

PLAN NOTES

- A. GENERAL
- (1) GAUGE AND CONSTRUCTION: GALVANIZED SHEET METAL IN ACCORDANCE WITH RECOMMENDATIONS OF S.M.A.C.N.A. FOR LOW VELOCITY DUCTWORK, LATEST EDITION AND TO COMPLY WITH ALL NATIONAL AND LOCAL CODE REQUIREMENTS.
 - (2) GREASE EXHAUST DUCTWORK: SHALL BE WELDED STAINLESS STEEL, GAUGE AS INDICATED ON THE DRAWINGS AND INSTALL PER N.F.P.A. 96.
 - (3) DUCT SEALING: ALL DUCT JOINTS AND SEAMS EXPOSED ON ROOF SHALL BE SEALED TO INSURE WEATHER TIGHTNESS WITH GLENKOTE SEAL/FLEX DUCT SEALANT APPLIED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, NO SUBSTITUTIONS ALLOWED. MANUFACTURER: GLENKOTE MANUFACTURING CO., 1001 GLENDALE BLVD. LOS ANGELES, CALIFORNIA 90026.
 - (4) GC SHALL PAINT ALL DUCTWORK, REGISTERS, GRILLES AND DIFFUSERS THAT ARE LEFT EXPOSED WITHIN THE INTERIOR PUBLIC AREAS AS DIRECTED BY THE ARCHITECT
 - (5) FLEXIBLE DUCT (MAXIMUM 5'-0" LENGTH):
 - (A) MATERIAL: PRE-INSULATED FLEXIBLE FIBERGLASS AIR DUCT, ENCASED IN A VAPOR BARRIER JACKET, K FACTOR OF 0.24 AT 75 DEG. F, MEET REQUIREMENTS OF N.F.P.A. 90A FOR AIR DUCTS, SPIN-IN TYPE WITH MANUAL VOLUME DAMPER.
 - (B) INSTALLATION: INSTALL IN FULLY EXTENDED POSITION USING ONLY MINIMUM LENGTH REQUIRED TO MAKE THE CONNECTIONS WITH 1/2" WIDE POSITIVE LOCKING STEEL STRAPS OR APPROVED EQUAL. SUPPORT DUCT AT 3'-0" MAX. OR AS PER LOCAL CODES.
 - (6) MANUAL VOLUME DAMPERS:
 - (A) DAMPERS WITH LOCKING AND INDICATING QUADRANTS TO BE INSTALLED IN EACH BRANCH OF ALL DUCTS AS INDICATED ON THE DRAWINGS IN ADDITION TO ANY VOLUME CONTROL AT OUTLETS.
 - (B) AFTER FINAL ADJUSTMENT OF SYSTEM, LOCK QUADRANTS AND MARK CLEARLY SHOWING DAMPER POSITION, OPEN AND SHUT POSITIONS.
 - (C) DAMPERS IN ROUND DUCTS SHALL BE OF THE SINGLE BLADE TYPE.

DAMPERS IN RECTANGULAR DUCTS:

 - DUCTS 11" IN HEIGHT OR LESS SHALL BE OF THE SINGLE BLADE TYPE.
 - DUCTS 12" IN HEIGHT OR HIGHER SHALL BE OF THE OPPOSED BLADE TYPE.
 - (7) FIRE OR SMOKE/FIRE DAMPERS: WHERE INDICATED ON THE DRAWINGS, SHALL BE FURNISHED AND INSTALLED BY MECHANICAL CONTRACTOR
- B. INSULATION
- (1) DUCT LINING: ALL SUPPLY AIR AND RETURN AIR DUCTWORK AND PLENUMS EXPOSED ON ROOF AND EXTENDED BELOW ROOF LINE TO BE LINED WITH 2" R-8 MINIMUM DUCT-LINED FACED WITH BLACK FIRE-RESISTANT COATING MEETING REQUIREMENTS OF N.F.P.A. 90A AND INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS. DUCT DIMENSIONS SHOWN ON THE DRAWINGS BY (L) ARE FULL SHEET METAL SIZE WITH ALLOWANCE FOR DUCT-LINER THICKNESS.
 - (2) DUCT INSULATION: ALL SUPPLY AIR AND RETURN AIR DUCTWORK INSTALLED IN CONCEALED SPACES SHALL BE WRAPPED WITH 2" R-8 MINIMUM WITH FOIL FACE VAPOR BARRIER.
 - (3) MINIMUM STANDARD OF INSTALLATION: END JOINTS ARE CLOSED WITH 2" OVERLAPPING VAPOR BARRIER FLAP AND 2" JOINT FLAP IS FORMED OVER LONGITUDINAL JOINT. OVERLAPPING FLAPS ARE STAPLED AND SEALED WITH PRESSURE SENSITIVE TAPE OR PLAIN TAPE APPLIED WITH MASTIC.
 - (4) VISIBLE DUCT IN DINING AREA INSULATION: WHEN INDICATE BY (L) IN THE DRAWING FOR VISIBLE DUCT IN DINING AREA, ALL SUPPLY DUCTWORK IN DINING AREA TO BE LINED WITH 0.5" THICK DUCT-LINED FACED WITH BLACK FIRE-RESISTANT COATING MEETING REQUIREMENT OF N.F.P.A. 90A AND INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS.
- C. AUTOMATIC TEMPERATURE CONTROLS.
- AS INDICATED ON DRAWINGS.
- D. BALANCING
- (1) CONTRACTOR SHALL BALANCE, ADJUST AND TEST ALL AIR MOVING EQUIPMENT, AIR DISTRIBUTION, HEATING SYSTEMS, EXHAUST AND MAKE-UP AIR SYSTEMS AS SPECIFIED AND AS INDICATED ON DRAWINGS.
 - (2) BALANCING AND TESTING SHALL NOT BEGIN UNTIL ALL SYSTEMS ARE COMPLETED WITH START-UP AND IN FULL WORKING ORDER BY MECHANICAL CONTRACTOR.
 - (3) CHANGES IN FILTERS, DRIVES AND DAMPERS OR THE ADDITION OF DAMPERS, CONTROL DEVICES OR GAUGES REQUIRED TO CORRECT BALANCE AS REQUIRED SHALL BE MADE AT NO ADDITIONAL COST TO OWNER.
 - (4) ALL EQUIPMENT AND SYSTEMS SHALL BE RUN THROUGH THEIR CYCLE TO CHECK FOR CORRECT WIRING AND SEQUENCING.
 - (5) ALL INSTRUMENTS, FORMS AND PROCEDURES SHALL MEET THE REQUIREMENTS SET FORTH BY THE NATIONAL ENVIRONMENTAL BALANCING BUREAU (N.E.B.B.).
 - (6) COPIES OF BALANCE REPORT SHALL BE AVAILABLE TO THE OWNER.
- E. WARRANTY.
- (1) THE ENTIRE AIR CONDITIONING AND VENTILATION SYSTEM TO BE FREE OF DEFECTIVE WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE YEAR FROM DATE OF START-UP.
 - (2) EQUIPMENT FURNISHED AND INSTALLED BY CONTRACTOR WILL CARRY A MANUFACTURERS REPLACEMENT PARTS WARRANTY FOR A PERIOD OF ONE YEAR FROM THE DATE OF START-UP.
 - (3) ALL AIR CONDITIONING COMPRESSORS FURNISHED AND INSTALLED WILL CARRY AN ADDITIONAL FOUR YEAR MANUFACTURERS REPLACEMENT WARRANTY (PARTS ONLY) AT EXPIRATION OF ORIGINAL ONE-YEAR WARRANTY.

CONSTRUCTION NOTES

1. ALL MECHANICAL WORK SHALL BE IN ACCORDANCE WITH BUT NOT LIMITED TO THE 2022 NYC MECHANICAL CODE, 2022 NYC BUILDING CODE, 2020 NYC ENERGY CONSERVATION CODE, AND THE LATEST SMACNA STANDARDS.
2. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ADMINISTERING ALL WARRANTIES ON EQUIPMENT WHICH THEY FURNISH AND INSTALL.
3. PROVIDE WRITTEN WARRANTY TO REPLACE ALL FAULTY MATERIALS AND/OR LABOR, AT NO COST TO OWNER, FOR A PERIOD OF ONE YEAR FROM DATE OF ACCEPTANCE. PROVIDE 5 YEAR COMPRESSOR WARRANTY FOR AC UNITS. WARRANTIES SHALL BEGIN ON THE DATE OF SUBSTANTIAL COMPLETION.
4. MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE GENERAL CONTRACTOR TO PATCH AND REPAIR ALL EXISTING WALLS, FLOORS, CEILINGS OR OTHER SURFACES IDENTIFIED TO REMAIN THAT MAY BECOME DAMAGED DURING THE COURSE OF WORK.
5. DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL INTENT OR ARRANGEMENT OF SYSTEM(S). FURNISH & INSTALL ALL COMPONENTS NEEDED WHETHER INDICATED OR NOT TO PROVIDE A COMPLETE AND OPERATING SYSTEM.
6. CONTRACTOR TO VERIFY ALL DIMENSIONS, INCLUDING CLEARANCES REQUIRED BY OTHER TRADES, AND NOTIFY ARCHITECT OR GENERAL CONTRACTOR OF ANY DISCREPANCIES PRIOR TO PROCEEDING WITH THE WORK. ALL DIMENSIONS ARE TO THE FACE OF THE FINISHED SURFACE UNLESS NOTED OTHERWISE. ALL DIMENSIONS TO BE TAKEN FROM ACTUAL BUILDING DIMENSIONS.
7. THE MECHANICAL CONTRACTOR SHALL COORDINATE HVAC WORK WITH OTHER TRADES. THE ARCHITECTURAL DRAWINGS SHALL TAKE PRECEDENCE OVER ALL OTHER DRAWINGS. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONED DIFFUSER LOCATIONS AND MOUNTING HEIGHTS WHERE EXPOSED.
8. COORDINATE LOCATION AND SIZE OF ACCESS PANELS SO THEY WILL PROVIDE USEFUL ACCESS TO SERVICE SYSTEM COMPONENTS. LOCATIONS SHALL BE REVIEWED WITH THE ARCHITECT PRIOR TO INSTALLATION.
9. ALL HEATING VENTILATION AND AIR CONDITIONING EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE EQUIPMENT MANUFACTURER'S RECOMMENDATIONS. PROVIDE ALL COMPONENTS REQUIRED FOR COMPLETE WORKABLE INSTALLATION.
10. ALL ITEMS PROJECTION THROUGH THE ROOF SHALL BE FLASHED THROUGH CURBS OR PIPE SEALS A MINIMUM OF 12" ABOVE THE ROOF. THE PIPE CURBS AND SEALS SHALL BE INSTALLED BY THE ROOFING CONTRACTOR. ENSURE THAT AMPLE BOOT OPENINGS ARE PROVIDED TO ACCOMMODATE ANY ELECTRICAL CONDUIT PENETRATIONS REQUIRED FOR POWER.
11. ALL HVAC SUPPLY AND RETURN OUTDOOR EXPOSED DUCTWORK SHALL BE INTERNALLY LINED WITH MINIMUM R-8, 2.0" INSULATION WITH VAPOR BARRIER PER MECHANICAL CODE. INSULATION SHALL HAVE MAXIMUM RATINGS OF 25 FLAME SPREAD, 50 SMOKE DEVELOPED. REFER TO ARCHITECTURAL DRAWINGS FOR DUCT PAINT OR COLOR SPECIFICATION
12. ALL HVAC SUPPLY AND RETURN CONCEALED DUCTWORK TO BE EXTERNALLY WRAPPED WITH MINIMUM R-8, 2.0" INSULATION WITH VAPOR BARRIER PER MECHANICAL CODE. INSULATION SHALL HAVE MAXIMUM RATINGS OF 25 FLAME SPREAD, 50 SMOKE DEVELOPED.
13. THE TOTAL SYSTEM AIR BALANCE SHALL BE PERFORMED BY AN INDEPENDENT AGENCY CERTIFIED BY THE AABC. THIS WORK SHALL CONFORM TO AABC SPECIFICATIONS AS REFERRED TO IN THE AABC NATIONAL STANDARDS. THE AIR BALANCE AGENCY SHALL BE A DIRECT SUB CONTRACTOR TO THE GENERAL CONTRACTOR.
14. PER MECHANICAL CODE WHEN REQUIRED, EACH SINGLE SYSTEM PROVIDING HEATING OR COOLING AIR IN EXCESS OF 2000 CUBIC FEET PER MINUTE SHALL BE EQUIPPED WITH AN AUTOMATIC SHUTOFF. AUTOMATIC SHUTOFF SHALL BE ACCOMPLISHED BY INTERRUPTING THE POWER SOURCE OF THE AIR MOVING EQUIPMENT DEVICES WHICH WILL DETECT PRODUCTS OF COMBUSTION OTHER THAN HEAT, AND WHICH COMPLY WITH THE CBC. SHALL BE LABELED BY AN APPROVED AGENCY FOR AIR DUCT INSTALLATION AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. SUCH DEVICES SHALL BE COMPATIBLE WITH THE OPERATING VELOCITIES, PRESSURES, TEMPERATURES AND HUMIDITIES OF THE SYSTEM WHERE FIRE DETECTION OR ALARM SYSTEMS ARE PROVIDED FOR THE BUILDING. SMOKE DETECTORS SHALL BE SUPERVISED BY SUCH SYSTEMS.
15. COORDINATE THE INSTALLATION AND FINISH OF ALL SUPPLY AND RETURN AIR DEVICES. AIR DEVICES LOCATED PUBLIC SHALL BE PAINTED PER THE ARCHITECTURAL DRAWINGS FINISH SCHEDULE.
16. REMOTE SENSOR & TEMPERATURE CONTROL SHALL BE TITLE-24 COMPLIANT AVAILABLE 24/7 AUTOMATIC CHANGE OVER TYPE TO SEQUENCE HEATING AND COOLING. SET POINT RANGE SHALL BE 10F BETWEEN FULL HEATING AND FULL COOLING. ADJUSTABLE TEMPERATURE DIFFERENTIAL SHALL BE 1-1/2F. THERMOSTAT CONTROL RANGE SHALL BE 55F TO 85F. CONTROLS SHALL HAVE CAPABILITY OF TERMINATING HEATING AT NO HIGHER THAN 70F AND COOLING AT NO LOWER THAN 75F.
17. PROVIDE FLASHING AND/OR COUNTER FLASHING OF ALL EXTERIOR PENETRATIONS TO PREVENT WATER INGRESS.
18. LOCATION OF ALL REGISTERS AND GRILLES SHALL BE IN STRICT ACCORDANCE W/ARCHITECTURAL REFLECTED CEILING PLAN
19. ALL OUTDOOR AIR INTAKE BY MECHANICAL EQUIPMENT SHALL HAVE A MINIMUM 10'-0" HORIZONTAL CLEARANCE FROM THE DISCHARGE OF ANY EXHAUST FAN, RTU GAS EXHAUST OR PLUMBING VENT.
20. SUPPLY, RETURN, RESTROOM EXHAUST, AND MAKEUP AIR DUCT CONSTRUCTION SHALL BE GALVANIZED STEEL. GAUGES, SWAY BRACING AND SUSPENSION SHALL CONFORM TO MECHANICAL CODE. SEAL ALL SEAMS AND JOINTS AIR AND WATERTIGHT. FLEXIBLE ALUMINUM DUCTWORK OR FIBERGLASS DUCTBOARD IS NOT ALLOWED (UNO).
21. PROVIDE VIBRATION ISOLATION DEVICES AND FLEXIBLE DUCT/ PIPING CONNECTIONS TO ALL MOVING MACHINERY NOT INTERNALLY ISOLATED.
22. ALL DUCT DIMENSIONS SHOWN ON DRAWINGS ARE SHEET METAL SIZE.
23. NEW DUCTWORK AND EQUIPMENT SHALL NOT BE INSTALLED WHERE IT OBSTRUCTS ANY EXISTING OR NEW AREAS THAT REQUIRE ACCESS.
24. DURING CONSTRUCTION, ENDS OF DUCT OPENINGS ARE TO BE SEALED, AND MECHANICAL EQUIPMENT IS TO BE COVERED.
25. MECHANICAL CONTRACTOR TO FURNISH AND INSTALL 4" HIGH BLACK OVER WHITE LAMINATE NAMEPLATE WITH 2" LETTERS VISIBLE ADJACENT TO DISCONNECT SWITCH FOR HEAT PUMP UNITS AND CEILING/ ROOF MOUNTED FANS.
26. LINE VOLTAGE WIRING, ALL CONDUIT DISCONNECT SWITCHES AND FINAL CONNECTION BY ELECTRICAL CONTRACTOR. LOW VOLTAGE CONDUIT & WIRING AND FINAL CONNECTION BY MECHANICAL CONTRACTOR.
27. INSTALL TEMPERATURE CONTROL @ +48" (MAX) FOR "ADA". SEE PLAN FOR LOCATION OF REMOTE SENSORS. EXACT LOCATIONS SHALL BE FIELD COORDINATED TO AVOID INTERFERENCE WITH WALL-MOUNTED WORK.
28. MECHANICALLY VENTILATED BUILDINGS SHALL PROVIDE REGULARLY OCCUPIED AREAS WITH AIR FILTRATION MEDIA FOR OUTSIDE AND RETURN AIR THAT PROVIDES AT LEAST A MINIMUM EFFICIENCY REPORTING VALUE (MERV) OF 13. 2" THICK MERV 13 THROW AWAY TYPE AIR FILTER FILTERS SHALL BE INSTALLED PRIOR TO OCCUPANCY.
29. PRIOR TO FINAL INSPECTION THE LICENSED CONTRACTOR, ARCHITECT OR ENGINEER IN RESPONSIBLE CHARGE OF THE OVERALL CONSTRUCTION MUST PROVIDE TO THE BUILDING DEPARTMENT OFFICIAL WRITTEN VERIFICATION THAT ALL APPLICABLE PROVISIONS FROM THE GREEN BUILDING STANDARDS CODE HAVE BEEN IMPLEMENTED AS PART OF THE CONSTRUCTION.
30. MECHANICAL CONTRACTOR SHALL VERIFY ALL EXISTING CONDITION BEFORE START ANY WORK
31. SUBMIT FOR VERIFICATION BY THE BUILDING DEPARTMENT ANY AND ALL REQUIRED AIR BALANCE, AND/OR TEST REPORTS FOR MECHANICAL EQUIPMENT, AND HVAC INSTALLED.
32. MECHANICAL CONTRACTOR SHALL BE ON SITE AND PRESENT AT THE DATE OF THE SPACE TURNOVER.
33. THE DEDICATED ELECTRICAL SPACE, WHICH EXTENDS THE FOOTPRINT OF THE SWITCHBOARD OR PANELBOARD FROM THE FLOOR TO A HEIGHT OF 6' ABOVE THE EQUIPMENT IS REQUIRED TO BE CLEAR OF PIPING, DUCTS, LEAK PROTECTION APPARATUS OR EQUIPMENT FOREIGN TO THE ELECTRICAL INSTALLATION. PLUMBING, HEATING, VENTILATION AND AIR CONDITIONING PIPING, DUCTS AND EQUIPMENT MUST NOT BE INSTALLED WITHIN THIS 6' ZONE ABOVE THE PANELBOARD OR SWITCHGEAR, BUSWAYS, CONDUITS, RACEWAYS AND CABLES ARE PERMITTED TO ENTER EQUIPMENT THROUGH THIS ZONE.

MECHANICAL LEGEND

SYMBOL	DESCRIPTION	ABBREV.	DESCRIPTION
	SUPPLY AIR DUCT	AFF	ABOVE FINISHED FLOOR
	RETURN AIR DUCT	AFR	ABOVE FINISHED ROOF
	EXHAUST AIR DUCT	BDD	BACKDRAFT DAMPER
	OUTSIDE AIR DUCT	BI	BLACK IRON
	LINE DUCT	BOD	BOTTOM OF DUCT
	FLEXIBLE DUCT	BOG	BOTTOM OF GRILLE
	FLEXIBLE CONNECTOR	CAP	CAPACITY
	UNDERCUT	CFSD	COMBINATION FIRE/SMOKE DAMPER
	DOOR LOUVER	CFM	CUBIC FEET PER MINUTE
	VOLUME DAMPER	CLG	CEILING
	MOTORIZED DAMPER	CONST	CONSTRUCTION
	BACKDRAFT DAMPER	CD	CEILING DIFFUSER
	COMBINATION FIRE/SMOKE DAMPER	CO2	CARBON DIOXIDE
	FIRE DAMPER	CXA	COMMISSIONING AGENT
	SMOKE DAMPER	CWS	CONDENSER WATER SUPPLY
	SMOKE DETECTOR	CWR	CONDENSER WATER RETURN
	ACCESS PANEL	DEG	DEGREES
	TURNING VANE	DTL	DETAIL
	THERMOSTAT	DN	DOWN
	SENSOR	DWG(S)	DRAWING(S)
	DIFFUSER NO./FM TYPE & MFGR.	E.	EXHAUST AIR DUCT
	POINT OF CONNECTION TO EXISTING REFERENCES NOTES	EFF.	EFFICIENCY
	REFERENCES MECHANICAL SCHEDULE	EA	EACH
	CONDENSATE DRAIN	EC	ELECTRICAL CONTRACTOR
	CHILLED WATER SUPPLY	ELEC	ELECTRICAL
	CHILLED WATER RETURN	EXT	EXISTING
	HOT WATER SUPPLY	EG	EXTERIOR
	HOT WATER RETURN	E.S.P.	EXTERNAL STATIC PRESSURE
	UNION	EXH	EXHAUST AIR
	CAP	F.LA	FULL LOAD AMPS
	GATE VALVE	FLR	FLOOR
	2-WAY VALVE	FT.	FOOT/FEET
	3-WAY VALVE	G	GAS PIPING
	GAUGE	GA	GAUGE
	GENERAL CONTRACTOR	GC	GENERAL CONTRACTOR
	HORSE POWER	HP	HORSE POWER
	HOUR	HR	HOUR
	HEATING, VENTILATION, & AIR CONDITIONING	HVAC	HEATING, VENTILATION, & AIR CONDITIONING
	LINE DUCT	(L)	LINE DUCT
	POUND	LBS.	POUND
	LANDLORD	LL	LANDLORD
	LOW VOLTAGE	LV	LOW VOLTAGE
	REQUIRED	REQ(D)	REQUIRED
	MAXIMUM	MAX	MAXIMUM
	MECHANICAL CONTRACTOR	MC	MECHANICAL CONTRACTOR
	MINIMUM CIRCUIT AMPACITY	MCA	MINIMUM CIRCUIT AMPACITY
	MECHANICAL, ELECTRICAL AND PLUMBING	MECH	MECHANICAL, ELECTRICAL AND PLUMBING
	MANUFACTURER	MFG	MANUFACTURER
	MAXIMUM OVERCURRENT PROTECTION	MOPC	MAXIMUM OVERCURRENT PROTECTION
	MINIMUM	MIN	MINIMUM
	NOT TO SCALE	NTS	NOT TO SCALE
	OUTSIDE AIR	OSA	OUTSIDE AIR
	RETURN AIR DUCT	RA	RETURN AIR DUCT
	REFERENCE	REF	REFERENCE
	REVISION	REV	REVISION
	RETURN GRILLE	RG	RETURN GRILLE
	SUPPLY AIR DUCT	SA	SUPPLY AIR DUCT
	SUPPLY AIR GRILLE	SG	SUPPLY AIR GRILLE
	SHEET	SHT	SHEET
	SPECIFICATION(S)	SPECS	SPECIFICATION(S)
	SQUARE FEET	S.F.	SQUARE FEET
	STAINLESS STEEL	S.S.	STAINLESS STEEL
	TEMPERATURE RISE	TEMP	TEMPERATURE RISE
	TYPICAL	TYP.	TYPICAL
	UP THRU ROOF	UTR	UP THRU ROOF
	UNDERCUT	U/C	UNDERCUT
	VOLUME DAMPER	VD	VOLUME DAMPER
	WEIGHT	WGT	WEIGHT



DO NOT SCALE DRAWINGS CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS NOTIFY ARCHITECT OF ANY DISCREP

AIR BALANCE SCHEDULE					FAN COIL UNIT SCHEDULE (VRF SYSTEM)																																																					
MARK	SUPPLY AIR	RETURN AIR	OUTSIDE AIR	EXHAUST AIR	MARK	SERVERS	UNIT LOCATION	MANUFACTURER	MODEL NO.	CFM @ E.S.P.	MINIMUM VENTILATION AIR CFM	COOLING BTUH	HEATING BTUH	ELECTRICAL DATA					OPER. WGT. LBS.	FILTER	REMARKS																																					
														WATTS	RATED AMPS	VOLTS	PHASE	MCA	MOP																																							
FOH	1,200	1,000	200	-		FOH	CEILING	LG	ARNU483M3A4	1,200 @ 0.3"	200	48,100	54,200	172	2.5	208-230	1	3.1	15	100	MERV8	1, 2, 3, 4, 5, 6, 7, 8, 9																																				
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BOH	1,000	900	100	-		BOH	CEILING	LG	ARNU423M2A4	1,000 @ 0.0"	100	42,000	47,000	231	2.3	208-230	1	2.9	15	90	MERV8	1, 2, 3, 4, 5, 6, 7, 8, 9																																				
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GENERAL EXHAUST	-	-	-	350	1. DISCONNECT SWITCH BY ELECTRICAL CONTRACTOR. 2. REFRIGERANT CHARGE IS R-410A. 3. PROVIDE NEW PROGRAMMABLE 24/7 CODE COMPLIANT THERMOSTAT. 4. CONDENSATE DRAIN PIPE BY PLUMBING CONTRACTOR. 5. PROVIDE OVERFLOW SAFETY SWITCH TO SHUT OFF THE UNIT WHEN PRIMARY DRAIN IS BLOCKED. 6. PROVIDE DUCT TYPE SMOKE DETECTOR IN RETURN AIR PLENUM. 7. PROVIDE REFRIGERANT LINE SET CONNECTS TO BRANCH SELECTOR BOX, (E)BSB-B, BRANCH SELECTOR BOX SERVES (E)VRF ON ROOF. VERIFY EXACT LOCATION IN FIELD. 8. PROVIDE THROW AWAY 2" THICK PLEATED TYPE MERV-8 FILTER MINIMUM CONTRACTOR TO MAINTAIN FILTER DURING CONSTRUCTION AND PROVIDE NEW SET OF FILTER PRIOR FINAL TEST AND BALANCE. 9. FURNISHED AND INSTALLED BY XXX.																																																					
(E) RESTROOM	-	-	-	50																																																						
TOTALS	3,400	2,900	500	400	EXHAUST FAN SCHEDULE																																																					
500 - 400 = +100 CFM POSITIVE BUILDING PRESSURE					MARK	SERVERS	UNIT LOCATION	MANUFACTURER	MODEL NO.	CFM @ E.S.P.	FAN RPM	ELECTRICAL DATA					OPER. WGT. LBS.	REMARKS																																								
						SERVICE	INLINE	GREENHECK	SQ-99-VG	350 @ 0.5"	1,227	1/4	115	1	4	15	2.85	52	1, 2, 3, 4																																							
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A	TITUS	MCD-AA	16"X16"	23-3/4"X23-3/4"	0-700	SQUARE MODULAR 4-WAY THROW DIFFUSER	T-BAR	ALL ALUMINUM, BORDER TYPE 3 WITH PFA (ALUMINUM PLASTER FRAME) OPTION AND O.B.D.																																																		
B	TITUS	350FL	24"X24"	23-3/4"X23-3/4"	0-1,500	LOUVERED AIR GRILLES	T-BAR	ALL ALUMINUM, BORDER TYPE 3 WITH PFA (ALUMINUM PLASTER FRAME) OPTION AND O.B.D.																																																		
C	TITUS	350FL	42"X12"	43-3/4"X13-3/4"	0-1,900	LOUVERED AIR GRILLES	GYP.BD.	ALL ALUMINUM, BORDER TYPE 1 WITH O.B.D.																																																		
NOTE: COORDINATE FINISH WITH THE ARCHITECT TITUS SPECIFY, EQUAL BY METALARE AND KRUEGER.																																																										

OUTDOOR AIRFLOW RATE CALCULATIONS

AREA	UNITS	ZONE FLOOR AREA (FT2)	OCCUPANCY CATEGORY	OSA RATE REQUIRED PER PERSON (CFM/PERSON)	ZONE POPULATION	OSA RATE REQUIRED PER AREA (CFM/FT2)	ZONE AIR EFFECTIVENESS	OUTDOOR AIRFLOW RATE REQUIRED (CFM)	OUTDOOR AIRFLOW RATE PROVIDED (CFM)	COMPLY (Y/N)	REMARKS
FOH	FC-1, FC-2	424	CAFETERIA, FAST FOOD	7.5	30	0.18	1.0	302	400	Y	-
		365	SERVICE	7.5	5	0.12	1.0	81			
BOH	FC-3	266	SERVICE	7.5	3	0.12	1.0	54	70	Y	-

EXHAUST AIRFLOW RATE CALCULATIONS

AREA	UNITS	ZONE FLOOR AREA (FT2)	OCCUPANCY CATEGORY	EXHAUST RATE REQUIRED (CFM/FIXTURE)	EXHAUST RATE REQUIRED (CFM/SF)	EXHAUST AIRFLOW RATE PROVIDED (CFM)	EXHAUST AIRFLOW RATE PROVIDED (CFM)	COMPLY (Y/N)	REMARKS
RESTROOM	EF-2	68	MEN'S RESTROOM	50	-	50	50	Y	FAN INTERLOCK WITH LIGHTING SWITCH AND OCCUPANCY SENSOR. TX-3 RUN CONTINUOUSLY.



CLIENT:

DO NOT SCALE DRAWINGS CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO BEGINNING CONSTRUCTION

ISSUE DATE:
REVISION DATE
1 LPC SUBMISSION 05/15/2024

ADDRESS:
540 Hudson Street
New York, NY 10014

PROJECT #: 197-079 DATE: 05.28.2024
PARTNER IN CHARGE: CRO PROJECT MANAGER: SP DRAWN BY: SP

DRAWING NAME:
MECHANICAL DETAILS

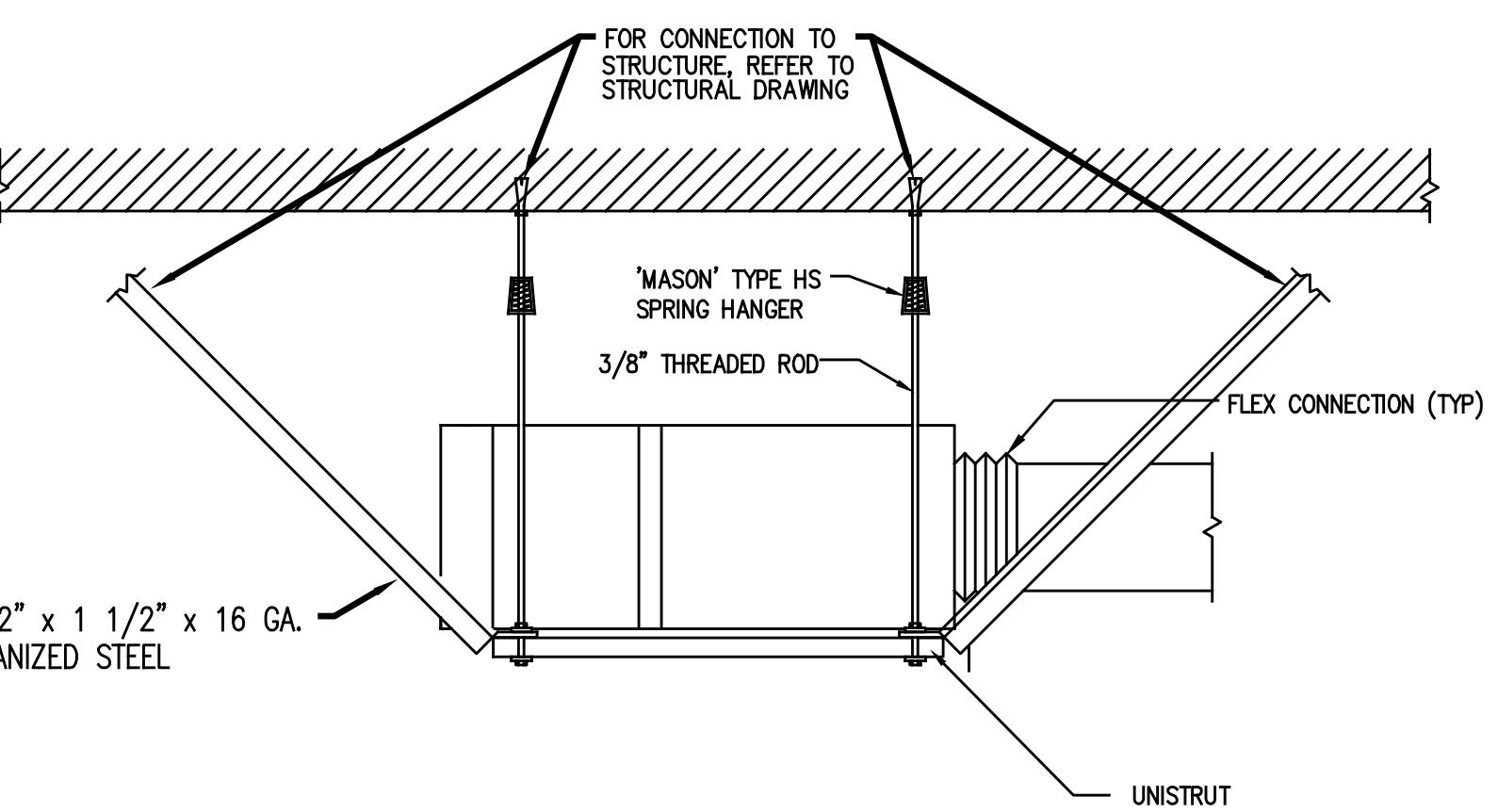
PAGE #: M120.00 DOB PAGE #: 4 of 7

DOB APPROVAL(S):

Sanya Photcharatkit, License #109039
Expiration Date: 10/30/2026

DOB BAR CODE:

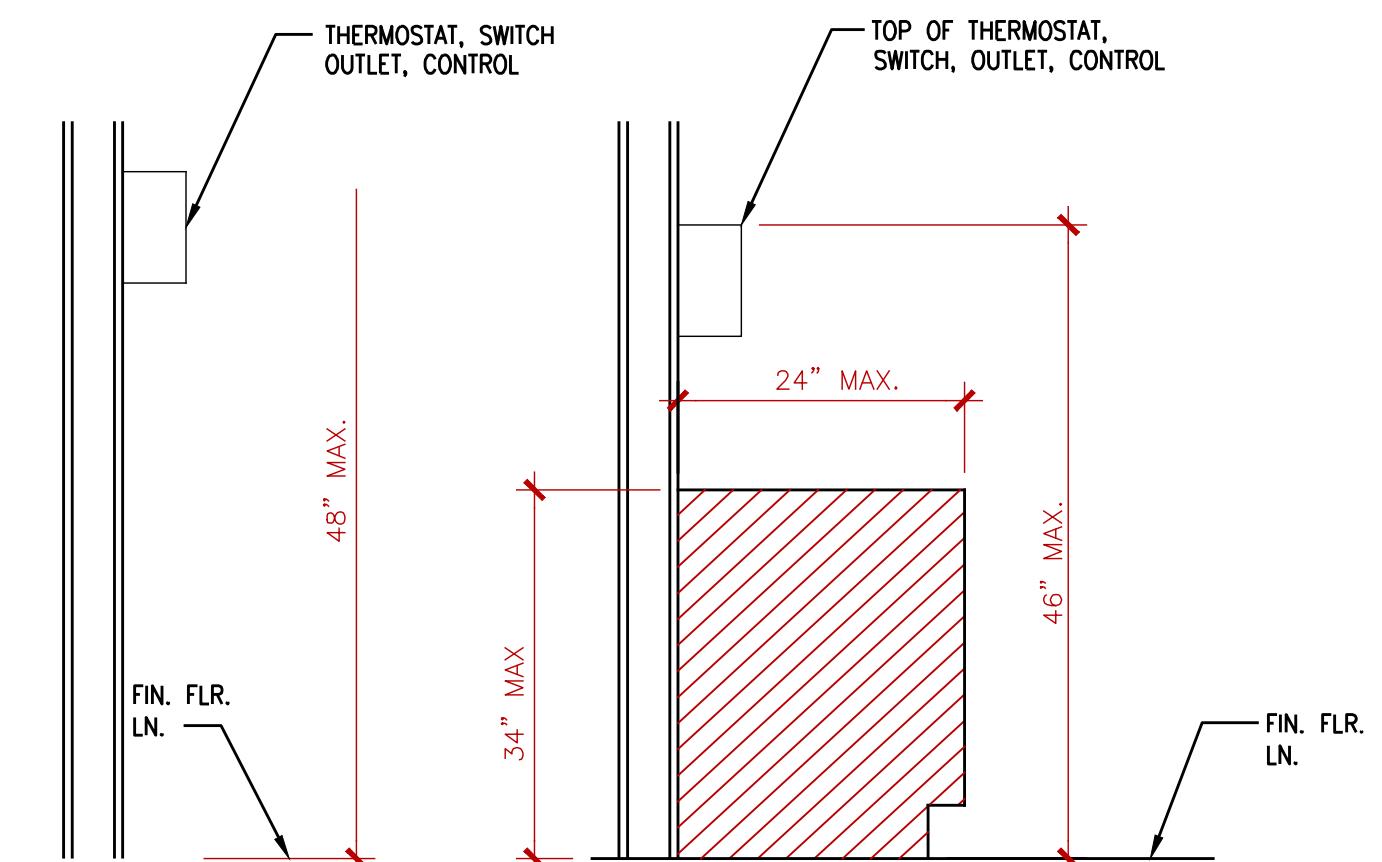
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DETAIL

SCALE
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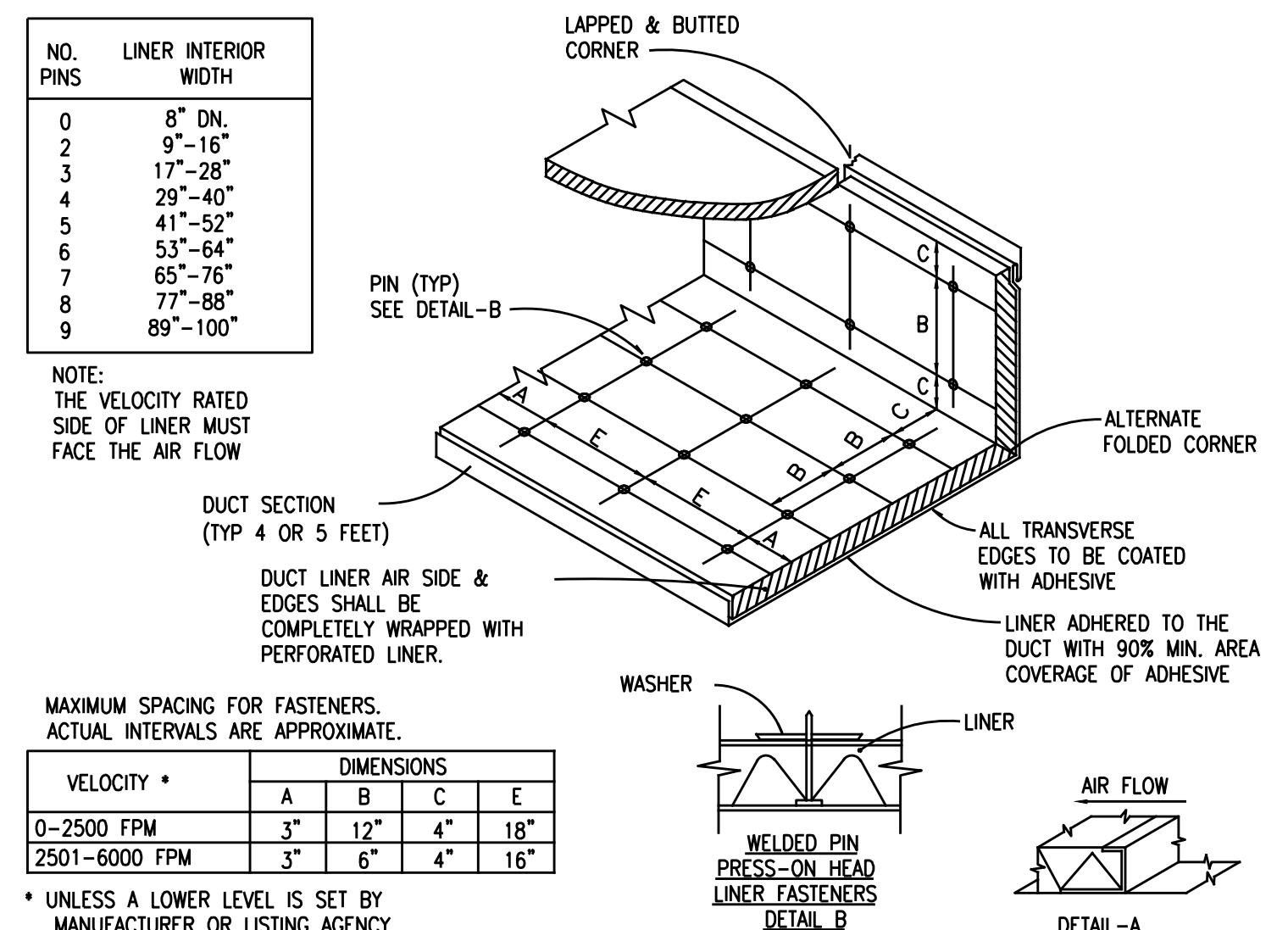
9 INLINE FAN INSTALLATION DETAIL



6 THERMOSTAT INSTALLATION ELEVATION

SCALE
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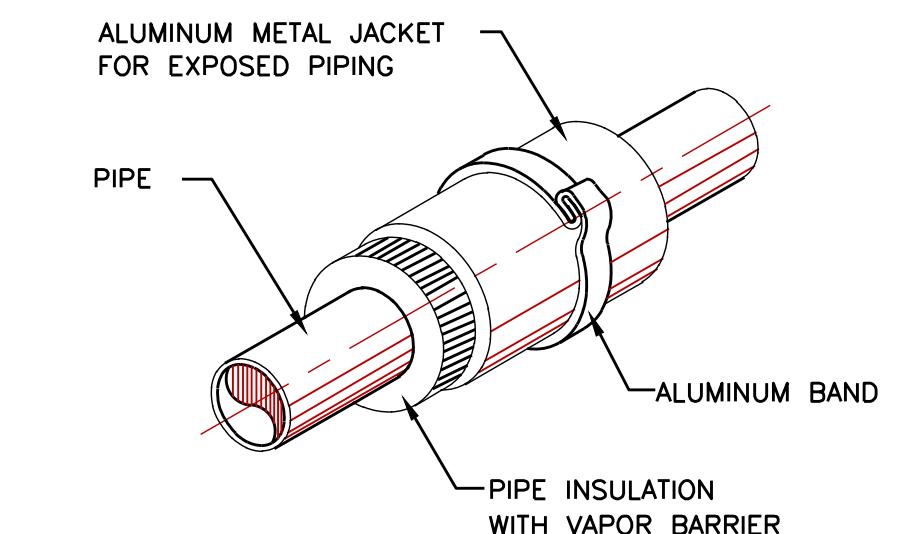
3



VELOCITY *	A	B	C	E
0-2500 FPM	3"	12"	4"	18"
2501-6000 FPM	3"	6"	4"	16"

* UNLESS A LOWER LEVEL IS SET BY MANUFACTURER OR LISTING AGENCY

MAXIMUM SPACING FOR FASTENERS. ACTUAL INTERVALS ARE APPROXIMATE.



- NOTES:
1. REFRIGERANT PIPING INSULATION SHALL BE 1" THICKNESS WITH R-VALUE OF 8.5 FOR NOMINAL PIPE DIAMETER LESS THAN 1" AND 1.5" THICKNESS WITH R-VALUE OF 14 FOR NOMINAL PIPE DIAMETER BETWEEN 1"-1.5".
 2. ALL PIPE INSULATION SHALL CONFORM WITH MANUFACTURER'S INSTALLATION INSTRUCTION.

DETAIL

SCALE
NONE

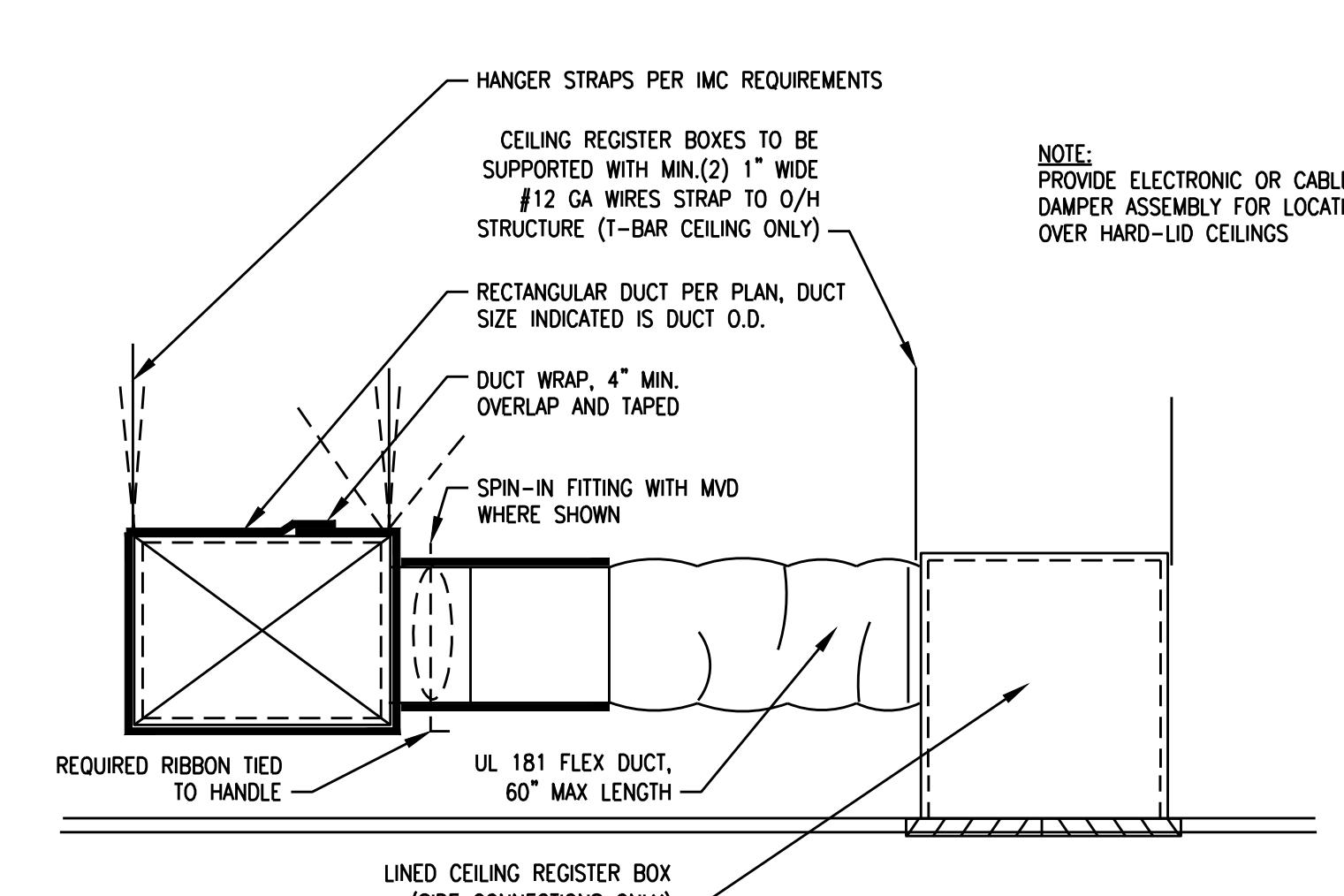
8 DUCT LINING DETAIL

SCALE
NONE

5 PIPE INSULATION DETAIL

SCALE
NONE

2



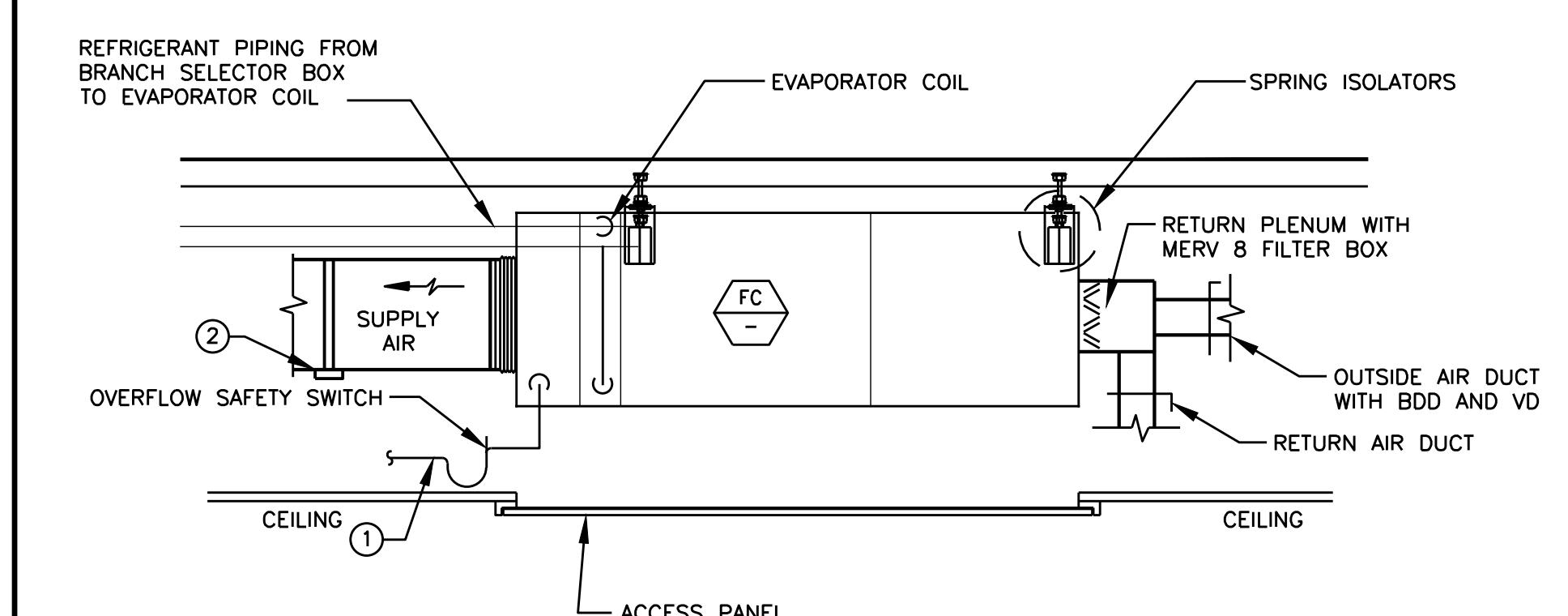
7 DUCT/PLENUM SUPPORT DETAIL

SCALE
NONE

4 FAN COIL UNIT INSTALLATION DETAIL

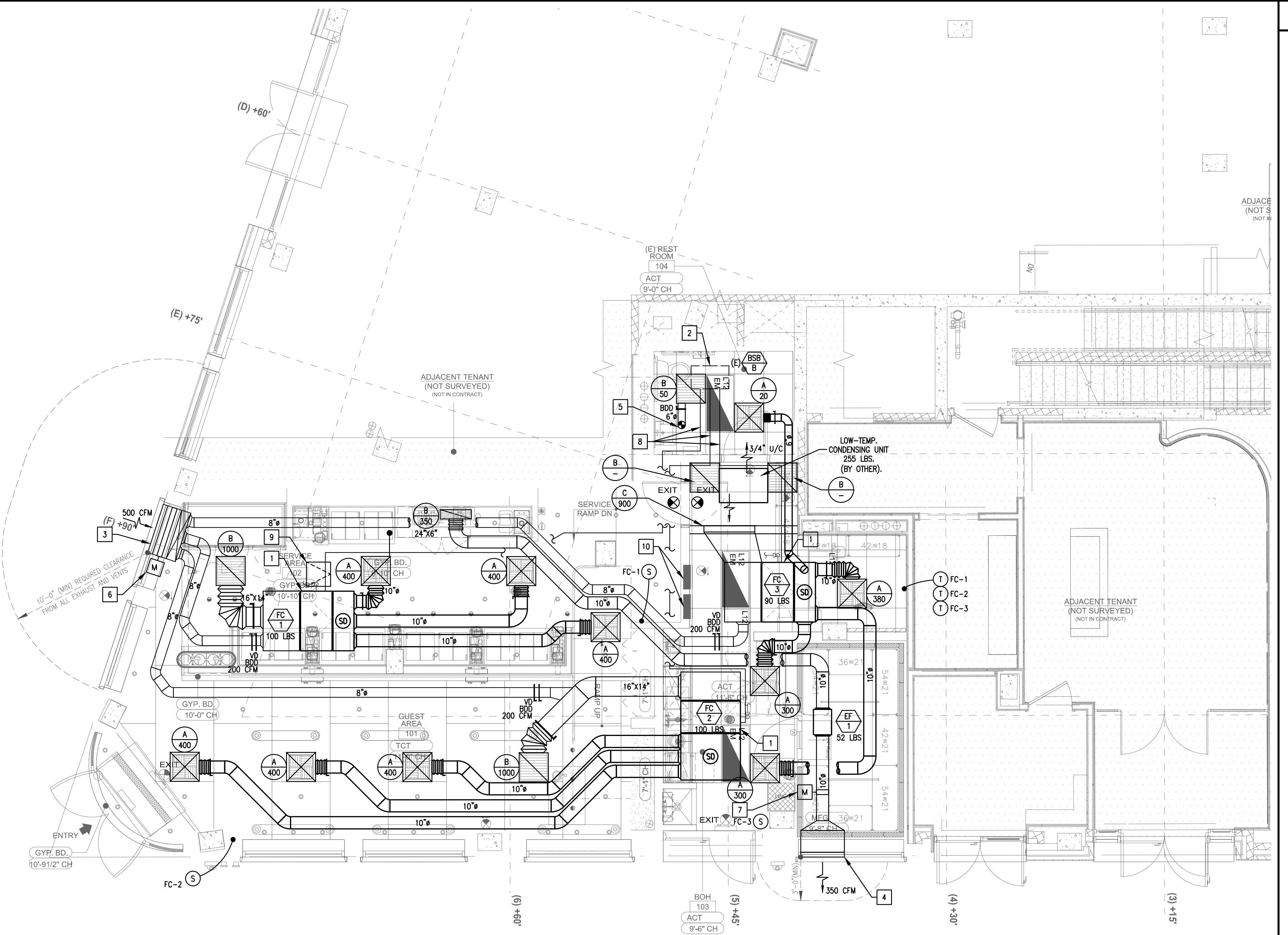
SCALE
NONE

1



NOTES:

- (1) 3/4" CONDENSATE DRAIN PIPE. FOR INSTALLATION DETAIL SEE PLUMBING DWG. PROVIDE WITH OVERFLOW SAFETY SWITCH TO SHUT DOWN THE UNIT UPON RECEIVING THE SIGNAL.
- (2) DUCT-TYPE SMOKE DETECTOR IN SUPPLY AIR PLENUM, BEFORE FIRST BRANCH DUCT (IF REQUIRED).



PLAN NOTES

- 1 LINE AND LOW VOLTAGE CONDUIT AND WIRING CONNECTION TO EQUIPMENT BY ELECTRICAL CONTRACTOR. REFRIGERANT LINE SET BY MECHANICAL CONTRACTOR. INTEGRATED CONDENSATE DRAIN PUMP WITH TRAPPED AND VENT CONDENSATE DRAIN PIPE BY PLUMBING CONTRACTOR. PROVIDE OVERFLOW SAFETY SWITCH TO SHUT OFF THE UNIT WHEN PRIMARY DRAIN IS BLOCKED. PROVIDE DUCT TYPE SMOKE DETECTOR IN SUPPLY AIR PLENUM.
 - 2 BRANCH SELECTOR BOX TO BE RELOCATED TO THE LOCATION SHOW ON PLAN BY LANDLORD. CONTRACTOR TO VERIFY THE EXACT LOCATION AND ELEVATION IN FIELD.
 - 3 NEW DUCT SHALL BE CONNECTED TO EXISTING LOUVER BAND WITH MINIMUM 42"X12" LOUVER AREA AND 1.43 SF. FA.
 - 4 NEW DUCT SHALL BE CONNECTED TO EXISTING LOUVER BAND WITH MINIMUM 36"X12" LOUVER AREA AND 1.20 SF. FA
 - 5 6"Ø RESTROOM EXHAUST AIR DUCT CONNECT TO EXISTING BUILDING RESTROOM EXHAUST. EXISTING RESTROOM EXHAUST CONNECT TO TX-3 AND RUN 50 CFM CONTINUOUSLY. VERIFY EXACT LOCATION IN FIELD.
 - 6 NORMALLY CLOSED MOTORIZED DAMPER. INTERLOCK WITH FAN COIL UNITS.
 - 7 NORMALLY CLOSED MOTORIZED DAMPER. INTERLOCK WITH EF-1.
 - 8 REFRIGERANT PIPE.
 - 9 ACCESS PANEL.
 - 10 NO DUCTS AND PIPING TO RUN ABOVE ELECTRICAL PANELS PER NEC REQUIREMENTS, SEE CONSTRICTION NOTE #33 ON M1.0.



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ENGINEERING GROUP, INC.

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CLIENT:

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VERIFY ALL EXISTING CONDITIONS AND
DIMENSIONS-NOTIFY ARCHITECT OF ANY
DISCREPANCIES PRIOR TO BEGINNING
CONSTRUCTION

DATE: _____
REVISION _____ DATE _____
LPC SUBMISSION 05/15/20

ESS:
540 Hudson Street
New York NY 10014

JECT #:	DATE:	
97-079	05.28.2024	
NER IN CHARGE:	PROJECT MANAGER:	DRAWN BY:
BO	SP	SP

MECHANICAL FIRST FLOOR PLAN

#:
M200.00

APPROVAL(S):

Sanya Phatcharakitti, License #109039
Expiration Date: 10/30/2024

Expiration Date: 10/30/2026

M01055466-I1

GENERAL NOTES

1. ANY CHANGES MADE TO THE DESIGN IDENTIFIED ON THESE DRAWINGS AND/OR ASSOCIATED SPECIFICATIONS SHALL BE SUBMITTED TO THE ENGINEER/ARCHITECT OF RECORD FOR REVIEW AND APPROVAL PRIOR TO MAKING ANY MODIFICATIONS TO THE PROJECT. ANY LIABILITY AS A RESULT OF DESIGN MODIFICATIONS, AS WELL AS ANY COST ASSOCIATED WITH SUCH MODIFICATIONS, MADE WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER/ARCHITECT OF RECORD SHALL BECOME THE RESPONSIBILITY OF THE CONTRACTOR.
 2. DUCT DIMENSIONS ON PLAN ARE SHEET METAL SIZE AND INCLUDE THICKNESS OF DUCT LINER IF APPLICABLE
 3. CONTRACTOR TO VERIFY ALL EXISTING AND SURVEY EXISTING SPACE BEFORE START OF ANY WORK.
 4. ALL CEILING DIFFUSER AND RETURN AIR REGISTER CEILING BOXES SHALL BE OF SUFFICIENT HEIGHT TO PERMIT SIDE INLET DUCT CONNECTIONS WHEN ATTACHED TO BRANCH DUCTS, OR FULL SIZE VERTICAL PLENUMS WHEN CONNECTED DIRECTLY OFF BOTTOM OF SA OR RA MAINS. SUCH CEILING BOXES AND VERTICAL PLENUMS SHALL BE LINED W/ 1" THICK NFBU RATED DUCT LINER WITH FLAT BLACK FACING. CONNECTION TO SIDEWALL SUPPLY REGISTERS SHALL BE MADE WITH FULL SIZE HORIZONTAL PLENUM EXTENSIONS FROM MAIN SUPPLY DUCT, LINED OR WRAPPED AT CONTRACTORS OPTION.
 5. CONTRACTOR TO COORDINATE WITH ALL TRADES AND PROVIDE ALL DEVICES TO ENSURE THE CONTROL WILL WORK PROPERLY.
 6. IF EXISTING DUCTWORK IS REUSED, CONTRACTOR SHALL INCLUDE PRICING TO PROFESSIONALLY CLEAN THE DUCT SYSTEM AS PART OF THEIR BASE BID.
 7. RESTROOM EXHAUST FAN SHALL BE INTERLOCKED WITH LIGHTING SWITCH.





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ISSUE DATE:	# REVISION	DATE
1	LPC SUBMISSION	05/15/2024

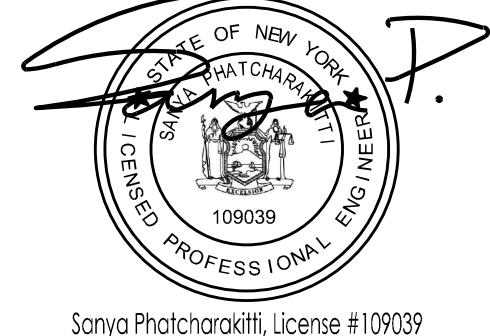
ADDRESS:
540 Hudson Street
New York, NY 10014

COMcheck Software Version COMcheckWeb Mechanical Compliance Certificate	
Project Information	
PROJECT #:	197-079
DATE:	05.28.2024
PARTNER IN CHARGE:	CRO
PROJECT MANAGER:	SP
DRAWN BY:	SP

ENERGY COMPLIANCE FORMS

PAGE #: M300.00 DOB PAGE #: 6 of 7

DOB APPROVAL(S):



DOB BAR CODE:

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