

PROJECT INFORMATION

PROPOSED COMMISSARY RENOVATION FOR:
WARABEYA NORTH AMERICA
1575 RAIL SOUTHERN COURT • COLUMBUS, OHIO

PROFESSIONAL SEAL

SHEET DATES

SHEET ISSUE	FEB. 14, 2024
REVISIONS	
AD1	FEB. 28, 2024
AD2	APR. 15, 2024
CB1	MAY 30, 2024
CB12	MAR. 26, 2025

JOB NUMBER

2236840

SHEET NUMBER

H1.1A

GENERAL NOTES

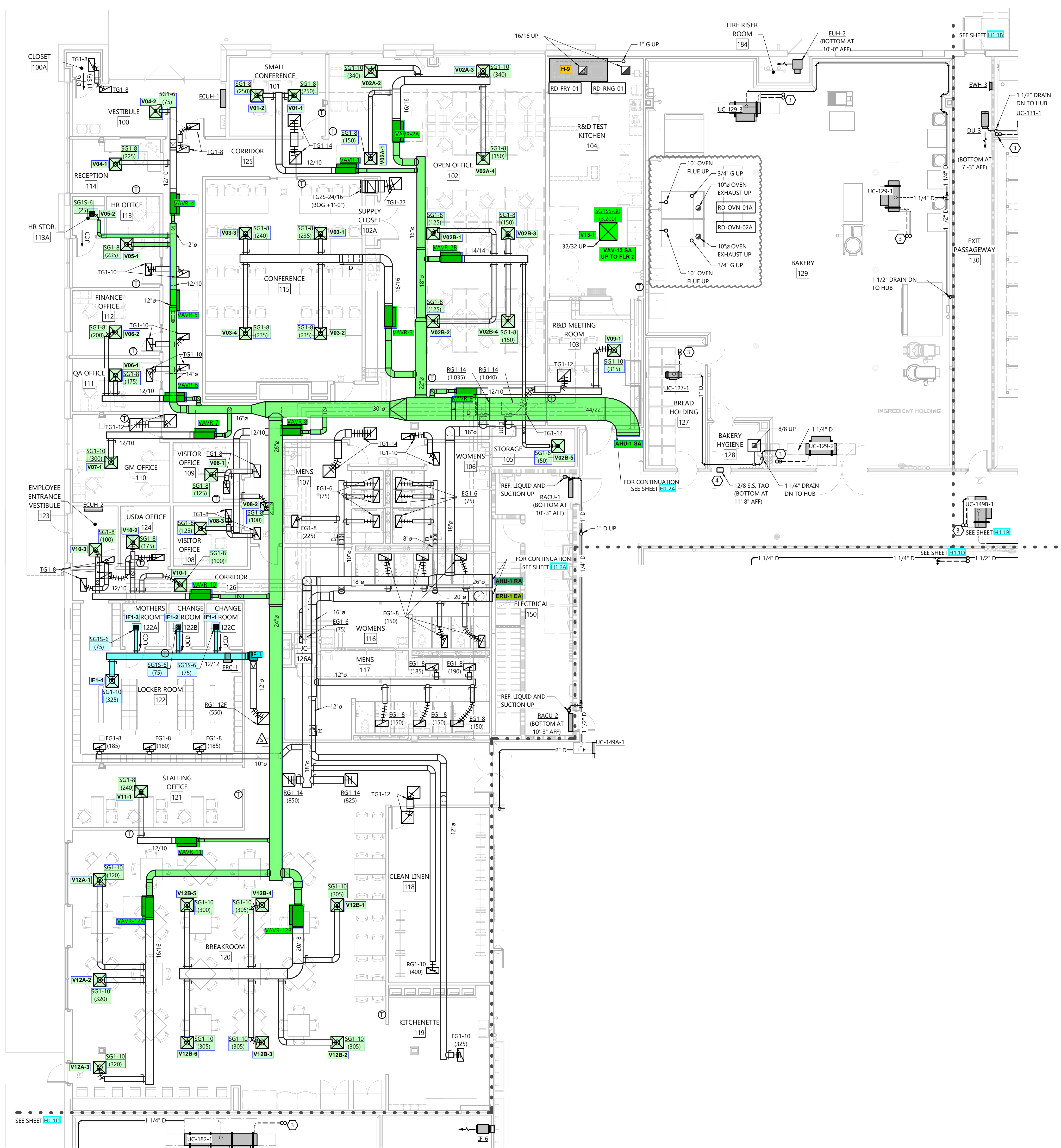
- DUCT FITTINGS SHALL BE TYPE SHOWN ON PLAN OR CALLED OUT BY KEYNOTE. SEE DETAIL 113.3 FOR ADDITIONAL FITTING DETAIL.
- VERIFY BUILDING OPENING AND CURB SIZES LISTED ON PLANS WITH ACTUAL EQUIPMENT SCHEDULED AND SUPPLIED. COORDINATE REQUIRED OPENING SIZES AND LOCATIONS WITH CONTRACTORS PROVIDING OPENING SCHEDULES AND ACTUAL EQUIPMENT SIZES SHALL TAKE PRECEDENCE OVER SIZES SHOWN ON PLANS.
- DETAIL REFERENCES ON PLANS ARE TO AID THE CONTRACTOR IN IDENTIFYING THE APPLICABLE DETAIL. NOT ALL DETAILS, OR INSTANCES OF DETAILS, ARE REFERENCED ON PLANS. CONTRACTOR IS RESPONSIBLE TO REVIEW AND COMPLY WITH ALL APPLICABLE DETAILS WHETHER OR NOT REFERENCED ON PLANS.
- COORDINATE LOCATION OF ALL EXPOSED PIPING AND DUCTWORK WITH OWNER PRIOR TO INSTALLATION.
- IF DUCT SYSTEMS ARE USED FOR TEMPORARY HEAT, PROVIDE TEMPORARY FILTERS AT RETURN AIR OPENINGS AND INSTALL FILTERS IN THE UNITS EQUIVALENT TO THE EFFICIENCY OF THE SPECIFIED FILTERS FOR THE UNIT. IF PROPER EFFICIENCY FILTERS ARE NOT INSTALLED IN UNIT, UNIT AND ALL DUCTWORK DOWNSTREAM OF UNIT SHALL BE CLEANED BEFORE TEST AND BALANCE.
- SEE VAV BOX DETAIL AND SCHEDULES FOR INFORMATION REGARDING VAV BOX INLET AND OUTLET DUCTWORK.
- SEE STRUCTURAL SHEET 113.3 FOR G.C. PROVIDED LAYOUT. PROVIDE ADDITIONAL SUPPORTS/HANGERS AS REQUIRED TO LOCATE HANGING EQUIPMENT.

KEYNOTES

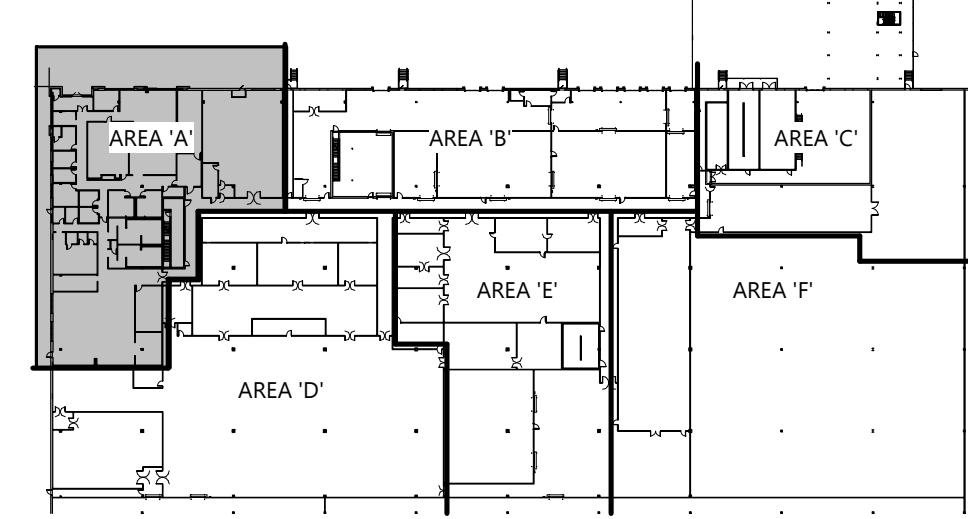
- (H) SEE DUCT FITTING DETAILS 113.3
- (1) CONNECT TO EXISTING
- (2) CONCRETE PAD
- (3) GS AND GR UP/DOWN. SEE DETAIL 106.5 FOR MORE INFORMATION. SEE UNIT COOLER SCHEDULE FOR MORE INFORMATION.
- (4) WMM OVER DUCT PIPING
- (777) INDICATES PROCESS EQUIPMENT CONNECTION. ACTUAL CONNECTION POINT IS WITHIN 10' IN ANY DIRECTION OF LOCATION SHOWN ON PLAN. FIELD VERIFY LOCATION AND SIZE OF ALL EQUIPMENT CONNECTIONS BEFORE PIPING THRU IMP. CEILING. SEE SHEETS H3.X FOR CONNECTION DETAILS. COORDINATE PIPING WITH PROCESS CONTRACTOR PRIOR TO INSTALLATION.

PROCESS ROOM NOTES

- SEE SHEET H3.X FOR KEY PLAN INDICATING WHICH ROOMS ARE CONSIDERED PROCESS ROOMS.
- SEE H3.X SHEETS FOR ADDITIONAL INSTALLATION DETAILS THAT APPLY TO PROCESS ROOMS.
- PROCESS ROOM DUCTWORK
 - PITCH PROCESS DUCTWORK DOWN TO LOW POINTS. PITCH SHALL BE MINIMUM 1" IN 40'. LOW POINTS MAY BE SUPPLY OR RETURN BOXES. PROVIDE DRAIN AT LOW POINTS. PIPE 1" DRAIN FROM LOW POINT TO 6" A.F.F. OR HUB DRAIN.
 - PROVIDE ACCESS PANELS IN PROCESS DUCTWORK AT 12" O.C. ACCESS PANELS TO BE STAINLESS STEEL, 24"x24" WHERE POSSIBLE.



FIRST FLOOR PLAN - AREA 'A'
SCALE: 1/8" = 1'-0"
0' 5' 10'



KEY PLAN
HVAC FIRST FLOOR PLAN - AREA 'A'

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JOB NUMBER
2236840

SHEET NUMBER

H1.1B

- GENERAL NOTES**
- DUCT FITTINGS SHALL BE TYPE SHOWN ON PLAN OR CALLED OUT BY KEYNOTE. SEE DETAIL 12.04.1 FOR ADDITIONAL FITTING DETAIL.
 - VERIFY BUILDING OPENING AND CURB SIZES LISTED ON PLANS WITH ACTUAL EQUIPMENT SCHEDULED AND SUPPLIED. COORDINATE REQUIRED OPENING SIZES AND LOCATIONS WITH CONTRACTORS PROVIDING OPENING SCHEDULES AND ACTUAL EQUIPMENT SIZES SHALL TAKE PRECEDENCE OVER SIZES SHOWN ON PLANS.
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 - SEE VAV BOX DETAIL AND SCHEDULES FOR INFORMATION REGARDING VAV BOX INLET AND OUTLET DUCTWORK.
 - SEE STRUCTURAL SHEET 3.2 FOR G.C. PROVIDED LAYOUT. PROVIDE ADDITIONAL SUPPORTS/HANGERS AS REQUIRED TO LOCATE HANGING EQUIPMENT.

- KEYNOTES**
- SEE DUCT FITTING DETAILS 12.04.1
 - CONNECT TO EXISTING
 - CONCRETE PAD
 - GS AND GR UP/DOWN. SEE DETAIL 12.03.3 FOR MORE INFORMATION. SEE UNIT COOLER SCHEDULE FOR MORE INFORMATION.
 - WWM OVER DUCT OPENING
 - INDICATES PROCESS EQUIPMENT CONNECTION. ACTUAL CONNECTION POINT IS WITHIN 10' IN ANY DIRECTION OF LOCATION SHOWN ON PLAN. FIELD VERIFY LOCATION AND SIZE OF ALL EQUIPMENT CONNECTIONS BEFORE PIPING THRU IMP CEILING. SEE SHEETS H3.X FOR CONNECTION DETAILS. COORDINATE PIPING WITH PROCESS CONTRACTOR PRIOR TO INSTALLATION.

- PROCESS ROOM NOTES**
- SEE SHEET H3.4 FOR KEY PLAN INDICATING WHICH ROOMS ARE CONSIDERED PROCESS ROOMS.
 - SEE H3.X SHEETS FOR ADDITIONAL INSTALLATION DETAILS THAT APPLY TO PROCESS ROOMS
 - PROCESS ROOM DUCTWORK
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DRY WAREHOUSE 132 & LOADING DOCK 134 BATTERY CHARGING

48 Volts
2 cells per volt
24 cells
x 6 number of batteries being charged
144 total cells charging

Charging current = 0.083 x ampere hour capacity
1050 ampere hour capacity
x 0.083
87.15 ampere charging current

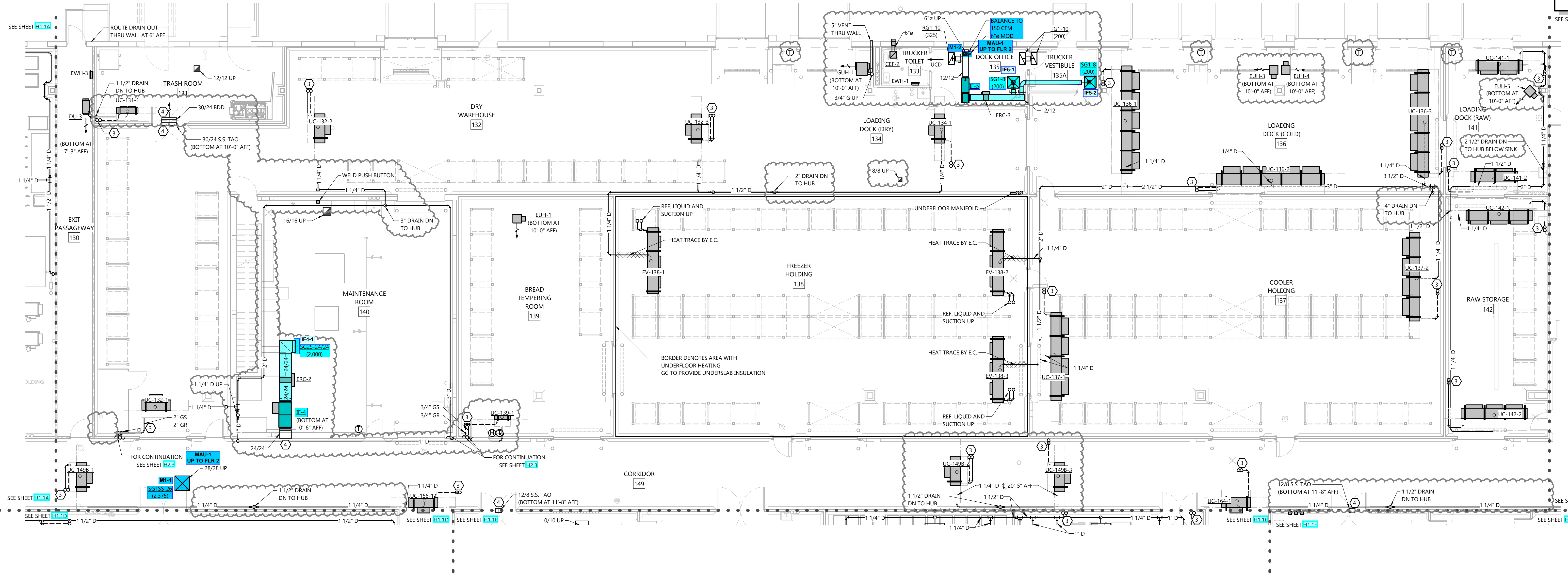
Hydrogen generation (cu. ft.) = # of cells x charging current x 0.0148 (occurs over final 3 hours of 8 hour charge cycle)
144 # of cells
x 87.15 charging current
x 0.0148
185.7 cu. ft. hydrogen generated over 3 hours
3.0 hours charge time
61.9 cu. ft./hour hydrogen generated

Room size			
Length	114 ft	Width	44 ft
Width	29 ft	Width	22 ft
Height	24 ft	Height	24 ft
Volume	79,344 cu ft	Volume	23,232 cu ft

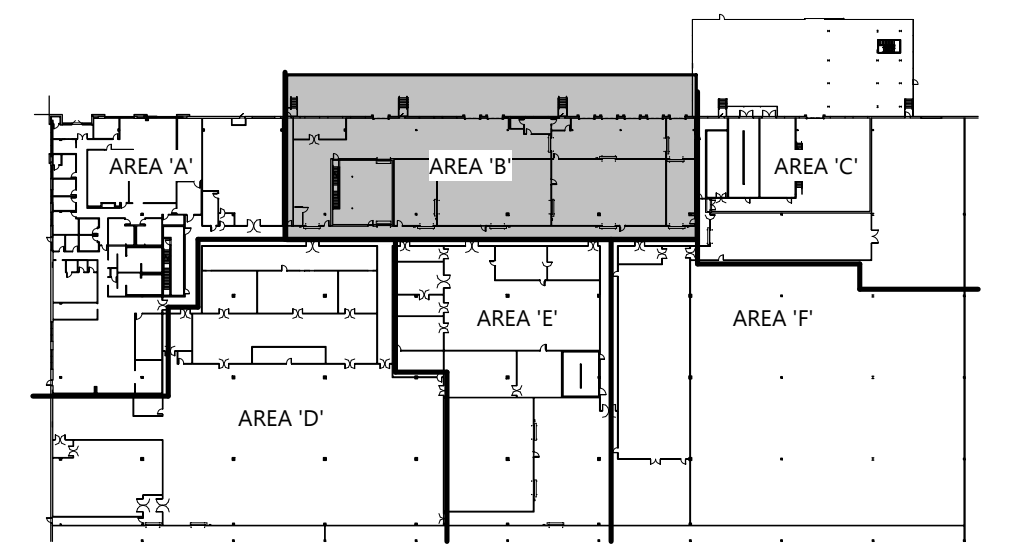
Total volume = 102,576 cu ft

Percentage of gas = 100 x cu. ft. gas per hour / total room volume
61.9 cu. ft. / hour hydrogen
102,576 room volume
0.06 % gas per hour
17 hours of continuous final 3 hour charging required for gas to build up to 1% with no ventilation/infiltration

Air flow required to not allow gas to exceed 1%
61.9 cu. ft./hour hydrogen generated
60 min/hr
1.0 cfm hydrogen generated
1 % maximum desired concentration
103 cfm fresh air required if batteries continuously at final charge cycle



FIRST FLOOR PLAN - AREA 'B'
SCALE: 1/8" = 1'-0"
0 8 16



KEY PLAN
HVAC FIRST FLOOR PLAN - AREA 'B'

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CB11	FEB. 26, 2025
CB13	MAY 15, 2025

JOB NUMBER
2236840

SHEET NUMBER

H1.1C

- GENERAL NOTES**
- DUCT FITTINGS SHALL BE TYPE SHOWN ON PLAN OR CALLED OUT BY KEYNOTE. SEE DETAIL 1.163.1 FOR ADDITIONAL FITTING DETAIL.
 - VERIFY BUILDING OPENING AND CURB SIZES LISTED ON PLANS WITH ACTUAL EQUIPMENT SCHEDULED AND SUPPLIED. COORDINATE REQUIRED OPENING SIZES AND LOCATIONS WITH CONTRACTORS PROVIDING OPENING SCHEDULES AND ACTUAL EQUIPMENT SIZES SHALL TAKE PRECEDENCE OVER SIZES SHOWN ON PLANS.
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 - SEE VAV BOX DETAIL AND SCHEDULES FOR INFORMATION REGARDING VAV BOX INLET AND OUTLET DUCTWORK.
 - SEE STRUCTURAL SHEET 632.2 FOR G.C. PROVIDED LAYOUT. PROVIDE ADDITIONAL SUPPORTS/HANGERS AS REQUIRED TO LOCATE HANGING EQUIPMENT.

- KEYNOTES**
- SEE DUCT FITTING DETAILS 1.163.1
 - CONNECT TO EXISTING
 - CONCRETE PAD
 - GS AND GR UP/DOWN. SEE DETAIL 163.13 FOR MORE INFORMATION. SEE UNIT COOLER SCHEDULE FOR MORE INFORMATION.
 - WWM OVER DUCT OPENING
- INDICATES PROCESS EQUIPMENT CONNECTION. ACTUAL CONNECTION POINT IS WITHIN 10' IN ANY DIRECTION OF LOCATION SHOWN ON PLAN. FIELD VERIFY LOCATION AND SIZE OF ALL EQUIPMENT CONNECTIONS. BEFORE PIPING THRU IMP CEILING. SEE SHEETS H3.X FOR CONNECTION DETAILS. COORDINATE PIPING WITH PROCESS CONTRACTOR PRIOR TO INSTALLATION.

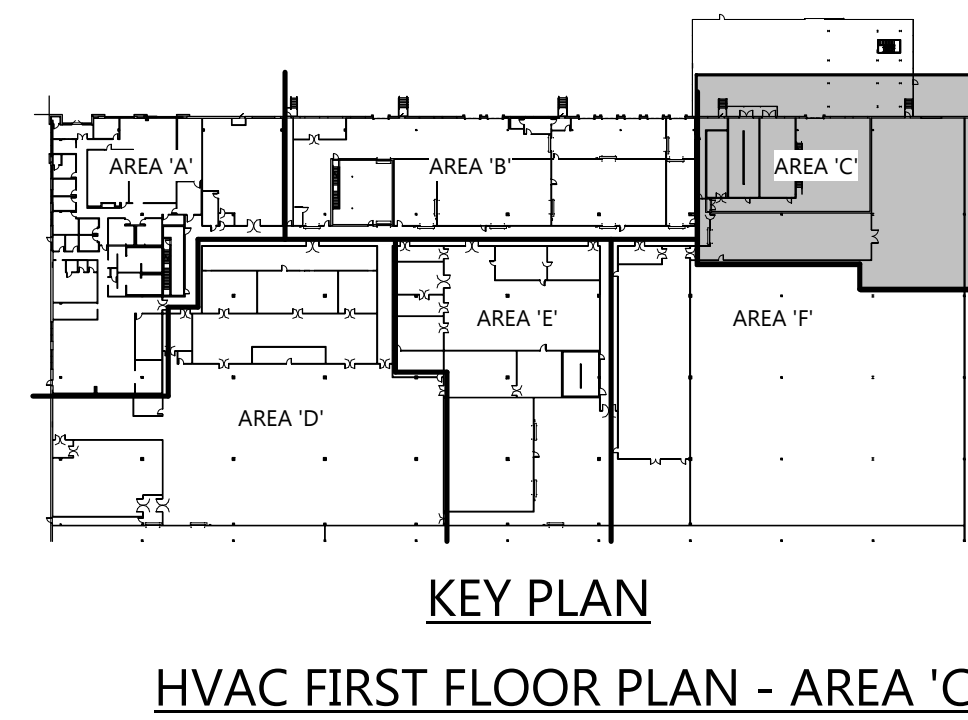
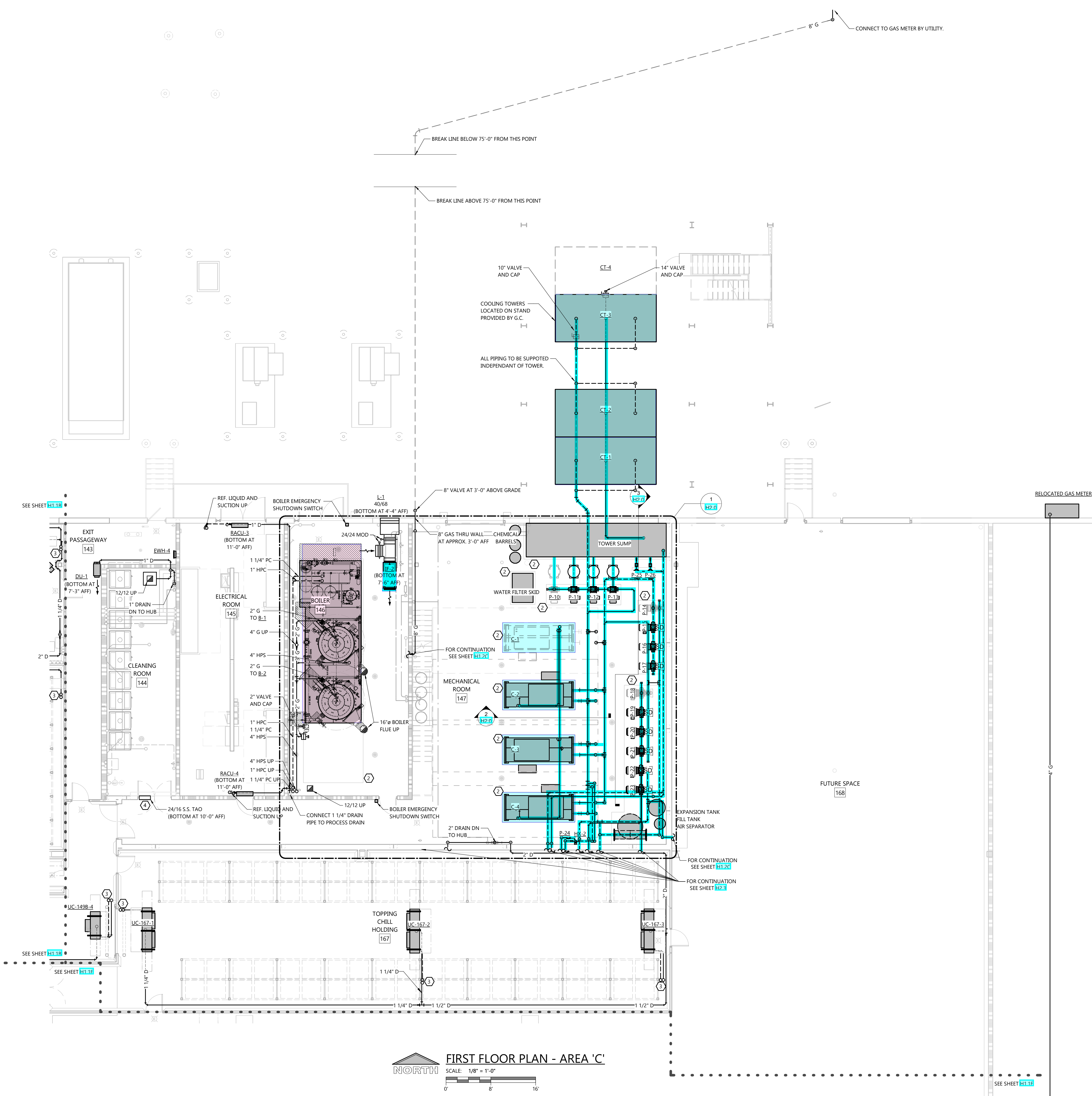
- PROCESS ROOM NOTES**
- SEE SHEET 632.4 FOR KEY PLAN INDICATING WHICH ROOMS ARE CONSIDERED PROCESS ROOMS.
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 - PROVIDE ACCESS PANELS IN PROCESS DUCTWORK AT 12' O.C. ACCESS PANELS TO BE STAINLESS STEEL 24"X24" WHERE POSSIBLE.

GAS LOAD SUMMARY

ITEM	MBH INPUT	REQUIRED PRESSURE (1)
BOILER-1	5,979	1 PSIG
BOILER-2 (2)	5,979	1 PSIG
EXISTING RTAC-1	2,040	7" W.C.
GUH-1	150	5" W.C.
GWH-1	9,000	2-6 PSIG
MAU-1 HEATER	2,233	14" W.C.
MAU-1 REGEN	3,400	14" W.C.
MAU-2	1,555	14" W.C.
MAU-3	3,310	14" W.C.
MAU-4	474	14" W.C.
MAU-5	2,373	14" W.C.
GAS FRYER	381	8" W.C.
GAS FRYER	381	8" W.C.
BRAISING PAN	125	6-14" W.C.
CONVEYOR OVEN	480	6-12" W.C.
CABINET OVEN	175	5.5-14" W.C.
CABINET OVEN	175	5.5-14" W.C.
MULTIPURPOSE RANGE	276	7" W.C.
DEEP FRYER	100	6" W.C.
BASKET WASHER DROP 1	700	7-14" W.C.
PROJECT TOTAL	33,232	

F GAS FRYER	381	8" W.C.
F CONVEYOR OVEN	480	8" W.C.
F BRAISING PAN	125	6-14" W.C.
F BRAISING PAN	125	6-14" W.C.
F BASKET WASHER DROP 2	695	7-14" W.C.
F DESSERT CABINET OVEN	340	5.5-14" W.C.
F PIZZA TUNNEL OVEN	1,190	16" W.C.
F PIZZA TUNNEL OVEN	1,190	16" W.C.
F MAU-6	2,373	14" W.C.
F MAU-7	2,203	14" W.C.
F MAU-8	2,203	14" W.C.
F BOILER-3	5,979	1 PSIG
F BOILER-2	9,000	2-6 PSIG
FUTURE TOTAL	26,284	
GRAND TOTAL	59,516	

- GAS PRESSURE AT METER = 5 PSIG
 - PROVIDE GAS PRESSURE REGULATOR AT EACH PIECE OF EQUIPMENT LISTED ABOVE.
 - CONNECT TO EACH PIECE OF EQUIPMENT LISTED ABOVE.
 (1) VERIFY PRESSURE REQUIRED WITH ACTUAL EQUIPMENT INSTALLED ON PROJECT BEFORE SIZING REGULATOR.
 (2) BOILER-2 IS REDUNDANT AND NOT USED IN TOTAL.



KEY PLAN
 HVAC FIRST FLOOR PLAN - AREA 'C'

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CB6	OCT. 10, 2024
CB10	FEB. 6, 2025
CB11	FEB. 26, 2025
CB12	MAR. 26, 2025

JOB NUMBER

2236840

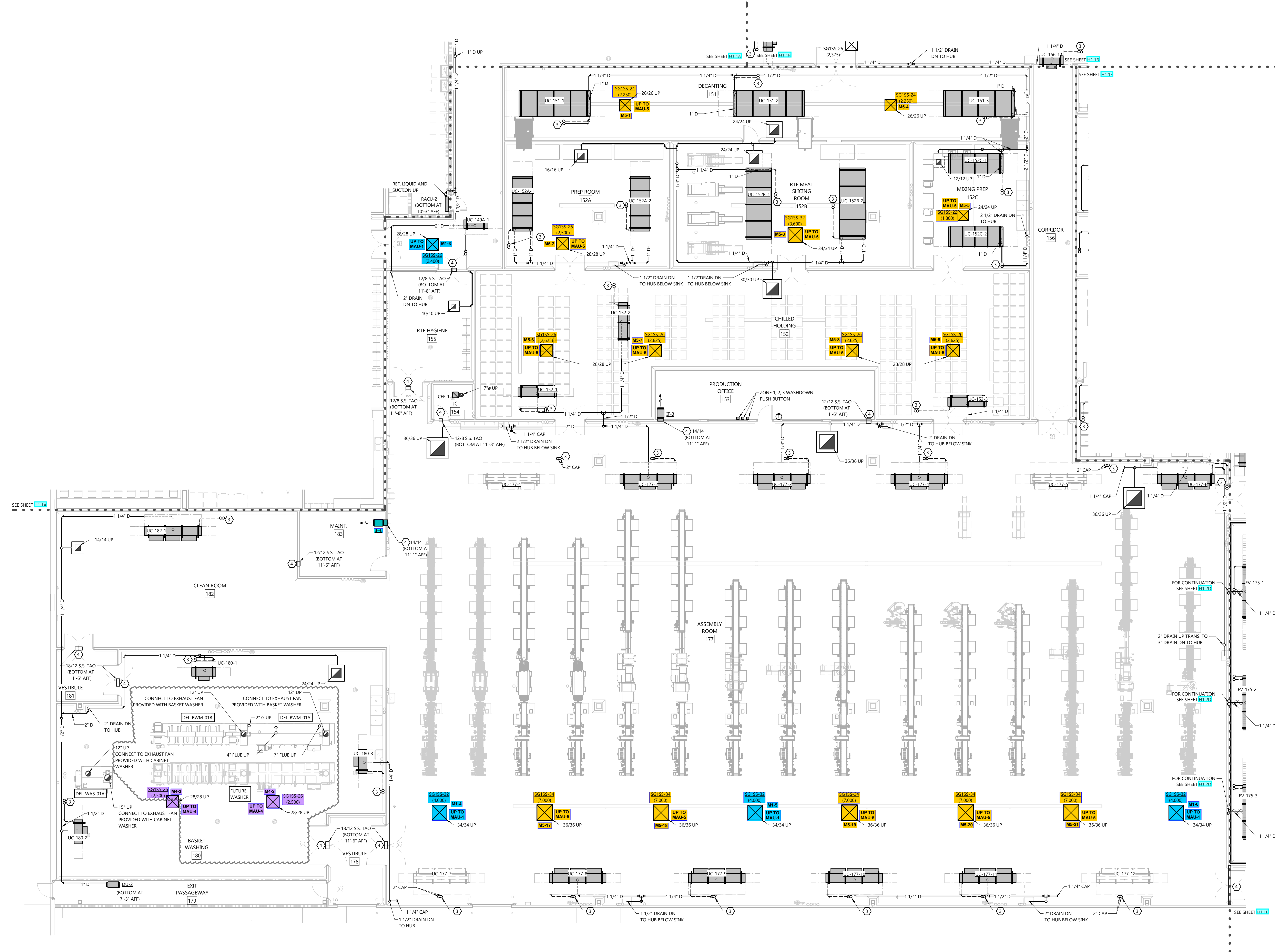
SHEET NUMBER

H1.1D

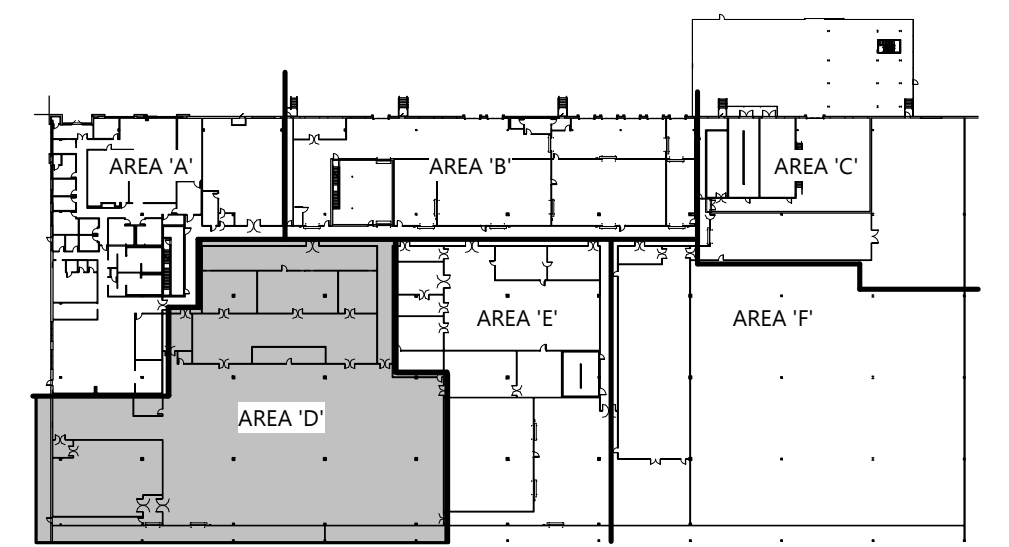
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 - SEE VAV BOX DETAIL AND SCHEDULES FOR INFORMATION REGARDING VAV BOX INLET AND OUTLET DUCTWORK.
 - SEE STRUCTURAL SHEET H1.13 FOR C.C. PROVIDED LAYOUT. PROVIDE ADDITIONAL SUPPORTS/HANGERS AS REQUIRED TO LOCATE HANGING EQUIPMENT.

- KEYNOTES**
- ④ SEE DUCT FITTING DETAILS H1.13
 - ① CONNECT TO EXISTING
 - ② CONCRETE PAD
 - ③ GS AND GR UP/DOWN. SEE DETAIL H1.13 FOR MORE INFORMATION. SEE UNIT COOLER SCHEDULE FOR MORE INFORMATION.
 - ④ WWM OVER DUCT SCHEDULING
 - ⑤ INDICATES PROCESS EQUIPMENT CONNECTION. ACTUAL CONNECTION POINT IS WITHIN 10' IN ANY DIRECTION OF LOCATION SHOWN ON PLAN. FIELD VERIFY LOCATION AND SIZE OF ALL EQUIPMENT CONNECTIONS BEFORE PIPING THROUGH CEILING. SEE SHEETS H1.X FOR CONNECTION DETAILS. COORDINATE PIPING WITH PROCESS CONTRACTOR PRIOR TO INSTALLATION.

- PROCESS ROOM NOTES**
- SEE SHEET H1.13 FOR KEY PLAN INDICATING WHICH ROOMS ARE CONSIDERED PROCESS ROOMS.
 - SEE H1.X SHEETS FOR ADDITIONAL INSTALLATION DETAILS THAT APPLY TO PROCESS ROOMS.
 - PROCESS ROOM DUCTWORK
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FIRST FLOOR PLAN - AREA 'D'
SCALE: 1/8" = 1'-0"
NORTH



KEY PLAN
HVAC FIRST FLOOR PLAN - AREA 'D'

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SHEET NUMBER

H1.1E

GENERAL NOTES

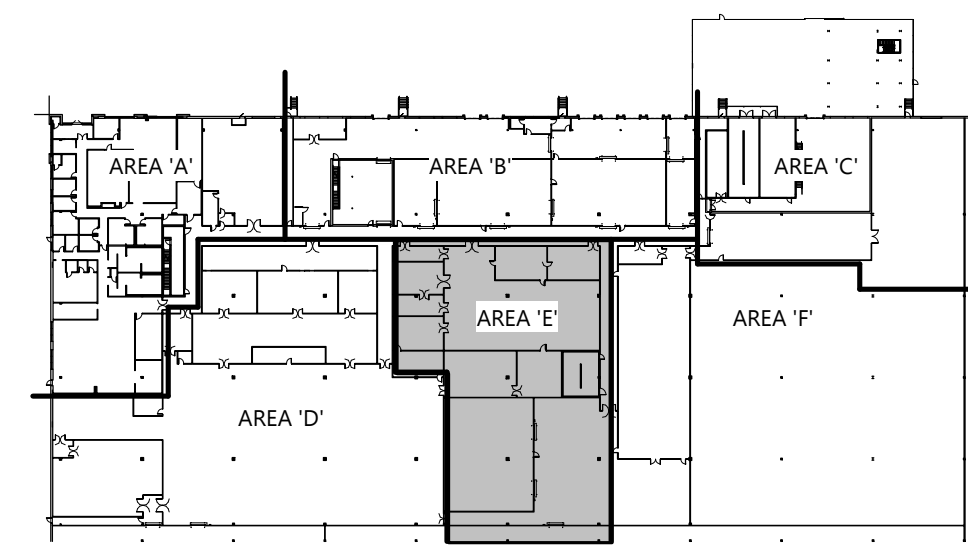
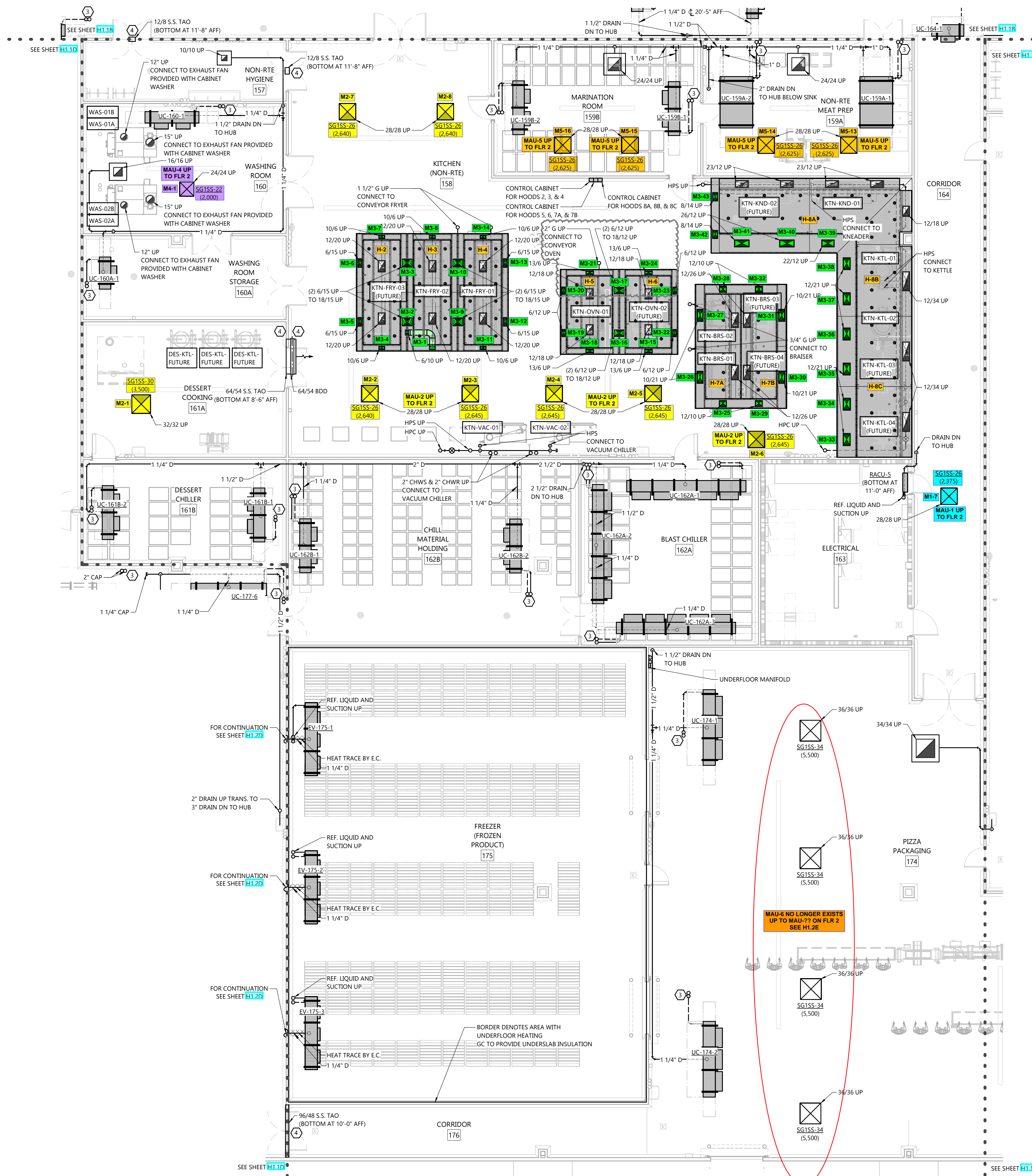
- DUCT FITTINGS SHALL BE TYPE SHOWN ON PLAN OR CALLED OUT BY KEYNOTE. SEE DETAIL 1613.1 FOR ADDITIONAL FITTING DETAIL.
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- SEE STRUCTURAL SHEET 1612 FOR C.C. PROVIDED LAYOUT. PROVIDE ADDITIONAL SUPPORTS/HANGERS AS REQUIRED TO LOCATE HANGING EQUIPMENT.

KEYNOTES

- 1613.1 SEE DUCT FITTING DETAILS 1613.1
- 1613.2 CONNECT TO EXISTING
- 1613.3 CONCRETE PAD
- 1613.4 GS AND GR UP/DOWN. SEE DETAIL 1613.3 FOR MORE INFORMATION. SEE UNIT COOLER SCHEDULE FOR MORE INFORMATION.
- 1613.5 WMM OVER DUCT OPENING
- 1613.6 INDICATES PROCESS EQUIPMENT CONNECTION. ACTUAL CONNECTION POINT IS WITHIN 10' IN ANY DIRECTION OF LOCATION SHOWN ON PLAN. FIELD VERIFY LOCATION AND SIZE OF ALL EQUIPMENT CONNECTIONS BEFORE PIPING THROUGH CEILING. SEE SHEETS H1.X FOR CONNECTION DETAILS. COORDINATE PIPING WITH PROCESS CONTRACTOR PRIOR TO INSTALLATION.

PROCESS ROOM NOTES

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- SEE H1.X SHEETS FOR ADDITIONAL INSTALLATION DETAILS THAT APPLY TO PROCESS ROOMS.
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KEY PLAN
HVAC FIRST FLOOR PLAN - AREA 1E

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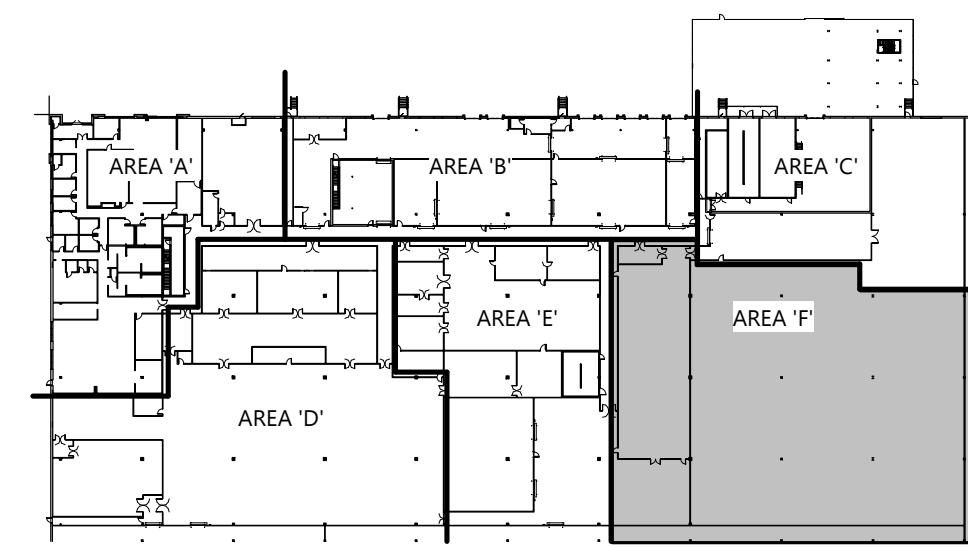
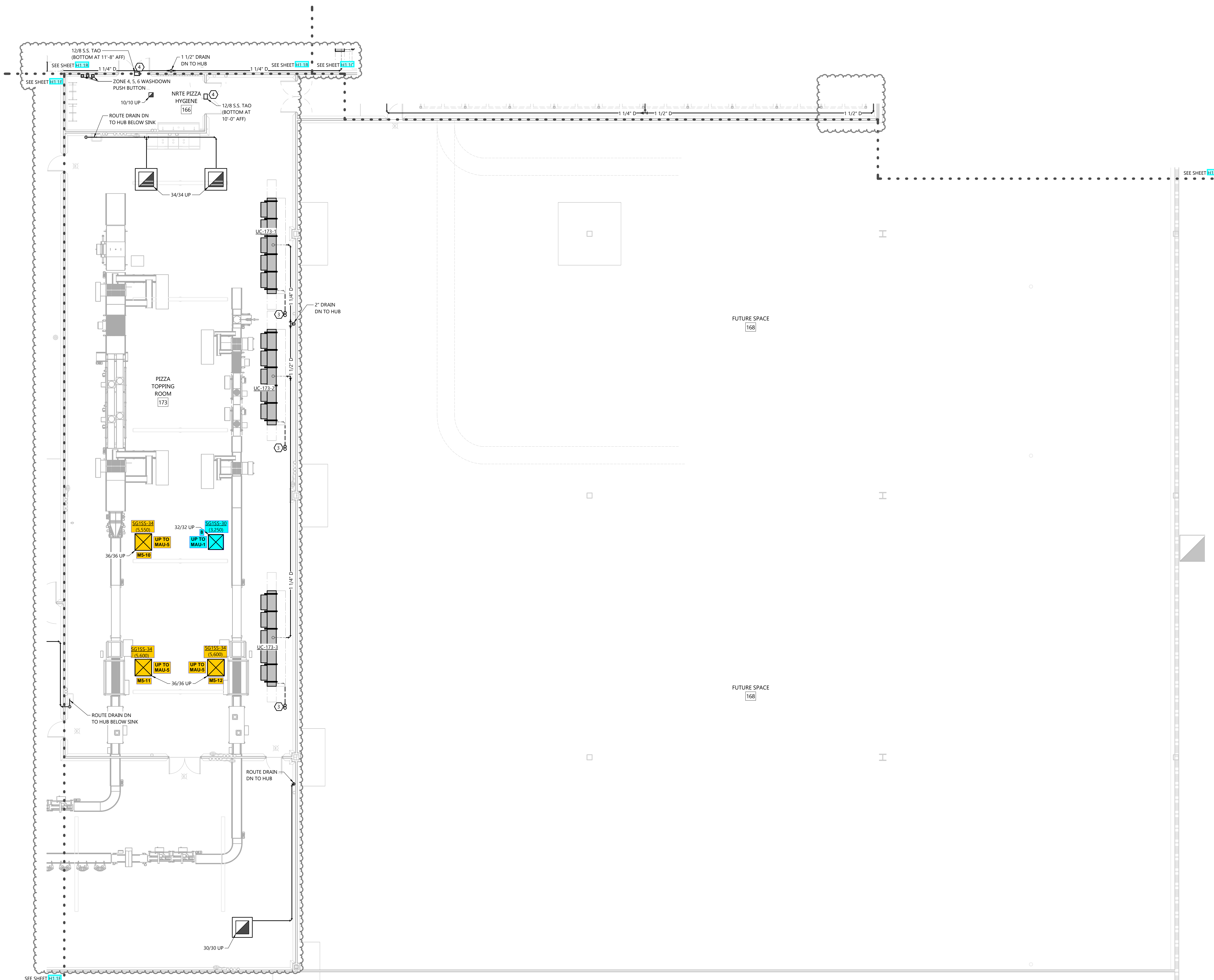
SHEET NUMBER

H1.1F

- GENERAL NOTES**
- DUCT FITTINGS SHALL BE TYPE SHOWN ON PLAN OR CALLED OUT BY KEYNOTE. SEE DETAIL 1.16.1F FOR ADDITIONAL FITTING DETAIL.
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 - IF DUCT SYSTEMS ARE USED FOR TEMPORARY HEAT, PROVIDE TEMPORARY FILTERS AT RETURN AIR OPENINGS AND INSTALL FILTERS IN THE UNITS. EQUIVALENT TO THE EFFICIENCY OF THE SPECIFIED FILTERS FOR THE UNIT. IF PROPER EFFICIENCY FILTERS ARE NOT INSTALLED IN UNIT, UNIT AND ALL DUCTWORK DOWNSTREAM OF UNIT SHALL BE CLEANED BEFORE TEST AND BALANCE.
 - SEE VAV BOX DETAIL AND SCHEDULES FOR INFORMATION REGARDING VAV BOX INLET AND OUTLET DUCTWORK.
 - SEE STRUCTURAL SHEET 163.0 FOR G.C. PROVIDED LAYOUT. PROVIDE ADDITIONAL SUPPORTS/HANGERS AS REQUIRED TO LOCATE HANGING EQUIPMENT.

- KEYNOTES**
- SEE DUCT FITTING DETAILS 1.16.1
 - CONNECT TO EXISTING
 - CONCRETE PAD
 - GS AND GR UP/DOWN. SEE 163.1, 1.2.16.1 FOR MORE INFORMATION. SEE UNIT COOLER SCHEDULE FOR MORE INFORMATION.
 - WMM OVER DUCT OPENING
 - INDICATES PROCESS EQUIPMENT CONNECTION. ACTUAL CONNECTION POINT IS WITHIN 10' IN ANY DIRECTION OF LOCATION SHOWN ON PLAN. FIELD VERIFY LOCATION AND SIZE OF ALL EQUIPMENT CONNECTIONS BEFORE PIPING THRU IMP CEILING. SEE SHEETS H1.X FOR CONNECTION DETAILS. COORDINATE PIPING WITH PROCESS CONTRACTOR PRIOR TO INSTALLATION.

- PROCESS ROOM NOTES**
- SEE SHEET 163.0 FOR KEY PLAN INDICATING WHICH ROOMS ARE CONSIDERED PROCESS ROOMS.
 - SEE H1.X SHEETS FOR ADDITIONAL INSTALLATION DETAILS THAT APPLY TO PROCESS ROOMS.
 - PROCESS ROOM DUCTWORK
 - PITCH PROCESS DUCTWORK DOWN TO LOW POINTS. PITCH SHALL BE MINIMUM 1" IN 40'. LOW POINTS MAY BE SUPPLY OR RETURN BOXES. PROVIDE DRAIN AT LOW POINTS. PIPE 1" DRAIN FROM LOW POINT TO 6" A.F.F. OR HUB DRAIN.
 - PROVIDE ACCESS PANELS IN PROCESS DUCTWORK AT 12" O.C. ACCESS PANELS TO BE STAINLESS STEEL, 24"x24" WHERE POSSIBLE.



KEY PLAN
 HVAC FIRST FLOOR PLAN - AREA 1F

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SHEET ISSUE	FEB. 14, 2024
REVISIONS	
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2236840

H1.2A

GENERAL NOTES

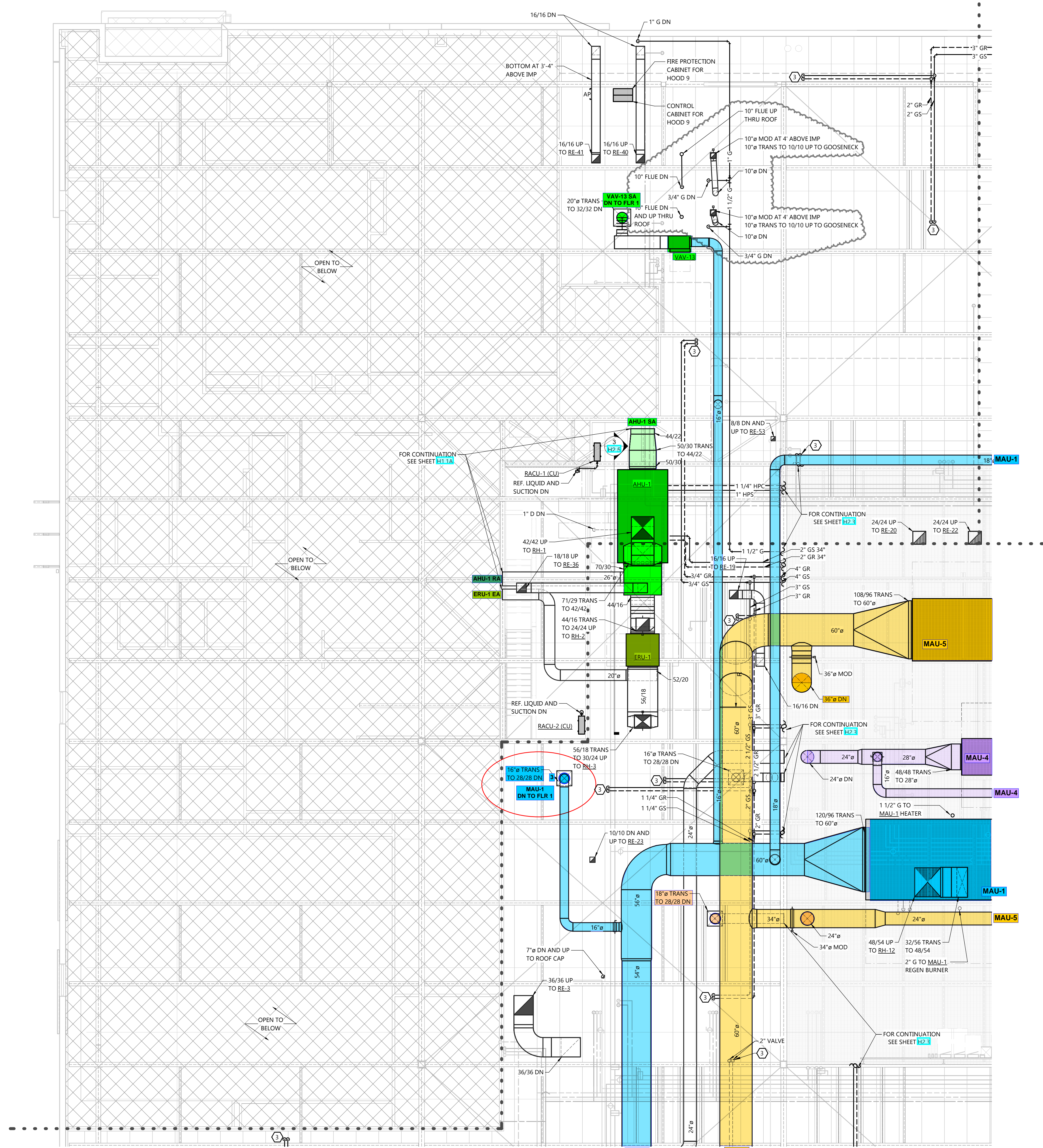
- DUCT FITTINGS SHALL BE TYPE SHOWN ON PLAN OR CALLED OUT BY KEYNOTE. SEE DETAIL 1.13.3 FOR ADDITIONAL FITTING DETAIL.
- VERIFY BUILDING OPENING AND CURB SIZES LISTED ON PLANS WITH ACTUAL EQUIPMENT SCHEDULED AND SUPPLIED. COORDINATE REQUIRED OPENING SIZES AND LOCATIONS WITH CONTRACTORS PROVIDING OPENING SCHEDULES AND ACTUAL EQUIPMENT SIZES SHALL TAKE PRECEDENCE OVER SIZES SHOWN ON PLANS.
- DETAIL REFERENCES ON PLANS ARE TO AID THE CONTRACTOR IN IDENTIFYING THE APPLICABLE DETAIL. NOT ALL DETAILS, OR INSTANCES OF DETAILS, ARE REFERENCED ON PLANS. CONTRACTOR IS RESPONSIBLE TO REVIEW AND COMPLY WITH ALL APPLICABLE DETAILS WHETHER OR NOT REFERENCED ON PLANS.
- COORDINATE LOCATION OF ALL EXPOSED PIPING AND DUCTWORK WITH OWNER PRIOR TO INSTALLATION.
- IF DUCT SYSTEMS ARE USED FOR TEMPORARY HEAT, PROVIDE TEMPORARY FILTERS AT RETURN AIR OPENINGS AND INSTALL FILTERS IN THE UNITS EQUIVALENT TO THE EFFICIENCY OF THE SPECIFIED FILTERS FOR THE UNIT. IF PROPER EFFICIENCY FILTERS ARE NOT INSTALLED IN UNIT, UNIT AND ALL DUCTWORK DOWNSTREAM OF UNIT SHALL BE CLEANED BEFORE TEST AND BALANCE.
- SEE VAV BOX DETAIL AND SCHEDULES FOR INFORMATION REGARDING VAV BOX INLET AND OUTLET DUCTWORK.
- SEE STRUCTURAL SHEET S1.3 FOR G.C. PROVIDED LAYOUT. PROVIDE ADDITIONAL SUPPORTS/HANGERS AS REQUIRED TO LOCATE HANGING EQUIPMENT.

KEYNOTES

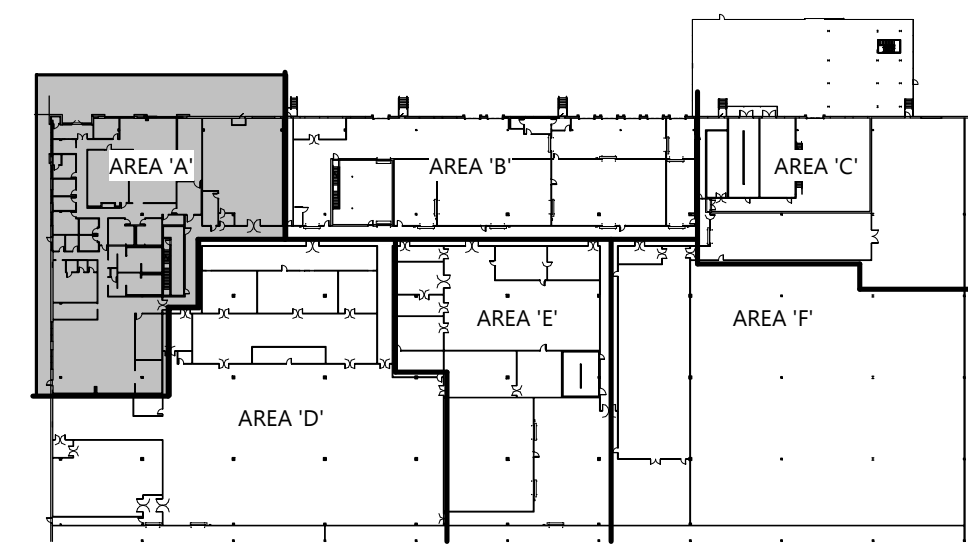
- (H) SEE DUCT FITTING DETAILS 1.13.3
- (1) CONNECT TO EXISTING
- (2) CONCRETE PAD
- (3) GS AND GR UP/DOWN. SEE DETAIL 1.06.13 FOR MORE INFORMATION. SEE UNIT COOLER SCHEDULE FOR MORE INFORMATION.
- (4) WMM OVER DUCT OPENING
- (777) INDICATES PROCESS EQUIPMENT CONNECTION. ACTUAL CONNECTION POINT IS WITHIN 10' IN ANY DIRECTION OF LOCATION SHOWN ON PLAN. FIELD VERIFY LOCATION AND SIZE OF ALL EQUIPMENT CONNECTIONS BEFORE PIPING THRU IMP CEILING. SEE SHEETS H3.X FOR CONNECTION DETAILS. COORDINATE PIPING WITH PROCESS CONTRACTOR PRIOR TO INSTALLATION.

PROCESS ROOM NOTES

- SEE SHEET H3.X FOR KEY PLAN INDICATING WHICH ROOMS ARE CONSIDERED PROCESS ROOMS.
- SEE H3.X SHEETS FOR ADDITIONAL INSTALLATION DETAILS THAT APPLY TO PROCESS ROOMS.
- PROCESS ROOM DUCTWORK
 - PITCH PROCESS DUCTWORK DOWN TO LOW POINTS. FITCH SHALL BE MINIMUM 1" IN 40'. LOW POINTS MAY BE SUPPLY OR RETURN BOXES. PROVIDE DRAIN AT LOW POINTS. PIPE 1" DRAIN FROM LOW POINT TO 6" A.F.F. OR HUB DRAIN.
 - PROVIDE ACCESS PANELS IN PROCESS DUCTWORK AT 12' O.C. ACCESS PANELS TO BE STAINLESS STEEL, 24"X24" WHERE POSSIBLE.



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



KEY PLAN
HVAC SECOND FLOOR PLAN - AREA 'A'

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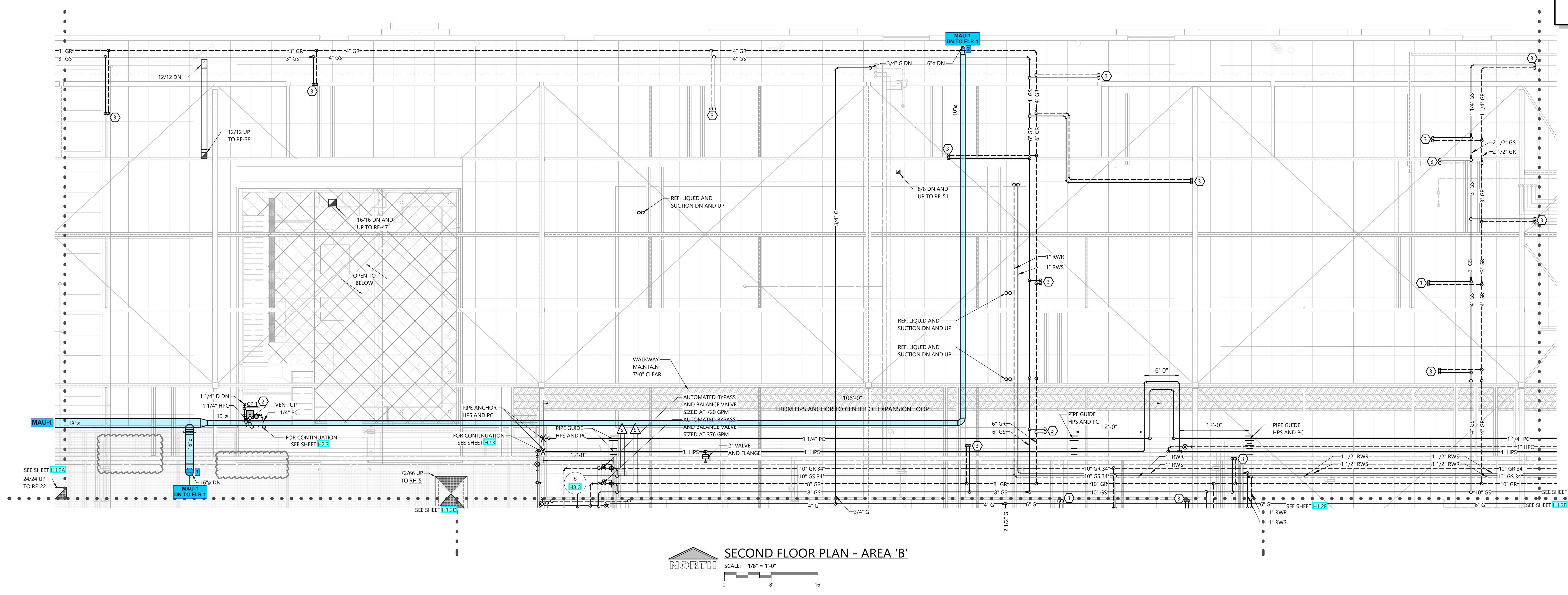
PROJECT INFORMATION

PROPOSED COMMISSARY RENOVATION FOR:
WARABEYA NORTH AMERICA
1575 RAIL SOUTHERN COURT • COLUMBUS, OHIO

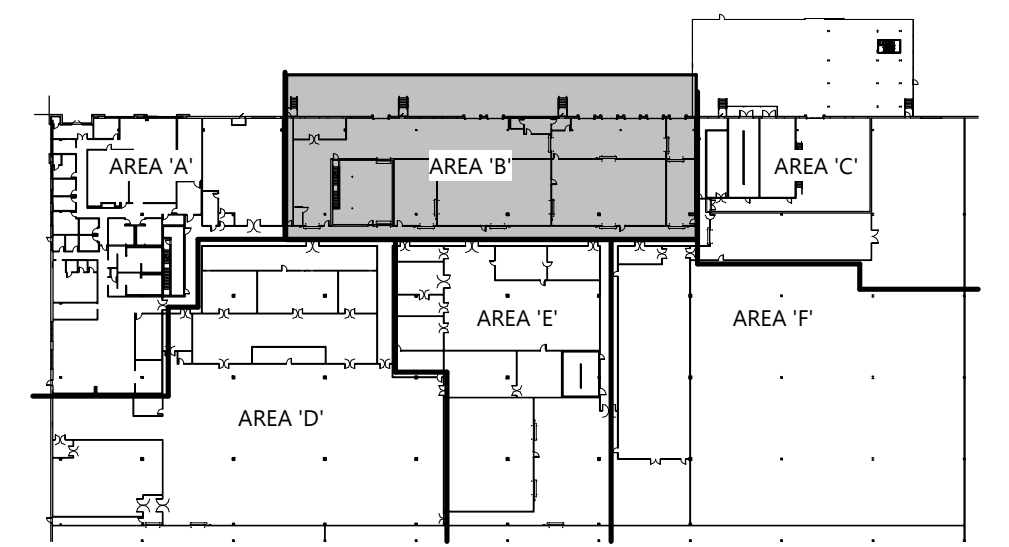
- GENERAL NOTES**
- DUCT FITTINGS SHALL BE TYPE SHOWN ON PLAN OR CALLED OUT BY KEYNOTE. SEE DETAIL 11.1.1 FOR ADDITIONAL FITTING DETAIL.
 - VERIFY BUILDING OPENING AND CURB SIZES LISTED ON PLANS WITH ACTUAL EQUIPMENT SCHEDULED AND SUPPLIED. COORDINATE REQUIRED OPENING SIZES AND LOCATIONS WITH CONTRACTORS PROVIDING OPENING SCHEDULES AND ACTUAL EQUIPMENT SIZES SHALL TAKE PRECEDENCE OVER SIZES SHOWN ON PLANS.
 - DETAIL REFERENCES ON PLANS ARE TO AID THE CONTRACTOR IN IDENTIFYING THE APPLICABLE DETAIL. NOT ALL DETAILS OR INSTANCES OF DETAILS ARE REFERENCED ON PLANS. CONTRACTOR IS RESPONSIBLE TO REVIEW AND COMPLY WITH ALL APPLICABLE DETAILS WHETHER OR NOT REFERENCED ON PLANS.
 - COORDINATE LOCATION OF ALL EXPOSED PIPING AND DUCTWORK WITH OWNER PRIOR TO INSTALLATION.
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 - SEE VAV BOX DETAIL AND SCHEDULES FOR INFORMATION REGARDING VAV BOX INLET AND OUTLET DUCTWORK.
 - SEE STRUCTURAL SHEET 31.2 FOR G.C. PROVIDED LAYOUT. PROVIDE ADDITIONAL SUPPORTS/HANGERS AS REQUIRED TO LOCATE HANGING EQUIPMENT.

- KEYNOTES**
- ① SEE DUCT FITTING DETAILS 11.1.1
 - ② CONNECT TO EXISTING
 - ③ CONCRETE PAD
 - ④ GS AND GR UP/DOWN. SEE DETAIL 12/H3.3 FOR MORE INFORMATION. SEE UNIT COOLER SCHEDULE FOR MORE INFORMATION.
 - ⑤ WWM OVER DUCT OPENING
 - INDICATES PROCESS EQUIPMENT CONNECTION. ACTUAL CONNECTION POINT IS WITHIN 10' IN ANY DIRECTION OF LOCATION SHOWN ON PLAN. FIELD VERIFY LOCATION AND SIZE OF ALL EQUIPMENT CONNECTIONS BEFORE PIPING THRU IMP CEILING. SEE SHEETS H3.X FOR CONNECTION DETAILS. COORDINATE PIPING WITH PROCESS CONTRACTOR PRIOR TO INSTALLATION.

- PROCESS ROOM NOTES**
- SEE SHEET H3.4 FOR KEY PLAN INDICATING WHICH ROOMS ARE CONSIDERED PROCESS ROOMS.
 - SEE H3.X SHEETS FOR ADDITIONAL INSTALLATION DETAILS THAT APPLY TO PROCESS ROOMS.
 - PROCESS ROOM DUCTWORK
 - PITCH PROCESS DUCTWORK DOWN TO LOW POINTS. PITCH SHALL BE MINIMUM 1" IN 40'. LOW POINTS MAY BE SUPPLY OR RETURN BOXES. PROVIDE DRAIN AT LOW POINTS. PIPE 1" DRAIN FROM LOW POINT TO 6" A.F.F. OR HUB DRAIN.
 - PROVIDE ACCESS PANELS IN PROCESS DUCTWORK AT 12" O.C. ACCESS PANELS TO BE STAINLESS STEEL 24"X24" WHERE POSSIBLE.



SECOND FLOOR PLAN - AREA 'B'
SCALE: 1/8" = 1'-0"
0' 6' 12'



KEY PLAN
HVAC SECOND FLOOR PLAN - AREA 'B'

PROFESSIONAL SEAL

SHEET DATES

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SHEET NUMBER
H1.2B

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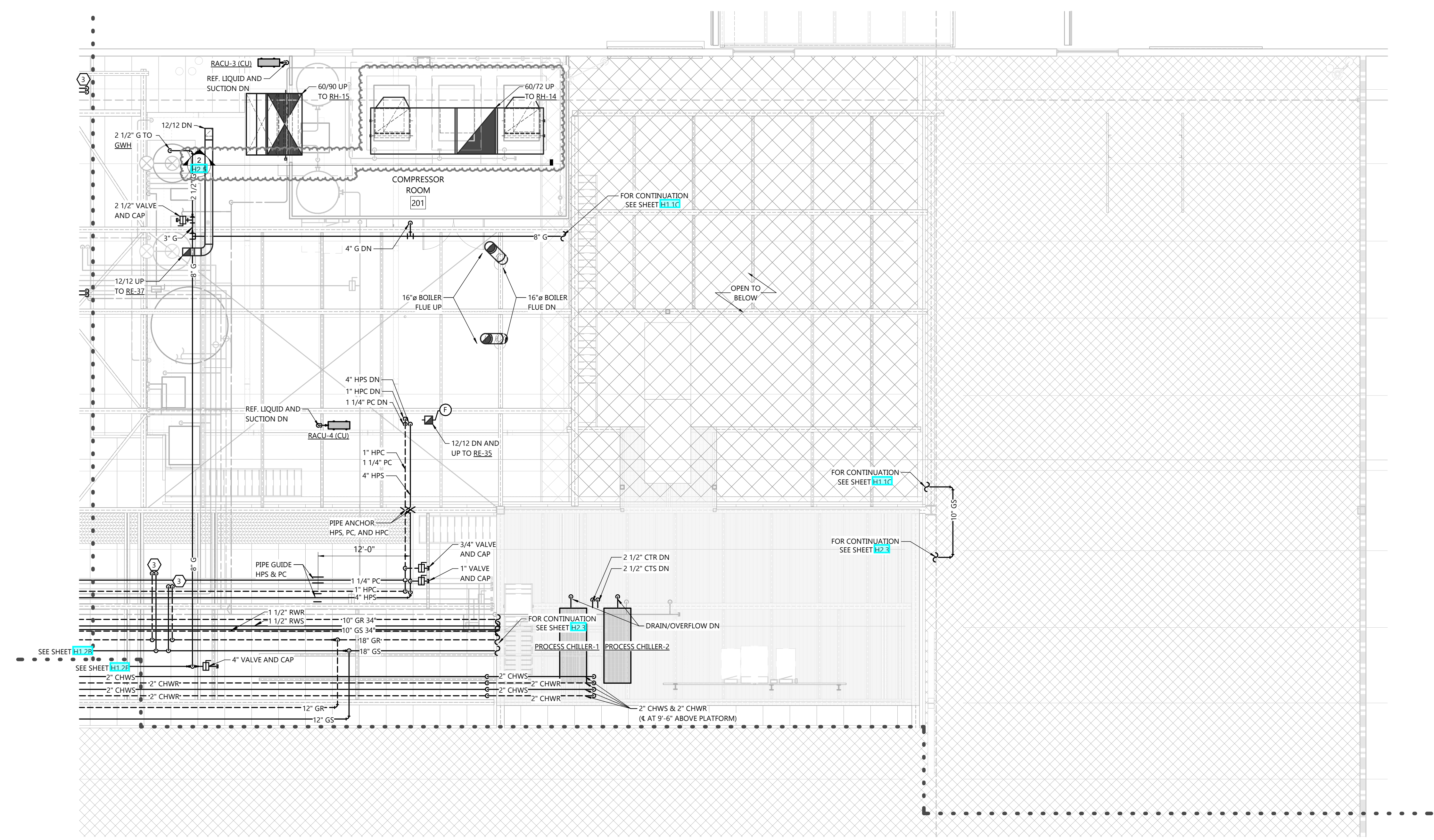
PROJECT INFORMATION

PROPOSED COMMISSARY RENOVATION FOR:
WARABEYA NORTH AMERICA
 1575 RAIL SOUTHERN COURT • COLUMBUS, OHIO

- GENERAL NOTES**
- DUCT FITTINGS SHALL BE TYPE SHOWN ON PLAN OR CALLED OUT BY KEYNOTE. SEE DETAIL H1.2C.1 FOR ADDITIONAL FITTING DETAIL.
 - VERIFY BUILDING OPENING AND CURB SIZES LISTED ON PLANS WITH ACTUAL EQUIPMENT SCHEDULED AND SUPPLIED. COORDINATE REQUIRED OPENING SIZES AND LOCATIONS WITH CONTRACTORS PROVIDING OPENING SCHEDULES AND ACTUAL EQUIPMENT SIZES SHALL TAKE PRECEDENCE OVER SIZES SHOWN ON PLANS.
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 - SEE VAV BOX DETAIL AND SCHEDULES FOR INFORMATION REGARDING VAV BOX INLET AND OUTLET DUCTWORK.
 - SEE STRUCTURAL SHEET H1.2C.2 FOR G.C. PROVIDED LAYOUT. PROVIDE ADDITIONAL SUPPORTS/HANGERS AS REQUIRED TO LOCATE HANGING EQUIPMENT.

- KEYNOTES**
- SEE DUCT FITTING DETAILS H1.2C.1
 - CONNECT TO EXISTING
 - CONCRETE PAD
 - GS AND GR UP/DOWN. SEE DETAIL H1.2C.3 FOR MORE INFORMATION. SEE UNIT COOLER SCHEDULE FOR MORE INFORMATION.
 - WWM OVER DUCT OPENING
 - INDICATES PROCESS EQUIPMENT CONNECTION. ACTUAL CONNECTION POINT IS WITHIN 10' IN ANY DIRECTION OF LOCATION SHOWN ON PLAN. FIELD VERIFY LOCATION AND SIZE OF ALL EQUIPMENT CONNECTIONS. BEFORE PIPING THRU IMP CEILING. SEE SHEETS H1.3 FOR CONNECTION DETAILS. COORDINATE PIPING WITH PROCESS CONTRACTOR PRIOR TO INSTALLATION.

- PROCESS ROOM NOTES**
- SEE SHEET H1.3 FOR KEY PLAN INDICATING WHICH ROOMS ARE CONSIDERED PROCESS ROOMS.
 - SEE H1.3 SHEETS FOR ADDITIONAL INSTALLATION DETAILS THAT APPLY TO PROCESS ROOMS.
 - PROCESS ROOM DUCTWORK
 - PITCH PROCESS DUCTWORK DOWN TO LOW POINTS. PITCH SHALL BE MINIMUM 1" IN 40'. LOW POINTS MAY BE SUPPLY OR RETURN BOXES. PROVIDE DRAIN AT LOW POINTS. PIPE 1" DRAIN FROM LOW POINT TO 6" A.F.F. OR HUB DRAIN.
 - PROVIDE ACCESS PANELS IN PROCESS DUCTWORK AT 12" O.C. ACCESS PANELS TO BE STAINLESS STEEL 24"x24" WHERE POSSIBLE.



SECOND FLOOR PLAN - AREA 'C'
 SCALE: 1/8" = 1'-0"
 0' 8' 16'

PROFESSIONAL SEAL

SHEET DATES

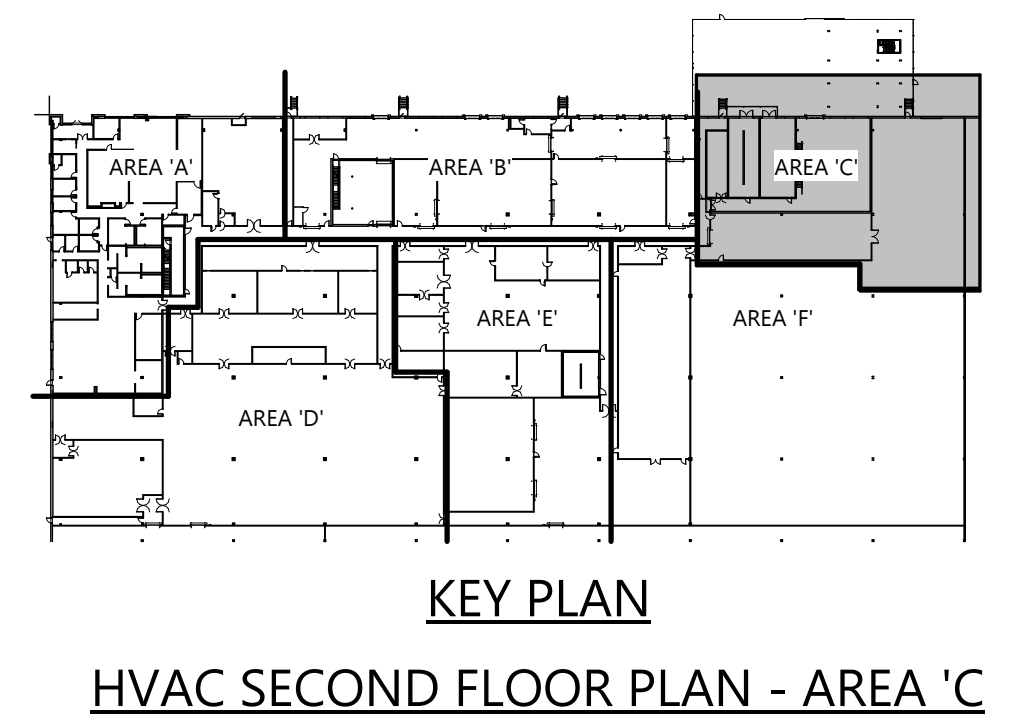
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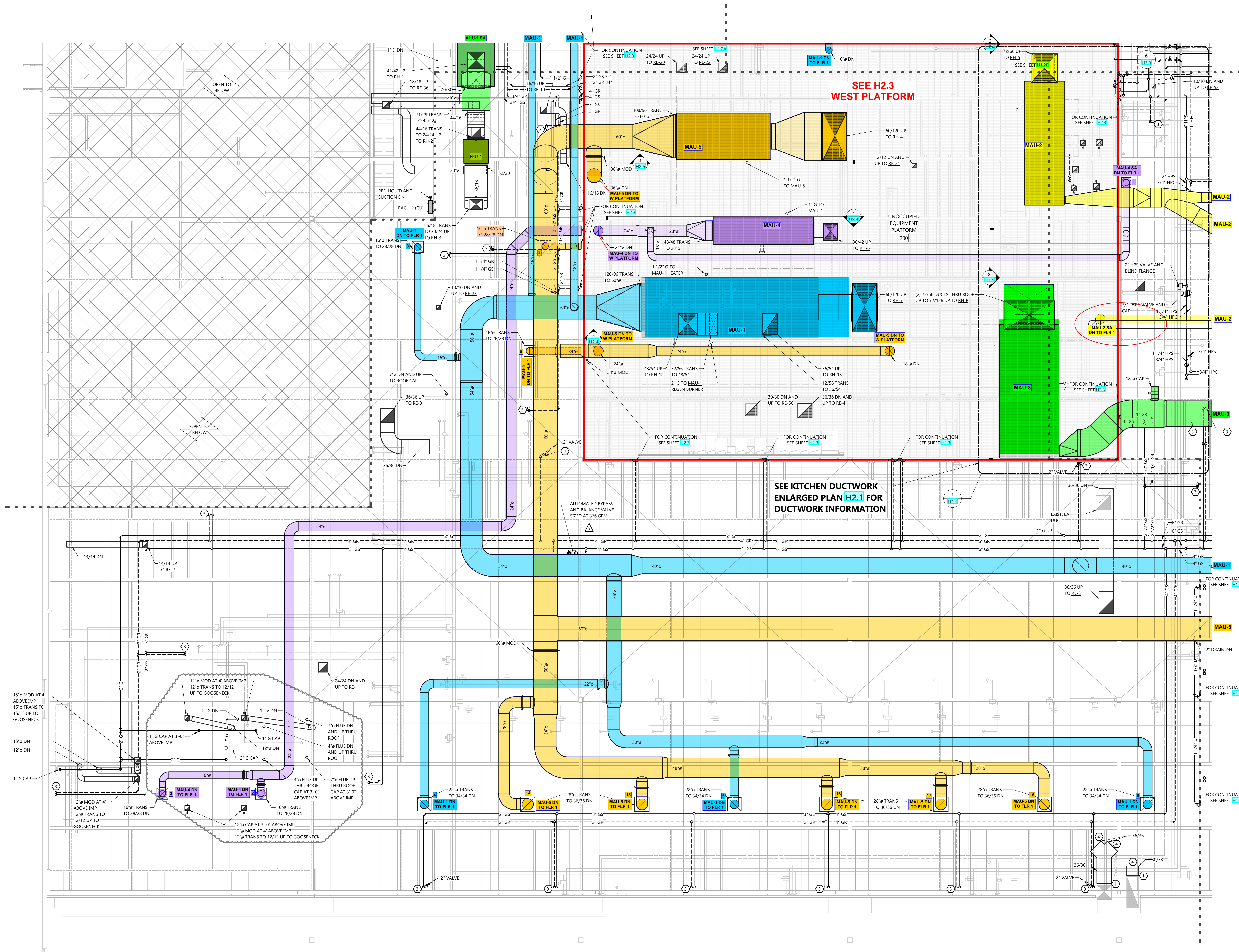
REVISIONS	DATE
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SHEET NUMBER
H1.2C



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GENERAL NOTES

- DUCT FITTINGS SHALL BE TYPE SHOWN ON PLAN OR CALLED OUT BY KEYNOTE. SEE DETAIL H1.3.3 FOR ADDITIONAL FITTING DETAIL.
- VERIFY BUILDING OPENING AND CURB SIZES LISTED ON PLANS WITH ACTUAL EQUIPMENT SCHEDULED AND SUPPLIED. COORDINATE REQUIRED OPENING SIZES AND LOCATIONS WITH CONTRACTORS PROVIDING OPENING SCHEDULES AND ACTUAL EQUIPMENT SIZES SHALL TAKE PRECEDENCE OVER SIZES SHOWN ON PLANS.
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- SEE VAV BOX DETAIL AND SCHEDULES FOR INFORMATION REGARDING VAV BOX INLET AND OUTLET DUCTWORK.
- SEE STRUCTURAL SHEET H2.2 FOR C.C. PROVIDED LAYOUT. PROVIDE ADDITIONAL SUPPORTS/HANGERS AS REQUIRED TO LOCATE HANGING EQUIPMENT.

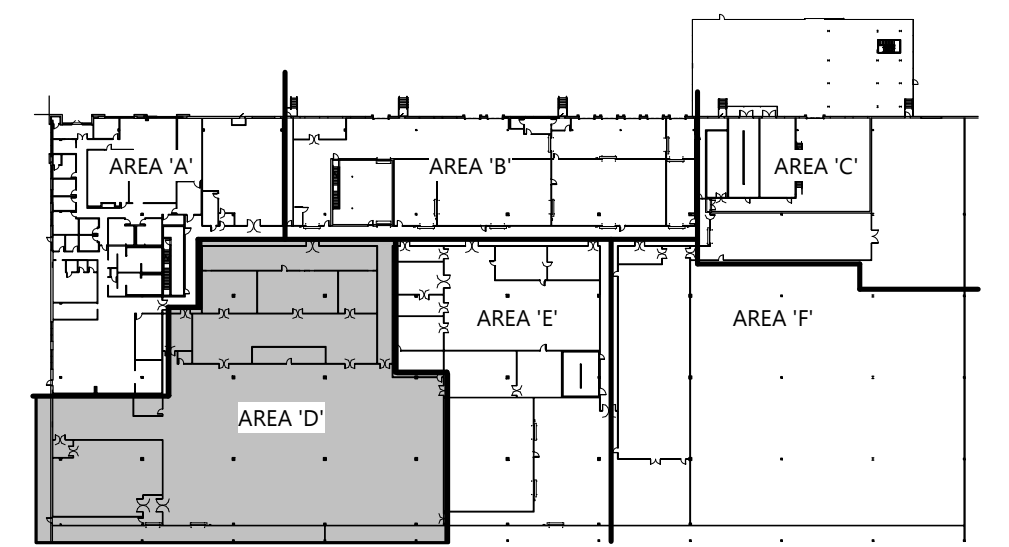
KEYNOTES

- SEE DUCT FITTING DETAILS H1.3.1
- CONNECT TO EXISTING
- CONCRETE PAD
- GS AND GR UP/DOWN. SEE DETAIL 16/H3.3 FOR MORE INFORMATION. SEE UNIT COOLER SCHEDULE FOR MORE INFORMATION.
- WMM OVER DUCT OPENING
- INDICATES PROCESS EQUIPMENT CONNECTION. ACTUAL CONNECTION POINT IS WITHIN 10' IN ANY DIRECTION OF LOCATION SHOWN ON PLAN. FIELD VERIFY LOCATION AND SIZE OF ALL EQUIPMENT CONNECTIONS BEFORE PIPING THRU IMP CEILING. SEE SHEETS H1.X FOR CONNECTION DETAILS. COORDINATE PIPING WITH PROCESS CONTRACTOR PRIOR TO INSTALLATION.

PROCESS ROOM NOTES

- SEE SHEET H2.2 FOR KEY PLAN INDICATING WHICH ROOMS ARE CONSIDERED PROCESS ROOMS.
- SEE H1.X SHEETS FOR ADDITIONAL INSTALLATION DETAILS THAT APPLY TO PROCESS ROOMS.
- PROCESS ROOM DUCTWORK
 - PITCH PROCESS DUCTWORK DOWN TO LOW POINTS. PITCH SHALL BE MINIMUM 1" IN 40'. LOW POINTS MAY BE SUPPLY OR RETURN BOXES. PROVIDE DRAIN AT LOW POINTS. PIPE 1" DRAIN FROM LOW POINT TO 6" A.F.F. OR HUB DRAIN.
 - PROVIDE ACCESS PANELS IN PROCESS DUCTWORK AT 12' O.C. ACCESS PANELS TO BE STAINLESS STEEL, 24" X 24" WHERE POSSIBLE.

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



KEY PLAN
 HVAC SECOND FLOOR PLAN - AREA 'D'

PROJECT INFORMATION

PROPOSED COMMISSARY RENOVATION FOR:
WARABEYA NORTH AMERICA
 1575 RAIL SOUTHERN COURT • COLUMBUS, OHIO

PROFESSIONAL SEAL

SHEET DATES

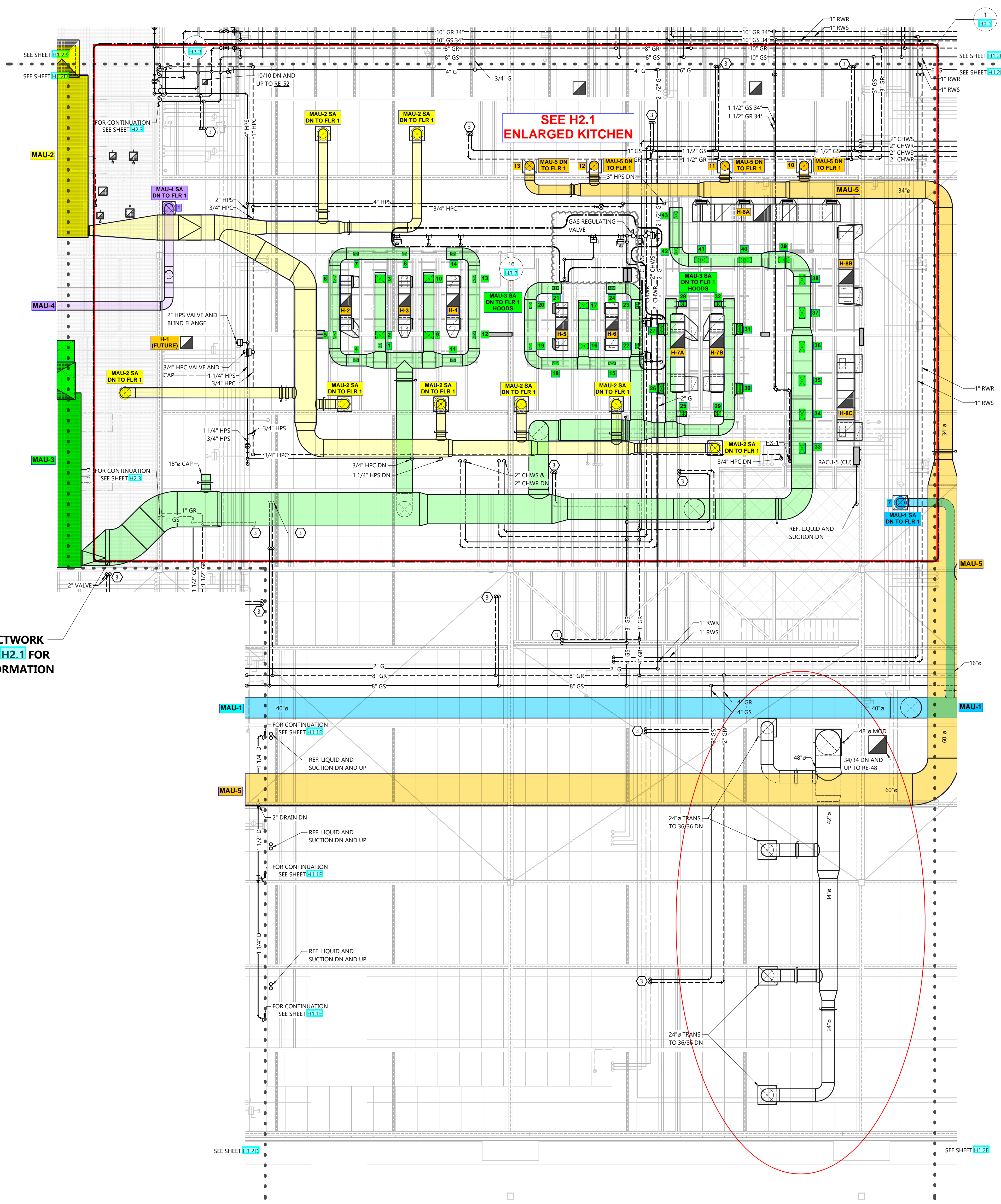
SHEET ISSUE	FEB. 14, 2024
REVISIONS	
AD1	FEB. 28, 2024
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CB12	MAR. 26, 2025

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SHEET NUMBER

H1.2D

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SEE KITCHEN DUCTWORK ENLARGED PLAN H2.1 FOR DUCTWORK INFORMATION

SEE H2.1 ENLARGED KITCHEN

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

- GENERAL NOTES**
- DUCT FITTINGS SHALL BE TYPE SHOWN ON PLAN OR CALLED OUT BY KEYNOTE. SEE DETAIL H1.3 FOR ADDITIONAL FITTING DETAIL.
 - VERIFY BUILDING OPENING AND CURB SIZES LISTED ON PLANS WITH ACTUAL EQUIPMENT SCHEDULED AND SUPPLIED. COORDINATE REQUIRED OPENING SIZES AND LOCATIONS WITH CONTRACTORS PROVIDING OPENING SCHEDULES AND ACTUAL EQUIPMENT SIZES SHALL TAKE PRECEDENCE OVER SIZES SHOWN ON PLANS.
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 - SEE VAV BOX DETAIL AND SCHEDULES FOR INFORMATION REGARDING VAV BOX INLET AND OUTLET DUCTWORK.
 - SEE STRUCTURAL SHEET S2.2 FOR C.C. PROVIDED LAYOUT. PROVIDE ADDITIONAL SUPPORTS/HANGERS AS REQUIRED TO LOCATE HANGING EQUIPMENT.

- KEYNOTES**
- SEE DUCT FITTING DETAILS H1.3
 - CONNECT TO EXISTING
 - CONCRETE PAD
 - GS AND GR UP/DOWN. SEE DETAIL 16/H3.3 FOR MORE INFORMATION. SEE UNIT COOLER SCHEDULE FOR MORE INFORMATION.
 - WMM OVER DUCT OPENING
 - INDICATES PROCESS EQUIPMENT CONNECTION. ACTUAL CONNECTION POINT IS WITHIN 10' IN ANY DIRECTION OF LOCATION SHOWN ON PLAN. FIELD VERIFY LOCATION AND SIZE OF ALL EQUIPMENT CONNECTIONS BEFORE PIPING THRU JWP CEILING. SEE SHEETS H3.X FOR CONNECTION DETAILS. COORDINATE PIPING WITH PROCESS CONTRACTOR PRIOR TO INSTALLATION.

- PROCESS ROOM NOTES**
- SEE SHEET H3.X FOR KEY PLAN INDICATING WHICH ROOMS ARE CONSIDERED PROCESS ROOMS.
 - SEE H3.X SHEETS FOR ADDITIONAL INSTALLATION DETAILS THAT APPLY TO PROCESS ROOMS.
 - PROCESS ROOM DUCTWORK
 - PITCH PROCESS DUCTWORK DOWN TO LOW POINTS. PITCH SHALL BE MINIMUM 1" IN 40'. LOW POINTS MAY BE SUPPLY OR RETURN BOXES. PROVIDE DRAIN AT LOW POINTS. PIPE 1" DRAIN FROM LOW POINT TO 6" A.F.F. OR HUB DRAIN.
 - PROVIDE ACCESS PANELS IN PROCESS DUCTWORK AT 12' O.C. ACCESS PANELS TO BE STAINLESS STEEL, 24"X24" WHERE POSSIBLE.

PROJECT INFORMATION

PROPOSED COMMISSARY RENOVATION FOR:
WARABEYA NORTH AMERICA
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PROFESSIONAL SEAL

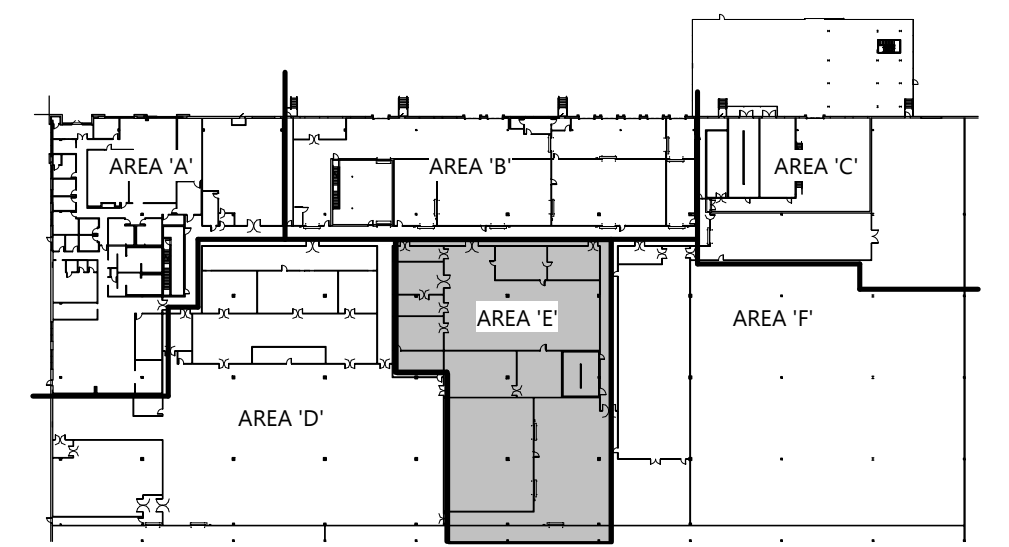
SHEET DATES

SHEET ISSUE	FEB. 14, 2024
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AD1	FEB. 28, 2024
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CB10	FEB. 6, 2025
CB13	MAY 15, 2025

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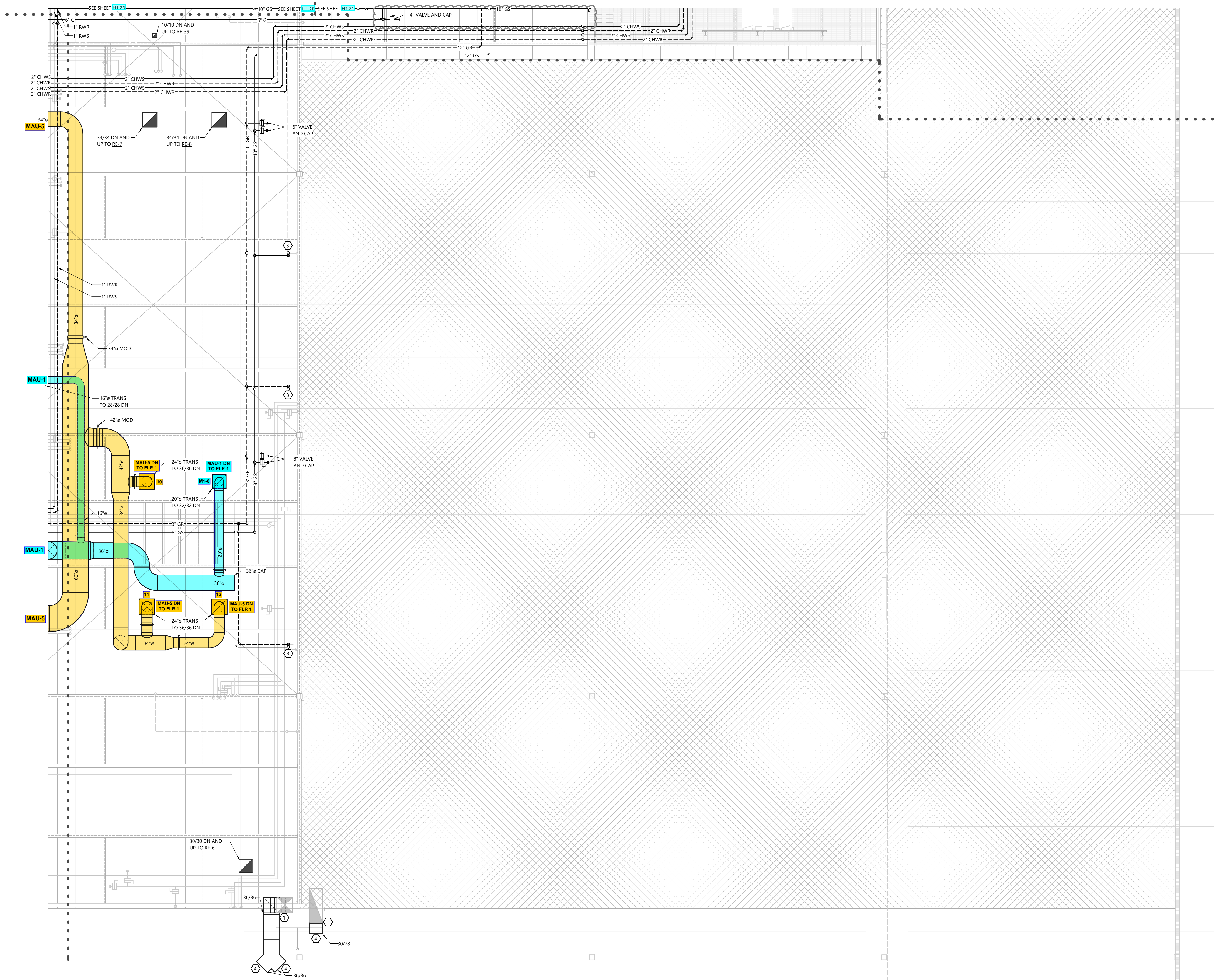
SHEET NUMBER

H1.2E



KEY PLAN
 HVAC SECOND FLOOR PLAN - AREA 'E'

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SECOND FLOOR PLAN - AREA 'F'
 SCALE: 1/8" = 1'-0"
 0' 8' 16'

- GENERAL NOTES**
- DUCT FITTINGS SHALL BE TYPE SHOWN ON PLAN OR CALLED OUT BY KEYNOTE. SEE DETAIL H1.2F.1 FOR ADDITIONAL FITTING DETAIL.
 - VERIFY BUILDING OPENING AND CURB SIZES LISTED ON PLANS WITH ACTUAL EQUIPMENT SCHEDULED AND SUPPLIED. COORDINATE REQUIRED OPENING SIZES AND LOCATIONS WITH CONTRACTORS PROVIDING OPENING SCHEDULES AND ACTUAL EQUIPMENT SIZES SHALL TAKE PRECEDENCE OVER SIZES SHOWN ON PLANS.
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 - SEE VAV BOX DETAIL AND SCHEDULES FOR INFORMATION REGARDING VAV BOX INLET AND OUTLET DUCTWORK.
 - SEE STRUCTURAL SHEET H1.2F.2 FOR G.C. PROVIDED LAYOUT. PROVIDE ADDITIONAL SUPPORTS/HANGERS AS REQUIRED TO LOCATE HANGING EQUIPMENT.

- KEYNOTES**
- SEE DUCT FITTING DETAILS H1.2F.1
 - CONNECT TO EXISTING
 - CONCRETE PAD
 - GS AND GR UP/DOWN. SEE H1.2F.1, H1.2F.2 FOR MORE INFORMATION. SEE UNIT COOLER SCHEDULE FOR MORE INFORMATION.
 - WMM OVER DUCT OPENING
 - INDICATES PROCESS EQUIPMENT CONNECTION. ACTUAL CONNECTION POINT IS WITHIN 10' IN ANY DIRECTION OF LOCATION SHOWN ON PLAN. FIELD VERIFY LOCATION AND SIZE OF ALL EQUIPMENT CONNECTIONS BEFORE PIPING THRU JUMP CEILING. SEE SHEETS H1.2F.3 FOR CONNECTION DETAILS. COORDINATE PIPING WITH PROCESS CONTRACTOR PRIOR TO INSTALLATION.

- PROCESS ROOM NOTES**
- SEE SHEET H1.2F.3 FOR KEY PLAN INDICATING WHICH ROOMS ARE CONSIDERED PROCESS ROOMS.
 - SEE H1.2F.3 SHEETS FOR ADDITIONAL INSTALLATION DETAILS THAT APPLY TO PROCESS ROOMS.
 - PROCESS ROOM DUCTWORK
 - PITCH PROCESS DUCTWORK DOWN TO LOW POINTS. PITCH SHALL BE MINIMUM 1" IN 40'. LOW POINTS MAY BE SUPPLY OR RETURN BOXES. PROVIDE DRAIN AT LOW POINTS. PIPE 1" DRAIN FROM LOW POINT TO 6" A.F.F. OR HUB DRAIN.
 - PROVIDE ACCESS PANELS IN PROCESS DUCTWORK AT 12' O.C. ACCESS PANELS TO BE STAINLESS STEEL, 24"X24" WHERE POSSIBLE.

PROJECT INFORMATION

PROPOSED COMMISSARY RENOVATION FOR:
WARABEYA NORTH AMERICA
 1575 RAIL SOUTHERN COURT • COLUMBUS, OHIO

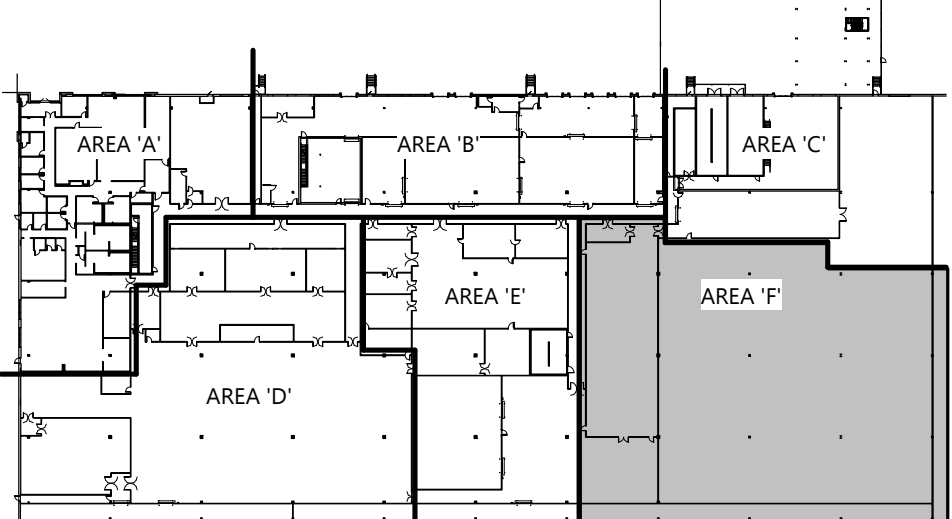
PROFESSIONAL SEAL

SHEET DATES

SHEET ISSUE	FEB. 14, 2024
REVISIONS	
AD1	FEB. 28, 2024
AD2	APR. 15, 2024
CB1	MAY 30, 2024

JOB NUMBER
 2236840

SHEET NUMBER
 H1.2F



KEY PLAN
 HVAC SECOND FLOOR PLAN - AREA 'F'

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GENERAL NOTES

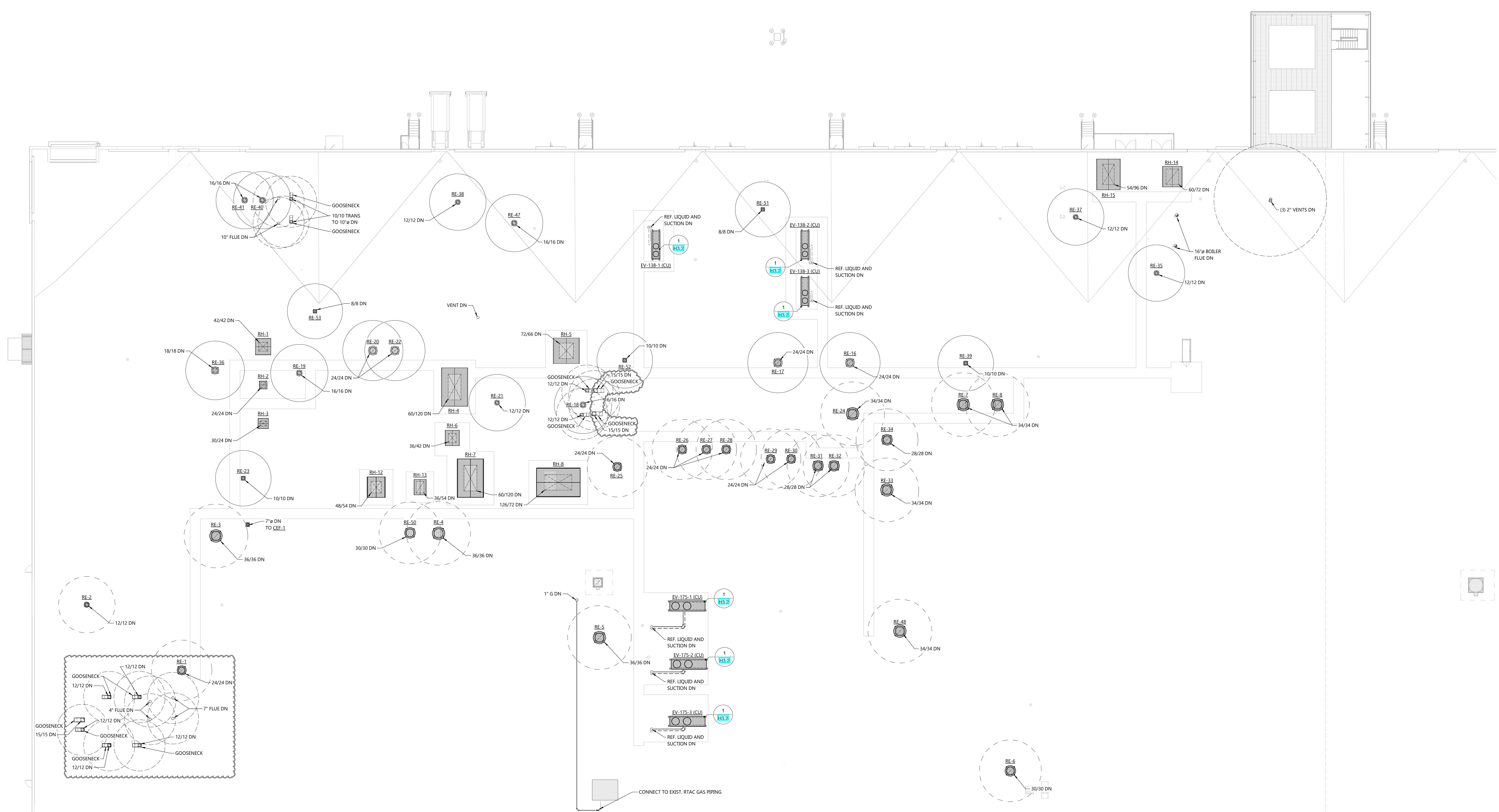
- VERIFY BUILDING OPENING AND CURB SIZES LISTED ON PLANS WITH ACTUAL EQUIPMENT SCHEDULED AND SUPPLIED. COORDINATE REQUIRED OPENING SIZES AND LOCATIONS WITH CONTRACTORS PROVIDING OPENING SCHEDULES AND ACTUAL EQUIPMENT SIZES SHALL TAKE PRECEDENCE OVER SIZES SHOWN ON PLANS.
- DETAIL REFERENCES ON PLANS ARE TO AID THE CONTRACTOR IN IDENTIFYING THE APPLICABLE DETAIL. NOT ALL DETAILS, OR INSTANCES OF DETAILS, ARE REFERENCED ON PLANS. CONTRACTOR IS RESPONSIBLE TO REVIEW AND COMPLY WITH ALL APPLICABLE DETAILS WHETHER OR NOT REFERENCED ON PLANS.
- TERMINATE ALL UNIT HEATER INTAKES/FLUES MINIMUM 10'-0" FROM EDGE OF ROOF.
- TERMINATE ALL GAS REGULATOR VENTS MINIMUM 10'-0" FROM EDGE OF ROOF. VENTS SHALL NOT BE TERMINATED OUT EXTERIOR WALLS.
- DASHED LINES AROUND EXHAUST TERMINATIONS INDICATE 10'-0" REQUIRED CLEARANCE TO OUTSIDE AIR INTAKES.

KEYNOTES

- ① CONNECT TO EXISTING
- ② NOT USED
- ③ VERIFY LOCATION WITH OWNER
- ④ WWM OVER DUCT PIPING

PROCESS ROOM NOTES

- SEE H12 SHEETS FOR ADDITIONAL INSTALLATION DETAILS THAT APPLY TO PROCESS ROOMS



ROOF PLAN
SCALE: 1/16" = 1'-0"
NORTH

HVAC ROOF PLAN

PROFESSIONAL SEAL

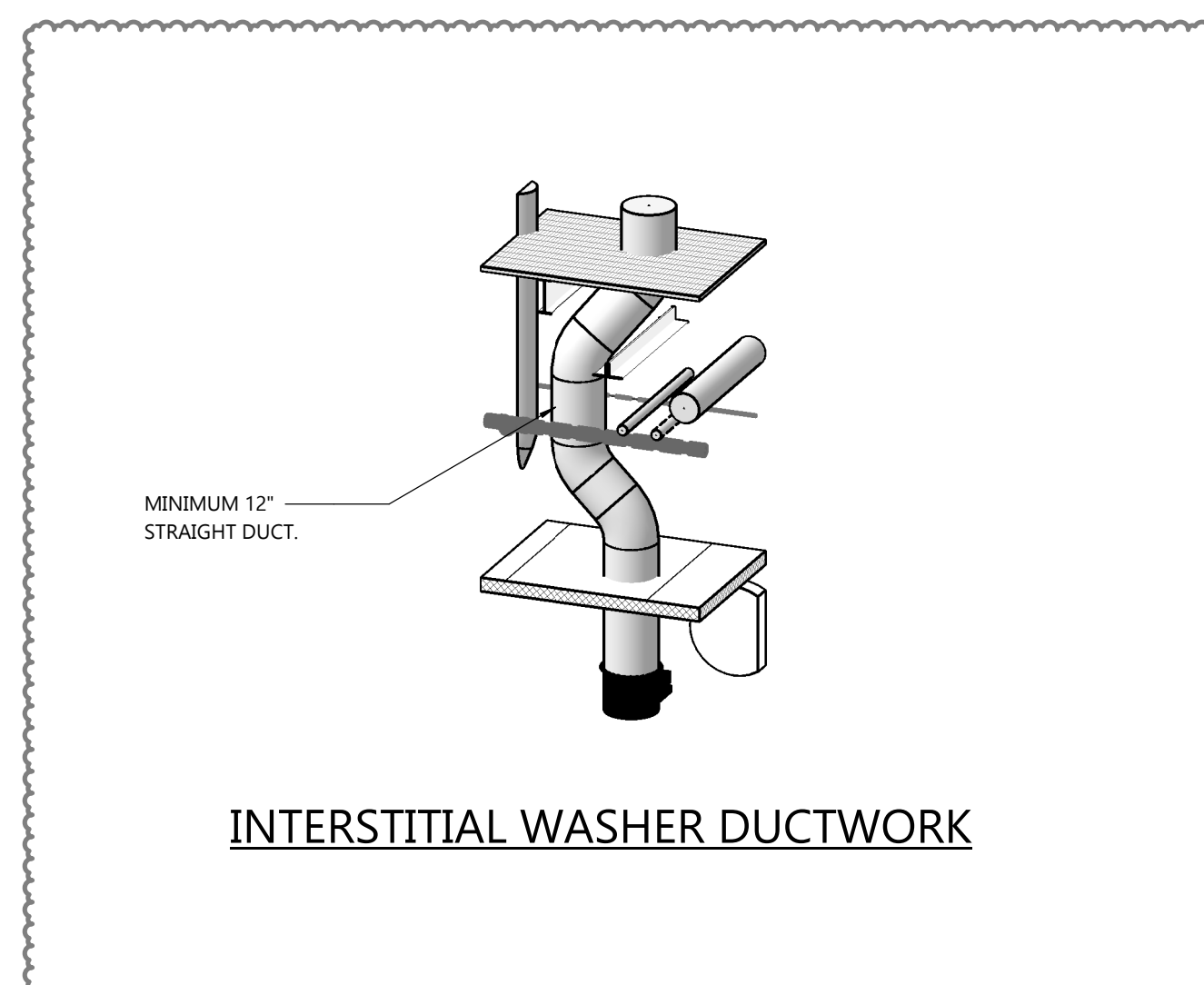
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AD1	FEB. 28, 2024
AD2	APR. 15, 2024
CB4	JULY 17, 2024
CB6	OCT. 10, 2024
CB10	FEB. 6, 2025
CB12	MAR. 26, 2025

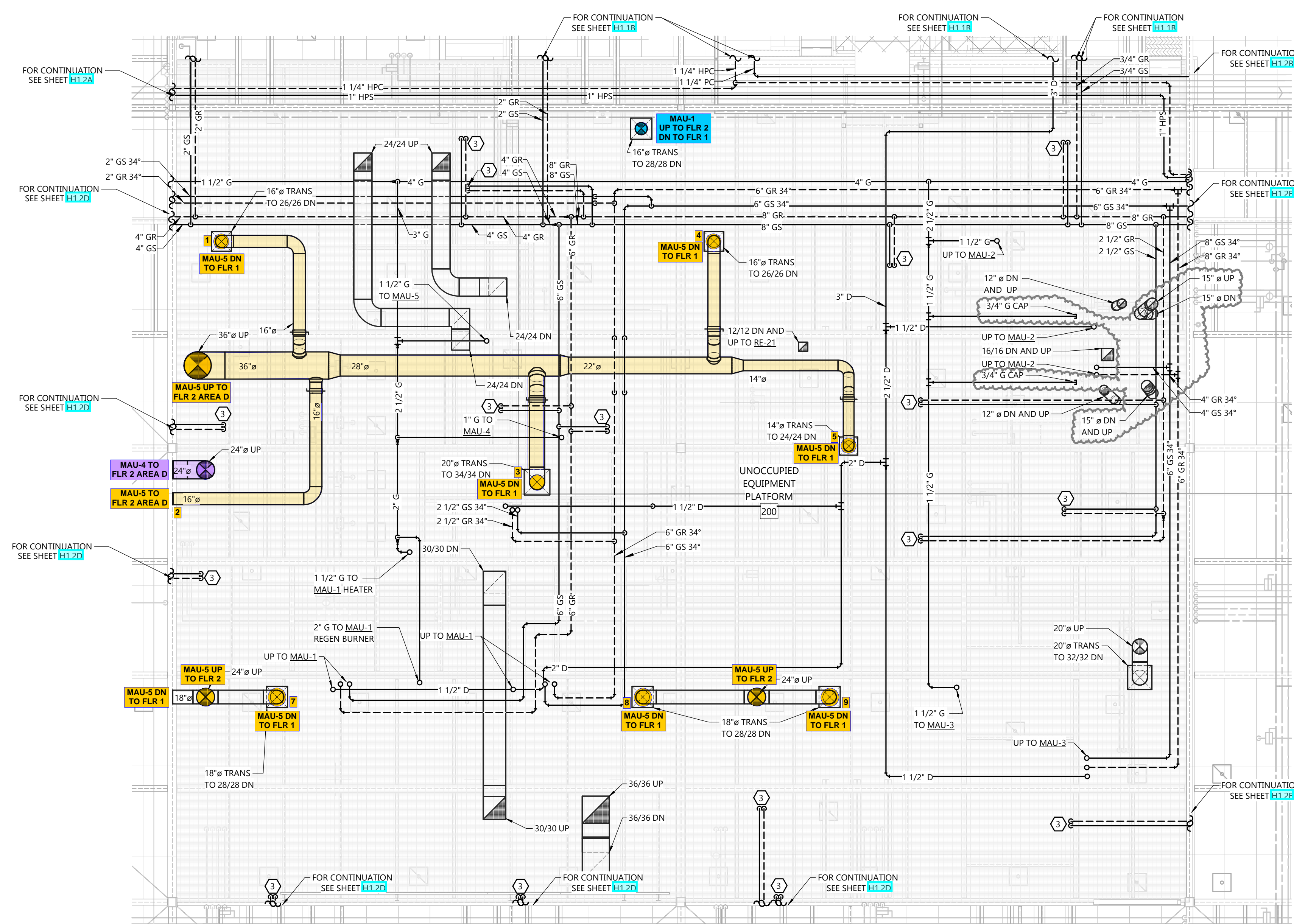
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SHEET NUMBER
H1.3

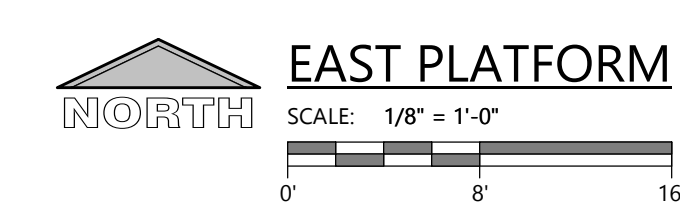
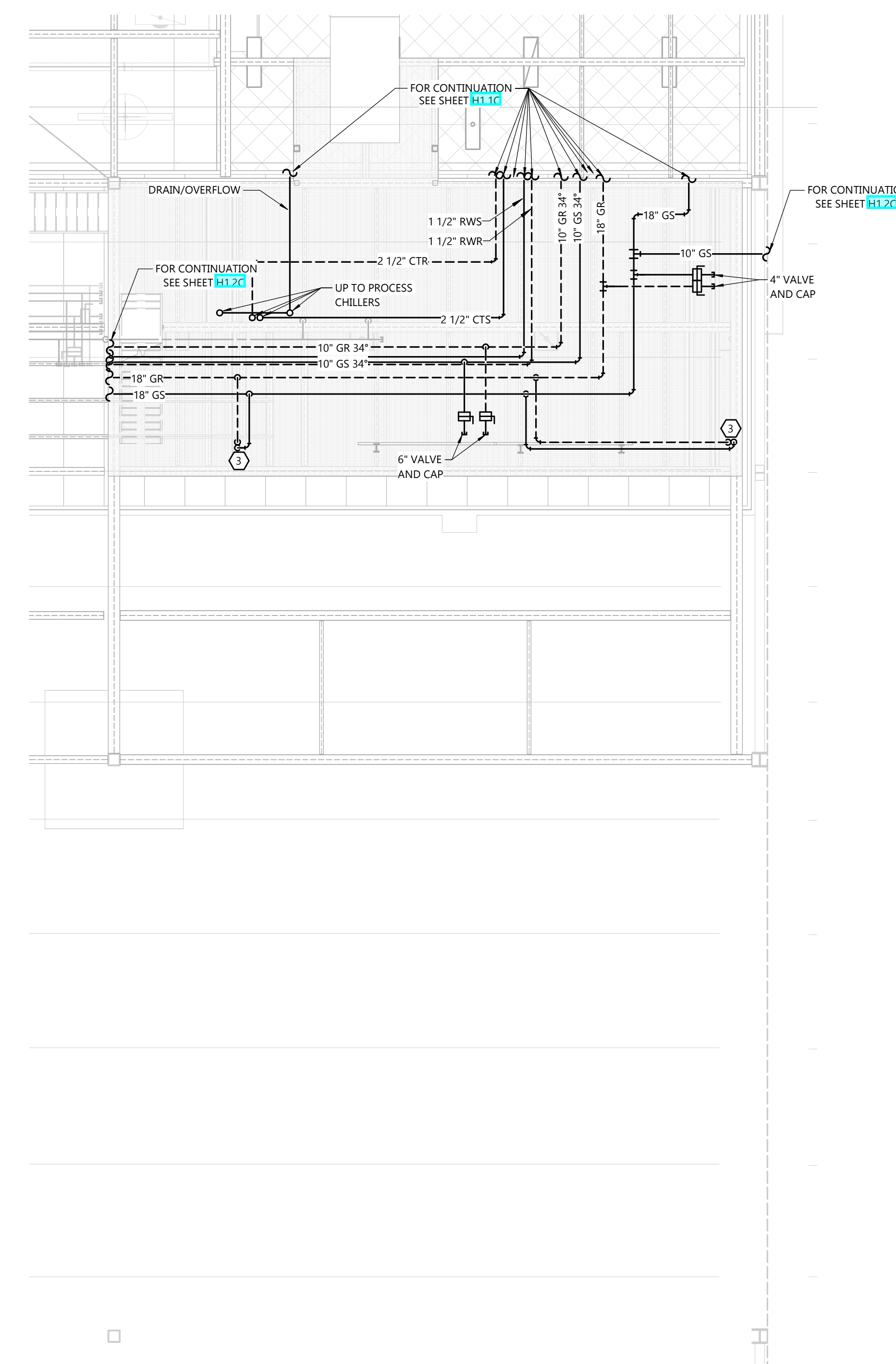
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INTERSTITIAL WASHER DUCTWORK



WEST PLATFORM



PROFESSIONAL SEAL

SHEET DATES	
SHEET ISSUE	FEB. 14, 2024
REVISIONS	
AD1	FEB. 28, 2024
AD2	APR. 15, 2024
CB1	MAY 30, 2024
CB2	JUNE 26, 2024
CB6	OCT. 10, 2024
CB10	FEB. 6, 2025
CB12	MAR. 26, 2025

JOB NUMBER
2236840

SHEET NUMBER

H2.3