

GENERAL NOTES:

- 1. DATA GIVEN ON THE DRAWINGS IS AS EXACT AS COULD BE SECURED. ABSOLUTE ACCURACY IS NOT GUARANTEED AND THE CONTRACTOR SHALL OBTAIN AND VERIFY EXACT LOCATIONS, MEASUREMENTS, LEVELS, SPACE REQUIREMENTS, POTENTIAL CONFLICTS WITH OTHER TRADES, ETC. AT THE SITE AND SHALL SATISFACTORILY ADAPT HIS WORK TO THE ACTUAL CONDITIONS OF THE JOB. THE DRAWINGS ARE DIAGRAMMATICAL IN NATURE AND SHALL NOT BE SCALED.
- 2. ALL WORK MUST BE IN COMPLIANCE, OR EXCEED THE MINIMUM MATERIAL AND METHOD REQUIREMENTS OF THE 2021 INTERNATIONAL BUILDING, MECHANICAL, ENERGY CONSERVATION, FIRE AND 2023 NATIONAL ELECTRICAL CODES, MOST CURRENT NFPA, ALL LOCAL ORDINANCES AND AMENDMENTS AND MANUFACTURERS’ INSTALLATION RECOMMENDATIONS.
- 3. PAY FOR AND SECURE ALL REQUIRED PERMITS AND INSPECTIONS.
- 4. ALL CAPACITIES ARE SCHEDULED AT JOBSITE ALTITUDE OF 7000 FT. ABOVE SEA LEVEL.
- 5. PROVIDE MANUFACTURER’S RECOMMENDED SERVICE CLEARANCE AROUND ALL EQUIPMENT.
- 6. UPON SUBSTANTIAL PROJECT COMPLETION, SUBMIT A WRITTEN BALANCE REPORT BY A NEBB OR AABC CERTIFIED BALANCING CONTRACTOR. MEASUREMENTS SHALL INCLUDE ALL MOTOR AMPERAGE AND VOLTAGE READINGS; MOTOR AND FAN RPMS; STATIC PRESSURE AT INLET AND OUTLET OF HRV, AND FILTERS.
- 7. ALL DUCTWORK, DIFFUSERS, PIPING, FIXTURES, AND EQUIPMENT SHOWN IN LIGHT LINE WEIGHT IS [EXISTING], [NEW] INDICATED BY HEAVIER LINE WEIGHT, EXCEPT WHERE NOTED.

MECHANICAL EQUIPMENT SCHEDULE

EF-1 EXHAUST FAN: IN-LINE FAN INCLUDING HOUSING, BI WHEEL, SHAFT, 200,000 HOUR RATED BEARINGS, DIRECT DRIVE, CEILING HUNG, VIBRATION ISOLATORS AND FACTORY ASSEMBLED AND PAINTED. AMCA TESTED AND RATED. MOUNT FAN UNIT ON SUITABLE BASE AND SPRING VIBRATION ISOLATORS. FAN WHEEL TC BE STATICALLY AND DYNAMICALLY BALANCED. CAPACITY OF 1950 CFM AT 0.6 INCHES S.P. AT 6500 A.S.L., 1 HP, 208/60/3. GREENHECK SQ-140-VG OR TWIN CITY FAN, NEW YORK BLOWER, PENN EQUIVALENT.

FC-1 FAN COIL: GLASS FIBER INSULATED STEEL CABINET, ACCESS PANEL TO BE HINGED OR REMOVABLE AND FASTENED BY CAM LOCK DIRECT DRIVE 3-SPEED ECM 1 HP, 208/60/3 MOTOR AND 2” FILTERS JOHNSON CONTROLS AHD20 OR TRANE, CARRIER MCQUAY EQUIVALENT.

- AIRFLOW = 19050 CFM AT 0.25 NICHES ESP AT 6500 A.S.L.
- 1 HP, 208/60/3
- EAT = -7°F
- LAT = 70°F
- EWT = 180°F
- LWT = 160°F

SEQUENCE OF CONTROL:

FC-1 FAN COIL AND EF-1 EXHAUST FAN TO BE INTERLOCKED AND EQUIPPED WITH A LABELED WALL MOUNTED MANUAL START/STOP SWITCH.

- IN THE “ON” MODE, THE SUPPLY AIR FAN COIL AND EXHAUST FAN SHALL RUN CONTINUOUSLY. THE FAN COIL SHALL BE EQUIPPED WITH A SUPPLY AIR DUCT DISCHARGE THERMOSTAT (70°F ADJ) AND LOW LIMIT THERMOSTAT (55°F ADJ) AND A TWO WAY HEATING WATER MODULATING CONTROL VALVE SHALL MAINTAIN DISCHARGE AIR TEMPERATURES. THE TWO EXISTING FAN COIL MIXING BOX OSA DAMPERS SHALL BE OPEN AND THE EXISTING FAN COIL HEATING WATER CONTROL VALVES SHALL OPERATE TO MAINTAIN MINIMUM 55°F DUCT SUPPLY TEMPERATURE AND SPACE TEMPERATURE.

- IN THE “OFF” MODE, THE FAN COIL AND EXHAUST FAN SHALL BE OFF AND THE EXISTING FAN COILS SHALL OPERATE ON AN H&V CONTROL SEQUENCE FOR SPACE TEMPERATURE CONTROL. PROVIDE NEW T’SAS AS NEEDED.



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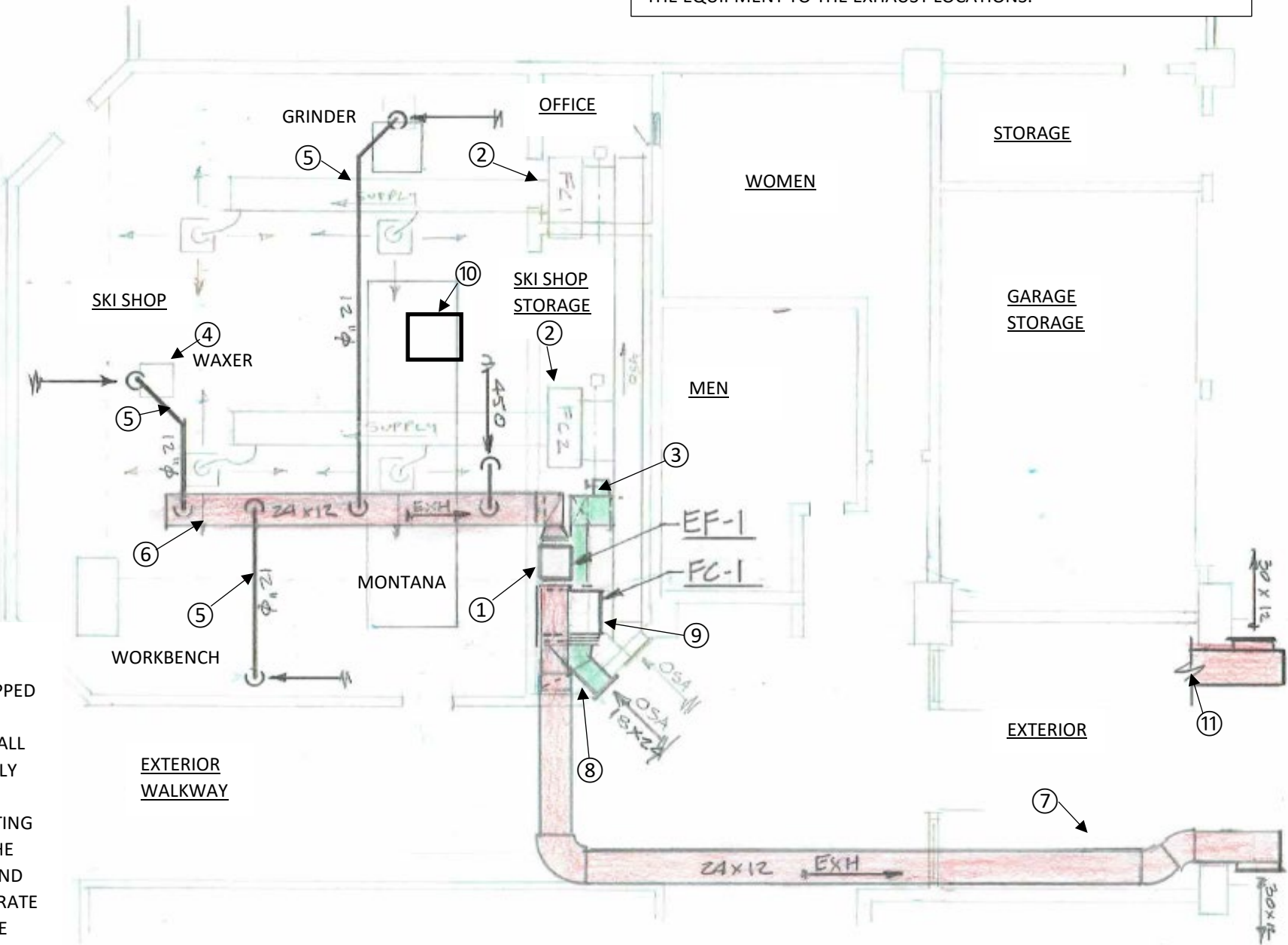
JOB 5120.0
SHEET NO. 1
CALCULATED BY DMB
CHECKED BY
SUBJECT STEAMBOAT SKI SHOP VENTILATION
SCALE 1/8”=1’-0
OF 1
DATE 11/5 /25
DATE

FLAG NOTES:

- 1. FC-1 FAN COIL FLOOR MOUNTED ALONG STORAGE ROOM WEST WALL OR CEILING HUNG. PROVIDE FLEXIBLE DUCT CONNECTORS.
- 2. REPAIR AND RECONDITION EXISTING FAN COILS. FILTER MIXING BOXES, AND CONTROL DAMPERS. PROVIDE SUPPLY DUCT DISCHARGE SENSORS IF NOT ALREADY EQUIPPED OR NON-FUNCTIONAL.
- 3. DUCT FAN COIL TEMPERED OSA SUPPLY TO EXISTING OSA DUCT IN CEILING SPACE. PLENUM. 18” ROUND OR 24X12 OR 2 SF RECTILINEAR EQUIVALENT.
- 4. VERIFY SKI WAX MACHINE INSTALLATION LOCATION AND DUCT EXHAUST TO BACKSIDE OF WAX MACHINE AT 7’-0” AFF. ADJUST EXHAUST DUCT LOCATION WITH FINAL EQUIPMENT LOCATION.
- 5. 12” ROUND BRANCH RUNOUT DUCTS IN JOIST SPACE AND DUCT DOWN THROUGH CEILING TO 7’-0” AFF WITH OBD IN CEILING SPACE (450 CFM), TYPICAL.
- 6. EXHAUST TRUNK DUCT BELOW BAR JOIST STRUCTURE. RELOCATE LIGHTING AND OTHER BUILDING SYSTEM COMPONENTS AS REQUIRED.
- 7. ROUTE EXHAUST DUCT IN CEILING SPACE PERMITING OR EXPOSED TO EXTERIOR DISCHARGE GRILL. 18” ROUND OR 12X24 OR RECTILINER EQUIVALENT.
- 8. NEW INSULATED 12X24 OSA DUCT FROM FAN COIL TO NEW 24X18 OSA GRILL EQUIPPED WITH ¼” MESH SCREEN.
- 9. EF-1 EXHAUST FAN SUSPENDED FROM STRUCTURE WITH VIBRATION ISOLATORS.
- 10. EXTEND EXISTING VALVED ¾” HWS AND HWR PIPING LOCATED IN CEILING SPACE DOWN TO FC-1. PROVIDE VALVING AND TEMPERATURE CONTROL VALVE AT FAN COIL.
- 11. OPTIONAL EXHAUST DISCHARGE LOCATION. TBD BASED ON EXISTING CEILING SPACE AND AVAILABLE ROUTING.

BASIS OF DESIGN

THE SKI SHOP VENTILATION SYSTEM DESIGN IS BASED ON PROVIDING 12 AC/HR SUPPLY AND EXHAUST AIRFLOW TO THE SPACE IN ADDITION TO THE TWO EXISTING FAN COIL SYSTEMS. THE EXHAUST INLETS ARE LOCATED BEHIND AND ABOVE THE SKI REPAIR EQUIPMENT AND WORK STATIONS WITH THE INTENT TO DRAW FUMES AND PARTICULATES AWAY FROM THE OCCUPANTS. THE EXISTING SUPPLY AIR DIFFUSERS ARE SERVED BY FLEXIBLE DUCTS WHICH MAY BE RELOCATED AND/OR EXTENDED TO ATTAIN SUPPLY AIR TO THE OCCUPANTS AND ACROSS THE EQUIPMENT TO THE EXHAUST LOCATIONS.



PARTIAL PLAZA LEVEL MECHANICAL PLAN



SHEET
M-1
MECHANICAL PLAN