

| GENERAL LEGEND | |
|----------------|---------------------------|
| | ELECTRIC BASEBOARD HEATER |
| | ELECTRIC ENTRANCE HEATER |
| | ELECTRIC UNIT HEATER |
| | UNDERCUT DOOR |
| | GRILLE/DIFFUSER LABEL |
| | RADIATION LABEL |
| | EQUIPMENT LABEL |
| | EQUIPMENT LABEL |
| | EQUIPMENT LABEL |
| | HEATING LABEL |
| | CALLOUT NOTE |
| | NOTE |

| GENERAL PIPE AND FITTING LEGEND | |
|---------------------------------|-----------------------------------|
| | PIPE SLOPE - UP (OR DOWN) |
| | DIRECTION OF FLOW |
| | PIPE BREAK FOR CONTINUATION |
| | VENT THROUGH ROOF |
| | PIPE DOWN |
| | PIPE UP |
| | CAP |
| | CLEAN OUT |
| | HOSE BIBB |
| | WALL HYDRANT |
| | UNION |
| | VALVE - NORMALLY OPEN |
| | VALVE - NORMALLY CLOSED |
| | PLUG VALVE |
| | GLOBE VALVE |
| | SUPERVISED VALVE |
| | MOTORIZED 2-WAY VALVE |
| | MOTORIZED 3-WAY VALVE |
| | PRESSURE REGULATING VALVE |
| | TEMPERATURE/PRESSURE RELIEF VALVE |
| | CHECK VALVE |
| | STRAINER |
| | FLEXIBLE CONNECTOR |

| ASHRAE 62.1-2007 OUTDOOR AIR CALCULATION | | | | | | | | | | | | | | | | | |
|--|--|----------------------|-------------------------|---------------------------|-----------------------|--------------------------------------|---|------------------------|-------------------------------|--|---|--------------------------------|----------------|----------------|-----------|--------------------------------|--------------------------------|
| Zone | Space | Ceiling Height ft | Area ft ² | Volume ft ³ | Zone Population Pz | Time Averaged Zone Population Pz* | Occupancy Density ft ² /occ | Ventilation/ Fresh Air | | | | Supply | | Exhaust | | | |
| | | | | | | | | ASHRAE cfm/person | ASHRAE cfm/ft ² | Breathing Zone Outdoor Airflow Vbz | Breathing Zone Outdoor Airflow Vbz* | Zone Outdoor Airflow Voz | Heating cfm | Cooling cfm | HVAC Unit | Heating cfm/ft ² | Cooling cfm/ft ² |
| | Corridor M02, M12, M19 & Circulation Hub M20 | | 779 | 0 | | | 0.06 | 46.7 | 0.0 | 58.4 | 46.7 | RT-2-E | 0.8 | 1.0 | | | |
| | Closet M03 | | 20 | 0 | | | 0.12 | 2.4 | 0.0 | 3.0 | 2.4 | RT-2-E | 0.8 | 1.0 | | | |
| | Gallery M04 | | 54 | 0 | 2 | | 27.0 | 5.0 | 0.06 | 13.2 | 16.6 | RT-2-E | 0.8 | 1.0 | | | |
| | Mech/Elec M05 | | 303 | 0 | | | 0.06 | 18.2 | 0.0 | 22.7 | 18.2 | AHL-1-New | 0.8 | 1.0 | | 200.0 | |
| | Canteen M06 | | 139 | 0 | 2 | | 69.5 | 5.0 | 0.06 | 18.3 | 22.9 | AHL-1-New | 0.8 | 1.0 | | | |
| | Pantry M07 | | 33 | 0 | | | 0.12 | 4.0 | 0.0 | 5.0 | 4.0 | AHL-1-New | 0.8 | 1.0 | | | |
| | Kitchen M08 | | 270 | 0 | 2 | | 135.0 | 5.0 | 0.12 | 42.4 | 53.0 | AHL-1-New | 0.8 | 1.0 | | 420.0 | |
| | Bar M10 | | 73 | 0 | 2 | | 36.5 | 5.0 | 0.06 | 14.4 | 18.0 | AHL-1-New | 0.8 | 1.0 | | | |
| | Mens WR M11 | | 208 | 0 | | | 0.06 | NA | 0.0 | T/A | T/A | RT-2-E | NA | NA | | 285.0 | |
| | Washroom M13 | | 60 | 0 | | | 0.06 | NA | 0.0 | T/A | T/A | RT-2-E | NA | NA | | 75.0 | |
| | Womens WR M14 | | 242 | 0 | | | 0.06 | NA | 0.0 | T/A | T/A | RT-2-E | NA | NA | | 285.0 | |
| | Bingo M15 | | 34 | 0 | | | 0.12 | 4.1 | 0.0 | 5.1 | 4.1 | RT-2-E | 0.8 | 1.0 | | | |
| | Gym Storage M17 | | 416 | 0 | | | 0.06 | 14.4 | 0.0 | 62.4 | 49.9 | RT-2-E | 0.8 | 1.0 | | | |
| | Office M21 | | 157 | 0 | 1 | | 157.0 | 5.0 | 0.06 | 14.4 | 18.0 | RT-2-E | 0.8 | 1.0 | | | |
| | Storage M22 | | 19 | 0 | | | 0.12 | 2.3 | 0.0 | 2.9 | 2.3 | RT-2-E | 0.8 | 1.0 | | | |
| | Elec. M23 | | 17 | 0 | | | 0.06 | 1.0 | 0.0 | 1.3 | 1.0 | RT-2-E | 0.8 | 1.0 | | | |
| | Multi-Purpose M24 | | 347 | 0 | 9 | | 38.6 | 5.0 | 0.06 | 65.8 | 82.3 | RT-2-E | 0.8 | 1.0 | | | |
| | MPR #1 M25 | | 894 | 0 | 23 | | 38.9 | 5.0 | 0.06 | 168.6 | 210.8 | RT-2-E | 0.8 | 1.0 | | | |
| | Computer M26 | | 130 | 0 | 2 | | 65.0 | 5.0 | 0.06 | 17.8 | 22.3 | RT-2-E | 0.8 | 1.0 | | | |
| | MPR #2 M27 | | 322 | 0 | 8 | | 40.3 | 5.0 | 0.06 | 59.3 | 74.2 | RT-2-E | 0.8 | 1.0 | | | |
| | MPR #3 M28 | | 334 | 0 | 9 | | 37.1 | 5.0 | 0.06 | 66.0 | 81.3 | RT-2-E | 0.8 | 1.0 | | | |
| | Storage M29 | | 40 | 0 | | | 0.12 | 4.8 | 0.0 | 6.0 | 4.8 | RT-2-E | 0.8 | 1.0 | | | |
| | Universal Washroom M30 | | 82 | 0 | | | 0.06 | NA | 0.0 | T/A | T/A | RT-2-E | NA | NA | | 75.0 | |
| | Storage M31 | | 67 | 0 | | | 0.12 | 8.0 | 0.0 | 10.1 | 8.0 | RT-2-E | 0.8 | 1.0 | | | |
| | Storage Room M32 | | 315 | 0 | | | 0.06 | 37.8 | 0.0 | 47.3 | 37.8 | RT-2-E | 0.8 | 1.0 | | | |
| | Safe Room M33 | | 26 | 0 | | | 0.12 | 3.1 | 0.0 | 3.9 | 3.1 | RT-2-E | 0.8 | 1.0 | | | |
| | Hall M34 | | 259 | 0 | | | 0.06 | 15.5 | 0.0 | 19.4 | 15.5 | RT-2-E | 0.8 | 1.0 | | | |
| | Mezzanine | | 629 | 0 | | | 0.12 | 75.5 | 0.0 | 75.5 | 75.5 | AHL-1-New | 1.0 | 1.0 | | | |
| | Mezzanine Corridor | | 79 | 0 | | | 0.06 | 4.7 | 0.0 | 4.7 | 4.7 | AHL-1-New | 1.0 | 1.0 | | | |
| | Totals | | 6348 | | 60 | | | | | 757.5 | 0.0 | 926.8 | 757.5 | | | | |

T/A = Transfer Air
NA = Not Applicable
NIC = Not Included in Calculation

| | | | |
|----------------|------------------|----------------------|----------------|
| RT-2-E | 726 cfm | Balance RT-2-E to | 726 cfm |
| AHL-1-New | 201.8 cfm | Balance AHL-1-New to | 205 cfm |
| Total = | 926.8 cfm | Total = | 930 cfm |



rev5 - 2014-10-22 - Issued for Addendum
rev4 - 2014-09-29 - Issued for Construction
rev3 - 2014-08-01 - Issued for 95% Review
rev2 - 2014-06-27 - Issued for 75% Review
rev1 - 2014-04-30 - Issued for 30% Review revision

The drawings, specifications, revisions, addendums, and clarifications, must be read as a whole. Errors and omissions due to separation of the documents by the general contractor become the responsibility of the same.

This drawing must not be scaled.

The general Contractor must verify all dimensions, datums and levels prior to commencement of work. All errors and omissions must be reported immediately to the Architect.

Variations and modifications to work shown on this drawing shall not be carried out without written permission from the Architect.

MECHANICAL DRAWING LIST

| | |
|-------|---|
| M-0.0 | MECHANICAL - LEGEND & DRAWING LIST |
| M-0.1 | MECHANICAL - SITE PLAN |
| M-1.1 | MECHANICAL - MAIN FLOOR - DEMO PLUMBING |
| M-1.2 | MECHANICAL - MAIN FLOOR - NEW PLUMBING |
| M-2.1 | MECHANICAL - MAIN FLOOR - DEMO HVAC |
| M-2.2 | MECHANICAL - MAIN FLOOR - NEW HVAC |
| M-3.0 | MECHANICAL - DETAILS |

| VENTILATION LEGEND | |
|--------------------|--|
| | SQUARE OR RECTANGULAR DUCT |
| | DRAWN DOUBLE LINE |
| | ROUND OR OVAL DUCT |
| | DRAWN DOUBLE LINE |
| | DUCTWORK DRAWN SINGLE LINE |
| | ACOUSTICALLY LINED DUCT |
| | THERMALLY INSULATED DUCT |
| | SQUARE TO ROUND TRANSITION |
| | TRANSITION |
| | FLEX CONNECTION |
| | LONG RADIUS ELBOW |
| | LONG RADIUS ELBOW C/W TURNING VANES |
| | SQUARE ELBOW C/W TURNING VANES |
| | SUPPLY DUCT UP |
| | SUPPLY DUCT DOWN |
| | RETURN OR TRANSFER DUCT UP |
| | RETURN OR TRANSFER DUCT DOWN |
| | EXHAUST DUCT UP |
| | EXHAUST DUCT DOWN |
| | OUTSIDE AIR DUCT UP |
| | OUTSIDE AIR DUCT DOWN |
| | CEILING SUPPLY AIR DIFFUSER (TYPE NOTED) |
| | CEILING RETURN OR TRANSFER GRILLE (TYPE NOTED) |
| | CEILING EXHAUST GRILLE (TYPE NOTED) |
| | SIDEWALL SUPPLY AIR GRILLE (TYPE NOTED) |
| | SIDEWALL EXHAUST, RETURN OR TRANSFER GRILLE (TYPE NOTED) |
| | EXHAUST WALL CAP |
| | GRILLE OR DIFFUSER C/W FIRE STOP FLAP |
| | FIRE DAMPER |
| | FIRE/SMOKE DAMPER |
| | BALANCING DAMPER |
| | OPPOSED BLADE DAMPER |
| | PARALLEL BLADE DAMPER |
| | BACK DRAFT DAMPER |
| | FLEXIBLE DUCT CONNECTION |
| | END CAP |
| | ACCESS DOOR |
| | FAN-SYMBOL (TYPE NOTED) |
| | DOWNDRAFT CEILING FAN |

| PLUMBING PIPING LEGEND | |
|------------------------|---------------------------------|
| | ABOVE GROUND PIPING |
| | BELOW GROUND PIPING |
| | DOMESTIC COLD WATER |
| | DOMESTIC HOT WATER |
| | RECIRCULATED DOMESTIC HOT WATER |
| | TEMPERED WATER SUPPLY |
| | TEMPERED WATER RETURN |
| | NATURAL GAS |
| | SANITARY DRAIN |
| | STORM WATER DRAIN |
| | RAIN WATER LEADER |
| | PUMPED DISCHARGE |
| | INDIRECT DRAIN |
| | PLUMBING VENT |

| CONTROLS LEGEND | |
|-----------------|---------------------------------|
| | WALL MOUNTED THERMOSTAT |
| | WALL MOUNTED TEMPERATURE SENSOR |
| | WALL MOUNTED HUMIDISTAT |
| | WALL MOUNTED HUMIDITY SENSOR |
| | REMOTE BULB SENSOR AND TUBE |
| | DUCT MOUNTED THERMOSTAT |
| | DUCT MOUNTED TEMPERATURE SENSOR |
| | DUCT MOUNTED HUMIDISTAT |
| | DUCT MOUNTED HUMIDITY SENSOR |
| | CARBON DIOXIDE SENSOR |
| | CARBON MONOXIDE SENSOR |
| | NITROGEN DIOXIDE SENSOR |
| | ANALOG OUTPUT |
| | ANALOG INPUT |
| | DIGITAL OUTPUT |
| | DIGITAL INPUT |
| | TRANSFORMER |
| | RELAY |
| | PNEUMATIC/ELECTRIC SWITCH |
| | TIMECLOCK |
| | SPRING WOUND MANUAL TIMER |
| | MANUAL SWITCH |
| | DAMPER OR VALVE MOTOR |
| | ELECTRONIC SPEED CONTROLLER |
| | VARIABLE SPEED DRIVE |
| | VARIABLE FREQUENCY DRIVE |

| ACCESSORIES LEGEND | |
|--------------------|----------------------------------|
| | PLUMBING FIXTURE (TYPE NOTED) |
| | SHOWER HEAD (TYPE NOTED) |
| | SERVICE OUTLET (TYPE NOTED) |
| | FLOOR DRAIN (TYPE NOTED) |
| | ROOF DRAIN (TYPE NOTED) |
| | CATCH BASIN |
| | MANHOLE |
| | P-TRAP |
| | RUNNING TRAP |
| | PUMP |
| | WATER HAMMER ARRESTOR |
| | PRESSURE SWITCH |
| | FLOW SWITCH |
| | MANUAL AIR VENT |
| | AUTOMATIC AIR VENT |
| | BALL DRIP |
| | FLOW INDICATOR |
| | FLOW METER |
| | GAS METER |
| | WATER METER |
| | STEAM TRAP |
| | EXPANSION JOINT |
| | ALIGNMENT GUIDE |
| | ANCHOR |
| | PRESSURE GAUGE C/W SNUBBER VALVE |
| | THERMOMETER |

| FIRE PROTECTION LEGEND | |
|------------------------|------------------------------|
| | FIRE EXTINGUISHER |
| | FIRE EXTINGUISHER IN CABINET |

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project
WESTON MEMORIAL COMMUNITY CENTRE
 - INTERIOR RENOVATION
 WINNIPEG, MANITOBA

MECHANICAL LEGEND AND DRAWING LIST

project number: 14-004 drawing number:
 scale: AS SHOWN
 drawn by: JRR
 approved by: JC
 date: October 22, 2014

M-0.0