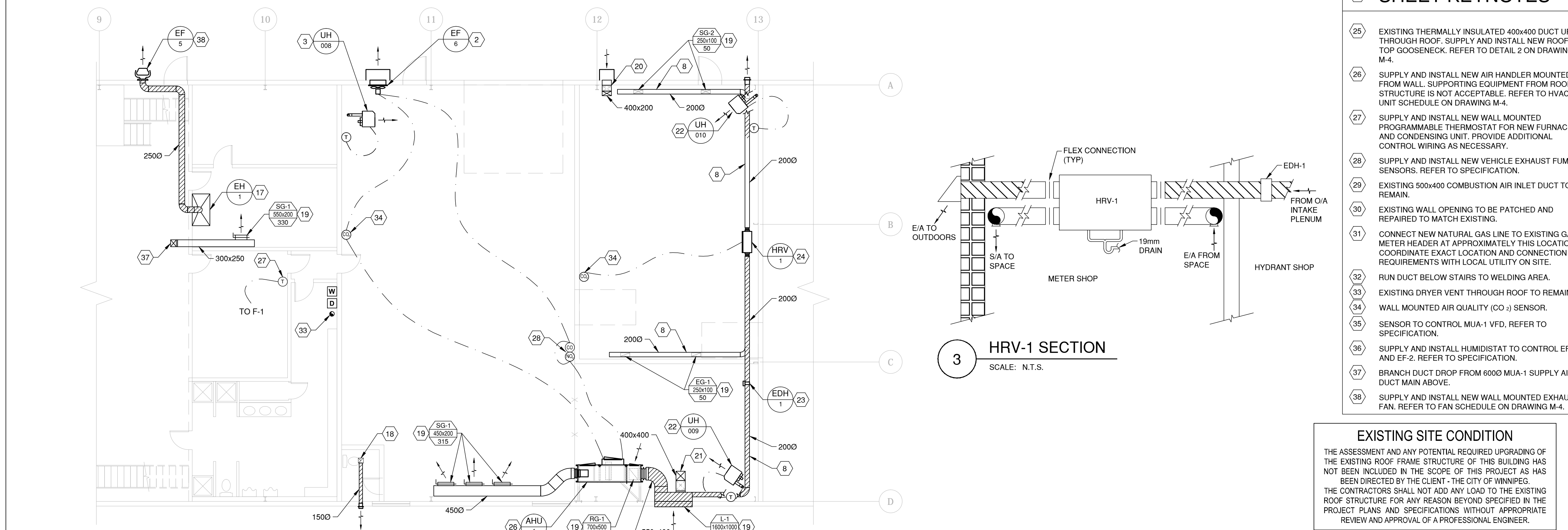
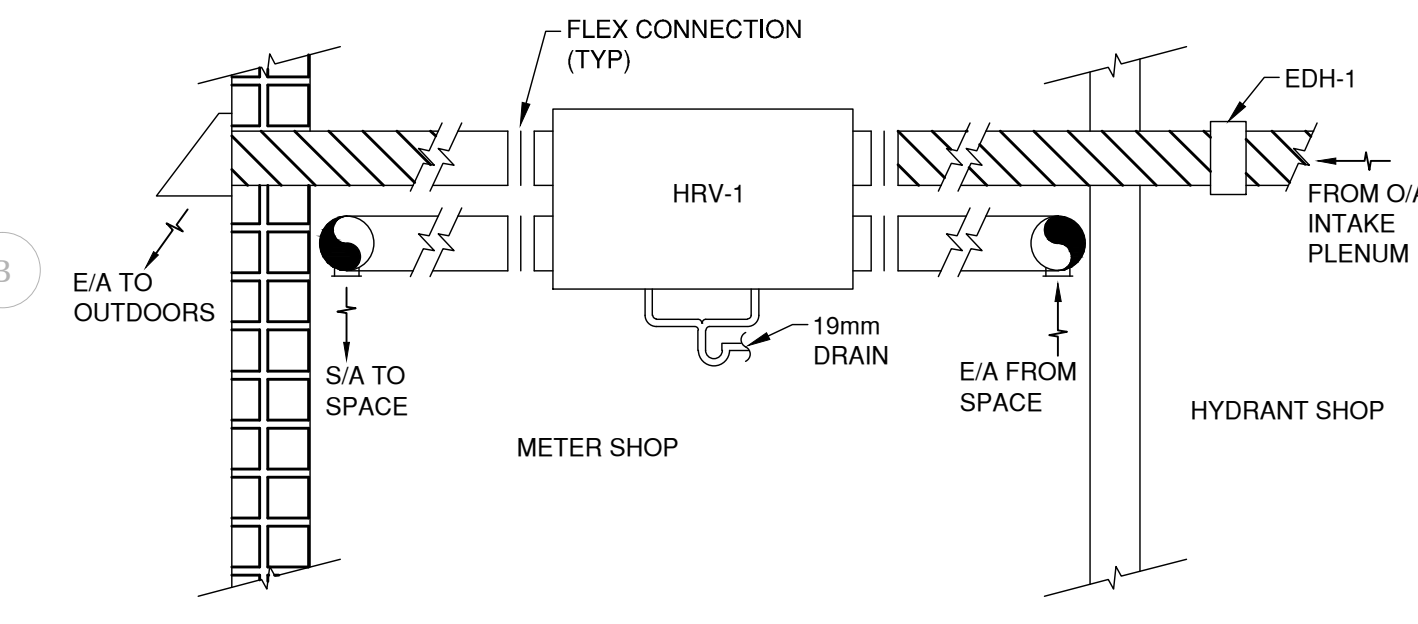


**1 HVAC RENOVATION PLAN**  
SCALE: N.T.S.



**2 HVAC RENOVATION PLAN**  
SCALE: N.T.S.



**3 HRV-1 SECTION**  
SCALE: N.T.S.

**SHEET KEYNOTES**

- 1 EXISTING VEHICLE WASH WATER HEATER TO REMAIN.
- 2 SUPPLY AND INSTALL NEW WALL MOUNTED EXHAUST FAN C/W VARIABLE SPEED DRIVE. REFER TO FAN SCHEDULE ON DRAWING M-4.
- 3 SUPPLY AND INSTALL NEW UNIT HEATER C/W CONCENTRIC ROOF VENT KIT. RE-USE EXISTING ROOF OPENING FOR NEW VENTING. REFER TO UNIT HEATER SCHEDULE AND DETAIL 1 ON DRAWING M-4.
- 4 SUPPLY AND INSTALL NEW WELDING FUME HOOD C/W 4 LEGGED STAND FOR FLOOR SUPPORT. REFER TO HVAC UNIT SCHEDULE ON DRAWING M-4. REMOVE WORK BENCH AND REVISE TO FIT UNDER NEW HOOD.
- 5 SUPPLY AND INSTALL NEW SUPPLY AIR GRILLE AT 600mm A.F.F. TO DISCHARGE HORIZONTALLY. REFER TO GRILLE AND LOUVER SCHEDULE ON DRAWING M-4.
- 6 SUPPLY AND INSTALL NEW THERMALLY INSULATED 400x400 COMBUSTION AIR INLET DUCT C/W COLD AIR TRAP. REFER TO DETAIL 4 ON DRAWING M-4. RE-USE EXISTING WALL OPENING AND EXTERIOR HOOD. ROUTE DRAIN TO NEAREST EXISTING DRAIN LOCATION.
- 7 SUPPLY AND INSTALL NEW THERMALLY INSULATED 600x600 DUCT UP THROUGH EXISTING ROOF OPENINGS C/W GOOSENECK ON ROOF. REFER TO DETAIL 2 ON DRAWING M-4.
- 8 SUPPORT NEW DUCTWORK FROM WALLS. SUPPORTING DUCTWORK FROM ROOF STRUCTURE IS NOT ACCEPTABLE.
- 9 SUPPORT NEW DUCTWORK FROM MEZZANINE FLOOR TO PROVIDE MINIMUM CLEARANCE BETWEEN DUCT AND MEZZANINE FLOOR OF 2.5m. SUPPORTING DUCTWORK FROM ROOF STRUCTURE IS NOT ACCEPTABLE.
- 10 SUPPLY AND INSTALL NEW EXHAUST FAN C/W FLEX CONNECTIONS AND VIBRATION ISOLATION. MOUNT FAN ON MEZZANINE FLOOR. RE-USE EXISTING WALL OPENING AND EXTERIOR HOOD FOR FAN DISCHARGE.
- 11 SUPPLY AND INSTALL NEW EXHAUST FAN INTO EXISTING 400x400 DUCT UP THROUGH ROOF C/W FLEX CONNECTIONS AND VIBRATION ISOLATION. SUPPORT FAN FROM MEZZANINE FLOOR. SUPPORTING EQUIPMENT FROM ROOF STRUCTURE IS NOT ACCEPTABLE.
- 12 SUPPLY AND INSTALL NEW DIRECT FIRED GAS MAKE-UP AIR UNIT ON MEZZANINE C/W FLEX CONNECTIONS AND VIBRATION ISOLATION. REFER TO HVAC UNIT SCHEDULE ON DRAWING M-4.
- 13 SUPPLY AND INSTALL NEW GAS FIRED FURNACE AND CONNECT TO EXISTING DUCTWORK. REFER TO HVAC UNIT SCHEDULE ON DRAWING M-4.
- 14 SUPPLY AND INSTALL NEW CONDENSING UNIT MOUNTED AT HIGH LEVEL ON EXTERIOR OF BUILDING. COORDINATE EXACT LOCATION AND CONNECTIONS ON SITE.

**SHEET KEYNOTES**

- 25 EXISTING THERMALLY INSULATED 400x400 DUCT UP THROUGH ROOF. SUPPLY AND INSTALL NEW ROOF TOP GOOSENECK. REFER TO DETAIL 2 ON DRAWING M-4.
- 26 SUPPLY AND INSTALL NEW AIR HANDLER MOUNTED FROM WALL. SUPPORTING EQUIPMENT FROM ROOF STRUCTURE IS NOT ACCEPTABLE. REFER TO HVAC UNIT SCHEDULE ON DRAWING M-4.
- 27 SUPPLY AND INSTALL NEW WALL MOUNTED PROGRAMMABLE THERMOSTAT FOR NEW FURNACE AND CONDENSING UNIT. PROVIDE ADDITIONAL CONTROL WIRING AS NECESSARY.
- 28 SUPPLY AND INSTALL NEW VEHICLE EXHAUST FUME SENSORS. REFER TO SPECIFICATION.
- 29 EXISTING 500x400 COMBUSTION AIR INLET DUCT TO REMAIN.
- 30 EXISTING WALL OPENING TO BE PATCHED AND REPAIRED TO MATCH EXISTING.
- 31 CONNECT NEW NATURAL GAS LINE TO EXISTING GAS METER HEADER AT APPROXIMATELY THIS LOCATION. COORDINATE EXACT LOCATION AND CONNECTION REQUIREMENTS WITH LOCAL UTILITY ON SITE.
- 32 RUN DUCT BELOW STAIRS TO WELDING AREA.
- 33 EXISTING DRYER VENT THROUGH ROOF TO REMAIN.
- 34 WALL MOUNTED AIR QUALITY (CO<sub>2</sub>) SENSOR.
- 35 SENSOR TO CONTROL MUA-1 VFD, REFER TO SPECIFICATION.
- 36 SUPPLY AND INSTALL HUMIDISTAT TO CONTROL EF-1 AND EF-2. REFER TO SPECIFICATION.
- 37 BRANCH DUCT DROP FROM 6000 MUA-1 SUPPLY AIR DUCT MAIN ABOVE.
- 38 SUPPLY AND INSTALL NEW WALL MOUNTED EXHAUST FAN. REFER TO FAN SCHEDULE ON DRAWING M-4.
- 15 EXISTING GAS FIRED HOT WATER TANK TO REMAIN.
- 16 EXISTING 250x150 COMBUSTION AIR INLET DUCT TO REMAIN.
- 17 SUPPLY AND INSTALL NEW PARTS CLEANING EXHAUST HOOD C/W 4 LEGGED STAND FOR FLOOR SUPPORT. SUSPENDING HOOD FROM MEZZANINE STRUCTURE IS NOT ACCEPTABLE. REFER TO HVAC UNIT SCHEDULE ON DRAWING M-4. REMOVE WORK BENCH AND REVISE TO FIT UNDER NEW HOOD.
- 18 SUPPLY AND INSTALL NEW EXHAUST DUCT TO OUTSIDE OF BUILDING C/W THERMAL INSULATION. WALL CAP AND BACK DRAFT DAMPER FOR EXISTING WASHROOM EXHAUST FAN.
- 19 REFER TO GRILLE AND LOUVER SCHEDULE ON DRAWING M-4.
- 20 SUPPLY AND INSTALL NEW COMBUSTION AIR INLET DUCT C/W COLD AIR TRAP AND WEATHER HOOD. REFER TO DETAIL 4 ON DRAWING M-4. ROUTE DRAIN TO NEAREST EXISTING DRAIN LOCATION.
- 21 SUPPLY AND INSTALL NEW COMBUSTION AIR INLET DUCT OFF OUTDOOR AIR INTAKE PLENUM C/W COLD AIR TRAP. REFER TO DETAIL 4 ON DRAWING M-4. ROUTE DRAIN TO NEAREST EXISTING DRAIN LOCATION.
- 22 EXISTING GAS FIRED UNIT HEATER TO REMAIN.
- 23 SUPPLY AND INSTALL NEW ELECTRIC DUCT HEATER. REFER TO HVAC UNIT SCHEDULE ON DRAWING M-4 AND DETAIL 3 ON DRAWING M-3.
- 24 SUPPLY AND INSTALL NEW HEAT RECOVERY VENTILATOR UNIT MOUNTED FROM WALL. SUPPORTING EQUIPMENT FROM ROOF STRUCTURE IS NOT ACCEPTABLE. REFER TO HVAC UNIT SCHEDULE ON DRAWING M-4. ROUTE DRAIN TO NEAREST EXISTING DRAIN LOCATION.

**EXISTING SITE CONDITION**

THE ASSESSMENT AND ANY POTENTIAL REQUIRED UPGRADING OF THE EXISTING ROOF FRAME STRUCTURE OF THIS BUILDING HAS NOT BEEN INCLUDED IN THE SCOPE OF THIS PROJECT AS HAS BEEN DIRECTED BY THE CLIENT - THE CITY OF WINNIPEG. THE CONTRACTORS SHALL NOT ADD ANY LOAD TO THE EXISTING ROOF STRUCTURE FOR ANY REASON BEYOND SPECIFIED IN THE PROJECT PLANS AND SPECIFICATIONS WITHOUT APPROPRIATE REVIEW AND APPROVAL OF A PROFESSIONAL ENGINEER.

**ASBESTOS CONTAINING MATERIALS ARE PRESENT ON-SITE.**

REFER TO PROJECT SPECIFICATIONS. ANY SUSPECT ASBESTOS-CONTAINING MATERIALS SHALL BE CONSIDERED AS ASBESTOS-CONTAINING UNTIL DETERMINED OTHERWISE.

**FOR PRICING ONLY**  
NOT FOR CONSTRUCTION

B.M. ELEV.	DESIGNED BY D.P.M.		CHECKED BY M.K.	
	DRAWN BY H.L. <td colspan="2">APPROVED BY E.G. </td>		APPROVED BY E.G.	
	HOR. SCALE: AS NOTED <td colspan="2">RELEASED FOR CONSTRUCTION </td>		RELEASED FOR CONSTRUCTION	
	VERT. SCALE: AS NOTED <td colspan="2">DATE </td>		DATE	
	DATE 2012/06/26 <td colspan="2">DATE </td>		DATE	

ENGINEERS SEAL  
  
CONSULTANT DRAWING NO. 121-19259-00

**THE CITY OF WINNIPEG**  
WATER AND WASTE DEPARTMENT

HVAC AND ELECTRICAL UPGRADE  
552 PLINGUET STREET  
WASTEWATER SERVICES GARAGE AND ADJACENT BUILDINGS

CITY DRAWING NO. SHEET 5 OF 10  
M-3

RENOVATION PLANS