

HVAC LEGEND & ABBREVIATIONS	
	SUPPLY DIFFUSER
	RETURN GRILLE
	SUPPLY REGISTER
	AIR DISTRIBUTION TAG
	TEMPERATURE SENSOR
	MANUAL VOLUME DAMPER
	FLEXDUCT RUNOUT
	SPIN-IN W/DAMPER
	EXHAUST FAN
	FURNACE UNIT
	CONDENSING UNIT
	FIRE DAMPER
	SPLITTER DAMPER

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

- MECHANICAL NOTES**
- PROVIDE COMPLETE HVAC SYSTEMS TO MEET ALL CODES. HVAC SUBCONTRACTOR IS RESPONSIBLE FOR SUBMITTING A TOTALLY INCLUSIVE BID WHICH COVERS ALL WORK NECESSARY TO MEET ALL CODES WHETHER SHOWN ON DRAWING OR NOT.
 - ALL MECHANICAL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND LOCAL CODES.
 - ALL WORK TO CONFORM TO INDUSTRY STANDARDS AND ALL FEDERAL, STATE AND LOCAL CODES AND REGULATIONS.
 - PROVIDE OWNER WITH ONE (1) YEAR SERVICE AND ONE (1) YEAR GUARANTEE ON ALL EQUIPMENT AND A FIVE (5) YEAR GUARANTEE ON THE AIR CONDITIONING COMPRESSORS.
 - COORDINATE WITH ALL OTHER TRADES BEFORE STARTING INSTALLATION. MAKE NECESSARY VARIATIONS AT THAT TIME TO FIT INTO SPACE CONDITIONS AT NO EXTRA COST TO THE OWNER.
 - HVAC SUBCONTRACTOR TO COORDINATE WITH ELECTRICAL SUBCONTRACTOR PRIOR TO STARTING ANY WORK OR ORDERING ANY MATERIALS TO INSURE COMPLETE COMPATIBILITY WITH ELECTRICAL SYSTEMS AND COMPLIANCE WITH ALL CODES. MECHANICAL SUBCONTRACTOR SHOULD VERIFY VOLTAGES, WIRE SIZES AND BREAKER SIZES AS PART OF THE COORDINATION.
 - OBTAINING ALL REQUIRED PERMITS AND PAYING ALL ASSOCIATED FEES ARE THE RESPONSIBILITY OF THE CONTRACTOR.
 - ALL CONTROL WIRING SHALL BE RUN INSIDE WALLS OR ABOVE CEILINGS. IN UNFINISHED AREAS, ROUTE CONTROL WIRING INSIDE CONDUIT IN JOIST SPACE.
 - LOCATION OF ALL PENETRATIONS SHALL BE COORDINATED WITH ARCHITECTURAL AND STRUCTURAL DRAWINGS.
 - ALL FANS 1/8 H.P. AND ABOVE SHALL HAVE FUSED DISCONNECT SWITCHES MOUNTED AT THE FAN. IF APPROVED BY LOCAL AUTHORITIES, NON-FUSED DISCONNECT SWITCHES MAY BE USED. DISCONNECTS PROVIDED BY ELECTRICAL CONTRACTOR.
 - SMOKE DETECTORS SHALL BE LOCATED IN THE SUPPLY AIR STREAM OF ALL UNITS OVER 2000 CFM.
 - REFRIGERANT PIPING FOR ALL SPLIT SYSTEMS SHALL BE TYPE "L" COPPER CAPPED AT EACH END TO PREVENT CONTAMINATION. SIZE SHALL BE MADE AS REQUIRED. HOWEVER, SPECIFIED SIZE AND PIPING SHALL BE IN ACCORDANCE WITH SCHEDULES AND/OR MANUFACTURER'S RECOMMENDATIONS, WHICHEVER IS GREATER. INSULATE SUCTION LINES WITH 1/2" THICK ARMA-FLEX INSULATION.
 - CONDENSATE DRAIN PIPING TO BE P.V.C. SCHEDULE 40. INSULATE WITH ARMA-FLEX INSULATION. ROUTE CONDENSATE FROM FAN COIL UNITS TO EXTERIOR OF BUILDING.
 - NOT USED.
 - GREASE AND OIL ALL EQUIPMENT AS REQUIRED AND REPLACE ALL FILTERS BEFORE TURNING JOB OVER TO OWNER.
 - THE MECHANICAL DRAWINGS ARE DIAGRAMATIC AND SHOW THE RELATIONSHIP BETWEEN EQUIPMENT AND CONNECTIONS. DO NOT SCALE THE DRAWINGS FOR EXACT SIZE OR LOCATIONS. BUILDING DIMENSIONS SHALL BE TAKEN FROM ARCH. PLANS AND EQUIPMENT DIMENSIONS SHALL BE TAKEN FROM CERTIFIED EQUIPMENT DATA.
 - A CERTIFIED TEST AND BALANCE REPORT BY AN AGENCY OR COMPANY OTHER THAN THE INSTALLER IS TO BE PROVIDED WITH A FOLLOW-UP REPORT ONCE ADJUSTMENTS ARE MADE.
 - FAN COIL UNITS SHALL BE COMPLETE WITH AIR FILTER AND FILTER FRAME. PROVIDE AUXILIARY DRAIN UNDER AIR HANDLING UNIT AND FURNISH AND INSTALL A FLOAT SWITCH IN PAN TO SHUT DOWN FAN IN THE EVENT OF CONDENSATE OVERFLOW.
 - DUCT SIZES ARE SHOWN AS CLEAR INSIDE DIMENSIONS. PROVIDE FLEXIBLE CONNECTIONS WHERE DUCTS CONNECT TO UNIT.
 - DUCTWORK SHALL BE FURNISHED AND INSTALLED IN SIZES AND LAYOUT AS SHOWN. DUCT DIMENSIONS SHOWN ARE CLEAR INSIDE DIMENSIONS. DUCTWORK SHALL BE CONSTRUCTED OF EXTERNALLY WRAPPED GALVANIZED SHEET METAL. FLEXIBLE AIR DUCT CONNECTORS SHALL NOT EXCEED 6 FEET IN LENGTH. ALL DUCTWORK SHALL BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE LATEST EDITION OF SMACNA AND HAVE A MINIMUM FLAME SPREAD RATING OF NOT OVER 25 AND A SMOKE DEVELOPMENT RATING NOT OVER 50. DUCT HANGER AND SUPPORTS SHALL BE IN ACCORDANCE WITH SMACNA RECOMMENDATIONS.
 - SPLITTER OR BALANCING DAMPERS WHERE SHOWN, SHALL BE OF SUFFICIENT GAUGE TO PREVENT BUCKLING OR VIBRATING, AND SHALL BE OPERATED BY A QUADRANT DAMPER ADJUSTER WITH LOCKING FEATURE WHICH WILL HOLD DAMPER SECURELY IN POSITION AT THE DESIRED SETTING.
 - REGISTERS, DIFFUSERS AND GRILLES SHALL BE FURNISHED AND INSTALLED IN SIZES AND AT LOCATIONS AS SHOWN ON DRAWINGS. ALL OUTLETS SHALL BE INSTALLED PLUMB AND LEVEL AND PARALLEL TO THE BUILDING WALLS OR FLOORS. CEILING DIFFUSERS AND GRILLES SHALL BE AS SCHEDULED, OR APPROVED EQUAL, ALL ALUMINUM CONSTRUCTION.
 - PROVIDE OPERATING MAINTENANCE MANUAL FOR FURNISHED EQUIPMENT.
 - PROVIDE PROGRAMMABLE THERMOSTATS. MOUNT ALL THERMOSTATS 48" A.F.F. UNLESS NOTED OTHERWISE. ANY THERMOSTAT LOCATED ON AN EXTERIOR WALL SHALL BE MOUNTED ON AN INSULATING BASE. ALL CONTROL WIRING SHALL BE RUN INSIDE WALLS OR ABOVE CEILINGS.
 - PROVIDE FIRE DAMPERS AT ALL PENETRATIONS THRU RATED CONSTRUCTIONS.
 - PLANS AND SKETCHES ARE SUBMITTED TO LIMIT. EXPLAIN AND DEFINE CONDITIONS, SPECIFIED REQUIREMENTS, PIPE SIZES AND MANNER OF ERECTING WORK. STRUCTURAL OR OTHER CONDITIONS MAY REQUIRE CERTAIN MODIFICATIONS FROM THE DESIGN SHOWN. REQUIREMENTS NECESSARY FOR SATISFACTORY OPERATION SHALL REMAIN UNCHANGED. IT MAY BE NECESSARY TO SHIFT PIPES AND THESE CHANGES SHALL BE MADE AS REQUIRED. ALL SUCH CHANGES OR DESIGN MODIFICATIONS SHALL BE REFERRED TO THE ARCHITECT FOR APPROVAL BEFORE PROCEEDING. EXTRA CHARGES SHALL NOT BE ALLOWED FOR THESE CHANGES. THE SUBCONTRACTOR SHALL REALIZE THAT THE DRAWINGS COULD NOT DELVE INTO EVERY STEP, SEQUENCE OR OPERATION NECESSARY FOR THE COMPLETION OF THE PROJECT WITHOUT DRAWING ON THE SUBCONTRACTOR'S EXPERIENCE OR INGENUITY. HOWEVER, ONLY TYPICAL LAYOUT IS SHOWN ON THE PLANS. IN CASES WHERE THE SUBCONTRACTOR IS NOT CERTAIN ABOUT THE METHOD OF INSTALLATION OF HIS WORK, HE SHALL CONSULT WITH THE ARCHITECT. LACK OF DETAILS SHALL NOT BE AN EXCUSE FOR IMPROPER INSTALLATION. IN GENERAL THE DRAWINGS ARE DIAGRAMMATIC AND THE SUBCONTRACTOR SHALL INSTALL HIS WORK IN SUCH MANNER SO THAT INTERFERENCES BETWEEN THE VARIOUS TRADES IS AVOIDED. IN CASES WHERE INTERFERENCES DO OCCUR, THE ARCHITECT IS TO STATE WHICH EQUIPMENT, PIPING, ETC. IS TO BE RELOCATED REGARDLESS OF WHICH ITEM WAS INSTALLED FIRST.
 - SPIN-IN TAKE-OFF TO BE MADE WITH GENFLEX MODEL SM-1 DEL OR EQUIVALENT.

AIR CONDITIONING UNIT SCHEDULE										
GAS FURNACE						CONDENSING UNIT				OUTSIDE AIR
MARK	CFM @ 5" ESP	FAN H.P.	INPUT MBH	OUTPUT MBH	MODEL NO. (CARRIER)	MARK	MBH COOLING @95°F AMBIENT	MODEL NO. (CARRIER)	NOTES	
FURN-A	1,800	3/4	100.0	93.0	58MCB100-20	CU-A	56.0	24ABR360	① ② ③	450 CFM

- CONTRACTOR TO RUN REFRIGERANT LINES FROM FURNACES TO CONDENSING UNITS ON GRADE. IF REFRIGERANT RUNS ARE OVER 75 FEET, PROVIDE LONG LINE KITS.
- PROVIDE CONCENTRIC VENTING KIT AND LOW AMBIANT CONTROLLERS.
- APPROVED FURNACE MANUFACTURERS ARE: CARRIER, TRANE, YORK, LENNOX

FAN SCHEDULE								
MARK	CFM	E.S.P. WG	DRIVE	H.P.	TYPE	BASIS OF DESIGN	LOCATION/SERVICE	NOTES
EF-A	75	1/4"	DIRECT	50 W	CABINET	GREENHECK SP-890	TOILET ROOM	① ②

- INTERLOCK WITH LIGHT SWITCH.
- APPROVED EXHAUST FAN MANUFACTURERS ARE: GREENHECK, COOK, PENN

AIR DISTRIBUTION SCHEDULE							
MARK	TYPE	SIZE IN INCHES		FINISH	O.B.D.	BASIS OF DESIGN	NOTES
		NECK	FACE				
A	SUPPLY	6"Ø/8"x6"	10"x8"	OFF-WHITE	NO	TITUS 300RL	① ②
B	SUPPLY	10"Ø/12"x10"	14"x12"	OFF-WHITE	NO	TITUS 300RL	① ②
C	RETURN	22"x22"	24"x24"	OFF-WHITE	NO	TITUS 50F	②

- FLEXDUCT SIZE IS EQUAL TO ROUND NECK SIZE LISTED ON DRAWINGS.
- APPROVED DIFFUSER/RETURN GRILLE MANUFACTURERS ARE: TITUS, CARNES, KRUEGER

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REVISIONS	
5/4/07	RE-ISSUE FOR PERMIT



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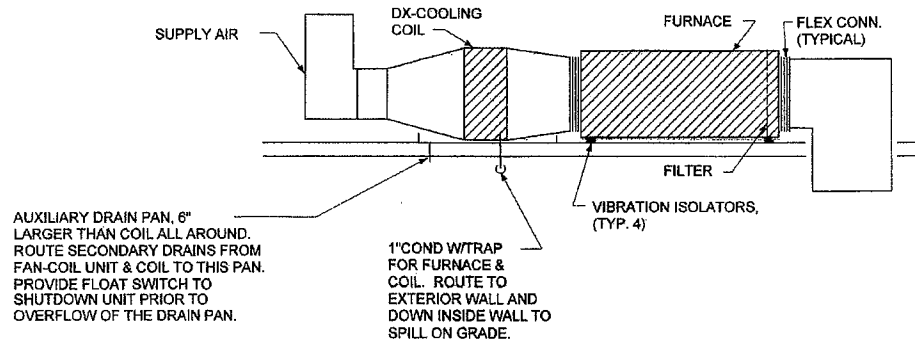
FLOOR PLAN,
SCHEDULES,
& NOTES
- HVAC

JOB NUMBER 07-116
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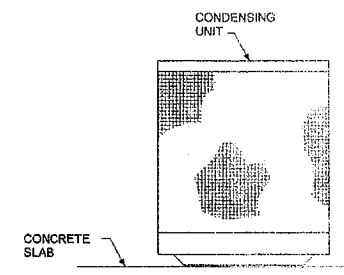
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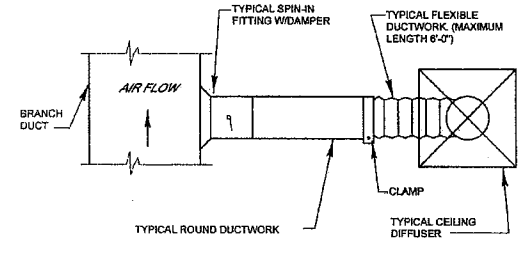
AUXILIARY DRAIN PAN, 6" LARGER THAN COIL ALL AROUND. ROUTE SECONDARY DRAINS FROM FAN-COIL UNIT & COIL TO THIS PAN. PROVIDE FLOAT SWITCH TO SHUTDOWN UNIT PRIOR TO OVERFLOW OF THE DRAIN PAN.

1" COND W/ TRAP FOR FURNACE & COIL. ROUTE TO EXTERIOR WALL AND DOWN INSIDE WALL TO SPILL ON GRADE.

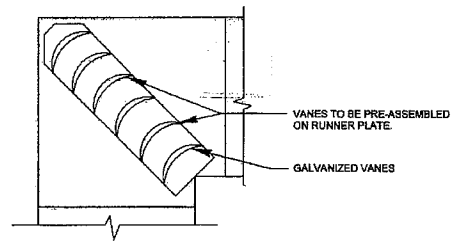
1 HORIZONTAL FURNACE UNIT DETAIL
M21 SCALE NONE



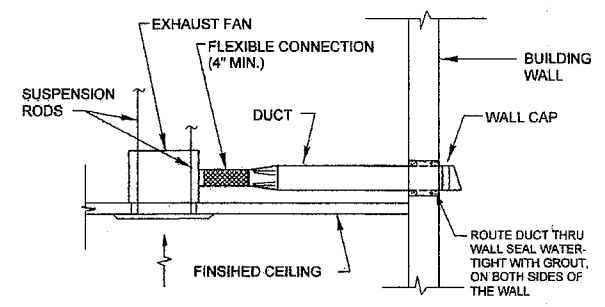
2 CONDENSING UNIT DETAIL
M21 SCALE NONE



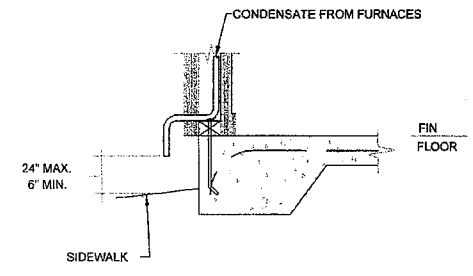
3 FLEXIBLE DUCT TAKE-OFF DETAIL
M21 SCALE NONE



4 DOUBLE THICKNESS TURNING VANES
M21 SCALE NONE



5 EXHAUST FAN THRU THE WALL
M21 SCALE NONE



6 DISCHARGE PIPING TERMINATION DETAIL
M21 SCALE NONE

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DETAILS
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M1.2
OF 2

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