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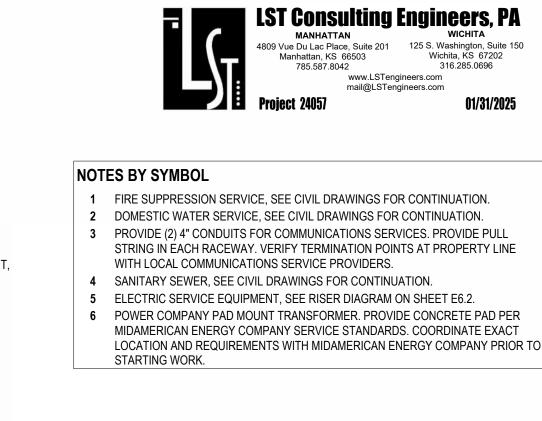
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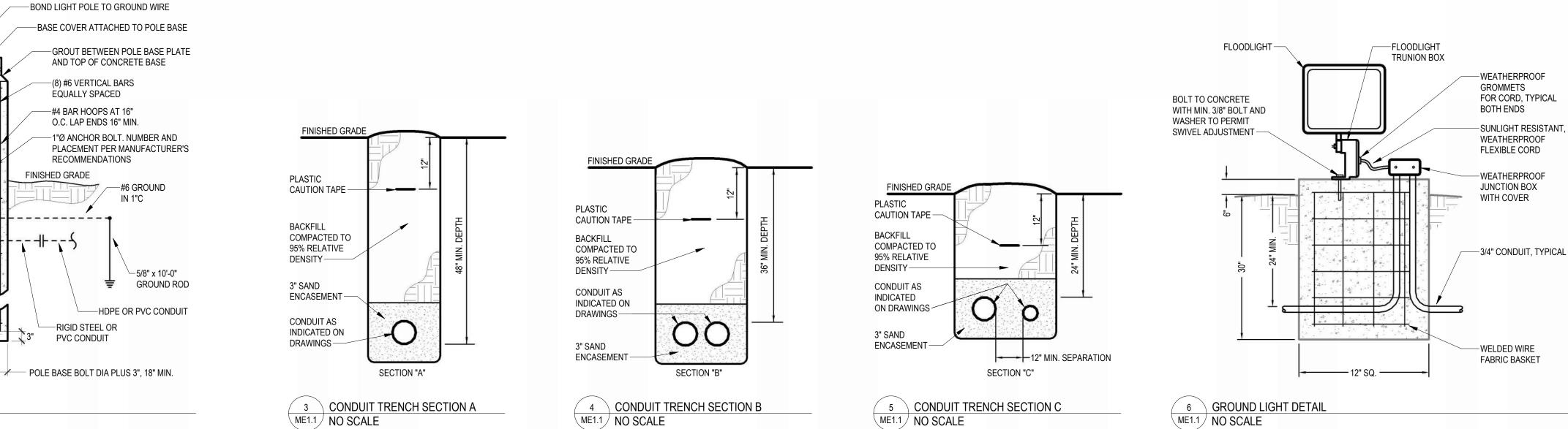
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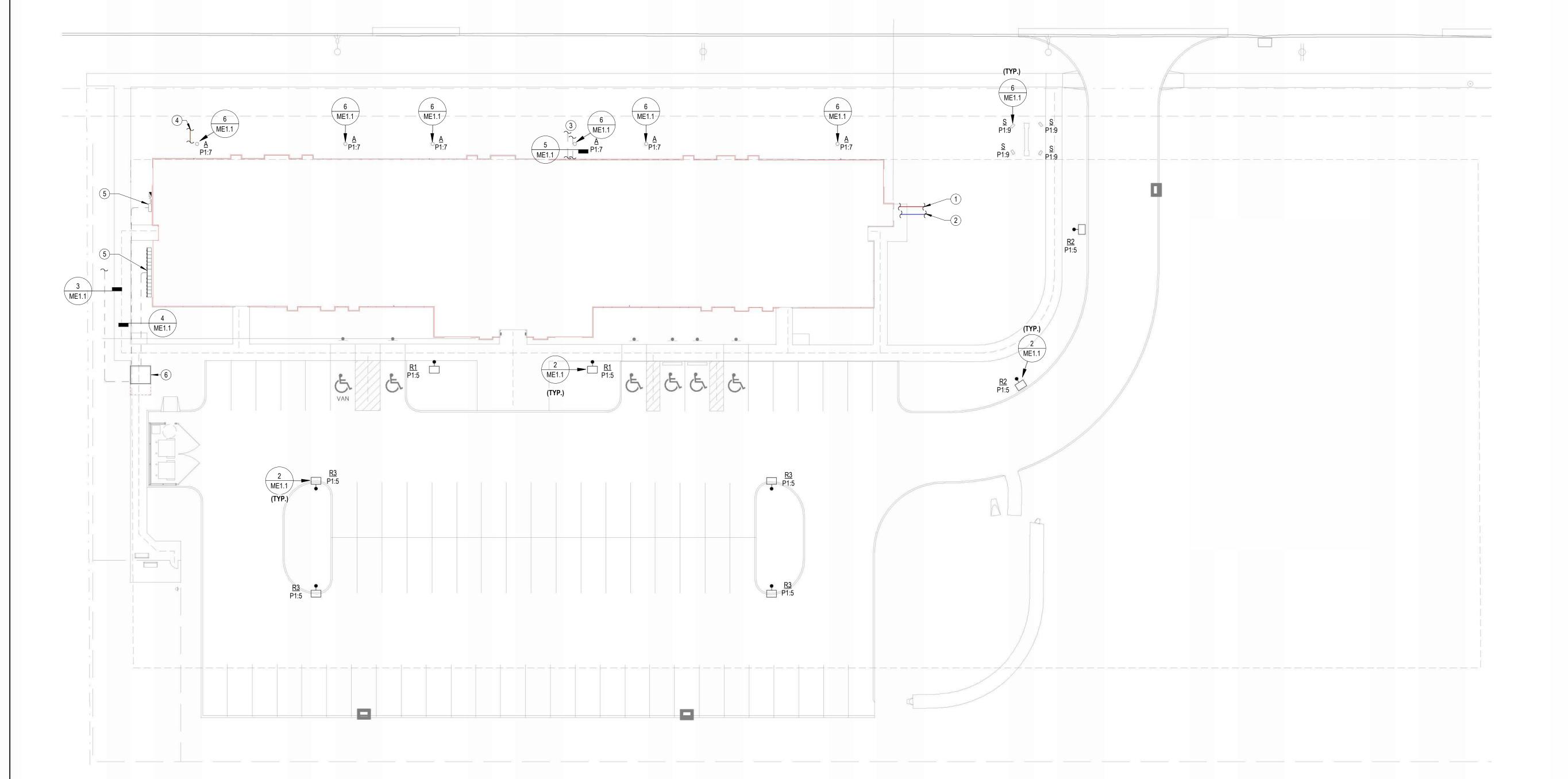
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**ME1.1** 



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LIGHTING POLE —

2 LIGHT POLE BASE DETAIL NO SCALE

HAND HOLE -

CORNERS-

3/4" CHAMFERED

LST Consulting Engineers, PA MANHATTAN
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Manhattan, KS 66503
785.587.8042
785.587.8042
Www.LSTengineers.com
mail@LSTengineers.com 01/31/2025

#### **NOTES BY SYMBOL**

- 1 ALL HEAT PUMPS, UNLESS NOTED OTHERWISE, ARE 'HP-1' AND CORRESPOND TO MATCHING BLOWER COIL FOR DWELLING UNIT AS TAGGED. TYPICAL **2** 3" PLUMBING VENT THROUGH ROOF.
- 3 UNLESS NOTED OTHERWISE, PROVIDE 30A/2-POLE, NON-FUSED DISCONNECT SWITCH IN NEMA 3R ENCLOSURE AND MAKE FINAL CONNECTION TO EQUIPMENT IN LFMC RACEWAY. MOUNT TO UNISTRUT FRAME SUPPORTED FROM EQUIPMENT SUPPORT RAILS. TAG SHOWN INDICATES PANEL OF ORIGIN FOR UNIT BEING
- 4 MOUNT HEAT PUMP TO UNISTRUT FRAME SUPPORTED ON NVENT CADDY PYRAMID ROOF SUPPORTS. PROVIDE VIBRATION ISOLATOR BETWEEN ROOF SUPPORTS AND UNISTRUT FRAME. COORDINATE INSTALLATION WITH ROOFING CONTRACTOR.
- 5 MOUNT RECEPTACLE TO UNISTRUT FRAME SUPPORTED FROM HEAT PUMP UNISTRUT FRAME.
- 6 PROVIDE RECEPTACLE ON ROOF FOR FUTURE RADON FAN. COORDINATE EXACT LOCATION PRIOR TO COMMENCING WORK. COORDINATE ROOF PENETRATIONS WITH ROOFING CONTRACTOR AND G.C.
- 7 ROUTE REFRIGERANT PIPING DOWN THROUGH ROOF TO MATCHING BLOWER COIL. PROVIDE PIPING PENETRATION ASSEMBLY EQUAL TO RPH AW SERIES ROOF VAULT WITH EXIT SEALS FOR REFRIGERANT PIPING AND ELECTRICAL CONDUIT AND TWO ADDITIONAL SPARE EXIT SEALS. SUBMIT PRODUCT DATA FOR REVIEW PRIOR TO INSTALLATION.
- 8 PROVIDE 60A/2-POLE, NON-FUSED DISCONNECT SWITCH IN NEMA 3R ENCLOSURE AND MAKE FINAL CONNECTION TO EQUIPMENT IN LFMC RACEWAY. MOUNT TO UNISTRUT FRAME SUPPORTED FROM EQUIPMENT SUPPORT RAILS.
- 9 PROVIDE GRAVITY ROOF VENTILATOR WITH BIRD SCREEN EQUAL TO GREENHECK GRSI-12. MINIMUM 0.82 SQUARE FOOT THROAT AREA. PROVIDE WITH ROOF CURB COMPATIBLE WITH ROOF SLOPE AND MATERIAL.

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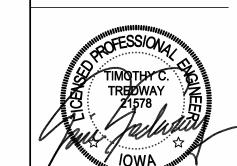
- . INSTALL ALL EQUIPMENT IN ACCORDANCE WITH THE RESPECTIVE MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS, AT A LEVEL OF QUALITY AND WORKMANSHIP CONSISTENT WITH THE SPECIFICATIONS.
- PRACTICAL IN ROOMS WITHOUT CEILINGS.
- PRIOR TO STARTING WORK, SUBMIT SHOP DRAWINGS FOR ALL MECHANICAL EQUIPMENT AND MATERIALS. SUBSTITUTE EQUIPMENT INSTALLED WITHOUT PRIOR APPROVAL SHALL BE SUBJECT TO REPLACEMENT AT CONTRACTOR'S EXPENSE. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL NECESSARY PERMITS AND SHALL ARRANGE FOR ALL INSPECTIONS AS PROVIDE ONE YEAR WARRANTY FOR ALL WORKMANSHIP AND MATERIALS AFTER THE DATE OF FINAL ACCEPTANCE.

- ( <sub>-</sub>	LST Consulting MANHATTAN  4809 Vue Du Lac Place, Suite 201 Manhattan, KS 66503 785.587.8042	Engineers WICHITA 125 S. Washington, Wichita, KS 67 316.285.069		
		ngineers.com ngineers.com		
	Project 24057	01/31		
AC SHEET INDE	≣X			

	HVAC SHEET INDEX
M0.1	HVAC Title Sheet
M1.1	HVAC Plans 1st and 2nd
M1.2	HVAC Plans 3rd
M4.1	Enlarged HVAC Plans
M4.2	Enlarged HVAC Plans
M6.1	HVAC Schedules
M9.1	HVAC Risers
M9.2	HVAC Risers

ABOVE CEILING. ALL ROOF MOUNTED EQUIPMENT SHALL BE A MINIMUM 10'-0" FROM EDGE OF ROOFS WITHOUT A 42" HIGH PARAPET OR GUARD RAIL. WHERE PROVIDING 10'-0" SEPARATION FROM ROOF EDGE IS NOT POSSIBLE, PROVIDE PERMANENT FALL ARREST ANCHORS COMPLIANT WITH ANSI/ASSP Z359.1. COORDINATE WITH GENERAL CONTRACTOR. LOCATE DUCTWORK, PIPING AND MECHANICAL EQUIPMENT OUTSIDE OF THE NEC REQUIRED CLEAR SPACE ABOVE AND AROUND ELECTRICAL PANELS, TRANSFORMERS AND OTHER ELECTRICAL EQUIPMENT. COORDINATE WITH ELECTRICAL CONTRACTOR. PENETRATIONS OF RATED ASSEMBLIES SHALL BE FIRE STOPPED. FIRE STOPPING SHALL BE U.L. LISTED. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF RATED ASSEMBLIES. M. PROVIDE SLEEVES AND/OR OPENINGS TO RUN PIPES AND DUCTS THROUGH FOUNDATIONS, FLOORS, WALLS, AND ROOF. MAINTAIN CLEAR ACCESS TO SERVICE EQUIPMENT AND OTHER ACCESSORIES REQUIRING SERVICE, VISUAL INSPECTION OR HAND OPERATION. WHERE INDICATED OR REQUIRED, PROVIDE ACCESS PANELS OF THE TYPE SELECTED TO SUIT MATERIALS IN WHICH INSTALLED. TRANSITION FROM PIPING AND DUCTWORK SIZES SHOWN TO PROPERLY CONNECT TO MECHANICAL EQUIPMENT. PIPE SIZES SHOWN SHALL BE CONTINUED IN THE DIRECTION OF FLOW UNTIL ANOTHER SIZE IS SHOWN.

R. INSTALL EXPOSED PIPING AND DUCTWORK AS HIGH AS



24-3400 SHEET NO .:

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Detail Number on Sheet 24"x12"FO Oval Duct Size (Width x Height) Sheet Number Where Detail is Placed Round Duct Size (Diameter) 18"Ø Keynote Symbol **Existing Duct To Remain** Continuation Symbol Duct To Be Demolished Point Where New Connects To Existing S/A Supply Air Room Name / Number V/A Ventilation Air Area Being Demolished O/A Outdoor Air Area Not In Contract R/A Return Air Electrical Equipment. T/A Transfer Air Do not route HVAC installation above or below equipment. Maintain working clearance as indicated by dashed line. General Exhaust Air E/A KED Kitchen Exhaust Duct Flue Gas Vent C/A Combustion Air **Abbreviations** Rect. Supply Duct Rise / Drop ABOVE LWT LEAVING WATER TEMPERATURE AIR CONDITIONING M/A MIXED AIR Round Supply Duct Rise / Drop AREA DRAIN MAXIMUM ADD ADDENDUM MBH ONE THOUSAND BTU PER HOUR Rect. Return Duct Rise / Drop AFF ABOVE FINISHED FLOOR MCF ONE THOUSAND CUBIC FEET MOTORIZED DAMPER AFUE ANNUAL FUEL UTILIZATION EFFICIENCY MD Round Return Duct Rise / Drop ALT ALTERNATE MECH MECHANICAL ACCESS PANEL MFR MANUFACTURER ARCH ARCHITECT/ARCHITECTURAL MINIMUM Rect. Exhaust Duct Rise / Drop BFF BELOW FINISHED FLOOR MISCELLANEOUS BLW BELOW MTR MOTOR Round Exhaust Duct Rise / Drop BTU BRITISH THERMAL UNITS MU/A MAKE-UP/AIR BTUH BRITISH THERMAL UNITS PER HOUR NC NOISE CRITERIA CAP CAPACITY NORMALLY CLOSED CB CATCH BASIN NOT IN CONTRACT Square Ceiling CFM CUBIC FEET PER MINUTE NUMBER Type (See Schedule) CLG CEILING NORMALLY OPEN SD-A 500 Airflow CO CLEAN OUT NOT TO SCALE NTS CW COLD WATER OXYGEN OUTSIDE AIR DEGREE · DB DRY BULB Round Ceiling ORD OVERFLOW ROOF DRAIN Type (See Schedule) Diffuser

CD11 100 | Airflow | Neck Size | Type Count for Space DIA PRESSURE DROP DIAMETER DN DOWN POST INDICATOR VALVE DW DISTILLED WATER PLBG PLUMBING EACH PRESS PRESSURE EAT ENTERING AIR TEMPERATURE PRESSURE REDUCING VALVE Sidewall Supply

Grille

SG5 300

Airflow

Nominal Duct Size ELEC ELECTRICAL PSI POUNDS PER SQUARE INCH EQUIP EQUIPMENT PSIG POUNDS PER SQUARE INCH GAUGE ■ Nominal Duct Size EWC ELECTRIC WATER COOLER POWER AFF:0" Mounting Elevation (Centerline) EWT ENTERING WATER TEMPERATURE DUCT RISER Linear Diffuser Type (See Schedule) E/A EXHAUST AIR RETURN AIR EXIST EXISTING RADIANT CEILING PANEL SD- 200 Airflow Neck Size/ Slot(s)/ Active Length DEGREES FAHRENHEIT ROOF DRAIN RD FCO FLOOR CLEAN OUT REC RECESSED Sidewall Return

Grille

RG6
200

AFF:0"

Mounting Elevation (Centerline) FD FLOOR DRAIN REDUCER RED FDC FIRE DEPARTMENT CONNECTION RELATIVE HUMIDITY FL FLOOR FO FUEL OIL RELIEF AIR RL/A RM ROOM FOV FUEL OIL VENT REVOLUTIONS PER MINUTE RPM Ceiling Return

Type (See Schedule)

Airflow

Neck Size / Module Size FOR FUEL OIL RETURN RAIN WATER RW FOS FUEL OIL SUPPLY SQUARE FOOT FPM FEET PER MINUTE SUPPLY AIR SANITARY FLOOR SINK SAN FOOT/FEET SQUARE FOOT FTR FIN TUBE RADIATION SMOKE DAMPER Mechanical Equipment GAL SURFACE MOUNT GALLON GF GAS-FIRED STANDPIPE GC GENERAL CONTRACTOR STATIC PRESSURE GPM GALLONS PER MINUTE STM STEAM RTU-1 — Unit Identity GW THERMOSTAT GREASE WASTE HB TEMPERATURE DROP HOSE BIB HORSE POWER TRENCH DRAIN HTG TEMP TEMPERATURE HEATING — (E)AHU-2) 
— Existing to Remain Equipment TYP TYPICAL HTR HEATER HOT WATER UNDERGROUND HYD HYDRANT VAC VACUUM · ID INDIRECT VENT

General Plan Symbols

Plan Revision Number

## **Equipment Abbreviations** AC AIR CONDITIONING UNIT

VAV

WB

IN

INV

INCH

INVERT

LP LOW PRESSURE

LB/HR POUNDS PER HOUR

LAT LEAVING AIR TEMPERATURE

LPG LIQUEFIED PETROLEUM GAS

LB POUND

ACCU AIR COOLING CONDENSING UNIT AHU AIR HANDLING UNIT AS AIR SEPARATOR FP FIRE PUMP B BOILER CH CHILLER CT COOLING TOWER CUH CABINET UNIT HEATER

CHWP CHILLED WATER PUMP DBP DOMESTIC WATER BOOSTER PUMP DC DUCT MOUNTED COIL DCP DOMESTIC WATER CIRCULATING PUMP SP SUMP PUMP UH UNIT HEATER EF EXHAUST FAN EDC ELECTRIC DUCT COIL WH WATER HEATER

 $^{*}$  NOTE  $^{*}$  ALL OF GENERAL NOTES ON THIS SHEET ARE TO BE APPLIED TO ALL OTHER DRAWINGS IN THIS SET.THE SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET MAY OR MAY NOT BE USED IN THIS SET OF DRAWINGS.

ET EXPANSION TANK EWH ELECTRIC WATER HEATER FCU FAN COIL UNIT GI GREASE INTERCEPTOR GRV GRAVITY ROOF VENTILATOR HWP HEATING WATER PUMP

VARIABLE AIR VOLUME

VENT VENTILATION

WASTE

WET BULB

WCO WALL CLEAN OUT

WH WALL HYDRANT

VTR VENT THROUGH ROOF

HRU HEAT RECOVERY UNIT PRV POWER ROOF VENTILATOR RE RETURN/EXHAUST FAN RTU ROOFTOP UNIT

Damper Types —Manual Damper -----

**Mechanical Control Devices** 

CO2

Humidistat

Temperature Sensor

Carbon Dioxide Detector

Hazardous Gas Detector

Humidity Sensor

—Motorized Damper Backdraft Damper —Smoke Damper Fire Damper

Equipment By Others

(Refer To Other Disciplines)

**HVAC Symbols** 

Sq. Duct Size (Width/Height)

S→  $\qquad \qquad \blacksquare \quad \blacksquare$ Comb. Fire/ Smoke Damper

1 ROUTE 4"Ø EXHAUST DUCT TO MANUFACTURER'S WALL CAP WITH BACKDRAFT DAMPER AND BIRD SCREEN, COORDINATE FINAL LOCATION WITH ARCHITECT.

3 PROVIDE UL LISTED DRYER BOX EQUAL TO IN-O-VATE TECHNOLOGIES IN WALL INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, AND ROUTE 4"Ø DRYER EXHAUST DUCT TO WALL CAP WITH BACKDRAFT DAMPER. SEE OVERALL MECHANICAL PLANS FOR UNIT SPECIFIC ROUTING. MAXIMUM ALLOWABLE EQUIVALENT DUCT LENGTH = 35'. UTILIZE LONG RADIUS SMOOTH ELBOWS WHERE REQUIRED. MAXIMUM EQUIVALENT DUCT LENGTH MAY BE INCREASED WHERE DRYER MANUFACTURER'S INSTALLATION INSTRUCTIONS ALLOW, AND DOCUMENTATION IS PROVIDED TO CODE OFFICIAL PRIOR TO CONCEALMENT INSPECTION. COORDINATE EXACT REQUIREMENTS WITH EQUIPMENT PROVIDED. PROVIDE PERMANENT LABEL IDENTIFYING EQUIVALENT LENGTH OF DRYER DUCT INSTALLED PER IMC 504.

NOTE: ANNULAR SPACE AROUND DUCT IS TO BE SEALED AT ALL PENETRATIONS OF FLOORS AND CEILINGS WITH U.L. LISTED FIRE STOPPING SYSTEM.

- 4 PROVIDE FIRE DAMPER WHERE O.A. DUCT PENETRATES RATED CEILING.
- DUCT WORK AND BALANCE AS FOLLOWS: 1ST FLOOR 'BC-1': 155 CFM

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DAMPER AND BIRD SCREEN, COORDINATE FINAL LOCATION WITH ARCHITECT.

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**NOTES BY SYMBOL** 

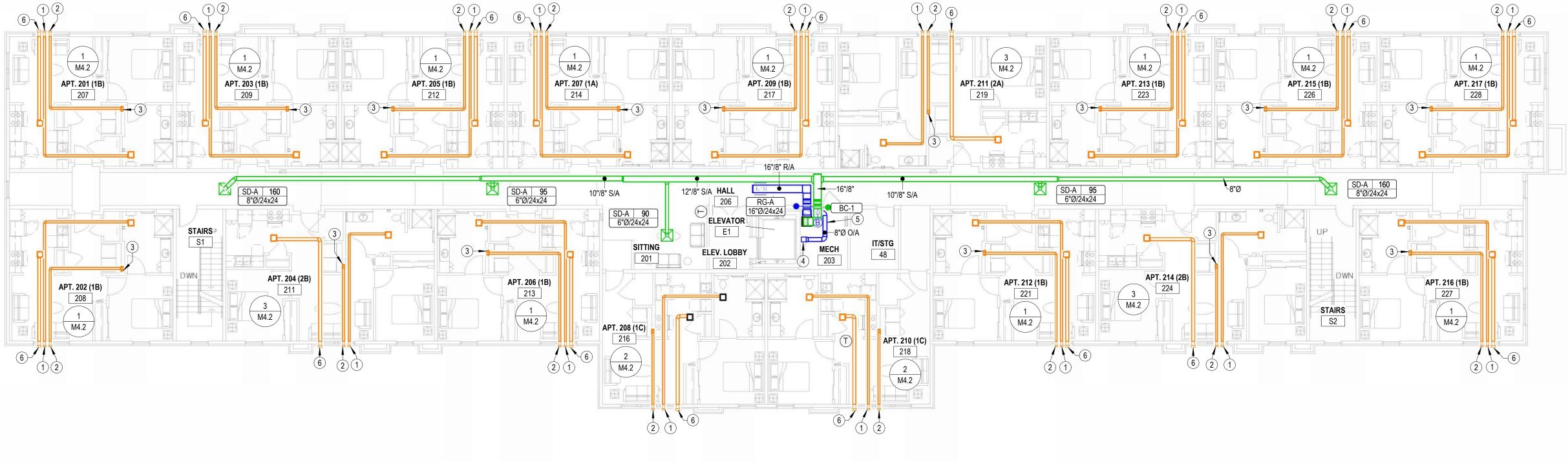
2 4"Ø DRYER DUCT. SEE ENLARGED PLANS FOR MORE INFORMATION. COORDINATE FINAL LOCATION OF WALL CAP WITH ARCHITECT.

5 CONNECT O.A. DUCT TO RISER AS HIGH AS POSSIBLE AND ROUTE TO RETURN AIR

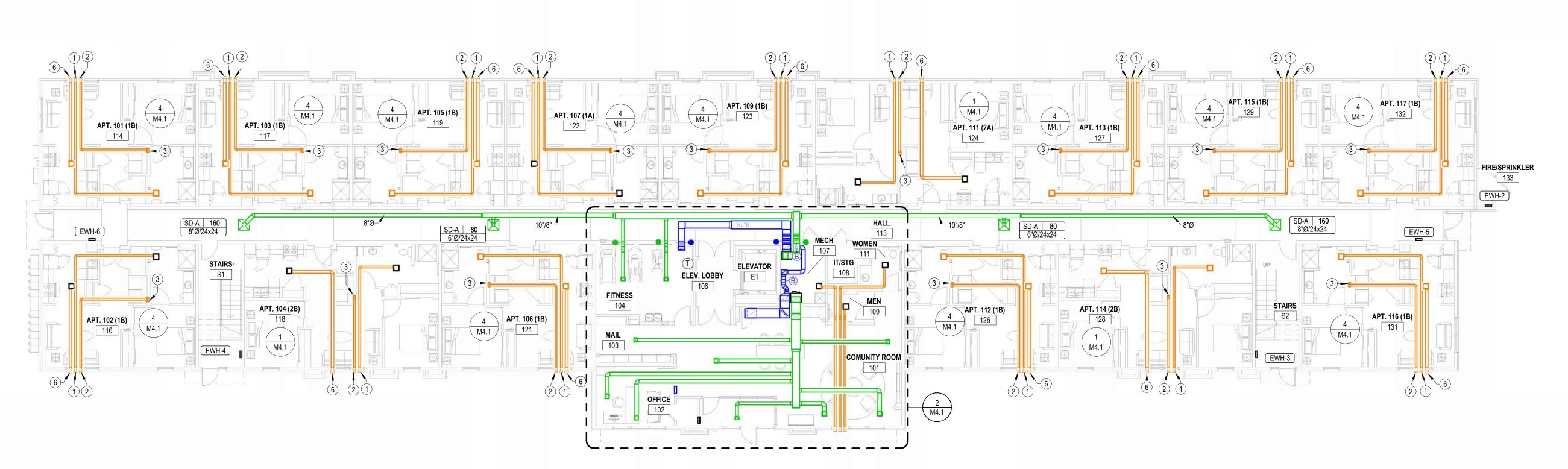
1ST FLOOR 'BC-2': 135 CFM 2ND FLOOR 'BC-1': 135 CFM

3RD FLOOR 'BC-1': 125 CFM

6 ROUTE 6"Ø EXHAUST DUCT TO MANUFACTURER'S WALL CAP WITH BACKDRAFT



2 SECOND FLOOR HVAC PLAN
M1.1 3/32" = 1'-0"



1 ROUTE 4"Ø EXHAUST DUCT TO MANUFACTURER'S WALL CAP WITH BACKDRAFT

3 PROVIDE UL LISTED DRYER BOX EQUAL TO IN-O-VATE TECHNOLOGIES IN WALL INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, AND ROUTE 4"Ø DRYER EXHAUST DUCT TO WALL CAP WITH BACKDRAFT DAMPER. SEE OVERALL MECHANICAL PLANS FOR UNIT SPECIFIC ROUTING. MAXIMUM ALLOWABLE EQUIVALENT DUCT LENGTH = 35'. UTILIZE LONG RADIUS SMOOTH ELBOWS WHERE REQUIRED. MAXIMUM EQUIVALENT DUCT LENGTH MAY BE INCREASED WHERE DRYER MANUFACTURER'S INSTALLATION INSTRUCTIONS ALLOW, AND DOCUMENTATION IS PROVIDED TO CODE OFFICIAL PRIOR TO CONCEALMENT INSPECTION. COORDINATE EXACT REQUIREMENTS WITH EQUIPMENT PROVIDED. PROVIDE PERMANENT LABEL IDENTIFYING EQUIVALENT LENGTH OF DRYER DUCT INSTALLED PER IMC 504.

NOTE: ANNULAR SPACE AROUND DUCT IS TO BE SEALED AT ALL PENETRATIONS OF FLOORS AND CEILINGS WITH U.L. LISTED FIRE STOPPING SYSTEM.

- 4 PROVIDE FIRE DAMPER WHERE O.A. DUCT PENETRATES RATED CEILING. 5 CONNECT O.A. DUCT TO RISER AS HIGH AS POSSIBLE AND ROUTE TO RETURN AIR DUCT WORK AND BALANCE AS FOLLOWS:
- 1ST FLOOR 'BC-1': 155 CFM 1ST FLOOR 'BC-2': 135 CFM 2ND FLOOR 'BC-1': 135 CFM
- 3RD FLOOR 'BC-1': 125 CFM 6 ROUTE 6"Ø EXHAUST DUCT TO MANUFACTURER'S WALL CAP WITH BACKDRAFT DAMPER AND BIRD SCREEN, COORDINATE FINAL LOCATION WITH ARCHITECT.

DAMPER AND BIRD SCREEN, COORDINATE FINAL LOCATION WITH ARCHITECT. 2 4"Ø DRYER DUCT. SEE ENLARGED PLANS FOR MORE INFORMATION. COORDINATE FINAL LOCATION OF WALL CAP WITH ARCHITECT.

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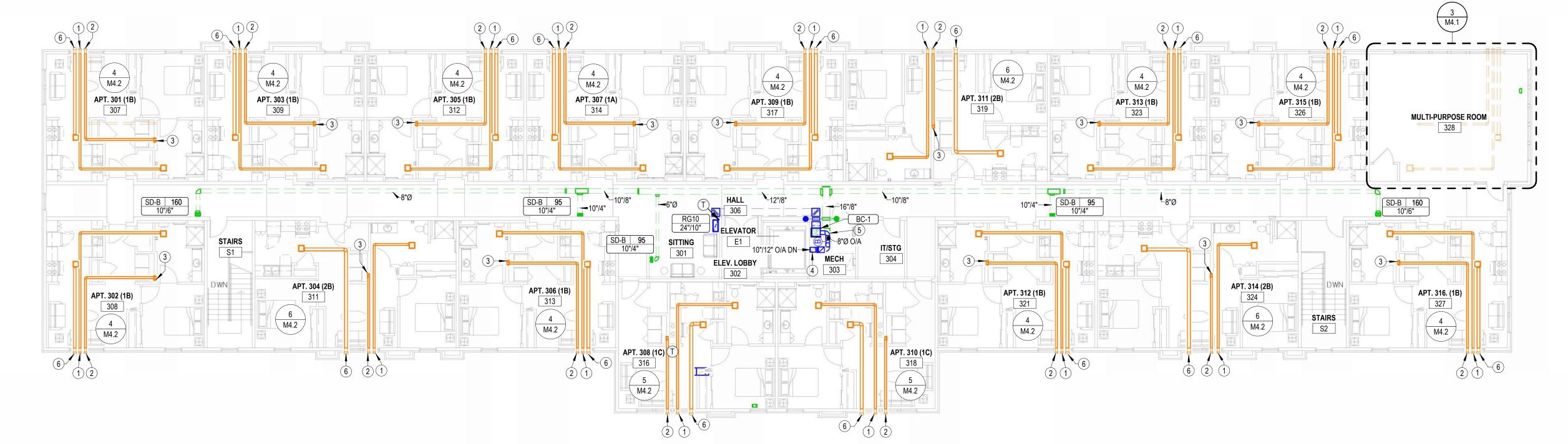
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### **NOTES BY SYMBOL**

- U.L. LISTED RADIATION DAMPER, GREENHECK CRD OR EQUIVALENT.
- 3 SEE M1.1 AND M1.2 FOR DRYER EXHAUST DUCT ROUTING.
- 4 PROVIDE AUXILIARY DRAIN PAN BELOW BLOWER COIL, AND PIPE OVERFLOW DRAIN TO FLOOR DRAIN.
- 5 SEE M1.1 AND M1.2 FOR BATHROOM EXHAUST DUCT ROUTING.
- 6 RECIRCULATING RANGE HOOD BY OTHERS.
- 7 TWO SPEED KITCHEN EXHAUST FAN UTILIZED AS VENTILATON FAN PER REQUIREMENTS OF IMC AND ENERGY STAR. FAN SHALL OPERATE CONTINUOUSLY AT AIRFLOWS INDICATED BELOW. COORDINATE WITH ELECTRICAL CONTRACTOR TO PROVIDE OVERRIDE SWITCH TO ALLOW OCCUPANT TO INCREASE FAN AIRFLOW TO 100 CFM FOR INTERMITTENT OPERATIONS. 1 BR UNITS: 35 CFM
- 8 MOUNT TRANSFER GRILLE IN BEDROOM 6" BELOW CEILING AND MOUNT TRANSFER GRILLE ON OPPOSITE SIDE OF WALL 6" ABOVE FINISHED FLOOR. LINE STUD CAVITY
- WITH SHEET METAL. 9 ROUTE 4"Ø EXHAUST DUCT TO MANUFACTURER'S WALL CAP WITH BACKDRAFT
- DAMPER AND BIRD SCREEN, COORDINATE FINAL LOCATION WITH ARCHITECT. 10 ROUTE 8" DIA. O.A. DUCT UP TO ROOF JACK. SEE ME1.2 FOR CONTINUATION. BALANCE O.A. TO 140 CFM.
- 11 PROVIDE FIRE DAMPER WHERE O.A. DUCT PENETRATES RATED CEILING.
- 12 CONNECT O.A. DUCT TO RISER AS HIGH AS POSSIBLE AND ROUTE TO RETURN AIR DUCT WORK AND BALANCE AS FOLLOWS: 1ST FLOOR 'BC-1': 155 CFM 1ST FLOOR 'BC-2': 135 CFM
- 2ND FLOOR 'BC-1': 135 CFM 3RD FLOOR 'BC-1': 125 CFM

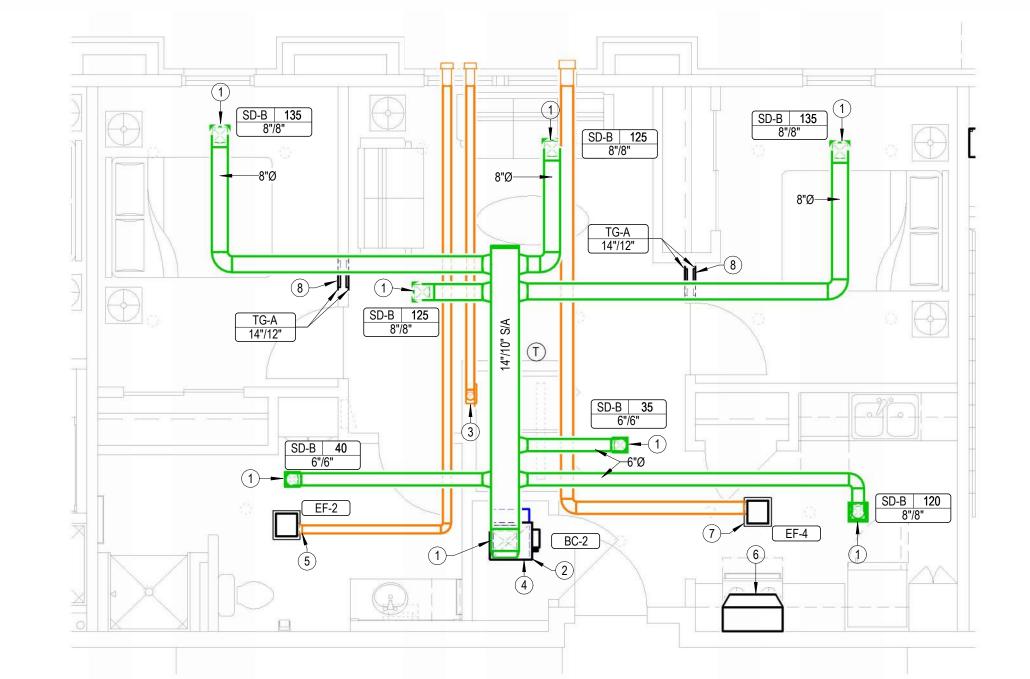
2 BR UNITS: 50 CFM

- 13 ROUTE DUCTWORK IN SOFFIT ABOVE COUNTERTOP. COORDINATE WITH STRUCTURAL ELEMENTS IN THIS AREA.
- 14 MOUNT TRANSFER GRILLES CENTERED ABOVE DOOR ON BOTH SIDES OF WALL. CONNECT GRILLES WITH SHEET METAL DUCTWORK. 15 INSTALL EXHAUST FAN BELOW CEILING TO ALLOW DUCTWORK TO BE ROUTED
- ABOVE RESTROOM CEILING AND BELOW BEAM. 16 ROUTE EXHAUST DUCTWORK BELOW BEAM IN THIS AREA.
- 17 ELBOW EXHAUST DUCT UP INTO JOIST SPACE. PROVIDE U.L. LISTED FIRE STOPPING SYSTEM EQUAL TO HILTI F-C-7086.

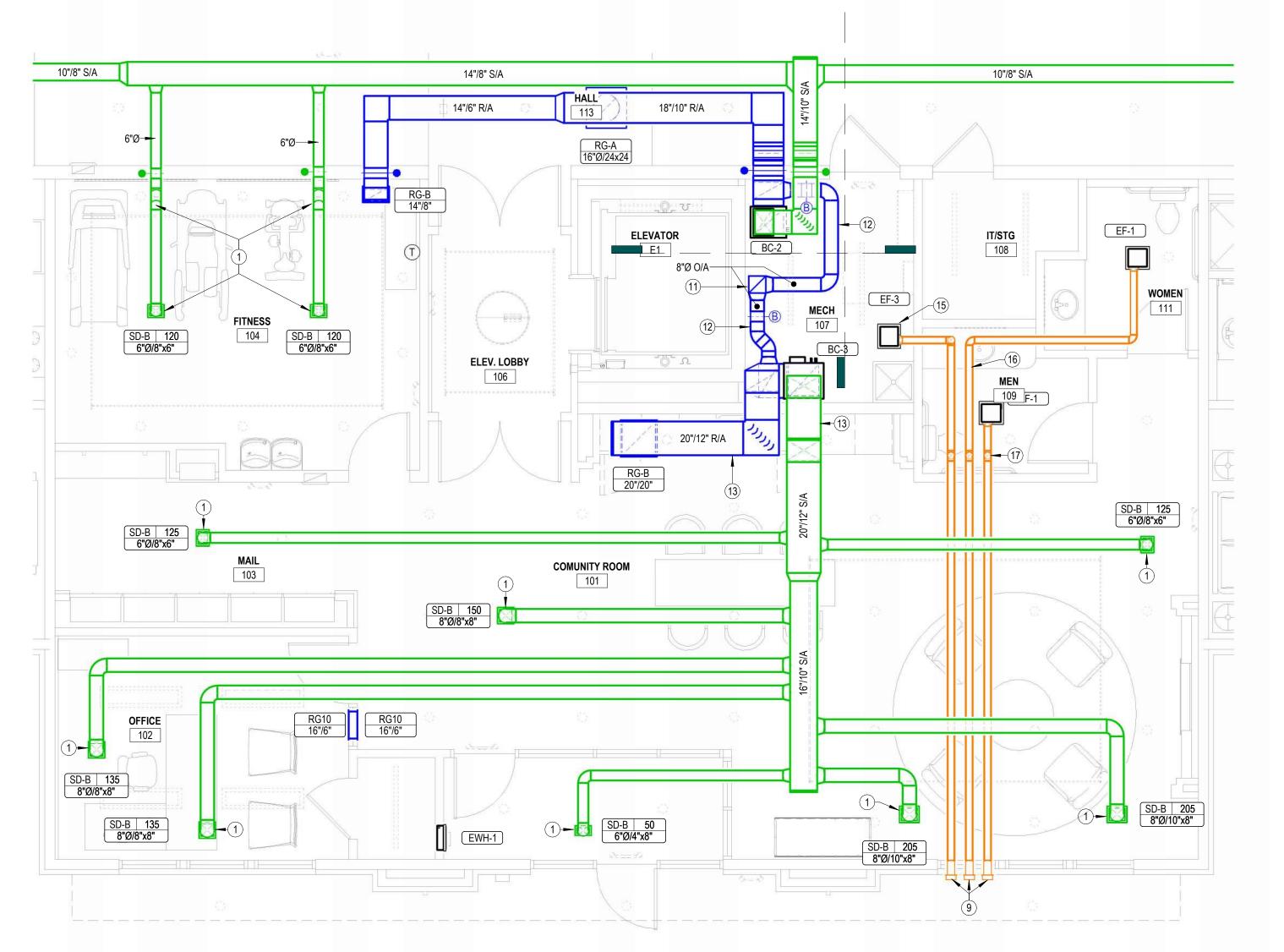


4 FIRST FLOOR 1A AND 1B ENLARGED HVAC PLAN M4.1 / 1/4" = 1'-0"

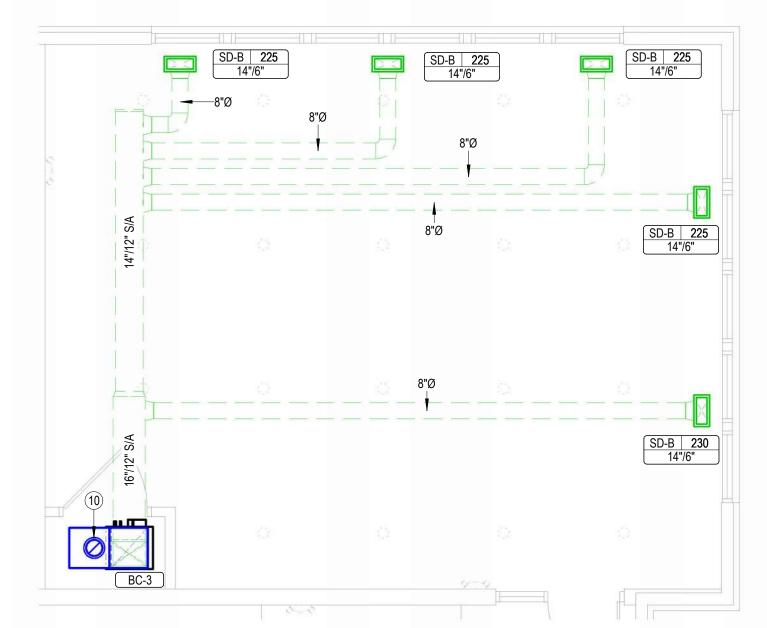
8"Ø—



1 FIRST FLOOR 2A AND 2B ENLARGED HVAC PLAN M4.1 1/4" = 1'-0"



2 FIRST FLOOR ENLARGED COMMON AREA HVAC PLAN
1/4" = 1'-0"



3 MULTIPURPOSE ROOM HVAC PLAN
1/4" = 1'-0"

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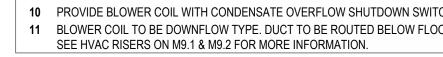
M4.2

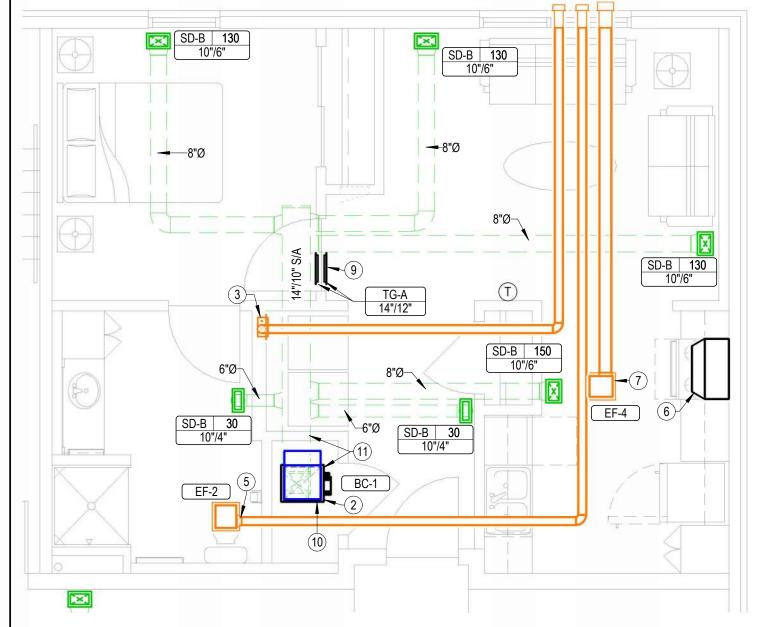


- 1 PROVIDE ALL SUPPLY AIR PENETRATIONS OF RATED CEILING MEMBRANE WITH U.L. LISTED RADIATION DAMPER, GREENHECK CRD OR EQUIVALENT. 2 ROUTE REFRIGERANT PIPING FROM BLOWER COIL TO HEAT PUMP. CONCEAL
- 3 SEE M1.1 AND M1.2 FOR DRYER EXHAUST DUCT ROUTING.
- DRAIN TO FLOOR DRAIN. 5 SEE M1.1 AND M1.2 FOR BATHROOM EXHAUST DUCT ROUTING.
- 6 RECIRCULATING RANGE HOOD BY OTHERS.
- REQUIREMENTS OF IMC AND ENERGY STAR. FAN SHALL OPERATE CONTINUOUSLY AT AIRFLOWS INDICATED BELOW. COORDINATE WITH ELECTRICAL CONTRACTOR TO PROVIDE OVERRIDE SWITCH TO ALLOW OCCUPANT TO INCREASE FAN AIRFLOW TO 100 CFM FOR INTERMITTENT
- 8 MOUNT TRANSFER GRILLE IN BEDROOM 6" BELOW CEILING AND MOUNT
- CONNECT GRILLES WITH SHEET METAL DUCTWORK.

### **NOTES BY SYMBOL**

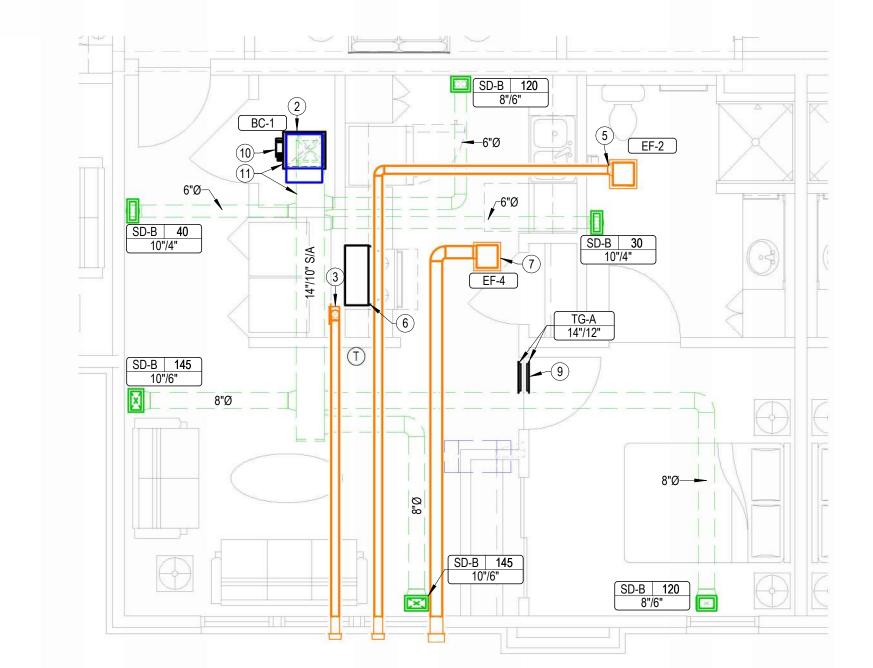
- PIPING IN WALLS AND ABOVE CEILINGS. SEE ME1.2 FOR HEAT PUMP
- 4 PROVIDE AUXILIARY DRAIN PAN BELOW BLOWER COIL, AND PIPE OVERFLOW
- 7 TWO SPEED KITCHEN EXHAUST FAN UTILIZED AS VENTILATON FAN PER 1 BR UNITS: 35 CFM 2 BR UNITS: 50 CFM
- TRANSFER GRILLE ON OPPOSITE SIDE OF WALL 6" ABOVE FINISHED FLOOR. LINE STUD CAVITY WITH SHEET METAL. 9 MOUNT TRANSFER GRILLES CENTERED ABOVE DOOR ON BOTH SIDES OF WALL.
- 10 PROVIDE BLOWER COIL WITH CONDENSATE OVERFLOW SHUTDOWN SWITCH. 11 BLOWER COIL TO BE DOWNFLOW TYPE. DUCT TO BE ROUTED BELOW FLOOR,



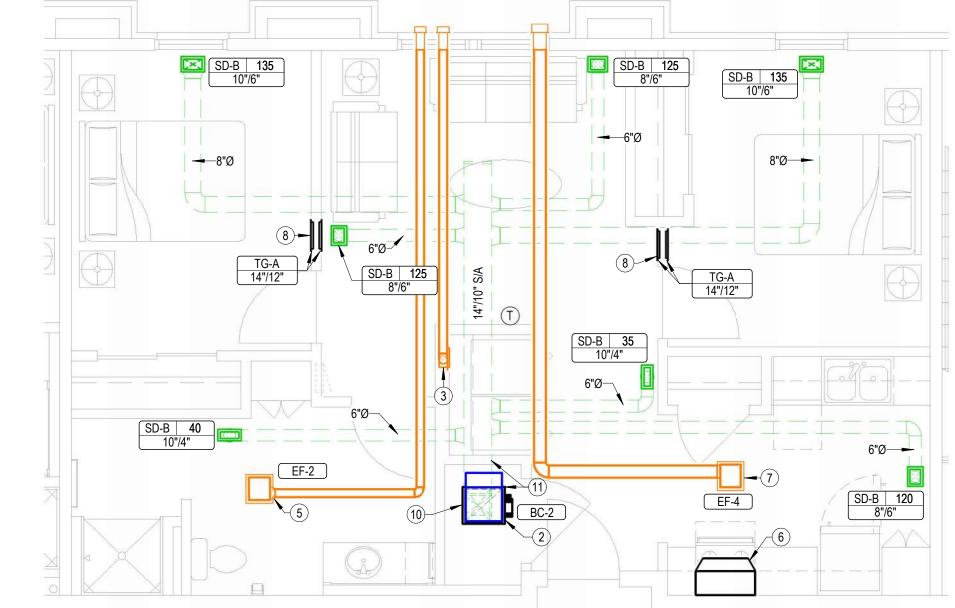


THIRD FLOOR 1A AND 1B ENLARGED HVAC PLAN

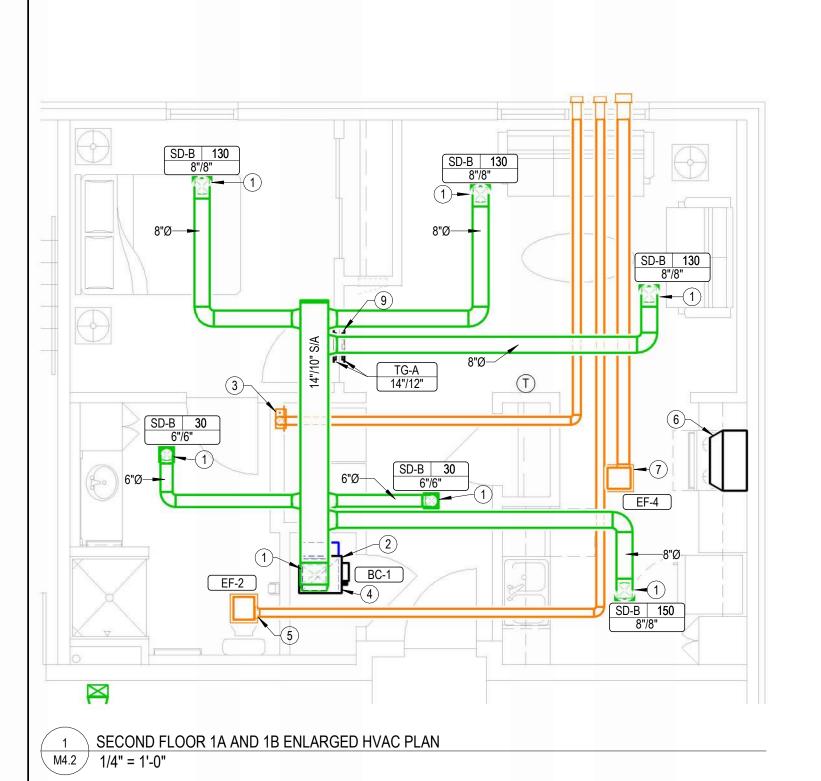
1/4" = 1'-0"

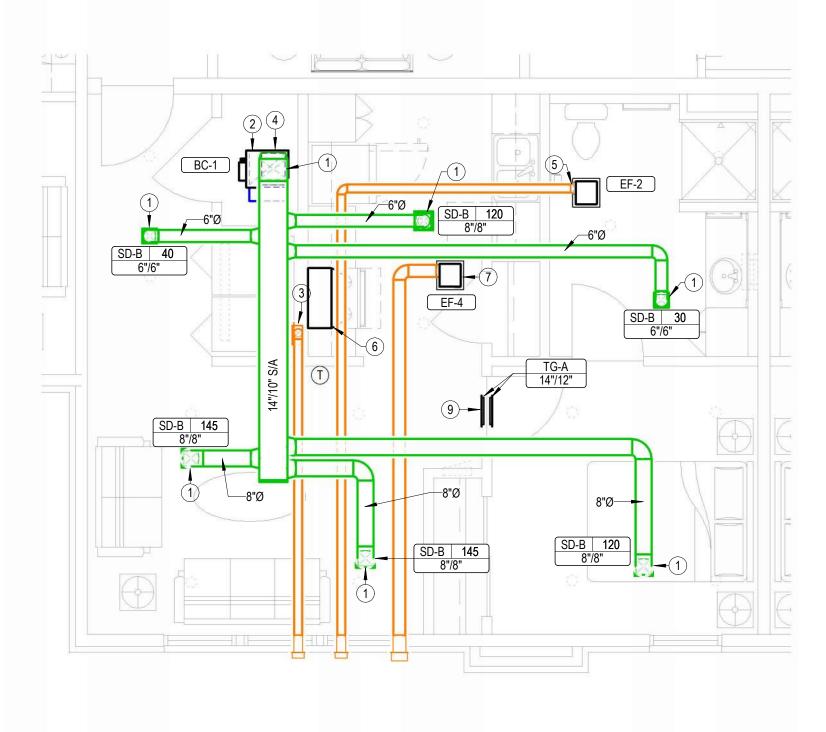


5 THIRD FLOOR 1C ENLARGED HVAC PLAN
M4.2 1/4" = 1'-0"

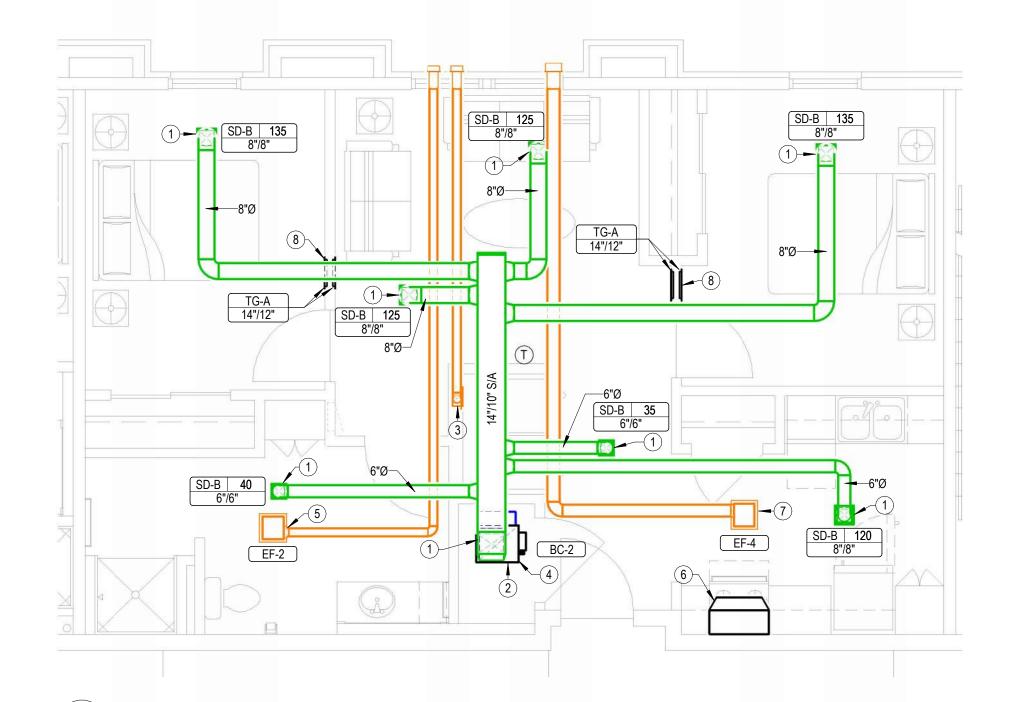


6 THIRD FLOOR 2A AND 2B ENLARGED HVAC PLAN
M4.2 1/4" = 1'-0"





2 SECOND FLOOR 1C ENLARGED HVAC PLAN
M4.2 1/4" = 1'-0"



3 SECOND FLOOR 2A AND 2B ENLARGED HVAC PLAN
M4.2 1/4" = 1'-0"

TO WALL CAP SEE PLANS FOR SIZE AND ROUTING

-R.A. DUCT SEE PLANS

— MANUAL BALANCING DAMPER (TYP.)

-FLEXIBLE DUCT

-FILTER WITH PIANO

HINGE AND LATCH

−90 DEGREE ELBOW

-3/4" TO FLOOR DRAIN

WITH TURNING VANES

CONN. (TYP.)

—O.A. DUCT

FOR SIZE AND ROUTING

**Electrical** 

1 | 15.0 A | 25.0 A | 208 V

1 15.0 A 25.0 A 208 V

7.8 1 20.0 A 35.0 A 208 V

Rated Heating HSPF2 Rating Phase MCA MOCP Voltage

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Grilles	, Registers &	& Diffusers	Schedule
			Application

		Application							
ID Type	Manufacturer	Model	Supply	Return	Exhaust	Transfer	Mounting	Include Damper	Product Specification
RG10	Titus	355RL					Surface Mount	<varies></varies>	
RG-A	Titus	PAR-AA		•			Lay-In Full Face	No	24"x24" perforated face return grille with neck size as indicated on drawings
RG-B	Titus	355RL		•			Surface Mount	No	Steel louvered return grille
SD-A	Titus	TMS-AA	•				Lay-In Full Face	No	24"x24" steel square louvered diffuser neck size as indicated on drawings
SD-B	Titus	300R	-				Surface Mount	Yes	Steel double deflection supply grille with front blades parallel to long dimension

■ Surface Mount

Maximum noise criteria shall be 25.

- Runouts to diffusers shall be same size as neck U.N.O.
- Verify finish with Architect.
- Provide devices with radiation dampers as required in rated ceilings. Coordinate with Architect.

•	Numbuls to unitide is small be same size as neck, O.N.O.
•	Paint objects visible through grilles with flat black paint.
•	Provide mounting frame as required for ceiling type. Coordinate with Architect.

	2.	Provide 7-day programma
	3.	Provide 7-day programab
	1	Dravida 2 anto of MEDV 7

NOTES:

HP-1

HP-2

HP-3

**BLOWER COIL** 

2.	Provide 7-day programmable thermostat.
3.	Provide 7-day programable thermostat. Provide with R410a refrigerant.
4.	Provide 2 sets of MERV-7 filters.

**Heat Pump Schedule** 

Manufacturer

Trane

Trane

Electric Cabinet Heater Schedule										
Mark	Manufacturer	Model	Mounting	Watts	Voltage	Phase	Description	Notes		
EWH-1	Trane	UHAA	Recessed	1.5 kW	120 V	1	Architectural fan forced wall heater	1,2,4		
EWH-2	Trane	UHWA	Wall	3.0 kW	208 V	1	Architectural fan forced wall heater	1,2,3		
FWH-3	Trane	UHWA	Wall	2 0 kW	208 V	1	Architectural fan forced wall heater	123		

	EWH-2	Trane	UHWA	Wall	3.0 kW	208 V	1	Architectural fan forced wall heater	1,2,3
	EWH-3	Trane	UHWA	Wall	2.0 kW	208 V	1	Architectural fan forced wall heater	1,2,3
	EWH-4	Trane	UHWA	Wall	2.0 kW	208 V	1	Architectural fan forced wall heater	1,2,3
	EWH-5	Trane	UHWA	Wall	2.0 kW	208 V	1	Architectural fan forced wall heater	1,2,3
	EWH-6	Trane	UHWA	Wall	2.0 kW	208 V	1	Architectural fan forced wall heater	1,2,3
1		· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·		· ·			

Panasonic | FV-0810VSS1 | 50 CFM | 0.45 in-wg | 21 W | 120 V | 1 | 1,2,3,4,5,6

EF-2 Panasonic FV-0810VSS1 80 CFM 0.45 in-wg 21 W 120 V 1 1,2,3,4,5,6 EF-3 Panasonic FV-0810VSS1 95 CFM 0.45 in-wg 21 W 120 V 1 1,2,3,4,5,6

EF-4 Panasonic FV-0511VK2 110 CFM 0.45 in-wg 21 W 120 V 1 1,2,3,4,5,6,7

6. Provide with manufacturer's ceiling radiation damper. Omit radiation dampers where rated ceilings are not present, coordinate with

7. Provide Panasonic FV-VS15VK1 mulit-speed with time delay module set to provide CFM as listed on drawings continuously with a

### 1. Provide with high temperature thermal cutout and fan delay.

Exhaust Fan Schedule

Mark Manufacturer

Fixture shall be Energy Star listed.

Provide integral backdraft damper.

3. Provide with EC motor with integral disconnect.

4. Provide manufacturer's wall cap or roof jack, see plans.

max of 110 CFM for 15 min whe wall switch is turned on.

Fixture shall operate at < 1 SONE</li>

NOTES:

- 2. Provide with integral thermostat and unit mounted disconnect switch.
- 3. Provide with manufacturer's surface mounting adapter sleeve. Coordinate exact mounting requirements and locations with Architect and rated construction. 4. Provide with manufacturer's recessed mounting adapter sleeve. Coordinate exact mounting requirement and locations with Architect and rated construction.

**Electrical** 

lower	lower Coil Schedule										
	Manufacturer Model			Fan			Electrical			МОСР	
Mark	Manufacturer	Wodei	Airflow	ESP	Speed	Heating	Voltage	Phase	MCA	WIOCP	
BC-1	Trane	TEM6A0B24	600 CFM	0.50 in-wg	Low	5.8 kW	208 V	1	38.0 A	40.0 A	
BC-2	Trane	TEM6A0B24	715 CFM	0.50 in-wg	Medium	5.8 kW	208 V	1	38.0 A	40.0 A	
BC-3	Trane	TEM6A0C36	1,130 CFM	0.50 in-wg	Medium	7.2 kW	208 V	1	49.0 A	50.0 A	
OTES:											

90 DEGREE ELBOW

FILTER WITH PIANO HINGE AND LATCH -

FLEXIBLE DUCT CONN. (TYP.)

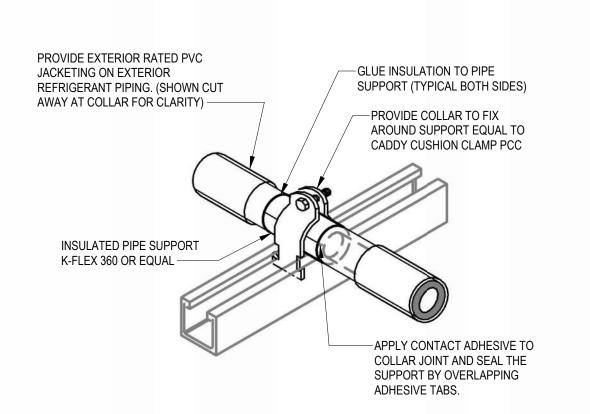
SET BLOWER COIL ON DOWNFLOW BASE WITH

VIBRATION PAD -

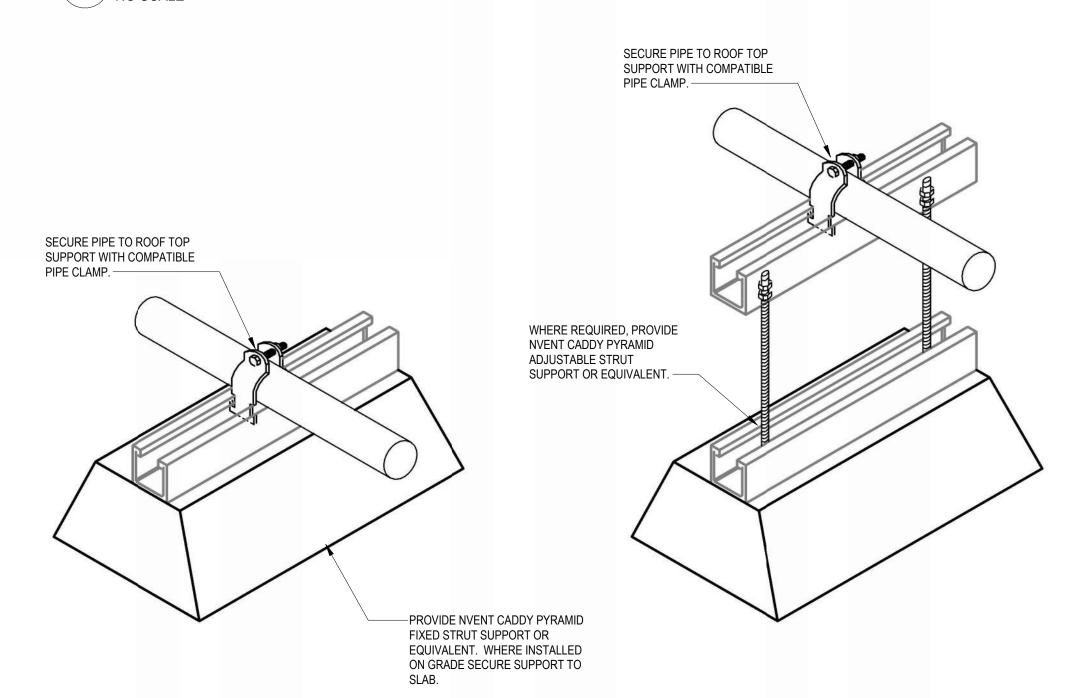
WITH TURNING VANES -

Steel louvered return grille

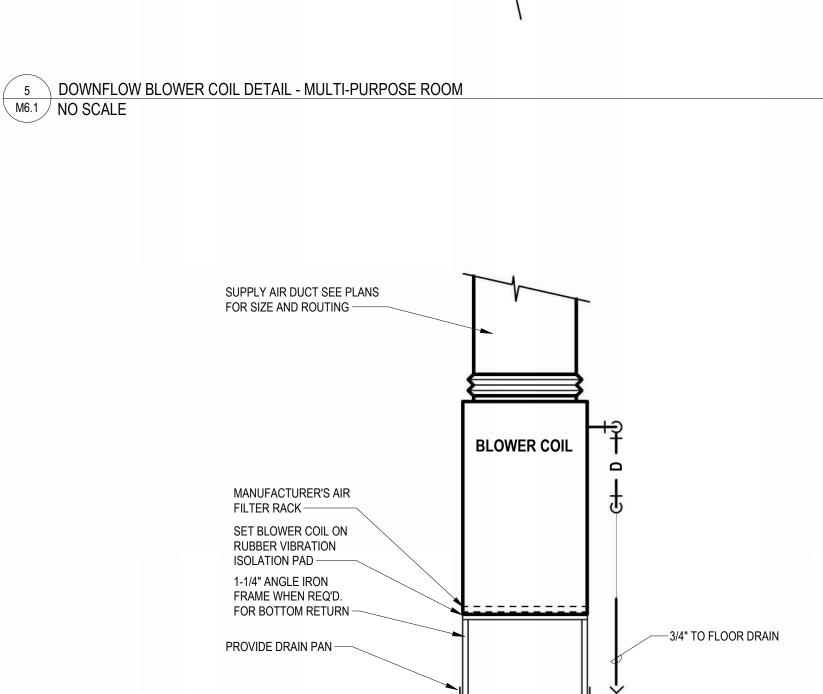
Single point connection required, coordinate the exact electrical requirements of equipment provided wih E.C. Electrical heater shall not operate simultaneously with heat pump. Electric heater shall be used as back-up heat only. 3. Povide unit with condensate overflow switch.





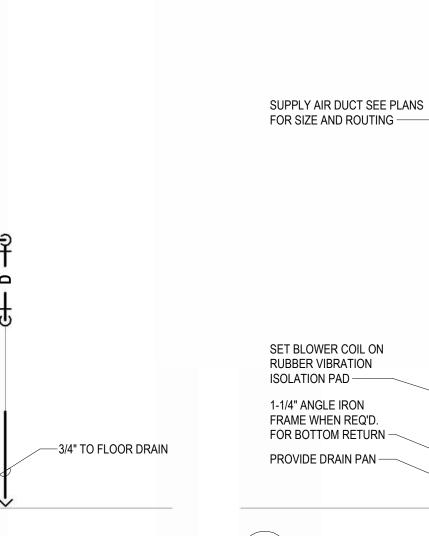






APARTMENT UPFLOW BLOWER COIL DETAIL

M6.1 / NO SCALE



**Cooling Capacity** 

1.5 ton | 105 °F | 80 °F | 67 °F | 11,100 Btu/h | 14,200 Btu/h

2.0 ton | 105 °F | 80 °F | 67 °F | 17,600 Btu/h | 23,000 Btu/h

4TWR6036 3.0 ton 105 °F 80 °F 67 °F 26.800 Btu/h 34.800 Btu/h

1. Refrigerant lines shall be field fabricated. Coordinate line sizing requirements with equipment manufacturer for length.

TO WALL CAP SEE PLANS FOR SIZE AND ROUTING —

O.A. DUCT —

OPEN ENDED R.A. DUCT

-MANUAL BALANCING DAMPER (TYP.)

−3/4" TO FLOOR DRAIN

-SUPPLY DUCT BRANCH. SEE PLANS FOR SIZE AND ROUTING

Capacity Capacity

Net Sensible Rated Cooling SEER2 Rating

$\left(\begin{array}{c}1\end{array}\right)$	BLOWER COIL DETAIL
M6.1	NO SCALE

MANUFACTURER'S AIR FILTER RACK	BLOWER COIL		
SET BLOWER COIL ON DOWNFLOW BASE WITH VIBRATION PAD		2	3/4" TO FLOOR DRAIN  SUPPLY DUCT BRANG SEE PLANS FOR SIZE AND ROUTING

**Heating Capacity** 

47 °F | 70 °F | 19,000 Btu/h

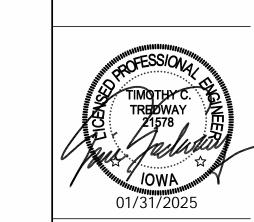
47 °F | 70 °F | 22,600 Btu/h

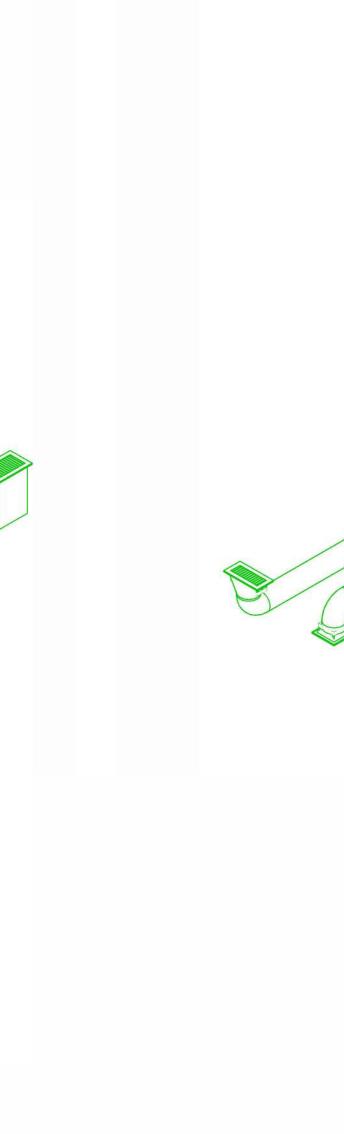
47 °F 70 °F 34,600 Btu/h

EDB



**BLOWER COIL** 





**VETERANS PARK** THE RESIDENCE AT

**NEW SENIOR LIVING FACILITY** 

IOWA

KNOXVILLE,

SEE M4.1 AND M4.2 FOR MORE INFORMATION.

SHEET NO .:

M9.1

SEE M4.1 AND M4.2 FOR MORE INFORMATION.

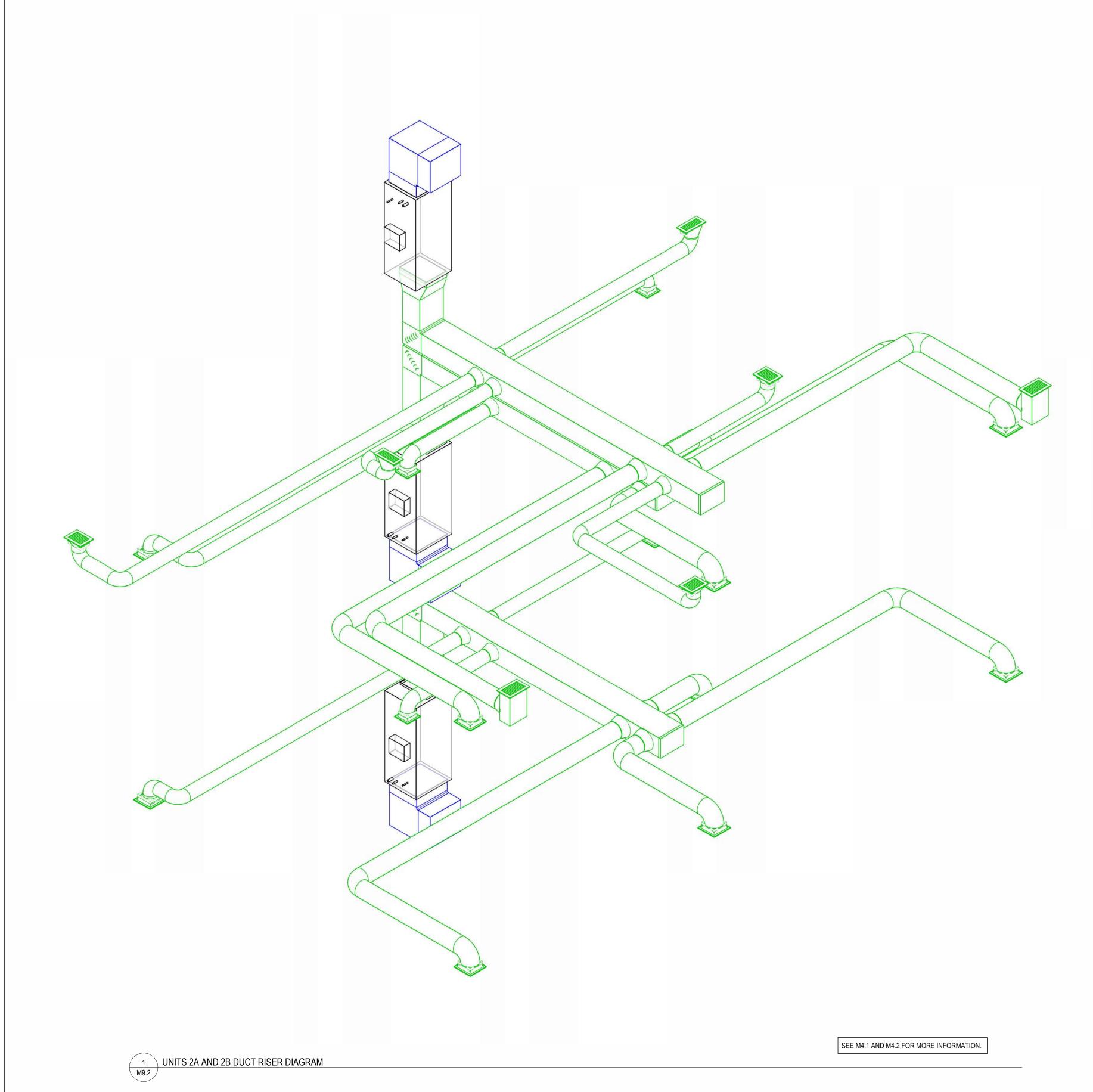
**VETERANS PARK** 

THE RESIDENCE AT

IOWA

SHEET NO .:

M9.2



	General Plan	Symbo	S	Plumbing S	Symbols
	Plan Revision Nu	mber		2"	Nominal Pipe Size
	- Detail Number on	Sheet			Above Ground Piping
	Sheet Number W		l is Placed	1/8" / 12" SLOPE	Below Ground Piping —Pipe Slope (When Applicabl
	# Keynote Symbol			(E)	Existing Pipe To Remain
	# Keynote Symbol				Pipe To Be Demolished
	Continuation Sym	bol		CW	Domestic Cold-Water
	Point Where New	Connects	To Existing	—	Non-Potable Water
	Room				Soft Cold-Water
	1 Room Name / Nu	mber		F-CW	Filtered Cold-Water
	Area Being Demo	lished		RO	Reverse Osmosis Water
	A A A A A	nioriou		—HW————	Domestic Hot-Water
	Area Not In Contr	act		—HW 140°— — —	Domestic Hot-Water 140°
	Floatrical Faviance	4		—HW-R———————————————————————————————————	Hot-Water Recirculation
		C installati	on above or below equipment.	—HW-R 140° — — — — — — — — — — — — — — — — — — —	Hot-Water Recirculation 140°  Radon Mitigation
	Maintain working o	clearance	as indicated by dashed line.		Sanitary Drain
					Sanitary Vent
				FP-W	Wet Fire Sprinkler
				w	Sanitary Wet Vent
				CWV	Combination DWV
	Abbreviat	ions		CD	Condensate Drain
		LVR	LOUVER	ID	Indirect Drain
Ø ABV	ROUND ABOVE	LWT	LEAVING WATER TEMPERATURE	GW-	Grease Waste
AC AD	AIR CONDITIONING AREA DRAIN	M/A MAX	MIXED AIR MAXIMUM	GV	Grease Vent
ADD	ADDENDUM ABOVE FINISHED FLOOR	MBH MCF	ONE THOUSAND BTU PER HOUR ONE THOUSAND CUBIC FEET	PD	Pump Discharge
AFF AFUE	ANNUAL FUEL UTILIZATION EFFICIENCY	MD MECH	MOTORIZED DAMPER MECHANICAL	SD	Storm Drain
ALT AP	ALTERNATE ACCESS PANEL	MFR	MANUFACTURER	OSD	Storm Overflow
ARCH BFF	ARCHITECT/ARCHITECTURAL BELOW FINISHED FLOOR	MIN MISC	MINIMUM MISCELLANEOUS	CA	Compressed Air
BLW	BELOW	MTR MU/A	MOTOR MAKE-UP/AIR		Natural Gas
BTU BTUH	BRITISH THERMAL UNITS BRITISH THERMAL UNITS PER HOUR	NC	NOISE CRITERIA	LP	Liquid Propane
CAP CB	CAPACITY CATCH BASIN	NC NIC	NORMALLY CLOSED NOT IN CONTRACT	o	Pipe Rise / Drop
CFM CLG	CUBIC FEET PER MINUTE	NO NO	NUMBER NORMALLY OPEN	Pine Accessory Notes	
CO	CEILING CLEAN OUT	NTS O	NOT TO SCALE OXYGEN	4" FCO	Cleanout
CW D	COLD WATER DEGREE	O/A	OUTSIDE AIR	D■C 2" CHECK	Check Valve
OB OIA	DRY BULB DIAMETER	ORD PD	OVERFLOW ROOF DRAIN PRESSURE DROP	D≠1 == 2" BALANCE	Balancing Valve
DN	DOWN	PIV PLBG	POST INDICATOR VALVE PLUMBING	2" CIRC	Circuit Setter
DW EA	DISTILLED WATER EACH	PRESS PRV	PRESSURE PRESSURE REDUCING VALVE		Gate Valve
AT LEC	ENTERING AIR TEMPERATURE ELECTRICAL	PSI	POUNDS PER SQUARE INCH	├ <del>-,</del> ├2" S/O	Ball Valve
QUIP	EQUIPMENT	PSIG PWR	POUNDS PER SQUARE INCH GAUGE POWER	S ——2" STRAIN	Fluid Strainer
EWC EWT	ELECTRIC WATER COOLER ENTERING WATER TEMPERATURE	R R/A	DUCT RISER RETURN AIR	1" GAS-CNTRL	Emergency Gas Shutoff
E/A EXIST	EXHAUST AIR EXISTING	RCP	RADIANT CEILING PANEL	I∏⊢—1" PLUG	Plug Valve
= CO	DEGREES FAHRENHEIT FLOOR CLEAN OUT	RD REC	ROOF DRAIN RECESSED	1" GAS COCK	Gas Shutoff Cock
-D	FLOOR DRAIN	RED RH	REDUCER RELATIVE HUMIDITY	1" REG	Gas Regulator
FDC FL	FIRE DEPARTMENT CONNECTION FLOOR	RL/A	RELIEF AIR	100 SCOOLS	
FO FOV	FUEL OIL FUEL OIL VENT	RM RPM	ROOM REVOLUTIONS PER MINUTE	1" T/V	Thermostatic Valve
FOR	FUEL OIL RETURN	RW SF	RAIN WATER SQUARE FOOT	EMTMV-XT/P	Mixing Valve
FOS FPM	FUEL OIL SUPPLY FEET PER MINUTE	S/A SAN	SUPPLY AIR SANITARY		
FS FT	FLOOR SINK FOOT/FEET	SF	SQUARE FOOT	<u>™MVEM</u>	Emergency Mixer
FTR	FIN TUBE RADIATION	SD SM	SMOKE DAMPER SURFACE MOUNT	₩2" PRV	Pressure Reducing Valve
GAL GF	GALLON GAS-FIRED	SP SP	STANDPIPE STATIC PRESSURE	2" METER	Water Meter
GC GPM	GENERAL CONTRACTOR GALLONS PER MINUTE	STM	STEAM		Double Check Valve
GW HB	GREASE WASTE HOSE BIB	T TD	THERMOSTAT TEMPERATURE DROP		Reduced Pressure Zone
HP	HORSE POWER	TDR TEMP	TRENCH DRAIN TEMPERATURE	₩	
HTG HTR	HEATING HEATER	TYP UG	TYPICAL UNDERGROUND	<u>Pโปกิลิธ์เก็ต</u> iFixture Notes	
HW HYD	HOT WATER HYDRANT	VAC	VACUUM	•	Design Size
ID IN	INDIRECT INCH	V VAV	VENT VARIABLE AIR VOLUME	2"FD → 2 DFU →	─Identity Type ─Drainage Fixture Units
INV	INVERT	VENT VTR	VENTILATION VENT THROUGH ROOF	(27.52.0)	Floor Drain w/ Deep Seal 3
LB LB/HR	POUND POUNDS PER HOUR	W	WASTE		—Floor Drain w/ Trap Primer
LAT LP	LEAVING AIR TEMPERATURE LOW PRESSURE	WB WCO	WET BULB WALL CLEAN OUT	© (2" FD-3P) <del>→</del>	"P" Indicates Primer Conne
LPG	LIQUEFIED PETROLEUM GAS	WH	WALL HYDRANT	2" FD-7	Floor Drain w/ Integral Clea
	Equipment Abb	reviatio	ins	3" AD-1	Area Drain (No Trap)
AC	AIR CONDITIONING UNIT	ET	EXPANSION TANK		Deck Drain
ACCU	AIR COOLING CONDENSING UNIT	EWH	ELECTRIC WATER HEATER		
AHU AS	AIR HANDLING UNIT AIR SEPARATOR	FCU FP	FAN COIL UNIT FIRE PUMP	(3" HD-1)	Hub Drain (Funnel Type)
B CH	BOILER CHILLER	GI GRV	GREASE INTERCEPTOR GRAVITY ROOF VENTILATOR	3"FS	Floor Sink
CT	COOLING TOWER	HWP	HEATING WATER PUMP	- 8" SD 12	Roof Drain
CUH	CABINET UNIT HEATER CHILLED WATER PUMP	HRU PRV	HEAT RECOVERY UNIT POWER ROOF VENTILATOR		
DBP DC	DOMESTIC WATER BOOSTER PUMP DUCT MOUNTED COIL	RE RTU	RETURN/EXHAUST FAN ROOFTOP UNIT	6" SD-1 2000 SF	Combination Drain Rainfall Surface Area
DCP EF	DOMESTIC WATER CIRCULATING PUMP	SP UH	SUMP PUMP	2000 01	. Carrian Carrate Alea
EDC	EXHAUST FAN ELECTRIC DUCT COIL	UH WH	UNIT HEATER WATER HEATER		



	Plumbing Sheet Index			
P0.1	Plumbing Title Sheet			
P1.1	Waste and Vent Plans 0 and 1st			
P1.2	Waste and Vent Plans 2nd and 3rd			
P1.3	Domestic Water Plans 1st and 2nd			
P1.4	Domestic Water Plans 3rd			
P4.1	Enlarged Domestic Water			
P4.2	Enlarged Domestic Water			
P6.1	Plumbing Schedules			
P9.1	Plumbing Risers			
P9.2	Plumbing Risers			

GENERAL PLUMBING NOTES A. FIELD VERIFY ALL NEW WATER, WASTE, AND VENT PIPING CONNECTIONS AND PROVIDE NEW CONNECTIONS AS

PITCH UNDERFLOOR SANITARY WASTE PIPING OVER 2" AT 1/8" PER FOOT, 2" AND SMALLER AT 1/4" PER FOOT. FIELD VERIFY LOCATION AND INVERTS OF SITE UTILITIES PRIOR TO INSTALLATION.

REQUIRED FOR PROPERLY OPERATING SYSTEMS.

ROUTE DOMESTIC WATER, AND SANITARY SEWER SERVICES TO SITE UTILITIES 5'-0" FROM BUILDING UNLESS NOTED OTHERWISE. REFER TO CIVIL PLANS. WASTE AND VENT PIPING BELOW FLOOR AND THROUGH

FLOOR SHALL BE 2" MINIMUM. LOCATIONS OF PIPING AND EQUIPMENT AS INDICATED ON THE DRAWINGS ARE APPROXIMATE AND SUBJECT TO MINOR ADJUSTMENTS IN THE FIELD. WORK SHALL BE COORDINATED WITH ALL OTHER TRADES TO AVOID INTERFERENCE IN THE

G. FINAL PRODUCT SHALL BE A COMPLETE AND FUNCTIONING SYSTEM, AND SHALL CONFORM TO ALL REQUIREMENTS OF APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING BUT NOT LIMITED TO THE INTERNATIONAL (OR UNIFORM, DEPENDING ON JURISDICTION) PLUMBING CODE AND INTERNATIONAL MECHANICAL CODE.

H. LOCATE EQUIPMENT REQUIRING ACCESS 2'-0" MAXIMUM ABOVE CEILING. LOCATE PIPING AND EQUIPMENT OUTSIDE OF THE NEC

REQUIRED CLEAR SPACE ABOVE AND AROUND ELECTRICAL PANELS, TRANSFORMERS AND OTHER ELECTRICAL EQUIPMENT. COORDINATE WITH ELECTRICAL CONTRACTOR. PENETRATIONS OF RATED ASSEMBLIES SHALL BE FIRE STOPPED. FIRE STOPPING SHALL BE U.L. LISTED. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF RATED ASSEMBLIES.

K. PROVIDE SLEEVES AND/OR OPENINGS TO RUN PIPES THROUGH FOUNDATIONS, FLOORS, WALLS, AND ROOF, MAINTAIN CLEAR ACCESS TO SERVICE EQUIPMENT AND OTHER ACCESSORIES REQUIRING SERVICE, VISUAL INSPECTION OR HAND OPERATION. WHERE INDICATED OR REQUIRED, PROVIDE ACCESS PANELS OF THE TYPE SELECTED TO SUIT MATERIALS IN WHICH INSTALLED.

M. TRANSITION FROM PIPING SIZES SHOWN TO PROPERLY CONNECT TO EQUIPMENT. N. PIPE SIZES SHOWN SHALL BE CONTINUED IN THE DIRECTION

OF FLOW UNTIL ANOTHER SIZE IS SHOWN. INSTALL ALL EQUIPMENT IN ACCORDANCE WITH THE RESPECTIVE MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS, AT A LEVEL OF QUALITY AND WORKMANSHIP CONSISTENT WITH THE SPECIFICATIONS. INSTALL EXPOSED PIPING AS HIGH AS PRACTICAL IN ROOMS

WITHOUT CEILINGS. PRIOR TO STARTING WORK, SUBMIT SHOP DRAWINGS FOR ALL PLUMBING EQUIPMENT AND MATERIALS. SUBSTITUTE EQUIPMENT AND MATERIALS INSTALLED WITHOUT PRIOR APPROVAL SHALL BE SUBJECT TO REPLACEMENT AT

CONTRACTOR'S EXPENSE. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL NECESSARY PERMITS AND SHALL ARRANGE FOR ALL INSPECTIONS AS REQUIRED. PROVIDE ONE YEAR WARRANTY FOR ALL WORKMANSHIP AND

MATERIALS AFTER THE DATE OF FINAL ACCEPTANCE.

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**FACILITY** 

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NEW

SHEET NO .:

PLUMBING SIZING SYMBOLS

x" WASTE STACK VENT (X = SIZE)

(x'') DRAIN (X = SIZE)

x" VENT (X = SIZE)

1 4" PVC PIPE FOR RADON SYSTEM. COORDINATE EXACT REQUIREMENTS WITH ARCHITECT.

2 PROVIDE INDIRECT CONNECTION AT GARBAGE DISPOSER AND CONNECT DISHWASHER. ROUTE DRAIN FROM DISHWASHER AT BACK OF CABINETRY. COORDINATE EXACT ROUTING WITH G.C.

**3** ELEVATOR PIT SUMP PUMP, SEE 3:P6.1 FOR MORE INFORMATION.

4 UP TO FLOOR DRAIN. 5 UP TO CLOTHES WASHER CONNECTION BOX.

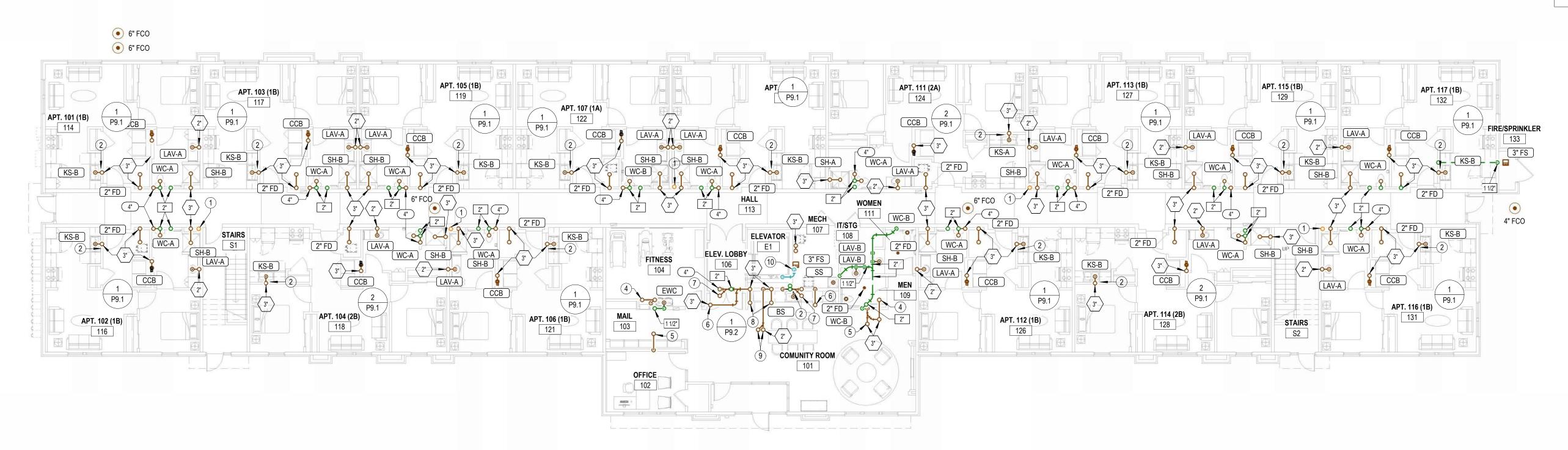
6 UP TO KITCHEN SINK.

7 UP TO WATER CLOSET.

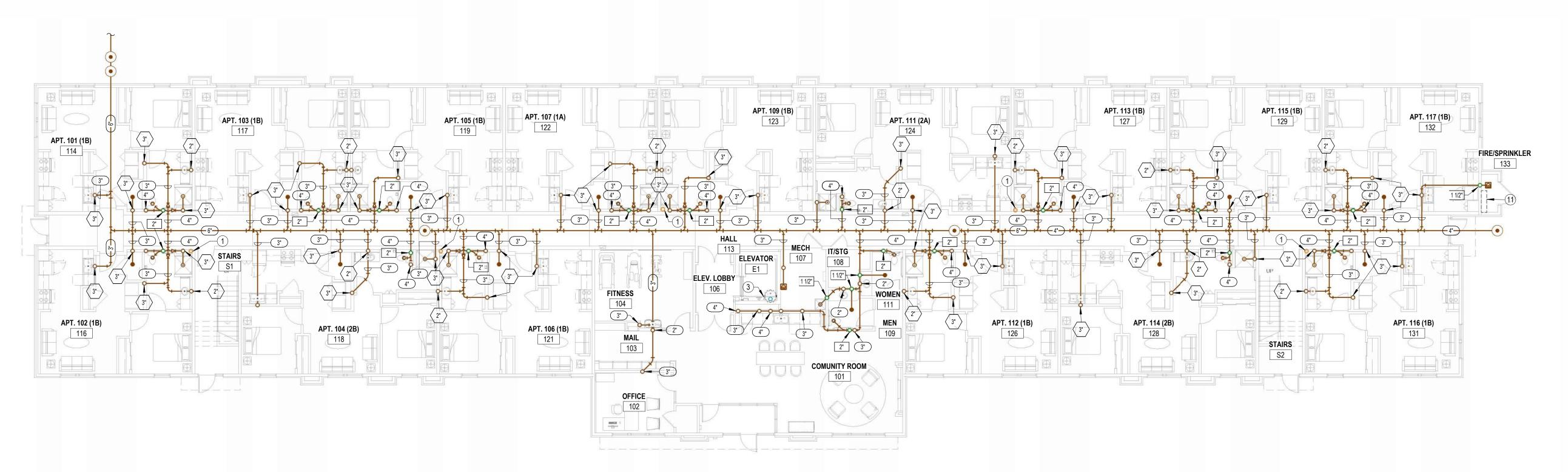
8 UP TO SHOWER. 9 UP TO LAVATORY.

10 ROUTE 2" DISCHARGE FROM SUMP PUMP TO FLOOR SINK AS SHOWN ON PLANS. TERMINATE WITH CODE REQUIRED AIR GAP DIRECTLY ABOVE FLOOR SINK.

11 ROUTE DRAIN FROM BACKFLOW PREVENTER TO SPILL DIRECTLY INTO FLOOR



2 FIRST FLOOR WASTE AND VENT PLAN
P1.1 3/32" = 1'-0"



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Δ. FACILITY VETERANS AT RESIDENCE

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### **NOTES BY SYMBOL**

- 4" PVC PIPE FOR RADON SYSTEM. COORDINATE EXACT REQUIREMENTS WITH ARCHITECT.
- PROVIDE INDIRECT CONNECTION AT GARBAGE DISPOSER AND CONNECT DISHWASHER. ROUTE DRAIN FROM DISHWASHER AT BACK OF CABINETRY. COORDINATE EXACT ROUTING WITH G.C.

GillamR

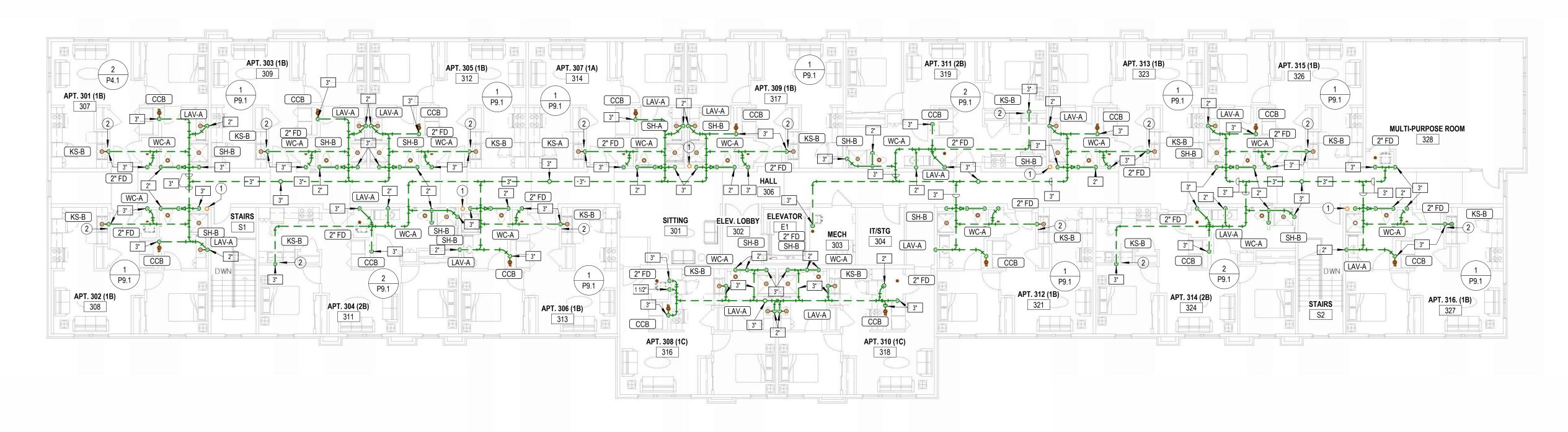
**PARK** FACILITY VETERANS AT RESIDENCE

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P1.2

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2 THIRD FLOOR WASTE AND VENT PLAN
P1.2 3/32" = 1'-0"

STAIRS

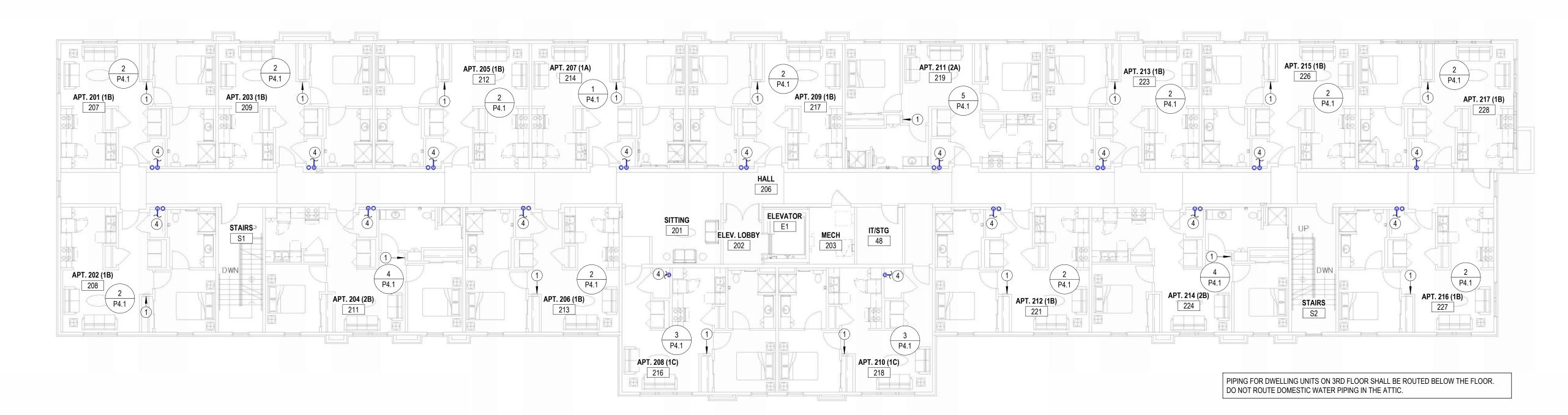
SEE SHEET P4.1 FOR PLUMBING FIXTURE TAGS

### **NOTES BY SYMBOL**

1 ELECTRICAL EQUIPMENT SHOWN FOR COORDINATION. DO NOT ROUTE PIPING ABOVE OR BELOW EQUIPMENT, AND MAINTAIN WORKING CLEARANCE SHOWN. 2 FIRE PROTECTION SERVICE ENTRANCE. INSTALL IN ACCORDANCE WITH NFPA 13.

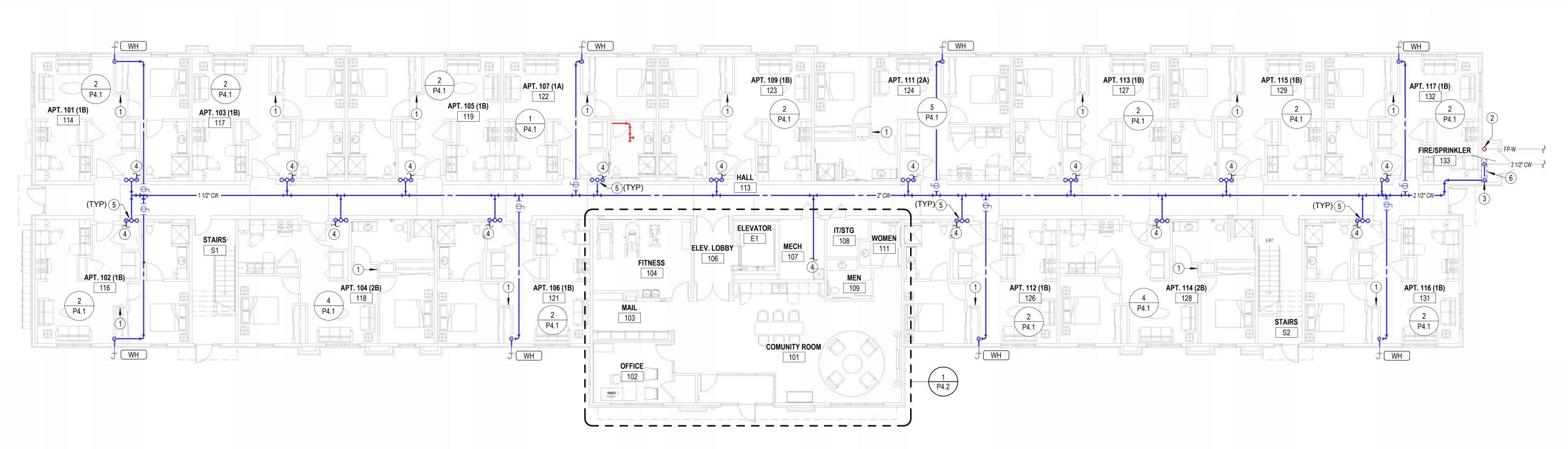
COORDINATE LOCATION OF ALL VALVES AND APPURTENANCES WITH AHJ. SEE

- 4:P6.1 FOR MORE INFORMATION. 3 PROVIDE SHUT-OFF VALVE AT WATER SERVICE ENTRANCE WITH PRESSURE
  - REDUCING VALVE SET TO 80 PSI IF REQUIRED. COORDINATE REQUIREMENTS WITH CITY OF KNOXVILLE.
- 4 SEE ENLARGED DOMESTIC WATER PLANS FOR CONTINUATION.
- 5 ROUTE INDIVIDUAL 1" COLD WATER BRANCH TO EACH APARTMENT. SEE TYPICAL RISER DIAGRAM 3:P9.2.
- 6 INSTALL 2" METER WITH LOCKABLE BYPASS AND 2-1/2" BACKFLOW PREVENTER PER CITY REQUIREMENTS, COORDNATE REQUIREMENTS WITH AHJ AND PAY ALL



2 SECOND FLOOR DOMESTIC WATER PLAN
P1.3 3/32" = 1'-0"

**1** 



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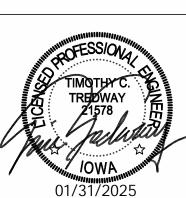
GillamRen

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**FACILITY** 

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24-3400 SHEET NO .:

P1.3

SEE SHEET P4.1 FOR PLUMBING FIXTURE TAGS

#### **NOTES BY SYMBOL**

**1** 

- 1 ELECTRICAL EQUIPMENT SHOWN FOR COORDINATION. DO NOT ROUTE PIPING ABOVE OR BELOW EQUIPMENT, AND MAINTAIN WORKING CLEARANCE SHOWN.
- SEE ENLARGED DOMESTIC WATER PLANS FOR CONTINUATION.
   PROVIDE 3/4" COLD WATER UP TO ROOF HYDRANT, CONNECT TO 1" PIPING PRIOR TO APARTMENT SHUTOFF VALVE.

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N. Ninth 1881 Main Street, Suit

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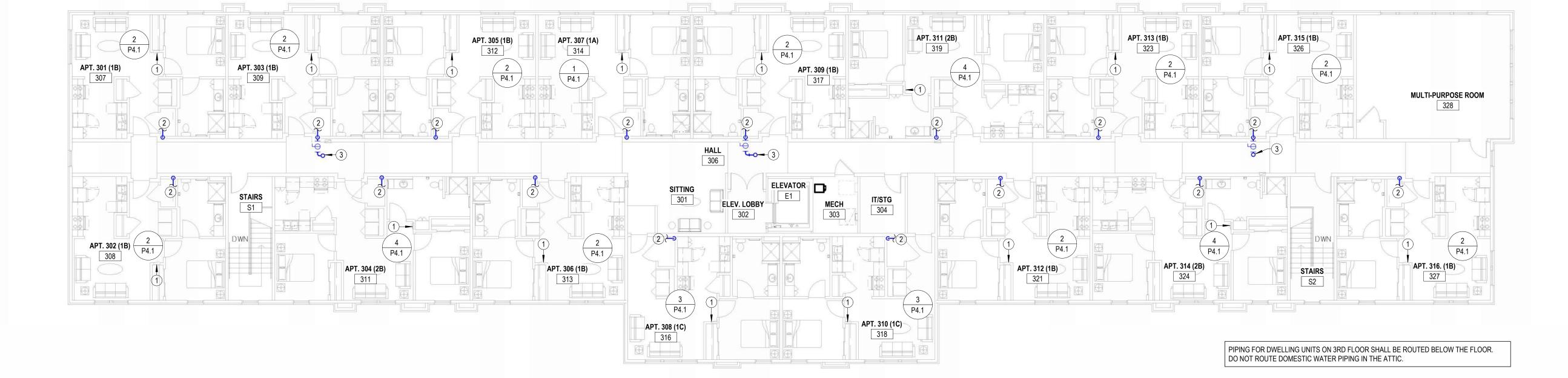


REVISIONS:

DATE: 01/31/2023 JOB: 24-340

SHEET NO.:

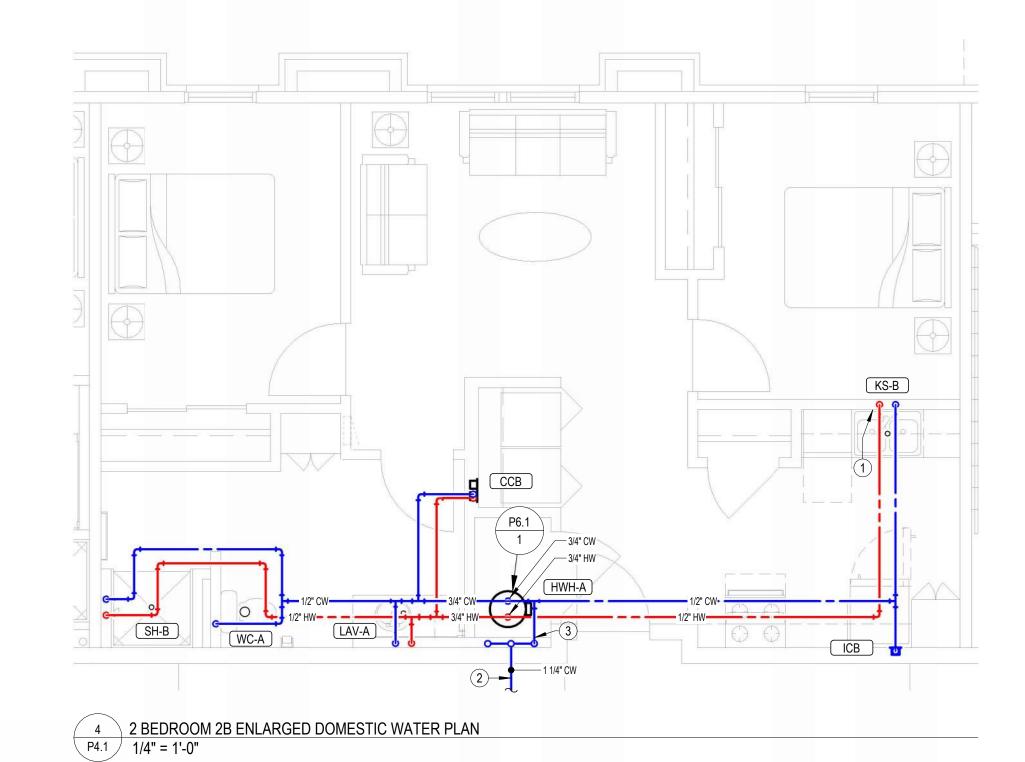
P1.4

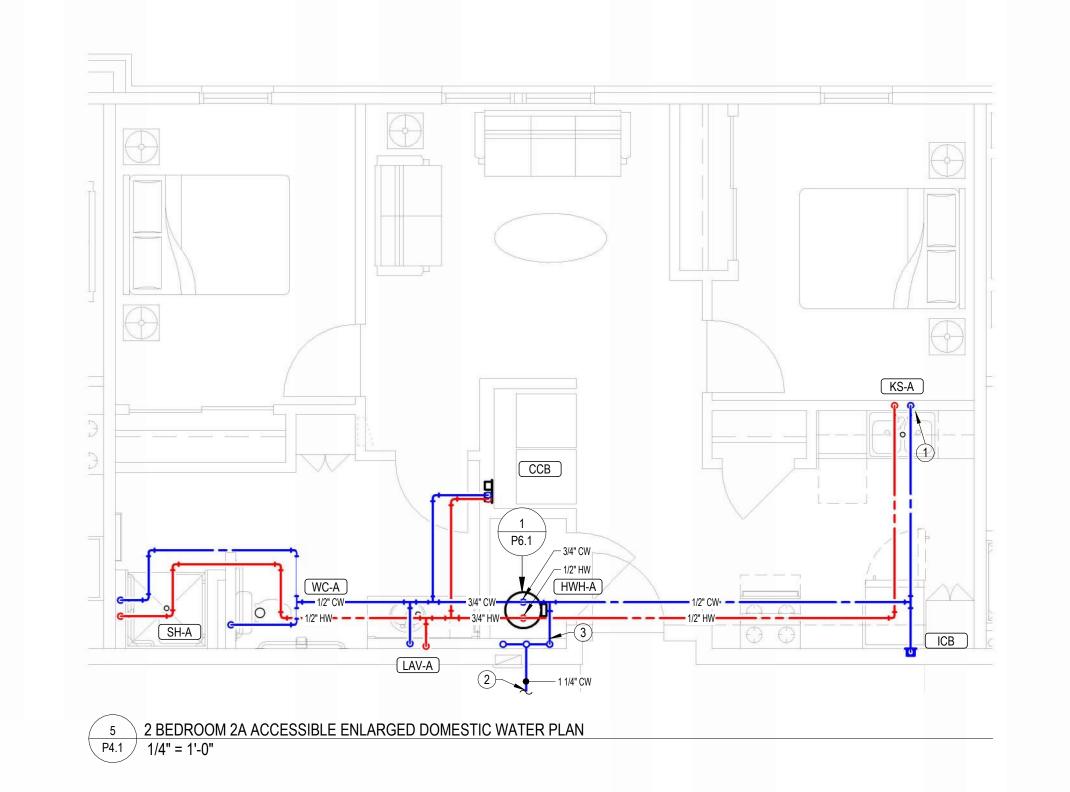


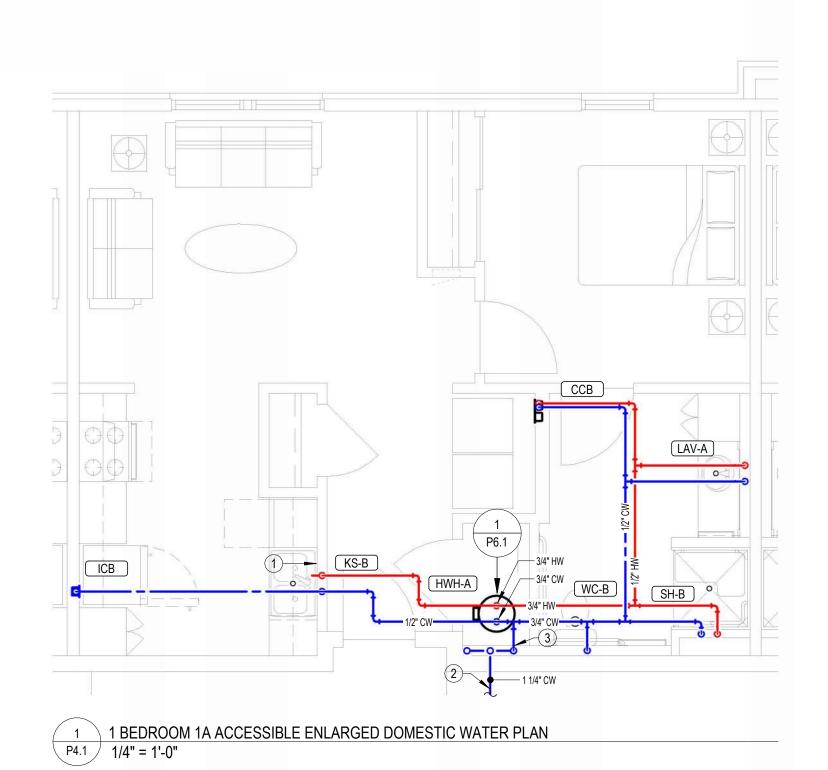
PIPING FOR DWELLING UNITS ON 3RD FLOOR SHALL BE ROUTED BELOW THE FLOOR. DO NOT ROUTE DOMESTIC WATER PIPING IN THE ATTIC.

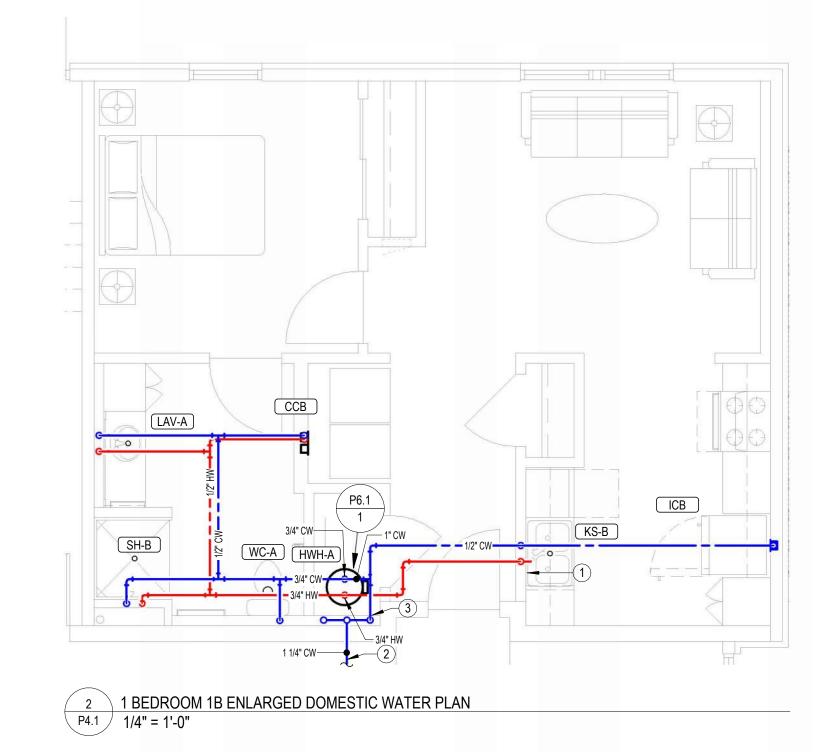
#### NOTES BY SYMBOL

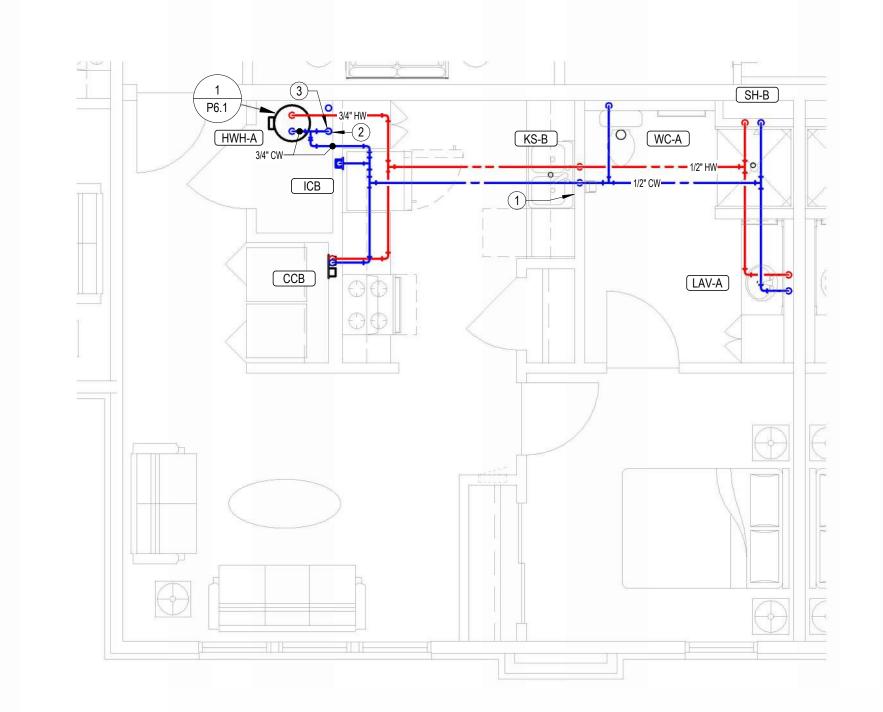
- 1 PROVIDE 1/2" VALVED BRANCH BELOW SINK AND CONNECT DISHWASHER. ROUTE PIPING ALONG BACK OF CABINETRY, COORDINATE EXACT ROUTING WITH G.C. COORDINATE EXACT REQUIREMENTS WITH DISHWASHER PROVIDED.
- 2 SEE OVERALL DOMESTIC WATER PLANS FOR CONTINUATION.
- 3 PROVIDE 1" WATER SERVICE TO APARTMENT WITH SHUT-OFF VALVE CONCEALED IN WALL, PROVIDE ACCESS PANEL IN DWELLING UNIT AS REQUIRED.











1 BEDROOM 1C ENLARGED DOMESTIC WATER PLAN
1/4" = 1'-0"

JonesGillamRenz

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**KNOXVILLE**,

24-3400

SHEET NO .:

# 1 PROVIDE 1/2" VALVED BRANCH BELOW SINK AND CONNECT DISHWASHER. ROUTE PIPING ALONG BACK OF CABINETRY, COORDINATE EXACT ROUTING WITH G.C. COORDINATE EXACT REQUIREMENTS WITH DISHWASHER PROVIDED.

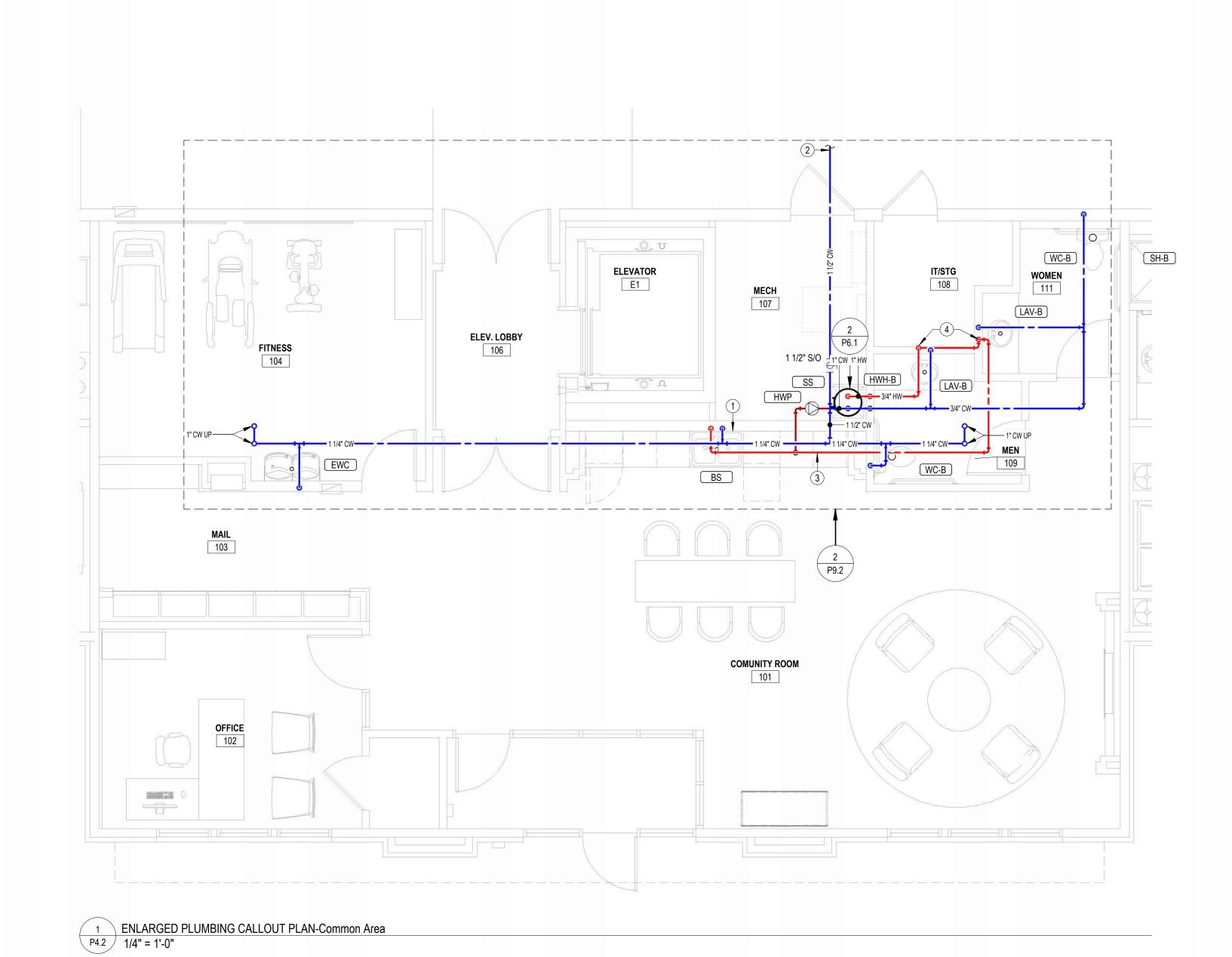
- SEE OVERALL DOMESTIC WATER PLANS FOR CONTINUATION.COORDINATE ROUTING OF PIPING IN THIS AREA WITH STRUCTURE. ALL
- 3 COORDINATE ROUTING OF PIPING IN THIS AREA WITH STRUCTURE. ALL PENETRATIONS OF BEAMS IN THIS AREA MUST BE APPROVED BY STRUCTURAL ENGINEER IN WRITING.
- 4 HOT WATER RECIRC LOOP SHALL DROP IN WALL TO LIMIT HOT WATER BRANCH TO PUBLIC LAVATORY TO 2 FT MAX.

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JOB: SHEET NO.:

P4.2



**ROUGH-IN SIZES** 

	LST Consulting	Engineers, PA
$\  \cdot \ _{\pm}$	4809 Vue Du Lac Place, Suite 201 Manhattan, KS 66503 785.587.8042	125 S. Washington, Suite 150 Wichita, KS 67202 316.285.0696
	www.LSTenç mail@LSTen	
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Domest	omestic Water Equipment Schedule								
Mark	Manufacturer	Model	Specification	Notes					
HWH-A	AO Smith	EETU	40 Gallon electric water heater, 0.93 UEF, 4500 watts, 208v heating element, 21 GPH recovery @ 90°F temp rise. Supplied with temperature and pressure relief valve and brass drain valve. Water heater shall have temperature controls set to limit supply temperature to 120°F or less.						
HWH-B	AO Smith	EJCS-20	20 Gallon electric water heater, 2500 watts, 120v heating element, 11 GPH recovery @ 90°F temp rise. Supplied with temperature and pressure relief valve and brass drain valve. Water heater shall have temperature controls set to limit supply temperature to 120°F or less.	1					
HWP	Bell & Gossett	ECOCIRC e3-4V	Circulation pump, bronze body, 10 GPM @ 10' head, 120 VAC. Provide clamp-on aquastat for pump control.	2					

Provide fixtures with all trim necesary for complete installation.

Provide wall hung platform for water heater equal to Holdrite #60SWHP-W. Coordinate exact location and mounting with height with architect.

2. Pump shall have controls to prevent startup within 5 minutes from the end of the previous heating cycle. hot water recirculation system shall meet all requirements of 2015 IECC.



PRODUCT DESCRIPTION

Provide fixtures with all trim necesary for complete installation. All toilets, lavatory faucets, showerheads, and kitchen faucets shall have EPA's WaterSense label.

PLUMBING FIXTURE SCHEDULE

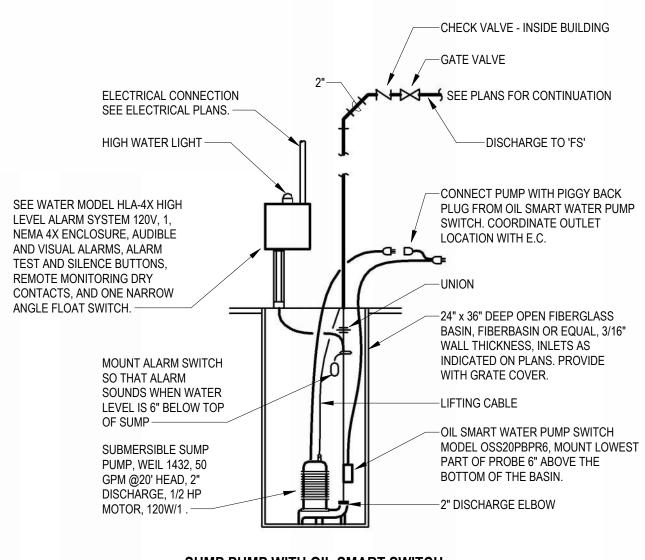
MANUFACTURER

1. In areas open to the public, fixture and installation to meet requirements of Americans with Disabilities Act. In apartments, fixture and installation to meet requirements of the Fair Housing Act.

2. Provide Dearborn supplies with stops and escutcheon plate, 1-1/4" cast brass p-trap. 3. Insulate water and waste piping below sink. Utilize insulation kit equivalent to LavGuard by Truebro. Provide Plumberex model #3071WD-N waste disposal cover.

4. Trim shall be provided with polished chrome finish.

5. Fixture selected by interior designer. Verify finish and selections with interior designer. 6. Transition from 1/8" drain tubing to 1/2" PVC drain and terminate with ar gap at nearest tenant floor drain.



SUMP PUMP WITH OIL SMART SWITCH AND SEE WATER ALARM SYSTEM

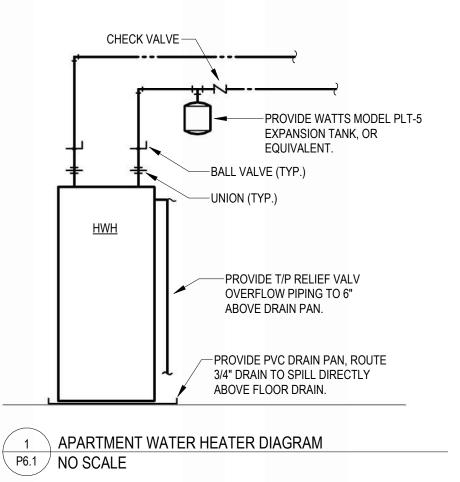
BLEVATOR SUMP PUMP DIAGRAM (EDIT)
12" = 1'-0"

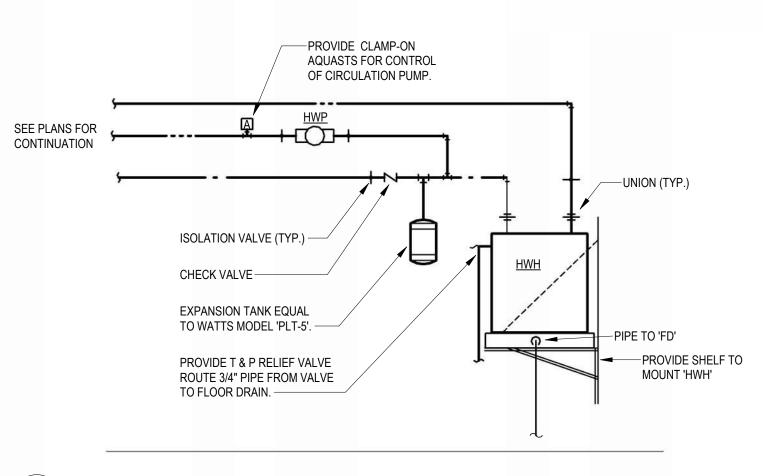
FROM FIRE SPRINKLER  TO AUTOMATIC SPRINKLER SYSTEM WET HEADS.  CHECK VALVE. PROVIDE BALL DRIP AS REQUIRED  TAMPER SWITCH, TYP.  ANGLE VALVE 2" TEST/DRAIN	HEADS		Ī
WATER FLOW DETECTOR.  TAMPER SWITCH, TYP.  ANGLE VALVE	ROM FIRE SPRINKLER SPRINKLER SPRINKLER SWET HEADS.	TIC SYSTEM	
ANGLE VALVE	WATER FLOW DETECTOR.	PROVIDE BALL	
PROVIDE 4" LINE TO FIRE DEPARTMENT CONNECTION.		2" TEST/DRAIN  PROVIDE 4" LINE TO FIRE DEPARTMENT CONNECTION.	
PROVIDE 4 LINE TO FIRE DOUBLE COLECTOR TYPE BACKFLOW PREVENTER WITH BYPASS. COORDINATE TOCATION  COORDINATE TOCATION  AND SIZE MITH BISE DEPARTMENT.  NEALLY BYPASS.  CROSSEL MATH  COORDINATE TOCATION  COORDINATE TOCATIO	JBLE CHECK DETECTOR TYPE LOW PREVENTER WITH BYPA E APPROVED MEANS OF FOR STING PER NFPA REQUIREM	AND SIZE WITH FIRE DEPARTMENT.  VERIFY BACKFLOW PREVENTER REQUIREMENTS WITH CITY PRIOR TO PURCHASE AND INSTALLATION.	
PRESSURE GAUGE WITH VALVE TYPICAL  GROUND FLOOR  GROUND FLOOR  FIRE SPRINKLER SERVICE. VERIFY SIZE REQUIREMENTS WITH PRESSURE AVAILABILITY AND FIRE SPRINKLER REQUIREMENTS.	WITH VALVE TYPICAL	GROUND FLOOR	SERVICE. VERIFY SIZE REQUIREMENTS WITH PRESSURE AVAILABILITY AND FIRE SPRINKLER

**BLOCKS AT CHANGES** 

IN DIRECTION. SEE

4 FIRE PROTECTION RISER DIAGRAM
P6.1 12" = 1'-0"





2 WATER HEATER ON SHELF PIPING DIAGRAM
P6.1 12" = 1'-0"

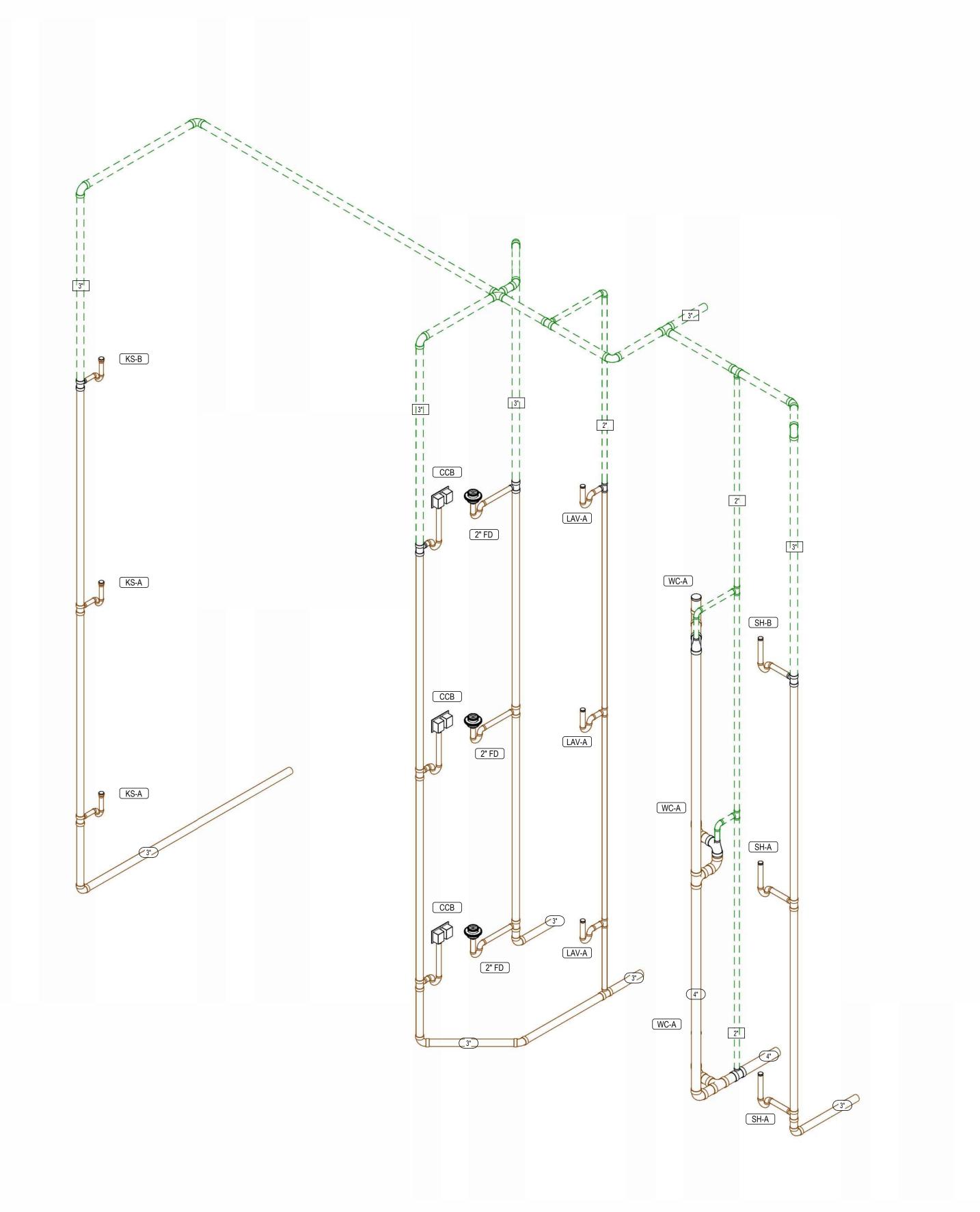
24-3400 SHEET NO .:

PLUMBING SIZING SYMBOLS

(x") WASTE STACK VENT (X = SIZE)

DRAIN (X = SIZE)

x" VENT (X = SIZE)



1 TYPICAL 1 BEDROOM 1A AND 1B WASTE AND VENT RISER P9.1

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P9.1

2 COMMON AREA DOMESTIC WATER RISER DIAGRAM P9.2

1 WASTE & VENT RISER DIAGRAM
P9.2



- 1 DOMESTIC WATER SERVICE TO 1ST FLOOR DWELLING UNIT. SEE P4.1 FOR CONTINUATION.
- 2 DOMESTIC WATER SERVICE TO 2ND FLOOR DWELLING UNIT. SEE P4.1 FOR

WC-B

- 3 DOMESTIC WATER SERVICE TO 3RD FLOOR DWELLING UNIT. SEE P4.1 FOR CONTINUATION. DOMESTIC WATER PIPING TO BE ROUTED ABOVE 2ND FLOOR

4 SEE OVERALL PLANS FOR SIZE AND ROUTING OF PLUMBING MAINS.

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P9.2

LTG Lighting

LV

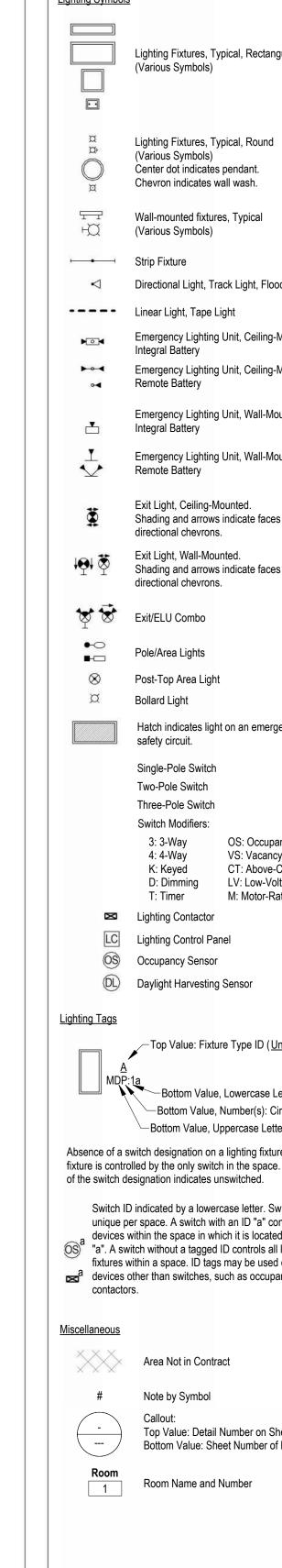
LTNG Lightning

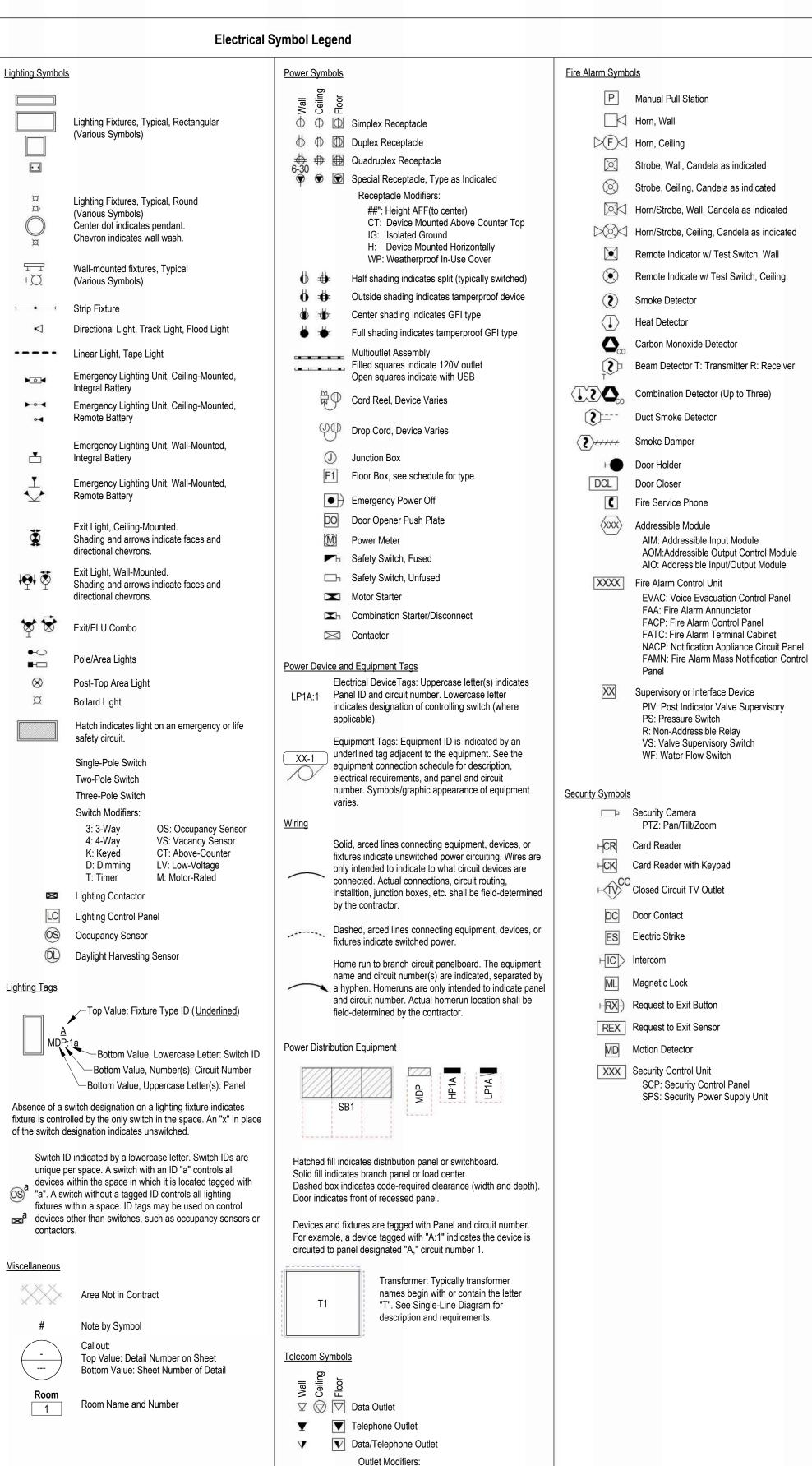
MAX Maximum MAG.S Magnetic Starter M/C Momentary Contact

Low Voltage

Mechanical Contractor

P Plate



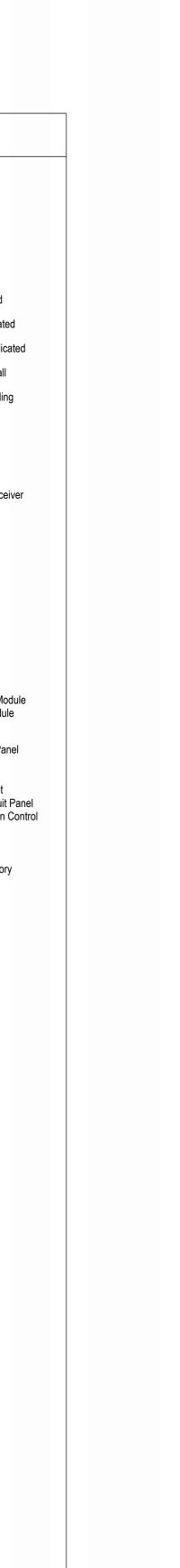


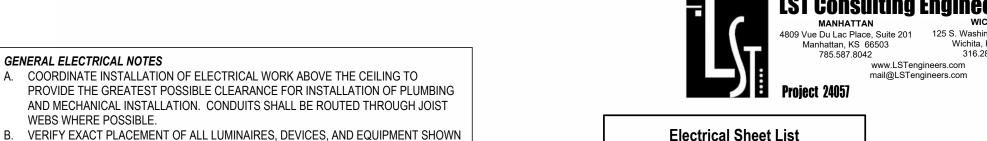
##": Height AFF (to center)

Wireless Access Point

TV TV Outlet

CT: Mounted Above Counter Top





AN	ID MECHANICAI	L INSTALLATION. CONDUITS SHALL BE ROUTED THROUGH JOIST		-
	EBS WHERE PO RIFY EXACT PL	SSIBLE. ACEMENT OF ALL LUMINAIRES, DEVICES, AND EQUIPMENT SHOWN		Electrical Sheet List
ON ME C. EL	I THE ELECTRIC ECHANICAL AND ECTRICAL EQU	CAL CONSTRUCTION DOCUMENTS WITH ARCHITECTURAL, D PLUMBING DRAWINGS PRIOR TO FINAL PLACEMENT. IPMENT AND DEVICES SHALL BE "LISTED" AND "IDENTIFIED" AS NIMUM OF 75°C CONDUCTOR TERMINATION.	E0. E1.	1 Electrical Title Sheet 1 Lighting Plans 1st and 2nd
	FINITION OF TE		E1.:	3 - 3
	"SHALL":	ACTION THAT IS REQUIRED WITHOUT OPTION OR QUALIFICATION.	E1.	
	"FURNISH":		E1.	5 Special Systems Plans 1st and
	"INSTALL":	CONTRACTOR SHALL BE RESPONSIBLE FOR LABOR AND	E1.	' '
		CONSTRUCTION EQUIPMENT NECESSARY TO SET IN PLACE, CONNECT. CALIBRATE AND TEST EQUIPMENT FURNISHED BY HIM	E4.	. 0
		OR OTHERS.	E4.:	
	"PROVIDE":	CONTRACTOR SHALL FURNISH AND INSTALL.	E6.	
10UNT	ING HEIGHT RE	EQUIREMENTS:	E6.:	
INLES	S SPECIFICALL	Y INDICATED OTHERWISE, THE FOLLOWING MOUNTING HEIGHTS	E7.	1 Site Photometrics

RATED FOR A MINIMUM DEFINITION OF TERMS "SHALL": ACTIC "FURNISH": CONT "INSTALL": CONT CONS CONN "PROVIDE": CONT **MOUNTING HEIGHT REQUIR** UNLESS SPECIFICALLY INDIC SHALL APPLY: RECEPTACLES 16" TO BOTTOM TELECOMMUNICATIONS OUTLETS 16" TO BOTTOM 48" TO TOP LIGHT SWITCHES 48" TO TOP THERMOSTATS HUMIDISTATS 48" TO TOP FIRE ALARM PULL STATIONS 48" TO TOP FIRE ALARM NOTIFICATION DEVICES LOWER OF: 88" TO BOTTOM OR TOP AT 6" BELOW CEILING **GENERAL LIGHTING NOTES** THE CIRCUITING OF ALL LUMINAIRES HAS BEEN SHOWN ON THE PLANS, AND THE CONTRACTOR SHALL FOLLOW THIS CIRCUITING LAYOUT. CIRCUIT ALL EMERGENCY LIGHTS, NIGHT LIGHTS AND EXIT LIGHTS TO AN UNSWITCHED HOT CONDUCTOR, UPSTREAM OF ALL CONTROLS. DIRECT CURRENT POWER WIRING FROM EXIT SIGNS TO REMOTE EXTERIOR EMERGENCY LIGHTING HEADS SHALL BE (2) #10 IN 1/2" CONDUIT UNLESS NOTED OTHERWISE. IN AREAS WHERE CEILING MOUNTED OCCUPANCY SENSORS ARE USED FOR LIGHTING CONTROL IN CONJUNCTION WITH WALL SWITCHES, OCCUPANCY SENSOR/POWER PACK SHALL SWITCH LEG SHALL BE WIRED IN SERIES WITH WALL SWITCHES TO PROVIDE OVERRIDE "OFF" CONTROL FOR LIGHTS. CONTROL WIRING FOR 0-10 V-dc DIMMING SIGNAL CIRCUITS SHALL BE NEC CLASS 1 ROUTED IN SAME RACEWAY/CABLE WITH LIGHTING CIRCUIT POWER CONDUCTORS. WIRING SHALL CONSIST OF (2) #16 SOLID CU THHN OR TFN CONDUCTORS. CONDUCTOR INSULATION COLOR SHALL BE VIOLET (+ V-dc) AND PINK (- V-dc). WHERE MC-CABLE IS USED FOR FINAL 6' POWER CONNECTION WHIP TO LUMINAIRE, UTILIZE "LUMINARY" TYPE MC-CABLE WITH INTEGRAL CLASS 1 CONTROL WIRING.

GE	GENERAL POWER NOTES							
A.	THE CIRCUITING OF ALL DEVICES HAS BEEN SHOWN ON THE PLANS, AND THE							
	CONTRACTOR SHALL FOLLOW THIS CIRCUITING LAYOUT.							
B.	VERIFY EXACT LOCATIONS OF HVAC AND PLUMBING EQUIPMENT WITH THE							
	GENERAL CONTRACTOR AND ASSOCIATED SUBCONTRACTORS. COORDINATE							
	CONDUIT STUB-UP AND POWER CONNECTIONS PRIOR TO COMMENCING ROUGH-IN							
	WORK. ELECTRICAL DEVICES (DISCONNECTS, RECEPTACLES, ETC.) INSTALLED ON							
	EQUIPMENT SHALL BE MOUNTED ON A NON-REMOVABLE PANEL OF THE							
	EQUIPMENT. FIELD COORDINATE EXACT DEVICE MOUNTING LOCATIONS PRIOR TO							
	INSTALLATION.							
C.	WALL MOUNTED HVAC CONTROL DEVICES (THERMOSTATS, TEMPERATURE							
	SENSORS, HUMIDISTATS, CO 2 SENSORS, ETC) SHALL BE PROVIDED BY							
	MECHANICAL CONTRACTOR. UNLESS NOTED OTHERWISE, ELECTRICAL							
	CONTRACTOR SHALL PROVIDE SINGLE GANG WALL BOX WITH 1/2" CONDUIT							
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GENERAL TELECOMMUNICATIONS NOTES				
DEVICES.				
PULLSTRING IN RACEWAY. REFER TO MECHANICAL DRAWINGS FOR LOCATIONS OF				
STUBBED OUT TO ABOVE ACCESSIBLE CEILING WITH NYLON BUSHINGS AND				
CONTRACTOR SHALL PROVIDE SINGLE GANG WALL BOX WITH 1/2" CONDUIT				
MECHANICAL CONTRACTOR. UNLESS NOTED OTHERWISE, ELECTRICAL				
SENSORS, HUMIDISTATS, CO 2 SENSORS, ETC) SHALL BE PROVIDED BY				

GEI	ERAL TELECOMMUNICATIONS NOTES
A.	PROVIDE THE FOLLOWING RACEWAY ROUGH-IN FOR TELECOMMUNICATIONS
	OUTLET TYPES INDICATED:
	- WALL PHONE OUTLET: 2"x4"x2-1/8" DEEP DEVICE BOX WITH (1) 3/4" CONDUIT TO
	ABOVE ACCESSIBLE CEILING.
	- PHONE/DATA OUTLET: 4-11/16" SQUARE x 3-1/4" DEEP BOX (RACO #260 OR

EQUAL) WITH 1-GANG DEVICE RING AND 1-1/4" CONDUIT TO ABOVE ACCESSIBLE CEILING. - TV OUTLET: 4-11/16" SQUARE x 3-1/4" DEEP BOX (RACO #260 OR EQUAL) WITH 2-GANG DEVICE RING AND (1) 2" CONDUIT TO ABOVE ACCESSIBLE CEILING. PROVIDE NYLON BUSHINGS FOR ALL CONDUIT ENDS NOT CONNECTED TO A BOX OR FITTING TO PROTECT CABLING FROM DAMAGE. CONDUITS FROM EACH OUTLET SHALL BE STUBBED 2" ABOVE THE FINISHED

CEILINGS IN AREAS WITH ACCESSIBLE TILES. IN AREAS WITH OPEN CEILINGS, STUB CONDUIT INTO STRUCTURAL JOIST SPACE. PROVIDE BLANK, STAINLESS STEEL COVER PLATES FOR ALL OUTLETS NOT ACTIVATED BY OWNER.

PROVIDE SUITABLE PULL STRING IN ALL CONDUITS. ALL TELECOMMUNICATIONS AND A/V CABLING, JACKS, CONNECTORS. TERMINATIONS, EQUIPMENT AND TESTING SHALL BE PROVIDED BY OWNER.

A. FIRE ALARM CABLING SHALL BE INSTALLED IN CONDUIT WHERE EXPOSED,

INACCESSIBLE, AND WHERE SUBJECT TO PHYSICAL DAMAGE.

**GENERAL FIRE ALARM NOTES** 

CONTRACTOR, INSTALLED IN DUCT BY MECHANICAL CONTRACTOR. FIRE ALARM SYSTEM HVAC SHUT DOWN RELAYS SHALL BE PROVIDED AND WIRED TO FIRE ALARM CONTROL PANEL BY FIRE ALARM CONTRACTOR. LOCATE RELAYS WITHIN 5' OF HVAC EQUIPMENT AND PROVIDE CONDUIT WITH PULL STRING FROM RELAY TO EQUIPMENT. UNIT SHUT DOWN CONTROL WIRING SHALL BE PROVIDED BY MECHANICAL CONTRACTOR. AT LOCATION OF SMOKE DAMPERS AND COMBINATION FIRE/SMOKE DAMPERS, PROVIDE DUCT OR AREA SMOKE DETECTOR (AS SHOWN ON PLANS) WITHIN 5' OF DAMPER AND WIRE TO FIRE ALARM CONTROL PANEL. PROVIDE FIRE ALARM RELAY

DUCT TYPE SMOKE DETECTORS SHALL BE FURNISHED AND WIRED BY FIRE ALARM

UPON DETECTION OF SMOKE. IN ADDITION TO VALVES INSTALLED ON FIRE SPRINKER SYSTEM RISER, ALL VALVES INSTALLED OUTSIDE THE BUILDING (POST INDICATOR VALVE, TAPPING SLEEVE VALVE, ETC.) SHALL BE SUPERVISED BY THE FIRE ALARM SYSTEM. PROVIDE ADDRESSABLE MONITORING MODULE AND SURGE PROTECTION DEVICE (DITEK #DTK-2MHLP48B) FOR EACH MONITORED VALVE. COORDINATE WITH GC AND SITE WORK CONTACTOR FOR ALL VALVES INSTALLED. MONITORING IS NOT REQUIRED FOR VALVES INSTALLED IN ROADWAY BOXES BY THE MUNICIPALITY/PUBLIC UTILITY.

FOR CONTROL OF 120V POWER TO DAMPER ACTUATOR. DAMPER SHALL CLOSE

**LST Consulting Engineers, PA** 4809 Vue Du Lac Place, Suite 201 125 S. Washington, Suite 150 Wichita, KS 67202 316.285.0696 01/31/2025

Electrical Sheet List					
E0.1	Electrical Title Sheet				
E1.1	Lighting Plans 1st and 2nd				
E1.2	Lighting Plans 3rd				
E1.3	Power Plans 1st and 2nd				
E1.4	Power Plans 3rd				
E1.5	Special Systems Plans 1st and 2nd				
E1.6	Special Systems Plans 3rd				
E4.1	Enlarged Electrcial Plans				
E4.2	Enlarged Electrcial Plans				
E6.1	Electrical Schedules				
E6.2	Electric Service Riser Diagrams				
E6.3	Electrical Schedules				
E7.1	Site Photometrics				

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24-3400 SHEET NO .:

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1 PHOTOCELL FOR CONTROL OF EXTERIOR LIGHTS. SEE 2:E6.1 FOR MORE

2 ROUTE CIRCUIT THROUGH CONTACTOR INDICATED ON DETAIL 2:E6.1.

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01/31/2025 24-3400 SHEET NO .:

E1.1

INFORMATION.

4 E4.1 E4.1 E4.1 **►4.1** E4.1 E4.1 APT. 211 (2A) APT. 201 (1B) APT. 207 (1A) APT. 213 (1B) APT. 215 (1B) APT. 217 (1B) STAIRS APT. 214 (2B) APT. 216 (1B) 2 E4.1 APT. 208 (1C) APT. 210 (1C) 16'-0" <u>N2</u> P1:13 16'-0" <u>N2</u> P1:13 16'-0" <u>N2</u> P1:13 16'-0" <u>N2</u> P1:13

2 SECOND FLOOR LIGHTING PLAN
E1.1 3/32" = 1'-0"

8'-0" P1:13 2 1 E4.1 APT. 107 (1A) 2 E4.1 APT. 103 (1B) 4 E4.1 APT. 111 (2A) 2 E4.1 APT. 101 (1B) 2 E4.1 APT. 113 (1B) 2 E4.1 APT. 109 (1B) ( 2 E4.1 ) P1:11 2 8'-0" FITNESS
104 **MEN** 109  $\begin{array}{c|c}
\underline{W} \\
P1:11 \\
8'-0"
\end{array}$ APT. 106 (1B)

121

2

E4.1 APT. 102 (1B) 118 3 E4.1 116 2 E4.1 2 E4.1 3 E4.1 2 E4.1 X P1:15 Q № B1:15 M p P1:11 E2 2 P1:11 8'-0" <u>E2</u> <u>M</u> N1 P1:11 P1:11 P1:13 2 8'-0" N1 P1:13 2 8'-0" N1 P1:13 2 OFFICE 102 (1 E4.2 P1:11 P1:11 P1:11 Q P1:11 P1:11 2

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E1.2

3 E4.1 APT. 311 (2B) 319 1 E4.1 APT. 307 (1A) 314 2 E4.1 APT. 301 (1B) APT. 306 (1B) 313 2 E4.1 APT. 308 (1C)
316
6
E4.1 APT. 310 (1C)
318
6
E4.1

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#8 CU BONDING JUMPER FROM CIRCUIT EQUIPMENT GROUNDING CONDUCTOR TO

2 PROVIDE 40A/2P, SINGLE THROW, MANUAL MOTOR CONTROLLER SNAP SWITCH IN NEMA 1 ENCLOSURE. HUBBELL #HBL7842D OR EQUAL. MAKE FINAL FLEXIBLE CONNECTION TO BLOWER COIL/ELECTRIC HEAT.

3 30A DISCONNECT SWITCH, LOCKABLE IN "OFF" POSITION, WITH SOLID NEUTRAL AND (1) 20A DUAL-ELEMENT, TIME DELAY FUSE IN NEMA 1 ENCLOSURE FOR ELEVATOR CAB LIGHTS & EXHAUST. MOUNT AT 6'-0" AFF TO TOP AND LABEL WITH CORRESPONDING ELEVATOR CAR NUMBER AND CIRCUIT NUMBER. COORDINATE EXACT MOUNTING LOCATION AND REQUIREMENTS WITH ELEVATOR EQUIPMENT INSTALLER. PROVIDE FINAL ELECTRICAL CONNECTION TO ELEVATOR

4 ELEVATOR POWER MODULE SWITCH: 400A/208V/3P SWITCH COMPLETE WITH 225A DUAL ELEMENT, TIME DELAY CLASS 'J' FUSES, 120V CONTROL TRANSFORMER, FIRE ALARM SAFETY INTERFACE RELAY, KEY TEST SWITCH, GREEN PILOT LIGHT, AUXILIARY CONTACTS FOR ELEVATOR RECALL, AND FIRE ALARM VOLTAGE MONITORING RELAY. EATON BUSSMAN #PS-4-T20-R1-K-G-B-F1 OR EQUAL. COORDINATE EXACT MOUNTING LOCATION AND REQUIREMENTS WITH ELEVATOR EQUIPMENT INSTALLER, AND PROVIDE FINAL ELECTRICAL CONNECTION TO

5 PROVIDE POWER FOR ELEVATOR SHUNT TRIP CONTROL. SEE 1:E6.1 FOR MORE INFORMATION.

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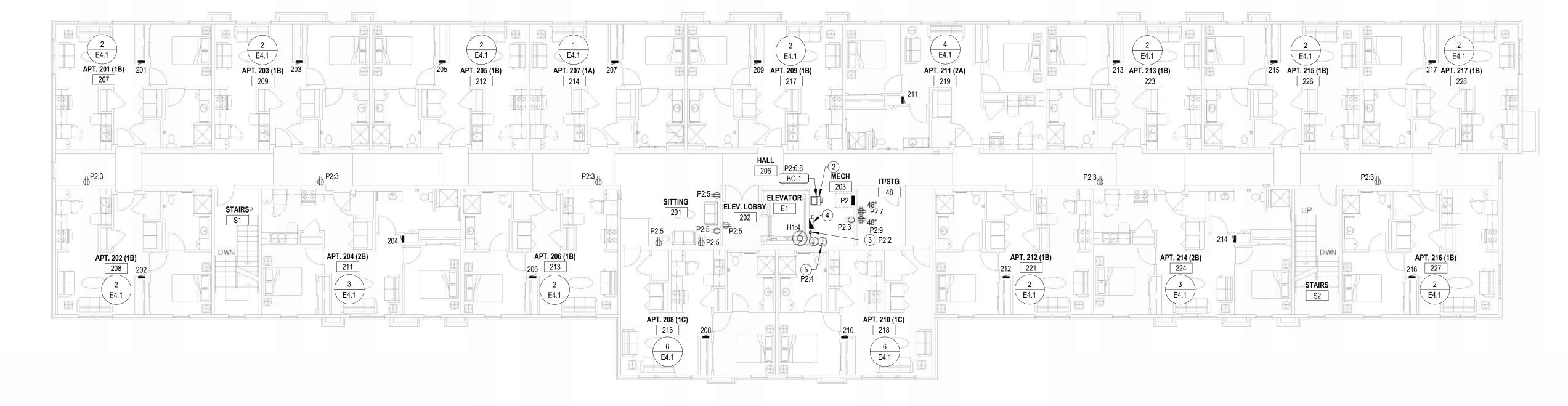
SHEET NO .:

E1.3

1 120V POWER FOR FIRE SPRINKLER SYSTEM FLOW SWITCH(ES) AND BELL. PROVIDE METAL SPRINKLER SYSTEM PIPING AT AN ACCESSIBLE LOCATION PER NEC 250.104(B). COORDINATE WORK WITH FIRE SPRINKLER SYSTEM INSTALLER.

CONTROLLER.

ELEVATOR CONTROLLER. SEE DETAIL 1:E6.1.



2 SECOND FLOOR POWER PLAN
E1.3 3/32" = 1'-0"

E6.2 **HALL** 113 **FITNESS** 104 **MAIL** 103 COMUNITY ROOM 1 E6.2

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1 INSTALL LIGHT FIXTURE, SWITCH, AND RECEPTACLE AT TOP OF HOISTWAY. VERIFY EXACT MOUNTING LOCATION AND REQUIREMENTS WITH ELEVATOR INSTALLER. 2 PROVIDE 50A/2P, SINGLE THROW, MANUAL MOTOR CONTROLLER SNAP SWITCH IN NEMA 1 ENCLOSURE. HUBBELL #HBL7852D OR EQUAL. MAKE FINAL FLEXIBLE CONNECTION TO BLOWER COIL/ELECTRIC HEAT.

OnesGillamRenz
N. Ninth 1881 Main Street, Suite

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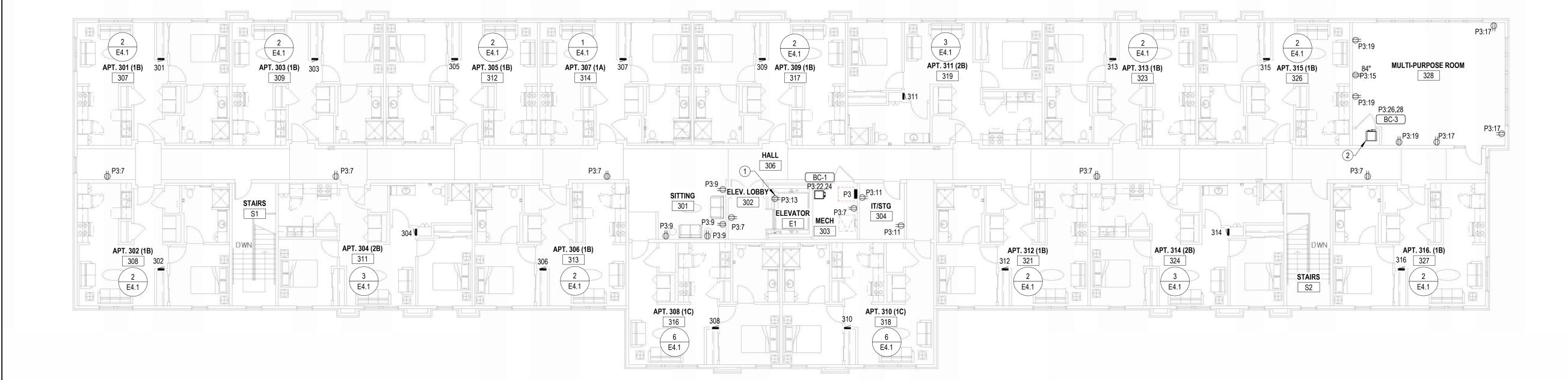
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24-3400

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2 PROVIDE ROUGH-IN FOR 24 HOUR INTERCOMM SYSTEM. COORDINATE REQUIREMENTS AND LOCATION WITH OWNER AND ARCHITECT.

3 SMOKE DETECTOR AND ADDRESSABLE RELAY FOR CONTROL OF ELECTROMAGNETIC DOOR HOLDERS. DOORS SHALL RELEASE UPON DETECTION

6 PROVIDE (2) CAT 5e UTP, NEC TYPE 'CMP' CABLES (SUPERIOR ESSEX #51-241-48 OR EQUAL) IN 3/4" CONDUIT FROM FACP TO MAIN TELECOM TERMINAL BOARD FOR CONNECTION TO FA SYSTEM DACT FOR REMOTE MONITORING.

ALL FIRE SPRINKLER FLOW SWITCHES, TAMPER SWITCHES AND BELL/GONG. COORDINATE QUANTITIES AND LOCATIONS WITH FIRE SPRINKLER CONTRACTOR.

OF SHUNT TRIP VOLTAGE. SEE DETAIL 1, SHEET E6.1.

SHEET E6.1.

11 TELECOMMUNICATIONS GROUND BAR SHALL BE 13-1/4"W x 2"H x 1/4" THICK ELECTRO-TIN PLATED COPPER BUS BAR, COMPLETE WITH INSULATED STAND-OFFS AND STAINLESS STEEL BRACKETS, ERICO #TGBA14L06PT OR EQUAL. MOUNT AT 18" AFF. ALL CONNECTIONS TO GROUND BAR SHALL BE MADE USING COMPRESSION TYPE LUGS.

12 PROVIDE 8' LONG SHEET OF 3/4" ACX FIRE RETARDANT PLYWOOD INSTALLED SCREW HEADS TO PREVENT SPLITTING OF THE PLYWOOD. DRYWALL SCREWS SEALER PRIOR TO INSTALLATION OF ANY EQUIPMENT.

16 SEE SITE PLAN FOR CONTINUATION.

1 PROVIDE PUSH BUTTON ROUGH-IN AND PREP DOOR JAM WITH RACEWAY AS INDICATED IN DETAIL 3:E6.1 FOR AUTOMATIC DOOR OPENER. COORDINATE EXACT REQUIREMENTS WITH OWNER.

4 PROVIDE ROUGH-IN FOR SECURITY CAMERA. COORDINATE REQUIREMENTS WITH

5 4" EMT CONDUIT SLEEVES THROUGH 2ND FLOOR FOR COMMUNICATIONS CABLING. PROVIDE WITH FIRESTOPPING FITTINGS (WIREMOLD #FS4R-RED) AT BOTH ENDS.

7 PROVIDE ADDRESSABLE FIRE ALARM RELAYS AND MONITORING MODULES FOR

8 ADDRESSABLE FIRE ALARM RELAYS FOR ELEVATOR RECALL, FIREMAN'S HAT, AND POWER SHUNT-TRIP, AND ADDRESSABLE MONITORING MODULE FOR MONITORING

9 ELEVATOR LOBBY SMOKE DETECTOR FOR ELEVATOR RECALL. SEE DETAIL 1,

10 SMOKE DETECTOR AND HEAT DETECTOR IN ELEVATOR PIT FOR RECALL AND SHUT-DOWN. SEE DETAIL 1, SHEET E6.1.

VERTICALLY WITH BOTTOM AT 6" AFF, WIDTH AS REQUIRED. PLYWOOD SHALL BE PERMANENTLY FASTENED TO THE WALL BY MEANS OF WALL ANCHORS UTILIZING GALVANIZED, ZINC PLATED, OR STAINLESS STEEL HARDWARE WITH A FLAT HEAD. FINISHED INSTALLATION SHALL HAVE FLUSH APPEARANCE WITH COUNTERSUNK ARE NOT ACCEPTABLE. PAINT WITH TWO COATS OF LIGHT GRAY FIRE RETARDANT

13 EMT CONDUIT SLEEVE(S) THROUGH WALL WITH NYLON BUSHINGS FOR COMMUNICATIONS CABLING. QUANTITY AND SIZE AS REQUIRED. INSTALL ABOVE ACCESSIBLE CEILING. WHERE CONDUITS PENETRATE FIRE WALL, PROVIDE WITH FIRESTOPPING FITTINGS (WIREMOLD #FS4R-RED) AT BOTH ENDS. 14 FIRE ALARM ADDRESSABLE CONTROL MODULE FOR CONTROL OF APARTMENT

UNIT'S NOTIFICATION APPLIANCE CIRCUIT. MODULE SHALL BE PROGRAMMED TO ACTIVATE APARTMENT UNIT'S NOTIFICATION APPLIANCES UPON GENERAL BUILDING FIRE ALARM AND UPON ACTIVATION OF ANY SMOKE DETECTOR OR CO DETECTOR WITHIN APARTMENT UNIT. MOUNT FLUSH IN WALL AT 8'-0" AFF. **15** FIRE ALARM SYSTEM SMOKE DETECTOR.

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E4.1

APT. 216 (1B)

E4.1

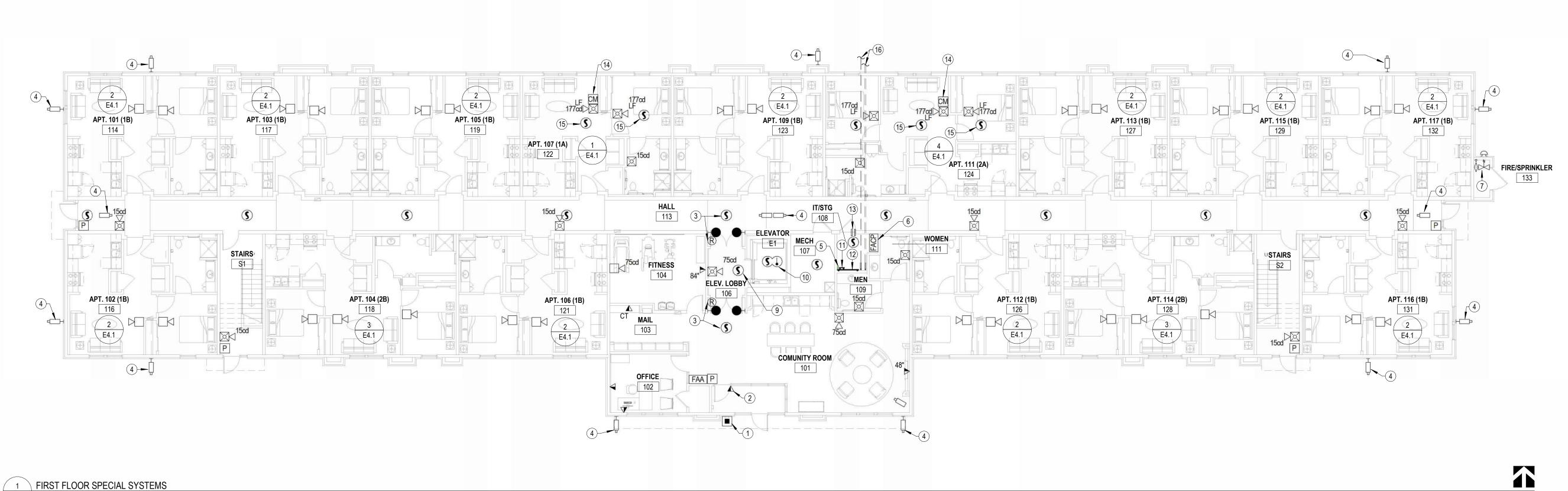
STAIRS

APT. 214 (2B)

APT. 212 (1B)

2 SECOND FLOOR SPECIAL SYSTEMS E1.5 3/32" = 1'-0"

E4.1)



APT. 210 (1C)

SHEET NO .:

E1.5

1 FIRST FLOOR SPECIAL SYSTEMS 81.5 3/32" = 1'-0"

#### **NOTES BY SYMBOL**

- 1 PROVIDE ROUGH-IN FOR SECURITY CAMERA. COORDINATE REQUIREMENTS WITH
- 2 SMOKE DETECTOR AND HEAT DETECTOR AT TOP OF ELEVATOR HOISTWAY FOR RECALL AND SHUT-DOWN. SEE DETAIL 1, SHEET E6.1.
- 3 ELEVATOR LOBBY SMOKE DETECTOR FOR ELEVATOR RECALL. SEE DETAIL 1, SHEET E6.1.
- 4 SMOKE DETECTOR AND ADDRESSABLE RELAY FOR CONTROL OF ELECTROMAGNETIC DOOR HOLDERS. DOORS SHALL RELEASE UPON DETECTION OF SMOKE.
- 5 FIRE ALARM ADDRESSABLE CONTROL MODULE FOR CONTROL OF APARTMENT UNIT'S NOTIFICATION APPLIANCE CIRCUIT. MODULE SHALL BE PROGRAMMED TO ACTIVATE APARTMENT UNIT'S NOTIFICATION APPLIANCES UPON GENERAL BUILDING FIRE ALARM AND UPON ACTIVATION OF ANY SMOKE DETECTOR OR CO DETECTOR WITHIN APARTMENT UNIT. MOUNT FLUSH IN WALL AT 8'-0" AFF.

6 FIRE ALARM SYSTEM SMOKE DETECTOR.

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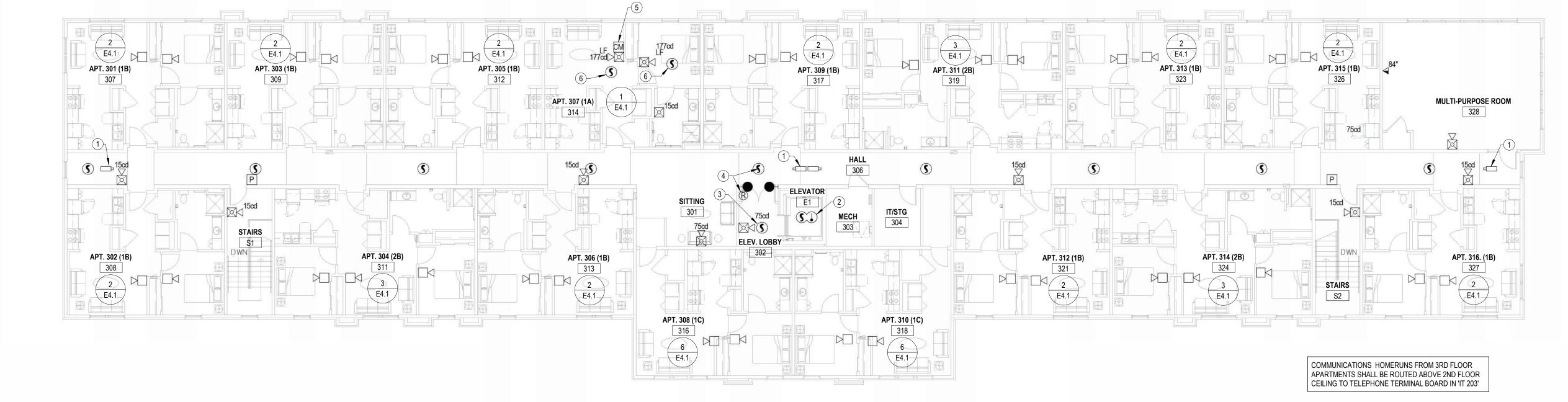
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24-3400

SHEET NO .:

E1.6



COORDINATE EXACT LOCATION OF SWITCH WITH ARCHITECT. 2 PROVIDE RECEPTACLE BELOW COUNTER FOR CORD AND PLUG CONNECTION OF DISHWASHER. PROVIDE CORD AND GROUNDING PLUG AS REQUIRED.

3 PROVIDE 120V CONNECTION TO RANGE HOOD/MICROWAVE. STANDARD AND ADAPTABLE UNITS WILL HAVE MICROWAVE ABOVE RANGE. ACCESSIBLE UNITS WILL HAVE RANGE HOOD. COORDINATE EXACT ELECTRICAL ROUGH-IN REQUIREMENTS WITH EQUIPMENT PROVIDED. IF EQUIPMENT IS CORD AND PLUG, PROVIDE RECEPTACLE INSIDE CABINET ABOVE RANGE.

4 SWITCH CLOSEST TO DOOR SHALL CONTROL ALL LIGHTS IN BATHROOM, AND THE OTHER SWITCH SHALL CONTROL THE EXHAUST FAN.

5 CONNECT EXHAUST FAN/LIGHT PROVIDED BY MECHANICAL CONTRACTOR. 6 PROVIDE 30A/2P SNAP SWITCH AND CONNECT WATER HEATER. INSTALL SWITCH

ADJACENT TO WATER HEATER. 7 COORDINATE FINAL LOCATIONS OF ALL CATV AND PHONE OUTLETS WITH OWNER. 8 TELECOM DISTRIBUTION DEVICE APPROXIMATELY 4'-0" AFF. COORDINATE EXACT

REQUIREMENTS WITH UTILITY PROVIDER SELECTED BY OWNER. 9 PROVIDE 40A/2P, SINGLE THROW, MANUAL MOTOR CONTROLLER SNAP SWITCH IN

NEMA 1 ENCLOSURE. HUBBELL #HBL7842D OR EQUAL. MAKE FINAL FLEXIBLE

TEST/SILENCE AND LED INDICATOR LIGHTS, AND SHALL BE UL 217 LISTED, BRK

CONNECTION TO BLOWER COIL/ELECTRIC HEAT. 10 CEILING MOUNTED SMOKE ALARM IN APARTMENTS TO BE 120VAC WITH 9V BATTERY BACKUP, INTERCONNECTED TO OTHERS IN SAME APARTMENT. DEVICE SHALL HAVE PHOTELECTRIC TYPE SMOKE DETECTOR WITH SOUNDER HORN HAVING AN 85 dB OUTPUT AT 10', SHALL HAVE A SINGLE BUTTON FOR

#SC701LBL OR EQUAL. 11 INSTALL DOORBELL SYSTEM AS SELECTED BY INTERIOR DESIGNER. CIRCUIT TRANSFORMER TO NEAREST UNSWITCHED LIGHTING CIRCUIT. PROVIDE ALL COMPONENTS REQUIRED FOR COMPLETE INSTALLATION. COORDINATE EXACT REQUIREMENTS WITH ARCHITECT AND G.C.

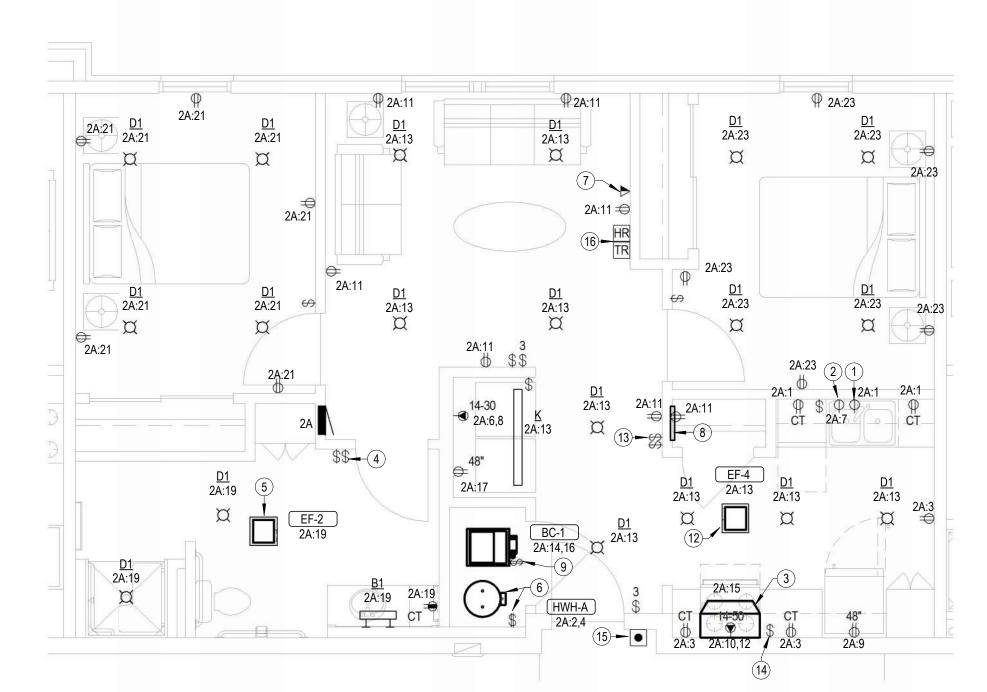
12 CONNECT EXHAUST FAN PROVIDED BY MECHANICAL CONTRACTOR. CIRCUIT FAN FOR CONTINUOUS OPERATION.

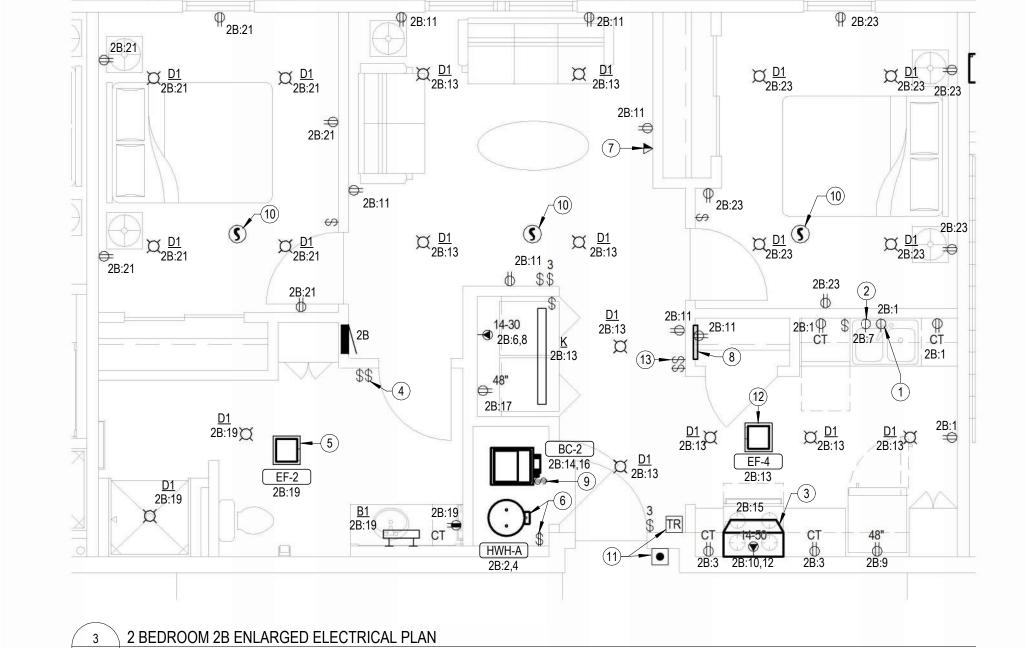
13 PROVIDE SINGLE POLE SWITCH FOR KITCHEN EXHAUST FAN HIGH SPEED CONTROL. WIRE PER MANUFACTURER'S RECOMMENDATIONS. COORDINATE WITH EQUIPMENT PROVIDED AND M.C.

14 PROVIDE SWITCH IN ACCESSIBLE UNITS FOR CONTROL OF RANGE HOOD 15 PROVIDE PUSH BUTTON AT 48" AFF FOR ANNUNCIATOR SYSTEM AT ALL ACCESSIBLE APARTMENTS AND ALSO AT APARTMENTS DESIGNATED FOR HEARING-IMPAIRED. REFER TO ARCH DRAWINGS FOR APPLICABLE ROOMS. REFER

16 PROVIDE DOOR ANNUNCIATOR SYSTEM A/V HORN/STROBE DEVICE AND LOW VOLTAGE TRANSFORMER AT ALL ACCESSIBLE APARTMENTS AND ALSO AT APARTMENTS DESIGNATED FOR HEARING-IMPAIRED GUESTS. REFER TO ARCH DRAWINGS FOR APPLICABLE ROOMS. INSTALL HORN/STROBE APPLIANCE AT 80" AFF PER ADA. INSTALL TRANSFORMER IN DOUBLE GANG JUNCTION BOX ABOVE HORN/STROBE WITH BLANK COVER LATE AND PROVIDE LOW VOLTAGE CONTROL WIRING. REFER TO DETAIL 4, SHEET E6.1. PROVIDE ENGRAVED SIGN AT THE HORN/STROBE DEVICE TO READ "DOOR".

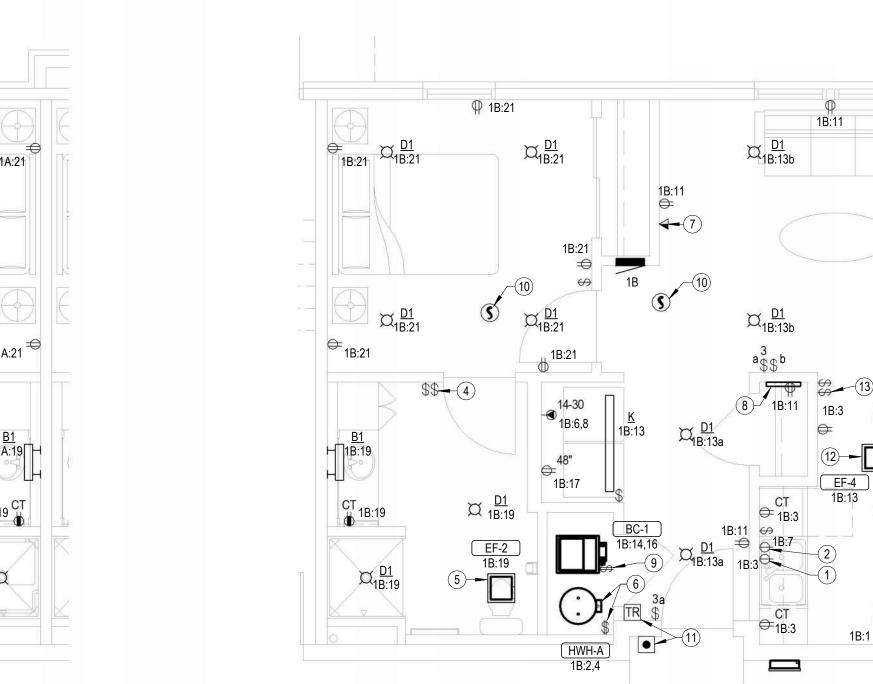
TO DETAIL 4, SHEET E6.1.



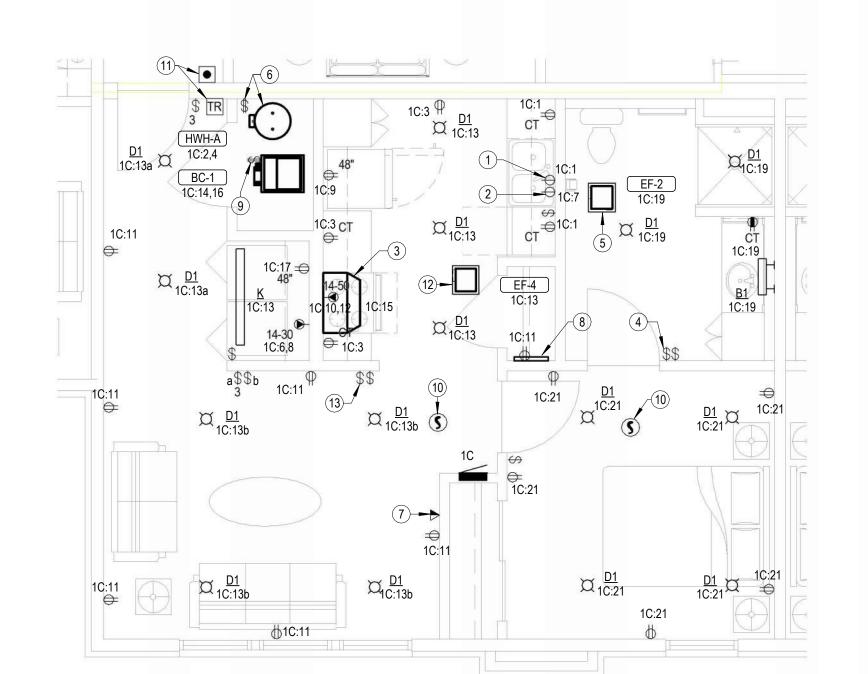


4 2 BEDROOM 2A ACCESSIBLE ENLARGED ELECTRICAL PLAN E4.1 / 1/4" = 1'-0"

1 1 BEDROOM 1A ACCESSIBLE ENLARGED ELECTRICAL PLAN
E4.1 1/4" = 1'-0"



2 1 BEDROOM 1B ENLARGED ELECTRICAL PLAN 1/4" = 1'-0"



6 1 BEDROOM 1C ENLARGED ELECTRICAL PLAN
1/4" = 1'-0"



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**NEW SENIOR LIVING** 

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SHEET NO .:

E4.1

**E4.2** 

■ LST Consulting Engineers, PA 4809 Vue Du Lac Place, Suite 201 Manhattan, KS 66503 785.587.8042

125 S. Washington, Suite 150 Wichita, KS 67202 316.285.0696 Manhattan, KS 66503 785.587.8042 www.LSTengineers.com mail@LSTengineers.com

#### NOTES BY SYMBOL

- INDICATED IN DETAIL 3:E6.1 FOR AUTOMATIC DOOR OPENER. COORDINATE EXACT REQUIREMENTS WITH OWNER.
- 6 COORDINATE EXACT MOUNTING LOCATION OF DRINKING FOUNTAIN RECEPTACLE WITH PLUMBING CONTRACTOR.
- ADJACENT AQUASTAT. PROVIDE 20A/1P SNAP SWITCH ADJACENT TO PUMP AND MAKE FINAL FLEXIBLE CONNECTION. COORDINATE WITH PLUMBING CONTRACTOR.
- 8 INSTALL RECEPTACLE ON WALL OF ELEVATOR PIT. VERIFY EXACT LOCATION WITH ELEVATOR EQUIPMENT INSTALLER.
- AND 1" CONDUIT WITH PULL STRING STUBBED INTO ELEVATOR PIT FOR CONTROL CABLING. COORDINATE ALL WORK WITH PLUMBING CONTRACTOR.
- 10 PROVIDE 50A/2P, SINGLE THROW, MANUAL MOTOR CONTROLLER SNAP SWITCH IN NEMA 1 ENCLOSURE. HUBBELL #HBL7852D OR EQUAL. MAKE FINAL FLEXIBLE CONNECTION TO BLOWER COIL/ELECTRIC HEAT. 11 PROVIDE 40A/2P, SINGLE THROW, MANUAL MOTOR CONTROLLER SNAP SWITCH IN
- NEMA 1 ENCLOSURE. HUBBELL #HBL7842D OR EQUAL. MAKE FINAL FLEXIBLE CONNECTION TO BLOWER COIL/ELECTRIC HEAT.
- ADJACENT TO WATER HEATER.
- WITH EQUIPMENT PROVIDED BY OTHERS.
- DISHWASHER. PROVIDE CORD AND GROUNDING PLUG AS REQUIRED.
- RECEPTACLE CONTROL, RE: 2:E6.1.
- 16 INSTALL LED TAPE LIGHT IN CEILING COVE. REFERENCE ARCHITECTURAL DETAILS FOR MORE INFORMATION. PROVIDE ALL REQUIRED COMPONENTS AND
- 17 INSTALL LED TAPE LIGHT BEHIND MIRROR. REFERENCE ARCHITECTURAL DETAILS FOR MORE INFORMATION. PROVIDE ALL REQUIRED COMPONENTS AND
- 18 WIRE EXHAUST FAN FOR CONTINUOUS OPERATION.

ACCESSORIES FOR COMPLETE INSTALLATION.

- 1 PROVIDE PUSH BUTTON ROUGH-IN AND PREP DOOR JAM WITH RACEWAY AS
- 2 SWITCH EXHAUST FAN WITH ROOM LIGHTS.
- 3 PROVIDE ROUGH-IN FOR 24 HOUR INTERCOMM SYSTEM. COORDINATE REQUIREMENTS AND LOCATION WITH OWNER AND ARCHITECT.
- 4 INSTALL LUMINAIRE ON WALL OF ELEVATOR PIT. VERIFY EXACT LOCATION WITH ELEVATOR EQUIPMENT INSTALLER. INSTALL LIGHT SWITCH ADJACENT TO PIT LADDER AT 48" ABOVE FLOOR LANDING.
- 5 COORDINATE ELECTRICAL ROUGH-IN LOCATIONS WITH FINAL CASEWORK DESIGN.
- 7 ROUTE 120V CIRCUIT FOR HOT WATER RECIRCULATION PUMP THROUGH
- 9 PROVIDE 120V POWER CONNECTION TO ELEVATOR SUMP PUMP ALARM PANEL
- 12 PROVIDE 30A/2P SNAP SWITCH AND CONNECT WATER HEATER. INSTALL SWITCH
- 13 PROVIDE ROUGH-IN FOR ELECTRIC FIREPLACE. COORDINATE REQUIREMENTS
- 14 PROVIDE RECEPTACLE BELOW COUNTER FOR CORD AND PLUG CONNECTION OF
- 15 TIMECLOCK AND CONTACTORS FOR EXTERIOR LIGHTING AND OFFICE
- ACCESSORIES FOR COMPLETE INSTALLATION.

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1 COMMON AREA ENLARGED ELECTRICAL PLAN
E4.2 1/4" = 1'-0"

ELEV. LOBBY

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CONTROL WIRING

	LIGHT FIXTURE SCHEDULE								
MARK	MANUFACTURER	MODEL NUMBER	WATTAGE	LUMEN OUTPUT	DRIVER	MOUNTING	FINISH	DESCRIPTION	NOTES
Α	ARCLUCE	W-DU1123US-16S	21.00 W	1850 lm	LED DRIVER	GROUND	BLACK	GROUND MOUNTED FLOOD LIGHT	3
B1					STANDARD	SURFACE WALL		BATHROOM VANITY LIGHT SELECTED BY INTERIOR DESIGNER	5
С					STANDARD	SURFACE WALL		EXTERIOR WALL SCONCE SELECTED BY INTERIOR DESIGNER	5
D1	HALO	SMD6R6930WH	9.60 W	777 lm	0-10V DIMMING TO 10%	CEILING SURFACE	WHITE	6" DIA ROUND SURFACE MOUNT DOWNLIGHT	6
D2	HALO	SMD6R12930WH	16.00 W	1271 lm	0-10V DIMMING TO 10%	CEILING SURFACE	WHITE	6" DIA ROUND SURFACE MOUNT DOWNLIGHT	
E1	LITHONIA	ELM6L UVOLT LTP	2.78 W			SURFACE WALL	WHITE	LED DUAL-HEAD EMERGENCY LIGHT	1
E2	LITHONIA	AFB-OEL-DDBTXD-UVOLT-N-WT	3.00 W			SURFACE WALL	WHITE	DIE-CAST ALUMINUM EMERGENCY LIGHT WITH POLYCARBONATE LENS, INTEGRAL BATTER	1,2,3
F	DAY-BRITE CFI	FSS440L840-UNV-DIM	30.00 W	4077 lm	0-10V DIMMING TO 10%	CEILING SURFACE	WHITE	4' STANDARD STRIP WITH CURVED FROSTED ACRYLIC LENS	
G	DEFINE	TPLDLBI3012	1.46 W	120 lm	STANDARD		WHITE	LED STRIP TAPE LIGHT	
Н	LITHONIA	FMFL30840 CAML	35.00 W	2800 lm	STANDARD	SURFACE	WHITE	1x4 SURFACE, LED DECORATIVE	
J					STANDARD	SURFACE WALL		WALL SCONCE SELECTED BY INTERIOR DESIGNER	5
K	DAY-BRITE CFI	FLP430L840-R-UNV-DIM	20.00 W	3039 lm	0-10V DIMMING TO 10%	CEILING SURFACE	WHITE	4' LINEAR LED WITH ROUND FROSTED LENS	
L1					STANDARD	CEILING SURFACE		PENDANT LIGHT SELECTED BY INTERIOR DESIGNER	5
L2					STANDARD	CEILING SURFACE		PENDANT LIGHT SELECTED BY INTERIOR DESIGNER	5
М	LITHOINA	P6RD12094WCL-Z10U	10.00 W	1000 lm	0-10V DIMMING TO 10%	SURFACE	WHITE	6" ROUND SURFACE MOUNTED DOWNLIGHT	4
N1	GARDCO	GCM-B05-840-WAW-SPT	36.00 W	3000 lm	STANDARD	SURFACE WALL	BLACK	EXTERIOR LED UP/DOWN WALL SCONCE WITH SPOT UP AND WALL WASH DOWN DISTRIBUTION	
N2	GARDCO	GCM-B02-840-SPT	18.00 W	1611 lm	STANDARD	SURFACE WALL	BLACK	EXTERIOR LED UP ONLY WALL SCONCE WITH SPOT DISTRIBUTION	
0	LITHOINA	WL4-40L-EZ1-LP830-MSD7-DIM50-E10WLC P	39.50 W	3927 lm	STANDARD	SURFACE WALL	WHITE	4 FT. WALL MOUNTED STAIRWELL LIGHT WITH EMERGENCY BATTERY BACKUP	8
R1	LITHONIA	DSX0-LED-P2-40K-70CRI-T4M-HS-MVOLT	45.00 W	6272 lm	LED DRIVER	ROUND POLE	BLACK	LED AREA LIGHT, SINGLE HEAD FULL CUT-OFF WITH IES TYPE IV DISTRIBUTION AND HOUSE SIDE SHEILD	3,7,9
R2	LITHONIA	DSX0-LED-P3-40K-70CRI-T2M-MVOLT-HS	69.00 W	8694 lm	LED DRIVER	ROUND POLE	BLACK	LED AREA LIGHT, SINGLE HEAD FULL CUT-OFF WITH IES TYPE II DISTRIBUTION AND HOUSE SIDE SHEILD	3,7,10
R3	LITHONIA	DSX0-LED-P7-40K-70CRI-T5W-MVOLT	171.00 W	21561 lm	LED DRIVER	ROUND POLE	BLACK	LED AREA LIGHT, SINGLE HEAD FULL CUT-OFF WITH IES TYPE V DISTRIBUTION	3,7,10
S	ACCLAIM	DFB-111-AKEU	50.00 W	2455 lm	STANDARD	GRADE	BLACK	IP-66 RATED, GRADE MOUNTED LED FLOOR LIGHT	3
T	LITHOINA	FEM-L48-4000LM-IMAFL-WD-MVOLT-GZ10 -35K-80CRI	23.80 W	3615 lm	STANDARD	SURFACE WALL	WHITE	4 FT. FULLY ENCLOSED AND GASKETED INDUSTRIAL FIXTURE WITH FROSTED, RIBBED, IMPACT-RESISTANT ACRYLIC LENS	,
W	LITHONIA	MRWLED-P1-40K-SR4-MVOLT	20.00 W	2189 lm	STANDARD	WALL	BLACK	EXTERIOR LED WALL PACK WITH IES TYPE 4 DISTRIBUTION	3
Х	LIFE SAFETY LIGHTING	LSXS2RWEMSDT	4.50 W			CEILING	WHITE	UNIVERSAL SINGLE/DOUBLE FACE POLYCARBONATE EXIT SIGN	2
XE	LITHONIA	LHQM LED R HO				WALL	WHITE	COMBO EXIT/EMERGENCY LIGHTING UNIT	1,2

ALL LED FIXTURES SHALL ADHERE TO LM79 AND LM80 STANDARDS

PROVIDE MANUFACTURER'S FLANGE KIT WHERE LAY-IN FIXTURES ARE TO BE INSTALLED IN GYP.

ALL APARTMENT LIGHT FIXTURES SHALL BE ENERGY STAR CERTIFIED

 PROVIDE FIXTURE WITH EMERGENCY BATTERY INTEGRAL CHARGER WITH SELF-DIAGNOSTIC/SELF-TESTING ELECTRONICS. 2. FIXTURE SHALL BE CAPABLE OF WALL OR CEILING MOUNT APPLICATIONS AND SHALL HAVE BREAK-OUT DIRECTIONAL CHEVRONS.

3. U.L. LISTED FOR 'WET LOCATION'.

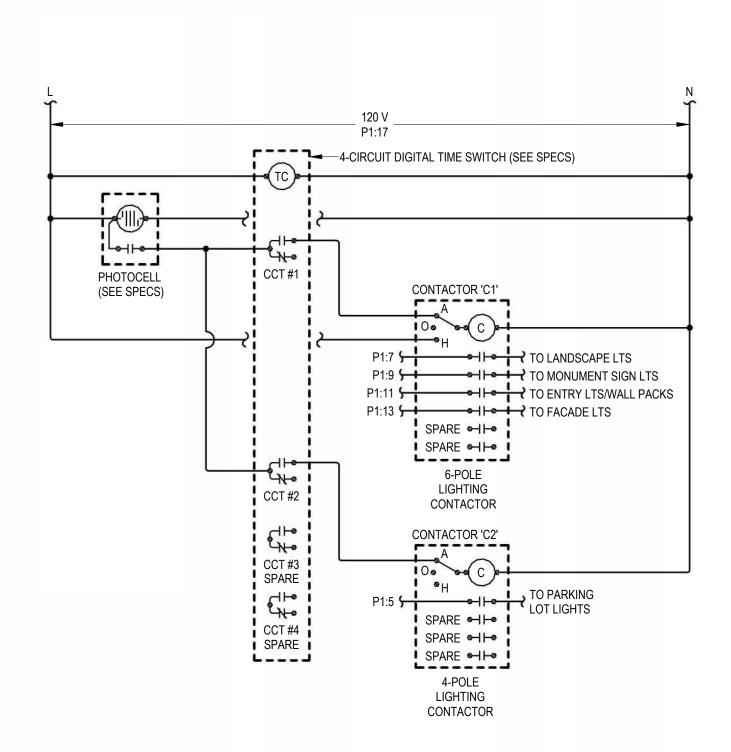
4. U.L LISTED FOR 'DAMP LOCATION'.

5. FIXTURE TO BE SELECTED BY INTERIOR DESIGNER, COORDINATE ALL REQUIREMENTS WITH INTERIOR DESIGNER WHERE INSTALLED IN BATHROOMS TO BE 'DAMP LOCATION' U.L. LISTED, WHERE ABOVE SHOWERS TO BE 'WET LOCATION' U.L. LISTED.

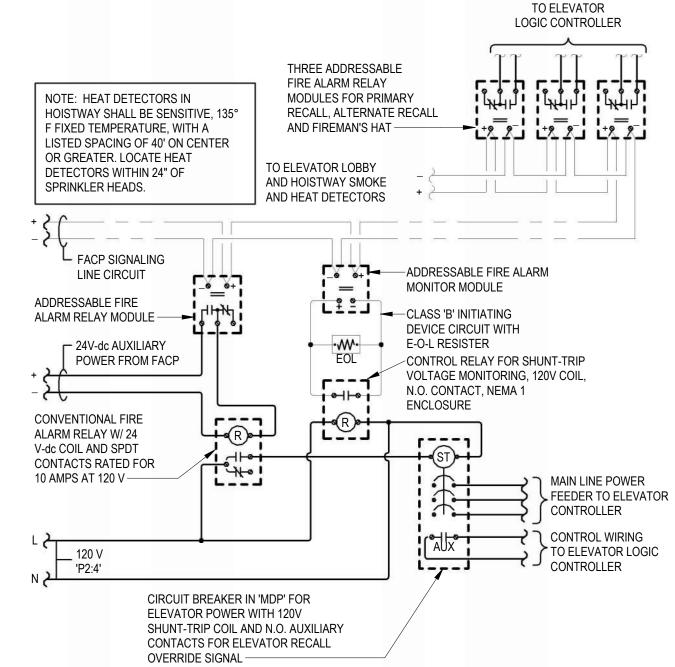
FIXTURE/POLE ASSEMBLY SHALL BE RATED FOR 100 MPH WIND LOADS. PROVIDE WITH VIBRATION DAMPER PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE FIXTURE WITH INTEGRAL OCCUPANCY SENSOR AND CONTROLS TO DIM FIXTURE TO 50% LIGHT OUTPUT WITH UNOCCUPIED.

9. PROVIDE FIXTURE/POLE ASSEMBLY WITH 10' ROUND STRAIGHT STEEL POLE, BLACK TO MATCH FIXTURE. FIXTURE HEIGHT SHALL NOT EXCEED 11'-0".

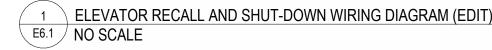
10. PROVIDE FIXTURE/POLE ASSEMBLY WITH 20' ROUND STRAIGHT STEEL POLE, BLACK TO MATCH FIXTURE. FIXTURE HEIGHT SHALL NOT EXCEED 23'-0".

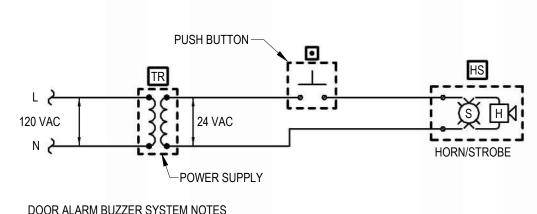






- UPON SENSING SMOKE FROM ONE OR MORE ELEVATOR LOBBY OR HOISTWAY, THE SMOKE DETECTOR SHALL SIGNAL THE FIRE ALARM CONTROL PANEL, WHICH WILL FORWARD THE SIGNAL TO THE ELEVATOR LOGIC CONTROLLER VIA ADDRESSABLE RELAY MODULES TO RECALL ELEVATOR CAB TO THE PRIMARY RECALL FLOOR. IF PRIMARY RECALL FLOOR'S LOBBY SMOKE DETECTOR SENSES SMOKE AT THAT FLOOR, THE ELEVATOR CONTROLLER WILL SEND THE ELEVATOR CAB TO THE NEXT FLOOR CLEAR OF SMOKE. ONCE THE ELEVATOR CAB HAS REACHED THE DESIGNATED FLOOR, THE ELEVATOR CAB DOORS WILL OPEN AND THE CONTROLLER WILL LOCK THE ELEVATOR CAB AT THAT FLOOR, DISABLING THE ELEVATOR CAB CONTROLS, UNLESS A
- 2. ALL SMOKE DETECTORS ASSOCIATED WITH ELEVATOR RECALL (LOBBY AND HOISTWAY) SHALL TRANSMIT A SEPARATE AND DISTINCT VISIBLE ANNUNCIATION AT THE FIRE ALARM CONTROL PANEL.
- UPON SENSING A HEAT ALARM CONDITION IN THE ELEVATOR HOISTWAY, THE HEAT DETECTOR SHALL SIGNAL THE FIRE ALARM CONTROL PANEL, WHICH WILL FORWARD THE SIGNAL TO THE ADDRESSABLE RELAY MODULE TO ACTIVATE (VIA A CONVENTIONAL FIRE ALARM RELAY) THE SHUNT-TRIP BREAKER POWERING THE ELEVATOR SO AS TO DISCONNECT POWER TO THAT CIRCUIT. THIS IS TO BE A NON-AUTO RESET SWITCH. WHEN THE SPRINKLER HEAD HAS REACHED ITS CRITICAL TEMPERATURE OF 165° F., THE HEAD WILL BEGIN DISCHARGE OF





DOOR ALARM BUZZER SYSTEM NOTES 1. PROVIDE DOOR ANNUNCIATOR SYSTEM COMPLETE WITH PUSH BUTTON,

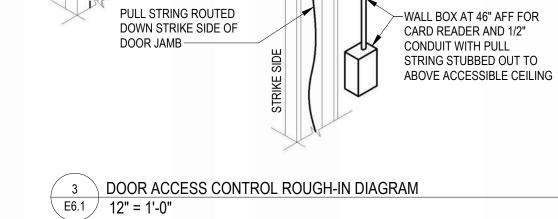
HORN/STROBE SHALL ACTIVATE WHEN PUSH BUTTON IS DEPRESSED. 2. HORN/STROBE SHALL OPERATE AT 24VAC, HAVE A CLEAR LENS WITH 50cd STROBE AND HORN WITH 82dB AT 10', UL 1638 LISTED, EDWARDS #6536-G5. FLUSH MOUNT IN WALL AT 6'-8" AFF.

HORN/STROBE(S), POWER SUPPLIES AND ALL WIRING REQUIRED.

3. PUSH BUTTON SHALL BE SELECTED BY INTERIOR DESIGNERMOUNT AT 48" AFF. ENSURE COMPATIBILITY WITH ACCESSIBLE UNIT HORN STROBE.

4. POWER SUPPLY SHALL BE A LOW VOLTAGE CLASS 2 TRANSFORMER COMPATIBLE WITH DOORBELL SELECTED BY INTERIOR DESIGNER. FLUSH MOUNT IN 2-GANG WALL BOX WITH BLANK COVER PLATE, DIRECTLY ABOVE HORN/STROBE. 5. LOW VOLTAGE CLASS 2 CABLING SHALL BE MINIMUM 18 AWG UNSHIELDED.

ACCESSIBLE APARTMENT DOORBELL WIRING SCHEMATIC E6.1 12" = 1'-0"



—PULL STRING ROUTED DOWN

-PULL STRING ROUTED ACROSS TOP OF DOOR JAMB

> -1/2" EMT STUBBED OUT FROM TOP OF DOOR JAMB AT STRIKE

SIDE OF DOOR TO ABOVE

ACCESSIBLE CEILING WITH

PULL STRINGS AS SHOWN

HINGE SIDE OF DOOR

ELEVATOR RECALL AND SHUT-DOWN SEQUENCE OF OPERATION:

FIREMAN'S KEY IS USED TO OVERRIDE AUTOMATIC CONTROLS.

WATER.

ELEVATOR RECALL AND SHUT-DOWN WIRING DIAGRAM (EDIT)

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Meter Center main circuit breaker shall be 65 kAIC fully rated. All conductor sizes are based on copper, U.N.O.

Entire installation shall comply with NEC. Coordinate all responsibilities and requirements with power utility company and pay associated fees. Contact Information:

Midamericn Energy Jordan Silver Project Coordinator

(515) 281-2951

jordan.silver@midamerican.com Coordinate final location of meter assemblies with utility company. Provide shop drawings of proposed equipment whether as specified or substituted to utility company for approval.

All meter center components shall be NEMA 3R. All dimensions based on Square D equipment. It is the contractor's responsibility to verify the dimensions of substitute equipment. For each meter, provide a permanent brass, copper or aluminum tag identifying the apartment served. Tags

shall be securely fastened to the meter base and be stamped with 1/8" letters, minimum.

NOTES BY SYMBOL

- 1 4-SOCKET BRANCH UNITS, 3-PH IN; 1-PH OUT, WITH (4) 125A BRANCH BREAKERS AS INDICATED. METER SOCKETS SHALL BE RINGLESS TYPE, 5-JAW WITH HORN BYPASS SQUARE D 'EZ METER-PAK' #EZMH314125. PROVIDE PERMANENT LABEL ON EACH METER SOCKET BREAKER INDICATING THE APARTMENT BEING SERVED.
- 2 MAXIMUM HEIGHT TO CENTERLINE OF TOP METER SOCKET SHALL BE 6'-0" AFG. 3 SEE FEEDER SCHEDULE, THIS SHEET FOR SIZES TO APARTMENT UNIT LOAD
- CENTERS. 4 (4) PARALLEL 4" CONDUITS EACH WITH (4) #350 KCMIL COPPER FROM
- TRANSFORMER TO METER CENTER. 5 #3/0 CU GROUNDING ELECTRODE CONDUCTOR TO CONCRETE ENCASED
- ELECTRODE, UNDERGROUND METAL WATER PIPE, AND DRIVEN GROUND ROD. BOND ALL ITEMS IN ACCORDANCE WITH NEC ARTICLE 250.
- **6** (4)#4/0, #4G., 2-1/2"C. **7** (4)#1, #8G., 1-1/2"C.
- 8 (3)#350 KCMIL, #350 KCMIL G., 3"C.
- **9** (4)#3/0, #4G., 2"C.
- **10** METER CENTER MAIN, 3-PH IN; 3-PH OUT, 208/120V-3PH, 4 WIRE WITH 1600A/3P MAIN BREAKER, 65 KAIC RATED, SERVICE ENTRANCE RATED WITH INTEGRAL SURGE PROTECTION DEVICE. SQUARE D 'EZ METER-PAK' #EZM31600CB. PROVIDE SIGNAGE AT DISCONNECT SWITCH TO READ 'SERVICE DISCONNECT 1 OF 2'
- 11 MINIMUM HEIGHT TO BOTTOM OF METER SOCKET ASSEMBLY SHALL BE 3'-0" AFG. 12 (2) PARALLEL 4" CONDUITS EACH WITH (4) #350 KCMIL COPPER FROM
- TRANSFORMER TO CT ENCLOSURE. 13 CT ENCLOSURE (35"x29"x12") PER MIDAMERICAN ENERGY REQUIREMENTS.
- PROVIDE 3/4" EXTERIOR PLYWOOD BACKING. 14 MAINTAIN CLEARANCE ADJACENT TO CT ENCLOSURE TO ALLOW DOOR TO BE
- FULLY OPENED WITHOUT OBSTRUCTION.
- 15 2" CONDUIT FOR POWER COMPANY PROVIDED METER WIRING.
- 16 CT RATED METER PROVIDED BY UTILITY, INSTALLED BY E.C. PROVIDE SUPPLY SIDE BONDING JUMPER TO HOUSE METER PER MIDAMERICAN ENERGY REQUIREMENTS.
- 17 (2) PARALLEL 4" CONDUITS EACH WITH (4) #350 KCMIL COPPER 18 600A/3P SERVICE ENTRANCE RATED DISCONECT SWITCH WITH SOLID NEUTRAL AND (3) 600A DUAL-ELEMENT, TIME-DELAY, CLASS 'RK1' FUSES IN NEMA 3R ENCLOSURE. PROVIDE SIGNAGE AT DISCONNECT SWITCH TO READ 'SERVICE
- DISCONNECT 2 OF 2' 19 #1 CU GROUNDING ELECTRODE CONDUCTOR TO CONCRETE ENCASED ELECTRODE, UNDERGROUND METAL WATER PIPE, AND DRIVEN GROUND ROD
- BOND ALL ITEMS IN ACCORDANCE WITH NEC ARTICLE 250. 20 (2) PARALLEL 3" CONDUITS, EACH WITH (4) #350 KCMIL, #1G COPPER FROM 'SDS' TO

**APARTMENT FEEDER SCHEDULE (COPPER)** APARTMENT PANEL NUMBER **FEEDER SIZE** 101, 102, 103, 104, 105, 106, 201, 202, 203, 204, 205, (3)#1, #6G, 1-1/4"C. 206, 301, 302, 303, 304, 306 107, 109, 112, 207, 208, 209, 210, 305, 307, 308, 310 (3)#2/0, #4G, 2"C. (3)#3/0, #3G, 2"C. 111, 211, 212, 309, 311, 312 113, 114, 116, 213, 214, 313, 314 (3)#4/0, #2G, 2"C. 115, 117, 215, 216, 217, 315, 316 (3)#250 kcmil, #1G, 2-1/2"C.

1. VOLTAGE DROP HAS BEEN ACCOUNTED FOR IN SIZES INDICATED, FURTHER UPSIZING OF FEEDERS IS NOT... 2. ENSURE PANEL LUGS ARE ADEQUATELY SIZED TO HANLDE UP-SIZED FEEDERS. PROVIDE LUG ADAPTER KI...

APARTMENT FEEDER SCHEDULE (ALUMINUM)							
APARTMENT PANEL NUMBER	FEEDER SIZE						
101, 102, 103, 104, 201, 202, 204, 301, 302	(3)#1, #4G, 1-1/4"C.						
106, 203, 206, 303, 304	(3)#1/0, #3G, 1-1/2"C.						
105, 205, 305, 306	(3)#2/0, #2G, 2"C.						
107, 109, 111, 112, 207, 208, 209, 210, 307, 308, 309, 310	(3)#4/0, #1/0G, 2"C.						
211, 212, 311, 312	(3)#300 KCMIL, #3/0G, 2-1/2"C.						
113, 114, 115, 116, 117, 213, 214, 215, 216, 217, 313, 314, 31	(3)#400 KCMIL, #4/0G, 2-1/2"C.						

1 METER CE E6.2 1" = 1'-0"

METER CENTER ELECTRICAL RISER DIAGRAM

2. ENSURE PANEL LUGS ARE ADEQUATELY SIZED TO HANLDE UP-SIZED FEEDERS. PROVIDE LUG ADAPTER KITS IF REQUIRE

SDS SDS	M 15	

100.0 A

MLO

208Y/120 3PH 4W

100.0 A

MLO

208Y/120 3PH 4W

100.0 A

十<sub>600.0</sub> A

HOUSE ELECTRIC SERVICE ONE LINE DIAGRAM

\ HOUSE ELECTRICAL RISER DIAGRAM

225.0 A

225

225.0 A

208Y/120 3PH 4W

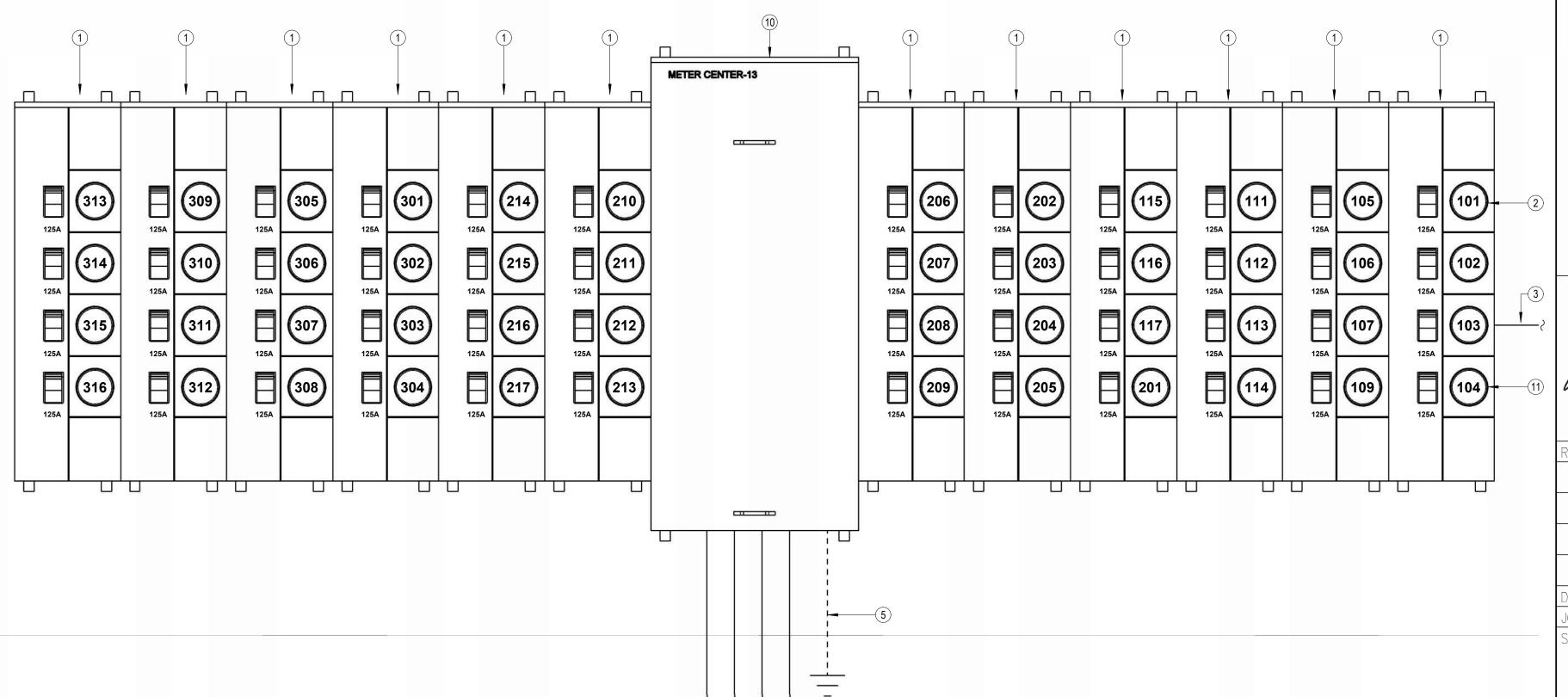
208Y/120

3PH 4W

Elevator H1- H1:4

300.0 A

100.0 A



SHEET NO .:

E6.2

Voltage: 208 V, 3 Ø, 4 W

Load 44692

10165

38653

81000

--

Panel Totals

Connected Load: 175 kVA

Demand Load: 184 kVA

Connected Current: 484 A

Demand Current: 511 A

Non-Coincident... 49.1 A

Bus Rating: 600 A

Mains Type: MLO

Mains Rating: 600 A

Mains FN/Note: -

Trip (A) Poles FN/Note

3 |

100 3

-- | 1 |

-- | 1 |

225

100

300

Demand

416 VA

2520 VA

14000 VA

44300 VA 125.00% 55375 VA **Total Est. Demand** ... 462.4 A

SCCR/AIC: 22.0 kA

Mains FN/Note: -

Neutral: 100%

SCCR: 22 kA

**Breaker Function Schedule** 

GA Combination Arc-Fault Interrupter (AFCI) and Ground-Fault Circuit Interrupter, 5mA, (GFCI) Protection

Frame (A)

100

100

300

Factor

107.69%

100.00%

125.00%

77.78%

4500 VA | 125.00% | 5625 VA

81000 VA 100.00% 81000 VA

17680 VA | 100.00% | 17680 VA

Connected

387 VA

2520 VA

18000 VA

PROVIDE WITH INTEGRAL SURGE PROTECTION DEVICE PER SPECIFICATIONS

225

Arc-Fault Interrupter (AFCI) Protection

L Provide breaker with 'lock-on' clip.

Location: Mech 107

Supply: SDS

Mounting: Surface

Enclosure: NEMA 1

Panelboard: H1

Features & Modifications:

Ckt Description

H1:1 Panel 'P1'

H1:2 Panel 'P2'

H1:3 Panel 'P3'

H1:4 Elevator

H1:5 Space

H1:6 Space

**Load Summary** 

**Load Classification** 

Lighting - Interior

Electric Heat

Bus Amps: 225

MCB Amps: MLO

Elevator

Receptacle - General

Electric Water Heating

G Ground-Fault Circuit Interrupter, 5mA, (GFCI) Protection

ARK

Δ.

**VETERANS** 

AT

RESIDENCE

뿓

24-3400 SHEET NO .:

E6.3

**Designation: 1C** SCCR/AIC: 10.0 kA Installed Location: 1 Bedroom Unit (1C) Bus Amps: 125 Voltage: 120/208 1PH 3W-1Ph-3W MCB Amps: MLO Mains FN/Note: -Mounting: Flush Features & Modifications: Enclosure: NEMA 1 Ckt Circuitry Trip (A) FN A B FN Trip (A) Circuitry Description Ckt Description GA 7.2 A 0.0 A Kitchen Receptacles 1/2"C,1#12,#12N,#12G

4.5 A 0.0 A

GA 4.2 A 40....

20 GA 1.5 A 40....

1/2"C,1#12,#12N,#12G 20 A 7.9 A --

1/2"C,1#12,#12N,#12G 20 G 2.4 A 11.... 1/2"C,1#12,#12N,#12G 20 A 7.9 A --1/2"C,1#12,#12N,#12G 20 A 7.9 A --

Bus Amps: 125

MCB Amps: MLO

B FN Trip (A)

0.0 A 40.... G 60

Features &

Trip (A) FN A

20 GA 8.7 A 0.0 A

1/2"C,1#12,#12N,#12G 20 GA 1.5 A 40.... G 60

1/2"C,1#12,#12N,#12G 20 A 7.9 A -- --

1/2"C.1#12.#12N.#12G 20 A 1.7 A 21....

1/2"C,1#12,#12N,#12G 20 GA 1.5 A 11.... 1/2"C,1#12,#12N,#12G 20 G 2. 1/2"C,1#12,#12N,#12G 20 A 7.9 A --

20 GA 3.0 A 0.0 A

20 GA 40.... 20 GA 4.2 A 40....

Modifications:

20 A 1.7 A 21....

20 GA 1.5 A 11....

20 G 2.4 A 11....

20 GA 2.1 A 21....

0.0 A 40.... G 60

1/2"C,1#12,#12N,#12G

1/2"C,1#12,#12N,#12G

1/2"C,1#12,#12N,#12G

1/2"C,1#12,#12N,#12G

1/2"C,1#12,#12N,#12G

1/2"C,1#12,#12N,#12G

1/2"C,1#12,#12N,#12G

1/2"C,1#12,#12N,#12G

Circuitry

1/2"C,1#12,#12N,#12G

1/2"C,1#12,#12N,#12G

1/2"C,1#12,#12N,#12G

1/2"C,1#12,#12N,#12G 1/2"C,1#12,#12N,#12G

Kitchen Receptacles

Dishwasher

Refrigerator

Living Room Receptacles

Kitchen/Living/Hall Lighting

Hood/Microwave

Clothes Washer Receptacle

Bathroom

Bedroom

Bathroom

Bedroom 1

Bedroom 2

Installed Location: 2 Bedroom Unit (2B)

Mounting: Flush

Enclosure: NEMA 1

Description

Kitchen Receptacles

Kitchen Receptacles

Dishwasher

Living Room Receptacles

Kitchen/Living/Hall Lighting

Hood/Microwave

Clothes Washer Receptacle

Bedroom 1

Bedroom 2

Voltage: 120/208 1PH 3W-1Ph-3W

**Designation: 2B** 

1C:19

2A:19

2A:21

2A:23

Ckt

2B:19 2B:21 2B:23

1/2"C,2#12,#12G

1"C,2#4,#4N,#10G

3/4"C,2#4,#10G

1/2"C,2#10,#10G

1/2"C,2#10,#10G

1/2"C,2#12,#12G

Circuitry

1/2"C,2#12,#12G

3/4"C,2#4,#10G

1"C,2#4,#4N,#10G

1/2"C,2#12,#12G

Electric Water Heating

Clothes Dryer

Range

Blower Coil

Heat Pump

Surge Protection

Surge Protection

Heat Pump

Surge Protection

Surge Protection

Description

Electric Water Heating

Clothes Dryer

Heat Pump

Surge Protection
Surge Protection

SCCR/AIC: 10.0 kA

Mains FN/Note: -

2A:20 2A:22 2A:24

Ckt

2B:2 2B:4

2B:6 2B:8

2B:10

2B:12

2B:18

2B:20 2B:22 2B:24

Ckt Circuitry Trip (A) FN A B FN Trip (A) Description 1C:2 1C:4 1C:6 1C:8 1C:10 1C:12 1C:14 1C:16 1/2"C,1#12,#12N,#12G Kitchen Receptacles 20 | GA | 4.5 A | 0.0 A | 1A:3 8.7 A 0.0 A Kitchen Receptacles 1/2"C,1#12,#12N,#12G 0.0 A 40.... 1A:5 20 | 0.0 A | 40.... | 4.2 A | 40.... Spare Dishwasher 1/2"C,1#12,#12N,#12G 1/2"C,1#12,#12N,#12G 1A:9 20 GA 1.5 A 40.... Refrigerator 1/2"C,1#12,#12N,#12G 20 A 9.0 A 40.... 1/2"C,1#12,#12N,#12G 20 A 1.7 A 21.... 1A:11 Living Room Receptacles 1A:13 Kitchen/Living/Hall Lighting 1A:15 1/2"C,1#12,#12N,#12G 20 GA 2.1 A 21... Hood/Microwave 1C:18 1C:20 1C:22 1C:24 1/2"C,1#12,#12N,#12G 20 GA 1.5 A 11.... 1/2"C,1#12,#12N,#12G 20 G 2.4 A 11.... 1A:17 Clothes Washer Receptacle 1A:19 Bathroom 1A:21 1A:23 1/2"C,1#12,#12N,#12G 20 A 7.9 A --Bedroom Space

Designation: 1A

Installed Location: 1 Bedroom Units (1A)

Voltage: 120/208 1PH 3W-1Ph-3W

Mounting: Flush Features & Modifications: Enclosure: NEMA 1 Circuitry Ckt Description 1A:2 1A:4 1/2"C,2#12,#12G Electric Water Heating 1A:6 1A:8 1A:10 1"C,2#4,#4N,#10G Clothes Dryer 3/4"C,2#4,#10G 1A:12 1A:14 1/2"C,2#10,#10G Blower Coil 1A:16 1A:18 1A:20 1/2"C,2#12,#12G Heat Pump 1A:22 1A:24 Surge Protection Surge Protection

Bus Amps: 125

MCB Amps: MLO

SCCR/AIC: 10.0 kA

Mains FN/Note: -

Designation: P1

Installed Location: Mech 107

Voltage: 208Y/120 3PH 4W-3Ph-4W

De	Signation: 2A Installed Location: 2 Bedroom Units (2A) Voltage: 120/208 1PH 3W-1Ph-3W Mounting: Flush Enclosure: NEMA 1			MCB /	Amps: 125 Amps: MLC ures & ations: <sup>-</sup>				N	SCCR/AIC: 10.0 kA lains FN/Note: -	
Ckt	Description	Circuitry	Trip (A)	FN	A	В	FN	Trip (A)	Circuitry	Description	Ckt
2A:1	Kitchen Receptacles	1/2"C,1#12,#12N,#12G	20	GA	7.2 A 0.0 A	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		20	1/0"0 0#10 #100	Floatric Weter Hooting	2A:2
2A:3	Kitchen Receptacles	1/2"C,1#12,#12N,#12G	20	GA		4.5 A 0.0 A	]	20	1/2"C,2#12,#12G	Electric Water Heating	2A:4
2A:5	Spare		20		0.0 A 40		G	60	3/4"C,2#4,#10G	Clothes Dryer	2A:6
2A:7	Dishwasher	1/2"C,1#12,#12N,#12G	20	GA		4.2 A 40	]	60	3/4 C,2#4,#10G	Ciotiles Diyei	2A:8
2A:9	Refrigerator	1/2"C,1#12,#12N,#12G	20	GA	1.5 A 40		G	60	1"0 2#4 #4N #100	Danna	2A:10
2A:11	Living Room Receptacles	1/2"C,1#12,#12N,#12G	20	Α		10 40	]	60	1"C,2#4,#4N,#10G	Range	2A:12
2A:13	Kitchen/Living/Hall Lighting	1/2"C,1#12,#12N,#12G	20	Α	1.7 A 21			20	1/2"C 2#10 #10C	Blower Coil	2A:14
2A:15	Hood/Microwave	1/2"C,1#12,#12N,#12G	20	GA		2.1 A 21		30	1/2"C,2#10,#10G	Diowei Coii	2A:16
2A:17	Clothes Washer Receptacle	1/2"C,1#12,#12N,#12G	20	GA	1.5 A 11			20	1/2"C,2#12,#12G	Hoot Dump	2A:18
04.40	Б. :	4/0110 4/140 //4001 //400	00			0.4.4.4.4	1	20	1/2 0,2#12,#120	Heat Pump	04.00

	ignation: 1B  nstalled Location: 1 Bedroom Unit (1B)  Voltage: 120/208 1PH 3W-1Ph-3W  Mounting: Flush Enclosure: NEMA 1			MCB Feat	Amps: Amps: tures & ations:	SCCR/AIC: 10.0 kA  Mains FN/Note: -							
Ckt	Description	Circuitry	Trip (A)	FN	4	\	В	3	FN	Trip (A)	Circuitry	Description	Ckt
1B:1	Kitchen Receptacles	1/2"C,1#12,#12N,#12G	20	GA	4.5 A	0.0 A				20	1/0"0 0#10 #100	Floatric Woton Hooting	1B:2
1B:3	Kitchen Receptacles	1/2"C,1#12,#12N,#12G	20	GA			8.7 A	0.0 A		20	1/2"C,2#12,#12G	Electric Water Heating	1B:4
1B:5	Spare	-	20		0.0 A	40			G	60	1"C,2#4,#4N,#10G	Clothes Dryer	1B:6
1B:7	Dishwasher	1/2"C,1#12,#12N,#12G	20	GA			4.2 A	40	G	00	1 0,2#4,#411,#100	Clottles Diyer	1B:8
1B:9	Refrigerator	1/2"C,1#12,#12N,#12G	20	GA	1.5 A	40			G	60	3/4"C 2#4 #10C	Dongo	1B:10
1B:11	Living Room Receptacles	1/2"C,1#12,#12N,#12G	20	Α			9.0 A	40	G	60	3/4"C,2#4,#10G	Range	1B:12
1B:13	Kitchen/Living/Hall Lighting	1/2"C,1#12,#12N,#12G	20	Α	1.7 A	21				30	1/2"C 2#10 #10C	Blower Coil	1B:14
1B:15	Hood/Microwave	1/2"C,1#12,#12N,#12G	20	GA			2.1 A	21		30	1/2"C,2#10,#10G	Blower Coll	1B:16
1B:17	Clothes Washer Receptacle	1/2"C,1#12,#12N,#12G	20	GA	1.5 A	11				20	1/2"C 2#12 #12C	Hoot Dump	1B:18
1B:19	Bathroom	1/2"C,1#12,#12N,#12G	20	G			2.4 A	11		20	1/2"C,2#12,#12G	Heat Pump	1B:20
1B:21	Bedroom	1/2"C,1#12,#12N,#12G	20	Α	7.9 A							Surge Protection	1B:22
1B:23	Space											Surge Protection	1B:24

	Installed Location: 1 Bedroom Unit (1B)  Voltage: 120/208 1PH 3W-1Ph-3W  Mounting: Flush Enclosure: NEMA 1			MCB Feat	Amps: Amps: tures 8	: MLO	1					SCCR/AIC: 10.0 kA Mains FN/Note: -	
Ckt	Description	Circuitry	Trip (A)	FN		A	E	В	FN	Trip (A)	Circuitry	Description	Cki
1B:1	Kitchen Receptacles	1/2"C,1#12,#12N,#12G	20	GA	4.5 A	0.0 A	4			20	4/0110 0#40 #400	Floatric Water Hosting	1B:
1B:3	Kitchen Receptacles	1/2"C,1#12,#12N,#12G	20	GA			8.7 A	0.0 A		20	1/2"C,2#12,#12G	Electric Water Heating	1B:4
1B:5	Spare		20		0.0 A	40			G	60	1"C 2#4 #4N #10C	Clathea Dryer	1B:0
1B:7	Dishwasher	1/2"C,1#12,#12N,#12G	20	GA			4.2 A	40	G	00	1"C,2#4,#4N,#10G	Clothes Dryer	1B:8
1B:9	Refrigerator	1/2"C,1#12,#12N,#12G	20	GA	1.5 A	40			G	60	2/4"C 2#4 #40C	Denne	1B:1
1B:11	Living Room Receptacles	1/2"C,1#12,#12N,#12G	20	Α			9.0 A	40	G	60	3/4"C,2#4,#10G	Range	1B:1
1B:13	Kitchen/Living/Hall Lighting	1/2"C,1#12,#12N,#12G	20	Α	1.7 A	21				30	1/2"C 2#10 #10C	Plower Ceil	1B:1
1B:15	Hood/Microwave	1/2"C,1#12,#12N,#12G	20	GA			2.1 A	21		30	1/2"C,2#10,#10G	Blower Coil	1B:1
1B:17	Clothes Washer Receptacle	1/2"C,1#12,#12N,#12G	20	GA	1.5 A	11				20	1/2"C,2#12,#12G	Heat Pump	1B:1
1B:19	Bathroom	1/2"C,1#12,#12N,#12G	20	G			2.4 A	11		20	1/2 0,2#12,#12G	neat Pullip	1B:2

	Installed Location: 1 Bedroom Unit (1B)  Voltage: 120/208 1PH 3W-1Ph-3W  Mounting: Flush  Enclosure: NEMA 1  Ckt  Description			MCB /	Amps: Amps: ures & ations:	MLO					SCCR/AIC: 10.0 kA  Mains FN/Note: -					
Ckt	Description	Circuitry	Trip (A)	FN	,	4	ı	В	FN	Trip (A)	Circuitry	Description	C			
1B:1	Kitchen Receptacles	1/2"C,1#12,#12N,#12G	20	GA	4.5 A	0.0 A				00	4/01/0 04/40 4/400	Electric Meteo Heather	11			
1B:3	Kitchen Receptacles	1/2"C,1#12,#12N,#12G	20	GA			8.7 A	0.0 A		20	1/2"C,2#12,#12G	Electric Water Heating	16			
1B:5	Spare		20		0.0 A	40			G	60	4"0 2#4 #4N #400	Clathas Daves	11			
1B:7	Dishwasher	1/2"C,1#12,#12N,#12G	20	GA			4.2 A	40	G	60	1"C,2#4,#4N,#10G	Clothes Dryer	16			
1B:9	Refrigerator	1/2"C,1#12,#12N,#12G	20	GA	1.5 A	40			G	00	2/4//0 2#4 #400	Danna	1B			
1B:11	Living Room Receptacles	1/2"C,1#12,#12N,#12G	20	Α			9.0 A	40	G	60	3/4"C,2#4,#10G	Range	1B			
1B:13	Kitchen/Living/Hall Lighting	1/2"C,1#12,#12N,#12G	20	Α	1.7 A	21				30	1/2"C 2#10 #10C	Dlawar Cail	1B			
1B:15	Hood/Microwave	1/2"C,1#12,#12N,#12G	20	GA			2.1 A	21		30	1/2"C,2#10,#10G	Blower Coil	1B			
1B:17	Clothes Washer Receptacle	1/2"C,1#12,#12N,#12G	20	GA	1.5 A	11				20	4/0110 0240 4400	Heat Divini	1B			
1B:19	Bathroom	1/2"C,1#12,#12N,#12G	20	G			2.4 A	11		20	1/2"C,2#12,#12G	Heat Pump	1B			
1B:21	Bedroom	1/2"C,1#12,#12N,#12G	20	Α	7.9 A							Surge Protection	1B			
1B:23	Space											Surge Protection	1B			

Des	ignation: P3													
	Notage: 208Y/120 3PH 4W-3Ph Mounting: Surface Enclosure: NEMA 1	1-4W		M	- -eature	s: MLC		INTEG	GRAL SU	RGE PRO	SCCR/AIC: 22.0 kA  Mains FN/Note: -  TECTION			
Ckt	Description	Circuitry	Trip (A)	FN	Α		В	C	; FI	Trip (A)	Circuitry	Description	Ckt	
P3:1 P3:3	LTG - 3rd Floor Hall LTG - Multi-Purpose 328	1/2"C,1#12,#12N,#12G 1/2"C,1#12,#12N,#12G	20 20		94 1	5 34	15			25	1/2"C,2#12,#10G	HP-2 - 1st Floor Hall/Fitness	P3:2 P3:4	
P3:5 P3:7	LTG - Elevator Hoistway RCPT - 3rd Floor Hall	1/2"C,1#12,#12N,#12G 1/2"C,1#12,#12N,#12G	20		12 2	0		24	20	35	1/2"C,2#10,#10G	HP-3 - Community Room/Office	P3:6	
93:9 3:11	RCPT - Sitting 301 RCPT - IT 304	1/2"C,1#12,#12N,#12G 1/2"C,1#12,#12N,#12G	20 20			72	15	36	15	25	1/2"C,2#12,#10G	HP-2 - 2nd Floor Hall	P3:1 P3:1	
3:13 3:15	RCPT - Elevator Hoistway RCPT - Multi-Purpose 328	1/2"C,1#12,#12N,#12G 1/2"C,1#12,#12N,#12G	20		18 1		15			25	1/2"C,2#12,#10G	HP-2 - 3rd Floor Hall	P3:14 P3:16	
3:17 3:19	RCPT - Multi-Purpose 328 RCPT - Multi-Purpose 328	1/2"C,1#12,#12N,#12G 1/2"C,1#12,#12N,#12G	20		54 2	0		54	20	35	1/2"C,2#10,#10G	HP-3 - 3rd Floor Multipurpose		
3:21 3:23	RCPT - Rooftop West RCPT - Rooftop East	1/2"C,1#12,#12N,#12G 1/2"C,1#12,#12N,#12G	20			90	29	10	29	40	1/2"C,2#8,#10G	BC-1 - 3rd Floor Hall	P3:2	
3:25 3:27	RCPT - Future Radon Fans Spare	1/2"C,1#12,#12N,#12G 	20		90 3	6 0 VA	36			50	3/4"C,2#6,#10G	BC-3 - Multi-Purpose 328	P3:2	
3:29	Spare		20					0 VA				Space	P3:3	
3:31	Spare		20		0 VA							Space	P3:3	
3:33	Space											Space	P3:3	
3:35	Space											Space	P3:3	
3:37	Space											Space	P3:3	
3:39	Space											Space	P3:4	
3:41	Space					VA 133						Space	P3:4	

	Mounting: Surface Enclosure: NEMA 1		Мо	Features & difications:	PROVIDE II	NTEGRA	L SUR	RGE PROTECTION						
Ckt	Description	Circuitry	Trip (A)	I A	В	С	FN	Trip (A)	Circuitry	Description	Ckt			
P1:1	LTG - 101-111	1/2"C,1#12,#12N,#12G	20	12 54				20	1/2"C,1#12,#12N,#12G	RCPT - Fitness 104	P1::			
P1:3	LTG - Elevator Pit	1/2"C,1#12,#12N,#12G	20		24 18			20	1/2"C,1#12,#12N,#12G	RCPT - Fitness 104	P1:4			
P1:5	LTG - Parking Lot	3/4"C,1#8,#8N,#8G	20			10 18		20	1/2"C,1#12,#12N,#12G	RCPT - Fitness 104	P1:			
P1:7	LTG - Landscape	3/4"C,1#12,#12N,#12G	20	14 18				20	1/2"C,1#12,#12N,#12G	RCPT - Fitness 104	P1:			
P1:9	LTG - Monument Sign	3/4"C,1#12,#12N,#12G	20		22 18			20	1/2"C,1#12,#12N,#12G	RCPT - Fitness 104	P1:1			
P1:11	LTG - Exterior Entries	1/2"C,1#12,#12N,#12G	20			18 18		20	1/2"C,1#12,#12N,#12G	RCPT - Fitness 104	P1:1			
P1:13	LTG - Facade	1/2"C,1#12,#12N,#12G	20	48 36				20	1/2"C,1#12,#12N,#12G	RCPT - IT 108	P1:1			
P1:15	LTG - 1st Floor Hall	1/2"C,1#12,#12N,#12G	20		72 36			20	1/2"C,1#12,#12N,#12G	RCPT - IT 108	P1:1			
P1:17	Exterior Lighting Controls	1/2"C,1#12,#12N,#12G	20			50 18		20	1/2"C,1#12,#12N,#12G	RCPT - Elevator Pit	P1:1			
P1:19	RCPT - Exterior	1/2"C,1#12,#12N,#12G	20	90 36				20	1/2"C,1#12,#12N,#12G	Fireplace	P1:2			
P1:21	RCPT - Community 101	1/2"C,1#12,#12N,#12G	20		18 36			20	1/2"C,1#12,#12N,#12G	Elevator Sump Pump Control Panel	P1:2			
P1:23	RCPT - 101, 103, 106	1/2"C,1#12,#12N,#12G	20			12 18		20	1/2"C,1#12,#12N,#12G	Elevator Sump Pump	P1:2			
P1:25	RCPT - Office 102	1/2"C,1#12,#12N,#12G	20	90 18				20	1/2"C,1#12,#12N,#12G	Electric Water Cooler	P1:20			
P1:27	RCPT - Refrigerator	1/2"C,1#12,#12N,#12G	20		18 15			20	1/2"C,1#12,#12N,#12G	EWH-1 Vestibule	P1:2			
P1:29	RCPT - Countertop	1/2"C,1#12,#12N,#12G	20			36 15		00	4/0110 0440 4400	EMILO EisalOssiallas Dassa	P1:3			
P1:31	RCPT - Microwave	1/2"C,1#12,#12N,#12G	20	18 15				20	1/2"C,2#10,#10G	EWH-2 - Fire/Sprinkler Room	P1:3			
P1:33	RCPT - Dishwasher	1/2"C,1#12,#12N,#12G	20		18 10			00	4/0110 0440 4400	EVAULT 2 Obein 00	P1:3			
P1:35	RCPT - 107, 109, 111	1/2"C,1#12,#12N,#12G	20			54 10		20	1/2"C,2#12,#12G	EWH-3 - Stair S2	P1:3			
P1:37	RCPT - Hall 113	1/2"C,1#12,#12N,#12G	20	10 10				20	1/0110 0440 4400	EVAULA Chain CA	P1:3			
P1:39	Entry Access Controls	1/2"C,1#12,#12N,#12G	20		36 10			20	1/2"C,2#12,#12G	EWH-4 - Stair S1	P1:4			
P1:41	RCPT - Fire/Sprinkler	1/2"C,1#12,#12N,#12G	20			18 22		20	1/2"C,2#10,#10G	HWH-B	P1:4			
P1:43	Fire Sprinkler Flow Switches	1/2"C,1#12,#12N,#12G	20 L	36 22				30	1/2 C,2#10,#10G	מ-חיזים	P1:4			
P1:45	Fire Alarm Control Panel	1/2"C,1#12,#12N,#12G	20 L		36 11			20	1/2"C,1#12,#12N,#12G	Hot Water Recirc. Pump	P1:4			
P1:47 P1:49	EWH-5 - E. Hall 113	1/2"C,2#12,#12G	20	10 29		10 29		40	1/2"C,2#8,#10G	BC-2 - Hall 113/Fitness	P1:4 P1:5			
P1:51 P1:53	EWH-6 - E. Hall 113	1/2"C,2#12,#12G	20		10 36	10 36		50	3/4"C,2#6,#10G	BC-3 - Community/Office	P1:5			
P1:55	Spare		20	0 VA						Space	P1:5			
P1:57	Spare		20		0 VA					Space	P1:5			
P1:59	Spare		20			0 VA				Space	P1:60			

1 1.00	Oparo								0 171					_   Opace
			nected L				_		_	7 VA .5 A				
De	esignation: P2						-							
	Installed Location: Mech 203  Voltage: 208Y/120 3PH 4W-3Ph-4V  Mounting: Surface  Enclosure: NEMA 1	V		M	Bus An CB An Featur Iificatio	mps:	MLO		INTE	GRAL SI	URG	E PRO	TECTION	SCCR/AIC: 22.0 kA Mains FN/Note: -
Ckt	Description	Circuitry	Trip (A)	FN	-	4	ı	В	(	C F	FN	Trip (A)	Circuitry	Description
P2:1	LTG - 2nd Floor	1/2"C,1#12,#12N,#12G	20		94	36					L	20	1/2"C,1#12,#12N,#12G	Elevator Cab Lights
P2:3	RCPT - 2nd Floor Hall	1/2"C,1#12,#12N,#12G	20				10	36			L	20	1/2"C,1#12,#12N,#12G	Elevator Shunt Trip
P2:5	RCPT - 2nd Floor Sitting/Lobby	1/2"C,1#12,#12N,#12G	20						90	29		40	1/2"C,2#8,#10G	'BC-1' - Mech 203
D0.7	DODT 0  Flace Talacases	4 10110 4 H 4 0 H 4 0 N 1 H 4 0 O	1 00	1	100	100							1,2 0,2,0,1100	20 1 1010011 200

	Description	Circuitry	Trip (A)	FN	N A B		3	C	;	FN	Trip (A)	Circuitry	Description	Ckt		
ı	LTG - 2nd Floor	1/2"C,1#12,#12N,#12G	20		94	36					L	20	1/2"C,1#12,#12N,#12G	Elevator Cab Lights	P2:2	
3	RCPT - 2nd Floor Hall	1/2"C,1#12,#12N,#12G	20				10				L	20	1/2"C,1#12,#12N,#12G	Elevator Shunt Trip	P2:4	
5	RCPT - 2nd Floor Sitting/Lobby	1/2"C,1#12,#12N,#12G	20						90	29		40	1/2"C,2#8,#10G	'BC-1' - Mech 203	P2:6	
7	RCPT - 2nd Floor Telecom	1/2"C,1#12,#12N,#12G	20		36	29						40	1/2 C,2#6,#10G	BC-1 - Mech 203	P2:8	
)	RCPT - 2nd Floor Telecom	1/2"C,1#12,#12N,#12G	20				36						ı	Space	P2:10	
1	Spare	-	20						0 VA				ı	Space	P2:12	
3	Spare	-	20		0 VA								ŀ	Space	P2:14	
5	Spare	-	20			0		) VA					1	Space	P2:16	
7	Space	-											1	Space	P2:18	
9	Space	-											-	Space	P2:20	
1	Space	-											1	Space	P2:22	
3	Space												ı	Space	P2:24	
Connected Load							1800	AV C	3800	) VA						
Connected Amps				mps:	40.	6 A	15.	0 A	34.	2 A						

4809 Vue Du Lac Place, Suite 201 125 S. Washington, Suite 150 01/31/2025

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SHEET NO .:

1 PHOTOMETRIC SITE PLAN E7.1 1" = 20'-0"

