MECHANICAL SYMBOLS LEGEND
(AS APPLICABLE)

PIPING AND SPECIALTIES

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
RD	REFRIGERANT DISCHARGE	PGR	PROPYLENE GLYCOL RETURN		INLINE PUMP
RL	REFRIGERANT LIQUID	PGS	PROPYLENE GLYCOL SUPPLY	MV	AIR VENT - MANUAL
RS	REFRIGERANT SUCTION	FOR	FUEL OIL RETURN		
CD	COIL CONDENSATE DRAIN	FOS	FUEL OIL SUPPLY	A	AIR VENT - AUTOMATIC
LPS (XX)	LOW PRESSURE STEAM (PRESSURE)	FOV	FUEL OIL VENT	FS	FLOW SWITCH
MPS (XX)	MEDIUM PRESSURE STEAM (PRESSURE)	CR	CONDENSER WATER RETURN		
HPS (XX)	HIGH PRESSURE STEAM (PRESSURE)	CS	CONDENSER WATER SUPPLY	PS	PRESSURE SWITCH
LPC	LOW PRESSURE CONDENSATE	HPWR	HEAT PUMP WATER RETURN	AS	AIR SEPARATOR
MPC	MEDIUM PRESSURE CONDENSATE	HPWS	HEAT PUMP WATER SUPPLY		
HPC	HIGH PRESSURE CONDENSATE	D / R	PITCH OF PIPE, RISE (R) OR DROP (D)		THERMOMETER
PC	PUMPED CONDENSATE			TW	THERMOMETER WELL
MU	MAKE-UP WATER		PIPE ANCHOR - MAIN		
HCR	HOT/CHILLED WATER RETURN		PIPE ANCHOR - INTERMEDIATE		BALL JOINT
HCS	HOT/CHILLED WATER SUPPLY	H	HANGER - ROD	PSD	PUMP SUCTION DIFFUSER
HWR	HEATING WATER RETURN	H	HANGER - SPRING		FLOAT THERMOSTATIC TRAP
HWS	HEATING WATER SUPPLY				FLOWMETER - ORIFICE
CWR	CHILLED WATER RETURN		ALIGNMENT GUIDE		FLOWMETER - VENTURI
CWS	CHILLED WATER SUPPLY		FLEX CONNECTOR		DUPLEX STRAINER
EGR	ETHYLENE GLYCOL RETURN		EXPANSION - LOOP		
EGS	ETHYLENE GLYCOL SUPPLY		EXPANSION - JOINT		

DUCTWORK

	SUPPLY, OUTSIDE OR MIXED AIR DUCT (UP)	1(D)/0	RECTANGLE DUCT (WIDTH/HEIGHT)		OPPOSED BLADE DAMPER
	SUPPLY, OUTSIDE OR MIXED AIR DUCT (DOWN)	10Ø	ROUND DUCT (DIAMETER)		PARALLEL BLADE DAMPER
	SUPPLY, OUTSIDE OR MIXED AIR DUCT (SECTION)	1(D)/0Ø	FLAT OVAL DUCT (WIDTH/HEIGHT)	FD	FIRE DAMPER (IN HORIZONTAL DUCT)
	RETURN AIR DUCT (UP)		FLEXIBLE DUCTWORK TO EQUIPMENT	SD	SMOKE DAMPER (IN HORIZONTAL DUCT)
	RETURN AIR DUCT (DOWN)		INSULATED FLEXIBLE DUCTWORK	FD	FIRE DAMPER (IN VERTICAL DUCT)
	RETURN AIR DUCT (SECTION)	R	ELEVATION CHANGE (RISE OR DROP)	SD	SMOKE DAMPER (IN VERTICAL DUCT)
	RELIEF OR EXHAUST AIR DUCT (UP)		HIGH EFF. TAKE OFF FITTING WITH VOLUME DAMPER	FSD	FIRE/SMOKE DAMPER (IN HORIZONTAL DUCT)
	RELIEF OR EXHAUST AIR DUCT (DOWN)	BD	BACKDRAFT DAMPER	FSD	FIRE/SMOKE DAMPER (IN VERTICAL DUCT)
	RELIEF OR EXHAUST AIR DUCT (SECTION)		TURNING VANES	AD	DUCT ACCESS PANEL
	ROUND DUCT (UP)	VD	VOLUME CONTROL DAMPER	RP	RELIEF PANEL
	ROUND DUCT (DOWN)		VOLUME CONTROL DAMPER		
	ROUND DUCT (SECTION)	CAP	DUCT END CAP		

H.V.A.C.

	SUPPLY DIFFUSER		VAV TERMINAL UNIT	T	THERMOSTAT
	SUPPLY REGISTER		FAN POWERED VAV TERMINAL UNIT	T G	THERMOSTAT WITH GUARD
	SUPPLY SLOT DIFFUSER			T XX-X	TEMPERATURE SENSOR - XX-X DENOTES SERVED
	RETURN REGISTER		SIDE WALL DIFFUSER	S CO	CARBON MONOXIDE SENSOR
	RETURN GRILLE		ROUND DIFFUSER	S CO2	CARBON DIOXIDE SENSOR
	EXHAUST REGISTER		EXTERIOR LOUVER	S NOX	NITROGEN DIOXIDE SENSOR
	EXHAUST GRILLE	X / CFM	SUPPLY IDENTIFICATION TAG X DENOTES TYPE	S H	HUMIDITY SENSOR
				S P	PRESSURE SENSOR
	DUAL DUCT TERMINAL UNIT	X / CFM	RETURN/ EXHAUST/LOUVER IDENTIFICATION TAG X DENOTES TYPE	S G	TEMPERATURE SENSOR WITH GUARD
		M	MOTORIZED ACTUATOR	H	HUMIDISTAT
			PNEUMATIC ACTUATOR		EMERGENCY SHUTDOWN SWITCH

PLUMBING

	DOMESTIC COLD WATER PIPING	AW	ACID WASTE BELOW FLOOR OR GRADE	PA	PROCESSED AIR
	DOMESTIC HOT WATER SUPPLY	AW	EXIST ACID WASTE BELOW FLOOR/GRADE	IR	IRRIGATION PIPING
	DOMESTIC HOT WATER RECIRC.	AW	ACID WASTE ABOVE FLOOR OR GRADE	P	TRAP PRIMER
	PIPE REMOVAL	GW	GREASE WASTE BELOW FLOOR OR GRADE	G (XX)	NATURAL GAS PIPING (PSIG)
SAN	SANITARY BELOW FLOOR OR GRADE	GW	EXIST GREASE WASTE BELOW FLOOR/GRADE	HB	HOSE BIBB
SAN	EXISTING SANITARY BELOW FLOOR/GRADE	GW	GREASE WASTE ABOVE FLOOR OR GRADE	WH	WALL HYDRANT
SAN	SANITARY ABOVE FLOOR OR GRADE	OSW	OIL/SAND BELOW FLOOR OR GRADE	CO	CLEAN OUT
ST	STORM BELOW FLOOR OR GRADE	OSW	EXISTING OIL/SAND BELOW FLOOR/GRADE	FCO	FLOOR CLEAN OUT
ST	EXISTING STORM BELOW FLOOR/GRADE	OSW	EXISTING OIL/SAND ABOVE FLOOR OR GRADE		FLOOR DRAIN
ST	STORM ABOVE FLOOR OR GRADE	SCW	SOFTENED COLD WATER PIPING	VTR	VENT THRU ROOF (X DENOTES IDENTIFICATION)
SO	STORM OVERFLOW BELOW FLOOR/GRADE	PD	PUMPED DISCHARGE	RD	ROOF DRAIN
SO	EXIST. STORM OVERFLOW BELOW FLOOR/GRADE	V	VENT PIPING	ORD	OVERFLOW ROOF DRAIN
SO	STORM OVERFLOW ABOVE FLOOR/GRADE	AV	ACID VENT PIPING	DSN	DOWNSPOUT NOZZLE
		CA	COMPRESSED AIR		

VALVES

	GATE VALVE		STOP/CHECK GATE VALVE (ARROW IND. FLOW)		MULTIPURPOSE VALVE
	ANGLE GATE VALVE		SPRING GATE CHECK VALVE (ARROW IND. FLOW)	PRV	PRESSURE REDUCING VALVE
	BALL VALVE		SWING GATE CHECK VALVE (ARROW IND. FLOW)	PRV	PRESSURE REDUCING PILOT VALVE
	LOCKABLE BAILL VALVE		ANGLE STOP/CHECK VALVE		REDUCED PRESS. BACKFLOW ASSY.
	BUTTERFLY VALVE		2-WAY ELECTROMOTOR VALVE	DC	DOUBLE CHK VALVE BACKFLOW ASSY.
	GLOBE VALVE		2-WAY AIRMOTOR VALVE		
	ANGLE GLOBE VALVE		2-WAY MANUAL VALVE	DDC	DOUBLE DETECTOR CHECK VALVE
	PLUG VALVE		3-WAY ELECTROMOTOR VALVE		OUTSIDE STEM & YOKE VALVE
	DIAPHIRAGM VALVE		3-WAY AIRMOTOR VALVE		QUICK CLOSING FUSIBLE LINK VALVE
	DIAPHIRAGM ACTUATED VALVE		3-WAY MANUAL VALVE		QUICK OPENING VALVE
	VALVE IN VERTICAL LINE		SAFETY PRESSURE RELIEF VALVE		PRESSURE GAUGE & BALL VALVE
	HOSE GATE VALVE		PRESSURE RELIEF VALVE		GATE VALVE WITH GLOBE VALVE BY-PASS
	HOSE GLOBE VALVE		TEMPERATURE MIXING VALVE		GLOBE VALVE WITH GLOBE VALVE BY-PASS
	HOSE ANGLE VALVE		AUTO FLOW VALVE		SPRINKLER - CONCEALED
	SOLENOID VALVE		FLOAT VALVE	R	SPRINKLER - RECESSED
PRV	POST INDICATOR VALVE		LOCK SHIELD		SPRINKLER - SIDEWALL
			CIRCUIT SETTER		SPRINKLER - UPRIGHT
					SPRINKLER - ZONE CONTROL

FITTINGS

	ELBOW		ELBOW - DOUBLE BRANCH		REDUCER - CONCENTRIC
	LONG RADIUS ELBOW		ELBOW - SIDE OUTLET UP		REDUCER - ECCENTRIC STRAIGHT INVERT
SR	SHORT RADIUS ELBOW		ELBOW - SIDE OUTLET DOWN		REDUCER - ECCENTRIC STRAIGHT CROWN
	45° ELBOW		ELBOW - OUTLET DOWN		CAPPED CONNECTION
	TEE		ELBOW - OUTLET UP		THREADED CONNECTION
	CROSS		TEE - OUTLET DOWN		FLANGED CONNECTION
	LATERAL		TEE - OUTLET UP		STRAINER
			TEE - SIDE OUTLET DOWN		STRAINER WITH BALL VALVE DRAIN
	TEE - SINGLE SWEEP				STRAINER WITH COUPLER
			TEE - SIDE OUTLET UP		BUSHING
			SIAMESE CONNECTION		FLOW DIRECTION

MISCELLANEOUS

XX / X	EQUIPMENT IDENTIFICATION TAG (ELECTRICAL CONNECTION REQUIRED)		NEW CONNECTION POINT
X / XX	DETAIL REFERENCE / SHEET REFERENCE		POINT OF DISCONNECT
		OA	OUTSIDE AIR
X / XX X / XX	SECTION CUT REFERENCE / SHEET REFERENCE	VA	VENTILATION AIR
		EA	EXHAUST AIR
	ELECTRICAL PANEL - SHOWN FOR COORDINATION PURPOSES ONLY	RA	RELIEF OR RETURN AIR
		SA	SUPPLY AIR
	ELECTRICAL PANEL - SHOWN FOR COORDINATION PURPOSES ONLY	MA	MIXED AIR
		RF	RELIEF OR RETURN FAN
	ELECTRICAL PANEL - SHOWN FOR COORDINATION PURPOSES ONLY	EF	EXHAUST FAN
T	ELECTRICAL TRANSFORMER - SHOWN FOR COORDINATION PURPOSES ONLY	TYP	TYPICAL

WC	WATER CLOSET
UR	URINAL
L	LAVATORY
S	SINK
DF	DRINKING FOUNTAIN
EWC	ELECTRIC WATER COOLER
SS	SERVICE SINK
SH	SHOWER
DWH	DOMESTIC WATER HEATER
MSB	MOP SINK BASIN
	LIGHT LINEWORK = EXISTING OR DEMOLITION
	DARK LINEWORK = NEW

GENERAL PLUMBING DEMOLITION NOTES

A. CROSSHATCH INDICATES EXISTING PIPING, COMPONENTS AND EQUIPMENT TO BE REMOVED.

B. INDICATED ARE APPROXIMATE ROUTING OF PIPING, COMPONENTS AND EQUIPMENT AND NOT INDICATED ARE ALL OFFSETS, FITTINGS AND VALVES. FIELD VERIFY EXACT SIZE, ROUTING AND SERVICE PRIOR TO REMOVAL OR RELOCATION. REMOVE MISCELLANEOUS PIPING, COMPONENTS AND EQUIPMENT LOCATED ON OR IN WALLS TO BE REMOVED.

C. REPAIR INSULATION DAMAGED DURING REMOVAL. REPAIR WORK SAME AS NEW.

D. PATCH OPENINGS THROUGH WALLS AND FLOOR SLABS NOT BEING REUSED WITH LIKE MATERIALS AND PAINTED TO MATCH EXISTING.

E. PATCH OPENINGS THROUGH ROOF NOT BEING REUSED WITH LIKE MATERIALS AND SEAL WATERTIGHT.

GENERAL PLUMBING NOTES

(APPLICABLE FOR ALL PLUMBING SHEETS)

A. LIGHT LINE WEIGHT INDICATES EXISTING PIPING, COMPONENTS AND EQUIPMENT TO REMAIN. BOLD LINE WEIGHT INDICATES NEW WORK TO BE INSTALLED.

B. INDICATED ARE APPROXIMATE LOCATIONS OF PIPING. NOT INDICATED ARE ALL OFFSETS, FITTINGS AND VALVES. FIELD VERIFY EXISTING PIPE SIZES AND SERVICES PRIOR TO FINAL CONNECTION. COORDINATE LOCATIONS WITH OTHER TRADES AND PROVIDE OFFSETS AND RELOCATE TO AVOID CONFLICTS.

C. AVOID LOCATING PIPING, COMPONENTS AND EQUIPMENT THROUGH AND OVER ELECTRICAL, DATA, TELEPHONE EQUIPMENT ROOMS AND PANELS.

D. SUPPORT PIPING, COMPONENTS AND EQUIPMENT FROM BUILDING STRUCTURAL MEMBERS. HOLD PIPING TIGHT TO BOTTOM OF STRUCTURAL MEMBERS OR RUN THROUGH JOIST WEBS. DO NOT USE WIRE OR PERFORATED METAL TO SUPPORT PIPING. DO NOT SUPPORT PIPING FROM OTHER PIPING, DUCTWORK AND CONDUITS. DO NOT SUPPORT FROM METAL ROOF DECK.

E. LOCATE PLUMBING WORK ABOVE CEILINGS, IN PIPE CHASES, OR OTHER CONCEALED ACCESSIBLE LOCATIONS UNLESS NOTED OTHERWISE. LOCATE AND ARRANGE VALVES AND DRAIN FITTINGS TO BE ACCESSIBLE THROUGH LAY-IN CEILINGS. PROVIDE ACCESS PANEL AND DOOR FOR ALL NON-ACCESSIBLE INSTALLATIONS.

F. LOCATE PIPING IN EXTERIOR BUILDING WALLS ON THE WARM SIDE OF BUILDING INSULATION AND VAPOR BARRIER. COORDINATE INSTALLATION OF BUILDING INSULATION TO RUN CONTINUOUS BETWEEN PIPING AND BUILDING WALL.

G. CORE DRILL OR SAW CUT, FULL DEPTH OPENINGS IN WALLS AND FLOORS FOR PIPING.

H. CAULK PIPE OPENINGS THROUGH FIRE RATED WALLS WITH APPROVED FIRE RATED MATERIALS.

I. REPAIR PIPE INSULATION DAMAGED BY NEW CONNECTION PROCESS. REPAIR WORK SAME AS NEW.

J. TEE PULL CONNECTIONS ARE APPROVED IN COPPER PIPE 1-1/2" AND LARGER IN LIEU OF COPPER FITTINGS AS LONG AS SILVER BRAZING IS USED RATHER THAN REGULAR SOLDER.

K. REMOVE, REPAIR AND REPLACE WALLS, FLOORS, ROOFS AND CEILINGS TO MATCH EXISTING, WHERE NECESSARY FOR PIPING AND FIXTURE REMOVAL & INSTALLATION. FLOOR CUTTING AND PATCHING BY GENERAL CONTRACTOR.

GENERAL MECHANICAL DEMOLITION NOTES

A. CROSSHATCHING INDICATES EXISTING PIPING, DUCTWORK, COMPONENTS AND EQUIPMENT TO BE REMOVED.

B. INDICATED IS APPROXIMATE ROUTING OF PIPING, DUCTWORK, COMPONENTS AND EQUIPMENT. NOT INDICATED ARE ALL OFFSETS, FITTINGS AND VALVES. FIELD VERIFY EXACT SIZE, ROUTING AND SERVICE PRIOR TO REMOVAL OR RELOCATION. REMOVE MISCELLANEOUS PIPING, COMPONENTS AND EQUIPMENT LOCATED ON OR IN WALLS.

C. REPAIR INSULATION DAMAGED DURING REMOVAL. REPAIR WORK SAME AS NEW.

D. PATCH OPENINGS THROUGH WALLS AND FLOOR SLABS NOT BEING REUSED WITH LIKE MATERIALS AND PAINT TO MATCH EXISTING.

E. PATCH OPENINGS THROUGH ROOF NOT BEING REUSED WITH LIKE MATERIALS AND SEAL WATERTIGHT.

GENERAL MECHANICAL HVAC NOTES

(APPLICABLE FOR ALL MECHANICAL DUCTWORK SHEETS)

A. LIGHT LINE WEIGHT INDICATES EXISTING DUCTWORK, COMPONENTS AND EQUIPMENT TO REMAIN. BOLD LINE WEIGHT INDICATES NEW WORK TO BE INSTALLED.

B. INDICATED ARE APPROXIMATE LOCATIONS OF MECHANICAL EQUIPMENT AND DUCTWORK AND NOT INDICATED ARE ALL OFFSETS AND FITTINGS. COORDINATE WITH OTHER TRADES BEFORE PROCEEDING WITH WORK AND PROVIDE OFFSETS TO AVOID CONFLICTS.

C. AVOID LOCATING DUCTWORK, COMPONENTS AND EQUIPMENT THROUGH AND OVER ELECTRICAL, DATA, TELEPHONE EQUIPMENT ROOMS AND PANELS.

D. SUPPORT DUCTWORK, COMPONENTS AND EQUIPMENT FROM BUILDING STRUCTURE.

E. DUCTWORK DIMENSIONS ON PLANS AND DETAILS INDICATE THE SIDE OF DUCT SEEN FIRST. ALL DIMENSIONS GIVEN IN INCHES AND INDICATE INSIDE CLEAR DIMENSIONS. INCREASE SIZE TO ACCOMMODATE LINER.

F. CONSTRUCT ELBOWS WITH CENTERLINE RADIUS OF 1-1/2 TIMES THE WIDTH OF DUCT. WHERE SPACE CONDITIONS DO NOT PERMIT AND WHERE INDICATED ON DRAWINGS USE SQUARE ELBOWS WITH TURNING VANES.

G. SIZE TRANSITIONS WITH A MINIMUM SLOPE OF 1:4. USE 45° ENTRY FITTINGS FOR BRANCH DUCT TAPS. SEAL SHEET METAL CONNECTIONS AND JOINTS.

H. FLEXIBLE DUCTS SHALL BE FACTORY INSULATED. PROVIDE DRAWBANDS AND DUCT TAPE ON ALL ROUND FLEXIBLE CONNECTIONS. MAXIMUM LENGTH OF FLEXIBLE DUCTS SHALL BE THREE FEET.

I. CONTRACTOR SHALL BE RESPONSIBLE FOR PROPERLY SEALING ANY PENETRATION MADE OR REQUIRED THROUGH A FIRE RATED, A SMOKE RATED OR COMBINATION FIRE & SMOKE RATED WALL. SEE SPECIFICATIONS FOR FIRE & SMOKE RATED SEALANTS. SEE ARCHITECTURAL PLANS FOR RATED WALLS (TYPICAL ALL AREAS).

J. COORDINATE ALL GRILLE, REGISTER AND DIFFUSER LOCATIONS WITH REFLECTED CEILING PLAN AND LIGHTING.

K. PROVIDE VOLUME DAMPER ON ALL MAIN SUPPLY DUCTWORK BEFORE ANY BRANCHES.

L. ALL TRANSVERSE SPIRAL AND ROUND DUCT JOINTS FOR ALL EXPOSED DUCTWORK SHALL BE MADE WITH WARD KEATING CONNECTOR CENTER-BEADED SLIP COUPLING OR APPROVED EQUAL ROUND DUCT CONNECTOR WITH CLEAR SEALANT. WIPE CLEAN REMAINING SEALANT.

M. INSTALL ESCUTCHEON PLATES ON ALL SPIRAL AND ROUND DUCT WALL PENETRATIONS. FABRICATE ESCUTCHEON PLATES WITH FLAT SHEET METAL 2" TO 3" WIDTH AROUND DUCT.

N. THOROUGHLY CLEAN ALL DUCTWORK, REMOVING ALL SHIPPING LABELS AND OTHER IDENTIFICATION TAGS. PROVIDE MILL-PHOSPHATIZED FINISH FOR EXPOSED SURFACE OF ALL DUCTS EXPOSED TO VIEW. DUCTWORK AND INSTALLATION SHALL BE OF THE HIGHEST QUALITY.

O. FIRE DAMPER (FD), SMOKE DAMPER (SD) OR FIRE/SMOKE DAMPER (FSD), PROVIDE DUCT ACCESS DOOR AT FIRE DAMPER, SMOKE DAMPER OR COMBINATION FIRE/SMOKE DAMPER TO ALLOW MAINTENANCE AND VISUAL INSPECTION PER NFPA REQUIREMENTS. IF ACCESS DOOR IS NOT POSSIBLE PROVIDE REMOVABLE SECTION OF DUCTWORK TO ALLOW FOR MAINTENANCE AND VISUAL INSPECTION PER NFPA REQUIREMENTS.

P. WHERE DUCTWORK PENETRATES FULL HEIGHT PARTITIONS (EXTENDING UP TO UNDERSIDE OF TRUSSES AND GYPSUM WALLBOARD CEILING) THE MECHANICAL CONTRACTOR SHALL FABRICATE STEEL ANGLE SLEEVES BETWEEN WALL OPENINGS AND DUCT EDGE, EXCEPT FOR FIRE RATED WALLS, WHICH SHALL BE FIRE CAULKED AS SPECIFIED. REFER TO SPECIFICATION SECTION 230000.

Q. VOLUME DAMPERS ABOVE PLASTER OR GYPBOARD CEILINGS SHALL HAVE EXTENSION RODS AND ESCUTCHEON PLATES. PAINT TO MATCH CEILING (TYPICAL FOR ALL PLASTER OR GYPBOARD CEILINGS). ALL BRANCH DUCTS (EXHAUST, RETURN AND SUPPLY) SHALL HAVE A VOLUME DAMPER AT BRANCH DUCT TAKE-OFF UNLESS DAMPER IS PROVIDED AT GRILLE, REGISTER OR DIFFUSER AT THE END OF THE DUCT.

GENERAL MECHANICAL PIPING NOTES

(APPLICABLE FOR ALL MECHANICAL PIPING SHEETS)

A. LIGHT LINE WEIGHT INDICATES EXISTING PIPING, COMPONENTS AND EQUIPMENT TO REMAIN. BOLD LINE WEIGHT INDICATES NEW WORK TO BE INSTALLED.

B. REPAIR PIPE INSULATION DAMAGED BY NEW CONNECTION. REPAIR WORK SAME AS NEW.

C. CORE DRILL OR SAW CUT, FULL DEPTH OPENINGS IN WALLS AND FLOORS, AS REQUIRED.

D. INDICATED ARE APPROXIMATE LOCATION OF MECHANICAL EQUIPMENT AND PIPING AND NOT INDICATED ARE ALL OFFSETS, FITTINGS AND VALVES. COORDINATE WITH OTHER TRADES BEFORE PROCEEDING WITH WORK AND PROVIDE OFFSETS TO AVOID CONFLICTS.

E. AVOID LOCATING PIPING, COMPONENTS AND EQUIPMENT THROUGH AND OVER ELECTRICAL, DATA, TELEPHONE EQUIPMENT ROOMS AND PANELS.

F. SUPPORT PIPING, COMPONENTS AND EQUIPMENT FROM BUILDING STRUCTURAL MEMBERS. HOLD PIPING TIGHT TO BOTTOM OF STRUCTURAL MEMBERS OR RUN THROUGH JOIST WEBS. DO NOT USE WIRE OR PERFORATED METAL TO SUPPORT PIPING. DO NOT SUPPORT PIPING FROM OTHER PIPING, DUCTWORK OR CONDUITS. DO NOT SUPPORT FROM METAL ROOF DECK.

G. LOCATE PIPING ABOVE CEILINGS, IN PIPE CHASE OR OTHER CONCEALED ACCESSIBLE LOCATIONS. LOCATE AND ARRANGE VALVES AND DRAIN FITTINGS TO BE ACCESSIBLE THROUGH LAY-IN CEILINGS. PROVIDE AN ACCESS PANEL AND DOOR FOR NON-ACCESSIBLE INSTALLATIONS.

H. INSTALL SECTIONAL VALVES ON EACH BRANCH AND RISER SERVING TWO OR MORE HYDRONIC TERMINALS, EQUIPMENT CONNECTIONS AND WHERE INDICATED. INSTALL VALVES CLOSE TO MAINS.

I. INSTALL SHUTOFF VALVES ON INLET AND OUTLET OF EACH HYDRONIC TERMINAL, EQUIPMENT ITEM AND WHERE INDICATED. INSTALL VALVES CLOSE TO MAINS.

J. PITCH PIPING TOWARD LOW POINT DRAIN VALVES. PROVIDE MANUAL AIR VENTS AT TOP OF RISERS AND AT HIGH POINTS.

K. CAULK PIPE OPENINGS THROUGH FIRE RATED WALLS WITH APPROVED FIRE RATED MATERIALS.

L. LOCATE PIPING IN EXTERIOR BUILDING WALLS ON THE WARM SIDE OF BUILDING AND VAPOR BARRIER. COORDINATE INSTALLATION OF BUILDING INSULATION TO RUN CONTINUOUS BETWEEN PIPING AND BUILDING WALL.

Revisions	Date

© 2000 Calvin L. Hinz Architects P.C.

These plans are specifically designed for construction by Calvin L. Hinz Architects and are intended for no other purposes. Permission for use of this document in part or whole without written consent of Calvin L. Hinz Architects is prohibited.

IMPORTANT CONTRACTOR'S NOTE

1. ALL CONTRACTORS ARE RESPONSIBLE FOR REVIEWING ENTIRE SET OF DOCUMENTS TO DETERMINE THEIR FULL SCOPE OF WORK. CONTRACTOR SHALL NOT BE ALLOWED EXTRA COSTS DUE TO FAILURE TO REVIEW ENTIRE SET OF DOCUMENTS.
2. ANY USE OF THESE ELECTRONIC DRAWINGS OR SCALING OF THE PRINTED DOCUMENTS ARE DONE SO AT THE CONTRACTORS RISK.

PROFESSIONAL MECHANICAL ENGINEER PHILIP M. SCHREIER E-4552 STATE OF NEBRASKA

ARCHITECT/ENGINEERS:

CLH Calvin L. Hinz ARCHITECTS, INC.

Calvin L. Hinz Architects, P.C.
3705 North 200th Street
Elkhorn, Nebraska 68022
Phone:402.291.6941 Fax: 402.291.9193

FARRIS ENGINEERING
OMAHA | LINCOLN | DES MOINES | COLORADO SPRINGS
farris-uso.com

COPYRIGHT
This document and the information contained may not be reproduced or excerpted from without the express written permission of Farris Engineering, Inc. Unauthorized copying, disclosure or construction use are prohibited by the copyright law.

11239 Chicago Circle
Omaha, Nebraska 68154
402.330.5900 402.330.5902

Drawing Title: MECHANICAL SYMBOL LEGEND AND GENERAL NOTES

Project Title: CORRECT NWIHCS SPD DEFICIENCIES- VA OMAHA DIVISION

Project Number: 636-12-105B
OMAHA PACKAGE ONE

Building Number: ONE

Location: VAMC Omaha, NE

Drawing Number: MG1.1
Dwg. 4 of 16

Approved Project Director: GARY STUCKENSCHMIDT

CONSTRUCTION DOCUMENT (CD-3) SUBMITTAL 100%
APRIL 13, 2012

Date	Checked	Drawn
APRIL 13, 2012	BMS	LMB

Office of Construction and Facilities Management
Department of Veterans Affairs

one eighth inch = one foot | one quarter inch = one foot | one half inch = one foot | three eighths inch = one foot | three quarters inch = one foot | one inch = one foot | one and one half inches = one foot | three inches = one foot
C:\2012\12201\2\CAD\Mechanical\Package 1\12201\2-MG1.1.dwg 4-13-12 09:41:30 AM lmb