

MECHANICAL SCALE: N.T.S. DETAILS + SCHEDULES PLAN



DRAWN BY: F.A.

SCALE:AS SHOWN

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CHECKED BY : A.R.

A/C CLOSET

AREMAIN SPLIT A/C 1

AHU-103

AHU-104

A/C CLOSET

A/C CLOSET ACCESORIES DESIGN MANUFAC

O.B.D. TITUS 250-AA

O.B.D. TITUS 350 FS

O.B.D. TITUS 350 FL HVAC SYMBOL LEGEND A/C C. CARRIER FA4ANC048 14.0 0.5 SCHEDULE
AHU-203 PROPELLER 5.0 48.000 --75 / 63 · [8]; RETURN/EXHAUST FLEXIBLE DUCT REFRIGERANT SUCTION & LIQUID LINES ELBOW W/ TURNING EXHAUST REGISTER #: CFM AIR DEVICE TYPE
(B: SIZE
CFM 75 / 63 5.0 48.000 ુ છું

9. PROVIDE THERMOSTAT CONTROL OF ALL FANS THAT EXHAUST MECHANICAL AND ELECTRICAL ROOMS. IF APPLICABLE.

10. PROVIDE FLEXIBLE DUCT CONNECTORS, RATED AS REQUIRED, TO ALL FANS, A/C UNITS, OR MECHANICAL EQUIPMENT.

11. PROVIDE MAINTENANCE AND OPERATION MANUAL ON ALL MECHANICAL EQUIPMENT OR SYSTEMS. PROVIDE 5 SETS OF SUBMITTALS ON ALL HVAC EQUIPMENT. SUBMITTALS SHALL HAVE A SUMMARY SHEET SHOWING ALL SCHEDULED INFORMATION.

ALL STORAGE ROOMS, TOILETS, ETC., WILL HAVE UNDERCUT DOORS TO PROVIDE VENTILATION REQUIRED WHEN DOOR OR TRANSFER GRILLES ARE NOT SHOWN. IF APPLICABLE.

5. ALL DUCTWORK AND DIFFUSERS SHALL BE RATED FOR THE USE, PRESSURE AND TEMPERATURE SPECIFIED AND AS REQUIRED BY THE CEILING SYSTEM RATING.
3. ALL DUCTWORK SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH "SMACNA" STANDARDS AND LOCAL BUILDING CODES.
7. ALL DUCT SIZES ARE CLEAR INSIDE DIMENSIONS.
8. SEAL ALL DUCTS, JOINTS AND SEAMS IN AN APPROVED MANNER AND INSURE AGAINST LEAKAGE.

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A. INDOOR DESIGN: SUMMER 75 DDB/50% RH, WINTER 70 DDB.
3. OUTDOOR DESIGN: SUMMER 95 DDB/79 DWB, WINTER 46 DDB.
3. BUILDING CONDITIONS:
GLASS U VALUE
0.90
GLASS S.C.
0.57
WALL U VALUE
0.20
ROOF U VALUE
0.05

HVAC CONTRACTOR WILL WARRANTY ALL MECHANICAL SYSTEMS, DUCTWORK, THERMOSTATS, AND ALL OTHER EQUIPMENT, PARTS AND LABOR UNDER THESE DRAWINGS AND SPECIFICATIONS FOR A PERIOD OF ONE (1) YEAR AFTER C.O. OF BUILDING, ANY REPAIRS REQUIRING SYSTEM SHUT DOWN WILL BE DONE DURING NON OPERATIONAL PERIODS.

PROVIDE VANED ELBOWS IN ALL CASES, SPLITTER DAMPERS WHERE INDICATED ON DRAWINGS AND VOLUME CONTROL DAMPERS IN ALL BRANCH DUCTS OR DIFFUSER CONNECTIONS.

02-16-17 RTC

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 OR REPLACE CONTROLS, ETC.

PROVIDE TYPE "B" FIRE DAMPERS IN ALL DUCTS OR OPENINGS PENETRATING FIRE RATED WALLS, MECHANICAL AND ELECTRICAL EQUIPMENT ROOMS. TENANT SEPARATION, PARTITIONS, FLOORS OR ROOF SLABS AND AT FRESH AIR INTAKES (SEE ARCHITECTS PLANS FOR RATINGS). PROVIDE RADIATION DAMPERS IN RATED CETLINGS FOR ALL CETLINGS OPENINGS, CETLING FAMS, DIFFUSERS OR GRILLES RATED FOR USE IN THE CETLING ASSEMBLY AS SPECIFIED BY ARCHITECT. IF APPLICABLE. PROVIDE SMOKE DETECTORS WITH ACCESS DOORS IN ALL SUPPLY AIR DUCTS FOR FAN AND AHD'34, SERVING A COMMON PLENUM OF ZOOO CFM OR ABOVE. ALL SMOKE DETECTORS SHALL BE BY ONE MANUFACTURE. COORDINATE VOLTAGE ETC. WITH ELECTRICAL CONTRACTOR AND FIRE ALARM SYSTEM BEFORE ORDERING. UPON DETECTION, SMOKE DETECTORS SHALL SHUT DOWN ASSOCIATED AIR MOVING EQUIPMENT AND ALL AIR MOVING EQUIPMENT SERVING THAT COMMON PLENUM. ALL MECHANICAL EQUIPMENT SHALL BE ART & U.L. LISTED WHERE APPLICABLE AND RATED FOR THE REQUIRED SERVICE, PRESSURES, TEMPERATURES, AND SHALL BE PROVIDED WITH ALL NECESSARY TRANSFORMERS, SEALS, VALVES, CONNECTIONS, ETC. TO FUNCTION PROPERLY. FILTERS SHALL BE IN PLACE DURING CONSTRUCTION. PROVIDE A NEW SET PRIOR TO TEST AND BALANCE AND A FINAL SET AT THE END OF ONE YEAR SERVICE PERIOD. IF APPLICABLE. TEST AND ADJUST SUPPLY AND RETURN AIR TENDESIGN REQUIREMENTS. AIR QUALITY SHOULD BE TESTED BEFORE OCCUPANCY AND SHOULD BE INSTRUMENTED AND MONITORED THEREAFTER, OR AT LEAST AT REGULAR INTERVALS TEST AND ADJUST SUPPLY AND RETURN AIR TEMPERATURES TO BE WITHIN 5% OF DESCRIPTION AND RETURN AIR TEMPERATURES TO BE WITHIN 5% OF MINAL AIR DISTRIBUTION DEVICES SHALL BE AS FOLLOWS: CEILING DIFFUSER: UIV. TO TITUS AS SPECIFIED IN AIR DISTRIBUTION SCHEDULE; RETURN GISTRE: EQUIV. TO TITUS AS SPECIFIED IN AIR DISTRIBUTION SCHEDULE (NEW DIFF/GRILLES SHALL MATCH EXISTING; IF APPLICABLE).

PROVIDE BACK DRAFTS DAMPERS ON ALL EXHAUST FANS AND/OR IN-LINE FANS. PROVIDE VIBRATION ISOLATORS ON ALL MECHANICAL EQUIPMENT AS CALLED FOR IN THE SPECIFICATIONS. IF NOT SPECIFIED, AS RECOMMENDED BY MANUFACTURER FOR QUIET OPERATION (WITH 99% ISOLATION EFFICIENCY). PROVIDE A MIN. OF 10' CLEARANCE BETWEEN O/A INTAKES AND VIR OR EXHAUST OPENINGS.

THERMOSTAT LOCATION SHALL BE APPROVED BY OWNER, ENGINEER AND ARCHITECT/INTERIOR DESIGNER BEFORE INSTALLATION.

RUN INSULATED FIRE RATED CONDENSATE DRAINS AS PER MECHANICAL DRAWINGS. IF APPLICABLE.

MOUNT ALL ROOFTOP EQUIPMENT FOR WIND LOADS AND MOUNTING HEIGHTS REQUIRED BY LOCAL CODES. ALL CURBS SHALL EXTEND 8" MIN. ABOVE FINI ROOF.

WIND LOADS AND MOUNTING HEIGHTS AS S SHALL EXTEND 8" MIN. ABOVE FINISHED

COORDINATE LOCATION OF A/C UNITS, THERMOSTATS, FANS AND DUCTWORK WITH BUILDING STRUCTURE AND OTHER TRADES SO THAT NO INTERFERENCES OCCUR. IN GENERAL, DUCT OFFSETS HAVE NOT BEEN SHOWN. A/C CONTRACTOR TO COORDINATE THESE AS REQUIRED.

 THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO BIDDING, ORDERING, FABRICATION OR INSTALLATION OF MATERIALS OR EQUIPMENT. 6. MECHANICAL PLANS IN GENERAL, ARE DIAGRAMMATIC IN NATURE, AND ARE TO BE READ IN CONJUNCTION WITH ARCH. PLUMBING, ELECTRICAL AND STRUCTURAL PLANS AND SHALL BE CONSIDERED AS ONE 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 TO THE OWNER. CONTROLS / EQUIPMENT SEQUENCE OF OPERATION:
ALL THERMOSTATS SHALL BE INSTALLED 42" TO 55" A.F.F. VERIFY EXACT LOCATION WITH ARCHITECT / INTERIOR DESIGNER.

UPON DETECTION OF SMOKE. SMOKE DETECTORS SHALL SHUT DOWN REQUIRED ASSOCIATED AIR MOVING EQUIPMENT AND ALL AIR MOVING EQUIPMENT SERVING THAT COMMON PLENUM.

11. ALL PIPING AND DUCTWORK SHALL BE SLEEVED THRU WALLS, BEAMS, SLABS, ETC, AS REQUIRED AND COORDINATED WITH THE STRUCTURAL ENGINEER. REWORK BAR JOIST CROSS BRACING AND PROVIDE NECESSARY TRANSITIONS AS REQUIRED FOR DUCTWORK INSTALLATION.

12. ALL INSULATION WILL HAVE FIRE/SMOKE RATING LESS THAN 25/50.

13. PROVIDE A MIN. OF 3' CLEARANCE IN FRONT OF ALL 120-240 VOLT PANELS AND 4' CLEARANCE IN FRONT OF 480 VOLT PANEL PROVIDE ADEQUATE SIDE CLEARANCE PER NEC.

14. PROVIDE MOTOR STARTIERS AS FOLLOWS (UNLESS OTHERWISE RECOMMENDED BY MOTOR / EQUIPMENT MANUFACTURER):

A: PROVIDE OVERLOAD PROTECTION - 1/3 HP AND ABOVE (ALL PHASES).

B: PROVIDE REDUCED VOLTAGE STARTING 25 HP AND ABOVE.

C: PROVIDE ACROSS THE LINE VOLTAGE STARTING BELOW 25 HP.

COORDINATE LOCATION OF CEILING DIFFUSERS, GRILLES AND REGISTERS IN THE FIELD WITH LIGHTS, SPRINKLERS AND ARCHITECTURAL ELEMENTS. WALL, ROOF, AND CEILING OPENINGS INDICATED ON CONTRACTOR DRAWINGS ARE NOMINAL DIMENSIONS ONLY AND ALL DUCT, PIPE OR EQUIPMENT PENETRATIONS SHALL BE SLEEVED AND FIRE RATED AS REQUIRED, ADJUST OPENINGS INDEPENDENT CONTRACTOR SHALL TEST AND BALANCE ALL MECHANICAL EQUIPMENT AIR DEVICES, EXTRACTORS, DAMPERS, AHU'S & FAN RATES, ETC. TO PROVIDE THE DESIGN QUANTITIES AS SHOWN ON THE PLANS OR SCHEDULES. PROVIDE T & B REPORT IN ACCORDANCE WITH THE AIR BALANCE COUNCIL STANDARDS, SIGNED AND SEALED BY A REGISTERED FLORIDA ENGINEER. PROVIDE FINAL BALANCING FOR ALL SYSTEMS TO SATISFACTION OF OWNER AND ENGINEER. T & B CONTRACTOR SHALL YISTIT JOB SITE DURING CONSTRUCTION TO ENSURE THAT ALL DUCTS, DAMPERS, ETC. ARE INSTALLED FOR PROPER AND QUIET AIR DELIVERY.

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WESLEY ART CASTELLANOS ORIDA ARCHITECT LICENSE AR 96133 MECHANICAL 2016-18

DETAILS +
SCHEDULES

747 4th Street Miami Beach, FL 33139 Folio: 02-4203-009-3050 Interior Renovations 747 4th Street

ALL MECHANICAL SYSTEMS ARE TO BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE SECTIONS OF THE NFPA STANDARDS, ANSI STANDARDS, THE LOCAL BUILDING CODE, NOISE & HEIGHT ORDINANCES, PLANS AND SPECIFICATIONS.

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

FOR ALL BELT DRIVEN AHU'S PROVIDE ONE SET OF ADJUSTABLE PULLEY'S FOR PRELIMINARY BALANCE, AND REPLACE WITH FIXED PULLEYS AFTER FINAL FAN RPM BEEN SET.

VERIFY WITH ARCHITECT ALL LOCATIONS OF LOUVERS, GRILLES, SWITCHES, ACCESS PANELS ETC... BEFORE INSTALLATION.

ALL OUTDOOR EQUIPMENT SHALL COMPLY WITH LOCAL ZONING NOISE ORDINANCES OR NOT EXCEED A NOISE LEVEL OF 65 DB AS MEASURED RADIALLY 30 FEET FROM THE EQUIPMENT IN ALL DIRECTIONS.

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

AIR DISTRIBUTION / DUCTWORK NOTES:

ALL CUTTING, PATCHING, STRUCTURAL STEEL, WEATHER PROOFING, PAINTING, AND WALL OPENINGS SHALL BE BY THE GENERAL CONTRACTOR.

ALL LOUVERS, GRILLES, PIPING, ETC. SHALL BE PAINTED TO MATCH SURROUNDING COLOR AND TEXTURES AS REQUIRED BY ARCHITECT. VERIFY COLOR AND TEXTURE WITH ARCHITECT. PAINT ALL EXPOSED MECHANICAL EQUIPMENT WITH BENJAMIN MOORE EPOXY ENAMEL 182.

ALL OPENINGS IN BUILDING STRUCTURE, FOR DUCTWORK, PIPING, ETC. TO BE 1/2" LARGER (ON ALL SIDES) THEN THE OUTSIDE DIMENSIONS. FILL VOIDS WITH FIRE RETARDANT SILICONE FOAM (I.E. CHASE-FOAM CTC PR-855 BY CHATECHNOLOGY CORP.).

1. REFER TO ARCHITECTURAL PLANS FOR CEILING TYPE.

2. PROVIDE OFF WHITE FINISH (SUBJECT TO ARCHITECT'S APPROVAL).

3. USE SPIN IN COLLAR WITH VOLUME DAMPER AT TRUNK TO FLEX DUCT CONNECTION. (SEE DETAIL)

4. ALL DUCTWORK WHERE ALLOWED BY LOCAL CODES AND CEILING RATING SHALL BE AS FOLLOWS:

A. SUPPLY AIR - RIGID FIBER GLASS DUCT BOARD 1-1/2" THICK (R-6) INSULATION. OPERATING STATIC PRESSURE ±2 IN. WG. (500 PA)

B. RETURN AIR - SAME AS SUPPLY AIR DUCT WORK.

C. EXHAUST AIR - MINIMUM 30 GAGE, GALVANIZED METAL OR MINIMUM 26 GAGE ALUMINUM.

C. C. EXHAUST AIR - MINIMUM 30 GAGE, GALVANIZED METAL OR 26 GAGE MINIMUM ALUMINUM INSULATED (R-6).

D. OUT SIDE AIR - NOT LIGHTER THAN 30 GAGE, GALVANIZED METAL OR 26 GAGE MINIMUM ALUMINUM INSULATED (R-6).

E. DRYGEN DUCTWORK: 26 GA. MIN. GALVINIZED STEEL, HAVING A SMOOTH INTEROR SURFACE WITH JOINTS RUNNING IN THE DIRECTION OF AIRFLOW AND WITHOUT SHEET METAL SCREWS OR OTHER FASTNERS IN THE AIR STREAM. MAXIMUM LENGTH SHALL NOT EXCEED 25 FEET. WALL GAPS SHALL BE PROVIDED WITH BACKDRAFT DAMPER. NO SCREEN. IF APPLICABLE.

STRAP HANGERS

TRAPEZE HANGERS