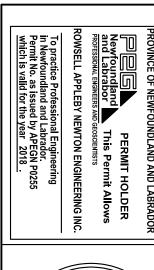
ALL FIRE ASSEMBLIES MUST BE MAINTAINED. CONTRACTOR TO REVIEW ARCHITECTURAL DRAWINGS FOR FIRE RATING LOCATIONS. SUPPLY AND INSTALL A TWO HOUR RATED FIRE DAMPER IN EACH RATING ONE HOUR OR GREATER. THE CONTRACTOR SHALL REVIEW AND CONFORM TO MANUFACTURERS INSTALLATION INSTALLATION AND START-UP PROCEDURES FOR EQUIPMENT INSTALLATION AND START-UP SUPPLY AND INSTALL ALL MANUFACTURER'S RECOMMENDED ACCESSORIES FOR EQUIPMENT INSTALLATION FORMS A COMPLETE OPERATIONAL SYSTEM INCLUDING ALL MANUFACTURER RECOMMENDED OPTIONS. SUBMIT SHOP DRAWNINGS IN POF FORMAT OF ALL EQUIPMENT, VALVES, PIPING, INSULATION, ETC FOR APPROVAL. EQUIPMENT IS NOT TO BE PURCHASED PRIOR TO SHOP DRAWNING APPROVAL. EQUIPMENT IS NOT TO BE PURCHASED PRIOR TO SHOP DRAWNING APPROVAL. EQUIPMENT IS NOT TO BE PURCHASED FROM A PERIOD OF ONE (1) YEAR AFTER DATE OF ACCEPTANCE BY OWNER. ALL WORK SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR AFTER DATE OF ACCEPTANCE BY OWNER. PROVIDE TWO (2) COPIES OF PAPER COPY AS-BUILL PROVIDE PIPING, DUCTING, FITTINGS, VALVES, ETC FOR MODIFICATIONS REQUIRED TO COMPLETE SYSTEM OR TO PREVENT INTERFERENCES WITH OTHER ENTITIES. THE AS-BUILT DRAWINGS IN DWG OR RAT THE FORMAT. PROVIDE PIPING, DUCTING, FITTINGS, VALVES, ETC FOR MODIFICATIONS REQUIRED TO COMPLETE SYSTEM OR TO PREVENT INTERFERENCES WITH OTHER ENTITIES. THE WORK OF THIS CONTRACTOR SHALL BE SCHEDULED, COORDINATED, AND INTERFACED WITH THE ASSOCIATED WORK OF THE REQUIRED TO COMPLETE SYSTEM OR TO PREVENT INTERFERENCES WITH OTHER ENTITIES. THE WORK OF THIS CONTRACTOR SHALL BE SCHEDULED, COORDINATED, AND INTERFACED WITH THE ASSOCIATED WORK OF THE REQUIRED TO COMPLETE SYSTEM OR TO PREVENT SECURED WORK. SEE SPECIFICATIONS FOR ADMINISHED AND INTERFACED WITH THE ASSOCIATED WORK OF THIS CONTRACTOR SHALL BE SCHEDULED, COORDINATES, ETC FOR EACH SERVICE ARE INDICATED IN SPECIFICATION AND INTERFACED WORK. SEE SPECIFICATIONS FOR ADMINISHED AND INFORMATION SHOWN ON DRAWINGS IS FOR LOCATION DRAWINGS IS FOR ADMINISH SINGLES. TO START-UP AND ADMINISH SINGLES TO SHOW ON DRAWINGS I THIS DRAWING IS AN INTEGRAL PART OF THE CONTRACT AND SHALL BE READ IN CONJUNCTION WITH ALL OTHER CONTRACT DOCUMENTS, CODES, MANUFACTURERS RECOMMENDATIONS, STANDARDS AND APPLICABLE CONSTRUCTION STANDARDS AND APPLICABLE CONSTRUCTION STANDARDS RECOMMENDATIONS, STANDARDS AND APPLICABLE CONSTRUCTION STANDARDS RECOMMENDATIONS, STANDARDS RECOMMENDATIONS, STANDARDS RECOMMENDATION STANDARDS RECOMMENDATION STANDARDS RECOMMENDATION STANDARDS RECONSTRUCTION STANDARDS RECOMPLETE OPERATIONAL SYSTEMS AS DETAILED IN ACCORDANCE WITH THE LATEST EDITIONS OF THE NATIONAL BUILDING CODE, NATIONAL PLUMBING CODE, ASHRAE, SMACNA, ASME, CSA B33.1, NFPA, NFC, THE AUTHORITY HAVING JURISDICTION AND TO THE REQUIREMENTS OF CITY OF CORNER BROOK. THIS CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTING BID TO DETERMINE EXISTING CONDITIONS. IT IS THE INTENT OF THESE DRAWINGS TO PROVIDE FOR A COMPLETE OPERATIONAL SYSTEM IN ACCORDANCE WITH ALL APPLICABLE CODES. THE DRAWINGS MAY NOT COVER EACH AND EVERY ITEM RECHANICAL INSTALLATION. THE MECHANICAL CONTRACTOR SHALL SUPPLY ALL LABOUR, MATERIALS, TOOLS, EQUIPMENT AND TRANSPORTATION NECESSARY FOR THE COMPLETE INSTALLATIONS OF THE OPERATIONAL MECHANICAL SYSTEM WHICH DEMONSTRATES THE SPECIFICATIONAL SYSTEM WHICH DEMONSTRATES THE SPECIFICATIONAL SYSTEM WHICH DEMONSTRATES THE DESIGN INTENT. IF THE DESIGN INTENT IS NOT CLEAR DURING THE BID PROCESS THE CONTRACTOR SHALL REQUEST CLARRIFICATION, SUBMITTING A BID CONFIRMS THE DESIGN INTENT IS CLEAR, CONCISE AND UNDERSTOOD. THE CONTRACTOR SHALL REQUEST TO ENSURE THAT THE DELIVERY TIME OF ALL MECHANICAL EQUIPMENT DOES NOT CAUSE A DELAY IN THE SCHEDULING OF THIS PROJECT. NOTIFY THE ENGINEER IF ANY PROBLEMS ARISE. EMPLOY ONLY TRADES PEOPLE WITH PROPER LICENSES FOR THE WORK. HE WORK. RAWINGS ARE DIAGRAMMATIC AND APPROXIMATE TO CALE. THE CONTRACT DOCUMENTS ESTABLISH SCOPE, IATERIALS AND QUALITY BUT ARE NOT A COMPREHENSIVE ILL OF MATERIALS, OR DETAILED INSTALLATIONS ASTRUCTIONS. DIMENSIONS SHOWN ON DRAWING ARE TO ID THE BIDDING PROCESS AND TO HELP THE CONTRACTOR ERIFY DIMENSIONS IN THE FIELD PRIOR TO ORDERING QUIPMENT. THE CONTRACTOR IS SOLELY RESPONSIBLE TO ERIFY ALL DIMENSIONS AND ENSURE CONSTRUCTABILITY RIOR TO ORDERING EQUIPMENT ERSPECTIVE VIEWS ARE SHOWN TO CONVEY INTENT NOT O SHOW EACH ENTITY. LI PIPING IS SHOWN DIAGRAMMATICAL AND THE ONTRACTOR SHALL REVIEW ALL INFORMATION TO ETERMINE PIPE MATERIALS, JOINING METHODS, VALVE PECIFICATIONS AND ALL OTHER DETAILS. IN CASES OF ISCREPANCIES BETWEEN VARIOUS SOURCES OF ISCREPANCIES BETWEEN VARIOUS SOURCESS. O-OPERATE AND COORDINATE ON SITE WITH OTHER ISCIPLINES AS REQUIRED FOR THE COMPLETION OF THE OCUMENTS FOR INTERFERENCES WITH ALL MECHANICAL QUIPMENT AND SERVICES BEFORE SUBMITTING BID. ACH PART OF THE INSTALLATION SHALL BE REVIEWED ON ITE WITH ALL OTHER DISCIPLINES BEFORE BEGINNING ANY ECTION OF WORK. REPORT ANY DISCREPANCIES TO NGINEER. LI FIRE ASSEMBLIES MUST BF MAINTAINED CONTRACTOR 4 ων 4 4 DO NOT SCALE FROM THIS DRAWING. UNLESS OTHERWISE NOTED, ALL DIMENSIONS ARE IN MILLIMETRES. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS ON SITE PRIOR TO PROCEEDING WITH ANY PORTION OF THIS WORK. CONTRACTOR SHALL INFORM ALL SUB TRADES OF SCHEDULED WORK AND COORDINATION REQUIRED PRIOR TO PROCEEDING WITH ANY PORTION OF WORK CONTRACTOR SHALL DO ALL WORK IN ACCORDANCE WITH THE APPLICABLE STANDARDS AND CODES INCLUDING, BUT NOT LIMITED TO, THE NATIONAL BUILDING CODE OF CANADA. TESTING CONTROLS OWNER. ALL WORK OF THIS CONTRACTOR SHALL BE COORDINATED AND PROVIDED BY THE SINGLE ENERGY MANAGEMENT CONTROL SYSTEM (EMCS) CONTRACTOR. THE WORK OF THIS CONTRACTOR SHALL BE SCHEDULED, COORDINATED, AND INTERFACED WITH THE ASSOCIATED WORK OF OTHER TRADES. THIS CONTRACTOR IS RESPONSIBLE FOR THE COMPLETE OPERATIONAL CONTROL SYSTEM AS SUCH IS REQUIRED TO ENSURE ALL OTHER DISCIPLINES ARE AWARE OF ALL THE ENTITIES REQUIRED BY THEM TO COMPLETE THE SYSTEM. THE WORK OF THIS CONTRACTOR SHALL BE AS INTENDED BY THE SPECIFICATIONS AND DRAWINGS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE A COMPLETE OPERATIONAL SYSTEM WHICH DEMONSTRATES THE DESIGN INTENT. IF THE DESIGN INTENT IS NOT CLEAR DURING THE BID PROCESS THE CONTRACTOR SHALL REQUEST CLARIFICATION. SUBMITTING A BID CONFIRMS THE CONTRACTOR AGREES THAT THE DESIGN INTENT IS CLEAR AND CONCISE. IF THE EMCS CONTRACTOR BELIEVES THERE ARE CONFLICTS OR MISSING INFORMATION IN THE PROJECT DOCUMENTS, THE CONTRACTOR SHALL PROMPTLY REQUEST CLARIFICATION AND INSTRUCTION FROM THE ENGINEER. ALL WIRING FOR 50 VOLTS AND BELOW ARE THE RESPONSIBILITY OF THIS CONTRACTOR. ALL WIRING TO BE RUN IN EMT CONDUIT. IT IS THE RESPONSIBILITY OF THIS CONTRACTOR TO ENSURE ALL WIRING REQUIRED IS PROVIDED BY CONTROLS OR ELECTRICAL. EMCS CONTRACTOR SHALL COORDINATE WITH OWNER FOR POINT NAMING CONVENTION, DEVICE INSTANCE NUMBERS AND NETWORK NUMBERS. ACCEPTABLE MANUFACTURERS: MATCH EXISTING JOHNSON METASYSSYSTEM ALL PLUMBING TO BE TESTED AS PER THE CANADIAN PLUMBING CODE, LATEST EDITION, AND TO THE CITY OF ST. JOHN'S REGULATIONS. ALL PIPING SHALL HAVE FLAME SPREAD RATING LESS THAN 25, SMOKE DEVELOPED CLASSIFICATION LESS THAN 50 AND CSA B191.2. UTILIZE PLENUM RATING PIPING WITHIN PLENUMS. ALL PIPE PENETRATING FIRE RATED WALL OR FLOORS SHALL BE FIRE STOPPED WITH UL LISTED FIRE STOPPING METHOD APPROVED FOR THE APPLICATION. ALL DOMESTIC HOT, COLD & CONDENSATE WATER PIPING AND EQUIPMENT DRAIN PIPING TO BE RUN USING TYPE "L" HARD DRAWN CERTIFIED COPPER TO C.S.A. #HC7.6. ALL CHILLED AND HEATING WATER PIPING SHALL BE RUN USING ASTM A53/A53M, GRADE B, SCHEDULE 40. FITTINGS SHALL BE WELDED OR GROOVED FITTING. PROVIDE DIELECTRIC UNIONS WHERE DISSIMILAR METALS ARE CONNECTED. ALL PIPING SHALL HAVE INSULATION 50mm THICK AND IN ACCORDANCE WITH TIAC STANDARDS AND RECOMMENDATIONS FOR FLUID TEMPERATURES. ALL PIPING SHALL HAVE INSULATION 50mm THICK AND IN ACCORDANCE WITH THAC STANDARDS AND RECOMMENDATIONS FOR FLUID TEMPERATURES. ALL PIPING INSULATION SHALL HAVE A CONTINUOUS VAPOR BARRIER AND SHALL BE SECURED 600mm ON CENTRE WITH MANUFACTURER RECOMMENDED PROCEDURE AND PRODUCT. ALL PIPE PENETRATIONS THROUGH ROOF OR EXTERIOR WALL SHALL BE INSULATED 3.0m FROM PENETRATION. PROVIDE PROTECTION FROM WATER HAMMER IN ACCORDANCE WITH THE NATIONAL PLUMBING CODE OF CANADA. METHOD OF PROTECTION TO BE APPROVED BY NPC AND AUTHORITY HAVING JURISDICTION. PROVIDE ALL DIMBING SCODE OF CANADA. METHOD OF PROTECTION TO BE APPROVED BY NPC AND AUTHORITY HAVING JURISDICTION. PROVIDE ALL DROBLES SEE SPECIFICATION. ALL PRODUCTS TO HAVE CANADIAN REGISTRATION AND CONDENS SEE SPECIFICATION. ALL PRODUCTS TO HAVE CANADIAN REGISTRATION AND CONDENS OTHERWISE INDICATED: STEAM: 1:240 AND CONDESS OTHERWISE INDICATED: STEAM: 1:240 AND CONDESS OTHERWISE INDICATED: STEAM: 1:240 AND COND ALL SYSTEMS SHALL BE PRESSURE TESTED AT A MINIMUM OF 1.5 TIMES THE DESIGN PRESSURE. IE 150psi STEAM SHALL BE TESTED AT 225psi ALL SYSTEMS SHALL BE PRESSURE TESTED PRIOR TO CONCEALING. COMPRESSED AIR SHALL NOT BE USED TO TEST PLASTIC PIPING. ALL PIPING SHALL BE TESTED IN ACCORDANCE WITH ASME B31.3 LATEST EDITION. ALL DUCTWORK SHALL BE TESTED IN ACCORDANCE WITH THE LATEST SMACNA STANDARDS. CONTRACTOR IS RESPONSIBLE FOR ALL TESTING INCLUDING RETESTING OF ALL SYSTEMS WITHIN THE WARRANTY PERIOD IF THE SYSTEM DOES NOT PERFORM AS DESIGNED. ENGINEER. THE EMCS WORK SHALL CONSIST OF THE PROVISION OF ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, SOFTWARE, SOFTWARE LICENSES, SOFTWARE CONFIGURATIONS AND DATABASE ENTRIES, INTERFACES, WIRING, TUBING, INSTALLATION, LABELING, ENGINEERING, CALIBRATION, DOCUMENTATION, SAMPLES, SUBMITTALS, TESTING, COMMISSIONING, TRAINING SERVICES, PERMITS AND LICENSES, TRANSPORTATION, SHIPPING, HANDLING, ADMINISTRATION, SUPERVISION, MANAGEMENT, INSURANCE, TEMPORARY PROTECTION, CLEANING, CUTTING AND PATCHING, WARRANTIES, SERVICES, AND TEMS, EVEN THOUGH THESE MAY NOT BE SPECIFICALLY MENTIONED IN THESE DOCUMENTS WHICH ARE REQUIRED FOR THE COMPLETE, FULLY FUNCTIONAL AND COMMISSIONED EMCS. EMCS SHALL SUPPORT THE FOLLOWING COMMUNICATION ASHRAE SSPC-135. CONTROL NETWORKS SHALL PROVIDE EITHER "PEER-TO-PEER," MASTER-SLAVE, OR SUPERVISED TOKEN PASSING COMMUNICATIONS, AND SHALL OPERATE AT A MINIMUM COMMUNICATION SPEED OF 9600 BAUD. ALL DDC CONTROLLERS SHALL RESIDE ON THE CONTROL NETWORK. MECHANICAL **SPECIFICATION** REFERENCE - PROVINCE OF NEWFOUNDLAND COMPRESSED GAS REGULATIONS. PIPE: STEEL TO ASTM A53JAS3M, GRADE B SCHEDULE 40. PIPE JOINTS: NPS 2.5 AND UNDER: SCREWED FITTINGS WITH PTFE TAPE OR LEAD-FREE PIPE DOPE. VICTAULLIC FITTINGS: MALLEABLE FOR 250F OR EQUAL FITTINGS: SCREWED FITTINGS: MALLEABLE FOR 250F OR EQUAL FITTINGS: SCREWED FITTINGS: MALLEABLE FOR 250F OR EQUAL VALVE CONNECTIONS: NPS2.5 AND SMALLER: SCREWED ENDS: VICTAULLIC FITTINGS CW EHP2 GASKET SUITABLE FOR 250F OR EQUAL VALVE: TO MSS-SP-70 AND MSS-SP-80 APPLICATION: ISOLATING EQUIPMENT GASKET SUITABLE FOR 250F OR EQUAL GASKET SUITABLE FOR 250F OR EQUAL CONTROLIBALANCING VALVE: PRESSURE INDEPENDENT OPERATION, FACTORY FLOW SETUP WITH FIELD ADJUSTMENT. EQUAL TO BELIMO INDEPENDENT ZONE TIGHT. TESTING: TEST SYSTEM MINIMUM 1.5 TIMES WORKING PRESSURE OR 1000 KPA. TESTING: TEST SYSTEM MINIMUM 1.5 TIMES WORKING PRESSURE OR 1000 KPA. THIS CONTRACTOR SHALL SUPPLY ALL FITTINGS, VALVES, CLEANOUTS, ACCESS DOORS IN WALLS, HYDRONIC CABINETS OR FLOORS AS REQUIRED FOR THE COMPLETE INSTALLATION AND ACCESSIBILITY OF THE MECHANICAL SYSTEM. ACCESS PANELS IN FIRE RATED WALLS/CEILINGS TO BE FIRE RATED TYPE "U.C' APPROVED, 'ACUDOR' OR EQUAL HAVING A RATING TO OR GREATER THAN THAT OF FIRE SEPARATION. FIRE STOP ALL PIPE PENETRATIONS THROUGH NEW WALLS & FLOOR WITH UL APPROVED FIRE STOPPING METHOD. THIS CONTRACTOR SHALL DETERMINE ALL REQUIRED STRUCTURAL SUPPORT REQUIREMENTS FOR THE COMPLETE OPERATIONAL SYSTEM. IT IS THE RESPONSIBILITY OF THIS CONTRACTOR TO ENSURE ALL SUPPORT REQUIREMENTS FOR THIS SYSTEM ARE PROVIDED. ANY SUPPORTS FABRICATED ON SITE MUST BE SEALED BY A PROFESSIONAL ENGINEER OR IDENTIFIED IN THE CONTRACT DOCUMENTS. THIS CONTRACTOR SHALL DETERMINE ALL POWER AND CONTROL REQUIREMENTS FOR THE COMPLETE AND OPERATIONAL SYSTEM. THIS INCLUDES BUT IS NOT LIMITED TO MANUFACTURERS RECOMMENDED OPTIONS, ACCESSORIES, SENSORS, DEVICES, BELTS, MAINTENANCE CLEARANCES, ETC. THE CONTRACTOR SHALL INFORM ALL OTHER CONTRACT DOCUMENTS TO ENSURE THE POWER AND CONTROL REQUIREMENTS FOR THIS SYSTEM ARE PROVIDED. THE CONTRACTOR SHALL SUBMIT FABRICATION DRAWINGS FOR THE COMPLETE PROJECT AS A SHOP DRAWING INDICATING BOTTOM OF PIPE/DUCT (BOP) ELEVATIONS FOR ALL PIPES, TOP OF PIPE/DUCT ELEVATIONS, PIPE FLUID, EQUIPMENT LAYOUTS, AND HIGHLIGHTING CHANGES TO DESIGN INTENT. DRAWINGS SHALL BE DIMENSIONED FROM WALLS, CEILINGS AND OTHER BUILDING ENTITIES. CHANGES TO DESIGN INTENT INCLUDES REVISED PIPE SIZES, INSULATION THICKNESS, ETC CONTRACTOR MAY REQUEST PROJECT REVIT MODEL OR AUTOCAD FILES FROM RAN ENGINEERING IN RVT OR IFC FORMAT. THE MODEL OR AUTOCAD FILES FROM RAN ENGINEERING IN RVT OR IFC FORMAT. THE MODEL DISPLAYS DESIGN INTENT. THE 3D MODEL DOES NOT INDICATE ALL REQUIRED SCOPE OF THE PROJECT AND THE PROJECT CONTRACTOR ALL REQUIRED SCOPE OF THE PROJECT AND THE PROJECT ONTAINED WITHIN IT IS ONLY MEANT TO DEPICT THIS INTENT. THE PROJECT ONDICATED AND THE ENTIRE CONTRACT DOCUMENT PACKAGE. ALL HEAT PUMP UNITS, DUCT, AND OTHER MECHANICAL EQUIPMENT AND SERVICES ARE TO BE PERMANENTLY LABELED WITH TAGS REFERENCED TO THE DRAWINGS AND DIRECTION OF LOW. LIL CONTROL DEVICES ARE TO BE LABELED WITH THE IDENTIFICATION OF THE DEVICE THAT HEY CONTROL AND THE CONTROL FUNCTION. HEY CONTROL AND THE CONTROL FUNCTION. LL PIPING/DUCTWORK SHALL TO BE PERMANENTLY LABELED WITH TAGS TO IDENTIFY THE URPOSE IE. HEATING WATER SUPPLY (HWS) AND/OR SUPPLY AIR (S/A) ABELS SHALL BE EVERY 5.0m AND/OR IDENTIFIED IN EACH ROOM OR CEILING SPACE. DENTIFICATION SHALL BE IN ACCORDANCE WITH ANSI/ASME 13.1 LATEST EDITION SUPPORT WITH CLEVIS TYPE HANGERS AS PER ASME 31.3. ALL SUPPORTS TO BE FROM BUILDING STRUCTURE AND NOT FROM OTHER EQUIPMENT. ALL SUPPORTS SHALL BE MANUFACTURED SPECIFICALLY FOR THE PRODUCT/EQUIPMENT IT IS SUPPORTING. SUPPORT SUPPLIER SHALL SUBMIT SHOP DRAWING INDICATING PIPE SUPPORT LOCATIONS, PIPE SUPPORT AND DESIGN PARAMETERS IN ACCORDANCE WITH THE SPECIFICATIONS. ILESS OTHERWISE STIPULATED, THE MECHANICAL CONTRACTOR SHALL BE SPONSIBLE FOR THE CUTTING, PATCHING, AND MAKE GOOD ALL OPENINGS REQUIRED R THE MECHANICAL SERVICES. (OVIDE ULC LISTED FIRE STOPPING SYSTEM WHEN PENETRATING FIRE RATING.) (AL ALL PENETRATIONS WEATHER TIGHT.) (OVIDE DOCUMENTS SEALED BY A PROFESSIONAL ENGINEER WHEN MODIFYING RUCTURAL COMPONENTS. PE SLEEVES PASSING THOUGH WALLS, FLOORS, CEILINGS, BEAMS TO BE SCHEDULE 40 ACK STEEL PACKED FOR WATER TIGHTNESS AND SOUND TRANSMISSION WITH A REPROOF, FLEXIBLE SEALANT. INSTALL POLISHED CHROME ESCUTCHEON PLATES ON ALL PER THE PENETRATIONS ARE VISIBLE TO STAFF OR PUBLIC. ANCES, ETC. ONTRACTOR SHALL REVIEW ALL OTHER CONTRACT DOCUMENTS TO ENSURE THE LEGION SHALL REVIEW ALL OTHER CONTRACT DOCUMENTS TO ENSURE THE SAME SPACE AS OTHER CONTRACT DOCUMENTS TO ENSURE THE SAME SPACE AS OTHER CONTRACT. I. XTERIOR PIPING SHALL HAVE A SUITABLE COVERING TO PROTECT FROM RIOR ELEMENTS SUCH AS UV. RIOR ELEMENTS SUCH AS UV. IPING TO BE SIZED AS PER MANUFACTURES RECOMMENDATION. G SHALL BE SUPPORTED WITH THALER ALUMINUM PIPE SUPPORTS MODEL MEF CONTRACTOR SHALL; USE BALLAST TO SECURE THE SUPPORT IN PLACE WHEN TREPAIR IS NOT IN SCOPE. XTERIOR PIPING FOR MINI SPLITS TO BE RUN IN 'SLIM DUCT' COLOR TO MATCH ING SIDING. METHOD: TIAC CODE: A-3. FACTORY APPLIED VAPOUR RETARDER JACKET. IN FITTINGS AND PIPE. JACKET (COVERING): PVC ON SHALL HAVE A CONTINUOUS VAPOR BARRIER AND SHALL BE SECURED ON SHALL HAVE A CONTINUOUS VAPOR BARRIER AND PRODUCT. ERATION CODE CSA-852, LATEST EDITION OR REFRIGERATION INSTALLATIONS, DEOXIDIZED, DEHYDRATED OPPER TO ASTM B 280, TYPE B. O ASTM B 280 WITH MINIMUM WALL THICKNESS AS PER CSA B52 R MANUFACTURES RECOMMENDATION. WITH THALER ALUMINUM PIPE SUPPORTS MODEL MERSBALLAST TO SECURE THE SUPPORT IN PLACE WHEN GTS GTS CWR CWR STEAM - STEEL PIPE GASKETS, FLANGES AND FLANGED FITTINGS: TO ANSI/ASME B16.5 - BUTTWELDING FITTINGS: STEEL TO ANSI/ASME B16.9. - UNIONS: MALLEABLE IRON, TO ASTM A47/A47M AND ASME B16.3. 8. VALVES - GATE VALVES NPS 2 AND SMALLER: SCREWED ENDS, CLASS 125, NON-RISING STEM, SOLID WEDGE DISC. - GATE VALVE NPS 2 1/2 -8, CLASS 150, NON- RISING STEM, SOLID WEDGE DISC, STEEL - FREE OR BRONZE TRIM. 9. INSULATION: TIAC CODE: A-3. RIGID MOULDED MINERAL FIBRE WITH FACTORY APPLIED VAPOUR RETARDER JACKET. 1. MINERAL FIBRE: TO CAN/ULC-S702 AND ASTM C547. 2. JACKET: TO CGSB 51-GP-52MA. 3. MAXIMUM "K" FACTOR: TO CAN/ULC-S702. 4. ALL EXPOSED PIPING TO BE C/W ALUMINUM JACKET 10. PIPE HANGERS AND SUPPORTS 1. INSTALL THE FOLLOWING PIPE ATTACHMENTS: 1. ADJUSTABLE STEEL CLEVIS HANGERS FOR INDIVIDUAL HORIZONTAL PIPING 6 METERS OR LONGER. 2. ADJUSTABLE ROLLER HANGERS AND SPRING HANGERS FOR INDIVIDUAL HORIZONTAL PIPING 6 METERS OR LONGER. 3. PIPE ROLLER: MSS SP-58, TYPE 44 FOR MULTIPLE HORIZONTAL 6 METERS OR LONGERS. 2. INSTALL HANGERS WITH THE FOLLOWING MAXIMUM SPACING AND MINIMUM ROD SIZES: 1. 1 NPS 3/4 (DN 20): MAXIMUM SPAN, 2.7 M; MINIMUM ROD SIZE, 6.4 MM. REFERENCES - LATEST EDITIONS OF: NEWFOUNDLAND AND LABRADOR REGULATION 119/96 - BOILER, PRESSURE VESSEL AND COMPRESSED GAS REGULATIONS AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) / AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME) ASME B16.1, PIPE FLANGES AND FLANGED FITTINGS: CLASS 25, 125, 250 LAM PIPING ILL PRODUCTS TO HAVE CANADIAN REGISTRATION NUMBERS (CRN) NSTALL PIPING IN DIRECTION OF FLOW WITH SLOPES AS FOLLOWS, LESS INDICATED: STEAM: 1:240 AND CONDENSATE RETURN: 1:70. "EST PRESSURE: 1-1/2 TIMES MAXIMUM SYSTEM OPERATING PRESSURE 860 KPA WHICHEVER IS GREATER. ARKE PROVISION FOR THERMAL EXPANSION TEAM AND CONDENSATE PIPE- STEEL PIPE: TO ASTM A53/A53M,GRADE B. "IPE JOINTS - NPS 2 AND UNDER: SCREWED FITTINGS WITH PTFE TAPE LEAD-FREE DOPE. - NPS 2-1/2 AND OVER: WELDED FITTINGS AND FLANGES TO CSA W48 AND ASME 31.1. - PIPE THREAD: TAPER. - BOLTS AND NUTS: CARBON STEEL, TO ANSI/ASME B18.2.1AND B18.2.2. - BUTTWELDING ENDS: TO ANSI/ASME B16.25 AND ASME 31.3 - CONNECT BRANCH LINES INTO TOP OF MAINS. TTINGS - PIPE FLANGES: STEEL TO ASME B16.1, CLASS 125 - SCREWED FITTINGS: MALLEABLE IRON TO ASME B16.3, CLASS 150 - STEEL PIPE GASKETS, FLANGES AND FLANGED FITTINGS - STEEL PIPE GASKETS 16.3, MALLEABLE IRON THREADED FITTINGS: CLASSES 150 AND 300. 31.1 POWER PIPING ICAN NATIONAL STANDARDS INSTITUTE (ANSI) / AMERICAN WATER (S ASSOCIATION A)ANSI/ASME B16.5, PIPE FLANGES AND FLANGED FITTINGS: NPS 1/2 CTURERS STANDARDIZATION SOCIETY OF THE VALVE INDUSTRY, INC. SP-70, CAST IRON GATE VALVES, FLANGED AND THREADED SP-71, GRAY IRON SWING CHECK VALVES, FLANGED AND \DED ENDS. SP-80, BRONZE GATE, GLOBE, ANGLE AND CHECK VALVES. SP-85-[2002], CAST IRON GLOBE AND ANGLE VALVES, FLANGED HREADED ENDS. **学** から **BASIC** က္ TYPICAL INSULATED MANUAL VOLUME CONTROL AND/OR BALANCING DAMPER AIR TERMINAL TAG (REFERENCE TO SCHEDULES, SPECIFICATIONS AND NOTES) RECTANGULAR DIFFUSERS (ARROWS MAY APPEAR DIFFERENT ON DRAWINGS) NEW DUCTWORK TYPICAL AIR TIGHT INSULATED MECHANICAL EQUIPMENT TAG (REFERENCE TO SCHEDULES, SPECIFICATIONS AND NOTES) ROUND DIFFUSERS (ARROWS MAY APPEAR DIFFERENT ON DRAWINGS) TYPICAL MOTORIZED DAMF HEATING COIL WALL CAP (HOOD) YPICAL FIRE DAMPER HVAC BREAK LINE GENERAL NGE HOOD ₽ **—**√⊒≨ BIDDING CONTRACTOR SHALL REVIEW THE LEGEND AND ALL DRAWINGS. REPORT TO ENGINEER ANY MISSING INFORMATION OR CLARIFICATIONS REQUIRE PRIOR TO BID SUBMISSION. BY SUBMITTING BID CONTRACTOR INDICATES DESIGN INTENT IS CLEAR AND CONCISE. TAGS ON DRAWINGS REFERENCE VARIOUS SCHEDULE AND NOTES. BY SUBMITTING BID CONTRACTOR INDICATES DESIGN INTENT AND TAGGING IS CLEAR AND CONCISE. SOME SYMBOLS OR ENTITIES MAY BE REFERENCED ON THE PLAN AND NOT BE SHOWN IN THIS LEGEND. FOR EXAMPLE VALVES ARE IDENTIFIED ON DETAILS OR DIRECTLY ON DRAWING. MECHANICAL SPECIFICATION, LEGEND AND LIST OF DRAWINGS RECORD ROOM VRF SYSTEM — MECHANICAL PART FLOOR PLAN HUMIDIFICATION UPGRADES — MECHANICAL PART FLOOR PLANS HUMIDIFICATION UPGRADES — ISOMETRICS HUMIDIFICATION UPGRADES — ISOMETRICS CHILLER UPGRADE — DEMOLITION AND REVISED FLOOR PLANS WESTERN MEMORIAL REGIONAL HOSPITAL MECHANICAL UPGRADES MATERIALS OF BALL VALVE BUTTERFLY VALVE Y STRAINER CHECK VALVE GATE VALVE Ç₽ CONTROL VALVE SAFETY RELIEF VALVE PRESSURE REDUCING VACUUM BREAKER MANUAL SHUT REDUCER CONCENT & ECCENTRIC RCUIT SETTER DRAWINGS AT END OF PIPE **æ** FD **⇒** BD **P** BD LEGEND PIPING FIRE PROTECTION AIR COMPRESSOR CLEAN OUT (ENSURE ALL ARE ACCESS FIRE EXTINGUISH (TYPE-WEIGHT) REFRIGERANT RELIEF REFRIGERANT LIQUID CHILLED WATER RETURN REVERSE OSMOSIS VENT ABOVE GROUND SANITARY BEL SANITARY ABOVE GROUND FIRE DEPARTMENT CONNECTION (FDC) FIRE PROTECTION ZONE ASSEMBLY VALVE PLUMBING EQUIPMENT TAG (REFERENCE TO SCHEDULES, SPECIFICATIONS AND NOTES) HIGH PRESSURE CONDENSATE VENT BELOW GROUND DOMESTIC COLD WATER (DCW) SAFETY VALVE OUTLET PIPING CONTROL AND DRAIN WATER SUPPLY DETAILS HOT WATER (DHW) ₽ 8S RE STEAM OW GROUND \bigcirc TEE FITTING OF MAIN TEE FITTING OFF OF MAIN PIPE DOWN PIPE UP REFRIGERATION SUPPLY REFRIGERATION RETURN WEIGHT 유 OFF FLOW THE TOP THE BOTTOM

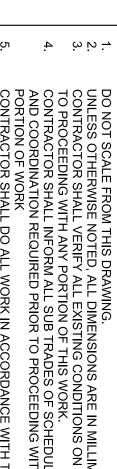
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Western Health

MECHANICAL SPECIFICATION, LEGEND AND LIST OF DRAWINGS

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