

MECHANICAL SPECIFICATION

1.0 GENERAL

1.1 SCOPE OF WORK

1. EXTEND NATURAL GAS, DOMESTIC WATER, AND SANITARY SEWER TO NEW FIXTURES AND EQUIPMENT IN ADDITION. FIELD CONFIRM REQUIRED SLOPE IS AVAILABLE FOR CONNECTION OF NEW SANITARY SEWER PIPE FROM NEW SEDIMENT PIT TO EXISTING SEDIMENT PIT.
2. SUPPLY AND INSTALL NEW NATURAL GAS UNIT HEATERS C/W ASSOCIATED COMBUSTION AIR AND VENT CONNECTIONS. COORDINATE NEW NATURAL GAS CONNECTED LOAD WITH UTILITY.
3. SUPPLY AND INSTALL NEW EXHAUST FANS AND CEILING FANS.
4. INSULATE ALL DUCTWORK AND DOMESTIC WATER PIPING.
5. PROVIDE CONTROLS, DEHUMIDISTAT, LOW-LIMIT THERMOSTAT, AND AIR BALANCING.
6. COMMISSION ALL HEATING, VENTILATING, AND PLUMBING EQUIPMENT AND CONTROLS.

1.2 SITE COORDINATION

ACCESS TO THE SITE SHALL BE COORDINATED WITH CONTRACT ADMINISTRATOR.

1.3 DESCRIPTION OF WORK

THE CONTRACTOR SHALL INCLUDE THE FURNISHING OF ALL LABOR, NEW MATERIALS, EQUIPMENT AND INSTALLATION OF EQUIPMENT AND SERVICES NECESSARY FOR AND INCIDENTAL TO THE COMPLETE INSTALLATION OF THE WORK AS SHOWN AND DESCRIBED ON THIS DRAWINGS AND TO THE SATISFACTION OF THE CONTRACT ADMINISTRATOR.

CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FOR REQUIRED WORK AND PAY ALL FEES.

WORK SHALL BE PERFORMED IN ACCORDANCE TO ALL APPLICABLE LOCAL CODES, STANDARDS, AND REGULATIONS.

CONTRACTOR TO COORDINATE ACCESS TO THE SITE WITH THE CONTRACT ADMINISTRATOR AND FOLLOW HIS INSTRUCTIONS.

1.4 SUBMITTALS

- SUBMIT SHOP DRAWINGS FOR APPROVAL FOR EQUIPMENT SPECIFIED.
- SUBMIT THREE (3) SETS OF O & M MANUALS.
- PROVIDE O & M TRAINING TO CONTRACT ADMINISTRATOR.

1.5 WORKMANSHIP

WORKMANSHIP SHALL BE OF BEST QUALITY, EXECUTED BY WORKERS EXPERIENCED AND SKILLED IN THE SUPPLY AND INSTALLATION OF NATURAL GAS, PLUMBING, AND HVAC SYSTEMS, AND IN THEIR RESPECTIVE DUTIES FOR WHICH THEY ARE EMPLOYED.

1.6 EXECUTION

INSTALLATION OF EQUIPMENT CONFORM TO NATIONAL PLUMBING CODE AND AUTHORITY HAVING JURISDICTION FOR DESIGN, SUPPLY AND INSTALLATION OF PLUMBING AND VENT SYSTEMS. CONCEAL VENT SYSTEM INSIDE WALLS ACCORDING TO CODE.

INSTALL ALL EQUIPMENT SPECIFIED OR INDICATED ON DRAWINGS IN A MANNER THAT WILL ENSURE ITS SATISFACTORY OPERATION UPON COMPLETION AND ACCORDING TO MANUFACTURER'S INSTRUCTIONS. FOLLOW APPROVED MANUFACTURER'S RECOMMENDATIONS FOR SAFETY, EASY ACCESS FOR INSPECTION, MAINTENANCE AND REPAIRS. BEFORE COMMENCING THE INSTALLATION, THE CONTRACTOR SHALL CONFIRM RECEIPT OF AN APPROVED COPY OF THE MANUFACTURER'S DRAWINGS AND INSTALLATION MANUAL FOR THE INSTALLATION THEREOF.

THE SAFE DELIVERY TO THE SITE OF ALL MATERIALS SHALL BE ENTIRELY THE CONTRACTOR'S RESPONSIBILITY. MATERIALS AND EQUIPMENT SHALL BE HANDLED AT ALL TIMES WITH CARE TO AVOID DAMAGE.

PERMIT EQUIPMENT MAINTENANCE AND DISASSEMBLY WITH MINIMUM DISTURBANCE TO ADJACENT EQUIPMENT AND WITHOUT INTERFERENCE WITH BUILDING STRUCTURE OR OTHER EQUIPMENT.

DISCREPANCIES OR IRREGULARITIES IN THE WORK OR DEFECTS OR DAMAGES TO THE EQUIPMENT, ATTRIBUTABLE TO FAULTY OR INCORRECT INSTALLATION, SHALL BE RECTIFIED BY THE CONTRACTOR AT HIS OWN EXPENSE.

MAINTAIN ADEQUATE ACCESS TO PROJECT SITE. COORDINATE WORK TO MINIMIZE INTERFERENCE OR DISRUPTION TO BUILDING'S OPERATIONS. MAINTAIN THE WORK IN TIDY CONDITION, FREE FROM ACCUMULATION OF WASTE PRODUCTS AND DEBRIS. PROTECT EQUIPMENT AND DUCTWORK FROM ACCUMULATION OF DUST ETC. SEAL ALL DUCT OPENINGS DURING DUST PRODUCING ACTIVITIES.

EQUIPMENT LOCATIONS, DUCT, AND PIPE ROUTING INDICATED ON THE DRAWINGS IS APPROXIMATE ONLY. CONFIRM IN THE FIELD. REROUTE DUCTWORK AND PIPING AS REQUIRED TO ELIMINATE FIELD INTERFERENCES WITH BUILDING STRUCTURES, ELECTRICAL, ETC. CONFIRM CHANGES WITH CONTRACT ADMINISTRATOR. COORDINATE WORK WITH ALL SUBTRADES. WHERE DIMENSIONS ARE INDICATED FOR PIPING, DUCTWORK, DUCT SIZES, EQUIPMENT SIZES, ETC. THESE ARE FOR BIDDING PURPOSES ONLY. THE CONTRACTOR IS RESPONSIBLE TO VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO ORDERING EQUIPMENT AND COMMENCING INSTALLATION WITHOUT EXTRA CHARGES TO THE PROJECT. THE CONTRACTOR IS RESPONSIBLE TO ENSURE ALL EQUIPMENT, DUCTWORK, AND PIPING FITS IN THE SPACE AVAILABLE AND TO MAINTAIN THE GENERAL DESIGN INTENT FOR THE SYSTEMS.

SEAL ALL PENETRATIONS THROUGH EXTERIOR WALLS AND ROOFS AIR, WATER, AND WEATHER TIGHT.

INSPECTION AND TESTING

THE WORK SHALL BE AT ALL TIMES AVAILABLE FOR INSPECTION BY THE CONTRACT ADMINISTRATOR. ALL WORK SHALL BE IN ACCORDANCE WITH AND SHALL BE INSPECTED TO MEET THE REQUIREMENTS OF THIS SPECIFICATION.

ALL STARTUP AND TESTING SHALL BE PERFORMED IN THE PRESENCE OF THE CONTRACT ADMINISTRATOR. 5 DAYS NOTICE OF THE DATE OF WHEN TESTS SHALL BE PERFORMED MUST BE RECEIVED BY CONTRACT ADMINISTRATOR. WORK SHALL NOT BE INSULATED OR CONCEALED PRIOR TO BEING TESTED OR APPROVED. OPERATE SYSTEM FOR A SUFFICIENT PERIOD OF TIME TO ENSURE COMPLETE ACCEPTANCE; DEFECTS SHALL BE REMEDIATED AT CONTRACTOR'S EXPENSE.

USE OF NEW HVAC SYSTEMS DURING CONSTRUCTION

- NEW HVAC SYSTEMS SHALL NOT BE USED DURING CONSTRUCTION UNLESS APPROVED OTHERWISE BY CONTRACT ADMINISTRATOR. (OBTAIN WRITTEN APPROVAL FROM CONTRACT ADMINISTRATOR)

- IF CONTRACT ADMINISTRATOR APPROVES USE OF NEW HVAC SYSTEMS, THE CONTRACTOR SHALL:
 - ENSURE THAT HVAC SYSTEM IS OPERATED AS PER MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS.

- CONTINUOUSLY MONITOR SYSTEM
- PROTECT DUCTWORK BY INSTALLING MINIMUM 60% FILTERS ON ALL SUPPLY AND EXHAUST POINTS. FILTERS SHALL BE REMOVED UPON COMPLETION OF CONSTRUCTION. ALL FILTERS SHALL BE CHANGED EVERY WEEK OR MORE FREQUENTLY AS REQUIRED.
- PERFORM REGULAR PREVENTATIVE AND OTHER MANUFACTURER'S RECOMMENDED MAINTENANCE ROUTINES AT CONTRACTOR'S OWN EXPENSE.
- NOT RELAX WARRANTIES AND GUARANTEES.
- REFURBISH ENTIRE SYSTEM BEFORE STATIC COMPLETION, CLEAN ALL DUCTWORK AND ALL AIR HANDLING EQUIPMENT INTERNALLY AND EXTERNALLY, RESTORE TO "AS NEW" CONDITION, REPLACE AIR FILTERS.

2.0 HVAC

2.1 PRODUCTS

DUCTWORK

CONFORM TO SMACNA STANDARDS FOR SUPPLY AND INSTALLATION OF DUCTWORK. PERFORM WORK IN ACCORDANCE WITH ALL APPLICABLE CODES AND STANDARDS. USE TURNING VANES FOR RECTANGULAR ELBOWS. DUCTWORK SHALL BE RATED FOR 2" W.C. SEAL ALL DUCTWORK JOINTS USING "DURO-DYNE" DUCT SEALER. SEAL ALL JOINTS IN DUCT INSULATION VAPOR BARRIER USING TAPE AND DUCT SEALER.

DUCT INSULATION

25mm THICK, BLACK FLEXIBLE CLOSED-CELL, ELASTOMERIC THERMAL INSULATION IN SHEET AND ROLL FORM WITH BUILT-IN VAPOUR BARRIER. 25/50 FLAME SPREAD & SMOKE DEVELOPED INDEX RATING FOR INDOOR APPLICATIONS. THERMAL CONDUCTIVITY OF 0.040 W/mK, WATER VAPOR PERMEABILITY OF 1.16x10⁻¹³ Kg/m²Pa. FINISH WITH WHITE PVC JACKETING.

ACCEPTABLE PRODUCT: AP ARMAFLEX SHEET AND ROLL INSULATION C/W WHITE PVC JACKETING OR APPROVED EQUAL IN ACCORDANCE WITH B7.

MD-1, 2 MOTORIZED DAMPERS

600mm x 600mm INSULATED MOTORIZED DAMPER, EXTRUDED ALUMINUM INTERLOCKING BLADES, C/W EXTRUDED VINYL SEALS, EXTRUDED THERMALLY BROKEN FRAME, PRESSURE FIT SELF-LUBRICATED BRONZE BEARINGS, ALUMINUM AND CORROSION RESISTANT ZINC AND NICKEL PLATED STEEL LINKAGE, R-2.29 INSULATED BLADES AND FRAME, C/W 120v ON/OFF, SPRING RETURN CLOSE, 2-POSITION ACTUATOR WITH END SWITCHES.

ACCEPTABLE PRODUCT: "TAMCO" SERIES 90008F C/W BELIMO 120v ACTUATOR OR APPROVED EQUAL IN ACCORDANCE WITH B7.

L-1, 2 LOUVERS

600mm x 600mm EXTRUDED ALUMINUM, FIXED DRAINABLE BLADE LOUVER C/W BIRDSCREEN. FINISH AND COLOUR BY CONTRACT ADMINISTRATOR.

ACCEPTABLE PRODUCT: "PRICE" DE635 OR APPROVED EQUAL IN ACCORDANCE WITH B7.

EF-10 MAIN FLOOR EXHAUST FAN

INLINE DIRECT DRIVE EXHAUST FAN RATED AT 1300 CFM @ 0.20" ESP, ½ HP, 120V/1PH60HZ BRUSHLESS DC MOTOR WITH REMOTE DIAL, C/W VIBRATION HANGER ISOLATORS, FLEXIBLE DUCT CONNECTIONS, INLET GUARD.

ACCEPTABLE PRODUCT: "GREENHECK" SQ 130 C/W VARIGREEN MOTOR OR APPROVED EQUAL IN ACCORDANCE WITH B7.

EF-11 CRAWLSPACE EXHAUST FAN

INLINE DIRECT DRIVE EXHAUST FAN RATED AT 362 CFM @ 0.26" ESP, ½ HP, 120V/1PH60HZ BRUSHLESS DC MOTOR WITH REMOTE DIAL, C/W VIBRATION HANGER ISOLATORS, FLEXIBLE DUCT CONNECTIONS, INLET GUARD.

ACCEPTABLE PRODUCT: "GREENHECK" SQ 85 C/W VARIGREEN MOTOR OR APPROVED EQUAL IN ACCORDANCE WITH B7.

UH-1, 2 UNIT HEATERS

SEPARATED COMBUSTION NATURAL GAS UNIT HEATER, 75MBH INPUT / 62.25MBH OUTPUT. 115V/1PH60HZ, 3.3FLA, 1650 RPM. SINGLE-STAGE NATURAL GAS VALVE, BUILT-IN 24V TRANSFORMER, BUILT-IN DISCONNECT SWITCH, DOWNWARD DISCHARGE NOZZLE, TOTALLY ENCLOSED MOTOR WITH BUILT-IN OVERLOAD PROTECTION, WALL-MOUNTED THERMOSTAT, CEILING MOUNTABLE VIA HANGER RODS.

ACCEPTABLE PRODUCT: "REZORN" UDAS-75 C/W VERTICAL COMBUSTION AIRVENT KIT INCLUDING CONCENTRIC ADAPTER, WALL-MOUNTED THERMOSTAT, DOWNTURN NOZZLE KIT, CEILING SUSPENSION KIT, HANGER KIT OR APPROVED EQUAL IN ACCORDANCE WITH B7.

CF-3, 4 CEILING FANS

36" SWEEP REVERSIBLE CEILING FAN C/W SAFETY CHAIN, VARIABLE SPEED MOTOR, AND VARIABLE SPEED CONTROLLER WITH DIRECTION CHANGE.

ACCEPTABLE PRODUCT: "CANARM" CP36 C/W FRMC5 CONTROL OR APPROVED EQUAL IN ACCORDANCE WITH B7.

AIRVAC 911 ENGINE EXHAUST REMOVAL SYSTEM

SUPPLY AND INSTALL SUITABLY SIZED 230V/1PH AIRVAC 911 ENGINE EXHAUST REMOVAL SYSTEM FOR ADDITION. FINAL LOCATION OF ALL AIRVAC 911 UNITS AND ACCESSORIES SHALL BE COORDINATED BETWEEN CONTRACT ADMINISTRATOR AND VENDOR BASED ON ANTICIPATED USAGE OF THE ADDITION. SYSTEM SHALL BE SIZED BY MANUFACTURER (AIR VACUUM CORPORATION) C/W THE FOLLOWING:

- SUITABLE QUANTITY OF AIRVAC 911 UNITS FOR THE INTENDED GARAGE SIZE AND VEHICLE CAPACITY
- AUTOMATED FILTER GAUGE
- AVEC CONTROL PANEL
- AUTOMATIC ACTIVATION SWITCHES (PHOTO ELECTRIC EYES, MAGNETIC DOOR SWITCHES) FOR ALL OVERHEAD DOORS
- MOMENTARY PUSH-BUTTON START
- E3 POINT TOXIC AND COMBUSTIBLE GAS DETECTOR FOR CO AND NOx DETECTION TO ACTIVATE AUDIBLE ALARM AND EXHAUST FAN UPON DETECTION OF HIGH CONCENTRATION
- SUBMIT, AS A SHOP DRAWING, A PROPOSAL OF THE AIRVAC 911 SYSTEM INCLUDING A PLAN DRAWING OF THE PROPOSED QUANTITY AND LOCATION OF ALL AIRVAC 911 UNITS AND ASSOCIATED ACCESSORIES AND CONTROLS

2.2 AIR BALANCING

SCOPE OF WORK

- CONTACT CONTRACT ADMINISTRATOR PRIOR TO COMMENCEMENT OF AIR BALANCING FOR FINAL INSTRUCTIONS.
- TEST, ADJUST, AND BALANCE AIR FLOWS FOR NEW EXHAUST FANS AND AIRVAC 911 SYSTEM
- ADJUST SPEED CONTROLLERS TO ACHIEVE THE SPECIFIED AIR FLOW RATE

GENERAL

FOLLOW START-UP PROCEDURES AS RECOMMENDED BY CONTRACT ADMINISTRATOR, UNLESS OTHERWISE SPECIFIED. ADJUST SPEED CONTROLLERS SUPPLIED WITH EQUIPMENT TO ACHIEVE FINAL AIR BALANCE. QUALIFICATIONS: PERSONNEL PERFORMING AIR BALANCING TO BE CURRENT MEMBER IN GOOD STANDING OF AABC. QUALITY ASSURANCE: PERFORM AIR BALANCE UNDER DIRECTION OF SUPERVISOR QUALIFIED BY AABC. REFERENCE STANDARDS: DO TAB OF COMPLETE MECHANICAL SYSTEMS OVER ENTIRE OPERATING RANGE IN ACCORDANCE WITH MOST STRINGENT CONDITIONS OF SELECT STANDARD:
 -AABC (ASSOCIATED AIR BALANCE COUNCIL)
 -SMACNA (SHEET METAL & AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION)

ACCURACY: DO TAB TO WITHIN ±5% OF DESIGN VALUES. INSTRUMENT CALIBRATION: TO BE IN ACCORDANCE WITH TAB REF. STANDARD, BUT WITHIN 3 MONTHS OF COMMENCEMENT REPORT: FORMAT TO BE IN ACCORDANCE WITH TAB SCHEMATICS SHOWN RESULTS OF TAB. SUBMIT ONE COPY OF DRAFT TAB REPORT FOR VERIFICATION AND APPROVAL OF THE CONTRACT ADMINISTRATOR. SUBMIT THREE FINAL COPIES WITH REVIEW COMMENTS INCORPORATED.

AIR MOVING SYSTEMS

GENERAL: MEASUREMENTS AS REQUIRED BY REFERENCED STANDARDS, INCLUDING BUT NOT LIMITED TO FOLLOWING MEASUREMENTS:
 -AIR FLOW
 -STATIC PRESSURE
 -BHP

3.0 PIPING AND PLUMBING

3.1 PRODUCTS

PIPING

DOMESTIC WATER - TYPE "L" COPPER, SOLDERED JOINTS
 DRAINAGE - DRAINAGE PIPING SHALL BE PVC-DWV
 NATURAL GAS PIPING - SCHEDULE 40 BLACK STEEL. NPS 50mm AND SMALLER - THREADED.

LABELLING

LABEL AND PAINT NATURAL GAS PIPING TO MATCH EXISTING AS PER CSA B149.1
 LABEL DOMESTIC WATER PIPING TO MATCH EXISTING

PIPING INSULATION

DOMESTIC WATER PIPING
 13mm THICK, BLACK FLEXIBLE CLOSED-CELL, ELASTOMERIC THERMAL INSULATION IN SHEET AND ROLL FORM WITH BUILT-IN VAPOUR BARRIER. 25/50 FLAME SPREAD & SMOKE DEVELOPED INDEX RATING FOR INDOOR APPLICATIONS. THERMAL CONDUCTIVITY OF 0.040 W/mK, WATER VAPOR PERMEABILITY OF 1.16x10⁻¹³ Kg/m²Pa. FINISH WITH WHITE PVC JACKETING.

ACCEPTABLE PRODUCT: AP ARMAFLEX SHEET AND ROLL INSULATION C/W WHITE PVC JACKETING OR APPROVED EQUAL IN ACCORDANCE WITH B7.

BALL VALVES

DOMESTIC WATER
 NPS 2 AND SMALLER - FULL PORT, SOLDERED ENDS, NSF APPROVED, 2-PIECE BRASS BODY
 ACCEPTABLE PRODUCT: "CRANE" FIGURE 9201 OR APPROVED EQUAL IN ACCORDANCE WITH B7.

3.2 PLUMBING FIXTURES

HB-1 HOSE BIBB

NON-FREEZE WALL HYDRANT, BRONZE CASING AND INTERIOR, REPLACEABLE BRONZE SEAT AND WASHER, INTEGRAL VACUUM BREAKER, NICKEL BRONZE BOX AND HINGED COVER WITH OPERATING KEY LOCK, MALE THREADED HOSE CONNECTION.

ACCEPTABLE PRODUCT: "ZURN" Z1305-VB OR APPROVED EQUAL IN ACCORDANCE WITH B7.

HB-2 HOSE BIBB

EXPOSED, ANTI-SIPHON, WALL FAUCET COMPLETE WITH BACKFLOW PREVENTER, ALL BRONZE INTERIOR COMPONENTS, VANDAL-RESISTANT OPERATING STEM, ROUGH BRONZE EXTERIOR MALE THREADED HOSE CONNECTION.

ACCEPTABLE PRODUCT: "ZURN" Z1341-BFP OR APPROVED EQUAL IN ACCORDANCE WITH B7.

4.0 FIRE PROTECTION

4.1 PRODUCTS

FIRE EXTINGUISHERS

4.5 Kg 3-A-40-B-C RED ABC-TYPE FIRE EXTINGUISHER, C/W WALL MOUNTING HARDWARE AND NOZZLE. ULC LISTED. INSTALL WITH APPROPRIATE IDENTIFICATION SIGNAGE AS PER APPLICABLE CODES AND STANDARDS.

ACCEPTABLE PRODUCT: "PYRO-CHEM" 4.5 Kg ABC OR APPROVED EQUAL IN ACCORDANCE WITH B7.

5.0 CONTROLS

5.1 SEQUENCES OF OPERATION

MAIN FLOOR HEATING:

HEAT SHALL BE PROVIDED TO THE GARAGE ADDITION VIA TWO (2) NATURAL GAS FIRED UNIT HEATERS (UH-1 AND UH-2) CONTROLLED VIA WALL-MOUNTED THERMOSTATS.

MAIN FLOOR VENTILATION:

DURING NORMAL OPERATION, THE AIRVAC 911 ENGINE EXHAUST REMOVAL SYSTEM SHALL OPERATE AS DESIGNED TO CAPTURE ENGINE EXHAUST, OPERATING IN A MANNER SIMILAR TO THE SYSTEM INSTALLED AT WFPS STATION 33 (598 ST. MARY'S ROAD).

UPON DETECTION OF A HIGH CO / NOx CONCENTRATION LEVEL SET POINT, THE E3 POINT GAS DETECTION DEVICE SHALL OPEN MOTORIZED DAMPERS MD-1 AND MD-2, AND START EF-10 TO EXHAUST AIR FROM THE GARAGE TO LOWER THE CONTAMINANT CONCENTRATION LEVEL. IF THE CONTAMINANT CONCENTRATION LEVEL CONTINUES TO RISE, AN AUDIBLE ALARM SHALL BE SOUNDED ONCE A HIGHER CONCENTRATION LEVEL SET POINT IS REACHED.

ONCE THE CONTAMINANT CONCENTRATION LEVEL RETURNS TO A LOW ACCEPTABLE LEVEL, EF-10 SHALL BE STOPPED AND MD-1 AND MD-2 SHALL SHUT.

CO AND NOx CONCENTRATION LEVEL ALARM SET POINTS SHALL BE FIELD ADJUSTABLE.

CRAWLSPACE VENTILATION:

THE CRAWLSPACE VENTILATION FAN (EF-11) SHALL BE OPERATED VIA A HAND-OFF-AUTO SWITCH LOCATED IN THE ADDITION ON THE MAIN FLOOR.

IN HAND MODE, EF-11 SHALL RUN CONTINUOUSLY

IN AUTO MODE, EF-11 SHALL RUN ONLY WHEN ACTIVATED FROM THE DEHUMIDISTAT OR THE LOW LIMIT THERMOSTAT.

- DEHUMIDISTAT SHALL BE INITIALLY SET TO 70% RELATIVE HUMIDITY
- LOW LIMIT THERMOSTAT SHALL BE INITIALLY SET TO 5°C TO MAINTAIN A MINIMUM OF 5°C

NOTES:

0	ISSUED FOR CONSTRUCTION	DJ	APR 13 2015
No.	REVISION/DESCRIPTION	BY	DATE

SEAL



DRAWN	RP	CHECKED	DESIGNED	APPROVED
DATE	2014.11.20	USER	APPROVAL	

THE CITY OF WINNIPEG
 PLANNING, PROPERTY AND
 DEVELOPMENT DEPARTMENT
 MUNICIPAL ACCOMMODATIONS DIVISION
 3-65 GARRY STREET, R3C 4K4

PROJECT
 WINNIPEG FIRE PARAMEDIC SERVICES
 ADDITIONAL APPARATUS ROOM BAYS

603 REDWOOD AVENUE		
SHEET TITLE MECHANICAL SPECIFICATIONS		
SCALE AS SHOWN	PROJECT No: 2013-171-02	SHEET No: M4