

GENERAL MECHANICAL NOTES

- ALL WORK EXECUTED UNDER THESE OFFICIAL DOCUMENTS SHOULD BE PERFORMED BY A LICENSED AND INSURED MECHANICAL CONTRACTOR AND BE IN COMPLIANCE WITH THE LATEST FLORIDA BUILDING CODE (FBC), SHEET METAL & AIR CONDITIONING CONTRACTOR'S ASSOCIATION (SMACNA) STANDARDS, AND ALL OTHER APPLICABLE STATE AND LOCAL CODE.
- ALL WORK SHALL BE PERFORMED IN A FIRST CLASS WORKMANSHIP MANNER TO PRODUCE A COMPLETE SYSTEM THAT IS FULLY BALANCED, AND ADHERES TO ALL APPLICABLE CODES AND REGULATIONS.
- MECHANICAL CONTRACTOR SHALL PROVIDE A WRITTEN GUARANTEE THAT THE COMPLETE SYSTEM INSTALLED IS FREE OF DEFECTS OF MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR AFTER THE WORK IS COMPLETE AND TURNED OVER TO THE OWNER.
- THE MECHANICAL CONTRACTOR IS RESPONSIBLE TO OBTAIN HIS OWN PERMIT AND PAY ALL PERMIT AND INSPECTION FEES.
- AT THE COMPLETION OF THE PROJECT THE CONTRACTOR IS RESPONSIBLE TO PROVIDE A SET OF PRINTS CLEARLY MARKED, DEPICTING ALL AS-BUILT CONDITIONS TO THE ENGINEER FOR RECORD.
- CONTRACTOR SHALL PAY SPECIAL ATTENTION TO OWNER EQUIPMENT, FURNITURE, AND CARPETING TO PREVENT CONTAMINATION BY COVERING AND WRAPPING FURNITURE AND EQUIPMENT. ALL WASTE AND DEBRIS SHALL BE REMOVED AT THE END OF EACH DAY TO MAINTAIN ACCEPTABLE INDOOR AIR QUALITY LEVEL DURING THE CONSTRUCTION.
- ANY PORTION OF EXISTING BUILDING (FLOOR, WALL, CEILING, OR ROOF) THAT IS AFFECTED BY EITHER REMOVAL, RELOCATION OR INSTALLATION OF A NEW EQUIPMENT SHALL BE REPAIRED AND MATCHED FINISHED EXISTING CONDITIONS ACCORDING TO ARCHITECTURAL DRAWINGS OR SPECIFICATIONS.
- WHEREVER DUCT RUNS THROUGH STRUCTURAL ELEMENT SUCH AS BEAM PRECAUTION SHALL BE TAKEN TO COORDINATE WITH OTHER TRADES TO RELOCATE OR TO PROVIDE NECESSARY SLEEVE BEFORE CONCRETE IS BEING POURED.
- SUPPLY 6 COPIES OF SHOP DRAWINGS FOR REVIEW TO ARCHITECT. NO EQUIPMENT IS TO BE ORDERED PRIOR TO THEIR APPROVAL.
- MECHANICAL CONTRACTOR TO PROVIDE TWO (2) COMFORT BALANCE VISITS TO SUIT THE NEEDS OF THE CLIENTS.
- OPENINGS AND DUCT TRAVELING THROUGH FIRE RATED WALL, TENANT DEMISING WALL, MECHANICAL AND ELECTRICAL ROOM, WALL AND FLOOR PARTITION, FLOOR AND ROOF SLAB SHALL BE INSTALLED WITH "B"-FIRE DAMPER.
- COMMERCIAL CONTRACTOR TO PROVIDE CARBON DIOXIDE "CO2" SENSOR TO MONITOR OCCUPIED SPACE AIR QUALITY OF ROOM AIR. THE CONTROL SEQUENCE IS AS FOLLOWS:
 - AIR CONDITIONING UNIT EVAPORATOR FAN TO RUN CONTINUOUSLY WITH CO2 SENSOR INTERCONNECT TO UNIT OUTSIDE AIR, EXHAUST DAMPER AND A/C UNIT COMPRESSOR. A/C UNIT EVAPORATOR INDOOR FAN TO RUN CONTINUOUSLY.
 - PROVIDE HARD WIRE INTERFACE TO INTERLOCK MOTORIZED OUTSIDE AIR, AND EXHAUST DAMPERS TO OPEN, AND ENERGIZE A.C. UNITS COMPRESSOR TO RUN UPON SIGNAL FROM CO2 SPACE SENSOR WHEN SPACE CONDITION AT OR ABOVE 800 P.P.M.
 - MOTORIZED OUTDOOR DAMPERS SHALL CLOSE UPON LEVELS BELOW 500 P.P.M. AND ON SHUTDOWN OF SPACE AIR CONDITIONING UNITS. FOR MULTIPLE SPACE UNITS MOTORIZED DAMPER FRESH AIR SHALL BE LOCATED AT UNITS RETURN AIR PLENUM, INTAKE. CONTRACTOR TO PROVIDE CO2 SENSOR SHOP DRAWING AND CONTROLLER.
- MOTORIZED DAMPERS REQUIRED ON EXHAUST AND OUTDOOR SUPPLY DUCTS THAT WILL AUTOMATICALLY SHUT OFF WHEN THE SYSTEMS OR SPACES SERVED ARE NOT IN USE. PER FBC 2017 - 403.2.4.3 ENERGY CONSERVATION
- H.V.A.C. CONTRACTOR IS RESPONSIBLE FOR PROVIDING A FULLY OPERATIONAL AND BALANCED SYSTEM THAT ADHERES TO ALL APPLICABLE CODES AND REGULATIONS.
- CONTRACTOR TO PROVIDE CERTIFIED TEST AND BALANCE FOR ALL SYSTEMS
- IN CEILINGS BEING USED AS A PLENUM, COMBUSTIBLES OR COMBUSTIBLE CONSTRUCTION SHALL NOT BE ALLOWED.

SPECIFICATION NOTES:

A/C: NEW SPLIT SYSTEM

DUCTWORK:
RIGID - FOIL FACED BACKED FIBERGLASS R=6 AT 1.5", SUPPORTED 48" O.C., AT ALL TURNS, TURNS AND TRANSITIONS. TAPED AND MASTIC SEALED ALL SEAMS.

FLEX- U.L. CLASS ONE AIR DUCT, R6 SUPPORT 48" O.C. PROVIDE SPIN IN COLLARS WITH M.V.D. WHEN ACCESSIBLE OR WITH SCOOP WHEN NOT ACCESSIBLE. THE WRAP INNER LINER TWICE AND TAPE AND MASTIC SEAL OUTER LINER TAKING CARE NOT TO COMPRESS INSULATION.

TYPICAL SUPPLY BRANCH WITH CONICAL TAP, ROUND TO RECTANGULAR TRANSITION TO RECTANGULAR DIFFUSER.

PROVIDE A VOLUME DAMPER ON THE SUPPLY, RETURN AND EXHAUST DUCTWORK ABOVE LAY-IN-CEILING OR AS INDICATED ON PLANS.

ALL DUCT WORK DIMENSIONS ARE INTERIOR DIMENSIONS. ALLOW FOR 2 INCH INSULATION THICKNESS FOR EXTERIOR DIMENSIONS.

EXHAUST:
GALVANIZED RECTANGLE DUCT OR ROUND SNAP LOCK METAL DUCT WILL BE INSTALLED WITH DUCT SUPPORTS AT 48 INCHES ON CENTER, INSULATE WITH R=6 FOIL FACED INSULATION WRAP U.L. AS REQUIRED.

NOTE: ALL FRESH AIR, OUTSIDE MAKE AIR TO BE INSULATED WITH 1.5" DUCT WRAP, PROVIDE COLLARS AT BRANCH TAKE OFF'S.

DIFFUSER: 2X2 DROP IN - METALARE 5800
SIDEWALL - METALARE V4004H W/ O.B.D.

RETURN: METALARE RH

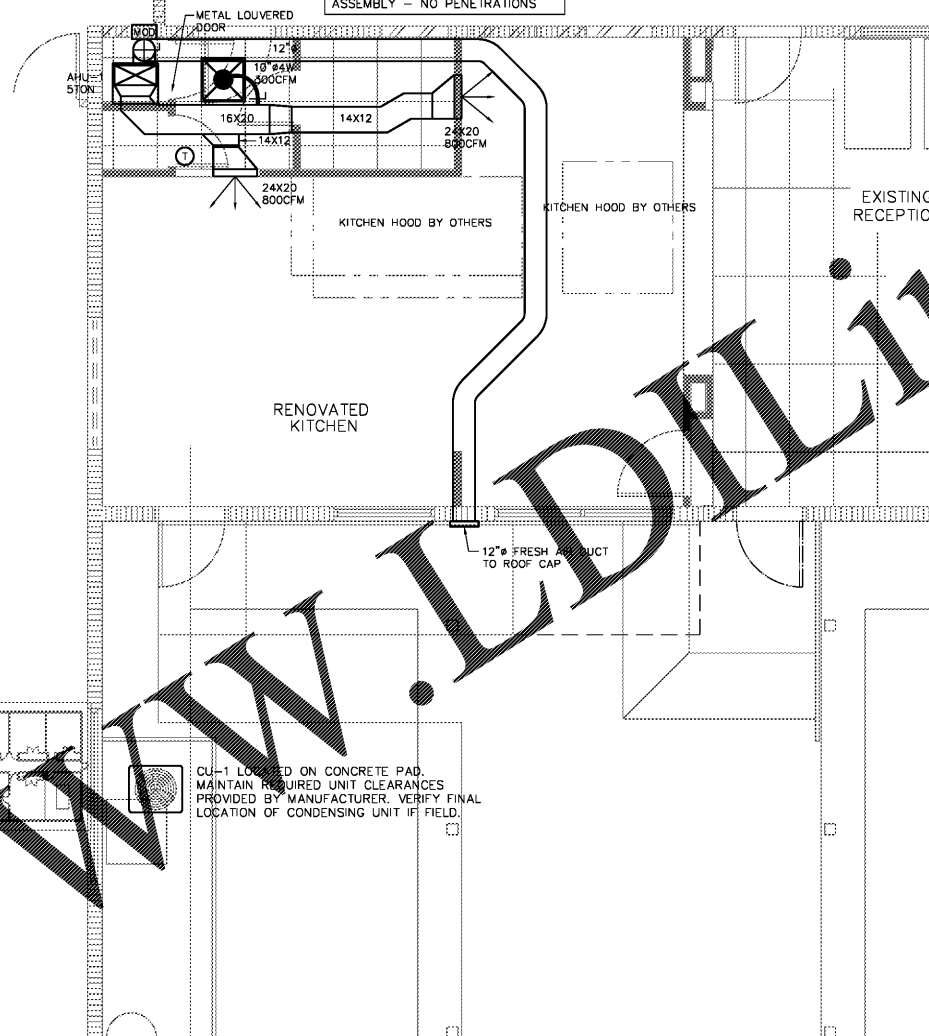
THERMOSTAT: COMMERCIAL 24/7 PROGRAMMABLE

SMOKE DETECTORS:
IONIZATION TYPE CARRIER, BRK. WIRE UNIT FOR SHUTDOWN UPON ACTIVATION. PROVIDE TEST SWITCH, VISUAL AND AUDIBLE ALARM.

AHU/CU SCHEDULE

CARRIER - SPLIT SYSTEM	
TAG	AHU/CU-1
VOLTAGE	208/1/60
TONS	5
EER/SEER	14.5 SEER
COND. MODEL #	24ACC460-3
AHU MODEL #	FX4DNF061
AMBIENT TEMP.	95°F
REFRIGERANT	R-410A
TOTAL CAP. (MBH)	57.5
SENS. CAP. (MBH)	43.6
CONDENSER UNIT	
COMP. QTY./TYPE	1 / SCROLL
COMP. RLA-LRA	20.8 - 124.1
COND. FAN QTY./FLA-HP	1/1.52 - 1/4
DIMENSIONS (L,W,H)	32"x32"x32"
WEIGHT (LBS.)	197
MCA	27.5
MOCP	40
AIR HANDLER	
TOTAL CFM	1890 @ .5"
FAN FLA-BHP	6.0 - 3/4
DIMENSION (L,W,H)	22"x25"x59"
WEIGHT (LBS.)	201
ELECT. HEAT KW	10.0
MCA	53.8
MOCP	60
SUCTION (IN. OD)***	1-1/8
LIQUID (IN. OD)***	3/8
SCHEDULE NOTES:	
1) ENTERING AIR CONDITIONS: 80DBF/67WBF.	
2) PROVIDE FIELD INSTALLED ELECTRIC HEAT WITH DISCONNECT.	

ALL NEW DUCTWORK IS TO BE RUN BELOW THE FIRE RATED CEILING ASSEMBLY - NO PENETRATIONS



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

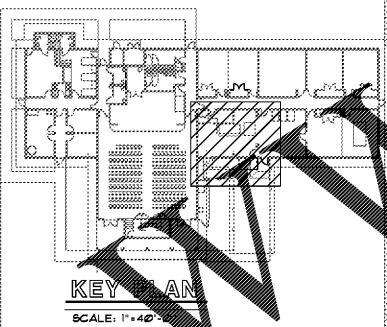
KITCHEN BALANCE

KITCHEN EXHAUST AREA: 567 SF
(567SF X 0.7CFM/SF) = -396.9 CFM

TOTAL KITCHEN EXHAUST REQUIRED = -396.9
TOTAL KITCHEN EXHAUST PROVIDED (HOOD#1&2) = -3,848 CFM
TOTAL HOOD MAU (HOOD#1&2) = +3,078 CFM
TOTAL HOOD BALANCE (HOOD#1&2) = -770 CFM

TOTAL FRESH AIR PROVIDED (AHU-1) = +400 CFM

TOTAL KITCHEN BALANCE = -370 CFM

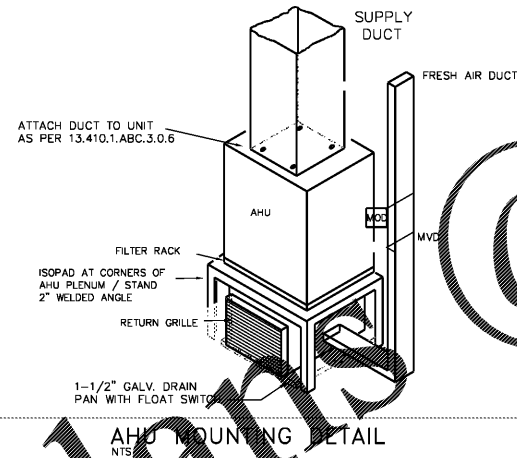


SITE VISIT

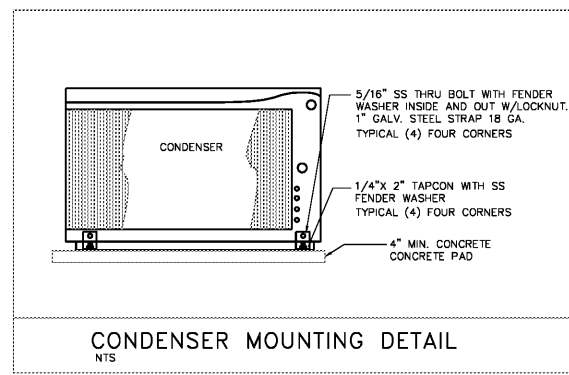
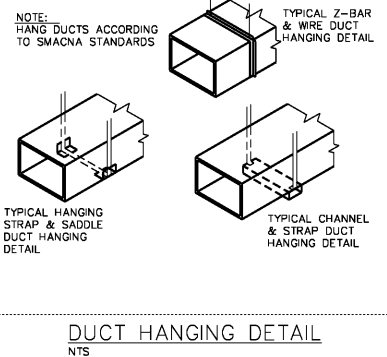
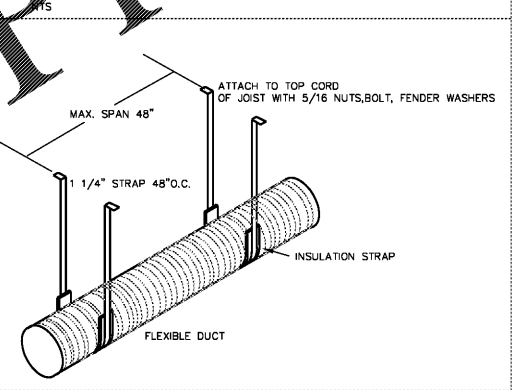
- MECHANICAL CONTRACTOR IS DULY REQUIRED TO VISIT PROJECT SITE AND VERIFY EXISTING CONDITIONS PRIOR TO SUBMITTING BIDS. HE OR SHE SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCY AT ONCE. FAILURE TO DO SO, THE MECHANICAL CONTRACTOR IS PROCEEDING AT HIS OWN RISK.
- DESIGN THAT IS CALLED FOR NEW DUCT OR PIPING TO BE CONNECTED TO EXISTING SYSTEM REQUIRES THE CONTRACTOR TO VERIFY EXISTING DUCT & PIPING SIZE BEFORE FABRICATION AND INSTALLATION.
- WHENEVER INTERFERENCE OR CONFLICT OCCURS WITH THE PROPOSED DESIGN, BEFORE PROCEEDING TO ANY CHANGE OR DEVIATION FROM THE EXISTING BID, THE CONTRACTOR SHALL SUBMIT A WRITTEN REQUEST FOR THE CHANGE INCLUDING A DETAILED DRAWING FOR APPROVAL FROM ARCHITECT/ENGINEER.
- CONTRACTOR SHALL CONSULT WITH STRUCTURAL ENGINEER WHEN CUTTING OR MAKING OPENING IN ANY BUILDING COMPONENT. CONTRACTOR SHALL VERIFY THAT STRUCTURAL INTEGRITY OF THE BUILDING IS NOT BEING COMPROMISED.
- POST TENSION STRUCTURAL SLAB: NO CUTTING OR DRILLING SHALL BE TAKEN PLACE WITHOUT THE X-RAY OF THE SLAB AND THE WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER OF THE BUILDING.

EXISTING HVAC SYSTEM

- MECHANICAL CONTRACTOR MUST CHANGE THE AIR FILTER IN ALL WORKING AIR CONDITIONING UNIT DURING CONSTRUCTION EVERY 21 DAYS OR LESS DEPENDING ON THE AMBIENT ENVIRONMENT TO PREVENT AIR CONTAMINATION, EQUIPMENT FAILURE SUCH AS BEARING FAILURE, DAMPER MALFUNCTION, ETC...
- AFTER CONSTRUCTION MECHANICAL CONTRACTOR IS TO VACUUM THOROUGHLY THE MECHANICAL ROOM TO REMOVE ALL DUSTY PARTICLES, INSPECT AND REPLACE AIR FILTERS, BEARINGS OR BELTS FOR OPTIMAL UNIT OPERATION.
- WHEN REUSING EXISTING AIR CONDITIONING THE CONTRACTOR MUST CLEAN THE COILING AND THE CONDENSER COILS, CHECK AND ADJUST REFRIGERANT CHARGE TO ENSURE PROPER UNIT FUNCTION, VERIFY THE EXISTING CONDENSATE PIPING IS IN GOOD WORKING CONDITION, AND MAKE NECESSARY REPAIR. CONTRACTOR SHALL CHECK ALL ELECTRICAL COMPONENTS, TIGHTEN ALL ELECTRICAL CONNECTIONS FOR PROPER OPERATION.
- DETERIORATED DUCTWORK AND CEILING INSULATION SHALL BE REPLACED. ALL EXISTING DUCTWORK SHALL BE THOROUGHLY INSPECTED AND REPAIRED REMOVED EQUIPMENT THAT IS NOT BEING USED SHALL BE RETURNED TO THE OWNER.
- ANY EQUIPMENT THAT WAS TEMPORARILY DISCONNECTED WITH RESPECT TO REMOVAL OF ANY OTHER DEVICE IT SHALL BE RECONNECTED TO THE EXISTING SYSTEM AND VERIFIED THAT IT IS FULLY OPERATIONAL.
- CONTRACTOR SHALL VERIFY EXISTING AIR CONDITIONING AND PLUMBING SYSTEMS FUNCTIONING PROPERLY, ITS PERFORMANCE RANGE WITH RESPECT TO ITS VOLUME CAPACITY.
- EQUIPMENT THAT IS LOCATED EXTERIOR OF THE BUILDING SHALL BE PROPERLY TIED DOWN AND BE ABLE TO WITHSTAND A 100 MPH WIND.



ROUND FLEX DUCT HANGING DETAIL



H.V.A.C. LEGEND

- EXISTING (RIGID DUCT) == == ==
- EXISTING (RIGID DUCT REMOVED) --- --- ---
- NEW (RIGID DUCT) ——— ——— ———
- EXISTING FLEX
- EXISTING FLEX TO BE REMOVED
- NEW FLEX TO MATCH EXISTING WITH SPIN COLLARS/M.V.D.
- NEW OR RELOCATED DIFFUSER
- EXISTING DIFFUSER
- NEW OR RELOCATED RETURN AIR GRILLE
- EXISTING RETURN AIR GRILLE
- DIFFUSER TO BE RELOCATED/REMOVED
- RETURN TO BE REMOVED/RELOCATED
- NEW OR RELOCATED EXHAUST FAN
- NEW OR RELOCATED EXHAUST GRILLE
- LINEAR GRILLE (EXISTING)
- LINEAR GRILLE (NEW)
- SPIN IN COLLAR W/M.V.D.
- SMOKE DETECTOR
- THERMOSTAT
- TEST SWITCH
- TRANSFER GRILLE
- SIDE WALL DIFFUSER
- RETURN AIR FIRE DAMPER (EXIST.)
- RETURN AIR FIRE DAMPER (NEW)
- FIRE DAMPER (NEW)
- FIRE DAMPER (EXIST)
- COLD WATER RETURN
- COLD WATER SUPPLY
- CO2 SENSOR -SUBMIT SHOP DWGS PROVIDE SENSOR & CONTROLLER
- MOTORIZED DAMPER
- EXISTING TO REMAIN THE SAME
- RETURN AIR GRILLE
- FIRE DAMPER
- RETURN AIR FIRE DAMPER
- EXHAUST FAN
- LINEAR DIFFUSER
- LINEAR RETURN
- REMOVE
- RELOCATE
- EXISTING
- NEW

NOTE: SOME ITEMS MAY NOT BE USED IN THE DRAWING

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THE SEMINOLE TRIBE OF FLORIDA
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