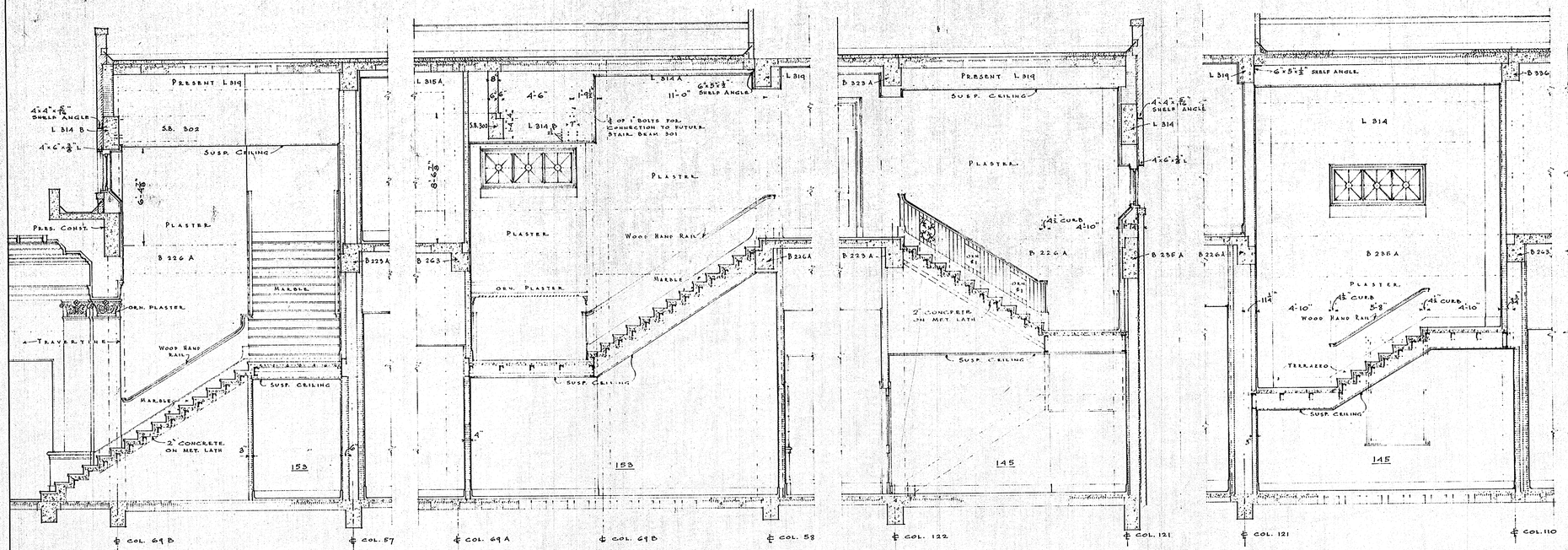
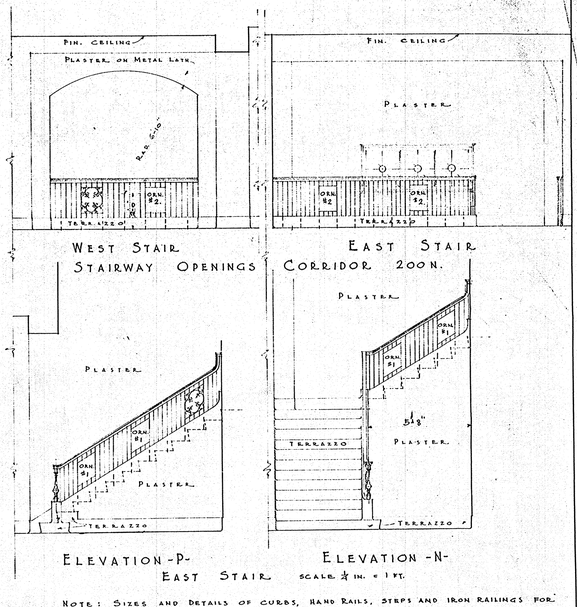


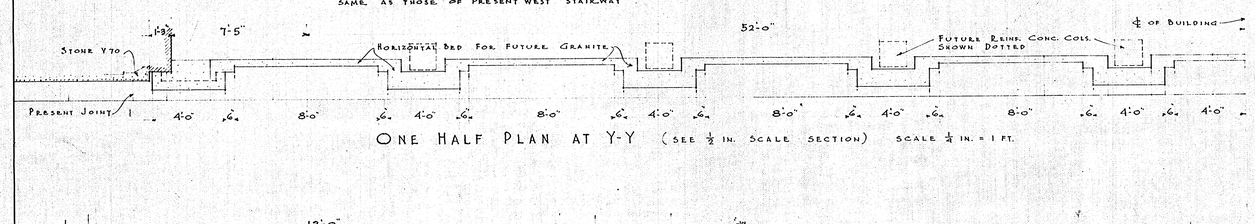
SECTION E-E (WEST STAIR) SECTION F-F SECTION G-G (EAST STAIR) SECTION H-H

SCALE ¼ IN. = 1 FT.

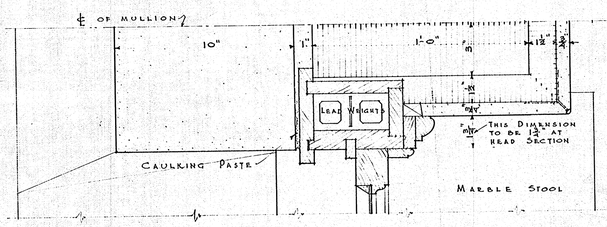
NOTE: FINISH DIMENSIONS OF NEW WEST STAIRWAY TO BE THE SAME AS THOSE OF PRESENT WEST STAIRWAY



NOTE: SIZES AND DETAILS OF CURBS, HAND RAILS, STEPS AND IRON RAILINGS FOR NEW EAST STAIRS TO BE THE SAME AS THOSE OF PRESENT STAIRS.



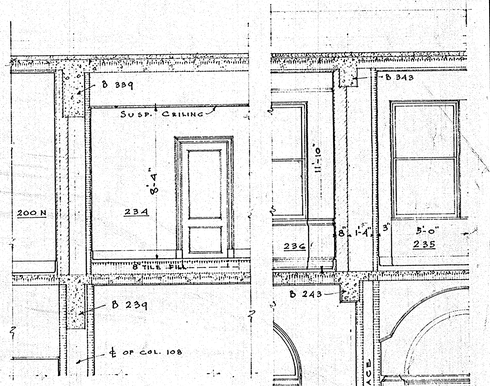
ONE HALF PLAN AT Y-Y (SEE ½ IN. SCALE SECTION) SCALE ¼ IN. = 1 FT.



DETAIL OF WINDOW JAMB - 2ND STREET ELEVATION

SCALE ¼ IN. = 1 IN.

NOTE: HEAD AND SILL SECTIONS TO BE SIMILAR TO THOSE SECTIONS IN PRESENT 2ND FLOOR EXTERIOR WALLS.

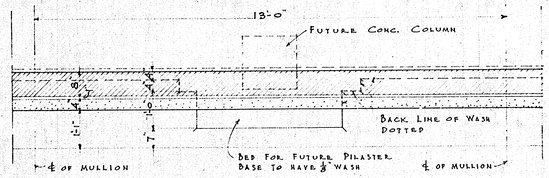


SECTION C-C

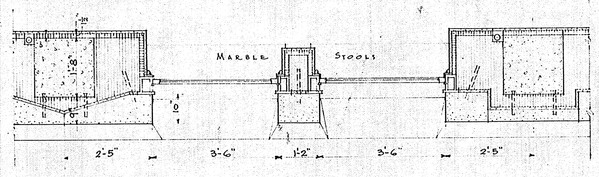
SCALE ¼ IN. = 1 FT.

SECTION D-D

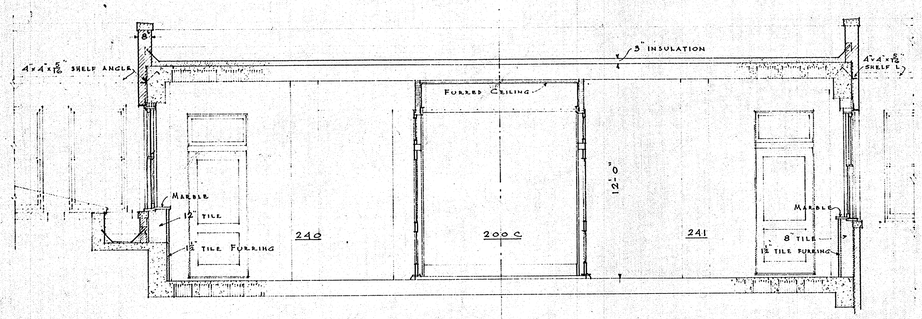
SCALE ¼ IN. = 1 FT.



PLAN AT X-X SCALE ½ IN. = 1 FT

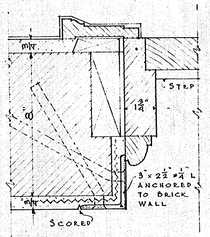


PLAN AT Z-Z SCALE ½ IN. = 1 FT.



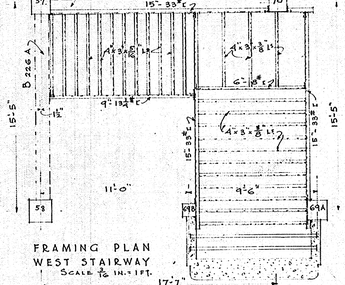
SECTION - B-B

SCALE ½ IN. = 1 FT.



DETAIL OF DOOR FRAME BETWEEN ROOMS 235 & 236

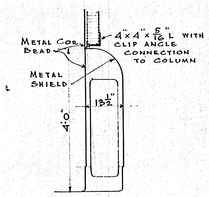
SCALE ½ IN. = 1 IN.



FRAMING PLAN WEST STAIRWAY

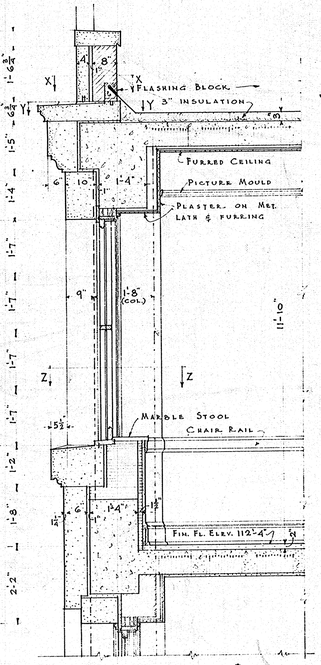
SCALE 1/16 IN. = 1 FT.

FRAMING PLAN EAST STAIRWAY SCALE 1/16 IN. = 1 FT.



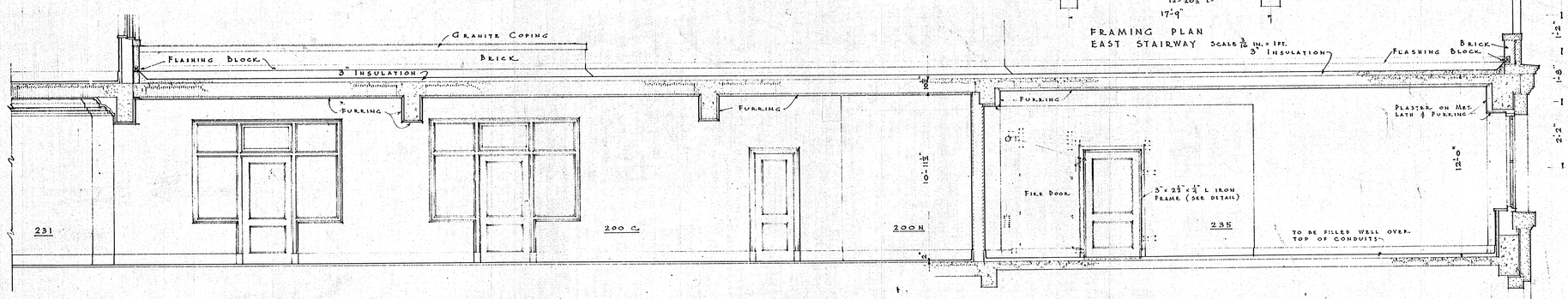
RAD. RECESSES IN 200N. SCALE ½ IN. = 1 FT.

NOTE: METAL FRAMING FOR STAIRS TO HAVE ANGLE CONNECTIONS BOLTED TO COLUMNS AND BEAMS SUFFICIENT TO CARRY A LIVE LOAD OF 100 LBS. PER SQ. FT. IN ADDITION TO DEAD LOAD OF STAIRWAY.



TYPICAL WALL SECTION

SCALE ½ IN. = 1 FT.



SECTION - A-A SCALE ½ IN. = 1 FT.

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SECOND FLOOR ADDITION

CITY HALL BUILDING

DULUTH, MINNESOTA

THOS. J. SHEFCHIK - ARCHITECT

313 GLENCOE BLDG.

DULUTH, MINN.

SHEET NO. 28

KEY	
○	CEILING
◉	" ALL NIGHT
⊕	EXIT
○–	BRACKET
•–	SINGLE POLE SWITCH
3w •–	THREE WAY "
4w •–	FOUR " "
▼	DUPLEX RECEPTACLE
■	MOTOR SWITCH
▬	CABINET
———	CONDUIT IN CEILING
- - - - -	" " FLOOR

KEY	
✱	PUBLIC TEL. FLOOR
✱ B	PRIVATE " BASE OR WALL
▶	PUBLIC " " " "
T.J. ■	" " " JUNCTION
☂	FIRE ALARM BELL & STATION
■	" " STATION
●●	POLICE AND FIRE BELLS
P.J. ■	" JUNCTION
⊢	PUSH BUTTON OUTLET
▪	BUZZER "
●	CLOCK "
◆	CALL BOX "
+	PUSH BUTTON - FULLMAN BOX
———	CONDUIT FIRE ALARM
———	" CLOCK
———	" CALL BOX & ADT
———	" PUBLIC TEL
———	" POLICE SIGNAL
———	" PRI. TEL & BUZZER

Room Schedule.

No.	Name
01	Pump Room
02	Pipe Tunnel
03	"
04	Blower Room
05	Pipe Tunnel
06	Store Room
07	Battery Room
08	Pipe Tunnel
09	"
010	"
011	"
012	"
013	"
014	"
015	"

SCALE 8 = 1'-0"

BASEMENT PLAN

CITY HALL BUILDING

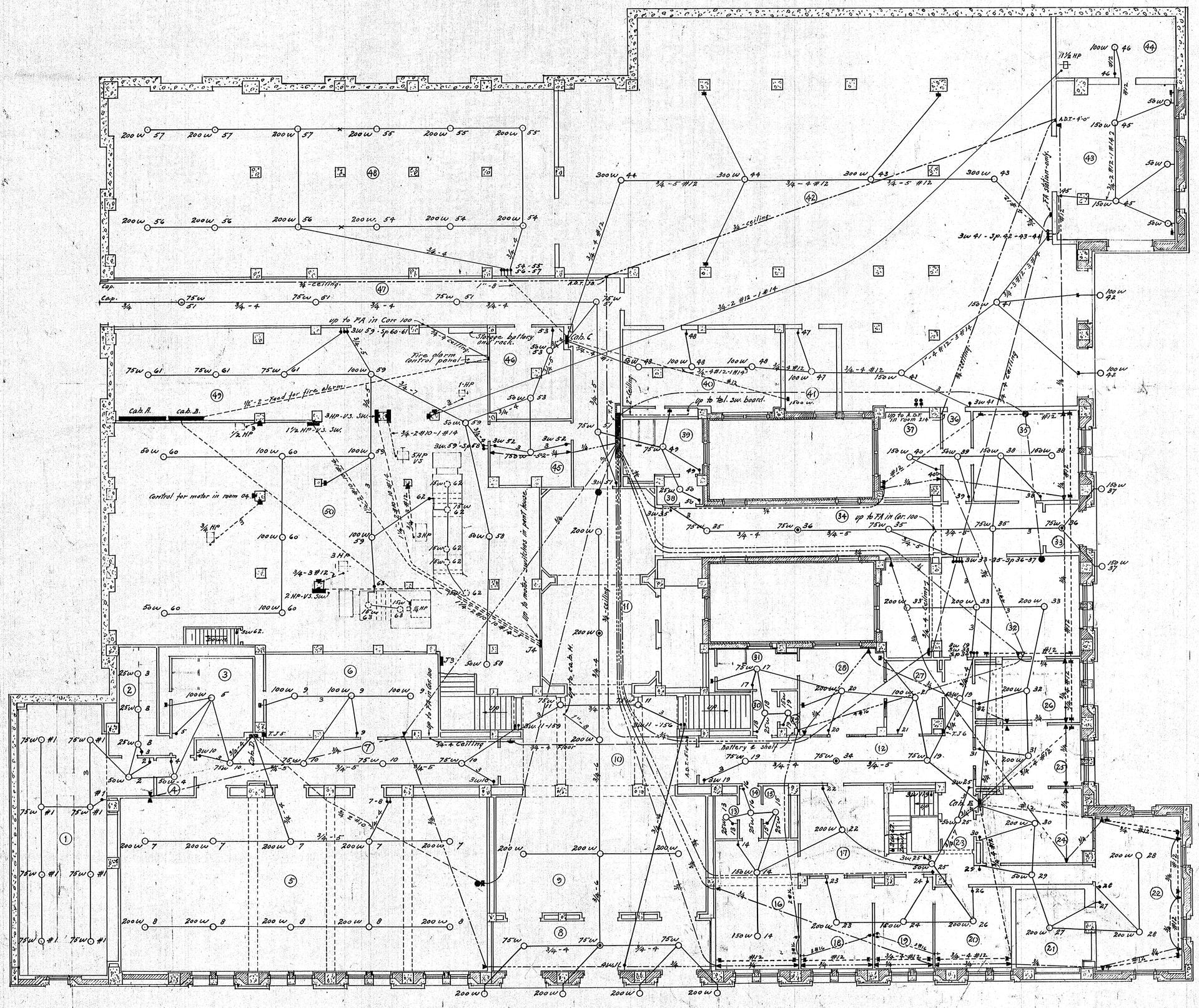
DULUTH, MINNESOTA.

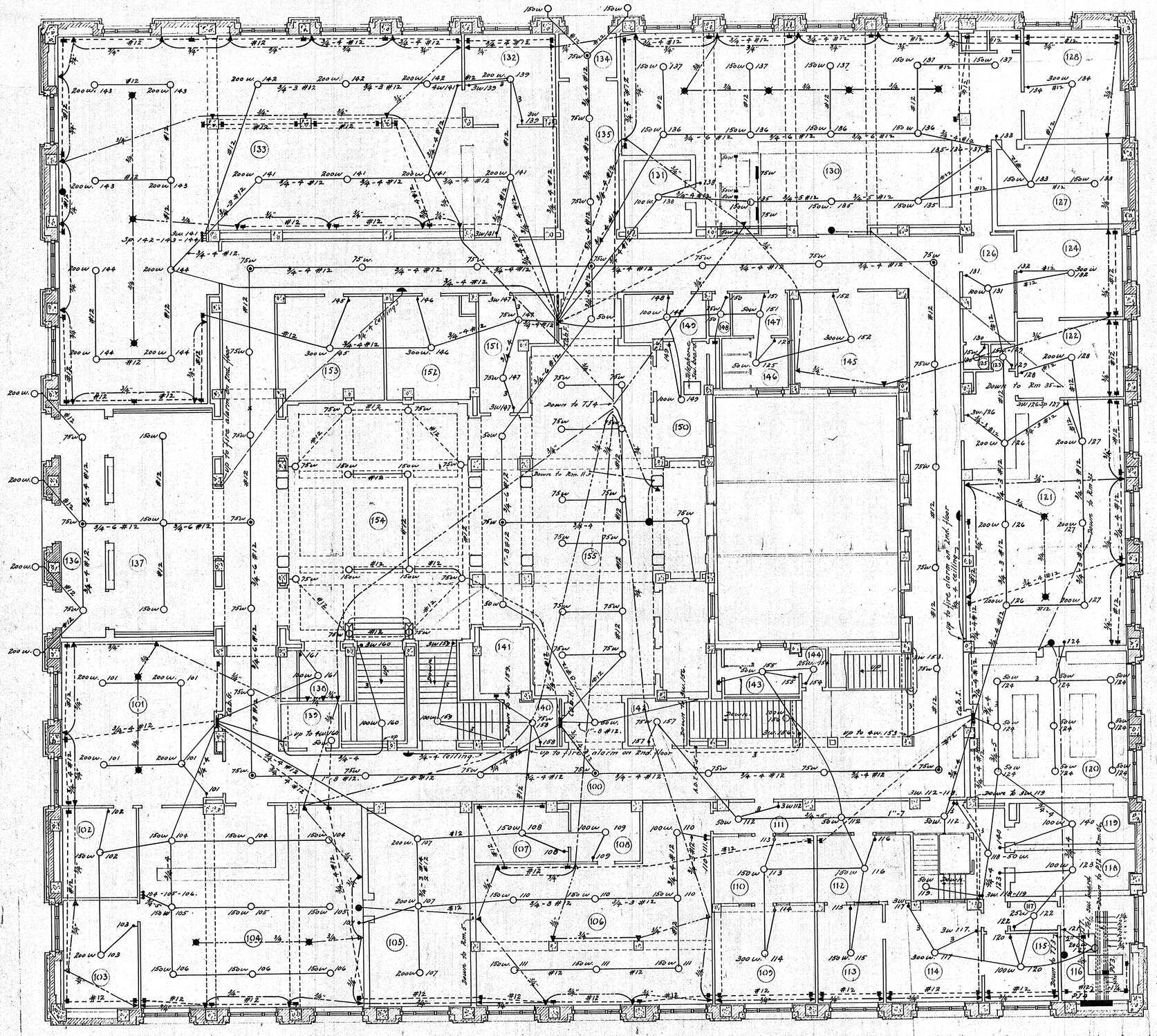
THOS. J. SHEFCHIK, ARCHITECT.
313 GLENCOE BLDG.
DULUTH, MINN.

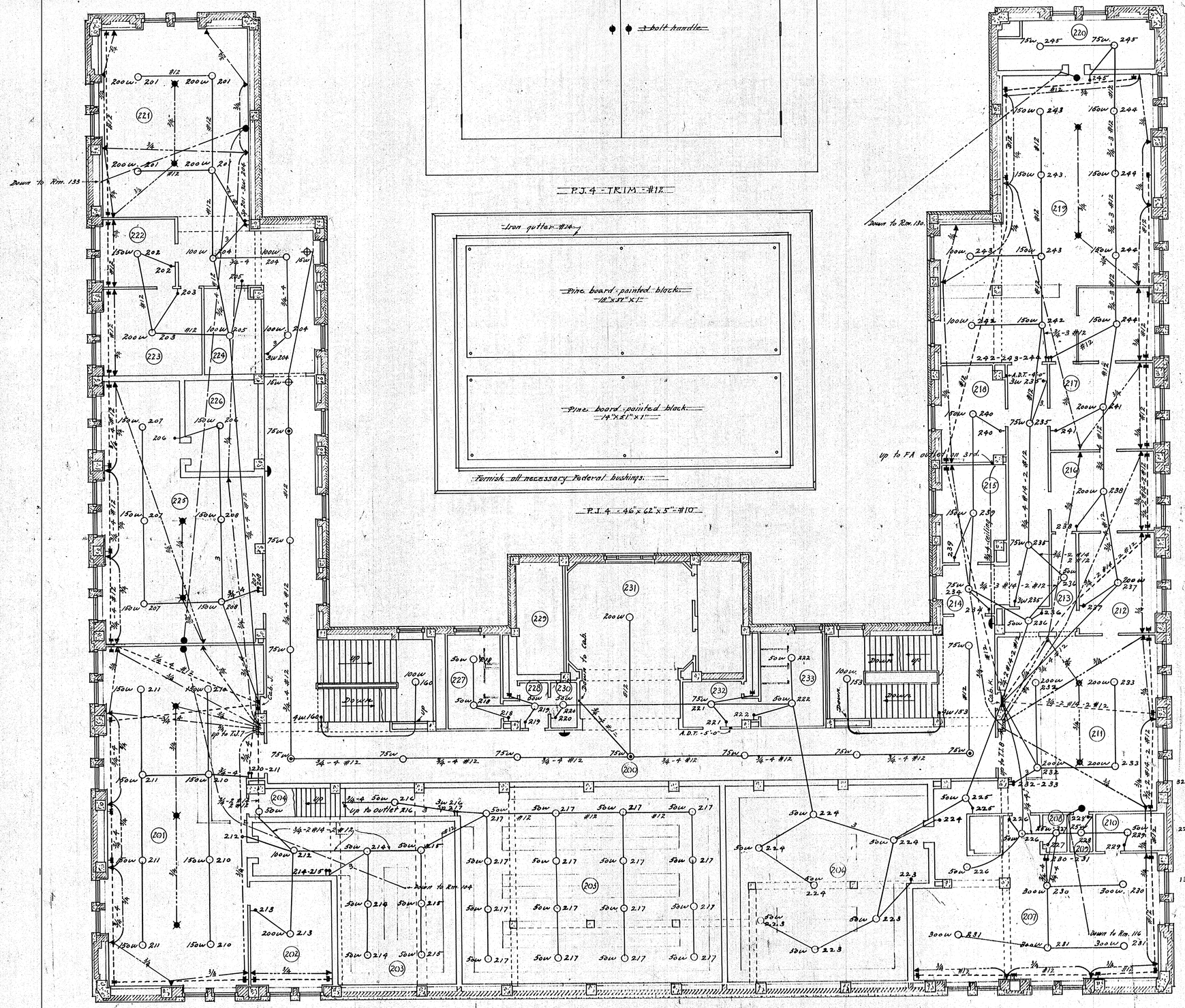
5/21/27

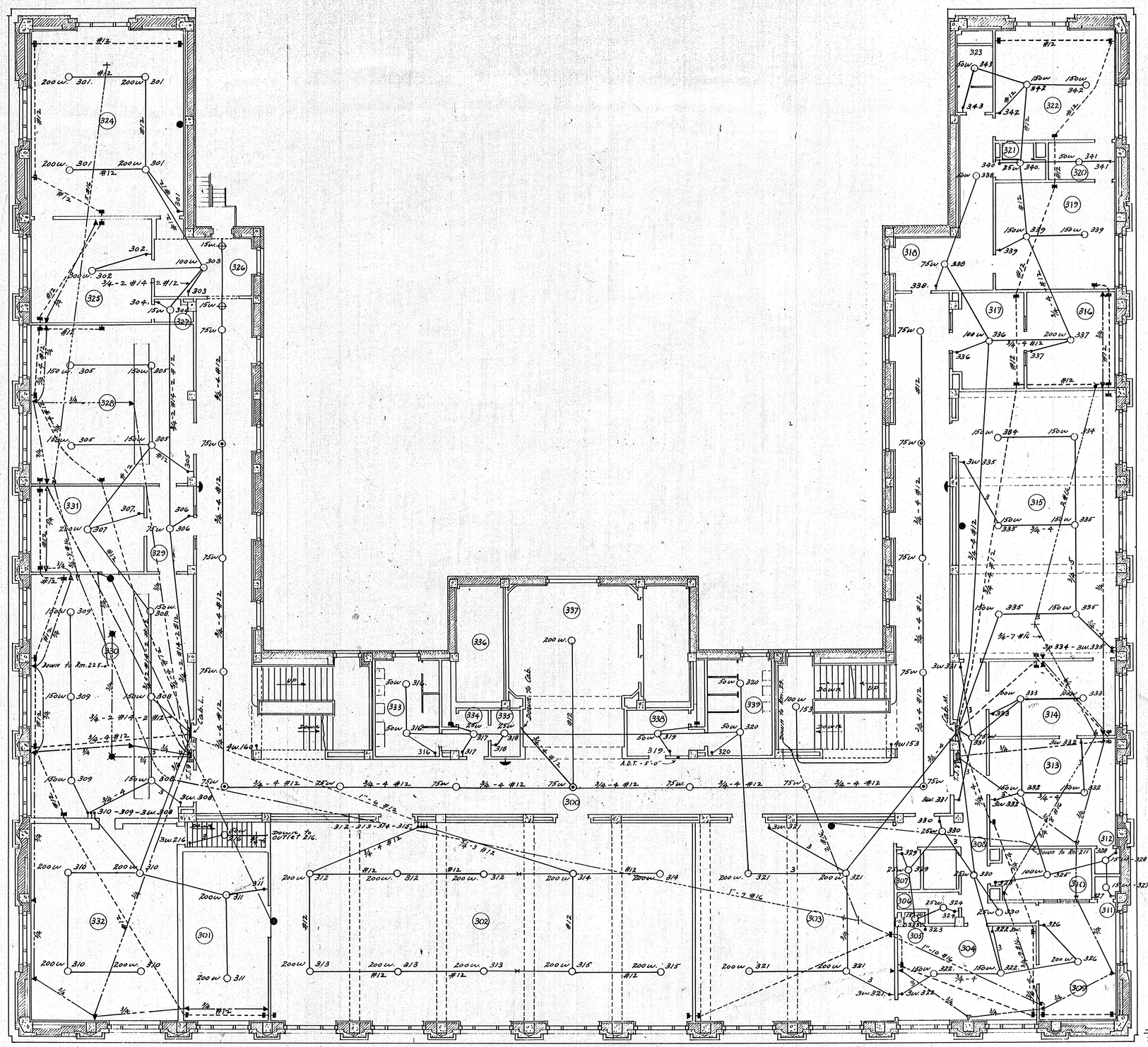
M.A. HIBBARD - ELEC. ENG.

SHEET N° 01


Cap.
Cab. A.
Cab. B.
Cab. C.
Cab. E.
Cab. F.
Cab. G.
Cab. H.
Cab. J.
Cab. K.
Cab. L.
Cab. M.
Cab. N.
Fire alarm control panel
Storage battery and rack.
Control for motor in room 04.
up to FA in Corr 100
up to tel. sw. board.
up to FA in Cor. 100
up to A.D.T. in room 214
up to make switches in panel board
up to FA in Cor. 100
up to cab. H.
up to FA in Cor. 100
FA station only
Battery & shelf
A.D.T. station
T.J.5
T.J.6
1½ HP
3 HP
2 HP-V.S. Sw.
3 HP-V.S. Sw.
1½ HP-V.S. Sw.
5 HP V.S.
¾ HP
1 HP
3w 41 - Sp. 42-43-44
3w 59 - Sp 60-61
3w 53 - Sp 54-55-56-57
3w 52 - Sp 53
3w 35 - Sp 36-37
3w 33 - Sp 34-35
3w 25 - Sp 26
3w 19 - Sp 20
3w 11 - Sp 12
3w 10
3w 62
3w 41
3w 19
3w 25
3w 33
3w 35
3w 52
3w 59
3w 62
3w 10
3w 11
3w 25
3w 19


Up to fire alarm on 2nd floor
Down to TJ4
Down to Rm. 11-3
Up to fire alarm on 2nd floor
Up to fire alarm on 2nd floor
up to fire alarm on 2nd floor
up to 4w.153
Down to Rm 35
Down to Rm 32
Down to 3w 119
Down to 2nd floor
Down to 2nd floor
Down to 2nd floor

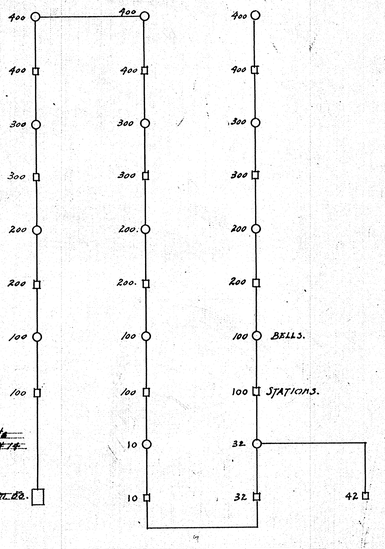

Down to Rm. 133
Down to Rm. 130
up to FA outlet in 3rd.
Down to Rm. 104
Down to Rm. 116
Cab. C
Dumb W.
Down
Up
Dumbw.
Elev.
A.D.T. - 5'-0"
A.D.T. - 4'-0"
Up to TUT
Up to outlet 216
Up to outlet 217
Down to Rm. 114
Down to Rm. 118
Down to Rm. 116
Cab. K
Cab. L
Dumb W.
Elev.
Down
Up
Dumbw.
Dumb W.
Down
Up
Dumbw



SCALE 1/8" = 1'-0"

ROOM SCHEDULE

No	Name
300M	West Corridor
300S	South "
300E	East "
	City Council
301	Consultation Room
302	Council Chamber
	Municipal Court
303	Court Room #1
304	Judge
305	Closet
306	Toilet
307	Closet
308	Passage
309	Reporter
310	Witness Room
311	Closet
312	Closet
313	Judge
314	Reporter
315	Court Room
316	Probation Officers
317	Waiting Room
318	Passage
319	Jury
320	Cot Storage
321	Mens Toilet
322	Jury
323	Womens Toilet
324	Conciliation Court
325	Judge
326	Passage
327	Closet
328	Court Offices
329	Passage
330	Clerk of Court
331	Private Office
332	Vault
333	Mens Toilet
334	Ante Room
335	Janitors Closet
336	Pipe Shaft
337	Elevator Lobby
338	Ante Room
339	Womens Toilet



FIRE ALARM - NO SCALE

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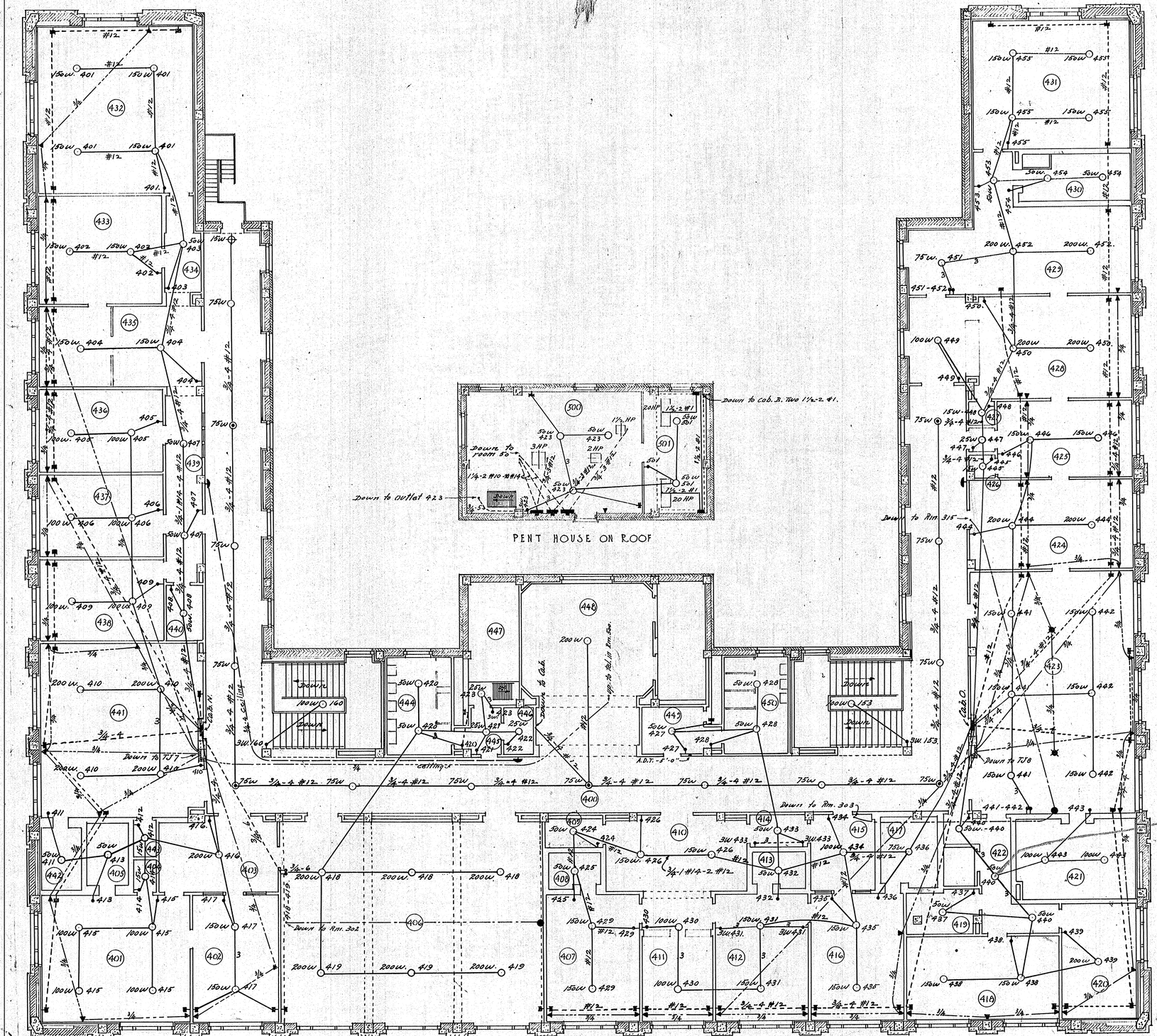
THIRD FLOOR ELECTRICAL PLAN

CITY HALL BUILDING
DULUTH, MINNESOTA.
THOS. J. SHEFCHIK. ARCHITECT.
313 GLENCOE BLDG. 5/21/27
DULUTH, MINN.

M.A. HIBBARD - ELEC. ENG. | SHEET No. E3



SCALE ⅛" = 1'-0"

ROOM SCHEDULE

NO	NAME
400W	WEST CORRIDOR
400S	SOUTH "
400E	EAST "
	MAYOR
401	PRIVATE OFFICE
402	SECRETARY
403	WAITING ROOM
404	CLOSET
405	VAULT
406	RECEPTION ROOM
	COMMISSIONERS
407	PUBLIC UTILITY COMM
408	VAULT
409	PASSAGE
410	WAITING ROOM
411	STENOGRAPHER
412	PUBLIC SAFTY COMM
413	VAULT
414	PASSAGE
415	WAITING ROOM
416	PURCHASING AGENT
417	VAULT
	HEALTH DEPARTMENT
418	NURSES OFFICE
419	CLOSET
420	NURSES OFFICE
421	VAULT
422	PASSAGE
423	MAIN OFFICE
424	SECRETARY
425	PRIVATE OFFICE
426	CLOSET
427	CLOSET
428	MILK INSPECTOR
429	LABORATORY
430	VAULT
431	LABORATORY
	ATTORNEY
432	LIBRARY
433	PRIVATE OFFICE
434	PASSAGE
435	STENOGRAPHER
436	PRIVATE OFFICE
437	PRIVATE "
438	PRIVATE "
439	PASSAGE
440	CLOSET
441	CIVIL SERVICE COMM
442	VAULT
443	CLOSET
444	MENS TOILET
445	ANTE ROOM
446	JANITORS CLOSET
447	PIPE SHAFT
448	ELEVATOR LOBBY
449	ANTE ROOM
450	WOMENS TOILET

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FOURTH FLOOR ELECTRICAL PLAN

CITY HALL BUILDING
DULUTH, MINNESOTA
THOS. J. SHEFCHIK, ARCHITECT.
313 GLENCOE BLDG
DULUTH, MINN.

5/21/27

M.A. HIBBARD - ELEC. ENG.

SHEET Nº E6

outlets and conduits marked "S" to be changed as directed.
Telephone conduits marked "C" are in the ceiling.

Tel. Junc. up 10'-0"

See detail
Conv. 21 - 1¼" conduits down to ground floor

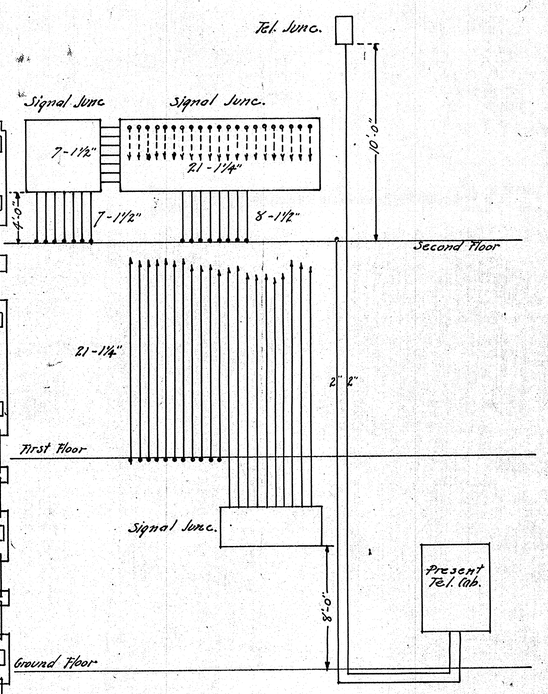
Clock Junc.

LIGHT COURT

LIGHT COURT

Cab. P

SCALE - ⅛" = 1'-0"



RISER DIAGRAM TEL. & SIGNAL SYS.
NO SCALE

Lighting.
Extend 1½" con. to cab. P - run 2 #2 from cab. A to cab. P
Remove con. in 145-153.
Run ½" - 2 #12 from 152 to rec. in 133
Run ½" - 3 from 3w. 258-266 to 3w. on 1st. fl. where dir.
Install rec. in 210
Re-connect clock con. in 324
Cabinet same as #80164 Benjamin & directory.

Telephone.
Run 2" conc. from mixing box in 47 to 2nd fl.
Run 2" " " " " " " " " junc.
Furnish one junc. 18"x12"x6" - #14 with trim & door sub. drillings

Signal.
Run 21 - 1¼" con. from junc. box on 2nd fl. to junc. box in 48
Run 15 - 1½" " " " " boxes & " " " floor of 2nd fl.
Furnish one junc. approx. 24"x54"x6" - #10 with trim & door sub. drillings
" " " " 20"x33"x6" - #12 " cover " "
" " " " 24"x24"x6" - #12 " " "
Run 7 - 1¼" con. between junc. boxes on 2nd fl.

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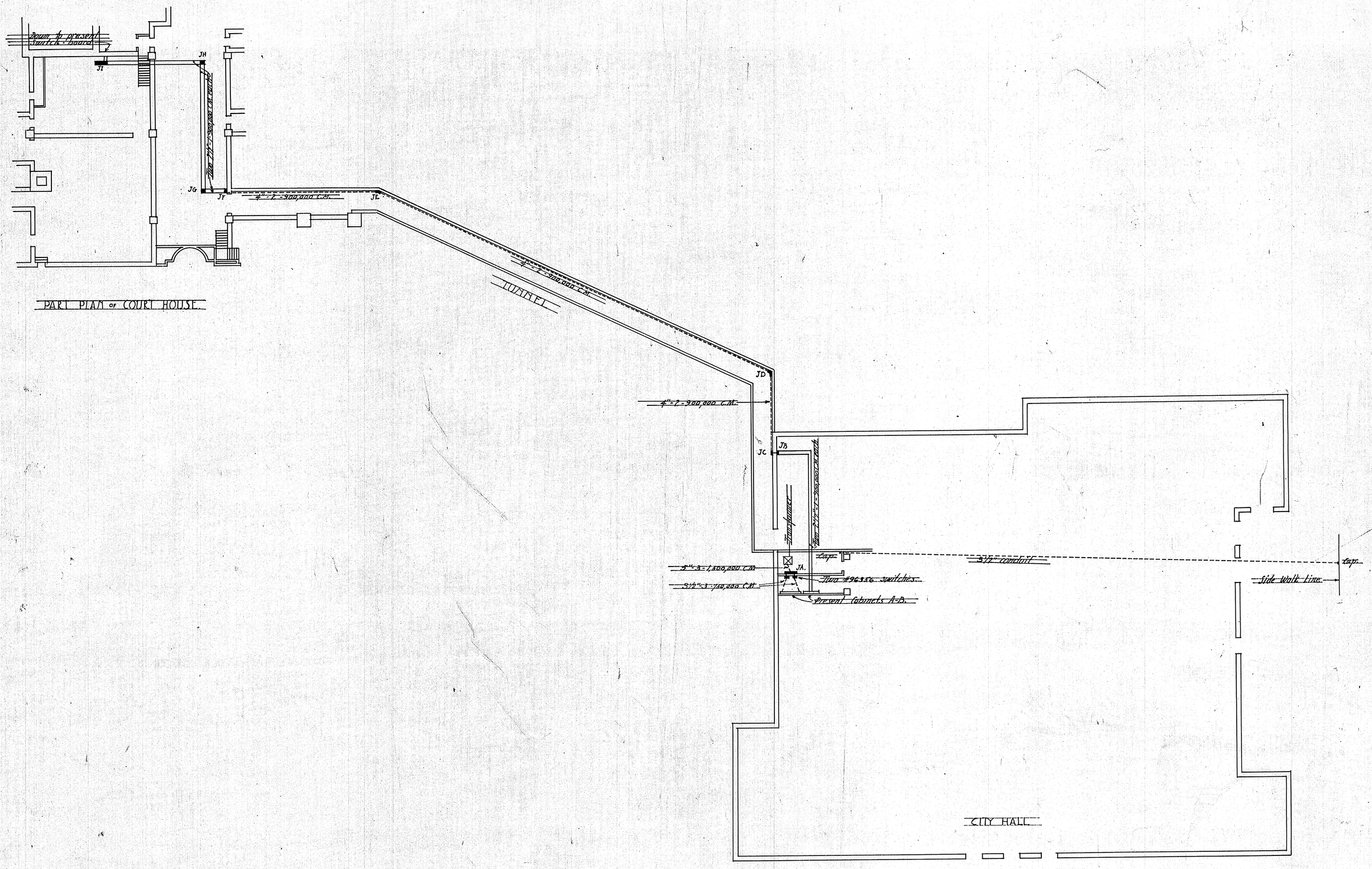
ELECTRICAL

SECOND FLOOR ADDITION -

CITY HALL BUILDING
DULUTH MINNESOTA 11-28-27
THOS. J. SHEFCHIK ARCHITECT
313 GLENCOE BLDG.
DULUTH MINN.

M. A. HIBBARD - ELEC. ENG. | SHEET No. E-7



PART PLAN OF COURT HOUSE

SCALE 1/16" = 1'-0"

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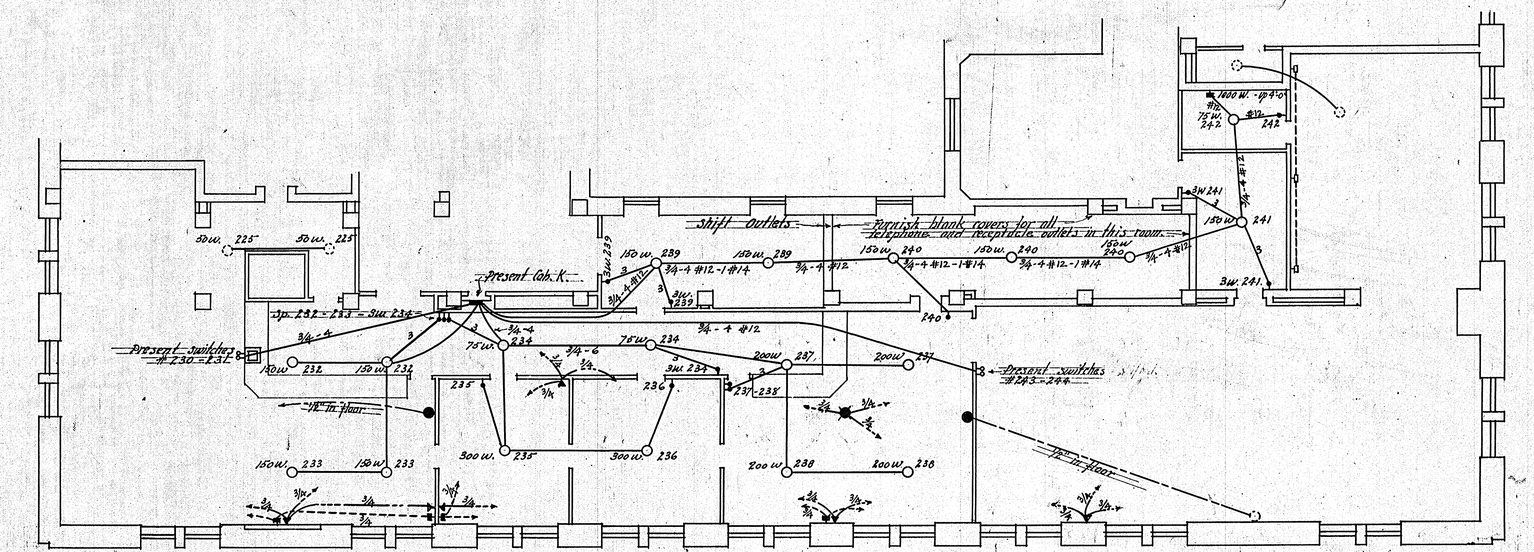
ELECTRIC SERVICE

CITY HALL BUILDING
DULUTH, MINNESOTA
THOS. J. SHEFCHIK - ARCHITECT
313 GLENCOE BLDG.
DULUTH, MINN.

M. A. HINBARD - ELEC. - ENG.

SHEET NO. E-8



All rooms where new outlets are shown, have drop ceilings.
All outlets indicated shiftd are present outlets.
All arrow heads at conduits indicate connection to present conduits.

REVISED 2ND. FLOOR PLAN — SCALE 1/8" = 1'-0"

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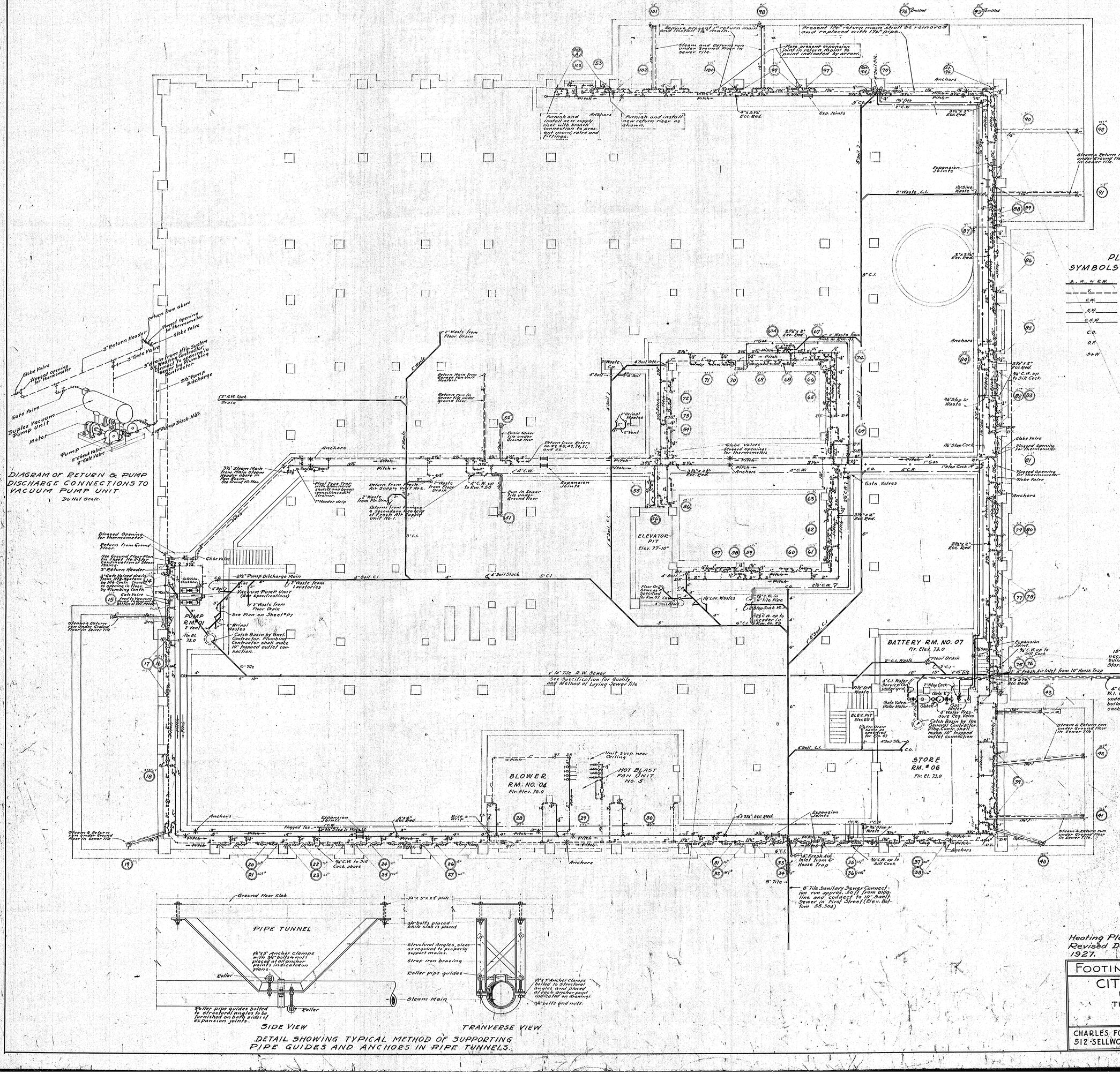
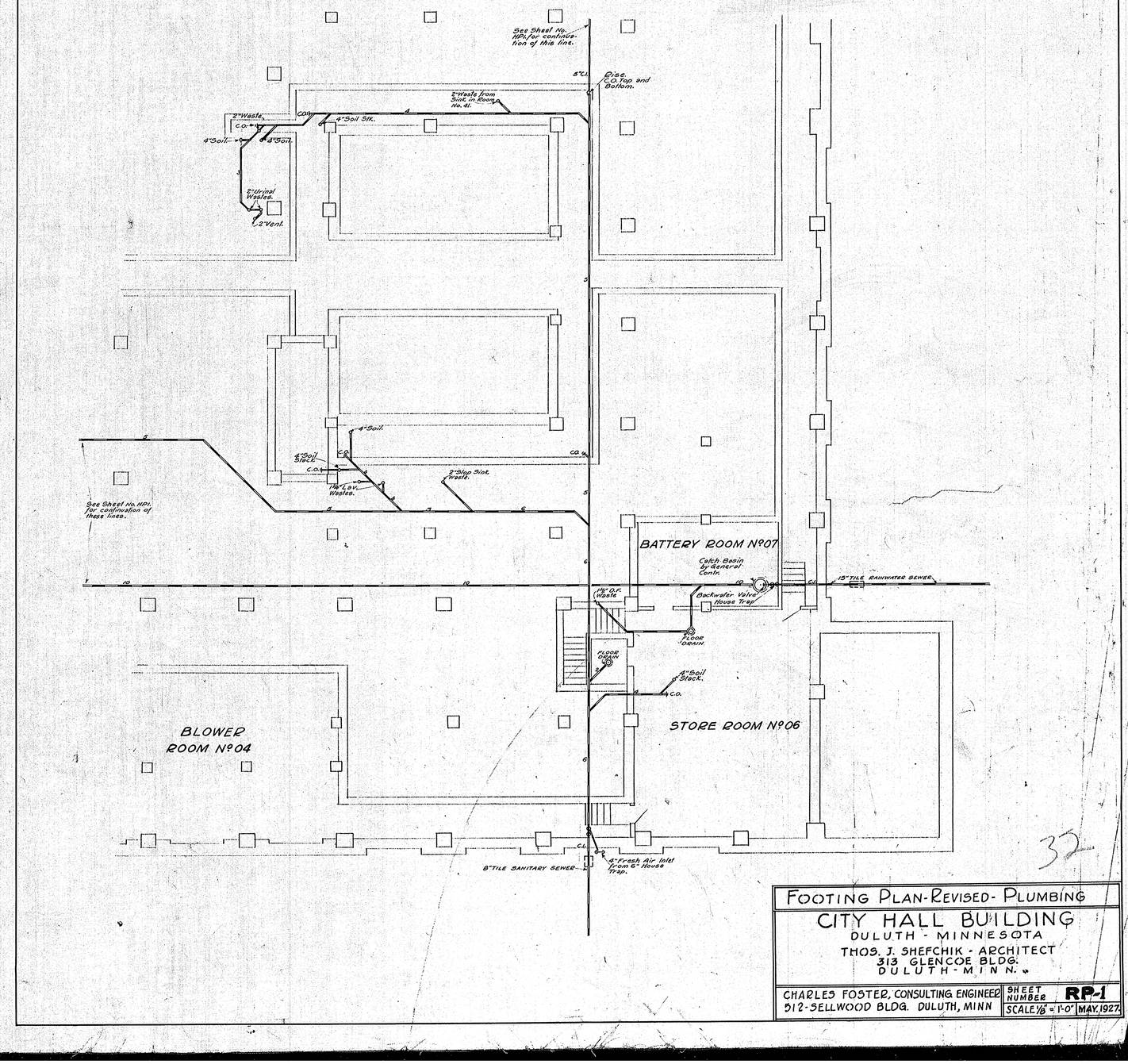
CITY - HALL

M. A. HIBBARD — ELEC. ENG. THOS. J. SHEPCHIK — ARCHITECT.


Remove 6"x4"x6" return main and install 12"x8"x12" main.
Present 12" return main shall be removed and replaced with 12" pipe.
Steam and return run under ground floor in sewer tile.
Move present expansion joint in return main to point indicated by arrow.
Furnish and install new return riser as shown.
Furnish and install new supply riser with branch connection to present main; valve and fittings.
Anchors
Exp Joints
4"x5"x3½" Ecc Red.
3"x2½" Ecc Red.
Steam & Return run under ground floor in sewer tile.
Expansion Joints
2" Waste, C.I.
12" Sink Waste
3"x2½" Ecc Red.
5" C.I.
Anchors
2½"x2" Ecc Red.
¾" C.W. up to Sill Cock.
¾" Slop & Waste
1½" Slop Cock
Globe Valve
Plugged Opening for Thermometer
Globe Valve
Anchors
Gate Valves
2½"x2" Ecc Red.
2½"x2" Ecc Red.
Anchors
Globe Valves Plugged Openings for Thermometers
4" C.W.
4" C.W.
1" Slop Cock
C.O.
1" Gas
D.F.
2" Waste from Sink in Store
2" Waste from Floor Drain
4" Soil
4" Soil
2" Waste
2" Waste
4" Soil
4" Soil Stack
5" Soil
2" Urinal Wastes
2" Vent
4" Soil C.I.
4" Soil Stack
5" C.I.
4" Soil C.I.
2" C.I.
Return Main from Heater for Unit Heater.
Return run in Sewer Tile under Ground Floor
Drain Sewer Tile under Ground Floor
Return from Risers in Sh's #40, 49, 50, 51, and 52.
Expansion Joints
Return from Risers & Secondary Return of Fresh Air Supply Unit No. 1
Return from Fresh Air Supply Unit No. 2
2" Waste from Floor Drain
2" Waste from Fir. Drain
Run in Sewer Tile under Ground Floor
4" C.W. up to Rm. No. 50
4" C.W.
3" C.I.
3½" Steam Main from Main Steam Header above 1st Floor Ceiling to Ground Flr. Men.
Vent Pipe from Trap with Brass Strainer and Brass connections at Strainer.
Header drip
Plugged Opening for Thermometer
Return from Ground Floor
See Ground Floor Plan on Sheet No. 01 of Steam Heating and Plumbing Drawings
3" Return Header
3" Gate Valve to be Mfr. Cont's. Connect to opening in floor by Plumbing Con'r.
Gate Valve Used to Prevent Water from Entering System when not in Use
Globe Valve
Anchors
2½" Pump Discharge Main
4" Soil C.I.
4" Soil Stack
5" C.I.
2" Waste from Laboratories
Vacuum Pump Unit (See Specifications)
2" Waste from Floor Drain
See Plan on Sheet No. 07
2" Urinal Wastes
2" Vent
Catch Basin by Genl. Contractor. Plumbing Contractor shall make 10" trapped outlet connection.
PUMP RM. NO. 01
Flr. El. 73.0
10" Tile
Steam & Return run under Ground Floor in Sewer Tile
Globe Valve
Sink Hole Cleaner
2" Soil
2" Waste
4" Soil
4" Soil C.I.
4" Soil Stack
5" C.I.
6" C.I.
6" C.I.
Floor Drain Same as Specified for Rm. 07
4" Soil Stack
18" Lav. Wastes
1½" C.W. in 6" Tile Pipe
2 Slop Sink W.
1½" C.W. up to 1½" Water Lo Rm. No. 09
ELEVATOR PIT Elev. 77-10"
BATTERY RM. NO. 07
Flr. Elev. 73.0
Floor Drain
2" C.I. Waste
6" C.I.
4" C.I. Water Service Con. underground
1½" G.W. Waste
Gate Valve-Water Meter
Gate Valve-Water Meter
2" Slop Cock
Gate V.
Gate V.
Gate V.
Glauert
4" Water Meter
4" Water Flow Pressure Reg. Valve
Catch Basin by the General Contractor. Plbg. Contr. shall make 10" Trapped outlet connection
ELEV. PIT Elev. 68.0
Flr. Drain Same as Specified for Rm. 07
2"
4" Soil Stk.
C.O.
4" Soil C.I.
STORE RM. # 06
Flr. El. 73.0
Expansion Joints
¾" C.W. up to Sill Cock
¾" Slop & Waste
18" Tile Rain Water Sewer Connection run approx. 70 ft from building line and connect to 18" Storm Sewer. (Elev. Bottom 70.15±)
4" C.I. Water Service and 2" Galv. W.I. Gas Service Connections run underground approx. 50 feet from building line and connect to curb cocks provided by others.
Steam & Return run under Ground Floor in Sewer Tile
Steam & Return run under Ground Floor in Sewer Tile
Steam & Return run under Ground Floor in Sewer Tile
4" Fresh Air Inlet from 10" House Trap
8" Tile
8" Tile Sanitary Sewer Connection run approx. 50 ft from Bldg. line and connect to 10" Sanit. Sewer in First Street (Elev. Bottom 55.30±)
12" R.W. Tank Drain
Vent Sup. near Ceiling
HOT BLAST FAN UNIT No. 5
BLOWER RM. NO. 04
Flr. Elev. 76.0
Anchors
Expansion Joints
Plugged Tee with ¾" Slop & Waste
¾" C.W. to Sill Cock above
Anchors
Expansion Joints
¾" C.W. up to Sill Cock
¾" Slop & Waste
Anchors
6" C.I.
6" Tile
6" C.I. R.W. Sewer See Specification for Quality and Method of Laying Sewer Tile
Omitted
Omitted
Anchors
Anchors
Anchors



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FOOTING PLAN-REVISED- PLUMBING

CITY HALL BUILDING

DULUTH - MINNESOTA

THOS. J. SHEFCHIK - ARCHITECT
313 GLENCOE BLDG.
DULUTH - MINN.

CHARLES FOSTER, CONSULTING ENGINEER
512-SELLWOOD BLDG. DULUTH, MINN

SHEET NUMBER **RP-1**

SCALE 1/8" = 1'-0" | MAY, 1927

NO.	ROOM NAME
1	Locker Room
2	Shower "
3	Toilet "
4	Ante "
5	Assembly Room
6	Show-up "
7	Corridor
8	South Vestibule
9	" Lobby
10	Stair "
11	Elevator "
12	Corridor
13	Conference Room
14	Passage
15	Conference "
16	Detectives "
17	Waiting Room
18	Chief of Detectives
19	Stenographers
20	Chief of Police
21	Vault
22	Secretary
23	Passage
24	Pawn Shop Inspector
25	" "
26	Captain "
27	Waiting Room
28	Matron "
29	Janitors "
30	Ante Room
31	Women's Toilet
32	Desk Sargent
33	East Vestibule
34	Corridor
35	Traffic Bureau
36	Passage
37	Drivers' Room
38	Ante Room
39	Mens Toilet
40	Painters' Room
41	Kitchen
42	Garage
43	Repair Shop
44	Storage
45	Engineers' Room
46	Storage
47	Corridor
48	Storage
49	"
50	Mechanical Equip. Rm.

GROUND FLOOR PLAN - PLUMBING

CITY HALL BUILDING

DULUTH - MINNESOTA

THOS. J. SHEFCHIK - ARCHITECT
313 GLENCOE BLDG.
DULUTH - MINN.

CHARLES FOSTER, CONSULTING ENGINEER
512 - SELLWOOD BLDG., DULUTH, MINN.

SHEET NUMBER P2
SCALE 1/8" = 1'-0" FEB. 1927

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ROOM SCHEDULE

NO.	ROOM NAME
1	Locker Room
2	Shower "
3	Toilet "
4	Ante Room
5	Assembly Room
6	Show-up Room
7	Corridor
8	South Vestibule
9	" Lobby
10	Stair
11	Elevator Lobby
12	Corridor
13	Conference Room
14	Passage
15	Conference Room
16	Detectives Room
17	Waiting "
18	Chief of Detectives
19	Stenographer
20	Chief of Police
21	Vault
22	Secretary
23	Passage
24	Pawn Shop Inspt'or.
25	" "
26	Captain
27	Waiting Room
28	Matron
29	Janitors Closet
30	Ante Room
31	Women's Toilet
32	Desk Sergeant
33	East Vestibule
34	Corridor
35	Traffic Bureau
36	Passage
37	Drivers Room
38	Ante Room
39	Mens Toilet
40	Painters Room
41	Kitchen
42	Garage
43	Repair Shop
44	Storage
45	Engineers Room
46	Storage
47	Corridor
48	Storage
49	Storage
50	Mech. Equip Room.

Make new return connection as shown & connect to capped Tee in present return main

Have shut off valve to make room for new branch & new steam supply riser

Install new steam supply connection in present abd. steel main

Make new steam supply connection in present 1½" branch for new steam supply riser.

Steam Main to drop into pipe trench below. See sheet No. H-1

Install Tees in place of present elbows at points indicated and continue steam supply and return risers to new second floor radiators.

Present offsets to remain as branches to radiators on 1st floor

Offset steam & return risers exposed on ceiling.

Sliding Damper Enclosure Fan

18/8 Exh. Register Continued of Armco galv. Iron

18/8 Diffuser 600 cu. ft.

Furnish and install, close to ceiling, one (1) 15" diam. propeller fan to fog with a capacity of 600 c.f.m. when running at 1170 R.P.M. against a static resistance of ½".

The fan shall be direct connected to a single phase 60 cycle, 110 volt alternating current motor.

All necessary wiring and switch will be furnished and installed by the Electrical Contractor.

Fan shall be installed in a 18 gauge Armco galv. iron enclosure, lined on exposed interior with ½" thick cork gasket between ring and frame, with duct connections, inlet and outlet dampers, motor & switch outside of enclosure as directed.

Furnish and install one (1) 18/8 diffuser with duct connection to propeller fan type supply unit. Install to volume damper and provide for 600 cu. ft. of air per min. To be run from supply to be delivered downward towards floor.

Steam branch exposed at ceiling.

Steam branch exposed at ceiling.

Return run on wall close to under-side of ducts.

Offset Steam & Return exposed on ceiling.

10" Main Steam Supply and 3½" Vacuum Pump Discharge Main to terminate under this Contract at a point at this point inside of building wall.

Drip low point in 10" Main Steam Supply & return lines & drip to main return line through gate valve shown and by-pass connections.

Connect return riser to return main.

2" Return from H.W. Heater with Hot Water pipes from which gate valved branch and by-pass connections.

Extend exposed steam supply main from point indicated for steam supply to floor & risers.

Connect new returns to present return riser.

Install dirt pocket and return to present return connect to return main.

Hot Water Storage Tank and Heater to be furnished and installed by Plbg. Contractor, together with all H & C.W. and drain piping. Steam & return and air vent piping by Heating Contractor.

48"x 120" H.W. Tank & Heater

3" Temperature Regulating Valve.

1½" Temperature Regulating Valve.

Note: See Sheet No. H-6 for diagrams of piping connections to Indirect Heaters in Fresh Air supply and hot blast Units.

12" WELDED STEEL MAIN STEAM HEADER (See elevation of Header on this sheet)

FRESH AIR SUPPLY FAN UNIT No. 1

2½" Vacuum Pump Discharge Main

HOT BLAST UNIT No. 4

Drop return into trench below. See Plbg. Plan on Sheet No. P-1

Install new return for new 2nd floor radiators.

FRESH AIR SUPPLY FAN. UNIT No. 2

Provide openings for Contractor's thermometers

Drop steam and return risers to basement & run as shown on sheet No. H-1

To Hot Blast Fan Unit No. 3

To South Main

2½" Vacuum Pump Discharge Main

Steam & return piping at ceiling

Steam & return risers offset in furred beams across Vestibule ceiling

Offset steam & return risers in suspended ceiling space.

Offset Steam & Return risers in suspended ceiling space.

Offset steam and return risers at ceiling

Offset Steam Riser in furred ceiling space.

Valves in branches off Header at 6'-0" above floor

12" WELDED STEEL STEAM HEADER

Anchor flange to floor

Blank Flange

Pipe Tunnel

ELEVATION "A-A" OF MAIN STEAM HEADER IN FAN ROOM.
Scale 3/8"-1'2"

Ground Floor Heating Revised Dec. 1927.

All notes relative to revisions are designated thus

GROUND FLOOR - HEATING.

CITY HALL BUILDING
DULUTH MINNESOTA
THOS. J. SHEFCHIK - ARCHITECT
313 GLENCOE BLDG.
DULUTH, MINN.

CHARLES FOSTER-CON. ENG.
512 SELLWOOD BLDG. DULUTH MINN.

SHEET NUMBER H-2
SCALE 1/8"-1'2" FEB. 1928

ROOM SCHEDULE

No.	ROOM NAME
100N	North Corridor
100W	West "
100S	South "
100E	East "
101	Comm. of Registration
102	Election Supplies
103	City Clerk - Private
104	" " Main Office
105	" " Vault
	Police Department
106	Identification Bureau
107	Dark Room
108	Supplies
109	Auto License Inspector
110	Waiting Room
111	Private Corridor
112	Waiting Room
113	Purity Squad
114	" "
115	" "
116	Telephone Operator
117	Passage
118	Vault
119	Vault
	Auditor
120	Vault
121	Main Office
122	Private
123	Closet
124	Finance Comm.
125	Closet
126	Waiting Room
	Treasurer
127	Vault
128	Private Office
129	Closet
130	Main Office
131	Cash Vault
	Assessor
132	Private Office
133	Main "
134	North Vestibule
135	" " Lobby
136	West Vestibule
137	" Lobby
138	Telephone Booth
139	Closet
140	Janitors Closet
141	Pipe Shaft
142	Closet
143	Men's Toilet
144	Ante Room
145	Storage
146	Womens Toilet
147	Ante Room
148	Janitors Closet
149	Storage
150	Concessions
151	Information
152	Storage
153	"
154	Public Foyer
155	Elevator Lobby

First Floor Heating Revised Dec. 1927.

All notes relative to revisions are designated thus:-

FIRST FLOOR - H'TG. & PLB'G.

CITY HALL BUILDING

DULUTH, MINNESOTA

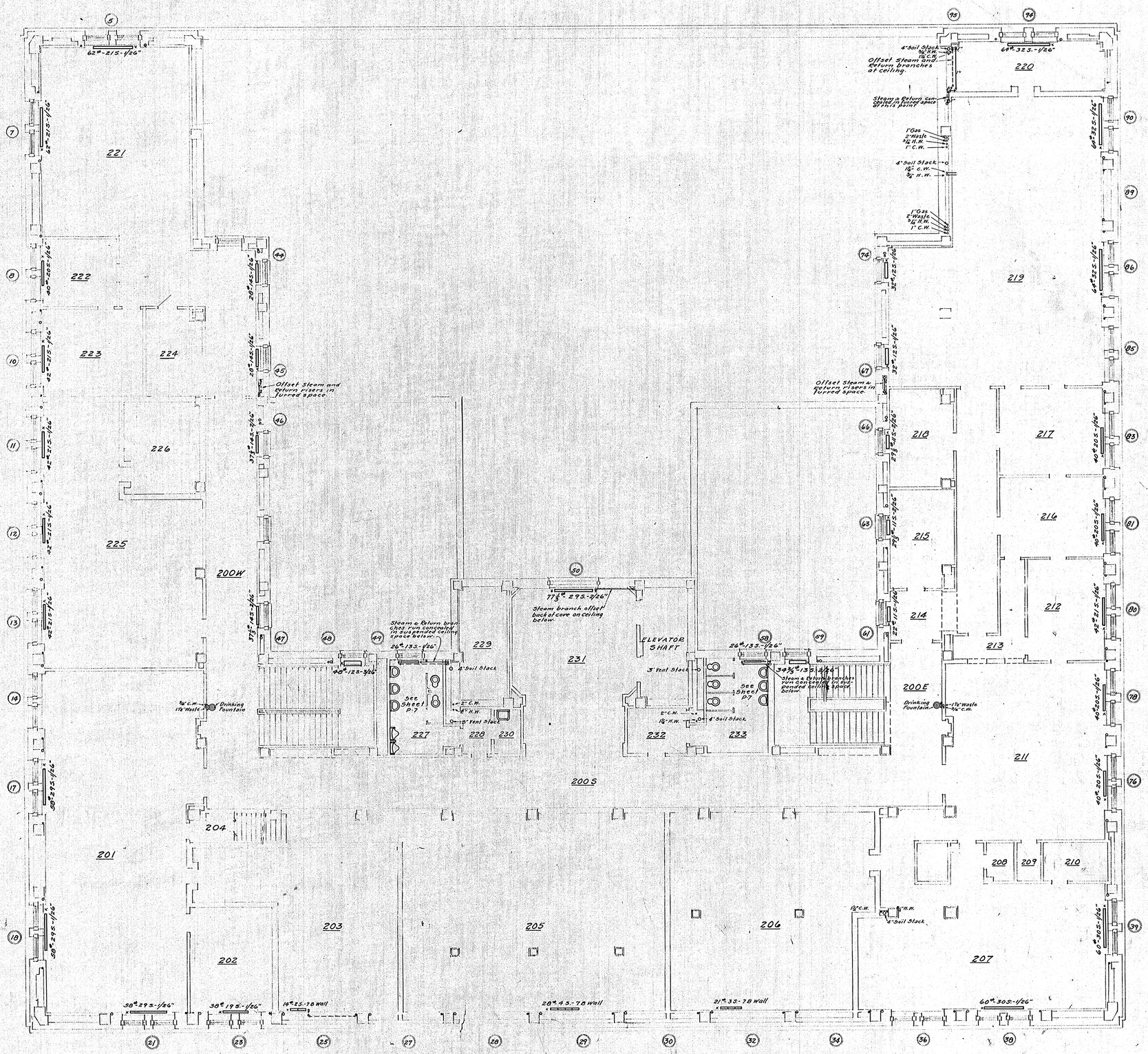
THOS. J. SHEFCHIK - ARCHITECT
313 GLENCOE BLDG.
DULUTH, MINN.

CHARLES FOSTER - CON. ENG.
512 SELLWOOD BLDG. - DULUTH, MINN.

SHEET NUMBER HP-3
SCALE 1/8" - 1'-0" FEB. 1927

ROOM SCHEDULE

No.	ROOM NAME
200W	West Corridor
200S	South "
200E	East "
	Building Inspector
201	Main Office
202	Private
203	Vault
204	Closet
205	Vault-Clerk of Court
	Engineering Department
206	Vault
207	Drafting Room
208	Closet
209	Closet
210	Storage
211	Main Office
212	Assistant Engineer
213	Passage
214	Corridor
215	Field Men
216	City Engineer
	Comm of Public Works
217	Private Office
218	Contractors Room
219	Main Office
220	Vault
	Park Department
221	Main Office
222	Private
223	Private
224	Storage
	City Planning Comm.
225	Drafting Room
226	Private Office
227	Mens Toilet
228	Ante Room
229	Pipe Shaft
230	Janitors Closet
231	Elevator Lobby
232	Ante Room
233	Womens Toilet

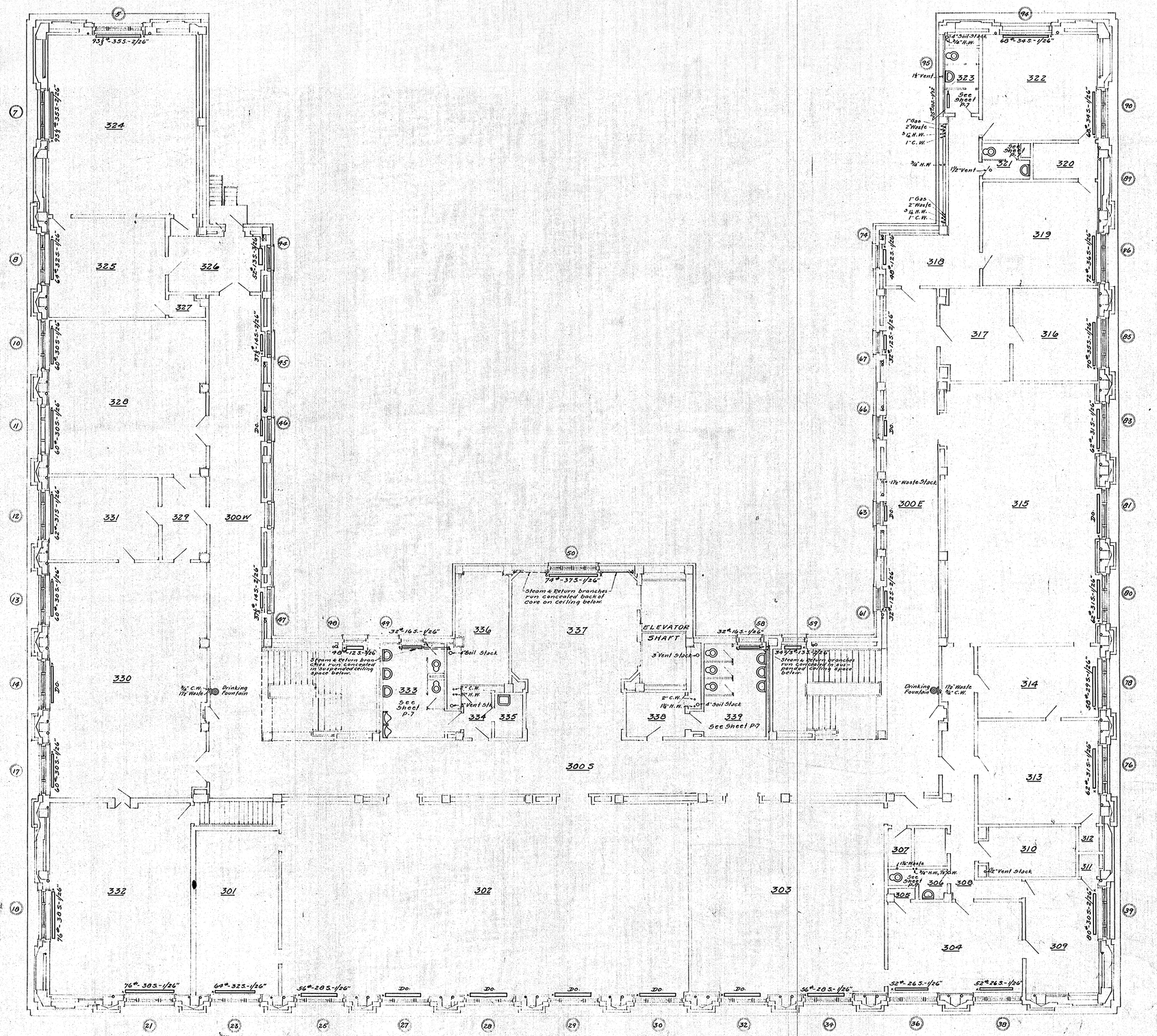


SECOND FLOOR - H'T'G. & PL'B'G.

CITY HALL BUILDING
DULUTH MINNESOTA
THOS. J. SHEFCHIK - ARCHITECT
313 GLENCOE BL'DG.
DULUTH, MINN.

CHARLES FOSTER-CON. ENG.
512-SELLWOOD BL'DG-DULUTH, MINN

SHEET NUMBER HP-4
SCALE 1/8"-1'2" FEB. 1927



ROOM SCHEDULE

NO.	NAME
300W	West Corridor
300S	South "
300E	East "
	City Council
301	Consultation Room
302	Council Chamber
	Municipal Court
303	Court Room
304	Judge
305	Closet
306	Toilet
307	Closet
308	Passage
309	Reporter
310	Witness Room
311	Closet
312	Closet
313	Judge
314	Reporter
315	Court Room
316	Probation Officer
317	Waiting Room
318	Passage
319	Jury
320	Cot Storage
321	Mens Toilet
322	Jury
323	Womens Toilet
324	Conciliation Court
325	Judge
326	Passage
327	Closet
328	Court Officers
329	Passage
330	Clerk of Court
331	Private Office
332	Vault
333	Mens Toilet
334	Ante Room
335	Janitors Closet
336	Pipe Shaft
337	Elevator Lobby
338	Ante Room
339	Womens Toilet

THIRD FLOOR - H'T'G. & P'L'B'G.

CITY HALL BUILDING
DULUTH MINNESOTA
THOS. J. SHEFCHIK - ARCHITECT
313 GLENCOE BLDG.
DULUTH, MINN.

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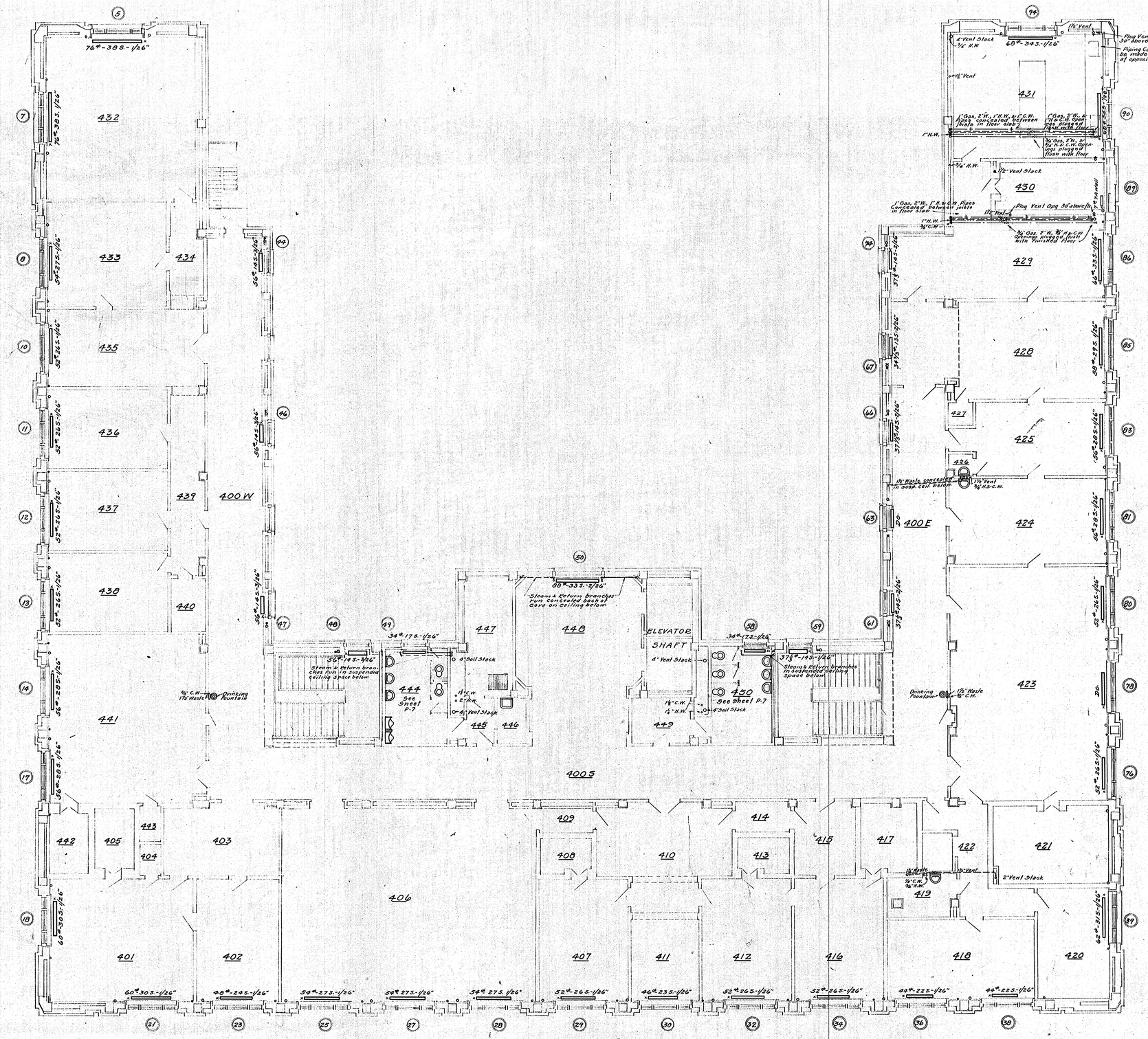
CHARLES FOSTER-CON. ENG.
512 SELLWOOD B'LD'G.-DULUTH, MINN.

SHEET NUMBER HP-5
SCALE 1/8"-1'-0" FEB. 1927



ROOM SCHEDULE

No.	NAME
400W	West Corridor
400S	South Corridor
400E	East Corridor
	MAYOR
401	Private Office
402	Secretary
403	Waiting Room
404	Closet
405	Vault
406	Reception Room
	COMMISSIONERS
407	Public Utility Comm.
408	Vault
409	Passage
410	Waiting Room
411	Stenographer
412	Public Safety Comm.
413	Vault
414	Passage
415	Waiting Room
416	Purchasing Agent
417	Vault
	Health Department
418	Nurses Office
419	Closet
420	Nurses Office
421	Vault
422	Passage
423	Main Office
424	Secretary
425	Private Office
426	Closet
427	Closet
428	Mill Inspector
429	Laboratory
430	Vault
431	Laboratory
	Attorney
432	Library
433	Private Office
434	Passage
435	Stenographer
436	Private Office
437	Private Office
438	Private Office
439	Passage
440	Closet
441	Civil Service Comm.
442	Vault
443	Closet
444	Mens Toilet
445	Ante Room
446	Janitors Closet
447	Pipe Shaft
448	Elevator Lobby
449	Ante Room
450	Womens Toilet

FOURTH FLOOR - H'T'G. & P'L'B'G.

CITY HALL BUILDING
DULUTH MINNESOTA
THOS. J. SHEFCHIK - ARCHITECT.
313 GLENCOE BLDG.
DULUTH, MINN.

CHARLES FOSTER-CON. ENG.
512 SELLWOOD B'LD'G.-DULUTH, MINN.

SHEET NUMBER HP-6
SCALE 1/8-12" FEB-1927

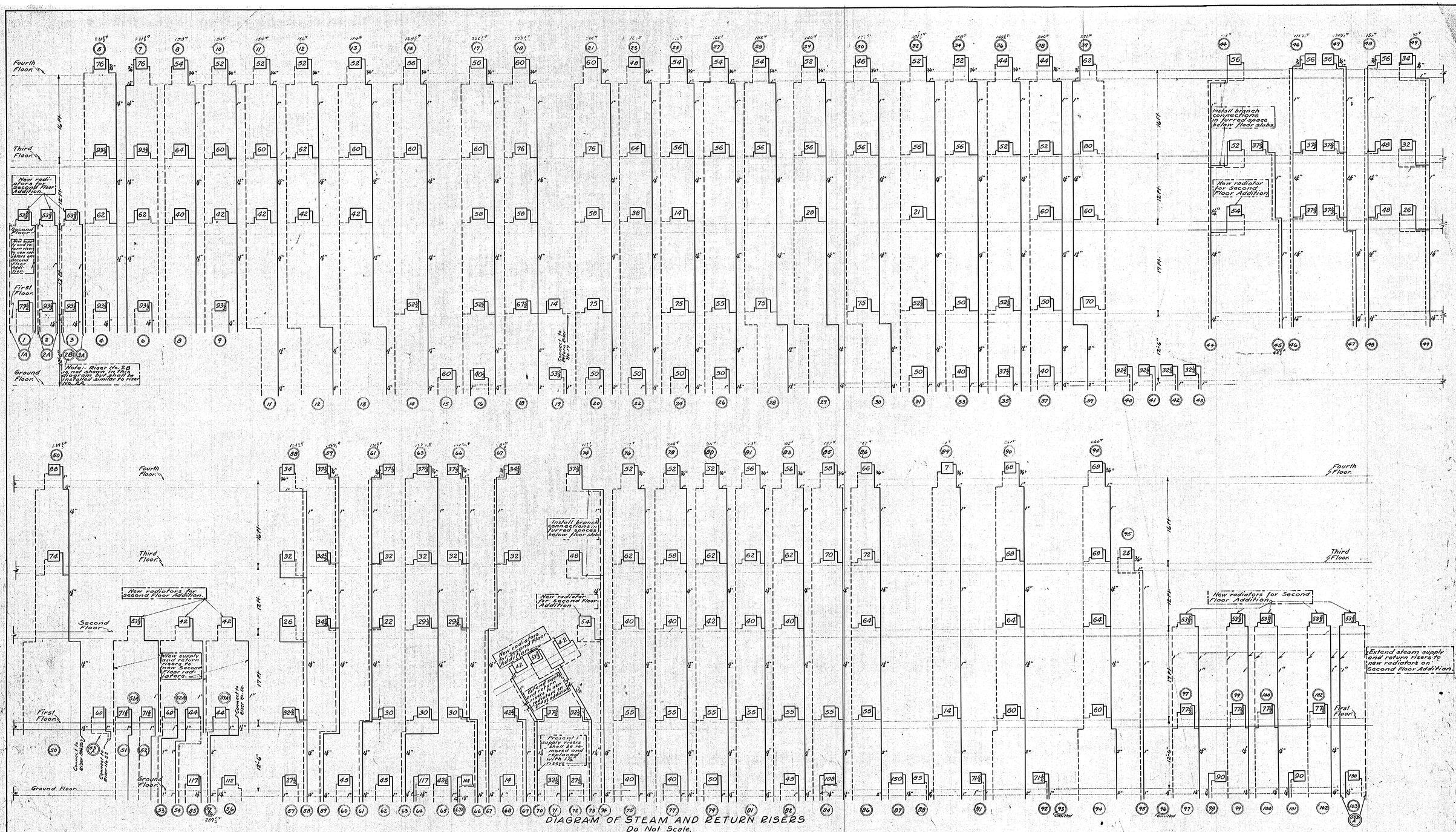


DIAGRAM OF STEAM AND RETURN RISERS
Do Not Scale.

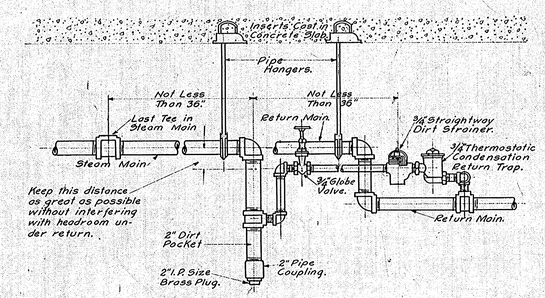
Note: All return risers and return branches from radiators to return risers are to be 3/4" unless otherwise noted.
All radiators to be bracketed unless otherwise noted on plans.

SCHEDULE OF RADIATOR CONNECTIONS.

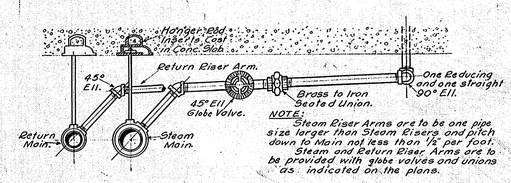
SQUARE FEET OF RADIATION	SUPPLY VALVE AND VERTICAL PIPE	HORIZONTAL BRANCH TO SUPPLY RISER	SIZE RETURN TRAP AND NIPPLE TO BRANCH	HORIZONTAL RETURN BRANCH TO RISER.
0 - 40	3/4"	3/4"	1/2"	3/4"
41 - 100	3/4"	1"	1/2"	3/4"
101 - 180	1"	1 1/4"	1/2"	3/4"
OVER 180	1 1/4"	1 1/2"	1/2"	3/4"

HEATING SYMBOLS

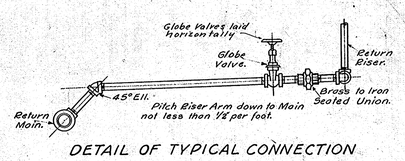
- Steam Main or Piping
- Return Main or Piping
- Gate Valve, in Horizontal Run
- Gate Valve, in Vertical Run
- Angle Valve
- Globe Valve
- Diaphragm Valve Temperature Controlled
- Check Valve
- Screwed Union
- Flanged Union
- Expansion Joint in Pipe Line
- Anchor in Pipe Line
- Flanged Fittings
- Drop
- Rise
- Branches out of top of Main.
- Branches out of bottom of Main
- Branches out of side of Main pitching up at 45°
- Radiator
- # Sec. — Square Feet of Radiating Surface Sections of C.I. Radiation
- Col. — Columns per section of Radiation.
- D.P. — Dirt Pocket
- P.T. — Plugged Tee
- PITCH → — Pitch pipe line down in direction of Arrow; Steam lines not less than 1/2" in 10 feet, Return lines not, less than 1/4" in 10 feet.



DETAIL OF TYPICAL DRIP CONNECTIONS AT END OF STEAM MAIN
Do Not Scale.



DETAIL OF TYPICAL CONNECTIONS BETWEEN UP-FEED STEAM RISERS, RETURN RISERS, AND BASEMENT MAINS.
Do Not Scale.



DETAIL OF TYPICAL CONNECTION BETWEEN RETURN RISER AND MAIN
Do Not Scale.

Heating details revised Dec. 1927.

All notes regarding revisions are designated thus:- [ ]

HEATING DETAILS
CITY HALL BUILDING
DULUTH MINNESOTA

THOS. J SHEFCHIK - ARCHITECT
313 GLENCOE BLDG.
DULUTH, MINN.

CHARLES FOSTER-CON. ENG.
1512 SELLWOOD BLDG.-DULUTH, MINN.

SHEET NUMBER H-7
NO SCALE FEB 1927

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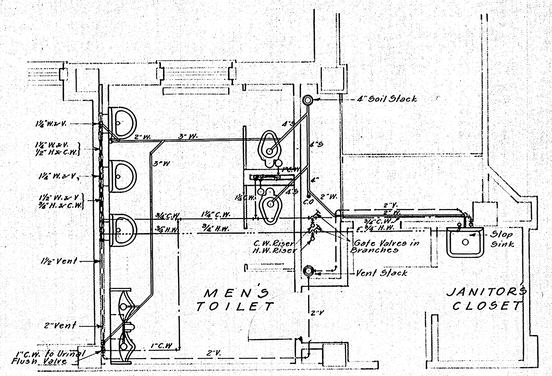
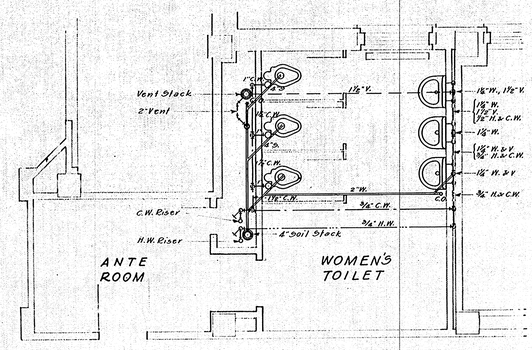
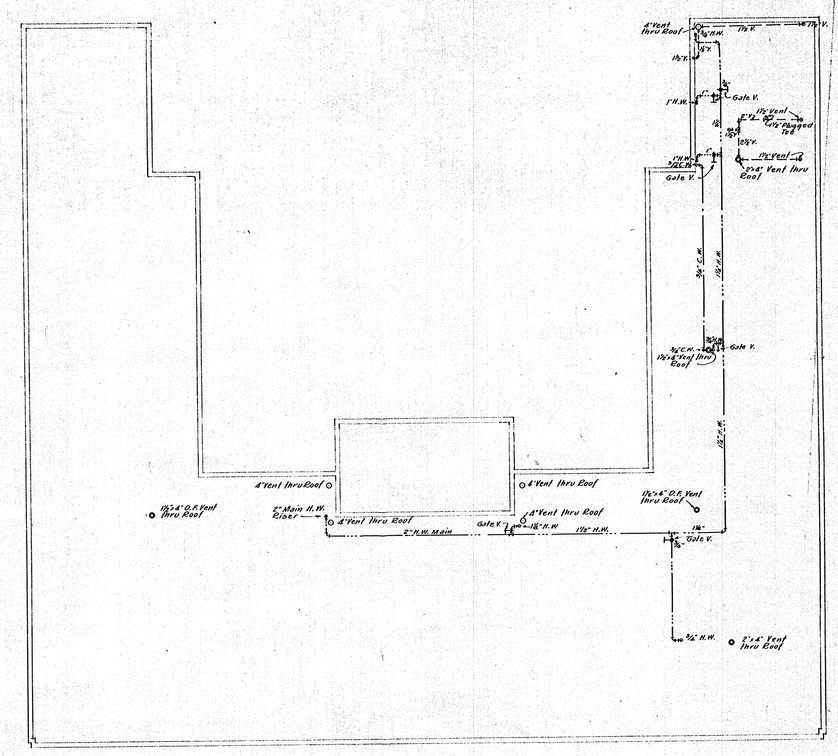


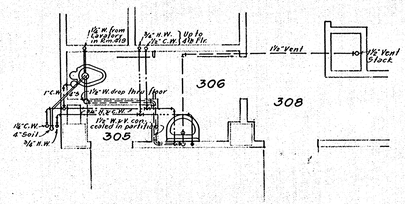
Typical Plan Of
MEN'S TOILET ROOMS Nº 227, 333 & 444
And JANITOR'S CLOS. Nº 230, 335 & 446



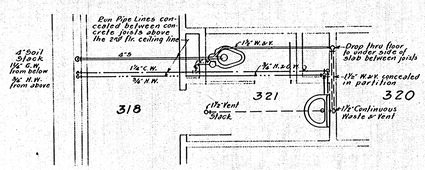
Typical Plan Of
WOMEN'S TOILET RMS. Nº 233, 339 & 450



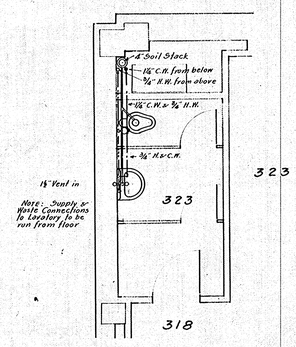
PLAN of ATTIC Showing HOT & COLD WATER LINES and VENT STACKS
Scale 1/16" = 12"



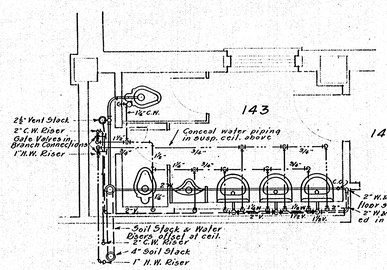
Plan Of
THIRD FLOOR TOILET ROOM Nº 306



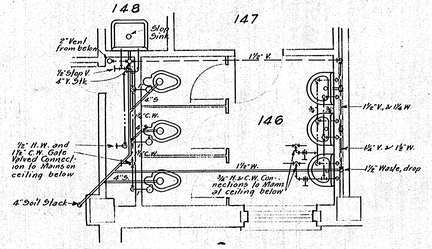
Plan Of
THIRD FLOOR TOILET ROOM Nº 321



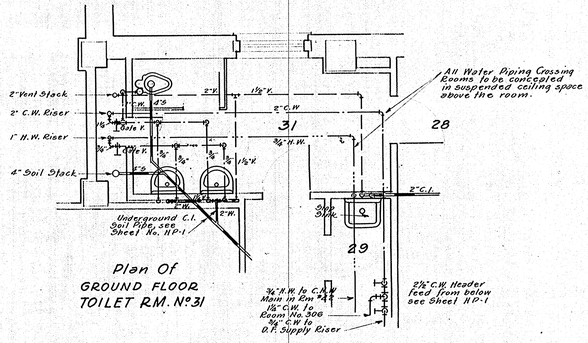
Plan Of
THIRD FLOOR
TOILET RM. 323



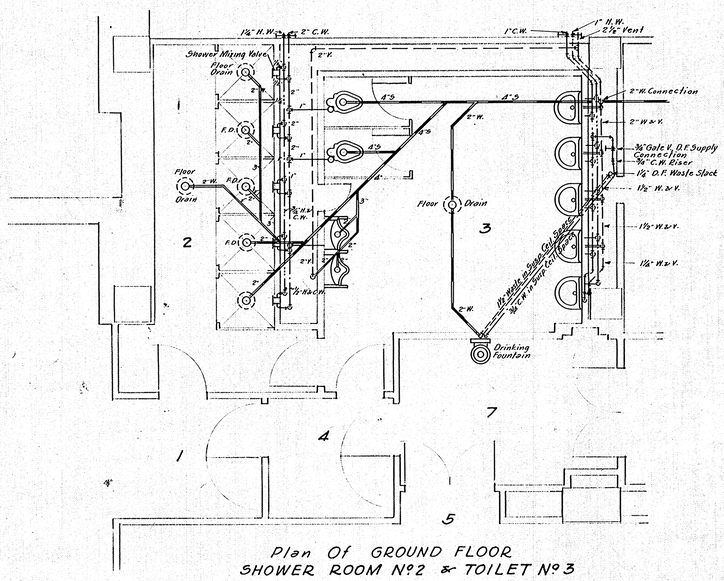
Plan Of
FIRST FLOOR TOILET ROOM Nº 143



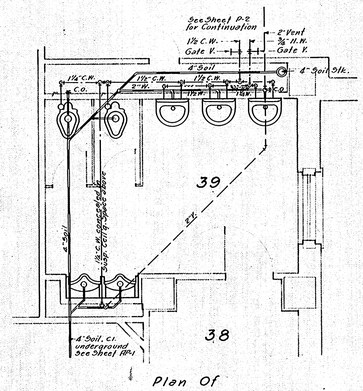
Plan Of
FIRST FLR. TOILET RM. Nº 146



Plan Of
GROUND FLOOR
TOILET RM. Nº 31



Plan Of GROUND FLOOR
SHOWER ROOM Nº 2 & TOILET Nº 3



Plan Of
GROUND FLOOR
TOILET RM. Nº 39

NOTE: In the ⅛" Scale Plans Above Except where installed in walls, partitions, or Pipe Spaces, or other wise noted to be installed differently, Water, Waste and Soil Pipe Mains are to be installed in suspended ceiling spaces under the floor slab shown and Vent Mains are to be install in suspended ceiling spaces above. the rooms shown These ½" Scale Plans are intended to show only the General Arrangement of Fixtures and Piping Connections thereto. Refer to the General Construction Drawings for actual dimensions of Rooms before locating fixtures, Stacks or Risers.

PLANS OF TOILET ROOMS

Showing Location Of Fixtures & Piping Connections
Scale ¼" Equals 12"

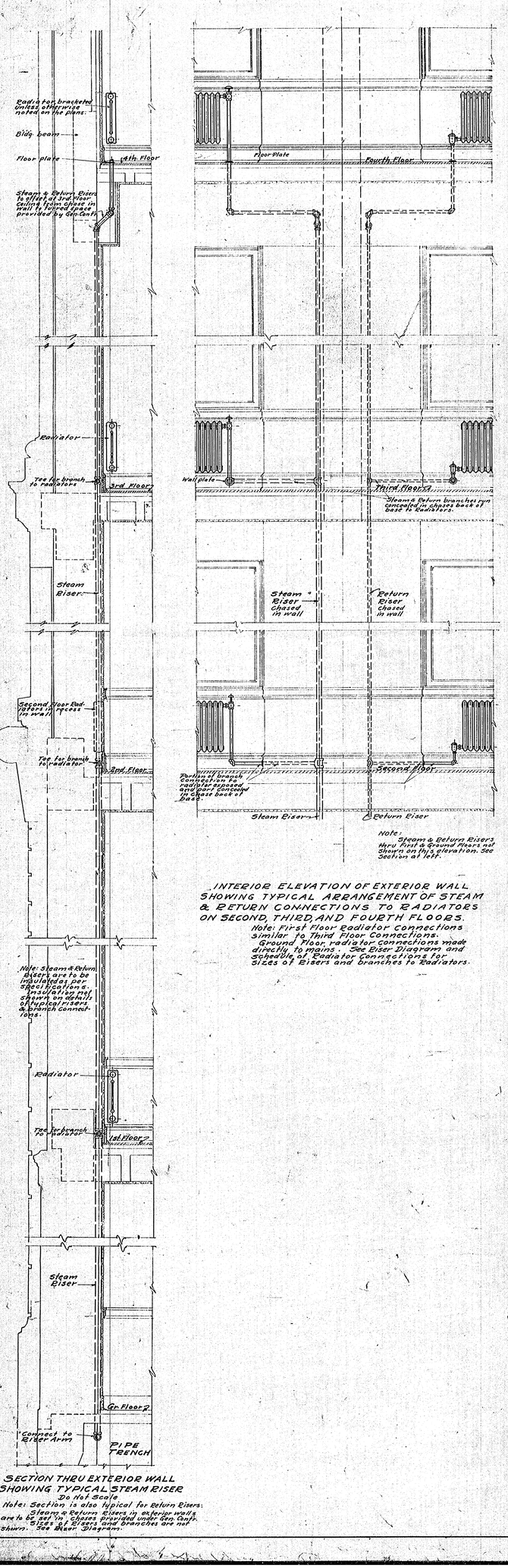
31

ATTIC PLAN & DETAILS - PLUMBING

CITY HALL BUILDING
DULUTH - MINNESOTA
THOS. J. SHEFCHIK - ARCHITECT
313 GLENCOE BLDG.
DULUTH - MINN.

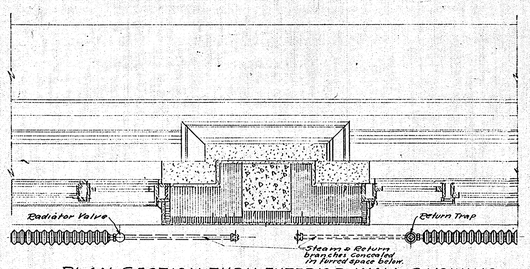
CHARLES FOSTER, CONSULTING ENGINEER
512 - SELLWOOD BLDG., DULUTH, MINN.

SHEET NUMBER P7
SCALE AS SHOWN FEB. 1927

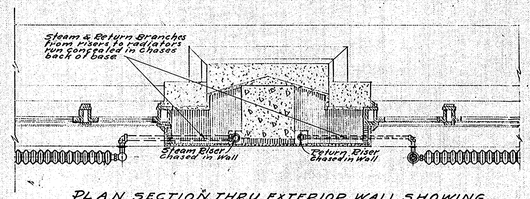


SECTION THRU EXTERIOR WALL SHOWING TYPICAL STEAM RISER
Do Not Scale
Note: Section is also typical for Return Risers. Steam & Return Risers in exterior walls are to be in chases provided under Gen. Cont. Sizes of Risers and Branches are not shown. See Riser Diagram.

INTERIOR ELEVATION OF EXTERIOR WALL SHOWING TYPICAL ARRANGEMENT OF STEAM & RETURN CONNECTIONS TO RADIATORS ON SECOND, THIRD, AND FOURTH FLOORS.
Note: First Floor Radiator Connections Similar to Third Floor Connections. Ground Floor radiator connections made directly to mains. See Riser Diagram and Schedule of Radiator Connections for Sizes of Risers and Branches to Radiators.



PLAN SECTION THRU EXTERIOR WALL SHOWING TYPICAL ARRANGEMENT OF STEAM AND RETURN CONNECTIONS TO FOURTH FLOOR RADIATORS
Do Not Scale.



PLAN SECTION THRU EXTERIOR WALL SHOWING TYPICAL ARRANGEMENT OF STEAM & RETURN CONNECTIONS TO 1ST. & 3RD FLOOR RADIATORS.
Do Not Scale

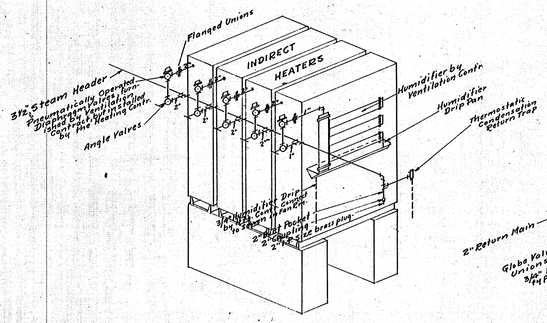


DIAGRAM OF STEAM, RETURN, AND AIR VENT PIPING CONNECTIONS TO INDIRECT HEATERS - SUPPLY FAN UNIT NO. 3
Do Not Scale

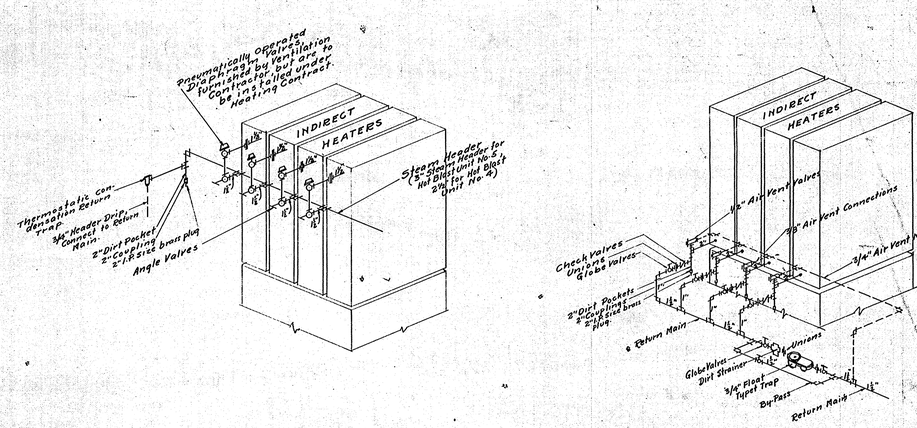
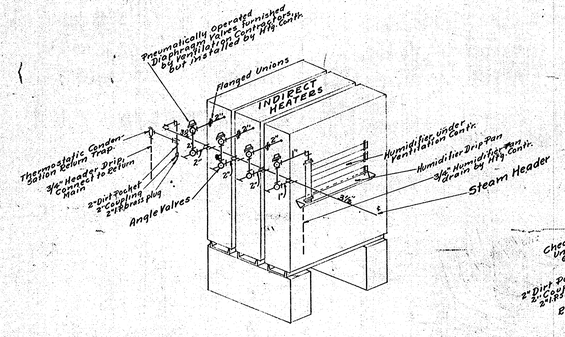


DIAGRAM OF STEAM, RETURN AND AIR VENT PIPING CONNECTIONS TO INDIRECT HEATERS - HOT BLAST FAN UNITS NO. 4 AND NO. 5.
Do Not Scale



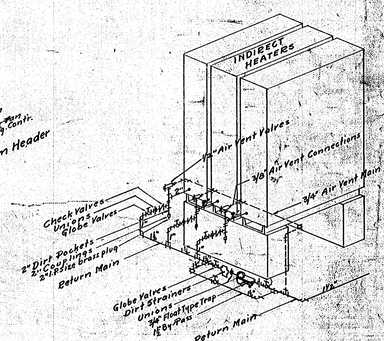


DIAGRAM OF STEAM, RETURN AND AIR VENT PIPING CONNECTIONS TO INDIRECT HEATERS - SUPPLY FAN UNIT NO. 2
Do Not Scale.

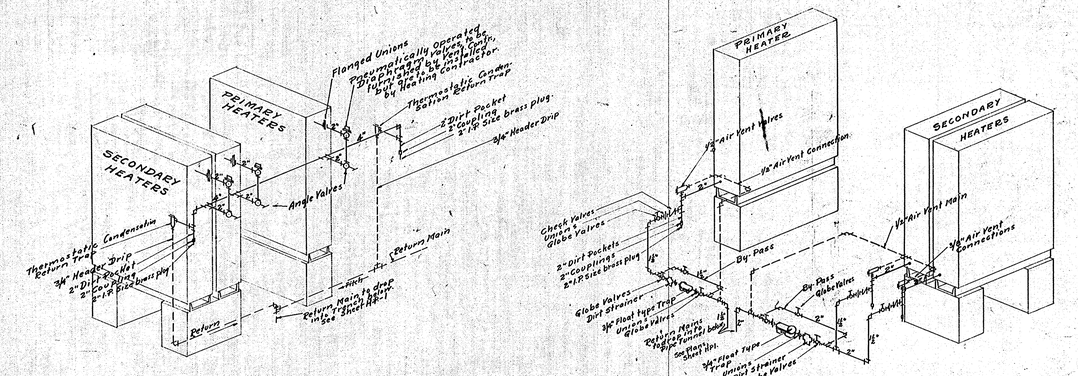


DIAGRAM OF STEAM, RETURN AND AIR VENT PIPING CONNECTIONS TO INDIRECT HEATERS - SUPPLY FAN UNIT NO. 1
Do Not Scale.

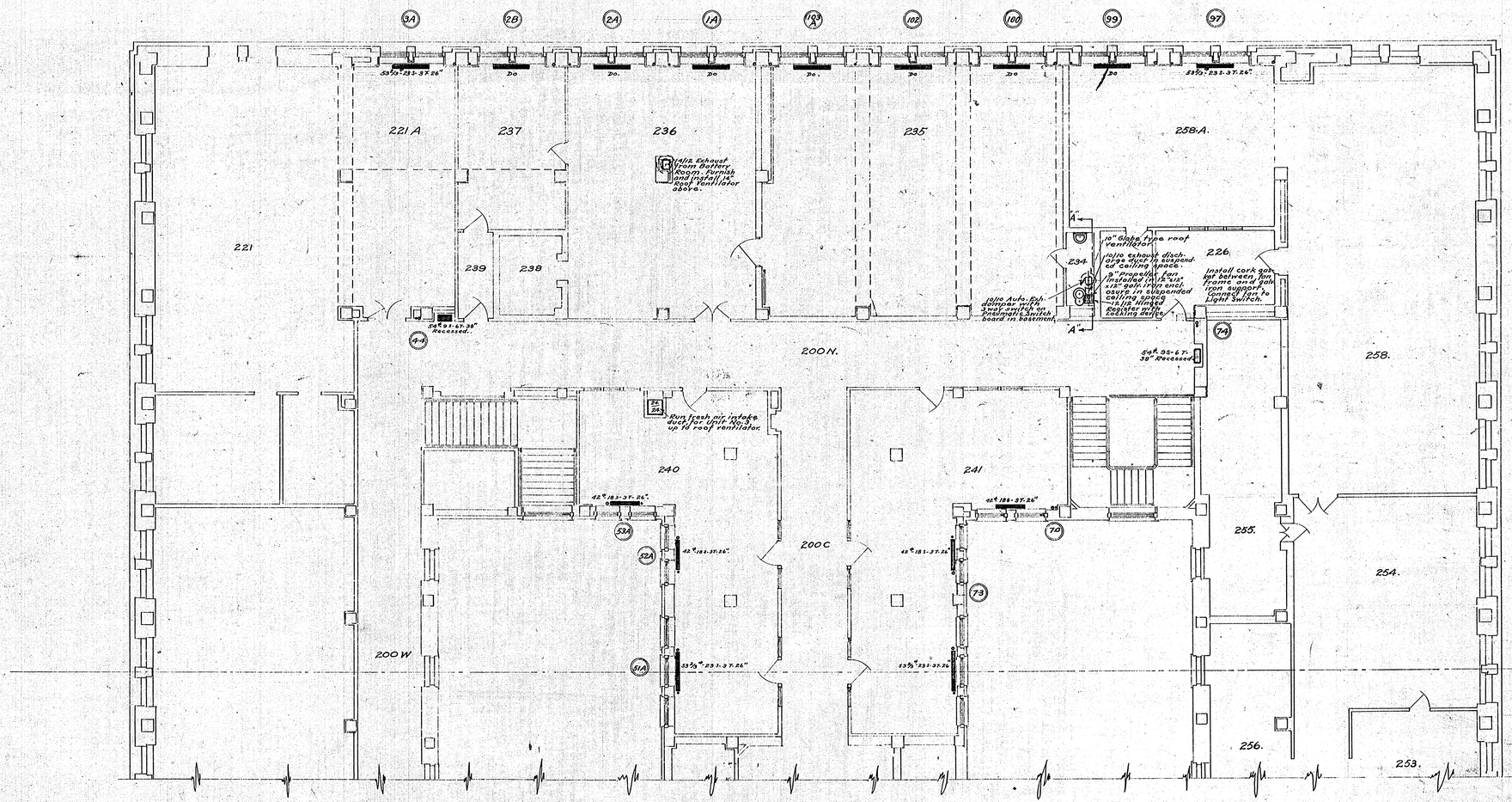
22

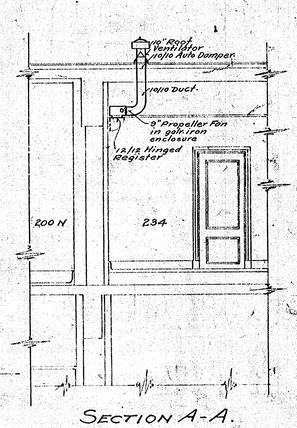
HEATING DETAILS

CITY HALL BUILDING
DULUTH MINNESOTA
THOS. J. SHEFCHIK - ARCHITECT
313 GLENCOE BLDG
DULUTH, MINN.

CHARLES FOSTER-CON. ENG.
512 SELLWOOD BLDG. DULUTH, MINN.

SHEET NUMBER H-8
NO. SCALE FEB. 1927





SECTION A-A.

23

SECOND FLOOR ADDITION-HTG., VENT. & PLBG.

CITY HALL BUILDING.
DULUTH, MINNESOTA.
THOS. J. SHEFCHIK - ARCHITECT.
313 GLENCOE BLDG.,
DULUTH, MINN.

CHARLES FOSTER-CON. ENG.
512 SELLWOOD BLDG., DULUTH, MINN.

SHEET NUMBER H P 9
Scale: 1/8 = 1'-0" Dec 1927

See detail drawing below for details of Steam and return connections at Court House boiler plant.

COURT HOUSE.

PLAN OF TUNNEL AND STEAM AND RETURN PIPING BETWEEN CITY HALL AND COURT HOUSE
Scale 1/8" = 1'-0"

Anchor points are marked "A"
Guide points are marked "G"
Expansion Joints are shown

CITY HALL

Connect Steam and return lines to ends of piping inside City Hall Building.

DETAILS OF GUIDE
Scale 1½" = 1'-0"

2½" by ⅛ Angles
Rollers
Expansion Joint.

DETAILS OF ANCHOR.
Scale 1½" = 1'-0"

½" Anchor Bolt
⅝" Anchor rods
10" Channel Iron

Connect to 4" Main Steam Header
3"
Pressure Regulating Valve
By pass
6"
10"
2½"
Support Steam and return piping from ceiling at this point

PLAN OF STEAM AND RETURN CONNECTIONS IN COURT HOUSE
Scale 1/8" = 1'-0"

10" Steam line
2½" Return line

SECTION THRU TUNNEL
Scale 1½" = 1'-0"

10" Steam to New City Hall building
2½" Return from City Hall bldg.
Present 10" Ex. Hdr. Gate Valve on Steam Header
2½"
2½"
Flanged gate Valves
Condensation Meters.
Flanged gate Valves
New oil extractor
4"
4"
4"
New Tee
Present return
Present return line
4" Floor

ELEVATION OF STEAM AND RETURN CONNECTIONS IN COURT HOUSE
Scale 1/8" = 1'-0"

Connecting Tunnel-Piping Plan.
CITY HALL BUILDING
DULUTH MINNESOTA
THOS. J. SHEFCHIK ARCHITECT
313 GLENCOE BLDG. DULUTH, MINN.
CHARLES FOSTER CONSULTING ENGINEER
512 SELLWOOD BLDG. DULUTH, MINN.
SHEET NO. 19

24

STORAGE 48

CORRIDOR 47

STORAGE 49

STORAGE 46

GARAGE 42

STORAGE 44

REPAIR SHOP 43

30/32 Grille at floor and ceiling. 1500 c.f.m. at each Grille.

EXHAUST UNIT NO.6

Direct Motor for Cannon Fan.

Canvas Connections.

28/26 Exh. Riser to Roof.

36/20

30/16

30/10

18/20 Grilles at floor and ceiling. 900 c.f.m. at each Grille.

Ducts to be installed light against ceiling.

24/24 Grilles Near Floor and Ceil.

This unit shall be installed with a clearance of not more than 12" between top of fan and the bottom side of the first floor slab. The unit shall be supported by means of a structural steel foundation consisting of 2-6"-8# Channels installed as indicated, one end of each resting and bolted to an angle iron clip bolted to the column. The other end of each channel shall rest on a 5/16" plate installed at the proper height in the load-bearing tile wall.

30/18 Gr. 1330 c.f.m. Near Ceil.

24/18 Gr. 665 c.f.m. Near Ceil.

24/24 Fresh Air Intake from Roof.

FRESH AIR SUPPLY FAN UNIT NO.3

Air Filters

Indirect Heaters.

FAN

Access Doors.

Canvas Connections.

Motor.

STORAGE 46

40

41

12/12 Toilet Exh. Riser.

ENG. ROOM 45

AIR COMPRESSOR

Starting Switch for Air Compressor

PNEUMATIC CONTROL SWITCH-BOARD.

Starting Sw. for Unit No.7

Starting Sw. for Unit No.1

Starting Sw. for Unit No.9

Starting Sw. for Unit No.6

Starting Sw. for Unit No.3

24/8 Hot Air to entrance above.

FRESH AIR SUPPLY FAN NO.1.

Motor.

FAN

Canvas Connections.

Access Doors.

Secondary Heaters.

Starting Sw. for Unit No.5.

Starting Sw. for Unit No.4.

Starting Sw. for Air Washer Pump.

Air Washer Pump

AIR WASHER

Primary "A" Heaters.

MECHANICAL EQUIPMENT ROOM 50.

Return Air from entrance above.

Foundations under Heaters, Fan and Air Filters shall be installed similar to detail for Unit No.3. Provide an 18/24 Auto. By-Pass Damper under Heaters.

HOT BLAST UNIT NO. 4.

Air filters.

Access Doors.

Indirect Heaters.

24/20 Heat Riser from Fan.

Motor-Fan.

Starting Sw. for Unit No.2.

Starting Sw. for Unit No.8.

Motor.

Indirect Heaters.

FRESH AIR SUPPLY UNIT NO.2.

FAN

Canvas Connections.

Starting Sw. and Thermostat

Continuous Air Filter Unit.

56/8 Hot Air to entrance above.

22/18 Riser to first floor.

12/8 Openings at floor.

12/8 Gr. in ceiling.

48/12 Riser.

12/8 Gr. 280 c.f.m. Near Ceil.

32/36 Fresh Air Intake Shaft for Police Department.

52/36 Fresh Air Supply to Court Rooms on Floors 2, 3 & 4.

48/60

52/36 Fresh Air Intake Shaft for Court Rooms.

64/84

36/60

SHOW-UP ROOM 6

Another contractor will furnish and install 12/8 openings at floor in shower rooms. Vent connections and shower light connections to the openings.

2

3

4

5 Risers.

Bottom of door 2" above floor.

8/12 Opening.

Wood Louvres in bottom panel of door.

Grilles in door.

44/24

26/16

64/16

STAIR LOBBY 10

CORRIDOR 7

22/12

CORRIDOR 34

MENS TOILET 39

38

2-8/6 Grilles 12" above floor.

1-18/12 Grille Near Ceil.

12/12 Exh. Riser.

Wood Louvres in bottom panel of doors.

11

98 Exh. Gr. Near Ceil.

12/8 Exh. Duct from Office Chamber. Ceil.

31

Under bottom roll of door.

WAITING RM 27

14/10 Gr. 750 c.f.m.

18/14 Gr. at floor 750 c.f.m.

28

29

30

WAITING ROOM 17

CORRIDOR 12

15/12 Gr. near floor 300 c.f.m.

Wood Louvres in doors.

16/12

14/12

20/8

18/14

16/8

22/8

14

13

8/6 Gr. near floor 150 c.f.m.

8/6 Gr. near Ceil.

15

12/12 Gr. 300 c.f.m. Near Flr.

12/12 Gr. 300 c.f.m. Near Ceil.

37

36

35

33

32

26

24/8 Exh. from Battery Room below. Furnish and install 24/20 Gr. in Ceiling of Battery Storage Room.

18/14 Exh. Riser.

18/14 Exh. Riser from below.

INSPECTOR 24

25

12/12 Gr. 300 c.f.m. Near Ceil.

12/12 Gr. 300 c.f.m. Near Floor.

23

22

16

18

19

20

21

LOCKER ROOM 1

ASSEMBLY ROOM 5

SOUTH LOBBY 9

SOUTH VESTIBULE 8

36/18 Gr. 300 c.f.m. Near Ceil.

22/16 Gr. 300 c.f.m. Near Flr.

30/20 Gr. 1000 c.f.m. Near Flr.

30/30 Gr. 1000 c.f.m. Near Ceil.

18/18 Gr. 300 c.f.m. Near Ceil.

48/8 Risers.

66/20 Gr. near ceil. 1000 c.f.m.

30/23 Gr. near floor

28/8 Risers.

48/8 Risers.

EXHAUST FAN ROOM: See Sheet No.V-2 for details of connections to fans.

Roof.

Exhaust.

Supply.

Fourth Floor.

Exhaust.

Supply

Third Floor.

Supply.

Second Floor.

Exhaust.

First Floor.

To Unit No.2

Supply main to Court Room Section.

79.0 grd.

SECTION "A"-"A"

Thru duct shafts. See sheet No.V-6 for details of fresh air supply units.

48/8 Hot Air to entrance above.

48/60 Heat Riser from Fan.

Motor. Fan.

28/10

28/18

48/8 Hot Air to entrance above.

Access Doors.

Indirect Heaters.

Air Filters.

Return Air from entrance above.

26/8

28/8

28/12

28/8

HOT BLAST UNIT NO.5.

This Unit shall be installed with top of Indirect Heaters within 6" of First Floor Slab. Heaters, Fan and Air Filters shall be supported by means of a 3x3x5/16 Angle iron frame resting and bolted on floor of the room in which this Unit is to be installed. Install plank and cork foundation under fan and motor. See Specs.

PORTION OF FOUNDATION PLAN DIRECTLY UNDER SOUTH ENTRANCE SHOWING HOT BLAST HEATING UNIT.

Note:- All horizontal duct work shown on this sheet shall be installed close to the underside of the First Floor slab.

GROUND FLOOR - VENTILATING.

CITY HALL BUILDING

DULUTH - MINNESOTA

THOS. J. SHEFCHIK - ARCHITECT.
313 GLENCOE BLDG.
DULUTH, MINN.

CHARLES FOSTER - CON. ENG.
512 SELLWOOD BLDG. DULUTH, MINN.

SHEET NO. V-1

SCALE 1/8" = 1'-0" DATE 2/3/32

MAIN OFFICE 133
MAIN OFFICE 130
132
134
135
131
129
128
127
124
126
123
122
121
120
119
118
117
116
115
114
113
109
WEST VESTIBULE 136
LOBBY 137
PUBLIC FOYER 154
ELEVATOR LOBBY 155
100 N.
100 W.
100 E.
100 S.
152
151
153
150
148
147
149
145
146
125
141
138
139
140
142
143
144
101
102
103
MAIN OFFICE 104
105
IDENTIFICATION BUREAU 106
107
108
POLICE 111
CORRIDOR
WAITING ROOM 110
WAITING ROOM 112

26/28 Exh. Riser from Garage on Ground Floor.
Wood Louvre in bottom panel of door.
Grille in door.
24/24 Fresh Air Intake Riser thru first floor Roof.
Furnish and install 24/24 Auto. Fresh Air Damper with felted edges and a 3way magnetic sw. Another Contr. will furnish and install a 30" Globe Type Roof Ventilator.
12/12 Toilet Exh. Riser from below.
Bottom Rail of door 38" above floor.
12/12 Exh. Opening.
1-8/8 Gr. near ceil.
3-6/6 Grilles 12" above floor.
Grille in floor.
10/16 Grille Near Ceil.
24/8 Riser.
24/24 Gr. 1080 c.f.m. Near Ceil.
WEST
2-60/21½ Grilles Near Floor.
24/24 Gr. 1080 c.f.m. Near Ceil.
24/8 Riser.
32/38 Fresh Air Intake for Police Dept.
52/38 Fresh Air Intake for Court Rooms.
52/38 Fresh Air Riser to Court Rooms above.
Access Doors.
22/18 H. Elev. to first floor
46/18 Exh. Riser from below.
10/16 Toilet Exh. from Ground Floor
18/22 Toilet Exh. Riser from Grd. and first floors.
36/24 Police Dept. Exh. Riser from Gr. & 2nd. floor.
10/16 Toilet Exh. Riser from Grd. Floor.
22/16 Gr. 430 c.f.m. Near Ceil.
28/10 Gr. 620 c.f.m. Near Ceil.
18/10 Gr. 900 c.f.m. Near Ceil.
22/12 Gr. 400 c.f.m. Near Ceil.
18/8 Gr. 280 c.f.m. Near Ceil.
12/12 Gr. Near Ceil.
12/8 Riser from Toilet on Ground Floor.
12/12 Part Opening near Ceiling
2" Air space under door
Wood Louvre in bottom panel of door.
Grilles in bottom panels of doors
16/4 Toilet Exh. Riser from Ground floor.
16/4 Exh. Riser from Ground floor.

Note: All horizontal duct-work shown on this Sheet shall be suspended in furred ceiling space above first floor

26

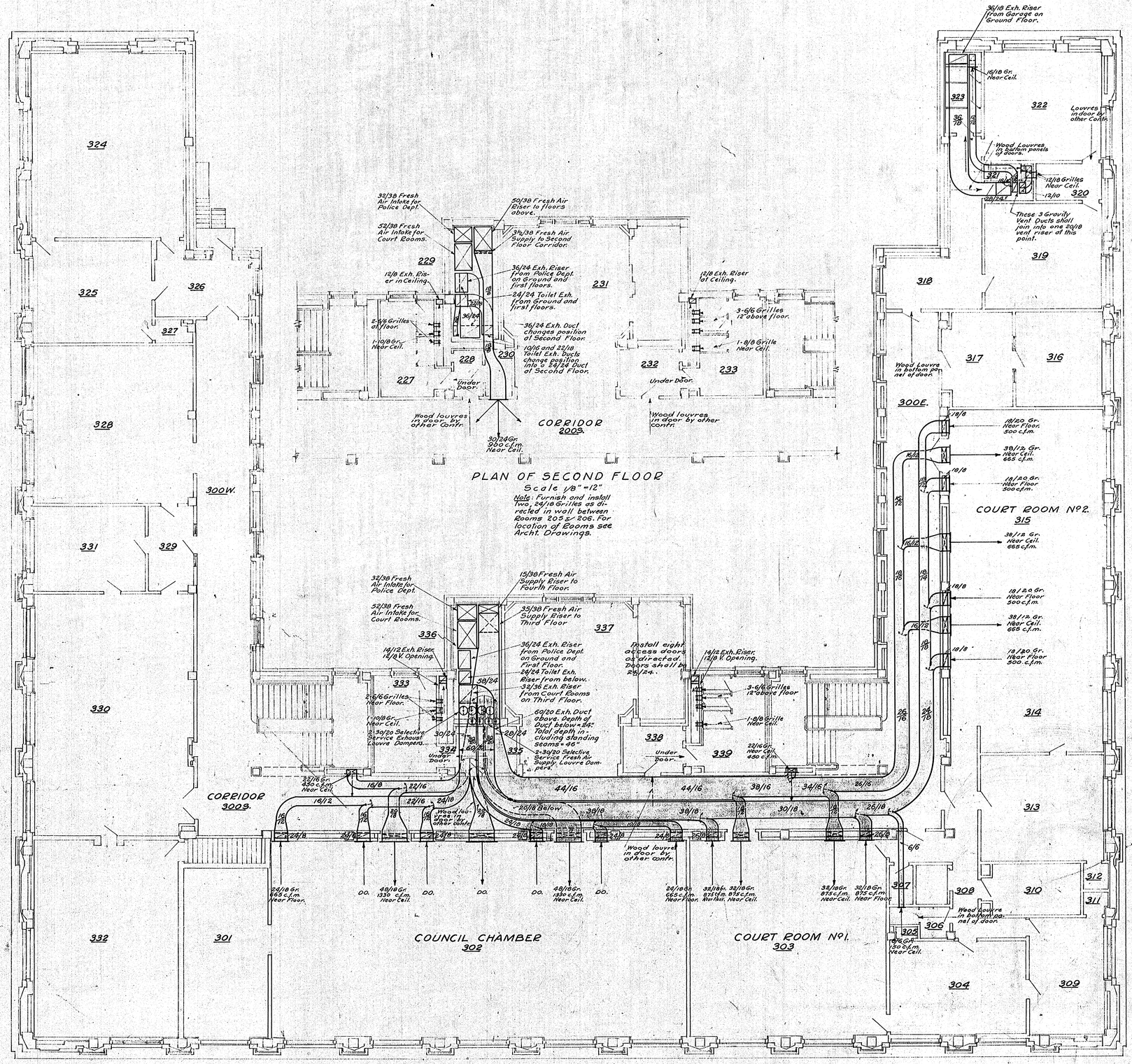
FIRST FLOOR - VENTILATING

CITY HALL BUILDING
DULUTH MINNESOTA

THOS. J. SHEFCHIK - ARCHITECT
313 GLENCOE BLDG.
DULUTH MINN.

CHARLES FOSTER - CON. ENG.
512 SELLWOOD BLDG. DULUTH, MINN.

SHEET NO. V-2
SCALE ⅛"-1'-0" F.EB. 1927



PLAN OF SECOND FLOOR

Scale 1/8" = 1'2"

Note: Furnish and install Two, 24/18 Grilles as directed in wall between Rooms 203 & 205. For location of Rooms see Archt. Drawings.

Note: All horizontal duct-work shown on this sheet shall be suspended in furred ceiling space above Second & Third Floor.

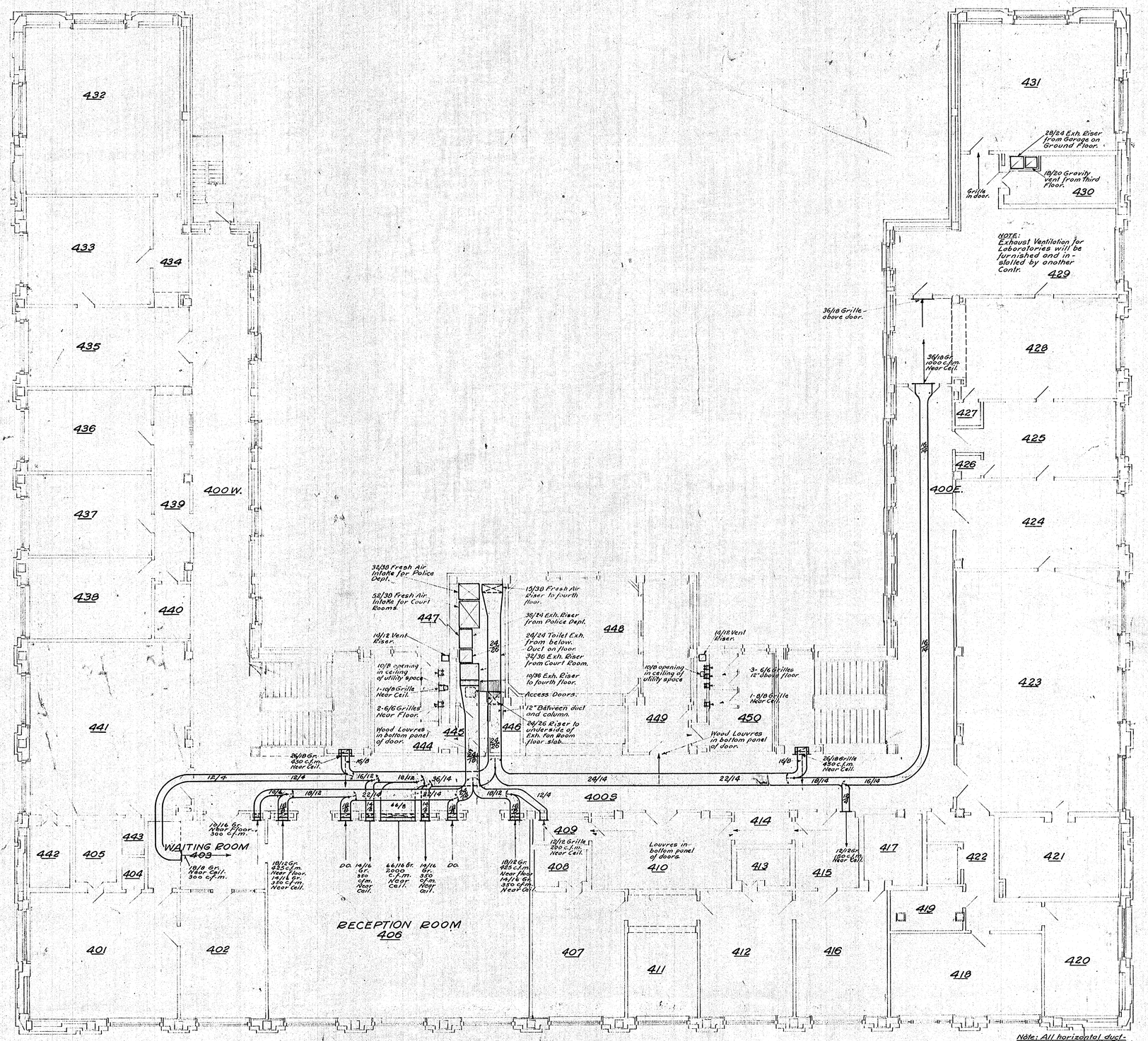
27

SECOND & THIRD FLOORS - VTG.

CITY HALL BUILDING
DULUTH, MINNESOTA
THOS. J. SHEFCHIK - ARCHITECT.
313 GLENCOE BLDG.
DULUTH, MINN.

CHARLES FOSTER - CON. ENG.
512 - SELLWOOD BLDG. - DULUTH, MINN.

SHEET NO. V-7
SCALE 1/8" = 1'0" FEB.



Note: All horizontal duct-work shown on this Sheet except as noted shall be suspended in furred space above fourth floor.

28

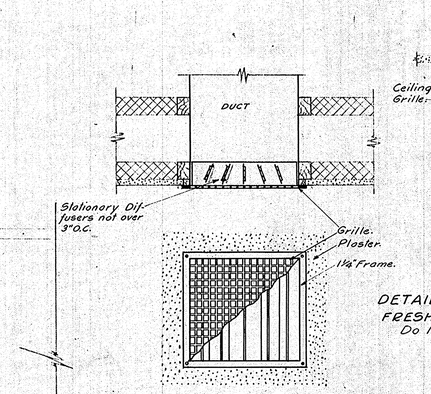
FOURTH FLOOR - VENTILATING

CITY HALL BUILDING
DULUTH MINNESOTA

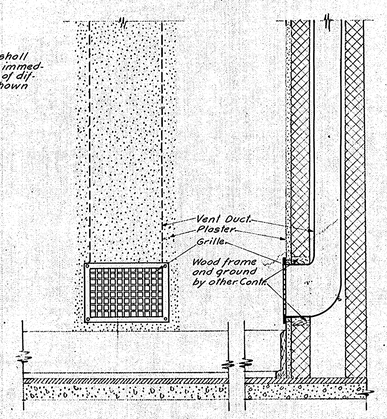
THOS. J. SHEFCHIK - ARCHITECT.
313 GLENCOE BLDG.
DULUTH, MINN.

CHARLES FOSTER-CON. ENG.
512-SELLWOOD-BLDG. DULUTH, MINN.

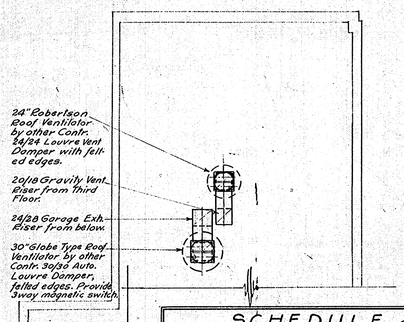
SHEET-NO. V-4
SCALE 1/8"-1'-0" FEB.-'22

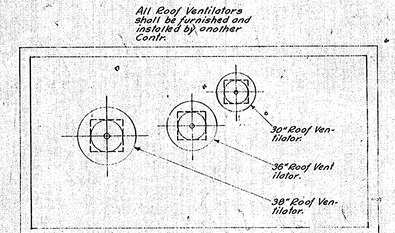


DETAIL OF TYPICAL FRESH AIR INLET.
Do Not Scale.

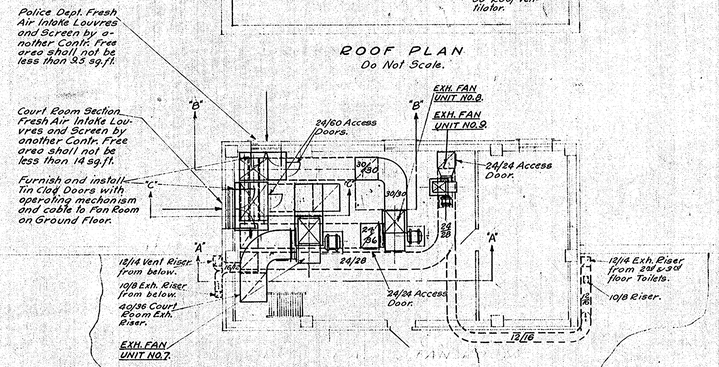


DETAIL OF TYPICAL VENT AND EXHAUST OUTLET.
Do Not Scale.





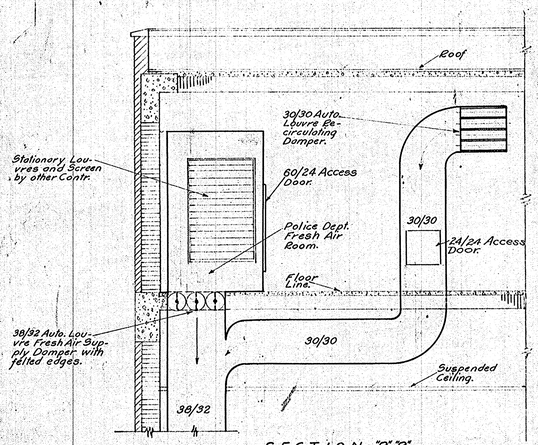
ROOF PLAN
Do Not Scale.



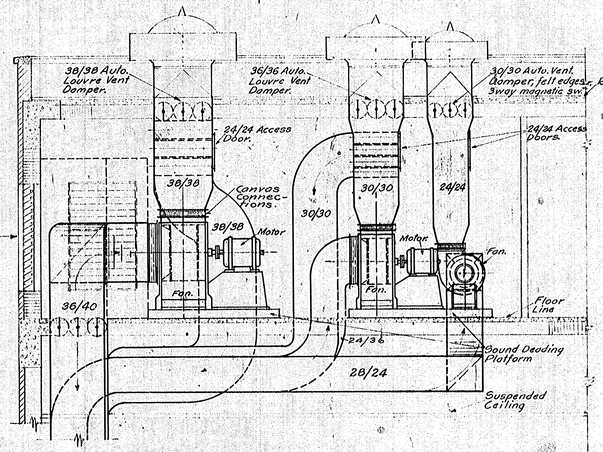
PLAN OF EXHAUST FAN ROOM IN PENT HOUSE.
Scale 1/8"-12".

SCHEDULE of VENTILATING SYSTEM CONTROL

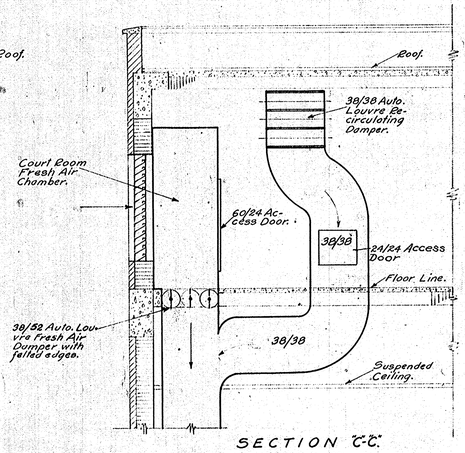
UNIT CONTROL				CONTROL							
				AUTOMATIC				MANUAL			
DESCRIPTION	KIND	NO. & SIZE.	NORMAL POSITION	TYPE			LOCATION	TYPE	OPERATION	LOCATION	
FRESH AIR	Fresh Air Damper.	38"x52"	Closed	1-point positive acting	2 point	In Chamber between Primary Heaters and Fresh Air Shaft.		1-Lever	By-pass of	Room N°50	
	Exhaust Damper.	38"x38"	"	Graduated	Multi.			3 way	2 point	"	
SUPPLY	Recir. Damper.	38"x38"	Open	Acting.	Thermostat			Switch.	Thermostat.	"	
FAN-UNIT	Prim. Heater Steam Valve.	2 2"	"								
NO. 1.	Sec. Heater Steam Valve.	2 2"	"	2-points positive acting	3-point	In discharge Duct close to Fan.		1-Lever	By-pass of	"	
	Sec. By-pass Damper.	1 40"x24"	Closed	1-point grad. acting.	Multi. Stat.			3 way	3 point	"	
	Selective Sec Dampers.	4 30"x20"	Open					2-Lever 3-way.	Opens and closes dampers	"	
FRESH	Fresh Air Damper.	38"x32"	Closed	1-point		In Chamber between Air Filters and Indirect Heaters.		1-Lever	By-pass of	Room N°50	
AIR	Exhaust Damper.	30"x30"	"	Grad. Acting				3 way.	1-point	"	
SUPPLY	Recir. Damper.	30"x30"	Open	Thermostat					Stat.	"	
FAN-UNIT	Ind. Heater Steam Valves.	3 2"	"	3 points positive acting.	4 point	In Discharge Duct close to Fan.		1-Lever.	By-pass of	"	
NO. 2.	Ind. Heater By-pass Dam.	34"x24"	Closed	1 point grad. acting.	Multi. Stat.			3 way.	4-point	"	
	Grid Humidi-fi Supply Valve.	1"	"					1-Lever 3-way.	By-pass of Humidostat.	"	
FRESH AIR	Fresh Air Damper.	24"x24"	Closed	Magnetic 3 way Switch.			Mounted under Motor Control.			Room N°50	
SUPPLY	Ind. Heater Steam Valves.	4 2"	Open	4 points positive acting	5 point		In discharge Duct close to Fan as directed.	1-Lever 3 way.	By-pass of 5 point Stat.	"	
FAN-UNIT	Ind. Heater By-pass Dam.	24"x24"	Closed	1-point Grad. Acting	Multi. Thermostat			1-Lever 3 way.	By-pass of Humidostat.	"	
NO. 3.	Grid Humidi-fi Supply Valve.	1"	"	Humidostat.						"	
HOT-BLAST	2 pole Auto. Governor Sw.	¾ H.P.	Circuit Open.	3-point positive	6 point	Room Thermo-stat	Room Stat. in West Entrance.	1-Lever 3 way.	By-pass of Thermostat.	Room N°50	
HTG. UNIT	Ind. Heater Steam Valves.	9 1½"	Open		Multi-stat without			1-Lever	By-pass of 6 point Stat.	"	
NO. 4.	Ind. Heater By-pass Dam.	18"x24"	Closed	1-point Grad.	Stat.	Thermometer.		3 way.		"	
HOT-BLAST	2 pole Auto. Governor Sw.	¾ H.P.	Circuit Open.	5 point positive	6 point	Room Thermo	Room Stat. in South Entrance.	1-Lever 3 way.	By-pass of Room Stat.	Room N°50	
HTG UNIT	Ind. Heater Steam Valves.	7 1½"	Open		Multi-stat without			1-Lever	By-pass of 6 point Stat.	"	
NO. 5.	Ind. Heater By-pass Dam.	1 18"x24"	Closed	1-point Grad.	Stat.	Thermometer.		3 way.		"	
GARAGE EX.	Exhaust Dampers.	30"x30"	Closed	Magnetic 3 way Switch.			Mounted under Motor Control.	1-Lever	Opens and Closes Damper.	Room N°50	
UNIT NO. 6.			"					3 way	when fan. is not running.	"	
TOILET EX. UNIT NO.9	Exhaust Dampers	30"x30"	Closed	Magnetic 3-way Switch.			Mounted under Motor Control.	1-Lever	Open and Closes Damper	"	
			"					3 way	when fan. is not running.	"	
GRAVITY VENT FROM JURY RM'S	Vent Dampers.	24"x24"	Closed.					1-Lever	Opens and	"	
			"					3 way.	Closes Damper.	"	
			"							"	



SECTION "B-B"
Scale 1/4"-12"



SECTION "A-A"
Scale 1/4"-12"



SECTION "C-C"
Scale 1/4"-12"

SCHEDULE of GRID HUMIDIFIERS.			
UNIT NO	C.F.M.	Space Available.	
2	9000	3'-10" wide x 5'-0" high.	
3	3000	3'-4" wide x 3'-4" high.	

Note: Temperature Control Contr. shall furnish and install two (2) Grid Humidifiers in accordance with above Schedule.

VENTILATING SYMBOLS & ABBREVIATIONS.

- D. Diffuser Frame.
- V.O. Vent Opening.
- Gr. Grille.
- Ceil. Ceiling.
- Flr. Floor.
- Exh. Exhaust.
- H. Heat (Fresh Air.)
- V. Vent.
- c.f.m. Cubic feet of air per minute.
- Volume Dampers with Rods and quadrants.
- Heat (Fresh Air) Riser or Horizontal.
- Vent Riser or Horizontal.

ATTIC PLAN-VENTILATING

CITY HALL BUILDING
DULUTH MINNESOTA
THOS. J. SHEFCHIK - ARCHITECT
313 GLENCOE BLDG.
DULUTH, MINN.

CHARLES FOSTER-CON. ENG.
512-SELLWOOD-BLDG. DULUTH, MINN

SHEET NO. V-5
SCALE 1/4"-1'-0"
DATE FEB. 1937