

GENERAL REQUIREMENTS

1.

ALL WORK SHALL BE DONE IN ACCORDANCE WITH LOCAL BUILDING, MECHANICAL, PLUMBING CODES NATIONAL ELECTRICAL CODE, NATIONAL FIRE PROTECTION CODE, EPA REGULATIONS, AND OCCUPATIONAL SAFETY AND HEALTH ACT. 1994 UNIFORM MECHANICAL, PLMG & FIRE CODES.
2.

CONTRACTOR SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT TO PROVIDE COMPLETE AND FUNCTIONING INSTALLATIONS, AND ALL MATERIAL AND EQUIPMENT SHALL BE NEW UNLESS OTHERWISE SPECIFIED.
3.

ACCEPTANCE OF WORK SHALL BE SUBJECT TO OWNER'S REPRESENTATIVE APPROVAL OF WORK IN PLACE AS WELL AS SHOP DRAWINGS AND SAMPLES OF MATERIALS AND EQUIPMENT WHICH SHALL BE CHECKED BY CONTRACTOR BEFORE SUBMITTAL.
4.

CONTRACTOR SHALL SUBMIT MARKED UP CLEAN PRINTS OF AS-BUILT CONDITIONS SHOWING CONCEALED DEVIATIONS FROM DESIGN.
5.

CONTRACTOR SHALL KEEP PREMISES OF WORK AREA CLEAN DAILY, BROOM CLEAN AT PROJECT COMPLETION, AND SHALL REMOVE ALL REFUSE FROM SITE REGULARLY.
6.

CONTRACTOR SHALL WARRANTY ALL NEW WORK FOR A PERIOD OF ONE YEAR FROM DATE OF ACCEPTANCE AND SHALL REPAIR OR REPLACE AND DEFECTIVE WORK INCLUDING MATERIAL, LABOR AND EQUIPMENT AT NO ADDITIONAL COST TO THE OWNER.
7.

ALL PERMITS AND LICENSES THAT ARE REQUIRED BY GOVERNING AUTHORITIES FOR THE PERFORMANCE OF MECHANICAL WORK SHALL BE PROCURED AND PAID FOR BY THE CONTRACTOR.
8.

CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF ALL EQUIPMENT IN SUCH A MANNER AS TO CONTROL THE TRANSMISSION OF NOISE AND VIBRATION FROM ANY INSTALLED EQUIPMENT OR SYSTEM, SO THE SOUND LEVEL SHALL NOT EXCEED NC35, IN ANY OCCUPIED SPACE. CONTRACTOR SHALL BE RESPONSIBLE FOR THE CORRECTION OF ANY OBJECTIONABLE NOISE IN ANY OCCUPIED AREA DUE TO IMPROPERLY INSTALLED EQUIPMENT.
9.

MECHANICAL CONTRACTOR SHALL COORDINATE EXACT DUCT DIMENSIONS AND ROUTING WITH ARCHITECTURAL REFLECTED CEILING PLAN AND THE LAYOUT OF RECESSED LIGHT FIXTURES SHOWN ON ELECTRICAL DRAWINGS AND MAKE ONLY APPROVED CHANGES TO MAINTAIN SPECIFIED CEILING HIEGHTS.
10.

MECHANICAL CONTRACTOR SHALL COORDINATE EXACT LOCATION OF DIFFUSERS, REGISTERS AND GRILLS WITH ARCHITECTURAL REFLECTED CEILING PLAN AND ELECTRICAL LIGHT LAYOUT.
11.

MECHANICAL CONTRACTOR SHALL COORDINATE EXACT LOCATIONS OF ROOF TOP EQUIPMENT AND DUCT PENETRATIONS WITH STRUCTURAL.
12.

MECHANICAL CONTRACTOR SHALL SIZE AND INSTALL REFRIGERANT PIPING TO EQUIPMENT AS RECOMMENDED BY EQUIPMENT MANUFACTURER, INCLUDE ALL NECESSARY CONTROLS AND INTERLOCK WIRING, INSULATE SUCTION PIPING WITH 3/4"THICK ARMAFLEX (OUTDOOR INSULATION SHALL BE ULTRAVIOLET PROTECTED).
13.

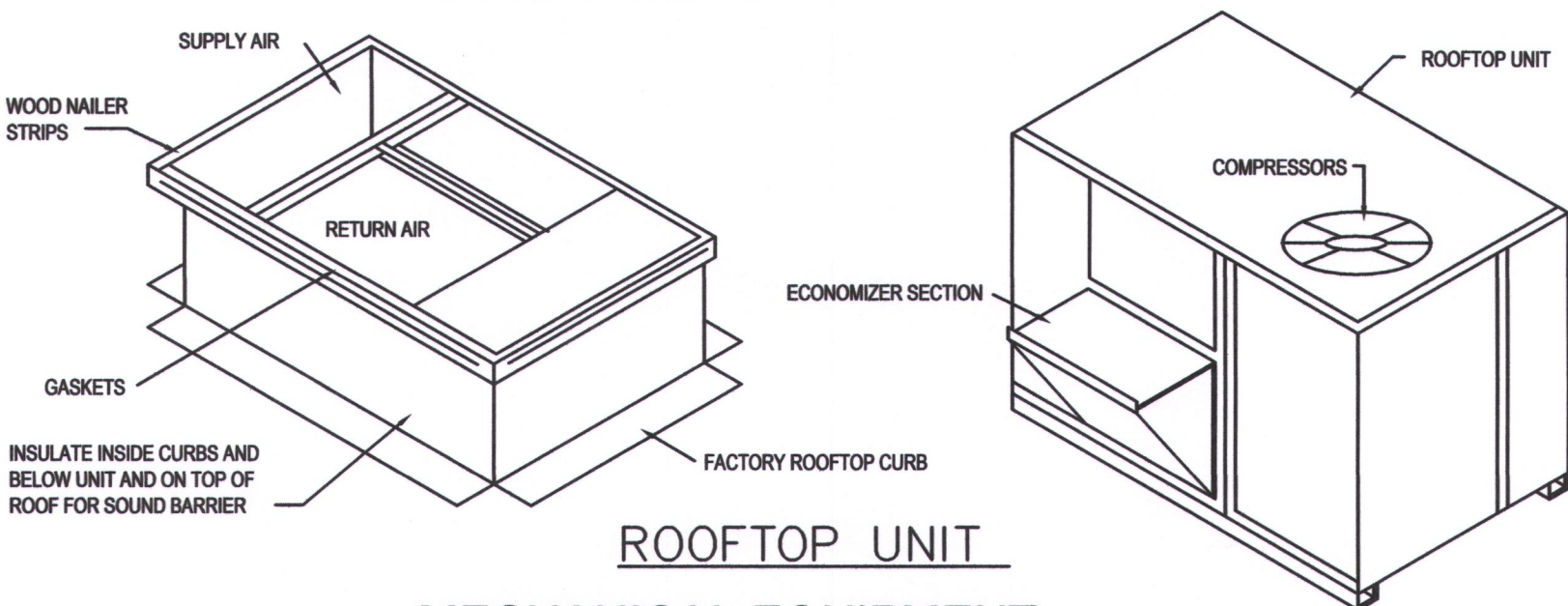
MECHANICAL CONTRACTOR SHALL PROVIDE SMOKE DETECTOR IN SUPPLY AIR DUCT OF AIR HANDLING SYSTEMS OF 2000 CFM OR LARGER CAPACITY FOR THE AUTOMATIC SHUT-OFF OF THE SYSTEM UPON SIGNAL FROM THE SMOKE DETECTOR. EQUAL TO FENWALL DN31; BRK DH1851AC OR ROBERT SHAW 2650-150 SERIES.
14.

RECTANGULAR DUCT TO BE CONSTRUCTED OF PRIME GALVANIZED SHEET METAL LINED WITH 1/2", 3 lb. DENSITY FIBERGLASS INSUALTION. ROUND FLEXIBLE DUCT TO BE THERMAFLEX TYPE MKC OR EQUAL WITH 1" FIBERGLASS INSUALTION EXTERNALLY WRAPPED. PLANS REFLECT COMPENSATION OF 1/2" INTERIOR INSULATION LINER.
15.

MECHANICAL CONTRACTOR SHALL PROVIDE AND INSTALL TURNING VANES AND VOLUME EXTRACTOR WHERE SHOWN ON DRAWINGS AND AS REQUIRED FOR SMOOTH AIRFLOW.
16.

MECHANICAL CONTRACTOR SHALL COORDINATE ALL WIRING AND ELECTRICAL INTERLOCKS WITH THE ELECTRICAL CONTRACTOR.
17.

FIRE DAMPERS ARE REQUIRED AT EACH FIRE RATED WALL, CEILING AND FLOOR DUCT PENETRATION AS SHOWN OR NOTED ON MECHANICAL AND ARCHITECTURAL FLOOR PLANS. (SEE DETAIL). FIELD IDENTIFY DUCT SIZE FOR SPECIFIC DAMPER SIZES, AND PROVIDE ACCESS PANELS AS REQUIRED FOR EACH FIRE DAMPER.



ROOFTOP UNIT

MECHANICAL EQUIPMENT

- RTU

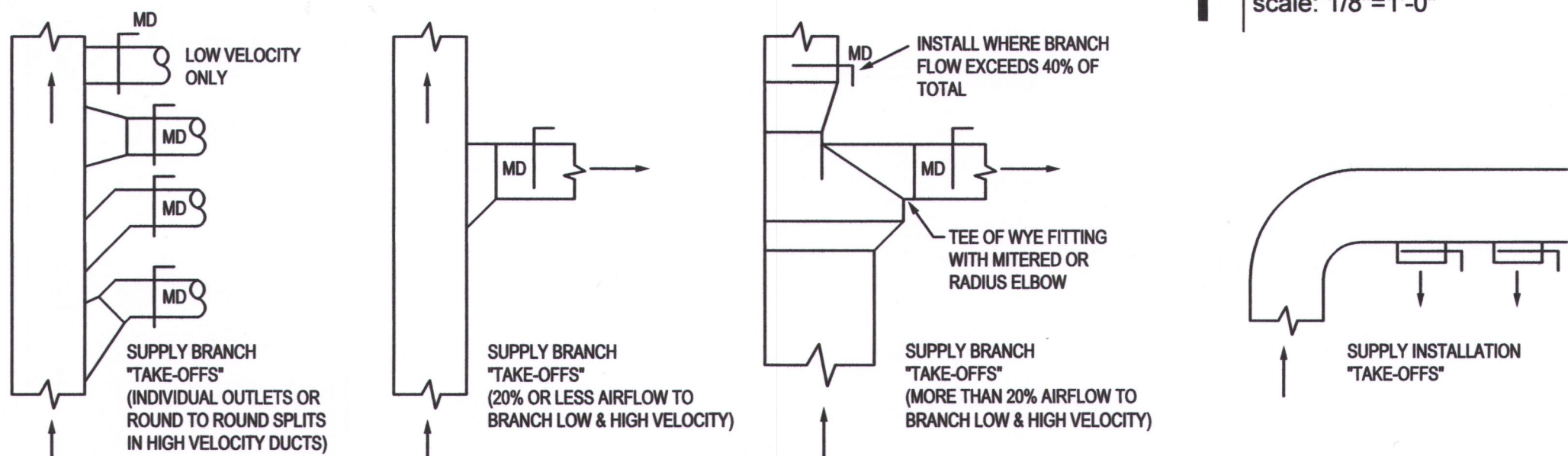
RTU-A: CARRIER MODEL #LGA180HSIG, 15 TON, HIGH HEAT, ELECTRO-MECHANICAL CONTROLS WITH ECONOMIZER, 480V-3PH R-22 REFRIGERANT, DOWNWARD AIRFLOW, THRU THE BASE UTILITIES, MANUAL OUTSIDE AIR DAMPER, POWERED GFCI RECEPTACLE AND UNIT MOUNTED DISCONNECT SWITCH. 46 MCA. PROVIDE STANDARD CURB PROVIDE SMOKE DETECTOR IN RETURN DUCTS FOR AUTO-SHUT-OFF OF RTU UPON ALERT. SIMILAR OR EQUAL TO FENWALL DN31, OR ROBERT SHAW 2650-150 SERIES. PROVIDE ACCESS PANELS FOR RE-SETTING. SET FRESH AIR DAMPER PER VENT. AIR REQ
- RTU

RTU-B: CARRIER MODEL #LGA088SIG, 7.5 TON, MEDIUM HEAT, ELECTRO-MECHANICAL CONTROLS WITH ECONOMIZER, 480V-3PH R-22 REFRIGERANT, DOWNWARD AIRFLOW, THRU THE BASE UTILITIES, MANUAL OUTSIDE AIR DAMPER, POWERED GFCI RECEPTACLE AND UNIT MOUNTED DISCONNECT SWITCH. 24 MCA. PROVIDE STANDARD CURB PROVIDE SMOKE DETECTOR IN RETURN DUCTS FOR AUTO-SHUT-OFF OF RTU UPON ALERT. SIMILAR OR EQUAL TO FENWALL DN31, OR ROBERT SHAW 2650-150 SERIES. PROVIDE ACCESS PANELS FOR RE-SETTING. SET FRESH AIR DAMPER TO 935 CFM
- EF-1

EXHAUST FAN - BROAN #684, 400 CFM, 120V, PROVIDE DAMPER, FLUE-THRU-ROOF, WATERTIGHT.

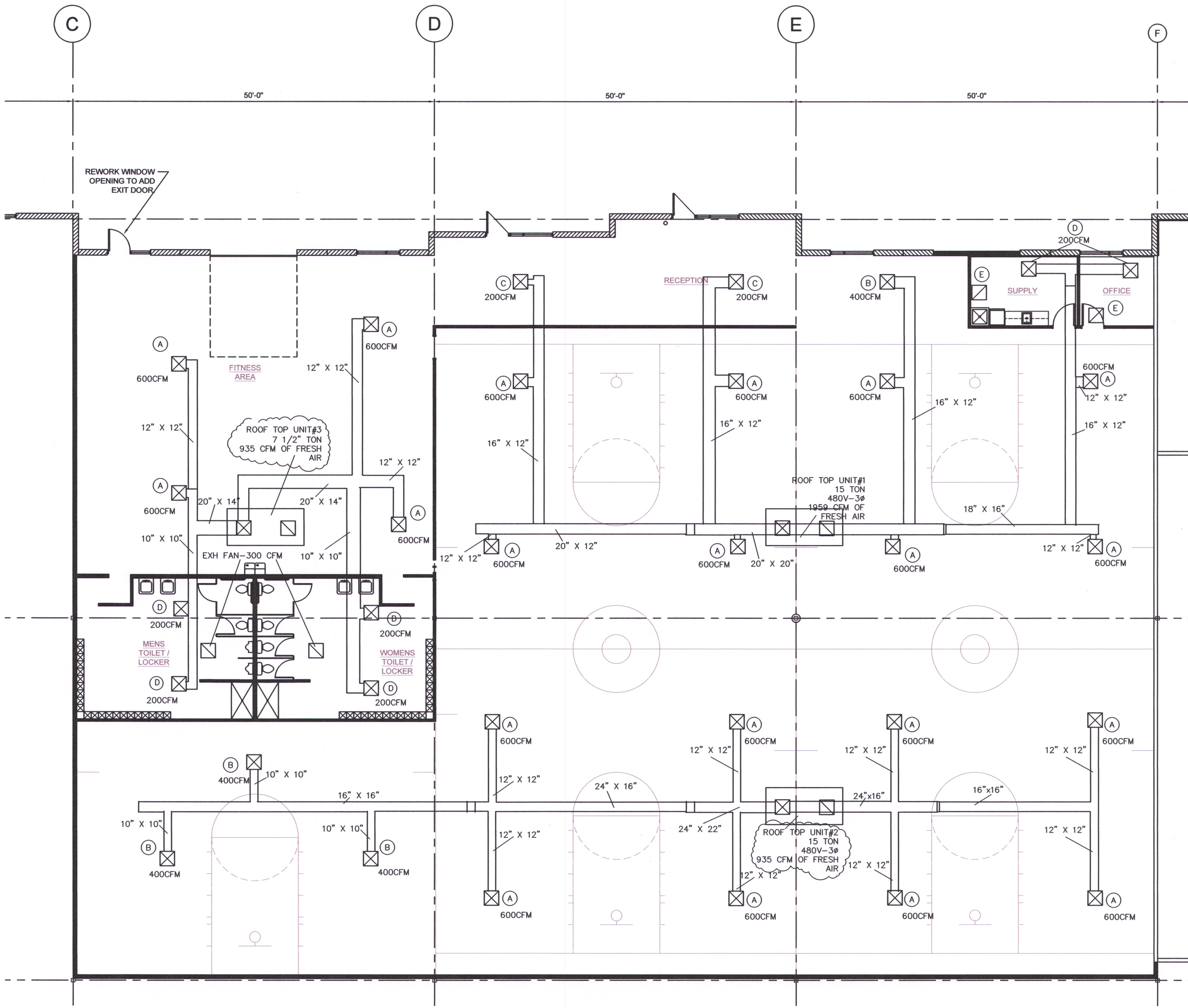
Ventilation air requirements requirements based on 2018 imc, section 400: total gym area is 10450 sq. ft., fitness area is 2250 sq. ft., area of toilet room is 1000 sq. ft., using the tables in the code the required ventilation for each is gym+3762 cfm, toilet= 400cfm, fitness+535cfm & entr+78cfm.these cfm's are separated per roof top unit as follows, rtu#1 + 1959 cfm, rtu #2 = 1881 cfm & rtu #3 = 935cfm these amounts ars shown here and on the plan

DIFFUSER & REGISTER SCHEDULE					
INDENT.	MANUF.	MODEL	SIZE	FINISH	
(A)	TITUS	TMR - 12"	22" DIA	STEEL	SUPPLY - 600 CFM
(B)	TITUS	TMR - 8"	15" DIA	STEEL	SUPPLY - 400CFM
(C)	TITUS	TMR - 6"	11" DIA	STEEL	SUPPLY - 200 CFM
(D)	TITUS	TMS-8"	24"x24"	WHITE	SUPPLY
(E)	TITUS	TMR	24"x24"	WHITE	RETURN



DUCT STANDARDS

NO SCALE



1 Floor Plan
scale: 1/8"=1'-0"



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DATE: 4/20/2020

REVISIONS:

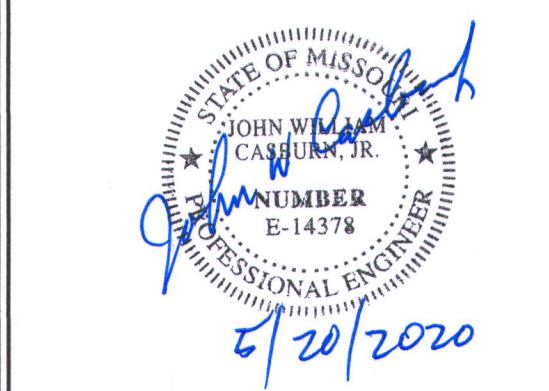
- added vent air 5/17/2020

SBC

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