

PLUMBING FIXTURE SCHEDULE

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DUCTWORK INSULATION SCHEDULE

Symbol	Fixtures				Pipe Connection			Symbol	Fixtures				Pipe Connection			Application			Insulation Type	Thickness	Notes																																	
	Specification (Provide with all plumbing fixtures all seismic restraining to satisfy (the requirement of the "British Columbia Building Code"))				Trap	Cold Water	Hot Water	Drain	Vent	Specification (Provide with all plumbing fixtures all seismic restraining to satisfy (the requirement of the "British Columbia Building Code"))				Trap	Cold Water	Hot Water	Drain	Vent	Exhaust ducts between fans and building exterior or final 3m(10ft) of exhaust air ducts, whichever is greater.		D-1	25mm(1")	C/W VAPOUR BARRIER; SEE NOTES BELOW																															
WC1	Toilet - Floor mounted - Vitreous China - Pressure assist tank type	-	3/4"	-	3"	1-1/2"	L3	Staff washroom vanity lavatory	Crane Canada Model - 'Crana' 1279V - Self rimming countertop mounted, Vitreous China. Fittings - American Standard #7385.004.002 'Reliant' 3" faucet, C.P. 4" (102mm) center set, size - Lavatory 19" (483mm) x 16-1/4" (413mm) - Basin 15" (381mm) x 9-1/8" (232mm) Self rimming oval basin and front overflow mixing valve - Lawler TMM-1000 drain - McGuire #155WC trap - McGuire #8872C supplies - McGuire H165LKN3RB-LR	C.P. 1-1/4"	1/2"	1/2"	1-1/4"	1-1/4"	DUCTWORK INSULATION NOTES		1. D-1 insulation shall be Owens Corning rigid vapour seal duct insulation, Johns Manville 814 spangles with FSK facing, Mansons Spin-Glas rigid insulation board with reinforced foil facing, or Knauf rigid insulation board with FSK facing. Density shall be not less than 48kg/m ³ (31bs/cu.ft.). Impale on mechanically fastened pins located at not greater than 300mm(12") centres. Secure with self-adhesive washers. Butt joints tightly together and seal washers, breaks and joints with self-adhering 100mm(4") wide plain aluminum tape, or adhere foil with Childers CP82 or Bakelite 230-39 adhesive.		MUA-1 Supply air ductwork	D-1	25mm(1")	C/W VAPOUR BARRIER; SEE NOTES BELOW																																
WC2	Toilet - Floor mounted - Vitreous China - Pressure assist tank type - barrier-free design / right height	-	3/4"	-	3"	1-1/2"	MS	Mop sink - floor mounted - molded stone - two handle faucet	Fiat MSB2424 - Mop sink, 24" x 24" x 10" (610mm x 610mm x 254mm) deep, floor mounted, molded-stone 'SMC' one piece homogeneous product, and integral drain with s.s. domed strainer and lint basket 3" (75mm) outlet. Fiat #830-AA faucet, R.C.P. 8" (203mm) C.C., wall mounted, solid cast brass body, with cast metal cross handles, wall brace, integral vacuum breaker, integral stops, pail hook, hose end and top brace. Fiat #832-AA bracket, s.s. 36" (915mm) hose with chrome coupling. Fiat #E77-AA bumper guards, vinyl. Fiat #889-CC s.s. mop hanger, triple. Fiat #QDC3XH Mop sink drain gasket, connection 3" (75mm) pipe. Fiat #MSG24 wall guards.s.s. for one, two, or three sides with corner bracket. Provide 'P' trap.	3"	1/2"	1/2"	3"	1-1/2"	DOMESTIC HOT WATER HEATER SCHEDULE (A.O.SMITH APPROVED EQUAL)		Unit Ref	Manufacturer	Model #	Capacity (US Gal.)	Recovery @ Degree F Rise (100F)	Gas Input (MBH)	Voltage																															
WC3	Toilet - floor mounted - Vitreous China - Gravity tank type	-	3/4"	-	3"	1-1/2"	11	Single bowl sink - ledgeback	Kindred 'Steel Queen' QSL1313/6-1/2 S.S. sink, single bowl. Waltec faucet model - '27W433' lever handles. Mirror finished rim and satin finished bowl. Basket strainer waste fitting (3-1/2", 89mm) and installation kit included. O.D. 13-5/8" x 13-5/8" x 6" (35x35x15cm)	C.P. 1-1/2"	1/2"	1/2"	1-1/2"	1-1/2"	NOTES: The water heater shall be a Bradford White model with a rated storage capacity of not less than 80 gallons (303 liters), a minimum gas input of 250.00 BTU/hr (73.3 kW), a minimum recovery of 242 GPH (916 LPH), and a minimum first hour delivery of 301 Gal (1139 liters). The tank shall be vitrinas lined and have a bolted hand hole cleanout. A digital LCD display shall be integrated in to the front control box, and the control shall be an adjustable electronic thermostat to any temperature up to 185° (85°C), and have an automatic re-set energy cut-off (E.C.O), which shuts off all gas in an event of a overheat condition. The tank shall have one magnesium anode rods installed in separate tank head couplings. The heater shall have non-cfc foam insulation, electronic ignition and come equipped with an ame rated t&p relief valve, a cold water inlet hydrojet sediment reduction system, and an induced draft blower motor for direct venting (115 ac required). It shall be design certified by CSA International for 180F (82°C) application, either with or without a separate storage tank, and comply with state and local codes and ordinances.		HWT-1	BRADFORD WHITE	PDV-80S-250-3N	80 USG	242 US GAL	250.00	120/1/60																															
WC3	Toilet - floor mounted - Vitreous China - Gravity tank type	-	3/4"	-	3"	1-1/2"	65	Basin - wall hung - stainless steel - two handle faucet	Kindred Commercial #NSFWHB1616P-00/2/100-NR S.S. wall hung basin, 18GA. (1.2mm), Grade 18-10 type 304 stainless steel, polish satin finish, radius coved bowl corners, 16 GA. (1.5mm) side wall brackets, one piece wall hanger, 1-1/2" (38mm) vandal-resistant open grid waste assembly located center back. Chicago faucets #521-CN24-E3 faucet, C.P. 4" (102mm) C.C., wall mounted, solid cast brass lead-free body, 1/4 turn ceramic disc valve cartridges, rigid/swing gooseneck spout with 8.3 LPM (2.2 GPM) max. flow p.c. outlet and cast brass lever handles. Provide 'P' trap, cast brass 1-1/2" (38mm) with cleanout, union and escutcheon. Jay R. Smith #0800-M2P carrier, with block base feet support and two plates.	C.P. 1-1/2"	1/2"	1/2"	1-1/2"	1-1/2"	GENERAL: All gas water heaters are certified at 300 psi test pressure (2068kPa) and 150 psi working pressure (1034 kPa). All models are design certified by CSA International (formerly AGA/CGA), ANSI standard Z-21.10.3, for up to 180° (82°C) application as an automatic storage heater, and an automatic circulating tank heater. As an automatic storage heater, all models are complete, self-contained water heating systems. It needs no separate storage tank, pump, wiring or elaborate piping net work. When equipped with mixing valve, it will supply 180° (60°C) sanitizing and 140° (60°C) general purpose hot water simultaneously. These models can be used either as a singl unit or in multiples connected in series or parallel.		KITCHEN MAKE-UP AIR SCHEDULE		Ref	Manufacturer	Model #	Heating		Supply Fan		Starter	Voltage /Phase	Mounting	Weight																									
U1	Urinal - wall hung - Vitreous China - metering flush valve	-	3/4"	-	2"	1-1/2"	HB	Acorn 'Neptune' hose valve, C.P. heavy duty polished cast brass body with integral cast flange, vandal-resistant lock shield bonnet with removable wheel handle, 3/4" (19mm) NPT female inlet and hose end vacuum breaker.	-	1/2"	-	-	-	REF		INPUT (MBH)	OUTPUT (MBH)	(CFM)	S.P. (IN)	HP	MUA-1 CAPTIVE AIRE A2-D-750 -G15		500	450	4700	0.75	3.0	INTERLOCK WITH EF-1	575/3	ROOF MOUNTED	854 LBS																							
L1	Basin - countertop mounted - Vitreous China - single lever/handle faucet	C.P. 1-1/4"	1/2"	1/2"	1-1/4"	1-1/4"	10B	Pre-rinse faucet - wall mounted	T & S Brass and Bronze Works Inc. Model - 'B-0231. 8" C/C wall mount faucet. T & S Brass and Bronze Works Inc. Model - 'B-02250B PRERINSE UNIT WITH 44" FLEXHOSESPRAY VALVE, 24" RISER AND OVERHEAD SPRING. PLUS ADDITIONAL ADD-ON FAUCET MODEL - 'B-0155-LNEZ WITH LESS NOZZLE WITH EASY INSTALL FEATURE. FAUCET WITH BACK CHECKS.	-	1/2"	1/2"	-	-	NOTES: MUA-1 A2-D-750-G15 - HEATER, C15-PB BLOWER.		1. DIRECT GAS FIRED HEATED MAKE UP AIR UNIT WITH 15" BLOWER		2. INTAKE HOOD WITH EZ FILTERS		3. DOWN DISCHARGE - AIR FLOW RIGHT -> LEFT		4. GAS PRESSURE GAUGE, 0-35", 2.5" DIAMETER, 1/4" THREAD SIZE		5. COOLING INTERLOCK RELAY. 24VAC COIL. 120V CONTACTS. LOCKS OUT BURNER CIRCUIT WHEN AC IS ENERGIZED.		6. LOW FIRE START. ALLOWS THE BURNER CIRCUIT TO ENERGIZE WHEN THE MODULATION CONTROL IS IN A LOW FIRE POSITION.		7. GAS PRESSURE GAUGE, -5 TO +15 INCHES W.C., 2.5" DIAMETER, 1/4" THREAD SIZE		8. MOTORIZED BACK DRAFT DAMPER 22.75" X 24" FOR SIZE 2 STANDARD & MODULAR DIRECT FIRED HEATERS W/EXTENDED SHAFT, STANDARD GALVANIZED CONSTRUCTION, 3/4" REAR FLANGE, LF120S ACTUATOR INCLUDED		9. FREEZESTAT WITH 10' SENSOR. FACTORY SET AT 35°F AND 10 MINUTES.		10. HIGH PRESSURE GAS SWITCH (2" - 16" WC). FACTORY SET AT 8" W.C.		11. NO DROPS SUPPLIED IN UNIT. NO PENETRATIONS IN BASE OF UNIT. USED TO MEET MANITOBA CANADA REQUIREMENT. FIELD WIRING IS MADE DIRECTLY TO DISCONNECT SWITCH AND HEATER CONTROL PANEL TERMINAL STRIP.		12. MANUAL RESET OF FLAME SAFETY CONTROLLER. USED TO MEET CANADA REQUIREMENT. FLAME SAFETY WILL NOT RESET ON CYCLE OF POWER.		13. VENTED REGULATOR TO OUTSIDE OF CONTROL ENCLOSURE		14. LOW PRESSURE GAS SWITCH (1" - 6" WC) FACTORY SET AT 2" W.C.		15. PILOT LOCATED UPSTREAM OF FIRST REDUNDANT SOLENOID VALVE OF SIZE 1-3 MAX GAS PRESSURE OF 14" WC.		SUPPLY SIDE HEATER INFORMATION:		WINTER TEMPERATURE = 20°F. TEMP. RISE = 110°F. BTUs CALCULATED OFF ACTUAL AIR DENSITY		OUTPUT BTUs AT ALTITUDE OF 0.0 ft. = 423432		INPUT BTUs AT ALTITUDE OF 0.0 ft. = 470035	
L1	Basin - countertop mounted - Vitreous China - single lever/handle faucet	C.P. 1-1/4"	1/2"	1/2"	1-1/4"	1-1/4"	GI	Interceptors - grease interceptor	Watts drainage product GI-175 C/W steel extension as required to meet invert of drainage piping. removable cap, gasketed cover with lock and lift ring, integral flow control device, deep seal trap with cleanout and bottom debris trapping leg. MJ couplings shall be constructed of extra wide 4 to 6 band corrugated type 304 stainless steel bands, with heavy duty worm drive clamps. 4" inlet and outlet.	-	-	-	4"	-	INSTALL ON KITCHEN EQUIPMENT #12 FRUIT SINK.		1. DIRECT GAS FIRED HEATED MAKE UP AIR UNIT WITH 15" BLOWER		2. INTAKE HOOD WITH EZ FILTERS		3. DOWN DISCHARGE - AIR FLOW RIGHT -> LEFT		4. GAS PRESSURE GAUGE, 0-35", 2.5" DIAMETER, 1/4" THREAD SIZE		5. COOLING INTERLOCK RELAY. 24VAC COIL. 120V CONTACTS. LOCKS OUT BURNER CIRCUIT WHEN AC IS ENERGIZED.		6. LOW FIRE START. ALLOWS THE BURNER CIRCUIT TO ENERGIZE WHEN THE MODULATION CONTROL IS IN A LOW FIRE POSITION.		7. GAS PRESSURE GAUGE, -5 TO +15 INCHES W.C., 2.5" DIAMETER, 1/4" THREAD SIZE		8. MOTORIZED BACK DRAFT DAMPER 22.75" X 24" FOR SIZE 2 STANDARD & MODULAR DIRECT FIRED HEATERS W/EXTENDED SHAFT, STANDARD GALVANIZED CONSTRUCTION, 3/4" REAR FLANGE, LF120S ACTUATOR INCLUDED		9. FREEZESTAT WITH 10' SENSOR. FACTORY SET AT 35°F AND 10 MINUTES.		10. HIGH PRESSURE GAS SWITCH (2" - 16" WC). FACTORY SET AT 8" W.C.		11. NO DROPS SUPPLIED IN UNIT. NO PENETRATIONS IN BASE OF UNIT. USED TO MEET MANITOBA CANADA REQUIREMENT. FIELD WIRING IS MADE DIRECTLY TO DISCONNECT SWITCH AND HEATER CONTROL PANEL TERMINAL STRIP.		12. MANUAL RESET OF FLAME SAFETY CONTROLLER. USED TO MEET CANADA REQUIREMENT. FLAME SAFETY WILL NOT RESET ON CYCLE OF POWER.		13. VENTED REGULATOR TO OUTSIDE OF CONTROL ENCLOSURE		14. LOW PRESSURE GAS SWITCH (1" - 6" WC) FACTORY SET AT 2" W.C.		15. PILOT LOCATED UPSTREAM OF FIRST REDUNDANT SOLENOID VALVE OF SIZE 1-3 MAX GAS PRESSURE OF 14" WC.		SUPPLY SIDE HEATER INFORMATION:		WINTER TEMPERATURE = 20°F. TEMP. RISE = 110°F. BTUs CALCULATED OFF ACTUAL AIR DENSITY		OUTPUT BTUs AT ALTITUDE OF 0.0 ft. = 423432		INPUT BTUs AT ALTITUDE OF 0.0 ft. = 470035	
L2	Basin - wall hung - Vitreous China - single lever/handle faucet - barrier-free design & general use	C.P. 1-1/4"	1/2"	1/2"	1-1/4"	1-1/4"	10B	Pre-rinse faucet - wall mounted	T & S Brass and Bronze Works Inc. Model - 'B-0231. 8" C/C wall mount faucet. T & S Brass and Bronze Works Inc. Model - 'B-02250B PRERINSE UNIT WITH 44" FLEXHOSESPRAY VALVE, 24" RISER AND OVERHEAD SPRING. PLUS ADDITIONAL ADD-ON FAUCET MODEL - 'B-0155-LNEZ WITH LESS NOZZLE WITH EASY INSTALL FEATURE. FAUCET WITH BACK CHECKS.	-	1/2"	1/2"	-	-	INSTALL ON KITCHEN EQUIPMENT #40 DOUBLE SINK (WASHING TABLE)..		1. DIRECT GAS FIRED HEATED MAKE UP AIR UNIT WITH 15" BLOWER		2. INTAKE HOOD WITH EZ FILTERS		3. DOWN DISCHARGE - AIR FLOW RIGHT -> LEFT		4. GAS PRESSURE GAUGE, 0-35", 2.5" DIAMETER, 1/4" THREAD SIZE		5. COOLING INTERLOCK RELAY. 24VAC COIL. 120V CONTACTS. LOCKS OUT BURNER CIRCUIT WHEN AC IS ENERGIZED.		6. LOW FIRE START. ALLOWS THE BURNER CIRCUIT TO ENERGIZE WHEN THE MODULATION CONTROL IS IN A LOW FIRE POSITION.		7. GAS PRESSURE GAUGE, -5 TO +15 INCHES W.C., 2.5" DIAMETER, 1/4" THREAD SIZE		8. MOTORIZED BACK DRAFT DAMPER 22.75" X 24" FOR SIZE 2 STANDARD & MODULAR DIRECT FIRED HEATERS W/EXTENDED SHAFT, STANDARD GALVANIZED CONSTRUCTION, 3/4" REAR FLANGE, LF120S ACTUATOR INCLUDED		9. FREEZESTAT WITH 10' SENSOR. FACTORY SET AT 35°F AND 10 MINUTES.		10. HIGH PRESSURE GAS SWITCH (2" - 16" WC). FACTORY SET AT 8" W.C.		11. NO DROPS SUPPLIED IN UNIT. NO PENETRATIONS IN BASE OF UNIT. USED TO MEET MANITOBA CANADA REQUIREMENT. FIELD WIRING IS MADE DIRECTLY TO DISCONNECT SWITCH AND HEATER CONTROL PANEL TERMINAL STRIP.		12. MANUAL RESET OF FLAME SAFETY CONTROLLER. USED TO MEET CANADA REQUIREMENT. FLAME SAFETY WILL NOT RESET ON CYCLE OF POWER.		13. VENTED REGULATOR TO OUTSIDE OF CONTROL ENCLOSURE		14. LOW PRESSURE GAS SWITCH (1" - 6" WC) FACTORY SET AT 2" W.C.		15. PILOT LOCATED UPSTREAM OF FIRST REDUNDANT SOLENOID VALVE OF SIZE 1-3 MAX GAS PRESSURE OF 14" WC.		SUPPLY SIDE HEATER INFORMATION:		WINTER TEMPERATURE = 20°F. TEMP. RISE = 110°F. BTUs CALCULATED OFF ACTUAL AIR DENSITY		OUTPUT BTUs AT ALTITUDE OF 0.0 ft. = 423432		INPUT BTUs AT ALTITUDE OF 0.0 ft. = 470035	
TRAP SEAL PRIMER	Trap seal primers - mechanical	-	1/2"	-	-	-	FD	Floor drains - finished area - adjustable strainer	Jay R. Smith #2005 3-B05NB-P050 floor drain, all duco coated, 9" (220mm) dia. cast iron body, reversible flashing clamp with seepage openings, no-hub outlet, 3" (76mm) outlet square strainer, 5" (127mm) nickel bronze,																																													

GENERAL NOTES:
GENERAL CONTRACTOR HAVE TO VERIFY ALL DIMENSIONS
AND, SPECIFICATIONS, SITE CONDITIONS, AND ADVISE
ENGINEER ABOUT ANY CONFLICTUAL SITUATION
RELATING TO PLANS BEFORE THE BEGINNING OF WORK.

GENERAL CONTRACTOR IS RESPONSIBLE FOR THE
EXECUTION OF ALL WORK THAT IS NOT SPECIFIED ON
PLANS BUT NECESSARY TO THE ACHIEVEMENT OF ALL
WORKS, IN CONFORMITY WITH THE USE IT SHOULD BE.

PROPOSED EQUIVALENCES SHOULD BE OF SAME
QUALITY OR BETTER TO SPECIFICATIONS AND SHOULD BE
APPROVED BY THE ENGINEER.

PLANS SHOULD BE READ IN RELATION WITH ALL
MECHANICAL, STRUCTURAL AND ELECTRICAL ENGINEER'S
DRAWINGS.

GENERAL CONTRACTOR MUST REMOVE ALL WASTE AND
DEBRIS FROM SITE BEFORE CLOSING THE JOB.

MATERIALS SHOULD BE INSTALLED IN ACCORDANCE
WITH MANUFACTURERS WRITTEN SPECIFICATIONS.

DATE	MODIFICATIONS	BY
02/12/2011	ISSUED FOR CONSTRUCTION	RV
23/11/2011	REV SIM1 & REISSUED FOR PERMIT	AM
10/11/2011	REVISED AS PER CCNM1	RV
28/10/2011	REVISED AS PER PTADDM1	RV
29/09/2011	REVISED AS PER ADDM1	RV
20/09/2011	ISSUED FOR PERMIT	RV

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