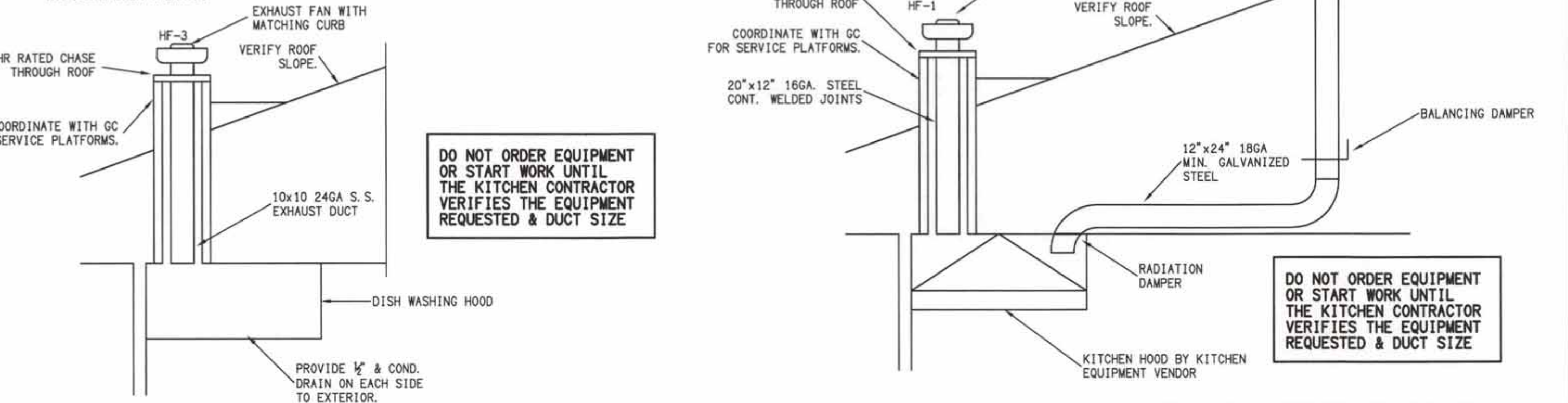


| SPLIT SYSTEM HEAT PUMP UNIT SCHEDULE |                    |          |       |     |      |        | AIR HANDLER |         |      |            |      |       |     |        |      |        |       |                |                        |                           |           |               |                  |         |      |
|--------------------------------------|--------------------|----------|-------|-----|------|--------|-------------|---------|------|------------|------|-------|-----|--------|------|--------|-------|----------------|------------------------|---------------------------|-----------|---------------|------------------|---------|------|
| SYMBOL                               | COOLING CAP (TONS) | ELECTRIC |       |     |      | MANUF. | MODEL       | SYMBOL  | TYPE | ELECTRIC   |      |       |     | STAGES |      | MANUF. | MODEL | FAN CFM        | FRESH AIR INTAKE (CFM) | ESP (IN OF H2O) VERT/H.R. | SEER HSPF | DUCT DETECTOR | HUMIDITY CONTROL | REMARKS |      |
|                                      |                    | VOLT     | PHASE | MCA | FUSE |        |             |         |      | STRIP (kW) | VOLT | PHASE | MCA | FUSE   | HEAT |        |       |                |                        |                           |           |               |                  |         | COOL |
| HP-1                                 | 3                  | 208      | 1     | 18  | 30   | TRANE  | 4TWR5036    | AHU-1   | HORZ | 5.76       | 208  | 1     | 40  | 40     | 1    | 1      | TRANE | GAM5B0B36      | 1200                   | 150                       | .9        | 15.8.5        | NO               | YES     | -    |
| HP-2                                 | 2.5                | 208      | 1     | 17  | 25   | TRANE  | 4TWR5030    | AHU-2   | HORZ | 7.2        | 208  | 1     | 47  | 50     | 1    | 1      | TRANE | GAM5B0B30      | 960                    | 120                       | .6        | 15.8.5        | NO               | YES     | -    |
| HP-3                                 | 3                  | 208      | 1     | 18  | 30   | TRANE  | 4TWR5036    | AHU-3   | HORZ | 5.76       | 208  | 1     | 40  | 40     | 1    | 1      | TRANE | GAM5B0B36      | 1200                   | 180                       | .9        | 15.8.5        | NO               | YES     | -    |
| HP-4                                 | 4                  | 208      | 1     | 24  | 40   | TRANE  | 4TWR5048    | AHU-4   | HORZ | 7.2        | 208  | 1     | 48  | 50     | 1    | 1      | TRANE | TAM9A0C48V1DA  | 1600                   | 160                       | .9        | 15.8.5        | NO               | YES     | -    |
| HP-5                                 | 2                  | 208      | 1     | 14  | 25   | TRANE  | 4TWR5024    | AHU-5   | HORZ | 5.76       | 208  | 1     | 38  | 40     | 1    | 1      | TRANE | GAM5B0A24      | 800                    | 120                       | .9        | 15.8.2        | NO               | YES     | -    |
| HP-6                                 | 3                  | 208      | 1     | 18  | 30   | TRANE  | 4TWR5036    | AHU-6   | HORZ | 5.76       | 208  | 1     | 40  | 40     | 1    | 1      | TRANE | GAM5B0B36      | 1200                   | 180                       | .8        | 15.8.5        | NO               | YES     | -    |
| HP-7                                 | 3                  | 208      | 1     | 18  | 30   | TRANE  | 4TWR5036    | AHU-7   | HORZ | 10.8       | 208  | 3     | 42  | 45     | 1    | 1      | TRANE | GAM5A0C42      | 1200                   | 150                       | .8        | 15.8.5        | NO               | YES     | -    |
| HP-8                                 | -                  | -        | -     | -   | -    | -      | -           | -       | -    | -          | -    | -     | -   | -      | -    | -      | -     | -              | -                      | -                         | -         | -             | -                | -       |      |
| HP-9                                 | 3                  | 208      | 1     | 18  | 30   | TRANE  | 4TWR5036    | AHU-9   | HORZ | 7.2        | 208  | 1     | 47  | 50     | 1    | 1      | TRANE | GAM5B0C42      | 960                    | 180                       | .6        | 15.8.5        | NO               | YES     | -    |
| HP-10                                | 3.5                | 208      | 1     | 22  | 35   | TRANE  | 4TWR5042    | AHU-10  | HORZ | 7.2        | 208  | 1     | 48  | 50     | 1    | 1      | TRANE | TEM9A0C42V410A | 1400                   | 210                       | .8        | 15.9.0        | NO               | YES     | -    |
| HP-11                                | 3.5                | 208      | 1     | 22  | 35   | TRANE  | 4TWR5042    | AHU-11  | HORZ | 7.2        | 208  | 1     | 48  | 50     | 1    | 1      | TRANE | TEM9A0C42V410A | 1400                   | 210                       | .7        | 15.9.0        | NO               | YES     | -    |
| HP-12                                | 2                  | 208      | 1     | 14  | 25   | TRANE  | 4TWR5024    | AHU-12  | HORZ | 3.6        | 208  | 1     | 25  | 25     | 1    | 1      | TRANE | GAM5B0A24      | 800                    | 100                       | .6        | 15.8.2        | NO               | YES     | -    |
| HP-13                                | 2                  | 208      | 1     | 14  | 25   | TRANE  | 4TWR5024    | AHU-13  | HORZ | 5.76       | 208  | 1     | 38  | 40     | 1    | 1      | TRANE | GAM5B0A24      | 800                    | 80                        | .6        | 15.8.2        | NO               | YES     | -    |
| HP-14                                | 2                  | 208      | 1     | 14  | 25   | TRANE  | 4TWR5024    | AHU-14  | HORZ | 5.76       | 208  | 1     | 38  | 40     | 1    | 1      | TRANE | GAM5B0A24      | 800                    | 80                        | .6        | 15.8.2        | NO               | YES     | -    |
| HP-15                                | 4                  | 208      | 1     | 24  | 40   | TRANE  | 4TWR5048    | AHU-15  | HORZ | 7.2        | 208  | 1     | 48  | 50     | 1    | 1      | TRANE | TAM9A0C48V1DA  | 1600                   | 160                       | .9        | 15.8.5        | NO               | YES     | -    |
| HP-16                                | 2                  | 208      | 1     | 14  | 25   | TRANE  | 4TWR5024    | AHU-16  | HORZ | 5.76       | 208  | 1     | 38  | 40     | 1    | 1      | TRANE | GAM5B0A24      | 800                    | 50                        | .6        | 15.8.2        | NO               | YES     | -    |
| HP-17                                | 3                  | 208      | 1     | 18  | 30   | TRANE  | 4TWR5036    | AHU-17  | HORZ | 7.2        | 208  | 1     | 48  | 50     | 1    | 1      | TRANE | GAM5A0C42      | 1200                   | 140                       | .8        | 15.8.5        | NO               | YES     | -    |
| HP-18                                | 3                  | 208      | 1     | 18  | 30   | TRANE  | 4TWR5036    | AHU-18  | HORZ | 7.2        | 208  | 1     | 48  | 50     | 1    | 1      | TRANE | GAM5A0C42      | 1200                   | 150                       | .8        | 15.8.5        | NO               | YES     | -    |
| HP-19                                | 1.5                | 208      | 1     | 12  | 20   | TRANE  | 4TWR5018    | AHU-19  | HORZ | 3.6        | 208  | 1     | 25  | 25     | 1    | 1      | TRANE | GAM5B0A18      | 600                    | 80                        | .5        | 15.9.0        | NO               | YES     | -    |
| HP-20A                               | 5                  | 208      | 1     | 32  | 50   | TRANE  | 4TWR5060    | AHU-20A | HORZ | 10.3       | 208  | 3     | 40  | 45     | 1    | 1      | TRANE | TAM9A0C80V51DA | 1920                   | 300                       | .7        | 14.5.8.5      | NO               | YES     | -    |
| HP-20B                               | 5                  | 208      | 1     | 32  | 50   | TRANE  | 4TWR5060    | AHU-20B | HORZ | 10.3       | 208  | 3     | 40  | 45     | 1    | 1      | TRANE | TAM9A0C80V51DA | 1920                   | 300                       | .7        | 14.5.8.5      | NO               | YES     | -    |
| HP-21                                | 2                  | 208      | 1     | 14  | 25   | TRANE  | 4TWR5024    | AHU-21  | HORZ | 5.76       | 208  | 1     | 38  | 40     | 1    | 1      | TRANE | GAM5B0A24      | 800                    | 120                       | .7        | 15.9.0        | NO               | YES     | -    |
| HP-22                                | 2                  | 208      | 1     | 14  | 25   | TRANE  | 4TWR5024    | AHU-22  | HORZ | 5.76       | 208  | 1     | 38  | 40     | 1    | 1      | TRANE | GAM5B0A24      | 800                    | 100                       | .6        | 15.8.2        | NO               | YES     | -    |
| HP-23                                | 1.5                | 208      | 1     | 12  | 20   | TRANE  | 4TWR5018    | AHU-23  | HORZ | 3.6        | 208  | 1     | 25  | 25     | 1    | 1      | TRANE | GAM5B0A18      | 600                    | 90                        | .7        | 15.9.0        | NO               | YES     | -    |
| HP-24                                | 1.5                | 208      | 1     | 12  | 20   | TRANE  | 4TWR5018    | AHU-24  | HORZ | 3.6        | 208  | 1     | 25  | 25     | 1    | 1      | TRANE | GAM5B0A18      | 600                    | 80                        | .7        | 15.9.0        | NO               | YES     | -    |
| HP-25                                | 2                  | 208      | 1     | 14  | 25   | TRANE  | 4TWR5024    | AHU-25  | HORZ | 5.76       | 208  | 1     | 38  | 40     | 1    | 1      | TRANE | GAM5B0A24      | 800                    | 120                       | .6        | 15.8.2        | NO               | YES     | -    |
| HP-26                                | 2                  | 208      | 1     | 14  | 25   | TRANE  | 4TWR5024    | AHU-26  | HORZ | 5.76       | 208  | 1     | 38  | 40     | 1    | 1      | TRANE | GAM5B0A24      | 800                    | 120                       | .6        | 15.8.2        | NO               | YES     | -    |
| HP-27                                | 3                  | 208      | 1     | 18  | 30   | TRANE  | 4TWR5036    | AHU-27  | HORZ | 7.2        | 208  | 1     | 48  | 50     | 1    | 1      | TRANE | GAM5A0C42      | 1200                   | 140                       | .8        | 15.8.2        | NO               | YES     | -    |
| HP-28                                | 1.5                | 208      | 1     | 12  | 20   | TRANE  | 4TWR5018    | AHU-28  | HORZ | 3.6        | 208  | 1     | 25  | 25     | 1    | 1      | TRANE | GAM5B0A18      | 600                    | 80                        | .9        | 15.9.0        | NO               | YES     | -    |
| HP-29                                | 2                  | 208      | 1     | 14  | 25   | TRANE  | 4TWR5024    | AHU-29  | HORZ | 5.76       | 208  | 1     | 38  | 40     | 1    | 1      | TRANE | GAM5B0A24      | 800                    | 120                       | .6        | 15.8.2        | NO               | YES     | -    |
| HP-30                                | 2                  | 208      | 1     | 14  | 25   | TRANE  | 4TWR5024    | AHU-30  | HORZ | 5.76       | 208  | 1     | 38  | 40     | 1    | 1      | TRANE | GAM5B0A24      | 800                    | 120                       | .6        | 15.8.2        | NO               | YES     | -    |
| HP-31                                | 4                  | 208      | 1     | 24  | 40   | TRANE  | 4TWR5048    | AHU-31  | HORZ | 7.2        | 208  | 1     | 48  | 50     | 1    | 1      | TRANE | TAM9A0C48V41DA | 1600                   | 160                       | .9        | 15.8.5        | NO               | YES     | -    |
| HP-32                                | 3                  | 208      | 1     | 18  | 30   | TRANE  | 4TWR5036    | AHU-32  | HORZ | 7.2        | 208  | 1     | 48  | 50     | 1    | 1      | TRANE | GAM5A0C42      | 1200                   | 150                       | .8        | 15.8.2        | NO               | YES     | -    |
| HP-33                                | 2                  | 208      | 1     | 14  | 25   | TRANE  | 4TWR5024    | AHU-33  | HORZ | 5.76       | 208  | 1     | 38  | 40     | 1    | 1      | TRANE | GAM5B0A24      | 800                    | 50                        | .6        | 15.8.2        | NO               | YES     | -    |
| HP-34                                | 3                  | 208      | 1     | 18  | 30   | TRANE  | 4TWR5036    | AHU-34  | HORZ | 7.2        | 208  | 1     | 48  | 50     | 1    | 1      | TRANE | GAM5A0C42      | 1200                   | 140                       | .8        | 15.8.2        | NO               | YES     | -    |

- NOTES:
- PROVIDE EMERGENCY SHUTDOWN SWITCHES AND PROGRAMMABLE THERMOSTATS. THERMOSTATS SHALL HAVE PASSCODE PROTECTION SO SETTINGS CANNOT BE TAMPERED WITHOUT ENTERING A REPROGRAMMABLE CODE. PROVIDE A PERMANENT PLACARD NEAR EACH THERMOSTAT(S) SHOWING THE LOCAL BUILDING FLOOR PLAN, THE AREAS THAT EACH THERMOSTAT CONTROLS AND THE LOCATION OF EACH THERMOSTAT'S SWITCH IF THE SWITCH IS REMOTELY LOCATED.
  - PROVIDE 4" DP-G13EEN (MERV-13) FILTERS BY AIRGUARD AND FILTER RACKS AT UNITS. PROVIDE SMOOTH TRANSITION FROM FILTER RACK TO AHU INTAKE AND TO RETURN DUCT SHOWN ON PLANS. THE MINIMUM FILTER SIZES SHALL BE 24"x24" FOR 3 TON AND SMALLER AHU'S, 24"x36" FOR 3 1/2, 4 AND 5 TON AHU'S. MAX INITIAL PRESSURE DROP SHALL BE 1/4" OF WATER COLUMN. SEE DETAIL D/M2. THE FILTER RACKS SHALL HAVE A MANOMETER OR DIFFERENTIAL PRESSURE SENSING DEVICE THAT SHALL MEASURE THE DIFFERENTIAL STATIC PRESSURE ACROSS THE FILTER AND INDICATE WHEN THE FILTER NEEDS REPLACING.
  - ROUTE PRIMARY CONDENSATE TO FRENCH DRAINS. PROVIDE DRIP PANS WITH FLOAT SWITCHES.
  - PROVIDE CONCRETE PADS FOR COMPRESSORS AND ANCHOR COMPRESSORS TO PAD.
  - PROVIDE FRENCH DRAINS FOR CONDENSATE LINES (SEE FRENCH DRAIN DETAIL E/M2).
  - CONSULT WITH MANUFACTURER FOR THE CORRECT SIZING OF REFRIGERANT LINES. OVERSIZE REFRIGERANT LINE AS PER MFG. INSTRUCTIONS WHEN REQUIRED.
  - THE CONTRACTOR SHALL INSTRUCT THE OWNER TO KEEP AHU FANS RUNNING AT ALL TIMES UNLESS NOTED OTHERWISE.
  - ALL COMPRESSORS SHALL HAVE TIME DELAY RELAYS SET AT DIFFERENT STARTING TIMES.
  - FOR UNITS SHOWING A THERMOSTAT AND HUMIDISTAT ON THE PLANS, PROVIDE A THERMOSTAT/HUMIDISTAT AND A SIMPLE ENGINEERED SOLUTIONS HPDM-XX (VERIFY SPECIFIC MODEL FOR APPLICATION) CONTROL MODULE OR EQUAL. HUMIDISTAT SHALL ACTIVATE THE COOLING CYCLE UPON HIGH HUMIDITY CALL. THE THERMOSTAT SHALL BE CAPABLE OF OPERATING THE HEAT STRIPS FOR TEMPERATURE CONTROL WHILE A HIGH HUMIDITY CALL IS BEING MADE. CONSULT WITH EQUIPMENT MANUFACTURER FOR WIRING DIAGRAM.
  - CONTRACTOR SHALL BALANCE SYSTEM. CONTRACTOR SHALL PRESENT BALANCING REPORT TO ARCHITECT AT FINAL INSPECTION.
  - PROVIDE MANUFACTURER RECOMMENDED CLEARANCES AROUND ALL INDOOR AND OUTDOOR UNITS.
  - PROVIDE LOW AMBIENT CONTROLS FOR FREEZE PROTECTION.
  - PROVIDE CONTROLS THAT PREVENT AUXILIARY HEAT STRIPS FROM BEING ACTIVATED WHEN THE HEAT PUMP CAN HANDLE THE HEATING LOAD EXCEPT DURING DEFROST CYCLE AND DEHUMIDIFICATION CYCLE.
  - PROVIDE GRAVITY BACKDRAFT DAMPER OR MOTORIZED DAMPER FOR OUTDOOR AIR.

| HOOD FAN SCHEDULE |                  |         |       |      |       |     |      |          |              |
|-------------------|------------------|---------|-------|------|-------|-----|------|----------|--------------|
| SYMBOL            | DESCRIPTION      | CFM REQ | SP    | VOLT | PHASE | HP  | AMPS | MOUNTING | MANUFACTURER |
| HF-1              | HOOD DISCHARGE   | 2,650   | 1.5"  | 208  | 3     | 1   | -    | ROOF     | NOTE 9       |
| HF-2              | HOOD MAKEUP      | 2,120   | 0.75" | 208  | 3     | 1.5 | -    | ROOF     | NOTE 9       |
| HF-3              | DISH WASHER HOOD | 400     | 0.5"  | 120  | 1     | 1/4 | -    | ROOF     | NOTE 9       |

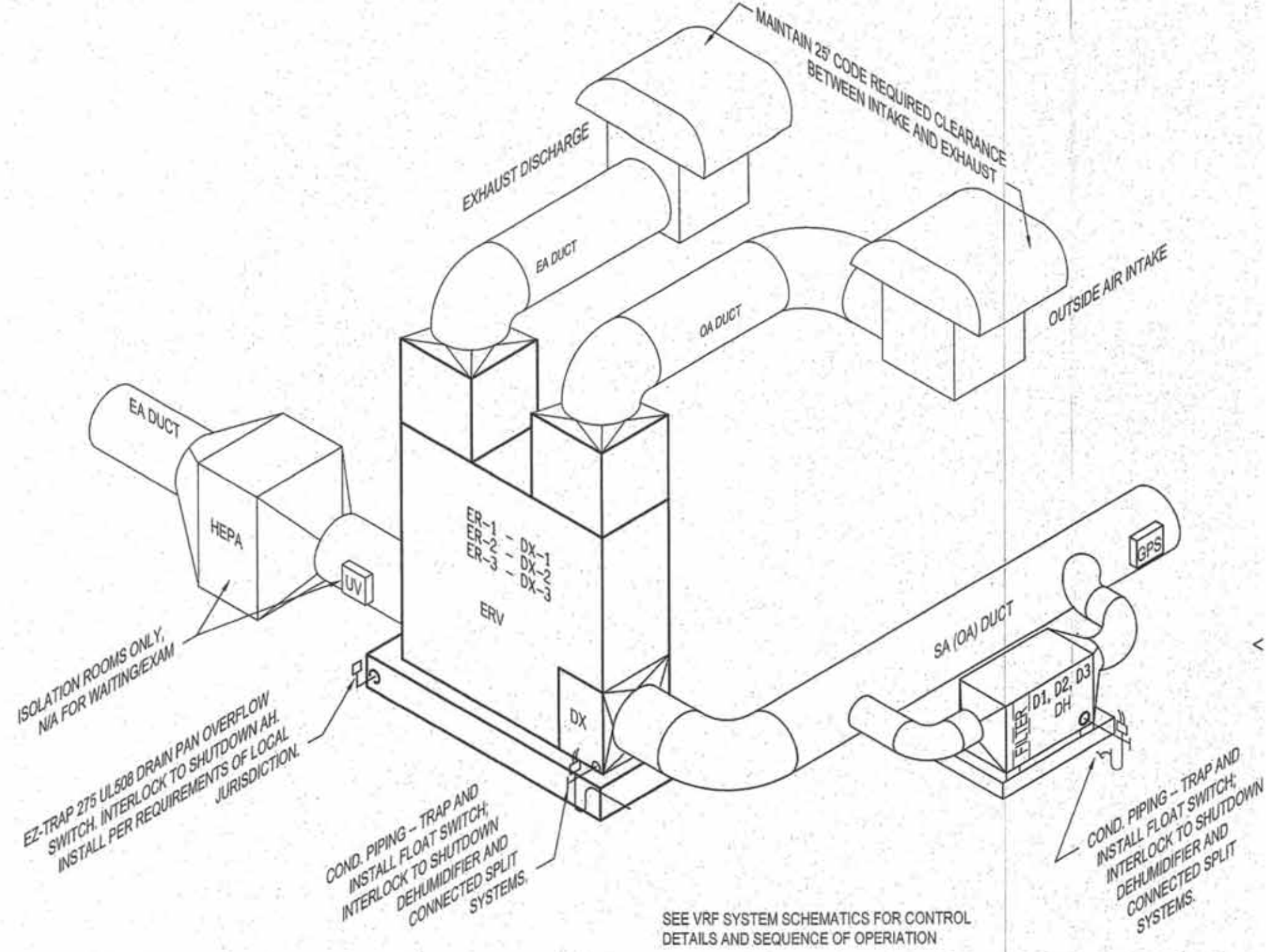
- NOTES:
- PROVIDE CURB.
  - ALL FANS SHALL EITHER BE BELT DRIVE OR VARIABLE SPEED DRIVE.
  - DO NOT ORDER FANS OR CONSTRUCT DUCT UNTIL THE KITCHEN CONTRACTOR VERIFIES THE FAN REQUIREMENTS.
  - PROVIDE INLET DAMPER.
  - ALL ALUMINUM CONSTRUCTION.
  - ALL FANS SHALL HAVE A 35MIN. EXCESS CAPACITY.
  - KITCHEN HOOD SUPPLY AND DISCHARGE FANS SHALL BE INTERLOCKED TO RUN AT THE SAME TIME.
  - FAN HF-3 SHALL OPERATE WHEN DISHWASHER DOOR IS OPEN.
  - GREENCHECK IS THE BASIS FOR THIS DESIGN.
  - INTERLOCK THE KITCHEN DISHWASHER VENT FAN WITH THE DISHWASHER WHERE THE VENT FAN RUNS ONLY WHEN THE DISHWASHER OPERATES.



**C** DISHWASHER EXHAUST HOOD  
SCALE: NTS

**B** KITCHEN EXHAUST HOOD  
SCALE: NTS

- LEGEND
- ☒ SUPPLY REGISTER HVA/C SYSTEM
  - ☒ RETURN REGISTER HVA/C SYSTEM
  - ☐ THERMOSTAT
  - ☐ THERMOSTAT WITH REMOTE SENSOR
  - ☐ HUMIDISTAT
  - ☐ RECTANGULAR DUCT - 20" WIDE INSIDE A/C SYSTEM - 10" HIGH INSIDE
  - ☐ RIGID ROUND DUCT - 10" I.D.
  - ☐ FLEX DUCT - 10" I.D.
  - ☐ BALANCING DAMPER
  - ☐ CONDENSATE PIPE
  - ☐ REDUCER
  - ☐ VENT FAN IN CEILING
  - ☐ INLINE VENT FAN
  - ☐ DISCHARGE CAP SET BELOW ROOF RIDGE (SEE ARCH FOR LOCATION)
  - ☐ INTAKE CAP SET BELOW ROOF RIDGE (SEE ARCH FOR LOCATION)
  - ☐ REGISTER CFM
  - ☐ RETURN REGISTER - VENT SYSTEM
  - ☐ TURNING VANES
  - ☐ ALUMINUM WEATHER CAP WITH BACKDRAFT DAMPER
  - ☐ VENTILATION DUCT
  - ☐ FRESH AIR DUCT
  - ☐ DOAS SUPPLY DUCT
  - ☐ DOAS RETURN DUCT
  - ☐ 1 1/2 HR STATIC FIRE DAMPER
  - ☐ FIRE/SMOKE DAMPER - 1 1/2 HR
  - ☐ FIRE/SMOKE DAMPER - 2 HR
  - ☐ SMOKE DAMPER
  - ☐ DUCT DETECTOR - PROVIDE ACCESS
  - ☐ EMERGENCY SHUTOFF
  - ☐ AUTOMATIC DAMPER
  - ☐ PRESSURE SENSOR



**A** ISOLATION & WAITING/EXAM UNIT DETAIL  
SCALE: NTS

GENERAL NOTES:

- ALL FRESH AIR MAKE-UP ROOF PENETRATIONS SHALL PENETRATE ROOF AT SAME DISTANCE FROM EAVE & SHALL BE 25' 0" MIN. FROM ANY PLUMBING VENTS & EXHAUST FANS, SHALL BE A MIN. 6' ABOVE GRADE & SHALL BE A MIN. OF 3' ABOVE ROOF DECK. MECHANICAL CONTRACTOR SHALL COORDINATE THE PLUMBING CONTRACTOR TO LOCATE VENT PIPE LOCATIONS.
- ALL VENT DISCHARGE ROOF PENETRATION SHALL PENETRATE ROOF AT SAME DISTANCE FROM EAVE AND SHALL MATCH THE FRESH AIR INTAKE WEATHER CAP HEIGHT FOR APPEARANCE. ALL VENT DISCHARGES OPENINGS SHALL BE A MIN. OF 10" HORIZONTALLY FROM OPERABLE DOORS & WINDOWS.
- MOUNT ALL THERMOSTATS AT 4' 0" AFF MAX.
- ROOMS WITH SUPPLY REGISTERS & NO VENT OR RETURN OR VENT REGISTERS & NO SUPPLY SHALL HAVE DOORS UNDERCUT BY 3/4" OR MAX. AMOUNT ALLOWED BY DOOR MFG. WHICH MAINTAINS UL RATING.
- OVERSIZED REFRIGERANT LINES PER MANUFACTURER'S RECOMMENDATIONS FOR LONG RUNS OR AS SHOWN ON THE PLANS.
- PROVIDE POWER CONNECTION FOR CONDENSATE PUMPS AS REQUIRED. RADIATION FIRE DAMPERS & SMOKE DAMPERS SHALL BE U.L. APPROVED FOR INSTALLATION IN SHEETROCK CEILINGS & WALLS. DAMPERS SHALL BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS FOLLOWING THEIR SCHEMATIC DRAWINGS. INSTALLATION INSTRUCTIONS SHALL BE GIVEN TO THE ENGINEER & STATE INSPECTOR AT THE FINAL INSPECTION.
- PAINT ALL FRESH AIR INTAKE CAPS THE SAME COLOR AS THE ROOF. CONTRACTOR SHALL SUBMIT CUT SHEET OF INTAKES TO THE ENGINEER FOR APPROVAL. PROVIDE LOW PROFILE INTAKE CAPS.
- MAXIMUM FLEX DUCT RUNS SHALL BE 14' 0" MAXIMUM.
- CONTRACTOR SHALL RUN ALL DUCTWORK ON OUTSIDE OF THE CATWALK.
- ALL DUCTWORK SHALL BE CLASS 1 MIN.
- DISCHARGE CONDENSATE TO INDIRECT DISCHARGE.
- AHU SMOKE DETECTOR SYSTEM IS PROVIDED BY A FULL COVERAGE SMOKE DETECTION SYSTEM PER NFPA72E. SEE FIRE ALARM SHEET IN THE ELECTRICAL PACKAGE. ANY SYSTEM THAT SERVICES THE HALL AND OTHER ROOM HAS A SMOKE DETECTOR AT 3'-0" OF THE RETURN. ALL AHU'S WILL SHUTDOWN UPON GENERAL ALARM.
- PLACE NURSE STATION & PATIENT AREA EMERGENCY SHUT-OFF SWITCHES AT NURSE'S STATION. VERIFY LOCATION.
- RESIDENT ROOMS HEATING AND AIR CONDITIONING SHALL OPERATE ON EMERGENCY POWER, COORDINATE WITH ELECTRICAL CONTRACTOR FOR STARTUP AND OPERATION ON EMERGENCY POWER.
- MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE GENERAL CONTRACTOR TO ROUTE THE CONDENSATE PIPE TO STORM WATER DOWNSPOUTS.
- ALL ROOF PENETRATIONS FOR VENT FANS, INTAKE CAPS & DISCHARGE CAPS SHALL BE SAME DISTANCE FROM EAVE.
- FOR BATHROOMS AND RESTROOMS THE VENTILATION CFM SHALL BE A MIN CFM.

PRE-CONSTRUCTION NOTES:

- THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR INSURING THAT ALL WINDOWS NEED FOR DUCT ROUTING THROUGH TRUSS ARE IN PLACE.
- THE MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE TRUSS CONTRACTOR BEFORE TRUSSES ARE FABRICATED TO INSURE DUCT CLEARANCE.
- MECHANICAL CONTRACTOR SHALL ISSUE SHOP DRAWINGS FOR THE DUCT INSTALLATION.
- COORDINATE WITH THE G.C. TO VERIFY WHERE COFFERED CEILING WILL BE USED. ADJUST THE GRILLE ARRANGEMENT AS NEEDED.
- LOCATION OF ALL OUTDOOR UNITS SHALL BE APPROVED BY THE OWNER.

GAS HEATER SCHEDULE

| FUNCTION OF SPACE                   | PRESSURE RELATIONSHIP TO ADJACENT AREA | MINIMUM OUTDOOR ACH | MINIMUM TOTAL ACH | ALL ROOM AIR EXHAUSTED DIRECTLY TO OUTDOORS | AIR RECIRCULATED BY MEANS OF ROOM UNITS | DESIGN RELATIVE HUMIDITYX | DESIGN TEMPERATURE °F °C |
|-------------------------------------|----------------------------------------|---------------------|-------------------|---------------------------------------------|-----------------------------------------|---------------------------|--------------------------|
| BATHING ROOM                        | NEGATIVE                               | NR                  | 10                | YES                                         | NO                                      | NR                        | 70-75/21-24              |
| OCCUPATIONAL THERAPY                | NR                                     | 2                   | 6                 | NR                                          | NR                                      | NR                        | 70-75/21-24              |
| PHYSICAL THERAPY                    | NEGATIVE                               | 2                   | 6                 | NR                                          | NR                                      | NR                        | 70-75/21-24              |
| RESIDENT/GATHERING /ACTIVITY/DINING | NR                                     | 4                   | 4                 | NR                                          | NR                                      | NR                        | 70-75/21-24              |
| RESIDENT ROOM                       | NR                                     | 2                   | 2                 | NR                                          | NR                                      | NR                        | 70-75/21-24              |
| RESIDENT UNIT COORIDOR              | NR                                     | NR                  | 4                 | NR                                          | NR                                      | NR                        | NR                       |

NR: NO REQUIREMENT

PRUITT HEALTH  
COMPLIANCE SCHEDULE - MECHANICAL

| METHOD OF COMPLIANCE                            | PRESCRIPTIVE             |
|-------------------------------------------------|--------------------------|
| ENERGY COST BUDGET                              |                          |
| THERMAL ZONE                                    | 3A                       |
| EXTERIOR DESIGN CONDITIONS                      |                          |
| WINTER DRY BULB                                 | 24° F                    |
| SUMMER DRY BULB                                 | 92.3° F                  |
| INTERIOR DESIGN CONDITIONS                      |                          |
| WINTER DRY BULB                                 | 75° F                    |
| SUMMER DRY BULB                                 | 75° F                    |
| RELATIVE HUMIDITY                               | 50% - 60%                |
| BUILDING HEATING LOAD                           | 2,017,000 BTUH           |
| BUILDING COOLING LOAD                           | 2,374,000 BTUH           |
| MECHANICAL SPACING CONDITIONING SYSTEM          |                          |
| UNITARY                                         | } SEE EQUIPMENT SCHEDULE |
| DESCRIPTION OF UNIT -                           |                          |
| HEATING EFFICIENCY -                            |                          |
| COOLING EFFICIENCY -                            |                          |
| HEAT OUTPUT OF UNIT -                           |                          |
| COOLING OUTPUT OF UNIT -                        |                          |
| BOILER                                          |                          |
| TOTAL BOILER OUTPUT (IF OVERSIZED STATE REASON) | N/A                      |
| TOTAL CHILLER CAPACITY                          | N/A                      |
| EQUIPMENT EFFICIENCIES                          |                          |
| SEE EQUIPMENT SCHEDULE                          |                          |
| EQUIPMENT SCHEDULES WITH MOTORS                 |                          |
| (MECHANICAL SYSTEM)                             |                          |
| MOTOR HORSEPOWER                                | N/A                      |
| NUMBER OF PHASES                                | N/A                      |
| MINIMUM EFFICIENCY                              | N/A                      |
| MOTOR TYPE                                      | N/A                      |
| # OF POLES                                      | N/A                      |



LLOYD INDUSTRIES INC.  
WWW.FIREDAMPER.COM

## CEILING RADIATION DAMPER



MODEL:  
50EA (Rectangular)

**APPLICATION**  
The CRD-50EA has been UL tested and labeled for protection of ceiling openings in fire rated floor/ceiling assemblies with fire resistance ratings of 3 hours or less. This product can also be applied to steel lay-in style ceiling diffusers up to 24 in. x 24 in. (610mm x 610mm) maximum size. The damper is UL fire rated Ceiling/Floor Assembly L-563 and Ceiling/Roof Assembly P-544.

**RATING:**  
**UL CLASSIFIED:** UL 555C Fire Resistance Rating  
Fire resistance rated 3 Hours  
Building materials rated 3 Hours or less

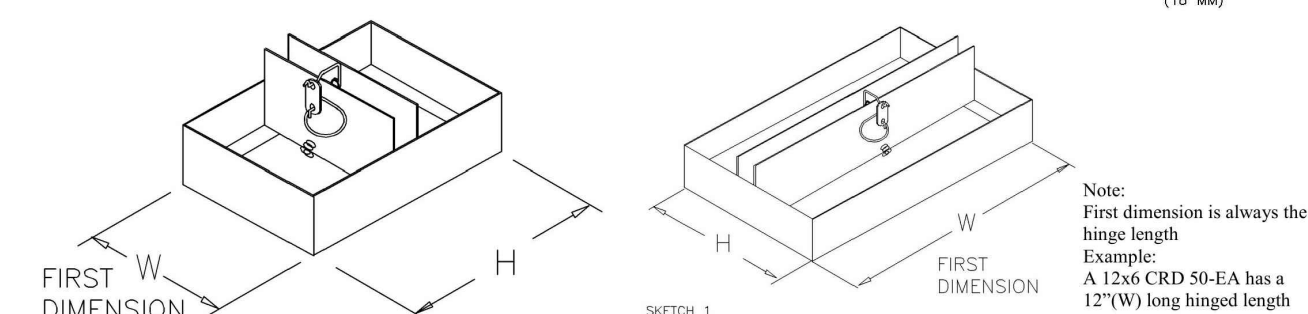
### Standard Construction

1. UL listed link (165°F Standard)
2. Blades 22 (0.853mm) Ga. Galv. Steel
3. Roll-formed frame 22 (0.853mm) ga. Galv. Steel
4. Steel duct drop (by others).

Model CRD 50EA meets the requirements for fire dampers established by:  
**CSFM California State Fire Marshal**  
**Fire Damper Listing (#3225-1417:101)**

### Note:

1. Maximum size 24"x24" (600mm x 600mm)  
Minimum size 4"x6"(101mm x 152mm)
2. Manufactured with blade opening as per sketch #1: when "W" equal to or greater than 6"
3. Manufactured with blade opening as per sketch #2: when "W" is less than 6" and "H" is greater than "W".
4. "Ceramic insulation is not UL required on dampers with areas less than 80 square inches and is optional. Dampers above 80 square inches will be provided with blade insulation.



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Email: tatanlexym@lloydasia.com

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THE OPERATING TEMPERATURE OF THE CEILING RADIATION DAMPER ACTUATION DEVICE SHALL BE 50°F ABOVE THE NORMAL TEMPERATURE WITHIN THE DUCT SYSTEM, BUT NOT LESS THAN 160°F.

VERIFY WITH MANUFACTURER THE ACCEPTABILITY OF THIS PRODUCT WITH THE INSTALLATION AND APPLICATION PRIOR TO ORDERING. VERIFY THE MANUFACTURER HAS DOCUMENTATION AND THAT THE DAMPER CAN BE INSTALLED WITH ALUMINUM GRILLES/DIFFUSERS PRIOR TO ORDERING. INSTALLATION SHALL BE AS PER THE MANUFACTURERS RECOMMENDATIONS.

## A RADIATION DAMPER DETAIL

SCALE: NTS  
1 HR SHEETROCK CEILING

| WALL HEATER SCHEDULE |                      |    |      |       |                 |              |         |
|----------------------|----------------------|----|------|-------|-----------------|--------------|---------|
| SYMBOL               | DESCRIPTION          | KW | VOLT | PHASE | THERMOSTAT      | MANUFACTURER | MODEL   |
| EH-1                 | MECH EQ ROOM         | 2  | 208  | 1     | MOUNT ON HEATER | Q-MARK       | AWH420B |
| EH-2                 | SPRINKLER RISER ROOM | 2  | 208  | 1     | MOUNT ON HEATER | Q-MARK       | AWH420B |

**WATER NOTES:**  
1. MAINTAIN WALL RATINGS AS NECESSARY.  
2. VERIFY COLOR WITH OWNER.

| ROOF MOUNTED GRAVITY VENTILATOR - RELIEF |         |      |              |      |         |          |         |
|------------------------------------------|---------|------|--------------|------|---------|----------|---------|
| SYMBOL                                   | TYPE    | CFM  | MANUFACTURER | SIZE | MODEL   | MATERIAL | REMARKS |
| DC-1                                     | EXHAUST | 840  | GREENHECK    | 16"ø | GRSR-16 | ALUMINUM | -       |
| DC-2                                     | EXHAUST | 450  | GREENHECK    | 12"ø | GRSR-12 | ALUMINUM | -       |
| DC-3                                     | EXHAUST | 1450 | GREENHECK    | 20"ø | GRSR-20 | ALUMINUM | -       |
| DC-4                                     | EXHAUST | 1460 | GREENHECK    | 20"ø | GRSR-20 | ALUMINUM | -       |
| DC-5                                     | EXHAUST | 425  | GREENHECK    | 12"ø | GRSR-12 | ALUMINUM | -       |
| DC-6                                     | EXHAUST | 850  | GREENHECK    | 16"ø | GRSR-16 | ALUMINUM | -       |
| DC-7                                     | EXHAUST | 720  | GREENHECK    | 15"ø | GRSR-15 | ALUMINUM | -       |
| DC-8                                     | EXHAUST | 425  | GREENHECK    | 12"ø | GRSR-12 | ALUMINUM | -       |
| DC-9                                     | EXHAUST | 850  | GREENHECK    | 16"ø | GRSR-16 | ALUMINUM | -       |
| DC-10                                    | EXHAUST | 425  | GREENHECK    | 12"ø | GRSR-12 | ALUMINUM | -       |
| DC-11                                    | EXHAUST | 425  | GREENHECK    | 12"ø | GRSR-12 | ALUMINUM | -       |
| DC-12                                    | EXHAUST | 890  | GREENHECK    | 16"ø | GRSR-16 | ALUMINUM | -       |
| DC-13                                    | EXHAUST | 700  | GREENHECK    | 15"ø | GRSR-15 | ALUMINUM | -       |
| DC-14                                    | EXHAUST | 720  | GREENHECK    | 15"ø | GRSR-15 | ALUMINUM | -       |
| DC-15                                    | EXHAUST | 425  | GREENHECK    | 12"ø | GRSR-12 | ALUMINUM | -       |
| DC-16                                    | EXHAUST | 1275 | GREENHECK    | 18"ø | GRSR-18 | ALUMINUM | -       |
| DC-17                                    | EXHAUST | 850  | GREENHECK    | 16"ø | GRSR-16 | ALUMINUM | -       |
| DC-18                                    | EXHAUST | 425  | GREENHECK    | 12"ø | GRSR-12 | ALUMINUM | -       |
| DC-19                                    | EXHAUST | 850  | GREENHECK    | 16"ø | GRSR-16 | ALUMINUM | -       |
| DC-20                                    | EXHAUST | 1295 | GREENHECK    | 18"ø | GRSR-18 | ALUMINUM | -       |
| DC-21                                    | EXHAUST | 425  | GREENHECK    | 12"ø | GRSR-12 | ALUMINUM | -       |
| DC-22                                    | EXHAUST | 850  | GREENHECK    | 16"ø | GRSR-16 | ALUMINUM | -       |

**GRAVITY VENTILATOR NOTES:**  
1. PROVIDE ROOF CURB.  
2. FOLLOW ALL GENERAL NOTES ON SHEET M1.  
3. FOR ALL VENTILATORS, DROP INTO ATTIC WITH SIZE AS INDICATED.



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## FIRE DAMPER



MODEL:  
75C (1-1/2 HR rating)  
75CR (1-1/2 HR rating)  
75CO (1-1/2 HR rating)

**APPLICATION**  
The model 75C is a Lloyd industries' fire damper with blades and frames "Out of Air Stream". It is approved for use in walls, floors, and partitions with fire resistance ratings less than 2 hours. This model carries a 1-1/2 hour UL fire damper label.

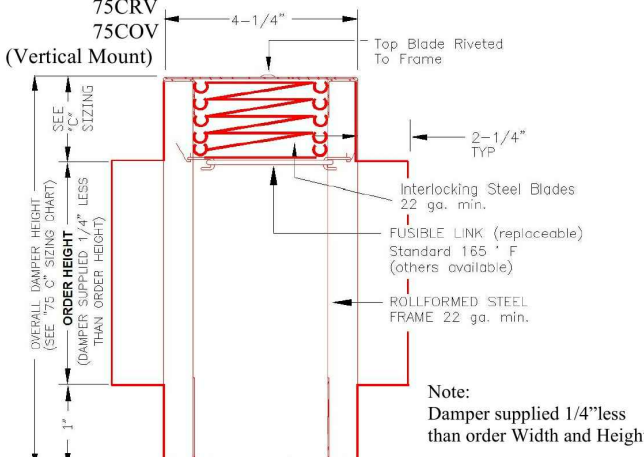
**RATING:**  
**UL CLASSIFIED:** UL 555 Fire Resistance Rating  
Fire resistance rated 1-1/2 Hours  
Partitions rated 2 Hours or less

### Standard Construction

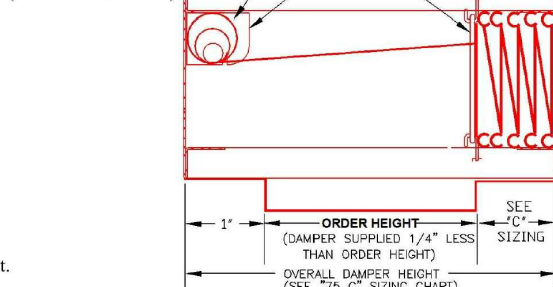
Frame: 22 ga. Galvanized Steel  
Blade: 22 ga. Galvanized Steel  
Closure Spring: Stainless Steel  
Fusible Link: 165°F  
Mounting: Horizontal or Vertical

|            | Single Section        |                         |                  |                  |
|------------|-----------------------|-------------------------|------------------|------------------|
|            | Maximum Section (WxH) | Maximum Duct Size (WxH) | Minimum Diameter | Maximum Diameter |
| Vertical   | 60"x60"               | 120"x120"               | 3"               | 52"              |
| Horizontal | 60"x60"               | 60"x60"                 | 3"               | 52"              |

Model: 75CV  
75CRV  
75COV  
(Vertical Mount)



Model: 75CH  
75CRH  
75COH  
(Horizontal Mount)



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VERIFY WITH MANUFACTURER THE ACCEPTABILITY OF THIS PRODUCT WITH THE INSTALLATION AND APPLICATION PRIOR TO ORDERING. INSTALLATION SHALL BE AS PER THE MANUFACTURERS RECOMMENDATIONS.

## B STATIC FIRE DAMPER DETAIL

SCALE: NTS  
1 HR SHEETROCK CEILING



LLOYD INDUSTRIES INC.

## COMBINATION FIRE SMOKE DAMPER



MODELS:  
FSD-111-2-PB

**APPLICATION**  
The FSD-111-2PB is a Lloyd's class 2 low leakage, 1-1/2HR combination fire & smoke damper with 3 "V" blades. The FSD-111-2PB can be installed vertically or horizontally in HVAC systems and is rated for airflow and leakage in either direction. The FSD-111-2PB has been qualified with velocities to 2000 fpm and pressures to 4.0 in. w.g.

### STANDARD CONSTRUCTION

FRAME: 16 ga. (1.5mm) Galvanized steel  
Interlocking stacked hat section  
Channel frame construction

BLADES: 16 ga. Galvanized 3 "V" formed  
Parallel blade

BEARINGS: Sintered Bronze, oil impregnated  
1/2 56 zinc plated steel studs

AXLES: 0.1250 56 zinc plated steel  
concealed in the channel frame

FINISH: Mill galvanized

BLADE SEALS: 60-65 Durometer silicone rubber  
with laminated acrylic adhesive  
permanently bonded to blade edges.

JAMB SEALS: Corrosion resistant stainless steel  
with laminated acrylic adhesive

JACKSHAFT: 1/2" Dia. Zinc plated steel with  
jackshaft connector coupling

CAULKING: UL Approved silicone sealants:  
Dow Corning RTV-732, 999A,  
GE-1200

SLEEVE: Specify: Rectangle, round, oval or  
special

OPTIONAL MATERIAL:  
Stainless steel construction

ACTUATOR:  
Specify type: Electric or Pneumatic  
Specify brand: HONEYWELL, BELIMO, SIEMENS  
Specify mounting: External or internal  
Specify voltage: 24V, 120V, 220V

Model FSD-111-2-PB meets the requirements for fire dampers, smoke dampers and combination fire smoke dampers established by:  
**CSFM California State Fire Marshal**  
**Fire Damper Listing (#3225-1417:102)**  
**Leakage (Smoke) Damper Listing (#3230-1417:103)**  
**New York City (MEA listing #215-99-E)**  
**British Standard (BS - 476 Part 20)**  
**Performance testing by AMCA International (AMCA STD 500)**  
**HKFM Hong Kong fire Marshal Approval**

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**Leakage (Smoke) Damper Listing (#3230-1417:103)**  
**New York**

| FRESH AIR MAKE UP UNIT SCHEDULE |                        |            |               |          |       |      |       |        |         |                    |      |                 |      |                    |        |                 |      |           |        |           |        |        |                   |                   |         |    |
|---------------------------------|------------------------|------------|---------------|----------|-------|------|-------|--------|---------|--------------------|------|-----------------|------|--------------------|--------|-----------------|------|-----------|--------|-----------|--------|--------|-------------------|-------------------|---------|----|
| SYMBOL                          | DESCRIPTION            | MANUF.     | MODEL         | ELECTRIC |       |      | S. P. | SUPPLY | RETURN  | WINTER OUTSIDE AIR |      | WINTER COND AIR |      | SUMMER OUTSIDE AIR |        | SUMMER COND AIR |      | LA SUMMER |        | LA WINTER |        | COMP   | TOTAL COOLING CAP | TOTAL HEATING CAP | REMARKS |    |
|                                 |                        |            |               | VOLT     | PHASE | MCA  |       |        |         | BREAKER            | TEMP | RH              | TEMP | RH                 | TEMP   | WB              | TEMP | WB        | TEMP   | WB        | TEMP   |        |                   |                   |         | WB |
| DOAS-1-30                       | 100% FRESH AIR MAKE UP | ALPHA AIRE | AAH100G1ASTA3 | 208      | 1     | 10.4 | 15/2  | 1"     | 425 CFM | 425 CFM            | 15°F | 80%             | 70°F | 42%                | 93.2°F | 80.8°F          | 77°F | 65.3°F    | 78.2°F | 61.9°F    | 77.6°F | 59.6°F | 0.75 TON          | 31,900            | 40,000  | -  |

**NOTES:**

1. PROVIDE MERV-13 FILTER 12"x24" RACK.
2. COORDINATE WITH GC TO ENLARGE ATTIC ACCESS PORT TO ALLOW A 28"x30" UNIT.
3. PROVIDE CONDENSATE PIPING OR CONDENSATE PUMP.
4. AIR BALANCE FOR DOAS UNITS MUST BE  $\pm 5\%$  MAXIMUM.
5. PROVIDE MEANS TO BALANCE AIR AT UNIT.

| SYMBOL | MANUFACTURER | MODEL      | ALTERNATE APPROVED MANUFACTURER | CONFIG. | SUPPLY FAN    |                    |        | EXHAUST FAN   |                    |        | HEATING WHEEL CORE - SUMMER |                    |                    |                    | HEATING WHEEL CORE - WINTER |               |               |               | VOLTAGE (V/PH/Hz) | MCA (AMPS) | MOC (AMPS) | WEIGHT (LBS) | NOTES | ACCESSORIES      |
|--------|--------------|------------|---------------------------------|---------|---------------|--------------------|--------|---------------|--------------------|--------|-----------------------------|--------------------|--------------------|--------------------|-----------------------------|---------------|---------------|---------------|-------------------|------------|------------|--------------|-------|------------------|
|        |              |            |                                 |         | AIRFLOW (CFM) | E. S. P. (IN. WG.) | DRIVE  | AIRFLOW (CFM) | E. S. P. (IN. WG.) | DRIVE  | OA EAT ('Fdb/'Fwb)          | OA LAT ('Fdb/'Fwb) | EA EAT ('Fdb/'Fwb) | EA LAT ('Fdb/'Fwb) | OA EAT ('Fdb)               | OA LAT ('Fdb) | EA EAT ('Fdb) | EA LAT ('Fdb) |                   |            |            |              |       |                  |
| ER-1   | ENERGYWALL   | U-ERV-1200 | RENEWAIRE                       | HORIZ.  | 600           | 0.25               | DIRECT | 600           | 0.50               | DIRECT | 93.2/80.8                   | 74.7/66.8          | 72.0/62.8          | 90.5/77.9          | 24.0                        | 64.1          | 70.0          | 29.9          | 208/1/60          | 15.1       | 20         | 196          | 1, 2  | A, B, C, E       |
| ER-2   | ENERGYWALL   | U-ERV-600  | RENEWAIRE                       | HORIZ.  | 400           | 0.25               | DIRECT | 500           | 0.50               | DIRECT | 93.2/80.8                   | 74.8/66.8          | 72.0/62.8          | 88.4/76.1          | 24.0                        | 62.4          | 70.0          | 34.5          | 208/1/60          | 8.3        | 15         | 129          | 1, 2  | A, B, C, D, E, F |
| ER-3   | ENERGYWALL   | U-ERV-600  | RENEWAIRE                       | HORIZ.  | 400           | 0.25               | DIRECT | 500           | 0.50               | DIRECT | 93.2/80.8                   | 74.8/66.7          | 72.0/62.8          | 88.4/76.1          | 24.0                        | 62.4          | 70.0          | 34.5          | 208/1/60          | 8.3        | 15         | 129          | 1, 2  | A, B, C, D, E, F |

ENERGY RECOVER VENTILATOR NOTES:

1. SEE A/M1.
2. START/STOP ERV VIA BMS CONTROL. ERV'S SHALL RUN ANYTIME AHU'S ARE ON.

**ACCESSORIES:**

1. 2 SERV-11 FILTER RACK ON EXHAUST AND SUPPLY.  
 2. SINGLE POINT POWER SUPPLY WITH INDIVIDUAL SPEED CONTROL ON EXHAUST AND SUPPLY FANS.  
 3. INCLUDE ACCESSORY VRF DX COIL ON SUPPLY AIR OUTLET. SEE DX COIL SCHEDULE FOR REQUIREMENTS.  
 4. EVERGREEN UV MODEL ADP-118 18W TUV LAMP IN EXHAUST OUTLET. INCLUDE REQUIRED 120V/1PH POWER SUPPLY. INTERLOCK WITH ERY EXHAUST FAN.  
 5. GFS-C24-4X24X12 POINT POINT IONIZATION SYSTEM IN SUPPLY OUT. INCLUDE 24V POWER SUPPLY AS REQUIRED. INTERLOCK WITH ERY SUPPLY FAN.  
 6. CAMFL 24X24X12 HEPA FILTER HOUSING WITH 2" SERV-8 PREFILTER. INCLUDE DIFFERENTIAL PRESSURE GAUGE TO MEASURE FILTER PRESSURE DROP.

| DX COIL SCHEDULE |                 |                |                                  |             |          |                 |             |              |              |           |             |          |          |              |         |             |
|------------------|-----------------|----------------|----------------------------------|-------------|----------|-----------------|-------------|--------------|--------------|-----------|-------------|----------|----------|--------------|---------|-------------|
| SYMBOL           | ASSOCIATED UNIT | MANUFACTURER   | MODEL                            | SYSTEM TYPE | AIRFLOW  |                 | COOLING     |              |              |           | HEATING     |          |          | WEIGHT (LBS) | NOTES   | ACCESSORIES |
|                  |                 |                |                                  |             | SA (CFM) | MAX PD (IN H2O) | TOTAL (MGH) | EAT ('F/Fwb) | LAT ('F/Fwb) | REFR ('F) | TOTAL (MGH) | EAT ('F) | LAT ('F) |              |         |             |
| DX-1             | ER-1            | SUPER RADIATOR | 5x38-2R-0.375/252<br>(TWO COILS) | HEAT PUMP   | 600      | 0.23            | 21.2        | 74.7/66.9    | 56.2/55.4    | 42.0      | 25.8        | 64.1     | 103      | -            | 1, 2, 3 | A           |
| DX-2             | ER-2            | SUPER RADIATOR | 5x38-2R-0.375/252                | HEAT PUMP   | 400      | 0.23            | 12.9        | 74.8/66.7    | 57.4/56.3    | 42.0      | 16.5        | 62.4     | 100      | -            | 1, 2, 3 | A           |
| DX-3             | ER-3            | SUPER RADIATOR | 5x38-2R-0.375/252                | HEAT PUMP   | 400      | 0.23            | 12.9        | 74.8/66.7    | 57.4/56.3    | 42.0      | 16.5        | 62.4     | 100      | -            | 1, 2, 3 | A           |

**DX COIL NOTES:**

1. SEE A/M1.
2. FACTORY FURNISHED AND INSTALLED BY ERV MANUFACTURER. REFER TO ERV SCHEDULE FOR ADDITIONAL DETAILS.
3. MATCHING MODULATING EXPANSION VALVE PROVIDED WITH VRF EQUIPMENT. REFER TO VRF SCHEDULE FOR ADDITIONAL INFO AND SYSTEM CONNECTION DETAILS.

**ACCESSORIES:**

- A. INSULATED DRAIN PAN.

| SPLIT SYSTEM DOAS UNIT SCHEDULE |                    |          |       |     |      |        |           | AIR HANDLER |      |            |      |       |      |        |       |                  |                        |                           |                  |         |      |
|---------------------------------|--------------------|----------|-------|-----|------|--------|-----------|-------------|------|------------|------|-------|------|--------|-------|------------------|------------------------|---------------------------|------------------|---------|------|
| SYMBOL                          | COOLING CAP (TONS) | ELECTRIC |       |     |      | MANUF. | MODEL     | SYMBOL      | TYPE | ELECTRIC   |      |       |      | MANUF. | MODEL | FAN CFM          | FRESH AIR INTAKE (CFM) | ESP (IN OF H2O) VERT/H.R. | HUMIDITY CONTROL | REMARKS |      |
|                                 |                    | VOLT     | PHASE | MCA | FUSE |        |           |             |      | STRIP (kW) | VOLT | PHASE | MCA  |        |       |                  |                        |                           |                  |         | FUSE |
| DOAC-1                          | 4 TONS             | 208      | 3     | 18  | 30   | TRANE  | 4TTA404BA | DOAHU-1     | HORZ | 10         | 208  | 3     | 40.4 | 50     | TRANE | BCHD018-10-3820B | 500                    | 500                       | 0.5              | YES     | -    |

NOTES A/C UNITS:

1. PROVIDE GALVANIZED DRIP PANS AT EACH UNIT WITH PAN DRAIN WITH FLOAT SWITCH.
2. PROVIDE DEHUMIDIFICATION CONTROL TO DELIVER AIR AT 75° F @ 50% RH.
3. PROVIDE CONCRETE PAD FOR COMPRESSOR.
4. CONTROL SHAFTS PROVIDE FILTERS. A/HJ. FILTER SHALL BE SIZED PER MFG. RECOMMENDATIONS & SHALL BE MERV-13.
5. PROVIDE MANUFACTURER RECOMMENDED CLEARANCES AROUND ALL INDOOR AND OUTDOOR UNITS.
6. CONSULT WITH COMPRESSOR MANUFACTURER FOR THE CORRECT SIZING OF REFRIGERANT LINES.
7. PROVIDE LOW AMBIENT CONTROLS FOR FREEZE PROTECTION.
8. INCLUDE 10W REHEAT UNIT.
9. ROUTE CONDENSATE TO A STORM WATER DRAINAGE.
10. INTERLOCK UNIT TO RUN WHEN CONDENSATE HOOD FAN OPERATES ONLY.

| DUCT HEATER SCHEDULE |                       |     |     |      |       |            |        |       |                |         |
|----------------------|-----------------------|-----|-----|------|-------|------------|--------|-------|----------------|---------|
| SYMBOL               | DESCRIPTION           | CFM | KW  | VOLT | PHASE | THERMOSTAT | MFG.   | MODEL | DUCT AT HEATER | REMARKS |
| DH-1                 | DUCT HEATER<br>(TUB)  | 175 | 2.5 | 208  | 1     | YES        | MARKEL | SCR   | NOTE 6         | -       |
| DH-2                 | DUCT HEATER<br>SHOWER | 175 | 2.5 | 208  | 1     | YES        | MARKEL | SCR   | NOTE 6         | -       |

**NOTES:**

1. PROVIDE AUTOMATIC RESET THAT LIMITS OUTLET TEMPERATURE TO MANUFACTURER'S REQUIRED SETTING OR LESS.
2. ELECTRIC HEATER ELEMENTS SHALL BE EQUIPPED WITH FUSIBLE LINKS OR MANUAL RESET TEMPERATURE CONTROL TO MAINTAIN OUTLET TEMPERATURE TO MANUFACTURER'S REQUIRED SETTING.
3. HEATER SHALL BE LISTED AND BEAR THE MARK OF AN APPROVED TESTING AGENCY.
4. PROGRAM THERMOSTAT TO ACTIVATE THE AHU.
5. PROGRAM LOW VOLTAGE SWITCH SHALL BE SET ABOVE 30% OF OPERATING CFM.
6. DUCT SIZE AT HEATER SHALL BE SUCH THAT MANUFACTURER RECOMMENDED VELOCITY AT HEATER IS ACHIEVED. CONSULT MANUFACTURER FOR SIZING.

| WALL HEATER SCHEDULE |                     |    |      |       |                 |        |         |         |
|----------------------|---------------------|----|------|-------|-----------------|--------|---------|---------|
| SYMBOL               | DESCRIPTION         | KW | VOLT | PHASE | THERMOSTAT      | MFG.   | MODEL   | REMARKS |
| WH-1                 | MECH EQUIPMENT ROOM | 2  | 120  | 1     | MOUNT ON HEATER | Q-MARK | AMH4208 | -       |

WALL HEATER NOTES:

1. MAINTAIN WALL RATINGS AS NECESSARY.  
2. VERIFY COLOR WITH OWNER.

| PACKAGE TERMINAL HEAT PUMP/AC SCHEDULE |               |      |       |     |                  |         |           |              |        |      |         |
|----------------------------------------|---------------|------|-------|-----|------------------|---------|-----------|--------------|--------|------|---------|
| SYMBOL                                 | COOLING CAP   | VOLT | PHASE | MCA | STRIP            | BREAKER | FRESH AIR | MANUFACTURER | MODEL  | EER  | REMARKS |
| TW-1                                   | 11,600 BTU/HR | 208  | 1     | 23  | 3.95KW<br>Ø 208V | 30/2    | 75 CFM    | FRIEDRICH    | PDH12K | 11.6 | -       |

**NOTES:**

1. PROVIDE ARCHITECTURAL GRILLE.
2. PROVIDE CORROSION RESISTANT CASE.
3. PROVIDE CORD AND PLUG.
4. SET UNIT TO RUN WHEN HEATING OR COOLING IS CALLED FOR.

| PACKAGE DEHUMIDIFIER SCHEDULE |           |                           |         |                                               |                |          |                           |                           |            |            |              |         |             |
|-------------------------------|-----------|---------------------------|---------|-----------------------------------------------|----------------|----------|---------------------------|---------------------------|------------|------------|--------------|---------|-------------|
| SYMBOL                        | LOCATION  | DESIGN BASIS MANUFACTURER | MODEL   | DEHUMID. CAPACITY @ 80°F / 50% RH (PINTS/DAY) | INDOOR SECTION |          |                           |                           |            |            |              | NOTES   | ACCESSORIES |
|                               |           |                           |         |                                               | FAN            |          |                           | ELECTRICAL (SINGLE POINT) |            |            | WEIGHT (LBS) |         |             |
|                               |           |                           |         |                                               | SA (CFM)       | OA (CFM) | ESP (IN H <sub>2</sub> O) | VOLTAGE (V/PH/Hz)         | MCA (AMPS) | MOC (AMPS) |              |         |             |
| D1, D2, D3                    | EXAM/ISOL | SANTE FE                  | 4033600 | 70.0                                          | 150            | 0        | -                         | 120/1/60                  | 6.4        | 15.0       | 65           | 1, 2, 3 | A, B, C     |

**PACKAGE DEHUMIDIFIER NOTES:**

1. SEE A/M1.
2. 6" CORD PLUGS INTO DEDICATED DUPLEX OUTLET.
3. DUCTED CONNECTIONS. SEE PLANS.

**ACCESSORIES:**

- A. DUCT ADAPTER.  
B. MATCHING DEH3000 WALL MOUNT HUMIDITY CONTROL.  
C. MERV-13 FILTER.

| LOUVER SCHEDULE |             |             |      |                  |        |          |                |              |              |                                                          |
|-----------------|-------------|-------------|------|------------------|--------|----------|----------------|--------------|--------------|----------------------------------------------------------|
| SYMBOL          | DESCRIPTION | SIZE<br>WxH | RAIN | BACKDRAFT DAMPER | SCREEN | MATERIAL | PAINT          | MANUFACTURER | MODEL        | REMARKS                                                  |
| L-1             | INTAKE      | 24"x20"     | YES  | YES              | BIRD   | ALUMINUM | MATCH BUILDING | RUSKIN       | EME632SD     | MOTOR OPERATED BACKDRAFT DAMPER ~ 24V<br>NOTE 1, 2, 4, 5 |
| L-2             | INTAKE      | 24"x20"     | YES  | YES              | BIRD   | ALUMINUM | MATCH BUILDING | RUSKIN       | EME632SD     | MOTOR OPERATED BACKDRAFT DAMPER ~ 24V<br>NOTE 1, 4, 5    |
| L-3             | VENTILATION | 12"x12"     | YES  | NO               | BIRD   | ALUMINUM | MATCH BUILDING | RUSKIN       | EME3625DFLMD | STATIONARY                                               |
| L-4             | INTAKE      | 24"x20"     | YES  | NO               | BIRD   | ALUMINUM | BUILDING       | RUSKIN       | EME3625DFLMD | STATIONARY<br>NOTE 6                                     |

**LOUVER NOTES:**

1. MECHANICAL CONTRACTOR SHALL PROVIDE POWER.
2. INTERLOCK TO OPEN WHEN VENTILATION FAN F-6 OPERATES.
3. INTERLOCK TO OPEN WHEN VENTILATION FAN F-5 OPERATES.
4. BACKDRAFT DAMPER SHALL FIT LOUVER.
5. CD50CE MOTORIZED DAMPER.
6. SET LOUVER AT CEILING.

| FAN SCHEDULE |             |      |         |      |       |          |              |           |         |
|--------------|-------------|------|---------|------|-------|----------|--------------|-----------|---------|
| SYMBOL       | DESCRIPTION | SP   | SET CFM | VOLT | PHASE | MOUNTING | MANUFACTURER | MODEL     | REMARKS |
| F-1          | SHEET M9    | 0.25 | 415     | 120  | 1Ø    | INLINE   | GREENHECK    | CSP-A510  | -       |
| F-2          | SHEET M9    | 0.25 | 500     | 120  | 1Ø    | INLINE   | GREENHECK    | CSP-A710  | -       |
| F-3          | SHEET M9    | 0.25 | 610     | 120  | 1Ø    | INLINE   | GREENHECK    | CSP-A710  | -       |
| F-4          | SHEET M13   | 0.25 | 295     | 120  | 1Ø    | INLINE   | GREENHECK    | CSP-A390  | -       |
| F-5          | SHEET M12   | 0.25 | 800     | 120  | 1Ø    | INLINE   | GREENHECK    | CSP-A1050 | -       |
| F-6          | SHEET M12   | 0.25 | 190     | 120  | 1Ø    | INLINE   | GREENHECK    | CSP-A290  | -       |
| F-7          | SHEET M12   | 0.25 | 285     | 120  | 1Ø    | INLINE   | GREENHECK    | CSP-A410  | -       |
| F-8          | SHEET M12   | 0.25 | 275     | 120  | 1Ø    | INLINE   | GREENHECK    | CSP-A410  | -       |
| F-9          | SHEET M11   | 0.25 | 295     | 120  | 1Ø    | INLINE   | GREENHECK    | CSP-A410  | -       |
| F-10         | SHEET M10   | 0.25 | 295     | 120  | 1Ø    | INLINE   | GREENHECK    | CSP-A410  | -       |

**FAN NOTES:**

1. PROVIDE BACKDRAFT DAMPER.
2. PROVIDE SPEED CONTROLLER.
3. F-5 OPERATES OFF THERMOSTAT.
4. F-6 OPERATES OFF SWITCH IN SPACE.

|                                                                                       |          |               |     |
|---------------------------------------------------------------------------------------|----------|---------------|-----|
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| symbol                                                                                | date     | description   | by  |
| REVISIONS                                                                             |          |               |     |



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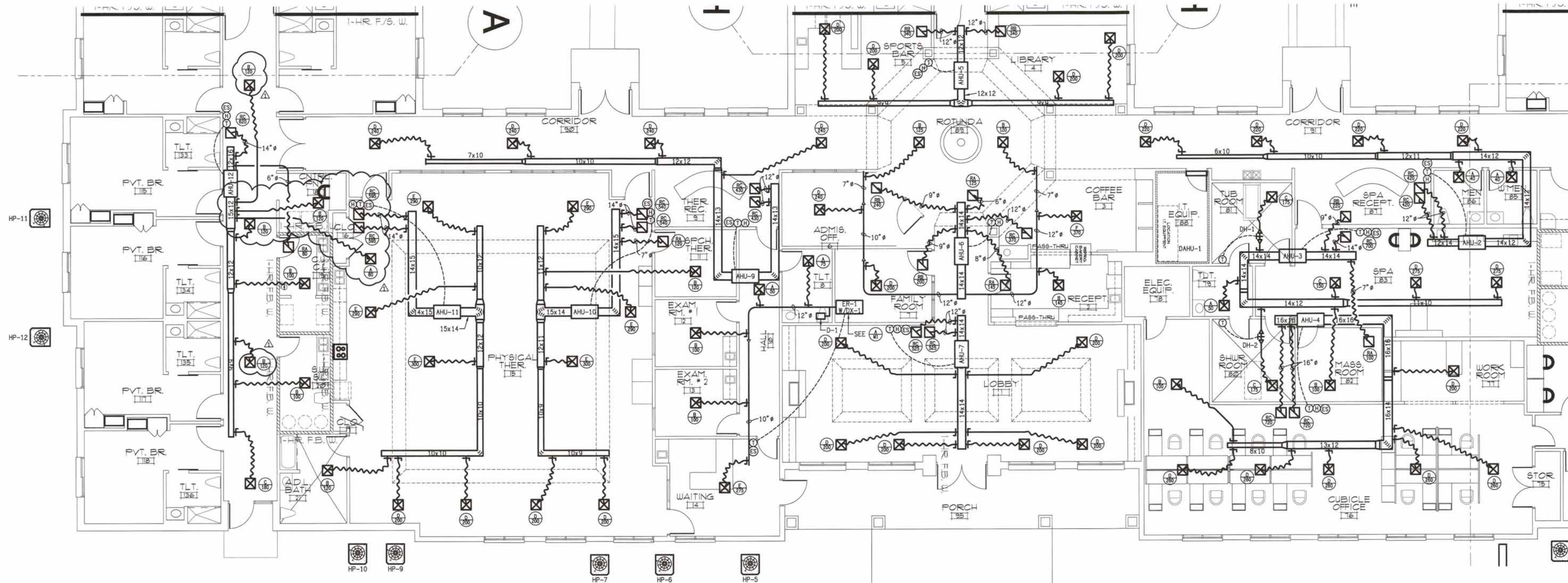
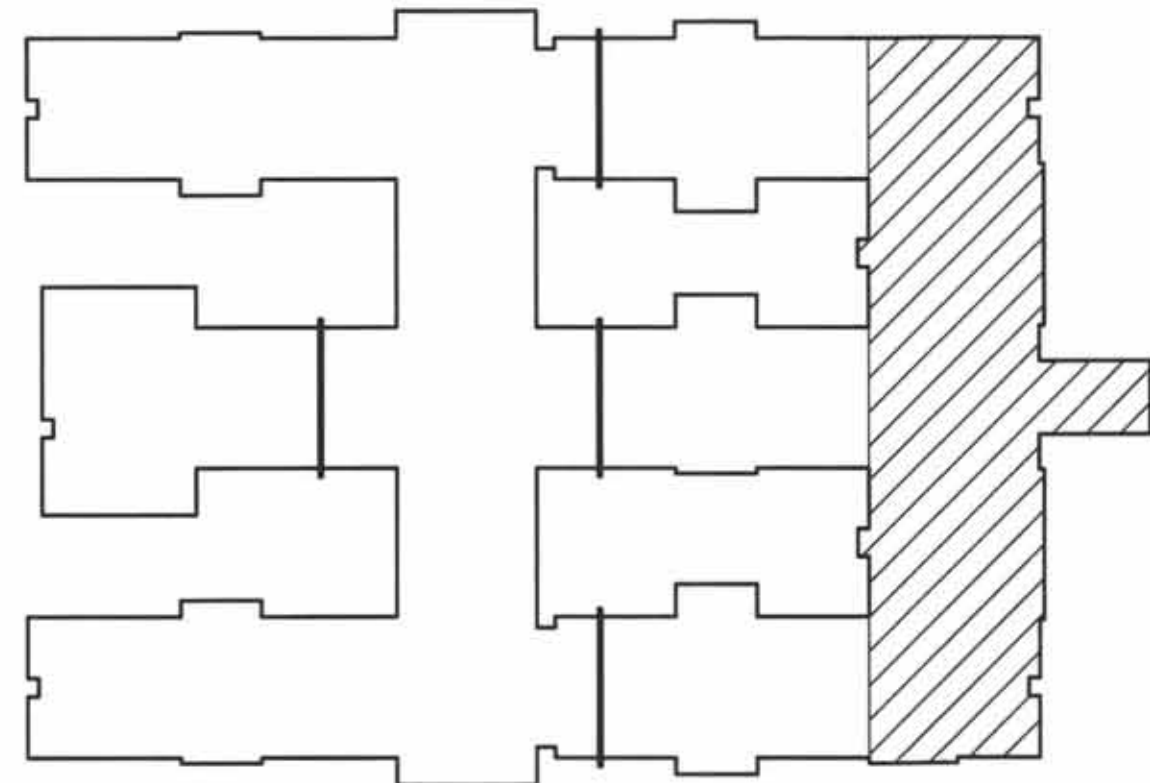
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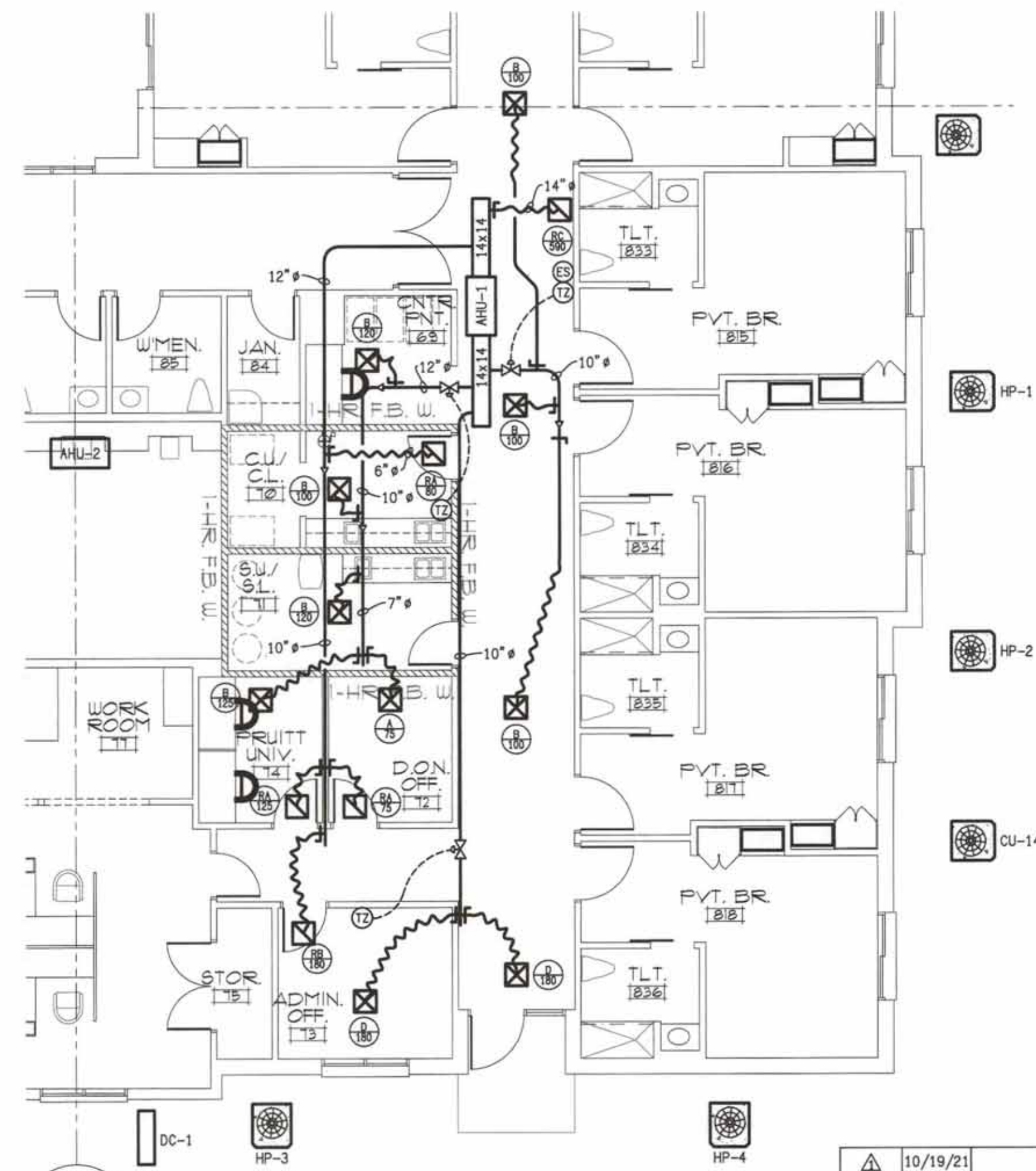
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PLAN KEY



**B PARTIAL MECHANICAL PLAN**  
M4 SCALE: 1/8" = 1'-0"



**A PARTIAL MECHANICAL PLAN**  
M4 SCALE: 1/8" = 1'-0"

| symbol    | date     | description   | by  |
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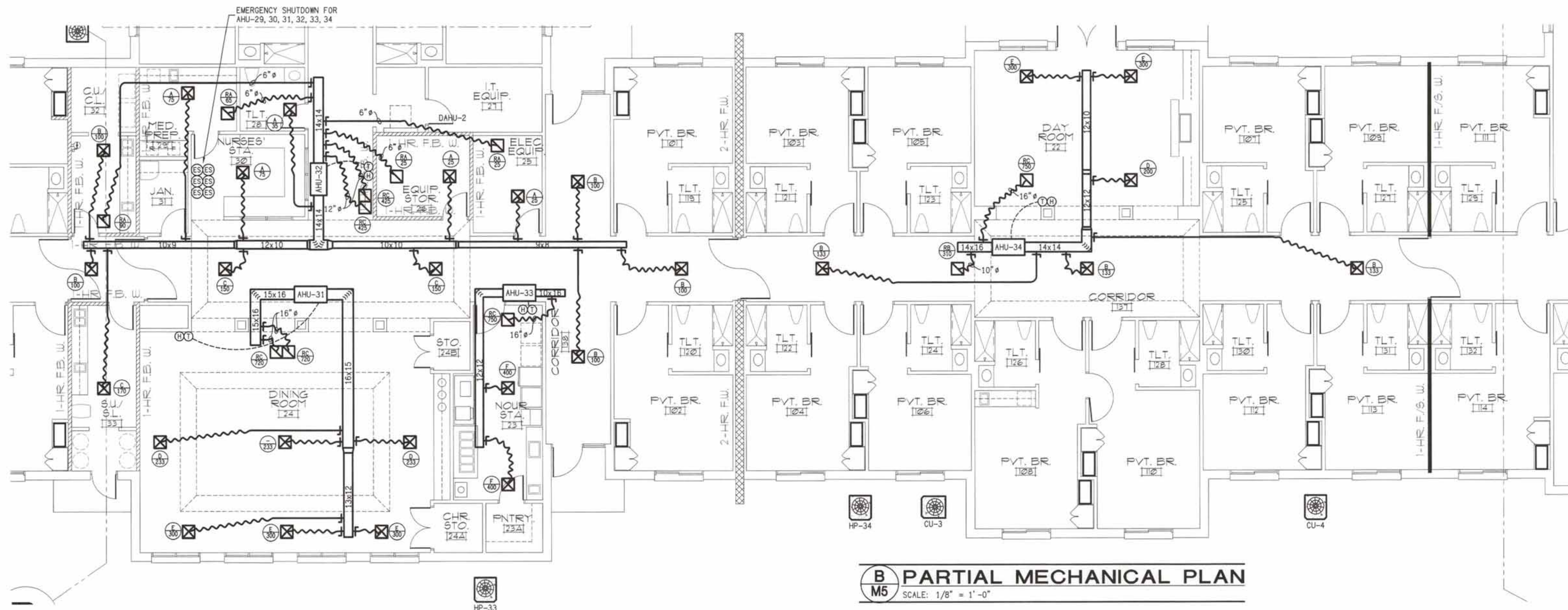
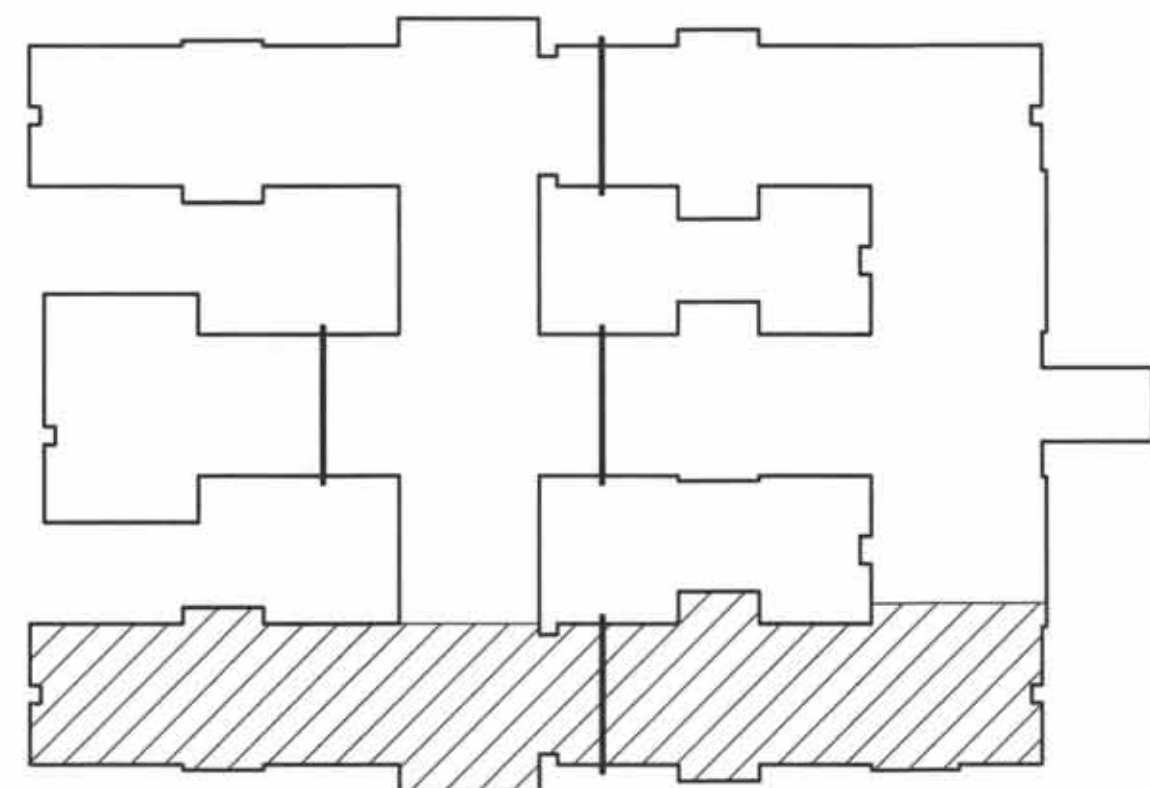
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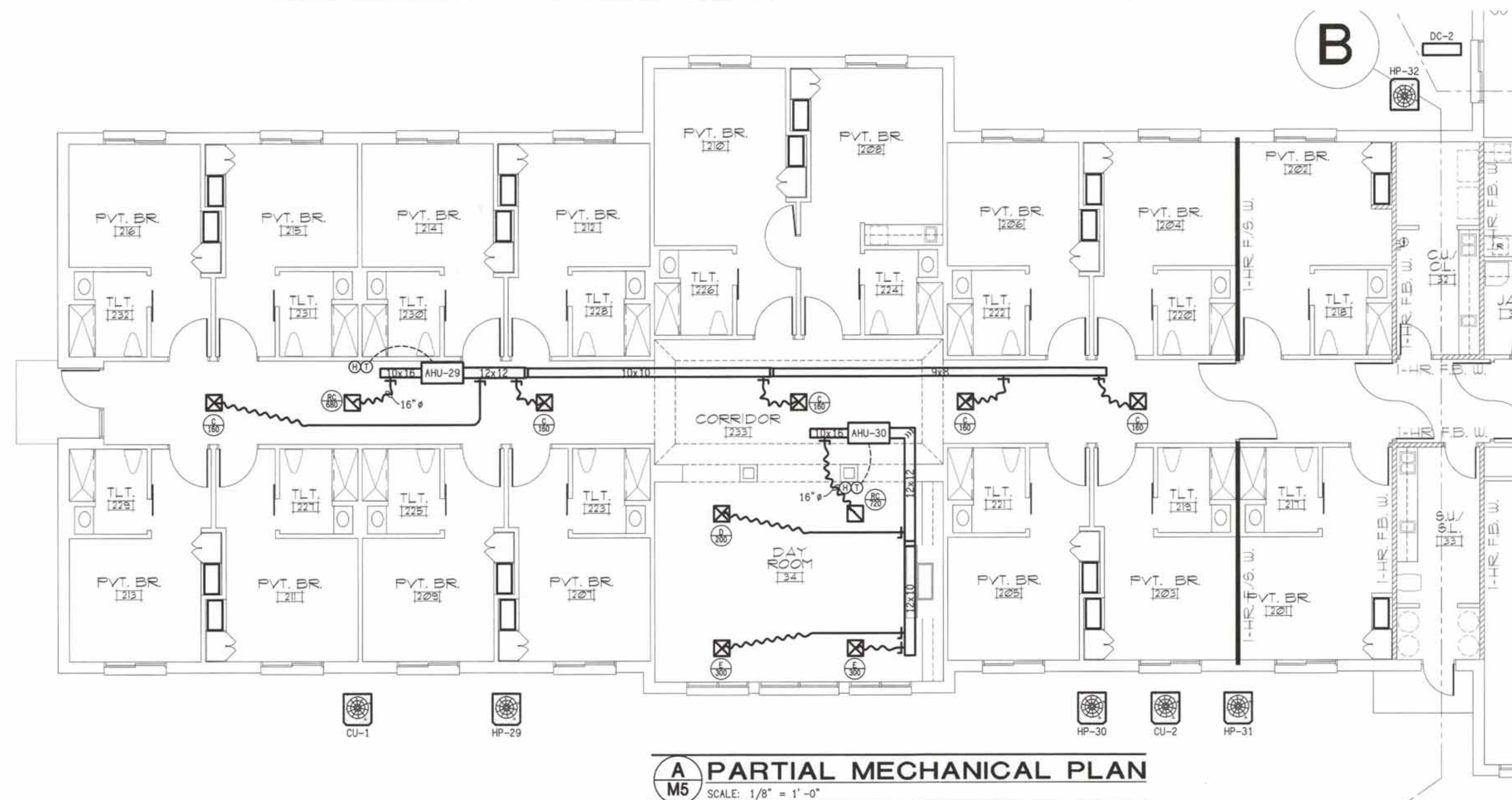
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PLAN KEY



**B PARTIAL MECHANICAL PLAN**  
M5 SCALE: 1/8" = 1'-0"

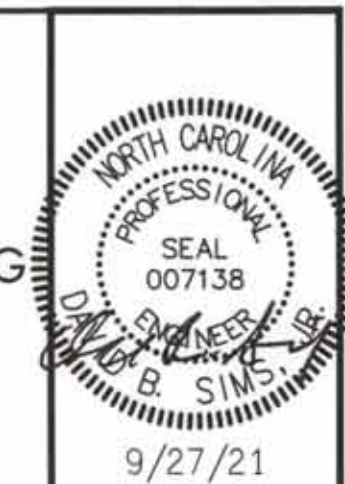


**A PARTIAL MECHANICAL PLAN**  
M5 SCALE: 1/8" = 1'-0"

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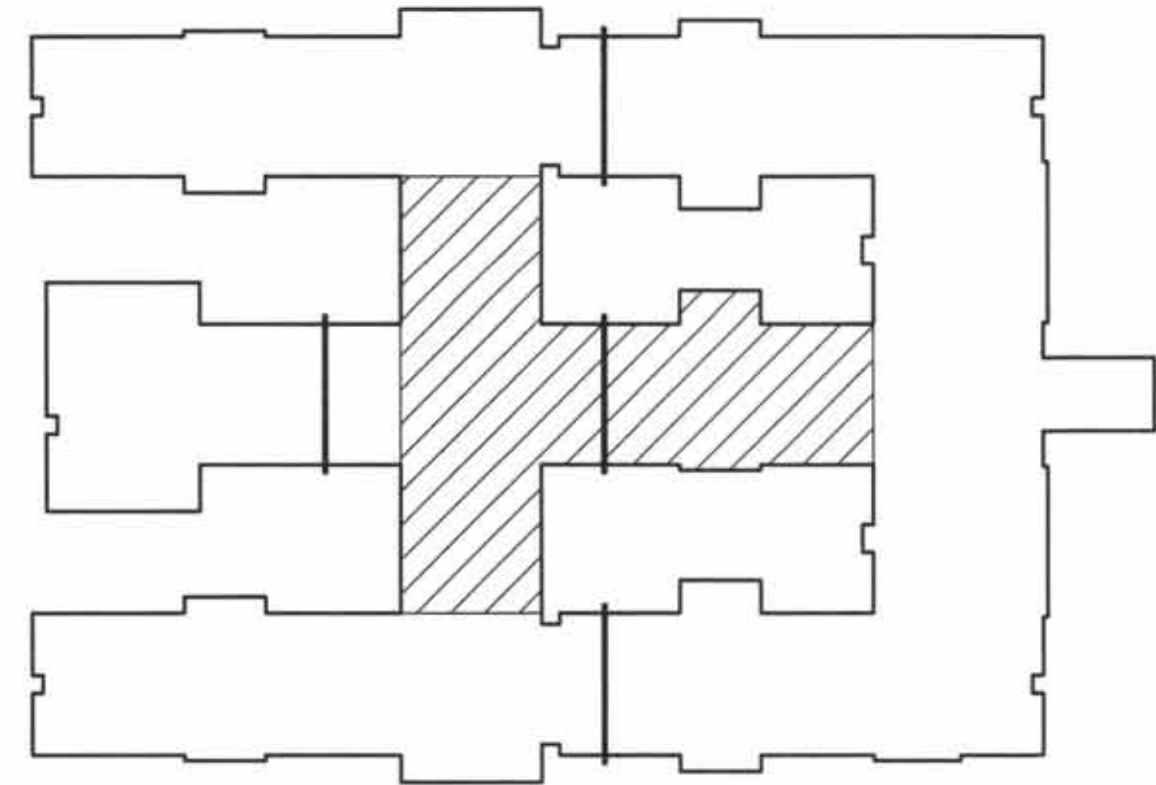
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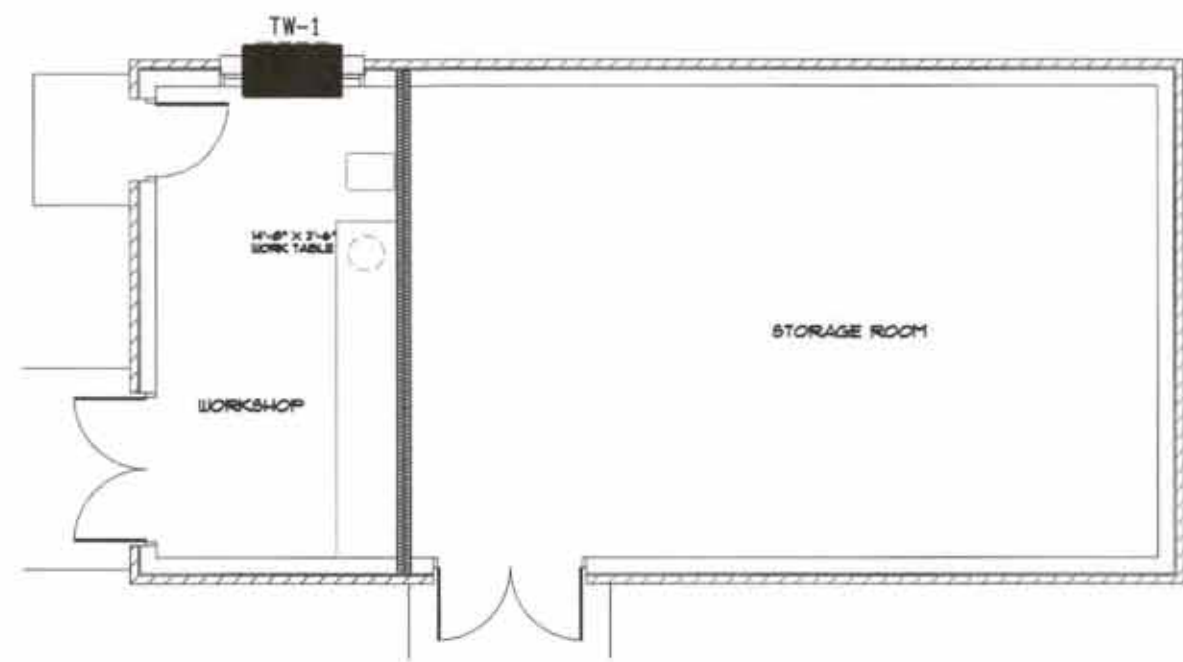
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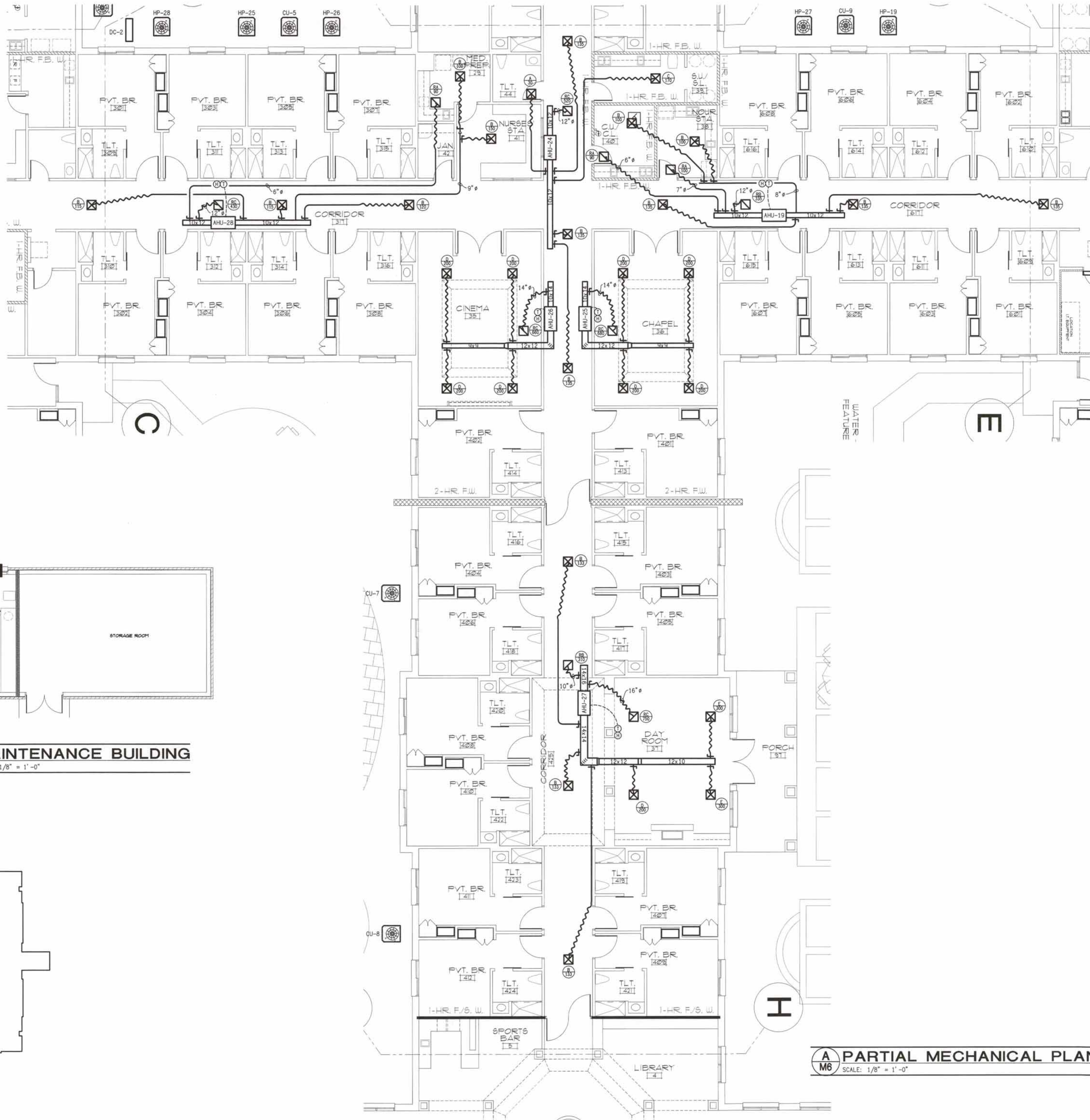
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PLAN KEY



**B MAINTENANCE BUILDING**  
M6 SCALE: 1/8" = 1'-0"



**A PARTIAL MECHANICAL PLAN**  
M6 SCALE: 1/8" = 1'-0"

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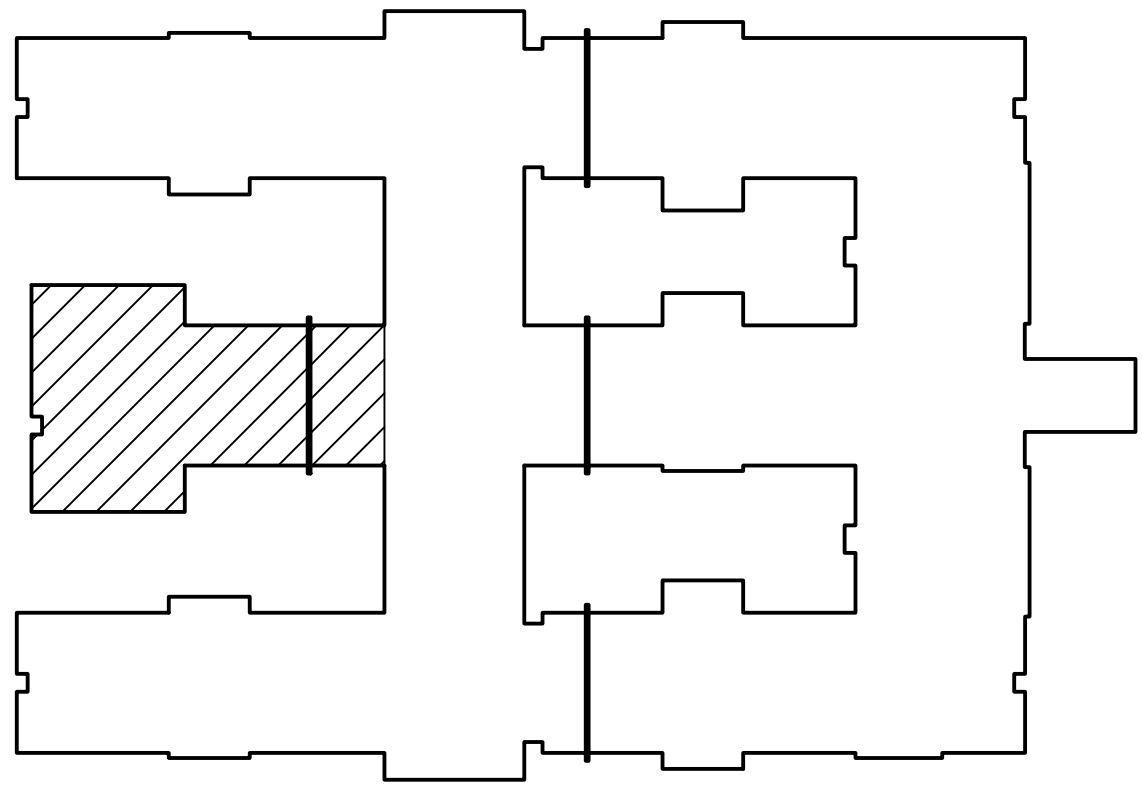
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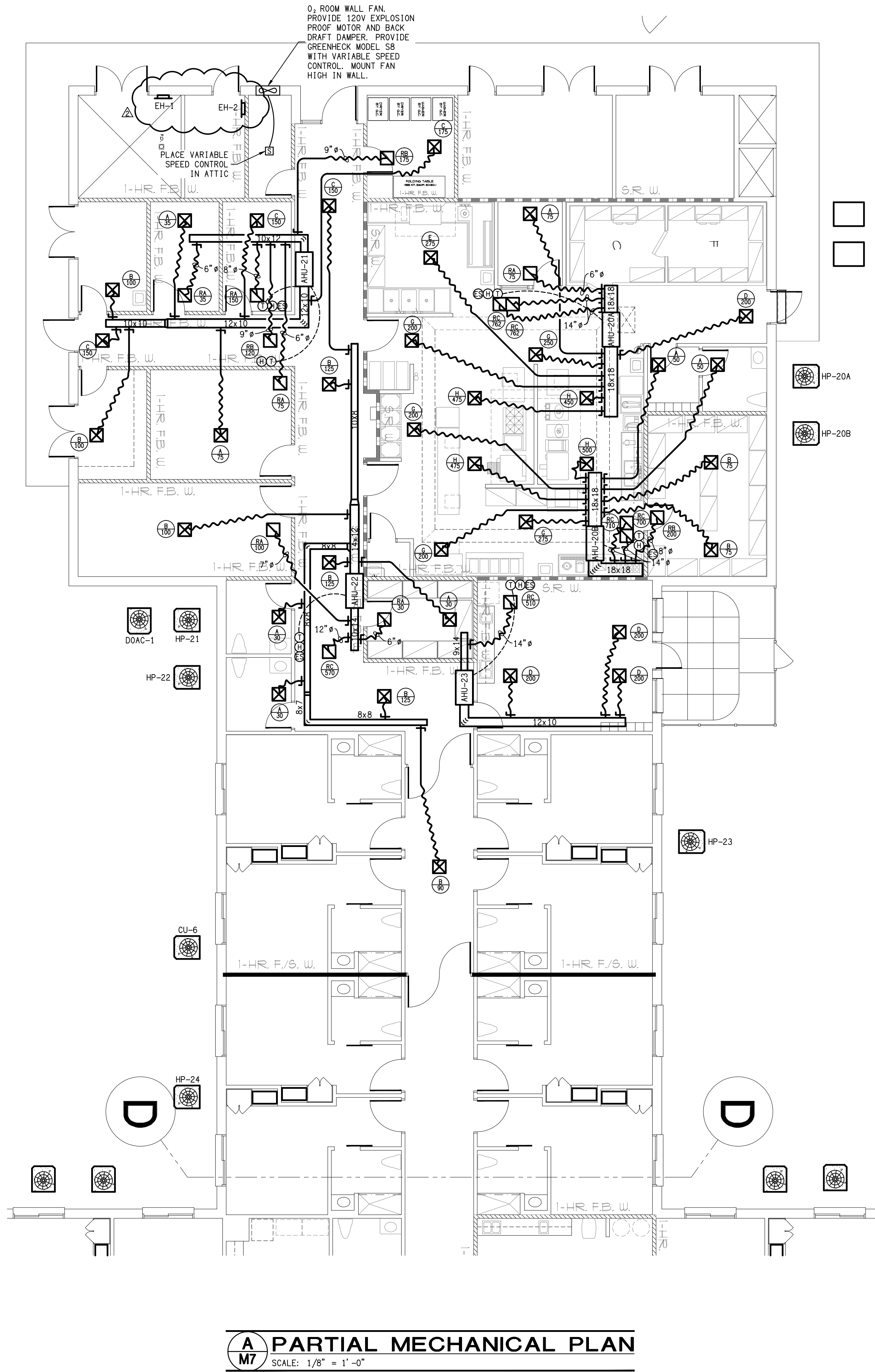
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**6**



PLAN KEY



|           |          |                   |     |
|-----------|----------|-------------------|-----|
| △         | 4/13/22  | ADDED WALL HEATER | DBS |
| △         | 10/19/21 | DHSR REVIEW       | DBS |
| symbol    | date     | description       | by  |
| REVISIONS |          |                   |     |

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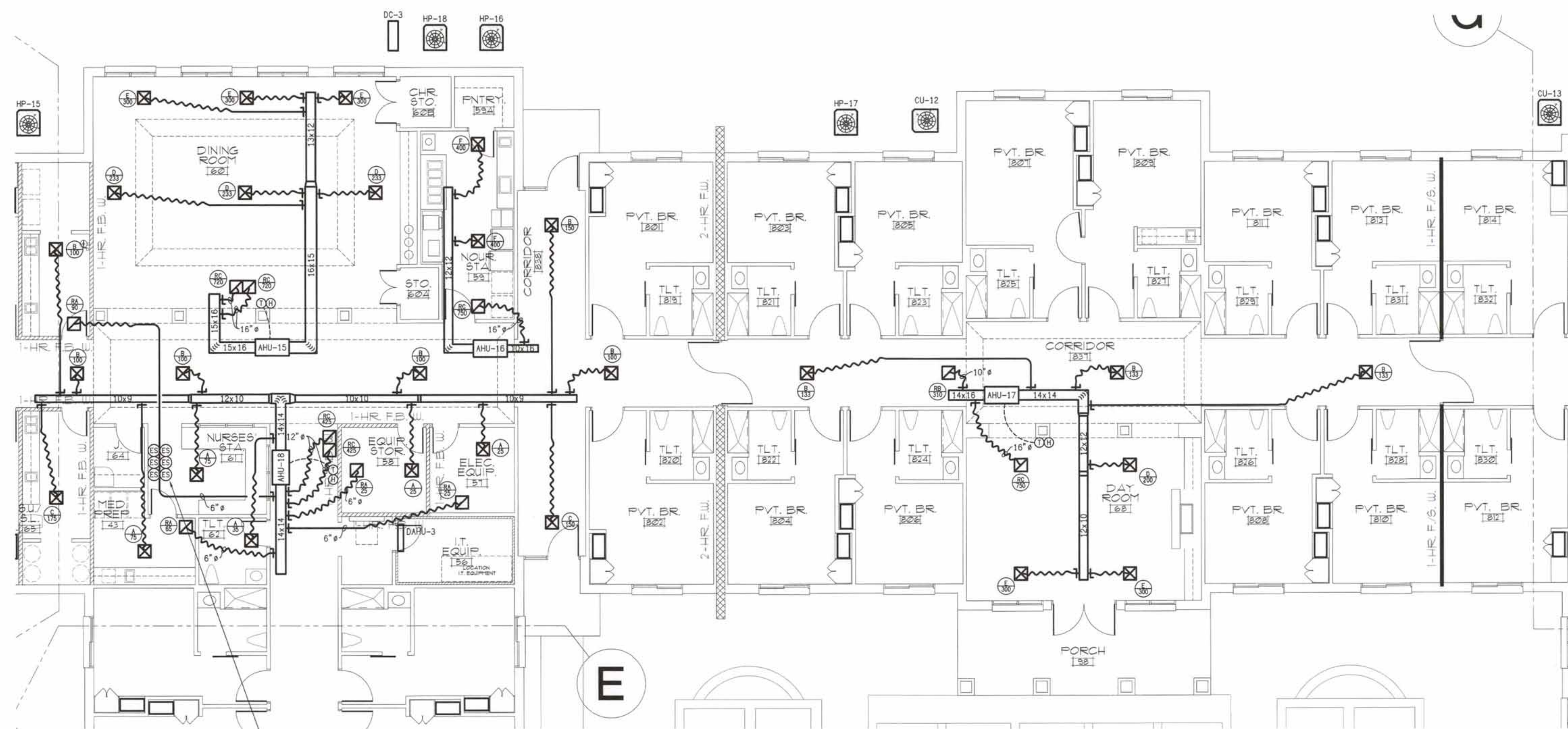
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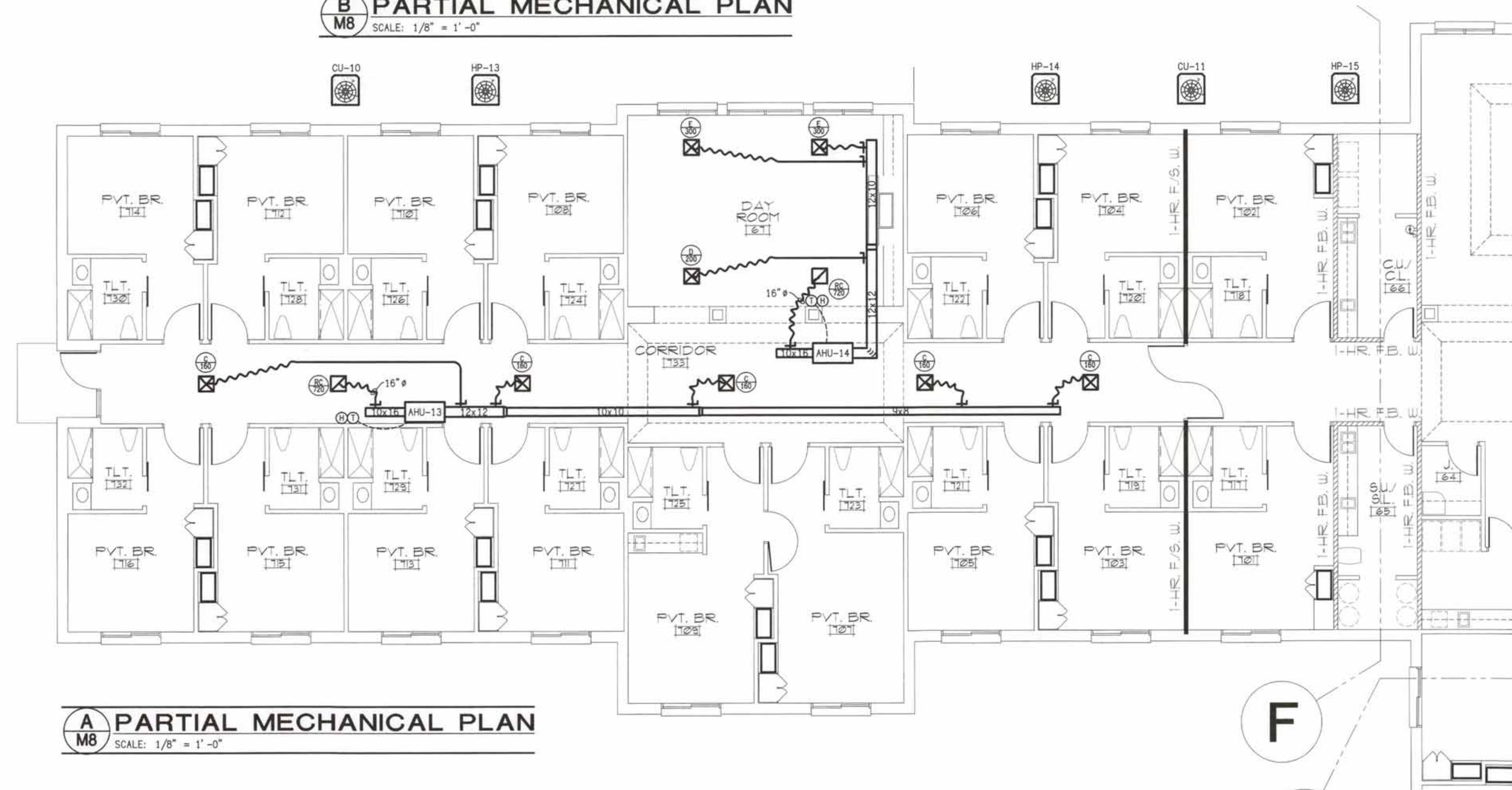
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7

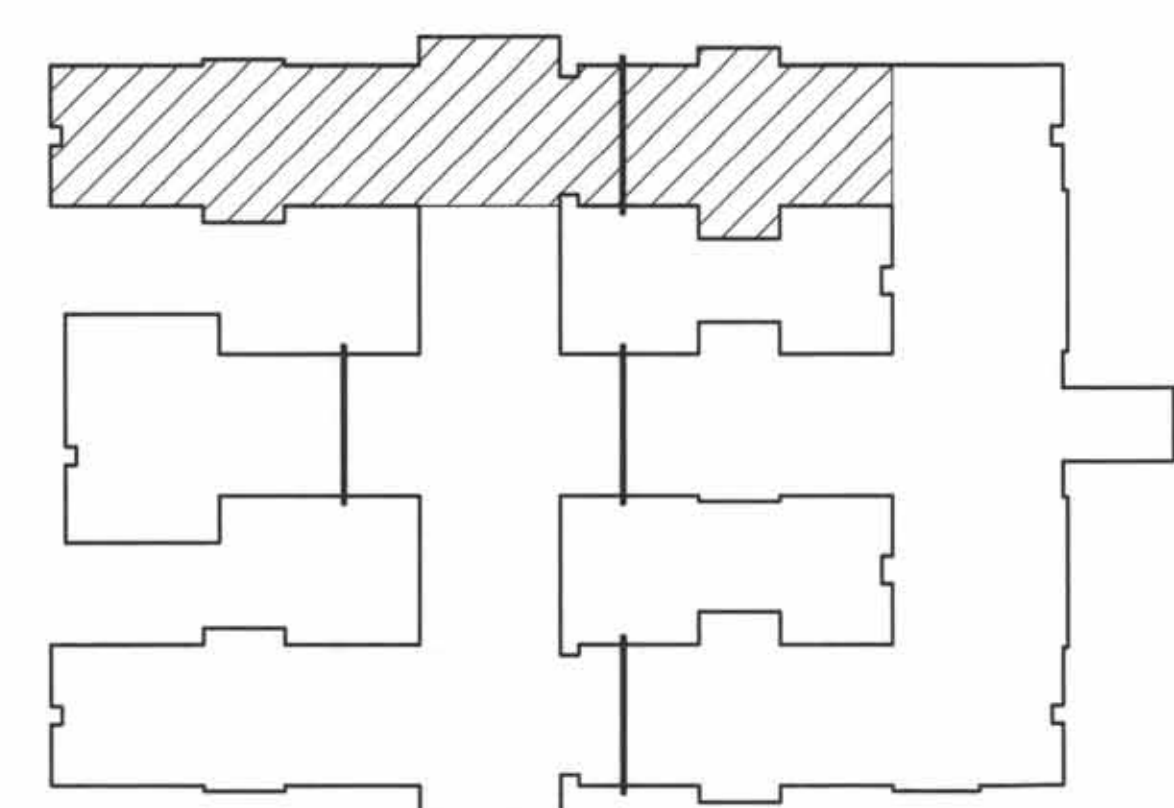
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**B**  
M8 PARTIAL MECHANICAL PLAN  
SCALE: 1/8" = 1'-0"



**A**  
M8 PARTIAL MECHANICAL PLAN  
SCALE: 1/8" = 1'-0"



**PLAN KEY**

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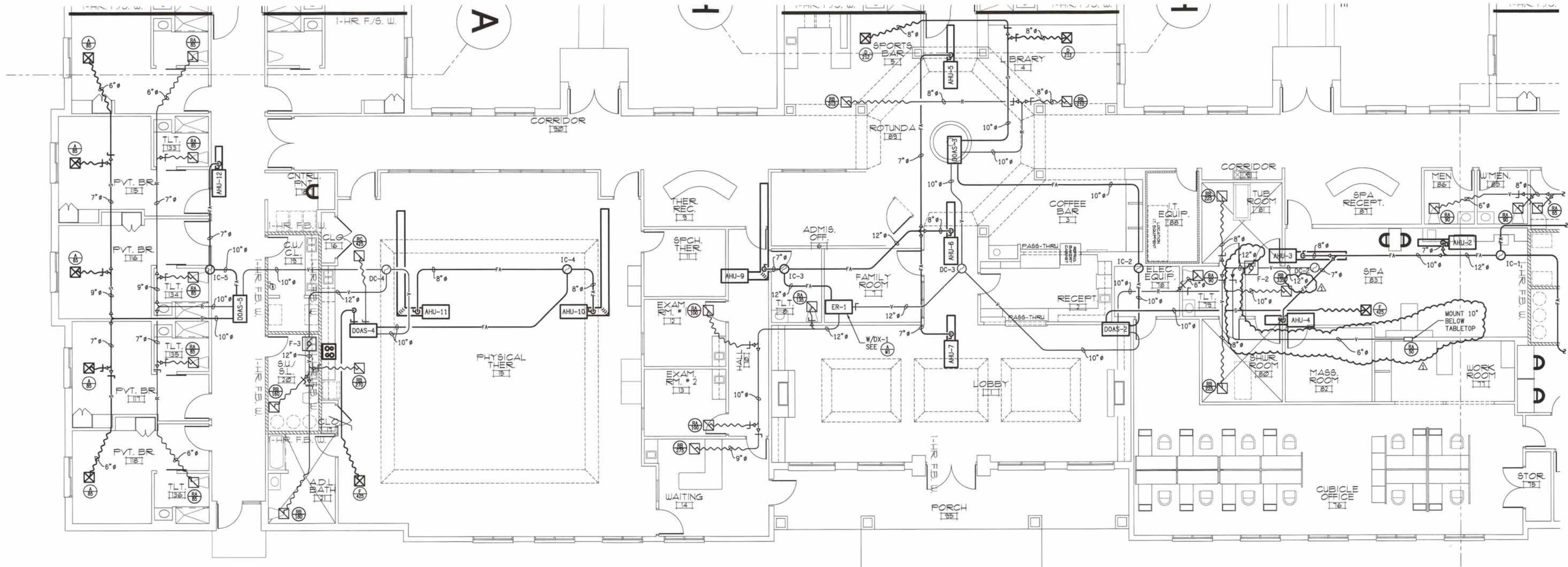
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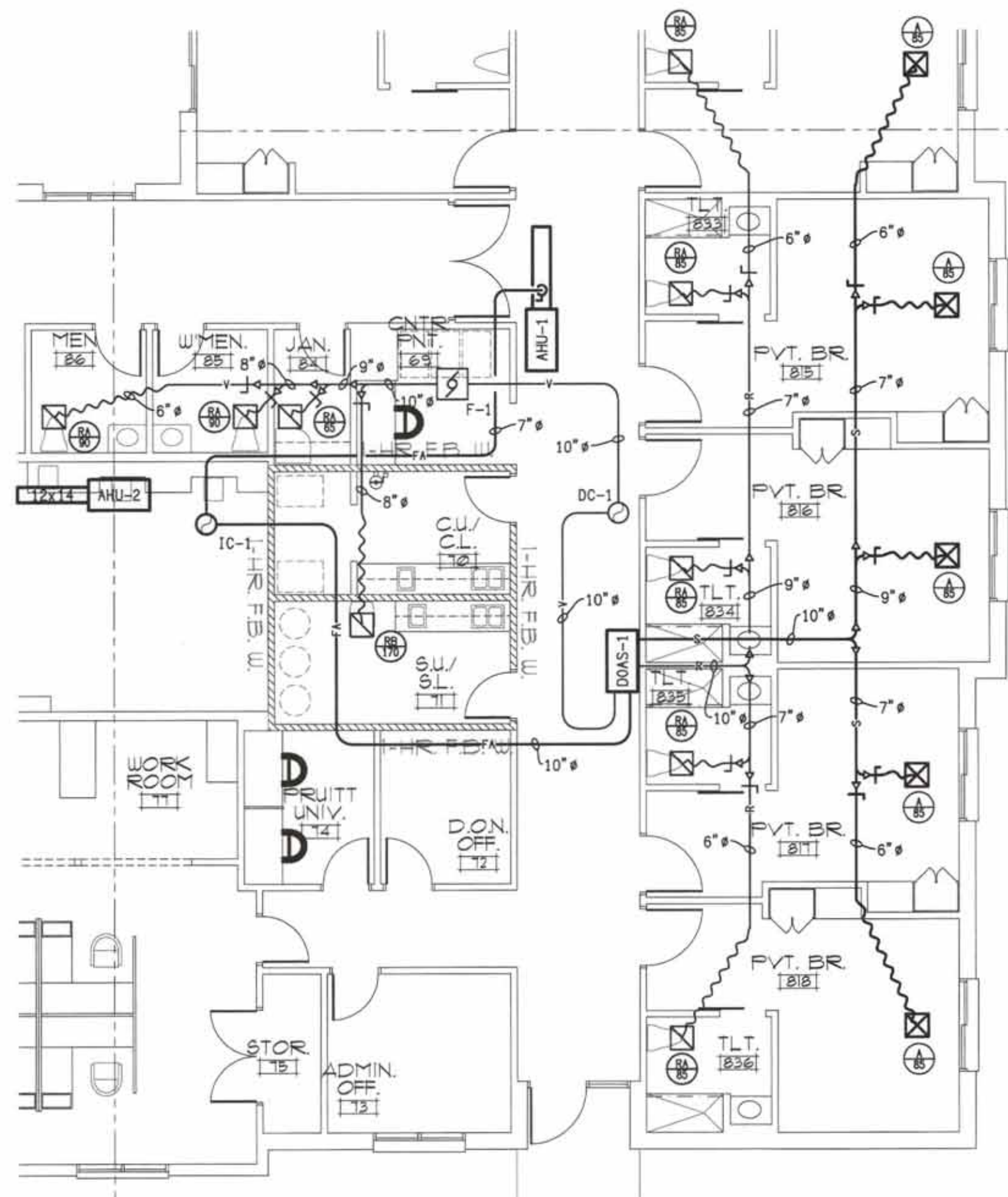
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**M8**

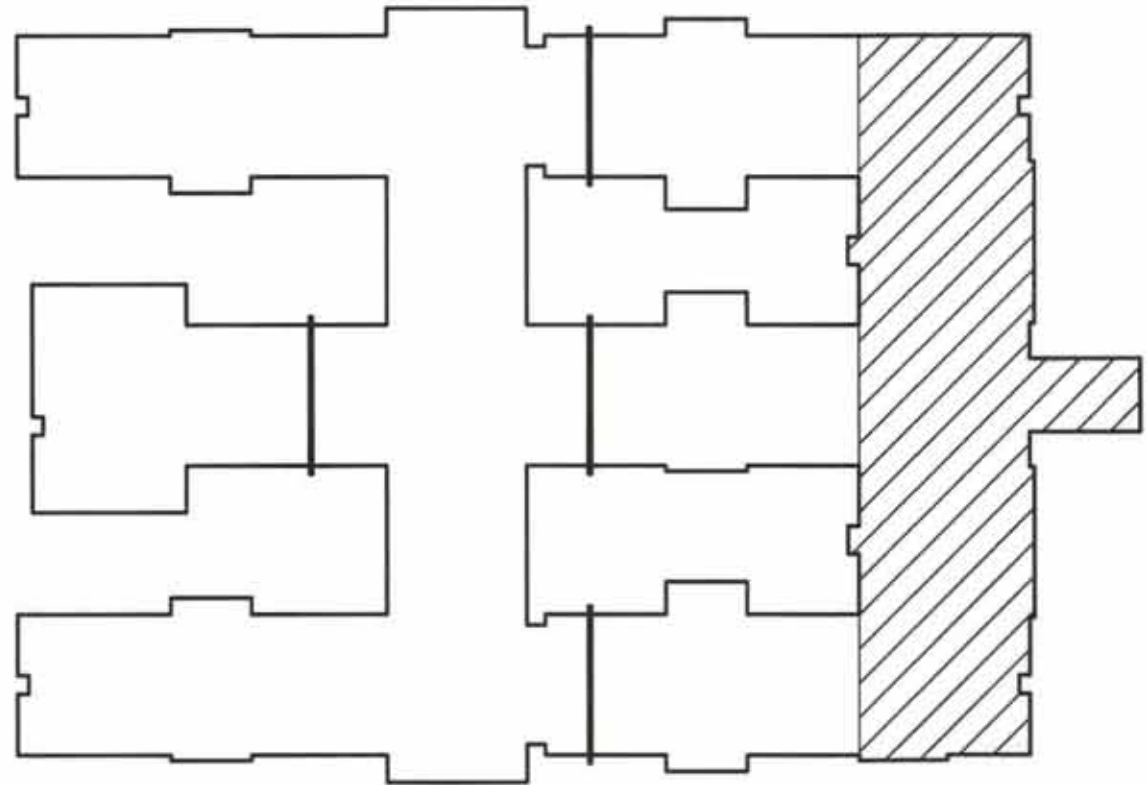
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| REVISIONS |      |             |    |



**B PARTIAL VENTILATION PLAN**  
M9 SCALE: 1/8" = 1'-0"



**A PARTIAL VENTILATION PLAN**  
M9 SCALE: 1/8" = 1'-0"



**PLAN KEY**

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|-----------|----------|-------------|-----|
| Δ         | 10/19/21 | DHSR REVIEW | DBS |
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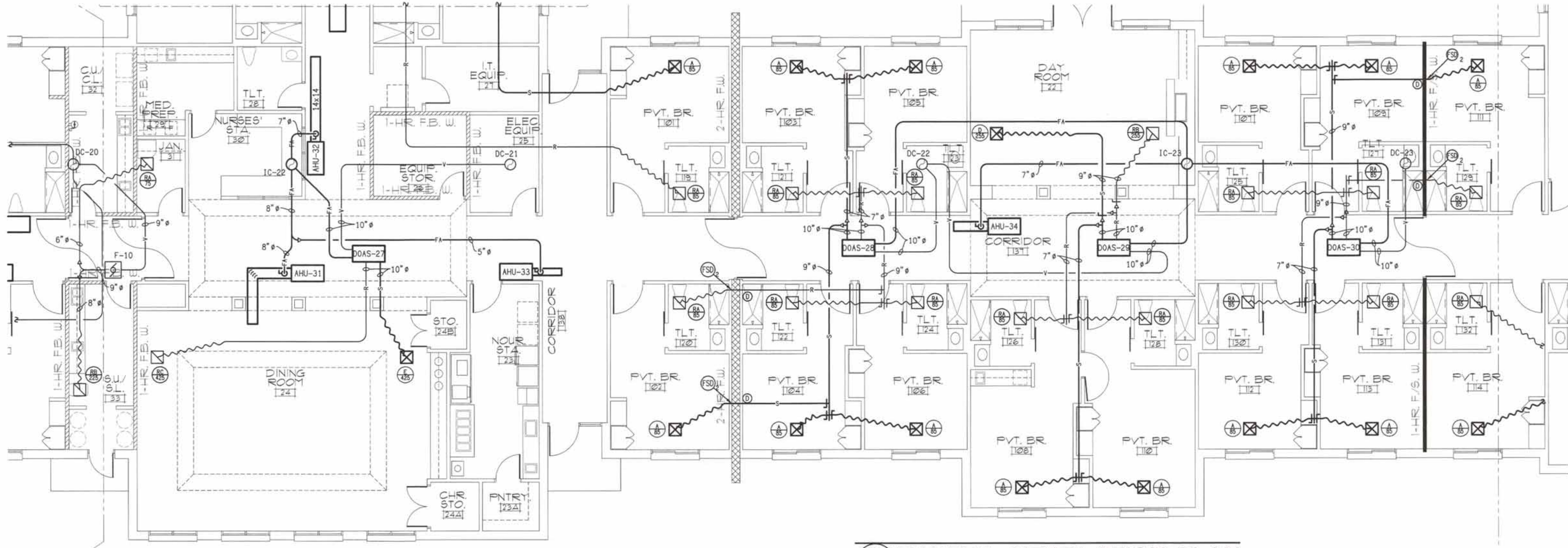
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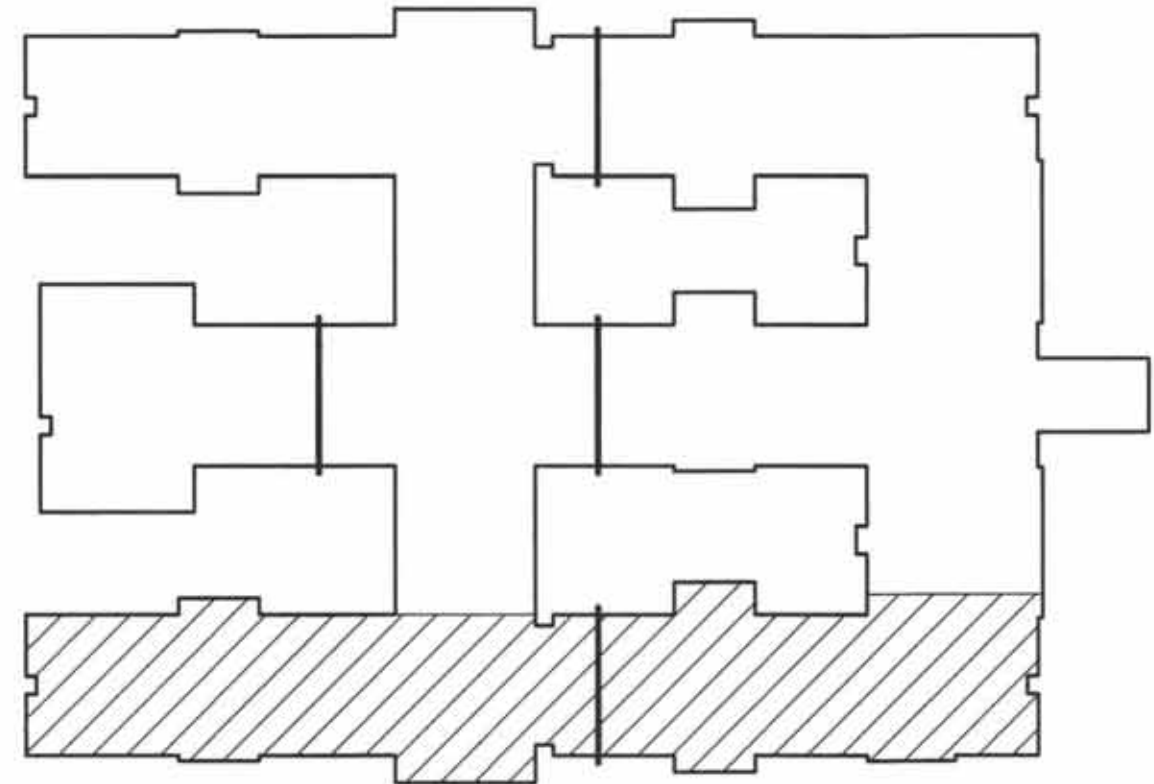
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**M  
9**

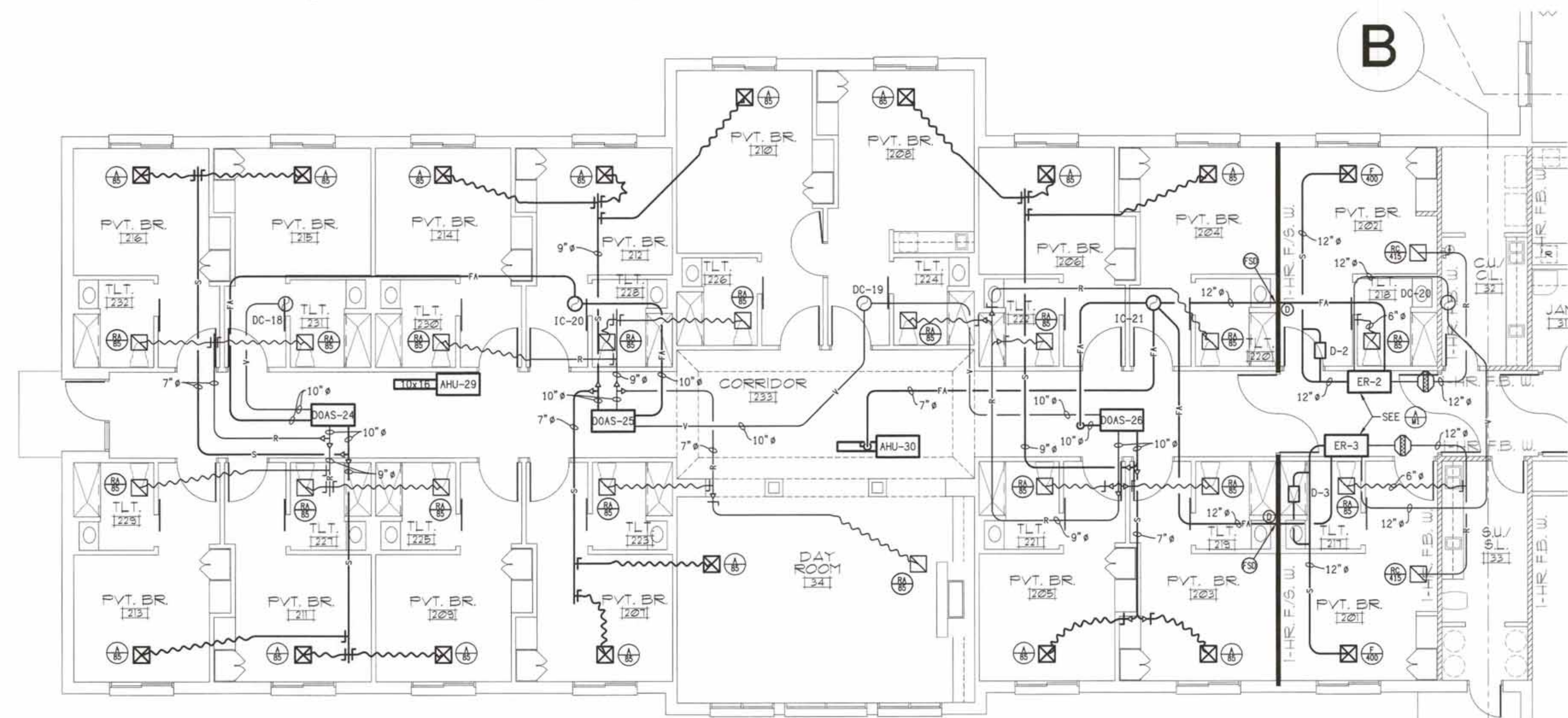
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**B PARTIAL VENTILATION PLAN**  
M10 SCALE: 1/8" = 1'-0"



**PLAN KEY**



**A PARTIAL VENTILATION PLAN**  
M10 SCALE: 1/8" = 1'-0"

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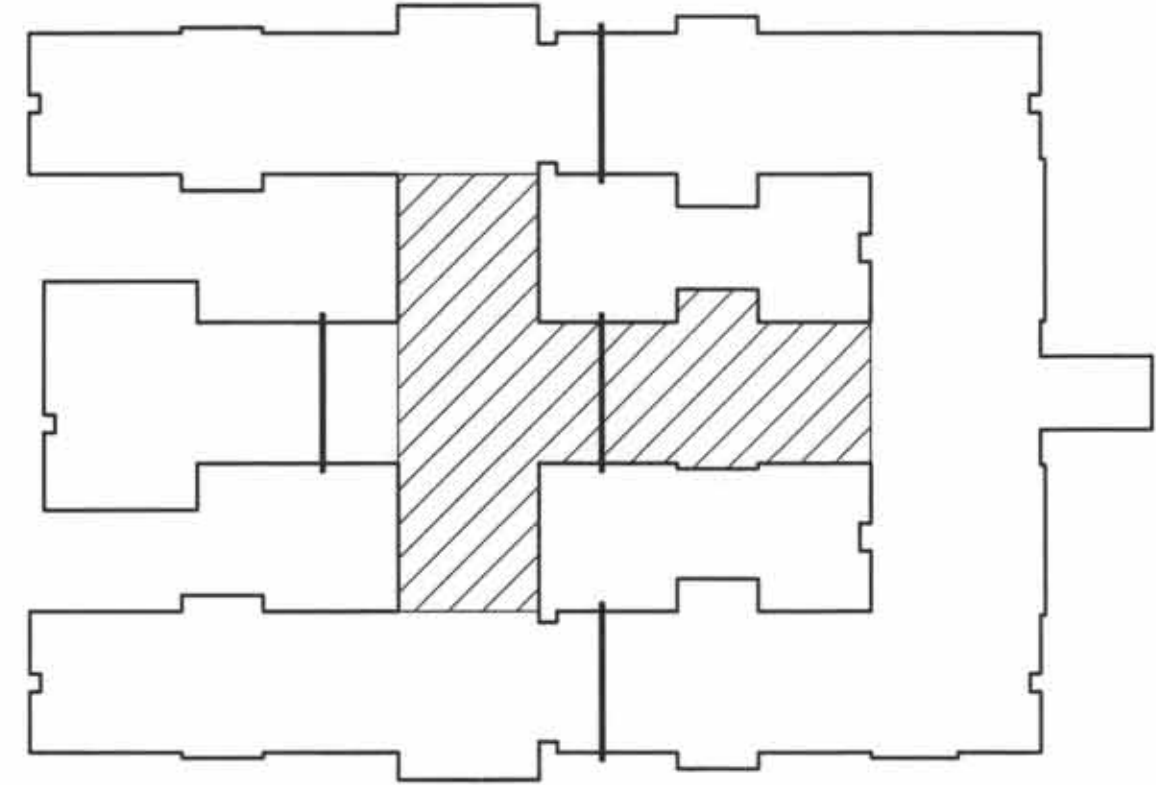
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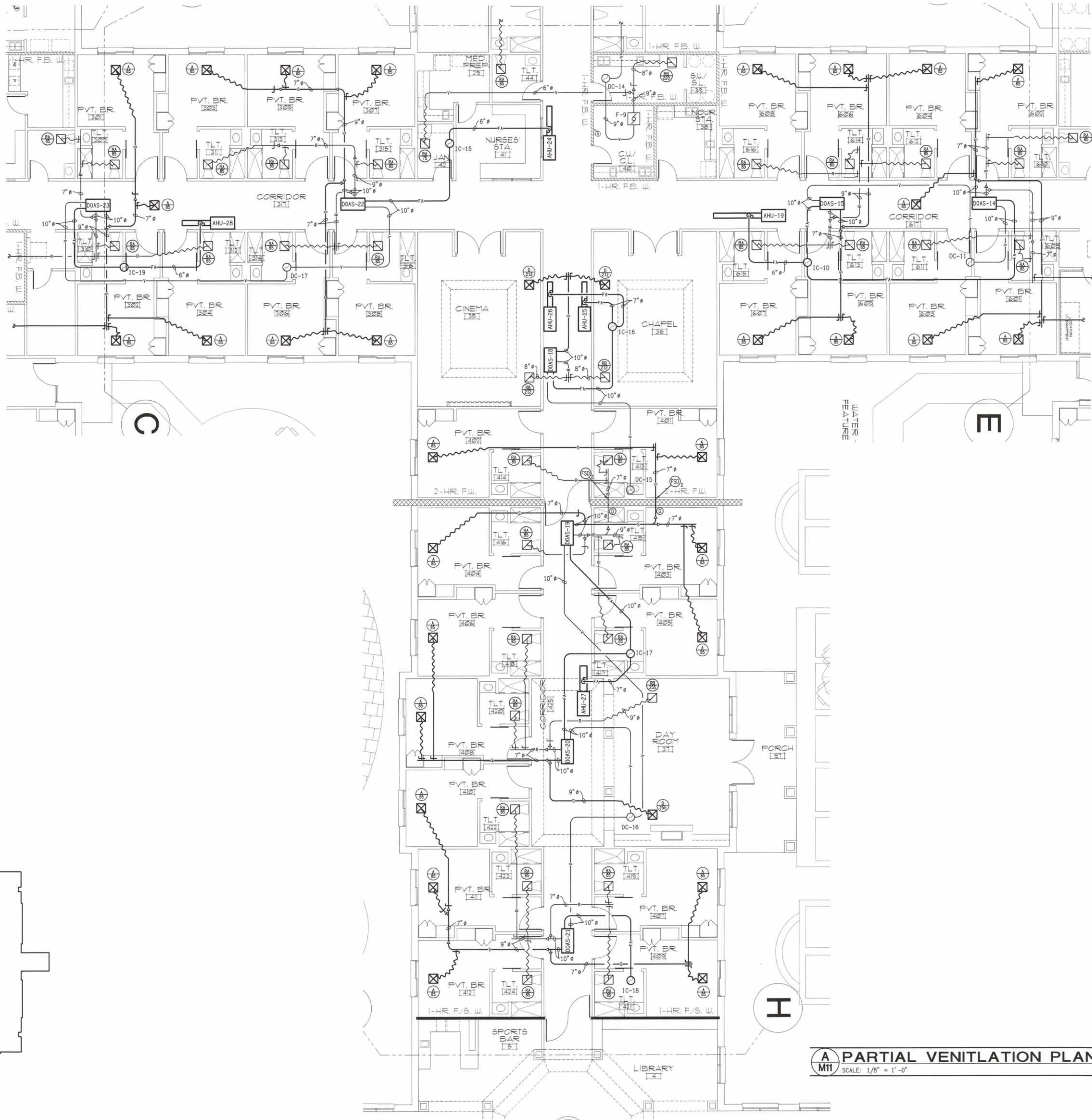
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**M**  
**10**

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PLAN KEY



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DAVID R. POLSTON

9/27/21

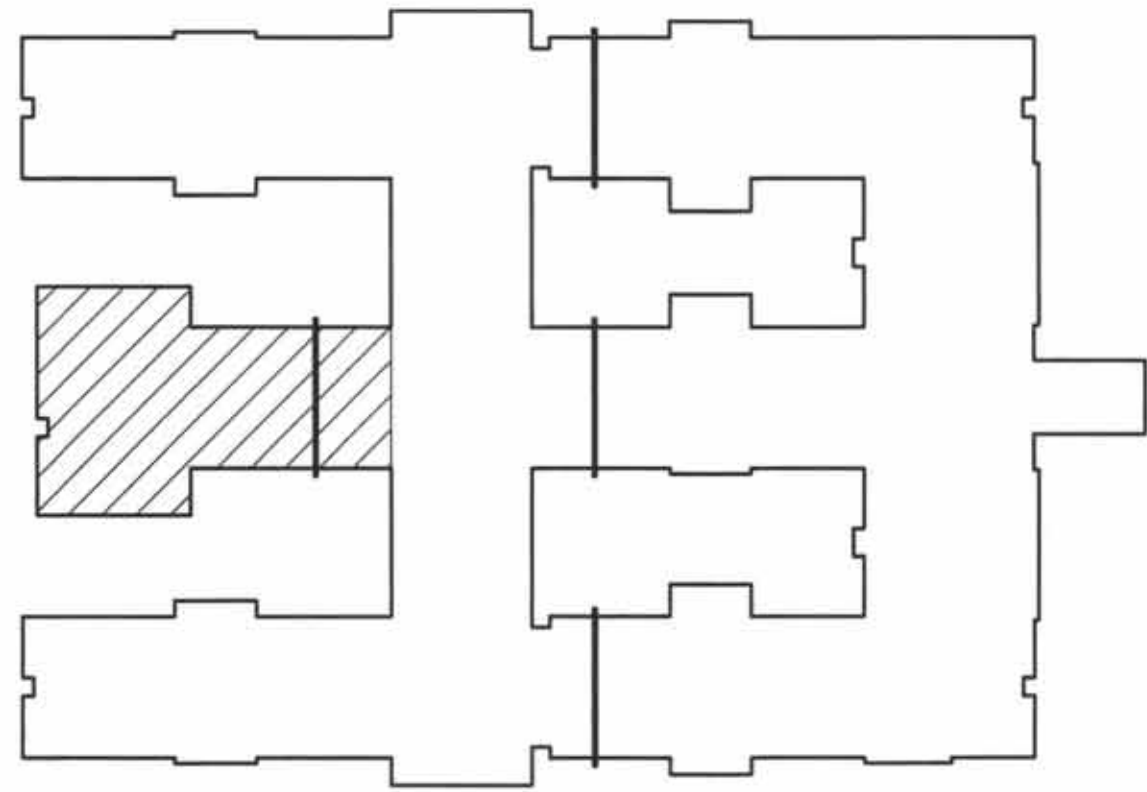
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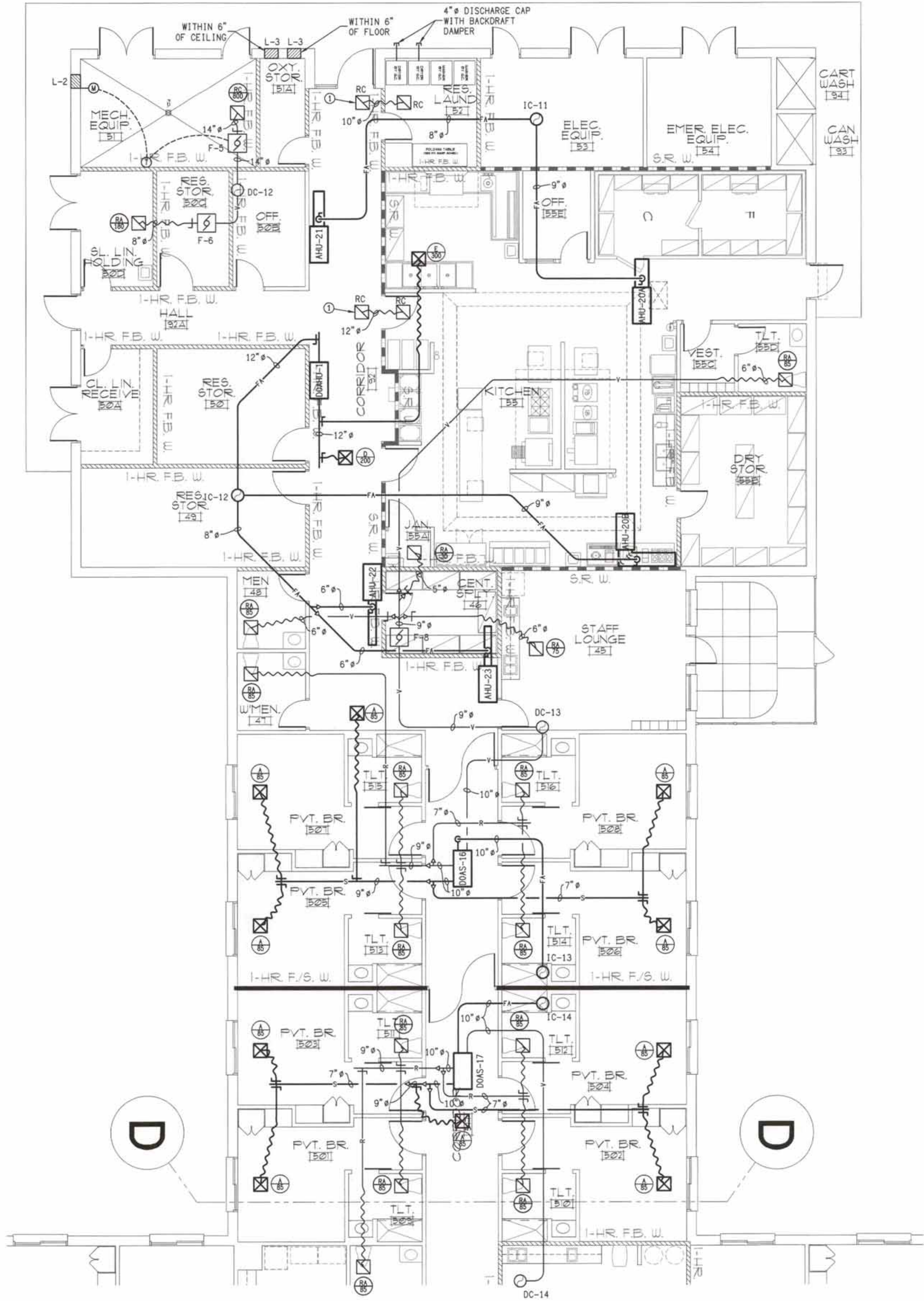
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PLAN KEY



**A**  
**M12** PARTIAL VENTILATION PLAN  
SCALE: 1/8" = 1'-0"

KEY NOTES:  
① TRANSFER GRILLE

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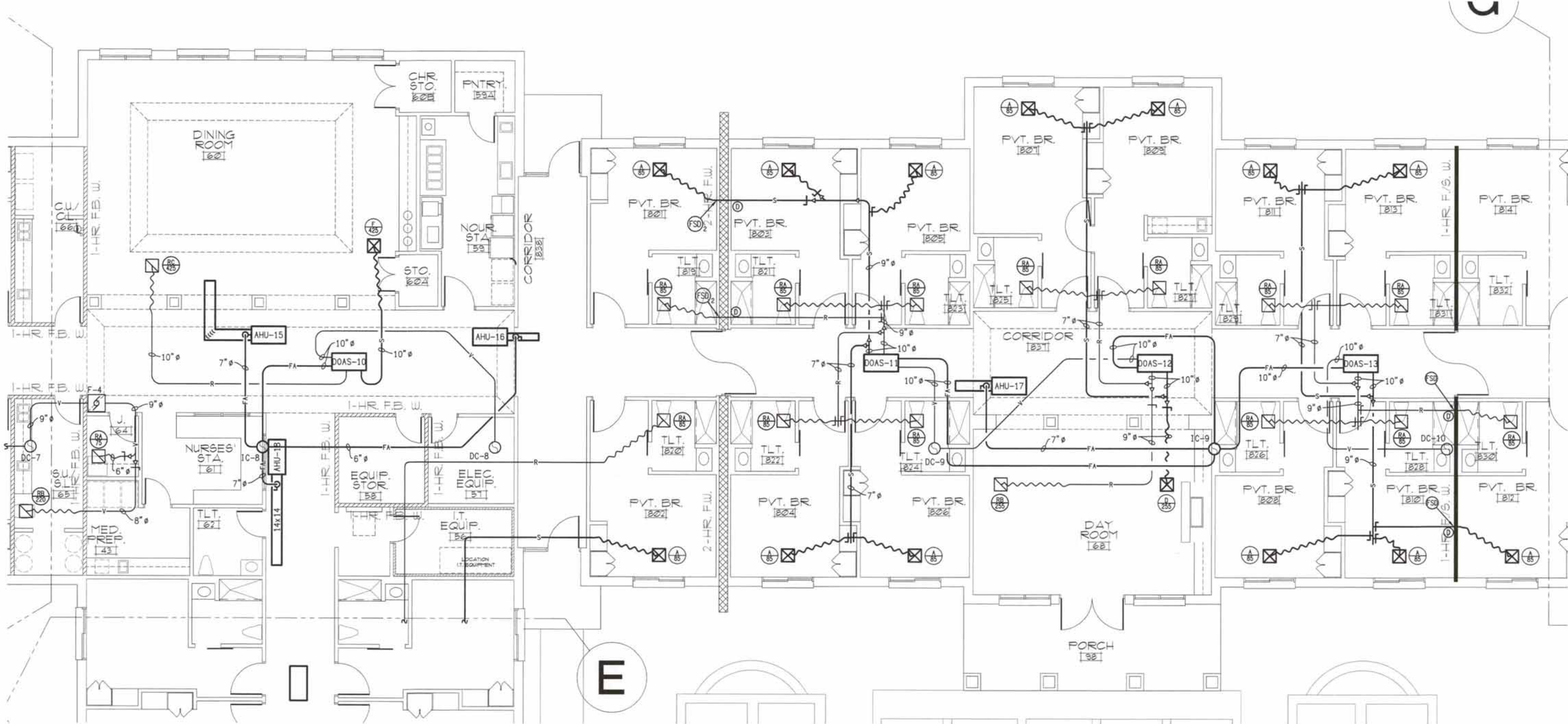
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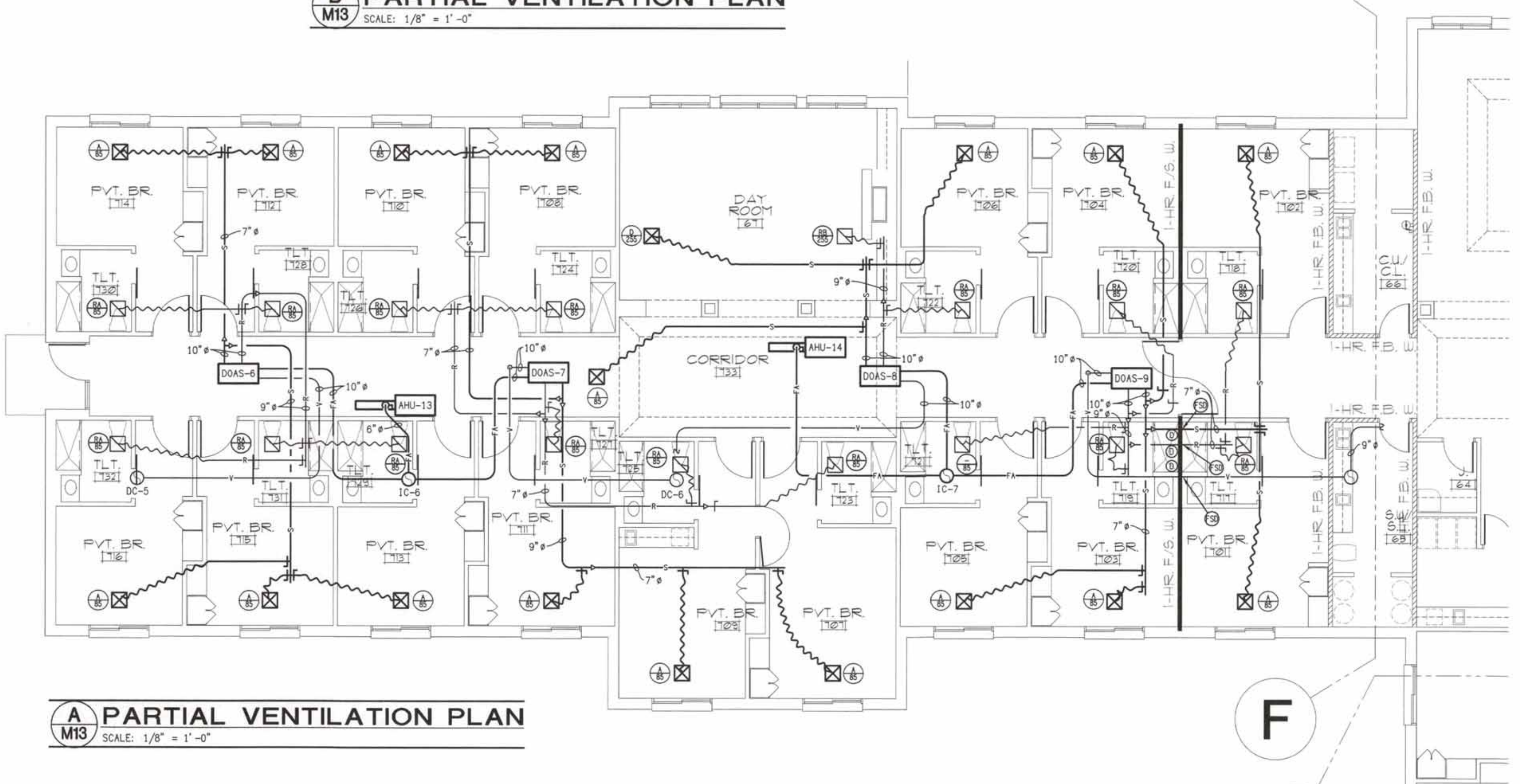
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**M**  
**12**

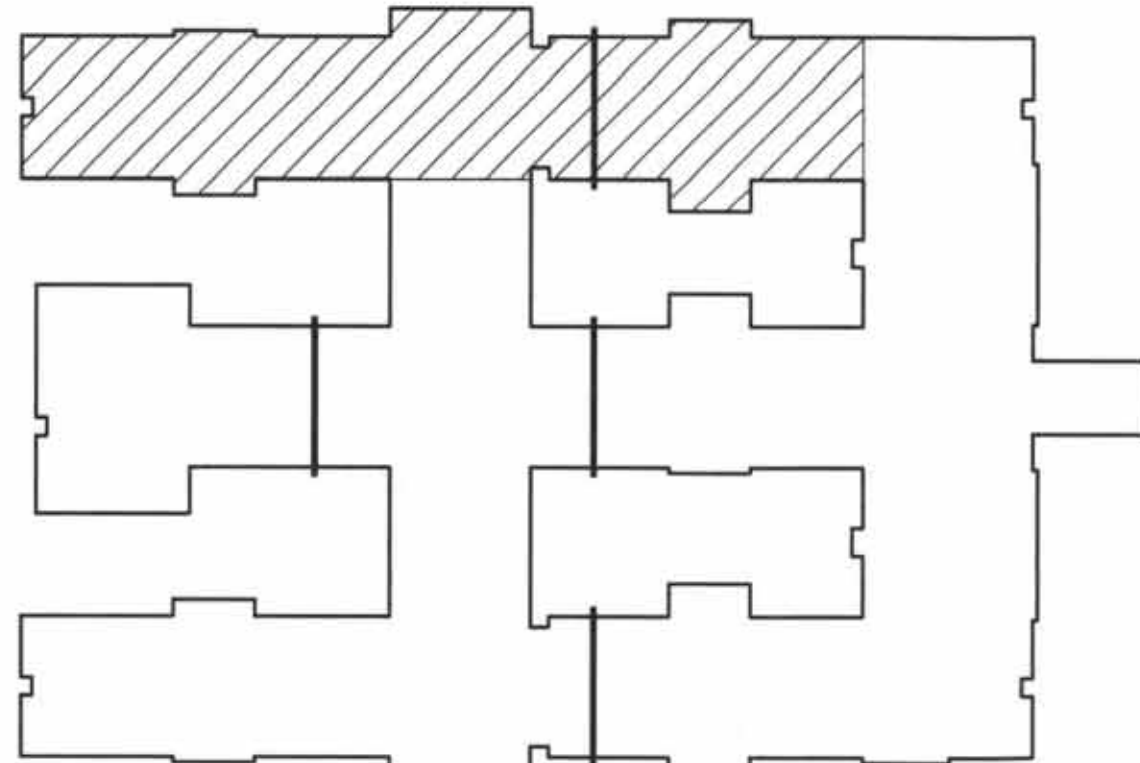
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|-----------|------|-------------|----|
| REVISIONS |      |             |    |



**B PARTIAL VENTILATION PLAN**  
M13 SCALE: 1/8" = 1'-0"



**A PARTIAL VENTILATION PLAN**  
M13 SCALE: 1/8" = 1'-0"



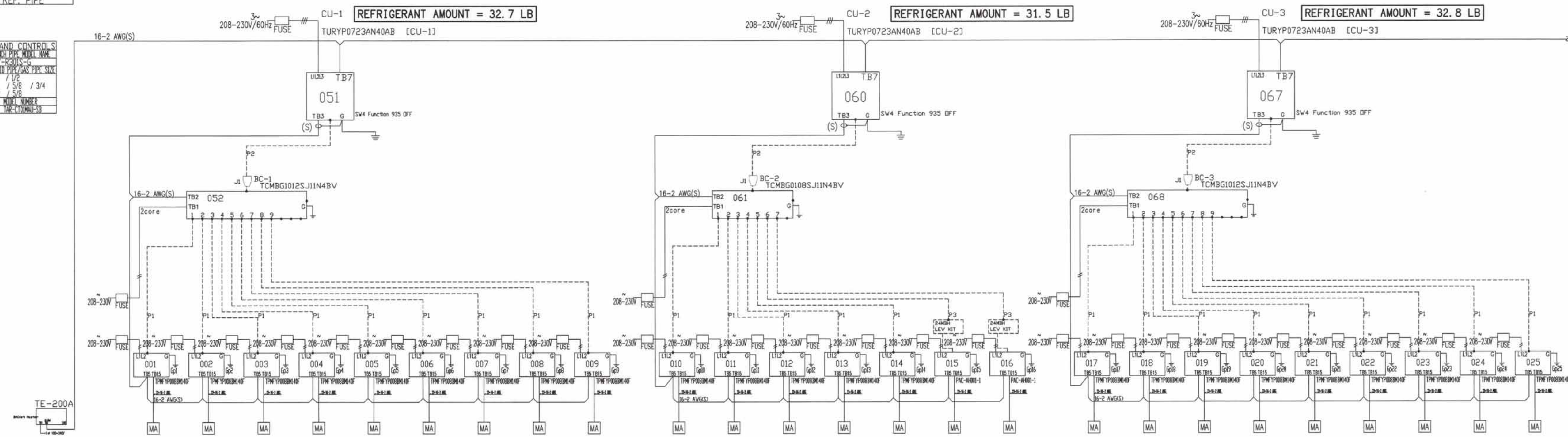
**PLAN KEY**



This drawing is schematic in nature. Final routing of piping & wiring shall be determined by the installing contractor and/or designer of record. Additional refrigerant charge is needed depending on the size and length of extended piping. Please refer the amount of pre-charge and the formula of calculation which is mentioned on the data book.

$1.25\text{mm}^2(16 \text{ AWG})$ ;  $1.25\text{mm}^2(16 \text{ AWG})$  or more.  $0.75\text{mm}^2(20 \text{ AWG})$ ; between  $0.5\text{mm}^2(24 \text{ AWG})$  and  $0.75\text{mm}^2(20 \text{ AWG})$

| PIPING AND CONTROLS |                             |       |     |
|---------------------|-----------------------------|-------|-----|
| SYMBOL              | BRANCH PIPE MODEL NAME      |       |     |
| J1                  | CMY-R30TS-G                 |       |     |
| SYMBOL              | LIQUID PIPE / GAS PIPE SIZE |       |     |
| P1                  | 1/4                         | 1/2   |     |
| P2                  |                             | 1/5/8 | 3/4 |
| P3                  | 3/8                         | 1/5/8 |     |
| SYMBOL              | MODEL NUMBER                |       |     |
| MA                  | AR-C10MAL-SB                |       |     |



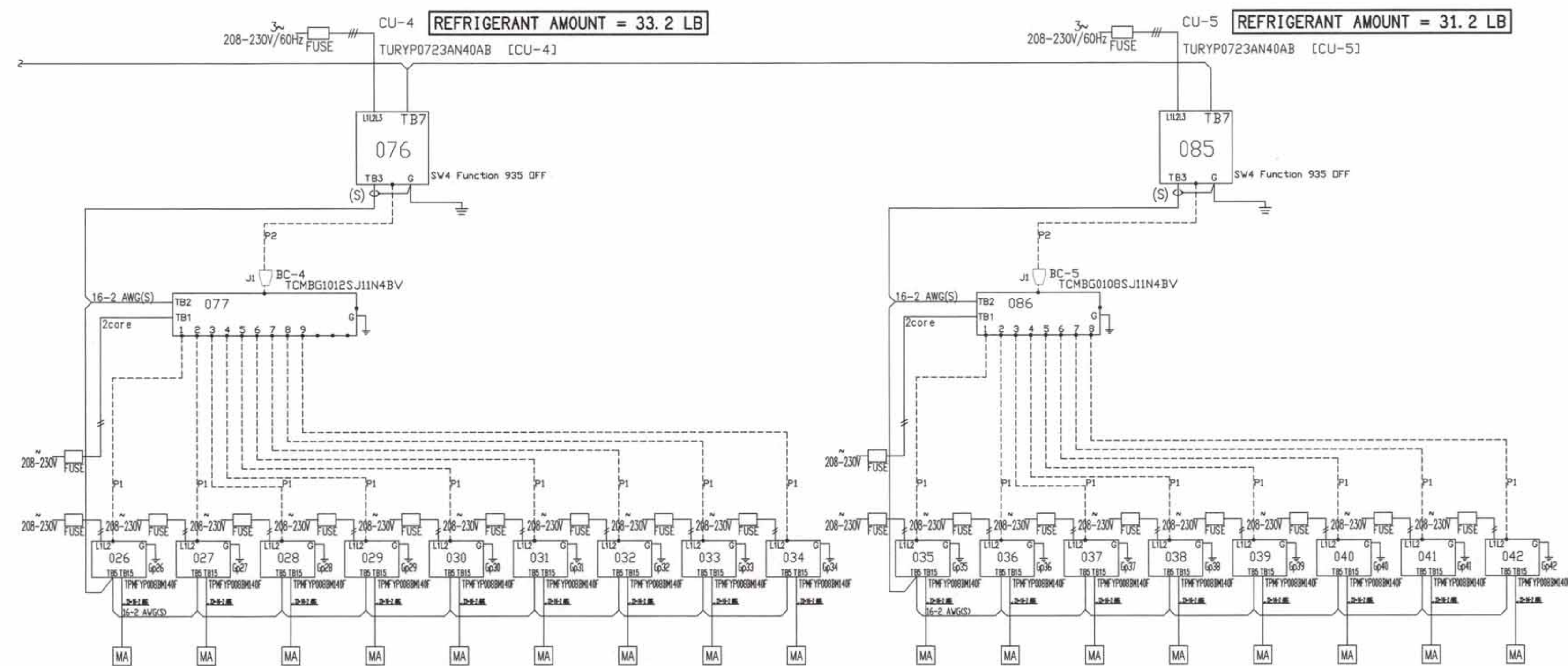
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|        |        |        |        |        |       |       |
|--------|--------|--------|--------|--------|-------|-------|
| AHU2-1 | AHU2-2 | AHU2-3 | AHU2-4 | AHU2-5 | DX2-2 | DX2-3 |
|--------|--------|--------|--------|--------|-------|-------|

AHU3-1   AHU3-2   AHU3-3   AHU3-4   AHU3-5   AHU3-6   AHU3-7   AHU3-8   AHU3-9

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dlb: 4.3.0.43  
3/16/2021  
4:55 PM

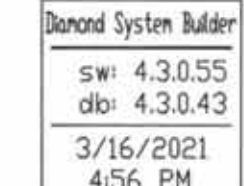
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|--------------------------|
| REMARKS                  |
| Originator: Eric Cassidy |
| Comments:                |



AHU4-1 AHU4-2 AHU4-3 AHU4-4 AHU4-5 AHU4-6 AHU4-7 AHU4-8 AHU4-9

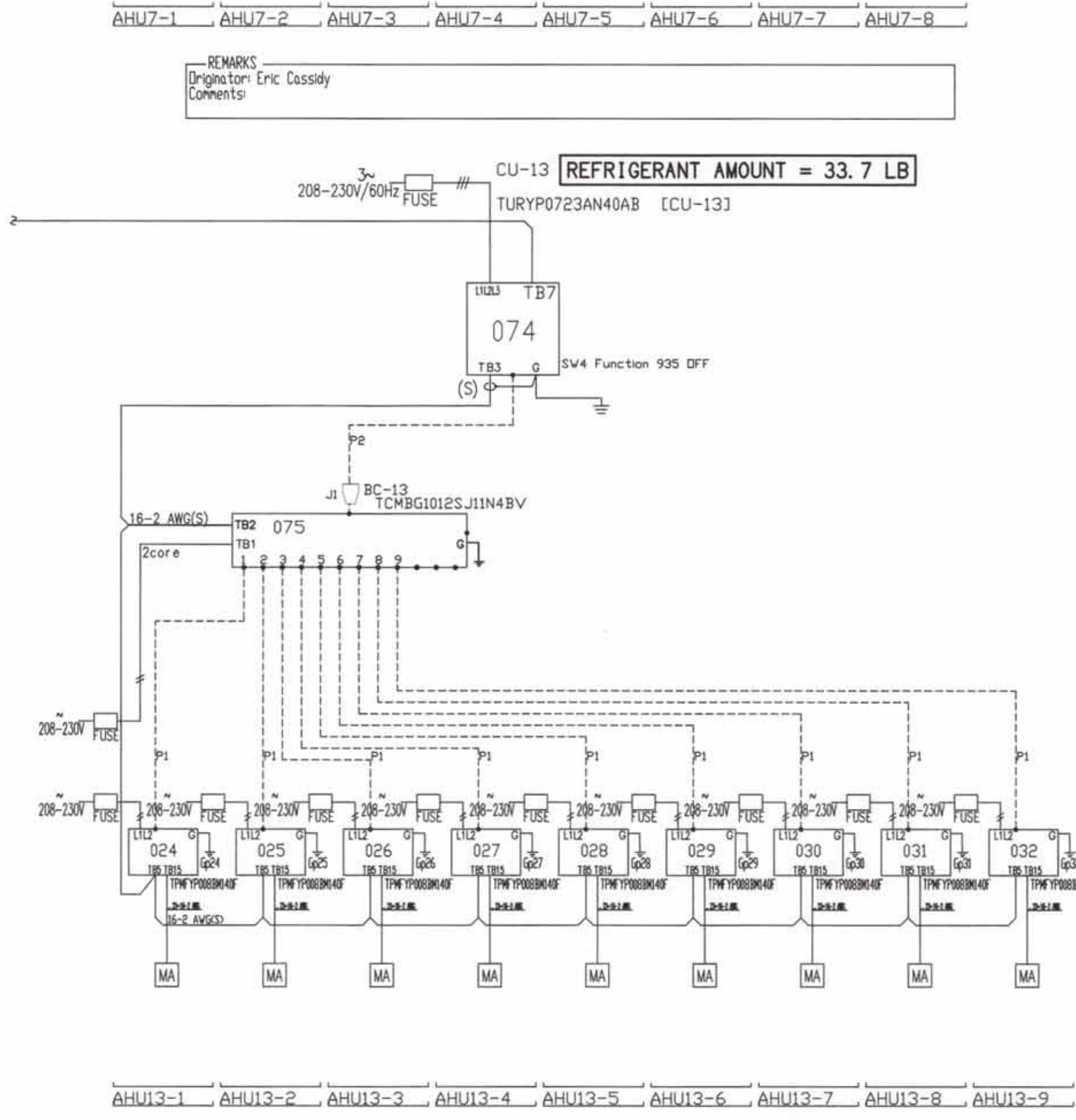
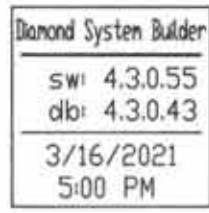
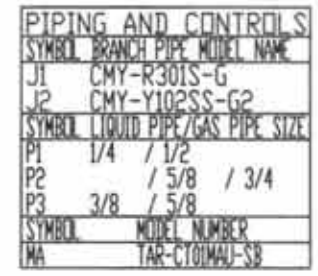
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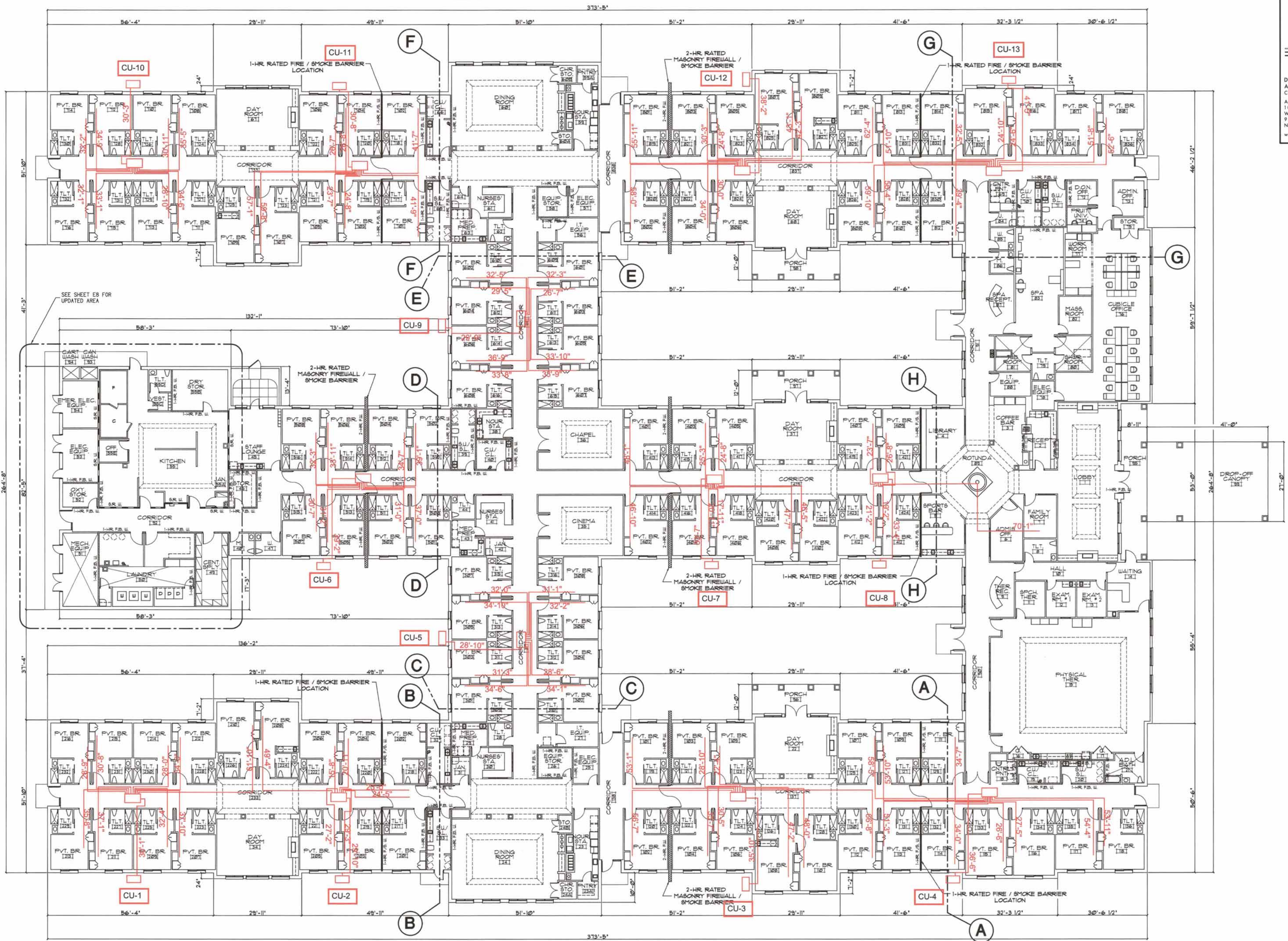


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TIME: 14.0 DATE: 10/21/2021  
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**A VRF PIPING LAYOUT**  
M17 SCALE: NTS

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**17**

[illegible]

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18**

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