G	SENERAL LEGEND						
□■□□ EBBH	ELECTRIC BASEBOARD HEATER						
<b>→</b> EFFH	ELECTRIC ENTRANCE HEATER						
Ū*⊷ EUH	ELECTRIC UNIT HEATER						
U/C	UNDERCUT DOOR						
—— EX ——	EXISTING						
$\times \times EX \times X$	EXISTING TO BE REMOVED						
TYPE SIZE CFM	GRILLE/DIFFUSER LABEL						
RAD-?? LENGTH MBH(kW)	RADIATION LABEL						
€Q-??	EQUIPMENT LABEL						
EQ ??	EQUIPMENT LABEL						
EQ ??	EQUIPMENT LABEL						
MBH SIZE	HEATING LABEL						
##	CALLOUT NOTE						
??	NOTE						
<b>₹?</b> ?	NOTE						
2??	NOTE						
N.O.	NORMALLY OPEN						
N.C.	NORMALLY CLOSED						

FIRE PROTECTION LEGEND				
•	FIRE EXTINGUISHER			
	FIRE EXTINGUISHER IN CABINET			

VEN	NTILATION LEGEND						
	SQUARE OR RECTANGULAR DUCT DRAWN DOUBLE LINE						
	ROUND OR OVAL DUCT DRAWN DOUBLE LINE						
	DUCTWORK DRAWN SINGLE LINE						
	ACOUSTICALLY LINED DUCT						
<u></u>	THERMALLY INSULATED DUCT SQUARE TO ROUND TRANSITION						
	TRANSITION TRANSITION						
	FLEX CONNECTION						
A	LONG RADIUS ELBOW						
A	LONG RADIUS ELBOW C/W TURNING VANES						
ピ	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						
<del></del>	CEILING SUPPLY AIR DIFFUSER (TYPE NOTED)						
——✓ R-?	CEILING RETURN OR TRANSFER GRILLE (TYPE NOTED)						
—— <u>E−?</u>	CEILING EXHAUST GRILLE (TYPE NOTED)						
<u> </u>	SIDEWALL SUPPLY AIR GRILLE (TYPE NOTED)						
	SIDEWALL EXHAUST, RETURN OR TRANSFER GRILLE (TYPE NOTED)						
EWC	EXHAUST WALL CAP						
FSF	GRILLE OR DIFFUSER C/W FIRE STOP FLAP						
(F)	FIRE DAMPER						
	FIRE/SMOKE DAMPER						
	BALANCING DAMPER						
	OPPOSED BLADE DAMPER						
	PARALLEL BLADE DAMPER						
BDD BDD	BACK DRAFT DAMPER						
	FLEXIBLE DUCT CONNECTION						
	END CAP						
AD	ACCESS DOOR						
F-2 - 5 -	FAN-SYMBOL (TYPE NOTED)						
(3)	DOWNDRAFT CEILING FAN						

ACC	CESSORIES LEGEND							
O ??-?	PLUMBING FIXTURE (TYPE NOTED)							
SH−?	SHOWER HEAD (TYPE NOTED)							
O-□ ???	SERVICE OUTLET (TYPE NOTED)							
<u></u> <u>FD−?</u>	FLOOR DRAIN (TYPE NOTED)							
⊕ RD-?	ROOF DRAIN (TYPE NOTED)							
<b>⊕</b> <u>CB−?</u>	CATCH BASIN							
	MANHOLE							
	P-TRAP							
<del>U-</del> -	RUNNING TRAP							
	PUMP							
WHA	WATER HAMMER ARRESTOR							
PS	PRESSURE SWITCH							
FS L	FLOW SWITCH							
MAV	MANUAL AIR VENT							
AAV	AUTOMATIC AIR VENT							
BD	BALL DRIP							
FL-	FLOW INDICATOR							
FM F/M	FLOW METER							
—(G/M)—	GAS METER							
	WATER METER							
$\longrightarrow$	STEAM TRAP							
EJ—	EXPANSION JOINT							
	ALIGNMENT GUIDE							
<del></del>	ANCHOR							
	PRESSURE GAUGE C/W SNUBBER VALVE							
	THERMOMETER							

GENERAL	PIPE AND FITTING LEGEND							
► UP/DN	PIPE SLOPE - UP (OR DOWN)							
-	DIRECTION OF FLOW							
<u> </u>	PIPE BREAK FOR CONTINUATION							
√ VTR	VENT THROUGH ROOF							
	PIPE DOWN							
<ul><li>♥</li></ul>	PIPE UP							
	CAP							
	CLEAN OUT							
<u>−−−−−−</u>   <u>HB−?</u>	HOSE BIBB							
<del></del>	WALL HYDRANT							
<del></del>	UNION							
$\longrightarrow$	VALVE — NORMALLY OPEN							
N.C.	VALVE — NORMALLY CLOSED							
	PLUG VALVE							
<del></del>	GLOBE VALVE							
<u> </u>	SUPERVISED VALVE							
	MOTORIZED 2-WAY VALVE							
<b>-</b> À-₩-	MOTORIZED 3-WAY VALVE							
——————————————————————————————————————	PRESSURE REGULATING VALVE							
	TEMPERATURE/PRESSURE RELIEF VALVE							
	CHECK VALVE							
	STRAINER							
	FLEXIBLE CONNECTOR							
	·							
PLUM	IBING PIPING LEGEND							

PLUMBING PIPING LEGEND							
ABOVE GROUND PIPING							
	BELOW GROUND PIPING						
—— DCW ——	DOMESTIC COLD WATER						
—— DHW ——	DOMESTIC HOT WATER						
—— DHWR ——	RECIRCULATED DOMESTIC HOT WATER						
—— TWS ——	TEMPERED WATER SUPPLY						
—— TWR ——	TEMPERED WATER RETURN						
—— NG ——	NATURAL GAS						
SAN	SANITARY DRAIN						
—— STW ——	STORM WATER DRAIN						
	RAIN WATER LEADER						
—— PD ——	PUMPED DISCHARGE						
	INDIRECT DRAIN						
PV	PLUMBING VENT						

HEATING/COOLING PIPING LEGEND						
—— c/нws——	CHILLED/HEATING WATER SUPPLY					
	CHILLED/HEATING WATER RETURN					
——RL ——	REFRIGERANT LIQUID					
——RV ——	REFRIGERANT VAPOR					
——DX——	REFRIGERANT					
——HGB ——	HOT GAS BYPASS					

CC	ONTROLS LEGEND						
①	WALL MOUNTED THERMOSTAT						
Ō	WALL MOUNTED THERMOSTAT w/ LOCKABLE COVER						
TS	WALL MOUNTED TEMPERATURE SENSOR						
Θ	WALL MOUNTED HUMIDISTAT						
HS	WALL MOUNTED HUMIDITY SENSOR						
□~~~	REMOTE BULB SENSOR AND TUBE						
Τ	DUCT MOUNTED THERMOSTAT						
TS	DUCT MOUNTED TEMPERATURE SENSOR						
H	DUCT MOUNTED HUMIDISTAT						
HS	DUCT MOUNTED HUMIDITY SENSOR						
CS	PIPE/FLOOR MOUNTED CONDENSATE SENSOR						
CO2	CARBON DIOXIDE SENSOR						
CO	CARBON MONOXIDE SENSOR						
NO2	NITROGEN DIOXIDE SENSOR						
AO	ANALOG OUTPUT						
Al	ANALOG INPUT						
DO	DIGITAL OUTPUT						
DI	DIGITAL INPUT						
<del></del>	TRANSFORMER						
R	RELAY						
PE	PNEUMATIC/ELECTRIC SWITCH						
TC	TIMECLOCK						
MT	SPRING WOUND MANUAL TIMER						
MS	MANUAL SWITCH						
M	DAMPER OR VALVE MOTOR						
ESC	ELECTRONIC SPEED CONTROLLER						
VSD	VARIABLE SPEED DRIVE						
VFD	VARIABLE FREQUENCY DRIVE						

	DRAWING LIST							
M0.1	MECHANICAL - LEGENDS, CALCULATIONS, & DRAWING LISTS							
M0.2	MECHANICAL - ASHRAE 62.1 CALCULATIONS							
M0.3	MECHANICAL - SITE PLAN							
M1.0	MECHANICAL - CRAWLSPACE - PLUMBING LAYOUT							
M1.1	MECHANICAL - MAIN FLOOR - PLUMBING LAYOUT							
M1.2	MECHANICAL - PLUMBING DETAILS							
M1.3	MECHANICAL — PLUMBING DETAILS							
M2.0	MECHANICAL - CRAWLSPACE - HVAC LAYOUT							
M2.1	MECHANICAL - MAIN FLOOR - HVAC LAYOUT							
M2.2	MECHANICAL - HVAC DETAILS							
M2.3	MECHANICAL - HVAC SECTIONS							
M3.1	MECHANICAL - MAIN FLOOR - HYDRONIC LAYOUT							
M3.2	MECHANICAL - HYDRONIC DETAILS & SCHEMATIC							
M3.3	MECHANICAL - HYDRONIC DETAILS & SCHEMATIC							
M4.1	MECHANICAL - MAIN FLOOR - FIRE PROTECTION LAYOUT							
M5.1	MECHANICAL - EQUIPMENT SCHEDULE							
M5.2	MECHANICAL - EQUIPMENT SCHEDULE							

PLUMBING FIXTURE	OCCUPANCY	TYPE	QUANTITY	COMBINED WATER (F.U.)		TAL TER F.U	SANITARY F.U.	-	TAL TARY F.U.	REMARKS
WATER CLOSET	PUBLIC	FLUSH VALVE	9	N/A		155 6			54	TOTAL WATER F.U. FOR WC FLUSH VALVE AS PER N.P.C.
W/R LAVATORY	PUBLIC	FAUCET	6	2		12	1.5		9	
STAFF ROOM HAND WASH SINK (SK-1)	PUBLIC	FAUCET	1	2		2	1.5		1.5	
SHOWER / BATHTUB (SH-1)	PUBLIC	MIXING VALVE	1	2		2	1.5		1.5	
DRINKING FOUNTAIN (DF-1)	COMMERCIAL		1	2		2	1.5		1.5	
MOP SINK (SK-2)	PRIVATE	FAUCET	1	3		3	2		2	
FLOOR DRAIN (FD-1)			3				3		9	
FLOOR DRAIN (FD-2)			3				4		12	
TOTAL WATER DEMAND F.U. =					176	F.U.	446			
TOTAL WATER DEMAND GPM =					86	GPM	115			
TOTAL WATER DEMAND LPS =					5.4	LPS	7.3			
TOTAL SANITARY DEMAND F.U. =								90.5	F.U.	
TOTAL SANITARY DEMAND GPM =								66	GPM	
TOTAL SANITARY DEMAND LPS =								4.2	LPS	



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Bill and Helen Norrie Library Project No.: 2017-082

Tender No.: 542-2019 Address: 15 Poseidon Bay, Winnipeg, MB.

LEGENDS, CALCULATIONS & **DRAWING LISTS** 

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