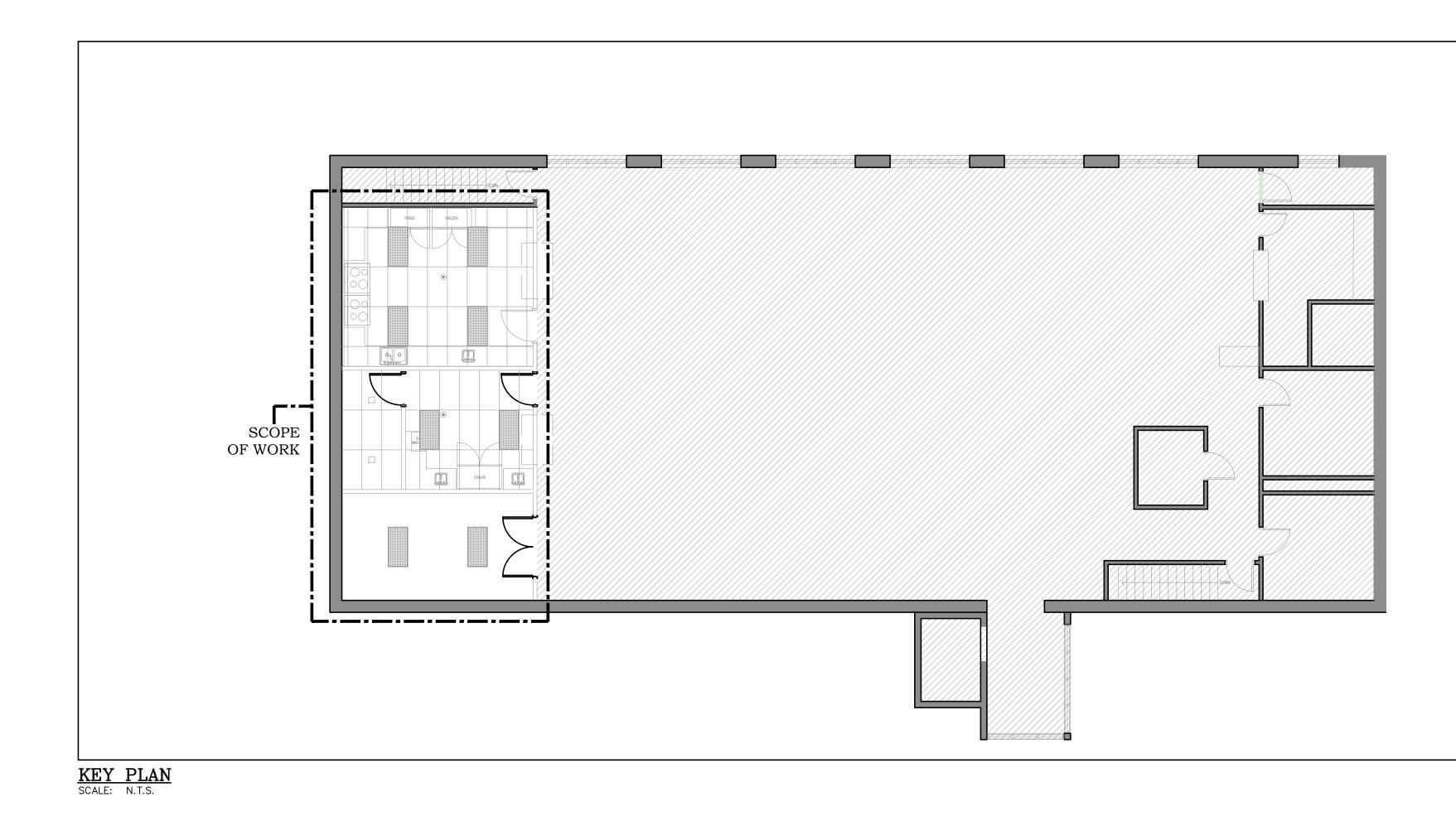
# TOWNSHIP OF BROCK

	DRAWING LIST		
NUMBER	DESCRIPTION	NUMBER	DESCRIPTION
M-1	COVER SHEET	P-1	DEMOLITION AND NEW PLUMBING AND DRAINAGE PLAN
M-2	SPECIFICATIONS SHEET NO. 1	M-5	DETAILS SHEET NO. 1
M-3	SPECIFICATIONS AND LEGEND SHEET NO. 2	M-6	EQUIPMENT SCHEDULES SHEET NO. 1
M-4	DEMOLITION AND NEW HVAC PLAN		



## 176 MAIN STREET BEAVERTON, ONTARIO

# MECHANICAL DRAWINGS

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GENERAL SPECIFICATIONS	GENERAL SPECIFICATIONS CONT'D	FIRE PROTECTION SPECIFICATIONS	PLUMBING SPECIFICATIONS
GENERAL	3.4. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING, PATCHING AND RESTORATION. WHERE REQUESTED, THE CONTRACTOR SHALL CONTRACT THE	1. <u>GENERAL</u>	1. <u>GENERAL</u>
<ul> <li>1.1. ALL WORK PERFORMED SHALL BE IN ACCORDANCE WITH LATEST EDITION OF THE ONTARIO BUILDING CODE, CSA, ASHRAE, NFPA, ETC. WHERE CODES/STANDARD ARE PRESENT FROM MULTIPLE SOURCES, THE MOST STRINGENT SHALL BE UTILIZED.</li> <li>1.2. THE FOLLOWING SPECIFICATIONS FORM AN ESSENTIAL PART OF THE CONTRACT</li> </ul>	SERVICES OF THE BASE BUILDING TRADES AT MECHANICAL DIVISION EXPENSE. 3.5. PROVISIONS SHALL BE MADE FOR THE PROTECTION OF MECHANICAL DIVISION WORK UNTIL THE COMPLETION OF THE PROJECT. THIS MAY INCLUDE, BUT IS NOT LIMITED TO, COVERING OF EQUIPMENT OPENINGS AND DUCTWORK, PLUMBING FIXTURES, FLOOR DRAINS, ETC.	1.1. PROVIDE A COMPLETE AND OPERATING FIRE SUPPRESSION SYSTEM IN ACCORDANCE WITH NFPA, THE ONTARIO BUILDING CODE, THE ONTARIO FIRE CODE, THE AUTHORITIES HAVING JURISDICTION AND THE OWNER'S INSURANCE REQUIREMENTS (EX. FM GLOBAL). PROVIDE, WHERE REQUIRED, COMPLETE SYSTEM DESIGN INCLUDING HYDRAULIC CALCULATIONS, FLOW TESTS, ETC.	1.1. PROVIDE PLUMBING SYSTEMS AS PER DRAWINGS, SPECIFICATIONS, THE LATEST EDITION OF THE ONTARIO BUILDING CODE, MUNICIPAL BY-LAWS AND THE AUTHORITY HAVING JURISDICTION. THE TERM "SYSTEM" REFERS TO ALL PIPING, FITTINGS, SUPPORTS, CURBS, ACCESSORIES, ETC
DOCUMENTS. REFER TO AND COORDINATE WITH ALL OTHER DIVISIONS, SECTIONS AND SPECIFICATIONS TO PROVIDE A COMPLETE AND OPERATIONAL INSTALLATION. ADHERE TO AND BE GOVERNED BY CONTRACT DOCUMENTS. 1.3. FOR THE PURPOSE OF THESE SPECIFICATIONS, DRAWINGS AND CONTRACT	3.6. UPON COMPLETION OF CONSTRUCTION, CONTRACTOR SHALL MAKE ALL FINAL ADJUSTMENTS TO EQUIPMENT AS WELL AS REMOVE ALL PROTECTION. ALL INSTALLATIONS SHALL BE CLEANED THOROUGHLY AND TESTED FOR PROPER OPERATION. CHANGE ALL AIR AND WATER FILTERS AS REQUIRED.	1.2. PROVIDE A COMPLETE SET OF <u>SHOP QUALITY DRAWINGS</u> TO THE AUTHORITIES HAVING JURISDICTION AND THE PRIME CONSULTANT FOR REVIEW AND APPROVAL. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN THE SUBMISSION REQUIREMENTS FROM THE RESPECTIVE MUNICIPALITY.	<ul> <li>1.2. ALL ITEMS REQUIRED FOR PLUMBING SYSTEMS SHALL BE CSA APPROVED UNLESS OTHERWISE NOTED.</li> <li>1.3. CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS PRIOR TO BID AND CONTRACT AWARD TO ENSURE THAT PIPING INVERTS, LOCATIONS, DIMENSIONS AND LENGTHS</li> </ul>
DOCUMENTS, THE WORD 'PROVIDE' REFERS TO THE SUPPLY, INSTALLATION AND TESTING OF THE RESPECTIVE EQUIPMENT/COMPONENTS. 1.4. CONTRACTOR SHALL REPORT ALL APPARENT DISCREPANCIES BETWEEN DRAWINGS AND SPECIFICATIONS OF ALL DIVISIONS PRIOR TO BID SUBMISSION. NO EXCEPTIONS	3.7.IN REGARD TO INTERRUPTION OF SERVICES, THE CONTRACTOR SHALL CARRY OUT HIS WORK IN A MANNER THAT CAUSES THE LEAST DISTURBANCE TO THE OWNER. PROVIDE NOTIFICATION TO THE OWNER IN WRITING BEFORE AT LEAST 72 HOURS OF THE SCHEDULED INTERRUPTION.	1.3. <u>PROVIDE SYSTEM, DESIGN AND ACCEPTANCE TEST</u> IN ACCORDANCE WITH THE LATEST EDITION OF NFPA 13. PROVIDE COPIES TO BUILDING OPERATORS AND CONSULTANT FOR REVIEW AND APPROVAL.	ARE SUFFICIENT IN TERMS OF ARRANGEMENT FOR THE RUNS SHOWN ON MECHANICAL DRAWINGS. REPORT DISCREPANCIES TO ENGINEER IMMEDIATELY. 1.4. CARRY OUT TESTING ON ALL SYSTEMS INCLUDING SANITARY DRAINAGE SYSTEMS, STORM DRAINAGE SYSTEMS AND DOMESTIC WATER SYSTEMS AS PER THE
WILL BE GIVEN TO CONTRACTORS WHO DO NOT COMPLETELY UNDERSTAND THE SCOPE OF WORK. 1.5. ALL MECHANICAL WORK SHALL BE COORDINATED AND SCHEDULED WITH ALL OTHER DIVISIONS/TRADES.	3.8. ARRANGE AND PAY FOR THE SAFE DISPOSAL OF REMOVED ITEMS AS SPECIFIED. PROVIDE PROOF OF SAFE DISPOSAL FOR ITEMS SUCH AS HVAC REFRIGERANT. COORDINATE THE TIME AND METHOD OF DISPOSAL WITH THE OWNER. FOR EXAMPLE, CLEARLY INDICATE THE ROUTE THAT WILL BE TAKEN FROM THE INSIDE OF THE	<ol> <li>1.4. <u>CLEAN AND FLUSH</u> ALL FOREIGN MATTER FROM PIPING PRIOR TO INSTATEMENT OF SYSTEM. CAP ENDS OF PIPE DURING CONSTRUCTION TO MAINTAIN CLEANLINESS IN PIPING.</li> <li>1.5. ALL FIRE PROTECTION SYSTEMS WORK SHALL BE PERFORMED BY A CONTRACTOR</li> </ol>	CONSTRUCTION CODE AND THE AUTHORITIES HAVING JURISDICTION. TESTS MAY INCLUDE, BUT ARE NOT LIMITED TO, A WATER TEST, PRESSURE TEST, BALL TEST AND FINAL TEST. 1.5. PROVIDE FIRESTOPPING AT ALL FIRE-RATED WALL AND FLOOR ASSEMBLIES AS PER
, 1.6. THIS CONTRACTOR SHALL VISIT THE SITE AND COMPLETELY INVESTIGATE AND UNDERSTAND THE EXISTING CONDITIONS AND THEIR RELATION TO THE DESIGN DRAWINGS/DOCUMENTS. NO CONSIDERATION WILL BE GIVEN TO THE CONTRACTOR	BUILDING TO THE OUTDOORS, AS WELL AS THE STORAGE LOCATION OUTDOORS IF APPLICABLE. 3.9. WHERE COMPONENTS ARE TO BE REUSED, THE CONTRACTOR SHALL CLEAN AND	APPROVED BY THE BASE BUILDING AT THE EXPENSE OF THE MECHANICAL CONTRACTOR. 1.6. SPRINKLER PIPING WITHIN THE AREA OF WORK SHALL BE HYDRAULICALLY	THE 'GENERAL SPECIFICATIONS'. 1.6. COORDINATE EXACT LOCATIONS OF ALL PLUMBING FIXTURES WITH ALL TRADES AND ARCHITECTURAL/INTERIOR DESIGN DRAWINGS. DO NOT SCALE MECHANICAL
FOR ANY HINDRANCES TO THE MECHANICAL INSTALLATION FROM SITE CONDITIONS WHICH EXISTED PRIOR TO BID SUBMISSION. AS SUCH AND WHERE REQUIRED, THE CONTRACTOR SHALL PROVIDE INTERFERENCE DRAWINGS AND SHALL SUBMIT THEM TO THE CONSULTANT FOR REVIEW.	TEST THE COMPONENT TO ENSURE PROPER OPERATION. THE CONSULTANT SHALL BE NOTIFIED IN THE EVENT THERE IS A DEFICIENCY WITH THE COMPONENT. 3.10. PERFORM WORK SO AS TO CAUSE MINIMAL DISTURBANCE TO OWNER AND/OR ADJACENT AREAS. MINIMIZE DUST AND NOISE AND PROVIDE TEMPORARY AIR FILTERS	1.7. SUBMIT A CERTIFICATION SEALED BY A PROFESSIONAL ENGINEER THAT SYSTEMS HAVE BEEN DESIGNED AND INSTALLED IN ACCORDANCE WITH APPLICABLE CODE	DRAWINGS 1.7. WHERE PLUMBING FIXTURES ARE SPECIFIED, THE CONTRACTOR SHALL PROVIDE ALL ACCESSORIES AND APPURTENANCES TO PROVIDE A FULL AND COMPLETE INSTALLATION OF THE RESPECTIVE FIXTURE. THIS MAY INCLUDE, BUT IS NOT
1.7. PROVIDE NEW MATERIALS AND EQUIPMENT OF ACCEPTABLE QUALITY THAT ARE MANUFACTURED IN CANADA OR THE UNITED STATES AND BEAR THE APPROVAL OF RECOGNIZED NORTH AMERICAN STANDARD ASSOCIATIONS SUCH AS CSA, ASME, ETC. THE CONTRACTOR SHALL MAXIMIZE THE UTILIZATION OF CANADIAN EQUIPMENT, MATERIALS, ETC.	ON AIR HANDLING SYSTEMS AFFECTED BY THE AREA OF WORK. ALL COSTS ASSOCIATED WITH DAMAGES AS A RESULT OF THE MECHANICAL INSTALLATION SHALL BE COVERED BY MECHANICAL DIVISION. MAINTAIN SAFETY STANDARDS AND PROVIDE ADEQUATE SIGNAGE FOR BOTH WORKERS AND OCCUPANTS.	1.8. PREPARE ALL WORKING PLANS AND HYDRAULIC CALCULATIONS SEALED BY A PROFESSIONAL ENGINEER, AND SUBMIT THEM TO THE OWNER'S INSURANCE UNDERWRITER AND TO THE MUNICIPAL BUILDING DEPARTMENT FOR APPROVAL PRIOR TO CONSTRUCTION.	LIMITED TO, STOP VALVES, RISER PIPING, ESCUTCHEON PLATES, ETC. 1.8. PROVIDE VENTING SYSTEMS IN ACCORDANCE WITH THE ONTARIO BUILDING CODE. 1.9. PRIOR TO BID SUBMISSION THE CONTRACTOR SHALL EXAM THE SITE INCLUDING THE
1.8. ALL EQUIPMENT, MATERIALS, ETC. SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND RECOMMENDATIONS.	3.11. WHERE CUTTING OR CORE DRILLING OF THE EXISTING CONCRETE STRUCTURE IS REQUIRED, THE MECHANICAL CONTRACTOR SHALL CONTRACT THE SERVICES OF AN EXPERIENCED AND REPUTABLE COMPANY TO CARRY OUT X-RAYING. THE RESULTS SHALL BE SUBMITTED TO THE BASE BUILDING STRUCTURAL ENGINEER AND NO	1.9. WHERE ON DRAWING SPRINKLER HEAD IS SHOWN AS RELOCATED, REMOVE OLD HEAD AND PROVIDE NEW HEAD AT THE NEW LOCATION.	SPACES BELOW NEW AND/OR RENOVATED AREAS AND CARRY IN HIS BID TO ADJUST THE UNDER-SLAB SYSTEMS ROUTING TO MEET THE DESIGN INTENT. 1.10. CORE DRILLING FOR SERVICES AND/OR SYSTEM SHALL BE PROVIDED BY THIS
<ol> <li>1.9. THE MECHANICAL DRAWINGS DISPLAY A GENERAL DESIGN AND INSTALLATION. THEREFORE THE CONTRACTOR SHALL OBTAIN CLARIFICATION FROM THE CONSULTANT PRIOR TO INSTALLATION.</li> <li>1.10. THESE DRAWINGS HAVE BEEN PREPARED FOR MECHANICAL AND DO NOT</li> </ol>	CUTTING OR CORING SHALL TAKE PLACE UNTIL WRITTEN APPROVAL IS RECEIVED. THE CONTRACTOR SHALL PROVIDE A WRITTEN REQUEST TO PERFORM X-RAYING AT LEAST 72 HOURS IN ADVANCE. 4. ACCESS DOORS AND PANELS	<ol> <li>2. <u>PIPE, FITTINGS AND VALVES</u></li> <li>2.1. ALL PIPING, FITTINGS AND VALVES SHALL BE PROVIDED TO SUIT THE PRESSURE REQUIREMENTS OF THE SYSTEMS TO WHICH THEY ARE BEING INSTALLED.</li> </ol>	CONTRACTOR. ALL LOCATIONS SHALL BE SUBMITTED FOR APPROVAL BY A STRUCTURAL ENGINEER BEFOREHAND. 1.11. MAKE ALL PIPING AND ELECTRICAL CONNECTIONS TO PUMPS AND MOTOR ASSEMBLIES AS SPECIFIED. REFER TO PUMP SCHEDULE (WHERE APPLICABLE).
ACCURATELY DISPLAY ALL ELECTRICAL, STRUCTURAL AND ARCHITECTURAL ELEMENTS. REFER TO OTHER DIVISION'S DRAWINGS FOR CLARIFICATION. 1.11. IN NO CASE SHALL THESE DRAWINGS BE SCALED. ALL ROUGH-IN'S SHALL BE	4.1. PROVIDE ADEQUATE ACCESS TO CONCEALED EQUIPMENT AND COMPONENTS THAT REQUIRE ACCESS FOR MAINTENANCE, ADJUSTMENT AND INSPECTION. PROVIDE MARKINGS TO THE OWNER'S SATISFACTION THAT INDICATE THE LOCATIONS WHERE	<ul> <li>2.2. PIPING SHALL BE PROVIDED AS SCHEDULE 40 BLACK STEEL CONFORMING TO ASTM A 53/A 53M</li> <li>2.3. PIPE NIPPLES SHALL BE PROVIDED AS BLACK STEEL CONFORMING TO ASTM A</li> </ul>	1.12. ONLY PIPING THAT IS TOO LOW TO DRAIN INTO A BUILDING SEWER BY GRAVITY SHALL BE DRAINED TO A SUMP OR RECEIVING TANK. PRIOR TO BID SUBMISSION, THE CONTRACTOR SHALL EXAMINE THE SITE, INCLUDING THE SPACES BELOW NEW
COORDINATED WITH OTHER DIVISIONS/TRADES. 1.12. DO NOT PROCEED WITH WORK OUTSIDE THE SCOPE OF THE DESIGN DRAWINGS AND SPECIFICATIONS WITHOUT WRITTEN CONSENT FROM THE OWNER. THIS APPLIES TO ALL MECHANICAL DIVISION CHANGE NOTICES AS ISSUED BY THE CONSULTANT.	CONCEALED EQUIPMENT IS LOCATED. 4.2.ENSURE THAT THE SIZE OF THE DOOR COMPLIES WITH THE MANUFACTURER'S SUGGESTED ACCESS REQUIREMENTS.	<ul><li>733, MADE OF STANDARD WEIGHT, SEAMLESS STEEL PIPE WITH THREADED ENDS, CONFORMING TO ASTM A 53/A 53M.</li><li>2.4. COUPLINGS SHALL BE THREADED STEEL TYPE CONFORMING TO ASTM A 865.</li></ul>	AND/OR RENOVATED AREAS, AND REPORT TO THE ENGINEER ANY SITE CONDITIONS THAT MAY PREVENT DRAINAGE BY GRAVITY. FOR ANY ALTERNATIVE TO DRAINAGE BY GRAVITY: CONTRACTOR IS TO PROVIDE A SEPARATE PRICE IN BID, HE IS TO SUBMIT THE REQUIRED DOCUMENTATION TO AND OBTAIN APPROVAL FROM THE AUTHORITY HAVING JURISDICTION AND THE LANDLORD AT HIS OWN TIME AND
1.13. IN REGARDS TO MECHANICAL CHANGE NOTICES, THE CONTRACTOR SHALL PROVIDE A BREAKDOWN INCLUDING, BUT NOT LIMITED TO, MATERIALS, LABOUR, MARK-UP, ETC. QUOTATIONS SHALL BE BASED ON THE ALLPRICER PRICE BOOK FOR EQUIPMENT AND THE MECHANICAL CONTRACTORS OF AMERICA, SMACNA, AND	4.3. COORDINATE <u>ALL</u> ACCESS DOOR AND PANEL SIZES AND LOCATIONS WITH ARCHITECT/INTERIOR DESIGNER. SUBMIT LAYOUT FOR REVIEW PRIOR TO INSTALLATION.	<ul><li>2.5. FITTINGS SHALL BE GREY IRON THREADED FITTINGS AND STANDARD PATTERN CONFORMING TO ASME B16.4, CLASS 125.</li><li>2.6. UNIONS MAY BE MALLEABLE OR DUCTILE IRON CONFORMING TO UL 860.</li></ul>	EXPENSE, AND HE IS TO RETAIN AN ENGINEER AT HIS OWN TIME AND EXPENSE TO PROVIDE SIGNED AND SEALED DRAWINGS FOR ANY ALTERNATIVE DESIGN. 2. <u>CLEANING, FLUSHING AND DISINFECTING OF</u>
NATIONAL ELECTRICAL CONTRACTORS FOR LABOUR RATES. 1.14. WHERE MECHANICAL EQUIPMENT HAS BEEN PRE-PURCHASED, THE CONTRACTOR SHALL ACCEPT ALL RESPONSIBILITY FOR EQUIPMENT DELIVERY, INSTALLATION,	5. <u>FIRESTOPPING</u> 5.1. PROVIDE FIRESTOPPING SYSTEMS AND PRODUCTS FOR ALL DUCTS, PIPING, ETC. THAT PENETRATE FIRE SEPARATIONS. FIRESTOPPING SYSTEMS AND PRODUCTS SHALL	2.7. THE CONTRACTOR MAY UTILIZE GROOVED-JOINT STEEL APPURTENANCES CONFORMING TO ASTM A-536. GASKETS SHALL BE PRESSURE-RESPONSIVE SYNTHETIC RUBBER, GRADE TO SUIT THE INTENDED SERVICE, CONFORMING TO ASTM D-2000. MECHANICAL COUPLING BOLTS SHALL BE ZINC PLATED (ASTM	DOMESTIC WATER PIPING 2.1. FOLLOW PROCEDURES AS OUTLINED IN THE LATEST EDITION OF STANDARD AWWA C651. ENSURE THAT THE METHODS COMPLY WITH LOCAL BY-LAWS.
TESTING AND WARRANTY, SIMILAR TO AS IF THE EQUIPMENT WAS PURCHASED BY MECHANICAL DIVISION. 1.15. THE CONTRACTOR SHALL WARRANTY ALL MATERIALS, EQUIPMENT, INSTALLATION AND QUALITY OF WORKMANSHIP FOR A MINIMUM OF ONE (1) YEAR UNLESS	BE ULC LISTED AND COMPLY WITH CAN4-S115S AND THE AUTHORITIES HAVING JURISDICTION. 5.2. MAINTAIN ALL NEW AND EXISTING FLOOR/CEILING AND WALL FIRE RATINGS IN COMPLIANCE WITH BASE BUILDING STANDARDS AND THE AUTHORITIES HAVING	<ul> <li>B-633) HEAT TREATED CARBON STEEL TRACK HEAD CONFORMING TO ASTM A-449 AND A-183, MINIMUM TENSILE STRENGTH 110,000 PSI (758,450 KPA).</li> <li>2.8. ALL VALVES SHALL BE ULC LISTED FOR FIRE PROTECTION INSTALLATION IN</li> </ul>	<ul><li>2.2. PREVENT CONTAMINATING MATERIAL FROM ENTERING THE SYSTEM DURING STORAGE, CONSTRUCTION AND REPAIR.</li><li>2.3. REMOVE AND FLUSH ALL FOREIGN MATTER THAT HAS ENTERED THE PIPING.</li></ul>
OTHERWISE NOTED. 1.16. IT IS THE MECHANICAL CONTRACTOR'S RESPONSIBILITY TO PAY FOR ALL CHARGES AND DAMAGES ASSOCIATED WITH EQUIPMENT THAT IS NOT PROVIDED AS SPECIFIED	JURISDICTION AND MEET ALL CODE REQUIREMENTS.	ACCORDANCE WITH THE LATEST EDITION OF NFPA 13. 2.9. ALL PIPE HANGERS AND SUPPORTS SHALL BE ULC LISTED FOR FIRE PROTECTION SERVICES IN ACCORDANCE WITH THE LATEST EDITION OF NFPA 13.	2.4. PROTECT THE EXISTING DISTRIBUTION SYSTEM FROM BACKFLOW DUE TO HYDROSTATIC PRESSURE AND DISINFECTION PROCEDURES.
AND INCLUDES NOT MEETING THE MANUFACTURER'S RATINGS, PUBLISHED DATA AND/OR THE APPLICABLE GOVERNING STANDARDS. 1.17. THE CONTRACTOR MAY SUBMIT FOR ALTERNATE MATERIALS AND EQUIPMENT ONLY	6.1. INSTALL ALL PIPING, DUCTWORK AND EQUIPMENT TO PROVIDE ADEQUATE CLEARANCES FOR SERVICING AS WELL AS MAXIMUM USABLE SPACE FOR ALL OTHER DIVISIONS/TRADES.	3. <u>WET (AUTOMATIC) PIPE SPRINKLER SYSTEM</u> 3.1. VALVES	2.5. CHLORINATE RESIDUAL CONTAMINATION THAT MAY REMAIN AND FLUSH THE CHLORINATED WATER WHEN COMPLETE. FOLLOWING THIS, DETERMINE THE BACTERIOLOGICAL QUALITY OF THE WATER BY LABORATORY TESTING. CONNECT THE WATER SYSTEM ONLY WHEN TEST RESULTS INDICATE AN APPROVED AND DISINFECTED SYSTEM.
WHEN THE SPECIFIED ARE NOT AVAILABLE OR WILL ADVERSELY IMPACT THE COMPLETION SCHEDULE. THE CONTRACTOR SHALL COMPENSATE THE PRIME CONSULTANTS FOR THE TIME REQUIRED TO REVIEW THE ALTERNATE SUBMITTALS. 1.18. PRIOR TO SUBMITTING A BID, THE CONTRACTOR SHALL CONFIRM ON HIS	<ul> <li>6.2. INSTALL PIPING AND DUCTWORK STRAIGHT, IN A NEAT AND CLEAN FASHION AND TIGHT TO STRUCTURES ABOVE (UNLESS OTHERWISE NOTED).</li> <li>6.3. TAKE MEASURES AND PROVIDE CSA APPROVED MATERIALS TO PREVENT COPPER PIPING CORROSION FROM CONTACT WITH DISSIMILAR METALS.</li> </ul>	<ul><li>3.1.1. PROVIDE GATE VALVES THAT OPEN BY COUNTERCLOCKWISE ROTATION.</li><li>3.1.2. CHECK VALVES SHALL BE FLANGED CLEAR OPENING SWING-CHECK TYPE WITH FLANGED CONNECTION AND ACCESS PLATE FOR SIZES 4"Ø AND LARGER.</li></ul>	3. PIPING INSULATION
SUBMISSION LETTER IDENTIFYING ALL ADDENDA HAVE BEEN RECEIVED AND INCLUDED IN THE BID. . <u>SUBMITTALS</u>	7. <u>HANGERS AND SUPPORTS</u> 7.1. PROVIDE HANGER SYSTEMS FOR ALL DUCTWORK, PIPING AND EQUIPMENT TO RENDER	3.1.3. PROVIDE BALL OR BUTTERFLY VALVES FOR ZONE CONTROL. 3.2. SPRINKLER HEADS	3.1. PROVIDE PIPING INSULATION FOR PLUMBING SYSTEMS AS FOLLOWS: 3.1.1. DCW: TYPE 'A', 1" $\phi$ TO 4" $\phi$ - 1/2" THICK, 5" AND UP - 1" THICK 3.1.2. DHW(R): TYPE 'A', UP TO 2" $\phi$ - 1" THICK, 2-1/2" $\phi$ AND UP - 1-1/2"
2.1. THE CONTRACTOR SHALL SUBMIT THREE (3) HARD COPIES OF <u>MECHANICAL SHOP</u> <u>DRAWINGS</u> TO THE CONSULTANTS FOR REVIEW. ELECTRONIC SUBMISSION OF SHOP DRAWINGS SHALL BE DEEMED ACCEPTABLE UPON APPROVAL FROM CONSULTANT. THE CONTRACTOR SHALL BEAR ALL COSTS ASSOCIATED WITH THE DOCUMENT	A SAFE AND FUNCTIONAL INSTALLATION. HANGER RODS SHALL BE ATTACHED DIRECTLY TO THE STRUCTURE AND IN NO WAY SHALL BE ATTACHED TO OTHER MECHANICAL COMPONENTS OR CEILING SYSTEMS. WHERE COMPONENTS ARE TO BE SUSPENDED BETWEEN JOISTS OR BEAMS, PROVIDE AUXILIARY STEEL CHANNEL SUPPORTS TO SUIT.	<ul> <li>3.2.1. PROVIDE ULC LISTED FIRE SPRINKLER HEADS CONFORMING TO ANSI/NFPA 13 FOR FIRE SERVICES.</li> <li>3.2.2. PROVIDE SPRINKLER HEAD TYPE (EX. UPRIGHT, PENDENT, ETC.) AS SHOWN ON DRAWINGS. SPRINKLER HEADS SHALL HAVE A NOMINAL 12 MM ORIFICE.</li> </ul>	THICK 3.1.3. CD (HORIZONTAL): TYPE 'A', 1/2"Ø AND UP – 1" THICK
SUBMITTAL PROCESS. 2.2. ALL SHOP DRAWINGS SUBMITTED FOR REVIEW <u>MUST BEAR THE REVIEW STAMP OF</u> <u>THE MECHANICAL AND GENERAL CONTRACTOR</u> . SHOP DRAWINGS THAT DO NOT BEAR THE CONTRACTOR'S STAMP WILL BE REJECTED BY THE CONSULTANT.	7.2.FOR GENERAL CONDITIONS, PROVIDE ROUND STEEL THREADED RODS CONFORMING TO ASTM A-36. WHERE SPECIAL CONDITIONS EXIST, SUCH AS HIGH HUMIDITY OR EXPOSURE TO ELEMENTS, PROVIDE HANGER COMPONENTS TO SUIT.	3.2.3. SPRINKLER HEADS OF SUITABLE TEMPERATURE RATING SHALL BE PROVIDED TO SUIT THE INSTALLING CONDITIONS.	<ul> <li>3.2. <u>TYPE 'A'</u>: JOHNS MANVILLE MICRO-LOK FIBRE GLASS PIPE INSULATION COMPLETE WITH JACKET AND VAPOUR RETARDER. CONNECT SECTIONS OF INSULATION WITH BUTT STRIPS SUPPLIED BY THE INSULATION MANUFACTURER.</li> <li>3.3. <u>WHERE NOTED</u>, RECOVER INSULATION WITH HEAVY-GAUGE PVC FITTINGS, COVER</li> </ul>
2.3. <u>SHOP DRAWINGS</u> SHALL INCLUDE ALL INFORMATION REQUIRED FOR THE CONSULTANT TO PERFORM A REASONABLE REVIEW OF THE SUBMITTALS AS THEY PERTAIN TO THE MECHANICAL DESIGN DRAWINGS AND SPECIFICATIONS.	<ul><li>7.3. IN REGARD TO ALL PIPING, PROVIDE SUPPORTS AT CONNECTIONS AND AT EVERY CHANGE IN DIRECTION.</li><li>7.4. PROVIDE ONLY BASE BUILDING APPROVED EQUIPMENT. CONTRACTOR SHALL</li></ul>	<ul> <li>3.2.4. SPRINKLER LOCATIONS ARE SHOWN IN MECHANICAL DRAWINGS FOR REFERENCE PURPOSES ONLY. ACTUAL LOCATIONS AND QUANTITIES SHALL BE COORDINATED WITH THE LATEST EDITION OF NFPA 13.</li> <li>3.2.5. CONTRACTOR SHALL PROVIDE A UNIT PRICE FOR THE SUPPLY AND INSTALL OF</li> </ul>	AND JACKETING EQUAL TO JOHNS MANVILLE ZESTON 300 SERIES. 4. <u>PIPING MATERIALS (SEE BELOW FOR MATERIALS</u>
2.4. THE CONTRACTOR SHALL MAINTAIN ON SITE ONE (1) <u>RECORD OF MECHANICAL</u> <u>DRAWINGS</u> THAT SHALL INDICATE WITH RED LINES ALL PROJECT CONDITIONS, LOCATIONS, CONFIGURATIONS AND ANY OTHER CHANGES OR DEVIATIONS WHICH MAY VARY FROM THE ORIGINAL CONTRACT DOCUMENTS AND DRAWINGS. IN ADDITION,	COORDINATE WITH BASE BUILDING OPERATORS PRIOR TO BID SUBMISSION AND INSTALLATION. 8. <u>STRUCTURAL AND SEISMIC</u>	EACH TYPE OF SPRINKLER HEAD AND IDENTIFY THE PRICE ON HIS BID SUBMISSION. 3.2.6. CARRY IN TENDER PRICE FOR ADDITIONAL TEN (10) NEW SPRINKLER HEAD C/W	SPECIFICATIONS) 4.1. <u>DCW AND DHW(R)</u>
THIS SET SHALL INCLUDE REVISIONS AS A RESULT OF ALL ADDENDA, CHANGE NOTICES, SITE INSTRUCTIONS, ETC. UPON COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL SUBMIT TO THE OWNER AND ENGINEER ONE (1) COPY EACH OF A HARDCOPY AND ELECTRONIC COPY (PDF) FOR REVIEW. ONE (1) SET OF BOTH	8.1. WHERE THERE IS NO STRUCTURAL DIVISION AS PART OF THE PROJECT, IT SHALL BE THE MECHANICAL CONTRACTOR'S RESPONSIBILITY TO PROVIDE STRUCTURAL REINFORCING FOR ALL MECHANICAL SCOPE INSTALLATIONS. THE CONTRACTOR SHALL OBTAIN THE SERVICES OF A LICENSED PROFESSIONAL ENGINEER WHO IS TO PROVIDE	4. <u>FIRE EXTINGUISHERS</u>	<ul> <li>4.1.1. ABOVE GROUND: TYPE 1</li> <li>4.1.2. UNDERGROUND: TYPE 2</li> <li>4.2. SANITARY &amp; STORM DRAINAGE PIPING</li> </ul>
COPIES SHALL ALSO BE INCLUDED IN THE CLOSEOUT DOCUMENT PACKAGE. 2.5. TWO (2) COPIES OF <u>OPERATION AND MAINTENANCE MANUALS</u> SHALL BE SUBMITTED TO THE CONSULTANT FOR REVIEW UPON PROJECT COMPLETION. THE MANUALS SHALL CONTAIN THE FOLLOWING:	A DESIGN BEARING THE ENGINEER'S PROFESSIONAL SEAL. THE CONTRACTOR SHALL APPLY FOR BUILDING PERMIT AND ASSUME ALL RESPONSIBILITY AND COST FOR THE PERMIT PROCESS. UPON COMPLETION OF WORK, CONTRACTOR SHALL SUBMIT A LETTER COMPLETE WITH PROFESSIONAL SEAL FROM THE STRUCTURAL ENGINEER TO INDICATE THAT THE WORK HAS BEEN COMPLETED TO THE REQUIREMENTS OF THE	<ul> <li>4.1. PROVIDE NATIONAL FIRE EQUIPMENT LTD., DIAMOND FIRE EXTINGUISHER MODEL ABC-050WWD 5LB MULTI-PURPOSE DRY CHEMICAL EXTINGUISHERS C/W WALL HOOK.</li> <li>4.2. EXTINGUISHER LOCATIONS ARE SHOWN ON MECHANICAL DRAWINGS FOR REFERENCE</li> </ul>	4.2.1. ABOVE GROUND: TYPE 3, TYPE 4, TYPE 6 4.2.2. UNDERGROUND: TYPE 4 (2"Ø MIN.), TYPE 5, TYPE 7
<ul> <li>DESCRIPTION OF EACH SYSTEM</li> <li>DESCRIPTION OF EACH MAJOR COMPONENT OF SYSTEM</li> <li>ALL SHOP DRAWINGS WITH APPROVAL STAMPS</li> <li>EQUIPMENT MANUFACTURER'S INSTALLATION AND OPERATION</li> </ul>	ONTARIO BUILDING CODE, THE AUTHORITIES HAVING JURISDICTION, AND ALL OTHER RELEVANT CODES AND STANDARDS. 8.2. WHERE APPLICABLE, IT IS THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR TO COORDINATE THE REQUIREMENTS FOR SEISMIC BRACING AND SUPPORTS WITH	PURPOSES ONLY. ACTUAL LOCATIONS AND QUANTITIES SHALL BE COORDINATED WITH NFPA, THE ONTARIO BUILDING CODE, THE ONTARIO FIRE CODE, THE FIRE MARSHALL AND ALL AUTHORITIES HAVING JURISDICTION.	4.3. <u>VENT PIPING</u> 4.3.1. ABOVE GROUND: TYPE 3, TYPE 4, TYPE 6
<ul> <li>MANUALS AND SPARE PARTS LIST</li> <li>WIRING DIAGRAMS</li> <li>LUBRICATION SCHEDULE</li> <li>EQUIPMENT IDENTIFICATION LIST WITH SERIAL NUMBERS</li> <li>VALVE TAG SCHEDULES AND FLOW DIAGRAMS</li> </ul>	STRUCTURAL DRAWINGS. THIS CONTRACTOR SHALL CONTRACT THE SERVICES OF A LICENSED PROFESSIONAL ENGINEER TO DESIGN SUPPORTS AND BRACING IN ACCORDANCE WITH ALL CURRENT CODES AND THAT MEET THE REQUIREMENTS OF THE LOCATION IN WHICH THE SYSTEMS ARE BEING INSTALLED. UPON COMPLETION OF THE PROJECT, SEISMIC ENGINEER SHALL PROVIDE A LETTER BEARING THE	<ul> <li>4.3 IF LOCATIONS ARE NOT SHOWN CARRY FOUR (4) EXTINGUISHERS AND MOUNTING BRACKETS IN BID.</li> <li>5. <u>TESTING OF INTEGRATED FIRE PROTECTION AND</u></li> </ul>	4.3.2. UNDERGROUND: TYPE 4, TYPE 5, TYPE 7 TYPE 1: TYPE L HARD DRAWN COPPER TUBING WITH WROUGHT COPPER FITTINGS AND 95/5 TIN/ANTIMONY SOLDER JOINTS.'
<ul> <li>FINAL AND REVIEWED BALANCING REPORTS (AIR AND WATER)</li> <li>WATER TREATMENT PROCEDURE AND TESTS</li> <li>CONTROL DRAWINGS AND SEQUENCES OF OPERATION</li> <li>AS-BUILT DRAWINGS (HARDCOPY AND ELECTRONIC)</li> </ul>	ENGINEER'S PROFESSIONAL SEAL INDICATING THAT THE INSTALLATION MEETS THE SEISMIC DESIGN DOCUMENT AND CONFORMS TO THE BUILDING CODE AND TO THE REQUIREMENTS OF THE AUTHORITIES HAVING JURISDICTION.	<u>LIFE SAFETY SYSTEMS</u> 5.1. WHERE FIRE PROTECTION AND LIFE SAFETY SYSTEMS, AND SYSTEMS WITH FIRE PROTECTION AND LIFE SAFETY FUNCTIONS, ARE INTEGRATED WITH EACH OTHER, CONTRACTOR SHALL PROVIDE THE TESTING OF THE SYSTEMS AS A WHOLE IN	TYPE 2: TYPE K SOFT ANNEALED COPPER TUBING WITH NO JOINTS. TYPE 3: TYPE DWV COPPER TUBE AND FITTINGS WITH 95:5 TIN: ANTIMONY SOLDER JOINTS.
<ul> <li>WARRANTY DOCUMENTATION</li> <li>SPRINKLER DOCUMENTATION</li> <li>PHOTOS OF MAIN PLUMBING, DRAINAGE CONNECTION AND LOCATION IN PLAN</li> <li>2.6.SUBMIT A COMPLETE SET OF AS-BUILT DRAWINGS AND FINAL CERTIFICATE OF</li> </ul>	9. <u>ELECTRICAL</u> 9.1. ALL ELECTRICAL MOTORS, STARTERS, CONTACTORS, ISOLATION DISCONNECT SWITCHES AND CONTROL DEVICES FOR MECHANICAL WORK SHALL BE PROVIDED BY THE MECHANICAL CONTRACTOR	ACCORDANCE WITH CAN/ULC-S1001, "INTEGRATED SYSTEMS TESTING OF FIRE PROTECTION AND LIFE SAFETY SYSTEMS", TO VERIFY THAT THE SYSTEMS HAVE BEEN PROPERLY INTEGRATED.	TYPE 4: CAST IRON PIPING AND FITTINGS COMPLYING WITH CAN/CSA-B70. FOR MECHANICAL JOINTS ABOVE GRADE, USE NEOPRENE OR BUTYL RUBBER COMPRESSION GASKETS TO CAN/CSA-B70 WITH STAINLESS STEEL CLAMPS. FOR MECHANICAL JOINTS BELOW GRADE, USE MISSION HEAVYWEIGHT COUPLINGS FOR
APPROVAL FROM THE BUILDING INSPECTION DEPARTMENT TO THE LANDLORD UPON PROJECT COMPLETION.	THE MECHANICAL CONTRACTOR. 9.2.ELECTRICAL SHALL BE RESPONSIBLE FOR POWERING LOAD SIDE OF STARTERS AND CONTACTORS, PROVIDING POWER FOR ELECTRICAL HEAT TRACING, AND PROVIDING		HUB AND SPIGOT CONNECTIONS, PROVIDE NEOPRENE GASKET TO CAN/CSA-B70 AND COLD CAULKING COMPOUNDS. DO NOT USE HUB AND SPIGOT FOR ABOVE GROUND APPLICATIONS.
3.1. PERIODIC INSPECTIONS OF THE WORK WILL BE CONDUCTED BY THE CONSULTANT OVER THE COURSE OF THE PROJECT. ALL REPORTED DEFICIENCIES SHALL BE RECTIFIED BY THE CONTRACTOR IN A TIMELY FASHION. FAILURE TO DO SO WILL RESULT IN THE CONTRACTOR NOT MEETING THE REQUIREMENTS OF THE CONTRACT	CONTROLS, LINE SIDE POWER TO LOOSE STARTERS AND DISCONNECTS. 9.3. ALL LOW VOLTAGE WIRING AND CONNECTION ARE TO BE PROVIDED BY THE MECHANICAL CONTRACTOR.		TYPE 5: IPEX RING-TITE PVC SDR 35 SEWER PIPE IN COMPLIANCE WITH CSA B182.2 AND CSA B182.7. LATERALS WILL BE IPEX RING-TITE PVC SDR 28 IN COMPLIANCE WITH CSA B182.2. TYPE 6: IPEX SYSTEM XFR PIPING AND FITTINGS COMPLYING WITH CSA B181.2, SCHEDULE
DOCUMENTS AND ISSUANCE OF A COMPLIANCE LETTER. 3.2.IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ALL			40 WITH A FLAME SPREAD RATING OF NOT GREATER THAN 25 AND A SMOKE DEVELOPED CLASSIFICATION OF LESS THAN 50.
INSPECTIONS WITH MUNICIPAL OFFICIALS AND ALL OTHER AUTHORITIES HAVING JURISDICTION. 3.3.IN REGARD TO TEMPORARY SERVICES, PROVIDE, AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION, TEMPORARY FIRE PROTECTION SYSTEMS. REFRAIN FROM			
USING INSTALLED SYSTEMS FROM THE CONTRACT DOCUMENTS AS TEMPORARY SERVICES. THIS REQUIREMENT SHALL ALSO APPLY TO ALL OTHER MECHANICAL SYSTEMS INCLUDING HVAC, PLUMBING AND DRAINAGE, ETC.			

	PLUMBING				
	SPECIFICATIONS       CONT'D         TYPE 7: ROYAL ABS-DWV PIPING AND FITTINGS CERTIFIED TO CSA B181.1.				
THE LATEST ND THE D ALL PIPING,	5. <u>VALVES</u>				
PROVED UNLESS	5.1. PROVIDE ASTM DOMESTIC WATER VALVES TO THE FOLLOWING KITZ FIGURE NUMBERS:				
AND CONTRACT S AND LENGTHS	5.1.1. GATE VALVES 5.1.1.1. 2"ø AND SMALLER: SOLDERED, 1400 KPA [200PSI] W.O.G., FIG. 44 5.1.1.2. 2–1/2"ø AND LARGER: FLANGED, 1400 KPA [200PSI] W.O.G., FIG. 44	NO.	ISSUES	DATE	ВҮ
WN ON MEDIATELY.	5.1.2. GLOBE VALVES 5.1.2.1. 2"Ø AND SMALLER: SOLDERED, 2070 KPA [300 PSI], W.O.G. FIG 10 WITH SUITABLE COMPOSITION DISC.	01	ISSUED FOR PEMIT	2024.10.25	J.I.
NAGE SYSTEMS, ER THE . TESTS MAY	5.1.2.2. 2–1/2"ø AND LARGER: FLANGED, 1400 KPA [200 PSI], W.O.G. FIG. 76				
EST, BALL TEST SEMBLIES AS PER	5.1.3. STANDARD CHECK VALVES 5.1.3.1. 2"Ø AND SMALLER: SOLDERED, 2070 KPA [300 PSI], W.O.G. FIG 23				
ALL TRADES AND	5.1.3.2. 2–1/2"Ø AND LARGER: FLANGED, 1400 KPA [200 PSI], W.O.G. FIG. 78 5.1.4. BALL VALVES				
HANICAL ALL PROVIDE ALL	5.1.4.1. 2"Ø AND SMALLER: BALL VALVES MAY BE PROVIDED AS A SUBSTITUTE FOR GATE AND GLOBE VALVES. PROVIDE BALL VALVES WITH BRASS OR BRONZE BODY, CHROME PLATED SOLID BALL, PTFE SEATS AND SEALS AND FULL			<b>I</b>	
MPLETE BUT IS NOT TC.	PORT, KITZ FIG. 59 5.2. PROVIDE ISOLATION VALVES FOR DOMESTIC HOT AND COLD WATER SYSTEMS AT				
BUILDING CODE. TE INCLUDING THE	MAIN PIPING, BRANCH PIPING, AT FIXTURES AND EQUIPMENT.				
HIS BID TO SN INTENT.					
ED BY THIS AL BY A					
MOTOR PPLICABLE). R BY GRAVITY					
ID SUBMISSION, CES BELOW NEW SITE CONDITIONS		NO.	REVISIONS	DATE	BY
/E TO DRAINAGE BID, HE IS TO AL FROM THE N TIME AND		DISCLAIM	ER		
AND EXPENSE TO DESIGN.			This drawing is the pr IANUZZIELLO & ASS This drawing shall be the architectural, struct	<b>OCIATES INC.</b> read in conjunction w	
<u>OF</u>			other consultant's dra with the work. Do not The contractor is to v	wings prior to procee scale the drawings.	
TANDARD AWWA S. DURING STORAGE,			responsibility for all di on site and must noti IANUZZIELLO & ASS	mensions and condition fy <b>OCIATES INC.</b>	ons
HE PIPING.	PROJECT CLOSE OUT	CONSULT	of any variations from	the drawings.	
JE TO	1. UPON COMPLETION OF WORK, PROVIDE A WRITTEN ONE YEAR WARRANTY COVERING THE COMPLETE WORK. RECTIFY ANY DEFECTS ARISING DURING THIS PERIOD AT NO		CONSU	LTING	
LUSH THE NE THE NG. CONNECT THE ED AND	EXTRA COST. FOR THE ISSUANCE OF THE MECHANICAL LETTER OF COMPLIANCE, ONE WEEK PRIOR TO OCCUPANCY, THE CONTRACTOR SHALL PROVIDE THE FOLLOWING:		IANUZZ ASSOC	$z \equiv z \equiv$	
	<ul> <li>OPERATING AND MAINTENANCE MANUALS</li> <li>AS-BUILT RECORD DRAWINGS ON WHITE PRINTS AND ASSOCIATED DATA</li> <li>EXTENDED WARRANTIES FOR EQUIPMENT AS SPECIFIED</li> <li>ALL OPERATING TEST CERTIFICATES, E.G. SPRINKLER TEST CERTIFICATE</li> </ul>		N.GIN	NEERS.	
5:	<ul> <li>ALL OPERATING TEST CERTIFICATES, E.G. SPRINKLER TEST CERTIFICATE</li> <li>FINAL COMMISSIONING REPORT AND TESTING AND AIR BALANCING REPORT</li> <li>ENGINEER SIGNED AND SEALED LETTER CONFIRMING THAT THE SPRINKLER INSTALLATION COMPLIES WITH NFPA 13</li> </ul>	L	ANUZZIELLO & A 305 MILNER AVE TORONTO, ONTA	NUE, SUITE 215 ARIO, M1B 3V4	C.
ніск - 1–1/2"	<ul> <li>IDENTIFIED KEYS FOR MECHANICAL EQUIPMENT AND/OR PANELS FOR WHICH KEYS ARE REQUIRED, AND ALL OTHER ITEMS REQUIRED TO BE SUBMITTED</li> <li>OTHER DATA OR PRODUCTS SPECIFIED</li> </ul>		TEL: (416) FAX: (416) E-mail: info©i	609-0702	
	CONTRACTOR SHALL NOTIFY THE CONSULTANT MINIMUM THREE (3) DAYS PRIOR TO CITY INSPECTOR VISIT.	STAMP		_	
TION COMPLETE SULATION WITH	2. SUBMIT A LEGIBLE SET OF AS-BUILT DRAWINGS ON WHITE PRINTS TO THE CONSULTANT AND ELECTRONIC CAD FILES. INCLUDE FOR CONSULTANTS COST TO UPDATE DRAWINGS TO AS-BUILT & PLOT. CONTRACTOR TO CARRY \$1,000.00 FOR		25.0C	i> i	
ITINGS, COVER	CONSULTANT COSTS. WHITE PRINTS SHALL INCORPORATE ALL CHANGES AND DEVIATIONS FROM THE ORIGINAL TENDER DRAWINGS, SHOW ALL HVAC, PLUMBING AND/OR FIRE PROTECTION LAYOUTS.			noci/o/	
<u>ERIALS</u>			ON NCE O	OF ONTAT	
		PROJ	ECT:		
		том	NSHIP OF E	BROCK	
		176 M	AIN STREET ERTON, Ontario		
		L0K 1	-		
			VING: ECIFICAT	IONS	
FITTINGS AND		_	EET NO.		
NY SOLDER					
70. FOR RUBBER				NORTH ARROW	
EL CLAMPS. FOR COUPLINGS FOR O CAN/CSA-B70					
OT FOR ABOVE CSA B182.2 AND					
B181.2, SCHEDULE					C CONTROL:
AND A SMOKE		AS	ARRY BRYAN SSOCIATES	J.I.	e: :OMPLETE:
		En	gineers oject Managers		IAL:
		Wh Tel	-250 Water Street itby Ontario L1N 0G5 : (905) 666-5252	OCTOBER 2024 SCALE: N.T.S.	
		e-ma	:: (905) 666-5256 il: bba@bba-archeng.com	FILE: 24249-TOWNSHIP OF BRO	ск
		PROJECT	<sup>№</sup>		2

<ol> <li><u>GENERAL</u></li> <li>PROVIDE ALL LABOUR AND MATERIALS TO SUPPLY AND INSTALL THE DUCTWORK AND SHEET METAL SYSTEMS AS INDICATED ON MECHANICAL DRAWINGS. THIS INCLUDES INSTALLING THE DUCTWORK, ACCESSORIES, ASSOCIATED ITEMS AND ALL NECESSARY CONNECTIONS TO OUTLETS, INLETS AND EQUIPMENT TO PROVIDE A COMPLETE SYSTEM.</li> <li>UNLESS OTHERWISE NOTED, FABRICATE ALL DUCTWORK SYSTEMS, INCLUDING DUCTWORK, HOUSINGS, DAMPERS AND ACCESS DOORS, WITH GALVANIZED STEEL SHEET METAL MEETING ASTM A653 AND A924. CONSTRUCTION OF THE DUCTWORK SYSTEMS SHALL BE IN STRICT ACCORDANCE WITH SMACNA, SMACNA DUCT CLEANLINESS AND ASHRAE. ALL DUCTWORK SHALL BE SMOOTH ON THE INSIDE AND SHALL BE FREE FROM RATILING OR</li> <li>COORDINATE INSTALLATION OF ALL CONTROL DEVICES/S DRAWINGS.</li> </ol>
<ul> <li>Herrich, Jordhev, J. C. 1998, And J. L. 1998, And J. 1998</li></ul>

4.3. WHEN INSTALLED IN OPEN AREAS, PROVIDE EMT CONDUIT, FITTINGS, MOUNTING

#### ECIFICATIONS CO

ECIFICATIONS CONT'D	HYDRONIC SYSTEM SPECIFICATIONS	HVAC LEGEND
DELIVER A NEAT AND CLEAN INSTALLATION.	1. <u>PRODUCTS</u>	SYMBOL DESCRIPTION
ABLE: MOUNT AT 3'-11" (1200 MM) A.F.F.	1.1. PIPE 1.1.1. PROVIDE SCHEDULE 40 (NPS) STEEL PIPE CONFORMING TO	EXISTING DUCTWORK/EQUIPMENT
(SENSOR ONLY): MOUNT AT 5'-0" (1500 MM) A.F.F. HEIGHTS WITH CONSULTANT PRIOR TO INSTALLATION.	ASTM-A53/A53M, GRADE B 1.2. PIPE JOINTS	EXISTING DUCTWORK/EQUIPMENT TO BE REMOVED
ION OF ALL CONTROL DEVICES/SENSORS WITH ARCHITECTURAL	1.2.1. FOR NPS 2"Ø AND SMALLER, USE SCREWED FITTING WITH PTFE TAPE OR LEAD-FREE PIPE DOPE.	NEW RIGID DUCTWORK
CES/SENSORS CLEAR OF DIMMERS SO AS TO AVOID	1.3. FITTINGS 1.3.1. SCREWED FITTINGS SHALL BE MALLEABLE IRON CONFORMING TO ASME	NEW HVAC EQUIPMENT
RACTOR SHALL TEST ALL CONTROLS/INTERLOCKS FOR GOOD PROJECT CLOSE-OUT. PROVIDE A REPORT FOR REVIEW TO THE PEFICIENCIES.	B16.3, CLASS 150. 1.3.2. UNIONS SHALL BE MALLEABLE IRON CONFORMING TO ASTM-A47/A47M AND ASME B16.3.	EXISTING FLEXIBLE DUCTWORK
THEIR RESPECTIVE MAGNETIC STARTERS AND PROVIDE POWER TO S FROM NEAREST AND MOST SUITABLE ELECTRICAL PANEL.	1.4. VALVES 1.4.1. FOR NPS 2"Ø AND SMALLER, USE SCREWED END BALL VALVES	NEW FLEXIBLE DUCTWORK
ES OF THE BASE BUILDING APPROVED CONTROLS CONTRACTOR	CONSTRUCTED OF CAST HIGH TENSILE BRONZE CONFORMING TO ASTM-B16 OR ASTM-B62. SCREWED ENDS SHALL CONFORM TO ANSI-B1.20.1 WITH HEX SHOULDERS. BALL SHALL BE REPLACEABLE	SUPPLY AIR DUCTWORK UP
PECT THE CONDITION OF ALL EXISTING EQUIPMENT AND SARY REPAIRS TO PROVIDE A COMPLETE WORKING SYSTEM.	AND CONSTRUCTED OF EITHER STAINLESS STEEL OR HARD CHROME. 1.4.2. CIRCUIT BALANCING VALVE BODIES SHALL BE CONSTRUCTED OF A COPPER ALLOY AND RATED TO 300 PSI. THE CBV SHALL CONTAIN	SUPPLY AIR DUCTWORK DOWN
STALLATION WHEN REQUIRED SHALL BE BY OWNER'S/LANDLORD'S R.	MEASURING PORTS AND A LOCKING TAMPER PROOF SETTING.	RETURN AIR DUCTWORK UP
CO2 SENSORS SHALL BE MATCH BASE BUILDING.	2. INSTALLATION OF PIPEWORK	S/A 'SUPPLY AIR'
REPORT THAT THIS WORK WAS COMPLETED.	2.1. EXECUTION 2.1.1. MAKE ALL CONNECTIONS TO EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.	R/A 'RETURN AIR'
OL SYSTEM. HARD WIRE ALL ELECTRICAL CONTROL DEVICES INTO EM MAGNETIC STARTER. PROVIDE POWER TO CONTROL PANEL DRMAL POWER ELECTRICAL DISTRIBUTION PANEL. PROVIDE BACNET /C EQUIPMENT SHOWN ON THE DRAWINGS.	<ul> <li>2.1.2. PROVIDE VALVES AND UNIONS AT CONNECTION FOR MAINTENANCE/REPLACEMENT PURPOSES.</li> <li>2.1.3. PROVIDE DRAINS AT SYSTEM LOW POINTS, EQUIPMENT AND ISOLATING</li> </ul>	0/A 'OUTDOOR AIR'
CHEN	SECTIONS. INSTALL NPS 1/10 GATE OR GLOBE VALVE WITH HOSE END MALE THREAD, CAP AND CHAIN.	F/D 'FIRE DAMPER'
AND INSTALLATION MUST COMPLY WITH NFPA 96. FOLLOW	2.1.4. PROVIDE AUTOMATIC AIR VENTS AT SYSTEM HIGH POINTS COMPLETE WITH ISOLATING VALVE.	L BD 'BALANCING DAMPER'
MESCRIBED BY LOCAL AHJ M CLEARANCE FROM GREASE DUCTS TO ENCLOSURES.	2.2. CLEARANCES: PROVIDE THE REQUIRED CLEARANCES AROUND EQUIPMENT, PIPING, SYSTEMS, ETC. TO RENDER THE NECESSARY SPACE REQUIREMENTS FOR SERVICE, INSPECTION, OPERATION, REPLACEMENT	BDD 'BACKDRAFT DAMPER'
ANOUTS AT EACH FLOOR AND 12 FEET HORIZONTAL INTERVALS IBLE FROM THE ENTRY OR DISCHARGE.	AND MAINTENANCE. REFER TO ALL MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR REQUIRED AND RECOMMENDED CLEARANCES.	M/D 'MOTORIZED DAMPER'
ANOUTS AT EVERY ELBOW, TEE, CHANGE IN DIRECTION AND 12" OUNTED DAMPER.	2.3. DIELECTRIC FITTINGS: WHERE DISSIMILAR METALS ARE JOINED, PROVIDE DIELECTRIC ISOLATING FITTINGS (COMPLETE WITH THERMOPLASTIC LINER), UNIONS OR BRONZE VALVES.	SQUARE SUPPLY AIR DIFFUSER
BE ADEQUATELY SIZED FOR THOROUGH CLEANING. L MAINTAIN CLEARANCES FOR ALL KITCHEN EQUIPMENT AS PER	2.4. PIPEWORK INSTALLATION	SUPPLY AIR GRILLE
ROVIDE TEST AND PERFORMANCE DATA UPON COMPLETION OF	2.4.1. SCREWED FITTING CONNECTIONS SHALL BE COMPLETE WITH PIPE DOPE OR TEFLON TAPE.	RETURN AIR GRILLE
T FAN SHALL CONTINUE TO OPERATE AFTER THE EXTINGUISHING	2.4.2. PROTECT ALL SYSTEM OPENINGS DURING CONSTRUCTION TO PREVENT THE ENTRY OF FOREIGN MATERIAL.	CIRCULAR SUPPLY AIR DIFFUSER
ED UNLESS SHUTDOWN IS REQUIRED AS A COMPONENT OF THE TEM. RANCE FROM EXPOSED HOODS AND GREASE DUCTS TO	<ul><li>2.4.3. INSTALL ALL PIPING, EQUIPMENT, ETC. TO BE PARALLEL OR PERPENDICULAR WITH BUILDING LINES.</li><li>2.4.4. PROPERLY REAM AND REMOVE SCALE AND FOREIGN MATERIAL PRIOR</li></ul>	LINEAR SLOT DIFFUSER
SE EXTRACTOR SHALL BE CONSTRUCTED OF 18 GAUGE	TO ASSEMBLY. 2.4.5. INSTALL ALL VALVES IN ACCESSIBLE LOCATIONS. 2.4.6. WHERE PIPING PASSES THROUGH MASONRY, FIRE-RATED ASSEMBLIES,	
VORK SHALL BE CONSTRUCTED OF ALUMINIUM OR STAINLESS	FOUNDATION WALLS, POURED WALLS, ETC., PROVIDE PIPE SLEEVES CONSTRUCTED OF SCHEDULE 40 BLACK STEEL PIPE. ALLOW FOR 0.25" OF CLEARANCE BETWEEN INSIDE OF SLEEVE AND OUTSIDE OF	THERMOSTAT, SENSOR
IWORK BACK TO EXTRACTOR UST DUCTWORK SHALL BE OF 16 GAUGE CARBON STEEL OR 18	PIPE/INSULATION. SEAL WITH A FIRE RETARDANT AND WATERPROOF NON HARDENING MASTIC. WHERE SLEEVE IS INSTALLED IN A FIRE	
STEEL, LIQUID TIGHT, WITH A CONTINUOUS EXTERIOR WELD	RATED ASSEMBLY, PROVIDE FIRESTOPPING CONFORMING TO ULC. 2.4.7. PROVIDE ESCUTCHEON PLATES ON PIPING PASSING THROUGH FINISHED WALLS, FLOOR AND CEILINGS.	© CARBON DIOXIDE SENSOR
A DESIGN BUILD BASIS BY THE MECHANICAL CONTRACTOR ST TO THE REQUIREMENT OF THE BUILDING INSPECTOR	2.4.8. PROPERLY FLUSH AND CLEAN SYSTEM AND REMOVE ALL FOREIGN MATTER PRIOR TO SYSTEM START-UP. 2.4.9. PRESSURE TEST SYSTEM AND MONITOR FOR PRESSURE LOSS FOR A	CO CARBON MONOXIDE DETECTOR
NTAL GREASE DUCTWORK BACK TO HOOD. MINIMUM 1/4" PER	MINIMUM OF 4 HOURS, UNLESS OTHERWISE SPECIFIED.	S STARTER
THAN 18" TO COMBUSTIBLES OR 3" CLOSER THAN ES, AS DEFINED BY NFPA 96, SHALL BE PROTECTED WITH 3M 2 DUCT WRAP ALONG ENTIRE LENGTH, OR NFPA 96 COMPLIANT	2.5. HANGERS AND SUPPORTS 2.5.1. UTILIZE PIPE HANGERS AND SUPPORTS CONSTRUCTED OF	A-6"Ø 150CFM DIFF TYPE/SIZE AIR CAPACITY
TION PANEL FIRE ALARM SYSTEM, CONNECT TO HOOD SUPPRESSION SYSTEM ALARM AS REQUIRED	GALVANIZED STEEL. 2.5.2. INSTALL HANGERS SO THAT RODS ARE VERTICAL. ENSURE LOAD EQUALIZATION WITH ROD ADJUSTMENT.	TYP. 'TYPICAL'
FIRE EXTINGUISHERS IN KITCHEN AREA AS REQUIRED	2.5.3. FOR RISER CLAMPS, PROVIDE GALVANIZED BLACK CARBON STEEL, ULC LISTED OR FM APPROVED WHERE REQUIRED. BOLTS AND NUTS SHALL CONFORM TO ASTM-A307 AND ASTM-A563, RESPECTIVELY.	SINGLE POLE SWITCH
INSULATION FOR HOT WATER PIPING UP TO 2"Ø AND 140°F. USE	2.5.4. FOR BASE-MOUNTED EQUIPMENT, PROVIDE CONCRETE HOUSE-KEEPING PADS 4" TALL AND 6" OF SPACE AROUND	\$3 3-WAY SWITCH
OR 141-200°F. PROVIDE INSULATION FOR FIRST 8 FEET OF HOT OF NON-RECIRCULATION SYSTEMS.	EQUIPMENT BASE AND CHAMFERED EDGES. 2.5.5. HANGER SPACING 2.5.5.1. PROVIDE HANGERS AT SPACING INDICATED BELOW AND AT EVERY	X-XX EQUIPMENT TAG
TION FOR ALL BACKFLOW DEVICES. RAINAGE PIPING.	JOINT AND CHANGE OF DIRECTION. 2.5.5.2. PROVIDE HANGERS FOR VARIOUS PIPE SIZES AT THE FOLLOWING SPACING: 1-1/4"Ø @ 70" (1.8 M), 1-1/2"Ø @ 94" (2.4 M) AND	CAP CAP ON DUCTWORK
SHING SINKS AND COMMERCIAL DISHWASHING MACHINES SHALL ECTED TO THE DRAINAGE SYSTEM, AND PROTECTED BY A FLOOR	2"ø @ 106" (2.7 M).	CTE 'CONNECT TO EXISTING'
S AS REQUIRED. CLEANOUT PLUGS SHALL HAVE RAISED SQUARE RSUNK RECTANGULAR SLOTS. KITCHEN WALL AND FLOOR	2.6. PIPING INSULATION 2.6.1. PROVIDE PIPING INSULATION FOR THE HYDRONIC SYSTEMS AS	
IAVE A COVER OVER THE CLEANOUT PLUG. DRAINAGE FOR WALK-IN COOLERS, ICE BOXES, ICE MACHINES, FFEE BREWERS, HOT AND COLD DRINK DISPENSERS.	FOLLOWS: 2.6.1.1. HEATING WATER (HWS/HWR): TYPE 'A', UP TO 1"Ø – 1" THICK,	CABINET EXHAUST FAN
PING SHALL NOT BE SMALLER THAN 1" AND NOT EXCEED 15	1-1/4"Ø AND LARGER - 1-1/2" THICK. 2.6.1.2. CHILLED WATER (CHWS/CHWR): TYPE 'A', UP TO 1"Ø - 1" THICK, 1-1/4"Ø AND LARGER - 1-1/2" THICK.	DUCTWORK WITH ACOUSTIC/THERMAL INSULATION (SEE SPEC
IS REQUIRED, IT SHALL BE THE SAME AS THE PIPE, IT IS LESS THAN 1" ABOVE THE FLOOD LEVEL RIM OF RECEPTOR.	2.6.1.3. CONDENSER WATER (INDOOR, CWS/CWR): TYPE 'A', ALL SIZES - 1"THICK.	E DUCTWORK WITH ACOUSTIC INSULATION
A BAR, SODA FOUNTAIN OR COUNTER CANNOT BE PROPERLY TED, PROVIDE AN INDIRECT CONNECTION TO AN APPROVED	2.6.2. TYPE 'A': JOHNS MANVILLE MICRO-LOK FIBRE GLASS PIPE INSULATION COMPLETE WITH JACKET AND VAPOUR RETARDER. CONNECT SECTIONS OF INSULATION WITH SELF-ADHESIVE BUTT	DUCTWORK WITH THERMAL INSULATION
PROPERLY TRAPPED AND VENTED. THIS INDIRECT LINE SHALL T. D WASTE PIPING SHALL BE OF CORROSIVE RESISTIVE MATERIALS.	STRIPS SUPPLIED BY THE INSULATION MANUFACTURER. 2.6.3. WHERE NOTED, RECOVER INSULATION WITH HEAVY-GAUGE PVC FITTINGS, COVER AND JACKETING EQUAL TO JOHNS MANVILLE ZESTON	CONTINUATION OF DUCTWORK/PIPING
IVE) WASTE SHALL DISCHARGE IN NON-CORROSIVE PIPING.	300 SERIES. 2.6.4. PROVIDE PRE-FORMED INSULATION FOR FITTINGS AND VALVES.	EXISTING CONTROL WIRING
SPOSAL UNIT SHALL BE INSTALLED WITH ANY SET OF		NEW CONTROL WIRING
		SPIN-IN DUCT CONNECTION WITH BALANCING DAMPER
		(7)   DRAWING NOTE
		O     ROUND SUPPLY AIR DIFFUSER
		LOUVERED FACE SUPPLY/RETURN GRILLE
		DOOR 'UNDERCUT'
		POWER SYMBOL       Image: Comparison of the symbol       Image: Comparison of the symbol
		AIR TRANSFER DUCT
	1 1	

SUPPLY AIR

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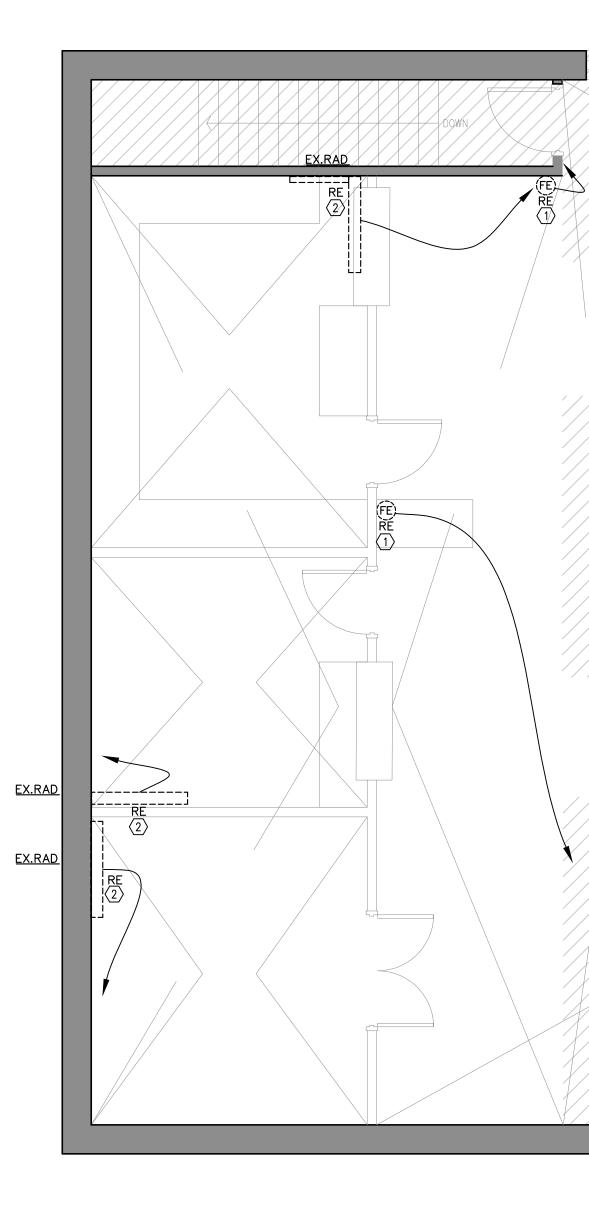
## PLUMBING LEGEND

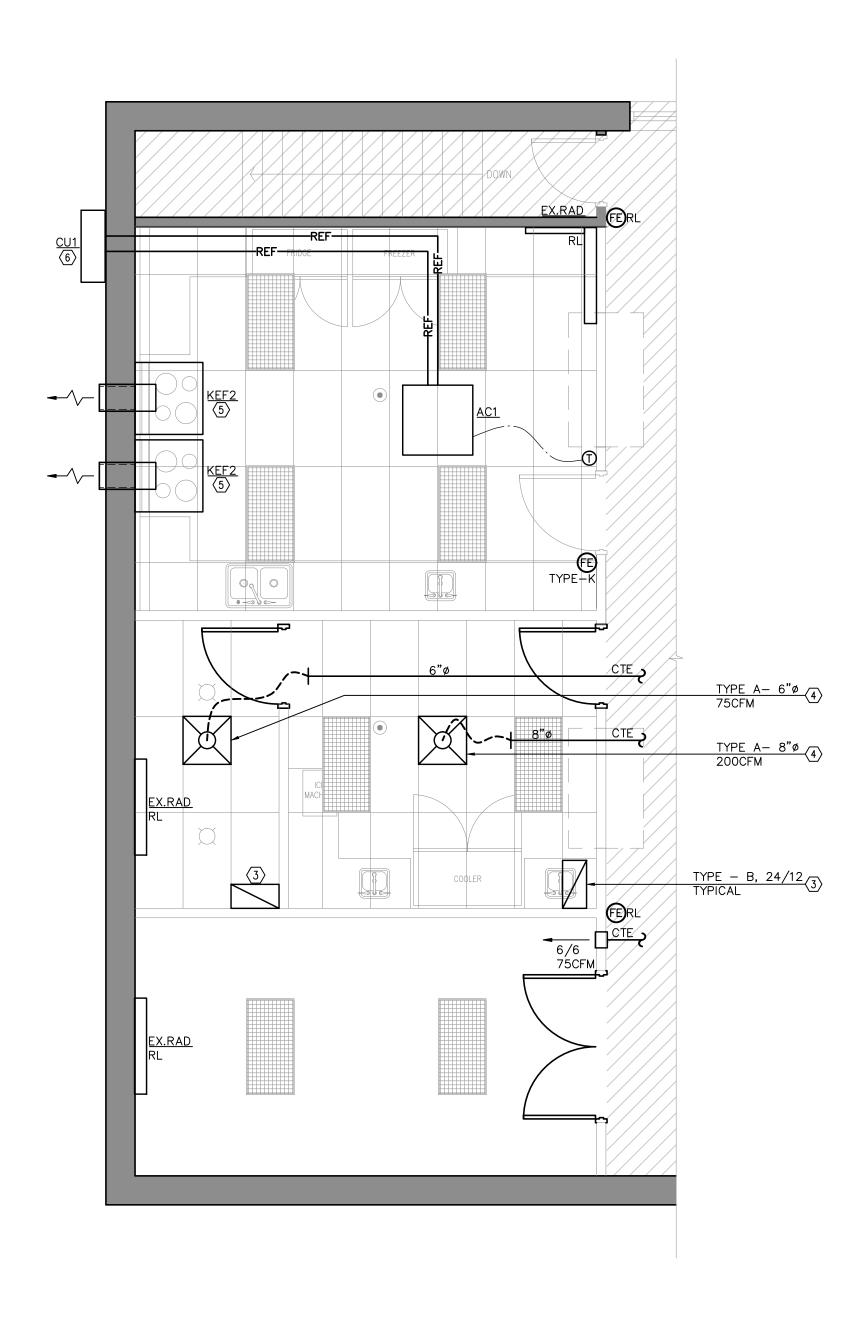
SYMBOL	DESCRIPTION			
——EX.SAN——	EXISTING ABOVE GROUND SANITARY DRAINAGE PIPING			
EX.SAN	EXISTING UNDERGROUND SANITARY DRAINAGE PIPING			
	ABOVE GROUND SANITARY DRAINAGE PIPING			
<b>—</b> — SAN — —	UNDERGROUND SANITARY DRAINAGE PIPING			
— EX.STM —	EXISTING ABOVE GROUND STORM DRAINAGE PIPING			
— — EX.STM— —	EXISTING UNDERGROUND STORM DRAINAGE PIPING			
STM	ABOVE GROUND STORM DRAINAGE PIPING			
<b>— —</b> STM <b>— —</b>	UNDERGROUND STORM DRAINAGE PIPING			
——EX.V——	EXISTING ABOVE GROUND VENT PIPING			
EX.V	EXISTING UNDERGROUND VENT PIPING			
V	ABOVE GROUND VENT PIPING			
V	UNDERGROUND VENT PIPING			
——EX.CD——	EXISTING CONDENSATE DRAINAGE PIPING			
CD	CONDENSATE DRAINAGE PIPING			
	EXISTING DOMESTIC COLD WATER PIPING			
	DOMESTIC COLD WATER PIPING			
	EXISTING DOMESTIC HOT WATER PIPING			
	DOMESTIC HOT WATER PIPING			
	EXISTING DOMESTIC HOT WATER RETURN PIPING			
	DOMESTIC HOT WATER RETURN PIPING			
——EX.G——	EXISTING GAS PIPING			
G	LOW PRESSURE GAS PIPING			
——HPG ——	HIGH PRESSURE GAS PIPING			
	EXISTING PIPING/EQUIPMENT TO BE REMOVED			
SSSS	HEAT TRACING ON PIPE			
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	CONTINUATION OF DUCTWORK/PIPING			
¥	GAS COCK VALVE			
FD 🖨 FFD	FLOOR DRAIN/FUNNEL FLOOR DRAIN			
HD <b>O</b>	HUB DRAIN			
AD 🖸	AREA DRAIN			
RD 😰	ROOF DRAIN			
СВ	AREA DRAIN			
со <b>а</b> —	BURIED CLEANOUT			
со II—	EXPOSED CLEANOUT			
್	SANITARY 'P' TRAP			
<b>م</b> ے	PIPE UP			
<b>جے</b>	PIPE DOWN			
VTR	VENT THROUGH ROOF			
САР	CAP ON PIPING			
$\langle  \rangle$	DRAWING KEY NOTE			

#### FIRE PROTECTION LEGEND

SYMBOL	DESCRIPTION
Æ	FIRE EXTINGUISHER
FHC	FIRE HOSE CABINET
N	NEW
EX	EXISTING
R	REMOVED
RE	RELOCATED
$\langle 7 \rangle$	DRAWING NOTE

NO. ISSUES			DATE 2024.10.2	BY
			2024.10.	
NO. REVISIONS			DATE	BY
DISCLAIMER				
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PROJECT: TOWNSHIP 176 MAIN STR BEAVERTON, LOK 1A0 DRAWING: SPECIF	POF B EET Ontario	ROC	S &	
PROJECT: TOWNSHIP 176 MAIN STR BEAVERTON, LOK 1A0 DRAWING: SPECIF	POF B EET Ontario		S &	
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PROJECT: TOWNSHIF 176 MAIN STR BEAVERTON, LOK 1A0 DRAWING: SPECIFI LEGENC BARRY BRY ASSOCIATE Architects Engineers Project Manager 201-250 Water Stre Whitby Ontario L1N Tel: (905) 666-525 Fax: (905) 666-525	POF B EET Ontario	ROC IONTHAN DESIGN BY J.I. DRAWN BY: T.Y. CHECKED F J.I. DRAWN BY: T.Y. CHECKED F J.I. DRAWN BY: T.Y. CHECKED F	S &	DOC CONTROL: DATE: % COMPLETE:
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#### GENERAL HVAC NOTES

- 1 DO NOT SCALE DRAWINGS. THE LOCATIONS OF ALL ITEMS SHOWN ON THE DRAWINGS OR SPECIFIED THAT ATE NOT DEFINITELY FIXED BY DIMENSIONS ARE APPROXIMATE ONLY. THE EXACT LOCATIONS NECESSARY TO SECURE THE BEST CONDITIONS AND RESULTS MUST BE DETERMINED BY THE SITE CONDITIONS. REVIEW ALL REVISIONS WITH THE CONSULTANT.
- FLOOR PLANS SHALL BE READ IN CONJUNCTION WITH SCHEMATICS. INFORMATION SHOWN ON FLOOR PLANS SHALL BE ASSUMED TO BE APPLICABLE TO THE RELATED SYSTEM SCHEMATIC AND VICE-VERSA TO PROVIDE A COMPLETE AND OPERATIONAL SYSTEM.
- REMOVED ALL EQUIPMENT AS INDICATED AND ITS ASSOCIATED DUCTWORK, PIPING, AND CONTROLS. REPATCH AND REPAIR ALL EXISTING HOLES AND PENETRATION TO MATCH EXISTING.
   REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT
- LOCATIONS OF GRILLES AND DIFFUSERS. 5 COORDINATE FINAL LOCATION WITH THE ARCHITECT WITHIN 1000MM
- (40 IN) OF LOCATION SHOWN. ALL RELOCATIONS OUTSIDE OF THIS RANGE SHALL BE REVIEWED WITH THE CONSULTANT.6 TEMPERATURE SENSORS SHALL MATCH ELEVATION OF LIGHT
- SWITCHES ABOVE THE FINISHED FLOOR UNLESS INDICATED OTHERWISE.
- 7 DIFFUSER DUCT RUN-OUTS SHALL BE THE SAME SIZE AS THE DIFFUSER INLETS UNLESS INDICATED OTHERWISE.
- 9 CONTRACTOR SHALL INCLUDE IN THE TENDER PRICE A PRE-BALANCING REPORT FOR EXISTING HVAC SYSTEM SERVING THE SPACES(S) WITHIN THE SCOPE OF WORK. COMPLETE WITH INFORMATION SUCH AS STATIC PRESSURE, AIR VELOCITIES, OUTDOOR/SUPPLY/RETURN AIR QUANTITIES, HEAT PUMP WATER FLOW RATES, DISCREPANCIES (IF ANY), AND DEFICIENCIES (IF ANY) FOR ALL COMPONENTS OF THE EXISTING HVAC SYSTEM SUCH AS AIR HANDLING UNITS, PERIMETER INDUCTION UNITS, FAN, DUCTWORK, AND DIFFUSERS. THE REPORT IS TO BE SUBMITTED FOR ENGINEER'S REVIEW PRIOR TO CONSTRUCTION.
- 10 CONTRACTOR SHALL INCLUDE IN THE TENDER PRICE AN INSPECTION AND SERVICING OF ALL EXISTING ROOF TOP UNITS WITHIN THE SCOPE OF WORK. CONTRACTOR SHALL INCLUDE IN THE TENDER PRICE ALL COSTS ASSOCIATED WITH THE REPLACEMENT OF FANS, MOTORS, PULLEYS, SHEAVES, HYDRONIC PIPING, CONTROL VALVES, THERMOSTATS, CONTROLS, CONTROL WIRING, AIR FILTERS AND ALL ASSOCIATED ACCESSORIES. CONTRACTOR SHALL INCLUDE IN THE TENDER PRICE THE FLUSHING AND CLEANING OF ALL HYDRONIC PIPING WITHIN THE SCOPE OF WORK, AND TO ALLOW FOR ALL HYDRONIC BALANCING AS REQUIRED TO BASE BUILDING REQUIREMENTS,
- 11 UPDATE EXISTING BUILDING AUTOMATION CONTROL SYSTEM GRAPHICS TO REFLECT CHANGES IN HEAT PUMP UNITS AND ASSOCIATED TEMPERATURE SENSOR LOCATIONS AS REQUIRED. COORDINATE THIS WORK WITH BUILDING MANAGEMENT.

D	EMOLITION & NEW HVAC DRAWING NOTES
$\langle 1 \rangle$	EXISTING FIRE EXTINGUISHER TO BE RELOCATED. TYPICAL OF TWO.
2	EXISTING RADIATOR TO BE RELOCATED. RECONNECT HEDONIC PIPING TO RELOCATED RADIATOR.
$\langle 3 \rangle$	PROVIDE NEW RETURN AIR GRILLES AS SPECIFIED. REFER TO DETAILS FOR INSTALLATION. TYPICAL.
<u>(4)</u>	PROVIDE NEW SQUARE AIR DIFFUSER OF SIZE AND TYPE INDICATED. PROVIDE NEW FLEXIBLE/RIGID DUCT (DUCT SIZE TO MATCH DIFFUSER NECK SIZE). BALANCE TO AIR QUANTITY SHOWN. TYPICAL.
5	PROVIDE NEW KITCHEN EXHAUST HOOD. AS SPECIFIED. UNIT TO BE MOUNTED AS PER DETAILS.
6	PROVIDE NEW CONDENSER UNIT AS SPECIFIED AT H/L AND TIGHT TO STRUCTURAL COLUMN. UNIT TO BE C/W WALL BRACKET AS REQUIRED. PROVIDE NEW REFRIGERANT PIPING. SIZE PIPING AS PER MANUFACTURER'S RECOMMENDATION. EXACT ROUTING OF

REFRIGERANT PIPING TO BE COORDINATED ON SITE WITH OTHER

TRADES/SERVICES. POWER CONNECTION BY ELECTRICAL DIVISION.

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responsibility for all dimensions and conditions on site and must notify IANUZZIELLO & ASSOCIATES INC. of any variations from the drawings.

ASSOCIATES

IANUZZIELLO & ASSOCIATES INC. 305 MILNER AVENUE, SUITE 215 TORONTO, ONTARIO, M1B 3V4 TEL: (416) 609–8570 FAX: (416) 609–0702 E-mail: info@ianuzziello.com

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CONSULTANT

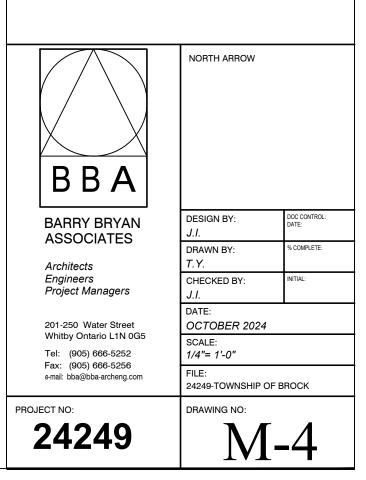


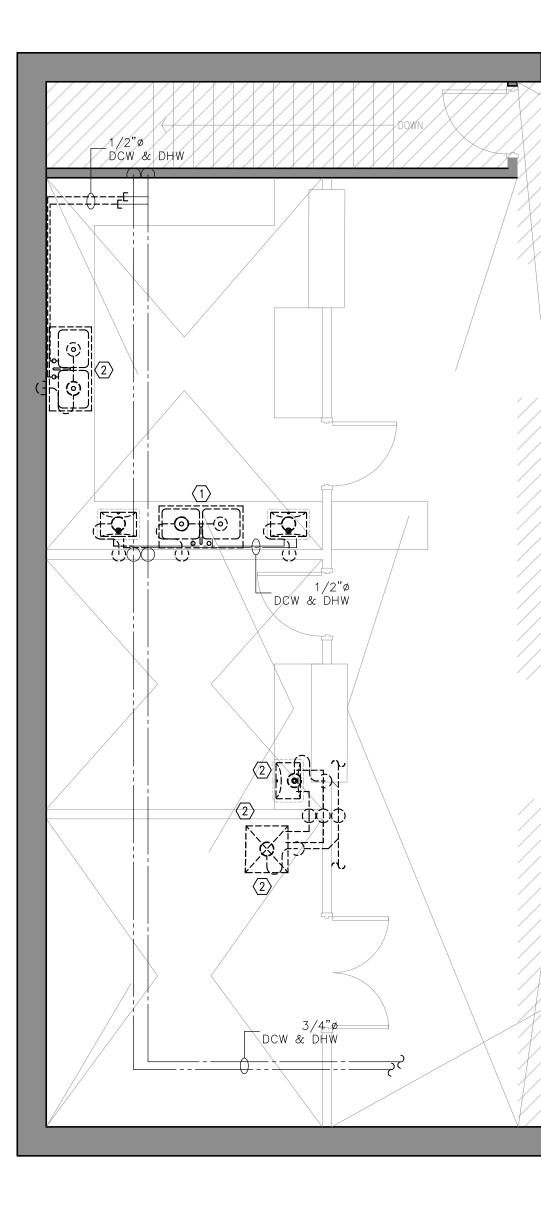
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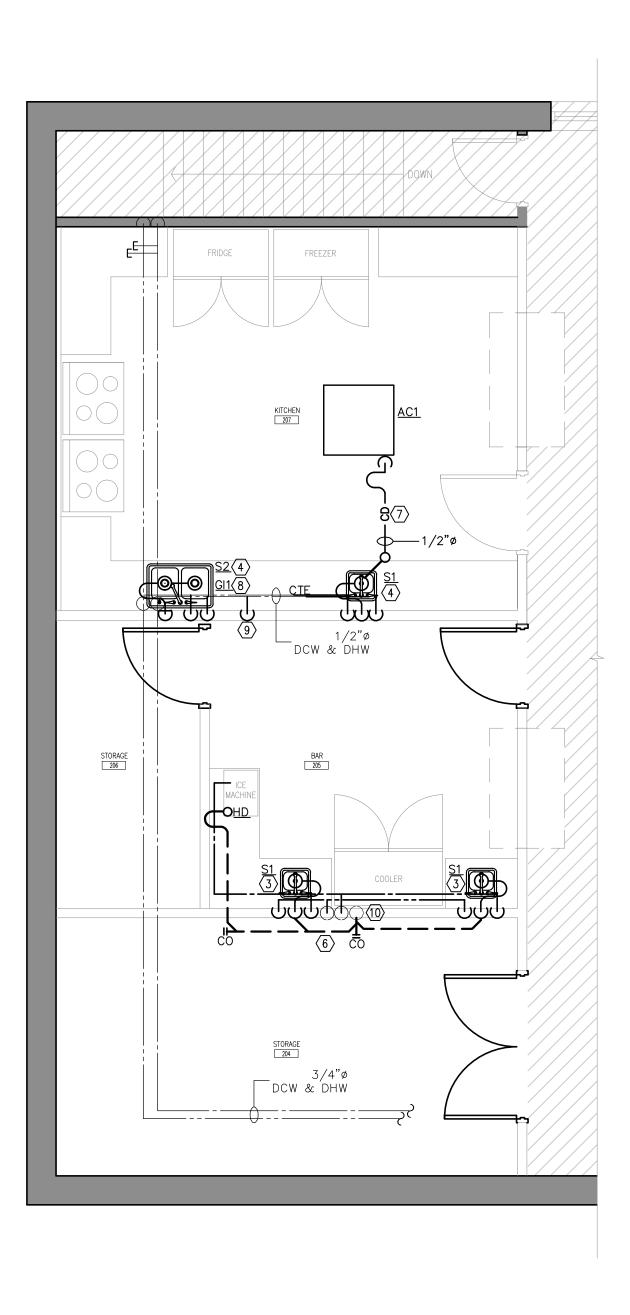
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DRAWING:

## DEMOLITION & NEW HVAC PLAN





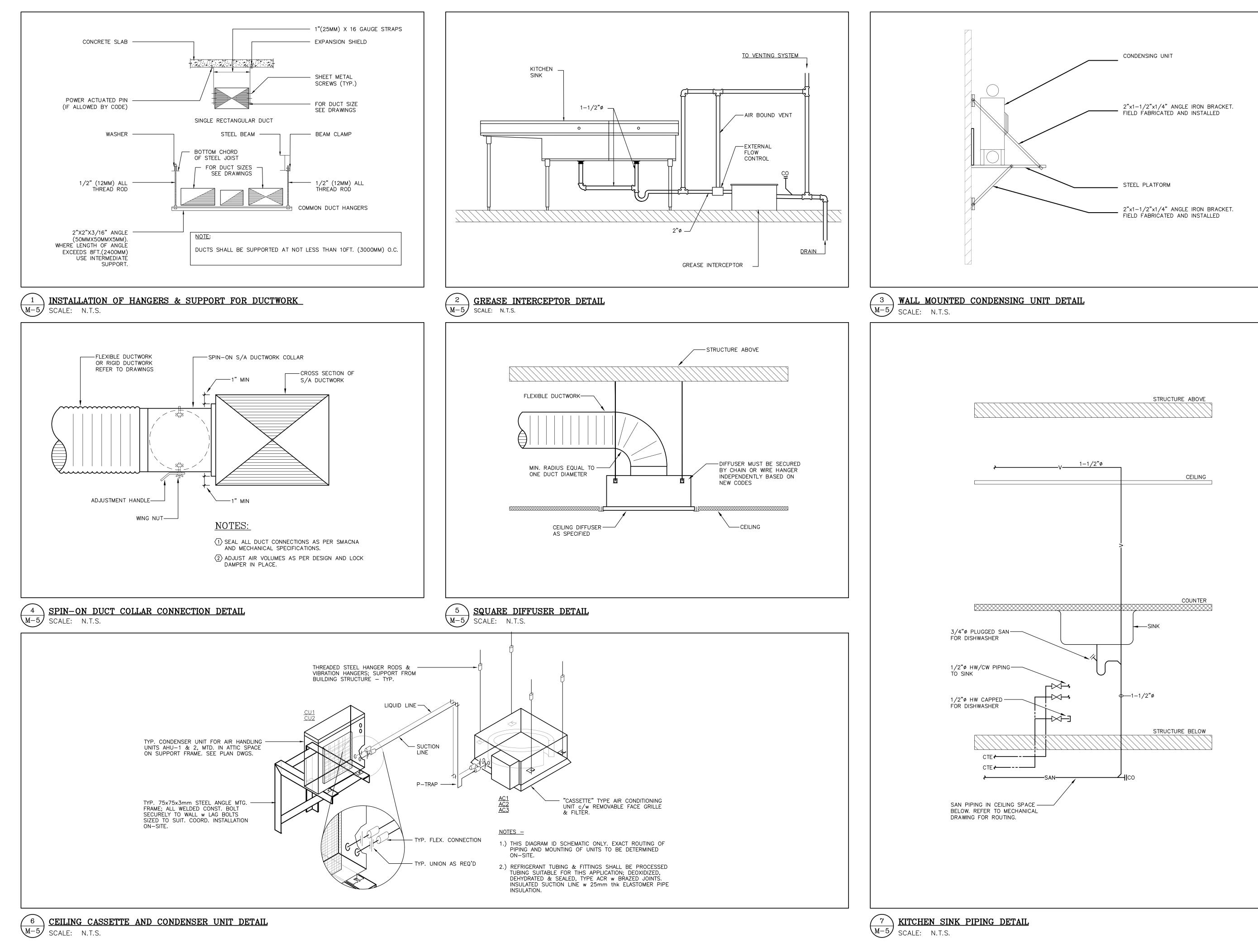


G	ENERAL PLUMBING AND DRAINAGE NOTES		
1	DO NOT SCALE DRAWINGS. THE LOCATION OF ALL ITEMS SHOWN ON THE DRAWINGS OR SPECIFIED THAT ARE NOT DEFIANTLY FIXED BY DIMENSIONS ARE APPROXIMATE ONLY. THE EXACT LOCATIONS NECESSARY TO SECURE THE BEST CONDITIONS AND RESULTS MUST BE DETERMINED BY THE SITE CONDITIONS, REVIEW ALL REVISIONS		
2	WITH THE CONSULTANT. FLOOR PLANS SHALL BE READ IN CONJUNCTION WITH SCHEMATICS. INFORMATION SHOWN ON FLOOR PLANS SHALL BE ASSUMED TO BE APPLICABLE TO THE RELATED SYSTEM SCHEMATIC AND VICE-VERSA TO PROVIDE A COMPLETE AND OPERATIONAL SYSTEM.		
3	COORDINATE ALL MECHANICAL SITE SERVICES, PIPING, AND EQUIPMENT WITH ALL OTHER DIVISIONS.	NO.	ISSUES
4	ALL BRANCH PIPING SHALL BE EQUIPPED WITH SHUT-OFF VALVES. PROVIDE ISOLATION VALVES AT ALL FIXTURES.	01	ISSUED FOR PEMI
5	ALL CLEANOUTS AND ISOLATION VALVES AND EQUIPMENT INSTALLED IN CEILING SPACE NOT ACCESSIBLE , THE CEILING		
6	SHALL BE ACCESSIBLE VIA AN ACCESS HATCH. CONTRACTOR TO FIELD LOCATE ALL EXISTING PLUMBING SERVICES.		
7	LAYOUT INDICATED ON THIS DRAWINGS IS DIAGRAMMATIC AND IDENTIFIES THE DESIGN INTENT ONLY.		
8	THE MECHANICAL CONTRACTOR SHALL EXAM THE SITE PRIOR TO BID SUBMISSION.		
9	REMOVE. CAP AND SEAL ALL PLUMBING CONNECTIONS THAT ARE NOT TO BE REUSED IN THIS CONTRACT.		
10	PROVIDE PIPE SLEEVES FOR ALL PENETRATIONS THROUGH WALLS AND FLOORS. PACK AND SEAL OPENINGS WITH APPROVED FIRE		
11	PROOFING MATERIAL AS DIRECTED BY ARCHITECT. PROVIDE SHUT OFF VALVE AT EACH WATER CONNECTION TO		
12	FIXTURES. CONTRACTOR TO FIELD LOCATE ALL EXISTING SERVICES THAT ARE		
13	REQUIRE FOR THIS PROJECT PROVIDE INSULATION FOR ALL DCW/DHW PIPING. PROVIDE PVC		
14	RECOVERY JACKET FOR ALL PIPING IN EXPOSE AREA'S. ALL FLOOR DRAINS/HUB DRAINS SHALL BE COMPLETE WITH TRAPS		
15	AND TRAP PRIMERS IN COMPLIANCE WITH OBC. SLAB CUTTING/CORE AND FLOOR REPAIR RELATED TO PLUMBING		
16	WORK SHALL BE BY GENERAL CONTRACTOR. PLUMBING DEMOLITION WORK INCLUDING SHUT DOWN OF PLUMBING		
10	SERVICES SHALL BE COORDINATED WITH THE BUILDING MANAGEMENT. INCLUDE FOR ALL RELATED COST IN TENDER PRICE	NO.	REVISIONS
17	INCLUDING AFTER HOURS WORK. REMOVE ALL ABANDONED PLUMBING SERVICES WHICH ARE NOT		
	GOING TO BE REUSED.		This drawing is th
			IANUZZIELLO & This drawing shall the architectural,
D.	EMOLITION & NEW PLUMBING & DRAINAGE DRAWING NOTES		other consultant's with the work. Do
	DISCONNECT AND REMOVE EXISTING PLUMBING FIXTURE. PROVIDE TEMPORARY CAPS ON ALL EXISTING PLUMBING, DRAINAGE AND VENT SERVICES IN THIS CEILING AND/OR CEILING SPACE OF FLOOR BELOW READY FOR RECONNECTION. DISPOSE OF EXISTING PLUMBING		The contractor is responsibility for on site and must IANUZZIELLO & of any variations
2	FIXTURE ON SITE. REMOVE ALL PLUMBING FIXTURES. CUT AND CAP ALL PLUMBING, SANITARY AND VENT IN CEILING SPACE AND/OR CEILING SPACE OF FLOOR BELOW BACK TO MAIN. DEMOLISH FIXTURES ON SITE. EXACT PIPEWORK TO BE VERIFIED ON SITE. TYPICAL.	CONSULT	ANT
3	RUN NEW 1/2"Ø DCW/DHW TO SINK. RUN NEW 2"Ø SANITARY DRAIN AND 1–1/4"Ø SANITARY VENT FROM SINK/LAVATORY. RUN ALL VERTICAL PIPING IN WALL CAVITY. EXACT ROUTING OF PIPING TO BE COORDINATED ON SITE WITH OTHER TRADES/SERVICES. TYPICAL.		
4	PROVIDE NEW PLUMBING FIXTURES AS SPECIFIED. RECONNECT ALL EXISTING PLUMBING, DRAIN AND VENT SERVICES TO NEW PLUMBING FIXTURE. MAKE MODIFICATION AND ADJUSTMENT TO EXISTING PLUMBING SERVICES AS REQUIRED TO SUIT NEW PLUMBING FIXTURE. CHECK AND VERIFY LOCATION OF EXISTING WATER SERVICES, DRAIN AND VENT SERVICES PRIOR TO TENDER CLOSING.	IA	ANUZZIELLO 305 MILNER TORONTO, TEL: (
6	PROVIDE NEW SANITARY DRAIN IN CEILING SPACE OF FLOOR BELOW OF SIZE INDICATED. RUN PIPEWORK AS SHOWN. CONNECT TO NEAREST SANITARY MAIN. EXACT TIE-IN POINT TO BE VERIFIED ON SITE. TYPICAL.	STAMP	FAX: ( E—mail: ir
	PROVIDE NEW CONDENSATE PIPE TO INDIRECT DRAIN BELOW SINK. PROVIDE NEW GREASE INTERCEPTOR AS SPECIFIED.		REGI STREET
8	PROVIDE 1/2"Ø DHW CAPPED PROVISION TO SERVE FUTURE		REGIST
	DISHWASHER (BY OTHERS). ALL VERTICAL PIPING TO RUN IN WALL CAVITY.		PHO V
	CONNECT ALL NEW SANITARY CONNECTION TO EXISTING 3" SANITARY DRAIN BELOW FLOOR.		
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DESIGN COOLING	NS SUMMARY OF BA	AR & STORAGE							EVAPORA	TOR SCHE	EDULE						1	
ZONE LOADS DETAILS SENSIBLE (BTU/HR)	4 'F HEATING OA	DESIGN HEATING DB/WB -14.8 'F/ -15.0 'F SENSIBLE (BTU/HR) LATENT (BTU/HR)	TAG	MANUFACTURER	MODEL	LOCATION	CORRESPONDING CONDENSING UNIT	RATED RATH COOLING HEAT CAPACITY CAPAC	NG	E PIPING			ELECTRICAL CHARACTERISTICS		3	SYSTEM SEER	WEIGHT (LBS.)	REMARKS
VALL TRANSMISSION 205 FT <sup>2</sup> 22	205 FT <sup>2</sup>	792						(MBH) (MBI		LIQUID SI (IN.)	UCTION CONDENSA (IN.) TE (IN.)	V/PH/HZ	OUTPUT (W) FL	A (A) MCA	(A) BREAKER SIZE (A)			
ROOF TRANSMISSION         431 FT <sup>2</sup> 391           JGHTING         300 W         911	431 FT <sup>2</sup>	1149	AC1	MITSUBISHI	PLA-A30EA8	KITCHEN	CU1	30.0 33.	420	3/8		208/1/60		/	25		67.0 CONDE CONDE CONTR	RAIN & INTERNAL NSATE PUMP SIMPLE N DLLER
CQUIPMENT         74 W         240           PEOPLE         1         236           NFILTRATION         298	455	2297	<u>NOTES:</u> 1. INSTALLATI	ON SHALL BE IN S	RICT ACCORDANCE WI	TH MANUFACTURER'S	INSTALLATION INST	UCTION.										
NFILTRATION         290           IISCELLANEOUS         2300           GAFETY FACTOR         10% / 5%         440	323 30 10%	424	3. SETUP, TE	STING AND COMMIS	SIONING SHALL BE CAF	R TO CONSTRUCTION A RRIED OUT BY MITSUB	ISHI AT NO EXTRA	CHARGE TO THE CL	CTURER'S PUBLISHED LIMIT ENT.	5.								
Initial ControlInitial ControlInitial ControlCOTAL SYSTEM LOADS5371	464         37 CFM           1282	3300 7961																
		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		CONDENSING UNIT SCHEDULE														
VENTILATION AIR CALCULAT	ONS OF BAR & STC	RAGE	TAG						SYST			REMARKS						
OFFICE (FT <sup>2</sup> ) =	296					(МВН			LIQUID SUCTION (IN.) (IN.)	V/PH/HZ	INPUT (KW) MC	A (A) FAN FL	(A) BREAKE SIZE (A	R	· (1103.)			
# OF PEOPLE =	1		CU1	MISSUBISHI	PUZ-A30NHA7	OUTDOOR 30.0	32.0	R-410A -		208/1/60		19 .04			153.0	DACA-V PAN HE	B-3 WALLMOUNT	R HEAT PUMP. C/W BRACKET, KEHO63A4E
VENTILATI STORAGE (142FT <sup>2</sup> * 0.06) =	ON AIR	9 CFM	NOTES: 1. ALL MOTOR	RS, STARTERS, CON	TACTORS, DISCONNECT BE PROVIDED BY DIV.	SWITCHES AND CONT	ROL DEVICES SHAL	. BE PROVIDED BY	DIV.15 AND INSTALLED BY	DIV.16.								
BAR (154FT <sup>2</sup> * 0.12) =		18 CFM	Z. ALL LOW	VOLTAGE WIKING TO		.10.												
PEOPLE (1 PPL * 5 CFM) = ZONE AIR DISTRIBUTION EFFECTIVENESS		5 CFM 0.8								SCHEDUL								
DESIGN OUTDOOR AIRFLOW		25.6 CFM		-			CAPACITY	E.S.P.	F AIN MOTOR SIZE			POWER		FLA	MCA		(OCP	
			TAG	SERVICE	MANUFACTURER	MODEL NO.	CFM	IN. WC.		/ HP	TYPE	/PH/CYCLE	WEIGHT (LBS)	(A)	MCA (A)		(A)	REMARKS
HEATING/COOLING LOAD CALCUL	ATIONS SUMMARY O	F KITCHEN	KEF2	KITCHEN EXHAUST	ZEPHYR	AK7636BS	750			WALL	MOUNT	210/1/60			5			INTERNAL BLOWER 8" REAR DISCHARGE WAL
DESIGN COOLING COOLING OA DB/WB 85.4 °F/ 73		DESIGN HEATING DB/WB -14.8 °F/ -15.0 °F	NOTE: 1. PROVIDE 18" ROOF	CURB WHERE REQUIRED.							I	I				I		
ZONE LOADS DETAILS SENSIBLE (BTU/HR)		SENSIBLE (BTU/HR) LATENT (BTU/HR)																
VALL TRANSMISSION144 FT29ROOF TRANSMISSION307 FT2278	144 FT <sup>2</sup> 307 FT <sup>2</sup>	557 818							PLUMBING F	IXTURE S	CHEDULE							
IGHTING         399 W         1203           CQUIPMENT         77 W         248																		
PEOPLE         2         465           NFILTRATION         198	910 415	1615	TAG					FIXTURES								PIPE CON	NECTION	
MISCELLANEOUS         16900           SAFETY FACTOR         10% / 5%         1930	66 10%	299		SPECIFICATION						Т	RAP	COLD WATER	нот у	TATER DF	AIN VENT			
ZENTILATION FAN LOAD52 CFM525TOTAL SYSTEM LOADS22310	1196         52 CFM           2588	4636 7915				K – TWO HANDLE FAL												
				FRANKE , LBS 20-1/2" WIDE	6808P-1-3 COMMERC , 8" DEEP.	NAL SINK, BSL2125-9	–1, FINISH STAINLE	S STAINLESS POLIS	HED TO #4 STAIN FINISH,	3-1/2" CRUMB	CUP STRAINER, S	IZE 20" LONG,						
VENTILATION AIR CALC	JLATIONS OF KITCHE	N	S1							-1/2"	1/2"	1/	2" 1–	1/2" 1-1/4				
$OFFICE (FT^2) =$	307	,		McGUIRE SUPI	PLY, MODEL LFBV170 (				TATIC LIMIT STOP, COMPRI OF 2 STOP VALVES, 2 RIS		RD FLANGES, LEA	D FREE BRASS E	ODY,					
# OF PEOPLE =	2			CHROMEPLATE		AVY BRASS, ADJUSTA	BLE P-TRAP, 292	MM (11-1/2") LENG	TH, WITH CLEAN OUT PLUG	G.								
VENTILATI LUNCHROOM (307 FT <sup>2</sup> * 0.12) =	<u>N AIR</u>	37 CFM				NK – SINGLE HANDLE AL SINK BSI 2125–9–		STAINIESS POUSH	ED TO #4 STAIN FINISH, 3	5-1/2" CRUMB C	UP STRAINER SU	7F .31-1/4" LON						
PEOPLE (2 PPL * 7.5 CFM) =		15 CFM		20-1/2" WIDE	, 8"DEEP.				ROME FINISH, ECAST BRAS			·	,					
ZONE AIR DISTRIBUTION EFFECTIVENESS DESIGN OUTDOOR AIRFLOW		0.8 41.6 <b>CFM</b>	S2	MAXIMUM FLO	WRATE.				TATIC LIMIT STOP, COMPRI		, 02.0,000 0,000		1-	-1/2"	1/2"	1/	2" 1–	1/2" 1-1/4
·				McGUIRE SUPI CHROMEPLATE	PLY, MODEL LFBV170 ( D FINISH.	CONVERTABLE COMMER	CIAL FAUCET SUPF	Y KIT, CONSISTING	OF 2 STOP VALVES, 2 RIS	SERS, 2 STANDA	RD FLANGES, LEA	D FREE BRASS E	ODY,					
				McGUIRE P-T		AVY BRASS, ADJUSTA	BLE P-TRAP, 292	MM (11-1/2") LENG	TH, WITH CLEAN OUT PLU	Э.								
DIFFUSER	SCHEDULE		011	GILASE INTER		RCEPTOR, 15 GPM FLC	OWRATE, 30 LB GRE	ASE CAPACITY.					:	2"ø		-	- 2	"ø 1−1/2
DIFFUSER S TAG MAKE/MODEL	SCHEDULE FINISH	REMARKS	GI1	WATTS, WD-1	5 65A, OREASE INTER								I	I				I
TAG MAKE/MODEL EH PRICE MODEL SPD	FINISH STEEL CONSTRUCTION	N, FOR T-BAR LAY-IN. NECK			·	OR SPECIFICATIONS OF	PLUMBING FIXTUR	S NOT LISTED ON M	ECHANICAL DRAWINGS.									
TAG     MAKE/MODEL       A     EH PRICE MODEL SPD 24"x24" SQUARE PLAQUE DIFFUSER (S/A)       D     EH PRICE MODEL 80	FINISH       B12     STEEL CONSTRUCTION SIZE AND AIR BALAND       CORE ONLY, 1/2"X1/2	N, FOR T-BAR LAY-IN. NECK ICE AS PER DRAWINGS. /2"X1/2" ALUMINIUM GRID CORE,			·	OR SPECIFICATIONS OF	PLUMBING FIXTUR	S NOT LISTED ON N	ECHANICAL DRAWINGS.									
TAGMAKE/MODELAEH PRICE MODEL SPD 24"x24" SQUARE PLAQUE DIFFUSER (S/A)BEH PRICE MODEL 80 EGG CRATE RETURN	FINISH       STEEL CONSTRUCTION         B12       STEEL CONSTRUCTION         SIZE AND AIR BALANT          CORE ONLY, 1/2"X1/2         FOR T-BAR LAY-IN.	N, FOR T-BAR LAY-IN. NECK ICE AS PER DRAWINGS. '2"X1/2" ALUMINIUM GRID CORE,			·	OR SPECIFICATIONS OF	PLUMBING FIXTUR	S NOT LISTED ON N	IECHANICAL DRAWINGS.									
TAG     MAKE/MODEL       A     EH PRICE MODEL SPD 24"x24" SQUARE PLAQUE DIFFUSER (S/A)       D     EH PRICE MODEL 80	FINISH       STEEL CONSTRUCTION         B12       STEEL CONSTRUCTION         SIZE AND AIR BALANT          CORE ONLY, 1/2"X1/2         FOR T-BAR LAY-IN.	N, FOR T-BAR LAY-IN. NECK ICE AS PER DRAWINGS. '2"X1/2" ALUMINIUM GRID CORE,			·	OR SPECIFICATIONS OF	PLUMBING FIXTUR	S NOT LISTED ON N	IECHANICAL DRAWINGS.									
TAG       MAKE/MODEL         A       EH PRICE MODEL SPD 24"x24" SQUARE PLAQUE DIFFUSER (S/A)         B       EH PRICE MODEL 80 EGG CRATE RETURN         DTES: TITUS AND NAILOR WILL BE CONSIDERED EQUAL GIVEN THAT THE PE SIZE ALL GRILLES, DIFFUSERS, ETC. AS PER MECHANICAL DRAWINGS	FINISH       STEEL CONSTRUCTION         B12       STEEL CONSTRUCTION         SIZE AND AIR BALANT          CORE ONLY, 1/2"X1/2         FOR T-BAR LAY-IN.	N, FOR T-BAR LAY-IN. NECK ICE AS PER DRAWINGS. '2"X1/2" ALUMINIUM GRID CORE,			·	OR SPECIFICATIONS OF	PLUMBING FIXTUR	S NOT LISTED ON M	IECHANICAL DRAWINGS.									
TAG       MAKE/MODEL         A       EH PRICE MODEL SPD 24"x24" SQUARE PLAQUE DIFFUSER (S/A)         B       EH PRICE MODEL 80 EGG CRATE RETURN         DTES: TITUS AND NAILOR WILL BE CONSIDERED EQUAL GIVEN THAT THE PE SIZE ALL GRILLES, DIFFUSERS, ETC. AS PER MECHANICAL DRAWINGS	FINISH       B12     STEEL CONSTRUCTION SIZE AND AIR BALAND        CORE ONLY, 1/2"X1/2 FOR T-BAR LAY-IN.       RFORMANCE DATA IS EQUIVALENT.	N, FOR T-BAR LAY-IN. NECK ICE AS PER DRAWINGS. '2"X1/2" ALUMINIUM GRID CORE,				OR SPECIFICATIONS OF	PLUMBING FIXTUR	S NOT LISTED ON N	IECHANICAL DRAWINGS.									
TAG       MAKE/MODEL         A       EH PRICE MODEL SPD 24"x24" SQUARE PLAQUE DIFFUSER (S/A)         B       EH PRICE MODEL 80 EGG CRATE RETURN         DTES: TITUS AND NAILOR WILL BE CONSIDERED EQUAL GIVEN THAT THE PE SIZE ALL GRILLES, DIFFUSERS, ETC. AS PER MECHANICAL DRAWINGS CONFIRM ALL FINISHES WITH ARCHITECT/INTERIOR DESIGNER.         GREASE INTERCEPT         SINK #	FINISH       B12     STEEL CONSTRUCTION SIZE AND AIR BALAND        CORE ONLY, 1/2"X1/2 FOR T-BAR LAY-IN.       RFORMANCE DATA IS EQUIVALENT.	N, FOR T-BAR LAY-IN. NECK ICE AS PER DRAWINGS. '2"X1/2" ALUMINIUM GRID CORE,				OR SPECIFICATIONS OF	PLUMBING FIXTUR	S NOT LISTED ON M	IECHANICAL DRAWINGS.									
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TAG       MAKE/MODEL         A       EH PRICE MODEL SPD 24"x24" SQUARE PLAQUE DIFFUSER (S/A)         B       EH PRICE MODEL 80 EGG CRATE RETURN         DTES: TITUS AND NAILOR WILL BE CONSIDERED EQUAL GIVEN THAT THE PE SIZE ALL GRILLES, DIFFUSERS, ETC. AS PER MECHANICAL DRAWINGS CONFIRM ALL FINISHES WITH ARCHITECT/INTERIOR DESIGNER.         GREASE INTERCEPT GREASE INTERCEPT SINK #         SINK DIMENSIONS         SINK #         NITH         JTEM	FINISH       B12     STEEL CONSTRUCTION SIZE AND AIR BALAND SIZE AND AIR BALAND FOR T-BAR LAY-IN.       CORE ONLY, 1/2"X1/2 FOR T-BAR LAY-IN.       RFORMANCE DATA IS EQUIVALENT.       OR CALCULATIONS       COMPARTMENTS     TOTAL VO 2       QUANTITY     EACH	N, FOR T-BAR LAY-IN. NECK ICE AS PER DRAWINGS. (2"X1/2" ALUMINIUM GRID CORE, (2"X1/2" ALUMINIUM GRID CORE, 70LUME 75% VOLUME .5 11.6 TOTAL: 44.9 GAL GPM TOTAL GPM				OR SPECIFICATIONS OF	PLUMBING FIXTUR	S NOT LISTED ON M	IECHANICAL DRAWINGS.									
TAG       MAKE/MODEL         A       EH PRICE MODEL SPD 24"x24" SQUARE PLAQUE DIFFUSER (S/A)         B       EH PRICE MODEL 80 EGG CRATE RETURN         DTES: TITUS AND NAILOR WILL BE CONSIDERED EQUAL GIVEN THAT THE PE SIZE ALL GRILLES, DIFFUSERS, ETC. AS PER MECHANICAL DRAWINGS CONFIRM ALL FINISHES WITH ARCHITECT/INTERIOR DESIGNER.         GREASE INTERCEPT GREASE INTERCEPT SINK #         SINK #       WIDTH         VIDTH       DEPTH         S-1       16	FINISH       B12     STEEL CONSTRUCTION SIZE AND AIR BALAND        CORE ONLY, 1/2"X1/2 FOR T-BAR LAY-IN.       RFORMANCE DATA IS EQUIVALENT.       OR CALCULATIONS       COMPARTMENTS     TOTAL VI 15.1	N, FOR T-BAR LAY-IN. NECK ICE AS PER DRAWINGS. (2"X1/2" ALUMINIUM GRID CORE, (2"X1/2" ALUMINIUM GRID CORE, (3"X1/2" ALUMINIUM				OR SPECIFICATIONS OF	PLUMBING FIXTUR	S NOT LISTED ON M	IECHANICAL DRAWINGS.									
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