

PRELIMINARY NOT FOR CONSTRUCTION

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STUDIO

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STUDIO MANAGER:

PROJECT ARCHITECT:

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SUBMISSIONS:

ISSUE	DATE	DESCRIPTION

CONSULTANT:

RIPCORD ENGINEERING  
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DRAFTSPERSON:

DATE OF ISSUE:  
03/03/2018  
PROJECT STATUS:  
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BRADY RESIDENCE

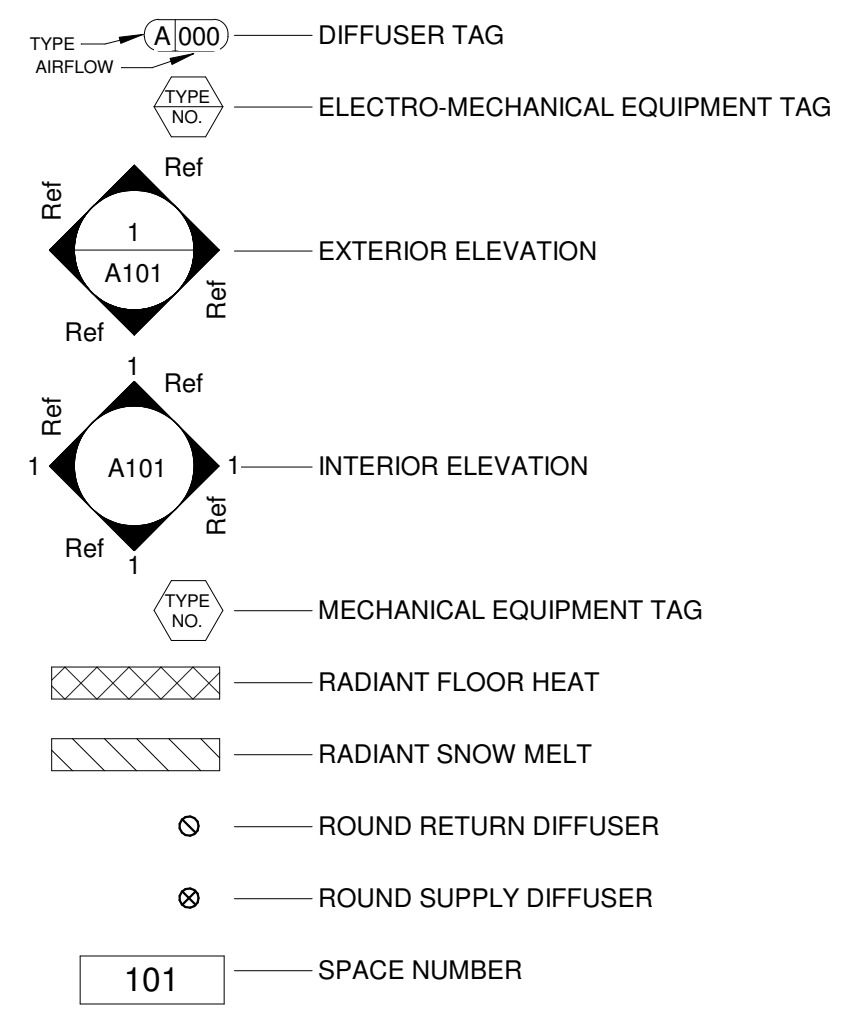
9 MOODY ST  
PORTLAND, ME 04101

HVAC LEGEND

M-100

SHEET LIST	
NUMBER	NAME
M-101A	HVAC FLOOR PLAN
M-101B	HVAC FLOOR PLAN
M-104	HVAC ROOF PLAN
M-601	HVAC SCHEDULES

HVAC SYMBOLS



HVAC ABBREVIATIONS

A	AIR HANDLING UNIT
AHU	AIR HANDLING UNIT
C	CUBIC FEET PER MINUTE
CFM	CUBIC FEET PER MINUTE
E	ELECTRIC DUCT HEATER
EDH	ELECTRIC DUCT HEATER
ERV	ENERGY RECOVERY VENTILATOR
H	HERTZ
HZ	HERTZ
O	OUTDOOR UNIT
OU	OUTDOOR UNIT
R	RETURN AIR
RA	RETURN AIR
S	SUPPLY AIR
SA	SUPPLY AIR

HVAC GENERAL NOTES

- GENERAL NOTES ON THIS DRAWING ARE APPLICABLE TO EACH MECHANICAL DRAWING OF THIS SET. SEE EACH DRAWING FOR SPECIFIC NOTES APPLICABLE TO THAT DRAWING.
- DESIGN IN ACCORDANCE WITH MAINE UNIFORM BUILDING AND ENERGY CODE.
- 2009 INTERNATIONAL ENERGY CONSERVATION CODE
- 2009 INTERNATIONAL MECHANICAL CODE
- ASHRAE 62.1 2010
- ASHRAE 90.1 2010
- COORDINATE LOCATION OF GRILLES, REGISTERS, DIFFUSERS, THERMOSTATS AND OTHER WALL OR CEILING MOUNTED HVAC ACCESSORIES WITH THE REFLECTED CEILING PLAN AND ARCHITECTS ELEVATION DRAWINGS. COORDINATE LIGHTING FIXTURE LAYOUT AND ACCESSORIES INSTALLED BY OTHER TRADES TO REFLECT GOOD WORKMANSHIP THROUGHOUT.
- ARRANGE PIPING AND DUCTWORK, PARTICULARLY ABOVE CEILINGS, AS REQUIRED TO CLEAR STRUCTURE, DUCTS, CONDUIT, ETC. ALLOW SPACE FOR PIPE HANGERS, EXPANSION LOOPS AND ACCES TO VALVES, FILTERS AND EQUIPMENT.
- EQUIPMENT WITH FILTERS SHALL BE INSTALLED SUCH THAT FILTERS ARE READILY ACCESSIBLE FOR REGULAR SERVICING. CONTRACTOR SHALL VERIFY REFRIGERANT PIPE SIZES WITH EQUIPMENT MANUFACTURERS FOR THE INDICATED INSTALLATION.
- COORDINATE LOCATION AND INSTALLATION OF EQUIPMENT WITH OTHER TRADES.
- THERMOSTATS SHALL BE LOCATED IN THE ROOMS INDICATED. INSTALL THERMOSTATS 4' 0" ABOVE THE FINISH FLOOR UNLESS NOTED OTHERWISE.
- EXTEND DRAIN LINES TO THE NEAREST FLOOR DRAIN OR AS INDICATED. ROUTING SHALL NOT INTERFERE WITH PASSAGEWAYS NOR MAINTENANCE ACCESS.
- PIPING AND DUCTWORK SHALL BE RUN CONTINUOUSLY THROUGH NON-RATED FLOORS, WALLS AND PARTITIONS UNLESS NOTED OTHERWISE.
- FLOOR MOUNTED EQUIPMENT IN THE MECHANICAL ROOM SHALL BE ON 6" THICK CONCRETE PADS WITH ROUNDED EDGES UNLESS NOTED OTHERWISE.
- CORRECT SETTINGS ON BALANCING FITTINGS SHALL BE PERMANENTLY MARKED.
- PROVIDE ACCESS DOORS IN DUCTWORK WHERE INDICATED OR REQUIRED FOR ACCESS TO SYSTEM COMPONENTS INCLUDING:
  - FIRE AND SMOKE DAMPERS
  - CEILING RADIATION DAMPERS
  - BALANCING DAMPERS
- DIMENSIONS FROM REFERENCES TO EQUIPMENT ARE AN AID FOR EQUIPMENT LOCATION. COORDINATE ACTUAL EQUIPMENT LOCATION(S) AS REQUIRED.

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1		

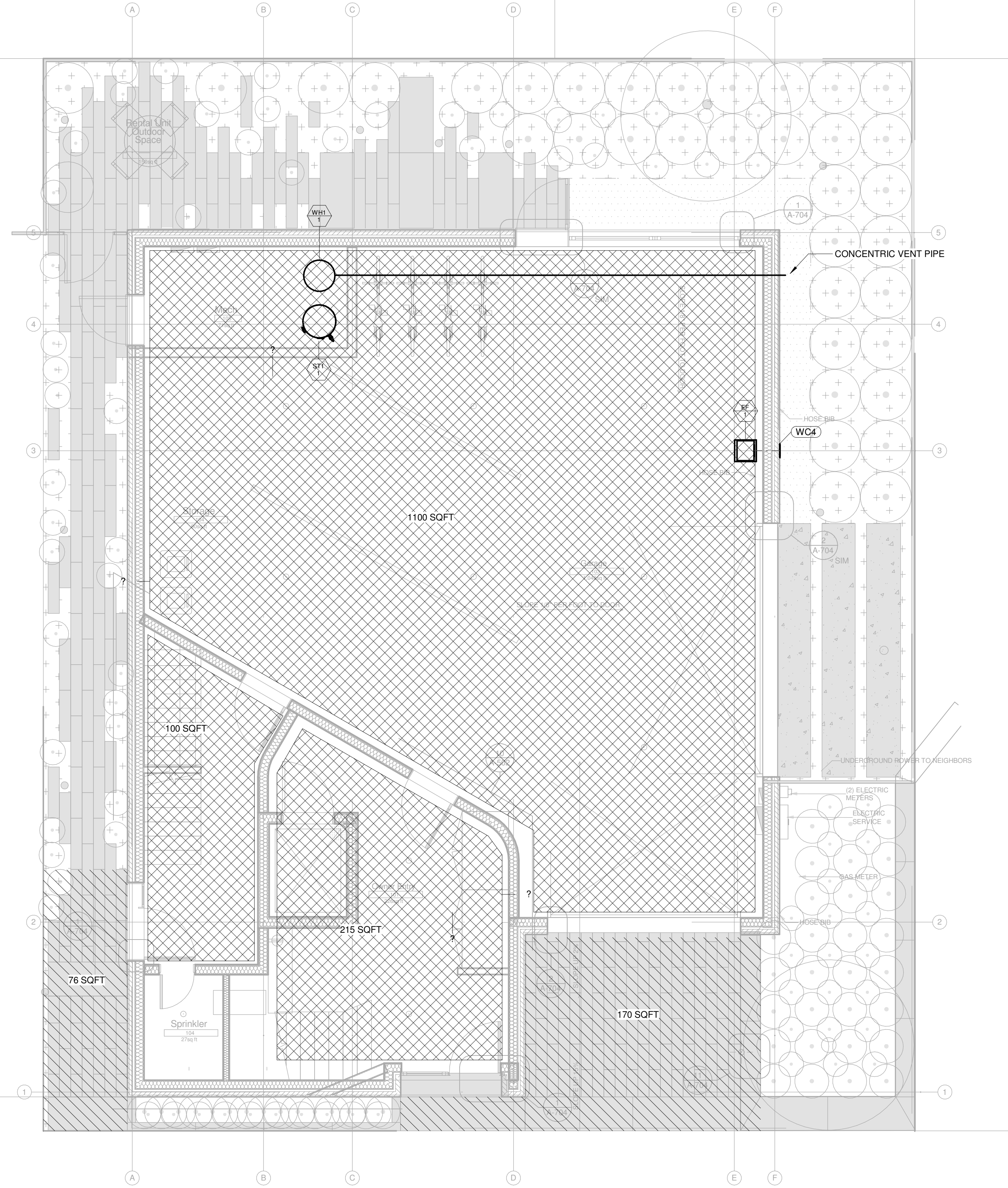
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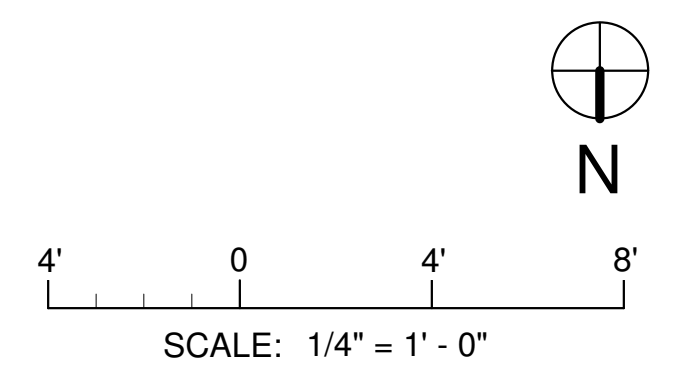
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9 MOODY ST  
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HVAC FLOOR PLAN  
M-101A

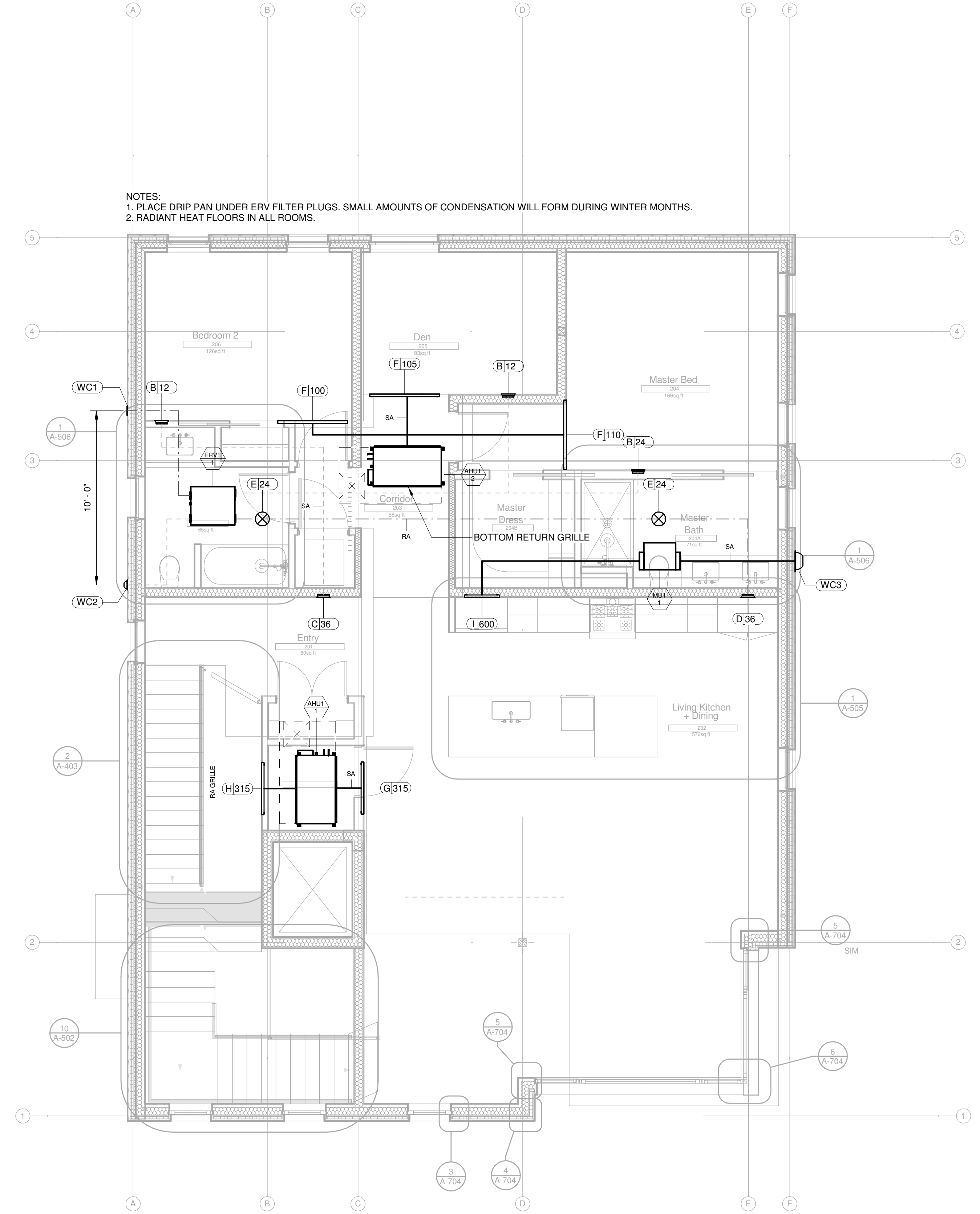
KEY  
RADIANT FLOOR  
RADIANT SNOW MELT



1 FIRST FLOOR HVAC PLAN  
1/4" = 1'-0"



NOTES:  
1. PLACE DRIP PAN UNDER ERV FILTER PLUGS. SMALL AMOUNTS OF CONDENSATION WILL FORM DURING WINTER MONTHS.  
2. RADIANT HEAT FLOORS IN ALL ROOMS.



2 SECOND FLOOR HVAC PLAN  
1/4" = 1'-0"

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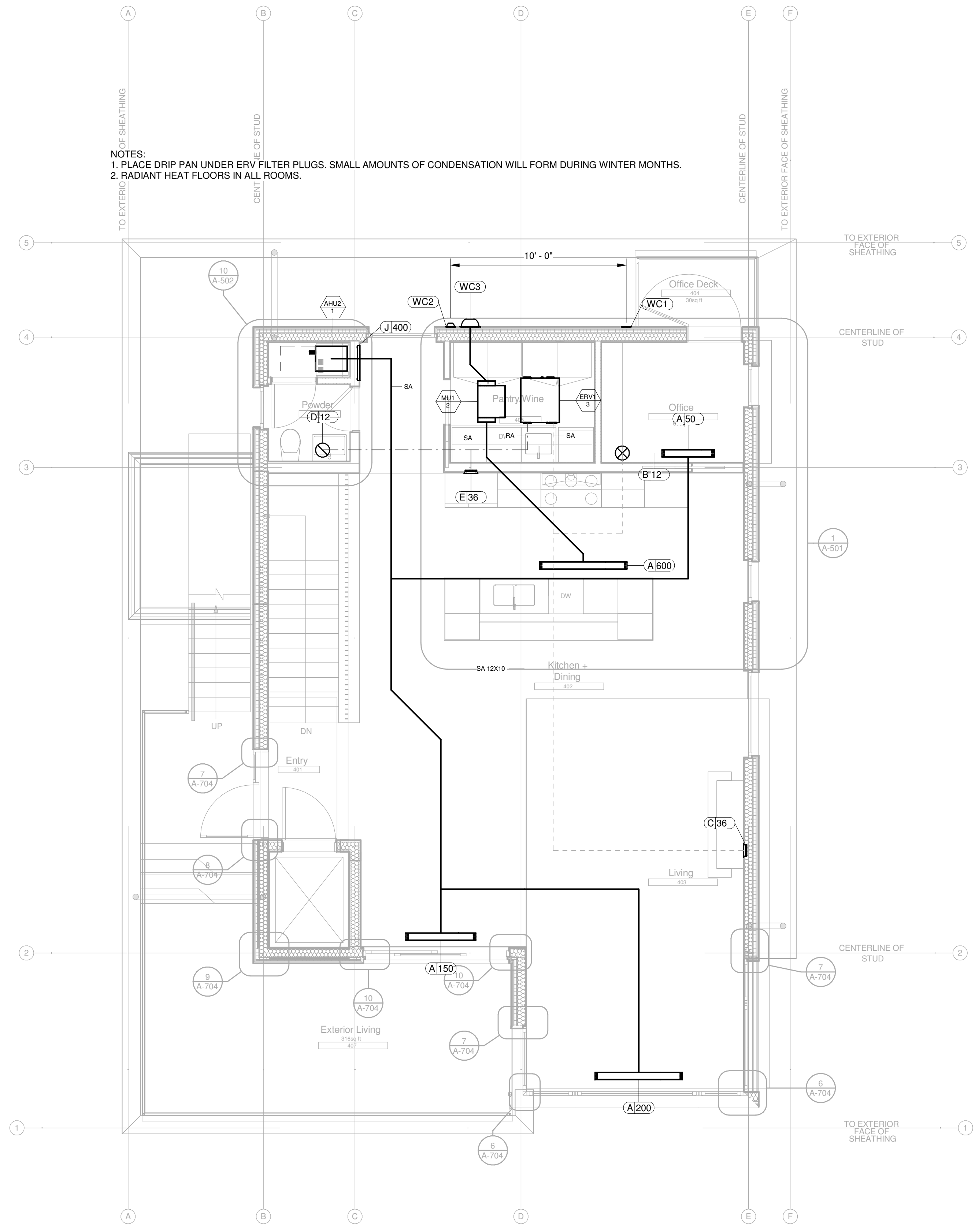
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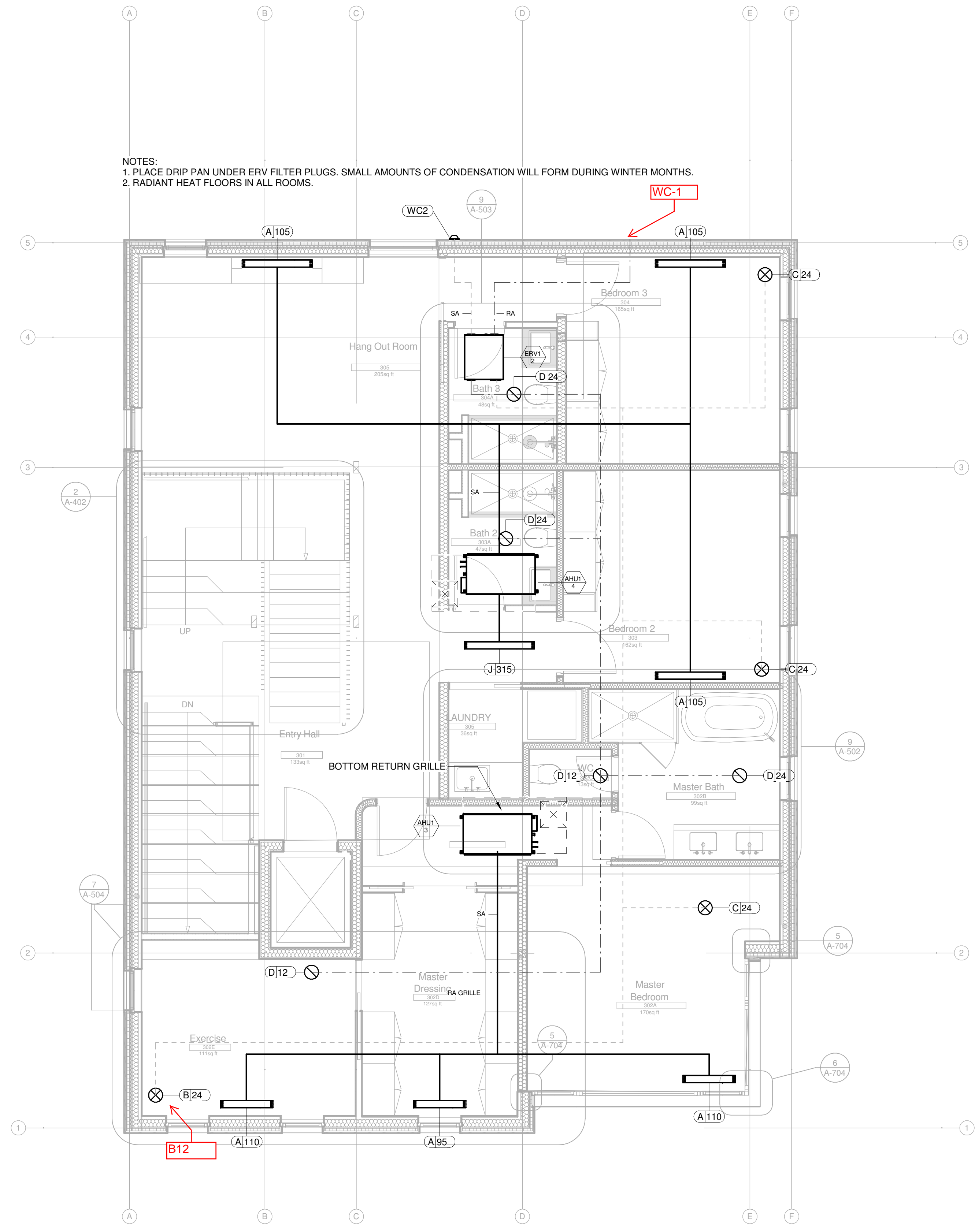
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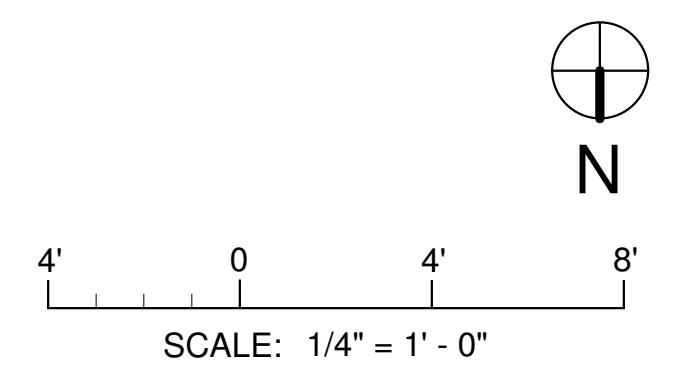
HVAC FLOOR PLAN  
 M-101B



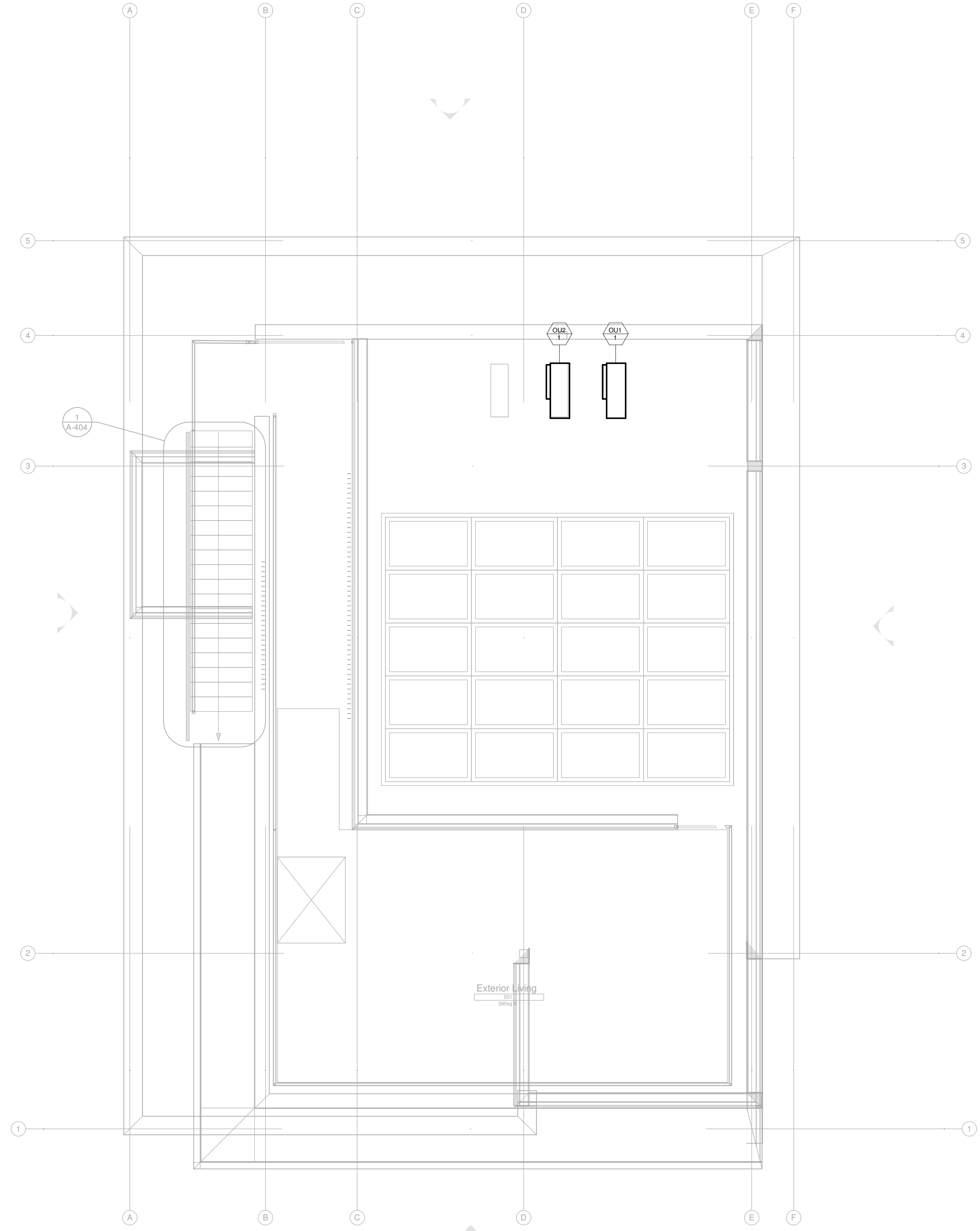
2 FOURTH FLOOR HVAC PLAN  
 1/4" = 1'-0"



1 THIRD FLOOR HVAC PLAN  
 1/4" = 1'-0"

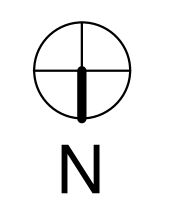


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1 ROOF HVAC PLAN  
1/4" = 1'-0"

4' 0 4' 8'  
SCALE: 1/4" = 1' - 0"



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HVAC ROOF PLAN  
M-104

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SPLIT SYSTEM SCHEDULE												
TAG	MANUFACTURER	MODEL	DESCRIPTION	HEATING COIL		COOLING COIL		ELECTRICAL DATA			COUNT	NOTES
				TOTAL CAP	TOTAL CAP	VOLTAGE	PHASE	FREQUENCY				
AHU1	mitsubishi electric	KD09NA	Ceiling Concealed Ducted Low Profile	9000.0 Btu/h	10900.0 Btu/h	230 V	1	60 Hz			4	
AHU2	mitsubishi electric	IMVZ-A12AA4	12000 Btu/h, VERTICAL CONCEALED-DUCTED	13500.0 Btu/h	12000.0 Btu/h	230 V	1	60 Hz			1	
OU1	mitsubishi electric	MXZ-8B48NAR1	MITSUBISHI ELECTRIC 4 TON, MXZ SERIES, AIR-SOURCE VRF HEAT PUMP	54000.0 Btu/h	48000.0 Btu/h	230 V	1	60 Hz			1	
OU2	mitsubishi electric	MXZ-2C20NAHZ	MISUBISHI ELECTRIC 1.7 TON, MXZ H2I SERIES, AIR-SOURCE VRF HEAT PUMP	22000.0 Btu/h	20000.0 Btu/h	230 V	1	60 Hz			1	

MAKEUP AIR UNIT											
TAG	MANUFACTURER	MODEL	DESCRIPTION	ELECTRICAL DATA					COUNT	NOTES	
				VOLTAGE	PHASE	FREQUENCY	WATTAGE				
MU1	STELPRO	MUAA12	MAKE-UP AIR UNIT	240 V	1	60 Hz	20000 W			2	

ERV SCHEDULE										
TAG	MANUFACTURER	MODEL	DESCRIPTION	ELECTRICAL DATA			COUNT	NOTES		
				VOLTAGE	PHASE	FREQUENCY				
ERV1	ZEHNDER	COMFOAIR 160 R		240 V	1	60 Hz	3			

EXHAUST FAN SCHEDULE										
TAG	MANUFACTURER	MODEL	DESCRIPTION	ELECTRICAL DATA			COUNT	NOTES		
				VOLTAGE	PHASE	FREQUENCY				
EF	GREENHECK	SP-A290		120 V	1	60 Hz	1			

WATER HEATER SCHEDULE										
TAG	MANUFACTURER	MODEL	DESCRIPTION	COUNT	NOTES					
WH1	HTP	PH130-55	130 MBTU/H 55GAL GAS FIRED WATER HEATER	1						

HOT WATER STORAGE TANK SCHEDULE										
TAG	MANUFACTURER	MODEL	DESCRIPTION	COUNT	NOTES					
ST1	HTP	SSU-80	80 GALLON HOT WATER TANK	1						

AIR TERMINAL SCHEDULE										
TAG	MANUFACTURER	MODEL	DESCRIPTION	COUNT	NOTES					
A	PRICE INDUSTRIES	SDS 75, 2-SLOT	SURFACE MOUNTED LINEAR DIFFUSER	10						
B	ZEHNDER	TVA-75-2 VENEZIA	PERFORATED ROUND SUPPLY DIFFUSER	5						
C	ZEHNDER	TVA-75-3 VENEZIA	PERFORATED ROUND SUPPLY DIFFUSER	5						
D	ZEHNDER	TVA-75-2 VENEZIA	PERFORATED ROUND RETURN GRILLE	7						
E	ZEHNDER	TVA-75-3 VENEZIA	PERFORATED ROUND RETURN GRILLE	3						
F	PRICE INDUSTRIES	LBP, 27B CORE, 30 DEG, 3.5" WIDE	SIDEWALL MOUNTED SUPPLY DIFFUSER	3						
G	PRICE INDUSTRIES	LBP, 27B CORE, 30 DEG, 5" WIDE	SIDEWALL MOUNTED SUPPLY DIFFUSER	1						
H	PRICE INDUSTRIES	LBP, 25B CORE, 0 DEG, 5" WIDE	SIDEWALL MOUNTED SUPPLY DIFFUSER	1						
I	PRICE INDUSTRIES	LBP, 27B CORE, 30 DEG, 6" WIDE	SIDEWALL MOUNTED SUPPLY DIFFUSER	1						
J	PRICE INDUSTRIES	LBP, 25B CORE, 0 DEG, 6" WIDE	SURFACE MOUNTED RETURN GRILLE	2						

WALL CAP SCHEDULE										
TAG	MANUFACTURER	MODEL	DESCRIPTION	COUNT	NOTES					
WC1	SEIHO	SX 5	EXHAUST OUTLET	2	1					
WC2	SEIHO	SFX 5	OUTSIDE AIR INTAKE	3	1					
WC3	SEIHO	SFX 12	OUTSIDE AIR INTAKE	2	1					
WC4	SEIHO	SX 8	EXHAUST OUTLET	1	1					

MECHANICAL NOTES										
1	OPTIONAL INSECT SCREEN AVAILABLE									