

**GENERAL NOTES**

- SUPPLY, INSTALL, AND PROVIDE ALL LABOUR, EQUIPMENT, MATERIALS, TOOLS, PIPING, VALVES AND CONTROLS TO COMPLETE SYSTEMS SHOWN ON THE DRAWINGS. THIS RENDERING A COMPLETE AND FUNCTIONING INSTALLATION. THE SYSTEMS SHALL BE TESTED AND LEFT COMPLETE AND IN SATISFACTORY OPERATION SUBJECT TO THE APPROVAL OF THE AUTHORITIES HAVING JURISDICTION AND THE OWNER'S REPRESENTATIVE.
- THIS CONTRACTOR SHALL ARRANGE AND PAY FOR THE REMOVAL OF HIS DEBRIS LEFT OVER FROM NEW MECHANICAL EQUIPMENT SPECIFIED ON DRAWINGS.
- APPLY FOR, OBTAIN, AND PAY FOR ALL FEES, PERMITS, LICENSES, INSPECTIONS AND EXAMINATIONS PERTINENT TO THE MECHANICAL WORK. FORWARD OR SUBMIT TO THE OWNERS FINAL UNCONDITIONAL ACCEPTANCE CERTIFICATE OF THE AUTHORITIES HAVING JURISDICTION.
- VISIT AND EXAMINE THE SITE AND ALL OTHER PERTINENT DRAWINGS TO VERIFY THAT THE WORK CAN BE PERFORMED AS INDICATED AND ADVISE THE OWNERS REPRESENTATIVE OF ANY DISCREPANCIES. THE TENDERING PARTIES SHALL NOTIFY THE ENGINEER OF ANY ERRORS OR OMISSIONS IN WRITING MINIMUM 3 WORKING DAYS PRIOR TO TENDER CLOSING, SO THAT SAME MAY BE PROPERLY DEALT WITH BEFORE THE CLOSING DATE OF TENDERS. NO ALLOWANCES WILL BE MADE FOR FAILURE TO DO SO AND FOR ANY OBVIOUS OMISSIONS.
- ALL EQUIPMENT AND INSTALLATION TO COMPLY WITH CURRENT PROVINCIAL AND MUNICIPAL STANDARDS, CODES, REGULATIONS, AND SPECIFICATIONS PERTINENT TO THIS CONTRACT. INSTALLATION ALSO TO MEET MANUFACTURERS SPECIFICATIONS AND RECOMMENDATIONS. ALL EQUIPMENT TO BE CSA APPROVED.
- EXCEPT WHERE INDICATED ON THE DRAWINGS TO RE-USE EXISTING MATERIAL, ALL MATERIALS USED FOR CONSTRUCTION OF THESE SYSTEMS SHALL BE NEW, CSA APPROVED AND OF REPUTABLE MAKE. SHOWN AND ACCEPTED STANDARDS OF THE INDUSTRY. UNLESS INDICATED, ALL EXISTING EQUIPMENT AND MATERIAL, NOT RE-USED OR OTHERWISE NOTED AS FOR DISPOSAL, BECOME THE PROPERTY OF THIS CONTRACTOR AND SHALL BE REMOVED FROM THE JOB SITE.
- REFER TO THE ARCHITECTURAL/INTERIOR LAYOUT DRAWINGS AND THE OTHER DRAWINGS THAT FORM PART OF THE CONTRACT. PROVIDE SET-OUT FOR EQUIPMENT LOCATION AND EXACT LAYOUTS BEFORE PROCEEDING WITH ANY WORK. THE GENERAL ARCHITECTURAL SPECIFICATION FORMS AN INTEGRAL PART OF THE MECHANICAL CONTRACTS. ALL REQUIREMENTS OF THE ARCHITECTURAL SPECIFICATION PERTAINING TO MECHANICAL WORK MUST BE COMPLIED WITH, PRIOR TO INSTALLATION. EQUIPMENT RELOCATION OF 30M (100') DISTANCE SHALL ENTAIL NEITHER AN EXTRA NOR A CREDIT.
- SUBMIT 8 CERTIFIED COPIES OF SHOP DRAWINGS TO THE CONSULTANTS FOR APPROVAL. FOR ALL EQUIPMENT PRIOR TO ORDERING. THIS SUBMISSION SHALL INCLUDE A TITLE PAGE IDENTIFYING THE CLIENT, PROJECT LOCATION, CONSULTANT, GENERAL CONTRACTOR, SUB-CONTRACTOR, AND EQUIPMENT DISTRIBUTOR.
- PROVIDE LAMINATED NAME PLATES FOR ALL EQUIPMENT. NAME PLATES SHALL BE 14" HIGH. LETTERING THE NAME PLATES SHALL IDENTIFY THE EQUIPMENT USING THE ID TAG UTILIZED ON THE DESIGN DRAWING, AND SHALL ALSO INDICATE THE SYSTEM SERVICED BY THE EQUIPMENT.
- BE RESPONSIBLE FOR CARE OF THE BUILDING. DO ALL CUTTING, PATCHING AND PAINTING REQUIRED FOR THE WORK OF THIS TRADE. PROVIDE ACCESS TO BE REPAIRED BY THE GENERAL CONTRACTORS, FORCES AT THE MECHANICAL CONTRACTORS EXPENSE. CLEAN UP ALL DEBRIS UPON COMPLETION OF CONTRACT. COOPERATE WITH ALL OTHER TRADES.
- ARRANGE FOR X-RAY INSPECTION OF ALL CONCRETE SLABS FOR RE-INFORCING STEEL AND DOWELLING ETC. LOCATIONS PRIOR TO ANY CORE DRILLING.
- PROVIDE FOR THE MAINTAINING OF ALL FIRE SEPARATIONS GROSSED BY ANY MECHANICAL SYSTEM COMPONENT ASSOCIATED WITH THIS CONTRACT.
- COORDINATE WITH OWNER'S PERSONNEL FOR CONNECTIONS TO ALL EQUIPMENT AND SERVICES ASSOCIATED WITH THIS PROJECT.

- WHERE MODIFICATION OF EXISTING FACILITIES IS REQUIRED ASSUME FULL RESPONSIBILITY FOR ANY DISRUPTION OF EXISTING SYSTEMS. PROVIDE ALL TEMPORARY CONNECTIONS REQUIRED TO MAINTAIN EXISTING SYSTEMS IN SERVICE DURING NORMAL OPERATING HOURS. SHUT DOWN OF EXISTING SYSTEMS MAY ONLY BE REPRESENTED BY THE GENERAL CONTRACTORS MECHANICAL ELECTRICAL AND OTHER ASSOCIATED WORK. DISBURBED DURING CONSTRUCTION. RELOCATE EXISTING WORK AND COMPONENTS TO ACCOMMODATE NEW WORK NECESSARY TO ALLOW COMPLETION OF THE SYSTEMS AS INDICATED.
- WHERE NOTED FOR EQUIPMENT TO BE REMOVED, THE EQUIPMENT SHALL BE DISMANTLED, REMOVED AND REPAIRED OR RELOCATED. NOTED EQUIPMENT ASSEMBLY AND RELOCATION ALL ASSOCIATED UTILITIES TO NEW LOCATION, CONCEAL, UTILITIES WHEREVER POSSIBLE. CLEAN, REFINISH AND MAKE OPERATIONAL AS REQUIRED TO PROPER OPERATING CONDITION. REPAIR ALL CORRODED SURFACES, COLOUR TO MATCH EXISTING WITH BRUSHED ON RUSTOLEUM OR REMCLAD PRODUCT.
- THIS CONTRACTOR SHALL BE RESPONSIBLE FOR RELOCATING ALL GAS, PLUMBING, HVAC EQUIPMENT AND MECHANICAL SYSTEMS AS WELL AS RELATED ELECTRICAL SYSTEMS AS REQUIRED TO FACILITATE THE REMOVAL, REPLACEMENT OR INSTALLATION OF NEW EQUIPMENT. MAINTAIN THE OPERATION OF EXISTING EQUIPMENT. INSTALLATION OF OTHER REQUIRED EQUIPMENT IS COMPLETED. RELOCATE ALL AFFECTED SYSTEMS BACK TO ORIGINAL LOCATION IF MAINTAINING MAINTENANCE CLEARANCES AROUND EQUIPMENT, OR TO ADJACENT LOCATION AS REQUIRED, TO MAINTAIN ALL MAINTENANCE CLEARANCES AROUND NEW EQUIPMENT.
- THIS CONTRACTOR IS RESPONSIBLE FOR COORDINATING, OPERATING THE OWNERS PROJECT MANAGER AND THE CONSULTANT PRIOR TO MAKING ANY CHANGES TO THE DESIGN SPECIFICATION OR DESIGN INTENT. FAILURE TO CONSULT AND SEEK WRITTEN APPROVAL FOR THE CHANGE INCLUDING OFFERING RELATED CREDITS, PLACES ALL ASSOCIATED COSTS OF REPLACING THE INSTALLATION COMPLETE ON THIS CONTRACTOR. THIS CONDITION EXTENDS TO ALL WORK AND EQUIPMENT RELATED TO THIS CONTRACT AND EQUIPMENT NOTED IN THE VISIT REPORTS OR NOT.
- IN THE EVENT OF ANY EXTRA OR ADDITIONAL WORK OF ANY NATURE BEING REQUIRED DURING THE PROGRESS OF THE WORK, THIS SUB-CONTRACTOR SHOULD BE AWARE THAT IN ORDER TO SECURE SETTLEMENT FOR SUCH EXTRAS AT THE TIME HE IS REQUESTED TO DO THE WORK, UNLESS THEY ARE APPROVED BY THE ENGINEER, THEY WILL NOT BE ALLOWED.
- THE CONTRACTOR SHALL PROVIDE A WRITTEN WARRANTY COVERING ALL PRODUCTS AND WORKMANSHIP WHICH SHALL BE GUARANTEED TO BE FREE FROM DEFECTS FOR A PERIOD OF ONE YEAR FROM DATE OF SUBSTANTIAL COMPLETION OF THE PROJECT. EQUIPMENT SUPPLIED WITH AN EXTENDED WARRANTY SHALL BE GUARANTEED BY THE TRADE FOR SUCH EXTENDED PERIOD AND THE TRADE SHALL ARRANGE FOR REPLACEMENT OR REPAIR OF ANY ITEM REQUIRING REPLACEMENT UNDER ANY FTEB EXTENDED WARRANTY, AFTER THE FIRST YEAR.
- AT THE COMPLETION OF THE PROJECT THE MECHANICAL CONTRACTOR SHALL PROVIDE 3 COPIES OF AN OPERATING AND MAINTENANCE MANUAL FOR THE INSTALLED EQUIPMENT AND SYSTEMS. THIS INFORMATION SHALL INCLUDE A COPY OF THE WRITTEN WARRANTY PROVIDED. FROM THE AUTHORITIES HAVING JURISDICTION, REGIONS OF EQUIPMENT AND SPECIFICATION SHEETS' EQUIPMENT SYSTEM OPERATING AND MAINTENANCE MANUALS. CONTACT INFORMATION ON QUALIFIED SERVICE COMPANIES, AND A SET OF AS-BUILT DRAWINGS. THIS MANUAL SHALL BE PRESENTED IN A 3-RING BINDER, WITH INDIVIDUAL TABS FOR EACH SECTION, AND INCLUDING A TITLE PAGE INDICATING THE CLIENT, PROJECT LOCATION, CONSULTANT, GENERAL CONTRACTOR, SUB-CONTRACTOR, AND THE SUBSTANTIAL COMPLETION DATE.

**H.V.A.C. SPECIFICATION**

- ALL NEW DUCTWORK SHALL BE MADE OF GALVANIZED SHEET STEEL CONSTRUCTED AND SUPPORTED IN COMPLIANCE WITH SMACNA AND ASHRAE STANDARDS.
- ALL JOINTS SHALL BE MADE AIR TIGHT WITH LAPS IN DIRECTION OF AIR FLOW. DUCT LEAKAGE SHALL NOT EXCEED THE MAX. AMOUNT LISTED IN SMACNA.
- ALL DUCTS HAVING ANY SIZE OVER 300MM (12") SHALL COMPLY TO SMACNA STANDARDS.
- ALL TEES, BENDS, OR ELBOWS SHALL BE MADE WITH A CENTER LINE RADIUS OF NOT LESS THAN THE WIDTH OF THE DUCT WHERE NOT INDICATED ON DRAWINGS OR WHERE SPACE CONDITIONS DO NOT PERMIT. SQUARE THROAT FITTING ARE TO BE USED EQUIPPED WITH DOUBLE THICKNESS TURNING VANES.
- DUCTS SHALL BE SUPPORTED BY HANGERS FASTENED TO THE SIDE AND BOTTOM OF THE DUCT BY BOLTS, RIVETS, OR METAL SCREWS. DUCT HANGERS SHALL BE SUSPENDED FROM STRUCTURAL BEARINGS SUCH AS BEAMS, TOP CHORDS OF JOISTS OR STRUCTURAL CONCRETE SLABS. WHERE STRUCTURAL BEARINGS DO NOT EXIST, THE CONTRACTOR SHALL PROVIDE ANGLE OR CHANNEL IRON MEMBERS FROM THE NEAREST STRUCTURAL BEARING TO SUPPORT HANGERS. ALL EQUIPMENT IN CEILING SHALL BE SUSPENDED FROM STRUCTURAL MEMBERS INDEPENDENTLY FROM CEILING.
- PROVIDE FLEXIBLE CONNECTIONS IN SUPPLY AND RETURN DUCTWORK, AND IN EXHAUST DUCTWORK CONNECTION TO FANS, HRV'S AND GEOTHERMAL UNITS.
- USE ROUND RIGID DUCT AND RECTANGULAR DUCTING AS SHOWN ON DRAWINGS AND PLANS.
- USE RIGID DUCTS TO DIFFUSER/GRILLE.
- INSTALL 1" (25MM) ACOUSTIC DUCT LINING IN ALL RETURN AIR DUCTWORK. SEAL LEADING EDGES OF INSULATION. DUCT SIZES TO BE CLEAR INSIDE DIMENSION.
- ALL NEW DUCTWORK SHALL BE METALLIC TYPE.
- PROVIDE BALANCING DAMPERS WHERE INDICATED ON THE DRAWINGS AND WHERE REQUIRED TO BALANCE THE SYSTEMS. DAMPERS TO BE SIZED TO SUIT DUCTWORK. MANUAL BALANCING DAMPERS INSTALLED IN DUCTS UP TO 300MM (12") SHALL BE OF SINGLE BLADE TYPE AND OVER 300MM (12") SHALL BE MULTIBLADE PATTERN.
- PROVIDE BACKDRAFT DAMPERS WHERE INDICATED ON THE DRAWINGS.
- PROVIDE FINE DAMPERS WHERE INDICATED ON THE DRAWING AND/OR REQUIRED BY THE LOCAL AUTHORITIES.
- ACCESS PANELS SHALL BE PROVIDED IN DUCTS WHERE AIR VALVES, BACKDRAFT DAMPERS, OR FIRE DAMPERS ARE INSTALLED. LOCATE PANELS UPSTREAM OF DEVICE. PROVIDE ACCESS DOORS WHERE DEVICES ARE CONCEALED IN WALLS, CEILINGS, OR FLOORS ETC.
- EXHAUST DUCT TERMINATION POINTS ON WALLS TO BE MINIMUM 100mm TO BACK FROM WALL EDGE IN ANY DIRECTION AND BACK FROM VENTILATION INTAKE LOCATION. PROVIDE INSECT SCREEN ON EXHAUST OUTSIDE TERMINATION.
- ROOF CURBS FOR NEW MECHANICAL EQUIPMENT SHALL BE CO-ORDINATED WITH GENERAL TRADES.
- ADJUST THE ROOF TOP UNIT O/A DAMPERS TO MEET THE CONTINUOUS VENTILATION RATE REQUIRED TO MEET ASHRAE STANDARDS AND AS SPECIFIED.
- ALL APPARATUS SUPPLIED BY THE MECHANICAL CONTRACTOR SHALL BE COMPLETE WITH ELECTRIC MOTORS. MOTORS SHALL BE HEAVY DUTY AND INSTALLED IN COMPLIANCE WITH CSA REQUIREMENTS AND CEMA STANDARDS.
- HVAC EQUIPMENT SHALL NOT BE USED FOR TEMPORARY HEAT OR VENTILATION PURPOSES DURING CONSTRUCTION. EQUIPMENT SHALL NOT BE OPERATED UNTIL CONSTRUCTION IS SUBSTANTIALLY COMPLETE, AND READY FOR TESTING. THIS CONTRACTOR SHALL ARRANGE & PAY FOR ALL TEMPORARY HEATING REQUIRED DURING CONSTRUCTION.
- ENSURE THAT ALL DUCTWORK IS CLEAN AND FREE OF DIRT, DUST, GRIME, AND DEBRIS, ETC. BEFORE INITIAL OPERATION OF AIR SYSTEMS AFTER MODIFICATIONS.
- PROVIDE AND INSTALL NEW FILTERS FOR VENTILATION EQUIPMENT 1 DAY PRIOR TO OPENING. AND 2 WEEKS AFTER AREA HAS BEEN OPEN TO PUBLIC, AND EQUIPMENT HAS BEEN IN CONTINUOUS USE.

**H.V.A.C. SPECIFICATION**


- TESTING:
  - TEST CONTROL OPERATING RANGES AND SENSITIVITIES.
  - TEST SAFETY CONTROLS
  - CHECK SUMMER/WINTER CHANGEOVER CONTROLS.
  - BALANCE THE SYSTEM SUCH THAT TERMINAL AIR FLOWS ARE WITHIN +10%/ -10% OF DESIGN VALUES.
  - MARK DAMPER AND CONTROL POSITION SETTINGS.
  - TEST UNITS FOR S/A FLOW, O/A FLOW, STATIC PRESSURE ACROSS FAN, FAN RPM, AND FAN MOTOR AMPERAGE NOTING RESULTS ON BALANCING REPORT.
  - SUBMIT 3 COPIES OF FINAL COMMISSIONING REPORT TO OWNER'S REPRESENTATIVE AND TO THE DESIGN CONSULTANTS.
  - MAKE ALLOWANCE FOR 2 ADDITIONAL SITE VISITS FOR COMFORT ADJUSTMENTS.
- DIFFUSERS AND GRILLES SHALL BE E.H.L. PRICE:
  - TYPE 'A' 24"x24" OR 12"x12" SUPPLY AIR DIFFUSER MODEL SCDA, NECK SIZE PER DRAWINGS, FINISH TO MATCH CEILING.
  - TYPE 'B' EGG GRATE RETURN GRILLE, SERIES '80', 24"x24" OR AS INDICATED, FINISH TO MATCH CEILING.
- ACOUSTIC INSULATION IS REQUIRED ON ALL RETURN AIR DUCTS (25mm THICK, SEAL LEADING EDGES OF INSULATION). THERMAL INSULATION IS NOT REQUIRED ON SUPPLY AIR DUCTS. INSULATION (50mm THICK C/W CANVAS JACKET) IS REQUIRED ON ALL EXHAUST/FRESH AIR DUCTS (3 METRES MINIMUM BACK FROM EXTERIOR WALL OR ROOF).

**SEISMIC CONTROL FOR MECHANICAL SYSTEMS**

- SEISMIC RESTRAINTS ARE TO BE PROVIDED FOR ALL NEW MECHANICAL COMPONENTS AFFECTED UNDER THIS CONTRACT.
- PROVIDE SEISMIC RESTRAINTS IN ACCORDANCE WITH CURRENT NATIONAL BUILDING CODE AND ONTARIO BUILDING CODE.
- THIS CONTRACTOR SHALL UTILIZE THE SUPPLIER FAMILIAR WITH THE DESIGN OF SEISMIC SYSTEMS TO PROVIDE A COMPREHENSIVE PACKAGE OF ISOLATION AND SEISMIC RESTRAINT FOR THE PROJECT.
- PROVIDE DETAILED SHOP DRAWINGS SHOWING THE PROPOSED RESTRAINT SYSTEM FOR ALL REQUIRED COMPONENTS ON THE PROJECT. THE SHOP DRAWINGS SHALL INCLUDE CALCULATIONS CERTIFIED BY THE SEISMIC ENGINEER.

**PLUMBING SPECIFICATION**

- EXECUTION
- PLUMBING PIPING INSTALLATION:
    - CONFORM TO REQUIREMENTS OF ONTARIO BLDG. CODE FOR PRESSURE PIPING.
    - INSTALL PIPING STRAIGHT, PARALLEL, AND CLOSE TO WALLS AND CEILINGS, WITH SPECIFIED PITCH, USE FACTORY FABRICATED FITTINGS FOR DIRECTION CHANGES. CONCEAL PIPING WHERE POSSIBLE.
    - INSTALL GROUPS OF PIPING PARALLEL TO EACH OTHER, DESIGNATED TO PERMIT APPLICATION OF INSULATION, IDENTIFICATION, AND SERVICE ACCESS ON TRAPEZE HANGERS.
    - WHERE PIPE SIZE DIFFERS FROM CONNECTION SIZE OF EQUIPMENT, INSTALL REDUCING FITTINGS CLOSE TO EQUIPMENT. REDUCING BUSHINGS ARE NOT PERMITTED. THE MECHANICAL CONTRACTOR SHALL PROVIDE ALL NECESSARY OPENINGS THROUGH WALLS AND SLAB AS REQUIRED FOR NEW PIPING.
    - BRASS AND COPPER PIPE AND TUBING SHALL BE FREE FROM SURFACE DAMAGE. REPLACE DAMAGED PIPE OR TUBING.
    - REAM ENDS OF PIPES AND TUBES BEFORE ERRECTING.
    - LAY COPPER TUBING SO THAT IT IS NOT IN CONTACT WITH DISSIMILAR METAL AND WILL NOT BE KINKED OR COLLAPSED.
    - USE NON-CORROSIVE LUBRICANT OR TEFLON TAPE APPLIED TO MAKE TIGHT FITTINGS.
    - GROOVED PIPE ENDS: CUT SQUARE, SEATING SURFACE CLEAN AND FREE FROM INDENT AND SCOREMARKS.
    - INSTALL DIELECTRIC COUPLINGS WHEREVER PIPING OF DISSIMILAR METALS ARE JOINED.
    - CLEAN ENDS OF PIPES OR TUBING AND REGRESS OF FITTINGS TO BE BRAZED OR SOLDERED. ASSEMBLE JOINTS WITHOUT BINDING.
    - INSTALL PIPING STRAIGHT, PARALLEL, AND CLOSE TO WALLS AND CEILINGS WITH REQUIRED PITCH. USE STANDARD FITTINGS FOR DIRECTIONAL CHANGES.
    - WHERE PIPE SIZE DIFFERS FROM CONNECTION SIZE OF EQUIPMENT, INSTALL REDUCING FITTINGS CLOSE TO EQUIPMENT. BUSHINGS ARE NOT PERMITTED.
    - REAM ENDS OF PIPE AND TUBES BEFORE INSTALLATION.
    - SCREWED JOINT MATERIAL SHALL BE TEFLON TAPE OR AN APPROVED NON-CORROSIVE LUBRICANT APPROVED FOR SERVICE.
    - HANGERS, ANCHORS AND GUIDES:
      - APPROVED ANCHORS SHALL BE PROVIDED CONSISTING OF STEEL CLAMPS SUPPORTING TO THE PIPE AND FASTENED TO THE BUILDING CONSTRUCTION OR IMBEDDED IN A CONCRETE PIER SUCH THAT ALL FORCES AND THURSTS ACTING AT THE ANCHOR POINT ARE RESTRAINED.
      - PREVENT VIBRATION OR SWAYING.
      - SUPPORTS MADE OF WIRE, ROPE, WOOD OR ANY OTHER VULNERABLE MAKE-SHIFT MATERIAL ARE NOT PERMITTED.
      - FOR UNSULATED COPPER PIPE OR TUBING THE CLAMPS AND SUPPORTS SHALL BE ELECTROPLATED COPPER FINISH.
      - PROVIDE ADDITIONAL SUPPORTS AT CHANGES IN PIPE DIRECTION AND FOR CONCENTRATION OF LOADS DUE TO WEIGHT OF VALVES, STRAINERS, ETC.
    - PIPE TESTING "REQUIRED":
      - TEST ALL PIPING AT 1-1/2 TIME SYSTEM OPERATING PRESSURE FOR PERIOD OF 8 HOURS.
      - TEST SYSTEMS IN ACCORDANCE TO MUNICIPAL REQUIREMENTS IN THE PRESENCE OF THE ENGINEER.
      - PROVIDE A CERTIFICATE OF ACCEPTANCE FROM INSPECTING AUTHORITY.
      - CLEAN UP:
      - ALL BRASS TRIM SHALL BE CLEANED AND POLISHED AND TOUCH-UP OTHER COMPONENTS AS REQUIRED. REMOVE ALL DEBRIS AND GARBAGE FROM SITE.
      - AFTER THE CONSTRUCTION IS COMPLETED CLEAN INTERIOR OF NEW DUCTWORK, FANS, INCLUDING GRILLES, AND DAMPERS ETC.
    - PROVIDE THERMAL INSULATION (1" THICK FOR PIPES 1-1/2" DIAMETER AND 1" THICK FOR LARGER PIPES). PROVIDE IDENTIFICATION AND CANVAS JACKET WHERE PIPING IS EXPOSED. TYPICAL ALSO FOR GEOTHERMAL PIPING.



**FLYNN**  
ARCHITECT

162 PRESTON STREET OTTAWA, ONTARIO, K1R 7P7  
T: 613-268-8606 F: 866-587-2021

---

**GENERAL NOTES**

- DO NOT SCALE DRAWINGS. FIGURED DIMENSIONS ARE TO BE USED.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CHECK AND VERIFY ALL DIMENSIONS ON SITE AND REPORT ANY DISCREPANCIES TO THE ARCHITECT.
- ALL WORK DESCRIBED UNDER THIS CONTRACT TO COMPLY WITH THE MOST CURRENT EDITION OF THE ONTARIO BUILDING CODE, AND/OR NATIONAL BUILDING CODE, AND OTHER CODES AND BYLAWS IN EFFECT.

**Atares Engineering Group Inc.**  
*Atares Engineering Group Inc.*  
 Registered Professional Engineer, Testing and  
 Inspection Engineering  
 159 Cumberland Road, Unit 1, Ottawa, Ontario, K2T 2A4  
 Tel: (613) 252-0600 Fax: (613) 252-5759

---

**ISSUE RECORD**

No	DATE	REVISION
4	8-11-2019	ISSUED FOR TENDER
3	27-06-2019	ISSUED FOR BUILDING PERMIT
2	28-09-2018	ISSUED FOR REVIEW
1	13-05-2016	ISSUED FOR CLIENT REVIEW

---

<p><b>CLIENT:</b>                  ENTERPRISE RENT-A-CAR                  RYAN FIRLOTTE                  T: 613-274-6934                  F: 1-800-495-2412</p>	<p><b>ACTUAL PROJECT MONTH:</b>                  MONTH</p>
---	--

---

**CONSULTANTS:**

HOLZMAN CONSULTANTS INC.  
 (LAND DEVELOPMENT CONSULTANTS)  
 1076 CASTLE HILL CRES  
 OTTAWA, ONTARIO  
 K2C 2A8  
 T: 613-226-1386

MMI GROUP LTD  
 (CIVIL ENGINEERING)  
 1-158 HUNT CLUB ROAD, SUITE 300  
 OTTAWA, ONTARIO  
 K1V 0Y3  
 T: 613-236-7200  
 F: 613-368-8710

VALLEY ENGINEERING  
 (STRUCTURAL ENGINEERING)  
 521 DICKINSON AVENUE  
 OTTAWA, ONTARIO  
 K1V 7J4  
 T: 613-521-9002

ANTARES ENGINEERING  
 (MAE ENGINEERING)  
 1-158 COLONADE ROAD  
 NEPEAN, ONTARIO  
 K2E 7L4  
 T: 613-723-6034

---

**PROJECT TITLE:**  
 225 HUNTINGDAVE  
 HUNTINGDAVE/PALLADIUM DR. ENTERPRISE

**DRAWING TITLE:**  
 MECHANICAL SPECIFICATIONS AND DETAILS

DRAWING BY:	JOB NO.:	DRAWING NO.:	
SCALE AS NOTED	CHECKED BY:	15-610	M-3

**MECHANICAL**