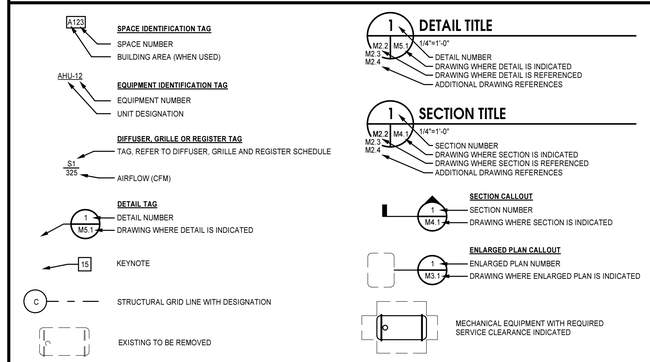
EQUIPMENT IDENTIFICATION

AHU	AIR-HANDLING UNIT
AS	AIR SEPARATOR
B	BOILER
BCU	BLOWER COIL UNIT
CCC	CLOSED-CIRCUIT COOLING TOWER
CH	CHILLER
CHWP	CHILLED WATER PUMP
CRAC	COMPUTER ROOM AIR CONDTIONER
CT	COOLING TOWER
CUH	CABINET UNIT HEATER
CWP	CONDENSER WATER PUMP
ECH	ELECTRIC CEILING HEATER
ERU	ENERGY RECOVERY UNIT
ERV	ENERGY RECOVERY VENTILATOR
ET	EXPANSION TANK
EUH	ELECTRIC UNIT HEATER
EWH	ELECTRIC WALL HEATER
FCU	FAN COIL UNIT
HP	HEAT PUMP
HWP	HOT WATER PUMP
HX	HEAT EXCHANGER
MAU	MAKEUP AIR UNIT
OAU	OUTDOOR AIR UNIT
P	PUMP
PTAC	PACKAGED TERMINAL AIR CONDITIONER
PTHP	PACKAGED TERMINAL HEAT PUMP
RTU	ROOFTOP UNIT
SSI	SPLIT-SYSTEM INDOOR UNIT
SSO	SPLIT-SYSTEM OUTDOOR UNIT
TU	TERMINAL UNIT
UH	UNIT HEATER
WSHP	WATER-SOURCE HEAT PUMP

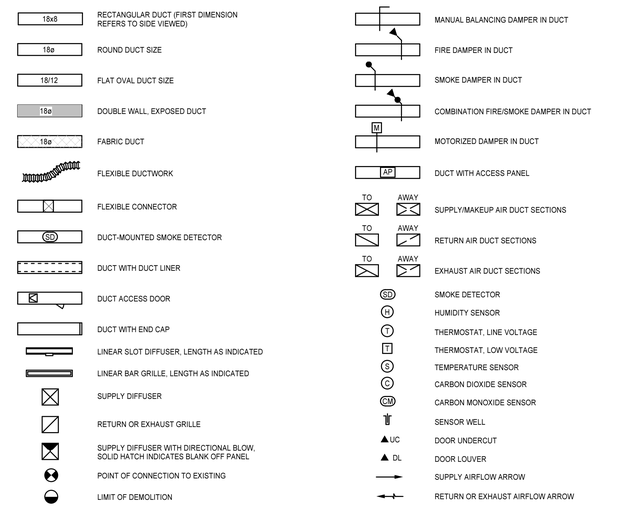
GENERAL ABBREVIATIONS

A	AMPERE(S)
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
ALT	ALTERNATE
APD	AIR PRESSURE DROP
BHP	BRAKE HORSEPOWER
BTUH	BRITISH THERMAL UNITS PER HOUR
CFM	CUBIC FEET PER MINUTE
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CLG	COOLING
COM	COMMON
CWR	CONDENSER WATER RETURN
CWS	CONDENSER WATER SUPPLY
D	DRAIN
DB	DRY BULB TEMPERATURE
dBA	A-WEIGHTED DECIBELS
DCW	DOMESTIC COLD WATER
DIA	DIAMETER
DN	DOWN
DWG	DRAWING
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EER	ENERGY EFFICIENCY RATIO
EQ	EQUAL
ESP	EXTERNAL STATIC PRESSURE
EWT	ENTERING WATER TEMPERATURE
EX	EXISTING
F	DEGREES FAHRENHEIT
FC	FAIL CLOSED
FD	FIRE DAMPER
FLA	FULL LOAD AMPS
FO	FAIL OPEN
FPM	FEET PER MINUTE
FT	FOOT, FEET
GA	GAUGE
GAL	GALLON(S)
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
HP	HORSEPOWER
HPWR	HEAT PUMP WATER RETURN
HPWS	HEAT PUMP WATER SUPPLY
HTG	HEATING
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
HX	HEAT EXCHANGER
HZ	HERTZ
IN	INCH
IPLV	INTEGRATED PART-LOAD VALUE
KW	KILOWATT(S)
LAT	LEAVING AIR TEMPERATURE
LBS	POUNDS
LWT	LEAVING WATER TEMPERATURE
MAX	MAXIMUM
MBH	ONE THOUSAND BTUH
MCA	MINIMUM CIRCUIT AMPACITY
MFR	MANUFACTURER
MIN	MINIMUM
MOD	MOTOR-OPERATED DAMPER
MOP	MAXIMUM OVERCURRENT PROTECTION
NC	NORMALLY CLOSED (FOR PLANS, DETAILS)
NC	NOISE CRITERIA (FOR SCHEDULES)
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
OA	OUTSIDE AIR
OC	ON CENTER
PH	PHASE
PSIG	POUNDS PER SQUARE INCH GAUGE
RA	RETURN AIR
RD	REFRIGERANT DISCHARGE
RH	RELATIVE HUMIDITY
RL	REFRIGERANT LIQUID
RPM	REVOLUTIONS PER MINUTE
RS	REFRIGERANT SUCTION
SA	SUPPLY AIR
SEER	SEASONAL ENERGY EFFICIENCY RATIO
TD	TRANSFER DUCT
TYP	TYPICAL
UNO	UNLESS NOTED (INDICATED) OTHERWISE
V	VOLTAGE, VOLTS
VD	VOLUME DAMPER
VFD	VARIABLE FREQUENCY DRIVE
W	WATT(S)
W/	WITH
W/O	WITHOUT
WB	WET BULB TEMPERATURE
WC	WATER COLUMN
WPD	WATER PRESSURE DROP
WWM	WELDED WIRE MESH

GRAPHICS SYMBOLS LEGEND



DUCTWORK LEGEND



GENERAL NOTES

A. THE CONTRACT DOCUMENTS ARE COMPLEMENTARY AND WHAT IS REQUIRED BY ONE SHALL BE AS BINDING AS IF REQUIRED BY ALL. IN THE CASE OF A CONFLICT, DISAGREEMENT, OR AMBIGUITY, PROVIDE THE BETTER QUALITY. IN THE CASE OF A CONFLICT, DISAGREEMENT, OR AMBIGUITY, PROVIDE THE GREATER QUANTITY OF WORK.

B. DRAWINGS ARE DIAGRAMMATIC AND INTENDED TO CONVEY SCOPE AND GENERAL ARRANGEMENT ONLY. DO NOT SCALE DRAWINGS. LOCATIONS OF ALL ITEMS INDICATED ON THE DRAWINGS OR CALLED FOR IN THE SPECIFICATIONS THAT ARE NOT DEFINITIVELY FIXED BY DIMENSIONS ARE APPROXIMATE. COORDINATE CONTRACT DOCUMENTS PROJECT REQUIREMENTS, WORK OF OTHERS, AND EQUIPMENT AND MATERIALS PURCHASED WITH FIELD DIMENSIONS, MANUFACTURER'S REQUIREMENTS FOR INSTALLATION, OPERATION, AND MAINTENANCE, CONTRACTOR'SINTENDED MEANS AND METHODS OF INSTALLATION, AND CONTRACTOR'S FABRICATED ITEMS TO ENSURE A PROPER FIT AND INSTALLATION.

C. MAINTAIN MAXIMUM HEADROOM AND SPACE CONDITIONS AT ALL POINTS. WHERE HEADROOM AND SPACE CONDITIONS APPEAR INADEQUATE, NOTIFY THE ARCHITECTS PRIOR TO PROCEEDING WITH INSTALLATION. MAINTAIN A MINIMUM OF 7'-0" CLEARANCE ABOVE FINISHED FLOOR TO UNDERSIDE OF PIPES, DUCTS, CONDUITS, SUSPENDED EQUIPMENT, ETC., THROUGHOUT ACCESS ROUTES IN MECHANICAL ROOMS.

D. FIELD VERIFY AND COORDINATE ALL DUCT AND PIPING DIMENSIONS BEFORE FABRICATION. MAKE MODIFICATIONS IN THE LAYOUT AS NEEDED TO PREVENT CONFLICT WITH WORK OF OTHER TRADES OR FOR PROPER EXECUTION OF THE WORK.

E. INSTALL ALL EQUIPMENT AND APPURTENANCES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENATIONS, CONTRACT DOCUMENTS, AND APPLICABLE CODES AND REGULATIONS.

F. COORDINATE LOCATIONS AND SIZES OF ALL FLOOR, WALL, AND ROOF OPENINGS WITH ALL OTHER TRADES. COORDINATE ALL PIPING AND EQUIPMENT SUPPORTED FROM STRUCTURE WITH GENERAL CONSTRUCTION WORK.

G. PROVIDE TRAPPED DRAIN PIPING FROM DRAIN PANS OF ALL COOLING COILS, FANS AND OTHER ACTIVE DRAINS EXPOSED TO SYSTEM AIRSTREAM. PROVIDE TRAP AT CONNECTION WITH WATER SEAL DEPTH ONE INCH GREATER THAN UNIT OPERATING PRESSURE. DIRECT DRAINS TO NEAREST FLOOR DRAIN, MOP SINK, OR OTHER LOCATION APPROVED BY THE ARCHITECT.

H. INSTALL PIPING, DUCTWORK, AND CONDUIT CONCEALED IN AREAS HAVING CEILINGS AND/OR FURRED SPACES UNLESS OTHERWISE INDICATED.

I. ALL EQUIPMENT, DAMPERS, AND DAMPER OPERATORS SHALL BE PROVIDED WITH ADEQUATE ACCESS FOR SERVICING, MAINTENANCE, AND REPLACEMENT.

J. SIZE ALL SPLIT-SYSTEM REFRIGERANT PIPING IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

K. DUCT DIMENSIONS MAY BE MODIFIED ONLY WITH PRIOR APPROVAL FROM ARCHITECT. DUCT DIMENSIONS ARE IN INCHES AND INSIDE CLEAR.

L. FOR LOCATION OF REGISTERS, GRILLES, AND DIFFUSERS WITHIN CEILING GRID, REFER TO ARCHITECTURAL REFLECTED CEILING PLANS.

M. ELEVATION INDICATED FOR RECTANGULAR DUCT, GRILLE AND LOUVER OPENINGS IS TO THE TOP OF ROUGH OPENING UNLESS OTHERWISE INDICATED. ELEVATION INDICATED FOR ROUND DUCTWORK AND PIPING IS TO CENTERLINE.

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PROJECT NO: 550322	DATE: OCTOBER 15, 2015
REVISIONS	
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LEGENDS, ABBREVIATIONS AND GENERAL NOTES

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