

**LEGEND**

	UNION		EQUIPMENT TYPE & NUMBER
	CAP		EF = EXHAUST AIR FAN
	GATE VALVE		LV = LOUVRE
	CONTROL VALVE		GR = GRILLE
	BALL VALVE - NORMALLY OPEN		DP = DAMPER
	BALL VALVE - NORMALLY CLOSED		VAV = VARIABLE AIR VOLUME
	CHECK VALVE		PS = PRESSURE SWITCH
	BUTTERFLY VALVE		
	FLEXIBLE PIPE CONNECTOR		
	CONCENTRIC REDUCER		
	ECCENTRIC REDUCER		
	VENT		
	DOMESTIC COLD WATER		
	DOMESTIC HOT WATER		
	SANITARY DRAIN		
	NATURAL GAS		
	HOT WATER SUPPLY		
	HOT WATER RETURN		
	EXISTING PIPE		
	DEMOLISHED PIPE		
	FLOW DIRECTION		
	LOUVER TYPE		
	LOUVER NECK SIZE		
	AIR FLOW (L/S)		
	DETAIL NUMBER (NUMBER/LETTER)		
	SHEET NO. WHERE ITEM ORIGINATED		
	SECTION SYMBOL		
	HUMIDISTAT		
	GAS DETECTOR		
	BALANCING DAMPER		
	MOTORIZED DAMPER		
	EXHAUST OR RETURN AIR DUCT IN SECTION		
	SUPPLY OR OUTSIDE AIR DUCT IN SECTION		
	ROUND DUCT OR PIPE IN SECTION		

FAN SCHEDULE										
ITEM	LOCATION	MANUFACTURER AND MODEL No.	AIRFLOW (LPS)	FAN SIZE	ESP (Pa)	RPM	BHP	MOTOR HP	VOLTAGE / PHASE	ACCESSORIES
EF-1	FORESTRY GARAGE	NORTHERN BLOWER MODEL 7410 SIZE 2700	4250	SIZE 2700	125	1510	1.81	3	208/3	VERTICAL INSTALLATION, MOTOR HOUSING & BELT GUARD
EF-2	FORESTRY GARAGE	NORTHERN BLOWER MODEL 7410 SIZE 2700	4250	SIZE 2700	125	1510	1.81	3	208/3	VERTICAL INSTALLATION, MOTOR HOUSING & BELT GUARD
EF-3	FORESTRY GARAGE	NORTHERN BLOWER MODEL 7410 SIZE 2700	4250	SIZE 2700	125	1510	1.81	3	208/3	VERTICAL INSTALLATION, MOTOR HOUSING & BELT GUARD
EF-4	FORESTRY GARAGE	NORTHERN BLOWER MODEL 7410 SIZE 2700	4250	SIZE 2700	125	1510	1.81	3	208/3	VERTICAL INSTALLATION, MOTOR HOUSING & BELT GUARD
EF-5	CHAINSAW REPAIR DUST COLLECTION	TORIT VS-2400	1,130	-	-	-	-	5	230/460	OWNER PROVIDED EXISTING EQUIPMENT RELOCATED

GRILLE SCHEDULE				
ITEM	MANUFACTURER AND MODEL No.	SIZE	AIRFLOW (LPS)	ACCESSORIES
SA-A	EH PRICE 152D	SEE DWGS	SEE DWGS	WHITE POWDER COAT FINISH. BLADES DEFLECTION 45°
SA-B	EH PRICE 302	SEE DWGS	SEE DWGS	WHITE POWDER COAT FINISH. BLADES DEFLECTION 15°

GAS DETECTOR SCHEDULE			
ITEM	LOCATION	MANUFACTURER AND MODEL No.	GAS DETECTED
GD-1	FORESTRY GARAGE	HONEYWELL VULCAIN VA-201M	NOx, CO
GD-2	FORESTRY GARAGE	HONEYWELL VULCAIN VA-201M	NOx, CO
GD-3	FORESTRY GARAGE	HONEYWELL VULCAIN VA-201M	NOx, CO
GD-4	FORESTRY GARAGE	HONEYWELL VULCAIN VA-201M	NOx, CO

MAKE UP AIR UNIT SCHEDULE							
ITEM	LOCATION	MANUFACTURER AND MODEL No.	LPS	TSP (Pa)	OUTPUT MBH	MOTOR HP	DETAILS
MAU-1	FORESTRY GARAGE MEZZANINE	ICE MANUFACTURING BMA 127	12,750	250	3,208	25	-
MAU-2	FORESTRY GARAGE MEZZANINE	EXISTING MAU	4,250	250	990	EXISTING	EXISTING UNIT TO BE RELOCATED ON NEW MEZZANINE STRUCTURE
MAU-3	OUTSIDE FORESTRY GARAGE SOUTH	ICE MANUFACTURING HTDM 400	1415	250	328	2	-

**GENERAL NOTES:**

- DIMENSIONS AND BUILDING ORIENTATION SHOWN ON THE DRAWING ARE APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE TO VERIFY EQUIPMENT/BUILDING LOCATIONS AND DIMENSIONS ON SITE.
- PATCH ALL OPENINGS REMAINING AFTER EQUIPMENT, DUCT, OR PIPING INSTALLATION/REMOVALS. PATCHING TO ACHIEVE COLOUR MATCHED FINISH OF LIKE MATERIALS TO THE SURROUNDING SURFACE MATERIAL.
- CUT ALL NEW OPENINGS REQUIRED FOR NEW INSTALLATIONS OR DEMOLITION WORK USING DUE CARE AND APPROPRIATE TOOLS AND METHODS TO MAINTAIN THE INTEGRITY OF THE STRUCTURE/ASSEMBLY IN WHICH THE OPENING IS BEING CUT. MECHANICAL CONTRACTOR SHALL SUPPLY GALVANIZED STEEL SHEET METAL AND SLEEVES FOR EQUIPMENT PENETRATING THE WALL.
- ELECTRICALLY ISOLATE ALL DISSIMILAR METALS.
- PROVIDE ADDITIONAL FRAMING AT ALL WALL PENETRATIONS.
- PERFORM ALL WORK IN CO-ORDINATION WITH ALL OTHER TRADES AND CONTRACTORS. PROVIDE COMPLETE FUNCTIONAL AND CODE COMPLIANT SYSTEMS.
- CONTRACTOR IS RESPONSIBLE FOR TAKING OUT PERMITS AND PAYING ALL FEES RELATED TO DEMOLITION/MODIFICATION OF THE EXISTING SYSTEMS. CONSTRUCTION, MODIFICATION AND INSTALLATION OF NEW SYSTEMS.
- DEMOLITION/MODIFICATION/DISPOSAL/INSTALLATION OF MECHANICAL WHICH INVOLVE NATURAL GAS PIPING AND EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH THE MANITOBA FIRE CODE, REGULATIONS, INDUSTRY STANDARDS AND LOCAL BYLAWS.
- USE SKILLED AND LICENSED LABOURERS AND JOURNEYMEN TO PERFORM ALL WORK.
- ALL WASTE IS TO BE DISPOSED OF OFF SITE IN AN APPROVED FACILITY LICENSED TO ACCEPT SUCH WASTE.
- CONTRACTOR IS RESPONSIBLE TO REMOVE ANY CONTAMINATED OR HAZARDOUS WASTE/REFUSE, WHICH IS CAUSED BY THIS CONSTRUCTION WORK, AND TO DISPOSE THEM OFF SITE AS PER CODE.
- CONTRACTOR TO PROVIDE PROTECTION TO OWNER EQUIPMENT DURING CONSTRUCTION. WORK WITH EXTREME CARE AROUND OPERATING EQUIPMENT.
- COORDINATE THE TIMING, DURATION AND SAFETY REQUIREMENTS FOR SHUT-DOWNS TO ALLOW PIPING TIE-INS AND WORK IN HAZARDOUS ATMOSPHERE WITH THE CITY OF WINNIPEG WATER AND WASTE DEPARTMENT.
- VERIFY CONFINED SPACES ENTRY REQUIREMENTS WITH CITY PRIOR TO ENTERING SUCH SPACES.
- CONTRACTOR SHALL PROVIDE REQUIRED PERSONNEL FACILITIES FOR STAFF ON SITE.

**DESIGN NOTES:**

GARAGE VENTILATION TO MAINTAIN:  
 - CO < 25 ppm  
 - NO<sub>2</sub> < 3 ppm  
 VENTILATION MAKE UP AIR MAX. 27°C TEMPERATURE RISE  
 EXHAUST FANS STAGED ACCORDING TO GAS DETECTION LEVELS STARTING AT:  
 - CO = 12.5 ppm  
 - NO<sub>2</sub> = 1.5 ppm



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NO.	REVISION/DESCRIPTION	BY	DATE
D	ISSUED FOR TENDER	ALS	07/11/02
C	ISSUED FOR FINAL REVIEW	ALS	07/09/02
B	ISSUED FOR 100% REVIEW	ALS	07/08/02
A	ISSUED FOR CLIENT REVIEW	ALS	07/06/02

SEALS

DRAWN BY	RP	CHECKED BY	APPROVED
DATE	2007.05.09	USER APPROVAL	

CITY OF WINNIPEG  
 PLANNING, PROPERTY & DEVELOPMENT DEPARTMENT  
 CIVIC ACCOMMODATIONS DIVISION  
 300 - 65 GARRY ST. R3C 4K4

PROJECT  
**CONSTRUCTION OF OFFICE/GARAGE RENOVATIONS AND STORAGE BUILDING AT 1539 WAVERLEY STREET**  
 1539 Waverley Street, Winnipeg, MB.

SHEET TITLE  
**MECHANICAL GENERAL NOTES, LEGEND & SCHEDULES**

SCALE	PROJECT NO.	SHEET NO.
N/A	0265-395-02	GEN - M1.1

ISSUED FOR  
**TENDER**  
 Date: 2007/11/02