

HEAT RECOVERY VENTILATOR SCHEDULE													KEYNOTES	
TAG	EQUIPMENT	SERVICE & LOCATION	MANUFACTURER	MODEL & TYPE	FRESH AIR FLOW, L/S	EXHAUST AIR FLOW, L/S	EXTERNAL AIR TEMPERATURE, (C) WINTER / SUMMER	MOTOR SIZES, HP, SUPPLY / EXHAUST	POWER SUPPLY (V/PH/ Hz - A)	MCA(A) / MORA	WEIGHT, KG	TYPE	COMMENTS	KEYNOTES
HRV-1	HEAT RECOVERY UNIT	SUITES, BASEMENT STORAGE	GREENHECK	ECV-10L-VG-PM	333	333	-33 / 29	0.5/0.5	240/60/1 / 58.8	58.8/60	485	PACKAGE	C/W SPEED CONTROL. WALL SWITCH TO BE INSTALLED IN MECHANICAL ROOM, WITH BACKDRAFT DAMPERS.	1

1. CONTRACTOR MAY SUBMIT ALTERNATIVE EQUAL THAT MUST BE APPROVED

EXHAUST FAN SCHEDULE											KEYNOTES
TAG	EQUIPMENT	SERVICE & LOCATION	MANUFACTURER	MODEL & TYPE	EXHAUST AIR FLOW, L/S	STATIC PRESSURE (PA)	SONES	MOTOR SIZE, WT	POWER SUPPLY (V/PH/Hz - A)	COMMENTS	KEYNOTES
EF-1	EXHAUST FAN	WASHROOM	AIR KING	FRAK50S	24	50	0.8	16	120/1/60	FIRE RATED EXHAUST FANS, DUCT SIZE 100MM INSTALLED INSIDE FIRE RATED CEILING, C/W BACK DRAFT DAMPER.	1
EF-2	EXHAUST FAN	MECHANICAL ROOM	BROAN	L200	92.5	62	-	127	120/1/60	AUTOMATIC BACK DRAFT DAMPER TO BE LOCATED WITHIN DUCT CONNECTOR.	1
RH-1	RANGE HOOD	RANGEHOOD EXHAUST	BROAN	QT230WWN	47 / 95	57.27	-	1.7 AMPS	115/1/60	C/W VARIABLE SPEED SELECTION, CONTROLLED BY LOCAL EXHAUST HOOD SWITCH, C/W BACK DRAFT DAMPER.	1
RD-1	RADON EXHAUST	MECHANICAL ROOM	RADON AWAY	XP151	54	0.5	-	60	120/1/60	C/W BACK DRAFT DAMPER.	1

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BOILER SCHEDULE											KEYNOTES	
TAG	SERVICE & LOCATION	MANUFACTURER	MODEL & TYPE	INPUT (KW)	THERMAL EFFICIENCY %	HEATING CAPACITY (KW)	MAX. WATER FLOW (L/S)	AMP	POWER SUPPLY (V/PH/Hz)	W x H x D	COMMENTS	KEYNOTES
B-1,2	MECHANICAL ROOM	BOSCH GREENSTAR	ZBR28-3A CONDENSING BOILER	29.30	95	26	0.4	15	120/1/60	440x850x353	C/W CONDENSER NEUTRALIZER, ZONE CONTROLLER, CONDENSATE HOSE & QUICK CONNECT INSTALL MANIFOLD.	1

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PUMP SCHEDULE											KEYNOTES
TAG	SERVICE & LOCATION	MANUFACTURER	MODEL & TYPE	FLOW, L/S	HEAD, (M)	POWER SUPPLY (V/PH/Hz)	AMP	FLA	MOTOR (HP)	COMMENTS	KEYNOTES
BP-1,2	MECHANICAL ROOM PRIMARY LOOP BOILER PUMP	CAMUS		0.4	9.1	120/1/60	15	4	-	FACTORY MOUNTED INTEGRAL BOILER PUMP.	1
P-1,2	MECHANICAL ROOM SECONDARY LOOP HEATING PUMP	ARMSTRONG	E12.2 CI 120V	0.954	12.28	115/1/60	-	-	0.4	HEATING WATER PUMP, EACH AT 100% CAPACITY WITH ONE DUTY AND ONE STANDBY C/W VFD.	1
P-3	MECHANICAL ROOM DHW RECIRCULATION	ARMSTRONG	ASTRO 225B5050S-TA	0.189	1.82	115/1/60	-	-	0.1	INLINE, ALL BRONZE CONSTRUCTION, C/W TIMER AND AQUASTAT.	1
P-4	MECHANICAL ROOM WEEPING TILE SUMP	MYERS	MSC1050M20	2.4	7	115/1/60	15	-	0.5	C/W SIMPLEX CONTROL PACKAGE, STEEL LID, CHECK VALVE, FLOAT BRACKET, LIFT CHAIN PACKAGE.	1

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ELECTRICAL REHEAT COIL SCHEDULE											KEYNOTES
TAG	SERVICE & LOCATION	MANUFACTURER	MODEL & TYPE	FLOW, L/S	EAT, (C)	LAT, (C)	KW	AMPS	POWER SUPPLY (V/PH/Hz)	COMMENTS	KEYNOTES
PHC-1	MECHANICAL ROOM	THERMOLEC	SLIP-IN DUCT HEATER	333	-	-	12	47.9	240/1/60	INSTALL AT THE S/S DUCT OF HEAT RECOVERY UNIT. PROVIDE DUCT MOUNTED DISCHARGE AIR TEMPERATURE SENSOR TO CONTROL.	1

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DOMESTIC WATER HEATER SCHEDULE											KEYNOTES
TAG	SERVICE & LOCATION	MANUFACTURER	MODEL & TYPE	CAPACITY (L)	RECOVERY CAPACITY (L/S) @ 38°C RISE	HEIGHT (MM)	DIAMETER (MM)	INPUT (KW)	COMMENTS	KEYNOTES	
DWH-1	MECHANICAL ROOM	AO SMITH	BTH-199 MXI	379	0.2470	1900	693.75	58.32	HIGH EFFICIENCY CONDENSING WATER HEATER.	1	

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TANK / EXPANSION VESSELS SCHEDULE											KEYNOTES
TAG	SERVICE & LOCATION	MANUFACTURER	MODEL & TYPE	VOLUME, L	MAX. ACCEPTABLE VOLUME, L	MAX. OPERATION PRESSURE, KPA	DIAMETER, MM	HEIGHT, MM	WEIGHT, KG	COMMENTS	KEYNOTES
ET-1	HEATING WATER	AMTROL	AX-15V	30	9	861	300	500	20	ASME CERTIFIED.	1
ET-2	DOMESTIC HOT WATER	AMTROL	ST-15V	20	14.5	861	275	375	4	ASME CERTIFIED.	1

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RADIATION FINS AND ENCLOSURE SCHEDULE											KEYNOTES
TAG	MANUFACTURER	MODEL & TYPE	ENCLOSURE HEIGHT, MM	FLUID	# OF ROWS	EWT / LWT C	CAPACITY, KW / M	COMMENTS	KEYNOTES		
A	HAYDON	HEAT BASE 750	185	WATER	1	82.2 / 71.1	0.5	WALL MOUNTED THERMOSTAT.	1		
B	ENGINEERED AIR	WF-5A INVERTED ENCLOSURE	305	WATER	1	82.2 / 71.1	1	TYPE B WF SERIES. INSTALLED BELOW THE CEILING, WALL MOUNTED THERMOSTAT.	1		
C	ENGINEERED AIR	P10 PROFILE SERIES ENCLOSURE	254	WATER	1	82.2 / 71.1	1	WALL MOUNTED THERMOSTAT.	1		

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GRILLE / DIFFUSER / LOUVERS SCHEDULE							KEYNOTES
TAG	MANUFACTURER	MODEL & TYPE	FINISH	MOUNTING	COMMENTS	KEYNOTES	
S	EH PRICE	520D	AW	WALL/CEILING	LOUVERED STEEL 20MM BLADE SPACING, DOUBLE DEFLECTION SUPPLY GRILLES, COLOR BY ARCHITECT, MOUNTING TO BE CONFIRMED WITH ARCHITECT'S CEILING PLAN.	1	
R	EH PRICE	520D	AW	WALL/CEILING	LOUVERED STEEL 3/4" BLADE SPACING, DOUBLE DEFLECTION SUPPLY GRILLES, COLOR BY ARCHITECT, MOUNTING TO BE CONFIRMED WITH ARCHITECT'S CEILING PLAN, C/W BALANCING DAMPER.	1	
E	EH PRICE	80	AW	CEILING	EGG CRATE GRILLE, COLOR BY ARCHITECT, MOUNTING TO BE CONFIRMED WITH ARCHITECT'S CEILING PLAN.	1	
T	EH PRICE	80	AW	WALL	EGG CRATE GRILLE, COLOR BY ARCHITECT, MOUNTING TO BE CONFIRMED WITH ARCHITECT'S.	1	
L	EH PRICE	DE439 SERIES	AW	EXTERIOR WALL	COLOR BY ARCHITECT, MOUNTING TO BE CONFIRMED WITH ARCHITECT'S.	1	

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DRAWING LIST	
DRAWING NO.	DRAWING NAME
M1.1	MECHANICAL LEGENDS AND SCHEDULES
M1.2	MECHANICAL DETAILS
M1.3	SITE PLAN
M2.1	FOUNDATION PLAN & LOWER LEVEL PLUMBING PLAN
M2.2	MAIN & SECOND FLOOR PLUMBING PLAN
M3.1	BASEMENT & MAIN FLOOR VENTILATION PLAN
M3.2	SECOND FLOOR VENTILATION PLAN
M4.1	BASEMENT & MAIN FLOOR HEATING PLAN
M4.2	SECOND FLOOR HEATING PLAN
M5.1	MECHANICAL DIAGRAMS

MECHANICAL ABBREVIATIONS	
ABBREVIATION	DESCRIPTION
AAV	AUTOMATIC AIR VENT, AIR ADMITTANCE VALVE
CW	DOMESTIC COLD WATER
FD	FLOOR DRAIN
F/D	FIRE DAMPER
FE	FIRE EXTINGUISHER
FU	FIXTURE UNIT
RC	RAIN CONDUCTOR
SAN	SANITARY WASTE
TC	TEMPERATURE CONTROL
T & P	TEMPERATURE AND PRESSURE
VD	VOLUME DAMPER (MANUALLY ADJUSTABLE)
VFD	VARIABLE FREQUENCY DRIVE
VTR	VENT THRU ROOF

DRAWING NOTATION	
SYMBOL	DESCRIPTION
	CONSTRUCTION KEY NOTE NUMBER 1
	EQUIPMENT DESIGNATION (IE: EXHAUST FAN NUMBER 1)

MECHANICAL DRAWING LEGEND			
DESIGNATION	SERVICE	DESIGNATION	SERVICE
	DOMESTIC COLD WATER		NFHB
	DOMESTIC HOT WATER		DIFFUSER/GRILLE TYPE SIZE (MM)
	DOMESTIC HOT WATER RETURN		DOMESTIC HOT WATER RETURN AIR FLOW (L/S)
	VENT		FLOOR / ROOF DRAIN
	SANITARY ABOVE GRADE		THERMOSTAT
	SANITARY BELOW GRADE		GAS METER
	WEEPING TILE ABOVE GRADE		WATER METER
	WEEPING TILE BELOW GRADE		PUMP
	MEDIUM PRESSURE GAS		FIRE DAMPER
	NATURAL GAS		BALANCING DAMPER
	HOT WATER SUPPLY		TYPE
	HOT WATER RETURN		CAPACITY (KW) LENGTH (MM)
	CLEANOUT ABOVE / BELOW GRADE		PLUMBING RISER SANITARY RISER HEATING RISER SUPPLY AIR RETURN AIR EXHAUST AIR TRANSFER AIR
	BALANCING VALVE		CONTROL VALVE
	PRESSURE REDUCING VALVE		ISOLATION VALVE
	PLUG VALVE		THERMOSTAT W/ GUARD
	PIPE ELBOW UP		FIRE EXTINGUISHER
	PIPE ELBOW DOWN		UNION
	CLEAN OUT (IN FLOOR)		PRESSURE RELIEF VALVE
	CHECK VALVE		CLEAN OUT (IN LINE)
			BACKFLOW PREVENTER

PLUMBING FIXTURE SCHEDULE			
FIXTURE	CONNECTIONS		
	COLD WATER (mm)	HOT WATER (mm)	SANITARY (mm)
WC	15	-	75
LAV	13	13	32
TUB	15	15	38
SK	13	13	38
WD	15	15	40
NFHB	19	-	-
HD-1	-	-	75
FD-1	-	-	75

FIRE EXTINGUISHER SCHEDULE						
TAG	MANUFACTURER	LOCATION	FIRE EXTINGUISHER TYPE	MOUNTING	NOM CAP (KG)	TYPE
FE-1	NATIONAL FIRE EQUIPMENT LTD.	LAUNDRY, STORAGE ROOM	ABC ALL PURPOSE	WALL HUNG	4.5	WALL HOOK MOUNTING
FE-2	NATIONAL FIRE EQUIPMENT LTD.	MECHANICAL ROOM	CO2	WALL HUNG	4.5	WALL HOOK MOUNTING
FE-3	NATIONAL FIRE EQUIPMENT LTD.	UNDER KITCHEN SINK	ABC ALL PURPOSE	HUNG INSIDE CABINET	1.13	HOOK MOUNTING UNDER KITCHEN SINK.

PLUMBING FIXTURE SCHEDULE	
TAG	TYPE
WC	AMERICAN STANDARD HIGH EFFICIENCY FLOW TANK 2467.100.020 OR EQUIVALENT, FLOOR MOUNTED, FLOOR OUTLET, WHITE FINISH, VITREOUS CHINA WITH EVERCLEAN ANTIMICROBIAL SURFACE WHICH INHIBITS THE GROWTH OF STAIN AND ODOR CAUSING BACTERIA MOLD AND MILDEW. SIPHON JET FLUSH ACTION, RAISED SANITARY BAR, TWO (2) PIECE, SPEED CONNECT TANK ASSEMBLY, UNBOLTED TANK COVER, 305mm ROUGH IN, ELONGATED BOWL, 54mm FULLY GLAZED INTERNAL TRAPWAY, BOLT CAPS, CONSISTING OF: 3483.001 BOWL AND 4142.100 TANK UNBOLTED TANK COVER. MINIMUM WORKING PRESSURE RANGE: 20PSI TO 80 PSI MAXIMUM. NOMINAL DIMENSIONS: 495mm WIDE x 794mm FRONT TO BACK x 800mm HIGH. WATER SURFACE: 305mm x 254mm WATER SURFACE. SHIPPING WEIGHT: 47kg. WATER CONSUMPTION: LOW CONSUMPTION 4.2L PER FLUSH. EXTRA HEAVY DUTY, FOR ELONGATED BOWL. OPEN FRONT, SOLID PLASTIC, OPEN FRONT WITH COVER, STAINLESS STEEL CHECK HINGES, METAL FLAT WASHERS STAINLESS STEEL POSTS AND NUTS. CHROME PLATED FINISH ALL METAL CONSTRUCTION, LIGHT DUTY RESIDENTIAL ANGLE STOPS, PIPE NIPPLE, ESCUTCHEON AND FLEXIBLE METAL RISER. FLOOR FLANGE WITH ALL BRASS BOLTS AND WITH RUBBER CASSET (SAME MATERIAL AS THE CONNECTING PIPE DRAIN). 1.
LAV	AMERICAN STANDARD 0614.000.020 AMERICAN STANDARD OR EQUIVALENT, 0614.000.020 UNDERCOUNTER BASIN UNDERCOUNTER BASIN, VITREOUS CHINA, WHITE FINISH, FRONT FINISH, FRONT OVERFLOW, 32mm WASTE ASSEMBLY, TRAPPED BOWL, 047194-0070A MOUNTING KIT, NOMINAL DIMENSIONS: 540mm WIDE x 387mm FRONT TO BACK x 209mm HIGH. BOWL DIMENSIONS: 464mm x 308mm x 171mm. SHIPPING WEIGHT: 12.2kg. BASIN RIM SEALANT. TRIM: MOEN WSL84533 SINGLE HANDLE LAVATORY FAUCET, CHROME PLATED, 102mm CENTERSET, ECASST CONSTRUCTION LEAD FREE (EQUAL OR LESS THAN 25%) ECASST BRASS CONSTRUCTION, VANDAL RESISTANT 4.5 LPM PRESSURE COMPENSATING ECONO-FLON NON-AERATING SPRAY OUTLET, 117mm PROJECTION RIGID CAST BRASS SPOUT, SINGLE METAL LEVER HANDLE, 13mm NPSM SUPPLY INLETS AND COUPLING NUT FOR FLEXIBLE RISER. TMM-1070 BELOW DECK MECHANICAL WATER MIXING VALVE, BRONZE BODY, TEMPERATURE ADJUSTING DIAL, 10mm INLETS AND OUTLET COMPRESSION FITTINGS, HIGH TEMPERATURE THERMOSTATIC LIMIT STOP. SHUT-OFF WITH AUTOMATIC RESET WHEN TEMPERATURE EXCEEDS 48.8°C. TEE, ADAPTORS AND FLEX. COPPER TUBING TO SUIT INSTALLATION. PROVIDE TEMPERED WATER TO HOT SIDE OF THE FAUCET. P-TRAP, CHROME PLATED, ADJUSTABLE ALL METAL CONSTRUCTION, 32mm SIZE, AND ESCUTCHEON. TEE, ADAPTORS AND FLEX. COPPER TUBING TO SUIT INSTALLATION. 1.
SK	FRANKE LBD6408-1/1 OR EQUIVALENT, 1 HOLE DOUBLE BOWL COUNTERTOP MOUNT SINK, SPL.WAY, GRADE 18-10-20 GA. 0.9mm TYPE 302 STAINLESS STEEL, SELF RIMMING, BACKLEDGE, STAIN FINISH RIM AND BOWLS MOUNTING KIT PROVIDED, FULLY UNDERCOATED TO REDUCE CONDENSATION AND RESONANCE, FACTORY APPLIED RIM SEAL, 89mm CRUMB CUP WASTE ASSEMBLY WITH 38mm TAILPIECE. NOMINAL DIMENSIONS: 794mm WIDE x 521mm LONG x 203mm HIGH. TRIM: MOEN 87966 SINGLE HANDLE PULL DOWN KITCHEN FAUCET, CHROME PLATED, CENTER HOLE ONLY. ECASST CONSTRUCTION LEAD FREE, ECASST BRASS CONSTRUCTION, VOLUME CONTROL AND HOT WATER LIMIT STOP CARTRIDGE, 5.7LPM PRESSURE COMPENSATING LAMINAR FLOW OUTLET, 376mm, 13mm NPSM SUPPLY INLETS AND COUPLING NUT FOR FLEXIBLE RISER. TMM-1070 BELOW DECK MECHANICAL WATER MIXING VALVE, BRONZE BODY, TEMPERATURE ADJUSTING DIAL, 10mm INLETS AND OUTLET COMPRESSION FITTINGS, HIGH TEMPERATURE THERMOSTATIC LIMIT STOP. SHUT-OFF WITH AUTOMATIC RESET WHE TEMPERATURE EXCEEDS 48.8°C. INTEGRAL CHECKS, OFFER TEMPERATURE RANGE FROM COLD THROUGH 46°C. TEE, ADAPTORS AND FLEX. COPPER TUBING TO SUIT INSTALLATION. TEMPERED WATER TO HOT SIDE OF FAUCET. FAUCET SUPPLIES, CHROME PLATED FINISH ALL METAL CONSTRUCTION, LIGHT DUTY RESIDENTIAL ANGLE STOPS, ESCUTCHEONS AND FLEXIBLE METAL RISERS, LOW LEAD, P-TRAP, ADJUSTABLE ALL METAL CONSTRUCTION, 38mm SIZE, WITH CLEAN OUT, AND ESCUTCHEON. 1.
TUB	AMERICAN STANDARD BOULEVARD OR EQUIVALENT, THERMOSTATIC & PRESSURE BALANCING SHOWER VALVE SET, 2530.102/2530.202 HIGH GLOSS ACRYLIC CAPPED ABS WITH FIBERGLASS REINFORCEMENT CONSTRUCTION RECTANGULAR, RECESSED ALCOVE INSTALLATION, INTEGRAL CURVED APRON, INTEGRAL LUMBAR SUPPORT, INTEGRAL TILING FLANGE ON 3 SIDES, FOR BELOW FLOOR ROUGH INSTALLATION, DIMENSION: INSTALLATION DIMENSIONS OF 1524mm x 762 mm x 470mm. WATER DEPTH TO OVERFLOW: 286mm. CAPACITY: 170L. WEIGHT WITH WATER: 197.3 Kg. SHIPPING WEIGHT: 27.2kg. COMPLIANCE: IAMPOM (CUPC). 1583.470.002 UNIVERSAL BATH DRAIN, BRASS TUBING AND ROTARY POP-ASSEMBLY, POLISH CHROME FINISH, 38mm CAST BRASS FITTINGS. MOEN 82115 C/W WATER, SHOWERHEAD, TUB SPOUT, ARM AND FLANGE. WITH MOEN 2590 M-PACT POSI TEMP 1/2" TEE CONNECTION INCLUDES PRESSURE BALANCING VALVE, CHROME PLATED FINISH, FLOW RATE IS LIMITED TO 0.6L/MIN, 179mm dDIA TRIM FACE PLATE, ON/OFF 270° ARC TEMPERATURE CONTROL. 102mm ID SHOWER HEAD FACE.
NFHB	JAY R. SMITH #5519 BOX TYPE WALL HYDRANT, 1/4 TURN NON-DRIP, 19mm NONE FREEZE WALL TYPE AUTOMATIC DRAINING HYDRANT, AND STAINLESS STEEL WITH FULL 180DEG. COVER OPERING BOX, DUAL CHECK VALVE, SELF DRAINING INTEGRAL VACUUM BREAKER. OPERATING T-HANDLE KEYS, WHEEL HANDLE, STAINLESS STEEL BOX FACE. 1.
FD-1	WATTS FD-100-C-EG EPOXY COATED CAST IRON FLOOR DRAIN, ANCHOR FLANGE, REVERSIBLE MEMBRANE, REVERSIBLE FLASHING CLAMP WITH PRIMARY AND SECONDARY WEEPHOLES, 1.27mm DIAMETER NICKEL BRONZE. ADJUSTABLE ROUND STRAINER 102mmx229mm OVAL NICKEL BRONZE FUNNEL, TRAP PRIMER CONNECTION WITH PLUG, NO HUB OUTLET. 1.
HD-1	WATTS FD-100-C-EG FUNNEL FLOOR DRAIN EPOXY COATED CAST IRON FLOOR DRAIN, ANCHOR FLANGE, REVERSIBLE MEMBRANE CLAMP WITH PRIMARY AND SECONDARY WEEPHOLES, 6MM THICK ADJUSTABLE ADJUSTABLE NICKEL BRONZE (STANDARD) STRAINER, 100x225mm OVAL NICKEL, BRONZE FUNNEL, C/W TRAP PRIMER CONNECTION. 1.



Revision	Description	Date
5	ISSUED FOR CONSTRUCTION 2	2020/03/06
4	ISSUED FOR CONSTRUCTION	2019/10/29
3	ISSUED FOR 90% REVIEW	2019/08/29
2	ISSUED FOR 60% REVIEW	2019/05/09
1	ISSUED FOR 30% REVIEW	2019/03/14

Revision Client Description Date

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Project Title Project

JASPER STAFF HOUSING CONSTRUCTION

5 PLEX

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