



## MECHANICAL LEGEND

(NOT ALL SYMBOLS  
MAY BE USED)

## PIPING

LEGEND		BUILDING MODEL		DETAILS	
	CHILLED WATER SUPPLY				GATE VALVE
	CHILLED WATER RETURN				GLOBE VALVE
	HOT WATER SUPPLY				BALL VALVE
	HOT WATER RETURN				BUTTERFLY VALVE
	CONDENSER WATER SUPPLY				CONTROL VALVE, 2 WAY
	CONDENSER WATER RETURN				CONTROL VALVE, 3 WAY
	HIGH PRESSURE STEAM				CHECK VALVE
	MEDIUM PRESSURE STEAM				STRAINER
	LOW PRESSURE STEAM				STRAINER & BLOWDOWN VALVE
	HIGH PRESSURE CONDENSATE				PLUG COCK/BALANCING VALVE
	MEDIUM PRESSURE CONDENSATE				CIRCUIT SETTER
	LOW PRESSURE CONDENSATE				PRESSURE REDUCING VALVE
	PUMPED CONDENSATE RETURN				COMPANION FLANGE
	FUEL OIL SUPPLY				UNION
	FUEL OIL RETURN				GUIDE
	FUEL OIL VENT				ANCHOR
	FUEL OIL FILL				FLEXIBLE CONNECTOR
	FUEL OIL FILTRATION SUCTION				THERMOMETER WELL
	DRAIN LINE				PET'S PLUG
	DIRECTION OF FLOW				VALVE WITH BLIND FLANGE
	REDUCER				PIPE CAP
	SLOPE PIPE IN THIS DIRECTION				STEAM TRAP
	ELBOW UP				GAUGE & GAUGE COCK
	ELBOW DOWN				THERMOMETER
	BRANCH PIPE CONNECTION				SHELL & CORE KEYED NOTE
	TEE				BUILDOUT KEYED NOTE
	TEE - OUTLET DOWN				
	TEE - OUTLET UP				
	END OF MAIN DRIP				
	PRESSURE REDUCING VALVE				
			NOT MODELED		

## AIR DISTRIBUTION DEVICE SCHEDULE

(1)=SIZES ARE BY THIS SCHEDULE UNLESS NOTED OTHERWISE.				(4)=REFER TO SYMBOLS & LEGEND FOR IDENTIFICATION OF 12" x 12" AND 24" x 24" FACE AIR DEVICES.				(8)=SCHEDULE IS APPLICABLE FOR BOTH LAY-IN-AND SURFACE MOUNTED AIR DEVICES.						
(2)=CEILING DIFFUSERS ARE 4-WAY THROW UNLESS NOTED AS 3 OR 2-WAY. PROVIDE BLANK OFF AS SPECIFIED. INCREASE NECK SIZE ONE STEP FOR 2-WAY THROW.				(5)=ALL DIFFUSERS, GRILLES & REGISTERS SHALL HAVE O.B.D.'S WHEN TAPS ARE MOUNTED ABOVE NON-ACCESSIBLE CEILINGS.				(9)=AIR DEVICE FRAME STYLE SHALL MATCH THE CEILING TYPE. COORDINATE WITH ARCHITECTURAL REFLECTED CEILING PLAN.						
(3)=REFER TO SPECIFICATIONS AND PLANS FOR TYPES OF AIR DEVICES USED.				(6)=BRANCH DUCT SIZES ARE BY THIS SCHEDULE UNLESS NOTED OTHERWISE.										
				(7)=ALL VISIBLE SURFACES OF THE RETURN/EXHAUST PLENUM AND DUCT CONNECTION SHALL BE PAINTED FLAT BLACK.										
24" x 24" SQUARE LOUVERED FACE DIFFUSERS (SUPPLY)				24" x 24" - 1/2" EGG CRATE RETURN/EXHAUST REGISTERS & GRILLES				SIDEWALL SUPPLY, RETURN, OR EXHAUST REGISTERS						
CFM RANGE	BRANCH DUCT SIZE		NECK SIZE	CFM RANGE	BRANCH DUCT SIZE		NECK SIZE	CFM RANGE	DUCT/NOMINAL NECK SIZE (1)					
	RECTANGULAR	ROUND			RECTANGULAR	ROUND								
UP TO 120	8" x 6"	6"	6"	0 TO 80	8" x 6"	6"	22" x 22"	UP TO 120	6" x 6"					
121 TO 210	10" x 6"	8"	8"	81 TO 160	10" x 6"	8"	22" x 22"	121 TO 240	10" x 6"					
211 TO 330	12" x 8"	10"	10"	161 TO 300	12" x 8"	10"	22" x 22"	241 TO 300	12" x 6"					
331 TO 470	14" x 8"	12"	12"	301 TO 470	14" x 10"	12"	22" x 22"	301 TO 400	12" x 8"					
471 TO 640	16" x 10"	14"	14"	471 TO 640	16" x 10"	14"	22" x 22"	401 TO 500	12" x 10"					
				641 TO 770	20" x 10"	----	22" x 22"	501 TO 620	18" x 10"					
				771 TO 950	20" x 12"	----	22" x 22"	621 TO 780	18" x 12"					
				951 TO 1200	20" x 14"	----	22" x 22"							
24" x 24" METAL FRAME WITH 12" x 12" SQUARE LOUVERED FACE DIFFUSERS (SUPPLY) (TRIM METAL FRAME AS NEEDED)				12" x 12" - 1/2" EGG CRATE RETURN/EXHAUST REGISTERS & GRILLES										
UP TO 120	8" x 6"	6"	6"	0 TO 80	8" x 6"	6"	10" x 10"							
121 TO 180	10" x 6"	8"	8"	81 TO 160	10" x 6"	8"	10" x 10"							

## MECHANICAL GENERAL NOTES

1. CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH THE PROJECT SCOPE, UTILITY CONNECTIONS, AND ALL BUILDING SERVICES.
2. STANDARD DETAILS ILLUSTRATED ON THE DRAWINGS SHALL BE APPLIED IN ALL CASES WHERE THE FEATURE OCCURS IN THE SYSTEM DESIGN.
3. ALL DUCTWORK SIZES SHOWN ARE CLEAR INSIDE DIMENSIONS IN INCHES. REFER TO SPECIFICATIONS FOR INSULATION REQUIREMENTS.
4. MAJOR EQUIPMENT SHOWN ON THE PLANS AND ELEVATIONS ILLUSTRATE THE GENERAL ARRANGEMENT AND SPACE ALL LOCATIONS. THE CONTRACTOR SHALL VERIFY THE SPACE REQUIREMENTS FOR EACH SYSTEM COMPONENT USING MANUFACTURER CERTIFIED SHOP DRAWINGS AND MAKE THE NECESSARY ADJUSTMENTS IN EQUIPMENT PLACEMENT AND CONNECTION IN ORDER TO ACCOMMODATE THE EXACT EQUIPMENT TO BE INSTALLED.
5. SUPPORTS, ANCHOR BOLTS, AND HANGERS FOR ALL EQUIPMENT SPECIFIED IN DIVISION 23 SHALL CONFORM TO THE SPECIFICATIONS. MISCELLANEOUS STEEL SHALL CONFORM TO THE REQUIREMENTS FOR EACH SYSTEM COMPONENT. EQUIPMENT SPECIFIED IN DIVISION 23 SHALL BE FURNISHED AS PART OF WORK OF DIVISION 23.
6. DIFFUSERS, REGISTERS, AND GRILLES SHOWN ON THE MECHANICAL DRAWINGS SHALL CONFORM TO THE REQUIREMENTS FOR EACH SYSTEM COMPONENT AND SPECIFICATIONS. BRANCH DUCTS TO AIR DEVICES SHALL BE IN ACCORDANCE WITH THE SCHEDULE AND SPECIFICATIONS UNLESS NOTED OTHERWISE.
7. FIRE/SMOKE DAMPERS SHALL BE INSTALLED IN ALL DUCTWORK PENETRATIONS THROUGH FIRE/SMOKE WALLS, FLOORS AND MECHANICAL FIRE RATED CHASIS. DAMPERS SHALL MEET THE REQUIREMENTS OF THE FIRE/SMOKE WALL RATING AND BE "UL" LABELED. REFER TO ARCHITECTURAL DRAWINGS FOR THE LOCATIONS OF ALL FIRE AND SMOKE WALLS. MAINTAIN CLEAR ACCESS TO ALL DAMPERS AND ACCESS DOORS.
8. SMOKE DETECTORS SHALL BE LOCATED AS INDICATED ON THE PLANS AND IN CONFORMANCE WITH NFPA 90A AND LOCAL CODES.
9. CEILING DIFFUSER LOCATIONS SHALL BE AS SHOWN ON THE MECHANICAL AND ARCHITECTURAL REFLECTED CEILING PLANS.
10. LINEAR DIFFUSERS, LAMINAR SUPPLY DIFFUSERS, REGISTERS, GRILLES, AND CEILING DIFFUSERS SHALL BE FURNISHED WITH MOUNTING FRAMES AND FEATURES IN ACCORDANCE WITH THE CEILING TYPE.
11. PIPING CONNECTIONS TO EQUIPMENT SHALL BE FABRICATED WITH ISOLATION VALVES, FLANGES, AND/OR UNIONS POSITIONED TO ALLOW REMOVAL AND SERVICE OF THE COMPONENT PARTS.
12. PIPING CONNECTIONS TO EQUIPMENT SHALL BE FABRICATED WITH ISOLATION VALVES, FLANGES, AND/OR UNIONS POSITIONED TO ALLOW REMOVAL AND SERVICE OF THE COMPONENT PARTS.
13. DRAWINGS ARE SCHEMATIC IN NATURE AND SHALL NOT BE SCALED. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING EXACT SIZING OF ALL SERVICES WITH EXISTING CONDITIONS AND WITH ALL OTHER TRADES. REFER TO SPECIFICATIONS FOR SERVICE PRIORITY.
14. COORDINATE ANY DEVICE REQUIRING AN ACCESS PANEL WITH THE ARCHITECT.
15. PROVIDE CONSTRUCTION FILL MEDIA OVER A/E, EA, AND OA OPENINGS FOR EQUIPMENT AND REGISTERS TO ELIMINATE CONSTRUCTION DUST, DEBRIS FROM ENTERING SYSTEMS. COORDINATE WITH HOSPITAL'S ICRA PROGRAM AND USE THE MOST STRINGENT REQUIREMENTS.
16. COORDINATE WITH ALL TRADES FOR REQUIRED CEILING REMOVAL IN EXISTING WORK. WORK TO BE REMOVED TO OBTAIN CEILING ACCESS PERMIT. NOTIFY THE ARCHITECT AND OWNER PRIOR TO COMMENCING REMOVAL. REMOVE ONLY THAT PORTION OF CEILING NECESSARY TO ACCESS AND COMPLETE THE NEW WORK. UPON COMPLETION OF THE SUBMITTAL WORK, CEILING IS TO BE REINSTALLED. REPLACE ANY DAMAGED CEILING TILES WITH NEW TILES TO MATCH EXISTING.
17. ALL PENETRATIONS THROUGH RATED WALLS, FLOORS AND PARTITIONS MUST BE PROTECTED WITH FIRE-RATED TO MEET UL FIRE RESISTANCE LISTING DETAILS FOR THE PENETRATION.

## DUCTWORK PRESSURE CLASS

<u>SYSTEM</u>	<u>PRESSURE CLASS</u>
LOW PRESSURE SUPPLY	1" W.G.
LOW PRESSURE RETURN	2" W.G.
LOW PRESSURE EXHAUST	2" W.G.

\*DUCT LEAKAGE TESTING SHALL CONFORM TO SPECIFICATION SECTION 23 31 00.

\*DUCT LEAKAGE TESTING SHALL CONFORM TO SPECIFICATION SECTION 23 31 00.

**95% SUBMISSION - NOT FOR CONSTRUCTION**

[illegible]