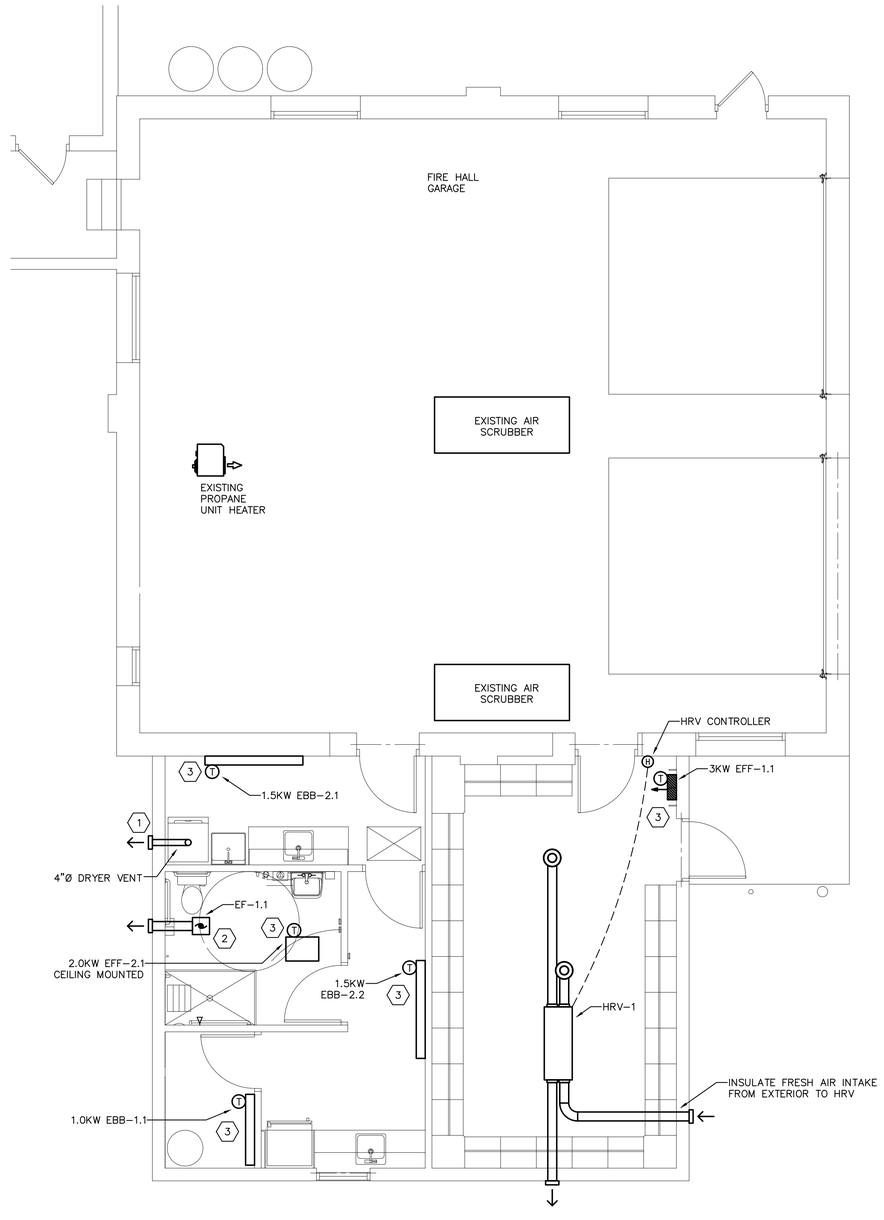
HRV SCHEDULE							
IDENT.	MANUFACTURER	MODEL	POWER	DUCT SIZE	CFM/STATIC PRESSURE	CONTROL	NOTES
HRV–1	LIFEBREATH	195 DCS	120/1/60 1.5A 67W	6"ø COLLARS	193 CFM @ 0.3"	WALL MOUNT CONTROLLER (H)	c/w 99–DXPL02 DIGITAL CONTROLLER, MOUNTING BRACKETS

ELECTRIC HEATERS SCHEDULE							
IDENT.	MANUFACTURER	TYPE	POWER	MODEL	FINISH	CONTROL	REMARKS
EFF–1.1	OUELLET	ELECTRIC FAN FORCED	240/1/60 3000W	OAC03000–T	BY ARCHITECT	BUILT–IN THERMOSTAT	24V RELAY, SUPPLIED AND SUPPLIED BY MECHANICAL, POWER BY ELECTRICAL.
EFF–2.1	OUELLET	CEILING MOUNTED ELECTRIC FAN FORCED	240/1/60 2000W	OACP2000	BY ARCHITECT	BUILT–IN THERMOSTAT	24V RELAY, SUPPLIED AND SUPPLIED BY MECHANICAL, POWER BY ELECTRICAL.
EBB–1.1	OUELLET	ELECTRIC BASEBOARD	240/1/60 1000W	OFM1000	BY ARCHITECT	BUILT–IN THERMOSTAT	24V RELAY, SUPPLIED AND SUPPLIED BY MECHANICAL, POWER BY ELECTRICAL.
EBB–2.1 EBB–2.2	OUELLET	ELECTRIC BASEBOARD	240/1/60 1500W	OFM1500	BY ARCHITECT	BUILT–IN THERMOSTAT	24V RELAY, SUPPLIED AND SUPPLIED BY MECHANICAL, POWER BY ELECTRICAL.

EXHAUST FAN SCHEDULE								
IDEN.	MANUFACTURER	TYPE	POWER	DUCT SIZE	MODEL	CFM/STATIC PRESSURE	OPER. FAN (RPM)	NOTES
EF–1.1	GREENHECK	CEILING MTD.	120V/1/60 1.70A 128 MAX INPUT WATTS	6"ø	SP–B150	155 CFM @ 0.125" WG	1050	c/w BACKDRAFT DAMPER, DISCONNECT, MOUNTING BRACKETS, CONTROLLED BY WASHROOM LIGHTING CONTROLS.



1 / M1 HVAC LAYOUT
SCALE: 1/4" = 1'–0"

1 0 3 6

DRAWING NOTES

1. VENT PER DRYER MANUFACTURER RECOMMENDATIONS
2. EXHAUST FAN CONTROLS TO BE INTERCONNECTED WITH LIGHTING CONTROLS
3. ELECTRIC HEAT SUPPLIED BY MECHANICAL POWER BY ELECTRICAL

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR PERMIT	2025.06.18	CSM

REVISIONS

Kirkland Engineering Ltd BCIN: 28857

REGISTERED PROFESSIONAL ENGINEER
C.S.MULLER
100572425
JUNE 25/18
PROVINCE OF ONTARIO
MECHANICAL

NOT TO BE USED FOR CONSTRUCTION UNLESS SIGNED BY THE ENGINEER.

570 Water Street
Peterborough, Ontario
K9H 3M8
p. (705) 745-2831
f. (705) 741-1526
www.kirklandeng.com
KIRKLAND ENGINEERING LTD.

PROJECT
KINMOUNT FIRE STATION

24 Majestic St.
Kinmount, ON

TITLE
HVAC

DESIGN	CSM	SCALE	AS NOTED
DRAWN	AJM	DWG NO.	M1
CHECKED	CSM		
APPROVED	CSM		
PROJECT	7529		

CADD FILE NO. 7529M1

LT-1 – LAUNDRY TUB

FLOOR MOUNTED, LAUNDRY SINKFIAT SF1F100-A1 SINK – SINGLE COMPARTMENT SINK, 102 MM (4") CENTERSET, LAUNDRY SINK, WITH OVERALL DIMENSION 508 MM (20") LONG, 606 MM (23-7/8") WIDE, 856 MM (33-11/16") HIGH, CONSTRUCTED FROM PLASTIC POLYMER, BOWL DIMENSIONS ARE 495 MM (19-1/2") LONG, 498 MM (19-5/8") WIDE, 365 MM (14-3/8") DEEP, WHITE BAKED ENAMEL STEEL ANGLE LEGS THAT FIT INTO THE MOLDED RETAINERS LOCATED IN EACH OF FOUR CORNERS OF THE UNDERSIDE OF THE LAUNDRY TUB, LEGS ARE SUPPLIED WITH LEVELING, INCLUDES TWO (2) SOAP DISH LOCATIONS, INTEGRALLY MOLDED DRAIN, PLASTIC STOPPER AND TAILPIECE NUT WITH WASHER ARE SUPPLIED WITH ALL MODELS, DECK TYPE 102 MM (4") FAUCET WITH CP BLADE HANDLES, 102 MM (4") CENTERSET, CHROME-PLATED, METAL CONSTRUCTED FAUCET WITH 102 MM (4") BLADE HANDLES, 171 MM (6-3/4") 360° SWING SPOUT, AERATOR AND HOSE ADAPTOR (A1).

CHICAGO FAUCETS W4D-GN1AE35-317AB FAUCET – COUNTER MOUNTED, MANUAL, TWO HANDLES, SINK FAUCET, POLISHED CHROME FINISH, 102 MM (4") CENTERSET, LEAD FREE ANSI/NSF 61 COMPLIANT, ECAST® BRASS CONSTRUCTION, 1/4 TURN CERAMIC CARTRIDGE, 5.7 LPM (1.5 GPM) MAXIMUM FLOWRATE, PRESSURE COMPENSATING SOFTFLO™ AERATOR, GOOSENECK SPOUT, 89 MM (3-1/2") SPOUT REACH, 238 MM (9-3/8") HIGH, VANDAL-RESISTANT 102 MM (4") WRIST BLADE HANDLES WITH INDEXED BUTTONS, 13 MM (1/2") NPSM SUPPLY INLET.

LAWLER 570-86820 MIXING VALVE – POINT OF USE AND MASTER CONTROLLED FIXTURES, THERMOSTATIC MASTER WATER MIXING CONTROL VALVE, LEAD FREE BRASS BODY CONSTRUCTION, NICKEL PLATED FINISH, 1.9 – 30 LPM (0.5 – 8 GPM) RANGE FOR FLOWRATE , TO ADJUST THE MIXED OUTLET TEMPERATURE OF THE VALVE, REMOVE THE CAP TO GAIN ACCESS TO THE ADJUSTING SPINDLE. THE SPINDLE SHOULD BE ROTATED-CLOCKWISE TO REDUCE THE TEMPERATURE, COUNTER-CLOCKWISE TO INCREASE THE TEMPERATURE UNTIL THE DESIRED SET POINT IS REACHED, 11 LPM (3 GPM) TEMPERED FLOWRATE @ 5 PSI PRESSURE DROP, THE TEMPERATURE IS ADJUSTED WITH THE HELP OF SPINDLE, 4-7/8" (124 MM) HEIGHT, ASSE 1070 APPROVED CERTIFIED TO CSA B125.3 FOR ASSE 1070 APPLICATIONS, 3/8" MNPT (9.5 MM) INLET, 95-115 °F OUTLET WATER TEMPERATURE RANGE, 3/8" MNPT (9.5 MM) OUTLET, INTERNAL CHECKS, OFFERS CHOICE OF TEMPERATURE SETTINGS FROM 95° THROUGH 115 °F., 125 PSI MAX HYDROSTATIC PRESSURE, ±20% PRESSURE VARIATION, 40-80 °F, 10 °F, 180 °F MAX, ±5 °F, PROTECTS AGAINST SCALDING AND CHILLING, 7 GPM FLOWRATE @ 45 PSI

MCGUIRE LFCK170 SUPPLY – ICV DEFENDER, LEAD FREE, WITH CHROME-PLATED FINISH, INTEGRAL CHECK SUPPLY KIT W/5" SWEAT EXTENSION, FAUCET, SWEAT TO COMPRESSION CONNECTION, 1/2" SWEAT W/5" SWEAT EXTENSION X 3/8" O.D CONNECTION, DEEP BELL WALL FLANGE, WHEEL HANDLE, FULL TURN BRASS STEM, 305 MM (12") CHROME-PLATED RISERS, PURPLE EPDM PEROXIDE CURED WASHERS, CODES AND COMPLIANCES: NSF/ANSI 61 & 372, UPC

MCGUIRE 8912CB P-TRAP – HEAVY CAST BRASS, ADJUSTABLE P-TRAP, 292 MM (11-1/2") LENGTH, WITH CLEANOUT PLUG, STEEL BOX FLANGE, NEOPRENE GASKET, SEAMLESS TUBULAR BRASS BEND, SLIPNUTS

SH-1 BF SHOWER: TERRAZO WHEELCHAIR SHOWER RECEPTOR SEQUOIA™ SERIESFIAT WTR500310ORECTANGLE-SSDSS SHOWER FLOOR AND STALLS – PRECAST TERRAZZO, QUICK DRAIN CONNECTOR: USE WITH CAST IRON SOIL PIPE, P.V.C. SCHEDULE 40 D.W.V. AND STEEL SCHEDULE 40 (#QDC4) , RECTANGULAR, TRANSFER TYPE SHOWER FLOOR, WHITE MARBLE CHIPS IN WHITE PORTLAND CEMENT, 42" X 70" (1067 X 1778 MM) SIZE, 13 MM (1/2") THRESHOLD HEIGHT, SINGLE THRESHOLD, MADE OF STAINLESS STEEL CAST INTEGRALLY AND PROVIDES FOR A CAULKED LEAD CONNECTION NOT LESS THAN 25 MM (1") DEEP TO A 51 MM (2") PIPE WITH STAINLESS STEEL STRAINER PLATE (#STRTZ) , INTEGRAL STAINLESS STEEL ENTRY CAP, INTEGRAL GALVANIZED BONDERIZED STEEL TILING FLANGE, INSTALL A FLOOR DRAIN AT OR NEAR THE ENTERANCE

BOBRICK B-517 SHOWER AND TUB ACCESSORIES – SHOWER SEAT, RIGHT-HAND SEAT, 51 MM (2") THICK OVERALL WITH 38 MM (1-1/2") THICK, CLOSED-CELL POLYURETHANE FOAM PADDING MOUNTED ON 13 MM (1/2") THICK PLYWOOD. COVERED IN WHITE NAUGAHYDE (WATER-RESISTANT, REINFORCED VINYL FABRIC)., 835 MM (32-7/8") WIDE, 565 MM (22-1/4") HIGH, 22-11/16" (575 MM) PROJECTION FROM WALL IN OPEN POSITION, 18-8, TYPE-304, HEAVY-GAUGE STAINLESS STEEL., 18-8, TYPE-304 STAINLESS STEEL WITH SATIN FINISH. 16-GAUGE (1.6 MM), 32 MM (1-1/4") SQUARE MEMBERS AND 18 GAUGE(1.2 MM), 25 MM (1") DIAMETER TUBING., 18-8, TYPE-304, 16-GAUGE (1.6 MM) STAINLESS STEEL WITH SATIN FINISH.

AMERICAN STANDARD TU662SG213.002 COMPLETE SHOWER TRIM – POLISHED CHROME FINISH, HAND SHOWER, SHOWERHEAD AND VALVE TRIM, 5.7 LPM (1.5 GPM) SHOWERHEAD FLOWRATE, FLOWISE SHOWERHEAD, 3-FUNCTION HAND SHOWER WITH NON-POSITIVE SHUT OFF (1660.766), 5.7 LPM (1.5 GPM) HANDSHOWER FLOWRATE, 59" (1500 MM) SHOWER HOSE (8888.035), METAL LEVER HANDLE, PRESSURE BALANCE VALVE, ADJUSTABLE HIGH TEMPERATURE LIMIT STOP, VALVE TRIM WITH METAL HANDLE AND ESCUTCHEON, 914 MM (36") SLIDE GRAB BAR (1662.236), 2-WAY DIVERTER (R422), COMBINATION OF CERAMIC DISC MIXING VALVE AND A CERAMIC BALANCING SPOOL IN A ONE-PIECE CARTRIDGE, WASHERLESS CERAMIC DISCS PROVIDE SMOOTH HANDLE MOVEMENT AND ARE UNAFFECTED BY HARSH WATER CONDITIONS, CERAMIC BALANCING SPOOL MAINTAINS CONSTANT OUTPUT TEMPERATURE IN RESPONSE TO CHANGES IN RELATIVE HOT AND COLD SUPPLY PRESSURE, WATERSENSE® CERTIFIED, ADA, ASSE 1016, ASME A112.18.1016, CSA B125.16, ASME A112.18.1, CSA B125.1

AMERICAN STANDARD T105430.002 DIVERTER VALVE TRIM – STUDIO® S, IN-WALL DIVERTER VALVES, SOLID BRASS CONSTRUCTION, POLISHED CHROME FINISH, STAMPED BRASS ESCUTCHEON, LESS VALVE, VALVE TRIM ONLY, 1/2" NPTCONNECTIONS ON MIXED WATER INLET AND TWO (R422/R422S) OR THREE (R433/R433S) OUTLETS, LEVER HANDLE, MEETS THE AMERICAN DISABILITIES ACT GUIDELINES AND ANSI A117.1 REQUIREMENTS FOR THE PHYSICALLY CHALLENGED., ASME A112.18.1, PERMITS CHECKING OF VALVE INSTALLATION PRIOR TO INSTALLING TRIM PARTS, CANNOT BE USED AS A SHUT-OFF VALVE

AMERICAN STANDARD 1660.505.002 W/ 95866 HAND SHOWER – GROHE 95866 VOLUME CONTROL WITH NON-POSITIVE SHUTOFF, FIXED PERSONAL SHOWER, POLISHED CHROME FINISH, HAND HELD PERSONAL SHOWERS, 9.5 LPM (2.5 GPM), FIXED CONVENTIONAL SPRAY, (2-5/8") , (5-3/4") , PREVENTS CROSS FLOW OF HOT AND COLD WATER, SAVES UP TO 40% IN WATER USAGE, FOR A SURE GRIP EVEN WITH WET, SOAPY HANDS

AMERICAN STANDARD 1662.236.002 SLIDE BAR – CONCEALED SCREW MOUNTING SYSTEM, COMMERCIAL, COMMERCIAL SHOWER SYSTEMS, SLIDE/GRAB BAR, POLISHED CHROME FINISH, 38 MM (1-1/2") DIAMETER STAINLESS STEEL BAR, 914 MM (36") STAINLESS BAR, CHROME-PLATED HAND SHOWER HOLDER, CHROME-PLATED ADJUSTABLE SLIDE MECHANISM, MEETS ANSI STANDARD 250 LB PULL TEST.MEETS AMERICAN DISABILITIES ACT (ADA) , INCLUDES MOUNTING SCREWS AND ANCHORS

AMERICAN STANDARD 8888.037.075 WALL SUPPLY – WALL SUPPLY, PVD STAINLESS STEEL FINISH, INCLUDES CHECK VALVE, 1/2" NPT FEMALE THREAD, 1/2" NPSM MALE HOSE THREAD

AMERICAN STANDARD 8888.036.002 HAND SHOWER HOLDER – FIXTURE WALL BRACKET, POLISHED CHROME FINISH

AMERICAN STANDARD 1660.400.002 VACUUM BREAKER – VACUUM BREAKER, POLISHED CHROME FINISH FOR INLINE WITH 13 MM (1/2") SIZE, ATTACHES BETWEEN SUPPLY OUTLET AND PERSONAL SHOWER HOSE.

BLÜCHER BWC-130-60-VP-C TRENCH DRAIN – VANDAL-RESISTANT GRATE, BWC-100, AISI TYPE 304 STAINLESS STEEL, WATERLINE SHOWER, CHANNEL, 50 MM (2") NO HUB, 2" (50) NO HUB, PVC SOCKET, EPOXY COATED CAST IRON, VIENNA (STANDARD) , COPENHAGEN, REVERSIBLE CAST STAINLESS STEEL COLLAR WITH DUAL O-RING SEALS, WEEPHOLES, 83 MM (3-1/4") WIDE

GROHE 40366001 BATHROOM ACCESSORIES – ESSENTIALS, STARLIGHT CHROME FINISH, TOWEL RAIL, 654 MM (FUNCTIONAL LENGTH 600 MM) , METAL CONSTRUCTION, CONCEALED FASTENING

CS-1 COUNTER-SINK: COUNTER MOUNTED, DROP-IN, COMMERCIAL SINKSFRANKE COMMERCIAL LBS4010P-1-3 SINK – SINGLE COMPARTMENT SINK, 203 MM (8") CENTERSET, COMMERCIAL SINKS, WITH OVERALL DIMENSION 562 MM (22-1/8") LONG, 478 MM (18-13/16") WIDE, 254 MM (10") HIGH, CONSTRUCTED FROM 18 GAUGE TYPE 304 STAINLESS STEEL, BOWL DIMENSIONS ARE 508 MM (20") LONG, 356 MM (14") WIDE, 254 MM (10") DEEP, POLISHED TO #4 SATIN FINISH, FACTORY INSTALLED EZ TORQUE™ FASTENERS, FACTORY APPLIED RIM SEAL, CENTER BACK WASTE LOCATION, 38 MM (1-1/2") (DN38) BRASS TAILPIECE, STANDPIPE WITH GUARD, 89 MM (3-1/2") CRUMB CUP STRAINER, UNDERCOATED TO REDUCE CONDENSATION AND RESONANCE, CODES AND COMPLIANCES: ASME A112.19.3 COMPLIANT, CSA B45.4 COMPLIANT.

AMERICAN STANDARD 7074300.002 FAUCET – COLONY®, COUNTER MOUNTED, MANUAL, SINGLE HANDLE, SINK FAUCET, POLISHED CHROME FINISH, 203 MM (8") CENTERSET, INSTALLED WITH INCLUDED 244 MM (9-5/8") DECK PLATE, LEAD FREE ANSI/NSF 61 AND ANSI/NSF 372 COMPLIANT, METAL, INTEGRAL CHECK VALVE, 610 MM (24") FLEXIBLE COLOUR-CODED BRAIDED STAINLESS STEEL SUPPLY HOSES WITH 10 MM (3/8") COMPRESSION CONNECTIONS, CERAMIC DISC CARTRIDGES, 5.7 LPM (1.5 GPM) MAXIMUM FLOWRATE, PRESSURE COMPENSATING SPRAY OUTLET, PULL-DOWN SPRAY WITH ADJUSTABLE SPRAY PATTERN AND PAUSE FEATURE, BRASS SPOUT, PULL DOWN, 227 MM (8-15/16") SPOUT REACH, 375 MM (14-3/4") HIGH, LEVER HANDLE.

LAWLER 570-86820 MIXING VALVE – POINT OF USE AND MASTER CONTROLLED FIXTURES, THERMOSTATIC MASTER WATER MIXING CONTROL VALVE, LEAD FREE BRASS BODY CONSTRUCTION, NICKEL PLATED FINISH, 1.9 – 30 LPM (0.5 – 8 GPM) RANGE FOR FLOWRATE , TO ADJUST THE MIXED OUTLET TEMPERATURE OF THE VALVE, REMOVE THE CAP TO GAIN ACCESS TO THE ADJUSTING SPINDLE. THE SPINDLE SHOULD BE ROTATED-CLOCKWISE TO REDUCE THE TEMPERATURE, COUNTER-CLOCKWISE TO INCREASE THE TEMPERATURE UNTIL THE DESIRED SET POINT IS REACHED, 11 LPM (3 GPM) TEMPERED FLOWRATE @ 5 PSI PRESSURE DROP, THE TEMPERATURE IS ADJUSTED WITH THE HELP OF SPINDLE, 4-7/8" (124 MM) HEIGHT, ASSE 1070 APPROVED CERTIFIED TO CSA B125.3 FOR ASSE 1070 APPLICATIONS, 3/8" MNPT (9.5 MM) INLET, 95-115 °F OUTLET WATER TEMPERATURE RANGE, 3/8" MNPT (9.5 MM) OUTLET, INTERNAL CHECKS, OFFERS CHOICE OF TEMPERATURE SETTINGS FROM 95° THROUGH 115 °F., 125 PSI MAX HYDROSTATIC PRESSURE, ±20% PRESSURE VARIATION, 40-80 °F, 10 °F, 180 °F MAX, ±5 °F, PROTECTS AGAINST SCALDING AND CHILLING, 7 GPM FLOWRATE @ 45 PSI

MCGUIRE LFCK170 SUPPLY – ICV DEFENDER, LEAD FREE, WITH CHROME-PLATED FINISH, INTEGRAL CHECK SUPPLY KIT W/5" SWEAT EXTENSION, FAUCET, SWEAT TO COMPRESSION CONNECTION, 1/2" SWEAT W/5" SWEAT EXTENSION X 3/8" O.D CONNECTION, DEEP BELL WALL FLANGE, WHEEL HANDLE, FULL TURN BRASS STEM, 305 MM (12") CHROME-PLATED RISERS, PURPLE EPDM PEROXIDE CURED WASHERS, CODES AND COMPLIANCES: NSF/ANSI 61 & 372, UPC

MCGUIRE 8912CB P-TRAP – HEAVY CAST BRASS, ADJUSTABLE P-TRAP, 292 MM (11-1/2") LENGTH, WITH CLEANOUT PLUG, STEEL BOX FLANGE, NEOPRENE GASKET, SEAMLESS TUBULAR BRASS BEND, SLIPNUTS

LV-1 WALL MOUNT LAVATORY

AMERICAN STANDARD 9024001EC.020 BASIN – DECORUM®, WALL-HUNG LAVATORY, VITREOUS CHINA, EVERCLEAN® ANTIMICROBIAL SURFACE, WHITE FINISH, SINGLE HOLE CENTERSET, REAR OVERFLOW, WITH FAUCET LEDGE, FOR CONCEALED ARM CARRIER, SOAP DISPENSER, OVERALL DIMENSIONS: 508 MM (20") LONG, 464 MM (18-1/4") WIDE, 187 MM (7-3/8") HIGH, BOWL DIMENSIONS: 354 MM (13-15/16") LONG, 325 MM (12-13/16") WIDE, 127 MM (5") DEEP

SLOAN EBF-85-BAT-TEE-CP-0.5GPM-MLM-IR-FCT FAUCET – OPTIMA®, COUNTER MOUNTED, AUTOMATIC NO-TOUCH, BATTERY POWERED, LAVATORY FAUCET, POLISHED CHROME FINISH, SINGLE HOLE CENTERSET, BRASS SPOUT, 1.9 LPM (0.5 GPM) MAXIMUM FLOWRATE, MULTI-LAMINAR SPRAY OUTLET, FIXED SPOUT, 130 MM (5-1/8") SPOUT REACH, 146 MM (5-3/4") HIGH, INFRARED SENSOR, BELOW DECK CONTROL ACCESS, DUAL INLET FILTER ASSEMBLY WITH 9.5 MM (3/8") COMPRESSION BRASS CAP FOR TEMPERED WATER INCLUDED, WIRELESS BLUETOOTH STATUS VIEW, SETTING ADJUSTMENT AND DIAGNOSTIC VIA SLOAN CONNECT APP®.

LAWLER 570-86820 MIXING VALVE – POINT OF USE AND MASTER CONTROLLED FIXTURES, THERMOSTATIC MASTER WATER MIXING CONTROL VALVE, LEAD FREE BRASS BODY CONSTRUCTION, NICKEL PLATED FINISH, 1.9 – 30 LPM (0.5 – 8 GPM) RANGE FOR FLOWRATE , TO ADJUST THE MIXED OUTLET TEMPERATURE OF THE VALVE, REMOVE THE CAP TO GAIN ACCESS TO THE ADJUSTING SPINDLE. THE SPINDLE SHOULD BE ROTATED-CLOCKWISE TO REDUCE THE TEMPERATURE, COUNTER-CLOCKWISE TO INCREASE THE TEMPERATURE UNTIL THE DESIRED SET POINT IS REACHED, 11 LPM (3 GPM) TEMPERED FLOWRATE @ 5 PSI PRESSURE DROP, THE TEMPERATURE IS ADJUSTED WITH THE HELP OF SPINDLE, 4-7/8" (124 MM) HEIGHT, ASSE 1070 APPROVED CERTIFIED TO CSA B125.3 FOR ASSE 1070 APPLICATIONS, 3/8" MNPT (9.5 MM) INLET, 95-115 °F OUTLET WATER TEMPERATURE RANGE, 3/8" MNPT (9.5 MM) OUTLET, INTERNAL CHECKS, OFFERS CHOICE OF TEMPERATURE SETTINGS FROM 95° THROUGH 115 °F., 125 PSI MAX HYDROSTATIC PRESSURE, ±20% PRESSURE VARIATION, 40-80 °F, 10 °F, 180 °F MAX, ±5 °F, PROTECTS AGAINST SCALDING AND CHILLING, 7 GPM FLOWRATE @ 45 PSI

MCGUIRE 155A FIXTURE DRAIN – STRAIGHT DRAIN, CAST BRASS, CHROME-PLATED FINISH, OPEN GRID PO PLUG, 7/32" (5.5 MM) Ø HOLES SIZE, 17 GAUGE 32 MM (1-1/4") Ø TAILPIECE DIAMETER, 17 GAUGE 152 MM (6") LONG, BRASS LOCKNUT, HEAVY RUBBER BASIN WASHER FIBER FRICTION WASHER, ASME A112.18.2 CSA B125.2, CSA COMPLIANT

MCGUIRE LFBV170 SUPPLY – LEAD FREE, WITH CHROME-PLATED FINISH, CONVERTIBLE QUARTER-TURN SUPPLY , LAVATORY, 13 MM (1/2") COPPER SWEAT X 10 MM (3/8") OUTER Ø BRASS BALL VALVE CONNECTION, ONE DEEP BELL FLANGE, CONVERTIBLE LOOSE KEY HANDLE, EXTENSION IS 127 MM (5") LENGTH, 304 MM (12") COPPER FLEXIBLE RISERS.

MCGUIRE PW2125WC P-TRAP – MOLDED CLOSED CELL VINYL (ANTI-MICROBIAL) WRAPPED CAST BRASS, GLOSSY WHITE, WITH CLEANOUT

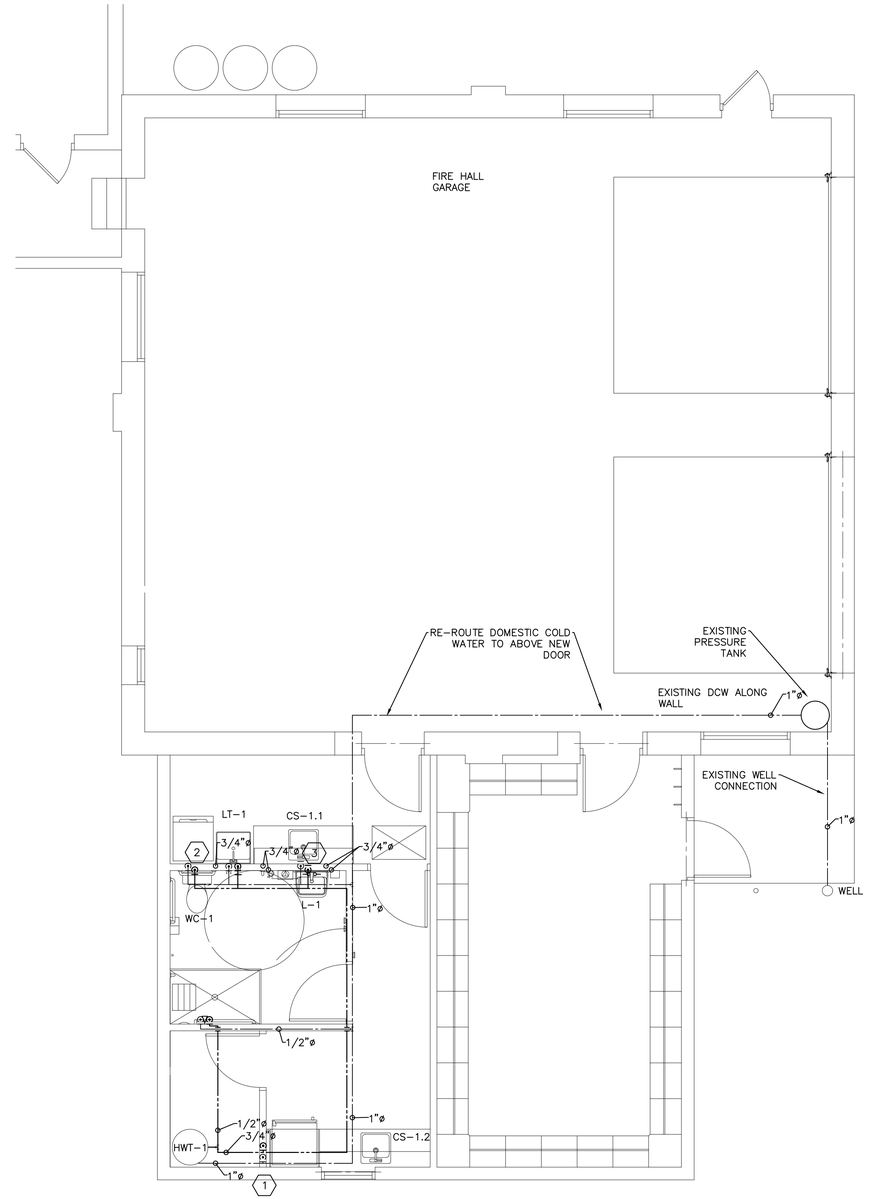
WATTS WCA-411-M42-M54 CARRIER – WCA-411/WCA-411-WC, LAVATORY CARRIER, SINGLE FLOOR-MOUNTED LAVATORY CARRIER WITH CONCEALED ARMS, ADJUSTABLE ARMS, EPOXY COATED CAST IRON, INTEGRAL WELDED FEET, UPPER TIE ROD, HEAVY GAUGE STEEL OFFSET UPRIGHTS, BASIN LOCKING DEVICE, PLATED HARDWARE, LEVELLING SCREWS, 42" LONG CARRIER LEG, 2" CHROME-PLATED ESCUTCHEONS, SINGLE.

WC-1 BF WATER CLOSET

FLOOR MOUNTED WITH FLOOR OUTLETAMERICAN STANDARD 215AA104.020 TOILET – CADET® PRO™, TANK TYPE TOILET, FLOOR MOUNTED WITH FLOOR OUTLET, HIGH EFFICIENCY HET 4.8 LPF (1.28 GPF), WHITE FINISH VITREOUS CHINA, EVERCLEAN® ANTIMICROBIAL SURFACE, ELONGATED BOWL, RIGHT HEIGHT® RIM AT 419 MM (16-1/2"), MINIMUM 305 MM (12") ROUGH-IN FROM WALL TO THE CENTER OF WASTE OUTLET, SIPHON JET FLUSH ACTION, MANUAL, POLISHED CHROME LEFT-HAND TRIP LEVER (7381231-200.0020A), TANK NOT LINED, WITHOUT TANK COVER LOCKING DEVICE, GRAVITY-ASSISTED FLUSH, CADET® FLUSHING SYSTEM, 76 MM (3") FLUSH VALVE, METAL SHANK FILL VALVE, TANK COUPLING COMPONENTS, 229 X 203 MM (9" X 8") WATER SURFACE AREA, FULLY-GLAZED 54 MM (2-1/8") TRAPWAY, POWERWASH™ RIM SCRUBS BOWL WITH PRESSURIZED WATER EVERY FLUSH, INCLUDES EZ-INSTALL TOOLS, TRADE EXCLUSIVE TANK, TOILET SEAT NOT INCLUDED, COLOUR-MATCHED BOLT CAPS, 441 MM (17-3/8") WIDE, 765 MM (30-1/8") FROM FINISHED WALL, 772 MM (30-3/8") HIGH COMPLIANCES: ASME A112.19.2 COMPLIANT, CSA B45.1 COMPLIANT, EPA WATERSENSE® COMPLIANT.

CENTOCO 820STSFE-001 SEAT – FAST-N-LOCK, FOR ELONGATED BOWL, OPEN FRONT, HEAVY-DUTY, FOR COMMERCIAL APPLICATIONS, POLYPROPYLENE, TOILET SEAT, WITH SEAT COVER, PLASTIC COMMERCIAL CHECK HINGES, AND STAINLESS STEEL HINGE PIN, SPECIFIED IN WHITE FINISH, FAST-N-LOCK MOUNTING SYSTEM TAKES THE GUESS WORK OUT WHEN TIGHTENING THE HARDWARE. THE SPECIALLY DESIGNED FASTENERS IN CLICK" WHEN THE APPROPRIATE TORQUE IS REACHED. THE BOLT AND NUT MATERIAL SHALL BE STAINLESS STEEL, DIMENSIONS:25 MM (1") HIGH, 470 MM (18-1/2") LONG, 362 MM (14-1/4") WIDE

MCGUIRE LFBV172 SUPPLY – LEAD FREE, WITH CHROME-PLATED FINISH, CONVERTIBLE QUARTER-TURN SUPPLY , TOILET, TWO 13 MM (1/2") COPPER SWEAT X 10 MM (3/8") OUTER Ø BRASS BALL VALVE CONNECTION, 2 DEEP BELL FLANGE, CONVERTIBLE LOOSE KEY HANDLE, EXTENSION IS 127 MM (5") LENGTH, 304 MM (12") COPPER FLEXIBLE RISERS.



1 DOMESTIC WATER LAYOUT
M2 SCALE: 1/4" = 1'-0"

WATER HEATER SCHEDULE							
IDENT.	MANUFACTURER	MODEL	POWER	STORAGE	FIRST HOUR RATING	FUEL	NOTES
HWT-1	RHEEM	XP75TO6ST76U0	120V	75 USG	100 USG	PROPANE	PROPANE WATER HEATER

DRAWING NOTES:

1. ROUTE DCW + DHW FEEDS TO SINK BEHIND FRIDGE AND THROUGH CABINETRY.
2. DCW DROP IN WALL TO SERVE BACK TO BACK WATER CLOSET AND CLOTHES WASHER
3. DCW + DHW DROPS IN WALL TO SERVE BOTH BACK TO BACK SINKS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR PERMIT	2025.06.18	CSM

REVISIONS

Kirkland Engineering Ltd BCIN: 28857

REGISTERED PROFESSIONAL ENGINEER
C.S.MULLER
100572425
JUNE 25/18
PROVINCE OF ONTARIO
MECHANICAL

NOT TO BE USED FOR CONSTRUCTION UNLESS SIGNED BY THE ENGINEER.

KIRKLAND ENGINEERING LTD.
570 Water Street
Peterborough, Ontario
K9H 3M8
p. (705) 745-2831
f. (705) 741-1526
www.kirklandeng.com

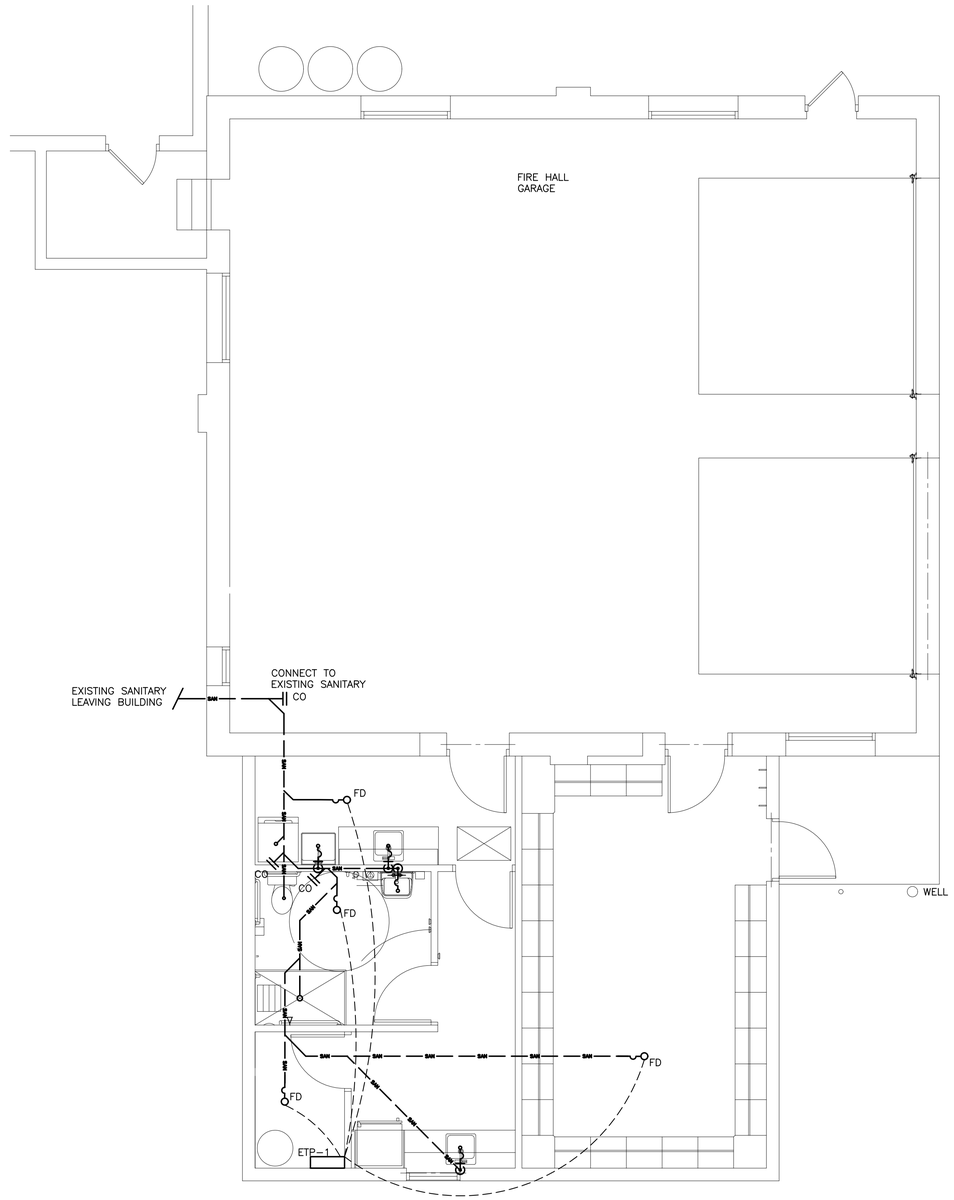
PROJECT
KINMOUNT FIRE STATION

24 Majestic St.
Kinmount, ON

TITLE
DOMESTIC

DESIGN	CSM	SCALE	AS NOTED
DRAWN	AJM	DWG NO.	M2
CHECKED	CSM		
APPROVED	CSM		
PROJECT	7529		

CADD FILE NO. 7529M2



1 M3 SANITARY LAYOUT
SCALE: 1/4" = 1'-0"

ELECTRONIC TRAP SEAL SCHEDULE					
IDENT.	MANUFACTURER	MODEL	POWER	PORTS	NOTES
ETP-1	MIFAB	MI-100-5	120V	5	ELECTRONIC TRAP SEAL PRIMER, 5 OUTLETS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR PERMIT	2025.06.18	CSM

REVISIONS

Kirkland Engineering Ltd BCIN: 28857

REGISTERED PROFESSIONAL ENGINEER
C.S.MULLER
100572425
JUNE 25/18
PROVINCE OF ONTARIO
MECHANICAL

NOT TO BE USED FOR CONSTRUCTION UNLESS SIGNED BY THE ENGINEER.

570 Water Street
Peterborough, Ontario
K9H 3M8
p. (705) 745-2831
f. (705) 741-1526
www.kirklandeng.com
KIRKLAND ENGINEERING LTD.

PROJECT
KINMOUNT FIRE STATION

24 Majestic St.
Kinmount, ON

TITLE
SANITARY

DESIGN	CSM	SCALE AS NOTED
DRAWN	AJM	DWG NO. M3
CHECKED	CSM	
APPROVED	CSM	
PROJECT	7529	

CADD FILE NO. 7529M3

GENERAL MECHANICAL SPECIFICATIONS

1. THE MECHANICAL DRAWINGS DO NOT SHOW ALL THE ARCHITECTURAL, STRUCTURAL AND ELECTRICAL DETAILS. INFORMATION INVOLVING ACCURATE DIMENSIONING OF THE SITE CONDITIONS SHALL BE TAKEN FROM SITE BY CONTRACTOR. CONTRACTOR TO MAKE ANY NECESSARY MODIFICATIONS OR ADDITIONS, WITHOUT CHARGE, TO ACCOMMODATE THE SITE CONDITIONS.

2. EQUIPMENT TO BE AS SPECIFIED OR APPROVED EQUIVALENT. DESIGN BASED ON EQUIPMENT AS SPECIFIED IN EQUIPMENT SCHEDULE AND IS NOT INTENDED TO SHOW EQUIPMENT IN EXACT LOCATIONS. CONTRACTOR IS RESPONSIBLE TO VERIFY EQUIPMENT DIMENSIONS TO ENSURE THAT EQUIPMENT WILL FIT SITE CONDITIONS. ANY COST ASSOCIATED WITH USING EQUIPMENT OTHER THAN WHAT IS SPECIFIED IS THE FULL RESPONSIBILITY OF THE CONTRACTOR AND NO EXTRA WILL BE ALLOWED FOR THESE COSTS.

3. ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS, THE SPECIFICATION, AND ALL OTHER TENDER DOCUMENTS.

4. ALL FLOOR MOUNTED EQUIPMENT TO BE PLACED ON HOUSE KEEPING PAD.

5. ALL PIPING AND DUCT WORK TO BE LABELED INCLUDING DIRECTION OF FLOW EVERY 8' AND EACH CHANGE IN DIRECTION.

6. CONTRACTOR IS RESPONSIBLE TO PROVIDE A COMPLETE CONTROL SYSTEM. DESIGN TO BE APPROVED BY THE ENGINEER, PROVIDE ALL EQUIPMENT SHOP DRAWINGS FOR THE CONTROL SYSTEM TO BE APPROVED. CONTRACTOR IS RESPONSIBLE FOR COMPLETE INSTALLATION OF THE CONTROL SYSTEM AND FINAL TESTING OF ALL MECHANICAL EQUIPMENT FOR FULLY FUNCTIONING SYSTEM IN ALL SEASONS.

7. CONTRACTOR IS RESPONSIBLE TO ENSURE ALL EQUIPMENT AND MATERIALS CAN FIT INTO MECHANICAL ROOM OR ITS PLACE, THROUGH FINISHED OPENINGS, OR THAT MATERIAL IS PLACED IN MECHANICAL ROOM AT APPROPRIATE PHASE OF CONSTRUCTION.

8. PRIOR TO SUBMITTING TENDERS, THE CONTRACTOR SHALL VISIT THE SITE TO DETERMINE ALL EXISTING CONDITIONS. ALLOW FOR ALL COSTS ASSOCIATED WITH COMPLETING THE WORK OF MECHANICAL DIVISION IN ACCORDANCE WITH EXISTING SITE AND BUILDING CONDITIONS. CONTRACTOR TO VERIFY LOCATION OF EXISTING UTILITY CONNECTIONS WHERE CONNECTIONS ARE REQUIRED. CONTRACTOR TO VERIFY LOCATION, DEPTH, ELEVATION, AND SIZE OF INVERT. NO ALLOWANCE FOR EXTRA PAYMENTS TO THE CONTRACTOR WILL BE MADE BY THE OWNER FOR FAILING TO VISIT AND EXAMINE SITE CONDITIONS.

9. SUB–CONTRACTOR SHALL MAINTAIN SUCH INSURANCE AS WILL FULLY PROTECT BOTH THE OWNER AND THE SUB–CONTRACTOR FROM ANY AND ALL CLAIMS UNDER THE WORKMEN'S COMPENSATION ACT, ALSO ALL INSURANCE AS NOTED WITHIN ARCHITECTURAL GENERAL CONDITIONS.

10. MAINTAIN A SEPARATE SET OF WHITE PRINTS ON THE SITE AND NOTE ALL CHANGES AND DEVIATIONS FROM THE ORIGINAL DESIGN. TWO SETS OF THESE DRAWINGS SHOWING ALL AS–BUILT CONDITIONS SHALL BE FORWARDED TO THE ARCHITECT AT THE COMPLETION OF THIS CONTRACT AND BEFORE APPLYING FOR FINAL PAYMENT.

11. ADDITIONAL MONEY OVER THE CONTRACT PRICE SHALL NOT BE PAID UNLESS AN APPROVED CHANGE ORDER IS ISSUED BY THE ARCHITECT. CLAIMS FOR EXTRAS SHALL BE SUBMITTED WITH A COMPLETE BREAKDOWN OF MATERIAL, LABOUR, HOURLY RATES, ETC.

12. BE RESPONSIBLE TO KEEP THE AREA CLEAN AT ALL TIMES AND TO PERIODICALLY REMOVE ALL DEBRIS. CONSTRUCTION AREA TO BE ISOLATED BY MEANS OF TARPS AND/OR TEMPORARY PARTITIONS.

13. ALL CUTTING AND PATCHING REQUIRED FOR THE WORK OF THIS DIVISION SHALL BE CARRIED OUT BY THIS DIVISION. CUTTING AND DRILLING SHALL BE PERFORMED IN A MANNER SO AS TO CAUSE LITTLE DAMAGE. BE RESPONSIBLE AND PAY FOR ANY DAMAGE TO THE BUILDING INCURRED BY WORK OF THIS DIVISION.

14. BE RESPONSIBLE TO COORDINATE THE INSTALLATION OF EQUIPMENT, DUCTING, PIPING, ETC. WITH OTHER TRADES AND THE OWNER'S REPRESENTATIVE PRIOR TO THE ACTUAL INSTALLATION.

15. BE RESPONSIBLE FOR MECHANICAL WORK UNTIL THE COMPLETION AND FINAL ACCEPTANCE, FOR REPLACING ANY ITEM THAT MAY BE DEFECTIVE, DAMAGED, LOST OR STOLEN WITHOUT ADDITIONAL COST TO THE OWNER OR DELAY TO THE COMPLETION OF THE PROJECT.

16. SHOP DRAWINGS AND PRODUCT DATA. 'SHOP DRAWINGS' MEANS DRAWINGS, DIAGRAMS, ILLUSTRATIONS, SCHEDULES, PERFORMANCE, CHARTS, BROCHURES, AND OTHER DATA WHICH ARE TO BE PROVIDED BY THE CONTRACTOR TO ILLUSTRATE DETAILS OF A PORTION OF THE WORK. INDICATE MATERIALS METHODS OF CONSTRUCTION AND ATTACHMENT OR ANCHORAGE, NECESSARY FOR COMPLETION OF WORK. ADJUSTMENTS MADE ON SHOP DRAWINGS BY OWNER OR ENGINEER ARE NOT INTENDED TO CHANGE CONTRACT PRICE. MAKE CHANGES IN SHOP DRAWINGS AS OWNER OR ENGINEER MAY REQUIRE. SUBMIT 6 HARD COPIES, OR 1 HIGH QUALITY ELECTRONIC COPY OF PRODUCT DATA SHEETS OR BROCHURES FOR ALL MECHANICAL EQUIPMENT. PROVIDE 2 MAINTENANCE MANUALS COMPLETE WITH WARRANTEE, CERTIFICATE OF INSPECTIONS, AND COPY OF ALL PRODUCT LITERATURE AND MAINTENANCE INFORMATION.

17. PRIOR TO FINAL INSPECTION DEMONSTRATE OPERATION OF EACH SYSTEM TO OWNER AND ENGINEER. INSTRUCT PERSONNEL IN OPERATION ADJUSTMENT AND MAINTENANCE OF EQUIPMENT AND SYSTEMS, USING PROVIDED OPERATION AND MAINTENANCE DATA AS BASIS FOR INSTRUCTION.

18. AFTER THE WORK IS COMPLETED, GIVE A WRITTEN GUARANTEE FOR ONE YEAR COVERING WORKMANSHIP AND MATERIALS. REPAIR OR REPLACE, WITHOUT EXPENSE TO THE OWNER, ANY DEFECTS DUE TO WORKMANSHIP OR MATERIALS WHICH IN THE OWNER'S OPINION, ARE NOT DUE TO MISUSE OR NEGLECT.

19. WHERE REQUIRED FOR UNDERGROUND SERVICE THE EXCAVATION, BACKFILL AND CONCRETE WORK SHALL BE BY THE GENERAL CONTRACTOR. THE MECHANICAL TRADE SHALL SUPERVISE THE PROCESSING OF CONCRETE TO ENSURE THEY ARE FREE FROM VOIDS AND SHALL ADVISE THE GENERAL CONTRACTOR OF THIS WORK FOR INCLUSION IN THE GENERAL CONTRACTOR'S TENDER PRICE.

20. THE MECHANICAL CONTRACTOR SHALL ENSURE THAT EVERY FIXTURE, PLUMBING APPLIANCE, INTERCEPTOR, CLEANOUT, VALVE, DEVICE OR PIECE OF EQUIPMENT SHALL BE LOCATED IN A MANNER THAT IT IS READILY ACCESSIBLE FOR USE, CLEANING, MAINTENANCE OR REPAIR. MECHANICAL CONTRACTOR SHALL PROVIDE ACCESS DOORS LARGE ENOUGH TO PERMIT EASY ACCESS TO CONCEALED FIXTURES, PLUMBING APPLIANCES, FIRE DAMPERS, INTERCEPTORS, CLEANOUTS, VALVES, DEVICES OR PIECES OF EQUIPMENT.

21. CONTRACTOR SHALL CARRY THE SERVICES OF AN APPROVED FIRE STOPPING INSTALLER AND SHALL PROVIDE ALL FIRE STOPPING FOR ALL MECHANICAL AND ELECTRICAL PENETRATIONS. PROVIDE SHOP DRAWINGS FOR FIRE STOPPING MATERIALS USED.

22. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SECURITY OF THEIR PROPERTY. THE OWNER BEARS NO RESPONSIBILITY FOR PROTECTION FROM THEFT, FIRE, OR ENVIRONMENTAL CONDITIONS.

23. PRIOR TO STARTING CONSTRUCTION THE CONTRACTOR SHALL DETERMINE EXACT INVERT ELEVATION, DEPTH, SIZE, AND LOCATION OF EXISTING UTILITIES WHERE CONNECTIONS ARE TO BE MADE OR INTERSECTIONS OCCUR. NOTIFY ARCHITECT OR ENGINEER OF ANY DISCREPANCY BETWEEN DRAWINGS AND ACTUAL FIELD CONDITIONS. WORK BACK TOWARDS BUILDING FROM UTILITY CONNECTION FOR ALL PIPING SYSTEM.

24. ALL PIPING AND DUCTING SHOWN FOR SCHEMATIC AND SCOPE OF WORK PURPOSES IN GENERAL LOCATION OF USE. COORDINATE EXACT ROUTING ON SITE AND WITH BEST PRACTICES.

25. ALL EQUIPMENT (PUMPS, HVAC UNITS, ROOFTOP FANS, ETC.) TO BE PROVIDED WITH VIBRATION ISOLATION DEVICES.

GENERAL HVAC SPECIFICATIONS

1. PROVIDE DUCTWORK IN ACCORDANCE WITH A.S.H.R.A.E. AND INTERNATIONAL MECHANICAL CODES CHAPTER 5 SECTION 506,, LATEST EDITION. ALL DUCTS SHALL BE FABRICATED FROM PRIME QUALITY GALVANIZED STEEL AS PER A.S.H.R.A.E. STANDARDS. DUCTS SHALL BE INSTALLED AS HIGH AS POSSIBLE. PROPER ANGLE IRON SUPPORTS, HANGERS, ETC., SHALL BE PROVIDED FOR ALL DUCTS. SEAL ALL JOINTS OF DUCTS WITH HIGH PRESSURE SEALER. APPLY SEALANT TO OUTSIDE OF JOINTS AS PER MANUFACTURERS RECOMMENDATIONS.
   CONSTRUCT DUCTS IN ACCORDANCE WITH THE FOLLOWING:

MAX DUCT DIMENSION	U.S. GAUGE
UP TO 12"	26
13" TO 30"	24
31" TO 54"	22

   CONSTRUCT ROUND DUCTS IN ACCORDANCE WITH THE FOLLOWING:

   4" TO 8" DIAMETER – 26 GAUGE
   9" TO 24" DIAMETER – 24 GAUGE

2. EQUIVALENT DUCT SIZES MAY BE SUBSTITUTED IN LIEU OF THOSE SHOWN, IN ORDER TO AVOID INTERFERENCE WITH STRUCTURE AND OTHER MECHANICAL SERVICES. CONTRACTOR TO PROVIDE DRAWINGS OF ANY PROPOSED CHANGES TO ENGINEER FOR APPROVAL. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN DESIGN AIR FLOW WITH DUCT INSTALLATION. ALL SUPPLY & RETURN BRANCHES SHALL BE AT 45° TAKE OFFS.

3. THE CONTRACTOR SHALL VERIFY EXACT LOCATION OF EQUIPMENT PRIOR TO FABRICATION AND INSTALLATION OF DUCTWORK. THE CONTRACTOR SHALL PROVIDE ALL REQUIRED ELBOWS, DUCT ACCESSORIES, ETC. TO COMPLETE THE INTENT OF THE MECHANICAL DRAWINGS.

4. HVAC EQUIPMENT MUST NOT BE USED DURING CONSTRUCTION. DUCT OPENINGS SHALL BE COVERED TO KEEP OUT DUST AND DEBRIS. COMMISSIONING MUST NOT BE PERFORMED UNTIL ALL INTERIOR FINISHES ARE COMPLETE.

5. INSULATE ALL DUCTS IN ACCORDANCE WITH ASHRAE 90.1, LATEST EDITION.

6. MECHANICAL EQUIPMENT TO BE ISOLATED FROM DUCT WORK USING 6" FLEXIBLE DUCT CONNECTORS ON BOTH THE SUPPLY AND RETURN DUCTS.

7. ALL MITERED ELBOWS TO BE COMPLETE WITH DOUBLE THICKNESS AIR VANES. ALL RADIUSED ELBOWS TO BE COMPLETE WITH SPLITTER VANES PER SMACNA DUCT CONSTRUCTION STANDARDS.

8. PROVIDE VOLUME DAMPERS AT ALL DUCT BRANCHES AND TAKE–OFFS.

9. PROVIDE AN INDEPENDENT FIRM CERTIFIED BY NEBB TO CONDUCT TESTING, ADJUSTING AND BALANCING OF ALL MECHANICAL SYSTEMS AND COMPONENTS, INCLUDING ALL DUCTS AND HYDRONIC PIPING. SUBMIT WRITTEN REPORT IN TRIPLICATE TO MECHANICAL ENGINEER UPON COMPLETION.

10. MAXIMUM LENGTH OF FLEX DUCT PERMITTED IS 10' PER DIFFUSER. NO FLEX DUCT IS PERMITTED ON EXPOSED DUCT WORK.

11. PROVIDE FIRE DAMPERS IN DUCTS AT FLOOR, WALL, CEILING, AND ROOF PENETRATIONS WHERE FIRE SEPARATIONS ARE CROSSED, AND WHERE REQUIRED BY LOCAL AUTHORITIES AND CODES. FIRE DAMPERS SHALL MAINTAIN 100% FREE AREA OF DUCTWORK (TYPE 'B' FIRE DAMPERS). RATE FIRE DAMPERS TO MATCH THE FIRE RATING OF SEPARATION CROSSED. PROVIDE ONLY ULC LABELED DAMPERS AND INSTALL AS SPECIFIED IN NFPA/CUA 90A.

12. SUPPLY AND RETURN DUCTS SHALL BE CONNECTED TO THE HVAC UNIT THROUGH A FLEXIBLE NON METALLIC DUCT.

13. 10' OF ACOUSTIC SOUND INSULATION SHALL BE PROVIDED TO THE DUCTS AT THE BEGINNING NEAR THE HVAC UNIT.

14. SMOKE DETECTORS AT SUPPLY DUCTS SHALL BE PROVIDED TO AUTOMATICALLY SHUT DOWN UNITS UPON DETECTION OF SMOKE.

15. HYDRONIC PIPING TO BE INSULATED IN ACCORDANCE WITH ASHRAE 90.1 LATEST EDITION, SECTION 6.4.4.1.3

GENERAL GAS SPECIFICATIONS

1. INSTALL GAS PIPING IN ACCORDANCE WITH LATEST EDITION OF CAN/CSA B149.1–00, NATURAL GAS & PROPANE INSTALLATION CODE INCLUDING LATEST AMENDMENTS, AND LOCAL AUTHORITY HAVING JURISDICTION.

2. PROVIDE COMPLETE DISTRIBUTION SYSTEM AND CONNECT TO ALL GAS APPLIANCES. PROVIDE UNION SYSTEM & SHUT OFF VALVES AT ISOLATION POINTS, AS INDICATED, AND AT GAS APPLIANCES.

3. TEST PIPING BEFORE APPLIANCES ARE CONNECTED AS REQUIRED BY THE GAS AUTHORITY.

4. IDENTIFY PIPING AS PER CODES AND REGULATIONS.

5. VENTING FOR DIRECT VENT APPLIANCES SHALL CONFORM TO CSA 149.1 AND VLC S636 NATURAL GAS AND PROPANE INSTALLATION CODE.

GENERAL PLUMBING SPECIFICATIONS

1. ALL HOT AND COLD WATER PIPING AFTER THE MAIN BUILDING CWS ISOLATION VALVE SHALL BE HARD COPPER TYPE L PIPING WHICH SHALL CONFORM TO ASTM B42 AND ASTM B88.

2. ALL DOMESTIC WATER PIPING TO BE INSULATED c/w VAPOUR BARRIER. PIPE INSULATION TO CONFORM O.B.C. TABLE 12.3.4.5.

3. ALL DRAINAGE, WASTE, AND VENT PIPE TO BE PVC DWV WITH FLAME SPREAD RATING < 25. PIPES TO BE XFR WHERE PENETRATING FIRE RATED WALLS.

4. WATER HAMMER ARRESTORS TO BE STAINLESS STEEL BELLOWS TYPE; WATTS SS–A OR APPROVED EQUIVALENT.

5. ROUTE ABOVE GROUND PIPING IN CEILING SPACE OF WALL INTERIORS FOR CONCEALMENT WHERE EVER POSSIBLE UNLESS SPECIFICALLY NOTED OTHERWISE ON DRAWINGS. COORDINATE PIPE INSTALLATION IN WALLS WITH MASON AND OR DRYWALLER OR APPROPRIATE TRADE INVOLVED.

6. INSTALL ISOLATION VALVES IN EACH BRANCH LINE FROM COLD AND HOT WATER MAINS, AT BASE OF EACH RISER, AND BEFORE EACH FIXTURE OR EQUIPMENT CONNECTED TO COLD/HOT WATER SYSTEM. PROVIDE A FIRE RATED ACCESS DOOR AT EACH CONCEALED VALVE.

7. INSTALL FLANGES OR UNIONS TO PERMIT REMOVAL OF EQUIPMENT WITHOUT DISTURBING PIPING SYSTEMS.

8. PROVIDE COMPLETE DRAINAGE AND VENT SYSTEMS TO SERVE FIXTURES AND ITEMS SPECIFIED AND AS SHOWN ON PLANS.

9. WHERE EXPOSED PIPES PASSES THROUGH FINISHED FLOORS, WALLS, OR CEILINGS, PROVIDE CHROME PLATED ESCUTCHEON WITH SET SCREW.

10. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ALL NECESSARY MATERIALS & LABOUR TO MAINTAIN ALL FIRE SEPARATIONS AFFECTED BY THE WORK PERFORMED.

11. GRADE HORIZONTAL SANITARY DRAINAGE AND VENT PIPING AT MINIMUM 1:50.

12. ALL FAUCET AND TOILET SUPPLY LINES SHALL BE STAINLESS BRAIDED HOSE.

13. ALL FLOOR DRAINS TO BE TRAPPED, PRIMED, AND VENTED WITH STRAINER INSTALLED FLUSH WITH FINISHED FLOOR. SUPPLY AND INSTALL PRIMER AND TUBING FROM CLOSEST COLD WATER BRANCH, C/W SPECIALTY BLEED VALVE (P.P.P. OR EQUAL), UNLESS OTHERWISE SPECIFIED IN DRAWINGS.

14. EXPOSED P–TRAPS SHALL BE CHROME PLATED BRASS.

15. SIZE OF DRAINAGE PIPE SERVING FIXTURES:

DISHWASHER	1–1/2" (38mm)	LAVATORY	1–1/2" (38mm)
SINK	1–1/2" (38mm)	SHOWER	1–1/2" (38mm)
SERVICE SINK	1–1/2" (38mm)	URINAL	2" (51mm)
WC	3" (76mm)	FLOOR DRAIN	2" (51mm)

16. SIZE OF EITHER CWS & HWS ISOLATION VALVES SERVING FIXTURES:

DISHWASHER	1/2" (13mm)	LAVATORY	1/2" (13mm)
SINK	1/2" (13mm)	SHOWER	1/2" (13mm)
SERVICE SINK	1/2" (13mm)	URINAL	3/4" (19mm)
WC	1/2" (13mm)	WF	1/2" (13mm)

17. ALL PIPING FITTINGS WITH TERMINAL EQUIPMENT SHALL BE LEAD FREE.

18. THE CONTRACTOR IS RESPONSIBLE FOR THE INSULATION OF THE STORM PIPES INSIDE THE BUILDING.

19. ALL PIPING IS TO BE STRAIGHT, PARALLEL AND PERPENDICULAR TO THE BUILDING STRUCTURE. SLOPE ALL PIPING TO DRAIN POINTS.

20. WHEN PIPE LAYING NOT IN PROGRESS, CLOSE OFF OPEN ENDS OF PIPE WITH WATER TIGHT PLUG OR CAP.

21. INSTALL CLEANOUTS AS REQUIRED BY PLUMBING CODES. SIZE OF CLEANOUTS TO MATCH SIZE OF ASSOCIATED SANITARY PIPE. ENSURE CLEAN OUTS ARE MADE ACCESSIBLE.

22. CONNECT FIXTURES COMPLETE WITH SUPPLIES AND DRAINS, TRAPPED, SUPPORTED, SANITARY LEVEL AND SQUARE WITH HOT WATER FAUCETS ON THE LEFT.

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR PERMIT	2025.06.18	CSM

REVISIONS

Kirkland Engineering Ltd BCIN: 28857

REGISTERED PROFESSIONAL ENGINEER
C.S.MULLER
100572425
JUNE 25/18
PROVINCE OF ONTARIO
MECHANICAL

NOT TO BE USED FOR CONSTRUCTION UNLESS SIGNED BY THE ENGINEER.

570 Water Street
Peterborough, Ontario
K9H 3M8
p. (705) 745-2831
f. (705) 741-1526
www.kirklandeng.com
KIRKLAND ENGINEERING LTD.

PROJECT
KINMOUNT FIRE STATION

24 Majestic St.
Kinmount, ON

TITLE
SPEC

DESIGN	CSM	SCALE	AS NOTED
DRAWN	AJM	DWG NO.	M4
CHECKED	CSM		
APPROVED	CSM		
PROJECT	7529		

CADD FILE NO. 7529M4