

HVAC & PLUMBING SYMBOL SCHEDULE

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
(E)	REFER TO PLAN NOTES	[111]	ROOM CALLOUT
(E)	EXISTING EQUIPMENT OR MATERIAL DESIGNATION	△	REVISION NUMBER
---	EXISTING COMPONENT PEN WEIGHT	○	CONNECT NEW TO EXISTING. VERIFY EXACT LOCATION.
---	DEMOLITION PEN WEIGHT - COMPONENT MAY ALSO BE SHADED	●	DISCONNECT FROM EXISTING. VERIFY EXACT LOCATION.
T.C.C.	TEMPERATURE CONTROL CONTRACTOR	G.C.	GENERAL CONTRACTOR
E.C.	ELECTRICAL CONTRACTOR	M.C.	MECHANICAL CONTRACTOR
P.C.	PLUMBING CONTRACTOR	TYP.	TYPICAL ALL INSTANCES
24x12	(UP) DUCT SEC., POSITIVE PRESSURE-FIRST SIZE IS TOP DIM.(TYP.)	[Symbol]	BALANCING DAMPER W/ MANUAL LOCKING QUADRANT
24x12	(DOWN) DUCT SECTION, POSITIVE PRESSURE	[Symbol]	RECTANGULAR - OPPOSED BLADE / ROUND - BUTTERFLY
24x12	(UP) DUCT SECTION, NEGATIVE PRESSURE	[Symbol]	BALANCING DAMPER W/ MOTORIZED LOCKING QUADRANT
24x12	(DOWN) DUCT SECTION, NEGATIVE PRESSURE	[Symbol]	RECTANGULAR - OPPOSED BLADE / ROUND - BUTTERFLY
SA	SUPPLY AIR	18x12	DUCT SIZE, FIRST FIGURE IS SIDE SHOWN-CLEAR INSIDE DIM.
OA	OUTSIDE AIR	R	DUCT CHANGE OF ELEVATION RISE(R) DROP(D)
RA	RETURN AIR	[Symbol]	FLEXIBLE CONNECTION
EA	EXHAUST AIR	[Symbol]	SIDE WALL SUPPLY REGISTER
OB	OPPOSED BLADE DAMPER	[Symbol]	TURNING VANES
BOD	BOTTOM OF DUCT ELEVATION ABOVE FLOOR	[Symbol]	HUMIDITY SENSOR
BOS	BOTTOM OF STEEL	[Symbol]	ELECTRIC OR DDC HUMIDISTAT (HSTAT)
TOD	TOP OF DUCT ELEVATION ABOVE FLOOR	[Symbol]	ELECTRIC OR DDC THERMOSTAT (TSTAT)
[Symbol]	DOUBLE CHECK BACKFLOW ASSEMBLY	[Symbol]	BALL VALVE
[Symbol]	REDUCED PRESSURE ZONE BACKFLOW ASSEMBLY	[Symbol]	CALIBRATED BALANCE VALVE - CIRCUIT SETTER
[Symbol]	GAS COCK	[Symbol]	BUTTERFLY VALVE
[Symbol]	VALVE IN DROP	[Symbol]	2-WAY CONTROL VALVE (PNEUMATIC)
[Symbol]	VALVE IN RISER	[Symbol]	3-WAY CONTROL VALVE (PNEUMATIC)
[Symbol]	GATE VALVE / SHUT OFF VALVE	[Symbol]	2-WAY CONTROL VALVE (ELECTRIC)
[Symbol]	GLOBE VALVE	[Symbol]	3-WAY CONTROL VALVE (ELECTRIC)
[Symbol]	3 PIECE BALL VALVE	[Symbol]	CHECK VALVE
[Symbol]	HYDRAULIC VALVE	[Symbol]	PRESSURE REDUCING VALVE (PRV)
[Symbol]	EMERGENCY VALVE WITH FIRE LINK	[Symbol]	WAFER CHECK VALVE
[Symbol]	STRAINER	[Symbol]	AUTOMATIC FLOW CONTROL VALVE
[Symbol]	PLUG VALVE	[Symbol]	CALIBRATED ORIFICE PLATE FLOW METER
[Symbol]	SPRING HANGER	[Symbol]	THERMOMETER
[Symbol]	PIPE HANGER	[Symbol]	PRESSURE GAUGE
[Symbol]	CAP	[Symbol]	CONCENTRIC REDUCER OR INCREASER
[Symbol]	PIPE RISE	[Symbol]	ECCENTRIC REDUCER
[Symbol]	PIPE DROP	[Symbol]	TOP CONNECTION, 45° OR 90°
[Symbol]	UNION OR FLANGE CONNECTION	[Symbol]	BOTTOM CONNECTION, 45° OR 90°
[Symbol]	DIRECTION OF FLOW	[Symbol]	SIDE CONNECTION
[Symbol]	ANCHOR	[Symbol]	CAPPED OUTLET
---	DOMESTIC COLD WATER LINE (CW)	---	ABOVE FLOOR WASTE LINE (W)
---	DOMESTIC HOT WATER LINE (HW)	---	BELOW WASTE LINE (W)
---	HOT WATER RECIRC LINE (HWC)	---	PLUMBING VENT LINE (V)
FD	FLOOR DRAIN	TOP	TOP OF PIPE ELEVATION ABOVE FLOOR
CO ●	CLEANOUT (FLOOR)	WH	WALL HYDRANT
CO ●●	2-WAY CLEANOUT (FLOOR)	FL	FLOW LINE ELEVATION
WCO -I	WALL CLEANOUT	HB	HOSE BIBB
CO -II	END OF LINE CLEANOUT	VTR	VENT THROUGH ROOF

GRILLE & REGISTER SCHEDULE

MARK	TYPE	BASED ON		MATERIAL		FINISH		ACCESSORIES & REMARKS	OBD	FILTER
		MANUF.	MODEL	SS	STEEL	ALUMI	WHITE			
A	SUPPLY GRILLE	TITUS	301FL		X	X		DOUBLE DEFLECTION, 3/4" SPACING, FRONT IN LONG DIMENSIONS	NO	NO

DIRECTION OF AIR FLOW

GRILLE CALLOUT IN GRILLE AND REGISTER SCHEDULE → A-12x12

CUBIC FEET OF AIR PER MINUTE → 600 (FD)

GRILLE CALLOUT SYMBOL

GRILLE SIZE

FIRE DAMPER

GENERAL NOTES

- VERIFY JOB SITE CONDITIONS AND DIMENSIONS BEFORE BEGINNING WORK. PLANS ARE SCHEMATIC IN NATURE. LAYOUT IS BASED ON BEST AVAILABLE INFORMATION. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS.
- NO PIPING, DUCTWORK, ETC. SHALL PENETRATE STRUCTURAL MEMBERS.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY EXACT LOCATION, CONFIGURATION AND ROUTING OF EXISTING SYSTEMS REQUIRED TO REMAIN IN OPERATION DURING THE PROJECT TO PREVENT DAMAGE DURING DEMOLITION AND PHASING.
- CONTRACTOR TO REMOVE ALL EXISTING EQUIPMENT, DUCTWORK AND PIPING THAT IS NOT REQUIRED FOR A WORKING INSTALLATION.
- COORDINATE ALL WORK WITH OTHER TRADES PRIOR TO INSTALLATION.
- COORDINATE ROUTING OF PLUMBING PIPING WITH DUCTWORK, LIGHTS, AND STRUCTURAL ELEMENTS. PIPING SHALL RISE AND DROP, JOG OR OFFSET AS REQUIRED TO AVOID CONFLICTS. DUCTWORK SHALL TAKE PRECEDENCE OVER ALL PIPING, EXCEPT WHERE GRADE MUST BE MAINTAINED FOR DRAINAGE. REWORK OF INSTALLED WORK TO RESOLVE CONFLICTS ARISING FROM LACK OF COORDINATION SHALL NOT JUSTIFY AN INCREASE IN THE CONTRACT AMOUNT.
- SEAL DUCTWORK AS CALLED OUT BELOW USING HARDCAST DT TAPE AND FTA-20 ADHESIVE OR HARDCAST AFG-1402 "FOIL GRIP" PER MANUFACTURERS INSTRUCTIONS. SEAL TO SMACNA SEAL CLASS A:

TYPE OF DUCT	APPLY TO JOINTS
EXHAUST DUCT (ROUND OR RECT)	TRANSVERSE AND LONGITUDINAL
LOW VELOCITY SUPPLY AND RETURN (RECT)	TRANSVERSE AND LONGITUDINAL
- INSTALL BALANCE DAMPER WITH STANDOFF AND LOCKING QUADRANT IN AN ACCESSIBLE LOCATION AT EACH RUNOUT TO SUPPLY DIFFUSERS, EXHAUST GRILLES, AND RETURN GRILLES WHERE AIRFLOW IS INDICATED, OR AS INDICATED OTHERWISE.
- DO NOT ROUTE PIPING OR DUCTWORK OVER ELECTRICAL PANELS OR EQUIPMENT. COORDINATE WITH E.C.
- ALL WORK IS TO CONFORM WITH APPLICABLE CODES AND STANDARDS.
- DUCT SIZES SHOWN ARE ACTUAL INSIDE CLEAR DIMENSIONS. INCREASE SHEET METAL DIMENSIONS AS REQUIRED TO ACCOMMODATE DUCT LINER WHERE LINER IS SPECIFIED.
- ALL EQUIPMENT SUPPORT STANDS SHALL BE PRIMED AND PAINTED WITH EPOXY ENAMEL.
- PAINT INSIDE OF DUCTWORK BLACK ANYWHERE VISIBLE THROUGH FACE OF GRILLE OR DIFFUSER.
- WIRING SHALL BE IN CONDUIT IN ROOMS WITH EXPOSED CEILINGS. LINE VOLTAGE WIRING AND ASSOCIATED CONDUIT SHALL BE PROVIDED AND INSTALLED BY E.C.
- CONTRACTOR TO INSTALL TEMPORARY FILTERS OVER ALL RETURN AND EXHAUST GRILLES IN WORK AREA DURING CONSTRUCTION.

DRAWING SYMBOLS

EQ. CALLOUT	SECTIONS	DETAILS
<p>EQUIPMENT TYPE (FT=FAN TERMINAL) UNIQUE I.D. (FAN TERMINAL NO. 1) TYPICAL EQUIPMENT NUMBER</p>	<p>SECTION LETTER SHEET NUMBER WHERE DRAWN</p>	<p>DETAIL NUMBER SHEET NUMBER WHERE DRAWN</p>

GENERAL DEMOLITION NOTES

- VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING WORK. BRING ANY DISCREPANCIES FROM THE DRAWINGS AND NOTES TO THE ARCHITECT IMMEDIATELY. MINOR CHANGES IN THE SCOPE OF THE DEMOLITION WORK SHALL NOT JUSTIFY AN ADDITIONAL COST.
- REMOVAL OF EXISTING EQUIPMENT WILL REQUIRE ISOLATING THE PIPING RISERS OR MAINS VIA SHUT-OFF VALVES. INSTALL NEW ISOLATION VALVES WHERE REQUIRED FOR COMPLETION OF WORK.
- REMOVAL OF EXISTING EQUIPMENT WILL REQUIRE CAPPING AND SEALING EXISTING MAINS OR BRANCHES AS NECESSARY AND REQUIRED TO ALLOW THE REMAINING SYSTEMS TO FULLY OPERATE WITHOUT DEGRADATION.
- CONTRACTOR SHALL PROVIDE PROTECTIVE PLASTIC DROP CLOTHS TO PROTECT THE EXISTING OCCUPIED AREAS AND EQUIPMENT FROM DUST AND DEBRIS DURING THE CONSTRUCTION WORK, AND SHALL CLEAN THE AREAS OF ALL CONSTRUCTION DIRT DAILY, AND UPON COMPLETION OF THE WORK.
- ALL DRAINED PIPING RISERS AND MAINS SHALL BE REFILLED WITH PROPER FLUID AND PROPERLY VENTED BY THIS CONTRACTOR, ONCE NEW WORK HAS BEEN INSTALLED.
- EXISTING PIPING AND EQUIPMENT, ETC., NOT TO BE UTILIZED IN THE COMPLETED BUILDING SHALL BE REMOVED AS REQUIRED.
- EXISTING PIPING AND EQUIPMENT THAT ARE NOT TO BE REUSED SHALL BE REMOVED AND SHALL REMAIN THE PROPERTY OF THE OWNER IF THEY WISH TO RETAIN OWNERSHIP OF SAME. IF NOT, EQUIPMENT SHALL BECOME THE PROPERTY OF THIS CONTRACTOR AND SHALL BE REMOVED FROM THE SITE AS SOON AS PRACTICAL AND DISPOSED OF IN ACCORDANCE WITH APPLICABLE LAWS AND REGULATIONS.
- WHERE EXISTING PIPING AND EQUIPMENT, ETC., THAT ARE TO BE UTILIZED IN THE COMPLETED PROGRAM CONFLICT WITH NEW CONSTRUCTION AND THE REQUIRED DEMOLITION, THEY SHALL BE RELOCATED AND RECONNECTED TO MAINTAIN THE DESIRED SERVICE.
- PORTIONS OF EXISTING SYSTEMS MAY BE SHOWN FOR CLARITY EVEN THOUGH IT MAY NOT BE NECESSARY TO MODIFY OR REVISE THEM. ALL EXISTING SYSTEMS ARE SHOWN BASED ON ORIGINAL OR REMODEL BUILDING DRAWINGS. CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS.
- ALL WORK MUST BE COORDINATED AND SCHEDULED WITH THE OWNER AND OCCUPANTS OF THIS BUILDING SO AS TO PROVIDE THE LEAST AMOUNT OF DISRUPTION OF BUILDING ACTIVITIES AS POSSIBLE. MAINTAIN CONDITIONED SPACE FOR ALL OWNER OCCUPIED AREAS DURING CONSTRUCTION.
- ALL ACCESSIBLE ABANDONED PIPING AND DUCTWORK SHALL BE REMOVED AND PROPERLY DISPOSED OF.
- COORDINATE REMOVAL OF ALL FLOOR PANELS AND/OR USE OF OVERHEAD CRANES WITH OWNER. PROVIDE MINIMUM OF 1 WEEK NOTICE TO OWNER PRIOR TO STARTING THIS WORK.
- UNITS IN BASEMENT TO BE CLOSELY COORDINATED WITH EXISTING COLUMNS, WALLS, CEILINGS, LARGE DOMESTIC WATER PIPING, EXISTING FLOOR DRAIN LOCATION, ETC. PRIOR TO ORDERING EQUIPMENT. IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY THAT THE EQUIPMENT BEING ORDERED WILL FIT IN THE SPACE. IF ALTERNATE MANUFACTURER'S FROM THE BASIS OF DESIGN ARE CHOSEN, CONTRACTOR RESPONSIBLE FOR COORDINATING ANY CHANGES TO THE EXISTING ELECTRICAL SYSTEM WITH THE E.C. PRIOR TO BIDDING OR ORDERING EQUIPMENT. NO CHANGES IN CONTRACT COST WILL BE PROVIDED FOR LACK OF COORDINATION DURING BIDDING OR ORDERING OF EQUIPMENT.

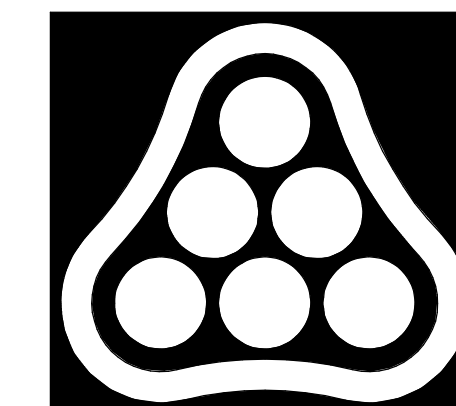
DESICCANT DEHUMIDIFIER SCHEDULE

MARK	TYPE	MFR	PROCESS SIDE						REACTIVATION SIDE						ELECTRICAL		REMARKS	ELEC REF		
			ENT AIR			LVG AIR			ENT AIR			LVG AIR			VOLT / PH	MCA				
			CFM	EXT. SP (IN. WC)	FAN HP	DB	GR/LB	DB	GR/LB	CFM	EXT. SP (IN. WC)	FAN HP	DB	GR/LB					DB	GR/LB
DD-01	DESICCANT DEHUMIDIFIER	MUNTERS	1500	3.88	3	85	40	79	3.4	530	1.12	1	85	40	137	166.6	460/3	50	1,2	MCC-3-4
DD-02	DESICCANT DEHUMIDIFIER	MUNTERS	1500	3.88	3	85	40	79	3.4	530	1.12	1	85	40	137	166.6	460/3	50	1,2	MCC-2-3
DD-03	DESICCANT DEHUMIDIFIER	MUNTERS	1500	3.88	3	85	40	79	3.4	530	1.12	1	85	40	137	166.6	460/3	50	1,2	MCC-2-4
DD-04	DESICCANT DEHUMIDIFIER	MUNTERS	1500	3.88	3	85	40	79	3.4	530	1.12	1	85	40	137	166.6	460/3	50	1,2	MCC-3-5
DD-05	DESICCANT DEHUMIDIFIER	MUNTERS	1500	3.88	3	85	40	79	3.4	530	1.12	1	85	40	137	166.6	460/3	50	1,2	MCC-2-13
DD-06	DESICCANT DEHUMIDIFIER	MUNTERS	1500	3.88	3	85	40	79	3.4	530	1.12	1	85	40	137	166.6	460/3	50	1,2	MCC-3-19

- BASED ON MUNTERS MODEL HCD-2250-EA-SFCs WITH CROSS FLOW WHEEL, ELECTRIC HEATING COIL, AND DOMESTIC WATER COOLING COIL SIZED FOR 14.3 GPM OF 70 DEG F DOMESTIC WATER TO COOL 129 DEG F AIR TO 79 DEG F DISCHARGE TO THE SPACE.
- DESICCANT DEHUMIDIFIER AND EXISTING DOMESTIC WATER 2-WAY MODULATING CONTROL VALVE TO BE CONTROLLED BY EXISTING HONEYWELL WALL MOUNTED OCCUPANT CONTROLLED THERMOSTAT

SHEET LIST

M0.1	MECHANICAL COVER SHEET
M1.1	MECHANICAL COMPOSITE PLAN
M2.1	ENLARGED MECHANICAL DEMOLITION PLANS
M3.1	ENLARGED MECHANICAL PLANS
M4.1	MECHANICAL SPECIFICATIONS



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2020 HESS PUMP STATION
DEHUMIDIFIER REPLACEMENT
WICHITA, KS

MECHANICAL COVER SHEET

JOB NO. 197043-008
DATE 11/13/2019
DRAWN BY JPB
CHECKED BY DJT

M0.1