

Wednesday, April 24, 2024

DOCUMENT - 2024-164T
GENERAL CONTRACTING SERVICES FOR INTERIOR RENOVATIONS AT
7150 MISSISSAUGA ROAD, MISSISSAUGA FOR PEEL REGIONAL POLICE
ADDENDUM # 1

Number of Pages: 3 plus attachments (Division 21, 22, 28)

Referring to the above Document 2024-164T, please note the following:

CLOSING DATE:

The closing date has been changed to read on or before:

12:00 noon local time
Friday, May 17, 2024

Referring to the above Document 2024-164T - General Contracting Services for Interior Renovations at 7150 Mississauga Road, Mississauga for Peel Regional Police, please note the following responses to questions raised:

Question 1:

Would you please provide the following items?

1. Mechanical and Electrical drawing

Answer 1:

Mechanical, Sprinkler, Electrical and Communications drawings have now been issued for tender.

Question 2:

Commencement date for phase 1 and 2

Answer 2:

Phase 1 to Commence in July 2024 – Turnover to Owner in December 2024.
Phase 2 to Commence in January 2025 – Turnover to Owner in June 2025.

Question 3:

Is this a union project?

Answer 3:

Peel Regional Police does not hire on the basis on Union or Non Union contractors.

Question 4:

We would like to request the extension to bid closing date. There is hardly a one week gap between Site Visit and closing date.

Answer 4:

Refer to closing date change above.

Question 5:

Door Hardware Schedule

DWG ID3 has 2 ADOs on it with a note that hardware needs to match existing, Please provide door hardware schedule or existing product details for us to quote accurately.

Answer 5:

Existing ADO model - Record USA Series 6100/8000/DFA127

Question 6:

Please provide detail specifications for communications section

On drawings ID4.1 and ID4.2, the power and comms drawings, there are "comm rooms" shown on each of the ground, 2nd, and 3rd floor drawings – may we assume these are the existing comm rooms where all the new cables are to be terminated on each floor, and that there is an existing rack and/or cabinet in each room for the new cabling terminations?

Answer 6:

Electrical and Communications drawing including Appendix H – Peel Regional Police Cabling Specifications has been issued. Communication rooms provide existing racks for existing and new cable terminations.

Question 7:

Please provide sufficient time to bid on this job, our Electrical and Mechanical subtrades will usually need 3-4 weeks to get proper pricing from suppliers,

Answer 7:

Refer to closing date change above.

Question 8:

Please provide detail specifications for communications section

Answer 8:

Refer to Appendix H and Communications Drawings issued as art of Addendum 1.

Seeta Ramnath

Senior Procurement Analyst

1. GENERAL

1.1 Related Documents

- 1.1.1 Drawings and related provisions of the Contract, apply to this Section.

1.2 Summary

- 1.2.1 This Section includes fire-suppression sprinklers, piping, equipment and relocated items:
- 1.2.1.1 Automatic sprinklers and piping.
- 1.2.2 The Contractor shall furnish all equipment, materials, tools, labor, etc. necessary for a complete fire protection system, with said systems being made ready for operation in accordance with the requirements of the authorities having jurisdiction. The purpose of these specifications is to convey to the Contractor the scope of work required, all of which the Contractor is responsible to furnish, install, adjust, and make operable. The omission by the Consultant of any necessary system component as required by the authorities having jurisdiction, in the specifications shall not relieve the Contractor of the responsibility for providing such necessity, without additional cost to the Owner. The Contractor shall visit the site before submitting his bid and shall examine all existing physical conditions which may be material to the performance of his work. No extra payments will be allowed to the Contractor as a result of extra work made necessary by his failure to do so. Any case of error, omission, discrepancy or lack of clarity shall be promptly identified to the Peel Regional Police and Consultant for clarification prior to the bid due date.
- 1.2.3 The Contractor shall provide all devices and equipment required by these specifications. The Contractor shall furnish and install additional devices to meet future requirements that may be required prior to Fire Prevention permit review of the fire protection systems. Under no circumstances will the Contractor delete any equipment or devices without the written directive of the Consultant.
- 1.2.4 The contractor is responsible for the demolition of all existing sprinkler system piping and accessory including the removal and disposal of all items unless other noted on the drawings as existing to remain.

1.3 System Abbreviations And Definitions

- 1.3.1 AFF: Above Finished Floor
- 1.3.2 AHJ: Authority Having Jurisdiction.
- 1.3.3 Approved: Unless otherwise stated, materials, equipment or submittals approved by ULC and FM.
- 1.3.4 ANSI: American National Standards Institute.

- 1.3.5 ASTM: American Society for Testing and Materials.
- 1.3.6 AWS: American Welding Society.
- 1.3.7 Concealed: Where used in connection with installation of piping or conduit and accessories, shall mean "hidden from sight" as in shafts, furred spaces, in soffits or above suspended ceilings.
- 1.3.8 Consultant/Engineer: Norris Fire Consulting Inc (NFC)
- 1.3.9 Contractor: The company awarded the contract for this work and any of its subcontractors, vendors, suppliers or fabricators.
- 1.3.10 DP: Dry pendent sprinkler.
- 1.3.11 EC: Extended coverage sprinkler.
- 1.3.12 ELO: Extra-large orifice sprinkler.
- 1.3.13 ESFR: Early suppression, fast response sprinkler.
- 1.3.14 Exposed: Where used in connection with installation of piping or conduit and accessories, shall mean "visible" or "not concealed."
- 1.3.15 FM: Factory Mutual.
- 1.3.16 FM Approved: Materials or equipment approved by Factory Mutual and included in the most recent edition of the FM Approval Guide.
- 1.3.17 FP: Fire Protection.
- 1.3.18 Furnish: Supply materials.
- 1.3.19 Install: Install materials, mount and connect equipment or assemblies.
- 1.3.20 NEMA: National Electrical Manufacturers Association
- 1.3.21 NFPA: National Fire Protection Association.
- 1.3.22 Owner: YYC 288 c/o Crossbridge Management
- 1.3.23 PIV: Post indicating valve.
- 1.3.24 Provide: Furnish, install and connect.
- 1.3.25 PSI: Pounds per square inch.
- 1.3.26 QR: Quick response sprinkler.
- 1.3.27 Remove: Remove material and equipment and restore surface.
- 1.3.28 ULC: Underwriters Laboratories of Canada.
- 1.3.29 ULC Listed: Materials or equipment listed by ULC and included in the most recent edition of the ULC Directory.

1.4 Codes And Standards

- 1.4.1 NFPA Standards:
 - 1.4.1.1 NFPA 13, "Installation of Sprinkler Systems" 2013 Edition

1.4.2 Local Codes:

1.4.2.1 OBC, "Ontario Building Code", 2012 Edition as amended

1.4.2.2 OFC, "Ontario Fire Code", 2015 Edition.

1.5 System Performance Requirments

1.5.1 Install the sprinkler systems according to the criteria set forth herein and as shown in the drawings.

1.5.2 Complete automatic sprinkler system as outlined in these specifications, including all labor, materials and shop drawings needed to provide an operating system, and all of the following:

1.5.2.1 Pipe and fittings.

1.5.2.2 Hangers and Supports.

1.5.2.3 Ceiling and wall plates.

1.5.2.4 Sprinklers, escutcheons, and guards. Include sprinkler flow characteristics, mounting, finish, and other pertinent data.

1.5.2.5 Shop drawings, device manufacturer's literature, and samples.

1.5.2.6 Contractor's Material and Test Certificates and as-built drawings.

1.5.2.7 Contractor is to supply all equipment necessary to access all areas of the building including high ceilings to complete modification of the sprinkler system.

1.5.3 Components and Installation: Capable of producing piping systems with 175 psig minimum working pressure rating, unless otherwise indicated. Fire protection products shall be installed in accordance with their ULC listing, FM Approval and the manufacturer's requirements.

1.5.4 Fire protection products shall be installed in accordance with their ULC listing, FM Approval and the manufacturer's requirements.

1.5.5 Fire Stopping penetrations in accordance with contract documents.

1.5.6 Prepare and submit shop drawings, maintenance manuals, and other submittals to demonstrate performance compliance and to obtain necessary permits and approvals.

1.5.7 Follow equipment manufacturer guidelines for wiring installation. The Owner will not be responsible for added cost and changes due to additional manufacturer's requirements.

1.5.8 Supply, install, pipe, test, commission and verify all piping provided to achieve intended operation.

1.6 Design Criteria

1.6.1 Refer to FP drawings for design criteria.

1.7 Submittals

- 1.7.1 Submit three (3) copies of shop drawings within five (5) working days of award of contract. Do not commence installation prior to receipt of reviewed shop drawings. Do work in accordance with reviewed shop drawings only. Shop drawings shall include but not be limited to the following:
- 1.7.2 An approved submittal shall be maintained on site for the duration of the project. This set of drawings shall be used to track any field changes that may occur. The tracked changes shall then be incorporated into a complete set of "As-Built" drawings that shall be submitted at the close of the project.
- 1.7.3 Product Data: For the following:
 - 1.7.3.1 Pipe and fitting materials and methods of joining for sprinkler piping. Including welded outlets.
 - 1.7.3.2 Pipe hangers and supports.
 - 1.7.3.3 Sprinklers and accessories
 - 1.7.3.4 Sprinklers, escutcheons, and guards. Include sprinkler flow characteristics, mounting, finish, and other pertinent data.

1.8 Contract And Record Drawings

- 1.8.1 Contractor shall maintain on site a set of contract drawings and reviewed shop drawings. All deviations shall be clearly marked on the contract drawings or the shop drawings as applicable. Record Drawings shall not be used for construction purposes.
- 1.8.2 Record Drawings shall be kept up to date and be available for Consultant's review at all times. The status of the Record Drawings will be considered on approval of progress payments.
- 1.8.3 Upon completion of the work, the Record Drawings shall be used to prepare a complete and accurate final set of drawings completed by the Consultant. Submit final set of the Record Drawings, hard copies and scan pdf files to Consultant for review.
- 1.8.4 Base the installation on actual field survey and account for all, structural, heating and air conditioning, plumbing, and electrical interference.

1.9 Maintenance Manuals

- 1.9.1 Manuals shall contain the following:
 - 1.9.1.1 As-built drawings of the sprinkler system.

1.10 Quality Assurance

- 1.10.1 Installer Qualifications: An experienced installer possessing a Certificate of Qualification by the Ontario College of Trades as a "Sprinkler and Fire Protection Installer Trade" and apprentices

working under direct supervision "Sprinkler and Fire Protection Installer Trade" and have installed fire-sprinkler piping similar to that indicated for this Project.

- 1.10.2 Engineering Responsibility: Preparation of working plans and calculations by Consultant.
- 1.10.3 Manufacturer Qualifications: Firms whose equipment, specialties, and accessories are listed by product name and manufacturer in ULC's "Fire Protection Equipment List of Equipment and Materials" or FM's "Approval Guide" and that comply with other requirements indicated in these specifications.
- 1.10.4 Sprinkler Components: Listing/approval stamp, label, or other marking by a testing agency acceptable to AHJ.
- 1.10.5 NFPA Standards: Equipment, specialties, accessories, installation, and testing complying with the referenced codes and standards.

2. MATERIALS

2.1 General

- 2.1.1 All components not referenced by NFPA 13, shall be ULC listed or FM approved. Components shall be used in accordance with the manufacturer's recommendations and its ULC listing and FM approval. Where a component has separate minimum requirements for the ULC listing and FM Approval the FM Approval criteria shall be used.
- 2.1.2 The naming of manufacturers in the specifications shall not be construed as eliminating the materials, products or services of other manufacturers and suppliers providing approved equivalent items.
- 2.1.3 The substitutions of materials or products other than those named in the specifications are subject to proper approval of the Owner granted in writing.

2.2 Sprinklers

- 2.2.1 Acceptable Manufacturers
 - 2.2.1.1 Acceptable Fire Sprinkler Manufacturer: Tyco or Viking. Refer to FP drawings to types and locations.
- 2.2.2 Provide only new sprinklers of current model and manufacture date. Do not provide any sprinkler included in a recall program. Do not provide any sprinkler with an O-ring seal.

2.3 Piping Material

- 2.3.1 Pipe shall be new, designed for 175 psi working pressure, conforming to ASTM specifications, and have the manufacturer's name and brand along with the applicable ASTM standard marked on each length of pipe.

- 2.3.1.1 Steel: Steel piping shall be black or galvanized.
- 2.3.1.2 Standard Wall: Overhead pipe used shall be black steel or galvanized and must comply with the specifications of the American Society for Testing and Materials, ASTM A 795 for black pipe, and hot dipped zinc coated galvanized welded and seamless steel pipe for fire protection use. Dimensions for all overhead pipe must be in accordance with the American Standard for Wrought Steel and Wrought Iron Pipe ANSI B36.10-1975 for pressure up to 300 psi. Schedule 40 pipe is considered "standard wall" pipe. Standard wall pipe ends shall be welded, threaded, cut grooved or plain end.
- 2.3.1.3 Pipe and preparation shall conform to the fitting manufacturer's recommendations.

2.4 Pipe Fittings

- 2.4.1 Changes of direction shall be accomplished by the use of fittings suitable for use in sprinkler systems and defined in NFPA 13.
 - 2.4.1.1 Steel Pipe:
 - 2.4.1.1.1 Roll Grooved fittings and couplings shall be produced by the same manufacturer.
 - 2.4.1.1.2 Roll Grooved couplings shall be dimensionally compatible with pipe.

2.5 Joining Materials

- 2.5.1 In accordance with NFPA 13, 14 requirements.

2.6 Hangers And Supports

- 2.6.1 In accordance with NFPA 13 requirements.
- 2.6.2 Sprinkler piping hangers shall not be hung from or attached directly to metal roof decking. No holes shall be made that penetrate through the roof deck for hanger support. All ceiling level sprinklers shall be supported from the top chord of the roof structural steel members or concrete anchors for masonry ceiling types.
- 2.6.3 Sprinkler piping hangers are permitted to be hung from the concrete ceiling slab structure with drop in anchor, powder actuated anchors shall not be used.
- 2.6.4 Do not reuse existing sprinkler hangers, all sprinkler hangers are to be provided as new.

2.7 Sleeves For Wall/Floor Penetrations

- 2.7.1 Sleeves through walls and floors shall be made watertight and fire stopped.

3. EXECUTION

3.1 Preparation

- 3.1.1 Immediately after award of contract, obtain an electronic file of the fire protection design drawings and a copy of the project's sprinkler system hydraulic calculations. Use these for preparing the working drawings and final calculations. Consultant will provide drawings and calculations files.
- 3.1.2 Make no changes in installation from the layout shown on the "FP" sheets, unless change is specifically approved by NFC. This does not include minor revisions for the purpose of coordination and fabrication.
- 3.1.3 Report any discrepancy between the FP drawings and these specifications to the Consultant. Obtain immediate clarification on any item pertaining to this project from the Consultant.

3.2 Piping Applications

- 3.2.1 Flanges, unions, and transition and special fittings with pressure ratings the same as or higher than system pressure rating may be used in aboveground applications, unless otherwise indicated.
- 3.2.2 Use pipe sizes 10-inch or smaller for interior applications.
- 3.2.3 Use only black steel pipe, Schedule 10 or heavier for interior applications for wet pipe systems. Do not use threaded thinwall or lightwall piping. All dry pipe systems are to use hot dipped galvanized steel pipe and fittings. All dry system piping, fittings and hangers, including hanger rod and fastener components, welded outlets, grooved couplings and fittings, shall be galvanized. Welding of galvanized piping generates poisonous fumes. All shop welding shall be done in accordance with applicable standards and in a manner that does not expose anyone to health endangering conditions. Any damage to the galvanized coating that occurs from welding, grooving the pipe ends, field installation, inadequate initial treatment, or any other case shall be repaired in a workmanship like manner prior to the acceptance of the sprinkler system installation by the Owner and the Consultant.
- 3.2.4 Do not use plain-end fittings, plain-end couplings or clamp fittings. Use only welded outlets or screwed fittings at sprinklers. For all other applications, use roll-grooved, threaded, welded or flanged connections, using ULC listed and FM approved fittings and couplings.
- 3.2.5 With threaded fittings or cut-groove fittings and couplings, use not less than Schedule 40 thickness pipe up to and including 8-inch pipe. Use minimum Schedule 10 pipe for roll-grooved pipe and fittings or welded fittings in sizes up to and including 5-inch, with wall thickness of 0.134 inch for 6-inch pipe and 0.188 inch for 8-inch pipe.

3.2.6 The schedule of piping installed shall match the hydraulic calculations that are submitted to and approved by the AHJ.

3.2.7 Piping between Fire Department Connections and Check Valves:
Use galvanized, standard-weight steel pipe; and galvanized screwed or grooved fittings.

3.3 Joint Construction

3.3.1 Refer to NFPA 13 for basic piping joint construction.

3.4 Piping Installation, General

3.4.1 Locations and Arrangements: Drawing plans, schematics, and diagrams indicate general location and arrangement of piping. Install piping as indicated, as far as practical.

3.4.1.1 Deviations from approved working plans for piping require written approval from AHJ. File written approval with the Consultant before deviating from approved working plans.

3.4.2 Use approved fittings to make changes in direction, branch takeoffs from mains, and reductions in pipe sizes.

3.4.3 Patching and Repairs: Repair galvanizing and other protective coatings on pipe and fittings, damaged during fabrication or installation.

3.5 Sprinkler Piping Installation

3.5.1 Type of sprinkler piping installed throughout the building shall meet the requirements of Section 3.2.

3.5.2 Install all piping in a neat and workmanlike manner, with all pipe hung true to line and grade.

3.5.3 Correct sizing of piping and accessories is the responsibility of the sprinkler contractor; however, sizes shall match those shown on the plans and in the calculations.

3.5.4 The contractor shall be responsible for installing the piping at the elevation indicated on the sprinkler drawings. Sprinkler contractor shall coordinate all the conflicts (electrical, mechanical, structural).

3.5.5 Sprinkler guards are to be installed on all sprinklers less than 8'-0" (2438mm) above finish floor to the ceiling. Sprinkler guards shall consist of red protective cages.

3.5.6 Coordinate sprinkler locations to avoid obstructions that restrict their discharge, such as lighting, bulkheads, bar joists, joist strapping, cross bridging, girders, roof top units (RTUs), cable trays, conduit banks, drains etc.. Make every effort possible to avoid these obstructions.

3.6 Specialty Sprinkler Fitting Installation

- 3.6.1 Install specialty sprinkler fittings according to manufacturer's written instructions.

3.7 Field Quality Control

- 3.7.1 Flush, test, and inspect sprinkler piping as provided by NFPA 13. Provide advance notification of date and time of tests to permit witnessing of tests by the Owner, the Construction Manager, the Consultant and the AHJ. Properly dispose of water used in flushing and testing.
- 3.7.2 Limit leakage in accordance with NFPA 13 requirements. Repair or replace piping system components that do not pass test procedures and retest to demonstrate compliance. Repeat procedure until satisfactory results are obtained.
- 3.7.3 Do not use additives, corrosive chemicals (sodium silicate or derivatives thereof), brine, "Stop Leak," or other chemicals while carrying out hydrostatic tests or for stopping leaks.
- 3.7.4 In addition to the standard hydrostatic test, carry out an air pressure leakage test at 40 psi for 24 hours. Correct loss of pressure in excess of .01 bar for the 24-hour period.
- 3.7.5 Report test results promptly and in writing to the Owner and Consultant.

3.8 Cleaning

- 3.8.1 Clean dirt and debris from sprinklers, pipe and fittings.
- 3.8.2 Remove coverings provided for protection during painting.
- 3.8.3 Remove and replace sprinklers having paint other than factory finish.

3.9 Protection

- 3.9.1 Protective Caps shall remain installed on all sprinklers subject to damage from other trades during construction.

3.10 Commissioning

- 3.10.1 Verify that specified tests of piping are complete.
- 3.10.2 Verify that damaged sprinklers and sprinklers with paint or coating not specified are replaced with new, correct type.
- 3.10.3 Verify that sprinklers are correct types, have correct finishes and temperature ratings, and have guards as required for each application.

END OF SECTION

Regional Municipality of Peel

Document 2024-164T

Division 21

Procurement Division

Section 21 00 00

GENERAL CONTRACTING SERVICES FOR INTERIOR RENOVATIONS

Fire Protection

AT 7150 MISSISSAUGA ROAD, MISSISSAUGA FOR PEEL REGIONAL POLICE

1. OPERATION AND MAINTENANCE OF PLUMBING SYSTEMS

1.1 Verification Of Operation Of Existing Systems

- 1.1.1 Before start of construction, complete a plumbing review of all existing plumbing piping to remain. Submit report of deficiencies to Landlord and the Mechanical Engineer.

1.2 Qualified Tradesmen

- 1.2.1 Work to be done by qualified and recognized firm with an established reputation in this field using tradesmen holding certificates of competency.
- 1.2.2 Contractors performing work on natural gas systems to be licensed as a gas and propane installer under O.Regg. 215/01, by the Technical Standards and Safety Authority.

2. CODES & STANDARDS

2.1 References

- 2.1.1 Ontario Building Code, Division B, Part 7 - Plumbing.
- 2.1.2 Regulations of province, city, or local authority having jurisdiction.
- 2.1.3 O.Reg. 212/01 Gaseous Fuels, and related code adoption document.
- 2.1.4 O.Reg. 215/01 Fuel Industry Certificates
- 2.1.5 CSA B149.1 Natural Gas And Propane Installation Code
- 2.1.6 CSA-B45 series, Plumbing Fixtures.
- 2.1.7 CSA-B125 Plumbing Fittings.
- 2.1.8 CSA B158.1 Cast Brass Solder Joint Drainage, Waste, And Vent Fittings
- 2.1.9 ASTM B88 Standard Specification For Seamless Copper Water Tube
- 2.1.10 ASME B16.15 Cast Bronze Threaded Fittings, Classes 125 and 250
- 2.1.11 ASME B16.18 Cast Copper Alloy Solder Joint Pressure Fittings
- 2.1.12 ASME B16.22 Wrought Copper And Copper Alloy Solder Joint Pressure Fittings
- 2.1.13 ASME B16.24 Cast Copper Alloy Pipe Flanges And Flanged Fittings; Class 150, 300, 400, 600, 900, 1500, & 2500.
- 2.1.14 ASME B16.29 Wrought Copper And Wrought Copper Alloy Solder Joint Drainage Fittings – DWV
- 2.1.15 ASTM B-32 Specification For Solder Metal
- 2.1.16 ASTM B306 Standard Specification For Copper Drainage Tube (DWV)

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- 2.1.17 ASTM B828 Standard Practice For Making Capillary Joints By Soldering Of Copper And Copper Alloy Tube And Fittings.
- 2.1.18 AWS A5.8 Brazing Filler Metal.
- 2.1.19 AWWA C111/ ANSI A21.11 Standard For Rubber-Gasket Joints For Ductile-Iron Pressure Pipe And Fittings

3. PIPING INSTALLATION

3.1 Piping

- 3.1.1 Piping system routing is shown diagrammatically. Locate mains, risers and runouts concealed behind furrings or above ceilings except in mechanical equipment rooms and access spaces where piping is to be exposed.
- 3.1.2 Anchor, guide and support vertical and horizontal runs of piping to resist dead load and absorb thrust.
- 3.1.3 Install piping close to building structure to minimize furring and conserve headroom. Group piping and run parallel to walls and ceilings.
- 3.1.4 Cut tube square, ream tube ends and clean tubing and tube ends before joint assembly.
- 3.1.5 Before assembling solder or brazed joints, remove working parts of valves, clean inside of solder fittings and outside of mating pipe with emery paper and coat with flux.
- 3.1.6 Solder or braze joints with blow torch or oxy-acetylene flame.
- 3.1.7 Joint construction, above ground:
 - 3.1.7.1 Up to NPS 2½": soldered in all locations
- 3.1.8 Domestic Cold and Hot Water System Distribution
 - 3.1.8.1 Provide domestic cold water system with
 - 3.1.8.1.1 Distribution pipe and fittings,
 - 3.1.8.1.2 Valved connections from supply systems,
 - 3.1.8.1.3 Appliance backflow protection.
- 3.1.9 Drainage
 - 3.1.9.1 Provide waste and vent connections to plumbing fixtures and equipment.
 - 3.1.9.2 Fittings:
 - 3.1.9.2.1 Do not use double hubs, straight crosses, double t's, or double ty's in soil or waste pipe below any fixture.
 - 3.1.9.2.2 do not use branch fittings other than full "Y" or "Y" and an eighth bend, on soil or waste pipe running in horizontal direction.

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3.1.9.2.3 Do not use quarter bend placed on its side.

3.1.9.2.4 Do not use inverted joints below fixtures.

3.1.10 Pressure test piping before insulation is applied. Cut-out and replace leaking soldered or brazed fittings and retest.

4. PIPING, PLUMBING FIXTURES AND ACCESSORIES

4.1 Domestic Hot And Cold Water Piping, Within Building

4.1.1 Copper tube: to ASTM B88.

4.1.1.1 Hard drawn, type L above ground.

4.1.1.2 Soft annealed, type K below ground.

4.1.2 Tube to have certification markings made by testing agency accredited by Standards Council of Canada.

4.2 Copper Drain Waste And Vent Pipe And Fittings, Within Building

4.2.1 Pipe:

4.2.1.1 Copper DWV tube, to ASTM B306

4.2.2 Tube to have certification markings made by testing agency accredited by Standards Council of Canada.

4.3 Joints

4.3.1 Flanged joints:

4.3.1.1 made up with rubber gaskets 1.6 mm (1/16 in) thick to AWWA C111 and

4.3.1.2 heavy series bolts, hexagonal head pattern to ASTM A307, nuts to ASTM 563, and washers.

4.3.2 Solder : tin antimony solder, 95:5 to ASTM B-32 .

4.3.3 Silver brazing alloy AWS Classification BCUP-5

4.3.3.1 Standard of Acceptance

4.3.3.1.1 Handy Harman "SIL-FOS"

4.3.3.1.2 All-State Welding Alloys "SILFLO 15"

4.4 Ball Valves

4.4.1 1000 kPa (150 psi), two piece bronze body and chrome plated bronze ball, PTFE seat rings, solder joint or NPT to copper adapters, full port.

4.4.2 Handle extensions suitable to clear 50 mm (2 in) pipe insulation thickness.

4.4.2.1 Standard of Acceptance

4.4.2.1.1 Kitz 59(soldered)

4.4.2.1.2 Kitz 58 (threaded)

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- 4.4.2.1.3 Crane 9322 (soldered)
- 4.4.2.1.4 Crane 9302 (threaded)
- 4.4.2.1.5 Jenkins 202J (soldered)
- 4.4.2.1.6 Jenkins 201J (threaded)

4.5 'S-1' STAINLESS STEEL UNDERMOUNT SINK - TOUCHLESS FAUCET :

- 4.5.1 REGINOX, Model #RSU1829-55, undermount single bowl stainless steel kitchen sink.
- 4.5.2 MOEN, Model #7565EW Series, 'ALIGN MOTIONSENSE WAVE' single handle, high arc kitchen faucet with pulldown sprayhead c/w Moen power adapter kit #169031. Confirm finish with interior designer prior to tender close.
- 4.5.3 LAWLER 570-86820 mixing valve – point-of-use and master controlled fixtures, thermostatic master water mixing control valve, 11 lpm (3 gpm) tempered flowrate @ 5 psi pressure drop, 7 gpm flowrate @ 45 psi, 1.9 - 30 lpm (0.5 - 8 gpm) range for flowrate. Water supply temperature to be limited to a maximum of 43°C.
- 4.5.4 MCGUIRE #LFBV170, polished brass faucet supplies.
- 4.5.5 Provide P-trap.
- 4.5.6 Provide tee, adaptors and flex. Copper tubing to suit installation.

4.6 'S-2' STAINLESS STEEL UNDERMOUNT KITCHEN SINK – SINGLE HANDLE FAUCET :

- 4.6.1 KOHLER, Model #K-3333, 'UNDERTONE' 10-3/4" undermount single bowl stainless steel kitchen sink c/w sink drain & strainer with tailpiece model #K-8801.
- 4.6.2 MOEN, Model #S5530 Series, 'SIP' single lever beverage faucet. Confirm finish with interior designer prior to tender close.
- 4.6.3 MCGUIRE #LFBV170, polished brass faucet supplies.
- 4.6.4 Provide P-trap.
- 4.6.5 Provide tee, adaptors and flex. Copper tubing to suit installation.

END OF SECTION

**Regional Municipality of Peel
Procurement Division**

Document 2024-164T

**Division 22
Section 22 00 00
Plumbing**

**GENERAL CONTRACTING SERVICES FOR INTERIOR RENOVATIONS
AT 7150 MISSISSAUGA ROAD, MISSISSAUGA FOR PEEL REGIONAL POLICE**

1 FIRE ALARM SYSTEMS

1.1 Manufacturers

- 1.1.1 Existing fire alarm system to remain.

1.2 Submittals

- 1.2.1 In accordance with Section 00 00 00 Electrical General Requirements.
- 1.2.2 Product Data: Provide electrical characteristics and connection requirements.
- 1.2.3 Manufacturer's Installation Instructions: Indicate application conditions and limitations of use stipulated by Product testing agency. Include instructions for storage, handling, protection, examination, preparation, installation, and starting of products.
- 1.2.4 Shop Drawings:
 - 1.2.4.1 Sufficient information, clearly presented, shall be included to determine compliance with drawings and specifications.
 - 1.2.4.2 Include manufacturer's name(s), model numbers, ratings, power requirements, equipment layout, and device arrangement.
 - 1.2.4.3 Show annunciator layout and main control panel module layout, configurations and terminations.
 - 1.2.4.4 Show device layout, complete riser diagram, and auxiliary functions.
 - 1.2.4.5 The supplier of the system shall prepare a complete zoning schedule and artwork layout for passive graphic to be included with submittal package.
- 1.2.5 Conduit and Wire for Fire Alarm System
 - 1.2.5.1 Conduit: In accordance with Section 26 00 00.
 - 1.2.5.2 Conduit shall be in accordance with the Electrical Safety Authority (ESA), local and provincial requirements.
 - 1.2.5.3 All wiring shall be installed in conduit or raceway.
 - 1.2.5.4 Fire Alarm Cable
 - 1.2.5.5 Conductors: 300V rated multiconductor to manufacturer's requirements, insulated, colour coded, copper conductor, minimum size to be #16 AWG for device loops and 14 AWG for signal circuits.
 - 1.2.5.6 Certified by CSA as fire alarm and signal cable type FAS 105 to CSA C22.2 No. 208.
- 1.2.6 Signalling and Annunciation Devices
 - 1.2.6.1 Manual pull stations, smoke detectors, horns, and strobes to suit the existing system.

- 1.2.6.2 If required, provide input modules to suit supervision and monitoring of sprinkler supervisory and flow zones.
- 1.2.7 Installation
 - 1.2.7.1 To CAN/ULC-S524-14 and the manufacturer's manuals and wiring diagrams.
 - 1.2.7.2 The contractor shall furnish all labour, conduit, wiring, outlet boxes, junction boxes, cabinets and similar devices necessary for a complete, functional life safety fire alarm system.
 - 1.2.7.3 Provide all necessary power supply, interconnecting and remote signal wire in dedicated conduit throughout and installed in accordance with the manufacturer's wiring diagrams and the requirements of the Canadian Electrical Code and the Inspection Authority.
 - 1.2.7.4 All penetration of floor slabs and fire walls shall be fire stopped in accordance with all local fire codes.
 - 1.2.7.5 Power supply:
 - 1.2.7.6 Connect fire alarm system power supply to a dedicated circuit.
 - 1.2.7.7 Circuit breaker(s) feeding fire alarm system to be coloured red, clearly labelled, and be locked in the ON position.
 - 1.2.7.8 Wiring:
 - 1.2.7.9 Install all wiring in metal raceways.
 - 1.2.7.10 Provide wiring suitable for fire alarm circuits.
 - 1.2.7.10.1 Class "B" wiring for initiating circuits.
 - 1.2.7.10.2 Class "B" wiring for signaling circuits.
 - 1.2.7.11 Provide separate signalling circuits for horns and strobes.
 - 1.2.7.12 End-of-line resistors shall be furnished as required for mounting as directed by the manufacturer on Class B circuits.
 - 1.2.7.12.1 Install EOL resistors maximum 1800 mm above finished floor in interior spaces.
 - 1.2.7.13 Install manual pull stations at 1200 mm above finished floor.
- 1.2.8 Verification
 - 1.2.8.1 To CAN/ULC-S537-13.
Provide audibility test of signaling devices after other systems have been commissioned to verify operation at ambient sound levels. Submit report to consultant. Refer to drawing note for exact requirement.

END OF SECTION

Regional Municipality of PeelDocument 2024-164T Addendum#1

Procurement Division

Division 28

Section 28 00 00

GENERAL CONTRACTING SERVICES FOR INTERIOR RENOVATIONS

Fire Alarm

AT 7150 MISSISSAUGA ROAD, MISSISSAUGA FOR PEEL REGIONAL POLICE

Systems
