

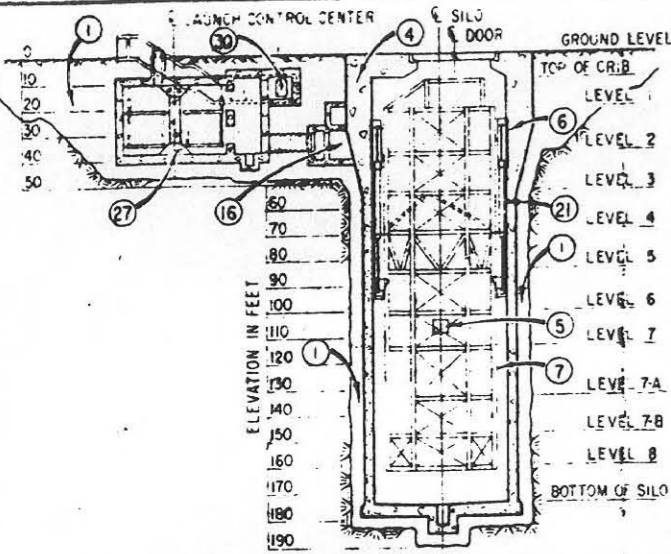
CORPS OF ENGINEERS BALLISTIC MISSILE CONSTRUCTION OFFICE CONSTRUCTION STATUS REPORT

ATLAS F (WS-107 A1)

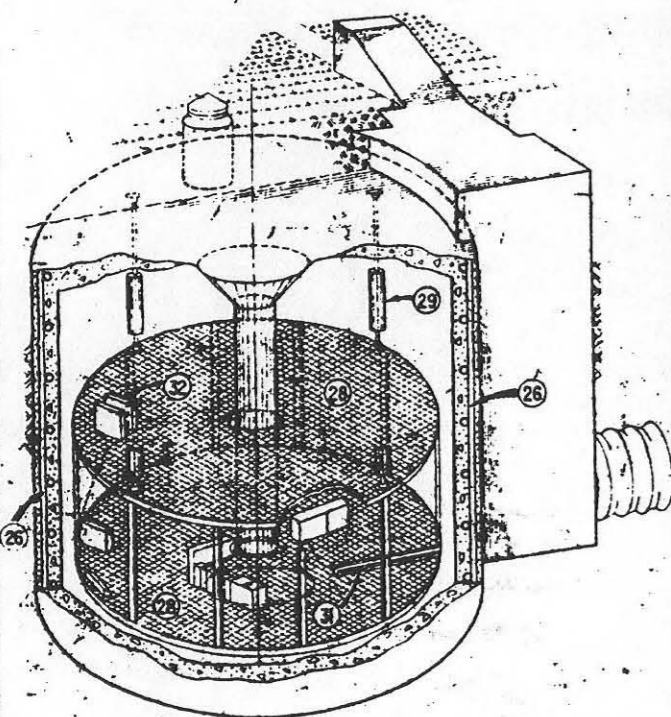
AIR FORCE BASE, SITE NO. _____ SITE NAME _____

CONTRACTOR _____

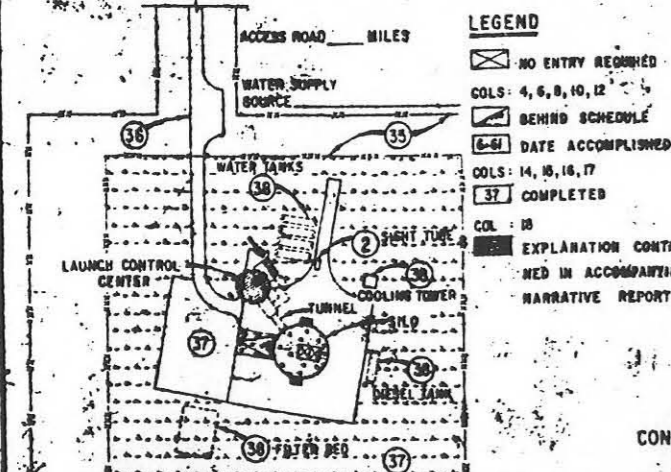
DATE THIS REPORT _____



SECTIONAL ELEVATION

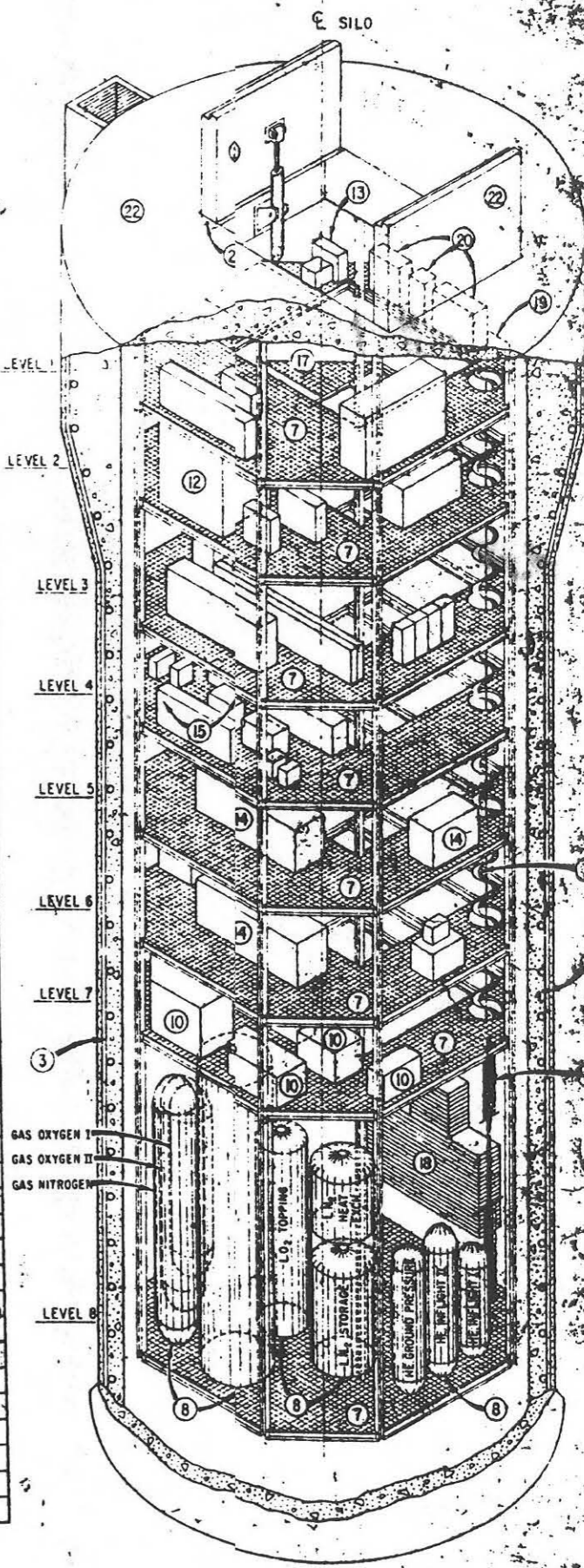


LAUNCH CONTROL CENTER



SITE PLAN

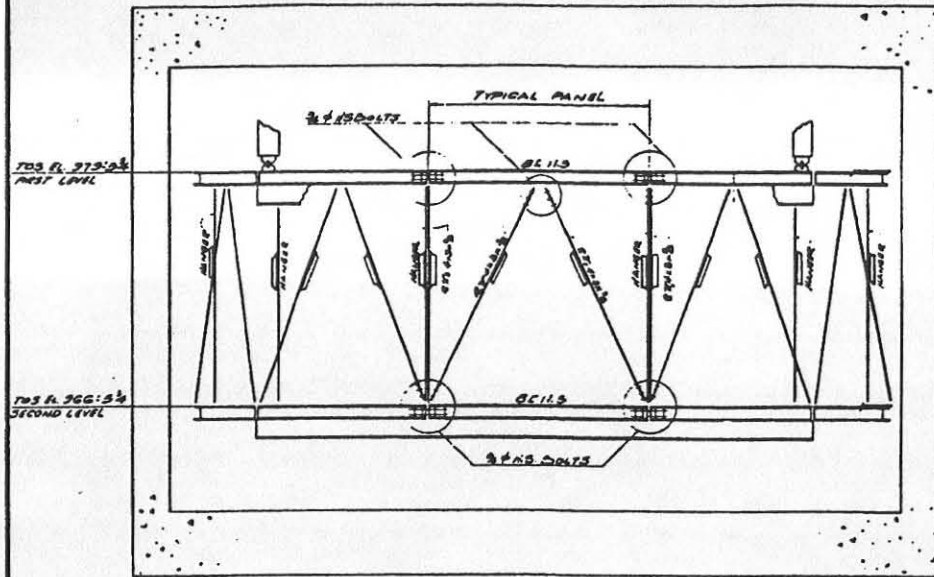
NO.	ITEM DESCRIPTION	EQUIPMENT						INSTALL & CONSTR.				EQUIPMENT VALIDATION CERTIFIED	CONSTRUCTION STATUS				PROBLEM AREA
		FABRICATION		RECEIVED		PLACED		STARTED		COMPLETED			CONTRACTOR SCHEDULE NO. OF DAYS	NO. OF DAYS SINCE START OF SCHEDULE	ACTUAL STATUS		
		STARTED	COMP.	SCHEDULE	ACTUAL	SCHEDULE	ACTUAL	SCHEDULE	ACTUAL	SCHEDULE	ACTUAL				DAYS AHEAD	DAYS BEHIND	
1	SIL0	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	EXCAVATION & BACKFILL																
2	SIGHT TUBE																
3	REINFORCING STEEL																
4	SIL0 CONCRETE (EXCEPT CAP)																
5	COLLIMATOR EMBEDDED PLATE																
6	CRIB SUSPENSION SYSTEM EMBEDDED WALL BRACKET																
7	STEEL CRIB																
8	P.L.E. VESSEL INSTALLATION																
9	P.L.S. TESTING																
10	P.L.S. PREFABS AND INTERCONNECTING PIPING																
11	CABLE TRAY INSTALLATION																
12	COMPRESSED AIR SYSTEM																
13	FACILITY ELEVATOR (PERSONNEL)																
14	DIESEL GENERATOR, SWITCHGEAR & PANELS																
15	HEATING, VENTILATING AND AIRCONDITIONING PUMPS																
16	BLAST CLOSURE																
17	LAUNCH PLATFORM RAILROADS & BRACKETS																
18	LAUNCH PLATFORM COUNTERWEIGHT																
19	LAUNCH PLATFORM DRIVE BASE																
20	LAUNCH PLATFORM DRIVE MECHANISM																
21	CRIB SUSPENSION SYSTEM SPRING & BRACKET																
22	SIL0 CAP AND DOORS																
23	C.B.R. FILTERS																
24																	
25																	
LAUNCH CONTROL CENTER																	
26	REINFORCING STEEL																
27	CONCRETE INCLUDING VENTS, TUNNEL AND ENTRY																
28	HUNG FLOOR																
29	AIRCYLINDER SPRING SUPPORT																
30	BLAST CLOSURE																
31	CABLE TRAY INSTALLATION																
32	HEATING, VENTILATING AND AIRCONDITIONING																
33																	
34																	
SITE WORK																	
35	FENCING																
36	ACCESS ROADS																
37	SITE AREA																
38	UTILITIES																
39																	
MISCELLANEOUS																	
40	CONTRACTORS CONSTRUCTION SCHEDULE																
41	SHOP DRAWINGS																
42	PROVISIONING DATA																
43																	



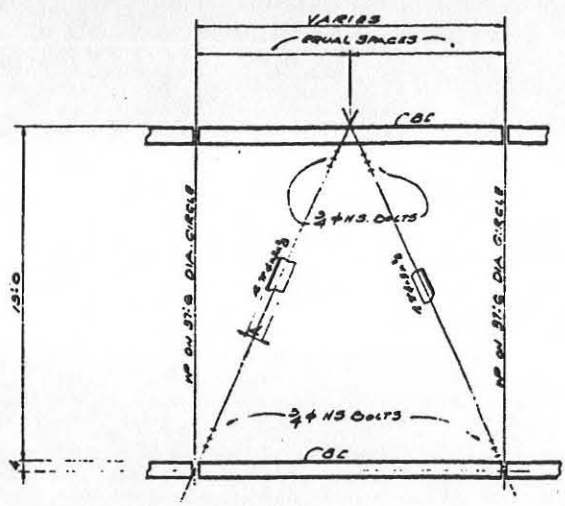
SIL0

DATE THIS REPORT _____

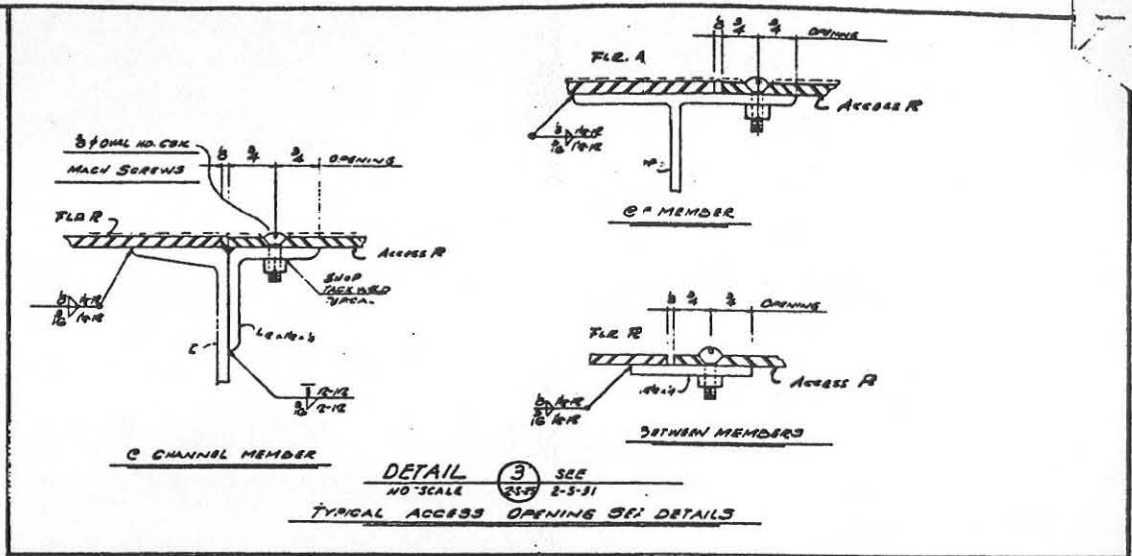
AWARD OF CONTRACT												CONTRACT COMPLETION																							
1960												1961												1962											
J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
CONTRACTOR SCHEDULE												ACTUAL												ACTUAL STATUS											
SCHEDULE												SCHEDULE												DAYS AHEAD											
ACTUAL												ACTUAL												DAYS BEHIND											



TYPICAL ELEVATION OF HUNG FLOORS
SEE PLANS FOR SECTION MARKS
1/4" = 1'-0"

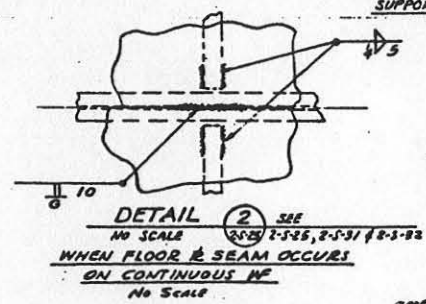


TYPICAL VERTICAL BRACING
SEE PLAN @ FIRST FLOOR FRAMING
FOR SECTION MARKS
NO SCALE

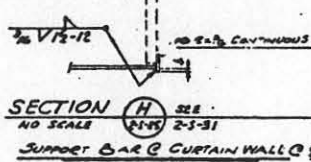


DETAIL 3 SEE NO SCALE 2-5-31
TYPICAL ACCESS OPENING SET DETAILS

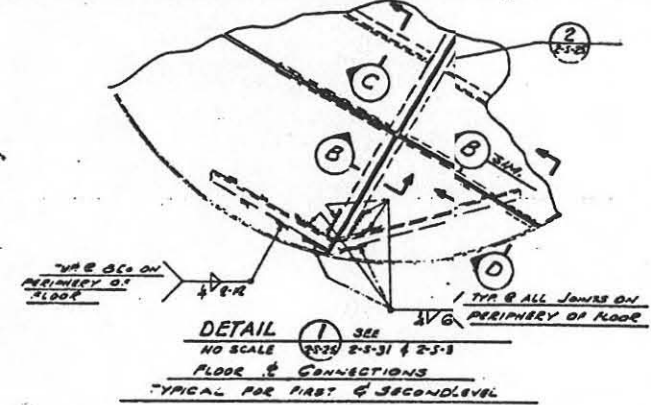
SECTION K SEE NO SCALE 2-5-31
SUPPORT BAR AT CURTAIN WALL - 1ST LEVEL



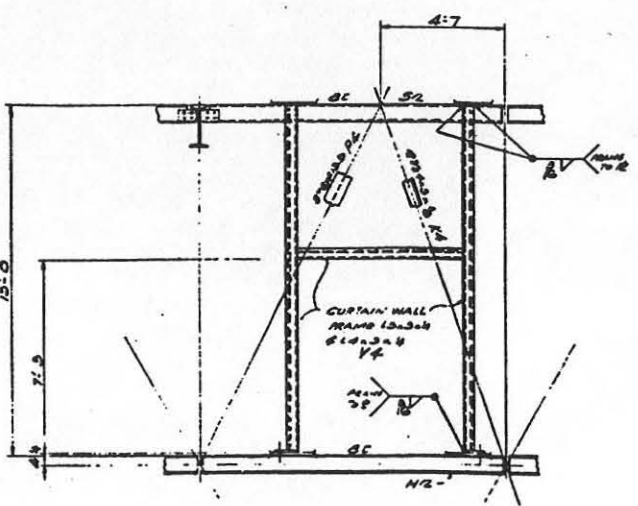
DETAIL 2 SEE NO SCALE 2-5-31, 2-5-31 & 2-5-32
WHEN FLOOR & BEAM OCCURS ON CONTINUOUS W
NO SCALE



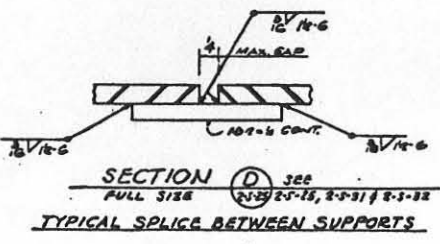
SECTION H SEE NO SCALE 2-5-31 & 2-5-32
SUPPORT BAR @ CURTAIN WALL @ 2ND LEV



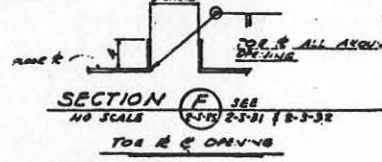
DETAIL 1 SEE NO SCALE 2-5-31 & 2-5-32
FLOOR & CONNECTIONS
TYPICAL FOR FIRST & SECOND LEVEL



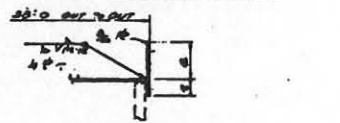
SECTION A SEE NO SCALE 2-5-31 & 2-5-32
VERTICAL BRACING & DOOR FRAME @ DOORWAY



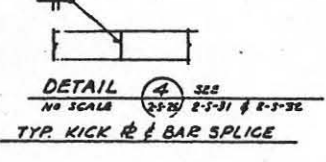
SECTION D SEE FULL SIZE 2-5-31, 2-5-31 & 2-5-32
TYPICAL SPLICE BETWEEN SUPPORTS



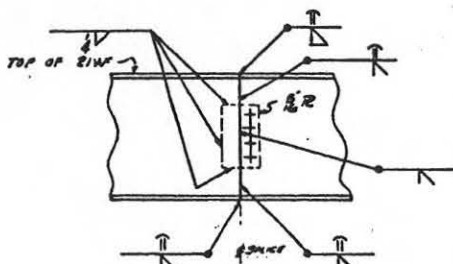
SECTION F SEE NO SCALE 2-5-31 & 2-5-32
TOE R @ OPENING



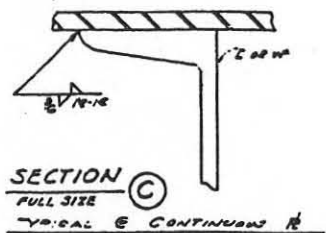
SECTION P SEE NO SCALE 2-5-31 & 2-5-32
KICK R @ SUPPORT BAR 1ST LEV



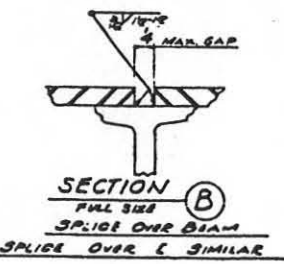
DETAIL 4 SEE NO SCALE 2-5-31 & 2-5-32
TYP. KICK R @ BAR SPLICE



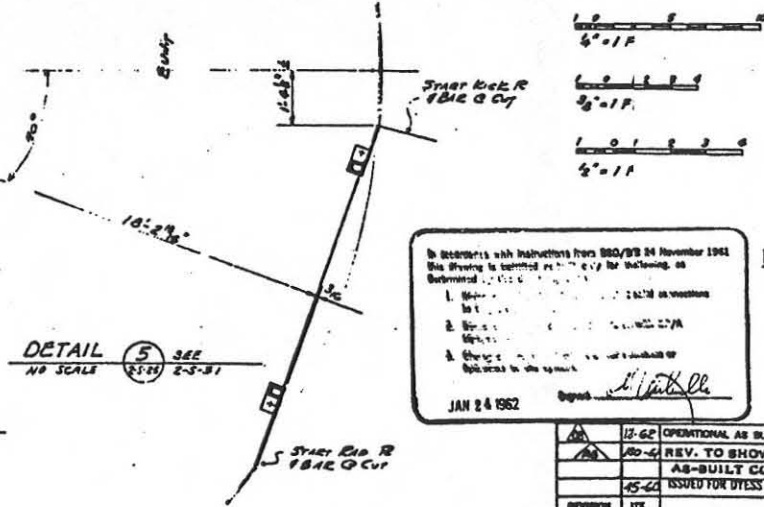
DETAIL 6 SEE NO SCALE 2-5-31, 2-5-31 & 2-5-32
OPTIONAL FIELD SPLICE.
(IF USED, 21 WF MUST BE TYPE II STEEL.)



SECTION C FULL SIZE 2-5-31 & 2-5-32
TYPICAL @ CONTINUOUS R



SECTION B FULL SIZE 2-5-31 & 2-5-32
SPLICE OVER BEAM



DETAIL 5 SEE NO SCALE 2-5-31 & 2-5-32

IN ACCORDANCE WITH INSTRUCTIONS FROM 880/89 24 NOVEMBER 1961
THIS DRAWING IS CONTROLLED BY THE FOLLOWING:
1. REVISIONS TO THIS DRAWING SHALL BE INDICATED BY A REVISION SYMBOL IN THE MARGIN.
2. THIS DRAWING IS THE PROPERTY OF THE AIR FORCE AND IS TO BE RETURNED TO THE ISSUING OFFICE.
3. THIS DRAWING IS NOT TO BE REPRODUCED OR COPIED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF THE ISSUING OFFICE.
4. THIS DRAWING IS NOT TO BE USED FOR ANY OTHER PROJECT WITHOUT THE WRITTEN PERMISSION OF THE ISSUING OFFICE.
JAN 24 1962

FOR SITES 1 2 3 4 5 6 7 8 9 10 11 12

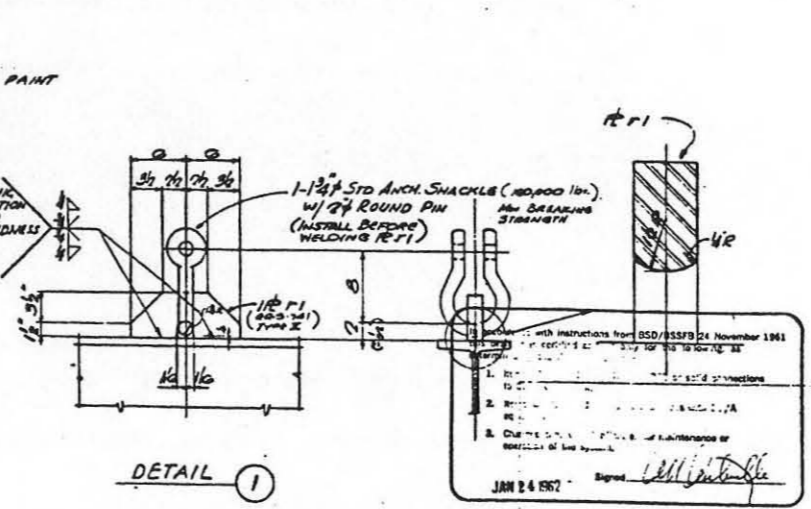
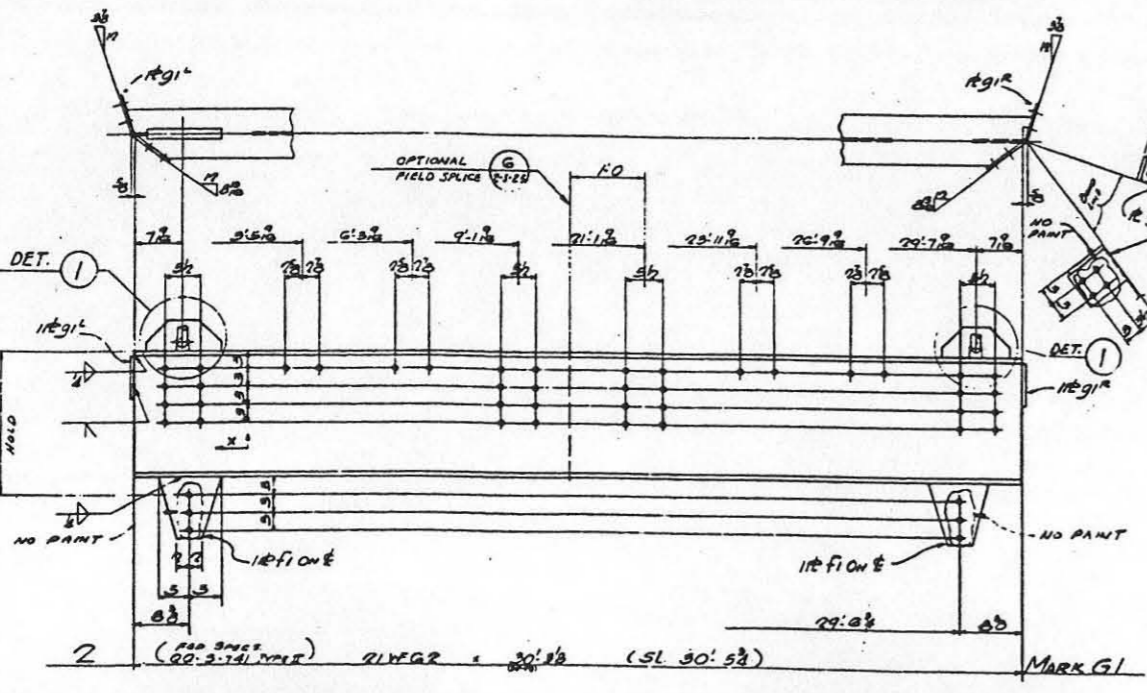
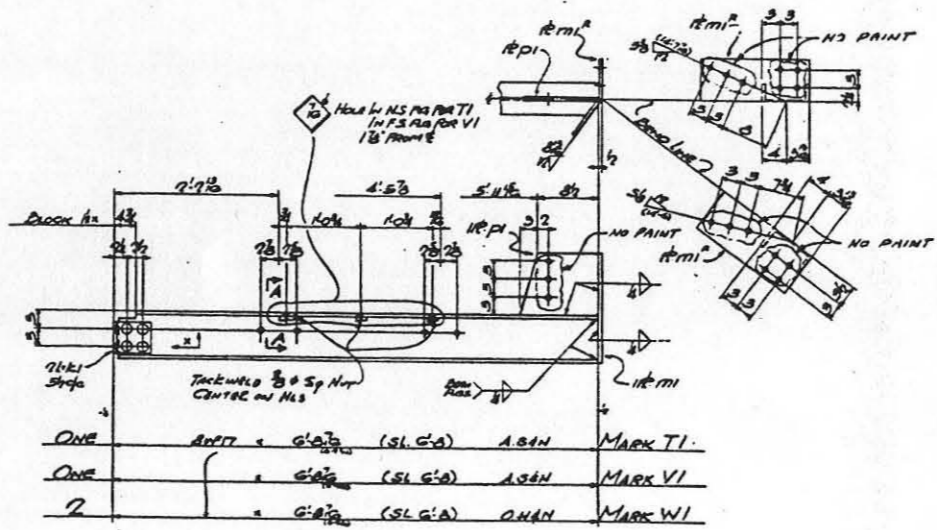
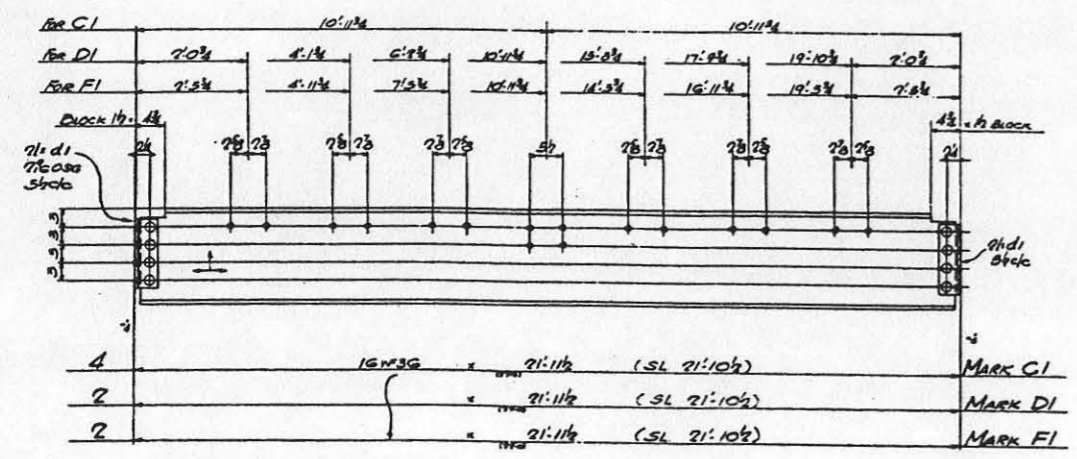
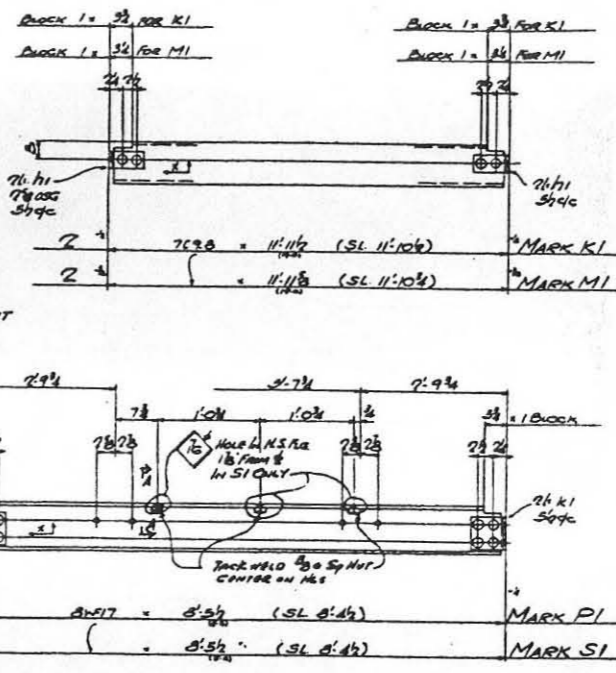
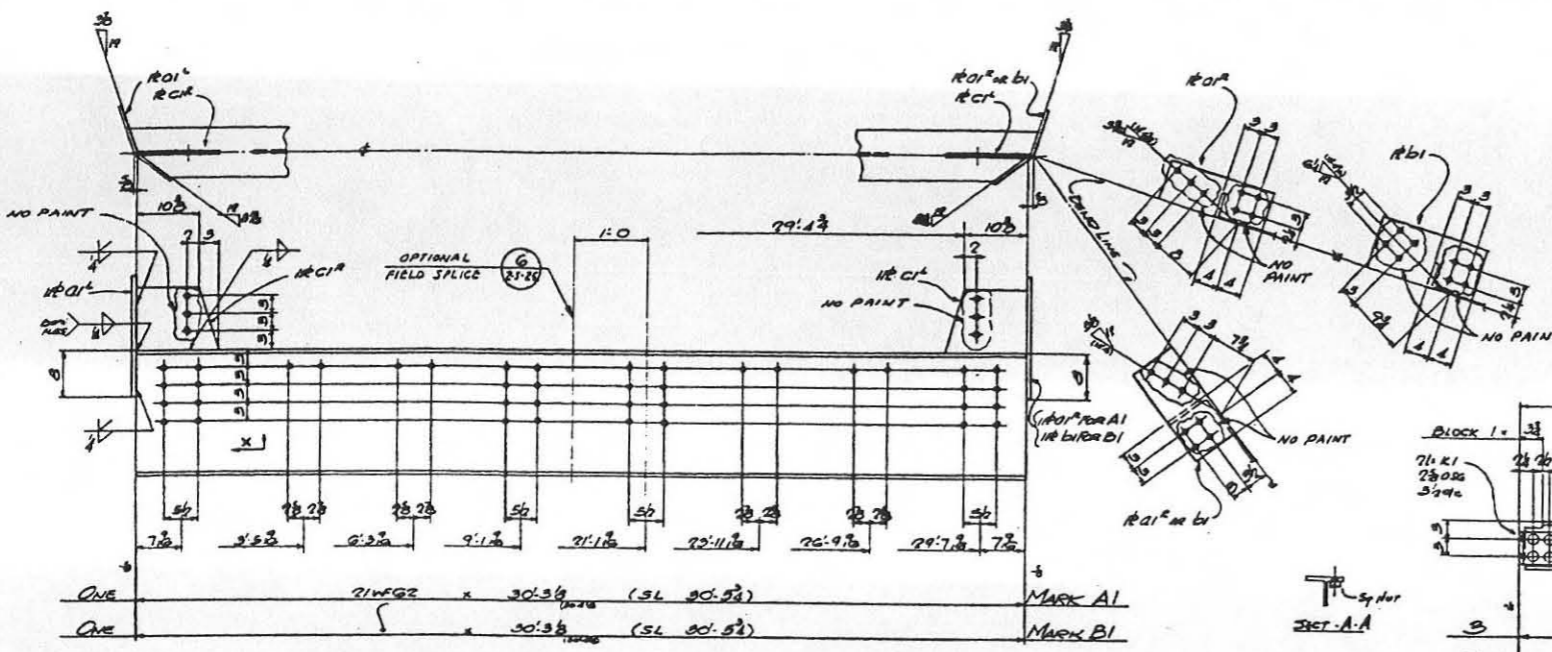
NOTES:
1. ALL HOLES ARE FOR HIGH STRENGTH FIELD BOLTS EXCEPT HOLES "A".
2. NO PAINT WITHIN 3" OF ALL OPEN HOLES EXCEPT HOLES "A".
3. HOLES FOR HIGH STRENGTH FIELD BOLTS TO BE CLEAN AND FREE FROM BURRS.

REVISION	DATE	DESCRIPTION	BY	CHKD
12-62	OPERATIONAL AS BUILT			
10-62	REV. TO SHOW CONSTR. AS-BUILT CONDITION			
45-62	ISSUED FOR DRESS K.T.E.			

ICHEL CORPORATION ENGINEERS AND ARCHITECTS 1000 W. 10th St., Suite 100 San Francisco, CA 94118	DEPARTMENT OF THE AIR FORCE AIR FORCE BALLISTIC MISSILE DIVISION (AMBD) 1000 W. 10th St., Suite 100 San Francisco, CA 94118
WS-107A-1 OPERATIONAL BASE UNITARY BILO LAUNCH CONTROL CENTER HUNG FLOORS ERECTION PLAN - SHT. 3	
DRAWN BY: HERRICK CHECKED BY: HERRICK DATE: 2-5-31	APPROVED BY: [Signature] DATE: 28 MARCH 1960
PROJECT NO. 678-2-S-25	SHEET NO. 3 OF 3

HERRICK IRON WORKS
 SHT. NO. 678-2-S-25
 JOB NO. 678-2-S-25

7 APR 1960
 [Signature]



BILL OF MATERIAL

NO. OF SECTIONS	SECTION	CT	MARK	REMARKS	QUANTITY	UNIT
1	21WFG2	30' 3 3/8"	AI	MARK AI	1	MARK AI
1	21WFG2	30' 3 3/8"	BI	MARK BI	1	MARK BI
1	21WFG2	30' 3 3/8"	CI	MARK CI	1	MARK CI
1	21WFG2	30' 3 3/8"	DI	MARK DI	1	MARK DI
1	21WFG2	30' 3 3/8"	EI	MARK EI	1	MARK EI
1	21WFG2	30' 3 3/8"	FI	MARK FI	1	MARK FI
1	21WFG2	30' 3 3/8"	GI	MARK GI	1	MARK GI
1	7C9A	11' 10 1/2"	KI	MARK KI	1	MARK KI
1	7C9A	11' 10 1/2"	MI	MARK MI	1	MARK MI
1	21WFG2	30' 3 3/8"	PI	MARK PI	1	MARK PI
1	21WFG2	30' 3 3/8"	SI	MARK SI	1	MARK SI
1	21WFG2	30' 3 3/8"	TI	MARK TI	1	MARK TI
1	21WFG2	30' 3 3/8"	VI	MARK VI	1	MARK VI
1	21WFG2	30' 3 3/8"	WI	MARK WI	1	MARK WI

FIELD DETAILS - ADD 3/8"

100	3/8" H/S DOWELS	2	ASBIP	A325	
135	3/8" H/S DOWELS	2	ASBIP	A325	
170	3/8" H/S DOWELS (MAX)			A325	
180	3/8" P.M. DOWELS	2	ASBIP	A325	
30	3/8" P.M. DOWELS	2	ASBIP	A325	
3	3/8" ANCH. SHACKLES	1	ASBIP	A325	

FOR SITES 1 2 3 4 5 6 7 8 9 10 11 12

NOTE:

- ALL HOLES ARE FOR HIGH STRENGTH FIELD BOLTS EXCEPT HOLES "A".
- NO PAINT WITHIN 2" OF ALL OPEN HOLES EXCEPT HOLES "A".
- HOLES FOR HIGH STRENGTH FIELD BOLTS TO BE CLEAN AND FREE FROM BURRS.

14-62 OPERATIONAL AS BUILT

REV. TO SHOW CONSTR. AS-BUILT CONDITION

ISSUED FOR DYESS A.F.R.

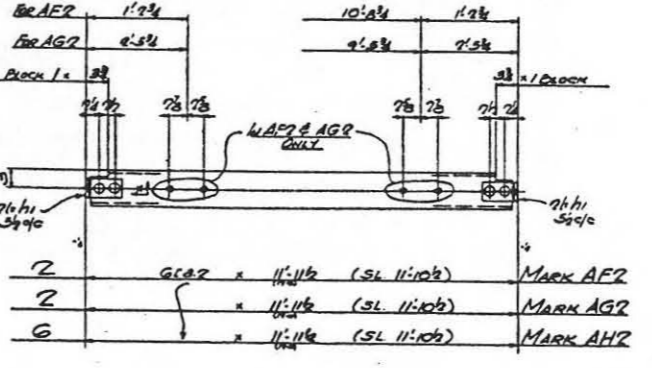
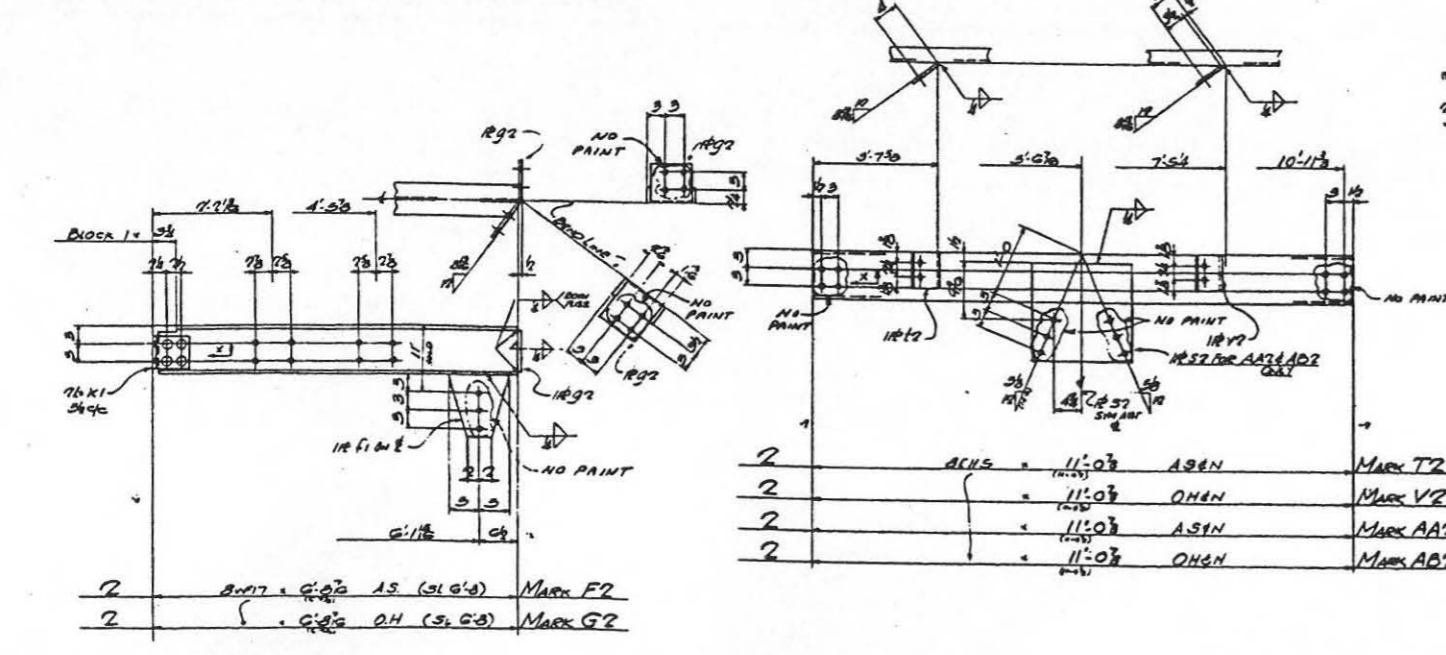
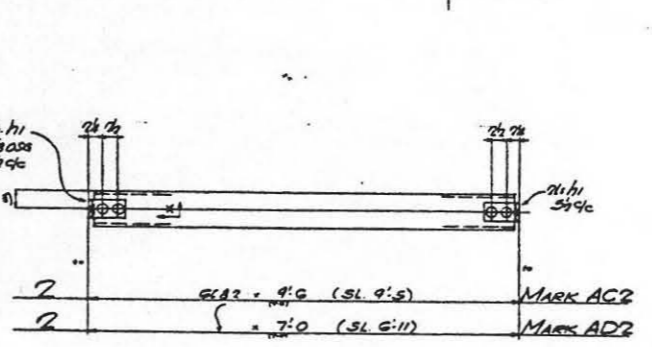
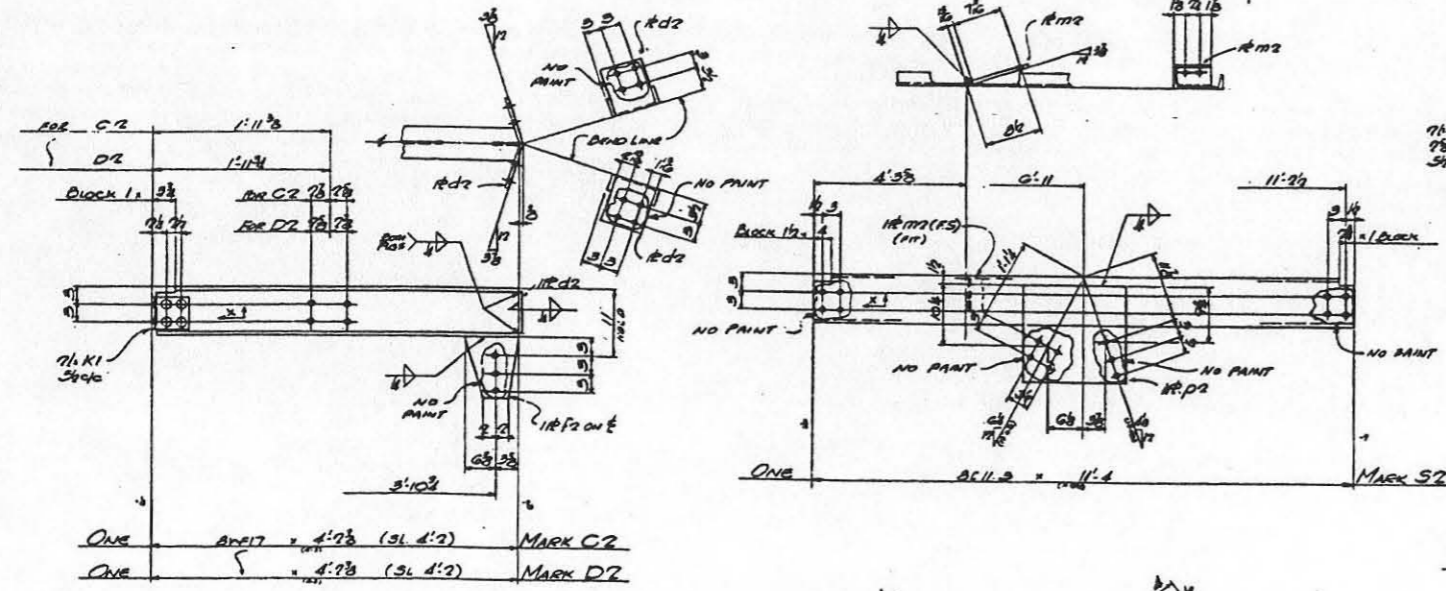
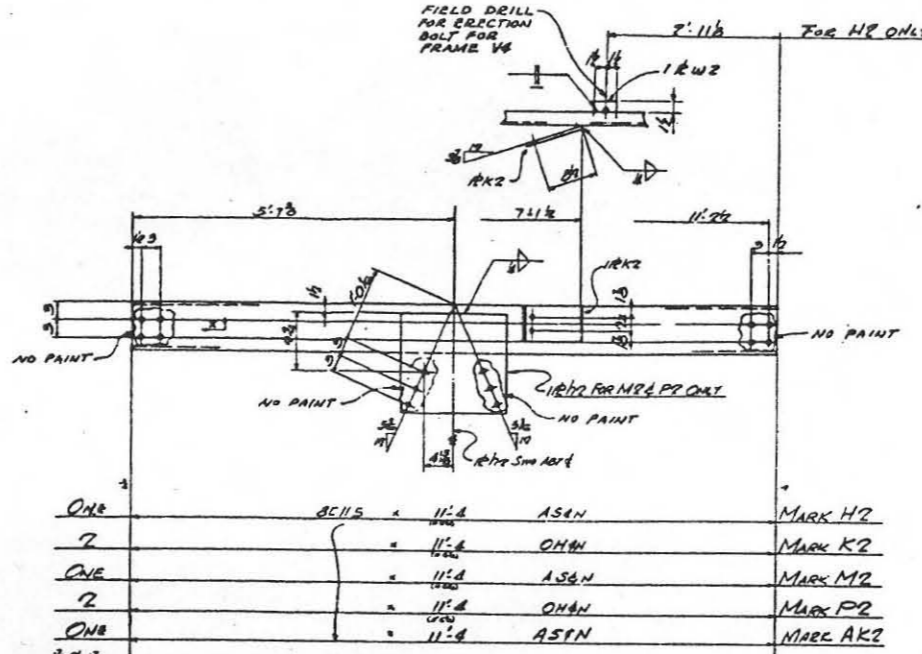
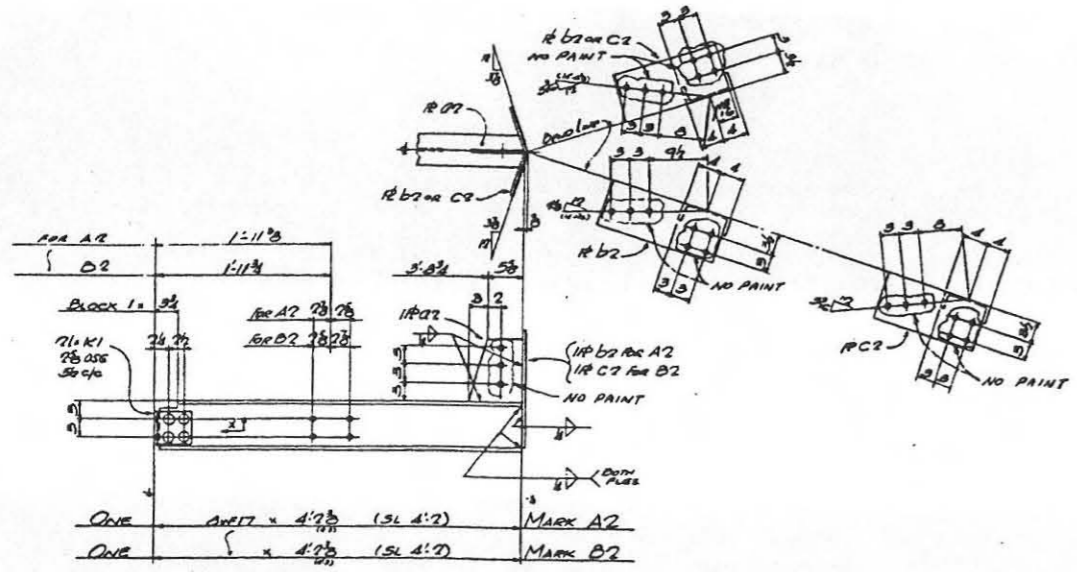
KHTEL CORPORATION
ENGINEERS AND CONSTRUCTORS

DEPARTMENT OF THE AIR FORCE
AIR FORCE BALLISTIC MISSILE DIVISION (AMDO)

WS-107A-1 OPERATIONAL BASE
UNITARY SILO
LAUNCH CONTROL CENTER
HUNG FLOORS
SHOP DETAILS - SHT. 1

DATE: 28 MARCH 1960

578-2-S-26



BILL OF MATERIAL

SECTION	MARK	REMARKS	QTY	UNIT	MARK
ONE 17	A2		1		
ONE 17	B2		1		
ONE 17	C2		1		
ONE 17	D2		1		
ONE 17	F2		2		
ONE 17	G2		2		
ONE 17	H2		2		
ONE 17	K2		2		
ONE 17	M2		2		
ONE 17	P2		2		
ONE 17	AK2		2		
ONE 17	AG2		2		
ONE 17	AD2		2		
ONE 17	AF2		2		
ONE 17	AG2		2		
ONE 17	AH2		6		
ONE 17	AK2		1		

2	ONE 10 x 10	104	F1
2	ONE 10 x 10	3	H1
16	ONE 10 x 10	34	K1
2	ONE 10 x 10	104	M2
1	ONE 10 x 10	1	N2
1	ONE 10 x 10	1	O2
2	ONE 10 x 10	1	P2
2	ONE 10 x 10	104	Q2
2	ONE 10 x 10	1	R2
2	ONE 10 x 10	94	S2
1	ONE 10 x 10	9	T2
1	ONE 10 x 10	1	U2
2	ONE 10 x 10	1	V2
2	ONE 10 x 10	2	W2
1	ONE 10 x 10	3	X2

FIELD BOLTS - ADD 50

63	ONE x 1/2	2	3/4	AS25
71	ONE	22	AS25	
280	ONE HARDWARES (PLAT)		AS25	
64	ONE x 1/2	3	5/8	AS25
43	ONE	1	AS25	

FOR SITES 1 2 3 4 5 6 7 8 9 10 11 12

- NOTES
- ALL HOLES ARE FOR HIGH STRENGTH FIELD BOLTS EXCEPT HOLES "A".
 - NO PAINT WITHIN 2" OF ALL OPEN HOLES EXCEPT HOLES "A".
 - HOLES FOR HIGH STRENGTH FIELD BOLTS TO BE CLEAN AND FREE FROM BURRS.

In accordance with instructions from ASD/BS37 24 November 1961 this drawing is certified as correct for the listing of dimensions.

1. DATE: JAN 24 1962

2. BY: [Signature]

3. CHECKED BY: [Signature]

JAN 24 1962

APPROVED FOR THE USE OF THE UNITED STATES GOVERNMENT BY THE OFFICE OF THE SECRETARY OF DEFENSE

7 APR 1962

U.S. GOVERNMENT PRINTING OFFICE: 1962 O 578-2-S-27

14-62 OPERATIONAL AS BUILT

REV. TO SHOW CONSTR. AS-BUILT CONDITION

ISSUED FOR DYES A.F.B.

REVISION DATE DESCRIPTION

ECNTEL CORPORATION ENGINEERS AND CONSTRUCTORS

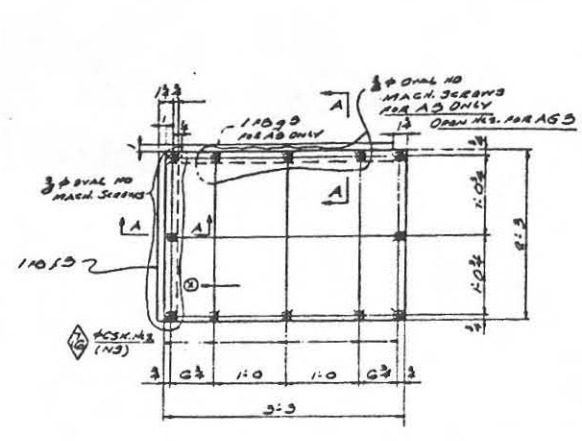
DEPARTMENT OF THE AIR FORCE AIR FORCE BALLISTIC MISSILE DIVISION WADD

WS-107 A-1 OPERATIONAL BASE UNITARY SILO LAUNCH CONTROL CENTER HUNG FLOORS SHOP DETAILS - SHT. 2

APPROVED BY: [Signature]

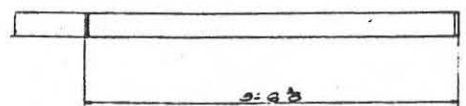
DATE: 28 MARCH 1962

578-2-S-27

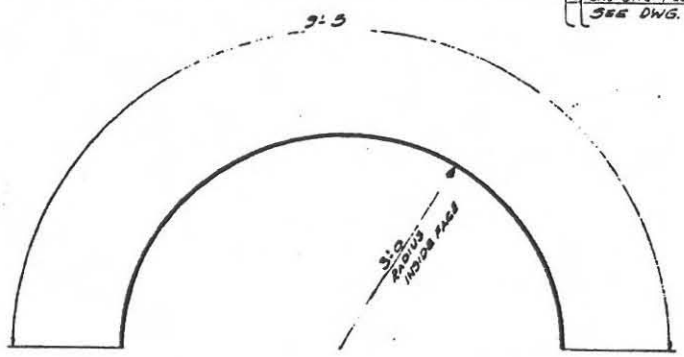


SECTION 'A-A'

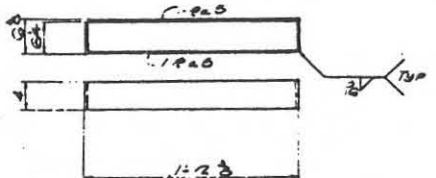
MAKE ONE ACCESS OPENING 27 x 4 x 3:3 MARK AD
 ONE 27 x 4 x 3:3 AGS



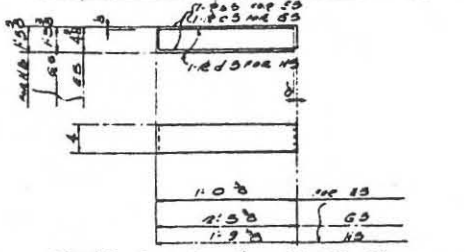
MAKE TOP RS 4 x 3 x 6:63 MARK DS
 1 PER SITE
 ONE SITE PER FOUNDATION
 SEE DWG. 2-5-31



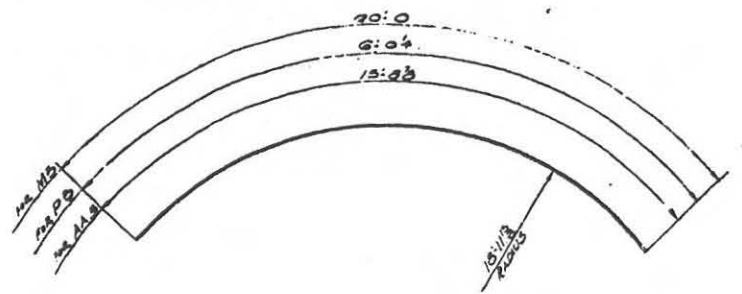
MAKE 2 TOP RS 8 x 3 x 9:5 MARK CS



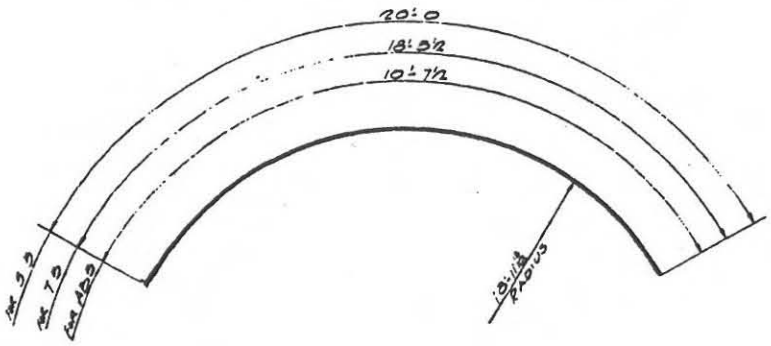
MAKE ONE TOP RS MARK DS



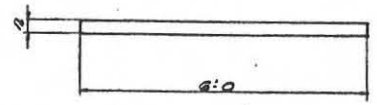
MAKE ONE TOP RS MARK ES
 ONE GS
 ONE HS



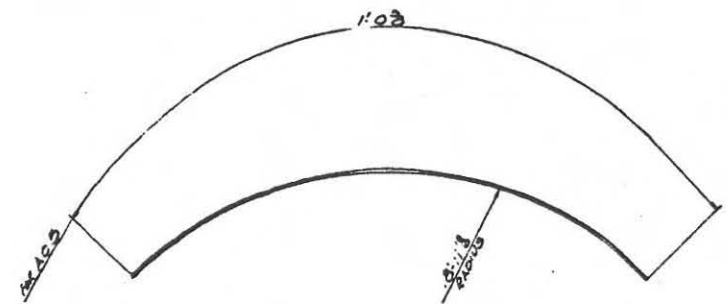
MAKE SWR 2 x 3 x 20:0 MARK MS
 ONE 2 x 3 x 6:04 PS
 2 2 x 3 x 13:03 AAS



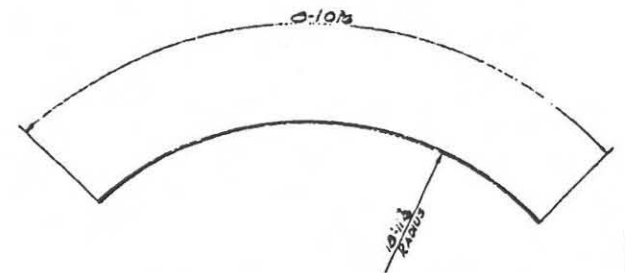
MAKE 2 WR 3 x 3 x 20:0 MARK SS
 ONE 3 x 3 x 13:02 TS
 ONE 3 x 3 x 10:72 ADS



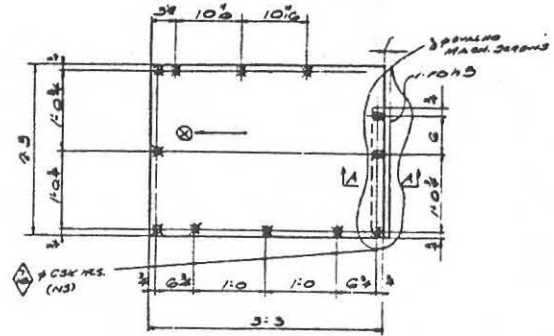
MAKE ONE CURTAIN WALL SUPPORT MARK VS



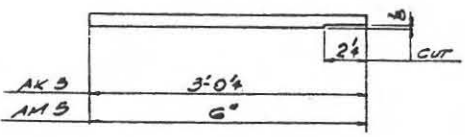
MAKE ONE SWR 3 x 3 x 1:03 MARK AS



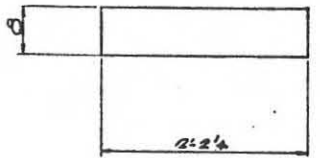
MAKE ONE TOP RS 2 x 2 x 2:103 MARK AS



MAKE ONE 27 x 4 x 3:3 MARK AHS



MAKE ONE TOP RS 2 x 3 x 3:04 MARK AKS
 ONE 2 x 3 x 6 AMB



MAKE 2 RS 3 x 3 x 2:24 MARK APS

BILL OF MATERIAL						
NO	SECTION	QTY	MARK	REMARKS	UNIT	WEIGHT
1	27 x 4 x 3:3	3	AS			
2	27 x 4 x 3:3	2	GS	SCREW		
3	27 x 4 x 3:3	2	CS	SCREW		
4	1 x 27 x 4	1	DS			
5	1 x 27 x 4	1	ES			
6	1 x 27 x 4	1	FS			
7	1 x 27 x 4	1	GS			
8	1 x 27 x 4	1	HS			
9	1 x 27 x 4	1	KS			
10	1 x 27 x 4	1	MS	SCREW		
11	1 x 27 x 4	1	PS			
12	1 x 27 x 4	1	QS			
13	1 x 27 x 4	1	RS			
14	1 x 27 x 4	1	TS			
15	1 x 27 x 4	1	VS	PLAIN		
16	2 x 2 x 3	15	AAS	SCREW		
17	2 x 2 x 3	10	ADS			
18	2 x 2 x 3	1	AS			
19	2 x 2 x 3	2	AS			
20	1 x 27 x 4	3	AS			
21	1 x 27 x 4	3	AS			
22	1 x 27 x 4	3	AS			
23	1 x 27 x 4	3	AS			
24	1 x 27 x 4	2	AS			
25	1 x 27 x 4	2	AS			
26	1 x 27 x 4	1	AS			
27	2 x 2 x 3	1	AS	SCREW		
28	2 x 2 x 3	1	AS			
29	2 x 2 x 3	3	AS			
30	2 x 2 x 3	3	AS			
31	1 x 27 x 4	2	AS			
32	1 x 27 x 4	2	AS			
33	1 x 27 x 4	1	AS			

FOR SITES 1 2 3 4 5 6 7 8 9 10 11 12

- NOTE:
1. ALL HOLES ARE FOR HIGH STRENGTH FIELD BOLTS EXCEPT HOLES "K".
 2. NO PAINT WITHIN 3" OF ALL OPEN HOLES EXCEPT HOLES "K".
 3. HOLES FOR HIGH STRENGTH FIELD BOLTS TO BE CLEAN AND FREE FROM BURRS.

IN ACCORDANCE WITH SPECIFICATIONS FROM 222/25573 24 NOVEMBER 1961
 THIS DRAWING IS THE PROPERTY OF THE AIR FORCE AND IS TO BE KEPT IN THE OFFICE OF THE CONTRACTOR.
 DATE: JAN 2 1962

DATE: 7 APR 1960
 BY: [Signature]
 TITLE: SUPERVISOR IN CHARGE OF SHOPWORK
 NAME: JAMES D. [Signature]



12-14-62	OPERATIONAL AS BUILT	SATAP	P
10-20-62	REV. TO SHOW CONSTR. 1	CEBMO	R/S
4-25-60	AS-BUILT CONDITION	AFBMD	G/S
4-25-60	SUED FOR DYESS A.F.B.	AGENCY	INT.

BECHT CORPORATION
 ENGINEERS AND CONSTRUCTORS
 ONE FRANKLIN - LOS ANGELES - CALIF.

DEPARTMENT OF THE AIR FORCE
 AIR FORCE BALLISTIC MISSILE DIVISION WAFBD
 BANGOR, CALIF.

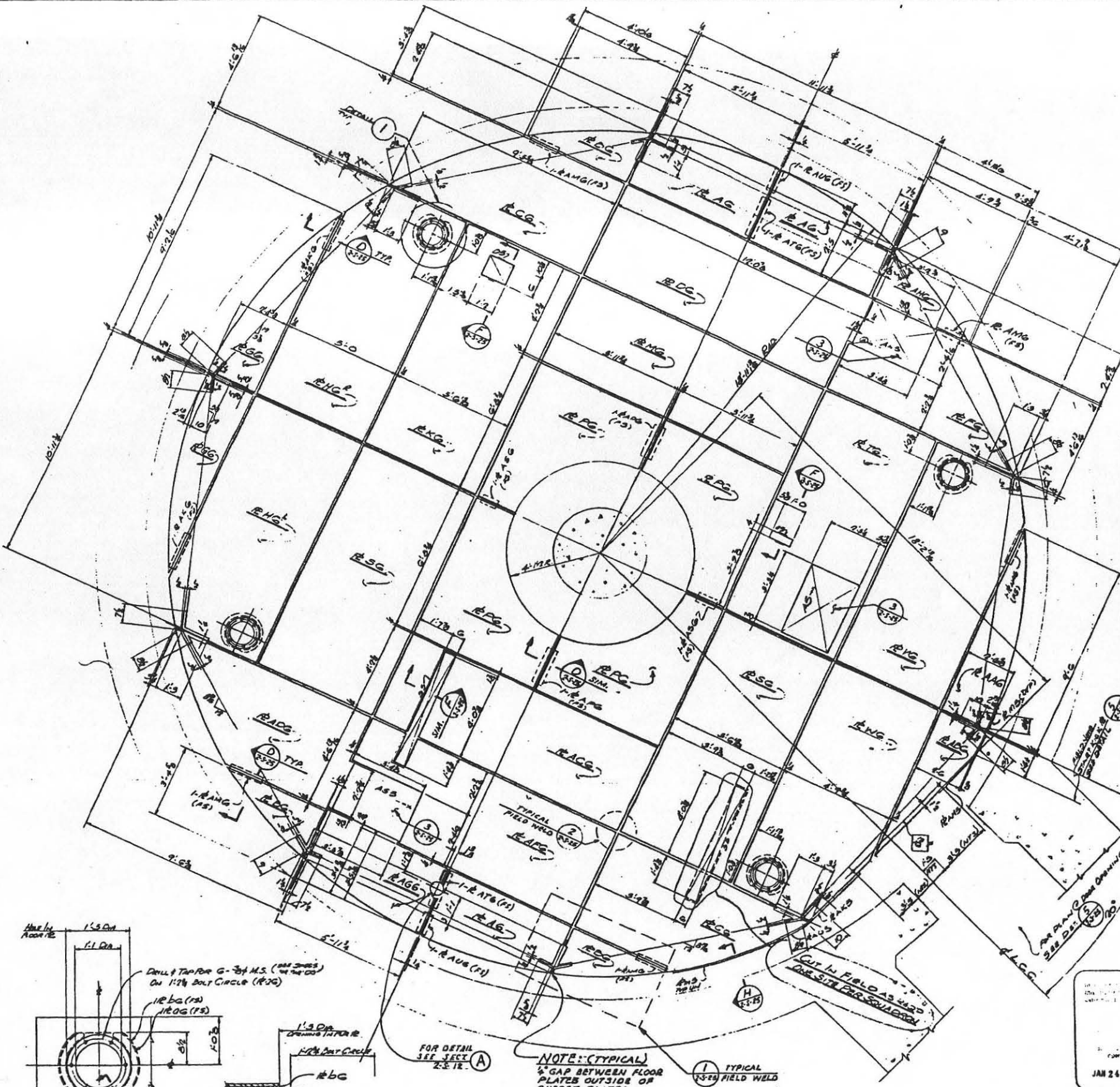
WS-107 A-1 OPERATIONAL BASE
 UNITARY SILO
 LAUNCH CONTROL CENTER
 HUNG FLOORS
 SHOP DETAILS - SHT. 5

APPROVED BY: [Signature]
 DATE: 7 APR 1960

REVISIONS:
 1. 7 APR 1960
 2. 7 APR 1960
 3. 7 APR 1960

ENGINEER: [Signature]
 ARCHITECT: [Signature]
 CONTRACTOR: [Signature]

578-2-S-30



MAKE 3 PART MARK AC
 MAKE 3 " MARK BG
 MAKE 2 MARK CG
 MAKE ONE MARK DG
 MAKE ONE MARK FG
 MAKE 2 MARK GG
 MAKE 2 MARK HSP
 MAKE ONE MARK KG
 MAKE ONE MARK MG
 MAKE 4 MARK PG
 MAKE 5 MARK SG
 MAKE ONE MARK TG
 MAKE ONE MARK VG
 MAKE ONE MARK WG
 MAKE ONE MARK AAG
 MAKE ONE MARK ABG
 MAKE ONE MARK ACG
 MAKE ONE MARK ADG
 MAKE ONE MARK AFG
 MAKE ONE MARK AGG
 MAKE ONE MARK AHG
 MAKE 4 MARK AKG
 MAKE 10 MARK AHG
 MAKE 2 MARK APG
 MAKE 2 MARK ASG

BILL OF MATERIAL

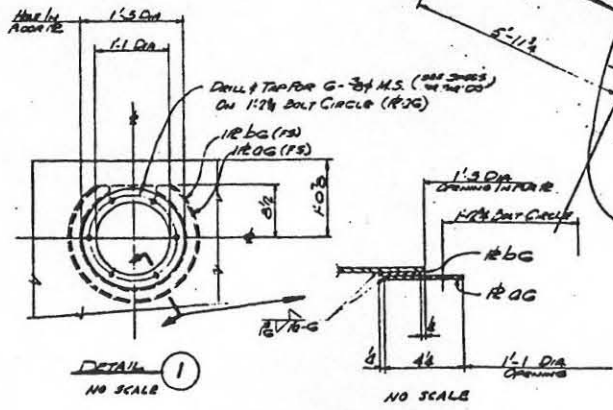
MARK	SECTION	QTY	MARK	REMARKS	UNIT	WARRANT
3	42 1/2" x 4	5	11 1/2	AG		
2	1 3/8" x 4	4	9 1/2	CG		
2	1 3/8" x 4	9	3 3/8	CG		
7	1 3/8" x 4	17	0 3/8	CG		
1	1 3/8" x 4	9	5 3/8	FG		
2	1 3/8" x 4	9	2 3/8	GG		
2	1 3/8" x 4	10	1 1/4	HSP		
1	1 3/8" x 4	10	1 1/4	KG		
1	1 3/8" x 4	11	1 1/4	MG		
4	1 3/8" x 4	6	0 3/8	PG		
3	1 3/8" x 4	10	1 1/4	SG		
1	1 3/8" x 4	10	1 1/4	TE		
1	1 3/8" x 4	10	1 1/4	VG		
1	1 3/8" x 4	10	1 1/4	WG		
1	1 3/8" x 4	9	0	AAG		
1	1 3/8" x 4	8	3 3/8	ABG		
1	1 3/8" x 4	4	1 1/4	ACG		
1	1 3/8" x 4	9	0 3/8	ADG		
1	1 3/8" x 4	11	1 1/4	AFG		
1	1 3/8" x 4	5	1 1/4	AGG		
1	1 3/8" x 4	6	1 0 3/8	AHG		
4	1 3/8" x 4	2	1 1/4	AKG		
10	1 3/8" x 4	1	1 1/4	ALG		
2	1 3/8" x 4	1	3	APG		
2	1 3/8" x 4	2	0	ATG		
2	1 3/8" x 4	1	0	AUG		
2	1 3/8" x 4	1	0	AUG		
4	1 3/8" x 4	1	0 3/8	CG		
4	1 3/8" x 4	1	1 1/4	CG		

FIELD BOLTS (ADD 50%)
 24# 1/4" MARK SCREWS 1/4" DIA. 100'S

NOTE:
 FIELD TRIM FLOOR PLATES WHERE NECESSARY TO FIT CLOSELY AROUND BRACING GUSSET PLATES. ALL GAPS SHALL BE KEPT TO A MINIMUM TO FACILITATE LAYING OF FLOOR COVERING.

FOR SITES 1 2 3 4 5 6 7 8 9 10 11 12

- NOTE:**
- ALL HOLES ARE FOR HIGH STRENGTH FIELD BOLTS EXCEPT HOLES "A".
 - NO PART WITHIN 2" OF ALL FIELD HOLES EXCEPT HOLES "A".
 - HOLES FOR HIGH STRENGTH FIELD BOLTS TO BE CLEAN AND FREE FROM BURRS.



NOTE: (TYPICAL)
 1/4" GAP BETWEEN FLOOR PLATES OUTSIDE OF GUSSET PLATES.

NOTE:
 TYPICAL 1/2" DIA. FIELD WELD

FLOOR PLATE PLAN @ SECOND LEVEL
 TOP - PL 900'-0"
 DETAIL SHOWN IN SECTION SHOWN
 FOR SHOWN DETAILS NOT SHOWN SEE CORRESPONDING SHOWN MARK

FLOOR PLATE - PLAN (SHOWN)
 DATE: JAN 24 1962
 DRAWN BY: [Signature]
 CHECKED BY: [Signature]

USE THESE FIELD BOLT SPACES OR THE ONE IF SHOWN BY THE CONTRACTOR'S DRAWINGS

7 APR 1962
 18 OIL COMPANY IN CHARGE
 PLANT FOR CONSTRUCTION

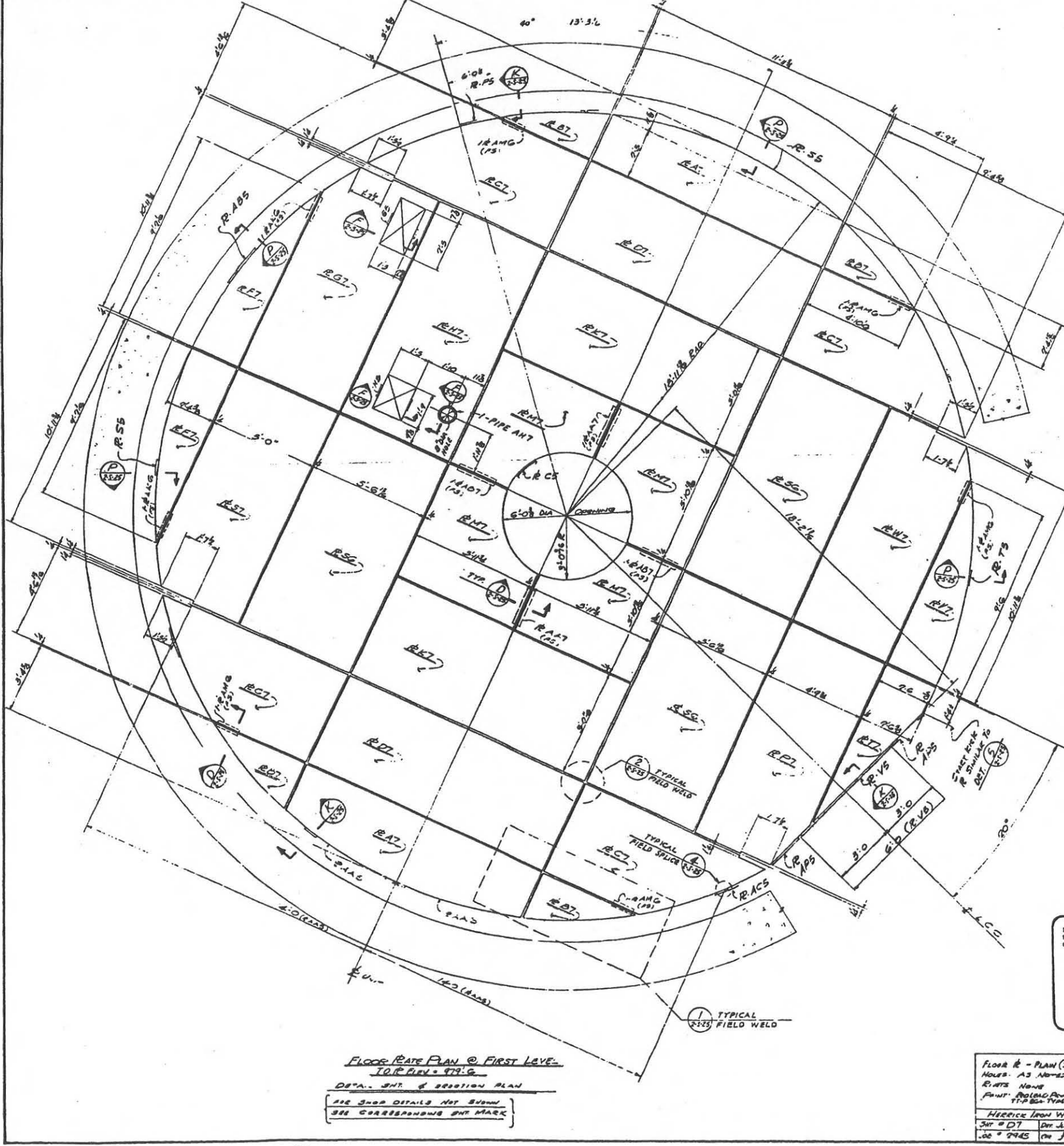
BECHTEL CORPORATION
 ENGINERS AND CONSTRUCTORS

DEPARTMENT OF THE AIR FORCE
 AIR FORCE BALLISTIC MISSILE DIVISION (AMDO)

WS-107 A-1 OPERATIONAL BASE
 UNITARY SILO
 LAUNCH CONTROL CENTER
 HUNG FLOORS
 SHOP DETAILS - SHT. 6

DATE: 7 APR 1962
 DRAWN BY: [Signature]
 CHECKED BY: [Signature]

578-2-S-31



CALL OF MATERIAL

QTY	SECTION	MARK	REMARKS	BY	DATE
2	R 40 1/2 x 4	11	1 1/4	A7	
4	R 2 1/2 x 4	4	3/4	B7	
4	R 2 1/2 x 4	9	1 1/2	C7	
2	R 2 1/2 x 4	11	1 1/2	D7	
2	R 2 1/2 x 4	9	3/4	F7	
1	R 2 1/2 x 4	10	1 1/2	G7	
1	R 2 1/2 x 4	10	1 1/2	H7	
2	R 2 1/2 x 4	11	1 1/2	K7	
4	R 2 1/2 x 4	5	1 1/4	M7	
1	R 2 1/2 x 4	10	1 1/2	P7	
1	R 2 1/2 x 4	6	3/4	S7	
1	R 2 1/2 x 4	9	3/4	T7	
1	R 2 1/2 x 4	9	3/4	V7	
1	R 2 1/2 x 4	10	1 1/2	W7	

- MAKE 2 PLATE MARK A7
- MAKE 4 MARK B7
- MAKE 4 MARK C7
- MAKE 2 MARK D7
- MAKE 2 MARK E7
- MAKE ONE MARK G7
- MAKE ONE MARK H7
- MAKE 2 MARK K7
- MAKE 4 MARK M7
- MAKE ONE MARK P7
- MAKE ONE MARK S7
- MAKE ONE MARK T7
- MAKE ONE MARK V7
- MAKE ONE MARK W7

QTY	SECTION	MARK	REMARKS	BY	DATE
2	R 2 x 4	3	1	A7	
2	R 2 x 4	1	11	A7	
1	STD PIPE	4	ANT PLAIN		

FOR SITES 1 2 3 4 5 6 7 8 9 10 11 12

- NOTE
- ALL HOLES ARE FOR HIGH STRENGTH FIELD BOLTS EXCEPT HOLES "B".
 - NO PAINT WITHIN 1" OF ALL OPEN HOLES EXCEPT HOLES "B".
 - HOLES FOR HIGH STRENGTH FIELD BOLTS TO BE BLANK AND PAINT FROM BARS.

In accordance with Instructions Form ESD/BSFD 24 November 1961 this drawing is required to carry the following information:

- Name of contractor or subcontractor
- Date
- Change in title or description of structure or operation of the facility

JAN 24 1962

14-62	PERMANENT AS BUILT	BATAF	R
20-62	REV. TO SHOW CONSTR. AS-BUILT CONDITION	EXRANO	GR
25-62	ISSUED FOR DYES A.F.B.	AFRMO	SA

REVISION DATE DESCRIPTION AGENCY UNIT

ECNTEL CORPORATION
ENGINEERS AND CONSTRUCTORS
11000 - LOS ANGELES, CALIF.

DEPARTMENT OF THE AIR FORCE
AIR FORCE BALLISTIC MISSILE DIVISION (AMDC)
DALLAS, TEXAS

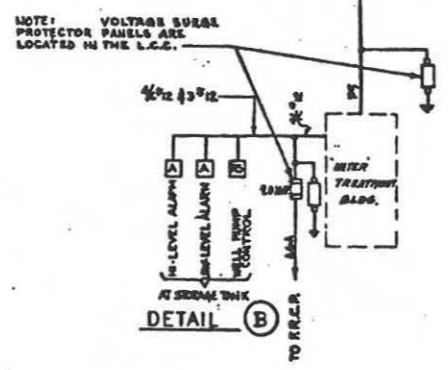
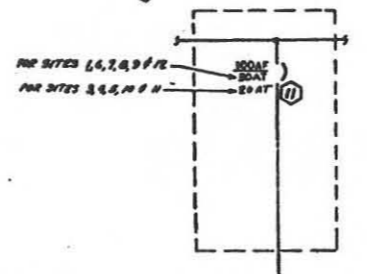
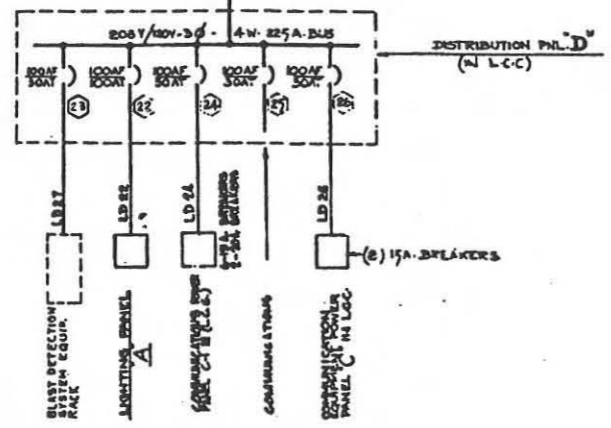
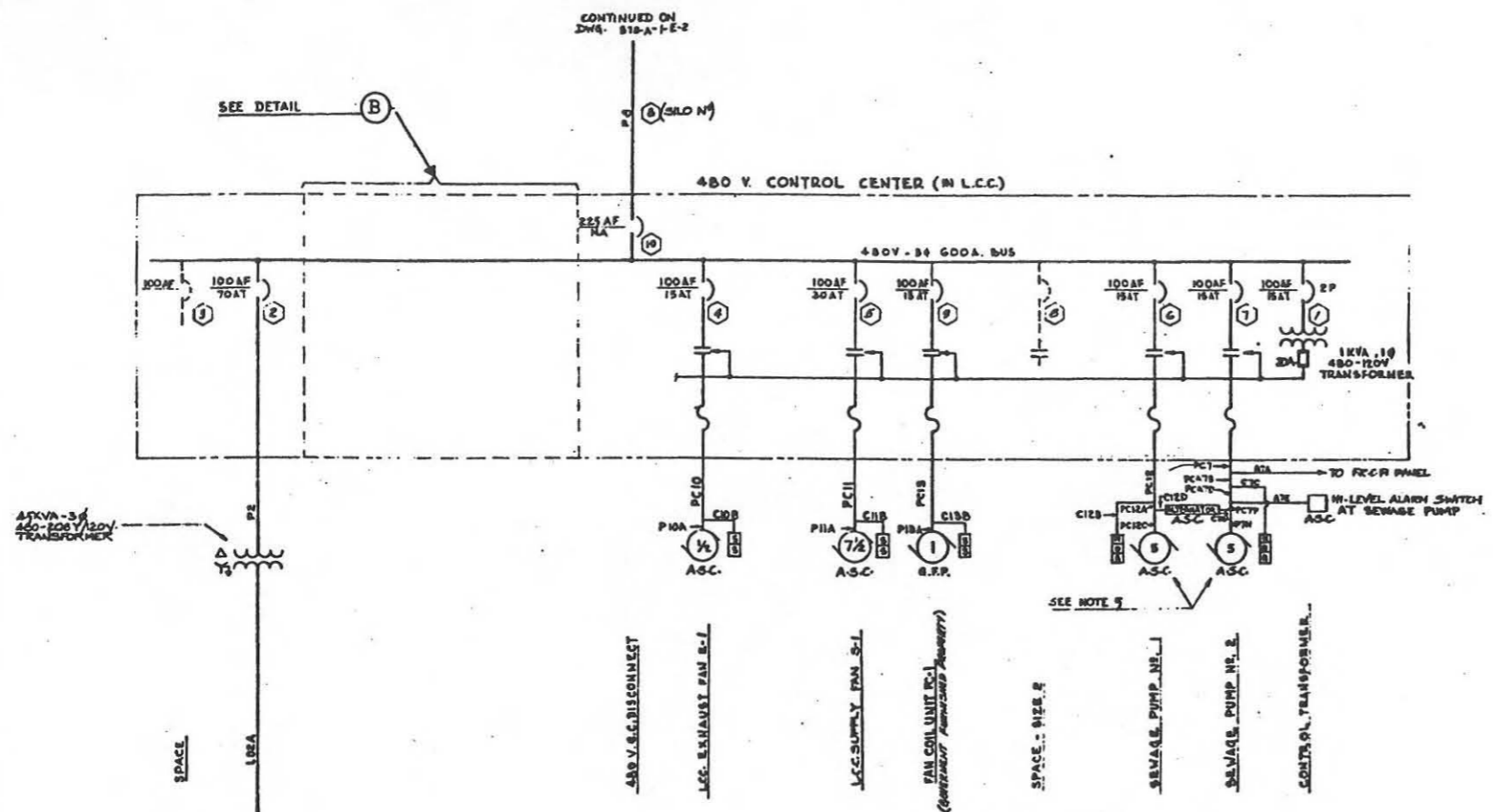
WS-107A-1 OPERATIONAL BASE
UNITARY SILO
LAUNCH CONTROL CENTER
HUNG FLOORS
SHOP DETAILS - SHT. 7

APR 23 1960
ENG. 41-443-60-30
678-2-3-32

FLOOR PLATE PLAN @ FIRST LEVEL
10.0 REV. 979.9
DETA. SHT. & SECTION PLAN
SEE SHOP DETAILS NOT SHOWN
SEE CORRESPONDING SHT. MARK

FLOOR PLATE PLAN (SHOWN)
HOURS: AS NOTED
PLATE NAME
PRINT: POLYMER
TYPE: TYPE 2
HERRICK IRON WORKS
SHT. # D7
DATE: JAN 24 1962
JOB # 9945

LOS ANGELES FIELD OFFICE
COPY OF THE SHOP DRAWING
7 APR 1960
678-2-3-32



NOTES

- HORSEPOWER RATINGS ARE ESTIMATED. ELECTRICAL DRAWINGS ARE BASED ON ESTIMATED HORSEPOWER RATINGS, AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FURNISH ALL ELECTRICAL EQUIPMENT TO CONFORM TO RATINGS OF EQUIPMENT FURNISHED.
- FOR CONTROL INTER, DISTRIBUTION PANELS, SCHEDULES, & DETAILS, SEE W.C. - 2-E-4.
- FOR ELECTRICAL SYMBOLS AND GENERAL NOTES, SEE DWG. - 2-12.
- IF NO POWER AT THE WELLS IS REQUIRED FROM THE L.C.C. TO BE ENTERED INTO THE AIR PRESSURE SYSTEM WITH A MEDIUM-LEVEL FLOAT VALVE OF THE TANK, NO CONTROL FOR WELLS IS TO BE SUPPLIED. COILS FOR WELLS SHALL BE TERMINATED AND CAPPED AS SARKS INSIDE THE BUILDING AND ISOLATED AND TAPPED OUTSIDE THE BUILDING AS INDICATED ON THE SITE DRAWING. THE FLOAT SWITCH CONTROL CIRCUIT WILL ONLY CONTAIN THE THREE WELLS OF THE ALARMS ON THE P.S.-G.P. IF POWER ON IS REQUIRED FOR THE WELLS, THIS DETAIL IS TO BE CALLED FOR ON THE SITE DRAWING. OTHER CONDUIT FOR WELLS AND FLOAT SWITCH CIRCUIT SHALL BE INSTALLED AS SHOWN.
- FOR WIRING DIAGRAM OF SEWAGE WELL PUMPS SEE DETAIL 11, DWG. - 2-14.
- FOR "L.C.C." ALTERNATE "A" SEE DWG. 2-E-34.

REFERENCE DRAWING

ELECTRICAL POWER PLAN	- 2-E-2
ELECTRICAL SINGLE LINE DIAGRAM	- 2-E-2
MISCELLANEOUS ELECTRICAL DETAILS & DIAGRAMS	- 2-E-18
ELECTRICAL SYMBOL LIST	- 2-E-12
ALTERNATE "A" ELECTRICAL SINGLE LINE DIAGRAM	- 2-E-34

FOR SITES 1 2 3 4 5 6 7 8 9 10 11 12

NO.	REVISION	DESCRIPTION	DATE	BY
12-14-60		OPERATIONAL AS BUILT DRAWING		
12-14-60		REVISION TO DRAWING SUBMITTED IN BUILT DRAWING		
12-14-60		REVISION CONTROL CENTER (17) NUMBER, DETAIL 'B' DELETED DETAIL 'D', DELETED NOTE 4.		
9-9-60		ADD NO AMP FUSES, 15 AMP TRIP CIRCUIT BREAKER AND FAN COIL UNIT EC-1 TO 17A (6) IN PLACE OF SIZE 1 SPACE.		
1-10-60		ADD FUSES, DISCONNECT SWITCHES & VOLTAGE SENSE PROTECTORS TO LINES GOING TO WELL HOSE, STORAGE TANKS & WELL PUMPS. ALSO ADD COMMUNICATIONS POWER PANEL C-1 TO FEE FROM POWER PANEL 'D'.		
2-9-60		CHANGE SP OF SEWAGE PUMPS NO 1 & 2 FROM 5 TO 15 AMP. 5 1/2 AMP BREAKER TO DISTRIBUTION PANEL 'D' FOR BLAST DETECTION SYSTEM.		
4-10-60		ISSUED FOR DYEAS A.F.S.		

REVISIONS

1. EC-1

2. EC-2

3. EC-3

4. EC-4

5. EC-5

6. EC-6

7. EC-7

8. EC-8

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100. EC-100

BECHTEL CORPORATION
ENGINEERING CONSTRUCTORS
3000 SHAW BLVD. - OAKLAND, CALIF.

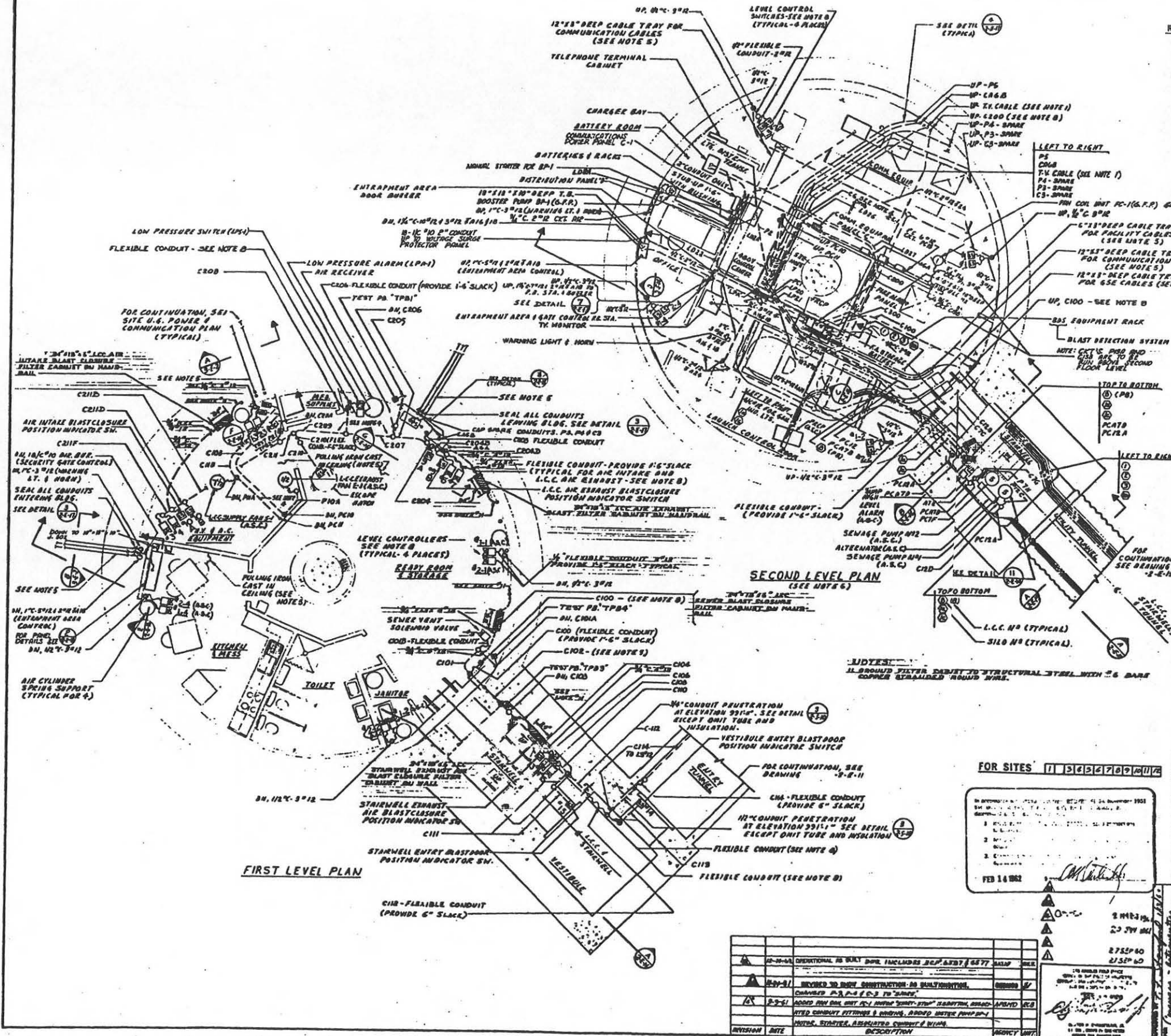
DEPARTMENT OF THE AIR FORCE
AIR FORCE DALLAS MISSILE DIVISION
DALLAS, TEXAS

WS-107 A-1 OPERATIONAL BASE
UNITARY SILO
LAUNCH CONTROL CENTER

ELECT. SINGLE LINE DIAG.
ENG. 41-443-60-30

13 JAN 1960

578-A-2-E-1



- REVISION NOTES**
- (1) CHANGED GATE MONITOR & GATE TV CABLE TO TV MONITOR & TV CABLE REED ROUTING OF TV CABLE.
 - (2) CHANGED 'DELU' GATE CONTROL P.B. TO ENTRAPMENT AREA & GATE CONTROL B. SEA.
 - (3) DELETED PROVISION FOR SURVEILLANCE TV FLOODLIGHT P.C.E. AT GATE, & WIRING FOR AMBER & GREEN WARNING LIGHTS.
 - (4) REVISED GATE CONTROL WIRING.
 - (5) ADDED WIRING FOR ENTRAPMENT AREA CONTROL.

- NOTES**
1. WIRING FOR CAMERA TO BE INCLUDED AND INSTALLED PER MANUFACTURER'S RECOMMENDATION.
 2. FOR ELECTRICAL SYMBOLS AND ABBREVIATIONS, SEE DRAWING - 2-2-12.
 3. FOR CONDUIT SCHEDULE, SEE DRAWING - 2-2-6.
 4. SUPPORT CONDUITS FROM AIR CONDITIONING DUCTS ONLY WHERE NECESSARY.
 5. FOR LOCATION OF CONDUIT PENETRATIONS THROUGH L.C.C. WALL, PULLING IDEA CAST IN L.C.C. CEILING, AND CABLE TRAYS UNDER SECOND LEVEL FLOOR, SEE DETAIL 1, DRAWING - 2-2-11.
 6. UNLESS OTHERWISE NOTED ON PLAN, ALL CONDUIT RUNS, CABLE RUNS AND CABLE TRAYS SHOWN ON SECOND LEVEL PLAN IN L.C.C. WILL BE RUN BELOW SECOND LEVEL FLOOR.
 7. RUN BELOW WEST LEVEL FLOOR.
 8. FOR MOTOR WIRE CONNECTION DIAGRAMS AND CONTROL RISER DIAGRAMS FOR BLASTGATES, BLAST DOORS, AND LEVEL CONTROLLERS, SEE DRAWING - 2-2-16.
 9. FOR EQUIPMENT NOT IDENTIFIED, SEE DRAWING - 2-A-2.
 10. FLOOR MOUNTED EQUIPMENT SHALL BE BOLTED OR WELDED TO FLOOR. IF NO MOUNTED EQUIPMENT IS SUPPLIED, THE WALLS SHALL BE STRENGTHENED FOR MINIMIZING VIBRATION OF EQUIPMENT.

REFERENCE DRAWINGS

ELECT. SINGLE WIRE DIAG.	- 2-E-1
ELECT. PLAN, SECT'S. (TUNNEL)	- 2-E-15
SITE-UG. POINT & COMM. SECT'S. & DET'S. ON I	- 3-E-2
MISCELLANEOUS RYALS - SHT. 1	- 3-E-10
ELECT. SECT'S. JO. DET'S. - SHT. 1	- 3-E-11
SHT. 3	- 3-E-17
MISCELLANEOUS ELECTRICAL DETAILS & DIAGRAMS	- 2-E-8
ELECT. WIRE SUBSTITUTION FILTER CAPACITORS - SHEETS	- 3-E-22

FOR SITES 1 3 4 5 6 7 8 9 10 11 12

ISSUED FOR DYES A.F.B.
 FEB 14 1962
 [Signature]

NO.	DATE	DESCRIPTION	ISSUED BY
1-29-61		ADD FLOOR WIRE PROTECTIVE PANELS TO CONDUIT SYSTEMS THROUGH L.C.C. WALL ON 1ST LEVEL, CORRESPONDING PANEL C-1-101 ON 2-2-15, ADD CONDUIT PENETRATIONS ON LEVEL 2, ADD WIRING ON LEVEL 2, ADD WIRING ON 1ST CONDUIT ON LEVEL 2.	AFBMD
2-29-60		REVISION NOTE 1	AFBMD
3-9-60		CHANGED UP OF SEWAGE PUMPS ON 1ST FLOOR TO 2ND FLOOR. FLOOR PLANS, ADDED 1/2" DIA. 10" D. PULLING IDEAS EQUIP. RACK, L.D. 8" CROD TO 3RD LEVEL PLAN & BLAST DETECTION SYSTEM, CHANGED 'DE' OF 1/2" DIA. FACILITY CABLE TRAY TO 30" FLAT ELBOW TO WIRE WITH DETAIL 17, DWG. 2-E-16.	AFBMD
4-23-60		ISSUED FOR DYES A.F.B.	AFBMD

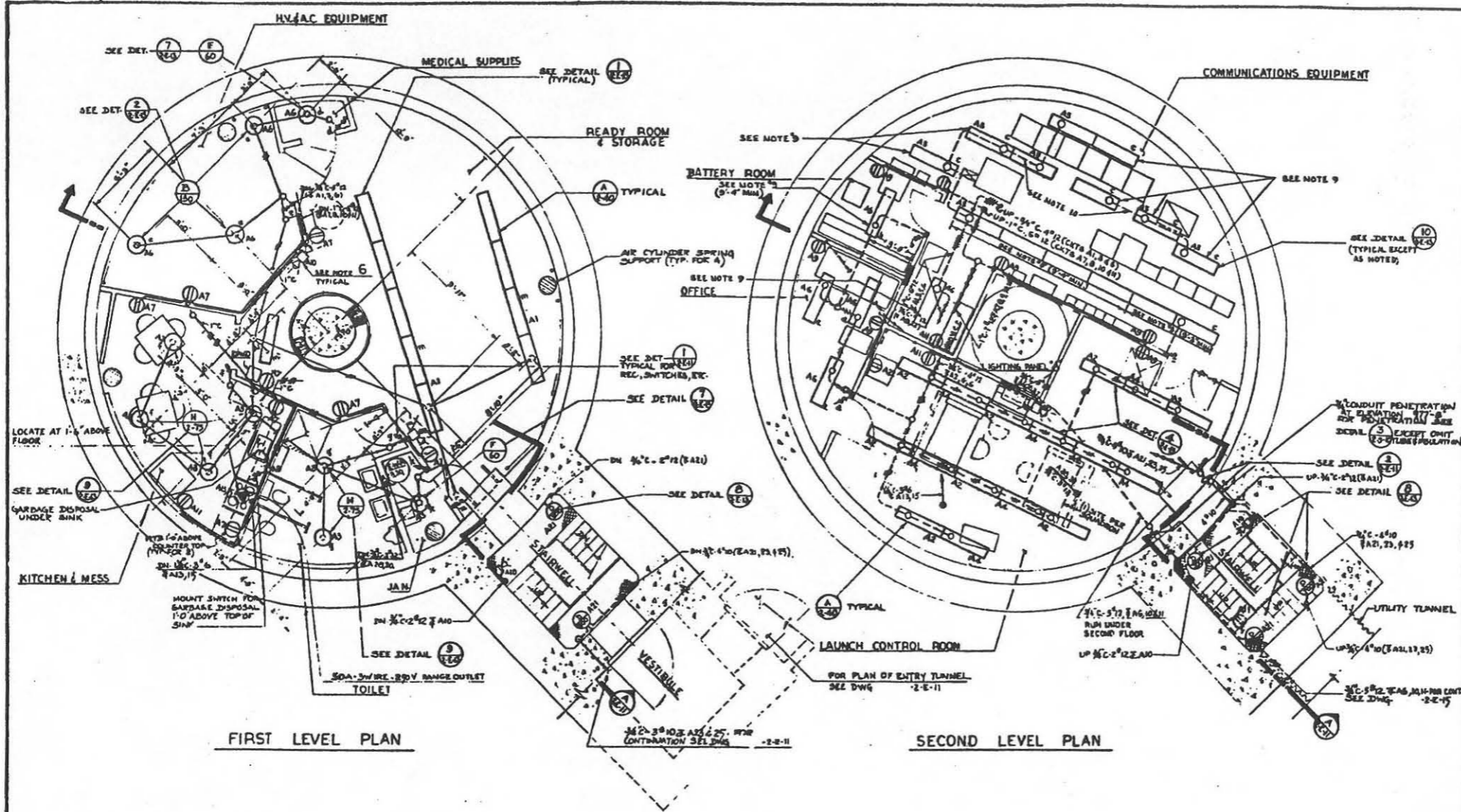
BECHT CORPORATION
 ENGINEERS AND ARCHITECTS
 2500 W. 10TH AVENUE
 DENVER, COLORADO

DEPARTMENT OF THE AIR FORCE
 AIR FORCE BALLISTIC MISSILE DIVISION (AFBMD)
 WASHINGTON, D.C.

WS-107 A-1 OPERATIONAL BASE
 UNITARY SILO
 LAUNCH CONTROL CENTER

ELECT. POWER PLAN
 ENG. 41-443-60-30
 19 JAN 1960
 578-A-2-E-2

NO.	DATE	DESCRIPTION	ISSUED BY
1-29-61		ISSUED FOR DYES A.F.B.	AFBMD
2-29-60		REVISION NOTE 1	AFBMD
3-9-60		CHANGED UP OF SEWAGE PUMPS ON 1ST FLOOR TO 2ND FLOOR. FLOOR PLANS, ADDED 1/2" DIA. 10" D. PULLING IDEAS EQUIP. RACK, L.D. 8" CROD TO 3RD LEVEL PLAN & BLAST DETECTION SYSTEM, CHANGED 'DE' OF 1/2" DIA. FACILITY CABLE TRAY TO 30" FLAT ELBOW TO WIRE WITH DETAIL 17, DWG. 2-E-16.	AFBMD
4-23-60		ISSUED FOR DYES A.F.B.	AFBMD



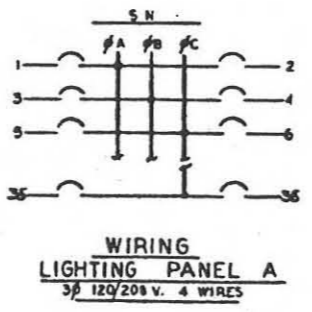
- ### NOTES
- FOR SYMBOL LIST, LIGHTING FIXTURE SCHEDULE SEE DWG. 2-E-12
 - ALL DUCT RUNS SHOWN ARE DIAGNOSTIC ONLY. ROUTE MAY BE ALTERED TO SUIT FIELD CONDITIONS.
 - FOR EXACT LOCATION OF DUCTS & A.C. EQUIPMENT SEE DWG. 2-E-12
 - FOR DUCT RUNS WITH 2, 4, 6, 10, 12 & 24 SEE DWG. 2-E-2
 - FOR EQUIPMENT NOT IDENTIFIED SEE DWG. 2-E-2
 - BATTERY OPERATED EMERGENCY LAMP CONTRACTOR TO PROVIDE MOUNTING PLATFORM 7'10" ABOVE FINISHED FLOOR
 - FLOOR MOUNTED EQUIPMENT SHALL BE BOLTED OR WELDED TO FLOOR IF WALL MOUNTED EQUIPMENT IS SUPPLIED, THE WALLS SHALL BE STRENGTHENED FOR MINIMIZING VIBRATION OF EQUIPMENT.
 - CIRCUIT 29 (LP20) & CIRCUIT 31 (LP21) SEE DWG. 2-E-2
 - MOUNTING HEIGHT TO BOTTOM OF FLUORESCENT FIXTURES IN COMM. ROOM SHALL BE 9'-6" ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED
 - SPACES BETWEEN FLUORESCENT FIXTURES IN COMM. ROOM SHALL BE PROVIDED FOR FUTURE OVERHEAD COMMUNICATION CABLE TRAYS TO BE INSTALLED 8'-8" ABOVE FLOOR.

REFERENCE DRAWINGS

ELECTRICAL SECTIONS & DETAILS - 3H-1	2-E-11
SEE DETS & SCHEDULES	2-E-12
ELECTRICAL STANDARD DETAILS	2-E-13
SECTIONS & DETAILS - 3H-2	2-E-15
MISCELLANEOUS DETAILS - 3H-3	2-E-16

LIGHTING PANEL 'A' SCHEDULE

CIRC. NO.	SIZE	DESCRIPTION	LTS. PER HOUR	LEA	LEB	LEC
1	20A	LTG. READY RM & STORAGE	10	1000		
2		LAUNCH CONTROL ROOM	3	900		
3		KITCHEN & MESS, TOILET, JANITOR	7	350		
4		LAUNCH CONTROL ROOM	7	700		
5		COMMUNICATIONS EQUIPMENT	14			M100
6		BATTERY RM, OFFICE (AREA UNDER BATTERY SUPPLY)	11			M100
7		RECP. FIRST FLOOR LEVEL	8	600		
8		GARBAGE DISPOSAL - KITCHEN & MESS	1	700		
9		EMER. LIGHT, OFFICE, BATTERY & LAUNCH CONTROL RM	7	700		
10		EMERGENCY LAMPS	7	350		
11		LAUNCH CONTROL RM (AREA UNDER BATTERY SUPPLY)	8	900		
12	50A	BOOSTER PUMP (SP-1) IN BATTERY ROOM	1			N100
13	50A	RECP. ELECTRIC RANGE - KITCHEN & MESS		900		
14	20A	SPARE				
15	50A	RECP. ELECTRIC RANGE - KITCHEN & MESS		3000		
16	20A	LTG. AT GATE	4	600		
17		SPARE				
18		ENTRAPMENT AREA & GATE CONTROL				30
19		SPARE				
20		SPARE				
21		LTG. STAIRWELL	5	1000		
22		TV MONITOR	1	100		
23		LTG. ENTRY & VENT FLOOR LIGHTS	8			1000
24		L.C.C. FLOOR LEVEL CONTROL				100
25		LTG. ENTRY	6	950		
26		FRCP LIGHTS		150		
27		L.C.C. BLAST CLOSURE				800
28	20A	HOT WATER HEATER - JANITOR ROOM		1900		
29	30A	FIRE ALARM PANEL				100
30	20A	HOT WATER HEATER - JANITOR ROOM		1900		
31	30A	SPARE				
32	20A	SPARE				
33						
34						
35						
36						
TOTAL			84,950	2,600	5,110	1240



FOR SITES 171 131 141 151 161 171 181 191 201 211

In accordance with instructions from BOM, DATED 21 November 1961 this drawing is prepared as built for use in the field. It is approved by the BOM and the BOM is responsible for its accuracy.

1. Name of the BOM and the BOM is responsible for its accuracy.

2. Date of the BOM and the BOM is responsible for its accuracy.

3. Change the name of the BOM and the BOM is responsible for its accuracy.

FEB 14 1962

FOR SITES 171 131 141 151 161 171 181 191 201 211

▲ CFC 2 MAR 1961
 ▲ CFC 11 SEPT 1961
 ▲ CFC 2 SEPT 1960
 ▲ CFC 21 APR 1960

BITEL CORPORATION DEPARTMENT OF THE AIR FORCE
 DIVISION OF CONSTRUCTORS AIR FORCE BALLISTIC MISSILE DIVISION (AFBMD)

PROJECT: **WS-107 A-1 OPERATIONAL BASE**
 UNITARY BLDG
 LAUNCH CONTROL CENTER

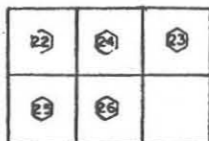
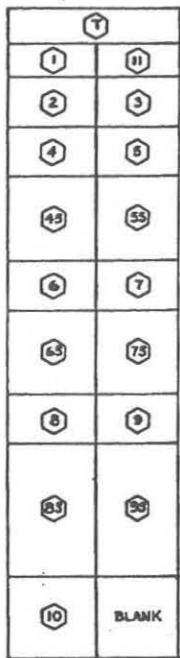
ENGINEER: **ENG. 41-443-60-30**
 DRAWING NO. **578-A-2-E-3**

TABLE I
CONDUIT AND WIRE SCHEDULE

Table with columns: CONDUIT NO., SITE, POWER WIRE, CONTROL WIRE, FROM, TO. Lists various electrical components like surge protection panels, control centers, and distribution panels with their respective conduit and wire specifications.

TABLE II
CONDUIT AND WIRE SCHEDULE

Table with columns: CONDUIT NO., SITE, WIRES, FROM, TO, WIRE NUMBERS. Lists wiring for various locations such as ceilings, walls, and equipment racks, including wire types and sizes.



LIGHTING DISTRIBUTION
PANEL 'D'

3/4" x 6" FOR SIZES 12, 14, 16, 18, 20, 22, 24, 26, 28, 30

SILO NO. 1

480V. CONTROL CENTER
34, 34, 34, 34 Type A Wiring

EQUIPMENT SCHEDULE

Table with columns: ITEM, NAMEPLATE, BREAKER, TRIP, VOLTS, KVA, H.P., STARTER, CONTROL, REMARKS. Lists equipment items such as control transformer, lighting transformer, fans, pumps, and breakers with their technical specifications.

* ESTIMATED MAX. DEMAND

SYMBOL DESCRIPTION table listing symbols for Power & Control, Power, Control, Lighting Distribution, Lighting Panel, Alarm, and Power, Control, Alarm.

NOTES

- 1. FLOOR MOUNTED EQUIPMENT SHALL BE BOLTED OR WELDED TO FLOOR IF WALL MOUNTED EQUIPMENT IS SUPPLIED. THE WALLS SHOULD BE STRUTTED FOR MINIMIZING VIBRATION OF EQUIPMENT.
- 2. FOR LCC ALTERNATE "A" SEE DWG. 2-E-32

REFERENCE DRAWINGS

Table listing reference drawings: ELECTRICAL SINGLE LINE DIAGRAM (2-E-1), ELECTRICAL SYMBOL LIST (2-E-12), ALTERNATE ELECTRICAL C.C. DET'S & SCHED (2-E-32).

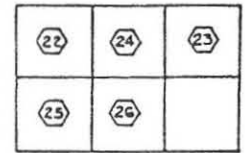
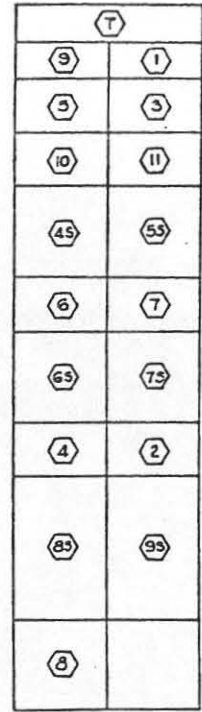
FOR SIZES 1 3 4 5 6 8 10 11 12

- 12-14 OPERATIONAL AS BUILT DWG.
- 12-14 REVISED TO SHOW CONSTRUCTION AS BUILT CONDITION
- 12-14 REVISED TO SHOW CONSTRUCTION AS BUILT CONDITION
- 12-14 REVISED TO SHOW CONSTRUCTION AS BUILT CONDITION

BECEL CORPORATION ENGINEERS AND CONSTRUCTORS. DEPARTMENT OF THE AIR FORCE AIR FORCE BALLISTIC MISSILE DIVISION AFMDO. WS-107 A-1 OPERATIONAL BASE UNITARY SILO LAUNCH CONTROL CENTER. ELECT. C.C. DET'S & SCHED. ISSUED FOR DWGS A.F.B. 10 JAN. 1960. 578-A-2-E-4

APPROVED FOR CONSTRUCTION FEB 14 1962

APPROVED FOR CONSTRUCTION FEB 14 1962



(120/208V.) DISTRIBUTION PANEL "D"

480V. CONTROL CENTER
3/4" 3W. 225A TYPE "A" BIRING

TABLE I
CONDUIT AND WIRE SCHEDULE

Table with columns: CONDUIT NO., SIZE, POWER WIRE, CONTROL WIRE, FROM, TO. Lists various electrical components and their wiring paths.

3/4" FOR SITS 8, 7, 9

3/4" NO 10

TABLE II
CONDUIT AND WIRE SCHEDULE

Table with columns: CONDUIT NO., WIRES, FROM, TO, WIRE NUMBERS. Lists wiring paths for various rooms and equipment.

SYMBOL DESCRIPTION table mapping symbols like PC, P, C, LD, LP, A, PCA to their respective descriptions.

NOTES

4 FLOOR MOUNTED EQUIPMENT SHALL BE BOLTED OR WELDED TO FLOOR IF WALL MOUNTED EQUIPMENT IS SUPPLIED, THE WALLS SHOULD BE STRENGTHENED FOR MINIMIZING VIBRATION OF EQUIPMENT.

EQUIPMENT SCHEDULE

Table with columns: ITEM, NAMEPLATE, BREAKER, TRIP, VOLTS, KVA, H.P., STARTER, CONTROL, REMARKS. Lists equipment items and their specifications.

480V. CONTROL CENTER

(120/208V.) DISTR. PANEL "D"

REFERENCE DRAWINGS

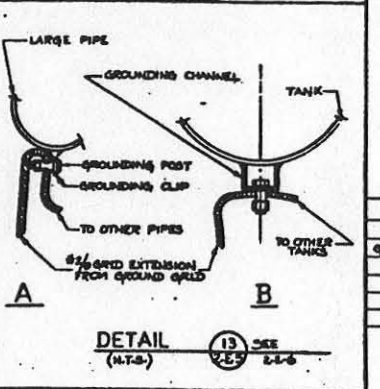
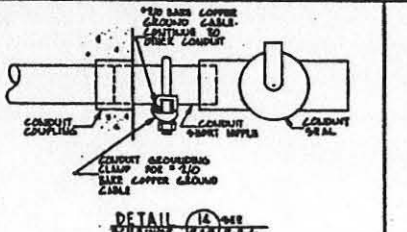
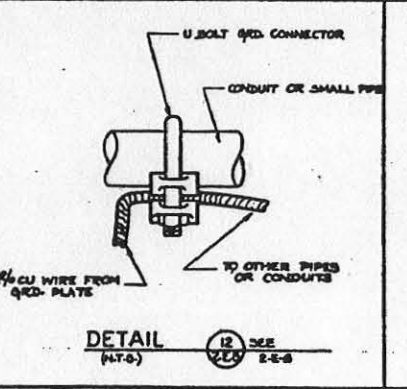
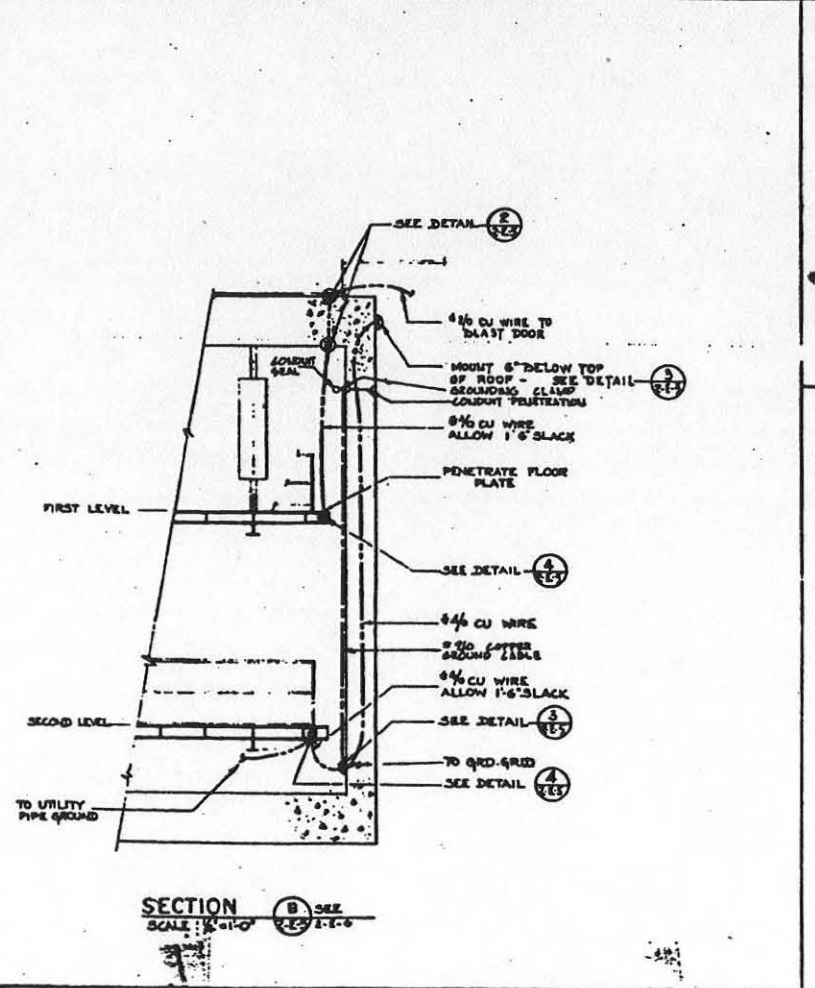
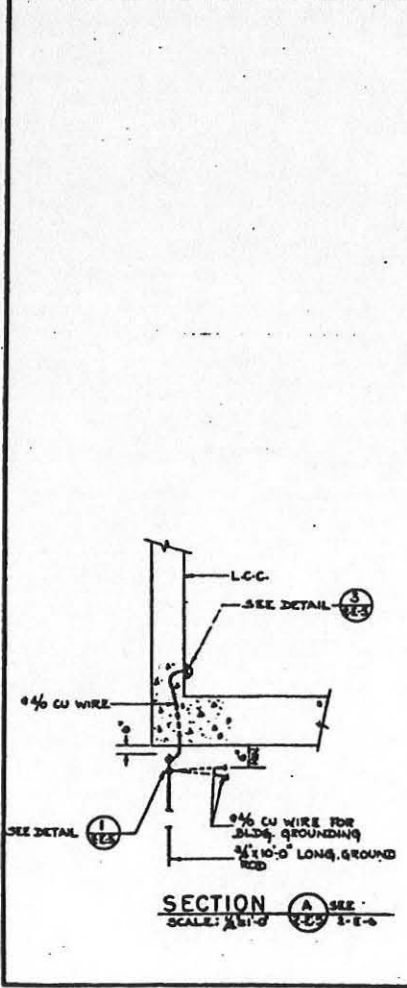
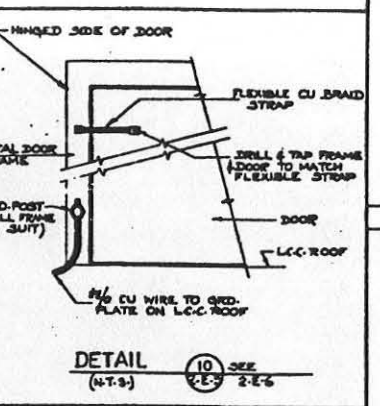
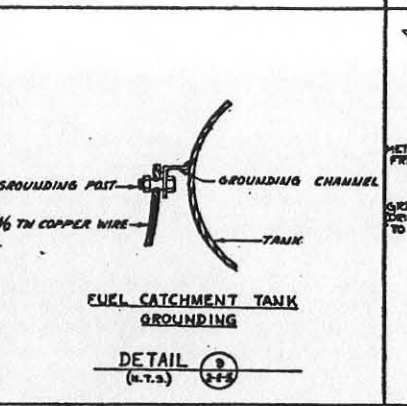
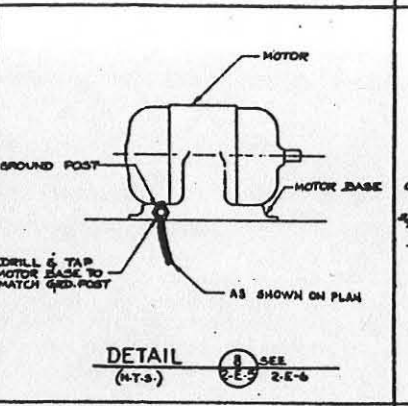
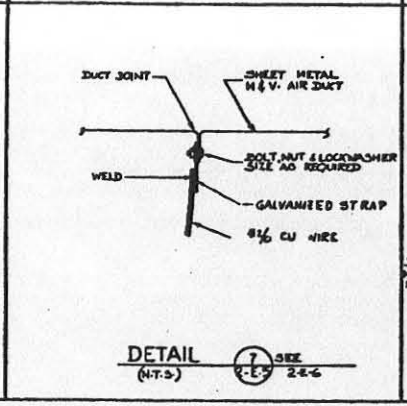
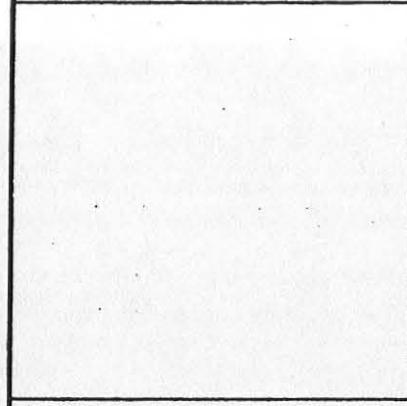
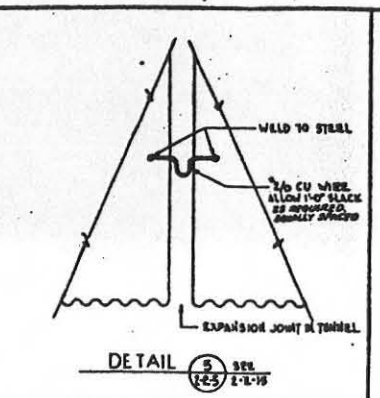
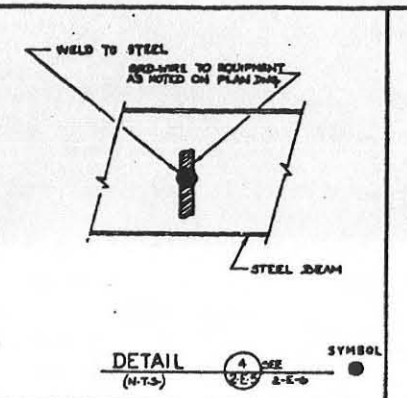
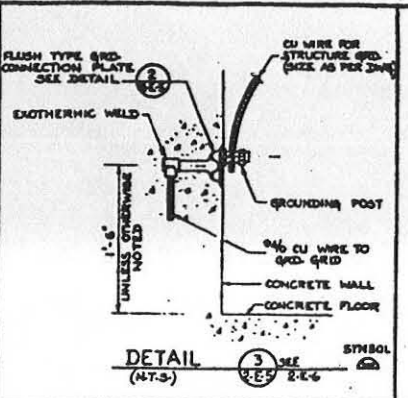
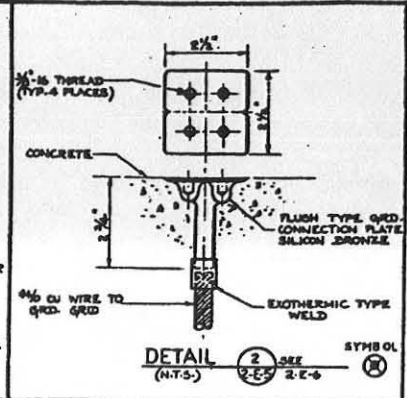
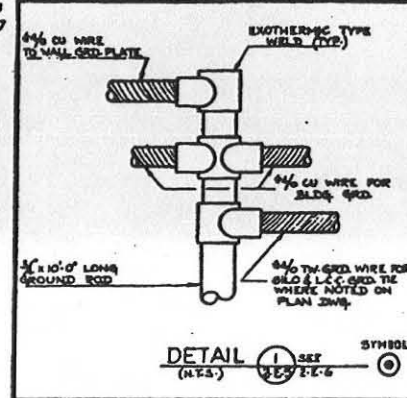
Table listing reference drawings: ELECTRICAL SINGLE LINE DIAGRAM, ELECTRICAL SYMBOL LIST, ALTERNATE "A" ELECTRICAL C.C. DETAILS & SCHED.

FOR SET [] [] [] [] [] [] [] [] [] []

Revisions table with columns: NO., DATE, DESCRIPTION, BY, CHECKED BY.

DATE: 20 JAN 1961
DATE: 10 SEP 1960
Signature: [Handwritten]

SCOTCH CORPORATION logo and project information: WS-107 A-1 OPERATIONAL BASE, LAUNCH CONTROL CENTER, ELECT. C.C. DET'S. & SCHED.



In accordance with Instructions Form EIC/71278 24 November 1961 this drawing is drawn to show the following as described in the notes and schedule.

1. Use attaching 1/4\" D U.B. FRICES or and connector in G.O.A. as shown.
2. Use 1/4\" x 1/2\" x 1/4\" U.B. FRICES - 4-10 G.O.A. as shown.
3. Use 1/4\" x 1/2\" x 1/4\" U.B. FRICES - 4-10 G.O.A. as shown.

FEB 14 1962

FOR SITES 72375678900112

NOTES
1 - FOR ELECTRICAL SYMBOLS & ABBREVIATIONS SEE DWG. 2-E-12

REFERENCE DRAWINGS

GROUNDING PLAN	2-E-6

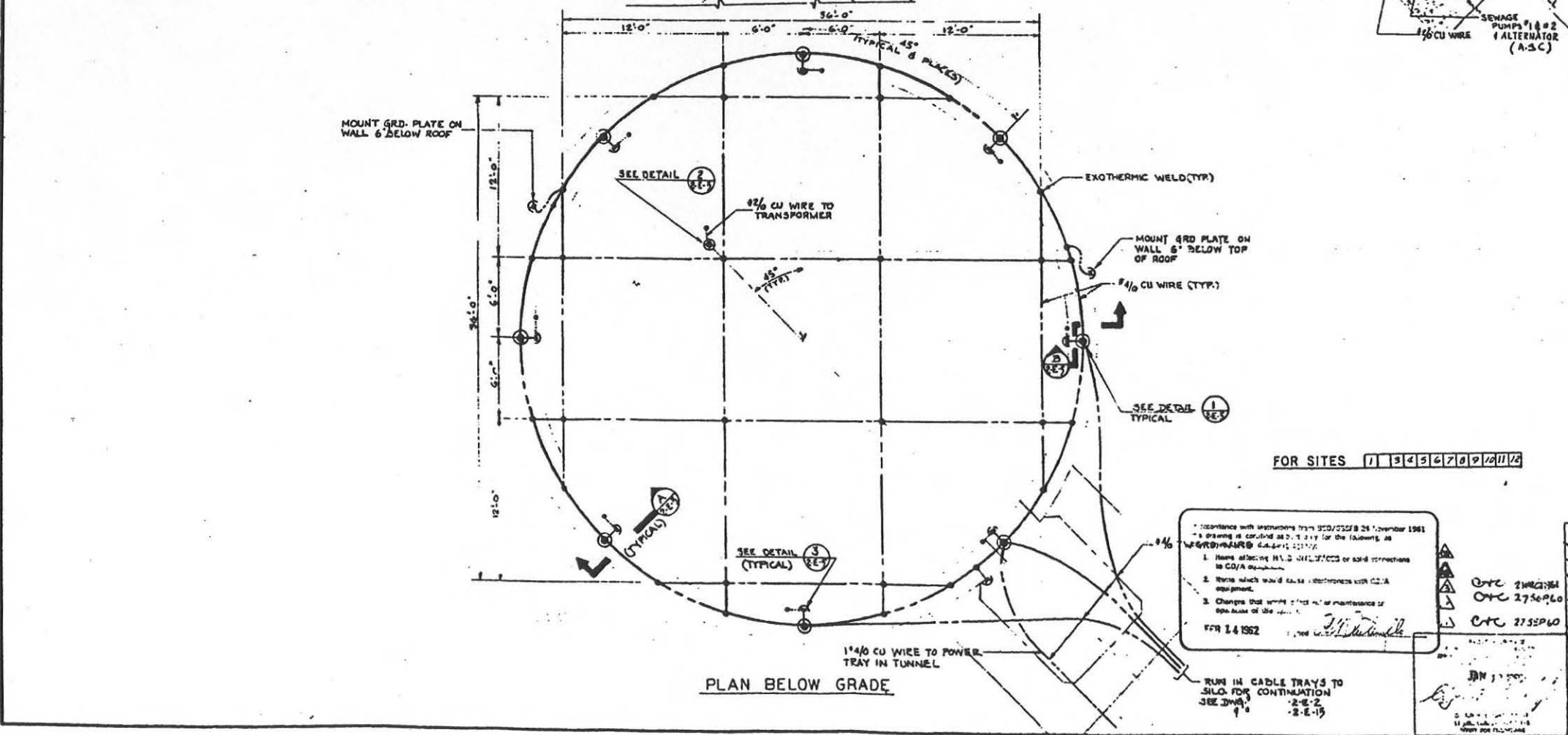
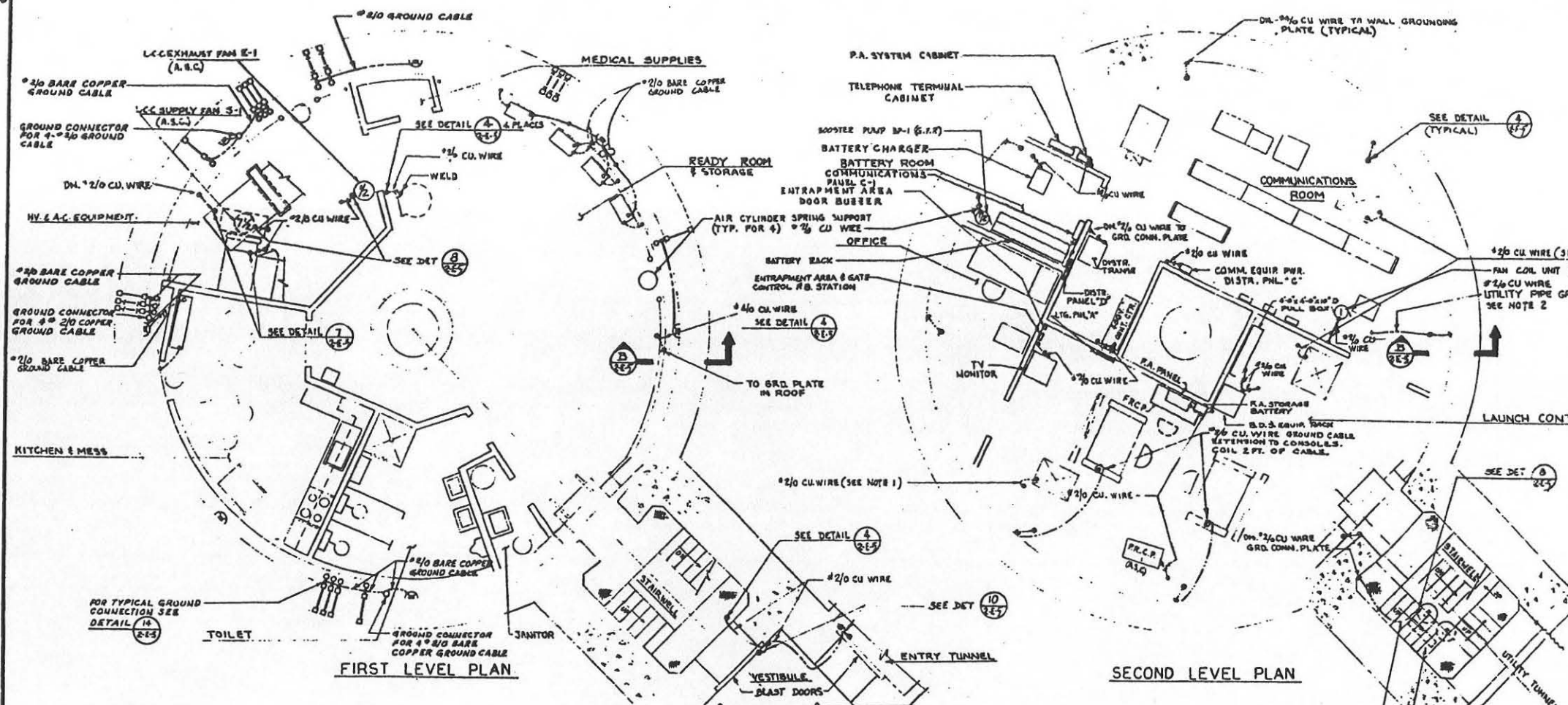
REVISED	DATE	BY	REASON

BECHTEL CORPORATION
ENGINEERS AND CONSTRUCTORS

DEPARTMENT OF THE AIR FORCE
AIR FORCE BALLISTIC MISSILE DIVISION

WS-107 A-1 OPERATIONAL BASE
UNITARY SILO
LAUNCH CONTROL CENTER

ELECT. GROUNDING DETAILS
ENG. 41-443-60-30
13 JAN. 1960
578-2-E-3



- NOTES**
- REMOVABLE SECTIONS OF FLOOR SHALL HAVE SUFFICIENT SLACK TO ADMIT REMOVAL WITHOUT DISCONNECTING CABLE.
 - GROUND 1" Ø, 2-1/2" Ø, 1-1/2" Ø & UTILITY PIPING PER DETAIL 12 ON DWG -2-E-5
 - FOR EQUIPMENT NOT IDENTIFIED SEE DWG. 3-A-2
 - ALL BONDS TO BE PER ELECTRICAL SPECIFICATIONS.

REFERENCE DRAWINGS

ELECTRICAL SYMBOL LIST	2-E-12
WIRING PLAN	2-E-2
STATIONS & DETAILS (TUNNEL)	2-E-15

REVISIONS

NO.	DATE	DESCRIPTION	BY	CHKD.
1	12-16-61	OPERATIONAL AS BUILT DWG.		
2	11-26-61	REVISED TO SHOW CONSTRUCTION AS BUILT CONDITION.		
3	9-8-61	ADDED BOOSTER PUMP BP-1 MOTOR AND ASSOCIATED WIRING.		
4	8-27-61	ADDED BOOSTER PUMP BP-1 MOTOR AND ASSOCIATED WIRING.		
5	8-27-61	ADDED BOOSTER PUMP BP-1 MOTOR AND ASSOCIATED WIRING.		
6	8-27-61	ADDED BOOSTER PUMP BP-1 MOTOR AND ASSOCIATED WIRING.		
7	8-27-61	ADDED BOOSTER PUMP BP-1 MOTOR AND ASSOCIATED WIRING.		
8	8-27-61	ADDED BOOSTER PUMP BP-1 MOTOR AND ASSOCIATED WIRING.		
9	8-27-61	ADDED BOOSTER PUMP BP-1 MOTOR AND ASSOCIATED WIRING.		
10	8-27-61	ADDED BOOSTER PUMP BP-1 MOTOR AND ASSOCIATED WIRING.		
11	8-27-61	ADDED BOOSTER PUMP BP-1 MOTOR AND ASSOCIATED WIRING.		
12	8-27-61	ADDED BOOSTER PUMP BP-1 MOTOR AND ASSOCIATED WIRING.		
13	8-27-61	ADDED BOOSTER PUMP BP-1 MOTOR AND ASSOCIATED WIRING.		
14	8-27-61	ADDED BOOSTER PUMP BP-1 MOTOR AND ASSOCIATED WIRING.		
15	8-27-61	ADDED BOOSTER PUMP BP-1 MOTOR AND ASSOCIATED WIRING.		
16	8-27-61	ADDED BOOSTER PUMP BP-1 MOTOR AND ASSOCIATED WIRING.		
17	8-27-61	ADDED BOOSTER PUMP BP-1 MOTOR AND ASSOCIATED WIRING.		
18	8-27-61	ADDED BOOSTER PUMP BP-1 MOTOR AND ASSOCIATED WIRING.		
19	8-27-61	ADDED BOOSTER PUMP BP-1 MOTOR AND ASSOCIATED WIRING.		
20	8-27-61	ADDED BOOSTER PUMP BP-1 MOTOR AND ASSOCIATED WIRING.		

FOR SITES 1 3 4 5 6 7 8 9 10 11 12

CONFORMANCE WITH INSTRUCTIONS FROM SEC 03558 B 25 NOVEMBER 1961
 THIS DRAWING IS CONTROLLED BY THE FOLLOWING: AS BUILT DWG.

- Items affecting M.I.S. INTERLOCKS or safety connections to CO/A equipment.
- Items which would cause interference with CO/A equipment.
- Changes that would affect the maintenance or operation of the system.

DATE: FEB 14 1962

DESIGNED BY: CFC 2756P60
 CHECKED BY: CFC 2756P60

ISSUED FOR OYESS A.F.B.

BECHTEL CORPORATION
 ENGINEERS AND CONSTRUCTORS

DEPARTMENT OF THE AIR FORCE
 AIR FORCE BALLISTIC MISSILE DIVISION (AFBMD)

WS-107 A-1 OPERATIONAL BASE
 LAUNCH CONTROL CENTER

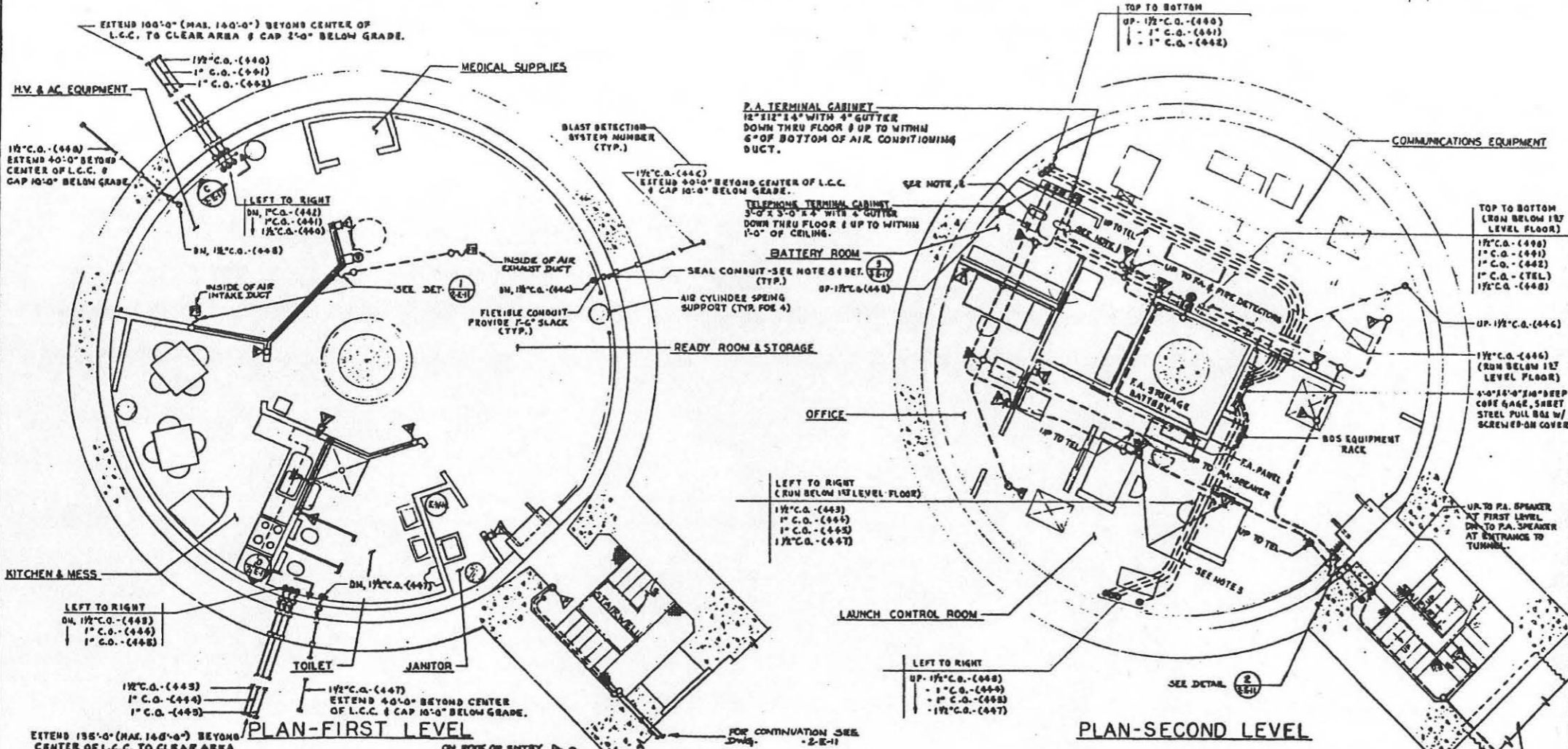
ELECT. GROUNDING PLAN

ENGINEER: C.E. SIMONS
 DATE: 12/16/61

DATE: 13 JAN 1962

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

NO. 578-2-E-6

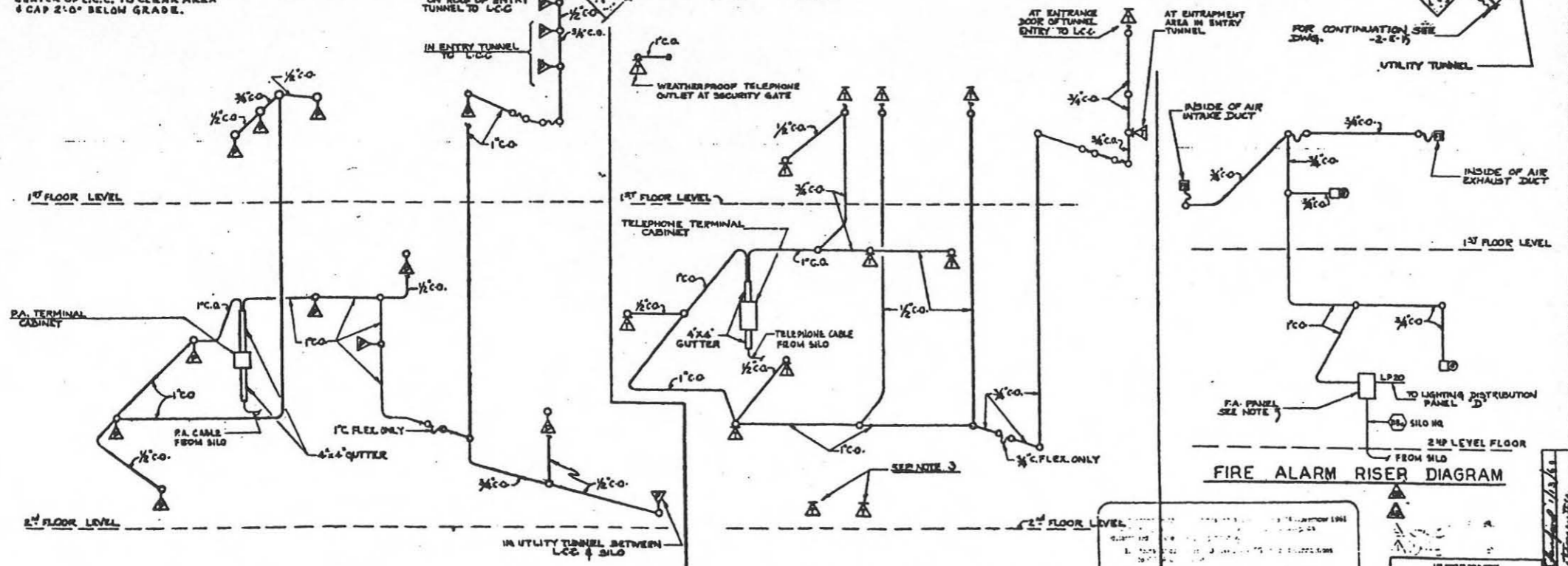
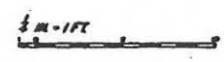


- NOTES**
- FOR P.A. SYSTEM CONDUIT & OUTLETS ONLY, WIRE & SPEAKERS BY OTHER.
 - FOR TELEPHONE SYSTEM CONDUIT & OUTLETS ONLY, WIRE & TELEPHONES BY OTHERS.
 - RUN TELEPHONE CABLE IN TRAY.
 - ALL CONDUIT RUNS SHOWN ARE DIAGRAMATIC ONLY, ROUTES MAY BE ALTERED TO SUIT FIELD CONDITIONS.
 - WIRE FOR P.A. SYSTEM IS TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATION.
 - FOR EQUIPMENT NOT IDENTIFIED SEE DWG. -2-A-2.
 - FOR LOCATION OF CONDUIT PENETRATIONS THROUGH L.C.C. WALL, SEE DETAIL 1, DWG. -2-E-16.
 - DO NOT FL SEAL WITH SEALING COMPOUND UNTIL CABLES AND/OR WIRES ARE INSTALLED FOR BLAST DETECTION SYSTEM.

REFERENCE DRAWINGS

ELECTRICAL SYMBOL LIST	2-E-18
ACTIONS & DETAILS - SH. 01	2-E-11
LAN, SECTIONS & DETAILS - (TUNNEL)	2-E-17

FR SITES [7] [3] [4] [5] [6] [7] [8] [9] [10] [11] [12]



FOR CONTINUATION SEE DWG. -2-E-11

FOR CONTINUATION SEE DWG. -2-E-15

FOR CONTINUATION SEE DWG. -2-E-16

FOR CONTINUATION SEE DWG. -2-E-17

NO.	DATE	DESCRIPTION	BY	CHKD
1	11-24-60	OPERATIONAL AS BUILT DWG.		
2	11-24-60	REVISED TO SHOW CONSTRUCTION AS BUILT CONDITION.		
3	9-27-60	ADDED TELEPHONE WIRE TO 2ND FLOOR ENTRY AREA. ADDED TELEPHONE CABLE FROM 2ND FLOOR TO 1ST FLOOR. ADDED TELEPHONE CABLE FROM 1ST FLOOR TO 2ND FLOOR.		
4	9-8-60	ADDED TELEPHONE WIRE TO 2ND FLOOR ENTRY AREA. ADDED TELEPHONE CABLE FROM 2ND FLOOR TO 1ST FLOOR. ADDED TELEPHONE CABLE FROM 1ST FLOOR TO 2ND FLOOR.		
5	4-15-60	REVISED FOR DYESS A.F.S.		

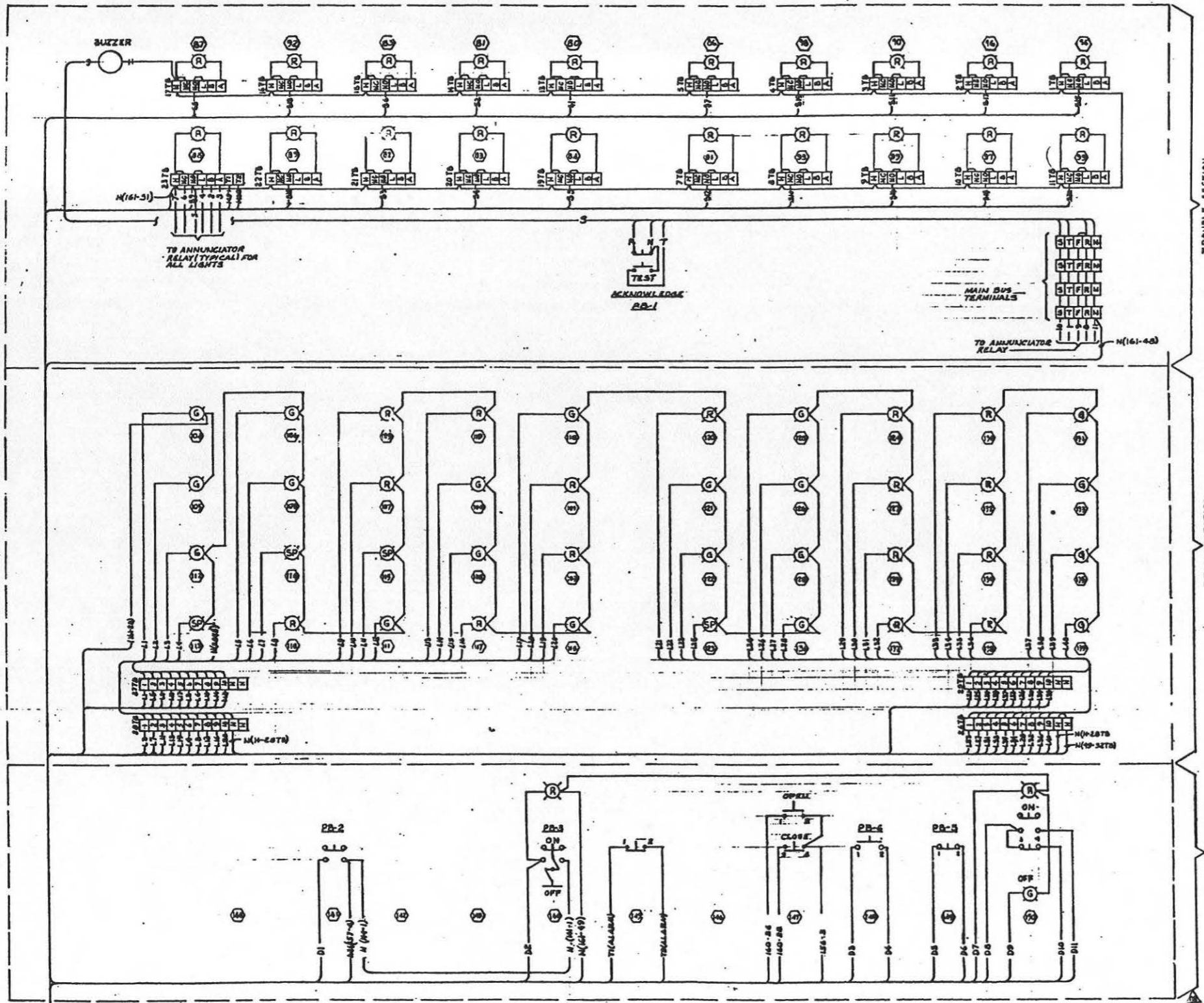
BETCEL CORPORATION
ENGINEERS AND CONSTRUCTORS

DEPARTMENT OF THE AIR FORCE
AIR FORCE BALLISTIC MISSILE DIVISION WAFB

WS-107A7 OPERATIONAL BASE
UNITARY SILO
LAUNCH CONTROL CENTER

P.A., F.A. & TELE. PLAN

DATE: 13 JAN 1960
DRAWING NO: 578-02-E-7



TROUBLE SECTION

READY SECTION

CONTROL SECTION

NOTES

1 - () NUMBER IN BRACKETS INDICATES * TO ITEM OR TERMINAL BLOCKS ONLY; NOT WIRING NUMBER.

REFERENCE DRAWINGS

FRCP PLAN / SCHEDULE	2-E-8
FRCP WIRING DIAG. SHT. 2	2-E-10
ELECT. MISC. WIRING DIAGRAMS	2-E-16

FOR SITES 1 3 4 5 6 7 8 9 10 11 12

REVISION	DATE	DESCRIPTION	BY	CHK'D
1	10-14-60	OPERATE AS BUILT. DWS INCLUDES SCP # 6173, 6174, 6175, 6176, 6177 & 6178.	SKTR	WKS
2	11-16-61	REVISE TO SHOW CONSTRUCTION AS BUILT CONDITION. CHANG WIRE NUMBERS ON ALL SECTIONS.	CEWICK	WKS
3	10-26-60	ITEM 98 & 99 CHANGED FROM W TO R.	AFBAND/RYN	
4	9-21-60	DELETE WIRE # 1001 FROM WIRING FOR ITEM # 97. 1001 IS A SELECTOR SWITCH CONTRACT 30-212000.	AFBAND/BC	
5	6-17-60	REMOVE WIRE # 1001 FROM WIRING FOR ITEM # 97. 1001 IS A SELECTOR SWITCH CONTRACT 30-212000.	AFBAND/VTG	
6	4-23-60	CHANGE WIRE # 1001 FROM WIRING FOR ITEM # 97. 1001 IS A SELECTOR SWITCH CONTRACT 30-212000.	AFBAND/VK	
7	4-15-60	ISSUE FOR DV555 A.F.B.	AFBAND/RE	

BECHTEL CORPORATION
ENGINEERS & ARCHITECTS
2000 BROADWAY - SUITE 2000 - SAN FRANCISCO, CALIF.

DEPARTMENT OF THE AIR FORCE
AIR FORCE BALLISTIC MISSILE DIVISION (AFBMD)
WRIGHT-PATTERSON AIR FORCE BASE, OHIO

WS-107 A-1 OPERATIONAL BASE
UNITARY SILO
LAUNCH CONTROL CENTER
FRCP WIRING DIAG. SHT. 1

APPROVED BY: *[Signature]*
DATE: 11/15/60
1. HARRIOTT/10/17/60
2. W. J. 4 12/14/60
3. [Signature] 1/24/61

ENG. - 41-443-60-30
DATE: 10 JAN. 1960
378-A-2-E-9

FOR CONTINUATION SEE DWG. 578-A-2-E-10

01	N(141-52)
02	N(141-49)
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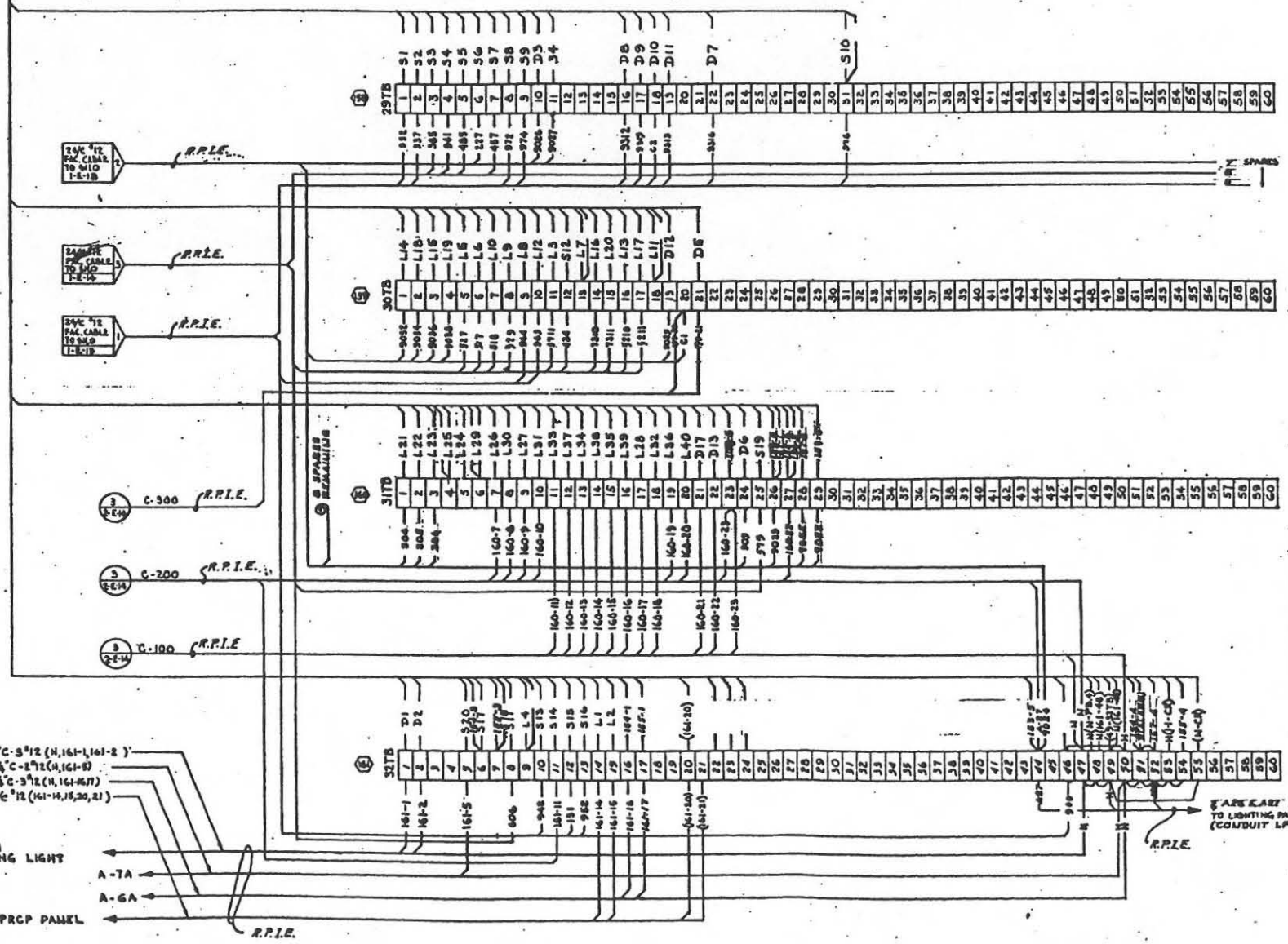
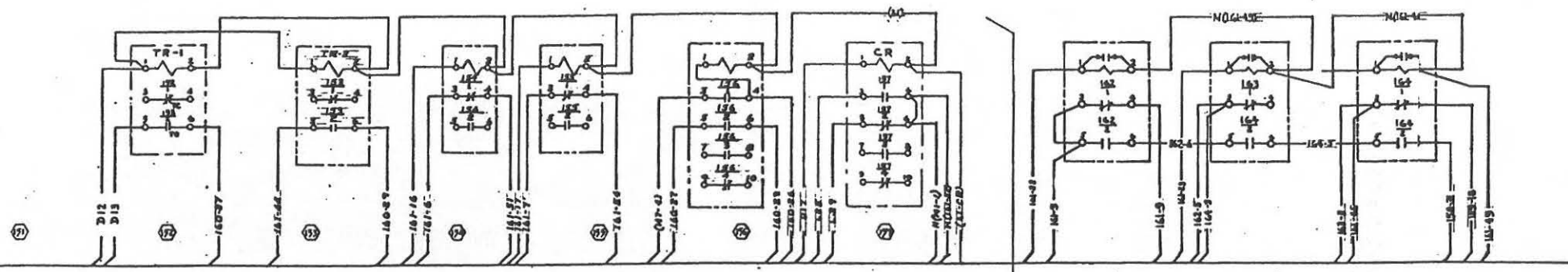
FEB 14 1962
[Signature]

OCT 21 1960
47 50 1960
81-10 1960

[Signature]

378-A-2-E-9

D1	L11	L34	S13
H(61-52)	L12	C32	A14
D3	L13	L34	S15
H(61-49)	L14	L37	S16
D4	L15	L38	S17
D5	L16	L39	S18
D6	L17	L40	S19
D7	L18	(9-3278)	S20
D8	L19	(61-20)	H(61-3)
D9	L20	31	160-28
D10	L21	32	160-29
D11	L22	33	175-3
H(61-44)	L23	34	H(61-3)
L1	L24	35	
L2	L25	36	
L3	L26	37	
L4	L27	38	
L5	L28	39	
L6	L29	40	
L7	L30	41	
L8	L31	42	
L9	L32	43	
L10	L33	44	



TO HORN & WARNING LIGHT
A-7A
A-6A
TO PRCP PANEL

RELAY & TERMINAL SECTION

NOTES

REFERENCE DRAWINGS

FRCP PLAN & SCHELE	2-E-8
FRCP WIRING DIAG - SHT. 1	2-E-9
ELECT. MISC. WIRING DIAGRAMS	2-E-18
FACILITIES TERMINAL CABINET & WIRING DIAGRAM	1-E-14

FOR SITES 1 2 3 4 5 6 7 8 9 10 11 12

DESIGN RPL & ASS

REVISION	DATE	DESCRIPTION	BY	CHK
1	12-14-52	AS BUILT DWG. INCLUDES ECP # 6483, 6484, 6485, 6486, 6487, 6488, 6489, 6490, 6491, 6492, 6493, 6494, 6495, 6496, 6497, 6498, 6499, 6500, 6501, 6502, 6503, 6504, 6505, 6506, 6507, 6508, 6509, 6510, 6511, 6512, 6513, 6514, 6515, 6516, 6517, 6518, 6519, 6520, 6521, 6522, 6523, 6524, 6525, 6526, 6527, 6528, 6529, 6530, 6531, 6532, 6533, 6534, 6535, 6536, 6537, 6538, 6539, 6540, 6541, 6542, 6543, 6544, 6545, 6546, 6547, 6548, 6549, 6550, 6551, 6552, 6553, 6554, 6555, 6556, 6557, 6558, 6559, 6560		
2	1-16-53	REV TO SHOW CONSTRUCTION AS BUILT CONDITION. REVISION NUMBERS ON ALL TERMINAL BLOCKS & ITEMS 152, 153, 154 ADDED WIRES TO T.B. 317B.		
3	2-21-60	WIRE BUNDLE 1-E-13 (U)-942 CONNECTED TO 161-10 932 TO 161-13 CHANGED SPARES FROM 7107.		
4	5-22-60	ADDED WIRES BY TERMINALS 161-3, 161-4, 161-5, 161-6, 161-7, 161-8, 161-9, 161-10, 161-11, 161-12, 161-13, 161-14, 161-15, 161-16, 161-17, 161-18, 161-19, 161-20, 161-21, 161-22, 161-23, 161-24, 161-25, 161-26, 161-27, 161-28, 161-29, 161-30, 161-31, 161-32, 161-33, 161-34, 161-35, 161-36, 161-37, 161-38, 161-39, 161-40, 161-41, 161-42, 161-43, 161-44, 161-45, 161-46, 161-47, 161-48, 161-49, 161-50, 161-51, 161-52, 161-53, 161-54, 161-55, 161-56, 161-57, 161-58, 161-59, 161-60		
5	9-8-60	ADDED WIRES BY TERMINALS 161-3, 161-4, 161-5, 161-6, 161-7, 161-8, 161-9, 161-10, 161-11, 161-12, 161-13, 161-14, 161-15, 161-16, 161-17, 161-18, 161-19, 161-20, 161-21, 161-22, 161-23, 161-24, 161-25, 161-26, 161-27, 161-28, 161-29, 161-30, 161-31, 161-32, 161-33, 161-34, 161-35, 161-36, 161-37, 161-38, 161-39, 161-40, 161-41, 161-42, 161-43, 161-44, 161-45, 161-46, 161-47, 161-48, 161-49, 161-50, 161-51, 161-52, 161-53, 161-54, 161-55, 161-56, 161-57, 161-58, 161-59, 161-60		
6	6-17-60	161-10 932 TO 161-13 CHANGED SPARES FROM 7107.		
7	4-22-60	ADDED WIRES BY TERMINALS 161-3, 161-4, 161-5, 161-6, 161-7, 161-8, 161-9, 161-10, 161-11, 161-12, 161-13, 161-14, 161-15, 161-16, 161-17, 161-18, 161-19, 161-20, 161-21, 161-22, 161-23, 161-24, 161-25, 161-26, 161-27, 161-28, 161-29, 161-30, 161-31, 161-32, 161-33, 161-34, 161-35, 161-36, 161-37, 161-38, 161-39, 161-40, 161-41, 161-42, 161-43, 161-44, 161-45, 161-46, 161-47, 161-48, 161-49, 161-50, 161-51, 161-52, 161-53, 161-54, 161-55, 161-56, 161-57, 161-58, 161-59, 161-60		
8	4-14-60	ISSUED FOR SPARES A.R.B.		

BECHTEL CORPORATION
ENGINEERS & CONSTRUCTORS

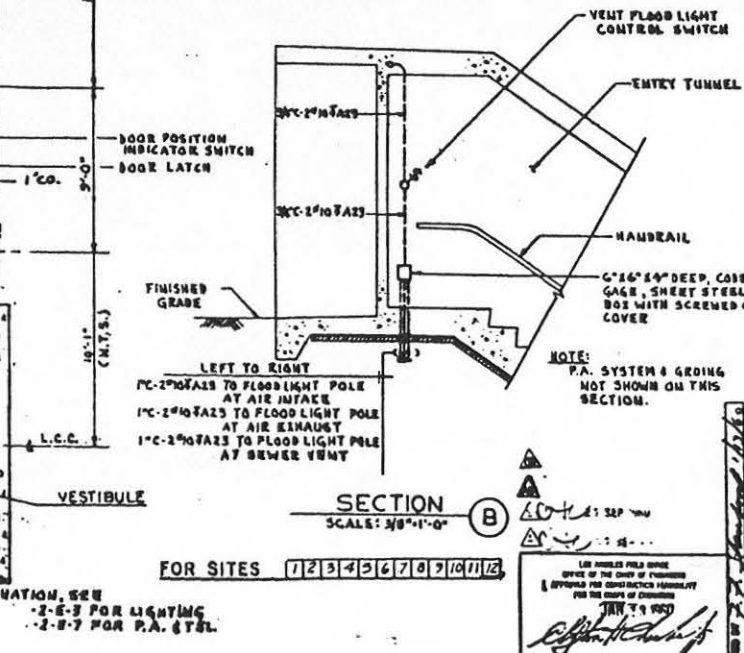
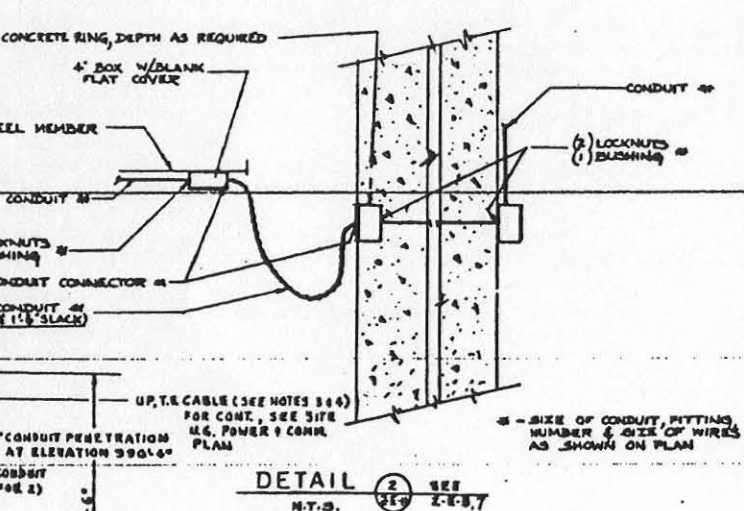
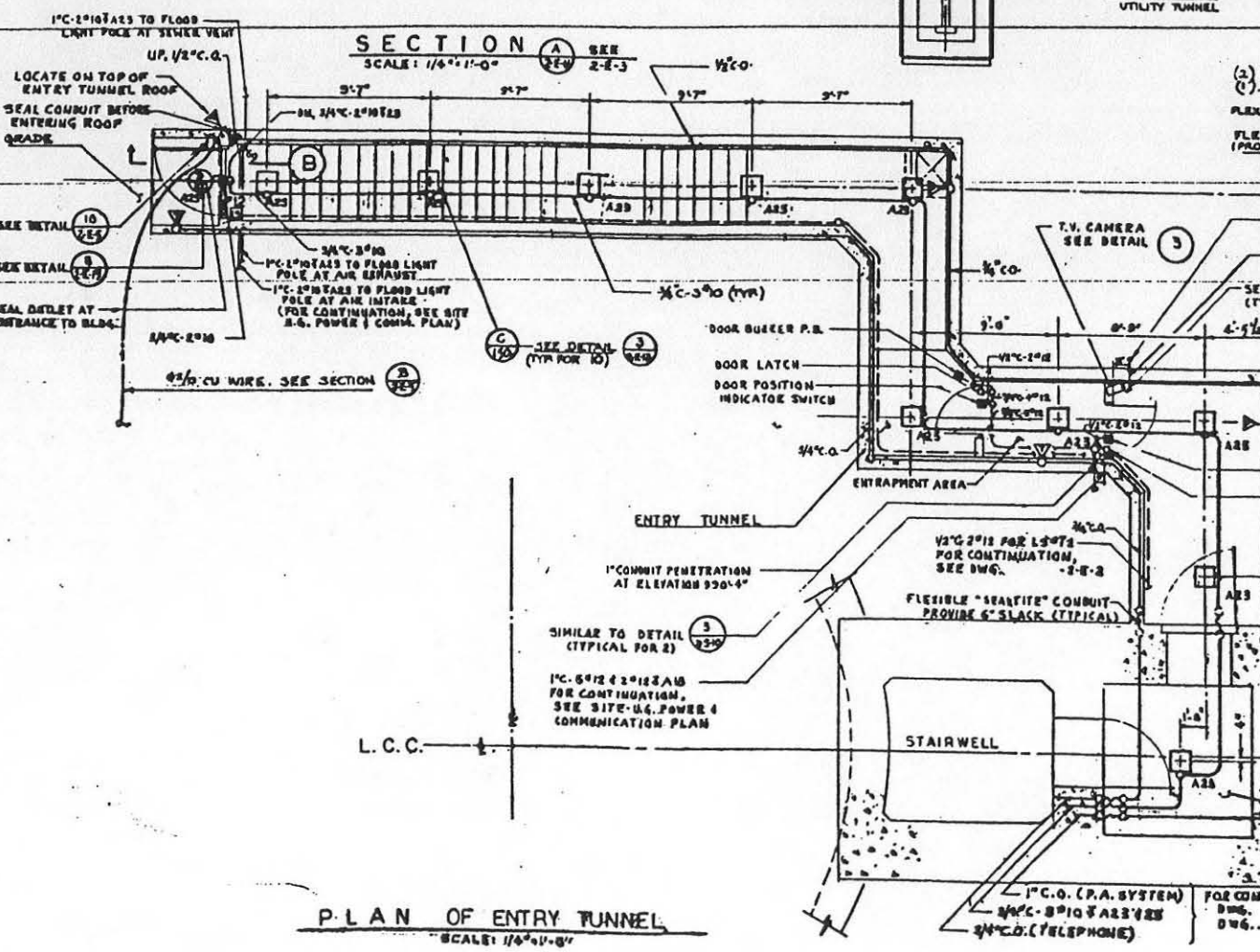
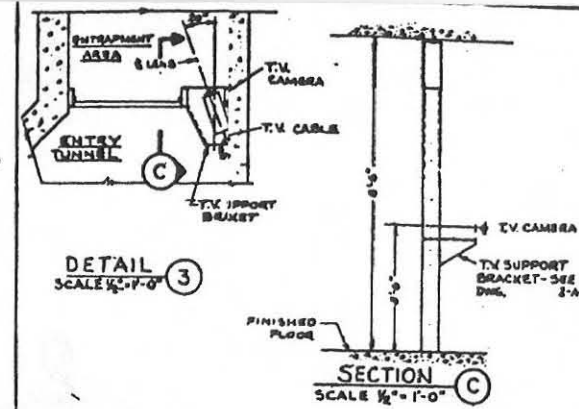
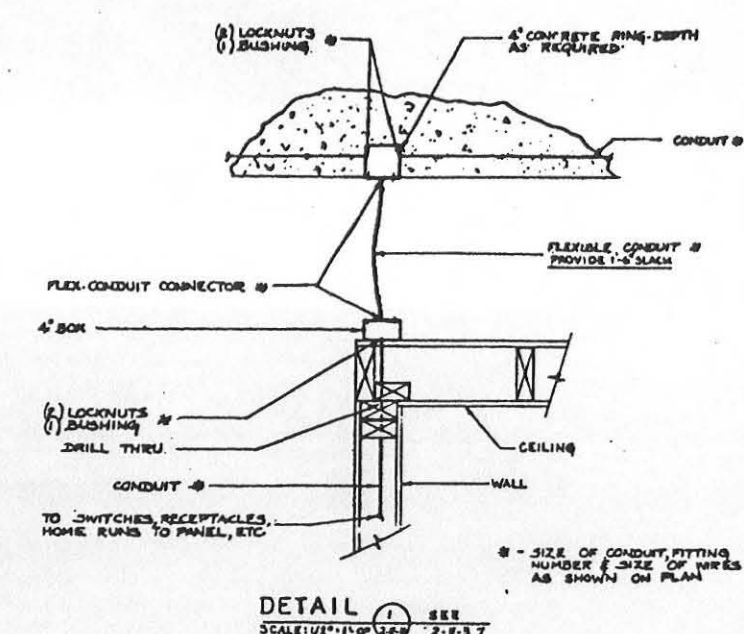
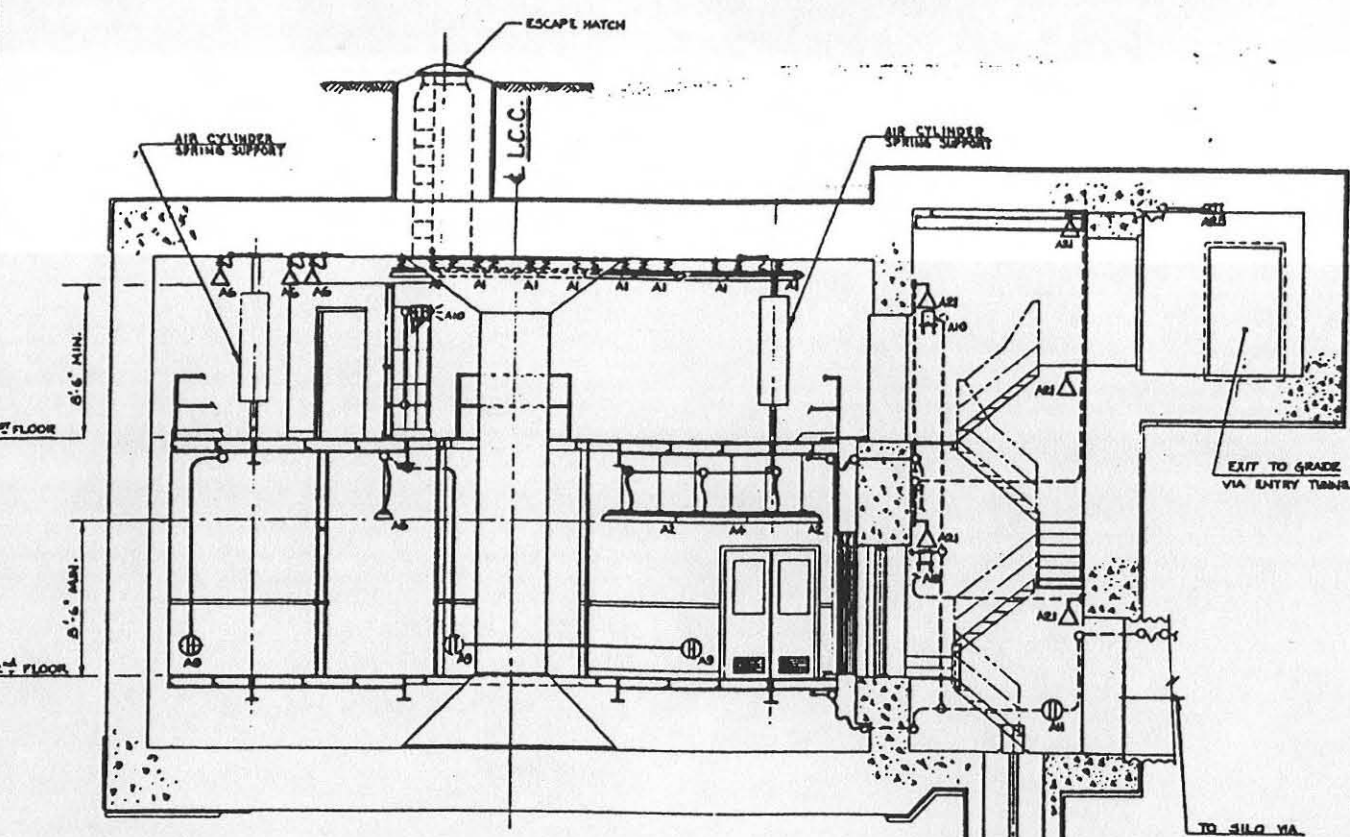
DEPARTMENT OF THE AIR FORCE
AIR FORCE BALLISTIC MISSILE DIVISION (AMBD)
MONTAGNA, CALIFORNIA

WS-107 A-1 OPERATIONAL BASE
UNITARY SILO
LAUNCH CONTROL CENTER

FRCP WIRING DIAG. SHT. 2

DATE: 1/10/53
BY: L. HARRIOTT/24/53
CHECKED: J.E. 2/11/53
APPROVED: [Signature]

578-A-2-E-10



- NOTES**
- FOR SYMBOL LIST LIGHTING FIXTURE SCHEDULE SEE DWG 2-E-12
 - ALL CONDUIT RUNS SHOWN ARE DIAGRAMMATIC ONLY. ROUTED MAY BE ALTERED TO SUIT FIELD CONDITIONS.
 - WIRING FOR T.V. CAMERA TO BE INCLUDED AND INSTALLED PER MANUFACTURERS RECOMMENDATION.
 - TERMINATE CONDUIT WITH INSULATING BUSHING. ATTACH CABLE GRIP TO CABLE ANCHOR. ATTACH CABLE GRIP TO TERMINATED CONDUIT. PROVIDE SLACK.

DATE: FEB 14 1962

BY: *[Signature]*

REFERENCE DRAWINGS

ELECT GROUNDING PLAN	2-E-1
ELECT GROUNDING DETAILS	2-E-2
ELECT LIGHTING PLAN	2-E-3
POWER PLAN	2-E-4
P.A. & TEL PLAN	2-E-7
ELECT SECTIONS & DETAILS - SHEET # 2	2-E-17
MISCELLANEOUS DETAILS SHEET # 1	2-E-18
ENTRY TUNNEL	2-A-2

REVISIONS

NO.	DATE	DESCRIPTION	BY	CHKD
1	12-14-61	OPERATIONAL BUILT DWG.	SATAP	STB
2	11-26-61	REVISED TO SHOW CONSTRUCTION AS BUILT CONDITION.	CEMCO	AD
3	7-27-60	ADDED ENTRAPMENT AREA - DETAILS ONLY. REMOVED CAMERA TELEPHONE CABLE. SEE DWG. 2-A-1 TO ENTRY TUNNEL. SEE DWG. 2-E-3.	AFSMO	TH
4	4-23-60	ADDED PRINTS: AIR VENT FLOODLIGHTS, AIR INTAKE, AIR EXHAUST.	SEBET	VE
5	4-15-60	ISSUED FOR DRESS UP.	ALM	TE

BECHTEL CORPORATION
ENGINEERS AND CONTRACTORS
SAN FRANCISCO - LOS ANGELES - NEW YORK

DEPARTMENT OF THE AIR FORCE
AIR FORCE BALLISTIC MISSILE DIVISION (AMDO)
SANTA MONICA, CALIFORNIA

WS-107 A-1 OPERATIONAL BASE
UNITARY SILO
LAUNCH CONTROL CENTER

ELECT. SECT'S. & DET'S. - SHT. 1

DATE: 13 JAN 1962

NO. 578-02-E-11

P.L.A.N. OF ENTRY TUNNEL
SCALE: 1/4" = 1'-0"

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

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

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

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

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

Table of symbols for Plan and Elevation views. Includes categories like 'INCANDESCENT FIXTURE', 'BRACKET MOUNTED', 'CEILING MOUNTED', 'FLUORESCENT FIXTURE', 'TELEPHONE OUTLET', 'PUBLIC ADDRESS SYSTEM OUTLET', 'DUPLIX RECEPTACLE', 'SPECIAL PURPOSE OUTLET', 'OUTLET AS SPECIFIED', 'BATTERY OPERATED EMERGENCY LIGHT', 'FIRE ALARM BELL', 'MANUAL STARTER WITH INDICATING LIGHT', 'SINGLE POLE SWITCH', and 'MOUNT AS FROM FINISHED FLOOR'. Each entry includes a symbol and a brief description.

Table of symbols for Plan and Elevation views. Includes categories like 'POWER PANEL', 'LIGHTING PANEL', 'HORN', 'RADIO INTERFERENCE FILTER', 'SOLENOID VALVE', 'FUSE', 'VOLTAGE SURGE PROTECTOR', 'MOTOR', 'PUSHBUTTON', 'CABLE MARKER', 'INSULATING BUSHING', 'CONDUIT', 'CONDUIT BENDS', 'LIGHTING CONDUIT', 'CONDUIT FITTING', 'GROUND WIRE', 'ELECTRIC WELD', and 'CONDUIT FITTING WITH CONDUIT BENDING'. Each entry includes a symbol and a brief description.

Table of symbols for Plan and Elevation views. Includes categories like 'DISCONNECT SWITCH', 'VOLTAGE SURGE PROTECTOR', 'AIR CIRCUIT BREAKER', 'TRANSFORMER', 'MOTOR', 'LIGHTING PANEL', 'SWITCH', 'PUSHBUTTON', 'INDUSTRIAL PORCELAIN ENAMELED STEEL DOME REFLECTOR', and 'GENERAL DIFFUSING'. Each entry includes a symbol and a brief description.

Table of lighting fixture schedules. Includes categories like 'FLUORESCENT FIXTURE', 'FLUSH TYPE FIXTURE', 'BRACKET TYPE WEATHERPROOF HEAVY CAST METAL ANGLE BODY', and 'CEILING FIXTURE'. Each entry includes a symbol, a detailed description of the fixture, and a schedule number.

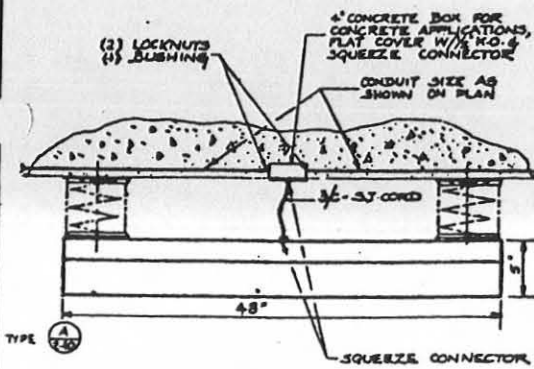
Table of abbreviations for electrical symbols. Lists symbols for AC APPROX, BLOC, COND, COMM, CU, CAB, CONN, DIA, DWG, DWD, DISTR, DET, EL, ELECT, EQUIP, ETC, EWH, FA, FD, FDS, FRCP, FLEX, FS, GRD, GSE, HP, HWP, H4V, INSTR, IDENT, JB, KO, LPA, LTG, LS, LCC, MTD, MA, MLC, NO, NC, NTS, R, PA, PB, PML, PRCP, PRESS, RECP, REQD, SD, SW, SQ, SCHED, SEC, SECT, TV TRANS, TEMP, TR, TRC, VSO, WP, UT LINE, RCUT, AIR CONDITIONING, APPROXIMATE ASSIGNED SERVICES CONTRACT, BUILDING BREAKER, CONDIT ONLY, CONTROL CENTER, COMMUNICATIONS, COPIER, CABINET CONNECTION, CONNECTED CONTROL, DIALLER, DRAWING, DRINKING WATER DISPENSER, DISTRIBUTION DETAIL, ELEVATION, ELECTRIC, ELECTRICAL OR ELECTRONIC, ELECTRICALLY OPERATED VALVE EQUIPMENT, ETC, ELECTRIC WATER HEATER, FIRE ALARM, FIRE DETECTOR, FIRE DETECTION SYSTEM, FACILITY REMOTE CONTROL PANEL, FLEXIBLE, FLAT SWITCH, GRIND, GROUND SERVICE EQUIPMENT, HOSE POWER, HEATING & VENTILATING, INSTRUMENT OR INSTRUMENTATION, IDENTIFICATION, JUNCTION BOX, KICKOUT, LISTING PANEL, LIGHTING, LIGHT SWITCH, LIGHT CONTROL CENTER, MOUNTED, NON AUTOMATIC, NON CONTRACT, NORMALLY OPEN, NORMALLY CLOSED, NOT TO SCALE, PIPE, PUBLIC ADDRESS, PUSHBUTTON, PANEL, PLANT REMOTE CONTROL PANEL, PRESSURE, RECEPTACLE REQUIRED, SET DRAWN, SQUARE, SCHEDULE, SECURITY, SECTION, TELEVISION, TRANSFORMER, TEMPERATURE, TELEPHONE, TRIP (OPEN), TRIP (CLOSE), THERMOID VALVE, WATER PROOF, WATER LINE, RECURT.

IN ACCORDANCE WITH THE PROVISIONS OF THE GENERAL CONTRACT AGREEMENT DATED FEBRUARY 14, 1962... FEB 14 1962

GENERAL DIFFUSING. ONE PIECE. SHALLOW BAND CEILING FIXTURE WITH... FEB 14 1962

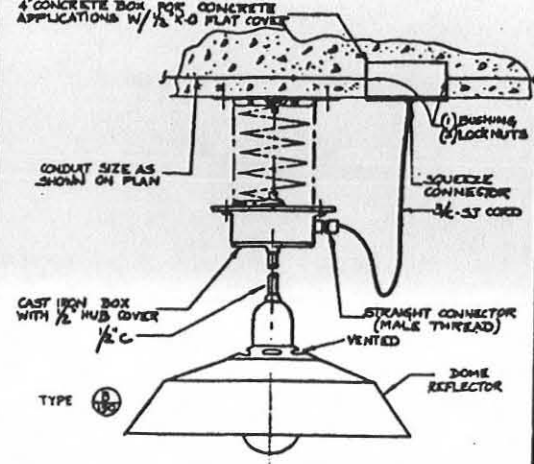
FOR SITES 1123456709101112

Administrative and project information block. Includes 'BECHTEL CORPORATION ENGINEERS IN CONSTRUCTION', 'DEPARTMENT OF THE AIR FORCE AIR FORCE BALLISTIC MISSILE DIVISION', 'WS-107 A-1 OPERATIONAL BASE UNITARY SILO LAUNCH CONTROL CENTER', 'ELECT. SYMBOL LIST', 'ENG. 41-443-60-30', '15 JAN 1960', '578 - 2-E-12', and a signature block for J. HARRIS.



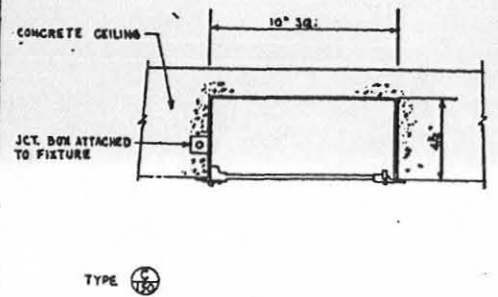
SHOCK MOUNTING KORFUND OR EQUAL FOR FLUORESCENT LIGHTING FIXTURE
SEE NOTE 2

DETAIL 1 SEE 2-E-3

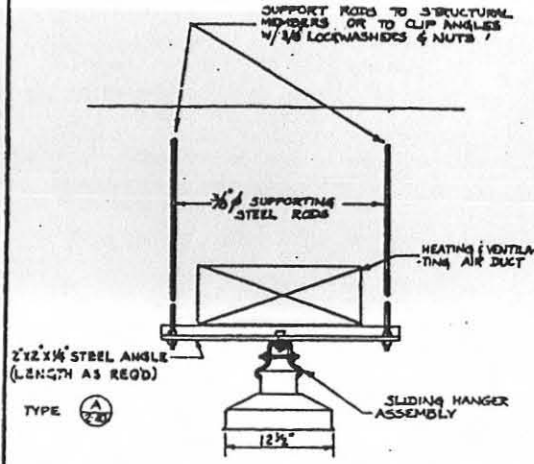


SHOCK MOUNTING KORFUND OR EQUAL FOR INCANDESCENT LIGHTING FIXTURE
SEE NOTE 2

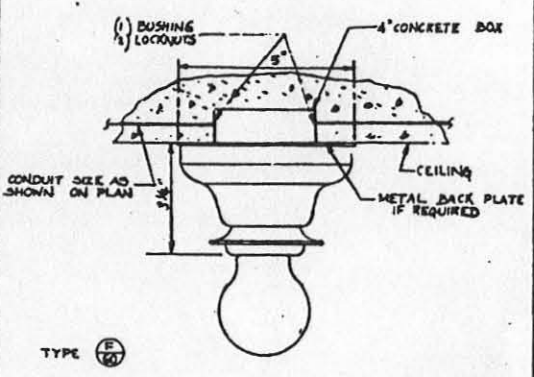
DETAIL 2 SEE 2-E-3



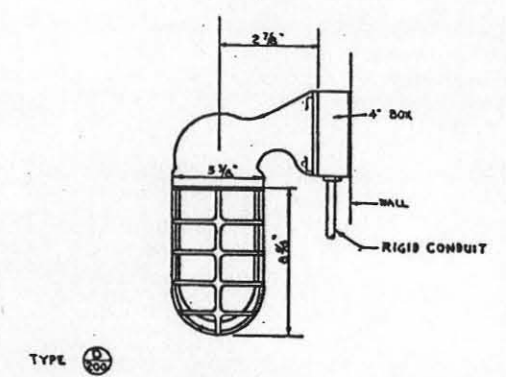
DETAIL 3 SEE 2-E-4



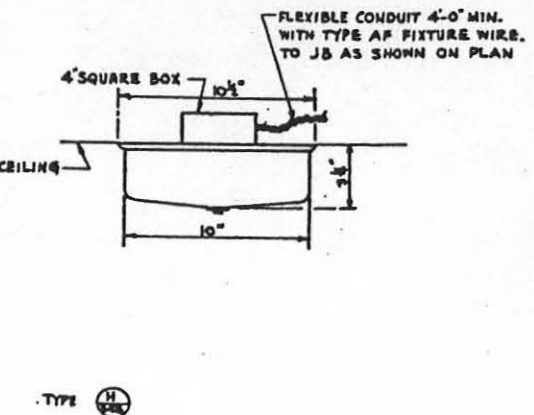
DETAIL 4 SEE 2-E-3



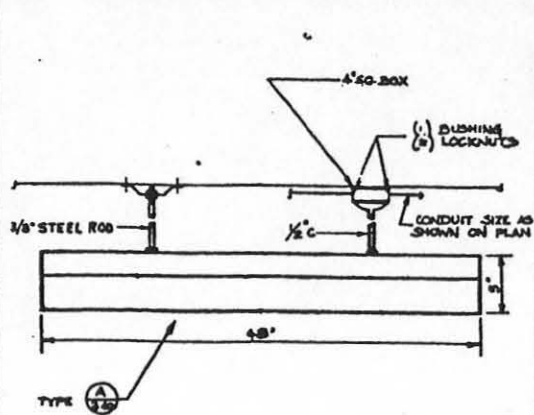
DETAIL 7 SEE 2-E-3



DETAIL 8 SEE 2-E-3



DETAIL 9 SEE 2-E-3



DETAIL 10 SEE 2-E-3

FOR SITES 1 2 3 4 5 6 7 8 9 10 11 12

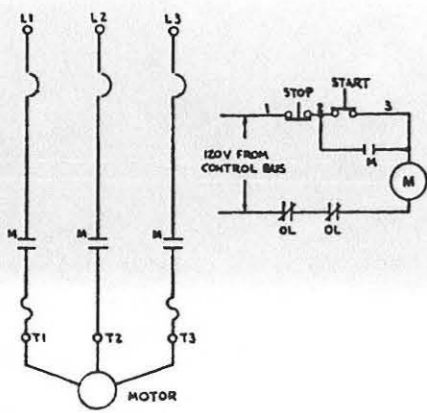
In accordance with instructions from STD 22073 24 November 1965 this drawing is certified correct on 12/13/65 as determined by the use of 2-DIMENSIONAL...
1. Items showing MTD DIFFERENCES or solid connections to CD/A EQUIPMENT.
2. Items which would cause interference with CD/A equipment.
3. Changes that would affect the operation of the system.
FEB 14 1962

NOTES
1 - FOR FIXTURE DESCRIPTIONS SEE DWG. 2-E-12.
2 - ALL MOUNTS UNDER 4E STATIC LOAD WOULD HAVE A NATURAL FREQUENCY OF LESS THAN 3 CPS AND SHALL NOT TRANSMIT MORE THAN 3g ACCELERATION TO THE FIXTURES EVEN IN THE 50g SHOCK ONES.

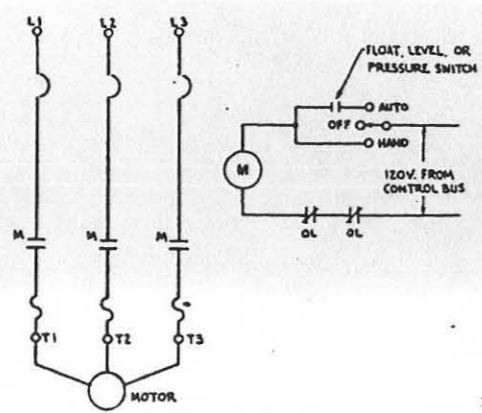
REFERENCE DRAWINGS

ELECTRICAL LIGHTING PLAN	2-E-3
ELECTRICAL SECTIONS DETAILS	2-E-11

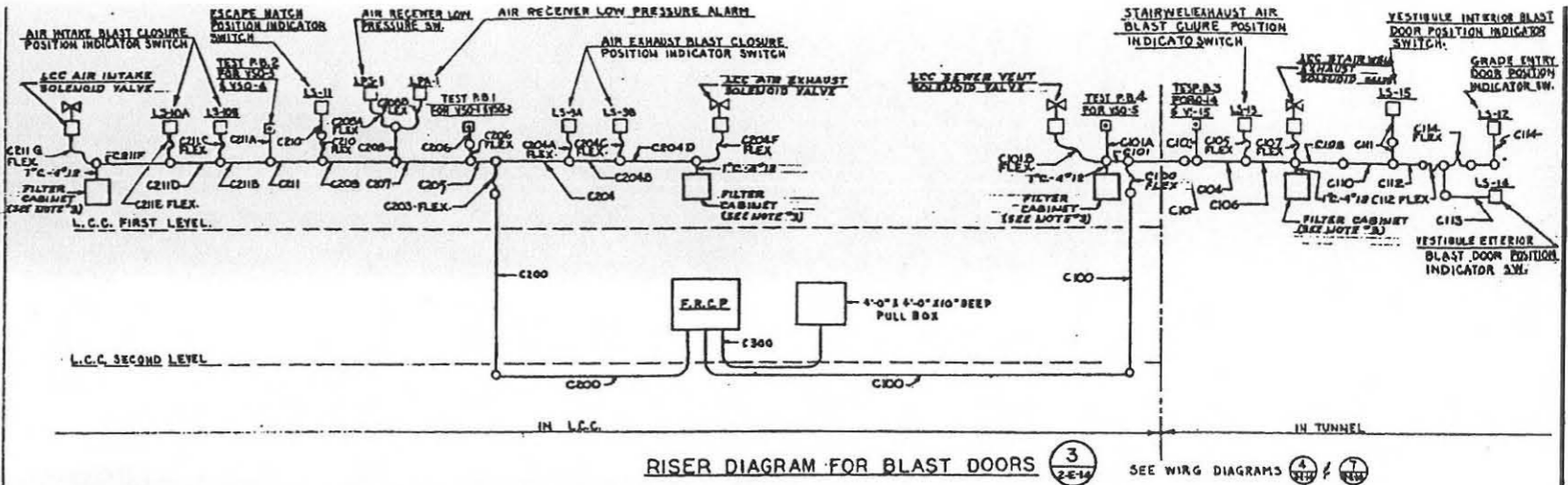
12-18-62	OPERATIONAL / BUILT DWG.	BY/APP	CLS
11-26-61	REVISED TO NEW CONSTRUCTION AS BUILT CONDITION.	DESIGN	CLS
4-13-60	ISSUED FOR DYESS A.F.B.	AFBMD	CLS
REVISION	DATE	DESCRIPTION	AGENCY
BECHTEL CORPORATION		DEPARTMENT OF THE AIR FORCE	
ENGINEERS AND CONTRACTORS		AIR FORCE BALLISTIC MISSILE DIVISION WABD	
WS-107 A-1 OPERATIONAL BASE		UNITARY SILO	
LAUNCH CONTROL CENTER		ELECT. STANDARD DETAILS	
ENG. 41-443-60-30		13 JAN 1960	
578-2-E-13		NONE	



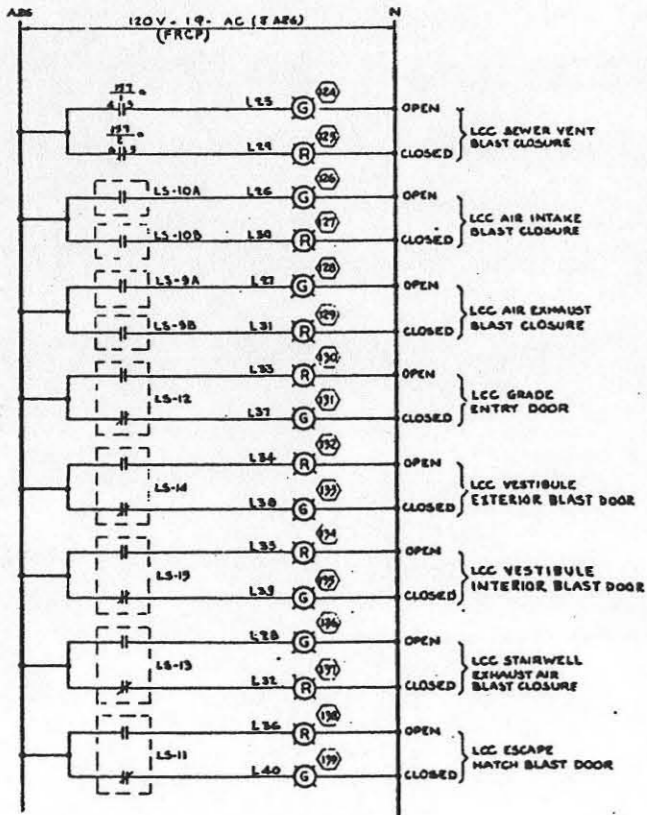
START-STOP CONTROL (1) 2-E-14



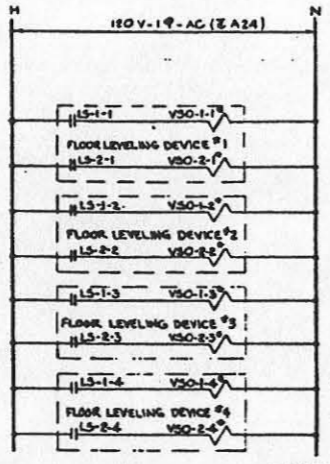
FLOAT OR PRESSURE SWITCH (2) 2-E-14



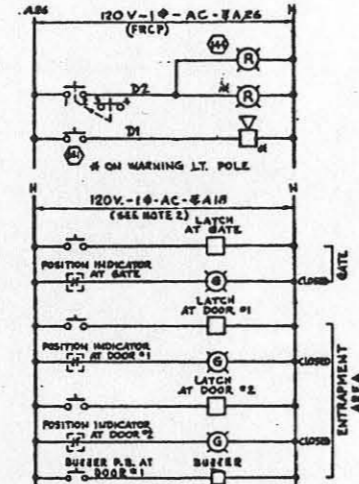
RISER DIAGRAM FOR BLAST DOORS (3) 2-E-14 SEE WIRG DIAGRAMS (4) (5) (6) (7) (8) (9) (10) (11)



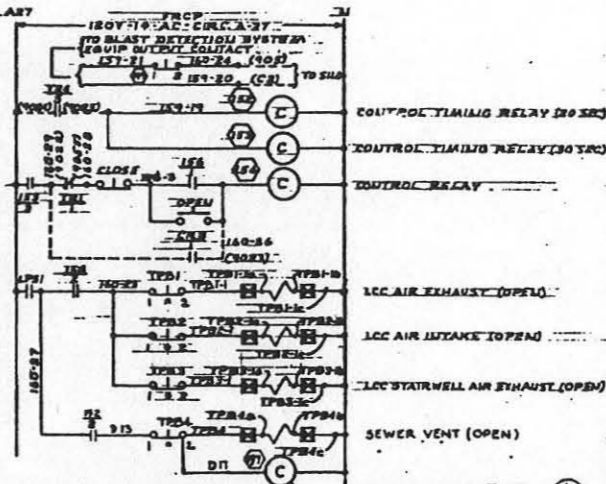
WIRING DIAGRAM FOR BLAST CLOSURE LIGHTS (4) 2-E-14



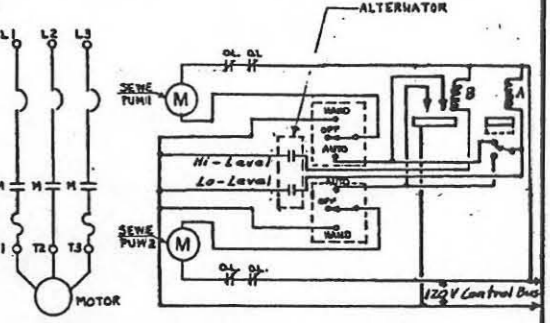
WIRING DIAGRAM FOR FLOOR LEVELING DEVICE (5) 2-E-14 2-E-2



WIRING DIAGRAM FOR WARNING LIGHTS SYSTEM AND ENTRAPMENT AREA & GATE CONTR. (6) 2-E-14 2-E-2



WIRING DIAGRAM FOR BLAST CLOSURES (SOLENOID VALVES) (7) 2-E-14 2-E-2

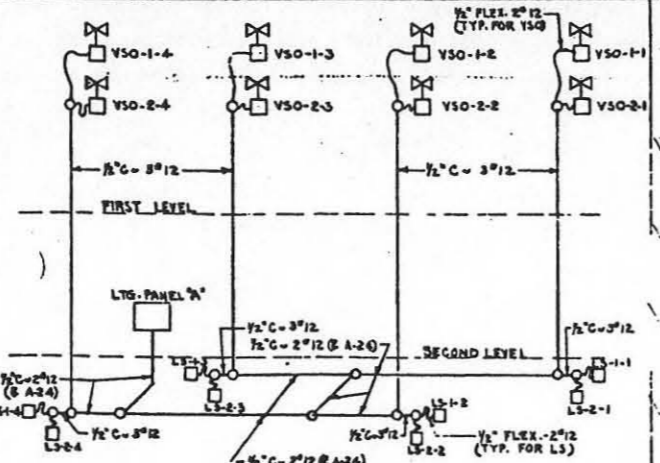


FLOAT CONTROL SEWAGE PUMP (11) 2-E-14 2-E-2

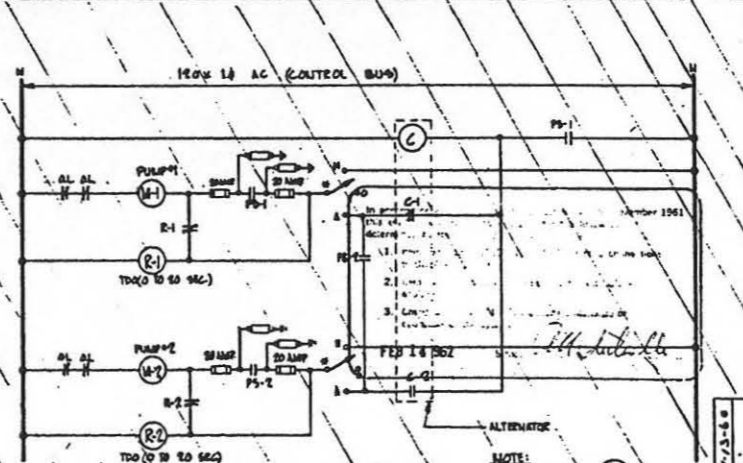
- NOTES
- FOR ITEM NUMBS SEE DWG. 2-E-8.
 - UNLESS OTHERWISE NOTED ELECTRICAL EQUIPMENT IS IN L.C.C.
 - FOR INTERNAL WIRING OF FILTER CABINETS SEE SHEET 7-E-58

REFERENCE DRAWINGS

ELECT. POWER PLAN	2-E-2
ELECT. C.C. DET'S. SCHEM.	2-E-4
FECP PLAN AND SCID.	2-E-8
FECP WIRING DIAG. SH. 1	2-E-9
FECP WIRING DIAG. SH. 2	2-E-10
ELECTRICAL NOISE SUPPRESSION FILTER CABINETS THEORY	1-E-62



RISER DIAGRAM FOR LEVEL DETECTOR CONTROLLER (8) 2-E-14 2-E-2



WIRING DIAGRAM FOR WELL PUMPS (9) 2-E-14 2-E-2

FOR SHIS

NO.	DATE	DESCRIPTION	ISSUED BY
12-10-62		OPERATIONAL AS BUILT DWG. INCLUDES ECP 6.5.8.7.8.9.10.11.12	AFBMD 2
2-1-61		REVIS TO SHOW CONSTRUCTION AS BUILT CONDITION. REVISE DETAIL 4, 6, 7, 11. DELETED DETAIL 9	AFBMD 2
1-20-61		ENLARGED DETAIL 9 AND ADDED FUSES AND VOLTAGE BURGE PROTECTORS TO PS-1 AND PS-2. REVISED DETAIL 10.	AFBMD 2
2-27-60		DELETED UNDER FLOOR WARNING LIGHTS, REVISED WIRING FOR RED LIGHT, & ADDED ENTRAPMENT AREA & GATE CONTROLS TO DETAIL 6; ADDED NOTE 2	AFBMD 2
2-2-60		DELETED L.P. 23, C202, L.P. 24, & BLAST DETECTION PROGRAM 23. CHANGED C200 TO C200 IN DET. 18. ADDED 200 & 400-400-400 PULLBOX TO DET. 18. REV. DATA 7 FOR BLAST DETECTION SYSTEM	AFBMD 2
6-17-60		REVISED NOMENCLATURE OF ITEMS 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000	AFBMD 2

BECHTEL CORPORATION ENGINEERS & CONSTRUCTORS

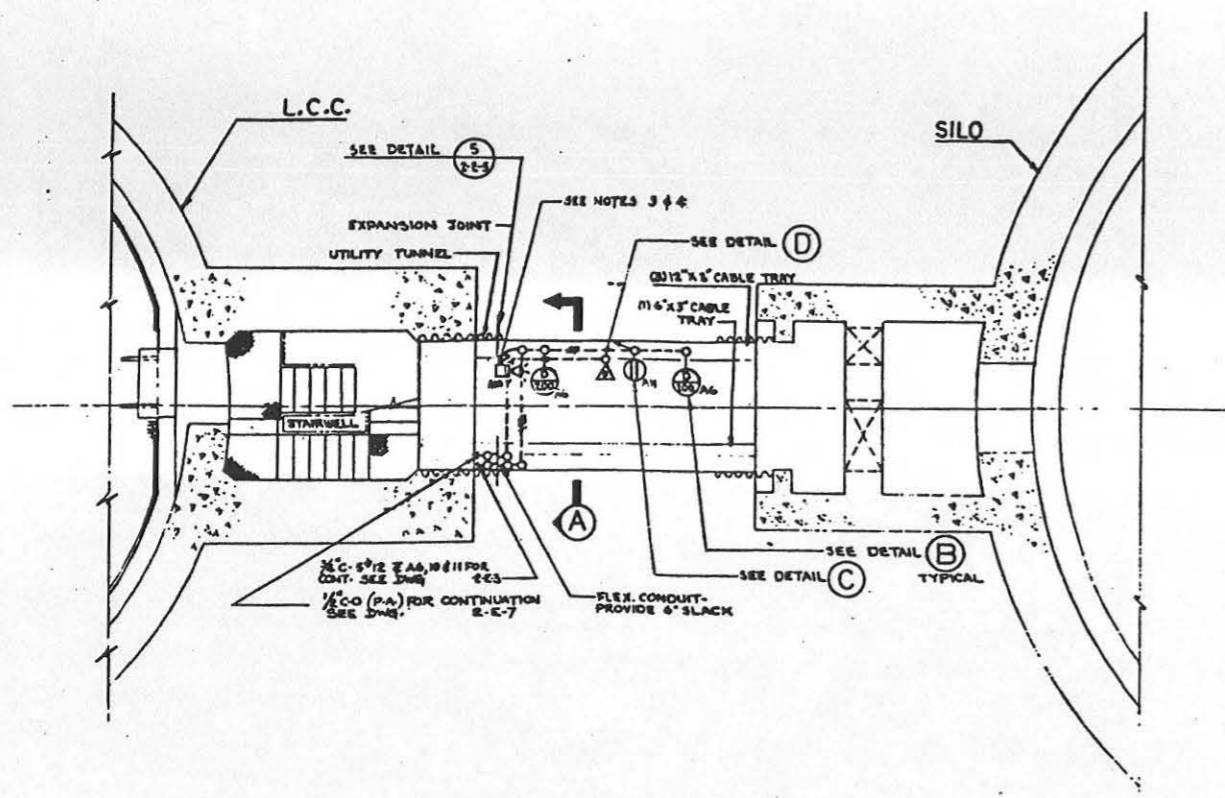
DEPARTMENT OF THE AIR FORCE AIR FORCE BALLISTIC MISSILE DIVISION (AMSD)

WS-107 A-1 OPERATIONAL BASE UNITARY SILO LAUNCH CONTROL CENTER

ELECT. MISC. WIRING DIAGS. ENG. 41-443-60-30

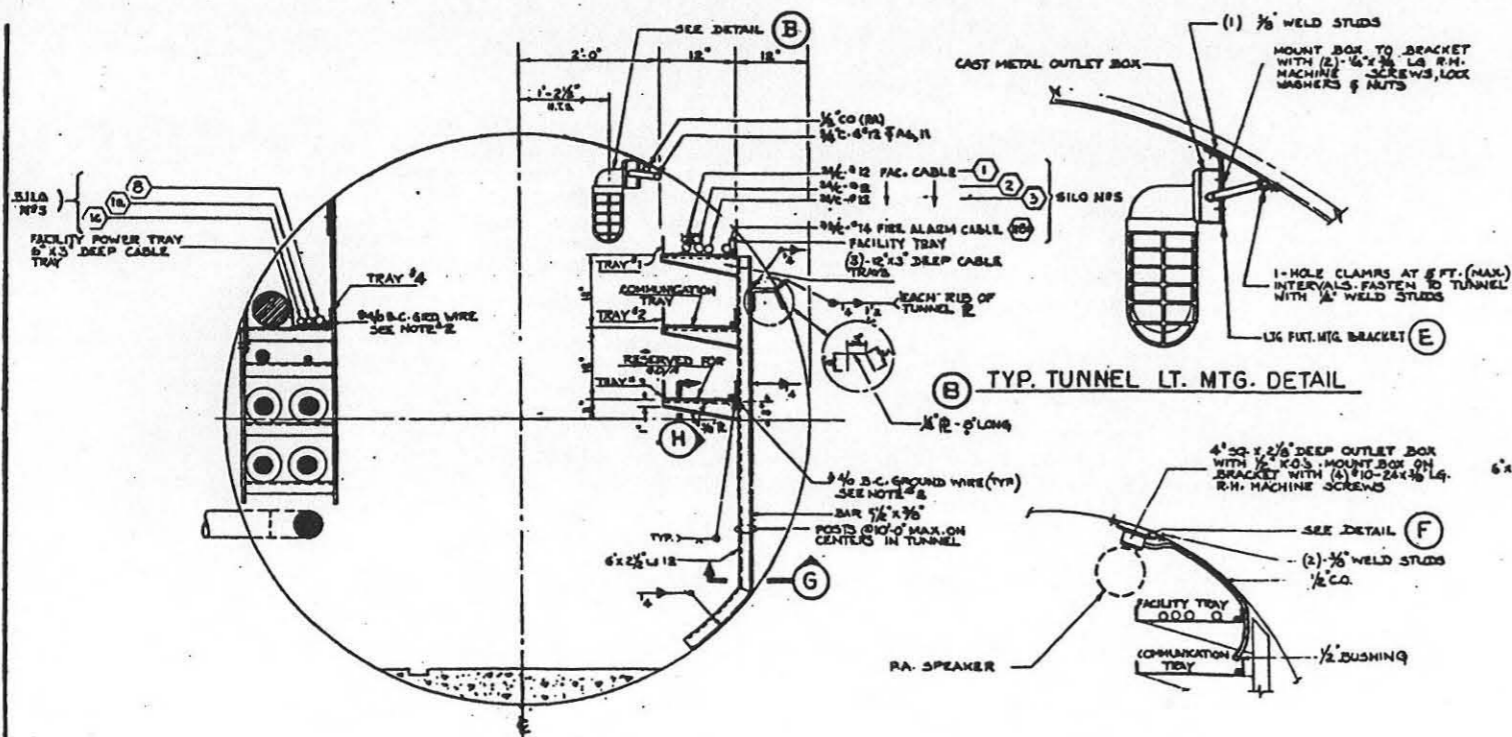
13 JAN 1960

378-A-2-E-14



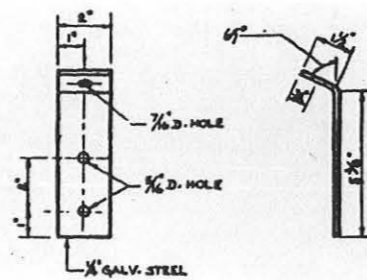
TYPICAL PLAN OF UTILITY TUNNEL

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

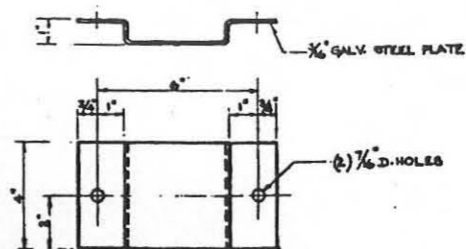


TYPICAL UTILITY TUNNEL SECTION

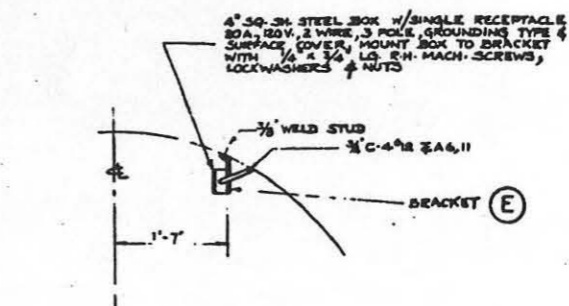
P.A. SPEAKER MTG. DETAIL



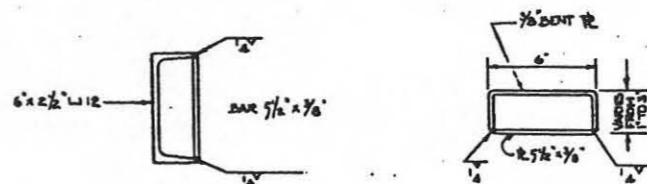
TUNNEL LIGHT SUPPORT DETAIL



P.A. SPEAKER SUPPORT DETAIL

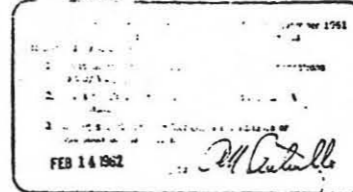


RECEPTACLE MOUNTING DETAIL



SECTION G

SECTION H



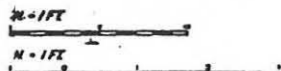
FOR SITES [1][2][3][4][5][6][7][8][9][10][11][12]

NOTES

- 1 - FOR SYMBOL LIST & FEATURE SCHEDULE SEE DWG. AEDD-2-E-11.
- 2 - THE 0% GROUND RES SHALL BE CLAMP CONNECTED TO EVERY 12 FT. SECTION OF THE TRAYS.
- 3 - BATTERY OPERATE EMERGENCY LAMP - CONTRACTOR TO PROVIDE LIGHTING PLATFORM 6'-0" ABOVE FINISHED FLOOR.
- 4 - FOR EXACT LOCATN OF DUCTS AND A.C. EQUIPMENT SEE DWG. 2-ME.

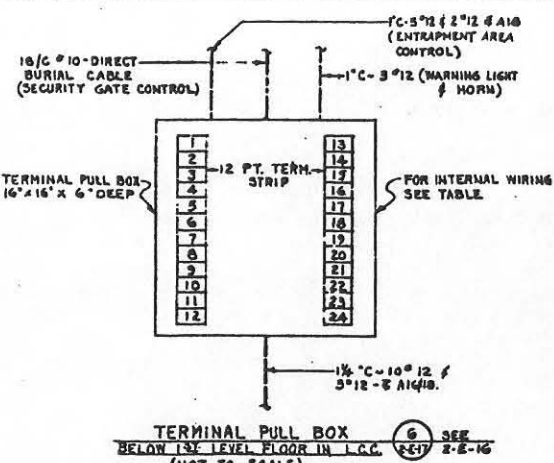
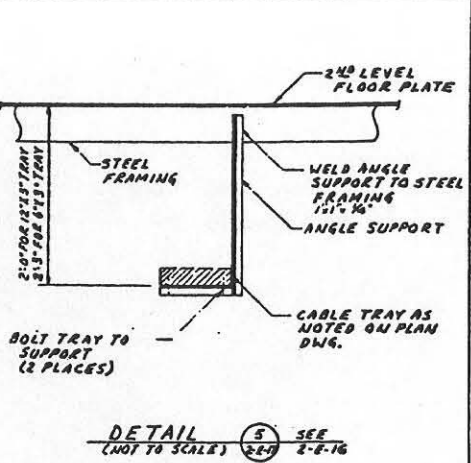
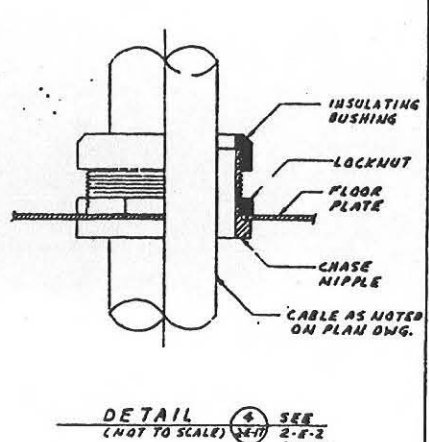
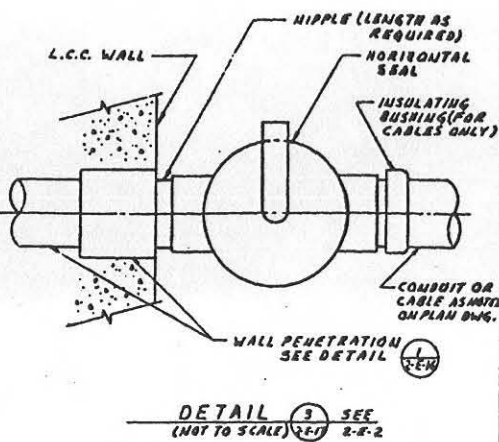
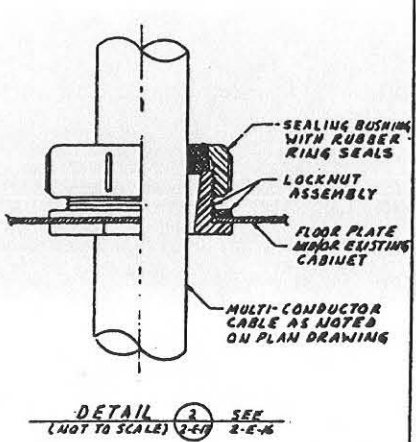
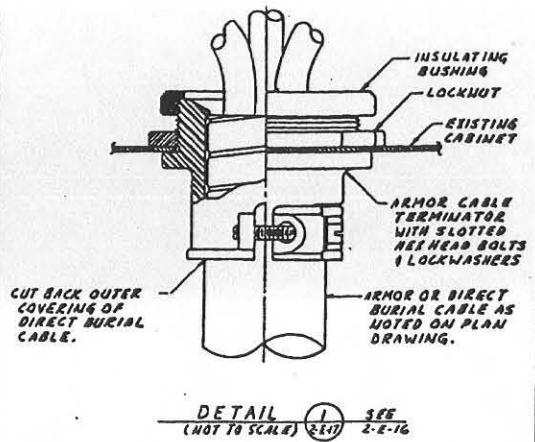
REFERENCE DRAWINGS

DRAWING	NO.
ELECT. SINGLE LINE DIAGRAM	2-E-1
POWER PLAN	2-E-2
LIGHTING PLAN	2-E-3
P.A., P.A., & TEL. PLAN	2-E-7



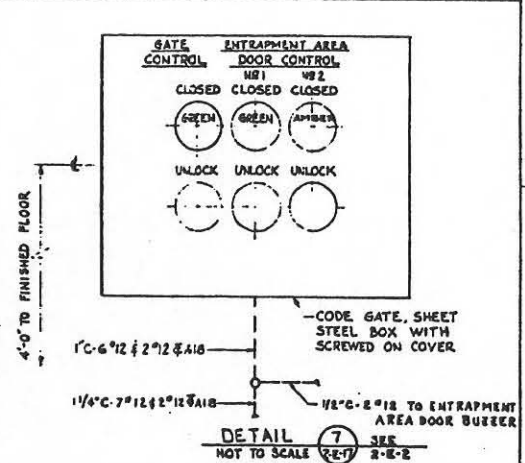
DATE	ISSUED OR BY	DESCRIPTION	AGENCY INT.
12-14-60		OPERATIONS BUILT D.W.G.	SATAP
1/24-61		REVISED SHOW CONSTRUCTION AT BUILT CONDITION.	DEBMD
4-13-60		ISSUED OR DYESS A.F.B.	AFBMD R.

BECHTEL COIORATION		DEPARTMENT OF THE AIR FORCE	
ENGINEERS AND INSTRUCTORS	AIR FORCE BALLISTIC MISSILE DIVISION WARD	UNITS	
WS-107 A-1 OPERATIONAL BASE			
UNITARY SILO			
LAUNCH CONTROL CENTER			
ELECT. PLAN, SECT'S, DET'S (TUNNEL)			
DESIGNED BY C. Kendall 10/29/60	DRAWN BY L.S. 1/2 10/29/60	ENG. 41-443-60-30	SCALE 1/4" = 1'-0"
CHECKED BY L.S. 1/2 10/29/60	DATE 13 JAN 1961	ISSUED BY 578-2-E-15	

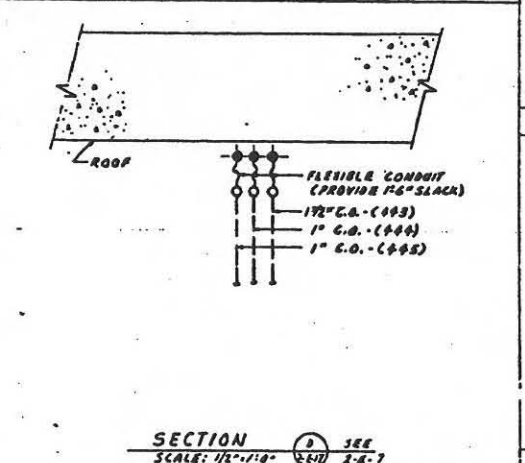
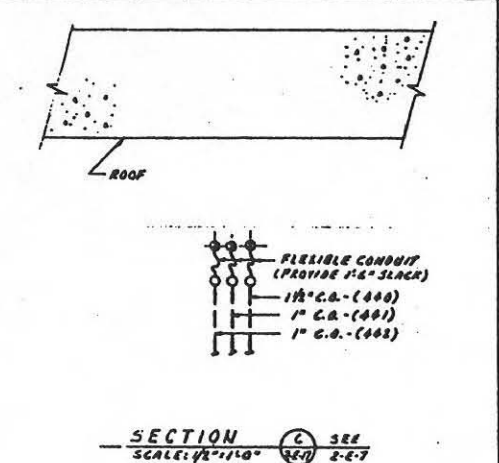
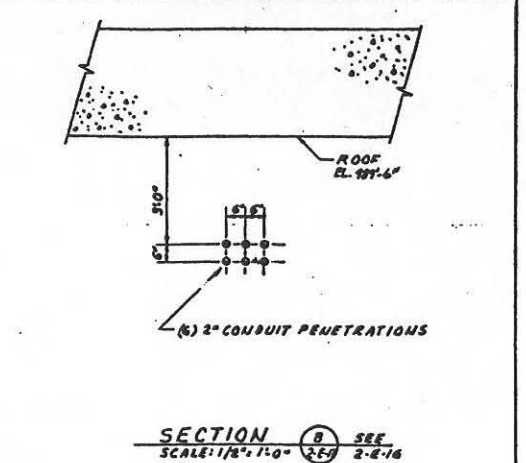
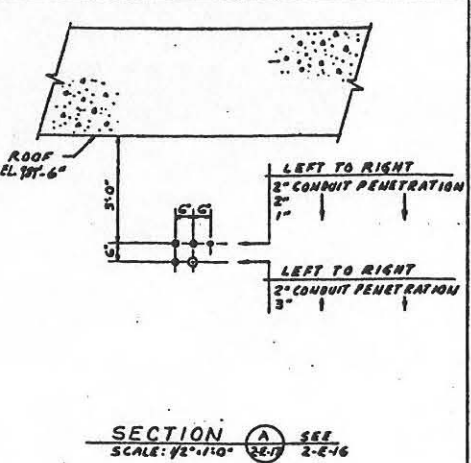


TERM. NO.	DESCRIPTION	WIRE NO.
1	FLOODLIGHTS - POLE #1	A 16
2	ENTRAPMENT AREA & GATE CONTROL POWER	A 18
3	NEUTRAL	A16, A18
4	GATE CONTROL - GATE LATCH	
5	POSITION IND. SW.	
6	ENTRAPMENT AREA DOOR LATCH	
7	1 - POS. IND. SW.	
8	1 - DOOR BUZZER P.B.	
9	2 - DOOR LATCH	
10	2 - POS. IND. SW.	
11	WARNING LT. - RED	161-1
12	HORN	161-1
13	COMMON - WARN. LT. & HORN	
14	SPARE TERMINAL	
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		

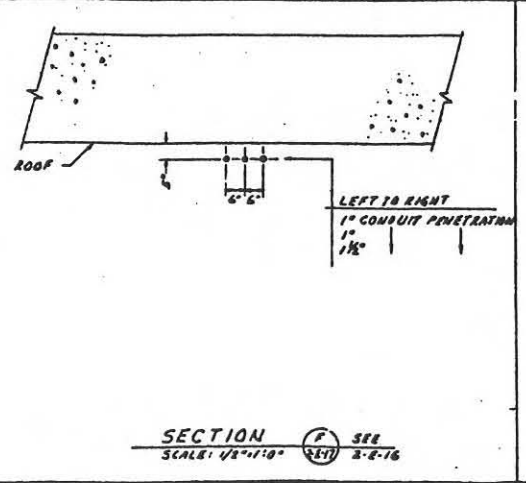
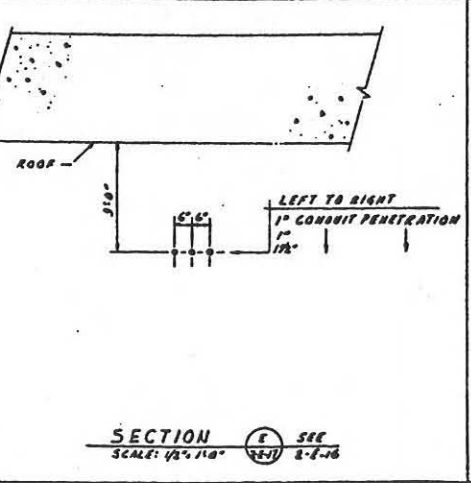
NOTE: COIL SPARES OF 10\"/>



NOTES
1. FOR GENERAL NOTE AND REFERENCE DRAWINGS, SEE DRAWING 2-E-12.



REFERENCE DRAWINGS



FOR SITES 1 2 3 4 5 8 9 10 11 12

FEB 14 1962
M. J. [Signature]

27 SEP 60
27 SEP 60
JAN 13 1960
ELECT. SECT'S & DET'S-SHT. 3

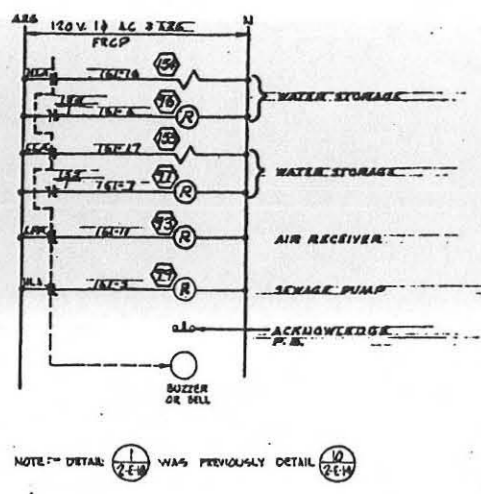
12-14-60 OPERATIONAL ASST DWG.
11-26-61 REVISED TO BE CONSTRUCTION AS BUILT CONDITION.
11-25-61 ADDED RELEVATION TO SECTIONS A & B
9-27-60 REVISED WIRING FOR GATE & WARNING LATS, DELETED WIRING FOR FLOODLIGHT POLE #2 AT GATE & ADDED WIRING FOR ENTRAPMENT AREA CONTROL TO DETAIL 6
REVISED P.I.M. DETAIL 7
9-8-60 ADDED SECTIONS C, D, E & F FOR BLAST DETECTION SYSTEM, CONDUITS & CONDUIT PENETRATIONS
FIXED FOR DYESS A.P.B.

4-15-60

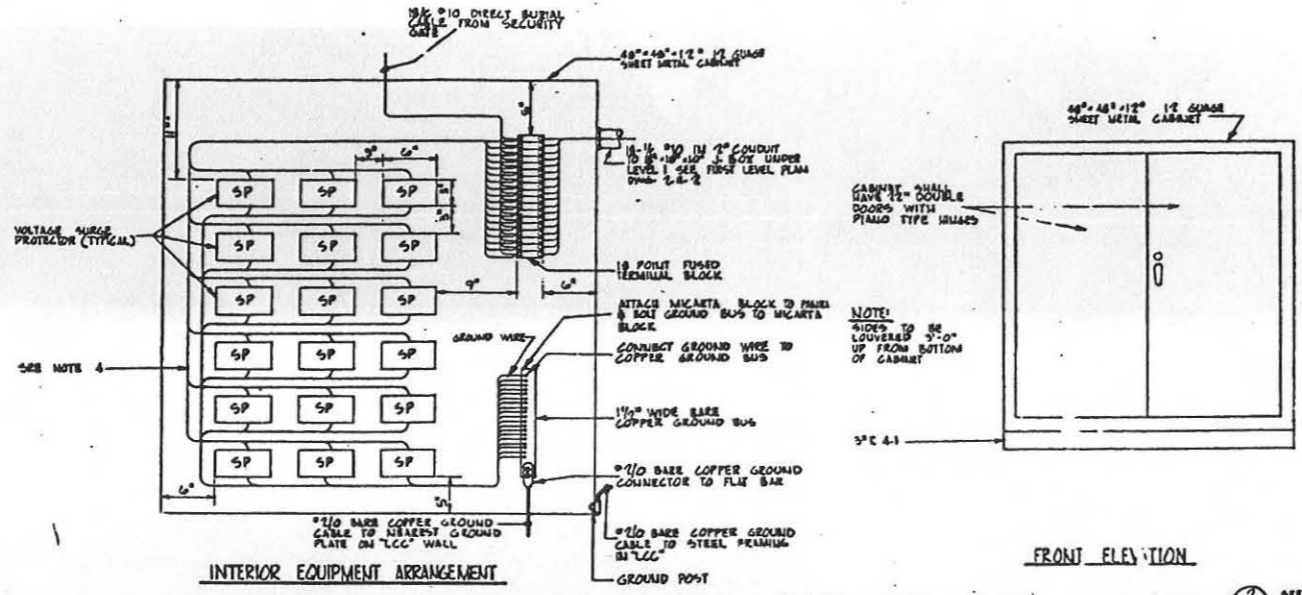
BECHTEL CORPORATION
ENGINEERS AND CONTRACTORS
1000 MARKET STREET
SAN FRANCISCO 4, CALIF.

DEPARTMENT OF THE AIR FORCE
AIR FORCE BALLISTIC MISSILE DIVISION (AFMD)
WWS-107 A-1 OPERATIONAL BASE
UNITARY SILO
LAUNCH CONTROL CENTER

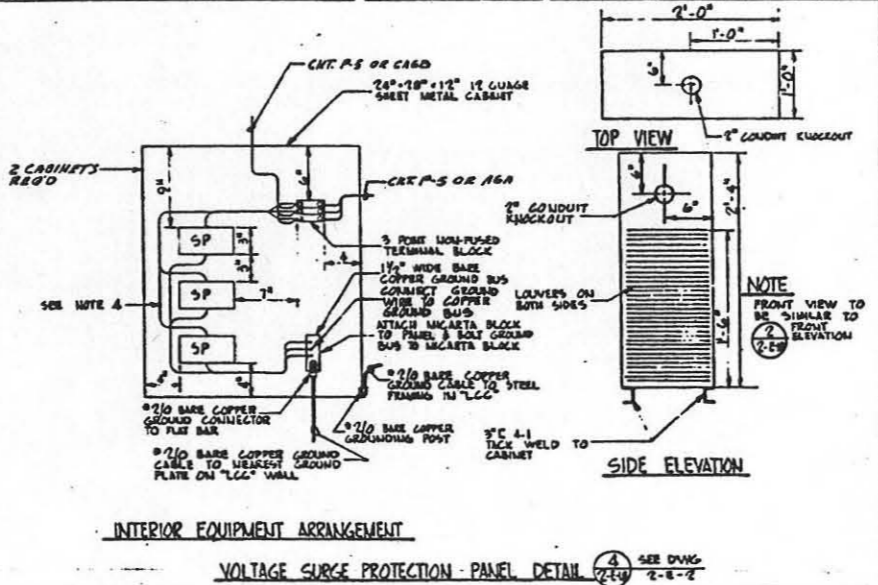
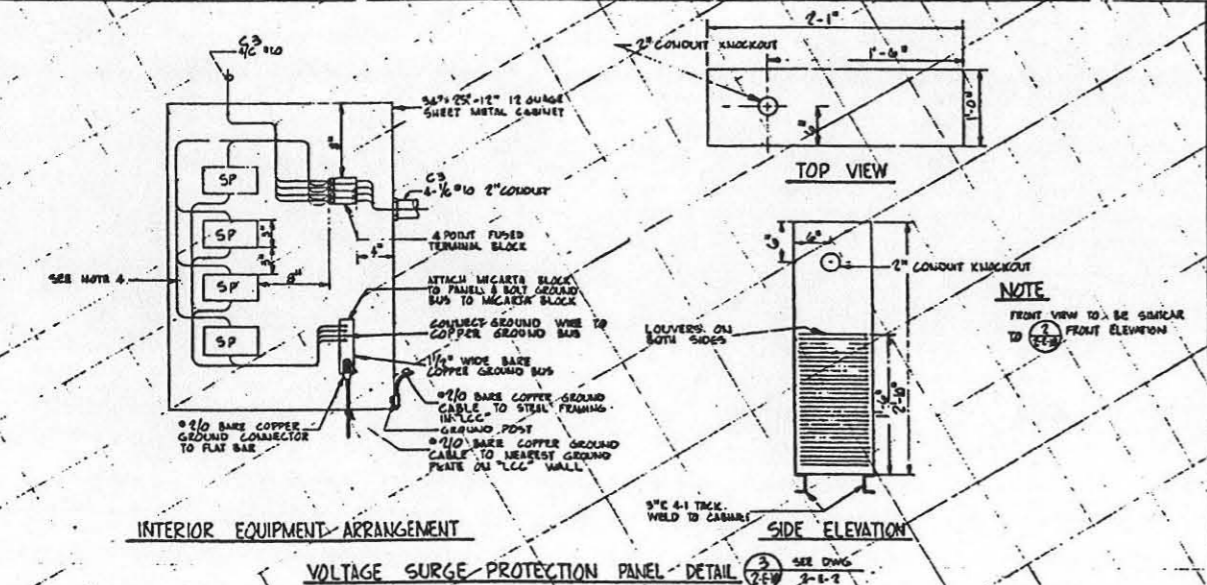
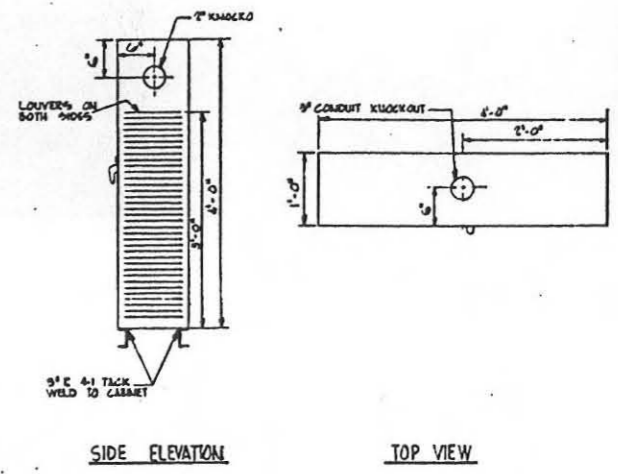
ENG. 41-443-60-30
13 JAN 1960
578-02-E-17



WIRING DIAGRAM FOR LEVEL ALARMS
DETAIL 1-2-1



INTERIOR EQUIPMENT ARRANGEMENT
VOLTAGE SURGE PROTECTION PANEL DETAIL 2-2-1



NOTES:
1.
2. FUSED TERMINAL BLOCKS SHALL BE USED IN VOLTAGE SURGE PROTECTOR PANELS FOR 120 V. CIRCUITS.
3. ALL MEASUREMENTS ARE APPROXIMATE.
4. THE WIRE SIZE, THE EXTENSIONS FROM THE VOLTAGE SURGE PROTECTOR PANELS TO THE TERMINAL BLOCK AND THE GROUND BUS SHALL BE EQUAL OR LARGER THAN THE PIGTAIL SUPPLIED BY THE PROTECTOR MANUFACTURER.

2-E-16	ELECTRICAL SECTIONS & DETAILS - SHEET 2
2-E-14	MISCELLANEOUS WIRING DIAGRAMS
2-E-12	SYMBOL LIST
2-E-6	GROUNDING PLAN
2-E-2	POWER PLAN
DRAWING NO.	TITLE

REFERENCE DRAWINGS
FOR SITS 1 2 3 4 5 6 7 8 9 10 11 12

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12.
FEB 14 1962

17 JAN 1961

BECHTEL CORPORATION
ENGINEERS AND ARCHITECTS
SAN FRANCISCO - OAKLAND - LOS ANGELES

DEPARTMENT OF THE AIR FORCE
AIR FORCE BALLISTIC MISSILE DIVISION (ANDC)
WALTON, CALIFORNIA

WS-107 A-1 OPERATIONAL BASE
UNITARY SILO
LAUNCH CONTROL CENTER
MISCELLANEOUS ELECTRICAL DETAILS
& DIAGRAMS

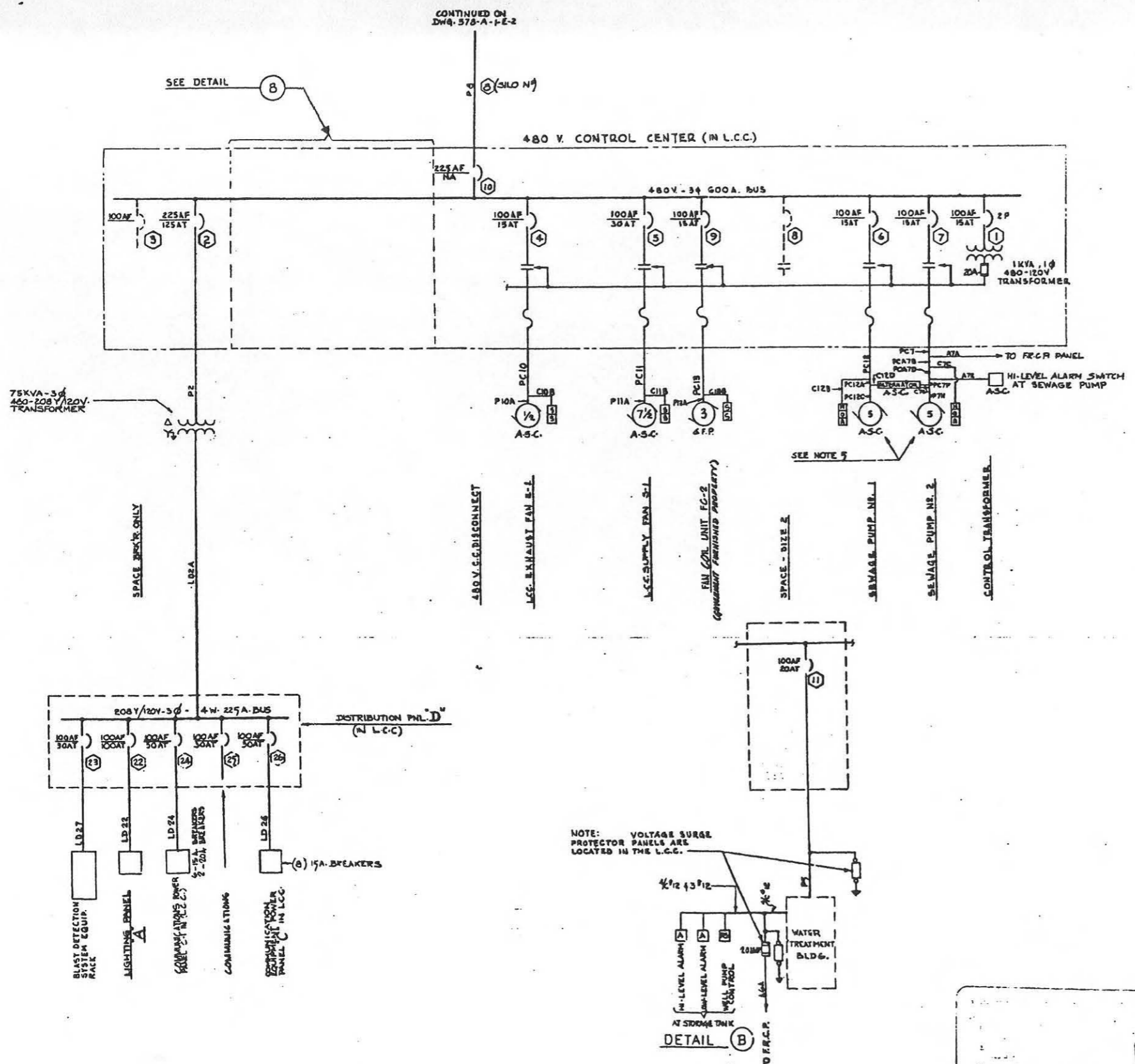
DESIGNED BY: R. J. FUNDLER 1/17/61
CHECKED BY: J. QUINN 1/17/61
DRAWN BY: COCHRAN 1/17/61
SCALE: AS SHOWN
DATE: 17 JAN 1961

APPROVED BY: [Signature]
TITLE: [Signature]

APPROVED BY: [Signature]
DATE: 20 JAN 1961
SCALE: AS SHOWN

378-A-2-E-18

CONTINUED ON
DWG. 578-A-1-E-2



NOTES

1. HORSEPOWER RATINGS ARE ESTIMATED. ELECTRICAL DRAWINGS ARE BASED ON THE ESTIMATED HORSEPOWER RATINGS, AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FURNISH ALL ELECTRICAL EQUIPMENT TO CONFORM TO RATINGS OF EQUIPMENT FURNISHED.
2. FOR CONTROL CENTER, DISTRIBUTION PANELS, SCHEDULES, & DETAILS, SEE DWG. -2-E-32
3. FOR ELECTRICAL SYMBOLS AND GENERAL NOTES, SEE DWG. -2-E-12.
4. IF NO POWER ON THE WELLS IS REQUIRED FROM THE LCC & WATER ENTERS THE TANK AS A PRESSURE SYSTEM WITH A MECHANICAL FLOAT VALVE THE TANK NO CONTROL FOR WELLS IS TO BE SUPPLIED. CONDUTS FOR WELLS SHALL BE TERMINATED AND CAPPED AS PIPES INSIDE THE BUILDING AND TERMINATED AND CAPPED OUTSIDE THE BUILDING AS INDICATED ON THE SITE DRAWINGS. THE FLOAT SWITCH CONTROL CONDUIT WILL ONLY CONTAIN THE THREE WIRE TO THE ALARMS ON THE F.R.G.P. IF POWER ONLY IS REQUIRED FOR THE WELLS, THEN DETAIL IN THIS DRAWING WILL BE CALLED FOR ON THE SITE DRAWINGS. OTHER CONDUTS FOR WELLS AND FLOAT SWITCH CONDUIT SHALL BE INSTALLED AS ABOVE. IF MOTOR CONTROL FOR WELLS IS TO BE LOCATED WITHIN THE BUILDING, DWG. A WILL BE CALLED FOR ON SITE DRAWINGS AND CIRCUIT BREAKERS, STARTERS, ALTERNATORS AND WIRING SHALL BE INSTALLED PER DETAIL A IN THIS DRAWING.
5. FOR WIRING DIAGRAM OF SEWAGE WELL PUMPS SEE DETAIL 11, DWG. -E-12.

REFERENCE DRAWINGS

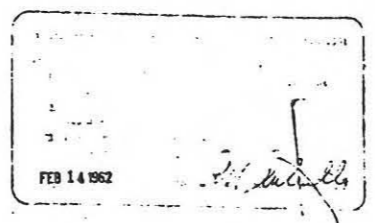
| | |
|---|---------|
| ELECTRICAL POWER PLAN | -2-E-33 |
| ELECTRICAL SINGLE LINE DIAGRAM | 1-E-2 |
| MISCELLANEOUS ELECTRICAL DETAILS & DIAGRAMS | 2-E-19 |
| ELECTRICAL SYMBOL LIST | 2-E-12 |

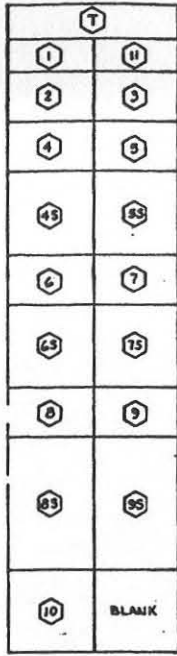
FOR SITES 2

REVISIONS:

| | | | | |
|---|----------|------|-------------|-------------|
| 1 | REVISION | DATE | DESCRIPTION | APPROVED BY |
| 2 | REVISION | DATE | DESCRIPTION | APPROVED BY |
| 3 | REVISION | DATE | DESCRIPTION | APPROVED BY |
| 4 | REVISION | DATE | DESCRIPTION | APPROVED BY |
| 5 | REVISION | DATE | DESCRIPTION | APPROVED BY |

| BECHTEL CORPORATION
ENGINEERS AND CONSTRUCTORS | | DEPARTMENT OF THE AIR FORCE
AIR FORCE BALLISTIC MISSILE DIVISION (AMSD) | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|----------------------|--|-------------|------|-------------|---|-----------|----------|-----|---|-----------|----------|-----|---|-----------|----------|-----|---|-----------|----------|-----|---|-----------|----------|-----|--|--|
| DATE: <u>11/16/61</u> | BY: <u>W.C. B...</u> | <p>WS-107 A-1 OPERATIONAL BASE
UNITARY SILO
LAUNCH CONTROL CENTER
ALTERNATE "A"
ELECT SINGLE LINE DIAG.</p> | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>REVISIONS:</p> <table border="1"> <tr> <th>NO.</th> <th>BY</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> <tr> <td>1</td> <td>W.C. B...</td> <td>11/16/61</td> <td>...</td> </tr> <tr> <td>2</td> <td>W.C. B...</td> <td>11/16/61</td> <td>...</td> </tr> <tr> <td>3</td> <td>W.C. B...</td> <td>11/16/61</td> <td>...</td> </tr> <tr> <td>4</td> <td>W.C. B...</td> <td>11/16/61</td> <td>...</td> </tr> <tr> <td>5</td> <td>W.C. B...</td> <td>11/16/61</td> <td>...</td> </tr> </table> | | NO. | BY | DATE | DESCRIPTION | 1 | W.C. B... | 11/16/61 | ... | 2 | W.C. B... | 11/16/61 | ... | 3 | W.C. B... | 11/16/61 | ... | 4 | W.C. B... | 11/16/61 | ... | 5 | W.C. B... | 11/16/61 | ... | <p>ENGINEERED BY: <u>ENG. 41-443-60-30</u></p> <p>DATE: <u>29 JAN 1961</u></p> <p>ISSUE: <u>NONE</u></p> <p>PROJECT: <u>578-A-2-E-31</u></p> | |
| NO. | BY | DATE | DESCRIPTION | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | W.C. B... | 11/16/61 | ... | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | W.C. B... | 11/16/61 | ... | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | W.C. B... | 11/16/61 | ... | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | W.C. B... | 11/16/61 | ... | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | W.C. B... | 11/16/61 | ... | | | | | | | | | | | | | | | | | | | | | | | | |





LIGHTING DISTRIBUTION PANEL 'D'

TABLE J CONDUIT AND WIRE SCHEDULE

Table with columns: CONDUIT NO., SIZE, POWER WIRE, CONTROL WIRE, FROM, TO. Includes entries for 480 V. CONTROL CENTER, 75 KVA TRANSFORMER, LCC-480V. CONTROL CENTER, and SILO.

TABLE I CONDUIT AND WIRE SCHEDULE

Table with columns: CONDUIT NO., WIRE NO., SIZE, FROM, TO, WIRE NUMBERS. Includes entries for FRCP, BELOW L.C.C. CEILING, AT BREAKER, and various solenoid valves.

480 V. CONTROL CENTER 34-3W-217A TYPE A WIRING

EQUIPMENT SCHEDULE

Equipment schedule table with columns: ITEM, NAME PLATE, BREAKER, TRIP, VOLTS, KVA, N.P., STARTER, CONTROL, REMARKS. Lists items like CONTROL TRANSFORMER, LIGHTING TRANSFORMER, LCC-EXHAUST FAN, etc.

* ESTIMATED MAX. DEMAND

SYMBOL DESCRIPTION table listing PC POWER & CONTROL, P POWER, C CONTROL, LD LIGHTING DISTRIBUTION, LP LIGHTING PANEL, A ALARM, PCA POWER, CONTROL, & ALARM.

NOTES 1. 2. 3. 4. FLOOR MOUNTED EQUIPMENT SHALL BE BOLTED TO FLOOR IF WALL MOUNTED EQUIPMENT IS SUPPLIED THE WALLS SHOULD BE STRENGTHENED FOR MINIMIZING VIBRATION OF EQUIPMENT.

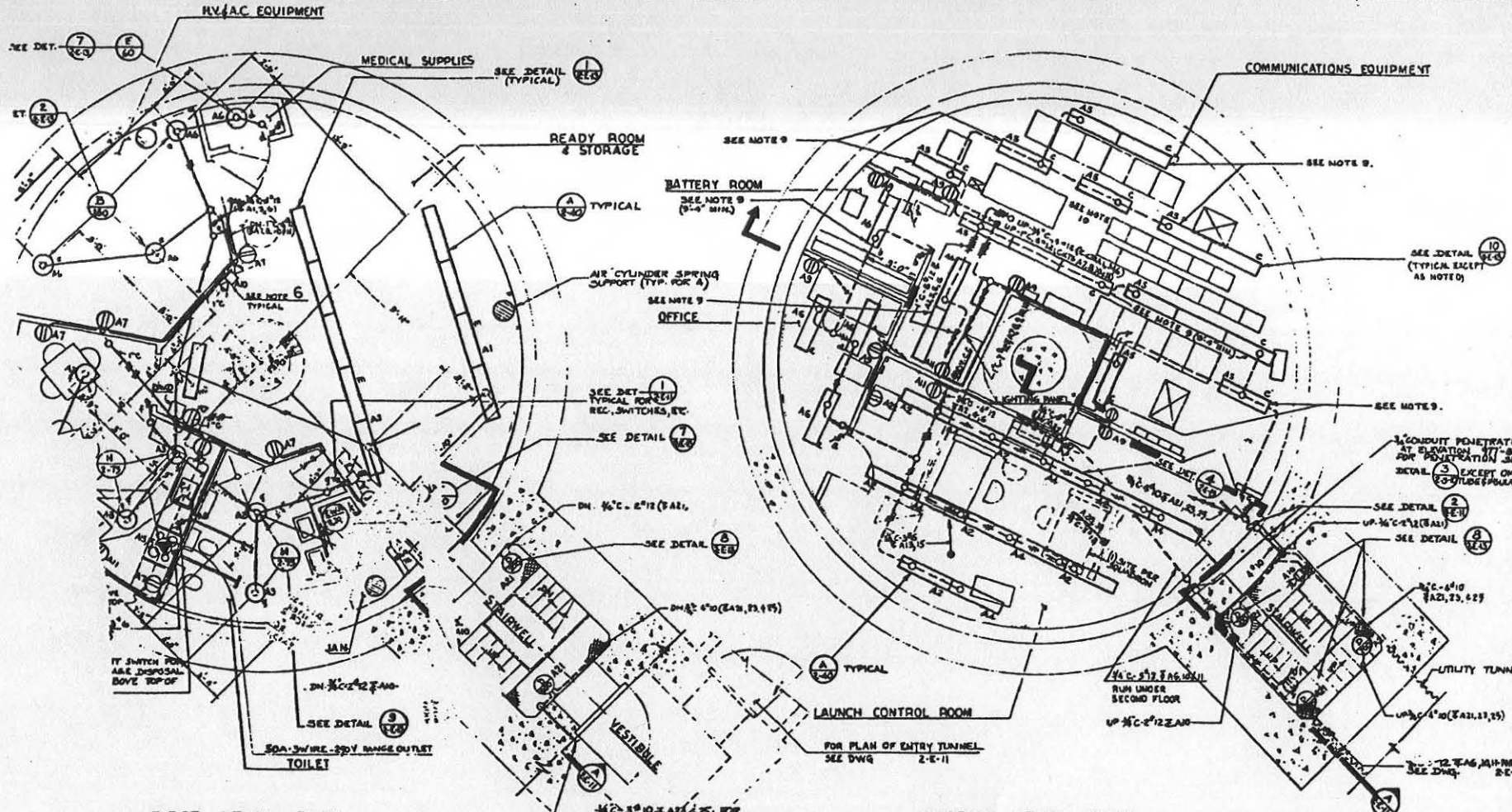
REFERENCE DRAWINGS

Reference drawings table with columns: ELECTRICAL SINGLE LINE DIAGRAM, ELECTRICAL SYM. LIST, and notes 1-4 regarding drawings.

DETECTAL CORPORATION logo and header information. Includes text: DEPARTMENT OF THE AIR FORCE, WS-107 A-1 OPERATIONAL BASE, UNITARY SILO, LAUNCH CONTROL CENTER, ALTERNATE 'A', ELECT. G.C. DET'S & SCHED.

REVISIONS table with columns: NO., DATE, DESCRIPTION, DRAWN BY. Includes revision 1: 11-14-52, OPERATIONAL AS BUILT SHOWN.

Handwritten notes and signatures at the bottom of the page.



FIRST LEVEL PLAN

SECOND LEVEL PLAN

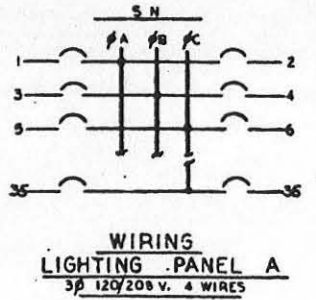
- ### NOTES
- FOR SYMBOL LIST, LIGHTING FIXTURE SCHEDULE SEE DWG. 2-E-12
 - ALL CONDUIT RUNS SHOWN ARE DIAGRAMMATIC ONLY. ROUTES MAY BE ALTERED TO SUIT FIELD CONDITIONS.
 - FOR EXA LOCATION OF DUCTS & AC. EQUIPMENT SEE DWG. 2-E-18
 - FOR CONDUIT RUNS WITH 2-A16, 17, 18, 19 & 24 SEE DWG. 2-E-25
 - FOR EQUIPMENT NOT IDENTIFIED SEE DWG. 2-A-2
 - BATTERY OPERATED EMERGENCY LAMP CONTRACTOR TO PROVIDE DUNTING PLATFORM 7'10" ABOVE FINISHED FLOOR
 - FLOOR MOUNTED EQUIPMENT SHALL BE BOLTED OR WELDED TO FLOOR. WALL MOUNTED EQUIPMENT IS SUPPLIED THE WALLS SHALL BE STRENGTHENED FOR MINIMIZING VIBRATION OF EQUIPMENT.
 - CIRCUIT 28 (20) & CIRCUIT 31 (LP21) SEE DWG. 2-E-23
 - MOUNTING HEIGHT TO BOTTOM OF FLUORESCENT FIXTURES IN COMM. EQUIP. ROOMS SHALL BE 9'-6" ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED.
 - OPENINGS BETWEEN FLUORESCENT FIXTURES IN COMM. EQUIP. ROOM ARE PROVIDED TO FUTURE OVERHEAD COMMUNICATION CABLE TRAYS TO BE INSTALLED 8'-8" ABOVE FLOOR.

REFERENCE DRAWINGS

| | |
|-------------------------------------|--------|
| ELECTRICAL SYMBOLS & DETAILS - SH-7 | 2-E-11 |
| SYMBOLS & SCHEDULES | 2-E-12 |
| ELECTRICAL STANDARD DETAILS | 2-E-13 |
| SYMBOLS & DETAILS - SH-2 | 2-E-15 |
| MISCELLANEOUS DETAILS - SH-8 | 2-E-10 |

LIGHTING PANEL 'A' SCHEDULE

| DESCRIPTION | LTG. | REC. | LET. | LET. | LET. |
|--------------------------|------|------|------|-------|------------|
| READY RM & STORAGE | 10 | | | 1000 | |
| LAUNCH CONTROL ROOM | 8 | | | 300 | |
| TOILET, SANITARY | 7 | | | 360 | |
| L. ROOM | 7 | | | 700 | |
| B. EQUIPMENT | 14 | | | | 1400 |
| CE. (CARRY OVER) SUPPLY | 11 | | | | 1410 |
| KITCHEN & MESS | 8 | | | 200 | |
| BATTERY & LAUNCH CONTROL | 7 | | | 700 | |
| MESS | 7 | | | 390 | |
| BATTERY ROOM | 5 | | | | 500 |
| KITCHEN & MESS | | | | | 1100 |
| E - KITCHEN & MESS | | | | 3000 | |
| LAUNCH CONTROL | 4 | | | 600 | |
| LAUNCH CONTROL | | | | | 30 |
| TOILET | 5 | | | | |
| TOILET | 1 | | | | |
| TOILET | 6 | | | 950 | |
| TOILET | 8 | | | | |
| TOILET | | | | | 100 |
| TOILET | | | | | 1500 |
| TOILET | | | | | 100 |
| TOILET | | | | | |
| TOTAL | 23 | | | 7,450 | 8,910 7840 |



IN RECEIPT OF THE ORIGINAL DRAWING OF THIS PROJECT
 FEB 14 1962
Allen

| NO. | DATE | DESCRIPTION | BY | CHKD. |
|-----|------|---|----|-------|
| 1 | | ISSUED TO BIDDING CONSTRUCTION AS BUILT CONDITION | | |
| 2 | | ISSUED TO BIDDING CONSTRUCTION AS BUILT CONDITION | | |
| 3 | | ISSUED TO BIDDING CONSTRUCTION AS BUILT CONDITION | | |
| 4 | | ISSUED TO BIDDING CONSTRUCTION AS BUILT CONDITION | | |

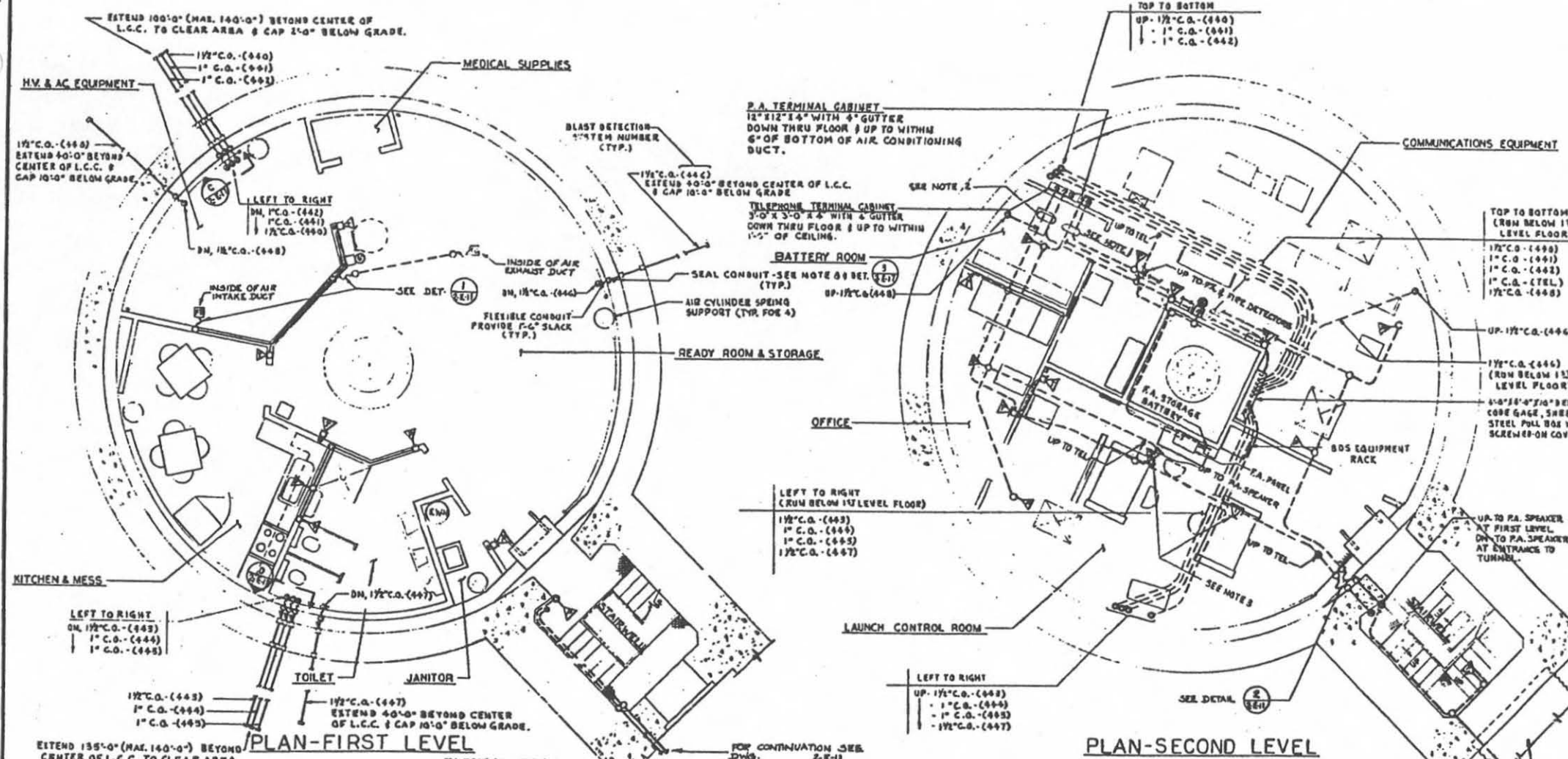
BECHTEL CORPORATION
 ENGINEERS AND ARCHITECTS
 2000 VANNESS AVENUE, SAN FRANCISCO, CALIF.

DEPARTMENT OF THE AIR FORCE
 AIR FORCE CIVILIAN ENGINEERING DIVISION
 WASHINGTON, D.C.

WS-107 A-1 OPERATIONAL BASE
 UNITARY BILO
 LAUNCH CONTROL CENTER
 ALTERNATE "A"
 ELECT. LIGHTING PLAN

DATE: 1-24-62
 CHECKED BY: *[Signature]*
 APPROVED BY: *[Signature]*

NO. 41-443-80-30
 SCALE: 1/8" = 1'-0"
 578-A-2-E-34

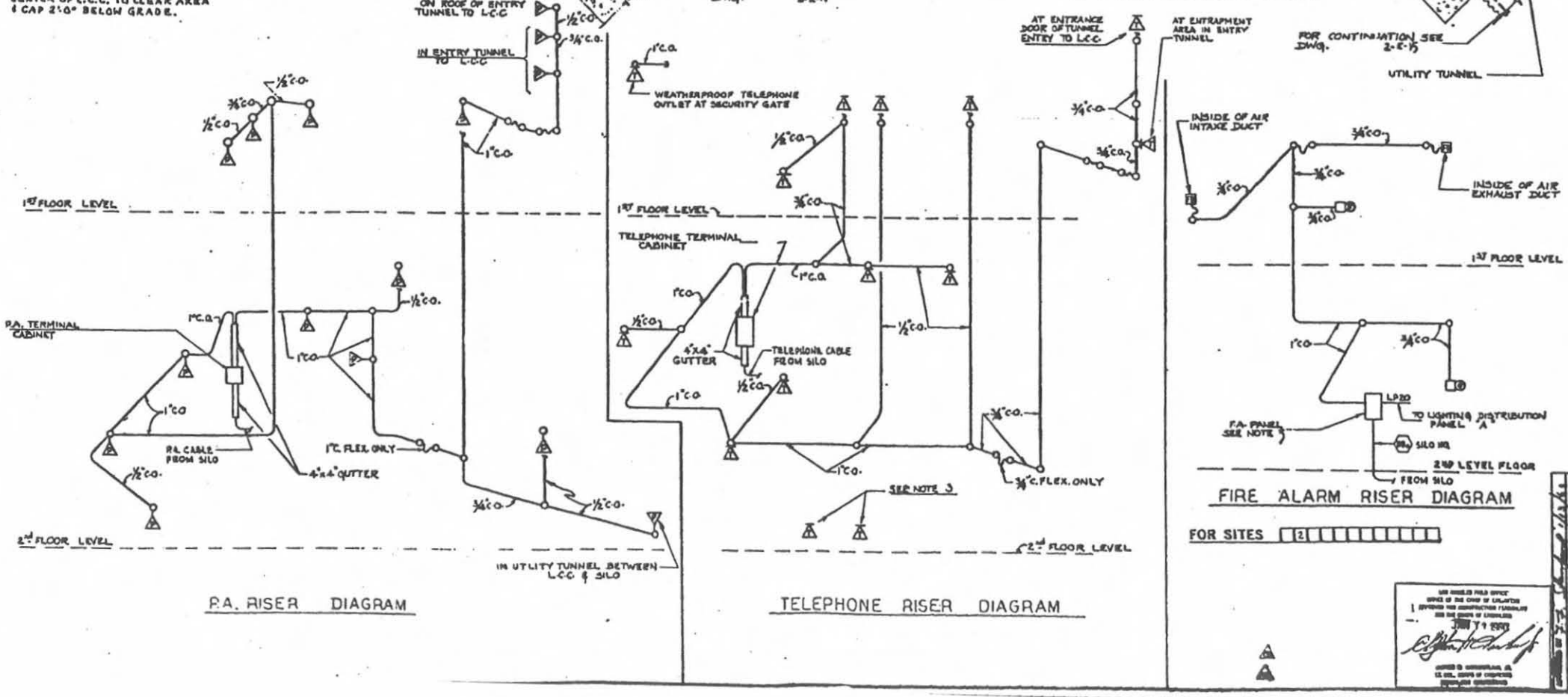


APPROVED FOR CONSTRUCTION
 DATE: FEB 14 1960
 M. J. [Signature]

- NOTES**
- FOR P.A. SYSTEM CONDUIT & OUTLETS ONLY, WIRE & SPEAKERS BY OTHERS.
 - FOR TELEPHONE SYSTEM CONDUIT & OUTLETS ONLY, WIRE & TELEPHONES BY OTHERS.
 - RUN TELEPHONE CABLE IN TRAY.
 - ALL CONDUIT INS SHOWN ARE DIAGRAMATIC ONLY, ROUTES MAY BE ALTERED TO SUIT FIELD CONDITIONS.
 - WIRE FOR P.A. SYSTEM IS TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION.
 - FOR EQUIPMENT NOT IDENTIFIED SEE DWG. 2-A-2.
 - FOR LOCATION OF CONDUIT PENETRATIONS THROUGH L.C.C. WALL, SEE DETAIL 1, 16.
 - DO NOT FILL WITH SEALING COMPOUND UNTIL CABLES AND/OR WIRES ARE INSTALLED FOR BLAST DETECTION SYSTEM.

REFERENCE DRAWINGS

| | |
|----------------------------------|----------|
| ELECTRICAL SYMBOL LIST | - 2-E-12 |
| SECTIONS & DETAILS - DR. 1 | 2-E-11 |
| PLAN SECTIONS & DETAILS (TUNNEL) | 2-E-17 |



REVISIONS

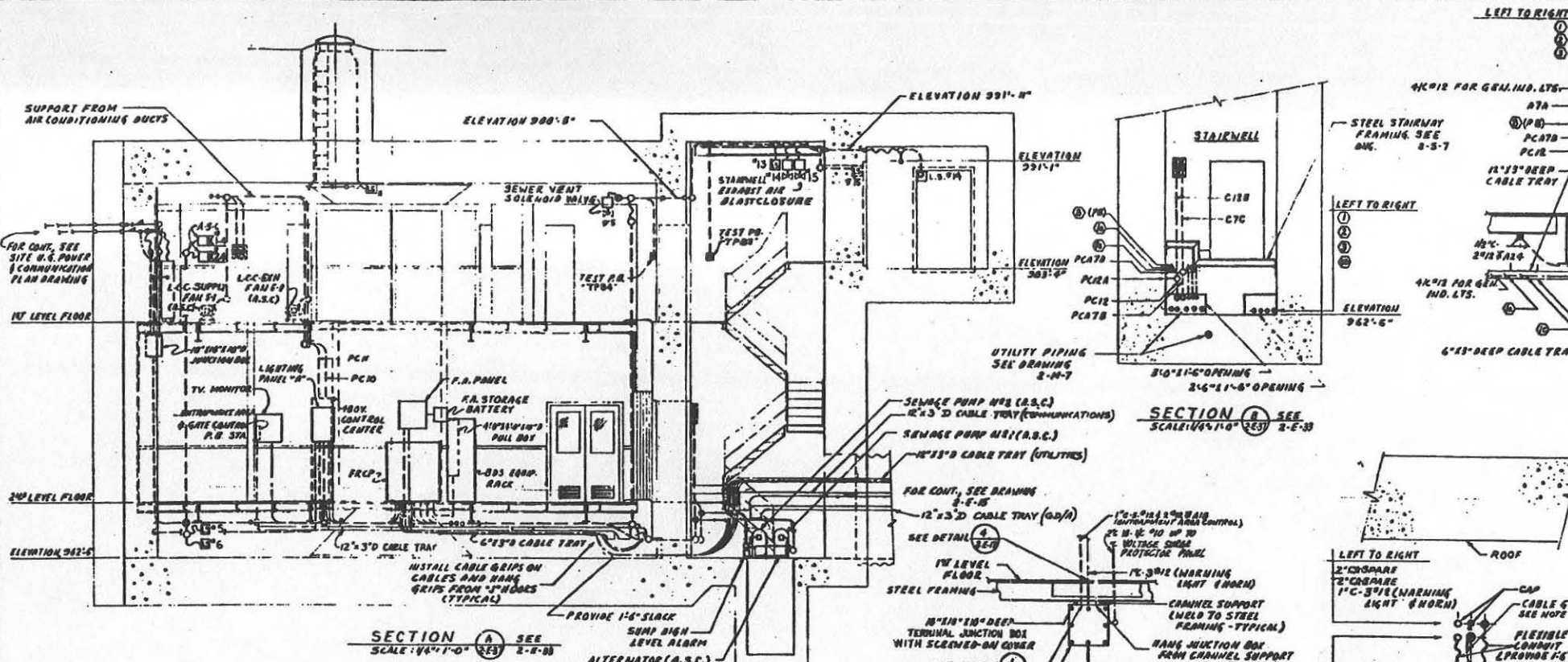
| NO. | DATE | DESCRIPTION | BY | CHK |
|----------|------|--|----|-----|
| 10-10-62 | | OPERATIONAL AS BUILT DWG. | | |
| 11-11-62 | | REVISED TO SHOW CONSTRUCTION AS BUILT CONDITION. | | |
| 3-3-61 | | TWO DRAWING SUPPLIES REVISION 2-E-7.2 FOR L.C.C. ALTERNATE "A". DIMENSIONS CHANGED PER REVISION 2-E-7.2, REV. 2. | | |
| 3-9-61 | | ISSUED FOR DYES A.F.B. | | |

BECHTEL CORPORATION
 ENGINEERS AND ARCHITECTS
 1700 MARKET STREET, OAKLAND, CALIFORNIA

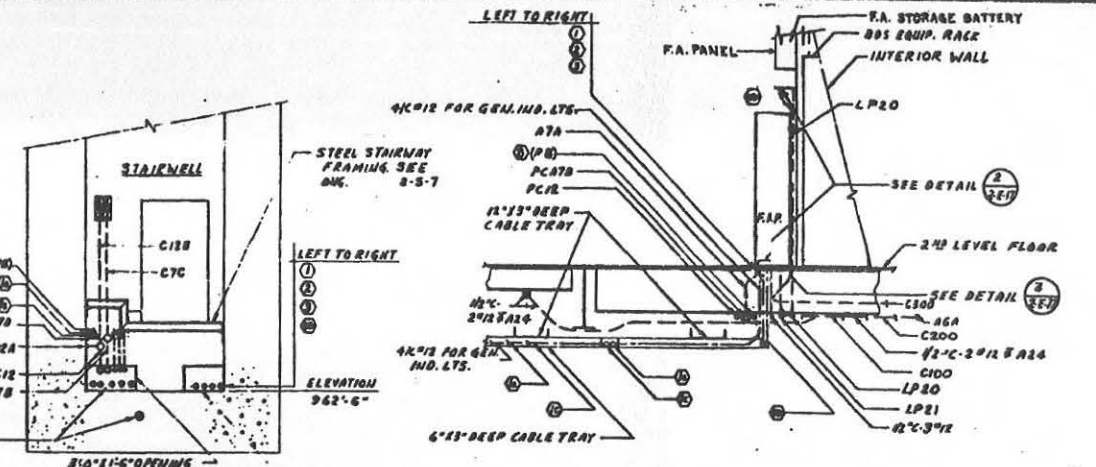
DEPARTMENT OF THE AIR FORCE
 AIR FORCE BELLICANT MISSILE DIVISION AFMO
 WRIGHT-PATTERSON AIR FORCE BASE, OHIO

WS-107 A-1 OPERATIONAL BASE
 UNITARY SILO
 LAUNCH CONTROL CENTER
 ALTERNATE "A"
 P.A., F.A. & TELE. PLAN

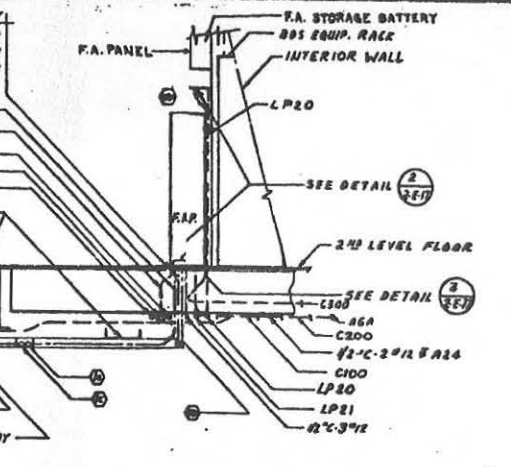
APPROVED FOR CONSTRUCTION
 DATE: JAN 1960
 378-2-E-36



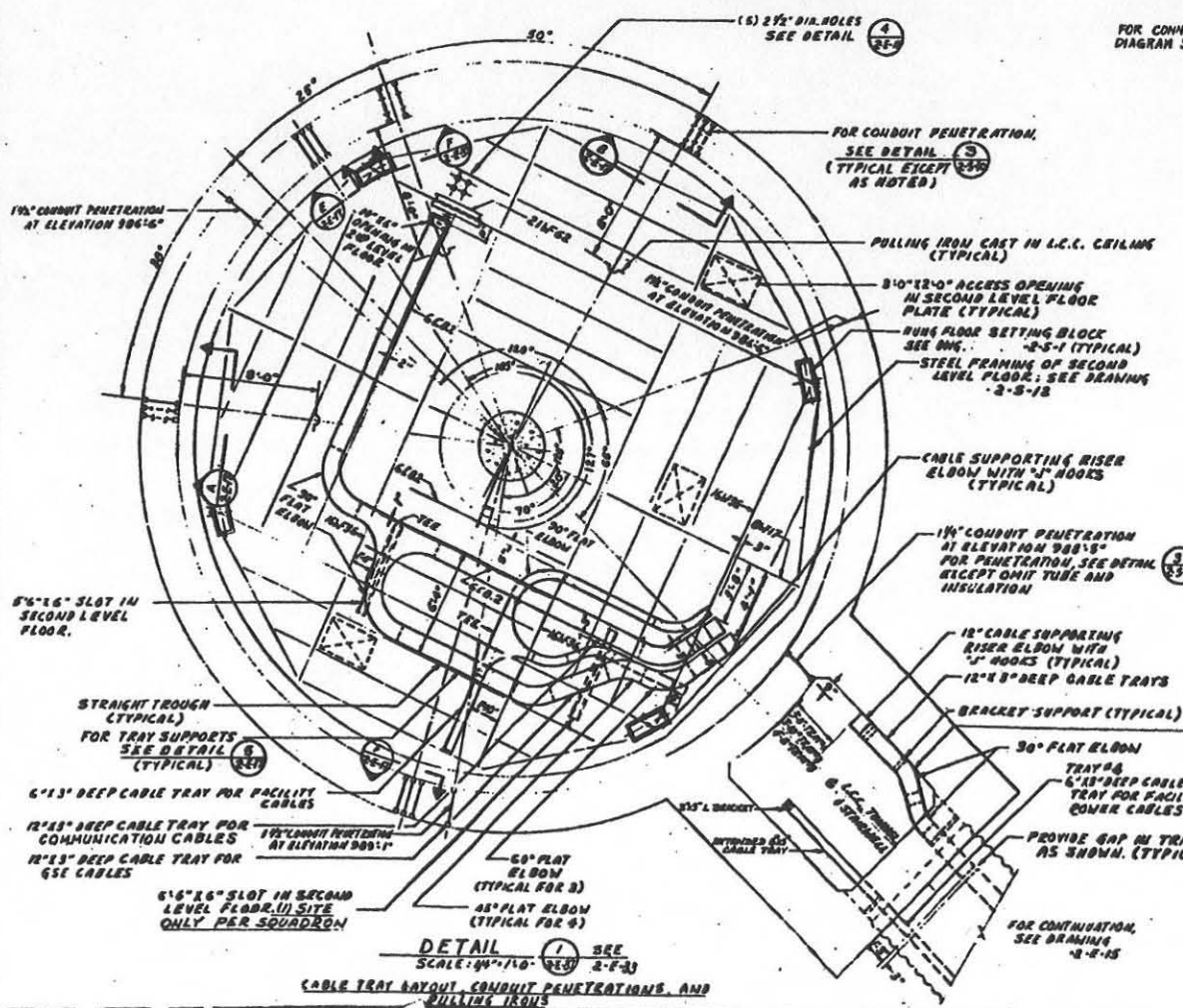
SECTION A SEE 2-E-30
SCALE: 1/4" = 1'-0"



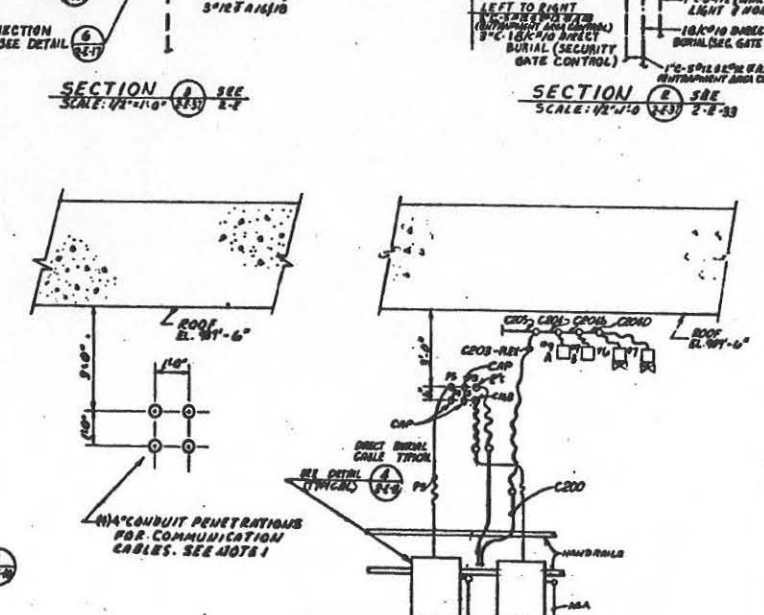
SECTION B SEE 2-E-33
SCALE: 1/4" = 1'-0"



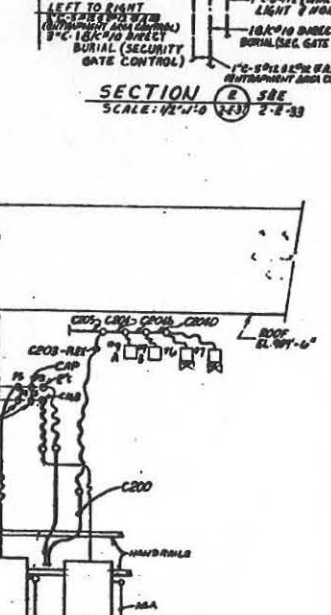
SECTION C SEE 2-E-30
SCALE: 1/4" = 1'-0"



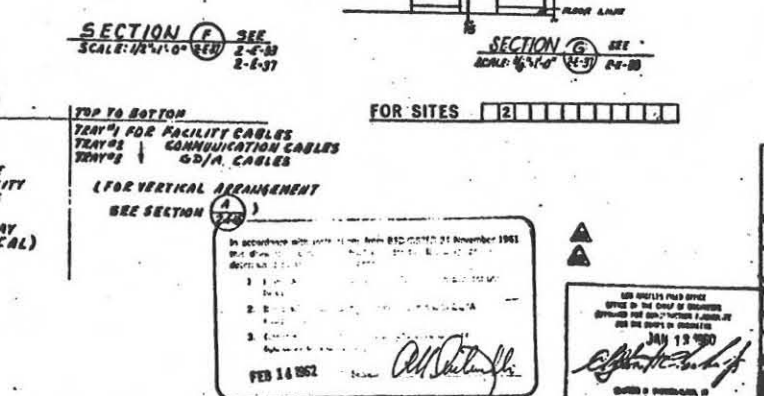
DETAIL I SEE 2-E-30
SCALE: 1/4" = 1'-0"



SECTION D SEE 2-E-34
SCALE: 1/4" = 1'-0"



SECTION E SEE 2-E-33
SCALE: 1/4" = 1'-0"



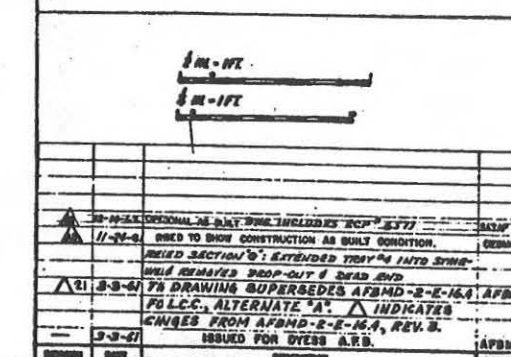
SECTION F SEE 2-E-37
SCALE: 1/4" = 1'-0"

NOTES

1. TERMINATE CONDUIT WITH INSULATING BUSHING, ATTACH CABLE GRIP TO CABLE AND RANG CABLE GRIP TO TERMINATED CONDUIT. PROVIDE 1'-6" SLACK.
2. FOR ELECTRICAL SYMBOLS AND ABBREVIATIONS, SEE DRAWING 2-E-12.
3. FOR CONDUIT ID CABLE SCHEDULE, SEE DWG. 2-E-2.
4. CONDUIT PENETRATIONS MAY BE SHIFTED SLIGHTLY, IF NECESSARY, TO CLEAR REINFORCING STEEL.

REFERENCE DRAWINGS

| | |
|---|--------|
| ELECT. POWER PLAN | 2-E-31 |
| ELECT. PLAN, SE'S, DET'S (TUNNEL) | 2-E-15 |
| MISCELLANEOUS DETAILS - SA.1 | 2-E-10 |
| HUNG FLOORS | 2-E-18 |
| STEEL STAIRWAYRAMING | 2-E-37 |
| FOUNDATION AND JOF PLANS | 2-E-3 |
| PLUMBING PLAN 51.3 | 2-E-7 |
| MISCELLANEOUS ELECTRICAL DETAILS & DIAGRAMS | 2-E-11 |

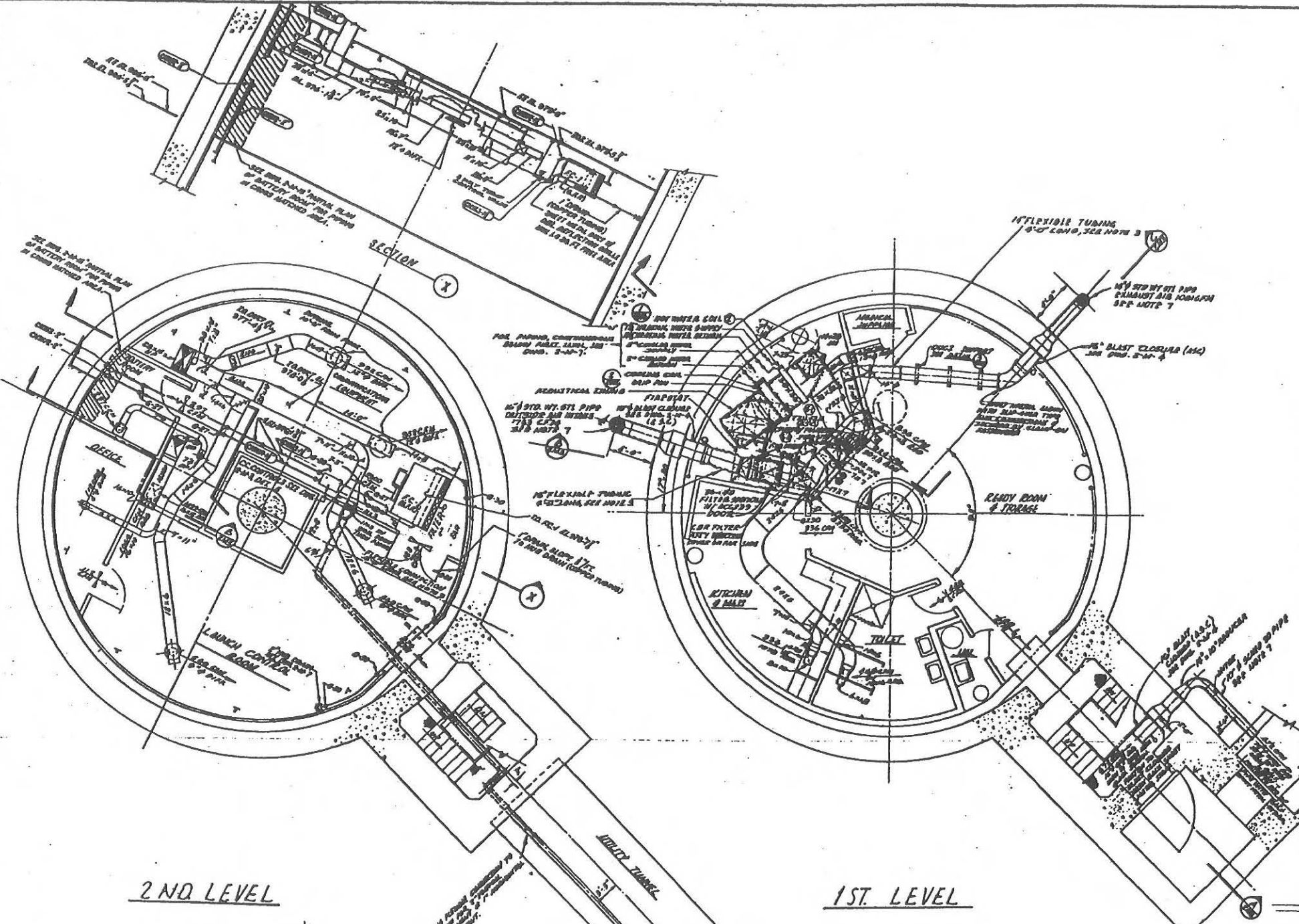


SECTEL CORPORATION
ENGINEERS IN CONSTRUCTION

DEPARTMENT OF THE AIR FORCE
AIR FORCE DALLAS TEXAS (CONTRACT NUMBER 49-100)

WS-107 A-1 OPERATIONAL BASE
UNITARY BLD
LAUNCH CONTROL CENTER
ALTERNATE "A"
ELECT. SECT'S & DET'S - SHT. 2

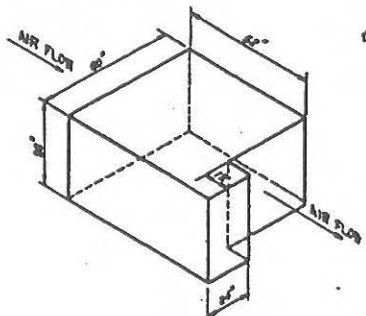
DATE: FEB 14 1962



- GENERAL NOTES**
1. ALL AIR QUANTITIES SHOWN ON THIS DRAWING ARE ACTUAL QUANTITIES, WHICH HAVE BEEN CORRECTED FOR AN ELEVATION OF 3,000 FEET.
 2. DUCTWORK TO BE GROUNDED: REFER TO DRAWING NO. 1-F-6 FOR LOCATION AND DETAIL.
 3. REFER TO SPECIFICATIONS FOR MOVEMENT OF FLEXIBLE CONNECTIONS.
 4. A.S.C. - AVIATED SERVICES CONTRACT.
 5. DELETED.
 6. THE OUTSIDE AIR INTAKE SHALL BE INSULATED FOR THERMAL PROTECTION FROM THE DOWNSTREAM SIDE OF THE FLEXIBLE TUBING, INU THE CBR FILTER ASSEMBLY AND UP TO THE RETURN AIR CONNECTION.
 7. APPLY COAT OF ASPHALTIC PAINT TO BURIED PIPE OUTSIDE OF BLDG.
 8. DUCTWORKS NOT TO BE SUPPORTED FROM CONCRETE CEILING AS SPECIFICALLY NOTED.
 9. VERIFY ALL HANGERS & DRAIN ALL LOW POINTS IN CHILLED WATER LINES.

2ND LEVEL

1ST. LEVEL



MAX. SPACE ENVELOPE FOR FC-1 BLOWER
(INCLUDES FILTER & COIL AND DRAIN)

FOR SIIS 1104990700000

| NO. | REVISION | DESCRIPTION | DATE |
|-----|----------|---|------|
| 1 | AS-BUILT | AS-BUILT | |
| 2 | REVISED | REVISED TO SHOW CONST. AS BUILT CONDITION, REV. CHANGES TO FC-1, REV. DUCTWORK DIMENSIONS BY BLAST ENCLOSURE. | |
| 3 | REVISED | REVISED TO SHOW CONST. AS BUILT CONDITION, REV. CHANGES TO FC-1, REV. DUCTWORK DIMENSIONS BY BLAST ENCLOSURE. | |
| 4 | REVISED | REVISED TO SHOW CONST. AS BUILT CONDITION, REV. CHANGES TO FC-1, REV. DUCTWORK DIMENSIONS BY BLAST ENCLOSURE. | |
| 5 | REVISED | REVISED TO SHOW CONST. AS BUILT CONDITION, REV. CHANGES TO FC-1, REV. DUCTWORK DIMENSIONS BY BLAST ENCLOSURE. | |
| 6 | REVISED | REVISED TO SHOW CONST. AS BUILT CONDITION, REV. CHANGES TO FC-1, REV. DUCTWORK DIMENSIONS BY BLAST ENCLOSURE. | |
| 7 | REVISED | REVISED TO SHOW CONST. AS BUILT CONDITION, REV. CHANGES TO FC-1, REV. DUCTWORK DIMENSIONS BY BLAST ENCLOSURE. | |
| 8 | REVISED | REVISED TO SHOW CONST. AS BUILT CONDITION, REV. CHANGES TO FC-1, REV. DUCTWORK DIMENSIONS BY BLAST ENCLOSURE. | |
| 9 | REVISED | REVISED TO SHOW CONST. AS BUILT CONDITION, REV. CHANGES TO FC-1, REV. DUCTWORK DIMENSIONS BY BLAST ENCLOSURE. | |
| 10 | REVISED | REVISED TO SHOW CONST. AS BUILT CONDITION, REV. CHANGES TO FC-1, REV. DUCTWORK DIMENSIONS BY BLAST ENCLOSURE. | |

JAN 24 1962

- 3 MAR 61
- 8 NOV 1960
- 6 SEP 1960

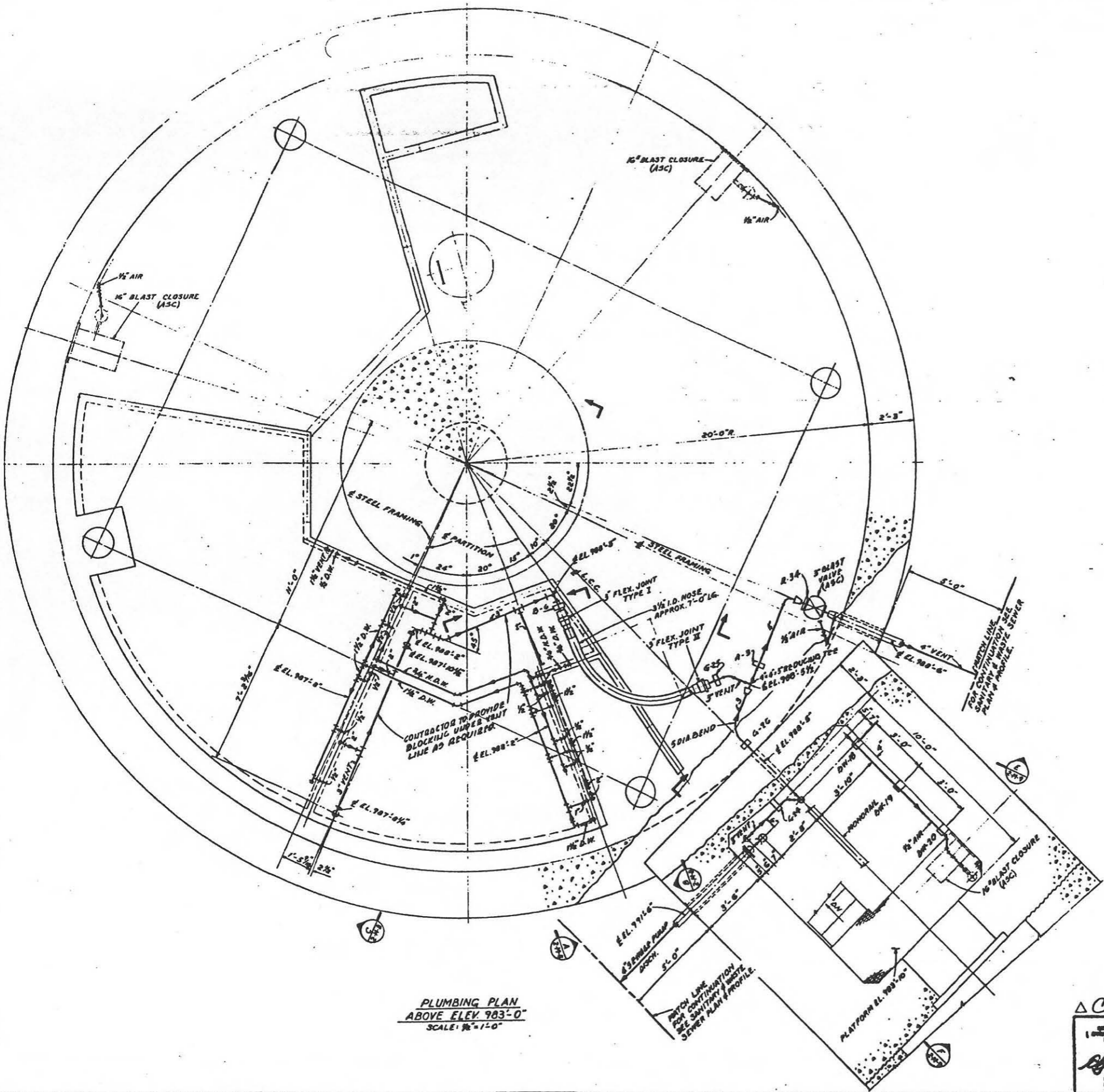
BECHTEL CORPORATION
ENGINEERING AND CONSTRUCTION

DEPARTMENT OF THE AIR FORCE
AIR FORCE BALLISTIC MISSILE DIVISION

WS-107 A-1 OPERATIONAL BASE
UNITARY BLDG
LAUNCH CONTROL CENTER

H.V.B.A.C. PLANS

ENS-4-443-60-90
19 JAN 1960
578-A-2-M-2
7-43



PLUMBING PLAN
ABOVE ELEV 983'-0"
SCALE: 1/4" = 1'-0"

FOR SITES 1 2 3 4 5 6 7 8 9 10 11 12

1/4" = 1'-0"

IF ANY CHANGES ARE MADE TO THIS PLAN (AS BUILT) AFTER 1962, THE USER IS ADVISED THAT ANY LIABILITY FOR THE FOLLOWING IS ASSUMED BY THE USER:

1. Items affecting safety, health or solid connections to CO/A equipment.
2. Items which affect the operation of the CO/A equipment.
3. Changes that would affect other maintenance or operation of the system.

JAN 24 1962 Signed: *[Signature]*

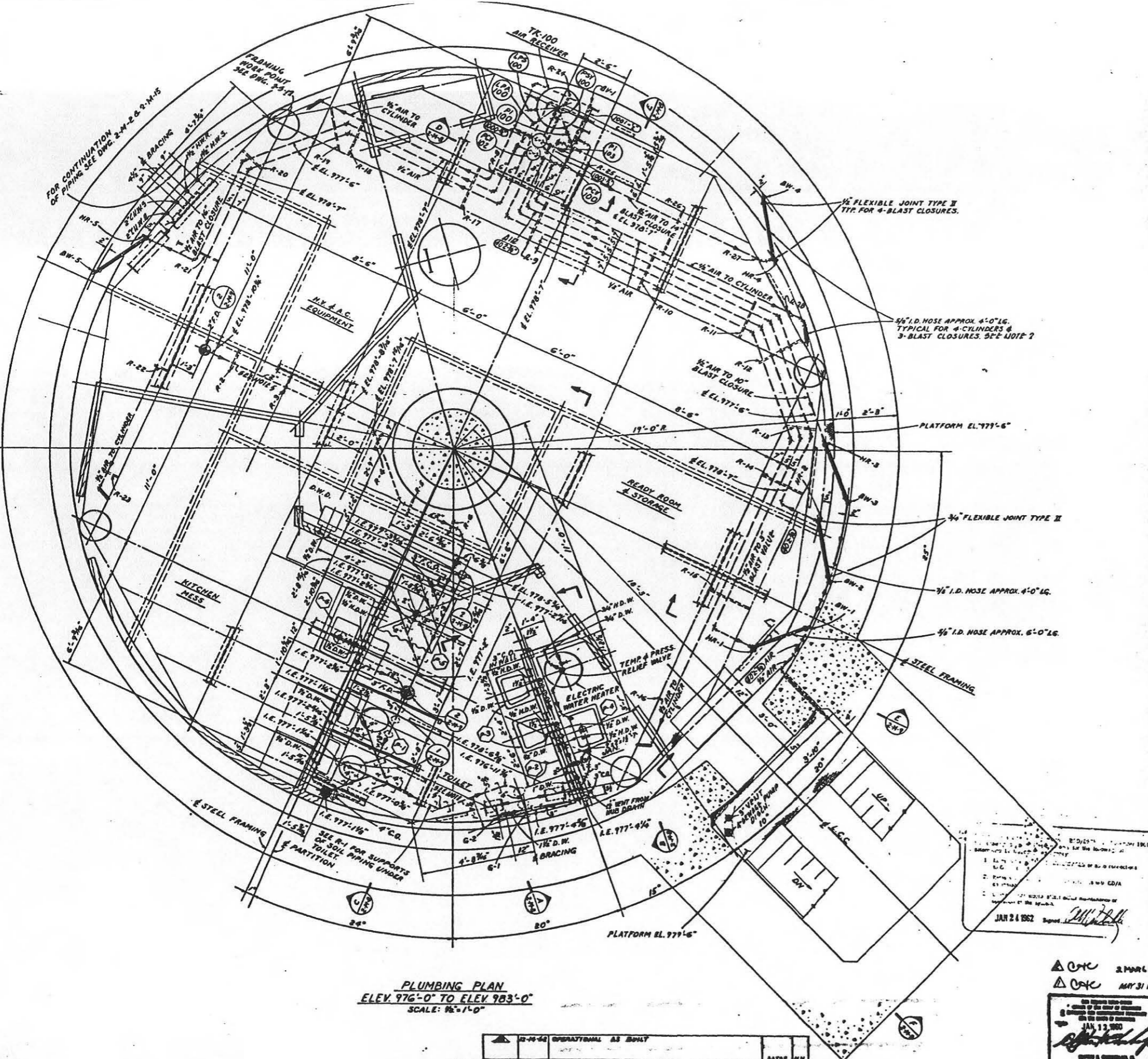
| | | | |
|---|--|--|--------------|
| NO. | 12-14-OPERATIONAL AS-BUILT | STATE | NY |
| REVISION | 11-7-REVISED TO SHOW CONSTRUCTION AS-BUILT CONDITION | FUNCTIONAL | OPERATIONAL |
| DATE | | AGENCY | UNIT |
| BECHTEL CORPORATION
ENGINEERS AND CONSTRUCTORS
4800 RIVER ROAD - SUITE 1000
OAKLAND, CALIF. 94612 | | DEPARTMENT OF THE AIR FORCE
AIR FORCE BALLISTIC MISSILE DIVISION (AMBD)
1000 WASHINGTON DRIVE
WASHINGTON, D.C. 20330 | |
| WS-107 A-1 OPERATIONAL BASE
UNITARY BLDG
LAUNCH CONTROL CENTER
PLUMBING PLAN - SHT. 1 | | | |
| DESIGNED BY | WVF | DATE | 12-19-61 |
| CHECKED BY | WVF | DATE | 11-2-62 |
| APPROVED BY | WVF | DATE | 1-24-62 |
| DATE | JAN 24 1962 | SCALE | 1/4" = 1'-0" |
| PROJECT NO. | 113-60 | SHEET NO. | 146 |

Δ C/C

NO OTHER WORK SHALL BE DONE ON THIS PLAN WITHOUT THE WRITTEN CONSENT OF THE ENGINEER. ANY SUCH WORK SHALL BE AT THE USER'S RISK AND WITHOUT LIABILITY TO THE ENGINEER.

JAN 13 1962

BY: *[Signature]*



PLUMBING FIXTURE SCHEDULE

| ITEM | DESCRIPTION | TRAP | WASTE | VENT | D.W. | N.D.W. | NO. REQD | REMARKS |
|------|--------------------------|--------|--------|--------|------|--------|----------|----------------------|
| P-1 | WATER OSET | | 4" | 2 1/2" | 1/2" | - | 2 | |
| P-2 | URINA | | 2" | 2" | 1" | - | 1 | |
| P-3 | LOVATRY | 1 1/2" | 1 1/2" | 1 1/2" | 1/2" | 1/2" | 2 | |
| P-4 | SERVIC SINK | 3" | 8" | 3" | 1/2" | 1/2" | 1 | |
| P-5 | SHOWR | 2" | 2" | 2" | 1/2" | 1/2" | 1 | |
| P-6 | KITCHEN SINK | 1 1/2" | 2" | 2" | 1/2" | 1/2" | 1 | |
| DWD | DRINKING WATER DISPENSER | 1 1/2" | 1 1/2" | 1 1/2" | 1/2" | - | 1 | |
| D-1 | FLOOR RAIN | 3" | 3" | - | - | - | 1 | LOCATED IN STAIRWELL |

LEGEND

N.D.W. NOT DOMESTIC WATER
D.W. DOMESTIC WATER
F.C.O. FLOOR CLEAN OUT
C.O. CLEAN OUT
A.S.C. ASSIGNED SERVICES CONTRACT
C.H.W. CHILLED WATER RETURN
C.H.W. CHILLED WATER SUPPLY
H.W.R. HEATING WATER RETURN
H.W.S. HEATING WATER SUPPLY
T.O.S. TOP OF SUPPORT

- GENERAL NOTES**
- ELECTR. WATER HEATER SHALL HAVE A CAPACITY OF 50 GAL. WITH A RECOVERY RATE OF 12 L.P.H. @ 100°F. TWO THERMOSTATICALLY CONTROLLED HEATING ELEMENTS ARE REQUIRED @ 3 K.W. TOTAL, 220 V., 1 SERVICE.
 - FLEXIBLE NOSE, WHERE INDICATED, IS TO BE INSTALLED TO ALLOW FOR 12" MOTION IN ANY DIRECTION.
 - RUBBERHOSE IN THE TUNNEL SHALL BE INSTALLED WITH MINIMUM 50¢ BETWEEN SUPPORTS OF 6" TO ALLOW FOR THERMAL MOTION. HORIZONTAL MOTION LENGTH OF EACH NOSE BEFORE INSTALLATION SHALL BE 18 FT. MIN.
 - FOR PIPE SUPPORTS & IDENTIFICATION OF H.E., D.W., ETC. SEE D.D. 2-M-11, 12 & 13.
 - ALL 3/4" FLOOR DRAIN PIPE BELOW 1ST LEVEL (ELEV. 976'-6") SHALL BE WRAPPED WITH ONE LAYER OF 70# FELT PIPE COVERING PER FED. SPEC. MM-1-567 TO PREVENT CONDENSATION.

1" = 1'-0"

FOR SITES 1 2 3 4 5 6 7 8 9 10 11

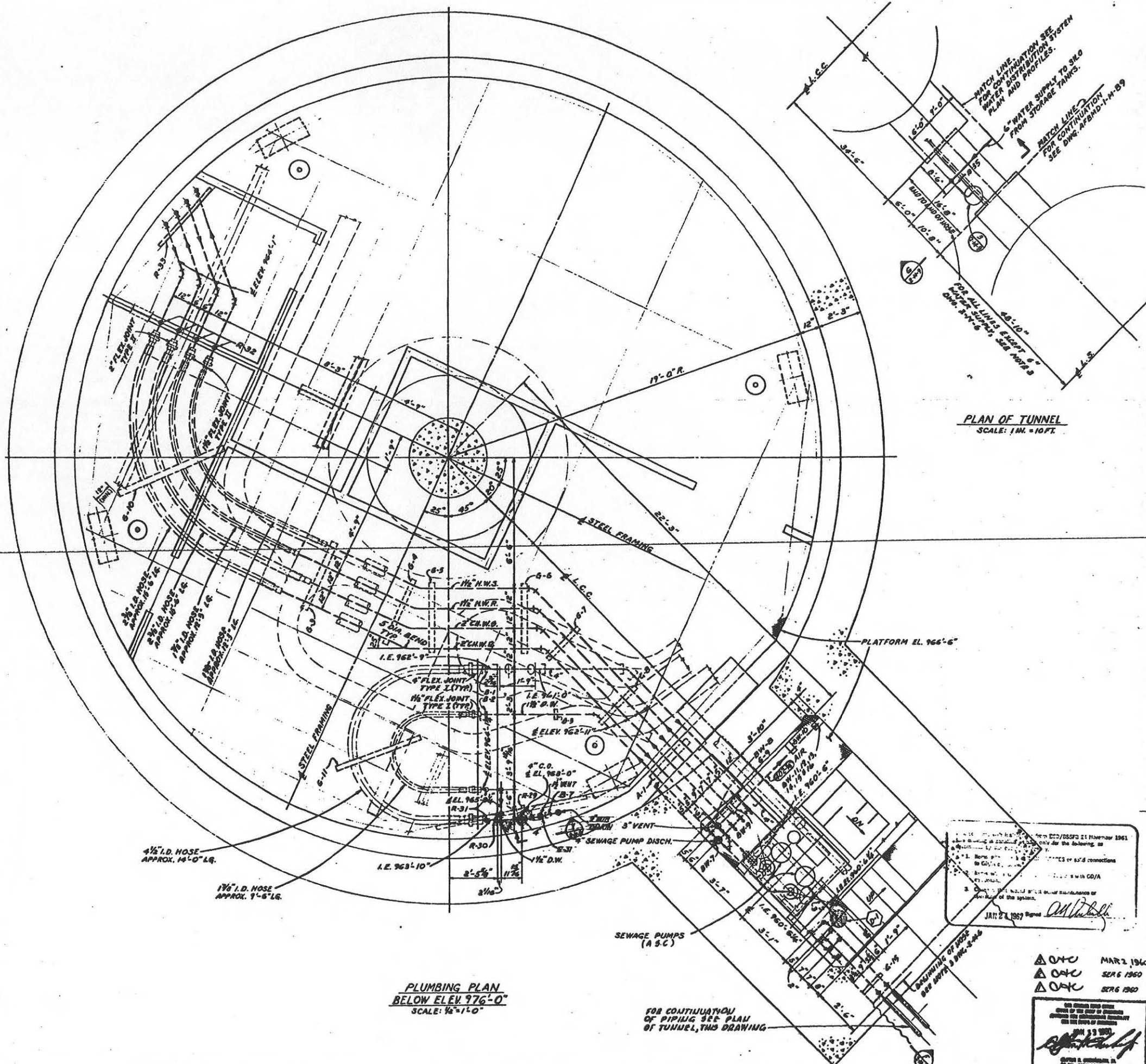
REVISIONS

| | | |
|---|----------|-------------|
| 1 | AS SHOWN | JAN 24 1962 |
| 2 | ... | ... |

JAN 24 1962

PLUMBING PLAN
ELEV. 976'-0" TO ELEV. 983'-0"
SCALE: 1/8" = 1'-0"

| | |
|--|---|
| <p>BECHTEL CORPORATION
 ENGINEERS AND CONSTRUCTORS
 200 PAVAN - 1ST FLOOR - BAY 100</p> | <p>DEPARTMENT OF THE AIR FORCE
 AIR FORCE BALLISTIC MISSILE DIVISION (AMSD)
 RESEARCH CENTER</p> |
| <p>WS-107 A-1 OPERATIONAL BASE
 UNITARY BLDG
 LAUNCH CONTROL CENTER</p> | |
| <p>PLUMBING PLAN - SHT. 2</p> | |
| <p>DATE: 12-22-60
 BY: J.E.F.
 CHECKED: J.E.F.
 DATE: 1-12-61
 BY: J.E.F.
 CHECKED: J.E.F.</p> | <p>ENC. 41-443-80-30
 18 JAN 1961
 378-2-M-6
 1-47</p> |



PLAN OF TUNNEL
SCALE: 1 IN. = 10 FT.

PLUMBING PLAN
BELOW ELEV. 976'-0"
SCALE: 1/2" = 1'-0"

FOR CONTINUATION OF PIPING SEE PLAN OF TUNNEL, THIS DRAWING

FOR SITE 12233070001



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JAN 27 1960
D. O. SIES

| REVISION | DATE | DESCRIPTION | BY | CHECKED |
|----------|-------|---|----|---------|
| 00 | 12-76 | OPERATIONAL AS-BUILT | | |
| 11-7 | | REVISED TO SHOW CONSTRUCTION AS-BUILT CONDITIONS. | | |
| 3-31 | | ADDED 2" HUB DRAIN, 1" VENT & HANGERS B-7 & B-31. | | |
| 9-60 | | REVISED OUTLINE OF 6" 3" ELECT. CABLE TRAY; RELOCATED & ADDED DIMENSION TO PIPE SUPPORT 6-10 CHANGED PLAN TO SHOW HOSES GOING UNDER PIPE SUPPORTS 6-10 & 6-11; DELETED LOCATION NOTE AT PIPE SUPPORT 6-3. | | |
| 3-60 | | REVISED HOSE DIMENSIONS & NOTE FOR TUNNEL. | | |
| 4-60 | | ISSUED FOR DYESS A.F.B. | | |

BEITEL CORPORATION
ENGINEERS AND CONSTRUCTORS

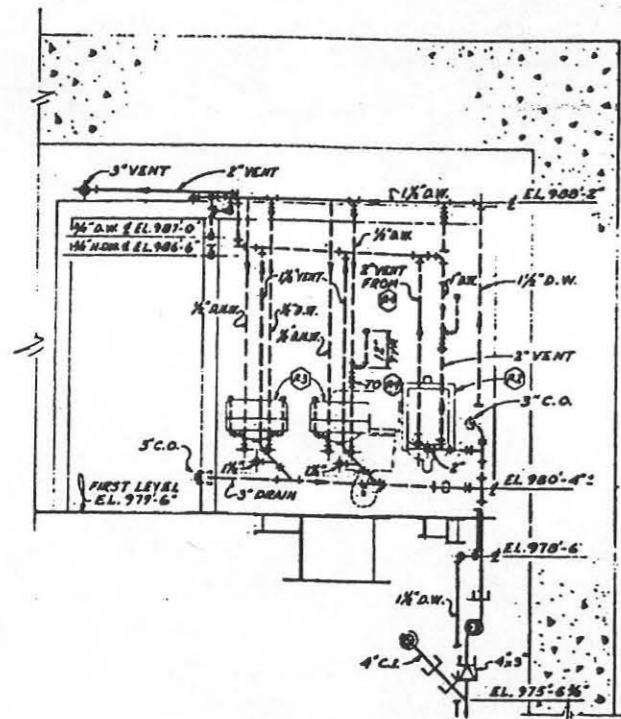
DEPARTMENT OF THE AIR FORCE
AIR FORCE BALLISTIC MISSILE DIVISION (BMD)
DYESS AIR FORCE BASE, MISSOURI

WS-107 A-1 OPERATIONAL BASE
UNITARY SILO
LAUNCH CONTROL CENTER

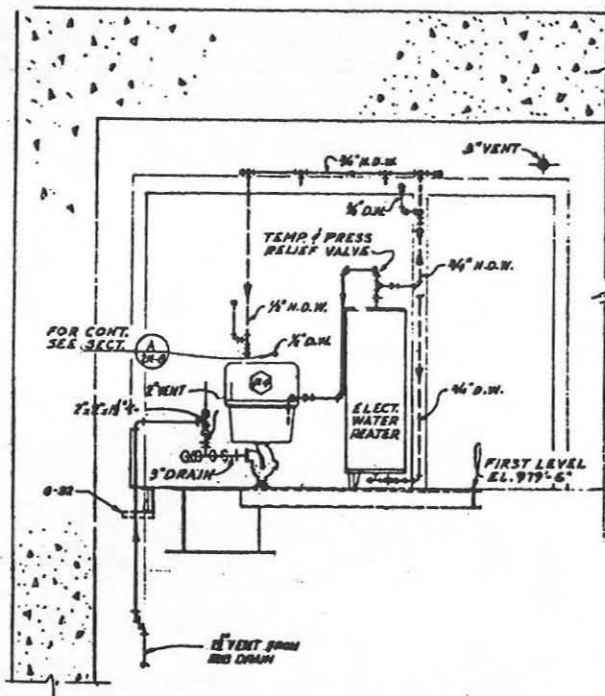
PLUMBING PLAN - SHT. 3

DATE: MAR 2 1960
SERIES: SER 6 1960
SERIES: SER 6 1960

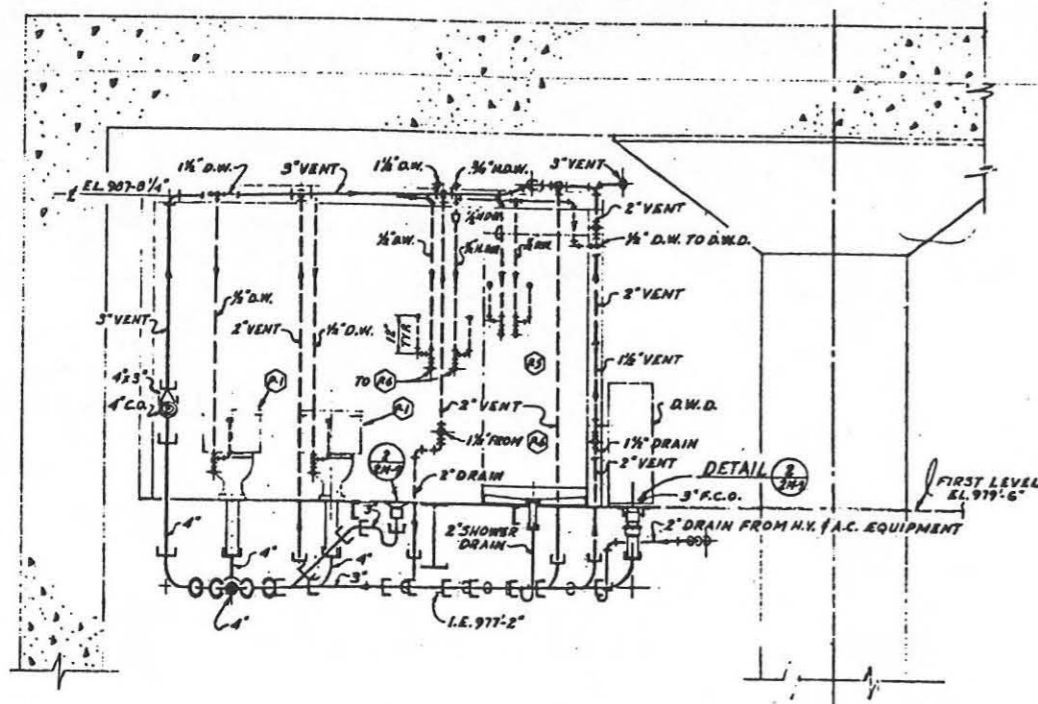
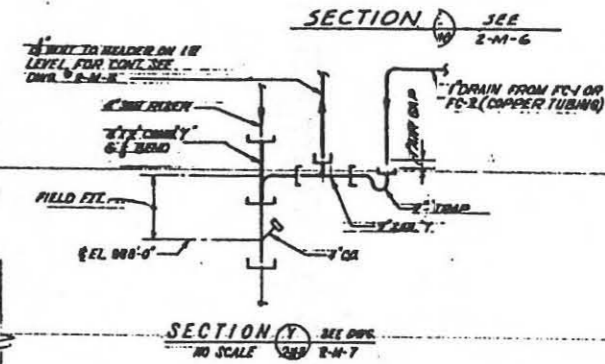
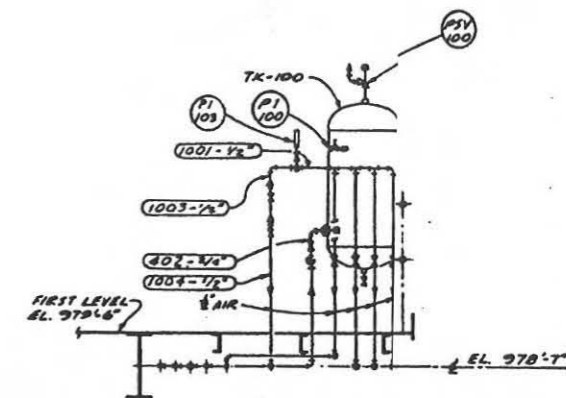
ENG. 41-443-60-30
19 JAN 1960 AS NOTED
578-2-M-7



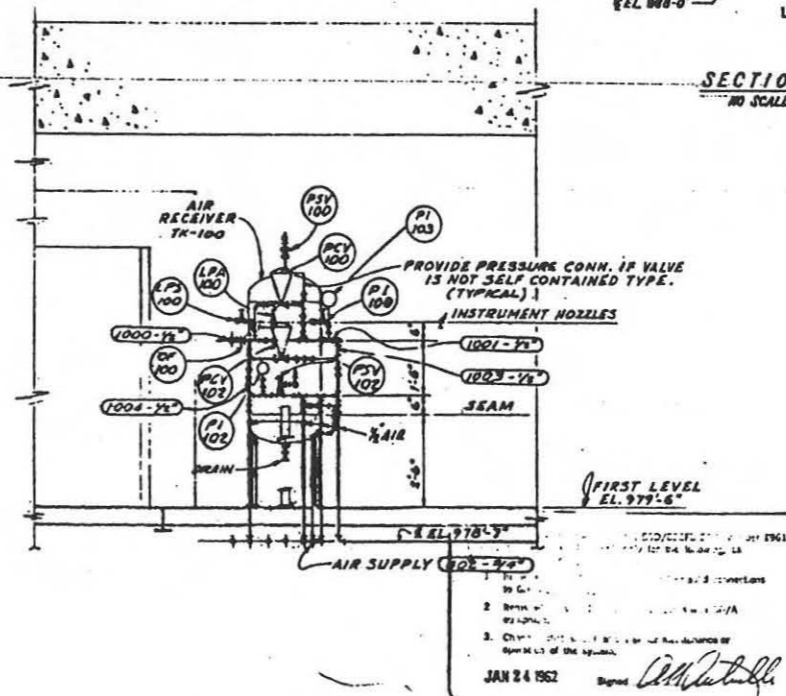
PARTIAL SECTION A SEP
2-M-5 2-M-6



PARTIAL SECTION B SEP
2-M-5 2-M-6



PARTIAL SECTION C SEP
2-M-5 2-M-6



PARTIAL SECTION D SEP
2-M-5 2-M-6

FOR SITES 123007000112

1/2 INCH

| | | | |
|-------|--|---------|-----|
| 12-62 | OPERATIONAL AS BUILT | BATLAF | AKA |
| 11-71 | REVISED TO SHOW CONSTRUCTION AS-BUILT CONDITION | CFRANCO | NY |
| 3-61 | ADDED 1/2 VENT TO SEC. B & ADDED SEC. Y | AFBMD | LSK |
| 6-50 | DELETED PCH-101, PCH-101 & ASSOC. PIPING ADDED PI-103. | AFBMD | LSK |
| 4-50 | DESIGNATED RESTRICTING OFFICE AS 'OF-100' | AFBMD | JAC |
| 4-50 | ISSUED FOR DYESS A.F.B. | AFBMD | JAC |

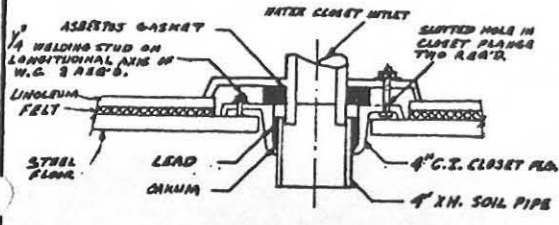
BINTEL CORPORATION
ENGINEERS AND CONSTRUCTORS
2000 - 2000 - 2000 - 2000

DEPARTMENT OF THE AIR FORCE
AIR FORCE BALLISTIC MISSILE DIVISION (AFBMD)
DALLAS, TEXAS

WS-107 A-1 OPERATIONAL BASE
UNITARY SILO
LAUNCH CONTROL CENTER
PLUMBING SECTIONS

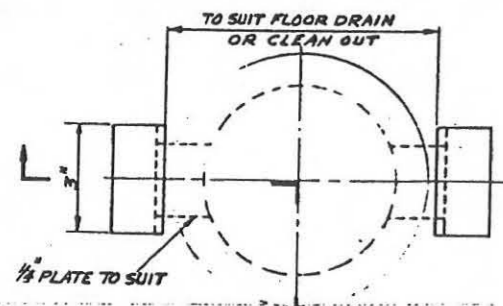
DATE: MAR 2 1960
BY: [Signature]
CHECKED: [Signature]
APPROVED: [Signature]

ENG. 41-443-60-30
10 JAN 1960
578-2-M-8
1-49



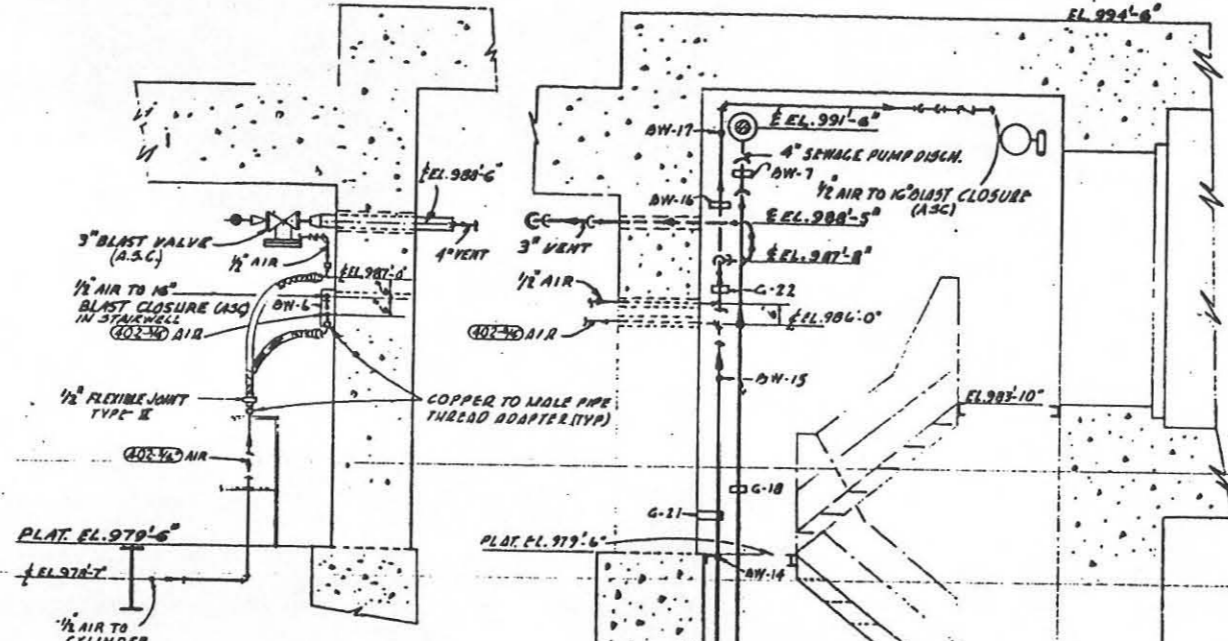
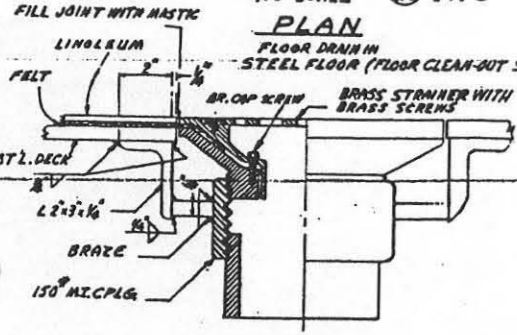
FLOOR MOUNTED WATER CLOSET

DETAIL 1 SEE NO SCALE 2-M-6

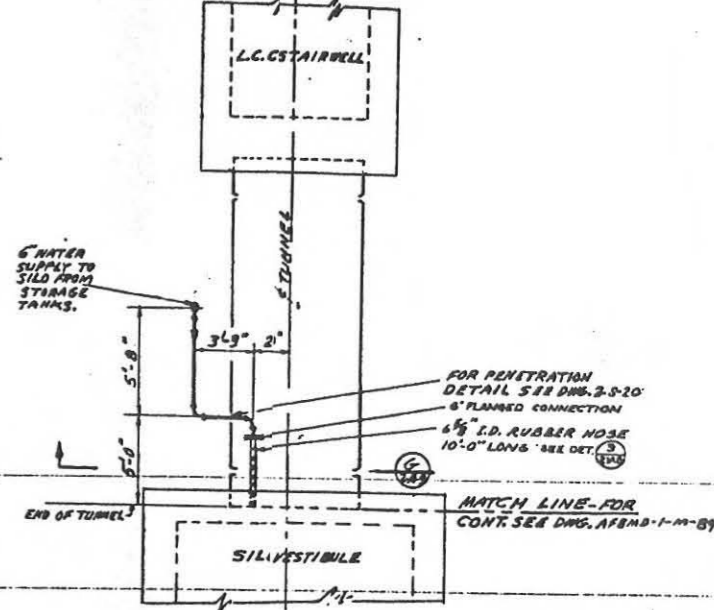


DETAIL 2 SEE NO SCALE 2-M-6

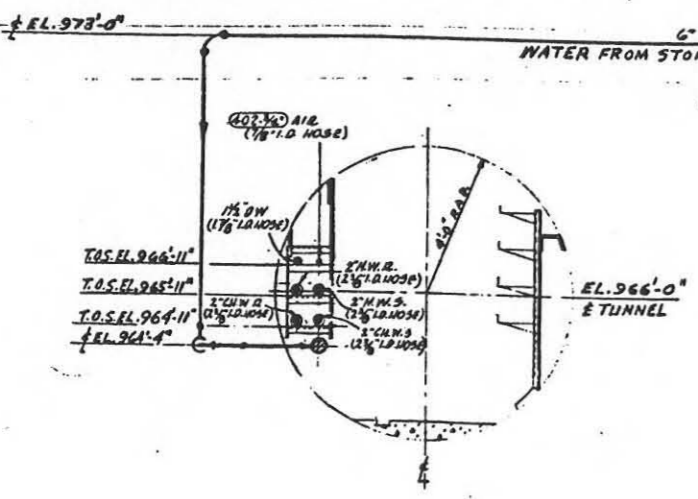
PLAN FLOOR DRAIN IN STEEL FLOOR (FLOOR CLEAN-OUT SIMILAR)



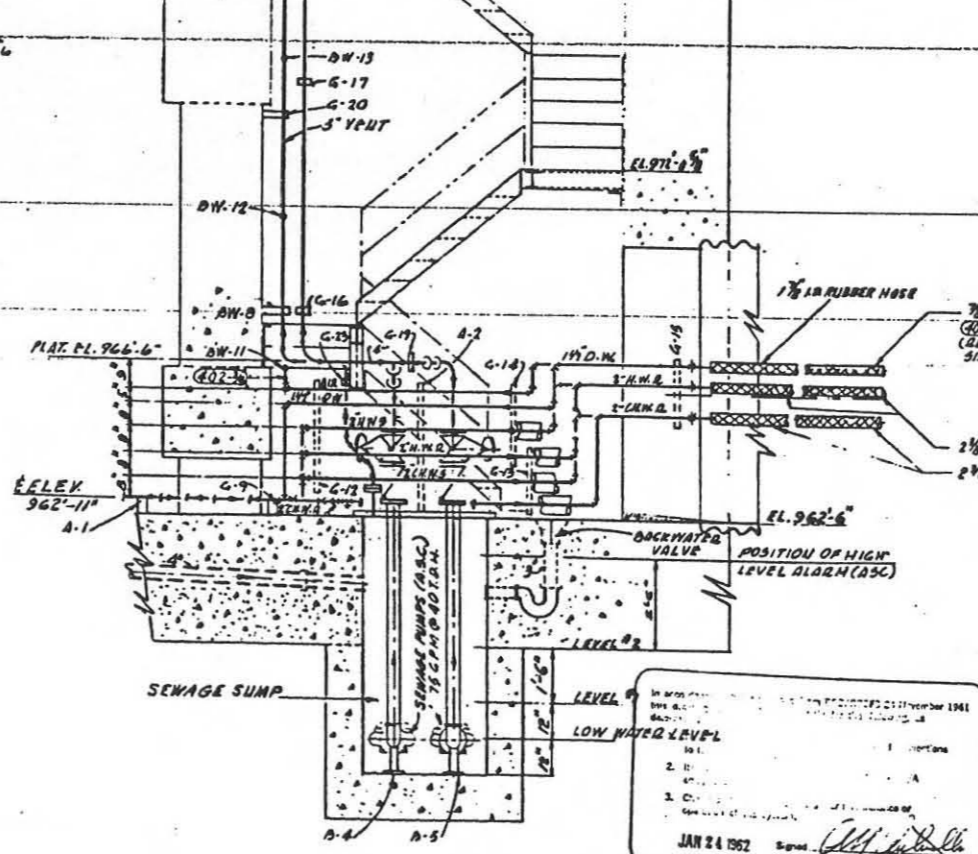
SECTION 1 SEE SCALE: 1/2" = 1'-0" 2-M-5 2-M-6



DETAIL 3 SEE SCALE: 1/4" = 1'-0" 2-M-7



SECTION C SEE SCALE: 1/2" = 1'-0" 2-M-7



| | | | |
|-------|--|-------|----|
| 12-14 | OPERATIONAL AS BUILT | | |
| 11-7 | REVISED TO SHOW CONSTRUCTION AS BUILT CONDITION; ADDED REF. TO DETAIL 3, DRAWING 2-M-8 | SATAP | NH |
| 6-20 | REVISED 6" WATER CONN. FROM SC'D TO FLANGED | AFBND | NH |
| 5-16 | REVISED WATER SUPPLY CONNECTION DIMENSION | AFBND | NH |
| 4-15 | ISSUED FOR DYESS A.F.A. | AFBND | NH |

RECTEL CORPORATION
ENGINEERS AND CONSTRUCTORS
1000 - 1000 - 1000

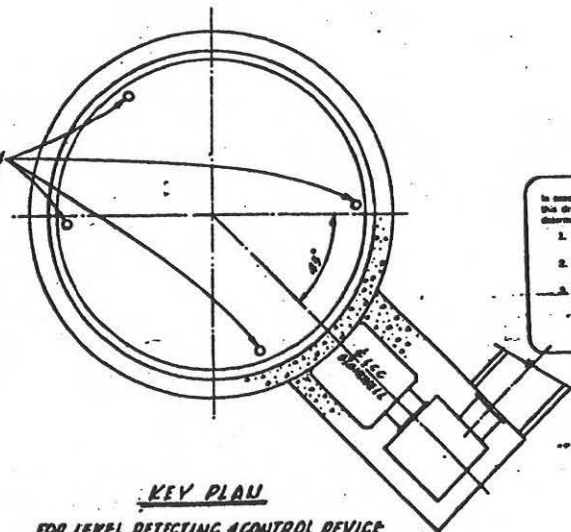
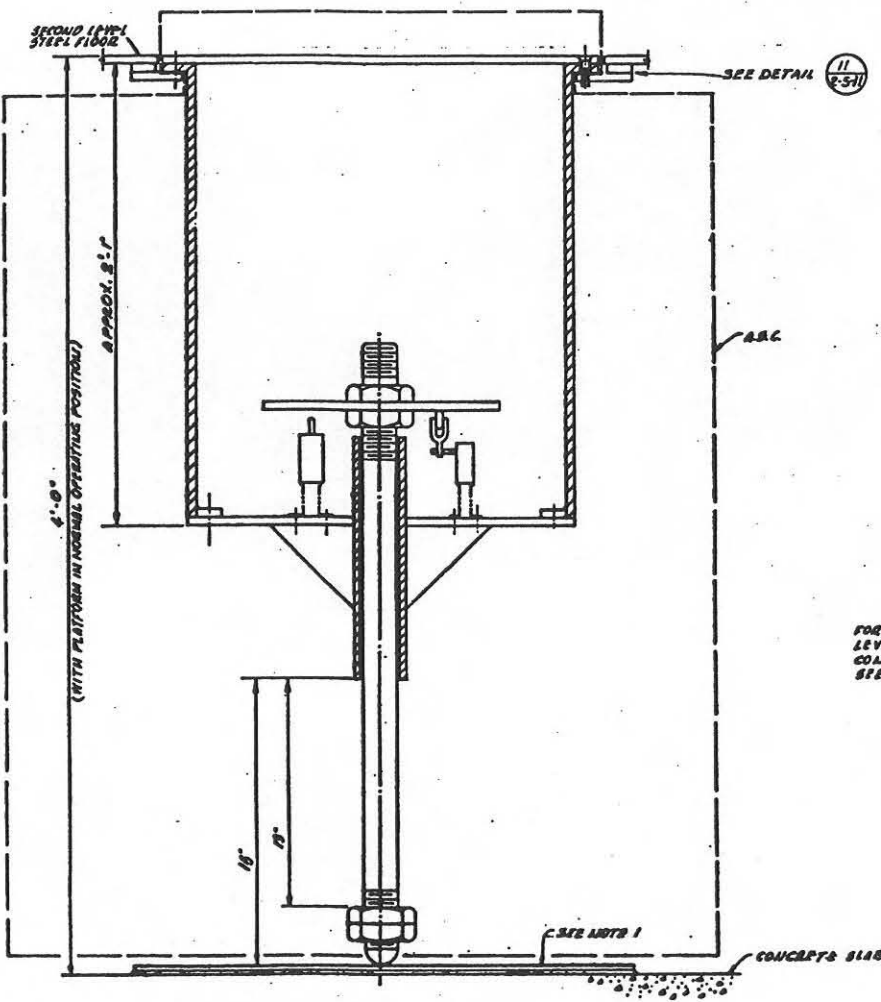
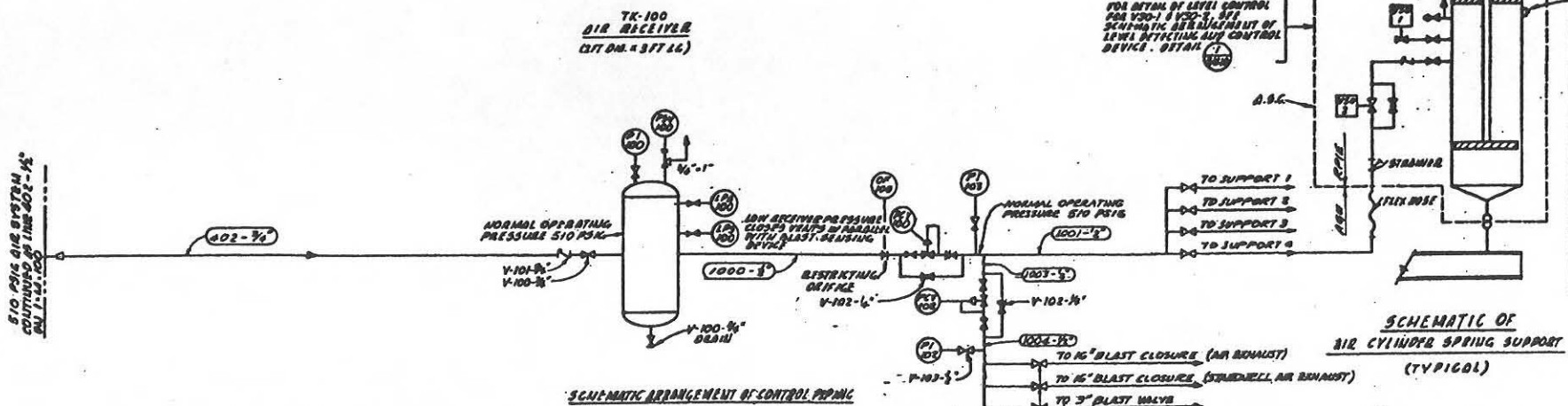
DEPARTMENT OF THE AIR FORCE
AIR FORCE BALLISTIC MISSILE DIVISION (AMSD)
WALTON, MISSISSIPPI

WS-107 A-1 OPERATIONAL BASE
UNITARY SILO
LAUNCH CONTROL CENTER
PLUMBING SECTS. & DETS.

DESIGNED BY: G. LIABY 11-52
CHECKED BY: G. LIABY 11-52
DATE: 11-52
SCALE: 1/4" = 1'-0"
1-13-60
1-13-60
1-13-60

ENGINE: -41-443-60-30
DATE: 13 JAN. 1960
SCALE: AS SHOWN
578 A-2-M-9, 1-50

D. Q. SRIES
8 MD INDEX NO. 51L 601 THRU 111
DYESS AFB



In accordance with instructions from EGO/ESS/2 24 November 1951 this drawing is certified as correct for the drawing as determined by the following:

1. Name of the person who checked and approved the drawing.
2. Name of the person who checked and approved the drawing.
3. Name of the person who checked and approved the drawing.

JAN 24 1962

| LEGEND | |
|---------------------------|--|
| PIPING SYMBOLS | |
| — | GATE VALVE |
| — | SLIDING VALVE |
| — | RESTRICTING ORIFICE |
| — | CONTROL VALVE |
| — | SOLENOID OPERATED VALVE |
| — | EXHAUST VALVE |
| — | RESERVE QUANTITY VALVE |
| INSTRUMENT SYMBOLS | |
| ○ | LOCAL MOUNTED |
| ○ | BOARD MOUNTED |
| — | PRESSURE LINE |
| INSTRUMENT IDENTIFICATION | |
| PI | PRESSURE INDICATOR |
| PSV | PRESSURE SAFETY VALVE |
| PCV | PRESSURE CONTROL VALVE |
| LPA | LOW PRESSURE ALARM |
| LPS | LOW PRESSURE SWITCH |
| VSD | SOLENOID OPERATED VALVE OF RESTRICTING ORIFICE |

- NOTES:**
1. 1/2" DIA. BRASS LEVELING PLATE, 3'-6" SQUARE, INST. LEVEL WITHIN 1/8" VARIATION, 1/8" TO 1/4" SET SCOUT, IF NECESSARY (1/8" MAX) AND SECURE TO CONCRETE SLAB WITH GULDBOLTS 3" FROM EACH CORNER.
 2. PCV TO CLOSE ON LOW DOWNSTREAM PRESSURE DUE TO LINE BREAK.
 3. AS ASSIGNED SERVICE CONTRACT.
 4. (SEE 2-5-13)
 5. ALL LINES TO BE 1/2" DIA. PIPE UNLESS OTHERWISE INDICATED BY DIMENSIONS OR MANUFACTURER'S TYPE SIZE.

REVISION NOTES:

DELETED PCV-101, PSV-101, PI-101 & RELATED PIPING; SEE NOTE 2.

REVISED LEGEND: NORMAL OPER. PRESSURE; SIZE OF VALVE @ PCV-100 AND NOTE 5.

INCREASED OF 100 V-103-72 AT PI-102 AND NORMALLY CLOSED VALVES AT AIR CYL. SPRING SUORT. ADDED P-103.

FOR SITES 1204967090000

| AGE 4RPIE DEFEND | |
|------------------|--|
| 12-14-55 | OPERATIONAL AS BUILT |
| 11-7-61 | REVISED SHOW CONSTRUCTION AS-BUILT CONDITION |
| 6-2-60 | SEE REVISION NOTES |
| 4-15-60 | ISSUED FOR DYESS AFB |

DECHTEL CORPORATION
ENGINEERS AND ARCHITECTS
1100 N. 10TH ST., SUITE 100
DENVER, COLORADO 80202

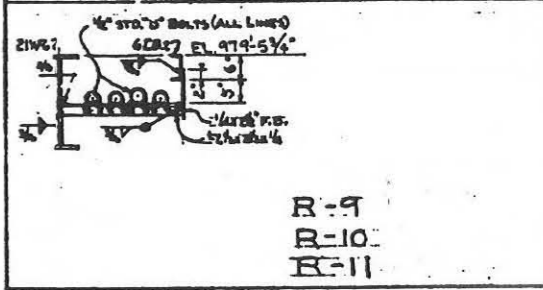
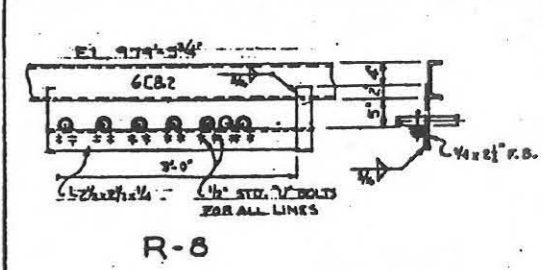
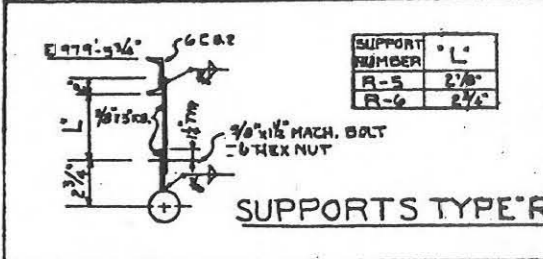
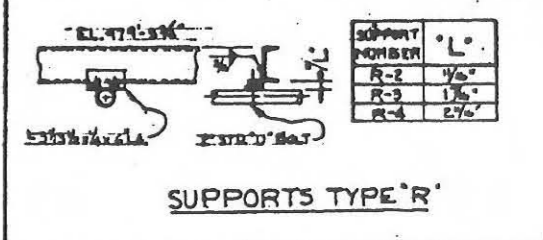
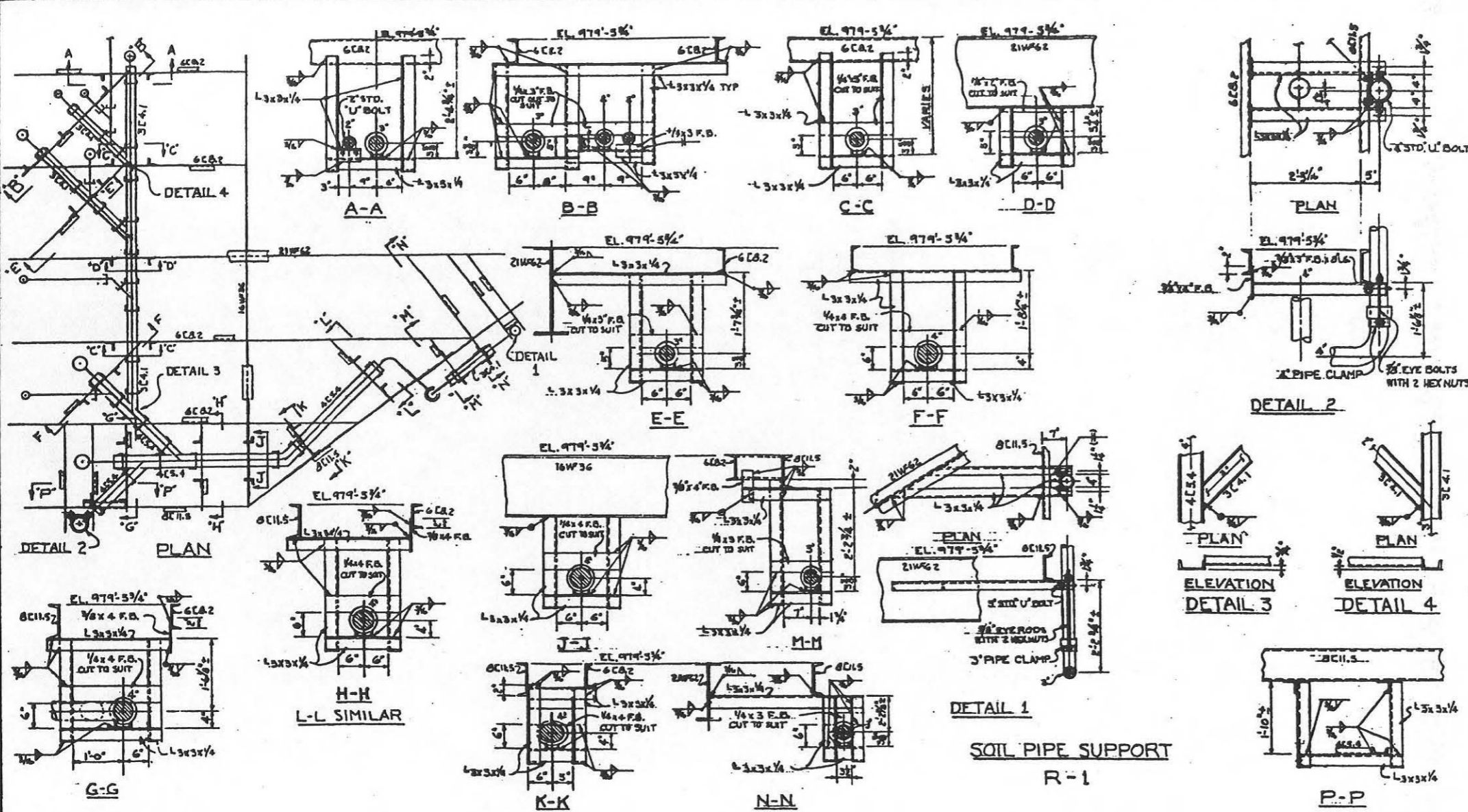
DEPARTMENT OF THE AIR FORCE
AIR FORCE BALLISTIC MISSILE DIVISION
WORLD HEADQUARTERS

WS-107 A-1 OPERATIONAL BASE
UNITARY BLD
LAUNCH CONTROL CENTER

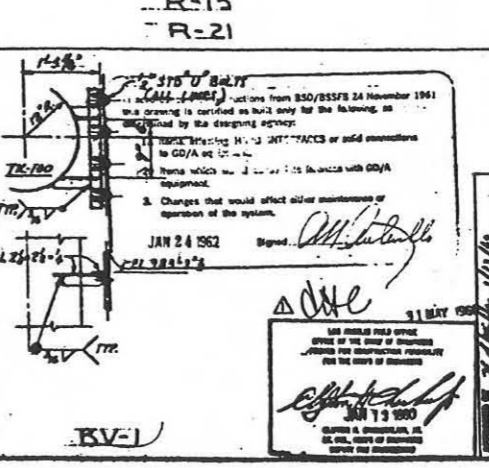
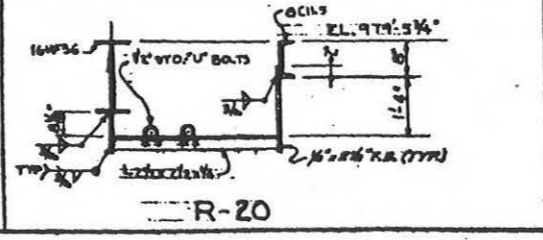
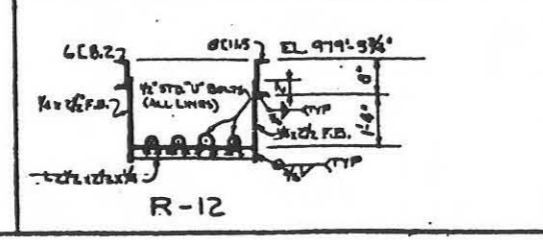
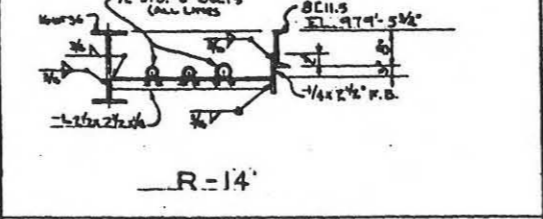
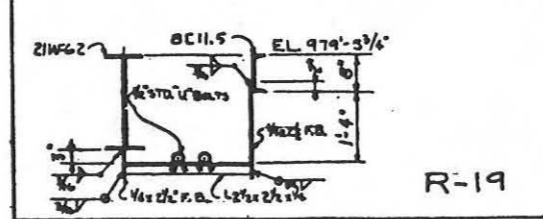
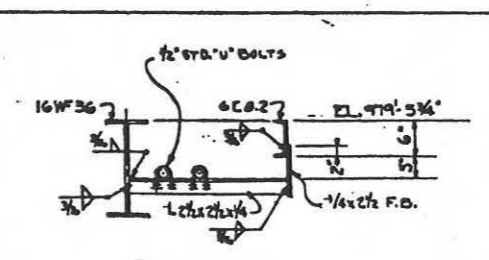
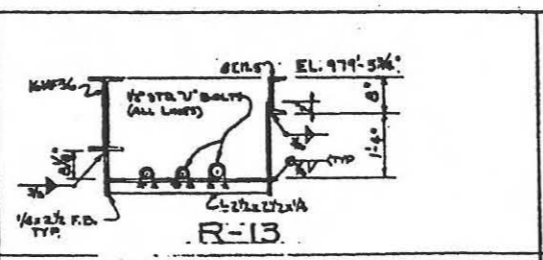
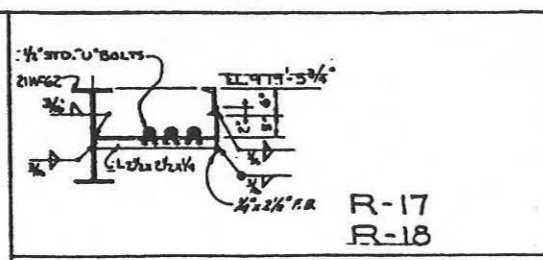
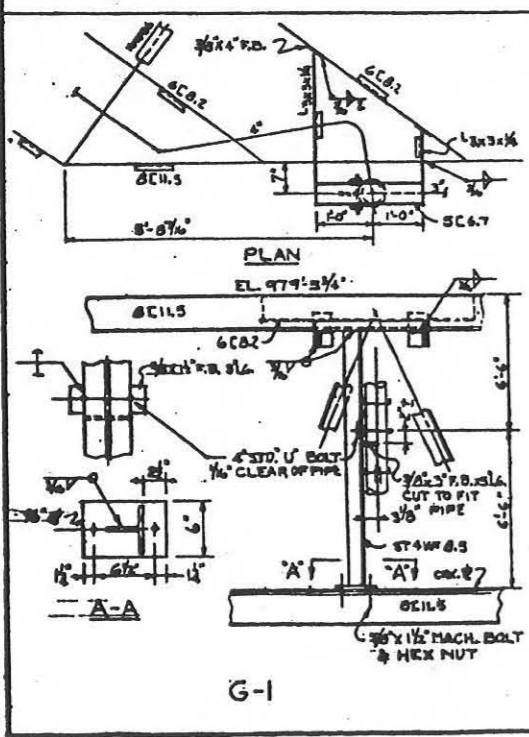
FLOW DIAGRAM COMPRESSED AIR

DATE: 12-14-55
BY: [Signature]
CHECKED BY: [Signature]
APPROVED BY: [Signature]

U. S. SERIES
8 AND INDEX NO. 611, 621 THRU 311
DYESS AFB



- ### CONSTRUCTION NOTES
- FOR SITES 12234567890000
- LEGEND FOR SITES 12234567890000
 - EXCEPT FOR ITEMS SPECIFICALLY COVERED
 - ELOW SEE GENERAL NOTES ON DWG. AFMD-2-9-1.
 - HANGER RODS SHALL BE IN ACCORDANCE WITH A.I.S.C. STANDARDS OR MANUFACTURERS RECOMMENDATIONS.
 - CONTRACTOR SHALL SUPPORT ALL LINES INSIDE PARTITIONS AND LINES 1" AND SMALLER WHICH ARE NOT COVERED BY THESE DETAILS.
 - CONCRETE FASTENERS TO HAVE THE FOLLOWING MINIMUM AVERAGE ULTIMATE PULL OUT VALUES:
 - 3/8" - 10,000
 - 1/2" - 13,700
 - 3/4" - 15,000



RECENT CORPORATION ENGINEERS AND ARCHITECTS

DEPARTMENT OF THE AIR FORCE AIR FORCE BALLISTIC MISSILE DIVISION (AFBMD) MISSOURI

WS-107 A-1 OPERATIONAL BASE UNITARY SILO LAUNCH CONTROL CENTER

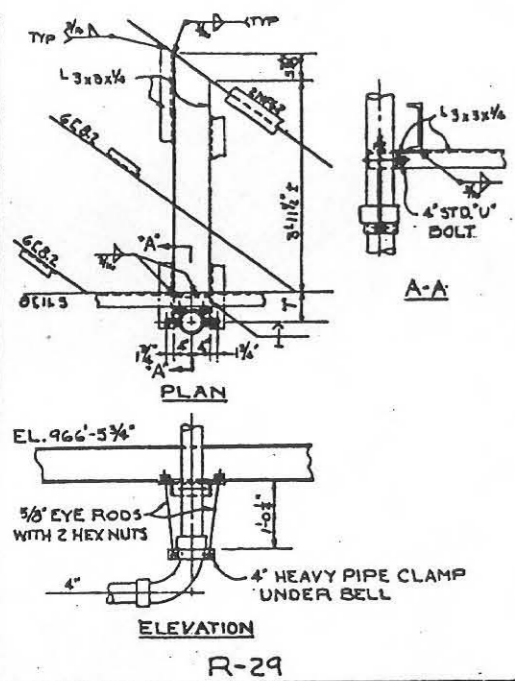
PIPE SUPPORTS SHT. I

REVISIONS:

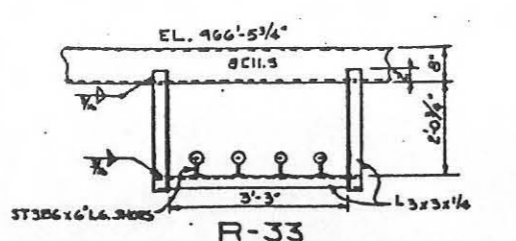
| NO. | DATE | DESCRIPTION | BY | CHKD |
|-----|---------|--|----|------|
| 1 | 11-7-61 | OPERATIONAL AS-BUILT | | |
| 2 | 11-7-61 | REVISED TO SHOW CONSTRUCTION AS-BUILT CONDITIONS | | |
| 3 | 6-2-60 | REVISED BY-1 | | |
| 4 | 4-15-60 | ISSUED FOR DYEES AFB | | |

JAN 24 1962

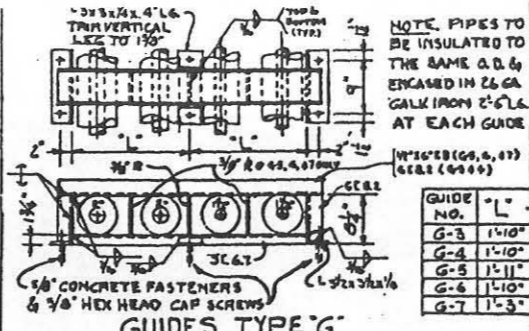
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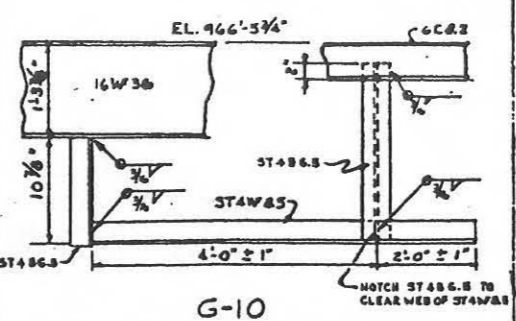
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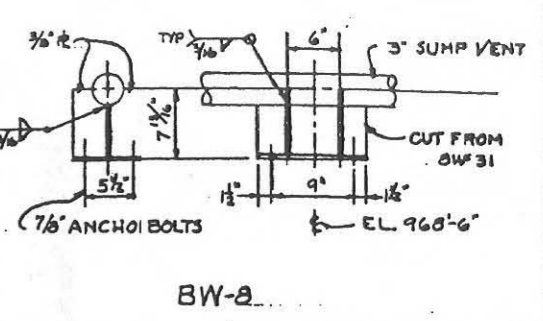
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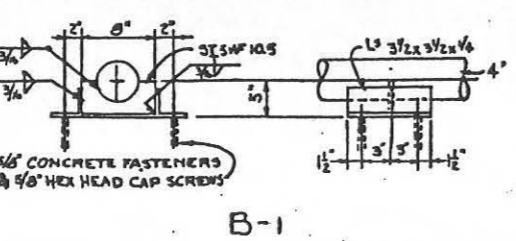
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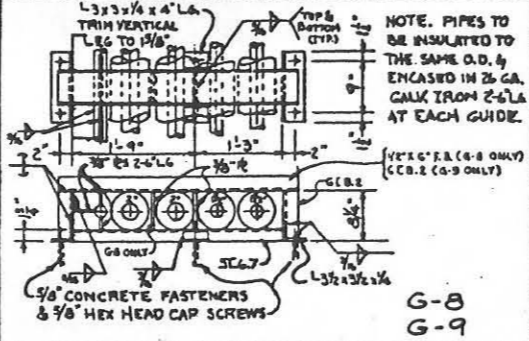
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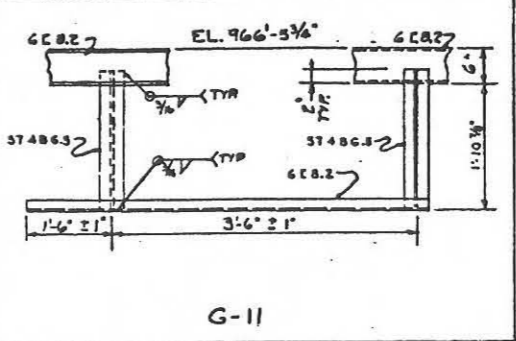
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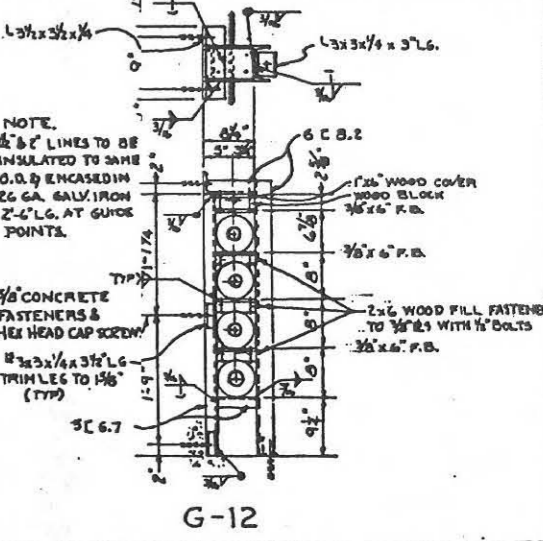
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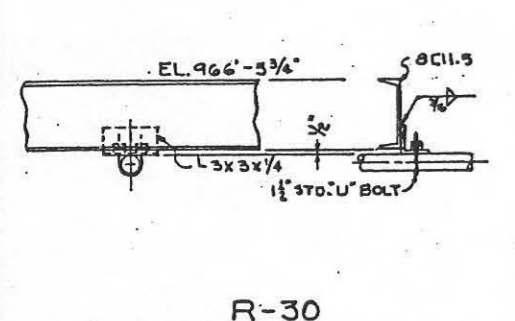
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G-9



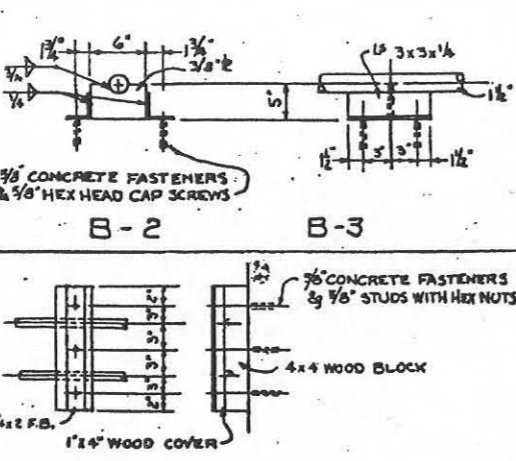
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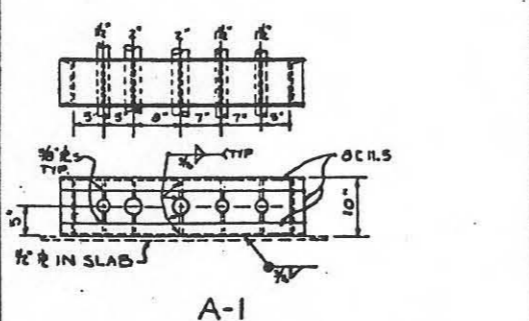
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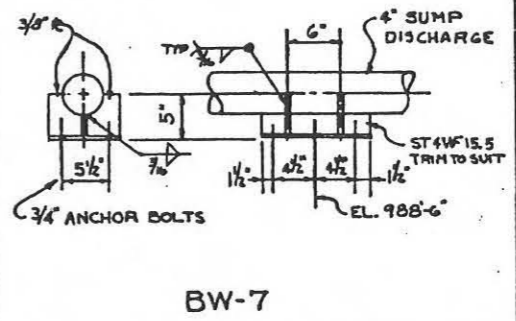
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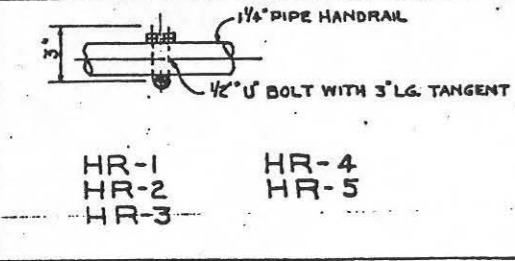
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B-3



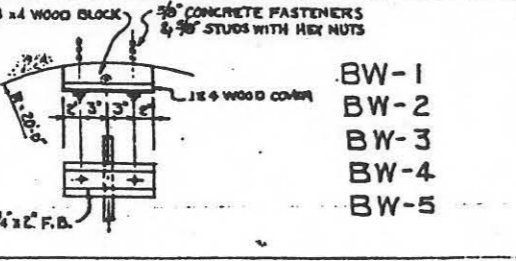
A-1



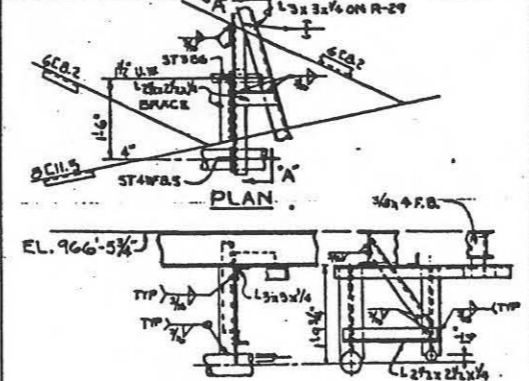
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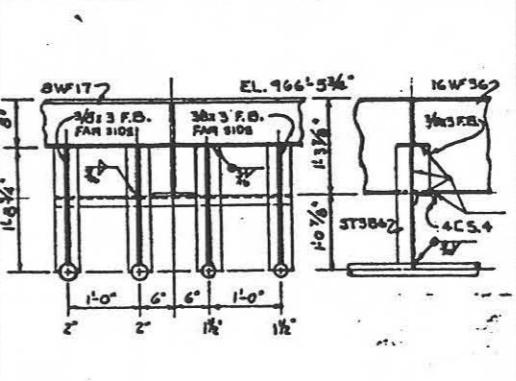
HR-1
HR-2
HR-3
HR-4
HR-5



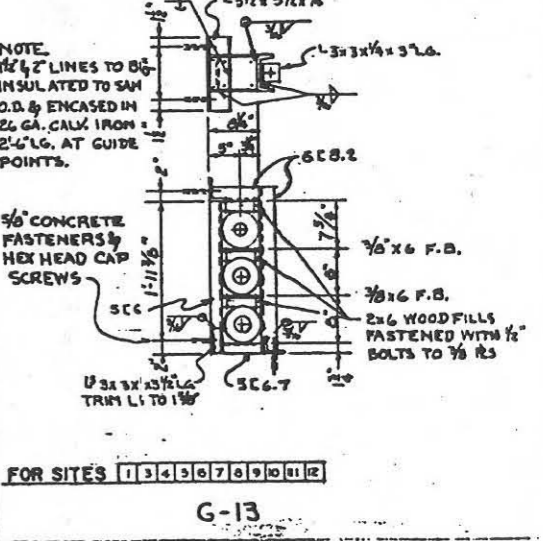
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BW-5



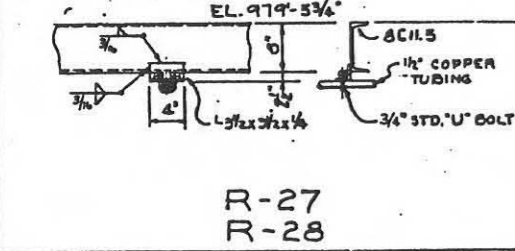
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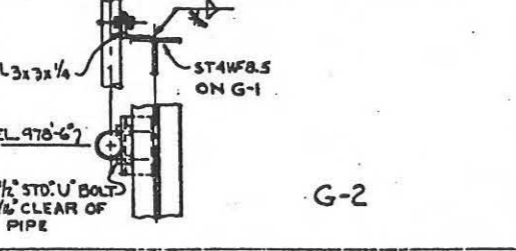
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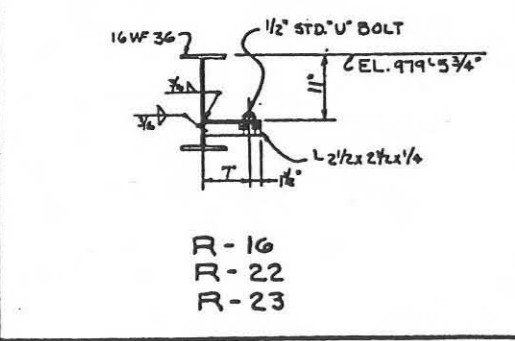
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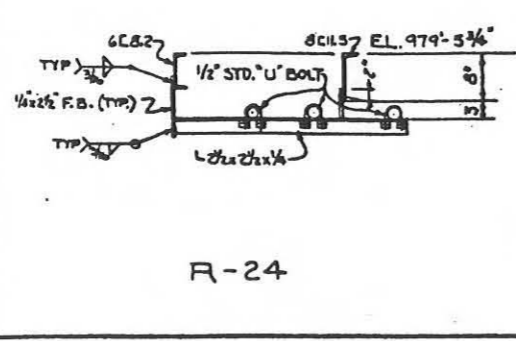
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R-28



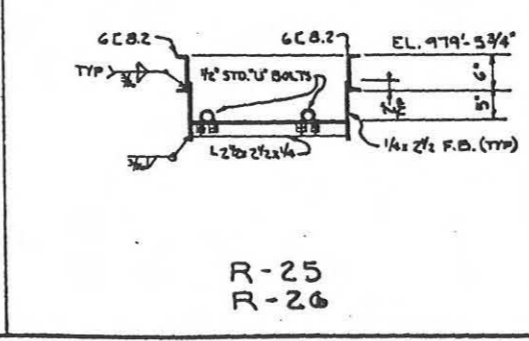
G-2



R-16
R-22
R-23



R-24



R-25
R-26

FOR SITES 1 3 4 3 6 7 8 9 10 11 12

FOR LEGEND AND CONSTRUCTION NOTES SEE DWG. AFBMD-1-M-11.

12-14-62 OPTIONAL AS BUILT

11-7-62 REVED TO SHOW CONSTRUCTION AS-BUILT CONDITION

5-3-60 REVED PIPE SUPPORTS 4-5, 6-4, 6-7, 6-8, 6-10, & 6-11

4-15-60 ISSD FOR DYESS A.P.B.

REVISION DATE DESCRIPTION

1 12-14-62

2 11-7-62

3 5-3-60

4 4-15-60

JAN 24 1962

BECHTEL CORPORATION
ENGINEERS & CONSTRUCTORS

DEPARTMENT OF THE AIR FORCE
AIR FORCE BALLISTIC MISSILE DIVISION (ASMD)

WS-107 A-1 OPERATIONAL BASE
UNITARY SILO
LAUNCH CONTROL CENTER
PIPE SUPPORTS SHT. 2

ENG. 41-443-60-30
19 JAN. 1960

578-2-M-12

D. O. SERIES

FOR SITES 1 3 4 3 6 7 8 9 10 11 12

FOR LEGEND AND CONSTRUCTION NOTES SEE DWG. AFBMD-1-M-11.

12-14-62 OPTIONAL AS BUILT

11-7-62 REVED TO SHOW CONSTRUCTION AS-BUILT CONDITION

5-3-60 REVED PIPE SUPPORTS 4-5, 6-4, 6-7, 6-8, 6-10, & 6-11

4-15-60 ISSD FOR DYESS A.P.B.

REVISION DATE DESCRIPTION

1 12-14-62

2 11-7-62

3 5-3-60

4 4-15-60

JAN 24 1962

BECHTEL CORPORATION
ENGINEERS & CONSTRUCTORS

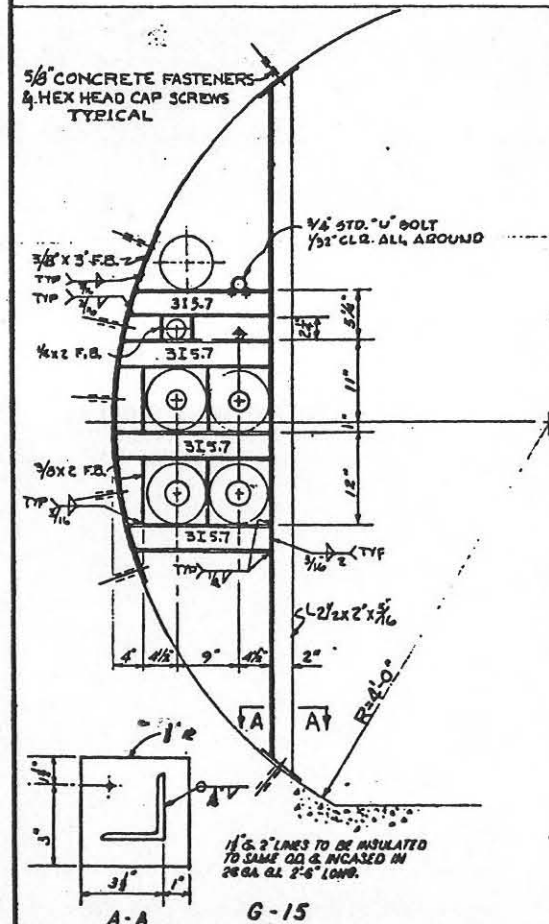
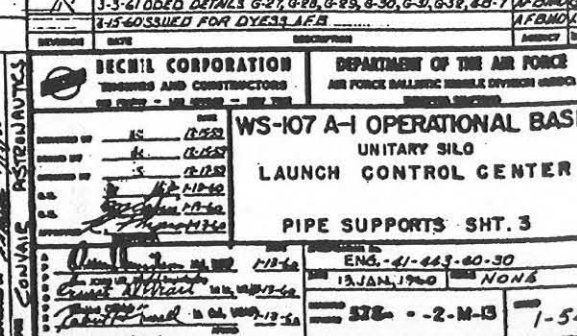
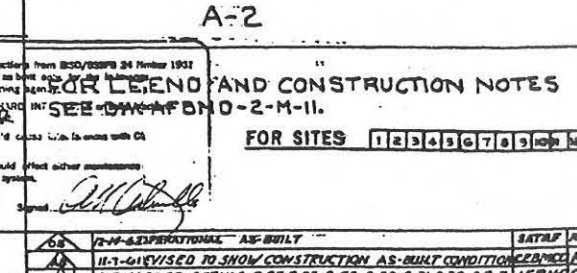
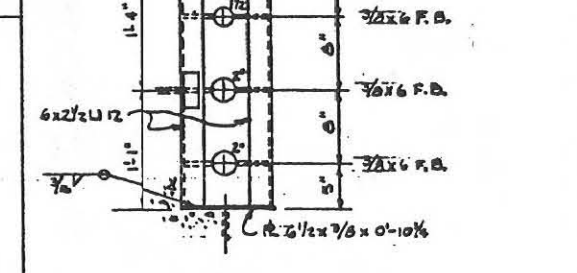
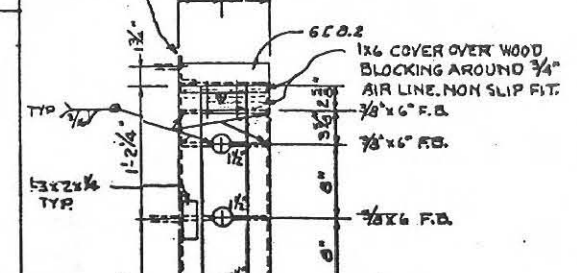
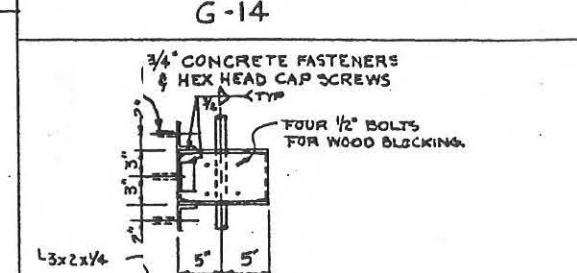
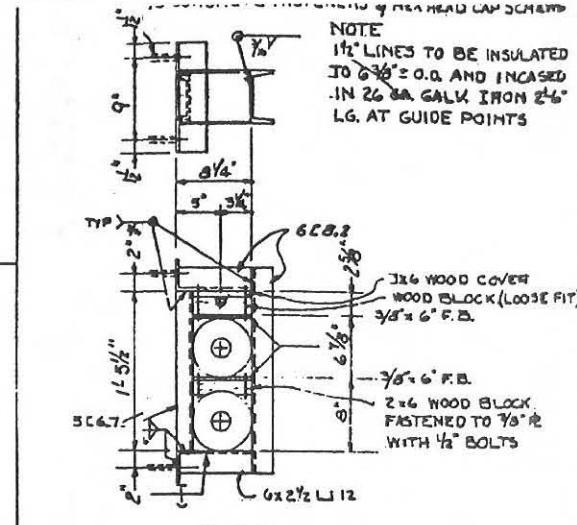
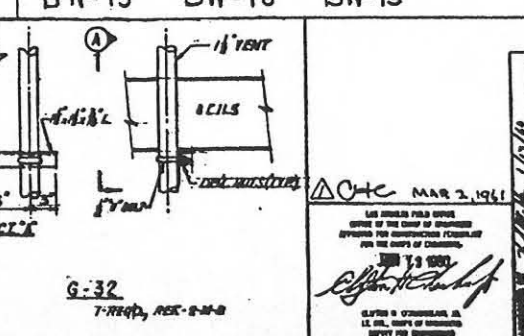
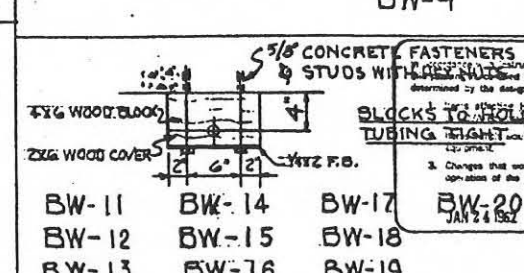
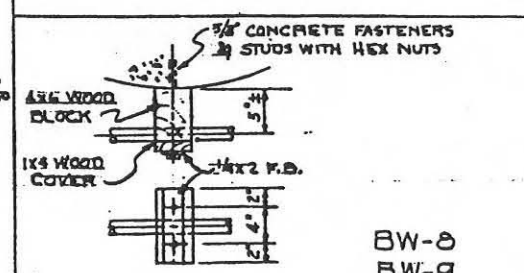
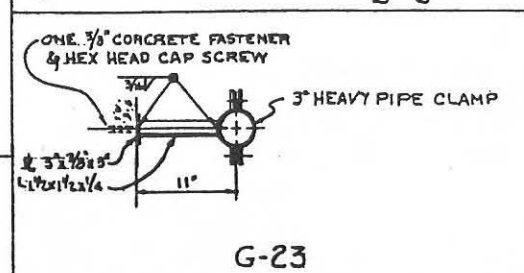
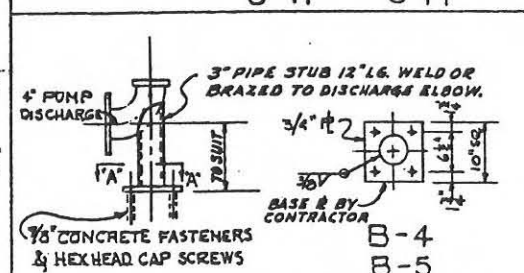
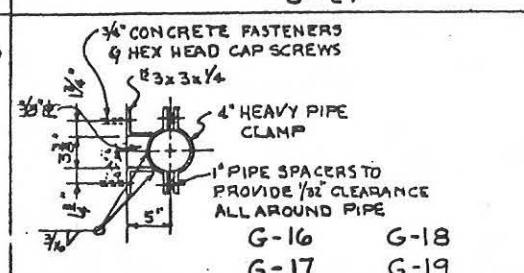
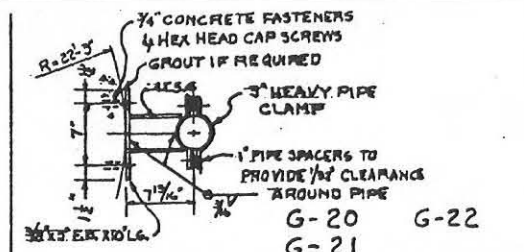
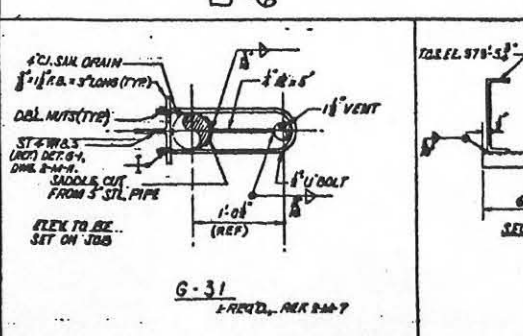
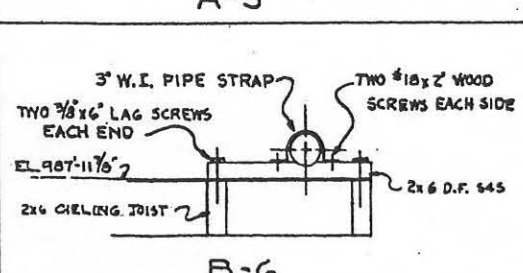
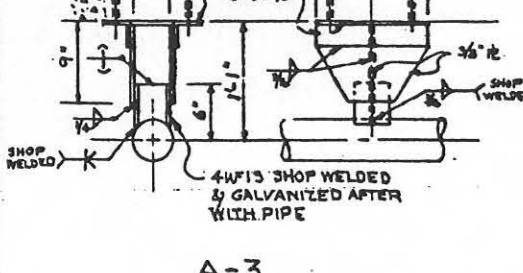
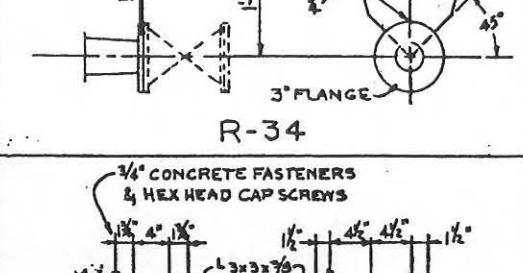
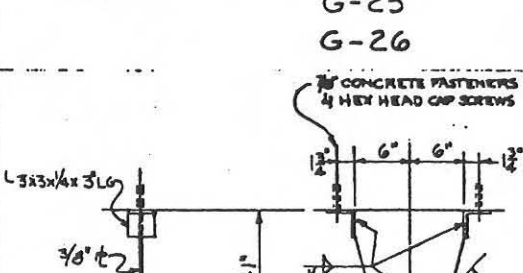
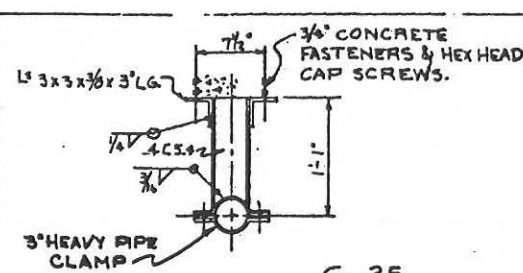
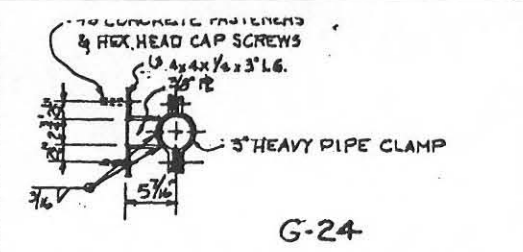
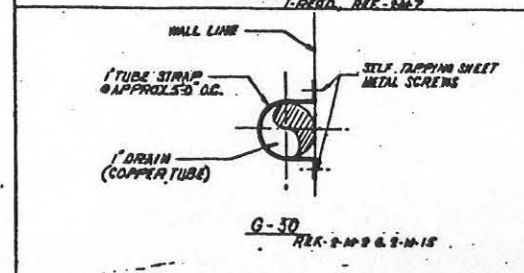
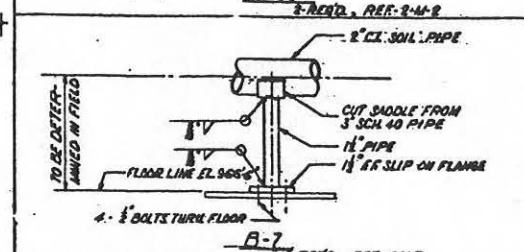
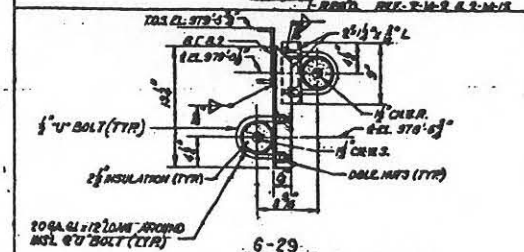
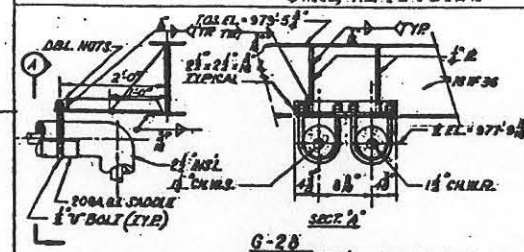
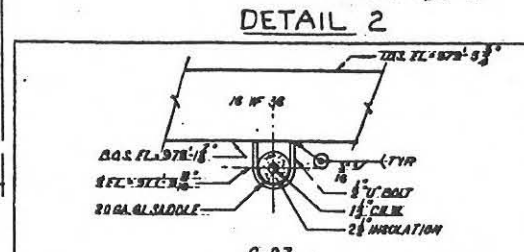
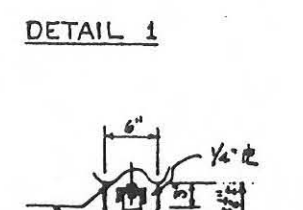
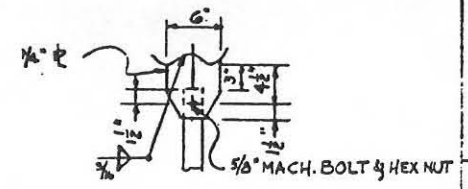
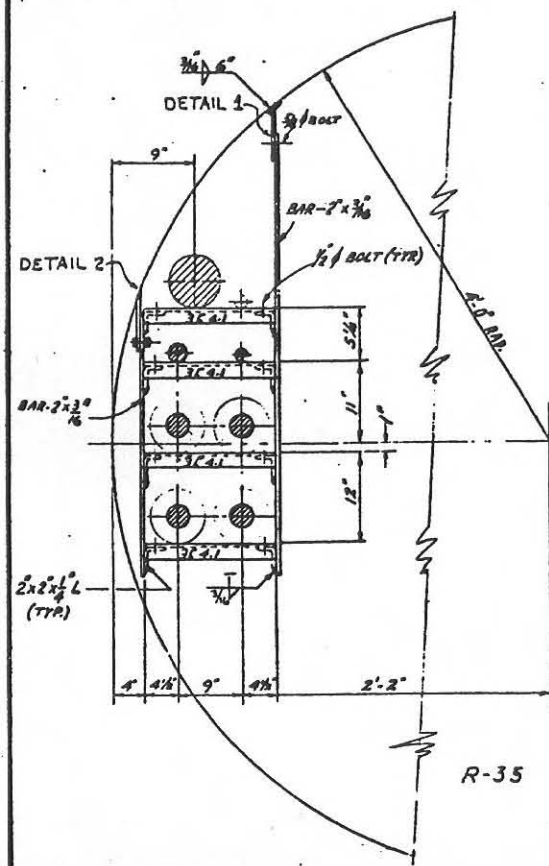
DEPARTMENT OF THE AIR FORCE
AIR FORCE BALLISTIC MISSILE DIVISION (ASMD)

WS-107 A-1 OPERATIONAL BASE
UNITARY SILO
LAUNCH CONTROL CENTER
PIPE SUPPORTS SHT. 2

ENG. 41-443-60-30
19 JAN. 1960

578-2-M-12

D. O. SERIES



NOTE
1 1/2" LINES TO BE INSULATED TO 0.75" O.D. AND INCASD IN 26 GA. GALV. IRON 2 1/2" LG. AT GUIDE POINTS

FOR LEAD AND CONSTRUCTION NOTES
SEE DRAWING NO. 2-M-11.
FOR SITES 1 2 3 4 5 6 7 8 9 10 11 12

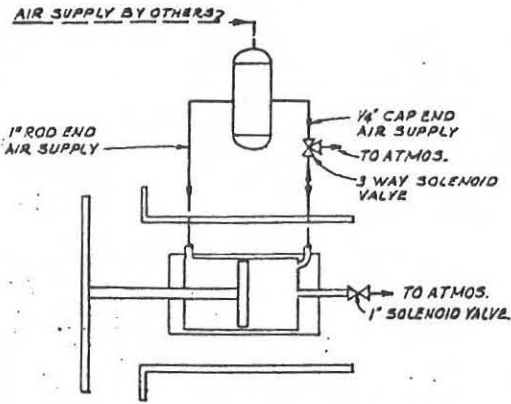
| NO. | DATE | DESCRIPTION | BY | CHECKED |
|-----|---------|--|----------|---------|
| 68 | 1-11-61 | OPERATIONAL AS-BUILT | AS-BUILT | |
| 69 | 1-11-61 | REVISED TO SHOW CONSTRUCTION AS-BUILT CONDITION | | |
| 70 | 3-3-61 | ADDED DETAILS G-27, G-28, G-29, G-30, G-31, G-32, G-33 | | |
| 71 | 1-15-61 | ISSUED FOR DYESS AFB | | |

| NO. | DATE | DESCRIPTION | BY | CHECKED |
|-----|---------|--|----------|---------|
| 72 | 1-15-61 | OPERATIONAL AS-BUILT | AS-BUILT | |
| 73 | 1-15-61 | REVISED TO SHOW CONSTRUCTION AS-BUILT CONDITION | | |
| 74 | 3-3-61 | ADDED DETAILS G-27, G-28, G-29, G-30, G-31, G-32, G-33 | | |
| 75 | 1-15-61 | ISSUED FOR DYESS AFB | | |

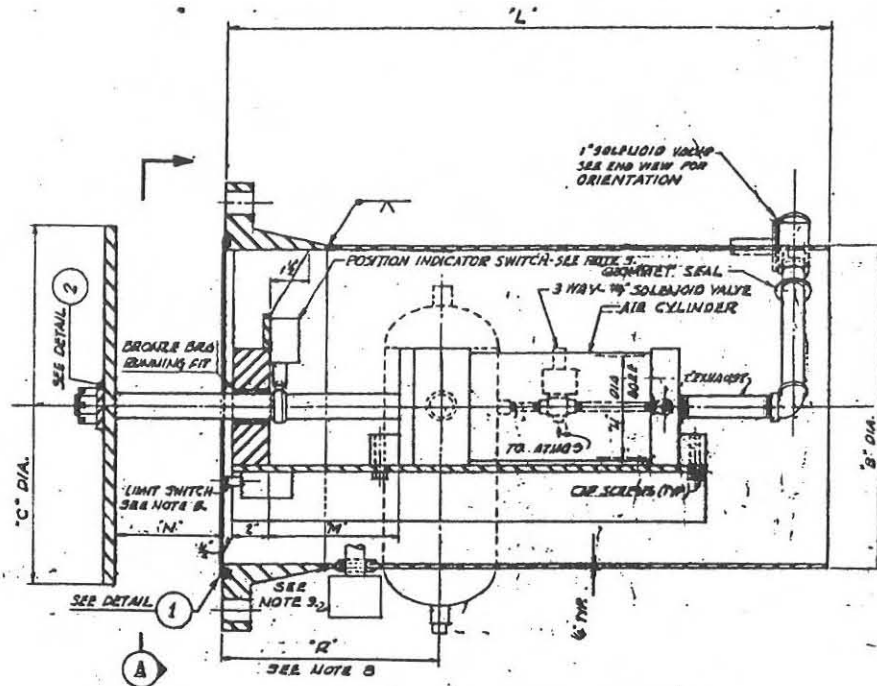
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|-----|---------|--|----------|---------|
| 76 | 1-15-61 | OPERATIONAL AS-BUILT | AS-BUILT | |
| 77 | 1-15-61 | REVISED TO SHOW CONSTRUCTION AS-BUILT CONDITION | | |
| 78 | 3-3-61 | ADDED DETAILS G-27, G-28, G-29, G-30, G-31, G-32, G-33 | | |
| 79 | 1-15-61 | ISSUED FOR DYESS AFB | | |

GENERAL NOTES

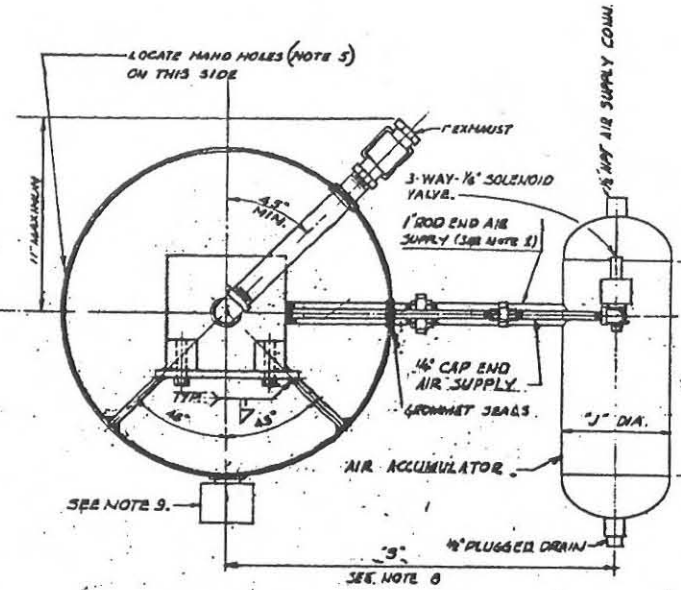
1. ROD END AIR SUPPLY PIPE (1") TO BE WELDED TO A TUBULINUM LENS.
2. ALL WELDS SHAL BE 3/16" CONTINUOUS UNLESS OTHERWISE NOTED.
3. ALL BOLT HOLES STRADDLE VERTICAL & UNLESS OTHERWISE NOTED.
4. AIR CYLINDER AND BEARING BRACKET SHOWN TO BE SUITABLY ADAPTS TO ACTUAL AIR CYLINDER USED.
5. PROVIDE A SUFFICIENT NUMBER OF HAND HOLES WITH GASKET & COVER PLATE TO PERMIT ADJUSTMENT OF POSITION INDICATOR SWITCH.
6. DIMENSIONS "E", "G", & "N" ARE MINIMUM SIZES TO BE USED.
7. CROSS SECTIONAL VIEW AS SHOWN IS IN THE FULL OPEN POSITION (DIMENSION "N").
8. MAINTAIN THESE APPROXIMATE DIMENSIONS FOR MOUNTING, BY OTHERS, OF ACCUMULATORS TO STRUCTURE SHALL.
9. 1/2" CONDUIT SHAL BE PROVIDED FROM THE LIMIT SWITCHES TO A JUNCTION BOX ATTACHED TO THE EXTERIOR OF THE CLOSURE SHELL SHAL BE SUITABLY SEALED AT THE PENETRATION OF THE SHELL. LOCATE TO AVOID INTERFERENCE WITH HAND HOLES.
10. MOUNTING ARRANGEMENTS SHOWN IN DETAILS 3 & 4 ARE TO BE USED AS A GUIDE TO SIMULATE ACTUAL MOUNTING CONDITIONS WHILE SHOCK TESTING. MOUNTING ATTACHMENTS IN DETAIL 4 AND PIPING, PIPE ANCHOR & PIPE SUPPORT IN DETAIL 3 ARE N.I.C.



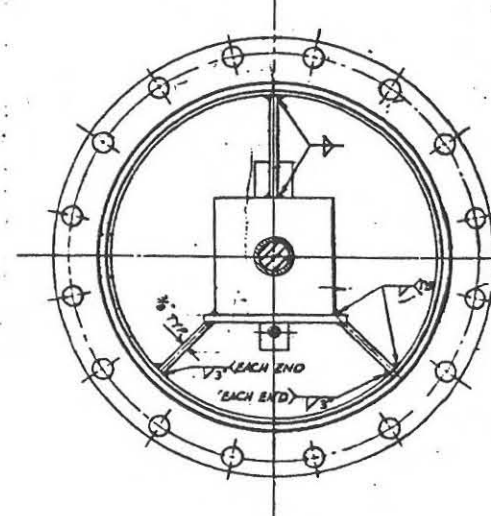
SCHEMATIC AIR FLOW DIAGRAM FOR BLAST CLOSURES
SCALE: NONE



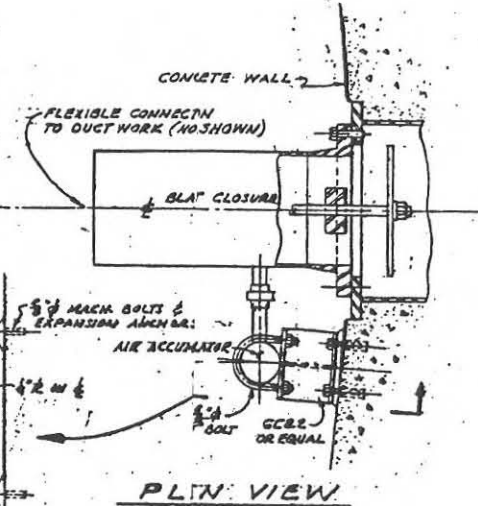
CROSS SECTIONAL VIEW
SCALE: NONE



END VIEW
SCALE: NONE



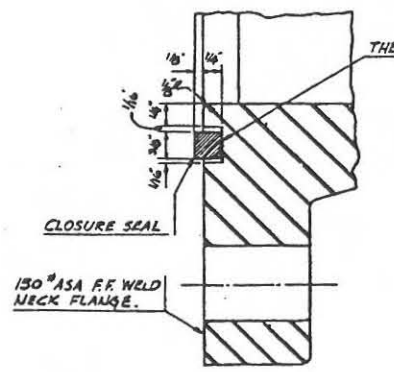
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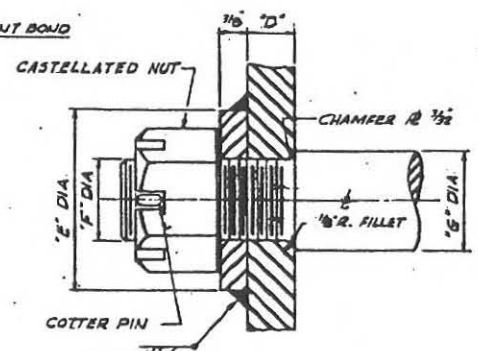
PLAN VIEW

DETAIL 4
SCALE: 1/4" = 1"
BLAST CLOSURE MOUNTING ARRANGEMENT
SEE NOTE #10

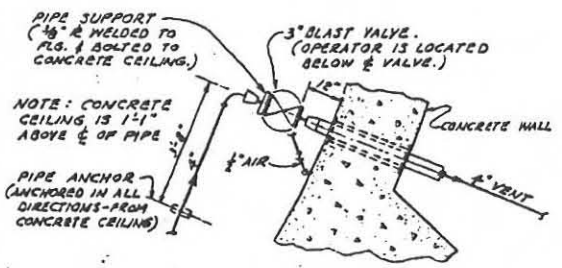
FOISITES: 7 2 3 4 5 6 7 8 9 10 11 12



DETAIL 1
SCALE: NONE



DETAIL 2
SCALE: NONE



PLAN VIEW

DETAIL 3
SCALE: NONE

BLAST VALVE MOUNTING ARRANGEMENT
SEE NOTE #10

OSTF - VANDENBERG AFB - BLAST CLOSURE DIMENSIONS

| NOM. SIZE | NO. REQD | A | B | C | D | E | F | G | H | J | K | L | M | N | P | Q | R | S |
|-----------|----------|---|-----|---------|----------|----|------|----|--------|--------|-----|-------|----|----|---|---|--------|-------|
| 16" | 2 | | 14" | 14 1/2" | 11 1/16" | 2" | 3/8" | 1" | 2 1/2" | 4 1/2" | 24" | 2' 2" | 5" | 4" | | | 9 3/4" | 1' 7" |

OPERATIONAL SITES - BLAST CLOSURE DIMENSIONS

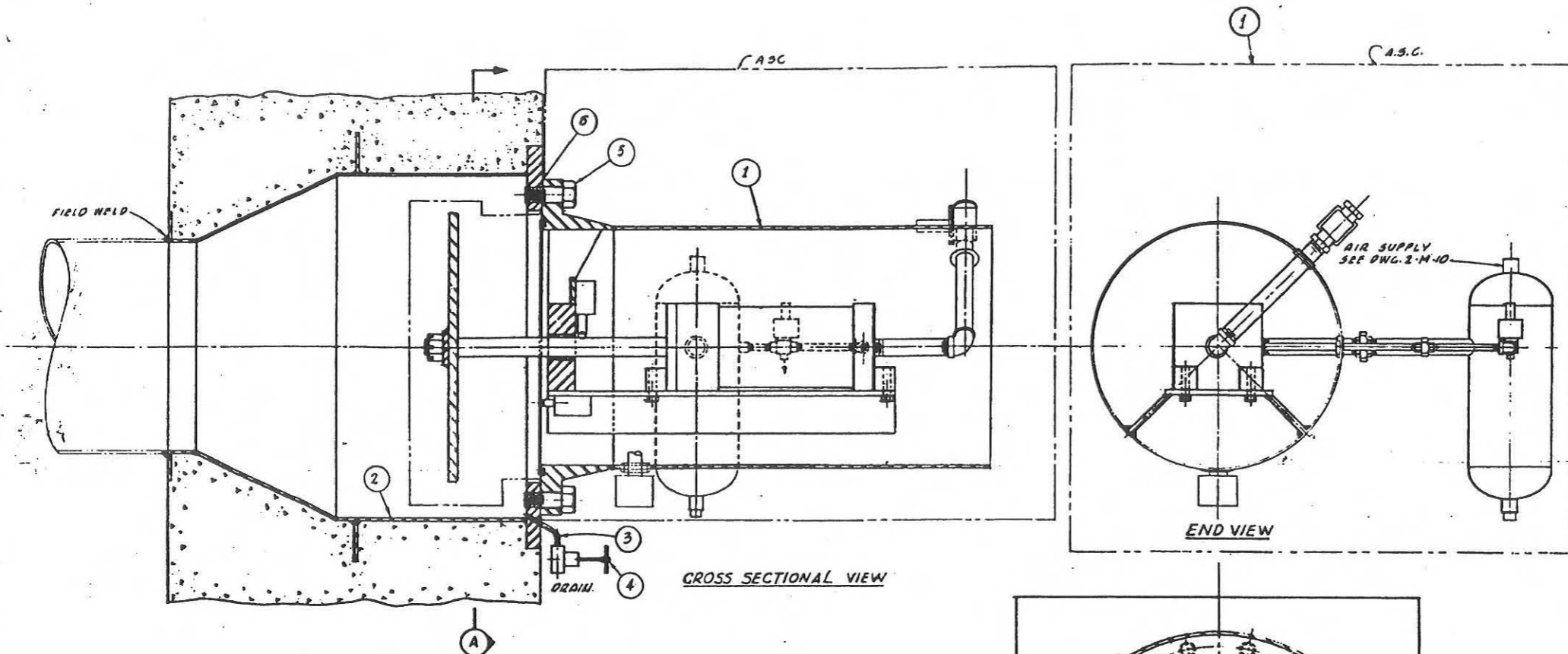
| NOM. SIZE | NO. REQD | A | B | C | D | E | F | G | H | J | K | L | M | N | P | Q | R | S |
|-----------|----------|---|-----|---------|----------|----|------|----|--------|--------|-----|-------|----|----|---|---|--------|-------|
| 16" | 3 | | 14" | 14 1/2" | 11 1/16" | 2" | 3/4" | 1" | 2 1/2" | 4 1/2" | 24" | 2' 2" | 5" | 4" | | | 9 3/4" | 1' 7" |

CHK 3/9/60
CHK 4/27/60
12 FEB 1960
REVISIONS

| | | | |
|----------------------------|---|---|--------------|
| 12-14-62 | OPERATIONAL AS-BUILT | | |
| 3-9-60 | CHANGED HIT SWITCH TO POSITION INDICATOR SWITCH. | | SATAP JLN |
| | ORIENTATION OF EXHAUST. ADDED NOTE LOCATING HAND HOLES. | | |
| | REVISED MINIMUM SIZE DIMENSIONS A, P & Q CHANGED | | SECRETED EDI |
| 2-17-60 | ADDED DETS 3 & 4 AND NOTE 10 | | SECRETED EDI |
| REVISION | DATE | DESCRIPTION | AUTHORITY |
| SECRET COOPERATION | | DEPARTMENT OF THE AIR FORCE | |
| ENGINEERS AND INSTRUCTORS | | AIR FORCE BALLISTIC MISSILE DIVISION WABD | |
| WS-107A-1 OPERATIONAL BASE | | UNITARY SMO | |
| LAUNCH CONTROL CENTER | | AIR INTAKE AND EXHAUST | |
| BLAST CLOSURES | | | |
| 22 JAN 1960 | | 30046 | |
| 578-2-M-14 | | | |

GENERAL NOTES

1. CROSS SECTION AS SHOWN IS IN THE FULL OPEN POSITION.
2. FOR LOCATION OF BLAST CLOSURES AND AIR SUPPLY LINES, SEE DWGS 2-M-2, 2-M-3, & 2-M-6.
3. FOR WIRING OF BLAST CLOSURES SEE DETAILS 3, 10 & 11 - DWG 2-E-14.
4. FOR CONTINUATION OF AIR DUCT BEYOND WALL SLEEVE SEE DWG. 2-M-2.
5. FOR VALVE CLOSURE IN 4" SANITARY SEWER SEE DWG 2-M-5.
6. CLOSURE ASSEMBLIES TO BE INSTALLED IN AIR DUCT LINES ARE AS FOLLOWS:
 ONE 16" Ø NOMINAL SIZE AIR EXHAUST IN STARTWELL
 ONE 16" Ø NOMINAL SIZE AIR EXHAUST
 ONE 16" Ø NOMINAL SIZE AIR INTAKE
7. ITEM ① IS A.S.C. ALL OTHER ITEMS ARE FURNISHED BY CONTRACTOR.
8. A.S.C. - ASSIGNED SERVICES CONTRACT



| PART NO. | DESCRIPTION |
|----------|--|
| 1 | BLAST CLOSURE UNIT (A.S.C.) |
| 2 | WALL SLEEVE - SEE DET 10, DWG 2-S-10 |
| 3 | 1/4" PIPE - SCHEDULE 80 WALL |
| 4 | 1/4" BRASS GATE VALVE - 200# WOG |
| 5 | AM. STD BOLTS - SEE DET 10, DWG 2-S-10 |
| 6 | 1/8" ASBESTOS GASKET PUNCHED TO MATCH BOLT HOLES FOR 150# ASA FLANGES. |

| NOM. DUCT SIZE | FLANGE SIZE | GASKET I.D. x O.D. |
|----------------|-------------|--------------------|
| 16" | 16" | 18 1/2" x 23 1/2" |

FOR SITES: 112500700012

In accordance with instructions from ASD/BSF/9 24 November 1961 this drawing is certified as built only for the following, as determined by the drawing agency:

1. Items affecting E.M.O. DIFFERENCES or solid connections to GDA equipment.
2. Items which do not affect traces with GDA equipment.
3. Changes that would affect other maintenance or operation of the system.

JAN 24 1962 *[Signature]*

| | | |
|--|---|---|
| 11-61 | REVISED TO SHOW CONSTRUCTION AS-BUILT CONDITION | TEAM/CMH |
| GENTEL CORPORATION
ENGINEERS AND ARCHITECTS
1100 W. 10th Street, Suite 100
Los Angeles, California 90015 | | DEPARTMENT OF THE AIR FORCE
AIR FORCE BALLISTIC MISSILE DIVISION
WASHINGTON, D.C. 20330 |
| WS-107 A-1 OPERATIONAL BASE
UNITARY SILO
LAUNCH COMPLEX | | |
| ASSEMBLY OF BLAST CLOSURES | | |
| 15 JAN 1960
378-2-M-4
1-45 | 15 JAN 1960
DONE | |

| | | | |
|-------|----------------------|------|----|
| 11-61 | OPERATIONAL AS BUILT | DATE | BY |
| | | | |

[Handwritten notes and signatures]

D. O. BRIS

GENERAL NOTES

CONSTRUCTION JOINTS

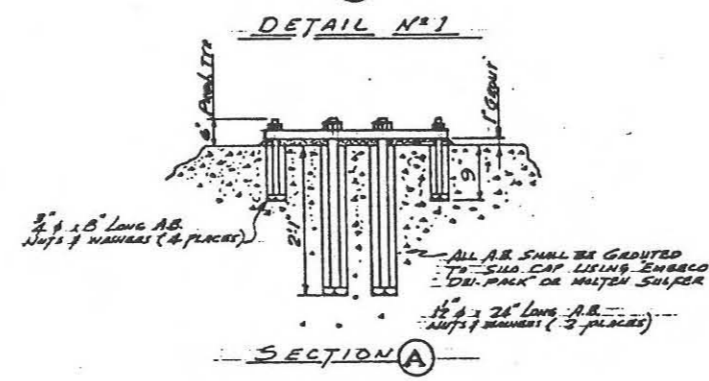
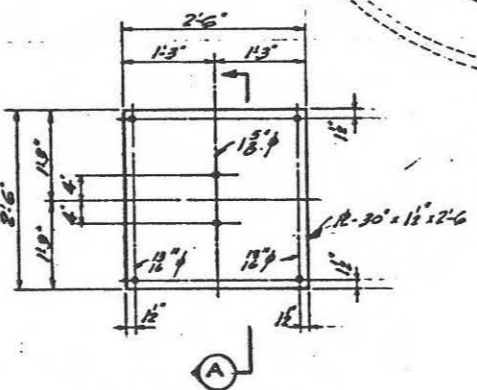
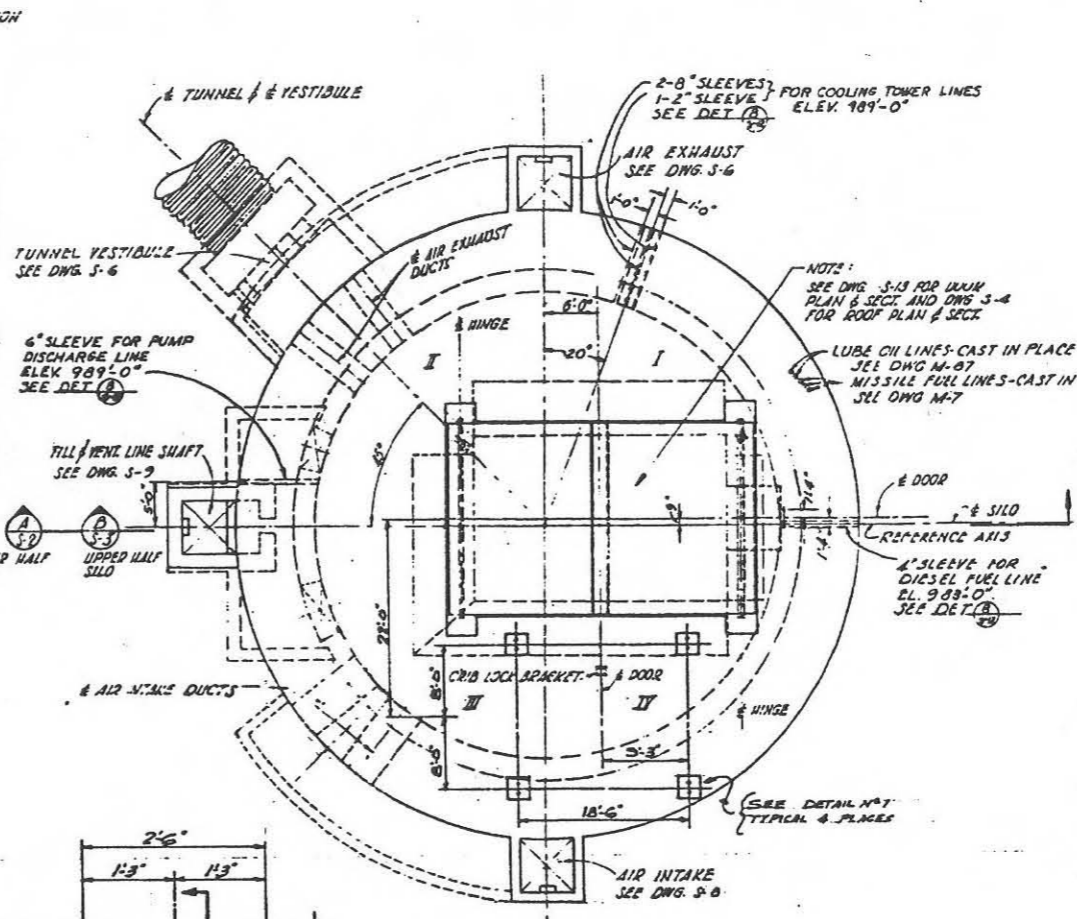
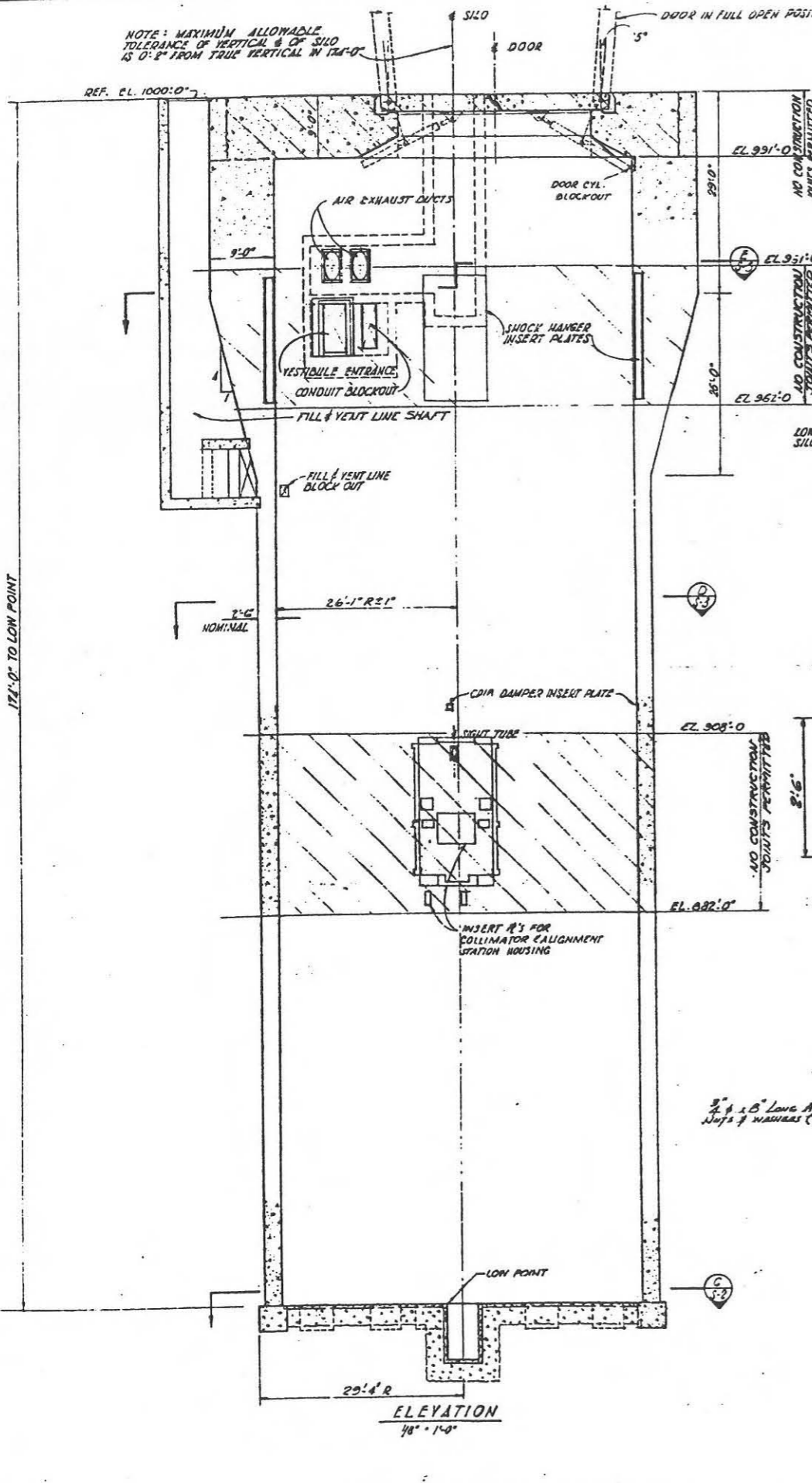
- JUNTS SHALL BE LOCATED AS SHOWN ON DRAWINGS. SPACES OF CONCRETE AT CONSTRUCTION JOINTS SHALL BE WET SANDBLASTED OR EFFECTIVELY CLEANED BY OTHER MEANS ACCEPTABLE TO CONTRACTING OFFICER SO AS TO LEAVE A CLEAN SURFACE OF SOUND CONCRETE EXPOSED BEFORE PLACING SUBSEQUENT POURS OF CONCRETE IMMEDIATELY PRIOR TO PLACING THE NEXT PUR OF CONCRETE, THE CLEANED AND WASHED SURFACE SHALL BE COATED WITH CEMENT PARTAR. REFER TO SPECS FOR ADDITIONAL DETAILS. ADDITIONAL CONSTRUCTION JOINTS ARE PERMITTED EXCEPT IN AREAS NOTED ON THE DRAWINGS. LOCATION OF ADDITIONAL CONSTRUCTION JOINTS SHALL BE APPROVED BY THE CONTRACTING OFFICER.

REINFORCING STEEL-BUTT WELDED JOINTS

- REINFORCING STEEL TO BE JOINED IN THE FIELD EITHER THE THERMIT WELDING PROCESS OR SEALED ARC WELDING METHOD.
- SELECTION OF WELDING ELECTRODE WILL BE LIMITED TO THE LOW HYDROGEN TYPE.
- SPECIAL CARE WILL BE TAKEN TO PREVENT OVER EXPOSURE OF ELECTRODE TO MOISTURE AT ANY TIME.
- FIELD APPLICATION DURING HIGH RELATIVE HUMIDITY (40% MAXIMUM OR TO MANUFACTURERS RECOMMENDATION) SHALL BE MINIMIZED TO 2 HOURS.
- HERMETICALLY SEALED BOXES OR PACKAGES WILL BE USED IN THE FIELD FOR ELECTRODES. USED BOXES WILL BE RETURNED TO THE DRY-ROOM.

GENERAL

- REFERENCE ELEVATION AT TOP OF SILO EQUALS 90'-0" FOR ACTUAL ELEVATION AND ORIENTATION. (REFERENCE AXIS SEE CIVIL DRAWINGS).
- SEE ELECTRICAL AND MECHANICAL DRAWINGS FOR LOCATION OF EMBEDDED ITEMS NOT SHOWN ON THE STRUCTURAL DRAWINGS.
- SPECIAL PRECAUTIONS SHALL BE TAKEN TO ELIMINATE VOIDS IN THE CONCRETE AROUND THE SHOCK HANGER INSERT PLATE AND THE OVERHEAD DOOR ACTUATOR BRACKETS.
- NOTE THE USE OF HIGH STRENGTH REINFORCING STEEL IN THE OVERHEAD DOOR AND HIGH STRENGTH STEEL BOLTS ON THE DETAILS. SPECIAL PRECAUTIONS SHALL BE TAKEN TO INSURE THEIR PROPER PLACEMENT.
- MINIMUM CONCRETE STRENGTH IN 28 DAYS SHALL BE 3750 PSI EXCEPT FOR OVERHEAD DOOR LAD WHICH SHALL BE 5000 PSI.



In accordance with instructions from BSO/BSS/S 24 November 1961 this drawing is certified as built only for the following, as determined by the designing agency:

- Name affecting M.T.D. INTERFACES or cold connections to GD/A or pieces.
- Name which is in 2 - 24 (1961) series with GD/A equipment.
- Changes that will affect safety or maintenance or operation of the system.

JAN 24 1962 Signed: *[Signature]*

AS - 117
OR SITES 1 2 3 4 5 6 7 8 9 10 11 12

| | | |
|----------|--|-----------|
| 14-A-62 | OPTIONAL AS BUILT INCLUDES SCPLS G-319 | BATAF R |
| 14-62/61 | IV. TO SHOW CONSTR. CHANGED FOOTING AND C-BUILT CONDITION CHANGED DIA. | CMB/C/104 |
| 4-15-60 | ISSUED FOR STRESS A.F.B. | APB/B/120 |

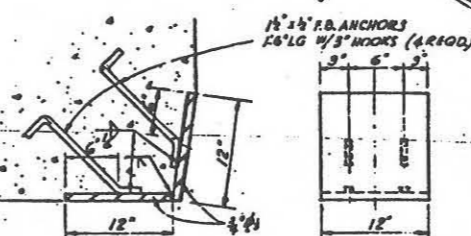
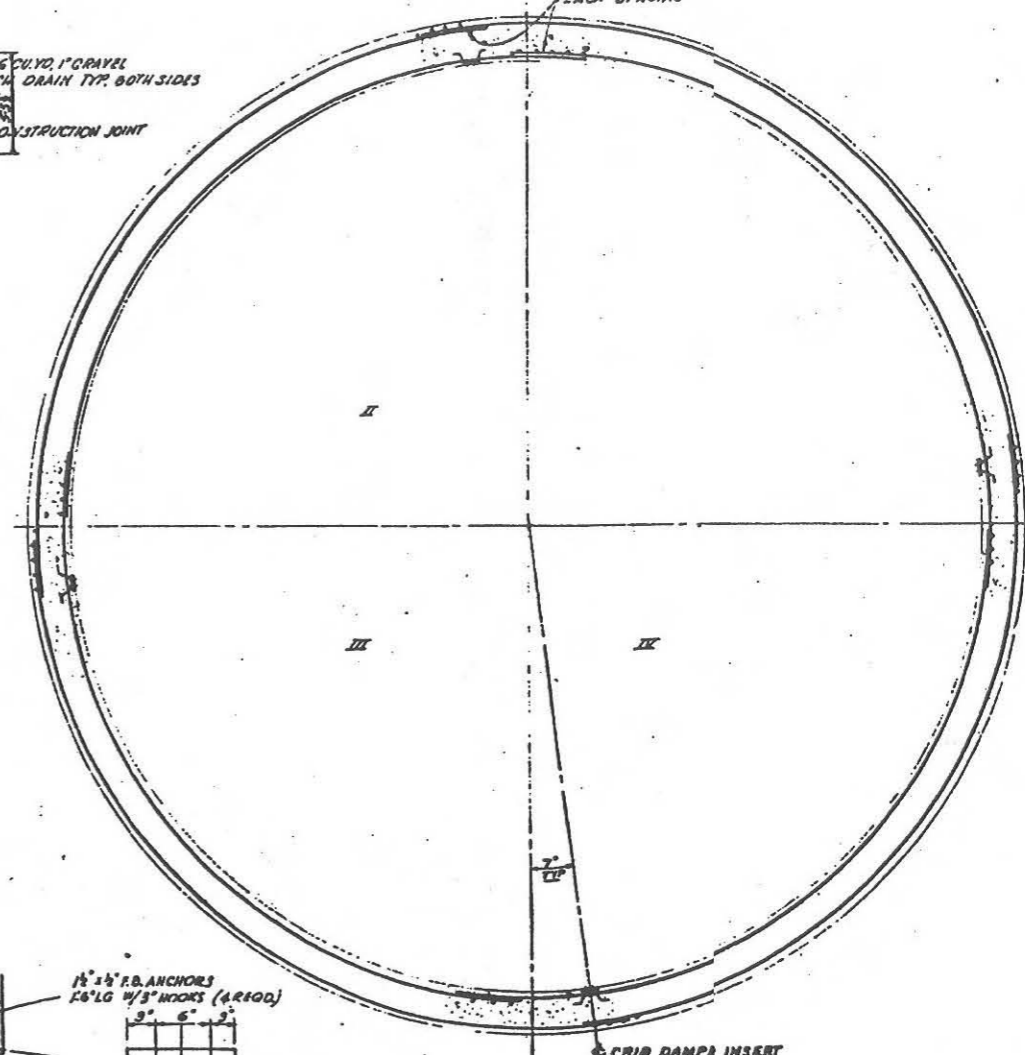
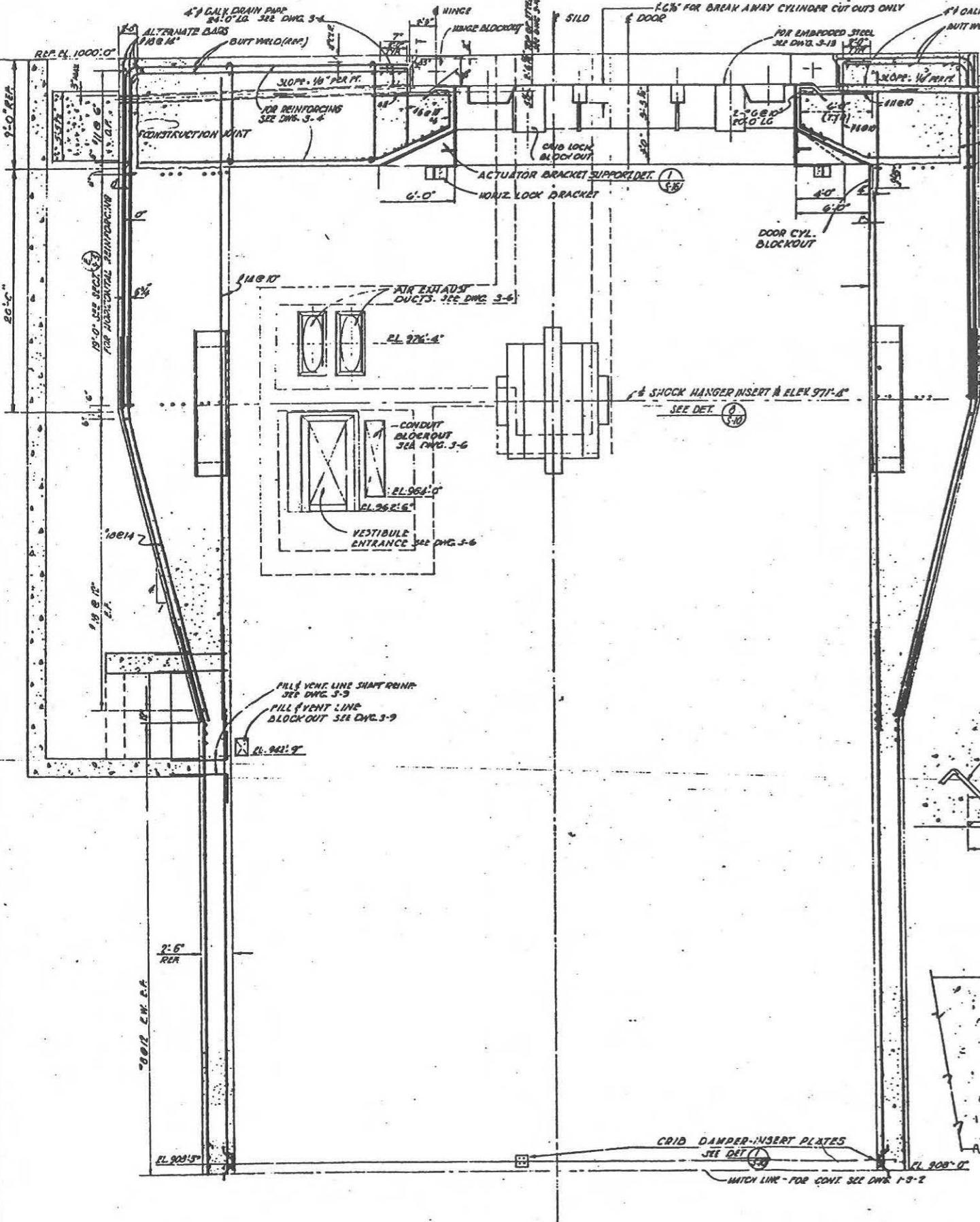
SECURITY CORPORATION
ENGINEERS AND CONSTRUCTORS
1400 W. WASHINGTON ST., WASHINGTON, D.C. 20004

DEPARTMENT OF THE AIR FORCE
AIR FORCE BALLISTIC MISSILE DIVISION (AFBMD)
COLUMBUS, MISSISSIPPI

WS-107 A-1 OPERATIONAL BASE
UNITARY SILO
LAUNCHING SILO
GENERAL PLAN & ELEVATION

ENG. 41-443-60-104
15 JAN 1962
578-A-1-3-1

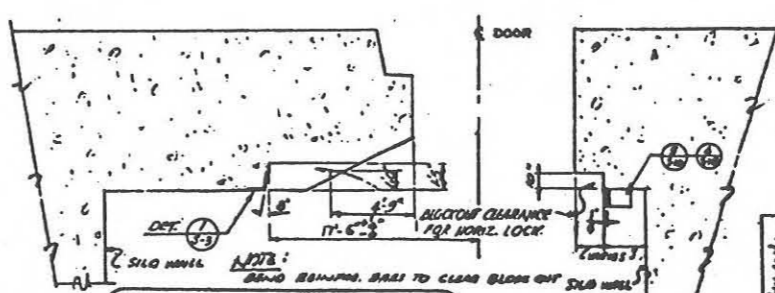
171'-0" TO LOW POINT



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

SECTION D SEE SCALE 1/4" = 1'-0"

FOR SITES 11234567891011



SECTION 9 SEE SCALE 1/4" = 1'-0"

UPPER HALF OF SILO
SECTION C SEE SCALE 1/4" = 1'-0"

| NO. | DATE | DESCRIPTION | BY | CHKD. |
|--------|------|--|----|-------|
| 12-14 | | OPERATIONAL AS BUILT | | |
| 10/20 | | REV. TO SHOW CONSTR. REMOVED WORD 'OPTIONAL' AS-BUILT CONDITION. PUMP CONIT. JK. SECT. B. ADDS. PUMP DRIVE. DWT. | | |
| 10-24 | | MODIFIED SECT. 1/3-3. ADDED DET. 1/3-3 | | |
| 5-17 | | CHANGED LOCATION OF CRIB DAMPER INSERT 2. | | |
| 7-11 | | ADDED SECTION F-6 | | |
| 4-10-1 | | ISSUED FOR DYEAS. A.P.S. | | |

BECEL CORPORATION
ENGINEERS AND ARCHITECTS

DEPARTMENT OF THE AIR FORCE
AIR FORCE BALLISTIC MISSILE DIVISION

WS-107 A-1 OPERATIONAL BASE
UNITARY SILO
LAUNCHING SILO
UPPER HALF
SECTIONS & DETAILS

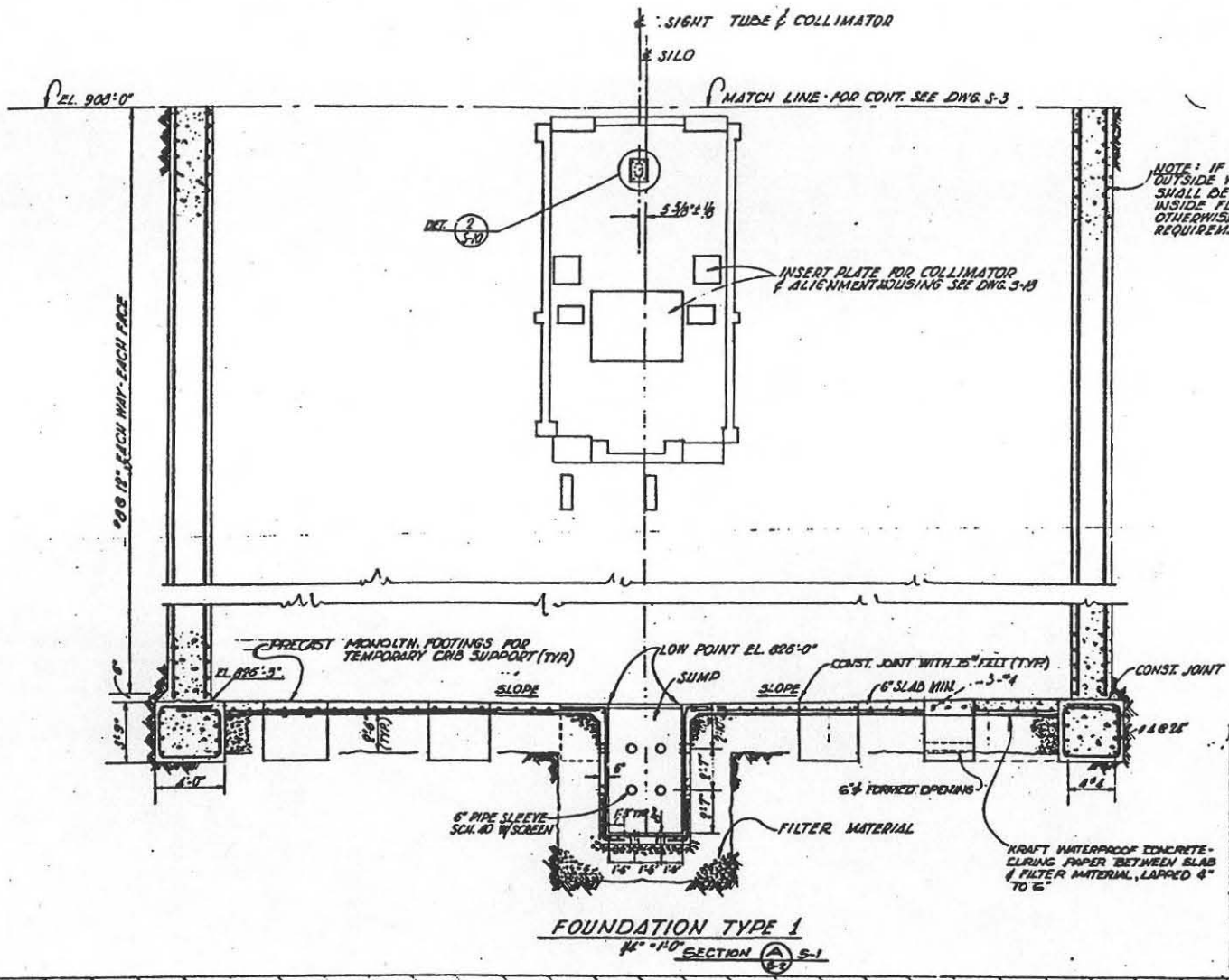
ENG. 41-443-60-30
19 JAN 1960

578-A-1-8-3 2-7

REVISIONS:

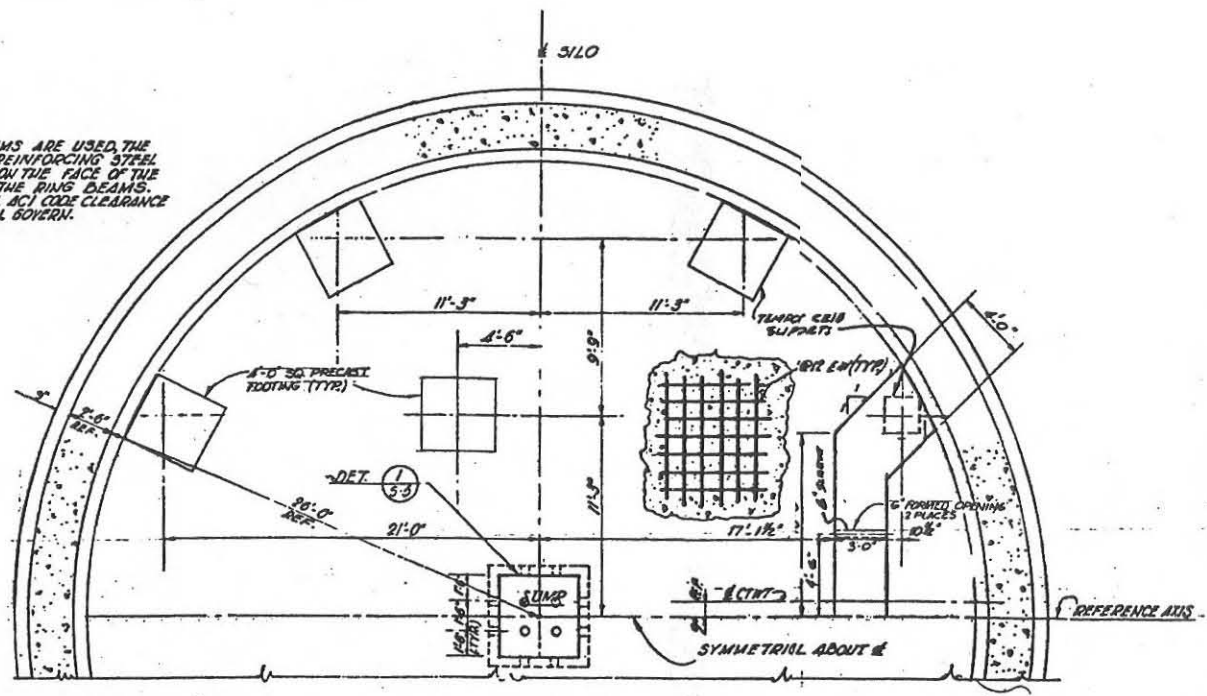
1. Change that will affect structural requirements or operation of the system.
2. Items which will affect the work and C/A equipment.
3. Items which will affect the work or add to construction by C/A.

JAN 24 1960

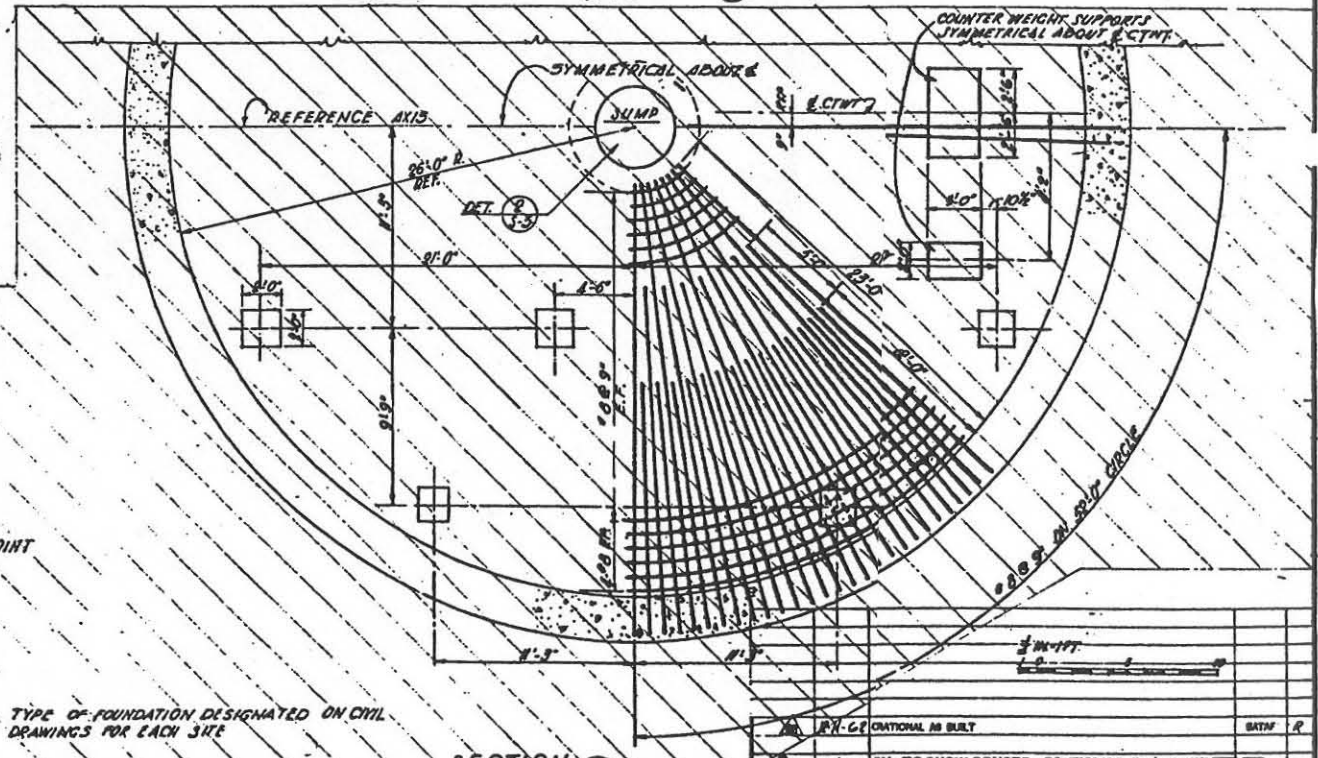


FOUNDATION TYPE 1
 14'-10" SECTION (A) S-1

NOTE: IF RING BEAMS ARE USED THE OUTSIDE VERTICAL REINFORCING STEEL SHALL BE PLACED ON THE FACE OF THE INSIDE FLANGE OF THE RING BEAMS. OTHERWISE NORMAL ACI CODE CLEARANCE REQUIREMENTS WILL GOVERN.

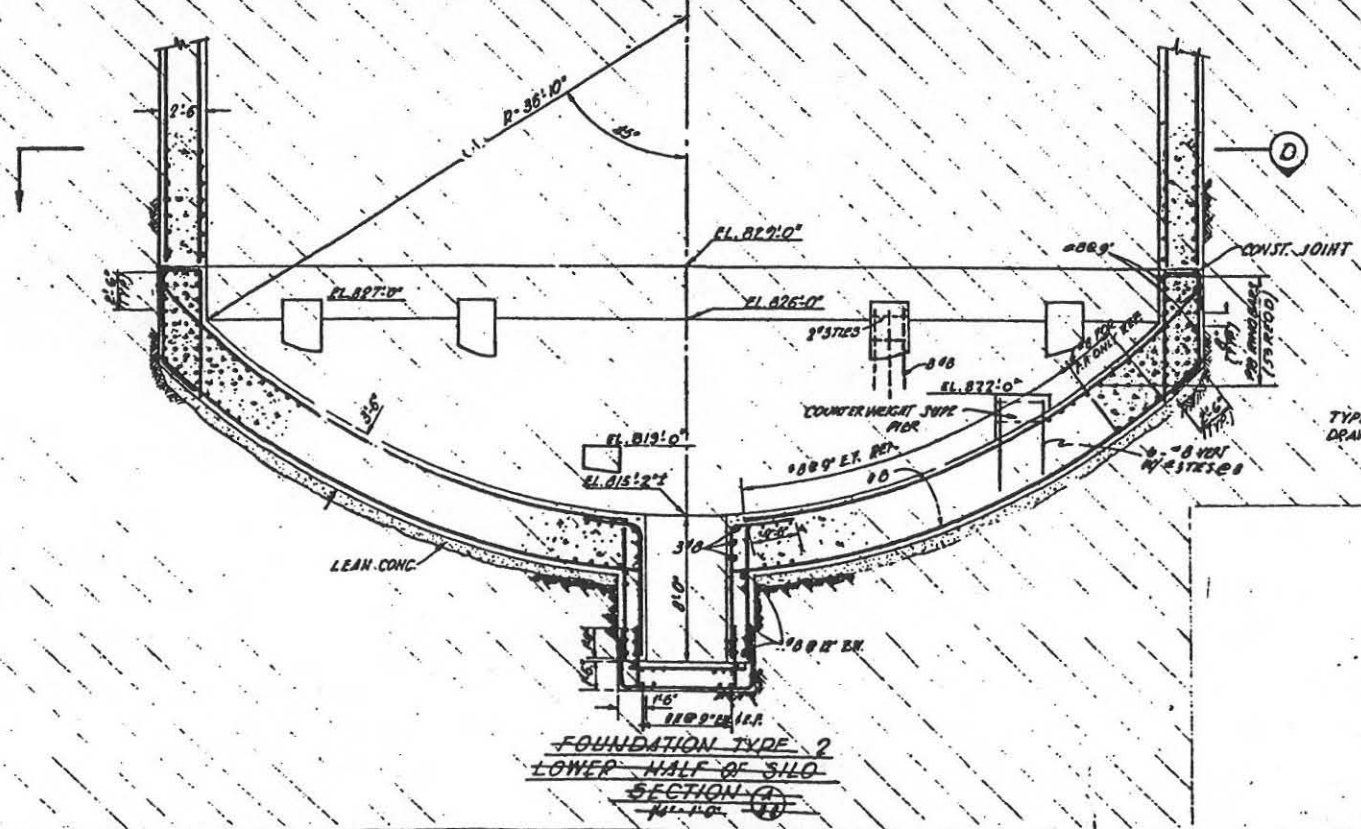


SECTION C-1
 14'-10"



SECTION D
 14'-10"

TYPE OF FOUNDATION DESIGNATED ON CIVIL DRAWINGS FOR EACH SITE



FOUNDATION TYPE 2
 LOWER HALF OF SILO
 SECTION (A) S-1

FOR SITES 1 2 3 4 5 6 7 8 9 10 11 12

in accordance with instructions from BSO/BSSFS 24 November 1961 this drawing is certified as-built only for the following, as determined by the design agency:

- Items affecting MTD interfaces or solid connections to GD/A as shown.
- Items which do not affect the MTD interface with GD/A equipment.
- Changes that would affect either maintenance or operation of the system.

Signed: *[Signature]*
 JAN 24 1962

DESIGNED AND CONSTRUCTION FOR THE CORPS OF ENGINEERS
 CLYDE H. CHAMBERLAIN, JR.
 Lt. Col., Corps of Engineers

| | | | |
|-------------|--|---------------|----------------|
| NO. 1060-61 | REV. TO SHOW CONSTR. - DELETED SECT. A-D - CHED. | DATE 10-20-61 | BY [Signature] |
| NO. 1060-61 | REV. TO SHOW CONSTR. - DELETED SECT. A-D - CHED. | DATE 10-20-61 | BY [Signature] |
| NO. 1060-61 | REV. TO SHOW CONSTR. - DELETED SECT. A-D - CHED. | DATE 10-20-61 | BY [Signature] |
| NO. 1060-61 | REV. TO SHOW CONSTR. - DELETED SECT. A-D - CHED. | DATE 10-20-61 | BY [Signature] |
| NO. 1060-61 | REV. TO SHOW CONSTR. - DELETED SECT. A-D - CHED. | DATE 10-20-61 | BY [Signature] |

BECHTEL CORPORATION
 ENGINEERS AND ARCHITECTS
 1700 BROADWAY, SUITE 1000, SAN FRANCISCO, CALIF. 94109

DEPARTMENT OF THE AIR FORCE
 AIR FORCE BALLISTIC MISSILE DIVISION
 1100 BROADWAY, SUITE 1000, SAN FRANCISCO, CALIF. 94109

WS-107 A-1 OPERATIONAL E
 UNITARY SILO
 LAUNCHING SILO
 LOWER HALF
 SECTIONS & DETAILS

DESIGNED BY: *[Signature]*
 CHECKED BY: *[Signature]*
 DATE: 11/20/61

ISSUED BY: *[Signature]*
 DATE: 11/20/61

ENG. 41-443-60-
 11/20/61

GENERAL NOTES

- A. CONCRETE:**
- DESIGN IS IN ACCORDANCE WITH THE AMERICAN CONCRETE INSTITUTE'S "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE BUILDINGS, ACI 318-64" EXCEPT THAT MOMENT RESISTANCE DESIGN IS BASED ON THE ULTIMATE DESIGN METHOD WITH A LOAD FACTOR OF 1.5.
 - ALL CONCRETE SHALL HAVE MINIMUM COMPRESSIVE STRENGTH OF 3750 PSI @ 28 DAYS (CLASS AA) EXCEPT 3" BEDDING FOR MEMBRANES SHALL BE 1500 PSI.
 - RAILS AND DOVELES SHALL HAVE MINIMUM LAP OF 40 DIAMETERS AT SPLICES, UNLESS OTHER WELLS OR NOTED.
 - MINIMUM CONCRETE COVER (CLEAR), SHALL BE IN ACCORDANCE WITH ACI 318 EXCEPT WHERE SHOWN AS NOTED ON THE DRAWINGS.
 - CONSTRUCTION JOINTS SHALL BE LOCATED AS SHOWN ON THE DRAWINGS. SURFACES OF CONCRETE AT CERTAIN JOINTS SHALL BE CUT, BUSHED, BLASTED OR EFFECTIVELY CURED BY OTHER MEANS ACCEPTABLE TO THE CONTRACTING OFFICER IN ORDER TO LEAVE A CLEAN SURFACE OF SOUND CONCRETE EXPOSED BEFORE PLACING SUBSEQUENT PORTS OF CONCRETE IMMEDIATELY PRIOR TO PLACING THE NEXT PORT OF CONCRETE. THE CLEANED AND WASHED FORM SHALL BE COATED WITH CEMENT MORTAR. THE JOINT BETWEEN VESTIBULE AND STAIRWELL SHALL BE AS SHOWN ON THE DRAWINGS. REFER TO THE SPECIFICATIONS FOR ADDITIONAL DETAILS. REVISIONS SHALL NOT BE USED.
 - TOP SLAB AND BOTTOM SLAB SHALL EACH BE MADE IN A SINGLE POUR.
 - THERE SHALL BE NO VERTICAL CONSTRUCTION JOINTS IN WALLS OF STAIR AND STAIRWELL, INCLUDING ALL ELEVATIONS. HORIZONTAL CONSTRUCTION JOINTS, IN ADDITION TO THOSE SHOWN, MAY BE USED WHEN APPROVED BY THE CONTRACTING OFFICER.
 - ALL REINFORCEMENT SHALL BE SECURELY HELD IN POSITION WITH STANDARD STEEL JACKS OR WEDGE CONCRETE IS BEING PLACED.
 - WELDING OF REINFORCING BARS, WELLS, BUSHERS, SHALL BE DONE WITH LOW-HYDROGEN ROD TYPE WELDS, (NON ALLOY) FED. SPECS. MIL-E-18998-TYPE MCL-7011 ALL WELDS SHALL BE FULL PENETRATION UNLESS OTHER WELLS NOTED.
- B. STRUCTURAL STEEL:**
- DESIGN IS IN ACCORDANCE WITH THE A.I.S.C. "SPECIFICATION FOR DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS", LATEST EDITION.
 - FIELD WELDS SHALL BE DO WITH ROD OF A TYPE COMPATIBLE WITH THE STEEL BEING WELDED.
 - DESIGN LOAD FOR PLAT DOWNWARD MOMENT CONNECTIONS = 1.5 TON.
 - ELEVATIONS ARE GIVEN TO TOP OF FRAMING MEMBERS, UNLESS OTHER WELLS INDICATED.
 - CONNECTIONS:
 - GROUP CONNECTIONS SHALL BE WELDED OR RIVETED, OR AS SPECIFIED OR DETAIL. FTD CONNECTIONS SHALL BE BOLTED UNLESS SHOWN WELDED IN THE DRAWING. ALL BUTT WELDS SHALL BE "COMPLETE PENETRATION" WELDS, OR AS DETAIL.
 - ALL BOLTS SHALL BE IN DIA. UNLESS OTHERWISE NOTED.
 - ALL BOLTS SHALL BE 1" & UNLESS OTHERWISE NOTED.
 - ALL BEAM CONNECTIONS SHALL BE FTD. "W" CONNECTION ANGLES UNLESS OTHERWISE SHOWN OR NOTED, "W" CONNECTION BOLTING REQUIREMENTS AS SHOWN NOTED.
 - CONNECTIONS SHALL BE NO FEWER THAN TWO BOLTS.
- C. FOUNDATIONS:**
- THE STRUCTURAL DESIGN IS BASED ON THE CONDITION THAT GROUND WATER LEVEL IS AT GRADE.
- D. GENERAL:**
- ELEVATIONS SHOWN ARE BASED ON A REFERENCE ELEVATION @ TOP OF ROOF = 101'-4". FOR ACTUAL ELEVATION SEE SITE GRADING AND PAVING PLAN.
 - COORDINATES, ELEVATION ORIENTATION, LOCATION OF EQUIPMENT SUPPORTS, ANCHOR BOLTS, NOTS OF TRUCKS, ETC., SHALL BE VERIFIED BY REFERENCE TO OTHER CONTRACT DRAWINGS AND TO MANUFACTURER'S DRAWINGS COMPANY FOR REEDED.
 - FOR LOCATION OF WORK FORWARD ORIENTATION OF STRUCTURES SEE SITE GRADING AND PAVING PLAN.
- E. LEGEND:**
- N.C. NOT CONTRACT
 - T.O.B. TOP OTHER FRAMING MEMBER
 - STYL. STATICAL
 - CONST. JT. CONSTRUCTION JOINT
 - N.T.S. NOT SCALE
 - W.P. WOODPOST
 - SLOTTED BRASSWARE
 - A.S.C. ASSOCIATED SERVICES CONTRACT

1/8" = 1'-0"

FOR SITES 1114 60709 10112

| | | |
|---------|--|------------|
| 3-23-64 | INSTALLED 36" X 18" DRIVING LINDER I.E.C. | |
| 7-16-62 | OPERATIONAL AS BUILT | BATH P |
| 4-10-64 | REV. TO SHOW CONTA. AS-BUILT CONDITN | CEMID B |
| 4-10-64 | ADDED SLOTTED BRASSWARE TO FLOORING L.C.C. WALL FOR PLANT OF ELECTRICAL SYSTEM | APRIMD 70 |
| 4-12-64 | ISSUED FOR DRG APPS. | LAZARD 150 |

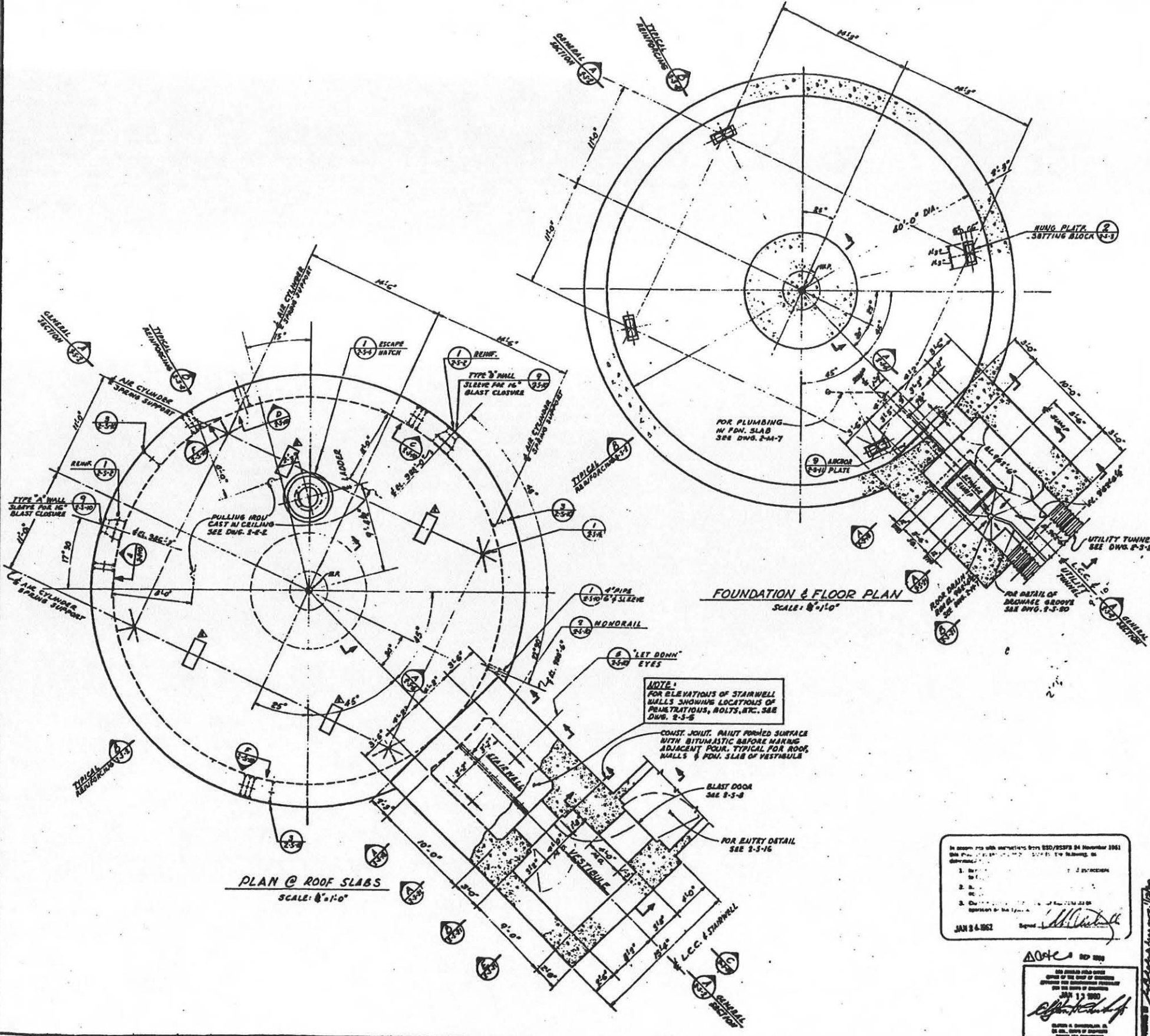
In Accordance with contract No. 850/2573 24 November 1961
 This Plan was prepared by the Bureau of
 Design and Construction
 1. By: [Signature]
 2. Checked by: [Signature]
 3. Approved by: [Signature]
 JAN 24 1962

ALL SHOWN AND NOTED
 OFFICE OF THE CHIEF OF ENGINEERS
 AIR FORCE BALLISTIC MISSILE DIVISION (ABMD)
 WRIGHT PATTENSON AIR FORCE BASE
 DAYTON, OHIO
 JAN 13 1962
 [Signature]

BECHTEL CORPORATIVE ENGINEERS AND CONSTRUCTION
 DEPARTMENT OF THE AIR FORCE
 AIR FORCE BALLISTIC MISSILE DIVISION (ABMD)
 WRIGHT PATTENSON AIR FORCE BASE
 DAYTON, OHIO

WS07A-1 OPERATIONAL BASE
 UNITARY BILO
 LAUNCH CONTROL CENTER
 FOUNDATION & ROOF PLANS

NO. 41-443-60-30
 15 APR 1962
 573-2-3-1
 140



FOUNDATION & FLOOR PLAN
 SCALE: 8"=1'-0"

PLAN @ ROOF SLABS
 SCALE: 8"=1'-0"

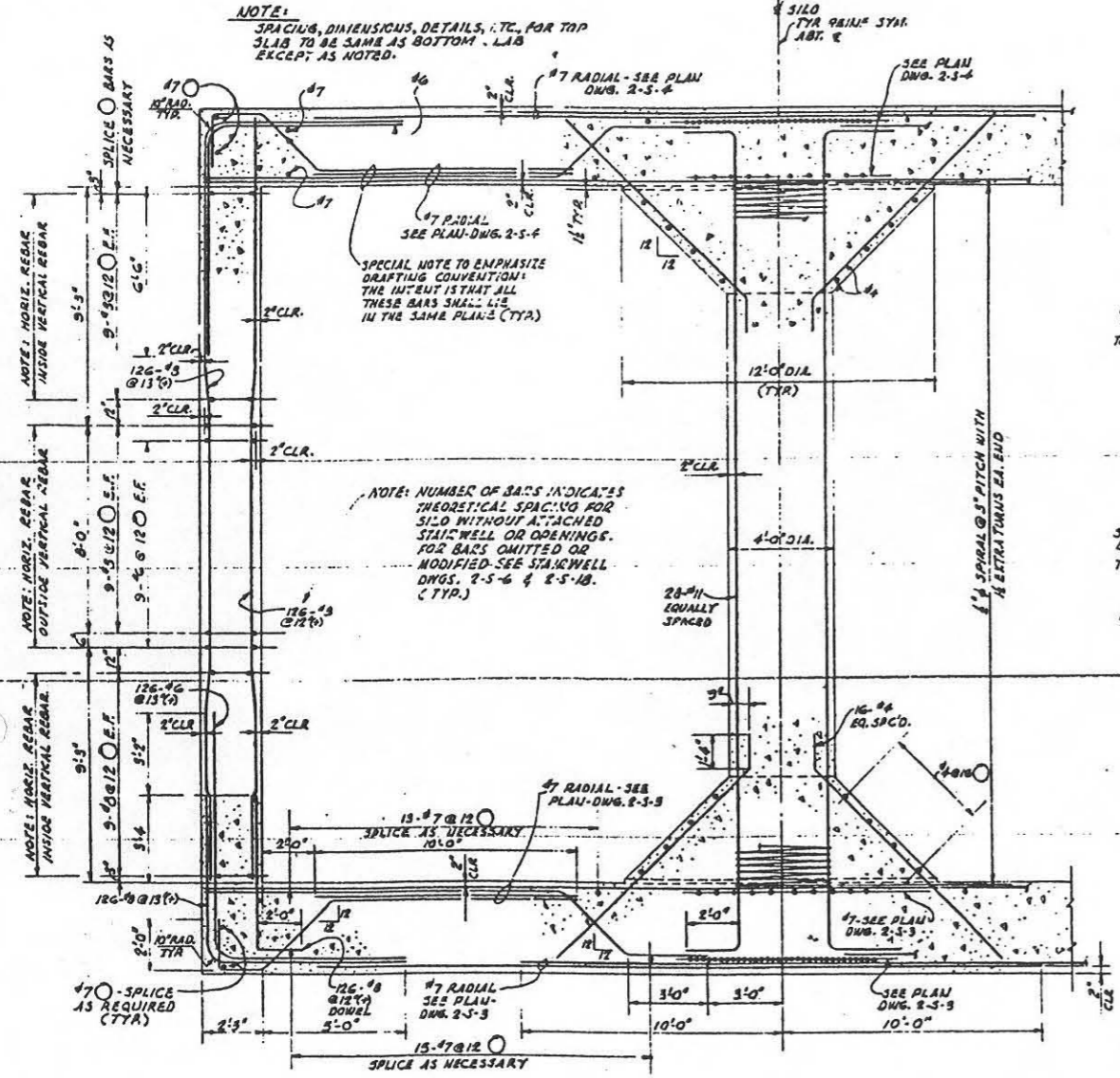
NOTE:
 FOR ELEVATIONS OF STAIRWELL
 WALLS SHOWING LOCATIONS OF
 PENETRATIONS, BOLTS, ETC. SEE
 DWG. 2-5-5

CONST. JOINT. PAINT FURISHED SURFACE
 WITH BITUMASTIC BEFORE MAKING
 ADJACENT POUR. TYPICAL FOR ROOF
 WALLS & FDN. SLAB OF VESTIBULE

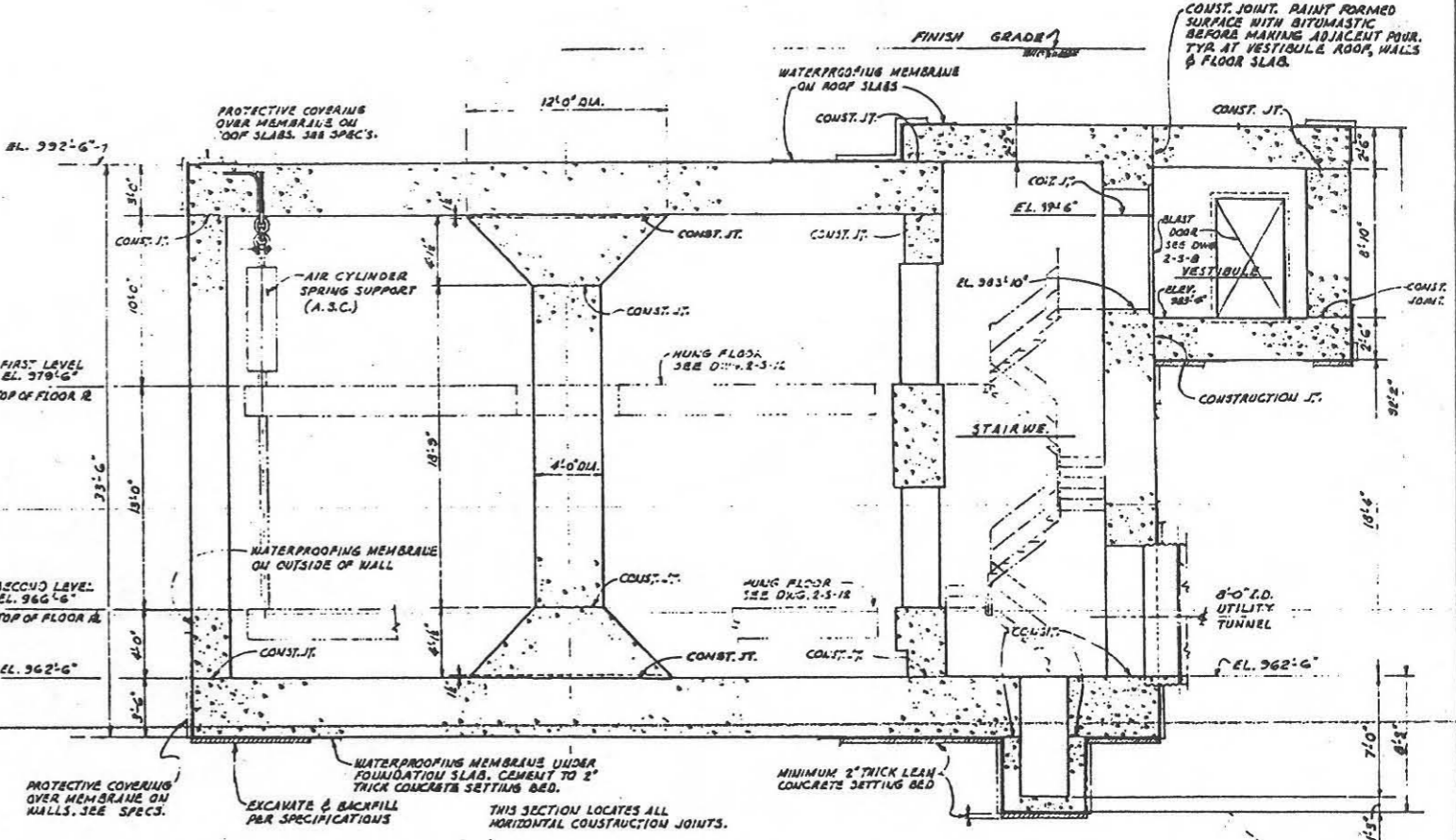
BLAST DOOR
 SEE 2-5-8

FOR ENTRY DETAIL
 SEE 2-5-16

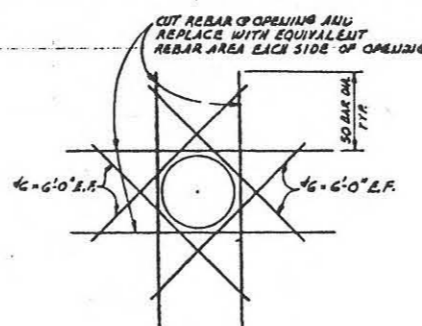
NOTE: SPACING, DIMENSIONS, DETAILS, ETC. FOR TOP SLAB TO BE SAME AS BOTTOM SLAB EXCEPT AS NOTED.



SECTION B SEE SCALE: 1/8" = 1'-0" 2-3-1, 2-3-3 & 2-3-4



SECTION A SEE SCALE: 1/8" = 1'-0" 2-3-1 GENERAL SECTION



DETAIL 1 SEE SCALE: NONE 2-3-2 2-3-1 TYPICAL REINFORCING @ PENETRATIONS 14" THRU 26"

FOR SITES 1 2 3 4 5 6 7 8 9 10 11 12

1. APPROVED WITH COMMENTS BY THE CHIEF OF PROJECTS 24 November 1961
 THIS DRAWING IS THE PROPERTY OF THE AIR FORCE. IT IS TO BE KEPT IN THE OFFICE OF THE CHIEF OF PROJECTS.
 2. APPROVED BY THE CHIEF OF PROJECTS
 3. APPROVED BY THE CHIEF OF PROJECTS
 JAN 24 1962

| | | | |
|----------|--|-------------|--------|
| 17-14-60 | ERATIONAL AS BUILT | DATE | BY |
| 1/20-61 | REV. TO SHOW CONSTR. ADDED & DELETED CONST. JTS. | | |
| | B-BUILT CONDITION SEE SECTION A. | | |
| 6-15-60 | ISSUED FOR DYESS A.F.B. | | |
| REVISION | DATE | DESCRIPTION | AGENCY |

BECHT CORPORATION
 ENGINEER AND CONSTRUCTORS
 SAN FRANCISCO - LOS ANGELES - NEW YORK

DEPARTMENT OF THE AIR FORCE
 AIR FORCE BALLISTIC MISSILE DIVISION (AMBD)
 WHEELING, CALIFORNIA

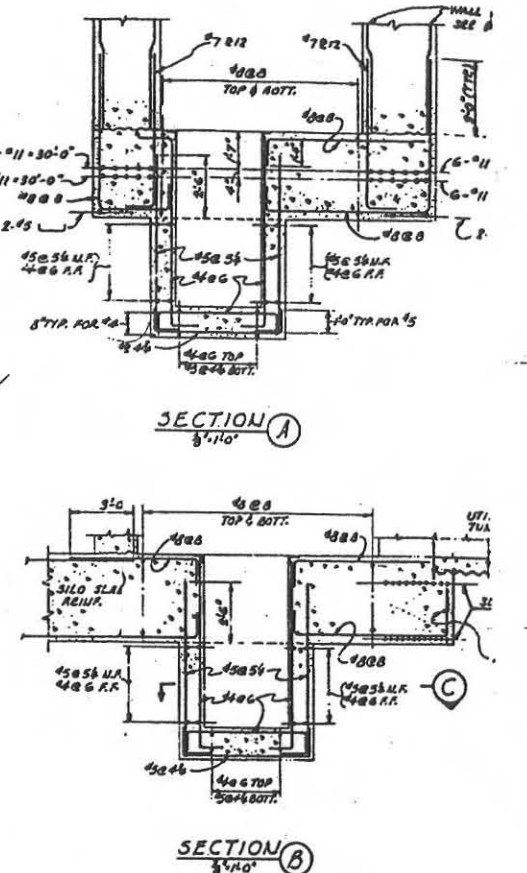
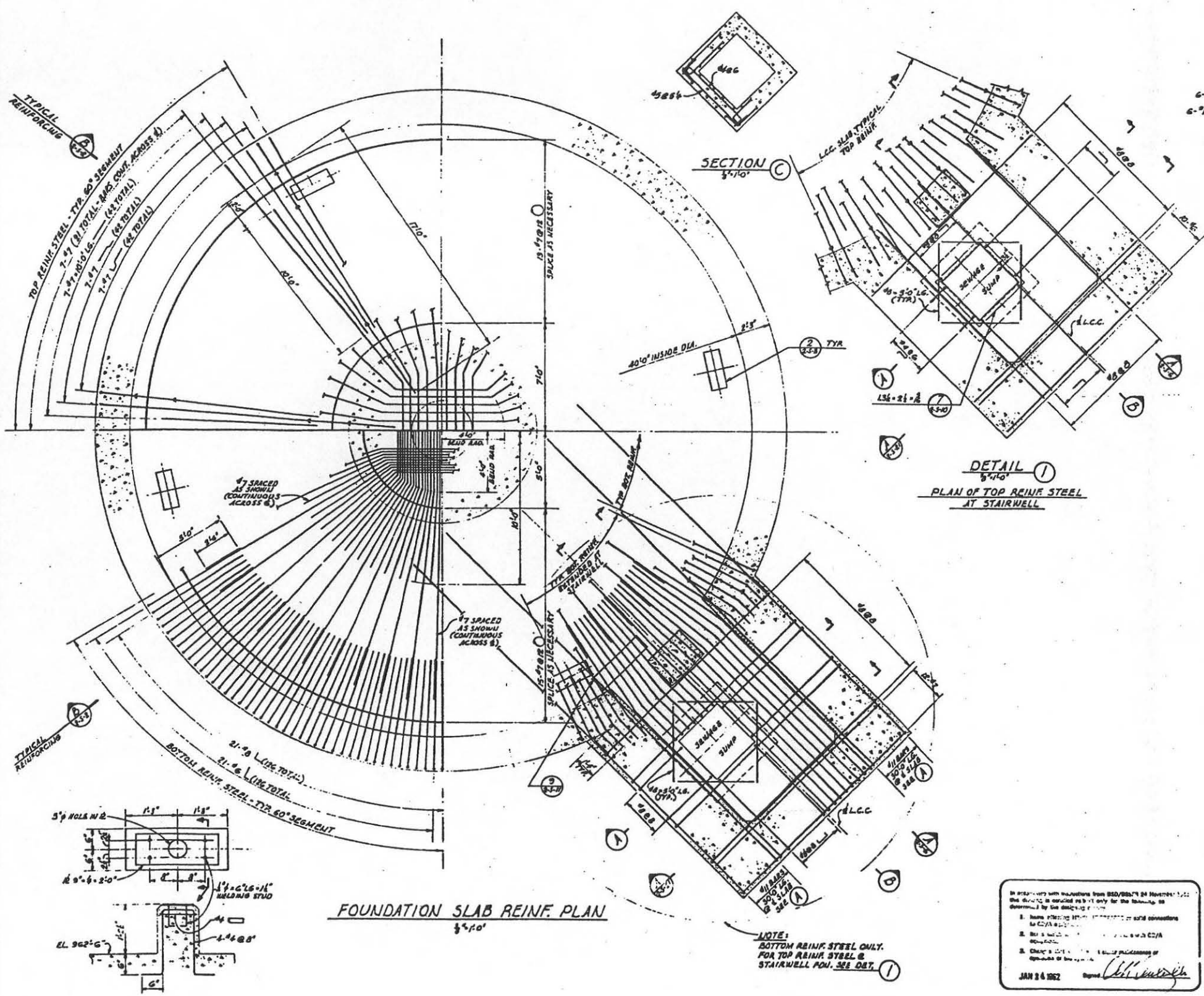
WS-107 A-1 OPERATIONAL BASE
 UNITARY SILO
 LAUNCH CONTROL CENTER

TYPICAL CONCRETE SECTION'S

DATE: 13 JAN 1960
 DRAWN BY: [Signature]
 CHECKED BY: [Signature]
 APPROVED BY: [Signature]

378-A-2-3-2

FOR THE CHIEF OF PROJECTS
 [Signature]
 13 JAN 1960



NOTES

1. 3/4" MAXIMUM SIZE AGGREGATE IN FOU. SLAB.

1/4" = 1 FT.
 1/2" = 1 FT.

FOR SITES 1234567891011

| | | |
|-------|-------------------------|--------|
| NO. 1 | OPERATIONAL AS BUILT | BATF |
| NO. 2 | REV. TO SHOW COMBYS. | CFBANK |
| NO. 3 | AS-BUILT CONDITION | AFBANK |
| NO. 4 | ISSUED FOR DYESS A.F.B. | AFBANK |
| NO. 5 | DESCRIPTION | AFBANK |

ICMTEL CORPORATION
 ENGINEERS AND ARCHITECTS

DEPARTMENT OF THE AIR FORCE
 AIR FORCE BALLISTIC MISSILE DIVISION (AFBMD)
 WASHINGTON, D.C.

WS-107 A-1 OPERATIONAL BA
 UNITARY SILO
 LAUNCH CONTROL CENTER
 FOUNDATION REINFORCING PLAN

DATE: 13 JAN 1960
 DRAWING NO: 378-02-S-3

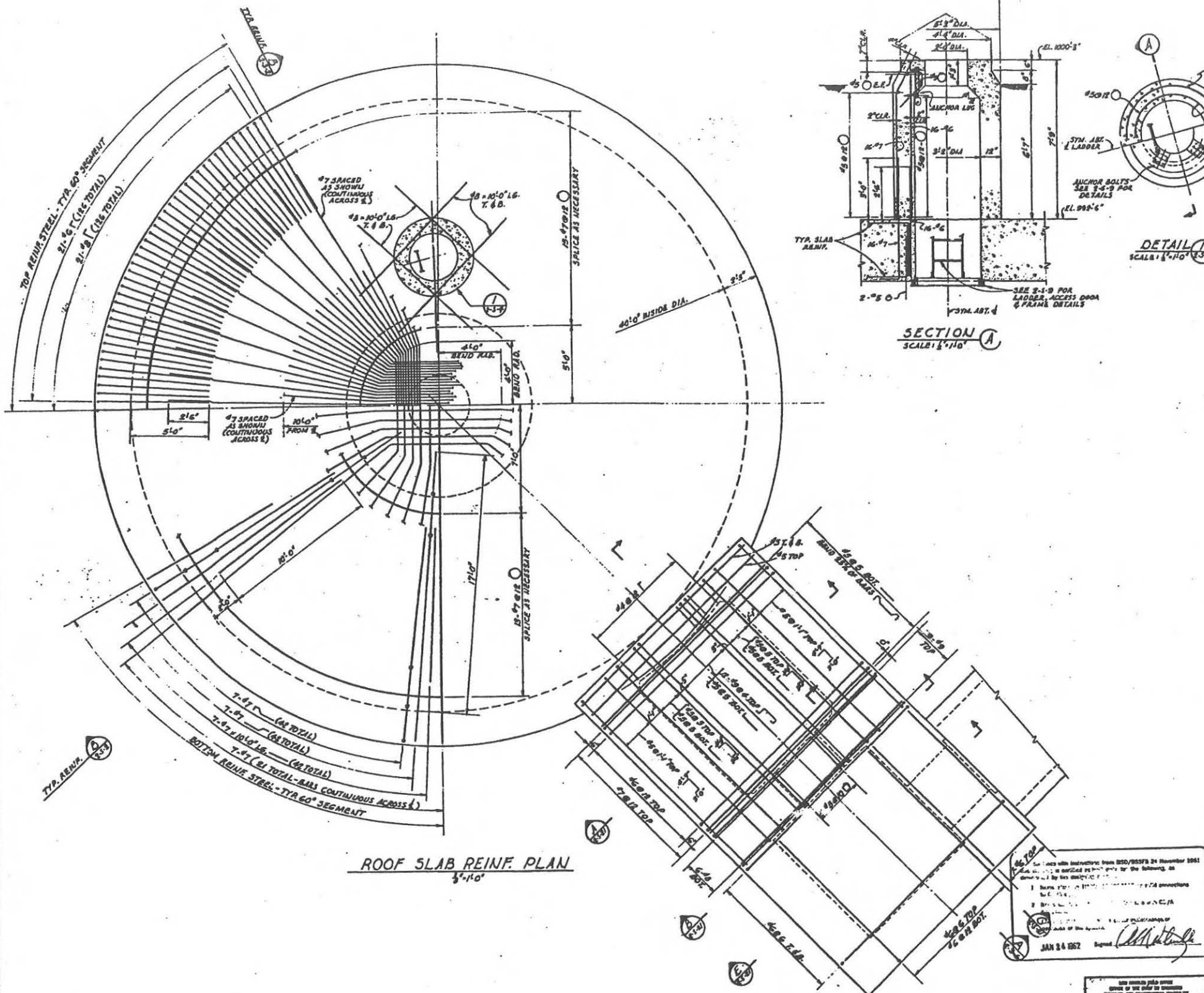
In accordance with regulations from DSD/OSB/74 24 November 1957, the drawing is issued as a revision only for the drawings as determined by the drawing office.

1. Name reflecting the revision or other connection to C/A.
2. See a note in the drawing for a C/A.
3. Check the drawing for the packaging of the drawing.

JAN 24 1962
 [Signature]

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 AIR FORCE BALLISTIC MISSILE DIVISION (AFBMD)
 WASHINGTON, D.C.

[Signature]



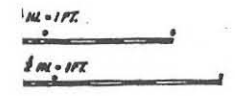
ROOF SLAB REINF. PLAN
3'-11.0"

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

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

NOTES

- 1. 3/4" MAX. SIZE AGGREGATE IN ROOF SLAB.



FOR ITES 122400707000

| | | | | |
|----------|------|-------------------------|----|---------|
| REV. | DATE | DESCRIPTION | BY | CHECKED |
| 10/20-24 | | REV. TO HOW CONSTR. | | |
| 4-2-60 | | ISSUED FOR BYESS A.F.P. | | |

BECHTEL CORPORATION
ENGINEERS AND ARCHITECTS
1000 MARKET STREET, OAKLAND, CALIF. 94612

DEPARTMENT OF THE AIR FORCE
AIR FORCE BALLISTIC MISSILE DIVISION (AFBMD)
RESEARCH STATION

WS-107 A-1 OPERATIONAL BASE
UNITARY SILO
LAUNCH CONTROL CENTER

ROOF REINFORCING PLAN

| | | | |
|-------------|-------------|----------|-------------|
| DESIGNED BY | DATE | SCALE | PROJECT NO. |
| BY | 1/25/60 | AS SHOWN | 578--2-3-4 |
| CHECKED BY | 1/25/60 | | |
| DATE | 13 JAN 1960 | | |

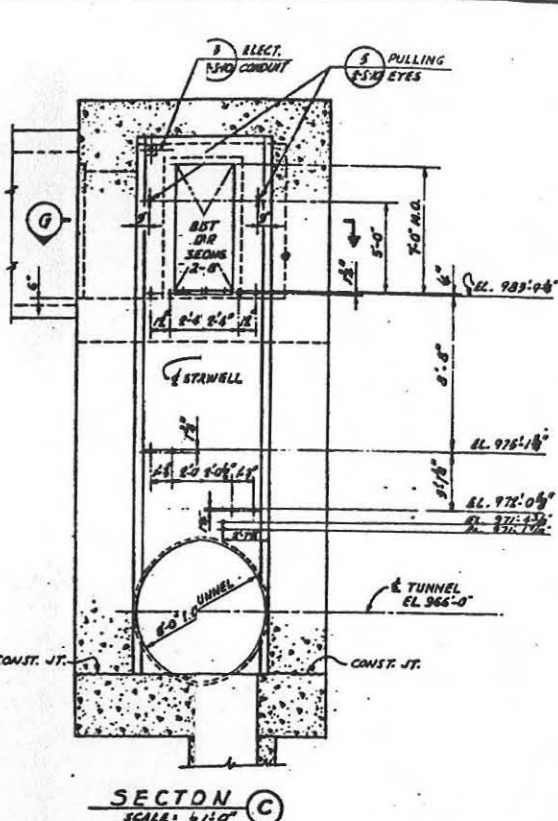
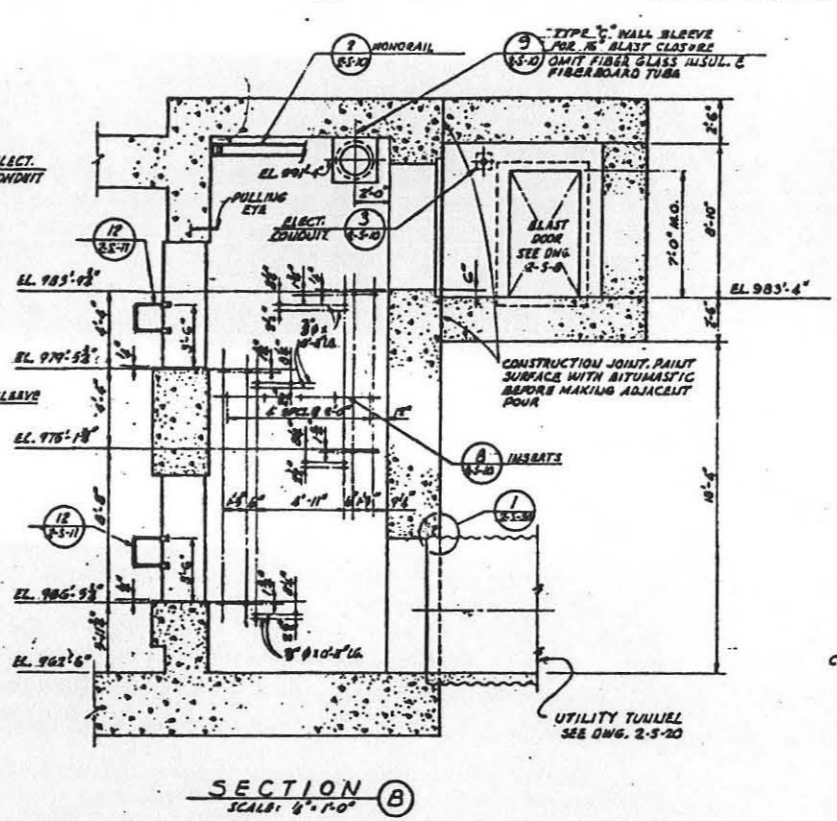
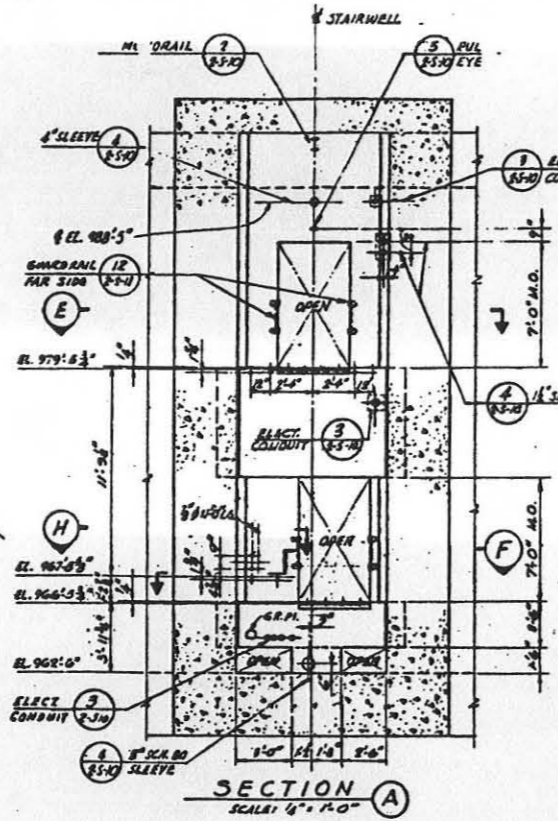
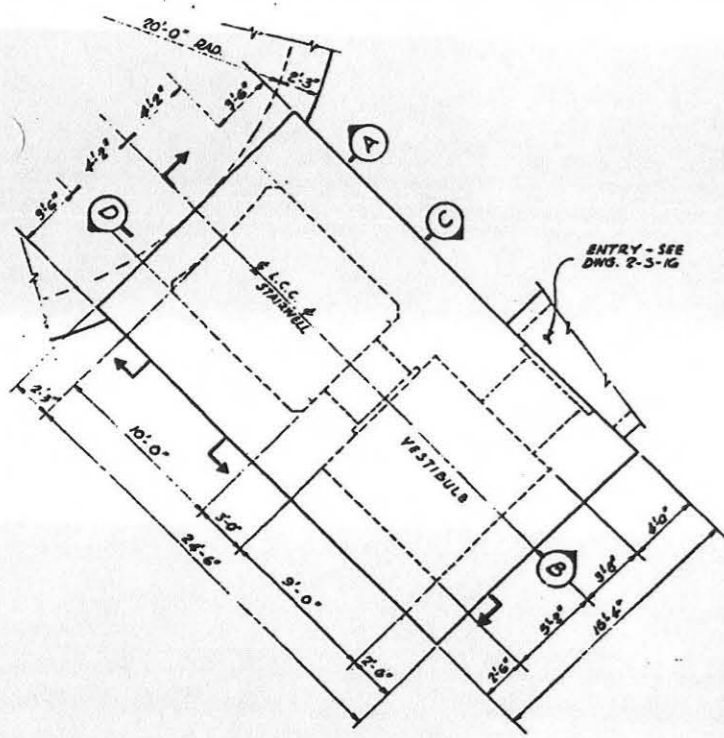
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JAN 24 1962

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JAN 13 1960
U.S. GOVERNMENT PRINTING OFFICE: 1959 O-311111

D. U. SERIES

BMD INDEX NO. 541, 681 THRU 711

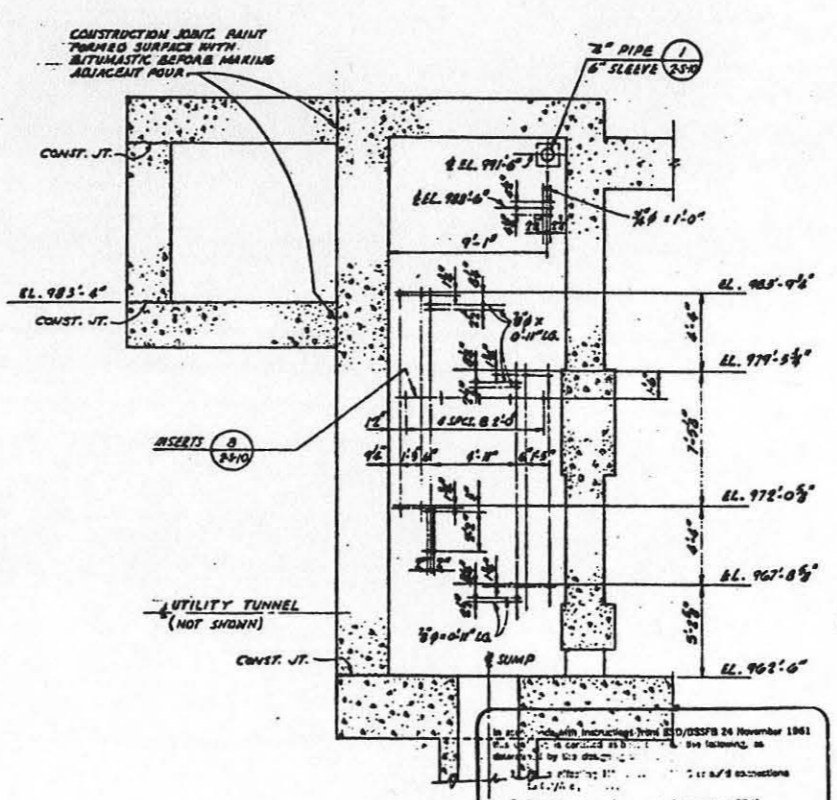
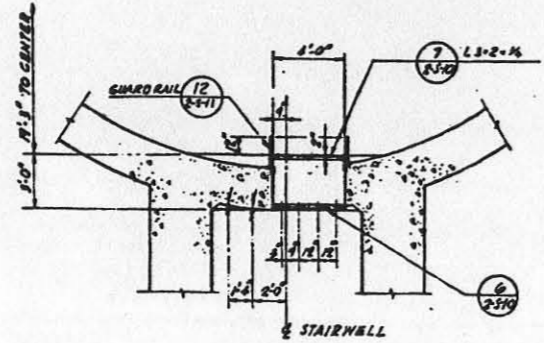
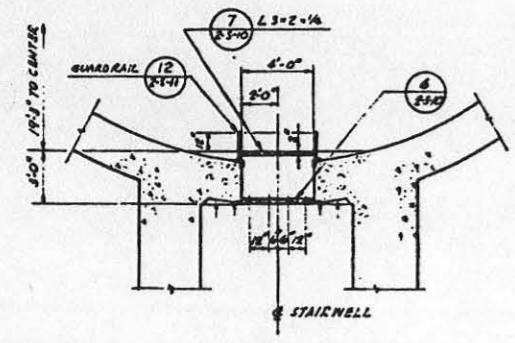


KEY PLAN
SCALE: 1/4" = 1'-0"

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

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

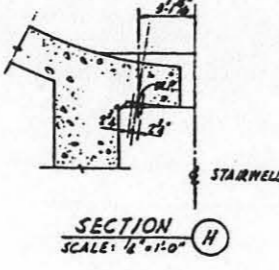
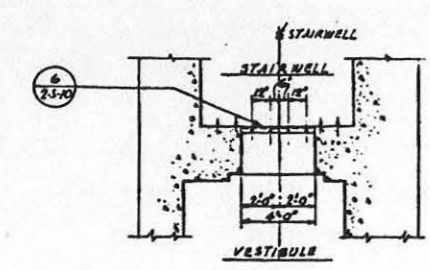
SECTION C
SCALE: 1/4" = 1'-0"



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

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

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



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

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

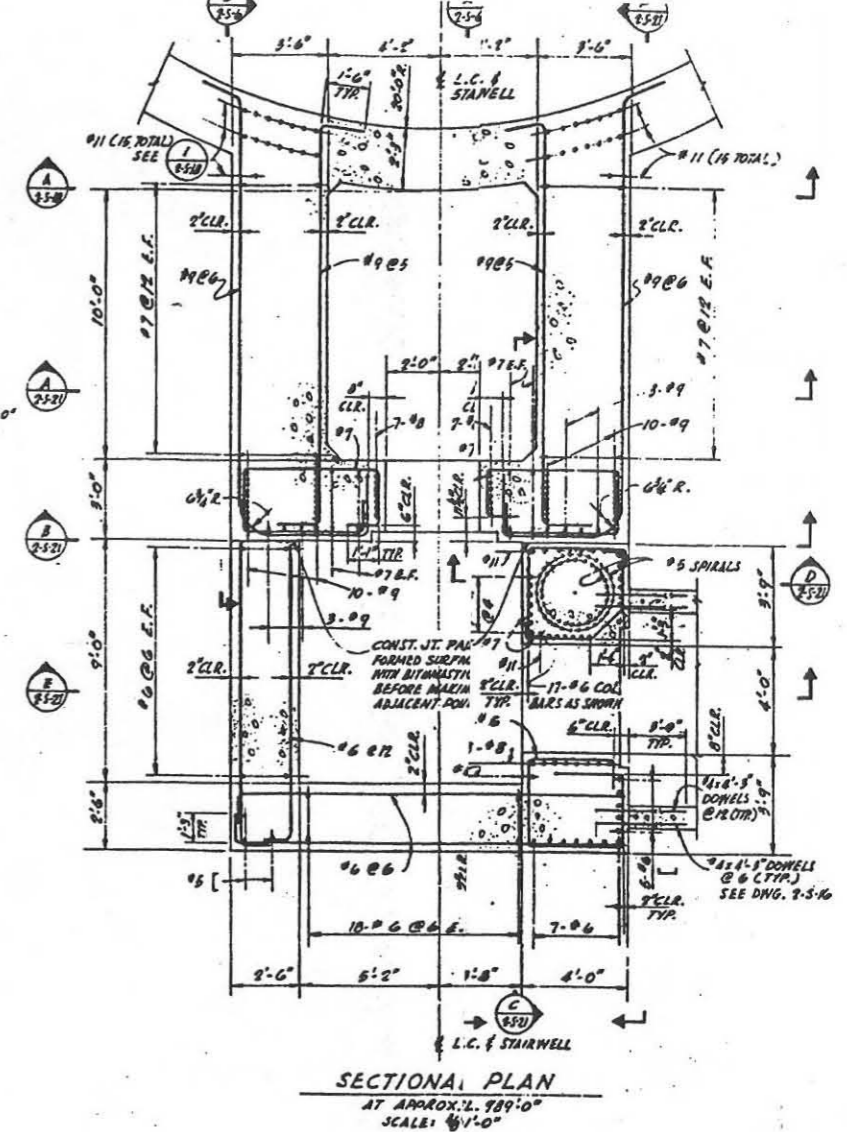
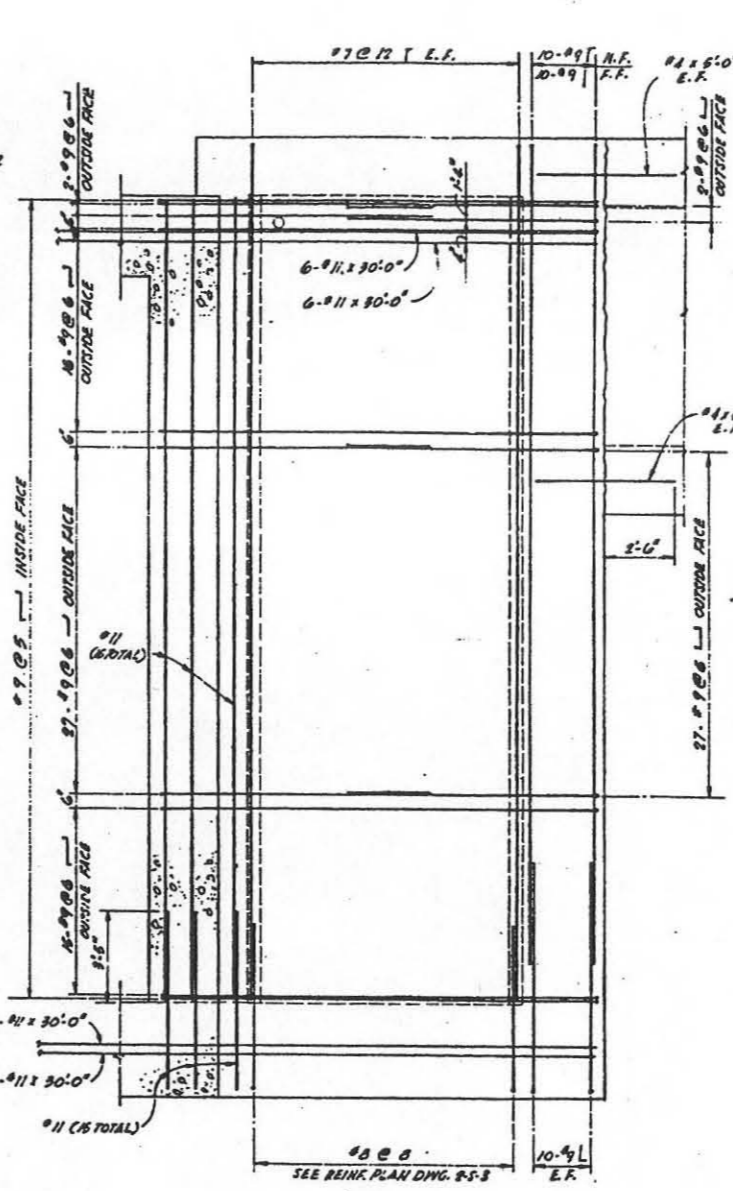
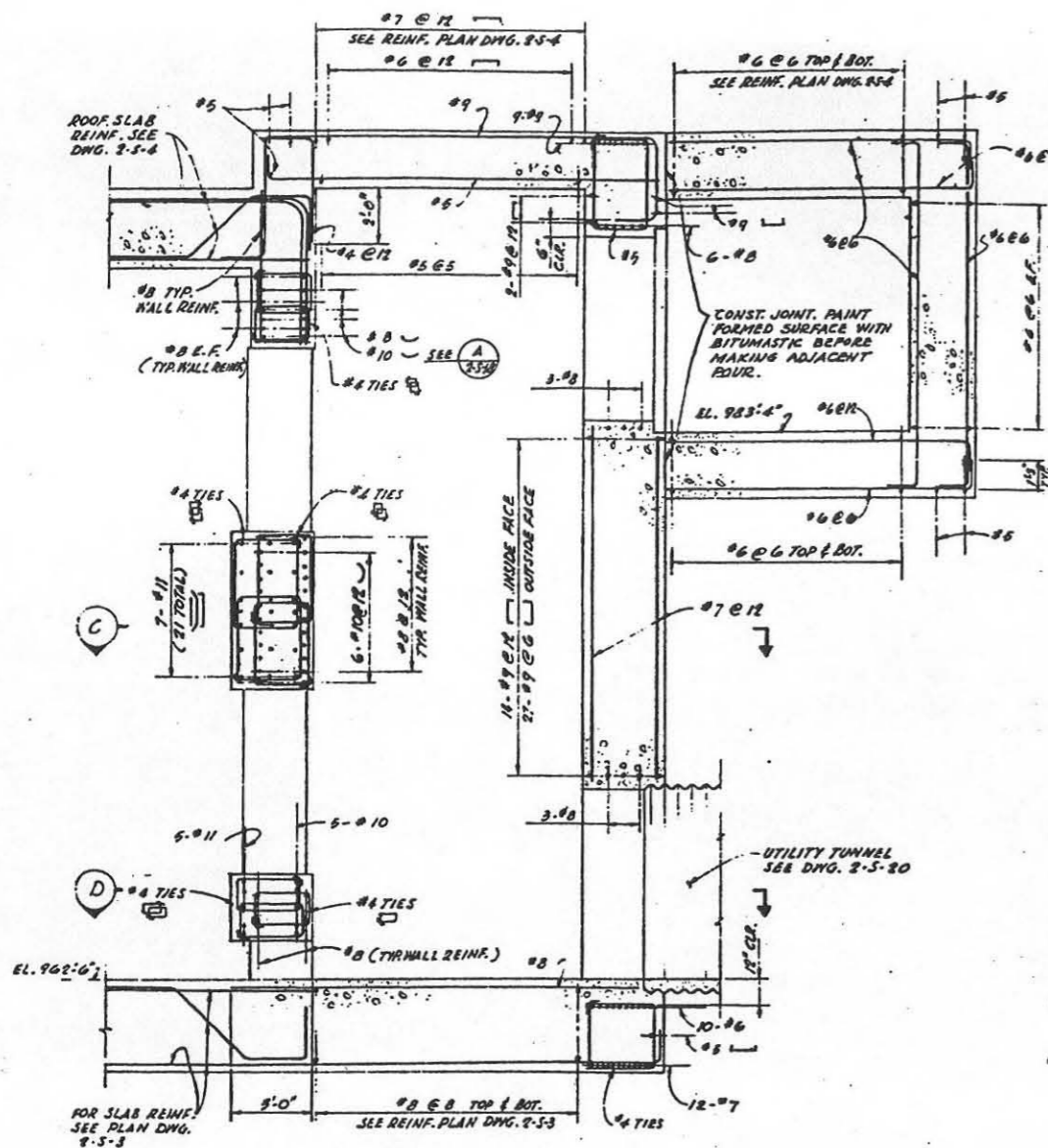
- NOTES**
- FOR SIZE AND LOCATION OF ALL ELECTRICAL CONDUIT PENETRATIONS SEE DWG. 2-5-3 (2-5-11-11)
 - ANCHOR BOLTS SHALL BE 3/4" DIA. 10" LG. UNLESS OTHERWISE NOTED
 - ALL ANCHOR BOLT PROJECTIONS SHALL BE 1/2" OVER ROUGH CONCRETE.
 - ANCHOR BOLTS SHALL BE UNFINISHED MACHINE BOLTS WITH 1" HEX. NUT.



| | | | | | | | | | | | |
|--------------------------------------|----------|---|----|-------|--|--|--|--|--|--|--|
| FOR SITES 1 2 3 4 5 6 7 8 9 10 11 12 | | | | | | | | | | | |
| REV. | DATE | DESCRIPTION | BY | CHKD. | | | | | | | |
| 1 | 12-14-62 | OPERATIONAL AS BUILT | | | | | | | | | |
| 2 | 10-20-62 | REV. TO SHOW CONSTR. CHANGE DUE TO 3RD REV. OF DWG. 2-5-3 (2-5-11-11) | | | | | | | | | |
| 3 | 1-15-60 | AS-BUILT CONDITION AS SHOWN IN SECTION 2-5-3, 2-5-10 & 2-5-11 | | | | | | | | | |
| 4 | 1-15-60 | ISSUED FOR OVERSIGHT | | | | | | | | | |

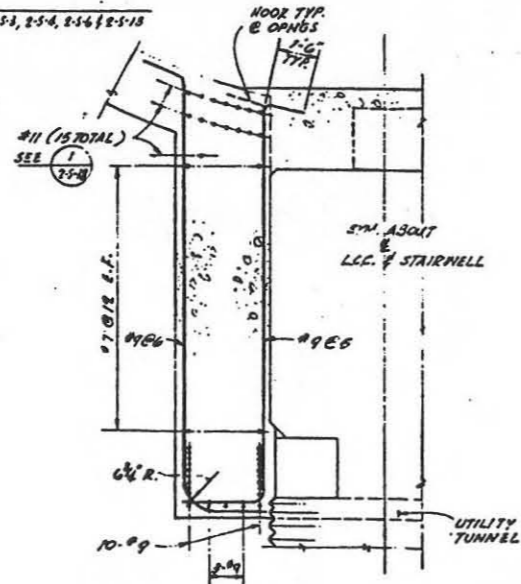
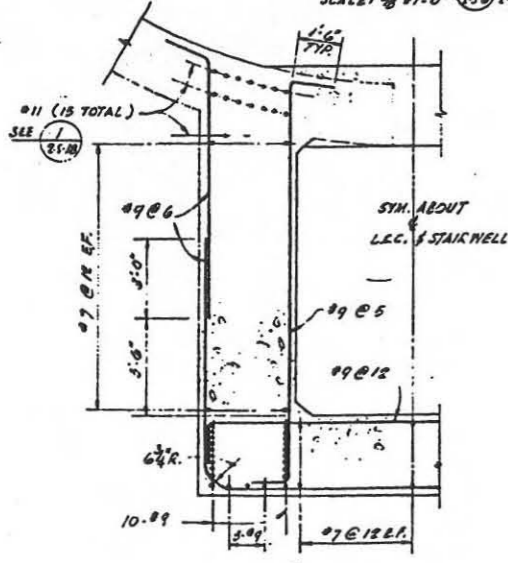
| | |
|--|--|
| BECHTEL CORPORATION
ENGINEERS AND ARCHITECTS | DEPARTMENT OF THE AIR FORCE
AIR FORCE BALLISTIC MISSILE DIVISION (AFBMD) |
| WS-107A-1 OPERATIONAL BASE | |
| UNITARY SILO | |
| LAUNCH CONTROL CENTER | |
| STAIRWELL & VESTIBULE | |
| WALL ELEVATIONS | |
| DATE: 12-14-62 | SCALE: 1/4" = 1'-0" |
| NO. 378-A-2-3-5 | |

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OFFICE OF THE CHIEF OF ENGINEERS
AND ARCHITECTS
FOR THE DEPARTMENT OF THE AIR FORCE
JAN 13 1963
D. G. SERIES



SECTION A SEE REIN. PLAN DNG. 2-5-4, 2-5-6 & 2-5-13
SCALE: 1/8" = 1'-0"

SECTION B SEE REIN. PLAN DNG. 2-5-6 & 2-5-21
SCALE: 1/8" = 1'-0"



SECTION C
SCALE: 1/8" = 1'-0"

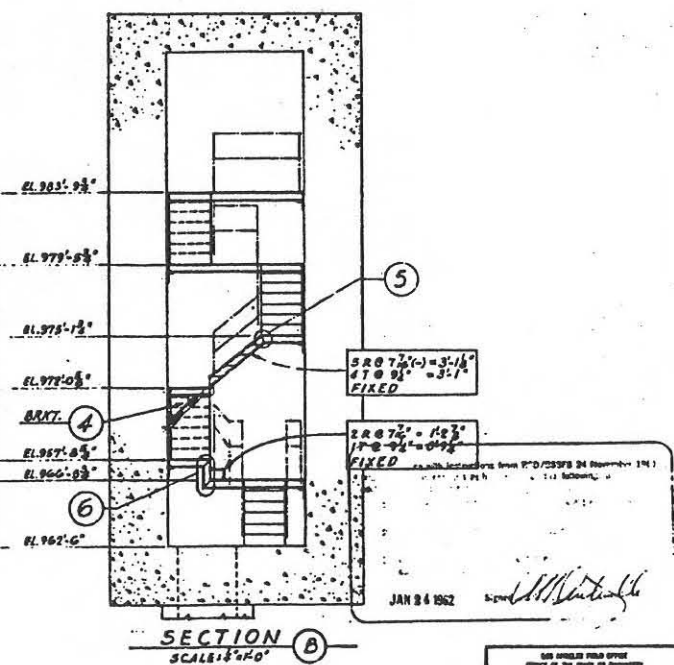
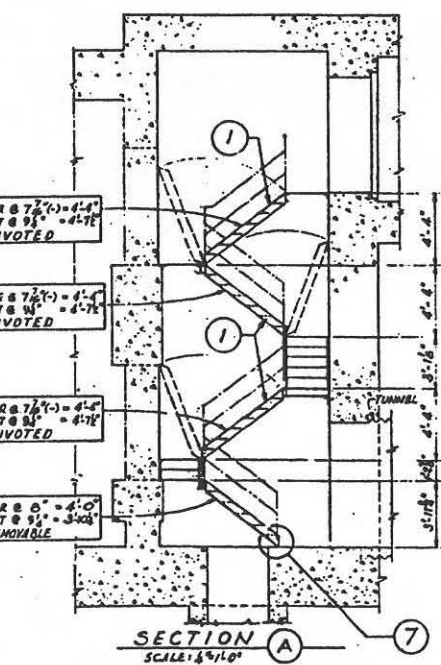
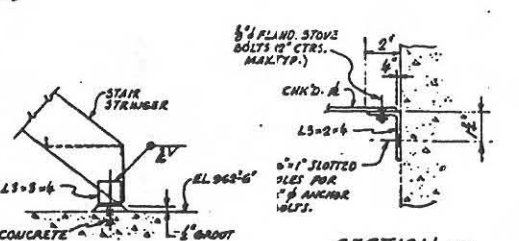
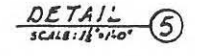
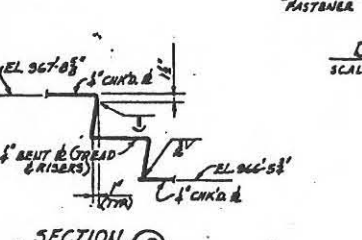
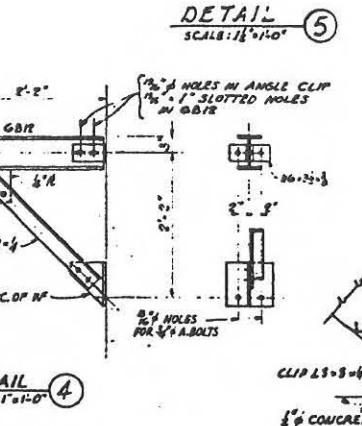
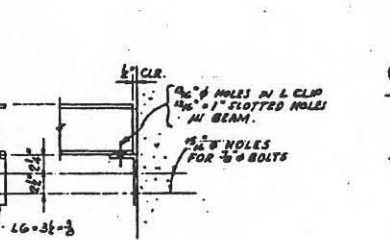
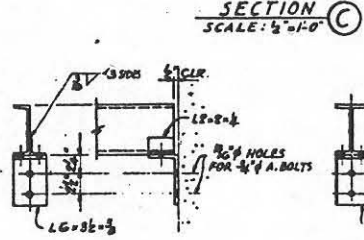
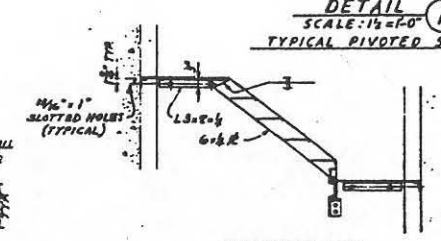
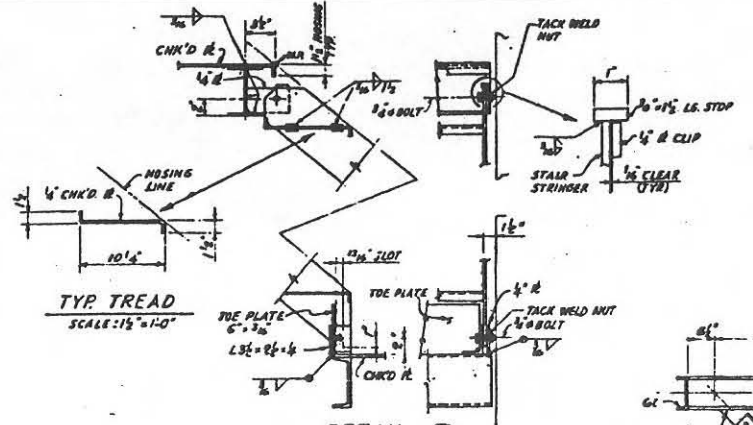
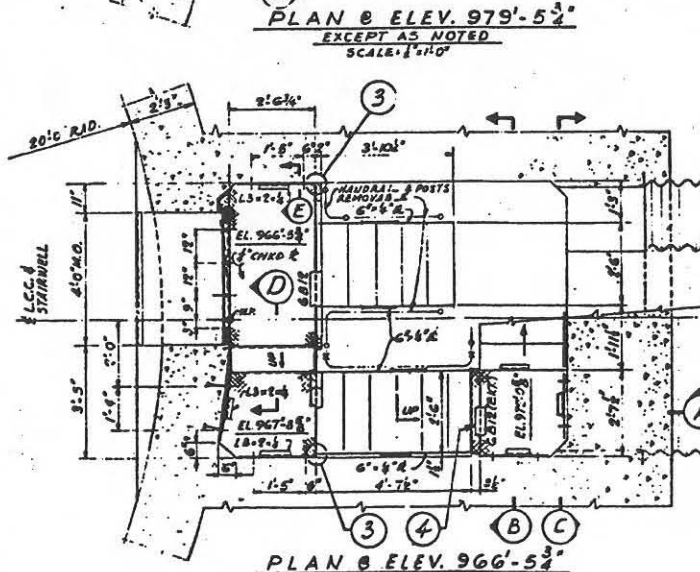
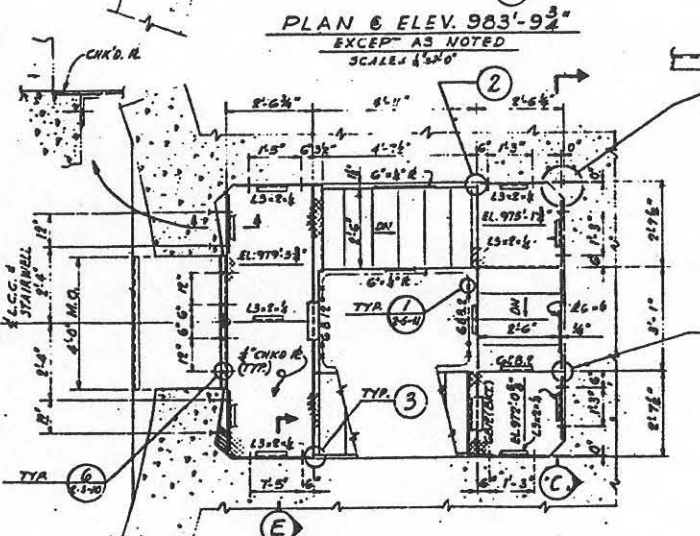
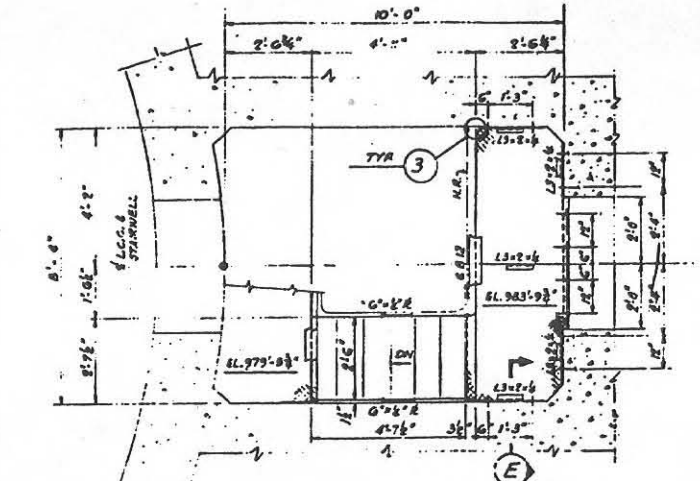
SECTION D
SCALE: 1/8" = 1'-0"

1 IN. = 1 FT.

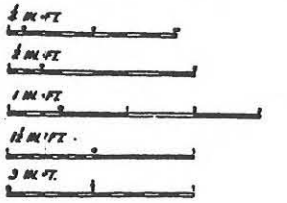
3 with instructions from EDC/SSS 21 November 1961
 1.
 2.
 3.
 JAN 24 1962

FOR SITES 1 2 3 4 6 7 8 9 10 11 12

| NO. | DATE | DESCRIPTION | BY | CHKD. | APP'D. |
|--|----------|-------------------------|----|-------|--------|
| 1 | 10/30-60 | ISSUED FOR CONSTRUCTION | | | |
| 2 | 4-15-60 | ISSUED FOR DYES A.F.B. | | | |
| BECHTEL CORPORATION
ENGINEERS AND ARCHITECTS
4800 AVENUE OF THE STARS
WASHINGTON, D.C. 20024 | | | | | |
| DEPARTMENT OF THE AIR FORCE
AIR FORCE BALLISTIC MISSILE DIVISION SACD
WASHINGTON, D.C. | | | | | |
| WS-107 A-1 OPERATIONAL BASE
UNITARY SILO
LAUNCH CONTROL CENTER
STAIRWELL & VESTIBULE
REINFORCING SECTIONS-SHT. 1 | | | | | |
| DRAWN BY: <i>[Signature]</i> DATE: 12-15-59
CHECKED BY: <i>[Signature]</i> DATE: 12-15-59
DESIGNED BY: <i>[Signature]</i> DATE: 12-15-59
APPROVED BY: <i>[Signature]</i> DATE: 12-15-59
DATE: 15 JAN 1960 SCALE: 1/4" = 1'-0"
578-2-S-6 | | | | | |



- NOTES**
1. FOR HANDRAIL DETAILS SEE AFBMD DWG. 2-5-11.
 2. ALL BOLTS SHALL BE 1/2" UNFINISHED BOLTS UNLESS OTHERWISE NOTED. FOR ANCHOR BOLTS SEE DWG. 2-5-5.
 3. CHKD. & TO BE BOILED TO SUPPORTING MEMBERS WITH 3/4" FLAT HEAD STG. BOLTS @ 12" MAX. CTRS.



FOR ITES 11218456789101112

| | | | | |
|------------|-------------------------|-------------|------------|-----------|
| REVISED BY | DATE | DESCRIPTION | ISSUED FOR | ISSUED BY |
| REV. 02 | OPERATIONAL BUILT | | | |
| REV. 01 | REV. TOWH CONSTR. | | | |
| REV. 00 | AS-BUILT CONDITION | | | |
| REV. 00 | ISSUED FOR DRESS A.F.R. | | | |

BECHTEL CORPORATION
ENGINEERS AND ARCHITECTS

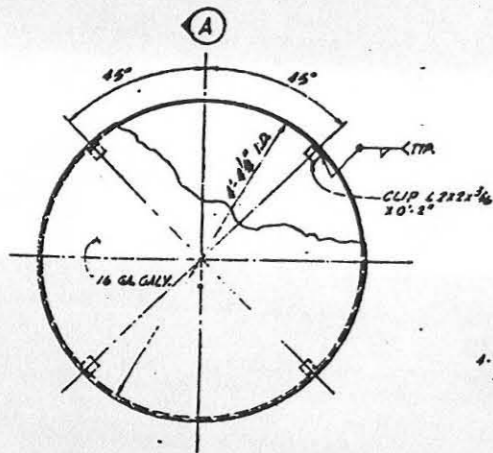
DEPARTMENT OF THE AIR FORCE
AIR FORCE BALLISTIC MISSILE DIVISION (AFBMD)

WS-107 A-1 OPERATIONAL BASE
UNITARY SILO
LAUNCH CONTROL CENTER
STEEL STAIRWAY FRAMING

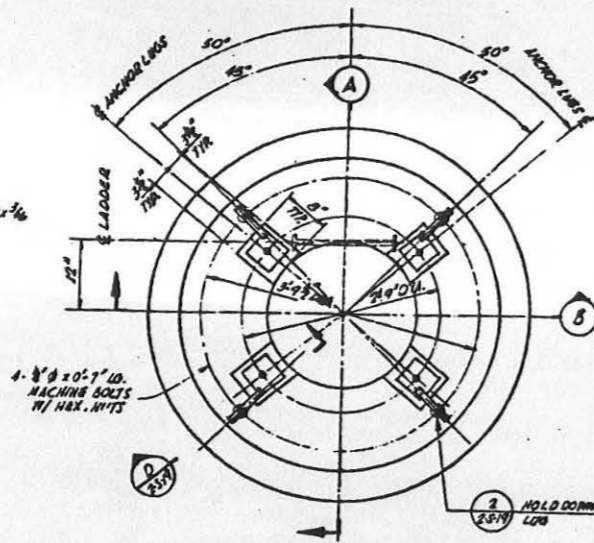
JAN 24 1962

NO OTHER FIRM OFFICE
OFFICE OF THE CHIEF OF ENGINEERS
OFFICE OF CONSTRUCTION ADMINISTRATION
FOR THE BUREAU OF ENGINEERS

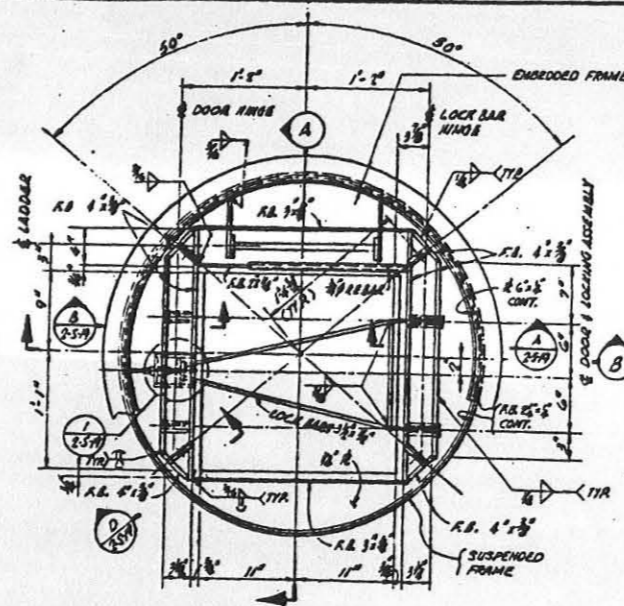
578-2-8-7



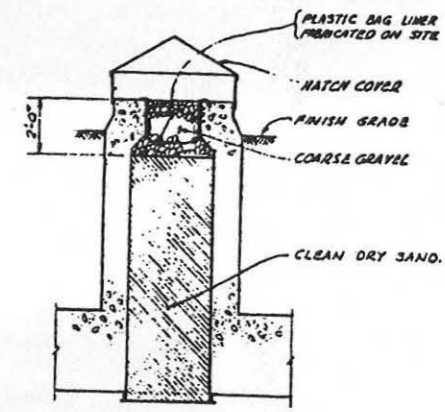
PLAN - ESCAPE HATCH COVER
SCALE: 1" = 1'-0"



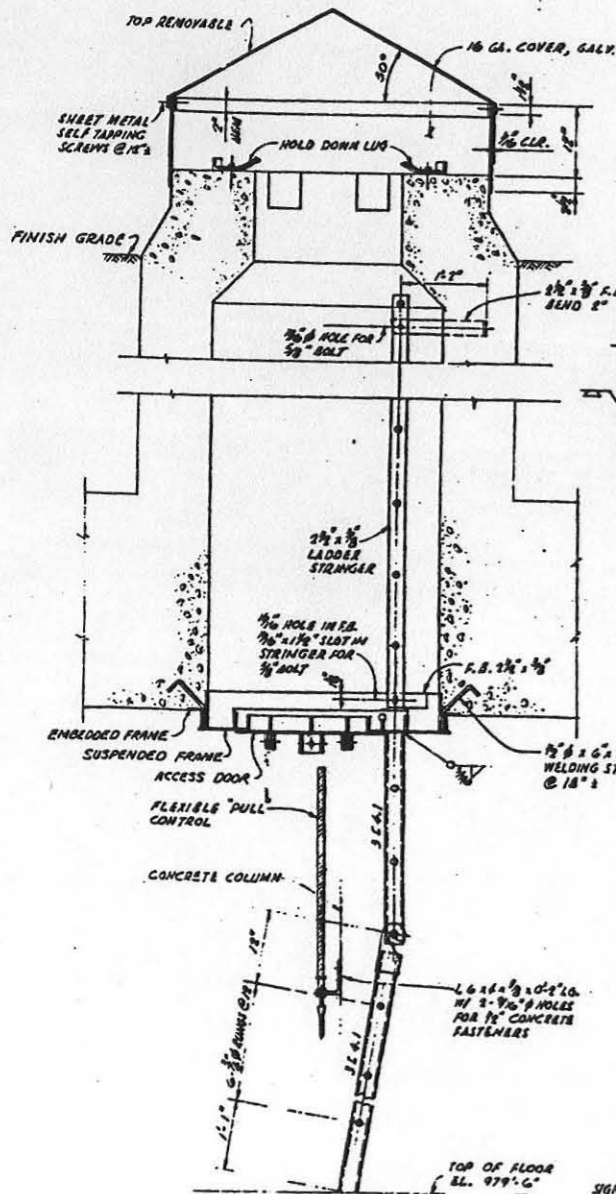
PLAN - ESCAPE HATCH OPENING
SCALE: 1" = 1'-0"



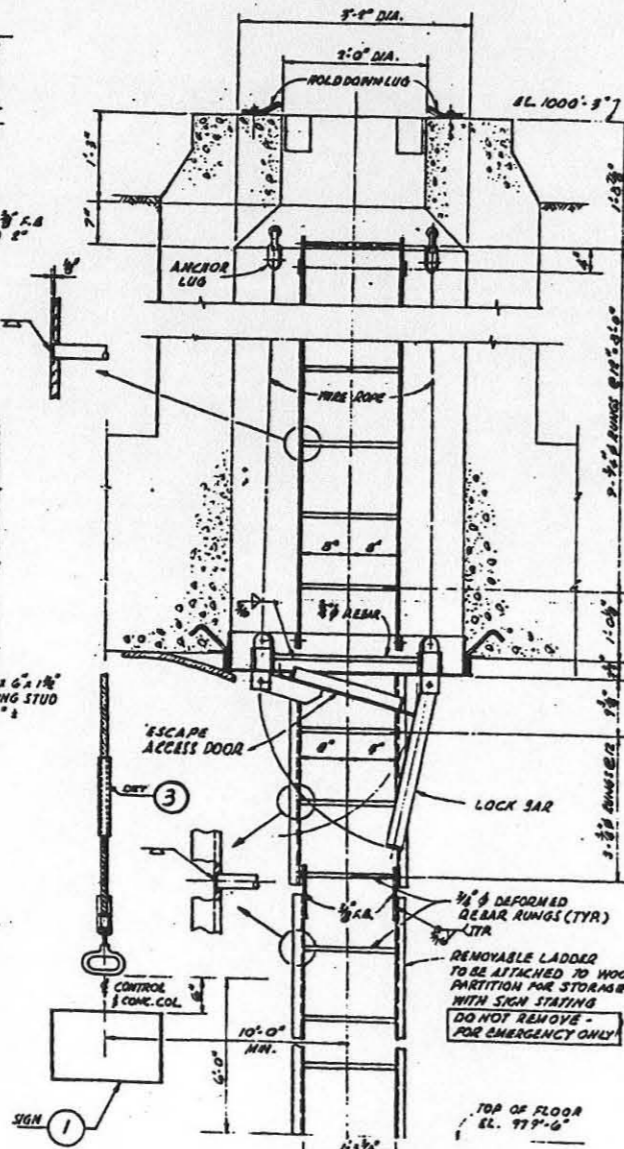
PLAN - ACCESS DOOR FRAME
ACCESS DOOR NOT SHOWN
SCALE: 1/4" = 1'-0"



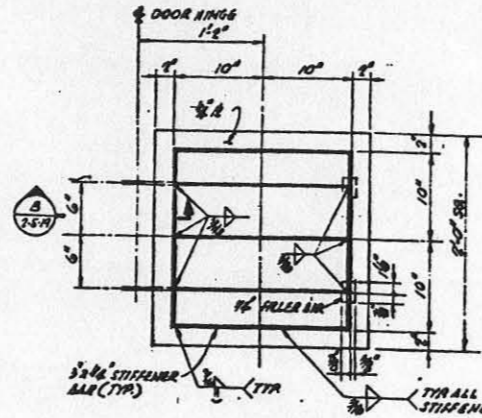
BACK FILL DETAIL
SCALE: 3/8" = 1'-0"



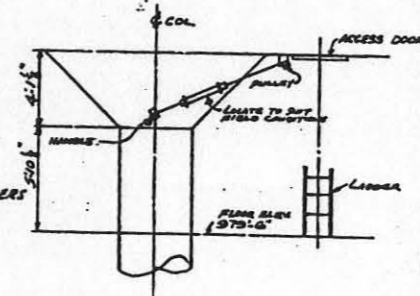
SECTION A
SCALE: 1" = 1'-0"



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



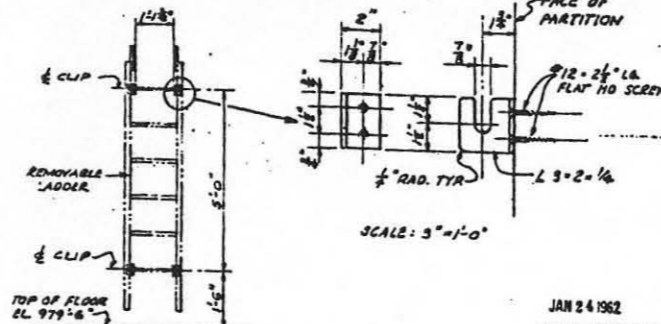
PLAN - ACCESS DOOR
SCALE: 1/4" = 1'-0"



DETAIL 3
GUIDE TUBE FOR WIRE ROPE

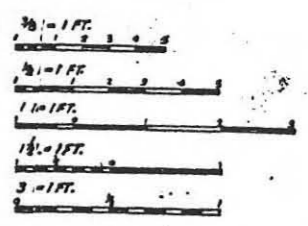
FOR EMERGENCY ESCAPE ONLY
RELEASES FOUR TONS OF SAND WHEN OPENED

SIGN DETAIL 1



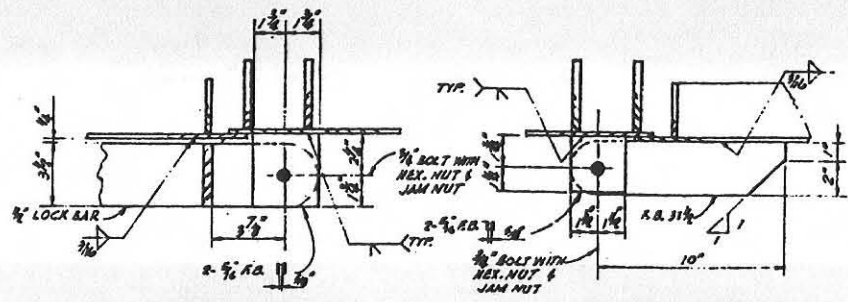
DETAIL 2
SCALE: 1/2" = 1'-0"
REMOVABLE LADDER STORAGE CLIPS

- NOTES
1. ALL MATERIAL SHALL BE GALVANIZED AFTER FABRICATION EXCEPT THE FLEXIBLE "PULL CONTROL" AND THE WIRE ROPE.
 2. WIRE ROPE SHALL HAVE A METAL AREA OF .199 SQ. IN. AND A MODULUS OF ELASTICITY OF 10,000,000 PSI.
 3. FOR LOCATION AND ORIENTATION, SEE DWG. 2-3-1. FOR REINFORCING AND CONCRETE DETAILS, SEE DWG. 2-3-4. FOR DETAILS NOT SHOWN, SEE DWG. 2-3-19.



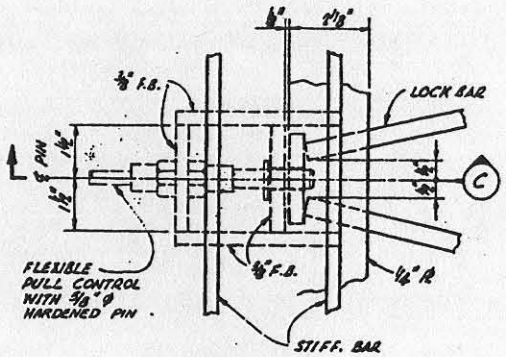
| REVISION | DATE | DESCRIPTION | AGENCY UNIT |
|----------|----------|----------------------------------|-------------|
| 1 | 12-14-62 | CONTINUOUS AS BUILT | SAFETY |
| 2 | 10/30-61 | REV. TO SHOW CONSTR. ADDED DET-3 | CASHECO |
| 3 | 4-19-60 | ISSUED FOR DYESS A.F.B. | LABRMO |

| | | | |
|--|----------------|--|----------------|
| BECHT CORPORATION
ENGINEER AND CONSTRUCTORS
SAN FRANCISCO - LOS ANGELES - NEW YORK | | DEPARTMENT OF THE AIR FORCE
AIR FORCE BALLISTIC MISSILE DIVISION (ARDC)
MILITARY AIRCRAFT DIVISION | |
| PROJECT: WS-107 A-1 OPERATIONAL BASE
UNITARY SILO
LAUNCH CONTROL CENTER | | DRAWING: ESCAPE HATCH DETAILS-SHT. I | |
| DESIGNED BY: JMS | DATE: 12-14-62 | APPROVED BY: [Signature] | DATE: 12-14-62 |
| CHECKED BY: [Signature] | DATE: 12-14-62 | DATE: 13 JAN. 1960 | SCALE: NOTED |
| PROJECT NO. 578-A-2-S-9 | | DRAWING NO. 578-A-2-S-9 | |

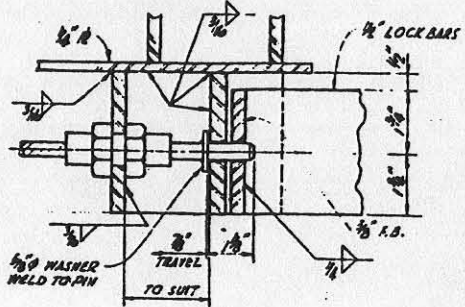


SECTION A SEE
SCALE: 3/4"=1'-0" (AS SHOWN) 2-5-9
TYP. LOCK BAR HINGE

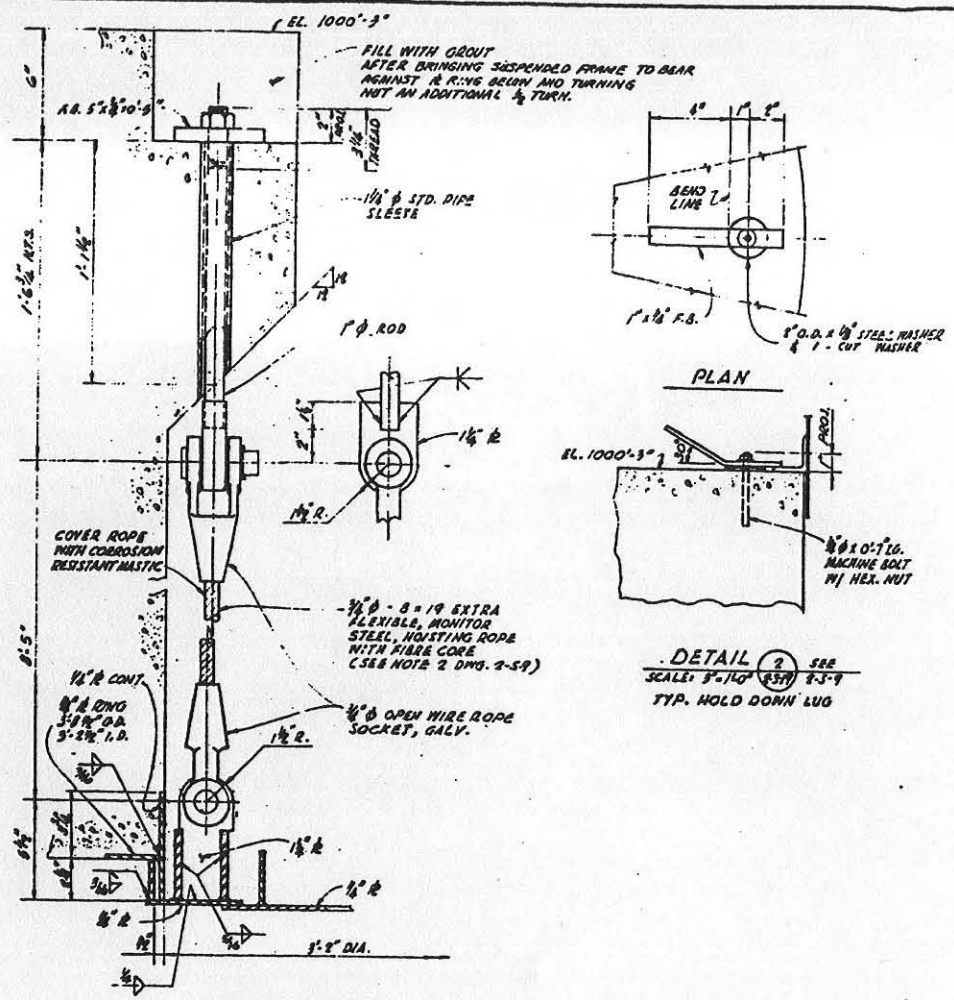
SECTION B SEE
SCALE: 3/4"=1'-0" (AS SHOWN) 2-5-9
TYP. ACCESS DOOR HINGE



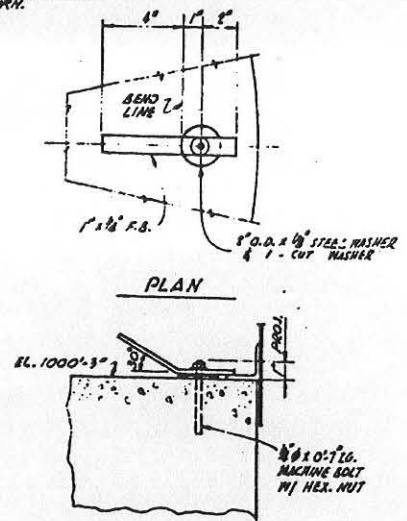
DETAIL 1 SEE
SCALE: 6/16"=1'-0" (AS SHOWN) 2-5-9



SECTION C
SCALE: 6/16"=1'-0" (AS SHOWN)



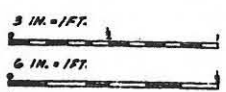
SECTION D SEE
SCALE: 3/4"=1'-0" (AS SHOWN) 2-5-9



DETAIL 2 SEE
SCALE: 3/4"=1'-0" (AS SHOWN) 2-5-9
TYP. HOLD DOWN LUG

NOTES

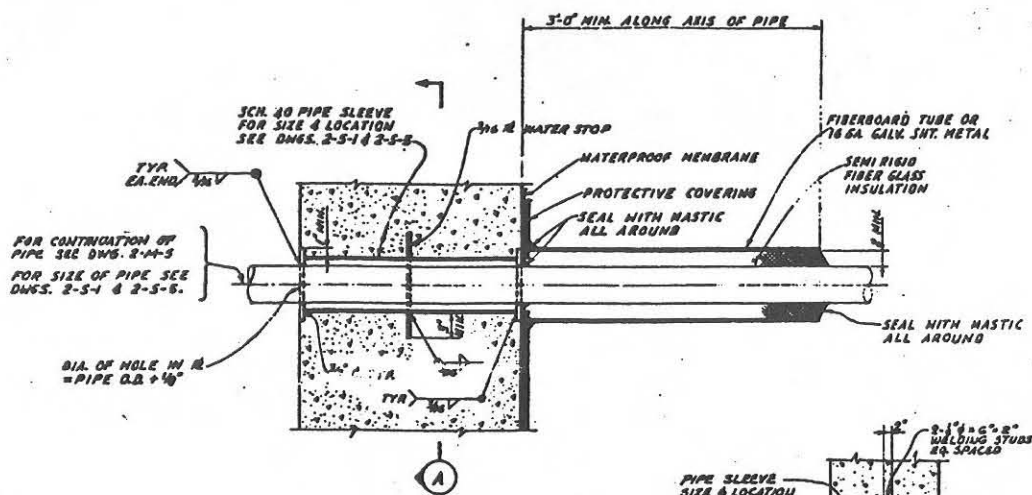
1. FOR ESCAPE HATCH ARRANGEMENT AND DETAILS NOT SHOWN, SEE DWG. 2--9.



Instructions from ASD/SSSFB 24 November 1961
used as built only for the following:
1. ...
2. ...
3. ...
JAN 24 1962

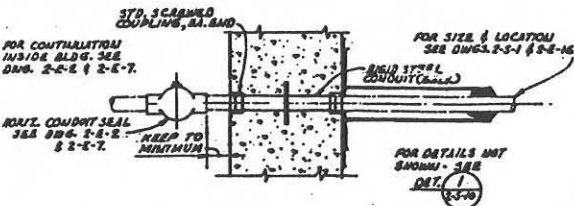
| | |
|---|--|
| FO SITES 1 2 3 4 5 6 7 8 9 10 11 | |
| 1/2/62 | OPERATIONAL AS BUILT |
| 10/20-61 | REVISED SHOW CONSTR. |
| | AS BUILT CONDITION |
| 4-13-60 | ISSUED FOR DYESS A.F.B. |
| BECHTEL CORPORATION
ENGINEERS & CONSTRUCTORS
DEPARTMENT OF 1
AIR FORCE BALLISTIC MISS
578-2-S- | |
| WS-107 A-1 OPERATK
UNITARY SILC
LAUNCH CONTROL
ESCAPE HATCH DETAIL | |
| DESIGNED BY: JMS (12-51)
DRAWN BY: GGN (12-51)
CHECKED BY: S.C. (12-51)
APPROVED BY: [Signature] (12-51) | DATE: 13 JAN. 1960
DRAWING NO: 578-2-S- |

FOR CHAIRMAN'S APPROVAL
 [Signature]
 578-2-S-

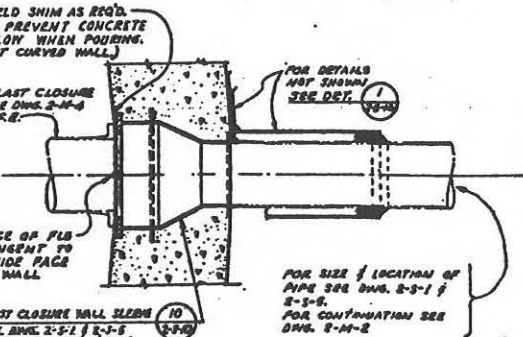


DETAIL 1 SEE
SCALE: 1/8"=1'-0" (2-5-1 & 2-5-5)

TYR PIPE PENETRATION THRU EXTERIOR WALL



DETAIL 2 SEE
SCALE: 1/8"=1'-0" (2-5-1 & 2-5-5)

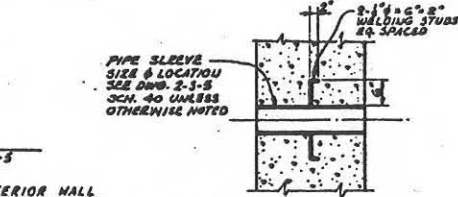


DETAIL 3 SEE
SCALE: 1/8"=1'-0" (2-5-1 & 2-5-5)

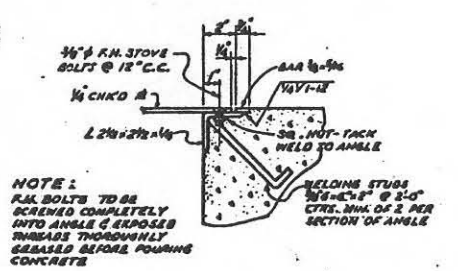
TABLE OF DIMENSIONS FOR BLAST CLOSURE WALL SLEEVE

| TYPE | FRONTAL SIZE | A | B | C | D | E | F | G | H | J |
|------|--------------|-------|-----------|-----------|--------|-----|-------|-------|-------|-----------|
| A | 10" | 2'-0" | 1'-7 1/2" | 1'-6 1/2" | 8 1/2" | 10" | 1'-5" | 6'-0" | 2'-0" | 1'-3 1/2" |
| B | 10" | 2'-0" | 1'-7 1/2" | 1'-6 1/2" | 8 1/2" | 10" | 1'-5" | 6'-0" | 2'-0" | 1'-3 1/2" |
| C | 10" | 2'-0" | 1'-7 1/2" | 1'-6 1/2" | 8 1/2" | 10" | 1'-5" | 6'-0" | 2'-0" | 1'-3 1/2" |

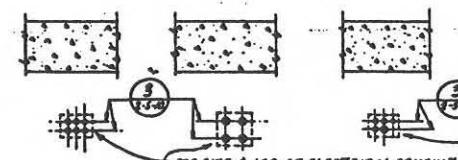
SEE DET. 10



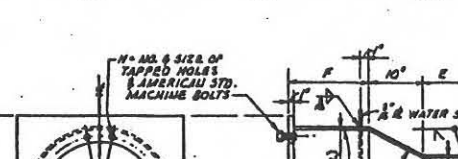
DETAIL 4 SEE
SCALE: 1/8"=1'-0" (2-5-1 & 2-5-5)



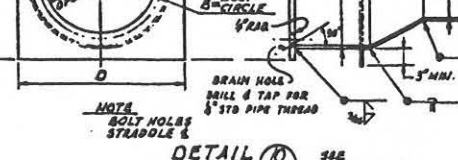
DETAIL 5 SEE
SCALE: 1/8"=1'-0" (2-5-1 & 2-5-5)



DETAIL 6 SEE
SCALE: 1/8"=1'-0" (2-5-1 & 2-5-5)



SECTION C SEE
SCALE: 1/8"=1'-0" (2-5-1 & 2-5-5)



SECTION D SEE
SCALE: 1/8"=1'-0" (2-5-1 & 2-5-5)



SECTION E SEE
SCALE: 1/8"=1'-0" (2-5-1 & 2-5-5)

SECTION B SEE
SCALE: 1/8"=1'-0" (2-5-1 & 2-5-5)

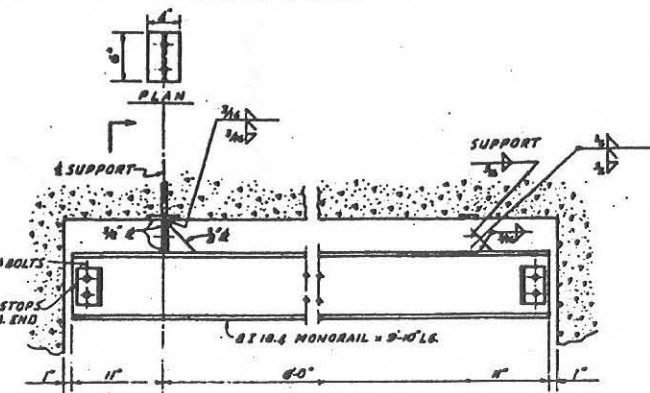
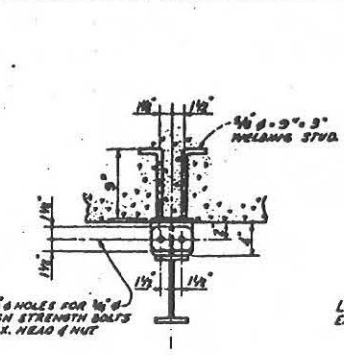
SECTION A SEE
SCALE: 1/8"=1'-0" (2-5-1 & 2-5-5)

DETAIL 7 SEE
SCALE: 3/4"=1'-0" (2-5-1 & 2-5-5)

DETAIL 8 SEE
SCALE: 1/8"=1'-0" (2-5-1 & 2-5-5)

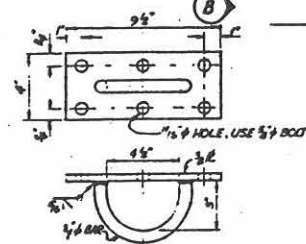
SECTION F SEE
SCALE: 1/8"=1'-0" (2-5-1 & 2-5-5)

DETAIL 11 SEE
SCALE: 1/8"=1'-0" (2-5-1 & 2-5-5)

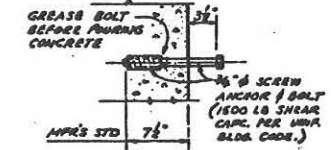


ELEVATION OF MONORAIL

DETAIL 2 SEE
SCALE: 1/8"=1'-0" (2-5-1 & 2-5-5)



DETAIL 5 SEE
SCALE: 1/8"=1'-0" (2-5-1 & 2-5-5)



DETAIL 8 SEE
SCALE: 1/8"=1'-0" (2-5-1 & 2-5-5)

NOTES

1. ALL SCIMED PIPE & CONDUIT DETAILS SHOWN ON THIS SHEET SHALL BE FACE WELDED AFTER ASSEMBLY.
2. REPAIR DAMAGED ZINC COATING ON GALVANIZED PIPES & CONDUITS AFTER WELDING.



FORITES [1][2][3][4][5][6][7][8][9][10]

1. Check for correct dimensions per DWG. 2-5-1 & 2-5-5.
2. Check for correct dimensions per DWG. 2-5-1 & 2-5-5.
3. Check for correct dimensions per DWG. 2-5-1 & 2-5-5.
4. Check for correct dimensions per DWG. 2-5-1 & 2-5-5.
5. Check for correct dimensions per DWG. 2-5-1 & 2-5-5.
6. Check for correct dimensions per DWG. 2-5-1 & 2-5-5.
7. Check for correct dimensions per DWG. 2-5-1 & 2-5-5.
8. Check for correct dimensions per DWG. 2-5-1 & 2-5-5.
9. Check for correct dimensions per DWG. 2-5-1 & 2-5-5.
10. Check for correct dimensions per DWG. 2-5-1 & 2-5-5.

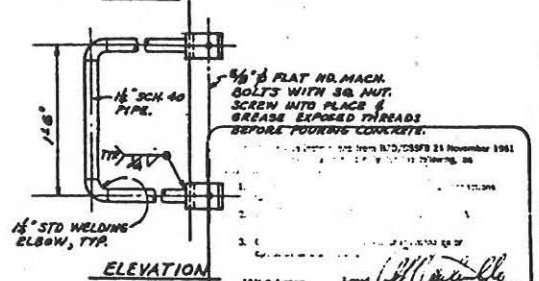
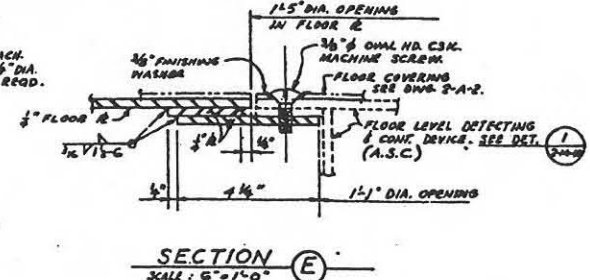
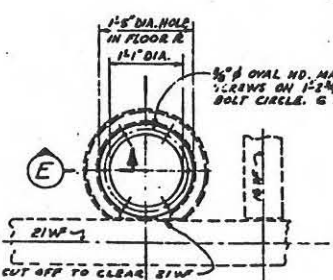
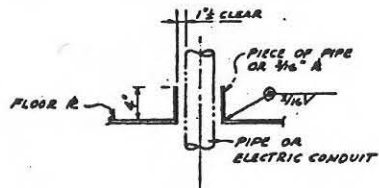
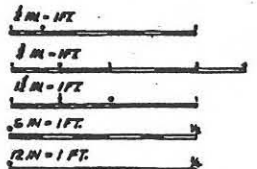
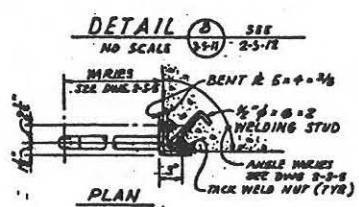
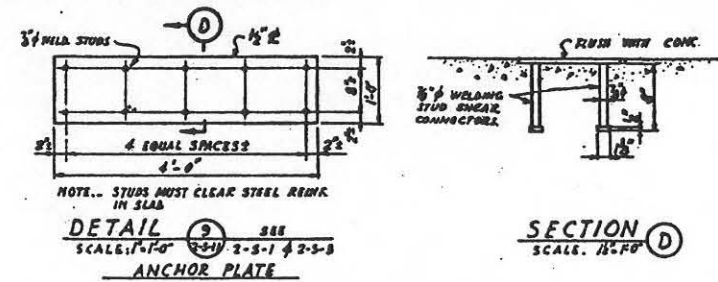
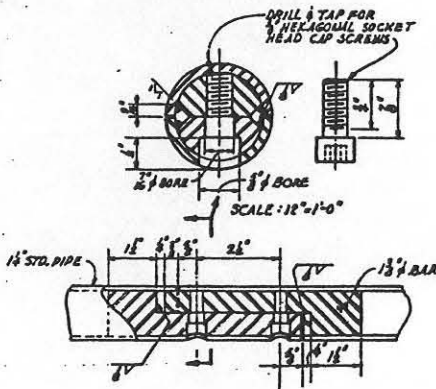
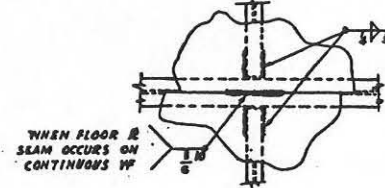
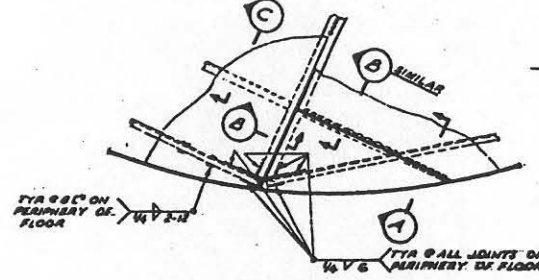
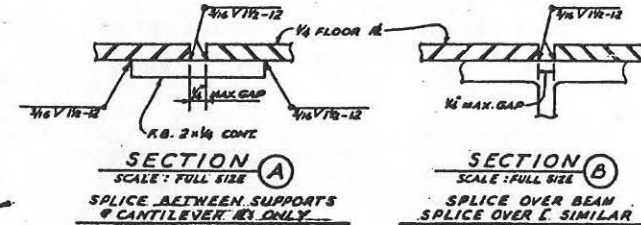
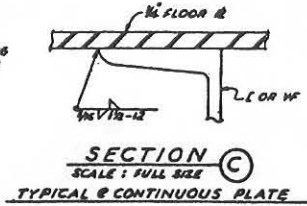
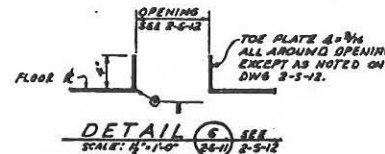
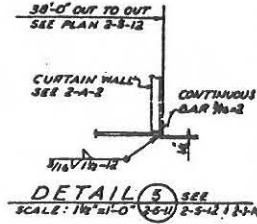
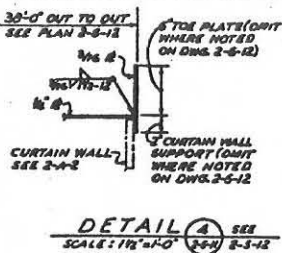
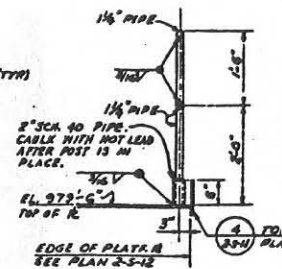
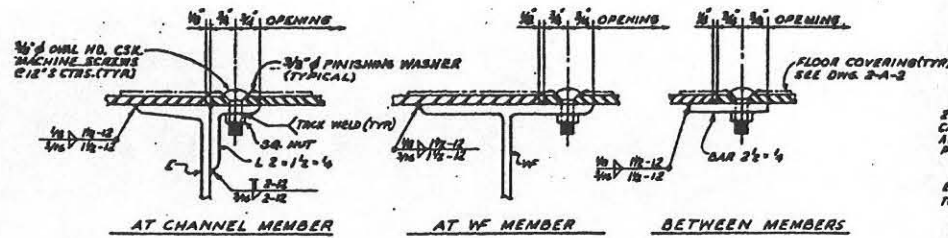
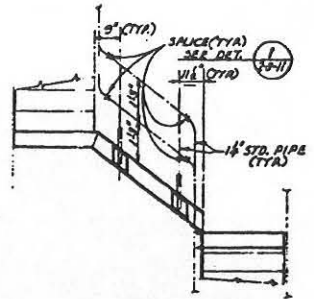
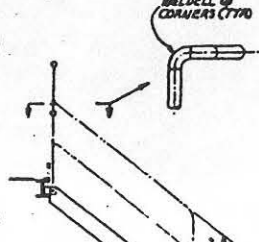
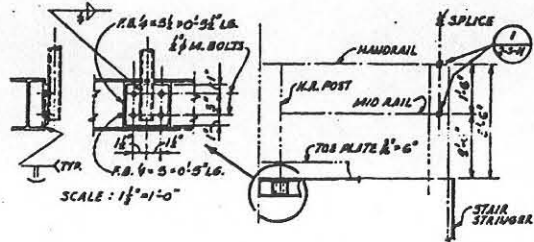
BEICEL CORPORATION
ENGINEERS AND ARCHITECTS
1000 W. 10th Street, Los Angeles, CA 90015
Tel: (213) 475-1111

DEPARTMENT OF THE AIR FORCE
AIR FORCE BALLISTIC MISSILE DIVISION
3700 RANDOLPH AVENUE, WASHINGTON, D.C. 20330

WS-107 A-1 OPERATIONAL BASE
UNITARY SILO
LAUNCH CONTROL CENTER

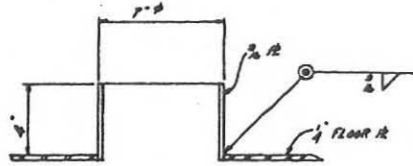
MISCELLANEOUS DETAILS-SHT.1

ENS. 47443-60-30
13 JAN. 1960
578-A-2-5-10

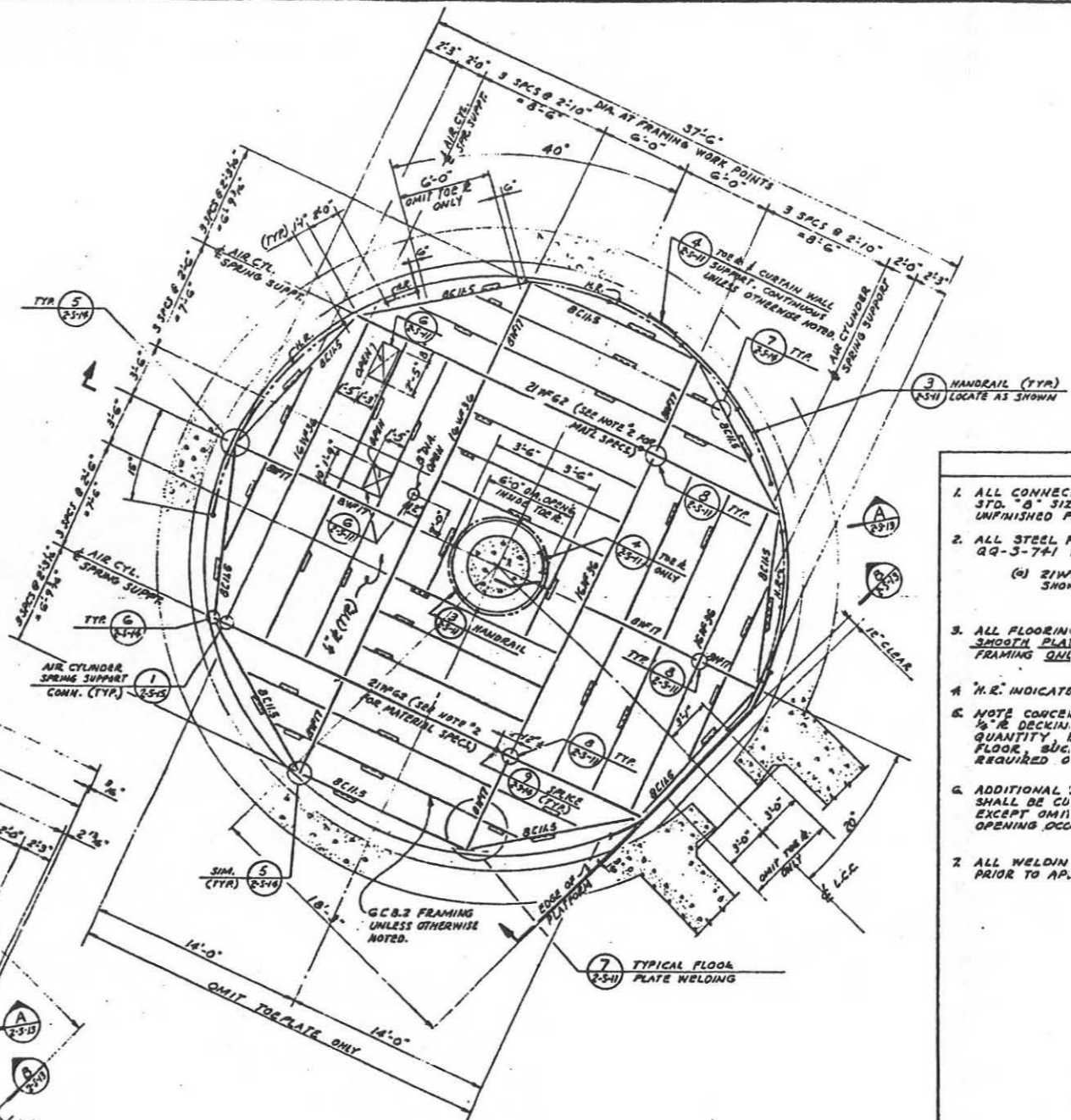


FOR SITES 1123456789101112

| | | | |
|-----------------------------|---------------------|---|--------|
| 17-4-62 | OPERATIONAL AS BLD | DATE | Q |
| MO-6 | REV. TO SHOWNSTR. | | |
| 4-25-60 | AS-BUILT COLLISION | | |
| | REV FOR BUREAU P.E. | | |
| REVISED | DATE | DESCRIPTION | AUTHOR |
| BECHTEL CORPORATION | | DEPARTMENT OF THE AIR FORCE | |
| ENGINEERS AND ARCHITECTS | | AIR FORCE BALLISTIC MISSILE DIVISION WARD | |
| 15-107 A-1 OPERATIONAL BASE | | UNITARY SILO | |
| LAUNCH CONTROL CENTER | | ISCELLANEOUS DETAILS - SHT. 2 | |
| END. | | 13-JAN-1960 | |
| 578-2-S-11 | | | |

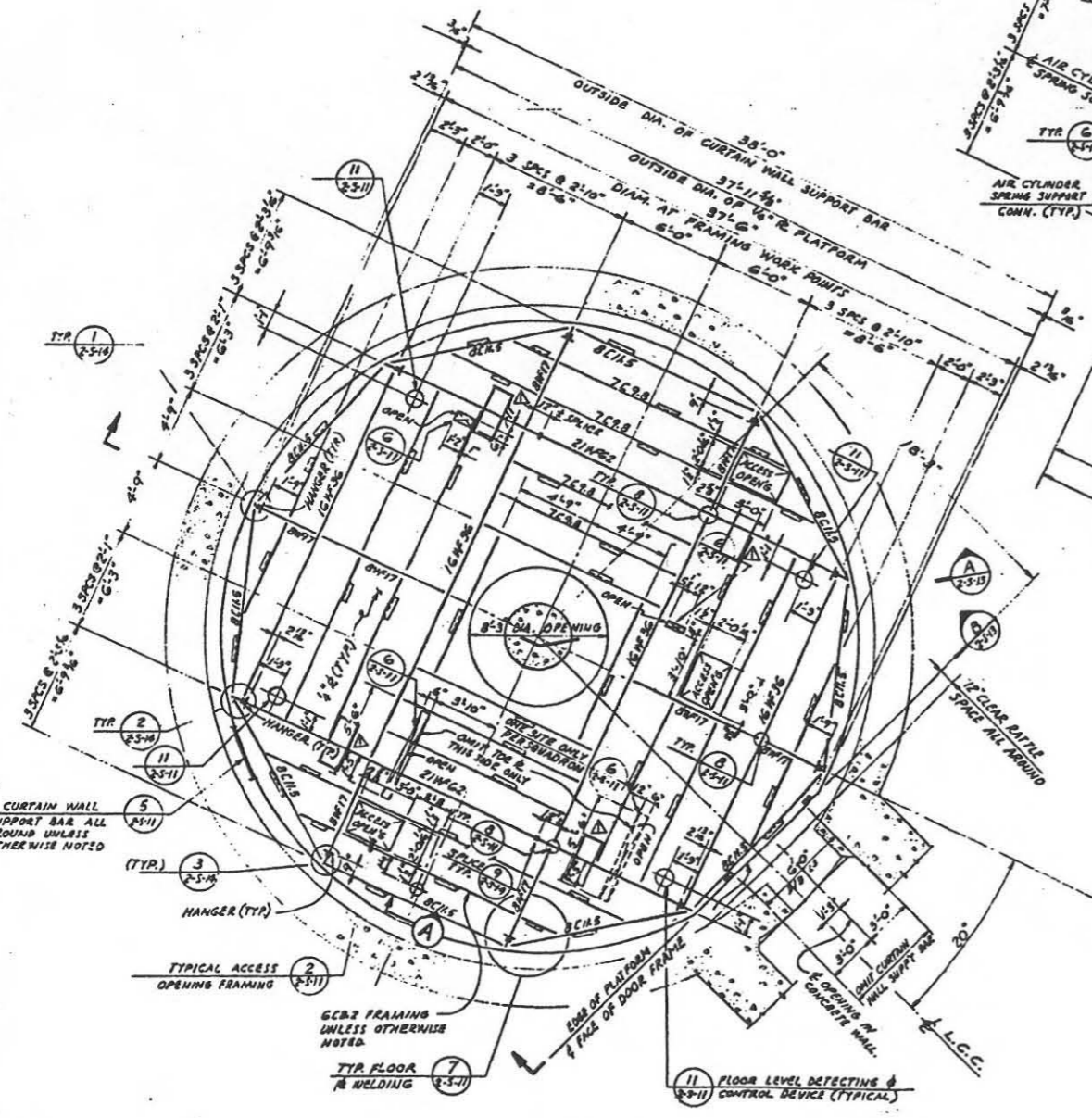


SECTION A



FLOOR PLAN @ FIRST LEVEL
T.O.S. EL. 979'-5 1/2"
SCALE: 1/8" = 1'-0"

- NOTES**
- ALL CONNECON ANGLES SHALL BE EQUIVALENT TO STD. "B" SIZE AND HOLE ARRANGEMENT, WITH 3/4" B UNFINISHED FLD BOLTS, UNLESS OTHERWISE NOTED.
 - ALL STEEL FRAMING SHALL BE PER FED. SPECS. QQ-3-741 TYPE I EXCEPT FOR THE FOLLOWING:
(a) Z1W2 @ FIRST LEVEL AND 1 3/4" R (HANGER CONN.) SHOWN IN DET. (3) SHALL BE PER FED. SPECS. QQ-3-741 TYPE II.
 - ALL FLOORING SHALL BE 1/2" THICK, NOT ROLLED SMOOTH PLATE. SPLICE FLOOR R OVER STRUCTURAL FRAMING ONLY EXCEPT AS SHOWN IN DET. (7)
 - H.E. INDICATE HANDRAIL PER DET. (3)
 - NOTE CONCERNING POSSIBLE FUTURE CHANGES: 1/2" R DECKING SHALL NOT BE REMOVED IN ANY APPRECIABLE QUANTITY, 10M AREAS AROUND THE PERIPHERY OF FLOOR, ETC. AS TO IMPAIR THE DIAPHRAGM ACTION REQUIRED OF THE FLOOR PLATE.
 - ADDITIONAL ELECTRIC CONDUIT & PIPE PENETRATIONS SHALL BE CU & BANDED IN FIELD PER DETAIL (10) EXCEPT OMIT TOE PLATE WHEN FLOOR OPENING OCCURS BENEATH A WALL.
 - ALL WELDING OF 1/2" FLOOR R SHALL BE COMPLETED PRIOR TO APPLICATION OF FLOOR FINISH MATERIAL.

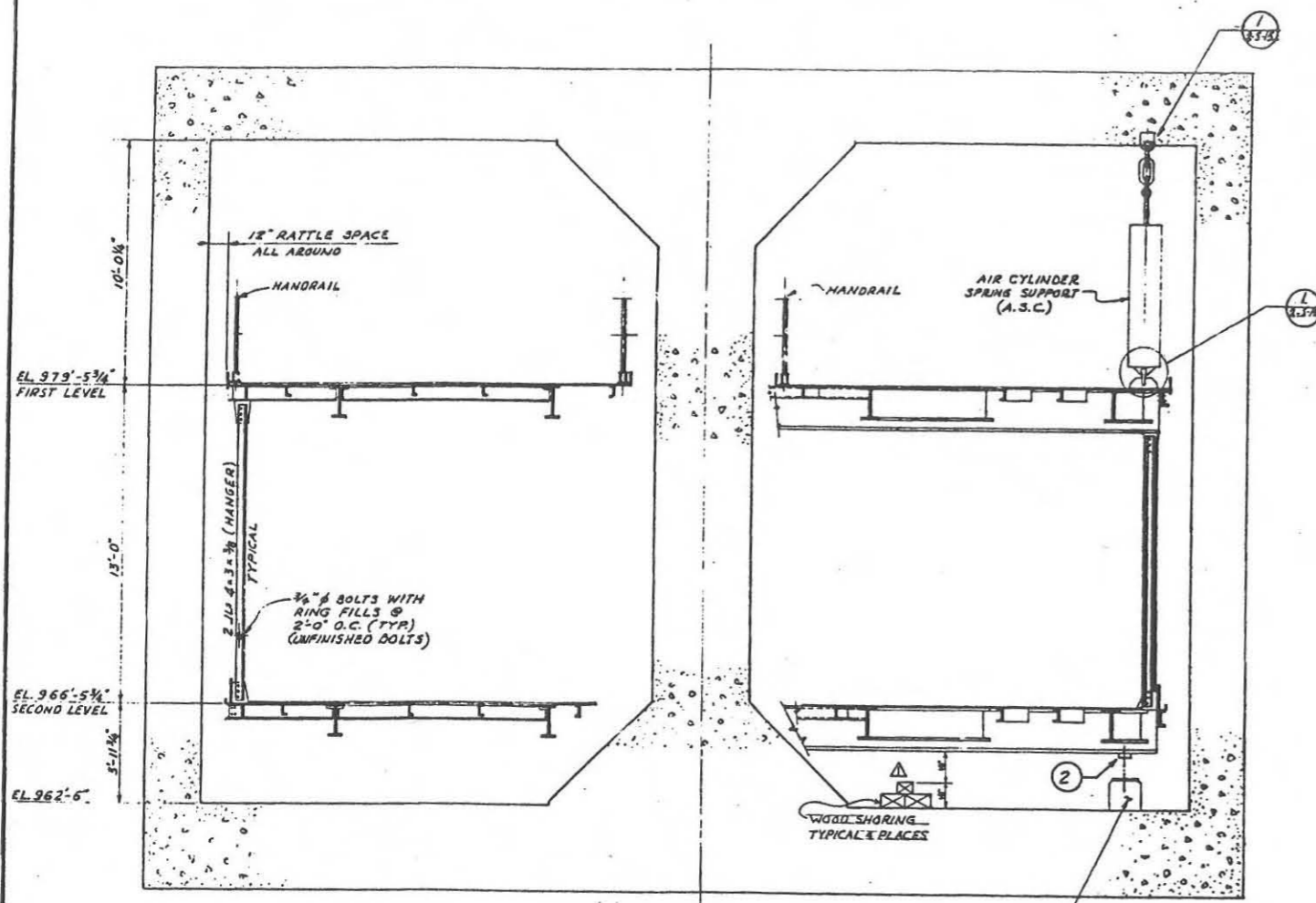


FRAMING PLAN @ SECOND LEVEL
T.O.S. EL. 966'-5 3/4"
SCALE: 1/8" = 1'-0"

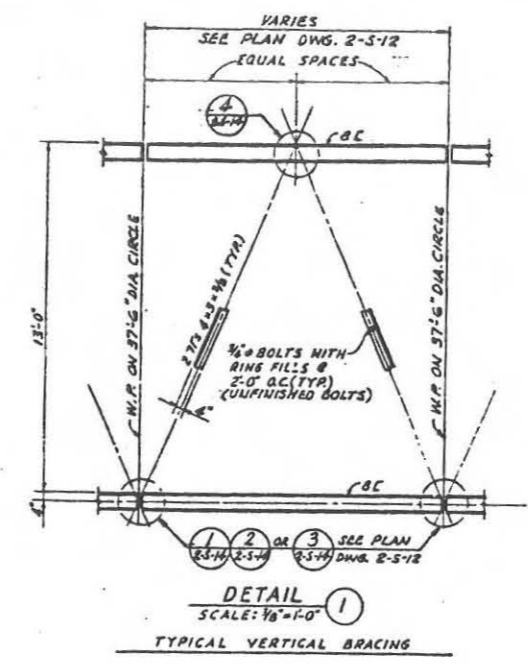
| | | |
|----------|---|-------------|
| 3-23-64 | INSTALLED 36"x48" SHORING UNDER LCC | SP/MS |
| DR SITES | 1 2 3 4 5 6 7 8 9 10 11 12 | |
| 12-18-63 | OPTIONAL AS BUILT (INCLUDES SCAP) & SOB | SATAP/PT |
| 10/30-67 | REVTO SHOW CONSTR. ABILITY CONDITION | CEB/MCO/OP |
| 4-15-60 | ISSUED FOR DYES A.F.R. | AFB/MO |
| REVISION | DATE | DESCRIPTION |

JAN 24 1962

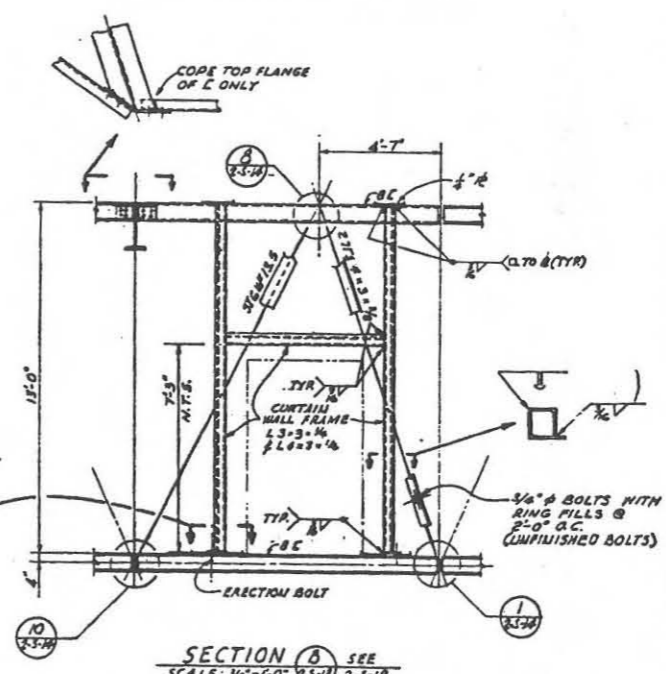
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|--|--|
| BECHTEL CORPORATION
ENGINEERS & CONSTRUCTORS | DEPARTMENT OF THE AIR FORCE
AIR FORCE BALLISTIC MISSILE DIVISION 4800
COLUMBIA, MISSISSIPPI |
| WS-107 A-1 OPERATIONAL BASE | |
| UNITARY SILO
LAUNCH CONTROL CENTER | |
| HUNG FLOOR PLANS | |
| DATE: 1/23/62 | SCALE: 1/8" = 1'-0" |
| NO. 378 | 12 |



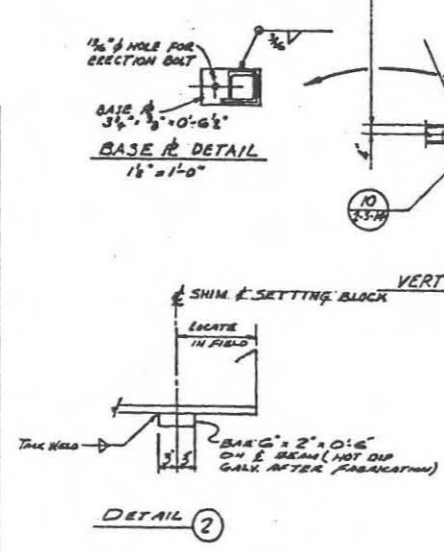
SECTION A SEE
SCALE: 3/8"=1'-0" (2-5-12)



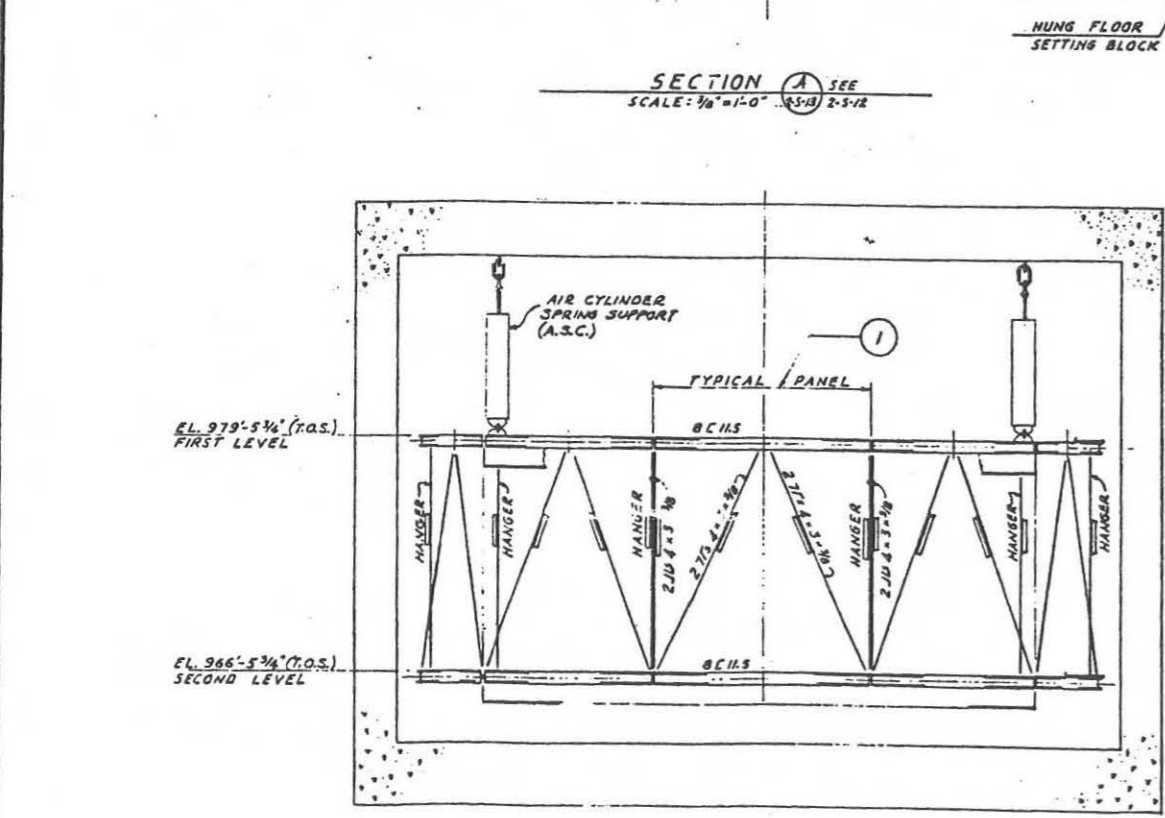
DETAIL 1
SCALE: 3/8"=1'-0" (2-5-12)



SECTION B SEE
SCALE: 3/8"=1'-0" (2-5-12)



DETAIL 2



GENERAL ELEVATION - HUNG FLOORS
SCALE: 1/4"=1'-0"

- ERECTION INSTRUCTIONS FOR SUSPENDED STEEL CRIB**
- SET THROWER DECK 21 W/PS'S IN POSITION ON THE PERMANENT SETTING BLOCKS FOUNDATION FLOOR PLUMB, OR IF DESIRED, AT A HIGHER ELEVATION, BUT NOT TO EXCEED 3/16" FROM BOTTOM OF WF TO FLOOR.
 - BLOCK (EXTERIOR ENDS OF ALL OUTSIDE 8 W/PS'S FOR LOWER DECK FRAME).
 - ERECT MAINDER OF LOWER DECK FRAME.
 - WELD U/SR DECK FLOOR-PLATES IN PLACE.
 - ERECT TYPICAL "K" BRACING AND POSTS FOR SPACE FRAME BETWEEN FIRST & SECOND DECK.
 - ERECT W/PS, 16 W/PS, 8 W/PS, 8 W/PS, 8 W/PS, AND REMAINDER OF UPPER DECK FRAME.
 - WELD U/SR DECK FLOOR-PLATES IN PLACE.
 - AFTER ALL CONTRACT FACILITIES ARE IN PLACE, INSTALL AIR CYLINDERS AND DE-LEVELING INDICATORS. APPLY AIR TO CYLINDERS AND RAISE DECK TO OPERATING POSITION. ADJUST LEVEL DETECTING AND CONTROL DEVICE.
 - COMPLY THE IDEAL CYLINDER PRESSURES BY THE FOLLOWING PROCEDURE FOR DETERMINING LOCATION OF BLEEDER LINE:
 - P_1, P_2, P_3, P_4 ARE UNADJUSTED PRESSURE READINGS.
 - $P = P_1 + P_2 + P_3 + P_4 = \Sigma$ PRESSURES.
 - $P_1, P_2, P_3, P_4 = \Sigma$ IDEAL PRESSURES.
 - INST. BLEEDER LINE BETWEEN THE TWO ADJACENT CYLINDERS WHOSE IDEAL PRESSURES ARE NEAREST TO BEING EQUAL. THIS WILL CAUSE A SMALL AUTOMATIC READJUSTMENT OF THE PRESSURES IN ALL CYLINDERS.
 - MARBLE GAGES AT FIVE PSI ABOVE AND BELOW THE GAGE READING OF STEP ABOVE.
 - NOTE: THE VERTICAL BRACING HAS BEEN DESIGNED TO SUPPORT THE DEAD AND OPERATING LOADS OF THE UPPER DECK WHEN THE AIR CYLINDERS ARE NOT WORKING AND THE LOWER DECK IS RESTING ON THE SETTING BLOCKS. THE SPACE FRAME HAS BEEN DESIGNED TO SUPPORT THE CRIB FROM ANY TWO ADJACENT OPPOSITE CYLINDERS; EXTREME CARE, THEREFORE, SHOULD BE USED IN RAISING THE CRIB TO ITS FINAL POSITION.

$$X = \frac{(P_1 + P_2)(29)}{\Sigma P}$$

$$Y = \frac{(P_3 + P_4)(22)}{\Sigma P}$$

$$P_{1A} = \Sigma P \left(\frac{Y}{22} \right) \left(\frac{29-X}{29} \right)$$

$$P_{2A} = \Sigma P \left(\frac{Y}{22} \right) \left(\frac{X}{29} \right)$$

$$P_{3A} = \Sigma P \left(\frac{22-Y}{22} \right) \left(\frac{X}{29} \right)$$

$$P_{4A} = \Sigma P \left(\frac{22-Y}{22} \right) \left(\frac{29-X}{29} \right)$$



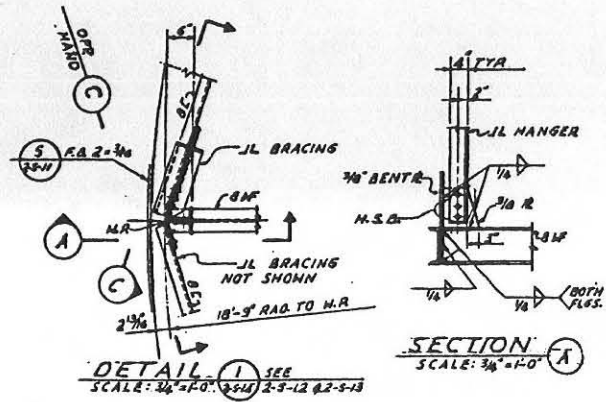
| | | | |
|---|--|---|------|
| -27-24 | | INSTALLED 36"x14" SHORING UNDER GCC | SPAC |
| FOR SITES 1 2 3 4 5 6 7 8 9 10 11 12 | | | |
| 1-14-62 | OPERATIONAL AS BUILT INCLUDES ECPS, G-52 | SATIP | R |
| 9/30-61 | REV. TO SHOW CORRECT AS-BUILT CONDITION | CEMCO | OR |
| 1-15-60 | ISSUED FOR OVERS A.P.R. | | |
| REVISION DATE | DESCRIPTION | AGENCY | UNIT |
| TECHTEL CORPORATION
ENGINEERS AND CONSTRUCTORS
2800 UNIVERSITY AVENUE
PASADENA, CALIFORNIA | | DEPARTMENT OF THE AIR FORCE
AIR FORCE BALLISTIC MISSILE DIVISION (ARDC)
WRIGHT-PATTERSON AIR FORCE BASE
DAYTON, OHIO | |
| WS-107 A-1 OPERATIONAL BASE
UNITARY SILO
LAUNCH CONTROL CENTER
HUNG FLOOR SECTIONS | | | |
| DATE | 1-13-60 | ENGINEER | ENG. |
| DATE | 13 JAN. 1960 | DATE NOTED | |
| NO. | 578-2-S-13 | | |

IN ACCORDANCE WITH INVESTIGATIONS FROM SDO/CSST 24 NOVEMBER 1961
THE FOLLOWING LIST OF REVISIONS IS FOR YOUR INFORMATION, AS
APPLICABLE TO THIS DRAWING:

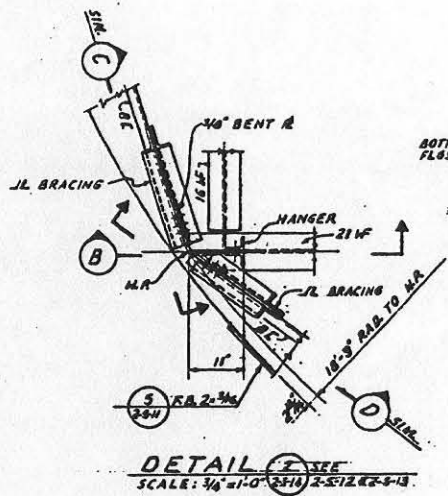
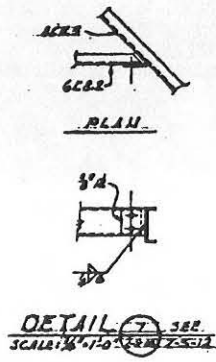
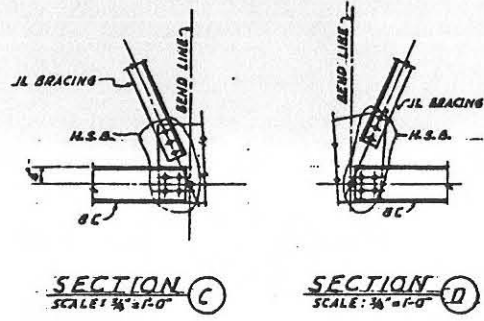
1. CORRECTED CONNECTIONS
2. CORRECTED CONNECTIONS
3. CORRECTED CONNECTIONS

JAN 24 1962

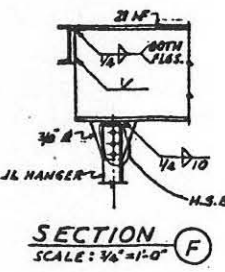
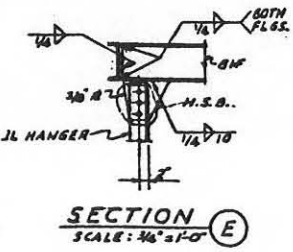
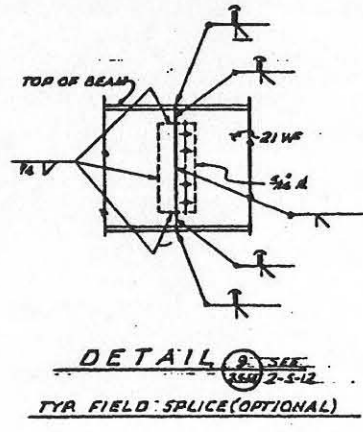
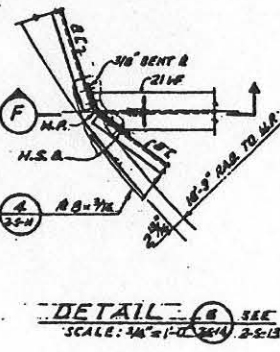
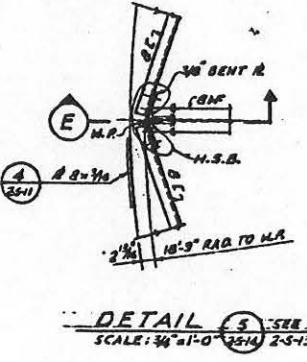
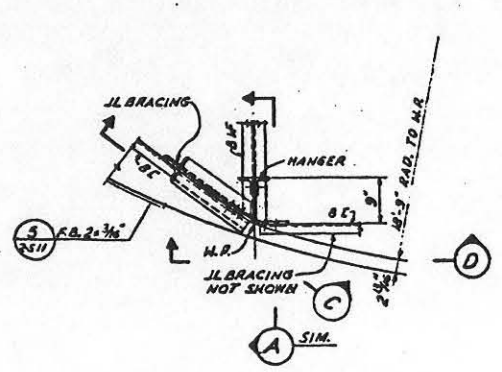
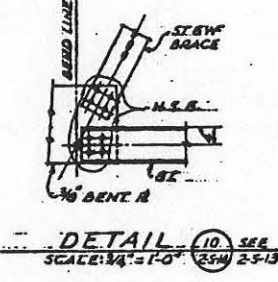
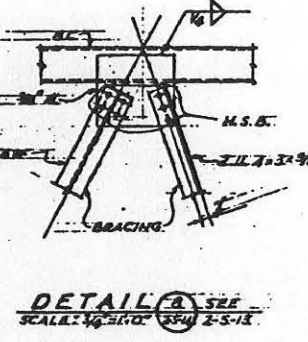
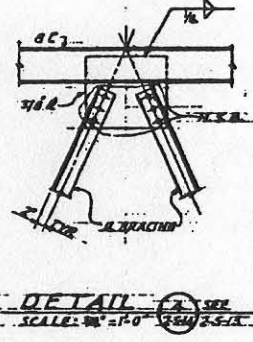
ALL DIMENSIONS UNLESS OTHERWISE SPECIFIED ARE IN INCHES AND DECIMALS THEREOF.
UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.
ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.
ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.



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



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



NOTES
1. M.S.B. DESIGNATE 3/4" Ø HIGH STRENGTH BOLTS.
2. SEE DWG. 2-5-12 & FRAMING PLANS.

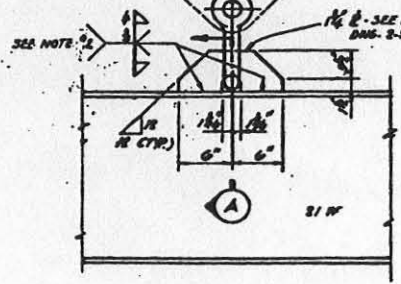
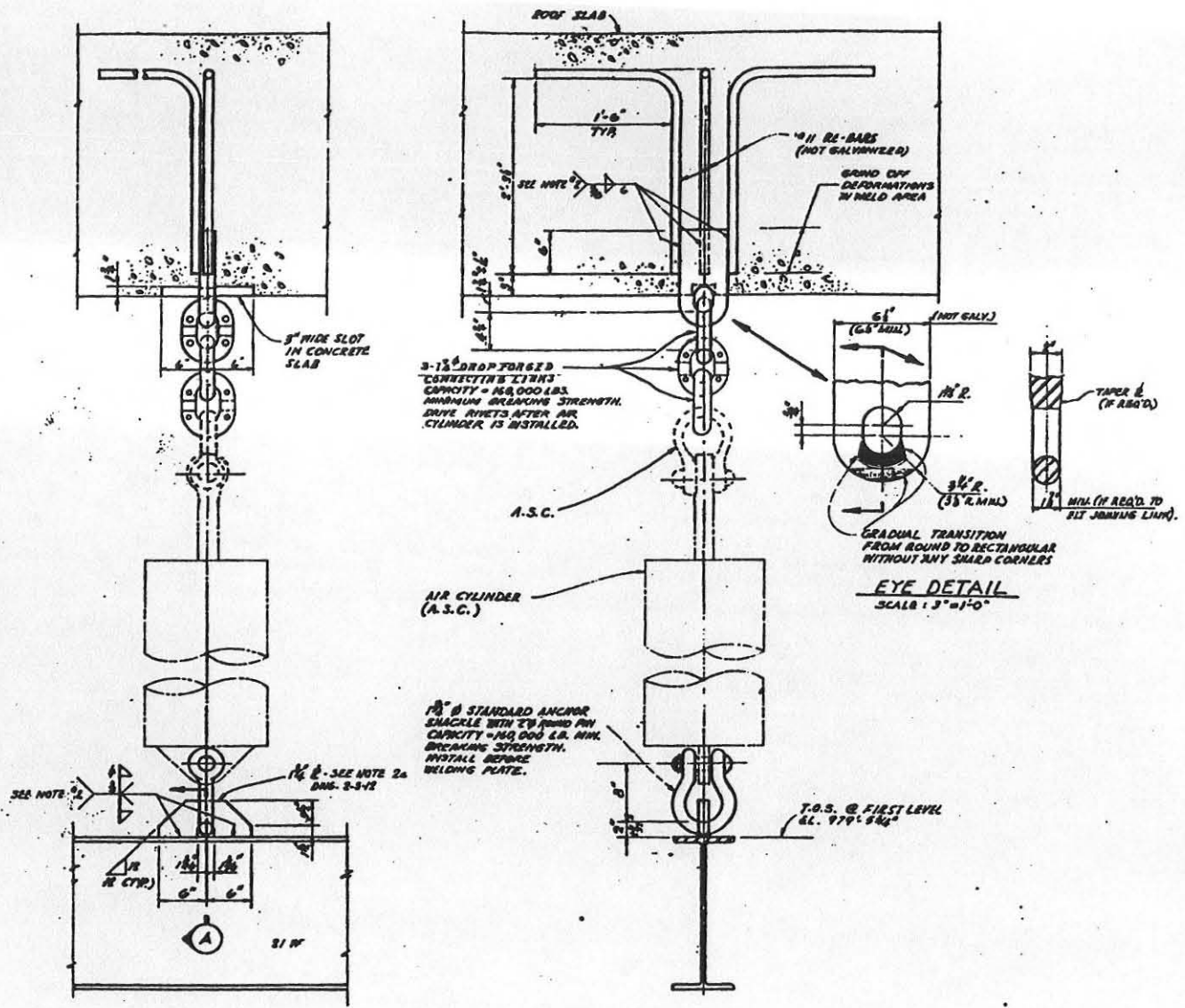


FOR SETS 1 2 3 4 5 6 7 8 9 10 11 12

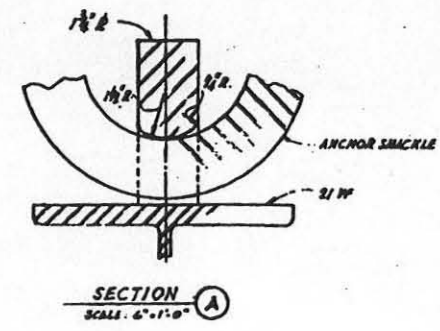
24 November 1961
1 connections
JAN 2 6 1962

| | | | |
|--|-------------------------|---|-------------|
| 12-11-62 | OPERATIONAL BUILT | SATAP | 2 |
| 10/20-61 | REV. TO SQW CONSTR. | | |
| 4-15-60 | AS-BUILT CONDITION | CEBACO | OR |
| | ISSUED FOR DYESS A.F.B. | | |
| REVISION | DATE | DESCRIPTION | AGENCY DIV. |
| BCHTEL CORPORATION | | DEPARTMENT OF THE AIR FORCE | |
| ENGINEERS AND CONTRACTORS | | AIR FORCE BALLISTIC MISSILE DIVISION (AMBD) | |
| 1300 W. 10th Street, Los Angeles, California | | HUNTERD HALL, WASHINGTON, D.C. | |
| WS-107 A-1 OPERATIONAL BASE | | | |
| UNITARY SILO | | | |
| LAUNCH CONTROL CENTER | | | |
| HUNG FLOOR DETAILS | | | |
| DESIGNED BY | 12-51 | 12-51 | |
| CHECKED BY | 12-51 | 12-51 | |
| DATE | 12-51 | 12-51 | |
| BY | 12-51 | 12-51 | |
| 13 JAN 1960 | NOTED | | |
| 578-2-3-14 | | | |

FOR THE DIRECTOR OF THE AIR FORCE BALLISTIC MISSILE DIVISION
13 JAN 1960
578-2-3-14



DETAIL A
 SCALE: 1/2" = 1'-0"
 TYP. SPRING SUSPENSION CONNECTION



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

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

NOTES

- SHOP FIT JOINING LINK THE HOLE IN ANCHOR PLATE TO VERIFY CLEARANCE.
- RADIOGRAPHIC SHOP INSPECTION REQUIRED TO VERIFY SOUNDNESS OF WELD.

1/4" = 1 FT
 3/8" = 1 FT
 1/2" = 1 FT

| | | | |
|---------------------------------|-------------------------------------|----|---|
| 14-62 | OPERATIONAL DR @ HULLB/1/1/73 68 76 | BY | R |
| FOR SITES 11234567891011 | | | |
| 10-50-1 | REV. TO SHOW INSTR. | | |
| 11-60 | REV. TO SHOW INSTR. | | |
| 1-14-60 | REV. TO SHOW INSTR. | | |
| 1-14-60 | REV. TO SHOW INSTR. | | |

BECHTEL CORPORATION
 ENGINEERS AND ARCHITECTS
 2000 BAY STREET, OAKLAND, CALIF. 94612

DEPARTMENT OF THE AIR FORCE
 AIR FORCE BALLISTIC MISSILE DIVISION (AFBMD)
 MISSILE DIVISION

W-107 A-1 OPERATIONAL BASE
 UNITARY SILO
 LAUNCH CONTROL CENTER

HANGER DETAILS
 34-066-32
 73 JAN. 1962
 578-2-8-15
 1-24

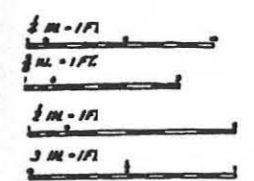
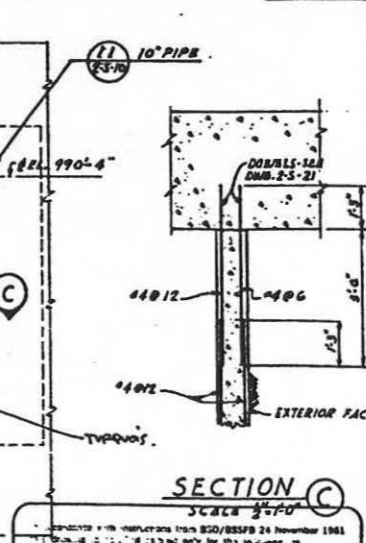
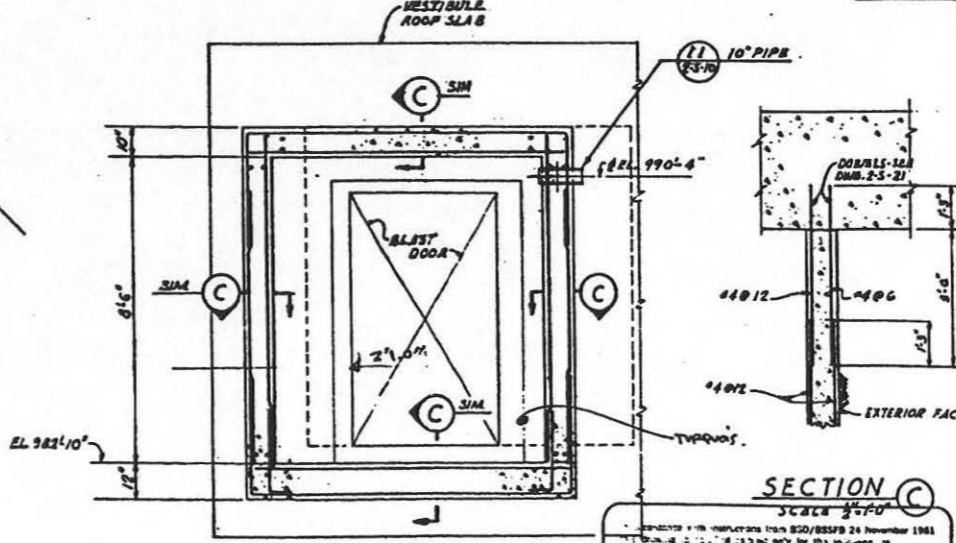
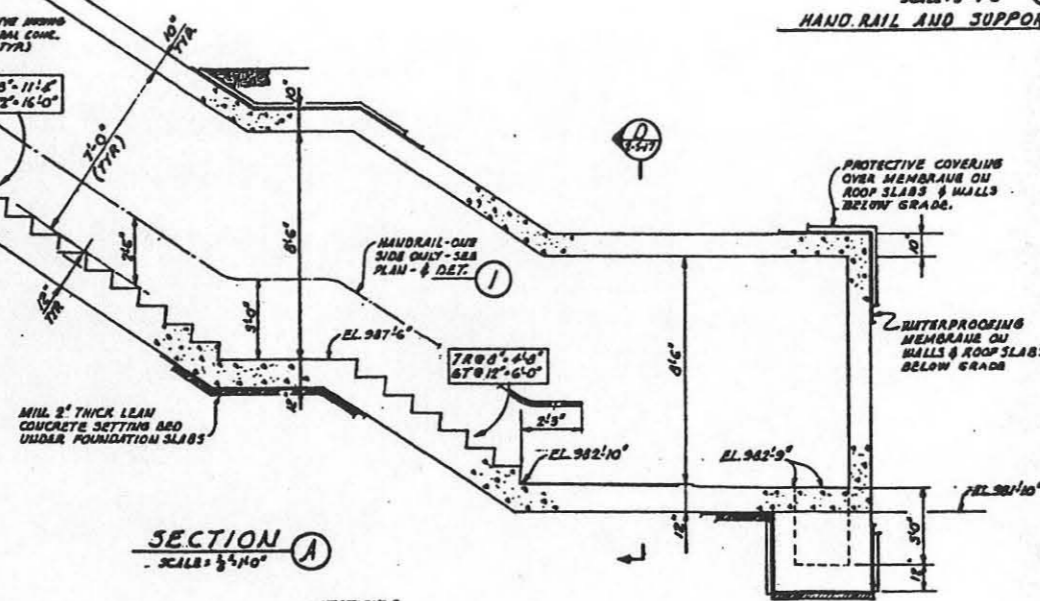
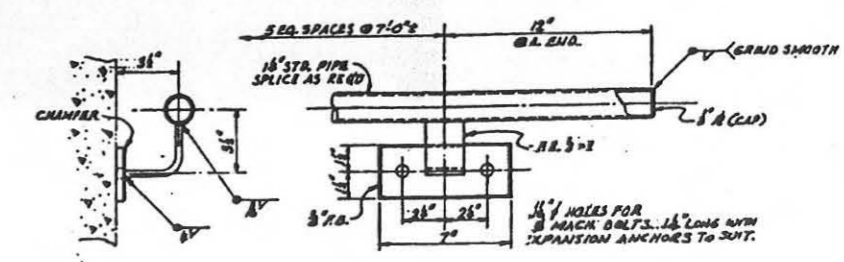
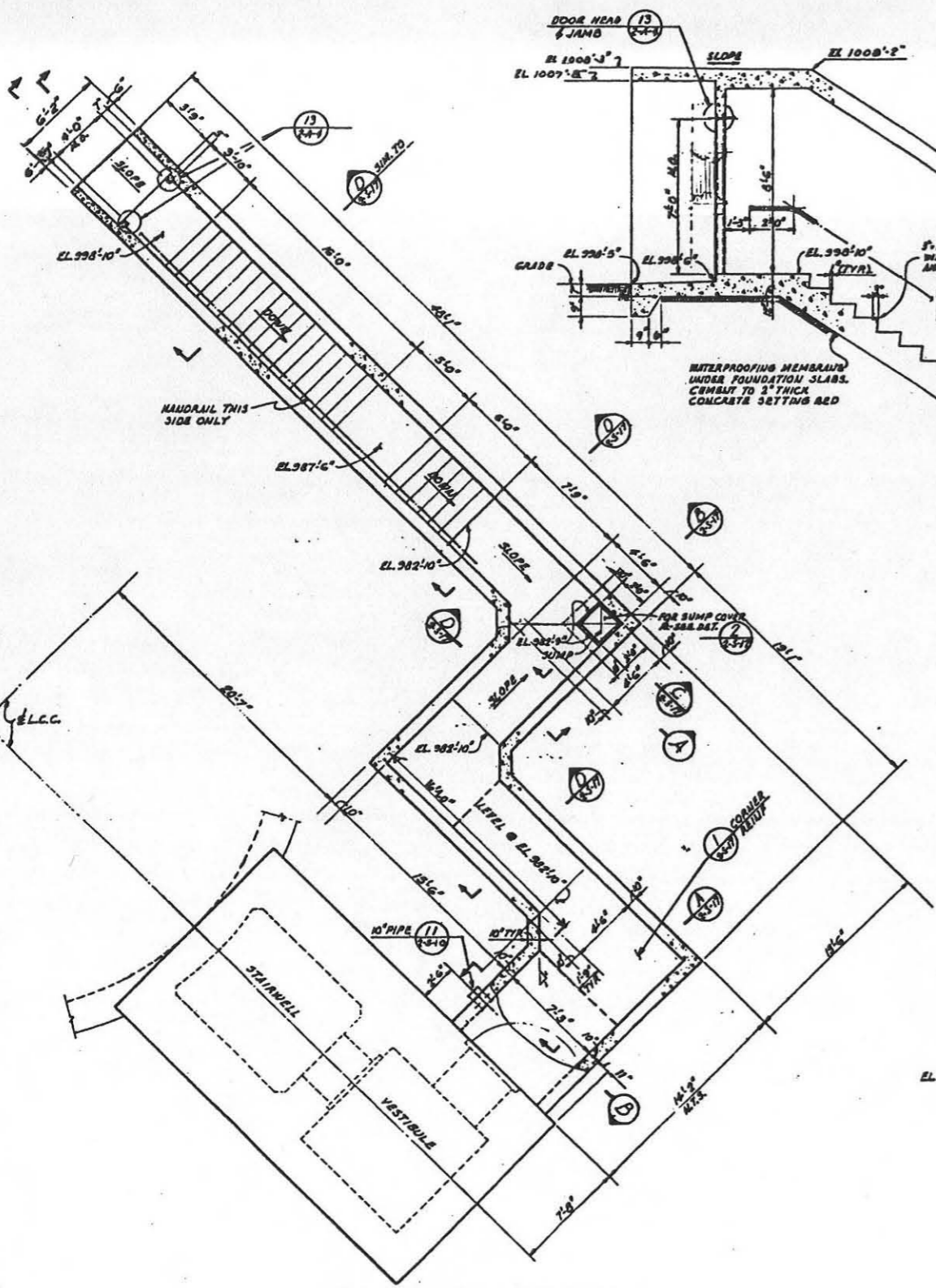
In accordance with instructions from ASD/OSPS 24 November 1961, the drawing is revised to show only the following as changed:

- Change of dimensions for 1/2" and 3/4" connections.
- Change of dimensions for 1/2" and 3/4" connections.
- Change of dimensions for 1/2" and 3/4" connections.

JAN 24 1962

JUN 9 1960
 JUN 10 1960
 JUN 11 1960

CONSTRUCTION CONTRACT NO. 1



| NO. | DATE | DESCRIPTION | BY | CHECKED |
|-----|----------|-------------------------|----|---------|
| 1 | 10/20/60 | OPERATIONALS BUILT | | |
| 2 | 10/20/60 | REV. TO LOW CONCTR. | | |
| 3 | 4-15-60 | AS-BUILT CONDITION | | |
| 4 | 4-15-60 | ISSUED FOR DYESS A.F.B. | | |

| | |
|---|--|
| BECHTEL CORPORATION
ENGINEERS AND ARCHITECTS
2000 RAYBURN DRIVE
OAKLAND, CALIFORNIA | DEPARTMENT OF THE AIR FORCE
AIR FORCE BALLISTIC MISSILE DIVISION (ASMO)
WRIGHT-PATTERSON AIR FORCE BASE
DAYTON, OHIO |
|---|--|

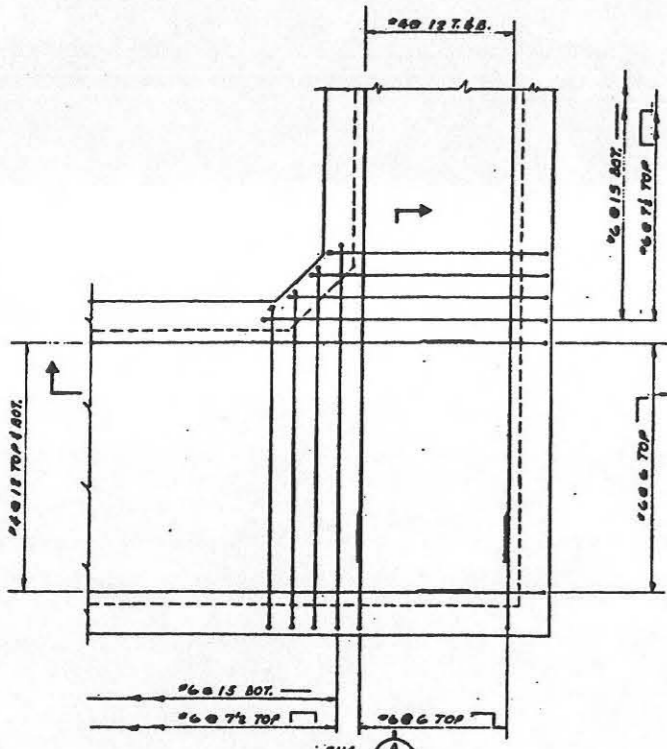
| |
|---|
| WS-107 A-1 OPERATIONAL BASE
UNITARY 310
LAUNCH CONTROL CENTER
ENTRY PLAN AND SECTIONS |
|---|

| |
|---------------------------|
| 13 JAN 1960
578-2-9-16 |
|---------------------------|

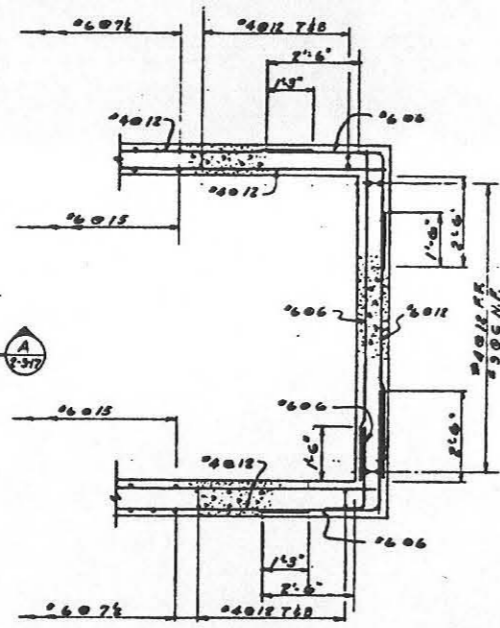
FOR SETS 1 2 3 4 5 6 7 8 9 10 11 12

FOR REINF. BAR SIZES, DETAILS, ETC., SEE SEC. (D)

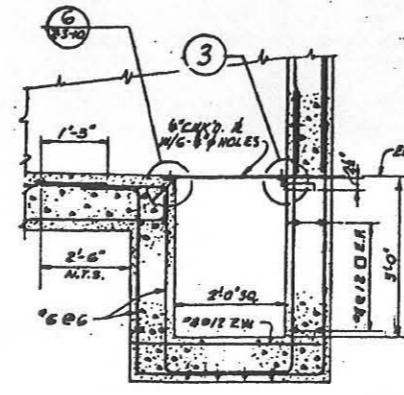
JAN 24 1960



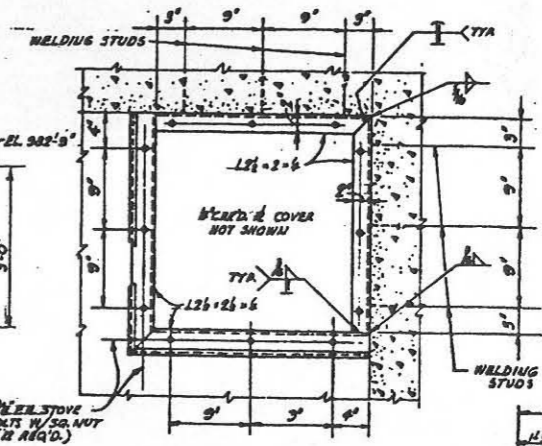
DETAIL 1 SEE 2-5-16
 SCALE: 1/4" = 1'-0" (3-17) 2-5-16
 TYP. ROOF REINF. PLAN - SIM. FOR ALL CORNERS
 (FON. REINF. PLAN - SIMILAR)



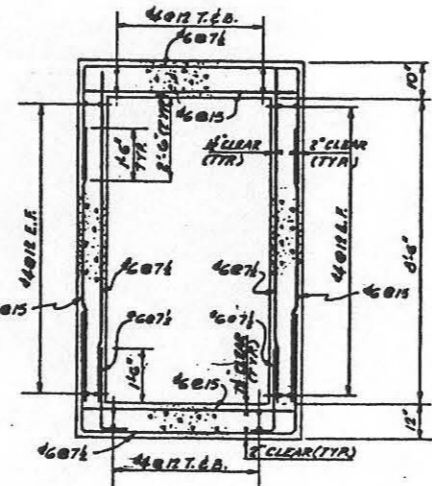
SECTION A SEE 2-5-16
 SCALE: 1/4" = 1'-0" (3-17) 2-5-17



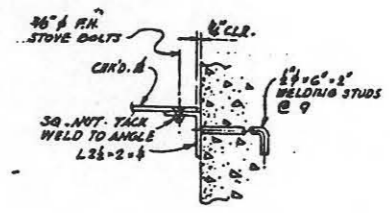
SECTION B SEE 2-5-16
 SCALE: 1/4" = 1'-0" (3-17) 2-5-16



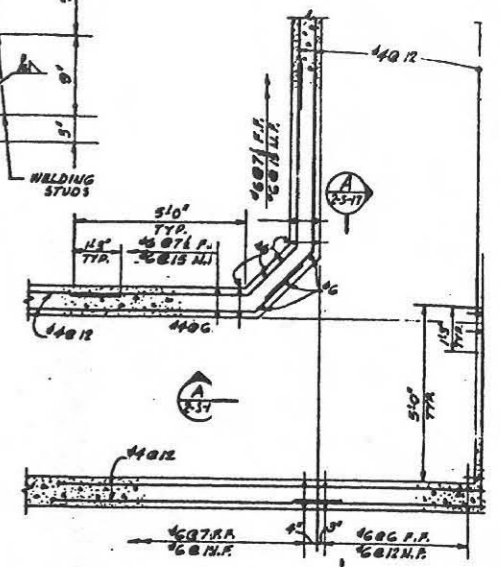
DETAIL 2 SEE 2-5-16
 SCALE: 1/4" = 1'-0" (3-17) 2-5-16
 PLAN - SUMP COVER & FRAME



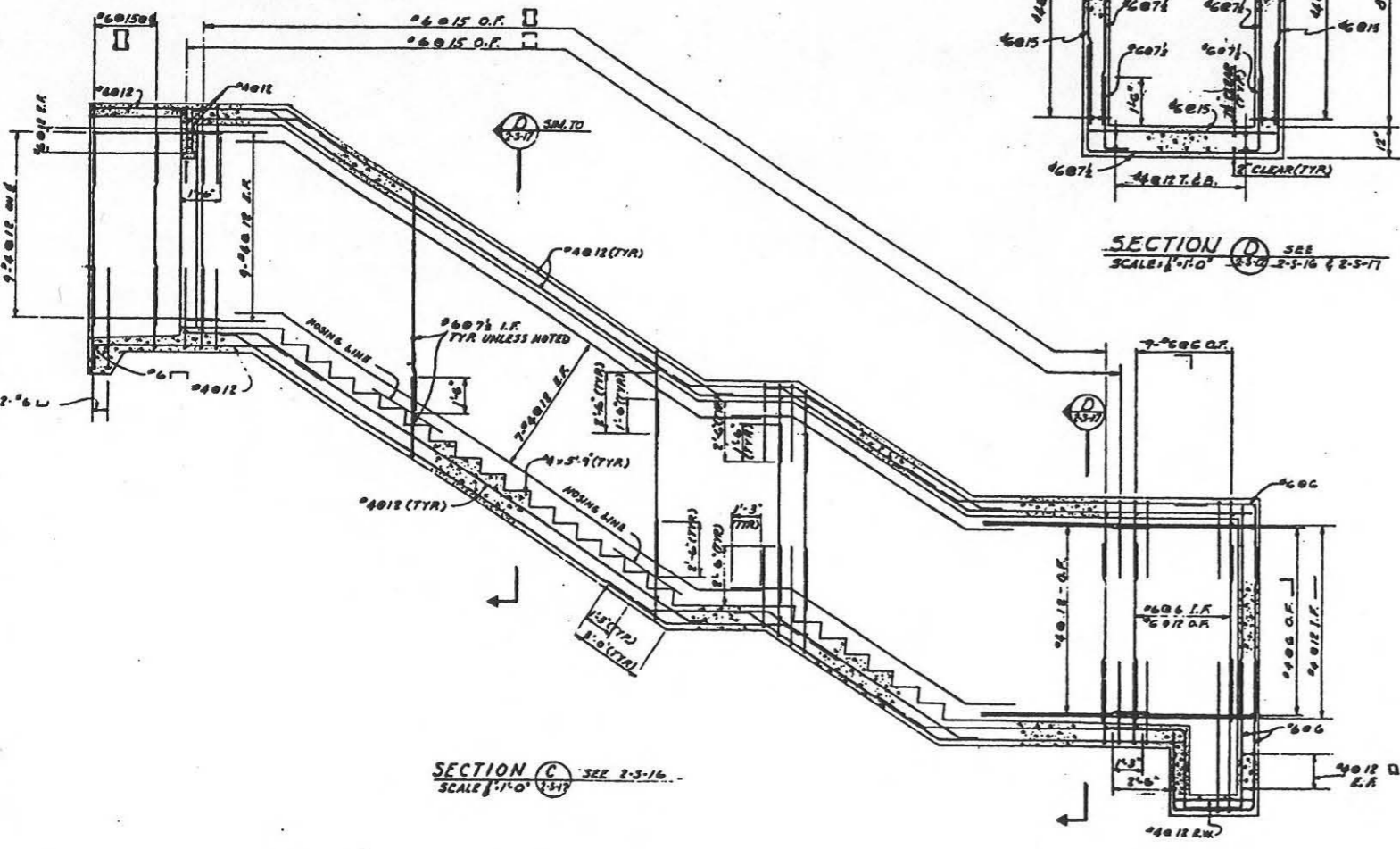
SECTION D SEE 2-5-16 & 2-5-17
 SCALE: 1/4" = 1'-0" (3-17)



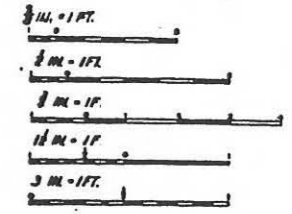
DETAIL 3
 SCALE: 3/4" = 1'-0"



TYR MILL REINF. PLAN
 SIM. OR ALL CORNERS
 SCALE: 1/4" = 1'-0"



SECTION C SEE 2-5-16
 SCALE: 1/4" = 1'-0" (3-17)



In accordance with instructions from BCO/BSSEB 24 November 1961
 10/20/61 REV. TO SHW CONSTR.
 AS-BUILT CONDITION
 4-15-60 ISSUED FOR DYESS A.F.B.
 1. ...
 2. ...
 3. ...
 JAN 24 1962
 Signed: *[Signature]*

FOR SITS 1 2 3 4 5 6 7 8 9 10 11 12

| | |
|----------|-------------------------|
| 10-11-62 | OPERATIONAL AS-BUILT |
| 10/20/61 | REV. TO SHW CONSTR. |
| | AS-BUILT CONDITION |
| 4-15-60 | ISSUED FOR DYESS A.F.B. |

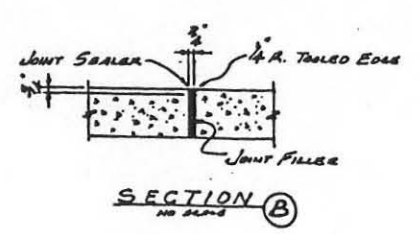
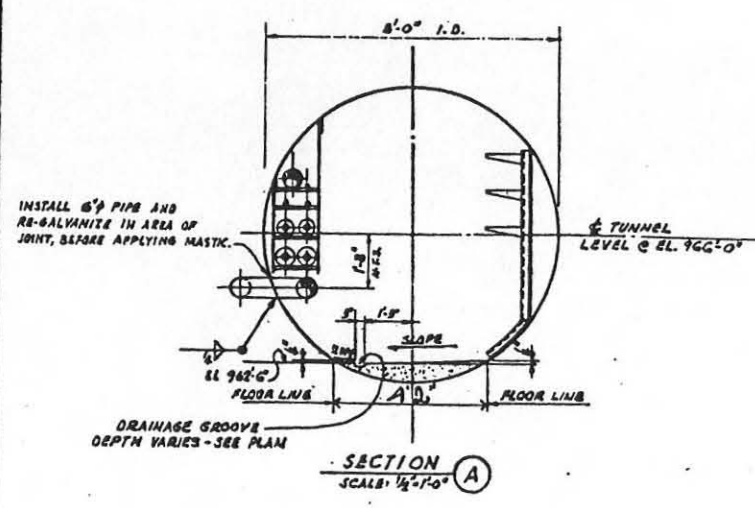
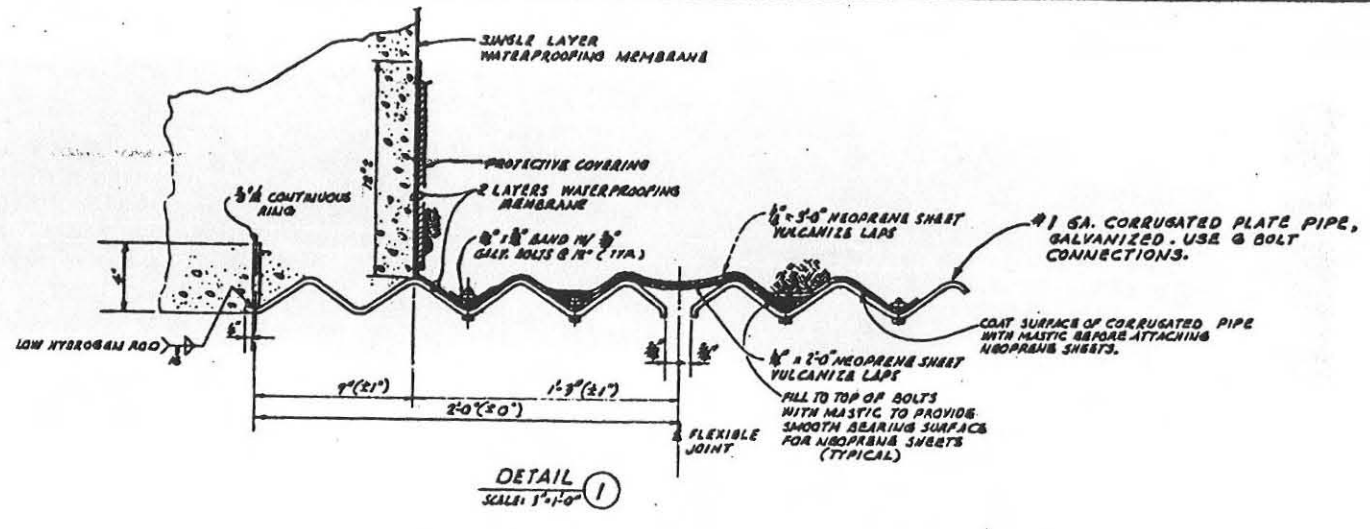
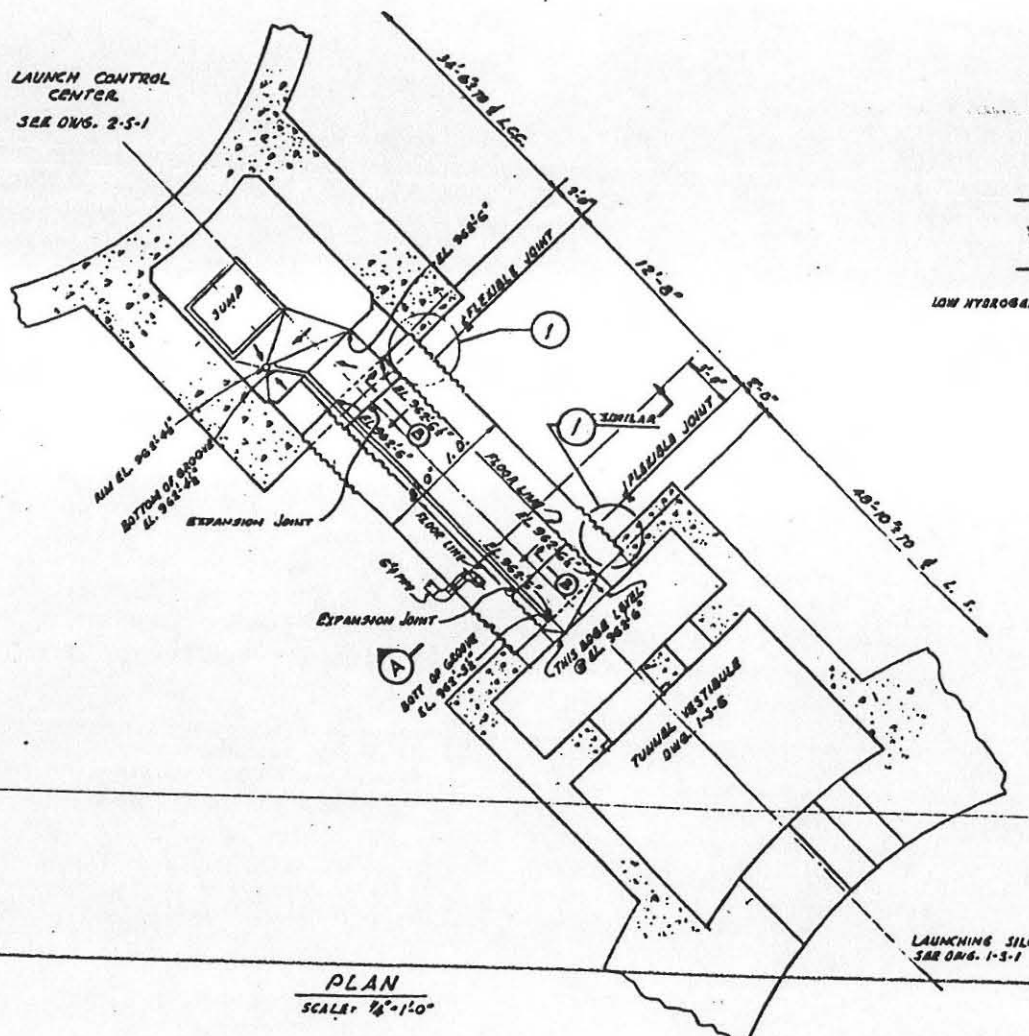
BECHTEL CORPORATION
 ENGINEERS AND CONSTRUCTORS
 4000 SHAW BLVD. BERKELEY, CALIF. 94702

DEPARTMENT OF THE AIR FORCE
 AIR FORCE BALLISTIC MISSILE DIVISION
 1000 WASHINGTON BLVD. WASHINGTON, D.C. 20330

WS-107 A-1 OPERATIONAL
 UNITARY SILO
 LAUNCH CONTROL CENTER

ENTRY SECTIONS & DETAIL

Project: *[Signature]*
 Date: 28 JAN 1960
 578-2-8-17



In accordance with instructions from 820/83373 24 November 1961
this drawing is to be used as a guide only for the following, as
detailed in the notes.

1. Do not use any other material for connections.
2. Do not use any other material for connections.
3. Do not use any other material for connections.

JAN 24 1962

NOTES

1. ALL EXTERIOR SURFACES OF CORRUGATED PIPE TUNNEL SHALL BE COATED WITH MASTIC BEFORE BACKFILLING.
2. FOR SPECIAL BEDDING REQUIREMENTS SEE CIVIL DWGS.

FOR SITES [2][3][4][5][6][7][8][9][10][11][12]

1/2" RIFT

1/2" RIFT

3/8" RIFT

| | | | |
|--------------|--|-------|----|
| 17-11-62 | OPERATION AS BUILT | BATAP | P. |
| 4/28-67 REV. | TO NOW CONSTR. ADDED SECTION B | | |
| | AS-BUILT CONDITION DELETED SECT. A | | |
| 5-16-64 | REVISED THE DIMENSIONS & DIM. REFERENCES | | |
| 6-12-64 | ISSUED FOR DYES & A. R. E. | | |

BECHTEL CORPORATION
ENGINEERS AND ARCHITECTS

DEPARTMENT OF THE AIR FORCE
AIR FORCE BALLISTIC MISSILE DIVISION HEAD
QUARTERS WRIGHT PATTENSON AIR FORCE CENTER

WS-107 A-1 OPERATIONAL BASE
UNITARY SILO
LAUNCH CONTROL CENTER

UTILITY TUNNEL

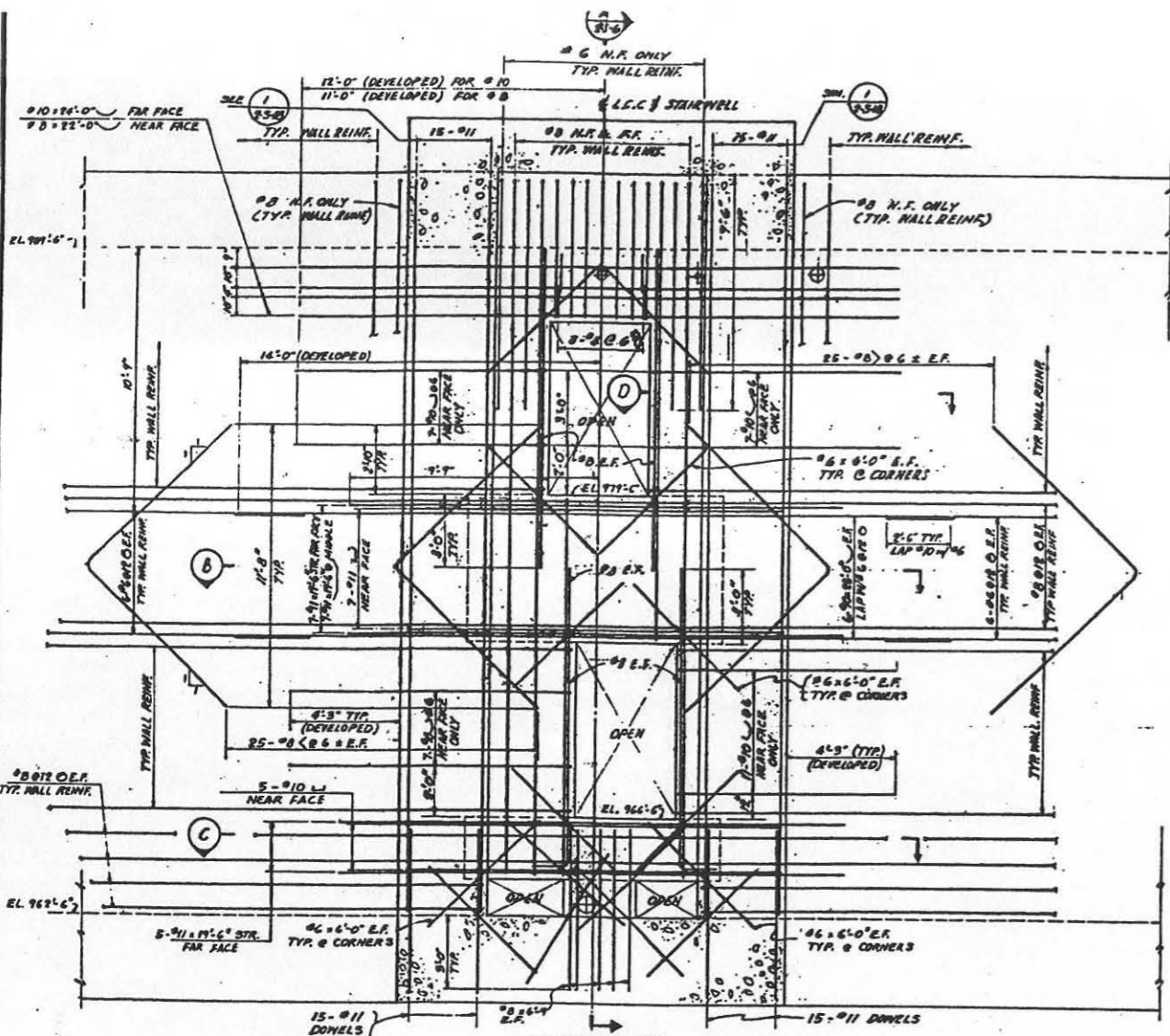
ENG. 41-443-60-30
13 JAN 1960
578-A-2-5-20
1-29

A CFC 10-10-1962

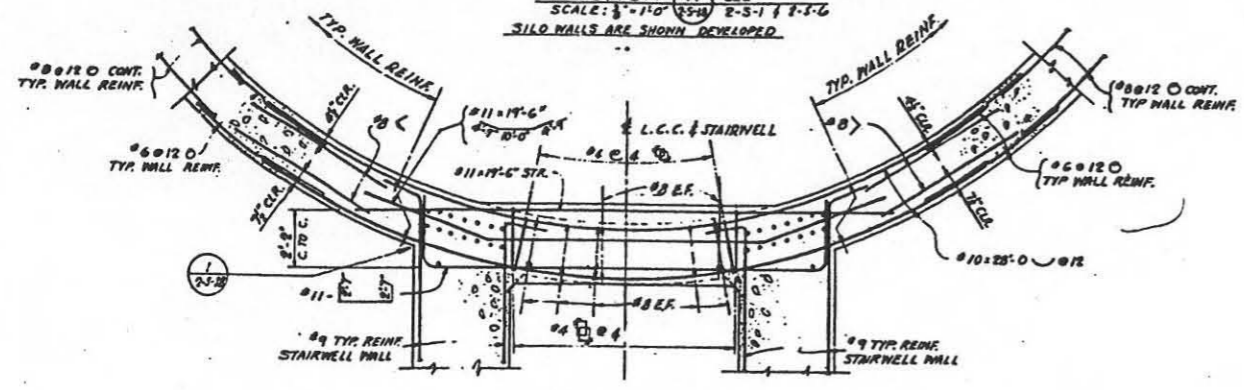
WE HAVE THE HONOR TO ACKNOWLEDGE THE RECEIPT OF THIS DRAWING AND TO ADVISE THAT IT IS BEING USED AS A GUIDE ONLY FOR THE FOLLOWING, AS DETAILED IN THE NOTES.

DATE: 1/13/62

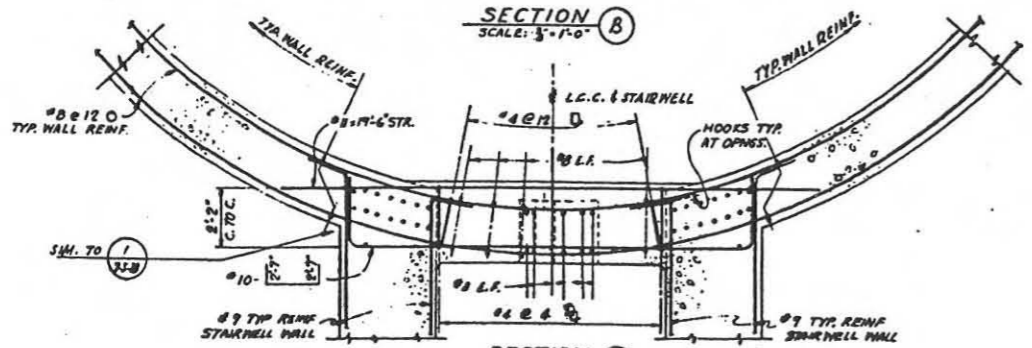
BY: [Signature]



SECTION A
SCALE: 3/4"=1'-0"
SILLO WALLS ARE SHOWN DEVELOPED

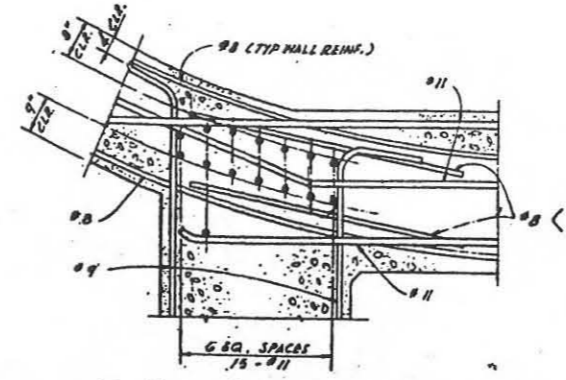


SECTION B
SCALE: 3/4"=1'-0"



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

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



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



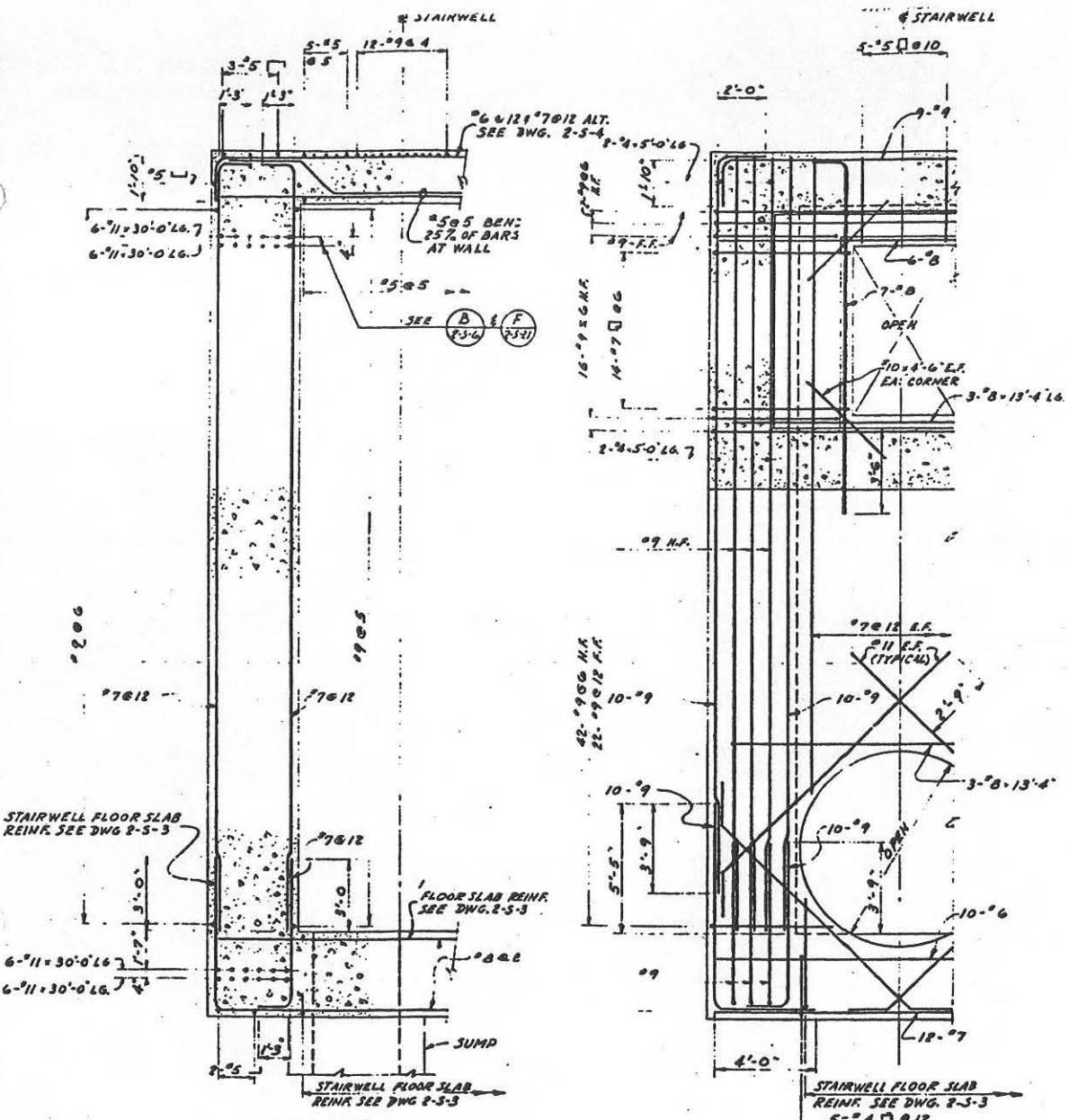
JAN 24 1962
W. D. [Signature]

FOR THE RECORD THIS DRAWING IS TO BE USED FOR THE CONSTRUCTION OF THE STRUCTURE SHOWN HEREON AND FOR THE PURPOSE OF RECORD ONLY.
 DATE: JAN 13 1962
[Signature]

| | |
|-------------------------|----------------------|
| FC SITES 112345678910 | |
| 2-11-62 | OPERATIONAL AS BUILT |
| 10/30/61 | REV. 2 SHOW CONSTR. |
| 4-5-60 | AS-BUILT CONDITION |
| ISSUED FOR DYESS A.F.B. | |
| BECHTEL CORPORATION | DEPARTMENT C |
| ENGINEERS ARCHITECTS | AIR FORCE BALLISTIC |
| WS-107 A-1 OPERA | UNITARY 1 |
| | LAUNCH CONTR |
| | STAIRWELL B |
| | REINFORCING SE |
| JAN 13 1962 | ENG. |
| JAN 13 1962 | 378 |

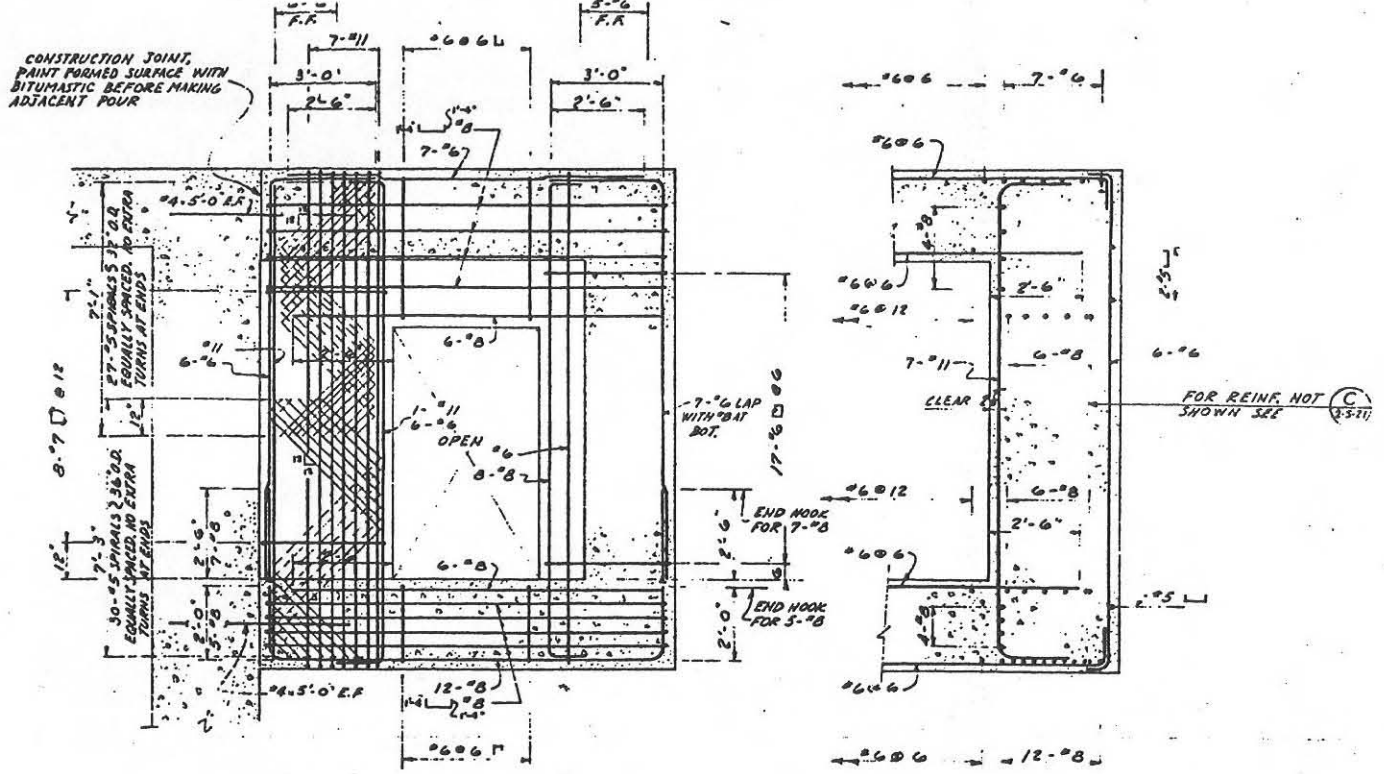
G. O. SEARS

BND INDEX



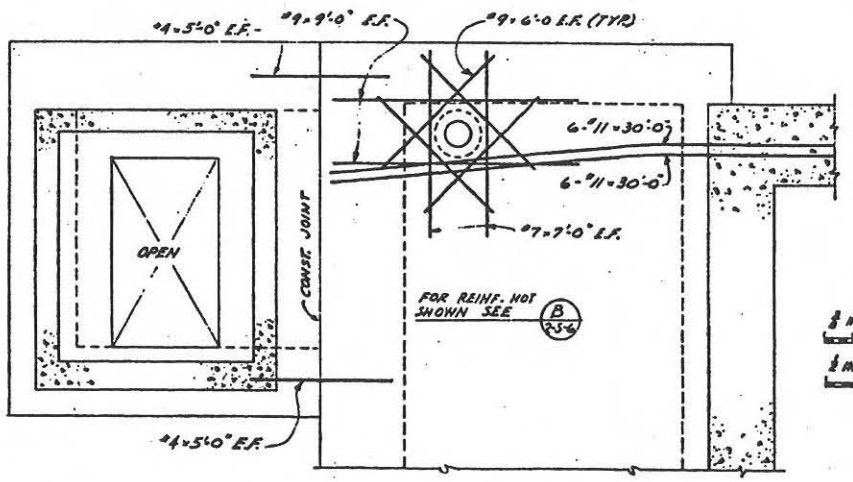
SECTION (A) SEE 2-5-1, 2-5-3
SCALE 1/8"=1'-0" (2-5-1) 2-5-4 & 2-5-6

SECTION (B) SEE 2-5-1,
SCALE 1/8"=1'-0" (2-5-1) 2-5-4 & 2-5-6

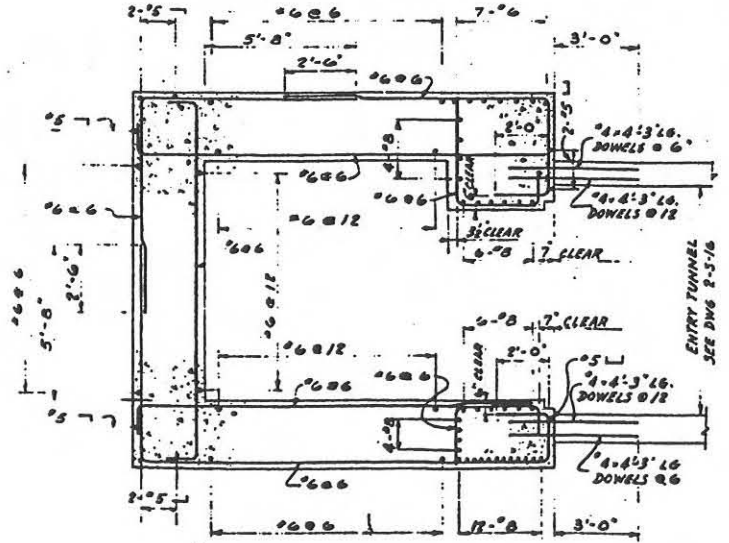


SECTION (C) SEE 2-5-1
SCALE 1/8"=1'-0" (2-5-1) 2-5-4 & 2-5-6

SECTION (D) SEE 2-5-6
SCALE 1/8"=1'-0" (2-5-1)



SECTION (F) SEE 2-5-6
SCALE 1/8"=1'-0" (2-5-1)



SECTION (E) SEE 2-5-1
SCALE 1/8"=1'-0" (2-5-1) 2-5-4 & 2-5-6

In accordance with instructions from BCO/BSCFB 24 November 1961
 1. *[Signature]*
 2. *[Signature]*
 JAN 24 1962

| | | | |
|-------------------------------------|--|--------------------|--------------------|
| FOR ITES 1 2 3 4 5 6 7 8 9 10 11 12 | | BATF | P |
| REV. 10/20/61 | OPERATIONS BUILT | | |
| REV. 10/20/61 | REV. SHOW CONSTR. | | |
| 4-15-60 | AS-BUILT CONDITION | CEBPCO | DP |
| 4-15-60 | ISSUED FOR DYESS A.F.B. | AFBMD | AFBMD |
| DEPARTMENT OF THE AIR FORCE | AIR FORCE BALLISTIC MISSILE DIVISION (AFBMD) | | |
| BECKETT COIORATION | ENGINEERS AND ARCHITECTS | | |
| WS-107A-1 OPERATIONAL BASE | | | |
| UNITARY SILO | | | |
| LAUNCH CONTROL CENTER | | | |
| STAIRWELL & VESTIBULE | | | |
| REINFORCING SECTIONS-SHT. 3 | | | |
| DATE | 11-57 | 12-57 | 12-57 |
| BY | <i>[Signature]</i> | <i>[Signature]</i> | <i>[Signature]</i> |
| DATE | 13 JAN. 1960 | SCALE | AS NOTED |
| NO. | 578-2-5-21 | | |

GENERAL NOTES

1. FOR MATERIAL & FABRICATION SPECIFICATIONS SEE STRUCTURAL STEEL SPECS.

2. FIELD CONNECTIONS:

- (a) VERTICAL BRACINGS, HANGERS AND PERIMETER G.C. CORN. USE 3/4" Ø HIGH STRENGTH BOLTS WITH HARD WASHER B.S. ALSO SEE DWG. 2-5-25 TYP. ELEV. FOR SUPPLEMENTAL INFO.
- (b) ALL OTHER CORN. USE 3/4" Ø MACHINE BOLTS.

3. FOR ERECTION PROCEDURE SEE DESIGN DWG. 2-5-13

4. IN ADDITION TO REQUIREMENTS FOR TYPE II STEEL (NOTE 2, DWG. 2-5-12), THE ZIMPS AT SECOND LEVEL IF FIELD SPLICED, SHALL ALSO BE TYPE II.

5. ALL FLOORING PLATE SHALL BE 1/2" THICK NOT ROLLED SMOOTH PLATES SPLICED AS SHOWN.

6. REFER TO NOTE 5 ON DWG. 2-5-12 RE. FLOOR R.

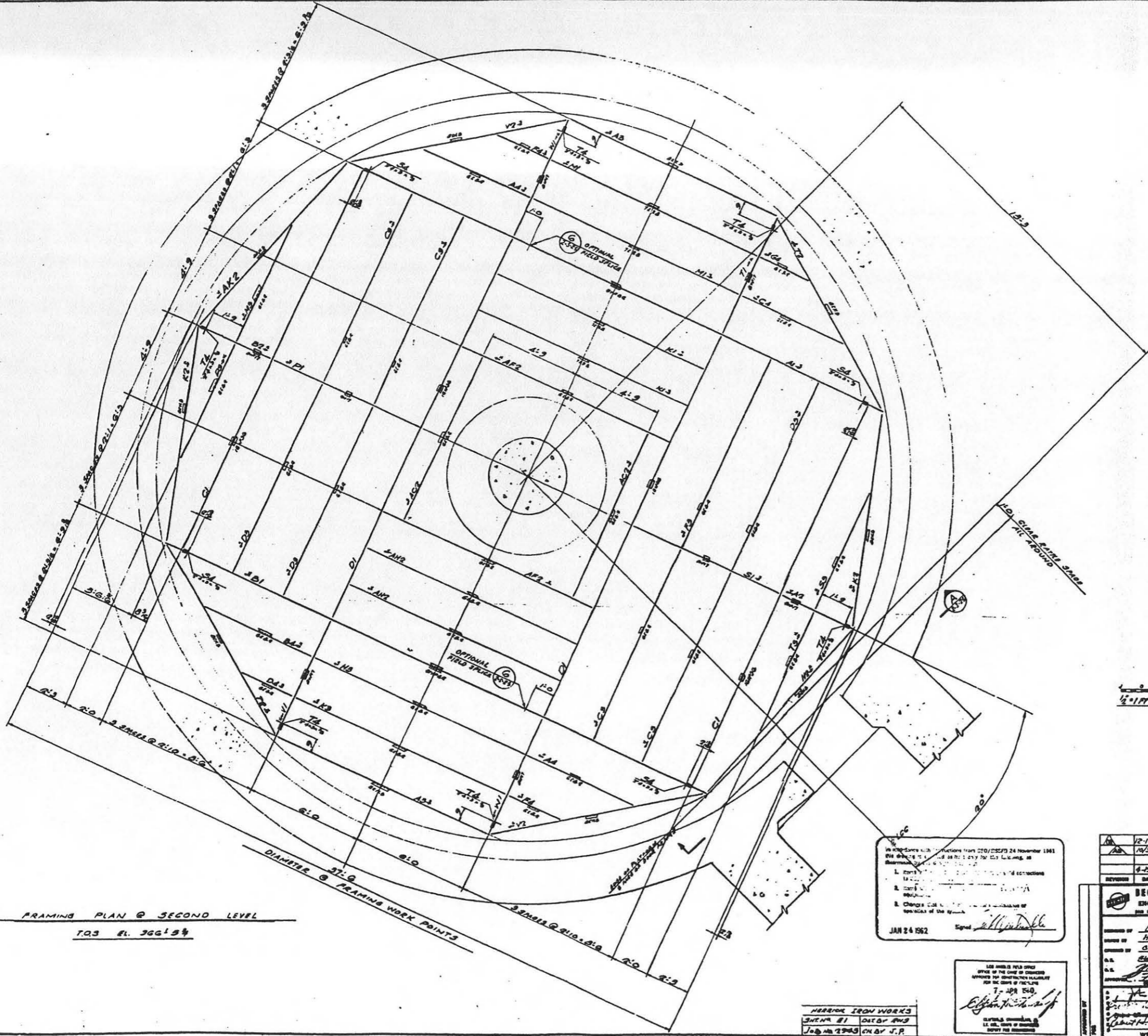
7. ALL STEEL SHALL RECEIVE ONE SHOP COAT OF PAINT EXCEPT FOR THE FOLLOWING:

- (a) TOP SURFACE OF FLOOR PLATES SHALL NOT BE PAINTED.
- (b) SURFACES WHICH ARE TO BE WELDED DURING OR AFTER ERECTION SHALL WHERE PRACTICABLE NOT RECEIVE A SHOP COAT OF PAINT. IF PAINTED, SUCH PAINT SHALL BE REMOVED FOR A DISTANCE OF AT LEAST 2 INCHES ON EITHER SIDE OF THE JOINT OR AREA TO BE WELDED.
- (c) PAYING SURFACES AT CONNECTIONS REQUIRING HIGH STRENGTH BOLTS SHALL NOT BE PAINTED (AS INDICATED ON DETAILS)

LEGEND

- A S & N = AS SHOWN & NOTED
- O H & N = OPPOSITE HAND & NOTED
- A S = AS SHOWN
- O H = OPPOSITE HAND

ALL BOLTS EXCEPT HIGH STRENGTH BOLTS SHALL BE UNFINISHED BOLTS.



FRAMING PLAN @ SECOND LEVEL

T.O.S. EL. 366'5 3/4"

DIAMETER @ 37.0
FRAMING WORK POINTS



FOR SITES 1 2 3 4 5 6 7 8 9 10 11 12

- NOTES:
- 1. ALL HOLES ARE FOR HIGH STRENGTH FIELD BOLTS EXCEPT HOLES "H".
 - 2. NO PAINT WITHIN 3" OF ALL OPEN HOLES EXCEPT HOLES "H".
 - 3. HOLES FOR HIGH STRENGTH FIELD BOLTS TO BE CLEAN AND FREE FROM BURRS.

12-11-64 FUNCTIONAL AS BUILT
10-30-REV. TO SHOW CONSTR.
AS-BUILT CONDITION
4-25-64 ISSUED FOR DYES A, F, B.

1. Check for...
2. Check for...
3. Check for...

JAN 24 1962

| | | | | |
|------------|----------|------------------------------------|----------|------|
| REVISION | DATE | DESCRIPTION | APPROVED | DATE |
| 12-11-64 | 12-11-64 | FUNCTIONAL AS BUILT | SATAP | |
| 10-30-REV. | | TO SHOW CONSTR. AS-BUILT CONDITION | CRAMCO | |
| 4-25-64 | | ISSUED FOR DYES A, F, B. | AF BMD | |

BECHTEL CORPORATION
ENGINEERS AND CONSTRUCTORS

DEPARTMENT OF THE AIR FORCE
AIR FORCE BALLISTIC MISSILE DIVISION (AFCM)

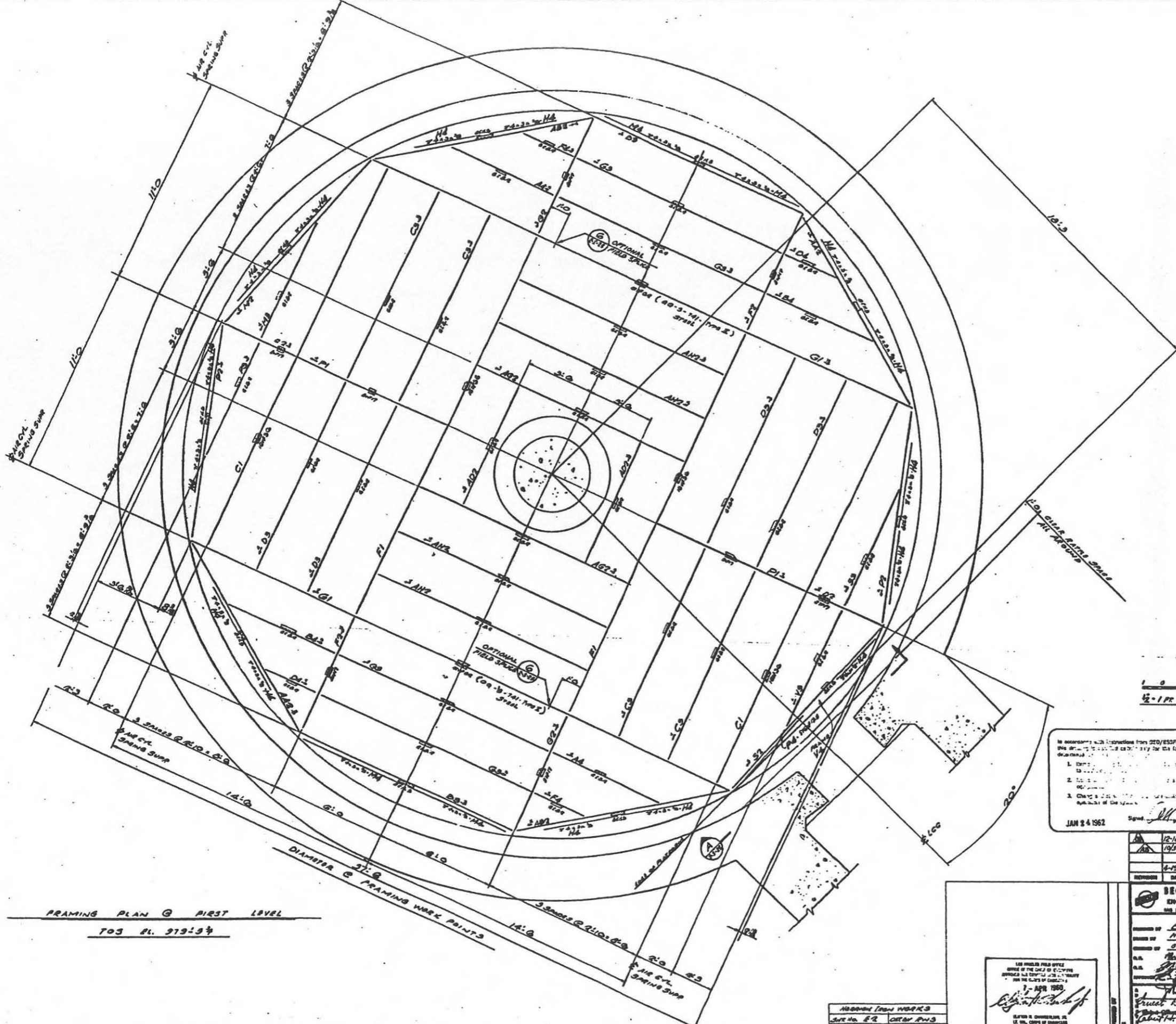
WS-107 A-1 OPERATIONAL BASE
UNITARY SILO
LAUNCH CONTROL CENTER
HUNG FLOORS.
ERECTION PLAN - SHT. I

7- APR 1960
28 MARCH 1960
578-2-S-23

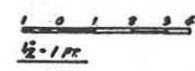
HERRICK IRON WORKS
SHEETS 81 DATE 8/1/54
JOB NO. 2943 ON 8/1/54

USE SHIPMENT FIELD OFFICE
OFFICE OF THE CHIEF OF DESIGN
APPROVES THE CONSTRUCTION LIABILITY
FOR THE GROUP OF FACILITIES

7- APR 1960
Edgar



FRAMING PLAN @ FIRST LEVEL
 703 PL. 979-59



In accordance with instructions from 320/ESOPS 24 November 1961 the drawings are to be used as follows for the following, as directed:

1. Drawings to be used as shown.
2. To be used as shown with the following exceptions:
3. Change to be made as directed by the Agency of the user.

JAN 24 1962

FOR SITES 1 2 3 4 5 6 7 8 9 10 11 12

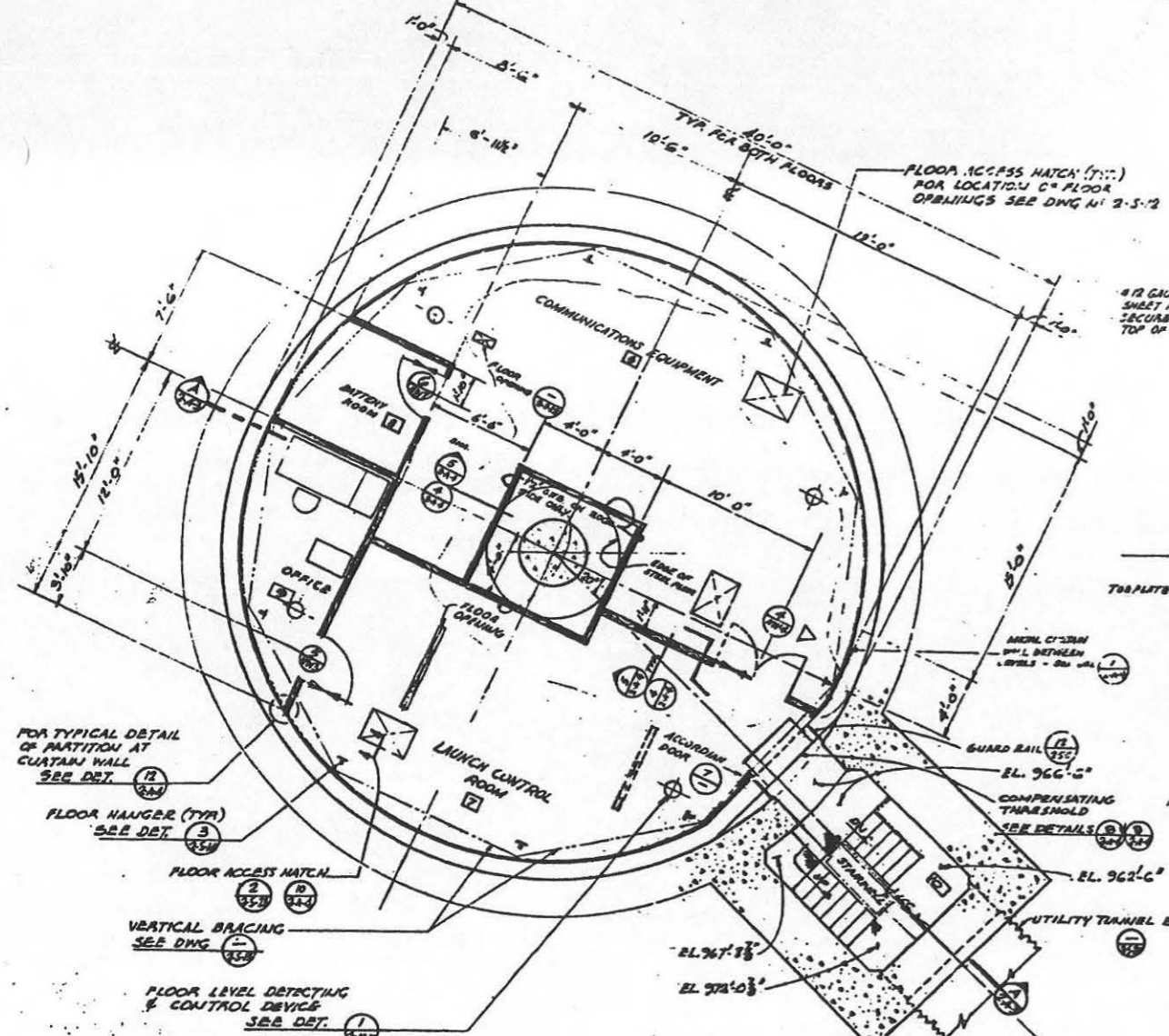
- NOTE:
1. ALL HOLES ARE FOR HIGH STRENGTH FIELD BOLTS EXCEPT HOLES "H".
 2. NO PAINT WITHIN 2" OF ALL OPEN HOLES EXCEPT HOLES "H".
 3. HOLES FOR HIGH STRENGTH FIELD BOLTS TO BE CLEAN AND FREE FROM BURLS.

| | | | |
|----------|----------|--------------------------------------|--------|
| REVISION | DATE | DESCRIPTION | BY |
| 1 | 12-14-62 | OPERATION AIR BUILT | BATAP |
| 2 | 1958-61 | REV. TOWH CONSTR. AS-BUILT CONDITION | CE&MCO |
| 3 | 4-15-60 | ISSUED FOR VESS A.F.R. | AFBMO |

| | | | |
|---|--|---|---|
| BECHTEL CORPORATION
ENGINEERS AND INSTRUCTORS
1000 PLYMOUTH - LOS ANGELES - CALIF. | | DEPARTMENT OF THE AIR FORCE
AIR FORCE BALLISTIC MISSILE DIVISION (ARDD)
WASHINGTON, D.C. | |
| WS-107A-1 OPERATIONAL BASE
UNITARY SILO
LAUNCH CONTROL CENTER
HUNG FLOORS
ERECTION PLAN - SHT. 2 | | | |
| DRAWN BY: <u>DAVID HERRICK</u>
CHECKED BY: <u>SM</u>
DATE: <u>1/18/62</u>
SCALE: <u>AS SHOWN</u> | PROJECT: <u>WS-107A-1</u>
DRAWING NO.: <u>703 PL. 979-59</u>
SHEET NO.: <u>1</u> OF <u>1</u> | PROJECT NO.: <u>ENG. 41-443-60-30</u>
DATE: <u>28 MARCH 1960</u>
SCALE: <u>AS SHOWN</u> | DRAWING NO.: <u>578-2-3-24</u>
SHEET NO.: <u>1</u> OF <u>1</u> |

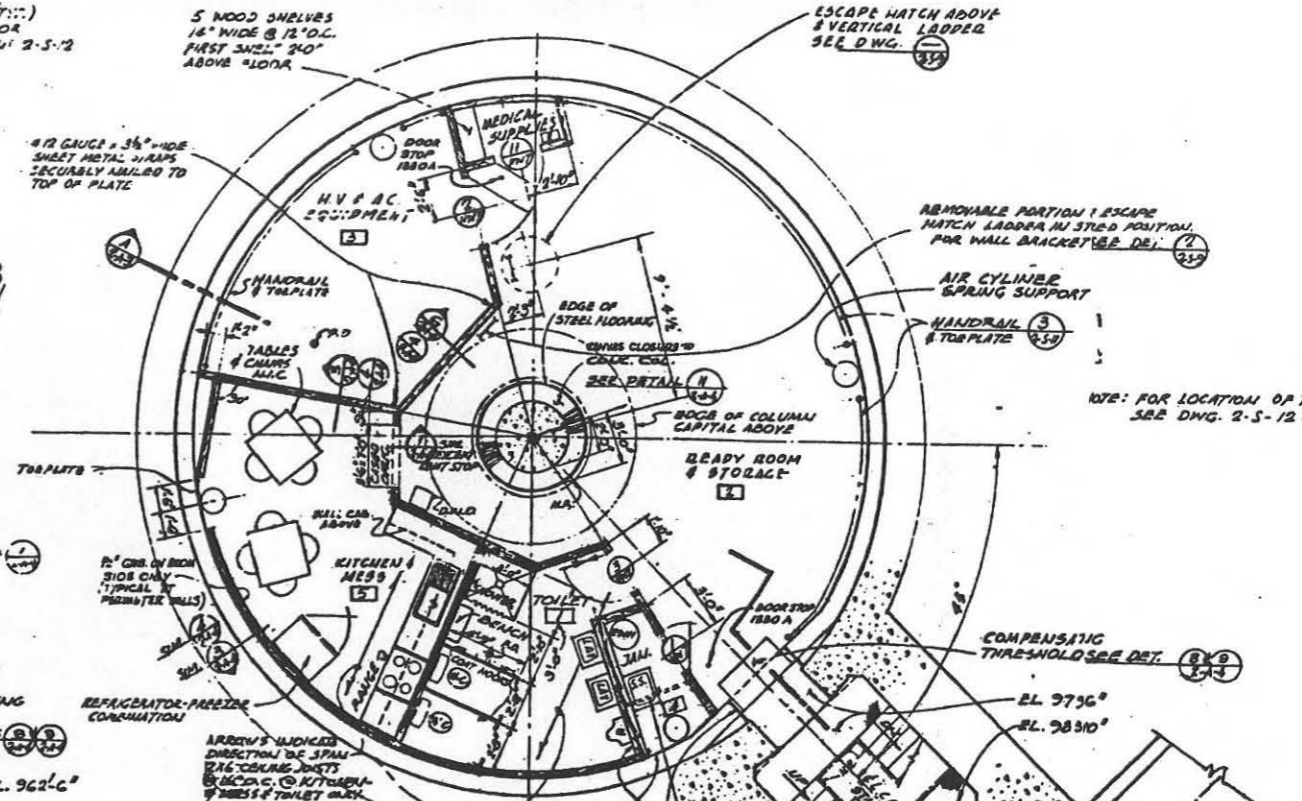
APPROVED FOR WORKS
 Supt. No. ER ORBY PWS
 Log No. 2743 CHY J.P.

FOR THE FIELD OFFICE
 OFFICE OF THE CHIEF OF CONSTRUCTION
 AIR FORCE BALLISTIC MISSILE DIVISION
 WASHINGTON, D.C.

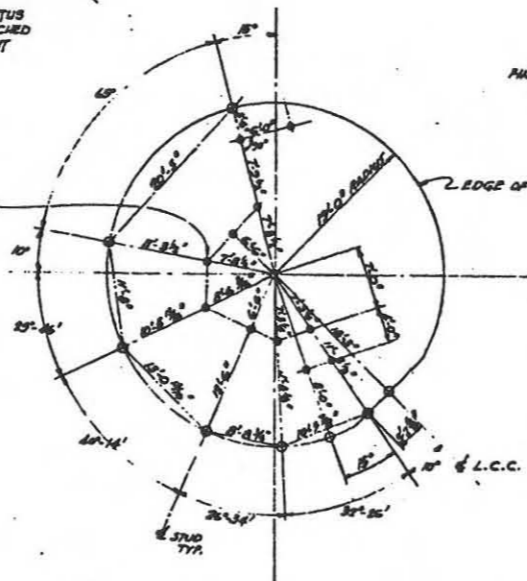


2ND LEVEL
FINISHED FLOOR ELEVATION 966'-6"

NOTE: FREE STANDING EQUIPMENT APPARATUS AND APPLIANCES SHALL BE SECURELY ATTACHED TO WALLS OR FLOOR TO PREVENT MOVEMENT UNDER SHOCK CONDITIONS.



1ST LEVEL
FINISHED FLOOR ELEVATION 979'-0"



SCHEMATIC PLAN - LOCATION OF WORK POINTS FOR WOOD STUD PARTITIONS - 1ST LEVEL
NO SCALE

NOTE: FOR 1ST AND 2ND LEVEL STEEL FLOOR FRAMING PLAN AND DETAILS SEE DWGS 2-S-11, 2-S-12, 2-S-13 AND 2-S-14. FOR STEEL STAIR SEE DWG. 2-S-7

In accordance with instructions from ASD/BS378 24 November 1961 this drawing is certified as correct for the purposes as determined by the designator.

1. Drawn by...
2. Check by...
3. Checked by...

JAN 24 1962

1/4" = 1'-0"

FORSITES 12

| | | | |
|------------|--|---------|------|
| 12-4-62 | ENGINEER IN CHARGE | BATHS | 3 |
| 10/30-6/71 | TO SHOW CONSTR. | | |
| 3/3/61 | 1-BUILT CONDITION ADDED DOOR STOPS 1ST LEVEL | CEBAYCO | D.L. |
| | | | |
| | | | |

BECHTE CORPORATION
ENGINEERING CONSTRUCTORS
1000 W. 100th St., Tulsa, Okla. 74119

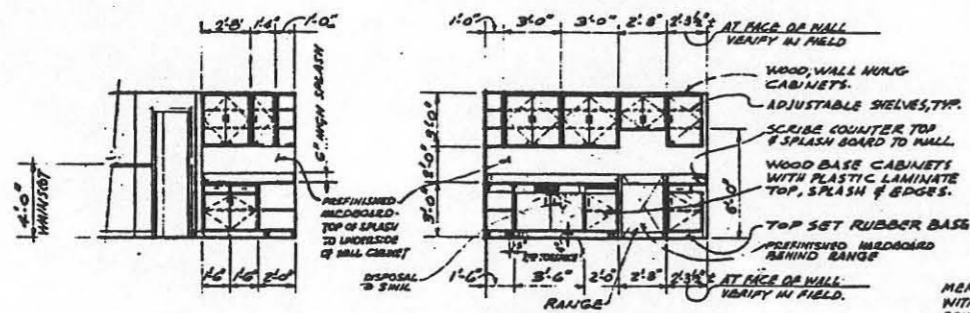
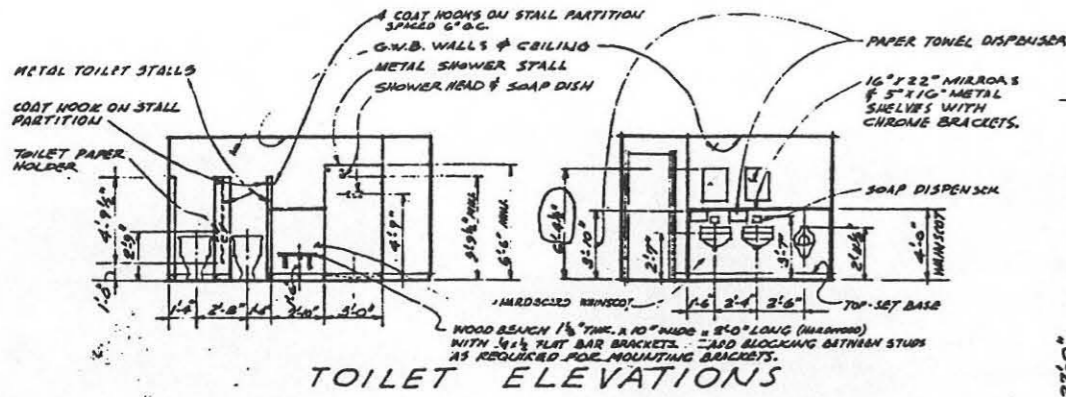
DEPARTMENT OF THE AIR FORCE
AIR FORCE BALLISTIC MISSILE DIVISION (AFBMD)
BANGOR, MISSISSIPPI

WS-107 A-1 OPERATIONAL BASE
UNITARY SILO
LAUNCH CONTROL CENTER

FLOOR PLANS

13 JAN 1960 4" x 11"

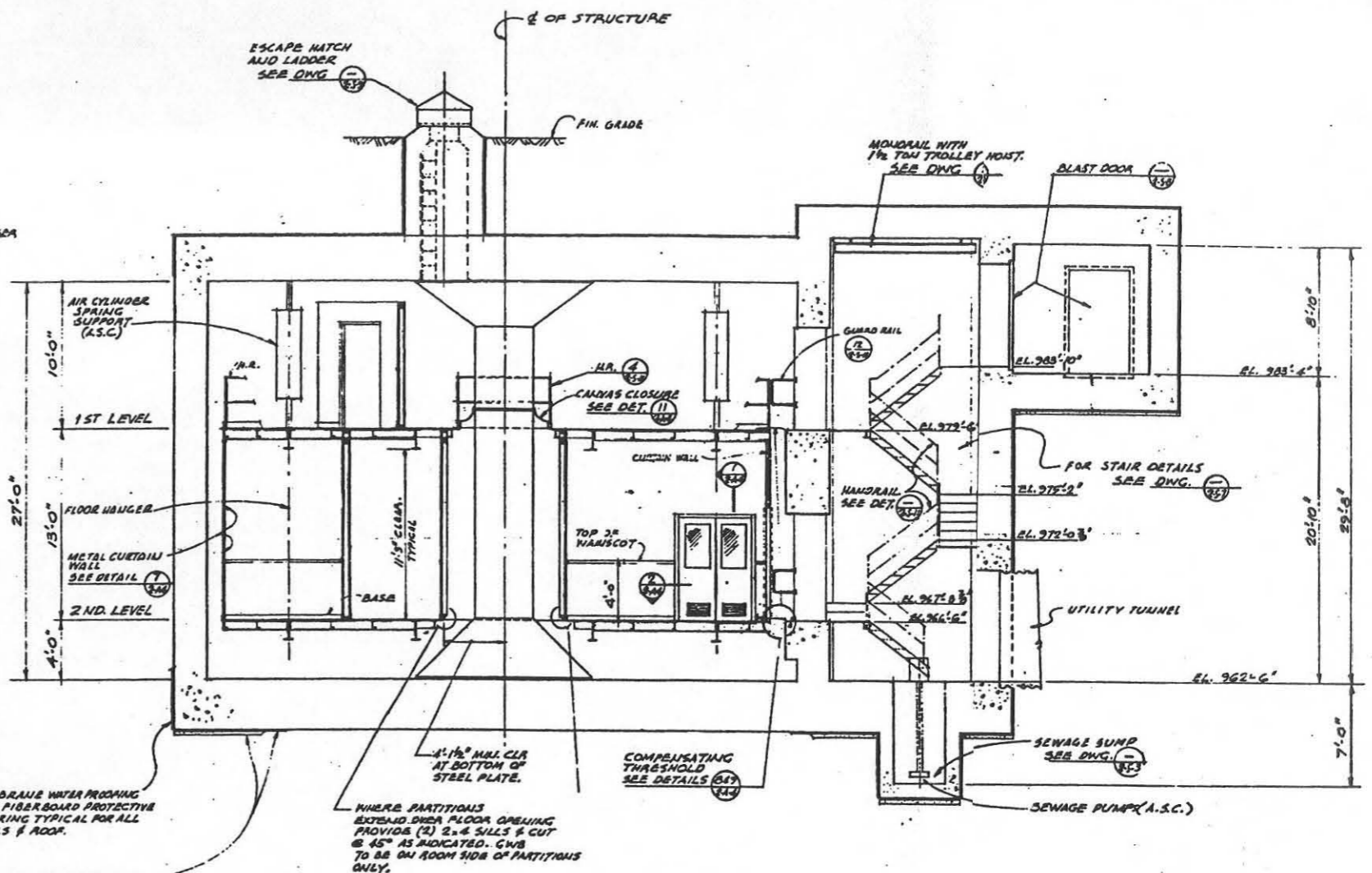
578-A-2-A-6



NOTE:

1. ALL CABINET DIMENSIONS SHALL BE VERIFIED AT JOB SITE, WITH CONTRACTING QUILTS, PRIOR TO CONSTRUCTION OF ANY CABINET WORK.
2. ALL BASE AND WALL CABINET DOORS SHALL BE LOCKED.

MEMBRANE WATERPROOFING WITH FIBERBOARD PROTECTIVE COVERING TYPICAL FOR ALL WALLS & ROOF.

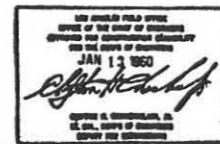


FOR SITES [1][2][3][4][5][6][7][8][9][10][11][12]

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|----|----|----|

REV. TO SHOW CONST. CHANGED REZOR HEIGHT DWG.
AS-BUILT CONDITIONS TOILET ELEVATIONS
ISSUED FOR DYESS A.F.B.

JAN 24 1962



BECHTEL CORPORATION
ENGINEERS AND ARCHITECTS

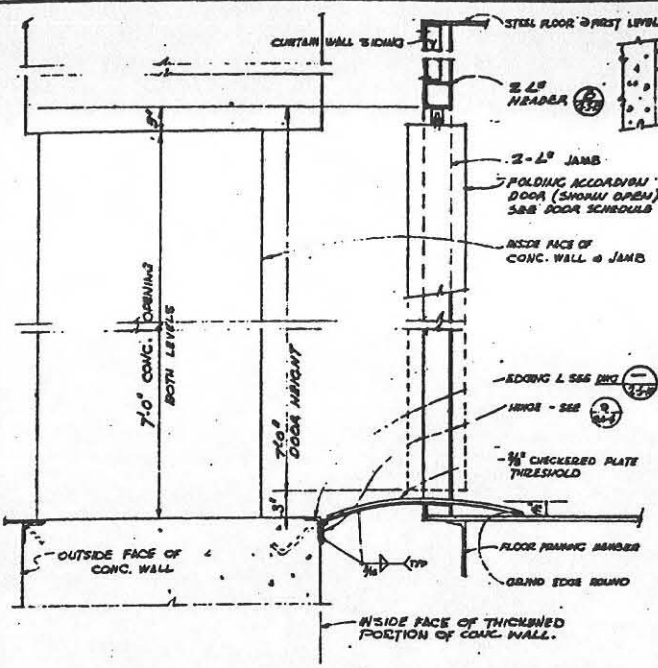
DEPARTMENT OF THE AIR FORCE
AIR FORCE BALLISTIC MISSILE DIVISION (AMRD)

WS-107 A-1 OPERATIONAL BASE
UNITARY SILD
LAUNCH CONTROL CENTER

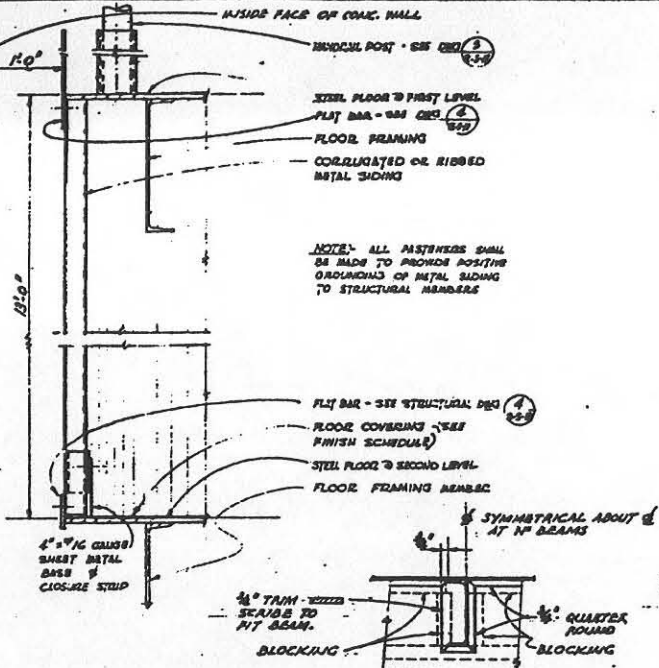
SECTION & DETAILS

18 JAN 1960
578-A-2-A-3

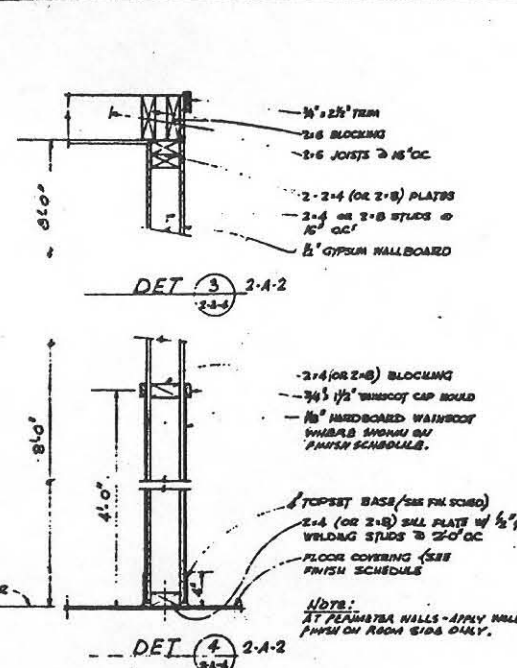
D. I. SERIES



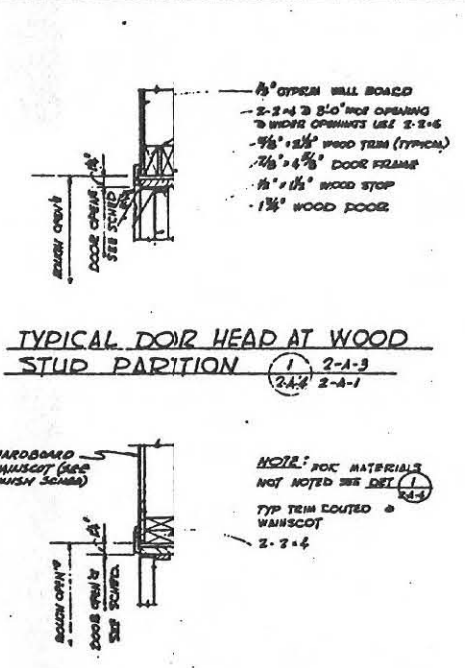
SECTION @ COMPENSATING THRESHOLD # DOOR
DET 8 2-A-2
 SCALE: 3/4" = 1'-0"



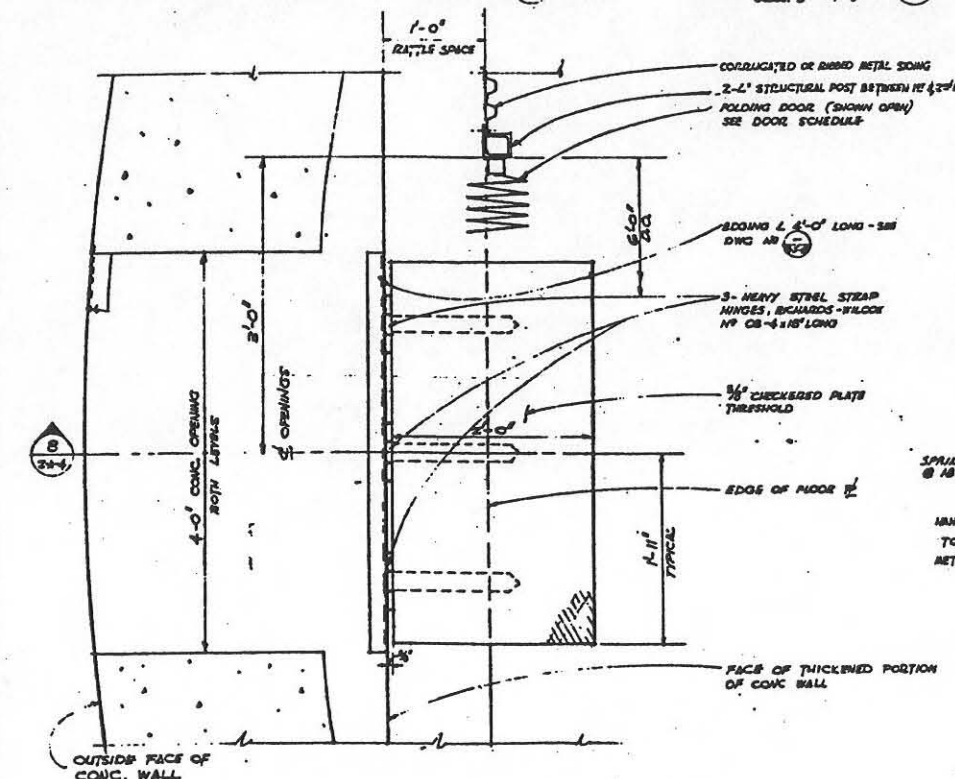
CURTAIN WALL
DET 7 2-A-2
 SCALE: 3/4" = 1'-0"



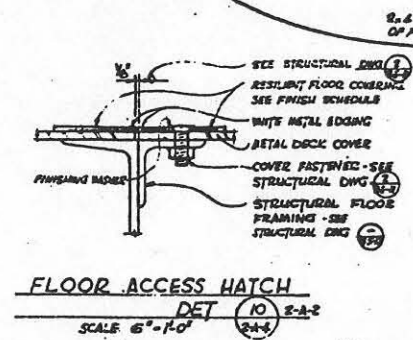
TYPICAL WOOD STUD PARTITION AT CEILING - FIRST LEVEL
DET 3 2-A-2



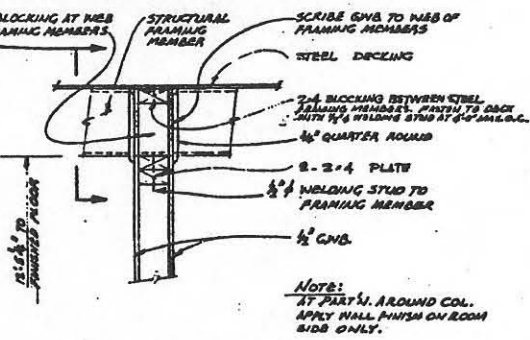
TYPICAL DOOR HEAD AT WOOD STUD PARTITION
DET 1 2-A-3



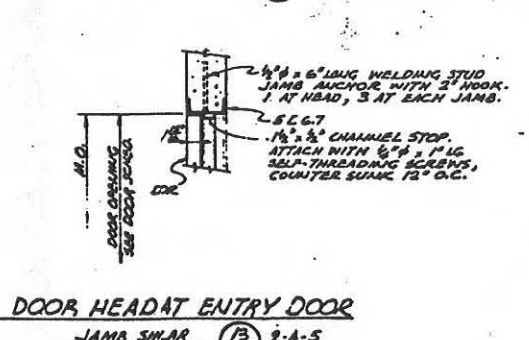
PLAN @ COMPENSATING THRESHOLD # DOOR
DET 9 2-A-2



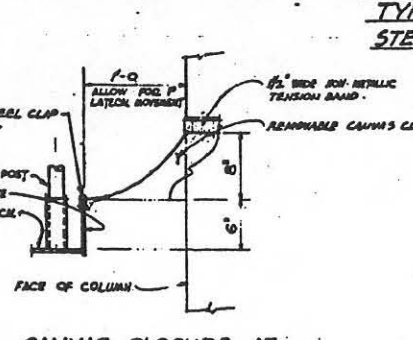
FLOOR ACCESS HATCH
DET 10 2-A-2
 SCALE: 3/4" = 1'-0"



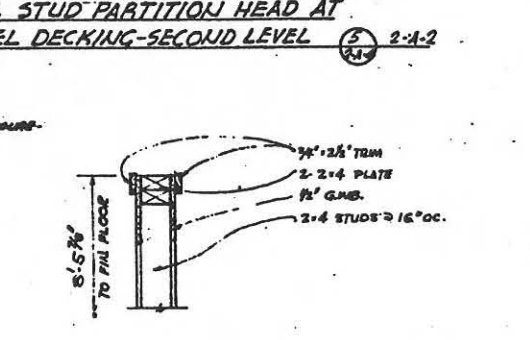
TYP. STUD PARTITION HEAD AT STEEL DECKING - SECOND LEVEL
DET 5 2-A-2



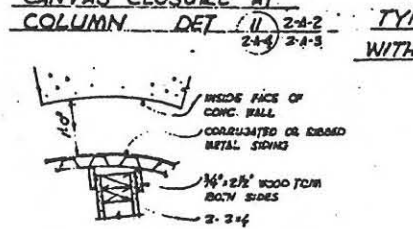
DOOR HEAD AT ENTRY DOOR JAMB SWAR
DET 13 2-A-5



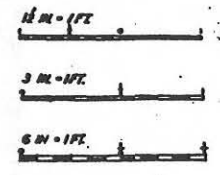
CANYAS CLOSURE AT COLUMN
DET 11 2-A-2



TYP. STUD PARTITION HEAD WITHOUT CEILING - FIRST LEVEL
DET 6 2-A-2

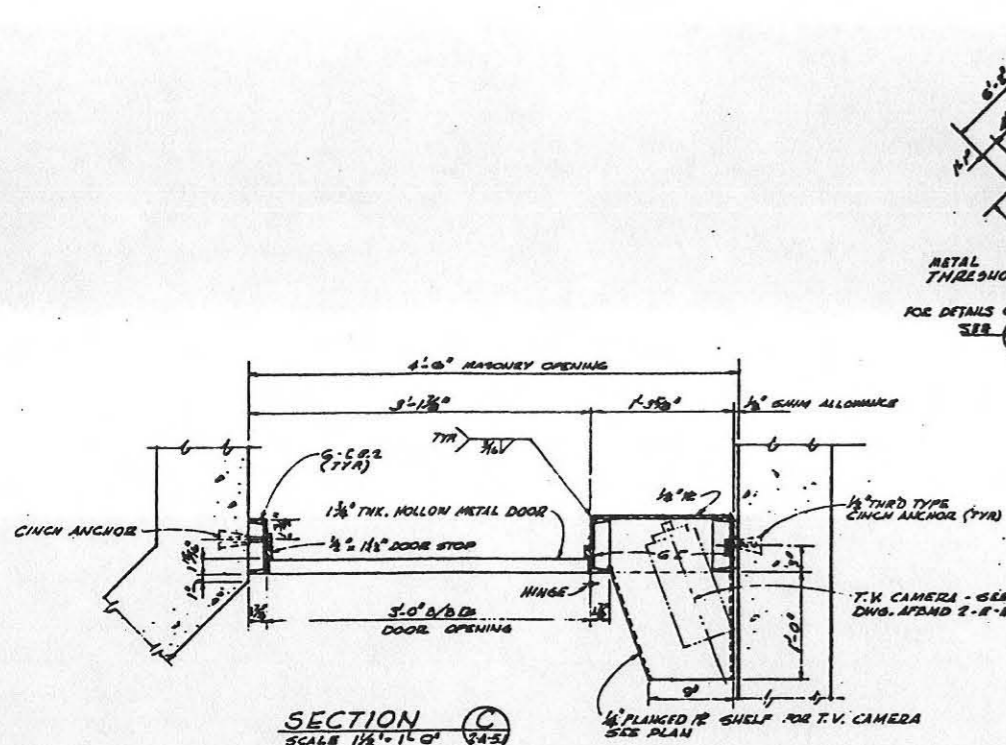


WOOD STUD PARTITION - TYP AT CURTAIN WALL
DET 12 2-A-2

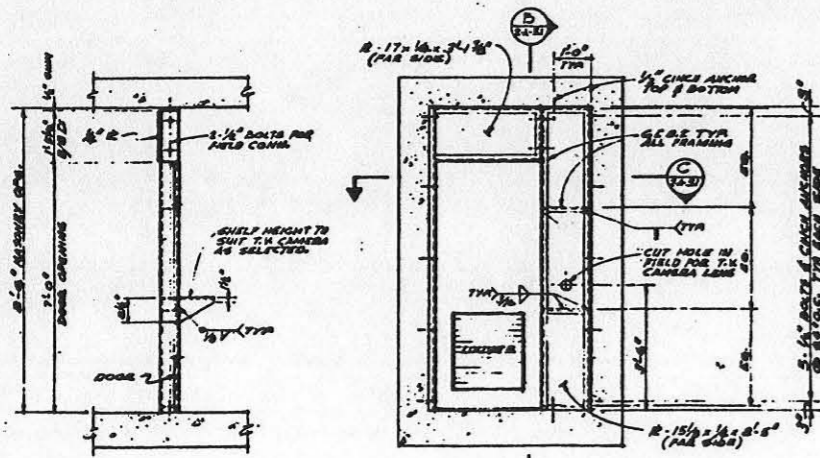


FOR SITES 1 2 3 4 5 6 7 8 9 10 11 12 13

| | | | |
|--|-------------------------|--|--|
| 12-N-60 | ENTRANCE AS BUILT | DATE | |
| 12-N-61 | IV. TO SHOW CONSTR. | DATE | |
| 12-N-62 | B-BUILT CONDITION | DATE | |
| 4-B-60 | ISSUED FOR DRESS A.F.R. | DATE | |
| BECHT CORPORATION
ENGINEERS AND ARCHITECTS
12000 W. 10th Avenue, Denver, Colorado | | DEPARTMENT OF THE AIR FORCE
AIR FORCE BALLISTIC MISSILE DIVISION
MISSOURI | |
| DRAWN BY: ACP
CHECKED BY: ACP
DATE: 1-13-60 | | WS-107 A-1 OPERATIONAL BASE
UNITARY SILO
LAUNCH CONTROL CENTER
DETAILS | |
| DATE: JAN 24 1960 | | 378-2-A-4 | |



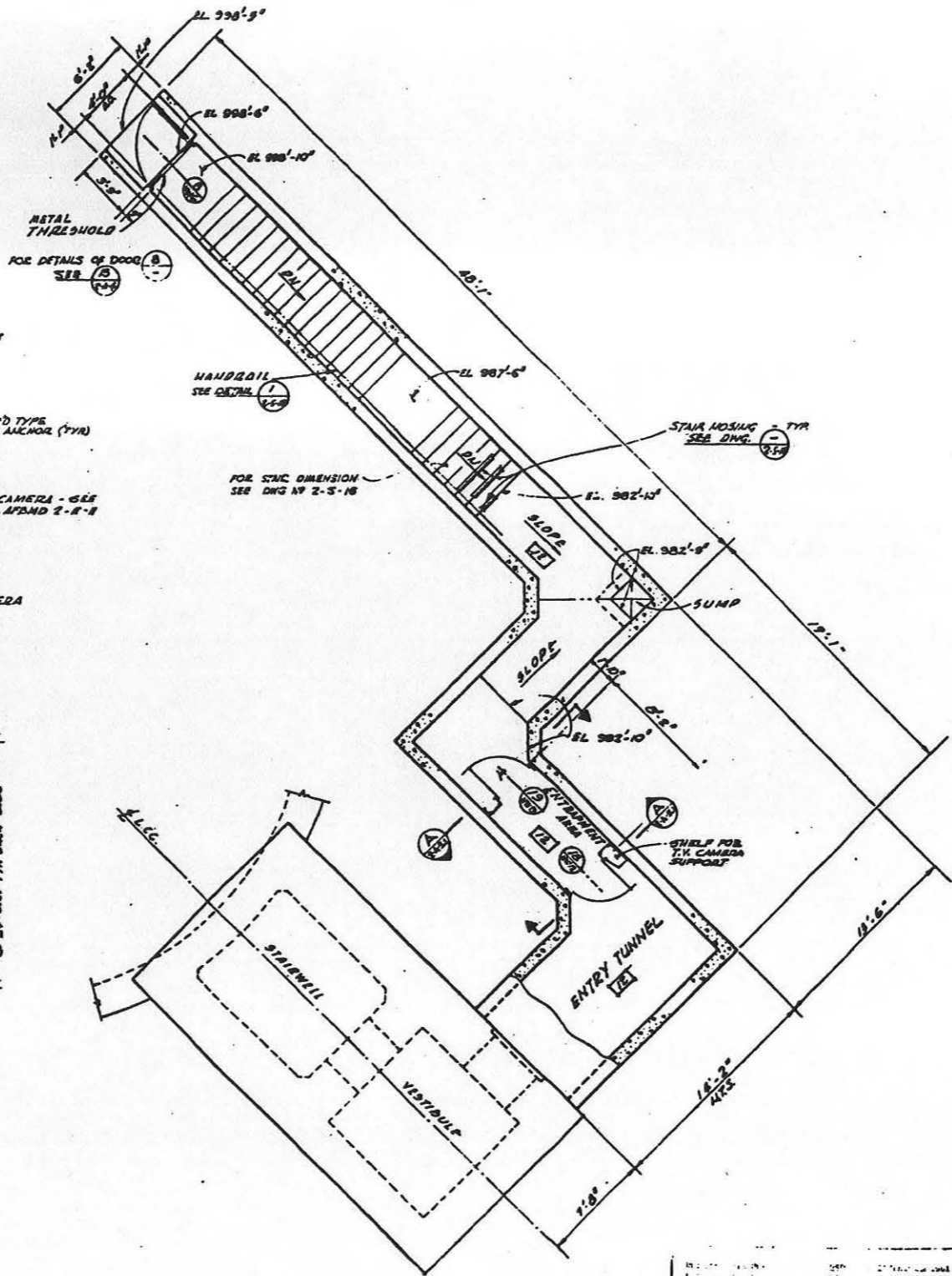
SECTION C
SCALE 1/2" = 1'-0"



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

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

DOOR DETAILS AND T.V. CAMERA SUPPORT SHELF
ENTRAPMENT AREA



1/4\"/>

FOR S.I.S. 1 2 3 4 5 6 7 8 9 10 11 12

JAN 24 1962

WE HEREBY HOLD OFFICE
OF THE CHIEF OF ENGINEERS
FOR THE CONSTRUCTION PROGRAM
FOR THE OFFICE OF ENGINEERS

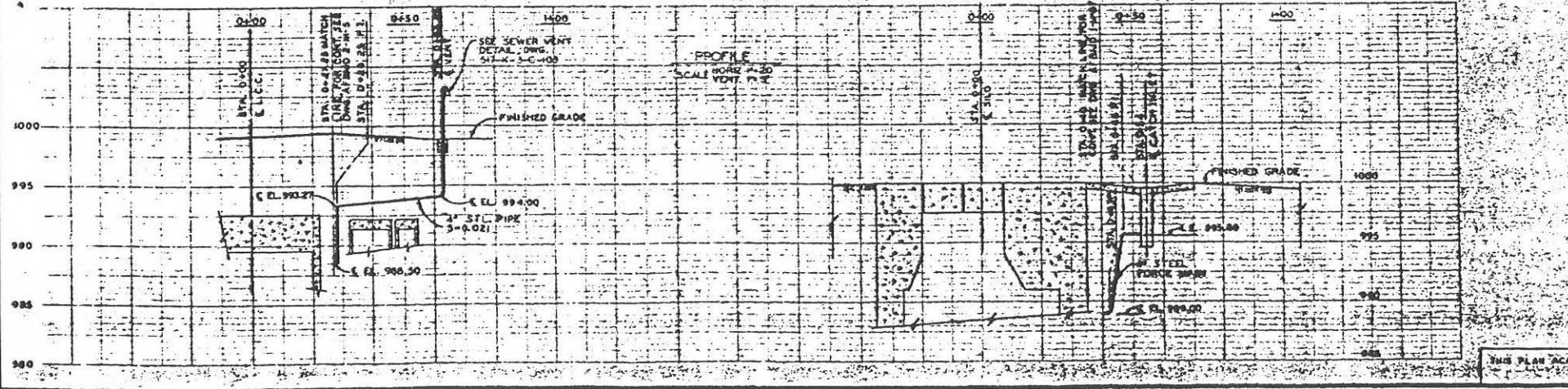
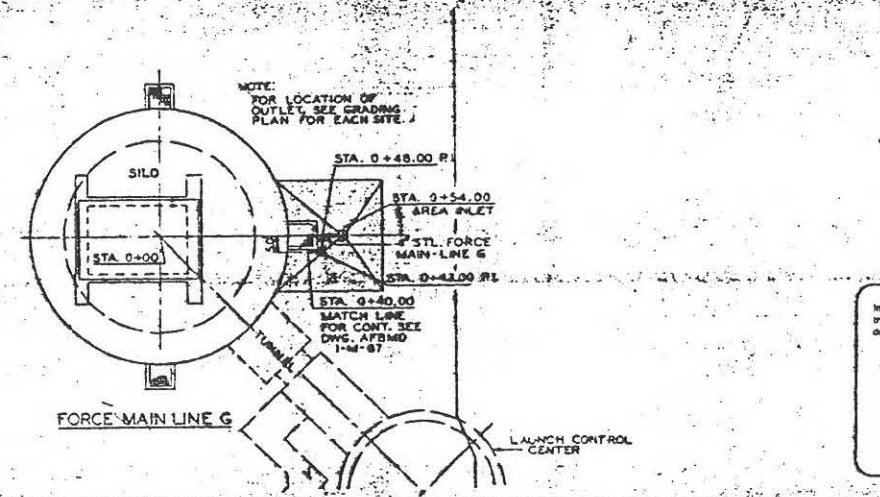
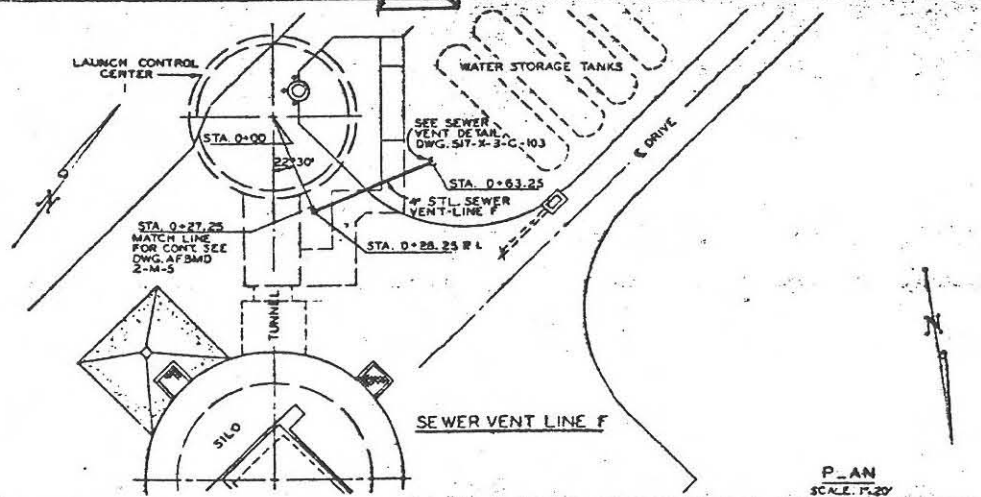
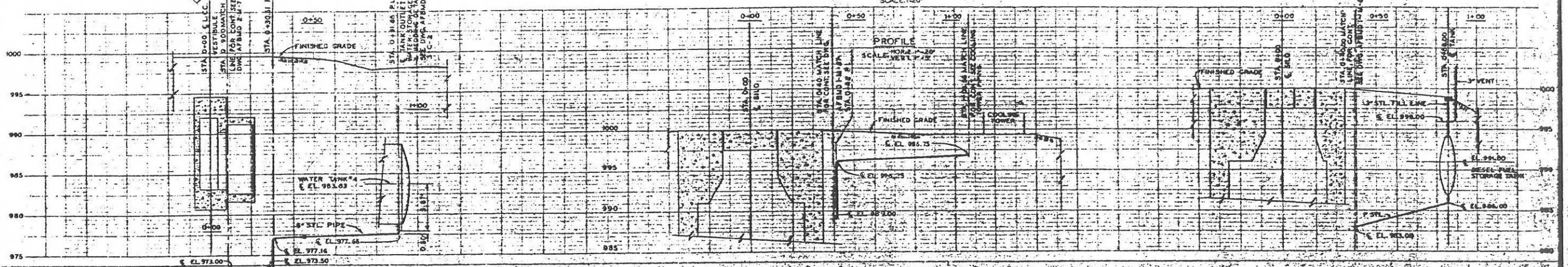
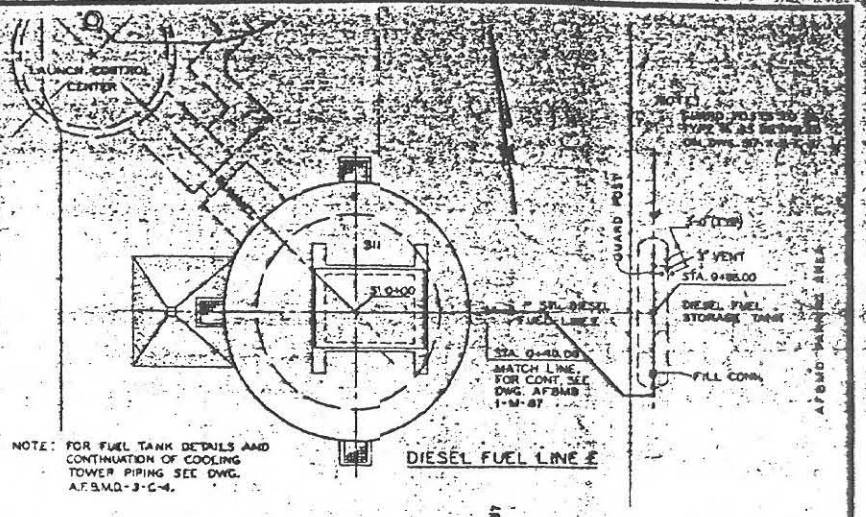
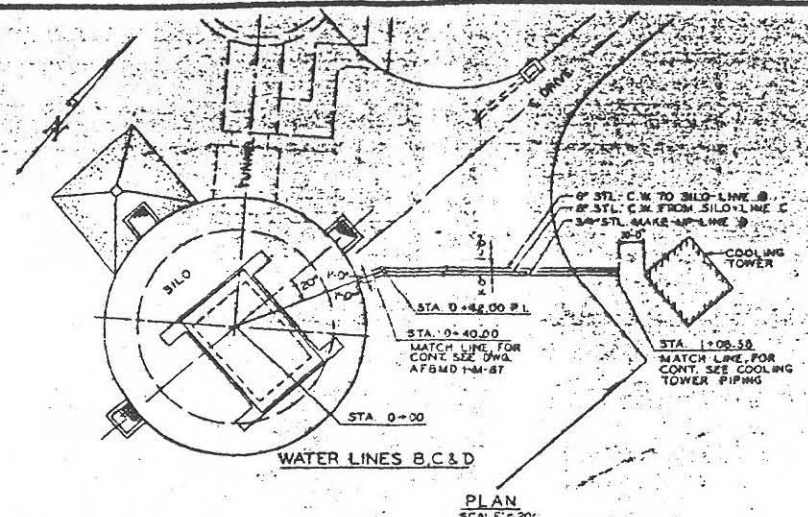
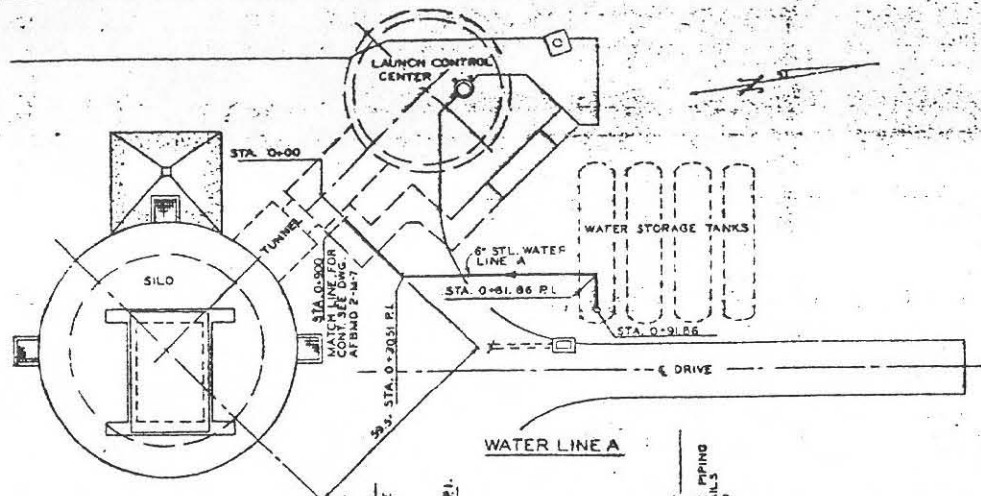
| | | |
|---|--------|---|
| 12-H COOPERATION IS BUILT | STATUS | R |
| 1/20-REV. TO SHOW CONSTR. AS-BUILT CONDITION | STATUS | B |
| 24-GLAZED ENTRAPMENT AREA TO PLAN INCLUDING 1/2\"/> | | |

BECHTEL CORPORATION
ENGINEERS AND CONSTRUCTORS
SAN FRANCISCO - LOS ANGELES - NEW YORK

DEPARTMENT OF THE AIR FORCE
AIR FORCE BALLISTIC MISSILE DIVISION (AFMD)
WRIGHT-PATTERSON AIR FORCE BASE, OHIO

WS-107 A-1 OPERATIONAL BASE
UNITARY SILO
LAUNCH CONTROL CENTER
ENTRY TUNNEL

ENG. 41-443-60-30
13 JAN 1960
578-2-A-3
1-9



NOTE

REFERENCE ELEVATION 1000.00 EQUALS ELEVATION, TOP OF SILO, ABOVE MEAN SEA LEVEL AS FOLLOWS:

| | |
|--------------|----------|
| PHANTOM LAKE | 1662.88 |
| BARRO | 1957.80 |
| DENTON | 2041.88 |
| LAWN | 1934.80 |
| BRADSHAW | 2032.00 |
| SHEP | 2438.00 |
| MOLAN | 2505.00 |
| ANSON | 1842.00 |
| CORINTH WEST | 1867.00 |
| ALBANY | 2023.00 |
| OPLIN | 1873.270 |
| WINTERS | 1873.270 |

In accordance with the contract of 24 November 1961 this drawing is certified to be the job as described by the contract and notes.

1. Items which would require field connections to be made.
2. Items which would require field connections to be made.
3. Changes that would affect other drawings or equipment of the system.

MAR 5 1962



| REVISION | DATE | DESCRIPTION | APPROVED |
|----------|----------|---|----------|
| 1 | 11-24-61 | OPERATIONAL AS BUILT | |
| 2 | 11-24-61 | REV. TO SHOW CORRECT ELEVATIONS, PIPE | BATAP |
| 3 | 11-24-61 | AS-BUILT CONDITION LOCATION LINE TO CORRECTED POSITION, AIR | |
| 4 | 11-24-61 | CHANGED GALV. PIPE TO STL. PIPE TO LINE'S F&G | B&V |

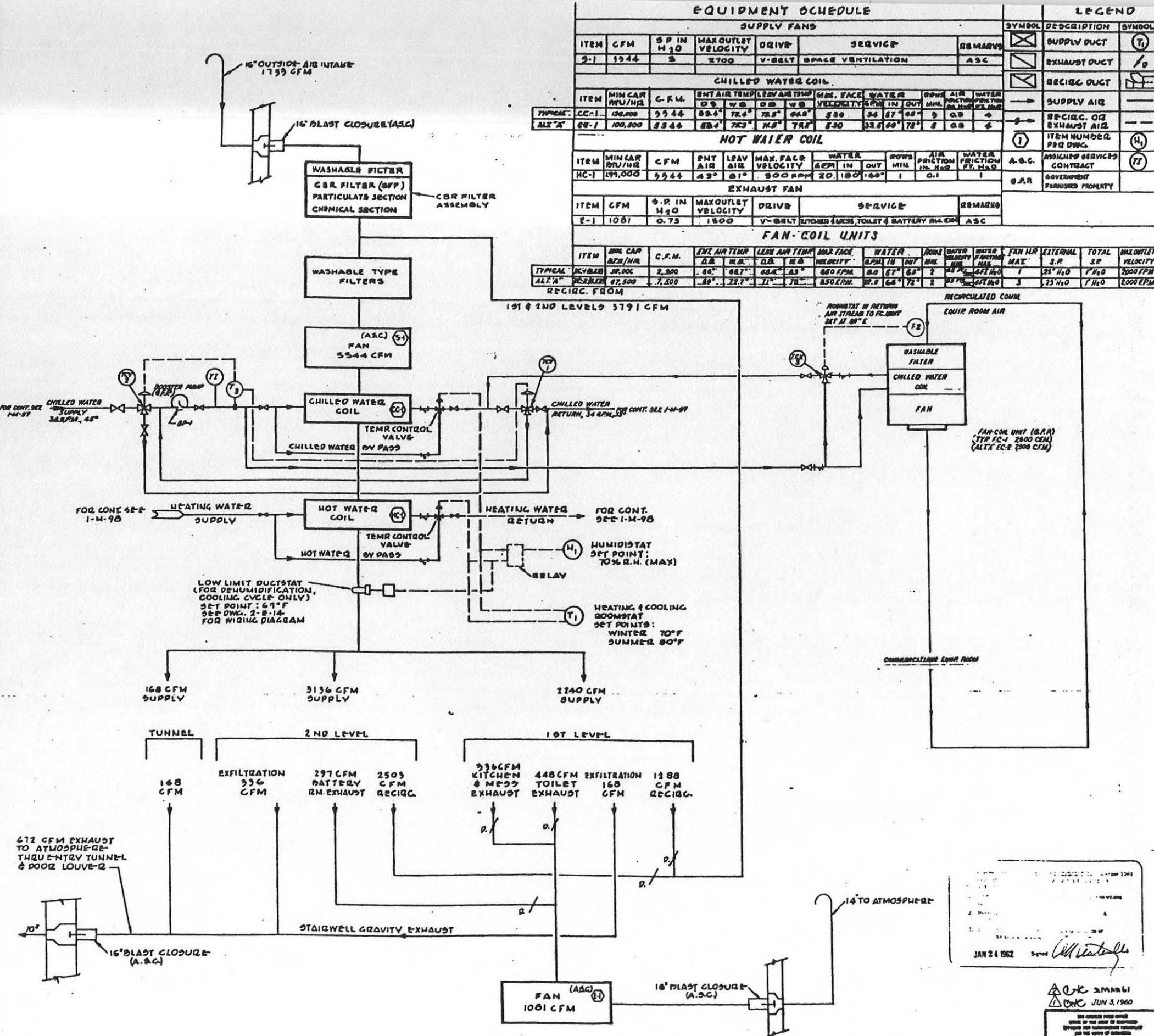
BLACK & VEATCH
CONSULTING ENGINEERS
KANSAS CITY, MISSOURI

DEPARTMENT OF THE AIR FORCE
AIR FORCE BALLISTIC MISSILE DIVISION (AROC)
WILLOW, CALIFORNIA

WS-107A-1 OPERATIONAL BASE
DYES AFB, TEXAS
ALL SITES
WATER SUPPLY FACILITIES
PLAN AND PROFILE

16 APR 1961

THIS PLAN ACCOMPANIES CONTRACT NO. AF33(688)0001-0001



EQUIPMENT SCHEDULE

| SUPPLY FANS | | | | | | |
|-------------|------|--------------------------|---------------------|--------|-------------------|---------|
| ITEM | CFM | S.P. IN H ₂ O | MAX OUTLET VELOCITY | DRIVE | SERVICE | REMARKS |
| S-1 | 5544 | 5 | 2700 | V-BELT | SPACE VENTILATION | ASC |

| CHILLED WATER COIL | | | | | | | | | | | | |
|--------------------|----------------|--------|--------------|------|---------------|------|-------------------|------|-------|-----|---------|----|
| ITEM | MIN CAP BTU/HR | C.F.M. | ENT AIR TEMP | | LEAV AIR TEMP | | MAX FACE VELOCITY | | WATER | | REMARKS | |
| | | | DB | WB | DB | WB | DB | WB | IN | OUT | | |
| TYPICAL CC-1 | 136,800 | 5544 | 68.4 | 72.4 | 78.5 | 64.5 | 530 | 34 | 57 | 62 | 9 | DB |
| ALTA CC-1 | 100,800 | 5544 | 68.4 | 72.3 | 78.5 | 78.5 | 530 | 33.5 | 60 | 72 | 8 | DB |

| HOT WATER COIL | | | | | | | | | | | | |
|----------------|----------------|--------|--------------|----|---------------|----|-------------------|----|-------|-----|---------|----|
| ITEM | MIN CAP BTU/HR | C.F.M. | ENT AIR TEMP | | LEAV AIR TEMP | | MAX FACE VELOCITY | | WATER | | REMARKS | |
| | | | DB | WB | DB | WB | DB | WB | IN | OUT | | |
| TYPICAL HC-1 | 199,500 | 5544 | 43 | 61 | 68 | 68 | 300 | 20 | 180 | 160 | 1 | DB |

| EXHAUST FAN | | | | | | |
|-------------|------|--------------------------|---------------------|--------|--------------------------------------|---------|
| ITEM | CFM | S.P. IN H ₂ O | MAX OUTLET VELOCITY | DRIVE | SERVICE | REMARKS |
| E-1 | 1081 | 0.73 | 1500 | V-BELT | ROOMS & MESS, TOILET & BATTERY ROOMS | ASC |

| FAN-COIL UNITS | | | | | | | | | | | | |
|----------------|----------------|--------|--------------|------|---------------|----|-------------------|----|-------|-----|---------|----|
| ITEM | MIN CAP BTU/HR | C.F.M. | ENT AIR TEMP | | LEAV AIR TEMP | | MAX FACE VELOCITY | | WATER | | REMARKS | |
| | | | DB | WB | DB | WB | DB | WB | IN | OUT | | |
| TYPICAL FC-1 | 39,000 | 2,300 | 60 | 68.7 | 68.4 | 63 | 850 | 50 | 57 | 62 | 2 | DB |
| ALTA FC-1 | 27,300 | 2,300 | 60 | 72.7 | 71 | 72 | 850 | 50 | 68 | 72 | 2 | DB |

LEGEND

| SYMBOL | DESCRIPTION | SYMBOL | DESCRIPTION |
|--------|-------------------------------|--------|----------------------|
| ⊠ | SUPPLY DUCT | ⊙ | THERMOSTAT |
| ⊡ | EXHAUST DUCT | ⊘ | BALANCING DAMPER |
| ⊢ | RECIRC DUCT | ⊚ | SPLITTER DAMPER |
| → | SUPPLY AIR | — | HEATING WATER SUPPLY |
| ← | RECIRC. OR EXHAUST AIR | — | HEATING WATER RETURN |
| ① | ITEM NUMBER PER DWG. | ⊕ | HUMIDISTAT |
| A.S.C. | ASSIGNED SERVICES CONTACT | ⊖ | THERMISTAT |
| G.A.R. | GOVERNMENT FURNISHED PROPERTY | | |

BOOSTER PUMP (G.R.)

| ITEM | QPM | TRM | AMPERE |
|------|-----|-------|--------|
| BP-1 | 58 | 10740 | 9 |

GENERAL NOTES

- AIR QUANTITIES SHOWN ARE ACTUAL CFM BASED ON AN ELEVATION OF 3000 FT.
- ACTUAL CFM ARE OBTAINED BY MULTIPLYING STANDARD CFM BY 1.12 FOR AN AIR DENSITY OF 0.0012 PER FT³.
- WHEN TEST FACILITIES ARE INSTALLED AT ELEVATIONS OTHER THAN 3000 FT., AIR CIRCULATION RATES ARE TO BE ADJUSTED BY FAN SPEED CHANGE. ACTUAL CFM RATES SHALL BE OBTAINED BY USE OF THE FACTORS BELOW. STRAIGHT LINE INTERPOLATION SHALL BE USED FOR INTERMEDIATE ELEVATIONS.

| ELEV. | FACTOR |
|-------|--------|
| 3000 | 1.096 |
| 2000 | 1.075 |
| 1000 | 1.056 |
| 100 | 1.037 |

EXAMPLE: $5544 \times 1.12 = 4950 \times \text{NEW FACTOR}$

TEMPERATURE CONTROL OPERATION

- TEMPERATURES TO BE MAINTAINED ARE 70°F WINTER, 80°F SUMMER BY MEANS OF CENTRAL SYSTEM LOCATED IN THE MECHANICAL ROOM, AND CONSIST OF FILTERS, SUPPLY FAN S-1, HEATING AND COOLING COILS, DUCTWORK CEILING DIFFUSERS, SUPPLY AND RETURN RESISTERS.
- THE VENTILATING FAN MOTORS WILL BE MANUALLY CONTROLLED AND SHALL RUN CONTINUOUSLY.
- ROOMSTA T₁, LOCATED IN THE READY ROOM OPERATES THE THREE-WAY TEMPERATURE CONTROL VALVES FOR THE CHILLED WATER COIL AND THE HOT WATER COIL. THE MANUAL SELECTOR SWITCH WITHIN THE ROOMSTA WILL CONTROL THE OPERATION OF THE HEATING OR COOLING CYCLE.
- DURING HEATING CYCLE A MAXIMUM OF TWO R.H. SHALL BE MAINTAINED IN THE SPACE BY HUMIDISTAT, H₁, WHICH SHALL BE WHEED IN PARALLEL WITH THERMOSTAT T₁. THE LOW LIMIT DUCTSTAT LOCATED DOWN STREAM OF THE HEATING COIL SHALL REHEAT THE SUBCOOLED AIR. THE ROOMSTA MAINTAINS 80°F IN THE SPACE.
- FAN S-1, EXHAUSTS THE KITCHEN AND MESS, TOILET AND BATTERY ROOMS TO ATMOSPHERE THRU A BLAST CLOSURE AND EXHAUST OUTLET. EXCESS AIR FROM THE TUNNEL, FIRST AND SECOND LEVELS, WHICH IS NOT RECIRCULATED OR EXHAUSTED WILL FLOW INTO THE STAIR WELL AND UP TO ATMOSPHERE THRU THE NORMALLY OPEN BLAST CLOSURE AND UPPER ENTRY TUNNEL.
- COILS FOR ROOM FAN-COIL UNIT REMOVE HEAT PRODUCED BY COMMUNICATION EQUIPMENT. THE FAN SWITCH SHALL BE MANUALLY OPERATED AND SHALL RUN CONTINUOUSLY. ROOMSTA T₂, LOCATED IN RETURN AIR PASS OPERATES THE THREE-WAY TEMPERATURE CONTROL VALVE T₂-1, FOR THE CHILLED WATER COIL TO MAINTAIN A ROOM TEMPERATURE OF 80°F.
- CHILLED WATER BOOSTER PUMP SERVES TO RECIRCULATE WATER THRU COIL CC-1 AND FAN COIL FC-1. PUMP SHALL BE OPERATED MANUALLY AND SHALL RUN CONTINUOUSLY. THERMOSTAT T₃ SHALL BE LOCATED IN THE BOOSTER PUMP ROOM AND SHALL OPERATE RECIRCULATING TEMPERATURE CONTROL VALVE T₃-1 TO MAINTAIN THE PUMP DISCHARGE TEMPERATURE AT 57°F FOR TYPICAL INSTALLATION AND 61°F FOR ALL 3" INSTALLATION.

FOR SITE 123456789010

JAN 24 1962

ONE JUN 3, 1960

| NO. | DATE | OPERATIONAL AS BUILT | BY |
|-----|-------|---|----------|
| 1 | 11-01 | REVISED TO SHOW CONSTRUCTION AS BUILT CONDITIONS | CEBARD |
| 2 | 5-61 | ADDED FLOW UNRELATED FLOW DIAG. FOUND SCHED. DATE BEING AFORD | SH |
| 3 | 5-61 | ADDED FLOW UNRELATED FLOW DIAG. FOUND SCHED. DATE BEING AFORD | SH |
| 4 | 1-60 | ISSUED FOR DYEES A.E.P. | AFARMOLM |

DYNEL CORPORATION
ENGINEERS AND ARCHITECTS
1000 - 100 STREET - NEW YORK

DEPARTMENT OF THE AIR FORCE
AIR FORCE BALLISTIC MISSILE DIVISION (AFMD)
WHEELING - WEST VIRGINIA

WS-107A-1 OPERATIONAL BASE
UNITARY SILEO
LAUNCH CONTROL CENTER

FLOW DIAGRAM H.V. & A.G.

ENG. 41-443-60-30
19 JAN 1960
570-2-M-1
1-42

D. O. ERIES
810 CREEK RD. S.W. ALBUQUERQUE, N.M.

LAUNCH CONTROL CENTER

GENERAL

| ABE DWG NUMBER | TITLE |
|----------------|-------------|
| 578-2-0-2 | INDEX SHEET |

CIVIL

| SITE NO. | ABE DWG NUMBER | TITLE |
|----------|----------------|---|
| 378 | 3-C-2 | 1. WATER STORAGE PIPING AND BEDDING DETAILS
2. COMMUNICATIONS MANHOLE AND SIGHT TUBE END CAP DETAILS
3. MISCELLANEOUS SITE DETAILS
28. TRAILER ALIGNMENT PAD GRADING PLAN
10. FUEL CATCHMENT TANK, LOCATION PLAN & SECTIONS |

ARCHITECTURAL

| SITE NO. | ABE DWG NUMBER | TITLE |
|----------|----------------|---|
| 378 | 2-A-1 | 1. SCHEDULES & GEN NOTES
2. FLOOR PLANS
3. SECTION & DETAILS
4. DETAILS
5. ENTRY TUNNEL
6. FLOOR PLANS |

MECHANICAL

| SITE NO. | ABE DWG NUMBER | TITLE |
|----------|----------------|---|
| 378 | 2-M-1 | 1. FLOW DIAGRAM H.V. & A.C.
2. H.V. & A.C. PLANS
3. H.V. & A.C. SECTIONS & DETS.
4. ASSEMBLY OF BLAST CLOSURES
5. PLUMBING PLAN - SHT. 1
6. PLUMBING PLAN - SHT. 2
7. PLUMBING PLAN - SHT. 3
8. PLUMBING SECTIONS
9. PLUMBING SECTS & DETS.
10. FLOW DIAGRAM COMPRESSED AIR
11. PIPE SUPPORTS SHT. 1
12. PIPE SUPPORTS SHT. 2
13. PIPE SUPPORTS SHT. 3
14. AIR INTAKE AND EXHAUST BLAST CLOSURES
15. ALTERNATE "A" H.V. & A.C. PLANS
3-M-1. FUEL CATCHMENT TANK, PIPING PLAN & DETAILS |

STRUCTURAL

| SITE NO. | ABE DWG NUMBER | TITLE |
|----------|----------------|--|
| 378 | 2-S-1 | 1. FOUNDATION & ROOF PLANS
2. TYPICAL CONCRETE SECTIONS
3. FOUNDATION REINFORCING PLAN
4. ROOF REINFORCING PLAN
5. STAIRWELL & VESTIBULE WALL ELEVATIONS
6. STAIRWELL & VESTIBULE REINFORCING SECTIONS - SHT. 1
7. STEEL STAIRWAY FRAMING
8. BLAST DOOR DETAILS - SHT. 1
9. ESCAPE HATCH DETAILS - SHT. 1
10. MISCELLANEOUS DETAILS - SHT. 1
11. MISCELLANEOUS DETAILS - SHT. 2
12. HUNG FLOOR PLANS
13. HUNG FLOOR SECTIONS
14. HUNG FLOOR DETAILS
15. HANGER DETAILS
16. ENTRY PLAN AND SECTIONS
17. ENTRY SECTIONS & DETAILS
18. STAIRWELL & VESTIBULE REINFORCING SECTIONS - SHT. 2
19. ESCAPE HATCH DETAILS - SHT. 2
20. UTILITY TUNNEL
21. STAIRWELL & VESTIBULE REINFORCING SECTIONS - SHT. 3
22. BLAST DOOR DETAILS - SHT. 2
23. HUNG FLOORS ERECTION PLAN - SHT. 1
24. HUNG FLOORS ERECTION PLAN - SHT. 2
25. HUNG FLOORS ERECTION PLAN - SHT. 3
26. HUNG FLOORS SHOP DETAILS - SHT. 1
27. HUNG FLOORS SHOP DETAILS - SHT. 2
28. HUNG FLOORS SHOP DETAILS - SHT. 3
29. HUNG FLOORS SHOP DETAILS - SHT. 4
30. HUNG FLOORS SHOP DETAILS - SHT. 5
31. HUNG FLOORS SHOP DETAILS - SHT. 6
32. HUNG FLOORS SHOP DETAILS - SHT. 7 |

ELECTRICAL

| SITE NO. | ABE DWG NUMBER | TITLE |
|----------|----------------|--|
| 378 | 2-E | 1. ELECT. SINGLE LINE DIAG.
2. ELECT. POWER PLAN
3. ELECT. LIGHTING PLAN
4. ELECT. C.C. DET'S. & SCHED.
5. ELECT. GROUNDING DETAILS
6. ELECT. GROUNDING PLAN
7. P.A. & TELE. PLAN
8. FRCP PLAN AND SCHED.
9. FRCP WIRING DIAG. SHT. 1
10. FRCP WIRING DIAG. SHT. 2
11. ELECT. SECTS. & DET'S. - SHT. 1
12. ELECT. SYMBOL LIST
13. ELECT. STANDARD DETAILS
14. ELECT. MISC. WIRING DIAGS.
15. ELECT. PLAN, SECTS, DET'S. (TUNNEL)
16. ELECT. SECTS. & DET'S. - SHT. 2
17. ELECT. SECTS. & DET'S. - SHT. 3
2-E-1. MISCELLANEOUS ELECTRICAL DETAILS & DIAGRAMS
1. ALTERNATE "A" ELECT. SINGLE LINE DIAGRAM
2. ALTERNATE "A" ELECT. C.C. DET'S. & SCHED.
3. ALTERNATE "A" ELECT. POWER PLAN
4. ALTERNATE "A" ELECT. LIGHTING PLAN
5. ALTERNATE "A" ELECT. GROUNDING PLAN
6. ALTERNATE "A" P.A. & TELE. PLAN
7. ALTERNATE "A" ELECT. SECTS. & DET'S. SHT. 2 |

THE BASIC SITE IS SITE #. WHEN SITE # IS CHANGED FROM CONTRACT SET, THE LETTER "A" APPEARS. FURTHER CHANGES ON OTHER SITES RECEIVE SUBSEQUENT LETTERS.

N.C. = NO CHANGE FROM CONTRACT DWG.
M = DWG. NOT A PART OF THIS SET.

578-A-1-A-1 (DRAWING NO. EXAMPLE) EXPLANATION

| SQUADRON NO. | SITE LETTER | FACILITY NO. | LAYOUT GROUP | DWG NO. |
|--------------|-------------|--------------|--------------|---------|
| 578 | A | 1 SLO | G GENERAL | |
| | | 2 LCC | C CIVIL | |
| | | 3 SITE | A ARCH. | |
| | | | S STRUCT. | |
| | | | M MECH. | |
| | | | E ELECT. | |

In accordance with instructions from OSD/SS/32 22 November 1943 this drawing is certified correct as of 18 FEB 1960, as determined by C.A. 442123/311111

1. Name of contractor
2. Name of architect
3. Check for compliance with specifications of contract documents

18 FEB 1960

| | | | |
|-----------------------------|--------------------------|-----------------------------|---|
| 14-1 | OPERATIONAL AS BUILT | DATE | 1/77 |
| ISSUED FOR OVERS.A.R. | | CHECKED BY | HR |
| ICHTEL CORPORATION | ENGINEERS AND ARCHITECTS | DEPARTMENT OF THE AIR FORCE | AIR FORCE BALLISTIC MISSILE DIVISION (AMBD) |
| WS-107 A-1 OPERATIONAL BASE | | | |
| UNITARY SILO | | | |
| LAUNCH CONTROL CENTER | | | |
| INDEX SHEET | | | |
| DRAWING NO. 578-2-0-2 | | DATE 18 FEB 1960 | |

WS-107A-I OPERATIONAL BASE MISSILE LAUNCH COMPLEXES DYESS A.F.B., TEXAS

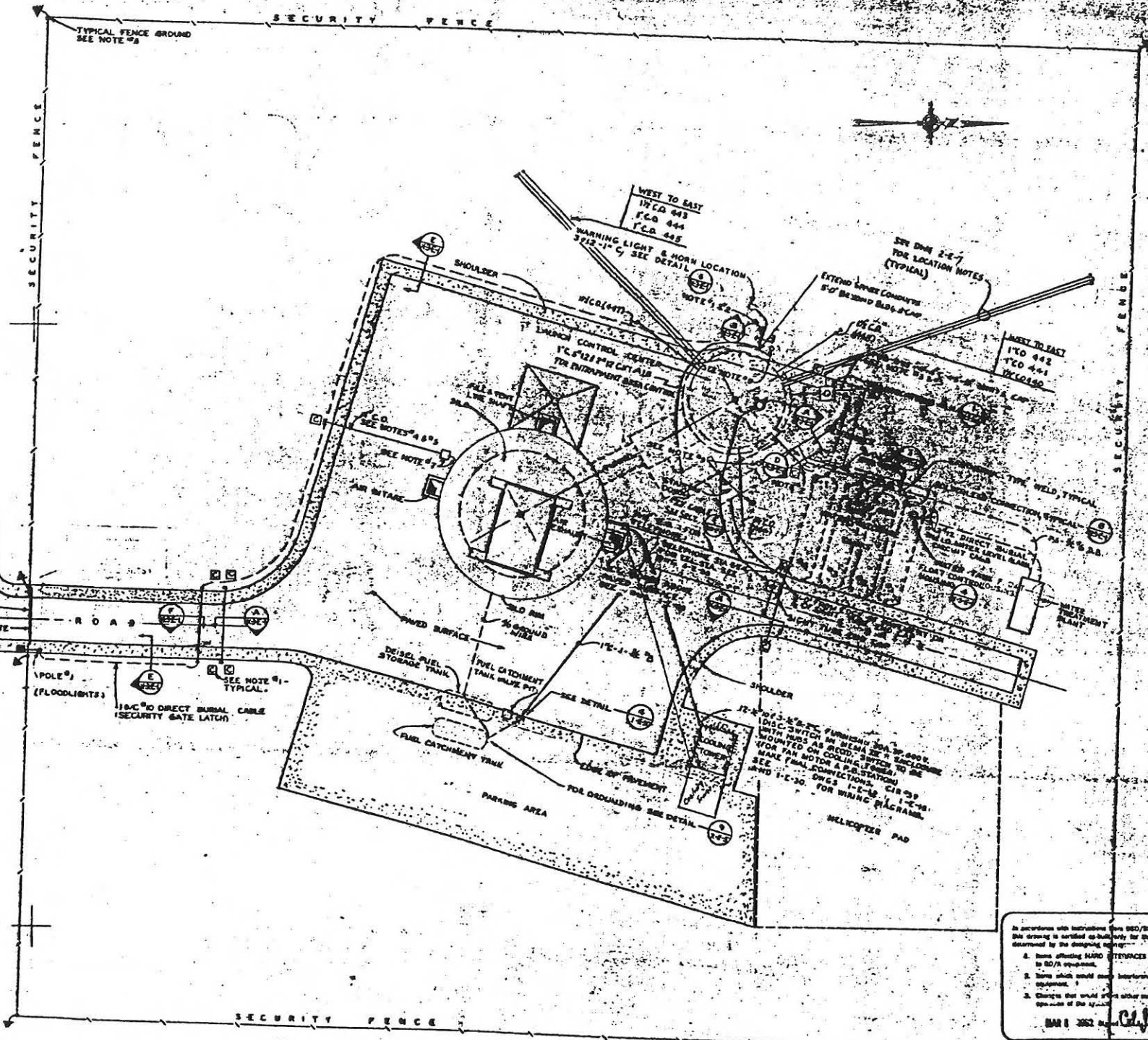
| FIG. NO. | DESCRIPTION | FIG. NO. | DESCRIPTION | FIG. NO. | DESCRIPTION |
|---------------|--|---------------|--|---------------|--|
| 017-9-3-0-1 | INDEX - SITE WORK | | | | |
| | SITE EAST | | SITE EAST | | SITE EAST |
| 017-9-3-0-1 | GENERAL LAYOUT | 017-9-3-0-1 | GENERAL LAYOUT | 017-9-3-0-1 | GENERAL LAYOUT |
| 017-9-3-0-2 | LAYOUT PLAN | 017-9-3-0-2 | LAYOUT PLAN | 017-9-3-0-2 | LAYOUT PLAN |
| 017-9-3-0-3 | GRADING PLAN | 017-9-3-0-3 | GRADING PLAN | 017-9-3-0-3 | GRADING PLAN |
| 017-9-3-0-4 | EARTHWORK CROSS SECTIONS | 017-9-3-0-4 | EARTHWORK CROSS SECTIONS | 017-9-3-0-4 | EARTHWORK CROSS SECTIONS |
| 017-9-3-0-5 | EARTHWORK CROSS SECTIONS | 017-9-3-0-5 | EARTHWORK CROSS SECTIONS | 017-9-3-0-5 | EARTHWORK CROSS SECTIONS |
| 017-9-3-0-6 | ACCESS ROAD - PLAN AND PROFILE | 017-9-3-0-6 | ACCESS ROAD - PLAN AND PROFILE | 017-9-3-0-6 | ACCESS ROAD - PLAN AND PROFILE |
| 017-9-3-0-7 | ACCESS ROAD - CROSS SECTIONS | 017-9-3-0-7 | ACCESS ROAD - CROSS SECTIONS | 017-9-3-0-7 | ACCESS ROAD - CROSS SECTIONS |
| 017-9-3-0-101 | WATER AND SEWERAGE FACILITIES - GENERAL LAYOUT | 017-9-3-0-101 | WATER AND SEWERAGE FACILITIES - GENERAL LAYOUT | 017-9-3-0-101 | WATER AND SEWERAGE FACILITIES - GENERAL LAYOUT |
| 017-9-3-0-102 | SANITARY SEWERS - PLAN AND PROFILE | 017-9-3-0-102 | SANITARY SEWERS - PLAN AND PROFILE | 017-9-3-0-102 | SANITARY SEWERS - PLAN AND PROFILE |
| 017-9-3-0-103 | FOUNDATION EXPLORATIONS - LOGS OF BORINGS | 017-9-3-0-103 | FOUNDATION EXPLORATIONS - LOGS OF BORINGS | 017-9-3-0-103 | FOUNDATION EXPLORATIONS - LOGS OF BORINGS |
| 017-9-3-0-104 | UG POWER AND COMMUNICATION PLAN | 017-9-3-0-104 | UG POWER AND COMMUNICATION PLAN | 017-9-3-0-104 | UG POWER AND COMMUNICATION PLAN |
| 017-9-3-0-105 | AS-BUILT TOPOGRAPHY SHEET NO. 1 | 017-9-3-0-105 | AS-BUILT TOPOGRAPHY SHEET NO. 1 | 017-9-3-0-105 | AS-BUILT TOPOGRAPHY SHEET NO. 1 |
| 017-9-3-0-106 | AS-BUILT TOPOGRAPHY SHEET NO. 2 | 017-9-3-0-106 | AS-BUILT TOPOGRAPHY SHEET NO. 2 | 017-9-3-0-106 | AS-BUILT TOPOGRAPHY SHEET NO. 2 |
| | SITE ALNY | | SITE ALNY | | SITE ALNY |
| 017-9-3-0-1 | GENERAL LAYOUT | 017-9-3-0-1 | GENERAL LAYOUT | 017-9-3-0-1 | GENERAL LAYOUT |
| 017-9-3-0-2 | LAYOUT PLAN | 017-9-3-0-2 | LAYOUT PLAN | 017-9-3-0-2 | LAYOUT PLAN |
| 017-9-3-0-3 | GRADING PLAN | 017-9-3-0-3 | GRADING PLAN | 017-9-3-0-3 | GRADING PLAN |
| 017-9-3-0-4 | EARTHWORK CROSS SECTIONS | 017-9-3-0-4 | EARTHWORK CROSS SECTIONS | 017-9-3-0-4 | EARTHWORK CROSS SECTIONS |
| 017-9-3-0-5 | EARTHWORK CROSS SECTIONS | 017-9-3-0-5 | EARTHWORK CROSS SECTIONS | 017-9-3-0-5 | EARTHWORK CROSS SECTIONS |
| 017-9-3-0-6 | ACCESS ROAD - PLAN AND PROFILE | 017-9-3-0-6 | ACCESS ROAD - PLAN AND PROFILE | 017-9-3-0-6 | ACCESS ROAD - PLAN AND PROFILE |
| 017-9-3-0-7 | ACCESS ROAD - CROSS SECTIONS | 017-9-3-0-7 | ACCESS ROAD - CROSS SECTIONS | 017-9-3-0-7 | ACCESS ROAD - CROSS SECTIONS |
| 017-9-3-0-101 | WATER AND SEWERAGE FACILITIES - GENERAL LAYOUT | 017-9-3-0-101 | WATER AND SEWERAGE FACILITIES - GENERAL LAYOUT | 017-9-3-0-101 | WATER AND SEWERAGE FACILITIES - GENERAL LAYOUT |
| 017-9-3-0-102 | SANITARY SEWERS - PLAN AND PROFILE | 017-9-3-0-102 | SANITARY SEWERS - PLAN AND PROFILE | 017-9-3-0-102 | SANITARY SEWERS - PLAN AND PROFILE |
| 017-9-3-0-103 | FOUNDATION EXPLORATIONS - LOGS OF BORINGS | 017-9-3-0-103 | FOUNDATION EXPLORATIONS - LOGS OF BORINGS | 017-9-3-0-103 | FOUNDATION EXPLORATIONS - LOGS OF BORINGS |
| 017-9-3-0-104 | UG POWER AND COMMUNICATION PLAN | 017-9-3-0-104 | UG POWER AND COMMUNICATION PLAN | 017-9-3-0-104 | UG POWER AND COMMUNICATION PLAN |
| 017-9-3-0-105 | AS-BUILT TOPOGRAPHY SHEET NO. 1 | 017-9-3-0-105 | AS-BUILT TOPOGRAPHY SHEET NO. 1 | 017-9-3-0-105 | AS-BUILT TOPOGRAPHY SHEET NO. 1 |
| 017-9-3-0-106 | AS-BUILT TOPOGRAPHY SHEET NO. 2 | 017-9-3-0-106 | AS-BUILT TOPOGRAPHY SHEET NO. 2 | 017-9-3-0-106 | AS-BUILT TOPOGRAPHY SHEET NO. 2 |
| | SITE SOUTH WEST | | SITE SOUTH WEST | | SITE SOUTH WEST |
| 017-9-3-0-1 | GENERAL LAYOUT | 017-9-3-0-1 | GENERAL LAYOUT | 017-9-3-0-1 | GENERAL LAYOUT |
| 017-9-3-0-2 | LAYOUT PLAN | 017-9-3-0-2 | LAYOUT PLAN | 017-9-3-0-2 | LAYOUT PLAN |
| 017-9-3-0-3 | GRADING PLAN | 017-9-3-0-3 | GRADING PLAN | 017-9-3-0-3 | GRADING PLAN |
| 017-9-3-0-4 | EARTHWORK CROSS SECTIONS | 017-9-3-0-4 | EARTHWORK CROSS SECTIONS | 017-9-3-0-4 | EARTHWORK CROSS SECTIONS |
| 017-9-3-0-5 | EARTHWORK CROSS SECTIONS | 017-9-3-0-5 | EARTHWORK CROSS SECTIONS | 017-9-3-0-5 | EARTHWORK CROSS SECTIONS |
| 017-9-3-0-6 | ACCESS ROAD - PLAN AND PROFILE | 017-9-3-0-6 | ACCESS ROAD - PLAN AND PROFILE | 017-9-3-0-6 | ACCESS ROAD - PLAN AND PROFILE |
| 017-9-3-0-7 | ACCESS ROAD - CROSS SECTIONS | 017-9-3-0-7 | ACCESS ROAD - CROSS SECTIONS | 017-9-3-0-7 | ACCESS ROAD - CROSS SECTIONS |
| 017-9-3-0-101 | WATER AND SEWERAGE FACILITIES - GENERAL LAYOUT | 017-9-3-0-101 | WATER AND SEWERAGE FACILITIES - GENERAL LAYOUT | 017-9-3-0-101 | WATER AND SEWERAGE FACILITIES - GENERAL LAYOUT |
| 017-9-3-0-102 | SANITARY SEWERS - PLAN AND PROFILE | 017-9-3-0-102 | SANITARY SEWERS - PLAN AND PROFILE | 017-9-3-0-102 | SANITARY SEWERS - PLAN AND PROFILE |
| 017-9-3-0-103 | FOUNDATION EXPLORATIONS - LOGS OF BORINGS | 017-9-3-0-103 | FOUNDATION EXPLORATIONS - LOGS OF BORINGS | 017-9-3-0-103 | FOUNDATION EXPLORATIONS - LOGS OF BORINGS |
| 017-9-3-0-104 | UG POWER AND COMMUNICATION PLAN | 017-9-3-0-104 | UG POWER AND COMMUNICATION PLAN | 017-9-3-0-104 | UG POWER AND COMMUNICATION PLAN |
| 017-9-3-0-105 | AS-BUILT TOPOGRAPHY SHEET NO. 1 | 017-9-3-0-105 | AS-BUILT TOPOGRAPHY SHEET NO. 1 | 017-9-3-0-105 | AS-BUILT TOPOGRAPHY SHEET NO. 1 |
| 017-9-3-0-106 | AS-BUILT TOPOGRAPHY SHEET NO. 2 | 017-9-3-0-106 | AS-BUILT TOPOGRAPHY SHEET NO. 2 | 017-9-3-0-106 | AS-BUILT TOPOGRAPHY SHEET NO. 2 |

AS-BUILT TOPOGRAPHY SHEET NO. 1
AS-BUILT TOPOGRAPHY SHEET NO. 2

57-16

| | | | |
|---|-------------|--|-------------|
| OPERATIONAL AS BUILT | | SITE | |
| REV. TO SHOW CONSTR. AS-BUILT TOPOGRAPHY | | AS-BUILT CONDITION | |
| REVISION DATE | DESCRIPTION | REVISION DATE | DESCRIPTION |
| | | | |
| BLACK & VEATCH
CONSULTING ENGINEERS
KANSAS CITY, MISSOURI | | DEPARTMENT OF THE AIR FORCE
AIR FORCE BALLISTIC MISSILE DIVISION (ARDC)
BULLWOOD, CALIFORNIA | |
| WS-107A-I OPERATIONAL BASE
DYESS A.F.B., TEXAS | | | |
| INDEX - SITE WORK | | | |
| DATE: 22 Mar 1960 | | | |
| PROJECT NO. 41-443-60-30 | | | |
| DRAWN BY: [Signature] | | | |
| CHECKED BY: [Signature] | | | |
| DATE: 22 Mar 1960 | | | |
| SCALE: 1" = 30' | | | |
| SHEET NO. 517-X-3-6-1 3-1 | | | |

THIS PLAN ACCOMPANIES CONTRACT NO. 41-443-60-30



- LEGEND**
- UNDERGROUND CABLE OR WIRE AS NOTED
 - UNDERGROUND CONDUIT (STEEL) OR CONDUIT WITH WIRE OR CABLE AS NOTED
 - INDICATES CABLE IN WALL WHEN WIRE OR CABLE IS INSTALLED IN WALL CONDUIT IS SPARE (CONDUIT ONLY) INDICATES CABLE PLUS SPARE (CONDUIT ONLY)
 - POLE AND POLE NUMBER FOR DETAIL SEE DWG. 517-2-202 SEE NOTE 10
 - CABLE MARKER FOR UNDERGROUND CABLES (CONCRETE) SEE NOTE 11
 - SECTION MARKER - 3" INDICATES SECTION A-1-1-1 INDICATES DRAWING NUMBER ON WHICH SECTION A IS SHOWN SEE NOTE 12
 - DETAIL DESCRIPTION - 4" INDICATES DETAIL DRAWING NUMBER ON WHICH DETAIL IS SHOWN SEE NOTE 13
 - INDICATES CONDUIT SIZE INDICATED
 - INDICATES CONDUIT SIZE INDICATED
 - FENCE GROUND - 1/4" X 1/8" GAL. ROD & JUMPER SEE NOTE 14

- NOTES**
1. CABLE MARKERS SHALL BE INSTALLED AS FOLLOWS: AT START END POINTS, EVERY 50'-0" OR LESS ON SWEEP BENDS, EVERY 100'-0" OR LESS IN STRAIGHT RUNS, FOR CABLE MARKER DETAIL SEE NOTE 11
 2. GENERAL CONDUIT WITH HORIZONTAL CONDUIT SHALL BE SHORT SUPPLY CONDUIT BUSINESS TYPICAL FOR ALL CONDUITS BEARING DIRECT SHAL. CABLES EXTENDING THEREFROM SEE NOTE 11
 3. ALL UNDERGROUND CONDUITS OR SPARE CONDUITS SHALL BE INSTALLED A MIN. OF 7'-0" BELOW FINISHED GRADE
 4. SECTION AND DETAILS REFERRED TO ON THIS SHEET ARE SHOWN IN DRAWINGS 517-2-201, 202, 203, 204
 5. ALL UNDERGROUND CONDUITS SHALL EXTEND A MIN. OF 1'-0" BEYOND USE OF SLAB OR SHOULDER OF ROAD
 6. FENCE ALL BE GROUNDED EACH SIDE BY GATE AND AT A MAX. OF EVERY 500 FT. AROUND PERIMETER. GROUND FENCE FABRIC IS BARRIED BY 1/4" X 1/8" GAL. WIRE TO A 2'-0" X 1'-0" COPPER AND GROUND ROD
 7. PROVIDE 2" X 4" X 1/2" LUGS FOR WIRING TYPE 20-200 TERMINALS IN SPARE CONDUITS IN CONDUIT FROM SLAB SEE DETAIL 3 ON 202 AND EXTENDING BEYOND FINISHED AREA, INSTALL FULCRUM 2 FT. ABOVE GRADE FOR EACH LEVEL WIRE AND 2 FT. FROM SLAB SEE DETAIL 30
 8. FOR LOCATION OF AIR INTAKE AND EXHAUST VENTS REFER TO DWG. 517-2-201 AND FOR LOCATION OF 2000000 WATT SEE DWG. 517-2-201 INSTALL PAR. 30, 300 W. PROJECTOR FLOODLIGHT 10 FT. AVE. GRADE ON 2" X 2" CONDUIT WITH COMMON SUPPLY CIRCULATED DWG. 517-2-201 DETAIL 30 & DWG. 517-2-201

REFRESHING PA, FACIL. PLAN 12-477 FOR SITES

In accordance with instructions (SAC) 850/8309 of November 1951 the drawing is certified as being true to the following as determined by the drawing office:

1. Issue showing HARD DIMENSIONS or solid construction to 20/A equipment.
2. Issue which would not conform with 20/A equipment.
3. Changes that would affect other maintenance or operation of the system.

DATE: 26 JUL 1950
California
 ADDN 1

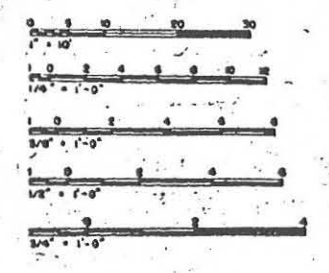
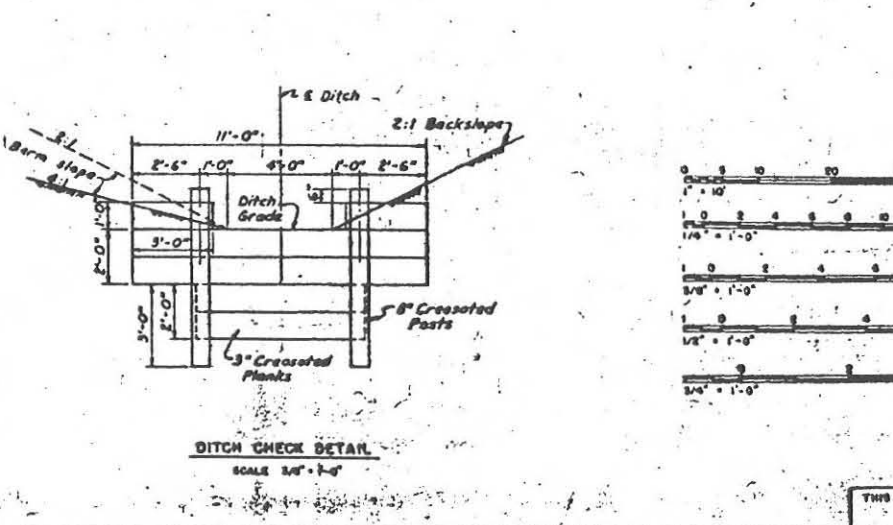
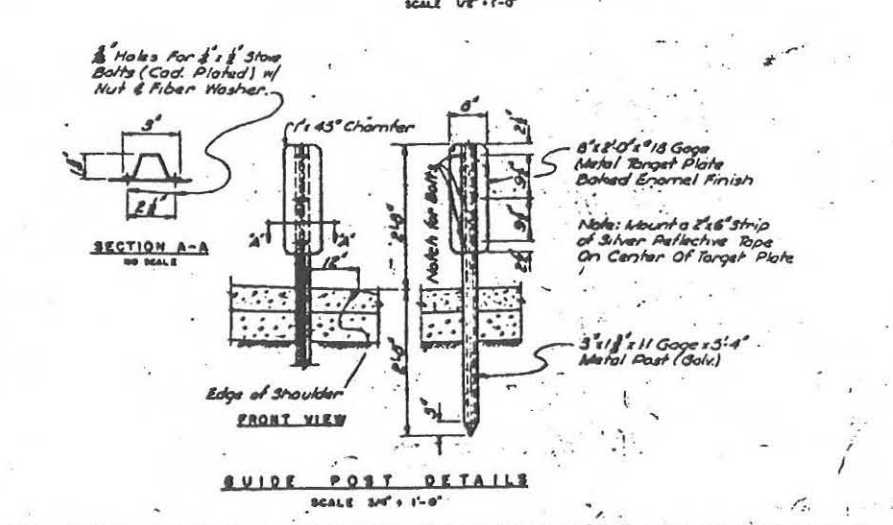
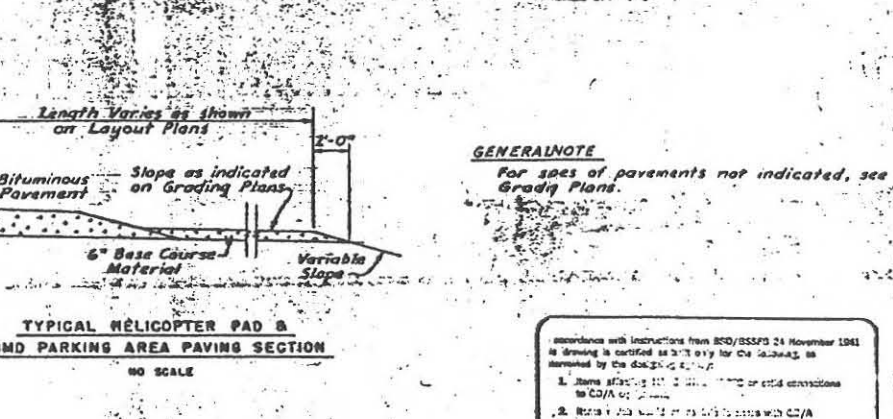
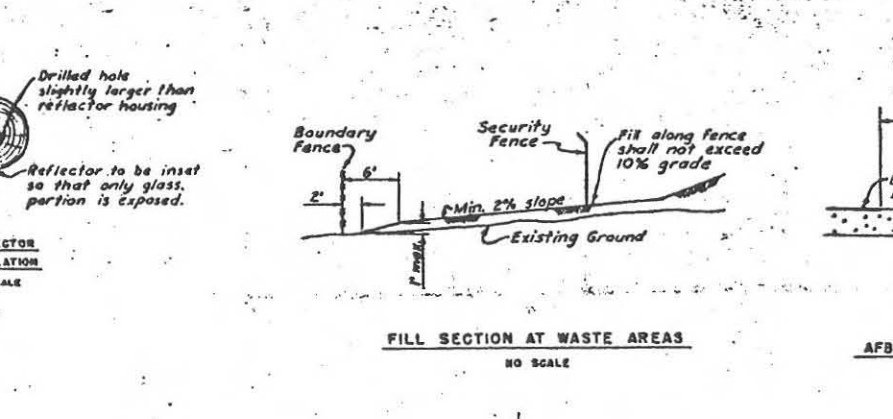
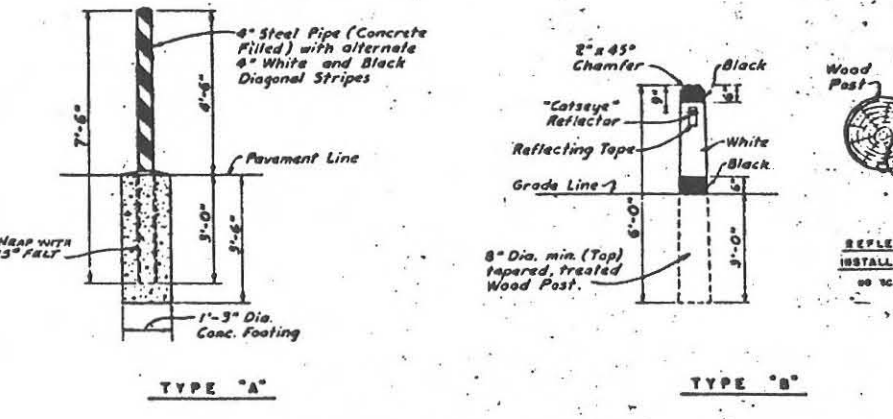
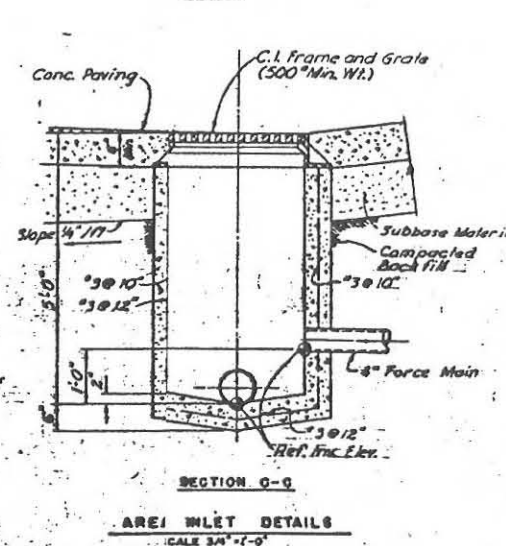
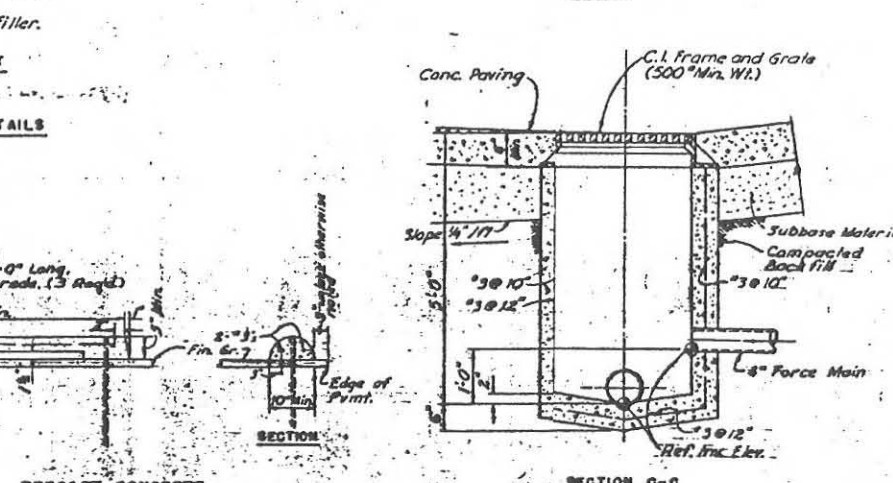
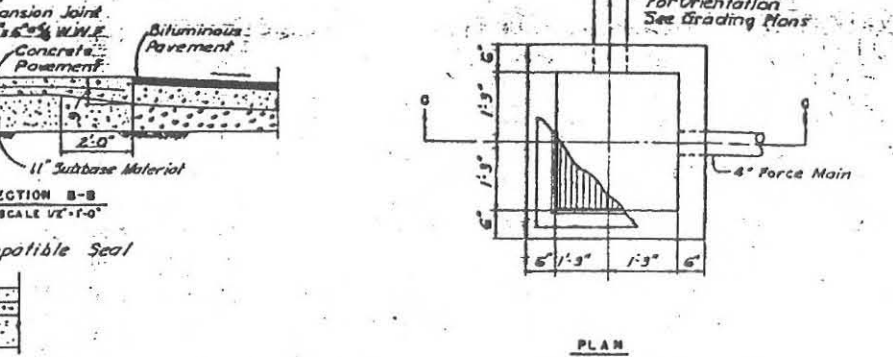
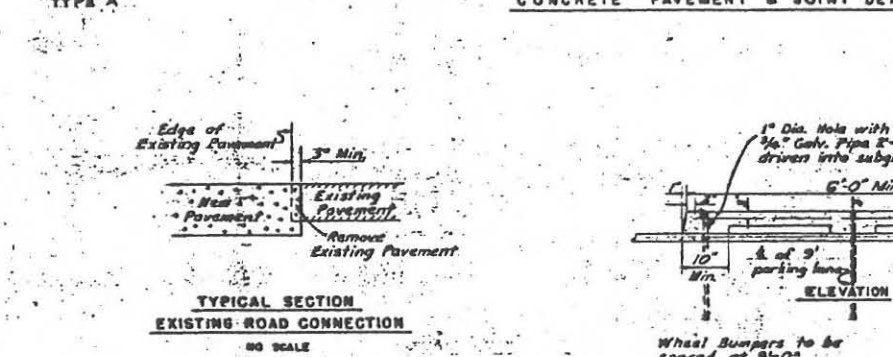
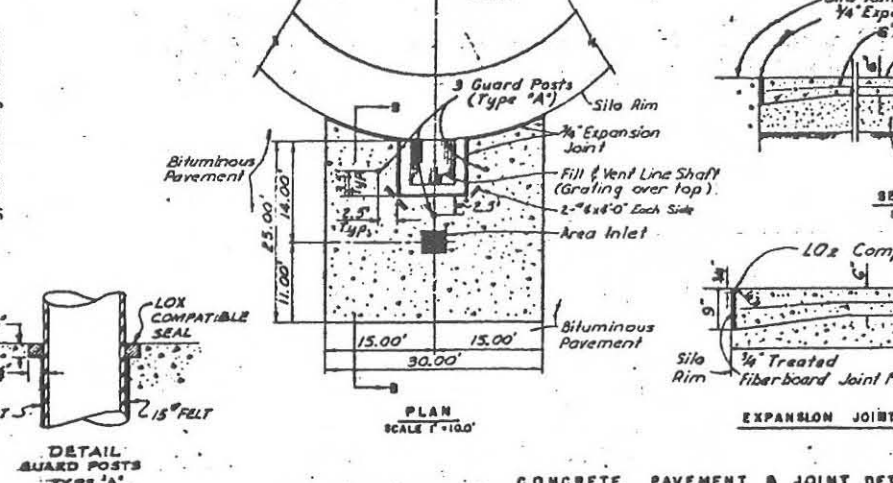
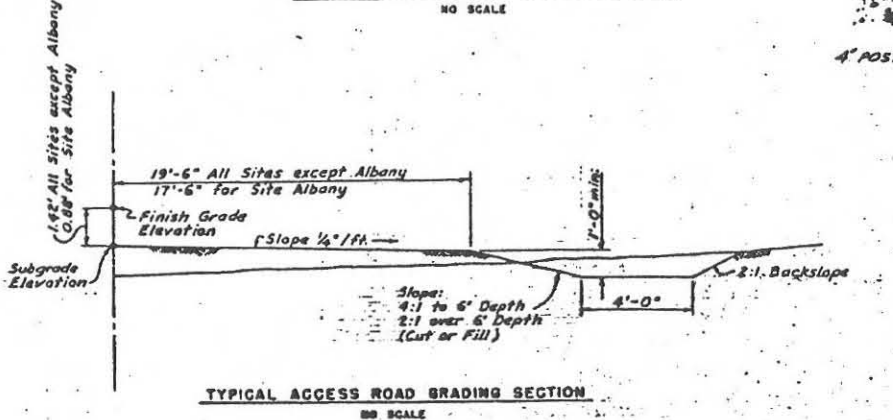
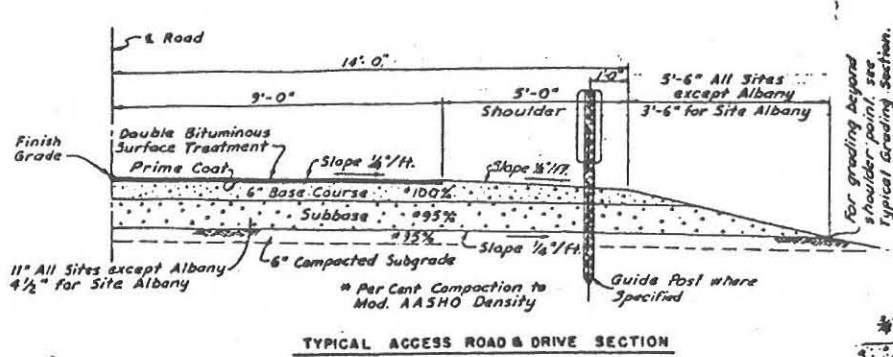
27 SEP 1950
 6 JUL 1950

 51-16.31

| NO. | DATE | DESCRIPTION | BY | CHKD. |
|-----|--------|--|----|-------|
| 1 | 12-477 | ISSUED AS FACIL. PLAN | | |
| 2 | 12-477 | CHANGED TO NEW DESCRIPTION OF WIRE ROUTING | | |
| 3 | 12-477 | CHANGED TO NEW DESCRIPTION OF WIRE ROUTING | | |
| 4 | 12-477 | CHANGED TO NEW DESCRIPTION OF WIRE ROUTING | | |
| 5 | 12-477 | CHANGED TO NEW DESCRIPTION OF WIRE ROUTING | | |
| 6 | 12-477 | CHANGED TO NEW DESCRIPTION OF WIRE ROUTING | | |
| 7 | 12-477 | CHANGED TO NEW DESCRIPTION OF WIRE ROUTING | | |
| 8 | 12-477 | CHANGED TO NEW DESCRIPTION OF WIRE ROUTING | | |

| | | | |
|---|--|---|--|
| BLACK & VEATCH
CONSULTING ENGINEERS
2200 G ST., DENVER, CO. | | DEPARTMENT OF THE AIR FORCE
AIR FORCE BALLISTIC MISSILE DIVISION (AMSD)
WHEELER, CALIFORNIA | |
| PROJECT TITLE: 51-16.31 | | PROJECT NO.: 51720-1-1 | |
| DATE: 27 SEP 1950 | | SCALE: AS SHOWN | |
| DRAWN BY: <i>[Signature]</i> | | CHECKED BY: <i>[Signature]</i> | |
| APPROVED BY: <i>[Signature]</i> | | DATE: 27 SEP 1950 | |
| MS-107A-1 OPERATIONAL BASE
51720-1-1, ITEM 1
SITE LAMN | | | |
| G.S. POWER & COMMUNICATION PLAN | | | |
| DRAWING NO. 51720-1-1-1-100-100 | | | |
| REVISED MARCH 1950 | | | |

THIS PLAN ACCOMPANIES CONTRACT NO. 51-16.31



USE THESE PILES WITH THE SPACE OF THE CAMP OR LOCATIONS SPECIFIED FOR CONSTRUCTION. HANDS OFF THE WORK OF CONTRACTOR.

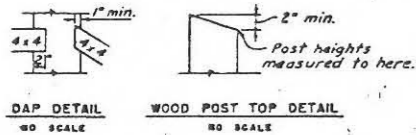
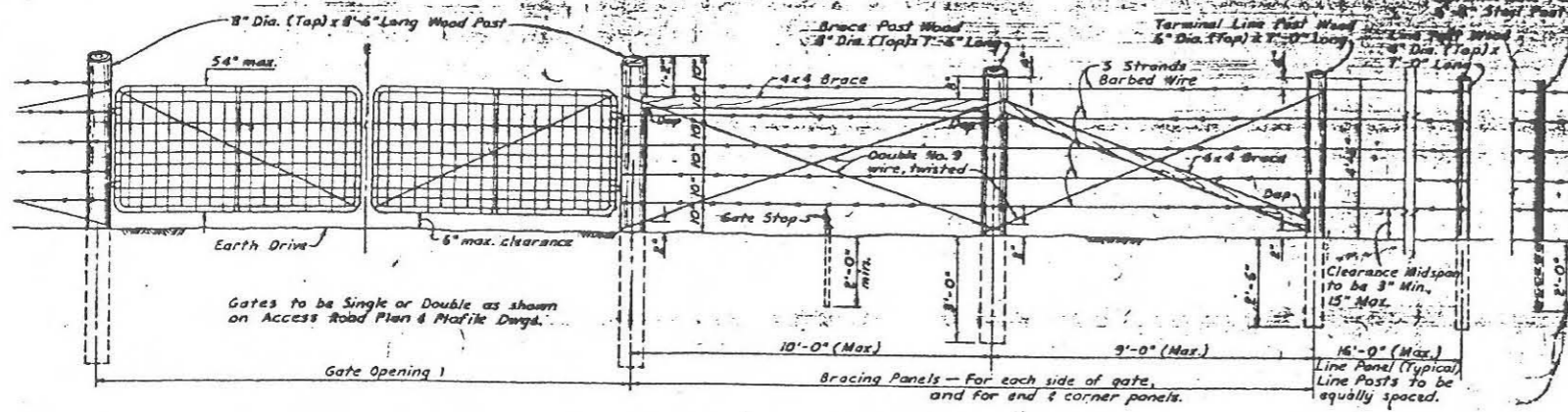
Robert H. ...

conformance with instructions from ESO/BSS/PD 24 November 1981 is drawing is certified as 2-D only for the 1-2-82-83, as determined by the design engineer.

1. Items affecting the design of the structure or its connections to C/A or structure.
2. Items affecting the design of the structure with C/A or structure.
3. Changes and modifications to the design of the structure.

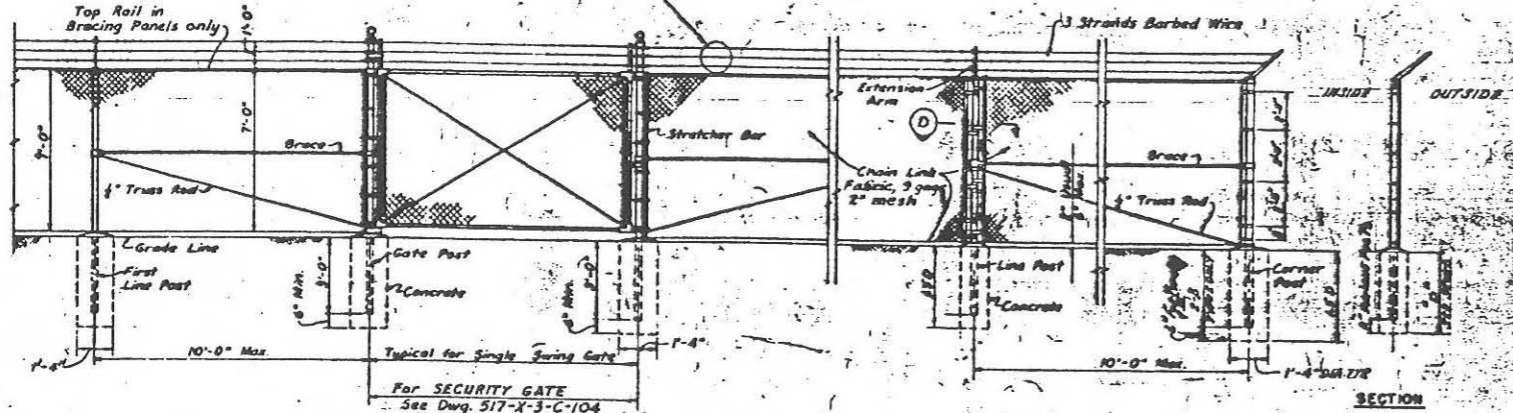
MR 6 552 *Robert H. ...*

| | | |
|---|--|--|
| 1-11-66 | OPERATIONAL AS BUILT | |
| 1-12-66 | REVISED SHOW CONSTR. AS BUILT FOR TYPE 'A' GUARD POSTS & AS-BUILT CONDITION OF FILL, GRADES, ETC. OF RELATED SHEET (E-100) H/A | |
| DATE | DESCRIPTION | APPROVED |
| BLACK BEATCH CONSULTING ENGINEERS ENGINEERS | | DEPARTMENT OF THE AIR FORCE AIR FORCE BALLISTIC MISSILE DIVISION (AFBMD) WILSONVILLE, OREGON |
| PROJECT NO. WS-107A-1 | OPERATIONAL BASE | DESIGN A.F.B. TEXAS |
| ALL SHEETS | | |
| TYPICAL PAVING SECTIONS AND MISCELLANEOUS DETAILS | | |
| ENGINEER | DESIGNER | CHECKER |
| DATE | DATE | DATE |
| PROJECT NO. ENG-41-443-60-30 | PROJECT NO. 22-MOR/AFBMD | PROJECT NO. 517-X-5-6 |
| DATE | DATE | DATE |
| DESIGNED BY | CHECKED BY | DATE |



TYPICAL FENCE & GATE LAYOUT FOR R/W FENCE & BOUNDARY FENCE NO SCALE

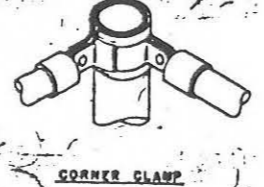
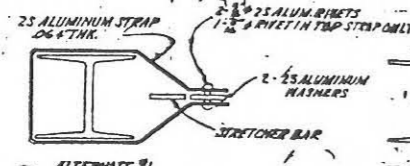
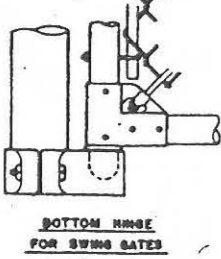
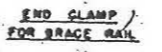
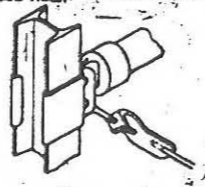
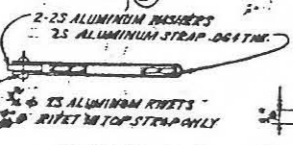
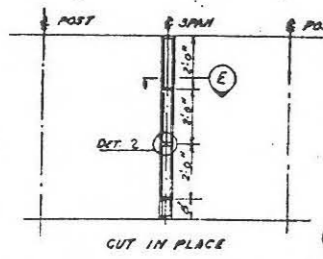
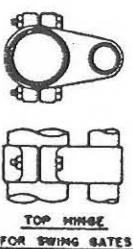
Note: The gate shown is typical. Any standard commercial gate that varies only in non-essential details will be acceptable, subject to approval of shop drawings.



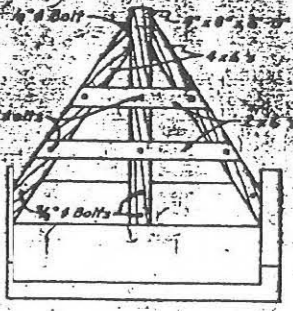
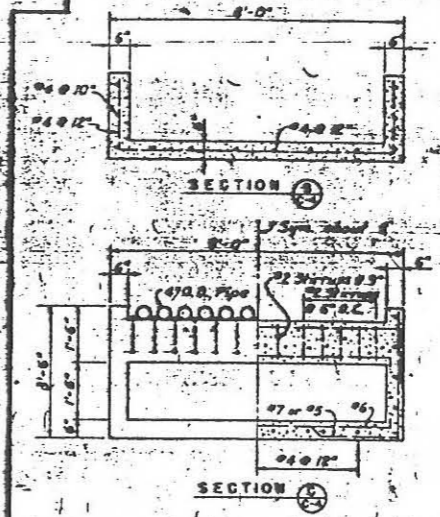
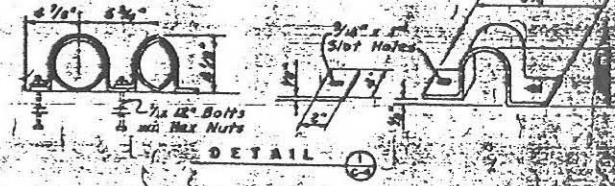
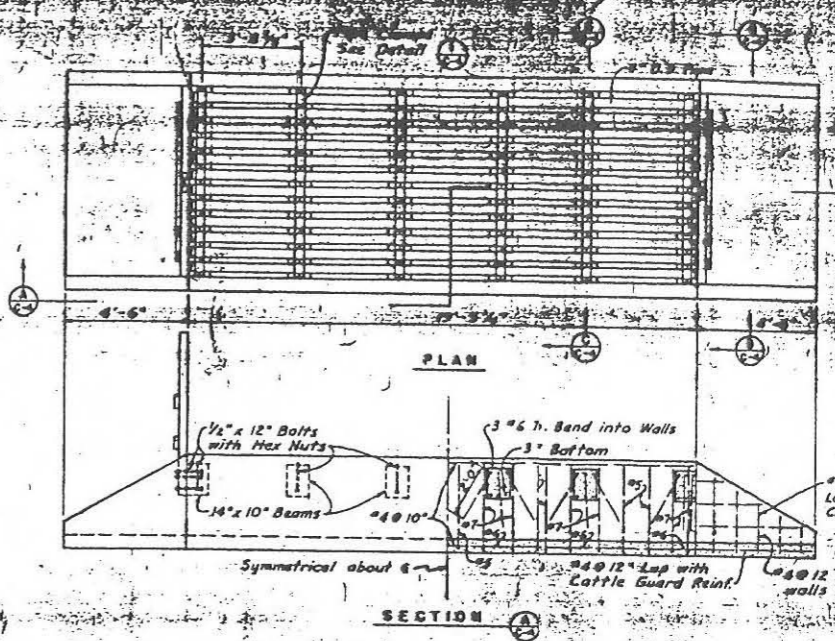
SECURITY FENCE ELEVATION OF TYPICAL CHAIN LINK TYPE FENCING NO SCALE

- Notes:
- Line Posts to be 2.25" H Section - 4.10 lbs./ft. or 2.5" O.D. tubular steel 3.65 lbs./ft.
 - End, Angle, Corner or Pull Posts to be 3" O.D. tubular steel 5.79 lbs./ft.
 - SOIL TYPES (SEE SPEC.)
1. CONCRETE SOILS WITH A DETERMINED SHEAR STRENGTH OF NOT LESS THAN 2000 P.S.F. THIS SHOULD BE A SOIL OFFERING A PENETRATION RESISTANCE OF AT LEAST 15 BLOWS PER FOOT IN A 2" DIA. STANDARD PENETRATION TEST BY A 140" WT. FALLING 30 INCHES.
2. ALL CONCRETE SOILS SHALL BE CLASSIFIED AS FROCK SAND OR BED ROCK.

| EMBEDMENT SCHEDULE | |
|--------------------|------------|
| TYPE | "D" |
| I | 2' 6" |
| II | 6'-0" |
| III | SEE SPECS. |



TYPICAL FENCING DETAILS NO SCALE



CATTLE GUARD DETAILS NO SCALE (NOT APPLICABLE TO THIS INTRACT)

In accordance with instructions from BSO/BSSFS 24 November 1981 this drawing is certified as built only for the following as determined by the design agency:

- Items affecting H-20 LIVE LOADS or solid connections to G.O./A or similar.
- Items affecting H-20 LIVE LOADS with G.O./A or similar.
- Changes that would affect other maintenance or operation of the system.

DATE 1982 BY *Robert...*

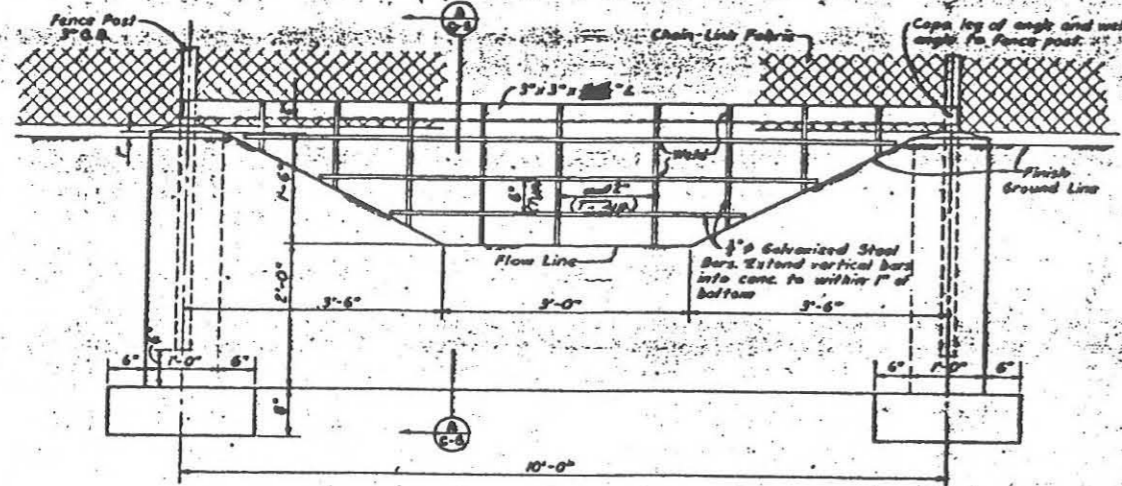
| NO. | DESCRIPTION | DATE | BY |
|-----|--|------|----|
| 1 | OPERATIONAL AS BUILT | | |
| 2 | REV. TO SHOW CONSTR. AS-BUILT CONDITION | | |
| 3 | A-B BRACE ATTACHMENT AND FINISHING BLVD. EFFECTS | | |
| 4 | 5-6-7 Added Gate Stop | | |

AS-BUILT COPY
DATE 17 MAY 1982
BY *Robert...*

WS-107A-1 OPERATIONAL BASE
OVERS. AND ALL SITE
FENCE DET.

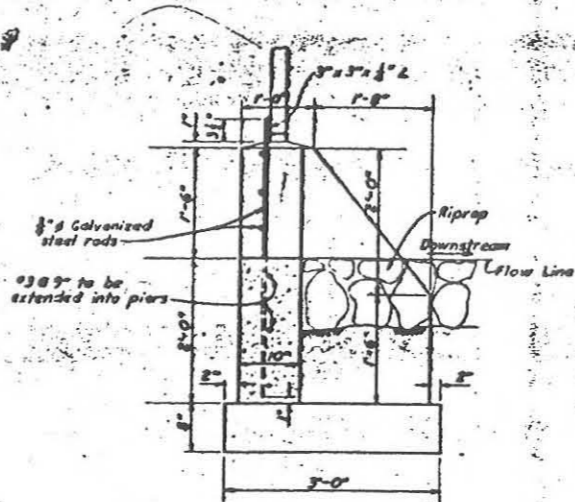
THE AIR FORCE
SMALL BUSINESS DEVELOPMENT CENTER
WRIGHT-PATTERSON AIR FORCE BASE
DAYTON, OHIO 45433-1000

DATE 17 MAY 1982
BY *Robert...*

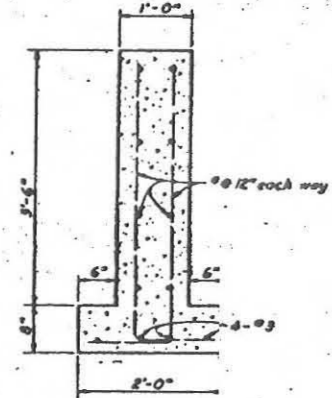


ELEVATION B

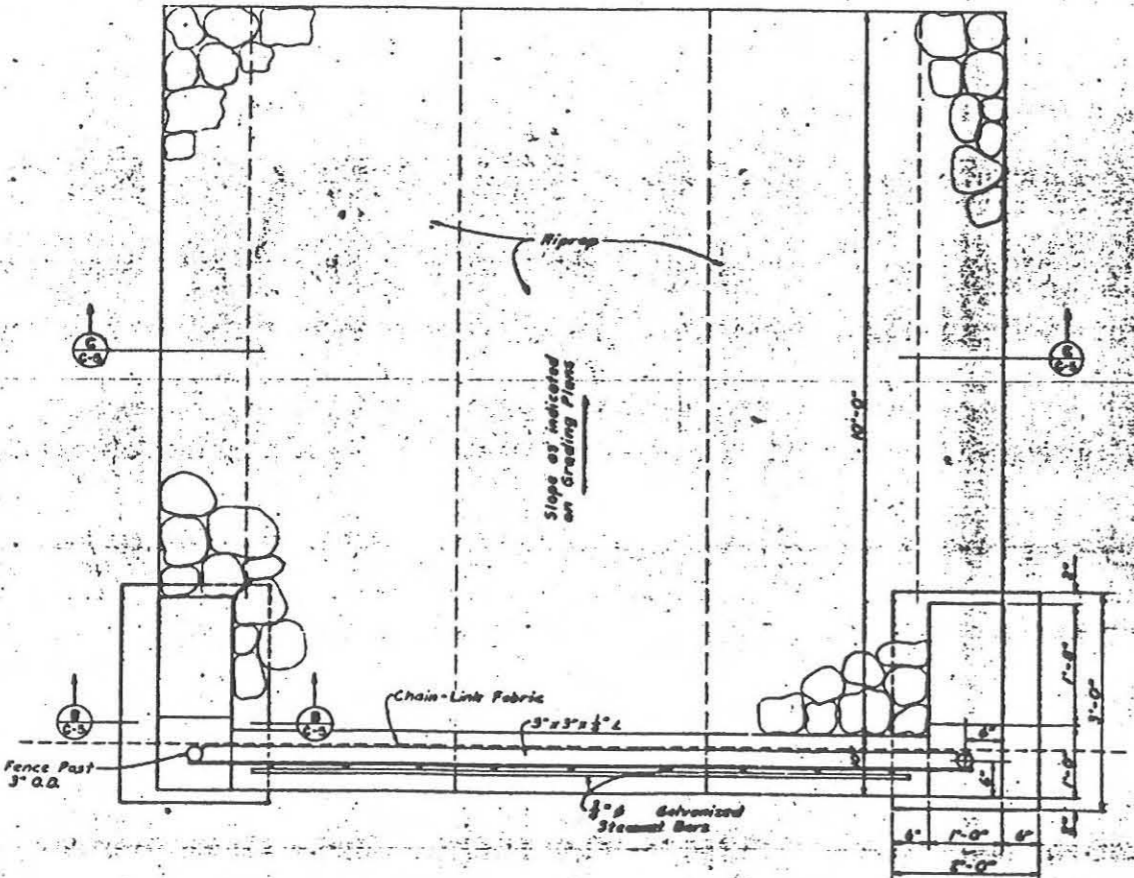
NOTE:
Galvanized items to be field welded, shall be zinc-coated using "Re-Galv" or Galvicon as specified in the section Miscellaneous Metal Work.



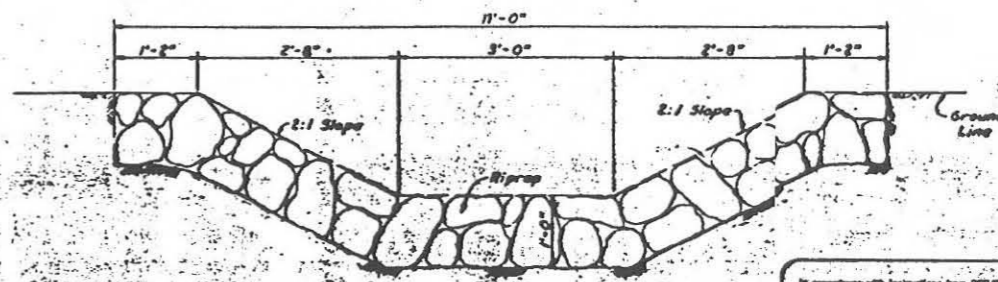
SECTION A



SECTION B



PLAN



SECTION C

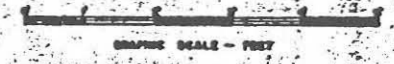
In accordance with instructions from ODD/SC/TC 21 November 1968 this drawing is certified as built, any for the amount, as determined by the design engineer.

1. Show showing ALL INTERFACES to add connections to other equipment.

2. Show which would cause interference with other equipment.

3. Check that work shall not interfere with other equipment in the plant.

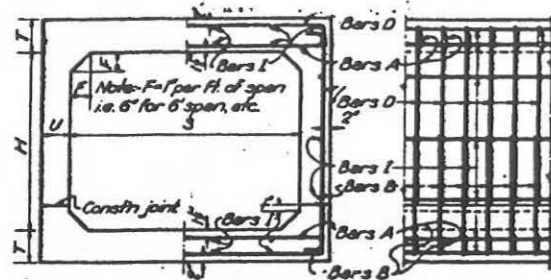
DATE: 22 Nov 1968
BY: *Chapman*



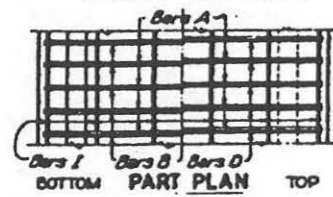
FOR THE FIELD OFFICE
OFFICE OF THE CHIEF OF ENGINEERS
FOR THE CONSTRUCTION DIVISION
OF THE ARMY
11 NOV 1968
Chapman
CHIEF OF ENGINEERS
FOR THE CONSTRUCTION DIVISION
OF THE ARMY

| | | | |
|---------------------------------------|-------------|-----------------------------|----------------|
| DATE | 22 Nov 1968 | BY | <i>Chapman</i> |
| DESIGNED BY | A.B. 272-0 | CHECKED BY | R.H. 272-0 |
| APPROVED BY | A.B. 272-0 | DATE | 22 Nov 1968 |
| BLM & VEATCH ENGINEERS | | DEPARTMENT OF THE AIR FORCE | |
| AIR FORCE ENGINEERING DIVISION (AFED) | | AFED/SC/TC | |
| WS-107A-1 OPERATIONAL BASE | | | |
| DYESS AFB, TEXAS | | | |
| ALL SITES | | | |
| FENCE DAMAGE STRUCTURE | | | |
| PLAN, ELEVATION & SECTIONS | | | |
| DRAWING NO. 517-X-3-C-5 | | 3-6 | |

THIS PLAN ACCOMPANIES CONTRACT NO. 517-X-3-C-5



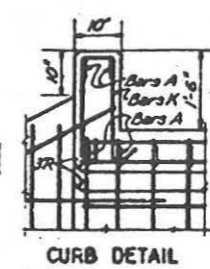
BARREL SECTION I PART ELEVATION



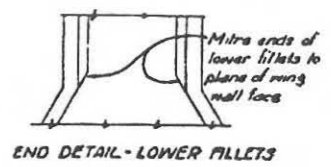
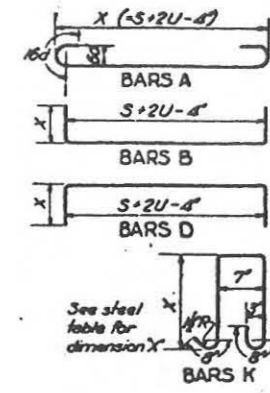
BOTTOM PART PLAN



SIDE ELEVATION



CURB DETAIL



END DETAIL - LOWER FILLETS

| CULVERT SIZE | TYPE OF SECTION | DIMENSIONS T U |
|--------------|-----------------|----------------|
| 2'-16" | 1 | 6'-6" |
| 2'-2" | 1 | 6'-6" |
| 3'-16" | 1 | 6'-6" |
| 3'-2" | 1 | 6'-6" |
| 3'-26" | 1 | 6'-6" |
| 3'-3" | 1 | 6'-6" |

| CULVERT SIZE | BARS A | BARS B | BARS D | BARS I | BARS K |
|--------------|-----------|-----------|-----------|-----------|-----------|
| 2'-16" | 2#4 @ 12" | 2#4 @ 12" | 2#4 @ 12" | 2#4 @ 12" | 2#4 @ 12" |
| 2'-2" | 2#4 @ 12" | 2#4 @ 12" | 2#4 @ 12" | 2#4 @ 12" | 2#4 @ 12" |
| 3'-16" | 2#4 @ 12" | 2#4 @ 12" | 2#4 @ 12" | 2#4 @ 12" | 2#4 @ 12" |
| 3'-2" | 2#4 @ 12" | 2#4 @ 12" | 2#4 @ 12" | 2#4 @ 12" | 2#4 @ 12" |
| 3'-26" | 2#4 @ 12" | 2#4 @ 12" | 2#4 @ 12" | 2#4 @ 12" | 2#4 @ 12" |
| 3'-3" | 2#4 @ 12" | 2#4 @ 12" | 2#4 @ 12" | 2#4 @ 12" | 2#4 @ 12" |

GENERAL NOTES - All concrete shall be Class AA. All exposed corners shall be chamfered. All dimensions relating to reinforcing steel are to centers of bars. Where bars are spliced a 30 diameter lap shall be used.

BOX CULVERT BARREL

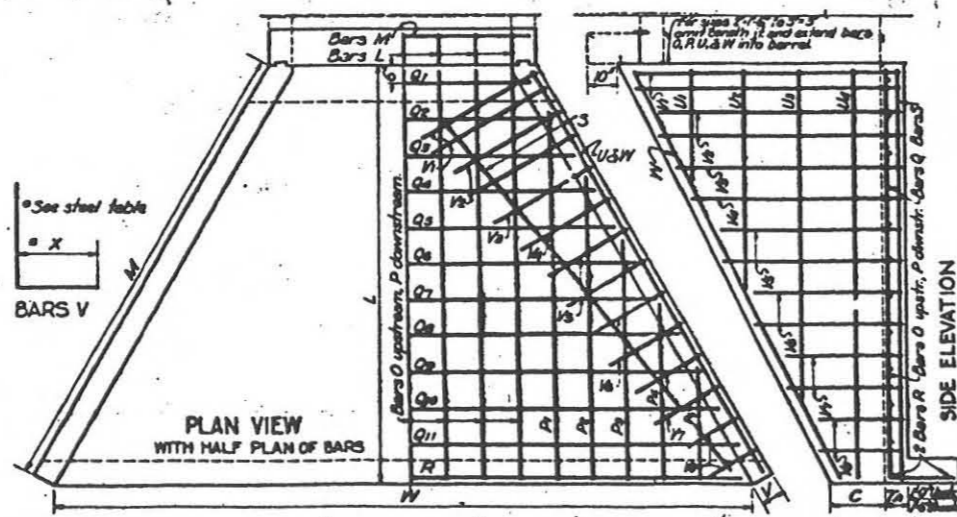
In accordance with instructions from BSO/BSSFB 24 November 1961 this drawing is certified as-built only for the following as determined by the as-built activity:

- Items affecting N.T.D. or solid connections to G.O.A. or wall.
- Items which would cause interference with G.O.A. equipment.
- Changes that would affect maintenance or operation of the system.

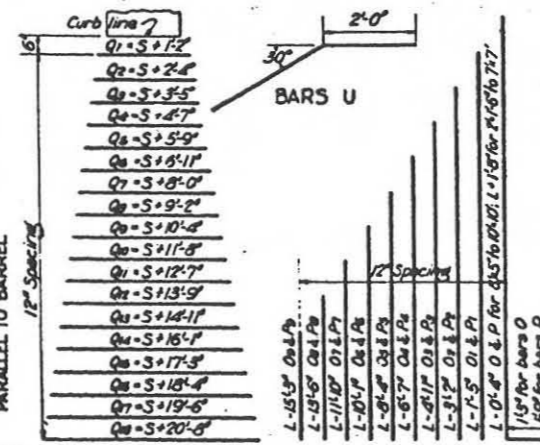
517-X-3-C-6

| CULVERT SIZE | BILLS OF WING REINFORCING BARS - 1 SET OF WINGS | | | | | | | | | | | | | | | | | | | | | | | | CULVERT SIZE |
|--------------|---|--------------|--------------|--------------|--------------|--------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---|--------|--------------|
| | BARS D @ 12" | BARS D @ 12" | BARS P @ 12" | BARS P @ 12" | BARS Q @ 12" | BARS Q @ 12" | BARS R | BARS S | BARS U | BARS U | BARS V | BARS V | BARS W | BARS W | BARS X | BARS X | BARS Y | BARS Y | BARS Z | BARS Z | BARS AA | BARS AA | | | |
| 2'-16" | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2'-16" | |
| 2'-2" | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2'-2" | |
| 3'-16" | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3'-16" | |
| 3'-2" | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3'-2" | |
| 3'-26" | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3'-26" | |
| 3'-3" | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3'-3" | |

| CULVERT SIZE | L | M | V | W | C | T |
|--------------|-----|-----|---|---|---|---|
| 2'-16" | 4.5 | 4.5 | 6 | 5 | 6 | 6 |
| 2'-2" | 5.5 | 5.5 | 6 | 5 | 6 | 6 |
| 3'-16" | 4.5 | 4.5 | 6 | 5 | 6 | 6 |
| 3'-2" | 5.5 | 5.5 | 6 | 5 | 6 | 6 |
| 3'-26" | 5.5 | 5.5 | 6 | 5 | 6 | 6 |
| 3'-3" | 5.5 | 5.5 | 6 | 5 | 6 | 6 |



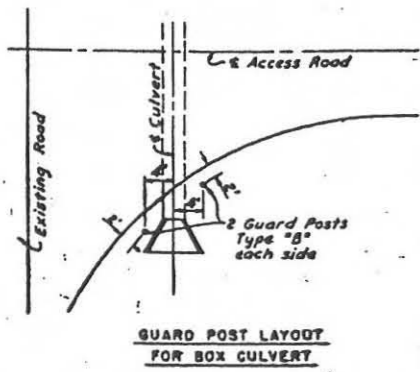
BOX CULVERT WINGS



LAYOUT OF BARS Q & P Note - Number shown in table includes 2 of each length used.

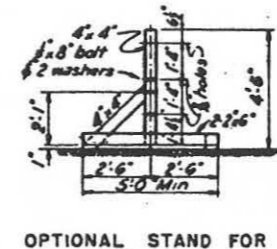
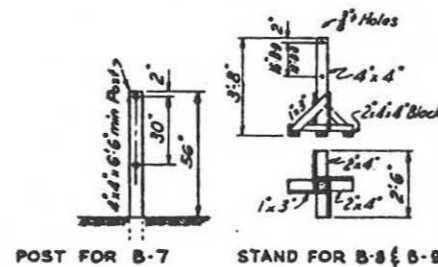
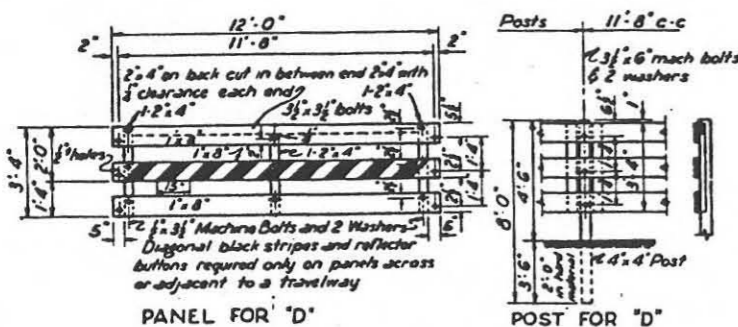
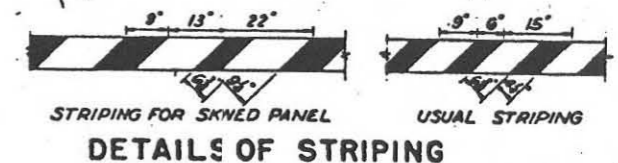
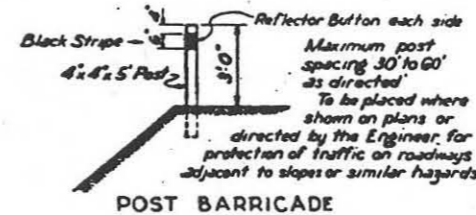
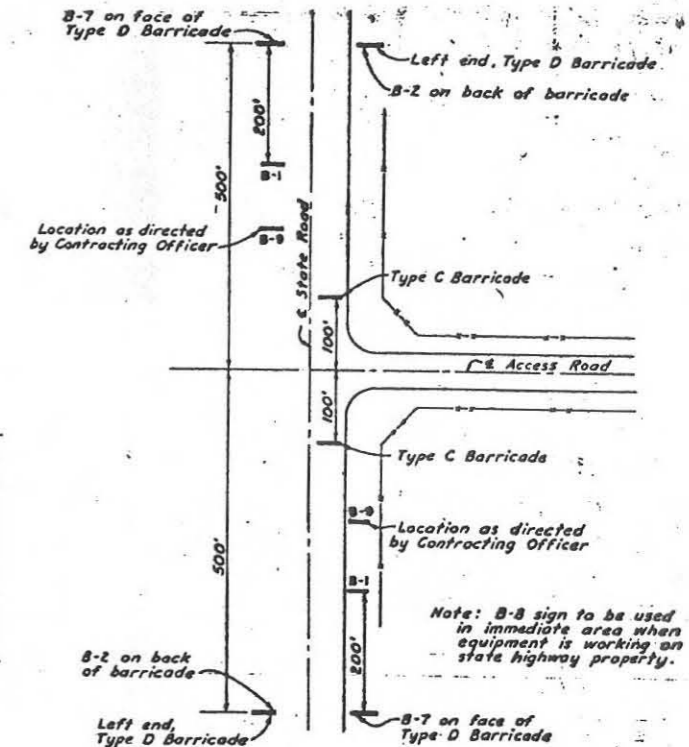
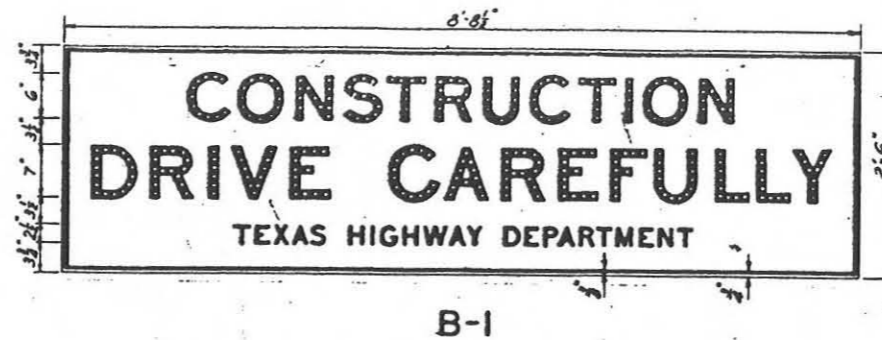
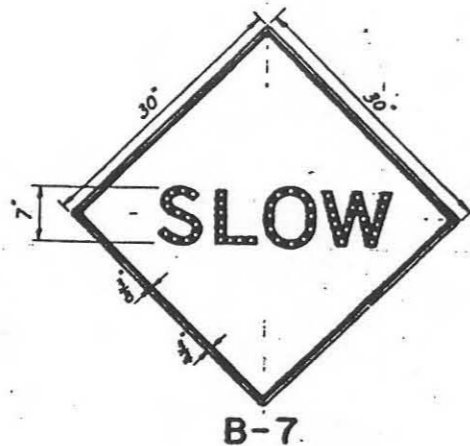
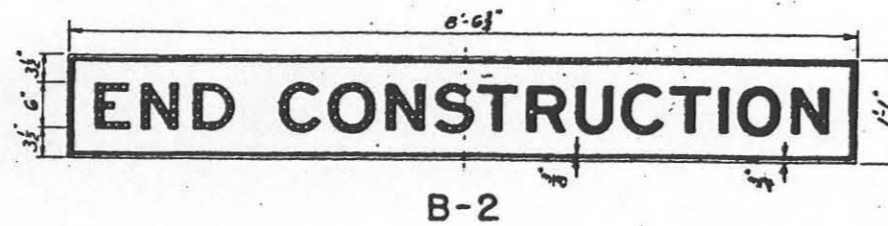
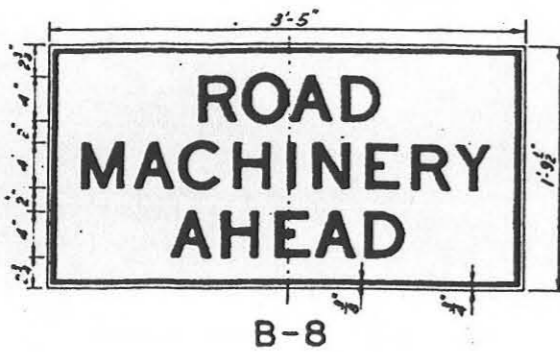
NOTES:

- Steel cover to be 2" center of outside layer of steel to face of concrete throughout.
- For details of Guard Post, Type "B" see Dwg. 517-X-3-C-3.
- This drawing is an adaptation of drawings prepared by the Texas State Highway Department and use of the information hereon is limited to this project.



GUARD POST LAYOUT FOR BOX CULVERT

| | | | |
|---|--|---|----|
| 12-16-62 | OPERATIONAL AS BUILT | | |
| 11-28-61 | REV. TO SHOW CONSTR. AS-BUILT CONDITION | | |
| 5-6-60 | Deleted fill. Revised bar lap. Added note 3. | | |
| DATE | DESCRIPTION | REVISION | BY |
| 12-16-62 | OPERATIONAL AS BUILT | | |
| 11-28-61 | REV. TO SHOW CONSTR. AS-BUILT CONDITION | | |
| 5-6-60 | Deleted fill. Revised bar lap. Added note 3. | | |
| BLACK & VEATCH CONSULTING ENGINEERS SANGAS CITY, MISSOURI | | DEPARTMENT OF THE AIR FORCE AIR FORCE BALLISTIC MISSILE DIVISION (ARDC) HOLLYWOOD, CALIFORNIA | |
| DESIGNED BY R.H.P. | DATE 3-22-60 | WS-107A-1 OPERATIONAL BASE DYESS A.F.B., TEXAS ALL SITES | |
| DRAWN BY R.H.P. | DATE 3-22-60 | BOX CULVERT DETAILS | |
| CHECKED BY A.B.R. | DATE 3-22-60 | 517-X-3-C-6 3-7 | |
| APPROVED BY [Signature] | DATE 1-6 APR 1960 | 517-X-3-C-6 3-7 | |

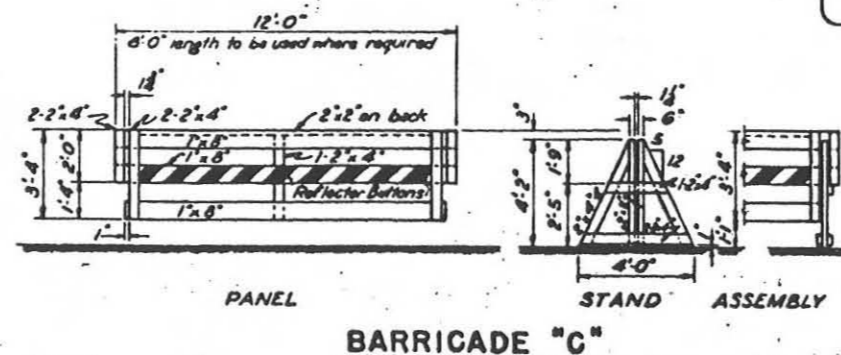
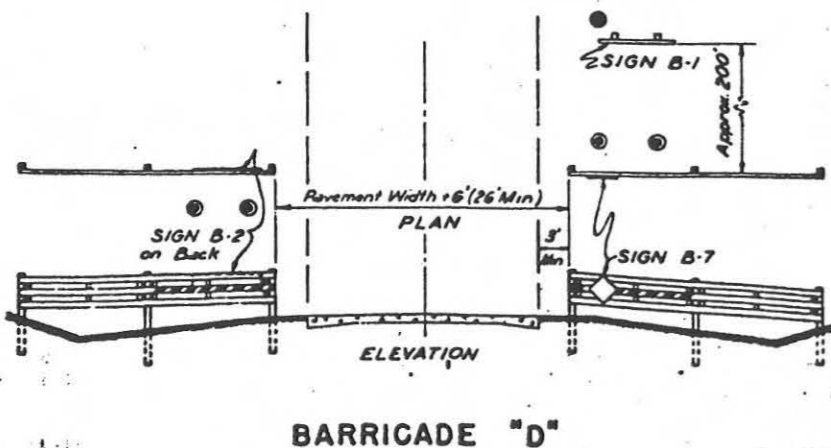


In accordance with instructions from GDO/SSC/24 November 1961 this drawing is certified as being only for the use as determined by the GDO/SSC/24 November 1961.

- Items affecting MVD INTERFACES or solid connections to GDA equipment.
- Items which would cause interference with GDA equipment.
- Changes that would affect either maintenance or operation of the system.

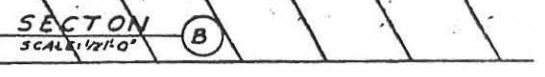
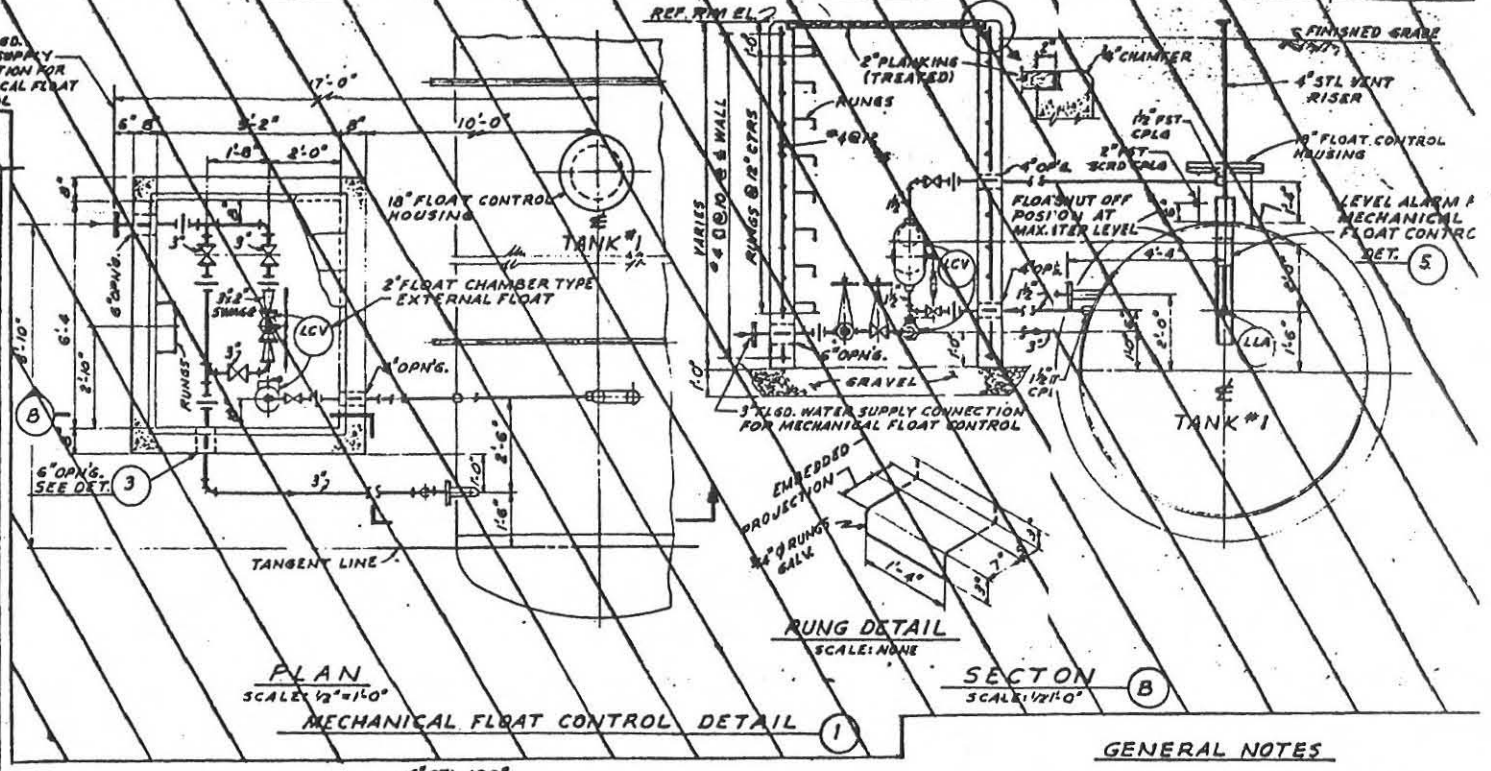
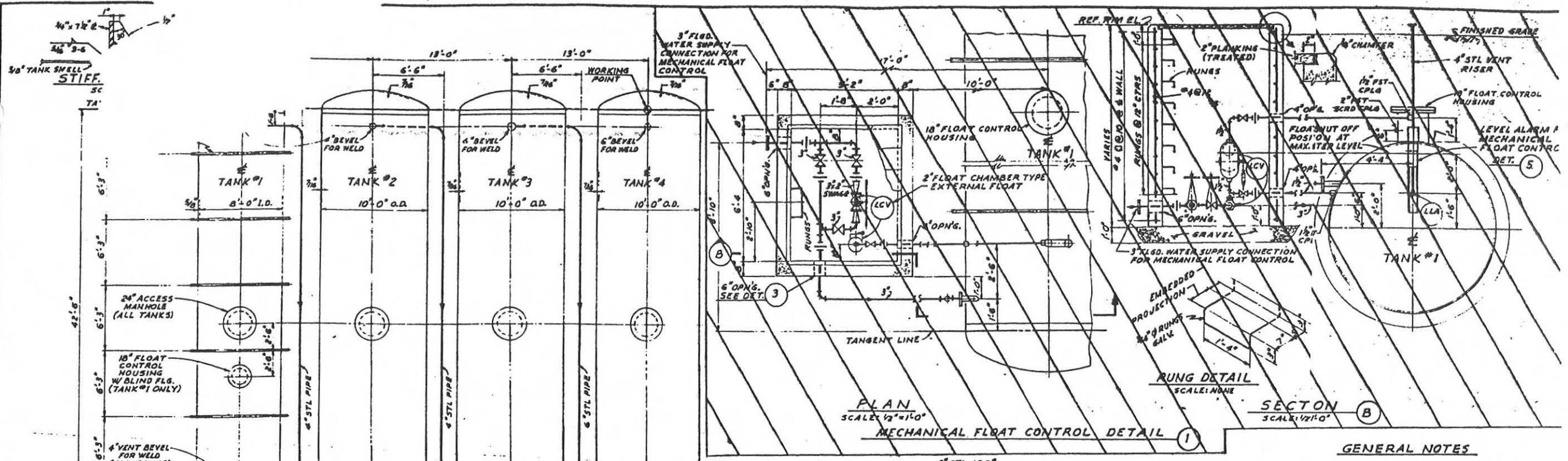
MAR 6 1962 *C. J. ...*

NOI
This drawing is an adaptation of drawings prepared by the Texas State Highway Department. Use of information hereon is limited to this project.



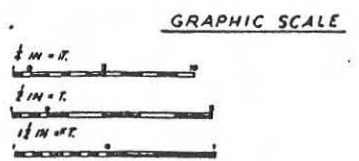
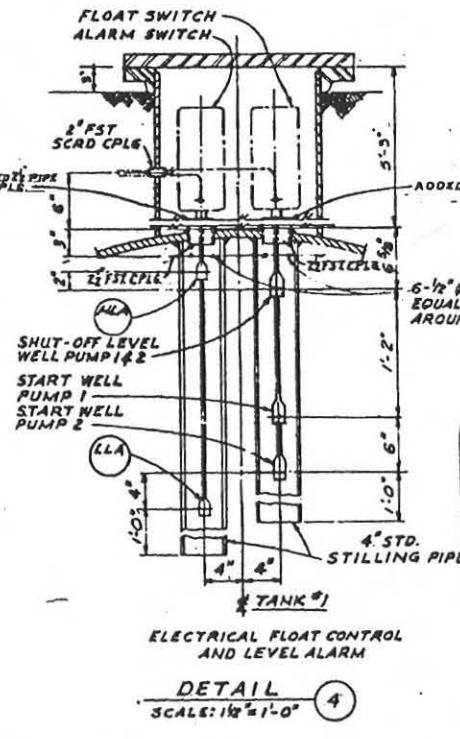
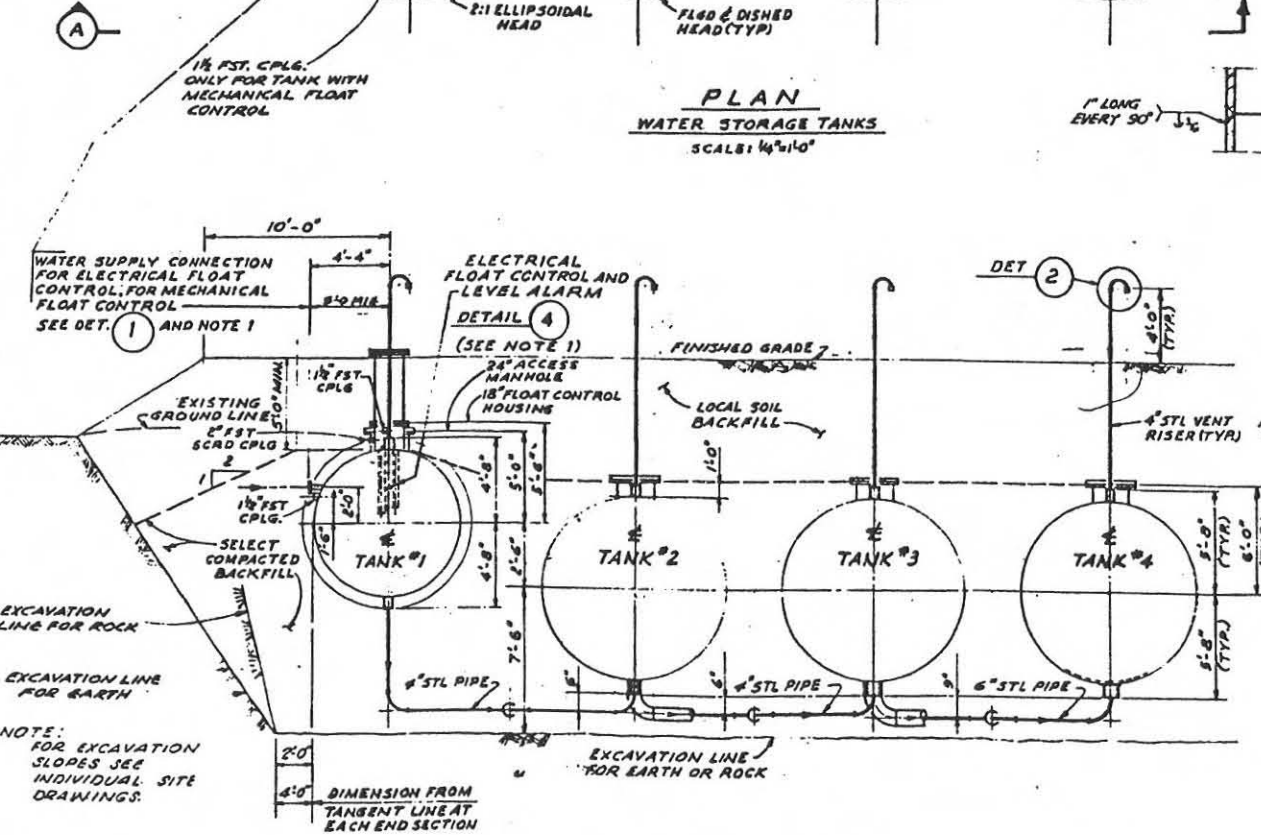
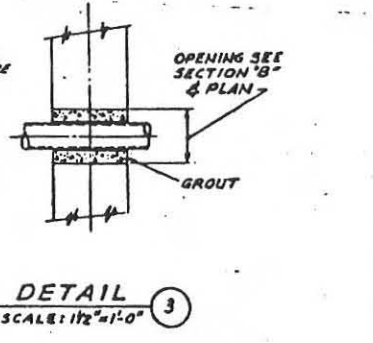
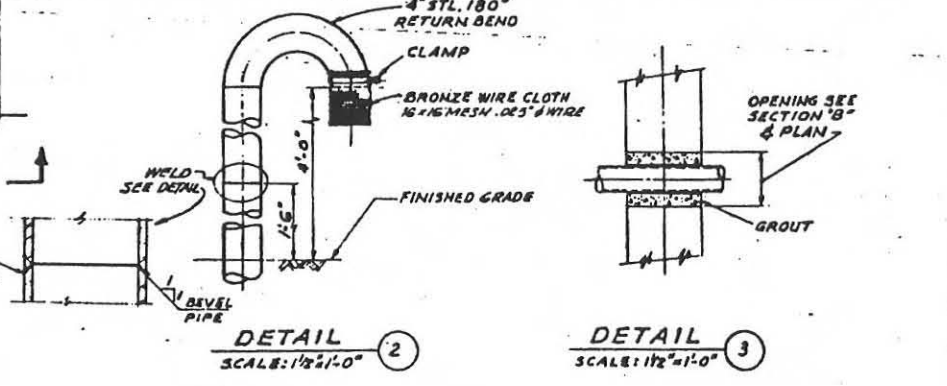
LAS ANGELES FIELD OFFICE
DIVISION OF THE BUREAU OF INVESTIGATION
U. S. DEPARTMENT OF JUSTICE
MAY 15 1960
C. J. ...

| | | | |
|---|--|--|----|
| ADD. NO. 2 | OPERATIONAL AS BUILT | DATE | BY |
| | REV. TO SHOW CONSTR. AS-BUILT CONDITIONS | 5-16-60 | R |
| | New Drawing Added | 5-16-60 | |
| LACK & VEATCH
MILITARY ENGINEERS
SAN ANTONIO, TEXAS | | DEPARTMENT OF THE AIR FORCE
AIR FORCE BALLISTIC RESERVE DIVISION (AMRD)
1100 GILBERT AVENUE
GILBERT, CALIFORNIA | |
| WS-107A-1 OPERATIONAL BASE
DYES & P.S., TEXAS
ALL SITES | | BARRICADES & WARNING SIGNS | |
| 51-16 | | 517-X-3-C-7 3-YA | |



- GENERAL NOTES**
- USE MECHANICAL FLOAT CONTROL FOR THE FOLLOWING:
 - GRAVITY WATER SUPPLY.
 - PUMPS EQUIPPED WITH EXPANSION TANK & PRESSURE CONT.
 - ALL MATERIALS, DETAILS AND FABRICATION OF TANKS SHALL CONFORM TO THE SPECIFICATIONS.
 - TANKS TO BE COATED INSIDE AND OUTSIDE PER SPECIFICATION.
 - CONCRETE SHALL BE CLASS B.
 - CAPACITY OF TANKS AT LOW LEVEL ALARM ELEVATION IS 80,000 GALLONS.

- LEGEND**
- HLA HIGH LEVEL ALARM
 - LLA LOW LEVEL ALARM
 - LCV LIQUID CONTROL VALVE



In accordance with instructions from ASD/SSFB 24 November 1961 this drawing is certified as built only for the following, as determined by the designing agency:

- Items affecting MTO (M) TRACES or solid connections to CO/A equipment.
- Items which will not be affected by CO/A equipment.
- Changes that would affect structural maintenance or operation of the system.

JAN 24 1962

FOR SITES 1 2 3 4 5 6 7 8 9 10 11 12

| | | | |
|--------|--|------|---|
| NO. 01 | OPERATIONS FOR BUILT FACILITIES ETC. 8/20/61 | DATE | 4 |
| NO. 02 | REV. TO SHOW CONSTR. DELETED DETAIL 1, AS-BUILT CONDITION SECT. B & DETAIL 5 | DATE | 8 |
| NO. 03 | ISSUED FOR WBS A-E | DATE | |

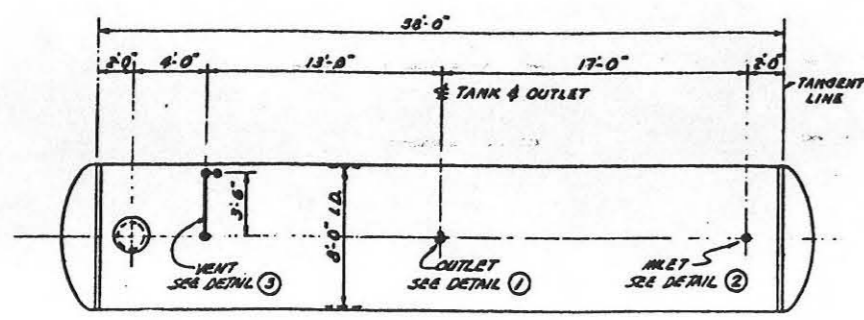
ICHEL CORPORATION
ENGINEERS AND CONSTRUCTORS
1000 S. GARDEN ST. - SANTA ANA, CALIF. 92705

DEPARTMENT OF THE AIR FORCE
AIR FORCE BALLISTIC MISSILE DIVISION (AFBD)
CANTON, CALIF.

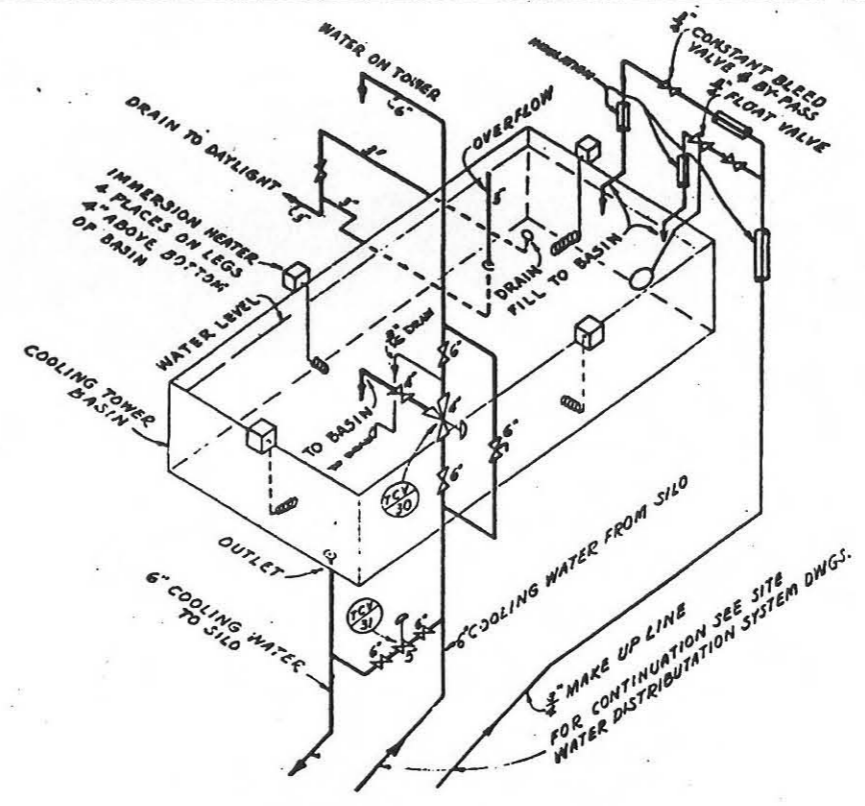
WS-107 A-1 OPERATIONAL BASE
UNITARY SILO

LAUNCH COMPLEX
WATER STORAGE PIPING AND BEDDING DETAILS

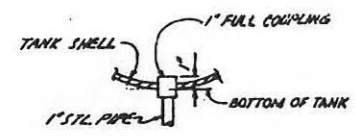
DATE: 13 JAN 1960
SCALE: AS SHOWN
NAME: [Signature]
NO. 578-A-3-C-2



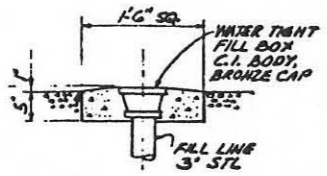
PLAN - DIESEL FUEL STORAGE TANK
SCALE: 1/4" = 1'-0"



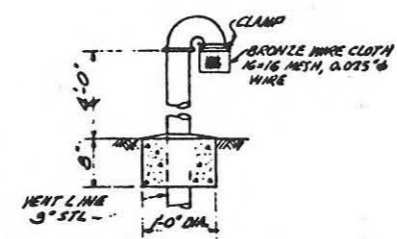
COOLING TOWER PIPING DIAGRAM
NO SCALE



OUTLET DETAIL ①
SCALE: 1" = 1'-0"



FILL BOX DETAIL ②
SCALE: 1" = 1'-0"



VENT DETAIL ③
SCALE: 1" = 1'-0"

GENERAL NOTES
DIESEL FUEL STORAGE TANK

1. ALL MATERIALS, DETAILS AND FABRICATION OF DIESEL FUEL STORAGE TANK SHALL CONFORM TO PAMPHLET 30 OF THE NATIONAL BOARD OF FIRE UNDERWRITERS.
2. CAPACITY OF DIESEL FUEL STORAGE TANK IS 1300 GALLONS.
3. ALL CONCRETE TO BE CLASS B.

COOLING TOWER PIPING DIAGRAM

1. DIAGRAM SHOWS AUXILIARY PIPING REQUIREMENTS EXACT LOCATION TO SUIT COOLING TOWER (A.S.C.)
2. CONTRACTOR SHALL SUBMIT DRAWINGS FOR APPROVAL BEFORE CONSTRUCTION.

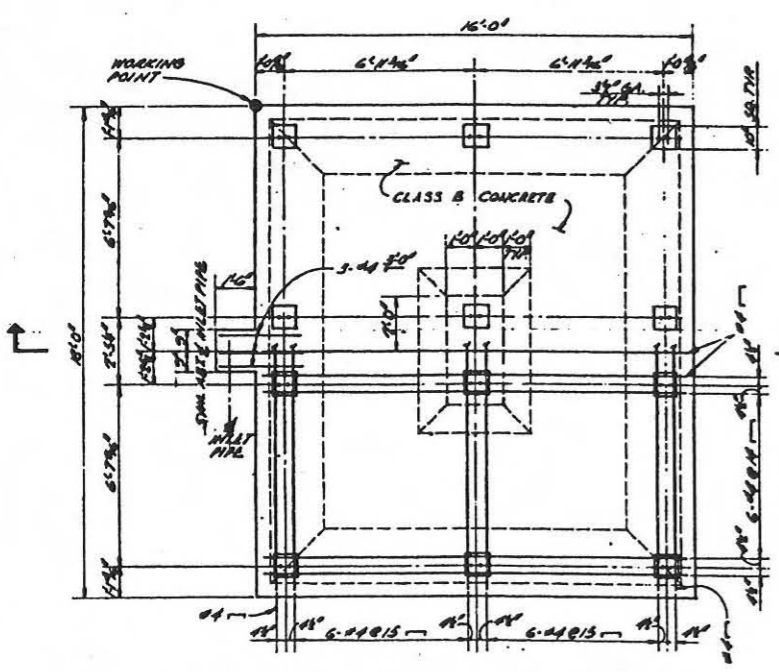
LEGEND

TCV 30 TEMPERATURE CONTROL VALVE

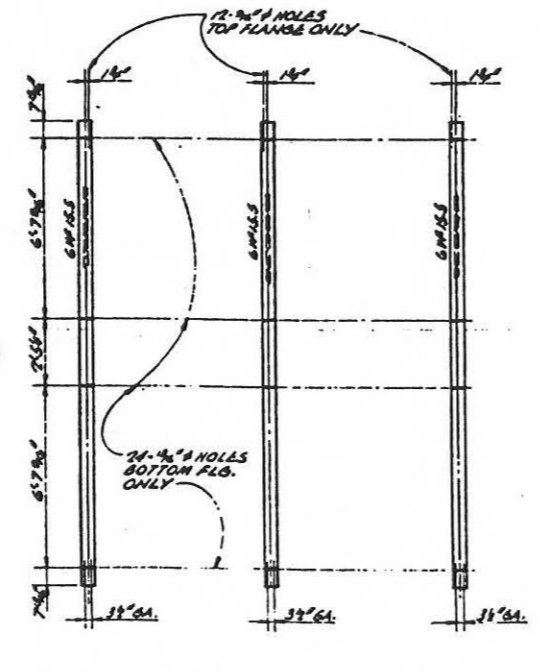
GRAPHIC SCALES

1" = 1 FT
1/4" = 1 FT

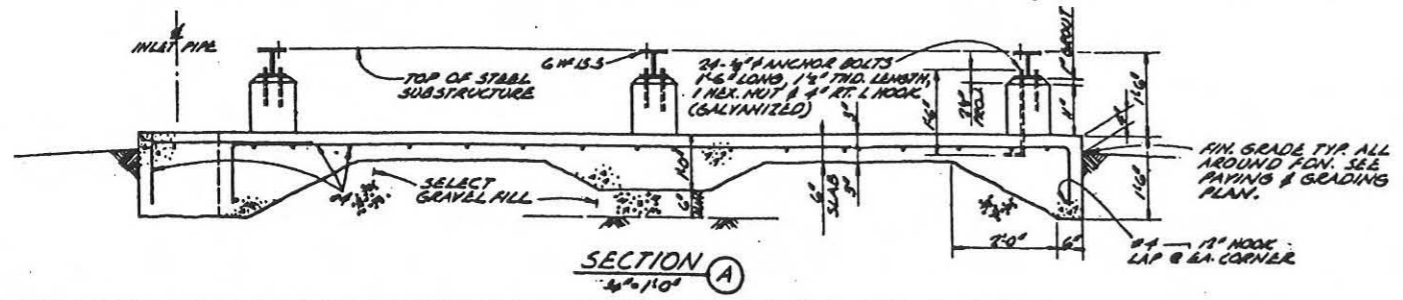
FQ SITES 1 2 3 4 5 6 7 8 9 10 11 12



COOLING TOWER FOUNDATION PLAN
1/4" = 1'-0"



COOLING TOWER STEEL SUBSTRUCTURE
1/4" = 1'-0"



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

In accordance with instructions from OSD/BS5FB 24 November 1961, this drawing is certified as correct for the following as determined by DA 64-211-1-1000:

1. Items affecting the design or construction of the structure.
2. Items affecting the safety or health of the personnel.
3. Changes that would affect the performance or operation of the system.

JAN 24 1962

| | | | |
|-------|---|----------|-------|
| 17-62 | OPERATIONAL AS BUILT INCLUDES BCP'S 5562 | SATAP | R |
| 18-61 | REV. TO SHOW CONSTR. AND 3/4" DRAIN & 3/4" FILL LINE AS-BUILT CONDITION | AS-BUILT | B |
| 19-60 | ADD COOLING TOWER PIPING, STEEL SUBSTRUCTURE & ANCHOR BOLTS | AFBND | AFBND |
| 45-60 | ISSUED FOR DYESS A.F.B. | AFBND | AFBND |

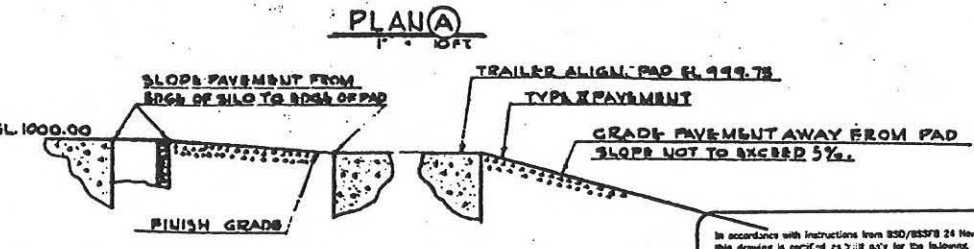
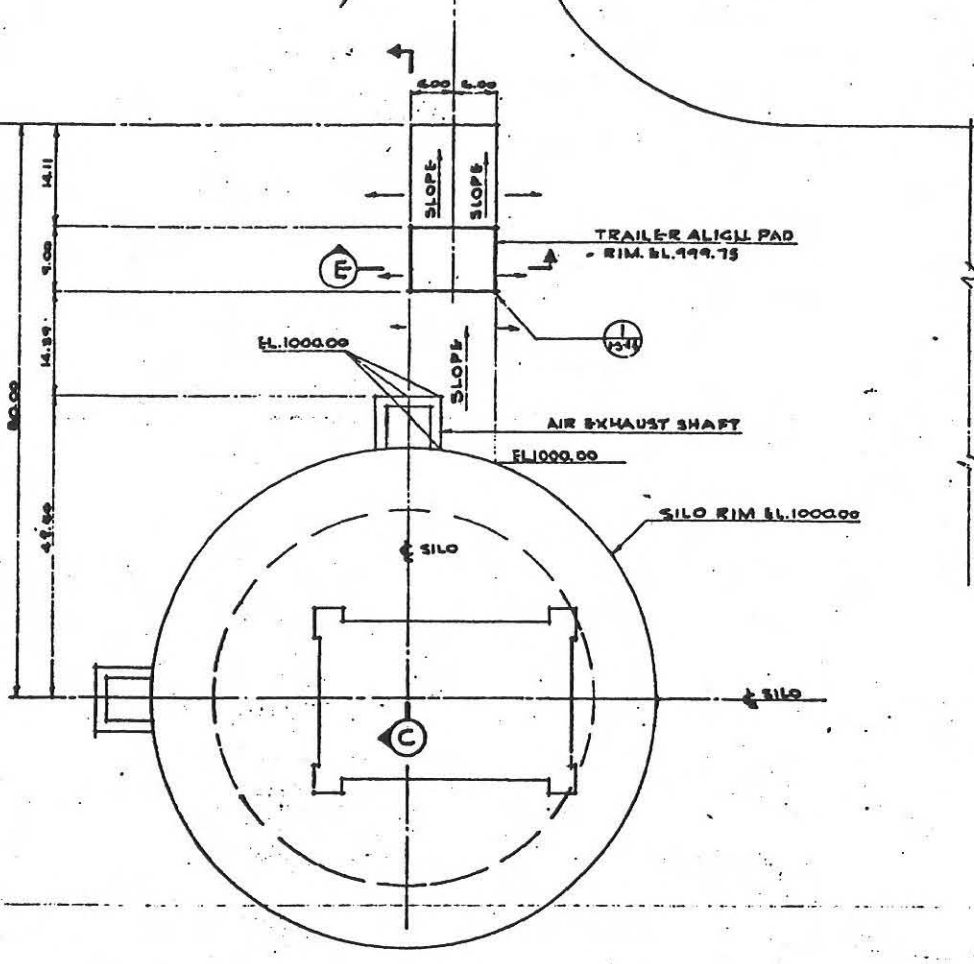
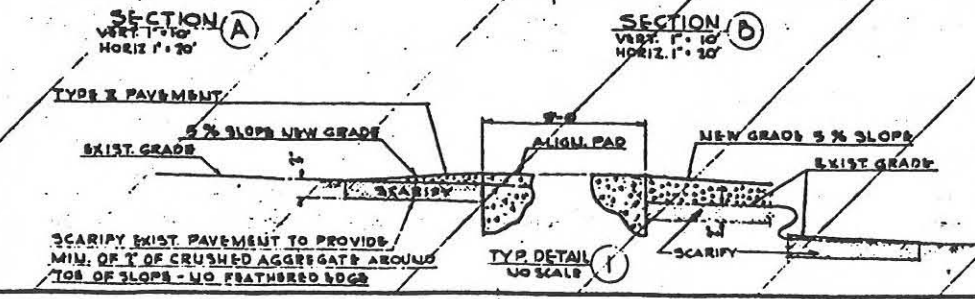
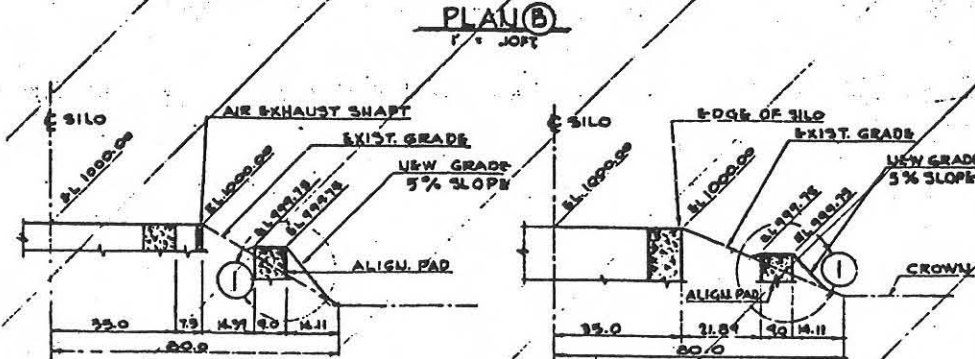
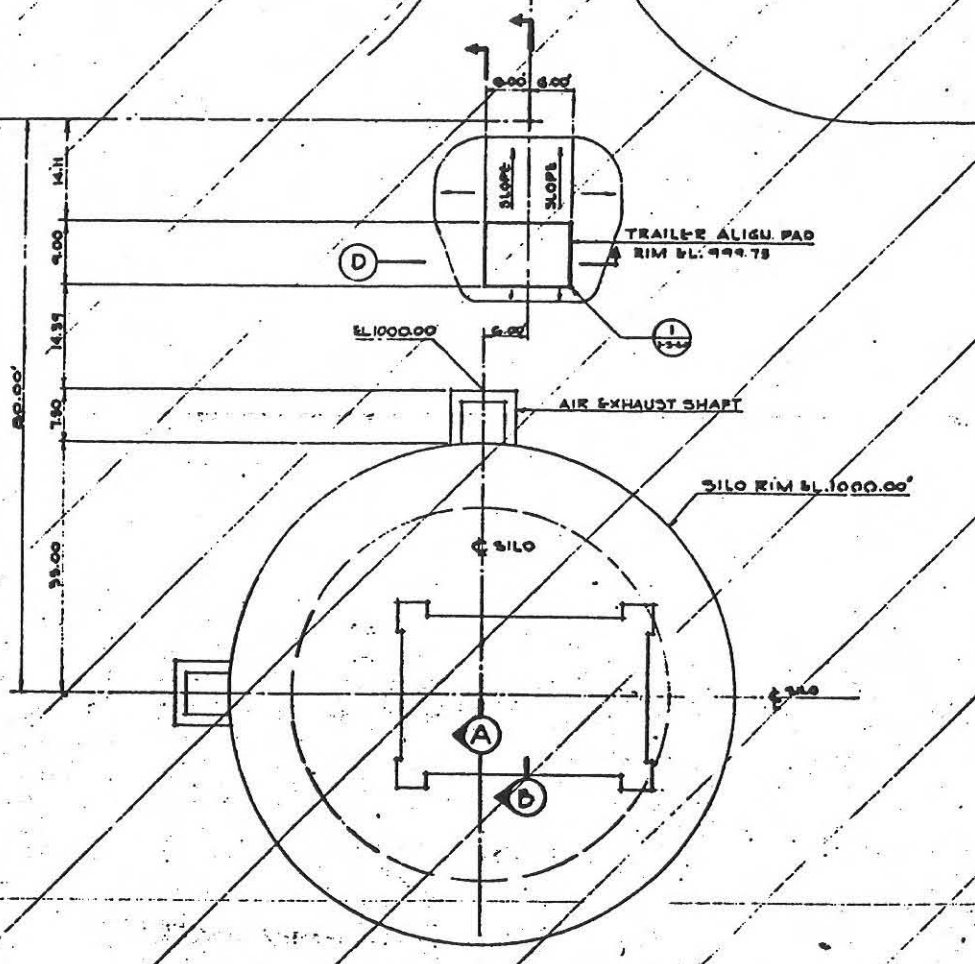
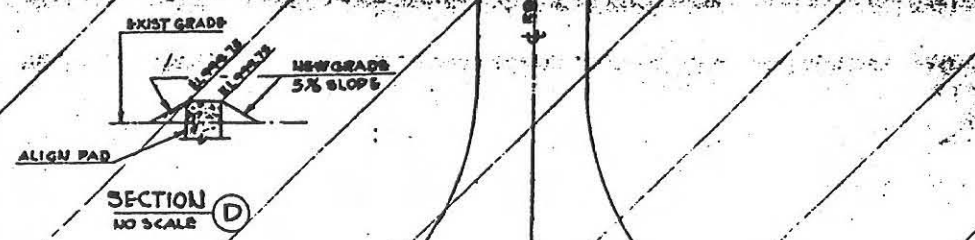
SCHEL CORPORATION
ENGINEERS AND ARCHITECTS

DEPARTMENT OF THE AIR FORCE
AIR FORCE BALLISTIC MISSILE DIVISION (AMSD)

WS-107 A-1 OPERATIONAL BASE
UNITARY SILO
LAUNCH COMPLEX
MISCELLANEOUS
SITE DETAILS

DESIGNED BY: [Signature] DATE: 2-2-60
CHECKED BY: [Signature] DATE: 2-2-60
APPROVED BY: [Signature] DATE: 2-2-60

ENG. - 41-423-60-30
11 FEB. 1960
578A-3-C-4



NOTE




1. USE MODIFIED PAVING PLAN (A) WHERE PAVING HAS NOT BEEN INSTALLED.
2. USE MODIFIED PAVING PLAN (B) WHERE PAVING HAS BEEN INSTALLED.
3. NO CROWN ON TRAILER RAMP

In accordance with instructions from ASD/SSFB 24 November 1961 this drawing is approved as being satisfactory for the following as determined by the 4-5-7-11-13-17-27-37

1. Items affected by H. O. J. 1113 or self corrections to C/A 42-1113
2. Items affected by H. O. J. 1113 or self corrections to C/A equipment
3. Changes that would affect either maintenance or operation of the system.

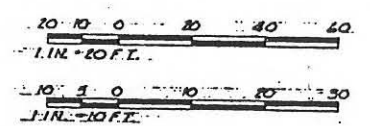
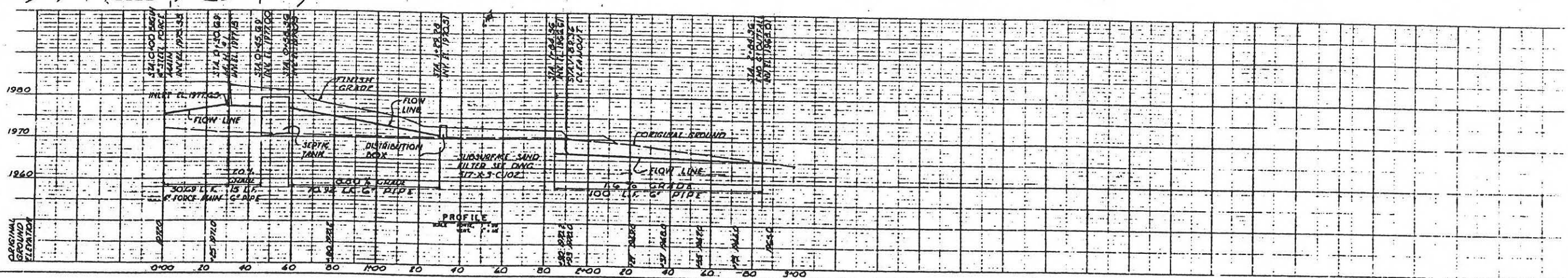
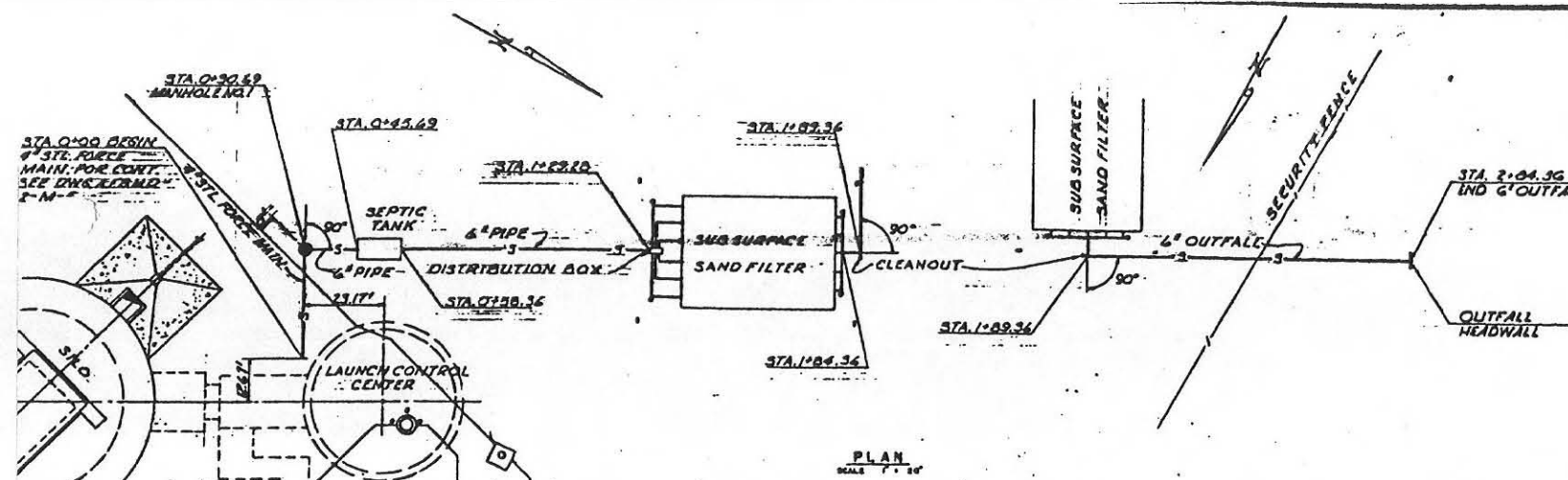
JAN 24 1962

LEGEND

-  CONCRETE
-  TYPE II PAVEMENT
-  SCARIFIED AREA

OR SITES 1 2 3 4 5 6 7 8 9 10 11 12

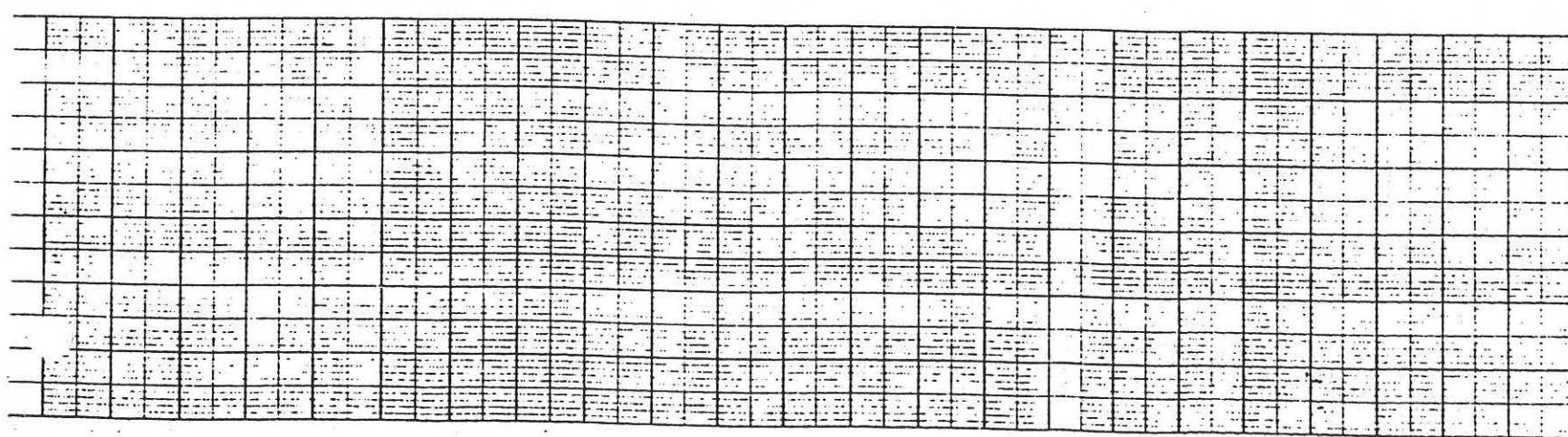
| | | | |
|---|--|--|------------|
| DATE | DESCRIPTION | BY | CHKD |
| 11-67 | OPERATIONAL AS BUILT | | BATAP R |
| 10-67 | REV. TO SHOW CONSTR. DELETED PLAN B | | |
| | AS-BUILT CONDITION | | CYR/KO/W/R |
| 12-61 | ISSUED FOR DYESS A.F.B. - NEW DWG. | | AFBMD SCL |
| | | | AMC/2 BWS |
| BECHTEL CORPORATION
ENGINEERS AND CONSTRUCTORS
3801 CENTRAL EXPRESSWAY
BERKELEY, CALIF. 94704 | | DEPARTMENT OF THE AIR FORCE
AIR FORCE BALLISTIC MISSILE DIVISION (AMBD)
WASHINGTON, D.C. 20330 | |
| WS-107 A-1 OPERATIONAL BASE | | | |
| UNITARY SILO | | | |
| LAUNCH COMPLEX | | | |
| TRAILER ALIGNMENT PAD | | | |
| GRADING PLAN | | | |
| DESIGNED BY: MYERS, L.H.G.
DRAWN BY: CAPITANI, R.E.
CHECKED BY: MYERS, L.H.G.
DATE: 11/24/61 | AUTHORITY: AFM 4-443-60-30
578-A-3-C-28 | | |



In accordance with instructions from BSO/BSSFB 24 November 1961 this drawing is certified as-built only for the following, as determined by the design agency:

1. Items affecting HARD INTERFACES or solid connections to GO/A equipment.
2. Items which would cause interference with GO/A equipment.
3. Changes that would affect other maintenance or operation of the system.

MAR 6 1962 *Calahan Jensen*



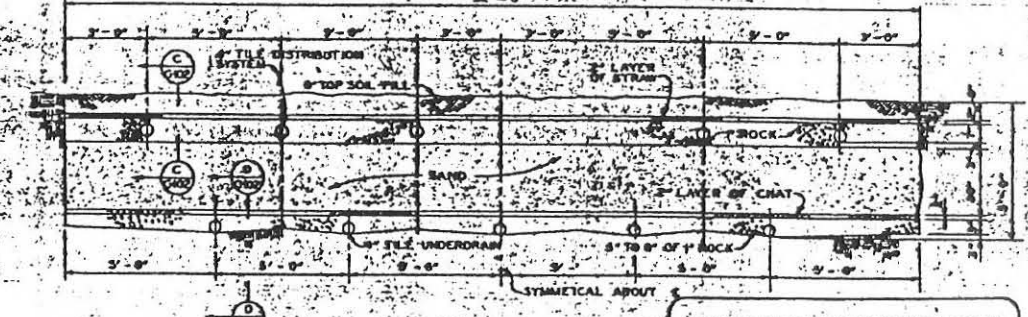
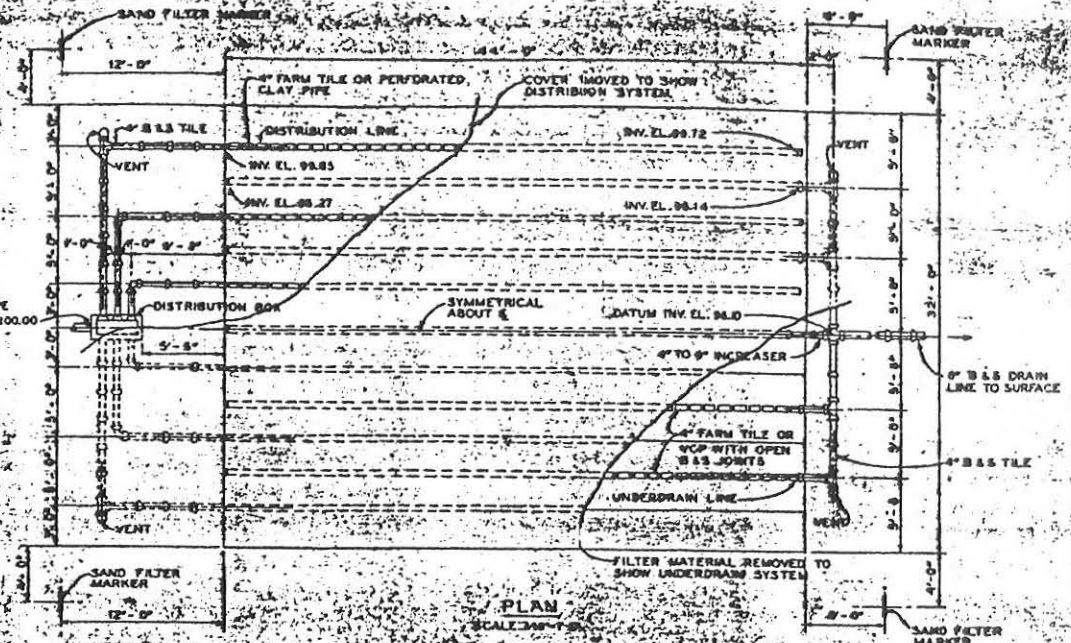
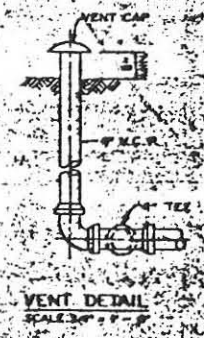
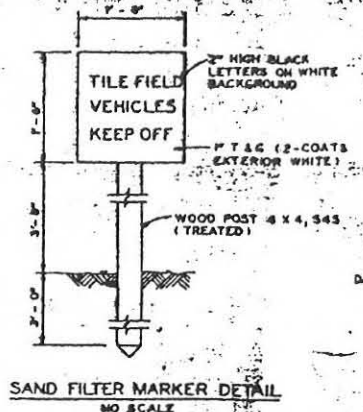
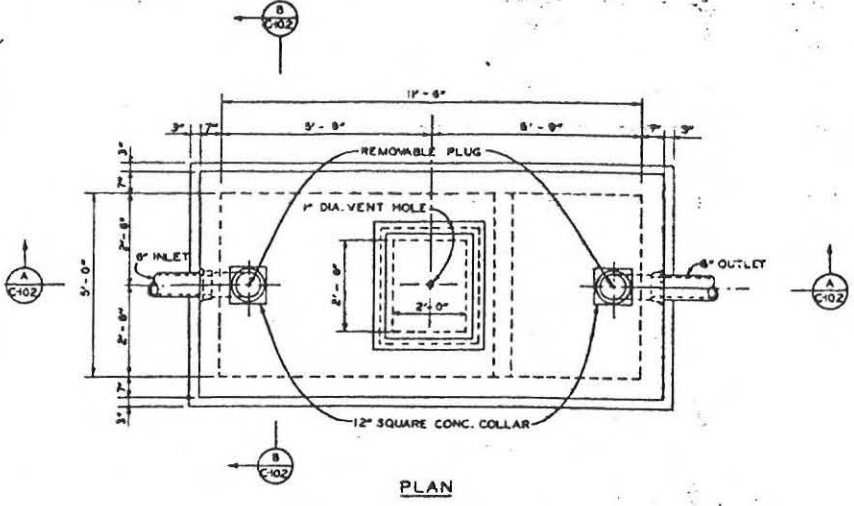
FOR RECORD FILED UNDER
 TITLE OF THE DRAWING OR
 SYMBOL FOR IDENTIFICATION
 (SEE THE CASE OF DRAWING)

Edgar W. ...

DATE: APR 1962
 BY: [Signature]

THIS PLAN ACCOMPANIES CONTRACT
 MODIFICATION NO.

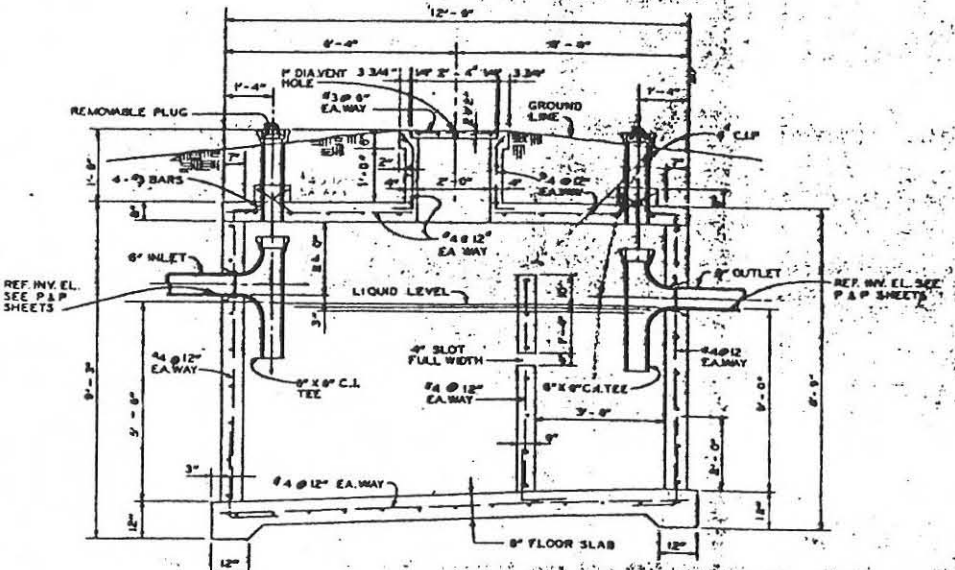
| | | | | | |
|--|---------|----------------------|--|---------|------|
| REVISION | DATE | DESCRIPTION | BY | CHECKED | DATE |
| 1 | 11-1-62 | OPTIONAL AS BUILT | | | |
| 2 | 2-17-62 | REV. TO SHOW COMBTR. | | | |
| 3 | | AS-BUILT CONDITION | | | |
| BLACK VEATCH CONSULTING ENGINEERS
KANSAS CITY, MISSOURI | | | DEPARTMENT OF THE AIR FORCE
AIR FORCE BALLISTIC MISSILE DIVISION (ARDC)
WILLOW, CALIFORNIA | | |
| DESIGNED BY: BOYD 3-60 | | | DATE: 14 APR 1960 | | |
| DRAWN BY: CLARE 3-60 | | | DATE: 22 MARCH 1960 | | |
| CHECKED BY: CALLAHAN 3-60 | | | SCALE: AS NOTED | | |
| APPROVED BY: <i>[Signature]</i> 3-60 | | | DRAWING NUMBER: 517-4-3-C-102 | | |
| PROJECT: WS-107A-1 OPERATIONAL BASE | | | CONTRACT NUMBER: ENG. 41-443-60-30 | | |
| SITE: DYESS A.F.B., TEXAS | | | JOB NUMBER: 517-4-3-C-102 | | |
| DRAWING TITLE: SANITARY SEWERS | | | JOB TITLE: J-22 | | |
| DRAWING TITLE: PLAN AND PROFILE | | | JOB TITLE: J-22 | | |



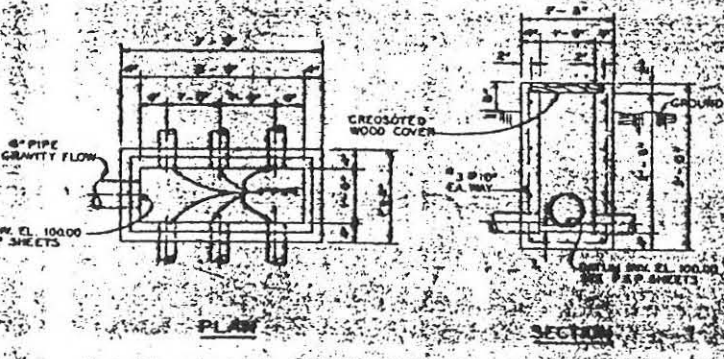
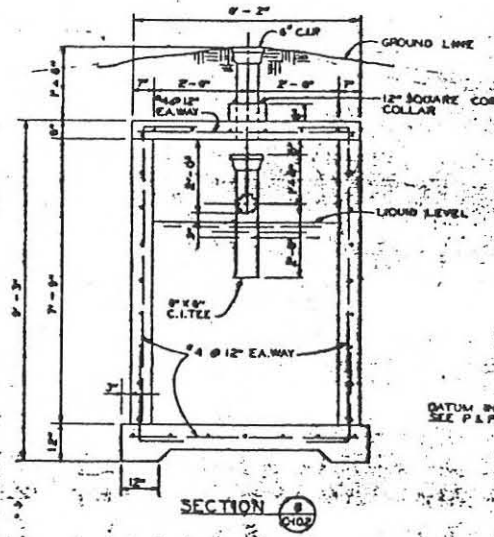
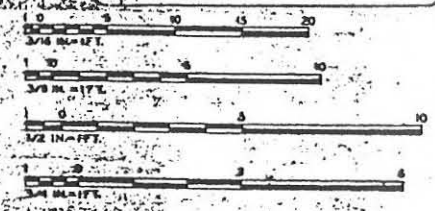
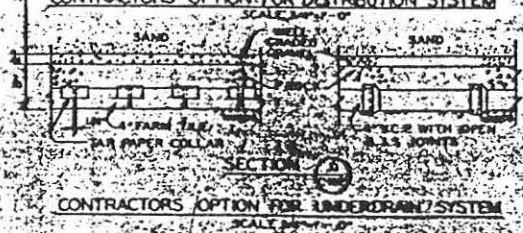
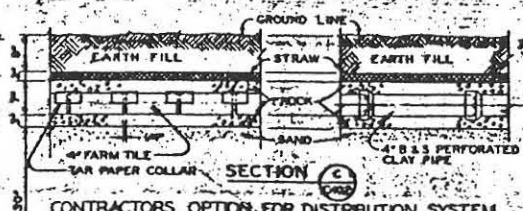
In accordance with instructions from RSD/BSDF's 24 November 1961 this drawing is verified as-built only for the following, as determined by the designing agency:

- Items affecting MAJOR INTERFACES or solid connections to GDA equipment.
- Items which would cause interference with GDA equipment.
- Changes that would affect other maintenance or operation of the system.

Signature: *Clayton...*



NOTE: GRADE TO DRAW AWAY FROM MANHOLE

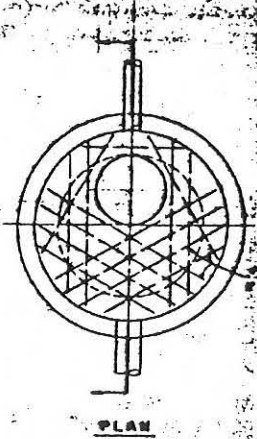


THIS SHALL BE THE WORK OF THE CONTRACTOR TO BE SHOWN AS-BUILT FOR THE RECORD.

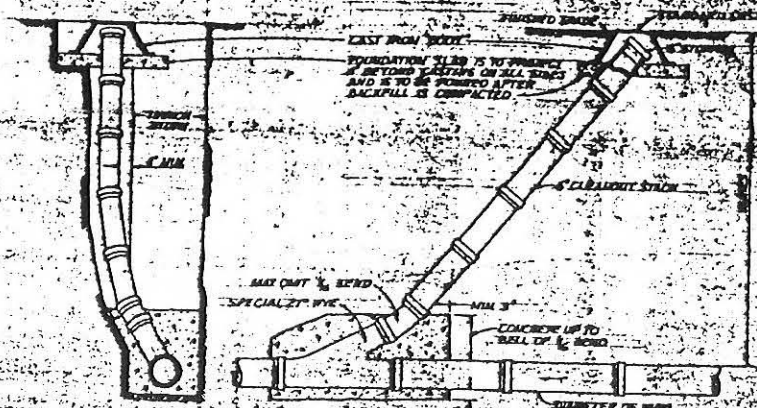
Signature: *Clayton...*

| REVISION | DATE | DESCRIPTION | BY | CHECKED | APP'D |
|----------|---------|---|----|---------|-------|
| 1 | 2-11-62 | OPERATIONS AS BUILT | | | |
| 2 | 4-15-64 | REV. TO SHOW CONSTR. AS-BUILT CONDITION | | | |

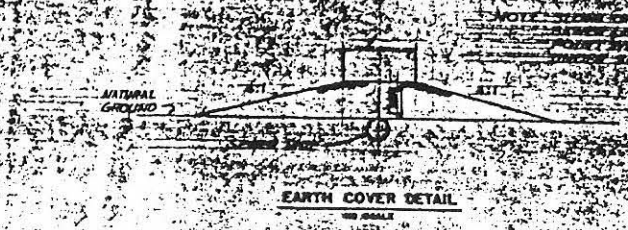
| | |
|--|--|
| BLACK & VEATCH
CONSULTING ENGINEERS
CHICAGO, ILL., U.S.A. | DEPARTMENT OF THE AIR FORCE
AIR FORCE BALLISTIC MISSILE DIVISION (ARMD)
MELROCK, CALIFORNIA |
| WS-107A-1 OPERATIONAL BASE
DYESS A.F.B., TEXAS
ALL SITES
SANITARY SEWERAGE FACILITIES
SEPTIC TANK SYSTEM
PLANS, SECTIONS AND DETAILS | |



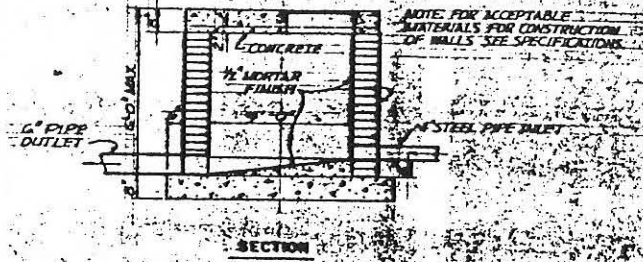
PLAN



STANDARD CLEANOUT

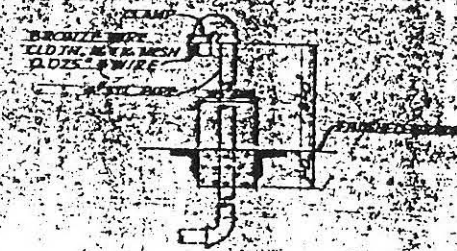


EARTH COVER DETAIL

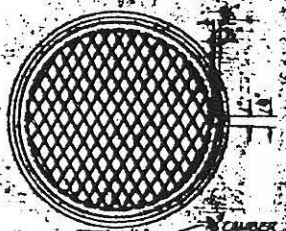


SECTION

STANDARD SHALLOW MANHOLE

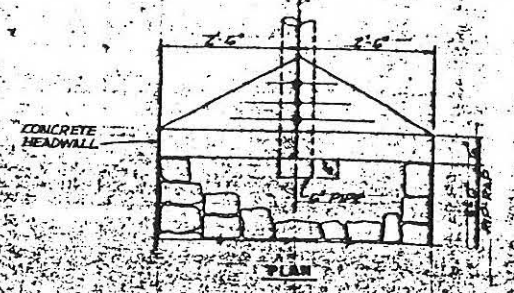


SEWER VENT DETAIL



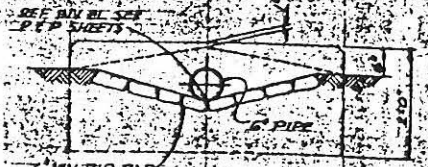
PLAN

LIGHT WEIGHT MANHOLE RINGS AND COVER



PLAN

CONCRETE PIPE ENCASEMENT DETAIL



ELEVATION

OUTFALL HEADWALL DETAIL

In accordance with instructions from DSO/ISS/78 24 November 1981 this drawing is to be used as built only for the following as determined by the drawing office:

1. Items affecting HAZD INTERFACES or other interfaces to O/A equipment.
2. Items which would cause interference with O/A equipment.
3. Changes that would affect other performance of operation of the system.

DATE: 1982 *Oliver...*

| | | |
|---------|--------------------------|--|
| 1-29-61 | REV. TO SHOW CORRECTIONS | |
| 1-29-61 | AS-BUILT CONDITIONS | |
| 1-29-61 | CHANGED FROM 1/2\"/> | |

BLACK & VEATCH
CONSULTING ENGINEERS
3800 W. 10TH AVENUE
DENVER, COLORADO

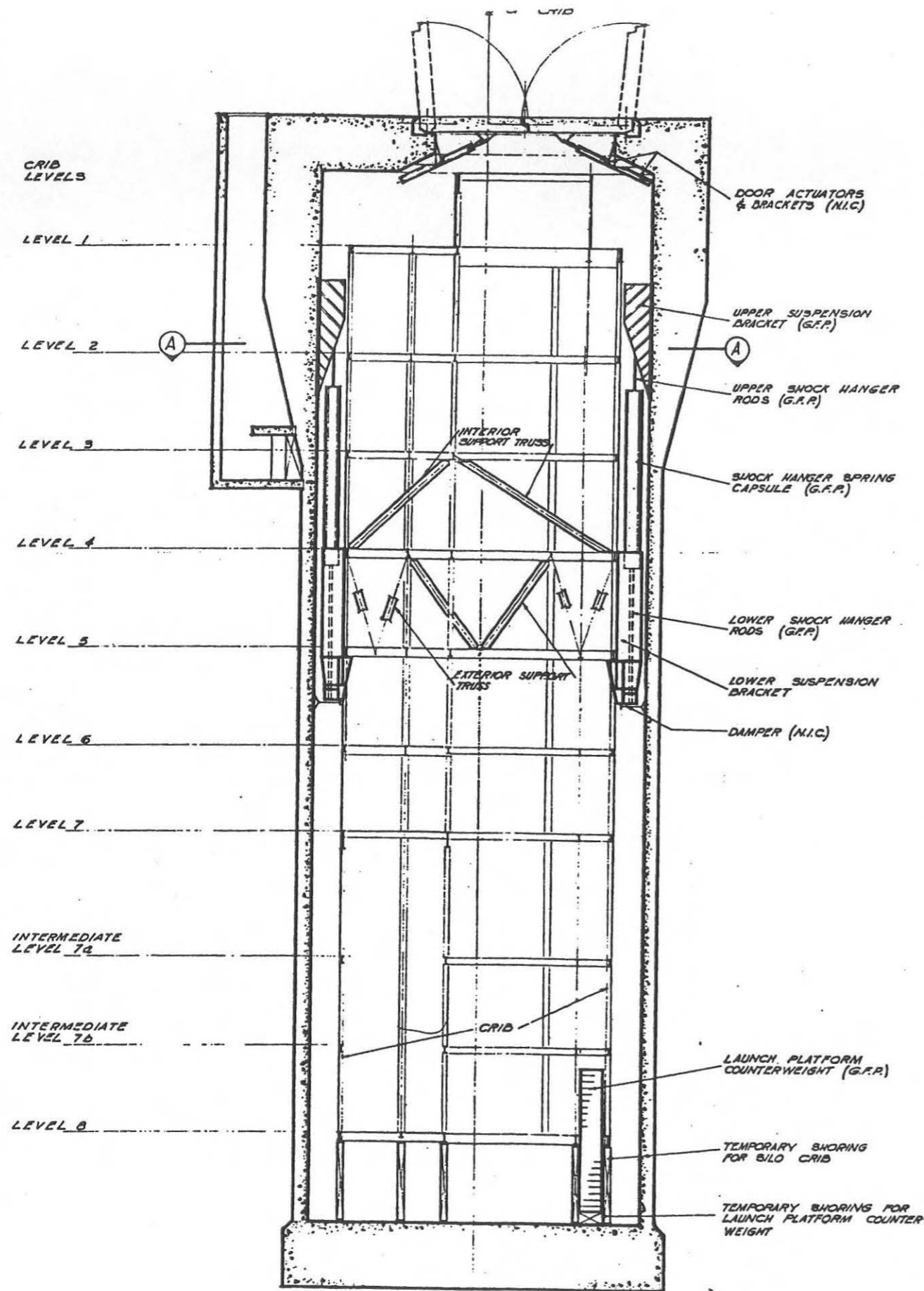
DEPARTMENT OF THE AIR FORCE
AIR FORCE ENGINEERING DIVISION (AEDC)
WRIGHT-PATTERSON AIR FORCE BASE
DAYTON, OHIO

W-107A-1 OPERATIONAL BASE
WRIGHT-PATTERSON AIR FORCE BASE
ALL SITES
SAFETY SEWERAGE FACILITIES
FROM 107A-1 DETAILS

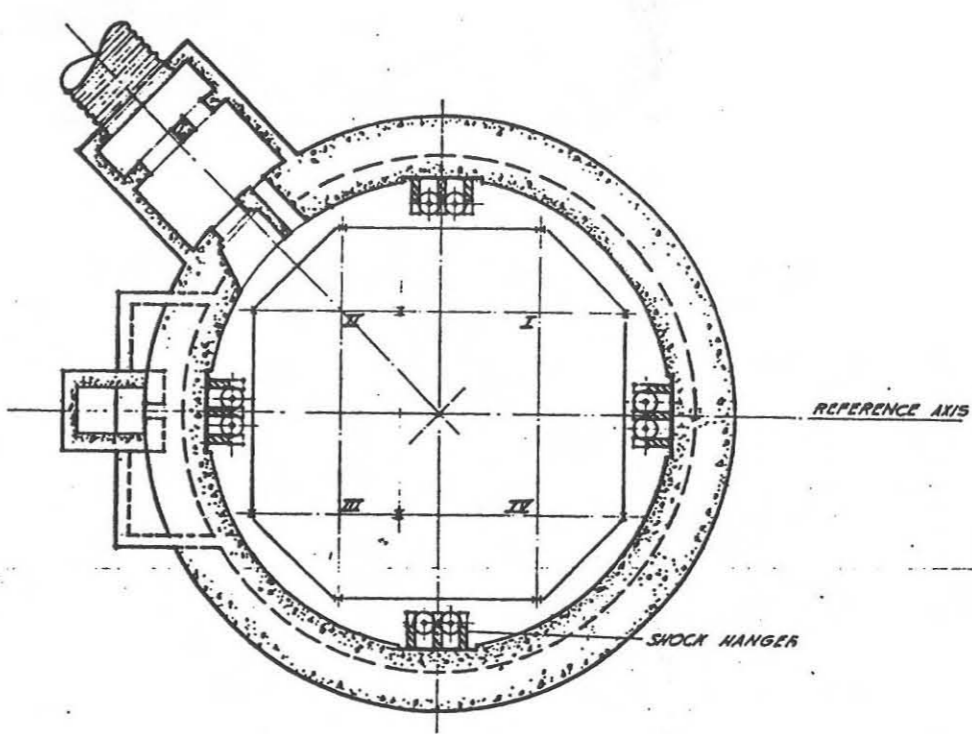
DATE: 1982



THIS PLAN IS UNCLASSIFIED DATE 10/15/01 BY 60322 UCBAW/BJS



ELEVATION THROUGH REFERENCE



PLAN AT A-A

LEGEND

- 1. (G.F.P.) GOVERNMENT FURNISHED PROPERTY (INSTALLED BY FACILITY CONTRACTOR)
- 2. (N.I.C.) NOT IN CONTRACT

GENERAL NOTES

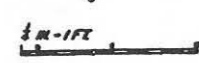
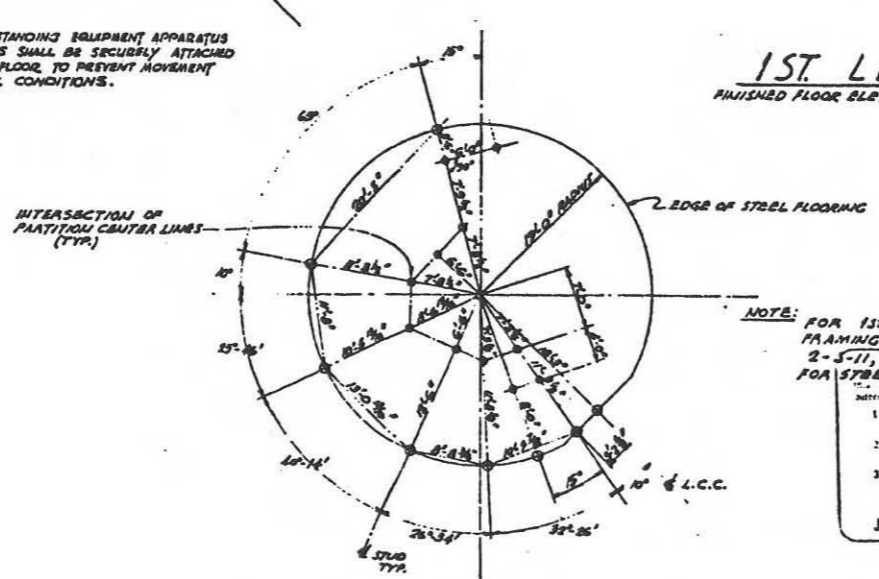
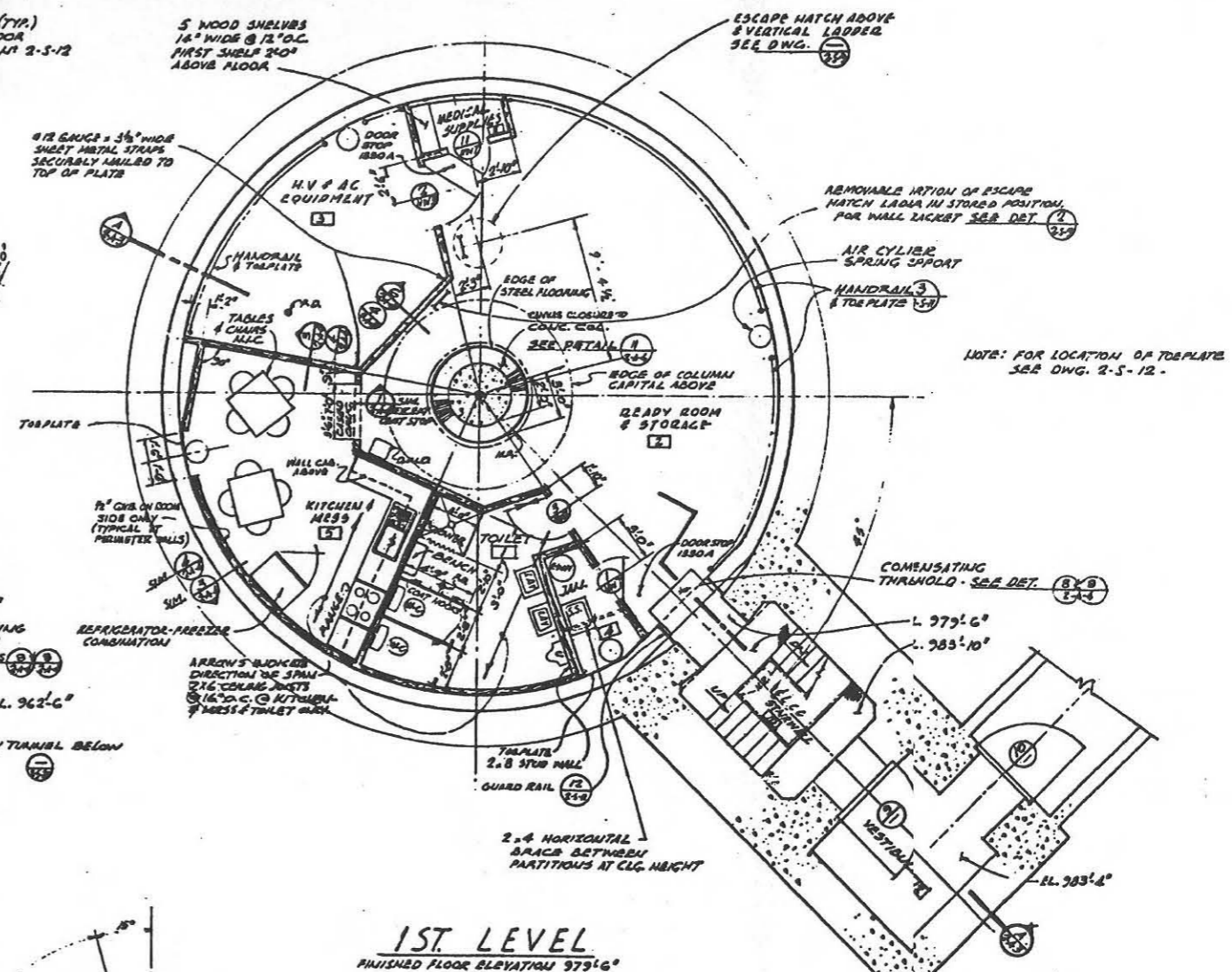
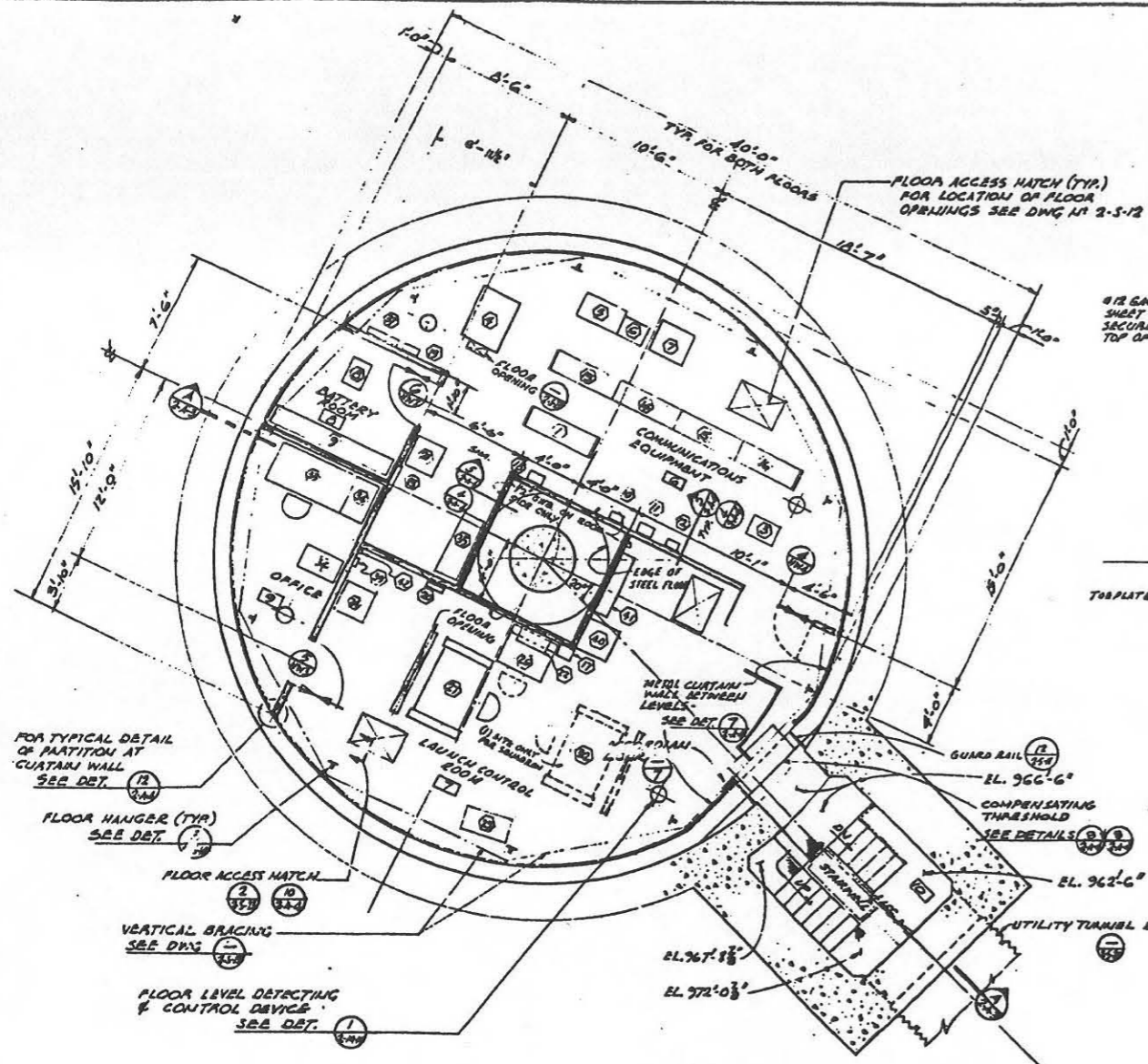
- 1. ITEMS NOT OTHERWISE NOTED ARE FURNISHED AND INSTALLED BY THE FACILITY CONTRACTOR

FOR SITES 1234567890112

If in accordance with instructions from ASD/ASST'S 24 November this drawing is certified as-built only for the launching, as approved by the designing agency.
 It is the effecting N.I.C. INTERFACES or sold contract to CD/A by the...
 In items which are... it is to be shown with CD/A...
 The... will not be affected by the performance of... of the...
 JAN 24 1962
 Signed: *[Signature]*

ADAC JUN 17 1960
 USE THESE FIELD OFFICE OFFICE OF THE CHIEF OF ENGINEERS APPROVED FOR STRUCTURAL INTEGRITY FOR THE BUREAU OF ENGINEERS
 JUN 19 1960
 SIGNED: *[Signature]*
 DESIGN & CONSTRUCTION BY THE AIR FORCE ENGINEERING CENTER WRIGHT PATTENSON AIR FORCE BASE DAYTON, OHIO

| | | | | |
|---|--|-------------------------|-----------------------------------|----------------------|
| 12-11 OPERATIONAL AS BUILT | REV. TO SHOW CONSTR. | AS-BUILT CONDITION | CHANGED LOWER SUSPENSION BRACKETS | ISSUED FOR DRESS AFB |
| BY: [Signature] | DATE: [Date] | BY: [Signature] | DATE: [Date] | BY: [Signature] |
| ENGINEER | DRAWN | DESIGNED | CHECKED | APPROVED |
| BEETEL CORPORATION | DEPARTMENT OF THE AIR FORCE | | | |
| ENGINEERS AND CONSTRUCTORS | AIR FORCE BALLISTIC MISSILE DIVISION (AFBMD) | | | |
| 10000 1st St., Dayton, Ohio 45424 | 10000 1st St., Dayton, Ohio 45424 | | | |
| WS 107 A-1 OPERATIONAL BASF | | | | |
| UNITARY SILO
LAUNCHING SILO
GENERAL ARRANGEMENT
PLAN AND SECTION | | | | |
| DATE: JUN 17 1960 | SCALE: 1/4" = 1'-0" | PROJECT: 60-4-443-10-20 | DATE: 1960 | NO. 578-74-22 |
| S.M.D. - 1000 | | | | |



FOR SITES 1 3 4 5 6 7 8 9 10 11 12

| | | | | |
|-------|---|--------|-------------|-----------|
| 17-62 | OPERATIONAL AS BUILT | | | |
| 10-41 | REV. TO SHOW CONSTR. | | | |
| 8-60 | AS-BUILT CONDITION ADD. DOOR STOPS 1ST LEVEL | CEBYCO | HR | |
| 9-60 | DELETED ITEM #21 & ADDS ITEM #23 ON 2ND LEVEL PLAN | AFBWD | NRK | |
| 9-60 | ADAPTATION #48 & 49 TO ADJUST FOR BLAST PROTECTION SYSTEM | AFBWD | SPK | |
| 6-60 | CHANGES CORRIDOR DIMENSIONS FOR LOCATION OF WALL POINTS | AFBWD | DLA | |
| 4-60 | ISSUES FOR 2ND A.B. | AFBWD | LRE | |
| | REVISION | FE | DESCRIPTION | ISSUED BY |

BENTEL CORPORATION
ENGINEERS AND CONSTRUCTORS
SHERMAN - LOS ANGELES - NEW YORK

DEPARTMENT OF THE AIR FORCE
AIR FORCE BALLISTIC MISSILE DIVISION (AFBMD)
WRIGHT-PATTERSON AIR FORCE BASE, OHIO

WS-107 A-1 OPERATIONAL BASE
UNITARY BILO
LAUNCH CONTROL CENTER

FLOOR PLANS

DATE: 12-6-57
BY: [Signature]
CHECKED: [Signature]
DATE: 1-18-58
BY: [Signature]
DATE: 1-18-58
BY: [Signature]

NO. 378-A-2-A-2