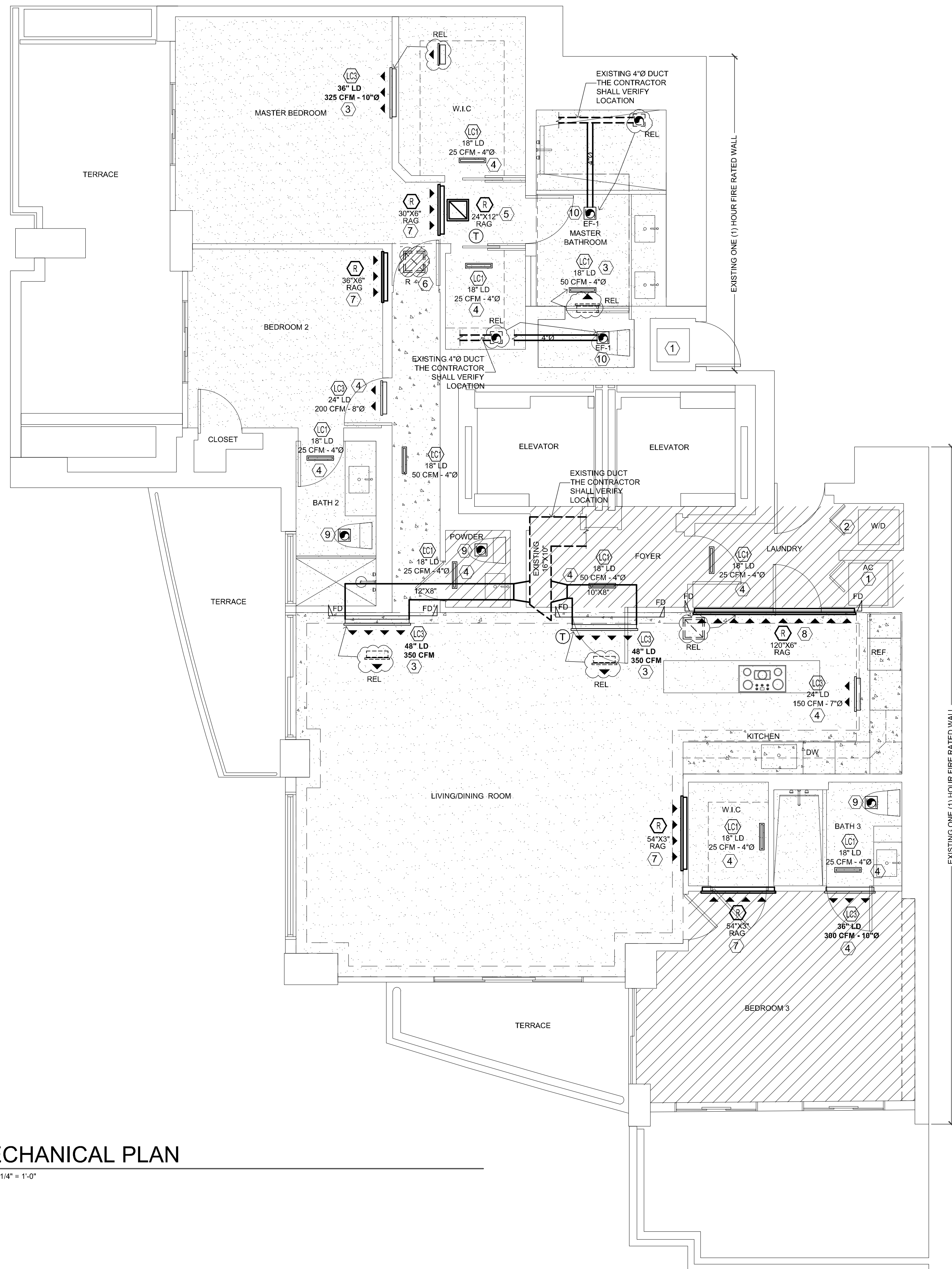


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DANIEL RIVEROS  
FLORIDA PE #73152



**MECHANICAL PLAN**

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

A/C LEGEND	
	RIGID DUCTWORK
	DUCT UNDER POSITIVE PRESSURE
	DUCT UNDER NEGATIVE PRESSURE
	SUPPLY AIR GRILLE (CEILING MOUNTED)
	SUPPLY AIR GRILLE (SIDE MOUNTED)
	RETURN AIR GRILLE (CEILING MOUNTED)
	RETURN AIR GRILLE (SIDE MOUNTED)
	CLASS 1 FLEXIBLE DUCT
	REFRIGERANT LINES
	CONDENSATE PIPING
	WALL CAP
	EXHAUST FAN
	THERMOSTAT
	SUPPLY AIR
	RETURN AIR
	FRESH AIR
	OUTSIDE AIR
	CEILING DIFFUSER
	REGISTER
	GRILLE
	UNDERCUT
	LOUVER DOOR
	FIRE DAMPER
	AIR HANDLER UNIT
	EXHAUST REGISTER
	EXHAUST FAN
	FOUR WAY CEILING DIFFUSER
	MANUAL VOLUME DAMPER
	CUBIC FEET PER MINUTE

CEILING LEGEND	
	±9'-0" A.F.F.
	±9'-5" A.F.F.
	±9'-10" A.F.F.

MECHANICAL KEY NOTES	
①	EXISTING AHU TO REMAIN
②	EXISTING DRYER TO REMAIN
③	EXISTING SUPPLY AIR GRILLE TO BE RELOCATED & TO BE UPGRADED TO NEW SUPPLY LINEAR AIR GRILLE AS SHOWN
④	EXISTING SUPPLY AIR GRILLE TO BE UPGRADED FOR NEW SUPPLY LINEAR AIR GRILLE
⑤	EXISTING RETURN AIR GRILLE TO REMAIN
⑥	EXISTING RETURN AIR GRILLE TO BE REMOVED
⑦	EXISTING RETURN AIR GRILLE TO BE UPGRADED FOR NEW RETURN LINEAR AIR GRILLE
⑧	EXISTING RETURN AIR GRILLE TO BE RELOCATED & TO BE UPGRADED TO NEW RETURN LINEAR AIR GRILLE AS SHOWN
⑨	EXISTING EXHAUST FAN TO REMAIN
⑩	EXISTING EXHAUST FAN TO BE RELOCATED AS SHOWN

ALL MECHANICAL WORK TO COMPLY WITH FBC 2020 (7TH ED)

REVISION / DATE

7900 Nova Drive  
Davie, FL 33324  
(954) 612-9591  
daniel@peareng.com

**Pea Engineering**  
Mechanical - Electrical - Plumbing

INTERIOR RENOVATION FOR:  
EXISTING CONDO  
50 South Point Dr  
Unit 2803  
Miami Beach, FL 33139

DRAWN BY:	HD
CHECKED BY:	DR
JOB NUMBER:	21-040
DATE:	6/11/2021

DANIEL RIVEROS  
FLORIDA PE #73152

MECHANICAL PLAN

**M-1**

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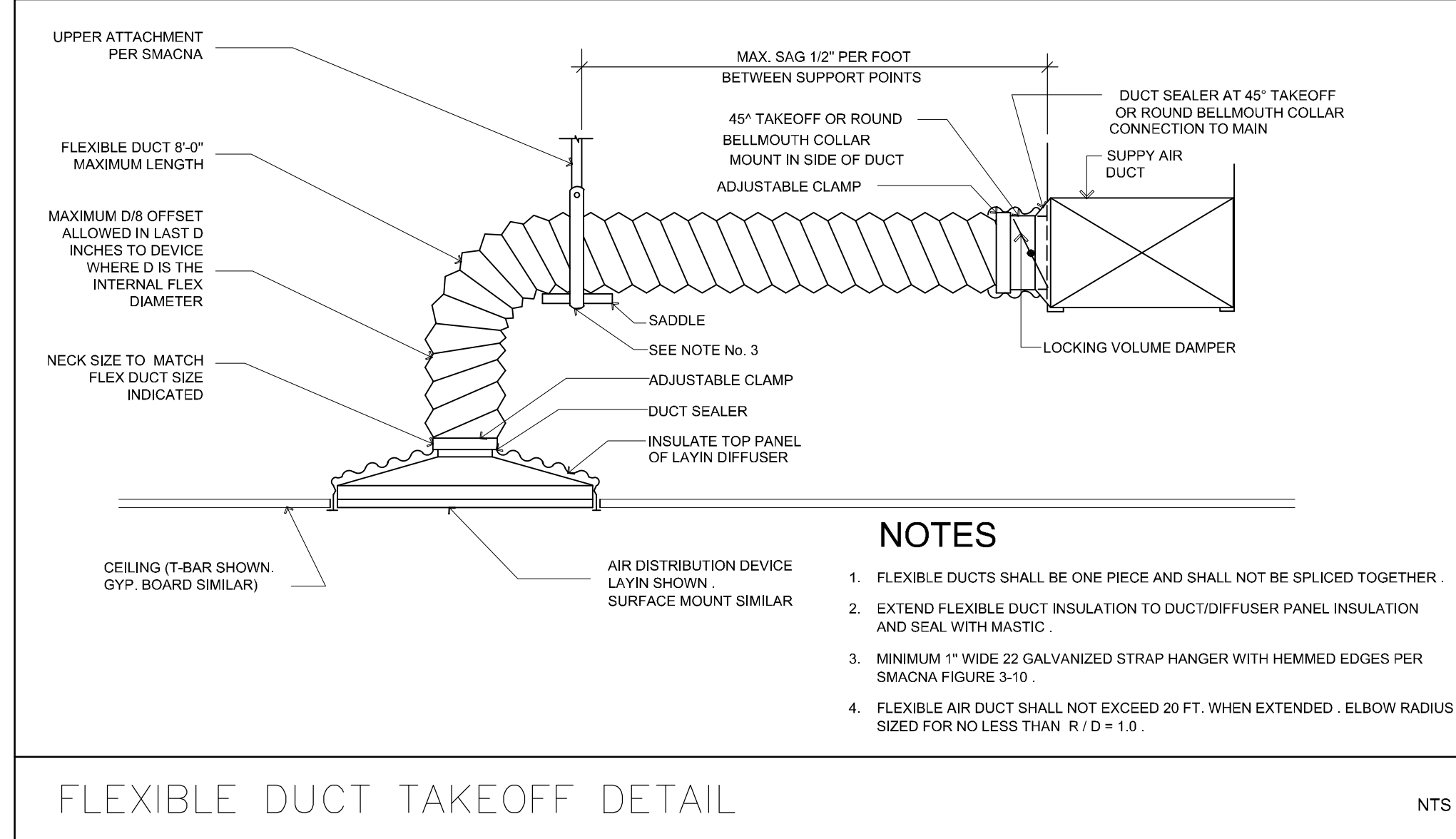
### AIR CONDITIONING NOTES

- DRAWINGS ARE DIAGRAMMATIC. DO NOT SCALE DRAWINGS FOR THE EXACT LOCATION OF EQUIPMENT, PIPING, DUCTWORK, ETC. AND SHALL CONFORM WITH THE FLORIDA BUILDING CODE (FMC 2020), ALL OTHER APPLICABLE STATE AND LOCAL REGULATIONS AND ORDINANCES.
- THESE DRAWINGS ARE NOT INTENDED TO SHOW EVERY MINOR DETAIL. BUT THE CONTRACTOR SHALL FURNISH AND INSTALL ALL ITEMS REQUIRED FOR A COMPLETE ACCEPTABLE WORKING INSTALLATION.
- ALL WORK SHALL BE PERFORMED BY A LICENSED CONTRACTOR IN A FIRST CLASS WORKMANLIKE MANNER. THE COMPLETE SYSTEM SHALL BE FULLY OPERATIVE AND ACCEPTANCE BY THE ARCHITECT AND / OR ENGINEER MUST BE CONDITION OF THE CONTRACT.
- CONTRACTOR WILL PAY FOR ALL PERMITS, FEES, INSPECTIONS, AND TESTS.
- THE CONTRACTOR SHALL VISIT THE JOB SITE AND THOROUGHLY FAMILIARIZE WITH EXISTING CONDITIONS.
- PRIOR TO INSTALLING EQUIPMENT AND/OR FABRICATING DUCTWORK, A.C. CONTRACTOR SHALL CHECK THAT THERE IS SUFFICIENT CLEARANCES FOR EQUIPMENT, DUCTWORK, ETC. AND ALSO TO AVOID ANY INTERFERENCE WITH THE PROCESS OF CONSTRUCTION.
- ALL REQUIRED INSURANCE SHALL BE PROVIDED BY THE CONTRACTOR FOR PROTECTION AGAINST PUBLIC LIABILITY AND PROPERTY DAMAGE FOR THE DURATION OF THE WORK.
- ALL WORKMANSHIP AND MATERIALS SHALL BE IN STRICT ACCORDANCE WITH THE APPLICABLE NATIONAL, STATE, AND LOCAL CODES, RULES, AND ORDINANCES.
- ALL DUCTWORK SHALL CONFORM TO SMACNA STANDARDS. ALL DUCTWORK SIZES ARE INSIDE DIMENSIONS. ALL VENTILATION DUCTWORK SHALL BE GALVANIZED SHEETMETAL. ALL AIR CONDITIONING DUCTWORK SHALL BE FIBERGLASS BOARD AND MUST CONFORM WITH ALL LOCAL CODES, UNLESS OTHERWISE NOTED.
- SUBMIT SHOP DRAWINGS ON ALL EQUIPMENT, FOR REVIEW PRIOR TO PURCHASING.
- AIR DISTRIBUTION ACCESSORIES SHALL BE AIR GUIDE, ANEMOSTAT, TITUS, OR APPROVED EQUAL.
- ALL SUPPLY A.C. DUCT ELBOWS MUST BE FURNISHED WITH APPROVED TURNING VANES.
- BRANCH TAKEOFFS MUST BE PROPORTIONAL SPLITS SHOWN ON DRAWINGS.
- THE CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP FREE FROM DEFECTS FOR A PERIOD NOT LESS THAN 1 YEAR FROM THE DATE OF ACCEPTANCE, UNLESS OTHERWISE NOTED.
- CORRECTION OF ANY DEFECTS SHALL BE COMPLETED WITHOUT ADDITIONAL CHARGE AND SHALL INCLUDE REPLACEMENTS OR REPAIRS OF ANY OTHER PHASE OF THE INSTALLATION WHICH MAY HAVE BEEN DAMAGED OR IS NOT OPERATING PROPERLY.
- ARCHITECTURAL AND/OR ENGINEERING EXPENSES THAT ARE INCURRED DUE TO REVISIONS FOR SUBSTITUTIONS BY THE CONTRACTOR SHALL BE PAID FOR BY THE CONTRACTOR.
- INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH THE RECOMMENDATIONS SET GUIDE, ASHRAE FORTH IN THE LATEST.
- ALL MATERIALS SHALL BE NEW AND SHALL BEAR UNDERWRITER'S LABEL WHERE APPLICABLE.
- IF THERE ARE ANY CHANGES IN ENGINEER'S DRAWINGS, IN DESIGN OR IN EQUIPMENT, WITHOUT ENGINEER'S CONSENT, THE A.C. CONTRACTOR SHALL ASSUME ALL RESPONSIBILITIES FOR THE PROJECT.
- DUCT R VALUE SHALL BE A MINIMUM OF 6.

### GENERAL NOTES

- ALL WORK SHALL COMPLY WITH THE 2014 EDITION OF THE FLORIDA BUILDING CODE, MECHANICAL CODE AND PLUMBING CODE WITH ANY LOCAL AMENDMENTS.
- CURRENT INDUSTRY STANDARDS AND PRACTICES ESTABLISHED BY THE FOLLOWING SHALL BE USED IN THE CONSTRUCTION OF THE PROJECT UNLESS SPECIFICALLY NOTES OTHERWISE: A. ASHRAE; B. ASHRAE/SMACNA; C. OSHA
- MATERIALS AND EQUIPMENT SHALL BE NEW AND OF FIRST CLASS QUALITY.
- ALL CONSTRUCTION SHALL BE PERFORMED WITHOUT INTERFERING WITH ONGOING OPERATIONS.
- WELDING AND SOLDERING: A. ANY STRUCTURAL STEEL WELDING SHALL BE PER THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE - STEEL D1.1. B. SOLDERING: ALL COOPER TUBING SHALL HAVE FITTINGS SOLDERED USING HI TEMP SILVER SOLDER.
- PIPE, TUBE, AND FITTINGS: A. COMPRESSED GASES: (1) TUBING: COPPER TYPE 'K' ASTM B88 REFRIGERATION TUBING WITH SILVER SOLDER CONNECTIONS; (2) FITTING: CAST COPPER ANSI B16.22. B. ALL NEW REFRIGERANT RETURN LINES SHALL BE INSULATED WITH 1" OF ARMAFLEX. C. ALL ARMAFLEX INSULATION OUTDOORS MUST BE PAINTED FOR SOLAR PROTECTION.
- PIPE SUPPORTS: A. DESIGN AND SOLDERING SHALL CONFORM TO THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL. B. SUPPORT STEEL SHALL CONFORM TO ASTM A36 UNLESS OTHERWISE NOTED. C. ALL DIMENSIONS SHALL BE FIELD VERIFIED BY CONTRACTOR PRIOR TO PIPE FABRICATION. D. ALL STEEL & FASTENERS SHALL BE GALVANIZED, UNLESS OTHERWISE NOTED. E. ALL SUPPORTS FOR PIPING SHALL USE HEAVY DUTY STEEL C-CLAMPS, GRINNELL OR APPROVED EQUAL. F. HARDWARE: 193 GR 88 (BOLTS); 194 GR 8 (NUTS); 18-8 SS WASHERS (FLAT).
- DUCTWORK: A. ALL NEW DUCTWORK CONNECTIONS TO NEW AIR HANDLERS SHALL BE GALVANIZED STEEL, INSULATED, OR FIBERBOARD, FABRICATED AND INSTALLED PER SMACNA AND ASHRAE STANDARDS.

ALL MECHANICAL WORK TO COMPLY WITH FBC 2020 (7TH ED)



- #### NOTES
- FLEXIBLE DUCTS SHALL BE ONE PIECE AND SHALL NOT BE SPLICED TOGETHER.
  - EXTEND FLEXIBLE DUCT INSULATION TO DUCT/DIFFUSER PANEL INSULATION AND SEAL WITH MASTIC.
  - MINIMUM 1" WIDE 22 GALVANIZED STRAP HANGER WITH HEMMED EDGES PER SMACNA FIGURE 3-10.
  - FLEXIBLE AIR DUCT SHALL NOT EXCEED 20 FT. WHEN EXTENDED. ELBOW RADIUS SIZED FOR NO LESS THAN R/D = 1.0.

### BROAN SPECIFICATION SHEET

## B5936SS RANGE HOOD

GENTLY CURVING METAL CANOPY CREATES A DRAMATIC, TEMPORARY APPEARANCE AND AN OPEN, AIRY FEEL.

VOLTS	AMPS	CFM	SONES	DUCT
120	3.3	450 (HIGH) 190 (LOW)	8.5 (HIGH) 2.5 (LOW)	4\"/>

**FEATURES**

- CEILING MOUNT
- FINISH: 430 STAINLESS STEEL #4 BRUSHED
- WIDTH: 34-7/8"
- TELESCOPIC FLUE ACCOMMODATES 8 TO 9 CEILINGS
- 4\"/>

**OPTIONS**

- REPLACEMENT GREASE FILTERS AVAILABLE
- FLUE EXTENSION FOR 10' CEILING (MODEL FXN5SS) (35-5/8\"/>

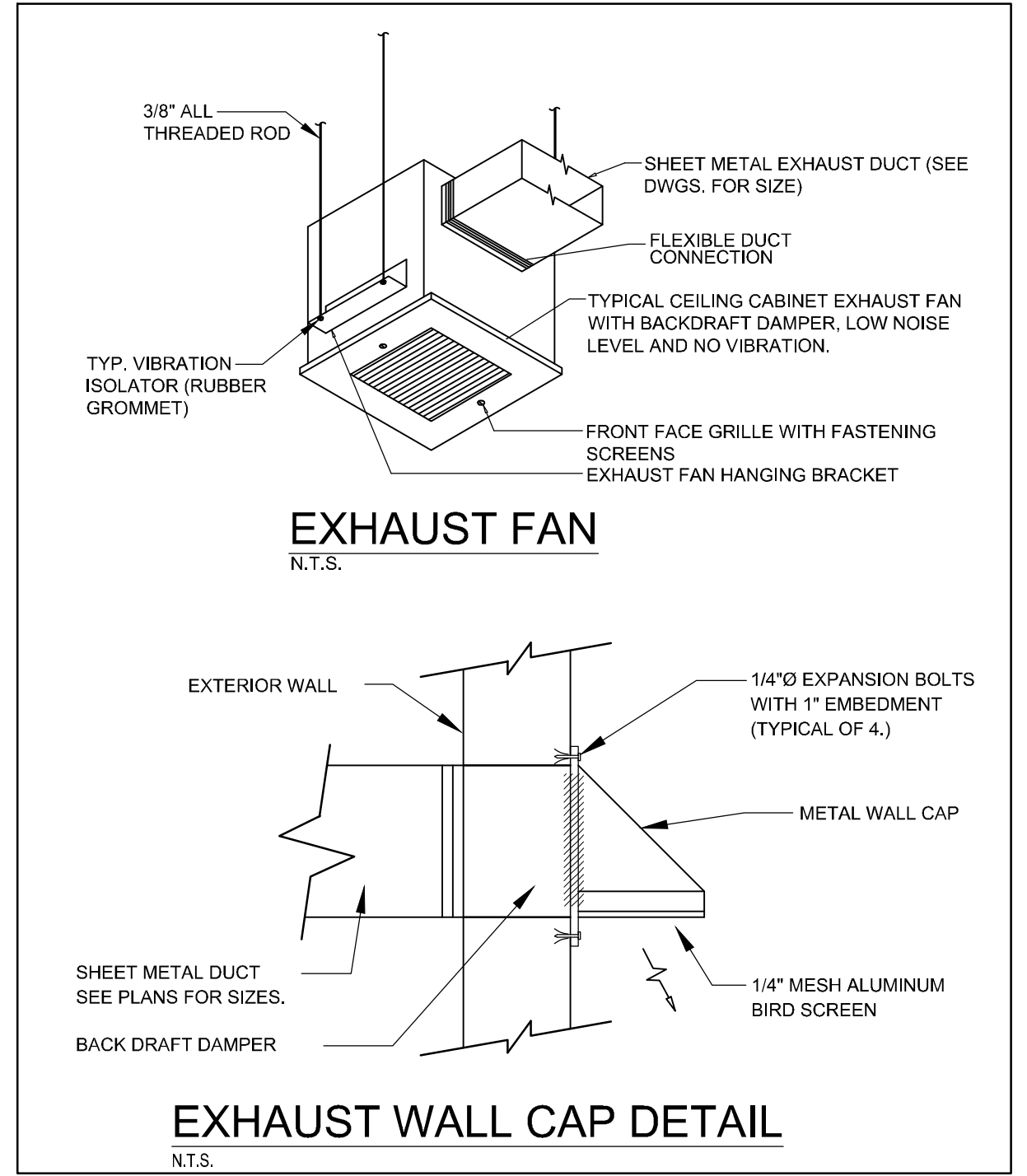
BROAN-NUTONE LLC HARTFORD, WISCONSIN WWW.BROAN.COM 800-558-1711

### EXHAUST FAN SCHEDULE

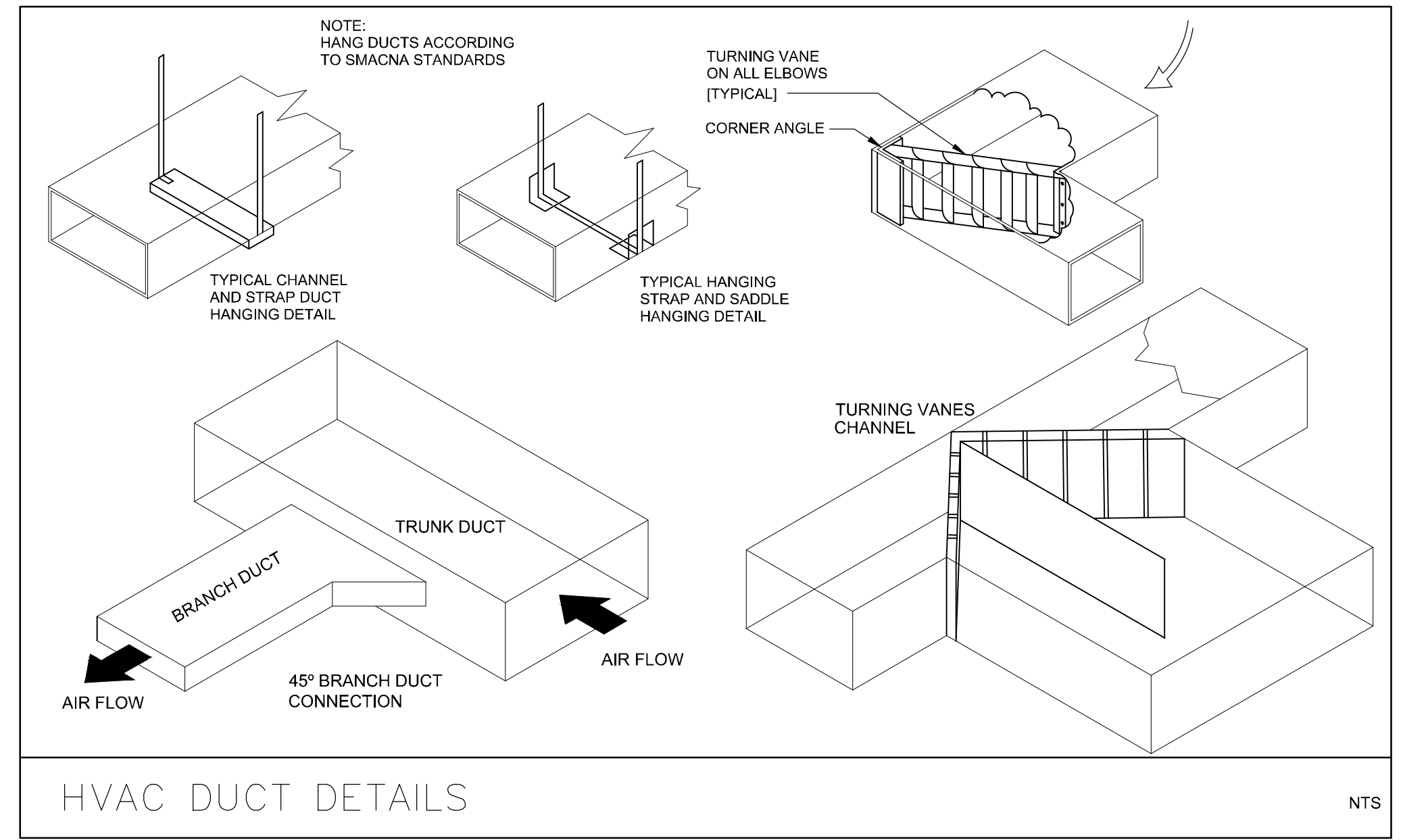
UNIT NUMBER	EF-1
QUANTITY	2
AREA SERVED	BATH
LOCATION	BATH
FAN TYPE	CLG CABINET
DRIVE	BELT/DIRECT DIRECT
FAN SPEED	RPM 716
AIR QUANTITY	CFM 110
TOTAL STATIC PRESSURE	H2O 0.1*
FAN OUTLET	IN 4\"/>

**REMARKS**

- HANGING VIBRATION ISOLATORS
- INTERLOCK W/ LIGHT SWITCH
- 4\"/>



- ### PROJECT NOTES
- CONTRACTOR SHALL MEASURE TOTAL FLOW OUT OF EXISTING AHUS. AFTER INSTALLATION OF NEW AHUS, CONTRACTOR SHALL BALANCE TOTAL AIR FLOWS TO PREVIOUS MEASURED VALUES.
  - AHU DUCTWORK SHALL REMAIN UNALTERED
  - ALL WORK MUST CONFORM WITH THE 2014 FLORIDA BUILDING CODE AND LOCAL AMENDMENTS.
  - ALL NEW AC UNIT IS ESSENTIALLY LIKE-FOR-LIKE REPLACEMENTS. THEREFORE, MECHANICAL CONTRACTOR MAY DISCONNECT AND RECONNECT ALL ELECTRICAL CONNECTIONS TO STARTERS AND/OR DISCONNECTS.
  - CONTRACTOR STARTUP OF NEW AC SYSTEM IS REQUIRED.
  - CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS.
  - CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND FIELD MEASUREMENTS.
  - EXISTING METAL STAND FOR OLD UNITS ARE SUFFICIENT FOR NEW UNITS.
  - CONTRACTOR SHALL FOLLOW MANUFACTURER'S CUT SHEETS AND RECOMMENDATIONS.
  - CONTRACTOR MAY REUSE EXISTING CHILLED WATER LINES IF IT IS PROPERLY SIZED IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS.
  - DRAWINGS ARE REPRESENTATIONAL. CONTRACTOR MUST FIELD VERIFY. NOTIFY ENGINEER OF ANY PROPOSED CHANGES AND PROVIDE SHOP DRAWINGS OR SKETCHES OF PROPOSED CHANGES.



REVISION / DATE

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MECHANICAL NOTES & DETAILS

M-2