



**GENERAL NOTES**

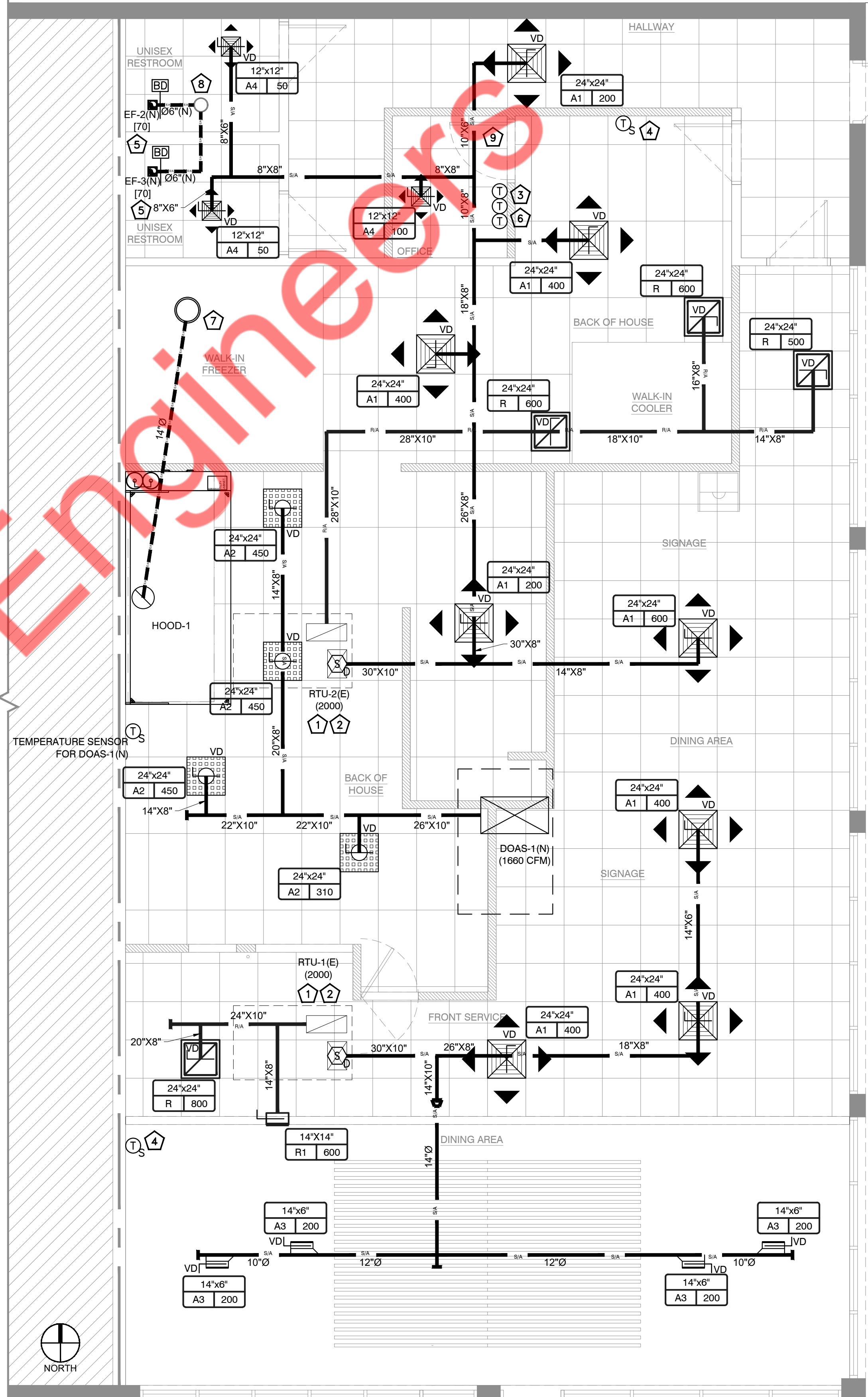
- A. CONTRACTOR SHALL BALANCE EACH DEVICE WITH THE CFM SHOWN ON PLAN.
- B. NEW DUCTWORK SHOWN ON PLAN ARE SCHEMATIC ONLY. CONTRACTOR SHALL COORDINATE WITH OTHER TRADES FOR PIPING AND DUCTWORK ROUTING, OFFSET AND RUN PIPING, DUCTWORK INSIDE THE STRUCTURE IF REQUIRED. PROVIDE ANY EXTRA PIPING, DUCTWORK, FITTINGS, INSULATIONS AND OTHER ACCESSORIES IN ORDER TO COMPLETE THE INSTALLATION.
- C. COORDINATE LOCATIONS AND SIZES OF INTAKE & EXHAUST OPENINGS WITH OWNER AND RESPECTIVE ENGINEER.
- D. EQUIPMENT SIZES, DIMENSIONS AND REQUIRED CONNECTIONS SHALL BE VERIFIED WITH THE ACTUAL EQUIPMENT SELECTED VENDOR DRAWINGS BEFORE FABRICATION OF DUCTWORK, PIPING ETC.
- E. DUCT SIZES SHOWN ON PLANS ARE CLEAR INSIDE AIR STREAM DIMENSIONS.
- F. CONTRACTOR SHALL COORDINATE ALL ELECTRICAL REQUIREMENTS FOR ALL HVAC BASED ON ACTUAL EQUIPMENT SELECTED PRIOR TO INSTALLATION.
- G. CONTRACTOR SHALL COORDINATE EQUIPMENT WEIGHTS AND SUPPORTS BASED ON ACTUAL EQUIPMENT SELECTED.
- H. COORDINATE WITH ALL TRADES FOR MATERIALS IN RATED AND PLENUM SPACES.
- I. ALL SOURCE OF MECHANICAL INTAKE SHALL MAINTAIN 10 LINEAR FEET SEPARATION BETWEEN ANY SOURCE OF EXHAUST. CONTRACTOR IS RESPONSIBLE TO ADJUST DUCT LENGTH AS NEEDED.
- J. MOUNT DUCTWORK AS HIGH AS POSSIBLE.
- K. TEST AND BALANCE AIR SYSTEMS. PROVIDE REPORT TO G.C AND OWNER.
- L. NEW DUCTWORK IN CONCEALED AREAS MAY BE RECTANGULAR WITH EQUIVALENT CROSS SECTIONAL FLOW AREA.
- M. PROVIDE FIRE OR FIRE+SMOKE DAMPER WHEREVER DUCTS ARE CROSSING FIRE/SMOKE RATED WALLS/BARRIERS. COORDINATE WITH ARCHITECTURAL DRAWINGS FOR FIRE RATINGS OF THE WALLS.
- N. ARCHITECTURAL LAYOUT AND DIMENSIONS FOR EQUIPMENT TO TAKE PRECEDENCE OVER MEP.
- O. LIMIT FLEXIBLE DUCT LENGTH TO 5 LINEAR FEET. MAKE SURE DUCT IS FULLY STRETCHED OUT WITH NO KINKS & SHARP BENDS.
- P. PROVIDE CORD OPERATED DAMPER IN INACCESSIBLE CEILING.
- Q. PROVIDE INTERNAL INSULATION FOR ALL EXPOSED DUCTWORK AND EXTERNAL FOR ALL DUCTWORK IN CONCEALED AREAS.

**KITCHEN EXHAUST NOTES**

- 1. PROVIDE CLEAN OUT AT ALL ELBOWS AND BOTTOM OF RISER AND EVERY 15 FEET HORIZONTAL KITCHEN EXHAUST DUCT.
- 2. COMMERCIAL KITCHEN GREASE DUCTS SHALL BE DESIGNED FOR THE TYPE-1 OF COOKING APPLIANCE AND HOOD SERVED.
- 3. IF NOT PROVIDED FACTORY FABRICATED THEN KITCHEN EXHAUST DUCT SHALL BE CONSTRUCTED OF 0.1046-INCH NO.16 GAUGE STEEL OR 0.0450-INCH NO. 18 STAINLESS STEEL.
- 4. JOINTS, SEAMS AND PENETRATIONS OF GREASE DUCTS SHALL BE MADE WITH A CONTINUOUS LIQUID TIGHT WELD OR BRAZE MADE IN THE EXTERNAL SURFACE IF THE DUCT SYSTEMS.
- 5. DUCT TO EXHAUST FAN CONNECTIONS SHALL BE FLANGED, GASKETED AND BOLTED TO THE INLET OF THE FAN FOR SIDE-INLET UTILITY FANS. APPROVED FLEXIBLE CONNECTIONS MAY BE PROVIDED.
- 6. A VIBRATION ISOLATION CONNECTOR FOR CONNECTING A DUCT TO A FAN SHALL CONSIST OF NON-COMBUSTIBLE PACKING IN A METAL SLEEVE JOINT OF APPROVED DESIGN OR SHALL BE A COATED-FABRIC FLEXIBLE DUCT CONNECTOR LISTED AND LABELED FOR THE APPLICATION. VIBRATION ISOLATION CONNECTORS SHALL BE INSTALLED ONLY AT THE CONNECTION OF A DUCT TO A FAN INLET OR OUTLET.
- 7. GREASE DUCT BRACING AND SUPPORTS SHALL BE OF NON-COMBUSTIBLE MATERIAL SECURELY ATTACHED TO THE STRUCTURE AND DESIGNED TO CARRY GRAVITY AND SEISMIC LOADS WITHIN THE STREET LIMITATIONS. BOLTS, SCREWS, RIVETS AND OTHER MECHANICAL FASTENERS SHALL NOT PENETRATE DUCT WALLS.
- 8. THE CLEANOUTS FOR HORIZONTAL GREASE DUCT SHALL BE LOCATED ON THE SIDE OF THE DUCT WITH THE OPENING NOT LESS THAN 1.5" ABOVE THE BOTTOM OF THE DUCT AND NOT LESS THAN 1" BELOW THE TOP OF THE DUCT.
- 9. GREASE DUCT SHALL BE PERMITTED TO BE ENCLOSED IN ACCORDANCE WITH INTERNATIONAL BUILDING CODE REQUIREMENT FOR SHAFT CONSTRUCTION. SUCH GREASE DUCT SYSTEM AND EXHAUST EQUIPMENT SHALL HAVE A CLEARANCE TO COMBUSTIBLE CONSTRUCTION NOT LESS THAN 18 INCHES AND SHALL HAVE A CLEARANCE TO NONCOMBUSTIBLE CONSTRUCTION AND GYPSUM WALLBOARD ATTACHED TO NONCOMBUSTIBLE STRUCTURES OF NOT LESS THAN 6 INCHES.
- 10. PROVIDE 2 LAYERS OF 1.5" FIRE WRAP AROUND KITCHEN EXHAUST GREASE DUCTS.
- 11. PROVIDE MANUAL PULL STATION IN EGRESS PATH IN CASE OF EMERGENCY FOR SHUTTING OFF HOOD AND FANS.

**KEYED NOTES**

- 1. EXTEND FULL SIZE SUPPLY AND RETURN DUCTWORK FROM EXISTING ROOFTOP UNIT TO SPACE, EXTEND AS SHOWN. CONTRACTOR TO FIELD VERIFY EXACT LOCATION AND SIZE.
- 2. EXISTING SMOKE DETECTOR TO REMAIN AND REUSED. IF NOT FOUND OR NOT REUSABLE, PROVIDE SMOKE DETECTOR IN SUPPLY DUCT TO SHUT DOWN CORRESPONDING UNIT UNDER ALARM CONDITIONS. ALL WIRING SHALL BE IN CONDUIT PER NRC SMOKE DETECTOR SHALL BE SYSTEM SENSOR MODEL DH100ACDCLP.
- 3. RELOCATE THE EXISTING THERMOSTAT AT SHOWN LOCATION. IF NOT REUSABLE, PROVIDE NEW 7-DAY PROGRAMMABLE THERMOSTAT. MOUNT ON WALL AT 48" A.F.F. COORDINATE EXACT LOCATION WITH ARCHITECT AND OWNER PRIOR TO ROUGH-IN. PROVIDE LOCKABLE COVER.
- 4. PROVIDE NEW REMOTE TEMPERATURE SENSOR. MOUNT ON WALL AT 72" A.F.F. AVOID LOCATING NEAR DIRECT SOURCE OF HEAT. CONFIRM FINAL LOCATION OF TEMPERATURE SENSOR WITH ARCHITECT/CLIENT.
- 5. CEILING MOUNTED EXHAUST FAN. FAN SHALL BE SUSPENDED FROM STRUCTURE ABOVE. VERIFY EXACT LOCATION OF STRUCTURAL MEMBERS PRIOR TO INSTALLATION.
- 6. PROVIDE NEW 7-DAY PROGRAMMABLE THERMOSTAT FOR DOAS-1(N). MOUNT ON WALL AT 48" A.F.F. COORDINATE EXACT LOCATION WITH ARCHITECT AND OWNER PRIOR TO ROUGH-IN. PROVIDE LOCKABLE COVER.
- 7. 14" Ø TYPE-1 KITCHEN EXHAUST DUCT FROM HOOD TO FAN LOCATED ON ROOF. CONTRACTOR TO FIELD VERIFY THE DUCT ROUTING AND FAN LOCATION. DUCT SHALL BE SLOPED 1/4" UNIT, VERTICAL IN 12" UNIT HORIZONTAL TOWARD HOOD.
- 8. 08" EXHAUST DUCT UP TO ROOF.
- 9. PROVIDE 1/2" DOOR UNDERCUT.

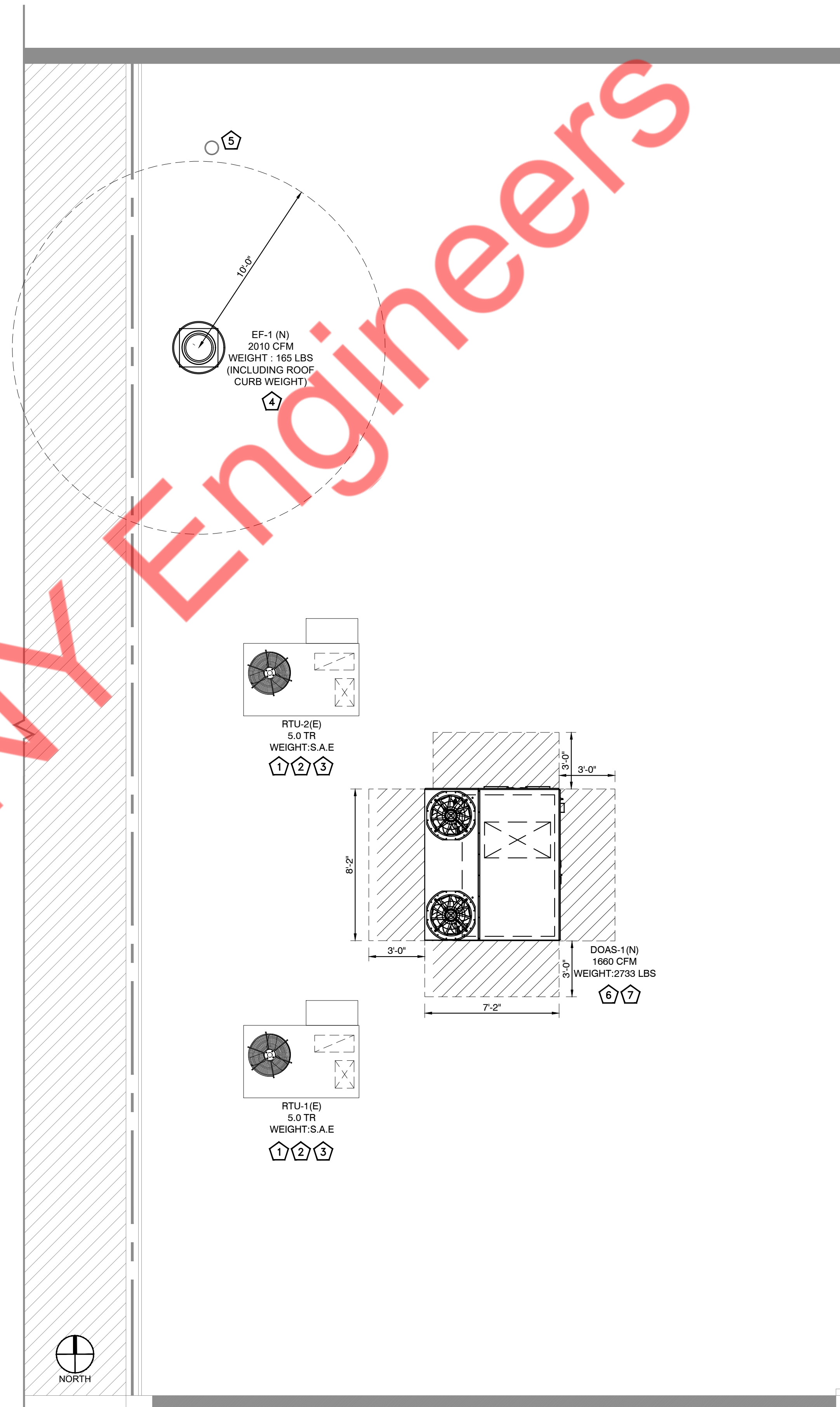


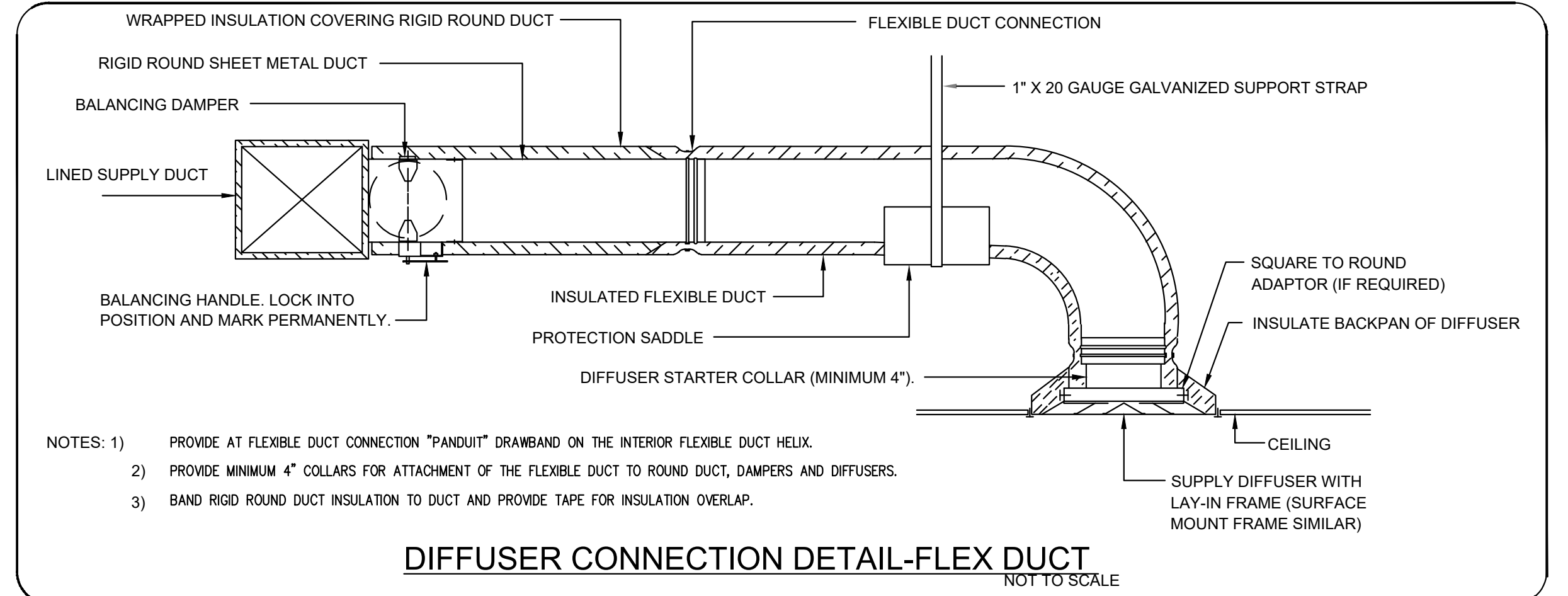
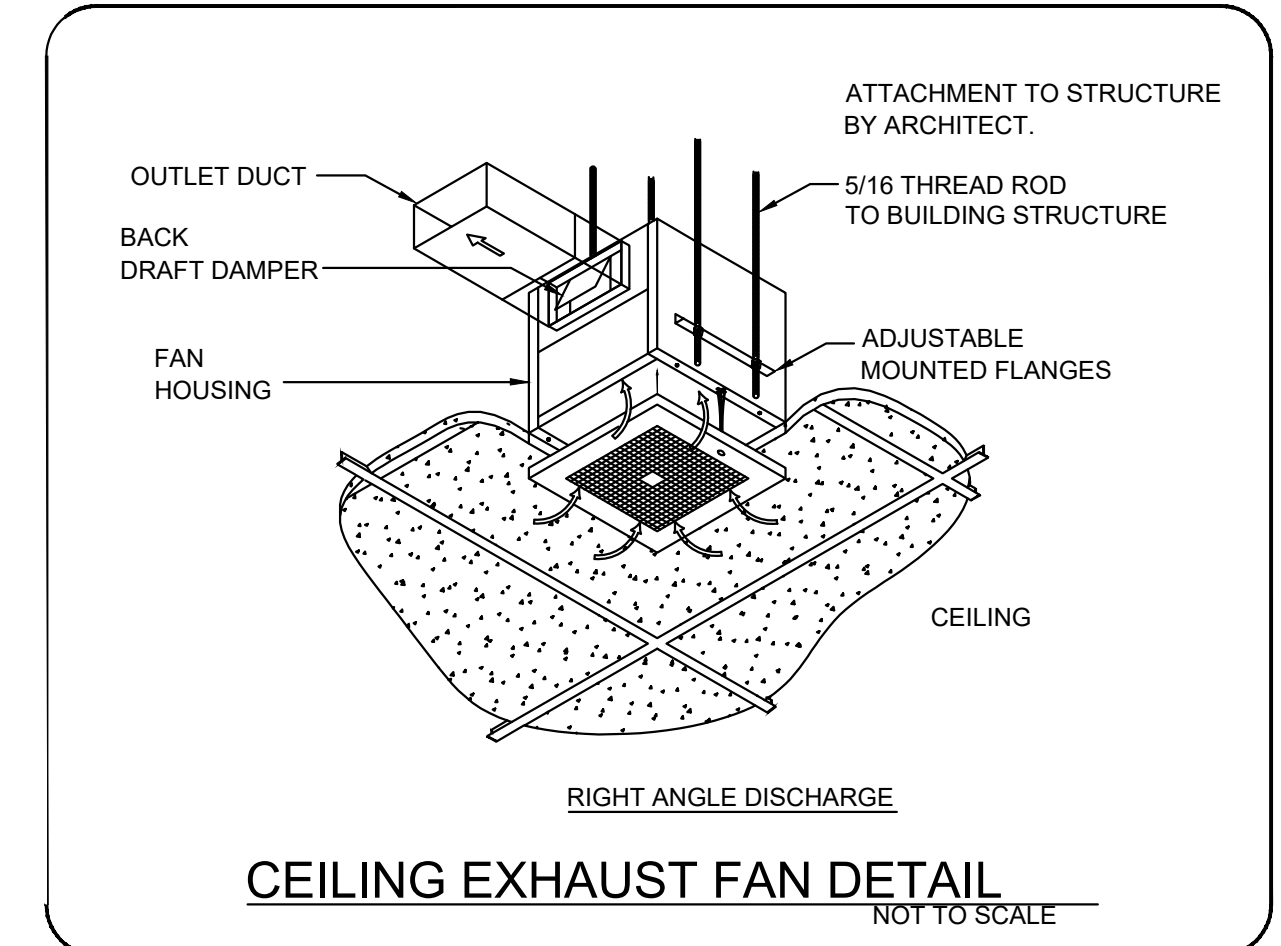
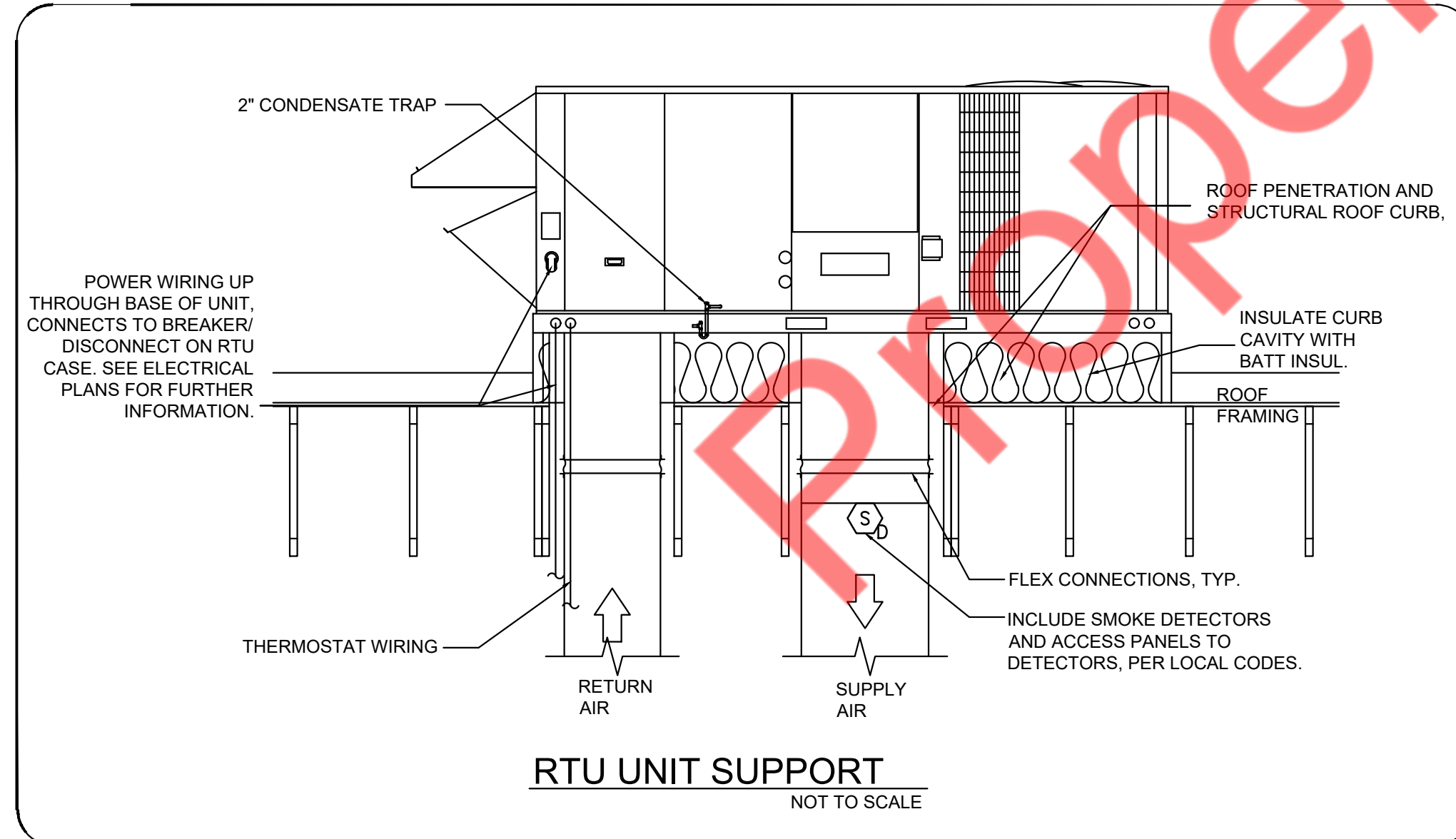
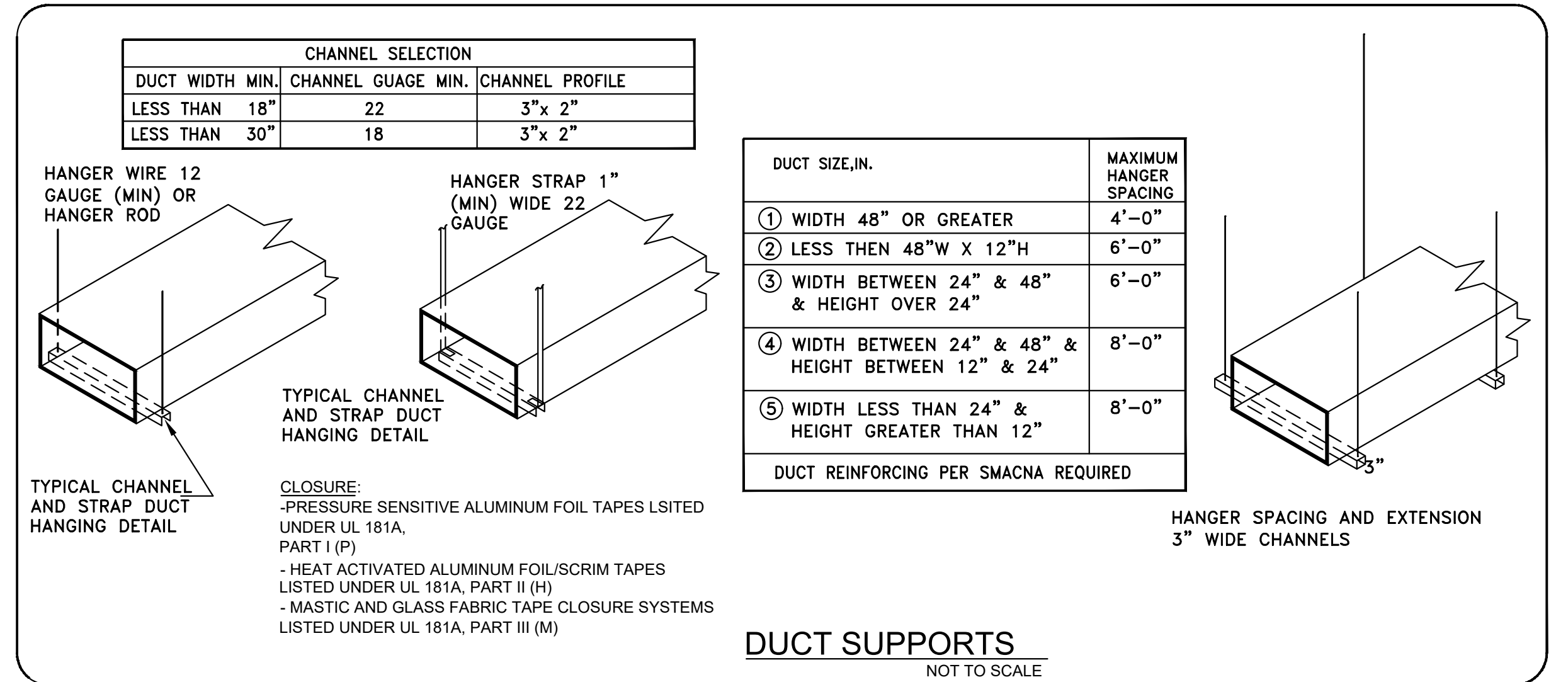
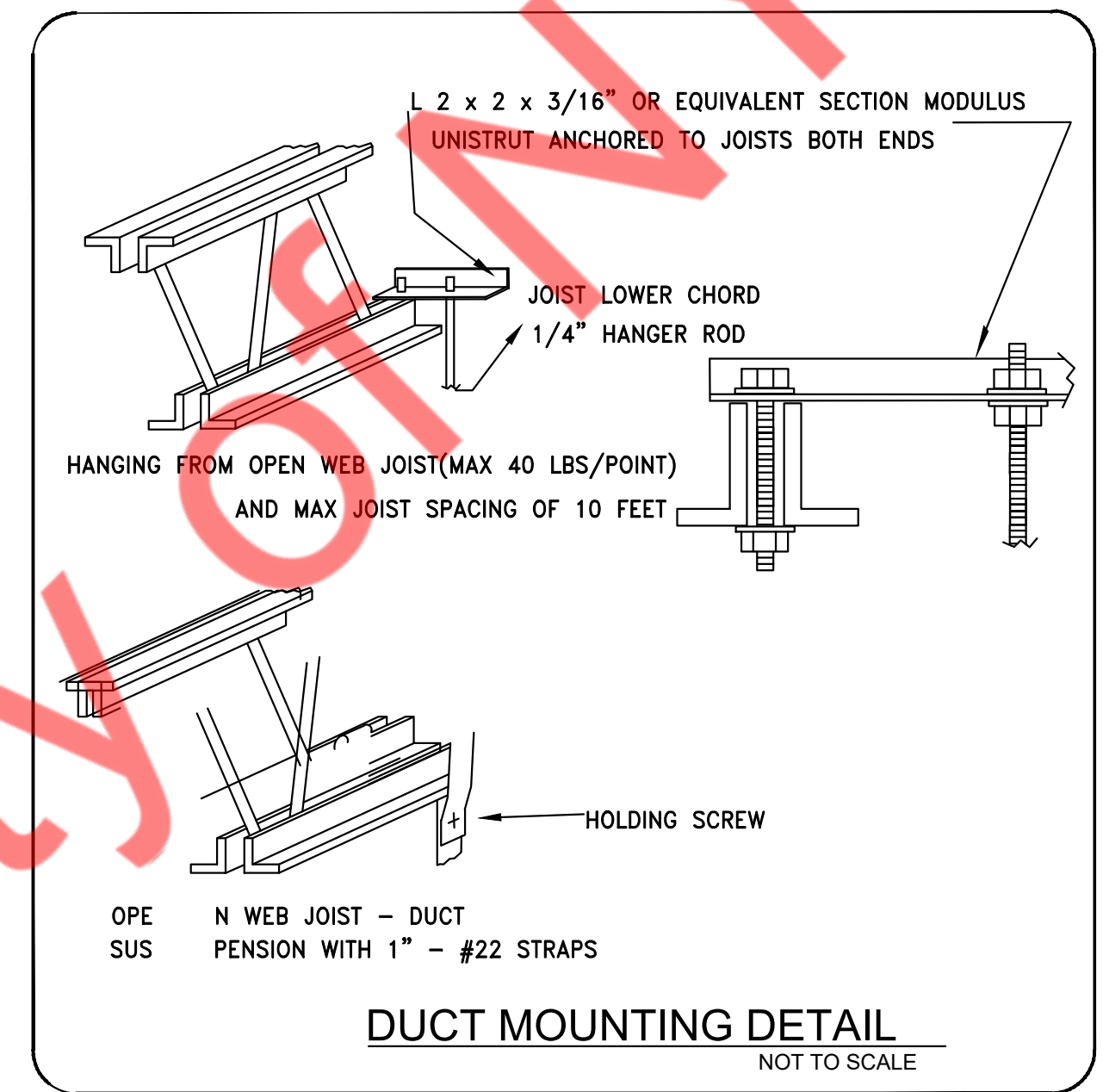
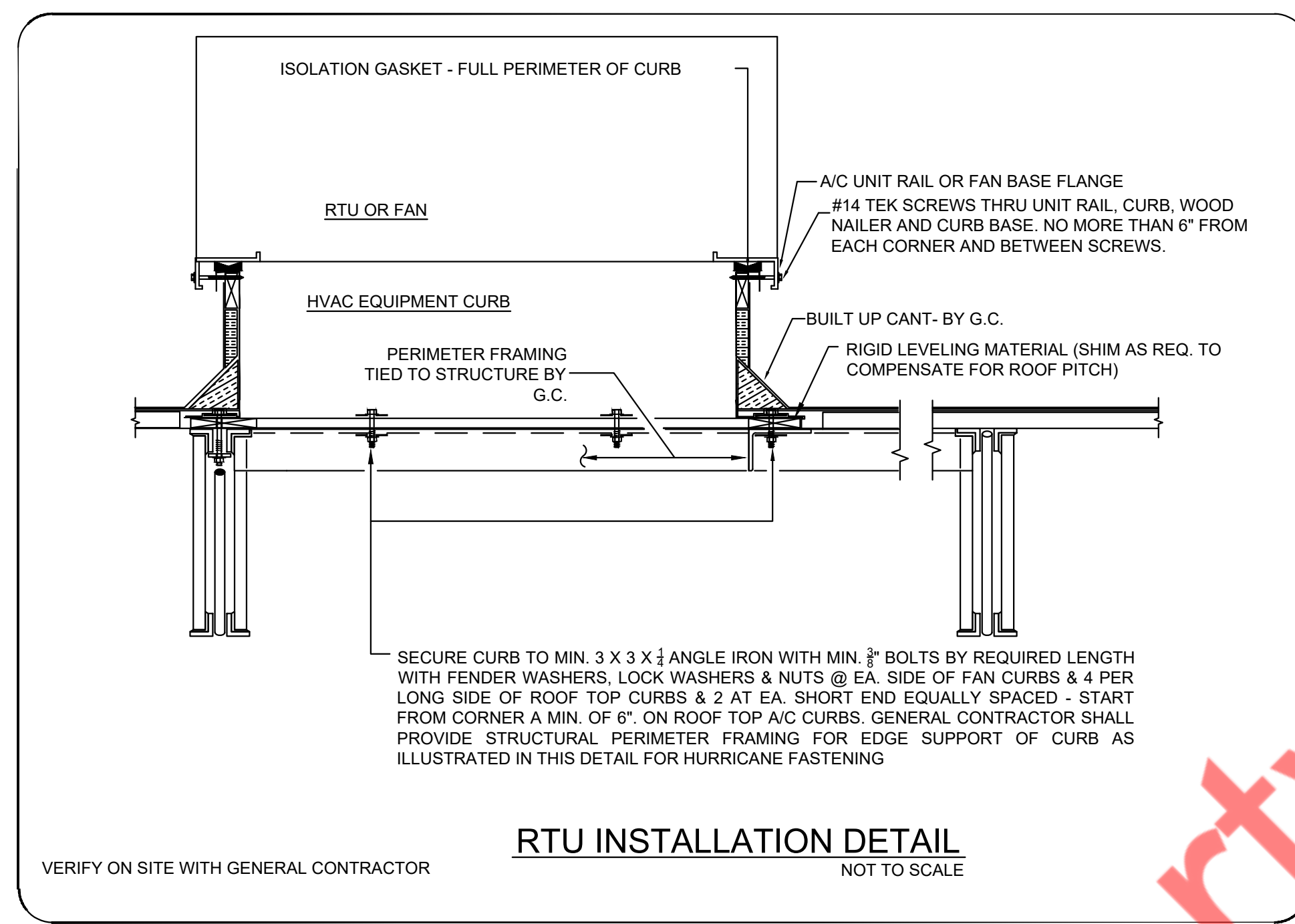
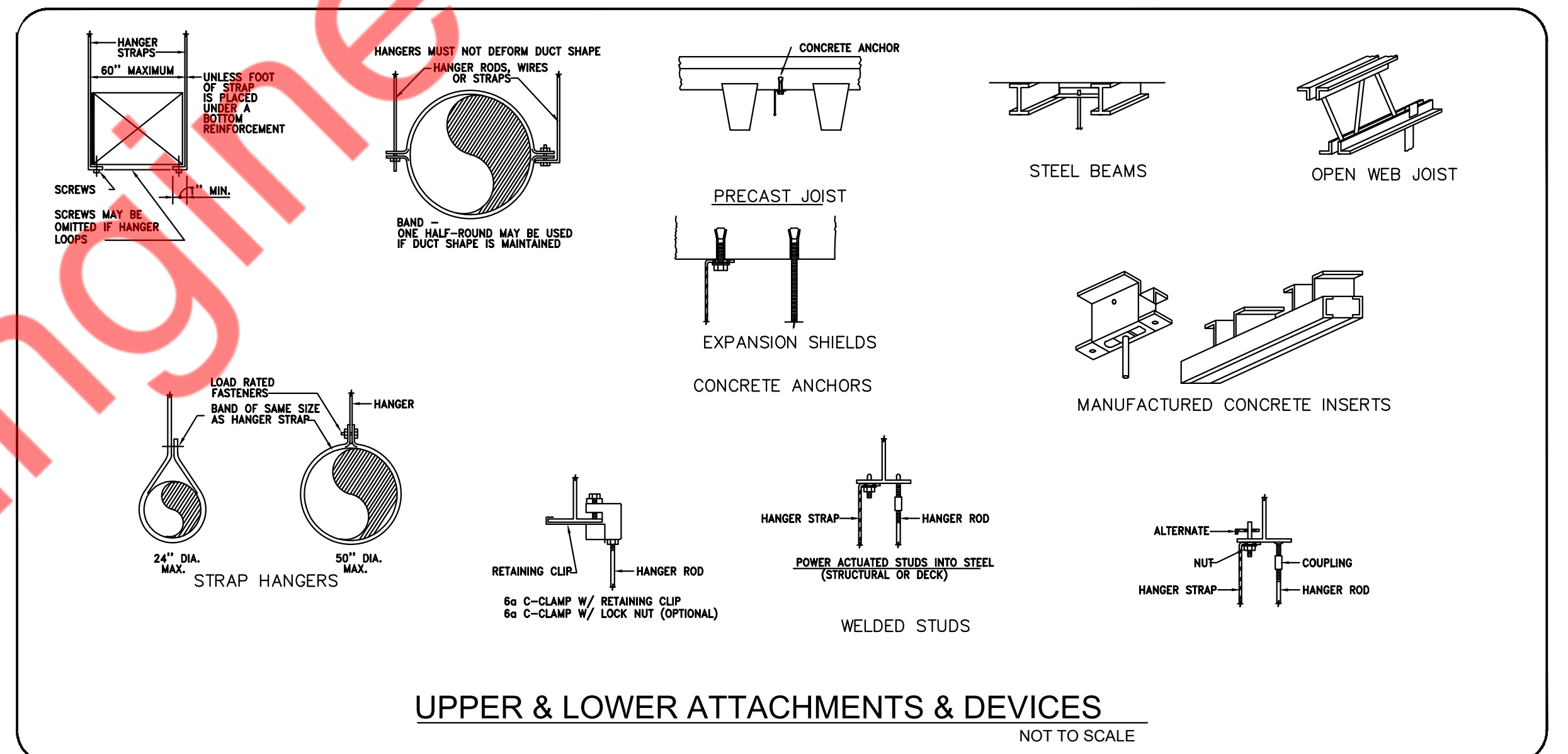
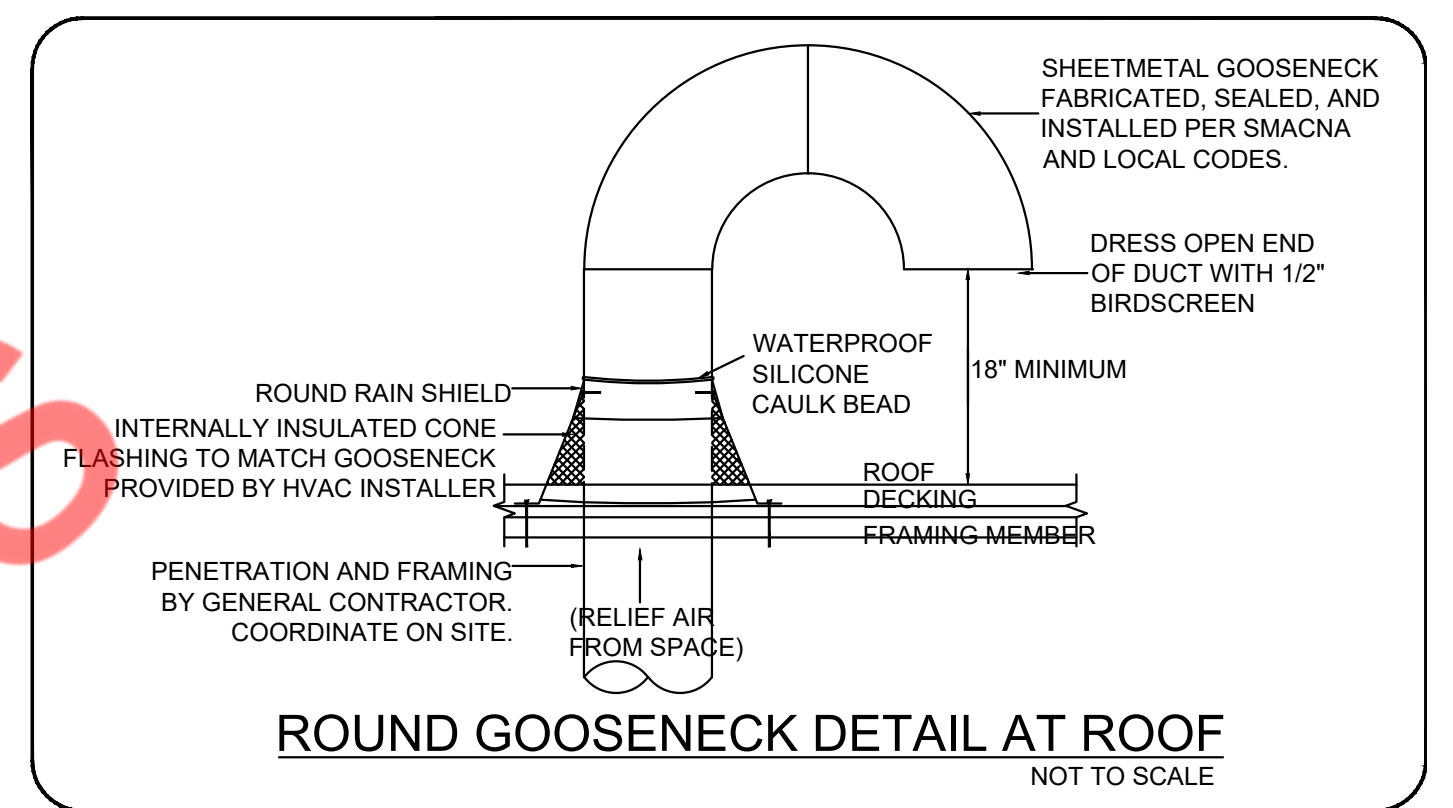
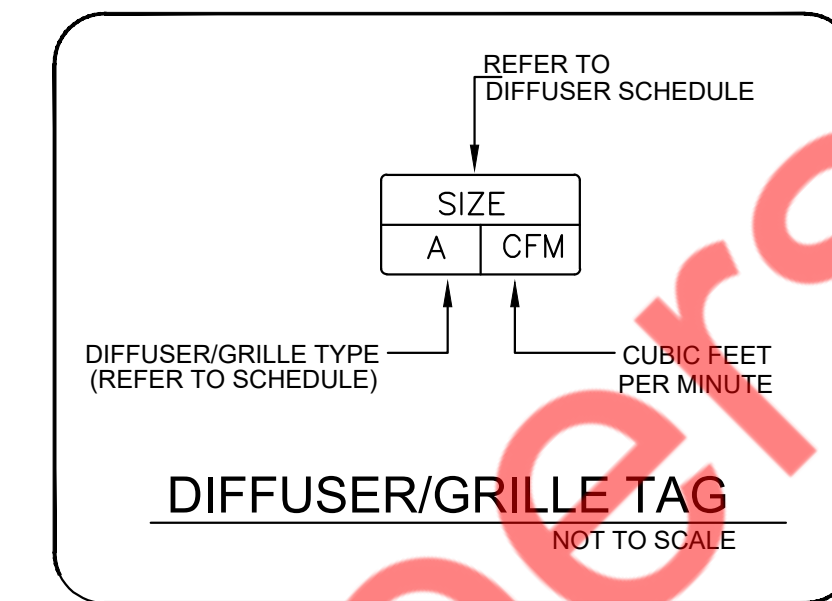
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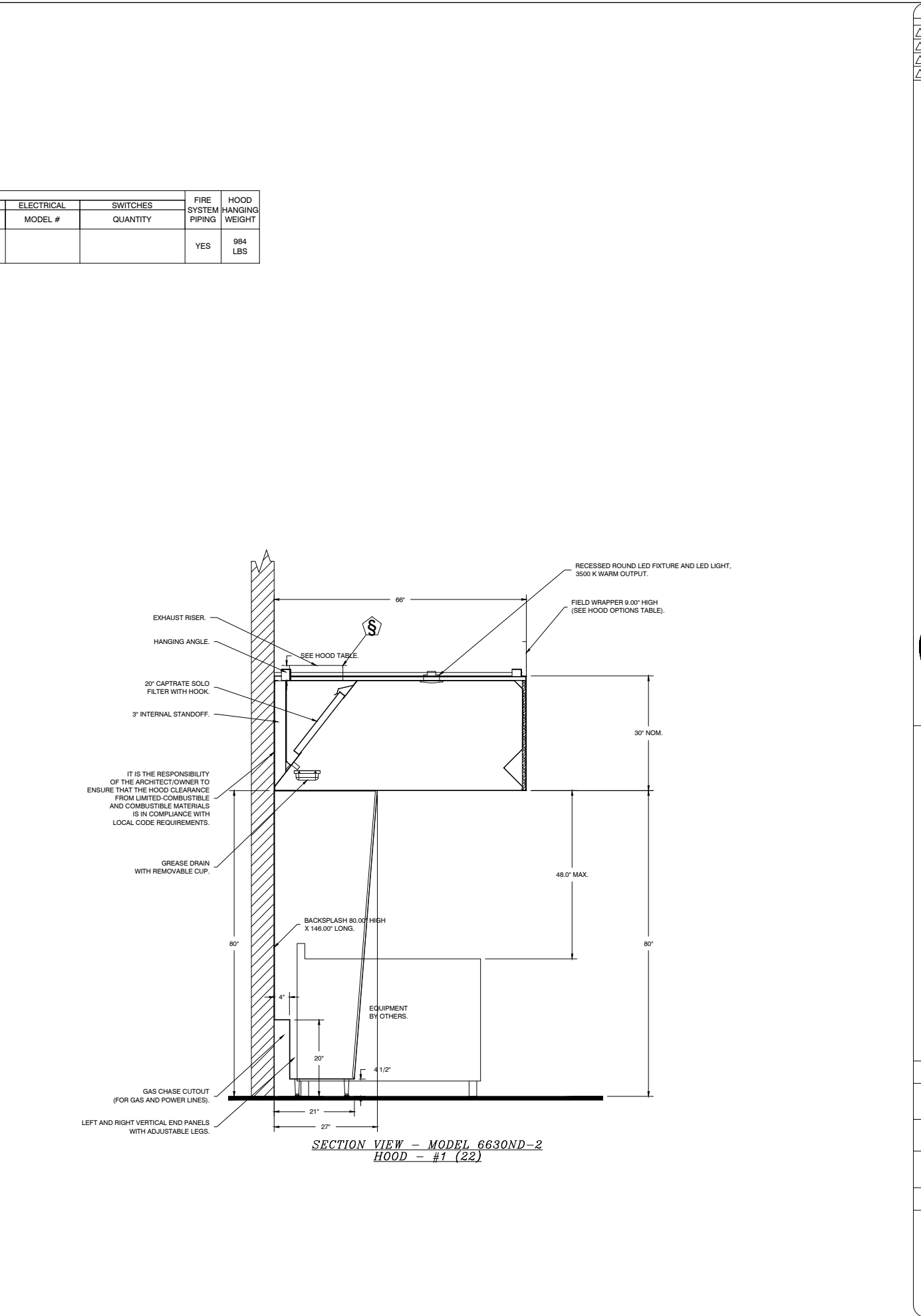
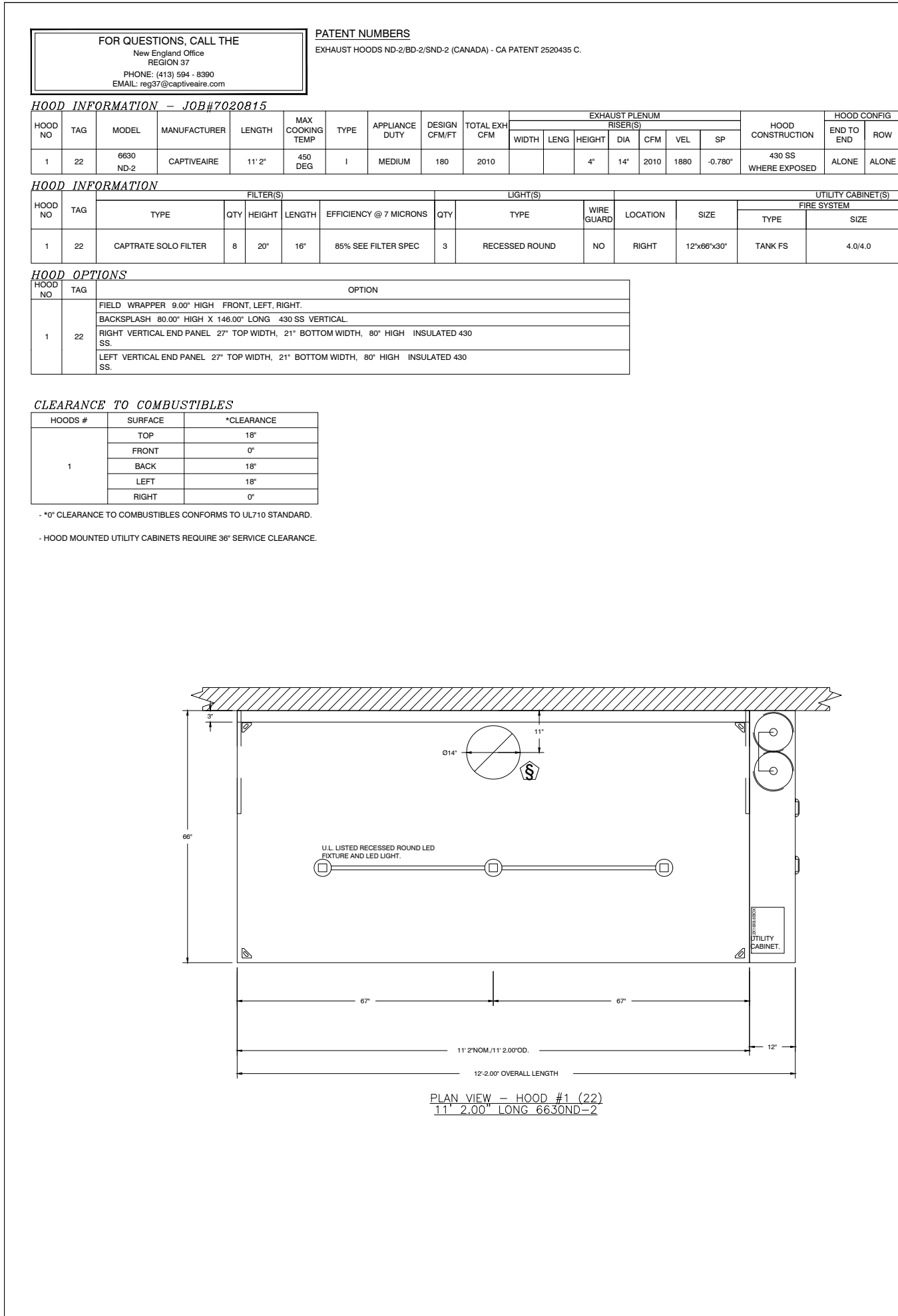
- A. COORDINATE LOCATIONS AND SIZES OF ROOF OPENINGS WITH OWNER AND STRUCTURAL ENGINEERS.
- B. EQUIPMENT SIZES, DIMENSIONS AND REQUIRED CONNECTIONS SHALL BE VERIFIED WITH THE ACTUAL EQUIPMENT SELECTED. VERIFY EXACT LOCATION AND CONFIGURATION ON SITE. CLEAN AND REFURBISH TO "LIKE-NEW" CONDITION. REPAIR/REPLACE ANY ACCESSORIES AS REQUIRED TO PROVIDE A FULLY FUNCTIONING.
- C. CONTRACTOR SHALL COORDINATE ALL ELECTRICAL REQUIREMENTS FOR ALL HVAC BASED ON ACTUAL EQUIPMENT SELECTED PRIOR TO INSTALLATION.
- D. ALL SOURCE OF MECHANICAL INTAKE SHALL MAINTAIN 10 LINEAR FEET SEPARATION BETWEEN ANY SOURCE OF EXHAUST. CONTRACTOR IS RESPONSIBLE TO ADJUST DUCT LENGTH AS NEEDED.
- E. PATCH THE EXTRA PENETRATIONS AS & IF REQUIRED OR CUT AN EXTRA PORTION OF THE ROOF IF EXISTING PENETRATION IS NOT FEASIBLE/WORKABLE. COORDINATE WITH ROOFING AND MECHANICAL CONTRACTOR.
- F. EXHAUST SHALL TERMINATE 3 FEET FROM THE PROPERTY LINE, 3 FEET FROM THE EXTERIOR WALL AND ROOFS, 3 FEET FROM THE OPERABLE OPENING INTO THE BUILDING AND 10 FEET FROM THE OUTSIDE AIR INTAKE OPENINGS.
- G. MATERIAL FROM EXISTING SYSTEM WHICH IS RENDERED USELESS SHALL BE REMOVED AND DISPOSED OF OFF SITE.

### KEY NOTES

1. EXISTING RTU ALONG WITH ALL ITS ACCESSORIES TO REMAIN AND TO BE REUSED. CONTRACTOR TO FIELD VERIFY EXACT LOCATION AND CONFIGURATION ON SITE. CLEAN AND REFURBISH TO "LIKE-NEW" CONDITION. REPAIR/REPLACE ANY ACCESSORIES AS REQUIRED TO PROVIDE A FULLY FUNCTIONING.
2. CONTRACTOR TO SET OUTSIDE AIR AS INDICATED ON RTU SCHEDULE. CONTRACTOR SHALL SCRIBE INTO UNIT POSITION OF OUTSIDE AIR DAMPER AND LABEL OUTSIDE AIR VOLUME AND PERCENTAGE OF OUTSIDE AIR. CONTRACTOR TO PROVIDE OUTSIDE AIR INTAKE ON RTU IF NOT FOUND. VERIFY IN FIELD PRIOR TO BID.
3. CONDENSATE DRAIN TO REMAIN AS IT IS FOR EXISTING RTU. CONTRACTOR TO FLUSH AND CLEAN EXISTING DRAIN. CONTRACTOR TO REPAIR/REPLACE WITH SIMILAR KIND IF FOUND DAMAGED.
4. CONTRACTOR TO INSTALL KITCHEN EXHAUST FAN ON ROOF WITH REQUIRED ACCESSORIES AND AS PER MANUFACTURER RECOMMENDATION. MAINTAIN MINIMUM 10'-0" DISTANCE FROM ANY OUTSIDE AIR INTAKE SOURCE.
5. 8" EXHAUST AIR DUCT FROM FIRST FLOOR TERMINATE WITH GOOSENECK AND BIRD SCREEN. MAINTAIN MINIMUM 10'-0" DISTANCE FROM ANY OUTSIDE AIR INTAKE SOURCE.
6. CONTRACTOR TO INSTALL DOAS UNIT ON ROOF WITH REQUIRED ACCESSORIES AND AS PER MANUFACTURER RECOMMENDATION. COORDINATE FINAL LOCATION EQUIPMENT WITH ARCHITECT/OWNER.
7. CONDENSATE DRAIN FROM DOAS SHALL BE CONVEYED TO AN APPROVED PLACE OF DISPOSAL. SUCH PIPING SHALL MAINTAIN A MINIMUM HORIZONTAL SLOPE IN THE DIRECTION OF DISCHARGE OF NOT LESS THAN THE 1/8TH UNIT VERTICAL IN 12 UNITS HORIZONTAL (1% SLOPE). CONDENSATE SHALL NOT DISCHARGE INTO A STREET, ALLEY OR OTHER AREAS SO AS TO CAUSE A NUISANCE.







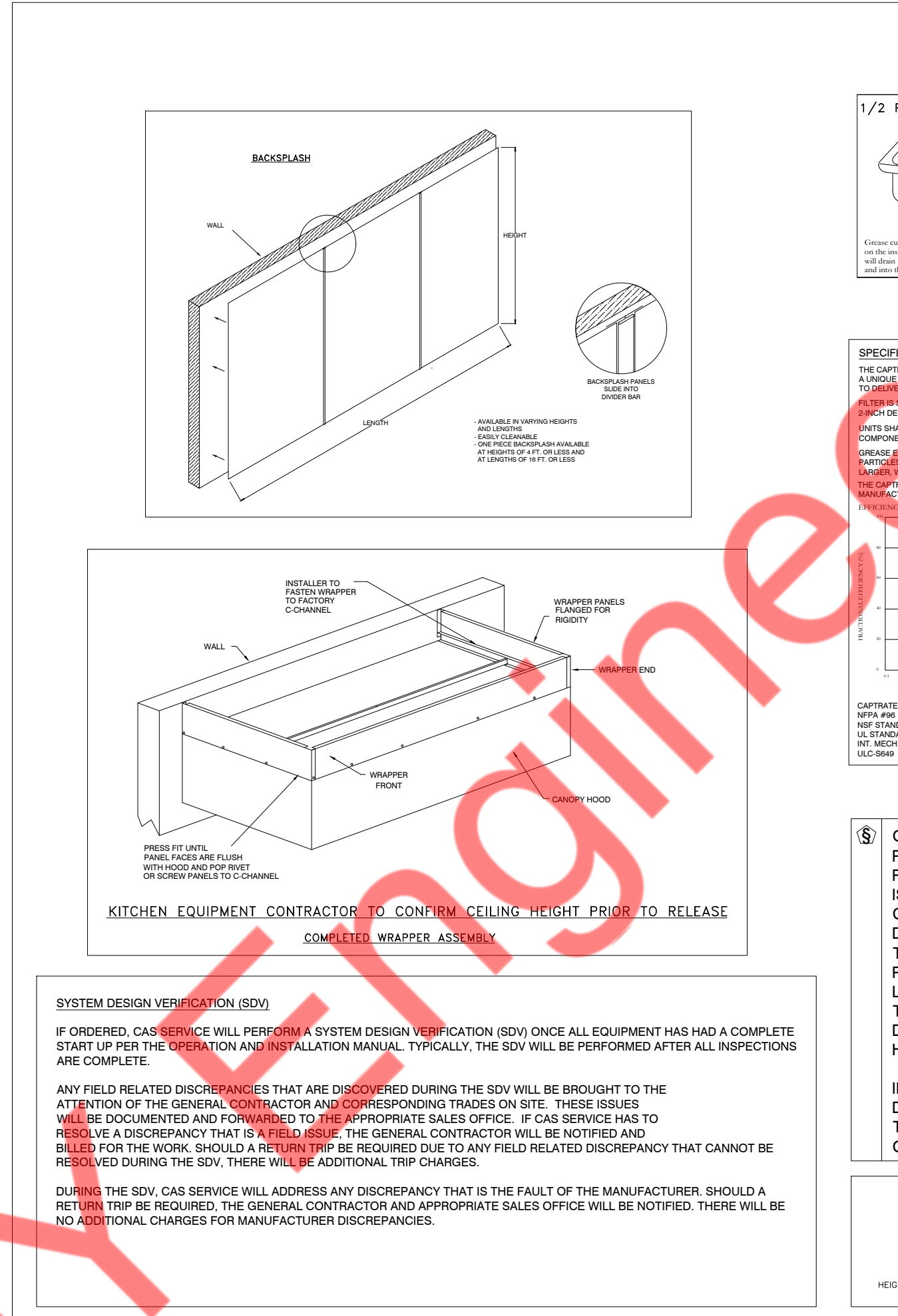
**REVISIONS**

**CAPTIVEAIRE**  
 New England Office  
 1155 Malabar Road, Palm Bay, FL 32907

Juici Patties  
 1155 Malabar Road,  
 Palm Bay, FL 32907

DATE: 9/5/2024  
 DWG. #: 700815  
 DRAWN BY: MFG-37  
 SCALE: 3/4" = 1'-0"  
 MASTER DRAWING

SHEET NO. 1



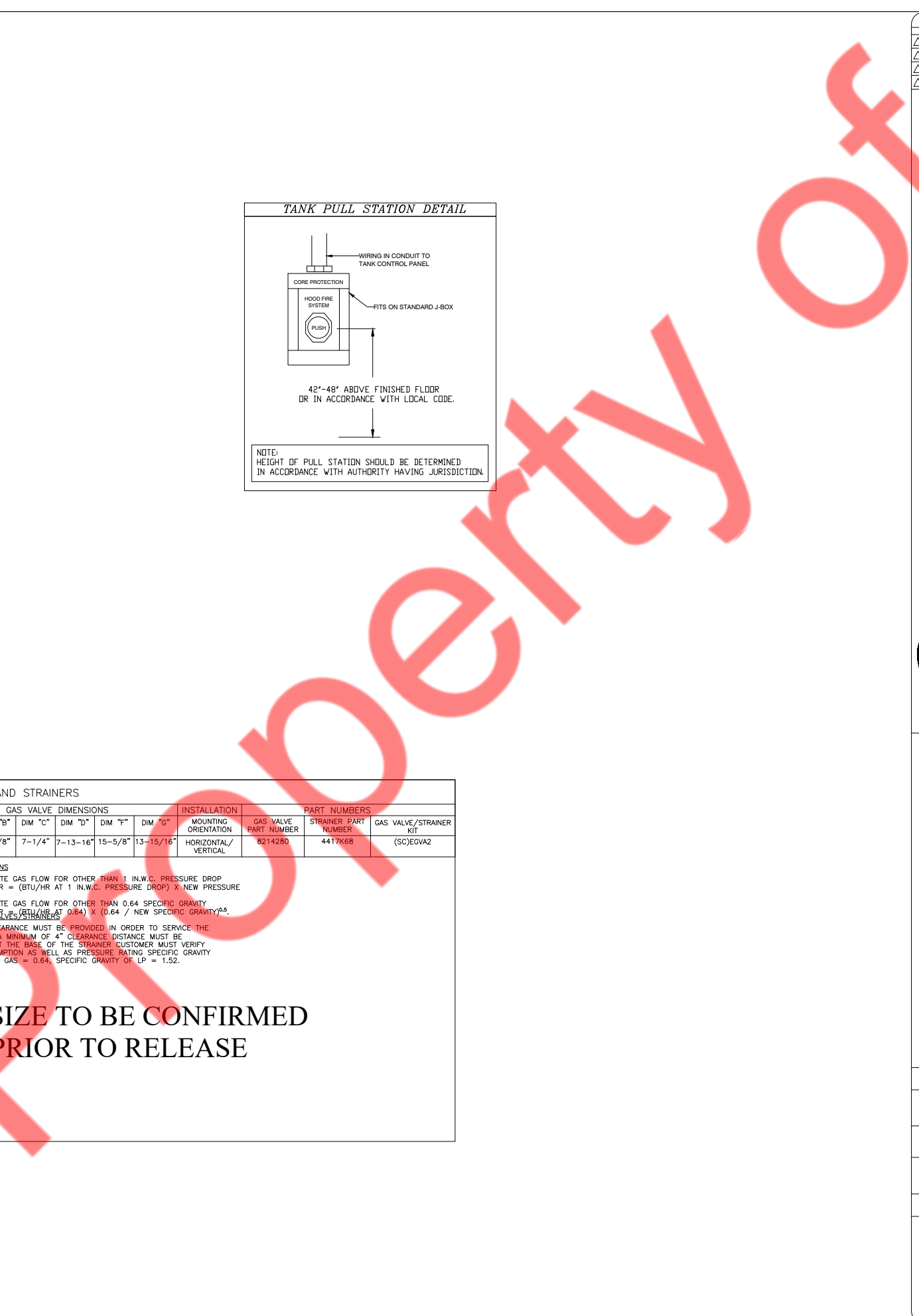
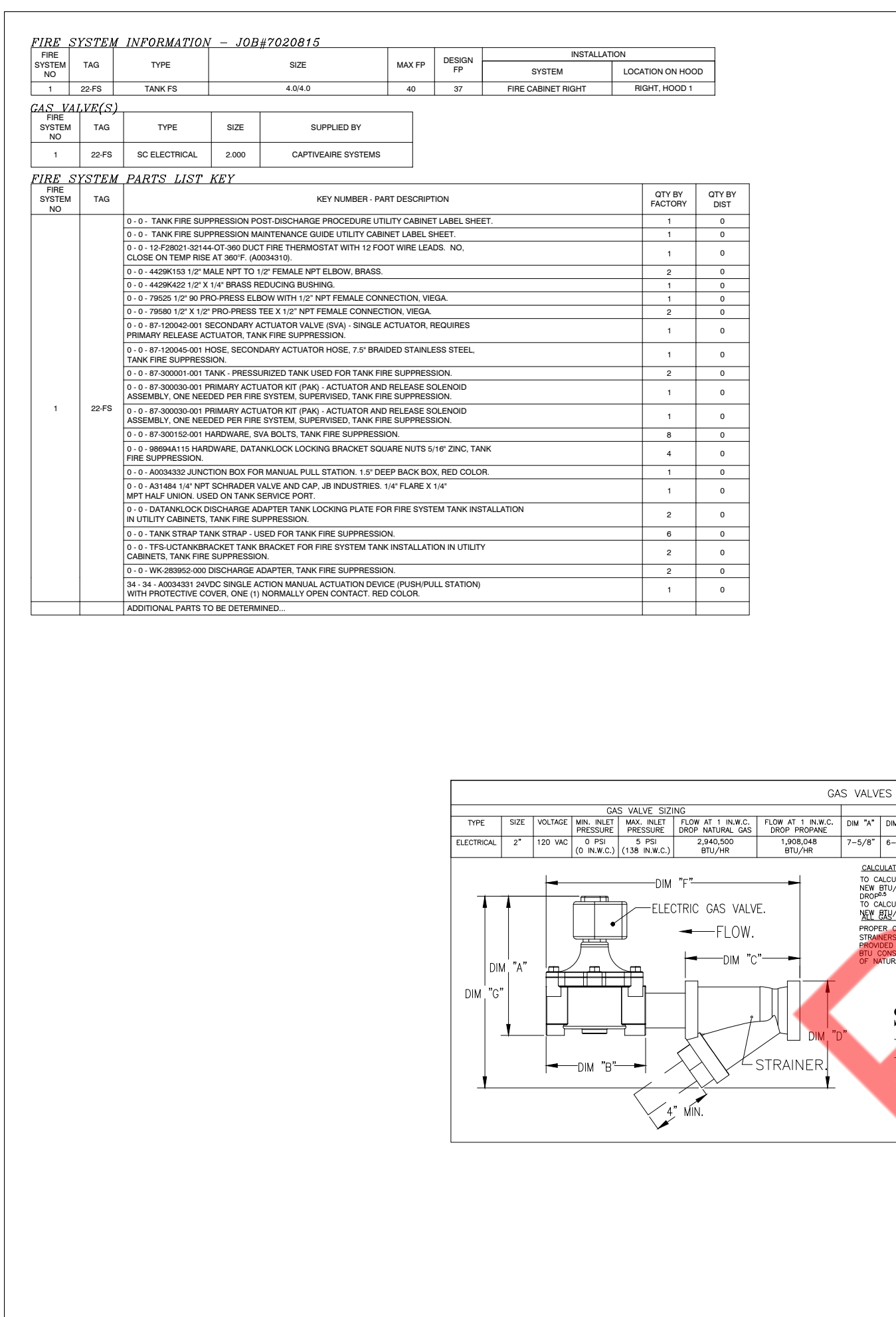
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SHEET NO. 2



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 DRAWN BY: MFG-37  
 SCALE: 3/4" = 1'-0"  
 MASTER DRAWING

SHEET NO. 3

EXHAUST FAN INFORMATION - JOB#700815															
FAN TAG	NO.	CITY	FAN UNIT MODEL #	MANUFACTURER	CFM	ESP	MOTOR HP	MP	BHP	PHASE	VOLT	FLA	DISCHARGE	WEIGHT	BOXES
1	22.1	1	DUMPER	CAPTIVEAIRE	2000	0.800	1419	TEAD	400	0.0176	1	208	0.9	600 LBS	14

DOAS/RTU FAN SCHEDULE - JOB#700815															
FAN TAG	NO.	CITY	DOAS/RTU MODEL #	MANUFACTURER	RETURN AIR FLOW (CFM)	MAX. EXHAUST CFM	TOTAL WEIGHT (LBS)	DISCHARGE (INCHES)	WEIGHT (LBS)	DISCHARGE	WEIGHT (LBS)	DISCHARGE	WEIGHT (LBS)	DISCHARGE	WEIGHT (LBS)
2	22.2	1	CAS CHANX150-10-10T	CAPTIVEAIRE	150	150	2000	0.800	1419	TEAD	400	0.0176	1	208	0.9

FAN ACCESSORIES															
FAN TAG	NO.	DESCRIPTION													
1	22.1	1	3/4" WIDING												
		2	1/2" WIDING												
		3	1/4" WIDING												

FAN SOUND DATA															
FAN TAG	NO.	MOTOR	CFM	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE					
1	22.1	EXHAUST	772	13.562626566	3.2	75.3	36.5	91.3	79.2	86.2	86	86	86	86	86

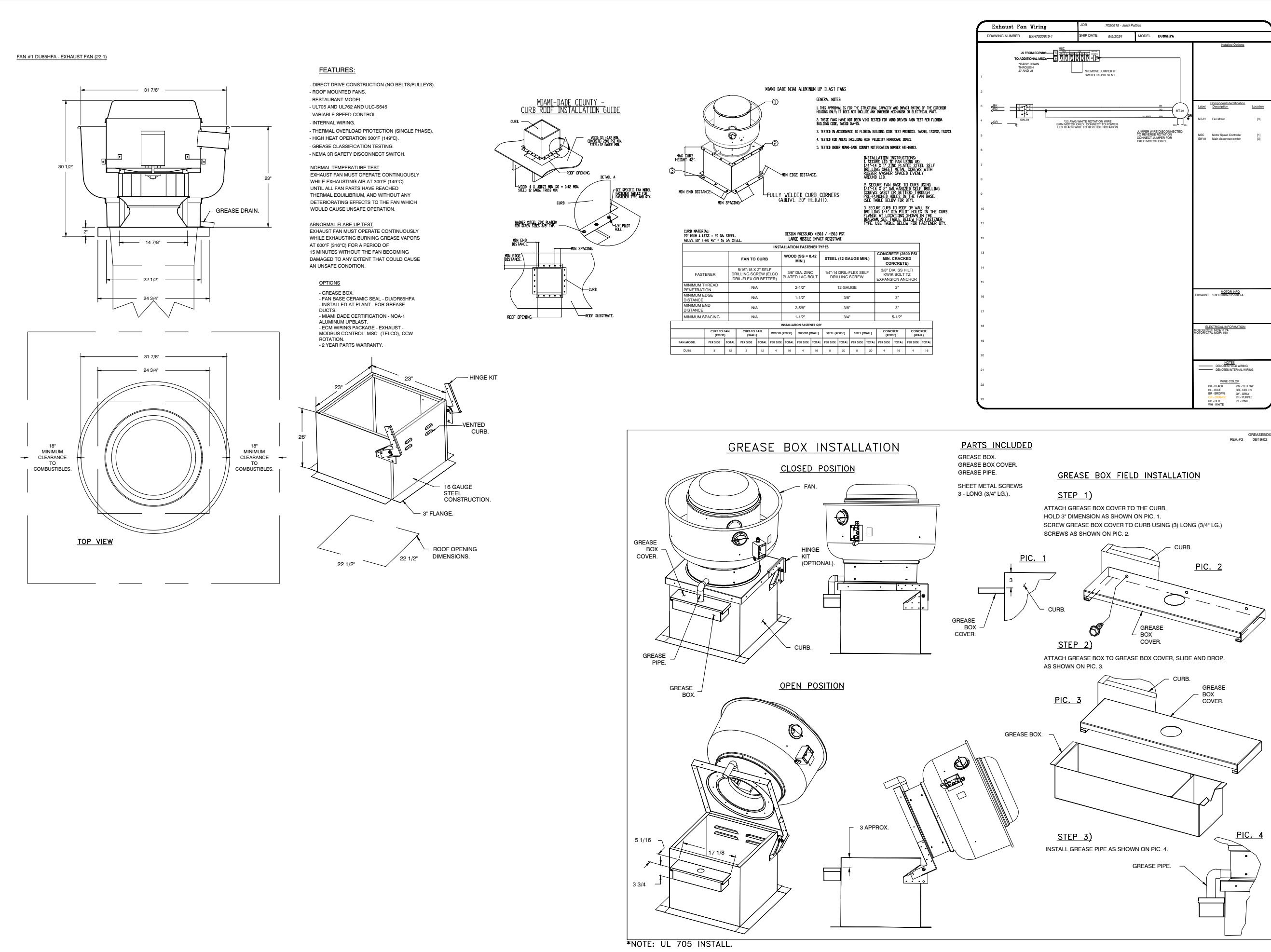
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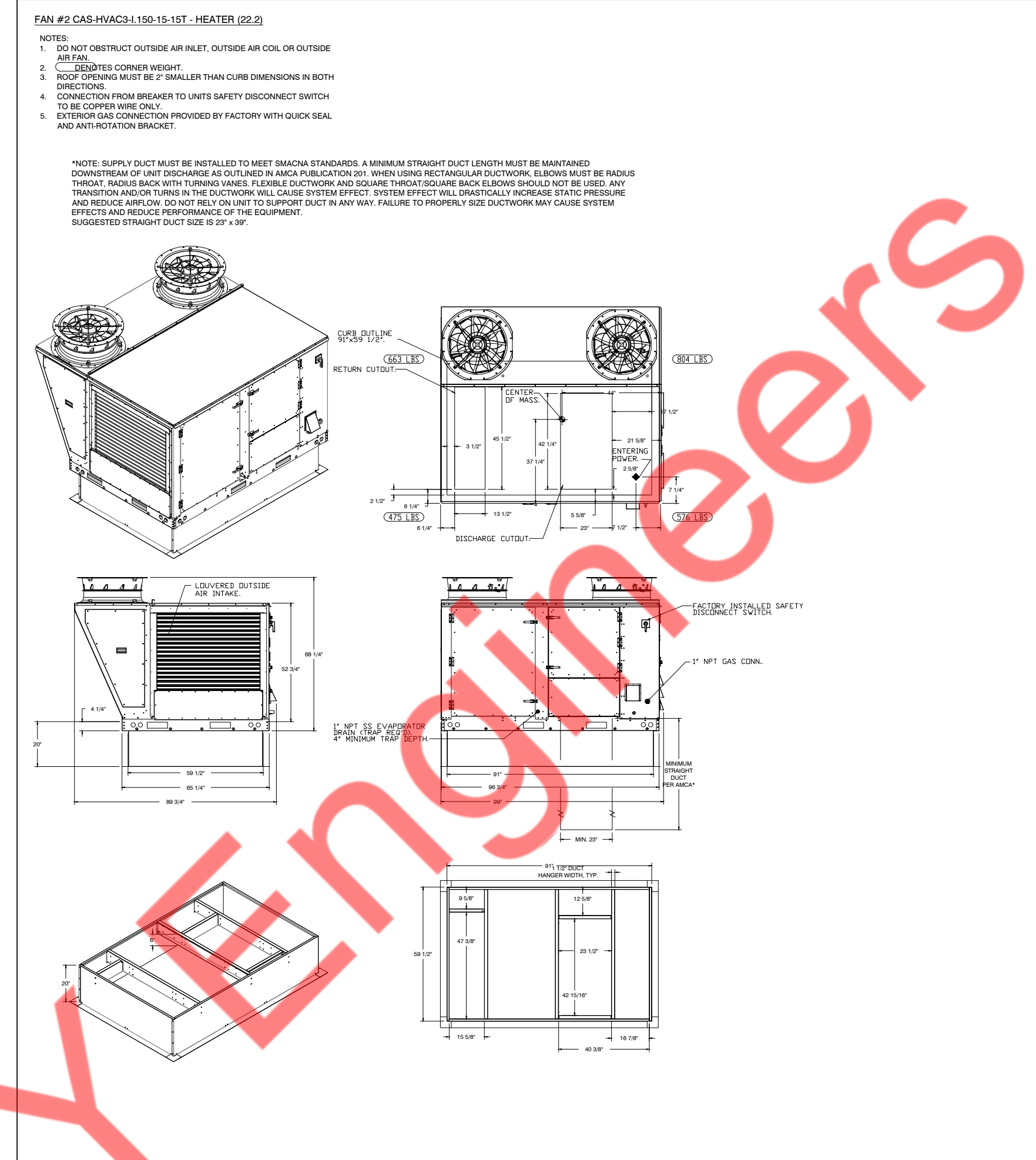
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SHEET NO. 4



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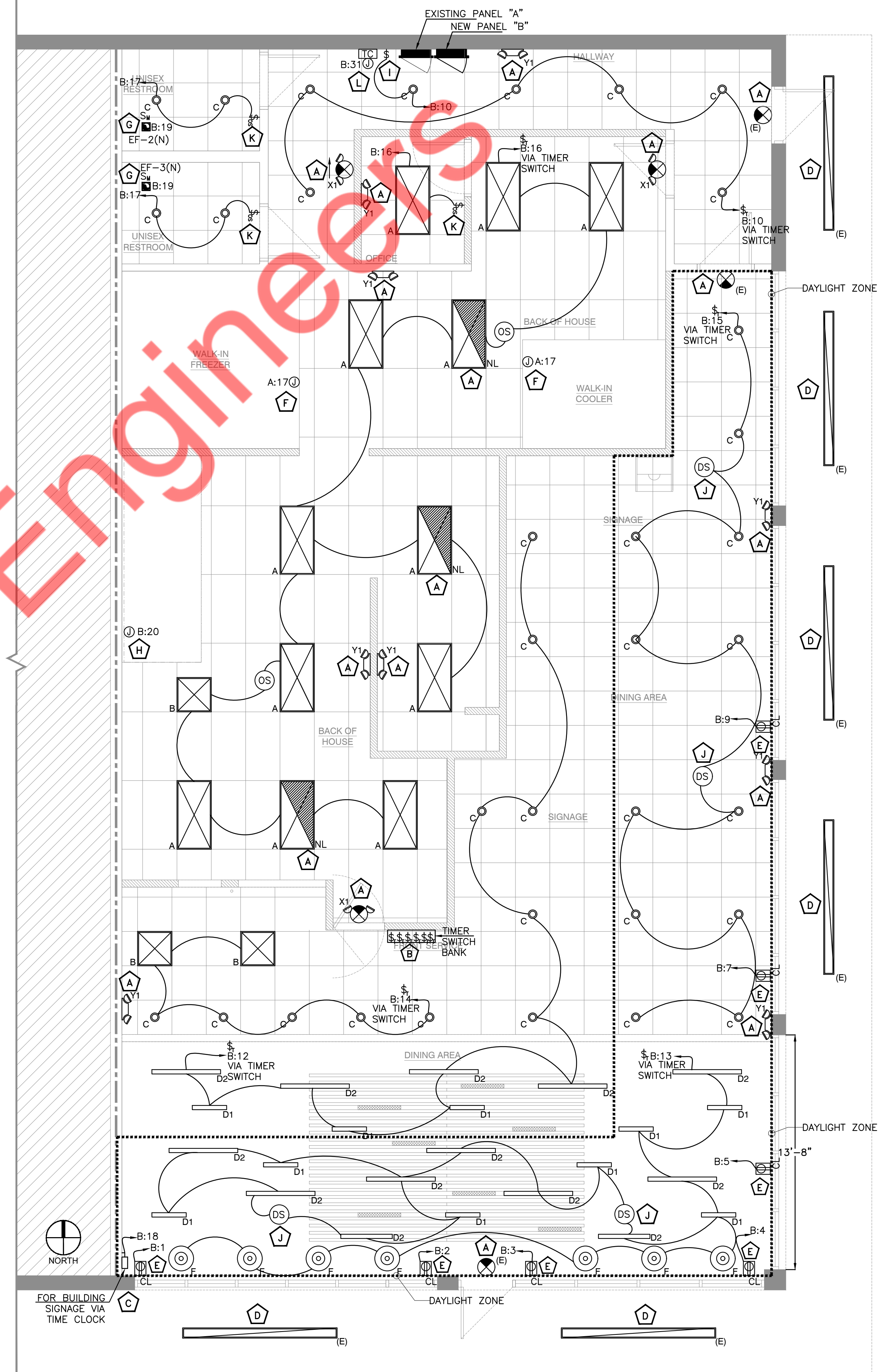


**ELECTRICAL LIGHTING PLAN GENERAL NOTES:**

1. CONTRACTOR ADVISED TO UPDATE THE EMERGENCY LIGHT FIXTURES LOCATIONS/QUANTITY PER SITE REQUIREMENT UP ON FINAL INSPECTION OR PER LOCAL AHJ REQUIREMENT.
2. PROVIDE MANUAL OVERRIDE SWITCH AS PER IECC C405.2.2.1
3. (E) IN THE PLAN INDICATES EXISTING TO REMAIN.

**ELECTRICAL LIGHTING PLAN KEYED WORK NOTES:**

- (A) CONNECT ALL EMERGENCY EGRESS LIGHTING FIXTURES TO THE NEAREST LIGHTING BRANCH CIRCUIT AHEAD OF ALL SWITCHING AND CONTROLS PER STATE AND LOCAL CODES.
- (B) COORDINATE EXACT LOCATION OF TIMER SWITCH BANK WITH OWNER/ARCHITECT.
- (C) EXTERIOR SIGNAGE. E.C SHALL COORDINATE EXACT POWER REQUIREMENT, EXACT LOCATION & MOUNTING DETAILS WITH OWNER & SIGN VENDOR.
- (D) EXISTING LIGHT FIXTURE IN THIS AREA DENOTED BY (E) SHALL REMAIN CONNECTED TO THE RESPECTED EXISTING ELECTRICAL HOUSE PANEL ALONG WITH THEIR CONTROLS. E.C. SHALL VERIFY THE CONTROLS IN FIELD AND REPLACE IF FOUND INOPERABLE. BASE BID ACCORDINGLY.
- (E) PROVIDE SHOW WINDOW RECEPTACLE AS PER N.E.C. 210.62. VERIFY EXACT LOCATION WITH ARCHITECT.
- (F) E.C. SHALL PROVIDE JUNCTION BOX AND CIRCUIT FOR WALK-IN BOX FREEZER/COOLER. LIGHT FIXTURE TO BE PROVIDED BY WALK IN BOX MANUFACTURER. COORDINATE WITH WALK IN BOX MANUFACTURER FOR LIGHTING CONNECTIONS AND OTHER REQUIREMENTS BEFORE COMMENCING ANY WORK. BASE BID ACCORDINGLY. O
- (G) EXHAUST FAN EF-2(N) & EF-3(N) SHALL BE INTERLOCKED WITH ROOM LIGHT. E.C. TO COORDINATE WITH MECHANICAL CONTRACTOR IN FIELD. PRIOR TO ROUGH IN.
- (H) EXISTING HOOD LIGHTS SHALL REMAIN ALONG WITH ITS ELECTRICAL CONNECTION. E.C SHALL VERIFY OPERABLE CONDITION OF THE ELECTRICAL CONNECTION IN THE FIELD. BASE BID ACCORDINGLY.
- (I) LIGHTING NEAR ELECTRICAL PANELS SHALL NOT ONLY BE CONTROLLED BY ANY AUTOMATIC MEANS AND SHALL BE COMPLIED AS PER NEC 110.26(D).
- (J) LIGHT FIXTURES IN THIS AREA SHALL BE CONTROLLED BY DAYLIGHT SENSOR FOR DAYLIGHT HARVESTING.
- (K) WALL MOUNTED OCCUPANCY SENSOR .SET OFF TIME TO 20 MINUTES APPLICATION,SET DIP SWITCH TO AUTOMATIC ON.
- (L) PROVIDE JUNCTION BOX FOR TIME CLOCK.E.C SHALL COORDINATE AND VERIFY EXACT LOCATION WITH ARCHITECT/OWNER.



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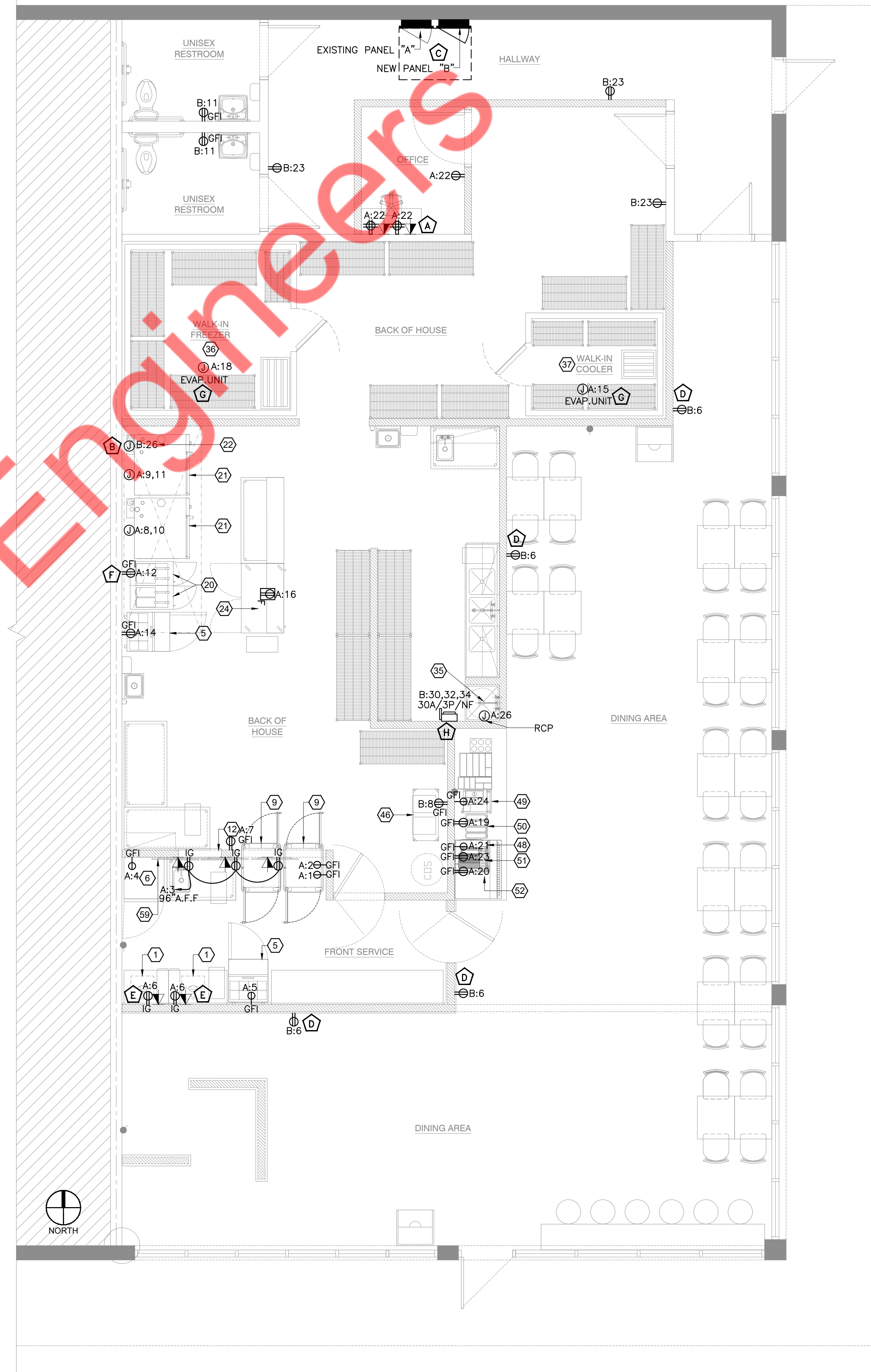


**POWER PLAN GENERAL NOTES:**

1. ALL 125-VOLT THROUGH 250-VOLT RECEPTACLES SUPPLIED BY SINGLE-PHASE BRANCH CIRCUITS RATED 150 VOLTS OR LESS TO GROUND, 50 AMPERES OR LESS, AND ALL RECEPTACLES SUPPLIED BY THREE-PHASE BRANCH CIRCUITS RATED 150 VOLTS OR LESS TO GROUND, 100 AMPERES OR LESS, INSTALLED IN THE LOCATIONS SPECIFIED IN 210.8(B) SHALL HAVE GFCI PROTECTION. ALL THE KITCHEN EQUIPMENT SHALL HAVE GFI BREAKER IN PANELS.
2. E.C. SHALL COORDINATE WITH THE EQUIPMENT VENDOR FOR EXACT RECEPTACLE REQUIREMENT AND WITH ARCHITECT/OWNER FOR EXACT LOCATION AND MOUNTING HEIGHT OF THE RECEPTACLES IN THE FIELD.

**POWER PLAN KEYED NOTES:**

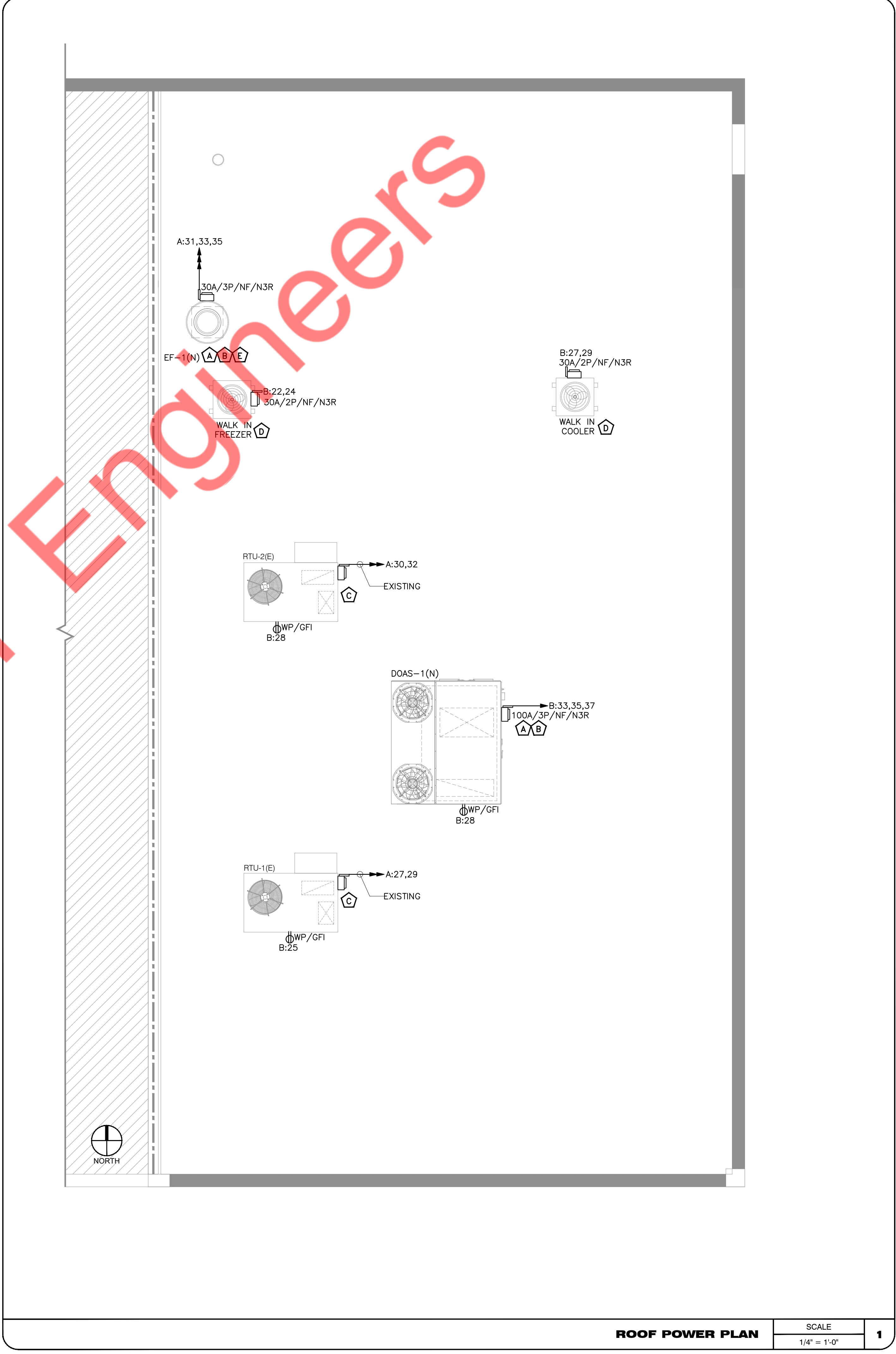
- A** QUAD RECEPTACLE OUTLET FOR PC/OFFICE DESK. ELECTRICAL CONTRACTOR TO CO-ORDINATE WITH ARCHITECT/OWNER FOR EXACT POWER REQUIREMENT, LOCATION, MOUNTING HEIGHT OF OUTLET/DATA AND OTHER DETAILS BEFORE COMMENCING ANY WORK. BASE BID ACCORDINGLY.
- B** E.C. SHALL PROVIDE AND NECESSARY WIRING FOR THE HOOD CONTROL.
- C** E.C. SHALL VERIFY THE INSTALLATION OF ELECTRICAL EQUIPMENTS ARE IN COMPLIANCE WITH N.E.C. ARTICLE 110.26(A) AND (B). E.C. SHALL FIELD VERIFY THAT THE PANELS ARE UNOBSTRUCTED AND THE AREA WHERE THE PANELS ARE PLACED SHALL NOT BE USED AS A STORAGE SPACE.
- D** ALL 15/20A, 125V AND 250V NON LOCKING TYPE RECEPTACLES SHALL BE LISTED TAMPER RESISTANCE AS PER NEC 408.12.
- E** PROVIDE (1) CAT 6 HOME RUN TO EACH POS AND ONE (1) DUPLEX 20 AMPS RECEPTACLE FOR POS. COORDINATE WITH OWNER PRIOR TO ROUGH-IN FOR EXACT HEIGHT.
- F** ELECTRICAL CONTRACTOR TO CO-ORDINATE WITH GAS FLOOR FRYER VENDOR FOR ITS POWER REQUIREMENT AND OTHER DETAILS BEFORE COMMENCING AND WORK. BASE BID ACCORDINGLY.
- G** QUAD RECEPTACLE OUTLET FOR PC/OFFICE DESK. ELECTRICAL CONTRACTOR TO CO-ORDINATE WITH ARCHITECT/OWNER FOR EXACT POWER REQUIREMENT, LOCATION, MOUNTING HEIGHT OF OUTLET/DATA AND OTHER DETAILS BEFORE COMMENCING ANY WORK. BASE BID ACCORDINGLY.
- H** ELECTRICAL CONTRACTOR TO COORDINATE EXACT POWER REQUIREMENTS WITH WALK IN BOX MANUFACTURER AND MAKE POWER PROVISIONS ACCORDINGLY. BASE BID ACCORDINGLY.
- I** ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE PLUMBING CONTRACTOR FOR EXACT LOCATION AND POWER REQUIREMENT OF "WH-1" IN THE FIELD. PROVIDE CIRCUIT AND CONTROL AS REQUIRED.



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**POWER PLAN KEYED NOTES:**

- A** ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE MECHANICAL CONTRACTOR FOR EXACT LOCATION AND POWER REQUIREMENT OF THE MECHANICAL UNITS IN THE FIELD. PROVIDE CIRCUIT AND CONTROL AS REQUIRED.
- B** ELECTRICAL CONTRACTOR SHALL COORDINATE DISCONNECT AND FUSE REQUIREMENT FOR MECHANICAL UNIT WITH MECHANICAL CONTRACTOR AND EQUIPMENT MANUFACTURER PRIOR TO ROUGH-IN AND PROVIDE AS REQUIRED. LOCATE AS REQUIRED TO MAINTAIN NEC CLEARANCES.
- C** EXISTING MECHANICAL EQUIPMENT WITH ITS ELECTRICAL CONNECTION AND ELECTRICAL FIXTURE TO REMAIN. E.C. SHALL VERIFY OPERABLE CONDITION OF ELECTRICAL CONNECTION AND ELECTRICAL FIXTURE ON FIELD. REPLACE IF FOUND INOPERABLE. BASE BID ACCORDINGLY.
- D** ELECTRICAL CONTRACTOR TO COORDINATE EXACT POWER REQUIREMENTS WITH WALK IN BOX MANUFACTURER AND MAKE POWER PROVISIONS ACCORDINGLY. BASE BID ACCORDINGLY.
- E** EXHAUST FAN EF-1(N) SHALL BE INTERLOCKED WITH DOAS-1(N). E.C. TO COORDINATE WITH MECHANICAL CONTRACTOR IN FIELD. PRIOR TO ROUGH IN.





**SCOPE OF WORK**

PROVIDE ALL PLUMBING FOR NEW JUICI PATTIES INCLUDING WATER, SANITARY LINES, VENTS, GAS AND CONNECT TO EXISTING UTILITIES. A NEW WATER HEATER AND GREASE TRAP, COORDINATE WITH GC AND MECH CONTRACTOR FOR ANY REQUIRED CONDENSATE LINES, IF REQUIRED.

**PLUMBING NOTES**

- 1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN STRICT ACCORDANCE WITH APPLICABLE LOCAL CODES, RULES AND ORDINANCES.
- 2. PLUMBING CONTRACTOR SHALL REVIEW ALL DRAWINGS OF THIS SET. CONTRACTOR TO VERIFY THAT ALL EQUIPMENT SHOWN AS EXISTING MATCHES THE DESCRIPTIONS AND SPECIFICATIONS SHOWN ON DRAWINGS AND SCHEDULES. IF DIFFERENT NOTIFY ARCHITECT/ENGINEER BEFORE BIDDING, ORDERING OR PRECEDING WITH WORK.
- 3. ALL EQUIPMENT WHICH IS TO REMAIN MUST BE REFURBISHED TO A LIKE NEW CONDITION.
- 4. PLUMBING CONTRACTOR SHALL VISIT THE JOB SITE AND THOROUGHLY FAMILIARIZE HIMSELF WITH ALL EXISTING CONDITIONS.
- 5. ALL MATERIALS SHALL BE NEW.
- 6. ALL WORK SHALL BE PERFORMED BY A LICENSED PLUMBING CONTRACTOR IN A FIRST CLASS WORKMANLIKE MANNER. THE COMPLETED SYSTEM SHALL BE FULLY OPERATIVE. ALL EXCAVATION AND BACKFILL AS REQUIRED FOR THIS PHASE OF CONSTRUCTION SHALL BE A PART OF THIS CONTRACT.
- 7. REQUIRED INSURANCE SHALL BE PROVIDED BY THE PLUMBING CONTRACTOR FOR PROTECTION AGAINST PUBLIC LIABILITY AND PROPERTY DAMAGE FOR THE DURATION OF THE WORK.
- 8. PLUMBING CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS, FEES, INSPECTION AND TESTS. PLUMBING CONTRACTOR TO OBTAIN PERMIT AND APPROVED SUBMITTALS PRIOR TO BEGINNING WORK OR ORDERING EQUIPMENT. PLUMBING CONTRACTOR MUST BE PRESENT FOR ALL INSPECTIONS OF HIS WORK BY REGULATORY AUTHORITIES.
- 9. DRAWINGS ARE DIAGRAMMATIC. DO NOT SCALE FOR THE EXACT LOCATION OF FIXTURES, PIPING, EQUIPMENT, ETC.
- 10. ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID INTERFERENCE WITH THE PROGRESS OF CONSTRUCTION. REPORT ANY DISCREPANCY TO ENGINEER/ARCHITECT PRIOR TO BEGINNING CONSTRUCTION.
- 11. VERIFY LOCATION, SIZE, DIRECTION OF FLOW AND INVERTS OF ALL EXISTING UTILITIES PRIOR TO BEGINNING OF CONSTRUCTION. ADVISE ENGINEER OF ANY DISCREPANCIES.
- 12. EXPOSED WATER PIPING SHALL BE TYPE "L" COPPER FOR 2" AND UNDER. WATER PIPING IN WALLS AND UNDERGROUND MAY BE "PEX" TYPE PIPING THAT MEETS ANSISF STANDARD 61.
- 13. SOIL, WASTE AND VENT PIPING SHALL BE PVC BUT MAY NOT RUN THRU RATED ASSEMBLIES OR IN PLENUMS.
- 14. ALL FIXTURES MUST BE PROVIDED WITH READILY ACCESSIBLE STOPS AND APPROPRIATELY MARKED ACCESS PANELS. COORDINATE LOCATIONS WITH GENERAL CONTRACTOR PRIOR TO INSTALLATION.
- 15. FURNISH AND INSTALL APPROVED AIR CHAMBERS AT EACH PLUMBING FIXTURE GROUP AS PER CODE AND WITH GOOD ENGINEERING PRACTICE.
- 16. DIELECTRIC COUPLINGS ARE REQUIRED BETWEEN ALL DISSIMILAR METAL IN PIPING AND EQUIPMENT CONNECTIONS; EXCEPT AT WATER HEATER AS PER CODE.
- 17. ISOLATE COPPER PIPE FROM HANGER OR SUPPORTS WITH ISOLATOR PAD.
- 18. ALL FIRE RATED FLOOR AND WALL PENETRATIONS SHALL BE PROPERLY PROTECTED FROM FIRE, SMOKE AND WATER PENETRATION BY FILLING VOIDS BETWEEN PIPE AND WALL/FLOOR SLEEVES WITH FIRE RATED FOAM, TO ACHIEVE THE SAME RATING AS WALLS OR FLOORS AS PART OF THE PLUMBER'S WORK.
- 19. PLUMBING CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP FREE FROM DEFECTS FOR A PERIOD OF NOT LESS THAN ONE (1) YEAR FROM DATE OF CERTIFICATE OF OCCUPANCY. CORRECTION OF ANY DEFECTS SHALL BE COMPLETED WITHOUT ADDITIONAL CHARGE WITHIN 72 HOURS OF NOTIFICATION AND SHALL INCLUDE REPLACEMENT OR REPAIR OF ANY OTHER PHASE OF THE INSTALLATION WHICH MAY HAVE BEEN DAMAGED. PROVIDE COPY TO LL.
- 20. STUDOR MINI/MAXI AIR ADMITTANCE VALVES MAY NOT BE USED AS AN ALTERNATE TO VENT PIPING THRU ROOF.
- 21. PROVIDE CHROME PLATED COMBINATION COVER PLATE AND CLEAN OUT PLUG OR ACCESS PANEL FOR ALL CLEANOUTS.
- 22. NO COMBUSTIBLE MATERIAL TO BE USED IN MECHANICAL ROOMS OR IN CEILING SPACES WHERE USED AS RETURN AIR PLENUMS.
- 23. NO WATER, SANITARY OR DRAINAGE PIPING PERMITTED IN ELECTRICAL OR ELEVATOR EQUIPMENT ROOMS.
- 24. WATER PIPING INSULATION SHALL BE 1" THICK ARMAFLEX INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS FOR ALL HOT WATER PIPING. WHERE DOMESTIC WATER TEMPERATURES CAN CAUSE SWEATING, ALL COLD WATER PIPING SHALL BE INSULATED WITH 1/2" THICK ARMAFLEX INSULATION.
- 25. CONDENSATE DRAIN LINES TO BE RUN UNDER SLAB IN PVC SCH 40 PIPE AND STUBBED OUT OF WALL TO UNIT. TIE-IN OF A/C TO BE BY OTHERS. PVC PIPING WITH 1/2" THICK ARMAFLEX INSULATION MAY BE USED IN LOCATIONS WHERE ALLOWED BY LOCAL CODES. SEE PLUMBING DRAWINGS FOR SIZE AND LOCATION OF PIPING. PVC WILL BE MIN. SCHEDULE 40 FOR SIZE AND LOCATION OF PIPING. PVC WILL BE MIN. SCHEDULE 40.
- 26. PROVIDE ANGLE STOPS ON ALL WATER SERVICE LINES TO FIXTURES FOR INDIVIDUAL SHUT-OFF.
- 27. NO JOINTS UNDERGROUND FOR COPPER.
- PLUMBING FIXTURES SHALL COMPLY WITH FBC-PLUMBING, 8TH EDITION(2023).
- WATER HAMMER ARRESTORS AS PER FBC-PLUMBING, 8TH EDITION(2023).
- 28. PLUMBING CONTRACTOR SHALL REVIEW ALL BID DOCUMENTATION.
- 29. PLUMBING CONTRACTOR SHALL REVIEW WALL FINISHES @ LOCATION REQUIRING BARRIER-FREE COMPLIANCE (EXAMPLE: CENTER LINE TO TOILET).
- 30. CONSTRUCTION "AS BUILT" DRAWINGS AND DOCUMENTS SHALL BE PROVIDED TO THE OWNER WITHIN 30 DAYS AFTER THE DATE OF ACCEPTANCE. PROVIDE A COPY TO LL.
- 31. OPERATION MANUALS AND MAINTENANCE MANUALS SHALL BE PROVIDED TO THE BUILDING OWNER. PROVIDE A COPY TO LL.

**ENERGY CONSERVATION NOTES**

1. AS PER 2023 FBC-ENERGY CONSERVATION CODE SECTION C404.4, PIPING FROM A WATER HEATER TO THE TERMINATION OF HEATED WATER FIXTURE SUPPLY PIPE SHALL BE INSULATED IN ACCORDANCE WITH TABLE C403.2.10 OF MINIMUM PIPE INSULATION THICKNESS.

FLUID OPERATING TEMPERATURE RANGE AND USAGE (°F)	MINIMUM PIPE INSULATION THICKNESS		NOMINAL PIPE OR TUBE SIZE (INCHES)					
	CONDUCTIVITY BTU-IN/(H·FT²·°F)	MEAN RATING TEMPERATURE	<1	1 TO 1 1/2	1 1/2 TO 4	4 TO 8	>8	
141-200	0.25-0.29	125	1.5	1.5	2	2	2	
105-140	0.21-0.28	100	1.0	1.0	1.5	1.5	1.5	
40-60	0.21-0.27	75	0.5	0.5	1.0	1.0	1.0	

2. AS PER 2023 FBC-ENERGY CONSERVATION CODE SECTION C404.6.1, AUTOMATIC CONTROLS SHALL BE INSTALLED THAT LIMITS THE OPERATION OF A RECIRCULATING PUMP AND THE SYSTEM RETURN PIPE SHALL BE A DEDICATED RETURN PIPE OR A COLD WATER SUPPLY PIPE.

3. AS PER 2023 FBC-ENERGY CONSERVATION CODE SECTION C404.7, PUMPS SHALL HAVE CONTROLS THAT COMPLY WITH BOTH OF THE FOLLOWING:

- A. THE CONTROL SHALL START THE PUMP UPON RECEIVING A SIGNAL FROM THE ACTION OF A USER OF A FIXTURE OR APPLIANCE, SENSING THE PRESENCE OF A USER OF A FIXTURE OR SENSING THE FLOW OF HOT OR TEMPERED WATER TO A FIXTURE FITTING OR APPLIANCE.
- B. THE CONTROL SHALL LIMIT THE TEMPERATURE OF THE WATER ENTERING THE COLD-WATER PIPING TO 104°F (40°C).

**PLUMBING LEGEND**

DOMESTIC COLD WATER PIPING, GAS PIPING, PIPE RISE, PIPE DROP, S.O.V. SHUT - OFF VALVE, CW DOMESTIC COLD WATER, HW DOMESTIC HOT WATER, DCVA DOUBLE CHECK VALVE ASSEMBLY, GATE VALVE, GAS COCK, WATER HAMMER ARRESTER, I.W. INDIRECT WASTE, POINT OF CONNECTION, THERMOSTATIC MIXING VALVE

**GREASE INTERCEPTOR SIZING**

TAG	DESCRIPTION	QTY	DIMENSIONS			VOLUME		%USAGE	GPM	GPM
			LENGTH	WIDTH	DEPTH	CU IN	GALLONS			
7	1 COMP SINK	02	16	21	12	8064	35	0.75	26.25	13.12
26	HAND SINK	02	9	9	5	810	3.5	0.75	2.62	1.31
28	3-COMP SINK	01	16	20	12	3840	16.62	0.75	12.46	6.23
32	MOP SINK	01	20	20	10	4000	17.3	0.75	12.98	6.5
FS	FLOOR SINK	02	-	-	-	-	-	-	2.0	1.0
TOTAL GPM									56.31	28.15

PROPOSED GREASE INTERCEPTOR (GI-1) MODEL SCHIER GB-50

**GREASE INTERCEPTOR SCHEDULE**

ITEM	SERVICE	FLOW CAPACITY (GPM)	GREASE CAPACITY (LBS)	MANUFACTURER AND MODEL
GREASE INTERCEPTOR (GI-1)	KITCHEN AREA	50	439.5	SCHIER GB-50

- NOTE- 1. CONTRACTOR TO PROVIDE ALL REQUIRED ACCESSORIES FOR SATISFACTORY WORKING OF GREASE TRAP AS PER SITE CONDITIONS.
- 2. CONTRACTOR SHALL SUBMIT PROPOSED GREASE INTERCEPTOR INSTALLATION PLANS AND SPECIFICATIONS TO LOCAL AUTHORITIES FOR THEIR APPROVAL BEFORE ACQUISITION.

**EXISTING CONTIDITONS NOTES**

**STOP AND READ**

THE CONTRACTOR AND SUB-CONTRACTORS SHALL NOT INITIATE ANY WORK UNTIL EXISTING FIELD CONDITIONS ARE PROPERLY VERIFIED. THIS SHALL HOLD TRUE FOR FIRST GENERATION AND 2ND GENERATION SPACES. WHEN DEMOLITION IS REQUIRED, THAT WILL BE PERMITTED TO EXPOSE CONDITIONS. THESE VERIFICATIONS SHALL INCLUDE BUT NOT LIMITED TO: DIMENSIONS BOTH HORIZONTALLY AND VERTICAL, ELECTRICAL SERVICE/PANELS LOCATION AND VOLTS/PHASE, LOCATION/QUANTITY OF ROOF MOUNTED HVAC EQUIPMENT. CONFIRM THAT INTERIOR HVAC HUNG UNITS HAVE PROPER SUPPORT CONNECTIONS FOR EXISTING STRUCTURE, FIRE SPRINKLER MAIN RUNS, TOILET ROOM DIMENSIONS, DOOR SWING FOR DOORS TO REMAIN AND ETC. IF NOT VERIFIED AND DISCOVERED AT A LATER TIME, THE CONTRACTOR SHALL REIMBURSE THE ARCHITECT FOR THE REDESIGN FEE. THIS DOES NOT INCLUDE HIDDEN WORK I.E. PITCH OF SANITARY LINES, ACTUAL CONDITIONS OF EXISTING HVAC EQUIPMENT, STRUCTURAL COLUMNS/BEARING WALLS OR CONDITIONS OF GREASE INTERCEPTORS AND ETC.

INDIRECT WASTE DETAIL NOT TO SCALE. PROVIDE CLEANOUTS IN TURNS ENDS OF PIPE. USE DWV FITTINGS IF SIZE IS LARGER THAN 1". DISCHARGE INTO CENTER HOLE OF GRATE OF WASTE RECEPTACLE WITH AIR GAP SUFFICIENT TO REMOVE GRATE AND STRAINER. MINIMUM GAP = TWO PIPE DIAMETERS. SLOPE PIPE AS MUCH AS POSSIBLE TOWARD DISCHARGE. MAKE CONNECTION TO EQUIPMENT AS REQUIRED. MAKE PIPE MINIMUM ONE SIZE LARGER THAN EQUIPMENT CONNECTION. MINIMUM 3/4" USE 1/2" OR 1" HARD COPPER UP TO 1" AND TYPE DWV FOR LARGER. VERIFY WITH LOCAL CODES IF WHEN TRAP AND/OR VENT ARE REQUIRED FOR THE LENGTH OF DRAIN PIPE INSTALLED. ROUTE PIPE INCONSPICUOUSLY AND UNOBTRUSIVELY. HANG PIPE AS REQUIRED. DO NOT INSULATE INDIRECT DRAIN PIPE WHEN INSTALLED EXPOSED IN FOOD SERVICE FACILITY. REFER TO LOCAL CODES FOR FURTHER INFORMATION.

FLUSH TO FLOOR SINK DETAIL NOT TO SCALE. FLOOR GRATE TO BE FASTENED DOWN WITH SCREWS. MOUNT FLUSH WITH FINISHED FLOOR. DRAIN LINE. AIR GAP = 2 X 'D' (2" MIN.). HUB OUTLET.

TRAP RESEAL DETAIL NOT TO SCALE. LAVATORY. SLIP JOINT NUT. 1/2 [38] NPT CONN. ESCUTCHEON. FINISH FLOOR. FLOOR DRAIN. TRAP PRIMER FITTING. ESCUTCHEON. SS BRAIDED PRIMER HOSE. CLEANOUT. 1/2 [13] FIP COMPRESSION FITTING.

WALL CLEANOUT DETAIL NOT TO SCALE. PIPE MAY EXTEND AS WASTE OR VENT. PROVIDE CLEANOUT TEE WITH SCREWED COUNTER-SUNK ABS PLASTIC PLUG. TAPARED-THREAD WITH TEE JOINT COMPOUND. COLUMN OR PARTITION AS SHOWN ON FLOOR PLAN. WHERE CLEANOUT TEE IS CONCEALED IN A CHASE OR A PARTITION, PROVIDE A ROUND 18 GAUGE STAINLESS STEEL COVER WITH BEVELED EDGES AND FLATHEAD MACHINE SCREW. CONCRETE FLOOR SLAB. HUB AT FLOOR. REFER TO PLUMBING FIXTURE SCHEDULE FOR FURTHER INFORMATION. RISER LENGTH AS REQUIRED. DIRECTION OF FLOW.

WALL CLEANOUT DETAIL NOTES: 1) PROVIDE WCO WHERE SHOWN ON PLANE, AND ON SANITARY WASTE BRANCHES NOT SERVED WITH A FLOOR CLEANOUT. 2) LOCATE ABOVE FIXTURE FLOOR RIM WITHIN 4' OF FLOOR. 3) CONSULT LOCAL CODES FOR OTHER WCO REQUIREMENTS. 4) LONG SWEEP AT END OF LINE OR COMBINATION WYE AND EIGHT BEND IN RUN OF LINE. 5) CLEAN OUT FACE SHALL BE WITHIN 4" OF WALL SURFACE. PROVIDE A PIPE EXTENSION IF REQUIRED.

FLOOR CLEANOUT DETAIL NOT TO SCALE. MEMBRANE CLAMP. FCO. FLOOR SLAB ON GRADE. AS REQUIRED FOR DEPTH OF SEWER! SAME SIZE AS SEWER UP TO 4" MAXIMUM. LONG SWEEP ELBOW AT END OR TURN OR RUN. HUB AND SPIGOT CAST IRON PIPE BELOW FLOOR! COMBINATION WYE AND EIGHT BEND IN RUN ENTER TOP OF PIPE. SANITARY SEWER LINE. DIRECTION OF THE FLOW. FLOOR CLEANOUT DETAIL NOTES: 1) LOCATE CLEANOUT AT THIS LOCATIONS: A) BUILDING EXIT B) AT TURNS OF PIPES GREATER THAN 45 DEGREES C) AT 90° INTERVALS ON STRAIGHT RUNS D) WHERE IS SHOWN ON PLANS E) WHERE IS 18" CLEAR AROUND

KITCHEN EQUIPMENT PLUMBING SCHEDULE. Item No., Qty., Description, Manufacturer, Model, WATER (Hot, Cold, Direct, Indirect), WASTE (Direct, Indirect). Includes sinks, oven, dispenser, water heater, rack, coffee maker, etc.

RESTROOM FIXTURE SCHEDULE. Item No., Qty., Description, Manufacturer, Model, WATER (Hot, Cold, Direct, Indirect), WASTE (Direct, Indirect). Includes accessible water closet and sink.

3 COMPARTMENT SINK DETAIL NOT TO SCALE. VENT STACK. SLAB. 12" AIR GAP. FLOOR SINK WITH STRAINER. 1 1/2" TRAP. CONNECT TO GREASE INTERCEPTOR.

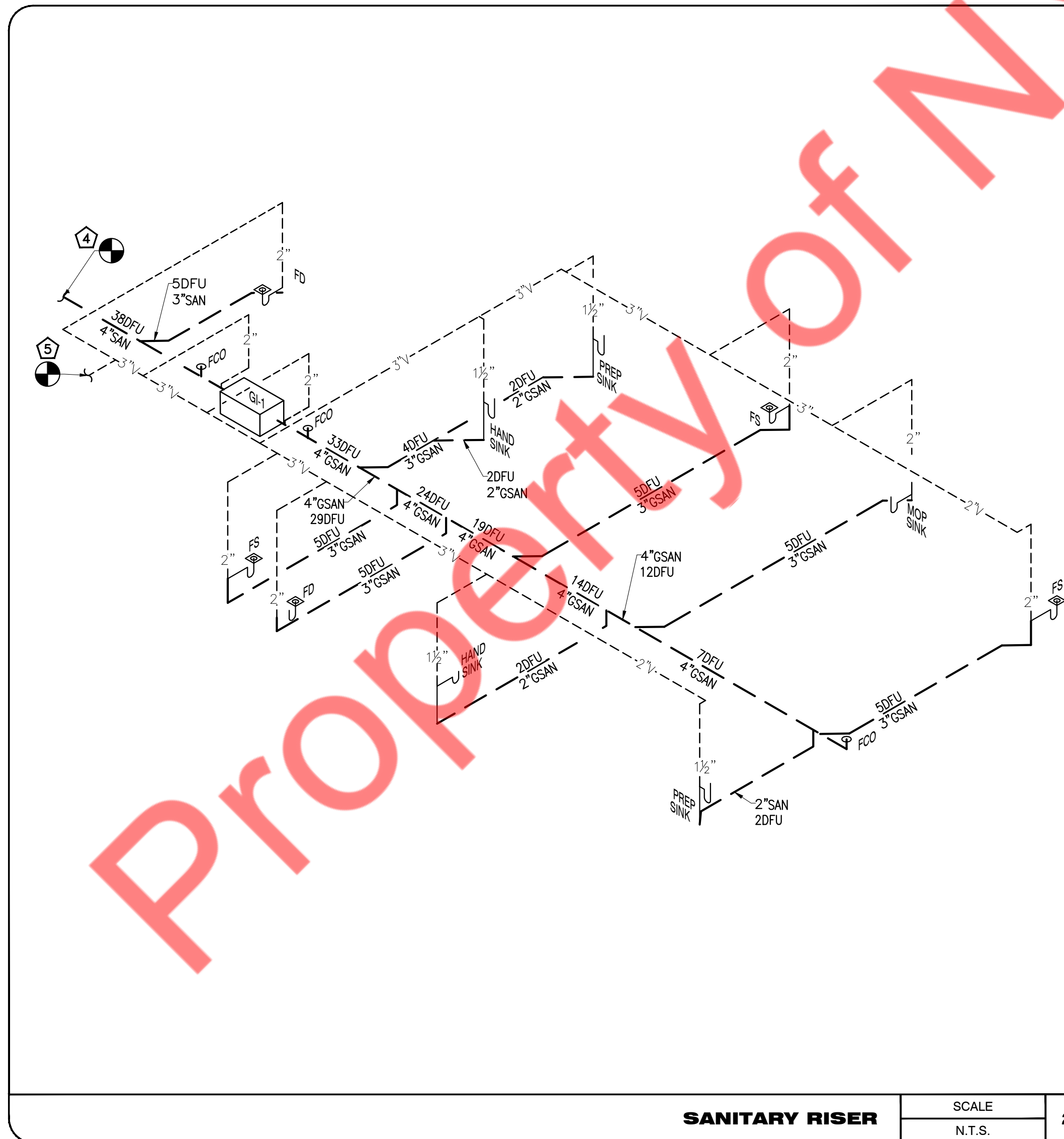
BACKFLOW PREVENTER DETAIL NOT TO SCALE. BACKFLOW PREVENTER. PIPE DISCHARGE TO FLOOR DRAIN. AIR GAP DRAIN FUNNEL. CAP TO BE SET IN FLOOR TO PROVIDE SUITABLE ANCHORAGE. NOT LESS THAN 8" NOR MORE THAN 24". NOTES: 1. JOINTS MAY BE STREAMLINE OR SCREWED. 2. THE CONTRACTOR TO PROVIDE TESTING AND CERTIFICATION OF BACKFLOW PREVENTER AS PER STATE REQUIREMENTS.

**GENERAL NOTES**

1. SLOPE OF DRAINAGE PIPING SHALL BE 1/8" PER FOOT OF RUN FOR PIPE 3" TO 6" AND 1/4" PER FOOT OF RUN FOR PIPE 2-1/2" & SMALLER. VENT PIPING SHALL BE PITCHED TO DRAIN.
2. CONTRACTOR TO FIELD VERIFY FEASIBILITY OF SLAB PENETRATION AS PER STRUCTURAL REQUIREMENT.
3. ALL MATERIAL INDICATED AND IMPLIED ON THESE DRAWINGS SHALL BE NEW UNLESS OTHERWISE NOTED.
4. ALL CLEANOUTS TO BE ACCESSIBLE.
5. CONTRACTOR TO FIELD VERIFY THE EXISTING GREASE SANITARY AND VENT LOCATION AND ROUTING. MAKE NECESSARY CHANGES TO NEW PIPING AS PER THE EXISTING SITE CONDITION.
6. CONTRACTOR TO FIELD VERIFY THE LOCATION AND THE CAPACITY OF THE EXISTING GREASE TRAP AND NOTIFY THE ENGINEERS IF EXISTING GREASE INTERCEPTOR NOT AVAILABLE TO USE BEFORE BIDDING.
7. EXISTING PLUMBING FIXTURES MUST BE TRAPPED WITH APPROVED WATER SEAL P-TRAP. ALL TRAPS MUST BE EFFECTIVELY VENTED.

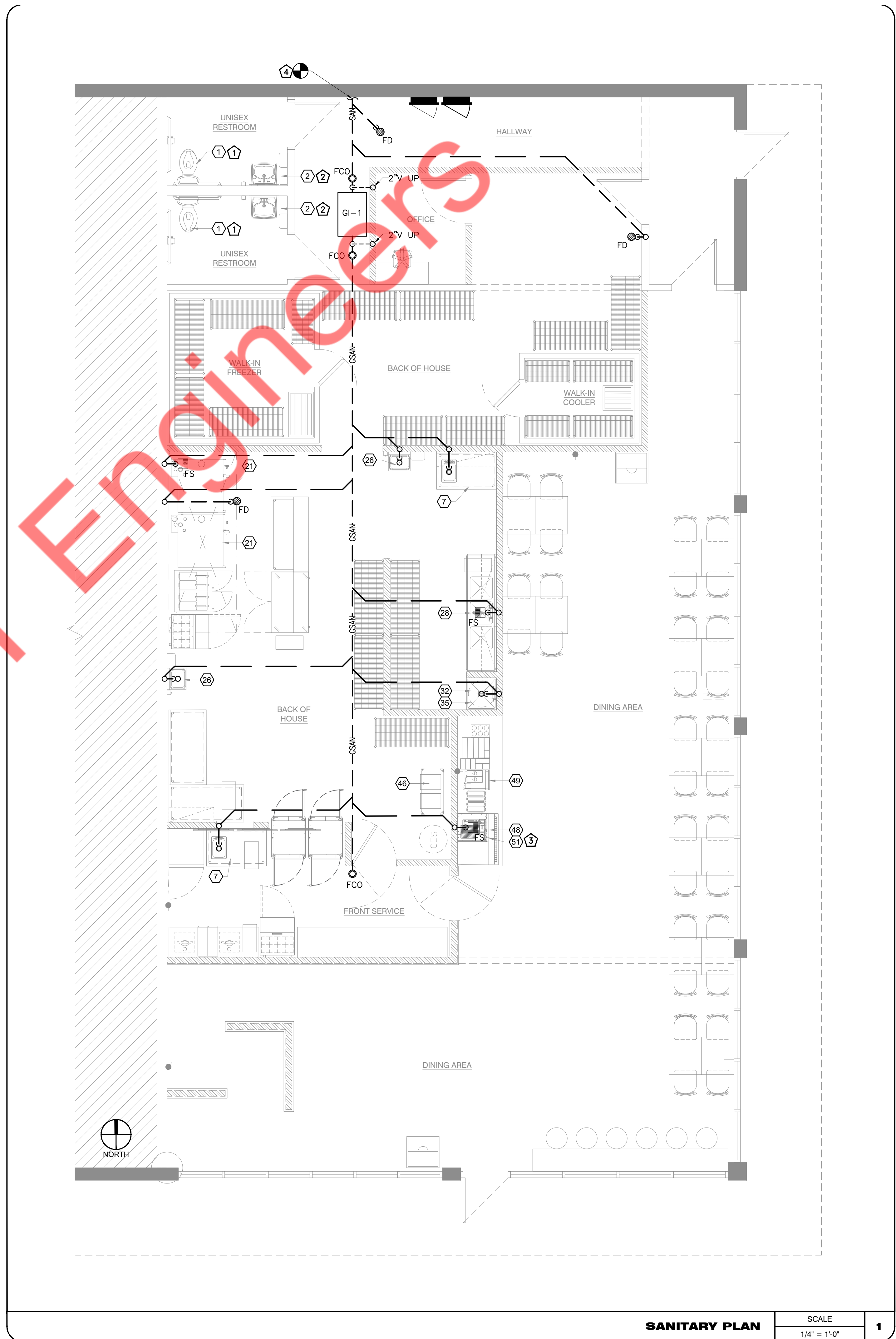
**SANITARY PLAN KEY NOTES**

1. EXISTING WATER CLOSET TO REMAIN WITH EXISTING SANITARY AND VENT PIPE CONNECTION, ASSOCIATED ACCESSORIES AND FITTINGS. CONTRACTOR TO FIELD VERIFY THE CONDITION OF EXISTING PIPING AND REPLACE IF REQUIRED.
2. EXISTING ACCESSIBLE SINK RELOCATED WITH EXISTING SANITARY AND VENT PIPE CONNECTION, ASSOCIATED ACCESSORIES AND FITTINGS. CONTRACTOR TO FIELD VERIFY THE CONDITION OF EXISTING PIPING AND REPLACE IF REQUIRED.
3. PROVIDE INDIRECT DRAIN FROM ICE MACHINE AND SODA DISPENSER TO THE EXISTING FLOOR SINK.
4. EXTEND & CONNECT NEW 4" SANITARY WASTE PIPING TO EXISTING SANITARY LINE OF ADEQUATE SIZE IN AREA. CONTRACTOR TO FIELD VERIFY EXACT SIZE, LOCATION, ROUTING AND INVERT OF EXISTING SANITARY MAIN AND MAKE NECESSARY CHANGES IF REQUIRED.
5. EXTEND & CONNECT NEW 3" VENT PIPING TO EXISTING VENT PIPE OF ADEQUATE SIZE IN AREA. CONTRACTOR TO FIELD VERIFY EXACT SIZE, LOCATION, ROUTING OF EXISTING VENT MAIN AND MAKE NECESSARY CHANGES IF REQUIRED.



**SANITARY RISER**

SCALE  
N.T.S.



**SANITARY PLAN**

SCALE  
1/4" = 1'-0"

**NEW STORAGE WATER HEATER SCHEDULE**

MANUFACTURER	AO SMITH
MODEL	DEN-40
EQUIPMENT TAG	WH-1
STATUS	NEW
CAPACITY	40 GALLONS
FUEL	ELECTRIC
KW	
RECOVERY EFFICIENCY	45
VOLTAGE	208
AMPERAGE	22.2
WEIGHT (EMPTY)	125 LBS.

**RECIRCULATION PUMP SCHEDULE**

MANUFACTURER & MODEL	GRUNDFOS UP 15-18 B5
EQUIPMENT TAG	RCP-1
STATUS	NEW
GPM	2
WATER TEMP. (°F)	140
PUMP TYPE	INLINE
MHP	85 WATTS
V/PH/Hz	115/1/60
RPM	2280
SERVICE FACTOR	1.0

- NOTES:**
- \*ELEMENTS @ 72° F TEMPERATURE RISE.
  - CONTRACTOR IS TO FIELD VERIFY THE OPERATING CONDITION OF THE EXISTING WATER HEATER AND NOTIFY THE ENGINEER IF NOT IN OPERATION CONDITION.
  - INSTALL NEW EXPANSION TANK (ET-1) AMTROL MODEL THERM-X-TROL ST-SC-DD, 2.0 GAL VOLUME PER LOCAL CODE REQUIREMENTS.

**GENERAL NOTES**

- CW/HW/HWR PIPING TO BE PROVIDED WITH INSULATION AS PER 2023 FLORIDA ENERGY CONSERVATION CODE.
- REFER RISER DIAGRAMS FOR ALL PIPE SIZES.
- PROVIDE BRANCH PRV IF PRESSURE EXCEEDS 80 PSI.
- PROVIDE ACCESS PANELS FOR WATER HAMMER ARRESTOR & SHUT-OFF VALVES AS REQUIRED.
- WATER HEATER DRAIN SPILL TO THE MOP SINK.

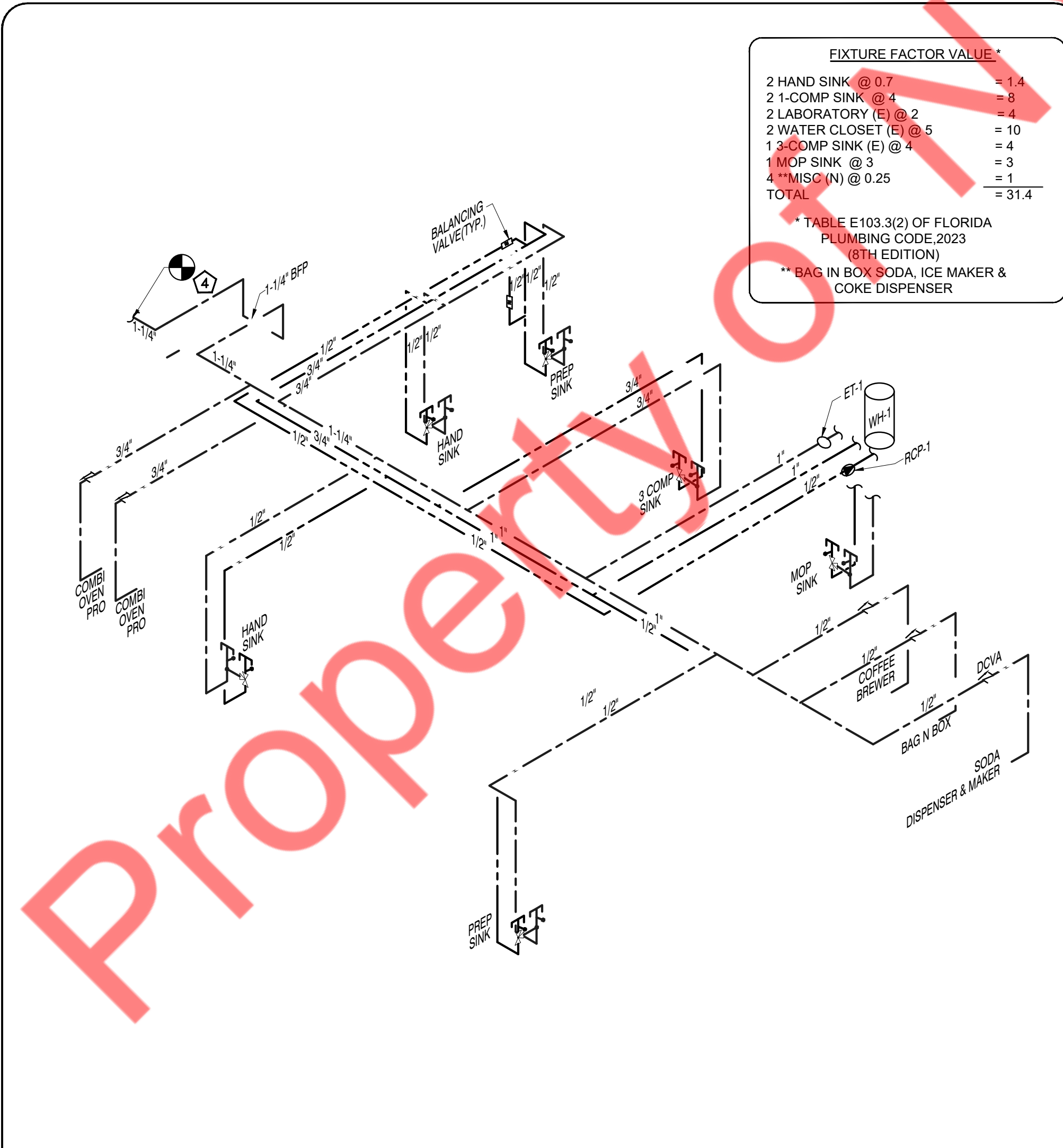
**WATER PLAN & RISER KEY NOTE**

- EXISTING WATER CLOSETS REMAIN WITH EXISTING CW/HW PIPING CONNECTION, ASSOCIATED ACCESSORIES & FITTINGS. CONTRACTOR TO FIELD VERIFY THE CONDITION OF EXISTING PIPING AND REPLACE IF REQUIRED.
- EXISTING LAVATORIES RELOCATED WITH EXISTING CW/HW PIPING CONNECTION, ASSOCIATED ACCESSORIES & FITTINGS. CONTRACTOR TO FIELD VERIFY THE CONDITION OF EXISTING PIPING AND REPLACE IF REQUIRED.
- EXISTING WATER HEATER TO BE DEMOLISHED AND REPLACED WITH NEW WATER HEATER AS SHOWN IN PLAN. REFER TO WATER HEATER SCHEDULE FOR MORE DETAILS.
- EXTEND AND CONNECT NEW 1/2" CW PIPING FROM NEW WATER METER WITH NEW BFP TO THE EXISTING WATER LINE OF ADEQUATE SIZE. CONTRACTOR TO FIELD VERIFY THE LOCATION SIZE OF THE EXISTING PIPING AND UPGRADE IF REQUIRED.

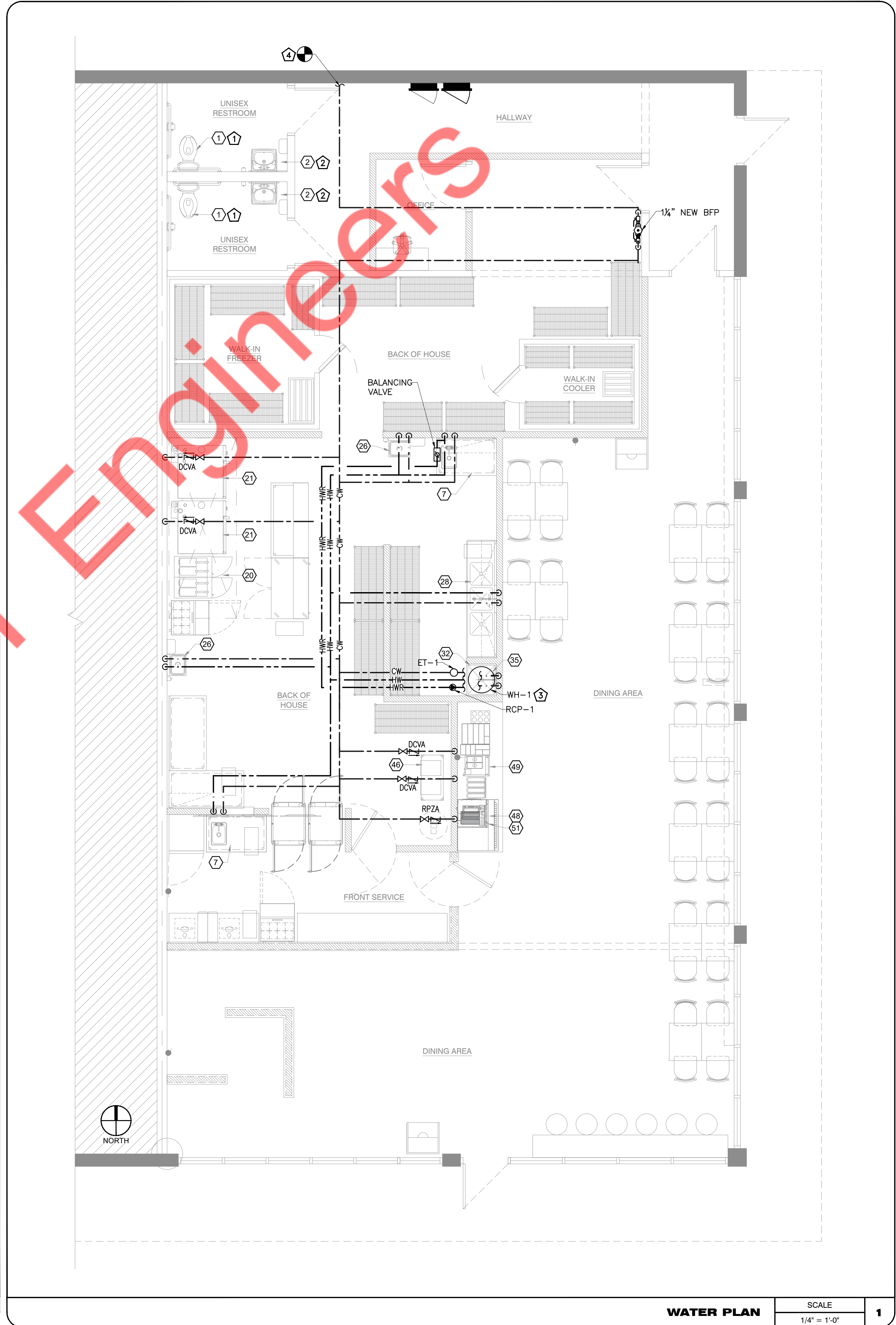
**FIXTURE FACTOR VALUE\***

2 HAND SINK @ 0.7	= 1.4
2 1-COMP SINK @ 4	= 8
2 LABORATORY (E) @ 2	= 4
2 WATER CLOSET (E) @ 5	= 10
1 3-COMP SINK (E) @ 4	= 4
1 MOP SINK @ 3	= 3
4 **MISC (N) @ 0.25	= 1
<b>TOTAL</b>	<b>= 31.4</b>

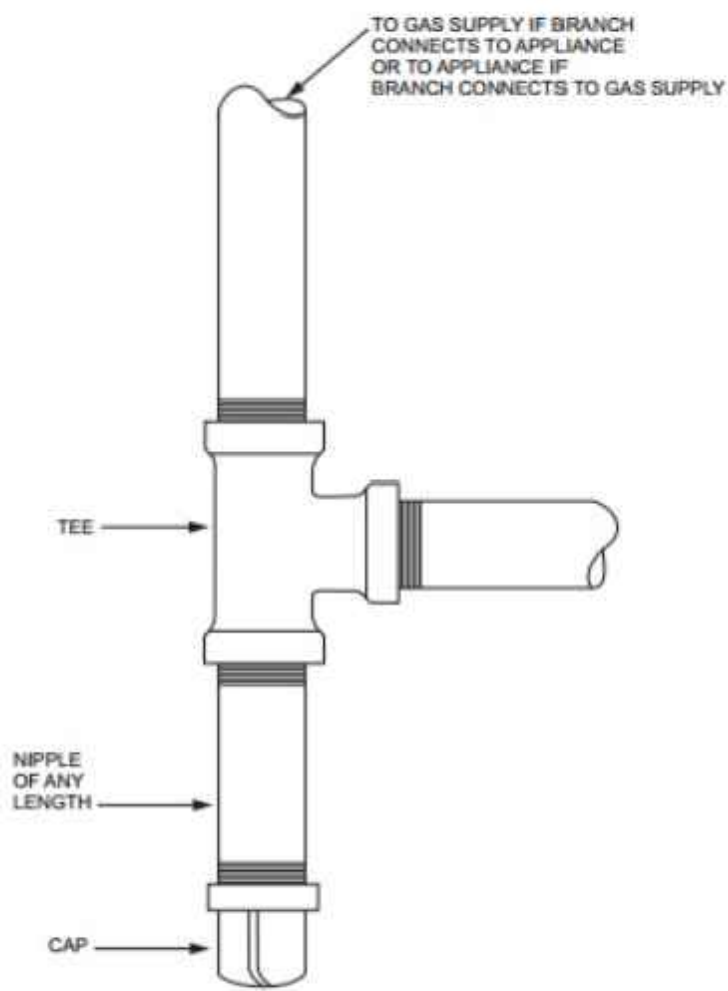
\* TABLE E103.3(2) OF FLORIDA PLUMBING CODE, 2023 (8TH EDITION)  
 \*\* BAG IN BOX SODA, ICE MAKER & COKE DISPENSER



**WATER RISER** SCALE N.T.S. **2**

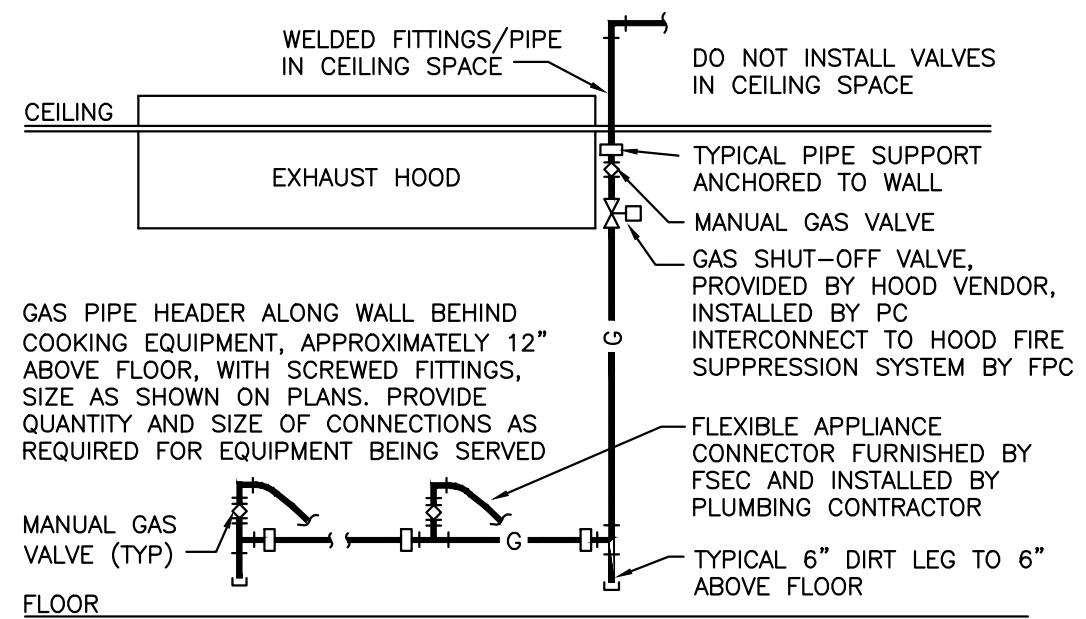


**WATER PLAN** SCALE 1/4" = 1'-0" **1**



INSTALLATION OF A TEE FITTING SEDIMENT TRAP  
NOT TO SCALE

GAS SCHEDULE						
ITEM NO.	QTY.	DESCRIPTION	MANUFACTURER	MODEL	SIZE	BTU/HR.
19	1	HOT PLATE	ASBER	AEHP-4-24	3/4"	120,000
20	2	FRYER	HENNY PENNY	OFG 322	3/4"	340,000
21	2	COMBI OVEN	RATIONAL	6-2/1+6-2+1G	3/4"	213,000
--	1	DOAS	CAPTIVEAIRE	CAS-HVAC3-1.150-15-15T	3/4"	75,000
TOTAL LOAD						748,000



COOKING APPLIANCE GAS PIPING  
NOT TO SCALE

**GAS PLAN & RISER KEY NOTE**

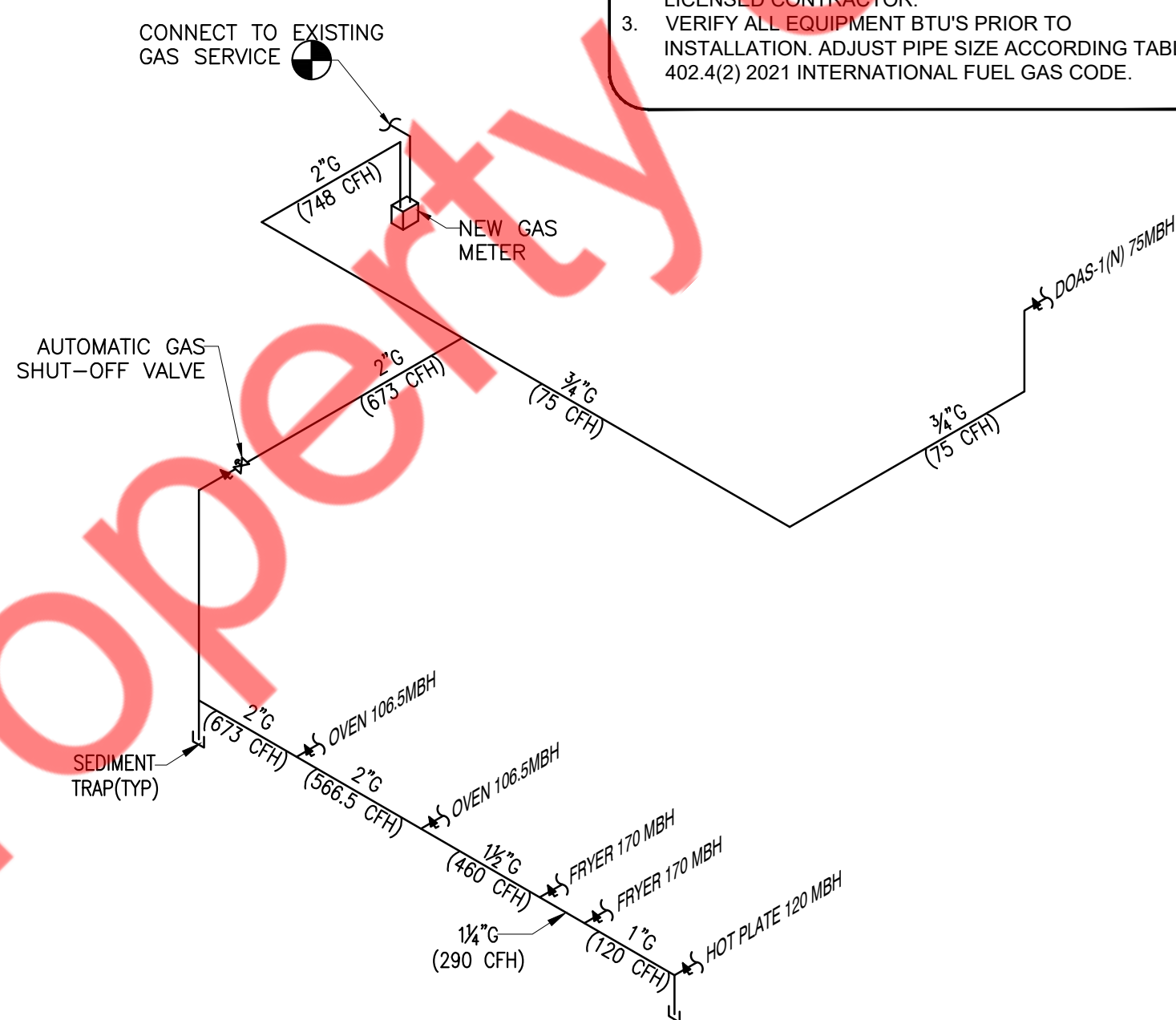
1. CONNECT NEW 2" GAS LINE TO THE NEW GAS METER. CONTRACTOR TO FIELD VERIFY SIZE, PRESSURE, AND LOCATION OF GAS METER. IF REQUIRED COORDINATE WITH UTILITY COMPANY FOR UPGRADE. GAS METER CAPACITY SHOULD BE MINIMUM OF 400 CFH.
2. CONTRACTOR TO FIELD VERIFY EXISTING AVAILABLE PRESSURE AND MAKE SURE TO PROVIDE ADEQUATE INLET PRESSURE REQUIRED FOR ALL KITCHEN EQUIPMENT. PROVIDE PRESSURE REGULATOR IF REQUIRED.
3. INSTALL A SEDIMENT TRAP DOWN STREAM OF THE APPLIANCE SHUTOFF VALVE AS CLOSE TO THE INLET OF THE APPLIANCE AS PRACTICAL. THE SEDIMENT TRAP SHALL BE EITHER A TEE FITTING HAVING A CAPPED NIPPLE OF ANY LENGTH INSTALLED VERTICALLY IN THE BOTTOM MOST OPENING OF THE TEE. SEE THE DETAILS SHOWN IN SHEET P-4.

GAS PIPE SIZING PER  
TABLE 402.4(2) 2021  
INTERNATIONAL FUEL GAS CODE  
EQUIVALENT LENGTH OF PIPE =  
68+15 = 83  
+ FITTINGS (+40%) = 110 FEET

NATURAL GAS PIPING SYSTEM  
PROVIDE A COMPLETE GAS PIPING SYSTEM TO SERVE  
GAS EQUIPMENT FURNISHED BY OTHERS. AS NOTED ON  
THE DRAWINGS, PROVIDE EITHER THREADED STEEL OR  
MALLEABLE IRON PIPE WITH MALLEABLE FITTINGS OR  
WELDED STEEL. PROVIDE ALL UNIONS, SHUT-OFF  
VALVES AND DIRT LEGS REQUIRED BY NFPA54 AND  
GOVERNING LOCAL CODES AND AT EACH GAS  
APPLIANCE CONNECTION, PROVIDE ALL TESTS, METERS,  
INSPECTIONS, HANGERS AND EQUIPMENT CONNECTIONS  
REQUIRED FOR A COMPLETE AND OPERATING SYSTEM.

**NOTES:**

1. GAS PIPING TO BE SCHEDULE 40 STEEL PIPE W/125  
CAST IRON SCREWED FITTINGS
2. GAS SYSTEM TO BE INSTALLED BY QUALIFIED  
LICENSED CONTRACTOR.
3. VERIFY ALL EQUIPMENT BTU'S PRIOR TO  
INSTALLATION. ADJUST PIPE SIZE ACCORDING TABLE  
402.4(2) 2021 INTERNATIONAL FUEL GAS CODE.



GAS RISER

SCALE  
N.T.S.



GAS FLOOR PLAN

SCALE  
1/4" = 1'-0"