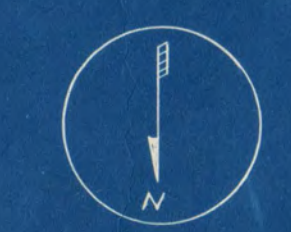
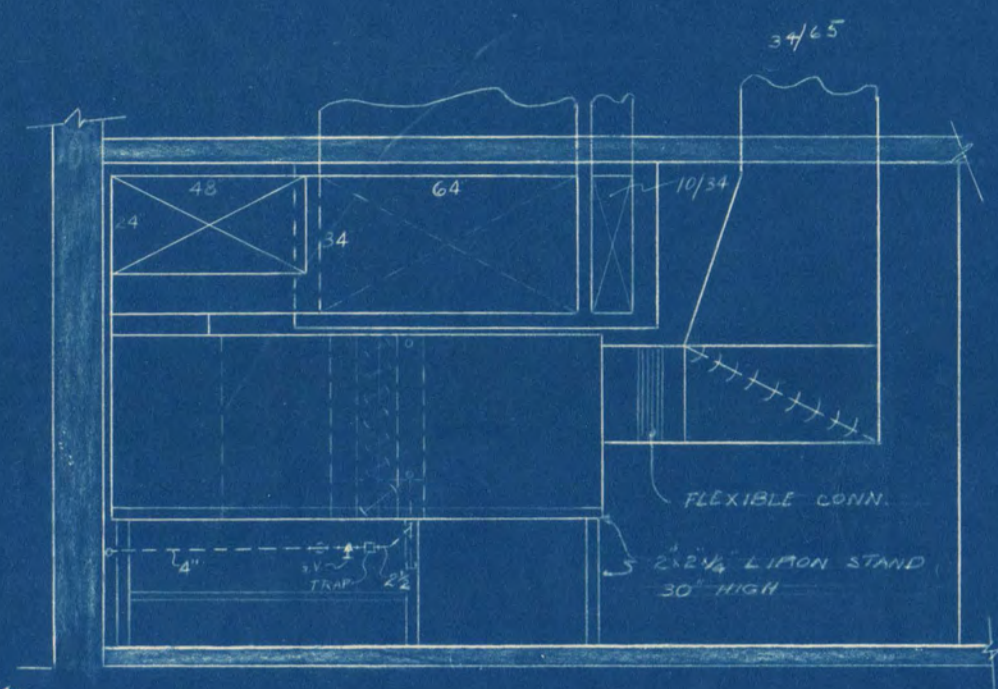


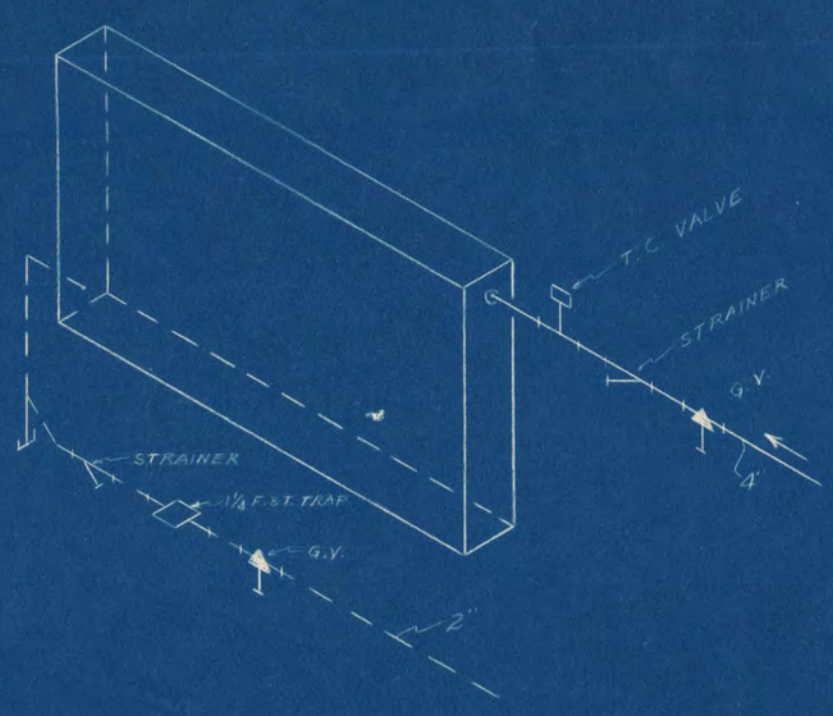
Roof Plan
SCALE 1/2" = 1'-0"



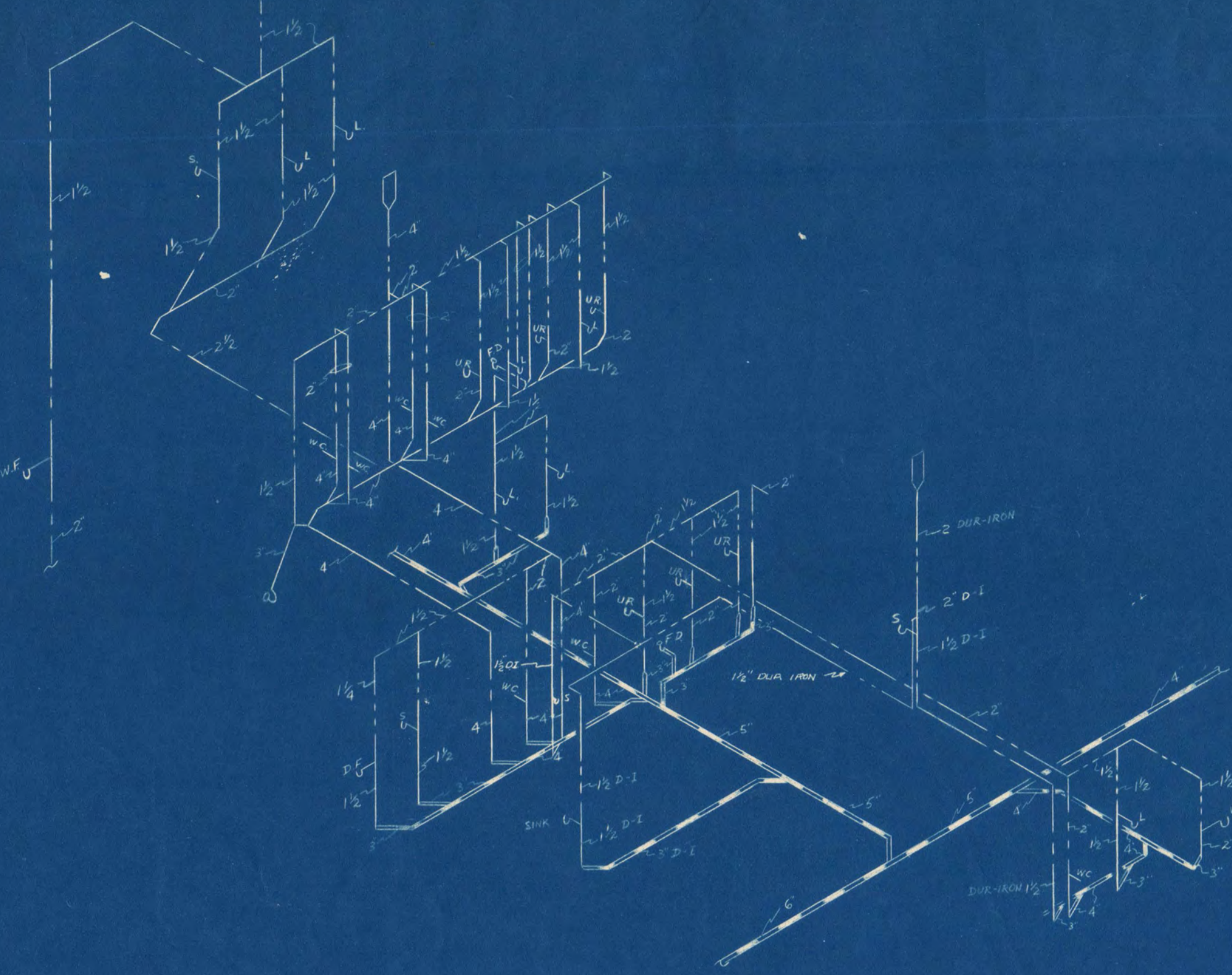
INDUSTRIAL ARTS AND CLASSROOM BUILDING ST. CLOUD STATE COLLEGE ST. CLOUD, MINNESOTA		DEPT. OF ADMINISTRATION ROOM 180 STATE BARRICK BUILDING ARCHITECTURAL AND ENGINEERING DIVISION ST. PAUL, MINN.	STATE OF MINNESOTA BY PAUL MINN ARCHITECTURAL AND ENGINEERING DIVISION
ORR-SCHELEN, INC. CONSULTING ENGINEERS MINNEAPOLIS, MINNESOTA		A. J. NELSON STATE ARCHITECT	
DATE 8-10-61	APPROVED BY SUPT. OF INSTITUTION	DATE 8-10-61	SHEET NO. M-5 OF 6
REVISION	APPROVED BY	DRAWN BY MWA	STATE PROJECT NO.
CHECKED BY	APPROVED BY COMMISSIONER OF ADMINISTRATION OR AUTHORIZED SIGNATURE	ST. CLOUD, MINNESOTA	3036



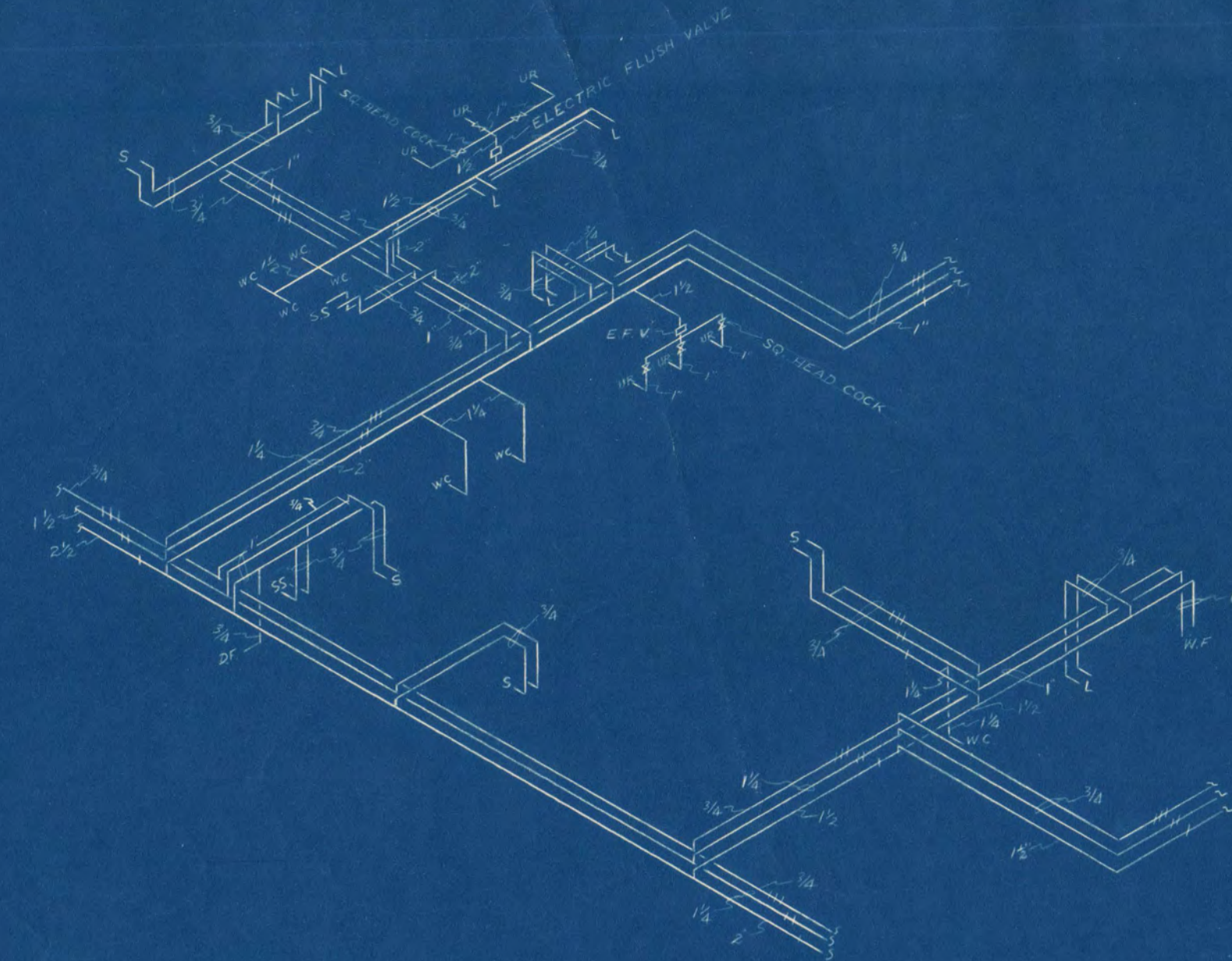
SECTION X-X
SCALE 1/2" = 1'-0"



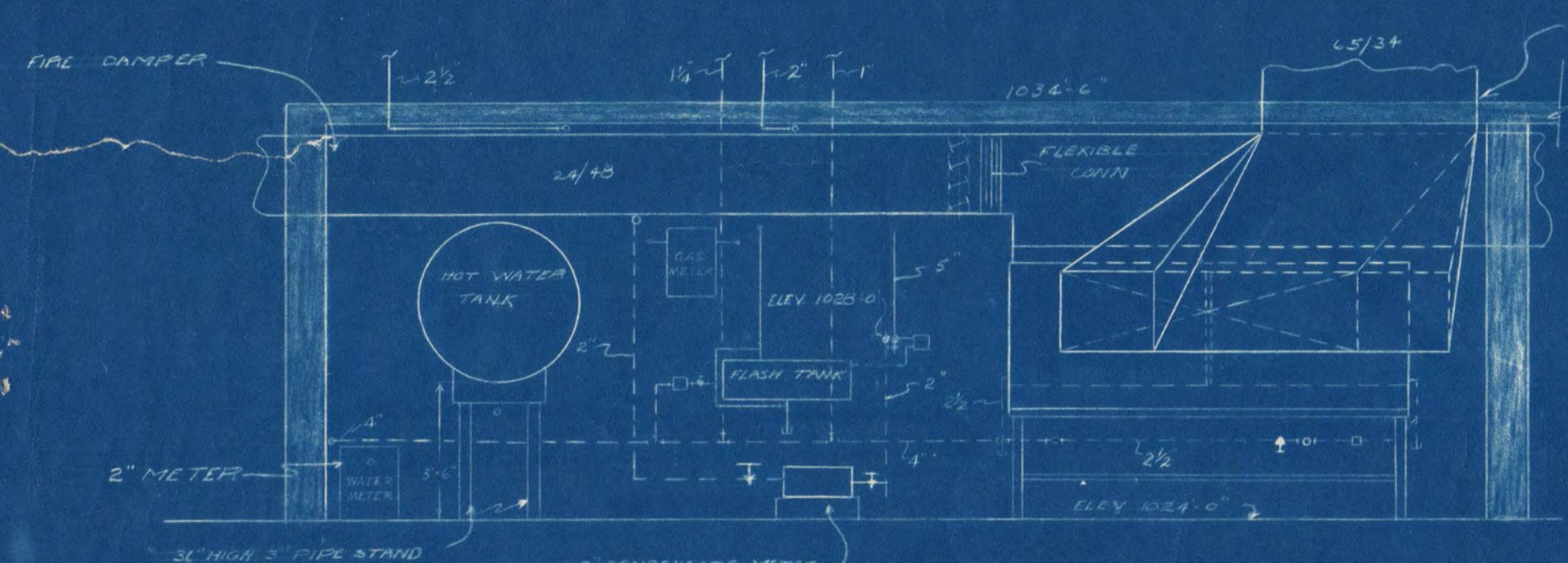
TYPICAL STEAM COIL HOOK-UP
IN AIR HANDLING UNITS FOR
ROOMS 22 & 122



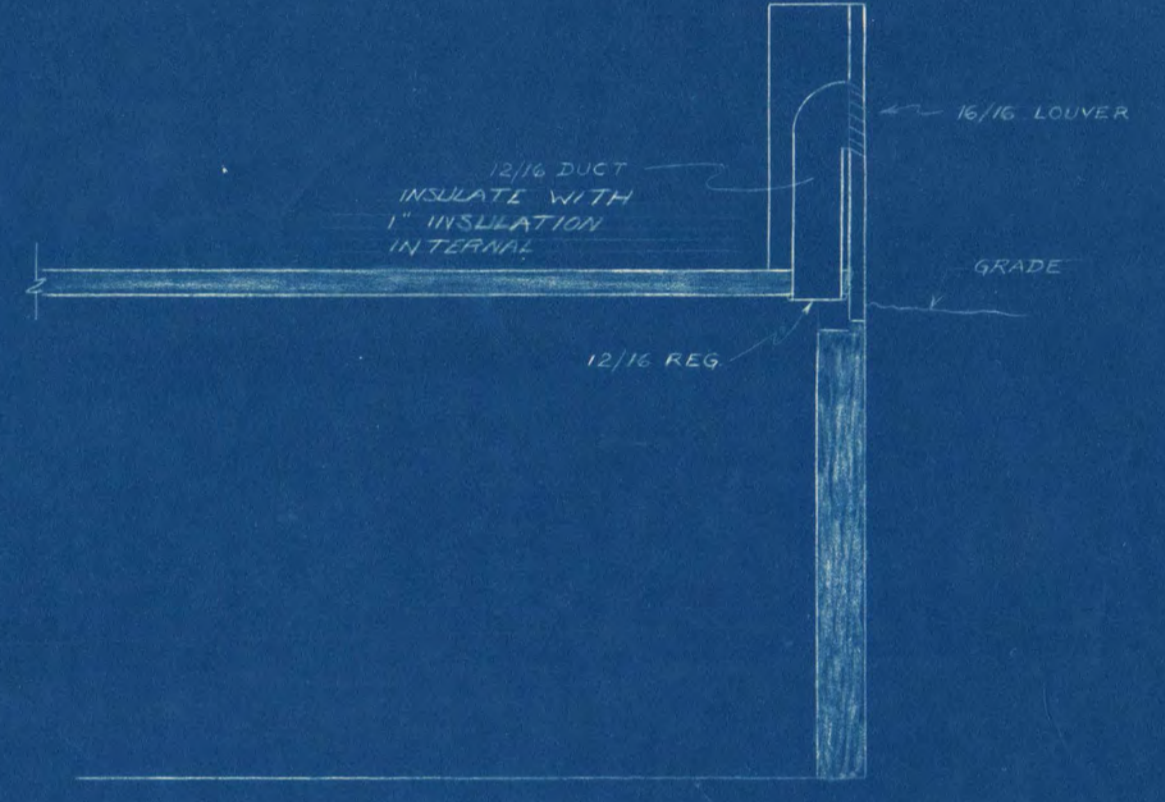
ROOM NOS. 27, 28, 31, 32, 33, 36, 135, 140, 142, 144, & 146
WASTE & VENT



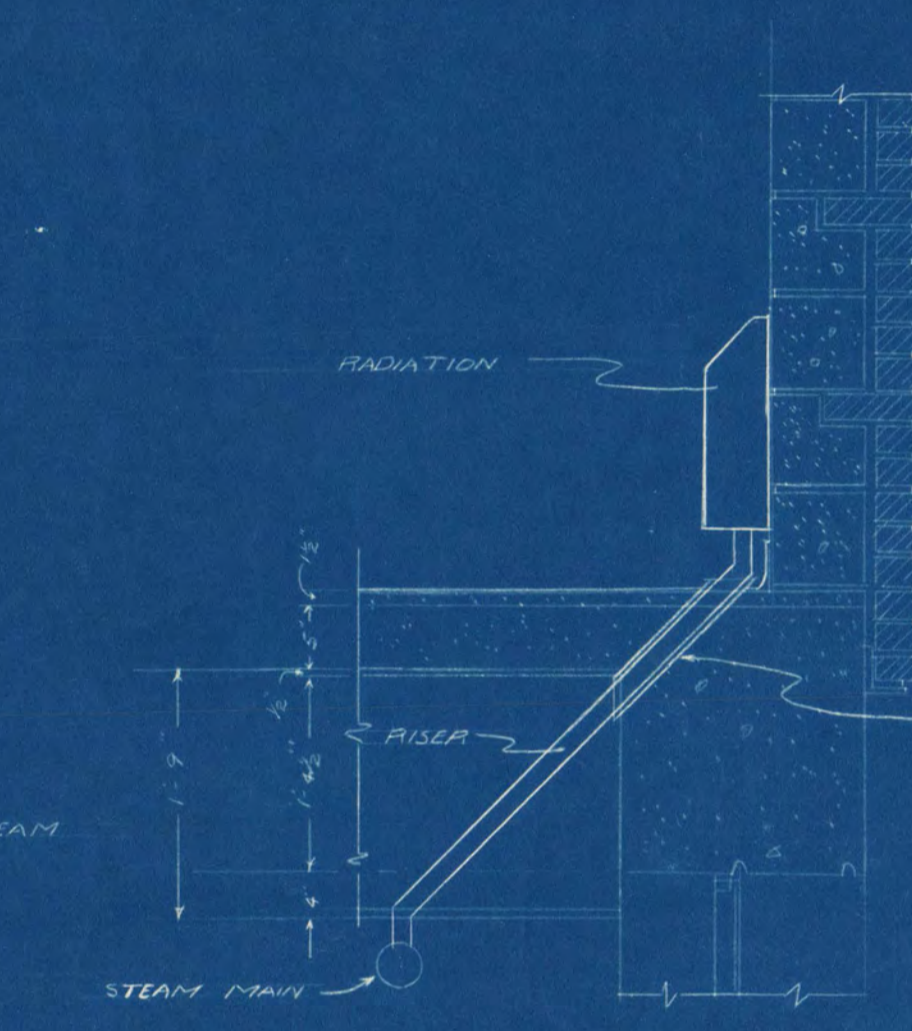
ROOM NOS. 27, 28, 31, 32, 33, 135, 140, 142, 144, & 146
WATER



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

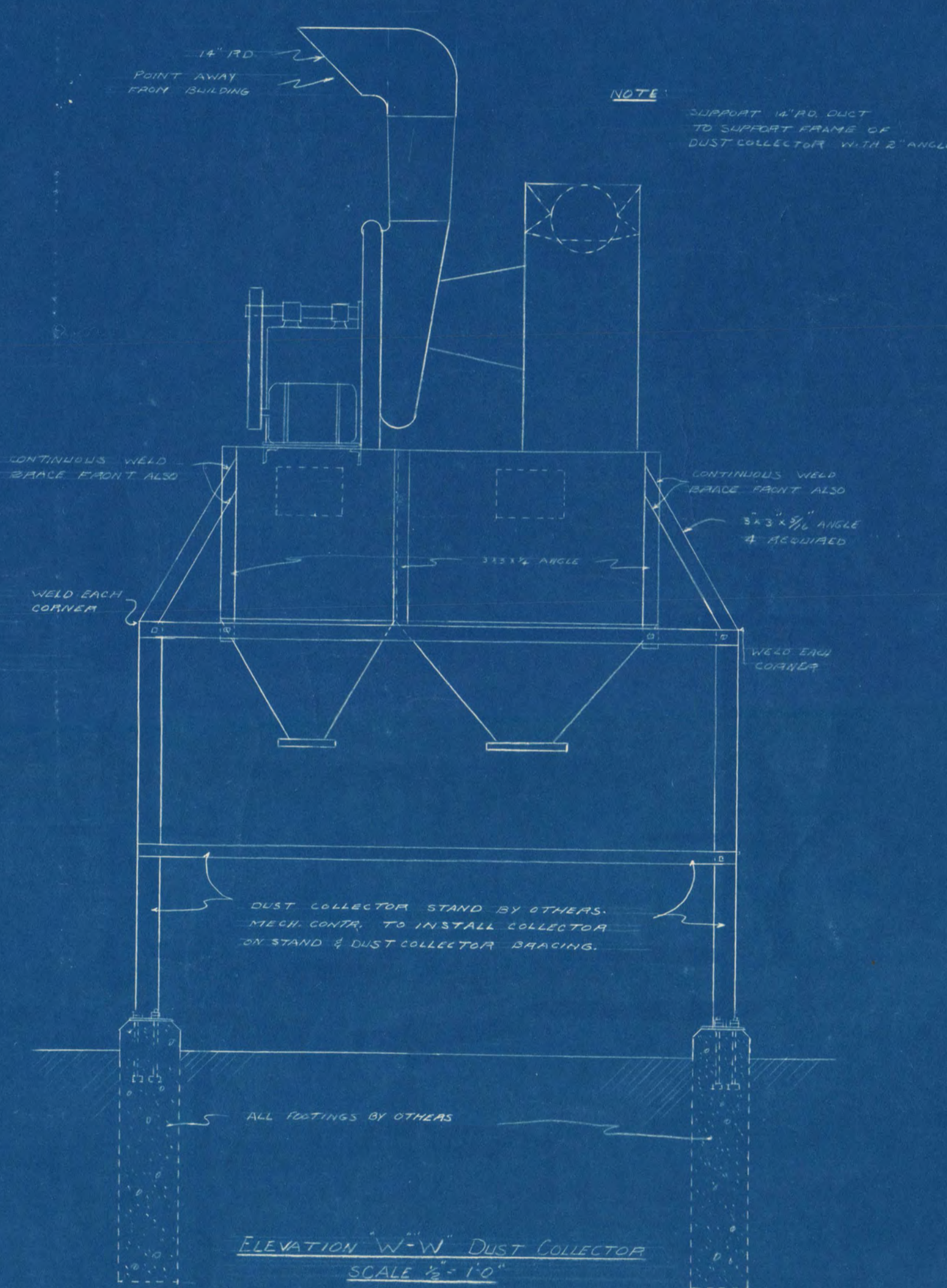


SECTION N-N
SCALE 1/2" = 1'-0"

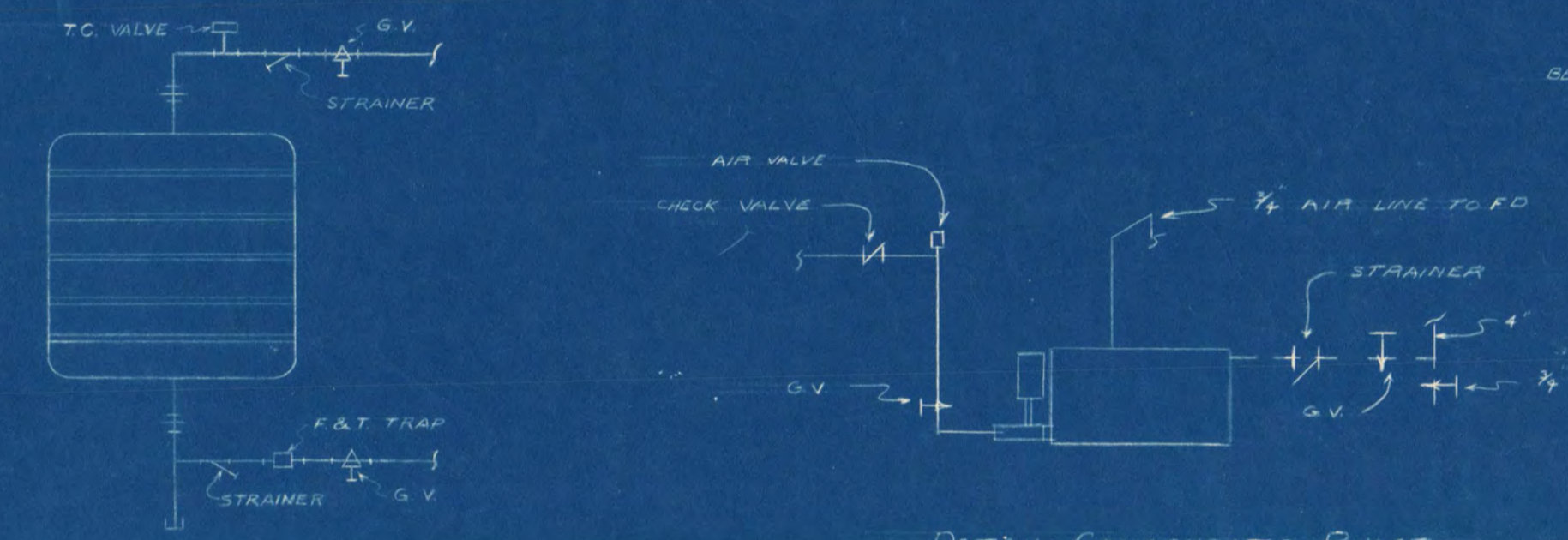


DETAIL SHOWING SECOND FLOOR RADIATION
AND STEAM PIPING & BEAM
SCALE 3/8" = 1'-0"

PLUMBING RISER DIAGRAMS

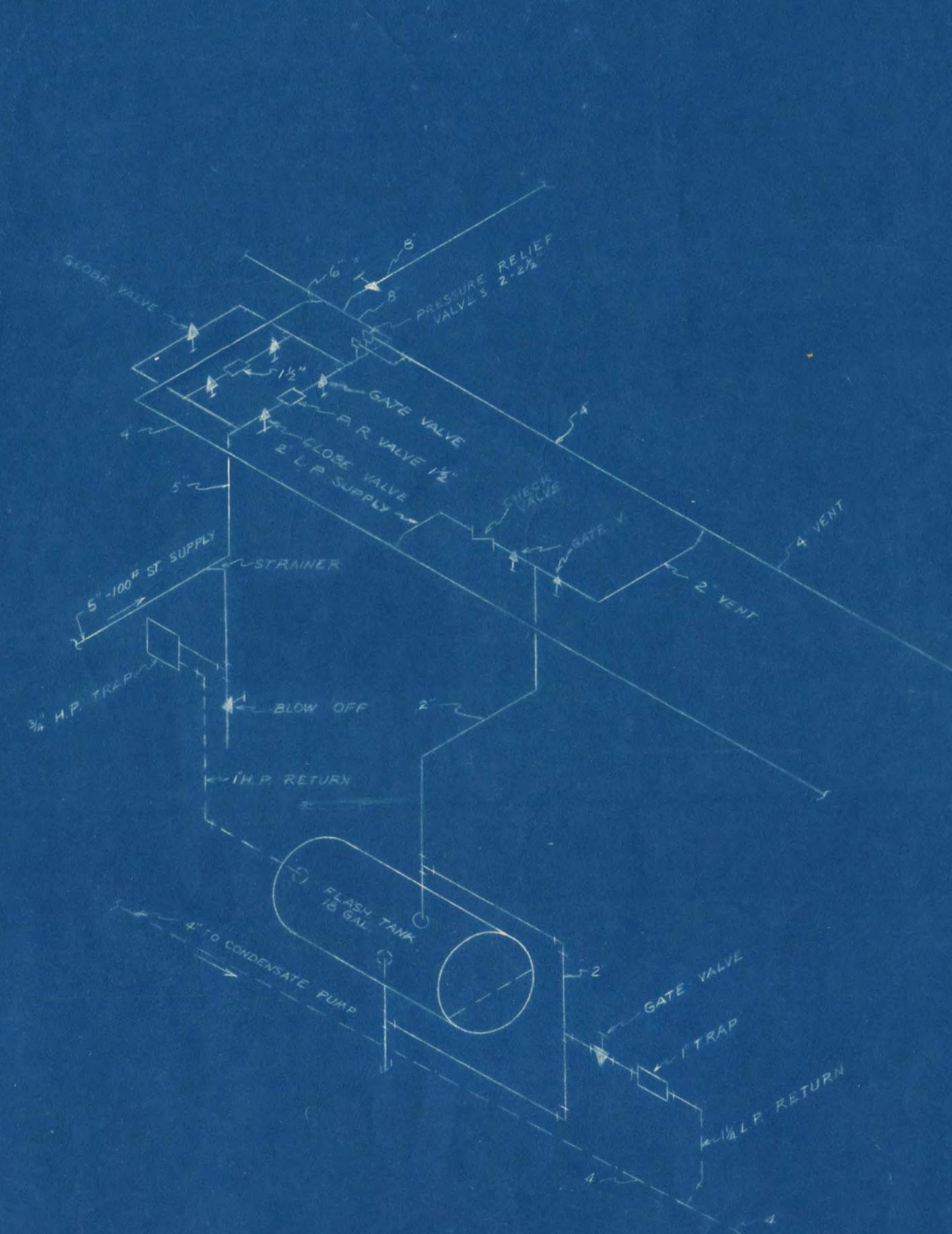


ELEVATION W-W - DUST COLLECTOR
SCALE 3/8" = 1'-0"

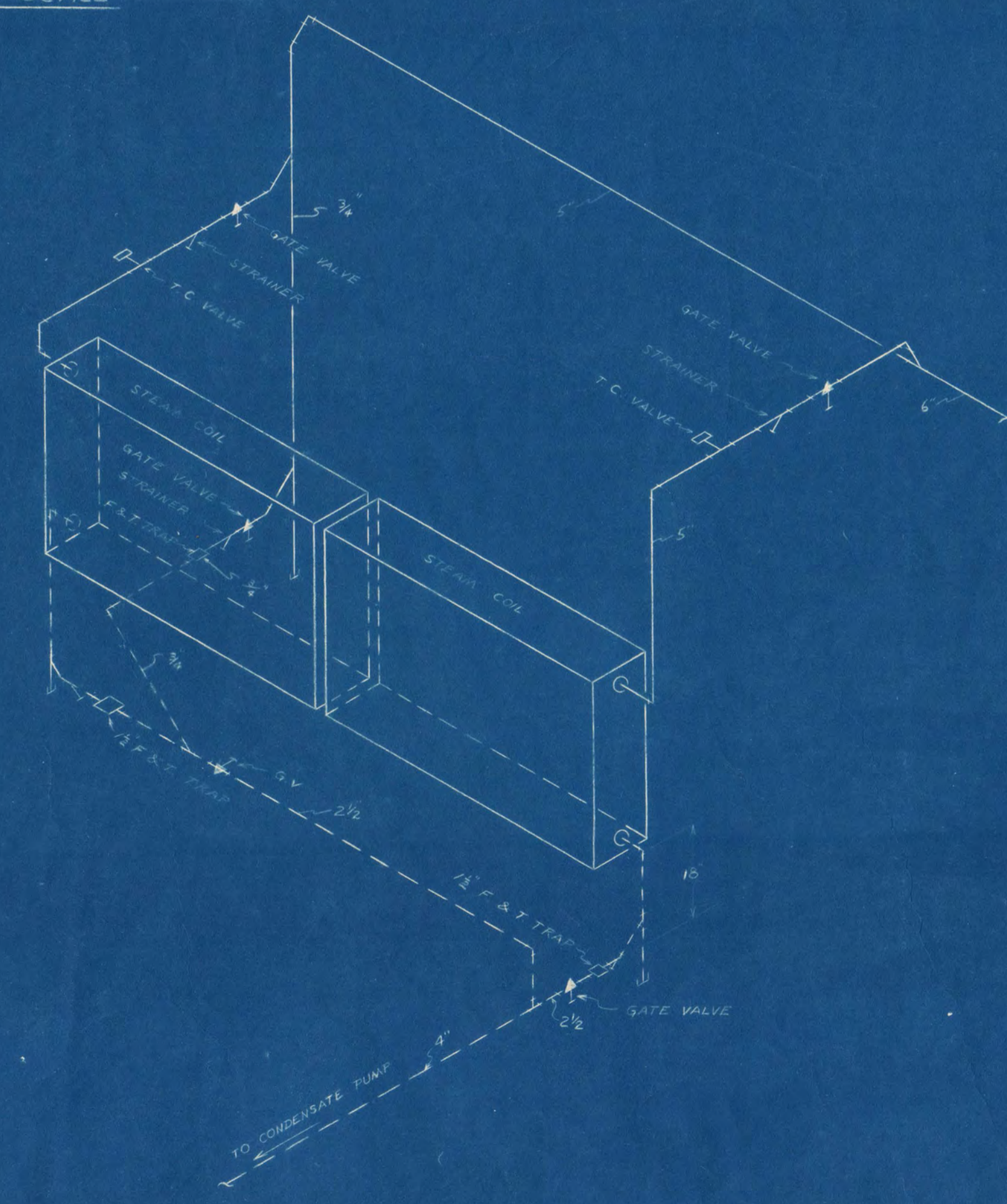


DETAIL CONDENSATE PUMP
NO SCALE

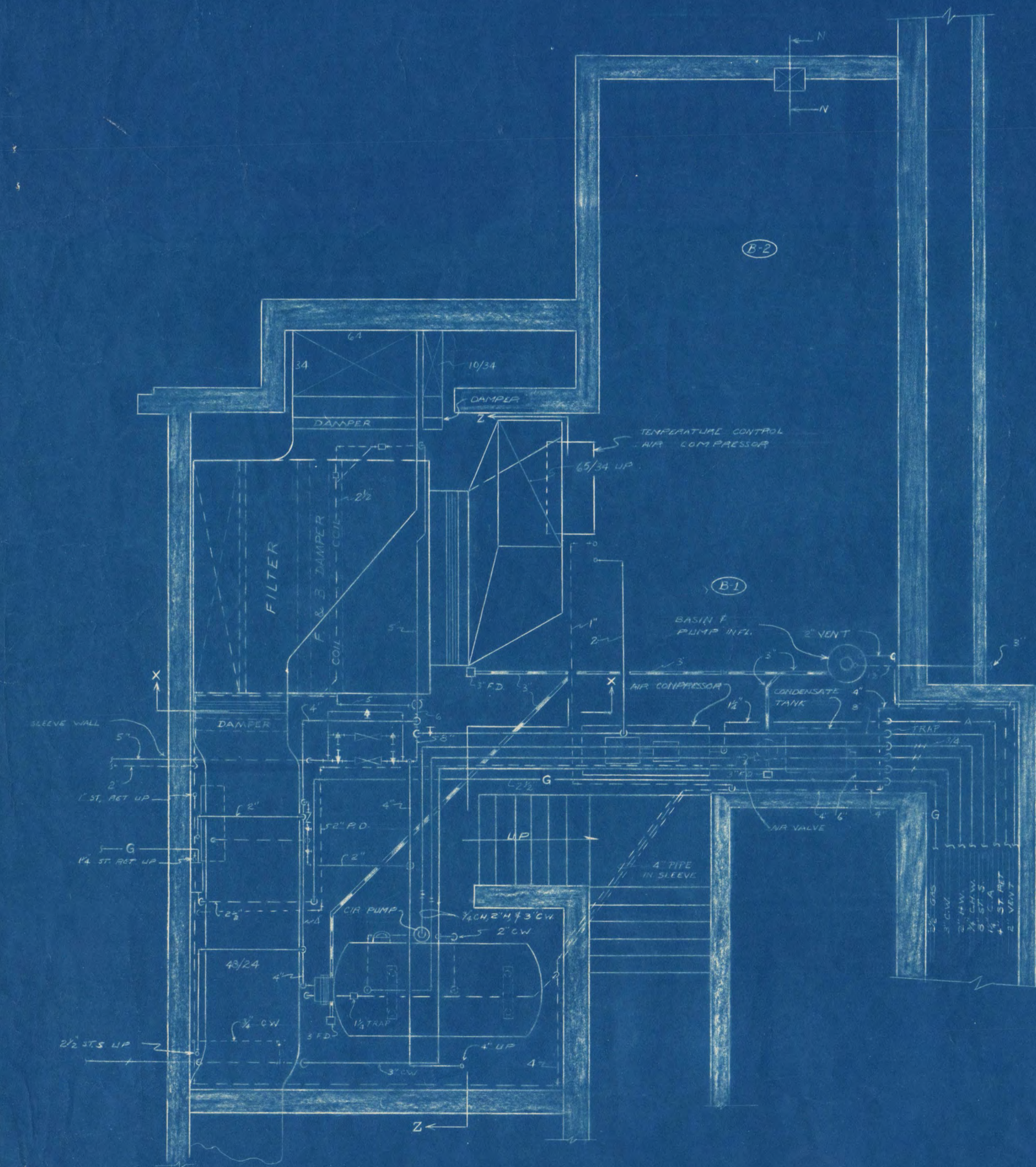
TYPICAL HOOK-UP FOR
UNIT HEATERS



PRESSURE REDUCING STATION FOR HIGH PRESSURE STEAM
FLASH TANK
NO SCALE



STEAM COIL PIPING DETAIL
ROOM 22
NO SCALE

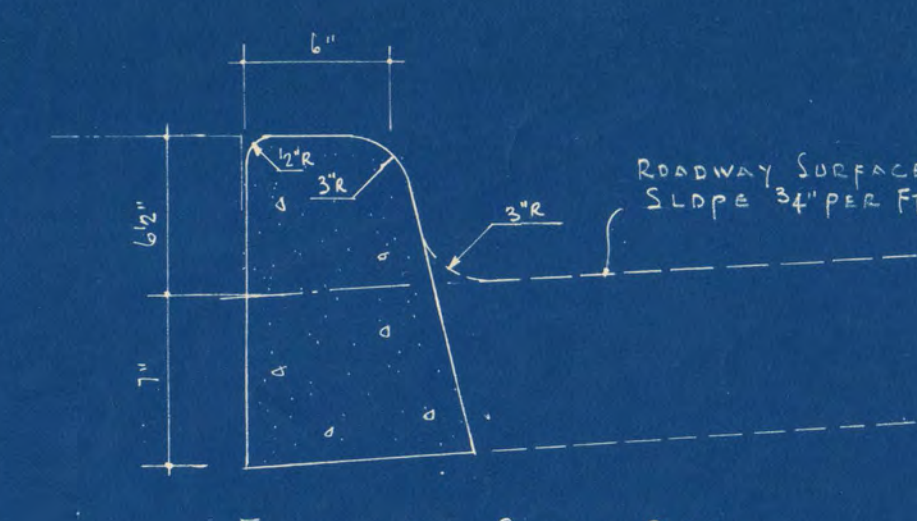
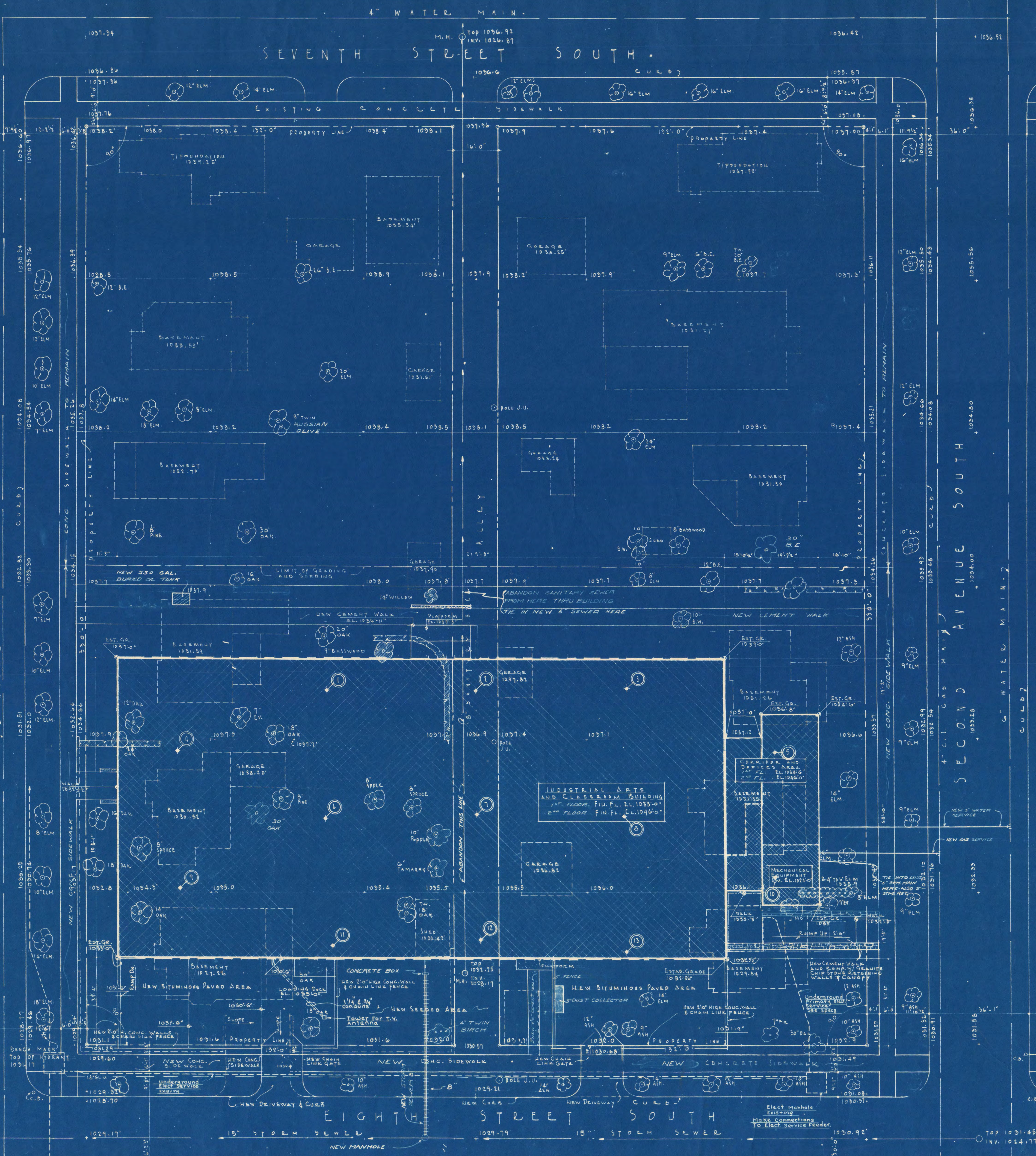


MECHANICAL EQUIPMENT ROOM
SCALE 1/2" = 1'-0"

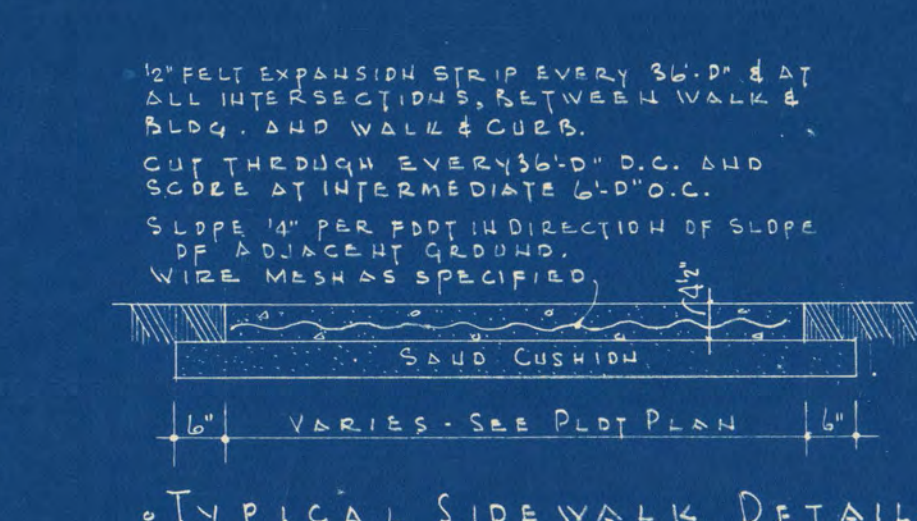
DETAIL
STAINLESS STEEL SINK, SPLASH & DRAIN BOARDS
HANDICRAFT LAB - SPACE 132
SCALE 3/8" = 1'-0"

INDUSTRIAL ARTS AND CLASSROOM BUILDING ST. CLOUD STATE COLLEGE ST. CLOUD MINNESOTA		DEPT. OF ADMINISTRATION ROOM 120 STATE CAPITOL BUILDING ST. PAUL, MINN. ARCHITECTURAL AND ENGINEERING DIVISION		STATE OF MINNESOTA ST. PAUL, MINN. ARCHITECTURAL AND ENGINEERING DIVISION	
ORR-SCHELEN, INC. CONSULTING ENGINEERS MINNEAPOLIS, MINNESOTA		A. J. NELSON STATE ARCHITECT		SHEET NO. 17-6 OF 6	
DATE 8-10-61	APPROVED BY: SUPT. OF INSTITUTION	APPROVED BY:	APPROVED BY:	STATE PROJECT NO. 3036	
REVISIONS:		DRAWN BY: M.V.H.	CHECKED BY:	APPROVED BY: COMMISSIONER OF ADMINISTRATION AN AUTHORIZED SIGNATURE	
FRANK W. JACKSON & ASSOCIATES ARCHITECTS & ENGINEERS ST. CLOUD, MINNESOTA					

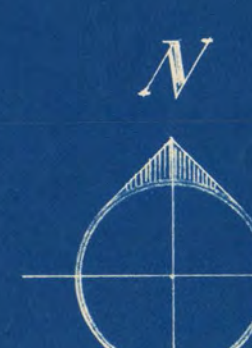
SEVENTH STREET SOUTH.



TYPICAL CURB DETAIL.



TYPICAL SIDEWALK DETAIL.



SOIL BORING DATA.

TEST HOLE NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
EL. 1040.0																					
EL. 1035.0																					
EL. 1030.0																					
EL. 1025.0																					
EL. 1020.0																					
EL. 1015.0																					
EL. 1010.0																					
EL. 1005.0																					
EL. 1000.0																					

SOIL TEST LEGEND.

- A. OBSERVATION
- B. BLACK CLAY LOAM (RATHER SIFT)
- C. BLACK LOAM (MOIST)
- D. BLACK SANDY LOAM (MOIST)
- E. BROWN SANDY LOAM (MOIST)
- F. BROWN SANDY CLAY LOAM (RATHER SIFT)
- G. DARK BROWN SANDY LOAM (MOIST)
- H. LIGHT BROWN MEDIUM SAND (MOIST)
- I. BROWN MEDIUM SAND (MOIST)
- J. BROWN WELL GRADED SAND (MOIST)
- K. DARK BROWN MEDIUM GRADED SAND (MOIST)
- L. DARK BROWN MEDIUM GRADED SAND (MOIST)
- M. LIGHT BROWN COARSE SAND (MOIST)
- N. BROWN COARSE SAND (MOIST)
- O. BROWN WELL GRADED LOAMY SAND
- P. FILL, MOSTLY BROWN AND SOME DARK BROWN SAND (SAND)
- Q. FILL, MOSTLY BLACK AND SOME DARK GRAYISH BROWN LOAMY SAND
- R. FILL, MOSTLY DARK GRAYISH BROWN AND BROWN SAND AND LOAMY SAND
- S. BROWN COARSE LOAMY SAND (MOIST)
- T. WITH A LITTLE GRAVEL
- U. WITH SOME GRAVEL
- V. WITH GRAVEL & SOME Boulders
- W. ADD GRAVEL WITH Boulders
- X. WITH A FEW Boulders
- Y. WITH SOME Boulders
- Z. WITH A FEW LENSES OF LOAMY SAND
- AA. WITH A FEW LENSES OF SAND & SANDY CLAY LOAM
- AB. WITH A FEW LENSES OF SANDY LOAM
- AC. WITH LENSES OF SANDY LOAM
- AD. WITH A FEW LENSES OF SANDY CLAY LOAM AND SAND
- AE. SOME LENSES OF SAND AND SANDY CLAY LOAM
- AF. WITH LENSES OF SANDY CLAY LOAM AND A FEW LENSES OF SAND
- AG. WITH A FEW LENSES OF DARK BROWN LOAMY SAND
- AH. WITH A FEW LENSES OF SAND
- AI. WITH A LITTLE GRAVEL & A LAYER OF BLACKTOP AT THE SURFACE

PLOT PLAN - BLOCK 19.
SCALE 1/8" = 1'-0"

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
Wallace L. Joller
2-10-61 Reg. No. 6213

INDUSTRIAL ARTS AND CLASSROOM BUILDING ST. CLOUD STATE COLLEGE ST. CLOUD, MINNESOTA

ORR-SCHELEN, INC. CONSULTING ENGINEERS MINNEAPOLIS, MINNESOTA

FRANK W. JACKSON & ASSOCIATES ARCHITECTS & ENGINEERS ST. CLOUD, MINNESOTA

DEPT. OF ADMINISTRATION STATE OF MINNESOTA ROOM 120 STATE CAPITOL BUILDING ST. PAUL, MINN. ARCHITECTURAL AND ENGINEERING DIVISION

A. J. NELSON STATE ARCHITECT

DATE 2-10-61
REVISIONS
DRAWN BY F.W.J.
CHECKED BY

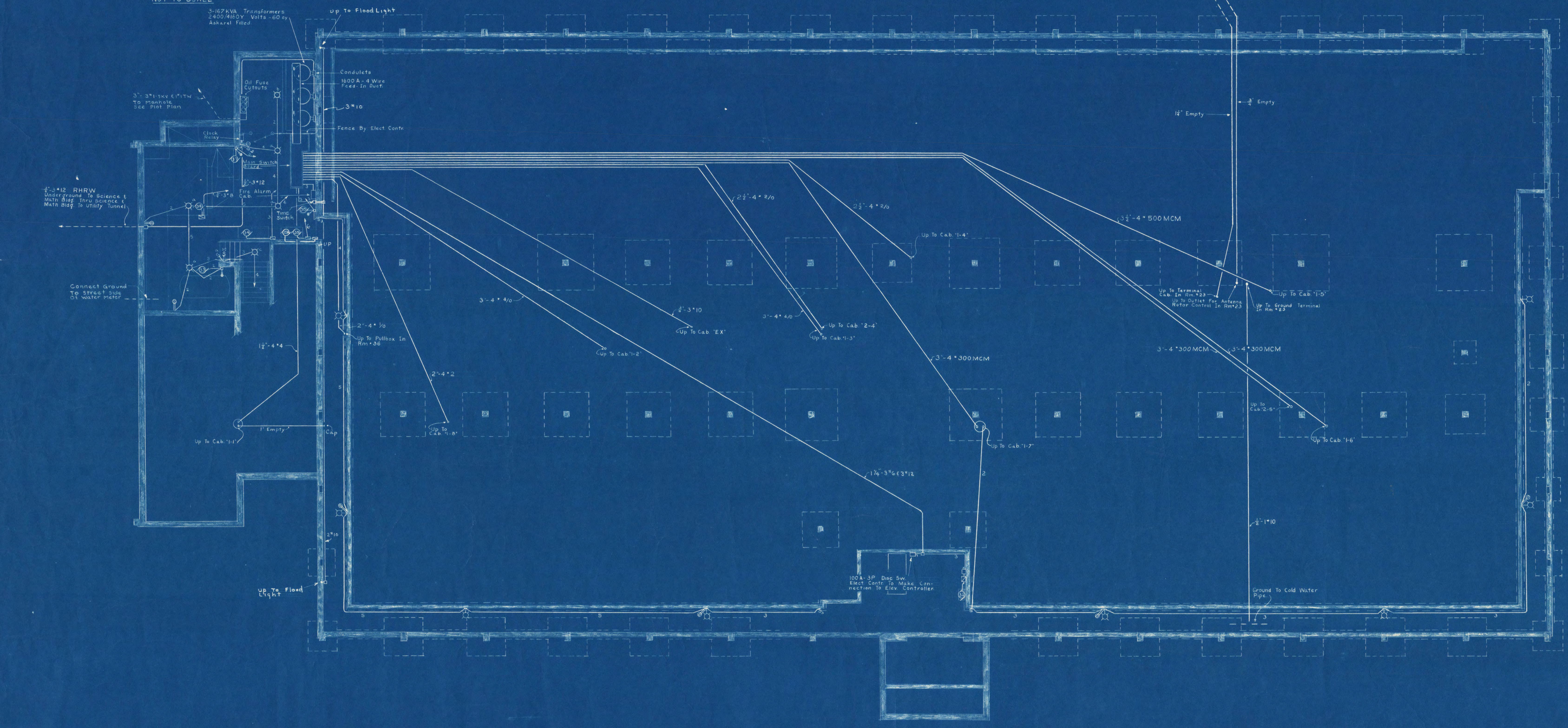
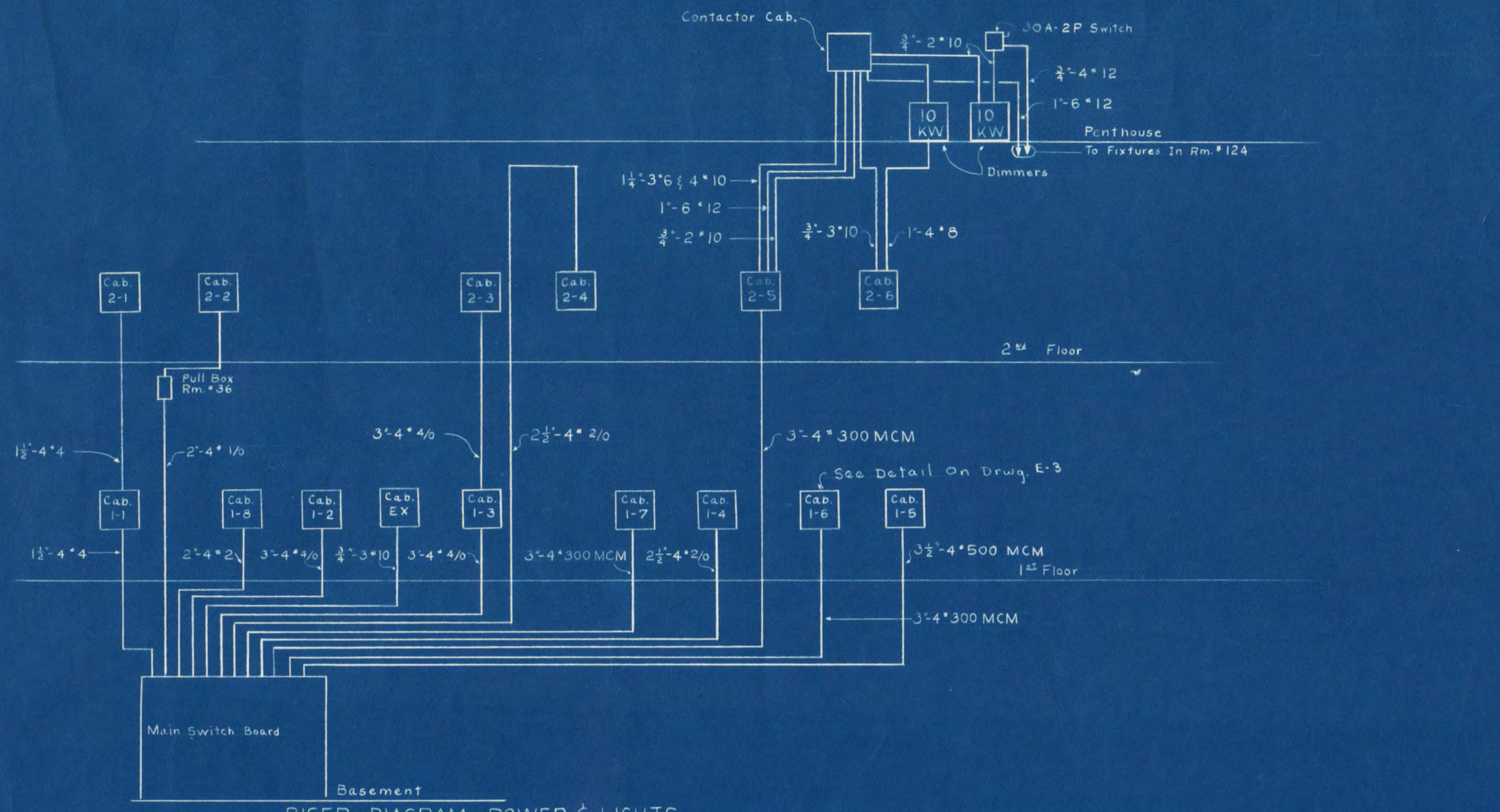
APPROVED BY [Signatures]

SHEET NO. ME-1 OF 6
STATE PROJ. NO. 3036

MOTOR SCHEDULE

Motor No.	Serves	Loc.	H.P.	PH/V	Control Egmt. Type	Loc.	Furn.	Cab. Feed	Remarks
1	PRV #1	Roof	1/3	1/120	Man. 136	Elect	2-2		
2	PRV #2	Roof	1/3	1/120	Man. 134	Elect	2-5		
3	PRV #3	Roof	1/6	1/120	Man. 132	Elect	2-4		
4	PRV #4	Roof	1/2	3/208	Mag. 22	Others	1-5		
5	PRV #5	Roof	3/4	3/208	Mag. 20	Others	1-7		
6	PRV #6	Roof	1/2	3/208	Mag. 20	Others	1-7		
7	PRV #7	Roof	1/3	1/120	Man. 21	Elect	1-6		
8	PRV #8	Roof	1/8	1/120	Man. 123	Elect	2-5		
9	PRV #9	Roof	1/6	1/120	Man. 130	Elect	2-4		
10	PRV #10	Roof	1/6	1/120	Man. 147	Elect	1-4		2 P. Switch in #29 & 31
11	PRV #11	Roof	1/6	1/120	Man. 117	Elect	2-3		
12	PRV #12	Roof	1/6	1/120	Man. 34	Elect	1-4		
13	PRV #13	Roof	1/4	1/120	Man. 13	Elect	1-8		
14	PRV #14	Roof	1/8	1/120	Man. 111	Elect	1-1		2 P. Switch in #09
15	PRV #15	Roof	1/2	3/208	Mag. 36	Others	1-2		
16	PRV #16	Roof	1/3	1/120	Man. B-1	Elect	Swbd		
17	PRV #17	Roof	1/4	1/120	Man. 20	Elect	1-7		
18	PRV #18	Roof	1/4	1/120	Man. 22	Elect	1-5		
19	Exh. Fan #1	Roof	3/4	3/208	Mag. 22	Others	1-5		
20	Exh. Fan #2	Roof	3/4	3/208	Mag. 22	Others	1-5		

Motor No.	Serves	Loc.	H.P.	PH/V	Control Egmt. Type	Loc.	Furn.	Cab. Feed	Remarks
21	Exh. Fan #3	Roof	1	3/208	Mag. 18	Others	1-3		
22	Vent. Fan	Roof	1 1/2	3/208	Mag. Roof	Others	2-5		P.B. by Elect. in 122
23	Fan	199	1/12	1/120	Man. 130	Others	2-2		Adj. Speed
24	Unit Heater	120	1/6	1/120	Man. 120	Elect	2-3		
25	Unit Heater	12	1/6	1/120	Man. 12	Elect	1-6		
26	Unit Heater	22	1/6	1/120	Man. 22	Elect	1-5		
27	Unit Heater	25	1/6	1/120	Man. 25	Elect	1-3		
28	Unit Heater	19	1/6	1/120	Man. 19	Elect	1-3		
29	Unit Heater	11	1/6	1/120	Man. 11	Elect	1-1		
30	Vent. Unit	22	1 1/2	3/208	Mag. 22	Others	1-5		
31	Saw Dust Collector	Out-side	15	3/208	Mag. 36	Others	1-2		
32	Vac. Pump	19	3/4	3/120	Mag. 19	Others	Swbd.		
33	Cir. Pump	B-1	1/4	3/120	Man. B-1	Others	Swbd.		
34	Air Comp.	B-1	3/4	3/208	Mag. B-1	Others	Swbd.		
35	Cond. Pump	B-1	2	1/208	Mag. B-1	Others	Swbd.		
36	Fan	B-1	7 1/2	3/208	Mag. B-1	Others	Swbd.		
37	Temp. Control Comp.	B-1	1/3	1/120	Man. B-1	Others	Swbd.		
38	Sump Pump	B-1	1/4	1/120	Man. B-1	Others	Swbd.		
39	PRV #19	23	1/8	1/120	Man. 23	Elect	1-5		



FOUNDATION AND TUNNEL PLAN
SCALE 1/8" = 1'-0"

INDUSTRIAL ARTS AND CLASSROOM BUILDING ST. CLOUD STATE COLLEGE ST. CLOUD, MINNESOTA		DEPT. OF ADMINISTRATION STATE OF MINNESOTA ROOM 120 STATE CAPITOL BUILDING ST. PAUL, MINN. ARCHITECTURAL AND ENGINEERING DIVISION	
ORR-SCHELEN, INC. CONSULTING ENGINEERS MINNEAPOLIS, MINNESOTA		A. J. NELSON STATE ARCHITECT	
DATE 8-10-61	APPROVED BY SUPT. OF INSTITUTION	DATE	SHEET NO. E-2 OF 5
REVISION	APPROVED BY	DATE	STATE PROJECT NO. 3036
DRAWN BY WS+J.B.	APPROVED BY COMMISSIONER OF ADMINISTRATION	CHECKED BY W.S.	AN AUTHORIZED SIGNATURE

EQUIPMENT FOR WOOD SHOP - Space 36

- A - Lathe 208 V., 1 ph., 8 amp.
- B - Mortiser 208 V., 3 ph., 10 amp.
- C - 10" Circ. Saw 208 V., 3 ph., 7 amp.
- D - Planer 208 V., 3 ph., 20 amp.
- E - Shaper 208 V., 3 ph., 7 amp.
- F - Band Saw 208 V., 3 ph., 10 amp.
- G - Joiner 208 V., 3 ph., 15 amp.
- H - Radial Saw 208 V., 3 ph., 7 amp.
- I - Grinder 208 V., 3 ph., 3 amp.
- J - Grinder 120 V., 1 ph., 4 amp.
- K - Drill Press 120 V., 1 ph., 5 amp.
- L - Jig Saw 120 V., 1 ph., 5 amp.
- M - Band Saw 120 V., 1 ph., 6 amp.
- N - Install Duplex Recept. on Work Bench
- O - Belt Sander 208V. 3ph. 1/2 H.P.

EQUIPMENT FOR GRAPHIC ARTS LAB - Space 27

- A - Punch 120 V., 1 ph.
- B - Stapler 120 V., 1 ph.
- C - Harris Press 208 V., 3 ph., 3 H.P.
- D - Cylinder Press 208 V., 3 ph., 5.5 H.P.
- E - Folder 208 V., 3 ph., 3/4 H.P.
- F - Platen 208 V., 3 ph., 1/2 H.P.
- G - Platen 120 V., 1 ph., 1/3 H.P.
- H - Platen 220 V., 1 ph., 1/3 H.P.
- I - Multilith 120 V., 1 ph., 1250 W.
- J - Bus-Saw 120 V., 1 ph.
- K - Exp. Frame 120 V., 1 ph.
- L - Camera 120 V., 1 ph.
- M - Headliner 120 V., 1 ph.
- N - Folder 120 V., 1 ph.

EQUIPMENT FOR ELECT. & ELECTRONICS & POWER LAB - Space 22

- A - Make connections to Air Comp. for Hydraulic Hoists.
- B - Make connections to 120 V., Duplex Recept. and 5 V. Recept. Furnished with Demonstration Table.
- C - Make connections to 120 V., Duplex Recept. 6 V. Recept. and T.V. Antenna Jack Furnished with Demonstration Table.
- D - Make connections to the following Outlets furnished with each Work Bench:
 - 2 - 208 V., 3 ph., Recept.
 - 6 - Duplex Recept.
 - 6 - Ground Jacks
 - 6 - T.V. Antenna Jacks
 - 6 - AM/FM Antenna Jacks
- E - 4-11/16" Sq. Box with Cover Bashed for Cables. Make connections to CV. Batteries furnished by Owner.
- F - Door Operator - 120V.

EQUIPMENT FOR HAM SHACK - SPACE 23

- 1 - 100A - 3 pole Disc. Switch. To be main for plug fuse and P.P.S. circuits in Cab. 1-5 serving Room 23.
- 2 - 20 ampere 4 wire receptacle
- 3 - T.V. Distribution Cabinet
- 4 - 4" Sq. box with plaster ring and binding post for ground connections.
- 5 - 4" Sq. Box with plaster ring and flush blank cover - for future antenna rotor control.
- 6 - 4" Sq. box with plaster ring and flush blank cover - for P.M. antenna outlet.
- 7 - T.V. Antenna outlet.
- 8 - Elect. Contr. To ground wire wire Lath In Ceiling & walls To ground wire Connected to Water Pipe.

EQUIPMENT FOR RESEARCH & TESTING - Space 13

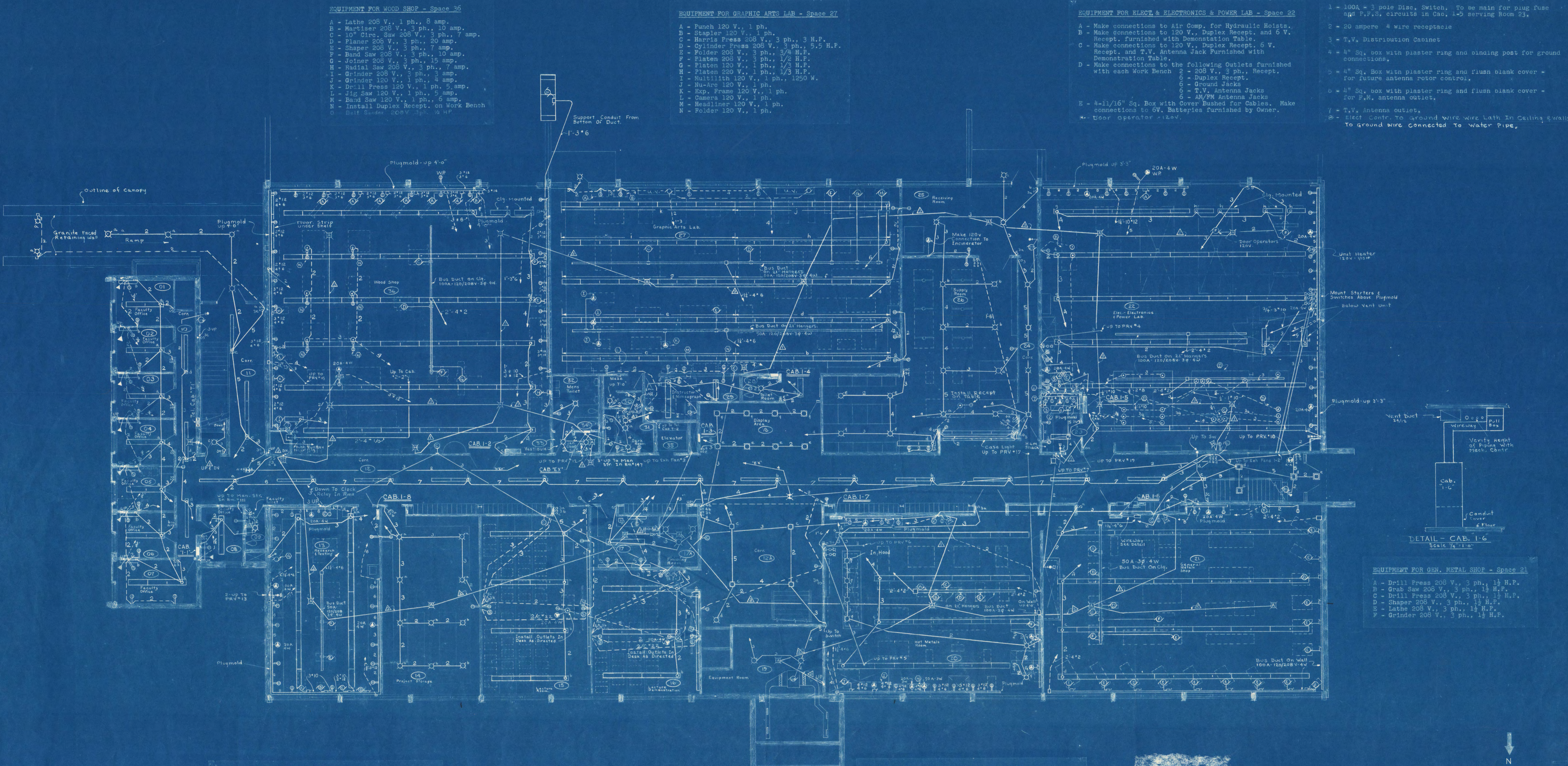
- A - Lathe 208 V., 3 ph., 1/2 H.P.
- B - Drill 208 V., 3 ph., 1/2 H.P.
- C - Band Saw - 208 V., 3 ph., 1/2 H.P.
- D - Grinder 208 V., 3 ph., 1/2 H.P.
- E - Joiner 208 V., 3 ph., 1/2 H.P.
- F - Table Saw 208 V., 3 ph., 1/2 H.P.
- G - Fume Hood - Make all connections to Receptacle, Light, Exhaust fan and Switches furnished with Hood.

EQUIPMENT FOR HOT METALS LAB. - Space 20

- A - Drill Press
- B - Grinder
- C - Hack Saw
- D - Buffer
- E - Grinder and Buffer
- F - Air Compressor
- G - Arc Welder 208 V., 3 ph., 41 amps.
- H - Electric Ovens 208 V., 1 ph., 30 amps. & 10 amps.
- I - Heat Treat Oven
- J - Crucible Furnace Fan & Pump - 208 V., 3 ph., 2 H.P.

NOTE

- Fire Alarm Wiring
- 1/2" - 2" x 14
- 1/2" - 4" x 14
- 1/2" - 6" x 14



EQUIPMENT FOR GEN. METAL SHOP - Space 21

- A - Drill Press 208 V., 3 ph., 1 1/2 H.P.
- B - Grab Saw 208 V., 3 ph., 1 1/2 H.P.
- C - Drill Press 208 V., 3 ph., 1 1/2 H.P.
- D - Shaper 208 V., 3 ph., 1 1/2 H.P.
- E - Lathe 208 V., 3 ph., 1 1/2 H.P.
- F - Grinder 208 V., 3 ph., 1 1/2 H.P.

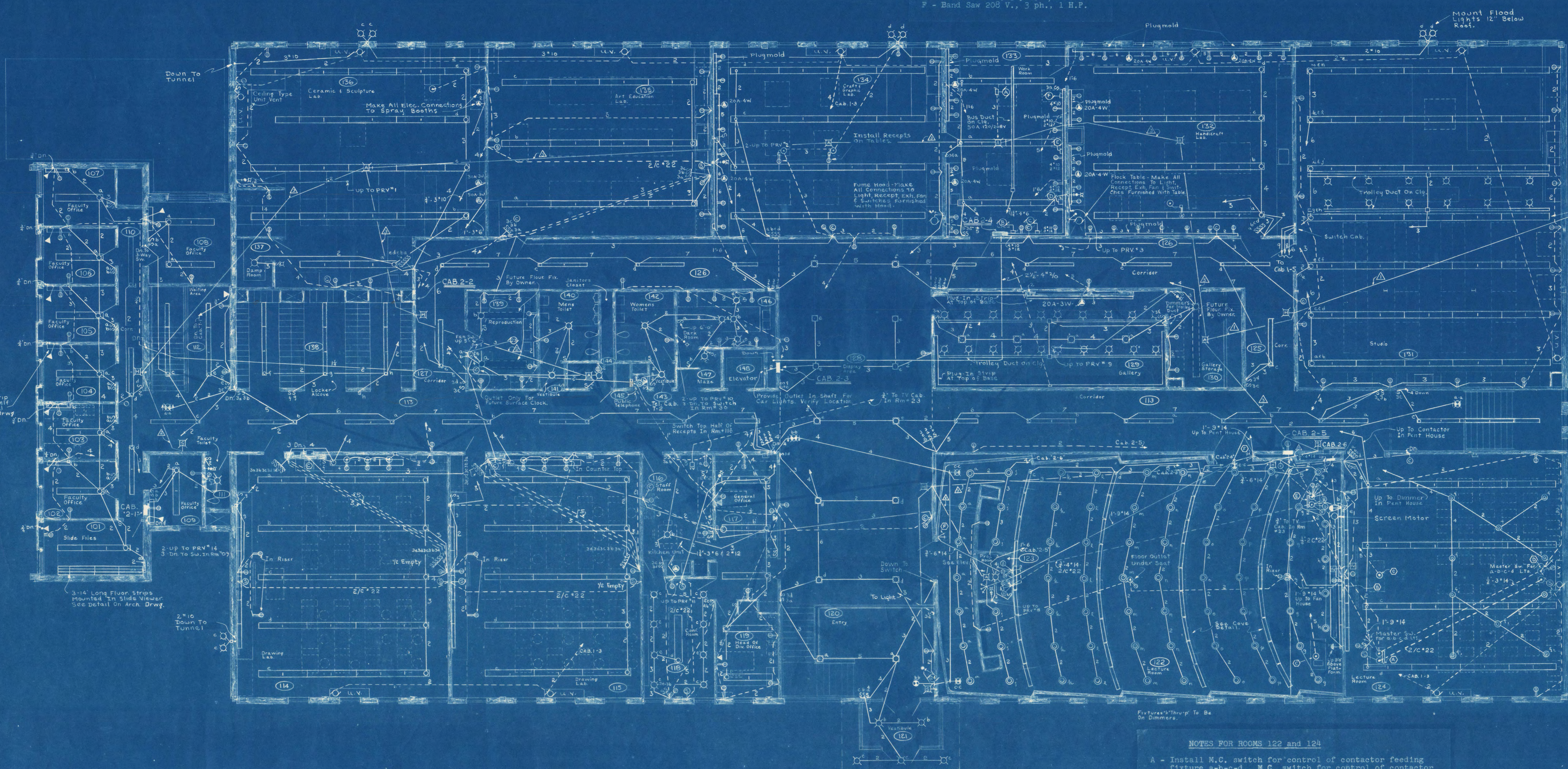
DETAIL - CAB. 1-6
Scale 1/4" = 1'-0"

FIRST FLOOR PLAN
SCALE 1/8" = 1'-0"

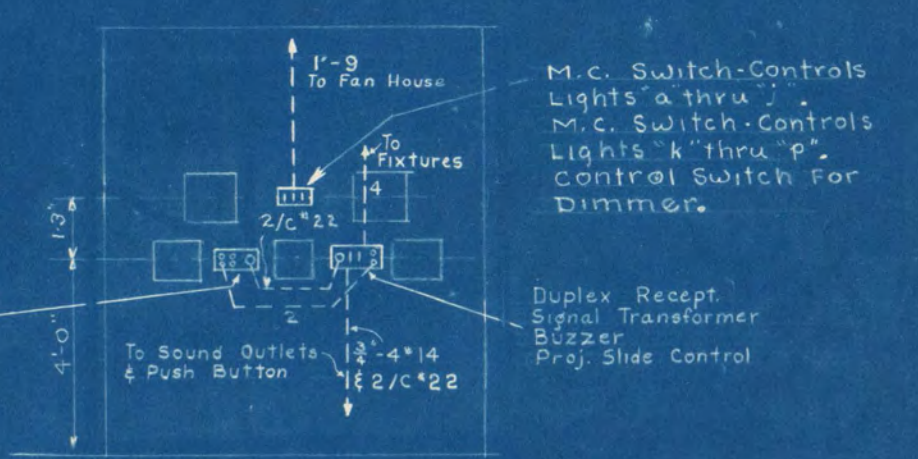
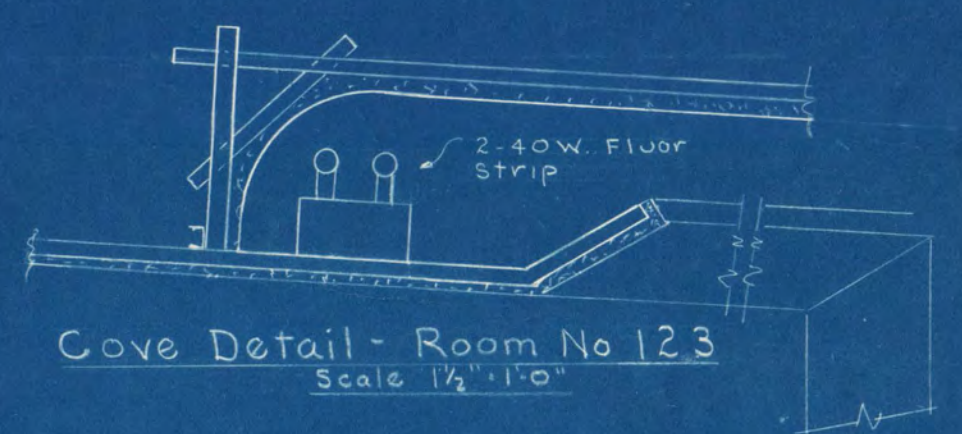
INDUSTRIAL ARTS AND CLASSROOM BUILDING ST. CLOUD STATE COLLEGE ST. CLOUD MINNESOTA	DEPT. OF ADMINISTRATION ROOM 120 STATE CAPITAL BUILDING ST. PAUL MINN. ARCHITECTURAL AND ENGINEERING DIVISION	STATE OF MINNESOTA
	A. J. NELSON STATE ARCHITECT	
ORR-SCHELEN, INC. CONSULTING ENGINEERS MINNEAPOLIS, MINNESOTA	DATE 6-10-61	SHEET NO. E-3 OF 5
	REVISIONS	APPROVED BY: [Signature]
FRANK W. JACKSON & ASSOCIATES ARCHITECTS & ENGINEERS ST. CLOUD, MINNESOTA	DRAWN BY WSJ:UB	STATE PROJECT NO. 3036
	CHECKED BY V.S.	APPROVED BY: [Signature] COMMISSIONER OF ADMINISTRATION AN AUTHORIZED SIGNATURE

EQUIPMENT FOR WORK ROOM - Space 133

- A - Circle Saw 208 V., 3 ph., 1 1/4 H.P.
- B - Buffer 120 V., 1 ph., 1/4 H.P.
- C - Grinder 208 V., 3 ph., 1/3 H.P.
- D - Jig Saw 120 V., 1 ph., 1/3 H.P.
- E - Drill 208 V., 3 ph., 1/2 H.P.
- F - Band Saw 208 V., 3 ph., 1 H.P.



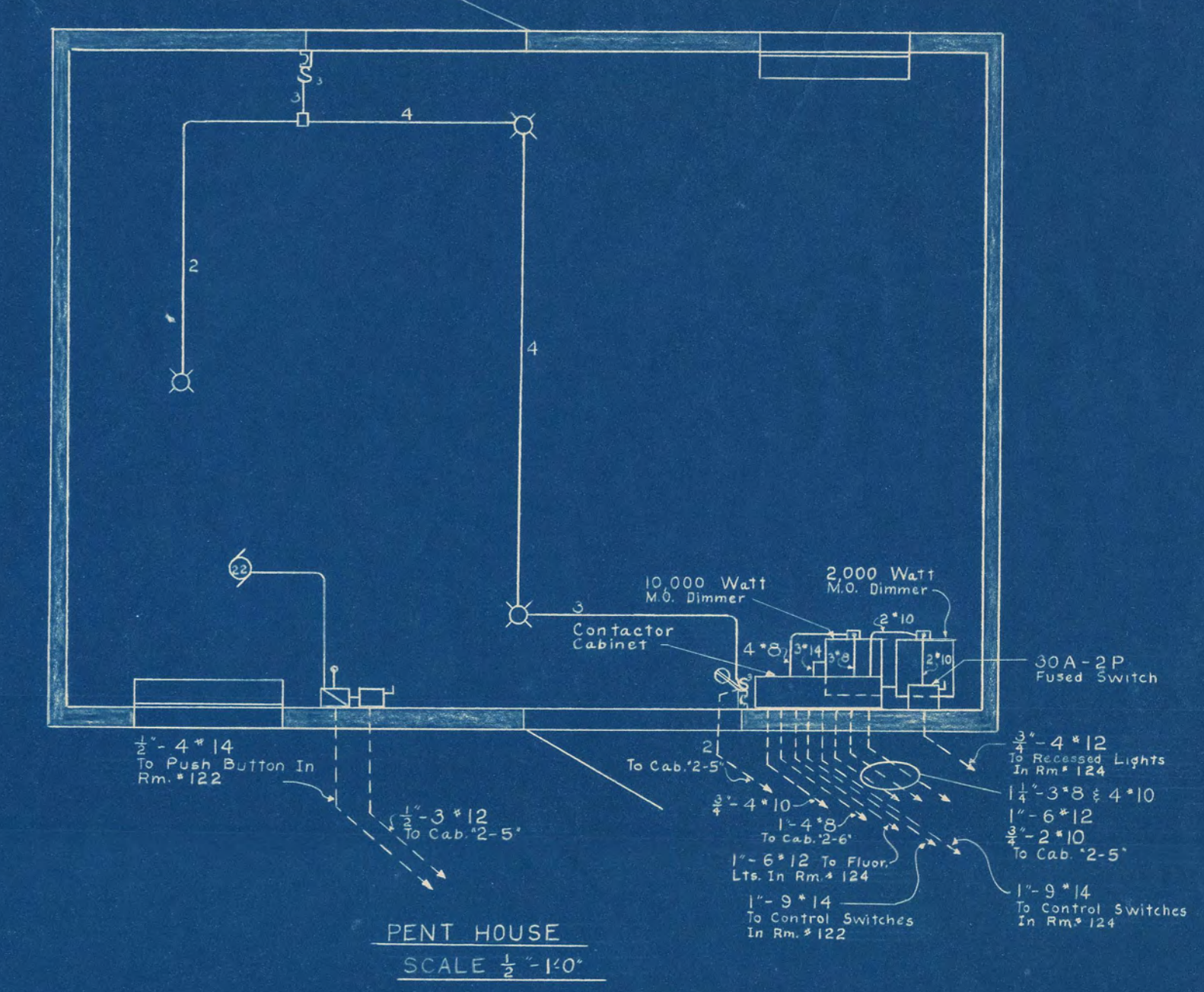
4-Lamp Fixtures - 2 Cir. Per Row.
Connect The 2 Outside Lamps Per Row On One Circuit. The 2 Inside Lamps Per Row on the 2nd circuit.



- NOTES FOR ROOMS 122 and 124
- A - Install M.C. switch for control of contactor feeding fixture a-b-c-d., M.C. switch for control of contactor ahead of dimmer, dimmer motor control switch, toggle switch for lecturn light, 120 volt receptacle and projector sound outlet in lecturn as directed. Install fixture in lecturn. See specifications.
 - B - 4" Square box with single gang plaster ring and blank cover, 1'-0" above floor.
 - C - Install duplex receptacle and 20 ampere, 4 wire receptacle in demonstration table as directed.
 - D - Install M.C. contact switch for control of Contactor finding a-b-c-d lights, duplex receptacle and projector sound outlet in table as directed.
 - E - Install single receptacle, toggle switch for lecturn light, toggle switch for screen motor, momentary contact switch for control of constant lights dimmer, motor control switch, receptacle for buzzer pushbutton, receptacle for projector sound, receptacle for slide projector control and lecturn light in lecturn as directed. See specifications.
 - F - M.C. switches for contactor control feeding constant lights and contactor connected ahead of dimmer.

SECOND FLOOR PLAN
SCALE 1/8" = 1'-0"

INDUSTRIAL ARTS AND CLASSROOM BUILDING ST. CLOUD STATE COLLEGE ST. CLOUD, MINNESOTA	DEPT. OF ADMINISTRATION STATE OF MINNESOTA	DATE 8-10-61	SHEET NO. E-4 OF 5
	A. J. NELSON STATE ARCHITECT	APPROVED BY Supt. of Institution	PROJECT NO. 3636
ORR-SCHELEN, INC. CONSULTING ENGINEERS MINNEAPOLIS, MINNESOTA	DRAWN BY WS:JUB	CHECKED BY W.S.	STATE PROJECT NO. 3636
FRANK W. JACKSON & ASSOCIATES ARCHITECTS & ENGINEERS ST. CLOUD, MINNESOTA	APPROVED BY COMMISSIONER OF ADMINISTRATION AN AUTHORIZED SIGNATURE		



ROOF PLAN
SCALE 1/8" = 1'-0"

INDUSTRIAL ARTS AND CLASSROOM BUILDING ST. CLOUD STATE COLLEGE ST. CLOUD, MINNESOTA		DEPT. OF ADMINISTRATION ROOM 120 STATE CAPITOL BUILDING ARCHITECTURAL AND ENGINEERING DIVISION ST. CLOUD, MINNESOTA		STATE OF MINNESOTA BY PAUL MINN. ARCHITECTURAL AND ENGINEERING DIVISION	
ORR-SCHELEN, INC. CONSULTING ENGINEERS MINNEAPOLIS, MINNESOTA		A. J. NELSON STATE ARCHITECT		BHEET NO. E-5 OF 5	
DATE 6-10-61	APPROVED BY SUPT. OF INSTITUTION	APPROVED BY	APPROVED BY COMMISSIONER OF ADMINISTRATION AN AUTHORIZED SIGNATURE	STATE PROJECT NO. 3036	
REVISED		DRAWN BY W.S. & J.B.	CHECKED BY W.S.		
FRANK W. JACKSON & ASSOCIATES ARCHITECTS & ENGINEERS ST. CLOUD, MINNESOTA					