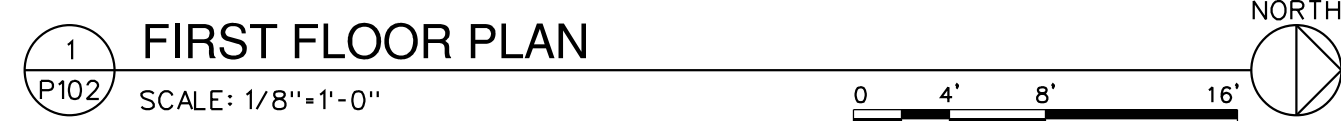
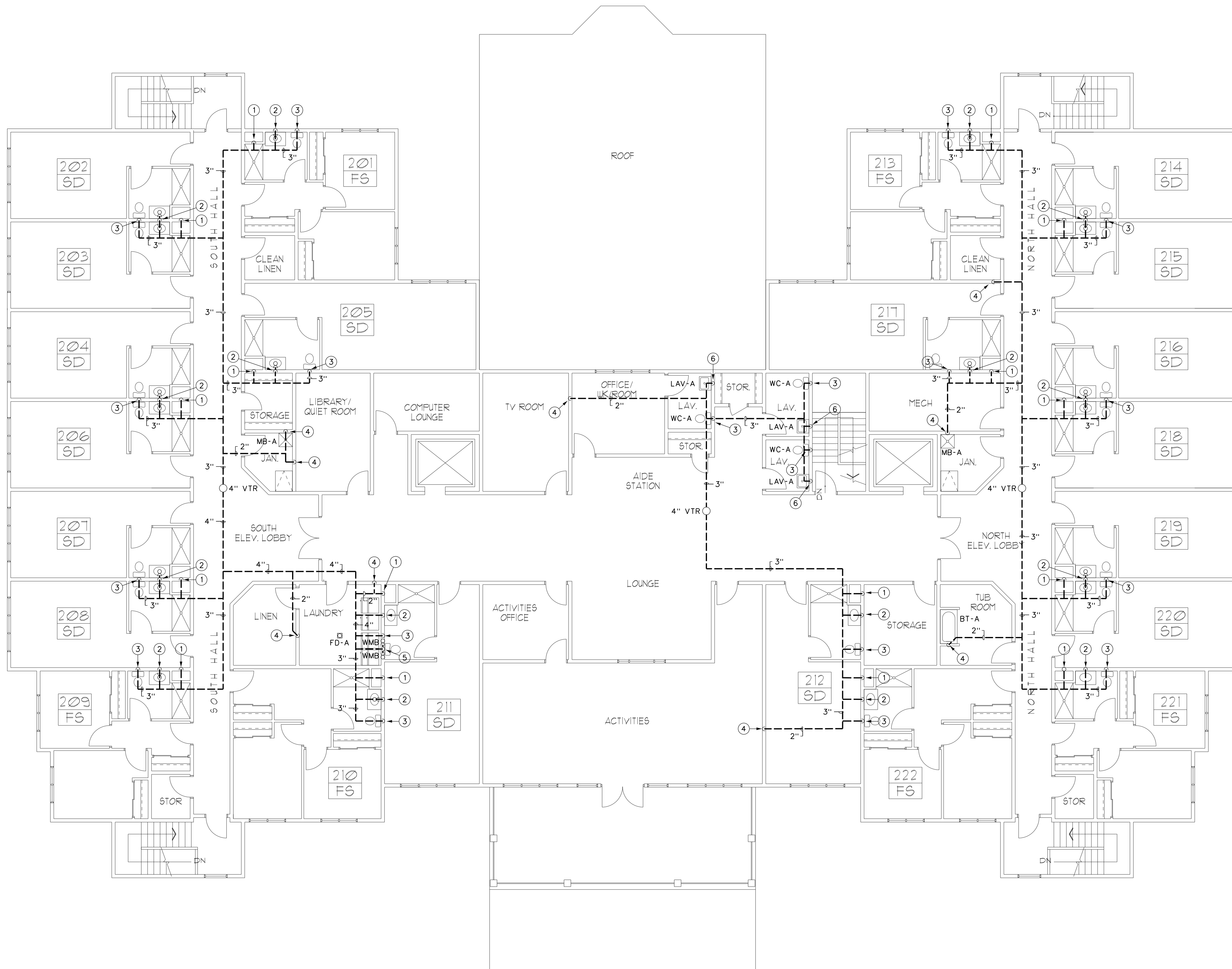




- ① 2" P-TRAP UP TO SHOWER.
- ② 2" WET VENT UP.
- ③ 2" WASTE UP TO VANITY SINK.
- ④ 4" ELBOW UP TO WALL CLEANOUT.
- ⑤ 3" SANITARY UP TO TOILET.
- ⑥ 3" WET VENT UP.
- ⑦ 4" UP TO DECK PLATE CLEANOUT.
- ⑧ 4" 45° ELBOWS, DROP DOWN BELOW BASEMENT FLOOR.
- ⑨ 3" SANITARY UP TO 2ND FLOOR.
- ⑩ 3" P-TRAP UP TO MOP SINK.
- ⑪ 2" VENT UP.
- ⑫ 3" P-TRAP UP TO FLOOR DRAIN.
- ⑬ 3" ELBOW UP, TRANSITION TO 2" ABOVE SLAB.
- ⑭ 3" ELBOW UP TO WALL CLEANOUT.
- ⑮ 4" INLET AND OUTLET AT LINT TRAP, PROVIDE EXTENSION AS NECESSARY TO MAKE LID FLUSH WITH FINISH FLOOR SURFACE. SEE X/PX FOR DETAIL.
- ⑯ 4" STANDPIPE FOR ELEVATOR SUMP PUMP DISCHARGE, SEE X/PX.
- ⑰ 2" WASTE UP TO SINK.
- ⑱ 4" P-TRAP UP TO FLOOR DRAIN, 2" VENT UP.
- ⑲ 6" UP TO YARD CLEANOUT, SEE X/PX FOR DETAIL.
- ⑳ 6" SANITARY OUT 5' FROM FOUNDATION, CONTINUED BT SITE CONTRACTOR. SEE SITE PLANS FOR CONTINUATION.
- ㉑ 4" P-TRAP UP TO HUB DRAIN FOR DISHWASHER.
- ㉒ 4" P-TRAP UP TO HUB DRAIN FOR 3 BAY SINK.
- ㉓ GREASE TRAP RECESSED IN FLOOR. PROVIDE LID EXTENSION AS NECESSARY.
- ㉔ 2" WASTE UP TO GARBAGE DISPOSAL.
- ㉕ 3" P-TRAP UP TO CONVECTION OVER FLOOR SINK.

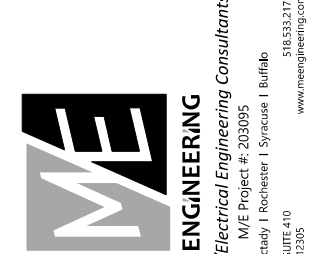




1 SECOND FLOOR PLAN
P103 SCALE: 1/8"=1'-0" 0 4' 8' 16' NORTH

- GENERAL NOTES:**
- A. ALL PIPING IS ABOVE THE CEILING UNLESS OTHERWISE INDICATED.
 - B. EXISTING PIPING SHOWN HAS BEEN TAKEN FROM AVAILABLE REFERENCE DRAWINGS AND LIMITED SITE VISITS. CONTRACTOR IS ADVISED TO VISIT SITE BEFORE BIDDING, STARTING WORK, OR ORDERING MATERIALS.
 - C. ALL PIPING SHALL BE INSTALLED CONCEALED UNLESS OTHERWISE INDICATED.
 - D. COORDINATE ALL WORK WITH OTHER TRADES PRIOR TO BEGINNING WORK.
 - E. ALL SANITARY PIPING SHALL SLOPE AT MINIMUM 1%.
 - F. ALL STORM PIPING SHALL SLOPE AT MINIMUM 2% UNLESS OTHERWISE NOTED.
 - G. PROVIDE LINK SEAL SEALING SLEEVES AT ALL LOCATIONS WHERE PIPING PENETRATES EXTERIOR WALLS AND FLOOR SLABS ON GRADE.

- DRAWING NOTES:**
- ① 2" WET VENT UP AND DOWN FROM SHOWERS.
 - ② 2" WASTE DOWN, 2" VENT UP, 1-1/2" CONN. TO VANITY SINK(S).
 - ③ 3" VENT UP FROM TOILET STACK.
 - ④ 2" VENT UP.
 - ⑤ 2" P-TRAP TO WASHING MACHINE BOX, 2" WASTE DOWN, 2" VENT UP. SEE X/PX FOR DETAIL.
 - ⑥ 2" WASTE DOWN, 2" VENT UP, 1-1/2" TO SINK.



ME
ENGINEERING
Mechanical/Electrical Engineering Consultants
ME Project # 20095
Schematic Design
10/15/2017
10/15/2017

DATE: 9/18/2020
REVISION:

PROJECT NO: 20095
DESIGNED BY: MUC
DRAWN BY: MUC
CHECKED BY: RSA
SCALE: AS NOTED
NOTES:

SECOND FLOOR
SANITARY PLAN

HARRIS A. SANDERS
ARCHITECTS, P.C.
252 WASHINGTON AVENUE, ALBANY, NEW YORK 12210

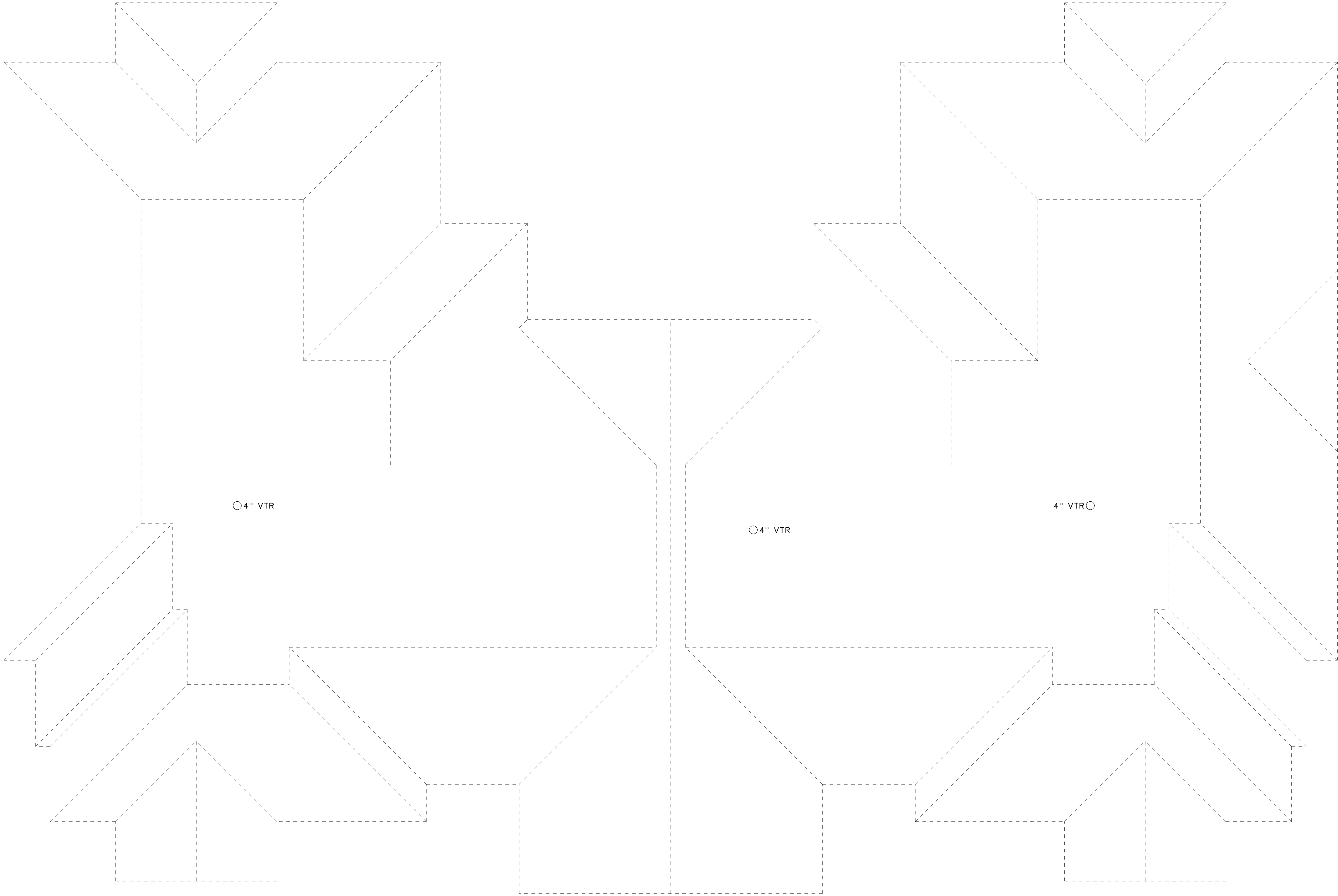
L'DOR ADULT CARE FACILITY
156 WEST CLARKSTOWN ROAD
NEW CITY, N.Y. 10956



STATE OF NEW YORK
MICHAEL R. SULLIVAN
077887-1
PROFESSIONAL ENGINEER

SHEET NO:
P103

BID SET 9-18-20



GENERAL NOTES:

- A. ALL PIPING IS ABOVE THE CEILING UNLESS OTHERWISE INDICATED.
- B. ALL PIPING SHALL BE INSTALLED CONCEALED UNLESS OTHERWISE INDICATED.
- C. COORDINATE ALL WORK WITH OTHER TRADES PRIOR TO BEGINNING WORK.
- D. ALL SANITARY PIPING SHALL SLOPE AT MINIMUM 1%.
- E. ALL STORM PIPING SHALL SLOPE AT MINIMUM 2% UNLESS OTHERWISE NOTED.
- F. PROVIDE LINK SEAL SEALING SLEEVES AT ALL LOCATIONS WHERE PIPING PENETRATES EXTERIOR WALLS AND FLOOR SLABS ON GRADE.

DRAWING NOTES:

- 1 2" WET VENT
- 2



DATE: 9/18/2020
REVISION:

PROJECT NO. 2020095
DESIGNED BY: MJC
DRAWN BY: MJC
CHECKED BY: PCA
SCALE: AS NOTED
NOTES:

ROOF PLAN

HARRIS A. SANDERS
ARCHITECTS, P.C.
252 WASHINGTON AVENUE, ALBANY, NEW YORK 12210
L'DOR ADULT CARE FACILITY
156 WEST CLARKSTOWN ROAD
NEW CITY, N.Y. 10956

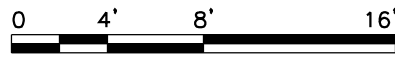


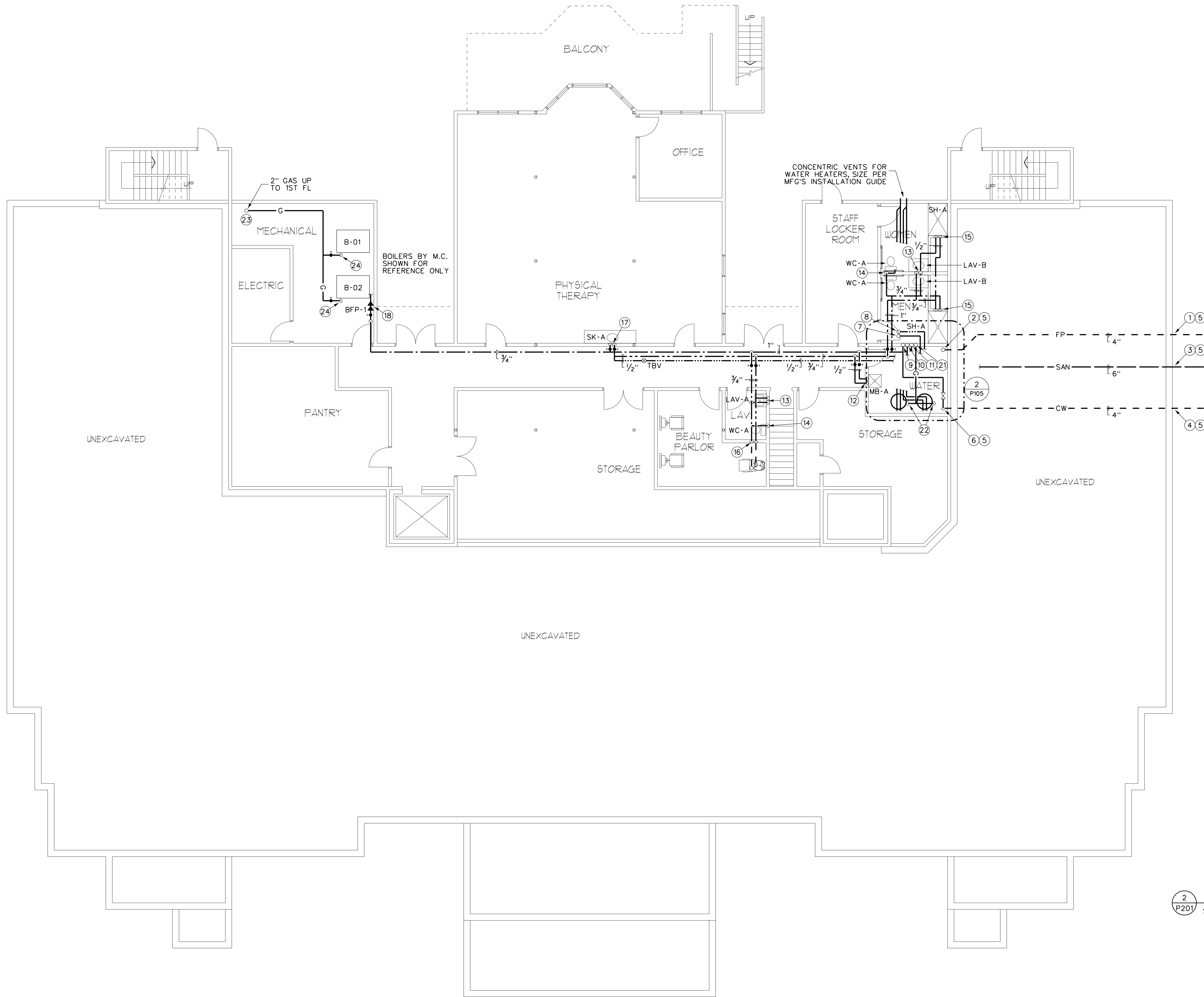
SHEET NO.

P104

1
P104

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





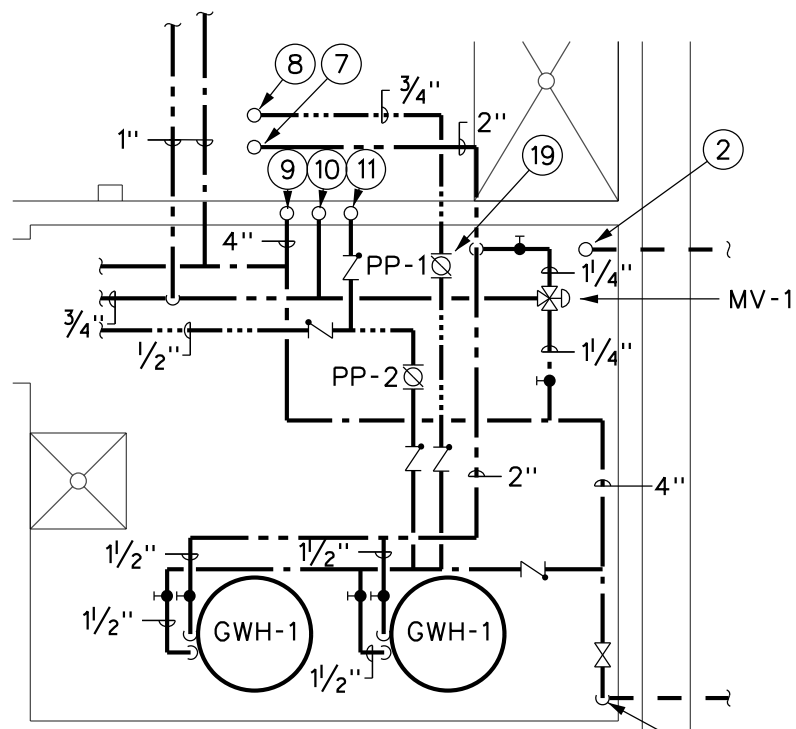
1 BASEMENT FLOOR PLAN
SCALE: 1/8"=1'-0"

GENERAL NOTES:

- ALL PIPING IS ABOVE THE CEILING UNLESS OTHERWISE INDICATED.
- ALL PIPING SHALL BE INSTALLED CONCEALED UNLESS OTHERWISE INDICATED.
- COORDINATE ALL WORK WITH OTHER TRADES PRIOR TO BEGINNING WORK.
- ALL SANITARY PIPING SHALL SLOPE AT MINIMUM 1%.
- ALL STORM PIPING SHALL SLOPE AT MINIMUM 2% UNLESS OTHERWISE NOTED.
- PROVIDE LINK SEAL SEALING SLEEVES AT ALL LOCATIONS WHERE PIPING PENETRATES EXTERIOR WALLS AND FLOOR SLABS ON GRADE.

DRAWING NOTES:

- 4" FIRE PROTECTION MAIN, MAINTAIN 5' LATERAL SEPERATION FROM SEWER.
- 4" FIRE PROTECTION MAIN RISER UP, PROVIDE GATE VALVE IN RISER. CONTINUED BY FP CONTRACTOR.
- 6" SANITARY MAIN, MAINTAIN 5' LATERAL SEPERATION FROM WATER.
- 4" DOMESTIC WATER MAIN, MAINTAIN 5' LATERAL SEPERATION FROM SEWER.
- SEAL PENETRATION WATERTIGHT.
- 4" WATER MAIN RISER UP, PROVIDE GATE VALVE.
- 2" 140° HOT WATER UP.
- 3/4" 140° HOT WATER RETURN UP.
- 3" DOMESTIC COLD WATER UP.
- 3" 125° HOT WATER UP.
- 1" 125° HOT WATER RETURN UP.
- 1/2" CW, 1/2" HW DROP DOWN TO MOP SINK.
- 1/2" CW, 1/2" HW DROP DOWN TO LAVATORY.
- 1/2" CW DROP DOWN TO TOILET.
- 1/2" CW, 1/2" HW DROP DOWN TO SHOWER MIX VALVE.
- 1/2" CW, 1/2" HW DROP DOWN BELOW SLAB TO HAIR SINK. INSULATE PIPING BELOW SLAB WITH 1" WALL CLOSED CELL INSULATION.
- 1/2" CW, 1/2" HW DROP DOWN TO SINK.
- 3/4" CW BOILER MAKEUP WATER WITH BACKFLOW PREVENTER. SEE DETAIL 6/P601.
- PP-1 140° HOT WATER RETURN PUMP.
- PP-2 125° HOT WATER RETURN PUMP.
- 1-1/4" GAS DOWN FROM 1ST FLOOR TO WATER HEATERS.
- 1" GAS DROP TO WATER HEATER, PROVIDE UNION, DIRT LEG AND ISOLATION VALVE. SEE DETAIL 3/P601.
- 2" GAS DOWN FROM FIRST FLOOR.
- 1-1/4" GAS DROP TO BOILER, PROVIDE UNION, DIRT LEG, AND ISOLATION VALVE. SEE DETAIL 3/P601.



2 ENLARGED WATER ROOM
SCALE: 1/4"=1'-0"

BASEMENT DOMESTIC WATER
AND NATURAL GAS PLAN

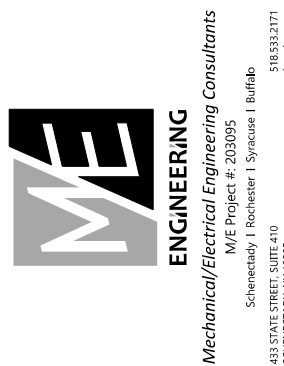
HARRIS A. SANDERS
ARCHITECTS, P.C.
252 WASHINGTON AVENUE, ALBANY, NEW YORK 12210
L'DOR ADULT CARE FACILITY
156 WEST CLARKSTOWN ROAD
NEW CITY, N.Y. 10956

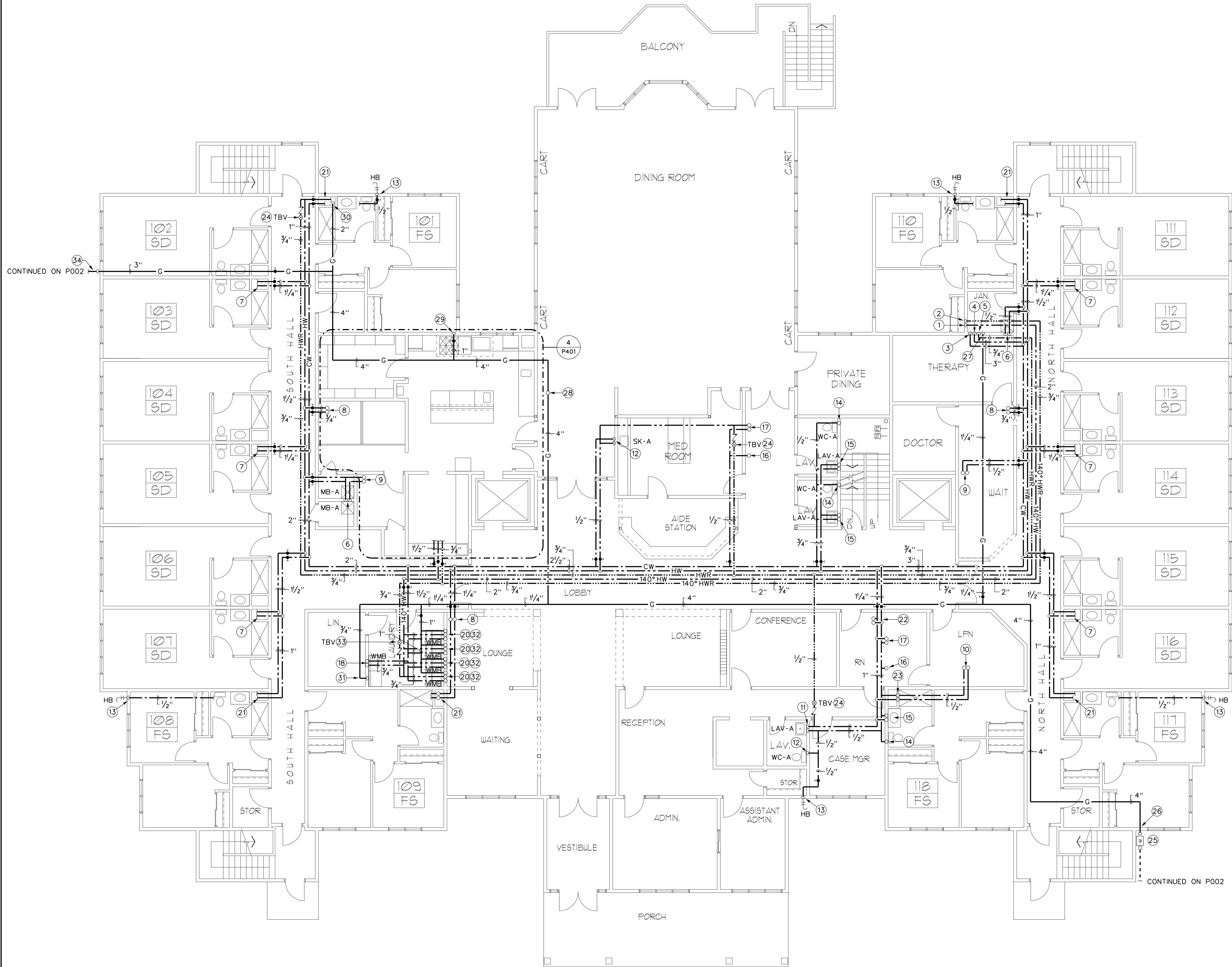


P201

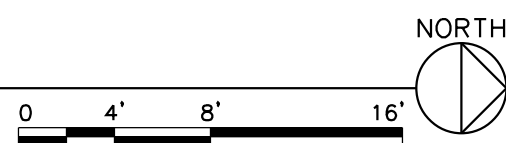
PROJECT NO.	DESIGNED BY	DRAWN BY	CHECKED BY	SCALE	AS NOTED
200095	MUC	MUC	PSA		

DATE: 9/18/2020
REVISION:





1 FIRST FLOOR PLAN
P202 SCALE: 1/8"=1'-0"

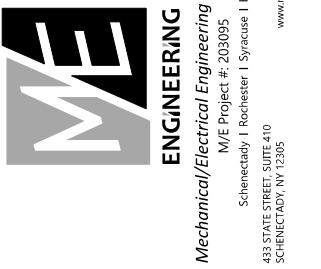


GENERAL NOTES:

- ALL PIPING IS ABOVE THE CEILING UNLESS OTHERWISE INDICATED.
- ALL PIPING SHALL BE INSTALLED CONCEALED UNLESS OTHERWISE INDICATED.
- COORDINATE ALL WORK WITH OTHER TRADES PRIOR TO BEGINNING WORK.
- ALL SANITARY PIPING SHALL SLOPE AT MINIMUM 1%.
- ALL STORM PIPING SHALL SLOPE AT MINIMUM 2% UNLESS OTHERWISE NOTED.
- PROVIDE LINK SEAL SEALING SLEEVES AT ALL LOCATIONS WHERE PIPING PENETRATES EXTERIOR WALLS AND FLOOR SLABS ON GRADE.

DRAWING NOTES:

- 2" 140° HOT WATER UP FROM BELOW.
- 3/4" 140° HOT WATER RETURN UP FROM BELOW.
- 3" DOMESTIC COLD WATER UP FROM BELOW.
- 3" 130° HOT WATER UP FROM BELOW.
- 3/4" 120° HOT WATER RETURN UP FROM BELOW.
- 1/2" CW AND 1/2" HW DOWN TO MOP SINK.
- 3/4" CW AND 3/4" HW UP TO 2ND FL UNIT. SEE ENLARGED PLANS FOR CONTINUATION.
- 1/2" CW AND 1/2" HW UP TO MOP SINK.
- 1/2" CW AND 1/2" HW UP TO TUB.
- 1/2" CW AND 1/2" HW DOWN TO SINK.
- 1/2" CW DOWN TO TOILET.
- 1/2" CW DOWN TO HOSE BIBB.
- 1/2" CW UP AND DOWN TO TOILET.
- 1/2" CW AND 1/2" HW UP AND DOWN TO SINK.
- 1/2" CW UP TO TOILET.
- 1/2" CW AND 1/2" HW UP TO SINK.
- 3/4" CW AND 3/4" HW DOWN TO WASHING MACHINE BOX.
- NOT USED.
- 1/2" CW AND 1/2" HW UP AND DOWN TO WASHING MACHINE BOX. SEE DETAIL 3/P602.
- 1" HW AND 1" CW INTO CHASE. ROUTE 3/4" CW AND 3/4" HW INTO 1ST FL UNITS AND UP TO 2ND FL UNITS. SEE ENLARGED PLANS FOR CONTINUATION.
- 1/2" CW AND 1/2" HW UP TO SHOWER.
- 1/2" CW AND 1/2" HW UP AND DOWN TO SHOWER.
- THERMOSTATIC BALANCE VALVE, SET TO 120°F.
- UNDERGROUND GAS SERVICE AND METER, PROVIDED BY UTILITY COMPANY, TO PROVIDE 6,812 CFH AT 11" W.C. PRESSURE. P.C. TO PROVIDE REGULATOR IF SERVICE PRESSURE IS ABOVE 11" W.C.
- ROUTE PIPING UP EXTERIOR WALL, PENETRATE WALL BELOW SECOND FLOOR FLOOR JOISTS. SEAL PENETRATION WEATHERTIGHT.
- 1-1/4" GAS DROP DOWN TO BASEMENT FOR WATER HEATERS.
- 3" GAS RISE UP TO HVAC EQUIPMENT ON LOW ROOF.
- 1" GAS DROP DOWN TO RANGE. PROVIDE 1" DORMONT MOVEABLE FOODSERVICE GAS CONNECTOR WITH SWIVEL ENDS.
- 2" GAS DROP DOWN TO BASEMENT FOR BOILERS.
- 3/4" GAS DROP DOWN TO DRYER, SEE DETAIL 4/P602.
- PROVIDE 3/4" TEE, 3/4" GAS DROP DOWN TO DRYER, 3/4" GAS RISER UP TO DRYER, SEE DETAIL 4/P602.
- LAUNDRY THERMOSTATIC BALANCE VALVE, SET TO 135°F.
- 3" GAS TO GENERATOR, PROVIDE ISOLATION VALVE AND SIGNAGE ON EXTERIOR WALL INDICATING GENERATOR GAS VALVE.



DATE: 9/18/2020
REVISION:

PROJECT NO. 2020095
DESIGNED BY: MUC
DRAWN BY: MUC
CHECKED BY: RSA
SCALE: AS NOTED
NOTES:

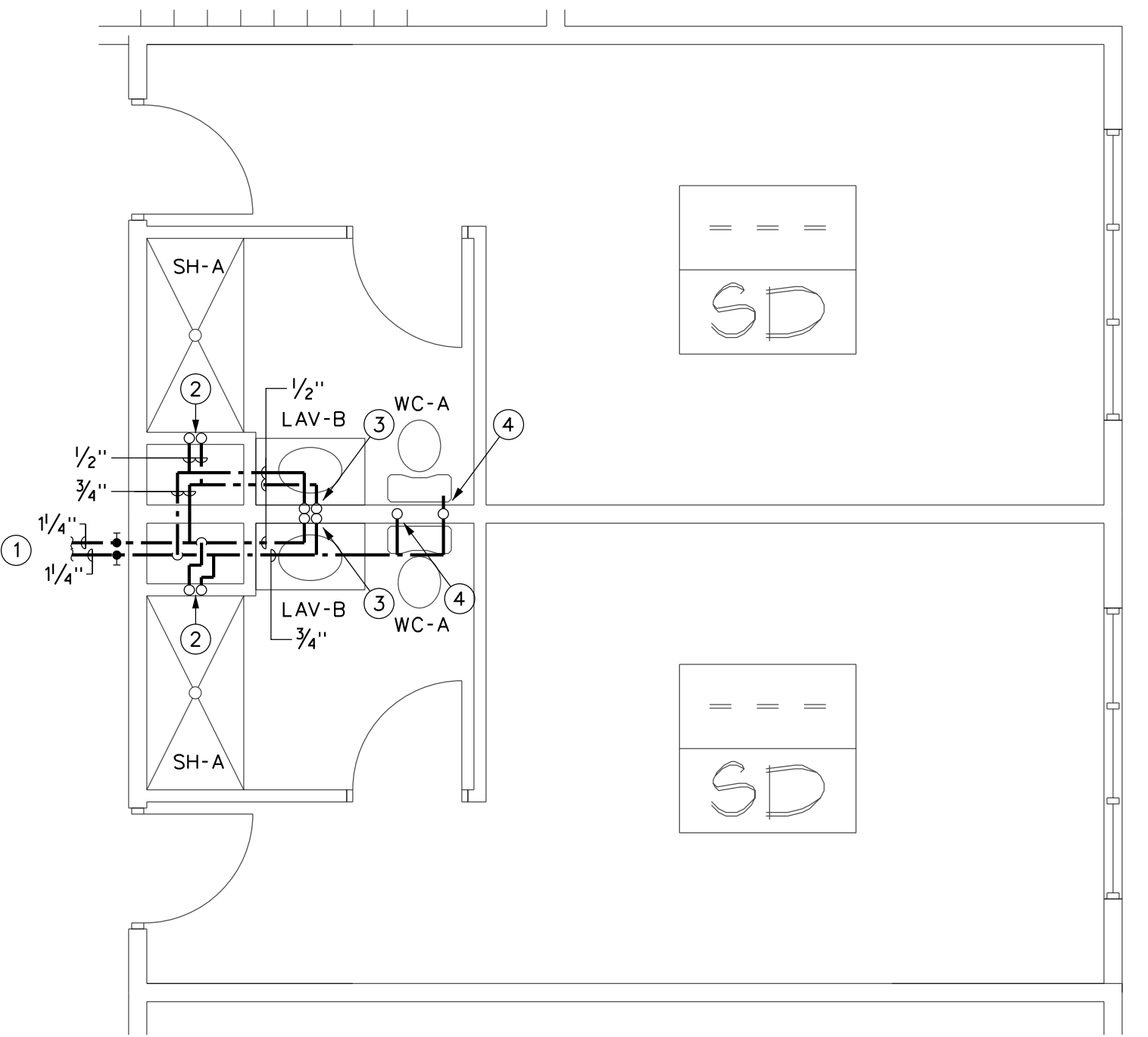
FIRST FLOOR DOMESTIC WATER
AND NATURAL GAS PLAN

HARRIS A. SANDERS
ARCHITECTS, P.C.
252 WASHINGTON AVENUE, ALBANY, NEW YORK 12210
L'DOR ADULT CARE FACILITY
156 WEST CLARKSTOWN ROAD
NEW CITY, N.Y. 10956

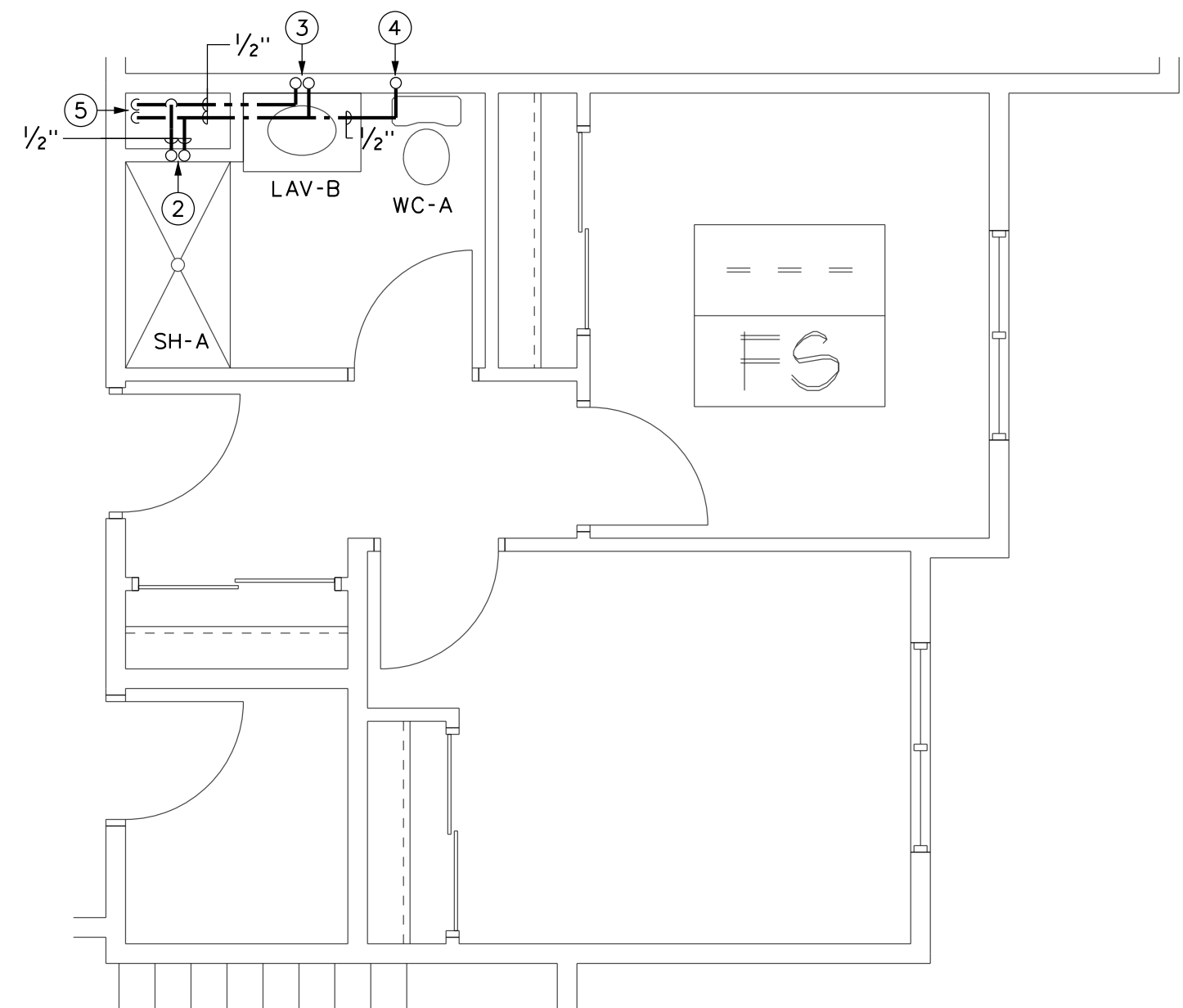


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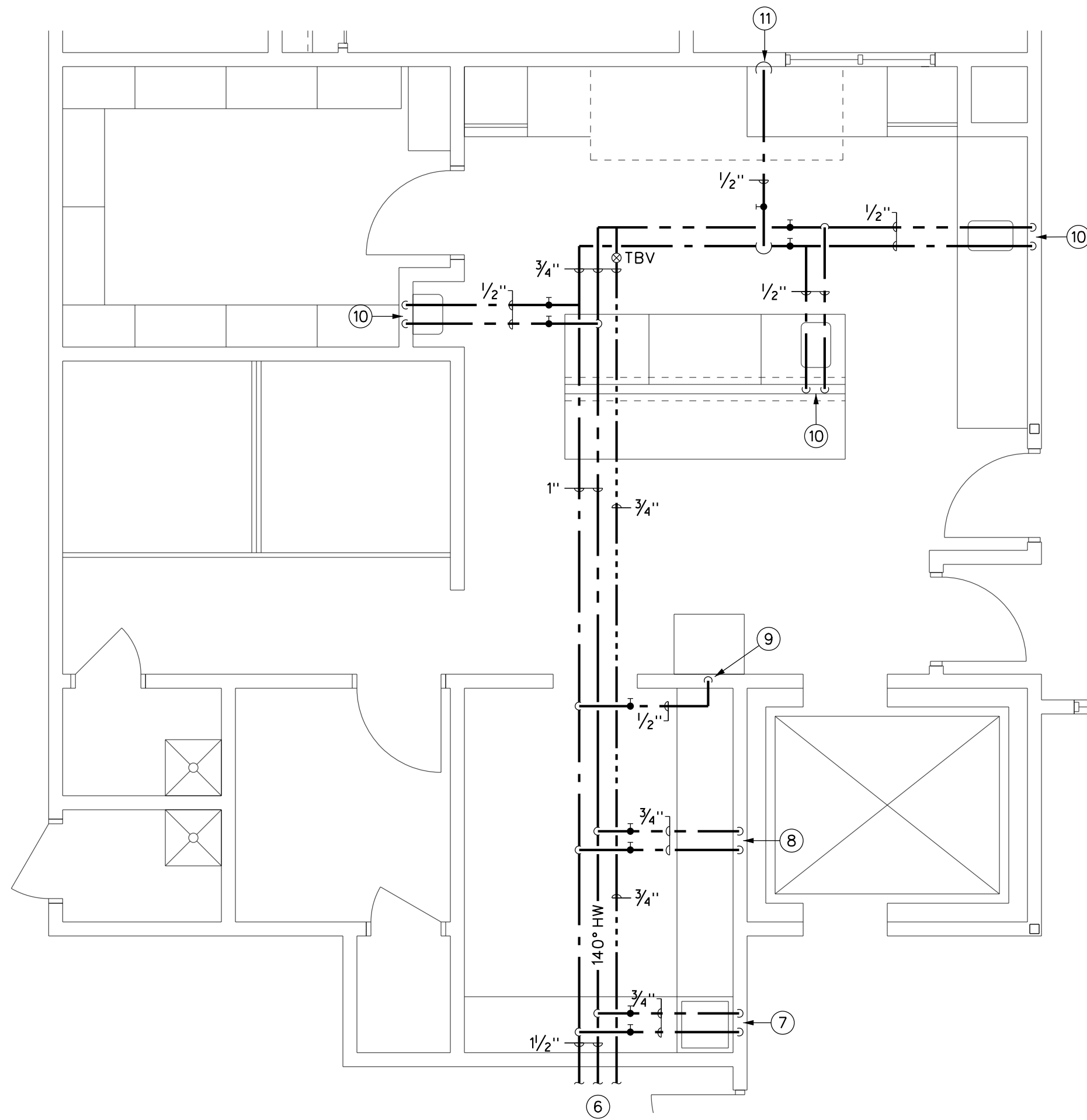
P202



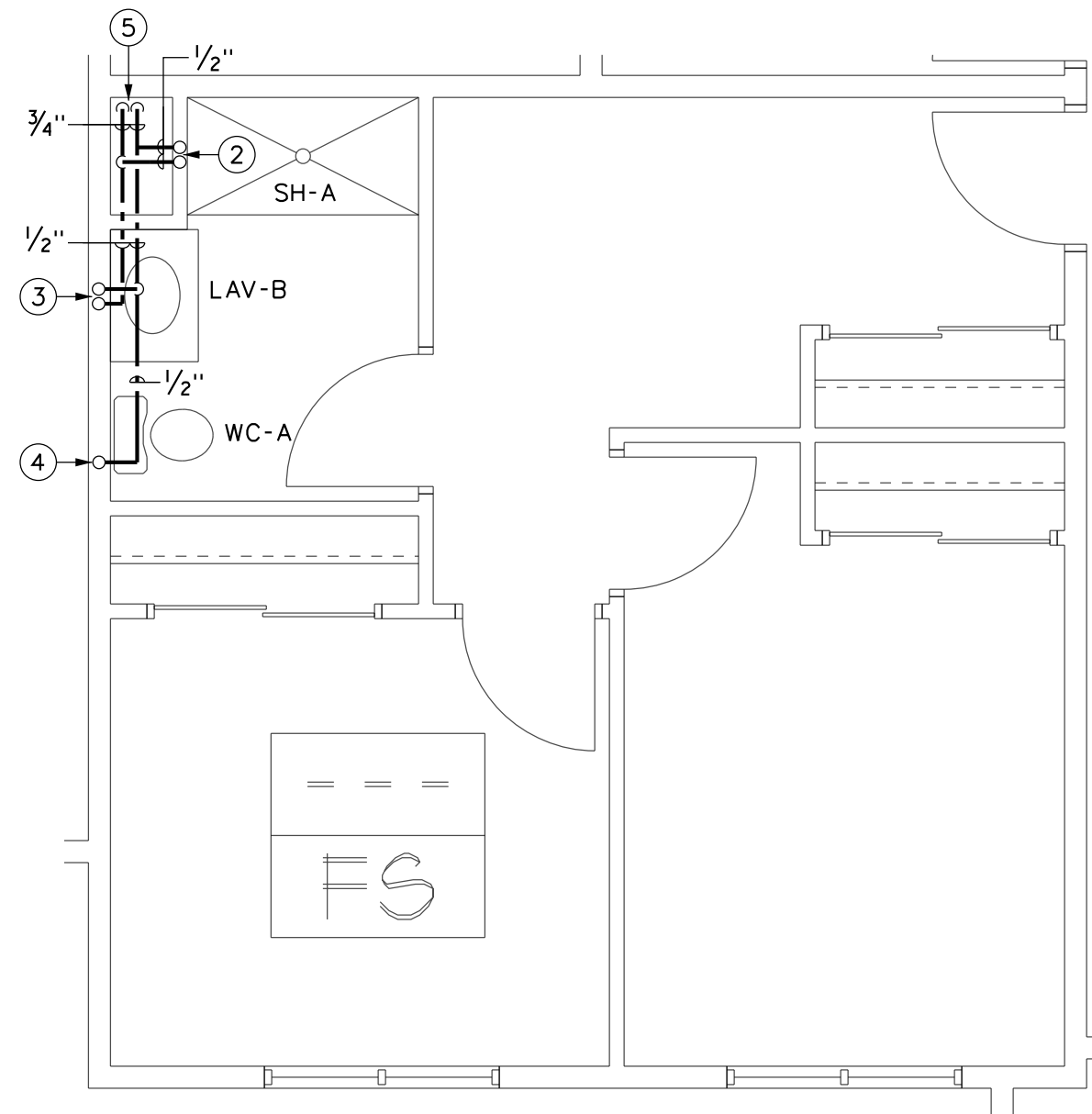
3 TYPICAL SHARED DOUBLE UNIT
P401 SCALE: 1/4"=1'-0" NORTH



1 TYPICAL TWO BEDROOM FRIENDSHIP SUITE "X"
P401 SCALE: 1/4"=1'-0" NORTH



4 ENLARGED KITCHEN PLAN
P401 SCALE: 1/4"=1'-0" NORTH



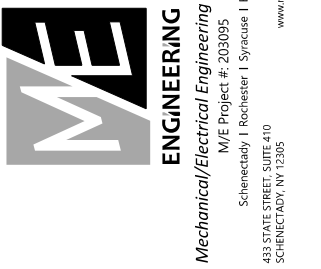
2 TYPICAL TWO BEDROOM FRIENDSHIP SUITE "X"
P401 SCALE: 1/4"=1'-0" NORTH

GENERAL NOTES:

- A. ALL PIPING IS AT OR ABOVE THE CEILING UNLESS OTHERWISE INDICATED.
- B. ALL PIPING SHALL BE INSTALLED CONCEALED UNLESS OTHERWISE INDICATED.
- C. COORDINATE ALL WORK WITH OTHER TRADES PRIOR TO BEGINNING WORK.

DRAWING NOTES:

- 1 1-1/4" CW AND HW FROM 1ST FL CORRIDOR.
- 2 1/2" CW AND HW UP AND DOWN TO SHOWER.
- 3 1/2" CW AND HW UP AND DOWN TO VANITY.
- 4 1/2" CW UP AND DOWN TO TOILET.
- 5 3/4" CW AND HW UP FROM 1ST FL.
- 6 1-1/2" CW, 1-1/2" 140°F HW AND 140°F HWR FROM CORRIDOR.
- 7 3/4" CW AND 3/4" 140°F HW DROP TO DISHWASHER.
- 8 3/4" CW AND 3/4" 140°F HW DROP TO 3 BAY SINK.
- 9 1/2" CW DROP DOWN TO ICEMAKER. PROVIDE FILTER, SEE DETAIL 6/P602.
- 10 1/2" CW AND 1/2" HW DROP TO HANDSINK, PROVIDE ASSE 1070 MIX VALVE SET TO 110°F.
- 11 1/2" CW DROP DOWN TO VEGETABLE STEAMER.



DATE: 9/18/2020
REVISION:

PROJECT NO. 2020095
DESIGNED BY: MUC
DRAWN BY: MUC
CHECKED BY: RSA
SCALE: AS NOTED
NOTES:

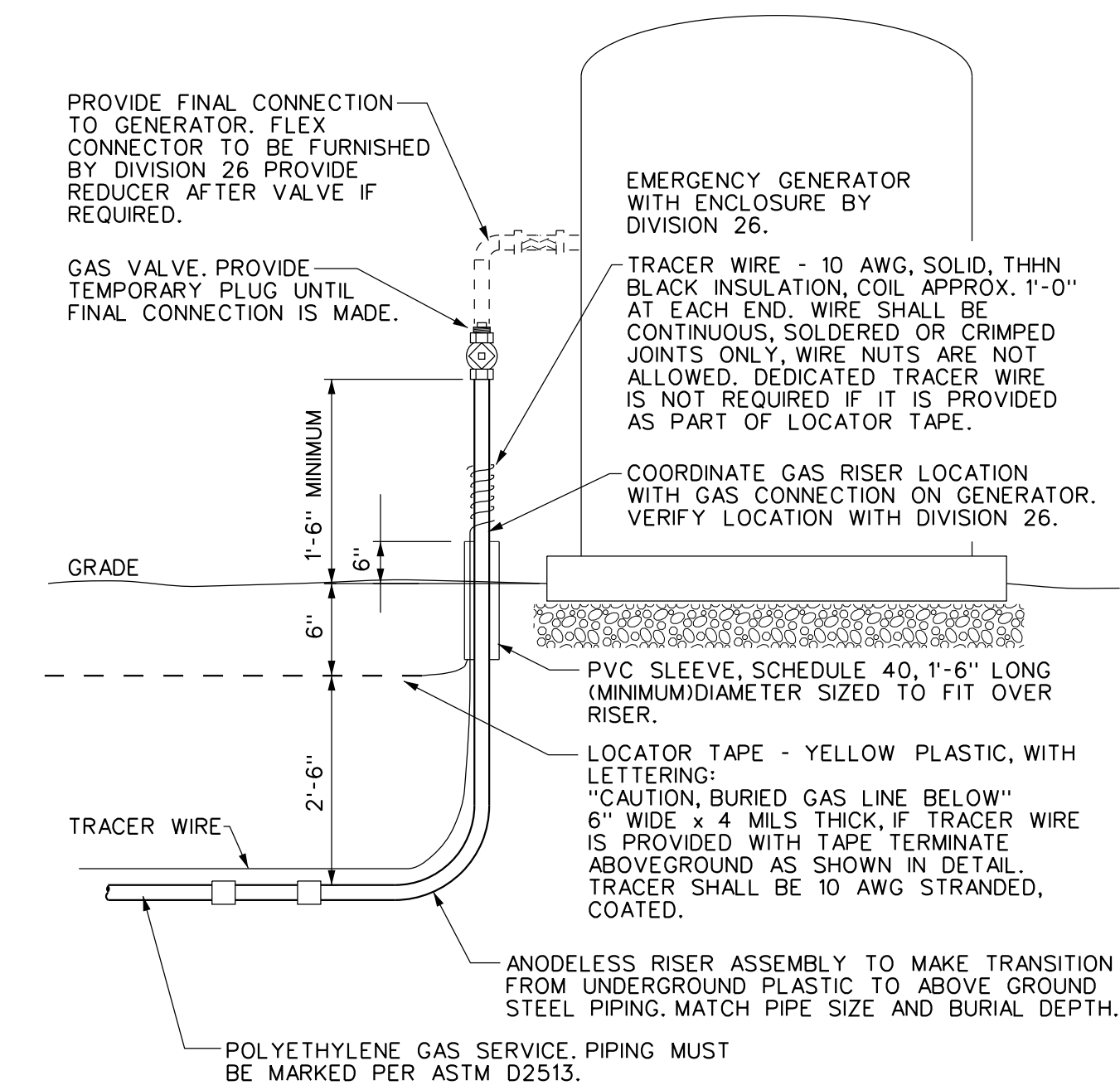
ENLARGED PLANS

HARRIS A. SANDERS
ARCHITECTS, P.C.
252 WASHINGTON AVENUE, ALBANY, NEW YORK 12210
L'DOR ADULT CARE FACILITY
156 WEST CLARKSTOWN ROAD
NEW CITY, N.Y. 10956



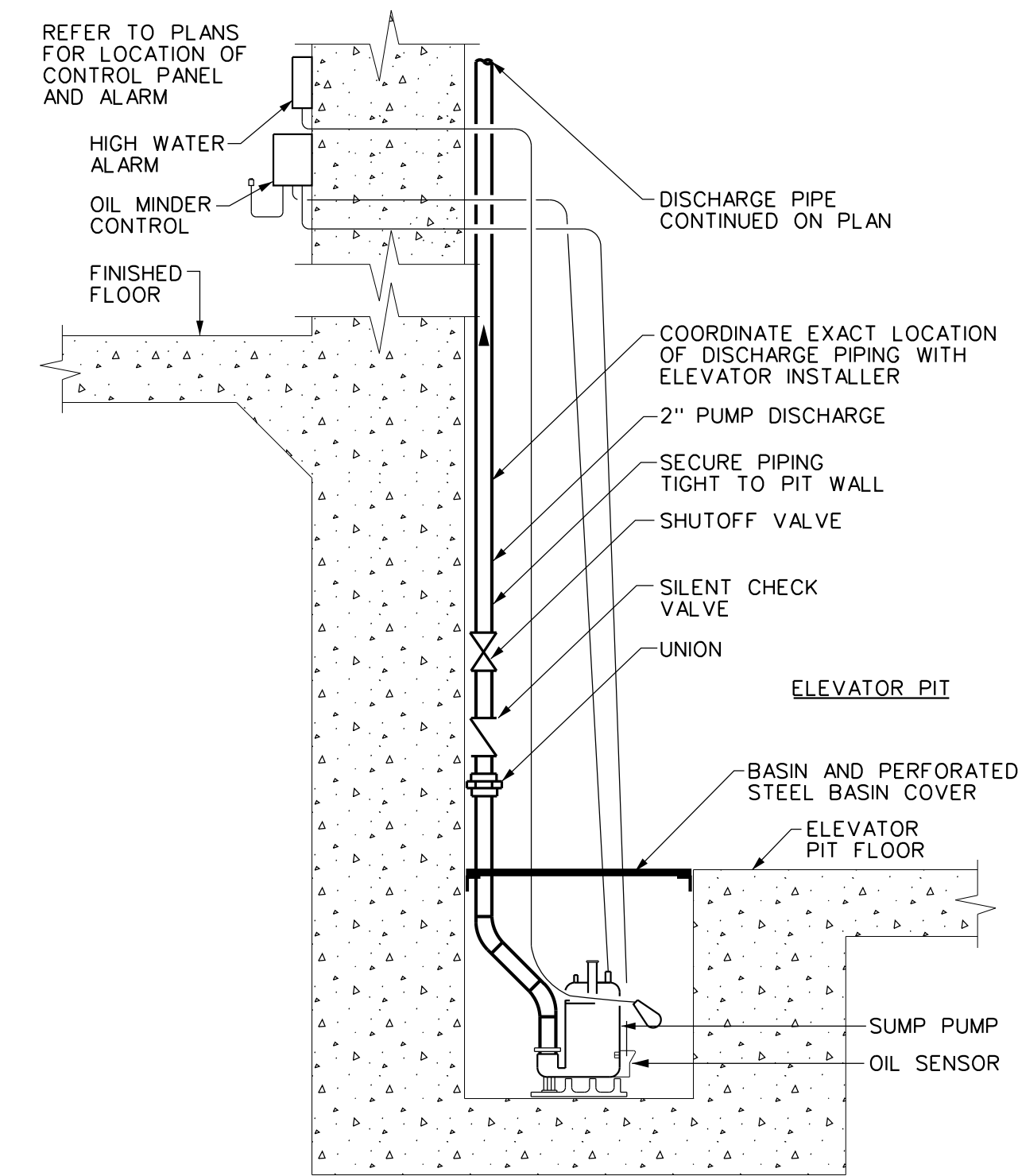
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P401

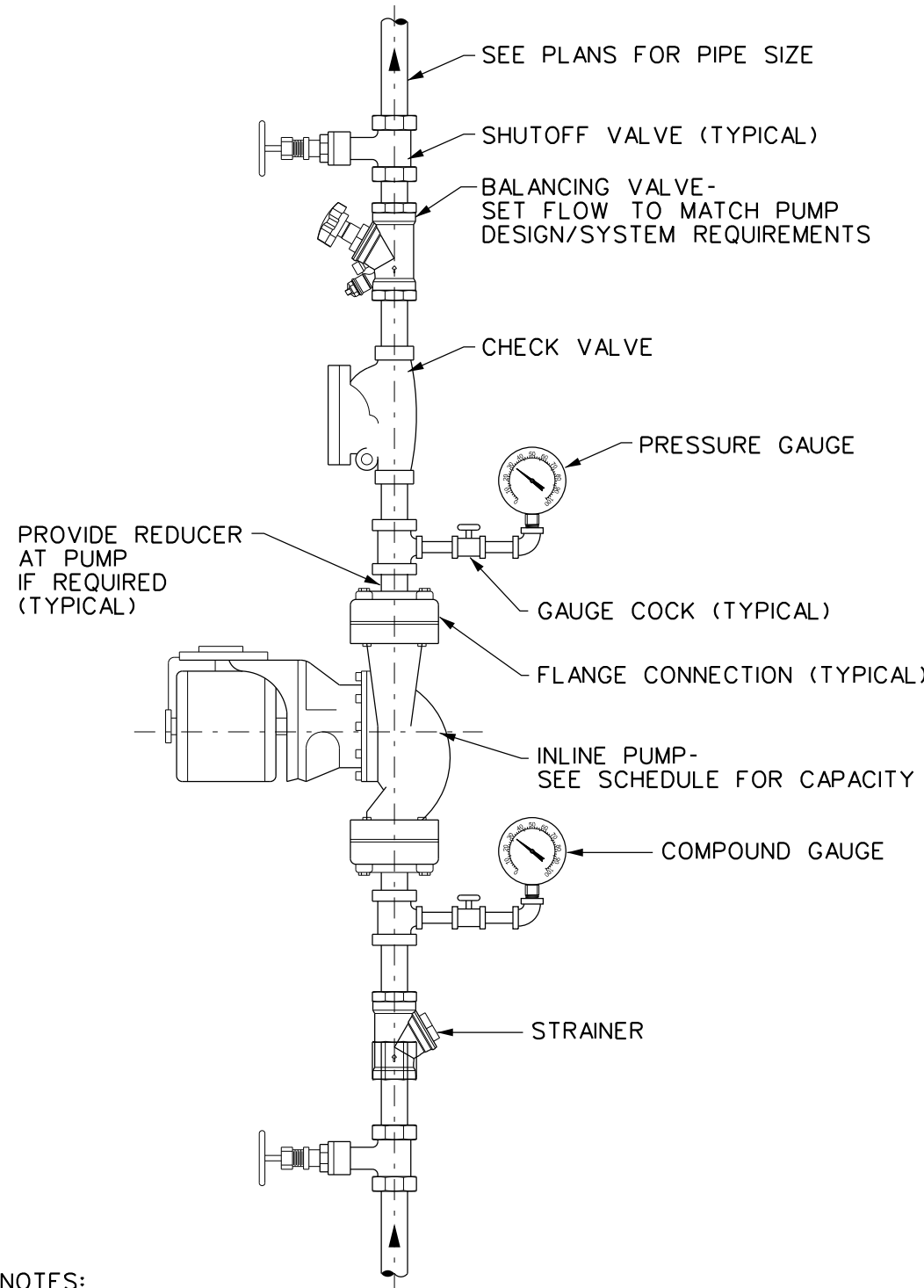


- DETAIL NOTES:
- PROVIDE AN ANODELESS RISER AT EACH LOCATION WHERE THE GAS PIPING PENETRATES THE SURFACE. EXTEND TRACER TO THE SURFACE AT EACH RISER.
 - COORDINATE PIPE AND CONDUIT ROUTING TO MINIMIZE TRENCHING.
 - PAINT ALL EXTERIOR GAS PIPING WITH ONE(1) PRIMER AND TWO(2) FINISH COATS OF COLOR SELECTED, AS SPECIFIED.

4
P601
GENERATOR, EXTERIOR - NATURAL GAS PIPING DETAIL
SCALE: NONE

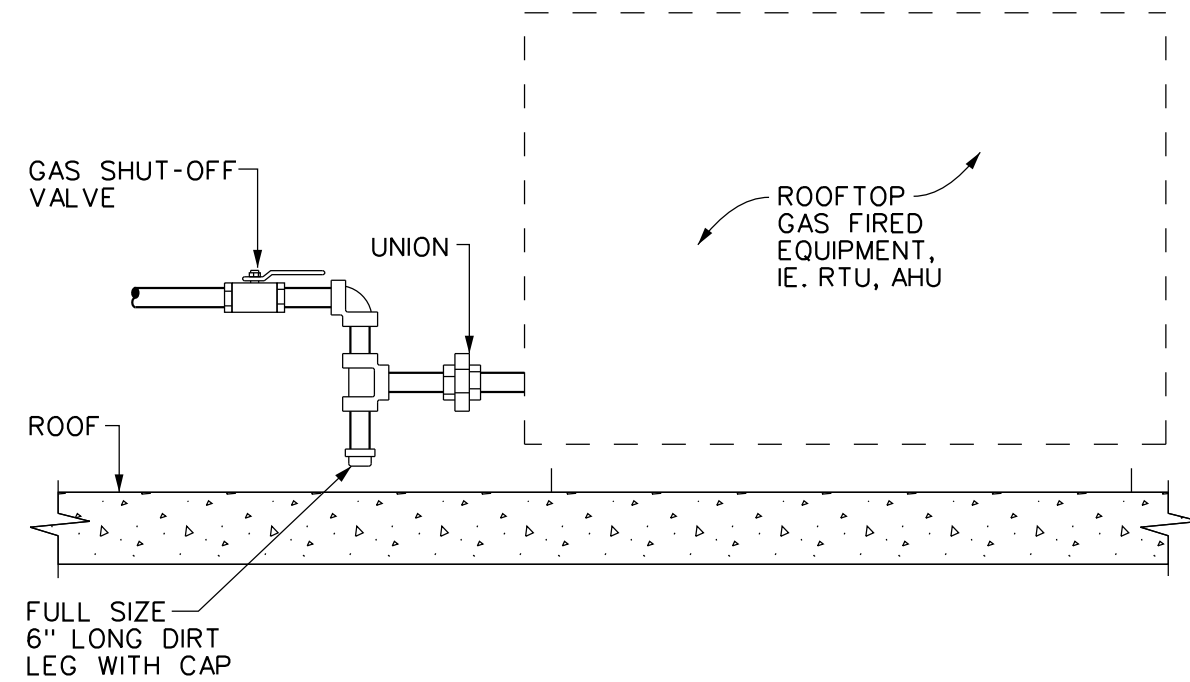


1
P601
ELEVATOR SUMP PUMP DETAIL
SCALE: NONE
BASIN IN SHAFT



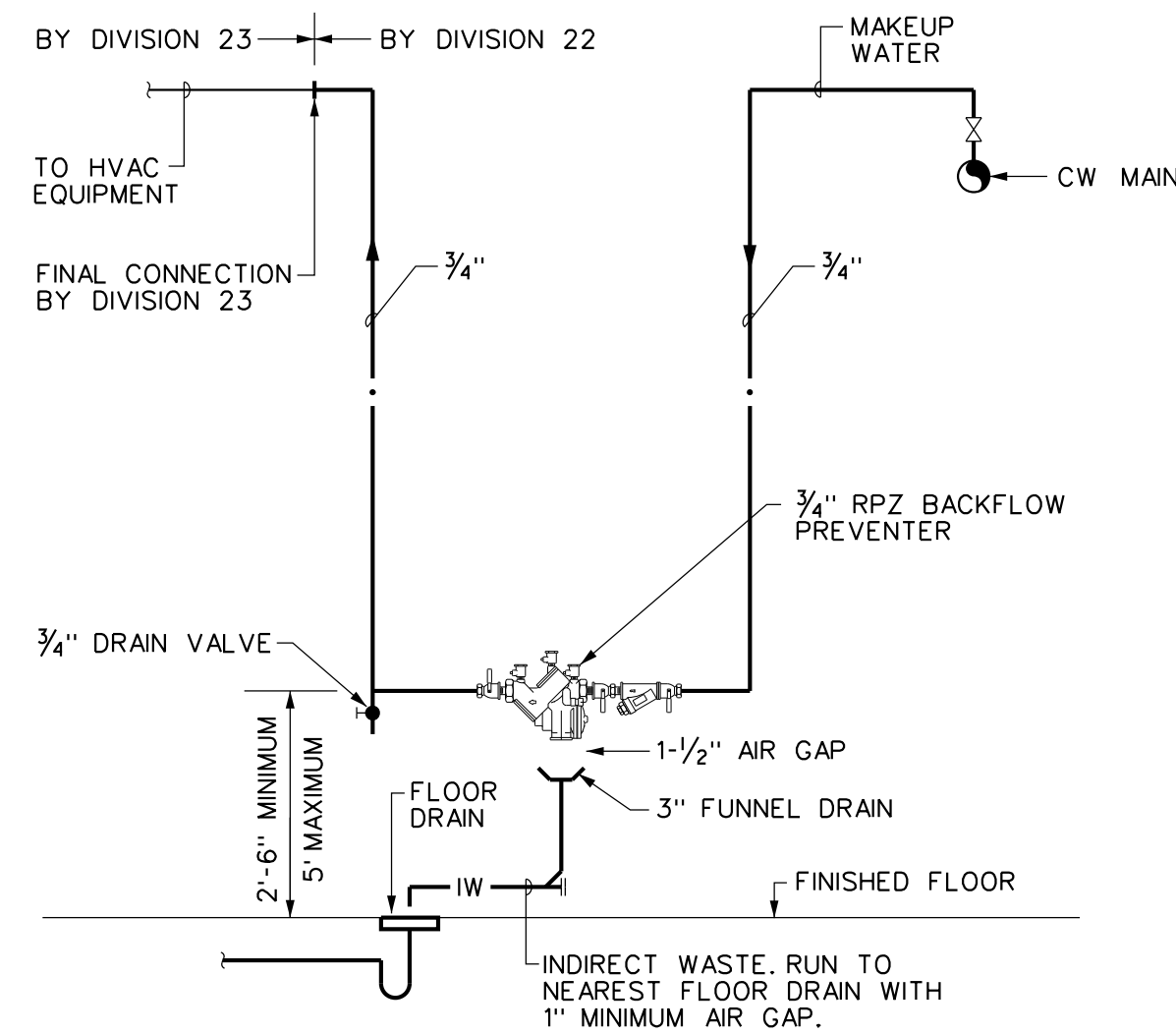
- DETAIL NOTES:
- PRESSURE GAUGES - SELECT GAUGE RANGE TO PLACE MAXIMUM SYSTEM OPERATING PRESSURE IN MIDDLE THIRD OF RANGE.
 - PROVIDE UNION ON PUMP INLET AND OUTLET IF PUMP IS NOT FLANGED.
 - INSTALL PUMP WITH SHAFT HORIZONTAL. PIPING MAY BE INSTALLED VERTICAL, AS SHOWN, OR HORIZONTAL DEPENDING ON SITE CONDITIONS.
 - INSTALL CHECK VALVE HORIZONTALLY OR VERTICALLY WITH FLOW UPWARD.

5
P601
INLINE PUMP DETAIL
SCALE: NONE



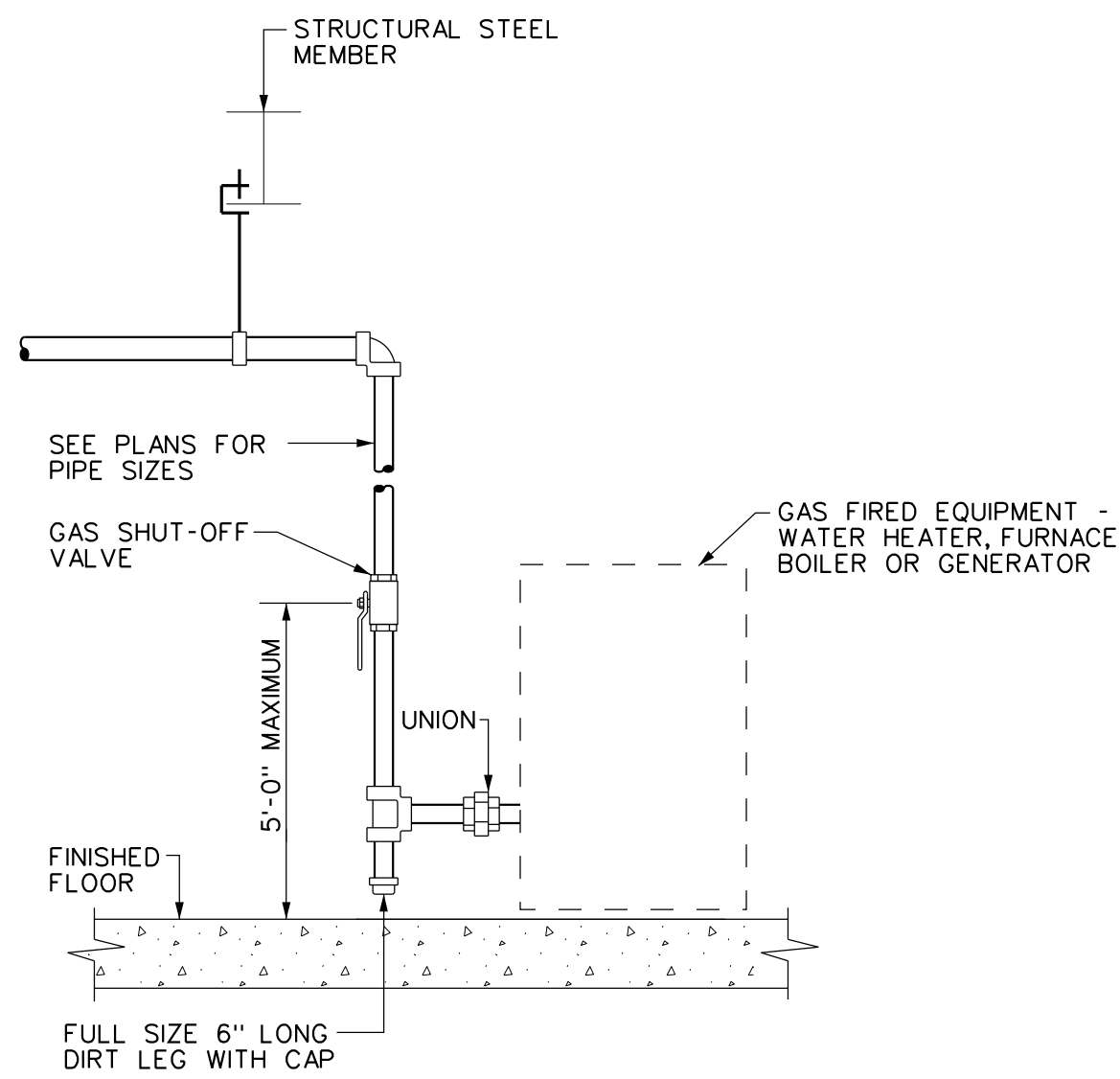
- DETAIL NOTES:
- PROVIDE SHUT-OFF VALVE, DIRT LEG AND UNION AT EACH GAS CONNECTION ON EACH PIECE OF EQUIPMENT.
 - VERIFY CONNECTION SIZES, QUANTITIES AND LOCATIONS WITH M.C.
 - PLUMBING CONTRACTOR IS RESPONSIBLE FOR FINAL CONNECTION.
 - REFER TO DRAWING, --- FOR GAS PIPING SUPPORT DETAIL.

2
P601
GAS EQUIPMENT CONNECTION DETAIL - ROOFTOP
SCALE: NONE



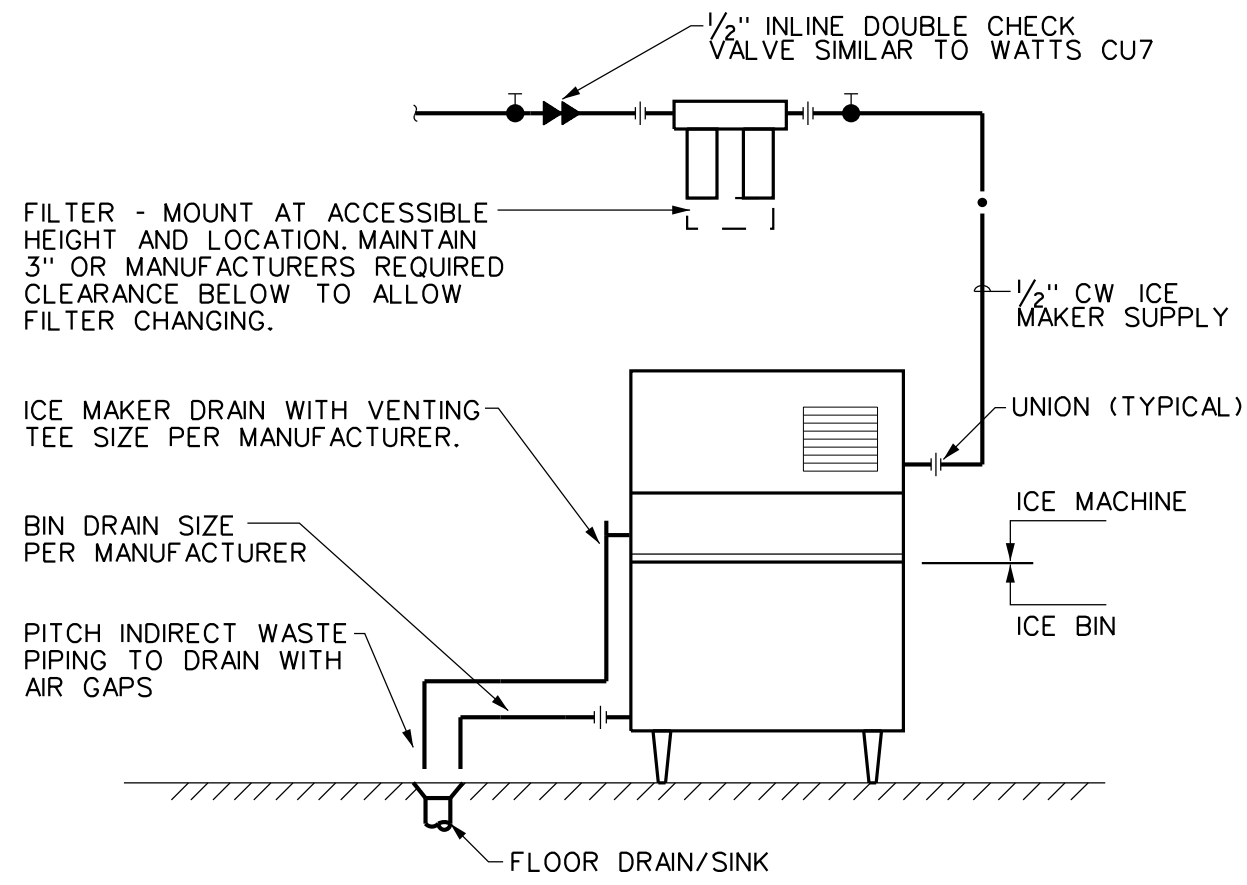
- DETAIL NOTES:
- BACKFLOW PREVENTER SHALL BE LOCATED UPSTREAM OF ALL CONNECTIONS TO HVAC EQUIPMENT.
 - PROVIDE PROPER SUPPORTS FOR BACKFLOW PREVENTER AND PIPING.
 - PROVIDE 8" CLEARANCE BEHIND BACKFLOW PREVENTER, 1'-0" ABOVE AND 2'-6" CLEARANCE IN FRONT OF DEVICE.
 - THE INSTALLATION OF A FIXED AIR GAP FITTING IS NOT ACCEPTABLE FOR USE ON DRAIN LINE. PROVIDE FUNNEL DRAIN AS INDICATED.
 - PAINT SUPPORTS WITH ONE(1) PRIMER AND TWO(2) FINISH COATS OF COLOR AS SPECIFIED.

6
P601
MAKE-UP WATER BACKFLOW PREVENTER DETAIL
SCALE: NONE



- DETAIL NOTES:
- PROVIDE SHUT-OFF VALVE, DIRT LEG AND UNION AT EACH GAS CONNECTION ON EACH PIECE OF EQUIPMENT.
 - VERIFY CONNECTION SIZES, QUANTITIES AND LOCATIONS WITH M.C.
 - P.C. IS RESPONSIBLE FOR FINAL CONNECTION.

3
P601
GAS EQUIPMENT CONNECTION DETAIL
SCALE: NONE



DETAIL NOTES:

- PROVIDE DRAINS TO NEAREST FLOOR DRAIN/SINK FROM ICE MAKER SUMP, ICE BIN AND BACKFLOW PREVENTER. TERMINATE PIPING AT 1" ABOVE DRAIN.
- PITCH INDIRECT WASTE PIPING 1/4" PER FOOT MINIMUM.
- CONNECTIONS ARE DIAGRAMATIC AND SHOWN ON SIDES OF ICE MACHINE FOR CLARITY. THEY WILL NORMALLY BE ON THE BACK OF THE MACHINE. COORDINATE FINAL POINTS OF CONNECTION WITH THE MANUFACTURER.
- INSULATE SUPPLY AND DRAIN PIPING. COVER INSULATION WITH JACKET.

6

P602

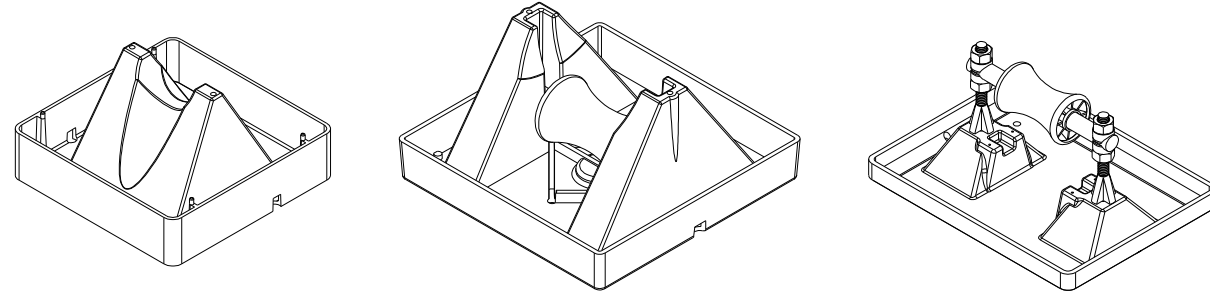
ICE MACHINE CONNECTION DETAIL

SCALE: NONE

AIR COOLED ICE MACHINE

ROOF PIPE SUPPORTS					
TYPE	NOMINAL PIPE SIZE INCHES	MAXIMUM O.D. INCHES	MAX. WT. PER STAND LBS.	CLEARANCE BELOW PIPE INCHES	NOTES
1	1 1/2"	1.9"	80	2.3 - 5.3"	1, 3
3	2"	2.375"	50	4 - 5"	
2	3"	3.75"	100	2.2 - 6.2"	2
3	3"	5"	100	2.75 - 7"	
2	4"	5"	125	2.2"	
3	4"	5"	125	2.75 - 7"	
2	5"	6"	150	2.35"	
3	5"	6"	150	2.75 - 7"	

- NOTES:
- WITHOUT ROLLER
 - 1 OR 2 SPACER UNITS MAY BE STACKED FOR MORE CLEARANCE, EACH 2" HIGH
 - UNITS MAY BE STACKED UP TO 3 HIGH FOR MORE CLEARANCE, ADD 1/2" EACH



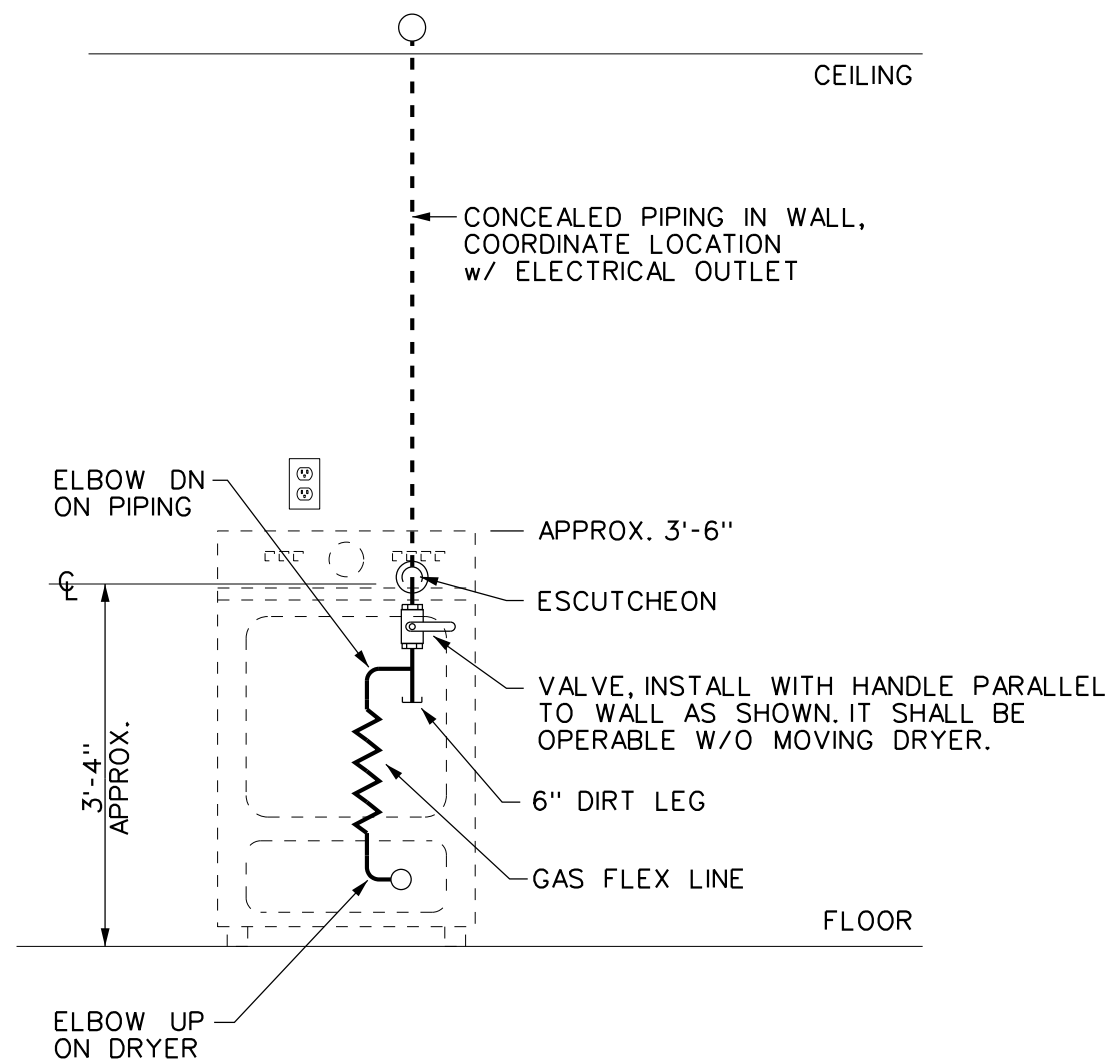
- TYPE 1 TYPE 2 TYPE 3
- DETAIL NOTES:
- PROVIDE PIPE SUPPORTS FOR PIPING ON ROOF. SEE TABLE ABOVE FOR TYPES.
 - GAS PIPING LOCATED ON ROOF SHALL BE SUPPORTED AT ALL TURNS AND EVERY 8'-0" FOR PIPING 1" AND LESS IN SIZE, AND EVERY 10'-0" FOR ALL OTHER SIZES. PITCH PIPING AS SPECIFIED.
 - CENTER THE PIPE STAND BELOW THE PIPE AND PLACE THE PIPE GENTLY IN THE CRADLE. PROVIDE ROOFING MANUFACTURER'S RUBBER MEMBRANE PROTECTIVE PADS BELOW EACH PIPE SUPPORT.
 - FOR BUILT-UP AND STONE BALLASTED ROOFS - REMOVE ALL LOOSE AGGREGATE FROM A 1'-0" SQUARE AREA BELOW THE PIPE STAND BEFORE INSTALLING THE PROTECTIVE PAD.
 - ALL GAS PIPING LOCATED ON THE ROOF SHALL BE CLEANED, PRIMED AND PAINTED WITH ONE(1) PRIMER AND TWO(2) FINISH COATS OF COLOR SPECIFIED.

5

P602

GAS PIPING ROOF SUPPORT DETAIL

SCALE: NONE



DETAIL NOTES:

- GAS PIPING - PROVIDE FOR EACH CLOTHES DRYER: 1/2" PIPE THRU WALL WITH BALL VALVE, DIRT LEG, ELBOW DOWN, GAS FLEX CONNECTOR AND ELBOW UP AT DRYER.
- GAS FLEX CONNECTOR - PROVIDE 1/2" x 36" LONG, STAINLESS STEEL, DORMONT SERIES 20, OR EQUAL
- PIPING SHALL INSTALLED TO BE CONCEALED BEHIND DRYER

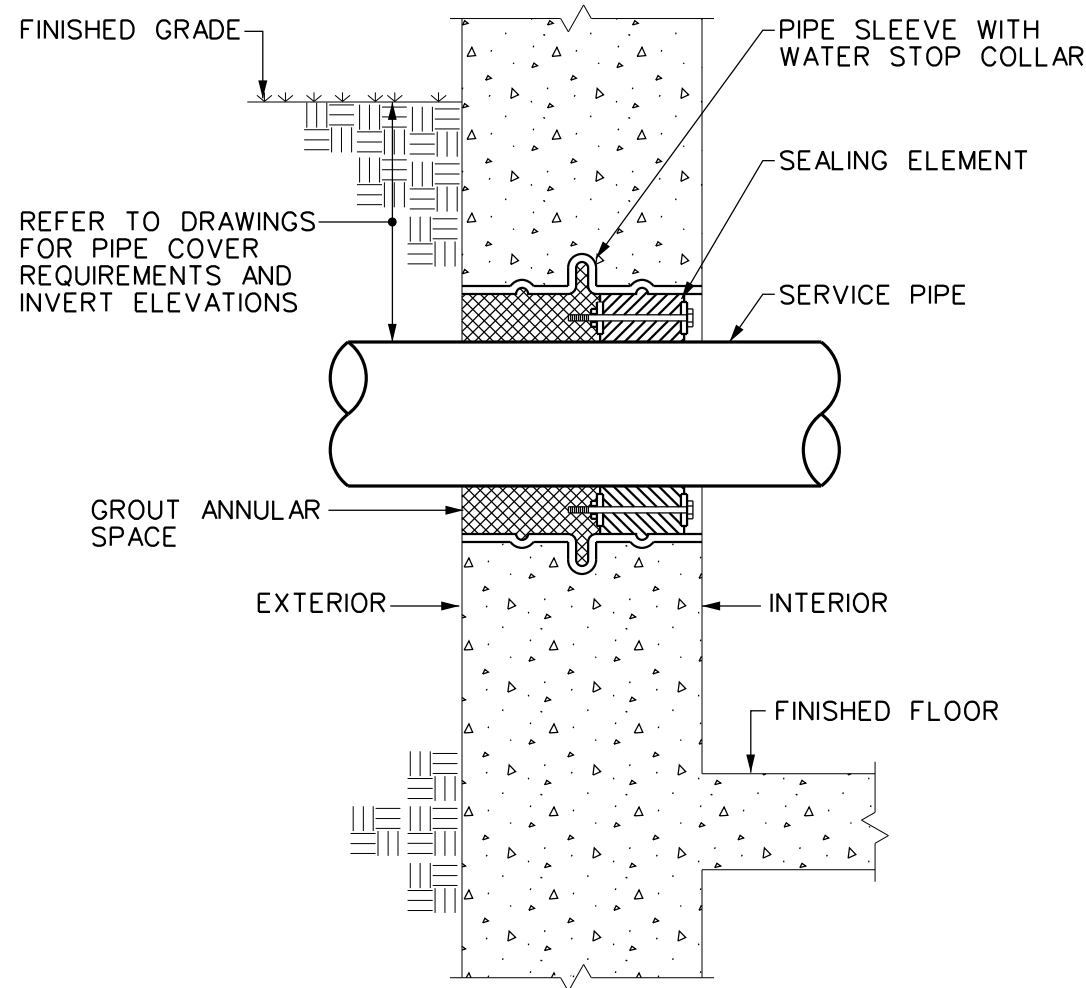
4

P602

CLOTHES DRYER INSTALLATION DETAIL

SCALE: NONE

CONCEALED VALVE

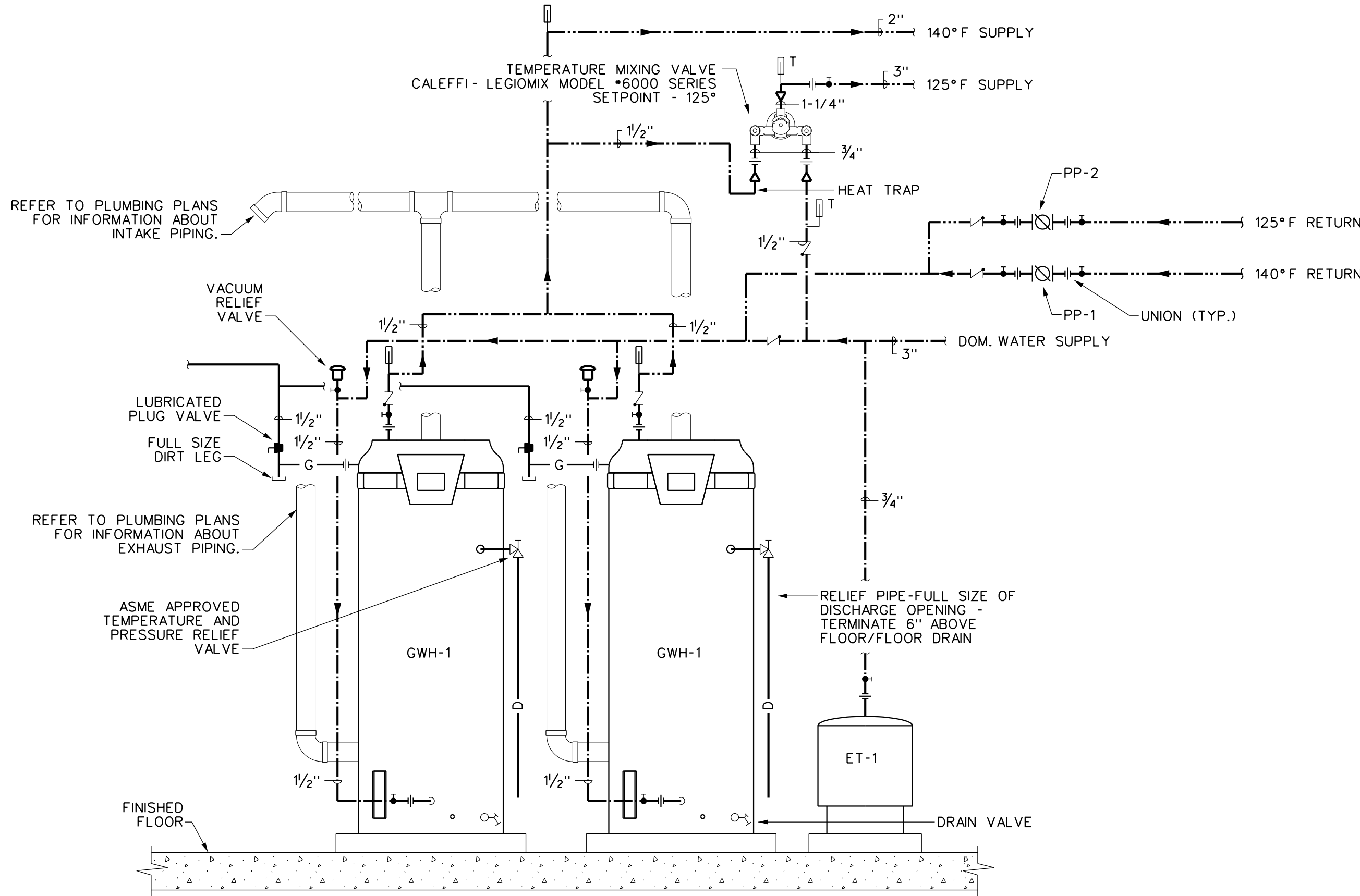


1

P602

PIPE THRU NEW EXTERIOR WALL DETAIL

SCALE: NONE



DETAIL NOTES:

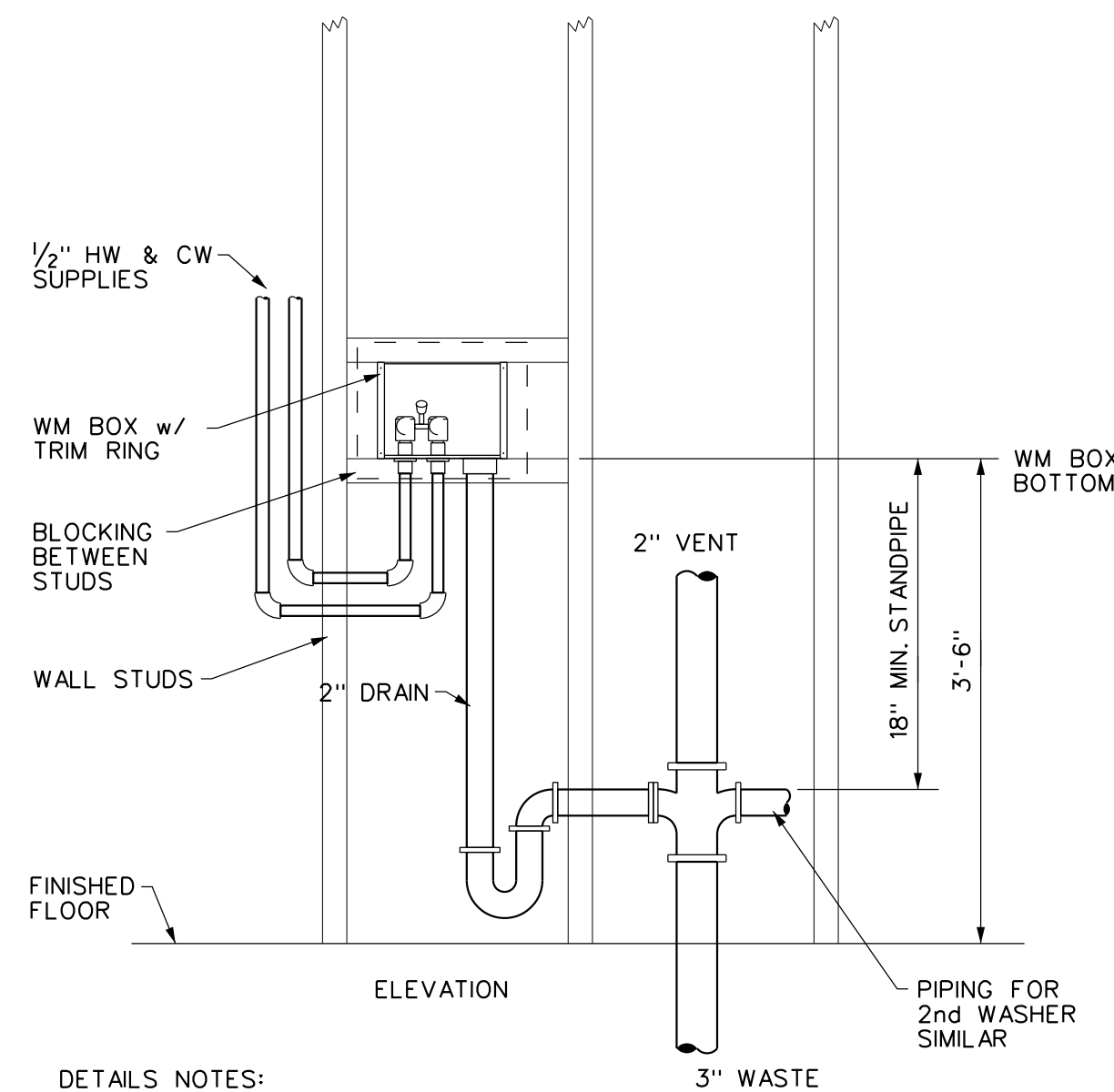
- PROVIDE PIPE NIPPLE THRU EQUIPMENT CASE. CSST & FLEX CONNECTORS SHALL NOT EXTEND THRU EQUIPMENT CASE.
- PROVIDE SHUT-OFF VALVE AND UNION AT EACH SUPPLY PIPING CONNECTION.
- P.C. IS RESPONSIBLE FOR FINAL CONNECTIONS
- THIS DETAIL IS GENERIC. WATER HEATER MFRS. INSTRUCTIONS ARE TO BE FOLLOWED WHERE THEY DIFFER FROM THESE INSTRUCTIONS.
- COORDINATE WITH STRUCTURAL FOR EQUIPMENT PAD SIZES.

2

P602

GWH-1&2 WATER HEATER DETAIL

SCALE: NONE



DETAILS NOTES:

- PROVIDE BLOCKING IN WALL FOR WM BOX
- TWO VALVE BOX WITHOUT ELECTRIC IS SHOWN. SEE SPECIFICATIONS FOR BOX TYPE AND SERVICES INCLUDED, I.E. WATER, ELECTRIC
- PROVIDE FIRE RATED WM BOXES IN ALL FIRE RATED WALLS AND PARTITIONS
- PROVIDE ONE PAIR OF SUPPLY HOSES WITH EACH WMB. HOSES SHALL BE BURST RESISTANT TYPE WITH S.S. BRAID OVER RUBBER HOSE

3

P602

WASHING MACHINE BOX DETAIL

SCALE: NONE

SINGLE LEVER VALVES, 2 WASHERS

SYSTEM SUMMARY												
POINT NAME	HARDWARE POINTS					SOFTWARE POINTS					ALARM	SHOW ON GRAPHIC
	AI	AO	BI	BO	AV	LOOP	SCHEDULE	TREND	ALARM	ON		
EXHAUST FAN START/STOP				X				X	X	X		
EXHAUST FAN FAULT			X					X	X	X		
EXHAUST FAN STATUS			X					X	X	X		
RETURN AIR TEMPERATURE	X							X	X	X		
RETURN AIR HUMIDITY	X							X	X	X		
MIXED AIR DAMPERS		X						X	X	X		
MIXED AIR TEMPERATURE	X							X	X	X		
FREEZESTAT			X					X	X	X		
FILTER DIFFERENTIAL PRESSURE	X							X	X	X		
OUTSIDE AIR TEMPERATURE	X							X	X	X		
OUTSIDE AIR HUMIDITY	X							X	X	X		
2:1 HEATING TURNDOWN		X						X	X	X		
COMPRESSOR MODULATION		X						X	X	X		
HIGH RETURN AIR TEMP									X			
LOW RETURN AIR TEMP									X			
SUPPLY FAN START/STOP				X				X	X	X		
SUPPLY FAN ASD SPEED		X						X	X	X		
SUPPLY FAN ASD FAULT			X						X			
SUPPLY FAN STATUS			X					X	X	X		
DISCHARGE AIR TEMPERATURE	X							X	X	X		
ZONE TEMPERATURE	X							X	X	X		
HIGH ZONE TEMP									X			
LOW ZONE TEMP									X			
HIGH DISCHARGE AIR TEMP									X			
LOW DISCHARGE AIR TEMP									X			
FILTER CHANGE REQUIRED									X			
HIGH MIXED AIR TEMP									X			
LOW MIXED AIR TEMP									X			
HIGH RETURN AIR HUMIDITY									X			
LOW RETURN AIR HUMIDITY									X			

ROOFTOP UNIT CONTROLS SEQUENCE:

RUN CONDITIONS - SCHEDULED:

THE UNIT SHALL RUN ACCORDING TO A USER DEFINABLE TIME SCHEDULE IN THE FOLLOWING MODES:

OCCUPIED MODE:

- A 75 DEG. F (ADJ.) COOLING SETPOINT.
- A 70 DEG. F (ADJ.) HEATING SETPOINT.
- A 55% (ADJ.) RELATIVE HUMIDITY SETPOINT.

UNOCCUPIED MODE (NIGHT SETBACK):

- AN 85 DEG. F (ADJ.) COOLING SETPOINT.
- A 55 DEG. F (ADJ.) HEATING SETPOINT.

EMERGENCY SHUTDOWN:

THE UNIT SHALL SHUT DOWN AND GENERATE AN ALARM UPON RECEIVING AN EMERGENCY SHUTDOWN SIGNAL.

FREEZE PROTECTION:

THE UNIT SHALL SHUT DOWN AND GENERATE AN ALARM UPON RECEIVING A FREEZESTAT STATUS.

RTU OPTIMAL START:

THE UNIT SHALL START PRIOR TO SCHEDULED OCCUPANCY BASED ON THE TIME NECESSARY FOR THE ZONES TO REACH THEIR OCCUPIED SETPOINTS. THE START TIME SHALL AUTOMATICALLY ADJUST BASED ON CHANGES IN OUTSIDE AIR TEMPERATURE AND ZONE TEMPERATURES.

SUPPLY FAN:

THE SUPPLY FAN SHALL RUN ANYTIME THE UNIT IS COMMANDED TO RUN, UNLESS SHUTDOWN ON SAFETIES. TO PREVENT SHORT CYCLING, THE SUPPLY FAN SHALL HAVE A USER DEFINABLE (ADJ.) MINIMUM RUNTIME.

ALARMS SHALL BE PROVIDED AS FOLLOWS:

- SUPPLY FAN FAILURE: COMMANDED ON, BUT THE STATUS IS OFF.
- SUPPLY FAN IN HAND: COMMANDED OFF, BUT THE STATUS IS ON.
- SUPPLY FAN RUNTIME EXCEEDED: STATUS RUNTIME EXCEEDS A USER DEFINABLE LIMIT (ADJ.).

SUPPLY AIR TEMPERATURE SETPOINT - FIXED:

THE CONTROLLER SHALL MONITOR THE SUPPLY AIR TEMPERATURE AND SHALL MAINTAIN FIXED SUPPLY AIR TEMPERATURE SETPOINTS AS FOLLOWS:

- COOLING: THE SETPOINT SHALL BE 55 DEG. F (ADJ.).
- HEATING: THE SETPOINT SHALL BE 90 DEG. F (ADJ.).

COOLING:

THE CONTROLLER SHALL MEASURE THE SUPPLY AIR TEMPERATURE AND MODULATE THE COMPRESSOR TO MAINTAIN ITS COOLING DISCHARGE SETPOINT.

THE COOLING SHALL BE ENABLED WHENEVER:

- OUTSIDE AIR TEMPERATURE IS GREATER THAN 60 DEG. F (ADJ.).
- AND THE ECONOMIZER IS DISABLED OR FULLY OPEN.
- AND THE SUPPLY FAN STATUS IS ON.
- AND THE HEATING IS NOT ACTIVE.

ALARMS SHALL BE PROVIDED AS FOLLOWS:

- HIGH DISCHARGE AIR TEMP: IF THE SUPPLY AIR TEMPERATURE IS 5 DEG. F (ADJ.) GREATER THAN SETPOINT.

GAS HEATING STAGES:

THE CONTROLLER SHALL MEASURE THE SUPPLY AIR TEMPERATURE AND STAGE THE HEATING TO MAINTAIN ITS HEATING SETPOINT. TO PREVENT SHORT CYCLING, THERE SHALL BE A USER DEFINABLE (ADJ.) DELAY BETWEEN STAGES, AND EACH STAGE SHALL HAVE A USER DEFINABLE (ADJ.) MINIMUM RUNTIME.

THE HEATING SHALL BE ENABLED WHENEVER:

- OUTSIDE AIR TEMPERATURE IS LESS THAN 65 DEG. F (ADJ.).
- AND THE SUPPLY FAN STATUS IS ON.
- AND THE COOLING IS NOT ACTIVE.

THE HEATING SHALL RUN FOR FREEZE PROTECTION WHENEVER:

- SUPPLY AIR TEMPERATURE DROPS FROM 40 DEG. F (ADJ.) TO 35 DEG. F (ADJ.).
- AND THE SUPPLY FAN STATUS IS ON.

ALARMS SHALL BE PROVIDED AS FOLLOWS:

- LOW DISCHARGE AIR TEMP: IF THE DISCHARGE AIR TEMPERATURE IS 5 DEG. F (ADJ.) LESS THAN SETPOINT.

ECONOMIZER:

TO MAINTAIN A SETPOINT 2 DEG. F (ADJ.) LESS THAN THE SUPPY AIR TEMPERATURE SETPOINT. THE OUTSIDE AIR DAMPERS SHALL MAINTAIN A MINIMUM AIRFLOW OF 600 CFM THE FOLLOWING WHENEVER OCCUPIED:

THE ECONOMIZER SHALL BE ENABLED WHENEVER:

- UNIT NO.
- AND THE OUTSIDE AIR ENTHALPY IS LESS THAN 22 BTU/LB (ADJ.).
- AND THE OUTSIDE AIR TEMPERATURE IS LESS THAN THE RETURN AIR TEMPERATURE.
- AND THE OUTSIDE AIR ENTHALPY IS LESS THAN THE RETURN AIR ENTHALPY.
- AND THE SUPPLY FAN STATUS IS ON.

THE ECONOMIZER SHALL CLOSE WHENEVER:

- MIXED AIR TEMPERATURE DROPS FROM 40 DEG. F TO 35 DEG. F (ADJ.).
- OR THE FREEZE STAT IS ON.
- OR ON LOSS OF SUPPLY FAN STATUS.

THE OUTSIDE AND EXHAUST AIR DAMPERS SHALL CLOSE AND THE RETURN AIR DAMPER SHALL OPEN WHEN THE UNIT IS OFF. IF OPTIMAL START IS AVAILABLE THE MIXED AIR DAMPER SHALL OPERATE AS DESCRIBED IN THE OCCUPIED MODE EXCEPT THAT THE THE OUTSIDE AIR DAMPER SHALL MODULATE TO FULLY CLOSED.

MINIMUM OUTSIDE AIR VENTILATION:

WHEN IN THE OCCUPIED MODE, THE OUTSIDE AIR DAMPER SHALL GO TO A FIXED MINIMUM POSITION.

EXHAUST FAN:

THE EXHAUST FAN SHALL RUN WHENEVER THE ECONOMIZER IS ENABLED.

ALARMS SHALL BE PROVIDED AS FOLLOWS:

- EXHAUST FAN FAILURE: COMMANDED ON, BUT THE STATUS IS OFF.
- EXHAUST FAN IN HAND: COMMANDED OFF, BUT THE STATUS IS ON.

FILTER DIFFERENTIAL PRESSURE:

THE CONTROLLER SHALL MONITOR THE FILTER DIFFERENTIAL PRESSURE.

ALARMS SHALL BE PROVIDED AS FOLLOWS:

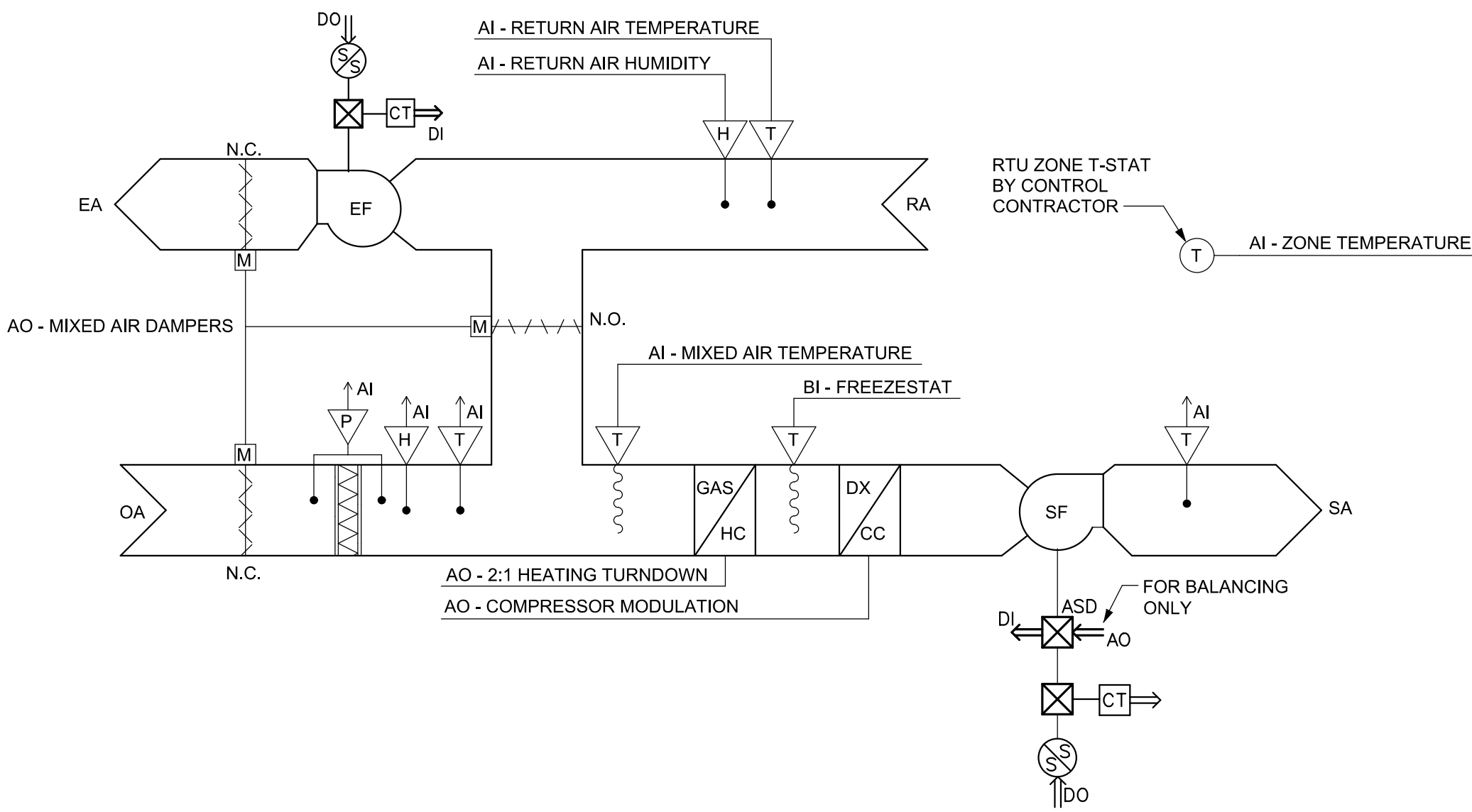
- FILTER CHANGE REQUIRED: FILTER DIFFERENTIAL PRESSURE EXCEEDS USER DEFINABLE AMOUNT (ADJ.).

MIXED AIR TEMPERATURE:

THE CONTROLLER SHALL MONITOR THE MIXED AIR TEMPERATURE AND USE AS REQUIRED FOR ECONOMIZER CONTROL.

ALARMS SHALL BE PROVIDED AS FOLLOWS:

- HIGH MIXED AIR TEMP: IF THE MIXED AIR TEMPERATURE IS GREATER THAN 90 DEG. F (ADJ.).
- LOW MIXED AIR TEMP: IF THE MIXED AIR TEMPERATURE IS LESS THAN 45 DEG. F (ADJ.).



FILTER DIFFERENTIAL PRESSURE:

THE CONTROLLER SHALL MONITOR THE FILTER DIFFERENTIAL PRESSURE.

ALARMS SHALL BE PROVIDED AS FOLLOWS:

- FILTER CHANGE REQUIRED: FILTER DIFFERENTIAL PRESSURE EXCEEDS USER DEFINABLE AMOUNT (ADJ.).

MIXED AIR TEMPERATURE:

THE CONTROLLER SHALL MONITOR THE MIXED AIR TEMPERATURE AND USE AS REQUIRED FOR ECONOMIZER CONTROL.

ALARMS SHALL BE PROVIDED AS FOLLOWS:

- HIGH MIXED AIR TEMP: IF THE MIXED AIR TEMPERATURE IS GREATER THAN 90 DEG. F (ADJ.).

- LOW MIXED AIR TEMP: IF THE MIXED AIR TEMPERATURE IS LESS THAN 45 DEG. F (ADJ.).

RETURN AIR HUMIDITY:

THE CONTROLLER SHALL MONITOR THE RETURN AIR HUMIDITY AND USE AS REQUIRED FOR ECONOMIZER OR HUMIDITY CONTROL.

ALARMS SHALL BE PROVIDED AS FOLLOWS:

- HIGH RETURN AIR HUMIDITY: IF THE RETURN AIR HUMIDITY IS GREATER THAN 70% RELATIVE HUMIDITY (ADJ.).

- LOW RETURN AIR HUMIDITY: IF THE RETURN AIR HUMIDITY IS LESS THAN 35% RELATIVE HUMIDITY (ADJ.).

RETURN AIR TEMPERATURE:

THE CONTROLLER SHALL MONITOR THE RETURN AIR TEMPERATURE AND USE AS REQUIRED FOR SETPOINT CONTROL OR ECONOMIZER CONTROL.

ALARMS SHALL BE PROVIDED AS FOLLOWS:

- HIGH RETURN AIR TEMP: IF THE RETURN AIR TEMPERATURE IS GREATER THAN 90 DEG. F (ADJ.).

- LOW RETURN AIR TEMP: IF THE RETURN AIR TEMPERATURE IS LESS THAN 45 DEG. F (ADJ.).

DISCHARGE AIR TEMPERATURE:

THE CONTROLLER SHALL MONITOR THE DISCHARGE AIR TEMPERATURE.

ALARMS SHALL BE PROVIDED AS FOLLOWS:

- HIGH SUPPLY AIR TEMP: IF THE SUPPLY AIR TEMPERATURE IS GREATER THAN 100 DEG. F (ADJ.).

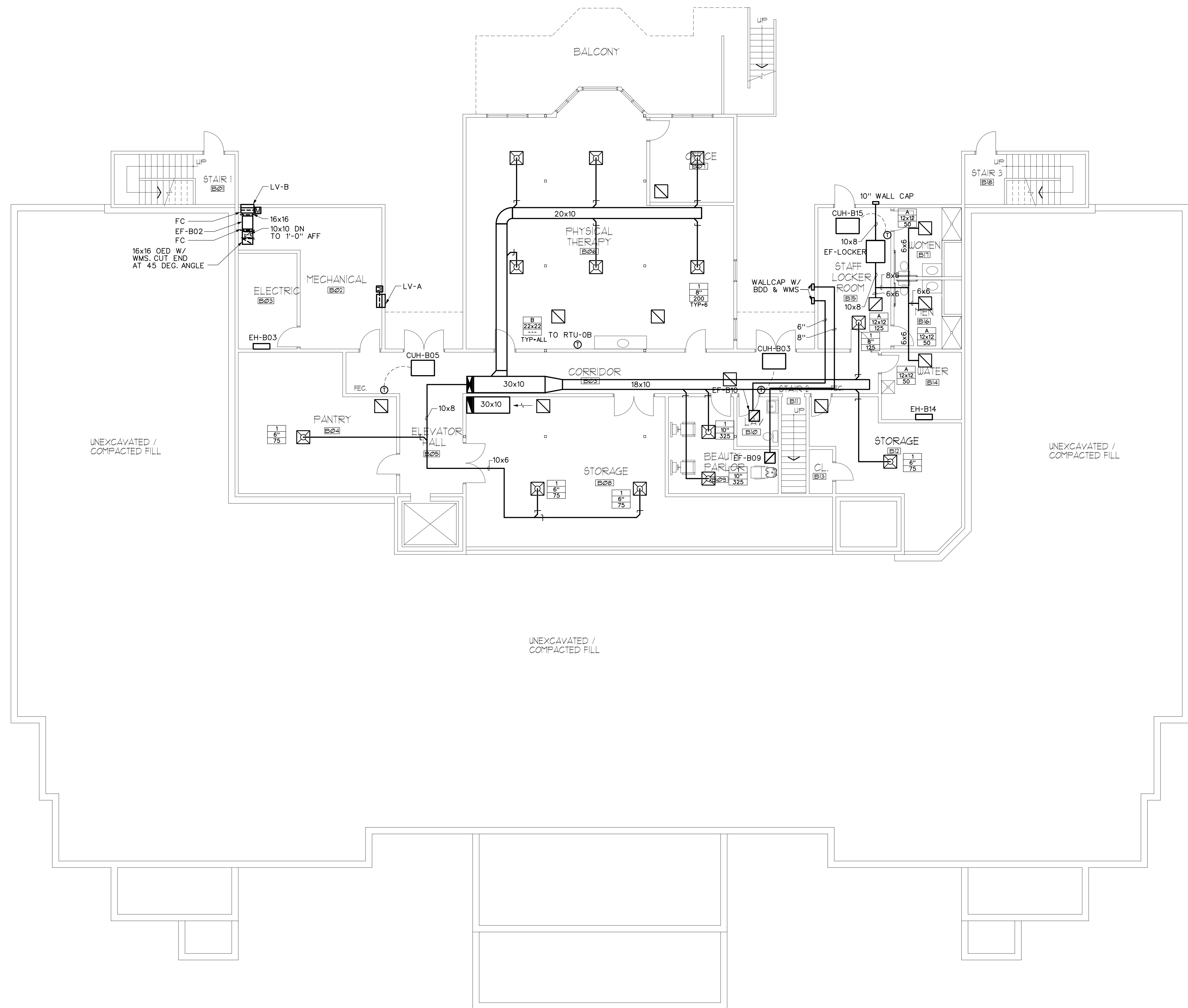
- LOW SUPPLY AIR TEMP: IF THE SUPPLY AIR TEMPERATURE IS LESS THAN 45 DEG. F (ADJ.).

MECHANICAL SYSTEMS GENERAL NOTES

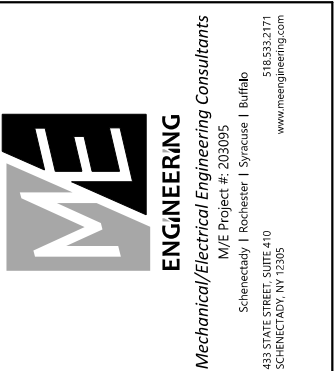
- ALL PIPING IS TO BE RUN CONCEALED IN FINISHED AREAS. COORDINATE PIPING INSTALLATION WITH WORK OF OTHER TRADES TO ENSURE CONCEALMENT.
- COORDINATE ALL EQUIPMENT LOCATIONS AND INSTALLATION WITH THE WORK OF OTHER TRADES. COORDINATE EQUIPMENT WITH WALL, CEILING AND FLOOR FINISHES.
- COORDINATE DIFFUSER AND GRILLE LOCATIONS WITH LIGHTING, FIRE DETECTION, AND CEILING. COORDINATE DUCTWORK WITH LIGHTING AND PIPING INSTALLERS TO ALLOW CLEARANCE FOR LIGHT FIXTURES, PIPING AND WORK OF OTHER TRADES.
- COORDINATE LOUVER, DIFFUSER AND GRILLE FRAME TYPES TO MATE AND MATCH ADJACENT WALL AND CEILING CONSTRUCTION.
- COORDINATE DUCTWORK WITH WORK OF OTHER TRADES TO ENSURE ALL DUCTWORK IS CONCEALED. COORDINATE EXACT DIFFUSER AND GRILLE LOCATIONS TO MATCH ARCHITECTURAL REQUIREMENTS FOR SPACING AND CENTERING.
- PROVIDE MANUAL BALANCING DAMPERS FOR ALL DUCT BRANCHES SERVING SUPPLY DIFFUSERS, RETURN AIR GRILLES, LINEAR SLOTS AND EXHAUST AIR GRILLES.
- UNLESS OTHERWISE NOTED PROVIDE DRAINS AT LOW POINTS. DRAINS SHALL BE CONSTRUCTED WITH 3/4" BALL VALVE WITH HOSE CONNECTION AND END CAP.
- VERIFY THAT EQUIPMENT MATCHES FIELD VOLTAGE. COORDINATE WITH ELECTRICAL CONTRACTOR FOR REQUIREMENTS PRIOR TO ORDER.
- INSTALLATION SHALL PROVIDE FOR SERVICE ACCESS AREAS. CONFIRM LOCATIONS AND SERVICEABILITY PRIOR TO ORDER.
- COORDINATE ANY INTERRUPTION OF UTILITY SERVICES WITH OWNER.
- CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF ALL WORK. REFER TO STRUCTURAL DRAWINGS FOR EXACT LOCATIONS OF BUILDING STRUCTURAL ELEMENTS. COORDINATE ALL EQUIPMENT LOCATIONS, CONCEALMENT AND SURFACE FINISH TREATMENTS WITH WORK OF ALL TRADES. IN ANY CASE OF DISCREPANCY BETWEEN THE PLANS OR IN ANY CASE WHERE SUCH ISSUES REQUIRE CLARIFICATION, NOTIFY ENGINEER IN WRITING.
- ALL PIPING AND DUCTWORK SIZES INDICATED ARE MINIMUM SIZES. LARGER SIZES MAY BE INSTALLED BY THE CONTRACTOR IN ALL CASES. EXISTING SURFACES, SUBSTRATES, OR STRUCTURE WHICH ARE PENETRATED, ALTERED OR DAMAGED IN ANY WAY BY THE WORK ASSOCIATED WITH THIS CONTRACT SHALL BE REPAIRED SO AS TO MATCH ORIGINAL SURFACE, SUBSTRATE, OR STRUCTURE.
- ALL SURFACE MOUNTED EQUIPMENT SHALL BE FASTENED WITH ANCHORS OR FASTENERS AS SPECIFIED FOR THE SUBSTRATE. PLASTIC OR FIBER SHIELDS ARE NOT ACCEPTABLE.
- DRAWINGS ARE DIAGRAMATIC, AND DO NOT SHOW ALL RISES, DROPS, OFFSETS, AND ROUTING TO AVOID OBSTRUCTIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD CONDITIONS REQUIRING ADDITIONAL MATERIAL QUANTITIES.

HVAC SYMBOL LIST			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
=====	EXISTING WORK TO BE REMOVED	— A —	COMPRESSED AIR
	POINT OF CONNECTION	— V —	VENT
	POINT OF DISCONNECTION	— BBD —	BOILER BLOW DOWN
MBH	THOUSAND BTU/HOUR	— CS —	CONDENSER WATER SUPPLY
NTS	NOT TO SCALE	— CR —	CONDENSER WATER RETURN
(E)	EXISTING	— CWS —	CHILLED WATER SUPPLY
(L)	ACOUSTIC THERMAL LINING - 1/2" THICK	— CWR —	CHILLED WATER RETURN
(2L)	ACOUSTIC THERMAL LINING - 2" THICK	— D —	DRAIN
(DBL)	DOUBLE WALL LINED DUCT	— FOF —	FUEL OIL FILL
FPM	FEET PER MINUTE	— FOG —	FUEL OIL GAUGE
CFM	CUBIC FEET PER MINUTE	— FOS —	FUEL OIL SUPPLY
AFF	ABOVE FINISHED FLOOR	— FOR —	FUEL OIL RETURN
AD	ACCESS DOOR	— FOV —	FUEL OIL TANK VENT
W/W	WALL TO WALL	— G —	GAS
G.C.	GENERAL CONTRACTOR	— GS —	GLYCOL SUPPLY
M.C.	MECHANICAL CONTRACTOR	— GR —	GLYCOL RETURN
P.C.	PLUMBING CONTRACTOR	— DTS —	DUAL TEMPERATURE WATER SUPPLY
E.C.	ELECTRICAL CONTRACTOR	— DTR —	DUAL TEMPERATURE WATER RETURN
N.O.	NORMALLY OPEN	— HWS —	HOT WATER SUPPLY
N.C.	NORMALLY CLOSED	— HWR —	HOT WATER RETURN
=====	FLEXIBLE DUCTWORK	— LPS —	LOW PRESSURE STEAM
	DUCT SECTION - FLAT OVAL (FO)	— LPC —	LOW PRESSURE CONDENSATE
	ROUND DUCT - 12" INCHES	— MPS —	MEDIUM PRESSURE STEAM
	DUCT SECTION - SUPPLY	— MPC —	MEDIUM PRESSURE CONDENSATE
	DUCT SECTION - RETURN	— HPS —	HIGH PRESSURE STEAM
	WIDTH A x DEPTH B	— HPC —	HIGH PRESSURE CONDENSATE
SINGLE LINE	DOUBLE LINE	— PC —	PUMPED CONDENSATE
	DUCT TAKEOFFS	— RD —	REFRIGERANT DISCHARGE
	TRANSITION SQUARE TO ROUND	— RL —	REFRIGERANT LIQUID
	RISE IN DUCT - IN DIRECTION OF AIRFLOW	— RS —	REFRIGERANT SUCTION
	DROP IN DUCT - IN DIRECTION OF AIRFLOW	— HG —	HOT GAS
	SUPPLY DUCT TURNING UP OR DOWN	— VAC —	VACUUM
	RETURN DUCT TURNING UP OR DOWN	— CW —	DOMESTIC COLD WATER
	RELIEF VALVE	— TD —	TRIPLE DUTY VALVE
	PRESSURE REDUCING VALVE		GLOBE VALVE
	PRESSURE/TEMPERATURE TEST PLUG		BALL VALVE
	SINGLE LINE PIPE OR DUCT CONTINUED		GATE VALVE
	DOUBLE LINE PIPE OR ROUND DUCT CONTINUED		CONTROL VALVE
	DOUBLE LINE RECTANGULAR DUCT CONTINUED		THREE WAY CONTROL VALVE
	AIR FLOW		CHECK VALVE
	PIPE ANCHOR		BALANCING VALVE
	PIPE GUIDE		BUTTERFLY VALVE
	EXPANSION COMPENSATOR WITH GUIDES		RELIEF VALVE
	PRE-FAB EXPANSION LOOP		PRESSURE REDUCING VALVE
	STRAINER		PRESSURE/TEMPERATURE TEST PLUG
	PRESSURE GAUGE		SINGLE LINE PIPE OR DUCT CONTINUED
	THERMOMETER		DOUBLE LINE PIPE OR ROUND DUCT CONTINUED
	UNION		DOUBLE LINE RECTANGULAR DUCT CONTINUED
	AIR VENT		AIR FLOW
	THERMOSTATIC TRAP		PIPE ANCHOR
	FLOAT & THERMOSTATIC TRAP		PIPE GUIDE
	THERMODYNAMIC TRAP		EXPANSION COMPENSATOR WITH GUIDES
	BUCKET TRAP		PRE-FAB EXPANSION LOOP
	DIRECTION OF FLOW		STRAINER
	REDUCER		PRESSURE GAUGE
	CAP OR PLUG		THERMOMETER
	ELBOW DOWN		UNION
	ELBOW UP		AIR VENT
	BOTTOM TAP		THERMOSTATIC TRAP
	AUTOMATIC AIR DAMPER		FLOAT & THERMOSTATIC TRAP
	FIRE DAMPER		THERMODYNAMIC TRAP
	SMOKE DAMPER		BUCKET TRAP
	BDD		DIRECTION OF FLOW
	FLEX CONNECTOR - DUCTWORK		REDUCER
	MOTORIZED DAMPER		CAP OR PLUG
	BLAST GATE		ELBOW DOWN
	VOLUME DAMPER		ELBOW UP
	SUCTION DIFFUSER		BOTTOM TAP
	FLEXIBLE CONNECTOR - PIPING		AUTOMATIC AIR DAMPER
	DRAIN VALVE WITH HOSE CONNECTION, CAP AND CHAIN		FIRE DAMPER
	WATER FLOW SENSOR		SMOKE DAMPER
	WATER TEMPERATURE SENSOR		BDD
	STATIC PRESSURE SENSOR		FLEX CONNECTOR - DUCTWORK
	HUMIDISTAT		MOTORIZED DAMPER
	TEMPERATURE SENSOR		BLAST GATE
	PNEUMATIC/ELECTRIC THERMOSTAT		VOLUME DAMPER
	THERMOSTAT/SENSOR WITH GUARD		SUCTION DIFFUSER

- PROVIDE LABOR, MATERIALS, EQUIPMENT AND SERVICES AS REQUIRED FOR THE COMPLETE INSTALLATION DESIGNED IN THE CONTRACT DRAWINGS TO PERFORM AS DESCRIBED IN THE SEQUENCE OF OPERATIONS. PROVIDE WIRING AND CONDUIT REQUIRED TO CONNECT DEVICES. CONTROL WIRING IS DEFINED AS WIRING UP AND INCLUDING 120 VOLTS. INSTALL WIRING IN ACCORDANCE WITH REQUIREMENTS OF "ELECTRICAL WIRING" IN SECTION 230504 AND THE NATIONAL ELECTRICAL CODE. PROVIDE ALL REQUIRED DEVICES FOR PROPER SYSTEM OPERATION, INCLUDING SPECIAL ELECTRICAL SWITCHES, TRANSFORMERS, RELAYS, PUSHBUTTON STATIONS ETC. ALL



- GENERAL NOTES:
- A. BALANCE OUTSIDE AIR CONNECTION TO ALL FAN COILS AT 50 CFM.
 - B. PROVIDE CEILING RADIATION DAMPERS WHERE PENETRATING FIRE RATED ASSEMBLY.



DATE: 8/18/2000

PROJECT NO. 200005
DESIGNED BY: CUE
DRAWN BY: CUE
CHECKED BY: RSA
SCALE: AS NOTED
NOTES:

BASEMENT DUCTWORK PLAN

HARRIS A. SANDERS
ARCHITECTS, P.C.
252 WASHINGTON AVENUE, ALBANY, NEW YORK 12210
L'DOR ADULT CARE FACILITY
156 WEST CLARKSTOWN ROAD
NEW CITY, N.Y. 10956

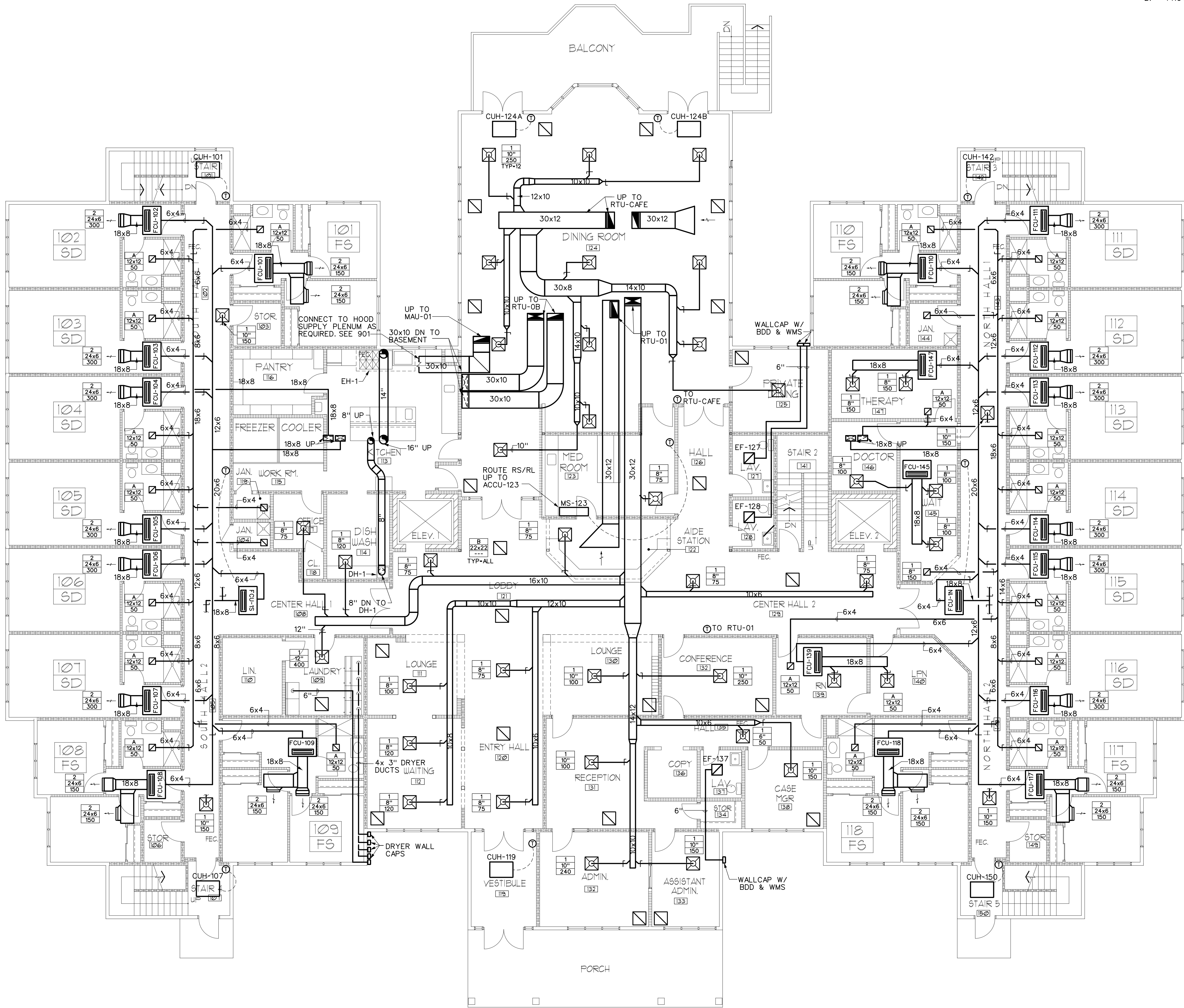


SHEET NO.

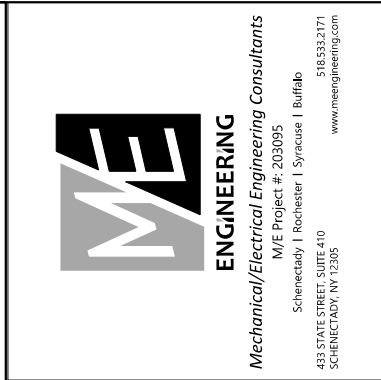
M101

1 BASEMENT FLOOR PLAN
SCALE: 1/8"=1'-0" NORTH

GENERAL NOTES:
A. BALANCE OUTSIDE AIR CONNECTION TO ALL FAN COILS AT 50 CFM.
B. PROVIDE CEILING RADIATION DAMPERS WHERE PENETRATING FIRE RATED ASSEMBLY.



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



DATE: 9/17/2000
REVISION:

PROJECT NO. 200005
DESIGNED BY: CUE
DRAWN BY: CUE
CHECKED BY: RSA
SCALE: AS NOTED
NOTES:

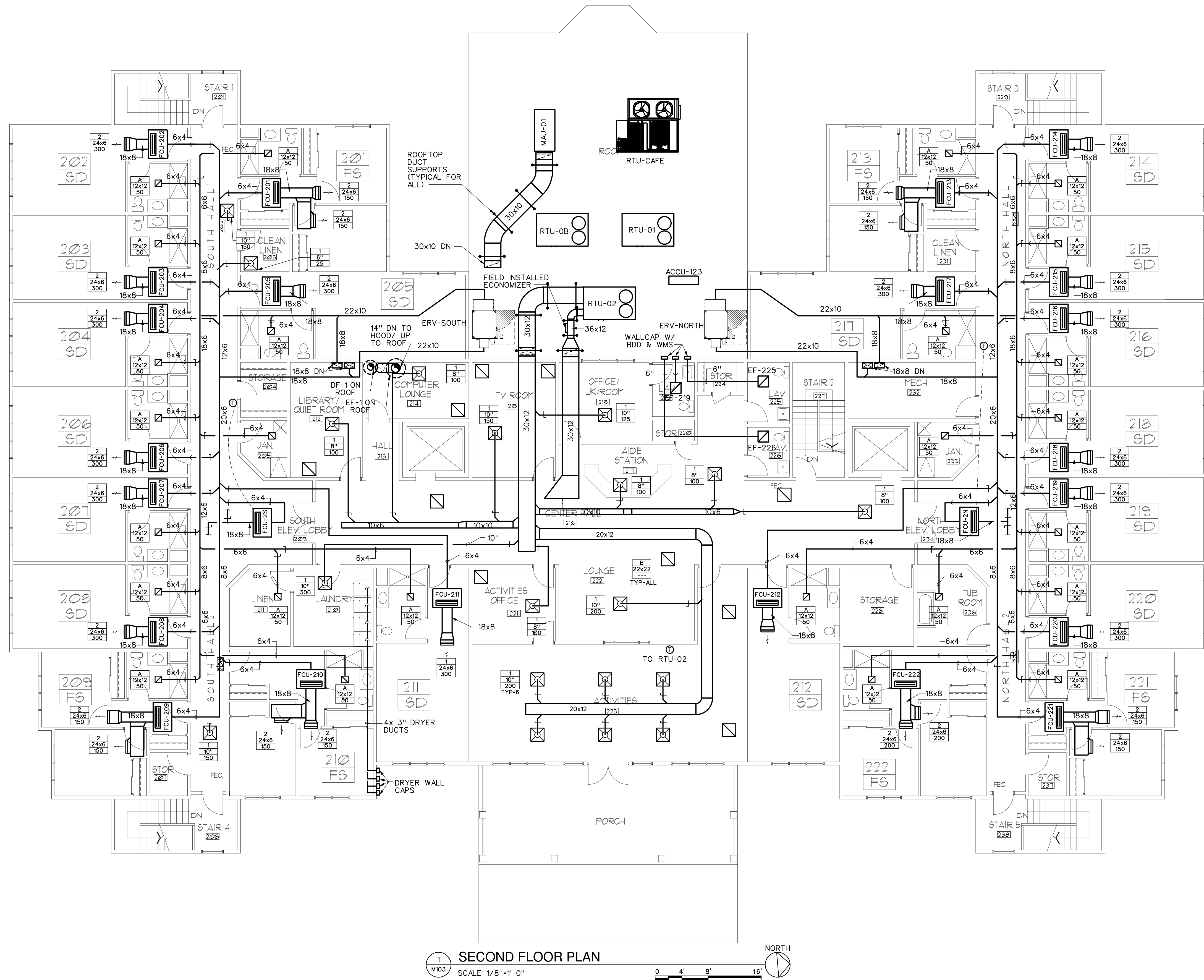
FIRST FLOOR
DUCTWORK PLAN

HARRIS A. SANDERS
ARCHITECTS, P.C.
252 WASHINGTON AVENUE, ALBANY, NEW YORK 12210
L'DOR ADULT CARE FACILITY
156 WEST CLARKSTOWN ROAD
NEW CITY, N.Y. 10956



SHEET NO.

M102



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

GENERAL NOTES:

- A. BALANCE OUTSIDE AIR CONNECTION TO ALL FAN COILS AT 50 CFM.
B. PROVIDE CEILING RADIATION DAMPERS WHERE PENETRATING FIRE RATED ASSEMBLY.



DATE: 9/19/2020
REVISION:

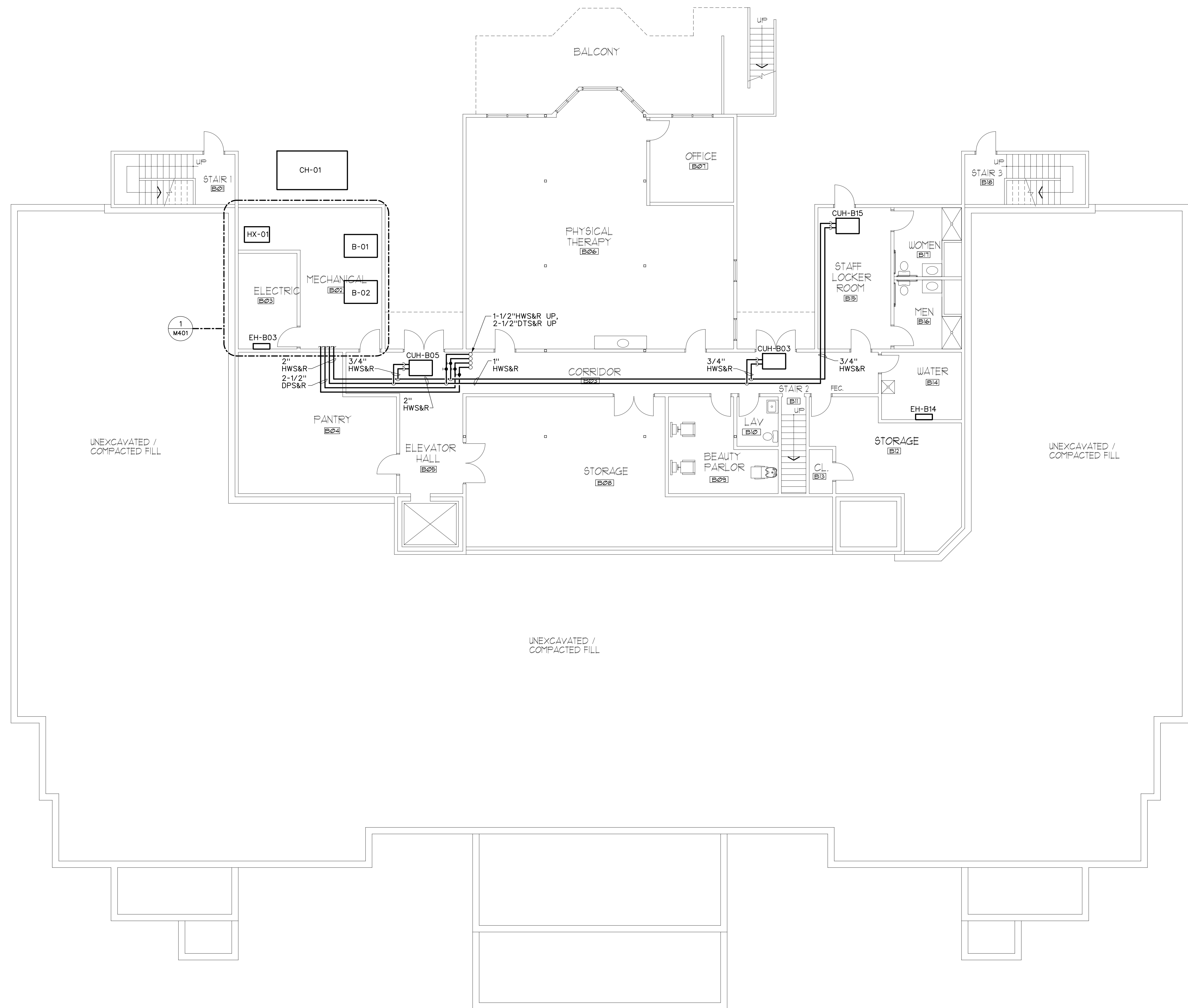
PROJECT NO. 2020095
DESIGNED BY: CUE
DRAWN BY: CUE
CHECKED BY: RSA
SCALE: AS NOTED
NOTES:

SECOND FLOOR
DUCTWORK PLAN

HARRIS A. SANDERS
ARCHITECTS, P.C.
252 WASHINGTON AVENUE, ALBANY, NEW YORK 12210
L'DOR ADULT CARE FACILITY
156 WEST CLARKSTOWN ROAD
NEW CITY, N.Y. 10956



SHEET NO.
M103



1 BASEMENT MECHANICAL PIPING PLAN
M201 SCALE: 1/8"=1'-0" NORTH



DATE: 8/18/2000
REVISION:

PROJECT NO.	DESIGNED BY	DRAWN BY	CHECKED BY	SCALE	AS NOTED
200005	CUE	CUE	PSA		

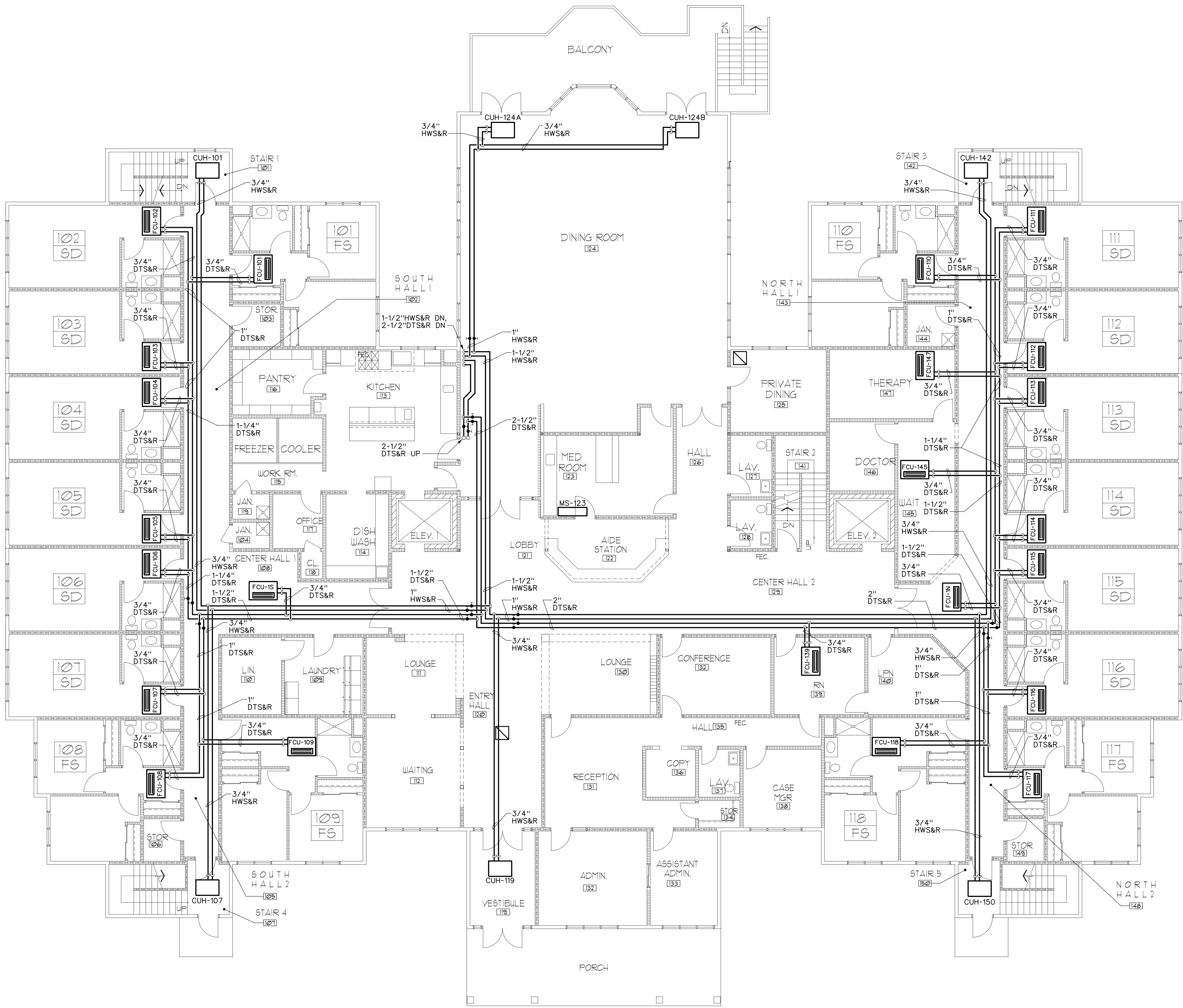
BASEMENT MECHANICAL
PIPING PLAN

HARRIS A. SANDERS
ARCHITECTS, P.C.
252 WASHINGTON AVENUE, ALBANY, NEW YORK 12210
L'DOR ADULT CARE FACILITY
156 WEST CLARKSTOWN ROAD
NEW CITY, N.Y. 10956

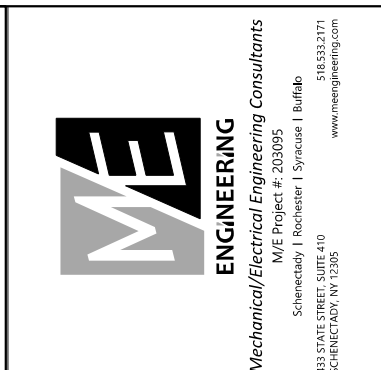


SHEET NO.
M201

GENERAL NOTES:
A. ROUTE 3/4" CONDENSATE FROM EACH FAN COIL TO NEAREST JANITOR CLOSET.



1 FIRST FLOOR MECHANICAL PIPING PLAN
SCALE: 1/8"=1'-0"
0 4' 8' 16'



DATE: 9/17/2000
REVISION:

PROJECT NO. 200005
DESIGNED BY: CUE
DRAWN BY: CUE
CHECKED BY: RSA
SCALE: AS NOTED
NOTES:

FIRST FLOOR
MECHANICAL PIPING PLAN

HARRIS A. SANDERS
ARCHITECTS, P.C.
252 WASHINGTON AVENUE, ALBANY, NEW YORK 12210
L'DOR ADULT CARE FACILITY
156 WEST CLARKSTOWN ROAD
NEW CITY, N.Y. 10956



SHEET NO.
M202

GENERAL NOTES:
A. ROUTE 3/4" CONDENSATE FROM EACH FAN COIL TO NEAREST JANITOR CLOSET.



DATE: 9/19/2020

PROJECT NO. 2020095
DESIGNED BY: CUE
DRAWN BY: CUE
CHECKED BY: PCA
SCALE: AS NOTED
NOTES:

SECOND FLOOR
MECHANICAL PIPING PLAN

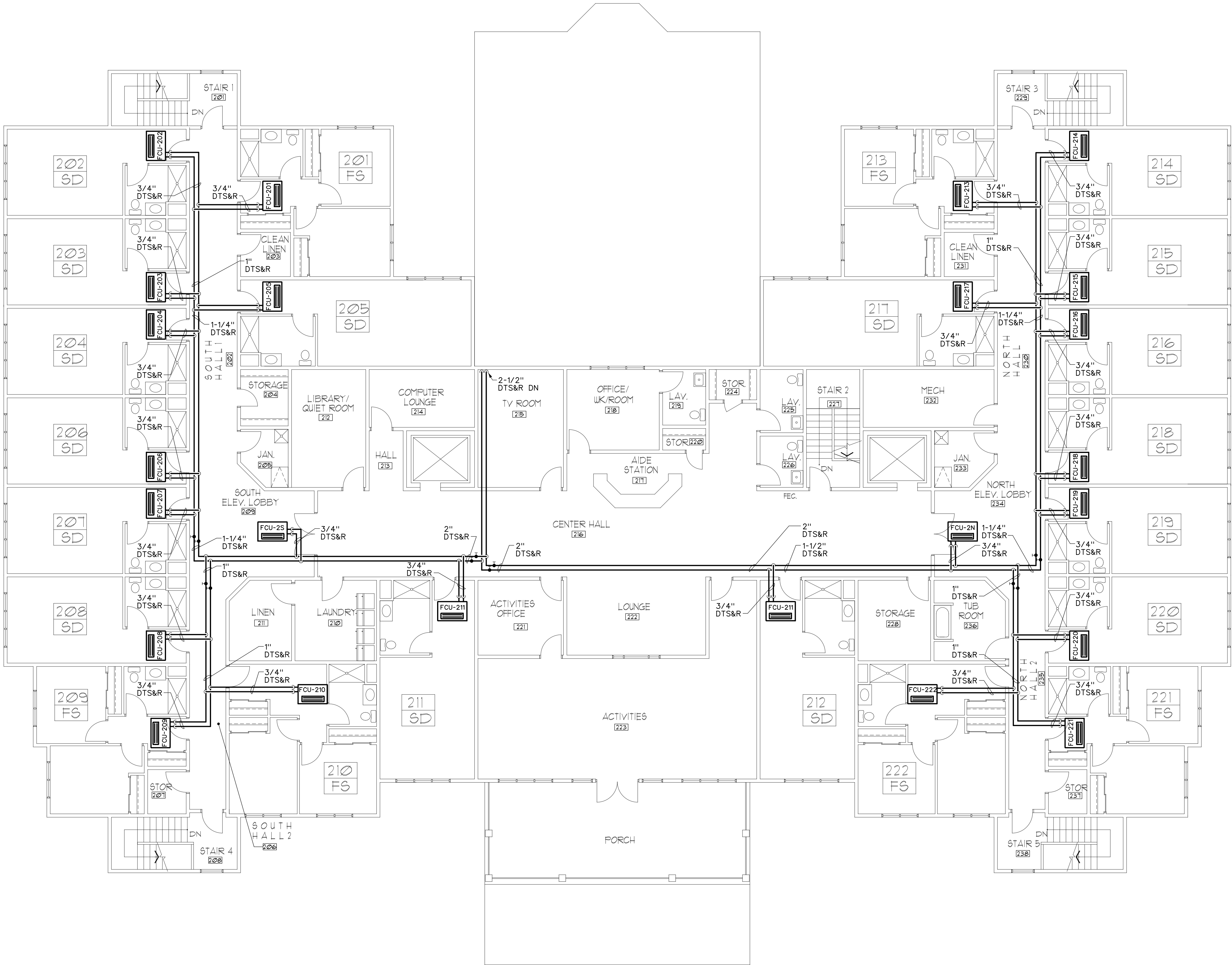
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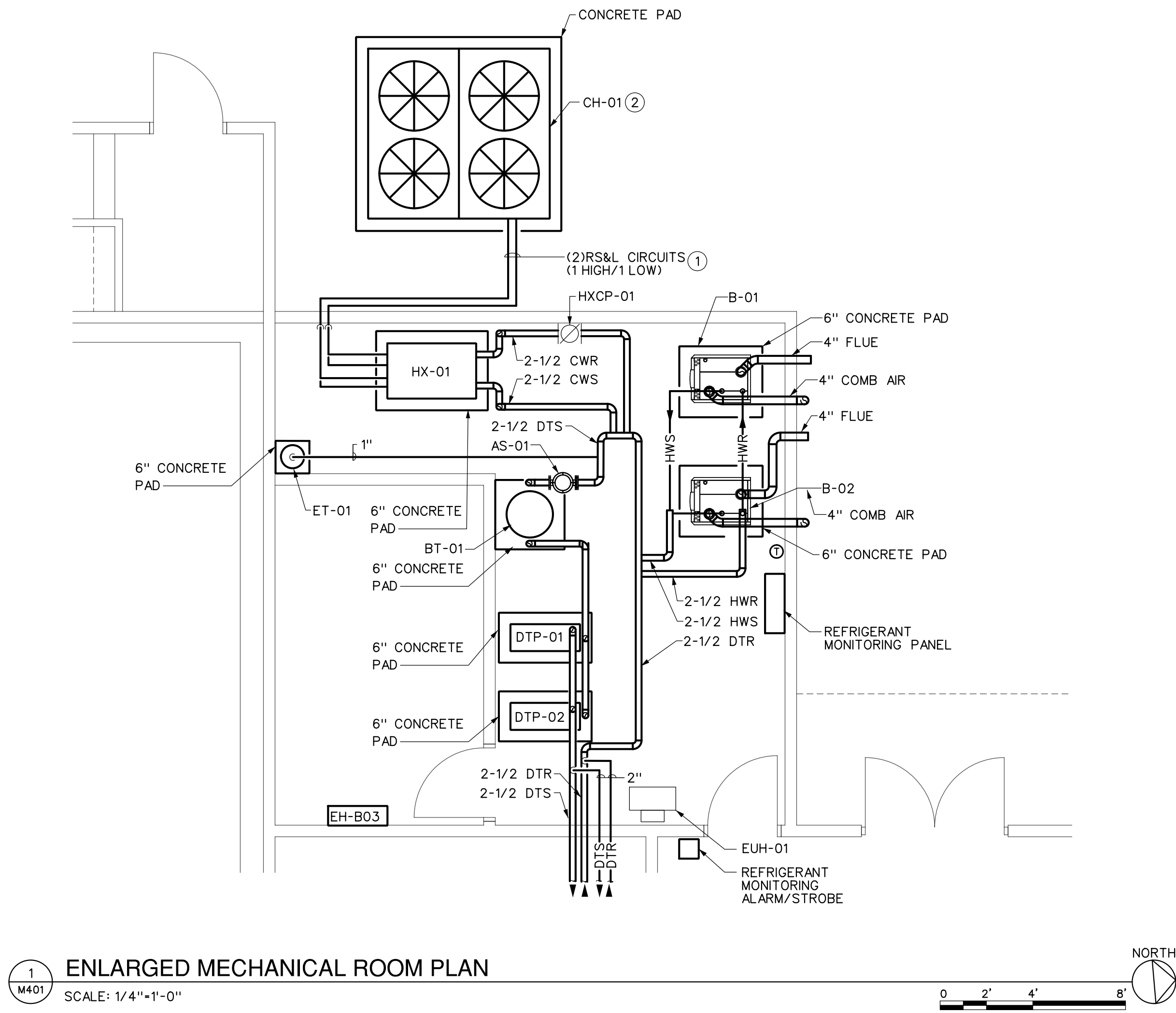


SHEET NO.

M203



1 SECOND FLOOR MECHANICAL PIPING PLAN
SCALE: 1/8"=1'-0" NORTH



- DRAWING NOTES:**
- ① 1-5/8" REFRIGERANT SUCTION AND 1-1/2" REFRIGERANT LIQUID PIPING. PIPING SIZE S INDICATED FOR BID PURPOSES ONLY. COORDINATE FINAL REFRIGERANT PIPE SIZES WITH MANUFACTURER AND ACTUAL FIELD LENGTHS AND ROUTING PRIOR TO ORDER. PROVIDE TRAPS AS RECOMMENDED BY MANUFACTURER.
 - ② AIR COOLED CHILLER LOCATION INDICATED MAINTAINS ALL REQUIRED MINIMUM SERVICE AND PERFORMANCE CLEARANCES. COORDINATE WITH FINAL EQUIPMENT MANUFACTUER TO ENSURE ALL MANUFACTURER CLEARANCES ARE MAINTAINED.

ME
ENGINEERING
Mechanical/Electrical Engineering Consultants
NYE Project # 202005
Schenectady, NY 12305
518.542.1777
www.meengr.com

DATE	9/18/2020
DESIGNED BY	202005
DRAWN BY	RCA
CHECKED BY	AS NOTED
SCALE	AS NOTED
NOTES	

ENLARGED MECHANICAL ROOM PLAN

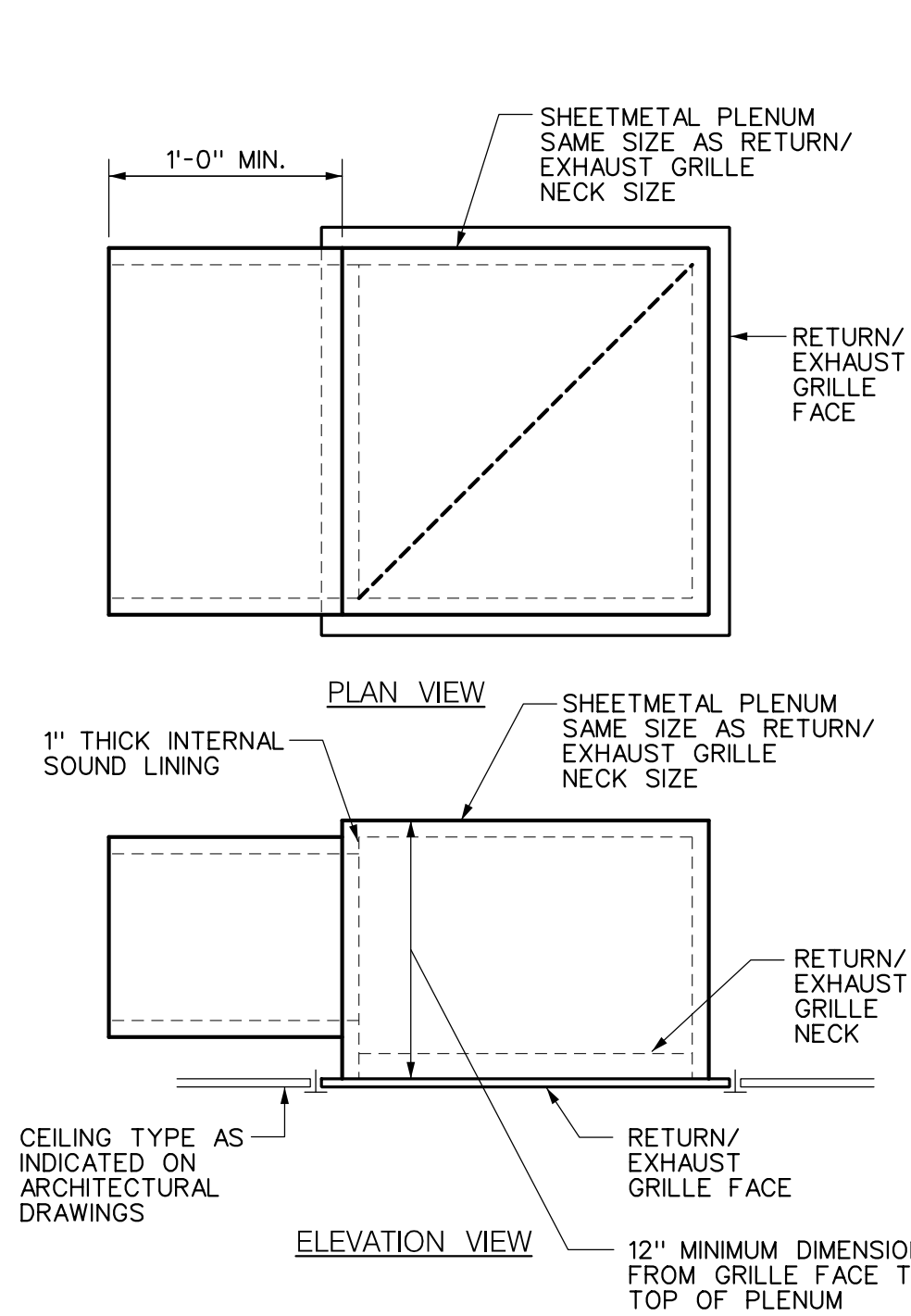
HARRIS A. SANDERS ARCHITECTS, P.C.
252 WASHINGTON AVENUE, ALBANY, NEW YORK 12210

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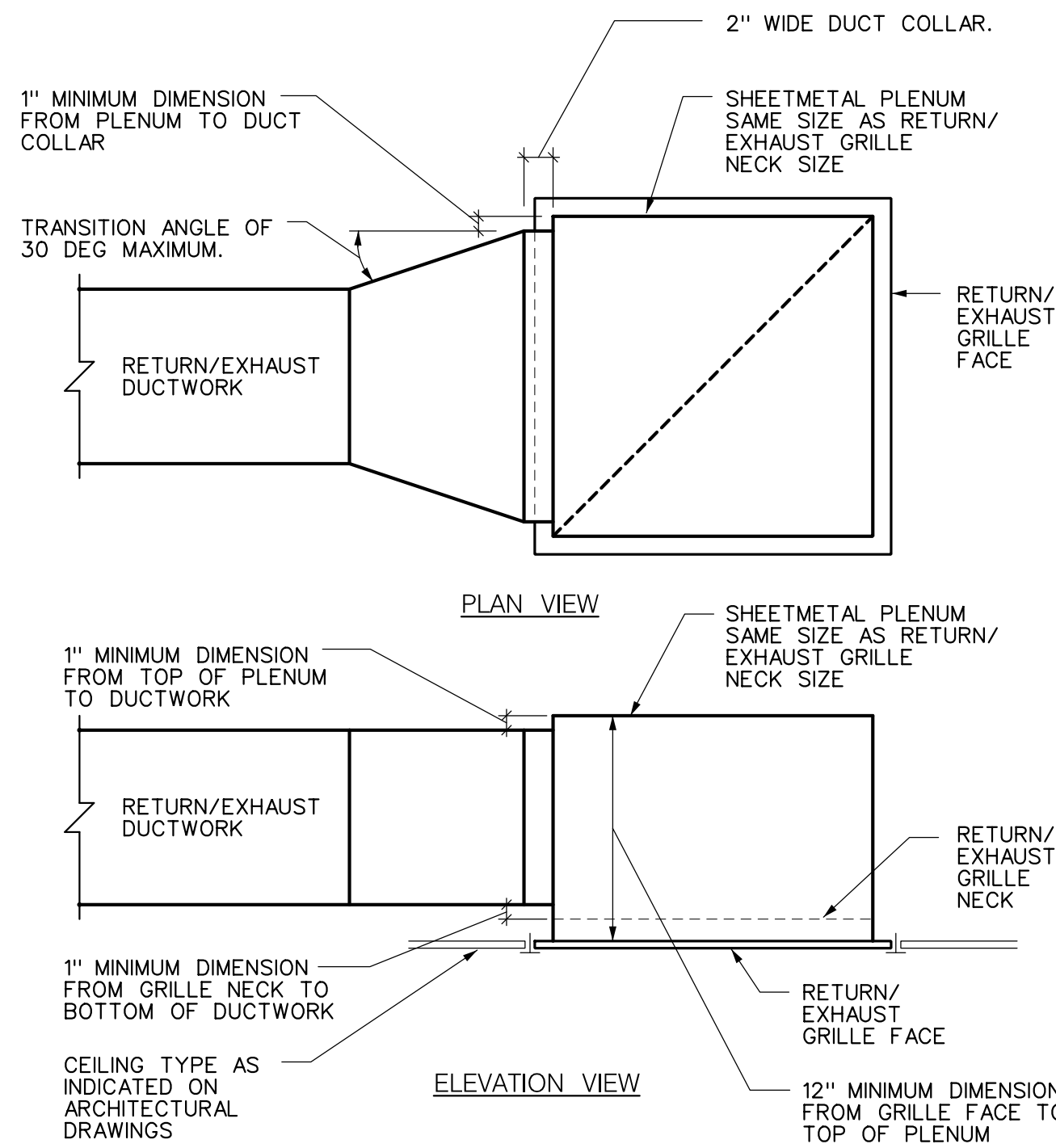
SHEET NO.

M401



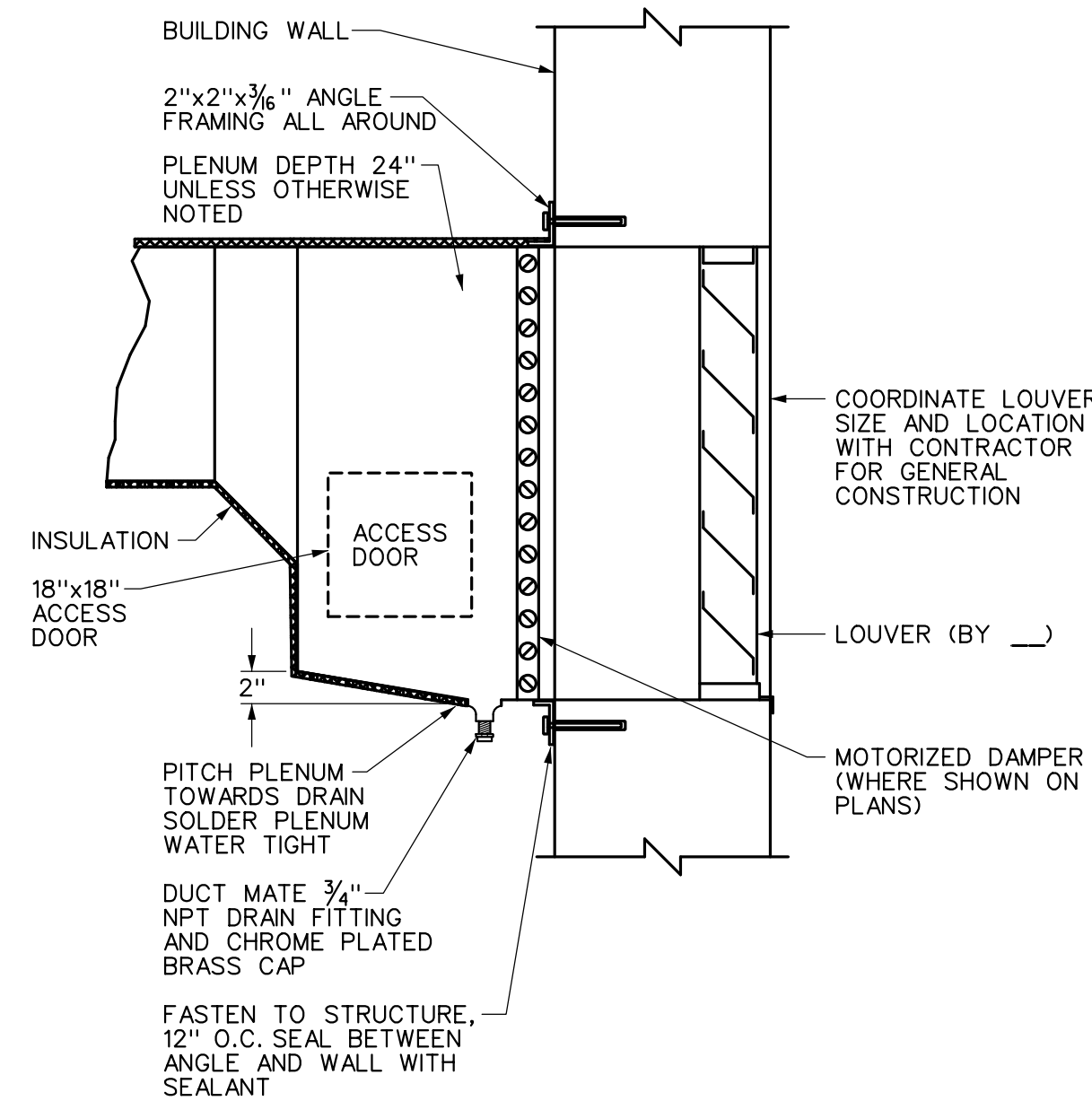
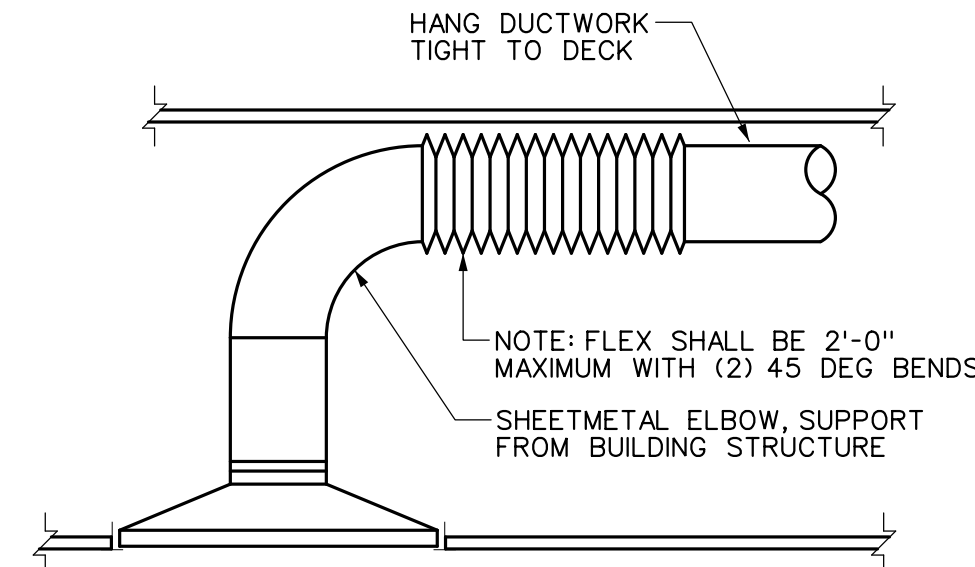
DETAIL NOTES:

- PAINT INSIDE OF PLENUM BOX FLAT BLACK IF
INTERNAL SOUND LINING IS NOT SPECIFIED
- ALSO APPLICABLE TO REGISTERS



DETAIL NOTES:

- PAINT INSIDE OF PLENUM BOX FLAT BLACK IF
INTERNAL SOUND LINING IS NOT SPECIFIED
- ALSO APPLICABLE TO REGISTERS

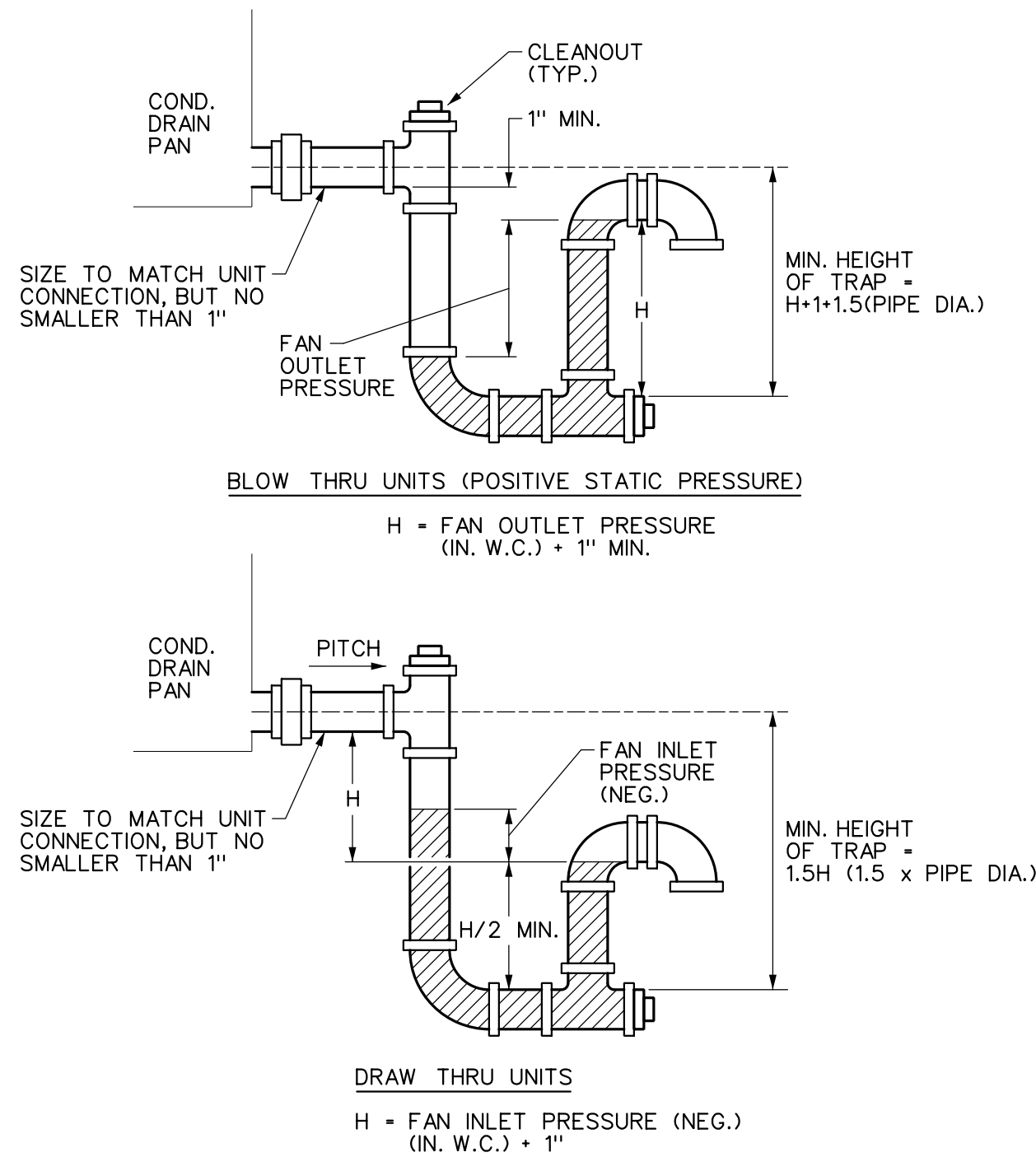


1 RETURN/ EXHAUST GRILLE PLENUM DETAIL
SCALE: NONE NON-DUCTED

2 RETURN/ EXHAUST GRILLE PLENUM DETAIL
SCALE: NONE DUCTED

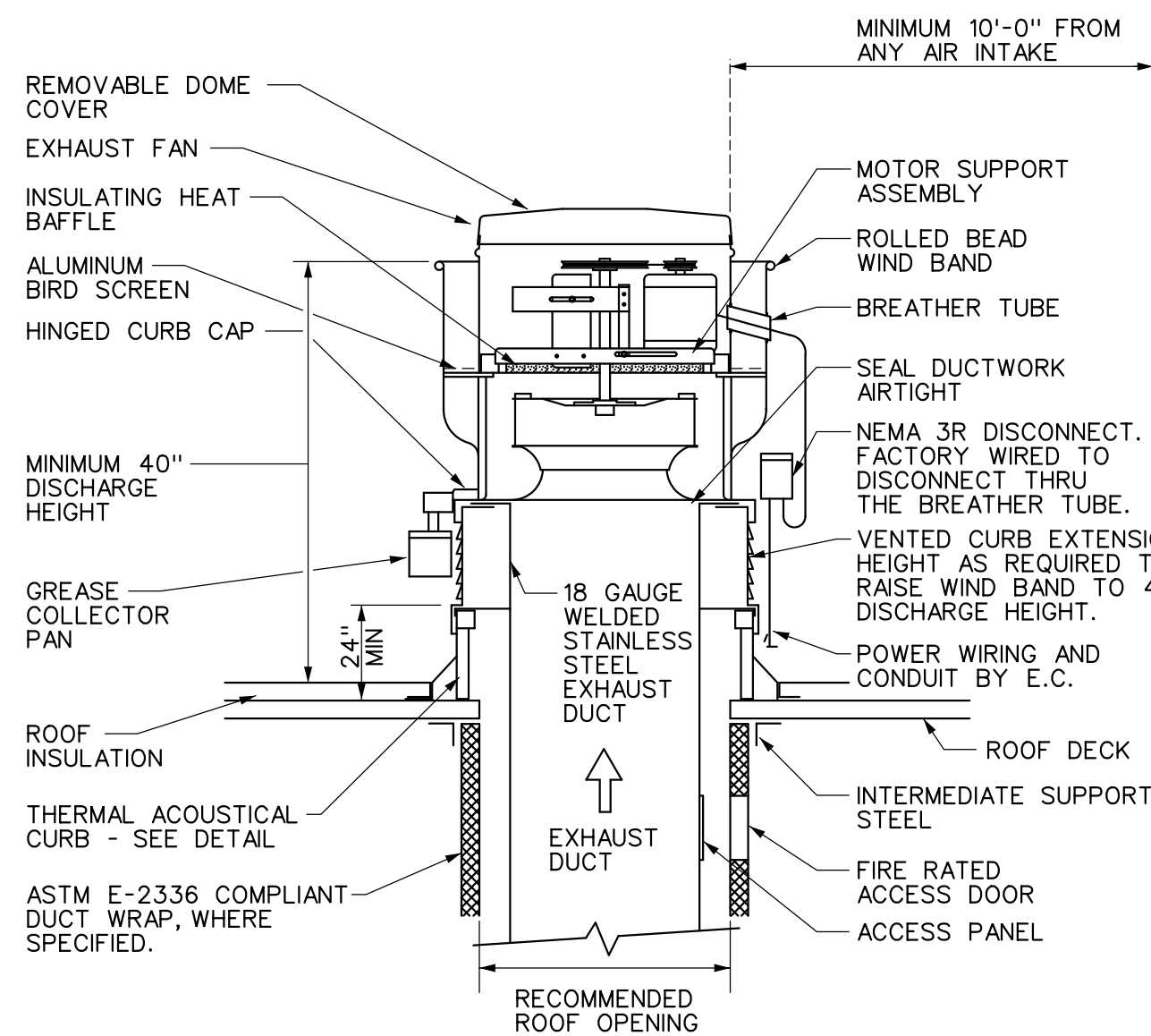
3 TYPICAL DIFFUSER INSTALLATION DETAIL
SCALE: NONE

4 LOUVER PLENUM DETAIL
SCALE: NONE



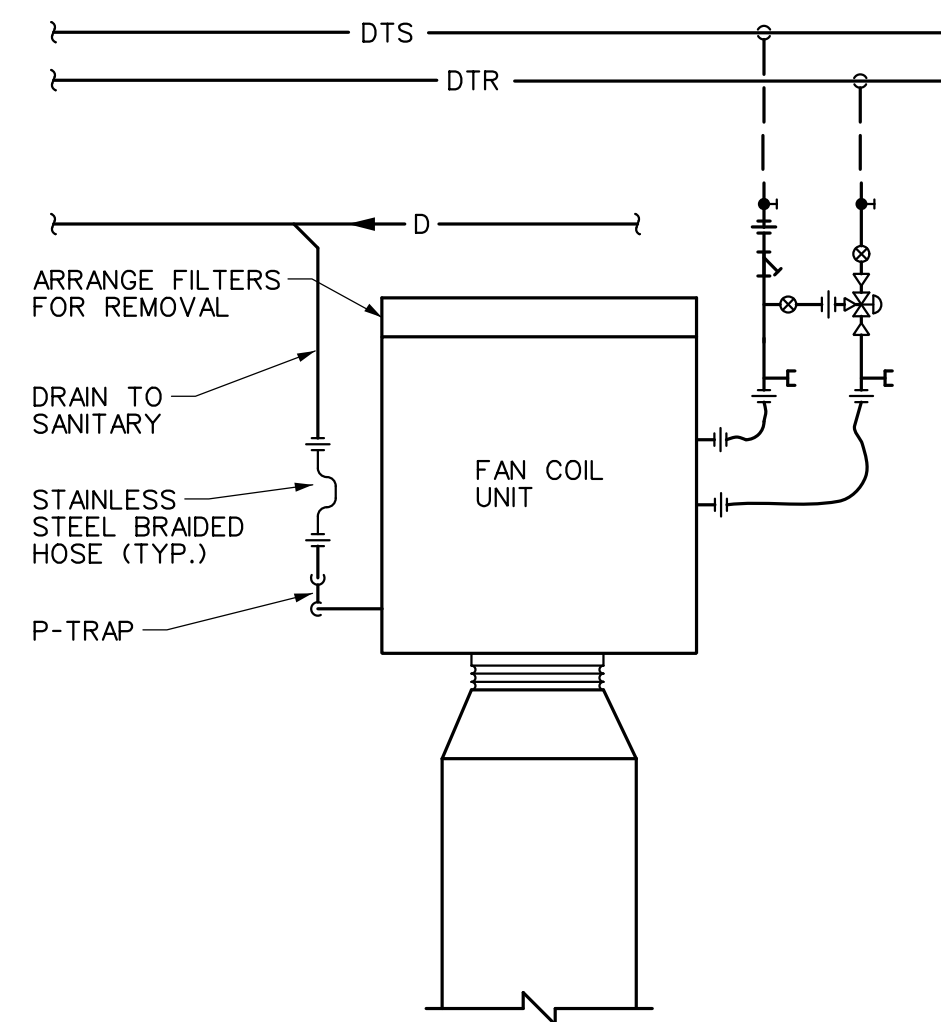
DETAIL NOTES:

- AS AN ALTERNATIVE, IT IS ACCEPTABLE TO PIPE THE TRAP EXACTLY AS
SHOWN IN THE MANUFACTURER'S INSTALLATION MANUAL.
- SEE SPECIFICATIONS FOR PIPE TYPE.



DETAIL NOTES:

- PROVIDE WIND RESTRAINT PER SPECIFICATION SECTION 230550-WIND
RESTRAINT FOR HVAC SYSTEMS (230529-SEISMIC AND WIND RESTRAINT
FOR MECHANICAL SYSTEMS).



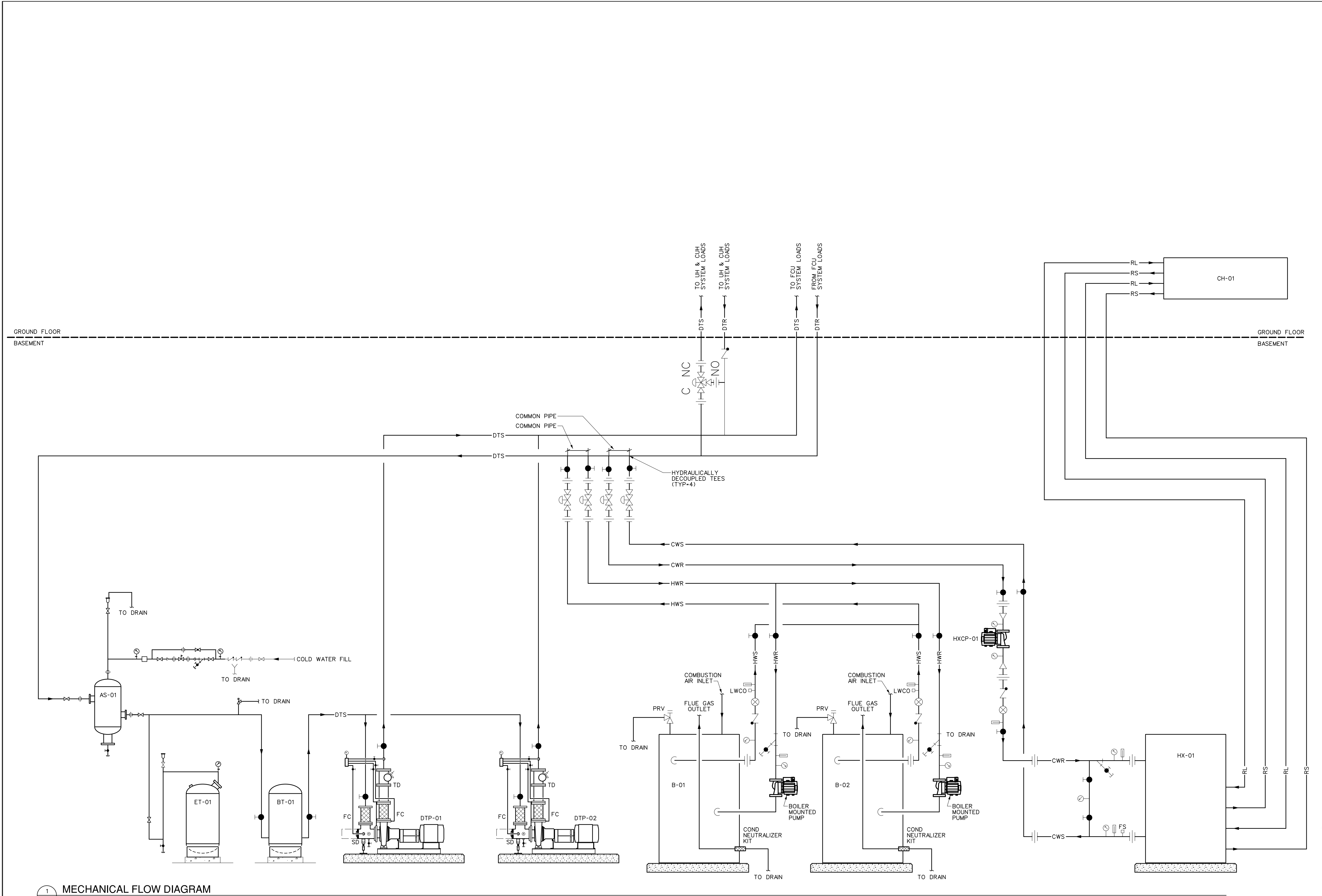
DETAIL NOTES:

- HANG UNIT FROM STRUCTURE AS HIGH AS POSSIBLE WITH STEEL
ROD AND VIBRATION ISOLATORS.
- UNIT SHALL BE ACCESSIBLE FROM BELOW. MECHANICAL AND
ELECTRICAL WORK SHALL NOT BE LOCATED BELOW UNIT.
ARRANGEMENT SHALL PERMIT REMOVAL OF FAN COIL UNIT FOR
MAJOR SERVICING.
- CONTROL PANEL SHALL BE ACCESSIBLE FOR SERVICING.

5 ROOFTOP UNIT CONDENSATE DRAIN TRAP DETAIL
SCALE: NONE

6 KITCHEN EXHAUST FAN DETAIL
SCALE: NONE

7 CEILING MOUNTED FAN COIL UNIT DETAIL
SCALE: NONE DUAL TEMP



1 MECHANICAL FLOW DIAGRAM
M601 SCALE: NONE

MECHANICAL FLOW DIAGRAM

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PACKAGED AIR COOLED SCROLL/HELICAL ROTARY SCREW CHILLER SCHEDULE

UNIT NO.	LOCATION	CAP. (TONS)	NO. OF COMPRESSORS	REFRIGERATION TYPE	CHILLED WATER FLOW RATE (GPM)		FLUID	P.D. (ft. HD)	ENT. WATER TEMP. (° F)	LVG. WATER TEMP. (° F)	FOULING FACTOR	CONDENSER					MINIMUM FULL LOAD	EFFICIENCY (EER) IPLV	ELECTRICAL				SOUND PRESSURE RATING (dBA)	PHYSICAL CHARACTERISTICS NOMINAL DIMENSIONS				MANUFACTURER & MODEL No.	REMARKS	
					DESIGN	MINIMUM						LOW AMB. (° F)	HIGH AMB. (DEG. F)	ENT. AIR TEMP (DEG. F)	NO. FANS	FAN DIA. (in.)			TEST PROCEDURE	VOLTS	PH	MCA		MOP	LENGTH (IN.)	WIDTH (IN.)	HEIGHT (IN.)			WEIGHT (LBS)
CH-01	ON GRADE	40.3	4	R-410A	80	67	WATER	9.59	54	42	.0001	0	125	95	4	30	10.74	17.12	AHRI 550/590	208	3	242	250	58	94	88	1000	3090	DAIKIN MCQUAY AGZ045E	1,2,3,4,5

- REMARKS:
1. PROVIDE SINGLE POINT CONNECTION FROM MANUFACTURER.
2. PROVIDE UNIT WITH REMOTE EVAPORATOR HEAT EXCHANGER FROM MANUFACTURER.
3. PROVIDE SPRING ISOLATOR KIT FROM MANUFACTURER.
4. PROVIDE FLOW SWITCH FROM MANUFACTURER.
5. PROVIDE 3/4" SINGLE LAYER INSULATION ON REMOTE EVAPORATOR FROM MANUFACTURER.
6. PROVIDE WITH FACTORY STRAINER KIT AND COMPRESSOR BLANKETS
7. PROVIDE WITH VFD CONDENSER FANS AND GRILLES OVER CONDENSER

BOILER SCHEDULE - HOT WATER - CONDENSING - NATURAL GAS

UNIT NO.	LOCATION	SERVICE	TYPE	BOILER HP	INPUT MBH	OUTPUT MBH	TURN DOWN RATIO	MIN. GAS PRESSURE BEFORE REGULATOR	FLUID	ENT. WATER TEMP. (DEG. F)	LVG. WATER TEMP. (DEG. F)	FLOW RATE GPM (DESIGN)	DESIGN P.D. (FT. HD)	MAX WORKING PRESSURE (PSI)	RELIEF VALVE SETTING (PSI)	FLUE SIZE (IN.)	MIN. EFF. REQ.		ELEC. CHARACTERISTICS				MANUFACTURER & MODEL No.	REMARKS
																	EFF %	TEST PROC.	VOLTS	HZ	PH.	FLA		
B-01	MECH ROOM	HEATING	STAINLESS STEEL WATER TUBE	11.9	399.0	386.0	5 TO 1	11	WATER	115	140	32	11.5	160	75	4	96.5	AFUE	120	60	1	6	LAARS NEOTHERM NTH-399	1,2,3
B-02	MECH ROOM	HEATING	STAINLESS STEEL WATER TUBE	11.9	399.0	386.0	5 TO 1	11	WATER	115	140	32	11.5	160	75	4	96.5	AFUE	120	60	1	6	LAARS NEOTHERM NTH-399	1,2,3

- REMARKS:
1. PROVIDE FLOW SWITCH.
2. PROVIDE LOW WATER CUT OFF.
3. PROVIDE WITH BOILER PUMP BY SAME MANUFACTURER

PUMP SCHEDULE

PUMP NO.	LOCATION	SERVICE	UNIT TYPE & DESCRIPTION	PUMP CAPACITY		MOTOR CHARACTERISTICS					IMPELLER SIZE (DIA. in.)	FLUID TEMP. (DEG. F)	MIN. PUMP EFF. (%)	MAX. BHP	SUCTION & DISCHARGE SIZES (in.)	TRIPLE DUTY VALVE SIZE (in.)	SUCTION DIFFUSER SIZE (in.)	MANUFACTURER & MODEL NO.	REMARKS
				FLOW (GPM)	TOTAL HEAD IN FEET	RPM	HP	VOLTS	PHASE	STARTER									
HXCP-01	BOILER ROOM	CHILLED WATER	CLOSE COUPLED INLINE	68	40	1725	1.5	208	3	COMBO	6.375	42	69.2	1.02	2" / 2"	-	-	B&G E-90 2AB	
DTP-01	BOILER ROOM	DUAL TEMP LOOP	BASE MOUNTED END SUCTION	68	70	1800	3	208	3	COMBO	8.625	68	56.2	2.25	1-1/2" / 1-1/4"	2 -1/2"	1 -1/4"	B&G E-1510 1.25BC	
DTP-02	BOILER ROOM	DUAL TEMP LOOP	BASE MOUNTED END SUCTION	68	70	1800	3	208	3	COMBO	8.625	68	56.2	2.25	1-1/2" / 1-1/4"	2 -1/2"	1 -1/4"	B&G E-1510 1.25BC	1

- REMARKS:
1. STAND-BY

FAN SCHEDULE

UNIT NO.	LOCATION	SERVICE	FAN CHARACTERISTICS				MOTOR CHARACTERISTICS										MANUFACTURER & MODEL NO.		REMARKS
			TYPE	BLADE TYPE	CFM	S.P. (In. WC)	MAX. BHP	SONES	DRIVE	RPM	HP	VOLTS	HZ	PHASE	STARTER				
EF-B10	B10	EXHAUST	CEILING	FC	80	.25	-	.3	DIRECT	1084	24.4	WATTS	120	60	1	INCLUDED	PANASONIC WHISPERGREEN SELECT FV-1115VK2	1,2,4	
EF-127	127	EXHAUST	CEILING	FC	80	.25	-	.3	DIRECT	1084	24.4	WATTS	120	60	1	INCLUDED	PANASONIC WHISPERGREEN SELECT FV-1115VK2	1,2,4	
EF-128	128	EXHAUST	CEILING	FC	80	.25	-	.3	DIRECT	1084	24.4	WATTS	120	60	1	INCLUDED	PANASONIC WHISPERGREEN SELECT FV-1115VK2	1,2,4	
EF-137	137	EXHAUST	CEILING	FC	80	.25	-	.3	DIRECT	1084	24.4	WATTS	120	60	1	INCLUDED	PANASONIC WHISPERGREEN SELECT FV-1115VK2	1,2,4	
EF-219	219	EXHAUST	CEILING	FC	80	.25	-	.3	DIRECT	1084	24.4	WATTS	120	60	1	INCLUDED	PANASONIC WHISPERGREEN SELECT FV-1115VK2	1,2,4	
EF-225	225	EXHAUST	CEILING	FC	80	.25	-	.3	DIRECT	1084	24.4	WATTS	120	60	1	INCLUDED	PANASONIC WHISPERGREEN SELECT FV-1115VK2	1,2,4	
EF-226	226	EXHAUST	CEILING	FC	80	.25	-	.3	DIRECT	1084	24.4	WATTS	120	60	1	INCLUDED	PANASONIC WHISPERGREEN SELECT FV-1115VK2	1,2,4	
EF-LOCKER	LOCKER ROOM	EXHAUST	INLINE	DIFC	275	.75	-	4	DIRECT	1282	105	WATTS	120	60	1	MANUAL W/ RELAY	GREENHECK CSP-A390	2,6	
EF-B09	BEAUTY SALON	EXHAUST	CEILING	DIFC	200	.75	-	4	DIRECT	1230	135	WATTS	120	60	1	MAUNAL W/ RELAY	GREENHECK CSP-A390	2,6	
EF-B02	BOILER ROOM	EXHAUST	INLINE	BI	1000	.5	.17	6.8	DIRECT	1222	1/2	120	60	1	MAUNAL W/ RELAY	GREENHECK SQ-120VG	2,3,5,6		

- REMARKS:
1. PROVIDE RADIATION DAMPER FOR FAN.
2. PROVIDE BACKDRAFT DAMPER.
3. PROVIDE ECM MOTOR.
4. PROVIDE 2 - SPEED FAN SET LOW SPEED AT 25 CFM AND "BOOST" SPEED AT 80 CFM. SPECIFIED MODEL INCLUDES TIME DELAY FUNCTION.
5. ECM MOTOR (ELECTRONICALLY COMMUTATED) W/ 0-10V INPUT
6. PROVIDE WITH SPRING ISOLATORS

LOUVER SCHEDULE

UNIT NO.	LOCATION	SERVICE	TYPE	MATERIAL	FINISH	FREE AREA (Sq. Ft.)	DIMENSIONS (APPROX.)			AIR PERFORMANCE			MANUFACTURER & MODEL NO.	REMARKS
							WIDTH (IN.)	HEIGHT (IN.)	DEPTH (IN.)	AIR FLOW (CFM)	VEL. (FPM)	MAX P.D. (IN. WC)		
LV-A	B02	INTAKE	FIXED DRAINABLE	ALUMINUM	KYNAR	1.8	24	24	4	1000	555	.06	AWV LE-23	1,2,3
LV-B	B02	EXHAUST	FIXED DRAINABLE	ALUMINUM	KYNAR	1.8	24	24	4	1000	555	.06	AWV LE-23	1,2,3

- REMARKS:
1. BIRD SCREEN.
2. COLOR BY ARCHITECT
3. EXTRUDED SILLS.

EXPANSION TANK SCHEDULE

UNIT NO.	SERVICE	TANK VOLUME, GALLONS	ACCEPTANCE VOLUME, GALLONS	TANK DIA., INCHES	CONNECTION SIZE, INCH NPT	PRECHARGE PRESSURE PSIG	WORKING PRESSURE PSIG	MAX WORKING TEMP	DESIGN EQUIPMENT
ET-01	HEATING LOOP	55.7	22.6	16.25	3/4	12	125	240	BELL & GOSSETT SERIES D-100V

AIR SEPARATOR SCHEDULE

UNIT NO.	SERVICE	GPM	MAX PRESS DROP FT HD	WORKING PRESSURE PSIG	MAX WORKING TEMP	INLET/OUTLET SIZE	STRAINER FREE AREA SQ.IN.	DESIGN EQUIPMENT
AS-01	HEATING LOOP	68	2.5	125	350	2.5"	32	BELL & GOSSETT ROLAIRTROL R-2 1/2

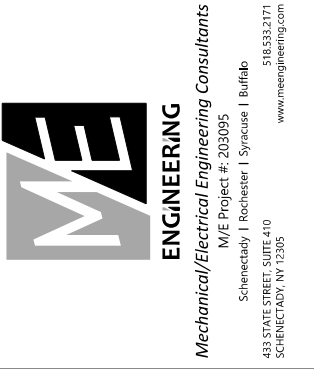
BUFFER TANK SCHEDULE

UNIT NO.	SERVICE	GALLONS	WORKING PRESSURE PSIG	MAX WORKING TEMP	INLET/OUTLET SIZE	WT W/OUT FLUID (LBS)	DESIGN EQUIPMENT
BF-01	COOLING SYSTEM	120	125	450	2.5/2.5	597	WESSEL CBT-120

UNIT HEATER SCHEDULE - ELECTRIC

UNIT NO.	LOCATION	TYPE	CAPACITY MBH	AIR SIDE		ENT. AIR TEMP. (DEG. F)	LVG. AIR TEMP. (DEG. F)	FAN SPEED (RPM)	MOTOR HP	MOUNTING HEIGHT (ft.-in.)	THROW (ft.)	ELEC CHARACTERISTICS					MANUFACTURER & MODEL No.	REMARKS
				AIR FLOW (CFM)	AIR FLOW (CFM)							CAPACITY (KW)	NO. OF STEPS	VOLTS	PH	AMPS		
EUH-01	RM B02	HORIZONTAL	17.0	350	50	50	95	1600	1/100	8	12	5	1	208	3	24	QMARK MUH05	1,2,3

- REMARKS:
1. PROVIDE 120 VOLT WALL MOUNTED THERMOSTAT.
2. PROVIDE WALL BRACKET.
3. PROVIDE UNIT MOUNTED DISCONNECT.



DATE: 9/18/2020
REVISION:

PROJECT NO: 2020095
DESIGNED BY:
DRAWN BY:
CHECKED BY:
SCALE:
NOTES:

SCHEDULES

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SHEET NO:

M702

DUAL TEMPERATURE WATER SYSTEM

THE SYSTEM SHALL BE ENABLED AT ALL TIMES UNLESS SHUTDOWN ON ALARMS OR SAFETIES.

HOT WATER PUMP PUMPS (DTP-01 & DTP-02) DUAL TEMPERATURE WATER PUMPS RUN CONDITIONS:THE DUAL TEMPERATURE WATER PUMPS SHALL BE ENABLED WHENEVER:

- THE LEAD PUMP SHALL BE ENABLED WHENEVER THE OUTSIDE AIR TEMPERATURE IS LESS THAN 54 DEG F (ADJ) OR ABOVE 60 DEG F (ADJ).
- THE STANDBY PUMP SHALL BE ENABLED WHENEVER THE LEAD PUMP IS IN ALARM.

TO PREVENT SHORT CYCLING,THE PUMP SHALL RUN FOR A MINIMUM TIME AND BE OFF FOR A MINIMUM TIME (BOTH USER ADJUSTABLE).

THE DESIGNATED LEAD PUMP SHALL ROTATE UPON ONE OF THE FOLLOWING CONDITIONS (USER SELECTABLE):

- MANUALLY THROUGH A SOFTWARE SWITCH
- IF PUMP RUNTIME (ADJ.) IS EXCEEDED
- DAILY
- WEEKLY
- MONTHLY

ALARMS SHALL BE PROVIDED AS FOLLOWS:

- DUAL TEMPERATURE WATER PUMP 1
- FAILURE: COMMANDED ON,BUT THE STATUS IS OFF.
 - RUNNING IN HAND: COMMANDED OFF,BUT THE STATUS IS ON.
 - RUNTIME EXCEEDED: STATUS RUNTIME EXCEEDS A USER DEFINABLE LIMIT.
- DUAL TEMPERATURE WATER PUMP 2
- FAILURE: COMMANDED ON,BUT THE STATUS IS OFF.
 - RUNNING IN HAND: COMMANDED OFF,BUT THE STATUS IS ON.
 - RUNTIME EXCEEDED: STATUS RUNTIME EXCEEDS A USER DEFINABLE LIMIT.
- DUAL TEMPERATURE WATER TEMPERATURE MONITORING:
- THE FOLLOWING TEMPERATURES SHALL BE MONITORED:
- DUAL TEMPERATURE WATER SUPPLY.
 - DUAL TEMPERATURE WATER RETURN.

ALARMS SHALL BE PROVIDED AS FOLLOWS:

- HIGH DUAL TEMPERATURE WATER SUPPLY TEMP: IF THE DUAL TEMPERATURE WATER SUPPLY TEMPERATURE IS GREATER THAN 180F (ADJ.).
- LOW DUAL TEMPERATURE WATER SUPPLY TEMP: IF THE DUAL TEMPERATURE WATER SUPPLY TEMPERATURE IS LESS THAN 40F (ADJ.).

BOILER SYSTEM RUN CONDITIONS:•THE BOILER SYSTEM SHALL BE ENABLED TO RUN WHENEVER:

- OUTSIDE AIR TEMPERATURE IS LESS THAN 54F (ADJ.).

TO PREVENT SHORT CYCLING,THE BOILER SYSTEM SHALL RUN FOR AND BE OFF FOR MINIMUM ADJUSTABLE TIMES (BOTH USER DEFINABLE),UNLESS SHUTDOWN ON SAFETIES OR OUTSIDE AIR CONDITIONS.

THE BOILER SHALL RUN SUBJECT TO ITS OWN INTERNAL SAFETIES AND CONTROLS.

BOILER ISOLATION CONTROL VALVES:

- THE BOILER ISOLATION VALVES ON THE HWS AND HWR PIPES SHALL OPEN WHENEVER THE BOILER SYSTEM IS ENABLED.

CUH ISOLATION CONTROL VALVE:

- THE CUH ISOLATION VALVES ON THE HWS AND HWR PIPES SHALL OPEN WHENEVER THE BOILER SYSTEM IS ENABLED.

HOT WATER PUMP:

THE HOT WATER PUMP SHALL RUN ANYTIME THE BOILER IS CALLED TO RUN AND SHALL HAVE A USER DEFINABLE DELAY (ADJ.) ON STOP.

HOT WATER PUMP:

THE HOT WATER PUMP SHALL RUN ANYTIME THE BOILER IS CALLED TO RUN AND SHALL HAVE A USER DEFINABLE DELAY (ADJ.) ON STOP.

ALARMS SHALL BE PROVIDED AS FOLLOWS:

- HOT WATER PUMP FAILURE: COMMANDED ON,BUT THE STATUS IS OFF.
- HOT WATER PUMP RUNNING IN HAND: COMMANDED OFF,BUT THE STATUS IS ON.
- HOT WATER PUMP RUNTIME EXCEEDED: STATUS RUNTIME EXCEEDS A USER DEFINABLE LIMIT.

BOILER PUMP 1:•THE BOILER PUMP 1 SHALL RUN ANYTIME BOILER 1 IS CALLED TO RUN AND SHALL HAVE A USER DEFINABLE DELAY (ADJ.) ON STOP.

ALARMS SHALL BE PROVIDED AS FOLLOWS:

- BOILER PUMP 1 FAILURE: COMMANDED ON,BUT THE STATUS IS OFF.
- BOILER PUMP 1 RUNNING IN HAND: COMMANDED OFF, BUT THE STATUS IS ON.
- BOILER PUMP 1 RUNTIME EXCEEDED: STATUS RUNTIME EXCEEDS A USER-DEFINABLE LIMIT.

BOILER PUMP 2:•THE BOILER PUMP 2 SHALL RUN ANYTIME BOILER 2 IS CALLED TO RUN AND SHALL HAVE A USER DEFINABLE DELAY (ADJ.) ON STOP.•

ALARMS SHALL BE PROVIDED AS FOLLOWS:

- BOILER PUMP 2 FAILURE: COMMANDED ON,BUT THE STATUS IS OFF.
- BOILER PUMP 2 RUNNING IN HAND: COMMANDED OFF,BUT THE STATUS IS ON.
- BOILER PUMP 2 RUNTIME EXCEEDED: STATUS RUNTIME EXCEEDS A USER-DEFINABLE LIMIT.

BOILER LEAD/LAG OPERATION:

THE BOILERS SHALL OPERATE IN A LEAD/LAG FASHION WHEN CALLED TO RUN AND FLOW IS PROVEN.

- THE LEAD BOILER SHALL RUN FIRST.
- THE LAG BOILER SHALL RUN SECOND.
- ON FAILURE OF THE LEAD BOILER,THE LAG BOILER SHALL RUN AND THE LEAD BOILER SHALL TURN OFF.

THE DESIGNATED LEAD AND LAG BOILERS SHALL ROTATE UPON ONE OF THE FOLLOWING CONDITIONS: (USER SELECTABLE):

- MANUALLY THROUGH A SOFTWARE SWITCH
- IF BOILER RUNTIME (ADJ.) IS EXCEEDED
- DAILY
- WEEKLY
- MONTHLY

ALARMS SHALL BE PROVIDED AS FOLLOWS:

- BOILER 1
 - FAILURE: COMMANDED ON BUT THE STATUS IS OFF.
 - RUNNING IN HAND: COMMANDED OFF BUT THE STATUS IS ON.
 - RUNTIME EXCEEDED: STATUS RUNTIME EXCEEDS A USER DEFINABLE LIMIT.
- BOILER 2
 - FAILURE: COMMANDED ON BUT THE STATUS IS OFF.
 - RUNNING IN HAND: COMMANDED OFF BUT THE STATUS IS ON.
 - RUNTIME EXCEEDED: STATUS RUNTIME EXCEEDS A USER DEFINABLE LIMIT.
- LEAD BOILER FAILURE: THE LEAD BOILER IS IN FAILURE AND THE LAG BOILER IS ON.

HOT WATER SUPPLY TEMPERATURE SETPOINT:

THE BOILER SHALL MAINTAIN A HOT WATER SUPPLY TEMPERATURE SETPOINT BASED ON OUTSIDE AIR TEMPERATURE. THE OUTSIDE AIR TEMPERATURE RISE FROM 0 DEG F (ADJ) TO 50 DEG F (ADJ) THE HOT WATER SUPPLY SETPOINT SHALL RESET DOWNWARDS FROM 140 DEG F (ADJ) TO 110 DEG F (ADJ).

PRIMARY HOT WATER TEMPERATURE MONITORING:

THE FOLLOWING TEMPERATURES SHALL BE MONITORED:

- PRIMARY HOT WATER SUPPLY.
- PRIMARY HOT WATER RETURN.

CHILLER - RUN CONDITIONS:

THE CHILLER SHALL BE ENABLED TO RUN WHENEVER:

-THE OUTSIDE AIR TEMPERATURE IS GREATER THAN 64 DEG. F (ADJ.).

TO PREVENT SHORT CYCLING,THE CHILLER SHALL RUN FOR AND BE OFF FOR MINIMUM ADJUSTABLE TIMES (BOTH USER DEFINABLE),UNLESS SHUTDOWN ON SAFETIES OR OUTSIDE AIR CONDITIONS.

THE CHILLER SHALL RUN SUBJECT TO ITS OWN INTERNAL SAFETIES AND CONTROLS.

CHILLED WATER PUMP (HXCP-01):

THE CHILLED WATER PUMP SHALL RUN ANYTIME THE CHILLER IS CALLED TO RUN.

THE CHILLED WATER PUMP SHALL START PRIOR TO THE CHILLER BEING ENABLED AND SHALL STOP ONLY AFTER THE CHILLER IS DISABLED. THE CHILLED WATER PUMP SHALL THEREFORE HAVE:

- A USER ADJUSTABLE DELAY ON START.
- AND A USER ADJUSTABLE DELAY ON STOP.

THE DELAY TIMES SHALL BE SET APPROPRIATELY TO ALLOW FOR ORDERLY CHILLED WATER SYSTEM START-UP,SHUTDOWN AND SEQUENCING.

ALARMS SHALL BE PROVIDED AS FOLLOWS:

- CHILLED WATER PUMP FAILURE: COMMANDED ON,BUT THE STATUS IS OFF.
- CHILLED WATER PUMP RUNNING IN HAND: COMMANDED OFF,BUT THE STATUS IS ON.
- CHILLED WATER PUMP RUNTIME EXCEEDED: STATUS RUNTIME EXCEEDS A USER DEFINABLE LIMIT.

CHILLER:

THE CHILLER SHALL BE ENABLED A USER ADJUSTABLE TIME AFTER PUMP STATUSES ARE PROVEN ON. THE CHILLER SHALL THEREFORE HAVE A USER ADJUSTABLE DELAY ON START.

THE DELAY TIME SHALL BE SET APPROPRIATELY TO ALLOW FOR ORDERLY CHILLED WATER SYSTEM START-UP,SHUTDOWN AND SEQUENCING.

THE CHILLER SHALL RUN SUBJECT TO ITS OWN INTERNAL SAFETIES AND CONTROLS.

ALARMS SHALL BE PROVIDED AS FOLLOWS:

- CHILLER FAILURE: COMMANDED ON,BUT THE STATUS IS OFF.
- CHILLER RUNNING IN HAND: COMMANDED OFF,BUT THE STATUS IS ON.
- CHILLER RUNTIME EXCEEDED: STATUS RUNTIME EXCEEDS A USER DEFINABLE LIMIT.

CHILLER ISOLATION CONTROL VALVES:

- THE CHILLER ISOLATION VALVES ON THE CWS AND CWR PIPES SHALL OPEN WHENEVER THE CHILLER SYSTEM IS ENABLED.

CHILLER CHILLED WATER SUPPLY SETPOINT:

THE CHILLER SHALL MAINTAIN A CHILLED WATER SUPPLY TEMPERATURE SETPOINT AS DETERMINED BY ITS OWN INTERNAL CONTROLS.

CHILLED WATER TEMPERATURE MONITORING:

THE FOLLOWING TEMPERATURES SHALL BE MONITORED:

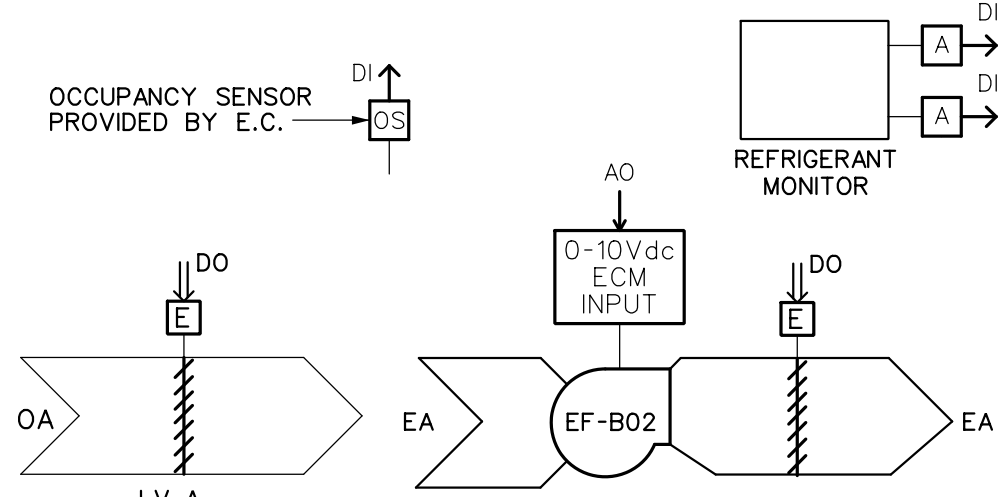
- CHILLED WATER SUPPLY.
- CHILLED WATER RETURN.

ALARMS SHALL BE PROVIDED AS FOLLOWS:

- HIGH CHILLED WATER SUPPLY TEMP: IF THE CHILLED WATER SUPPLY TEMPERATURE IS GREATER THAN 55 DEG. F (ADJ.).

LOW CHILLED WATER SUPPLY TEMP: IF THE CHILLED WATER SUPPLY TEMPERATURE IS LESS THAN 38 DEG. F (ADJ.).

2 M801 UNIT & CABINET UNIT HEATER CONTROL SEQUENCE SCALE: NOT TO SCALE



SYSTEM SUMMARY									
DESCRIPTION	POINTS SCHEDULE								
	ANALOG INPUT	ANALOG OUTPUT	DIGITAL INPUT	DIGITAL OUTPUT	ALARM	INTERLOCK	TIME SCHEDULING		
LV-A OUTSIDE AIR DAMPER									
EF-B02 FAN SPEED									
EF-B02 FAN STATUS									
LV-B EXHAUST AIR DAMPER									
OCCUPANCY SENSOR									
REFRIGERANT MONITOR ALARM									
REFRIGERANT MONITOR FAILURE									

MECHANICAL EXHAUST FAN EF-B02, LV-B AND LV-A DAMPERS SEQUENCE:

- GENERAL EXHAUST MODE:
WHEN THE CHILLER ROOM BECOMES OCCUPIED AS SENSED BY ROOM OCCUPANCY SENSOR, EXHAUST FAN EF-B02 SHALL ENERGIZE AND THE ECM MOTOR SHALL RAMP TO 200 CFM. THE LV-A OUTSIDE AIR DAMPER AND LV-B EXHAUST AIR DAMPER SHALL FULLY OPEN.

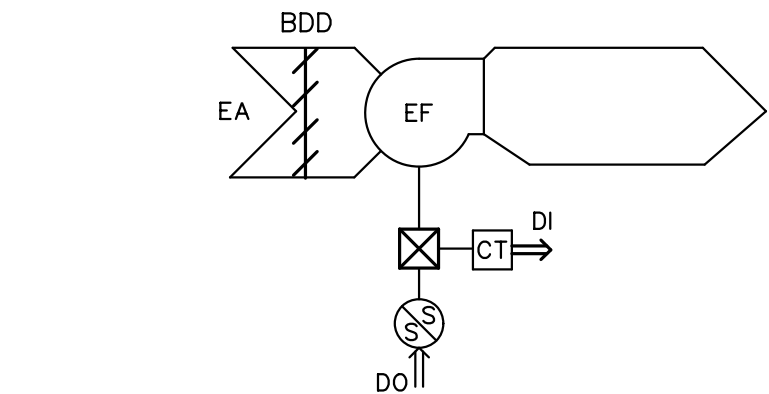
WHEN THE CHILLER ROOM BECOMES UNOCCUPIED AS SENSED BY ROOM OCCUPANCY SENSOR, THE EXHAUST FAN SHALL DEENERGIZE AND THE LV-B EXHAUST AND LV-A OUTSIDE AIR DAMPERS SHALL CLOSE.
- EMERGENCY MODE:
WHEN THE LOCAL REFRIGERANT MONITOR DETECTOR DETERMINES THAT A REFRIGERANT LEAK HAS DEVELOPED, THE BAS SHALL ENERGIZE EXHAUST FAN EF-B02 AND THE ECM MOTOR SHALL RAMP TO 1000 CFM AND THE ASSOCIATED EXHAUST AIR DAMPER AND LV-A OUTSIDE AIR DAMPER SHALL FULLY OPEN AND AN ALARM SHALL BE SEND TO THE MONITOR SYSTEM AND THE BAS.

3 M801 CHILLER ROOM EXHAUST SEQUENCE OF OPERATION SCALE: NOT TO SCALE

DUCTLESS SPLIT SYSTEM CONTROL SEQUENCE:

- GENERAL: UNIT SHALL BE CONTROLLED BY FACTORY PACKAGED CONTROLS TO MAINTAIN SPACE TEMPERATURE SET POINT COOLING: 75 DEGREES F AND HEATING: 70 DEGREES F (ADJUSTABLE)

4 M801 DUCTLESS SPLT CONTROL SEQUENCE SCALE: NOT TO SCALE



SYSTEM SUMMARY									
DESCRIPTION	POINTS SCHEDULE								
	ANALOG INPUT	ANALOG OUTPUT	DIGITAL INPUT	DIGITAL OUTPUT	ALARM	INTERLOCK	TIME SCHEDULING		
TIME OF DAY SCHEDULE									
FAN START/STOP									
FAN STATUS									

TOILET EXHAUST FAN CONTROLS SEQUENCE:

- WHEN THE BUILDING IS SCHEDULED TO BE OCCUPIED, THE DDC SHALL START THE EXHAUST FAN AND IT SHALL RUN CONTINUOUSLY.
- WHEN BUILDING IS SCHEDULED TO BE UNOCCUPIED, THE FAN SHALL BE OFF.
- ALARMS SHALL BE PROVIDED AS FOLLOWS:
 - A. EXHAUST FAN FAULT.

5 M801 TOILET EXHAUST FAN CONTROL SEQUENCE SCALE: NOT TO SCALE

SYSTEM SUMMARY												
POINT NAME	HARDWARE POINTS				SOFTWARE POINTS							
	AI	AO	BI	BO	AV	BV	LOOP	SCHEDULE	TREND	ALARM	SHOW ON GRAPHIC	
EXHAUST FAN START/STOP				X					X		X	
EXHAUST FAN ECM SPEED		X							X		X	
EXHAUST FAN ECM FAULT			X							X		
EXHAUST FAN STATUS			X						X		X	
RETURN AIR TEMPERATURE	X								X		X	
RETURN AIR HUMIDITY	X								X		X	
MIXED AIR DAMPERS		X							X		X	
OUTDOOR AIRFLOW MONITORING STATION	X											
MIXED AIR TEMPERATURE	X								X		X	
FREEZESTAT			X						X	X	X	
FILTER DIFFERENTIAL PRESSURE	X								X		X	
OUTSIDE AIR TEMPERATURE	X								X		X	
OUTSIDE AIR HUMIDITY	X								X		X	
5:1 HEATING TURNDOWN		X							X		X	
COMPRESSOR MODULATION		X							X		X	
REHEAT VALVE MODULATION		X							X		X	
SUPPLY FAN START/STOP				X					X		X	
SUPPLY FAN ECM SPEED		X							X		X	
SUPPLY FAN ECM FAULT			X							X		
SUPPLY FAN STATUS			X						X		X	
DISCHARGE AIR TEMPERATURE	X								X		X	
ZONE TEMPERATURE	X								X		X	
BUILDING STATIC PRESSURE				X					X		X	
HIGH ZONE TEMP										X		
LOW ZONE TEMP										X		
HIGH DISCHARGE AIR TEMP										X		
LOW DISCHARGE AIR TEMP										X		
FILTER CHANGE REQUIRED										X		
HIGH MIXED AIR TEMP										X		
LOW MIXED AIR TEMP										X		
HIGH RETURN AIR HUMIDITY										X		
LOW RETURN AIR HUMIDITY										X		
HIGH RETURN AIR TEMP										X		
LOW RETURN AIR TEMP										X		

ROOFTOP UNIT CONTROLS SEQUENCE:

RUN CONDITIONS - SCHEDULED:
THE UNIT SHALL RUN ACCORDING TO A USER DEFINABLE TIME SCHEDULE IN THE FOLLOWING MODES:

OCCUPIED MODE:

- A 75 DEG. F (ADJ.) COOLING SETPOINT.
- A 70 DEG. F (ADJ.) HEATING SETPOINT.
- A 55% (ADJ.) RELATIVE HUMIDITY SETPOINT.

UNOCCUPIED MODE (NIGHT SETBACK):

- AN 85 DEG. F (ADJ.) COOLING SETPOINT.
- A 55 DEG. F (ADJ.) HEATING SETPOINT.

ALARMS SHALL BE PROVIDED AS FOLLOWS:

- HIGH ZONE TEMP: IF THE ZONE TEMPERATURE IS GREATER THAN THE COOLING SETPOINT BY A USER DEFINABLE AMOUNT (ADJ.).
- LOW ZONE TEMP: IF THE ZONE TEMPERATURE IS LESS THAN THE HEATING SETPOINT BY A USER DEFINABLE AMOUNT (ADJ.).

EMERGENCY SHUTDOWN:

THE UNIT SHALL SHUT DOWN AND GENERATE AN ALARM UPON RECEIVING AN EMERGENCY SHUTDOWN SIGNAL.

FREEZE PROTECTION:
THE UNIT SHALL SHUT DOWN AND GENERATE AN ALARM UPON RECEIVING A FREEZESTAT STATUS.

AHU OPTIMAL START:

THE UNIT SHALL START PRIOR TO SCHEDULED OCCUPANCY BASED ON THE TIME NECESSARY FOR THE ZONES TO REACH THEIR OCCUPIED SETPOINTS. THE START TIME SHALL AUTOMATICALLY ADJUST BASED ON CHANGES IN OUTSIDE AIR TEMPERATURE AND ZONE TEMPERATURES.

SUPPLY FAN:

THE SUPPLY FAN SHALL RUN ANYTIME THE UNIT IS COMMANDED TO RUN, UNLESS SHUTDOWN ON SAFETIES. TO PREVENT SHORT CYCLING, THE SUPPLY FAN SHALL HAVE A USER DEFINABLE (ADJ.) MINIMUM RUNTIME.

THE UNIT CONTROLLER SHALL PROPORTIONAL CONTROL THE ECM MOTORS ON THE SUPPLY FAN BASED ON SPACE TEMPERATURE. THE UNIT CONTROLLER SHALL INCREASE / DECREASE THE SPEED OF THE SUPPLY FAN IN ORDER TO MAINTAIN THE SPACE TEMPERATURE WITHIN ITS SETPOINT AND DEADBAND.

ALARMS SHALL BE PROVIDED AS FOLLOWS:

- SUPPLY FAN FAILURE: COMMANDED ON, BUT THE STATUS IS OFF.
- SUPPLY FAN IN HAND: COMMANDED OFF, BUT THE STATUS IS ON.
- SUPPLY FAN RUNTIME EXCEEDED: STATUS RUNTIME EXCEEDS A USER DEFINABLE LIMIT (ADJ.).

EXHAUST FAN:

THE EXHAUST FAN SHALL RUN WHENEVER THE SUPPLY FAN RUNS.

THE UNIT CONTROLLER SHALL PROVIDE BUILDING STATIC PRESSURE CONTROL. THE UNIT CONTROLLER SHALL PROVIDE PROPORTIONAL CONTROL OF THE EXHAUST FANS IN RELATION TO THE SUPPLY AIR FAN AIRFLOW TO MAINTAIN THE ADJUSTABLE BUILDING PRESSURE SETPOINT.

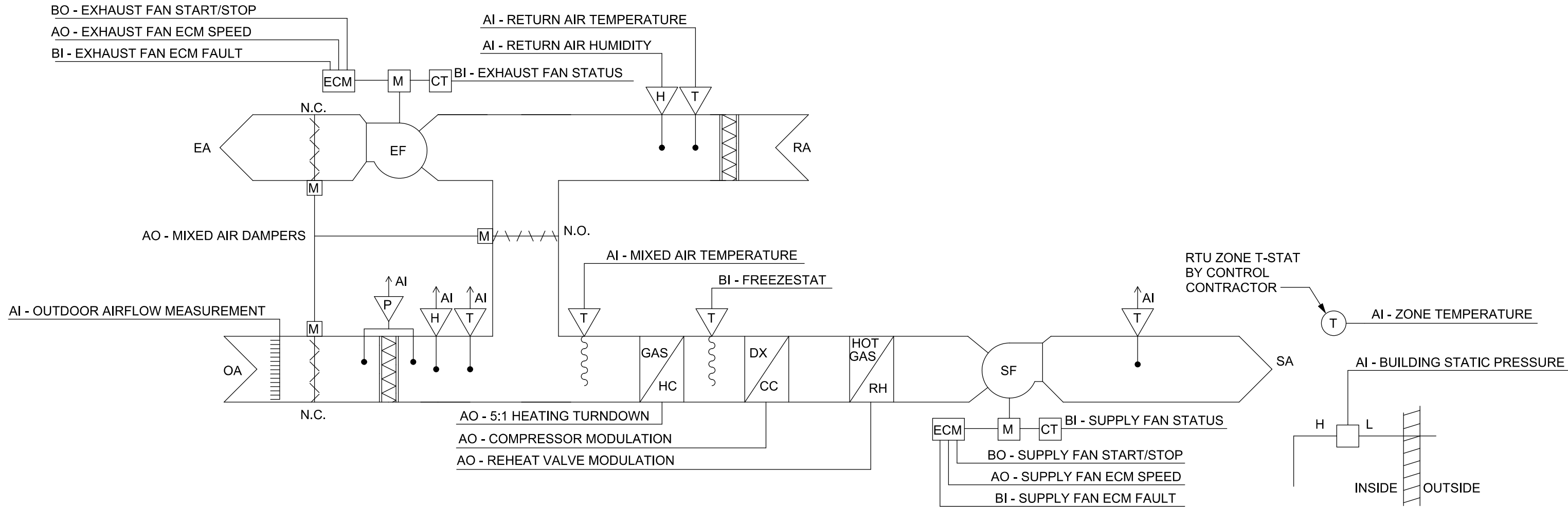
ALARMS SHALL BE PROVIDED AS FOLLOWS:

- EXHAUST FAN FAILURE: COMMANDED ON, BUT THE STATUS IS OFF.
- EXHAUST FAN IN HAND: COMMANDED OFF, BUT THE STATUS IS ON.
- EXHAUST FAN RUNTIME EXCEEDED: STATUS RUNTIME EXCEEDS A USER DEFINABLE LIMIT (ADJ.).

SUPPLY AIR TEMPERATURE SETPOINT - FIXED:

THE CONTROLLER SHALL MONITOR THE SUPPLY AIR TEMPERATURE AND SHALL MAINTAIN FIXED SUPPLY AIR TEMPERATURE SETPOINTS AS FOLLOWS:

- COOLING: THE SETPOINT SHALL BE 55 DEG. F (ADJ.).
- HEATING: THE SETPOINT SHALL BE 95 DEG. F (ADJ.).



COOLING:

THE CONTROLLER SHALL MEASURE THE SUPPLY AIR TEMPERATURE AND MODULATE THE COMPRESSOR TO MAINTAIN ITS COOLING DISCHARGE SETPOINT.

THE COOLING SHALL BE ENABLED WHENEVER:

- OUTSIDE AIR TEMPERATURE IS GREATER THAN 60 DEG. F (ADJ.).
- AND THE ECONOMIZER IS DISABLED OR FULLY OPEN.
- AND THE SUPPLY FAN STATUS IS ON.
- AND THE HEATING IS NOT ACTIVE.

ALARMS SHALL BE PROVIDED AS FOLLOWS:

- HIGH DISCHARGE AIR TEMP: IF THE SUPPLY AIR TEMPERATURE IS 5 DEG. F (ADJ.) GREATER THAN SETPOINT.

DEHUMIDIFICATION:

THE CONTROLLER SHALL MONITOR THE RETURN AIR RELATIVE HUMIDITY AND SHALL OVERRIDE THE COOLING SEQUENCE TO MAINTAIN RETURN AIR RELATIVE HUMIDITY SETPOINT.

DEHUMIDIFICATION SHALL BE ENABLED WHENEVER THE SUPPLY FAN STATUS IS ON.

THE CONTROLLER WILL MODULATE THE HOT GAS REHEAT COIL TO MAINTAIN THE DISCHARGE AIR TEMPERATURE.

GAS HEATING STAGES:

THE CONTROLLER SHALL MEASURE THE SUPPLY AIR TEMPERATURE AND STAGE THE HEATING TO MAINTAIN ITS HEATING SETPOINT. TO PREVENT SHORT CYCLING, THERE SHALL BE A USER DEFINABLE (ADJ.) DELAY BETWEEN STAGES, AND EACH STAGE SHALL HAVE A USER DEFINABLE (ADJ.) MINIMUM RUNTIME.

THE HEATING SHALL BE ENABLED WHENEVER:

- OUTSIDE AIR TEMPERATURE IS LESS THAN 65 DEG. F (ADJ.).
- AND THE SUPPLY FAN STATUS IS ON.
- AND THE COOLING IS NOT ACTIVE.

THE HEATING SHALL RUN FOR FREEZE PROTECTION WHENEVER:

- SUPPLY AIR TEMPERATURE DROPS FROM 40 DEG. F (ADJ.) TO 35 DEG. F (ADJ.).
- AND THE SUPPLY FAN STATUS IS ON.

ALARMS SHALL BE PROVIDED AS FOLLOWS:

- LOW DISCHARGE AIR TEMP: IF THE DISCHARGE AIR TEMPERATURE IS 5 DEG. F (ADJ.) LESS THAN SETPOINT.

ECONOMIZER:

THE CONTROLLER SHALL MEASURE THE MIXED AIR TEMPERATURE AND MODULATE THE ECONOMIZER DAMPERS IN SEQUENCE TO MAINTAIN A SETPOINT 2 DEG. F (ADJ.) LESS THAN THE SUPPLY AIR TEMPERATURE SETPOINT. THE OUTSIDE AIR DAMPERS SHALL MAINTAIN A MINIMUM AIRFLOW OF THE FOLLOWING WHENEVER OCCUPIED:

- RTU-CAFE: 1100 CFM.
- OUTSIDE AIR TEMPERATURE IS LESS THAN 65 DEG. F (ADJ.).
- AND THE OUTSIDE AIR ENTHALPY IS LESS THAN 22 BTU/LB (ADJ.).
- AND THE OUTSIDE AIR TEMPERATURE IS LESS THAN THE RETURN AIR TEMPERATURE.
- AND THE OUTSIDE AIR ENTHALPY IS LESS THAN THE RETURN AIR ENTHALPY.
- AND THE SUPPLY FAN STATUS IS ON.

THE ECONOMIZER SHALL BE ENABLED WHENEVER:

THE ECONOMIZER SHALL CLOSE WHENEVER:

- MIXED AIR TEMPERATURE DROPS FROM 40 DEG. F TO 35 DEG. F (ADJ.).
- OR THE FREEZE STAT IS ON.
- OR ON LOSS OF SUPPLY FAN STATUS.

THE OUTSIDE AND EXHAUST AIR DAMPERS SHALL CLOSE AND THE RETURN AIR DAMPER SHALL OPEN WHEN THE UNIT IS OFF. IF OPTIMAL START IS AVAILABLE THE MIXED AIR DAMPER SHALL OPERATE AS DESCRIBED IN THE OCCUPIED MODE EXCEPT THAT THE OUTSIDE AIR DAMPER SHALL MODULATE TO FULLY CLOSED.

MINIMUM OUTSIDE AIR VENTILATION - AIRFLOW MONITORING STATION:
THE AIRFLOW MONITORING STATION SHALL CONTROL THE OUTSIDE AIR DAMPERS TO MAINTAIN A MINIMUM OUTDOOR AIRFLOW DURING BUILDING OCCUPIED HOURS AND BE CLOSED DURING UNOCCUPIED HOURS.

FILTER DIFFERENTIAL PRESSURE:
THE CONTROLLER SHALL MONITOR THE FILTER DIFFERENTIAL PRESSURE.

ALARMS SHALL BE PROVIDED AS FOLLOWS:

- FILTER CHANGE REQUIRED: FILTER DIFFERENTIAL PRESSURE EXCEEDS USER DEFINABLE AMOUNT (ADJ.).

MIXED AIR TEMPERATURE:

THE CONTROLLER SHALL MONITOR THE MIXED AIR TEMPERATURE AND USE AS REQUIRED FOR ECONOMIZER CONTROL.

ALARMS SHALL BE PROVIDED AS FOLLOWS:

- HIGH MIXED AIR TEMP: IF THE MIXED AIR TEMPERATURE IS GREATER THAN 90 DEG. F (ADJ.).
- LOW MIXED AIR TEMP: IF THE MIXED AIR TEMPERATURE IS LESS THAN 45 DEG. F (ADJ.).

RETURN AIR HUMIDITY:

THE CONTROLLER SHALL MONITOR THE RETURN AIR HUMIDITY AND USE AS REQUIRED FOR ECONOMIZER OR HUMIDITY CONTROL.

ALARMS SHALL BE PROVIDED AS FOLLOWS:

- HIGH RETURN AIR HUMIDITY: IF THE RETURN AIR HUMIDITY IS GREATER THAN 70% RELATIVE HUMIDITY (ADJ.).
- LOW RETURN AIR HUMIDITY: IF THE RETURN AIR HUMIDITY IS LESS THAN 35% RELATIVE HUMIDITY (ADJ.).

RETURN AIR TEMPERATURE:

THE CONTROLLER SHALL MONITOR THE RETURN AIR TEMPERATURE AND USE AS REQUIRED FOR SETPOINT CONTROL OR ECONOMIZER CONTROL.

ALARMS SHALL BE PROVIDED AS FOLLOWS:

- HIGH RETURN AIR TEMP: IF THE RETURN AIR TEMPERATURE IS GREATER THAN 90 DEG. F (ADJ.).
- LOW RETURN AIR TEMP: IF THE RETURN AIR TEMPERATURE IS LESS THAN 45 DEG. F (ADJ.).

DISCHARGE AIR TEMPERATURE:

THE CONTROLLER SHALL MONITOR THE DISCHARGE AIR TEMPERATURE.

1
M802

VAV ROOFTOP UNIT (RTU-CAFE), GAS HEATING, DX COOLING, ECONOMIZER SEQUENCE OF OPERATION

SCALE: NOT TO SCALE

UNIT FAN SHALL RUN CONTINUOUSLY TO PROVIDE REQUIRED VENTILATION. A TEMPERATURE LIMITING PROGRAMMABLE THERMOSTAT SHALL CONTROL VALVE OPERATION WHEN THERE IS A CALL FOR COOLING OR HEATING.

2
M802

DUAL TEMP FAN COIL SEQUENCE OF OPERATIONS.

SCALE: NOT TO SCALE



ME
ENGINEERING
Mechanical/Electrical Engineering Consultants
Not Registered in NY State
Schenectady, NY 12305
Tel: 518.352.1177
Fax: 518.352.1178
www.meengr.com

DATE: 9/19/2020
REVISION:

PROJECT NO: 2020095
DESIGNED BY: CCM
DRAWN BY: WRW
CHECKED BY: PCA
SCALE: AS NOTED
NOTES:

MECHANICAL CONTROLS

HARRIS A. SANDERS
ARCHITECTS, P.C.
252 WASHINGTON AVENUE, ALBANY, NEW YORK 12210

L'DOR ADULT CARE FACILITY
156 WEST CLARKSTOWN ROAD
NEW CITY, N.Y. 10956



SHEET NO:

M802

CF₂

GENERAL TELECOMMUNICATIONS NOTES:

(APPLY TO ALL DRAWINGS)

- A. IN GENERAL, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING RACEWAYS, BACKBOXES, RJ45 PORTS, COVERPLATES AND CABLING. THE CONTRACTOR SHALL ALSO PROVIDE TESTING AND TERMINATIONS FOR ALL CABLING. SYSTEM EQUIPMENT SUCH AS CAMERAS, WIRELESS ACCESS POINTS, TELEPHONE HANDSETS, SERVERS AND RACK MOUNTED EQUIPMENT SHALL BE PROVIDED BY OTHERS.
- B. PROVIDE LABELING OF ALL EQUIPMENT, DEVICES AND CABLING IN SCOPE OF WORK IN ACCORDANCE WITH ANSI/TIA/EIA-606-A AND THE NEC. SUCH ITEMS INCLUDE, BUT ARE NOT LIMITED TO, CABLES AND END DEVICES/OUTLETS.
- C. ALL TELE/DATA CABLES SHALL BE INSTALLED IN CONDUIT WHERE CONCEALED BEHIND WALLS OR ABOVE NON-ACCESSIBLE CEILING SPACES. TELE/DATA CABLES SHALL BE SUSPENDED BY J-HOOKS WHERE INSTALLED ABOVE ACCESSIBLE CEILING SPACES OR WHERE THERE IS NO CEILING.
- D. ALL DATA CABLING SHALL BE CAT6.

BASIC ELECTRICAL REQUIREMENTS:

(APPLY TO ALL DRAWINGS)

- A. PROVIDE ALL LABOR, MATERIALS, EQUIPMENT AND SERVICES TO PERFORM ALL OPERATIONS REQUIRED FOR THE COMPLETE INSTALLATION AND RELATED WORK AS SHOWN ON THE DRAWINGS AND AS SPECIFIED HEREIN. ELECTRIC EQUIPMENT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER.
- B. PROVIDE ALL ELECTRICAL EQUIPMENT CONNECTIONS.
- C. PROVIDE ALL REQUIRED SUPPORTS AND ACCESSORIES.
- D. PROVIDE ALL WORK IN COMPLIANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) AND THE LATEST EDITION OF THE:
1. BUILDING CODE OF NEW YORK STATE
2. ENERGY CONSERVATION CONSTRUCTION CODE OF NEW YORK STATE
3. OSHA REQUIREMENTS
4. LOCAL MUNICIPAL ORDINANCES AND CODES
5. AUTHORITY HAVING JURISDICTION (AHJ)
6. SERVING UTILITY COMPANIES
- E. PROVIDE ELECTRICAL INSPECTION CERTIFICATE FROM INSPECTION AGENCY RECOGNIZED AS ACCEPTABLE FROM THE AHJ.
- F. PROVIDE ELECTRICAL AND COMMUNICATION SERVICES IN COMPLIANCE WITH THE UTILITY AND COMMUNICATION COMPANIES.
- G. PROVIDE TEMPORARY ELECTRICAL SERVICE IN SIZES TO ACCOMMODATE CONSTRUCTION WHERE REQUIRED.
- H. REPAIR OR REPLACE ALL DEFECTS IN MATERIAL OR WORKMANSHIP WITHIN ONE YEAR OF CONSTRUCTION CLOSE OUT DATE AT NO ADDITIONAL COST TO THE OWNER.
- I. PERFORM ALL OPERATIONS REQUIRED FOR A COMPLETE SYSTEM TEST, PRIOR TO CLOSE OUT DATE SUBMIT ALL SATISFACTORY SYSTEM TEST RESULTS FOR RECORD.
- J. SUBMITTALS:
1. ALL ITEMS OF EQUIPMENT AND MATERIALS PROVIDED SHALL BE SUBMITTED FOR ENGINEERING REVIEW.
2. SUBMIT A MINIMUM OF THREE COPIES OF SHOP DRAWINGS/PRODUCT DATA INFORMATION.
- K. CONTRACTOR IS HERE BY CAUTIONED THAT ELECTRIC POWER CHARACTERISTICS (VOLTAGE, PHASE, HORSEPOWER, AMPERAGE, ETC.) OF EQUIPMENT IS BASED ON AVAILABLE INFORMATION AT THE TIME OF PROJECT DESIGN. CONTRACTOR MUST VERIFY CHARACTERISTICS FOR EACH PIECE OF NEW EQUIPMENT PRIOR TO ORDERING ELECTRICAL EQUIPMENT. INDICATE VERIFICATION ON SUBMITTALS.
- L. LOCATIONS INDICATED FOR LIGHTING FIXTURES ARE APPROXIMATE. LOCATE FIXTURES AS REQUIRED AND INTERFERENCE WITH BUILDING STEEL, PIPING, DUCTWORK, CONDUIT, DIFFUSERS, GRILLES, SPEAKERS, SMOKE DETECTORS, ETC. FIELD COORDINATE EXACT LOCATIONS AS NEAR AS POSSIBLE TO THE LOCATION INDICATED. VERIFY COMPLIANCE WITH NEC ARTICLE 410.16 FOR INSTALLATION OF LIGHT FIXTURES IN CLOTHES CLOSETS. PRIOR TO ROUGH-IN, REFER TO ARCHITECTURAL REFLECTED CEILING PLANS.
- M. EXACT LOCATIONS OF CEILING MOUNTED SMOKE DETECTORS, EXIT SIGNS, ETC. SHALL BE COORDINATED WITH OTHER CEILING MOUNTED EQUIPMENT TO AVOID CONFLICT. LOCATE DEVICES AS NEAR AS POSSIBLE TO THE LOCATION INDICATED. FIRE ALARM SMOKE AND HEAT DETECTORS SHALL BE LOCATED 3'-0" MINIMUM FROM HVAC DIFFUSERS, REGISTERS, GRILLES, ETC. SMOKE DETECTORS AT SMOKE DOORS MUST BE INSTALLED WITHIN 5'-0" OF THE DOORS (REFER TO NFPA 72).
- N. ALL NEW CIRCUITING SHALL BE CONCEALED (EXCEPT IN UNFINISHED SPACES). PROVIDE ALL CUTTING AND PATCHING AS REQUIRED.
- O. ALL FIRE ALARM VISUAL STROBE UNITS SHALL BE MOUNTED AT 6'-8" A.F.F. MAXIMUM PER A.D.A. REQUIREMENTS.
- P. CONTRACTOR SHALL REVIEW ALL TRADES' CONTRACT DOCUMENTS TO DETERMINE SPECIFIC MOUNTING LOCATIONS FOR ELECTRICAL EQUIPMENT. COORDINATE EXACT MOUNTING LOCATIONS WITH THE ARCHITECT AND OTHER CONTRACTORS. REFER TO ARCHITECTURAL PLANS FOR CASEWORK LAYOUT, ELEVATIONS, ETC. COORDINATE WITH LOCATIONS OF ELECTRICAL DEVICES AND OUTLETS
- Q. EXACT LOCATION OF MECHANICAL AND PLUMBING EQUIPMENT THAT REQUIRE ELECTRICAL CONNECTIONS ARE SHOWN ON THE MECHANICAL AND PLUMBING DRAWINGS.
- R. PROVIDE CONDUIT/WIRING (CIRCUITING) AND REQUIRED CONNECTIONS TO ALL DEVICES/EQUIPMENT. CONNECT TO CIRCUIT(S) AS INDICATED.
- S. CIRCUITING TO DEVICES/EQUIPMENT SHALL BE (2) *12 WITH (1) *12 GROUND FOR EACH 20 AMPERE CIRCUIT UNLESS OTHERWISE NOTED.
- T. COORDINATE ALL WORK WITH OTHER TRADES; REFER TO ARCHITECTURAL DRAWINGS FOR COORDINATING LOCATIONS.
- U. RISER DIAGRAMS ARE DIAGRAMMATIC ONLY: WIRE AND DEVICE QUANTITIES, SIZES, TYPES SHALL BE AS CALLED FOR IN CONTRACT DOCUMENTS.
- V. SLEEVE AND SEAL ALL WALL AND FLOOR PENETRATIONS. PROVIDE APPROPRIATE FIRE STOPPING FOR ALL PENETRATIONS.
- W. COORDINATE EXACT LOCATION OF ALL WIRING ROUTES, EQUIPMENT AND DEVICES WITH OTHER TRADES.
- X. MAINTAIN SERVICE CLEARANCES OF ALL EQUIPMENT. ADVISE OTHER TRADES OF SERVICE CLEARANCES AND ENSURE NO SERVICES OR TRADES RUN THROUGH SERVICE AREA.
- Y. ALL ELECTRICAL BOXES LOCATED IN A FIRE RATED WALL/CEILING SHALL HAVE A FIRE RATING TO MATCH THE RATING OF THE WALL/CEILING. UTILIZE FIRE RATED PUDDY PADS IN THESE LOCATIONS.
- Z. ALL RECEPTACLES INDICATED AS GFI TYPE MUST BE A GFI RECEPTACLE. CONNECTING NORMAL RECEPTACLES DOWNSTREAM OF ONE GFI RECEPTACLE IS NOT ACCEPTABLE.
- AA. ALL WIRING INDICATED ON PLANS IS TO BE COPPER WIRING UNLESS OTHERWISE NOTED. REFER TO ONE LINE DIAGRAM FOR FEEDERS THAT MAY BE ALUMINUM.
- AB. ALL SWITCHES, RECEPTACLES, TV AND OTHER WIRING DEVICES SHALL BE WHITE.
- AC. PROVIDE AFCI PROTECTION OF BRANCH CIRCUITS IN ALL APARTMENTS PER NEC 210.12 B.
- AD. PROVIDE ALL INTERIOR TELEPHONE WIRING WITHIN THE BUILDING TO DEMARC LOCATION IN THE ELECTRICAL ROOM. PROVIDE ALL CONNECTIONS AND INTERFACE DEVICE AS APPROVED BY TELCO.
- AE. PROVIDE ALL INTERIOR CABLE TV WIRING WITHIN THE BUILDING TO DEMARC LOCATION IN THE ELECTRICAL ROOM. PROVIDE ALL CONNECTIONS AND INTERFACE DEVICE AS APPROVED BY CATV PROVIDER.

ABBREVIATIONS	
ABBREV.	DESCRIPTION
A	AMPERE
AC	MOUNTED ABOVE COUNTER HEIGHT
AFCI	ARC FAULT CIRCUIT INTERRUPTER
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AFI	ARC FAULT INTERRUPTING
AHJ	AUTHORITY HAVING JURISDICTION
AWG	AMERICAN WIRE GAUGE
C	CONDUIT
FACP	FIRE ALARM CONTROL PANEL
GFCI/GFI/G	GROUND FAULT CIRCUIT INTERRUPTER
HVAC	HEATING, VENTILATION & AIR CONDITIONING CONTRACTOR/TRADE
KVA	KILOVOLT AMPERES
KW	KILOWATT
LV	LOW VOLTAGE, MOMENTARY CONTACT
MCB	MAIN CIRCUIT BREAKER
MLO	MAIN LUG ONLY
NEC	NATIONAL ELECTRIC CODE
NM	NON-METALLIC SHEATHED CABLE
NTS	NOT TO SCALE
PC	PHOTOCELL
SE	SERVICE ENTRANCE
TYP	TYPICAL
UC	MOUNTED UNDER COUNTER HEIGHT
UG	UNDERGROUND
UL	UNDERWRITER'S LABORATORY
V	VOLT
W	WIRE
WP	WEATHERPROOF

COMMUNICATIONS	
SYMBOL	DESCRIPTION
	COMBINATION POWER AND DATA OUTLETS; REFER TO TYPICAL COMBINATION POWER AND DATA OUTLET DETAIL. SUBSCRIPT INDICATES QUANTITY: *P - QUANTITY OF DUPLEX RECEPTACLES *D - QUANTITY OF DATA PORTS/CABLES.
	ONE (1) TELEPHONE OUTLET AND CABLE
	TELEVISION OUTLET. REFER TO TYPICAL TELEVISION DETAIL.
	TELEPHONE MAIN DISTRIBUTION FRAME
	CABLE TV MAIN DISTRIBUTION FRAME

SECURITY	
SYMBOL	DESCRIPTION
	DOOR CONTACT(S)
	DOOR CONTACT MONITORING PANEL

POWER DISTRIBUTION AND CONTROL	
SYMBOL	DESCRIPTION
	208/120 VOLT PANELBOARD
	FUSED DISCONNECT SWITCH AMP RATING AS INDICATED
	SINGLE POINT CONNECTION TO EQUIPMENT
	ELECTRICAL CONNECTION. REFER TO ELECTRIC EQUIPMENT AND CONTROL SCHEDULE FOR DESCRIPTION. LETTERS AND NUMBERS REFER TO "ITEM DESIGNATION" ON THE SCHEDULE.
	AUTOMATIC TRANSFER SWITCH
	TRANSFORMER

FIRE ALARM	
SYMBOL	DESCRIPTION
	SYSTEM SMOKE DETECTOR
	SINGLE STATION SMOKE ALARM WITH SOUNDER BASE; SUBSCRIPT "CO" INDICATES COMBINATION CARBON MONOXIDE DETECTOR
	FIRE ALARM NOTIFICATION APPLIANCE, AUDIBLE AND VISUAL; * INDICATES STROBE CANDELA RATING
	FIRE ALARM NOTIFICATION APPLIANCE, VISUAL ONLY; * INDICATES STROBE CANDELA RATING
	FIRE ALARM CONTROL PANEL
	FIRE ALARM ANNUCIATOR PANEL
	CARBON MONOXIDE DETECTOR
	FIRE ALARM MINI HORN
	SPRINKLER WATERFLOW SWITCH (PADDLE OR PRESSURE SWITCH TYPE)
	TAMPER SWITCH
	COMBINATION SET TEMPERATURE AND RATE OF RISE HEAT DETECTOR
	MANUAL PULLSTATION
	CONTROL MODULE
	INTERFACE MODULE
	DOOR HOLD
	ELEVATOR CAPTURE

BRANCH CIRCUITING IDENTIFICATION	
	ITEM DESIGNATION, SEE ELECTRICAL EQUIPMENT & CONTROL SCHEDULE FOR ALL REQUIREMENTS.
	CIRCUIT DESIGNATION
	PANEL AND CIRCUIT DESIGNATION
	SWITCHING DESIGNATION
	LIGHTING FIXTURE TYPE, SEE LUMINAIRE SCHEDULE FOR REQUIREMENTS.
	PANEL AND CIRCUIT DESIGNATION
	PANEL AND CIRCUIT DESIGNATION

LUMINAIRES	
SYMBOL	DESCRIPTION
	LUMINAIRE, UPPER CASE LETTERS INDICATE FIXTURE TYPE ON SCHEDULE, LOWER CASE LETTER INDICATES SWITCHING DESIGNATION.
	WALL MOUNTED LUMINAIRE, UPPER CASE LETTERS INDICATE FIXTURE TYPE ON SCHEDULE, LOWER CASE LETTER INDICATES SWITCHING DESIGNATION.
	WALL MOUNTED EMERGENCY LUMINAIRE WITH BATTERY PACK
	CEILING MOUNTED EXIT LUMINAIRE
	WALL MOUNTED EXIT LUMINAIRE

ONE LINE DIAGRAM SYMBOLS	
SYMBOL	DESCRIPTION
	THERMAL MAGNETIC MOLDED CASE CIRCUIT BREAKER
	UTILITY METER
	TRANSFORMER
	FEEDER DESIGNATION - REFER TO FEEDER SCHEDULE
	PANELBOARD

ELECTRICAL SYMBOLS LIST BASIC MATERIALS AND METHODS	
SYMBOL	DESCRIPTION
	SPECIAL PURPOSE RECEPTACLE. PROVIDE PROPER VOLTAGE, CLASS, CURRENT RATING AND NEMA CONFIGURATION AS REQUIRED BY BRANCH CIRCUIT AND/OR MATCH CAP ON EQUIPMENT BEING FURNISHED BY OTHERS. PROVIDE CORD AND CAP. SUBSCRIPT INDICATES TYPE: • - NEMA TYPE D - DRYER RECEPTACLE, 30A, 125/250V
	TOGGLE SWITCH, VOLTAGE AS INDICATED ON FIXTURE SCHEDULE, SUBSCRIPTS INDICATE TYPE: 3 - THREE WAY SWITCH 4 - FOUR WAY SWITCH a,b,c - SWITCHING DESIGNATIONS NUMBER OF LETTERS EQUALS NO. OF GANGED SWITCHES V - VACANCY SENSOR OP - OCCUPANCY SENSOR, PASSIVE INFRARED M - MOTOR RATED TOGGLE SWITCH LV - LOW VOLTAGE, MOMENTARY CONTACT
	DIMMER SWITCH, VOLTAGE AS INDICATED ON FIXTURE SCHEDULE, SUBSCRIPTS INDICATE TYPE: 3 - THREE WAY DIMMER SWITCH a,b,c - SWITCHING DESIGNATIONS NUMBER OF LETTERS EQUALS NO. OF GANGED SWITCHES V - VACANCY SENSOR LV - LOW-VOLTAGE, MOMENTARY CONTACT
	DUPLEX RECEPTACLE, SUBSCRIPTS INDICATE TYPE: GFI - GROUND FAULT CIRCUIT INTERRUPTING AC - ABOVE COUNTER UC - UNDER THE COUNTER
	DUPLEX RECEPTACLE WITH ARC FAULT CIRCUIT INTERRUPTING WITH PROTECTION, SUBSCRIPTS INDICATE TYPE: GFI - GROUND FAULT CIRCUIT INTERRUPTING AC - ABOVE COUNTER UC - UNDER THE COUNTER
	UNDERGROUND ELECTRIC HANDHOLE
	JUNCTION BOX, NORMAL POWER
	TIME CLOCK
	REFERENCE TO DRAWING NOTE
	UNDERGROUND DATA
	UNDERGROUND ELECTRICAL
	UNDERGROUND FIRE ALARM



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Mechanical/Electrical Engineering Consultants
ME Project # 20095
Schedule # 20095-1-000
10/16/2017
10/16/2017
10/16/2017

DATE: 9/18/2020

REVISIONS

PROJECT NO: 200905

DESIGNED BY: CUE

DRAWN BY: CUE

CHECKED BY: RSA

SCALE: AS NOTED

NOTES:

ELECTRICAL LEGEND, ABBREVIATIONS AND NOTES

HARRIS A. SANDERS ARCHITECTS, P.C.
252 WASHINGTON AVENUE, ALBANY, NEW YORK 12210

L'DOR ADULT CARE FACILITY
156 WEST CLARKSTOWN ROAD
NEW CITY, N.Y. 10956



SHEET NO:

E000

A. REFER TO ONE-LINE DIAGRAM FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

B. ALL CONDUITS BENEATH AREA OF VEHICULAR TRAFFIC SHALL BE RIGID METAL CONDUIT (RMC). RMC SHALL EXTEND A MINIMUM OF 24" BEYOND THE AREA OF VEHICULAR TRAFFIC. REFER TO TYPICAL DUCTBANK SECTION DETAIL.

C. UNLESS OTHERWISE NOTED, ALL CONDUITS NOT BENEATH AREAS OF VEHICULAR TRAFFIC SHALL BE SCHEDULE 80 RIGID NONMETALLIC CONDUIT (DIRECT BURIED). REFER TO TYPICAL DIRECT BURIED CONDUIT DETAIL.

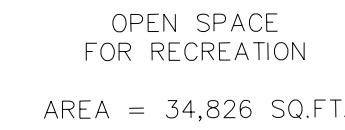
D. PROVIDE FIRESTOPPING AND WATERPROOF SEALS AS REQUIRED WHERE PENETRATING EXTERIOR WALLS.

E. CIRCUIT ALL SITE LIGHTING TO PANEL 'PB-1' USING (2)*10, (1)*10G, 1". UNLESS OTHERWISE NOTED.

F. NEW SITE LIGHTING TO BE TIED INTO BMS CONTROLS FOR LIGHTING CONTROL.

G. THE EC SHALL BE RESPONSIBLE FOR CONDUIT AND WIRING TO LIGHTS. LIGHTS, POLES AND POLE BASES ARE BY OTHERS.

①	PROVIDE ELECTRICAL CONDUIT RISER AT EXISTING UTILITY POLE FOR NEW PRIMARY SERVICE CONDUCTORS. SEE UTILITY POLE CONDUIT RISER DIAGRAM.	⑥	PROVIDE DEDICATED HANDHOLE FOR FIRE ALARM WIRING. PROVIDE (1)" CONDUIT FROM MAIN ELECTRICAL ROOM TO SPRINKLER SYSTEM HOT BOX.
②	SEE ONE-LINE DIAGRAM FOR DETAILS AND REQUIREMENTS.	⑦	PROVIDE DEDICATED HANDHOLE FOR POWER.
③	PROVIDE FIRE ALARM CONNECTIONS TO (3) TAMPER SWITCHES IN SPRINKLER SYSTEM HOT BOX. COORDINATE CONNECTIONS WITH PLUMBING CONTRACTOR.	⑧	PROVIDE (2)*2 & (1)*2G AND (2)*10 & (1)*10G IN 2" CONDUIT.
④	PROVIDE UTILITY TRANSFORMER PAD. REFER TO UTILITY TRANSFORMER PAD DETAIL FOR REQUIREMENTS.	⑨	PROVIDE (2)*2 & (1)*2G IN 1-1/4" CONDUIT.
⑤	PROVIDE GENERATOR AND CONCRETE PAD. REFER TO ONE-LINE DIAGRAM AND DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.		



ELECTRICAL SITE PLAN

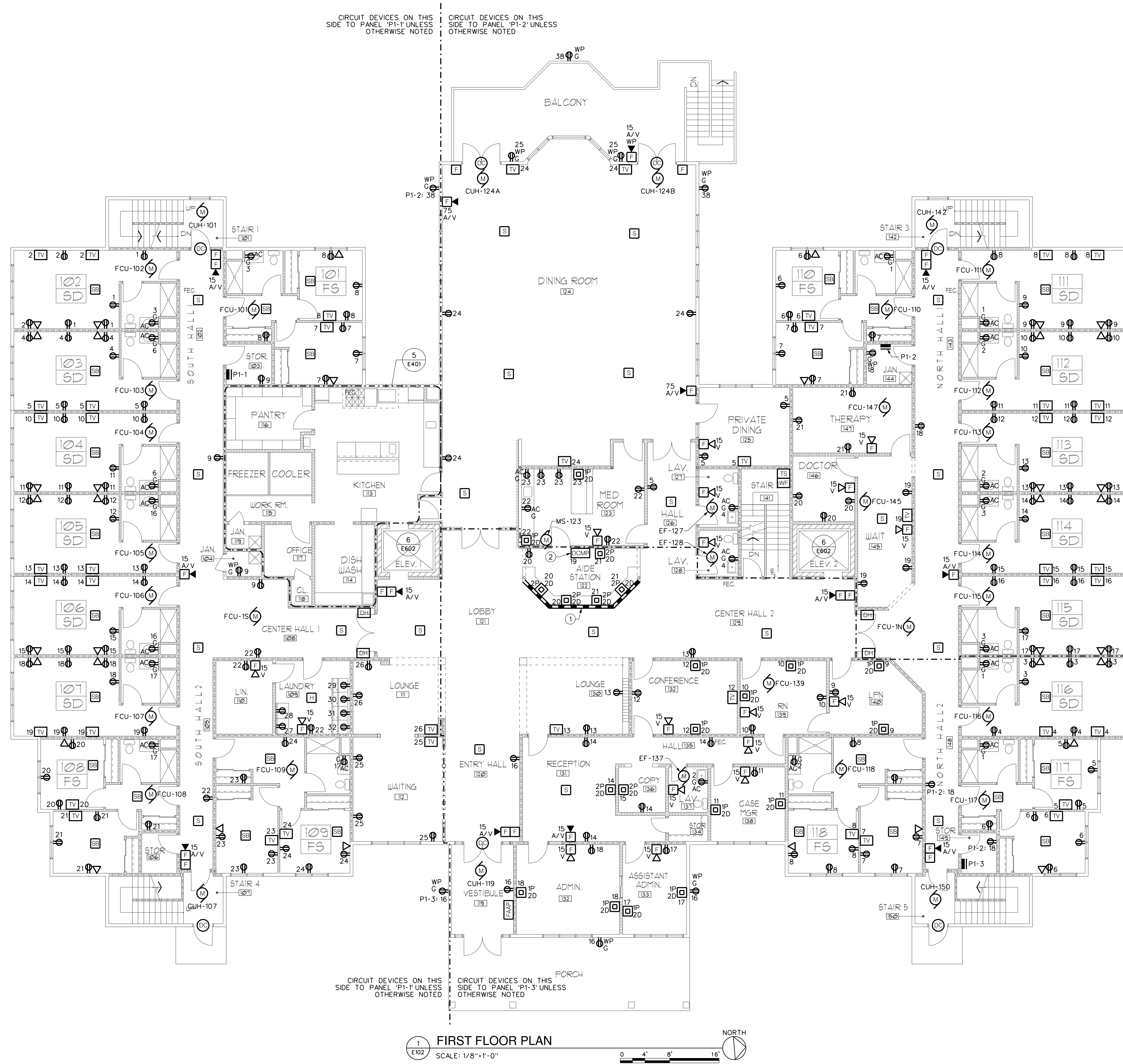
**HARRIS A. SANDERS
ARCHITECTS, P.C.**
252 WASHINGTON AVENUE, ALBANY, NEW YORK 12210

L'DOR ADULT CARE FACILITY
156 WEST CLARKSTOWN ROAD
NEW CITY N.Y. 10956



SHEET NO:

E001



- GENERAL NOTES:**
- A. UNLESS OTHERWISE NOTED, ALL BRANCH CIRCUIT WIRING SHALL BE (2)12 WITH (1)12 GROUND, TYPE NM CABLE CIRCUIT TO PANEL XXX. ALL BRANCH CIRCUIT WIRING WITHIN MECH/ELEC SPACES AND OTHER UNFINISHED SPACES SHALL BE TYPE MC CABLE.
 - B. COORDINATE SINGLE POINT OF CONNECTION (FOR DATA, PHONE, AND CABLE TV) WITH SERVICE PROVIDER. PROVIDE CABLING AND OUTLET PER SERVICE PROVIDER'S INSTRUCTIONS.
 - C. REFER TO ONE-LINE DIAGRAM, SCHEDULES AND DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
 - D. REFER TO ENLARGED PLANS FOR TYPICAL DEVICE LAYOUT AND ADDITIONAL REQUIREMENTS.
 - E. ELECTRICAL CONTRACTOR TO PROVIDE DATA CABLES BACK TO ELECTRICAL RM IN BASEMENT. DATA RACKS BY OTHERS.
- DRAWING NOTES:**
- 1. PROVIDE DUAL-CHANNEL SURFACE METAL RACEWAY (SMR) BENEATH COUNTERTOP FOR INDICATED DATA AND POWER RECEPTACLES.
 - 2. PROVIDE MONITORING PANEL TO MONITOR ALL FIRST FLOOR AND BASEMENT DOOR CONTACTS. PROVIDE ALL REQUIRED CONDUIT, WIRING, HARDWARE, AND PROGRAMMING. (DESIGN MAKE: BOSCH B5512 INTRUSION ALARM SYSTEM)



ME
ENGINEERING
Mechanical/Electrical Engineering Consultants
NY State License # 00000000000000000000
Schenectady, NY 12301
518.551.1111
www.meengineering.com

DATE: 9/18/2020
REVISIONS

PROJECT NO.	DESIGNED BY	CHECKED BY	SCALE	NOTES
200095	CUE	CUE	AS NOTED	

**HARRIS A. SANDERS
ARCHITECTS, P.C.**
252 WASHINGTON AVENUE, ALBANY, NEW YORK 12210

L'DOR ADULT CARE FACILITY
156 WEST CLARKSTOWN ROAD
NEW CITY, N.Y. 10956

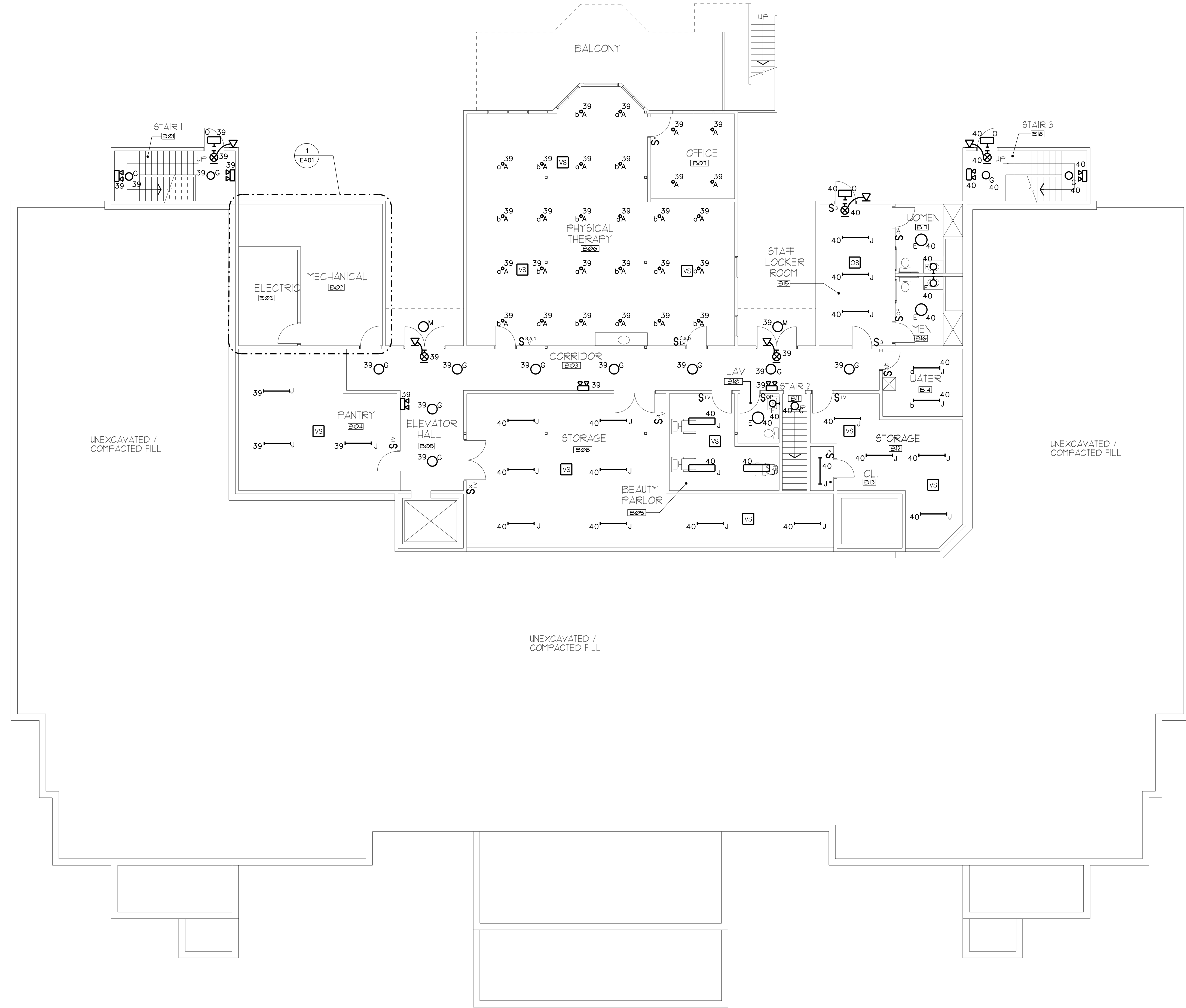


SHEET NO.

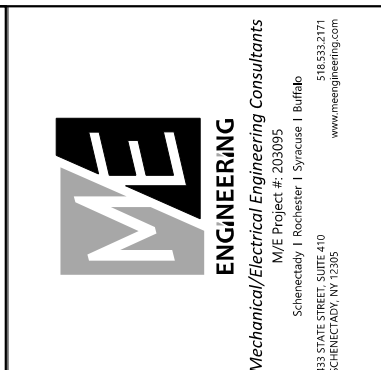
E102

**FIRST FLOOR
ELECTRICAL POWER PLAN**

BID SET 9-18-20



- GENERAL NOTES:**
- A. UNLESS OTHERWISE NOTED, ALL BRANCH CIRCUIT WIRING SHALL BE (2)-12 WITH (1)-12 GROUND, TYPE NM CABLE CIRCUIT TO PANEL 'PB-1'. ALL BRANCH CIRCUIT WIRING WITHIN MECH/ELEC SPACES AND OTHER UNFINISHED SPACES SHALL BE TYPE MC CABLE.
 - B. REFER TO ONE-LINE DIAGRAM, SCHEDULES AND DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
 - C. ALL EXTERIOR BUILDING MOUNTED LIGHT FIXTURES SHALL BE CIRCUITED TO PANEL 'PB-1' AND CONNECTED TO TIME CLOCK CONTROLS.
 - D. REFER TO ENLARGED PLANS FOR TYPICAL DEVICE LAYOUT AND ADDITIONAL REQUIREMENTS.
 - E. ALL LUMINAIRES SHALL BE CIRCUITED TO PANEL 'PB-1', UNLESS OTHERWISE NOTED.



DATE: 9/18/2020
REVISION:

PROJECT NO. 2020095
DESIGNED BY: CUE
DRAWN BY: CUE
CHECKED BY: RSA
SCALE: AS NOTED
NOTES:

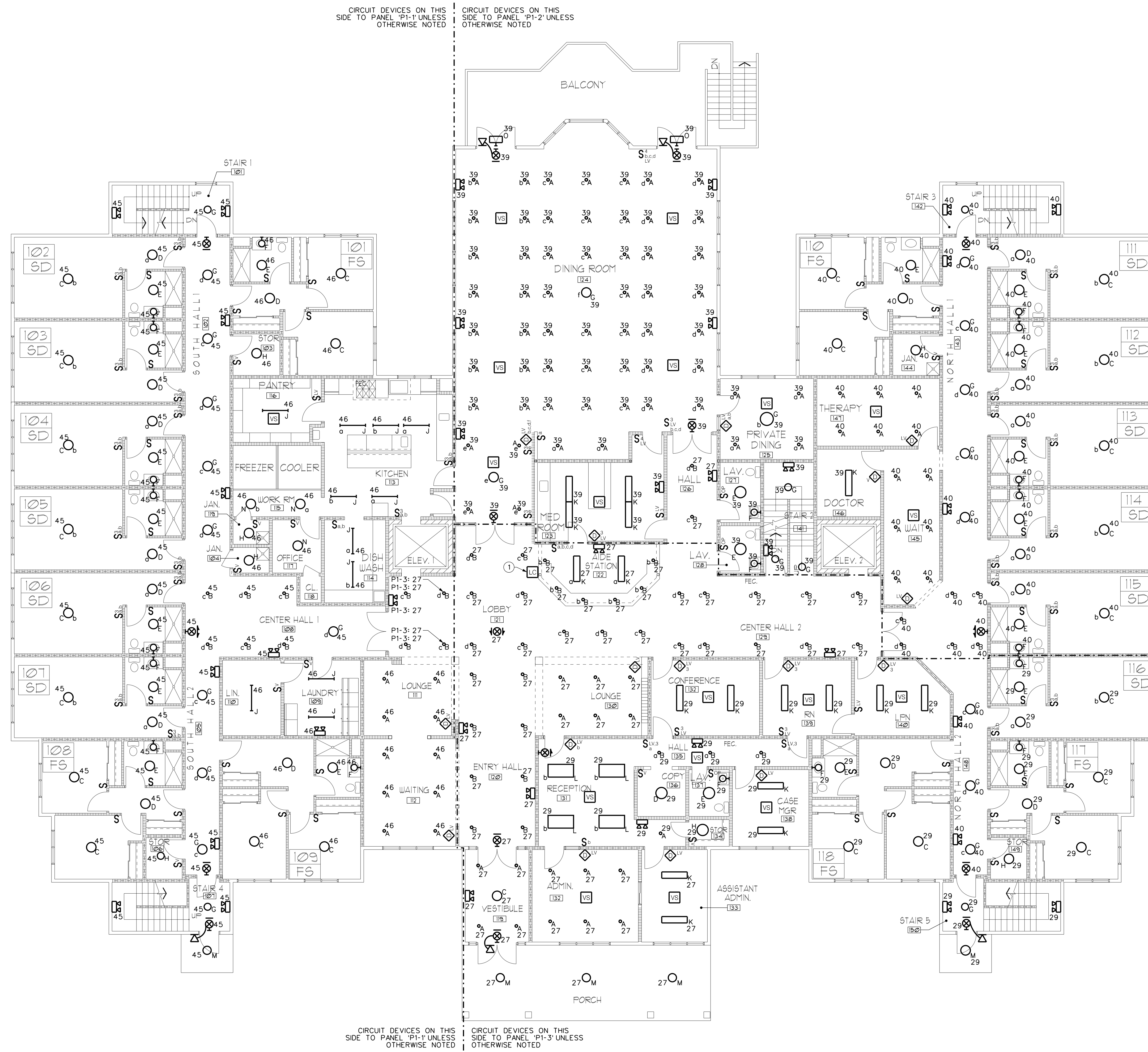
**BASEMENT ELECTRICAL
LIGHTING PLAN**

**HARRIS A. SANDERS
ARCHITECTS, P.C.**
252 WASHINGTON AVENUE, ALBANY, NEW YORK 12210
L'DOR ADULT CARE FACILITY
156 WEST CLARKSTOWN ROAD
NEW CITY, N.Y. 10956



SHEET NO.
E201

1 BASEMENT FLOOR PLAN
SCALE: 1/8"=1'-0"
0 4' 8' 16'
NORTH



GENERAL NOTES:

- UNLESS OTHERWISE NOTED, ALL BRANCH CIRCUIT WIRING SHALL BE (2)X12 WITH (1)X12 GROUND, TYPE NM CABLE CIRCUIT TO PANEL XXX. ALL BRANCH CIRCUIT WIRING WITHIN MECH/ELEC SPACES AND OTHER UNFINISHED SPACES SHALL BE TYPE MC CABLE.
- REFER TO ONE-LINE DIAGRAM, SCHEDULES AND DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
- ALL EXTERIOR BUILDING MOUNTED LIGHT FIXTURES SHALL BE CIRCUITED TO PANEL XXX AND CONNECTED TO TIME CLOCK CONTROLS.

DRAWING NOTES:

- PROVIDE LIGHTING CONTACTOR ABOVE CEILING TO CONTROL SWITCH LEG C & D THROUGHOUT THE CORRIDOR AS SHOWN.

CIRCUIT DEVICES ON THIS SIDE TO PANEL 'P1-2' UNLESS OTHERWISE NOTED

CIRCUIT DEVICES ON THIS SIDE TO PANEL 'P1-3' UNLESS OTHERWISE NOTED

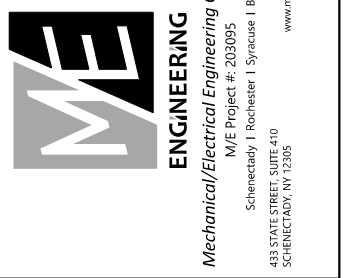
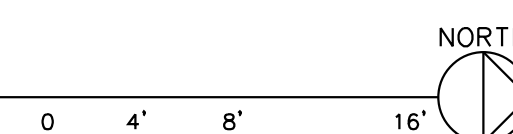
CIRCUIT DEVICES ON THIS SIDE TO PANEL 'P1-1' UNLESS OTHERWISE NOTED

CIRCUIT DEVICES ON THIS SIDE TO PANEL 'P1-2' UNLESS OTHERWISE NOTED

CIRCUIT DEVICES ON THIS SIDE TO PANEL 'P1-1' UNLESS OTHERWISE NOTED

CIRCUIT DEVICES ON THIS SIDE TO PANEL 'P1-3' UNLESS OTHERWISE NOTED

1 FIRST FLOOR PLAN
E202 SCALE: 1/8"=1'-0"

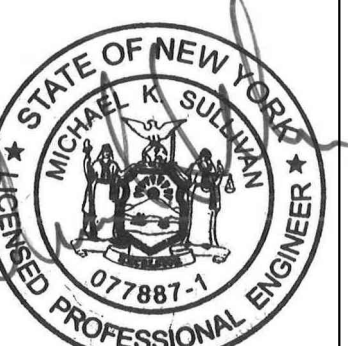


DATE: 9/18/2020
REVISIONS:

PROJECT NO.	DESIGNED BY	CHECKED BY	SCALE	NOTES
2020095	CUE	CUE	AS NOTED	
	DRWN BY:	CHKD BY:		

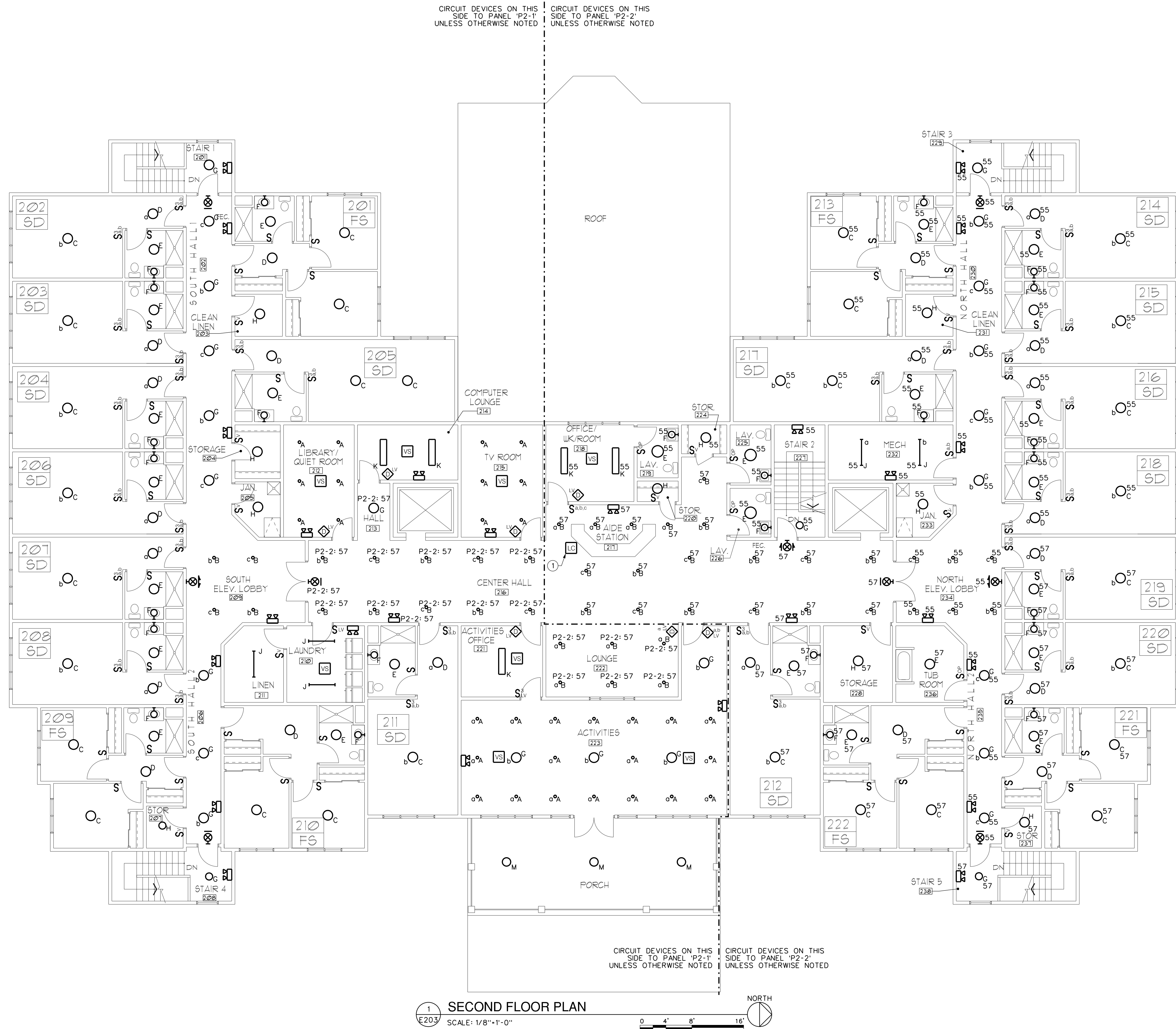
FIRST FLOOR ELECTRICAL LIGHTING PLAN

HARRIS A. SANDERS
ARCHITECTS, P.C.
252 WASHINGTON AVENUE, ALBANY, NEW YORK 12210



SHEET NO.

E202



GENERAL NOTES:

- A. UNLESS OTHERWISE NOTED, ALL BRANCH CIRCUIT WIRING SHALL BE (2)X12 WITH (1)X12 GROUND, TYPE NM CABLE CIRCUIT TO PANEL XXX. ALL BRANCH CIRCUIT WIRING WITHIN MECH/ELEC SPACES AND OTHER UNFINISHED SPACES SHALL BE TYPE MC CABLE.
- B. REFER TO ONE-LINE DIAGRAM, SCHEDULES AND DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
- C. ALL EXTERIOR BUILDING MOUNTED LIGHT FIXTURES SHALL BE CIRCUITED TO PANEL XXX AND CONNECTED TO TIME CLOCK CONTROLS.

DRAWING NOTES:

- 1 PROVIDE LIGHTING CONTACTOR ABOVE CEILING TO CONTROL SWITCH LEG C & D THROUGHOUT THE CORRIDOR AS SHOWN.



DATE: 9/18/2020
REVISION:

PROJECT NO. 200095
DESIGNED BY: CUE
DRAWN BY: CUE
CHECKED BY: RSA
SCALE: AS NOTED
NOTES:

SECOND FLOOR PLAN
ELECTRICAL LIGHTING PLAN

HARRIS A. SANDERS
ARCHITECTS, P.C.
252 WASHINGTON AVENUE, ALBANY, NEW YORK 12210

L'DOR ADULT CARE FACILITY
156 WEST CLARKSTOWN ROAD
NEW CITY, N.Y. 10956



SHEET NO.

E203



* • ASSUMED INFORMATION

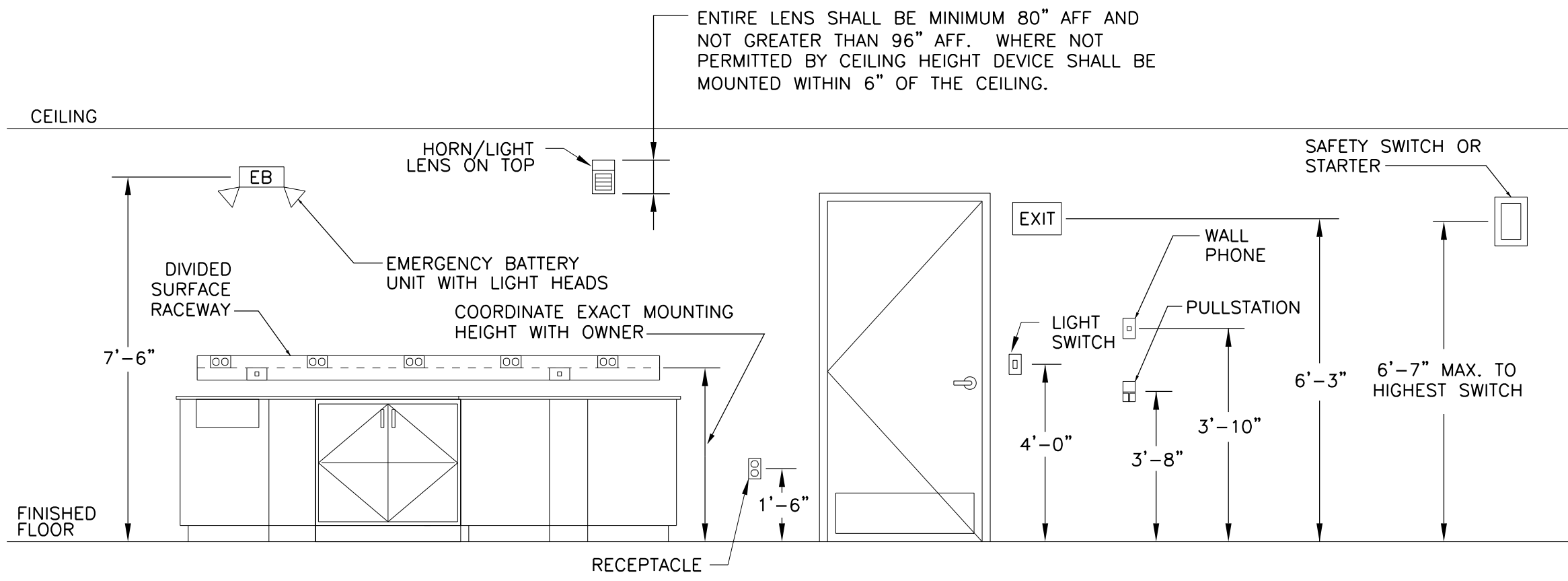
REFERENCE NOTES:

1. HOOD REQUIRES 2 SEPARATE POWER SUPPLIES: (1) 120V FOR CONTROL PANEL POWER, AND (1) 208V FOR EXHAUST FAN POWER.
2. PROVIDE ALL REQUIRED CONTROL WIRING AND CONNECTIONS AS REQUIRED BY THE HOOD MANUFACTURER'S REQUIREMENTS FOR PROPER OPERATION OF THE HOOD AND ASSOCIATED HOOD LIGHTS, CONTROLS, ETC.
3. PROVIDE FIRE ALARM INTERFACE: REFER TO FIRE ALARM BLOCK DIAGRAM.

- ## GENERAL NOTES:
- A. UNLESS OTHERWISE NOTED, ALL BRANCH CIRCUIT WIRING SHALL BE (2)-12 WITH (1)-12 GROUND, TYPE NM CABLE. ALL BRANCH CIRCUIT WIRING WITHIN MECH/ELEC SPACES AND OTHER UNFINISHED SPACES SHALL BE TYPE MC CABLE.
 - B. COORDINATE SINGLE POINT OF CONNECTION (FOR DATA, PHONE, AND CABLE TV) WITH SERVICE PROVIDER. PROVIDE CABLING AND OUTLET PER SERVICE PROVIDER'S INSTRUCTIONS.
 - C. REFER TO ONE-LINE DIAGRAM, SCHEDULES AND DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
 - D. ALL EQUIPMENT, DEVICES AND LIGHTING IN MECHANICAL AND ELECTRICAL ROOMS SHALL BE CIRCUITED TO PANEL 'PB-1', UNLESS OTHERWISE NOTED.
 - E. ALL EQUIPMENT AND DEVICES IN KITCHEN SPACES SHALL BE CIRCUITED TO PANEL 'KP', UNLESS OTHERWISE NOTED.

DRAWING NOTES:

- ① FLUSH MOUNT RECEPTACLES IN HALF WALL, ABOVE COUNTER.
- ② PROVIDE DEDICATED RECEPTACLE AND BRANCH CIRCUIT FOR DATA RACKS. DATA RACKS BY OTHERS.
- ③ PROVIDE 2P, 208V LIGHTING CONTACTOR FOR SITE LIGHTING. INTERFACE LIGHTING CONTACTOR WITH BMS SYSTEM FOR LIGHTING CONTROLS. COORDINATE WITH MECHANICAL CONTRACTOR.

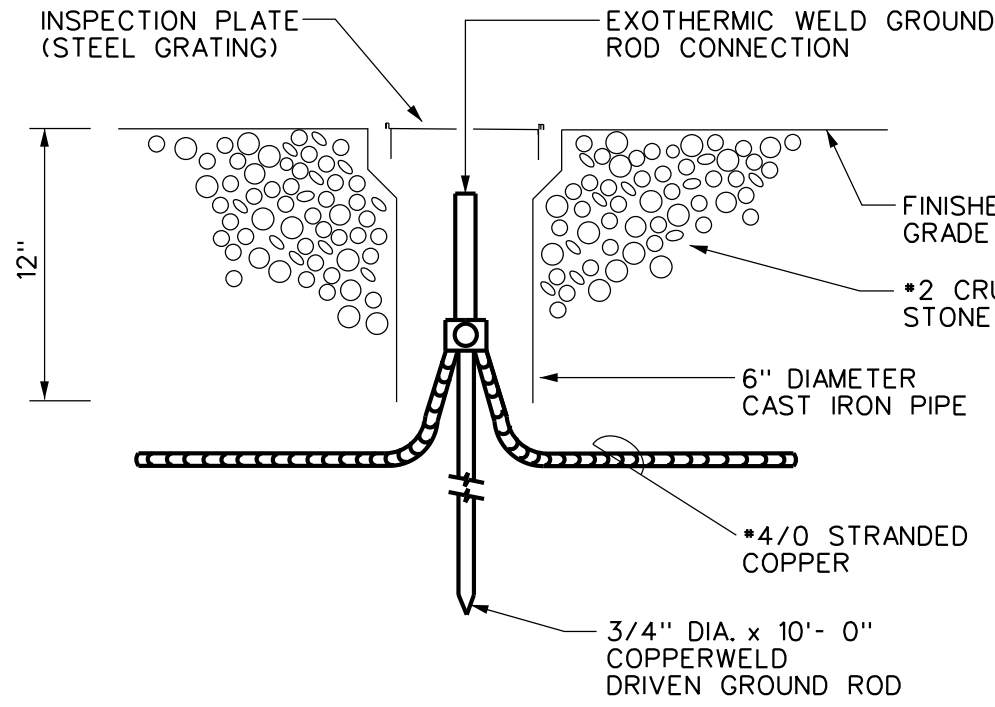


DETAIL GENERAL NOTES:

1. MOUNTING HEIGHTS TO CENTER OF OUTLETS UNLESS OTHERWISE NOTED. IN MASONRY CONSTRUCTION THE ABOVE MOUNTING HEIGHTS SHALL BE USED FOR REFERENCE TO NEAREST BLOCK OR BRICK COURSING.
2. THE ABOVE MOUNTING HEIGHTS SHALL BE ADHERED TO UNLESS SPECIFICALLY NOTED OR DETAILED OTHERWISE ON THE DRAWINGS.

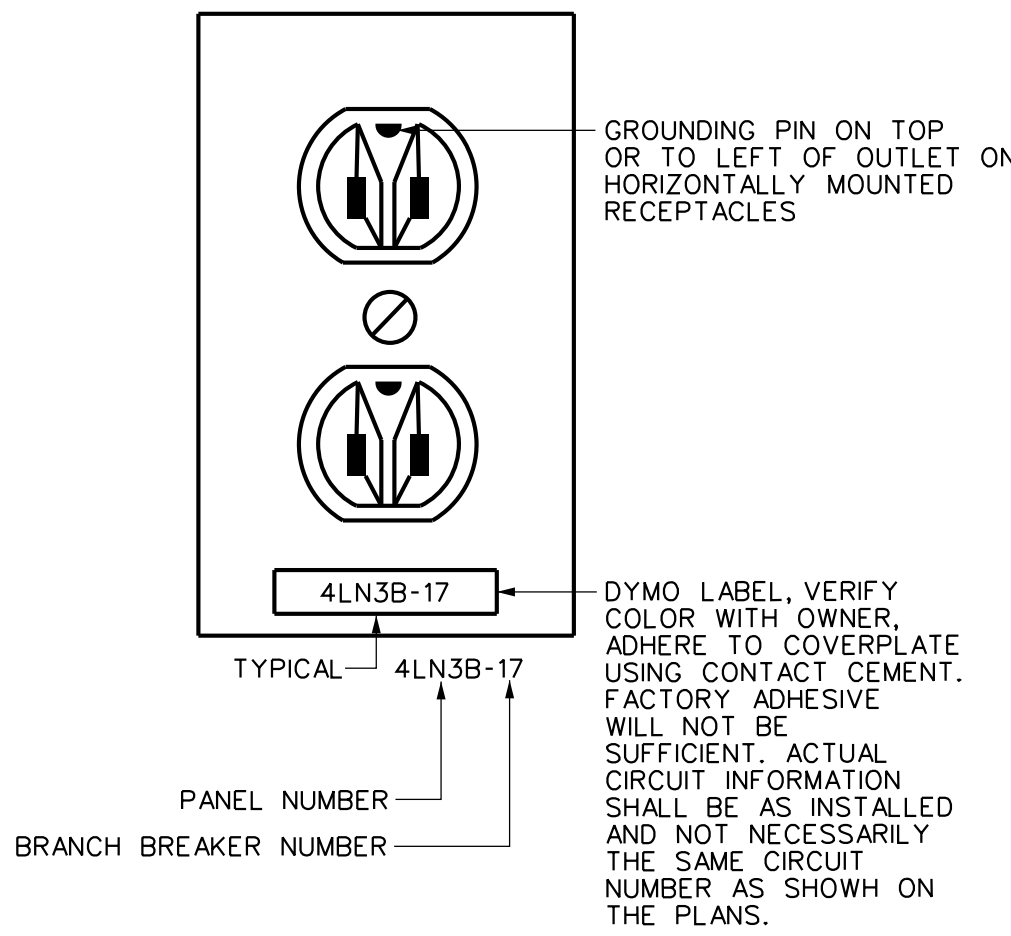
1 E601 TYPICAL EQUIPMENT AND WIRING DEVICES MOUNTING HEIGHTS

SCALE: NONE



2 E601 TYPICAL GROUND ROD DETAIL

SCALE: NONE

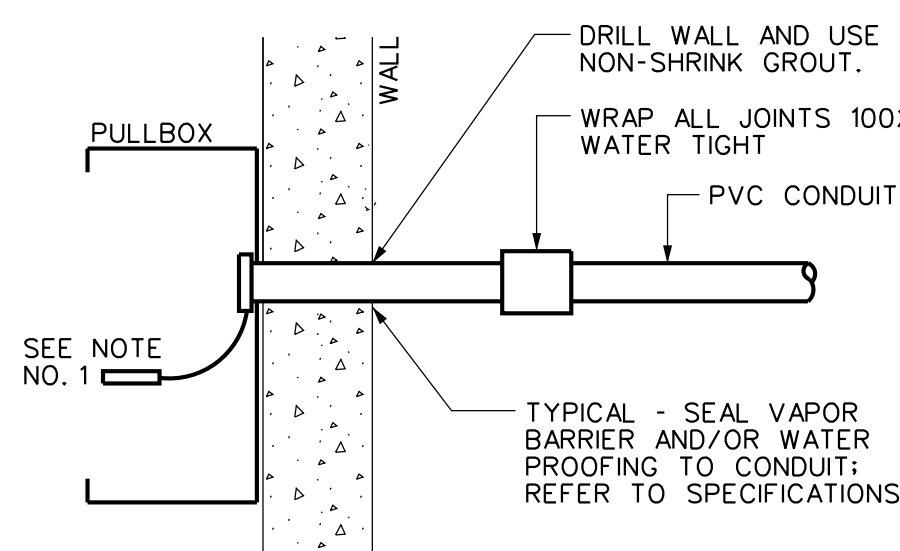


DETAIL GENERAL NOTES:

- A. PROVIDE GREEN GROUND WIRE IN ALL RECEPTACLE CIRCUITS. CONNECT TO GROUND BUS IN PANEL.
- B. DO NOT INSTALL RECEPTACLES, COMPUTER OR TELEPHONE OUTLETS BACK TO BACK. INSTALL IN ADJACENT STUD CAVITIES, TO REDUCE SOUND TRANSMISSION.

3 E601 TYPICAL RECEPTACLE IDENTIFICATION

SCALE: NONE

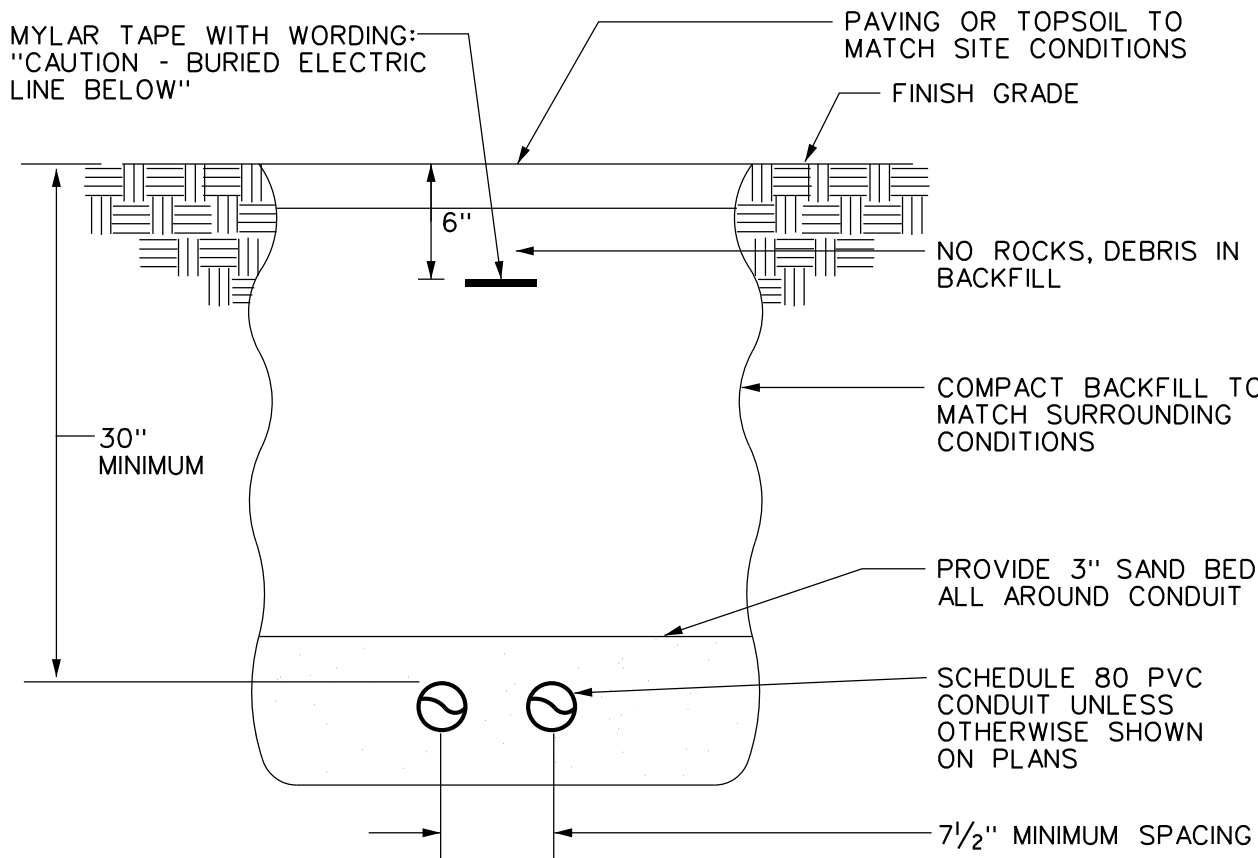


DETAIL NOTES:

- A. AT EACH CONDUIT, PROVIDE AN ENGRAVED PLASTIC NAMEPLATE, INDICATING CONDUIT NO., AND ATTACH TO CONDUIT WITH NYLON CABLE TIE.

4 E601 TYPICAL CONDUIT PENETRATION INTO BUILDING

SCALE: NONE

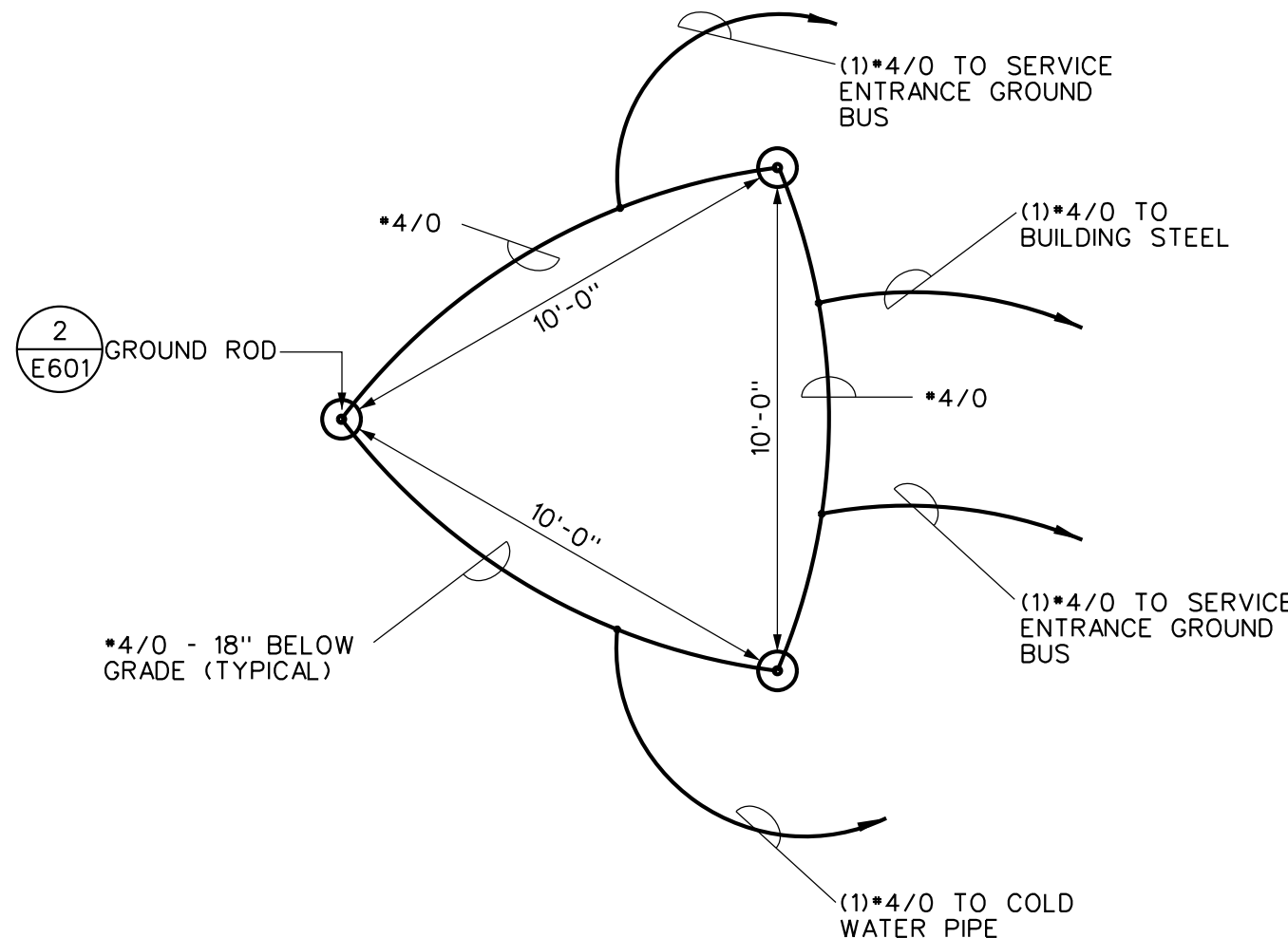


DETAIL GENERAL NOTES:

- A. REFER TO THE SPECIFICATIONS.
- B. REPAIR ALL SETTLEMENT.
- C. MINIMUM TOP SOIL - 6".
- D. WHERE ADDITIONAL CONDUITS ARE REQUIRED, INCREASE TRENCH WIDTH AND INSTALL CONDUITS WITH 3" MINIMUM SPACING.

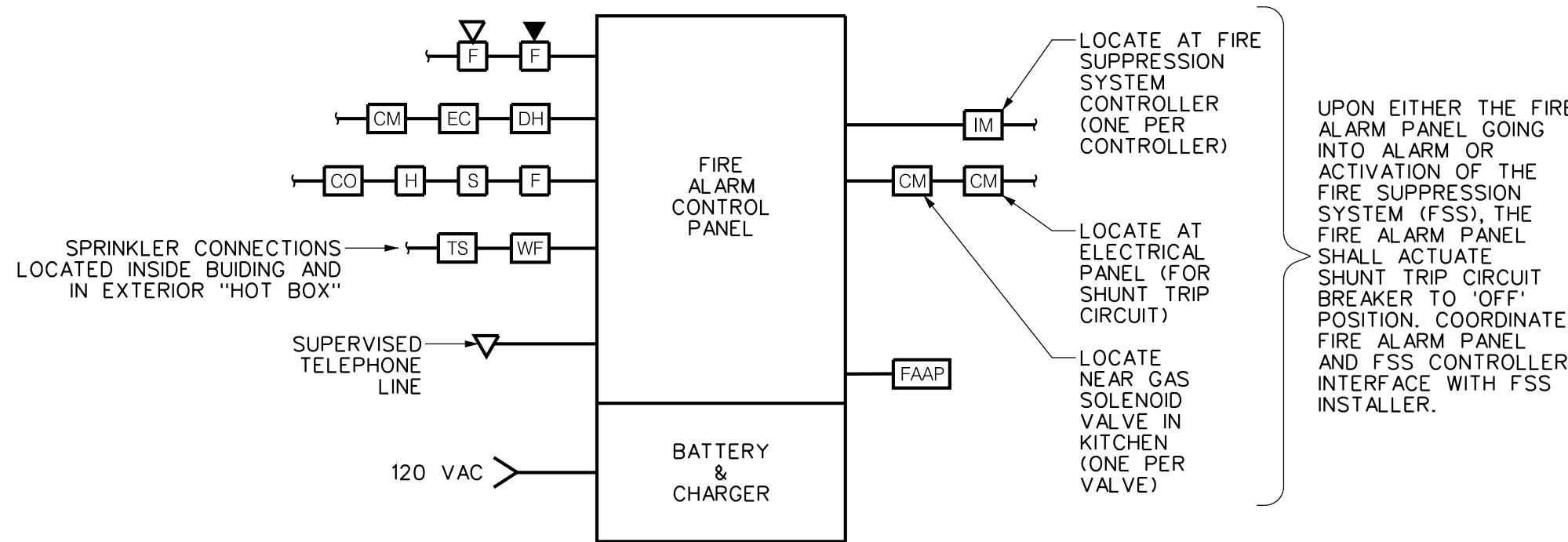
5 E601 TYPICAL DIRECT BURIED CONDUIT DETAIL

SCALE: NONE



6 E601 GROUNDING SYSTEM DETAIL

SCALE: NONE

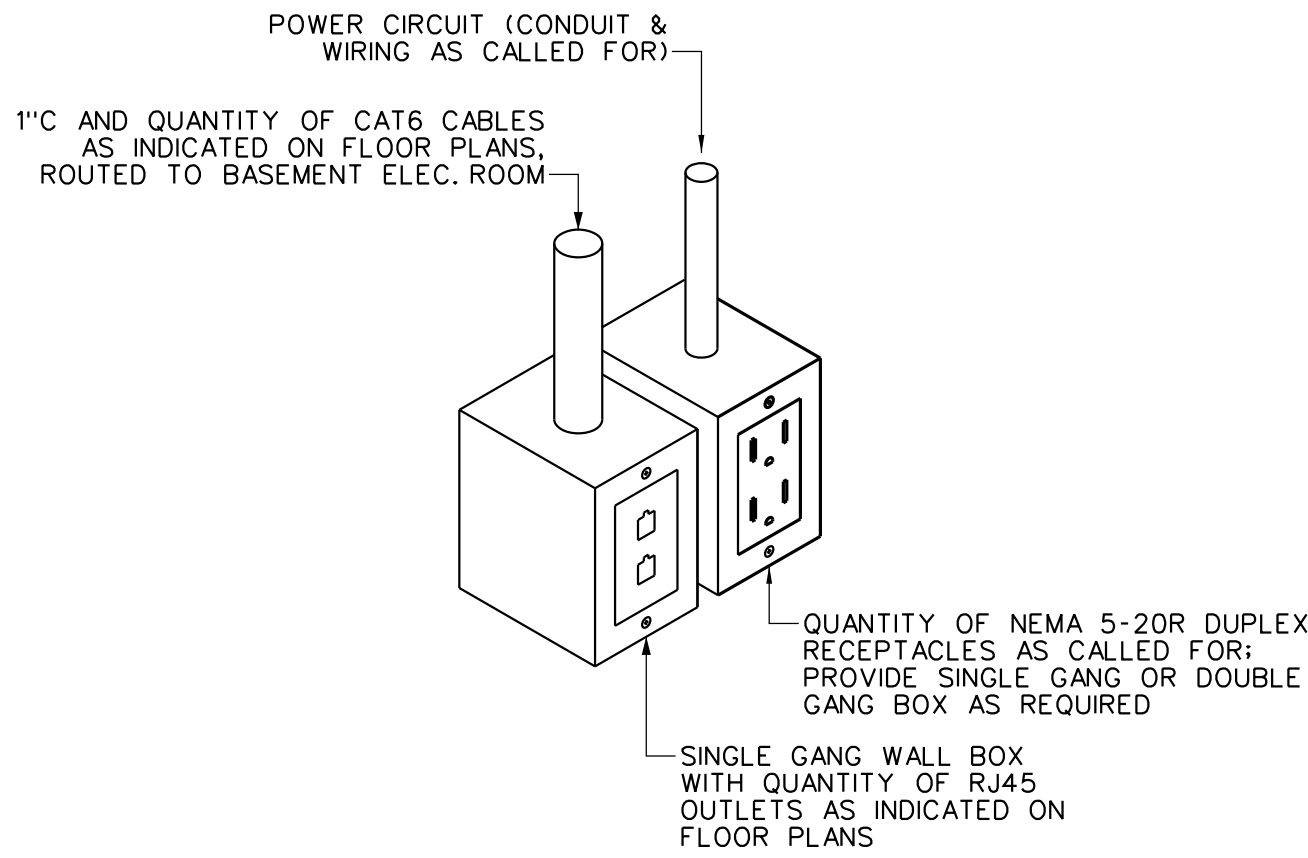


DETAIL NOTES:

- A. INSTALLATION SHALL BE IN ACCORDANCE WITH NFPA-70, NFPA-72, AHJ, STATE CODES, LOCAL CODES, AND THE CONTRACT DOCUMENTS.
- B. ALL WIRING SHALL COMPLY WITH CURRENT CODES AND THE MANUFACTURER'S REQUIREMENTS.
- C. SINGLE STATION SMOKE DETECTORS WITH SOUNDER BASES SHALL BE 120V DEVICES AND SHALL BE INTERCONNECTED WITH ONE ANOTHER WITHIN EACH APARTMENT. THEY SHALL NOT BE MONITORED BY THE FIRE ALARM SYSTEM. PROVIDE MINIHORNS WITHIN EACH APARTMENT TIED TO THE FIRE ALARM PANEL TO ALERT TENANTS OF A BUILDING ALARM.
- D. DETAIL IS DIAGRAMMATIC ONLY AND NOT REPRESENTATIVE OF ALL FIRE ALARM DEVICES TO BE INCLUDED. REFER TO THE FLOOR PLANS FOR ADDITIONAL DEVICE TYPES, CONNECTIONS, AND FEATURES THAT ARE REQUIRED THROUGHOUT THE BUILDING.

7 E601 FIRE ALARM BLOCK DIAGRAM

SCALE: NONE

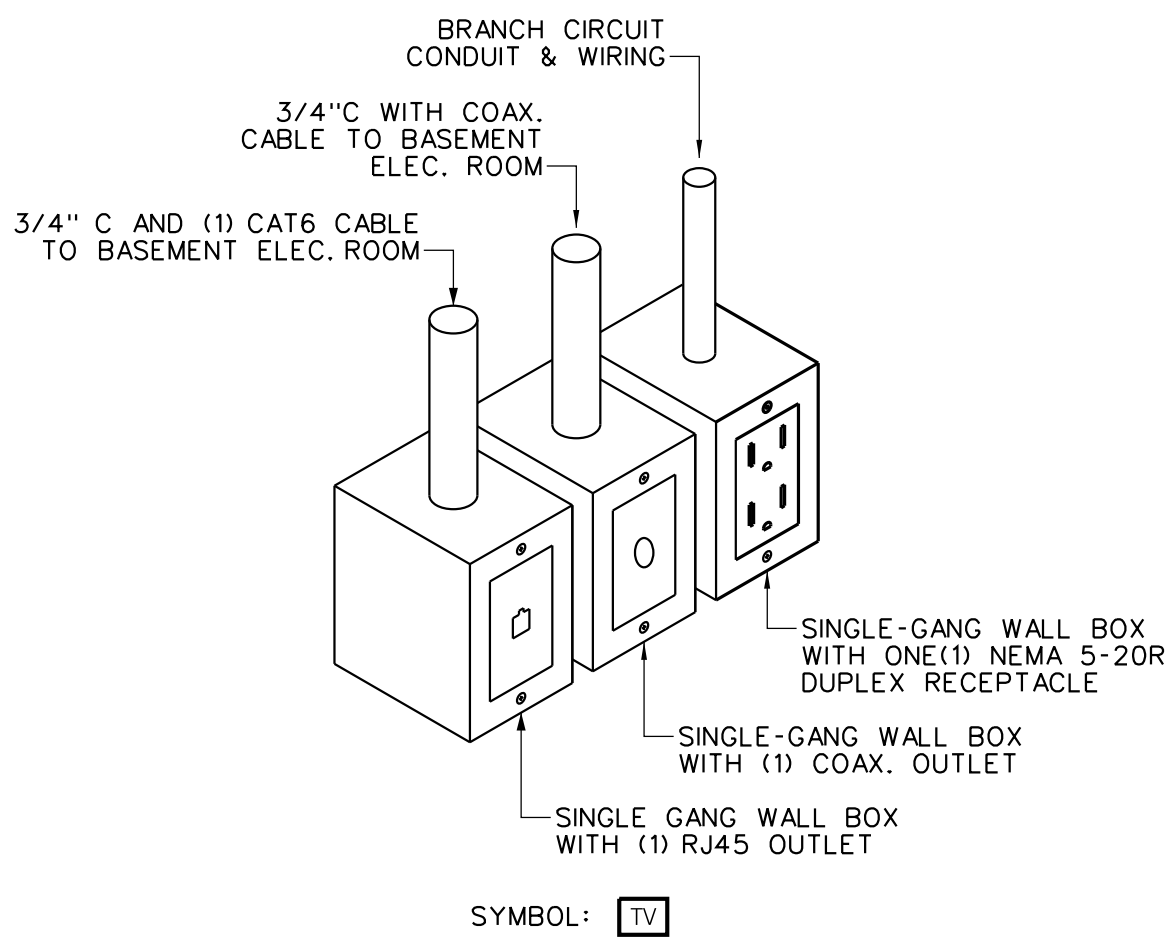


DETAIL GENERAL NOTES:

- A. CONDUIT FOR COAX SHALL BE IN WALLS TO ABOVE ACCESSIBLE CEILING SPACE. COAX CABLES SHALL BE SUPPORTED WITH J-HOOKS WHERE ROUTED ABOVE ACCESSIBLE CEILING SPACES.

8 E601 TYPICAL COMBINATION POWER AND DATA OUTLET DETAIL

SCALE: NONE

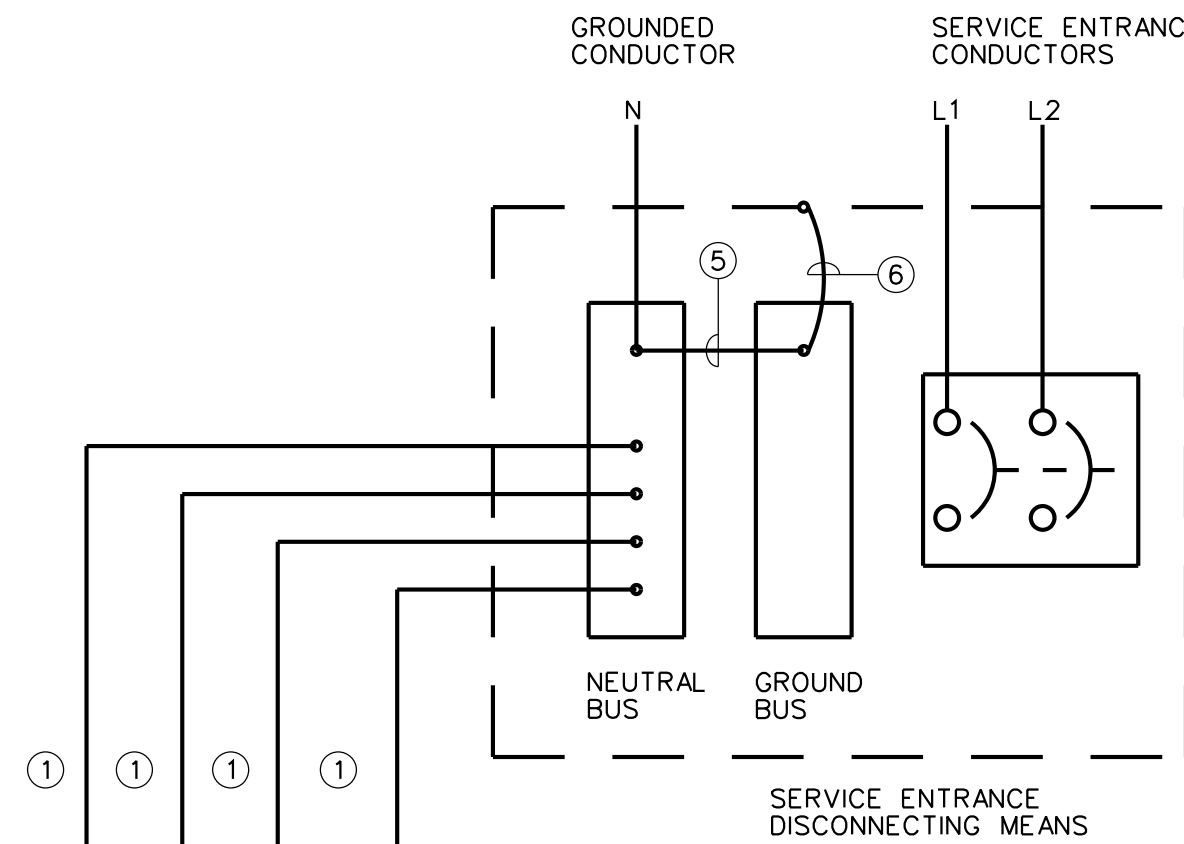


DETAIL GENERAL NOTES:

- A. CONDUITS FOR DATA AND COAX SHALL BE IN WALLS TO ABOVE ACCESSIBLE CEILING SPACE. DATA AND COAX CABLES SHALL BE SUPPORTED WITH J-HOOKS WHERE ROUTED ABOVE ACCESSIBLE CEILING SPACES.

9 E601 TYPICAL TELEVISION DETAIL

SCALE: NONE

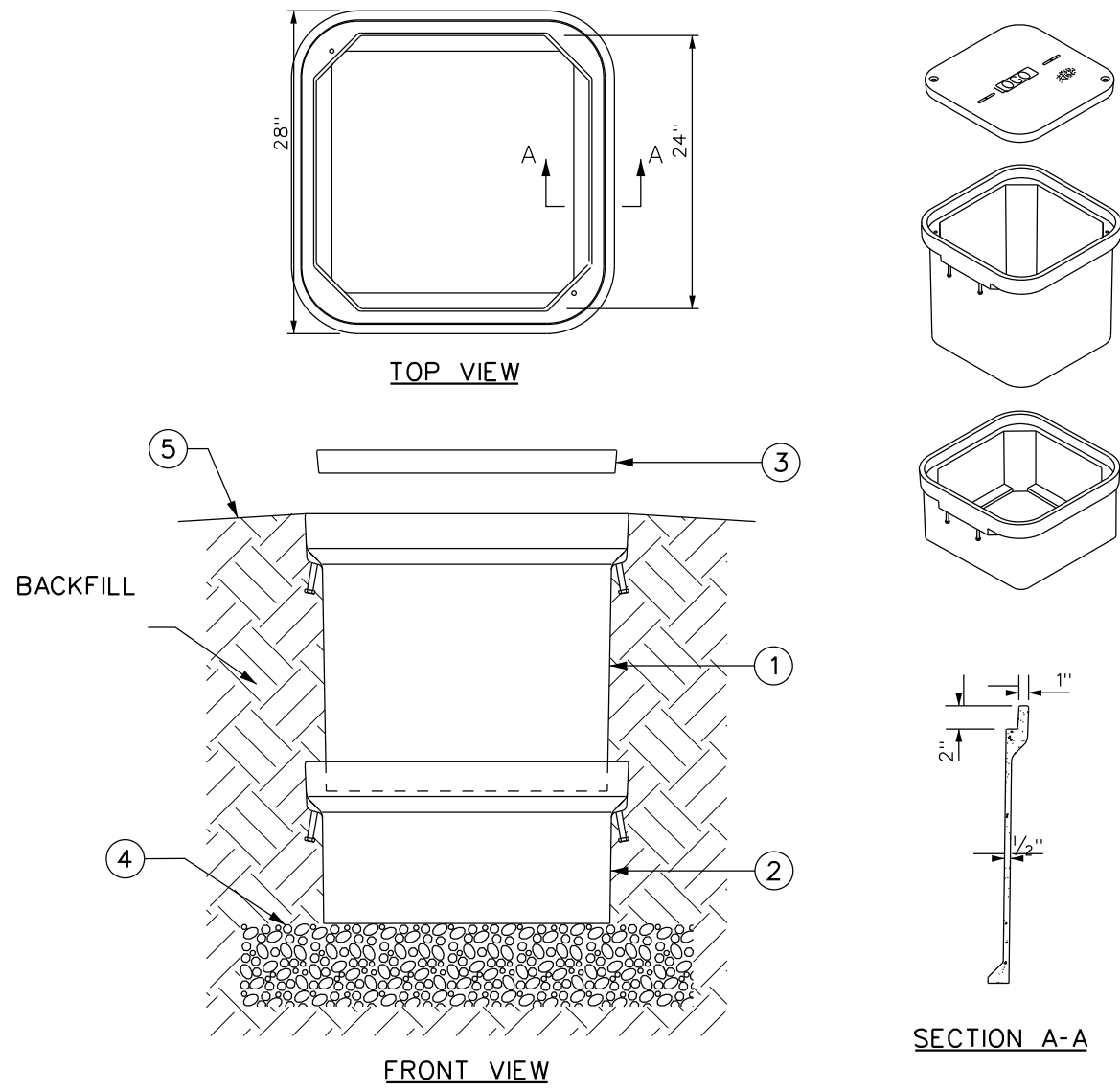


10 E601 SERVICE ENTRANCE GROUNDING

SCALE: NONE

DETAIL SPECIFIC NOTES:

1. GROUNDING ELECTRODE CONDUCTOR. PROVIDE INSULATED COPPER CONDUCTOR PER SPECIFICATIONS. IF NO SIZE IS SPECIFIED, PROVIDE INSULATED COPPER CONDUCTOR SIZED PER N.E.C., TABLE 250-66. INSTALL IN RIGID, SCHEDULE 40, PVC RACEWAY.
2. METAL UNDERGROUND WATER PIPE IN DIRECT CONTACT WITH EARTH FOR 10 FEET OR MORE SHALL BE SUPPLEMENTED BY ITEMS 3 & 4.
3. BUILDING STRUCTURAL STEEL.
4. MADE GROUNDING ELECTRODE. REFER TO MADE GROUNDING ELECTRODE-GROUND GRID" DETAIL & SPECIFICATIONS.
5. MAIN BONDING JUMPER. PROVIDE INSULATED COPPER CONDUCTOR PER N.E.C. ARTICLE 250-28.
6. BOND GROUND BUS TO EQUIPMENT ENCLOSURE WITH BARE COPPER BONDING JUMPER PER N.E.C. ARTICLE 250-28.

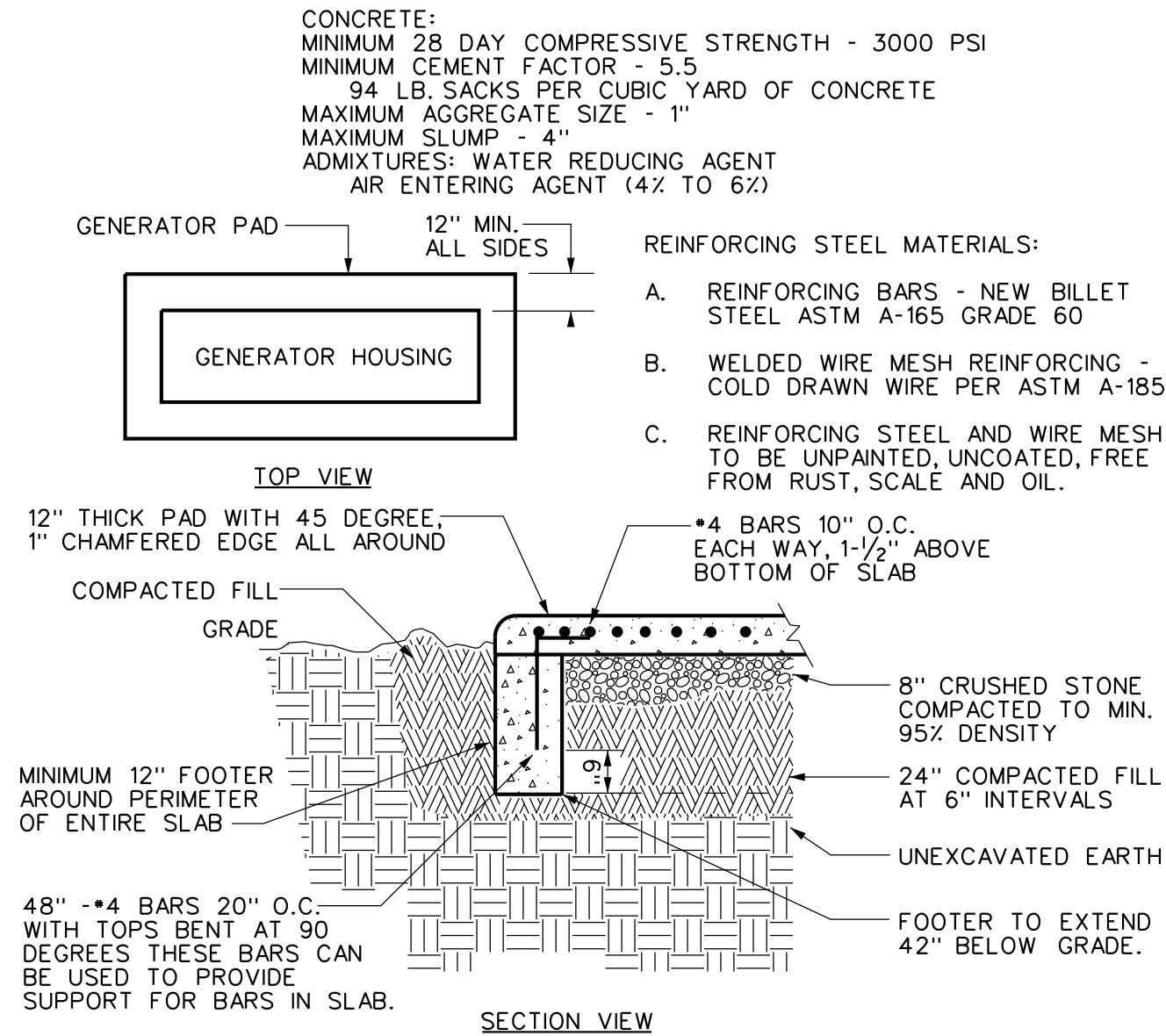


DETAIL SPECIFIC NOTES:

- 1 24" x 24" x 24" PRECAST POLYMER CONCRETE STACKABLE ENCLOSURE, OPEN BOTTOM.
- 2 24" x 24" x 14" STACKABLE EXTENSION, OPEN BOTTOM.
- 3 BOLTED COVER.
- 4 6" OF #2 CRUSHED STONE BELOW HANDHOLE. EXTEND MINIMUM OF 6" AROUND OUTSIDE EDGE.
- 5 SLOPE FINISHED GRADE AWAY FROM COVER.

1 HANDHOLE DETAIL

E602 SCALE: NONE

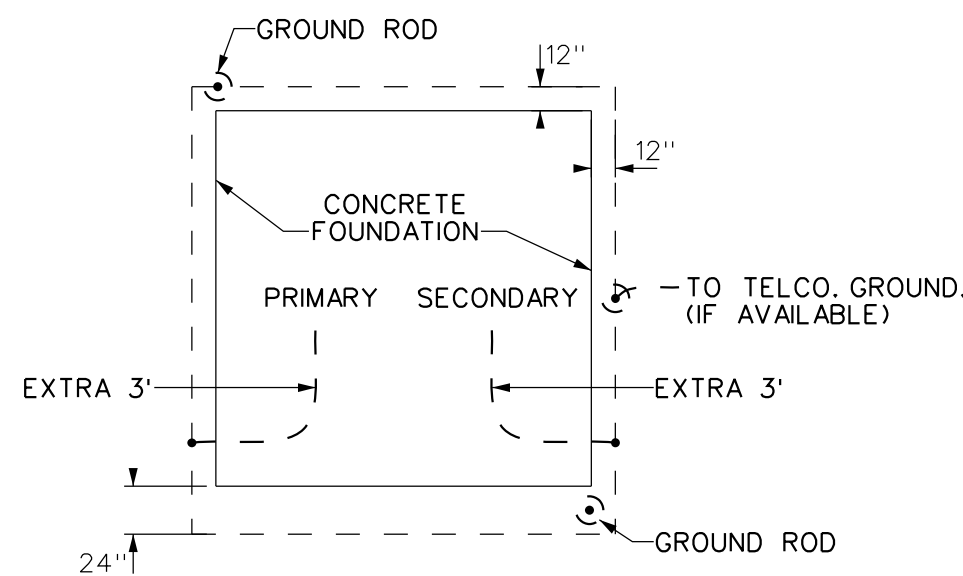


DETAIL NOTES:

- A. TOP OF NEW PADS SHALL BE 4" ABOVE EXISTING GRADE LEVEL.
- B. TOP SURFACE SHALL BE TROWL FINISHED.
- C. PROVIDE ANCHOR BOLTS AS PER GENERATOR MANUFACTURERS REQUIREMENTS.
- D. READ THE SPECIFICATIONS AND REFER TO THE CONDUIT PLAN.

2 REINFORCED CONCRETE GENERATOR PAD DETAIL

E602 SCALE: NONE

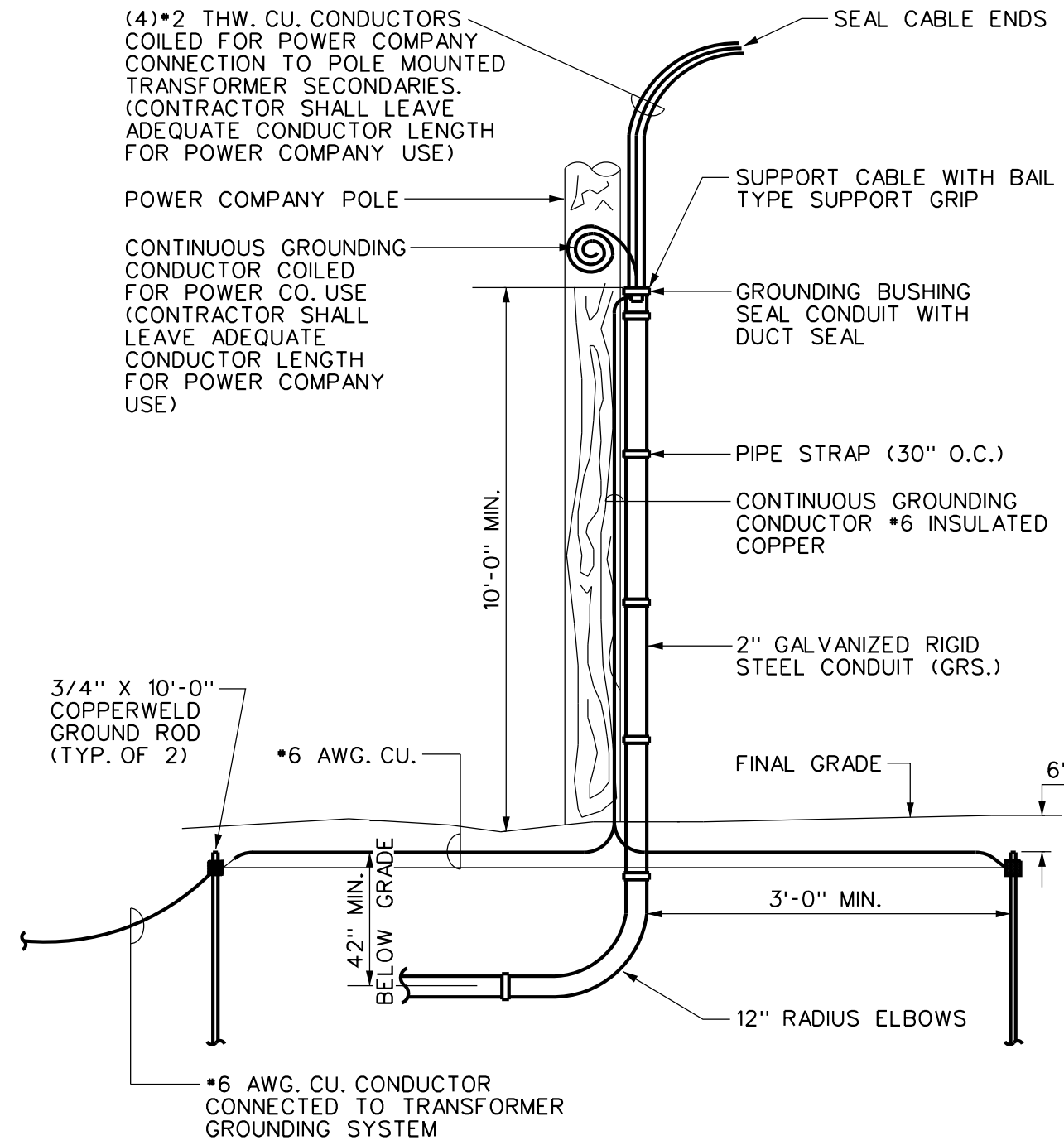


DETAIL NOTES:

- A. CONCRETE 5000 PSI @ 28 DAYS.
- C. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO ACI-318.
- D. DEFORMED BARS - ASTM A-615, GRADE 60.
- E. TOP SURFACE SHALL BE TROWL FINISHED.
- F. 3/4" CHAMFER STRIP ALL EXPOSED EDGES, INCLUDING OPENING.
- G. PRECAST PADS ACCEPTABLE IF CONSTRUCTED IN ACCORDANCE WITH THE ABOVE.
- H. PROVIDE MINIMUM 3' EXTRA GROUND CONDUCTOR ABOVE TOP OF PAD FOR EACH CONNECTION.
- I. GROUND CONNECTIONS TO TRANSFORMER TANK SHALL BE MADE BY THE UTILITY COMPANY.
- J. METALLIC PRIMARY AND SECONDARY CONDUITS SHALL BE BONDED BY THE CUSTOMER TO THE GROUND GRID WITH #4 AWG CUSOLID).
- K. WHERE PRACTICABLE, THE GROUND GRID SHALL BE BONDED TO A CONTINUOUS METALLIC WATER SYSTEM.
- L. GROUND CONNECTIONS SHALL BE EXOTHERMIC OR PRESSED TYPE.

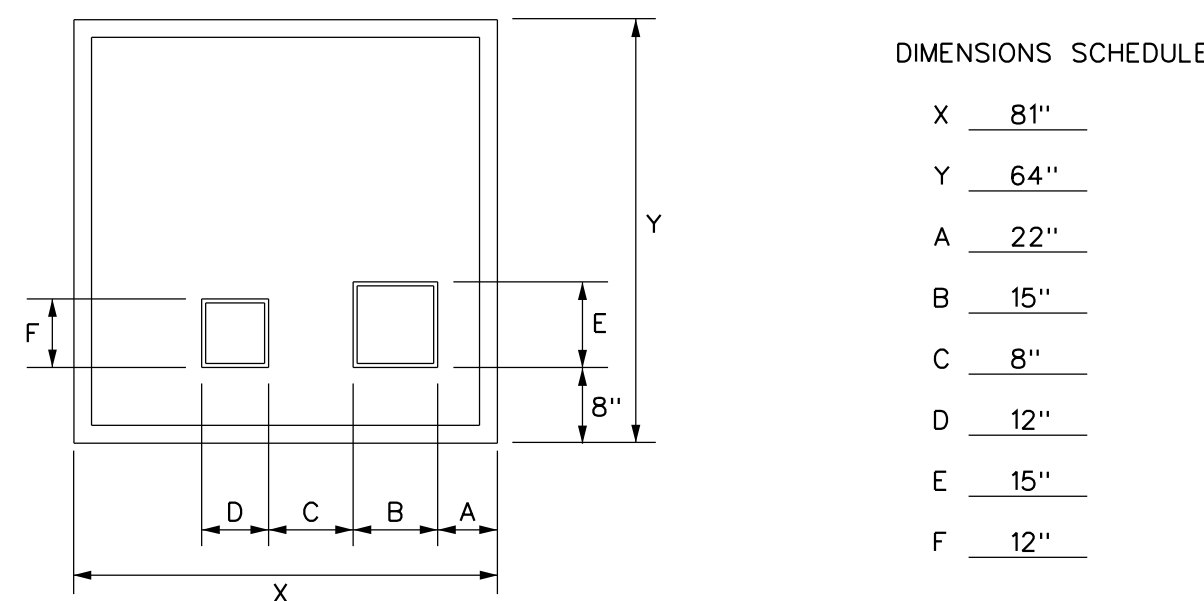
4 UTILITY TRANSFORMER PAD DETAIL

E602 SCALE: NONE



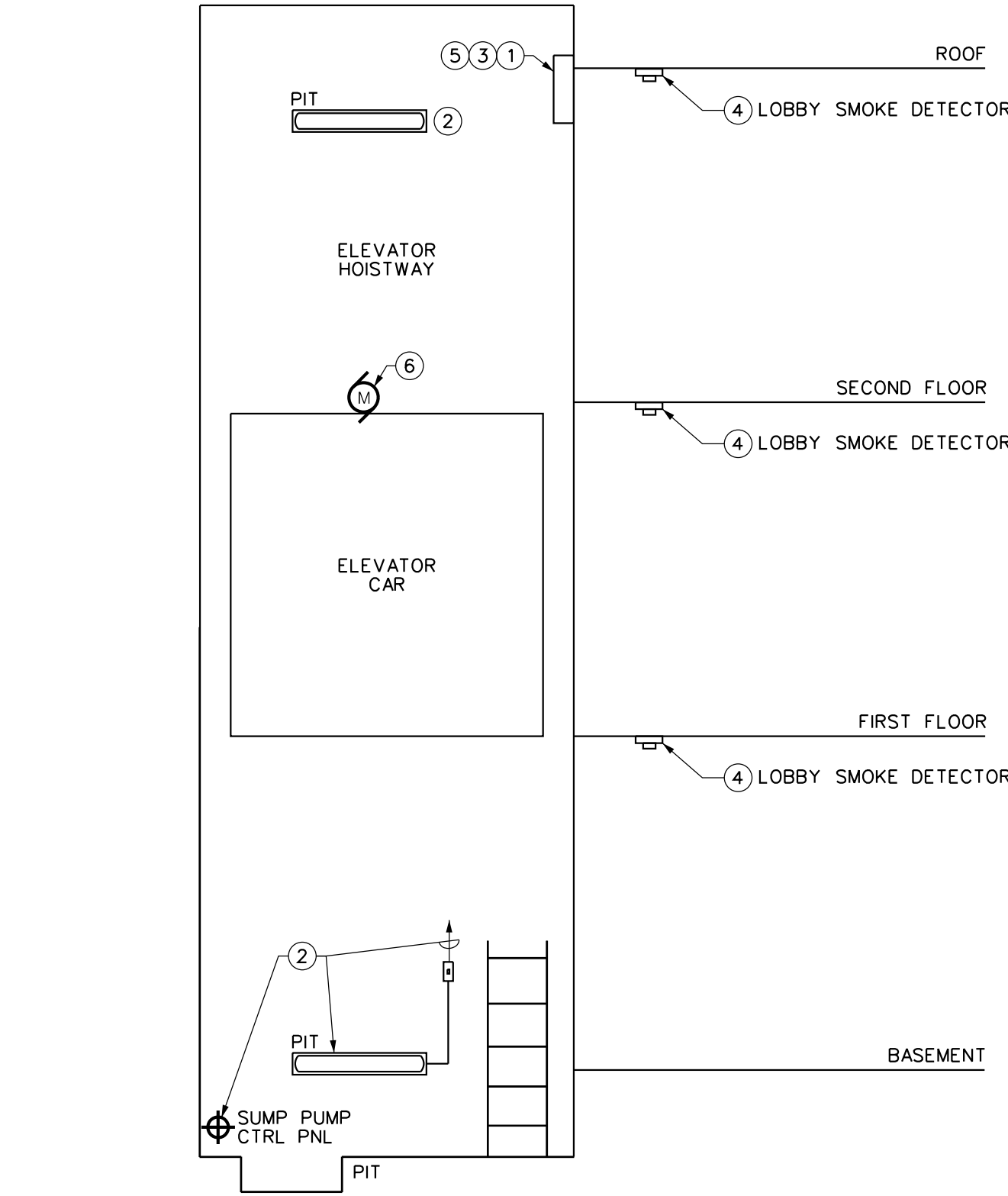
3 UTILITY POLE CONDUIT RISER DETAIL

E602 SCALE: NONE



REINFORCING SCHEDULE

PAD TO BE REINFORCED WITH ONE OF THE FOLLOWING REINFORCING STEEL COMBINATIONS:
#4 BARS @ 12 INCHES EACH WAY
OR WWF 4 X 4 X 4/4
OR WWF 6 X 6 X 2/2



ELEVATOR CIRCUITING				
ELEVATOR	ELEVATOR MAIN LINE FEEDER	ELEVATOR SUMP PUMP CIRCUIT	ELEVATOR CAR LIGHTING AND VENTILATION CKT	ELEVATOR PIT LIGHTING AND RECEPTACLE CKT
ELEV. 1	MDP	PB-1: 27	PB-1: 25	PB-1: 27
ELEV. 2	MDP	PB-1: 28	PB-1: 26	PB-1: 28

DETAIL GENERAL NOTES:

- A. COORDINATE ALL FINAL WIRING CONNECTIONS AND EQUIPMENT INTERFACE WITH ELEVATOR INSTALLER.
- B. SEE PANELBOARD SCHEDULES FOR ELEVATOR MACHINE AND SUMP PUMP CIRCUITING INFORMATION.
- C. PROVIDE EQUIPMENT LABELING AS INDICATED ON PLAN DRAWINGS AS REQUIRED BY SECTION 16100.
- D. PROVIDE SIGNAL WIRING FROM STAND-BY AUTOMATIC TRANSFER SWITCH TO ELEVATOR CONTROLLER.

DETAIL SPECIFIC NOTES:

- 1 PROVIDE ONE (1) 120V, 15A CIRCUIT AND LOCKABLE FUSED DISCONNECT SWITCH TO SUPPLY POWER TO ELEVATOR CAR LIGHTING, RECEPTACLE AND VENTILATION. PROVIDE (2)*12, #12G, 3/4" C. TO ELEVATOR CONTROLLER. LOCATE FUSED DISCONNECT OUTSIDE OF ELEVATOR SHAFT.
- 2 PROVIDE ONE (1) 120V, 20A CIRCUIT FOR ELEVATOR PIT LIGHT FIXTURE AND SUMP PUMP CONTROL PANEL. PROVIDE (2)*12, #12G, 3/4" C. PROVIDE WEATHERPROOF SPST SWITCH AND LIGHT FIXTURE TYPE 'P'. REFER TO LUMINAIRE SCHEDULE FOR ADDITIONAL INFORMATION.
- 3 FIRE ALARM ADDRESSABLE ELEVATOR CAPTURE MODULE FOR ELEVATOR RECALL OPERATIONS. COORDINATE CONNECTION WITH ELEVATOR INSTALLER.
- 4 ELEVATOR LOBBY AREA SMOKE DETECTOR INITIATING EMERGENCY RECALL OPERATION AND SYSTEM ALARM.
- 5 PROVIDE (1) DEDICATED OUTSIDE TELEPHONE LINE TO ELEVATOR CONTROLLER.
- 6 PROVIDE 200A/3P CIRCUIT BREAKER, (3)*3/0, (1)*6G IN 2-1/2" C BRANCH CIRCUIT, AND 200A FUSED DISCONNECT SWITCH FOR ELEVATOR HOISTWAY MOTOR. FUSED DISCONNECT SHALL BE PROVIDED WITH AUX (DRY) CONTACT SWITCH TO PROVIDE INTERLOCK FUNCTION WITH THE ELEVATOR BATTERY UNIT. PROVIDE ALL CONTROL WIRING, WHEN DISCONNECT IS OPEN, THE CONTROL TO THE ELEVATOR BATTERY UNIT SHALL ALSO BE OPEN. LOCATE DISCONNECT OUTSIDE OF ELEVATOR SHAFT.

5 ELEVATOR DETAIL - NON-SPRINKLED

E602 SCALE: NONE

DATE: 9/18/2020
REVISION:

PROJECT NO: 2020095
DESIGNED BY: CUE
DRAWN BY: CUE
CHECKED BY: RSA
SCALE: AS NOTED
NOTES:

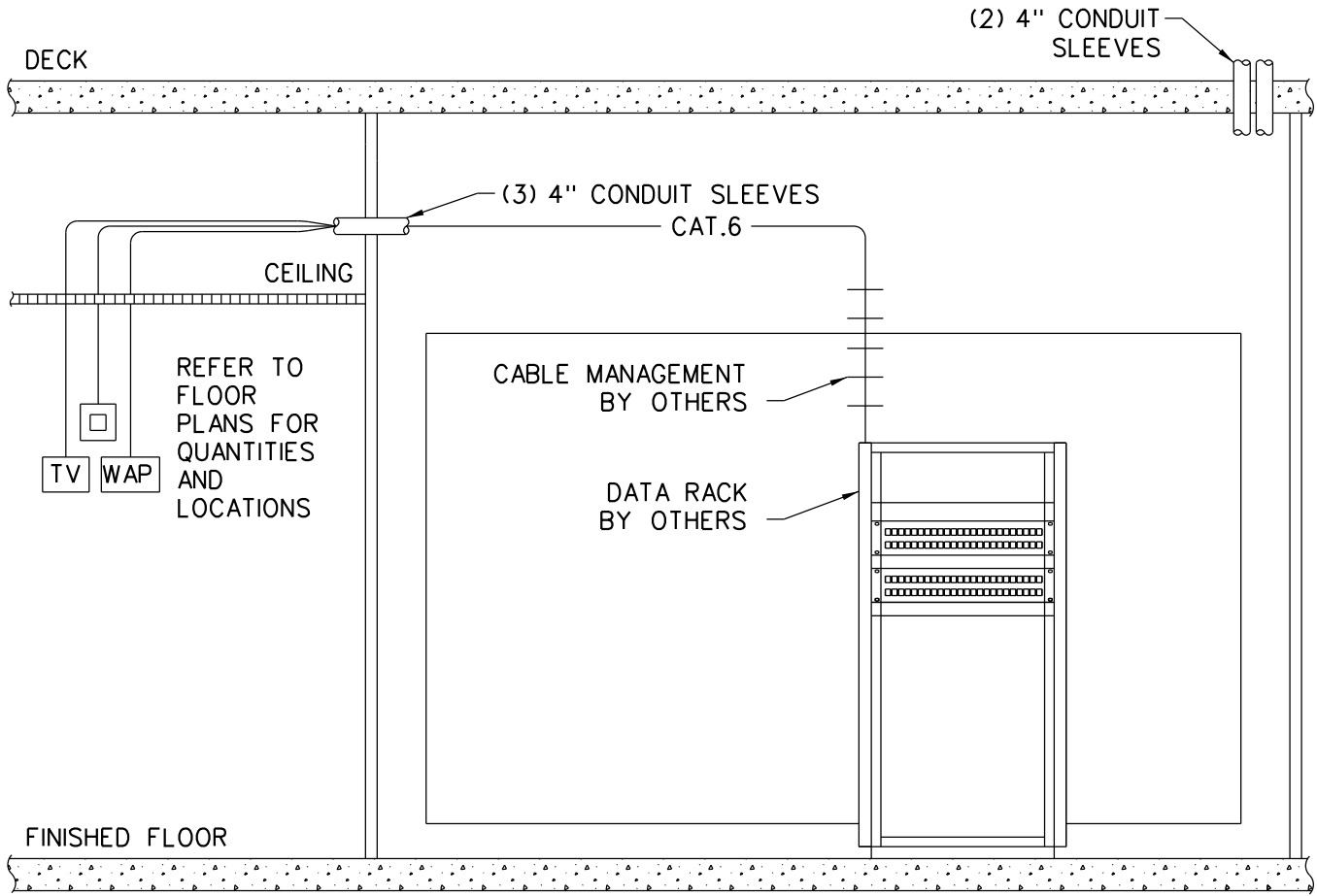
ELECTRICAL DETAILS

HARRIS A. SANDERS ARCHITECTS, P.C.
252 WASHINGTON AVENUE, ALBANY, NEW YORK 12210
L'DOR ADULT CARE FACILITY
156 WEST CLARKSTOWN ROAD
NEW CITY, N.Y. 10956



SHEET NO:

E602



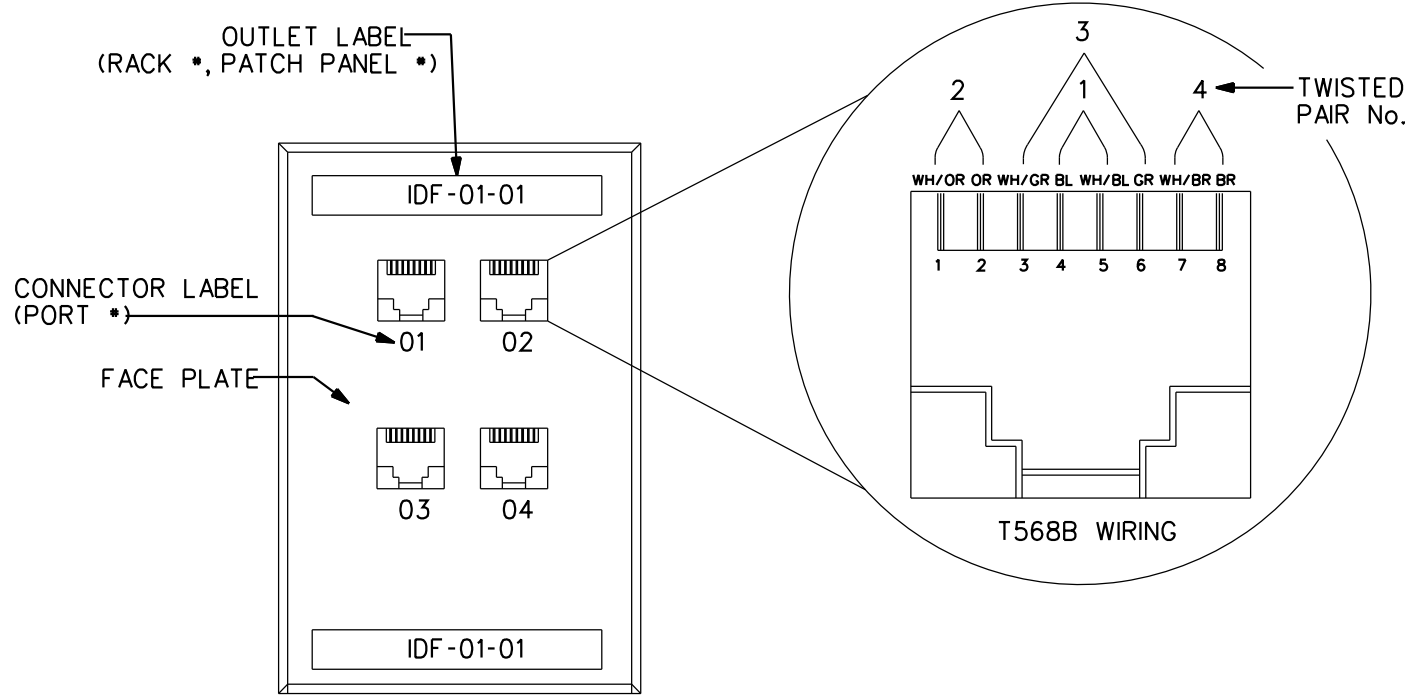
DETAIL GENERAL NOTES:

A. PROVIDE DEDICATED 4" CONDUIT SLEEVES IN WALLS, FLOORS, AND CEILINGS FOR HORIZONTAL AND VERTICAL CABLING. SIZE SLEEVES FOR NO MORE THAN 40% FILL AND LABEL CABLES AT SLEEVE FOR THE SYSTEM THEY SERVE. CAMERA AND NETWORK CABLING SHALL HAVE SEPARATE DEDICATED SLEEVES.

1
E603

TYPICAL RACK DETAIL

SCALE: N.T.S.



DETAIL GENERAL NOTES:

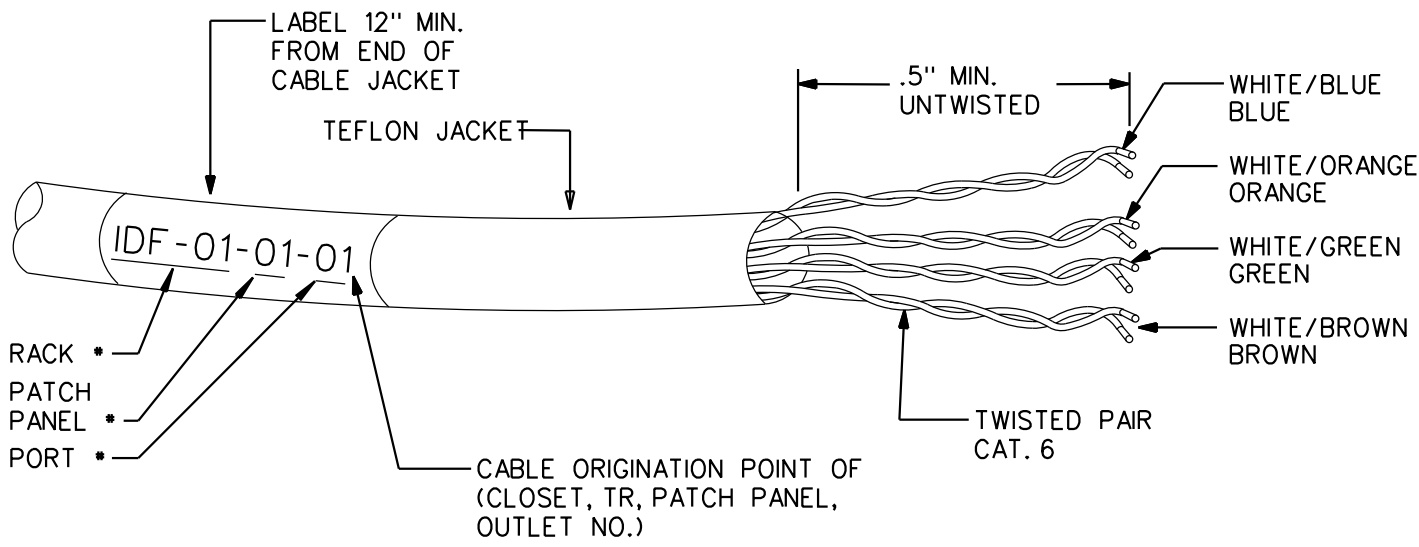
A. PROVIDE TELECOMMUNICATION LABELING AS PER TIA/EIA-606-A. ALL OUTLETS AND PATCH PANEL POSITIONS MUST BE LABELED AS TO THEIR FUNCTION AND IDENTIFIER CODE. ALL DEVICES, OUTLET LOCATIONS AND DESIGNATIONS MUST APPEAR ON SHOP DRAWINGS AND FINAL AS-BUILT DRAWINGS. AS A MINIMUM THE FOLLOWING MUST BE REFLECTED FOR THE CONNECTORS AND PANEL LABEL - "RACK #" IDENTIFYING THE RACK DESIGNATION, "PATCH PANEL #" IDENTIFYING THE PATCH PANEL DESIGNATION AND "PORT #" IDENTIFYING THE PORT ON THE PATCH PANEL.

B. LABEL EACH CONNECTOR LOCATION AS SPECIFIED IN A SEQUENCE AND PROCEEDING CLOCKWISE AROUND THE ROOM. ALSO IDENTIFY AND LABEL THE CONNECTOR FUNCTION OR DESIGNATION FOR "VOICE" OR "DATA". COLOR CODING CONNECTORS AND CABLING SHALL BE USED TO IDENTIFY VOICE OR DATA, COORDINATE WITH IT PERSONNEL.

2
E603

TYPICAL TELE/DATA COVERPLATE DETAIL

SCALE: N.T.S.



DETAIL GENERAL NOTES:

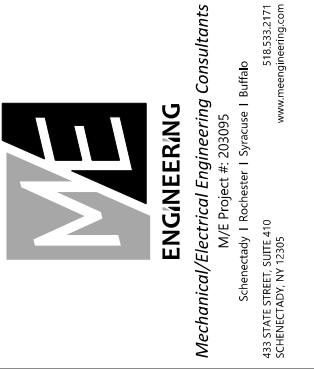
A. PROVIDE HORIZONTAL CABLE LABELING 12" FROM EACH END OF THE CABLE JACKET WITH AN IDENTIFIER AND BE VISIBLE ON THE EXPOSED PART OF THE CABLE JACKET. THIS SHALL INCLUDE EACH CABLE IN THE TELECOMMUNICATION CLOSET OR RACK. AS A MINIMUM, THE FOLLOWING MUST BE REFLECTED IN THE LABEL - "RACK #" IDENTIFYING THE RACK DESIGNATION, "PATCH PANEL #" IDENTIFYING THE PATCH PANEL DESIGNATION AND "PORT #" IDENTIFYING THE PORT ON THE PATCH PANEL.

B. MAINTAIN THE WIRE PAIR TWISTS AS CLOSE AS POSSIBLE TO THE POINT OF TERMINATION, NO MORE THAN 0.5" OF WIRE SHALL BE UNTWISTED.

3
E603

TYPICAL TELE/DATA CABLE DETAIL

SCALE: N.T.S.



DATE: 9/18/2020
REVISION:

PROJECT NO. 2020095
DESIGNED BY: CUE
DRAWN BY: CUE
CHECKED BY: RSA
SCALE: AS NOTED
NOTES:

ELECTRICAL DETAILS

HARRIS A. SANDERS
ARCHITECTS, P.C.
252 WASHINGTON AVENUE, ALBANY, NEW YORK 12210
L'DOR ADULT CARE FACILITY
156 WEST CLARKSTOWN ROAD
NEW CITY, N.Y. 10956



SHEET NO.

E603

ELECTRIC EQUIPMENT AND CONTROL SCHEDULE

GENERAL NOTES:

1. ALL STARTERS/DRIVES SHALL BE FURNISHED BY OTHERS & INSTALLED BY THE E.C.
2. UNLESS NOTED OTHERWISE, SAFETY SWITCHES SHALL BE FURNISHED & INSTALLED BY THE E.C.
3. COORDINATE LOCATION AND MOUNTING OF ALL STARTERS/DRIVES WITH THE M.C.
4. PROVIDE OVERLOADS, SIZE AS REQUIRED, BY THE DIVISION 23 CONTRACTOR.
5. ALL DEVICES SHALL BE SURFACE MOUNTED UNLESS OTHERWISE NOTED.
6. ITEM NUMBER INDICATES EQUIPMENT NUMBER
7. "AU" INDICATES CONTROL DEVICES IS LOCATED AT THE UNIT.
8. "NF" INDICATES NON-FUSED.
9. "IU" INDICATES INTEGRAL WITH UNIT.
10. "RE" INDICATES REMOTELY LOCATED; REFER TO PLAN VIEW.

EQUIPMENT								POWER SOURCE, PROTECTION & WIRING						NEMA DEVICE, TYPE AND CONTROLS													SAFETY SWITCH				REF. NOTES		
ITEM ID	NAME	ROOM LOCATION	HP	KW	PHASE	SYSTEM VOLTS	MCA or SYSTEM AMPS	PANEL or CONTROL CENTER	CIRCUIT BREAKER or "FU" FOR FUSE	POWER WIRING FROM PANEL TO CONTROL UNIT			POWER WIRING FROM CONTROL UNIT TO EQUIPMENT			NEMA SIZE STARTER	NEMA ENCLOSURE	MANUAL MOTOR STARTER	MANUAL MOTOR STARTER WITH RELAY	RELAY	COMBINATION MAGNETIC STARTER	ADJUSTABLE SPEED DRIVE	PACKAGED CONTROL UNIT FURNISHED BY OTHERS	FIRE ALARM FAN SHUTDOWN REQUIRED	RETURN DUCT SMOKE DETECTOR W/ REMOTE TEST STATION	THERMOSTAT CONNECTION	START/STOP PUSHBUTTONS	CONTROL DEVICE LOCATION	SWITCH AMPS	FUSE SIZE		LOC.	NEMA ENC.
										PHASE	GROUND	CONDUIT	PHASE	GROUND	CONDUIT																		
ACCU-123	CONDENSING UNIT	ROOF			1	208	11.2	P2-2	15A/2P	(2)*12	(1)*12	3/4"	-	-	-								X						20	NF	AU	3R	3
B-01	BOILER	BASEMENT MECH. RM			1	120	5	PB-1	15A/1P	(2)*12	(1)*12	3/4"	-	-	-								X						20	NF	AU	1	
B-02	BOILER	BASEMENT MECH. RM			1	120	5	PB-1	15A/1P	(2)*12	(1)*12	3/4"	-	-	-								X						20	NF	AU	1	
CH-01	CHILLER	EXTERIOR			3	208	242	MDP	250A/3P	(3)*250	(1)*4	2"	-	-	-								X						400A	NF	AU	3R	
CUH-101	CABINET UNIT HEATER	STAIR 1 - 101			1	115	5	P1-1	15A/1P	(2)*12	(1)*12	3/4"	(2)*12	(1)*12	3/4"	0	1		X								AU						
CUH-107	CABINET UNIT HEATER	STAIR 4 - 107			1	115	5	P1-1	15A/1P	(2)*12	(1)*12	3/4"	(2)*12	(1)*12	3/4"	0	1		X								AU						
CUH-119	CABINET UNIT HEATER	VESTIBULE 119			1	115	5	P1-3	15A/1P	(2)*12	(1)*12	3/4"	(2)*12	(1)*12	3/4"	0	1		X								AU						
CUH-124A	CABINET UNIT HEATER	DINING ROOM 124			1	115	5	P1-2	15A/1P	(2)*12	(1)*12	3/4"	(2)*12	(1)*12	3/4"	0	1		X								AU						
CUH-124B	CABINET UNIT HEATER	DINING ROOM 124			1	115	5	P1-2	15A/1P	(2)*12	(1)*12	3/4"	(2)*12	(1)*12	3/4"	0	1		X								AU						
CUH-142	CABINET UNIT HEATER	STAIR 3 - 142			1	115	5	P1-2	15A/1P	(2)*12	(1)*12	3/4"	(2)*12	(1)*12	3/4"	0	1		X								AU						
CUH-150	CABINET UNIT HEATER	STAIR 5 - 150			1	115	5	P1-3	15A/1P	(2)*12	(1)*12	3/4"	(2)*12	(1)*12	3/4"	0	1		X								AU						
CUH-B03	CABINET UNIT HEATER	CORRIDOR B03			1	115	5	PB-1	15A/1P	(2)*12	(1)*12	3/4"	(2)*12	(1)*12	3/4"	0	1		X								AU						
CUH-B05	CABINET UNIT HEATER	ELEVATOR HALL B05			1	115	5	PB-1	15A/1P	(2)*12	(1)*12	3/4"	(2)*12	(1)*12	3/4"	0	1		X								AU						
CUH-B15	CABINET UNIT HEATER	STAFF LOCKER RM. B15			1	115	5	PB-1	15A/1P	(2)*12	(1)*12	3/4"	(2)*12	(1)*12	3/4"	0	1		X								AU						
EF-127	EXHAUST FAN	LAV. 127		0.0098	1	115		P1-2	15A/1P	(2)*12	(1)*12	3/4"	-	-	-							X									IU	2	
EF-128	EXHAUST FAN	LAV. 128		0.0098	1	115		P1-2	15A/1P	(2)*12	(1)*12	3/4"	-	-	-							X									IU	2	
EF-137	EXHAUST FAN	LAV. 137		0.0098	1	115		P1-3	15A/1P	(2)*12	(1)*12	3/4"	-	-	-							X									IU	2	
EF-219	EXHAUST FAN	LAV. 219		0.0098	1	115		P2-2	15A/1P	(2)*12	(1)*12	3/4"	-	-	-							X									IU	2	
EF-225	EXHAUST FAN	LAV. 225		0.0098	1	115		P2-2	15A/1P	(2)*12	(1)*12	3/4"	-	-	-							X									IU	2	
EF-226	EXHAUST FAN	LAV. 226		0.0098	1	115		P2-2	15A/1P	(2)*12	(1)*12	3/4"	-	-	-							X									IU	2	
EF-B09	EXHAUST FAN	BEAUTY PARLOR B09			1	115	1.42	PB-1	15A/1P	(2)*12	(1)*12	3/4"	(2)*12	(1)*12	3/4"	0	1		X							AU							
EF-B10	EXHAUST FAN	LAV. B10		0.0098	1	115		PB-1	15A/1P	(2)*12	(1)*12	3/4"	-	-	-							X									IU	2	
EF-DISH	EXHAUST FAN	ROOF	1/4		1	115		P2-2	15A/1P	(2)*12	(1)*12	3/4"	(2)*12	(1)*12	3/4"	0	1		X								RE						
EF-HOOD	EXHAUST FAN	ROOF			3	208	7.6	HOOD CTRL PNL	-	-	-	-	(3)*12	(1)*12	3/4"	0	1					X					AU				IU	4	
EF-LOCKER	EXHAUST FAN	STAFF LOCKER RM. B15			1	115	1.42	PB-1	15A/1P	(2)*12	(1)*12	3/4"	(2)*12	(1)*12	3/4"	0	1		X									AU					
EH-B03	ELECTRIC HEAT	BASEMENT ELEC. RM.		1.5	1	120		PB-1	20A/1P	(2)*12	(1)*12	3/4"	-	-	-							X									IU		
EH-B14	ELECTRIC HEAT	WATER B14		1.5	1	120		PB-1	20A/1P	(2)*12	(1)*12	3/4"	-	-	-							X									IU		
ERV-NORTH	ENERGY RECOVERY VENT.	ROOF			3	208	14.9	P2-2	20A/3P	(3)*12	(1)*12	3/4"	-	-	-							X									IU		
ERV-SOUTH	ENERGY RECOVERY VENT.	ROOF			3	208	14.9	P2-1	20A/3P	(3)*12	(1)*12	3/4"	-	-	-							X									IU		
FCU-101	FAN COIL UNIT	ROOM 101			1	115	3.1	P1-1	15A/1P	(2)*12	(1)*12	3/4"	-	-	-							X						20	NF	AU	1		
FCU-102	FAN COIL UNIT	ROOM 102			1	115	3.1	P1-1	15A/1P	(2)*12	(1)*12	3/4"	-	-	-							X						20	NF	AU	1		
FCU-103	FAN COIL UNIT	ROOM 103			1	115	3.1	P1-1	15A/1P	(2)*12	(1)*12	3/4"	-	-	-							X						20	NF	AU	1		
FCU-104	FAN COIL UNIT	ROOM 104			1	115	3.1	P1-1	15A/1P	(2)*12	(1)*12	3/4"	-	-	-							X						20	NF	AU	1		
FCU-105	FAN COIL UNIT	ROOM 105			1	115	3.1	P1-1	15A/1P	(2)*12	(1)*12	3/4"	-	-	-							X						20	NF	AU	1		
FCU-106	FAN COIL UNIT	ROOM 106			1	115	3.1	P1-1	15A/1P	(2)*12	(1)*12	3/4"	-	-	-							X						20	NF	AU	1		
FCU-107	FAN COIL UNIT	ROOM 107			1	115	3.1	P1-1	15A/1P	(2)*12	(1)*12	3/4"	-	-	-							X						20	NF	AU	1		
FCU-108	FAN COIL UNIT	ROOM 108			1	115	3.1	P1-1	15A/1P	(2)*12	(1)*12	3/4"	-	-	-							X						20	NF	AU	1		
FCU-109	FAN COIL UNIT	ROOM 109			1	115	3.1	P1-1	15A/1P	(2)*12	(1)*12	3/4"	-	-	-							X						20	NF	AU	1		
FCU-110	FAN COIL UNIT	ROOM 110			1	115	3.1	P1-2	15A/1P	(2)*12	(1)*12	3/4"	-	-	-							X						20	NF	AU	1		
FCU-111	FAN COIL UNIT	ROOM 111			1	115	3.1	P1-2	15A/1P	(2)*12	(1)*12	3/4"	-	-	-							X						20	NF	AU	1		
FCU-112	FAN COIL UNIT	ROOM 112			1	115	3.1	P1-2	15A/1P	(2)*12	(1)*12	3/4"	-	-	-							X						20	NF	AU	1		
FCU-113	FAN COIL UNIT	ROOM 113			1	115	3.1	P1-2	15A/1P	(2)*12	(1)*12	3/4"	-	-	-							X						20	NF	AU	1		
FCU-114	FAN COIL UNIT	ROOM 114			1	115	3.1	P1-2	15A/1P	(2)*12	(1)*12	3/4"	-	-	-							X						20	NF	AU	1		
FCU-115	FAN COIL UNIT	ROOM 115			1	115	3.1	P1-2	15A/1P	(2)*12	(1)*12	3/4"	-	-	-							X						20	NF	AU	1		
FCU-116	FAN COIL UNIT	ROOM 116			1	115	3																										

PANELBOARD DIRECTORY																			
M/E PROJECT:		L'DOR ADULT CARE FACILITY				PANEL NAME:				PB-1				TYPE:		BRANCH			
PROJECT NO.:		203095.00												MOUNTING:		SURFACE			
FACILITY:						VOLTAGE:				PHASE:				OCP TYPE:		MLO			
LOCATION:		BASEMENT ELECTRIC ROOM				A/C VA				WIRE:				BUS RATING:		100			
						SOURCE:				MDP				MCB RATING:					
DESCRIPTION	CKT NO.	TRIP	LTG. VA	RECEPT. VA	MOTOR VA	A/C VA	HTG. VA	KIT VA	KIT VA	HTG. VA	A/C VA	MOTOR VA	RECEPT. VA	LTG. VA	TRIP	CKT NO.	DESCRIPTION		
REC: ELEC & MECH RMS	1a	20/1		540									1000	20/1	2a	FACP			
REC: DATA RACK	3b	20/1		360									360	20/1	4b	REC: DATA RACK			
													720	20/1	6c	REC: RMS B03, B15 & B14			
LGT: SITE LIGHTS	5c	20/2	405										360	20/1	8a	REC: BEAUTY PARLOR			
	7a		405										360	20/1	10b	REC: BEAUTY PARLOR			
RMS 101 & 102, EF-B10	9b	20/1		540	10								360	20/1	12a	REC: PHYSICAL THERAPY			
REC: BEAUTY PARLOR	11c	20/1		720									1000	20/1	14a	REC: RM B05 GYM EQUIP.			
REC: RM B06 GYM EQUIP.	13a	20/1		1000									540	20/1	16b	REC: OFFICE B07			
REC: PHYSICAL THERAPY	15b	20/1		720									1800	20/1	18c	SPRINKLER HOT BOX			
LGT: SITE LIGHTS	17c	20/2	180											15/1	20a	MY-1			
	19a		180											15/1	22b	PP-1			
GWH-1	21b	15/1			480									15/1	24c	PP-2			
GWH-1	23c	15/1			480									15/1	26a	ELEV. #2 CAR			
ELEV. #1 CAR	25a	15/1	100		100								100	100	28b	ELEV. #2 SHAFT			
ELEV. #1 SHAFT	27b	20/1	100	180	500								180	100	30c	EH-B03			
EH-B14	29c	20/1					1500				1500			20/1	32a	CUH-B03			
B-01	31a	15/1					600				600			15/1	34b	CUH-B03			
UH-01	33b	15/1					173							15/1	36c	CUH-B05			
EF-B09	35c	15/1			163									15/1	38a	CUH-B15			
EF-LOCKER	37a	15/1			163									15/1	40b	LGT: BASEMENT			
LGT: BASEMENT	39b	20/1	1369										1214	20/1	42c	SPARE			
SPARE	41c	20/1												20/1	44a	SPARE			
SPARE	43a	20/1												20/1	46b	SPARE			
SPARE	45b	20/1												20/1	48c	SPARE			
SPARE	47c	20/1												20/1	50a	SPARE			
SPARE	49a	20/1												20/1	52b	SPARE			
	51b													20/1	54c	SPARE			
	53c													20/1	56a				
	55a													20/1	58b				
	57b													20/1	60c				
	59c																		

PANELBOARD DIRECTORY																			
M/E PROJECT:		L'DOR ADULT CARE FACILITY				PANEL NAME:				P1-1				TYPE:		BRANCH			
PROJECT NO.:		203095.00												MOUNTING:		SURFACE			
FACILITY:						VOLTAGE:				PHASE:				OCP TYPE:		MLO			
LOCATION:		STORAGE ROOM 103				A/C VA				WIRE:				BUS RATING:		100			
						SOURCE:				MDP				MCB RATING:					
DESCRIPTION	CKT NO.	TRIP	LTG. VA	RECEPT. VA	MOTOR VA	A/C VA	HTG. VA	KIT VA	KIT VA	HTG. VA	A/C VA	MOTOR VA	RECEPT. VA	LTG. VA	TRIP	CKT NO.	DESCRIPTION		
REC: ROOM 102	1a	20/1		720									720	20/1	2a	REC: ROOM 102			
BATHROOMS 101 & 102	3b	20/1		360									720	20/1	4b	REC: ROOM 103			
REC: ROOM 103	5c	20/1		720									360	20/1	6c	BATHROOMS 103 & 104			
REC: ROOM 101	7a	20/1		720									900	20/1	8a	REC: ROOM 101			
REC: RMS 102, 103, 104 & 108	9b	20/1		720									720	20/1	10b	REC: ROOM 104			
REC: ROOM 104	11c	20/1		720									720	20/1	12c	REC: ROOM 105			
REC: ROOM 105	13a	20/1		720									720	20/1	14a	REC: ROOM 106			
REC: ROOM 106	15b	20/1		720									360	20/1	16b	BATHROOMS 105 & 106			
BATHROOMS 107, 108 & 109	17c	20/1		540									720	20/1	18c	REC: ROOM 107			
REC: ROOM 107	19a	20/1		720									720	20/1	20a	REC: ROOM 108			
REC: ROOM 108	21b	20/1		900									720	20/1	22b	REC: RMS 105, 108, 109 & 110			
REC: ROOM 109	23c	20/1		900									900	20/1	24c	REC: ROOM 109			
REC: WAITING 112	25a	20/1		720									540	20/1	26a	REC: LOUNGE 111			
REC: DRYER RM 109	27b	20/1		1000									1000	20/1	28b	REC: WASHER RM 109			
REC: WASHER/DRYER RM 109	29c	20/1		1000									1000	20/1	30c	REC: WASHER/DRYER RM 109			
REC: WASHER/DRYER RM 109	31a	20/1		1000									1000	20/1	32a	REC: WASHER/DRYER RM 109			
CUH-101	33b	15/1					600						357	15/1	34b	FCU-105			
FCU-101	35c	15/1			357								357	15/1	36c	FCU-106			
FCU-102	37a	15/1			357								357	15/1	38a	FCU-107			
FCU-103	39b	15/1			357								357	15/1	40b	FCU-108			
FCU-104	41c	15/1			357								357	15/1	42c	FCU-109			
FCU-15	43a	15/1			357					600			357	15/1	44a	CUH-107			
LGT: FIRST FLOOR	45b	20/1	1396											20/1	46b	LGT: FIRST FLOOR			
SPARE	47c	20/1												20/1	48c	SPARE			
SPARE	49a	20/1												20/1	50a	SPARE			
SPARE	51b	20/1												20/1	52b	SPARE			
SPARE	53c	20/1												20/1	54c	SPARE			
	55a													20/1	56a				
	57b													20/1	58b				
	59c													20/1	60c				

PANELBOARD DIRECTORY																			
		M/E PROJECT: L'DOR ADULT CARE FACILITY				PANEL NAME:				P1-2				TYPE:		BRANCH			
		PROJECT NO.: 203095.00				VOLTAGE: 208				PHASE: 3				MOUNTING: NCP		SURFACE			
		FACILITY:				A/C: 22				WIRE: 4				OCP TYPE: MD		MCB RATING: 100			
		LOCATION: JANITOR CLOSET 144				SOURCE: MDP				MCB RATING:									
DESCRIPTION		CKT NO.	TRIP	LTG. VA	RECEPT. VA	MOTOR VA	A/C VA	HTG. VA	KIT VA	KIT VA	HTG. VA	A/C VA	MOTOR VA	RECEPT. VA	LTG. VA	TRIP	CKT NO.	DESCRIPTION	
BATHROOMS 110 & 111		1a	20/1		360									360	20/1	2a	BATHROOMS 112 & 113		
BATHROOMS 114 & 115		3b	20/1		360								20	360	20/1	4b	RMS 127-128, LF-127 &		
REC: RMS 125 & 126		5c	20/1		720									720	20/1	6c	REC: ROOM 110		
REC: ROOM 110		7a	20/1		900									720	20/1	8a	REC: ROOM 111		
REC: ROOM 111		9b	20/1		720									720	20/1	10b	REC: ROOM 112		
REC: ROOM 112		11c	20/1		720									720	20/1	12c	REC: ROOM 113		
REC: ROOM 113		13a	20/1		720									720	20/1	14a	REC: ROOM 114		
REC: ROOM 114		15b	20/1		720									720	20/1	16b	REC: ROOM 115		
REC: ROOM 115		17c	20/1		720									720	20/1	18c	REC: RMS 143, 144, 148, & 149		
REC: WAIT 145		19a	20/1		720								540	20/1	20a	REC: DOCTOR 146			
REC: THERAPY 147		21b	20/1		540								900	20/1	22b	REC: MED ROOM 123			
REC: MED ROOM 123		23c	20/1		900								1080	20/1	24c	REC: DINING ROOM 124			
REC: BALCONY		25a	20/1		360										15/1	26a	FCU-11		
CUH-124A		27b	15/1					600						357	15/1	28b	FCU-110		
CUH-124B		29c	15/1					600						357	15/1	30c	FCU-111		
FCU-115		31a	15/1			357								357	15/1	32a	FCU-112		
FCU-145		32b	15/1			357								357	15/1	34b	FCU-113		
FCU-147		35c	15/1			357								357	15/1	36c	FCU-114		
CUH-142		37a	15/1					600						540	20/1	38a	REC: EXTERIOR		
LGT: FIRST FLOOR		39b	20/1	1368											1242	20/1	40b	LGT: FIRST FLOOR	
SPARE		41c	20/1												20/1	42c	SPARE		
SPARE		43a	20/1												20/1	44a	SPARE		
SPARE		45b	20/1												20/1	46b	SPARE		
SPARE		47c	20/1												20/1	48c	SPARE		
SPARE		49a	20/1												20/1	50a	SPARE		
		51b														52b			
		53c														54c			
		55a														56a			
		57b														58b			
		59c														60c			

PANELBOARD DIRECTORY																			
M/E PROJECT: L'DOR ADULT CARE FACILITY				PANEL NAME:				TYPE:				BRANCH							
PROJECT NO.: 203095.00				MOUNTING:				FLUSH											
FACILITY:				VOLTAGE: 208				PHASE: 3				OCP TYPE:				MLO			
LOCATION: KITCHEN 113				A/C: 22				WIRE: 4				BUS RATING:				225			
				SOURCE: MDP				MCB RATING:											
DESCRIPTION	CKT NO.	TRIP	LTG. VA	RECEPT. VA	MOTOR VA	A/C VA	HTG. VA	KIT VA	KIT VA	HTG. VA	A/C VA	MOTOR VA	RECEPT. VA	LTG. VA	TRIP	CKT NO.	DESCRIPTION		
REC: REFRIGERATOR (*01)	1a	15/1						264		3242					20/1	2a	REC: FREEZER (*02)		
REC: GAS RANGE (*03)	3b	15/1						708		3242						4b			
(SHUNT TRIP)	5c									3242					35/3	6c	VEGETABLE STEAMER (*04)		
REC: ICE MAKER (*05)	7a	20/1						1356		3242						8a	(SHUNT TRIP)		
GARBAGE DISPOSAL (*06)	9b	20/1						1200		-						10b			
	11c							2990		1822					25/2	12c	WALK-IN COOLER CONDENSING UNIT (*09A)		
DISHWASHER (*07)	13a	30/3						2990		1822						14a			
	15b							2990		146					15/2	16b	WALK-IN COOLER		
	17c							1258		146						18c	EVAPORATOR COIL (*09B)		
WALK-IN FREEZER	19a	20/2						1258		2631					40/2	20a	WALK-IN FREEZER		
EVAPORATOR COIL (*10B)	21b							1123		2631						22b	CONDENSING UNIT (*10A)		
STEAM TABLE (*11)	23c	20/2											720		20/1	24c	REC: KITCHEN 113		
REC: RMS 113 & 115	25a	20/1		720									720		20/1	26a	REC: RMS 114, 118 & JAN.		
REC: OFFICE 117	27b	20/1		540									720		20/1	28b	REC: KITCHEN 113		
HOOD CONTROL POWER	29c	15/1						600		792						30c			
	31a				598					792					15/3	32a	EF-HOOD		
MAU-01	33b	15/3			598					792						34b			
	35c				528										20/1	36c	SPARE		
SPARE	37a	20/1													20/1	38a	SPARE		
SPARE	39b	20/1													20/1	40b	SPARE		
SPARE	41c	20/1													20/1	42c	SPARE		

PANELBOARD DIRECTORY																			
M/E PROJECT: L'DOR ADULT CARE FACILITY				PANEL NAME:				TYPE:				BRANCH							
PROJECT NO.: 203095.00				MOUNTING:				SURFACE											
FACILITY:				VOLTAGE: 208				PHASE: 3				OCP TYPE:				MLO			
LOCATION: CLEAN LINEN 203				A/C: 22				WIRE: 4				BUS RATING:				225			
				SOURCE: MDP				MCB RATING:											
DESCRIPTION	CKT NO.	TRIP	LTG. VA	RECEPT. VA	MOTOR VA	A/C VA	HTG. VA	KIT VA	KIT VA	HTG. VA	A/C VA	MOTOR VA	RECEPT. VA	LTG. VA	TRIP	CKT NO.	DESCRIPTION		
BATHROOMS 201, 202 & 203	1a	20/1		360									360		20/1	2a	BATHROOMS 203 & 204		
BATHROOMS 206 & 207	3b	20/1		360									360		20/1	4b	BATHROOMS 208 & 209		
BATHROOMS 210 & 211	5c	20/1		360									720		20/1	6c	REC: ROOM 202		
REC: ROOM 202	7a	20/1		720									720		20/1	8a	REC: ROOM 203		
REC: ROOM 203	9b	20/1		720									720		20/1	10b	REC: ROOM 204		
REC: ROOM 204	11c	20/1		720									720		20/1	12c	REC: ROOM 206		
REC: ROOM 206	13a	20/1		720									720		20/1	14a	REC: ROOM 207		
REC: ROOM 207	15b	20/1		720									720		20/1	16b	REC: ROOM 208		
REC: ROOM 208	17c	20/1		720									720		20/1	18c	REC: ROOM 209		
REC: ROOM 209	19a	20/1		900									900		20/1	20a	REC: RMS 206, 207, 209 & 210		
REC: ROOM 201	21b	20/1		720									720		20/1	22b	REC: ROOM 201		
REC: ROOM 205	23c	20/1		720									720		20/1	24c	REC: ROOM 205		
REC: COMP. LOUNGE 214	25a	20/1		1080									720		20/1	26a	REC: TV ROOM 215		
REC: ACTIVITIES OFFICE 221	27b	20/1		900									900		20/1	28b	REC: RMS 222 & 223		
REC: RM 223 & PORCH	29c	20/1		900									720		20/1	30c	REC: RM 223 & PORCH		
REC: ROOM 211	31a	20/1		720									720		20/1	32a	REC: ROOM 211		
REC: ROOM 210	33b	20/1		900									900		20/1	34b	REC: ROOM 210		
REC: RMS 202, 203, 204 &	35c	20/1		720									900		20/1	36c	REC: LIBR./QUIET RM 212		
REC: WASHER/DRYER RM 210	37a	20/1		1000									1000		20/1	38a	REC: WASHER/DRYER RM 210		
REC: WASHER/DRYER RM 210	39b	20/1		1000									1000		20/1	40b	REC: WASHER/DRYER RM 210		
FCU-201	41c	15/1			357							357			15/1	42c	FCU-207		
FCU-202	43a	15/1			357							357			15/1	44a	FCU-208		
FCU-203	45b	15/1			357							357			15/1	46b	FCU-209		
FCU-204	47c	15/1			357							357			15/1	48c	FCU-210		
FCU-205	49a	15/1			357							357			15/1	50a	FCU-211		
FCU-206	51b	15/1			357							357			15/1	52b	FCU-25		
	53c				1789							667			15/1	54c	EF-DISH		
ERV-SOUTH	55a	20/3			1789										20/1	56a	LGT: SECOND FLOOR		
	57b				1789										20/1	58b	LGT: SECOND FLOOR		
SPARE	59c	20/1													20/1	60c	SPARE		

PANELBOARD DIRECTORY																			
M/E PROJECT: L'DOR ADULT CARE FACILITY					PANEL NAME:					TYPE:					BRANCH				
PROJECT NO.: 203095.00					MOUNTING:					SURFACE									
FACILITY:					VOLTAGE: 208					PHASE: 3					OCP TYPE:				
LOCATION: CLEAN LINEN 231					A/C: 22					WIRE: 4					BUS RATING:				
					SOURCE: MDP					MCB RATING:					225				
DESCRIPTION		CKT NO.	TRIP	LTG. VA	RECEPT. VA	MOTOR VA	A/C VA	HTG. VA	KIT VA	KIT VA	HTG. VA	A/C VA	MOTOR VA	RECEPT. VA	LTG. VA	TRIP	CKT NO.	DESCRIPTION	
BATHROOMS 213 & 217		1a	20/1		360									360		20/1	2a	BATHROOMS 214 & 215	
BATHROOMS 216 & 218		3b	20/1		360								30	360		20/1	4b	BATHROOMS 219, 225 & 226	
BATHROOMS 219 & 220		5c	20/1		360									360		20/1	6c	BATHROOMS 221 & 222	
BATHROOM 212 & TUB RM 216		7a	20/1		360									720		20/1	8a	REC: ROOM 213	
REC: ROOM 213		9b	20/1		720									720		20/1	10b	REC: ROOM 214	
REC: ROOM 214		11c	20/1		720									720		20/1	12c	REC: ROOM 215	
REC: ROOM 215		13a	20/1		720									720		20/1	14a	REC: ROOM 216	
REC: ROOM 216		15b	20/1		720									720		20/1	16b	REC: ROOM 218	
REC: ROOM 218		17c	20/1		720									720		20/1	18c	REC: ROOM 219	
REC: ROOM 219		19a	20/1		720									720		20/1	20a	REC: ROOM 220	
REC: ROOM 220		21b	20/1		720									900		20/1	22b	REC: ROOM 221	
REC: ROOM 221		23c	20/1		720									720		20/1	24c	REC: ROOM 217	
REC: ROOM 217		25a	20/1		720									900		20/1	26a	REC: OFFICE / WK ROOM	
DOOR CONTACT MON. PNL		27b	20/1		1000									720		20/1	28b	REC: AIDE STATION 217	
REC: AIDE STATION 217		29a	20/1		720									720		20/1	30c	REC: RMS 224, 232 & 233	
REC: RMS 218, 230, 235 &		31a	20/1		720									35		20/1	32a	REC: ROOM 222	
REC: ROOM 222		33b	20/1		900									900		20/1	34b	REC: ROOM 212	
REC: ROOM 212		35c	20/1		720											15/1	36c	FCU-218	
FCU-212		37a	15/1			357							357			15/1	38a	FCU-219	
FCU-213		39b	15/1			357							357			15/1	40b	FCU-220	
FCU-214		41c	15/1			357							357			15/1	42c	FCU-221	
FCU-215		43a	15/1			357							357			15/1	44a	FCU-222	
FCU-216		45b	15/1			357							357			15/1	46b	FCU-223	
FCU-217		47c	15/1			357						1165				15/2	48c	ACCU-123 / MS-123	
		49a				1789						1165					50a		
ERV-NORTH		51b	20/3			1789								360		20/1	52b	REC: ROOF	
		53c				1789										20/1	54c	SPARE	
LGT: SECOND FLOOR		55a	20/1	1594												20/1	56a	SPARE	
LGT: SECOND FLOOR		57b	20/1	1173												20/1	58b	SPARE	
SPARE		59c	20/1													20/1	60c	SPARE	