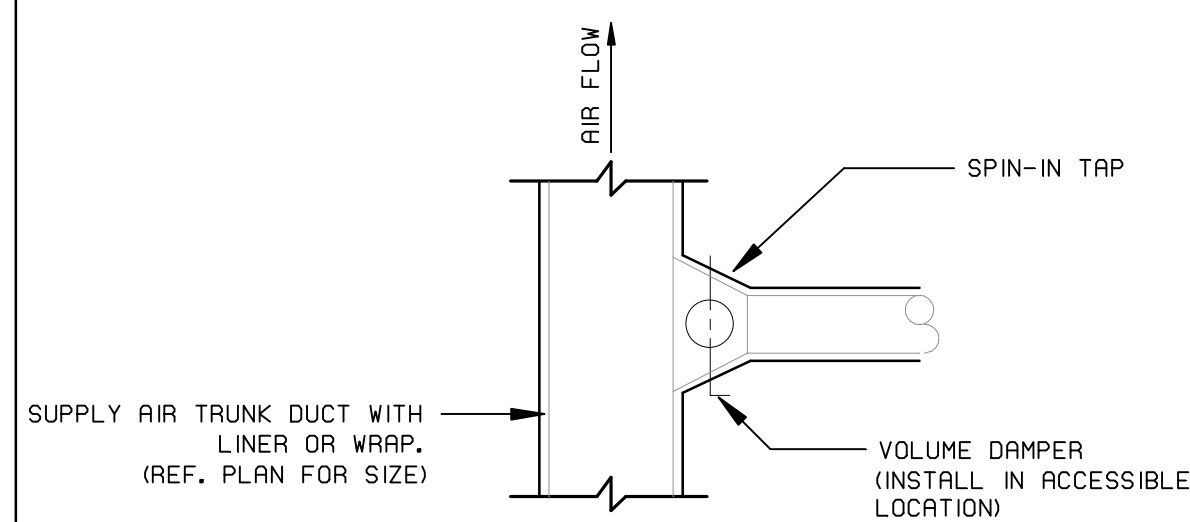


GENERAL NOTES:

- THE MECHANICAL CONTRACTOR SHALL VERIFY THAT ALL EQUIPMENT, AS SHOWN ON THESE DRAWINGS, WILL NOT CONFLICT WITH ANY DRAINS, SCUTTLES, JOINTS, VENTS, PIPING OR EQUIPMENT.
- ALL ROOFTOP EQUIPMENT SHALL HAVE MANUFACTURER SUPPLIED ROOF CURBS AND PIPE SEALS.
- THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ADMINISTERING ALL WARRANTIES ON EQUIPMENT WHICH HE INSTALLS. THIS INCLUDES, BUT IS NOT LIMITED TO REFRIGERANT LINES, ETC.
- ALL OUTSIDE AIR INTAKES SHALL BE A MINIMUM OF 10'-0" FROM ANY EXHAUST FANS OR PLUMBING VENT.
- PROVIDE VIBRATION ISOLATION DEVICES AND FLEXIBLE CONNECTIONS TO ALL MOVING MACHINERY.
- ALL FLEXIBLE DUCTS SHALL BE SUPPORTED EVERY 3'-0" WITH 2" WIDE GALV. STEEL BANDS WITH A MINIMUM OF ONE PER EACH SECTION OF FLEXIBLE DUCT. THE MAXIMUM ALLOWABLE LENGTH OF THE FLEX DUCT SHALL BE 5'-0".
- NO FLEXIBLE DUCTWORK SHALL BE ALLOWED ABOVE INACCESSIBLE CEILINGS.
- ALL DUCT DIMENSIONS SHOWN ON DRAWINGS ARE CLEAR INSIDE DIMENSIONS. NO ALLOWANCE MADE FOR LINER OR WRAP.
- THE MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE GENERAL CONTRACTOR AND OTHER TRADES, ALL REQUIRED OPENINGS AND EXCAVATIONS. ALL REQUIRED OPENINGS IN FOUNDATIONS, FLOORS, WALLS AND ROOF SHALL BE CONSTRUCTED INTO THE STRUCTURE WITH THE USE OF SLEEVES, CURBS, ETC. CUTTING AND PATCHING SHALL BE HELD TO A MINIMUM.
- ALL ITEMS PROJECTING THROUGH ROOFS SHALL BE FLASHED THROUGH CURBS OR PIPE SEALS A MINIMUM OF 12" ABOVE THE ROOF. THE PIPE CURBS AND SEALS SHALL BE SUPPLIED BY THE MECHANICAL CONTRACTOR AND INSTALLED BY THE ROOFING CONTRACTOR. INSURE THAT AMPLE BOOT OPENINGS ARE PROVIDED TO ACCOMMODATE ANY ELECTRICAL CONDUIT PENETRATIONS REQUIRED.
- ALL SUPPLY AND RETURN AIR DEVICES SHALL BE PAINTED AS REQUIRED BY THE OWNER.

MECHANICAL SPECIFICATIONS:

- ALL WORK TO BE PERFORMED IN STRICT COMPLIANCE WITH ALL APPLICABLE STATE AND LOCAL CODES AND ORDINANCES INCLUDING OSHA REGULATIONS. IN CASE OF CONFLICT BETWEEN THE DRAWINGS/SPECIFICATIONS AND THE CODES AND ORDINANCES, THE HIGHEST STANDARD SHALL APPLY.
- THE HVAC DRAWINGS ARE DIAGRAMMATIC AND ARE NOT TO BE SCALED. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATIONS IN THE FIELD.
- ALL MATERIALS AND WORKMANSHIP PROVIDED SHALL BE WARRANTED FOR A PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE BY THE OWNER. ALL DEFECTS SHALL BE CORRECTED AT NO ADDITIONAL COST TO THE OWNER.
- ALL DUCTWORK TO BE RIGID SHEET METAL CONSTRUCTED FROM GALVANIZED SHEET STEEL IN ACCORDANCE WITH "SMACNA" LOW VELOCITY DUCT CONSTRUCTION STANDARDS.
- ANY CHANGES IN DUCT SIZES NECESSARY TO CLEAR/ACCOMMODATE OBSTRUCTIONS SHALL CORRESPOND TO THE EQUIVALENT ROUND OF THE SPECIFIED DUCT SIZE. GRADUAL TRANSFORMATION DUCTWORK SHALL BE PROVIDED AS NEEDED.
- PROVIDE EXTERNAL THERMAL INSULATION/GLASS FIBER DUCT LINER AS NECESSARY.
- SEAL LONGITUDINAL AND TRANSVERSE JOINTS WITH A NON-HARDENING, NONMIGRATING MASTIC OR LIQUID ELASTIC SEALANT OF A TYPE RECOMMENDED BY THE MANUFACTURER FOR SEALING JOINTS AND SEAMS IN SHEET METAL DUCTWORK.
- PROVIDE HOT-DIPPED GALVANIZED STEEL, FASTENERS, ANCHORS, RODS, STRAPS, TRIM AND ANGLES FOR SUPPORT OF DUCTWORK.
- PROVIDE SMOKE DETECTORS AS NECESSARY AND AS REQUIRED BY STATE AND LOCAL CODES.
- 24 VOLT PROGRAMMABLE THERMOSTATS TO BE FURNISHED WITH EACH UNIT AND INSTALLED IN LOCATIONS AS INDICATED BY THE OWNER.



DETAIL SPIN-IN TAP DETAIL
SCALE: NONE

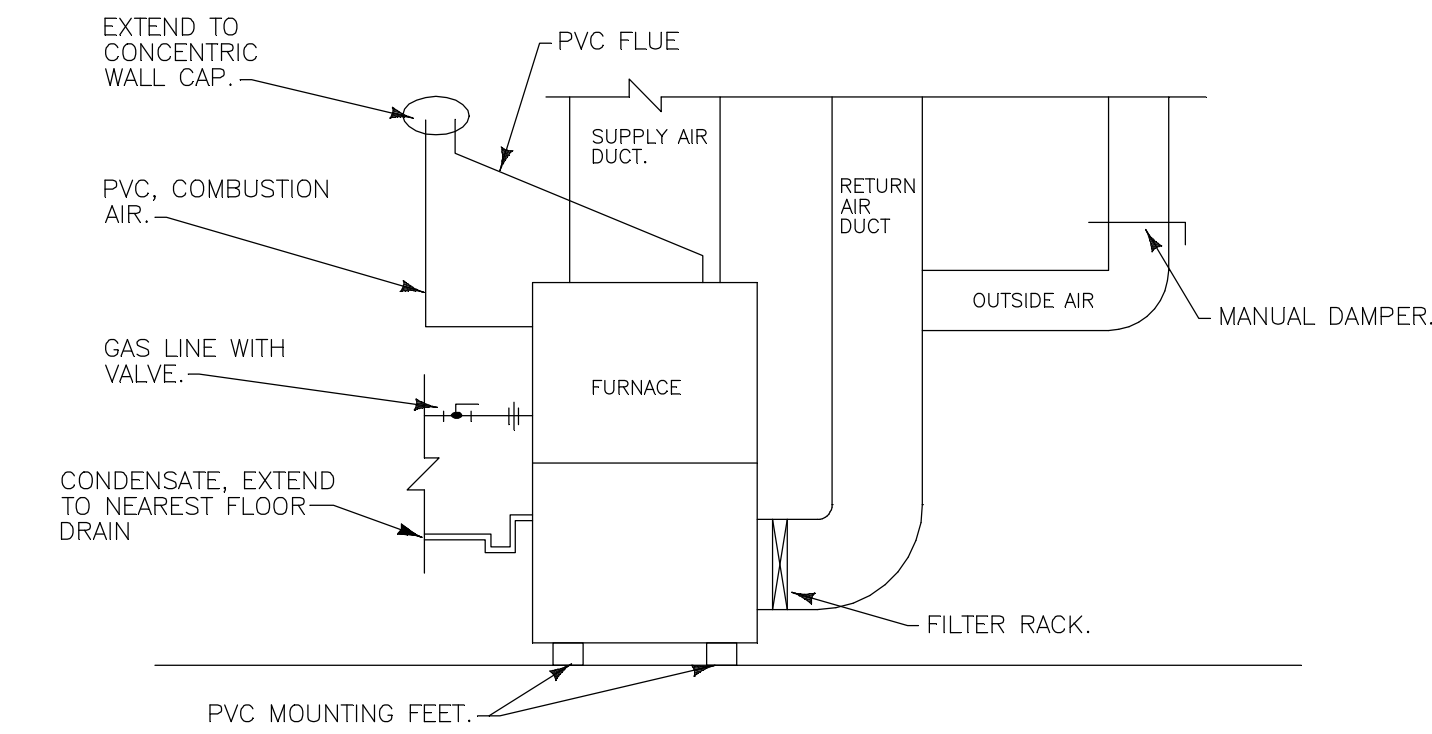
MECHANICAL SYMBOLS	
	= VOLUME DAMPER.
	= FLEX DUCT.
	= RIGID DUCT.
	= SQUARE DIFFUSER, TAG, CFM.
	= ROUND DIFFUSER, TAG, CFM.
	= RETURN GRILLE, TAG, CFM.
	= EXHAUST GRILLE.

AIR DISTRIBUTION										
MARK	MFG'R	MODEL	FLOW RATE CFM	CORE VEL. FPM	N.C. LEVEL	MODULE SIZE	NECK SIZE	MOUNTING TYPE	DESCRIPTION	NOTES
CFM CD-1	PRICE	SCD 31	SEE PLANS	500 MAX.	20 MAX.	12X12	SEE PLANS	LAY-IN	4-WAY FIXED LOUVER CLG. DIFFUSER	
CFM RG-1	PRICE	80 TB	SEE PLANS	500 MAX.	20 MAX.	24x24	SEE PLANS	LAY-IN	EGGCRATE RETURN GRILLE	

GENERAL NOTES:
 1. PROVIDE ALL AIR DEVICES WITH DAMPERS TO AID IN AIR BALANCING.
 2. PROVIDE ALL AIR DEVICES WITH WHITE FACTORY FINISH
 3. PROVIDE MOUNTING FRAMES FOR ALL AIR DEVICES MOUNTED IN GYPBOARD CEILINGS.

SPECIFIC PLAN NOTES

- LOCATE OUTDOOR CONDENSING UNITS AT THIS SIDE OF BUILDING. USE PRE-INSTALLED LINESETS. COORDINATE ELECTRICAL REQUIREMENTS AND REFRIGERANT LINE SIZING.
- PROVIDE 200 CFM FRESH AIR PIPING FOR EACH UNIT. REFER TO TYPICAL FURNACE DETAIL ON THIS SHEET.
- PROVIDE CONCRETE HOUSEKEEPING PAD A MINIMUM OF 6" LARGER THAN OUTDOOR UNIT IN EACH DIRECTION FOR MOUNTING.
- GREENHECK MODEL SPA-150 CEILING MOUNTED 150 CFM EXHAUST FAN. EXHAUST FAN TO BE INTERCONNECTED AND POWERED WITH LIGHT.
- PIPE EXHAUST FAN TO SIDEWALL AND INSTALL SIDEWALL VENT TO MATCH BUILDING.
- CONTRACTOR SHALL CONNECT EXISTING DUCTWORK FROM PHASE I & II CONSTRUCTION TO NEW FURNACE F-2. PROVIDE NEW FURNACE AND CONDENSOR TO MATCH EXISTING SIZE & CAPACITY.
- INSTALL 7-DAY PROGRAMMABLE THERMOSTAT WITH AUTOMATIC HEATING/COOLING CHANGEOVER WITH SEPARATE TEMPERATURE SET POINTS AND A MINIMUM 5°F DEADBAND.
- PROVIDE NEW F-1 FURNACE AND CONDENSING UNIT. CONNECT ALL ASSOCIATED FRESH AIR, CONDENSATE, ELECTRICAL, & GAS PIPING AS REQUIRED FOR COMPLETE INSTALLATION.



Typ. Furnace Detail

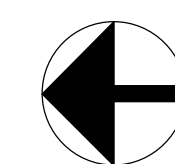
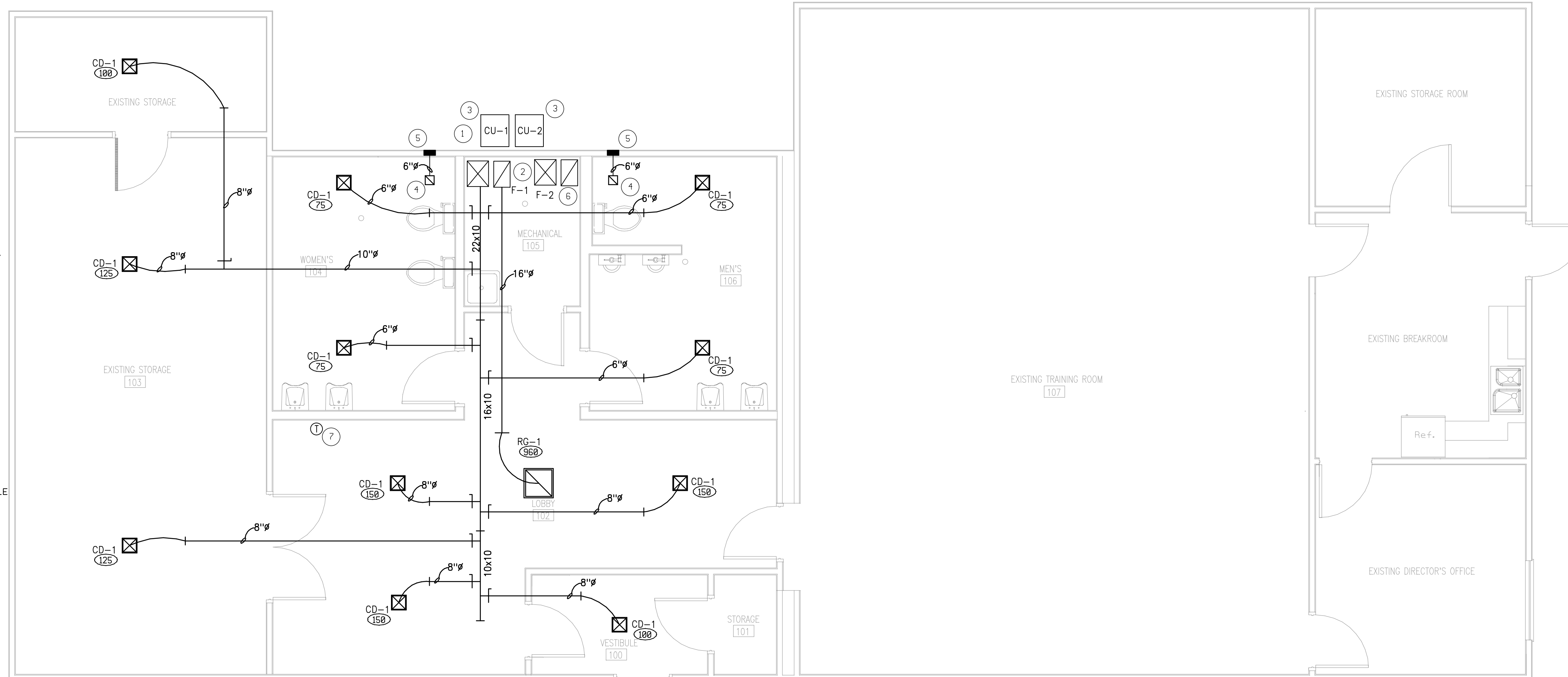
Not To Scale

AIR HANDLING UNIT SCHEDULE																			
GENERAL DATA			AIR HANDLING DATA				COOLING DATA				HEATING DATA				REMARKS				
TAG	MANUF.	MODEL	TOTAL CFM	O.A. VENTILATION MAX (CFM)	TOTAL STATIC PRESSURE IN WATER COLUMN	HP	RPM	BHP	EDB DEG. F	EWB DEG. F	LDB DEG. F	LWB DEG. F	TOTAL SENS. MBH	TOTAL TYPE		EFF	ELECTRIC	AREA SERVED	
F-1	TRANE	TUX1D120A9H51B	1200	200	0.50	1	HI	-	78	65	56	55	60	44	100	GAS	95	115/60/1	FIRST FLOOR NORTH

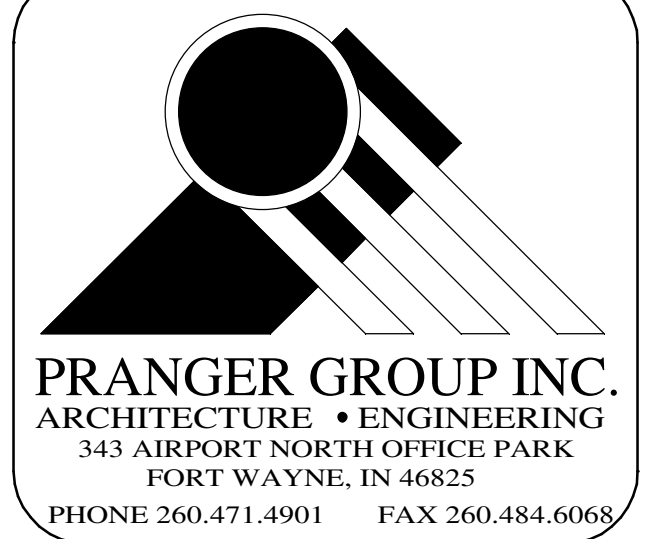
NOTES:
 1. UPFLOW CONDENSING FURNACE WITH DIRECT VENT. WALL MOUNTED DIGITAL PROGRAMMABLE THERMOSTAT W/LCD DISPLAY, CASED COOLING COIL, PERFECT FIT FILTER HOUSING WITH STANDARD EFFICIENCY FILTERS. INSTALL FLUE AND INTAKE PER MANUFACTURERS RECOMMENDATIONS.

AIR-COOLED CONDENSER SCHEDULE										
TAG	MANUFACTURER	MODEL	SIZE	ELECTRICAL VOLTS	NET MBH	# OF CIRCUITS	TOTAL # OF COMPRESSORS	MIN. SEER	REMARKS	NOTES
CU-1	TRANE	4TA4036A1	036	208/1/60	60.0	1	1	14		1,2,3,4

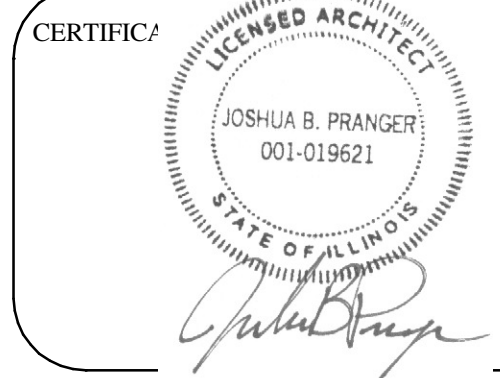
NOTES:
 1. R-410A REFRIGERANT
 2. CONNECTED TO AHU W/ REFRIGERANT LINES SIZED PER MANUFACTURERS RECOMMENDATIONS
 3. EVAPORATOR DEFROST CONTROL (30°F)
 4. CIRCUIT BREAKER DISCONNECT



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



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Remodel for:
Mobile Law Enforcement Center
 3121 Dewitt Avenue
 Mattoon, Illinois

REVISION DATE BY
 03-22-19 BID SET

DATE PROJECT NO.
 03-05-19 5884

SHEET TITLE
Mechanical Plan

SHEET NO.
M2-1