COMcheck Software Version COMcheckWeb
Mechanical Compliance Certificate

Project Information

Energy Code:	2015 IECC
Project Title:	Marriott Sawgrass Cabana Club
Location:	Jacksonville Beach, Florida
Climate Zone:	2a
Project Type:	New Construction

Construction Site: Owner/Agent: Designer/Contractor:

Additional Efficiency Package(s)

Reduced interior lighting power. Requirements are implicitly enforced within interior lighting allowance calculations.

Mechanical Systems List

Quantity System Type & Description

6 AC-101,102,201,202,203,204 (Single Zone):
Split System Heat Pump
Heating Mode: Capacity = 59 kBtu/h,
Proposed Efficiency = 8.20 HSPF, Required Efficiency = 8.20 HSPF
Cooling Mode: Capacity = 53 kBtu/h,
Proposed Efficiency = 14.00 SEER, Required Efficiency: 14.00 SEER
Fan System: 1525 CFM -- Compliance (Motor nameplate HP method) : Passes

Fans:
FAN 1 Supply, Constant Volume, 1525 CFM, 1.0 motor nameplate hp, 0.0 fan efficiency grade

1 AC-103 (Single Zone):
Split System Heat Pump
Heating Mode: Capacity = 40 kBtu/h,
Proposed Efficiency = 8.20 HSPF, Required Efficiency = 8.20 HSPF
Cooling Mode: Capacity = 38 kBtu/h,
Proposed Efficiency = 14.00 SEER, Required Efficiency: 14.00 SEER
Fan System: 1120 CFM -- Compliance (Motor nameplate HP method) : Passes

Fans:
FAN 2 Supply, Constant Volume, 1120 CFM, 0.3 motor nameplate hp, 0.0 fan efficiency grade

2 AC-104,302 (Single Zone):
Split System Heat Pump
Heating Mode: Capacity = 18 kBtu/h,
Proposed Efficiency = 8.20 HSPF, Required Efficiency = 8.20 HSPF
Cooling Mode: Capacity = 16 kBtu/h,
Proposed Efficiency = 14.00 SEER, Required Efficiency: 14.00 SEER
Fan System: 525 CFM -- Compliance (Motor nameplate HP method) : Passes

Fans:
FAN 3 Supply, Constant Volume, 525 CFM, 0.3 motor nameplate hp, 0.0 fan efficiency grade

1 AC-105 (Single Zone):
Split System Heat Pump
Heating Mode: Capacity = 100 kBtu/h,
Proposed Efficiency = 3.30 COP, Required Efficiency = 3.30 COP
Cooling Mode: Capacity = 106 kBtu/h,
Proposed Efficiency = 11.00 EER, Required Efficiency: 11.00 EER + 12.0 IEER
Fan System: 4265 CFM -- Compliance (Motor nameplate HP method) : Passes

Fans:
FAN 4 Supply, Constant Volume, 4265 CFM, 2.0 motor nameplate hp, 0.0 fan efficiency grade

Quantity System Type & Description

3 AC-106,205,301 (Single Zone):
Split System Heat Pump
Heating Mode: Capacity = 24 kBtu/h,
Proposed Efficiency = 8.20 HSPF, Required Efficiency = 8.20 HSPF
Cooling Mode: Capacity = 21 kBtu/h,
Proposed Efficiency = 14.00 SEER, Required Efficiency: 14.00 SEER
Fan System: 713 CFM -- Compliance (Motor nameplate HP method) : Passes

Fans:
FAN 5 Supply, Constant Volume, 713 CFM, 0.1 motor nameplate hp, 0.0 fan efficiency grade

3 AC-303 (Single Zone):
Split System Heat Pump
Heating Mode: Capacity = 10 kBtu/h,
Proposed Efficiency = 8.20 HSPF, Required Efficiency = 8.20 HSPF
Cooling Mode: Capacity = 9 kBtu/h,
Proposed Efficiency = 14.00 SEER, Required Efficiency: 14.00 SEER
Fan System: 290 CFM -- Compliance (Motor nameplate HP method) : Passes

Fans:
FAN 6 Supply, Constant Volume, 290 CFM, 0.2 motor nameplate hp, 0.0 fan efficiency grade

1 DOAS-1 (Single Zone):
Heating: 1 each - Central Furnace, Gas, Capacity = 240 kBtu/h
Proposed Efficiency = 80.00% Et, Required Efficiency: 80.00 % Et
Cooling: 1 each - Single Package DX Unit, Capacity = 371 kBtu/h, Air-Cooled Condenser, Air Economizer
Proposed Efficiency = 9.80 EER, Required Efficiency: 9.80 EER + 11.4 IEER
Fan System: DOAS-1 -- Compliance (Motor nameplate HP method) : Passes

Fans:
FAN 7 Supply, Single-Zone VAV, 3800 CFM, 3.0 motor nameplate hp, 0.0 fan efficiency grade

1 MAU-1 (Single Zone):
Heating: 1 each - Central Furnace, Gas, Capacity = 121 kBtu/h
Proposed Efficiency = 92.00% Et, Required Efficiency: 80.00 % Et or 78% AFUE
Cooling: 1 each - Single Package DX Unit, Capacity = 139 kBtu/h, Air-Cooled Condenser, Air Economizer
Proposed Efficiency = 10.80 EER, Required Efficiency: 10.80 EER + 12.2 IEER
Fan System: 3444 CFM -- Compliance (Motor nameplate HP method) : Passes

Fans:
FAN 8 Supply, Constant Volume, 3444 CFM, 3.0 motor nameplate hp, 0.0 fan efficiency grade

2 GWH-01,02:
Gas Instantaneous Water Heater, Capacity: 4 gallons, Input Rating: 751 kBtu/h w/ Circulation Pump
Proposed Efficiency: 94.00 % Et, Required Efficiency: 80.00 % Et

Mechanical Compliance Statement

Compliance Statement: The proposed mechanical design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed mechanical systems have been designed to meet the 2015 IECC requirements in COM*check* Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Allison Ehle, PE — May 29, 2020

Name - Title | Signature | Date

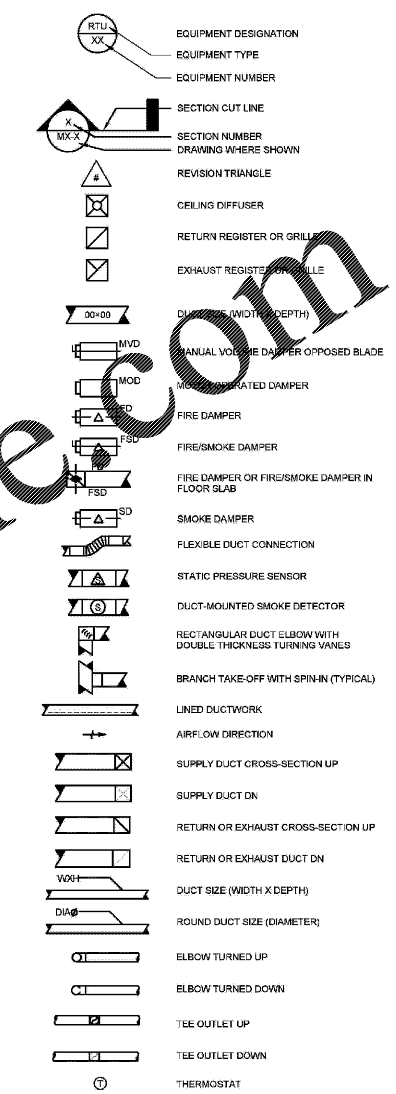
GENERAL NOTES:

1. EXCEPT WHERE DIMENSIONS ARE SHOWN THE DRAWINGS FOR MECHANICAL WORK ARE DIAGRAMMATIC AND ARE INTENDED TO CONVEY SCOPE AND GENERAL ARRANGEMENT ONLY. THE DRAWINGS DO NOT SHOW EVERY FITTING AND DETAIL. ALL PIPING SYSTEMS, DUCT SYSTEMS, EQUIPMENT, MATERIALS, AND LABOR SHALL BE COMPLETE. PROVIDE ALL NECESSARY OFFSETS, CONNECTIONS, SUPPORTS, FITTINGS, DETAILS, MATERIALS, EQUIPMENT, AND LABOR TO COMPLETE THE WORK. COORDINATE ALL WORK WITH ARCHITECTURAL, STRUCTURAL, CIVIL, PLUMBING, ELECTRICAL, AND ALL OTHER WORK SHOWN ON THE CONTRACT DOCUMENT DRAWINGS. COORDINATE WORK WITH ARCHITECTURAL ELEMENTS INCLUDING AVAILABLE SPACE ABOVE EACH CEILING. ALL MATERIALS SHALL FIT THE SPACE AVAILABLE. VERIFY DIMENSIONS AND CLEARANCES AT BUILDING SITE PRIOR TO COMMENCING WORK. DRAWINGS SHALL NOT BE SCALED.
2. WHEN ALL TRADE WORK IS SUBCONTRACTED, IT SHALL BE THE GENERAL CONTRACTOR'S RESPONSIBILITY TO COORDINATE HIS SUBCONTRACTORS AND THEIR ASSOCIATED CONTRACTS. WHEN DISCREPANCIES ARISE PERTAINING TO WHICH CONTRACTOR PROVIDES A PARTICULAR ITEM OF THE WORK OR WHICH CONTRACTOR PROVIDES FINAL CONNECTIONS FOR A PARTICULAR ITEM OF THE CONTRACT, IT SHALL BE BROUGHT TO THE ATTENTION OF THE GENERAL CONTRACTOR, WHOSE DECISION SHALL BE FINAL.
3. THE LOCATIONS OF ALL ITEMS SHOWN ON THE DRAWINGS OR CALLED FOR IN THE SPECIFICATIONS THAT ARE NOT DEFINITELY FIXED BY DIMENSIONS ARE TO BE APPROXIMATE ONLY. THE EXACT LOCATIONS NECESSARY TO SECURE THE BEST CONDITIONS AND RESULTS MUST BE DETERMINED BY THE PROJECT SITE CONDITIONS AND SHALL HAVE THE APPROVAL OF THE ENGINEER BEFORE BEING INSTALLED. DO NOT SCALE DRAWINGS. ALL DIMENSIONAL ISSUES SHALL BE DIRECTED TO THE ARCHITECT FOR HIS RESOLUTION.
4. PROVIDE MISCELLANEOUS STEEL REQUIRED TO ENSURE PROPER INSTALLATION AND AS SHOWN IN DETAILS FOR PIPING, DUCTWORK AND EQUIPMENT (UNLESS OTHERWISE NOTED).
5. DURING THE CONSTRUCTION PHASE, EACH RETURN AIR INLET AT EACH RETURN AIR DUCT OPENING SHALL BE PROTECTED AGAINST ENTERING DUST. PROVIDE TEMPORARY ROLL TYPE FILTER MEDIA SECURED WITH TAPE AT EACH RETURN AIR DUCT INLET. REMOVE THIS AFTER THE CONSTRUCTION PHASE AND PRIOR TO OCCUPANCY.
6. REFER TO ARCHITECTURAL CEILING PLANS FOR EXACT LOCATIONS OF ALL AIR DISTRIBUTION DEVICES. IF A PARTICULAR ITEM IS NOT SHOWN ON THE ARCHITECTURAL REFLECTED CEILING PLAN, PREPARE A DRAWING AND PRESENT IT TO THE ARCHITECT FOR HIS REVIEW AND/OR APPROVAL.
7. REFER TO ARCHITECTURAL DRAWING FOR EXACT SIZE, LOCATION AND MOUNTING HEIGHT OF ALL LOUVERS AND/OR EXTERIOR WALL MOUNTED DEVICES.
8. COORDINATE THE EXACT LOCATION AND SIZE OF ALL ROOF AND SLAB PENETRATIONS WITH THE ARCHITECT PRIOR TO ANY CONCRETE BEING PLACED.
9. FLEXIBLE DUCT RUNOUTS SHALL BE INSTALLED FREE OF KINKS AND SAGS. MAXIMUM LENGTH OF LOW PRESSURE FLEXIBLE DUCT SHALL BE 7'-0".
10. MAINTAIN DUCTWORK LEVEL AND AS HIGH AS POSSIBLE UNLESS NOTED OTHERWISE. TRANSITION RECTANGULAR DUCTWORK ON THE BOTTOM AND THE SIDES. ALL DUCT TRANSITIONS FROM SQUARE TO ROUND SHALL BE SMOOTH SQUARE TO ROUND TRANSITIONS. SPIN-IN FITTINGS AT THE END OF CAPPED DUCTS ARE NOT ACCEPTABLE.
11. DUCT SIZES ARE SHOWN AS INSIDE CLEAR DIMENSIONS. WHERE INTERNAL INSULATION IS CALLED FOR, DIMENSIONS SHALL BE INCREASED BY THE THICKNESS OF THE INSULATION.
12. ALL EQUIPMENT, PIPING, CONDUIT OR ANY PORTIONS OF DUCTWORK VISIBLE THROUGH SLOTS, GRILLES, REGISTERS, OR DIFFUSERS IN FINISHED AREAS SHALL BE PAINTED FLAT BLACK.
13. ALL MOTORS 1/8 HP AND ABOVE SHALL HAVE A DISCONNECT SWITCH MOUNTED AT THE MOTOR OR DEVICE. SEE ELECTRICAL SPECIFICATION FOR DISCONNECT TYPE. AND ALL MOTOR STARTERS NOT PROVIDED WITH MECHANICAL EQUIPMENT SHALL BE PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR.
14. CONTRACTOR SHALL COORDINATE VOLTAGE AND PHASE OF EACH PIECE OF EQUIPMENT WITH THE ELECTRICAL CONTRACTOR AND ALL ELECTRICAL CONTRACT DOCUMENTS PRIOR TO ORDERING.
15. MOUNT TEMPERATURE SENSORS AND THERMOSTATS WHERE INDICATED ON PLANS, AT 48" AFF UNLESS OTHERWISE NOTED. SEE THE ARCHITECTURAL AND INTERIOR DRAWINGS AS WELL AS THE MECHANICAL DRAWINGS FOR THE COORDINATED LOCATIONS. WHERE THERE IS A CONFLICT OF LOCATIONS AMONG THE DRAWINGS, NOTIFY THE ARCHITECT IMMEDIATELY FOR RESOLUTION.
16. ALL BRANCH DUCTWORK SHALL BE THE SAME SIZE AS THE DIFFUSER CONNECTION SERVED UNLESS OTHERWISE NOTED.
17. PROVIDE FIRE/SMOKE DAMPERS IN ALL FIRE RATED WALLS AND FLOORS AS IDENTIFIED ON ARCHITECTURAL DRAWINGS. RATINGS OF FIRE DAMPERS SHALL MEET THE RATING AS IDENTIFIED IN THE ARCHITECTURAL WALL RATING SCHEDULE AND LIFE SAFETY PLANS.
18. PROVIDE AND INSTALL ALL DUCT MOUNTED ACCESS DOORS FOR ALL FIRE AND/OR SMOKE DAMPERS NOT OTHERWISE ACCESSIBLE. LOCATE ACCESS PANELS IN BACK-OF-HOUSE AREAS WHERE POSSIBLE.
19. ALL WIRING IN THE CEILING PLENUM SHALL BE PLENUM RATED CABLE PER NFPA-70 OR BE INSTALLED IN CONDUIT.
20. ALL CEILING MOUNTED AIR DISTRIBUTION DEVICES LOCATED IN INACCESSIBLE CEILINGS SHALL HAVE FACE OPERABLE DAMPERS TO ALLOW AIR BALANCING OF THE SYSTEM AFTER THE CEILING IS IN PLACE.
21. GREASE HOOD DUCT SYSTEMS SHALL BE CONSTRUCTED OF AND SUPPORTED BY MATERIALS IN ACCORDANCE WITH SPECIFICATIONS (18 GA. BLACK STEEL) AND IN ACCORDANCE WITH NFPA SECTION 96. SUPPORTS AND FASTENERS SHALL NOT PENETRATE DUCT. A TWO HOUR ENCLOSURE SHALL BE PROVIDED AROUND ANY VERTICAL KITCHEN EXHAUST DUCT WITHIN A BUILDING OF TWO STORIES OR MORE FROM THE CEILING TO THE BOTTOM OF THE STRUCTURE WITH ACCESS TO CLEANOUT DOORS. KITCHEN EXHAUST DUCTWORK AND DUCTWORK ASSEMBLY SHALL BE SLOPED 1/4" PER FOOT TOWARD THE HOOD.
22. AN IONIZATION TYPE SMOKE DETECTOR FOR UNIT SHUTDOWN SHALL BE INSTALLED IN THE RETURN AIR DUCT OF EACH AHU, FCU AND FANS OF 2000 CFM AND GREATER.
23. CONDENSATE DRAIN LINES RUNNING HORIZONTALLY SHALL BE SLOPED 1/8" PER FOOT DOWN IN THE DIRECTION OF FLOW. ALL AIR CONDITIONING CONDENSATE DRAIN LINES FROM EACH AIR HANDLING UNIT SHALL BE PIPED FULL SIZE OF THE UNIT DRAIN OUTLET WITH A P TRAP AND PIPED TO NEAREST DRAIN.
24. ALL AC UNITS, FANS AND DAMPERS ABOVE CEILING SHALL BE ACCESSIBLE. CONTRACTOR SHALL COORDINATE ALL ACCESS PANELS IN CEILINGS OR WALLS WITH ARCHITECTURAL REFLECTED CEILING PLANS AND INTERIOR DRAWINGS FOR PROPER LOCATION. NO ACCESS PANELS ARE ALLOWED IN PUBLIC SPACES WITHOUT PRIOR WRITTEN APPROVAL OF THE ARCHITECT.
25. RETURN AIR SHALL BE THROUGH CEILING DIFFUSERS, GRILLES OR THROUGH SLOTS PROVIDED IN THE CEILING UNLESS SHOWN OTHERWISE.
26. THE CONTRACTOR SHALL MAKE FINAL CONNECTIONS TO ALL EQUIPMENT INDICATED ON DRAWINGS INCLUDING KITCHEN EQUIPMENT FURNISHED BY OWNER. FINAL CONNECTION SHALL INCLUDE, BUT NOT BE LIMITED TO, ALL ADAPTERS, NIPPLES, SHUTOFF VALVES, AND PRESSURE REGULATING VALVES REQUIRED.
27. ALL LOUVERS AND DUCTS OPEN ON END SHALL BE COVERED WITH 1/2" WIRE MESH BIRDSCREEN OR ACCEPTABLE EQUIVALENT.
28. UNLESS OTHERWISE INDICATED, THERE SHALL BE NO EXPOSED DUCTWORK AND PIPING IN ANY PUBLIC AREAS.
29. VIBRATION ISOLATION FOR ALL EQUIPMENT SHALL BE PROVIDED TO PREVENT TRANSMISSION OF VIBRATION TO BUILDING STRUCTURE.
30. CONTRACTORS SHALL MAINTAIN A MINIMUM OF 6'-8" CLEARANCE TO THE UNDERSIDE OF PIPES, DUCTS, CONDUITS AND SUSPENDED EQUIPMENT THROUGHOUT ACCESS ROUTES IN ANY EQUIPMENT ROOMS.
31. ALL TESTS SHALL BE COMPLETED BEFORE ANY EQUIPMENT OR PIPING INSULATION IS APPLIED.
32. CONTRACTOR SHALL LOCATE ALL TEMPERATURE, PRESSURE AND FLOW MEASURING DEVICES IN ACCESSIBLE LOCATIONS WITH STRAIGHT SECTION OF PIPE OR DUCT UPSTREAM AND DOWNSTREAM AS RECOMMENDED BY THE MANUFACTURER FOR GOOD ACCURACY.
33. ANY TESTING, ADJUSTING AND BALANCING AGENCY CONSIDERED FOR THE PROJECT SHALL BE A MEMBER OF THE ASSOCIATED BALANCE COUNCIL (AABC) OR THE NATIONAL ENVIRONMENTAL BALANCING BUREAU (NEBB). TESTING, ADJUSTING, AND BALANCING SHALL BE PERFORMED IN ACCORDANCE WITH THE AABC STANDARDS.
34. WHERE TWO OR MORE ITEMS OF THE SAME EQUIPMENT TYPE ARE REQUIRED, THE PRODUCTS OF ONE MANUFACTURER SHALL BE USED.
35. CONTRACTOR SHALL COORDINATE ALL EQUIPMENT CONNECTIONS WITH MANUFACTURERS' CERTIFIED DRAWINGS. THEY SHALL COORDINATE AND PROVIDE ALL DUCT AND PIPING TRANSITIONS REQUIRED FOR FINAL EQUIPMENT CONNECTIONS TO FURNISHED EQUIPMENT. FIELD VERIFY AND COORDINATE ALL DUCT AND PIPING DIMENSIONS BEFORE FABRICATION.
36. ALL CONTROL WIRE AND CONDUIT SHALL COMPLY WITH THE NATIONAL ELECTRIC CODE AND THE ELECTRICAL DIVISION OF THE CONTRACT SPECIFICATION.
37. WHERE STRUCTURAL BEAMS ARE INDICATED TO BE PENETRATED WITH DUCTWORK OR PIPING, THE CONTRACTOR SHALL COORDINATE THE DUCTWORK AND PIPING LAYOUT WITH BEAM OPENING SIZE AND OPENING LOCATIONS. ALL COORDINATION SHALL BE DONE PRIOR TO FABRICATION OF DUCTWORK, CUTTING OF PIPING, OR FABRICATION OF BEAMS.
38. PROVIDE ACCESS PANELS FOR INSTALLATION IN WALLS AND CEILINGS, WHERE REQUIRED, TO SERVICE DAMPERS, VALVES, SMOKE DETECTORS OR ANY OTHER CONCEALED EQUIPMENT. ACCESS PANELS SHALL BE PROVIDED TO GENERAL CONTRACTOR FOR INSTALLATION UNDER HIS CONTRACT BREAKDOWN.
39. ALL DUCTWORK, PIPING AND EQUIPMENT SHALL BE SUPPORTED FROM THE SURROUNDING STRUCTURAL ELEMENTS AND COORDINATED THROUGH THE GENERAL CONTRACTOR. ANY ATTACHMENT TO STEEL BAR JOISTS, TRUSSES OR JOIST GIRDERS SHALL BE AT PANEL POINTS. CONTRACTOR SHALL PROVIDE BEAM CLAMPS MEETING MSS STANDARDS. ANY WELDING TO STRUCTURAL MEMBERS SHALL NOT BE PERMITTED. THE USE OF C-CLAMPS SHALL NOT BE PERMITTED.
40. EQUIPMENT, DUCTWORK AND PIPING SHALL NOT BE PERMITTED TO BE SUPPORTED FROM ANY METAL DECK.
41. ALL LOCATIONS AND SIZES OF ALL FLOOR, WALL AND ROOF OPENINGS SHALL BE COORDINATED WITH ALL OTHER TRADES. ALL OPENINGS IN FIRE WALLS DUE TO DUCTWORK, PIPING OR CONDUIT SHALL BE FIRE STOPPED WITH A PRODUCT SIMILAR TO 3M, HILTI OR APPROVED EQUAL.
42. PROVIDE AN AUXILIARY DRAIN PAN WITH FLOAT SWITCH UNDER EACH HORIZONTAL CONCEALED AIR HANDLING UNIT.
43. PIPING OR DUCTWORK SHALL NOT BE ROUTED BENEATH OR ADJACENT TO EACH HVAC AND PLUMBING EQUIPMENT ITEM TO ALLOW EQUIPMENT REMOVAL AND EQUIPMENT ACCESS.
44. ALL OVERHEAD PIPING INSTALLATION SHALL BE HELD TIGHT TO STRUCTURE OR SLAB WITH THE REQUIRED SPACE FOR INSULATION INSTALLATION.
45. CONTRACTOR SHALL INSTALL ALL PIPING SYSTEMS SO THAT ANY VALVES, STRAINERS, UNIONS, TRAPS, FLANGES AND OTHER APPURTENANCES ARE ACCESSIBLE.
46. FLANGED CONNECTIONS OR UNIONS SHALL BE SUPPLIED AND INSTALLED AT EACH PIECE OF EQUIPMENT, TO ALLOW SYSTEM DISASSEMBLY FOR ANY ALTERATIONS AND/OR REPAIRS.
47. ALL PIPING SHALL BE INSTALLED WITHOUT SPRINGING OR FORCING AND SHALL CLEAR ALL WINDOWS AND DOORS.
48. PIPING SHALL BE COORDINATED WITH ALL TRADES. ANY OFFSETS AROUND OBSTRUCTIONS OR INTERFERENCES SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE CONTRACT.
49. PROVIDE FULL SIZE TRAPPED AND VENTED CONDENSATE PIPING ROUTED FROM EACH ROOFTOP UNIT TO THE ROOF.
50. COOLING COIL CONDENSATE PIPING SHALL BE PROVIDED WITH A REMOVABLE CLEANOUT PLUG AT EACH CHANGE OF DIRECTION.
51. CERTAIN ITEMS SUCH AS RISES AND DROPS IN DUCTWORK, ACCESS DOORS AND VOLUME DAMPERS ARE INDICATED ON THE CONTRACT DOCUMENT DRAWINGS FOR CLARITY FOR A SPECIFIC LOCATION REQUIREMENT AND SHALL NOT BE INTERPRETED AS THE EXTENT OF THE REQUIREMENTS FOR THESE ITEMS.
52. ALL DUCTWORK SHALL CLEAR DOORS AND WINDOWS.
53. PROVIDE SMOOTH, FULL RADIUS ELBOWS IN SUPPLY, RETURN, AND EXHAUST SYSTEMS. WHERE SPACE IS LIMITED, PROVIDE 90° SQUARE ELBOWS WITH TURNING VANES. TURNING VANES SHALL NOT BE PROVIDED IN GREASE EXHAUST OR DRYER EXHAUST SYSTEMS.
54. LOCATE ALL MECHANICAL EQUIPMENT FOR UNOBSTRUCTED ACCESS TO UNIT ACCESS PANELS, CONTROLS AND VALVING.
55. PROVIDE FLEXIBLE CONNECTIONS IN ALL DUCTWORK SYSTEMS (SUPPLY, RETURN, AND EXHAUST) CONNECTED TO AIR HANDLING UNITS, FANS, AND OTHER EQUIPMENT WHICH REQUIRE VIBRATION ISOLATION. FLEXIBLE CONNECTIONS SHALL BE PROVIDED AT THE POINT OF CONNECTION TO THE EQUIPMENT UNLESS OTHERWISE INDICATED.
56. UNLESS OTHERWISE NOTED, ALL DUCTWORK IS OVERHEAD, AS CLOSE TO THE UNDERSIDE OF THE STRUCTURE, CONSIDERING PIPING IS ABOVE WITH SPACE FOR INSULATION IF REQUIRED.
57. PROVIDE ACCESS DOORS IN DUCTWORK FOR OPERATION, ADJUSTMENT, AND MAINTENANCE OF ALL FANS, VALVES, AND MECHANICAL EQUIPMENT.
58. SMOKE DETECTORS SHALL BE FURNISHED AND WIRED BY THE ELECTRICAL CONTRACTOR. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR MOUNTING THE SMOKE DETECTOR IN DUCTWORK AS SHOWN ON THE DRAWINGS AND IN ACCORDANCE WITH MANUFACTURER'S PRINTED INSTRUCTIONS.
59. EACH SHEET METAL PLENUM AT EACH WALL LOUVER SHALL BE FULL SIZE OF THE LOUVER.
60. REFER TO THE SPECIFICATION BOOK, INCLUDING THE DIVISION 23 SPECIFICATIONS.

ABBREVIATION / DESCRIPTION:

AC	AIR-CONDITIONING
AAV	AUTOMATIC AIR VENT
ABV	ABOVE
AD	ACCESS DOOR
ADJ	ADJUSTABLE
AFF	ABOVE FINISH FLOOR
AHU	AIR HANDLING UNIT
ARCH	ARCHITECT
BDD	BACKDRAFT DAMPER
BOH	BACK OF HOUSE
BOT	BOTTOM
BTU	BRITISH THERMAL UNIT
BTUH	BRITISH THERMAL UNIT PER HOUR
C/C	COOLING COIL
CAP	CAPACITY
CD	CONDENSATE DRAIN
CFM	CUBIC FEET PER MINUTE
CLG	CEILING
CO	CLEANOUT
COMP	COMPRESSOR
CONC	CONCRETE
CONN	CONNECTION
CONT	CONTINUATION
CP	CONTROL PANEL
CU	CONDENSING UNIT
D	DRAIN
dB	DECIBEL
DB	DRY BULB
DEMO	DEMOLISH AND REMOVE
DIA	DIAMETER
DIFF	DIFFUSER
DN	DOWN
DWGS	DRAWINGS
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EDH	ELECTRICAL DUCT HEATER
EF	EXHAUST FAN
ENGR	ENGINEER
ESP	EXTERNAL STATIC PRESSURE
EWT	ENTERING WATER TEMPERATURE
EXH	EXHAUST
EXIST	EXISTING
F	DEGREES FAHRENHEIT
FD	FIRE DAMPER
FD	FLOOR DRAIN
FL	FLOOR
FLEX	FLEXIBLE
FOD	FACE OPERATED DAMPER
FSD	FIRE/SMOKE DAMPER
FT	FEET
FT2	SQUARE FEET
G/E	GREASE EXHAUST
GR	GRILLE
HC	HEATING COIL
HP	HORSEPOWER
HR	HOUR
IN	INCHES
KEF	KITCHEN EXHAUST FAN
KW	KILOWATT
LAT	LEAVING AIR TEMPERATURE
LBS.	POUNDS
LF	LINEAR FEET
LWT	LEAVING WATER TEMPERATURE
MUA	MAKE-UP AIR
MAV	MANUAL AIR VENT
MAX	MAXIMUM
MBH	1000 BTU/HOUR
MIN	MINIMUM
MOD	MOTOR OPERATED DAMPER
MVD	MANUAL VOLUME DAMPER
N/A	NOT APPLICABLE
NPSH	NET POS. SUCTION HEAD
OA	OUTSIDE AIR
OBD	OPPOSED BLADE DAMPER
OC	ON CENTERS
OE	OPEN END
OPNG	OPENING
PH	ELECTRICAL PHASE
PIU	POWERED INDUCTION UNIT
PLBG	PLUMBING
PRV	PRESSURE REDUCING VALVE
PSIA	POUNDS PER SQ. IN. ABSOLUTE
PSIG	POUNDS PER SQ. IN. GAUGE
RA	RETURN AIR
RAG	RETURN AIR GRILLE
REG	REGISTER
RH	RELATIVE HUMIDITY
RPM	ROTATIONS PER MINUTE
SA	SUPPLY AIR
SD	SMOKE DAMPER
SD	SPLITTER DAMPER
SE	SMOKE EXHAUST
SP	STATIC PRESSURE (IN. W.G.)
SQ	SQUARE
SR	SUPPLY REGISTER
SS	STAINLESS STEEL
STR	STRUCTURAL
TAD	TRANSFER AIR DUCT
TE	TOILET EXHAUST
TEF	TOILET EXHAUST FAN
T'STAT	THERMOSTAT
TYP	TYPICAL
UC	¾" UNDERCUT
UH	UNIT HEATER
VEL	VELOCITY
VFD	VARIABLE FREQUENCY DRIVE
W/	WITH
WB	WET BULB
WC	WATER COLUMN
WG	WATER GAUGE
%	PERCENT

MECHANICAL LEGEND:



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This item has been electronically signed and sealed by Allison Ehle, on the Date and/or Time Stamp using a digital signature.

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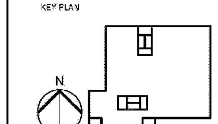
KEY PLAN



REVISION

NO.	DESCRIPTION	DATE

HKS PROJECT NUMBER
22808.001

DATE
05/22/2020

ISSUE
PERMIT SET

SHEET TITLE
LEGEND, NOTES, & ABBREVIATIONS - MECHANICAL

SHEET NO.
M0.01

PLOT DATE: 5/29/2020 8:47:00 AM TEMPLATE VERSION:

Order Plans @ WWW.DLine.com