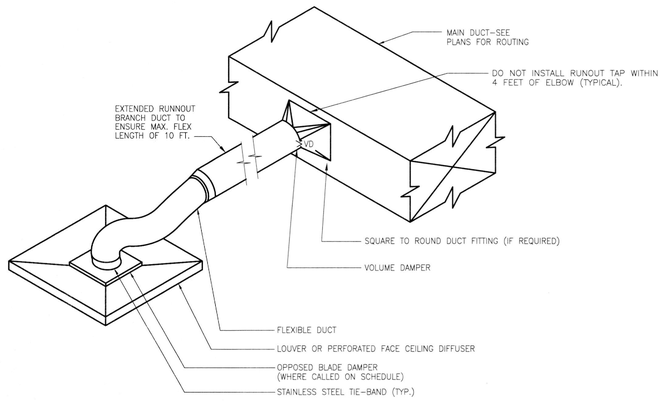
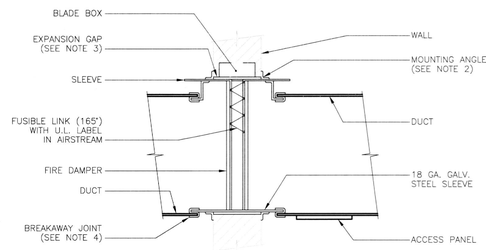


CEILING DIFFUSER HOOK–UP DETAIL

NO SCALE



NOTES

1. FIRE DAMPER AND SLEEVE SHALL BE A FACTORY INSTALLED ASSEMBLY BY THE DAMPER MANUFACTURER.
2. MOUNTING ANGLES SHALL BE INSTALLED ON ALL SIDES OF DAMPER SLEEVE BOTH SIDES OF WALL. ANGLES SHALL NOT OVERLAP EACH OTHER AT CORNERS. ANGLE SHALL BE INSTALLED TIGHT TO WALL AND SECURED TO SLEEVE ONLY WITH 1/4" – 20 BOLTS MAX. 6" ON CENTERS. ANGLES SHALL BE MIN. 1–1/2" x 1–1/2" x 16 GAUGE STEEL.
3. PROVIDE EXPANSION GAP BETWEEN WALL AND SLEEVE. GAP SHALL BE A MINIMUM OF 1/8" FOR EVERY 12" OF SLEEVE WIDTH AND 1/8" FOR EVERY 12" OF SLEEVE DEPTH, OR PER DAMPER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
4. PROVIDE BREAKAWAY JOINT BETWEEN SLEEVE AND DUCT WITH STANDARD SLIP CONNECTOR (NO SCREWS ARE ALLOWED) ON BOTH SIDES OF WALL.
5. WHERE THIS DETAIL CONFLICTS WITH THE DAMPER MANUFACTURER'S INSTALLATION INSTRUCTIONS, THE MANUFACTURER'S INSTRUCTIONS SHALL BE FOLLOWED.
6. CONTRACTOR SHALL NOTE MANUFACTURER'S INSTALLATION STICKERS ON DAMPER. STICKERS SHALL NOT BE REMOVED OR TAMPERED WITH.

FIRE DAMPER DETAIL–WALL INSTALLATION

NO SCALE

HVAC SPECIFICATIONS

1. ALL WORK SHALL CONFORM WITH ALL LOCAL AND STATE CODES, RULES AND REGULATIONS.
2. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS, FEES AND TAXES.
3. MAKE NO CHANGES WITHOUT THE WRITTEN PERMISSION FROM THE ARCHITECT.
4. ALL MATERIAL AND EQUIPMENT INDICATED ON THE PLANS AND DESCRIBED IN THE SPECIFICATIONS SHALL BE PROVIDED BY THE CONTRACTOR NEW AND THE BEST PRODUCTS OF REPUTABLE MANUFACTURERS AND SHALL BE IN NEW CONDITION AT ACCEPTANCE OF WORK.
5. THIS CONTRACTOR SHALL GUARANTEE ALL MATERIALS, LABOR AND EQUIPMENT FOR A PERIOD OF ONE YEAR FROM DATE OF ACCEPTANCE. COMPRESSORS SHALL HAVE A FULL FIVE–YEAR WARRANTY. CONTRACTOR SHALL PAY FOR ANY REPAIRS OR REPLACEMENTS CAUSED BY DEFECTIVE WORKMANSHIP OR FAULTY MATERIALS AS CONSTRUED HEREIN WITHIN THE PERIOD COVERED BY THE GUARANTEE.
6. SCAFFOLDING, RIGGING AND HOISTING: UNLESS OTHERWISE SPECIFIED, CONTRACTOR SHALL FURNISH ALL SCAFFOLDING, RIGGING, HOISTING, AND SERVICES NECESSARY FOR ERECTION AND DELIVERY INTO THE PREMISES OF ANY EQUIPMENT AND APPARATUS FURNISHED, AND REMOVAL OF SAME FROM PREMISES WHEN NO LONGER REQUIRED.
7. CONTRACTOR SHALL MAKE AN ON–SITE INSPECTION TO DETERMINE FULLY THE EXISTING CONDITIONS AND THE EXTENT OF DEMOLITION.
8. SIZES AND LOCATIONS OF EXISTING DUCTWORK AND PIPING SHOWN ON THESE DRAWINGS ARE TAKEN FROM AVAILABLE DRAWINGS OF EXISTING BUILDING. CONTRACTOR SHALL VERIFY SIZES AND LOCATIONS OF EXISTING DUCTWORK AND PIPING BEFORE PURCHASING NEW MATERIALS AND EQUIPMENT OR FABRICATING NEW DUCTWORK.
9. LOCATION OF EQUIPMENT, PIPING, AND OTHER MECHANICAL WORK IS INDICATED DIAGRAMMATICALLY BY THE DRAWINGS. CONTRACTOR SHALL PERFORM AN ON SITE INSPECTION TO FULLY COORDINATE THE INSTALLATION OF THE MECHANICAL SYSTEMS WITHIN THE FOLLOWING CONSTRAINTS:
   A. PRE–EXISTING CONDITIONS SUCH AS STRUCTURAL CONSTRAINTS.
   B. THE WORK OF OTHER TRADES AND CONTRACTORS.
   C. EQUIPMENT MANUFACTURER'S RECOMMENDATIONS.
   D. CODE REQUIREMENTS OF THE AUTHORITIES HAVING JURISDICTION.

   THE CONTRACTOR, SUBJECT TO THE AFOREMENTIONED CONSTRAINTS ABOVE, SHALL DETERMINE EXACT LOCATIONS AND CONFIGURATION OF ALL NEW SYSTEMS, INCLUDING DUCTWORK, PIPING AND EQUIPMENT. PROVIDE OFFSETS AND TRANSITIONS FOR DUCTWORK AND PIPING AS REQUIRED TO INSTALL THE SYSTEMS WITHIN THESE CONSTRAINTS AND MEET THE DIAGRAMMATIC INTENT OF THESE DRAWINGS. DO NOT FABRICATE OR INSTALL ANY DUCTWORK OR PIPING UNTIL THE PROPOSED INSTALLATION HAS BEEN FULLY COORDINATED WITH THE ABOVE CONSTRAINTS.
10. CONTRACTOR ASSUMES RESPONSIBILITY FOR PROPER ARRANGEMENT OF PIPES, DUCTS, ETC., TO CONNECT APPROVED EQUIPMENT IN A PROPER AND APPROVED MANNER. FOLLOW EQUIPMENT MANUFACTURER'S DETAILED INSTRUCTIONS AND THE CONTRACT DOCUMENTS. NOTIFY THE ARCHITECT BEFORE PROCEEDING. NO EQUIPMENT INSTALLATION OR CONNECTIONS SHALL BE MADE IN A MANNER THAT VOIDS THE MANUFACTURER'S WARRANTY.
11. INSTALL EACH ITEM OF EQUIPMENT IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS
12. PROVIDE A MINIMUM OF 3'–6" CLEARANCE IN FRONT OF ALL ELECTRIC HEATER TERMINAL BOXES.
13. INSTALL ALL WORK IN A NEAT AND WORKMANLIKE MANNER, USING ONLY WORKMEN THOROUGHLY QUALIFIED IN THE TRADE OF DUTIES THEY ARE TO PERFORM. ROUGH WORK WILL BE REJECTED.
14. CUTTING AND PATCHING SHALL BE DONE BY THE APPROPRIATE TRADE UNLESS OTHERWISE REQUIRED BY TRADE CUSTOM OR SPECIFIED UNDER ANOTHER SECTION OF THE SPECIFICATIONS. CONTRACTOR SHALL FURNISH SKETCHES SHOWING THE LOCATIONS AND SIZES OF ALL OPENINGS, CHASES, ETC. REQUIRED. CONTRACTOR IS LIABLE FOR CUTTING OR PATCHING MADE NECESSARY BY HIS FAILURE TO MAKE PROPER ARRANGEMENTS IN THIS RESPECT.
15. DO NOT CUT STRUCTURAL MEMBERS WITHOUT THE APPROVAL OF THE ARCHITECT AND ALL SUCH CUTTING SHALL BE DONE IN A MANNER AS DIRECTED BY THEM.
16. MAINTAIN WORK AREA CLEAN AT ALL TIMES DURING CONSTRUCTION. AFTER COMPLETING INSTALLATIONS OF DUCTWORK, CONTRACTOR SHALL CLEAN ENTIRE SYSTEM OF RUBBISH, PLASTER, DIRT AND AY OTHER DEBRIS.
17. TEST ALL SYSTEMS. SYSTEMS SHALL OPERATE SATISFACTORILY AS DESIGNED AND INTENDED. REPORT ANY DEFICIENCIES TO ARCHITECT.
18. REFURBISH EXISTING HEAT PUMPS THAT ARE RE–USED AS PART OF THIS PROJECT AS FOLLOWS: PROVIDE NEW FILTERS, REFRIGERANT CHECKED AND RECHARGED IF REQUIRED. RUN CONTROLS THROUGH ALL CYCLES AND CHECK FOR PROPER OPERATION AND ACCURACY, AND RECALIBRATE IF REQUIRED.

SHOP DRAWINGS

1. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR THE FOLLOWING MATERIALS AND EQUIPMENT:
   A. FLEXIBLE DUCT
   B. AIR DEVICES
   C. TESTING AND BALANCING REPORTS
2. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF MECHANICAL EQUIPMENT ELECTRICAL REQUIREMENTS WITH THE ELECTRICAL CONTRACTOR. CONTRACTOR ORIGINATED MODIFICATIONS TO THE MECHANICAL EQUIPMENT ELECTRICAL INSTALLATION, DUE TO DEVIATIONS FROM THE MECHANICAL EQUIPMENT'S "BASIS OF DESIGN" OR "PROTOTYPE" ELECTRICAL DATA, SHALL BE AT A COST TO THE MECHANICAL CONTRACTOR.

EQUIPMENT

1. GENERAL:
   A. REFER TO EQUIPMENT SCHEDULES FOR REQUIREMENTS OF MAJOR HVAC EQUIPMENT.
2. FIRE DAMPERS:
   A. PROVIDE U.L. 555 LABELED, TYPE B FIRE DAMPERS IN TWO HOUR OR GREATER FIRE WALLS. DAMPERS SHALL BE DYNAMIC TYPE WITH CONTINUOUS STAINLESS STEEL SPRING CURTAIN AND 165 ° LINKAGE. INSTALLATION SHALL BE IN ACCORDANCE WITH ALL U.L. AND MANUFACTURER REQUIREMENTS.
   B. ACCEPTABLE MANUFACTURERS: PREFCO OR RUSKIN.
3. ACCESS PANELS: PROVIDE ACCESS PANELS IN DUCTWORK IN A LOCATION TO SERVICE FIRE DAMPERS. ACCESS PANELS SHALL BE OF THE INSULATED DOOR TYPE ON ALL INSULATED DUCTS AND SHALL NOT BE COVERED BY DUCT INSULATION. ACCESS PANELS SHALL BE CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH SMACNA STANDARDS. MINIMUM SIZE OF ACCESS PANELS SHALL BE 12" X 12" EXCEPT WHERE DUCT IS LESS THAN 14" WIDE IN WHICH CASE ONE DIMENSION SHALL BE 12" AND THE OTHER SHALL BE 2" LESS THAN THE DUCT WIDTH. ACCESS DOOR SHALL BE ACCESSIBLE.

INSULATION

1. ALL DUCT AND PIPE INSULATION AND COVERINGS SHALL HAVE A FIRE AND SMOKE HAZARD RATING AS TESTED UNDER PROCEDURE ASTM–E–84, NFPA 255 AND UL 723 NOT EXCEEDING A FLAME SPREAD RATING OF 25 AND A SMOKE DEVELOPED RATING OF 50.
2. AIR CONDITIONING DUCTS: INSULATE ALL NEW SUPPLY AIR DUCTS WITH A 1–1/2" THICK, 3 / 4 LB. DENSITY FIBERGLASS, FLEXIBLE BLANKET INSULATION, FACED WITH A FIRE RESISTIVE VAPOR BARRIER JACKET WITH A 2" TAB ON ONE EDGE. INSULATION SHALL BE WRAPPED ON DUCTS WITH FACING OVERLAPPING ALL JOINTS AT LEAST 2" AND HELD IN PLACE WITH ½" OUTWARD CLINCHING STAPLES ON 4" CENTERS. STAPLES AND SEAMS ARE TO BE SEALED WITH A BRUSH COAT OF VAPOR BARRIER MASTIC.

DUCTWORK

1. GENERAL: CONSTRUCT ALL DUCTWORK AND ACCESSORIES 2" PRESSURE CLASS AND SEAL CLASS B.
2. METAL DUCTWORK: FABRICATE ALL DUCTWORK, HOUSING, DAMPERS, AND ALL OTHER DUCT RELATED ACCESSORIES FROM GALVANIZED STEEL SHEETS.
3. INSTALL ALL DUCTWORK ABOVE CEILING AND HOLD TIGHT TO UNDERSIDE OF STRUCTURE ABOVE UNLESS OTHERWISE INDICATED.
4. ALL RETURN AIR DUCT OPENINGS ABOVE CEILING SHALL BE COVERED WITH ½" MESH SCREEN.
5. ALL ROUND RUNOUTS AND FLEXIBLE DUCTWORK TO A SINGLE CEILING DIFFUSER SHALL BE SAME SIZE AS DIFFUSER NECK.
6. INSTALL CEILING AIR DEVICES IN GRID AS CLOSE AS POSSIBLE TO LOCATION SHOWN ON PLAN. COORDINATE LOCATION WITH LIGHT FIXTURES AND SPRINKLER HEADS.
7. HOLD ALL DUCTWORK RUNNING PARALLEL TO A RATED WALL A MINIMUM OF 6" AWAY FORM THE WALL.
8. CHANGES TO DUCT DUE TO FIELD CONDITIONS SHALL BE MADE ONLY IF THE DUCT SIZE FREE AREA IS MAINTAINED AND SHALL BE SUBMITTED TO ENGINEER FOR APPROVAL.
9. FLEXIBLE DUCT: PROVIDE INSULATED U.L. LISTED CLASS 1 DUCT COMPLYING WITH NFPA 90A. MAXIMUM LENGTH SHALL BE 10 FEET. FLEXIBLE AIR CONNECTORS SHALL NOT BE ACCEPTABLE. FLEXMASTER, THERMAFLEX, WIREMOLD, OR CLEVAFLEX.
10. TURNING VANES: PROVIDE TURNING VANES MANUFACTURED OF GALVANIZED STEEL PER SMACNA IN ALL MITERED ELBOWS 300 OR MORE.
11. LEAKAGE
    A. ALL DUCT JOINTS SHALL BE SEALED WITH HARDCAST 601.
    B. LEAKAGE TESTING FOR ALL DUCTWORK SHALL BE BY PHYSICAL SENSATION AND SHALL BE PERFORMED IN THE PRESENCE OF THE OWNER'S REPRESENTATIVE.
    C. PERFORM ALL TESTING AFTER THE SEALS HAVE CURED COMPLETELY AND BEFORE COVERING WITH INSULATION OR CONCEALING IN MASONRY.

TEST AND BALANCING

1. SCOPE:
   A. AN INDEPENDENT CONTRACTOR WITH NEBB OR AABC CERTIFICATION SHALL PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, SERVICES AND PERFORM ALL OPERATIONS REQUIRED FOR COMPLETE BALANCING OF THE MECHANICAL SYSTEMS AND RELATED WORK AS INDICATED ON THE DRAWINGS AND SPECIFIED HEREIN.
   B. BALANCING SHALL NOT BE PERFORMED UNTIL ALL MECHANICAL EQUIPMENT IS PROPERLY INSTALLED AND IS 100% OPERATIONAL, AND CLEAN FILTERS INSTALLED.
   C. IT IS THE INTENT OF THIS SPECIFICATION TO ENSURE THAT THE ENTIRE PROJECT IS SUBSTANTIALLY COMPLETE SO THAT ALL COMPONENTS OF ALL MECHANICAL SYSTEMS CAN BE PUT INTO NORMAL OPERATION WITH ALL WINDOWS AND DOORS CLOSED AND BALANCED IN THAT CONDITION, IN NO CASE IS THE CONTRACTOR TO PERFORM HIS WORK IN PIECEMEAL FASHION.
2. QUALITY ASSURANCE: SUBMIT TO OWNER THREE (3) COPIES OF BALANCING AND TESTING RECORDS SPECIFIED HEREIN SHOWING THE MECHANICAL SYSTEMS HAVE BEEN BALANCED AND ARE DELIVERING SPECIFIED QUANTITIES.
3. EACH PIECE OF EQUIPMENT SHALL BE IDENTIFIED AS TO LOCATION, SERVICE, MANUFACTURER AND MODEL NUMBER. THIS INFORMATION SHALL BE RECORDED AND INCLUDED IN THE FINAL BALANCE REPORT.
4. AFTER ADJUSTMENTS ARE COMPLETED, THE MECHANICAL SYSTEMS SHALL BE TESTED, AND THE FOLLOWING INFORMATION RECORDED AND INCLUDED IN THE FINAL BALANCE REPORT:
   A. AIR DEVICES
      1) EACH AIR DEVICE SHALL BE IDENTIFIED AS TO LOCATION AND SERVICE
      2) SIZE, TYPE AND MANUFACTURER OF AIR DEVICE LISTED
      3) REQUIRED CFM AND TEST RESULTANT CFM EACH DEVICE
   B. EXISTING RTUs
      1) COMPRESSOR FULL LOAD AMPS
      2) FAN FULL LOAD AMPS
      3) VOLTAGE
      4) SA, RA AND OA AIRFLOW
      5) COOLING SENSIBLE AND LATENT CAPACITY
      6) HEATING CAPACITY
      7) COOLING AND HEATING LAT
   C. EXISTING EFs
      1) FAN FULL LOAD AMPS
      2) VOLTAGE
      3) EA AIRFLOW
      4) FAN STATIC PRESSURE DELTA

DRAWING CONVENTIONS

1. ALL PIPE AND DUCT SIZES AND RELATED DIMENSIONS ARE IN INCHES UNLESS NOTED OTHERWISE.
2. EXISTING HVAC AND PLUMBING WORK IS INDICATED WITH LIGHT LINE WEIGHT.
3. NEW HVAC AND PLUMBING WORK IS INDICATED WITH HEAVY LINE WEIGHT.
4. HVAC AND PLUMBING REMOVAL WORK IS INDICATED WITH HEAVY DASHED LINE WEIGHT.
5. ALL OF THE SYMBOLS AND ABBREVIATIONS LISTED IN THE LEGEND AND ABBREVIATIONS ON THIS SHEET MAY NOT BE USED IN THE DRAWINGS.

EXTENT OF DEMOLITION

POINT OF CONNECTION NEW TO EXISTING

DEMOLITION NOTES

1. REMOVE ALL EQUIPMENT, DUCTWORK, CONTROLS AND PIPING WITHIN THE TENANT SPACE AND FUTURE TENANT EXPANSION SPACE EXCEPT AS NOTED BELOW:
   A. EXISTING TO REMAIN OA DUCTWORK MAIN DISTRIBUTION, AS INDICATED ON THE HVAC PLANS
   B. EXISTING TO REMAIN EXHAUST AIR DUCTWORK AS INDICATED ON THE HVAC NEW WORK PLANS
   C. EXISTING TO REMAIN PIPING AS INDICATED ON THE HVAC AND PLUMBING NEW WORK PLANS
2. ALL HEAT EXISTING FANS, PLUMBING FIXTURES, WATER HEATERS AND OTHER EQUIPMENT, OTHER THAN DUCTWORK AND PIPING, REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE OWNER AND SHALL BE REMOVED, STORED, OR DISPOSED OF BY THE CONTRACTOR AT THE DIRECTION OF THE OWNER.
3. ALL OPENINGS IN WALLS, CEILINGS AND FLOORS RESULTING FROM DUCT DEMOLITION SHALL BE CLOSED AND FINISHED TO MATCH THE SURROUNDING AREA BY THE GENERAL CONTRACTOR. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING LOCATIONS.
4. BLANK–OFF ALL UNUSED DUCT OPENINGS WITH SAME GAUGE METAL AS EXISTING DUCT. INSULATED DUCTS SHALL BE INSULATED WITH SAME INSULATION MATERIAL AND THICKNESS AS EXISTING.
5. CAP ALL EXISTING TO REMAIN PIPING AT THE EXTENT OF OTHER DEMOLITION. CAP BELOW GRADE PIPING AT A LEVEL BENEATH THE FINISHED FLOOR LEVEL

ABBREVIATIONS

ACC	AIR COOLED CHILLER
ACCU	AIR COOLED CONDENSING UNIT
ACU	AIR CONDITIONING UNIT
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
APD	AIR PRESSURE DROP
B	BOILER
BFP	BACKFLOW PREVENTER
BHP	BRAKE HORSE POWER
BTU	BRITISH THERMAL UNIT
CC	COOLING COIL
CFM	CUBIC FEET PER MINUTE
CH	CHILLER
CHR	CHILLED WATER RETURN
CHS	CHILLED WATER SUPPLY
CLG	CEILING
CO2	CARBON DIOXIDE
COMP	COMPRESSOR
COND	CONDENSER
COND	CONDENSATE
CR	CONDENSER WATER RETURN
CRU	CONDENSATE RETURN UNIT
CS	CONDENSER WATER SUPPLY
CU	CONDENSING UNIT
CUH	CABINET UNIT HEATER
CW	COLD WATER
CW	DOMESTIC COLD WATER
CX	CONNECT TO EXISTING
D	CONDENSATE DRAIN
D	DAMPER
D	DEPTH
DB	DRY BULB
DCV	DEMAND CONTROLLED VENTILATION
DESIG	DESIGNATION
DIA	DIAMETER
DTR	DUAL TEMPERATURE RETURN
DTS	DUAL TEMPERATURE SUPPLY
DWG	DRAWING
DWH	DOMESTIC WATER HEATER
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EF	EXHAUST FAN
ELEC	ELECTRICAL
ESP	EXTERNAL STATIC PRESSURE
ETR	EXISTING TO REMAIN
EWH	ELECTRIC WALL HEATER
EWT	ENTERING WATER TEMPERATURE
EX	EXISTING
FD	FIRE DAMPER
FLA	FULL LOAD AMPS
FT	FEET
G	GAS
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
H	HEIGHT
HC	HEATING COIL
HP	HORSE POWER
HPR	HIGH PRESSURE STEAM CONDENSATE RETURN
HPS	HIGH PRESSURE STEAM
HR	HEATING WATER RETURN
HS	HEATING WATER SUPPLY
HSTAT	HUMIDITY SENSOR
HW	DOMESTIC HOT WATER
HWS	HOT WATER SUPPLY
HX	HEAT EXCHANGER
IN	INCHES
IRH	INFRARED HEATER
KW	KILOWATTS
L	LENGTH
LAT	LEAVING AIR TEMPERATURE
LPR	LOW PRESSURE STEAM CONDENSATE RETURN
LPS	LOW PRESSURE STEAM
LRA	LOCKED ROTOR AMPS
LWT	LEAVING WATER TEMPERATURE
MBH	THOUSAND BTU PER HOUR
MCA	MAXIMUM CIRCUIT AMPS
MED	MEDIUM
MFS	MAXIMUM FUSE SIZE
MOCP	MAXIMUM OVERCURRENT PROTECTION
MPR	MEDIUM PRESSURE STEAM CONDENSATE RETURN
MPS	MEDIUM PRESSURE STEAM
MTD	MOUNTED
NC	NOISE CRITERIA
OA	OUTSIDE AIR
OBD	OPPOSED BLADE DAMPER
OSD	OPEN SITE DRAIN
P	PUMP
PH	PHASE
RA	RETURN AIR
RH	RELATIVE HUMIDITY
RHW	RECIRCULATING HOT WATER
RL	REFRIGERANT LIQUID
RLA	RUNNING LOAD AMPS
RM	ROOM
RPM	REVOLUTIONS PER MINUTE
RS	REFRIGERANT SUCTION
RTU	ROOFTOP UNIT
RX	REMOVE EXISTING
RX	REMOVE EXISTING
SA	SUPPLY AIR
SAN	SANITARY DRAINAGE PIPING
SD	SMOKE DETECTOR
SFD	SMOKE / FIRE DAMPER
SMD	SMOKE DAMPER
TEMP	TEMPORARY
TEMP	TEMPERATURE
TSTAT	THERMOSTAT
UH	UNIT HEATER
VENT	SANITARY VENT PIPING
W	WIDTH
WB	WET BULB
WG	WATER GAGE
WH	WATER HEATER

DRAWING LIST

M/P-101.00	MECHANICAL COVER SHEET
M-102.00	HVAC DEMOLITION
M-103.00	HVAC NEW WORK
P-102.00	PLUMBING DEMOLITION
P-103.00	SANITARY WASTE AND VENT PIPING
P-104.00	DOMESTIC WATER PIPING

MECHANICAL SYMBOLS

- SUPPLY AIR DEVICE
- RETURN AIR DEVICE
- EXHAUST AIR DEVICE
- REMOVE EXISTING
- EXISTING TO REMAIN
- NEW WORK
- FLEXIBLE DUCTWORK
- SOUND LINED DUCT
- DUCT DROP OR RISE IN DIRECTION SHOWN
- FLEXIBLE CONNECTION
- ELBOW WITH TURNING VANES
- OVAL TAP
- FIRE DAMPER (FD)
- SMOKE DAMPER (SD)
- COMBINATION SMOKE/FIRE DAMPER (SFD)
- VOLUME DAMPER (V.D.)
- MOTORIZED DAMPER (M.D.)
- REMOTE TEMPERATURE SENSOR
- STATIC PRESSURE SENSOR
- AIR OUT OF AIR TERMINAL
- AIR INTO AIR TERMINAL
- S — SANITARY WASTE
- V — SANITARY VENT
- COLD WATER
- HOT WATER
- RECIRCULATED HOT WATER RETURN
- CHS — CHILLED WATER SUPPLY
- CHR — CHILLED WATER RETURN
- HWS — HEATING WATER SUPPLY
- HWR — HEATING WATER RETURN
- DTS — HOT/CHILLED WATER SUPPLY
- DTR — HOT/CHILLED WATER RETURN
- PCD — PUMPED CONDENSATE DRAIN
- E — EXPANSION TANK PIPE
- HG — REFRIGERANT HOT GAS
- RS — REFRIGERANT SUCTION
- RL — REFRIGERATION LIQUID
- D — CONDENSATE DRAIN
- G — GAS
- FOR — FUEL OIL RETURN
- FOS — FUEL OIL SUPPLY
- FOR — FUEL OIL RETURN
- PIPE DROP / RISE AS INDICATED
- PIPE TURNING UP
- PIPE TURNING DOWN
- GATE OR BALL VALVE
- BALANCING VALVE
- UNION
- 3–WAY CONTROL VALVE
- 2–WAY CONTROL VALVE
- CHECK VALVE
- STRAINER WITH BLOWDOWN VALVE
- PRESSURE REDUCING VALVE
- BALANCING VALVE
- FLOW MEASURING FITTING
- THERMOMETER
- PRESSURE GAGE WITH NIPPLE AND GAGE COCK
- SHUT OFF VALVE
- SHUT OFF VALVE IN VERTICAL
- FLEXIBLE PIPE CONNECTION
- SMOKE WALL
- DOOR UNDERCUT
- DOOR LOUVER (SIZE AS INDICATED)
- THERMOSTAT
- THERMOSTAT WITH GUARD
- WALL MOUNTED SWITCH WITH PILOT LIGHT
- ROUND
- FLAT OVAL
- (E) EXISTING
- REMOTE TEMPERATURE SENSOR
- DUCT SMOKE DETECTOR
- HUMIDISTAT
- HUMIDISTAT WITH GUARD

ISSUED FOR BUILDING PERMIT

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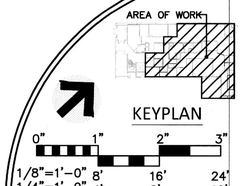

MECHANICAL COVER SHEET

REVISIONS			DRAWING NO.
REV#	DATE	DESCRIPTION	M/P–101.00
–	10/20/17	PERMIT SET	SHEET 1 OF 6
			DATE DRAWN BY
			10/20/17 JLM
			JOB NUMBER CHECKED BY
			11241 JM

WDC# 17–52

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