MECHANICAL GENERAL NOTES

1. ALL WORK SHALL CONFORM TO VRC 2018, VECC 2018, AND LOCAL RULES AND REGULATIONS.

2. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS, FEES, AND TAXES AND OBTAIN, SCHEDULE, AND PAY FOR REQUIRED INSPECTIONS BY THE AUTHORITY HAVING JURISDICTION (AHJ). SCHEDULE AND CONDUCT INSPECTIONS REQUIRED BY AHJ TO OBTAIN FINAL CERTIFICATE OF OCCUPANCY (COO). INSPECTIONS AND APPROVALS BY THE AHJ ARE REQUIRED IN ADDITION TO ANY INSPECTIONS OR REVIEWS BY THE ARCHITECT AND ENGINEER. POST AND COMPLETE FORMS ASSOCIATED WITH THE PERMITS AND REQUIRED TO BE SIGNED BY THE AHJ; PROVIDE WRITTEN NOTIFICATION TO THE ARCHITECT AT LEAST TWO DAYS PRIOR TO EACH INSPECTION BY AHJ TO ALLOW FOR THE ARCHITECT OR ENGINEER TO OBSERVE THE INSPECTION.

3. MAKE NO CHANGES WITHOUT THE WRITTEN PERMISSION FROM THE ENGINEER.

4. ALL MATERIAL AND EQUIPMENT INDICATED ON THE PLANS AND DESCRIBED IN THE SPECIFICATIONS SHALL BE PROVIDED BY THE CONTRACTOR NEW AND THE BEST PRODUCTS OF REPUTABLE MANUFACTURERS AND SHALL BE IN NEW CONDITION AT ACCEPTANCE OF WORK.

5. THIS CONTRACTOR SHALL GUARANTEE ALL MATERIALS, LABOR, AND EQUIPMENT FOR A PERIOD OF ONE YEAR FROM DATE OF ACCEPTANCE. COMPRESSORS SHALL HAVE A FULL FIVE-YEAR WARRANTY. CONTRACTOR SHALL PAY FOR ANY REPAIRS OR REPLACEMENTS CAUSED BY DEFECTIVE WORKMANSHIP OR FAULTY MATERIALS AS CONSTRUED HEREIN WITHIN THE PERIOD COVERED BY THE GUARANTEE.

6. SCAFFOLDING, RIGGING, AND HOISTING: UNLESS OTHERWISE SPECIFIED, CONTRACTOR SHALL FURNISH ALL SCAFFOLDING, RIGGING, HOISTING, AND SERVICES NECESSARY FOR ERECTION AND DELIVERY INTO THE PREMISES OF ANY EQUIPMENT AND APPARATUS FURNISHED, AND REMOVAL OF SAME FROM PREMISES WHEN NO LONGER REQUIRED.

7. LOCATION OF EQUIPMENT, PIPING, AND OTHER MECHANICAL WORK IS INDICATED DIAGRAMMATICALLY BY THE DRAWINGS. DETERMINE EXACT LOCATIONS ON THE JOB SITE, SUBJECT TO STRUCTURAL CONDITIONS AND WORK OF OTHER CONTRACTORS.

8. CONTRACTOR ASSUMES RESPONSIBILITY FOR PROPER ARRANGEMENT OF PIPES, DUCTS, ETC., TO CONNECT APPROVED EQUIPMENT IN A PROPER AND APPROVED MANNER. FOLLOW EQUIPMENT MANUFACTURER'S DETAILED INSTRUCTIONS AND THE CONTRACT DOCUMENTS. NOTIFY THE ARCHITECT BEFORE PROCEEDING. NO EQUIPMENT INSTALLATION OR CONNECTIONS SHALL BE MADE IN A MANNER THAT VOIDS THE MANUFACTURER'S WARRANTY.

9. SEE ARCHITECTURAL DRAWINGS FOR THE LOCATION OF ROOF PENETRATIONS.

10. UNLESS OTHERWISE NOTED, ALL SPECIFIED EQUIPMENT IS LESS THAN 200 POUNDS. SEE ARCHITECTURAL DRAWINGS FOR SUPPORT DETAILS OF ALL EQUIPMENT GREATER THAN 200 LBS.

11. INSTALL EACH ITEM OF EQUIPMENT IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

12. INSTALL ALL WORK IN A NEAT AND WORKMANLIKE MANNER, USING ONLY WORKMEN THOROUGHLY QUALIFIED IN THE TRADE OF DUTIES THEY ARE TO PERFORM. ROUGH WORK WILL BE REJECTED.

13. CUTTING AND PATCHING SHALL BE DONE BY THE APPROPRIATE TRADE UNLESS OTHERWISE REQUIRED BY TRADE CUSTOM OR SPECIFIED UNDER ANOTHER SECTION OF THE SPECIFICATIONS. CONTRACTOR SHALL FURNISH SKETCHES SHOWING THE LOCATIONS AND SIZES OF ALL OPENINGS, CHASES, ETC. REQUIRED. CONTRACTOR IS LIABLE FOR CUTTING OR PATCHING MADE NECESSARY BY HIS FAILURE TO MAKE PROPER ARRANGEMENTS IN THIS RESPECT.

14. DO NOT CUT STRUCTURAL MEMBERS WITHOUT THE APPROVAL OF THE ARCHITECT AND ALL SUCH CUTTING SHALL BE DONE IN A MANNER AS DIRECTED BY THEM.

15. MAINTAIN CLEAN WORK AREA AT ALL TIMES DURING CONSTRUCTION. AFTER COMPLETING INSTALLATIONS OF DUCTWORK, CONTRACTOR SHALL CLEAN ENTIRE SYSTEM OF RUBBISH, PLASTER, DIRT, AND ANY OTHER DEBRIS.

16. TEST ALL SYSTEMS. SYSTEMS SHALL OPERATE SATISFACTORILY AS DESIGNED AND INTENDED. REPORT ANY DEFICIENCIES TO ARCHITECT.

SHOP DRAWINGS

1. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR THE HVAC LAYOUT.

2. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF MECHANICAL EQUIPMENT, DUCTWORK ROUTING, LOCATION OF SYSTEM

INSTALLATION, DUE TO DEVIATIONS FROM THE MECHANICAL EQUIPMENT'S "BASIS OF DESIGN" OR "PROTOTYPE" ELECTRICAL DATA, SHALL BE AT A COST TO THE MECHANICAL CONTRACTOR.

EQUIPMENT

1. GENERAL:

A. REFER TO EQUIPMENT SCHEDULES FOR ADDITIONAL REQUIREMENTS.

2. AIR DEVICES:

A. STEEL CONSTRUCTION WITH ENAMEL FINISH WHITE.
B. ACCEPTABLE MANUFACTURERS: HARTY & COOLEY, TITUS, PRICE, NAILOR, OR EQUIVALENT APPROVED BY NVR, INC.

3. FANS:

A. EACH FAN SHALL BE AMCA CERTIFIED AND LABELED.
B. EACH FAN SHALL BE UL LISTED AND LABELED.
C. ALL WIRING PROVIDED AS PART OF THE UNIT SHALL BE IN ACCORDANCE WITH NEC.
D. ACCEPTABLE MANUFACTURERS: BROAN OR EQUIVALENT APPROVED BY NVR, INC.
E. SUBMIT SAMPLE MODEL FOR ARCHITECTURAL REVIEW AND APPROVAL.

4. AIR HANDLING UNITS:

A. PACKAGED, FACTORY ASSEMBLED, PRE-WIRED AND PRE-PIPED WITH MICROPROCESSOR CONTROL SYSTEM AND ALL OPTIONS AS SCHEDULED. UL LISTED.
B. ACCEPTABLE MANUFACTURERS: GOODMAN OR EQUIVALENT APPROVED BY NVR, INC.

5. ACCESS PANELS: PROVIDE ACCESS PANELS IN DUCTWORK IN A LOCATION TO SERVICE DAMPERS. ACCESS PANELS SHALL BE OF THE INSULATED DOOR TYPE ON ALL INSULATED DUCTS AND SHALL NOT BE COVERED BY DUCT INSULATION. ACCESS PANELS SHALL BE CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH SMACNA STANDARDS. MINIMUM SIZE OF ACCESS PANELS SHALL BE 12" X 12" EXCEPT WHERE DUCT IS LESS THAN 14" WIDE IN WHICH CASE ONE DIMENSION SHALL BE 12" AND THE OTHER SHALL BE 2" LESS THAN THE DUCT WIDTH. ACCESS DOOR SHALL BE ACCESSIBLE.

PIPING

1. CONDENSATE DRAIN PIPING: TYPE SCHEDULE 40 PVC PIPING WITH GLUE TYPE FITTINGS. SLOPE ALL CONDENSATE PIPING TOWARDS DRAIN AT 1/8" PER FOOT.

2. REFRIGERANT PIPING: TYPE ACR HARD COPPER WITH STREAMLINE FITTINGS JOINTED WITH SPECIAL REFRIGERATION SOLDER SUCH AS SIL-FOS. RUN, SIZE, AND TRAP REFRIGERANT LINES PER MANUFACTURER'S RECOMMENDATIONS. REFRIGERANT PIPING IN CONCEALED LOCATIONS MAY BE ANNEALED SOFT TEMPERED ACR TUBING ASSEMBLED WITH "STAYBRITE NO. 8" SOLDER. PIPE, PIPE FITTINGS AND COMPONENTS SHALL BE CAPABLE OF WITHSTANDING THE PRESSURES AND TEMPERATURES OF THE SERVICE THEY ARE HANDLING. PRE-CHARGED OR PREFABRICATED LINES BY EQUIPMENT MANUFACTURER MAY BE USED. TUBING, USED FOR REFRIGERANT SERVICE SHALL BE CLEANED, SEALED, CAPPED OR PLUGGED PRIOR TO BEING SHIPPED FROM THE MANUFACTURER'S PLANT.

3. IDENTIFICATION: ALL PIPING SHALL BE IDENTIFIED BY NAME AND DIRECTIONAL FLOW ARROWS IN ACCORDANCE WITH ASME AND ANSI STANDARDS.

4. FINAL DRAIN AND REFRIGERANT LINES SHALL NOT BLOCK SERVICE ACCESS TO FAN OR AIR FILTER REMOVAL AT THE AHU.

PIPING SPECIALTIES

1. PROVIDE TRAPS FOR CONDENSATE DRAIN LINES AT ALL HVAC EQUIPMENT THAT IS NOT INTERNALLY TRAPPED.

INSULATION

1. ALL DUCT AND PIPE INSULATION AND COVERINGS SHALL HAVE A FIRE AND SMOKE HAZARD RATING AS TESTED UNDER PROCEDURE ASTM-E-84, NFPA 255 AND UL 723 NOT EXCEEDING A FLAME SPREAD RATING OF 25 AND A SMOKE DEVELOPED RATING OF 50.

2. PIPING: INSULATE ALL HEATING AND COOLING SYSTEM PIPING THAT CONVEYS FLUIDS THAT HAVE A DESIGN OPERATING RANGE OF LOWER THAN 55 DEGREES F OR GREATER THAN 105 DEGREES F. INSULATION SHALL HAVE A CONDUCTIVITY NOT EXCEEDING 0.27 BTU PER INCH/H*FT²*DEGREE F AT 75 DEGREE F MEAN TEMPERATURE.

A. REFRIGERANT SUCTION: FOR PIPING SIZES 1-1/2" OR LESS, INSULATE WITH 1" THICK ARMAFLEX FIRE RATED INSULATION OR APPROVED ON EQUAL, WITH

INSULATION SHALL BE SLIPPED OVER THE TUBING AS FULL CYLINDER. INSULATION OF PIPING SHALL BE VAPOR TIGHT AND CONTINUOUS THROUGH HANGERS, WALLS, ETC. PROVIDE GALVANIZED SHEET METAL SADDLES AT HANGERS.

B. REFRIGERANT LIQUID AND HOT GAS PIPING WITHIN THE BUILDING: INSULATE WITH 1/2" THICK ARMAFLEX FIRE RATED INSULATION OR APPROVED EQUAL.

5. INSULATION OF DUCTWORK AND PIPING PASSING THROUGH NON-RATED WALLS SHALL BE CONTINUOUS THROUGH THE WALL PENETRATION.

6. WHEREVER PIPES, DUCTWORK OR OTHER ITEMS PASS THROUGH FIRE RATED WALLS AND FLOORS, THE CONTRACTOR SHALL ADEQUATELY FIRE STOP THE SPACE BETWEEN THE ITEMS AND THE MASONRY OR THE SPACE BETWEEN THE ITEM AND SLEEVE. FIRE STOP SHALL BE A NON-COMBUSTIBLE, NON-MELTING, APPROVED MATERIAL.

DUCTWORK

1. GENERAL: CONSTRUCT ALL DUCTWORK AND ACCESSORIES IN ACCORDANCE WITH THE LATEST EDITION OF SMACNA STANDARDS FOR 2" PRESSURE CLASS AND SEAL CLASS B.

2. METAL DUCTWORK: UNLESS OTHERWISE NOTED, FABRICATE ALL DUCTWORK, HOUSING, DAMPERS, AND ALL OTHER DUCT RELATED ACCESSORIES FROM GALVANIZED STEEL SHEETS. EXHAUST DUCTWORK AND ACCESSORIES SERVING SHOWER ROOMS SHALL BE CONSTRUCTED FROM ALUMINUM SHEETS.

3. INSTALL ALL DUCTWORK ABOVE CEILING AND HOLD TIGHT TO UNDERSIDE OF STRUCTURE ABOVE UNLESS OTHERWISE INDICATED.

4. ALL ROUND DUCTWORK RUNOUTS TO A SINGLE CEILING DIFFUSER SHALL BE SAME SIZE AS DIFFUSER NECK.

5. INSTALL OUTSIDE AIR INTAKES, INCLUDING CONCENTRIC VENTS, A MINIMUM OF 10'-0" FROM ANY EXHAUST OR PLUMBING VENT.

6. INSTALL CEILING AIR DEVICES AS CLOSE AS POSSIBLE TO LOCATION SHOWN ON PLAN. COORDINATE LOCATION WITH LIGHT FIXTURES AND SPRINKLER HEADS.

7. CHANGES TO DUCT DUE TO FIELD CONDITIONS SHALL BE MADE ONLY IF THE DUCT SIZE FREE AREA IS MAINTAINED AND SHALL BE SUBMITTED TO ENGINEER FOR APPROVAL.

8. FLEXIBLE CONNECTORS: PROVIDE FLEXIBLE CONNECTORS AT THE INLET AND OUTLET CONNECTION FOR EACH FAN AND AIR HANDLING UNIT. EACH FLEXIBLE CONNECTOR SHALL ALLOW 1" OF FREE MOVEMENT AND SHALL BE COMPLETELY AIR TIGHT. PROVIDE NEOPRENE COATED GLASS FABRIC MATERIAL, MINIMUM 30 OZ. PER SQUARE YARD. CONTRACTOR SHALL BRACE DUCTWORK (AS REQUIRED) AT ALL FLEXIBLE CONNECTORS TO ENSURE THAT DUCTWORK IS KEPT IN ALIGNMENT.

9. LEAKAGE

A. ALL EXPOSED DUCT JOINTS SHALL BE SEALED WITH HARDCAST 601.
B. LEAKAGE TESTING FOR ALL DUCTWORK SHALL BE BY PHYSICAL SENSATION AND SHALL BE PERFORMED IN THE PRESENCE OF THE OWNER'S REPRESENTATIVE.
C. PERFORM ALL TESTING AFTER THE SEALS HAVE CURED COMPLETELY AND BEFORE COVERING WITH INSULATION OR CONCEALING IN MASONRY.
D. ALL DUCT JOINTS ABOVE CEILING SHALL BE SEALED WITH MASTIC.

LEAKAGE TESTING

1. POST CONSTRUCTION TEST: TOTAL DUCT LEAKAGE SHALL BE LESS THAN OR EQUAL TO 6 CFM PER 100 SQUARE FEET OF CONDITIONED FLOOR AREA WHEN TESTED AT A PRESSURE DIFFERENTIAL OF 0.1 INCHES W.G. (25 PA) ACROSS THE ENTIRE SYSTEM, INCLUDING THE MANUFACTURER'S AIR HANDLER ENCLOSURE. ALL REGISTER BOOTS SHALL BE TAPED OR OTHERWISE SEALED DURING THE TEST.
2. ROUGH-IN TEST: TOTAL LEAKAGE SHALL BE LESS THAN OR EQUAL TO 5 CFM PER 100 SQUARE FEET OF CONDITIONED FLOOR AREA WHEN TESTED AT PRESSURE DIFFERENTIAL OF 0.1 INCHES W.G. (25 PA) ACROSS THE SYSTEM, INCLUDING THE MANUFACTURER'S AIR HANDLER ENCLOSURE. ALL REGISTERS SHALL BE TAPED OR OTHERWISE SEALED DURING THE TEST. IF THE AIR HAN-DLER IS NOT INSTALLED AT THE TIME OF THE TEST, TOTAL LEAKAGE SHALL BE LESS THAN OR EQUAL TO 5 CFM PER 100 SQUARE FEET OF CONDITIONED FLOOR AREA.
3. A WRITTEN REPORT OF THE TEST RESULTS SHALL BE SIGNED BY THE PARTY CONDUCTING THE TEST AND PROVIDED TO THE CODE OFFICIAL UPON REQUEST.

TEMPERATURE CONTROL

1. THERMOSTAT LOCATIONS SHOWN ARE APPROXIMATE AND SHALL BE COORDINATED WITH ARCHITECTURAL DRAWINGS. MOUNT THERMOSTATS 4'-0" ABOVE FINISHED FLOOR, UNLESS OTHERWISE NOTED.
2. PROVIDE INITIAL SETUP AND PROGRAMMING OF ALL CONTROLS AND DEMONSTRATE TO OWNER.
3. CONTROL WIRING LOCATED IN PLENUM SPACE NOT INSTALLED IN CONDUIT SHALL BE PLENUM RATED CABLE.
4. THERMOSTATIC CONTROLS SHALL COMPLY WITH 2015 VIRGINIA ENERGY CONSERVATION CODE SECTION C403.2.4.1

BUILDING ENVELOPE AIR LEAKAGE

1. THE AIR LEAKAGE OF THE BUILDING SHALL BE TESTED PER 2018 VIRGINIA ENERGY CONSERVATION CODE TO COMPLY WITH THE MAXIMUM ALLOWABLE AIR LEAKAGE RATE OF 5.0 AIR CHANGES PER HOUR.

REFRIGERANT PIPING INSULATION

1. APPLICATION:

A. INSULATION SHALL BE A FLEXIBLE, CLOSED-CELL ELASTOMERIC PIPE INSULATION: AP ARMAFLEX, AC ACCOFLEX OR SIMILAR. ADHESIVE SHALL BE ARMAFLEX 520, 520 BLACK OR 520 BLV ADHESIVE OR SIMILAR. R-3 INSULATION MINIMUM. THE INSULATION MUST CONFORM TO ASTM C534 GRADE 1, TYPE I.
B. ALL LIQUID AND SUCTION LINES SHALL BE INSULATED CONTINUOUSLY FROM A POINT 6" INSIDE THE DISPLAY CASE TO THE SUCTION SERVICE VALVE AT THE COMPRESSOR.
C. ALL LOW TEMPERATURE LINES (+10°F AND BELOW) SHALL BE INSULATED WITH A MINIMUM OF 1" WALL THICKNESS.
D. ALL MEDIUM AND HIGH TEMPERATURE LINES (ABOVE +10°F) SHALL BE INSULATED WITH A MINIMUM OF 3/4" WALL THICKNESS.
E. HEAT RECLAIM LINES SHALL BE INSULATED FROM THE CONDENSING UNIT TO THE HEAT RECLAIM UNITS WITH 3/4" THICKNESS.

2. INSTALLATION:

A. ALL REFRIGERANT COPPER LINES MUST BE FREE OF EXTRANEOUS CHEMICALS SUCH AS CORROSIVE CLEANERS OR BUILDING MATERIALS' DUST PRIOR TO THE INSTALLATION OF THE INSULATION. THE INSULATION MUST BE CLEAN AND DRY PRIOR TO INSTALLATION.
B. REFRIGERANT PIPE SHALL BE SEALED WHILE SLIPPING ON INSULATION TO PREVENT FOREIGN MATTER FROM ENTERING THE TUBE.
C. ALL BUTT JOINTS AND MITERED SEAMS SHALL BE ADHERED WITH FULL COVERAGE OF ADHESIVE ON BOTH SURFACES. INSULATION SHALL NOT BE STRETCHED WHEN ADHERING.
D. SADDLES SHALL BE INSTALLED UNDER ALL INSULATED LINES AT UNISTRUT CLAMPS, CLEVIS HANGERS, OR LOCATIONS WHERE INSULATION MAY BE COMPRESSED.
E. ALL INSULATION EXPOSED TO SUNLIGHT OR INSTALLED OUTDOORS SHALL BE PROTECTED WITH TWO COATS OF WB ARMAFLEX FINISH OR WEATHER RESISTANT COATING.

ABBREVIATIONS

ABV	ABOVE
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
ALT	ALTERNATE
BD	BALANCE DAMPER
BDD	BACK DRAFT DAMPER
BLW	BELOW
CA	COMBUSTION AIR
CD	CEILING DIFFUSER
CFM	CUBIC FEET PER MINUTE
CG	CEILING GRILLE
CR	CEILING REGISTER
CU	CONDENSING UNIT
DN	DOWN
EA	EXHAUST AIR
EF	EXHAUST FAN
ERV	ENERGY RECOVERY
ESP	EXTERNAL STATIC PRESSURE
FD	FIRE DAMPER
FLR	FLOOR
FR	FLOOR REGISTER
HP	HEAT PUMP
HSW	HIGH SIDE WALL
HVAC	HEATING, VENTILATION, AND AIR CONDITIONING
INS	INSULATION
INT	INTERIOR
LSW	LOW SIDE WALL
MBH	THOUSAND BTU PER HOUR
MUA	MAKE UP AIR
OA	OUTSIDE AIR
OAI	OUTSIDE AIR INTAKE
OBD	OPPOSED BLADE DAMPER
OPT	OPTIONAL
PDR	POWDER INSULATION
R-6	R-6 INSULATION
R-8	R-8 INSULATION
R/A	RETURN AIR
REF	REFRIGERANT LINE
RG	RETURN GRILLE
RM	ROOM RETURN
RR	REGISTER
SR	SUPPLY REGISTER
S/A	SUPPLY AIR
TD	TRANSFER DUCT
TG	TRANSFER GRILLE
TV	TURNING VANES
VD	VOLUME DAMPER
W/C	WALL CAP
WMS	WIRE MESH SCREEN

MECHANICAL LEGEND

T	THERMOSTAT
	EXHAUST FAN
	LIGHT / EXHAUST FAN
	S/A REGISTER UP OR OVAL RIGID WALL STACK
	FLOOR REGISTER
	CEILING REGISTER
	OPTIONAL S/A REGISTER UP
	OPTIONAL FLOOR REGISTER
	OPTIONAL CEILING REGISTER
	TRANSFER (COMBUSTION) AIR GRILLE
	LOW SIDE WALL (LSW) OR HIGH SIDE WALL (HSW) REGISTER
	LSW OR HSW R/A GRILLE
	TWO WAY HSW REGISTER OR LSW REGISTER
BFD	BACK FLOW DAMPER
R	REFRIGERANT PIPING
VD	VOLUME DAMPER
BD	BAROMETRIC OR BYPASS DAMPER
ZD-#	MOTOR OPERATED ZONE DAMPER
	RETURN DUCT SECTIONS
	SUPPLY DUCT SECTIONS
	DISTRIBUTION BOX
14x8	RECTANGULAR METAL DUCTWORK
14x8	INSULATED RECTANGULAR DUCTWORK
7"	ROUND METAL DUCTWORK
7"	FLEX DUCTWORK
	INSULATED R/A FLEX DUCTWORK
	RIGID & FLEX SUPPLY DUCT

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PROJECT:
PROPOSED ADDITION/RENOVATION FOR JESSIE & JOE DESIDERIO

205 N. ROOSELVELT BOULEVARD, CITY OF BRIGANTINE, ATLANTIC COUNTY, NEW JERSEY 08203

For City Stamps:

Project No:
Drawn by:
Date: 7/16/25
Sheet Name:
GENERAL NOTE FOR HVAC PLAN

Drawing Number:
H000

Note:
This HVAC Layout Plan has been designed in strict compliance with the latest applicable codes, standards, and regulations enforced in Brigantine, New Jersey, USA. The following codes and guidelines have been followed to ensure safety, efficiency, and adherence to local requirements:

1. New Jersey Uniform Construction Code (NJUCC) – Compliance with the state-adopted building codes, including mechanical system requirements.

2. International Mechanical Code (IMC 2021) – Followed for HVAC system design, ductwork, ventilation, and equipment installation.

3. International Energy Conservation Code (IECC 2021) – Applied for energy-efficient HVAC system design and insulation requirements.

4. NFPA 90A & 90B – Ensured fire safety standards for air conditioning, ventilation systems, and ductwork.

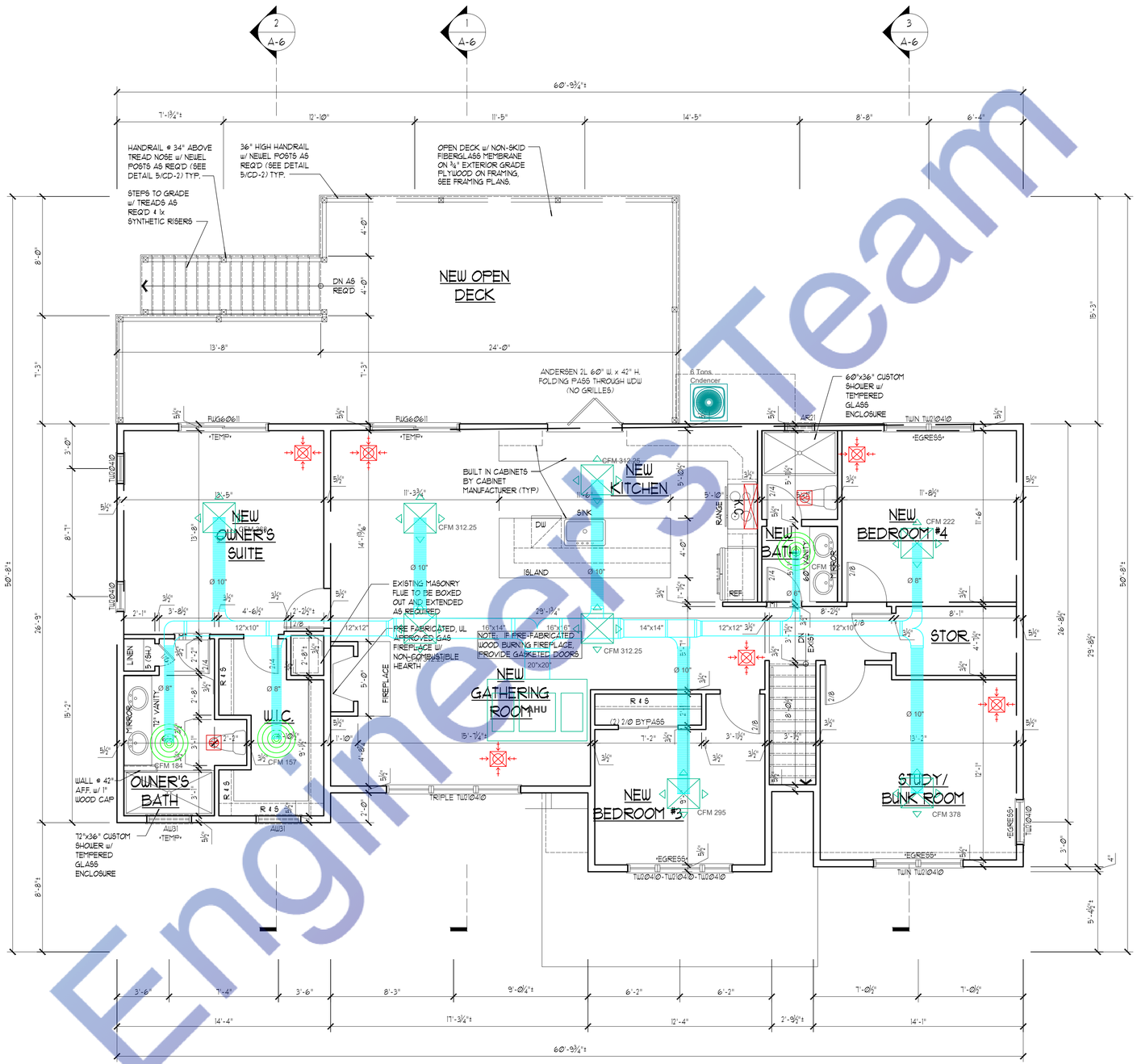
5. ASHRAE Standard 62.1-2022 – Followed for indoor air quality and ventilation requirements.

6. Brigantine City Local Amendments – Adhered to any municipal modifications to state codes.

7. NJ State Plumbing Code (N.J.A.C. 5:23-3.15) – Referenced for piping, refrigerant lines, and condensate drainage.

8. NJ, USA Product Approval Codes – All HVAC equipment and materials used meet NJ-approved standards for performance and safety.

This plan has been reviewed to ensure full compliance with the latest regulatory updates. Any deviations or alternate methods have been approved by the relevant authorities.



1 / A-3 SECOND FLOOR PLAN
SCALE: 1/4"= 1'-Ø"

Mechanical Legends

AHU	AIR HANDLING UNIT
RTU	ROOF TOP UNIT
	OUTDOOR CONDENSER
	SUPPLY AIR DIFFUSER
	RETURN AIR DIFFUSER
KC	KITCHEN CHIMNEY
	EXHAUST FAN
	SUPPLY AIR DUCT

PROJECT:
PROPOSED ADDITION/RENOVATION FOR JESSIE & JOE DESIDERIO

205 N. ROOSELVELT BOULEVARD, CITY OF BRIGANTINE, ATLANTIC COUNTY, NEW JERSEY 08203

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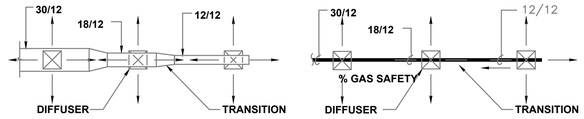
Project No:
Drawn by:
Date: 7/16/25
Sheet Name: HVAC PLAN

Drawing Number: H001

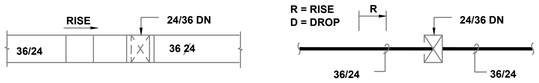
DUCTWORK SYMBOLS LEGEND

TRANSITIONS



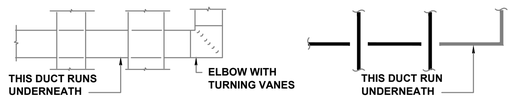
MAIN BRANCH TAKE-OFFS

RISERS

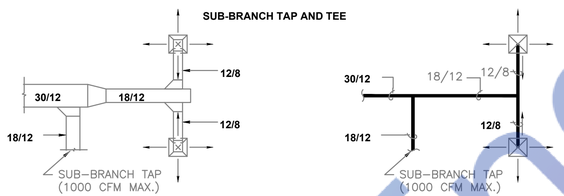


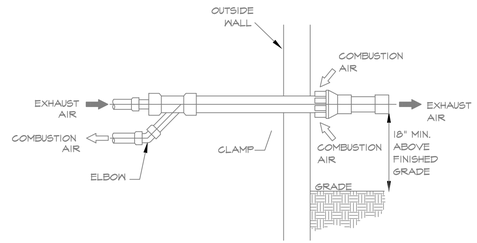
SIDEWALL REGISTERS

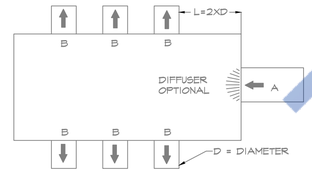
DUCT CROSSOVERS



SUB-BRANCH TAP AND TEE

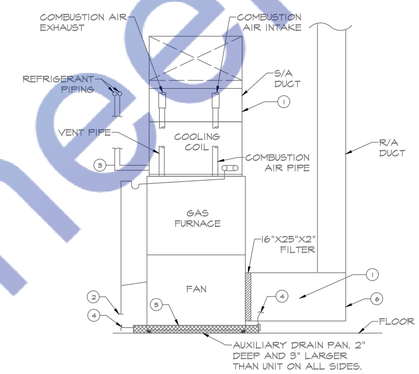






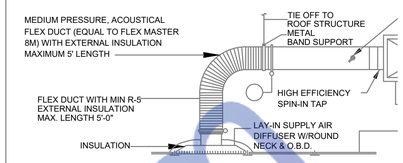
NOTES:

1. ENTRANCE (A) HAS A DIFFUSER FITTING THAT RECOVERS VELOCITY PRESSURES AND PREVENTS SWIRLS (OPTIONAL)
2. STRAIGHT APPROACH (A) AND STRAIGHT EXITS (B)
3. EXITS OPENING ON SIDE (NO TOP OR BOTTOM EXITS)
4. EXIT OPENING AT LEAST TWO DIAMETERS FROM ENTRANCE (L)
5. MAKE BOX AS SMALL AS POSSIBLE BY COMPLYING WITH L = 2 X D

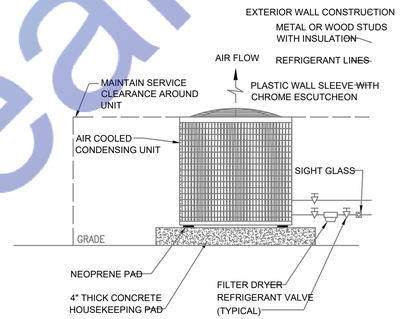


NOTES:

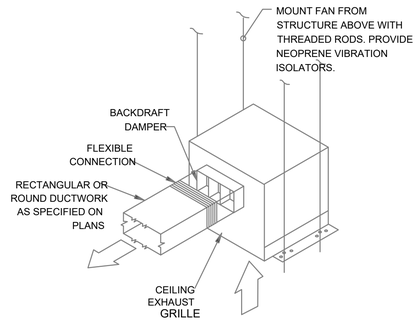
1. INTERNALLY LINED SUPPLY AND RETURN SHEET METAL PLENUMS THAT EXTENDS 10 FEET ON EITHER SIDE OF AHU, FULL SIZE OF UNIT OPENING.
2. 3/4" CONDENSATE DRAIN LINE, ROUTE BEHIND R.A. DUCT AND DOWN TO FLOOR DRAIN. TRAP FOR CONDENSATE IF UNIT HAS NO INTERNAL TRAP.
3. INSTALL REFRIGERANT PIPING PER MANUFACTURER'S RECOMMENDATIONS AND CODE REQUIREMENTS.
4. PROVIDE EMERGENCY DRAIN PAN WITH FLOAT SWITCH BELOW THE AHU TO DE-ENERGIZE THE AHU PRIOR TO OVERFLOW OF THE PAN. PROVIDE SECONDARY 3/4" CPVC CONDENSATE DRAIN LINE FOR THE EMERGENCY DRAIN PAN THAT DAYLIGHTS INTO ADJACENT HUB DRAIN.
5. EMERGENCY DRAIN PAN: A MINIMUM DEPTH OF 1.5" AND FOOTPRINT NOT LESS THAN 3" LARGER THAN THE UNIT IN WIDTH AND LENGTH. EMERGENCY DRAIN PAN SHALL BE MADE OF CORROSION-RESISTANT MATERIAL WITH MINIMUM THICKNESS AS DEFINED BY CODE REQUIREMENTS.
6. RETURN PLENUM BOX TO MATCH THE SIZE OF UNIT'S RETURN OPENING DUCT.



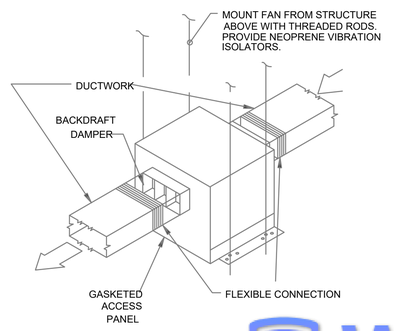
SUPPLY AIR DIFFUSER CONNECTION



OUTSIDE AIR CONDITIONER



CEILING EXHAUST FAN DETAIL



IN-LINE FAN DETAIL

ENGINEER'S TEAM
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PROJECT:
PROPOSED ADDITION/RENOVATION FOR JESSIE & JOE DESIDERIO

205 N. ROOSELVELT BOULEVARD, CITY OF BRIGANTINE, ATLANTIC COUNTY, NEW JERSEY 08203

For City Stamps:

Project No:
Drawn by:
Date: 7/16/25
Sheet Name:
HVAC INSTALLATION

Drawing Number:
H003