

SCOPE OF WORK
PROVIDE TWO NEW 4.0 TON HEAT PUMP SPLIT UNIT AND PROVIDE NEW DUCTWORK AND NECESSARY ACCESSORIES FOR COMPLETE HVAC SYSTEM.
PROVIDE 1 NEW RESTROOM EXHAUST FAN & 1 NEW OUTSIDE AIR FAN. PROVIDE ONE KITCHEN EXHAUST HOOD, ONE HOOD EXHAUST FAN AND PROVIDE ONE NEW MAKEUP AIR UNIT FOR HOOD.
COORDINATE WITH GC FOR ANY ADDITIONAL REFRIGERATION WORK REQUIRED. ALSO, COORDINATE WITH PLUMBING CONTRACTOR TO PROVIDE CONDENSATE LINES FOR MECHANICAL EQUIPMENT.

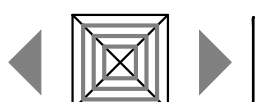
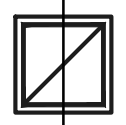
GENERAL NOTES
A. CONTRACTORS AND SUB-CONTRACTORS SHALL CAREFULLY REVIEW THE CONSTRUCTION DOCUMENTS, INFORMATION REGARDING THE COMPLETE WORK IS DISPERSED THROUGHOUT THE DOCUMENT SET AND CANNOT BE ACCURATELY DETERMINED WITHOUT REFERENCE TO THE COMPLETE DOCUMENT SET.
B. CONTRACTOR TO VERIFY THAT ALL EQUIPMENT SHOWN AS EXISTING MATCHES THE DESCRIPTIONS AND SPECIFICATIONS SHOWN ON DRAWINGS AND SCHEDULES. IF DIFFERENT NOTIFY ARCHITECT/ENGINEER BEFORE BIDDING, ORDERING, OR PROCEEDING WITH WORK.
C. DRAWINGS/DETAILS ARE TO BE CONSIDERED DIAGRAMMATIC, NOT NECESSARILY SHOWING IN DETAIL OR TO SCALE. ALL MINOR ITEMS, UNLESS SPECIFIC DIMENSIONS ARE SHOWN, THE STRUCTURAL, ARCHITECTURAL AND SITE CONDITIONS SHALL GOVERN. EXACT LOCATIONS, CONTRACTOR SHALL FOLLOW DRAWINGS IN LAYING OUT WORK, AND CHECK/COORDINATE DRAWINGS OF ALL TRADES.
D. COORDINATE WITH THE WORK OF OTHERS SECTIONS, EQUIPMENT FURNISHED BY OTHERS, REQUIREMENTS OF THE OWNER, AND WITH THE CONSTRAINTS OF THE EXISTING CONDITIONS OF THE PROJECT SITE. PROVIDE DUCT RISES AND DRIPS AS REQUIRED FOR FIELD INSTALLATION AND TRADE COORDINATION. NOTIFY ARCHITECT OF ANY DISCREPANCIES BEFORE STARTING WORK.
E. DRAWINGS FOR HVAC WORK ARE DIAGRAMMATIC, SHOWING THE GENERAL LOCATION, TYPE, LAYOUT, AND EQUIPMENT REQUIRED. THE DRAWINGS SHALL NOT BE SCALED FOR EXACT MEASUREMENT. REFER TO MANUFACTURERS STANDARD INSTALLATION DRAWINGS FOR EQUIPMENT CONNECTIONS AND INSTALLATION REQUIREMENTS. PROVIDE DUCTWORK, CONNECTIONS, ACCESSORIES, OFFSETS, AND MATERIALS NECESSARY FOR A COMPLETE SYSTEM.
F. ALL WORK SHALL COMPLY WITH STATE AND LOCAL CODE REQUIREMENTS AS APPROVED AND AMENDED BY THE GOVERNING CITY. PURCHASE ALL PERMITS ASSOCIATED WITH THE WORK. OBTAIN ALL INSPECTIONS REQUIRED BY CODE.
G. USE OF COMBUSTIBLE MATERIALS IS NOT ALLOWED IN THE RETURN AIR PLENUM. MATERIALS USED IN THE PLENUM SHALL HAVE FLAME SPREAD RATING NOT TO EXCEED 25, AND SMOKE DEVELOPED RATING NOT TO EXCEED 50 WHEN TESTED IN ACCORDANCE WITH ASTM E 84. ALL EXPOSED WIRING IN THE PLENUM SHALL BE PLENUM RATED.
H. G.C.TO VERIFY LOCATION OF PERMISSIBLE NEW STRUCTURAL ROOF PENETRATIONS AND ADAPT THE REQUIRED DUCTS ACCORDINGLY. THE OPENINGS MUST BE LOCATED USING A REBAR LOCATOR, TRYING TO LEAVE A TRANSVERSE BAR WITHIN 4" FROM THE OPENING. LOCATE OPENINGS AT MID-DISTANCE BETWEEN THE STEMS OF THE DOUBLE TEE AND LONGITUDINAL REINFORCEMENT SHALL NEVER BE CUT. CALL THE ARCHITECTS' OFFICE IN CASE OF UNEXPECTED DIFFICULTIES.
I. ALL EXPOSED DUCTWORK SHALL BE AS SHOWN.DOUBLE WALL, INTERNALLY INSULATED & PRIMED FOR PAINTING. ALL CONCEALED DUCTWORK SHALL BE EXTERNALLY INSULATED.
J. G.C. SHALL COORDINATE WITH LANDLORD APPROVED ROOFING CONTRACTOR TO FLASH AND SEAL ALL ROOF PENETRATIONS TO MAINTAIN ROOFING WARRANTY.
K. CONSTRUCTION 'AS BUILT' DRAWINGS AND DOCUMENTS SHALL BE PROVIDED TO THE OWNER WITHIN 90 DAYS AFTER THE DATE OF ACCEPTANCE AND PROVIDE COPY TO LL.
L. OPERATION MANUALS AND MAINTENANCE MANUALS SHALL BE PROVIDED TO THE BUILDING OWNER.

MECHANICAL GENERAL NOTES
A. PROVIDE TWO NEW 4.0 TON HEAT PUMP SPLIT UNIT AND PROVIDE NEW DUCTWORK WITH NECESSARY ACCESSORIES FOR COMPLETE HVAC SYSTEM. PROVIDE FLEXIBLE CONNECTORS ON SUPPLY AIR DUCT CONNECTIONS. INSTALL FIRE DAMPERS IN ANY FIRE WALLS AND BETWEEN FLOORS. TRANSITION TO DUCT SIZES SHOWN. PROVIDE DUCTWORK AND AIR DISTRIBUTION DEVICES AS INDICATED ON THE PLAN. REFER TO A/C UNIT SCHEDULE FOR ADDITIONAL REQUIREMENTS.
B. FOR SYSTEM OVER 2,000 CFM CHECK FOR DUCT MOUNTED AIR SMOKE DETECTORS AND THAT MEET THE REQUIREMENTS OF UL 186A, INTERLOCKED TO TOP UNIT UPON DETECTION OF SMOKE. IF NECESSARY PROVIDE SMOKE DETECTOR WITH AN ANNUNCIATOR, ALARM AND POWER L.E.D.'S FOR VISIBLE AND AUDIBLE ALARM SIGNAL, AND VISIBLE TROUBLE SIGNAL. MOUNT ANNUNCIATOR ON ROOM SIDE OF CEILING.
C. ALL DUCTS SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH SMACNA/ANSI-HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE, LATEST EDITION, SMACNA HVAC AIR DUCT LEAKAGE TEST MANUAL, LATEST EDITION, NAIMA FIBROUS GLASS DUCT CONSTRUCTION STANDARD AND 2020 NEW YORK STATE MECHANICAL CODE, SECTION 603. THE MORE STRINGENT REQUIREMENT OF ANY CODES SHALL APPLY.
D. ALL RECTANGULAR OR ROUND SUPPLY AND RETURN DUCTWORK SHALL BE LISTED AND LABELED IN ACCORDANCE WITH UL 181 AND INSTALLED IN ACCORDANCE WITH THE TERMS OF THEIR LISTING, THE MANUFACTURER'S INSTRUCTION AND CONTRACTOR TO PROVIDE NECESSARY TEST CERTIFICATE TO INSPECTOR CONFORMING THE MATERIAL STANDARDS AS SPECIFIED ON 2020 NEW YORK STATE MECHANICAL CODE 302.2. FACTORY-MADE AIR DUCTS SHALL BE INSTALLED WITH NOT LESS THAN 4 INCHES OF SEPARATION FROM EARTH, EXCEPT WHERE INSTALLED AS A LINER INSIDE OF CONCRETE, TILE OR METAL PIPE AND SHALL BE PROTECTED FROM PHYSICAL DAMAGE.
E. FACTORY-MADE FLEXIBLE AIR DUCTS AND CONNECTORS SHALL BE NOT MORE THAN 5 FEET IN LENGTH AND SHALL NOT BE USED IN LIEU OF RIGID ELBOW OR FITTINGS. FLEXIBLE AIR DUCTS SHALL BE PERMITTED TO BE USED AS AN ELBOW AT A TERMINAL DEVICE.
F. THERMOSTATS AND HUMIDISTAT SHALL BE 7-DAY PROGRAMMABLE TYPE. MOUNT THERMOSTAT 48" A.F.F. COORDINATE LOCATION OF THERMOSTAT.
G. ALL INTERIOR AIR DUCTS WITH INSULATION SHALL HAVE A MINIMUM OF R-6 INSULATION AND EXTERIOR DUCTS SHALL HAVE R-8 INSULATION AS PER 2020 NEW YORK STATE ENERGY CONSERVATION CODE.
H. ALL SEAMS, JOINTS, ETC WILL BE SEALED TO MAKE AIR DUCT AIRTIGHT. PRESSURE SENSITIVE MATERIALS AND OTHERS APPROVED BY LATEST SMACNA. SEALING MATERIALS WILL BE USED.
I. ALL EQUIPMENT AND MATERIALS WILL BE INSTALLED ACCORDING TO THE MANUFACTURERS INSTRUCTIONS AND ACCORDING TO THE BEST PRACTICE.
J. TESTING AND BALANCING SHALL BE DONE IN ACCORDANCE AS PER 2020 NEW YORK STATE ENERGY CONSERVATION CODE. BALANCING PROCEDURES SHALL BE IN ACCORDANCE WITH THE NATIONAL ENVIRONMENTAL BALANCING BUREAU (N.E.B.B.), THE ASSOCIATED AIR BALANCE COUNCIL (A.A.B.C) NATIONAL STANDARDS OR EQUIVALENT PROCEDURES.
K. HANGER ATTACHMENTS TO THE STEEL STRUCTURE WILL BE RATED POWDER ACTUATED FASTENERS, "C" CLAMPS, WELDED STUDS, CLAMP HANGERS, JOIST CLAMPS OR OTHER METHODS RECOMMENDED BY SMACNA'S 'METAL AND FLEXIBLE STANDARDS', CHAPTER 4, AND WILL HAVE A MINIMUM SAFETY MARGIN OF 4:1. SUSPENDED FROM TOP CHORD OF JOISTS, NOTHING FROM DECK OR CROSS BRACING.
L. ALL HVAC CONTROLS AND CONTROL WIRING SHALL BE PROVIDED BY THE MECHANICAL CONTRACTOR.
M. PROVIDE FIRE/SMOKE + SMOKE COMBINATION DAMPERS WHEREVER REQUIRED. COORDINATE WITH ARCHITECTURAL DRAWINGS FOR SMOKE/FIRE RATING OF THE WALLS/SLABS/ROOF. COORDINATE ELECTRICAL POWER REQUIREMENT FOR DAMPER ACTUATORS WITH ELECTRICAL CONTRACTOR.

NEW YORK STATE BUILDING DEPARTMENT NOTES
ALL WORK SHALL COMPLY WITH APPLICABLE SECTIONS OF 2020 NEW YORK STATE BUILDING CODE WITH ALL AMENDMENTS; BASE CODE IBC 2018 AND RULES AND REGULATIONS OF THE DEPARTMENT OF BUILDINGS TO DATE.
1. THE CONTRACTOR SHALL ENGAGE THE SERVICES OF A PROFESSIONAL ENGINEER TO PROVIDE THE REQUIRED SPECIAL INSPECTION AND TESTS.
2. TESTS WILL BE CONDUCTED UNDER DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT OR OTHER PERSON HAVING NOT LESS THAN FIVE (5) YEARS EXPERIENCE SUPERVISING THE INSTALLATION OF SUCH MECHANICAL SYSTEMS AND CONDUCTING SUCH TESTS WILL FILE DOCUMENTATION AND REPORTS OF TESTS THAT THE SYSTEM COMPLIES WITH THE CONSTRUCTION DOCUMENTS AND APPLICABLE LAWS.
3. THE LICENSED PROFESSIONAL ENGINEER, ARCHITECT OR OTHER PERSON HAVING NOT LESS THAN FIVE (5) YEARS EXPERIENCE SUPERVISING THE INSTALLATION OF SUCH MECHANICAL SYSTEMS AND CONDUCTING SUCH TESTS WILL FILE DOCUMENTATION AND REPORTS OF TESTS THAT THE SYSTEM COMPLIES WITH THE CONSTRUCTION DOCUMENTS AND APPLICABLE LAWS.
4. TESTS OF MECHANICAL SYSTEMS SHALL BE PERFORMED IN ACCORDANCE WITH THE FOLLOWING SECTIONS OF THE INTERNATIONAL 2020 NYS MECHANICAL CODE (2018 IMC): A. VENTILATION SYSTEM BALANCING 2020 NYS MECHANICAL CODE (2018 IMC) - 403.3
5. THE FOLLOWING WORK ITEMS, COMPONENTS, MATERIALS, CAPACITIES, ETC. SHALL COMPLY WITH THE REFERENCED CODE OR STANDARD: A. STANDARDS OF HEATING 2020 NYS MECHANICAL CODE (2018 IMC) - 309.1 B. DUCT CONSTRUCTION AND INSTALLATION 2020 NYS MECHANICAL CODE (2018 IMC) - 603 C. AIR INTAKES, EXHAUSTS AND RELIEF 2020 NYS MECHANICAL CODE (2018 IMC) - 401.5 D. AIR FILTERS 2020 NYS MECHANICAL CODE (2018 IMC) - 605
6. MINIMUM TEMPERATURE TO BE MAINTAINED IN OCCUPIED SPACES DURING HEATING SEASON: 68 DEG. FAHRENHEIT.
7. VENTILATION FOR ALL AREA SHALL COMPLY WITH 2020 NYS MECHANICAL CODE (2018 IMC), CHAPTER 4.
8. VENTILATION SYSTEM SHALL BE BALANCED TO MAINTAIN THE MINIMUM VENTILATION AIRFLOW RATES AS SHOWN IN VENTILATION REQUIREMENT TABLE. THE SYSTEM SHALL BE BALANCED BY APPROVED METHOD. CONTRACTOR TO SUBMIT THE AIR BALANCE REPORT TO INSPECTOR OF RESPECTIVE BUILDING DEPARTMENT PRIOR TO FINAL INSPECTION.
9. A STATEMENT SHALL BE FILED BY THE OWNER OR TENANT IN POSSESSION THAT THE VENTILATION SYSTEM WILL BE KEPT IN CONTINUOUS OPERATION AT ALL TIMES DURING THE NORMAL OCCUPANCY OF THE STRUCTURE AS REQUIRED BY 2020 NYS MECHANICAL CODE (2018 IMC) - 403.
10. REFER TO ARCHITECTURAL DRAWINGS FOR REQUIRED FIRE-RATED WALL AND SMOKE WALL CONSTRUCTION AND LOCATION.
11. THESE PLANS ARE APPROVED ONLY FOR THE WORK INDICATED ON THE APPLICATION SPECIFICATION SHEET. ALL OTHER MATTERS SHOWN ARE NOT TO BE RELIED UPON OR TO BE CONSIDERED AS EITHER BEING APPROVED OR IN ACCORDANCE WITH APPLICABLE CODES.
12. ALL HEATING AND COOLING LOADS CALCULATED PER ASHRAE/ACCA 183.
13. SMOKE DETECTOR SHALL MEET UL286A.
14. MECHANICAL SYSTEM COMMISSIONING SHALL BE DONE AS PER 2020 NEW YORK STATE ENERGY CONSERVATION CODE SECTION C408.2 IF THE TOTAL MECHANICAL EQUIPMENT CAPACITY BEING INSTALLED OR THE TOTAL MECHANICAL EQUIPMENT CONNECTED LOAD SERVING THE ALTERATION SPACE IS MORE THEN 480,000 BTU/H COOLING AND 600,000 BTU/H COMBINED SERVICE WATER HEATING AND SPACE HEATING.

THERMOSTATIC CONTROLS
C403.4.1 THERMOSTATIC CONTROLS (MANDATORY) THE SUPPLY OF HEATING AND COOLING ENERGY TO EACH ZONE SHALL BE CONTROLLED BY INDIVIDUAL THERMOSTATIC CONTROLS CAPABLE OF RESPONDING TO TEMPERATURE WITHIN THE ZONE. WHERE HUMIDIFICATION OR DEHUMIDIFICATION OR BOTH IS PROVIDED, NOT FEWER THAN ONE HUMIDITY CONTROL DEVICE SHALL BE PROVIDED FOR EACH HUMIDITY CONTROL SYSTEM. EXCEPTION: INDEPENDENT PERIMETER SYSTEMS THAT ARE DESIGNED TO OFFSET ONLY BUILDING ENVELOPE HEAT LOSSES, GAINS OR BOTH SERVING ONE OR MORE PERIMETER ZONES ALSO SERVED BY AN INTERIOR SYSTEM PROVIDED THAT BOTH OF THE FOLLOWING CONDITIONS ARE MET: 1. THE PERIMETER SYSTEM INCLUDES NOT FEWER THAN ONE THERMOSTATIC CONTROL ZONE FOR EACH BUILDING EXPOSURE HAVING EXTERIOR WALLS FACING ONLY ONE ORIENTATION (WITHIN ± 45 DEGREES) (0.8 RAD) FOR MORE THAN 50 CONTIGUOUS FEET (15 240 MM). 2. THE PERIMETER SYSTEM HEATING AND COOLING SUPPLY IS CONTROLLED BY THERMOSTATS LOCATED WITHIN THE ZONES SERVED BY THE SYSTEM. C403.4.1.1 HEAT PUMP SUPPLEMENTARY HEAT (MANDATORY) HEAT PUMPS HAVING SUPPLEMENTARY ELECTRIC RESISTANCE HEAT SHALL HAVE CONTROLS THAT, EXCEPT DURING DEFROST, PREVENT SUPPLEMENTARY HEAT OPERATION WHERE THE HEAT PUMP CAN PROVIDE THE HEATING LOAD. C403.4.1.2 DEADBAND (MANDATORY) WHERE USED TO CONTROL BOTH HEATING AND COOLING, ZONE THERMOSTATIC CONTROLS SHALL BE CONFIGURED TO PROVIDE A TEMPERATURE RANGE OR DEADBAND OF NOT LESS THAN 5°F (2.8°C) WITHIN WHICH THE SUPPLY OF HEATING AND COOLING ENERGY TO THE ZONE IS SHUT OFF OR REDUCED TO A MINIMUM. EXCEPTIONS: 1. THERMOSTATS REQUIRING MANUAL CHANGEOVER BETWEEN HEATING AND COOLING MODES. 2. OCCUPANCIES OR APPLICATIONS REQUIRING PRECISION IN INDOOR TEMPERATURE CONTROL AS APPROVED BY THE CODE OFFICIAL. C403.4.1.3 SETPOINT OVERLAP RESTRICTION (MANDATORY) WHERE A ZONE HAS A SEPARATE HEATING AND A SEPARATE COOLING THERMOSTATIC CONTROL LOCATED WITHIN THE ZONE, A LIMIT SWITCH, MECHANICAL STOP OR DIRECT DIGITAL CONTROL SYSTEM WITH SOFTWARE PROGRAMMING SHALL BE CONFIGURED TO PREVENT THE HEATING SETPOINT FROM EXCEEDING THE COOLING SETPOINT AND TO MAINTAIN A DEADBAND IN ACCORDANCE WITH SECTION C403.4.1.2. C403.4.2 OFF-HOUR CONTROLS (MANDATORY) EACH ZONE SHALL BE PROVIDED WITH THERMOSTATIC SETBACK CONTROLS THAT ARE CONTROLLED BY EITHER AN AUTOMATIC TIME CLOCK OR PROGRAMMABLE CONTROL SYSTEM. EXCEPTIONS: 1. ZONES THAT WILL BE OPERATED CONTINUOUSLY. 2. ZONES WITH A FULL HVAC LOAD DEMAND NOT EXCEEDING 6,800 BTU/H (2 kW) AND HAVING A MANUAL SHUTOFF SWITCH LOCATED WITH READY ACCESS. C403.4.2.1 THERMOSTATIC SETBACK (MANDATORY) THERMOSTATIC SETBACK CONTROLS SHALL BE CONFIGURED TO SET BACK OR TEMPORARILY OPERATE THE SYSTEM TO MAINTAIN ZONE TEMPERATURES DOWN TO 55°F (13°C) OR UP TO 85°F (29°C). C403.4.2.2 AUTOMATIC SETBACK AND SHUTDOWN (MANDATORY) AUTOMATIC TIME CLOCK OR PROGRAMMABLE CONTROLS SHALL BE CAPABLE OF STARTING AND STOPPING THE SYSTEM FOR SEVEN DIFFERENT DAILY SCHEDULES PER WEEK AND RETAINING THEIR PROGRAMMING AND TIME SETTING DURING A LOSS OF POWER FOR NOT FEWER THAN 10 HOURS. ADDITIONALLY, THE CONTROLS SHALL HAVE A MANUAL OVERRIDE THAT ALLOWS TEMPORARY OPERATION OF THE SYSTEM FOR UP TO 2 HOURS; A MANUALLY OPERATED TIMER CONFIGURED TO OPERATE THE SYSTEM FOR UP TO 2 HOURS; OR AN OCCUPANCY SENSOR. C403.4.2.3 AUTOMATIC START (MANDATORY) AUTOMATIC START CONTROLS SHALL BE PROVIDED FOR EACH HVAC SYSTEM. THE CONTROLS SHALL BE CONFIGURED TO AUTOMATICALLY ADJUST THE DAILY START TIME OF THE HVAC SYSTEM IN ORDER TO BRING EACH SPACE TO THE DESIRED OCCUPIED TEMPERATURE IMMEDIATELY PRIOR TO SCHEDULED OCCUPANCY.

SPLIT SYSTEM SCHEDULE			
AIR HANDLER DATA	UNIT TAG	AC-1	AC-2
	UNIT TYPE	HEAT PUMP	HEAT PUMP
	AREA SERVED	REFER TO PLAN	REFER TO PLAN
	SUPPLY AIR (CFM)	1765	1765
	OUTSIDE AIR (CFM)	420	200
	STATIC PRESS. (E.S.P INCH OF W.C.)	0.5	0.5
	MANUFACTURER	LG (OR EQUIVALENT)	LG (OR EQUIVALENT)
HEAT PUMP UNIT DATA	MODEL	KNSJB481A (OR EQUIVALENT)	KNSJB481A (OR EQUIVALENT)
	WEIGHT, LBS	96.6	96.6
	VOLTS/PH/Hz	POWERED BY HP-1	POWERED BY HP-2
	UNIT TAG	HP-1	HP-2
	AIR HANDLER SERVED	AC-1	AC-2
	CAPACITY	4.0 TON	4.0 TON
	REFRIGERANT	R-32	R-32
	TOT. COOLING CAP. (MBH)	35.5	35.5
	COOLING SENS. CAP. (MBH)	25.7	25.7
	NOM. HEATING CAPACITY (OUTDOOR @ 5°F & INDOOR @72°F)	27.3	27.3
	VOLTS-PH-Hz	208-1-60	208-1-60
	M.C.A. & MAX. CKT. BRKR. AMPS	32.0 / 40.0	32.0 / 40.0
SPLIT SYSTEM NOTES:-	MANUFACTURER	LG (OR EQUIVALENT)	LG (OR EQUIVALENT)
	MODEL	KUSXB481A (OR EQUIVALENT)	KUSXB481A (OR EQUIVALENT)
	SEER2	17.50	17.50
	HSPF2	9.10	9.10
	EER2	11.70	11.70
	WEIGHT, (LBS)	210	210
	11. PROVIDE ACCESS DOOR FOR THE UNIT IN COORDINATION WITH ARCHITECT.		

MECHANICAL SYMBOLS			
	EXHAUST FAN		ROOF MOUNTED EXHAUST FAN OUTLET
	SUPPLY OR OUTSIDE AIR DUCT		ROOFTOP UNIT
	RETURN OR EXHAUST AIR DUCT		EXHAUST FAN WITH LIGHT
	INSULATED RIGID DUCTWORK		OPPOSED BLADE DAMPER
	DUCT TRANSITION		DUCT SMOKE DETECTOR
	MANUAL VOLUME DAMPER		PROGRAMMABLE THERMOSTAT
	FLEXIBLE DUCTWORK R-6.0		REMOTE SENSOR
	SUPPLY DIFFUSER REFER TO DIFFUSER SCHEDULE FOR SPECIFICATIONS		TEMPERATURE SENSOR
	RETURN DIFFUSER REFER TO DIFFUSER SCHEDULE FOR SPECIFICATIONS		ROUND DUCT DIAMETER
			CUBIC FEET / MINUTE
			SUPPLY AIR
			RETURN AIR
			EXHAUST AIR
			SUPPLY GRILLE
			OUTSIDE AIR
			VOLUME DAMPER
			NEW
			CONDENSATE PIPING
NOTE: THIS PROJECT MAY NOT USE EVERY SYMBOL OR DEVICE APPEARING ON THIS LEGEND.			

FAN SCHEDULE			
DESIGNATION	KEF-1	BEF-1	OAF-1
STATUS	NEW	NEW	NEW
QUANTITY	1	1	1
MANUFACTURER	ECON.AIR	GREENHECK	GREENHECK
MODEL	SIF13DD	SP-B150	SQ-7-M1-VG
CFM	2025@1.3" OF W.C. ESP	70@1.0" OF W.C. ESP	620@1.2" OF W.C. ESP
FLA (A)	4.9	1.8	6.6
ACCESSORIES	BDD	BDD	BDD
WEIGHT (LBS)	178	15	55
VOLT./PH/Hz	230/3/60	115/1/60	115/1/60
NOTES	1.6	1.2,7	1.2,3,4,5
NOTES: 1. PROVIDE FACTORY MOUNTED AND INSTALL DISCONNECT. 2. PROVIDE BACK DRAFT DAMPER. 3. PROVIDE MERV 8 FILTER FOR OAF-1. 4. INTERCONNECT WITH AC-1 5. INTERCONNECT WITH AC-2 6. INTERCONNECT KEF-1 WITH MAU-1. 7. INTERCONNECT WITH ROOM LIGHTS			

TABLE -A					
FOR ROUND NECK			FOR SQUARE NECK		
NECK SIZE	CFM RANGE		NECK SIZE	CFM RANGE	
06"	0-100		6"X6"	0-115	
08"	101-200		8"X8"	116-220	
010"	201-400		10"X10"	221-350	
012"	401-600		12"X12"	351-520	
			14"X14"	521-730	
			16"X16"	731-840	
			18"X18"	840-1035	
			20"X20"	1036-1285	
			22"X22"	1286-1570	

DIFFUSER SCHEDULE					
MANUFACTURER	TITUS	TITUS	TITUS	TITUS	TITUS
DESIGNATION	A	A1	R	R1	L1
USE	SUPPLY	SUPPLY	RETURN	RETURN	SUPPLY
MODEL	TDC-AA	PAS	350 RL	350 RL	ML-37 SLOT SUPPLY DIFFUSER, 1/2" SLOT,
MOUNTING	SAT CEILING	SAT CEILING	SAT CEILING	SAT CEILING	SEE PLAN
LOCATION	AS SHOWN	AS SHOWN	AS SHOWN	AS SHOWN	AS SHOWN
FACE SIZE	24" X 24"	24" X 24"	24" X 24"	24" X 12"	5'- 10" INLET
NECK SIZE	REFER TO TABLE A	REFER TO TABLE A	-	-	-
FRAME TYPE	LAY IN	LAY IN	LAY IN	FLANGED	FLANGED
ACCESSORIES	VOLUME DAMPER	VOLUME DAMPER	VOLUME DAMPER	VOLUME DAMPER	CONTINUES PLENUM, VOLUME DAMPER
NOTES: 1. MAX. NC LEVEL 30 OR LESS. 2. PROVIDE SQUARE TO ROUND NECK ADAPTOR. 3. CONFIRM WITH ARCHITECT/OWNER FOR FINAL PAINT AND FINISH. 4. PROVIDE 4 WAY AIR THROW PATTERN UNLESS NOTED OR INDICATED. 5. PROVIDE LINEAR DIFFUSER ML-37 WITH BLACK PAINT.					

OCCUPANCY DETAILS			
DINING ROOM	495 SQ. FT.	17 PEOPLE	
FRONT SERVICE	133 SQ. FT.	2 PEOPLE	
KITCHEN	336 SQ. FT.	6 PEOPLE	
		TOTAL	25 PEOPLE
REFER TO THE OCCUPANT LOAD CALCULATIONS ON SHEET CS-1 FOR THE ARCHITECTURAL OCCUPANCY CALCULATION.			
VENTILATION REQUIREMENTS PER 2020 NYSMC-TABLE 403.3.1.1			
DINING AREA	495 SQ. FT. X 0.18 CFM/SQ. FT. =	90 CFM	
	17 PEOPLE X 7.5 CFM/PEOPLE. =	128 CFM	
FRONT SERVICE	133 SQ. FT. X 0.12 CFM/SQ. FT. =	16 CFM	
	2 PEOPLE X 7.5 CFM/PEOPLE. =	15 CFM	
KITCHEN	336 SQ. FT. X 0.12 CFM/SQ. FT. =	41 CFM	
	6 PEOPLE X 7.5 CFM/PEOPLE. =	45 CFM	
BOH	165 SQ. FT. X 0.12 CFM/SQ. FT. =	20 CFM	
BREATHING ZONE OUTDOOR AIRFLOW (Vbz)	=	355 CFM	
ZONE AIR DISTRIBUTION EFFECTIVENESS (Ez)	=	0.8	
ZONE OUTDOOR AIRFLOW (Voz=Vbz/Ez)	=	355/0.8=444 CFM	
EXHAUST AIR			
KITCHEN	336 SQ. FT. X 0.7 CFM/SQ. FT. =	236 CFM	
ACCESSIBLE RESTROOM	70 CFM PER FIXTURE X 1	70 CFM	
OUTSIDE AIR PROVIDED		620 CFM	
AIR BALANCE			
O/A PROVIDED BY MAU-1		+1620 CFM	
O/A PROVIDED BY AC-1		+420 CFM	
O/A PROVIDED BY AC-2		+200 CFM	
KEF-1		-2025 CFM	
BEF-1		-70 CFM	
BUILDING PRESSURE		+145 CFM	

MAKEUP AIR UNIT SCHEDULE	
TAG	MAU-1
MANUFACTURER	ECON.AIR
MODEL	INLINE1-15D
STATUS	NEW
MOUNTING	CEILING
SUPPLY AIR (CFM)	1620@1.3E.S.P
VOLTAGE	208/3/60
MCA (A)	7.7
MOCP (A)	15
FLA	6.1
WEIGHT (LBS)	235
INCLUDE SYSTEM OPTIONS FOR NEW MAU-1	
1. INLINE SUPPLY UNIT WITH 20" DIRECT DRIVE FAN IN SIZE #2 HOUSING. INSULATED HOUSING.	
2. SIDE DISCHARGE - AIR FLOW RIGHT -> LEFT.	
3. INDOOR HANGING CRADLE FOR THE SIZE 2 UNTEMPERED INLINE UNIT. 2 HSA125 HANGING ISOLATORS PER UNI-STRUT INCLUDED.	
4. HINGED DOUBLE WALL INSULATED DOOR ASSEMBLY (BURNER/BLOWER SECTION).	
5. 2 YEAR PARTS WARRANTY.	

NY ENGINEERS	
THIS DOCUMENT IS THE PROPERTY OF NY ENGINEERS AND SHALL NOT BE REPRODUCED WITHOUT THE WRITTEN CONSENT OF NY ENGINEERS	
REVISIONS DATES:	
PROJECT COORD.	10/16/25
PROJECT COORD.	12/05/25
ISSUE DATE: 07.30.25	
PROJECT #: 435B.1421B	
DRAWN BY: NYE	
CHECKED BY: NYE	
MECHANICAL NOTES AND SCHEDULES	
M-1	

MECHANICAL FLOOR PLAN GENERAL NOTES

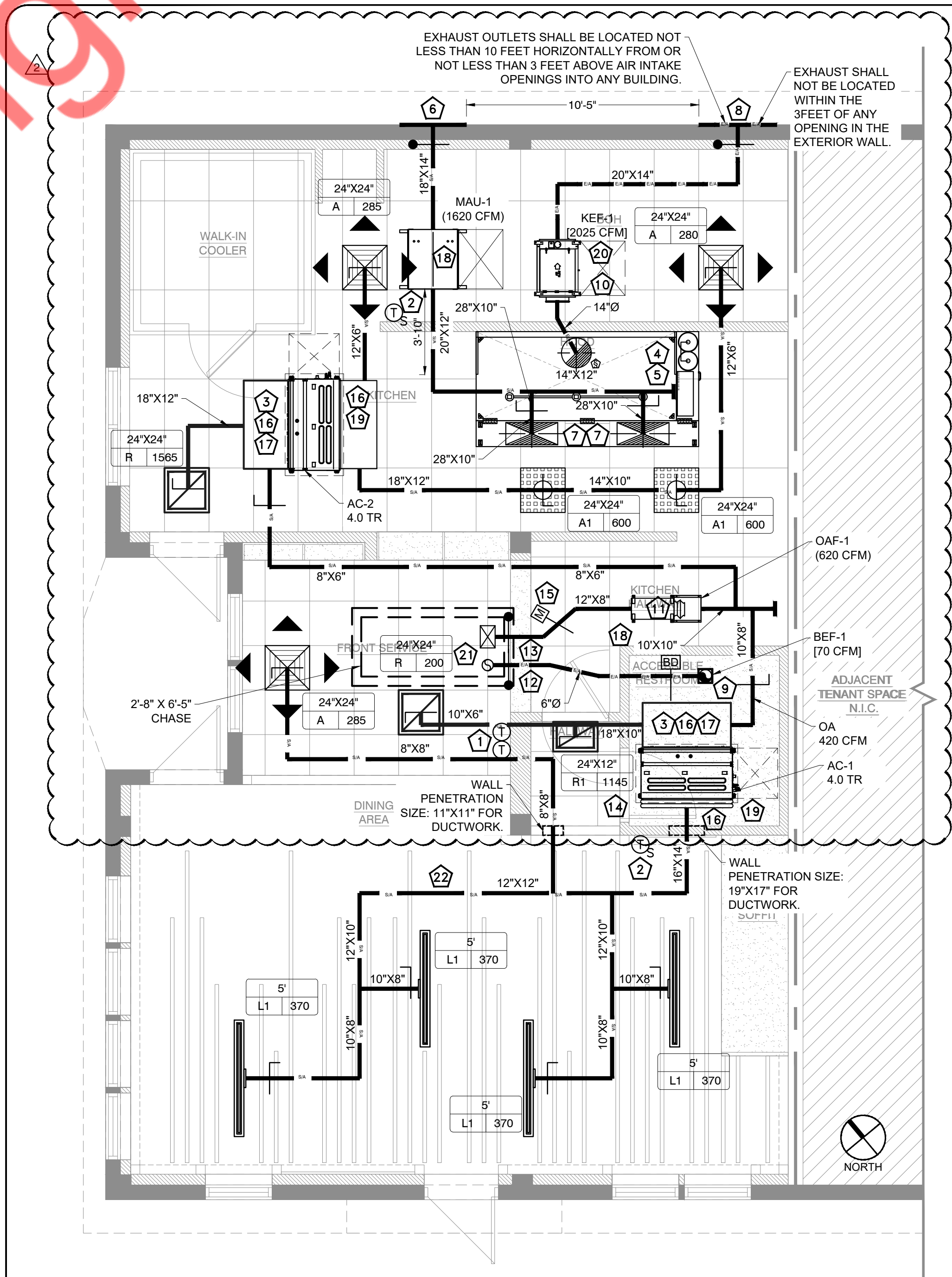
- A. CONTRACTOR SHALL BALANCE EACH AIR DIFFUSER WITH THE CFM SHOWN PLAN.
- B. DUCTWORK SHOWN ON PLAN ARE SCHEMATIC ONLY. CONTRACTOR SHALL COORDINATE WITH OTHER TRADES FOR DUCTWORK ROUTING. OFFSET AND RUN PIPING, DUCTWORK INSIDE THE STRUCTURE IF REQUIRED. PROVIDE ANY EXTRA DUCTWORK, FITTINGS, INSULATIONS AND OTHER ACCESSORIES IN ORDER TO COMPLETE THE INSTALLATION.
- C. COORDINATE LOCATIONS AND SIZES OF ROOF OPENINGS WITH OWNER AND STRUCTURE ENGINEERS.
- 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 EQUIPMENT BASED ON ACTUAL EQUIPMENT SELECTED PRIOR TO INSTALLATION.
- G. CONTRACTOR SHALL COORDINATE EQUIPMENT WEIGHTS AND SUPPORTS BASED ON ACTUAL EQUIPMENT SELECTED.
- H. ALL EXPOSED DUCTWORK SHALL BE AS SHOWN, DOUBLE WALL, INTERNALLY INSULATED & PRIMED FOR PAINTING. ALL CONCEALED DUCTWORK SHALL BE EXTERNALLY INSULATED UNLESS OTHERWISE ALLOWED IN WRITING BY THE ENGINEER OF RECORD. COORDINATE FINAL FINISH WITH ARCHITECT.
- I. COORDINATE WITH ALL TRADES FOR RATED MATERIALS IN PLENUM SPACES.
- J. 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.
- K. COORDINATE FINAL LOCATION OF EQUIPMENT WITH STRUCTURAL DRAWINGS.
- L. TAKE NECESSARY PRECAUTIONS TO PREVENT DUST AND DIRT MIGRATING TO OCCUPIED AREAS OF THE BUILDING. THIS INCLUDES BLANKING OFF ANY RETURN AIR GRILLES/ DUCTS IN THE WORK AREA. INSTALL TEMPORARY EXHAUST FANS WITH DUCTWORK ROUTED DIRECTLY TO THE EXTERIOR TO ENSURE NEGATIVE PRESSURE IS MAINTAINED WITHIN THE WORK AREA.
- M. KEEP ALL ADJOINING AREAS ADJACENT TO THE WORK AREAS CLEAN AND FREE OF DEBRIS.
- N. ALL DEMOLISHED MATERIALS SHALL BE REMOVED AND DISPOSED OF OFF SITE.
- O. REPAIR/ REPLACE EXISTING EQUIPMENT/ MATERIALS NOT SCHEDULED OR NOTED TO BE DEMOLISHED BUT BECOME DAMAGED DURING THE PROGRESS OF THE WORK. MAKE ANY AND ALL SUCH REPAIRS, REPLACEMENTS, MODIFICATIONS TO RESTORE THE DAMAGED ITEMS TO THEIR ORIGINAL CONDITIONS AT THE TIME OF DAMAGE, TO THE SATISFACTION OF AND AT NO ADDITIONAL COST TO THE OWNER.
- P. MECHANICAL CONTRACTOR TO COORDINATE ALL DUCT WORK, CROSSINGS, OVERLAPPING AND PENETRATIONS WITH SITE CONDITIONS AND AS PER EXISTING JOIST LAYOUT AND SKYLIGHT IN FIELD. MODIFY DUCT WORK WHEREVER REQUIRED.
- Q. PROVIDE FIRE OR FIRE+SMOKE DAMPER WHEREVER DUCTS ARE CROSSING FIRE/SMOKE RATED WALLS/BARRIERS/SLABS/ROOF. COORDINATE WITH ARCHITECTURAL DRAWING FOR FIRE RATING OF THE WALLS/ROOF. IF NOT FIRE RATED, FIRE DAMPERS ARE NOT REQUIRED.

GREASE DUCT SPECIFICATIONS

- A. PROVIDE CLEAN OUT AT ALL ELBOWS AND BOTTOM OF RISER AND EVERY 20 FEET HORIZONTAL KITCHEN EXHAUST DUCT.
- B. COMMERCIAL KITCHEN GREASE DUCTS SHALL BE DESIGNED FOR THE TYPE OF COOKING APPLIANCE AND HOOD SERVED. COMMERCIAL KITCHEN GREASE DUCTS SHALL BE OF 16 GAUGE MINIMUM BLACK IRON OR PREFABRICATED SINGLE WALL GREASE DUCT WITH UL 1978 AND UL 2221 LISTING.
- C. 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.
- D. DUCT TO EXHAUST FAN CONNECTIONS SHALL BE FLANGED, GASKETED AND BOLTED TO THE INLET AND OUTLET OF THE FAN FOR INLINE FANS. APPROVED FLEXIBLE CONNECTIONS MAY BE PROVIDED.
- E. 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.
- F. PRIOR TO THE USE OR CONCEALMENT OF ANY PORTION OF A GREASE DUCT SYSTEM, A LEAKAGE TEST SHALL BE PERFORMED AS PER 2020 NYS MECHANICAL CODE (2018 IMC) SECTION 506.3.2.5. DUCTS SHALL BE CONSIDERED TO BE CONCEALED WHERE INSTALLED IN SHAFTS OR COVERED BY COATINGS OR WRAPS THAT PREVENT THE DUCTWORK FROM BEING VISUALLY INSPECTED ON ALL SIDES. THE DUCT INSTALLER SHALL BE RESPONSIBLE TO PROVIDE THE NECESSARY EQUIPMENT AND PERFORM THE GREASE DUCT LEAKAGE TEST. A LIGHT TEST SHALL BE PERFORMED TO DETERMINE THAT ALL WELDED AND BRAZED JOINTS ARE LIQUID TIGHT. THE DUCT WORK SHALL BE PERMITTED TO BE TESTED IN SECTIONS, PROVIDED THAT EVERY JOINT IS TESTED. (IF TEST IS FAILED, CONTRACTOR TO PROVIDE NEW KITCHEN EXHAUST DUCT).
- G. PERFORM LIGHT TEST TO VERIFY THE TIGHTNESS OF THE GREASE DUCT IN ACCORDANCE WITH SECTION 506.3.2.5 OF THE 2020 NYS MECHANICAL CODE (2018 IMC).
- H. 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 OF THE 2020 NYS BUILDING CODE(IBC 2018). BOLTS, SCREWS, RIVETS AND OTHER MECHANICAL FASTENERS SHALL NOT PENETRATE DUCT WALLS.
- I. A RESIDUE TRAP SHALL BE PROVIDED AT THE BASE OF EACH VERTICAL RISER WITH PROVISION FOR CLEANOUT IN ACCORDANCE WITH NFPA 96.
- J. CLEANOUT OPENINGS SHALL BE PROVIDED AT EVERY CHANGE IN DIRECTION, WITHIN 3 FEET OF THE EXHAUST FAN.
- K. CLEANOUT OPENINGS SHALL BE EQUIPPED WITH TIGHT-FITTING DOORS CONSTRUCTED OF STEEL HAVING A THICKNESS NOT LESS THAN THAT REQUIRED FOR THE DUCT. DOORS SHALL BE EQUIPPED WITH A SUBSTANTIAL METHOD OF LATCHING, SUFFICIENT TO HOLD THE DOOR TIGHTLY CLOSED. DOOR ASSEMBLIES SHALL HAVE A GASKET OR SEALANT THAT IS NONCOMBUSTIBLE AND LIQUID TIGHT AND SHALL NOT HAVE FASTENERS THAT PENETRATED THE DUCT.
- L. A GREASE DUCT SERVING THE TYPE-1 HOOD THAT PENETRATED A CEILING, WALL OR FLOOR SHALL BE ENCLOSED FROM THE FIRE POINT OF PENETRATION TO THE OUTLET TERMINAL. DUCT ENCLOSURES SHALL HAVE A FIRE-RESISTANCE RATING NOT LESS THAN THAT OF THE FIRE-RESISTANCE RATED ASSEMBLY PENETRATED BUT NEED NOT EXCEED 2 HOURS.
- M. PROVIDE PROVIDE MINIMUM 2HR INSULATION COVERING OF 2 INCHES AND SUCH MATERIAL SHALL BE IN ACCORDANCE WITH ASTM E2336. FIELD APPLIED GREASE DUCT ENCLOSURE SHALL COMPLY ALL REQUIREMENTS PER 2020 NYS MECHANICAL CODE (2018 IMC) SECTION 506.3.11.2.
- N. DUCT INSTALLER MUST ENSURE THAT THE DUCT IS CONTINUOUSLY COVERED ON ALL SIDES WITH THE FIRE WRAP FROM ITS STARTING POINT TO THE OUTLET TERMINAL.

MECHANICAL FLOOR PLAN KEY NOTES

1. LOCATION OF DIGITAL PROGRAMMABLE THERMOSTAT CONTROL. INSTALL AND WIRE NEW 7-DAY PROGRAMMABLE THERMOSTAT FOR AC-1 & AC-2. FIELD VERIFY EXACT PRIOR TO ROUGH-IN. PROVIDE LOCKABLE COVER.
2. PROVIDE REMOTE TEMPERATURE SENSOR MOUNTED IN THE SPACE AND WIRE BACK TO T-STAT OF RESPECTIVE AC UNITS. CONTRACTOR TO CONFIRM FINAL LOCATION ON FILED.
3. EXTEND FULL SIZE SUPPLY & RETURN DUCTWORK FROM UNITS TO SPACE. EXTEND AS SHOWN. ACOUSTICALLY LINE THE FIRST 10'-0" OF BOTH SUPPLY AND RETURN MAIN DUCTS.
4. INSTALL TYPE 1 GREASE EXHAUST HOOD. SUPPORT HOOD PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. PROVIDE TRAPEZE HANGERS FOR ALL THREAD SUPPORT UNDER DUCTWORK AS REQUIRED. TRANSITION FROM HOOD CONNECTION TO WELDED KITCHEN EXHAUST DUCT SIZES SHOWN.
5. GREASE DUCT TO BE PROVIDED WITH KITCHEN EQUIPMENT AND INSTALLED BY MECHANICAL CONTRACTOR. INSTALL PER MANUFACTURER'S INSTRUCTIONS.
6. 36"x18" OUTSIDE AIR LOUVER (MAKE: GREENHECK , MODEL: ESD-635) OR EQUIVALENT WITH MINIMUM FREE AREA 1.8 SQ. FT.
7. EXTEND MAKE-UP AIR DUCT FROM HOOD COLLAR AND CONNECT TO THE MAKE UP AIR DUCT.
8. 42"x18" EXHAUST AIR LOUVER (MAKE: GREENHECK , MODEL: ESD-635HP) OR EQUIVALENT WITH MINIMUM FREE AREA 2.3 SQ. FT.
9. CEILING MOUNTED EXHAUST FAN. FAN SHALL BE INTERCONNECT WITH ROOM LIGHTS. FAN SHALL BE SUSPENDED FROM STRUCTURE ABOVE. VERIFY EXACT LOCATION OF STRUCTURAL MEMBERS PRIOR TO INSTALLATION.
10. INLINE KITCHEN EXHAUST FAN. FAN SHALL INTERCONNECT WITH MAU-1. FAN SHALL BE SUSPENDED FROM STRUCTURE ABOVE. VERIFY EXACT LOCATION OF STRUCTURAL MEMBERS PRIOR TO INSTALLATION.
11. INLINE OUTSIDE AIR FAN. FAN SHALL INTERCONNECT WITH AC-1 & AC-2. FAN SHALL BE SUSPENDED FROM STRUCTURE ABOVE. VERIFY EXACT LOCATION OF STRUCTURAL MEMBERS PRIOR TO INSTALLATION.
12. 6"Ø EXHAUST DUCT UP TO ROOF THROUGH CHASE. CONTRACTOR TO TERMINATE WITH GOOSENECK, WEATHER SKIRT, AND BIRD SCREEN. EXHAUST DUCT SHALL BE MINIMUM 40" ABOVE THE ROOF SURFACE AND MINIMUM 10 FEET HORIZONTALLY OR 3 FEET ABOVE ANY OUTSIDE AIR INTAKE. PROVIDE FIRE DAMPER AT THE ROOF PENETRATION.
13. 12"x8" OUTSIDE AIR DUCT TO OAF-1 UP TO ROOF THROUGH CHASE , CONTRACTOR TO TERMINATE WITH GOOSENECK, WEATHER SKIRT AND BIRD SCREEN. ALL OUTSIDE AIR INTAKE ON THE ROOF SHALL BE MINIMUM 10 FEET AWAY FROM ANY EXHAUST SOURCE. IF EXHAUST OUTLETS WITHIN 10 FEET, EXHAUST TERMINATIONS SHALL BE 3 FEET ABOVE ANY OUTSIDE AIR INTAKES. PROVIDE FIRE DAMPER AT THE ROOF PENETRATION.
14. PROVIDE 1" DOOR UNDERCUT.
15. MD TO BE INTERCONNECT WITH OAF-1.
16. CONTRACTOR TO INSTALL DUCTWORK AS HIGH AS POSSIBLE TO ACHIEVE THE MAXIMUM CEILING HEIGHT/HEAD HEIGHT. CONTRACTOR TO COORDINATE THE DUCTWORK WITH THE STRUCTURAL MEMBERS AND REROUTE OR RESIZE THE DUCTWORK ACCORDING TO THE SMACNA STANDARDS AS PER THE SITE CONDITIONS. IF ANY DISCREPANCY FOUND PLEASE INFORM ENGINEER IN-CHARGE PRIOR CONSTRUCTION/ BASE BID.
17. INSTALL REFRIGERANT PIPING BETWEEN INDOOR AND OUTDOOR UNITS AS PER THE MANUFACTURER'S RECOMMENDATIONS. PROVIDE INSULATION TO REFRIGERANT PIPING AS PER 2020 NYSECC. COORDINATE REFRIGERANT PIPE ROUTING WITH ARCHITECT/OWNER.
18. CONTRACTOR TO FIELD COORDINATE THE FINAL INSTALLATION LOCATION OF THE EQUIPMENT. UNITS SHALL HAVE THE MINIMUM REQUIRED SERVICE CLEARANCE AND A PROPER CLEAR OPENING TO ALLOW FOR THE REMOVAL OF THE LARGEST COMPONENT. STRAIGHT DUCT LENGTH AFTER THE UNITS DISCHARGE SHOULD BE OF MINIMUM 46 INCHES.
19. IF REQUIRED, PROVIDE CONDENSATE PUMP OF MAKE ASPEN - MAXI ORANGE MODEL. CONNECT 1" CD FROM AC-1 & AC-2 WITH 1/8" PER FEET OF SLOPE TO THE NEAREST STORM WATER DRAINAGE NETWORK/NEAREST APPROVED PLACE OF DISPOSAL AS PER LOCAL CODE. CONDENSATE DRAIN MATERIAL SHALL BE PVC, CPVC OR EQUIVALENT AS PER LOCAL CODE.
20. PROVIDE A GREASE BOX , GREASE CUP OR GREASE RESERVOIR FOR GREASE COLLECTION. EMPTY / REPLACE THE GREASE BOX, GREASE CUP / RESERVOIR PERIODICALLY AS PER THE MANUFACTURER'S RECOMMENDATIONS / INSTRUCTIONS.
21. CONTRACTOR TO COORDINATE EXHAUST & OUTSIDE DUCTWORK FOR THE SPACE WITH THE ANY EXISTING SERVICE IN THE CHASE. IF ANY DISCREPANCY FOUND, REPORT BACK TO ENGINEER IN CHARGE PRIOR CONSTRUCTION.
22. CONTRACTOR SHALL COORDINATE WITH THE DUCTWORK MANUFACTURER TO ENSURE THE DUCTWORK IS FACTORY-FABRICATED AND FINISHED WITH BLACK PAINT. CONFIRM WITH ARCHITECT/OWNER FOR FINAL PAINT AND FINISH. DUCTWORK NEEDED TO BE INTERNALLY INSULATED.



MECHANICAL FLOOR PLAN

SCALE
1/4" = 1'-0"

1

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PROJECT COORD. 12/05/25

ISSUE DATE: 07.30.25
PROJECT #: 435B.1421B
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CHECKED BY: NYE

MECHANICAL
FLOOR PLAN

M-2

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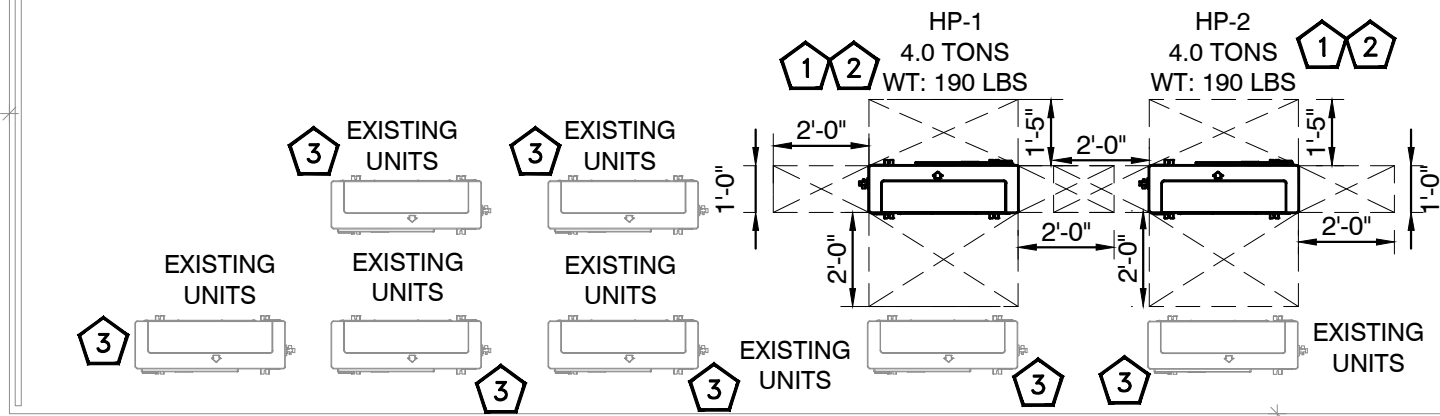
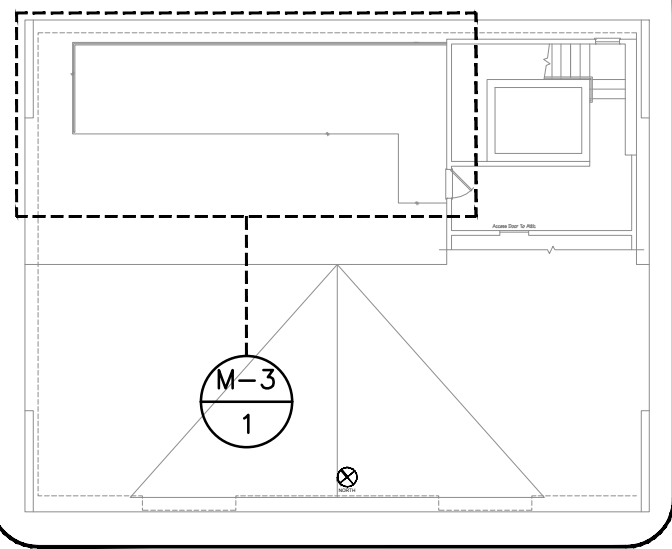
MECHANICAL ROOF PLAN GENERAL NOTES

- A. EQUIPMENT SIZES, DIMENSIONS AND REQUIRED CONNECTIONS SHALL BE VERIFIED WITH THE ACTUAL EQUIPMENT SELECTED VENDOR DRAWINGS BEFORE FABRICATION OF DUCTWORK, PIPING ETC.
- B. CONTRACTOR SHALL COORDINATE ALL ELECTRICAL REQUIREMENTS FOR ALL HVAC BASED ON ACTUAL EQUIPMENT SELECTED PRIOR TO INSTALLATION.
- C. CONTRACTOR SHALL COORDINATE EQUIPMENT WEIGHTS AND SUPPORTS BASED ON ACTUAL EQUIPMENT SELECTED.
- D. KEEP ALL ADJOINING AREAS ADJACENT TO THE WORK AREAS CLEAN AND FREE OF DEBRIS.
- E. CONTRACTOR SHALL COORDINATE WITH LANDLORD ROOFING CONTRACTOR FOR ANY ROOF PENETRATIONS, MODIFICATIONS AND REPAIRS.

MECHANICAL ROOF PART PLAN KEY NOTES

- 1. INSTALL REFRIGERANT PIPING BETWEEN INDOOR AND OUTDOOR UNITS AS PER THE MANUFACTURERS RECOMMENDATIONS. PROVIDE INSULATION TO REFRIGERANT PIPING AS PER 2020 NYSECC. COORDINATE REFRIGERANT PIPE ROUTING WITH BUILDING MANAGER, AS PER SITE CONDITION AND AS PER LOCAL CODE.
- 2. CONTRACTOR TO CONFIRM THE FINAL LOCATION OF UNIT ON THE MAIN ROOF WITH BUILDING MANAGER. CONTRACTOR TO COORDINATE THE LOCATION AND FINAL LOADS OF THE UNIT ON THE MAIN ROOF WITH THE STRUCTURAL ENGINEER.
- 3. EXISTING UNITS ARE SHOWN FOR REFERENCE ONLY.

MECHANICAL ROOF KEY PLAN



MECHANICAL ROOF PART PLAN

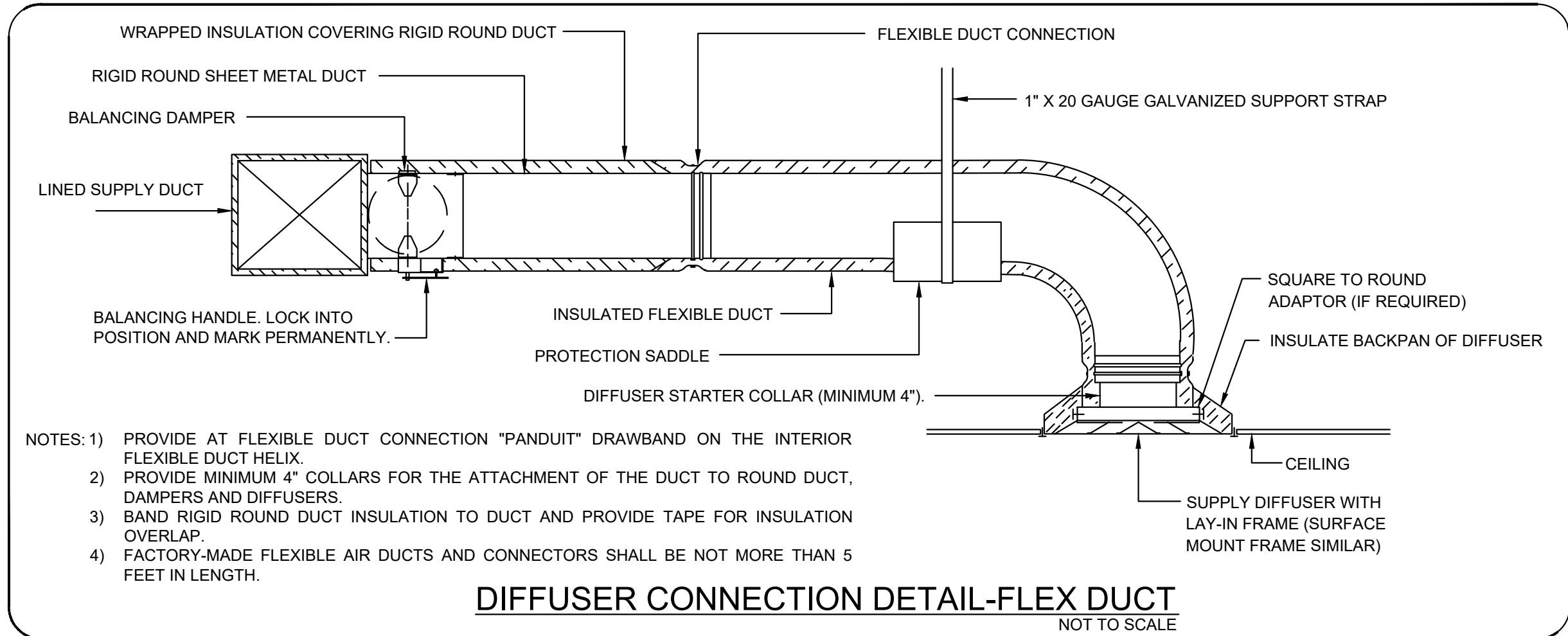
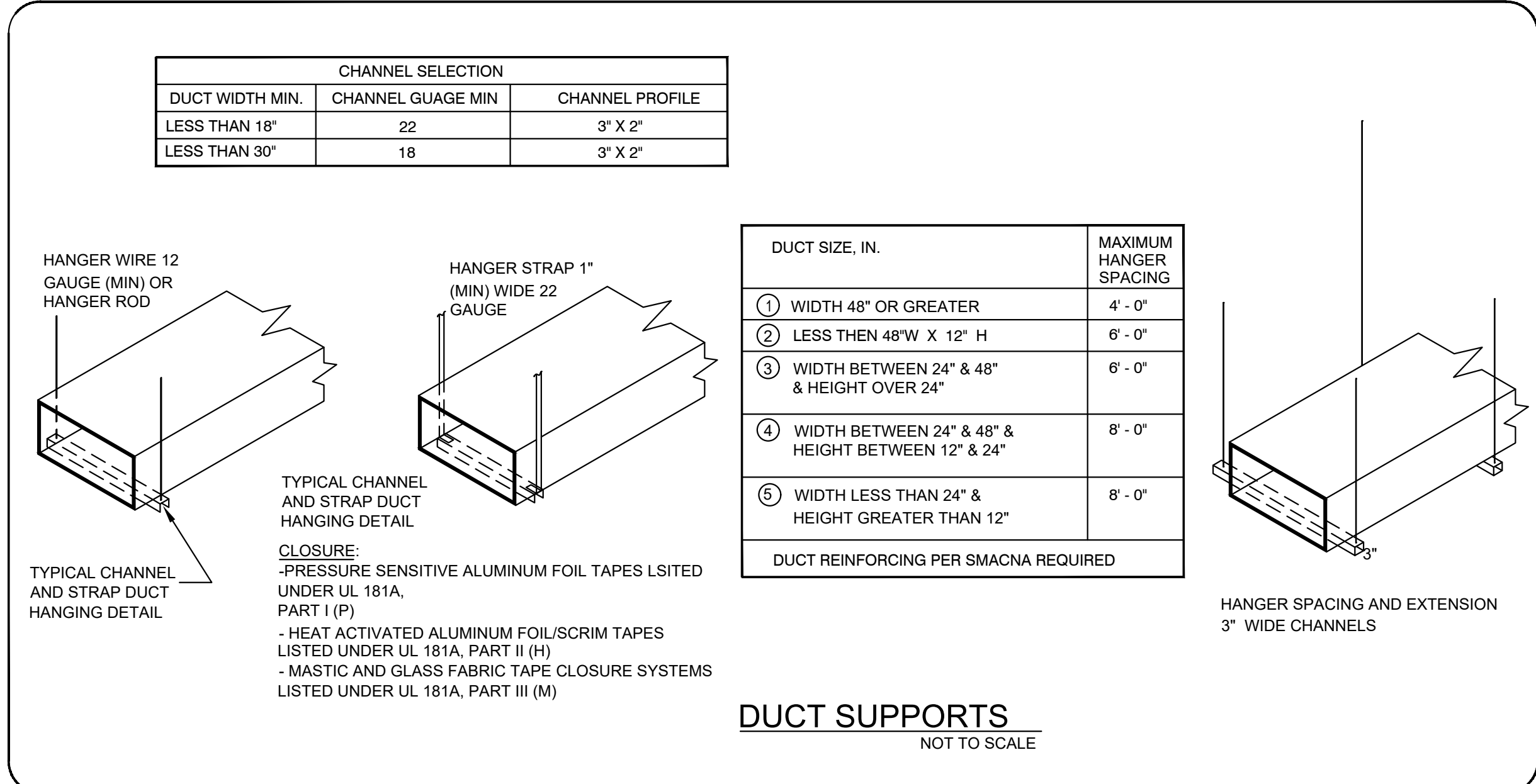
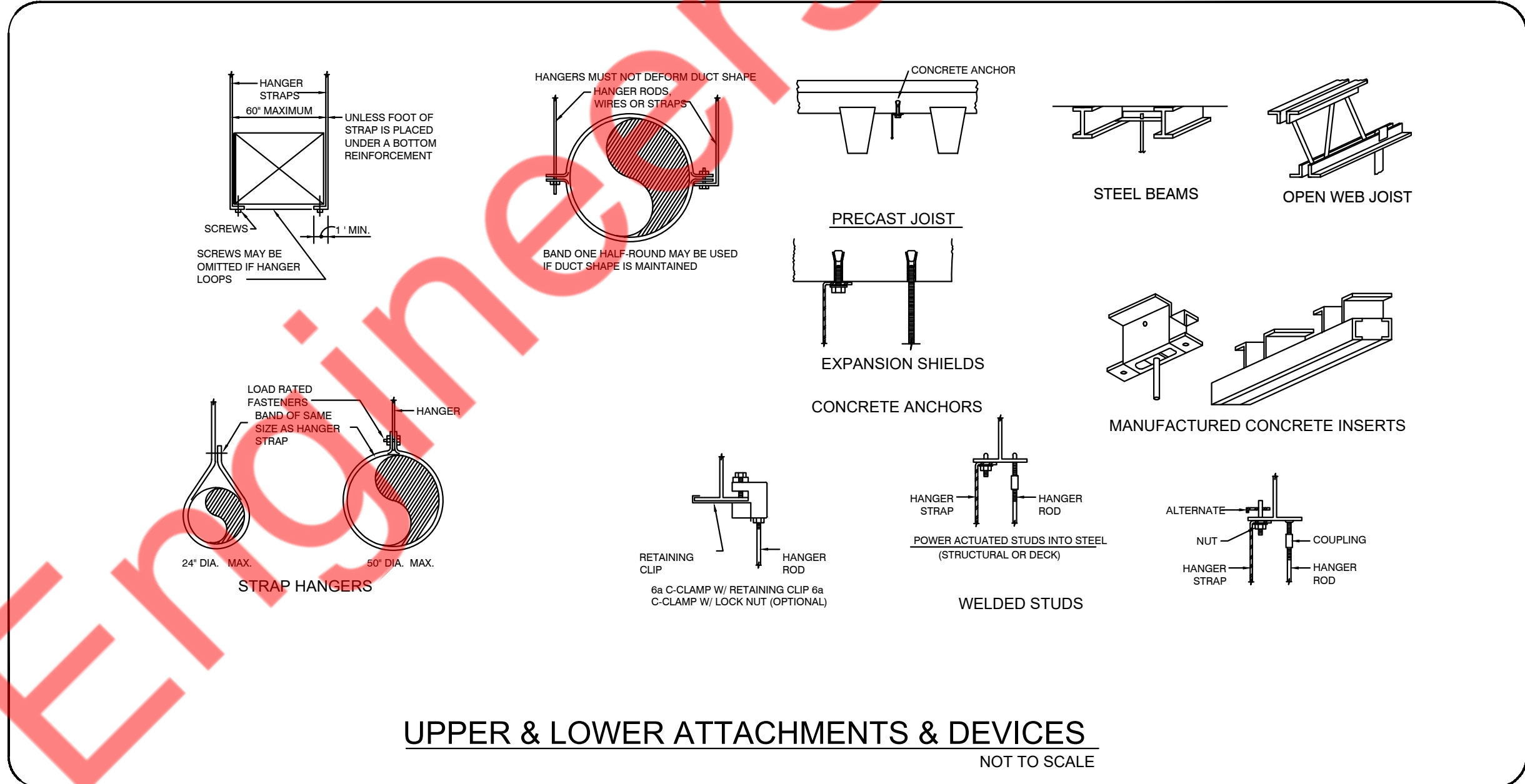
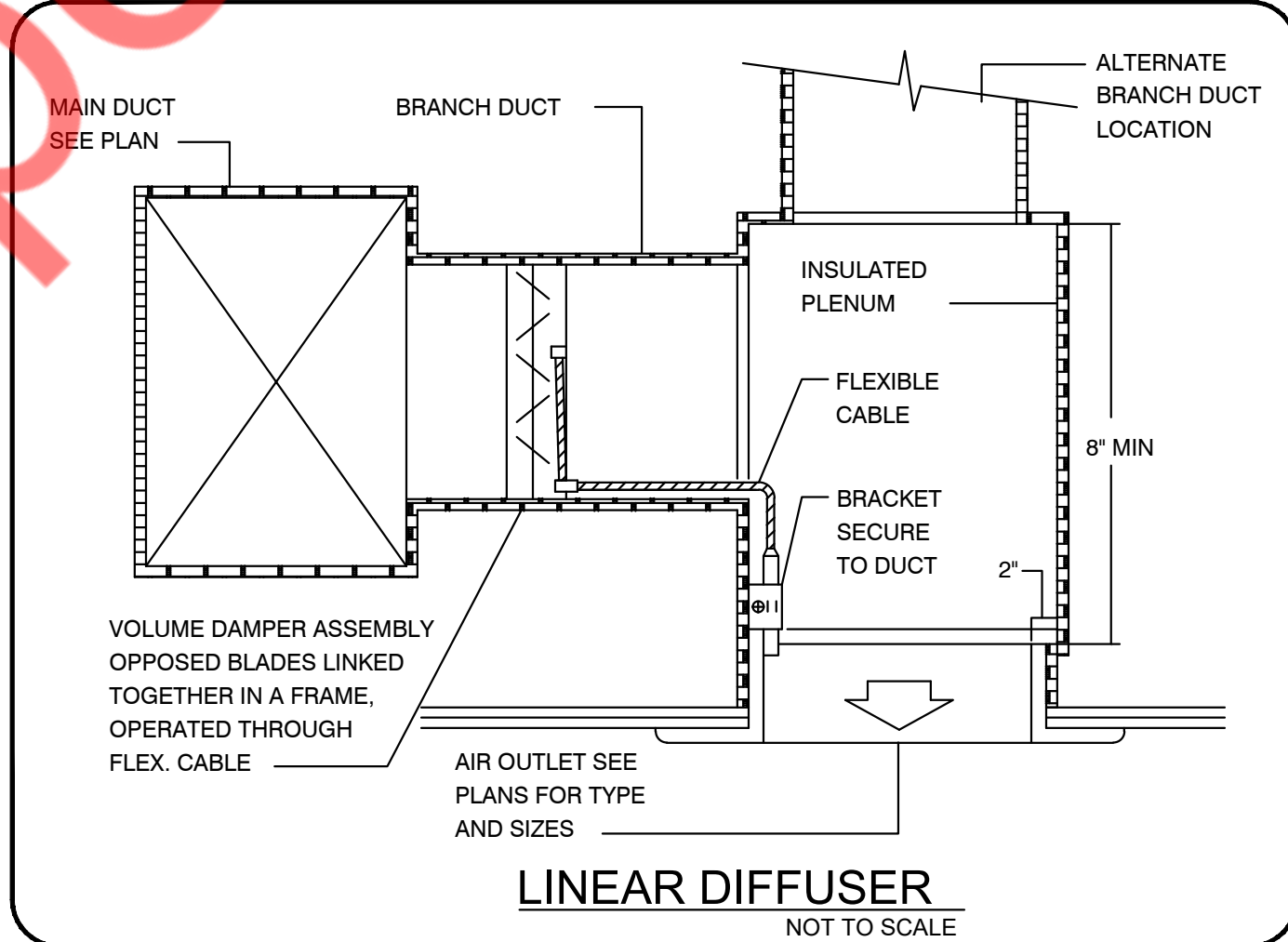
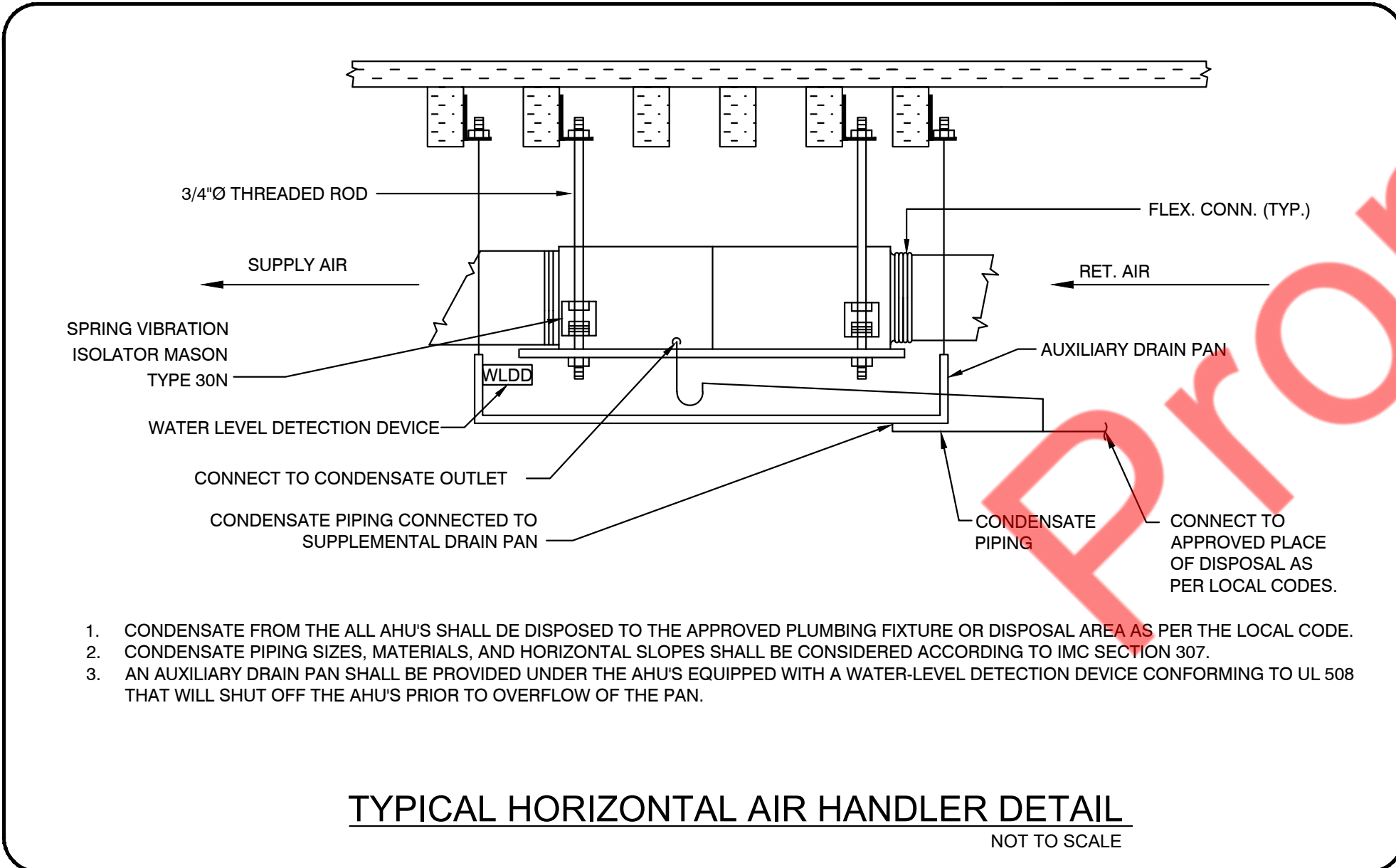
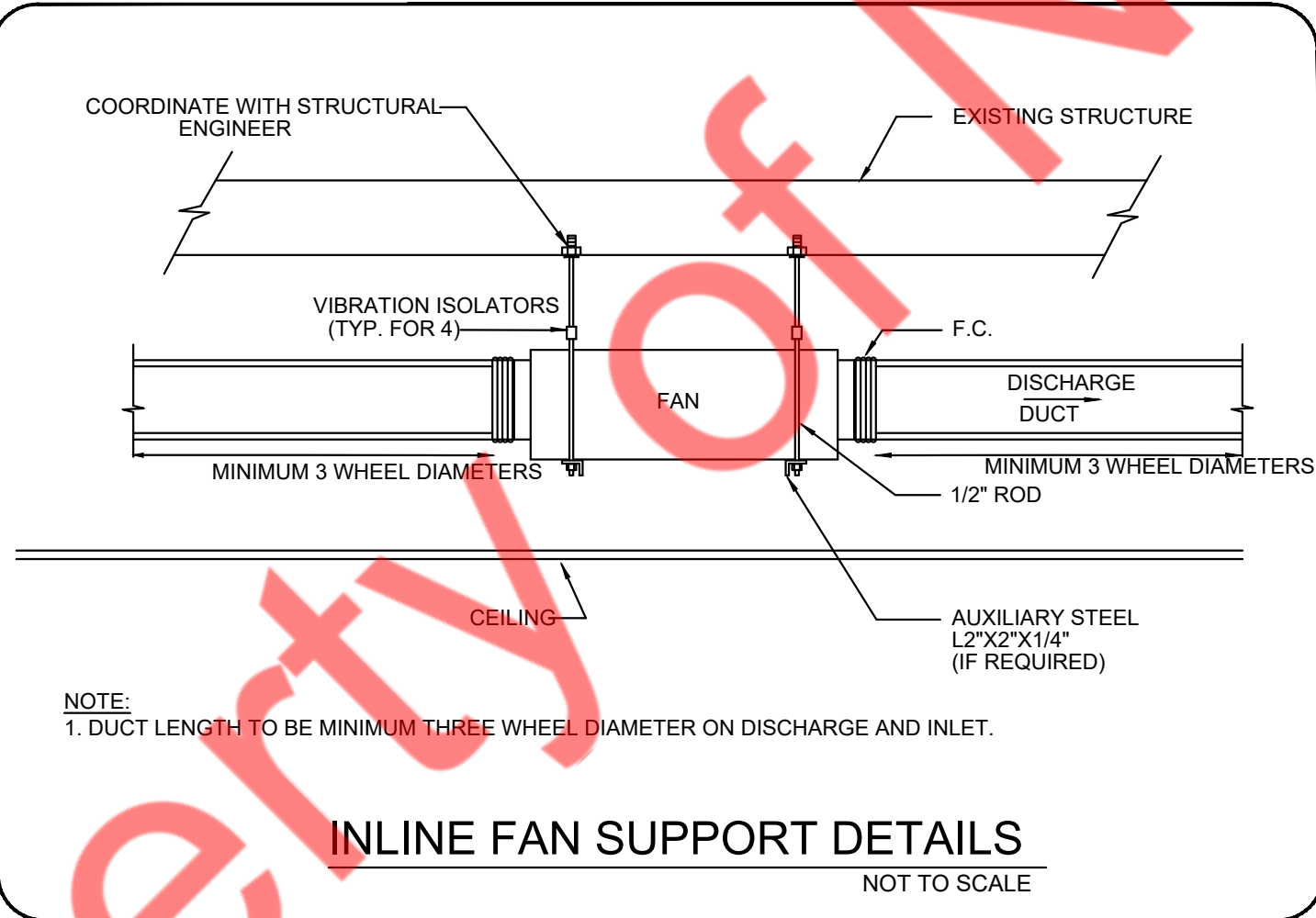
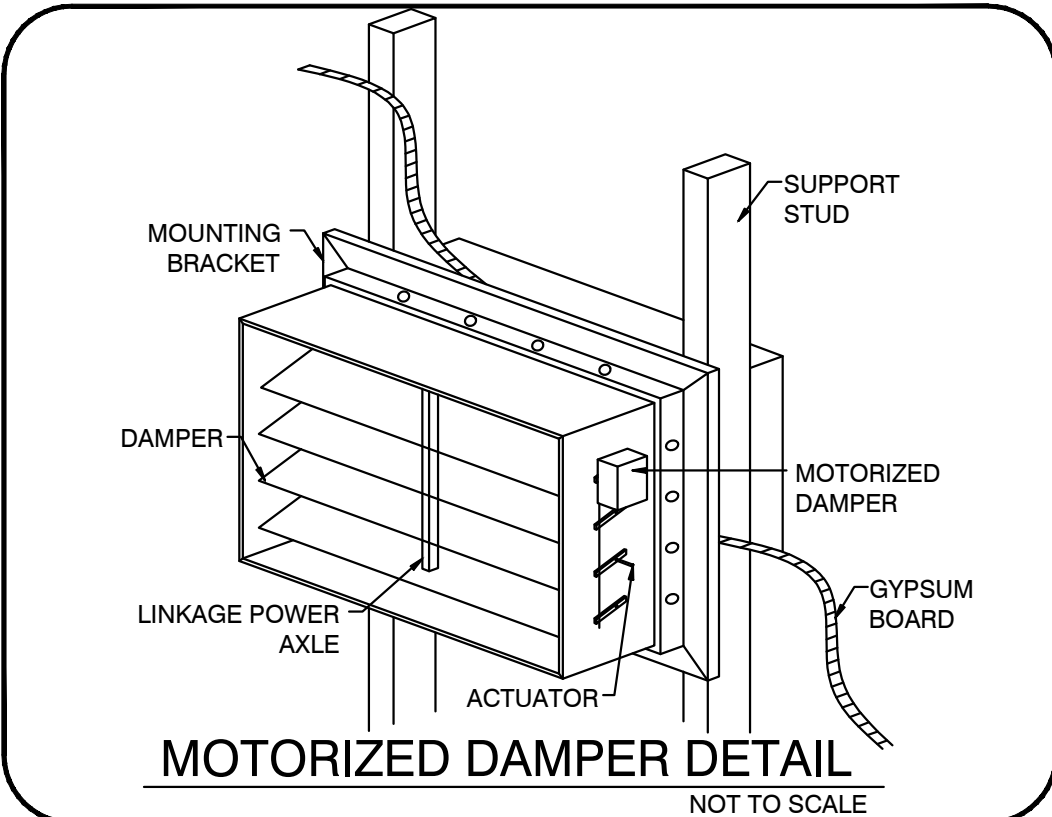
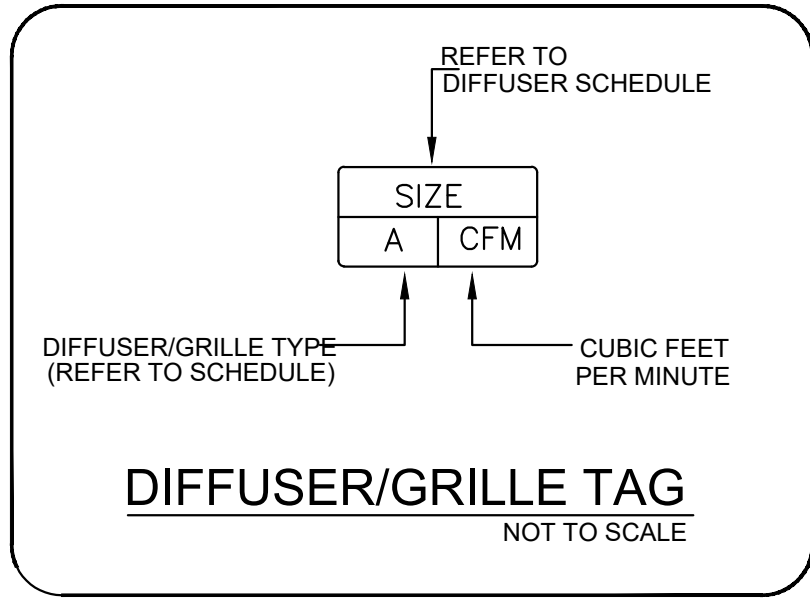
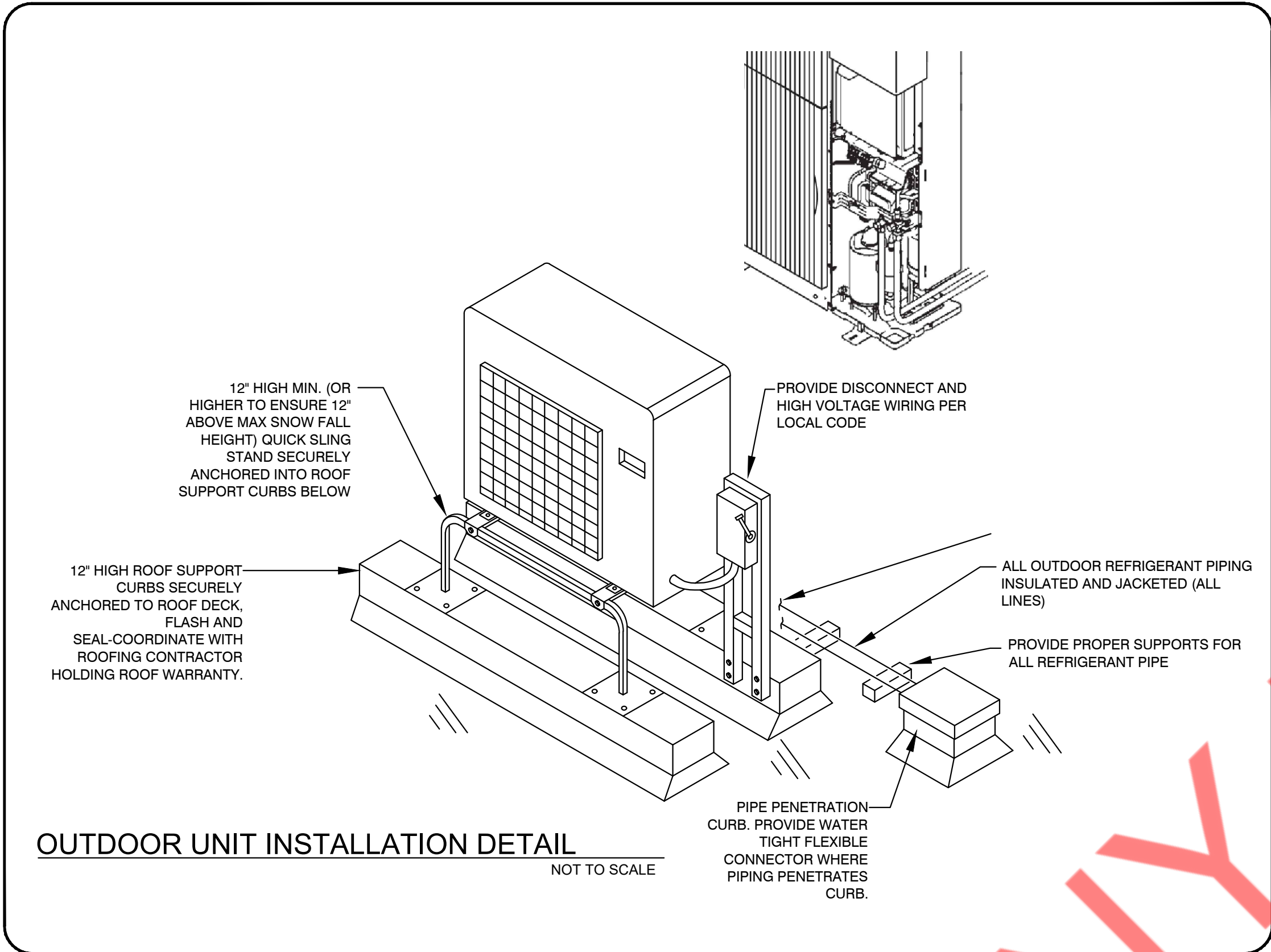
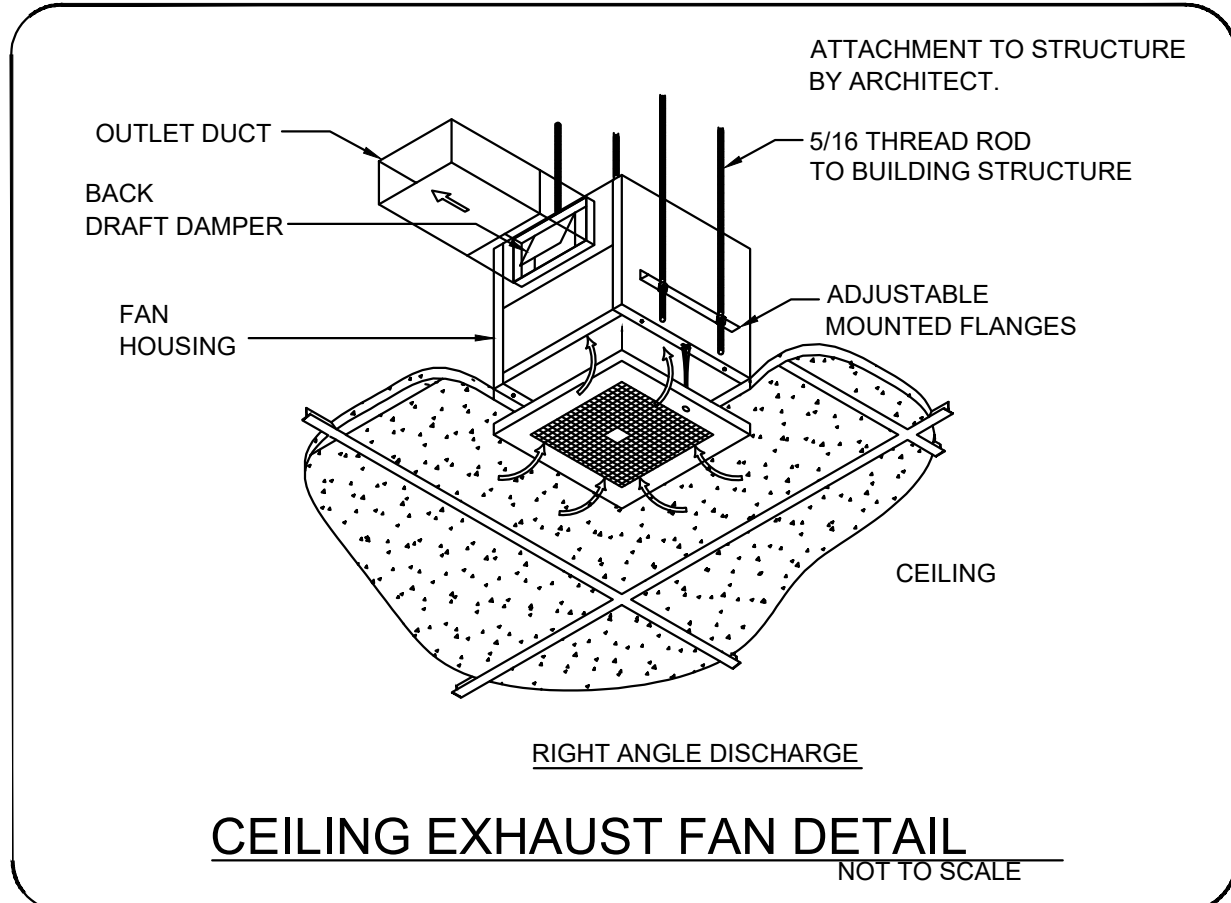
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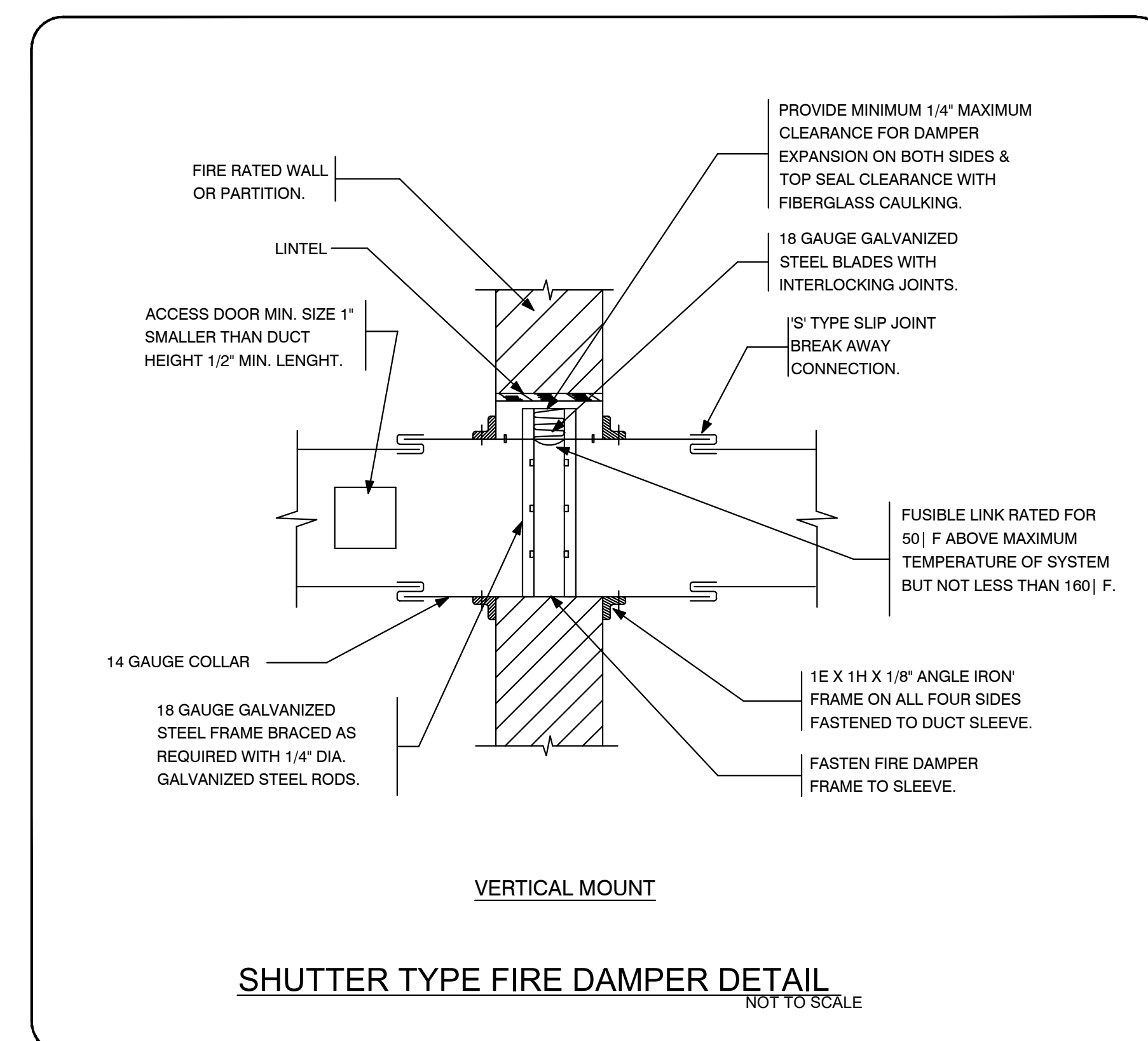
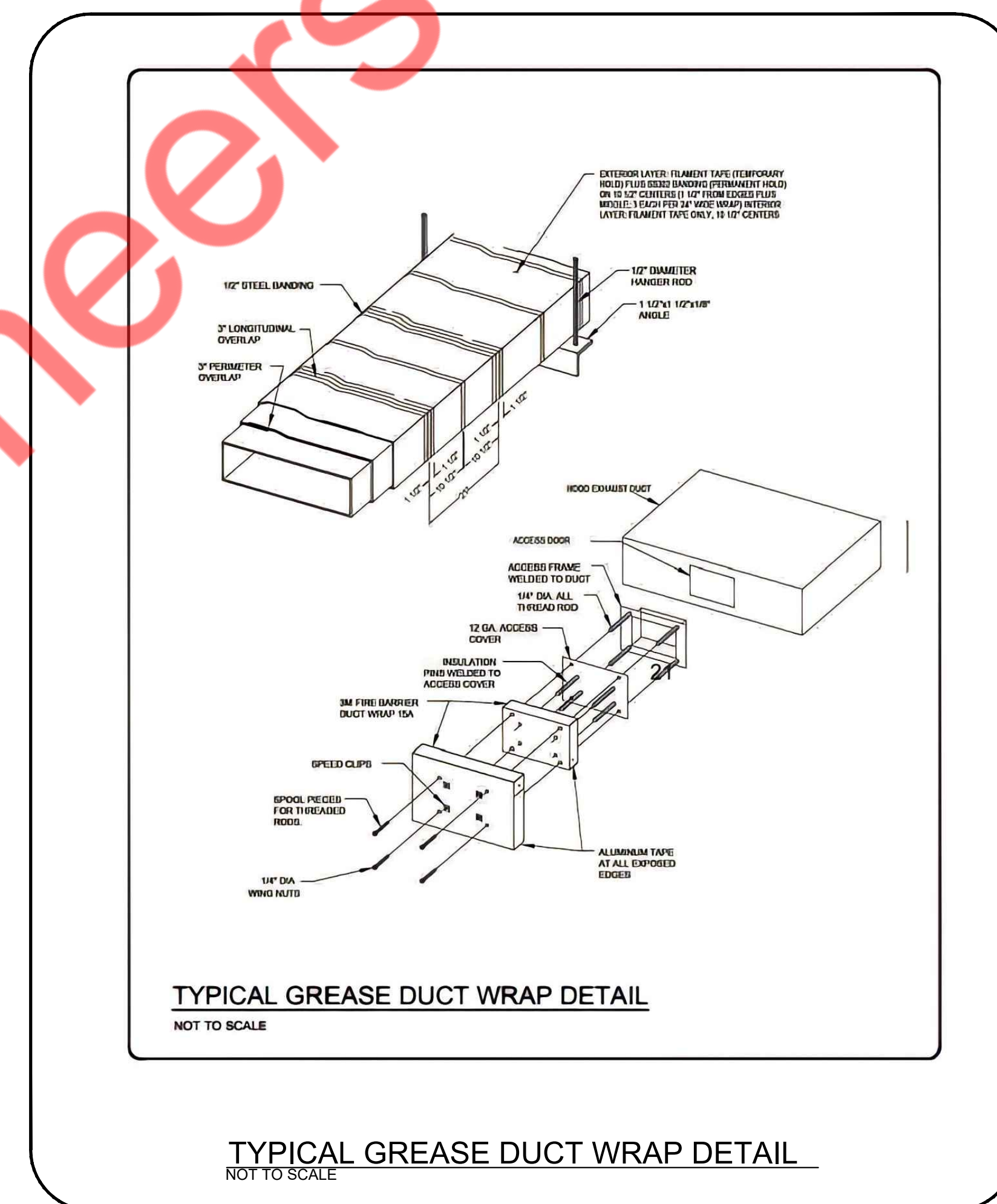
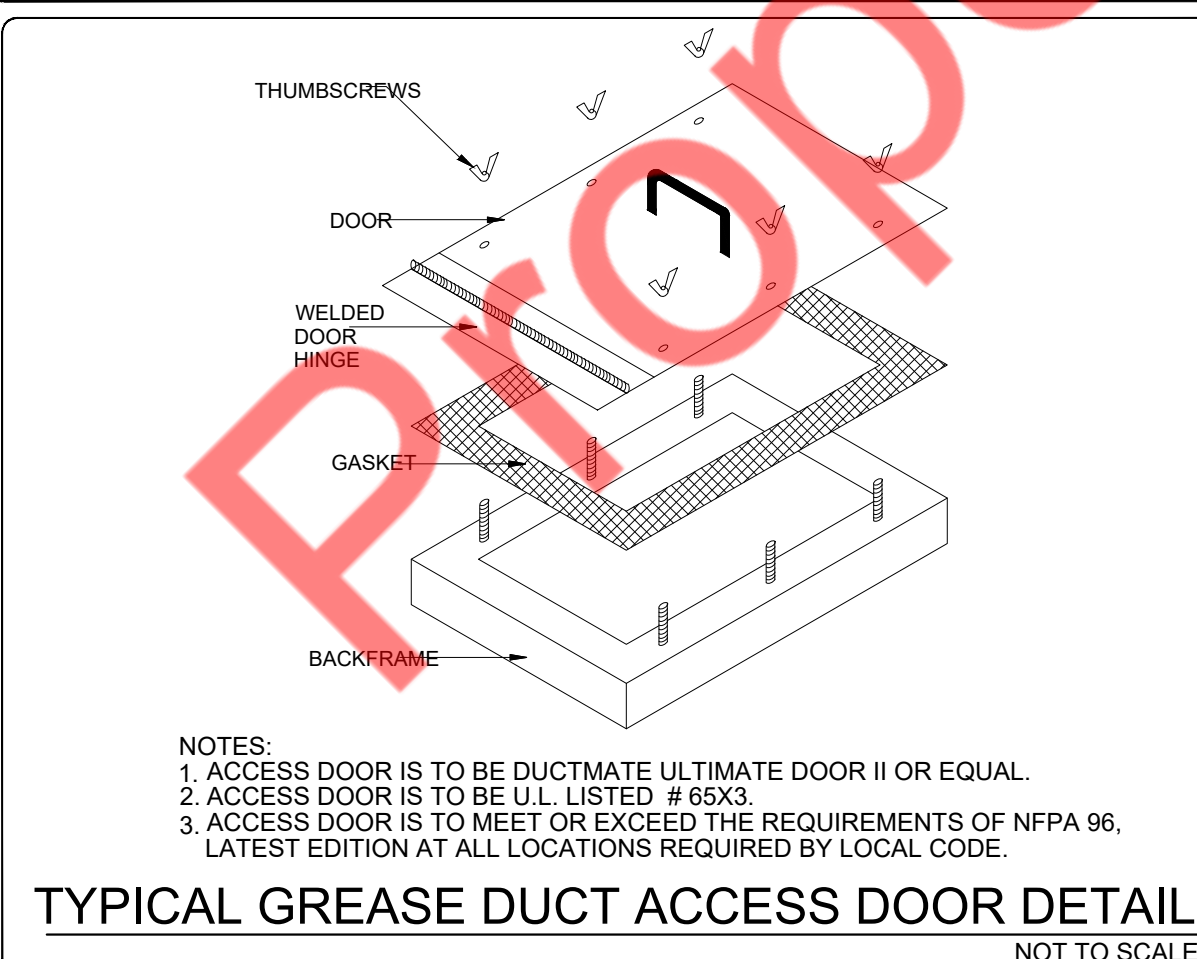
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MECHANICAL
ROOF PART PLAN

M-3





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M-6

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Froggy's - Briarcliff Manor, NY_R3
11123 Pleasantville Road,
Briarcliff Manor, NY, 10510

DATE: 12/5/2025
DWG.#: 8392689
DRAWN BY: J. Low
SCALE: 3/4" = 1'-0"
MASTER DRAWING

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Froggy's - Briarcliff Manor, NY_R3
1123 Pleasantville Road,
Briarcliff Manor, NY, 10510

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2 PROJECT COORD.	12/05/25

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PROJECT COORD.	10/16/25	
 PROJECT COORD.	12/05/25	

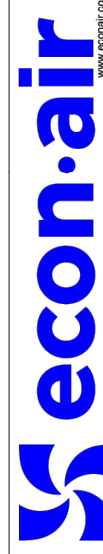
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REVISIONS

DATE

BY

DESCRIPTION



economicair.com

Residential Products Office

4000 Route 100, Suite 100, Parsippany, NJ 07054

Froggy's - Brercliff Manor, NY_R3
1123 Pleasantville Road,
Brercliff Manor, NY, 10510

DATE: 12/5/2025

DWG. NO.: 100000000

DRAWN: J. LEM

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

MATCH DRAWING

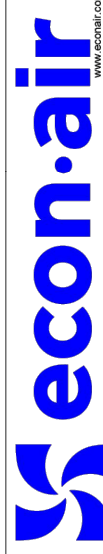
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Residential Products Office

4000 Route 100, Suite 100, Parsippany, NJ 07054

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1123 Pleasantville Road,
Brercliff Manor, NY, 10510

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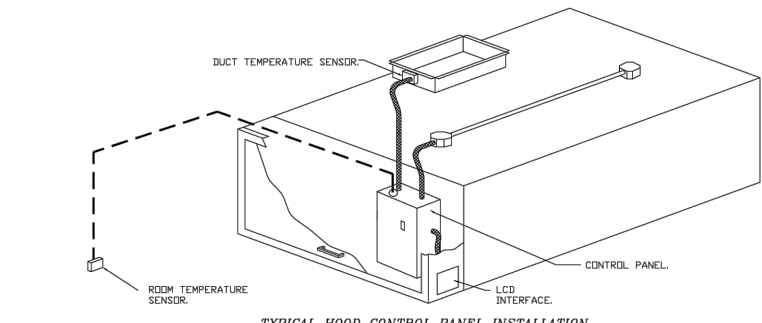
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SYSTEM DESIGN VERIFICATION (SDV)

IF ORDERED, GAS SERVICE WILL PERFORM A SYSTEM DESIGN VERIFICATION (SDV) ONCE ALL EQUIPMENT HAS HAD A COMPLETE START UP FOR THE OPERATION AND INSTALLATION MANUAL. TYPICALLY, THE SDV WILL BE PERFORMED AFTER ALL INSPECTIONS ARE COMPLETE.

ANY FIELD RELATED DISCREPANCIES THAT ARE DISCOVERED DURING THE SDV WILL BE BROUGHT TO THE ATTENTION OF THE GENERAL CONTRACTOR AND CORRESPONDING TRADES ON SITE. THESE ISSUES WILL BE DOCUMENTED AND FORWARDED TO THE APPROPRIATE SALES OFFICE. IF GAS SERVICE HAS TO RESOLVE A DISCREPANCY THAT IS A FIELD ISSUE, THE GENERAL CONTRACTOR WILL BE NOTIFIED AND BILLED FOR THE WORK. SHOULD A RETURN TRIP BE REQUIRED DUE TO ANY FIELD RELATED DISCREPANCY THAT CANNOT BE RESOLVED DURING THE SDV, THERE WILL BE ADDITIONAL TRIP CHARGES.

DURING THE SDV, GAS SERVICE WILL ADDRESS ANY DISCREPANCY THAT IS THE FAULT OF THE MANUFACTURER. SHOULD A RETURN TRIP BE REQUIRED, THE GENERAL CONTRACTOR AND APPROPRIATE SALES OFFICE WILL BE NOTIFIED. THERE WILL BE NO ADDITIONAL CHARGES FOR MANUFACTURER DISCREPANCIES.



- DEMAND CONTROL VENTILATION HOOD CONTROL PANEL SPECIFICATIONS**
- CONTROL SHALL BE LISTED TO ETL, UL, Q900 AND SHALL COMPLY WITH DEMAND VENTILATION SYSTEM HANDBOOK REQUIREMENTS OUTLINED IN ILC 103.75 (103).
 - THE CONTROL ENCLOSURE SHALL BE NEMA 1 RATED AND LISTED FOR INSTALLATION INSIDE OF THE EXHAUST HOOD UTILITY CABINET. THE CONTROL ENCLOSURE MAY BE CONSTRUCTED OF STAINLESS STEEL OR PAINTED STEEL.
 - TEMPERATURE PROBES LOCATED IN THE EXHAUST DUCT (SERIES) SHALL BE CONSTRUCTED OF STAINLESS STEEL.
 - A DIGITAL CONTROLLER SHALL BE PROVIDED TO ACTIVATE THE HOOD EXHAUST FANS DYNAMICALLY BASED ON A FIXED DIFFERENTIAL BETWEEN THE AMBIENT AND DUCT TEMPERATURES. THIS FUNCTION SHALL MEET THE REQUIREMENTS OF ILC 103.75.
 - A DIGITAL CONTROLLER SHALL PROVIDE ADJUSTABLE HYSTERESIS SETTINGS TO PREVENT CYCLING OF THE FANS AFTER THE COOKING APPLIANCE HAS BEEN TURNED OFF AND/OR THE HEAT IN THE EXHAUST SYSTEM IS REDUCED.
 - A DIGITAL CONTROLLER SHALL PROVIDE AN ADJUSTABLE MINIMUM FAN RUN-TIME SETTING TO PREVENT FAN CYCLING.
 - VARIABLE FREQUENCY DRIVES (VFDS) SHALL BE PROVIDED FOR FANS AS REQUIRED. THE DIGITAL CONTROLLER SHALL MODULATE THE VFDS BETWEEN A MINIMUM SETPOINT AND A MAXIMUM SETPOINT ON BASIS OF THE DUCT TEMPERATURE SENSOR INPUTS TO THE DIGITAL CONTROLLER SHALL BE USED TO CALCULATE THE SPEED REFERENCE SIGNAL.
 - THE VFDS SPEED RANGE OF OPERATION SHALL BE FROM 50 TO 500% FOR THE SYSTEM, WITH THE ACTUAL MINIMUM SPEED SET AS REQUIRED TO MEET MINIMUM VENTILATION REQUIREMENTS.
 - AN INTERNAL ALGORITHM TO THE DIGITAL CONTROLLER SHALL MODULATE SUPPLY FAN VFDS SPEED PROPORTIONAL TO ALL EXHAUST FANS THAT ARE LOCATED IN THE SAME FAN ZONE AS THE SUPPLY FAN.
 - THE SYSTEM SHALL OPERATE IN PREP MODE DURING LIGHT COOKING LOAD OR COOL DOWN MODE WHEN SUFFICIENT HEAT REMAINS UNDERNEATH THE HOOD AFTER DOWNDOWN OPERATIONS HAVE COMPLETED OPERATION DURING EITHER OF THESE MODES WILL DISABLE THE SUPPLY FANS AND PROVIDE AN EXHAUST FAN SPEED THAT IS EQUAL TO THE MINIMUM VENTILATION REQUIREMENT.
 - A DIGITAL CONTROLLER SHALL DISABLE THE SUPPLY FAN(S), ACTIVATE THE EXHAUST FAN(S), ACTIVATE THE APPEXENSE SMART TRIP AND DISABLE AN ELECTRIC GAS VALVE AUTOMATICALLY WHEN FIRE CONDITION IS DETECTED ON A COVERED HOOD.
 - A DIGITAL CONTROLLER SHALL ALLOW FOR EXTERNAL BMS FAN CONTROL, VIA DRY CONTACT EXTERNAL CONTROL, SHALL NOT DIVERSIFY FAN OPERATION LOGIC AS REQUIRED BY CODE.
 - AN LCD INTERFACE SHALL BE PROVIDED WITH THE FOLLOWING FEATURES:
 - A) DIRECT PUSH BUTTON FAN LIGHT MOTOR ACTIVATION.
 - B) INTEGRATED GAS VALVE RESET FOR ELECTRONIC GAS VALVES AND RESET RELAY REQUIRED.
 - C) VFDS FAULT DISPLAY WITH AUDIBLE & VISUAL ALARM NOTIFICATION.
 - D) DUCT TEMPERATURE SENSOR FAILURE DETECTION WITH AUDIBLE & VISUAL ALARM NOTIFICATION.
 - E) WIRE-WIRE DUCT TEMPERATURE SENSOR DETECTION WITH AUDIBLE & VISUAL ALARM NOTIFICATION.
 - F) A SINGLE LOW VOLTAGE GATS FLAME DETECTION CONNECTION.
 - G) AN ENERGY SAVING INDICATOR THAT UTILIZES MEASURED KWH FROM THE VFDS.

- SEQUENCE OF OPERATIONS**
- THE HOOD CONTROL PANEL IS CAPABLE OF OPERATING IN ONE OR MORE OF THE FOLLOWING STATES AT ANY GIVEN TIME:
- 1) AUTOMATED: THE SYSTEM OPERATES BASED ON THE DIFFERENTIAL BETWEEN HOOD TEMPERATURE AND THE TEMPERATURE AT THE HOOD CAVITY OR EXHAUST DUCT COLLAR. FANS ACTIVATE AT A COMBINABLE TEMPERATURE DIFFERENTIAL THRESHOLD. OPERATING IN THE 400 COFFICIENTATION EACH FAN ZONE CAN BE CONFIGURED AS STATIC OR DYNAMIC. THESE TERMS REFER TO WHETHER A VARIABLE MOTOR (SUCH AS EC MOTORS OR VFDS DRIVEN MOTORS) MODULATE WITH TEMPERATURE OF THE PANEL IS EQUIPPED WITH VARIABLE SPEED FANS AND THE ZONE IS REFERRED AS DYNAMIC. THESE VFDs MODULATE WITHIN A USER-DEFINED RANGE BASED ON THE TEMPERATURE DIFFERENTIAL. PANELS EQUIPPED WITH VARIABLE SPEED FANS AND A FAN ZONE DETECTED AS STATIC, FANS WILL RUN AT A SET SPEED CALCULATED FOR THE DRIVE. DEMAND CONTROL VENTILATION SYSTEMS ARE CAPABLE OF MODULATING EXHAUST AND MAKE UP AIR FAN SPEEDS PER THE REQUIREMENTS OUTLINED IN ILC 403.75 (103).
 - 2) MANUAL: THE SYSTEM OPERATES BASED ON HUMAN INPUT FROM AN HMI.
 - 3) SCHEDULED: A WEEKLY SCHEDULE CAN BE SET TO RUN FANS FOR A SPECIFIED PERIOD THROUGHOUT THE DAY. THESE ARE TIMES OCCURRING TIMES PER DAY TO ALLOW FOR THE USER TO SET UP A TIME THAT IS SUITABLE TO THEIR NEEDS. ANY TIME THAT IS WITHIN THE SETTIME OCCURRING TIME, THE SYSTEM WILL RUN AT MODULATION MODE AND FOLLOW THE FAN PROCEDURE ALGORITHM BASED ON TEMPERATURE. DURING THIS TIME, DURING UNOCCUPIED TIME, THE SYSTEM WILL HAVE AN EXTRA OFF SET TO PREVENT UNNECESSARY ACTIVATION OF THE SYSTEM DURING A TIME WHERE THE SYSTEM IS NOT BEING OCCUPIED.
 - 4) OTHER: THE SYSTEM OPERATES BASED ON THE INPUT FROM AN EXTERNAL SOURCE, BMS OR HARD-WIRED INTERLOCKS.
 - 5) FIRE: UPON ACTIVATION OF THE HOOD FIRE SUPPRESSION SYSTEM, THE EXHAUST FAN WILL COME ON OR CONTINUE TO RUN. THE HOOD MAKEUP AIR WILL SHUTDOWN AND A STOP, AGL, BE SENT FOR ACTIVATION OF THE SMART TRIP. WORKER PROVIDED BY THE ELECTRICAL FUEL GAS VFD SHUT OFF VIA A MECHANICAL/ELECTRICAL GAS VALVE ACTIVATED BY THE HOOD FIRE SUPPRESSION SYSTEM.

COMcheck Software Version COMcheckWeb

Mechanical Compliance Certificate

Project Information

Energy Code: 2020 New York State Energy Conservation Construction Code

Project Title:

Location:

Climate Zone: --

Project Type: Alteration

Construction Site: Owner/Agent:

Mechanical Systems List

QuantitySystem Type & Description

- 2HP-1 & HP-2 (Single Zone):
Split System Heat Pump
Heating Mode: Capacity = 27 kBtu/h
Proposed Efficiency = 9.10 HSPF, Required Efficiency = 8.20 HSPF
Cooling Mode: Capacity = 35 kBtu/h
Proposed Efficiency = 17.50 SEER, Required Efficiency = 14.00 SEER
Proposed Part Load Efficiency = 0.00 , Required Part Load Efficiency = 0.00
- 1WH-1:
Electric Storage Water Heater, Capacity: 52 gallons w/ Circulation Pump
Proposed Efficiency: 0.79 SL, %/h (If > 12 kW), Required Efficiency: 0.82 SL, %/h (If > 12 kW)

Mechanical Compliance Statement

Compliance Statement: The proposed mechanical alteration project represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed mechanical systems have been designed to meet the 2020 New York State Energy Conservation Construction Code requirements in COMcheck Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

MICHAEL TOBIAS12/04/25
Name - TitleSignatureDate

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Section # & Req.ID	Mechanical Rough-In Inspection	Complies?	Comments/Assumptions
C402.2.6 [ME41] ³	Thermally ineffective panel surfaces of sensible heating panels have insulation >= R-3.5.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Exception: Requirement does not apply.
C403.11.3 [ME61] ²	HVAC piping insulation insulated in accordance with Table C403.11.3. Insulation exposed to weather is protected from damage and is provided with shielding from solar radiation.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C403.8.1 [ME65] ³	HVAC fan systems at design conditions do not exceed allowable fan system motor nameplate hp or fan system bhp.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met. <i>See the Mechanical Systems list for values.</i>
C403.8.3 [ME117] ²	Fans have efficiency grade (FEG) >= 67. The total efficiency of the fan at the design point of operation <= 15% of maximum total efficiency of the fan.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Exception: Fans integral to equipment listed under Section C403.2.3.
C403.12.1 [ME71] ²	Systems that heat outside the building envelope are radiant heat systems controlled by an occupancy sensing device or timer switch.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Exception: Requirement does not apply.
C403.2.2 [ME59] ³	Natural or mechanical ventilation is provided in accordance with international Mechanical Code Chapter 4. Mechanical ventilation has capability to reduce outdoor air supply to minimum per IMC Chapter 4.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C403.7.1 [ME59] ³	Demand control ventilation provided for spaces >500 ft2 and >25 people/1000 ft2 occupant density and served by systems with air side economizer, auto modulating outside air damper control, or design airflow >3,000 cfm.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Exception: Requirement does not apply.
C403.7.2 [ME115] ³	Enclosed parking garage ventilation has automatic contaminant detection and capacity to stage or modulate fans to 50% or less of design capacity.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Exception: Requirement does not apply.
C403.7.6 [ME141] ³	HVAC systems serving guestrooms in Group R-3 buildings with > 50 guestrooms. Each guestroom is provided with controls that automatically manage temperature setpoint and ventilation (see sections C403.7.6.1 and C403.7.6.2).	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Exception: Requirement does not apply.
C403.7.4 [ME57] ³	Exhaust air energy recovery on systems meeting Table C403.7.4(1) and C403.7.4(2).	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Exception: Requirement does not apply.
C403.7.5 [ME116] ³	Kitchen exhaust systems comply with replacement air and conditioned supply air limitations, and satisfy hood rating requirements and maximum exhaust rate criteria.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.

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Inspection Checklist

Energy Code: 2020 New York State Energy Conservation Construction Code

Requirements: 100.0% were addressed directly in the COMcheck software

Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req.ID	Plan Review	Complies?	Comments/Assumptions
C103.2 [PR2] ³	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the mechanical systems and equipment and document where exceptions to the standard are claimed. Load calculations per acceptable engineering standards and handbooks.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C103.2 [PR3] ³	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the service water heating systems and equipment and document where exceptions to the standard are claimed. Hot water system sized per manufacturer's sizing guide.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

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Section # & Req.ID	Mechanical Rough-In Inspection	Complies?	Comments/Assumptions
C403.11.1 [ME60] ²	HVAC ducts and plenums insulated in accordance with C403.11.1 and constructed in accordance with C403.11.2, verification may need to occur during Foundation Inspection.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C403.4.3.3.2 [ME111] ³	Closed-circuit cooling tower within heat pump loop have either automatic bypass valve or lower leakage positive closure dampers. Open-circuit tower within heat pump loop have automatic valve to bypass all heat pump water flow around the tower. Open- or closed-circuit cooling towers used in conjunction with a separate heat exchanger have heat loss by shutting down the circulation pump on the cooling tower loop. Open- or closed circuit cooling towers have a separate heat exchanger to isolate the cooling tower from the heat pump loop, and heat loss is controlled by shutting down the circulation pump on the cooling tower loop.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Exception: Requirement does not apply.
C403.4.1.4 [ME63] ²	Heating for vestibules and air curtains with integral heating include automatic controls that shut off the heating system when outdoor air temperatures > 45°F. Vestibule heating and cooling systems controlled by a thermostat in the vestibule with heating setpoint <= 60°F and cooling setpoint >= 80°F.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Exception: Requirement does not apply.
C408.2.2.1 [ME53] ³	Air outlets and zone terminal devices have means for air balancing.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C403.5, C403.5.1, C403.5.2 [ME123] ³	Refrigerated display cases, walk-in coolers or walk-in freezers served by remote compressors and remote condensers not located in a condensing unit, have fan-powered condensers that comply with Sections C403.5.1 and refrigeration compressor systems that comply with C403.5.2.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Exception: Requirement does not apply.

Additional Comments/Assumptions:

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Section # & Req.ID	Footing / Foundation Inspection	Complies?	Comments/Assumptions
C403.12.2 [FO9] ³	Snow/ice melting system and freeze protection systems have sensors and controls configured to limit service for pavement temperature and outdoor temperature, future connection to controls.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Exception: Requirement does not apply.

Additional Comments/Assumptions:

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Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C303.3, C408.2.5.2 [F18] ³	Furnished O&M manuals for HVAC systems within 90 days of system acceptance.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C403.2.2 [F127] ³	HVAC systems and equipment capacity does not exceed calculated loads.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C403.2.4.1 [F147] ³	Heating and cooling to each zone is controlled by a thermostat control. Minimum one humidity control device per installed humidification/dehumidification system.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C403.2.4.1.1 [F142] ³	Heat pump controls prevent supplemental electric resistance heat from coming on when not needed.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Exception: Requirement does not apply.
C403.4.1.2 [F138] ³	Thermostatic controls have a 5 °F deadband.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C403.2.4.1.3 [F120] ³	Temperature controls have setpoint overlap restrictions.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C403.2.4.2 [F139] ³	Each zone equipped with setback controls using automatic time clock or programmable control system.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C403.2.4.2.1, C403.2.4.2.2 [F140] ³	Automatic Controls: Setback to 55°F (heat) and 85°F (cool); 7-day clock, 2-hour occupant override, 10-hour backup.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C404.3 [F111] ³	Heat traps installed on supply and discharge piping of non-circulating systems.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Exception: Requirement does not apply.
C404.4 [F125] ²	All piping insulated in accordance with section details and Table C403.11.3.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C404.6.1 [F112] ³	Controls are installed that limit the operation of a recirculation pump installed to maintain temperature of a storage tank. System return pipe is a dedicated return pipe or a cold water supply pipe.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C408.2.1 [F128] ³	Commissioning plan developed by registered design professional or approved agency.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.

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Section # & Req.ID	Plumbing Rough-In Inspection	Complies?	Comments/Assumptions
C404.5, C404.5.1, C404.5.2 [PL6] ³	Heated water supply piping conforms to pipe length and volume requirements. Refer to section details.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C404.6.1, C404.6.2 [PL3] ³	Automatic time switches installed to automatically switch off the recirculating hot-water system or heat trace.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C404.6.3 [PL7] ³	Pumps that circulate water between a heater and storage tank have controls that limit operation from startup to <= 3 minutes after end-of-heating cycle.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Exception: Requirement does not apply.
C404.7 [PL8] ³	Demand recirculation water systems have controls that start the pump upon receiving a signal from the action of a user of a fixture or appliance and limits the temperature of the water entering the cold-water piping to 104°F.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

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Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C408.2.3.1 [F131] ³	HVAC equipment has been tested to ensure proper operation.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C408.2.3.2 [F110] ³	HVAC control systems have been tested to ensure proper operation, calibration and adjustment of controls.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C408.2.4 [F129] ³	Preliminary commissioning report completed and certified by registered design professional or approved agency.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C408.2.5.1 [F17] ³	Furnished HVAC as-built drawings submitted within 90 days of system acceptance.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C408.2.5.3 [F143] ³	An air and/or hydronic system balancing report is provided for HVAC systems.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C408.2.5.4 [F130] ³	Final commissioning report due to building owner within 90 days of receipt of certificate of occupancy.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

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NY ENGINEERS

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REVISIONS DATES:

PROJECT COORD. 10/16/25
PROJECT COORD. 12/05/25

ISSUE DATE: 07.30.25
PROJECT #: 435B.1421B
DRAWN BY: NYE
CHECKED BY: NYE

ENERGY ANALYSIS

M-9

SCOPE OF WORK	
1. EXISTING 200A, 120/208V, 3-PHASE, 4-WIRE INCOMING ELECTRICAL SERVICE FROM THE EXISTING BASE BUILDING DISTRIBUTION SYSTEM TO THE PROJECT'S SPACE SHALL REMAIN AND REUSED.	
2. EXISTING 200A, 120/208V, 3-PHASE, 4-WIRE ELECTRICAL METER & BREAKER SWITCH SHALL REMAIN AND REUSED.	
3. INCOMING EXISTING ELECTRICAL FEEDER SHALL REMAIN AND REUSED.	
4. EXISTING 225A(M.L.O.), 120/208V, 3-PHASE, 4-WIRE ELECTRICAL PANEL "A" (NAME TO BE VERIFIED AT FIELD) (PROVIDED BY LANDLORD) SHALL REMAIN AND REUSED.	
5. PROVIDE NEW 125A (M.L.O.), 120/208V, 3-PHASE, 4-WIRE ELECTRICAL PANEL "B" (PROVIDED BY TENANT).	
6. ALL NECESSARY EQUIPMENT, WIRING AND LIGHTING FOR THE PROJECT SPACE INCLUDING WIRING FOR VENTILATION EQUIPMENT. COORDINATE WITH G.C FOR LOW VOLTAGE WIRING.	
7. E.C SHALL COORDINATE WITH THE MECHANICAL AND PLUMBING CONTRACTOR FOR THE EXACT POWER REQUIREMENTS OF THE RESPECTIVE DEVICES/ EQUIPMENTS. BASE BID ACCORDINGLY.	

ELECTRICAL PLAN NOTES	
1. ELECTRICAL CONTRACTOR SHALL REVIEW ALL DRAWINGS OF THIS SET.	31. ALL CIRCUIT BREAKERS FEEDING MECHANICAL EQUIPMENT SHALL BE HACR TYPE CIRCUIT BREAKERS.
2. 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 PROCEEDING WITH WORK.	32. PROVIDE AND INSTALL CONDUIT, CONDUCTORS, PULL WIRES, BOXES, COVER PLATES, DEVICES, ETC. FOR ALL OUTLETS AS INDICATED.
3. ELECTRICAL CONTRACTOR SHALL SUPPLY AND INSTALL ALL NEW ELECTRICAL WORK INDICATED. CONSTRUCTION SHALL BE IN ACCORDANCE WITH DRAWINGS AND APPLICABLE SPECIFICATIONS. IF A PROBLEM IS ENCOUNTERED IN COMPLYING WITH THIS REQUIREMENT, CONTRACTOR SHALL NOTIFY THE OWNER OR HIS REPRESENTATIVE AS SOON AS POSSIBLE AFTER DISCOVERY OF THE PROBLEM AND SHALL NOT PROCEED WITH THAT PORTION OF THE WORK UNTIL OWNER HAS DIRECTED CORRECTIVE ACTION TO BE TAKEN.	33. MATERIALS, PRODUCTS, AND EQUIPMENT, INCLUDING ALL COMPONENTS THEREOF, SHALL BE NEW AND SUCH AS APPEAR ON THE UL LIST OF APPROVED ITEMS AND SHALL MEET OR EXCEED THE REQUIREMENTS OF N.E.C, NEMA, AND IECE.
4. ELECTRICAL CONTRACTOR SHALL VISIT JOB SITE AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING ELECTRICAL AND COMMUNICATIONS INSTALLATION AND MAKE PROVISIONS AS TO THE COST THEREOF. EXISTING CONDITIONS OF ELECTRICAL EQUIPMENT, LIGHT FIXTURES, ETC., THAT ARE PART OF THE FINAL SYSTEM SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO SUBMITTING HIS BID.	34. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OR CUT SHEETS OF LIGHTING FIXTURES, SWITCHES, AND OTHER ELECTRICAL ITEMS FOR APPROVAL BY ENGINEER/ARCHITECT.
5. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE 2017 EDITION OF THE NATIONAL ELECTRIC CODE AND ALL CODES AND ORDINANCES OF THE AUTHORITY HAVING JURISDICTION.	35. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING, PATCHING AND FIRED CAULKING REQUIRED OF HIS WORK.
6. DO NOT SCALE THE ELECTRICAL DRAWINGS. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT LOCATION FOR ALL EQUIPMENT. CONFIRM WITH OWNER'S REPRESENTATIVE.	36. ELECTRICAL CONTRACTOR SHALL LABEL ALL PANELS W/TYPE WRITTEN DIRECTORIES.
7. ALL ELECTRICAL NOT BEING REUSED MUST BE REMOVED IN ITS ENTIRETY.	37. ALL ELECTRICAL AND COMMUNICATIONS OUTLETS TO BE AT 18" A.F.F. UNLESS NOTED OTHERWISE, AND VERTICALLY MOUNTED.
8. ALL CONDUIT IN OR UNDERGROUND OR IN CONCRETE MUST BE RIGID GALVANIZED STEEL.	38. ALL LIGHT SWITCHES TO BE AT 42" A.F.F.
9. CIRCUIT BREAKERS AND PANELS TO BE BOLT ON TYPE.	39. ALL ELECTRICAL WIRING SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR. ALL ELECTRICAL WIRING FOR HVAC SYSTEM INCLUDING CONTROLS, THERMOSTATS, POWER, ETC. SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.
10. ALL EQUIPMENT SHALL BE APPROVED BY UL OR OTHER NATIONALLY RECOGNIZED TESTING COMPANY.	40. BREAKER AND PANELS -- ALL CURRENT CARRYING BUSSES SHALL BE COPPER. ALL GROUND BUS BARS SHALL BE COPPER. PANEL BOARD ENCLOSURES SHALL BE FURNISHED WITHOUT PRE-PUNCHED CONCENTRIC HOLES. A.I.C. RATINGS SHALL BE AS INDICATED ON PANEL BOARD SCHEDULES.
11. ALL RECEPTACLES SHALL BE GROUNDED AS REQUIRED BY NEC 250.146.	41. DISCONNECT SWITCHES SHALL BE H.P. RATED, GENERAL DUTY, QUICK-MAKE, QUICK-BREAK ENCLOSURES AS REQUIRED BY EXPOSURE.
12. SUBMIT SERVICE ENTRANCE EQUIPMENT FOR SEPARATE APPROVAL.	42. MOTOR STARTERS SHALL BE MANUAL OR MAGNETIC, WITH OVERLOAD RELAYS IN EACH HOT LEG.
13. ALL LOW VOLTAGE MUST BE IN CONDUIT TO ABOVE THE DROP CEILING. BRIDAL RINGS OR "J" HOOKS REQUIRED.	43. THE TERM "PROVIDE" USED IN THE CONSTRUCTION DOCUMENTS AND SPECIFICATIONS INDICATES THE CONTRACT SHALL FURNISH AND INSTALL.
14. SEPARATE PERMITS ARE REQUIRED FOR ALL LOW VOLTAGE SUCH AS TELEPHONE, DATA, THERMOSTAT, MUSIC, ALARMS ETC.	44. CONTRACTOR SHALL CONFIRM WITH ANY AND ALL REQUIREMENTS SUCH AS: LUG SIZE RESTRICTIONS, CONDUIT ENTRY, TRANSFORMER SIZE, SCHEDULED DOWN TIME FOR OWNERS CONFIRMATION, ETC. ANY CONFLICTS SHALL BE BROUGHT TO ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH ANY WORK.
15. SEPARATE PERMIT REQUIRED FOR SIGNAGE.	45. VOLTAGE DROP FOR ALL BRANCH CONDUCTORS SHALL NOT EXCEED 3%, WHERE VOLTAGE DROP EXCEEDS 3%, CONTRACTOR SHALL INCREASE SIZE OF CONDUCTORS.
16. PRIOR TO ANY CONSTRUCTION WORK BEGINNING AN ON-SITE MEETING WITH GENERAL CONTRACTORS IS REQUIRED.	46. CONTRACTOR SHALL PROVIDE GFI TYPE BREAKER FOR ALL EXTERIOR 120V CIRCUITS OR GFI PROTECTION - FOR THE WHOLE CIRCUIT.
17. ELECTRICIAN MUST BE ON SITE FOR ALL INSPECTIONS.	47. GAS PIPING SHALL BE BONDED.
18. MINIMUM WIRE SIZE SHALL BE #12 A.W.G. EXCLUDING CONTROL WIRING. ALL CONDUCTORS SHALL BE COPPER UNLESS OTHERWISE NOTED THIN INSULATION.	48. ELECTRICAL CONTRACTOR SHALL COORDINATE SERVICE ENTRY WITH SERVICE PROVIDER PRIOR TO DETERMINING EXACT LOCATION OF THE METER BOX IN ORDER TO AVOID DISCREPANCIES BETWEEN DRAWINGS AND JOB CONDITIONS.
19. OUTLET BOXES SHALL BE PRESSED STEEL IN DRY LOCATIONS. PLASTIC AND CAST ALLOY WITH THREADED RUB IN WET OR DAMP LOCATIONS, AND SPECIAL ENCLOSURES FOR OTHER CLASSIFIED AREAS.	49. ALL OUTDOOR EQUIPMENT SHALL BE WEATHERPROOF.
20. IT IS NOT THE INTENT OF THESE PLANS TO SHOW EVERY MINOR DETAIL OF CONSTRUCTION. THE CONTRACTOR IS EXPECTED TO FURNISH AND INSTALL ALL ITEMS FOR A COMPLETE ELECTRICAL SYSTEM AND PROVIDE ALL REQUIREMENTS NECESSARY FOR EQUIPMENT TO BE PLACED IN PROPER WORKING ORDER.	50. 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.
21. ELECTRICAL SYSTEM SHALL BE COMPLETE AND EFFECTIVELY GROUNDED AS REQUIRED BY THE N.E.C. OR LOCAL CODES.	51. OPERATION MANUALS AND MAINTENANCE MANUALS SHALL BE PROVIDED TO THE BUILDING OWNER.
22. ALL MATERIALS SHALL BE NEW AND BEAR UNDERWRITERS' LABELS WHERE APPLICABLE.	52. ABSOLUTELY NO FLEXIBLE CONDUIT IS PERMITTED IN DEMISING WALLS. FLEXIBLE CONDUIT IS PERMITTED FOR SHORT FINAL CONNECTIONS ONLY (6" OR LESS).
23. ALL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICAL CONTRACTOR IN A FIRST CLASS WORKMANLIKE MANNER. THE COMPLETED SYSTEM SHALL BE FULLY OPERATIVE AND ACCEPTED BY ENGINEER/ARCHITECT.	53. EXPOSED CONDUIT SHALL BE INSTALLED IN STRAIGHT LINES, PARALLEL OR IN RIGHT ANGLES TO THE BUILDING STRUCTURE. DO NOT LOOP EXCESS FLEXIBLE CONDUIT IN CEILING SPACE OR WALL CAVITY. NO CONDUIT TO BE SUPPORTED FROM THE ROOF DECK.
24. ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID INTERFERENCE WITH THE PROGRESS OF CONSTRUCTION.	54. CABLE TYPES AC AND NM CABLES ARE NOT ACCEPTABLE. TYPE MC CABLE, ELECTRIC METALLIC TUBING (EMT) AND RIGID GALVANIZED CONDUIT ARE PERMITTED.
25. ELECTRICAL CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP FREE FROM DEFECTS FOR A PERIOD OF NOT LESS THAN ONE YEAR FROM DATE THAT CERTIFICATE OF OCCUPANCY IS ISSUED. WARRANTY SHALL BE PROVIDED IN WRITING. PROVIDE COPY TO LL.	55. ALL EQUIPMENT, DEVICES AND FIXTURES SHALL BE GROUNDED IN COMPLIANCE WITH NEC AND UL REQUIREMENTS.
26. CORRECTION OF ANY DEFECTS SHALL BE COMPLETED WITHOUT ADDITIONAL CHARGE AND SHALL INCLUDE REPLACEMENT OR REPAIR OF ANY OTHER PHASE OF THE INSTALLATION WHICH MAY HAVE BEEN DAMAGED THEREBY.	56. ALL PANELS TO BE UL LABELED WITH BOLT-ON TYPE CIRCUIT BREAKERS.
27. ALL REQUIRED INSURANCE SHALL BE PROVIDED FOR PROTECTION AGAINST PUBLIC LIABILITY AND PROPERTY DAMAGE FOR THE DURATION OF THE WORK.	57. 7-DAY 24-HOUR TIME CLOCK IS REQUIRED TO CONTROL STOREFRONT ENTRY LIGHTS, SHOW WINDOW LIGHTS, SHOW WINDOW RECEPTABLES AND STOREFRONT SIGNAGE. ILLUMINATED STOREFRONT SIGNS MUST REMAIN LIT DURING ALL MALL BUSINESS HOURS.
28. CONTRACTOR SHALL PAY FOR ALL PERMITS, FEES, INSPECTIONS AND TESTING. CONTRACTOR TO OBTAIN PERMIT AND APPROVED SUBMITTALS PRIOR TO BEGINNING WORK OR ORDERING EQUIPMENT.	58. TENANT IS REQUIRED TO MAKE A FIELD SURVEY OF THE EXISTING ELECTRICAL SERVICE TO ENSURE THAT THE TOTAL CONNECTED LOAD DOES NOT EXCEED THE ELECTRIC SERVICE. ANY/ALL MODIFICATIONS OR UPGRADES NEEDED ARE SUBJECT TO LANDLORD'S PRIOR APPROVAL AND WILL BE COMPLETED BY TENANT/TENANT'S GC AT TENANT'S SOLE EXPENSE.
29. THE ELECTRICAL INSTALLATION SHALL MEET ALL STANDARD REQUIREMENTS OF POWER AND TELEPHONE COMPANIES.	59. ALL ELECTRICAL PANELS TO BE MOUNTED ON PLYWOOD BACKER BOARD.
30. CONTRACTOR SHALL COORDINATE WITH MECHANICAL DRAWINGS AND PROVIDE ALL NECESSARY CONTROL WIRING.	60. PANEL PHASE LOADS TO BE BALANCED WITHIN 10%.

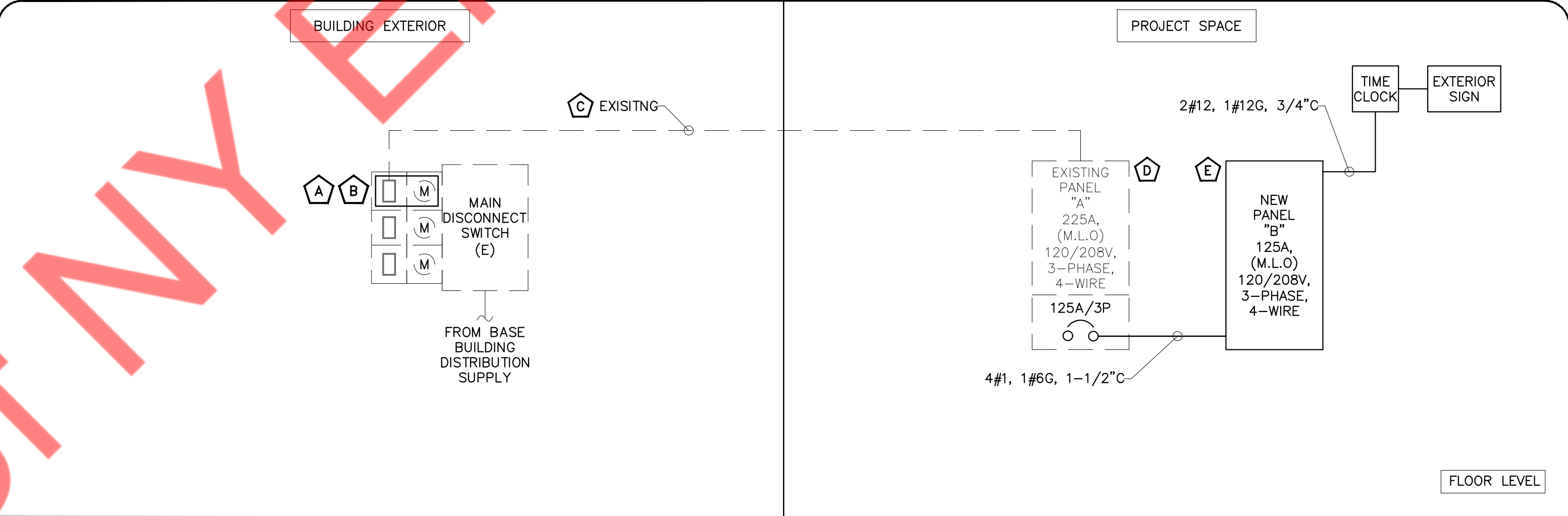
GENERAL LIGHTING NOTES	
A.	UPPER CASE LETTER NEXT TO LIGHT FIXTURE DENOTES FIXTURE TYPE.
B.	ALL EMERGENCY FIXTURES SHALL BE CONNECTED TO AN UNSWITCHED HOT CONDUCTOR.

ELECTRICAL LEGEND	
SYMBOL	DESCRIPTION
	EXHAUST FAN
	JUNCTION BOX
	BATTERY BACK UP EXIT LIGHT
	BATTERY BACK UP EMERGENCY LIGHT
	WALL SWITCH (SINGLE, DOUBLE,)
	WALL SWITCH (3 WAY, 4 WAY)
	WALL SWITCH (TIMER)
	OCCUPANCY SENSOR WALL SWITCH
	DUPLEX RECEPTACLE
	DUPLEX RECEPTACLE, 46" TO AFF AT KITCHEN, BATHS AND TOPS
	230 VOLT RECEPTACLE
	QUADRUPEX RECEPTACLE
	FLOOR MOUNTED, FLUSH DUPLEX RECEPTACLE
	FLOOR MOUNTED, FLUSH QUAD. RECEPTACLE
	CEILING MOUNTED DUPLEX RECEPTACLE
	ELECTRICAL PANEL
	DISCONNECT SWITCH
	USB CHARGER RECEPTACLE
	TELEVISION OUTLET
	TELEPHONE OUTLET
	TELEPHONE/DATA OUTLET
	DATA OUTLET
	FLOOR MTD. FLUSH TELEPHONE/DATA OUTLET
	QUAD. DATA OUTLET RJ45
	30A/240V NON FUSED DISCONNECT SWITCH
	60A/240V NON FUSED DISCONNECT SWITCH
	100A/240V NON FUSED DISCONNECT SWITCH
	MOTORIZED DAMPER
ABBREVIATIONS: ABOVE FINISH FLOOR= A.F.F. COUNTER TOP LEVEL= C GROUND FAULT INTERRUPTER= GFCI VERIFY PRIOR TO INSTALL= VH WEATHER PROOF= WP KITCHEN EXHAUST FAN= KEF WATER HEATER= WH ROOF TOP UNIT= RTU AIR HANDLING UNIT=AHU AIR CURTAIN=ACH	
BELOW COUNTER= BC PUSH BUTTON= PB UNDER CABINET= UC VAPOR PROOF= VP ELECTRICAL CONTRACTOR=E.C. BATHROOM EXHAUST FAN=BEF AUTHORITY HAVING JURISDICTION= A.H.J. MAKE UP AIR UNIT=MAU CONDENSING UNIT=CU ELECTRIC DUCT HEATER=EDH	

ELECTRICAL DRAWING LIST	
E-1	ELECTRICAL PLAN NOTES AND RISER DIAGRAM
E-2	ELECTRICAL LIGHTING PLAN
E-3	ELECTRICAL POWER PLAN
E-4	ELECTRICAL ROOF PART PLAN
E-5	PANEL SCHEDULE & EQUIPMENT SCHEDULE
E-6	ENERGY ANALYSIS

EXISTING CONDITIONS NOTES	
STOP AND READ THE CONTRACTOR AND SUB-CONTRACTORS <u>SHALL NOT INITIATE ANY WORK UNTIL EXISTING FIELD CONDITIONS ARE PROPERLY VERIFIED.</u> 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/ QTY 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.	

LIGHTING FIXTURE SCHEDULE								
SYMBOL	TYPE	DESCRIPTION	MANUFACTURER	CATALOG NUMBER	VOLT	LAMP WATTAGE	MOUNTING	LIGHT FIXTURE SCHEDULE NOTES: REFER TO SHEET A-2 - REFLECTED CEILING PLAN IN ARCHITECTURAL DRAWINGS FOR MORE INFORMATION ON COLORS AND TRIMS REQUIRED (*) EXISTING FIXTURES ARE ACCEPTABLE. IF THEY NEED TO BE REPLACED, REPLACE W/ EXACT MATCH OR MATCH SCHEDULE SUBSTITUTIONS TO THE ABOVE FIXTURE SCHEDULE MUST BE SUBMITTED 14 DAYS PRIOR TO BID & REVIEWED BY THE ARCHITECT, ENGINEER & OWNER. SUBSTITUTIONS WILL NOT BE REVIEWED AFTER THIS TIME. SUBMITTAL PACKAGES MUST INCLUDE COLOR, CUT SHEETS, ALL PHOTO METRICS & FIXTURE SAMPLES FOR ALL DECORATIVE FIXTURES, LANDSCAPE FIXTURES & OUTDOOR FIXTURES. WITHOUT THIS INFORMATION NO REVIEW WILL BE PROVIDED. NOTE: 1. E.C. SHALL COORDINATE WITH ARCHITECT FOR FINAL FIXTURE COUNT AND TYPE. 2. COORDINATE EXACT CONTROL REQUIREMENTS WITH OWNER. 3. E.C SHALL PROVIDE REQUIRED POWER PACKS AND RELAYS SUITABLE FOR THE ABOVE LIGHT FIXTURES IN COORDINATION WITH THE LIGHTING VENDOR. BASE BID ACCORDINGLY. 4. E.C SHALL COORDINATE WITH THE ARCHITECT/OWNER FOR EXACT MAKE MODEL OF LIGHT FIXTURE PRIOR TO PURCHASE. INFORM ENGINEER ON RECORD FOR ANY DISCREPANCY. BASE BID ACCORDINGLY.
	A	LED LAY-IN 2x4	ELITE	24-FPL1-LED-ML	120	28 WATTS	RECESSED	
	A1	LED LAY-IN 2x2	ELITE	24-FPL1-LED-ML	120	14 WATTS	RECESSED	
	B	LED CYLINDER DOWNLIGHT 4"	ELITE	SR4-TL-1428	120	25 WATTS	SURFACE	
	C	LED CYLINDER DOWNLIGHT 3"	BINA COMPANY	ATTRAKT H20-TGR	120	18 WATTS	TRACK	
	C1	LED DIFFUSED LINEAR TRACK BASE	BINA COMPANY	ATTRAKT H20-IP65	120	18 WATTS	SUSPENDED	
	D1	LED LIGHT BAR 42"	BINA COMPANY	ATTRAKT H20-B20	120	20 WATTS	SUSPENDED	
	D2	LED LIGHT BAR 60"	BINA COMPANY	ATTRAKT H20-B30	120	30 WATTS	SUSPENDED	
	F	LED TAPE LIGHT	ELITE	LB3000-TWH	120	30 WATTS	RECESSED	
	X1	EMERGENCY LIGHT/EXIT COMBO	ELITE	ELX-LED-736 OR EQUIVALENT	120	2 WATTS	WALL	
	Y1	EMERGENCY LIGHT	ELITE	ELM-870 OR EQUIVALENT	120	2 WATTS	WALL	
	Y1	EMERGENCY LIGHT	ELITE	ELM-870 OR EQUIVALENT	120	2 WATTS	CEILING	
	TC	TIME CLOCK	INTERMATIC	ET70415CR	120	-	-	
	OS	CEILING OCCUPANCY SENSOR	LEVITON	O2C10-UDW	120	-	-	
	OS	OCCUPANCY WALL SWITCH	LEVITON	ODS10	120	-	-	
(E)		EXISTING FIXTURE SHALL REMAIN						
(R)		EXISTING FIXTURE SHALL RELOCATED						



ELECTRICAL RISER KEY NOTES:	
	NEW
	EXISTING ITEM/FEEDER TO REMAIN
	EXISTING ITEM/FEEDER TO BE DISCONNECTED & REMOVED
EXISTING CONDITIONS: EXISTING 200A, 120/208V, 3-PHASE, 4-WIRE INCOMING ELECTRICAL SERVICE FROM THE EXISTING BASE BUILDING DISTRIBUTION SYSTEM TO THE PROJECT'S SPACE SHALL REMAIN AND REUSED. E.C SHALL COORDINATE WITH THE BASE BUILDING/ LANDLORD/ OWNER FOR EXACT POWER DISTRIBUTION. REPORT TO ENGINEER ON RECORD FOR ANY DISCREPANCIES. BASE BID ACCORDINGLY. EXISTING 200A, 120/208V, 3-PHASE, 4-WIRE ELECTRICAL METER & BREAKER SWITCH SHALL REMAIN AND REUSED. E.C SHALL VERIFY THE EXACT LOCATION, SIZE & OPERABLE CONDITION OF EXISTING ELECTRICAL METER & BREAKER SWITCH IN THE FIELD AND SHALL REPLACE WITH NEW IF FOUND INOPERABLE IN COORDINATION WITH UTILITY COMPANY/ OWNER/ LANDLORD. BASE BID ACCORDINGLY. INCOMING EXISTING ELECTRICAL FEEDER SHALL REMAIN AND REUSED. E.C SHALL VERIFY THE RATE, RATING, CONDUIT SIZE AND OPERABLE CONDITION OF EXISTING ELECTRICAL FEEDER IN FIELD. REPLACE IF FOUND INOPERABLE. BASE BID ACCORDINGLY. EXISTING 225A(M.L.O.), 120/208V, 3-PHASE, 4-WIRE ELECTRICAL PANEL "A" (NAME TO BE VERIFIED AT FIELD) (PROVIDED BY LANDLORD) SHALL REMAIN AND REUSED. E.C SHALL FIELD VERIFY EXACT SIZE, LOCATION & OPERABLE CONDITION OF THE PANEL. REPLACE WITH NEW IF FOUND INOPERABLE. BASE BID ACCORDINGLY. PROVIDE NEW 125A (M.L.O.), 120/208V, 3-PHASE, 4-WIRE ELECTRICAL PANEL "B" (PROVIDED BY TENANT). E.C SHALL COORDINATE EXACT LOCATION WITH ARCHITECT/ OWNER. BASE BID ACCORDINGLY.	

RISER DIAGRAM GENERAL NOTES:	
1.	ABOVE RISER DIAGRAM IS FOR REFERENCE PURPOSES ONLY. E.C SHALL VERIFY EXACT POWER DISTRIBUTION IN FIELD AND INFORM ENGINEER ON RECORD FOR ANY DISCREPANCY
2.	E.C SHALL VERIFY INCOMING SERVICE AMPERAGE, WIRE SIZING AND DISTRIBUTION.
3.	E.C SHALL COORDINATE FAULT CURRENT (Isc) RATING WITH UTILITY COMPANY AND AHJ PRIOR TO COMMENCING ANY WORK.
4.	E.C SHALL VERIFY OPERABLE CONDITIONS OF EXISTING DEVICES IN FIELD, REPLACE/RECTIFY IF FOUND INOPERABLE. BASE BID ACCORDINGLY.
5.	E.C SHALL COORDINATE WITH OWNER/ LANDLORD/ BASE BUILDING FOR THE EXACT DETAILS/ LIABILITIES TO UNDERSTAND THE SCOPE OF WORK.
ELECTRICAL RISER	
SCALE	1
N.T.S.	

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ELECTRICAL PLAN NOTES AND RISER DIAGRAM

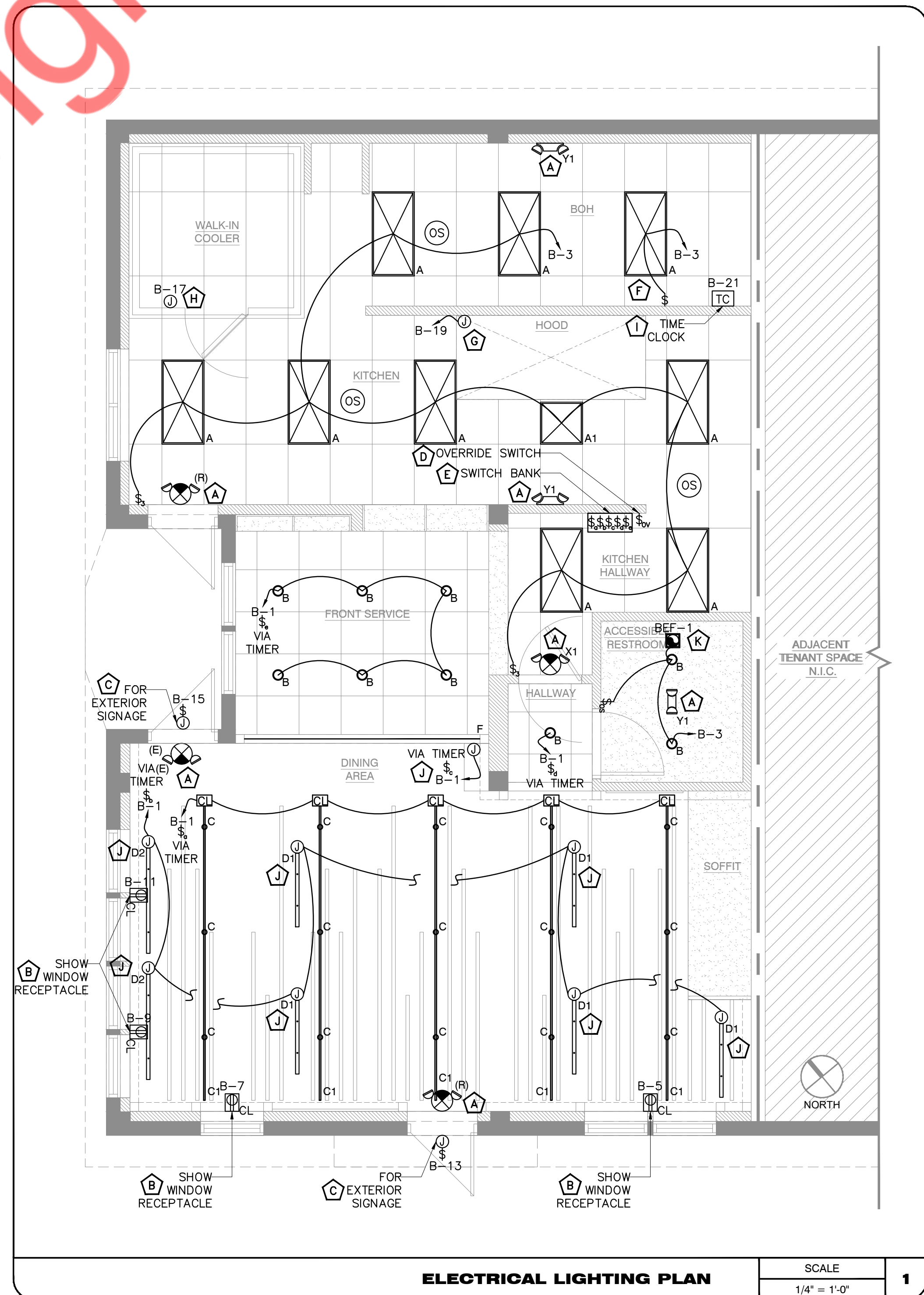
E-1

LIGHTING PLAN GENERAL NOTES:

1. COORDINATE FINAL FIXTURE MAKE & MODEL WITH ARCHITECT/OWNER.
2. ALL LIGHT FIXTURES CONSIDERED TO BE AS 120 VOLT FIXTURE. E.C. SHALL INFORM ENGINEER ON RECORD OTHERWISE.
3. UPPER CASE LETTER NEXT TO LIGHT FIXTURE DENOTES FIXTURE TYPE.
4. ALL EMERGENCY FIXTURES SHALL BE CONNECTED TO AN UNSWITCHED HOT CONDUCTOR.
5. CONTRACTOR ARE ADVISED TO UPDATE THE EMERGENCY LIGHT FIXTURES LOCATION/ QUANTITY PER SITE REQUIREMENT UPON FINAL INSPECTION OR PER LOCAL A.H.J REQUIREMENT.

LIGHTING PLAN KEY NOTES:

- A CONNECT EMERGENCY AND EGRESS LIGHTING FIXTURES TO THE NEAREST LIGHTING CIRCUIT AHEAD OF ALL SWITCHING AND CONTROLS PER STATE AND LOCAL CODES.
- B PROVIDE SHOW WINDOW RECEPTACLE AS PER N.E.C 210.62. VERIFY EXACT LOCATION WITH ARCHITECT. BASE BID ACCORDINGLY.
- C PROVIDE A DISCONNECT SWITCH AT FEEDER OR BRANCH CIRCUIT ENTERS THE SIGN PER NEC, VERIFY EXACT MOUNTING HEIGHT AND LOCATION FOR SIGNAGE POWER WITH ARCHITECTURAL ELEVATIONS, SIGN VENDOR, AND LANDLORD. ROUTE CIRCUIT TO PANEL VIA TIME CLOCK. BASE BID ACCORDINGLY.
- D E.C SHALL PROVIDE OVERRIDE SWITCH, COORDINATE EXACT LOCATION WITH ARCHITECT/ OWNER. BASE BID ACCORDINGLY.
- E E.C SHALL COORDINATE WITH ARCHITECT/ OWNER FOR EXACT LOCATION OF SWITCH BANK PRIOR TO ROUGH-IN. BASE BID ACCORDINGLY.
- F LIGHTING NEAR ELECTRICAL PANELS SHALL NOT BE CONTROLLED BY ANY AUTOMATIC MEANS AND SHALL BE COMPLIED AS PER NEC 110.26(D).
- G PROVIDE 120V DEDICATED CIRCUIT FOR NEW HOOD LIGHTING & CONTROL PANEL. COORDINATE FOR LIGHTING CONNECTION & ALL OTHER REQUIREMENT WITH CAPTIVE AIRE HOOD DRAWINGS/MANUFACTURER IN FIELD.
- H E.C SHALL PROVIDE JUNCTION BOX AND CIRCUIT FOR WALK-IN BOX. LIGHTING 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.
- I E.C SHALL COORDINATE WITH OWNER/ ARCHITECT FOR EXACT LOCATION OF THE INTERMATIC ET70415CR ELECTRONIC TIMER IN FIELD. BASE BID ACCORDINGLY.
- J E.C SHALL COORDINATE WITH LIGHTING VENDOR/ ARCHITECT/ OWNER FOR ANY ACCESSORIES OR CONTROL REQUIREMENT FOR THE LIGHT FIXTURE NAMED "D1", "D2" & "F" IN FIELD. VERIFY EXACT LOCATION OF JUNCTION BOX IN FIELD. E.C SHALL VERIFY THE COMPATIBILITY OF LIGHT "D1", "D2" & "F" WITH LIGHT VENDOR BEFORE COMMENCING ANY WORK. INFORM ENGINEER ON RECORD FOR ANY DISCREPANCY. PROVIDE CIRCUIT AND CONTROL AS REQUIRED. BASE BID ACCORDINGLY.
- K EXHAUST FANS BEF-1 SHALL BE INTERLOCKED WITH LIGHTS IN SAME ROOM. E.C SHALL COORDINATE WITH THE MECHANICAL CONTRACTOR IN THE FIELD. PRIOR TO ROUGH IN. BASE BID ACCORDINGLY.



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ELECTRICAL
POWER PLAN

E-3

POWER PLAN GENERAL NOTES:

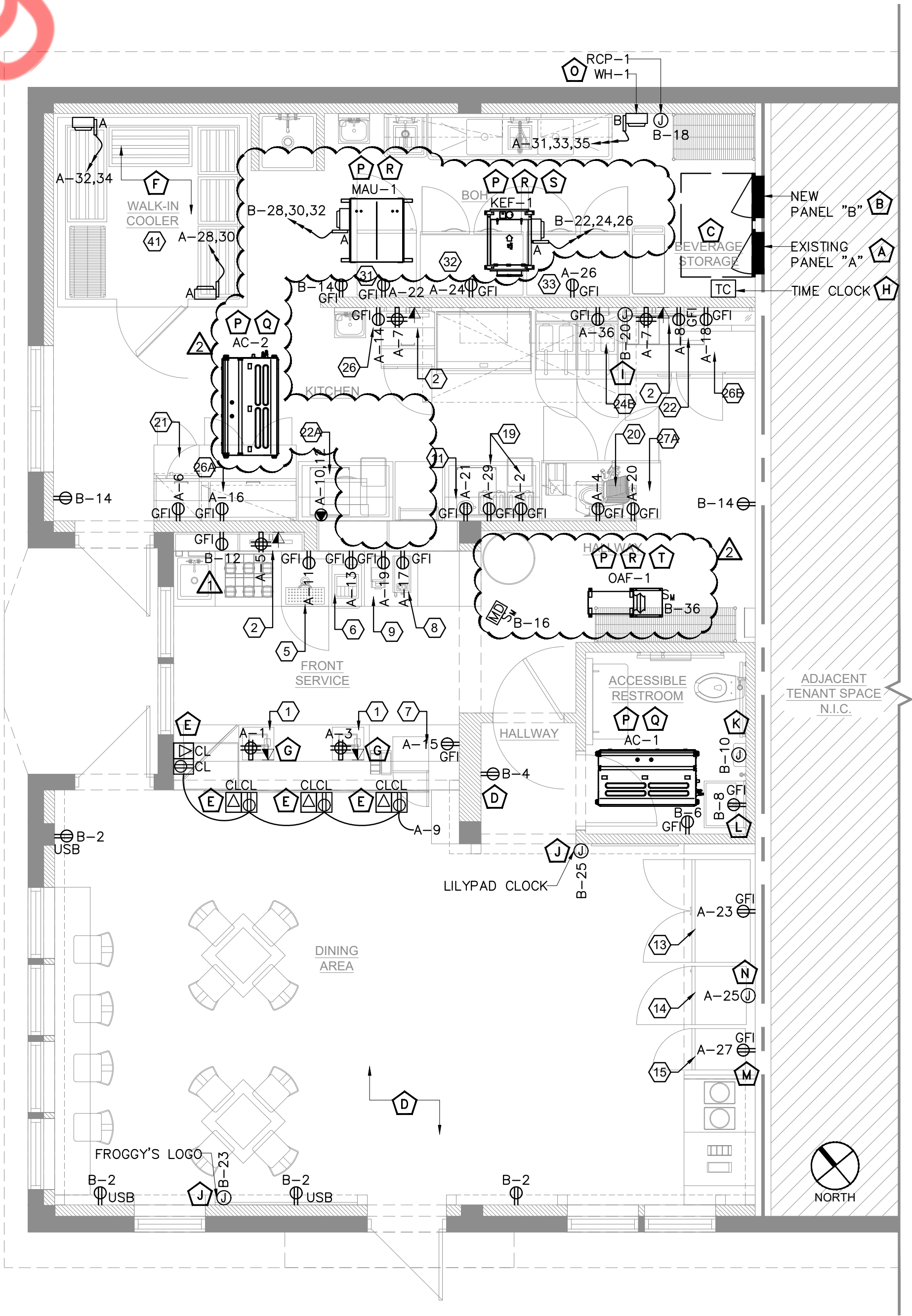
1. PROVIDE GFCI PROTECTION FOR PERSONNEL FOR ALL SINGLE PHASE RECEPTACLES RATED 50AMP OR LESS & THREE PHASE RECEPTACLES RATED 100AMP OR LESS INSTALLED IN KITCHEN AREA PER NEC 210.8(B)2. GFI PROTECTION SHALL BE PROVIDED AT BREAKER WHERE RECEPTACLES ARE NOT READILY ACCESSIBLE PER NEC 210.8 DUE TO STATIONARY KITCHEN EQUIPMENT.
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 KEY NOTES:

- EXISTING 225A(M.L.O.), 120/208V, 3-PHASE, 4-WIRE ELECTRICAL PANEL "A" (NAME TO BE VERIFIED AT FIELD) SHALL REMAIN AND REUSED. E.C SHALL FIELD VERIFY EXACT SIZE, LOCATION & OPERABLE CONDITION OF THE PANEL AND REPLACE WITH NEW IF FOUND INOPERABLE. BASE BID ACCORDINGLY.
- PROVIDE NEW 125A(M.L.O.), 120/208V, 3-PHASE, 4-WIRE ELECTRICAL PANEL "B" E.C SHALL COORDINATE EXACT LOCATION WITH ARCHITECT/OWNER. BASE BID ACCORDINGLY.
- 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.
- ALL 15/20A, 125V AND 250V NON LOCKING TYPE RECEPTACLES IN LOBBY/ HALLWAY SHALL BE LISTED TAMPER RESISTANCE AS PER NEC 406.12.
- PROVIDE (1) QUAD RECEPTACLE AND (1) CAT6 DATA CABLE AND CONNECTION FOR EACH #2_KDS, #4_TV 43" & #4A_TV 43". E.C SHALL COORDINATE WITH THE ARCHITECT/OWNER FOR EXACT LOCATION, MOUNTING HEIGHT AND RECEPTACLE REQUIREMENT FOR THE TELEVISION BEFORE COMMENCING ANY WORK. BASE BID ACCORDINGLY.
- E.C SHALL COORDINATE EXACT POWER REQUIREMENT WITH #41_WALK-IN COOLER MANUFACTURER & MAKE POWER PROVISION ACCORDINGLY. BASE BID ACCORDINGLY.
- E.C SHALL COORDINATE WITH THE POS SYSTEM VENDOR/MANUFACTURER/ OWNER FOR THE EXACT REQUIREMENT OF THE POS SYSTEM AND MOUNTING HEIGHT OF THE OUTLETS/DATA OUTLETS BEFORE COMMENCING ANY WORK. INFORM ENGINEER FOR ANY DISCREPANCY. BASE BID ACCORDINGLY.
- E.C SHALL COORDINATE WITH OWNER/ ARCHITECT FOR EXACT LOCATION OF THE INTERMATIC ET70415CR ELECTRONIC TIMER IN FIELD. BASE BID ACCORDINGLY.
- E.C SHALL CO-ORDINATE WITH FIRE SUPPRESSION SYSTEM VENDOR FOR ITS POWER REQUIREMENT AND OTHER DETAILS BEFORE COMMENCING ANY WORK. BASE BID ACCORDINGLY.
- E.C SHALL COORDINATE WITH ARCHITECT/ OWNER/ SIGNAGE VENDOR FOR THE EXACT LOCATION, MOUNTING HEIGHT, ACCESSORIES AND POWER REQUIREMENTS OF THE FROGGY'S LOGO AND LILYPAD CLOCK SIGNAGE BEFORE COMMENCING ANY WORK. REPORT TO ENGINEER ON RECORD FOR ANY DISCREPANCY. BASE BID ACCORDINGLY.
- JUNCTION BOX FOR HAND DRYER. COORDINATE MOUNTING HEIGHT AND LOCATION TO BE COORDINATED IN FIELD WITH ARCHITECT/OWNER PRIOR TO ROUGH-IN. BASE BID ACCORDINGLY.
- E.C SHALL COORDINATE WITH ARCHITECT/ OWNER/ MIRROR VENDOR FOR THE EXACT LOCATION, MOUNTING HEIGHT, ACCESSORIES AND POWER REQUIREMENTS OF THE MIRROR LIGHT BEFORE COMMENCING ANY WORK. REPORT TO ENGINEER ON RECORD FOR ANY DISCREPANCY. BASE BID ACCORDINGLY.
- E.C SHALL COORDINATE WITH OWNER/ARCHITECT AND #15_REDBULL COOLER EQUIPMENT MANUFACTURER FOR EXACT POWER REQUIREMENT, MOUNTING HEIGHT & LOCATION BEFORE COMMENCING ANY WORK. BASE BID ACCORDINGLY.
- E.C SHALL COORDINATE WITH OWNER/ARCHITECT AND #14_REACH-IN COOLER 30" EQUIPMENT MANUFACTURER FOR EXACT POWER REQUIREMENT, MOUNTING HEIGHT & LOCATION BEFORE COMMENCING ANY WORK. BASE BID ACCORDINGLY.
- E.C SHALL COORDINATE WITH THE PLUMBING CONTRACTOR FOR EXACT LOCATION AND POWER REQUIREMENT OF THE PLUMBING UNITS IN THE FIELD. PROVIDE CIRCUIT AND CONTROL AS REQUIRED.
- E.C SHALL COORDINATE WITH THE MECHANICAL CONTRACTOR FOR EXACT LOCATION OF THE MECHANICAL UNITS IN THE FIELD.
- INDOOR UNIT IS POWERED BY THE OUTDOOR UNIT. E.C SHALL COORDINATE WITH EQUIPMENT MANUFACTURER FOR EXACT ELECTRICAL POWER REQUIREMENTS PRIOR TO ROUGH-IN TO ENSURE EXACT EQUIPMENT OPERATION. BASE BID ACCORDINGLY.
- E.C 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.
- KEF-1 SHALL BE INTERLOCKED WITH MAU-1. E.C SHALL COORDINATE WITH THE MECHANICAL CONTRACTOR IN THE FIELD. PRIOR TO ROUGH IN. BASE BID ACCORDINGLY.
- OAF-1 SHALL BE INTERLOCKED WITH AC-1 & AC-2. E.C SHALL COORDINATE WITH THE MECHANICAL CONTRACTOR IN THE FIELD. PRIOR TO ROUGH IN. BASE BID ACCORDINGLY.

NOTE:-

1. ALL VISIBLE OUTLETS AND SWITCHES SHOULD BE BLACK.



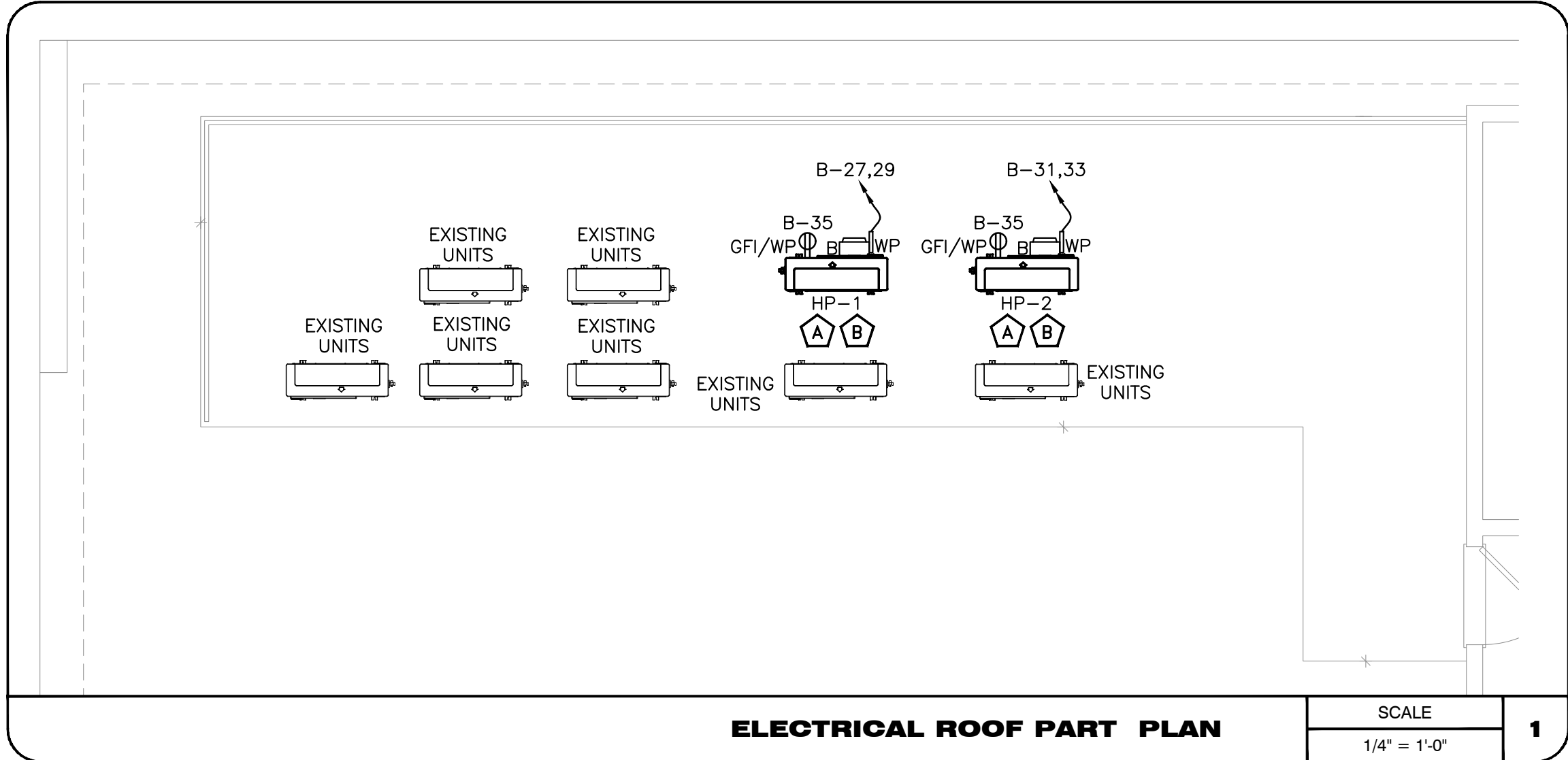
ELECTRICAL POWER PLAN

SCALE
1/4" = 1'-0"

1

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- ROOF PART PLAN KEY NOTES:
- A E.C. SHALL COORDINATE WITH THE MECHANICAL CONTRACTOR FOR EXACT LOCATION OF THE MECHANICAL UNITS IN THE FIELD.
 - B E.C. 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.



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ELECTRICAL
ROOF PLAN

E-4

ELECTRICAL PANEL SCHEDULE:-

PANEL: A(E)										MOUNTING:		REFER TO EL. POWER PLAN (E-3)					
208Y/120		VOLTS,		3	PHASE,		4	WIRE		LOCATION:		REFER TO EL. POWER PLAN (E-3)					
MAIN CB		NA		M.L.O.		225A		BUS:		EXISTING		MIN,		FED FROM:		REFER TO EL. RISER DIAGRAM (E-1)	
NOTE: L : LIGHTING, H : HVAC LOAD, E: EQUIPMENT, M : MOTOR LOAD, R : RECEPTACLES, O : OTHER/MISC. (TYPICAL)																	
CKT NO.	TRIP AMPS	DESCRIPTION OF LOAD	LOAD TYPE	LOAD (KVA)	MINIMUM BRANCH CIRCUIT	PER PHASE (KVA)			MINIMUM BRANCH CIRCUIT	LOAD (KVA)	LOAD TYPE	DESCRIPTION OF LOAD	TRIP AMPS	CKT NO.			
						A	B	C									
A	1	20	#1_POS	R	0.36	2#12, 1#12G, 3/4"C	2.16			2#12, 1#12G, 3/4"C	1.80	E	#19_SLICE TOASTER	20	2		
	3	20	#1_POS	R	0.36	2#12, 1#12G, 3/4"C		2.16		3#12, 1#12G, 3/4"C	1.80	E	#20_MANUAL SLICER	20	4		
	5	20	#2_KDS	R	0.36	2#12, 1#12G, 3/4"C			1.56	2#12, 1#12G, 3/4"C	1.20	E	#21_MICROWAVE	20	6		
	7	20	#2_KDS	R	0.72	2#12, 1#12G, 3/4"C	0.87			2#12, 1#12G, 3/4"C	0.15	E	#22_COUNTERTOP REFRIGERATED PREP RAIL 40"	20	8		
	9	20	#4_TV 43" (MENU), #4A_TV 43" (SPECIALS)	R	0.72	2#12, 1#12G, 3/4"C		2.32		2#12, 1#12G, 3/4"C	1.60	E	#22A_CHEESE MELTER 23" (COUNTERTOP SALAMANDER)	20-2P	10		
B	11	20	#5_2 TAP KEG BUILT-IN 24"	E	0.15	2#12, 1#12G, 3/4"C			1.75	2#12, 1#12G, 3/4"C	1.60	E		12			
	13	20	#6_UNDERCOUNTER BULLET ICE MACHINE 15"	E	0.69	2#12, 1#12G, 3/4"C	0.92			2#12, 1#12G, 3/4"C	0.23	E	#26_BREAKFAST PREP TABLE 27" (REFRIGERATED PREP TABLE)	20	14		
	15	20	#7_(MILK) DISPLAY REFRIGERATOR COUNTER 18"	E	0.16	2#12, 1#12G, 3/4"C		0.78		2#12, 1#12G, 3/4"C	0.62	E	#26A_REFRIGERATED PREP TABLE 72"	20	16		
	17	20	#8_COFFEE BREWER	E	1.37	2#12, 1#12G, 3/4"C			2.10	2#12, 1#12G, 3/4"C	0.74	E	#26B_WORKTOP FREEZER 67"	20	18		
	19	20	#9_COFFEE GRINDER	E	1.08	2#12, 1#12G, 3/4"C	1.38			2#12, 1#12G, 3/4"C	0.30	E	#27A_UNDERCOUNTER REFRIGERATOR 60"	20	20		
	21	20	#11_FOOD PROCESSOR	E	0.50	2#12, 1#12G, 3/4"C		0.83		2#12, 1#12G, 3/4"C	0.33	E	#31_REACH-IN REFRIGERATOR 30"	20	22		
	23	20	#13_REACH-IN 2 DOOR COOLER 52"	E	0.81	2#12, 1#12G, 3/4"C			1.25	2#12, 1#12G, 3/4"C	0.45	E	#32_REACH-IN REFRIGERATOR 52"	20	24		
	25	20	#14_REACH-IN COOLER 30"	E	0.81	2#12, 1#12G, 3/4"C	1.96			2#12, 1#12G, 3/4"C	1.15	E	#33_REACH-IN FREEZER 52"	20	26		
	27	20	#15_REDBULL COOLER	E	0.50	2#12, 1#12G, 3/4"C		1.65		2#12, 1#12G, 3/4"C	1.15	E		28			
	29	20	#19_SLICE TOASTER	E	1.80	2#12, 1#12G, 3/4"C			2.95	2#12, 1#12G, 3/4"C	1.15	E	#41_WALK-IN COOLER INDOOR UNIT	20-2P	30		
E	31	50-3P	WH-1	O	4.50	3#8, 1#10G, 3/4"C	5.65			2#12, 1#12G, 3/4"C	1.15	E	#41_WALK-IN COOLER OUTDOOR UNIT	20-2P	32		
	O			4.50			5.65		1.15		E	34					
	O			4.50				5.00	2#12, 1#12G, 3/4"C		0.50	E			#24B_ZAP TIMER	20	36
D	37	125-3P	NEW PANEL "B"	O	11.81	4#1, 1#6G, 1-1/2"C	11.81						SPARE	20	38		
	O			11.81			11.81			SPARE	20	40					
	O			11.81				11.81			SPARE	20	42				
TOTAL CONNECTED LOAD (KVA)							24.74	25.21	26.43								

PANEL: B(N)										MOUNTING:		REFER TO EL. POWER PLAN (E-3)					
208Y/120		VOLTS,		3	PHASE,		4	WIRE		LOCATION:		REFER TO EL. POWER PLAN (E-3)					
MAIN CB		NA		M.L.O.		125A		BUS:		125A		MIN,		FED FROM:		REFER TO EL. RISER DIAGRAM (E-1)	
NOTE: L : LIGHTING, H : HVAC LOAD, E: EQUIPMENT, M : MOTOR LOAD, R : RECEPTACLES, O : OTHER/MISC. (TYPICAL)																	
CKT NO.	TRIP AMPS	DESCRIPTION OF LOAD	LOAD TYPE	LOAD (KVA)	MINIMUM BRANCH CIRCUIT	PER PHASE (KVA)			MINIMUM BRANCH CIRCUIT	LOAD (KVA)	LOAD TYPE	DESCRIPTION OF LOAD	TRIP AMPS	CKT NO.			
						A	B	C									
1	20	LIGHTING - DINING AREA, FRONT SERVICE, HALLWAY	L	0.63	2#12, 1#12G, 3/4"C	1.35			2#12, 1#12G, 3/4"C	0.72	R	RECEPTACLE - DINING AREA	20	2			
3	20	LIGHTING - RESTROOM, KITCHEN, BOH, BEF-1	L	0.77	2#12, 1#12G, 3/4"C		0.95		2#12, 1#12G, 3/4"C	0.18	R	RECEPTACLE - HALLWAY	20	4			
5	20	SHOW WINDOW RECEPTACLE	R	1.26	2#12, 1#12G, 3/4"C			1.44	2#12, 1#12G, 3/4"C	0.18	R	RECEPTACLE - RESTROOM	20	6			
7	20	SHOW WINDOW RECEPTACLE	R	0.60	2#12, 1#12G, 3/4"C	0.78			2#12, 1#12G, 3/4"C	0.18	R	RECEPTACLE - MIRROR	20	8			
9	20	SHOW WINDOW RECEPTACLE	R	1.29	2#12, 1#12G, 3/4"C		2.75		2#12, 1#12G, 3/4"C	1.46	O	HAND DRYER	20	10			
11	20	SHOW WINDOW RECEPTACLE	R	1.29	2#12, 1#12G, 3/4"C			1.47	2#12, 1#12G, 3/4"C	0.18	R	RECEPTACLE - FRONT SERVICE AREA	20	12			
13	20	EXTERIOR SIGNAGE	L	1.20	2#12, 1#12G, 3/4"C	1.74			2#12, 1#12G, 3/4"C	0.54	R	RECEPTACLE - BOH, KITCHEN	20	14			
15	20	EXTERIOR SIGNAGE	L	1.20	2#12, 1#12G, 3/4"C		1.30		2#12, 1#12G, 3/4"C	0.10	M	MOTORISED DAMPER	20	16			
17	20	LIGHTING - WALK-IN COOLER	L	0.50	2#12, 1#12G, 3/4"C			0.59	2#12, 1#12G, 3/4"C	0.09	O	RCP-1	20	18			
19	20	LIGHTING - HOOD	L	0.50	2#12, 1#12G, 3/4"C	1.00			2#12, 1#12G, 3/4"C	0.50	O	FIRE SUPPRESSION SYSTEM	20	20			
21	20	TIME CLOCK	L	0.50	2#12, 1#12G, 3/4"C		1.09			0.59	M		22				
23	20	FROGGY'S LOGO	L	0.50	2#12, 1#12G, 3/4"C			1.09	3#12, 1#12G, 3/4"C	0.59	M	KEF-1	20-3P	24			
25	20	LILIPAD CLOCK SIGN	L	0.50	2#12, 1#12G, 3/4"C	1.09				0.59	M		26				
27	40-2P	HP-1	H	3.33	2#8, 1#10G, 3/4"C		4.25		3#12, 1#12G, 3/4"C	0.92	M	MAU-1	15-3P	28			
29			H	3.33			4.25	0.92		M							
31	40-2P	HP-2	H	3.33	2#8, 1#10G, 3/4"C	4.25			2#12, 1#12G, 3/4"C	0.92	M		32				
33			H	3.33			3.33										
35	20	RECEPTACLE - ROOF	R	0.36	2#12, 1#12G, 3/4"C			1.12		0.76	M	OAF-1	20	36			
37	20	SPARE				0.00						SPARE	20	38			
39	20	SPARE					0.00					SPARE	20	40			
41	20	SPARE						0.00				SPARE	20	42			
TOTAL CONNECTED LOAD (KVA)						10.21	13.67	9.96									

PANEL SCHEDULE GENERAL NOTES:

- ALL CIRCUITING SHOWN IN PANEL "A" (NAME TO BE VERIFIED AT FIELD) ARE FOR REFERENCE PURPOSE ONLY. E.C SHALL VERIFY CIRCUITING & BREAKER SIZE OF THE EXISTING DEVICES IN FIELD AND INFORM ENGINEER FOR DISCREPANCIES.
- E.C SHALL VERIFY THE EXACT PANEL SIZES AND INCOMING FEEDER SIZE.
- E.C SHALL PROVIDE NEW CIRCUIT BREAKERS IN PLACE OF EXISTING CIRCUIT BREAKERS WHEREVER NECESSARY TO BE IN LINE WITH THE PANEL SCHEDULE.
- E.C SHALL VERIFY THE EXISTING EQUIPMENT LOAD & RATINGS IN FIELD AND ACCORDINGLY CONSIDER THE ELECTRICAL LOAD IN PANEL BOARD SCHEDULE.
- E.C SHALL PROVIDE NEW CIRCUIT BREAKER IN PLACE OF EXISTING CIRCUIT BREAKER WHEREVER NECESSARY TO BE IN LINE WITH THE PANEL SCHEDULE. ALSO CHECK COMPATIBILITY OF NEWLY ADDED BREAKERS WITH EXISTING PANEL BEFORE PURCHASE.

PANEL SCHEDULE KEY NOTES:

- A PROVIDE (1) 20-1P BREAKER IN PLACE OF (1) 15-1P BREAKER. BASE BID ACCORDINGLY.
- B PROVIDE (28) 20-1P BREAKER IN PLACE OF (28) SPACES. BASE BID ACCORDINGLY.
- C PROVIDE (3) 20-2P BREAKER IN PLACE OF (6) SPACES. BASE BID ACCORDINGLY.
- D PROVIDE (1) 125-3P BREAKER IN PLACE OF (3) SPACES. BASE BID ACCORDINGLY.
- E PROVIDE (1) 50-3P BREAKER IN PLACE OF (3) SPACES. BASE BID ACCORDINGLY.

EQUIPMENT SCHEDULE:-

ITEM NO.	DESCRIPTION	VOLTAGE	PHASE	AMPS	KW	REMARK
1	POS	120	1	1.5	0.18	-
2	KDS	120	1	1.5	0.18	-
4	TV 43" (MENU)	120	1	1.5	0.18	-
4A	TV 43" (SPECIALS)	120	1	1.5	0.18	-
5	2 TAP KED BUILT-IN 24"	115	1	1.3	0.15	-
6	UNDERCOUNTER BULLET ICE MACHINE 15"	115	1	6	0.69	-
7	(MILK) DISPLAY REFRIGERATOR COUNTER 18"	115	1	1.4	0.16	-
8	COFFEE BREWER	120	1	11.4	1.37	-
9	COFFEE GRINDER	120	1	9	1.08	-
11	FOOD PROCESSOR	120	1	1.5	0.18	-
13	REACH-IN 2 DOOR COOLER 52"	115	1	7	0.81	-
14	REACH-IN COOLER 30"	115	1	7	0.81	-
15	REDBULL COOLER	120	1	4.16	0.50	TO BE COORDINATED WITH FRANCHISOR
19	SLICE TOASTER	120	1	15	1.80	-
20	MANUAL TOASTER	120	1	15	1.80	-
21	MICROWAVE	120	1	10	1.20	-
22	COUNTERTOP REFRIGERATED PREP RAIL 40"	115	1	1.3	0.15	-
22A	CHEESE MELTER 23" (COUNTERTOP SALAMANDER)	240	1	13.33	3.20	-
24B	ZAP TIMER	120	1	4.16	0.50	-
26	BREAKFAST PREP TABLE 27" (REFRIGERATED PREP TABLE)	115	1	2	0.23	-
26A	REFRIGERATED PREP TABLE 72"	115	1	5.4	0.62	-
26B	WORKTOP FREEZER 67"	115	1	6.4	0.74	-
27A	UNDERCOUNTER REFRIGERATOR 60"	115	1	2.6	0.30	-
31	REACH-IN REFRIGERATOR 30"	115	1	2.88	0.33	-
32	REACH-IN REFRIGERATOR 52"	115	1	3.9	0.45	-
33	REACH-IN FREEZER 52"	115	1	10	1.15	-
41	WALK-IN COOLER	208	1	11.1	2.31	-
G	MIRROR	120	1	4.16	0.50	TO BE COORDINATED WITH VENDOR
J	HAND DRYER	120	1	12.2	1.46	TO BE COORDINATED WITH VENDOR

REVISIONS DATES:

PROJECT COORD. 10/16/25
PROJECT COORD. 12/05/25

ISSUE DATE: 07.30.25
PROJECT #: 435B.1421B
DRAWN BY: NYE
CHECKED BY: NYE

PANEL SCHEDULES & EQUIPMENT SCHEDULE



Interior Lighting Compliance Certificate

Project Information

Energy Code: 2020 New York State Energy Conservation Construction Code
Project Title: FROGGY'S SANDWICHES
Project Type: Alteration

Construction Site: 1123 PLEASANTVILLE ROAD, RETAIL B
BRIARCLIFF MANOR, New York 10510
Owner/Agent:
Designer/Contractor: MICHAEL TOBIAS
NY ENGINEERS
382 NE 191ST STREET SUITE 49674
MIAMI, Florida 33179

Allowed Interior Lighting Power

A Area Category	B Floor Area (ft ²)	C Allowed Watts / ft ²	D Allowed Watts
1-DINING AREA (Common Space Types:Dining Area - Cafeteria/Fast Food)	571	0.63	360
2-KITCHEN, BOH (Common Space Types:Food Preparation)	609	1.06	646
3-RESTROOM (Common Space Types:Restrooms)	69	0.85	59
4-FRONT SERVICE AREA (Common Space Types-Sales Area)	155	1.59	246
5-HALLWAY, KITCHEN HALLWAY (Common Space Types:Corridor/Transition <8 ft wide)	113	0.66	75
Total Allowed Watts =			1385

Proposed Interior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixture	D Fixture Watt.	E (C X D)
DINING AREA (Common Space Types: Dining Area - Cafeteria/Fast Food, 571 sq.ft.)				
LED: C: Other:	1	15	23	345
LED: D1: Other:	1	5	20	100
LED: D2: Other:	1	2	30	60
KITCHEN, BOH (Common Space Types: Food Preparation, 609 sq.ft.)				
LED: A: Other:	1	7	53	371
LED: A1: Other:	1	1	40	40
RESTROOM (Common Space Types: Restrooms, 69 sq.ft.)				
LED: B: Other:	1	2	23	46
FRONT SERVICE AREA (Common Space Types: Sales Area, 155 sq.ft.)				
LED: B: Other:	1	6	23	138
LED: F: Other:	1	11	6	67
HALLWAY, KITCHEN HALLWAY (Common Space Types: Corridor/Transition <8 ft wide, 113 sq.ft.)				
LED: A: Other:	1	2	53	106
LED: B: Other:	1	1	23	23
Total Proposed Watts =			1296	

Project Title: FROGGY'S SANDWICHES
Report date: 07/29/25
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Interior Lighting PASSES

Interior Lighting Compliance Statement

Compliance Statement: The proposed interior lighting alteration project represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 2020 New York State Energy Conservation Construction Code requirements in COMcheck Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

MICHAEL TOBIAS
Name - Title
Signature
07/29/25
Date



Project Title: FROGGY'S SANDWICHES
Report date: 07/29/25
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Inspection Checklist

Energy Code: 2020 New York State Energy Conservation Construction Code

Requirements: 100.0% were addressed directly in the COMcheck software

Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req.ID	Plan Review	Complies?	Comments/Assumptions
C103.2 [PR4] ¹	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the interior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided should include interior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Project Title: FROGGY'S SANDWICHES
Report date: 07/29/25
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Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.2.2.2 [EL22] ¹	Spaces required to have light-reduction controls have a manual control that allows the occupant to reduce the connected lighting load in a reasonably uniform illumination pattern >= 50 percent.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C405.2.1.1 [EL18] ¹	Occupancy sensors installed in classrooms/lecture/training rooms, conference/meeting/multipurpose rooms, copy/print rooms, lounges/breakrooms, enclosed offices, open plan office areas, restrooms, storage rooms, locker rooms, warehouse storage areas, and other spaces <= 300 sqft that are enclosed by floor-to-ceiling height partitions. Reference section language C405.2.1.2 for control function in warehouses and section C405.2.1.3 for open plan office spaces.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C405.2.1.2 [EL19] ¹	Occupancy sensors control function in warehouses: In warehouses, the lighting in aiseways and open areas is controlled with occupant sensors that automatically reduce lighting power by 50% or more when the areas are unoccupied. The occupant sensors control lighting in each aisleyway independently and do not control lighting beyond the aisleyway being controlled by the sensor.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Exception: Requirement does not apply.
C405.2.1.3 [EL20] ¹	Occupant sensor control function in open plan office areas: Occupant sensor controls in open office spaces >= 300 sq.ft. have controls 1) configured so that general lighting can be controlled separately in control zones with floor areas <= 600 sq.ft. within the space, 2) automatically turn off general lighting in all control zones within 20 minutes after all occupants have left the space, 3) are configured so that general lighting power in each control zone is reduced by >= 80% of the full zone general lighting power within 20 minutes of all occupants leaving that control zone, and 4) are configured such that any daylight responsive control will activate space general lighting or control zone general lighting only when occupancy for the same area is detected.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Exception: Requirement does not apply.
C405.2.2.2.1, C405.2.2.2.2 [EL21] ²	Each area not served by occupancy sensors (per C405.2.1) have time-switch controls and functions detailed in sections C405.2.2.1 and C405.2.2.2.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Project Title: FROGGY'S SANDWICHES
Report date: 07/29/25
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Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.2.3.1, C405.2.3.2 [EL23] ²	Daylight zones provided with individual controls that control the lights independent of general area lighting. See code section C405.2.3 Daylight-responsive controls for 2 applicable spaces, C405.2.3.1 Daylight responsive control function and section C405.2.3.2 Sidelit zone.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Exception: Requirement does not apply.
C405.2.4 [EL26] ¹	Separate lighting control devices for specific uses installed per approved lighting plans.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C405.2.4 [EL27] ¹	Additional interior lighting power allowed for special functions per the approved lighting plans and is automatically controlled and separated from general lighting.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C405.3 [EL6] ¹	Exit signs do not exceed 5 watts per foot.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Project Title: FROGGY'S SANDWICHES
Report date: 07/29/25
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Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C303.3, C408.2.5.2 [F117] ¹	Furnished O&M instructions for systems and equipment to the building owner or designated representative.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C405.4.1 [F118] ¹	Interior installed lamp and fixture lighting power is consistent with what is shown on the approved lighting plans, demonstrating proposed watts are less than or equal to allowed watts.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	See the Interior Lighting fixture schedule for values.
C408.2.5.1 [F116] ¹	Furnished as-built drawings for electric power systems within 90 days of system acceptance.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C408.3 [F133] ¹	Lighting systems have been tested to ensure proper calibration, adjustment, programming, and operation.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Project Title: FROGGY'S SANDWICHES
Report date: 07/29/25
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REVISIONS DATES:

PROJECT COORD. 10/16/25
PROJECT COORD. 12/05/25

ISSUE DATE: 07.30.25
PROJECT #: 435B.1421B
DRAWN BY: NYE
CHECKED BY: NYE

ENERGY ANALYSIS

PROVIDE ALL PLUMBING FOR NEW TAKE-OUT RESTAURANT WITHIN AN EXISTING BUILDING SHELL INCLUDING ALL WATER, GAS, VENT, GREASE AND SANITARY LINES AND CONNECT TO EXISTING UTILITIES. PROVIDE NEW ELECTRIC STORAGE WATER HEATER AND REUSE EXISTING EXTERIOR GREASE INTERCEPTOR.

PLUMBING NOTES

34. OPERATION MANUALS AND MAINTENANCE MANUALS SHALL BE PROVIDED TO THE BUILDING OWNER. PROVIDE A COPY TO LL.

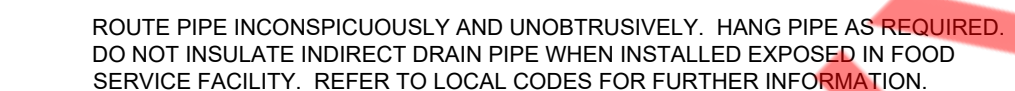
	SANITARY SEWER PIPING ABOVE GROUND
	GREASE SANITARY SEWER PIPING ABOVE GROUND
	VENT PIPING
	COLD WATER PIPING
	HOT WATER PIPING
	HOT WATER RETURN PIPING
	GAS PIPING
	PIPE RISE
	PIPE DROP

THERMOSTATIC MIXING VALVE

FIXTURE	COLD WATER	HOT WATER	WASTE	VENT
WATER CLOSET	1"	..	4"	2"
LAVATORY	1/2"	1/2"	2"	1-1/2"
FLOOR DRAIN	..	..	3"	2"
FLOOR SINK	..	..	3"	2"
MOP SINK	1/2"	1/2"	3"	2"
HAND SINK	1/2"	1/2"	2"	1-1/2"
3-COMP SINK	1/2"	1/2"	1.W	2"
PREP SINK	1/2"	1/2"	1.W	2"
DROP IN HAND SINK	1/2"	1/2"	2"	1-1/2"



- 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.



NOT TO SCALE

Item No.	Qty.	Description	Manufacturer	Model	Hot	Cold	Waste
A	1	WATER CLOSET	AMERICAN STANDARD	2234001.02			4"
A1	1	FLUSH VALVE	ELECTRONIC FAUCET	ATV-2MB		1"	
A2	1	ELONGATED SEAT	AMERICAN STANDARD	5901100.02			
B	1	LAVATORY	THE BATH OUTLET	SCARABEO 5146			2"
B1	1	LAVATORY FAUCET***	THE BATH OUTLET	REMER XF11USNL-NO	1/2"	1/2"	

Item No.	Qty.	Description	Manufacturer	Model	Hot	Cold	Direct	Indirect
6	1	ICE MACHINE	AVANTCO	UC-B-77-A		3/4"		1/2"
8	1	COFFEE BREWER	BUNN	23001.0006		1/2"		
17	1	DROP-IN HAND SINK***	REGENCY	600D11416R	1/2"	1/2"	2"	
34	2	HAND SINK**	ADVANCE TABCO	7-PS-87	1/2"	1/2"	2"	
35	1	PREP SINK	BK RESOURCES	BK8BS-1-18-14				2"
35A	1	FAUCET PREP SINK***	BK RESOURCES	BKF-12-G	1/2"	1/2"		
36	1	3 COMPARTMENT SINK	BK RESOURCES	BK56-3-18-14-18TS				2"
36A	1	PRE RINSE FAUCET+	BK RESOURCES	BKF-VSMRP-WB-AF12-G	1/2"	1/2"		
37	1	MOP SINK	ADVANCE TABCO	9-OP-44			3"	
37A	1	FAUCET MOP SINK +	T&S BRASS	B-0665-BSTRM	1/2"	1/2"		
TMV	5	THERMAL MIXING VALVE	LFMMV		1/2"	1/2"		
40	3	FLOOR SINKS	REGENCY	600FSG1212SS				3"
FD	3	FLOOR DRAINS*	ZURN	ZS415 W/ TYPE BS STRAINER				3"

+ HOT WATER 140°F, * PROVIDE TRAP PRIMERS FOR ALL FLOOR DRAINS, *** PROVIDE TMV AS PER SCHEDULE

NOTE:
ALL PLUMBING FIXTURES MUST MEET THE REQUIREMENTS FOR "WATER EFFICIENCY AND CONSERVATION" AS FOUND 2020 NEW YORK STATE PLUMBING CODE

- WATER CLOSETS: 1.28 G.P.P.F.
- LAVATORIES: 0.8 G.P.M.
- SINK FAUCETS: 2.2 G.P.M.



1. AS PER 2020 NYS ENERGY CONSERVATION CODE C404.4, PIPING FROM A WATER HEATER TO THE TERMINATION OF HEATED WATER FIXTURE SUPPLY PIPE SHALL BE INSULATED IN ACCORDANCE WITH TABLE C403.11.3 OF MINIMUM PIPE INSULATION THICKNESS.

TEMPERATURE RANGE AND USAGE (°F)	CONDUCTIVITY BTU x IN./ (H x FT ² x °F)	MEAN RATING TEMPERATURE, °F	<1	1 to < 1%	1% to < 4
141-200	0.25-0.29	125	1.5	1.5	2.0
105-140	0.21-0.28	100	1.0	1.0	1.5
40-60	0.21-0.27	75	0.5	0.5	1.0

2. HOT WATER SYSTEM PIPING IS DESIGNED AS PER MAXIMUM ALLOWED PIPE LENGTH METHOD AS PER 2020 NYS ENERGY CONSERVATION CODE C404.5.1 THE HOT WATER VOLUME FROM THE NEAREST SOURCE OF HEATED WATER TO THE TERMINATION OF THE FIXTURE SUPPLY PIPE SHALL BE AS PER MAXIMUM PIPING LENGTH TABLE.

(INCHES)	PUBLIC LAV	OTHER FIXTURES
3/8"	3'	50'
1/2"	2'	43'
3/4"	0.5'	21'
1"	0.5'	13'
1 1/4"	0.5'	8'
1 1/2"	0.5'	6'
2" OR LARGER	0.5'	4'

3. AS PER 2020 NYS ENERGY CONSERVATION CODE, 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.
4. AS PER 2020 NYS ENERGY CONSERVATION CODE 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).

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1	PROJECT COORD.	10/16/25
	PROJECT COORD.	12/05/25

ISSUE DATE: 07.30.25
PROJECT #: 435B.1421B
DRAWN BY: NYE
CHECKED BY: NYE

PLUMBING
LEGENDS, NOTES,
SCHEDULE
AND DETAILS

REVISIONS DATES:		
PROJECT COORD.	10/16/25	
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SANITARY PLAN AND SANITARY RISER

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EXISTING GREASE INTERCEPTOR SCHEDULE

DESCRIPTION	SERVICE	LOCATION	CAPACITY	TYPE
EXISTING EXTERIOR GREASE INTERCEPTOR	KITCHEN WASTE	OUTSIDE	VIF	IN-GROUND CEMENT

NOTE:-

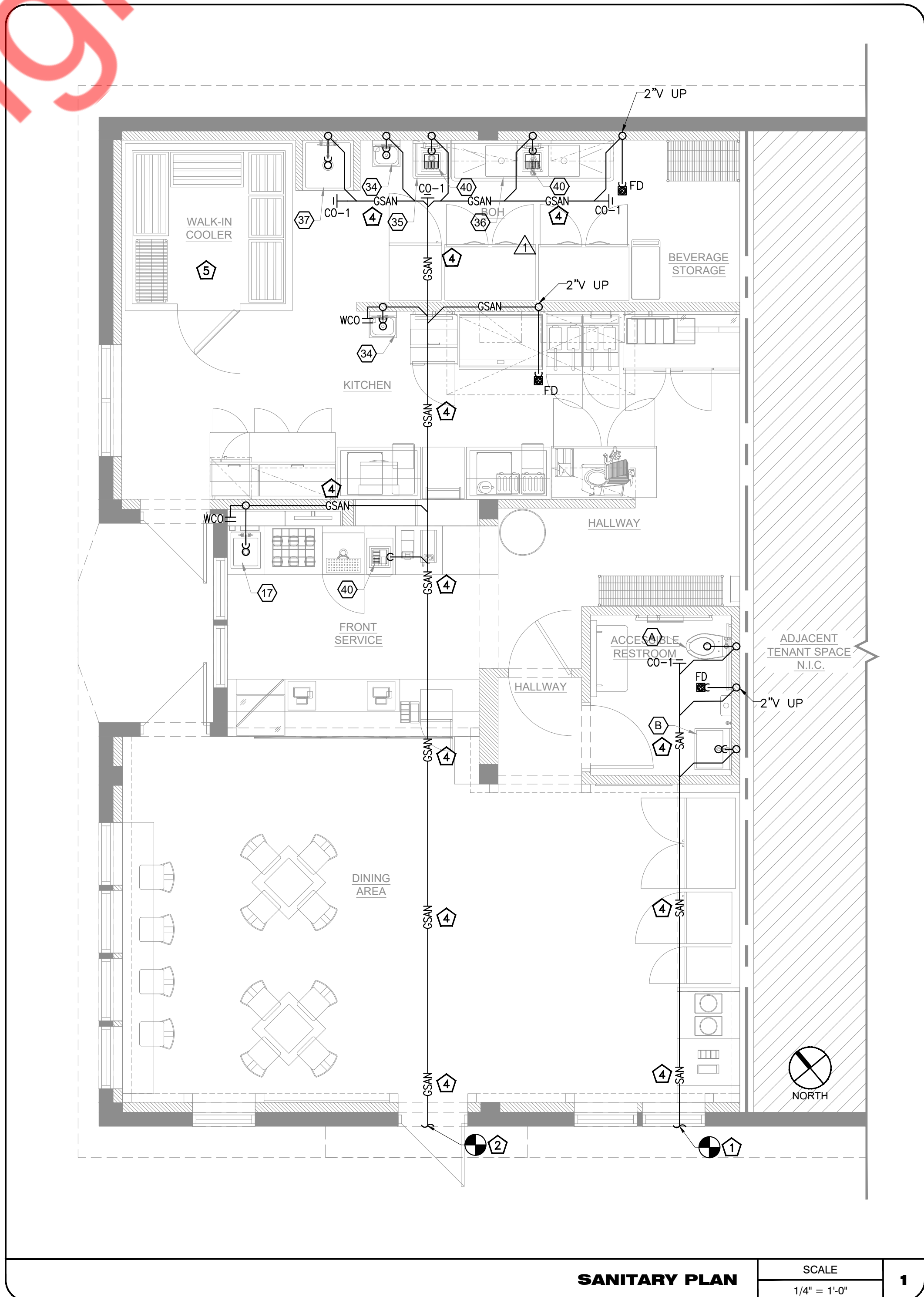
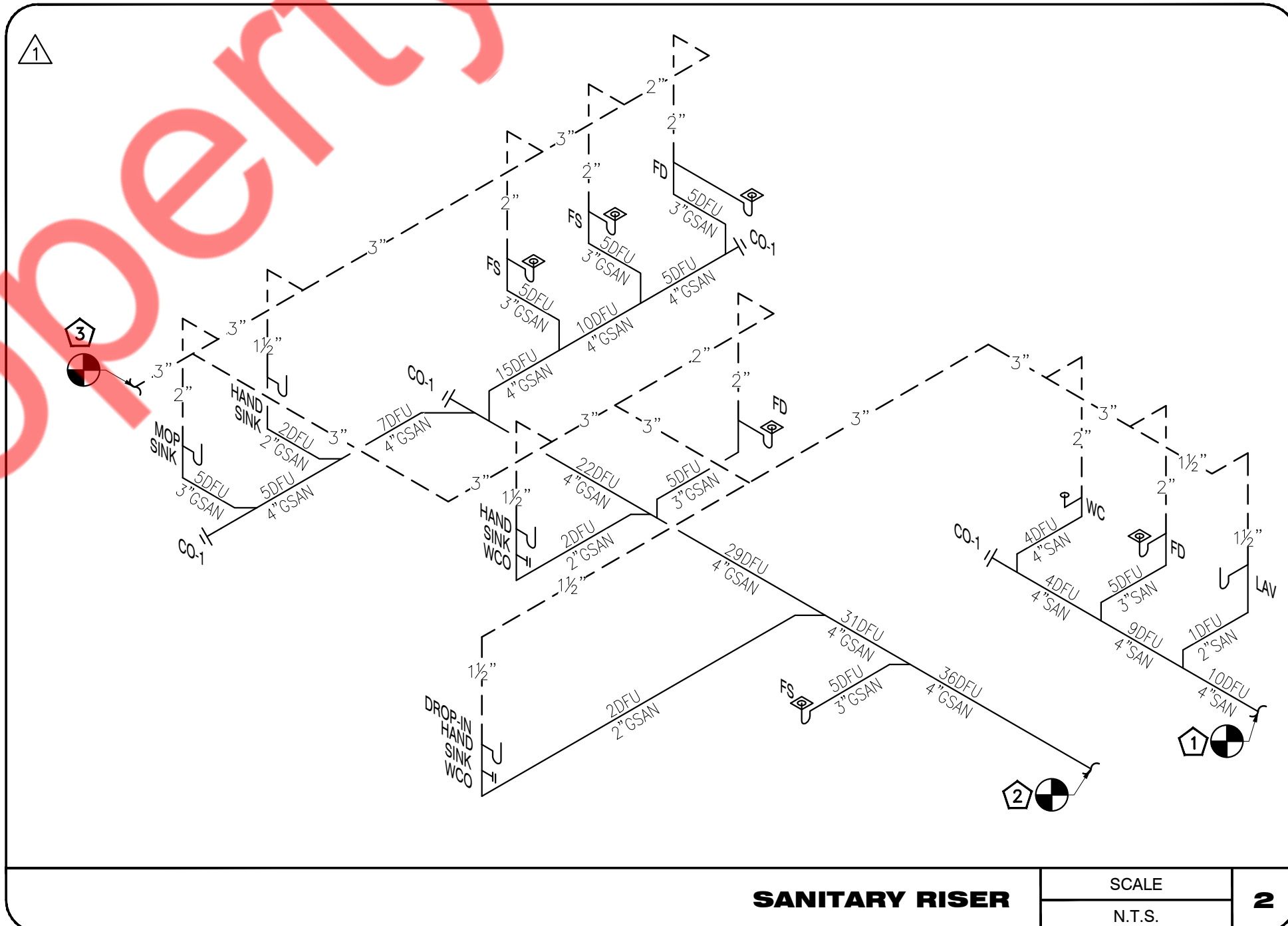
- CONTRACTOR TO PROVIDE ALL REQUIRED ACCESSORIES FOR SATISFACTORY WORKING OF GREASE TRAP AS PER SITE CONDITIONS.

SANITARY PLAN & RISER KEY NOTES

- CONNECT NEW 4" SANITARY WASTE PIPING TO EXISTING SANITARY PIPE OF ADEQUATE SIZE IN NEARBY SPACE. CONTRACTOR TO FIELD VERIFY SIZE, LOCATION, ROUTING AND INVERT OF EXISTING SANITARY LINE AND MAKE NECESSARY CHANGES IF REQUIRED.
- CONNECT NEW 4" GREASE SANITARY WASTE PIPING TO EXISTING EXTERIOR GREASE INTERCEPTOR. CONTRACTOR TO FIELD VERIFY CAPACITY AND LOCATION OF EXISTING EXTERIOR GREASE INTERCEPTOR AND MAKE NECESSARY CHANGES IF REQUIRED.
- CONNECT NEW 3" VENT PIPING TO EXISTING VENT PIPE IN SPACE. CONTRACTOR TO FIELD VERIFY EXACT SIZE, LOCATION AND ROUTING OF EXISTING VENT LINE AND UPGRADE EXISTING VENT IF REQUIRED.
- SANITARY PIPING RUNNING ON BASEMENT LEVEL CEILING, SHOWN HERE FOR REFERENCE. CONTRACTOR TO CO-ORDINATE WITH EXISTING STRUCTURE AND REROUTE THE PIPING AS REQUIRED TO AVOID ANY CONFLICT AS PER FIELD CONDITIONS.
- ROUTE CONDENSATE DRAIN FROM WALK-IN COOLER AND DRAIN TO ADJACENT MOP SINK WITH APPROVED AIR GAP.

GENERAL SANITARY NOTES

- 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" AND SMALLER EXCEPT THAT WHERE THE DRAINAGE PIPING IS UPSTREAM OF GREASE INTERCEPTOR, THE SLOPE OF THE DRAINAGE PIPING SHALL BE NOT LESS THEN 1/4" PER FOOT. VENT PIPE PITCHED TOWARDS DRAIN.
- CONTRACTOR TO FIELD VERIFY FEASIBILITY OF SLAB PENETRATION AS PER STRUCTURAL REQUIREMENT.
- ALL MATERIAL INDICATED AND IMPLIED ON THESE DRAWINGS SHALL BE NEW UNLESS OTHERWISE NOTED.
- ALL CLEANOUTS TO BE ACCESSIBLE.



WATER PLAN

SCALE
1/4" = 1'-0"

1

REVISIONS DATES:	
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GAS PLAN AND GAS RISER

P-4

GAS SCHEDULE							
ITEM NO.	QTY.	DESCRIPTION	MANUFACTURER	MODEL	GAS USAGE	SIZE	MBH
23	1	GRIDDLE	MSA48-101	VULCAN	COMMERCIAL COOKING	1"	108
24	2	FRYER	177FF100L	AVANTCO	COMMERCIAL COOKING	1"	150 (EACH)
TOTAL LOAD							408

GAS PLAN AND RISER KEY NOTES

- CONNECT NEW 1-1/2" GAS LINE TO NEW GAS METER OF MINIMUM 410 MBH. CONTRACTOR TO FIELD VERIFY AVAILABLE PRESSURE AND LOCATION OF GAS METER WITH LANDLORD/UTILITY COMPANY AND BASE BID ACCORDINGLY. CONTRACTOR TO PROVIDE PRESSURE REGULATOR AND ASSOCIATED ACCESSORIES IF REQUIRED AT METER / EQUIPMENT.
- CONTRACTOR TO FIELD VERIFY EXISTING AVAILABLE PRESSURE AND MAKE SURE TO PROVIDE ADEQUATE INLET PRESSURE REQUIRED FOR ALL MECHANICAL EQUIPMENTS, KITCHEN EQUIPMENT AND GAS FIRED WATER HEATER. PROVIDE PRESSURE REGULATOR IF REQUIRED.
- CONTRACTOR TO FIELD VERIFY THE EXACT LOCATION OF COMPRESSOR ABOVE THE WALK IN COOLER AND REROUTE THE GAS PIPING ACCORDINGLY. IF ANY DISCREPANCY FOUND, REPORT BACK TO ENGINEER IN CHARGE PRIOR CONSTRUCTION.

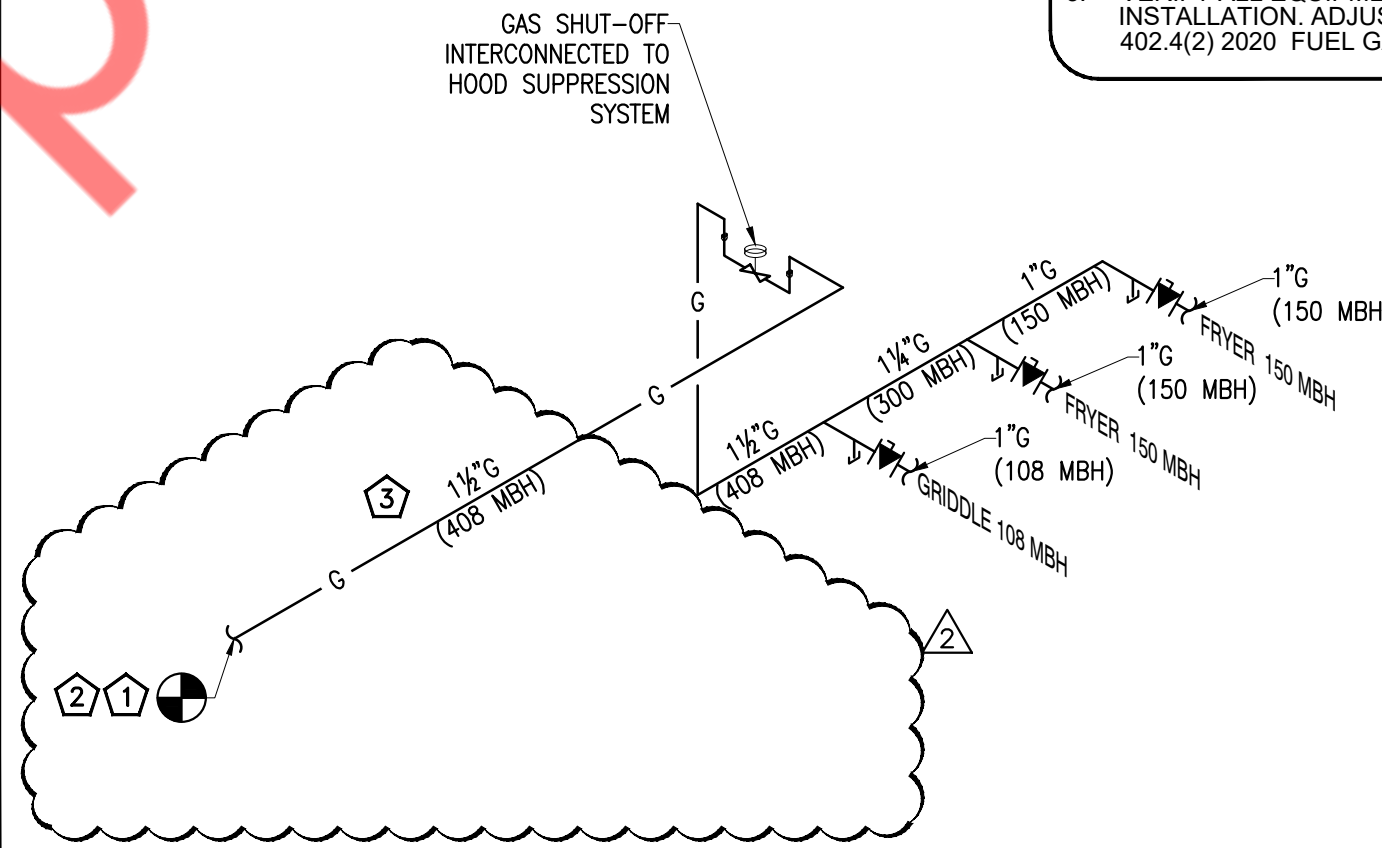
GAS PIPE SIZING PER
TABLE 402.4(2) 2020 FUEL GAS
CODE OF NEW YORK STATE.

EQUIVALENT LENGTH OF PIPE
= 100 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 NFPA-54 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:

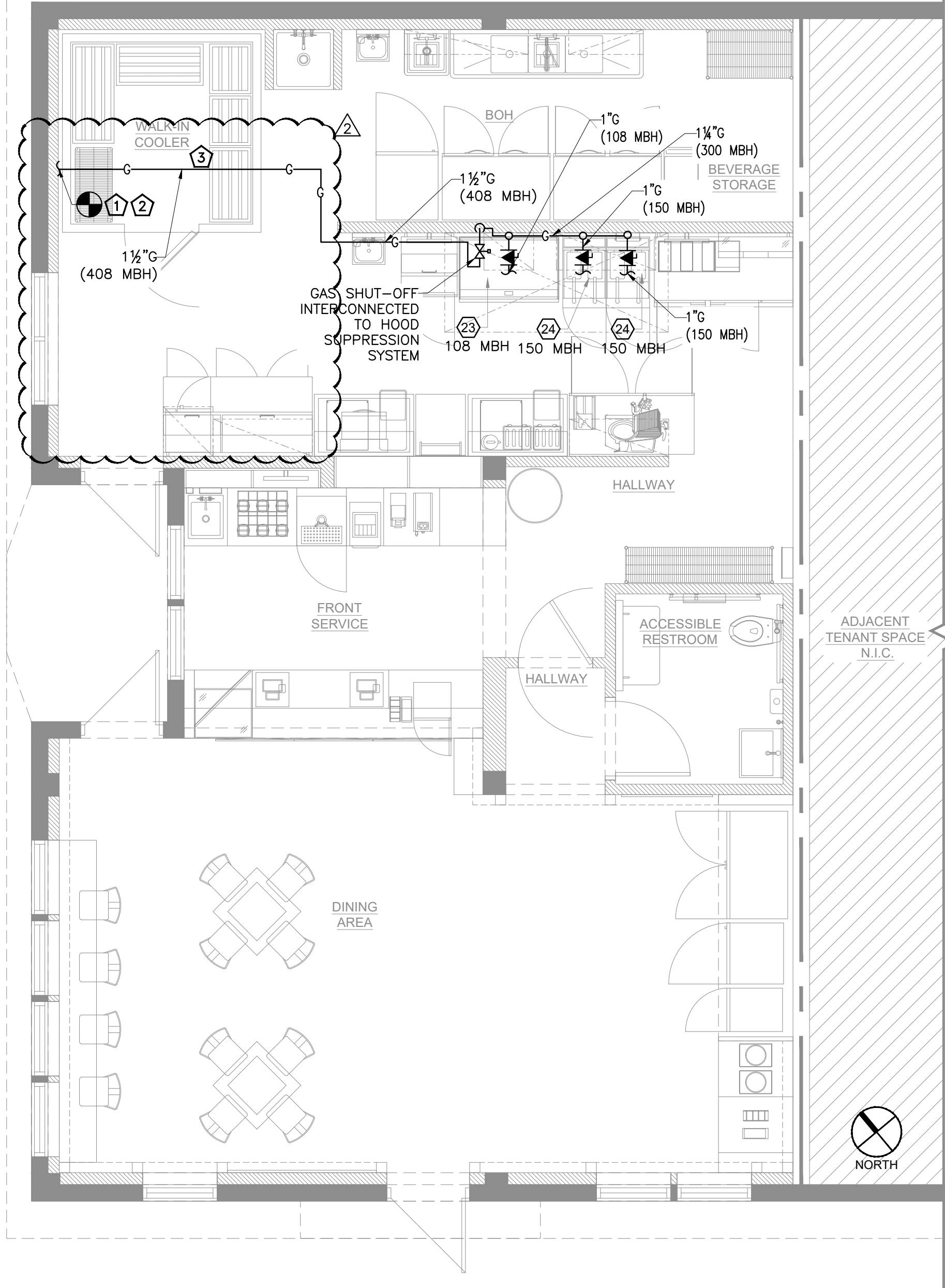
- GAS PIPING TO BE SCHEDULE 40 STEEL PIPE W/125 CAST IRON SCREWED FITTINGS.
- GAS SYSTEM TO BE INSTALLED BY QUALIFIED LICENSED CONTRACTOR.
- VERIFY ALL EQUIPMENT BTU'S PRIOR TO INSTALLATION. ADJUST PIPE SIZE ACCORDING TABLE 402.4(2) 2020 FUEL GAS CODE OF NEW YORK STATE.



GAS RISER

SCALE
N.T.S.

2



GAS PLAN

SCALE
1/4" = 1'-0"

1