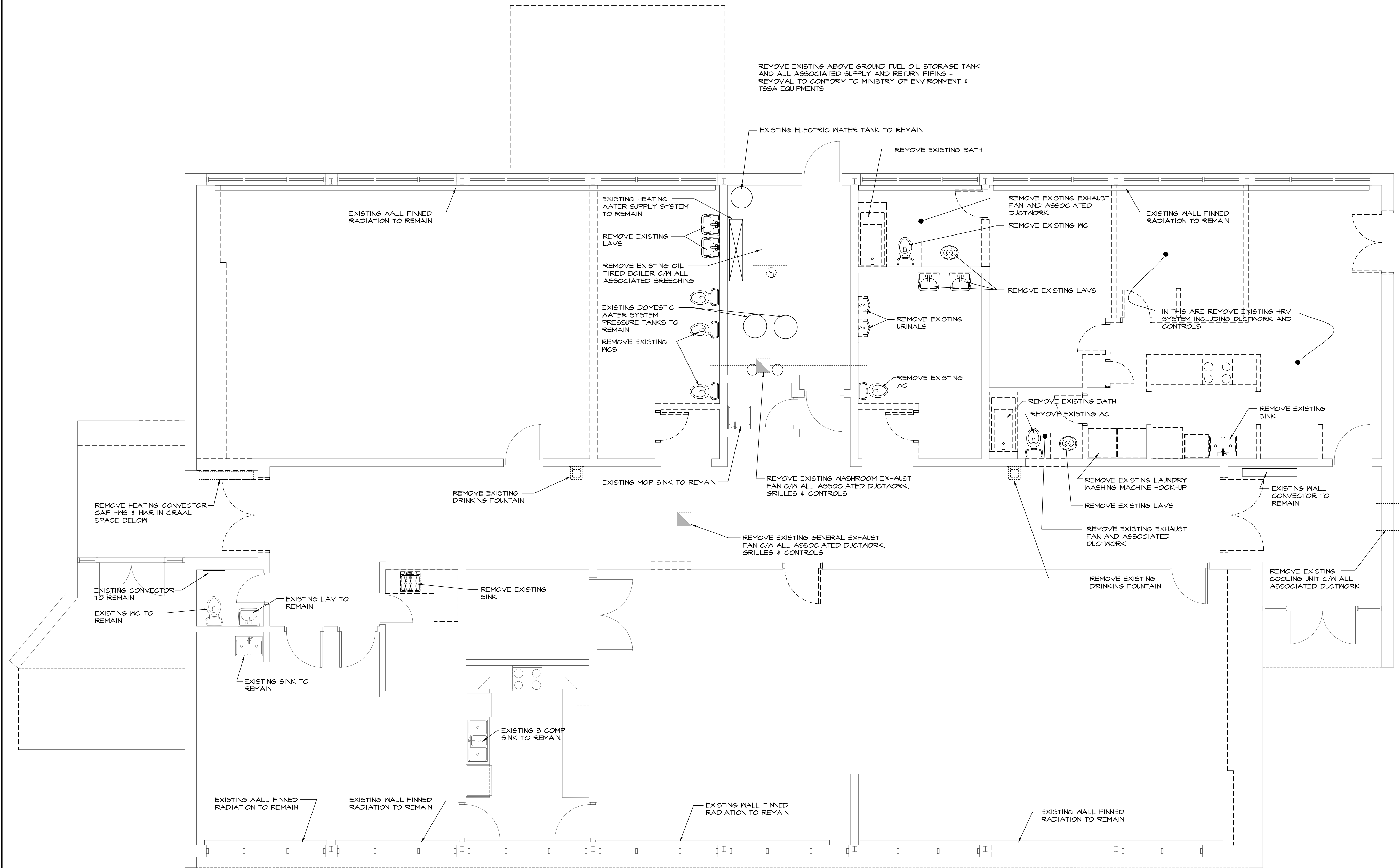


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Plot Date: Jan 14, 2025 1:22pm By: sstranaghan



FLOOR PLAN - DEMOLITION
SCALE: 1 : 50 (METRIC)

GENERAL NOTES

1. ALL DUCTWORK, PIPING & EQUIPMENT IS NEW UNLESS NOTED AS BEING EXISTING
2. VISIT AND EXAMINE SITE AND BECOME FAMILIAR WITH ALL EXISTING CONDITIONS AFFECTING WORK. NO ALLOWANCES WILL BE MADE BY THE OWNER FOR DIFFICULTIES ENCOUNTERED IN THE WORK ARISING OUT OF CONDITIONS EXISTING AT THE TIME OF TENDERING.
3. CONDITIONS SHOWN ON PLANS ARE RELATIVE TO THE WORK TO BE PERFORMED. DRAWINGS ARE BASED ON THE BEST INFORMATION AVAILABLE BUT ARE SUBJECT TO VERIFICATION. VERIFY EXACT LOCATION AND ELEVATION OF ALL SERVICES PRIOR TO COMMENCING ANY WORK. FAILURE TO TO PERFORM SUCH VERIFICATIONS WHICH CAUSE DEFICIENCIES SHALL BE CORRECTED AT NO EXPENSE TO OWNER
4. CO-ORDINATE INSTALLATION OF DUCTWORK, PIPING, EQUIPMENT ETC. WITH ARCHITECTURAL, STRUCTURAL, ELECTRICAL & FIRE PROTECTION TRADES PRIOR TO INSTALLATION

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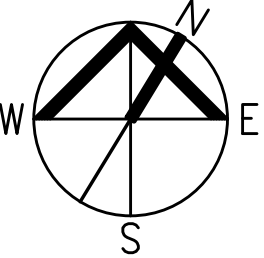
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	DWN.	S.STRANAGHAN
	CHK.	SMS
	DSN.	S.STRANAGHAN
	SCALE:	AS NOTED
PROJECT	COMPASS EARLY LEARNING CENTRE 1047 PORTAGE ROAD KIRKFIELD, ONTARIO	
TITLE	FLOOR PLAN - DEMOLITION	
FILE No.	681M01	DWG. No. M1

1. ALL DUCTWORK, PIPING & EQUIPMENT IS NEW UNLESS NOTED AS BEING EXISTING
2. VISIT AND EXAMINE SITE AND BECOME FAMILIAR WITH ALL EXISTING CONDITIONS AFFECTING WORK. NO ALLOWANCES WILL BE MADE BY THE OWNER FOR DIFFICULTIES ENCOUNTERED IN THE WORK ARISING OUT OF CONDITIONS EXISTING AT THE TIME OF TENDERING.
3. CONDITIONS SHOWN ON PLANS ARE RELATIVE TO THE WORK TO BE PERFORMED. DRAWINGS ARE BASED ON THE BEST INFORMATION AVAILABLE BUT ARE SUBJECT TO VERIFICATION. VERIFY EXISTING CONDITIONS AND ELIMINATE ALL SERVICES PRIOR TO COMMENCING ANY WORK. FAILURE TO PERFORM SUCH VERIFICATIONS WHICH CAUSE DELAYED PROGRESS WILL BE CORRECTED AT NO EXPENSE TO OWNER.
4. CO-ORDINATE INSTALLATION OF DUCTWORK, PIPING, EQUIPMENT ETC. WITH ARCHITECTURAL, MECHANICAL, ELECTRICAL & FIRE PROTECTION TRADE PRIOR TO INSTALLATION



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	DWN.	S.STRANAGHAN
	CHK.	SMS
	DSN.	S.STRANAGHAN
SCALE:		AS NOTED
		
<p>PROJECT</p> <p>COMPASS EARLY LEARNING CENTRE</p> <p>1047 PORTAGE ROAD KIRKFIELD, ONTARIO</p>		
<p>TITLE</p> <p>FLOOR PLAN - PLUMBING & DRAINAGE</p>		
FILE No.	DWN. No.	
681M02	M2	

APPROVED ALTERNATES: CRANE, MAAX, MOEN, MIROLIN, KHOLER

ALTERNATES : METALAIR, NAILOR

REQUIRED OPTIONS:

1	BUILT-IN DISCONNECT SWITCH	6	LOAD FUSES, HRC TYPE
2	SCR PROPORTIONAL CONTROLLER	7	PILOT LIGHTS
3	SCREENS BOTH SIDES	8	FULL BREAK CONTRACTORS
4	ELECTRONIC AIR FLOW SENSOR	9	ELECTRONIC ROOM THERMOSTAT RT
5	SOLID STATE RELAY (TRIAC)	10	MODULATING DUCT THERMOSTAT - 0 DEG F TO 100 DEG F
		11	24 VOLT CONTROL CIRCUIT - FOR CONNECTION TO BY-PASS BOX CONTROLS

ALTERNATES : PENN, COOK

GENERAL NOTES

1. ALL DUCTWORK, PIPING & EQUIPMENT IS NEW UNLESS NOTED AS BEING EXISTING
2. VISIT AND EXAMINE SITE AND BECOME FAMILIAR WITH ALL EXISTING CONDITIONS AFFECTING WORK. NO ALLOWANCES WILL BE MADE BY THE OWNER FOR DEFICIENCIES OR OMISSIONS IN THE WORK ARISING OUT OF CONDITIONS EXISTING AT THE TIME OF TENDERING.
3. CONDITIONS SHOWN ON PLANS ARE RELATIVE TO THE WORK TO BE PERFORMED. DRAWINGS ARE BASED ON THE BEST INFORMATION AVAILABLE BUT ARE SUBJECT TO VERIFICATION. VERIFY ALL INFORMATION AND OBTAIN PERMISSION OF ALL SERVICES PRIOR TO COMMENCING ANY WORK. FAILURE TO PERFORM SUCH VERIFICATIONS WHICH CAUSE DEFICIENCIES SHALL BE CORRECTED AT NO EXPENSE TO OWNER
4. CO-ORDINATE INSTALLATION OF DUCTWORK, PIPING, EQUIPMENT ETC. WITH ARCHITECTURAL, STRUCTURAL, MECHANICAL & PROTECTION TRADES PRIOR TO INSTALLATION

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PROJECT COMPASS EARLY
LEARNING CENTRE

1047 PORTAGE ROAD
KIRKFIELD, ONTARIO

GENERAL NOTES

1. ALL DUCTWORK, PIPING & EQUIPMENT IS NEW UNLESS NOTED AS BEING EXISTING
2. VISIT AND EXAMINE SITE AND BECOME FAMILIAR WITH ALL EXISTING CONDITIONS AFFECTING WORK. NO ALLOWANCES WILL BE MADE BY THE OWNER FOR DIFFICULTIES ENCOUNTERED IN THE WORK ARISING OUT OF CONDITIONS EXISTING AT THE TIME OF TENDERING.
3. CONDITIONS SHOWN ON PLANS ARE RELATIVE TO THE WORK TO BE PERFORMED. DRAWINGS ARE BASED ON THE BEST INFORMATION AVAILABLE BUT ARE SUBJECT TO VERIFICATION. VERIFY EXACT LOCATION AND EXTENSION OF ANY SERVICES PRIOR TO COMMENCING ANY WORK. FAILURE TO TO PERFORM SUCH VERIFICATIONS WHICH CAUSE DEFICIENCIES SHALL BE CORRECTED AT NO EXPENSE TO OWNER
4. CO-ORDINATE INSTALLATION OF DUCTWORK, PIPING, EQUIPMENT ETC. WITH ARCHITECTURAL, STRUCTURAL, ELECTRICAL & FIRE PROTECTION TRADES PRIOR TO INSTALLATION

1. PROVIDE ALL EQUIPMENT, MATERIALS, LABOUR AND SERVICES, ETC. NECESSARY TO COMPLETE THE WORK. ALL MATERIALS AND EQUIPMENT USED ARE TO BE NEW AND ARE TO HAVE C.G.A. APPROVAL. MATERIALS AND EQUIPMENT ARE SPECIFIED BY NAME TO ESTABLISH A STANDARD OF QUALITY AND WORKMANSHIP. USE ONLY SPECIFIED EQUIPMENT OR ALTERNATES NOTED.
2. VISIT AND EXAMINE THE SITE AND BECOME FAMILIAR WITH ALL EXISTING CONDITIONS AFFECTING THE WORK. PRIOR TO SUBMITTING TENDER. NO ALLOWANCES IN COST WILL BE MADE BY THE OWNER FOR ANY DIFFICULTIES ENCOUNTERED IN THE WORK ARISING OUT OF CONDITIONS EXISTING AT THE TIME OF TENDERING.
3. OBEY ALL APPLICABLE CODES AND REGULATIONS OF ALL GOVERNING AUTHORITIES HAVING JURISDICTION OVER THE WORK.
4. WHERE THE SUPPLY OF AN ITEM IS SPECIFIED GENERALLY ONLY WITHOUT EXTENSIVE DETAIL, THIS IMPLIES THE ITEM AND/OR WORK SHALL CONFORM WITH THE REQUIREMENTS OF THE GOVERNING AUTHORITY AND/OR MANUFACTURER'S RECOMMENDATIONS.
5. CONFORM TO THE BEST PRACTICES APPLICABLE TO THIS TYPE OF WORK. INSTALL ALL EQUIPMENT AND SYSTEMS THE WORK SHALL BE MADE WITHOUT CURE TO THE OWNER, ALSO RECOMMENDATION BUT CONSISTENT WITH THE GENERAL REQUIREMENTS OF THIS SPECIFICATION.
6. ARRANGE AND PAY FOR ALL PERMITS, INSPECTION FEES, CERTIFICATES, ETC. CONNECTED WITH THE WORK.
7. OBTAIN FROM THE CONSULTANT TWO EXTRA SETS OF WHITE PRINTS ON WHICH TO NOTE AND CLEARLY MARK ANY APPROVAL DEVIATIONS FROM THE WORK SHOWN ON THE PLANS AS THE JOB PROGRESSES. THESE SETS OF PRINTS SHALL BE KEPT UP TO DATA AND RETURNED TO THE OWNER FOR RECORD PURPOSES AT THE COMPLETION OF THE JOB.
8. PERFORM ALL TESTS REQUIRED BY THE AUTHORITIES HAVING JURISDICTION, SUPPLYING THEREFORE ALL NECESSARY EQUIPMENT AND LABOUR.
9. GUARANTEE ALL WORK FOR A PERIOD OF ONE YEAR. IT SHALL BE UNDERSTOOD THAT IF ANY DEFECTS BECOME EVIDENT WITHIN THE GUARANTEE PERIOD, ALL NECESSARY REPAIRS AND REWORKS TO THE WORK SHALL BE MADE WITHOUT CURE TO THE OWNER, ALSO PAY FOR MAKING GOOD ANY OTHER WORK DAMAGED THROUGH DEFECTS IN THE WORK OF THIS CONTRACT DURING BOTH CONSTRUCTION AND GUARANTEE PERIODS.
10. PROVIDE HANGERS FOR ALL PIPES AND DUCTS AND AVOID ANY DIRECT CONTACT OF DISSIMILAR METALS. SPACE HANGERS TO PREVENT SAGGING OR LOADING JOINTS.
11. HANGERS SHALL NOT BE SUSPENDED FROM STRUCTURAL BEARINGS SUCH AS STEEL BEAMS OR TOP CHORD OF JOISTS. WHERE SUCH BEARINGS DO NOT EXIST, USE NECESSARY BRIDGING STEEL.
12. PROVIDE SUPPORTS FOR EQUIPMENT INSTALLED IN THIS CONTRACT, INCLUDING HANGER RODS AND SPRING VIBRATION ISOLATORS.
13. PROVIDE MOTORS AND DRIVES FOR ALL POWERED EQUIPMENT OF CANADIAN MAKE AND LOCALLY SERVICEABLE MANUFACTURE.
14. SUBMIT 1 ELECTRONIC (PDF) COPY OF SHOP DRAWINGS OF EACH PIECE OF MANUFACTURED EQUIPMENT TO CONSULTANT FOR REVIEW.
15. RUN IN ADJUST AND BALANCE THE SYSTEMS FOR PROPER OPERATION.
16. ALL EQUIPMENT, PIPING, DUCTWORK, ETC. IS NEW UNLESS NOTED AS BEING EXISTING.
17. VERIFY EXACT LOCATION AND ELEVATION OF ALL EXISTING SERVICES PRIOR TO COMMENCING ANY WORK.
18. MAINTAIN ALL NECESSARY INSURANCE TO PROTECT THE OWNER AND ALL TRADES FROM ALL POSSIBLE CLAIMS DURING THE CONSTRUCTION PERIOD.
19. DO ALL NECESSARY REQUIRED CUTTING AND PATCHING AS MAY BE REQUIRED TO PERFORM THE WORKS OF THIS CONTRACT. CUTTINGS SHALL BE KEPT TO A MINIMUM, AND SHALL BE PERFORMED WITH CLEAN CUT STRAIGHT EDGES. PATCHING SHALL BE NEAT AND CLEAN AND RESTORE TO ORIGINAL FINISH CONDITIONS USING SIMILAR TYPES TO MATERIALS. USE ONLY TRADES PERSONNEL SKILLED IN THE VARIOUS TYPES OF WORK REQUIRED (i.e. MASONS, ROOFERS, ETC.).
20. UPON COMPLETION, REMOVE ALL WASTES, MATERIAL, ETC. AND LEAVE SITE IN CLEAN CONDITION.
21. AT PROJECT COMPLETION AND PRIOR TO FINAL INSPECTION DELIVER TO THE CONSULTANT THREE (3) COMPLETE SETS OF OPERATION AND MAINTENANCE DATA FOR ALL EQUIPMENT SUPPLIED. SUBMIT THREE (3) VINYL HARD COVERED LOOSE LEAF BINDERS. INFORMATION REQUIRED IN THESE MANUALS IS DATA PERTAINING TO EFFICIENT OPERATING AND MAINTENANCE OF THE VARIOUS TYPES OF EQUIPMENT INCLUDING INSTALLATION INSTRUCTIONS SUPPLIED BY MANUFACTURER. INCLUDE FINAL REVIEWED SHOP DRAWINGS THAT HAVE BEEN SUBMITTED. COMPLETED SUBMISSION MUST BE INDEXED AND DIVIDED BETWEEN INDIVIDUAL COMPONENTS.
22. PROVIDE & PAY FOR SERVICES OF FULLY EXPERIENCED TECHNICIAN TO INSTRUCT PERSONNEL DESIGNATED BY THE OWNER IN THE PROPER OPERATION AND MAINTENANCE OF EQUIPMENT INSTALLED UNDER THIS CONTRACT INCLUDING CONTROLS, THERMOSTATS ETC.

1. FRESH AND CLEAN FLUID-CARRYING SYSTEMS AFTER COMPLETION WITH CLEAR WATER AT HIGHEST OBTAINABLE PRESSURE AND VELOCITY. DISCHARGE FLUSHING WATER THROUGH STRAINERS AND OUT THROUGH SYSTEM DRAINING WITH HOSE END CLEAN STRAINERS. REPEAT FLUSHING OPERATION TO SATISFACTION OF CONSULTANT UNTIL NO FOREIGN MATERIAL COLLECTS IN STRAINERS, DRAIN AND CLEAN TANKS AND INSPECT TUBING AND PASSENGERAYS IN MAJOR EQUIPMENT AND CLEAN AS NECESSARY.
2. ENSURE THAT VALVES INCLUDING CONTROL VALVES ARE FULLY OPEN DURING FLUSHING.
3. PRIOR TO STARTING FANS AND AIR HANDLING EQUIPMENT INSPECT AND CLEAN THE OUTSIDE AND INSIDE OF THE AIR HANDLING SYSTEMS INCLUDING FANS, DUCTS, COILS, AND TERMINAL UNITS TO ENSURE THAT THEY ARE COMPLETELY FREE FROM DUST AND DEBRIS. INSTALL CLEAN FILTERS IN SYSTEMS REQUIRING FILTERS.
4. CLEAN POLISHED, PAINTED AND PLATED WORK. CLEAN ALL FIXTURES, REMOVE DEBRIS, SURPLUS MATERIAL AND ALL TOOLS FROM SITE.
5. CARRY OUT ADDITIONAL CLEANING OPERATIONS AND CHEMICAL TREATMENT ON SYSTEMS SPECIFIED IN OTHER SECTIONS OF THIS DIVISION. REFER ALSO TO GENERAL REQUIREMENTS FOR GENERAL CLEANUP OF SITE.

ACCESS PANELS AND DOORS

1. INSTALL CONCEALED MECHANICAL EQUIPMENT REQUIRING ADJUSTMENT OR MAINTENANCE AT LOCATIONS EASILY ACCESSIBLE THROUGH ACCESS PANELS OR DOORS. INSTALL SYSTEMS AND COMPONENTS TO RESULT IN A MINIMUM NUMBER OF ACCESS PANELS. INDICATE ACCESS PANELS AND DOORS ON 'AS BUILT' DRAWINGS.
2. PROVIDE OTHER RESPECTIVE DIVISIONS WITH PANELS, DOORS OR FLANGES TOGETHER WITH PERTINENT INSTALLATION INFORMATION. ENSURE ACCESS PANELS AND DOORS ARE INSTALLED IN A MANNER TO MATCH BUILDING MATERIAL AND GRIDS WHERE APPLICABLE.
3. IN WALLS, CEILING, ETC. USE ACCESS DOORS CONSTRUCTED OF 12 GAUGE STEEL WITH FRAME STYLE COMPATIBLE WITH BUILDING SURFACE IN WHICH IT IS MOUNTED, EQUIPPED WITH CONTINUOUS PIANO HINGES AND SCREWDRIIVER OPERATED LATCHES. USE ULC LISTED DOORS IN FIRE RATED WALLS AND CEILING. USE ACCESS DOORS MANUFACTURED BY AGCOP, MIFAB OR LEHAGE. PROVIDE ACCESS DOORS AS FOLLOWS UNLESS OTHERWISE NOTED:
 - FOR ACCESS TO VALVES, BALANCING DAMPERS AND ITEMS REQUIRING ONLY HAND ACCESS USE 225mm X 225mm (9"x9").
 - FOR ACCESS TO EQUIPMENT REQUIRING PERSONNEL ENTRY USE 600mm X 600mm (24"x24").
4. INSTALL AT EACH FIRE DAMPER AN ACCESS DOOR IN DUCT TO ALLOW FOR INSPECTION AND REPAIR. REPAIR OF DUCT IS INCLUDED IN AN ARCHITECTURAL FINISH, ALSO PROVIDE AN ACCESS DOOR IN FINISH AS DESCRIBED ABOVE FOR DAMPER ACCESS.

1. SANITARY DRAINAGE AND VENT PIPING ABOVE FLOOR SHALL BE PVC DWV CERTIFIED TO CSA618.2, OR TYPE DWV HARD DRAWN COPPER TUBE WITH CAST BRASS SOLDER FITTINGS (USE 1/8" SOLDER) (SEE 2-121). OVERCAST IRON, NO NON APPROVED PVC TO BE LOCATED IN RETURN AIR CEILING SPACE.
2. SANITARY DRAINAGE AND VENT PIPING IN PLENUM SPACE SHALL BE CERTIFIED TO CSA B181.2 AND TESTED AND LISTED IN ACCORDANCE WITH CANULC S102.2 AND CLEARLY MARKED WITH CERTIFICATION LOGO INDICATING FLAME SPREAD RATINGS NOT MORE THAN 25 AND SMOKE DEVELOPMENT CLASSIFICATION NOT EXCEEDING 50. PIPING EQUAL TO IFEX SYSTEM XFR 15-50 DWV.
3. SANITARY DRAINAGE AND VENT PIPING BELOW FLOOR SHALL BE ABS-DWV PIPING WITH SOLVENT WELD JOINTS FOR SIZES UP TO 1/2" (3"). FOR SIZES 4" AND LARGER USE PVC PIPING WITH RING TYPE COUPLINGS TO CSA618.1 (DR35 OR 28).
4. HOT AND COLD WATER PIPING SHALL BE TYPE 'L' HARD DRAWN COPPER TUBE WITH WROUGHT COPPER SOLDER FITTINGS (USE 1/8" SOLDER).
5. DOMESTIC WATER PIPING BELOW FLOOR SHALL BE TYPE 'K' SOFT DRAWN COPPER TUBE WITH BRONZE FLARE FITTINGS FOR SIZES UP TO 50mm (2").

COVER COLD WATER PIPING AND ABOVE HORIZONTAL STORM PIPING WITH 25mm (1") THICK JOHNS MANVILLE MICROGLASS GLASS FIBRE DUAL TEMPERATURE INSULATION WITH FACTORY APPLIED FIRE RESISTANT GLASS FIBRE REINFORCED KRAFT PAPER AND ALUMINUM FOIL VAPOUR BARRIER, AND ALL SERVICE JACKET. USE PRESSURE SENSITIVE LAP SEALING SYSTEM. INSTALL INSULATION AS PER MANUFACTURERS RECOMMENDATIONS

INSULATION THICKNESS ON HOT WATER PIPE SIZES					
TEMPERATURE RANGE DEG F	NOMINAL PIPE SIZE				
	3/4"	1" TO 1 1/4"	1 1/2" TO 3"	1 1/2" TO 3"	4" TO 6"
105° TO 140°	1.0"	1.0"	1.5"	1.5"	1.5"

2. ALL EXPOSED INSULATIONS SHALL BE COVERED WITH WHITE PVC INSULATED FITTING COVERS AND JACKETING SYSTEM EQUAL TO JOHNS MANVILLE ZESTON 2000. INSTALL AS PER MANUFACTURERS RECOMMENDATIONS

1. BALL VALVES SHALL BE, FULL PORT, PTFE SEATS, O-RING STEM SEAL, SELF CLEANING CHROME PLATED BRASS BALL, VINYL GRIP ON CADMIUM PLATED STEEL HANDLE, SOLDER ENDS WITH PRESSURE RATING OF 600 PSI
EQUALS : WATTS, TOYO

1. NON-FREEZE HOE BIBB SHALL BE AUTOMATIC DRAINING MAIL HYDRANT, FLUSH INSTALLATION. NON-FREEZE INTEGRAL BACKFLOW PREVENTER, COPPER CASING, ALL BRONZE INTERIOR PARTS. CERAMIC DISC CARTRIDGE, NICKEL BRONZE BOX, HINGED COVER WITH OPERATING KEY LOCK. ALTERNATES: WATTS, J.R.SMITH, ZURN

PIPELINE SPECIALTIES

1. TRAP PRIMERS SHALL BE WITH BRONZE BODY, 16mm (5/8") SHEAT CONNECTIONS FOR WATER SUPPLY LINE AND 16mm (5/8") FEMALE DISPS OUTLET CONNECTION TO DRAIN. CONNECT TO NEAREST FLOWING FIXTURE WATER SUPPLY. ALTERNATES: WATTS, J.R.SMITH, ZURN

2. ELECTRONIC TRAP PRIMING MANIFOLD SHALL BE EQUAL TO PPP INC MODEL PT SERIES (SIZE AS NUMBER OF TRAPS) 120 VOLT - INSTALL AS PER MANUFACTURES RECOMMENDATIONS

3. PIPELINE SHOCK ABSORBERS SHALL BE WITH 18- STAINLESS STEEL CONSTRUCTION, AIR CHARGED BELLONS AND THREADED MALE OUTLETS. ALTERNATES: WATTS, J.R.SMITH, ZURN

- 1 UNFINISHED AND FINISHED AREA CLEANOUTS SHALL BE WITH BOLTED CLEANOUT PLUG, NICKEL BRONZE FRAME, ROUND FULL OPENING NICKEL BRONZE ACCESS COVER, EXTENDED FERRULE, NEOPRENE GASKETS AND VANDAL PROOF SCREWS. EQUALS; MATTS, JR.SMITH, ZURN.
- 2 CONCEALED STACK CLEANOUTS SHALL BE ZURN Z55-1445-1 CAST IRON CLEANOUT TEE AT BASE OF CONCEALED STACKS, AND ROUND STAINLESS STEEL ACCESS COVER. EQUALS; MATTS, JR.SMITH, ZURN.

1. FLOOR DRAINS IN CONC FLOOR TYPE "A" SHALL BE WITH CAST IRON BODY, TRAP PRIMER, 13mm (1/2") THICK 125mm (5") DIAMETER NICKEL BRONZE, STRAINER AND GRATE. EQUALS: WATTS, J.R. SMITH, ZURN.

3. PROVIDE A COMPLETE DOMESTIC HOT AND COLD WATER DRAINAGE AND VENT TO SERVE FIXTURES AND ITEMS SPECIFIED AND SHOWN ON PLANS. INSTALL AS PER OBC PART 7 AND AUTHORITY HAVING JURISDICTION.
2. ROUTE ABOVE GROUND PIPING IN CEILING SPACE OR WALL INTERIORS FOR CONCEALMENT WHERE POSSIBLE UNLESS SPECIFICALLY NOTED OTHERWISE ON DRAWINGS. CO-ORDINATE PIPE INSTALLATION IN WALLS WITH MASON AND OR DRYWALLER OR APPROPRIATE TRADE INVOLVED
4. INSTALL ISOLATION VALVES IN EACH BRANCH LINES FROM MAINS AND AT BASE OF EACH RISER. PROVIDE A FIRE RATED ACCESS DOOR AT EACH CONCEALED VALVE.
5. INSTALL PIPING STRAIGHT PARALLEL, AND CLOSE TO WALLS AND CEILINGS, WITH APPROPRIATE PITCH. USE STANDARD FITTINGS FOR DIRECTION CHANGES.
6. INSTALL FLANGES OR UNIONS TO PERMIT REMOVAL OF EQUIPMENT WITHOUT DISTURBING PIPING SYSTEMS.
7. PROVIDE COMPLETE DRAINAGE AND VENT SYSTEMS TO SERVE FIXTURES AND ITEMS SPECIFIED AND AS SHOWN ON PLANS.
8. INSTALL PIPING PASSING THROUGH FIRE SEPARATIONS WITH NON-COMBUSTIBLE MATERIAL ONE SIDE OF SEPARATION OR PROVIDE APPROVED FIRE STOPPING DEVICE
9. WHERE EXPOSED PIPES PASSES THROUGH FINISHED FLOORS, WALLS OR CEILINGS, PROVIDE CHROME PLATED ESCUTCHEON WITH SET SCREWS
10. GRADE HORIZONTAL DRAINAGE AND VENT PIPING LARGER THAN 75mm (3") AT 1.0% OR AS NOTED ON DRAWINGS AND SLOPE 15mm (3/8") AND SMALLER AT 2.0 % MIN
11. WHEN PIPE LAYING NOT IN PROGRESS, CLOSE OFF OPEN ENDS OF PIPE WITH WATER TIGHT FLUSH OR CAPS.
12. INSTALL CLEANOUTS AS PER THE PLUMBING CODE AND/OR AS SHOWN ON DRAWINGS. ENSURE CLEAN OUTS ARE EASILY ACCESSIBLE, WHERE PIPING RUNS CONCEALED IN WALL. INSTALL EXTENDED PIPE CLEANOUTS WHERE NECESSARY SO THAT COVER IS LOCATED ON EXPOSED WALL SURFACE.
13. INSTALL FLOOR DRAINS SO THAT STRAINER IS FLUSH WITH FINISHED FLOOR AND WITH TRAP PRIMER PIPED TO NEAREST PLUMBING FIXTURE WATER SUPPLY.

1. CONNECT FIXTURES COMPLETE WITH SUPPLIES AND DRAINS, TRAPPED, SUPPORTED, SANITARY LEVEL AND SQUARE WITH HOT WATER FAUCETS ON THE LEFT.
2. PROVIDE CHROME PLATED FLEXIBLE SUPPLIES TO FIXTURES WITH SCREWDRIVER STOPS, REDUCERS AND ESCUTCHEONS.
3. PROVIDE CHROME PLATED TRAPS & PIPING EXPOSED TO VIEW UNDER LAVATORIES

1. INSTALL PROPANE PIPING IN ACCORDANCE WITH LATEST EDITION OF CAN/CSA B148.1-00 NATURAL GAS & PROPANE INSTALLATION CODE INCLUDING LATEST AMENDMENTS AND LOCAL AUTHORITY HAVING JURISDICTION.
2. PROVIDE COMPLETE DISTRIBUTION SYSTEM AS SHOWN ON DRAWINGS 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 CODE.

UNLESS NOTED OTHERWISE CONSTRUCT LOW PRESSURE RECTANGULAR DUCTWORK OF LOCK FORMING PRIME QUALITY GALVANIZED SHEET STEEL WITH ZINC COATING ASTM 525M-80 GUARANTEED TO BEND 180° AND FLATTEN WITHOUT FRACTURE OF GALVANIZATION OR METAL. ENSURE DUCT MATERIAL IS FREE FROM BLISTERS, PITS AND IMPERFECTLY COATED SPOTS, AND IS IN ACCORDANCE WITH ASHRAE AND SMACNA STANDARDS FOR DUCT DESIGN AND METAL GAUGES.

LOW PRESSURE

MAX. DUCT DIMENSION	U.S. GAUGE
UP TO 600mm (24")	26
325mm (13") TO 750mm (30")	24
755mm (30") TO 1950mm (84")	22

CONSTRUCT ROUND GALVANIZED DUCTWORK USING SAME MATERIAL AS RECTANGULAR DUCTWORK EXCEPT DUCT TO BE ROUND HELICALLY TO VARIOUS DIAMETERS REQUIRED, WITH FOUR PLY LOCKSEAM TIGHTLY CLOSED TO PROVIDE A SMOOTH INTERIOR, PROVIDE FITTINGS FOR ROUND DUCTWORK: DIE STAMPED, SEAM WELDED, CALIBRATED AND HOT DIPPED GALVANIZED TYPE, NO JOB MADE FITTINGS WILL BE PERMITTED. CONSTRUCT ROUND DUCTS IN ACCORDANCE WITH FOLLOWING:

200mm (4") TO 400mm (8") DIAMETER - 26 GAUGE
225mm (9") TO 600mm (24") DIAMETER - 24 GAUGE

CONSTRUCT MANUAL BALANCING DAMPERS OF 18 GAUGE GALVANIZED STEEL WITH 4" WIDE OPPOSED BLADES WITH 3/8" DIAMETER TIE BARS AND DURO DTYNE UNXLD QUADRANT SET WITH HEAVY GAUGE INDICATING QUADRANT, LEVER ARM AND KINS TYPE LOCKING NUT.

INSTRUMENT TEST PORTS SHALL BE DURO DTYNE MODEL IP-4 18mm (3/4") DIAMETER WITH NEOPRENE GASKETS, SCREW IN CAP AND MOUNTED WITH 2 SCREWS.

ACOUSTIC INSULATION FOR DUCTWORK SHALL BE JOHNS MANVILLE PERMACOTE LINACUSTIC, 245mm (1") THICK. INTERNAL ACOUSTIC INSULATION RIGID COATED DUCT LINER. INSTALL AS RECOMMENDED BY MANUFACTURER.

FIRE DAMPERS IN THE HORIZONTAL & VERTICAL DUCTS SHALL BE EQUAL TO RUSKIN DIBLOC TYPE 1000 (HYDRAKIN SYSTEMS). FIRE DAMPER SHALL BE CONSTRUCTED AND TESTED IN ACCORDANCE WITH UL SAFETY STANDARD 955. DAMPER SHALL HAVE 1 1/2 HOUR FIRE RATINGS, 212 ° F FUSIBLE LINK AND INCLUDE UL LABELS.

FLEXIBLE THERMAL INSULATION FOR DUCTWORK SHALL BE EQUAL TO JOHNS MANVILLE MICROLITE FIBRE GLASS DUCT WRAP WITH FOL, SCIRM, KRAFT FACING.

-APPLY 38 mm (1 1/2") THICKNESS TO:

- ALL MECHANICAL DUCTS UNCONDITIONED SPACES (UNLESS ACOUSTICALLY LINED)
- INTAKE DUCT FROM DH-1 TO HRV-1 & SUPPLY FROM HRV-1 TO DH-2
- ALL EXHAUST DUCT FROM ROOF/WALL TO 10'-0" OR TILL FAN)

-APPLY 50 mm (2") THICKNESS TO:

- ALL SUPPLY DUCTS FROM LOUVRE TO DH-1

-APPLY 75 mm (3") THICKNESS TO:

- ALL INTAKE & EXHAUST PLENUMS

1. INSULATED DAMPER SHALL BE EQUAL TO TAMCO SERIES 9000 THERMALLY BROKEN, ALUMINUM FRAME, 4 " DEEP, INSULATED WITH POLYSTYREN. BLADES TO BE EXTRUDED ALUMINUM, INTERNALLY INSULATED WITH EXPANDED POLYURETHANE FOAM & THERMALLY BROKEN

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