□ TABLE C403.2.9.1 Щ MINIMUM DUCT INSULATION R-VALUES, HEATING AND COOLING SUPPLY & RETURN DUCTS

LOCATION ດ ທ CONDITIONED SPACES NONE

ALL SUPPLY AND RETURN AIR DUCTS AND PLENUMS SHALL BE INSULATED TO THE LEVELS SHOWN IN TABLE C403.2.9.1.

C403.2.9.1.3 CONDENSATION CONTROL.

☐ C403.2.9.1.1 INSULATION REQUIRED.

ADDITIONAL INSULATION WITH VAPOR BARRIER SHALL BE PROVIDED WHERE THE MINIMUM DUCT INSULATION REQUIREMENTS OF SECTION C403.2.9.1.1 ARE DETERMINED TO BE INSUFFICIENT TO PREVENT CONDENSATION.

C403.2.9.2 DUCT CONSTRUCTION.

ALL DUCTS, AIR HANDLERS, FILTER BOXES, BUILDING CAVITIES, MECHANICAL CLOSETS AND ENCLOSED SUPPORT PLATFORMS THAT FORM THE PRIMARY AIR CONTAINMENT PASSAGEWAYS FOR AIR DISTRIBUTION SYSTEMS SHALL BE CONSIDERED DUCTS OR PLENUM CHAMBERS AND SHALL BE CONSTRUCTED AND ERECTED IN ACCORDANCE WITH TABLE C403.2.9.2 AND WITH CHAPTER 6 OF THE FLORIDA BUILDING CODE. MECHANICAL. DUCTS SHALL BE CONSTRUCTED, BRACED, REINFORCED AND INSTALLED TO PROVIDE STRUCTURAL STRENGTH AND DURABILITY. ALL TRANSVERSE JOINTS, LONGITUDINAL SEAMS AND FITTING CONNECTIONS SHALL BE SECURELY FASTENED IN ACCORDANCE WITH THE APPLICABLE STANDARDS OF THIS SECTION.

C403.2.9.3 SEALING, GENERAL

□ Z ALL DUCTS, AIR HANDLERS, FILTER BOXES, BUILDING CAVITIES, MECHANICAL CLOSETS AND ENCLOSED SUPPORT PLATFORMS THAT FORM THE PRIMARY AIR CONTAINMENT PASSAGEWAYS FOR AIR DISTRIBUTION SYSTEMS SHALL BE SEALED IN ACCORDANCE WITH THE APPLICABLE CRITERIA OF THIS SECTION AND TABLE C403.2.9.2.

C403.2.9.3.1 MECHANICAL FASTENING.

ALL JOINTS BETWEEN SECTIONS OF AIR DUCTS AND PLENUMS, BETWEEN INTERMEDIATE AND TERMINAL FITTINGS AND OTHER COMPONENTS OF AIR DISTRIBUTION SYSTEMS, AND BETWEEN SUB SECTIONS OF THESE COMPONENTS SHALL BE MECHANICALLY FASTENED TO SECURE THE SECTIONS INDEPENDENTLY OF THE CLOSURE SYSTEM(S).

AIR DISTRIBUTION SYSTEM COMPONENTS SHALL BE SEALED WITH APPROVED CLOSURE SYSTEMS.

C403.2.9.3.3 SPACE PROVIDED.

SUFFICIENT SPACE SHALL BE PROVIDED ADJACENT TO ALL MECHANICAL COMPONENTS LOCATED IN OR FORMING A PART OF THE AIR DISTRIBUTION SYSTEM TO ASSURE ADEQUATE ACCESS FOR: (1) CONSTRUCTION AND SEALING IN ACCORDANCE WITH THE  ${\it cd}$  REQUIREMENTS OF SECTION C403.2.9, (2) INSPECTION AND (3) CLEANING AND MAINTENANCE. A MINIMUM OF 4 INCHES (102 MM) IS CONSIDERED SUFFICIENT SPACE AROUND AIR-HANDLING UNITS.

EXCEPTION: RETROFIT OR REPLACEMENT UNITS NOT PART OF A RENOVATION.

C403.2.9.3.4 PRODUCT APPLICATION.

U CLOSURE PRODUCTS SHALL BE APPLIED TO THE AIR BARRIERS OF AIR DISTRIBUTION SYSTEM COMPONENTS BEING JOINED IN ORDER TO FORM A CONTINUOUS BARRIER OR THEY MAY BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS riangled OR APPROPRIATE INDUSTRY INSTALLATION STANDARD WHERE MORE RESTRICTIVE.

C403.2.9.3.5 SURFACE PREPARATION.

THE SURFACES UPON WHICH CLOSURE PRODUCTS ARE TO BE APPLIED SHALL BE CLEAN AND DRY IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

C403.2.9.3.6 APPROVED MECHANICAL ATTACHMENTS.

APPROVED MECHANICAL ATTACHMENTS FOR AIR DISTRIBUTION SYSTEM COMPONENTS INCLUDE SCREWS, RIVETS, WELDS, INTERLOCKING JOINTS CRIMPED AND ROLLED, STAPLES, TWIST IN (SCREW ATTACHMENT), AND COMPRESSION SYSTEMS CREATED BY BEND TABS OR SCREW TABS AND FLANGES OR BY CLINCHING STRAPS. MECHANICAL Z ATTACHMENTS SHALL BE SELECTED FROM TABLE C403.2.9.2 TO BE APPROPRIATE TO THE DUCT SYSTEM TYPE.

C403.2.9.3.7 APPROVED CLOSURE SYSTEMS.

THE FOLLOWING CLOSURE SYSTEMS AND MATERIALS ARE APPROVED FOR AIR DISTRIBUTION CONSTRUCTION AND SEALING FOR THE APPLICATIONS AND PRESSURE CLASSES SHOWN IN TABLE C403.2.9.2: METAL CLOSURES.

1.1. WELDS APPLIED CONTINUOUSLY ALONG METAL SEAMS OR JOINTS THROUGH WHICH AIR COULD LEAK.

1.2. SNAPLOCK SEAMS AND GROOVED, STANDING, DOUBLE-CORNER, SINGLE-CORNER AND PITTSBURGH-LOCK SEAMS, AS DEFINED BY SMACNA, AS WELL AS ALL OTHER ROLLED MECHANICAL SEAMS. ALL SEAMS SHALL BE ROLLED OR CRIMPED.

WHICH ACHIEVES A 25/50 SPREAD/SMOKE-DENSITY-DEVELOPMENT RATING UNDER ASTM E84 OR UL 723, PROVIDED THAT IT IS USED ONLY BETWEEN MATED SURFACES THAT ARE MECHANICALLY FASTENED WITH SUFFICIENT FORCE TO COMPRESS THE GASKET AND TO FILL ALL VOIDS AND CRACKS THROUGH WHICH AIR LEAKAGE WOULD OTHERWISE OCCUR.

MASTIC CLOSURES. MASTICS SHALL BE PLACED OVER THE ENTIRE JOINT BETWEEN MATED SURFACES. MASTICS SHALL NOT BE DILUTED. APPROVED MASTICS INCLUDE THE FOLLOWING:

.1. MASTIC OR MASTIC-PLUS-EMBEDDED FABRIC SYSTEMS APPLIED TO FIBROUS GLASS DUCTBOARD THAT ARE LISTED AND LABELED IN ACCORDANCE WITH UL 181A. PART III 3.2. MASTIC OR MASTIC-PLUS-EMBEDDED FABRIC SYSTEMS APPLIED TO NONMETAL

FLEXIBLE DUCT THAT ARE LISTED AND LABELED IN ACCORDANCE WITH UL 181B. 3.3. MASTIC RIBBONS, WHICH ACHIEVE A 25/50 FLAME SPREAD/SMOKE DENSITY DEVELOPMENT RATING UNDER ASTM E84 OR UL 723, PROVIDED THAT THEY MAY BE USED ONLY IN FLANGE-JOINTS AND LAP-JOINTS, SUCH THAT THE MASTIC

RESIDES BETWEEN TWO PARALLEL SURFACES OF THE AIR BARRIER AND THAT THOSE SURFACES ARE MECHANICALLY FASTENED. 3.4. TAPES. TAPES SHALL BE APPLIED SUCH THAT THEY EXTEND NOT LESS THAN 1 INCH ONTO EACH OF THE MATED SURFACES AND SHALL TOTALLY COVER THE

JOINT. WHEN USED ON RECTANGULAR DUCTS, TAPES SHALL BE USED ONLY ON JOINTS BETWEEN PARALLEL RIGID SURFACES AND ON RIGHT ANGLE JOINTS. APPROVED TAPES INCLUDE THE FOLLOWING: 3.4.1. PRESSURE-SENSITIVE TAPES.

3.4.2. PRESSURE-SENSITIVE TAPES APPLIED TO FIBROUS GLASS DUCTBOARD THAT ARE LISTED AND LABELED IN ACCORDANCE WITH UL 181A, PART I. 3.4.3. PRESSURE-SENSITIVE TAPES APPLIED TO NONMETAL FLEXIBLE DUCT THAT

3.4.4. HEAT-ACTIVATED TAPES APPLIED TO FIBROUS GLASS DUCTBOARD THAT ARE LISTED AND LABELED IN ACCORDANCE WITH UL 181A, PART II. 5 AEROSOL SEALANT. SUCH SEALANTS SHALL BE INSTALLED BY

ARE LISTED AND LABELED IN ACCORDANCE WITH UL 181B, PART I.

MANUFACTURER-CERTIFIED INSTALLERS FOLLOWING MANUFACTURER'S INSTRUCTIONS AND SHALL ACHIEVE 25/50 FLAME SPREAD/SMOKE-DENSITY-DEVELOPMENT RATINGS UNDER ASTM E84 OR UL 723.

C403.2.9.4 CAVITIES OF THE BUILDING STRUCTURE CAVITIES IN FRAMED SPACES, SUCH AS DROPPED SOFFITS AND WALLS, SHALL NOT BE USED TO DELIVER AIR FROM OR RETURN AIR TO THE CONDITIONING SYSTEM UNLESS THEY CONTAIN AN AIR DUCT INSERT THAT IS INSULATED IN ACCORDANCE WITH

C403.2.9.1 AND CONSTRUCTED AND SEALED IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION C403.2.9.2 APPROPRIATE FOR THE DUCT MATERIALS USED. EXCEPTION: RETURN AIR PLENUMS BENEATH A ROOF DECK THAT IS INSULATED TO AT LEAST R-19.

C403.2.9.5 AIR DISTRIBUTION SYSTEM SIZING AND DESIGN.

ALL AIR DISTRIBUTION SYSTEMS SHALL BE SIZED AND DESIGNED IN ACCORDANCE WITH RECOGNIZED ENGINEERING STANDARDS SUCH AS ACCA MANUAL D OR OTHER STANDARDS BASED ON THE FOLLOWING

CALCULATION OF THE SUPPLY AIR FOR EACH ROOM SHALL BE BASED ON THE GREATER OF THE HEATING LOAD OR SENSIBLE COOLING LOAD FOR THAT ROOM.

DUCT SIZE SHALL BE DETERMINED BY THE SUPPLY AIR REQUIREMENTS OF EACH ROOM, THE AVAILABLE STATIC PRESSURE AND THE TOTAL EQUIVALENT LENGTH OF THE VARIOUS DUCT RUNS.

FRICTION LOSS DATA SHALL CORRESPOND TO THE TYPE OF MATERIAL USED IN DUCT CONSTRUCTION.

**HVAC UNITS SCHEDULE** UNIT DESIGNATION AHU 1 AND AHU 2 EXISTING / NEW / REPLACED REPLACEMEN' AREA SERVED LOCATION AC CLOSET 2 MANUFACTURE CARRIER MODEL LV-060-1-VT-C-B-L-T-P-D-B-A-F-T-JXXXX-S-4-L-6-E-X-1-X-X-S-B-A TOTAL AIR (CFM) 1,900 POWER CONNECTION - V / PH / HZ 208-230 / 1 / 60 MAX EXTERNAL STATIC PRESSURE (IN.W.C.) 0.9 0.75 MIN. BRANCH CIRCUIT AMPACITY MAX. BRANCH CKT PROTECT. RTG. (AMPS) TOTAL COOLING CAPACITY - BTU/H 61,600 EER 15.8 REFRIGERANT R-410A WEIGHT (LBS.) FILTER: TYPE & THICKNESS 24"x30"x1" SIZE 24"x32.5"x42.25'

air duct (see plan vie<del>w)</del>

\*IMPORTANTI POST TENSION SLAB.

EXERCISE EXTREME CAUTION IN PLACING INSERTS TO AVOID STEEL TENSION CABLES.

AIR FLOW

 $\stackrel{\sim}{-}$ METAL ROUND SCOOP FITTING

-INSULATED FLEX. DUCT

-SEAL JOINT WITH EPOXY

AND DUCT TAPE

SPIN TAP FITTING

EPOXY & DUCT

AIR FLOW

ALL AIR TERMINALS

FLEXIBLE DUCT CONNECTION DETAIL

HANGERS FOR STACKED DUCTS

REINFORCEMENTS MAY BE USED FOR ATTACHMENT IF IT QUALIFIES FOR BOTH DUTIES

DO NOT EXCEED LOAD RATING FOR METHOD USED

EXPANSION SHIELDS \*\*CONCRETE ANCHORS

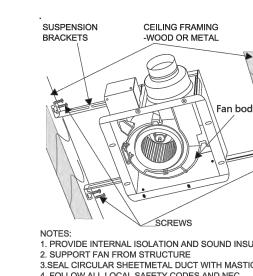
\*\* ALSO FOR USE IN HANGING VAV BOXES AND AIR VALVES (AV)

THREADED ROD —

LOW PRESSURE DUCT HANGER DETAIL

**EXHAUST FAN SCHEDULE** MODEL CFM ELECT. NOTES / REMARKS **EF-1-1** BATH 1 PANASONIC FV-0511VKS2 50 120 / 60 / 1 UL LISTED, 8" OR 6" DUCT **EF-1-2** BATH 2 PANASONIC FV-0511VKS2 30 120 / 60 / 1 UL LISTED, 8" OR 6" DUCT PANASONIC FV-0511VKS2 50 120 / 60 / 1 UL LISTED, 8" OR 6" DUCT **EF-1-3** BATH 3 PANASONIC FV-0511VKS2 50 120 / 60 / 1 UL LISTED, 8" OR 6" DUCT **EF-1-P** POWDER ROOM **EF-1-M** MASTER BATH PANASONIC FV-0511VKS2 50 120 / 60 / 1 UL LISTED, 8" OR 6" DUCT 1. ALL EXISTING EXHAUST FANS TO BE REPLACED, WITH NEW VENT DUCTS

2. PROVIDE ACCESS PANELS AT CEILINGS AND MILLWORK PER MANUFACTURER'S SPECIFICATIONS 3. ALL NEW FANS TO BE INLINE, REMOTELY LOCATED



ALIGN DRYWALL FINISH WITH INSIDE EDGES OF FLANGE 6. MOUNT GRILLE TO FAN BODY

∠30"x30"

CLEAR

SPACE 2

AC CLOSET 2 SCALE: ½" = 1'-0"

FLOOR DRAIN &

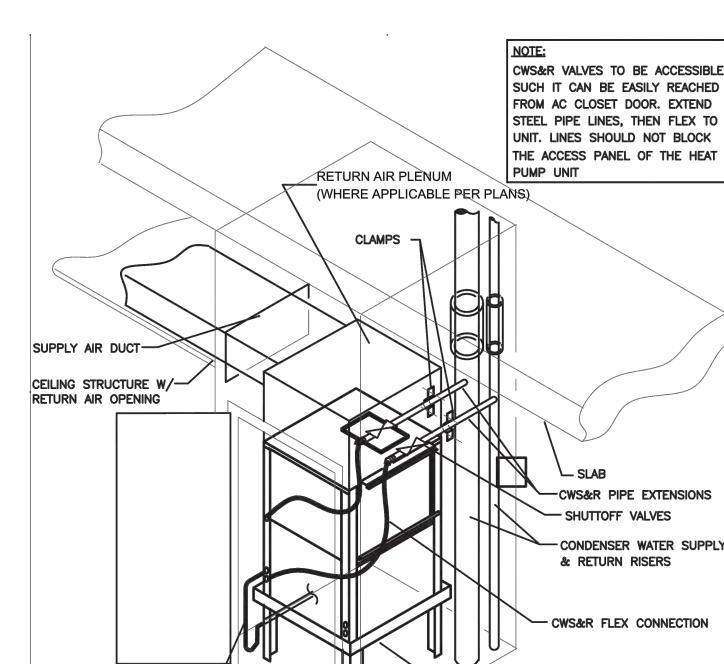
AC CLOSET 1 SCALE:  $\frac{1}{2}$ " = 1'-0"

30"x30"

CLEAR (

SPACE

EXHAUST FAN AT CEILING WITH METAL FRAMING



AHU CONNECTION DETAIL

CONDENSATE DRAIN'
W/ TRAP

. 306.1 ACCESS: APPLIANCES, CONTROLS DEVICES, HEAT EXCHANGERS AND HVAC SYSTEM COMPONENTS THAT UTILIZE ENERGY SHALL BE ACCESSIBLE FOR INSPECTION, SERVICE, REPAIR AND REPLACEMENT WITHOUT DISABLING THE FUNCTION OF A FIRE-RESISTANCE-RATED ASSEMBLY OR REMOVING PERMANENT CONSTRUCTION, OTHER APPLIANCES, VENTING SYSTEMS OR ANY OTHER PIPING OR DUCTS NOT CONNECTED TO THE APPLIANCE BEING INSPECTED, SERVICED, REPAIRED OR REPLACED. A LEVEL WORKING SPACE NOT

-SECONDARY DRAIN PAN

LESS THAN 30 INCHES DEEP AND 30 INCHES WIDE SHALL BE PROVIDED IN FRONT OF THE CONTROL SIDE TO SERVICE AN APPLIANCE. 2. 306.1.1 CENTRAL FURNACES: CENTRAL FURNACES WITHIN COMPARTMENTS OR ALCOVES SHALL HAVE A MINIMUM WORKING SPACE CLEARANCE OF 3 INCHES ALONG THE SIDES, BACK AND TOP WITH A TOTAL WIDTH OF THE ENCLOSING SPACE BEING NOT LESS THAN 12 INCHES WIDER THAN THE FURNACE. FURNACES HAVING A FIREBOX OPEN TO THE ATMOSPHERE SHALL HAVE NOT LESS THAN 6 INCHES WORKING SPACE ALONG THE FRONT COMBUSTION CHAMBER SIDE. COMBUSTION AIR OPENINGS AT THE REAR OR SIDE OF THE

COMPARTMENT SHALL COMPLY WITH THE REQUIREMENTS OF CHAPTER 7. 2.1. EXCEPTION: THIS SECTION SHALL NOT APPLY TO REPLACEMENT APPLIANCES INSTALLED IN EXISTING COMPARTMENTS AND ALCOVES WHERE THE WORKING SPACE CLEARANCES ARE IN ACCORDANCE WITH THE EQUIPMENT OR APPLIANCE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

3. PER MANUFACTURER'S SPECIFICATIONS, PROVIDE MINIMUM 3" CLERANCE AT ALL SIDES OF AHU.

AIR DISTRIBUTION SCHEDULE

SYMBOL	TYPE	MANUF.	MODEL		REMAR
LD-10	LINEAR DIFFUSER	TITUS	FL-10	TRIMLESS BORDER 55	
LD-20	LINEAR DIFFUSER	TITUS	FL-20	TRIMLESS BORDER 55	
LD-30	LINEAR DIFFUSER	TITUS	FL-30	TRIMLESS BORDER 55	
CG	CEILING GRILLE	TITUS	355FL		
RAG	RETURN AIR GRILLE	TITUS	355FL		
RLD-20	RETURN LINEAR DIFFUSER	TITUS	FL-20		
RLD-30	RETURN LINEAR DIFFUSER	TITUS	FL-30		
SWR	SIDE WALL REGISTER	AIR GUIDE	ASD		
TG	TRANSFER GRILLE	AIR GUIDE	RA		

1. USE SIZES SHOWN ON PLANS

2. ALL AIR DISTRIBUTION COMPONENTS SHALL BE OF ALUMINUM CONSTRUCTION

3. NECK SIZE SHALL MATCH SIZE AND CONFIGURATION OF CONNECTED DUCTWORK INDICATED ON PLAN DRAWINGS.

4. REFER TO PLAN FOR QUANTITY, LOCATION AIR THROW PATTERN, AND SIZES

1. TEST AND ADJUST SUPPLY AND RETURN AIR TEMPERATURES TO BE WITHIN 5% OF DESIGN REQUIREMENTS.

1. A/C CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE HIS WORK FOR SIZE, LOCATION, CLEARANCE, ACCESS, AND ELECTRICAL CHARACTERISTICS WITH ALL OTHER TRADES AND TO PROVIDE SHOP DRAWINGS TO THE ENGINEER FOR REVIEW BEFORE INSTALLATION OF DUCTWORK OR EQUIPMENT.

2. WALL, ROOF, AND CEILING OPENINGS INDICATED ON THE CONSTRUCTION DRAWINGS ARE NOMINAL DIMENSIONS 11 ISLAND AVENUE, #2105 ONLY. ALL DUCT, PIPE, AND EQUIPMENT PENETRATIONS SHALL BE SLEEVED AND FIRE RATED AS REQUIRED.

3. COORDINATE LOCATION OF CEILING DIFFUSERS, GRILLES, AND REGISTERS IN THE FIELD WITH LIGHTS, SPRINKLERS, AND ARCHITECTURAL ELEMENTS.

4. COORDINATE LOCATON OF A/C UNITS, THERMOSTATS, FANS, AND DUCTWORK WITH BUILDING STRUCTURE AND JCARLO@CIC-ARCHITECTURE.COM 5. IN GENERAL, DUCT OFFSETS HAVE NOT BEEN SHOWN ON PLANS. A/C CONTRACTOR TO COORDINATE AS REQUIRED.

6. HVAC PLANS ARE DIAGRAMMATIC IN NATURE, AND SHALL BE READ IN CONJUNCTION WITH ARCHITECTURAL PLUMBING, ELECTRICAL, AND STRUCTURAL PLANS AND SHALL BE CONSIDERED AS A SINGLE SET OF DOCUMENTS. DUCT AND PIPING OFFSETS, BENDS, AND TRANSITIONS WILL BE REQUIRED TO PROVIDE AND INSTALL A COMPLETE,

FUNCTIONAL SYSTEM, AND SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST 7. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO BIDDING, ORDERING, FABRICATION, OR MEPENGINEER INSTALLATION OF MATERIALS AND EQUIPMENT.

REFER TO ARCHITECTURAL DRAWINGS FOR WALL AND CEILING TYPES.

2. ALL DUCTWORK, WHERE ALLOWED BY LOCAL CODES AND CELING RATING, SHALL BE 1" LOW PRESSURE DUCT SEAL, TEL. (3 0 5 ) 5 2 7 - 3 2 2 0 CLASS "C", AND AS FOLLOWS:

2.1. S/A & R/A - 1.5" THICK FIBERGLASS DUCT BOARD WITH VAPOR BARRIER (R-5 MIN.) 2.2. EXHAUST AIR - GALVANIZED SHEETMETAL

3. ALL DUCTWORK AND DIFFUSERS SHALL BE RATED FOR THE USE, PRESSURE, AND TEMPERATURE SPECIFIED AND AS REQUIREDBY THE CEILING SYSTEM RATING. 4. ALL DUCTWORK SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH "SMACNA" STANDARDS AND LOCAL

BUILDING CODES. ALL DUCT SIZES ARE CLEAR INSIDE DIMENSIONS SEAL ALL DUCT JOINTS AND SEAMS IN AN APPROVED MANNER AND INSURE AGAINST LEAKAGE

PROVIDE ACCESS DOORS AS REQUIRED FOR ALL MECHANICAL EQUIPMENT TO SERVICE AND VISUALLY CHECK ROTATION OF FANS AND MOTORS, POSITION OF DAMPERS, REPLACE FIRE DAMPER LINKS, ADJUST AND REPLACE

8. TERMINAL AIR DISTRIBUTION DEVICES SHALL BE AS FOLLOWS: 8.1. LINEAR DIFFUSERS: TITUS FL-20 WITH BORDER 55

8.2. RETURN LINEAR DIFFUSER: TITUS FL-30 WITH BORDER 55 8.3. RETURN REGISTER: TITUS 355FL GRILLES, OR APPROVED EQUAL

AIR DISTRIBUTION / DUCTWORK NOTES

1. ALL HVAC EQUIPMENT SHALL BE ARI & UL LISTED, WHERE APPLICABLE, AND REATED FOR THE REQUIRED SERVICE, PRESSURES, TEMPERATURES, AND SHALL HAVE ALL NECESSARY TRANSFORMERS, SEALS, VALVES, CONNECTIONS, ETC. TO FUNCTION PROPERLY

PROVIDE BACKDRAFT DAMPERS ON ALL EXHAUST FANS AND/OR INLINE FANS. PROVIDE VIBRATION ISOLATORS ON ALL MECHANICAL EQUIPMENT AS CALLED FOR IN THE SPECIFICATIONS. IF NOT SPECIFIED, THEN PROVIDE ISOLATORS FOR QUIET OPERATION (99% ISOLATION EFFICIENCY). 4. THERMOSTATS SHALL BE MOUNTED AT 48" AFF. EXACT LOCATON TO BE APPROVED BY ARCHITECT OR OWNER ON

SITE. REPLACE EXISTING THERMOSTATS WITH PROGRAMMABLE, BACKLIT MODELS COMPATIBLE WITH AHU. 5. RUN INSULATED CONDENSATE DRAINS AS PER PLUMBING DRAWINGS. 6. ALL INSULATION TO HAVE FIRE/SMOKE RATING OF LESS THAN 25/5(

7. FILTERS SHALL BE IN PLACE DURING CONSTRUCTION. PROVIDE A NEW SET OF FILTERS PRIOR TO TEST AND

BALANCE, AND A FINAL SET OF FILTERS AT THE END OF ONE YEAR OF THE SERVICE PERIOD.

8. TEMPORARILY SEAL ALL OPEN DUCTWORK AND GRILLES DURING CONSTRUCTION TO AVOID DUST INTRUSION.

1. ALL HVAC SYSTEMS ARE TO BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE SECTIONS OF NFPA STANDARDS, ANSI STANDARDS, LOCAL BUILDING CODES, NOISE & HIGHT ORDINANCES, PLANS AND SPECIFICATIONS, INCLUDING **BUT NOT LIMITED TO:** 

1.1. FBC MECHANICAL, CURRENT EDITION 1.2. NFPA-90A STANDARD FOR THE INSTALLATION OF AIR-CONDITIONING AND VENTILATING SYSTEMS

2. ALL MATERIALS SHALL BE NEW AND ALL WORKMANSHIP AND MATERIALS SHALL BE IN STRICT ACORDANCE WITH APPLICABLE LOCAL CODES, PRODUCT APPROVALS, RULES AND ORDINANCES, AND ANY DAMAGED EQUIPMENT SHALL BE REPLACED OR RESTORED TO ORIGINAL CONDITION.

3. THE CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, ACCESS PANELS, CONTROL SYSTEMS, DEVICES, PERMITS, AND SERVICES NECESSARY FOR FURNISHING AND INSTALLING A COMPLETE OPERABLE HVAC

4. WHEN SPECIFIED, PAINT ALL EXPOSED MECHANICAL EQUIPMENT (LOUVERS, GRILLES, LINEAR DIFFUSERS, METAIL

DUCTS, PIPING, ETC.) WITH BENJAMIN MOORE EPOXY ENAMEL 182, OR APPROVED EQUAL ALL CUTTING, PATCHING, STRUCTURAL STEEL, WEATHER PROOFING, PAINTING, AND WALL OPENINGS SHALL BE BY SCALE

ALL OPENINGS IN BUILDING ELEMENTS FOR DUCTWORK, PIPING, ETC. TO BE  $\frac{1}{2}$ " LARGER ON ALL SIDES THAN THE OUTSIDE DIMENSIONS OF THE HVAC ELEMENTS. FILL ALL GAPS WITH FIRE-RETARDANT CAULK OR FIRE RETARDANT

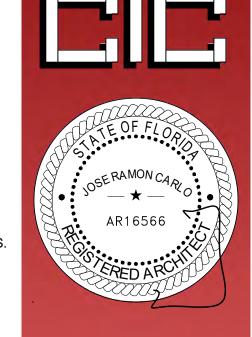
SILICONE FOAM AT FIRE-RATED ASSEMBLIES. PROVIDE FLEXIBLE DUCT CONNECTORS, RATED AS REQUIRED, TO AL FANS, A/C UNITS, OR MECHANICAL EQUIPMENT. PROVIDE MAINTENANCE AND OPERATION MANUALS OF ALL MECHANICAL EQUIPMENT AND SYSTEMS. PROVIDE 4 SETS

OF SUBMITTALS ON ALL HVAC EQUIPMENT. HVAC CONTRACTOR SHALL WARRANTY ALL MECHANICAL SYSTEMS, DUCTWORK, THERMOSTATS, AND ALL OTHER EQUIPMENT, PARTS, AND LABOR FOR A PERIOD OF ONE YEAR AFTER CERTIFICATE OF OCCUPANCY.

10. HVAC CONTRACTOR SHALL COORDINATE WITH ALL OTHER APPLICABLE TRADES PRIOR TO BIDDING, PURCHASING, AND INSTALLATION. 11. AIR QUALITY TO BE TESTED PRIOR TO OCCUPANCY. 12. HVAC SUBCONTRACTOR TO PERFORM INITIAL TEST AND BALANCE THE HVAC SYSTEM PRIOR TO ROUGH INSPECTION

13. HVAC SUBCONTRACTOR TO CHECK AND BALANCE THE HVAC SYSTEM PRIOR TO OCCUPANCY

OR PRIOR TO INSTALLATION OF THE DRYWALL ON FRAMING.



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19431 NE 19 PLACE

NORTH MIAMI BEACH, FL 33179

DATE: SEPTEMBER 30, 2023

1001/02/03 PERMIT 230915 DESCRIPTION DATE

**HVAC NOTES** DETAILS

**SCHEDULES**