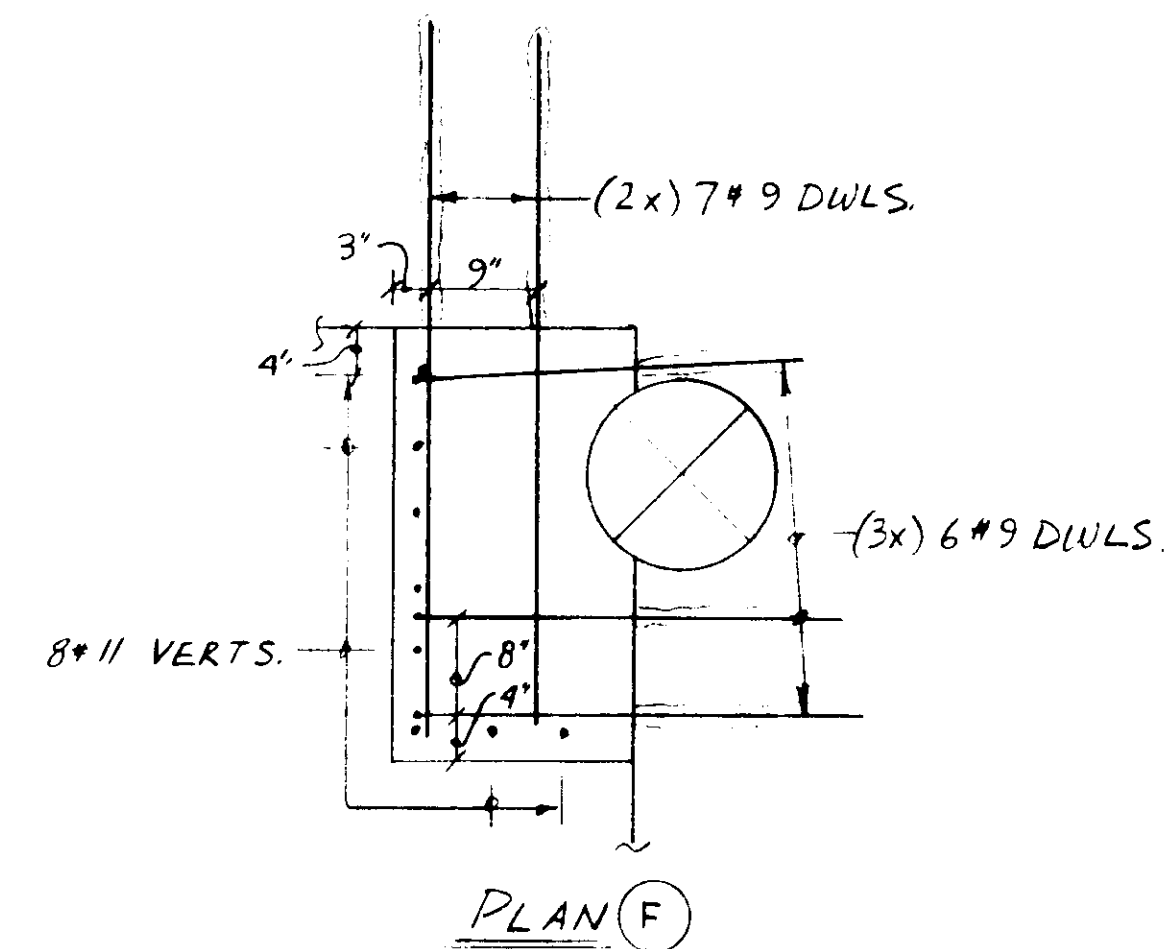
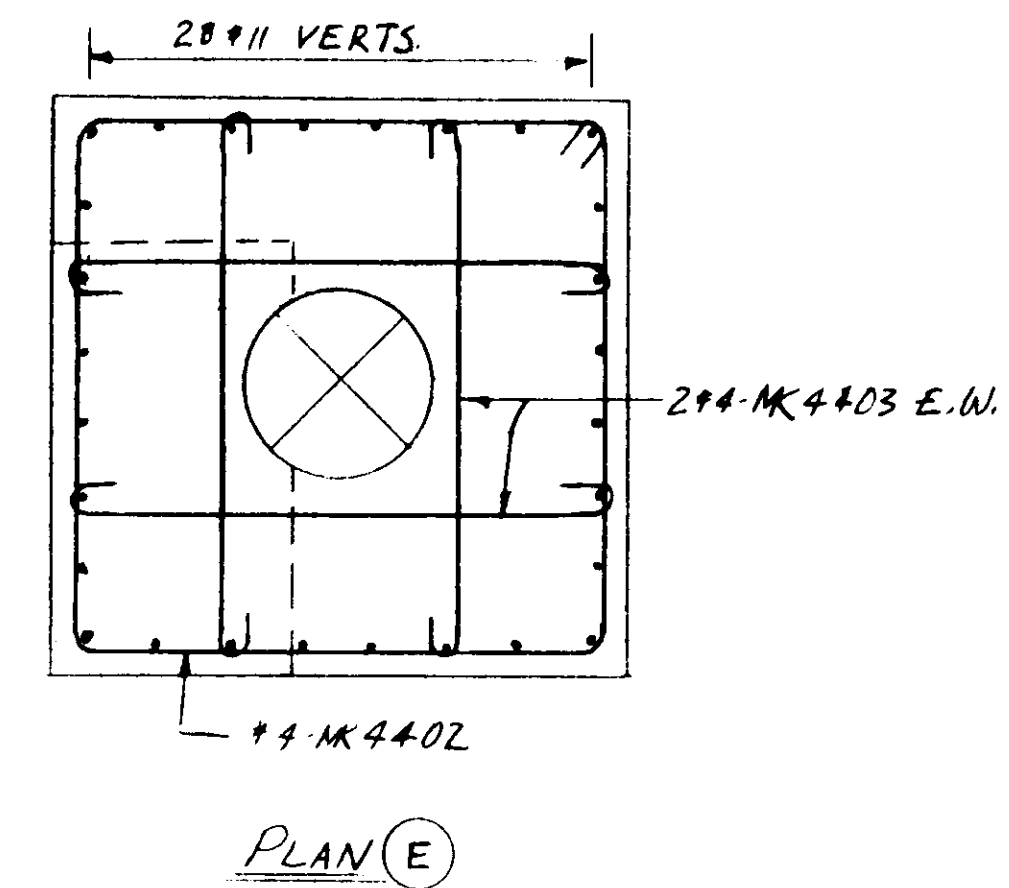
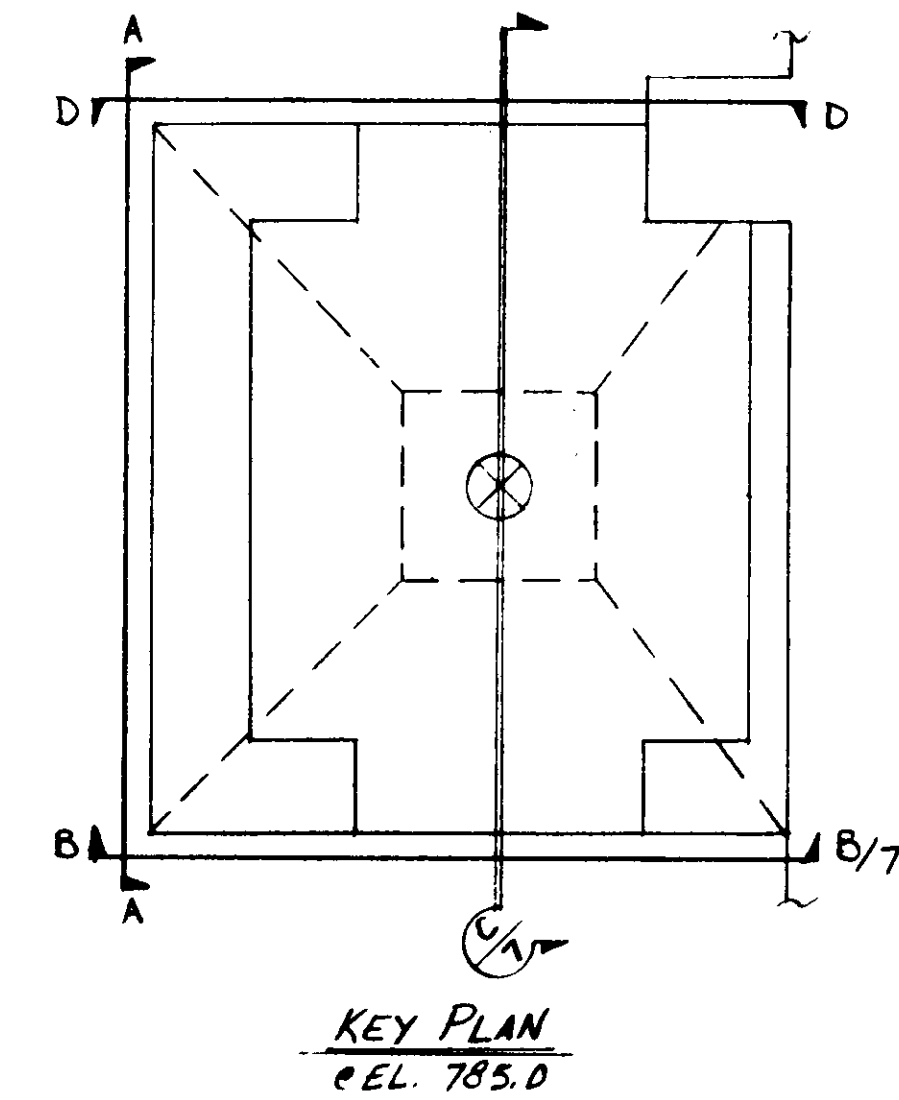
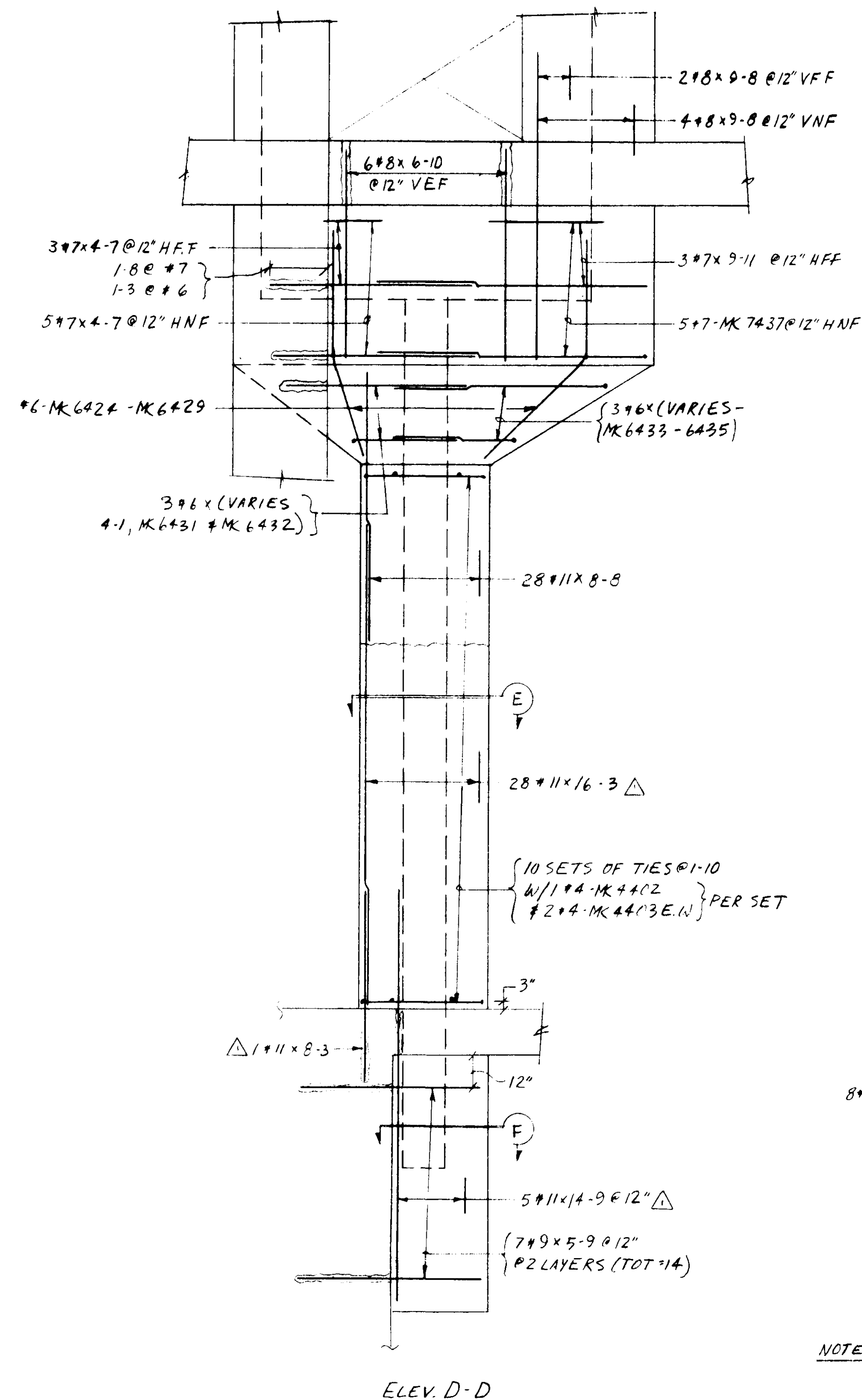
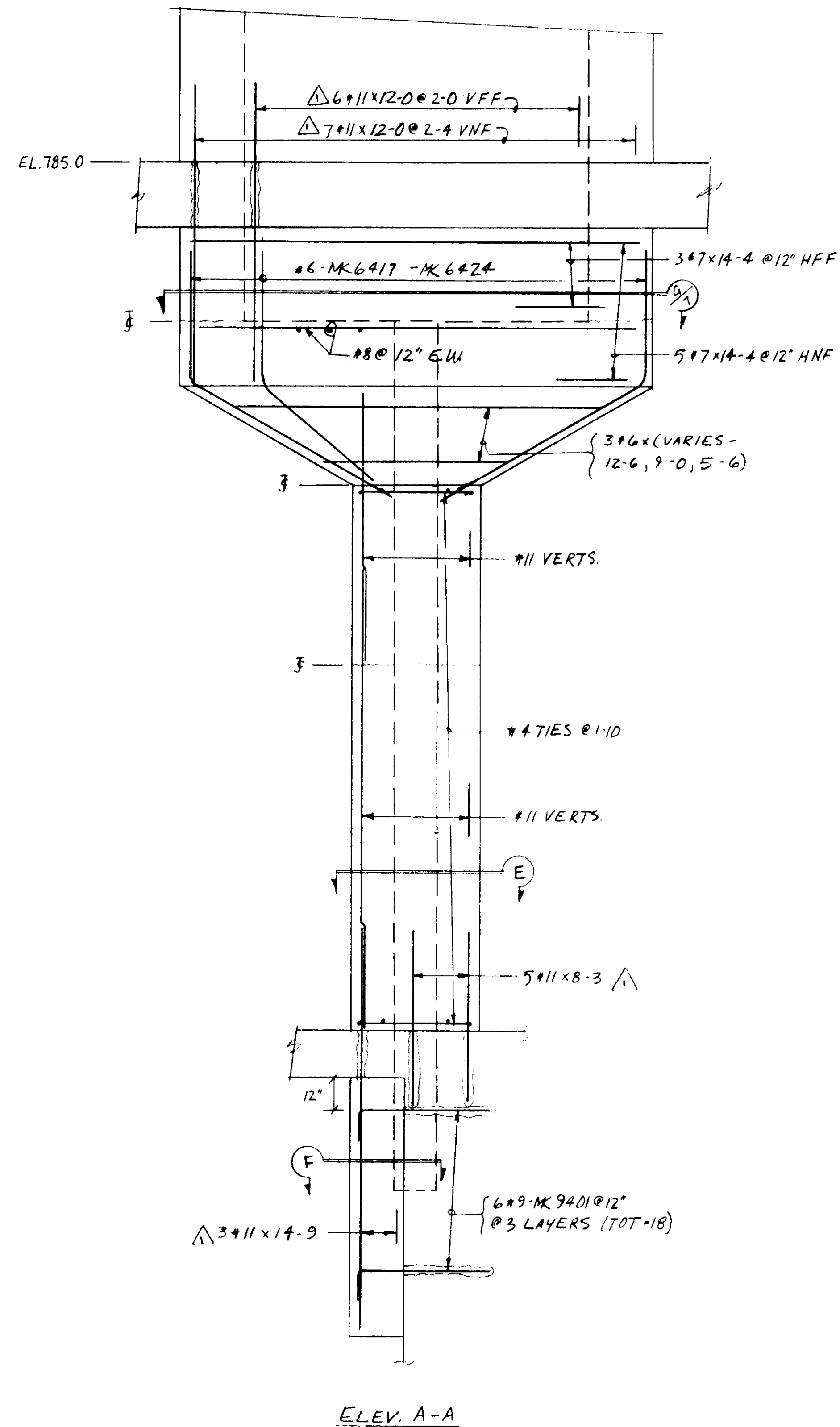
no.	date	for
2	12/13/85	FIELD
15/18	1/23/87	CONTR. USE

job	CHIEF JOSEPH DAM - POWERHOUSE SHOPS
title	ELEVATOR HOISTWAY - UPPER SECTION
contractor	GARZA CONST.

gram steel

Reinforcing, Structural and Miscellaneous Steel - P.O. Box 668 • Kirkland, Washington 98033 • Phone (206) 823-5656

drawn by	S. LINDENMEYER
date	12/13/85
architect	
title	UPPER ELEV. HOIST
contract number	185-11449
drawing number	9



NOTE: 2" CLEAR @ #6 & LARGER
1 1/2" CLEAR @ #5 & SMALLER
SEE DWG. #8 FOR UPPER HOISTWAY

CONTRACT # DACW 67-85-C-0085

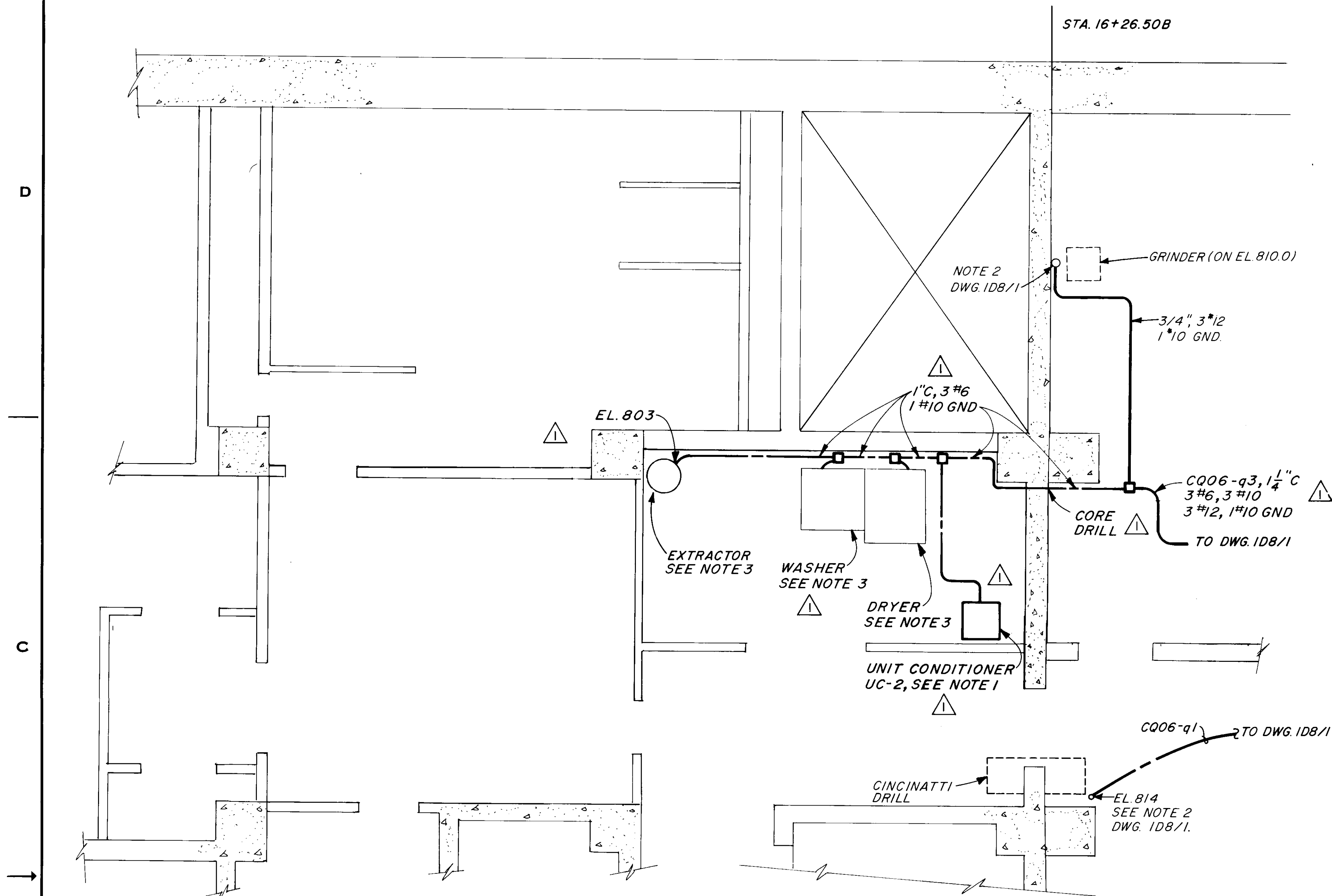
REFERENCE DRAWING 17

Job CHIEF JOSEPH DAM - POWERHOUSE SHOPS
ELEVATOR HOISTWAY - LOWER SECTION

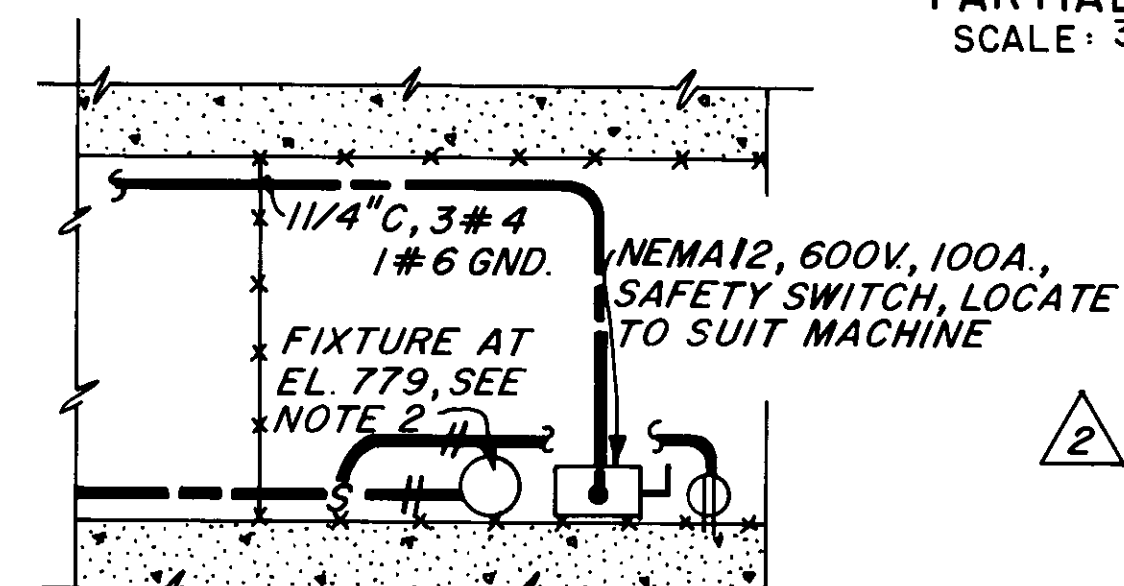
steel
graham

drawn by S. LINDEMMEYER
date 12/10/85
title LOWER ELEV. HOIS
contract number 185-11449
drawing number 6

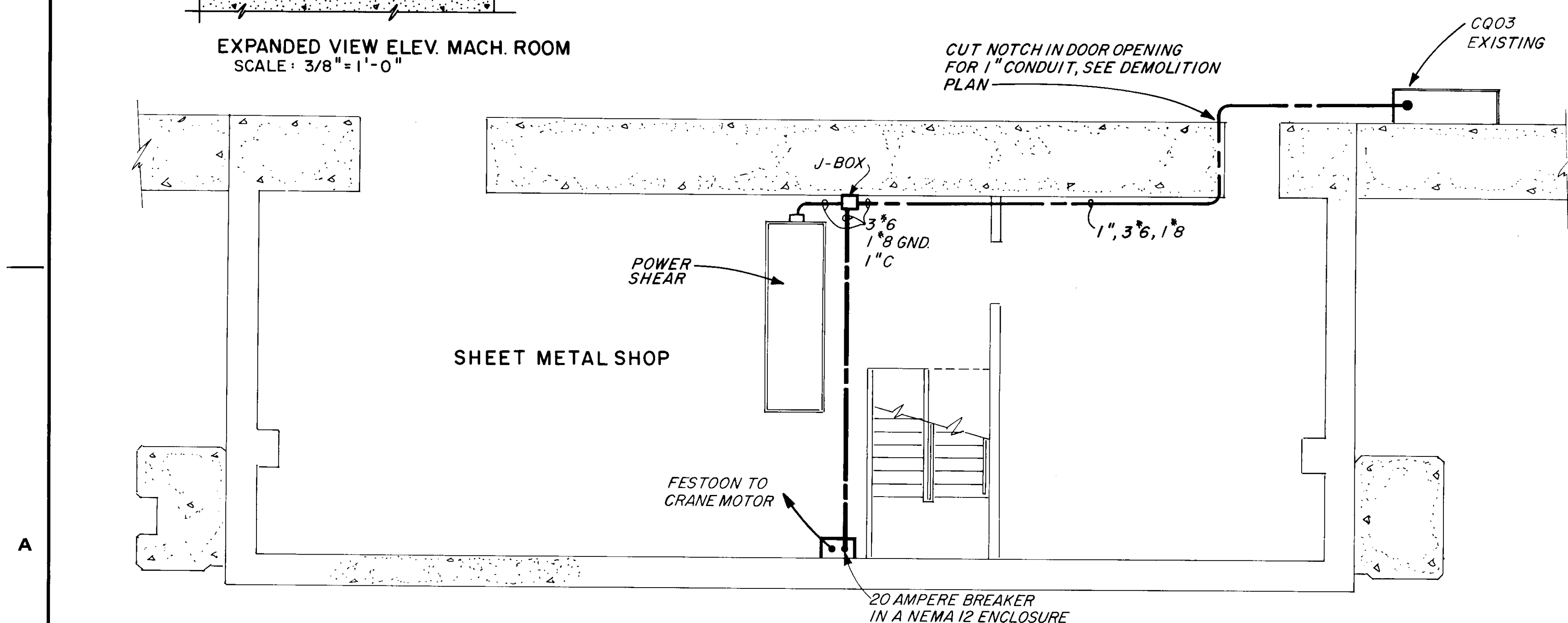
revision 2/3/86
PER APP'L
architect



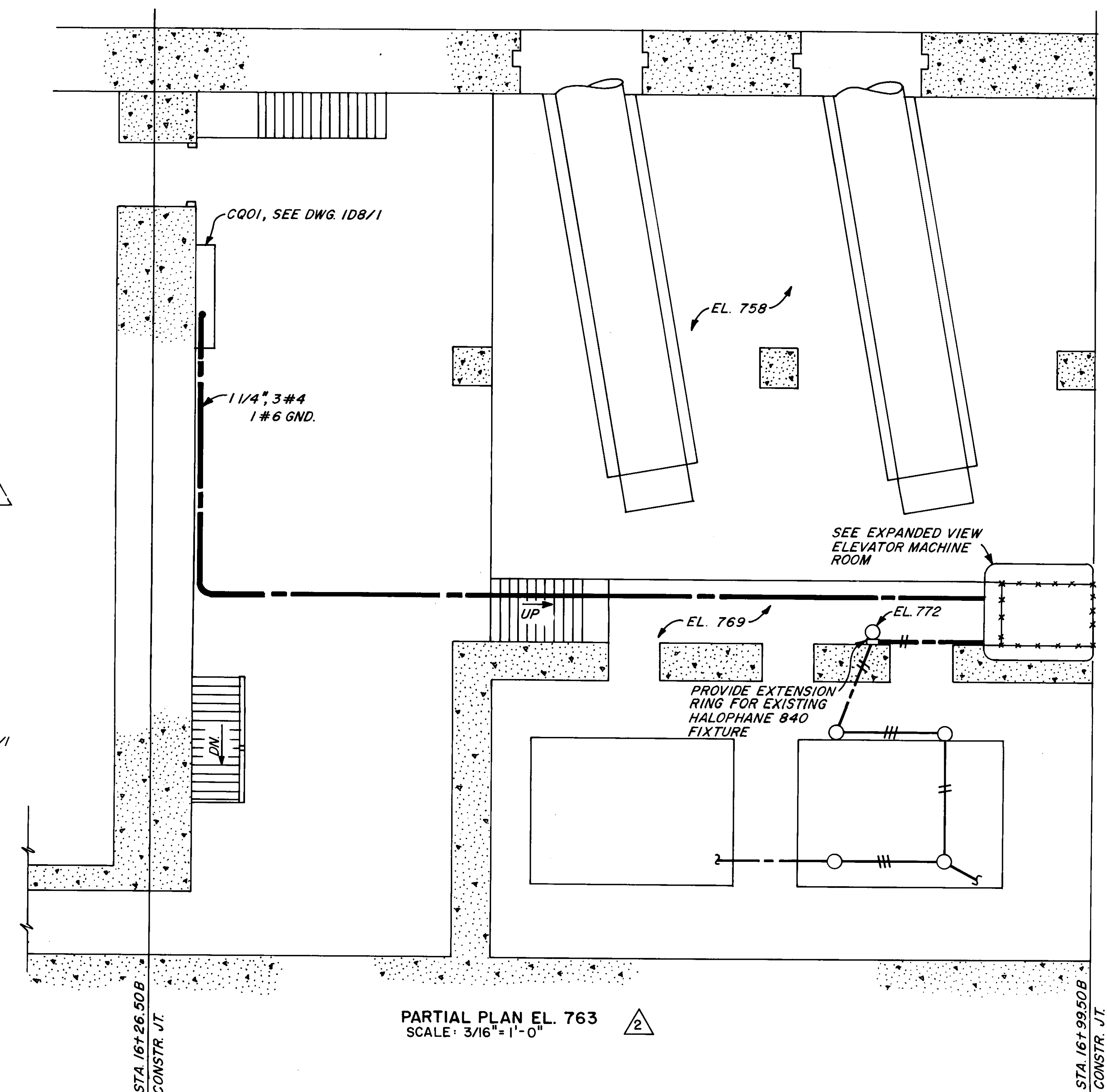
PARTIAL PLAN EL. 798.0
SCALE: 3/8"=1'-0"



EXPANDED VIEW ELEV. MACH. ROOM
SCALE: 3/8"=1'-0"



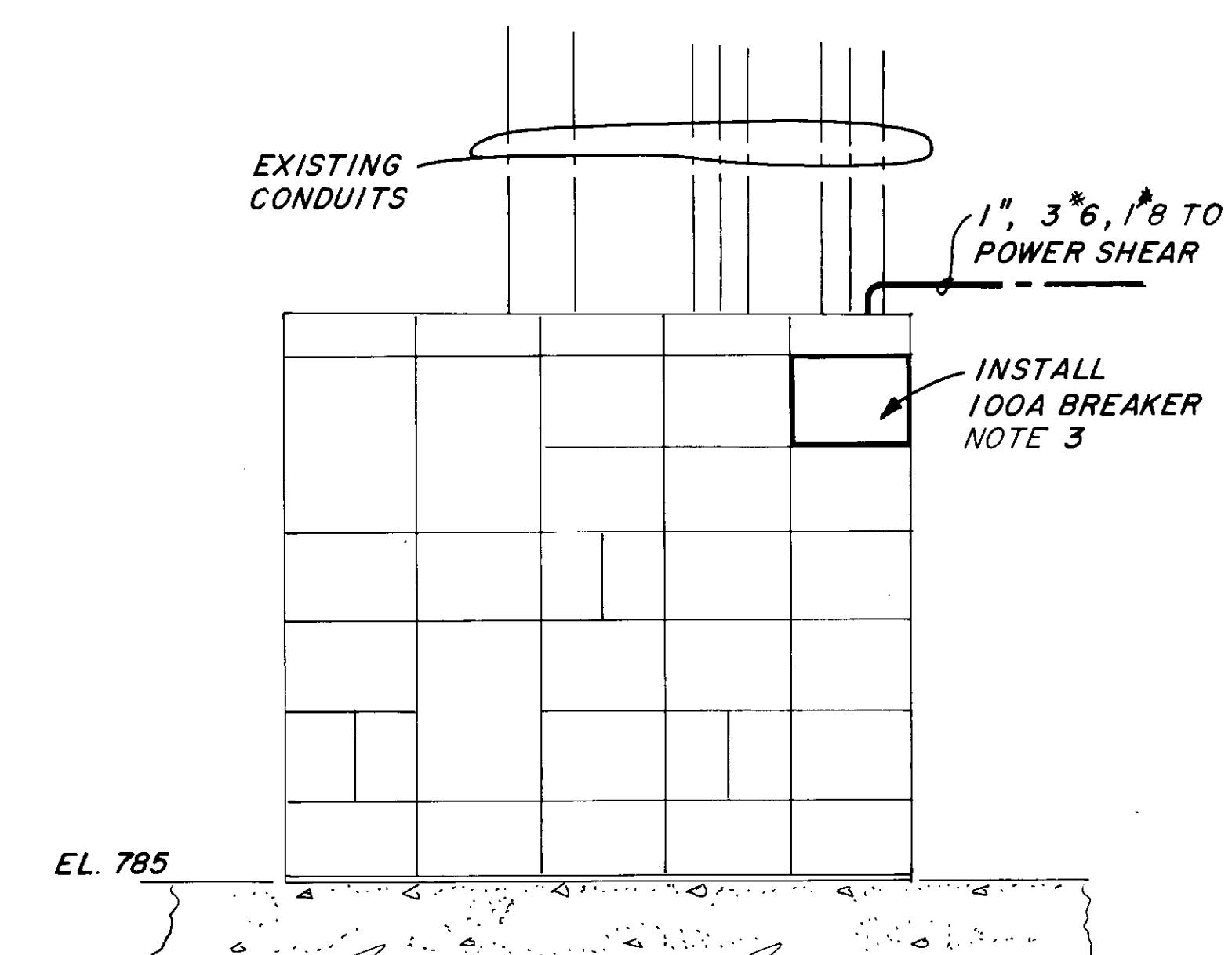
PLAN EL. 785.0
SCALE: 3/16"=1'-0"



PARTIAL PLAN EL. 763
SCALE: 3/16"=1'-0"

NOTES:

1. CONNECT POWER CONDUCTORS TO MACHINE POWER TERMINALS BY WAY OF FLEXIBLE CONDUIT.
2. MOUNT FIXTURE FROM ELECTRIC SHOP EL. 810 (SEE DWG. 2D0/13, NOTE 6) TO CONTRACTOR SUPPLIED CROUSE HINDS VJ BASE
3. BREAKER INSTALLATION TO MATCH THAT OF THE EXISTING MOTOR CONTROL CENTER.



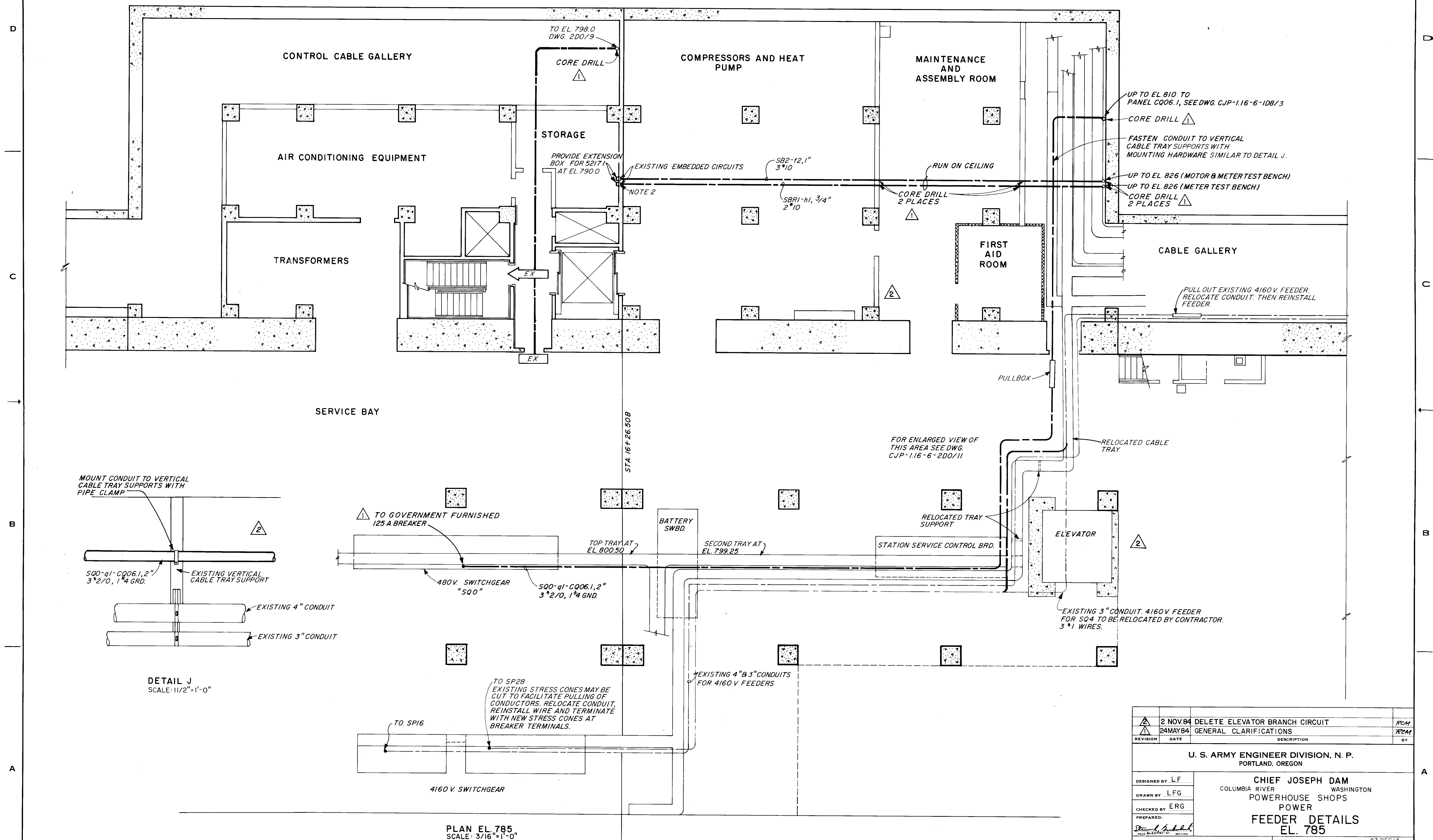
MOTOR CONTROL CENTER
CQ03
NO SCALE

REFERENCE DRAWING 19

2 NOV 84	DELETE DETAILS/NOTES ADD PLAN/NOTES	RCM
24 MAY 84	GENERAL REVISIONS	RCM
REVISION	DATE	DESCRIPTION
U. S. ARMY ENGINEER DIVISION, N. P. PORTLAND, OREGON		
DESIGNED BY: LFG	CHIEF JOSEPH DAM	
DRAWN BY: LFG	COLUMBIA RIVER WASHINGTON	
CHECKED BY: ERG	POWERHOUSE SHOPS	
PREPARED:	POWER	
HEAD ELECTRIC	FEEDER DETAILS	
SECTION	EL. 785, 798 & 763	
APPROVED: FOR DIV. ENGINEER DATE 83 DEC 14		BY
CHIEF ENGINEERING DIVISION		SCALE AS SHOWN
CHIEF HYDRO-ELECTRIC DESIGN BRANCH		CJP-1.16-6-ID8/2
SHEET 62		

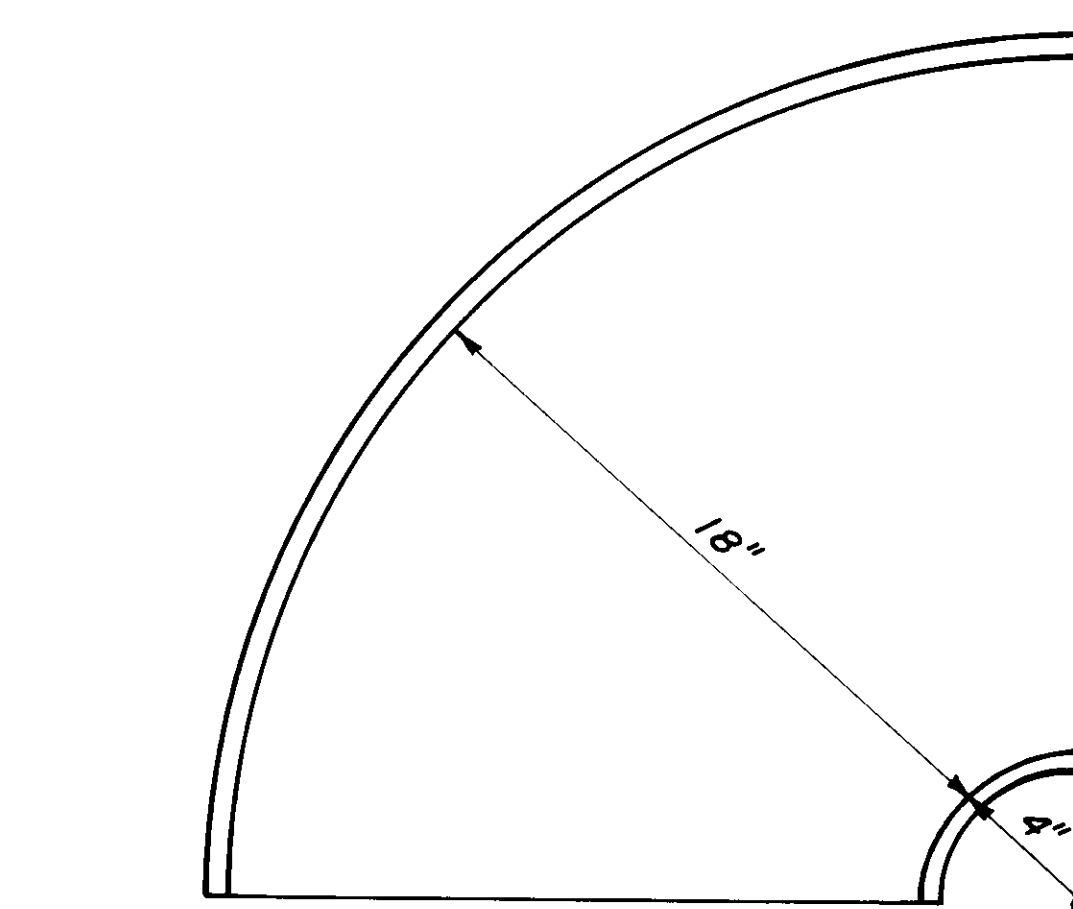
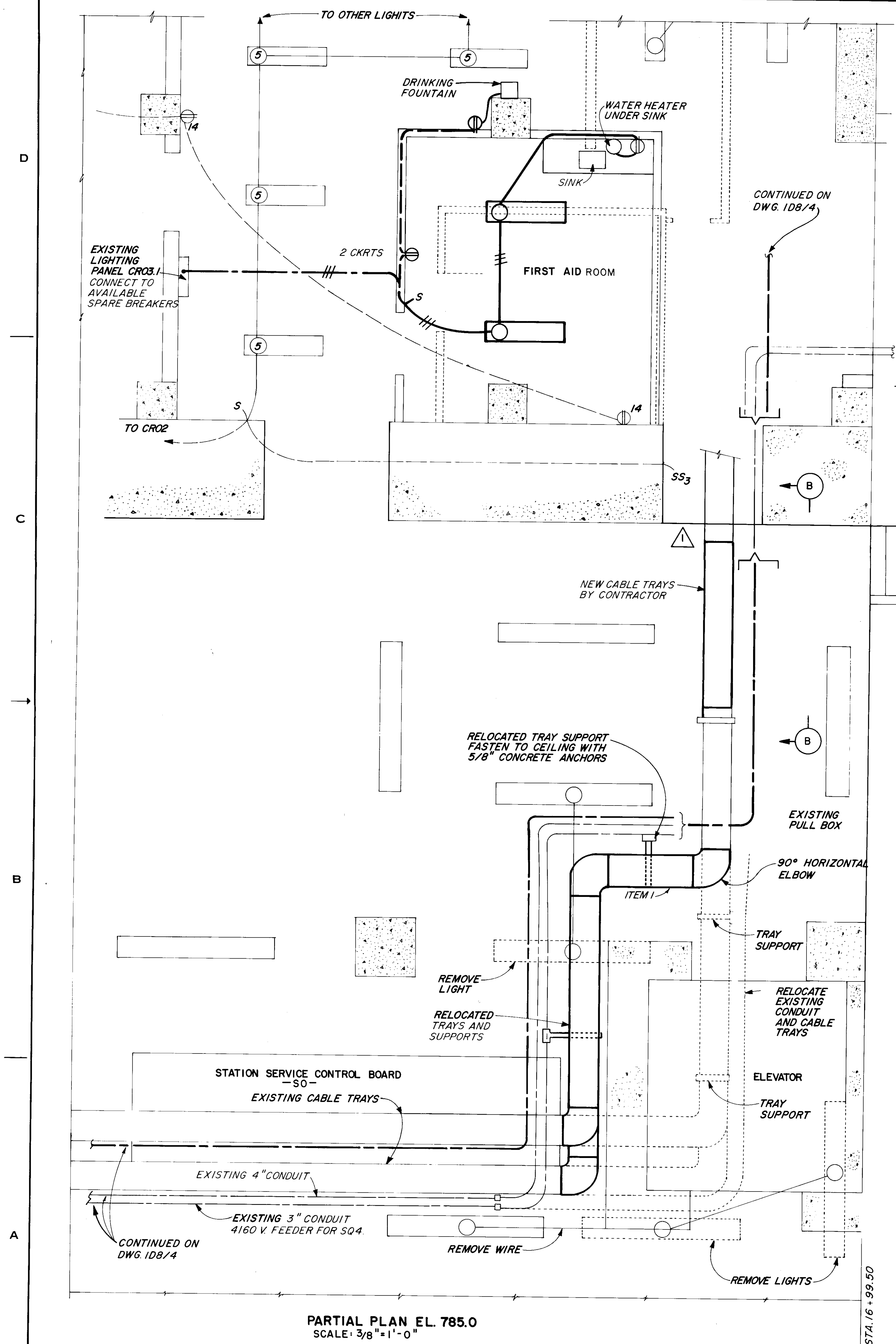
NOTES:

1. RUN CONDUITS THRU CABLE TRAY OPENING AT EL. 793.92.
2. CORE DRILL THROUGH WALL NEAR CEILING HEIGHT. INSTALL LB AND ROUTE EXPOSED DOWN WALL TO 52171 EXTENSION BOX.

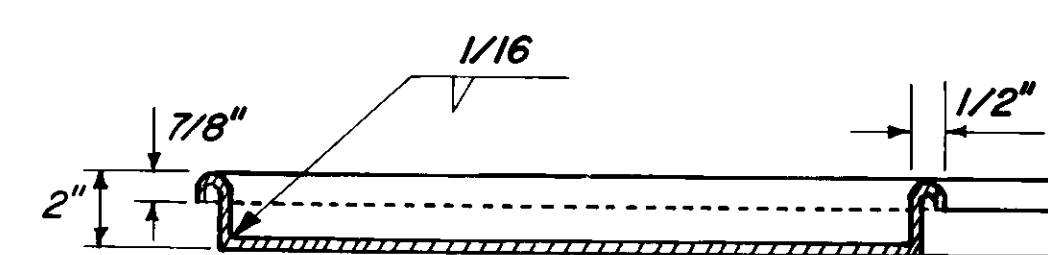
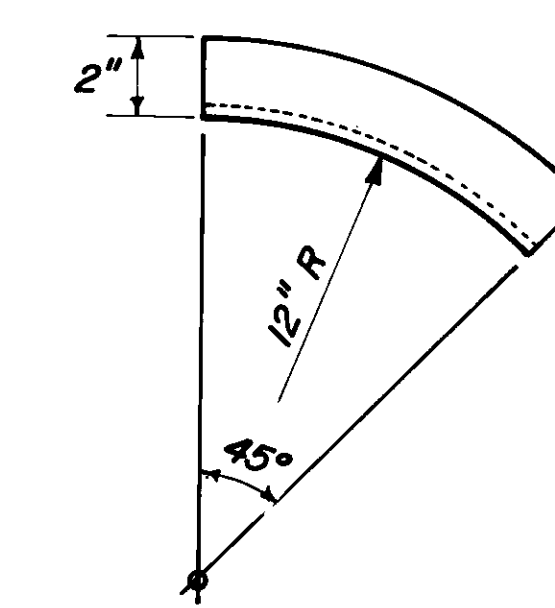
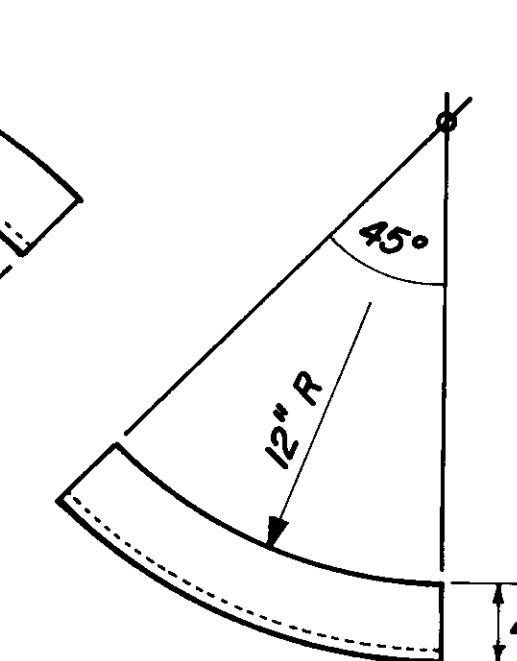
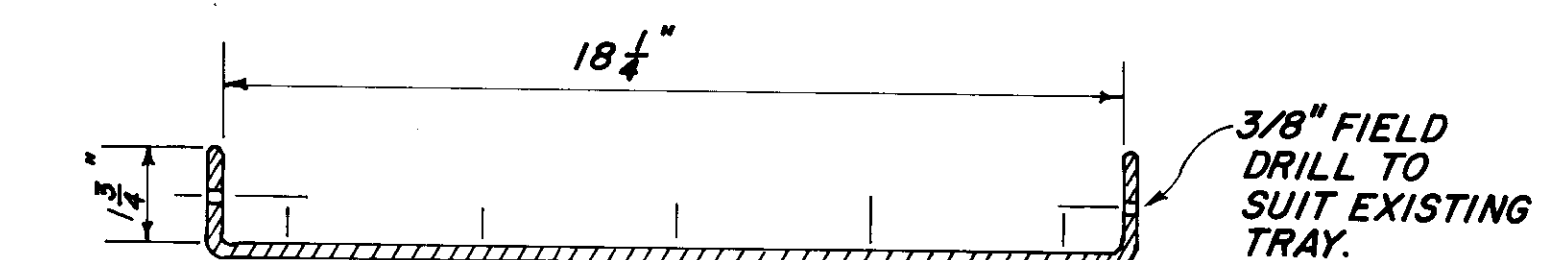


REFERENCE DRAWING 20

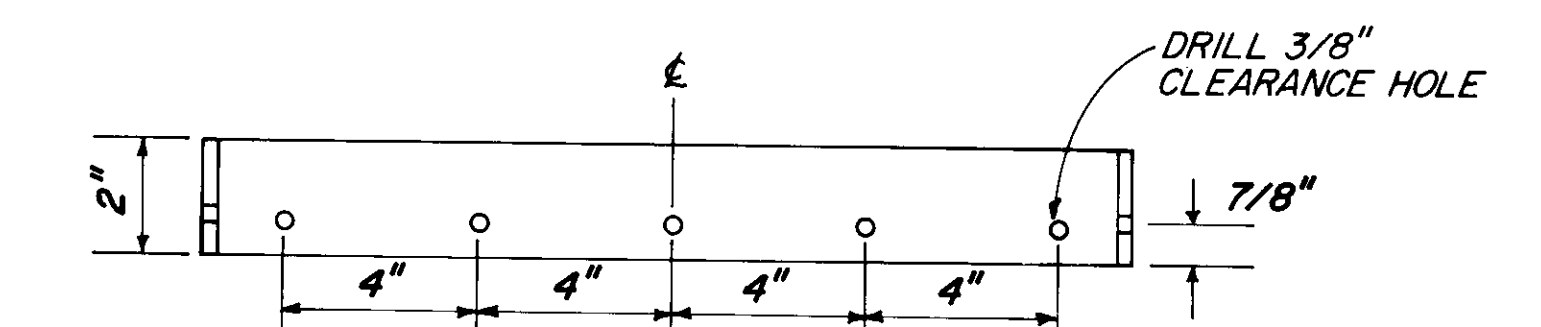
2 NOV 84	DELETE ELEVATOR BRANCH CIRCUIT	RCM
24 MAY 84	GENERAL CLARIFICATIONS	RCM
REVISION	DATE	DESCRIPTION
U. S. ARMY ENGINEER DIVISION, N. P. PORTLAND, OREGON		
DESIGNED BY: LF	CHIEF JOSEPH DAM COLUMBIA RIVER WASHINGTON POWER HOUSE SHOPS POWER FEEDER DETAILS EL. 785	
DRAWN BY: LFG		
CHECKED BY: ERG		
PREPARED BY: [Signature]		
SUBMITTED BY: [Signature]		
APPROVED FOR DIV. ENGINEER DATE 83 DEC 14		
SCALE AS SHOWN		CJP-1.16-6-1D8/4
SHEET 63		



TOP VIEW

END VIEW
90° HORIZONTAL ELBOW - 4 REQ'DSIDE VIEW
OUTSIDE ELBOW
2 REQ'DSIDE VIEW
INSIDE ELBOW
2 REQ'D

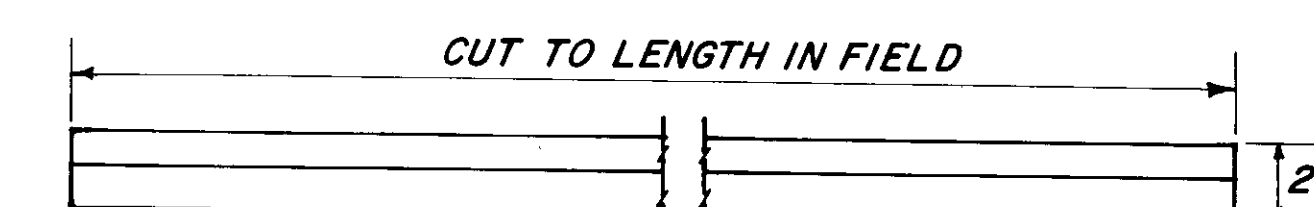
END VIEW



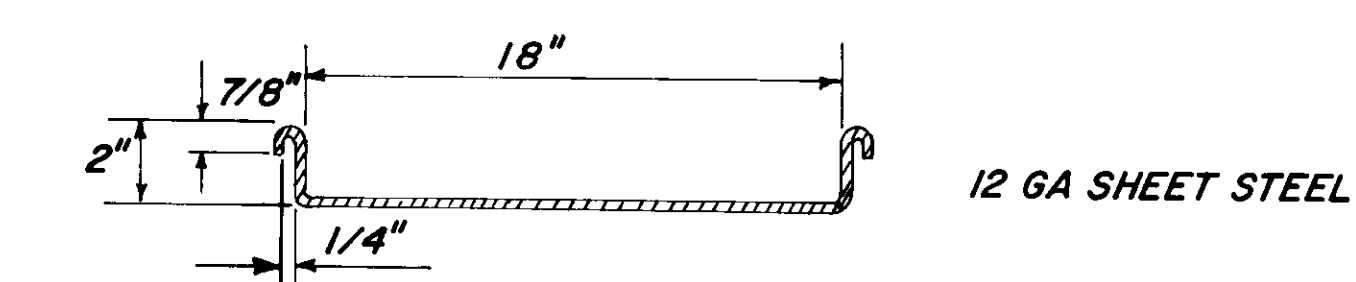
TOP VIEW

NOTE: WELD TO NEW ELBOWS. BOLT TO EXISTING TRAYS WITH ROUND HEAD PHILLIPS BOLTS, 3/8" x 5/8" LONG.

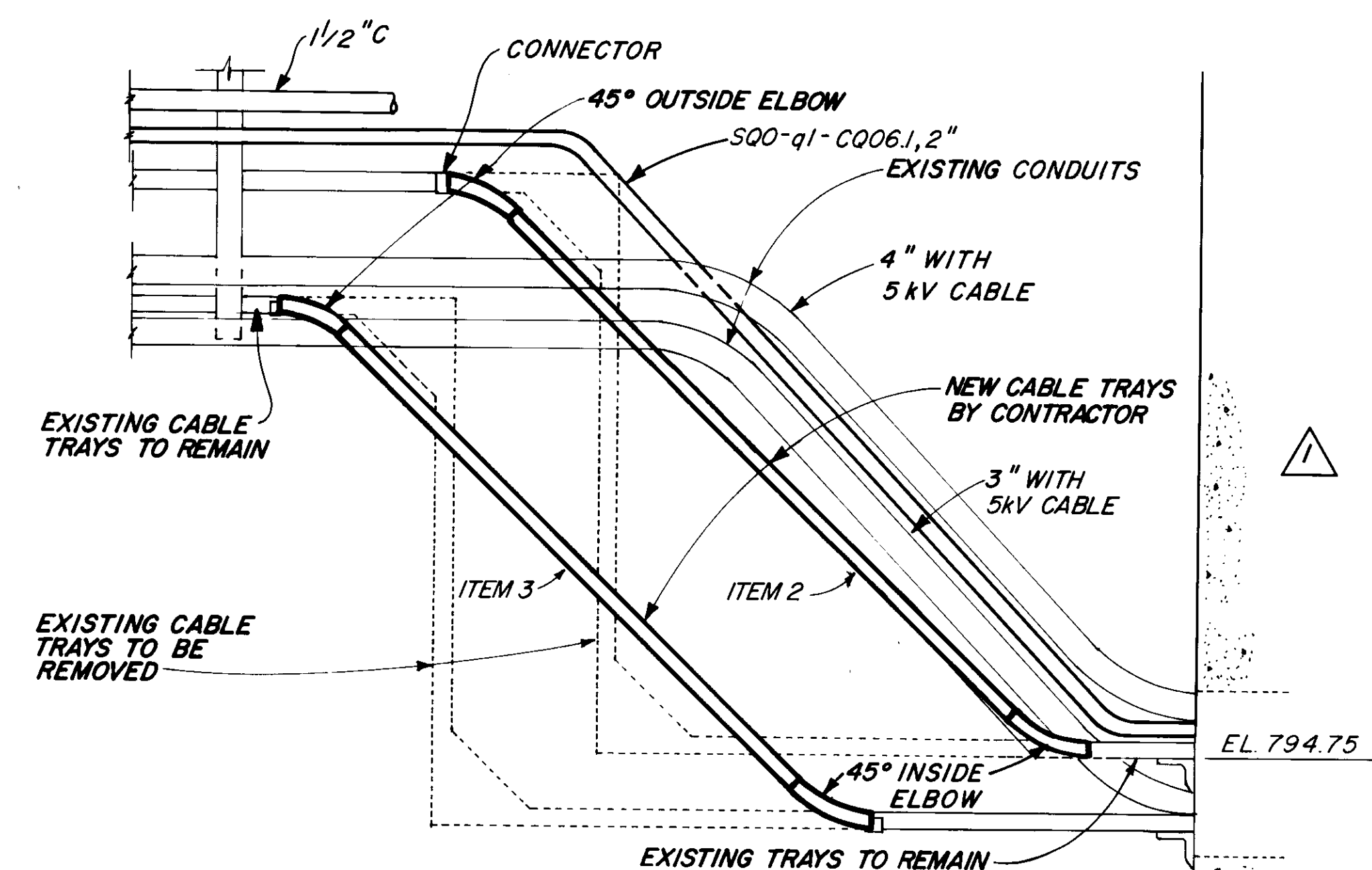
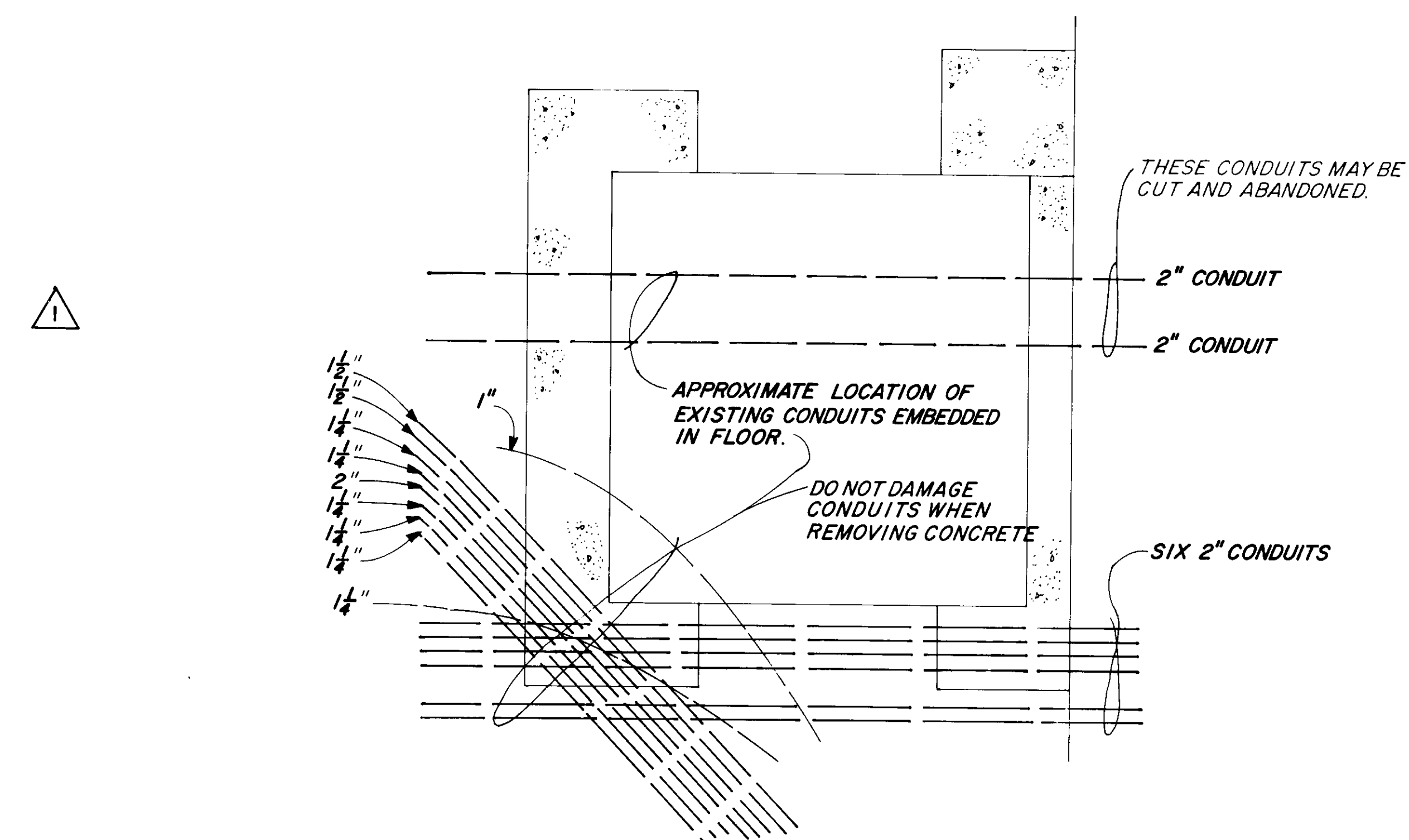
CONNECTOR - 8 REQ'D



SIDE VIEW

END VIEW
STRAIGHT SECTION

ITEM	NO. REQ'D	APPROX. LENGTH
1	2	4' - 6"
2	1	7' - 6"
3	1	6' - 9"


SECTION B-B
SCALE 3/4" = 1'-0"CABLE TRAY DETAILS
12 GA SHEET STEELPLAN-ELEVATOR AREA
EL. 785 REFERENCE DRAWING 21

REVISION	DATE	DESCRIPTION	BY
2 NOV 84		DELETE ELEVATOR MACHINERY ROOM	RCM
U. S. ARMY ENGINEER DIVISION, N. P. PORTLAND, OREGON			
DESIGNED BY LK	CHIEF JOSEPH DAM		
DRAWN BY EMH	COLUMBIA RIVER WASHINGTON		
CHECKED BY ERG	POWERHOUSE SHOPS		
PREPARED BY	LIGHTING		
ELEVATOR & FIRST AID ROOM			
EL. 785.0			
APPROVED FOR DIV. ENGINEER DATE 83 DEC 14			
SUBMITTED BY R. Meloy			
SCALE AS SHOWN			
CJP-1.16-6-2D0/11			
SHEET 77			

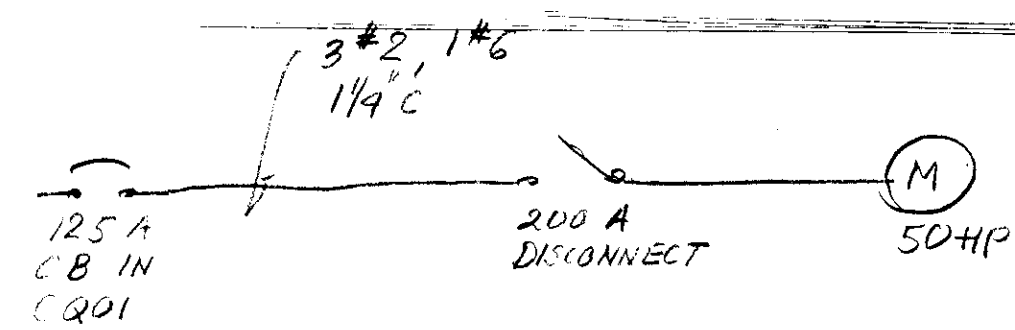
RELAY	DESCRIPTION	COIL AREA	CONTACT NO.													
			1	2	3	4	5	6	7	8	9	10	11	12		
A	START	3	NO	1	1	1										
			NC			3										
B	RUN	3	NO	1	1	1			7							
			NC				3									
OL	OVERLOAD PROTECTION		NO													
			NC	3												
ABD	ACCESS BOTTOM DOWN	R _O	NO	5	8	9										
			NC													
ABU	ACCESS BOTTOM UP	R _O	NO	5	8	9										
			NC													
ATD	ACCESS TOP DOWN	R _O	NO	5	8	9										
			NC													
ATU	ACCESS TOP UP	R _O	NO	5	8	9										
			NC													
D	DOWN	R _O	NO		5	6										
			NC	5												
DA	DOWN AUX.	K _U P	NO	3												
			NC													
DC	DOOR CONTACT	R _O	NO		5											
			NC	11												
DGR	CAR DOOR CONTACT	R _O	NO	12		9										
			NC	12	11		11									
DI	DOOR INTERLOCK	R _O	NO	5												
			NC													
DO-F	DOOR OPEN	K _U P	NO	10												
			NC													
DOB	DOOR OPEN BELL	R _O	NO													
			NC	11												
DZ	DOOR ZONE	R _O	NO													
			NC	5	9	10										
DZA	DOOR ZONE AUX.	K _U P	NO													
			NC													
ESO	EMERGENCY STOP OVERRIDE	R _O	NO	5	12											
			NC													
FE	FIRE RECALL	R _O	NO	13		12										
			NC	13	11											
FEA	FIRE RECALL AUX.	K _U P	NO													
			NC													
FEL	FIRE LOBBY	R _O	NO	12												
			NC	12	12											
FELA	FIRE LOBBY AUX.	K _U P	NO													
			NC													
FI	FIREMANS INDEPENDENT	R _O	NO		12											
			NC	11		12	4									
FIA	FIREMANS INDEPENDENT AUX.	K _U P	NO													
			NC													
H	HIGH SPEED	R _O	NO		9											
			NC	11		10										
HA	HIGH SPEED AUX.	K _U P	NO	3	3											
			NC													
INA	INSPECTION ACCESS	R _O	NO	4	4	4	8	5		9	5	9	5	12	4	
			NC					5	9					12		
			NO													
			NC													
			NO													
INS	INSPECTION RELAY	R _O	NO	4	4	9	5		12							
			NC			9	5	4								
LD	LEVEL DOWN	R _O	NO		5											
			NC	5			6									
LU	LEVEL UP	R _O	NO	5												
			NC	6		6										
MLT	MOTOR LIMIT TIMER	R _O	NO	7		13										
			NC		5		13									
P	POTENTIAL	R _O	NO	5	10	10	6	12	10							
			NC	7		10										
RC	RETIRING CAM	K _U P	NO	9												
			NC		12											
RCA	RETIRING CAM AUX.	K _U P	NO	2	2											
			NC													
RUN	SAFE RUN	K _U P	NO		2	2										
			NC													
SAF	SAFETY DOOR OPEN	R _O	NO	9												
			NC													
SAFD	SAFETY DOOR RUN OPEN	K _U P	NO													
			NO													
TA	TIMER FOR WYE- DELTA	K _U P	NO	2	3											
			NC	2												
TD	TIMER DOOR	R _O	NO	13	13	10	13									
			NC													

[illegible]

REFERENCE DRAWING 22

MODEL 200-HH		 10728 U.S. Elevator Road Spring Valley, California 92078	
DRAWN ED SIRRI		PRELIM RELEASE CHECKED FINAL RELEASE	
		JOB NAME CHIEF JOSEPH DAM POWERHOUSE	
		ADDRESS BRIDGEPORT, WA.	
		CITY	
		CONTACT SHEET 2LD. HYDRO FREIGHT	
		DATE 2-24-76	SIZE D SHT 3 OF 5 PERCM 55782
LTR CHANGE		DATE	JOE NO. 14-14772-23619 DWG NO. 23619-60
REVISION			

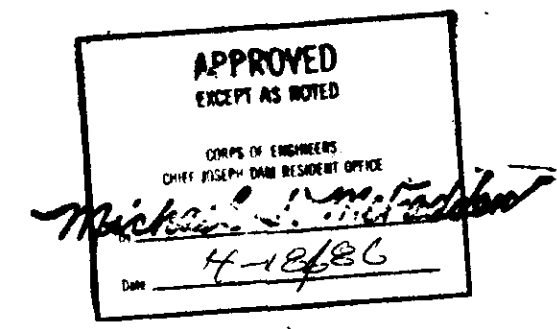
REVISIONS		
LTR	DESCRIPTION	APPD/DATE



<input type="checkbox"/> PRELIM.	<input type="checkbox"/> REV. PRELIM.		
<input type="checkbox"/> FINAL	<input type="checkbox"/> REV. FINAL		

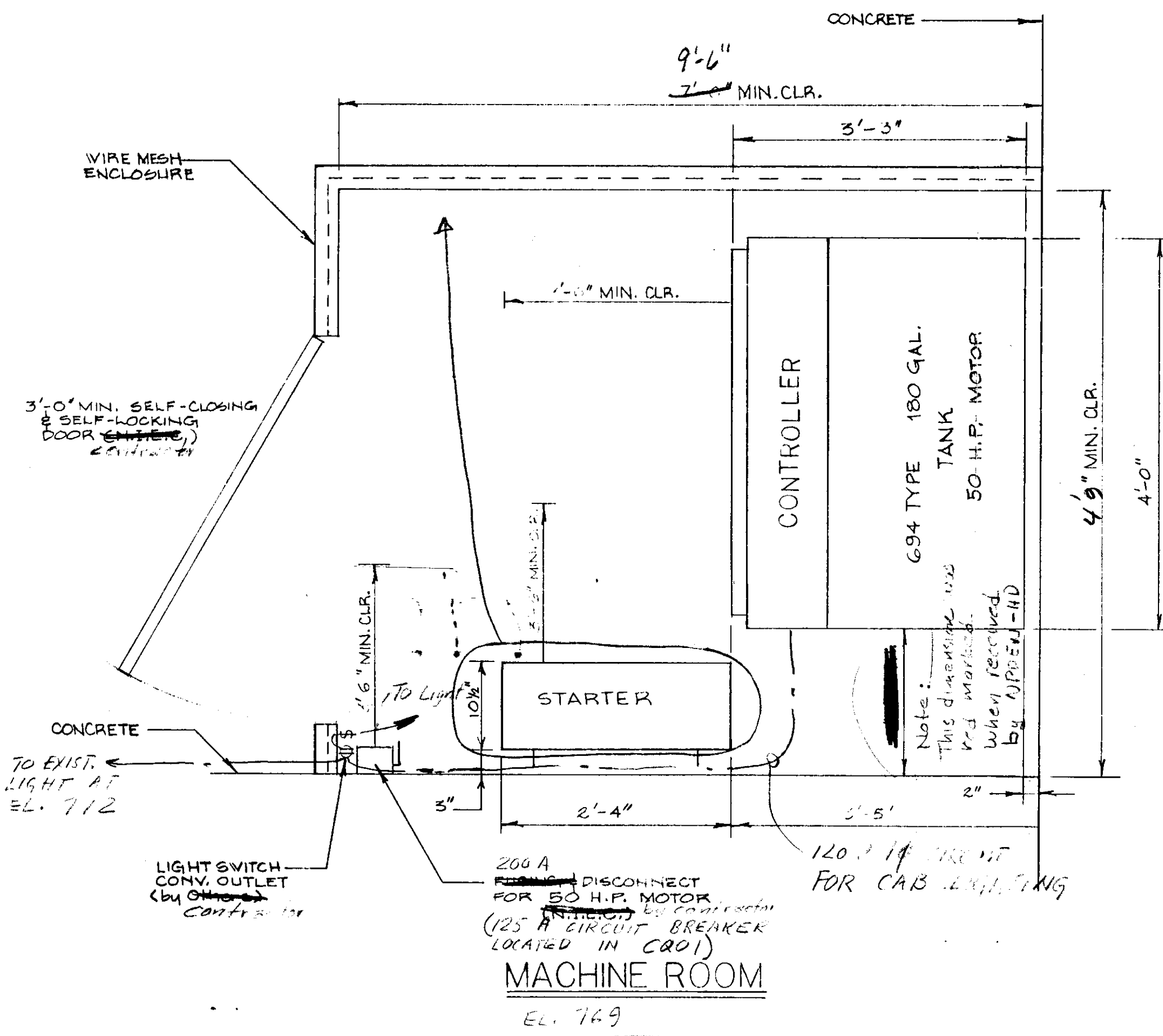
INDICATE LOCATION OF TELEPHONE CONNECTION.

Note to Area Office:
Machine room will need to be enlarged to accommodate this equipment.



NEXT ASSEMBLY		SPEC. NO.	
APPD		U.S. ELEVATOR	
CHECK PRELIM. 2-25-86		A member of the Cubic Corporation family of companies 10728 U.S. Elevator Rd., Spring Valley, CA 92078	
DRAWN V.S. ESCOBAR		MACHINE ROOM	
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. TOLERANCES ARE: LINEAR ±0.0625 (±1/16) ANGULAR ±1° - 30'		JOB NAME: CHIEF JOSEPH DAM POWER HOUSE	
SIZE C		JOB NO.: 10-1047-23019	
SCALE		DRAWING NUMBER 23019-102	
SHEET 1 OF 1		REV	

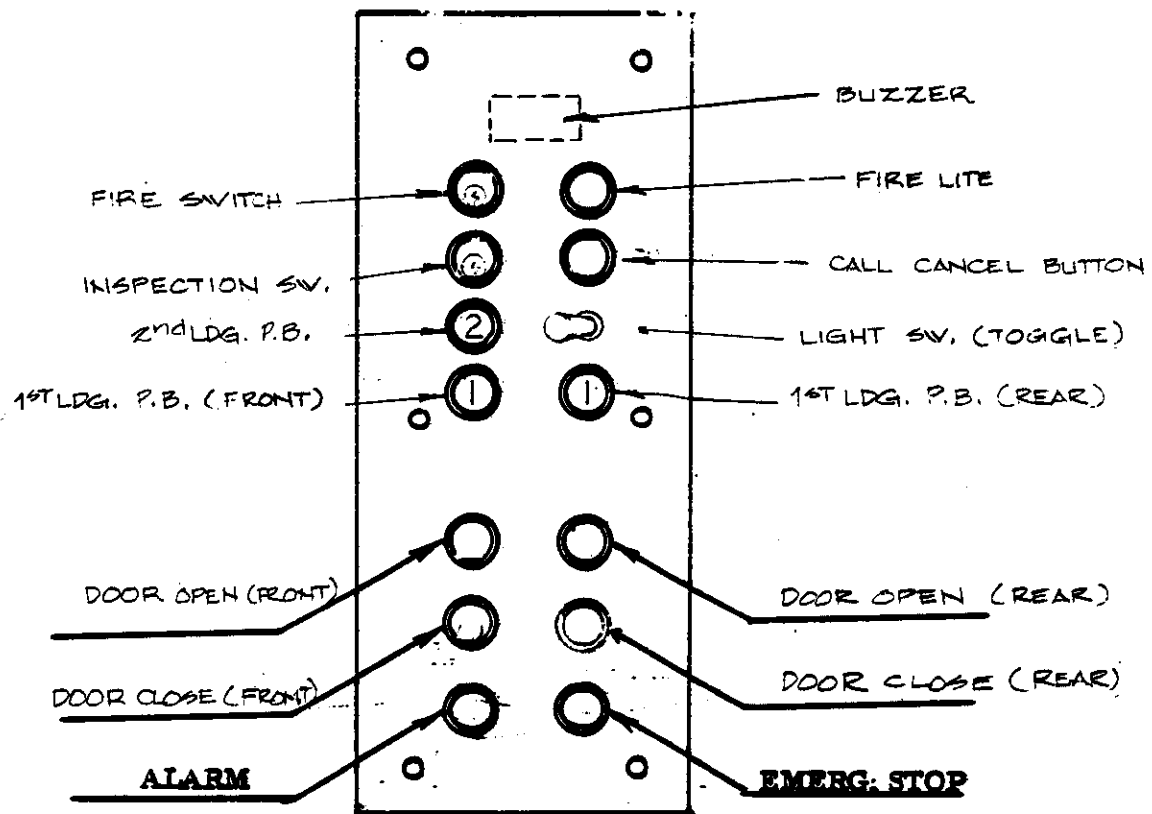
REFERENCE DRAWING 24



BRUNING 40-105

85-C-0085 TP14A TR55

Spec 4-77




FINISH ST. STL. #4

PLATE SIZE: 9 3/4" x 24"

BOX SIZE: 7" x 23" x 3"

Numbers are 5/8" tall, black on a white background. Bezel is made of black polycarbonate molded plastic.

		<input type="checkbox"/> PRELIM	<input type="checkbox"/> REV. M.P. PRELIM.	FEB 26 '86
		<input type="checkbox"/> FINAL	<input type="checkbox"/> REV. FINAL	
LTR	DESCRIPTION	DATE		
SUBMITTAL SPECIFICATION DRAWING OF Standard Car Operating Panel			 10720 U.S. ELEVATOR ROAD SPRING VALLEY, CALIFORNIA 92078	
PROPRIETARY RIGHTS OF U.S. ELEVATOR MANUFACTURING CORPORATION are involved in the subject matter of this material and all manufacturing, reproduction, use and sales rights pertaining to such subject matter are expressly reserved. It is understood in connection with a specified contract, and the recipient, by accepting this material, agrees that this material will not be used, copied or reproduced in whole or in part, or its contents revealed in any manner, or to any person, except for the contract delivered.			JOB NAME: CHIEF JOSEPH DAM JOB NUMBER: 16-1677-23619 DWG NUMBER: 23619-401 BY: W.S.E.	

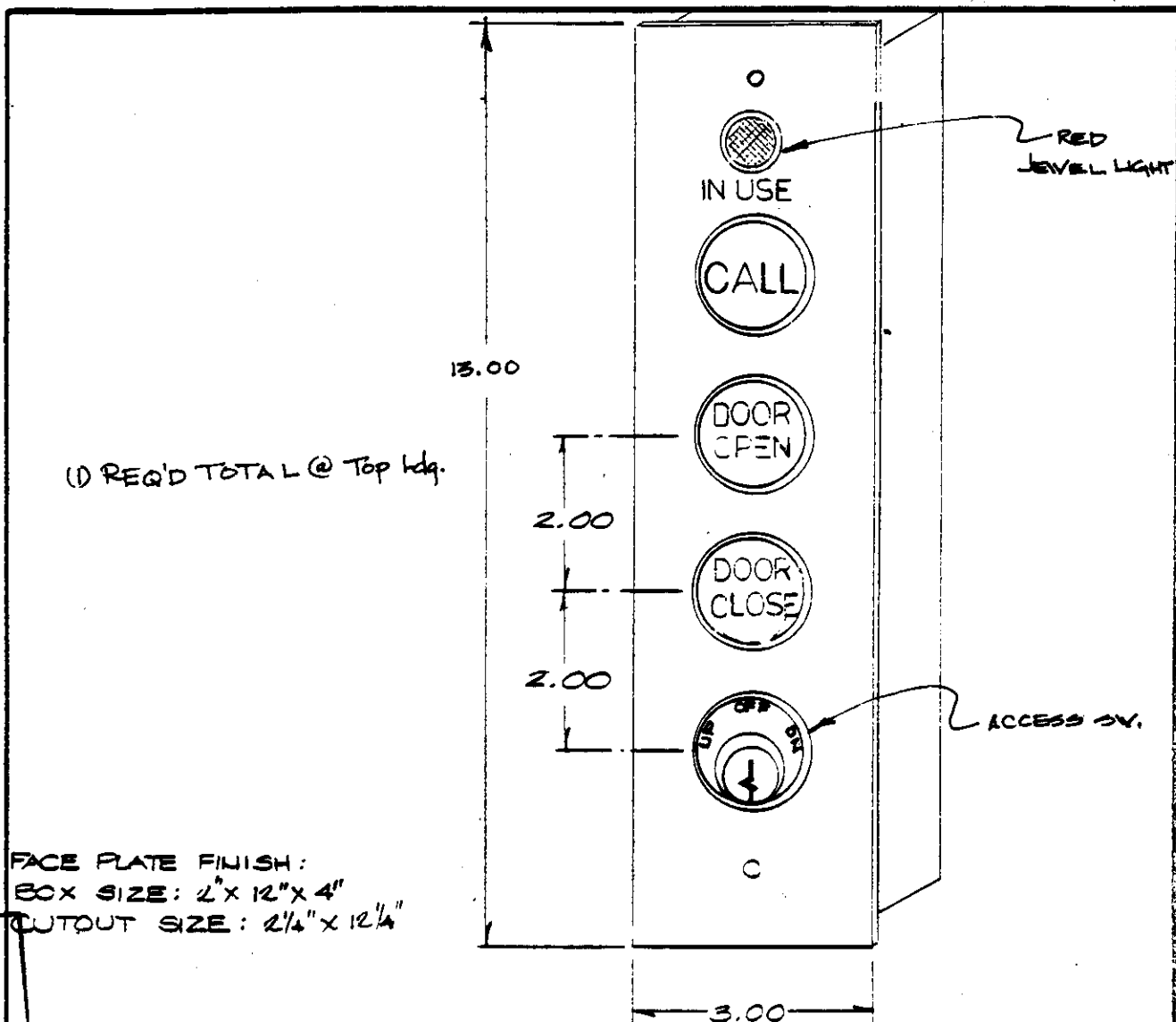
PRELIMINARY: 2-10-86 ✓ BS 2-22-86
by W.S. ESCOBAR

F4116R

REFERENCE DRAWING 25

850109 5.2-3-2

16-79



Buttons are provided with internal illumination. The Bezels are Black polycarbonate molded plastic. BUTTONS ARE DESIGNATED BY ITS FUNCTIONS AS FOLLOWS "CALL", DOOR OPEN, & DOOR CLOSE.

The key operated switch operates ACCESS Service. The Bezel is Black with UP, OFF & DN ENGRAVED IN 1/8" TALL WHITE LETTERS. THE LOCK IS A MORTISE CYLINDER (5) PIN TUMBLER LOCK. THE JEWEL LIGHT ILLUMINATES WHEN ELEVATOR IS IN USE.

SUBMITTAL SPECIFICATION DRAWING OF HALL STA. WITH DOOR OPEN, DOOR CLOSE & ACCESS SW.

DWG. * 23619-421

U.S. ELEVATOR

10720 U.S. Elevator Rd.

Spring Valley, CA 92078

A member of the Cubic Corporation family of companies

PROPRIETARY RIGHTS OF U.S. ELEVATOR MANUFACTURING CORPORATION are involved in the subject matter of this material and all manufacturing, reproduction, use and sales rights pertaining to such subject matter are expressly reserved. It is submitted in confidence for a specified purpose, and the recipient, by accepting this material, agrees that this material will not be used, copied or reproduced in whole or in part, or its contents revealed in any manner, or to any person, except for the purpose delivered.

JOB NAME CHIEF JOSEPH DAM POWER HOUSE

JOB NUMBER 16-¹⁶⁷⁷~~1607~~-23619

PRELIMINARY 2-11-80 / BS 2-25-76
by W.S. ESCOFFER

REFERENCE DRAWING 26



CUTOUT SIZE: $2\frac{1}{4}'' \times 14\frac{1}{4}''$

Buttons are provided with internal illumination. The Bezels are BLACK polycarbonate molded plastic. EACH BUTTON IS DESIGNATED BY ITS FUNCTION AS FOLLOWS CALL, DOOR OPEN, & DOOR CLOSE. The key operated switch operates ACCESS FUNCTION. The Bezel is BLACK with UP OFF & DN, engraved in 1/8" tall white letters. The other Bezel is RED with "Fire Recall" engraved in 1/8" tall white letters. The locks are mortise cylinder 5 pin tumbler locks. JEWEL LIGHT ILLUMINATES IN "RED" IF ELEVATOR IS IN USE.

SUBMITTAL SPECIFICATION DRAWING OF
HALL STA - CALL W/FIRE
ACCESS SV.

DVG.* 23619-423

PROPRIETARY RIGHTS OF U. S. ELEVATOR MANUFACTURING CORPORATION are involved in the subject matter of this material and all manufacturing, reproduction, use and sales rights pertaining to such subject matter are expressly reserved. It is submitted in confidence for a specified purpose, and the recipient, by accepting this material, agrees that this material will not be used, copied or reproduced in whole or in part, or its contents revealed in any manner, or to any person, except for the purpose delivered.

**U.S.
ELEVATOR**

2900 SWEETWATER SPRINGS BOULEVARD
SPRING VALLEY, CALIFORNIA 92077

JOB NAME

CHIEF JOSEPH DAM POWER HOUSE

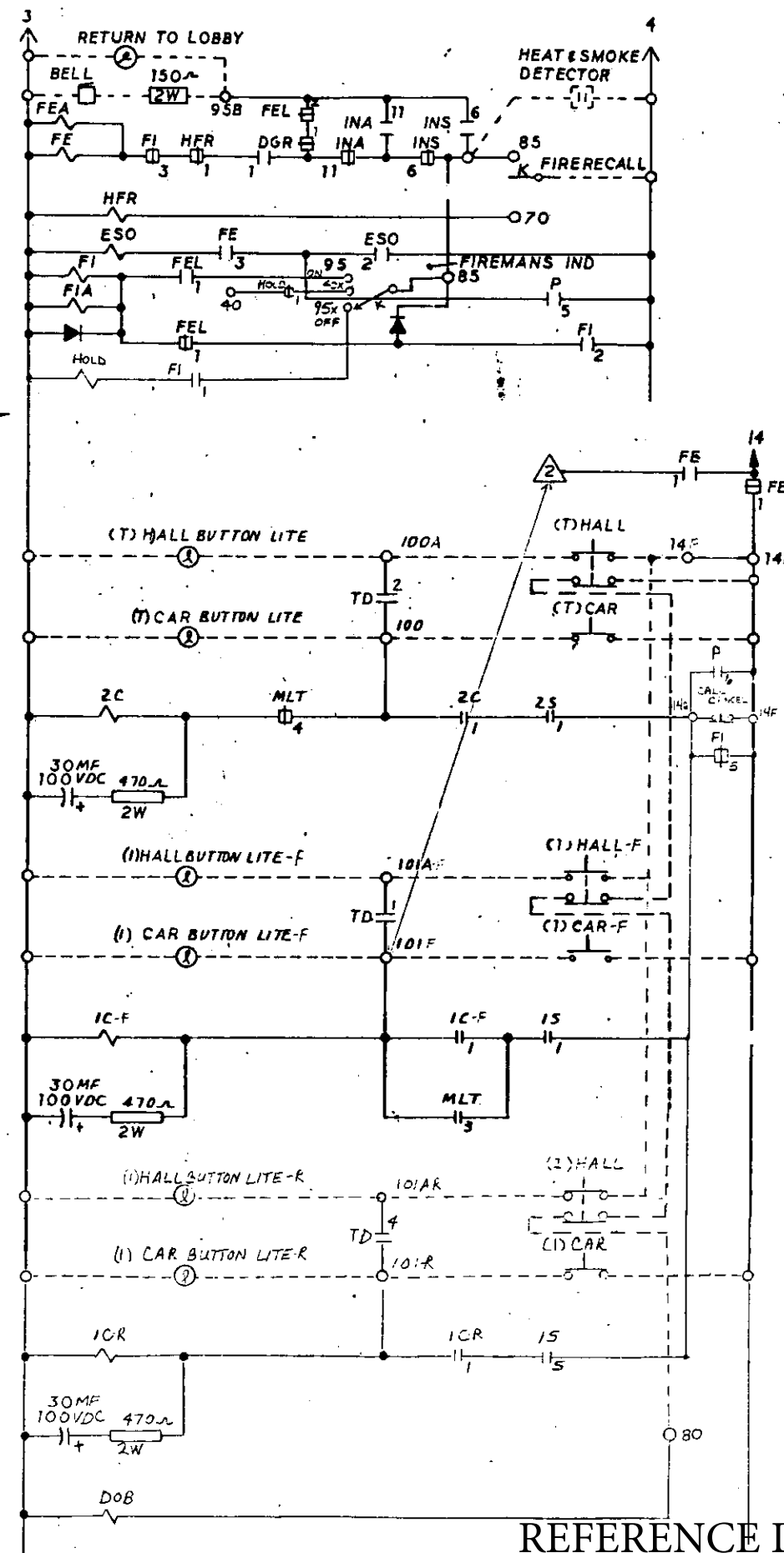
JOB NUMBER

16-1677-23619.

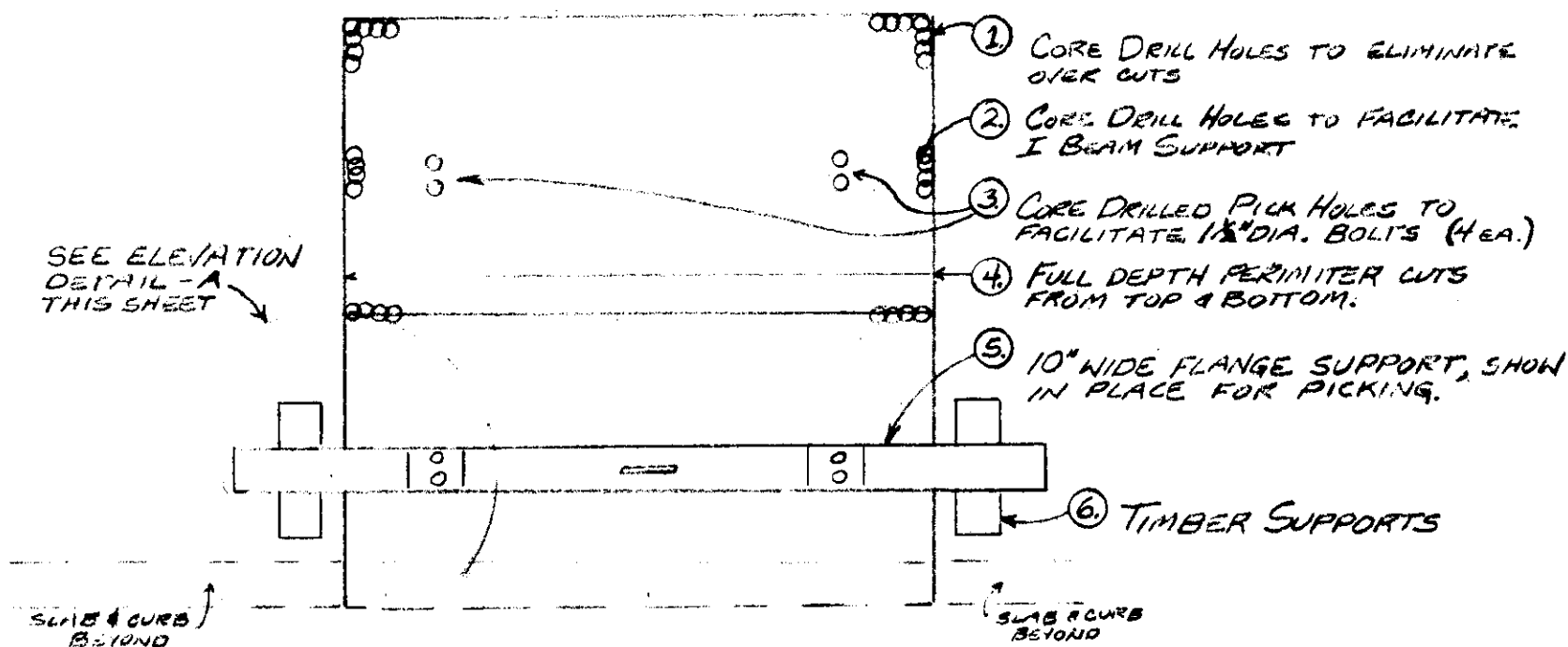
PRELIMINARY 2-11-86
by: W.S. ESCOBAR

REFERENCE DRAWING 27

850113 5.2-3-2

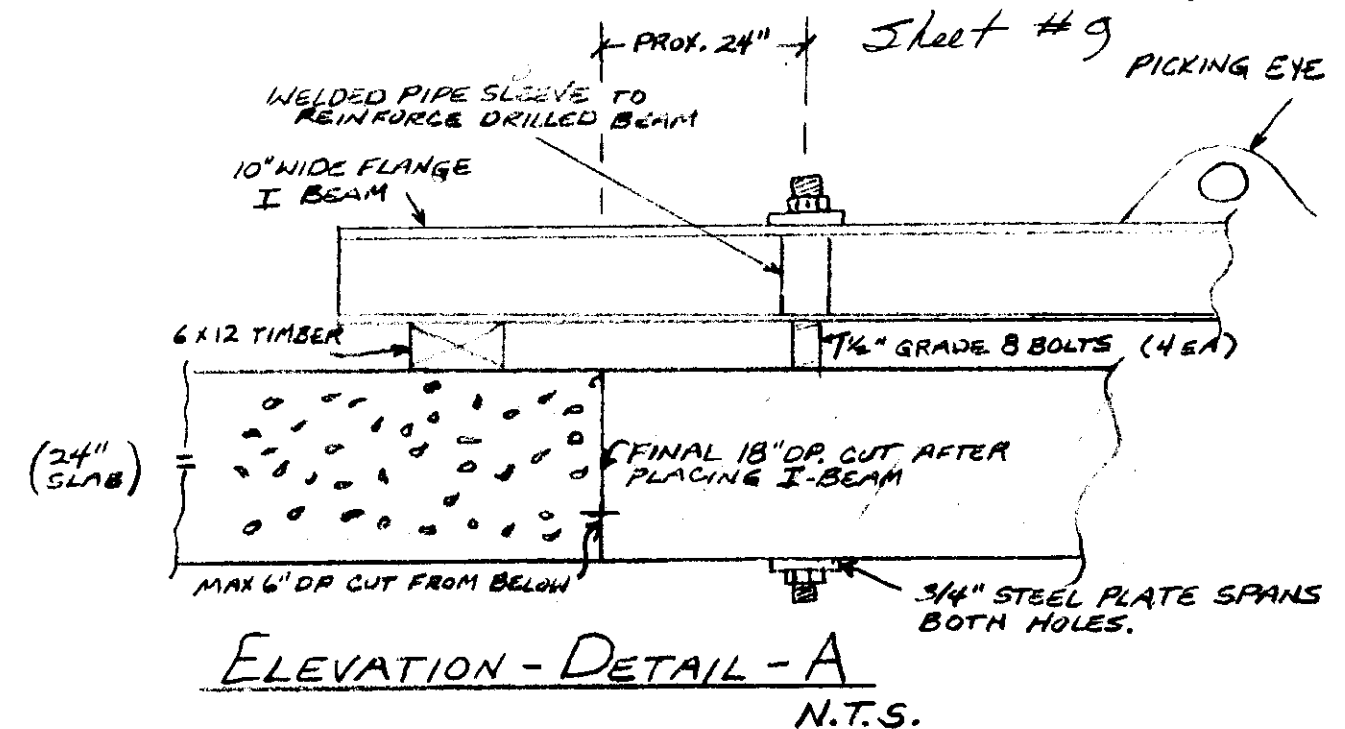


MODEL 200-HH		10728 U.S. Elevator Road Spring Valley, California 92078	
DRAWN <i>Linda Terrell 10-16-81</i>		U.S. ELEVATOR ELEVATOR SERVICE, INC.	
PRELIM RELEASE		JOB NAME <i>CHIEF JOSEPH DAVID POWERSHUFF</i>	
CHECKED		LOCATION <i>BRIDGEPORT, WA.</i>	
FINAL RELEASE		<i>INDIVIDUAL - HYDRO FREIGHT.</i>	
		<i>2 LND.</i>	
		DATE <i>2-24-82</i>	
		JOB NO. <i>16-1677-236.9</i>	SHT <u>2</u> OF <u>5</u>
LTS CHANGE		MASTER DWG NO <i>02-19040</i>	DWG NO. <i>23619-601</i>
REVISION		REV	



PLAN - OPENING PROX. 11' x 11'

PICKING IN TWO PIECES, EACH WEIGHING 19,800 LBS.



NOTE: I BEAM TO BE FABRICATED AND SUPPLIED
BY SPECIALTY PRODUCTS, PASCO WA.

METHOD & SEQUENCE:

1. AFTER LOCATING ELECTRICAL CONDUITS AS DIRECTED IN SPEC. SECTION 3-C,
SCORE CUT UNDER SIDE OF SLAB TO A DEPTH OF 6" AT PERIMETER CUT ONLY AFTER WALLS WERE IN PLACE
AND CENTER CUT FOR TWO PIECE REMOVAL.
2. GENERAL CONTRACTOR WILL THEN ERECT WALLS FROM BELOW.
3. AFTER WALLS ARE IN PLACE CORE DRILL HOLES TO FACILITATE I-
BEAM SUPPORT AND PICK HOLES, ITEMS ② & ③ ABOVE.
4. PLACE I BEAM AND "BOLT-UP", TO MAKE READY FOR 1ST PICK.
5. COMPLETE PERIMETER SAW CUTTING (TO 18" DEEP TO MATCH UP-SIDE-DOWN
SCORE CUTS) AND CORE DRILL CORNERS.
6. AFTER FINAL CUT, RIG OVER HEAD CRANE TO I BEAM AND PICK.
PLACE PIECE ON LOW-BOY AND HAUL AWAY. LOW-BOY ACCESS THRU MACH. SHOP.
7. REPEAT SEQUENCE FOR 2ND PIECE. REMOVED IN 1 PIECE BY OVERHEAD CRANE
THRU GENERATOR BAY
8. ERECT SCAFFOLDING FROM BELOW, USE LIGHT DUTY AIR BUSHING TOOL
TO DRESS OUT OPENING.
9. PROTECTIVE BARRICADES & COVERS BY GENERAL CONTRACTOR

AS BUILT 1/21/87
NIP

PROJECT: CHIEF JOSEPH DAM - POWERHOUSE SHOPS

WORK ITEMS

& LOCATION: ELEVATOR HOISTWAY OPENING

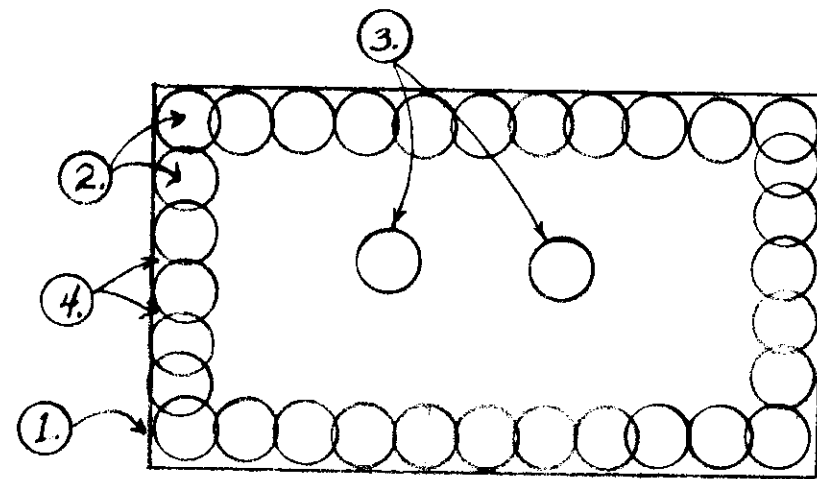
SHOWN ON SHEETS 6, 159 ELEV. 810

BY: W. PICKEL

SHEET 3 of 6

REFERENCE DRAWING 29

850117 5.2-3-2

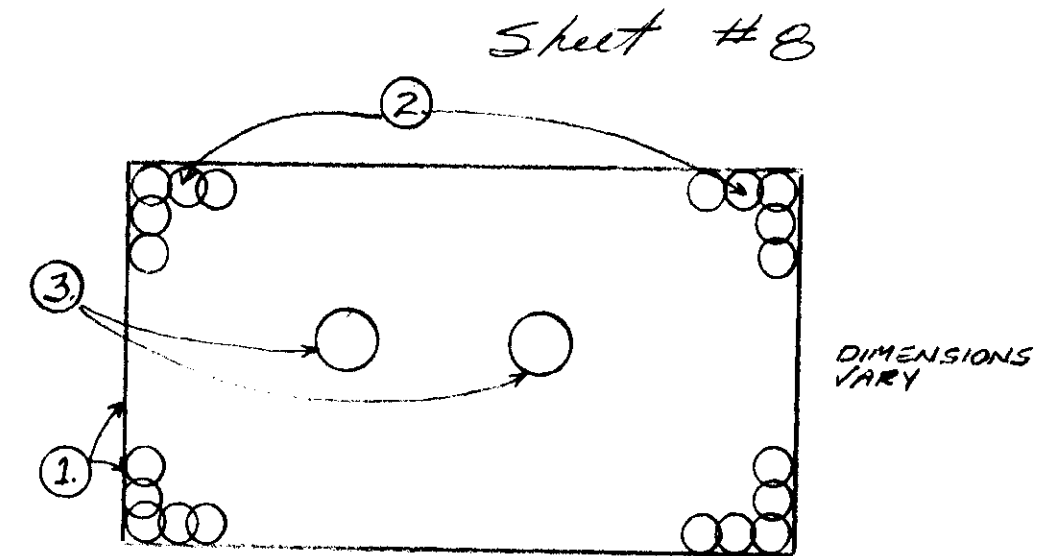


OVER 18" THICK WALLS
NEW OPENING ELEVATION (TYP.)

- ① PERIMETER SCORE CUT TO STEEL REINFORCING (EA. FACE) TO REDUCE OR ELIMINATE SPALLS.
- ② DIAMOND DRILLED PERIMETER TO FACILITATE REMOVAL.
- ③ "PICK-HOLES" DIAMOND DRILLED CLEAR THRU WALL TO "CHOKE" REMOVAL PIECE, FOR SAFETY.
- ④ "SCALLOPS" BETWEEN CORE DRILL HOLES.

NOTES & SEQUENCE:

1. STITCH DRILLING TO BE DONE FROM INSIDE, USING A TRAY TO CATCH THE SLURRY, AND A PUMP TO RECIRCULATE THE DRILLING WATER. A WET VACUUM WILL BE USED TO CONTROL MINOR SPILLS, AND TO PUMP OUT THE TRAY UPON COMPLETION OF THE DIAMOND WORK. NO SLURRY WILL BE DUMPED IN DRAINS.
2. THE CONCRETE PIECE WILL BE PICKED FROM THE OUTSIDE, USING A LARGE BOOM TRUCK, LOWERED TO THE BED AND HAULED AWAY.
3. THE SCALLOPS WILL THEN BE BUSHED WITH A SMALL AIR BUSHING HAMMER.
4. THE NEW OPENING WILL THEN BE SECURED BY THE GENERAL CONTRACTOR.



UNDER 18" THICK WALLS
NEW OPENING ELEVATION (TYP.)

- ① FULL DEPTH PERIMETER SAW CUTS
- ② DIAMOND DRILL CORNERS ONLY, TO ELIMINATE OVER CUTS.
- ③ PICK-HOLES, CLEAR THRU WALLS.

NOTE: REMOVAL METHOD, WATER CONTROL AND SEQUENCE SAME AS OVER 18" THICK WALLS.

AS BUILT 1/21/87
H.P.

PROJECT: CHIEF JOSEPH DAM - POWERHOUSE SHED

WORK ITEMS

& LOCATION: EXTERIOR WINDOWS & DOORS

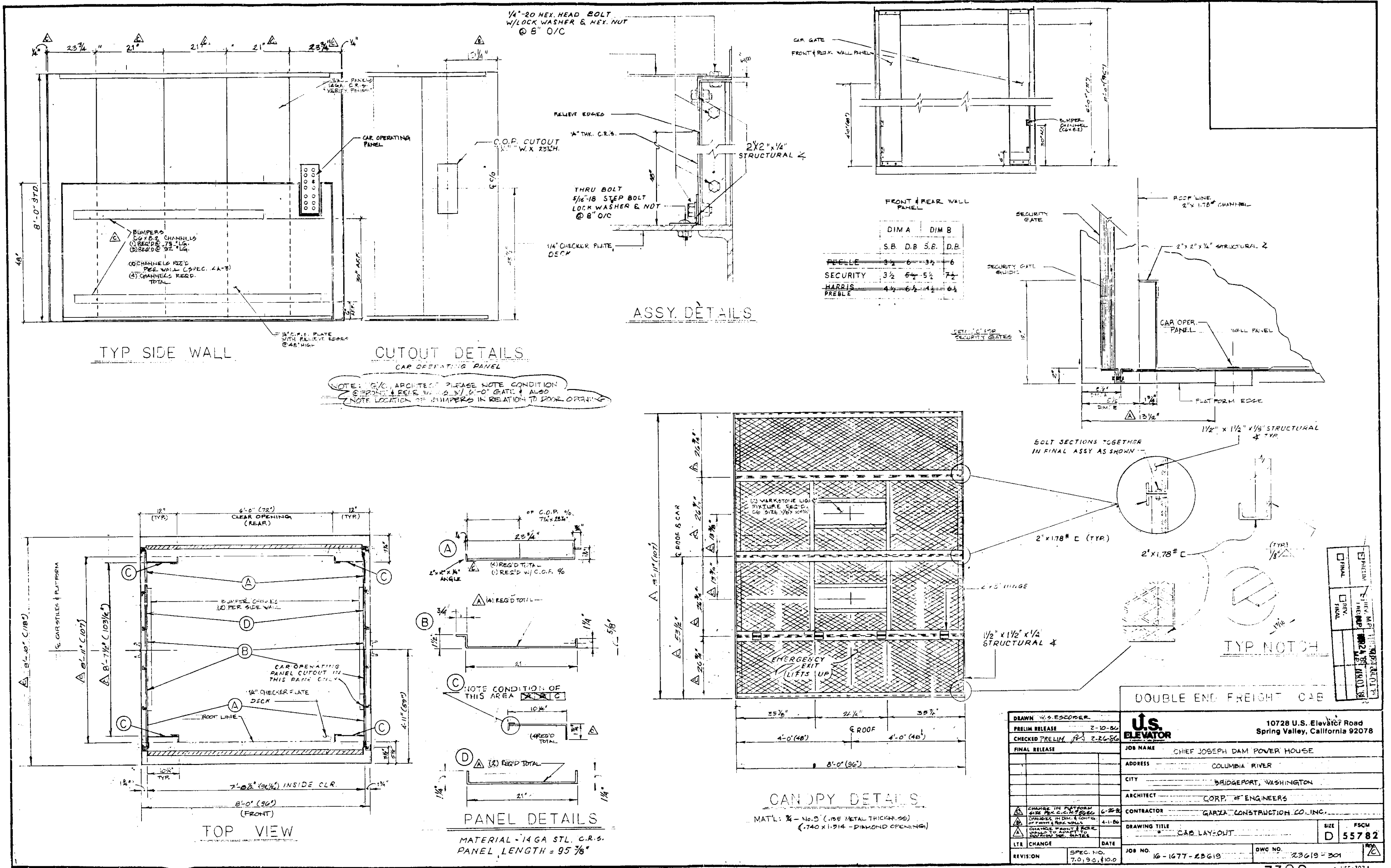
SHOWN ON SHEETS 5 & 6

BY: W. PICKEL

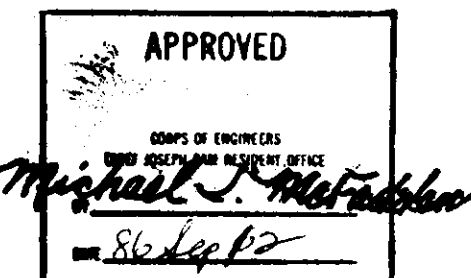
SHEET 2 OF 6

REFERENCE DRAWING 30

B50118 5.2-3-2



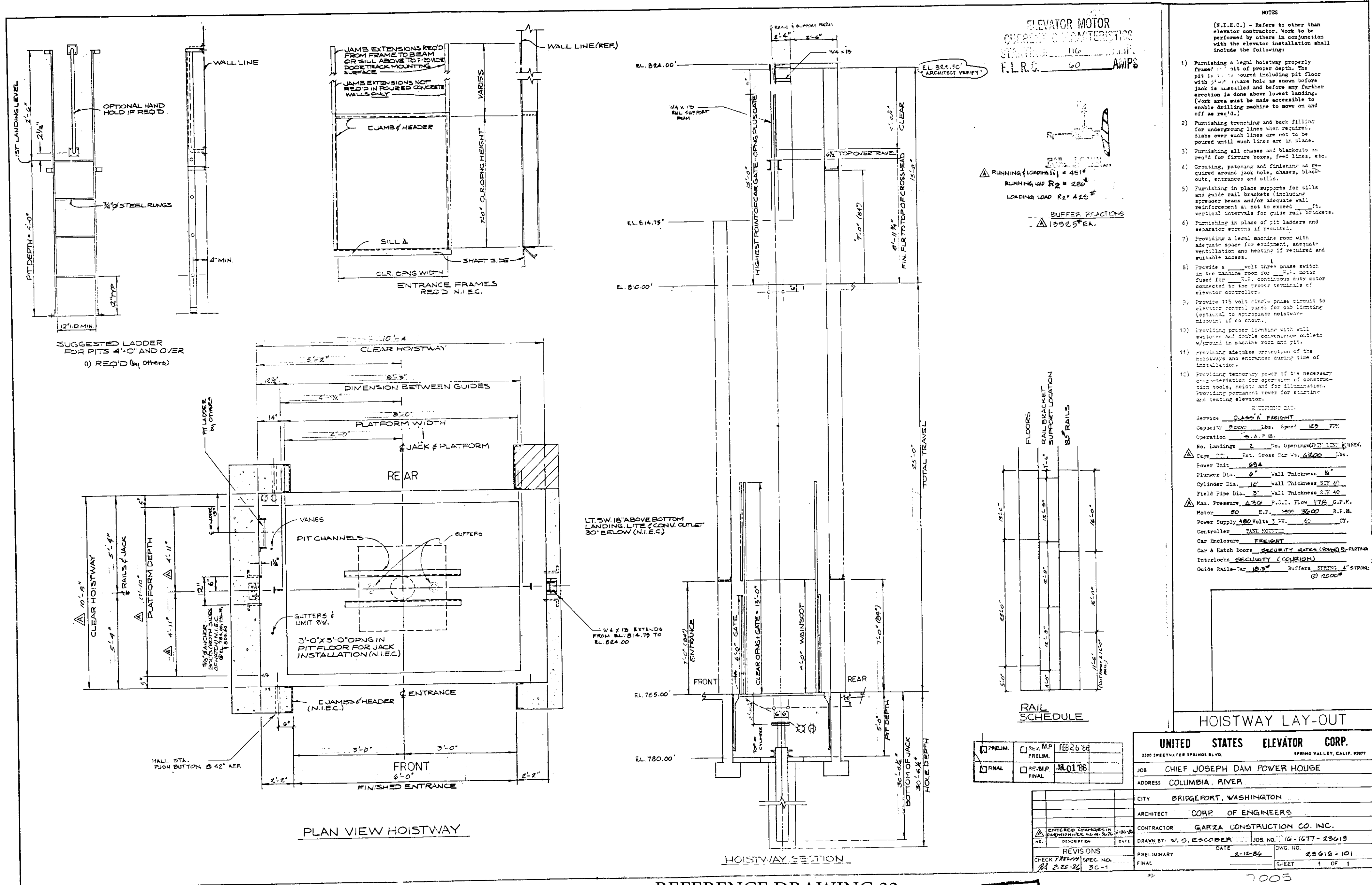
REFERENCE DRAWING 31



CASE NO 18

85C0085 TPA4A TR42
850121 5.2-3-2

Sheet 83

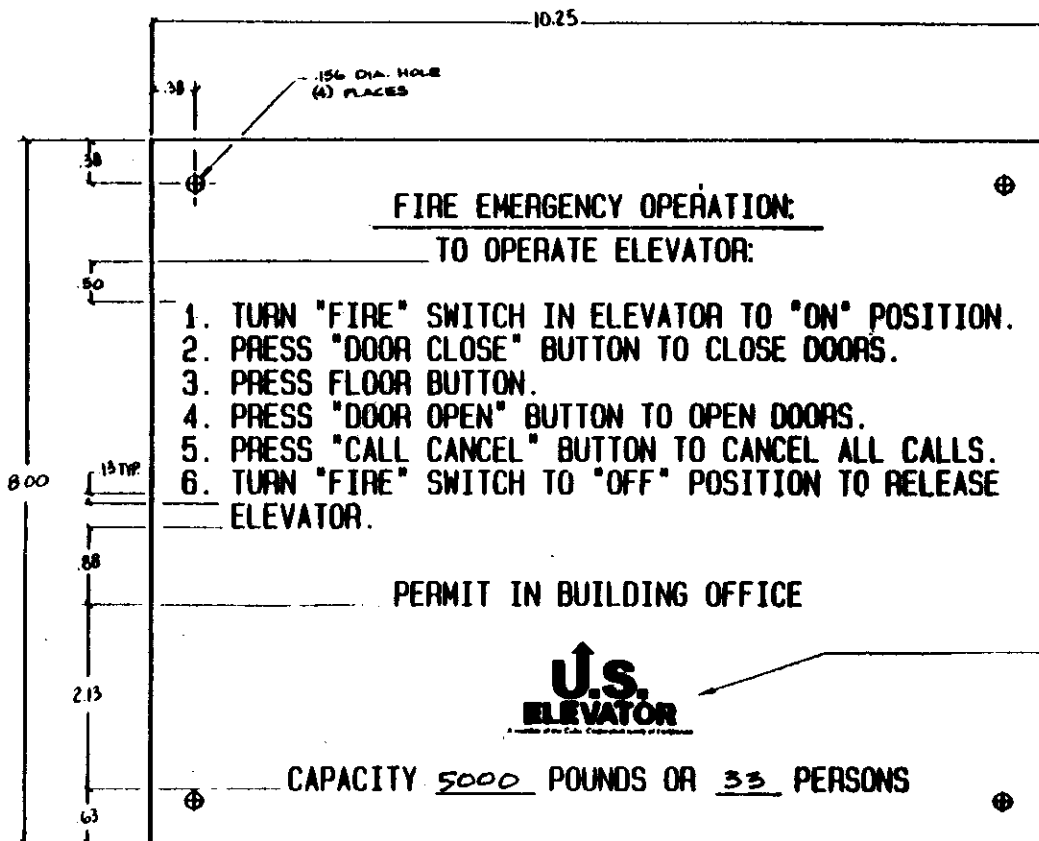


REFERENCE DRAWING 32

APPROVED
Michael J. McArthur
2-25-84

850126 5.2-3-2

CASE NO 18
85-0085 TRIKA TR72



- NOTES: 1) ALL LETTERS ARE TO BE BLACK 1/4" HIGH HELVETICA MEDIUM, AND BE OBLONGEDED ON THE BACK SIDE OF THE PLATE TO PROTECT THE LETTERING (NO-SPRING BRAND-ING).
2) ALL LETTERING IS TO BE CENTERED ON THE PLATE WITH EQUAL SPACING SIDE TO SIDE.
3) THE MATERIAL SHALL BE .125 THK. CLEAR PLASTIC WITH THE OUTER EDGES BEVELED TO REMOVE SHARP EDGES.

(1) REQ'D TOTAL

REFERENCE DRAWING 33

REVISIONS			
LTR	DESCRIPTION	APPD/DATE	
<input type="checkbox"/> PRELIM.	<input type="checkbox"/> REV. PRELIM.		
<input type="checkbox"/> FINAL	<input type="checkbox"/> REV. FINAL		

PURCHASE REQUISITION'S

ITEMS REQ'D	REQ. NO.

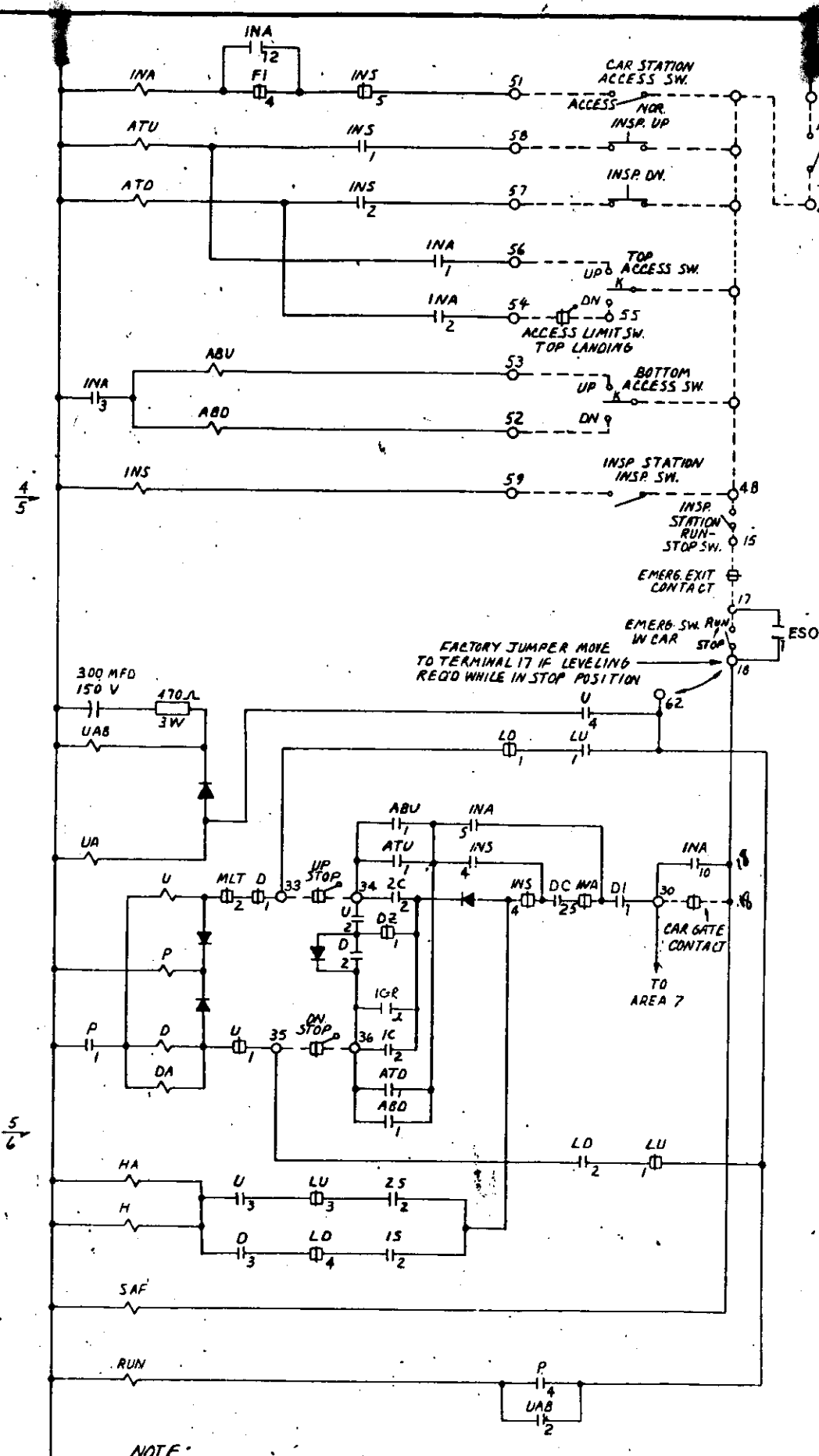
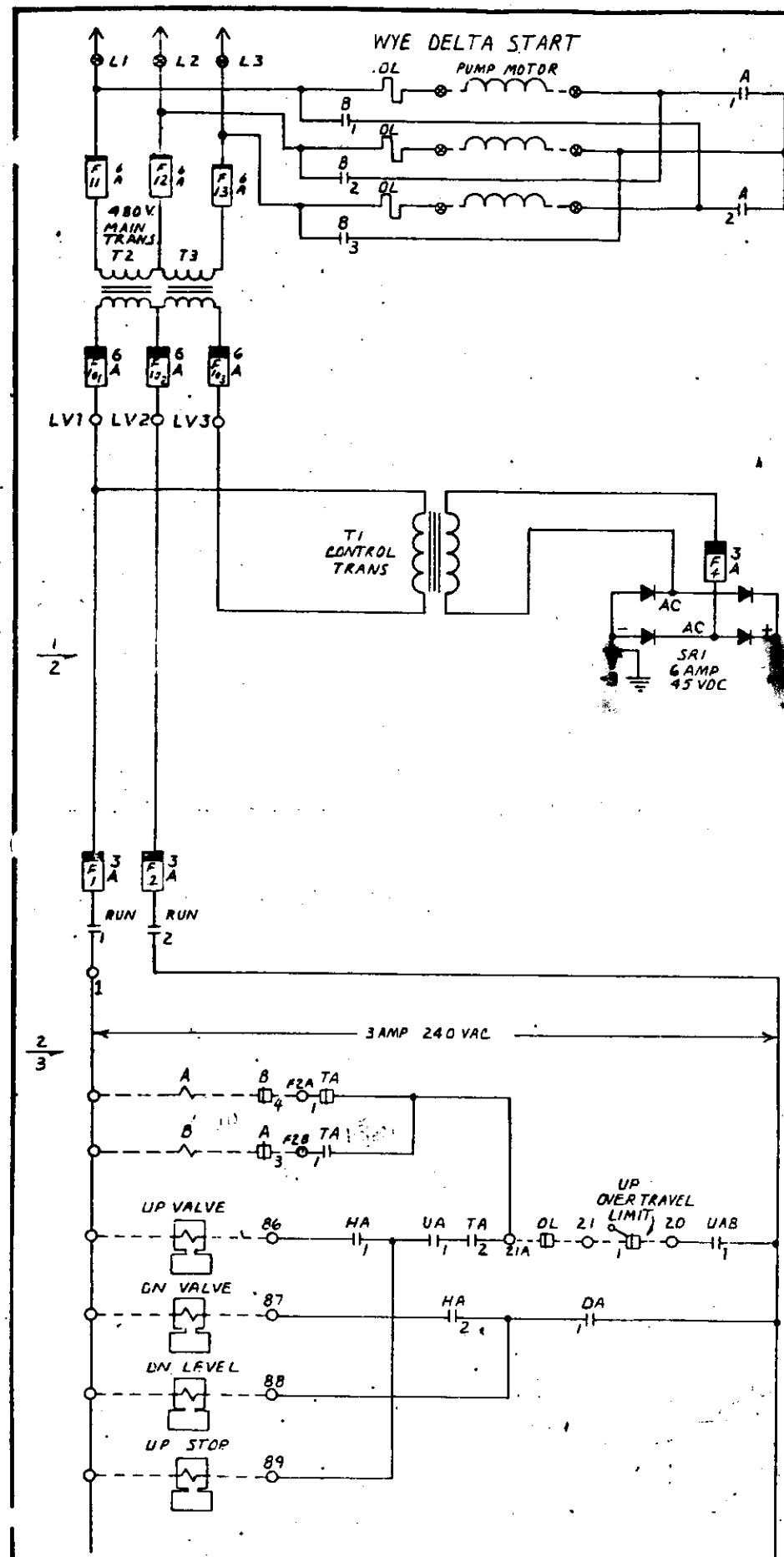
STD. U.S.E. LOGO

P/N	CAPACITY	PERSONS
-001	2000	13
-002	2500	16
-003	3000	19
-004	3500	22
-005	4000	26
-006	4500	29
-007	5000	33

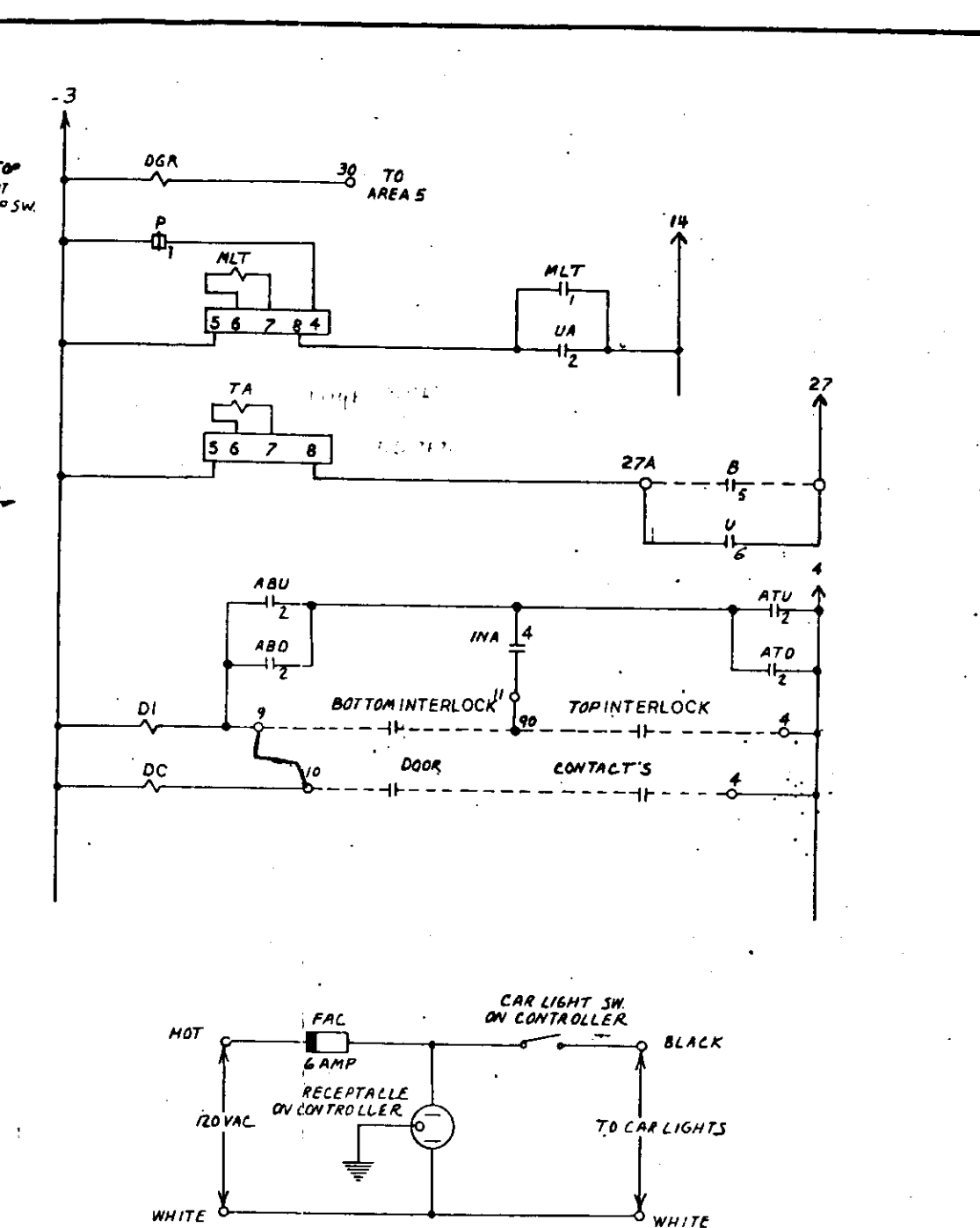
Job Name: CHIEF JOSEPH 4 DAM PWR. House
Job No. 16-1677-23619

U.S. ELEVATOR <small>A member of the Cubic Corporation family of companies 10720 U.S. Elevator Rd., Spring Valley, CA 94076</small>	
APPD <i>[Signature]</i> 11/11/05 CHECK DRAWN TBL. 11/11/05	DETAIL PLATE, PHASE II FIRE INST. & CAPACITY PLATE COMBO WITH U.S.E. LOGO
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. TOLERANCES ARE: LENGTH .0000 .001 .001 ANGLE .01° .01° .01°	SIZE C INVENTING NUMBER 23619-402 SHEET 1 OF 1

PRELIMINARY 2-11-80 23619
by W.S. ESCOBAR



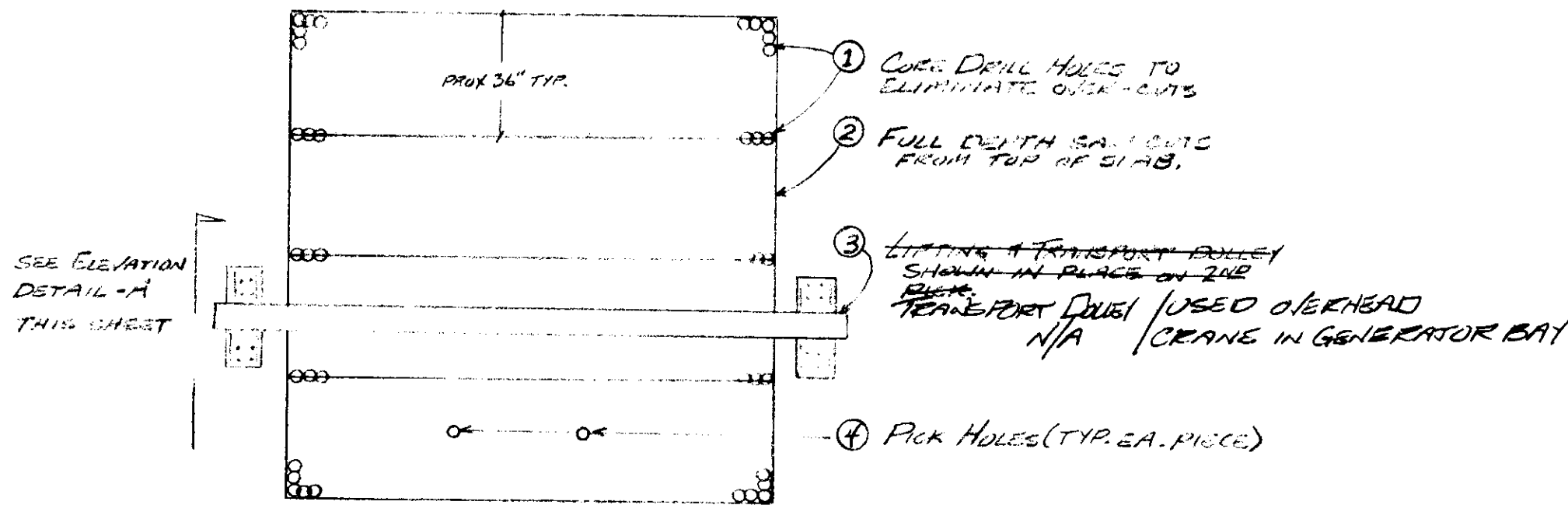
NOTE:
THE NUMBER 3 TERMINAL ON ALL PIECES OF
APPARATUS ARE TO BE CONNECTED TOGETHER
IN THE FIELD.



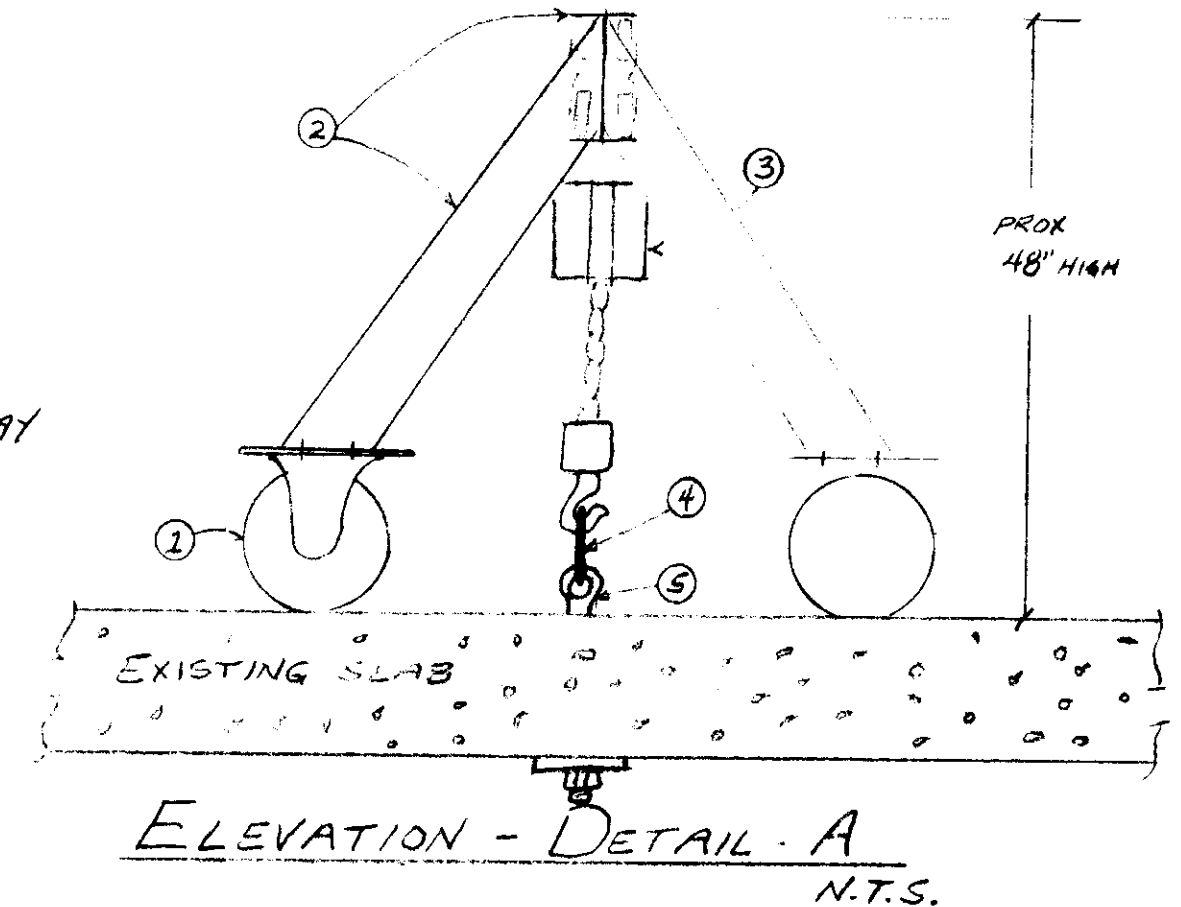
85-85

MODEL 200-HH		10728 U.S. Elevator Road Spring Valley, California 92078	
DRAWN Linda Terrell 11-14-80	U.S. ELEVATOR	JOB NAME CHIEF JOSEPH DAM POWER HOUSE	
PRELIM RELEASE	CHECKED	LOCATION BRIDGEPORT, WA	
FINAL RELEASE	DATE 2-24-86	INDIVIDUAL POWER - HYDRO FREIGHT	
2 LND		DATE 2-24-86	
JOB NO. 16-1877-23619		SHT 1 of 5	
DATE 02-19040		Dwg. NO. 23619-101	
REVISION		REV	

REFERENCE DRAWING 34



PLAN - OPENING PROX. 11 1/2 x 11 1/2
PICKING IN FOUR (4) PCS, 7,440 LBS. EA.



ELEVATION - DETAIL - A
N.T.S.

METHOD & SEQUENCE :

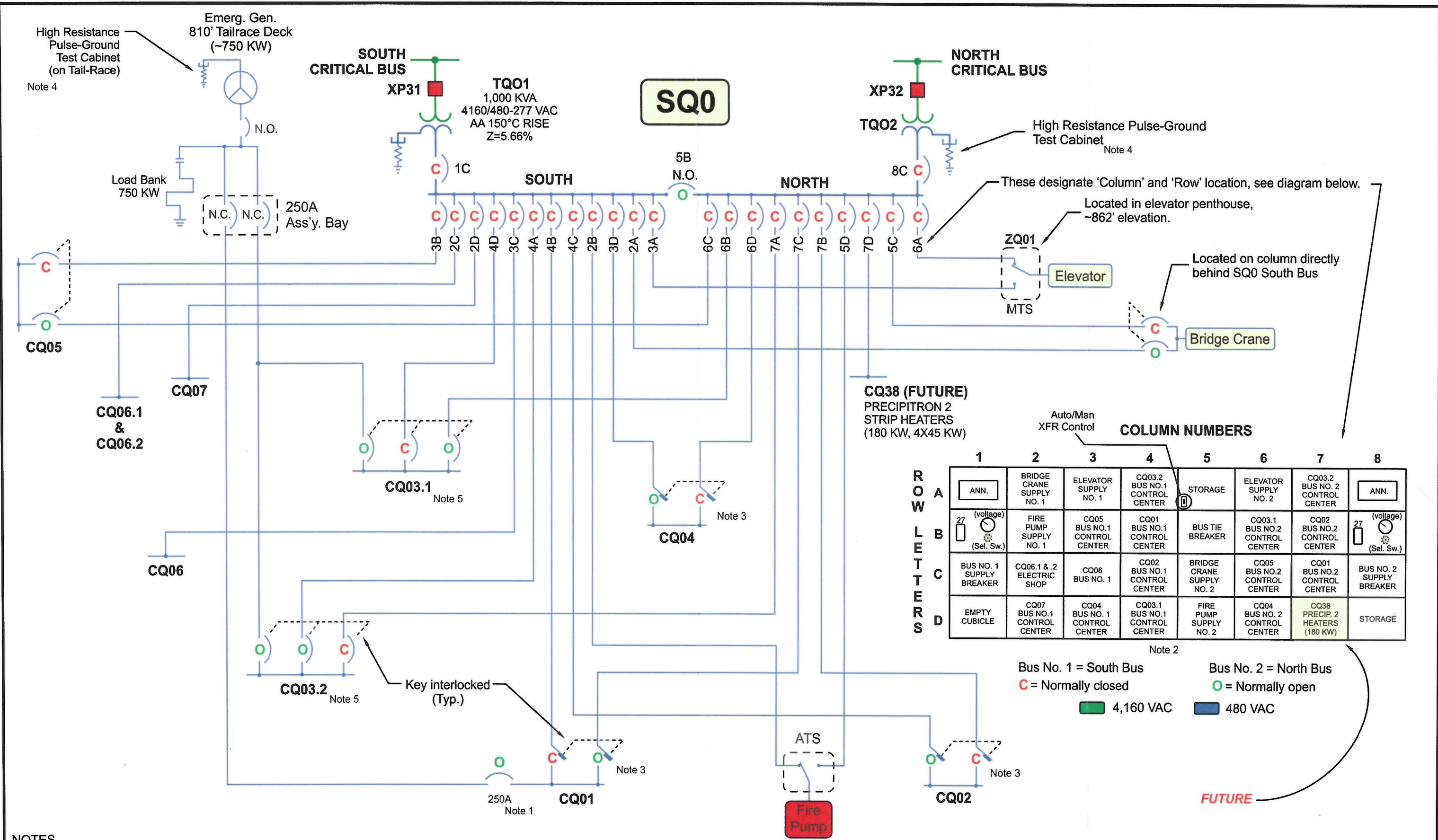
1. CORE DRILL CORNERS & PICK HOLES
2. SAW CUT 3' DIMENSION
3. PLACE LIFTING DOLLEY & RIG 1ST PIECE
4. SAW CUT 11 1/2 PROX. CUTS
5. ~~LIFT PIECE & ROLL TO MATCH WAY AT~~ I PICK W/BRIDGE CRANE
~~TAIL RACE DECK FOR REMOVAL.~~ REMOVE THRU GENERATOR BAY.
6. ~~REPEAT SEQUENCE FOR NEXT 3 PCS.~~ I PICK W/BRIDGE CRANE
7. BUSH CORNERS WITH SMALL AIR BUSHING HAMMER.
8. NOTE: PROTECTIVE BARRICADES & COVERS BY GENERAL CONTRACTOR.

- ① LARGE HARD RUBBER CASTERS
- ② I-BEAM CONSTRUCTION BY SPECIALITY PRODUCTS, PASCO WA.
- ③ MINIMUM 6 TON TUGGER ON ROLLERS
- ④ HEAVY CHOKERS, TWO (2) EA.
- ⑤ 1 1/2" GRADE 8 THRU BOLTS WITH EYES, TWO (2) EA.

AS BUILT 1/21/88
W.P.

PROJECT: CHIEF JOSEPH DAM - POWERHOUSE SIGN	
WORK ITEMS	
LOCATION ELEVATOR HOISTWAY OPENING	
SHOWN ON SHEETS 8159	ELEV. 785
BY: W. PICKEL	SHEET 4 OF 6

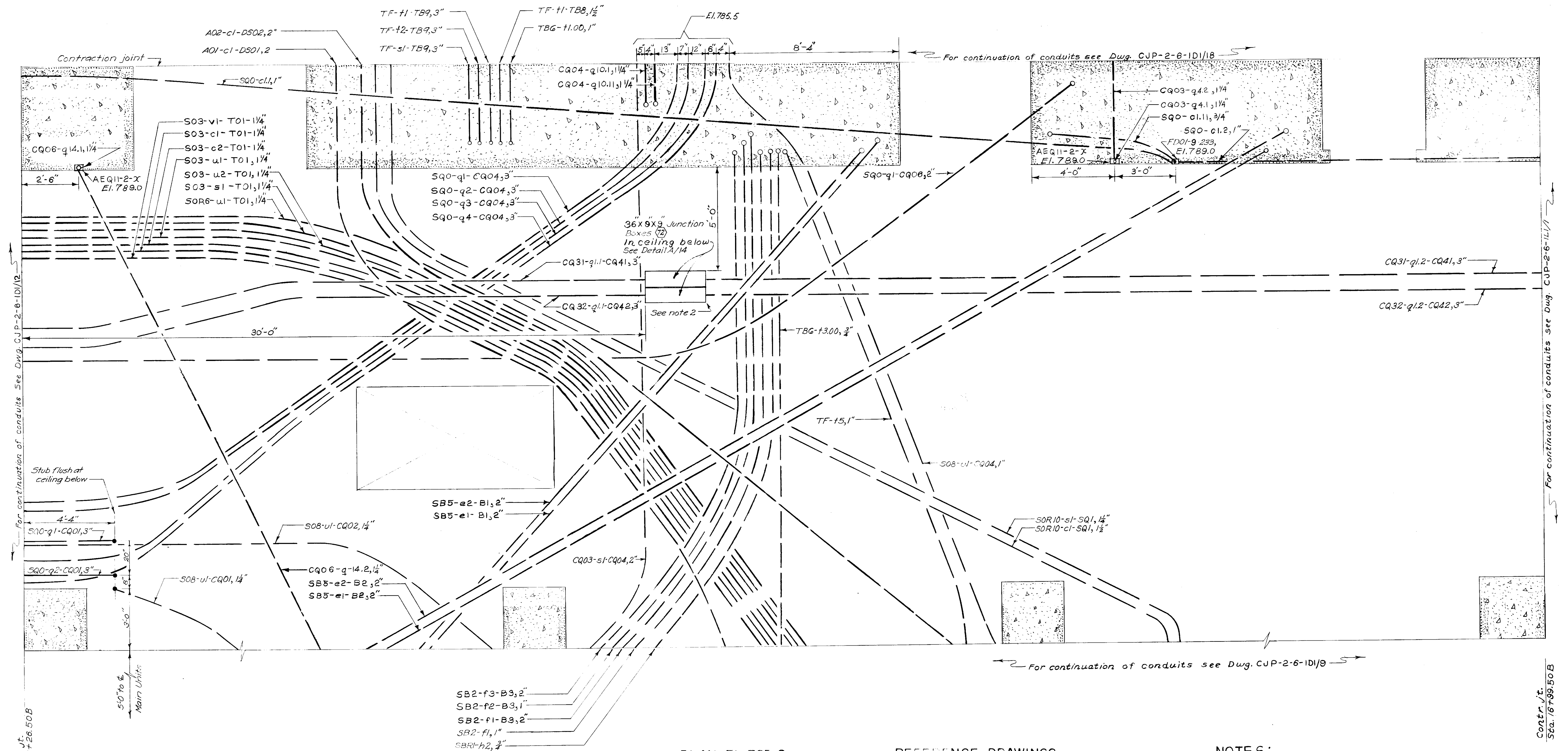
REFERENCE DRAWING 35



- NOTES**
- CAUTION!** This breaker is not key interlocked, isolate SQ0 South and North supplies and CQ01 loads before closing.
 - Tripping values indicated on SQ0 breakers' labels may not be actual relay setting values.
 - These are 'Non-Automatic Circuit Interrupters', essentially load-break disconnects, not breakers.
 - Instructions for use are posted inside each resistor control cabinet.
 - Breaker trip values are set at maximum.

REFERENCE DRAWING 36

STATION SERVICE:
SQ0 AND ASSOCIATED CQ PANELS



PLAN EL. 785.0
Scale 1/2" = 1'-0"

REFERENCE DRAWINGS

- CJP-2-6-1D1/7
- CJP-2-6-1D1/9
- CJP-2-6-1D1/12
- CJP-2-6-1D1/14
- CJP-2-6-1D1/17
- CJP-2-6-1D1/18
- CJP-2-6-1D1/19

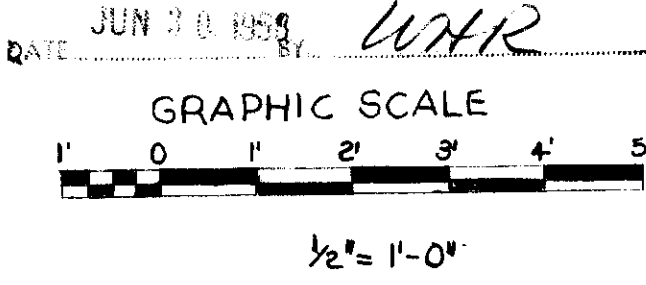
FOR "AS BUILT" CONDITION, SEE THE FOLLOWING
COLUMBIA RIVER CONSTRUCTOR'S LIFT SKETCHES:

- 1563-AB-7-3
- SS-14-1
- SS-14-2
- SS-14-3
- SS-14-4
- SS-15

NOTES:

- For legend and general notes see Dwg. CJP-2-6-1D1/7.
- Place these junction boxes as close together as possible.

AS CONSTRUCTED
HYDRO-ELECTRIC DESIGN BRANCH NPD



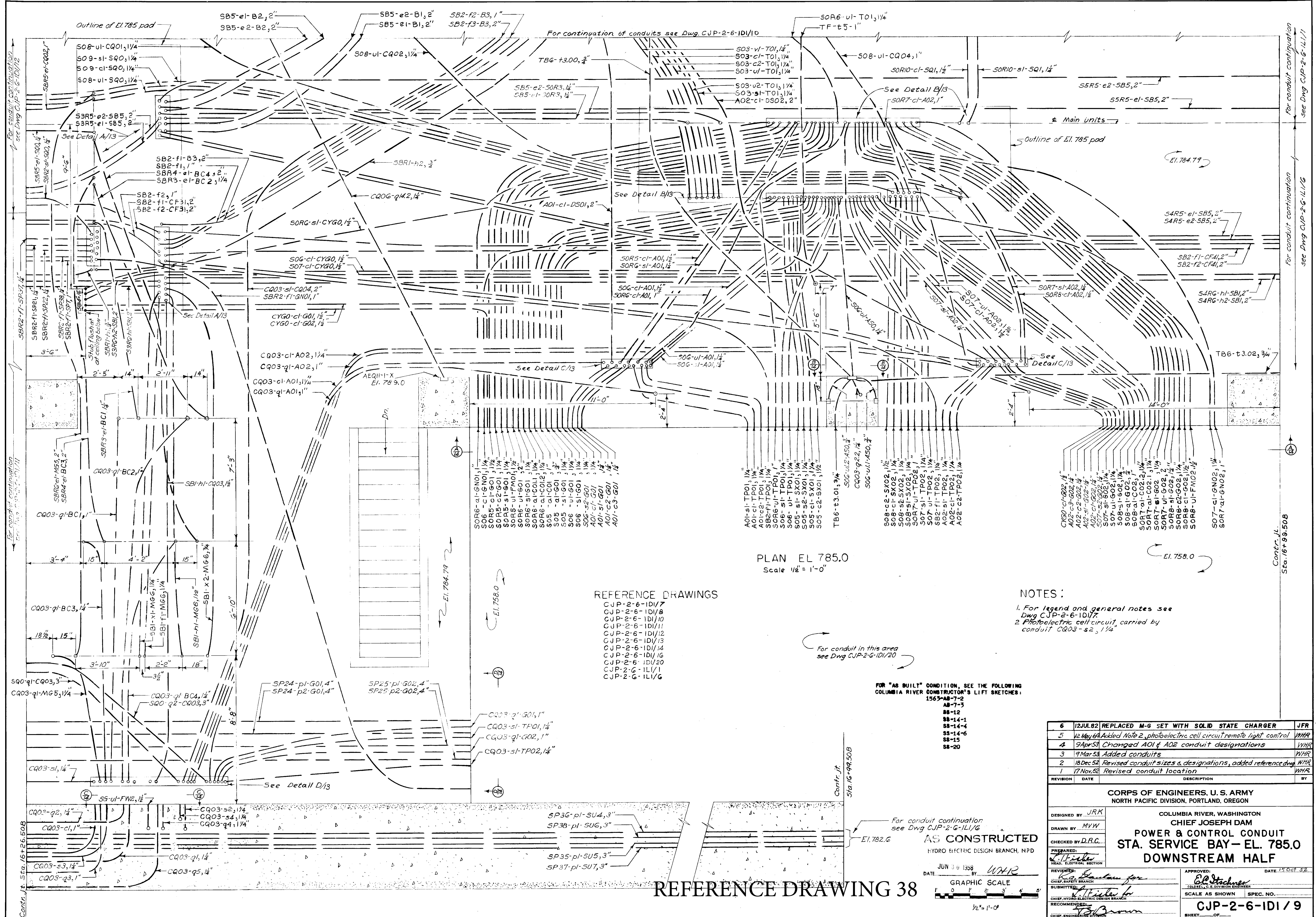
REFERENCE DRAWING 37

3	9Apr53	Changed AO1 & AO2 conduit designations	WHR
2	18Dec52	Revised Reference Drawings, added note 2	WHR
1	14Oct52	General Revisions	BUY
REVISION	DATE	DESCRIPTION	BY
CORPS OF ENGINEERS, U. S. ARMY NORTH PACIFIC DIVISION, PORTLAND, OREGON			
COLUMBIA RIVER, WASHINGTON CHIEF JOSEPH DAM POWER & CONTROL CONDUIT STA. SERVICE BAY - EL. 785.0 UPSTREAM HALF			
DESIGNED BY	J.P.K.	APPROVED	DATE 9 Sep 58
DRAWN BY	M.V.W.	REVIEWED	
CHECKED BY	D.R.C.	CRISP, SAFETY BRANCH	
PREPARED	J. H. Fisher	SUBMITTED	
HEAD, ELECTRICAL SECTION		CHIEF, HYDRO-ELECTRIC DESIGN BRANCH	
RECOMMENDED		RECOMMENDED	
CHIEF, ENGINEERING DIVISION		CHIEF, ENGINEERING DIVISION	
SCALE AS SHOWN SPEC. NO.			
CJP-2-6-1D1 / 10			
SHEET OF			

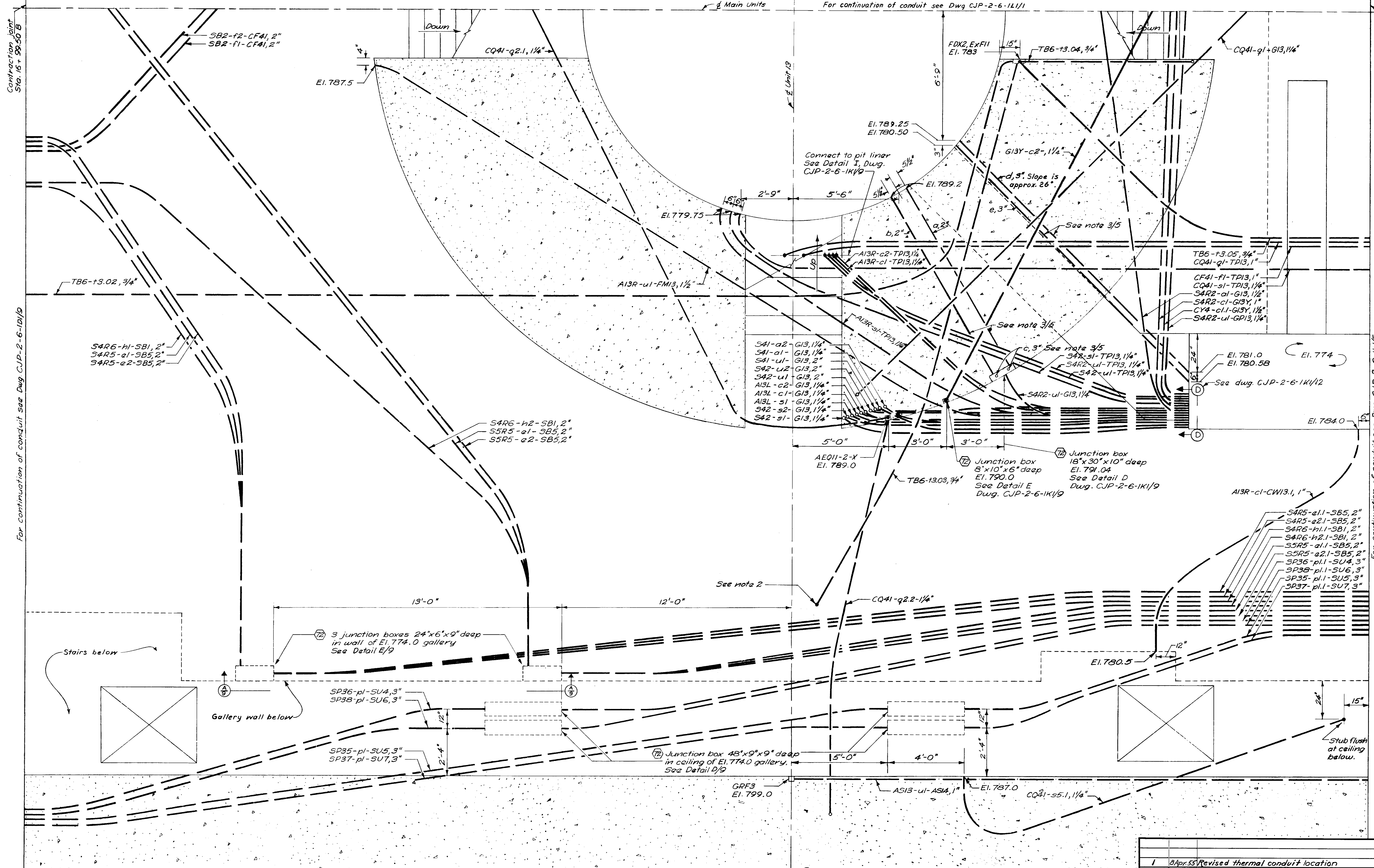
15755

7-5-4

Contract 1398







NOTES

1. For legend and general notes see Dwg. CJP-2-6-101/7.
2. This conduit extends from the EL. 763 gallery. See Detail H, Dwg. CJP-2-6-101/9.

PLAN EL. 785
Scale 1/2\" = 1'-0\"

REFERENCE DRAWINGS

- CJP-2-6-101/7
- CJP-2-6-101/9
- CJP-2-6-101/17
- CJP-2-6-101/19
- CJP-2-6-101/2
- CJP-2-6-101/12
- CJP-2-6-101/1
- CJP-2-6-101/5
- CJP-2-6-101/8
- CJP-2-6-101/9

FOR "AS-BUILT" CONDITION, SEE THE FOLLOWING COLUMBIA RIVER CONSTRUCTOR'S LIFT SKETCHES:

1563-PH-50
PH-75
SS-14-5

AS CONSTRUCTED
HNDP ELECTRIC DESIGN BRANCH, NPD

DATE JULY 11, 1958 BY WNR

GRAPHIC SCALES
1\" = 0' 1' 2' 3' 4' 5'
1/2\" = 1'-0\"

1 8Apr55 Revised thermal conduit location		WNR
REVISION	DATE	DESCRIPTION
CORPS OF ENGINEERS, U.S. ARMY NORTH PACIFIC DIVISION, PORTLAND, OREGON		
COLUMBIA RIVER, WASHINGTON		
CHIEF JOSEPH DAM POWERHOUSE		
POWER & CONTROL CONDUIT MAIN UNIT BAY NO. 13 DOWNSTREAM HALF EL. 785		
DESIGNED BY HMF	APPROVED: [Signature]	
DRAWN BY RPT	DATE 2 June 59	
CHECKED BY JRK	SCALE AS SHOWN SPEC. NO.	
PREPARED BY [Signature]	CJP-2-6-101/6	
REVIEWED BY [Signature]	SHEET OF	
CHIEF, SAFETY BRANCH	CHIEF, ENGINEERING DIVISION	

REFERENCE DRAWING 40

MATERIAL LIST

BID ITEM	PART NO.	MATERIAL	PART	REMARKS
26	930-1	C.I.	6"-90° Std Flanged Elbow	F & D
"	-2	C.I.	6"x11" Std sc'd comp. flange	F & D
"	-3	Galv. Stl.	6" Std pipe, threaded	
30	-4	IBBM	6" Std flgd wedge gate valve 038Y	Wal No 726F or equal
26	-5	C.I.	6"x4"x6" Std. flgd tee	F & D
"	-6	C.I.	6" Std flgd red tee	F & D
"	-7	C.I.	4"x9" Std. sc'd comp flange	F & D
"	-8	C.I.	4-90° Std. flgd elbow	F & D
"	-9			
30	-10	IBBM	4" Std. Flanged Lub plug valve wrench operated F & D	Walworth No. 1797F or equal
30	-11	IBBM	4" Std. Silent spring check valve	Williams, Hager or equal
26	12	C.I.	4" Std. flanged tee	F & D
26	13	Galv. Stl.	4" Std pipe, threaded	
"	14	Steel	4" Pipe support, clamp type	See detail
20	15	IBBM	4" Std. flanged single basket strainer	See Specifications
"	16			
"	17			
31	18	C.I.	Std. sleeve coupling for 8" OS&Y valve	Walworth or equal
31	19	Steel	Std extension stem for 8" OS&Y valve	Walworth or equal
31	20	C.I.	Std. 34" non rising stem floor stand with indicator for 8" OS&Y valve	Walworth #809 or equal
25	21	M.I. Galv.	2"x2"x1" Std. sc'd red tee	
"	22	Galv. Stl.	1" Std. pipe, threaded	
"	23	M.I. Galv.	1" Std. sc'd female union run tee	Ground joint
"	24	M.I. Galv.	1"-90° Std sc'd female union elbow	Ground joint
"	25	M.I. Galv.	1"-45° Std sc'd female union elbow	Ground joint
"	26	M.I. Galv.	1"-90° Std. sc'd elbow	
"	27	M.I. Galv.	1"-45° Std. sc'd elbow	
29	28	Bronze	1" Std. sc'd spring plug cock	Walworth #639 or equal
"	29	Steel	1" Std. long clip pipe support	Grinnell Fig 263 or equal
"	30	Steel	6" Pipe support	See detail
"	31	"	4" Pipe support	"
30	32	IBBM	4" Std. flgd 3-way - 3-part Lub Plug valve wrench operated F & D	Walworth #3975 or equal

REFERENCES:

FOR MISCELLANEOUS PIPING IN ASSEMBLY AND MAIN UNIT BAYS SEE CJP-2.1-3-9/36.
FOR ADDITIONAL PIPING ARRANGEMENT DRAWINGS SEE CJP-2.1-3-9/16 THRU 9/30 INCL.
FOR PIPING DIAGRAMS SEE CJP-2.1-3-9/10 THRU 9/15 INCL.
FOR SCHEMATIC PIPING DIAGRAMS SEE CJP-2.1-3-9/40 THRU 9/70 INCL.

NOTES:

Support pipes with standard hangers or supports as shown, spaced at not more than 10'-0" centers on horizontal lines or 15'-0" centers on vertical lines.
Provide unions in all lines as required.
Provide flange bolts and gaskets as required.
* Items in list of material marked with an asterisk denote change over contract drawing.
Details shown of pipe connections to equipment furnished by Contractor are subject to change upon receipt of equipment data and approval of Contractor's proposed connections.

AS CONSTRUCTED

HYDRO ELECTRIC DESIGN BRANCH, NPD

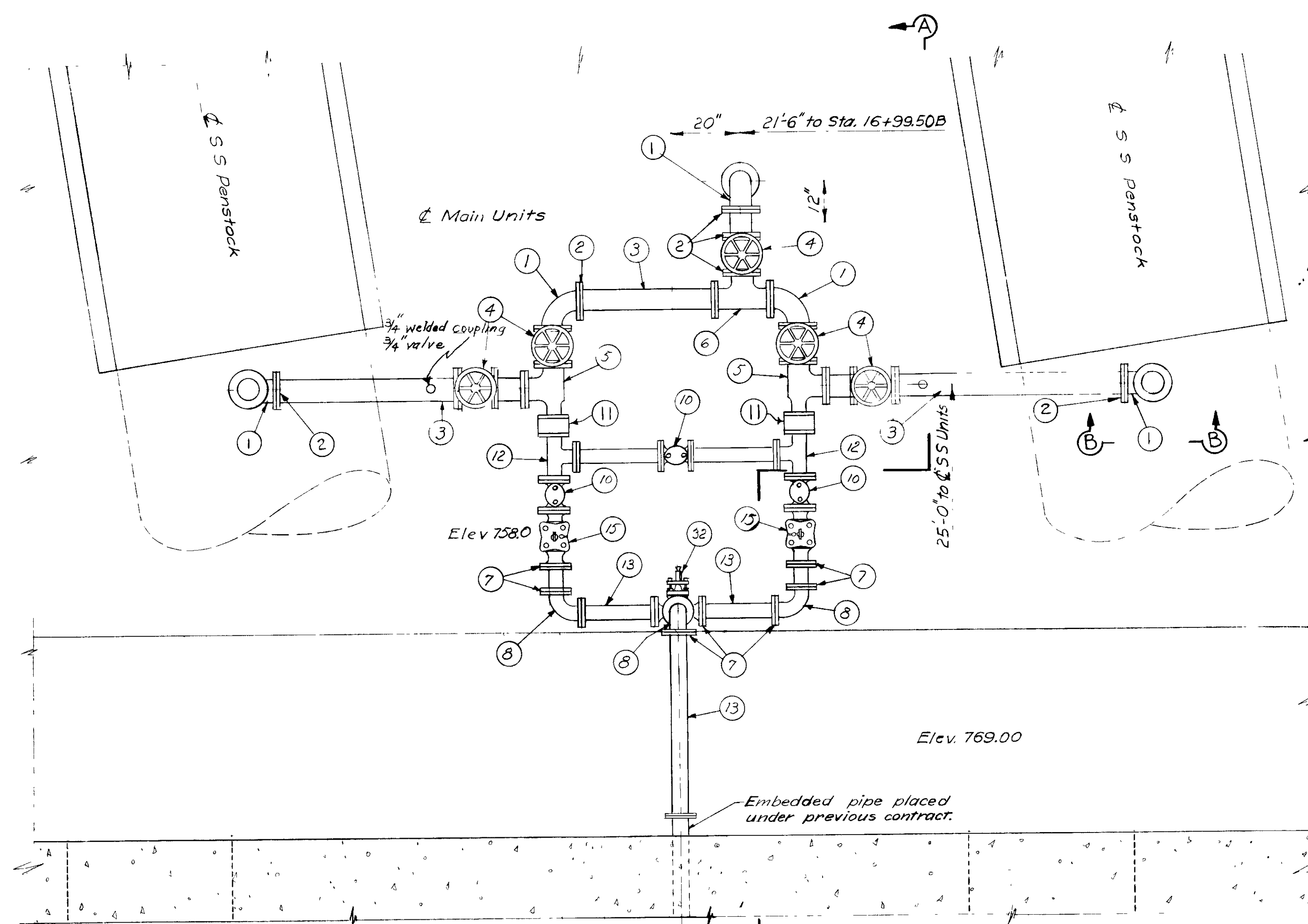
DATE 1.0 JUN 1955

Q.B. Hanson

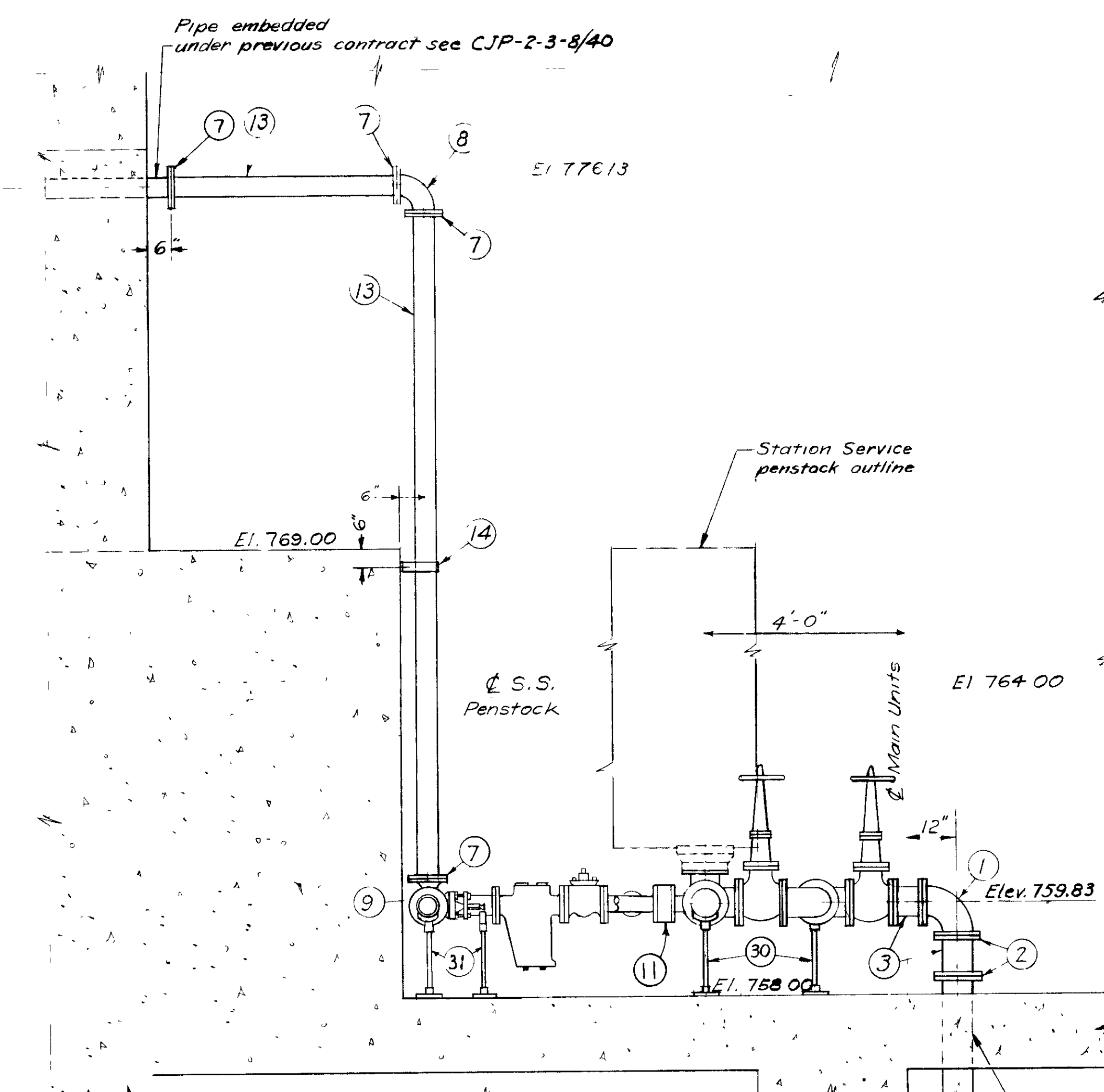
2	10 June 63	As Constructed	Q.B.
1	22 July 54	Revised strainer arrangement.	VLP
REVISION	DATE	DESCRIPTION	BY
CORPS OF ENGINEERS, U. S. ARMY NORTH PACIFIC DIVISION, PORTLAND, OREGON			
DESIGNED BY	GDR	COLUMBIA RIVER, WASHINGTON	
DRAWN BY	ALD	CHIEF JOSEPH DAM	
CHECKED BY	RKW	POWERHOUSE - MECHANICAL	
PREPARED BY	R.T. Sullivan	PIPING ARRANGEMENT	
REVIEWED BY	R.T. Sullivan	S.S. PENSTOCK DRAIN & EQUALIZER	
SUBMITTED BY	R.T. Sullivan	PIPING-PLANS, SECTIONS & DETAILS	
RECOMMENDED BY	R.T. Sullivan	APPROVED: DATE 15 FEB 1956	
CHIEF, ENGINEERING DIVISION		SCALE AS SHOWN	
		SHEET NO. 41	
		CJP-2.1-3-9/30	

Contract 2384

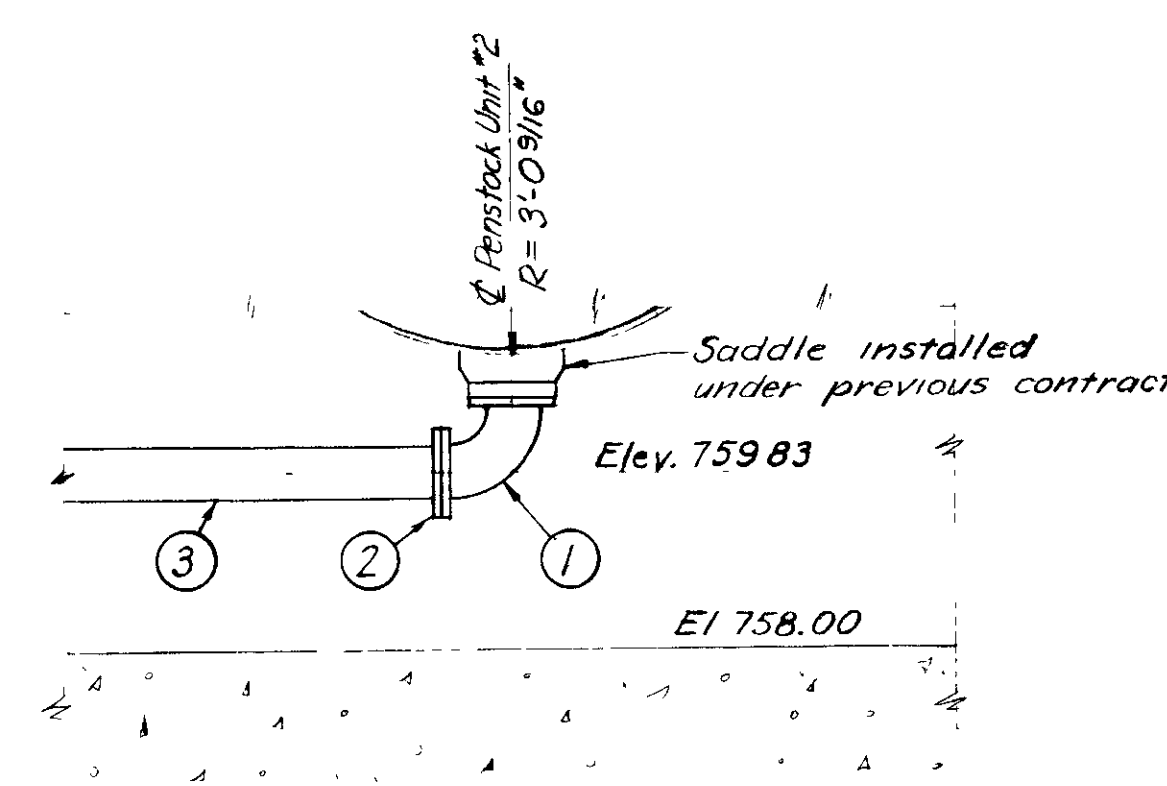
Feb. 50



PLAN AT EL 777.00
SCALE 1/2"=1'-0"

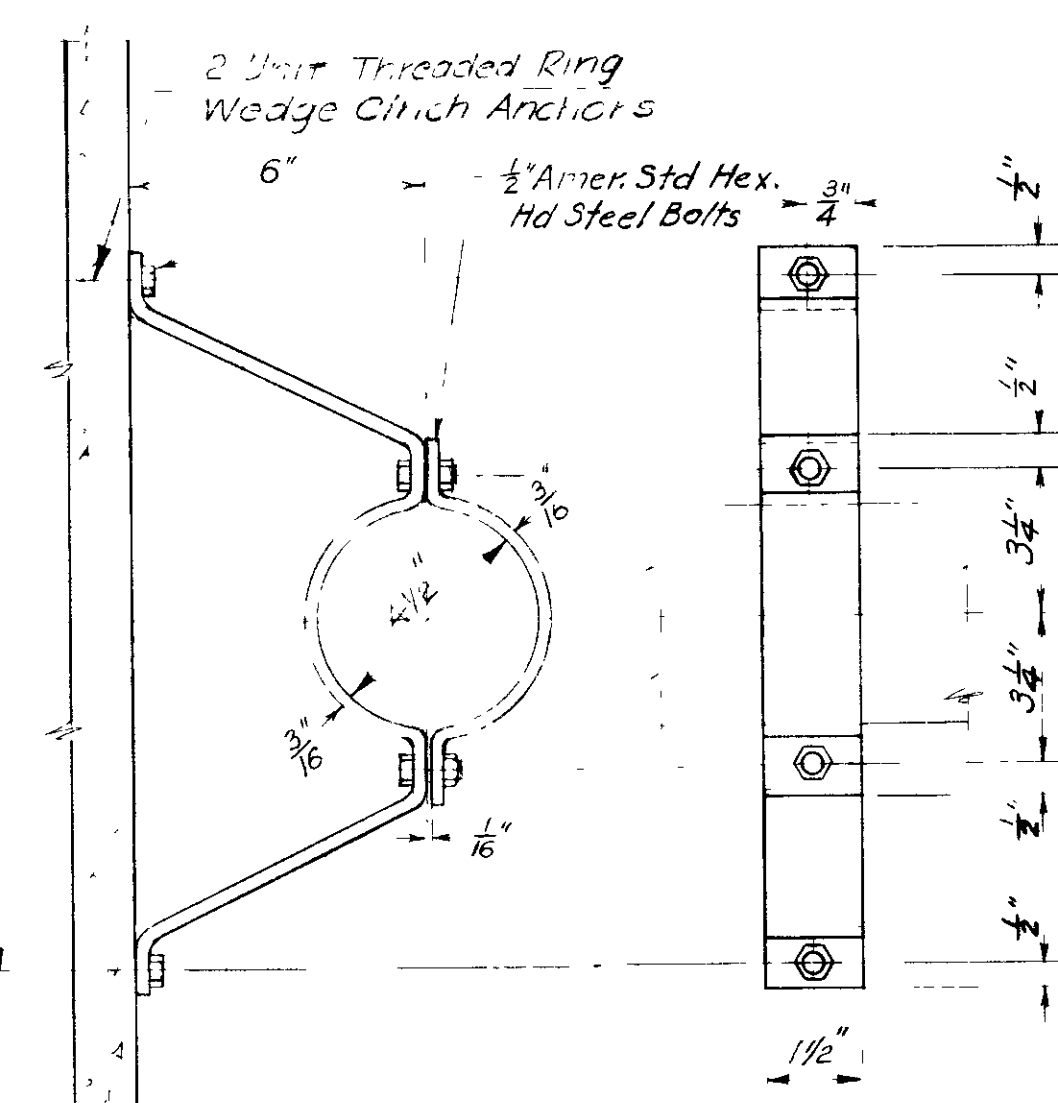


SECTION A-A
SCALE 1/2"=1'-0"

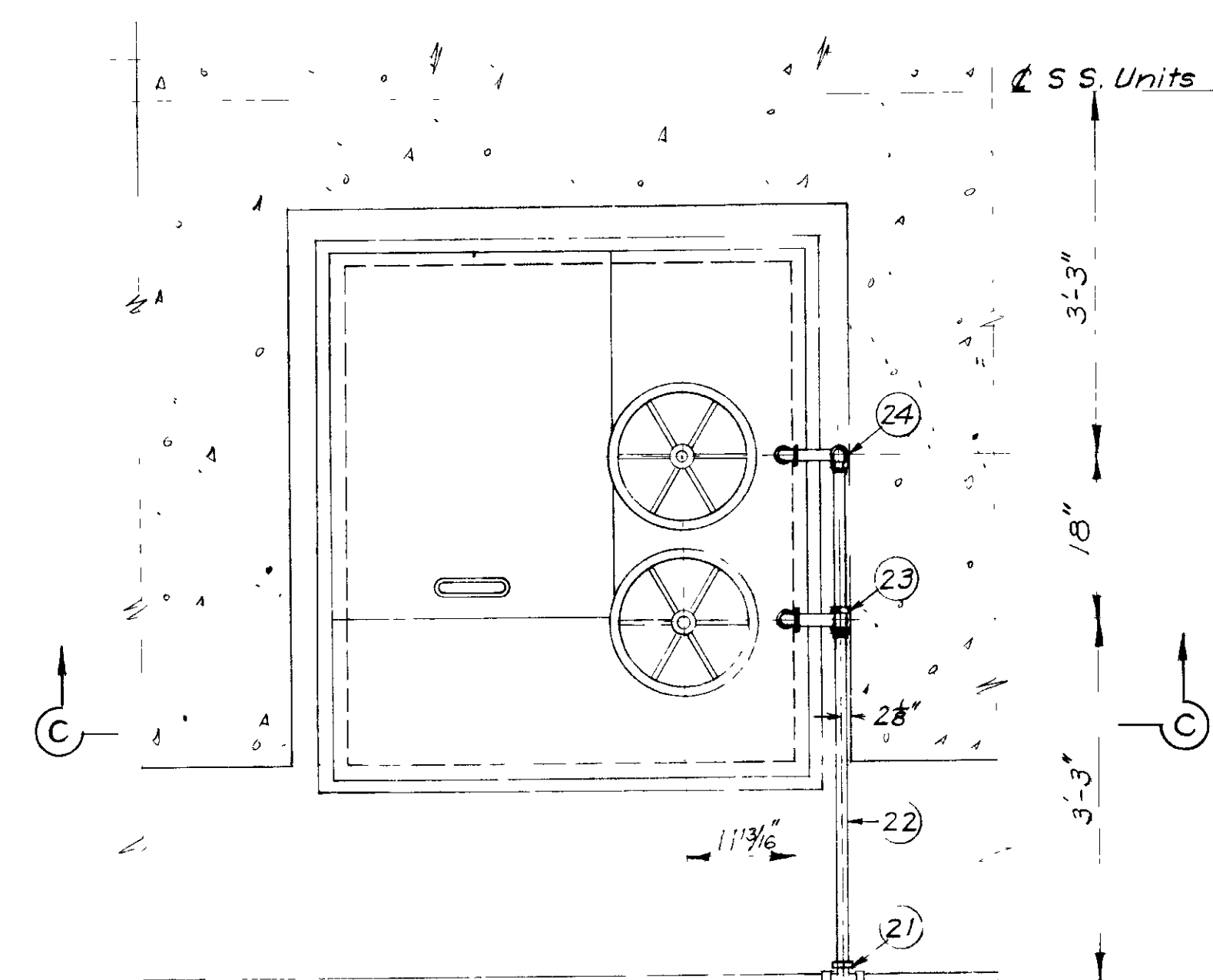


SECTION B-B

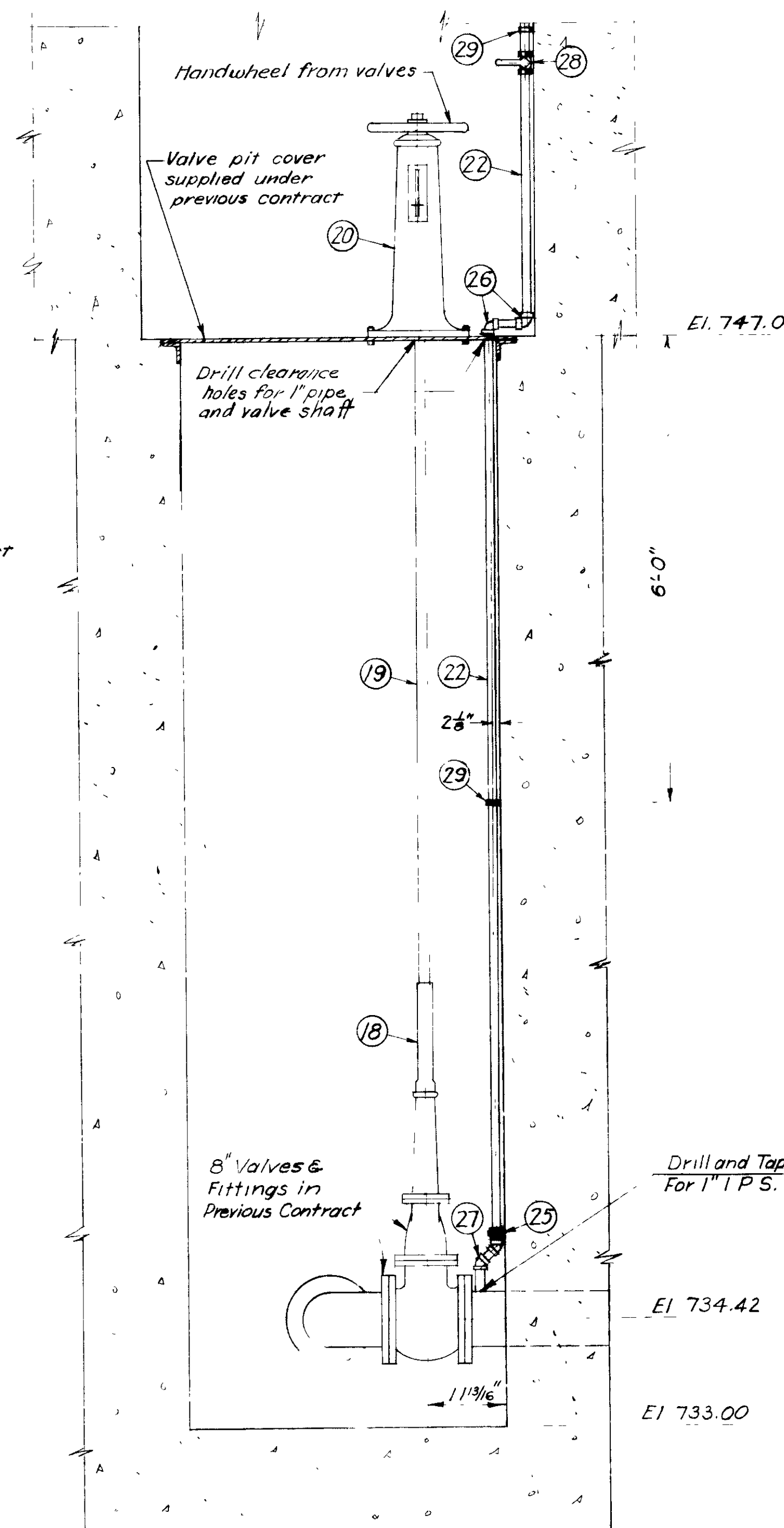
PENSTOCK UNIT *1 OPPOSITE HAND
SCALE 1/2"=1'-0"



PIPE SUPPORT
Steel Wt. 30 lbs.
Part No. 930-14 No Scale

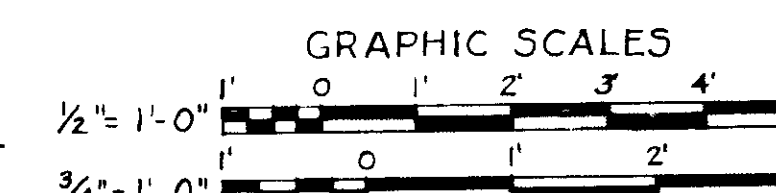


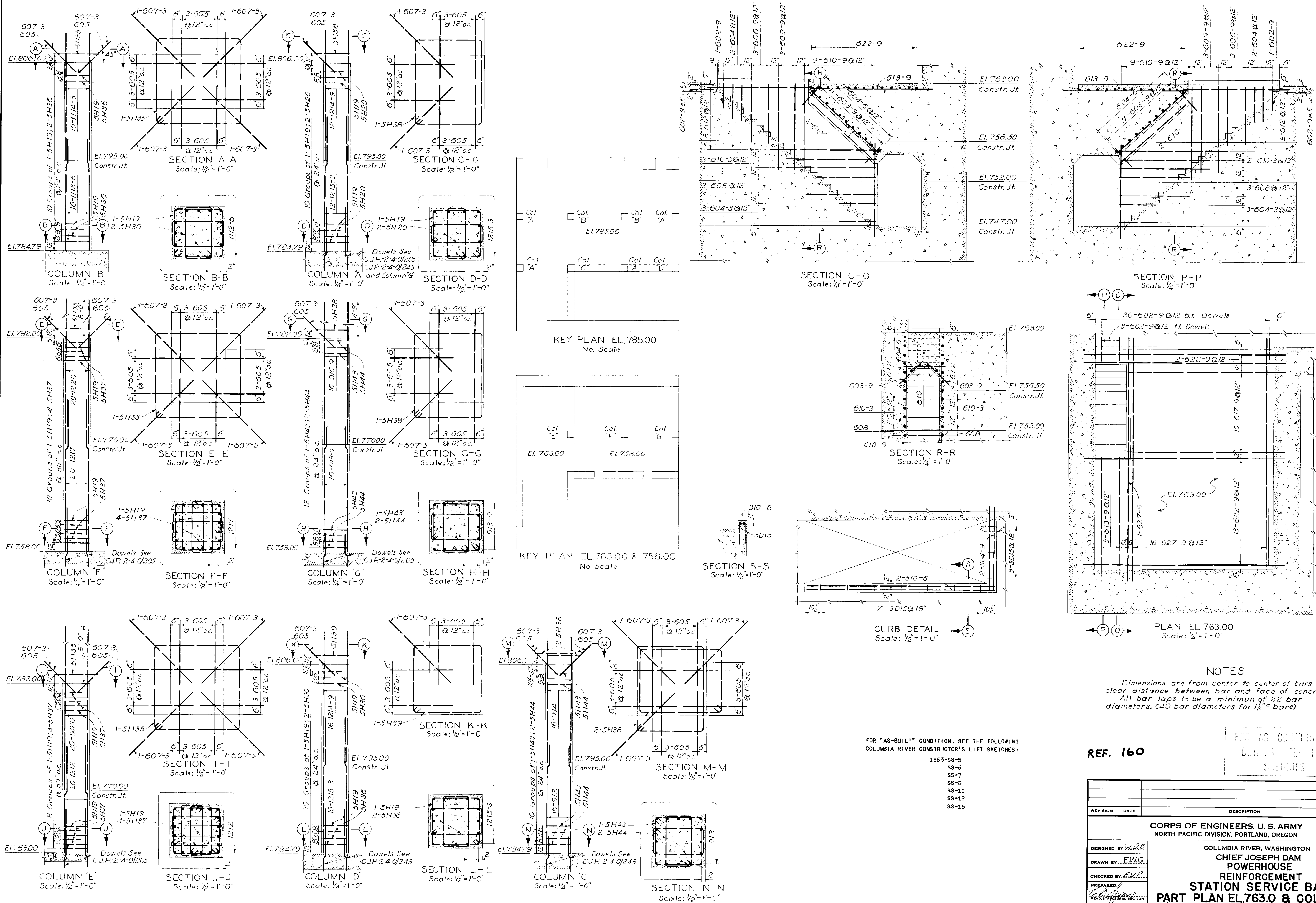
PLAN AT EL 747.00
SCALE 1/2"=1'-0"



SECTION C-C
SCALE 1/2"=1'-0"

REFERENCE DRAWING 41





REFERENCE DRAWING 42

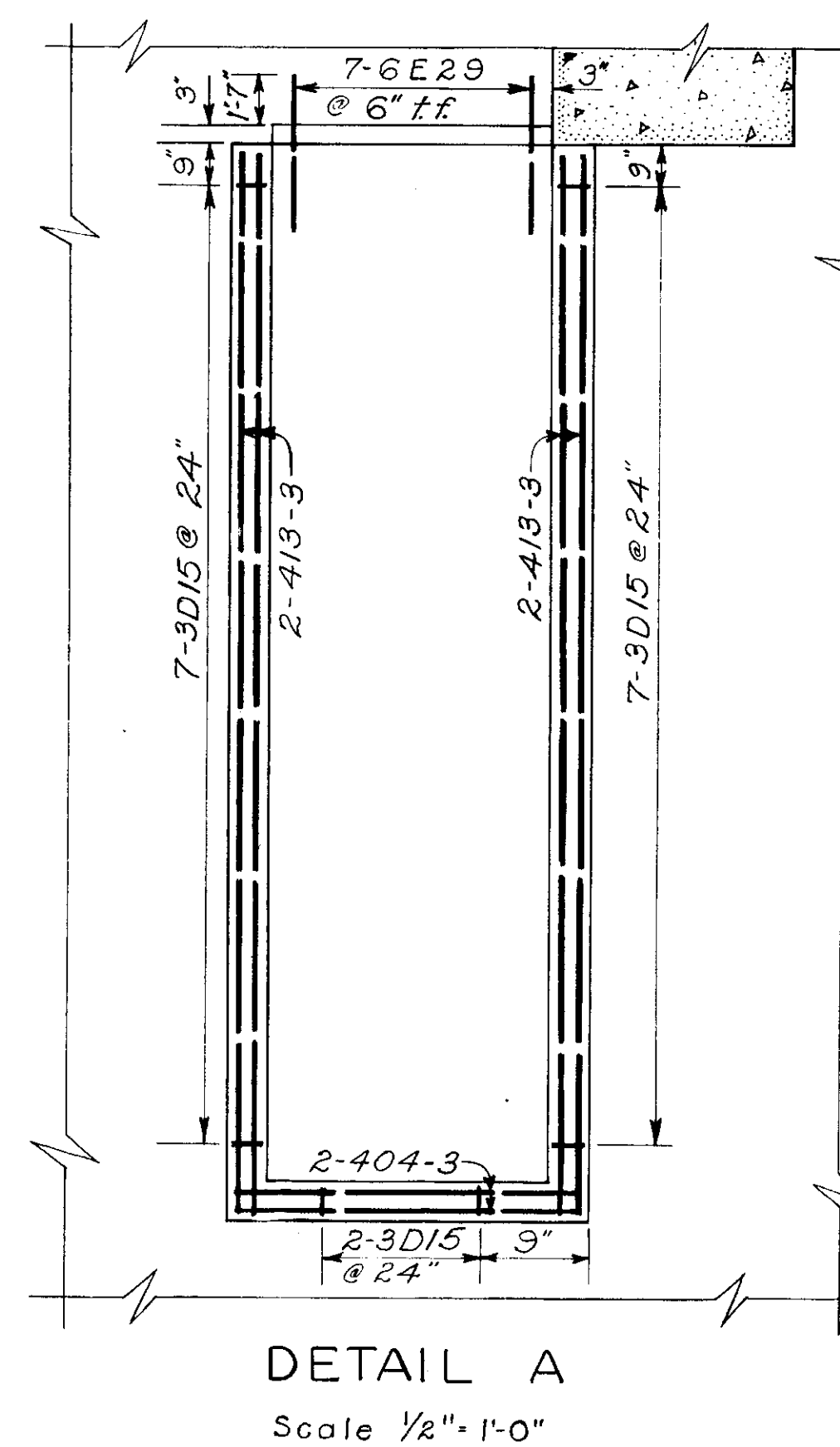
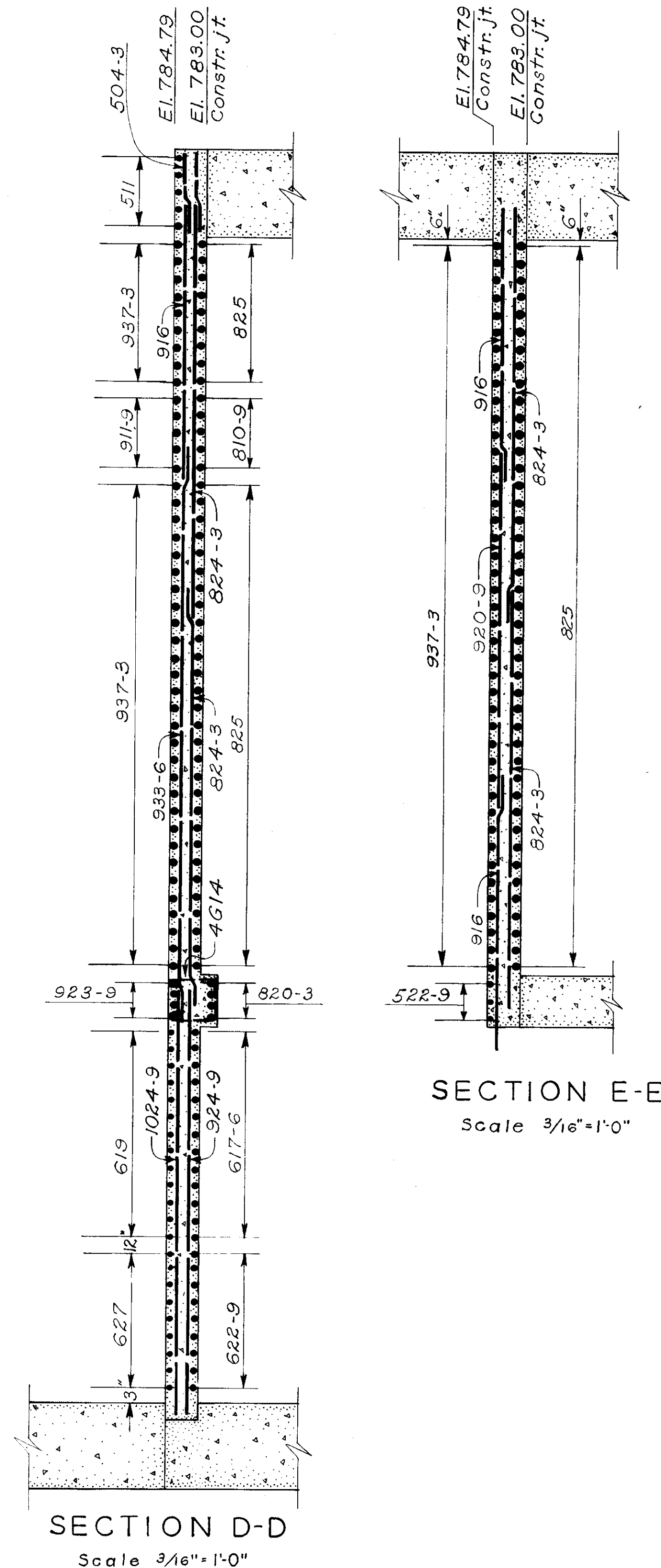
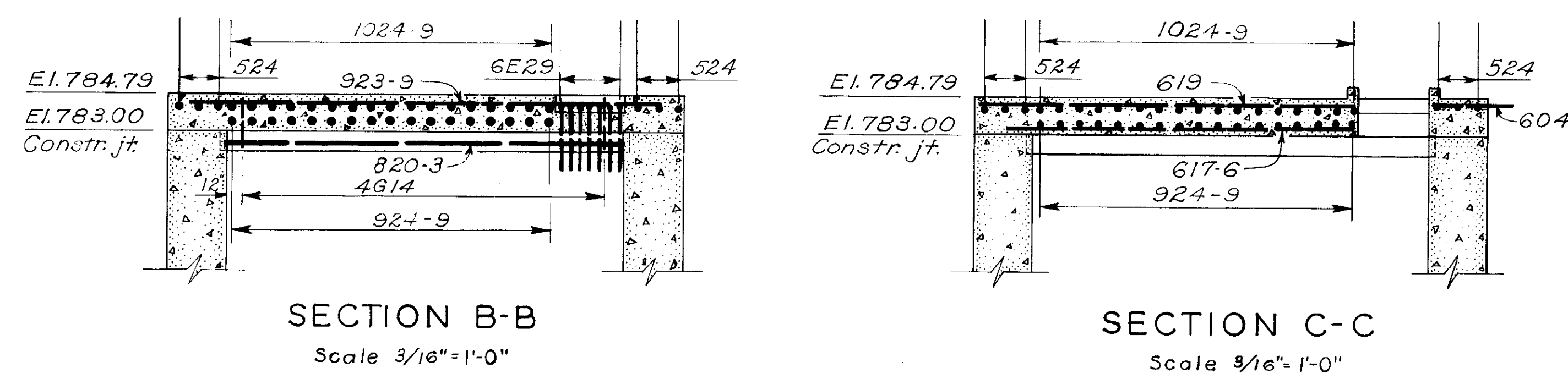
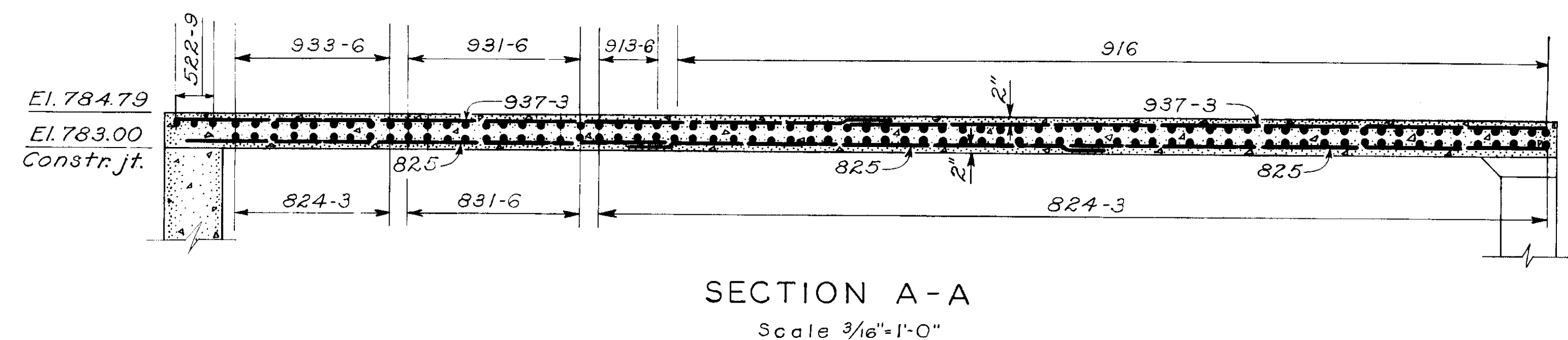
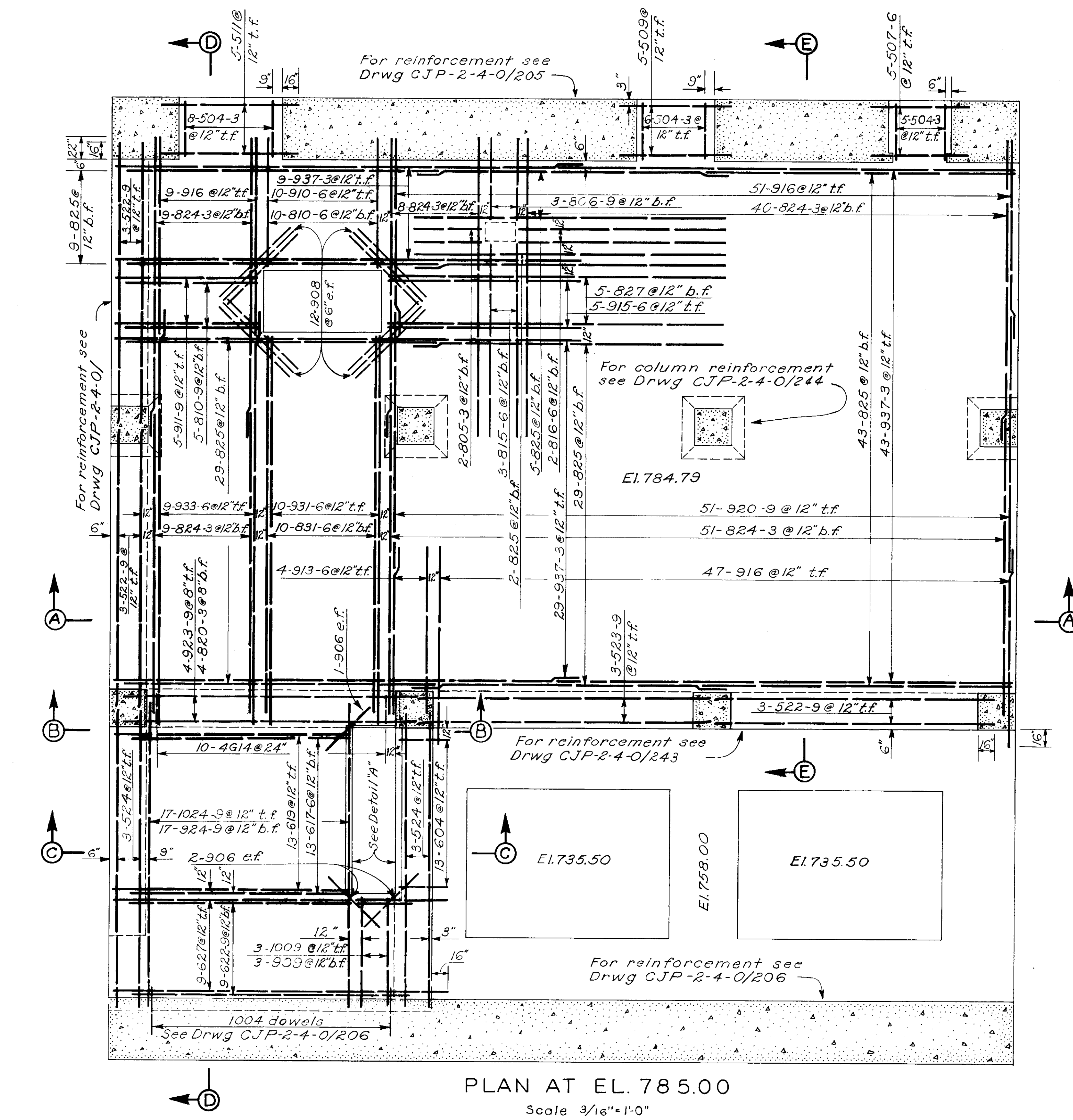
REF. 160

REVISION	DATE	DESCRIPTION	BY
<p align="center">CORPS OF ENGINEERS, U. S. ARMY NORTH PACIFIC DIVISION, PORTLAND, OREGON</p> <p align="center">COLUMBIA RIVER, WASHINGTON CHIEF JOSEPH DAM POWERHOUSE REINFORCEMENT STATION SERVICE BAY PART PLAN EL.763.0 & COLUMNS</p>			
DESIGNED BY	W.D.B.		
DRAWN BY	E.W.G.		
CHECKED BY	E.W.P.		
PREPARED BY			
HEAD, STRUCTURAL SECTION			
REVIEWED BY			
CHIEF, SAFETY BRANCH			
SUBMITTED BY			
CHIEF, HYDRO-ELECTRIC DESIGN BRANCH			
RECOMMENDED BY			
CHIEF, ENGINEERING DIVISION			
APPROVED BY			
COLONEL, C. E. DIVISION ENGINEER			
SCALE AS SHOWN	SPEC. NO.		
CJP-2-4-0/244			
SHEET			

540502

7-4-1

Contract 1398



NOTES

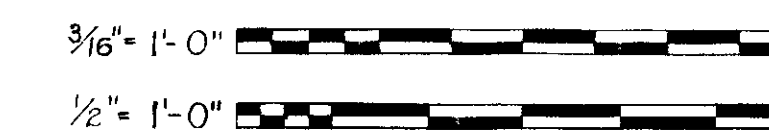
All bar laps shall be a minimum of 22 bar diameters.

Dimensions are from center to center of bars and clear distance between bars and face of concrete.

FOR AS CONSTRUCTED
DETAILS - SEE LIFT
SKETCHES

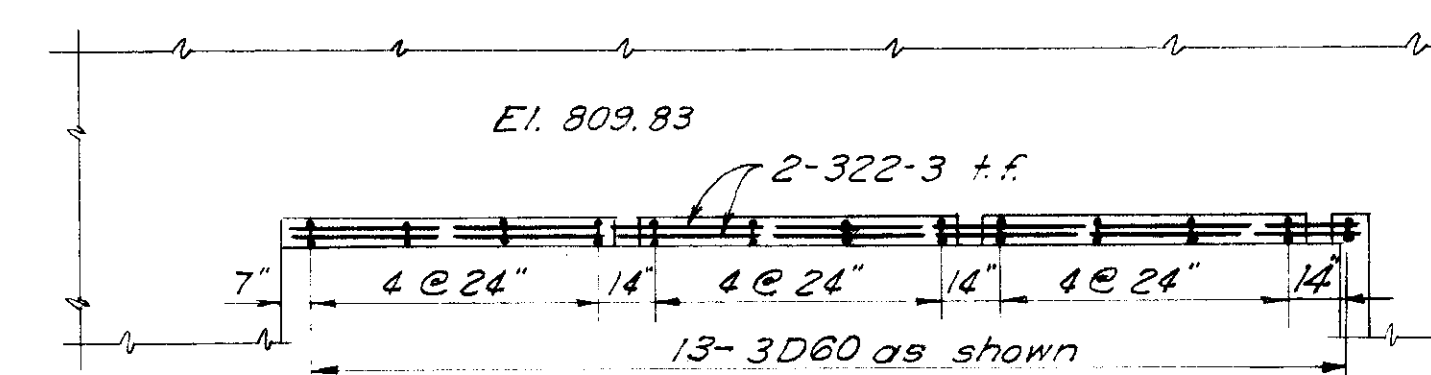
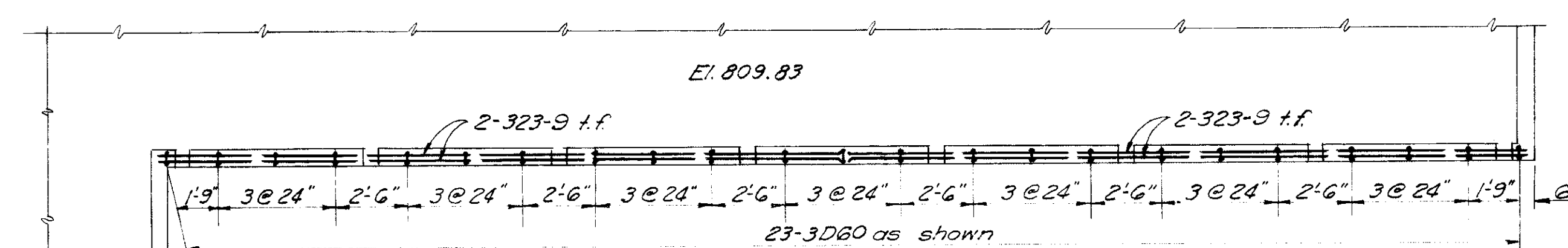
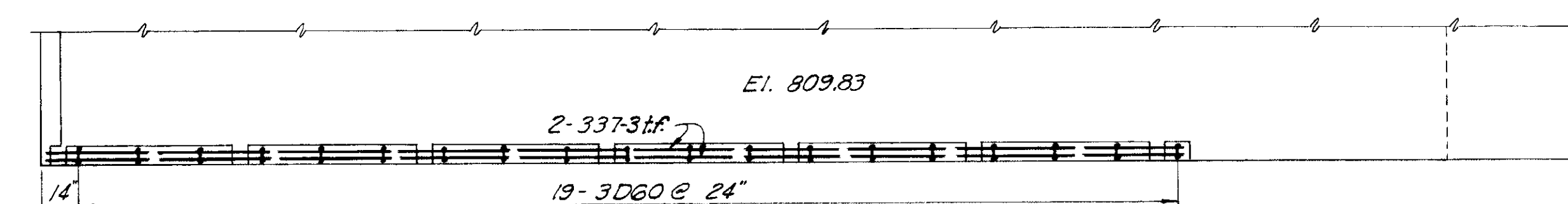
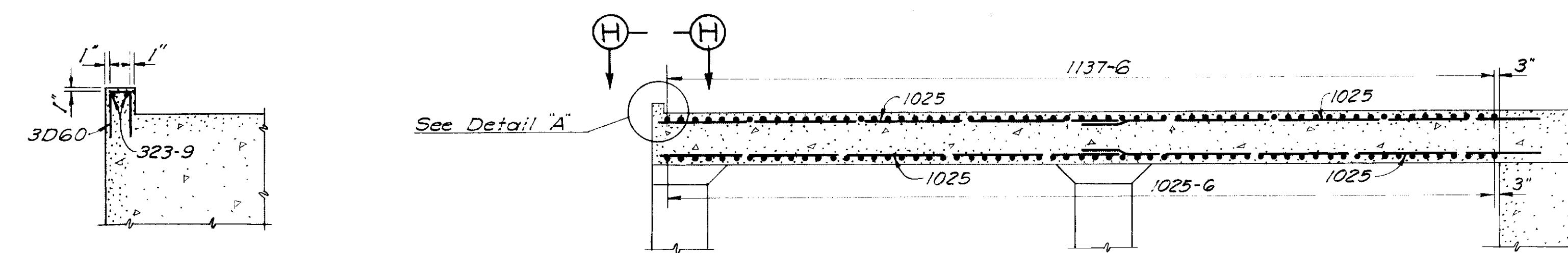
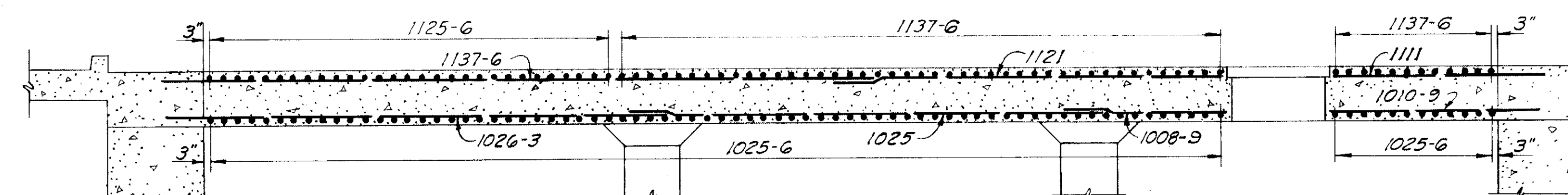
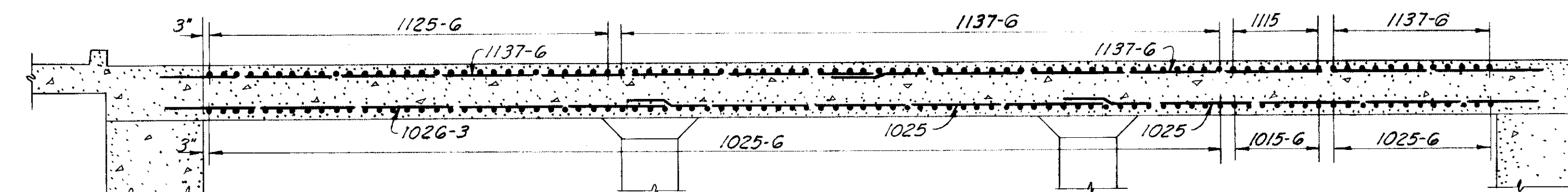
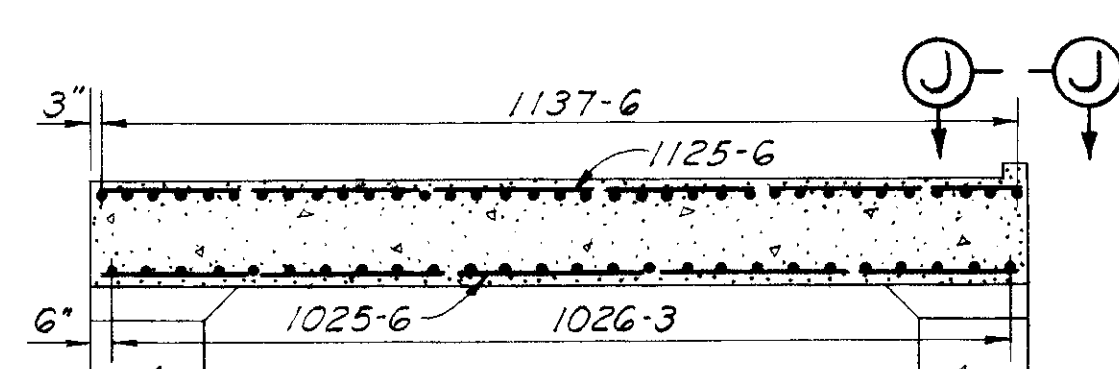
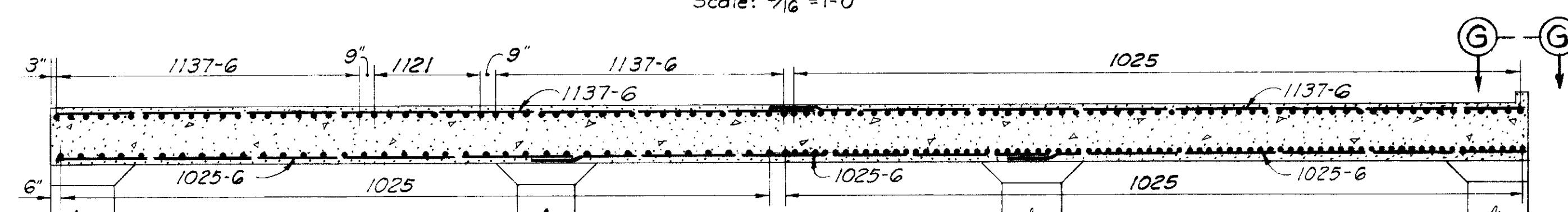
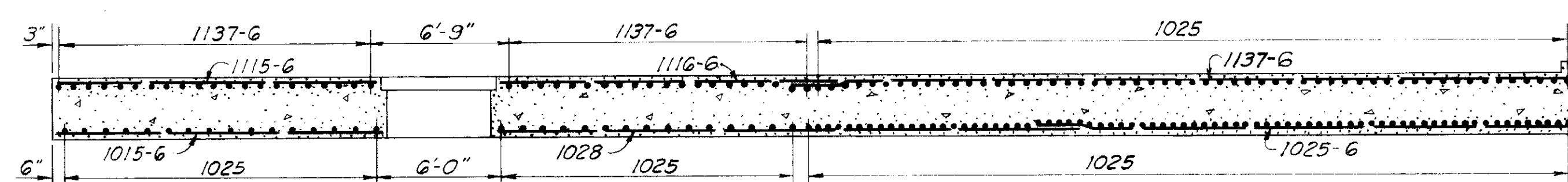
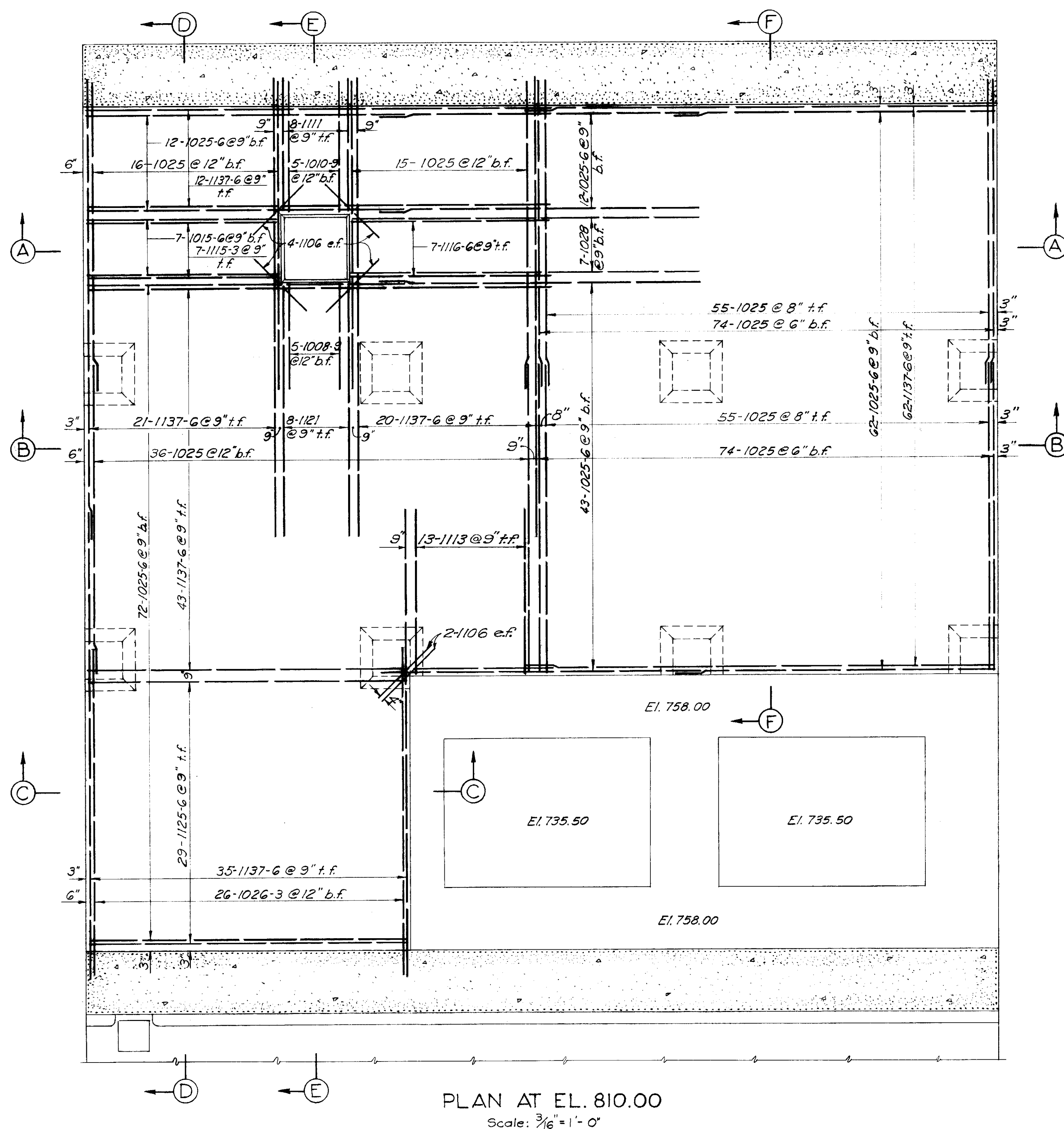
FOR "AS-BUILT" CONDITION, SEE THE FOLLOWING
COLUMBIA RIVER CONSTRUCTOR'S LIFT SKETCHES:
1563-SS-12

GRAPHIC SCALES



REF. 161

REVISION	DATE	DESCRIPTION	BY
CORPS OF ENGINEERS, U. S. ARMY NORTH PACIFIC DIVISION, PORTLAND, OREGON			
DESIGNED BY W.D.B.			
DRAWN BY R.T.G.			
CHECKED BY W.D.B.			
PREPARED BY R.T.G.			
REVIEWED BY R.T.G.			
SUBMITTED BY R.T.G.			
RECOMMENDED BY R.T.G.			
CHIEF, ENGINEERING DIVISION			
COLUMBIA RIVER, WASHINGTON			
CHIEF JOSEPH DAM			
POWERHOUSE			
REINFORCEMENT			
STATION SERVICE BAY			
FLOOR EL. 785.0			
SCALE AS SHOWN			
SPEC. NO. CJP-2-4-0/247			
SHEET			



NOTES

Dimensions are from center to center of bars and clear distance between bar and face of concrete.
All bar laps to be a minimum of 22 bar diameters.

REFERENCE DRAWINGS

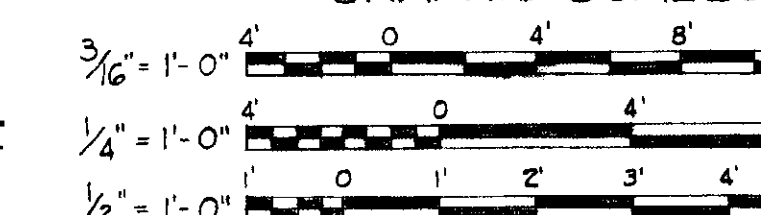
SERVICE BAYS PLAN EL. 810.0 ----- CJP-2-4-0/14
REINFORCEMENT LIST ----- CJP-2-4-0/272 R

FOR "AS-BUILT" CONDITION, SEE THE FOLLOWING
COLUMBIA RIVER CONSTRUCTOR'S LIFT SKETCHES:
1563-SS-16

FOR AS CONSTRUCTED
DETAILS - SEE LIFT
SKETCHES

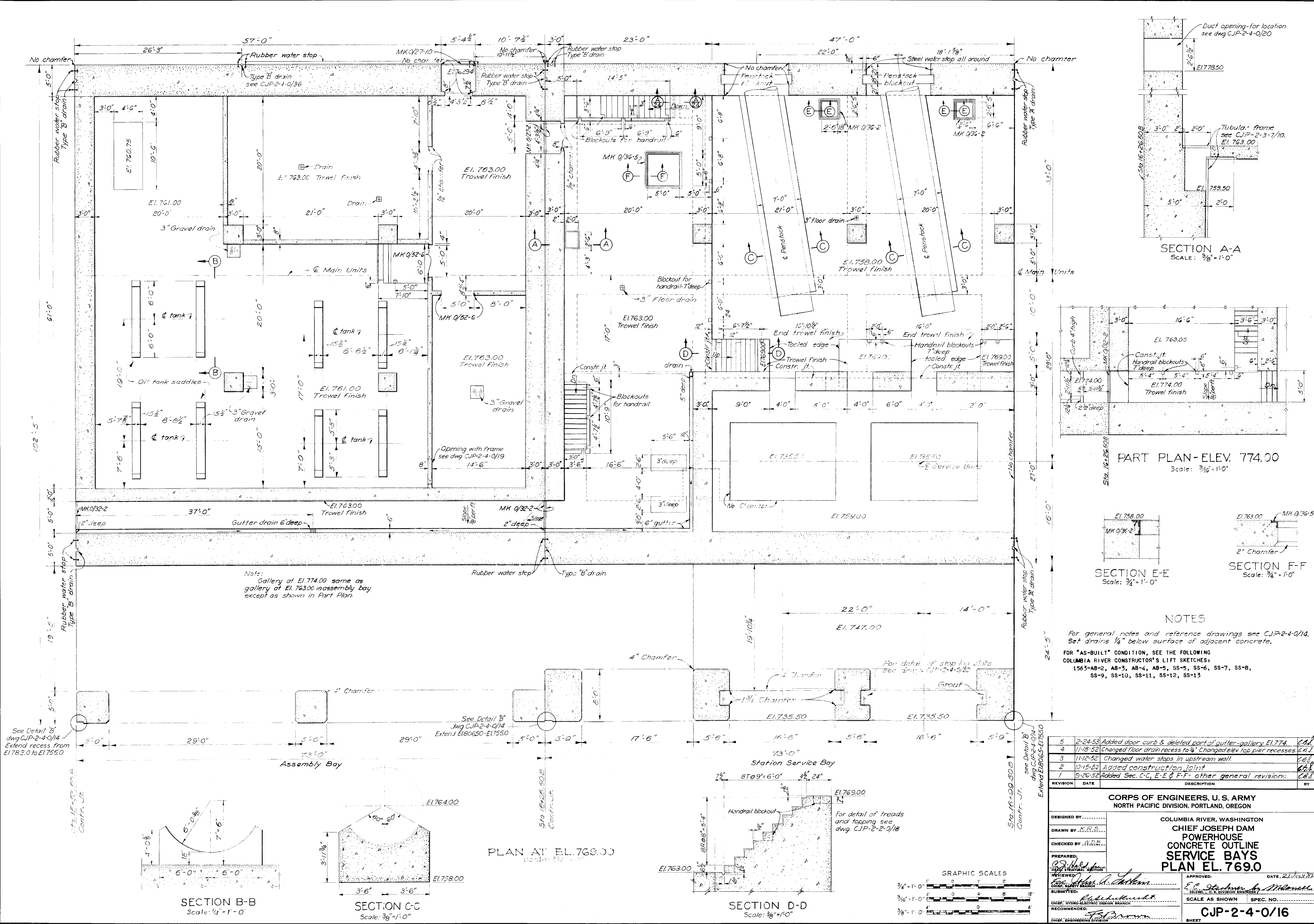
REVISION	DATE	DESCRIPTION	BY
<p align="center">CORPS OF ENGINEERS, U. S. ARMY NORTH PACIFIC DIVISION, PORTLAND, OREGON</p> <p align="center">COLUMBIA RIVER, WASHINGTON CHIEF JOSEPH DAM POWERHOUSE REINFORCEMENT STATION SERVICE BAY FLOOR EL. 810.0</p>			
DESIGNED BY	J.S.S.		
DRAWN BY	MRS. WDB		
CHECKED BY	WHE		
PREPARED BY			
HEAD, STRUCTURAL SECTION			
REVIEWED BY			
SUBMITTED BY			
RECOMMENDED BY			
CHIEF, ENGINEERING DIVISION			
APPROVED:		DATE: 27 Oct. 1952	
E.P. Hatcher, by M. H. Hatcher			
SCALE AS SHOWN		SPEC. NO.	
CJP-2-4-0/272			

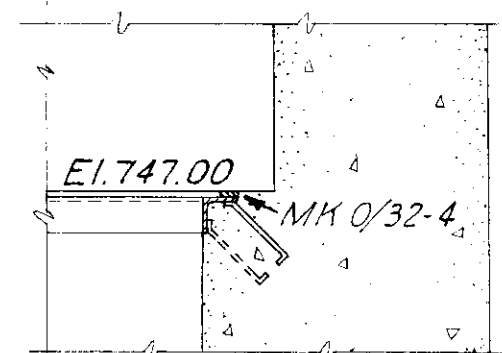
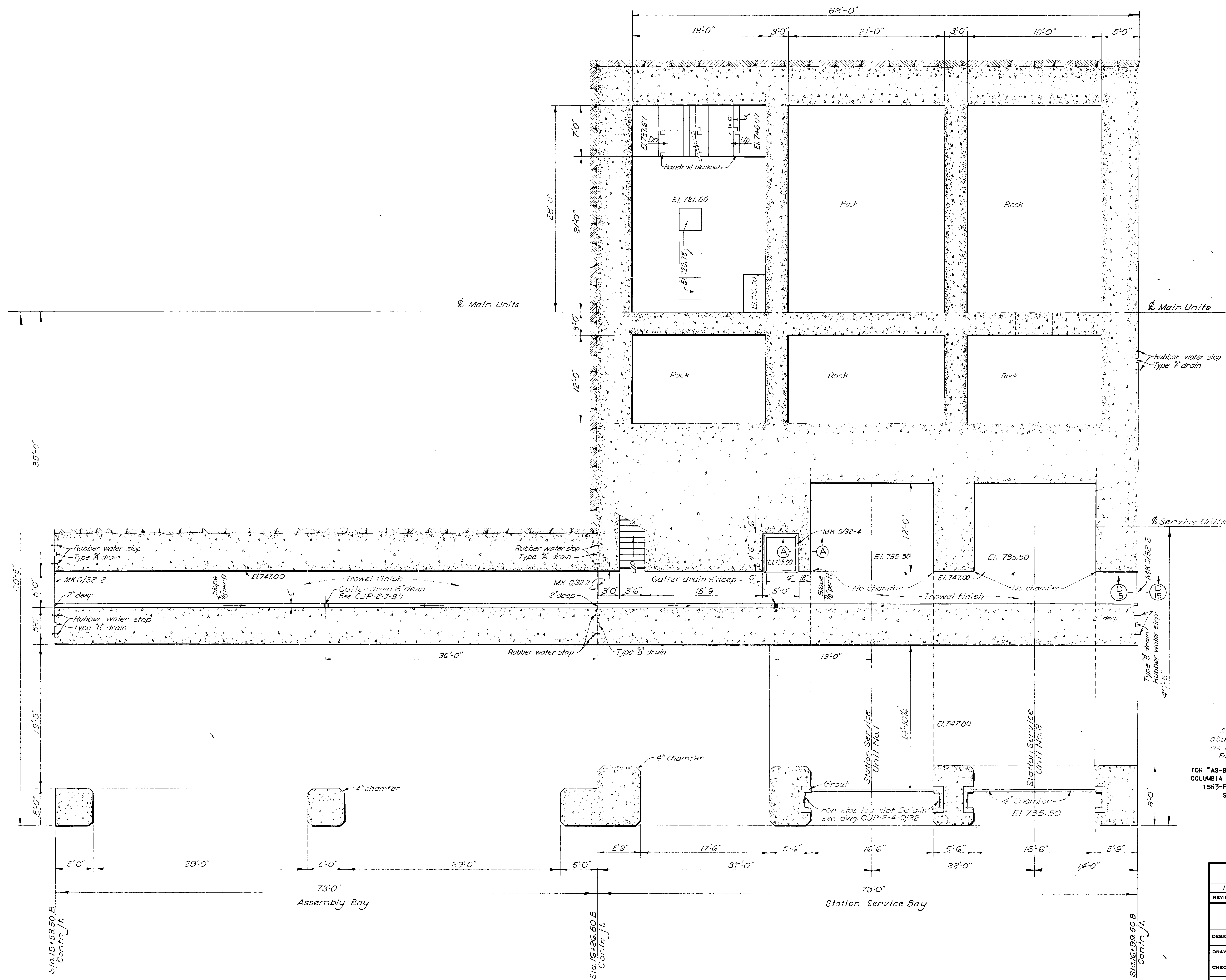
GRAPHIC SCALES



REFERENCE DRAWING 44





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

NOTES

All exposed corners to be chamfered $\frac{3}{4}$ " including corners of abutting walls, floors and columns at contraction joints, except as noted.
For reference drawings see CJP-2-4-0/14.

FOR "AS-BUILT" CONDITION, SEE THE FOLLOWING
COLUMBIA RIVER CONSTRUCTOR'S LIFT SKETCHES:
1563-P-AB-1, AB-2, AB-3, SS-2, SS-3, SS-4, SS-5,
SS-7, SS-8, SS-9, SS-10, SS-11

REVISION	DATE	DESCRIPTION	BY
1	9-12-52	Dimensioned gutter drains- added Section D-15	C.B.

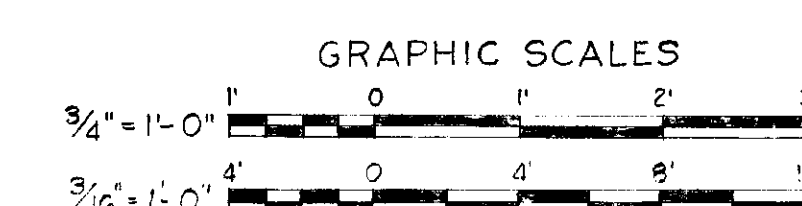
CORPS OF ENGINEERS, U. S. ARMY
NORTH PACIFIC DIVISION, PORTLAND, OREGON

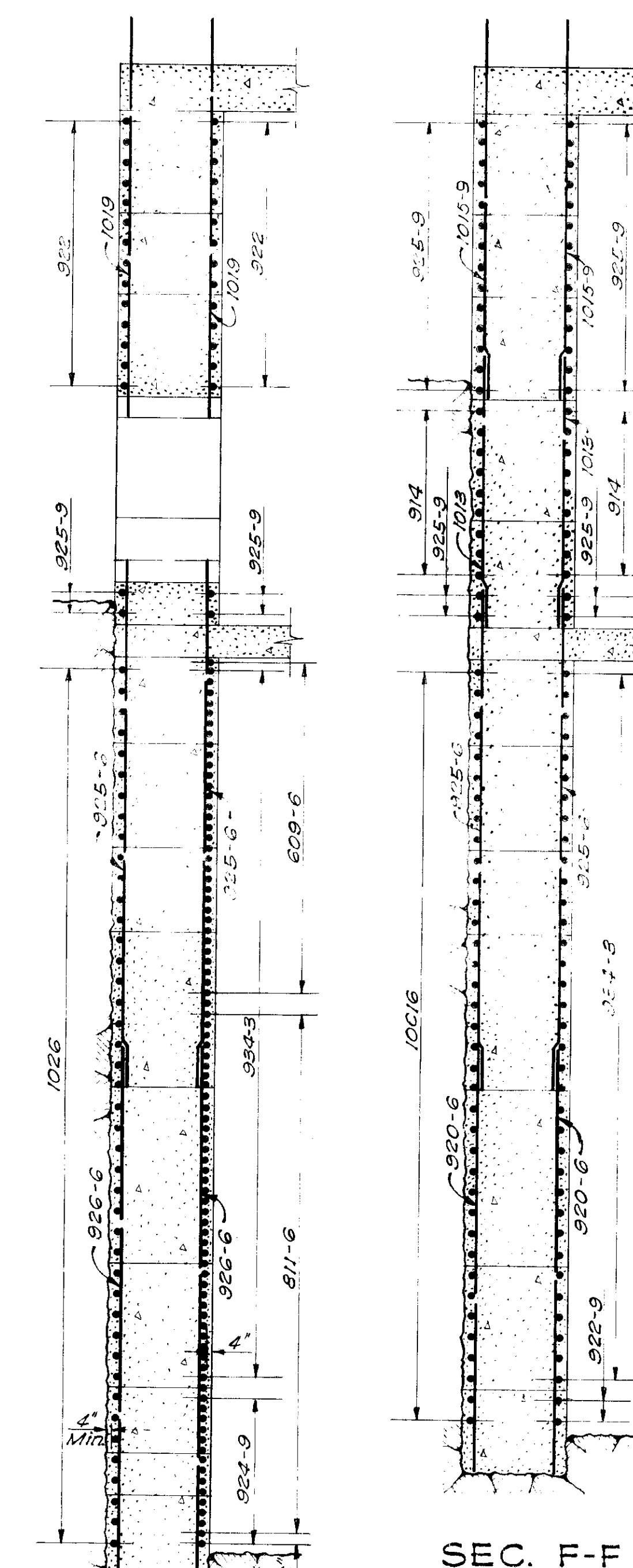
COLUMBIA RIVER, WASHINGTON
CHIEF JOSEPH DAM
POWERHOUSE
CONCRETE OUTLINE
SERVICE BAYS
PLAN EL. 747.0

DESIGNED BY:
DRAWN BY: C.T.O.
CHECKED BY: M.R.G.
PREPARED:
REVIEWED:
SUBMITTED:
RECOMMENDED:
CHIEF, ENGINEERING DIVISION

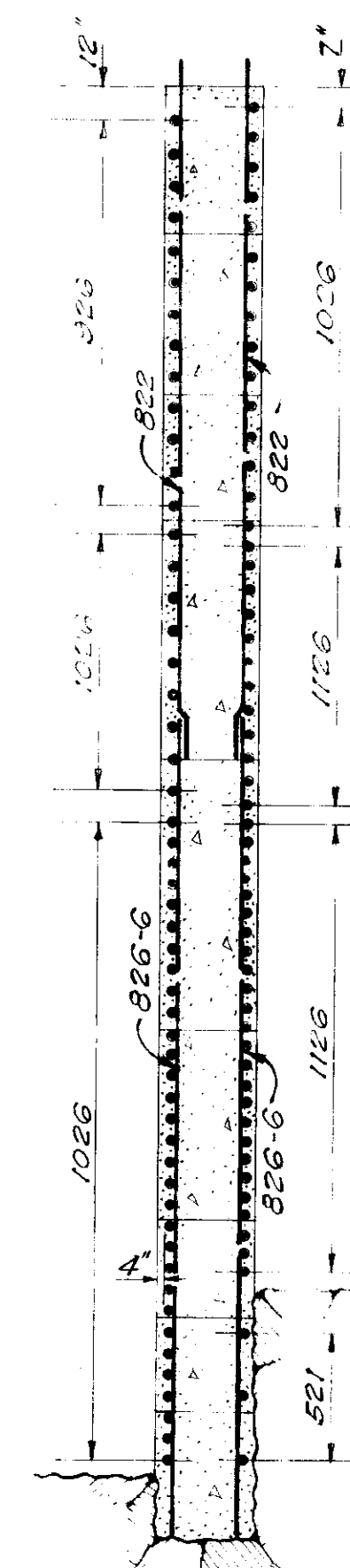
APPROVED:
DATE: 21 Nov. 52
COLONEL, C.E. DIVISION ENGINEER

SCALE AS SHOWN SPEC. NO.
SHEET CJP-2-4-0/17

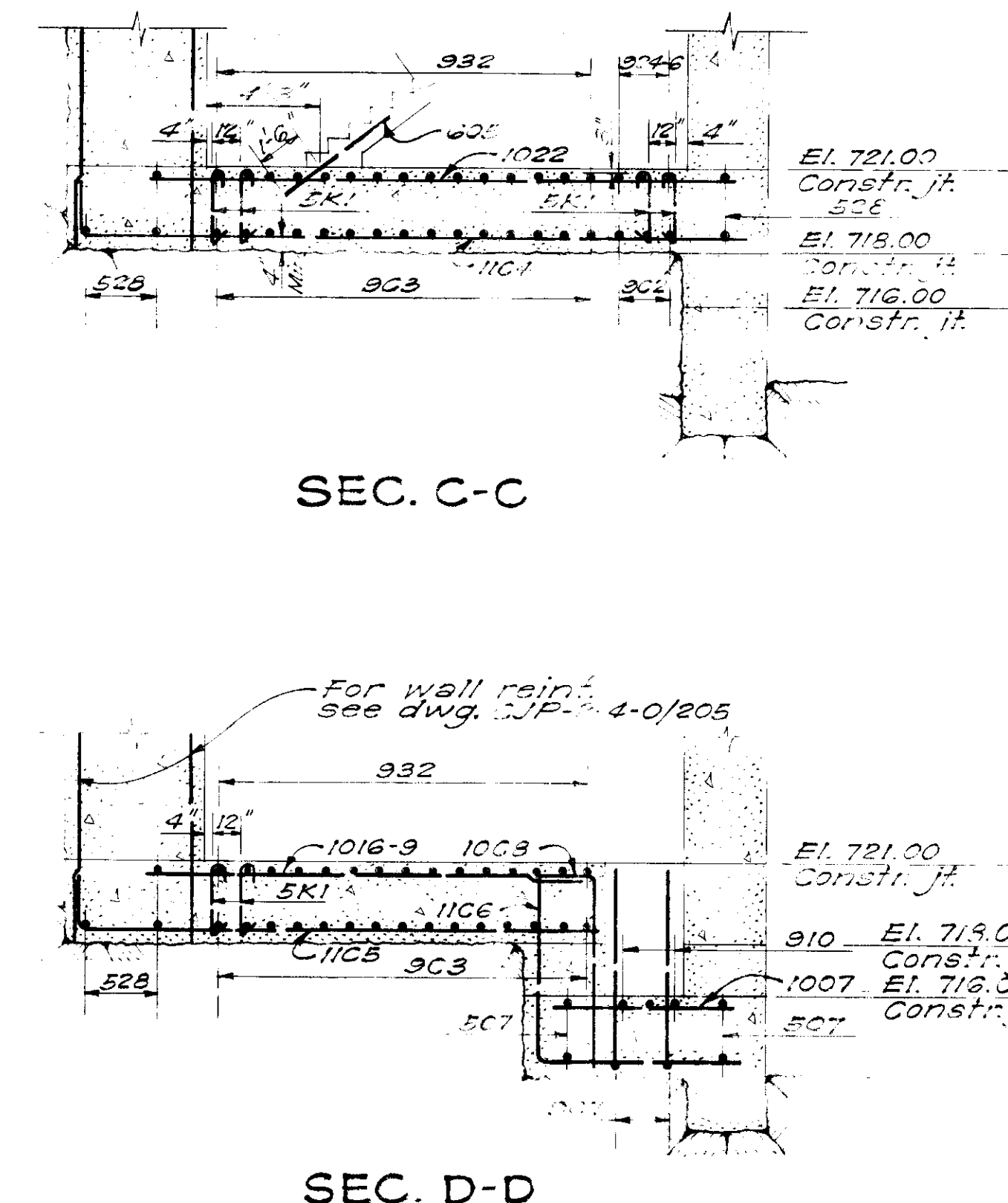




SEC. F-F

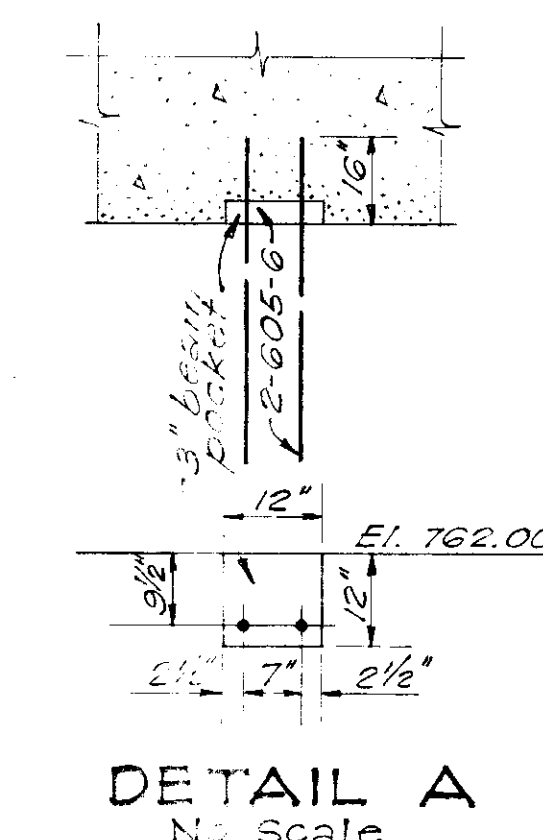


SEC. G-G REFERENCE DRAWING 49



SEC. C-C

SEC. D-D



DETAIL A
No Scale

SEC. E-E

FOR "AS-BUILT" CONDITION, SEE THE FOLLOWING
COLUMBIA RIVER CONSTRUCTOR'S LIFT SKETCHES:

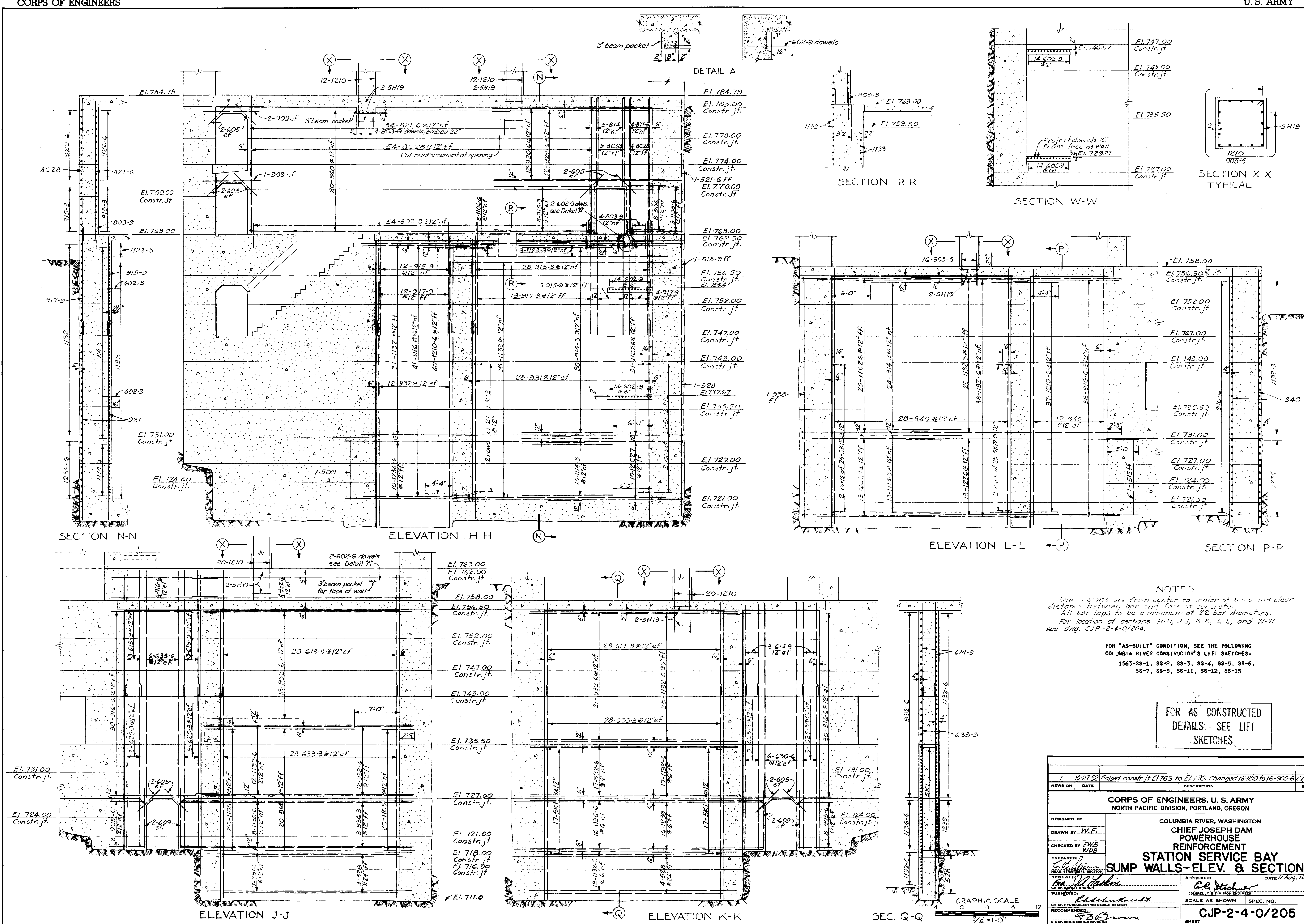
1563-SS-1, SS-2, SS-3, SS-4, SS-5, SS-6,
SS-7, SS-8, SS-9, SS-11, SS-12, SS-15

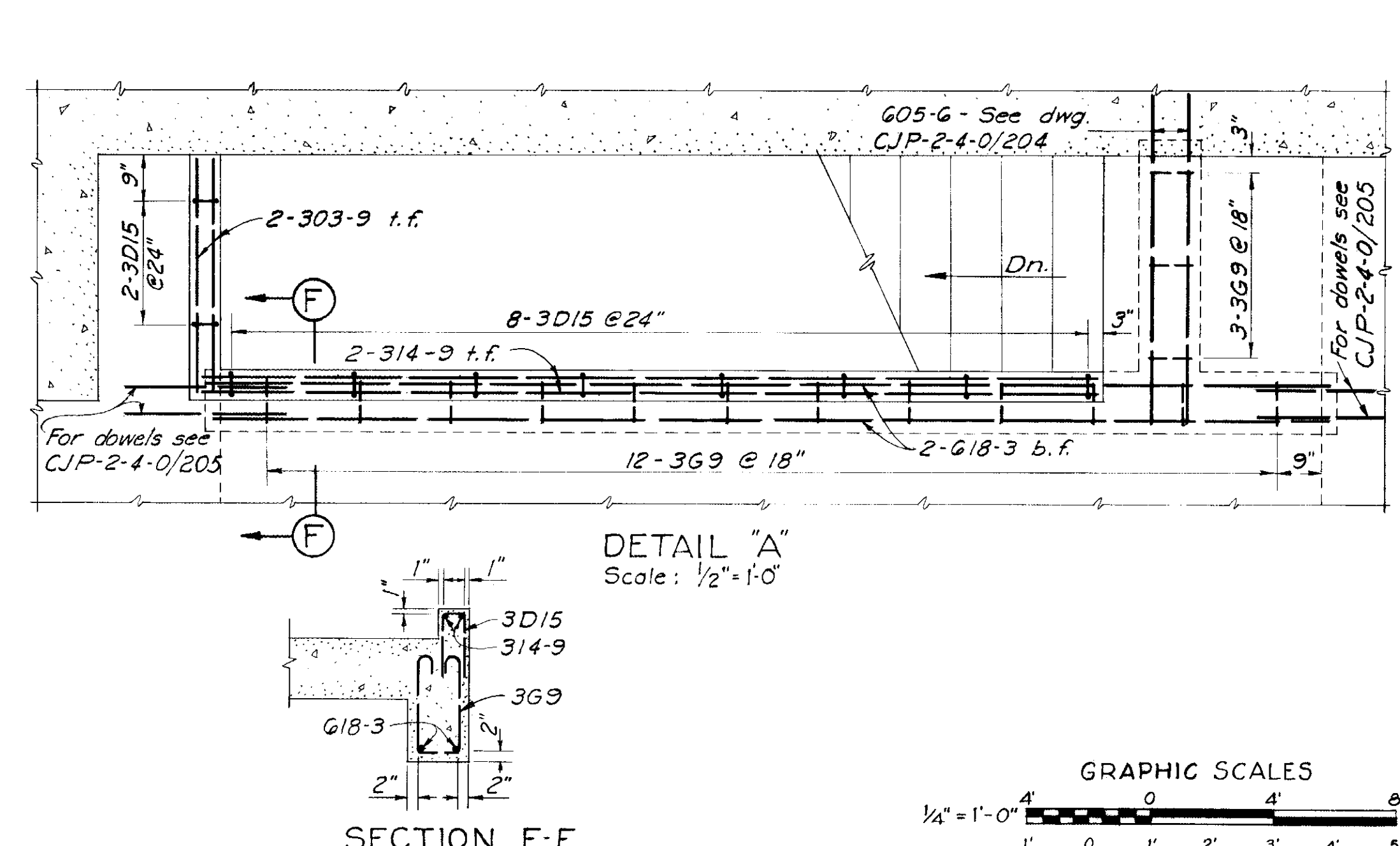
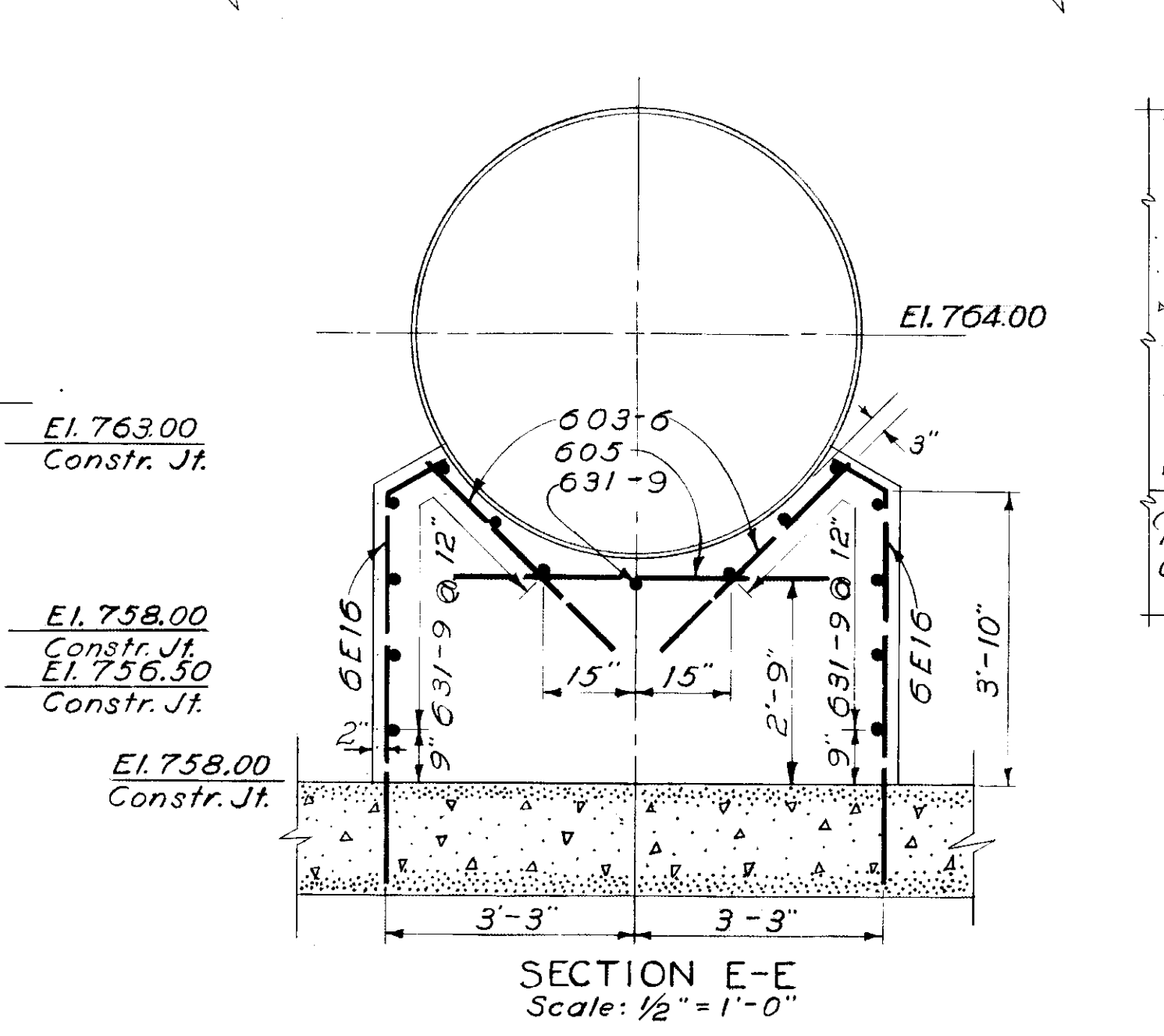
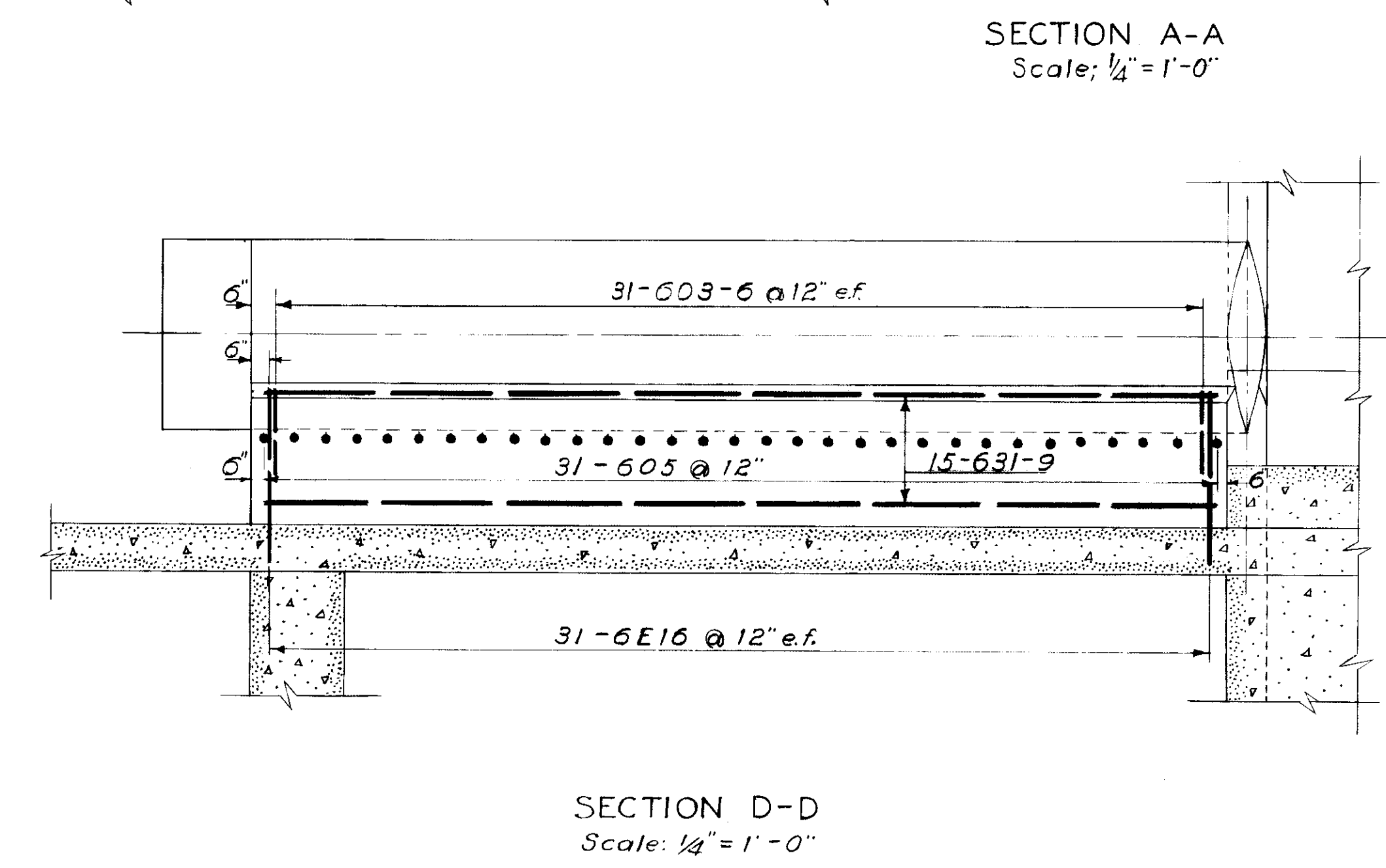
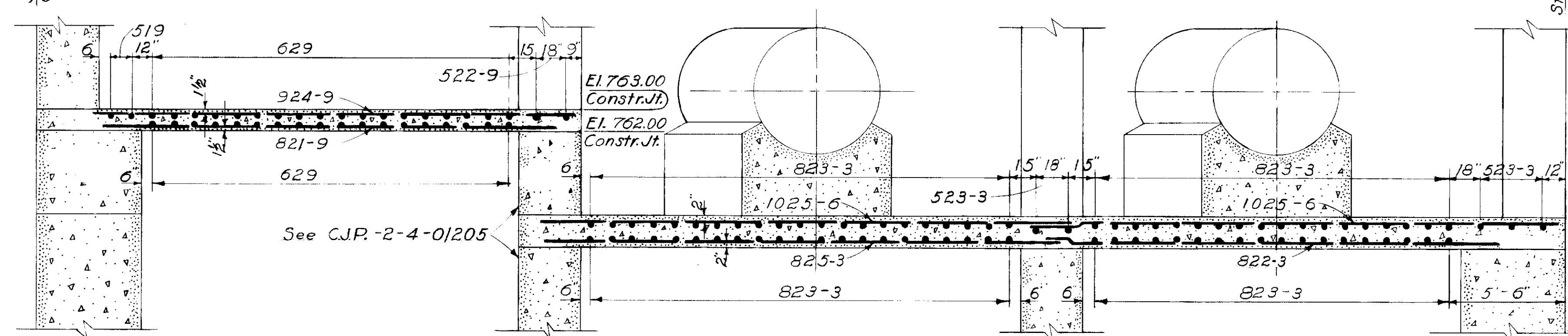
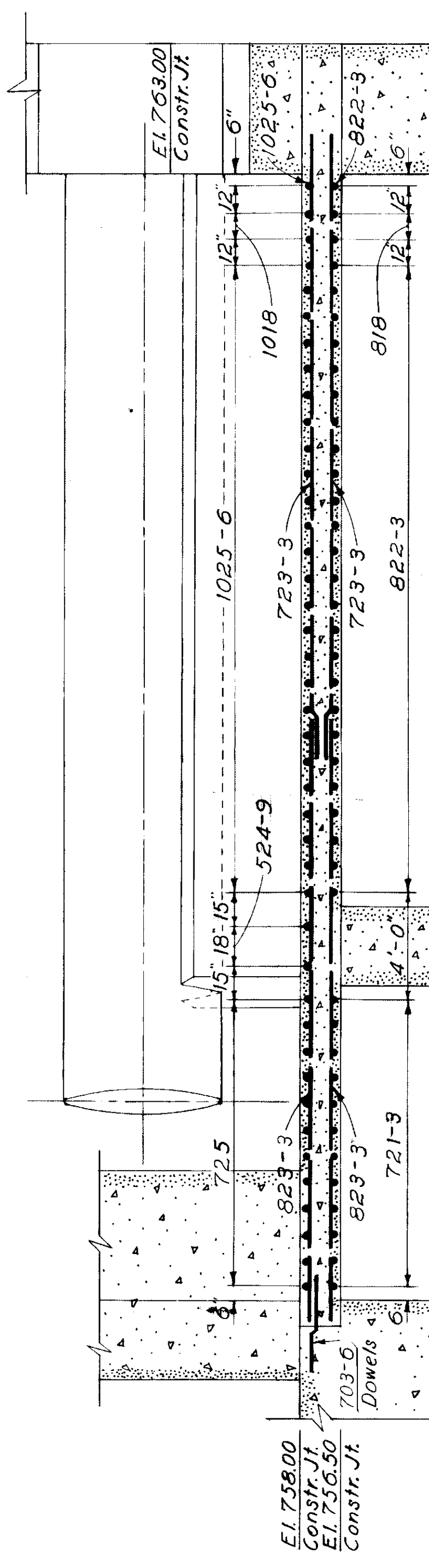
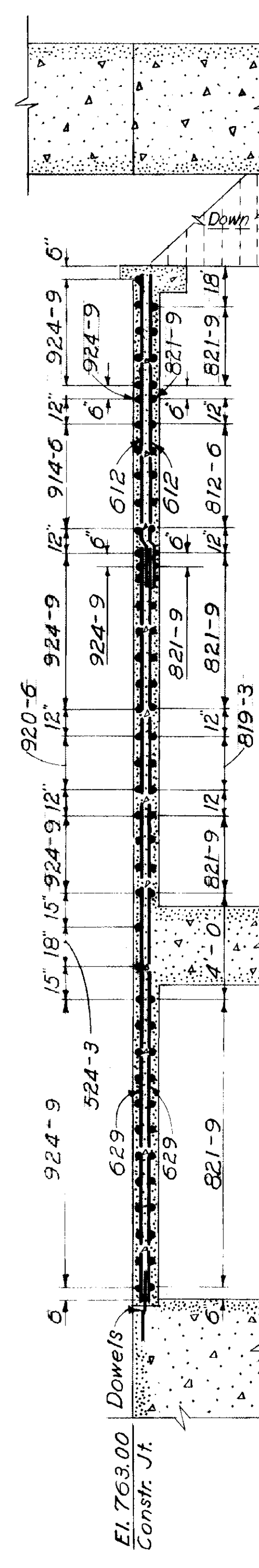
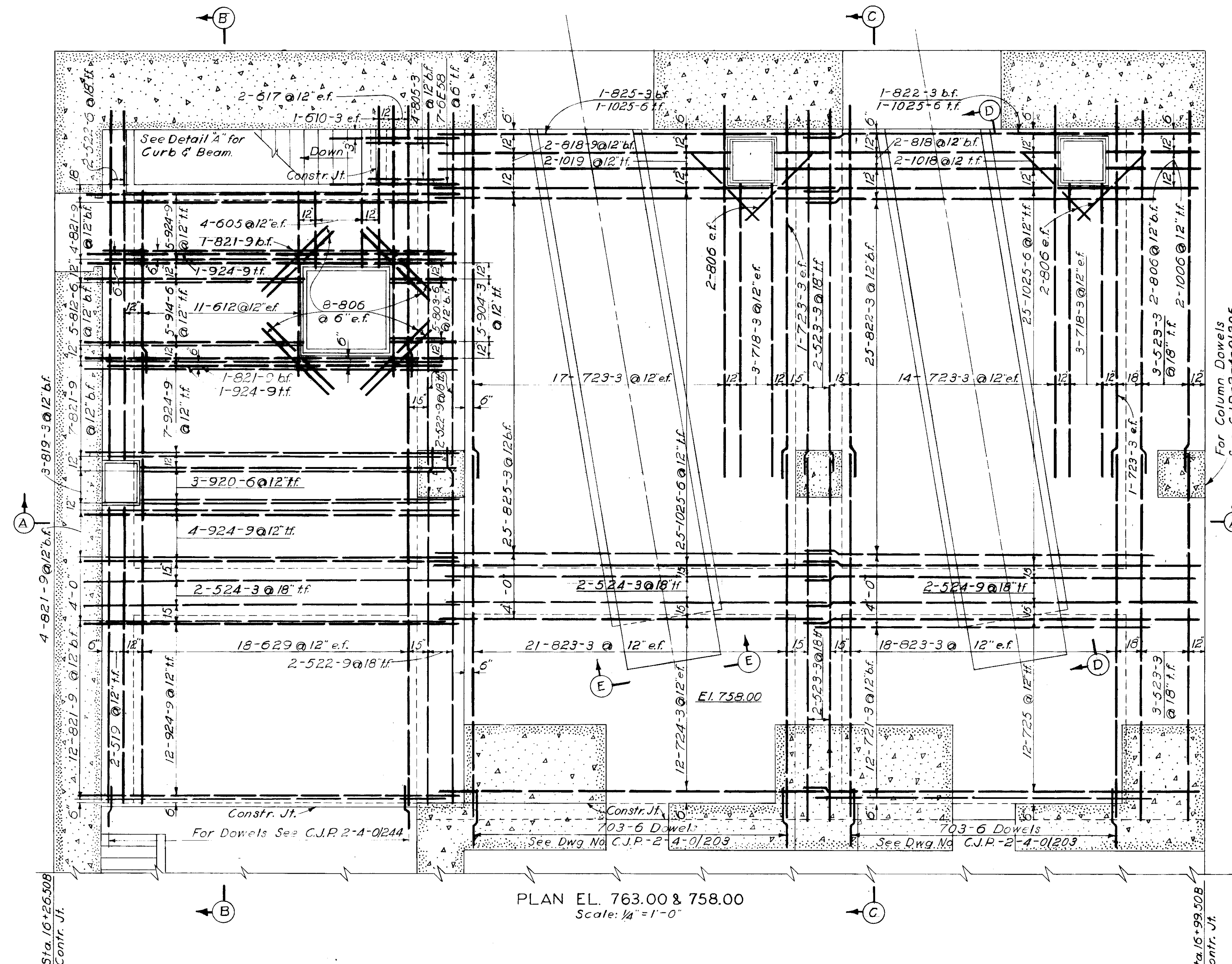
NOTES

*All bar laps to be a minimum of 22 bar diameters.
Dimensions are from center to center of the bars
and clear distance between bars and face of concrete.*

FOR AS CONSTRUCTED
DETAILS - SEE LIST
SKETCHES

1 10-27-52 Revised reinf. in Elevation A-A			CJP		
REVISION	DATE	DESCRIPTION			
<p align="center">CORPS OF ENGINEERS, U. S. ARMY NORTH PACIFIC DIVISION, PORTLAND, OREGON</p>					
DESIGNED BY <i>E.P.D.</i>		COLUMBIA RIVER, WASHINGTON			
DRAWN BY <i>M.C.</i>		CHIEF JOSEPH DAM			
CHECKED BY <i>J.H.D.</i>		POWERHOUSE			
PREPARED BY <i>E.P.D.</i>		REINFORCEMENT			
HEAD, STRUCTURAL SECTION		STATION SERVICE BAY			
REVIEWED BY <i>Wm. A. Dabbs</i>		SUMP WALLS & FLOOR EL. 721			
CHIEF, SAFETY BRANCH		APPROVED:		DATE: <i>Aug. 52</i>	
SUBMITTED: <i>Edith Knecht</i>		<i>E.C. Jeschner</i>			
CHIEF, HYDRO-ELECTRIC DESIGN BRANCH		COLNELL, C. E. DIVISION ENGINEER			
RECOMMENDED:		SCALE AS SHOWN		SPEC. NO.	
CHIEF, ENGINEERING DIVISION		CJP-2-4-0/204			
APPROVED:		SHEET			





FOR "AS-BUILT" CONDITION, SEE THE FOLLOWING
COLUMBIA RIVER CONSTRUCTOR'S LIFT SKETCHES:
1563-SS-5, SS-6, SS-7, SS-8, SS-9, SS-11,
SS-12, SS-13

NOTES

Dimensions are from center to center of bars and clear distance between bar and face of concrete.
All bar laps to be a minimum of 22 bar diameters.

FOR AS CONSTRUCTED
DETAILS - SEE LIFT
SKETCHES

REVISION	DATE	DESCRIPTION	BY

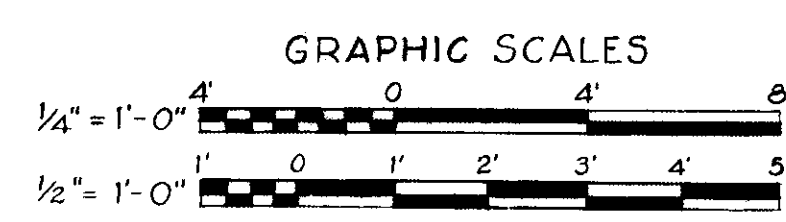
CORPS OF ENGINEERS, U.S. ARMY
NORTH PACIFIC DIVISION, PORTLAND, OREGON

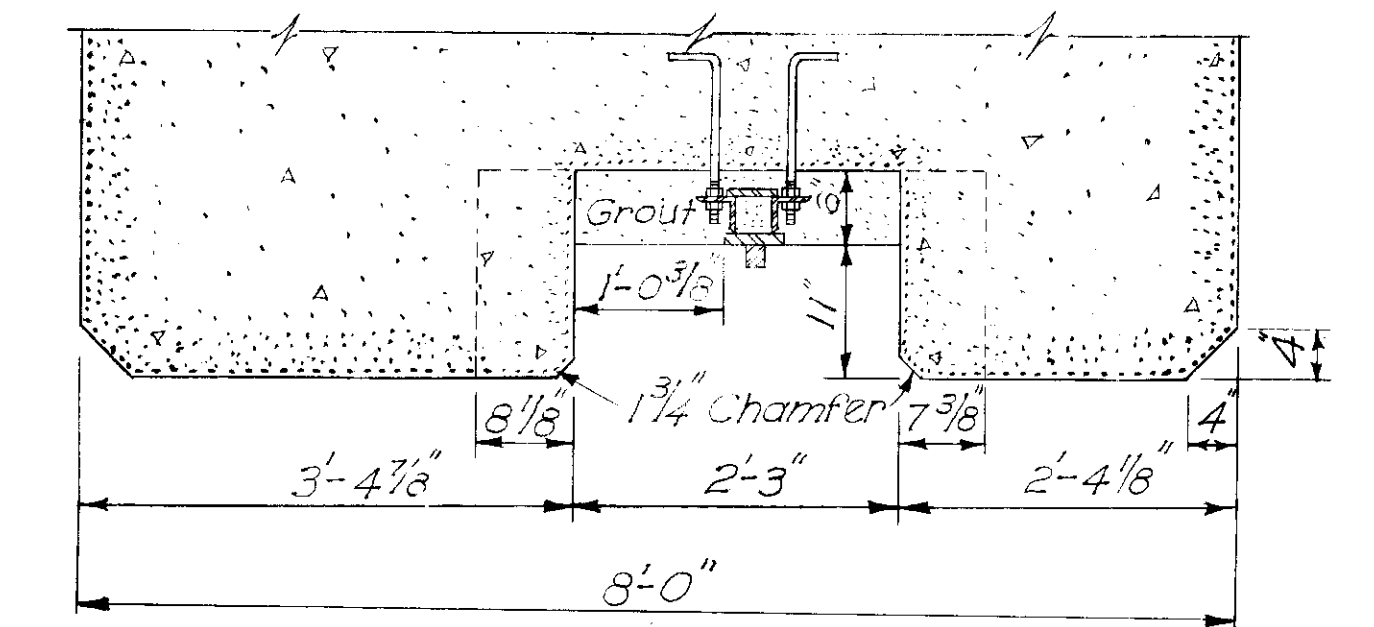
DESIGNED BY W.D.B.
DRAWN BY E.W.G.
CHECKED BY W.D.B.

PREPARED BY
REVIEWED BY
SUBMITTED BY
RECOMMENDED BY
CHIEF, ENGINEERING DIVISION

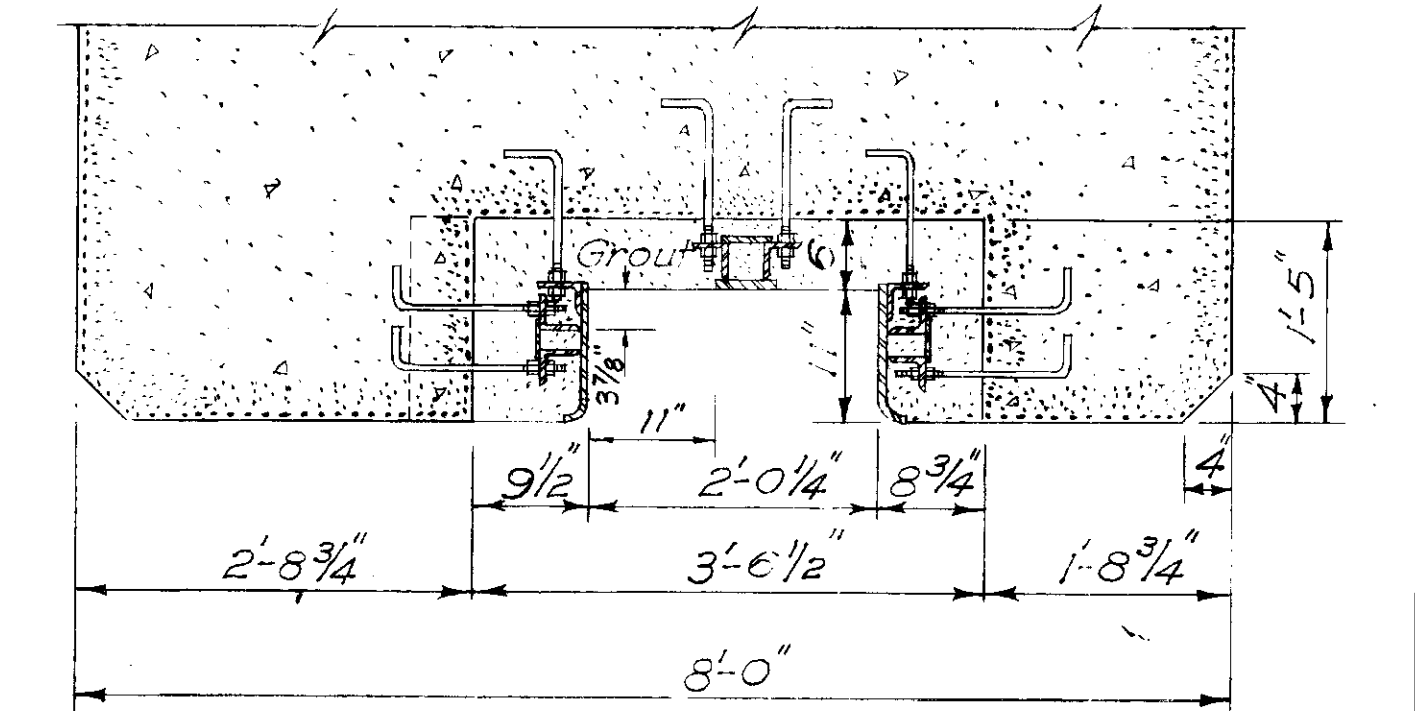
COLUMBIA RIVER, WASHINGTON
CHIEF JOSEPH DAM
POWERHOUSE
REINFORCEMENT
STATION SERVICE BAY
FLOOR-EL. 763.0 & 758.0

APPROVED: *E.L. Strehmer*
SCALE AS SHOWN SPEC. NO.
CJP-2-4-0/207
SHEET

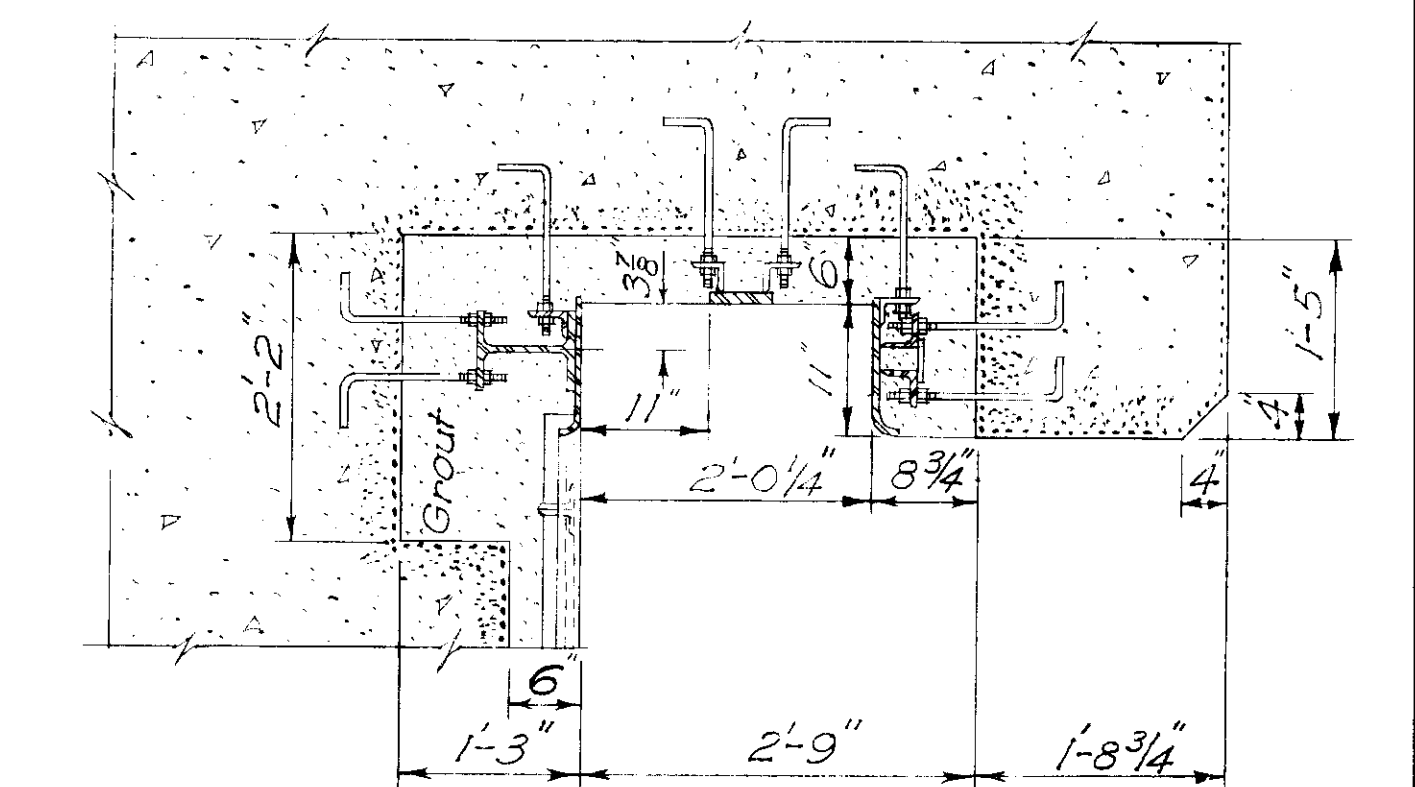




SECTION A-A
Scale: $\frac{3}{4}'' = 1'-0''$



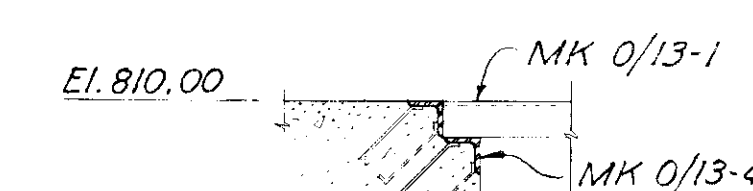
SECTION B-B
Scale: $\frac{3}{4}'' = 1'-0''$



SECTION C-C
Scale: $\frac{3}{4}" = 1'-0"$

For reference drawings and general notes see CJP-2-4-0/14.
All concrete or grout in stoplog blockouts to be paid
for under item (20)

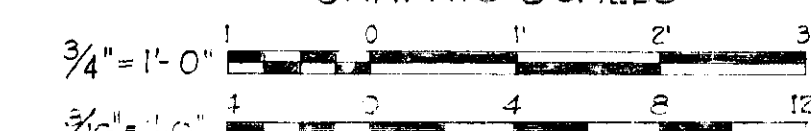
FOR "AS-BUILT" CONDITION, SEE THE FOLLOWING
COLUMBIA RIVER CONSTRUCTOR'S LIFT SKETCHES:
1563-SS-2, SS-3, SS-4, SS-6, SS-8, SS-10,
SS-11, SS-12, SS-14-1, SS-15, SS-16



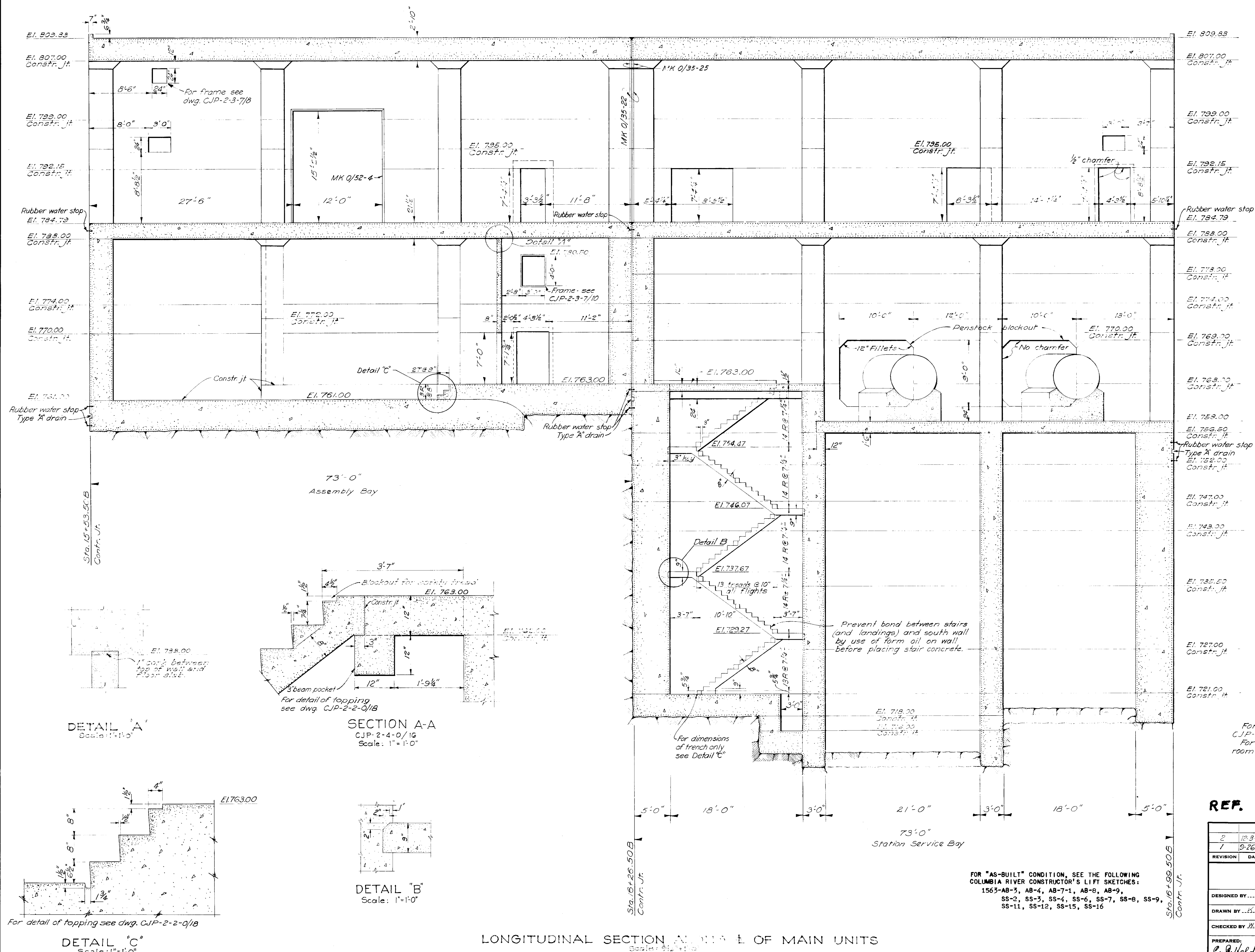
SECTION D-D
CJP-2-4-0/14
Scale: $\frac{3}{4}" = 1' - 0"$

TRANSVERSE SECTION THRU STATION SERVICE BAY AT 1/2 UNIT NO. 1

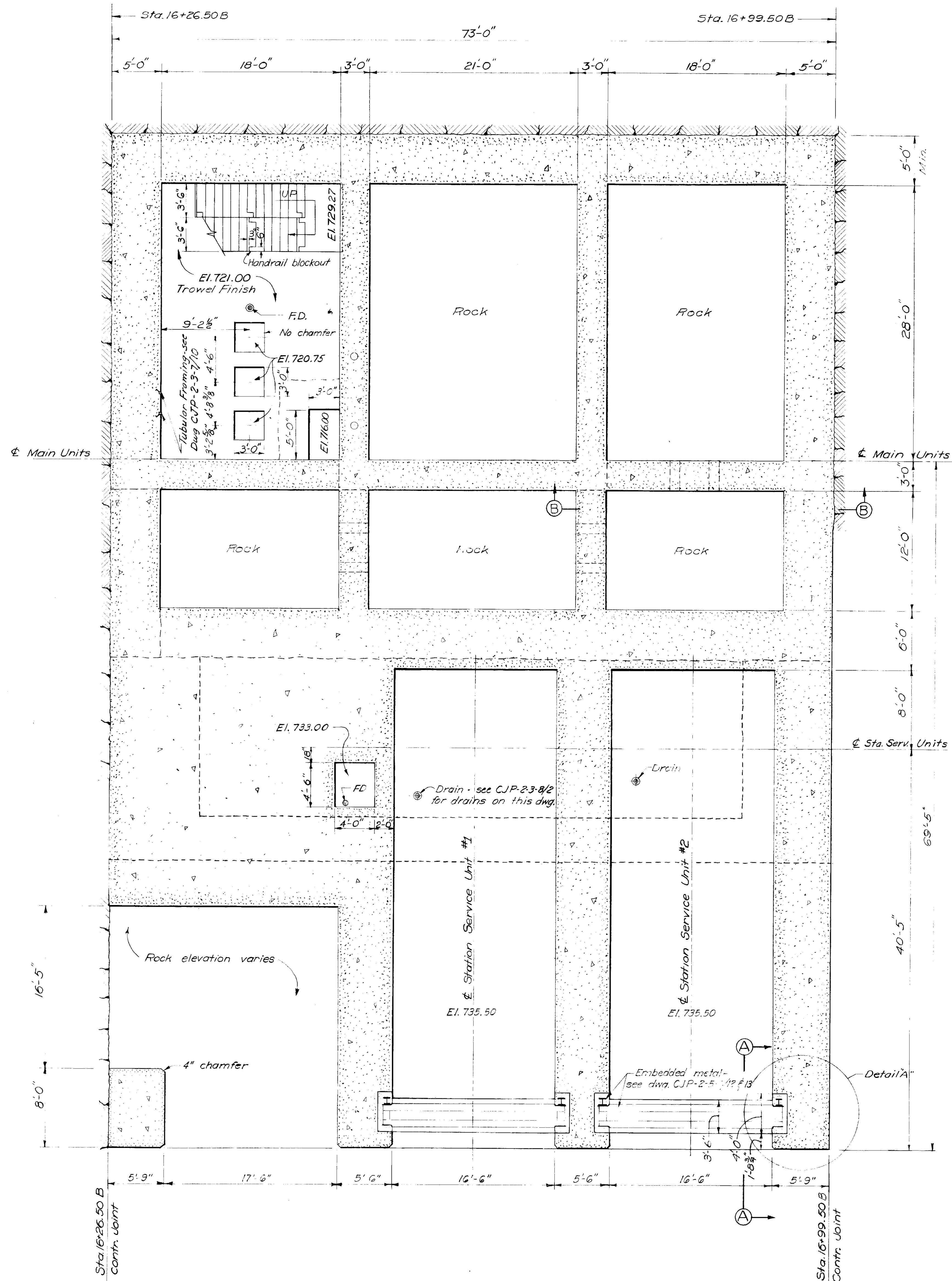
GRAPHIC SCALES



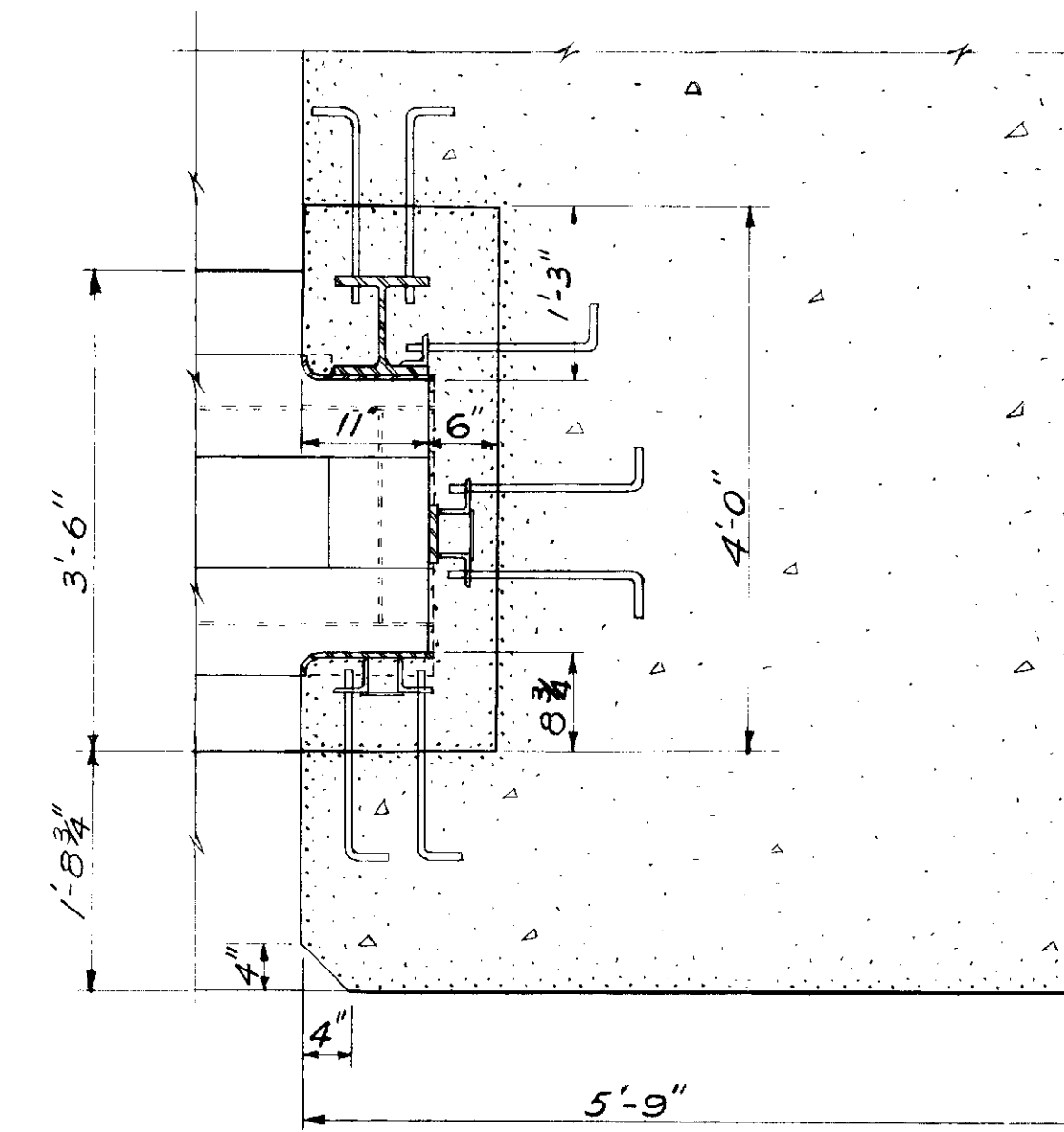
4	3-15-52	Added cave base recess	Chd
3	12-2-52	Revised stoplog blackout below EL 74.8	Chd
2	12-4-52	Added water stops and drain at EL 74.8	Chd
1	9-26-52	Relocated MKG/14-4-added constr. ft. Sec. DD-5 waterstop	Chd
REVISION	DATE	DESCRIPTION	BY
<p align="center">CORPS OF ENGINEERS, U. S. ARMY NORTH PACIFIC DIVISION, PORTLAND, OREGON</p>			
DESIGNED BY.....		<p align="center">COLUMBIA RIVER, WASHINGTON</p> <p align="center">CHIEF JOSEPH DAM POWERHOUSE CONCRETE OUTLINE</p>	
DRAWN BY <i>Chd</i> <i>DL</i>		<p align="center">STATION SERVICE BAY TRANSVERSE SECTION C. UNIT NO.1</p>	
CHECKED BY <i>M. O. B.</i>			
PREPARED:		DATE <i>2-1-53</i> <i>52</i>	
<i>DL</i> TRANSVERSE SECTION		<i>E.C. Steinhilber</i> COLONEL, U. S. DIVISION ENGINEER	
REVIEWED: <i>Chd</i> CHIEF ENGINEER		SCALE AS SHOWN SPEC. NO. <i>2-4-52</i>	
SUBMITTED: <i>Chd</i> CHIEF, HYDRO-ELECTRIC DIVISION		<p align="center">CJP-2-4-0/22</p>	
RECOMMENDED:		SUPT.	
CHIEF, ENGINEERING DIVISION			



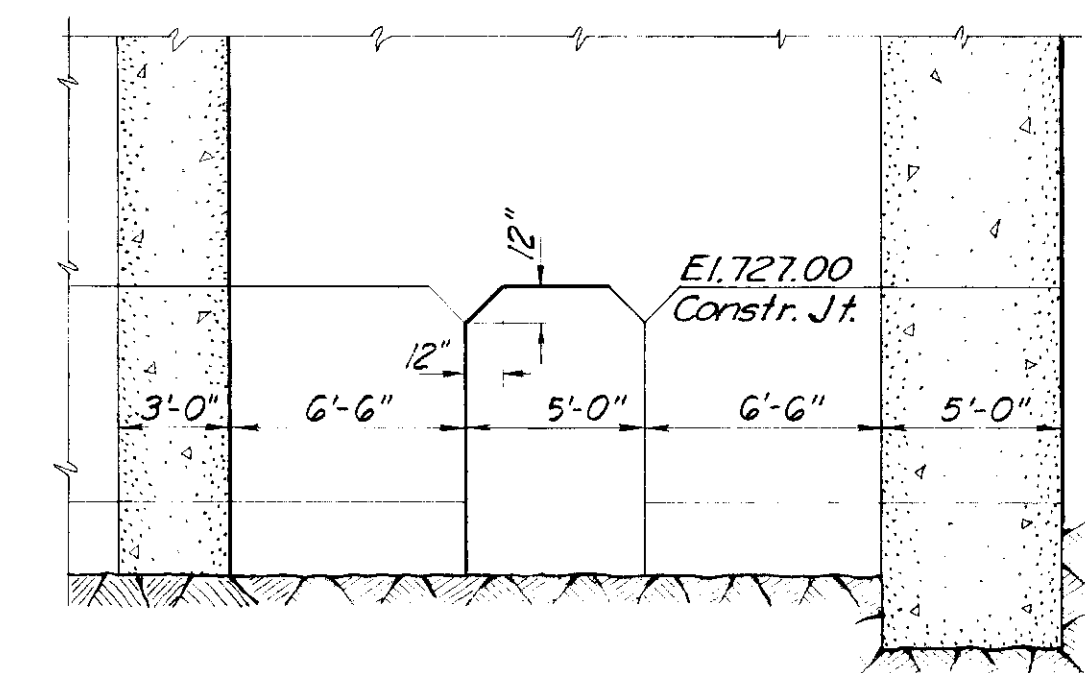
2		Deleted constr. jts at E1790.00 & E1763.00 added at E1770.00 and venting		
1		9-26-52 Added Det. C, revised Det. B, Sec. A-A & dimensions		add
REVISION	DATE	DESCRIPTION	BY	
CORPS OF ENGINEERS, U. S. ARMY NORTH PACIFIC DIVISION, PORTLAND, OREGON				
DESIGNED BY.....		COLUMBIA RIVER, WASHINGTON		
DRAWN BY.....		CHIEF JOSEPH DAM		
CHECKED BY.....		POWERHOUSE		
PREPARED BY.....		CONCRETE OUTLINE		
REVIEWED BY.....		SERVICE BAYS		
SUBMITTED BY.....		LONG. SECT. & MAIN UNITS		
RECOMMENDED BY.....		APPROVED: DATE: 21.1.44.52		
CHIEF, ENGINEERING DIVISION		CHIEF, HYDRO-ELECTRIC DESIGN BRANCH		
CHIEF, SAFETY BRANCH		SCALE AS SHOWN SPEC. NO.		
CHIEF, HYDRO-ELECTRIC DESIGN BRANCH		CJP-2-4-0/24		
CHIEF, ENGINEERING DIVISION		SHEET		



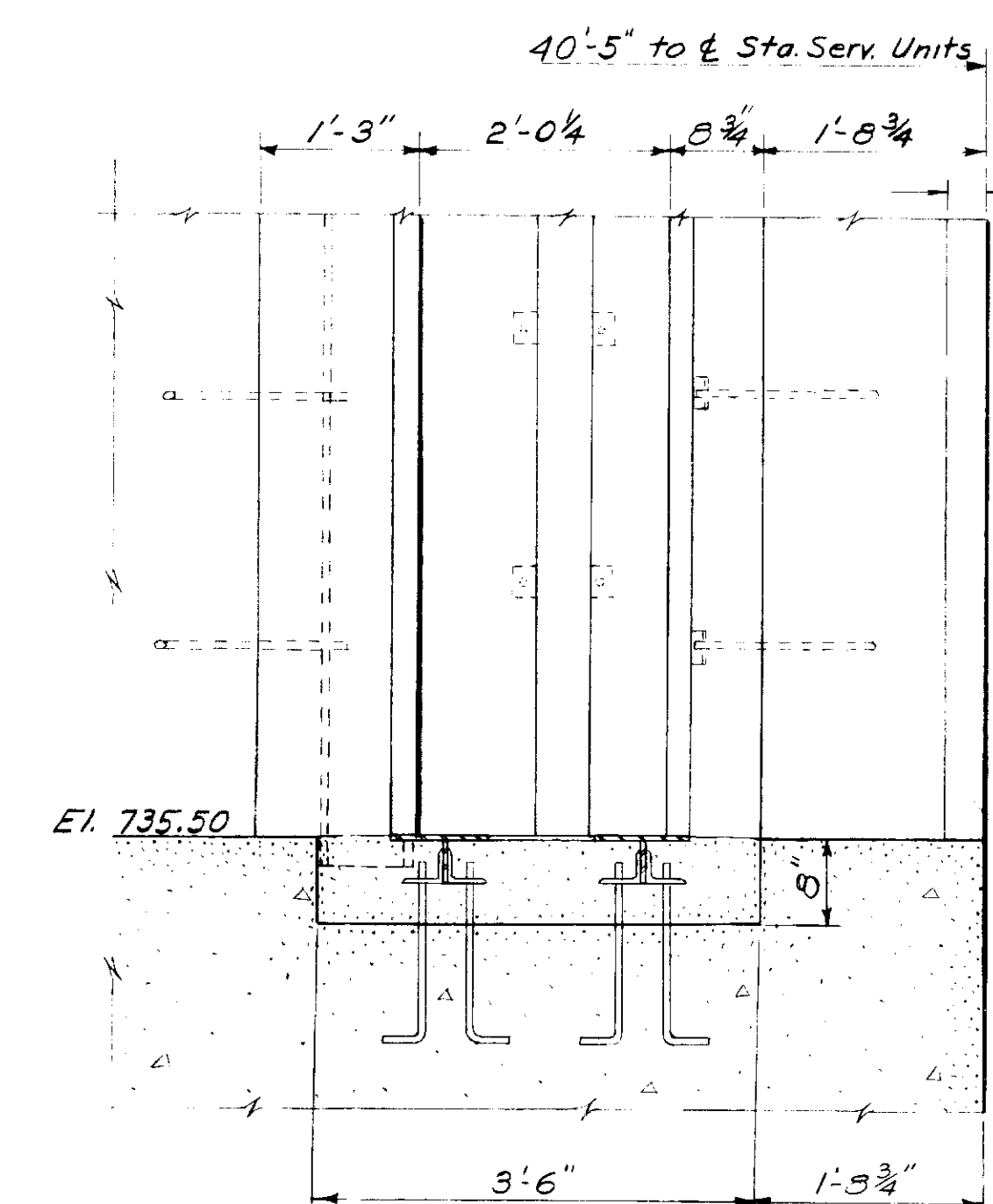
PLAN - EL. 735.50
Scale $\frac{3}{16}''=1'-0''$



DETAIL "A"
Scale $\frac{3}{4}''=1'-0''$



SECTION B-B
Scale: $\frac{3}{16}''=1'-0''$



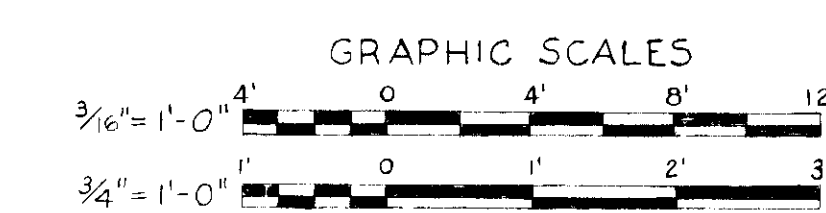
SECTION A-A
Scale $\frac{3}{4}''=1'-0''$

NOTES

All exposed corners to be chamfered $\frac{3}{4}''$, including corners of abutting walls and floors at contraction joints, except as otherwise shown.
For reference drawings see CJP-2-4-0/14.
Set drains $\frac{1}{4}''$ below the surface of adjacent concrete.

FOR "AS-BUILT" CONDITION, SEE THE FOLLOWING
COLUMBIA RIVER CONSTRUCTOR'S LIST SKETCHES:
1563-SS-1, SS-2, SS-3, SS-4, SS-5, SS-7,
SS-8, SS-9, SS-11, SS-12

REVISION	DATE	DESCRIPTION	BY
1	9-11-52	Deleted trowel finish from draft tube - revised rock line	W.B.
<p align="center">CORPS OF ENGINEERS, U. S. ARMY NORTH PACIFIC DIVISION, PORTLAND, OREGON</p>			
DESIGNED BY	COLUMBIA RIVER, WASHINGTON		
DRAWN BY	CHIEF JOSEPH DAM		
CHECKED BY	POWERHOUSE		
PREPARED BY	CONCRETE OUTLINE		
REVIEWED BY	STATION SERVICE BAY		
SUBMITTED BY	PLAN EL. 735.5		
RECOMMENDED BY	DATE 2/26/53		
CHIEF HYDRO-ELECTRIC DESIGN BRANCH	SCALE AS SHOWN		
CHIEF ENGINEERING DIVISION	SPEC. NO.		
CJP-2-4-0/18			SHEET



BILL OF MATERIAL

NO TO SHIP	SHIP MARK	ABBY MARK	NO PCS	SECTION	LENGTH FT. IN.	TOT. FT.	UNIT WT.	REMARKS
ONE	17A ^c		1	W 4 x 13	9 2 ⁵ / ₈			
ONE	17A ^c		1	do	9 2 ⁵ / ₈			
	a	2	R 3/8 x 4 3/4		0 9			
	b	2	R 1/2 x 4 1/2		0 8			
2	17B		2	W 4 x 13	2 1 ⁵ / ₁₆			
	a	2						
	c	2	R 1/2 x 4		0 8 1/2			
ONE	17C ^c		1	3" SCH 80 PIPE	3 6 3/8			
ONE	17C ^c		1	do	3 6 3/8			
	d	2	R 1/2 x 5		0 8			
	f	2	R 1/2 x 4 1/2		0 11 1/2			
2	AB-2							
	a	2						
	h	6	3/8" H.S.B.		2 2 1/2			(MIN. TENSIL STRESS 60 KSI)
				(OR USE)				
				3/8" A315 ROD	2 2 1/2			
				W/R 3/4" x 1/2"	0 1 1/2			
				WELDED TO BOTTOM				
FIELD BOLTS								
25	25			1/2" H.S.B.	0 1 1/2			A315
				W/HEN NUTS & WASHERS				
6	6			3/8" PHILLIPS FLUSH TYPE SELF DRILLING ANCH'S				
4	4			1/2" PHILLIPS FLUSH TYPE SELF DRILLING ANCH'S				
6	6			3/8" H.S.B.	0 1 1/2			

REVISIO PER APPVL

CERT. WELDERS	PRINTS	DATE	ALT.	APPL	SHOP	EREC	ACCT	CONT
SUP. REQ'D.								
END & EDGE DIST.								
OPEN HOLES	NOTED							
WELDS	NOTED							
PAINT								
DEL. PROMISE								

6 EAST WASHINGTON AVE.
P.O. BOX 1389
YAKIMA, WN 98907

PHONE (509) 575-1570

YAKIMA STEEL FABRICATORS INC.

MERV WARK, GEN. MGR. 223-02 YAKIMI*2340D LEONARD JETTON, JR., V.P.

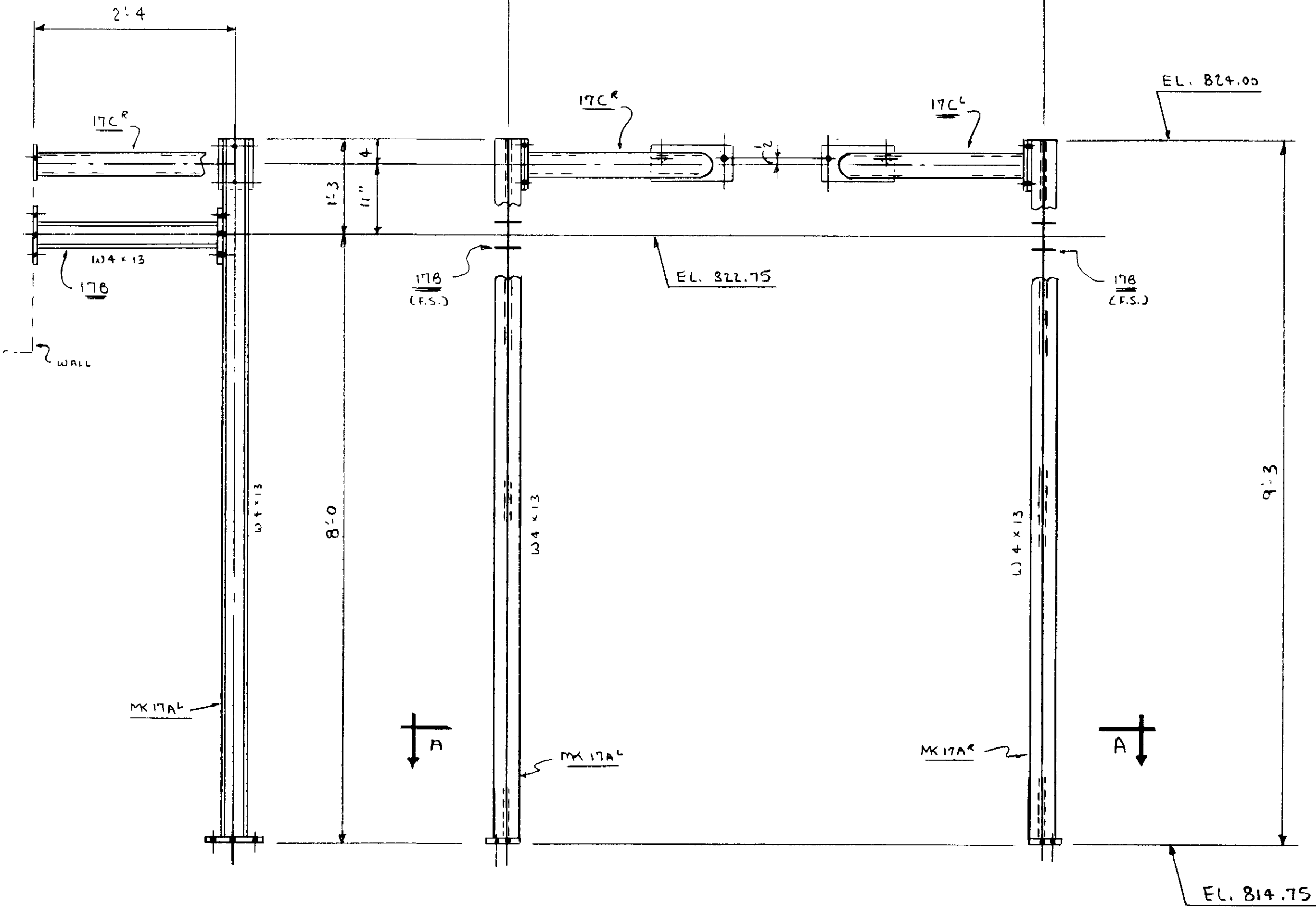
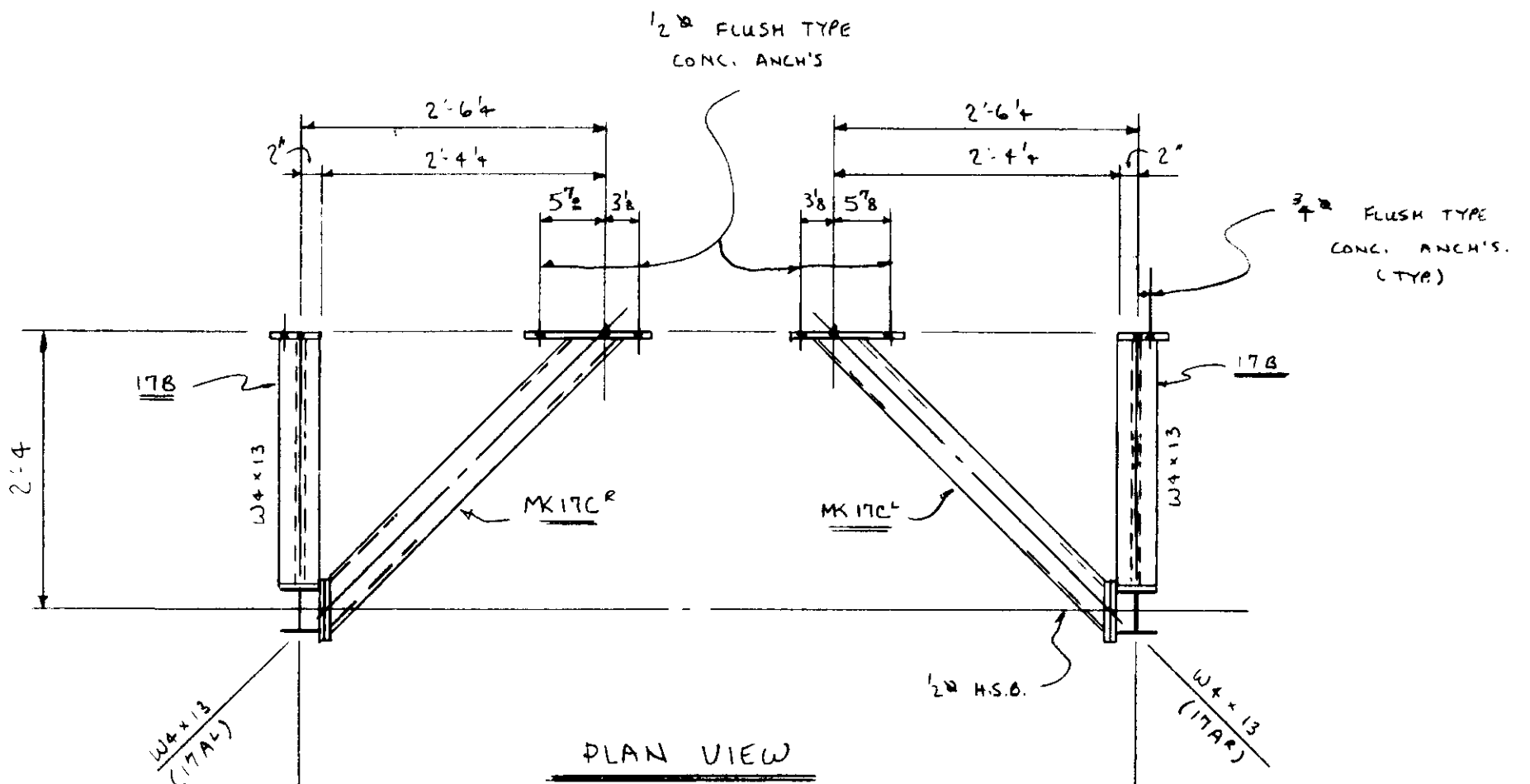
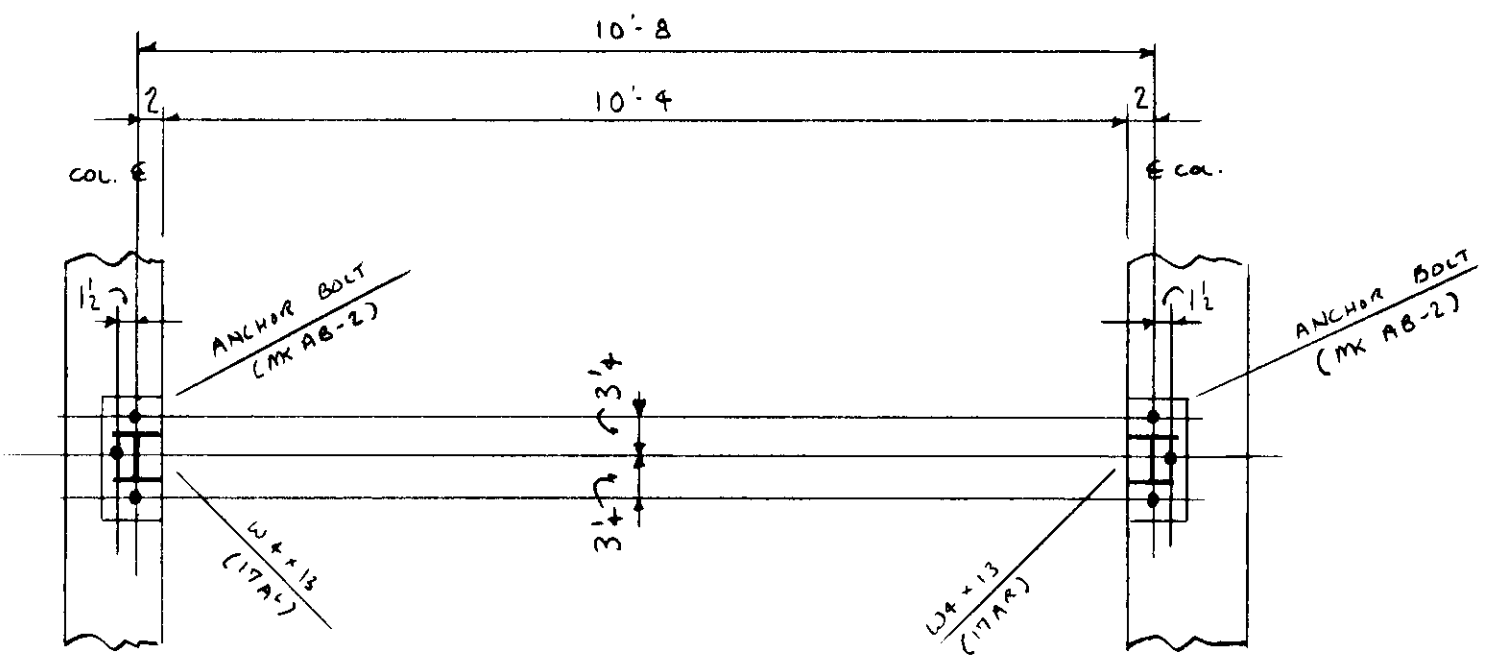
ITEM ELEVATOR HOISTWAY ENCLOSURE

JOB POWER HOUSE SHOPS

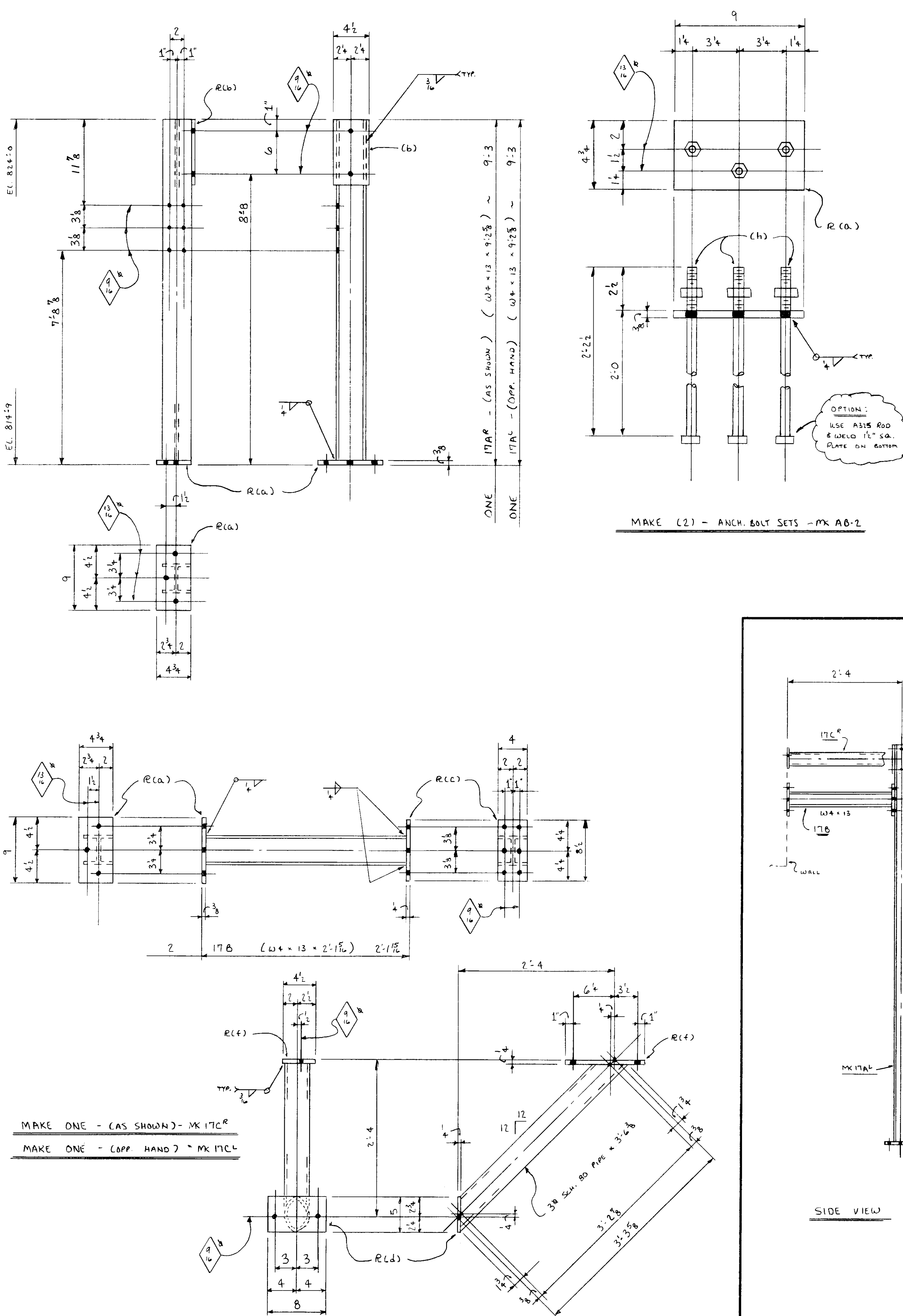
LOCATION CHIEF JOSEPH DAM - (BRIDGE PORT WASH.)

CONTR. GERTA CONST. STL. EREC. Y.S.F. Y.S.F. JOB NO. 5098

DRWN. BY LS CHKD. BY 17 OF 17 ALT. 4



FRONT ELEVATION



SIDE VIEW

REFERENCE DRAWING 55

BILL OF MATERIAL

NO TO SHIP	SHIP MARK	ASBY MARK	NO PCS	SECTION	LENGTH FT.	IN.	TOT. FT.	UNIT WT.	REMARKS
1	19A								
		QF	2	23X13X4	8	12			P/E
		L	2	23X13X4	9	5 1/2			COLE 2E
		GP	10	WT3X6	9	5 1/2			C/L 2E
		J	2	23X13X4	9	0 1/2			
		GP	2	WT3X12.5	8	1 1/2			E/L
		F	1	23X12.5	11	3			COLE 2E
		Q	3	V 1/2" 6	11	3			C/L 2E
		H	1	WT3X12.5	11	3			E/E
		K	1	23X12.5	11	3			E/E
		M	4	E 1/2" 3	11	3			1/2"
		N	2	12GA X 21	9	3 1/2			
		P	4	12GA X 23 1/2	9	3 1/2			
		Q	2	12GA X 22 1/2	9	3 1/2			
		S	1	12GA X 21	11	0 1/2			
		T	2	12GA X 23 1/2	11	0 1/2			
		V	1	12GA X 22 1/2	11	0 1/2			
		W	2	12GA X 25 1/2	9	3 1/2			
		Y	2	12GA X 26 1/2	9	3 1/2			
		Z	1	12GA X 26 1/2	9	3 1/2			
		424		4 X 1 MB					
		349		4" CUT WIRE					

NOTE: 12GA. SHEET FASTENS TO INSIDE OF V. ALL FRAMING & UNDER SIDE OF ROOF FRAMING. SHOP TO CLAMP SHEETS ON FRAME AND DRILL ASSEMBLY HOLES TO MATCH. LOCATE 12 GA SHEET ACCORDING TO CIRCLED PIECE MARKS.

CERT. WELDERS	PRINTS
SUP. REQ'D.	DATE
END & EDGE DIST. 3	ALT.
OPEN HOLES	APPL.
WELDS 3/4	SHOP
PAINT	EREC.
DEL. PROMISE	ACCT.
	CONF.

6 EAST WASHINGTON AVE.
P.O. BOX 1369
YAKIMA, WN 98907

PHONE (509) 575-1570

YAKIMA STEEL FABRICATORS INC.

MERV WARK, GEN. MGR. 223-02 YA-KI-MI-2340D LEONARD JETTON, JR., V.P.

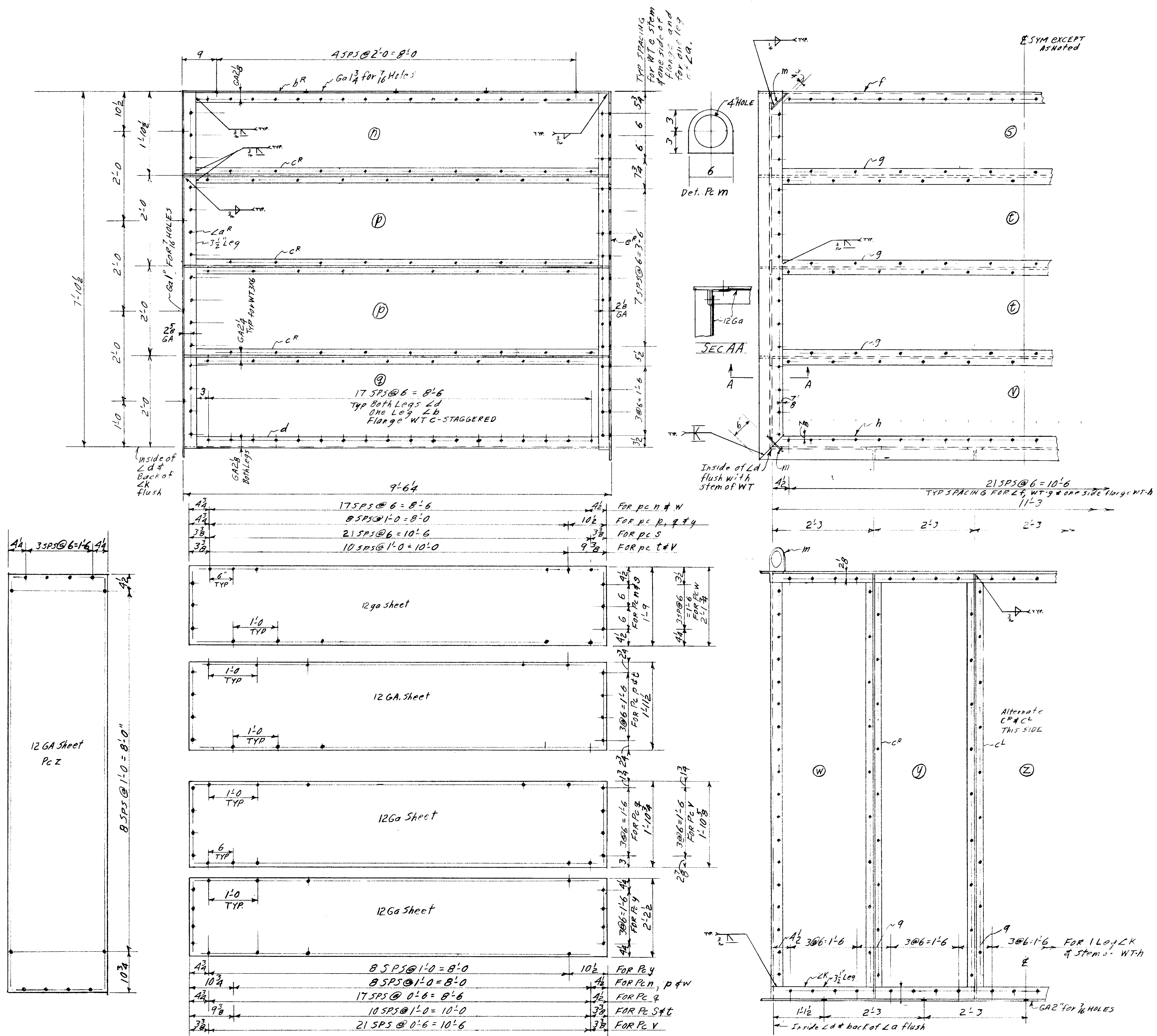
ITEM **ELEVATOR HOISTWAY ENCLOSURE**

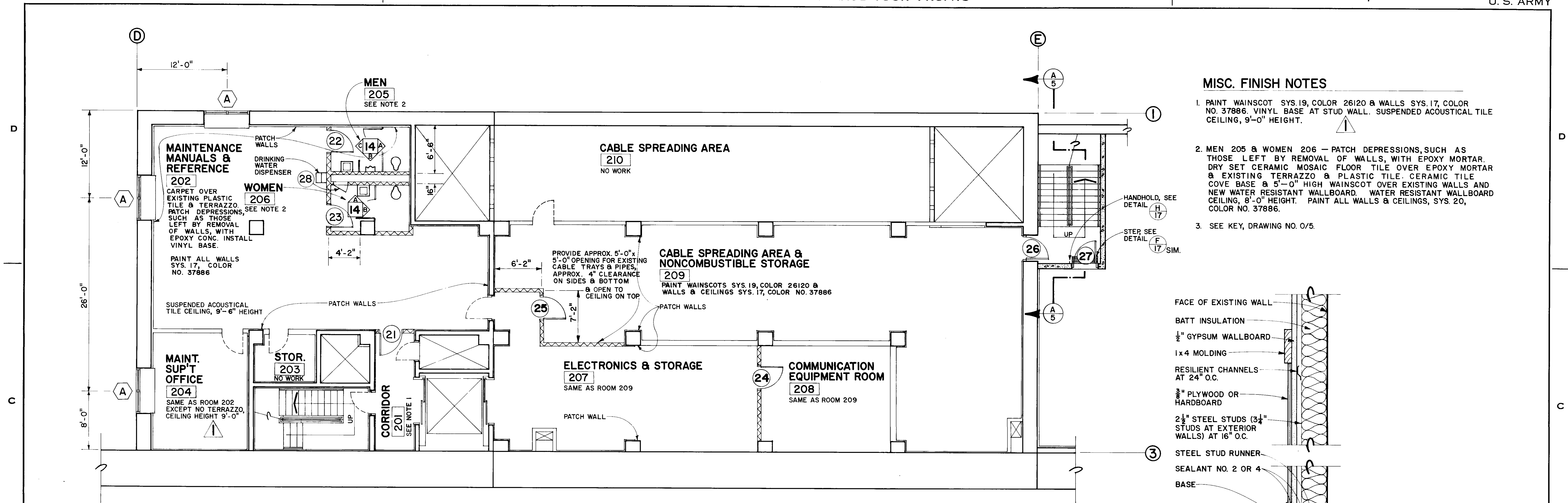
JOB **POWERHOUSE SHOPS**

LOCATION **CHIEF JOSEPH DAM**

CONTR. **GARZA CONST** STL. EREC. Y.S.F. JOB NO. **5079**

DRWN. BY **JD** CHKD. BY **JD** DRWG NO. **19824** ALT.

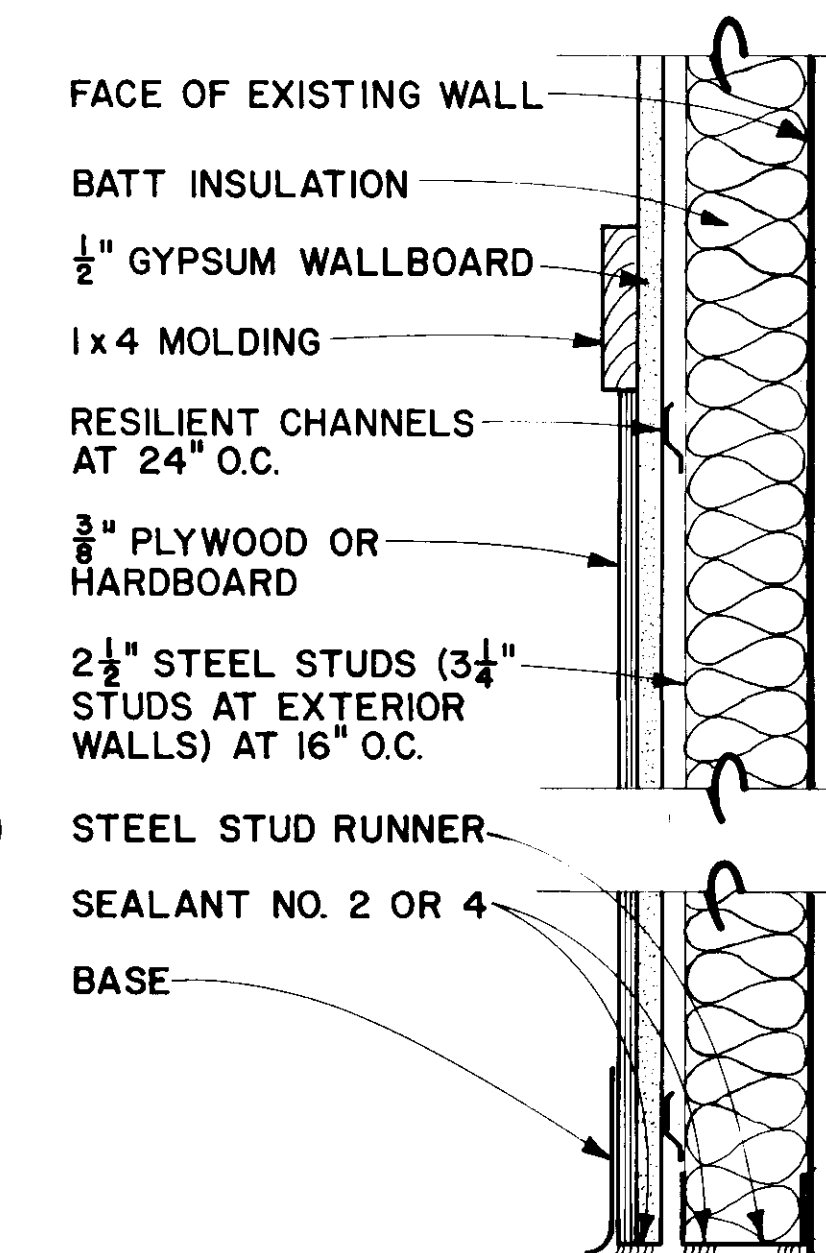




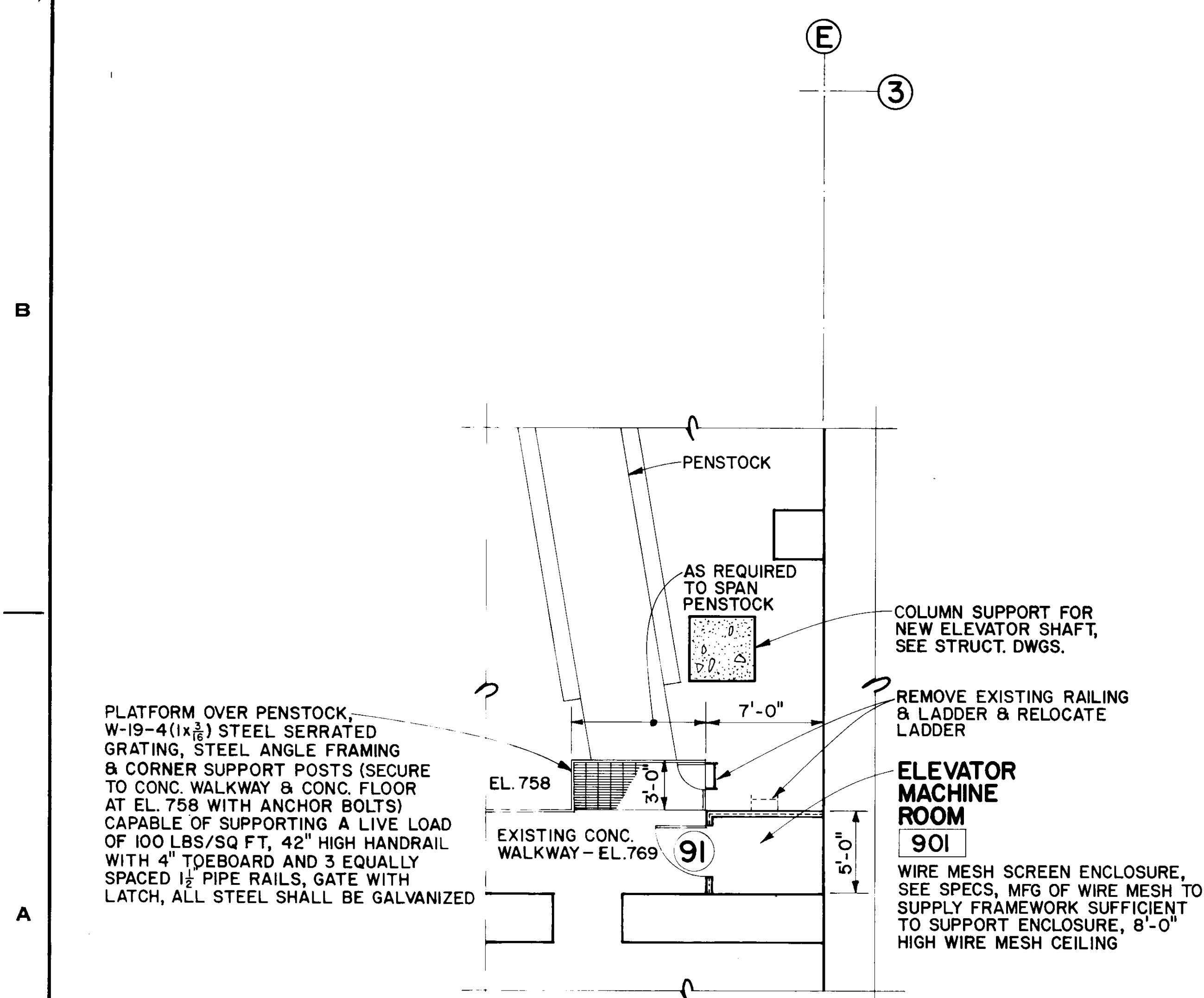
PLAN - EL. 827.5
3/16"=1'-0"

MISC. FINISH NOTES

1. PAINT WAINSCOT SYS. 19, COLOR 26120 & WALLS SYS. 17, COLOR NO. 37886. VINYL BASE AT STUD WALL. SUSPENDED ACOUSTICAL TILE CEILING, 9'-0" HEIGHT.
2. MEN 205 & WOMEN 206 - PATCH DEPRESSIONS, SUCH AS THOSE LEFT BY REMOVAL OF WALLS, WITH EPOXY MORTAR. DRY SET CERAMIC MOSAIC FLOOR TILE OVER EPOXY MORTAR & EXISTING TERRAZZO & PLASTIC TILE. CERAMIC TILE COVE BASE & 5'-0" HIGH WAINSCOT OVER EXISTING WALLS AND NEW WATER RESISTANT WALLBOARD. WATER RESISTANT WALLBOARD CEILING, 8'-0" HEIGHT. PAINT ALL WALLS & CEILINGS, SYS. 20, COLOR NO. 37886.
3. SEE KEY, DRAWING NO. 0/5.



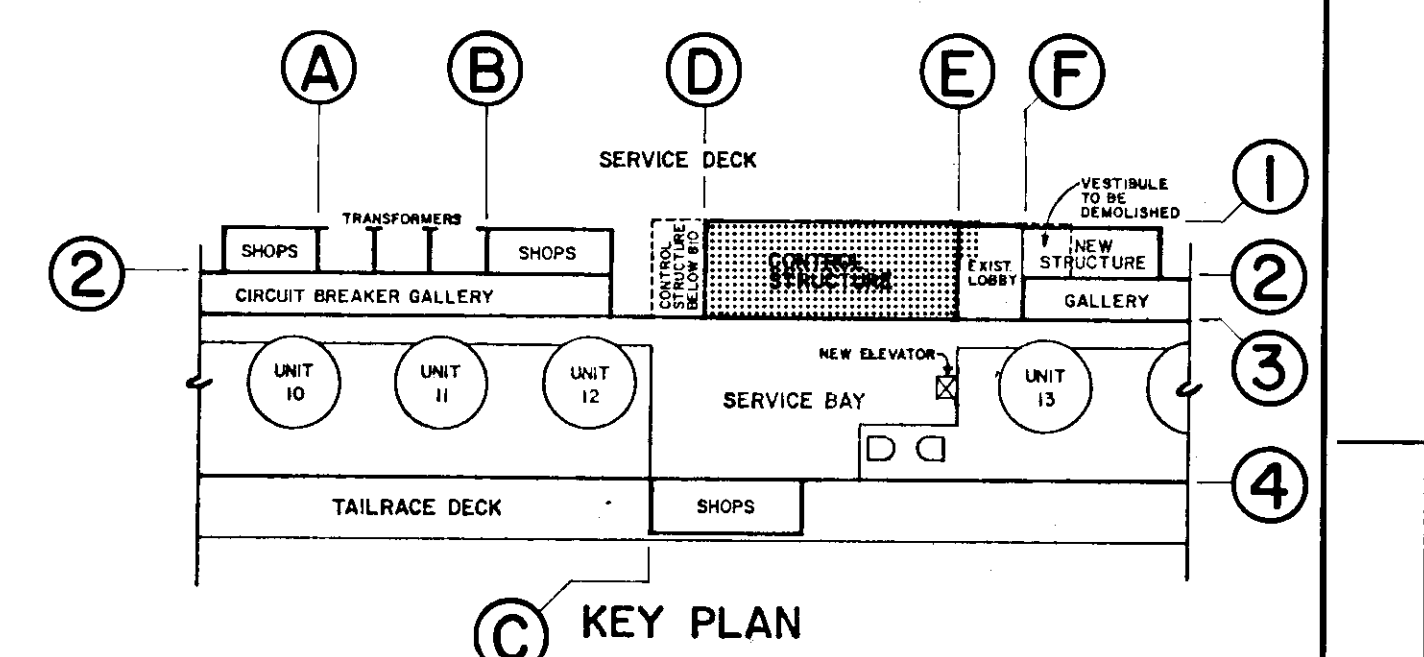
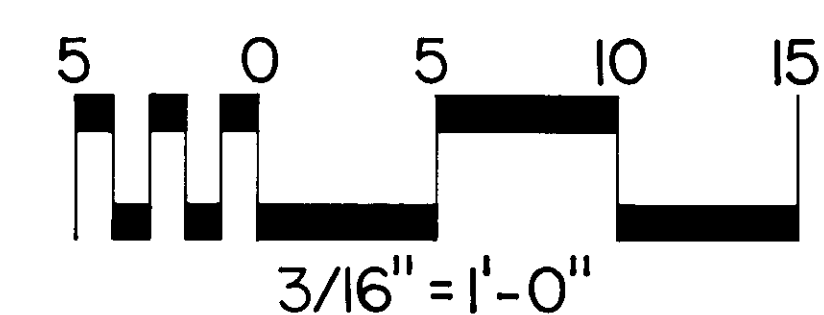
WALL SECTION
3"=1'-0"
SEE DRAWING NOS. 0/7 & 0/8



PLAN - EL. 769
3/16"=1'-0"

LEGEND

EXISTING	NEW CONSTRUCTION
CONCRETE	CMU
GYP. BD. ON STEEL STUDS	WIRE MESH PARTITION
DOORS	



KEY PLAN

DESIGNED BY JS		CHIEF JOSEPH DAM	
DRAWN BY JS		COLUMBIA RIVER POWERHOUSE SHOPS	
CHECKED BY DLT		ARCHITECTURAL	
PREPARED BY		PLANS & SECTIONS	
SUBMITTED BY		EL. 769/827.5	
APPROVED FOR DIV. ENGINEER		DATE 83DEC14	
SCALE AS SHOWN		CJP-1.16-2-0/6	
SHEET 10		E-51-20-39	

REFERENCE DRAWING 58

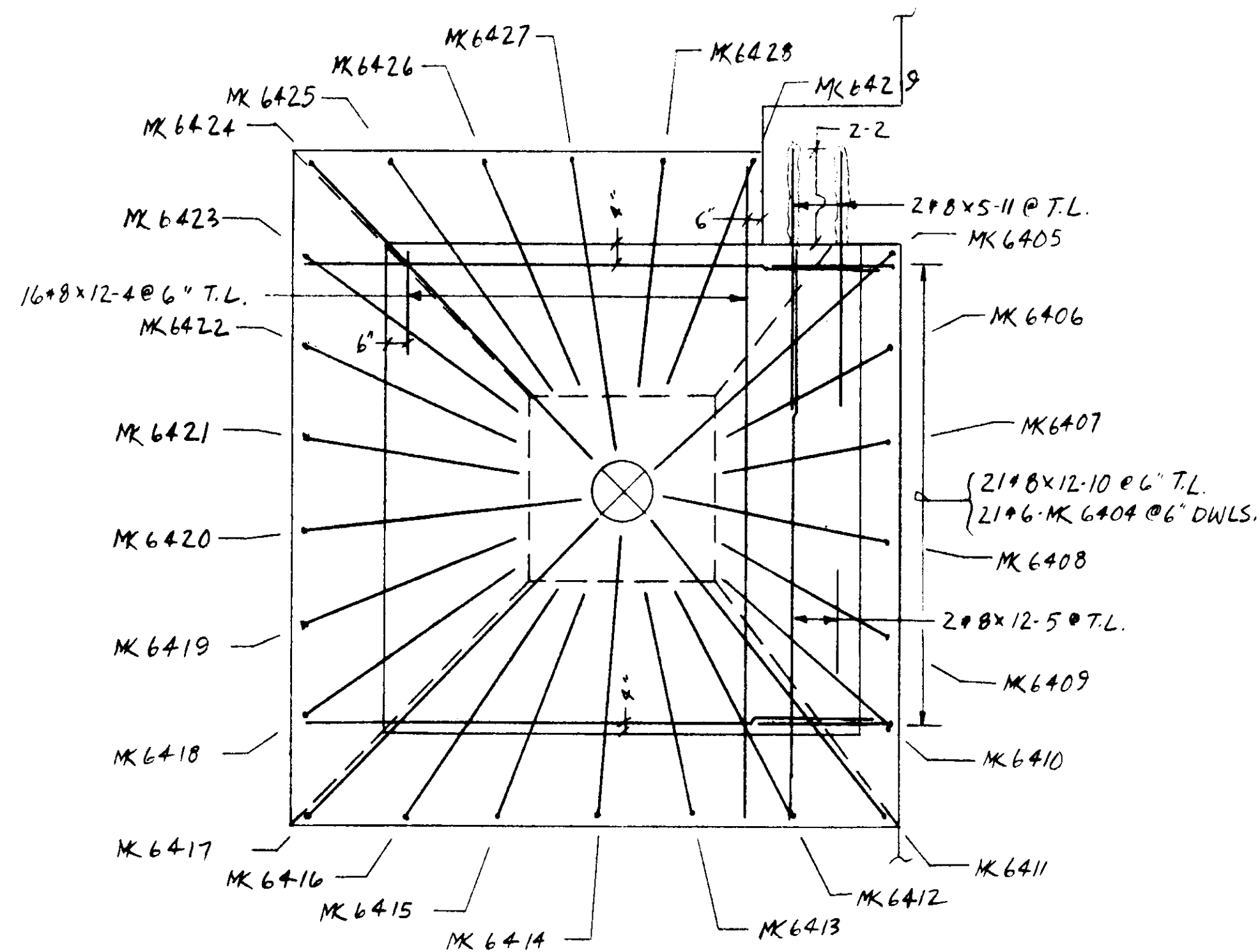
copies issued		for	
no.	date	no.	date
6	12/13	APPL	✓
2	2/7	FIELD	✓
19/18	12/74	CONTR	USG

job	CHIEF JOSEPH DAM - POWERHOUSE SHOPS
title	ELEVATOR HOISTWAY - LOWER SECTION
contractor	GARZA CONST.

gramham steel

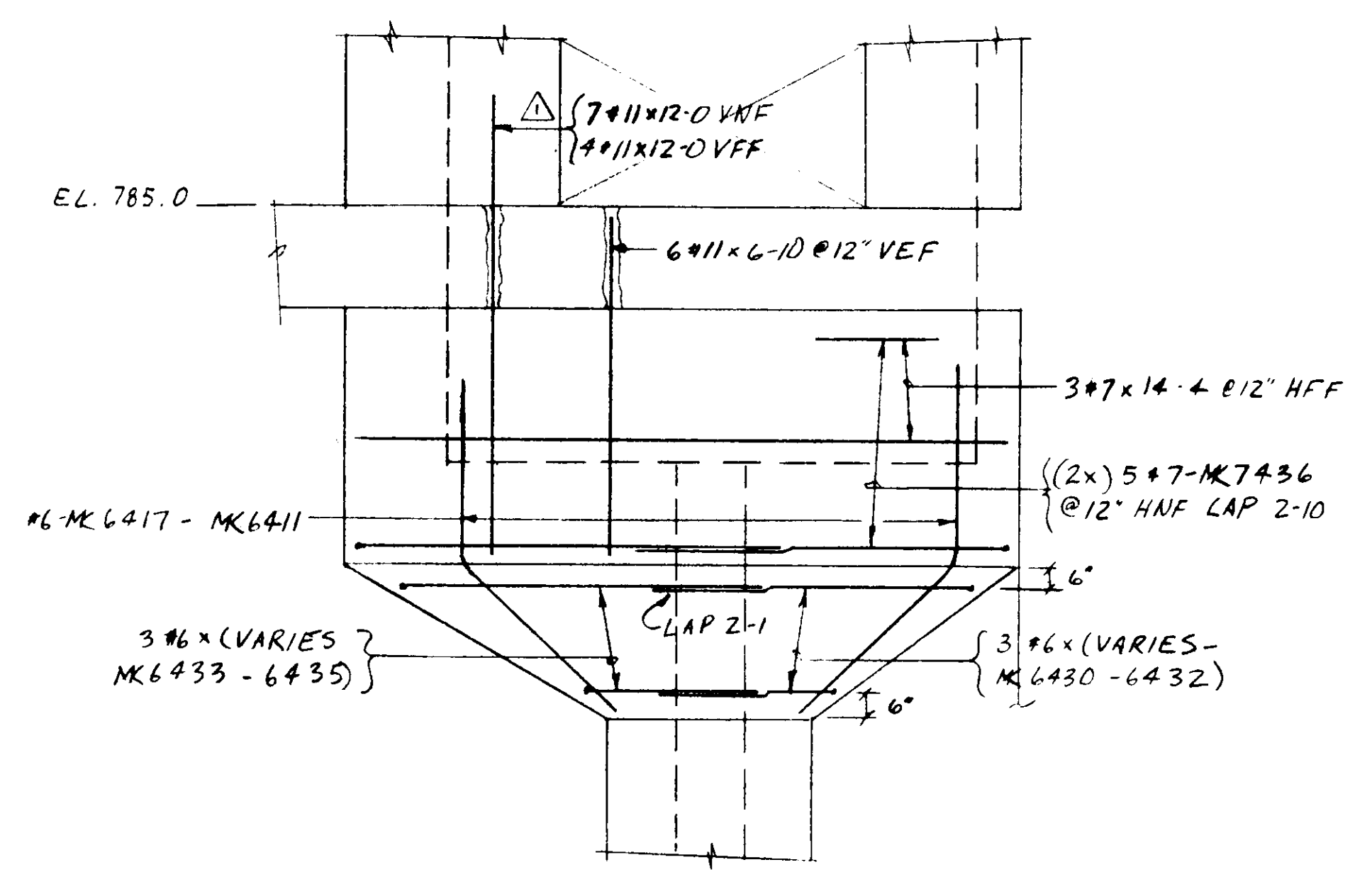
Reinforcing Structural and Miscellaneous Steel - PO Box 696 - Kirkland, Washington 98033 - Phone (206) 823-9556

revision	2/12/86	per	APPL
drawn by	S. LINDEMAYER	date	12/11/85
architect		title	LOWER ELEV. HOIST
contract number	185-11449	drawing number	7

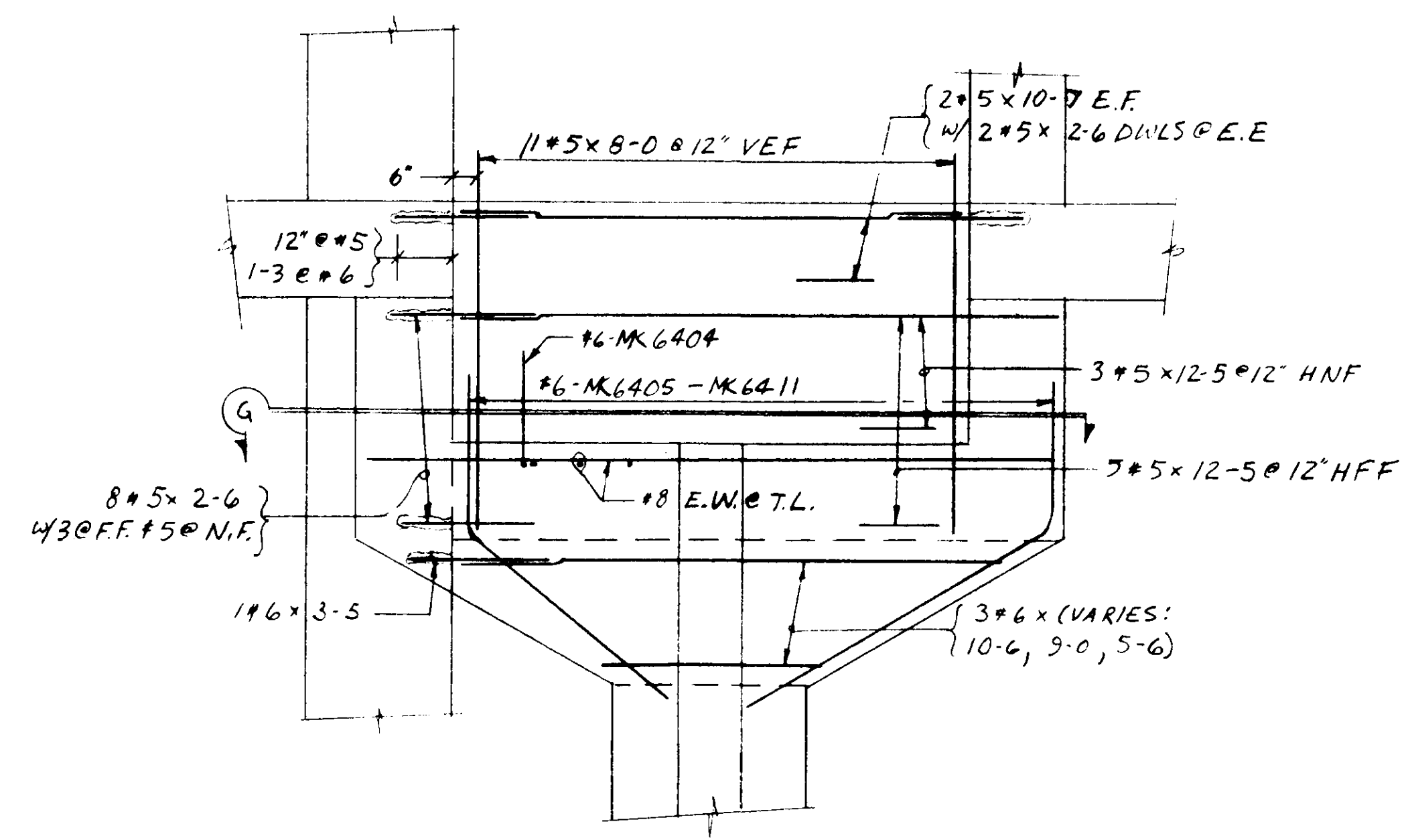


PLAN (G)
@ EL. 780.0

NOTE: 2" CLEAR @ #6 & LARGER
1 1/2" CLEAR @ #5 & SMALLER
SEE DWG. #6 FOR KEY PLAN
SEE DWG. #8 FOR UPPER HOISTWAY



ELEV. B-B




SECTION (C)

1'-0"			A		H		
#6-MK 6405			TO MK 6429				
MK	A	H					
6405	8-11	3-10					
6406	5-9	3-0					
6407	4-11	3-0					
6408	6-7	3-10					
6409	5-10	3-0					
6410	7-2	3-0					
6411	9-6	3-10					
6412	6-7	3-0					
6413	6-1	3-0					
6414	7-6	3-8					
6415	6-0	3-0					
6416	7-6	3-0					
6417	10-9	3-8					
6418	7-8	3-0					
6419	6-7	3-0					
6420	7-5	3-8					
6421	5-10	3-0					
6422	6-7	3-0					
6423	7-8	3-0					
6424	10-9	3-8					
6425	7-11	3-0					
6426	6-8	3-0					
6427	7-7	3-8					
6428	6-0	3-0					
6429	6-7	3-0					

CONTRACT # DACW-67-85-C-0085

no.	date	for
6	11/13	APPL
7	12/17	FIELD
15/16	1/23/87	CONSTR

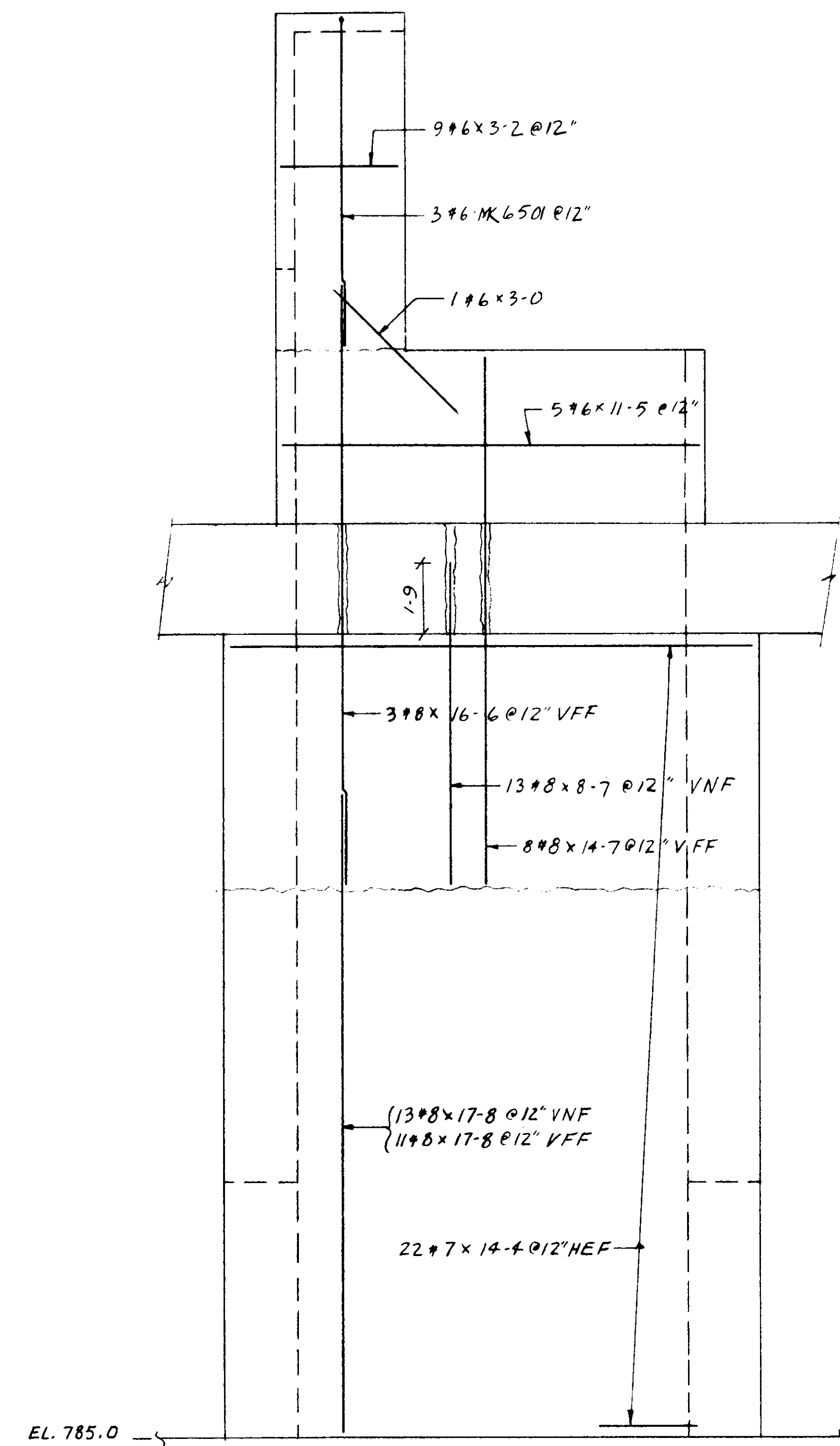
job	CHIEF JOSEPH DAM - POWERHOUSE SHOPS
title	ELEVATOR HOISTWAY - UPPER SECTION
contractor	GARZA CONST.



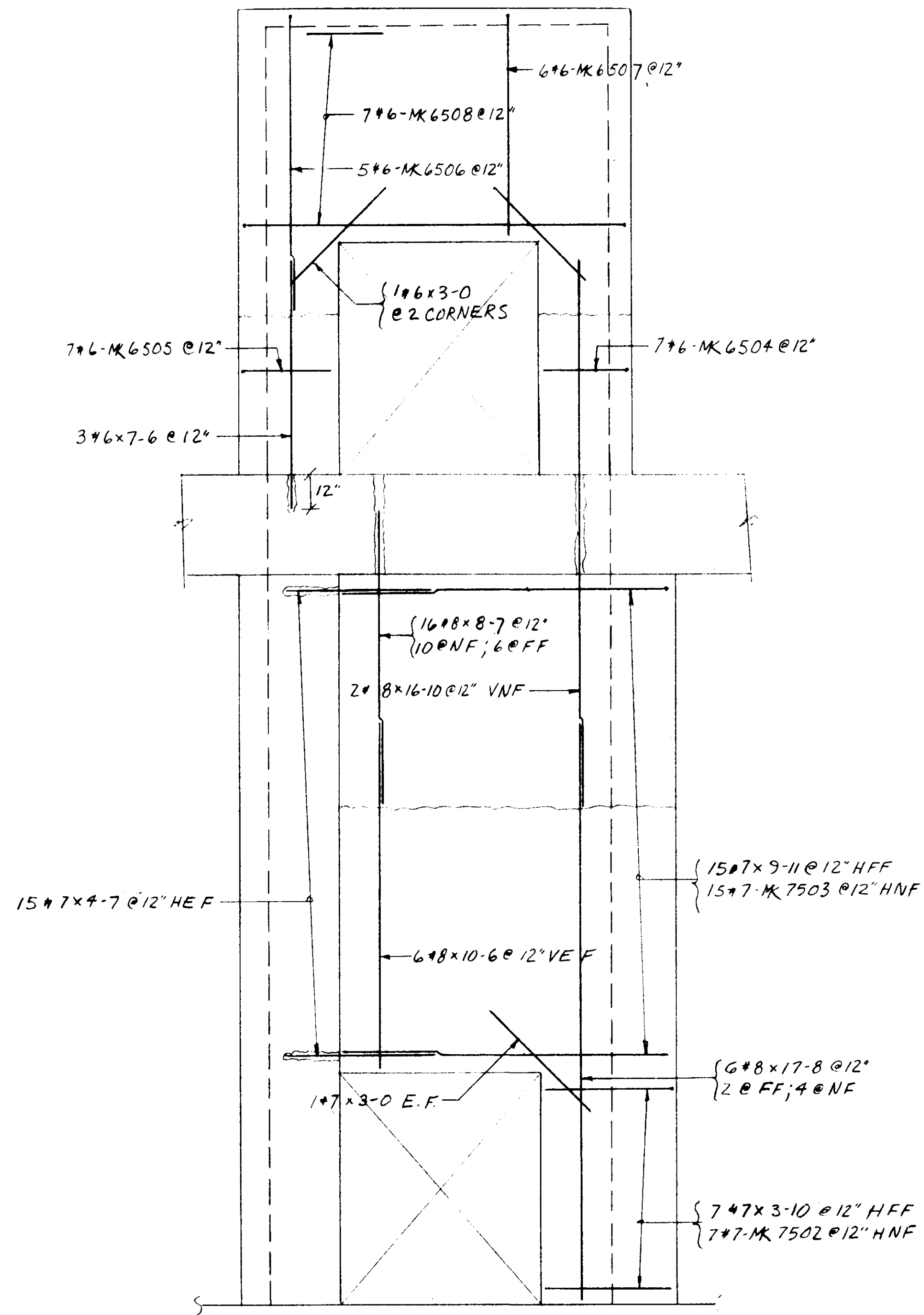
REINFORCING STRUCTURAL AND MISCELLANEOUS STEEL

P.O. Box 858 • Kirkland, Washington 98033 • Phone (206) 823-6656

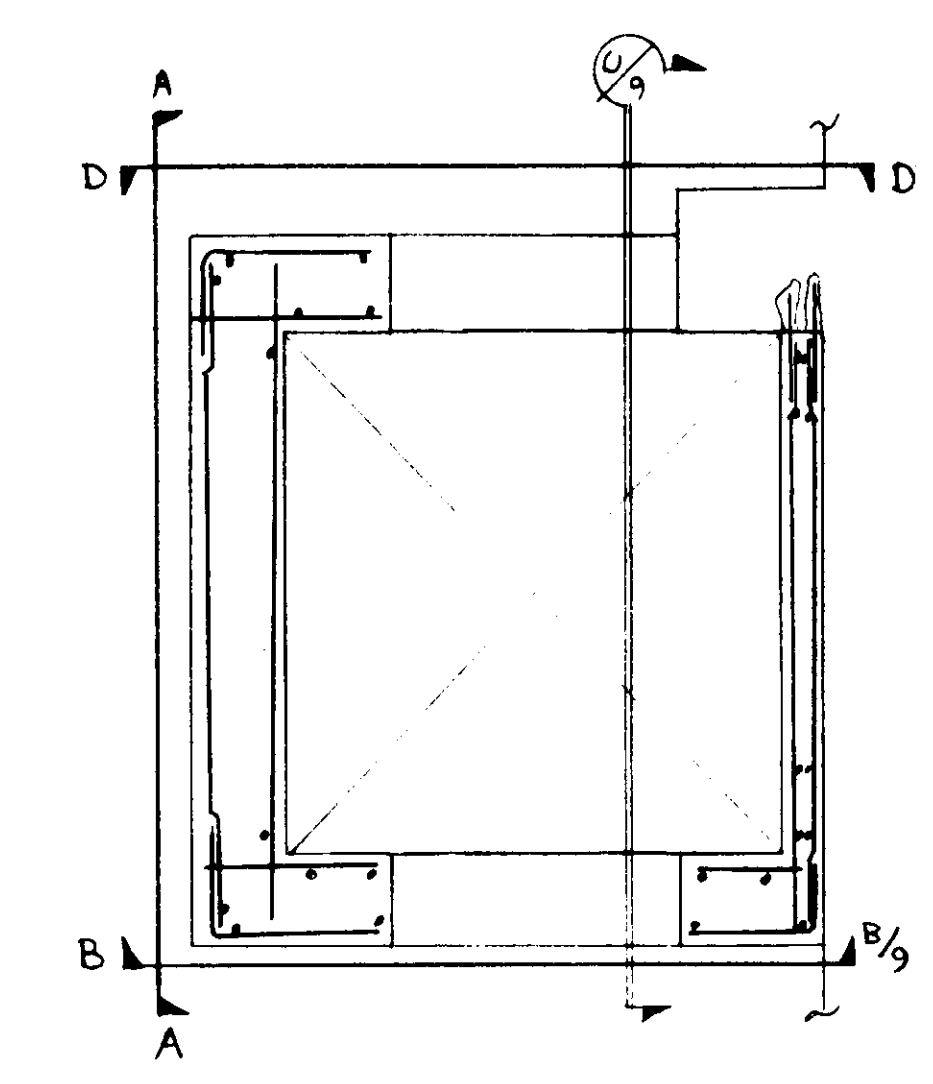
drawn by	S. LINDENMEYER
date	12/12/85
architect	
title	UPPER
ELEV. HOIST	
contract number	
185-11449	
drawing number	8



ELEV. A-A



ELEV. D-D



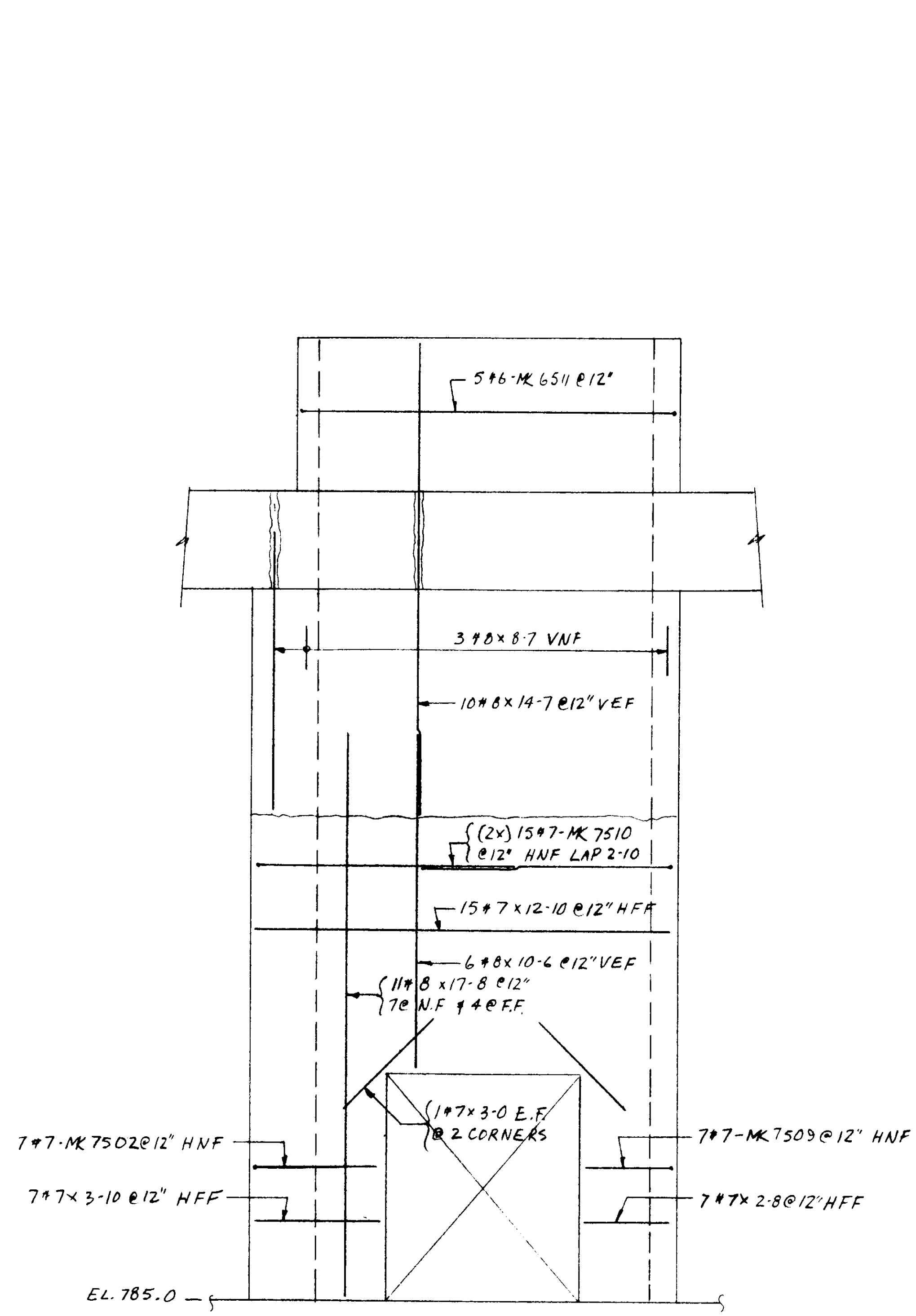
KEY PLAN

NOTE: 2" CLEAR @ #6 # LARGER
1 1/2" CLEAR @ #5 # SMALLER
SEE DWGS # 6 & 7 FOR LOWER HOISTWAY

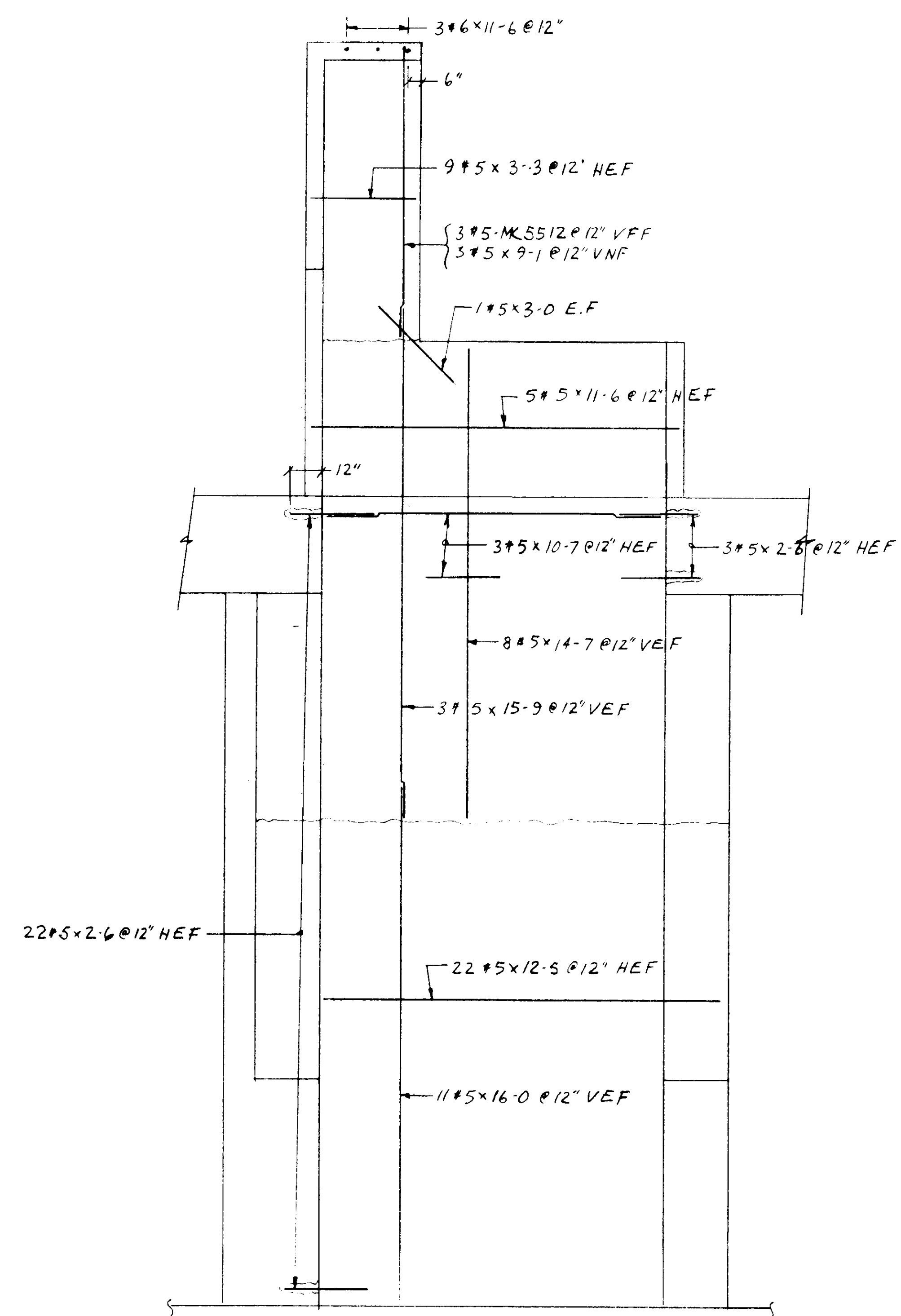
2-1	2-1
11-6	
#6-MK6508	
3-0	6-9
#6-MK6507	
3-0	9-0
#6-MK6506	
2-1	2-8
#6-MK6505	
2-1	2-6
#6-MK6504	
2-10	9-11
#7-MK7503	
2-10	5-10
#7-MK7502	
1-9	9-1
#6-MK6501	

CONTRACT # DACW 67-85-C-0085

REFERENCE DRAWING 60



ELEV. B-B



SECTION C

NOTE: SEE DWG. #8 FOR KEY PLAN
2" CLEAR FOR #6 & LARGER
1 1/2" CLEAR FOR #5 & SMALLER

1-0	9-1
#5-MK 5512	
2-1	12-1
#6-MK 6511	
7-10	12-10
#7-MK 7510	
2-10	3-10
#7-MK 7502	
2-8	1-5
#7-MK 7509	

CONTRACT: #DACH-67-85-C-0085

REFERENCE DRAWING 61

no.	date	for
2	12/13/85	FIELD
15/18	1/23/87	CONTR. USE

job	CHIEF JOSEPH DAM - POWERHOUSE SHOPS
title	ELEVATOR HOISTWAY - UPPER SECTION
contractor	GARZA CONST.

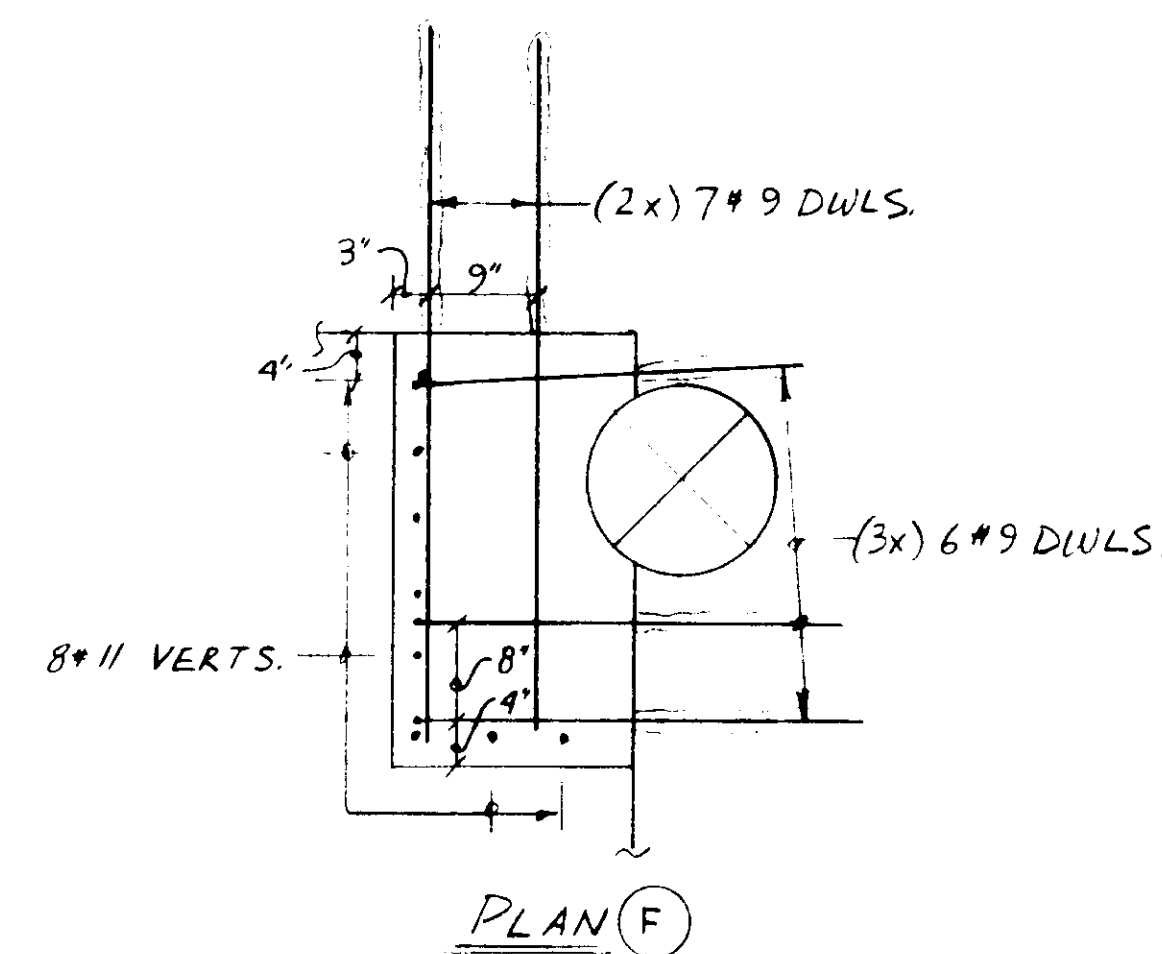
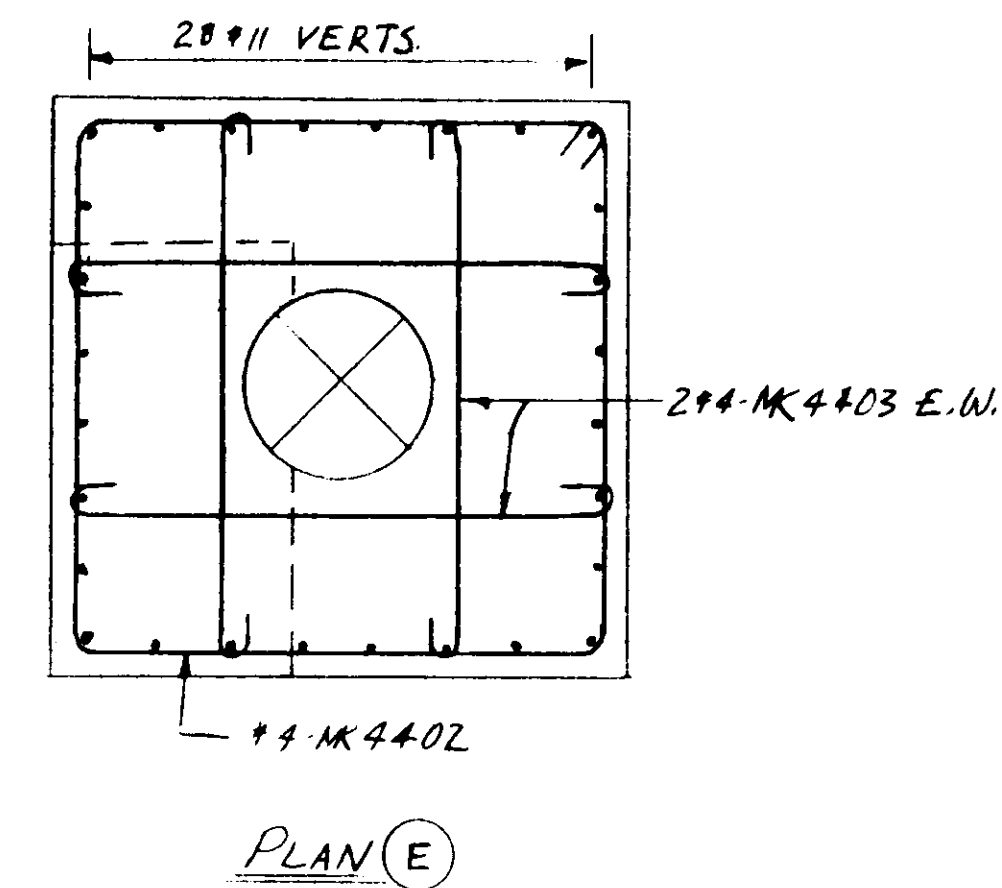
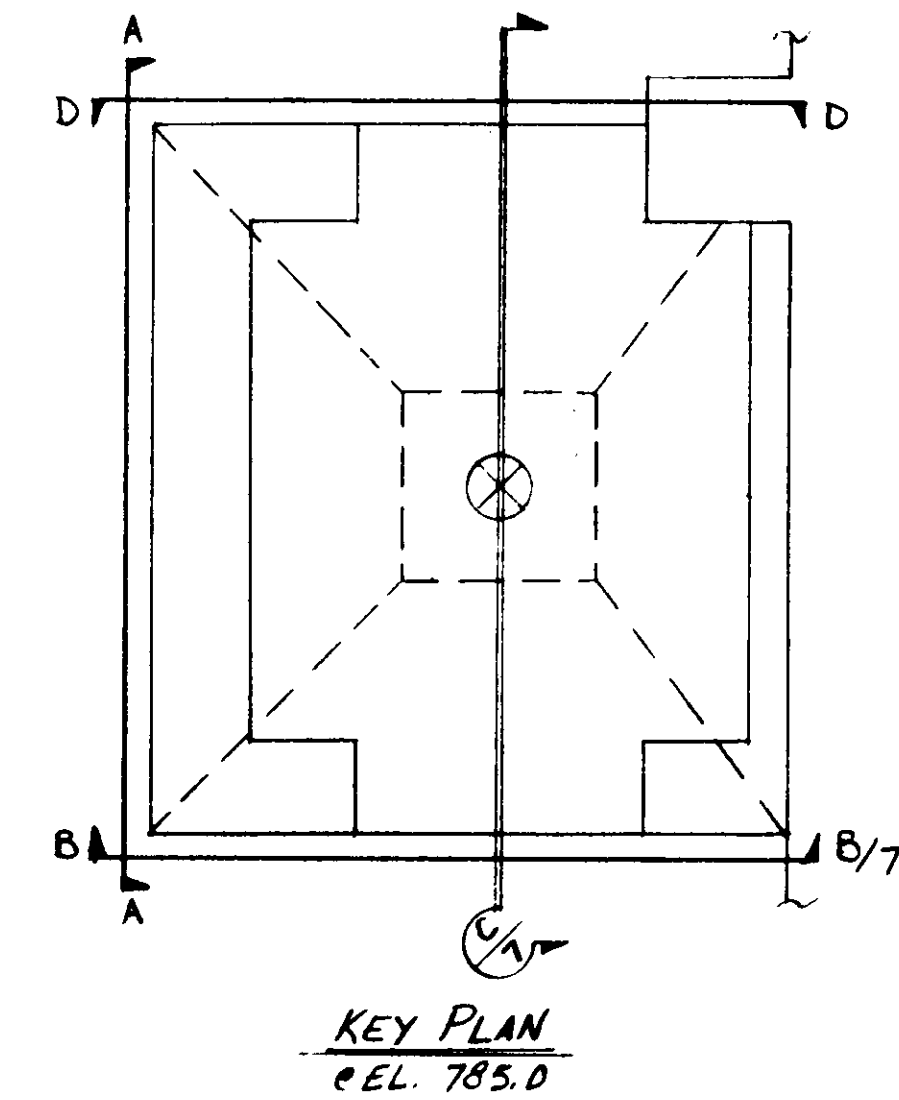
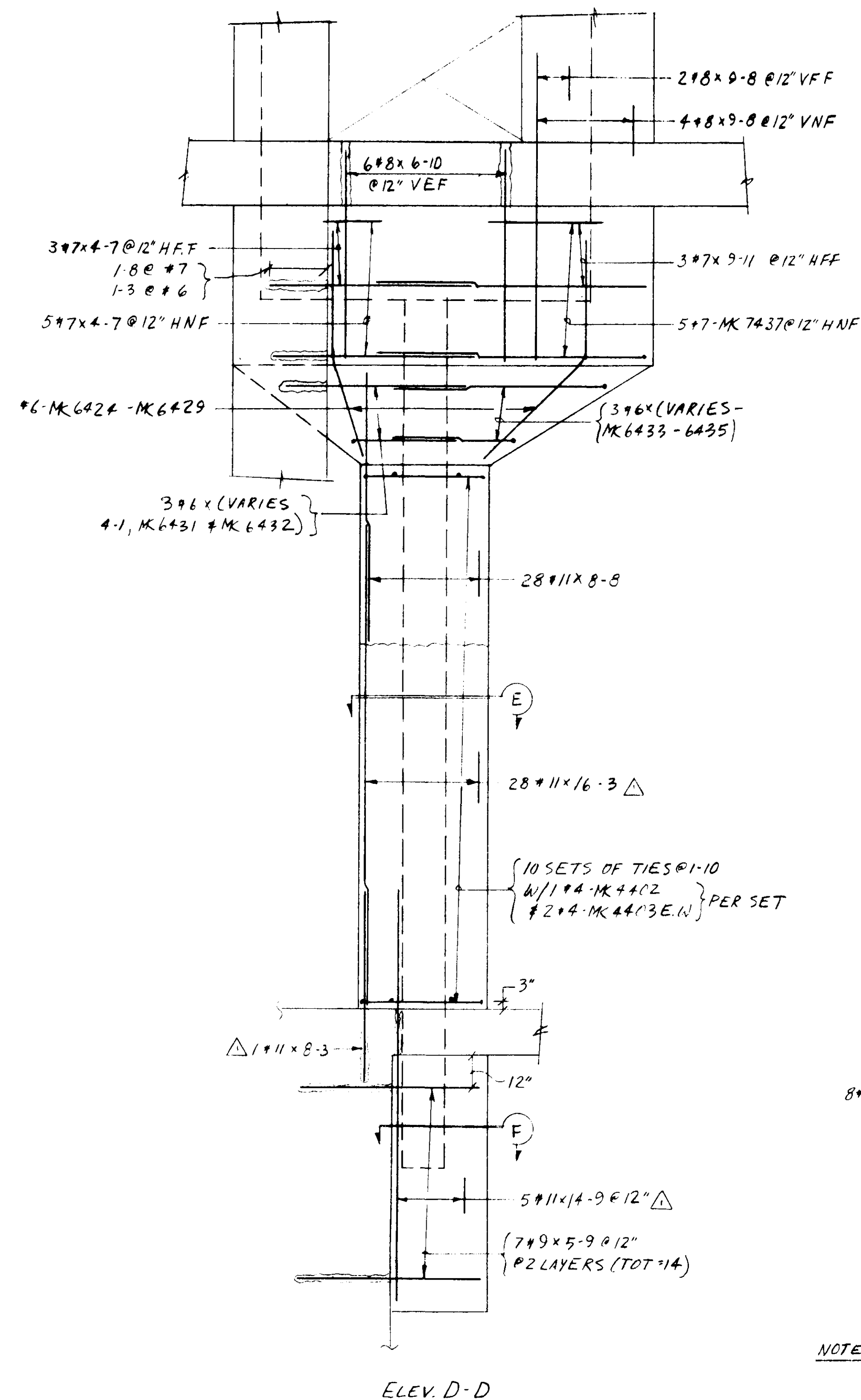
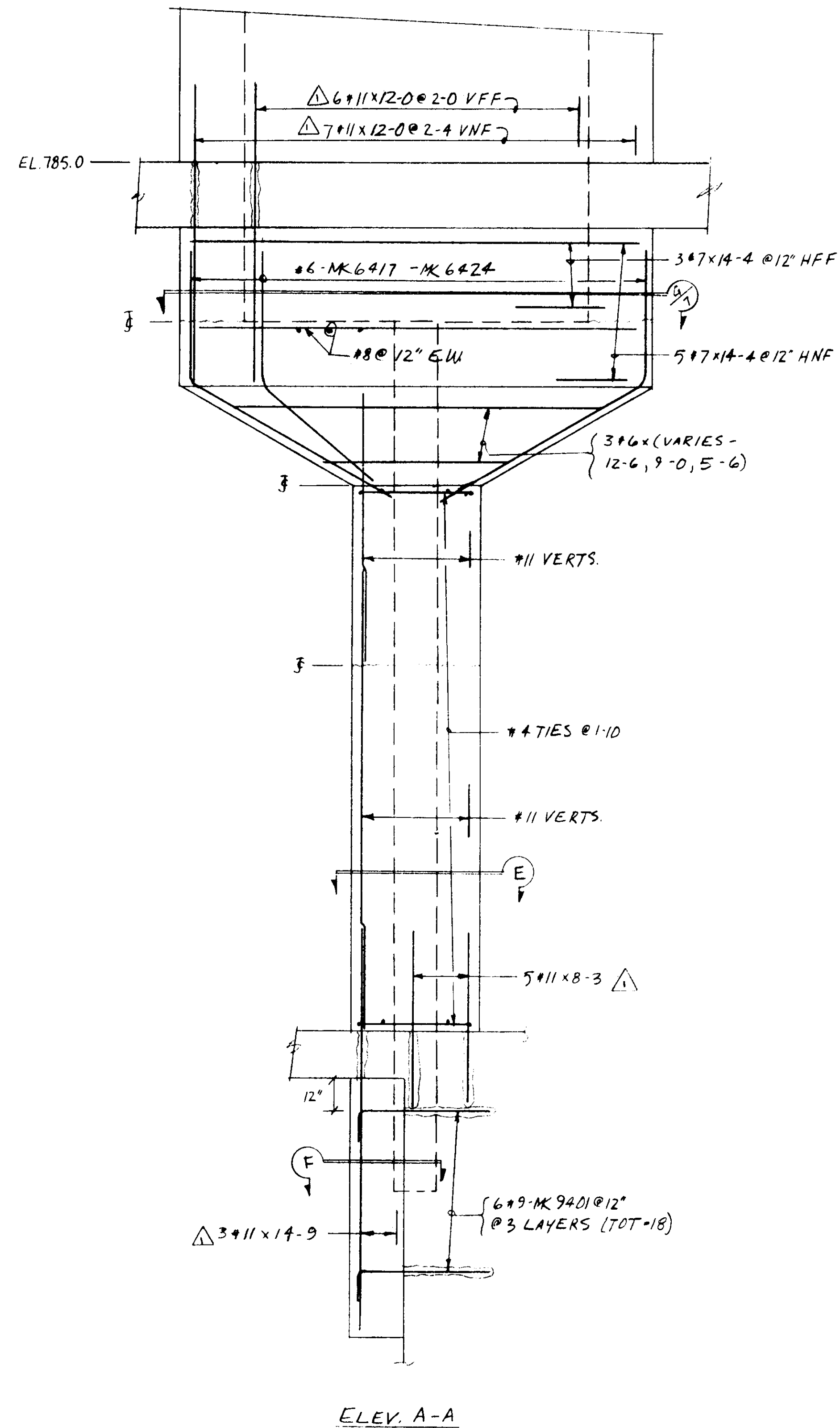
gram **steel**

Reinforcing, Structural and Miscellaneous Steel - P.O. Box 668 • Kirkland, Washington 98033 • Phone (206) 823-5656

revision	1
----------	---

drawn by	S. LINDENMEYER
date	12/13/85
architect	

title	UPPER ELEV. HOIST
contract number	185-11449
drawing number	9



NOTE: 2" CLEAR @ #6 & LARGER
1 1/2" CLEAR @ #5 & SMALLER
SEE DWG. #8 FOR UPPER HOISTWAY

CONTRACT # DACW 67-85-C-0085

REFERENCE DRAWING 62

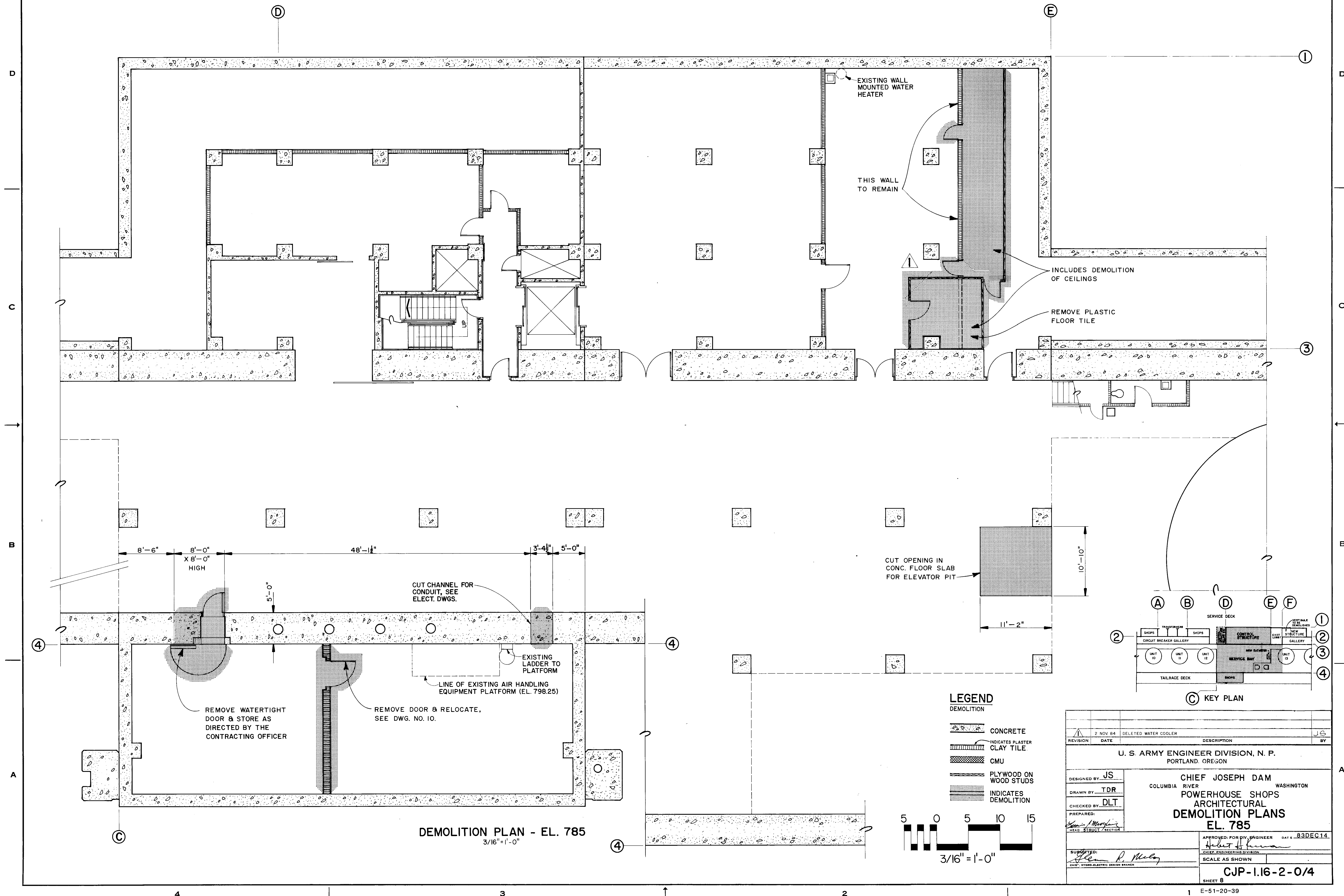
job CHIEF JOSEPH DAM - POWERHOUSE SHOPS
ELEVATOR HOISTWAY - LOWER SECTION

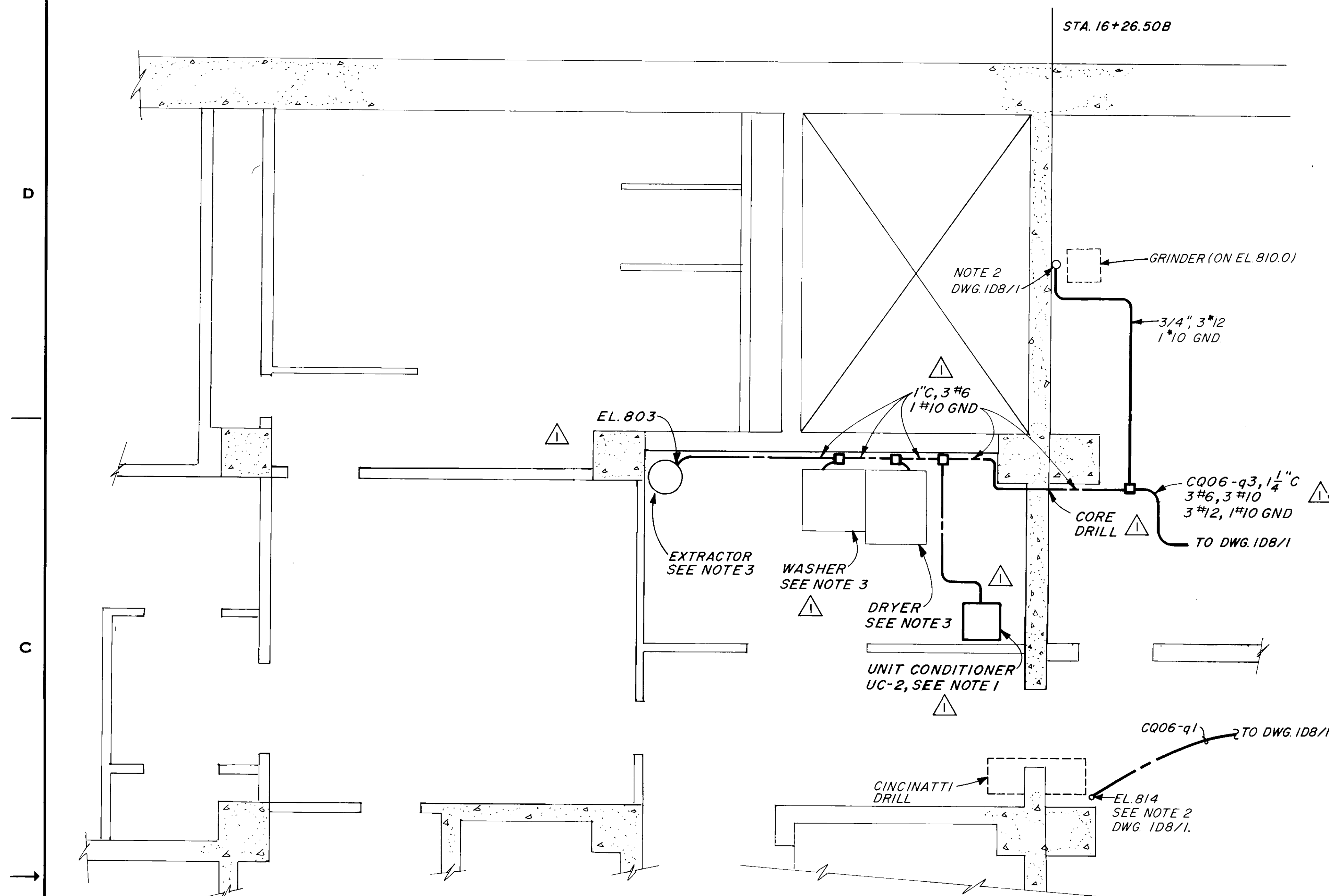
steel
graham

revision
2/3/86
PER
ARCHITECT

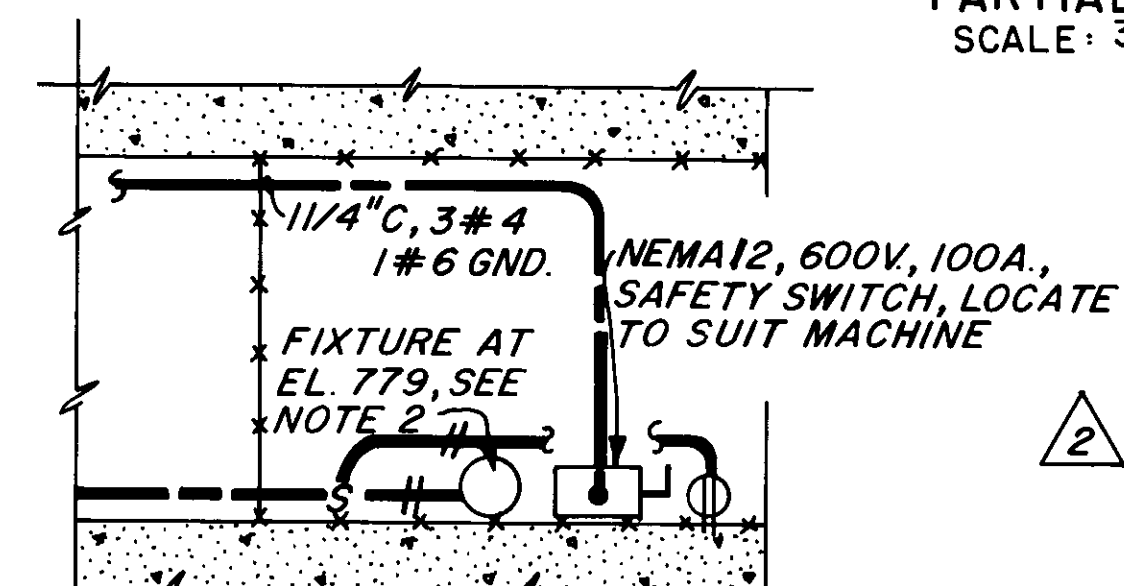
drawn by
SLINDENMEYER
date
12/10/85
architect

title LOWER
ELEV. HOIS
contract number
185-11449
drawing number
6

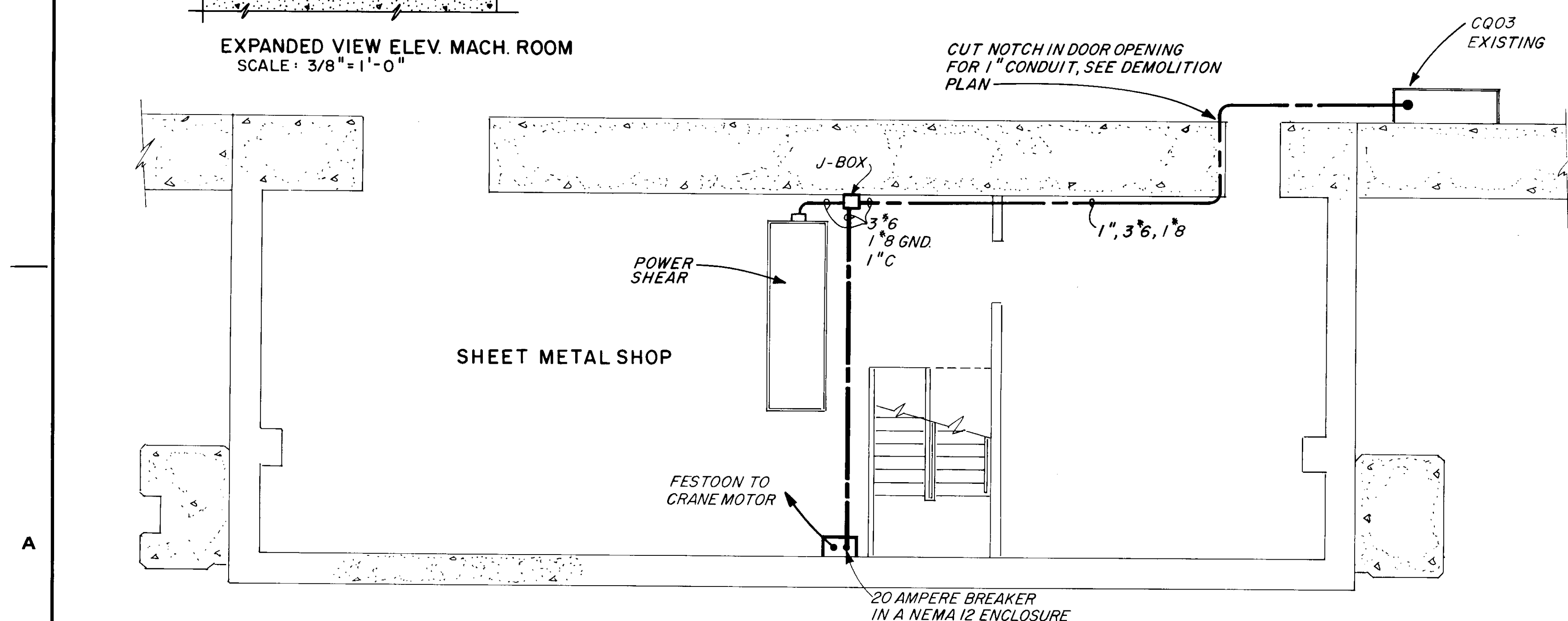




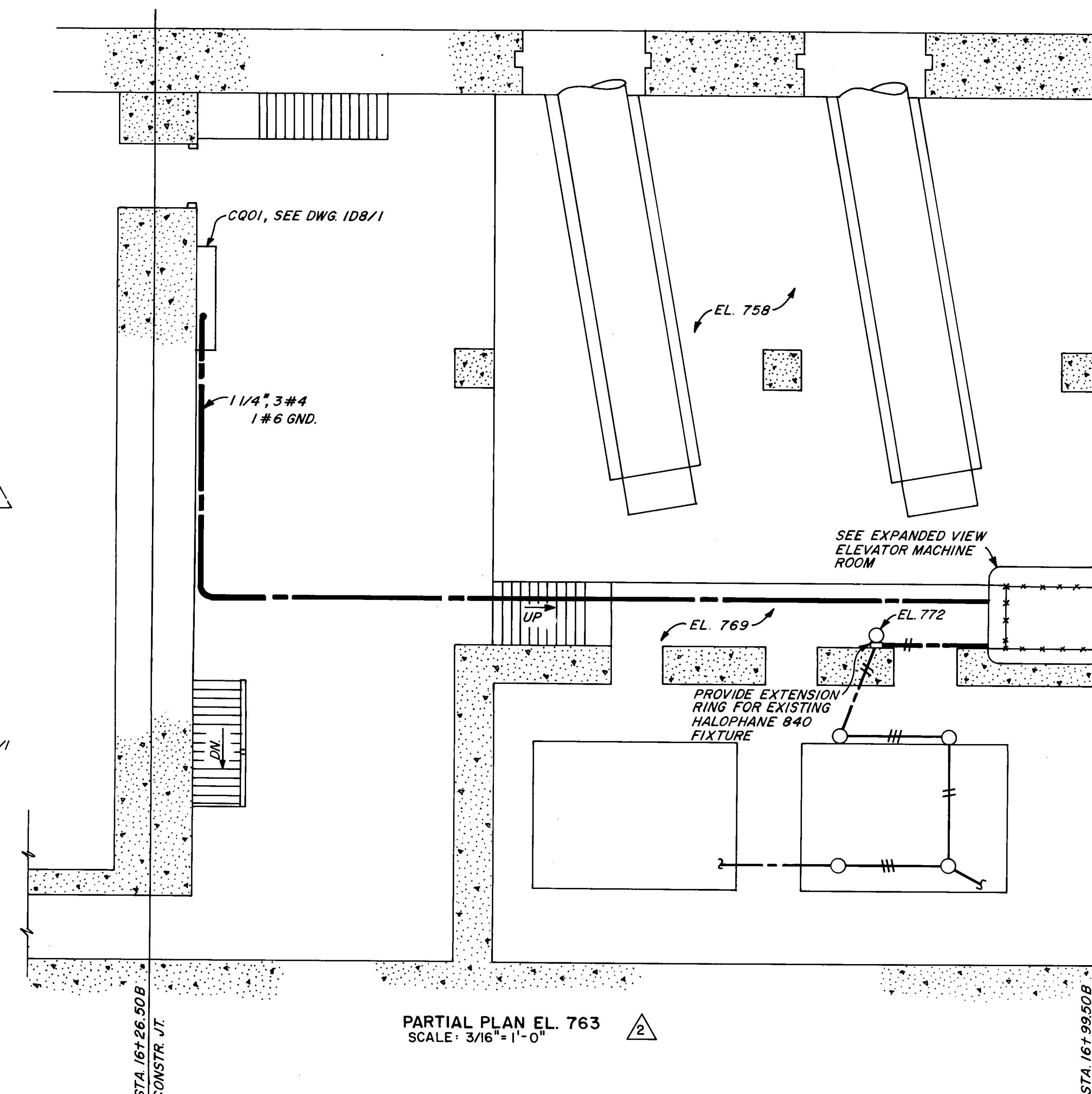
PARTIAL PLAN EL. 798.0
SCALE: 3/8" = 1'-0"



EXPANDED VIEW ELEV. MACH. ROOM
SCALE: 3/8" = 1'-0"



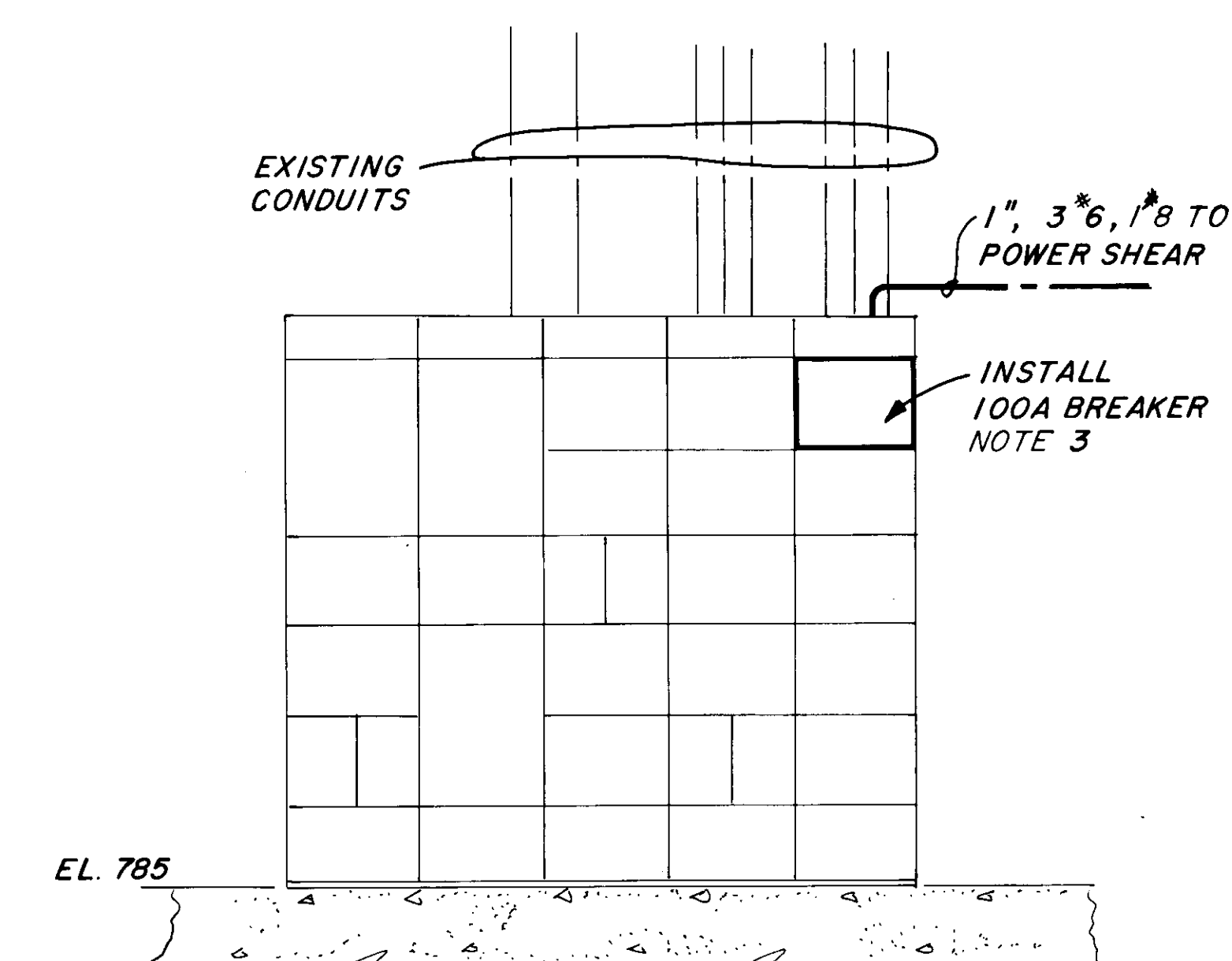
PLAN EL. 785.0
SCALE: 3/16" = 1'-0"



PARTIAL PLAN EL. 763
SCALE: 3/16" = 1'-0"

NOTES:

1. CONNECT POWER CONDUCTORS TO MACHINE POWER TERMINALS BY WAY OF FLEXIBLE CONDUIT.
2. MOUNT FIXTURE FROM ELECTRIC SHOP EL. 810 (SEE DWG. 2D0/13, NOTE 6) TO CONTRACTOR SUPPLIED CROUSE HINDS VJ BASE
3. BREAKER INSTALLATION TO MATCH THAT OF THE EXISTING MOTOR CONTROL CENTER.



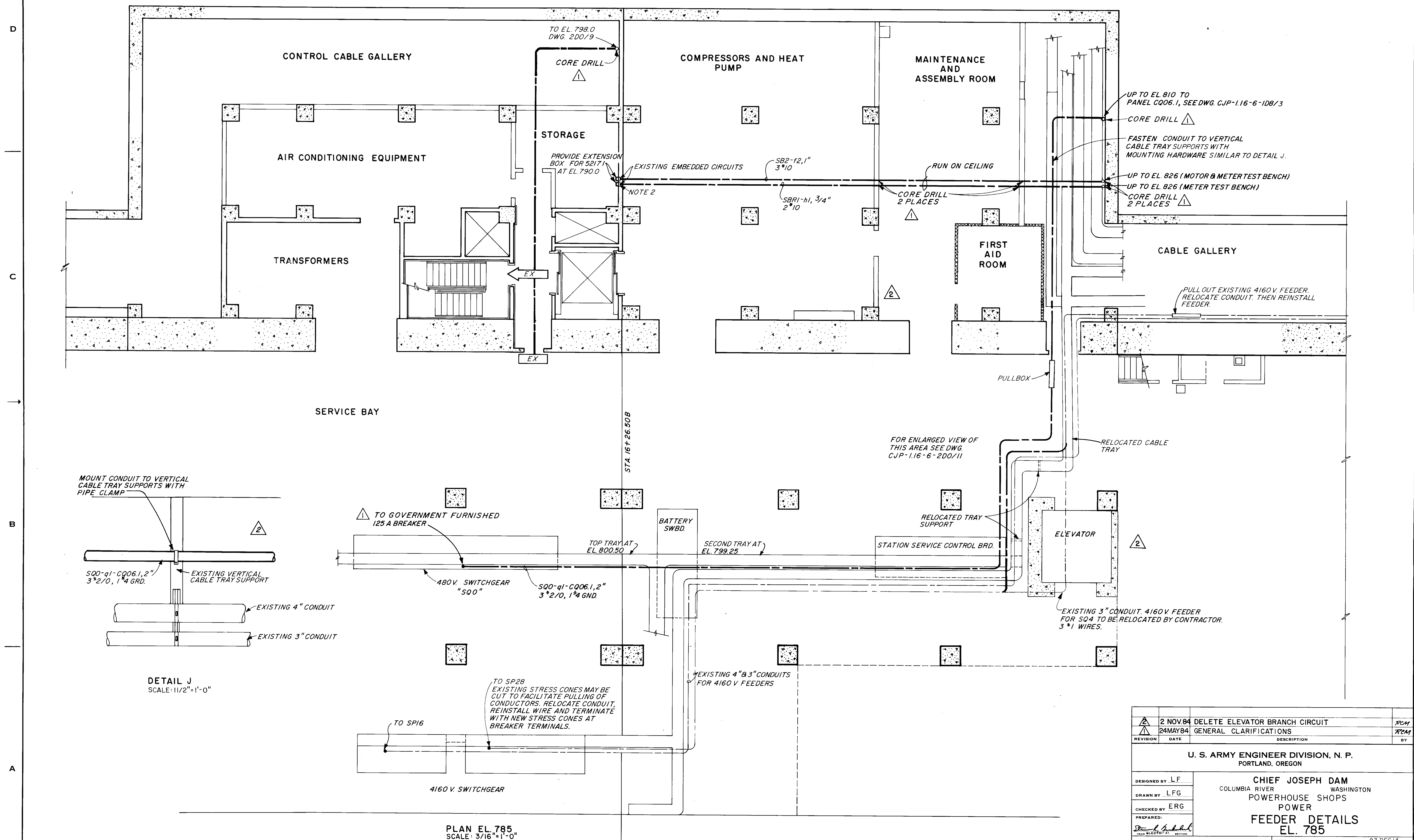
MOTOR CONTROL CENTER
CQ03
NO SCALE

REFERENCE DRAWING 64

2 NOV 84	DELETE DETAILS/NOTES ADD PLAN/NOTES	RCM
24 MAY 84	GENERAL REVISIONS	RCM
REVISION	DATE	DESCRIPTION
U. S. ARMY ENGINEER DIVISION, N. P. PORTLAND, OREGON		
DESIGNED BY: LFG	CHIEF JOSEPH DAM	
DRAWN BY: LFG	COLUMBIA RIVER WASHINGTON	
CHECKED BY: ERG	POWERHOUSE SHOPS	
PREPARED:	POWER	
HEAD ELECTRIC	FEEDER DETAILS	
SECTION	EL. 785, 798 & 763	
APPROVED FOR DIV. ENGINEER DATE 83 DEC 14		BY
SCALE AS SHOWN		BY
CJP-1.16-6-ID8/2		BY

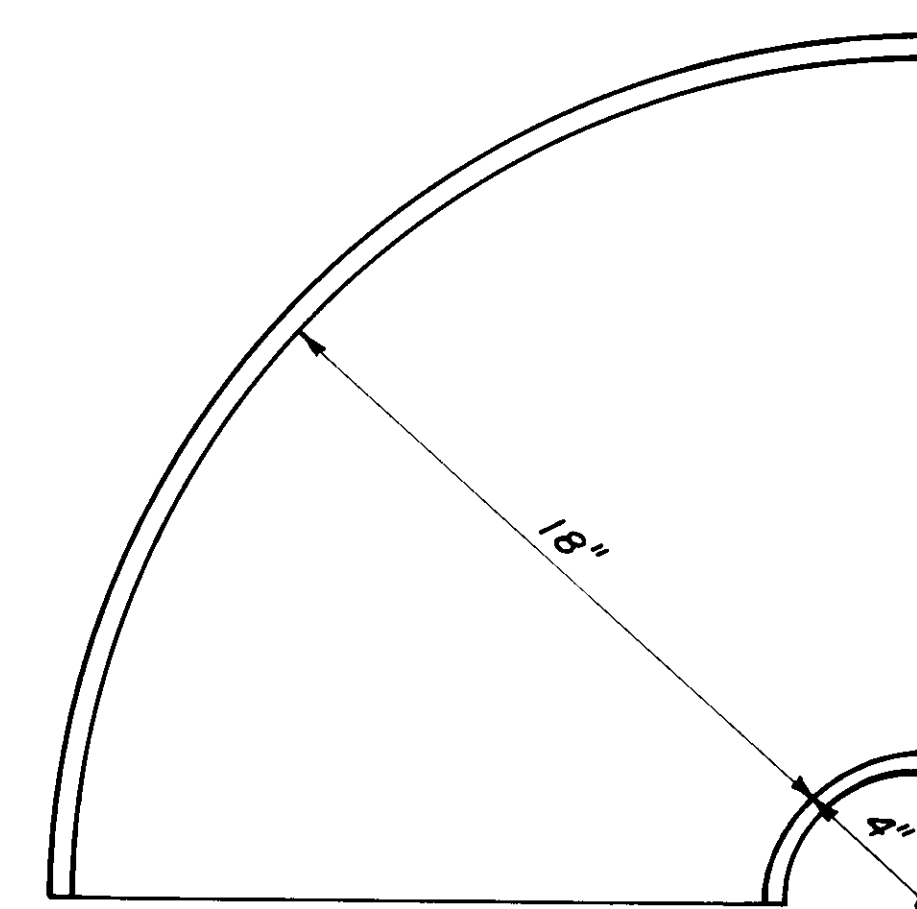
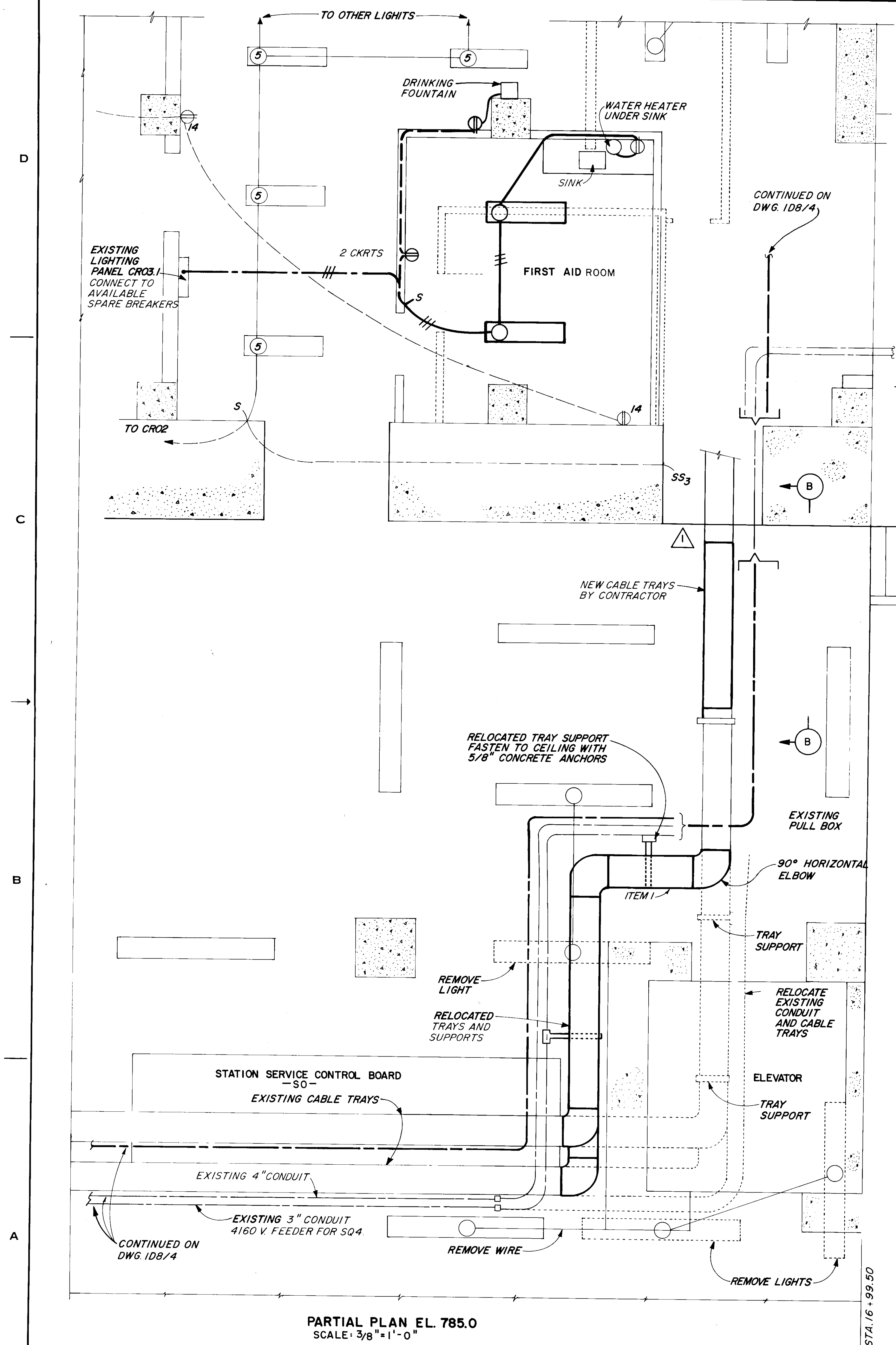
NOTES:

1. RUN CONDUITS THRU CABLE TRAY OPENING AT EL. 793.92.
2. CORE DRILL THROUGH WALL NEAR CEILING HEIGHT. INSTALL LB AND ROUTE EXPOSED DOWN WALL TO 52171 EXTENSION BOX.

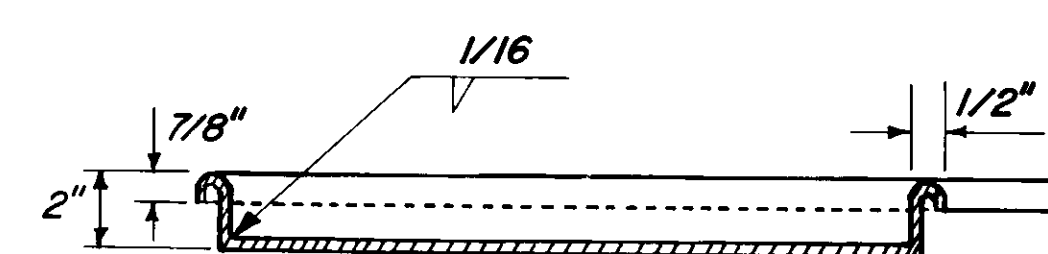
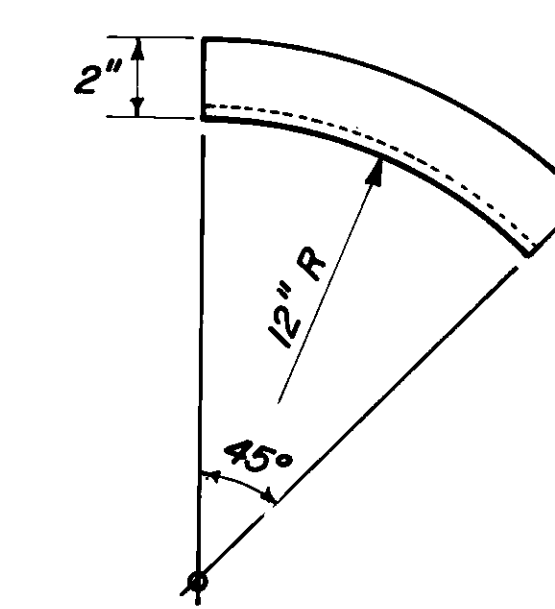
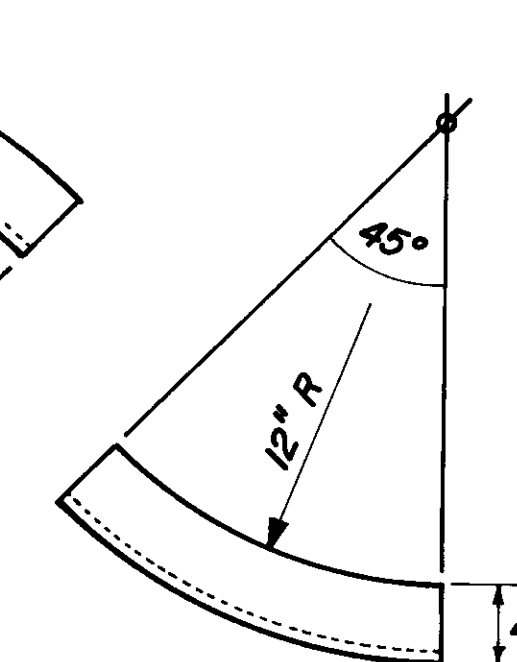
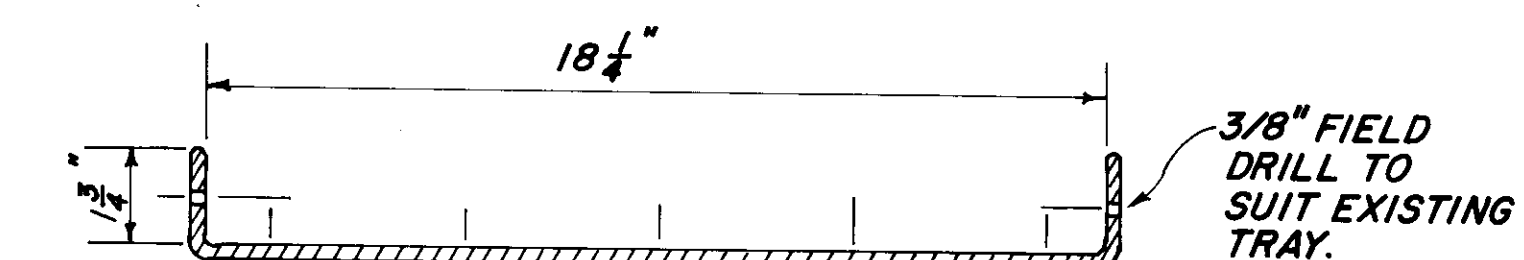


REFERENCE DRAWING 65

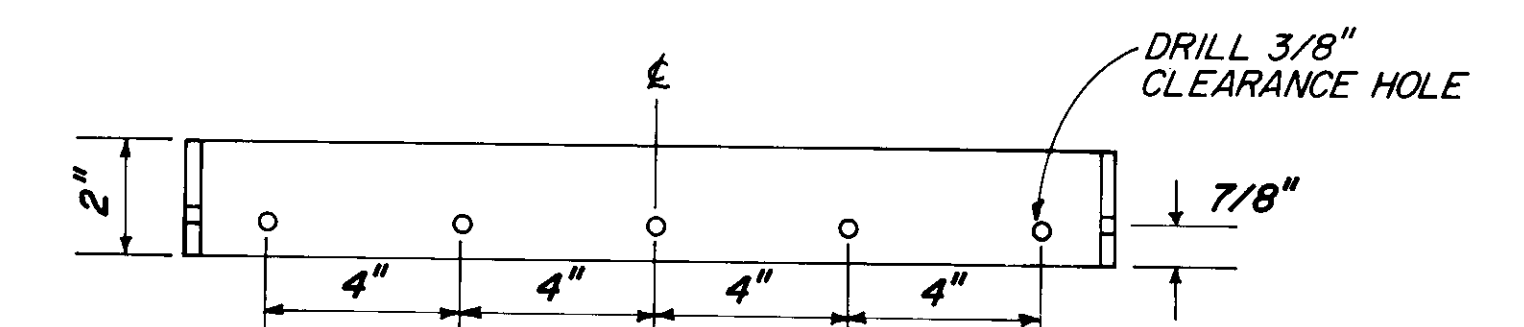
2 NOV 84	DELETE ELEVATOR BRANCH CIRCUIT	RCM
24 MAY 84	GENERAL CLARIFICATIONS	RCM
REVISION	DATE	DESCRIPTION
U. S. ARMY ENGINEER DIVISION, N. P. PORTLAND, OREGON		
DESIGNED BY: LF	CHIEF JOSEPH DAM COLUMBIA RIVER WASHINGTON POWERHOUSE SHOPS POWER FEEDER DETAILS EL. 785	
DRAWN BY: LFG		
CHECKED BY: ERG		
PREPARED BY: [Signature]		
SUBMITTED BY: [Signature]		
APPROVED FOR DIV. ENGINEER DATE 83 DEC 14		
SCALE AS SHOWN		CJP-1.16-6-1D8/4
SHEET 63		



TOP VIEW

END VIEW
90° HORIZONTAL ELBOW - 4 REQ'DSIDE VIEW
OUTSIDE ELBOW
2 REQ'DSIDE VIEW
INSIDE ELBOW
2 REQ'D

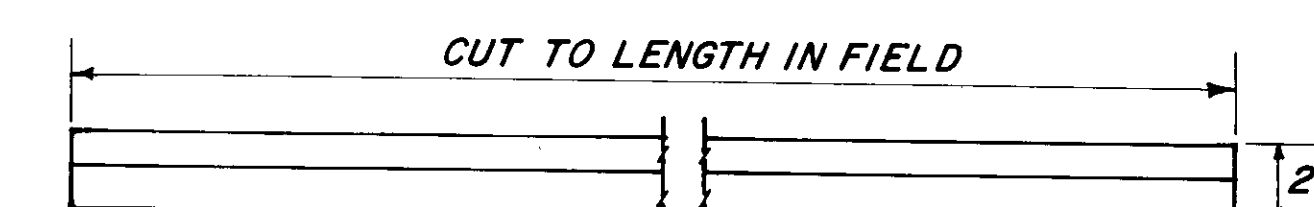
END VIEW



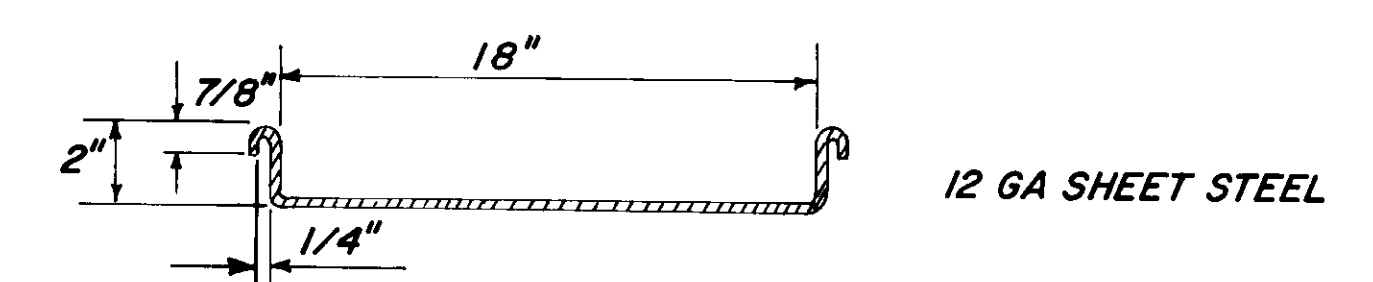
TOP VIEW

NOTE: WELD TO NEW ELBOWS. BOLT TO EXISTING TRAYS WITH ROUND HEAD PHILLIPS BOLTS, 3/8" x 5/8" LONG.

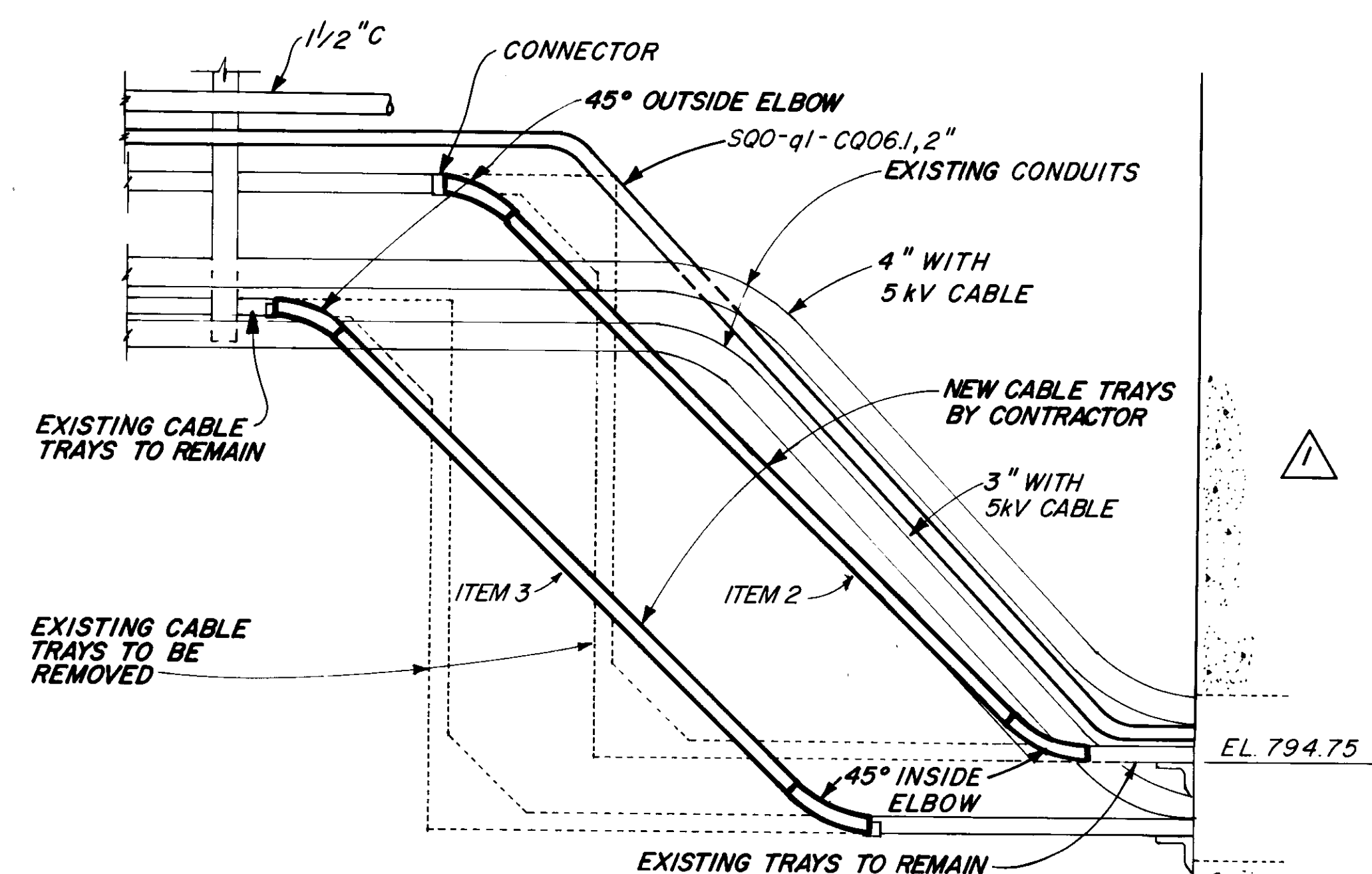
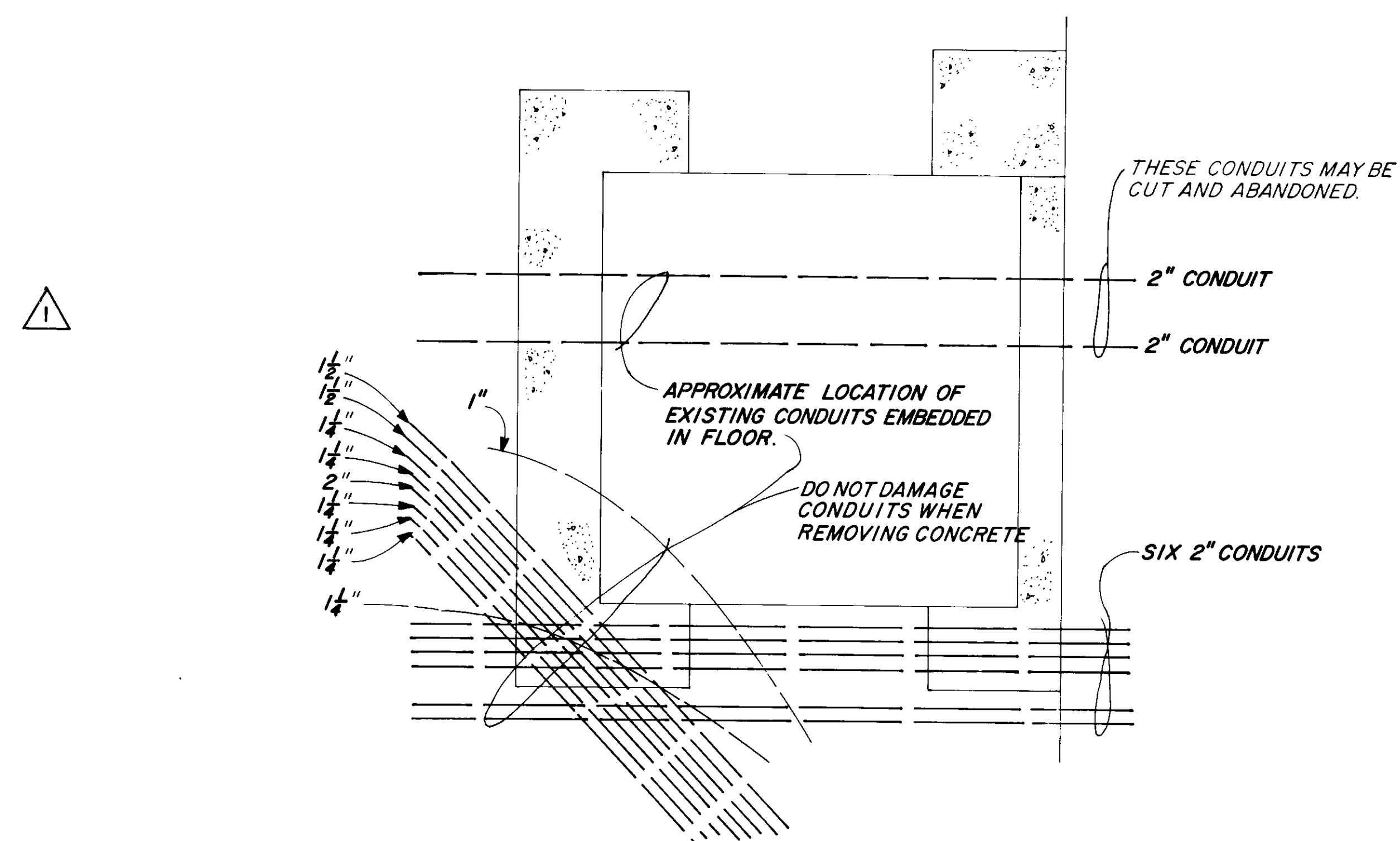
CONNECTOR - 8 REQ'D



SIDE VIEW

END VIEW
STRAIGHT SECTION

ITEM	NO. REQ'D	APPROX. LENGTH
1	2	4' - 6"
2	1	7' - 6"
3	1	6' - 9"

SECTION B - B
SCALE 3/4" = 1'-0"CABLE TRAY DETAILS
12 GA SHEET STEELPLAN-ELEVATOR AREA
EL. 785

REFERENCE DRAWING 66

REVISION	DATE	DESCRIPTION	BY
2	NOV. 84	DELETE ELEVATOR MACHINERY ROOM	RCM
U. S. ARMY ENGINEER DIVISION, N. P. PORTLAND, OREGON			
DESIGNED BY	LK	CHIEF JOSEPH DAM	
DRAWN BY	EMH	COLUMBIA RIVER WASHINGTON	
CHECKED BY	ERG	POWERHOUSE SHOPS	
PREPARED BY	Small, B. L.	LIGHTING	
SUBMITTED BY		ELEVATOR & FIRST AID ROOM	
EL. 785.0		APPROVED FOR DIV. ENGINEER DATE 83 DEC 14	
SCALE AS SHOWN		CJP-1.16-6-2D0/11	
SHEET 77			