Part 1 General

1.1 RELATED REQUIREMENTS

.1 Plumbing:

.1	Section 22 11 16	Domestic Water Piping
.2	Section 22 13 17	Drainage Waste and Vent Piping - Cast Iron and Copper
.3	Section 22 42 01	Plumbing Specialities and Accessories
.4	Section 23 05 48	Vibration and Seismic Controls for HVAC Piping and Equipment
.5	Section 23 05 49.01	Seismic Restraint Systems (SRS) - Type P2 Buildings
.6	Section 23 05 53	Mechanical Identification
.7	Section 23 07 15	Thermal Insulation for Piping

1.2 ACCEPTABLE PRODUCTS OR MATERIALS

.1 When brand name materials or products are required, see the Instruction to Bidders for the steps involved in requesting approval for replacement materials or products.

1.3 ACTION AND INFORMATIONAL SUBMITTALS

.1 Submit in accordance with Section 01 33 00 - Submittal Procedures.

.2 Product Data:

.1 Submit manufacturer's instructions, printed product literature and data sheets and include product characteristics, performance criteria, physical size, finish and limitations.

.3 Shop Drawings:

.1 Shop drawings and product data accompanied by:

.1 Detailed drawings of bases, supports, and anchor bolts.

.2 Acoustical sound power data, where applicable.

.3 Points of operation on performance curves.

.4 Manufacturer to certify current model production.

.5 Certification of compliance to applicable codes.

1.4 CLOSEOUT SUBMITTALS

.1 Submit in accordance with Section 01 78 00 - Closeout Submittals.

.1 Operation data to include:

.1 Servicing, maintenance, operation and trouble-shooting instructions for each item of equipment.

.2 Data to include schedules of tasks, frequency, tools required and task time.

Part 2 Products

2.1 MATERIALS/EQUIPMENT

.1 Materials, equipment and products: according to description in drawings.

Part 3 Execution

3.1 PAINTING REPAIRS AND RESTORATION

.1 Do painting.

.2 Prime and touch up marred finished paintwork to match original.

.3 Restore to new condition, finishes which have been damaged.

3.2 SYSTEM CLEANING

.1 Clean interior and exterior of all systems including strainers. Vacuum interior of ductwork and air handling units.

3.3 PROTECTION

.1 Protect equipment and systems openings from dirt, dust, and other foreign materials with materials appropriate to system.

END OF SECTION

Part 1 General

1.1 SUMMARY

.1 Related sections

.1 Section 33 11 16 – Site Water Utility Distribution Piping.

1.2 REFERENCES

.1 Health Canada/Workplace Hazardous Materials Information System (WHMIS)

.1 Material safety data sheets (MSDS).

1.3 ACTION AND INFORMATIONAL SUBMITTALS

.1 Submittals in accordance with Section 01 33 00 - Submittal Procedures.

.2 Product Data:

.1 Submit manufacturer's printed product literature, specifications and data sheet for fixtures and equipment.

.2 Submit material safety data sheet as required by SIMDUT (Workplace Hazardous Materials Information System).

.3 Shop Drawings.

.1 Submit shop drawings to indicate, show or include the following:

.1 Equipment, including connections, fittings, control assemblies and ancillaries. Identify whether factory or field assembled.

.2 Wiring and schematic diagrams.

.3 Dimensions and recommended installation.

.4 Pump performance and efficiency curves.

.4 Certificates: submit certificates signed by manufacturer certifying that materials comply with specified performance characteristics and physical properties.

.5 Instructions: submit manufacturer's installation instructions.

.6 Manufacturers' Field Reports: manufacturers' field reports specified.

.7 Documents/items to submit on completion of work: supply the data sheets and maintenance sheets required and include them to the Project Record Documents as described in section 01 78 00 - Closeout Submittals. Sheets must include or indicate the following:

.1 Manufacturer’s name, type, model year, capacity and serial number.

.2 Details of operation, servicing and maintenance.

.3 Recommended spare parts list with names and addresses.

1.4 QUALITY ASSURANCE

.1 Pre-Installation Meeting:

.1 One week prior to the start of the work covered in this section, hold a meeting to examine the following:

.1 Verify project requirements.

.2 Condition of site and installation conditions.

.3 Co-ordination with other building subtrades.

.4 Manufacturer's instructions concerning installation, together with terms of manufacturer's guarantee.

1.5 DELIVERY, STORAGE AND HANDLING

.1 Waste Management and Disposal:

.1 Remove from site and dispose of packaging materials at appropriate recycling facilities.

.2 Collect and separate for disposal packaging material in appropriate on-site bins for recycling in accordance with Waste Management Plan.

.3 Take unused metal items to a metal-recycling facility.

.4 Unused materials must not be disposed of into sewer system, into streams, lakes, onto ground or in other location where it will pose health or environmental hazard.

Part 2 Products

2.1 WELL

.1 Well pump system to be compatible with well having following characteristics:

.1 Land elevation: 0.00 m.

.2 Static water level: -4.70 m (measured on Feb. 16, 2016).

.3 Pumping level: -42.00 m.

.4 Bottom of the well: -45,00 m.

.5 Diameter of the well: 152 mm.

2.2 VERTICAL WATER WELL PUMP

.1 Throughput: 2.5 L/s at an output pressure of 50 m.

.2 One-pump installation.

.1 Vertical centrifugal pump, stainless steel body, 304 stainless steel impeller, stainless steel shaft.

.2 Stainless steel shaft sleeve and components.

.3 Check-valve built into pump.

.4 Vertical DN 50 mm threaded discharge outlet.

.5 Bronze lower bushing, graphite self-lubricated.

.3 Motor: 3.73 kW for continuous operation, built-in surge protection, sheltered, three-wire rubber-sheathed cable of sufficient length for the well.

.4 Supply a piezometric sensor to provide low groundwater level protection.

Part 3 Execution

3.1 MANUFACTURER'S INSTRUCTIONS

.1 Compliance: comply with manufacturer's written recommendations or specifications, including product technical bulletins, handling, storage and installation instructions, and data sheet.

3.2 SPECIFIC INSTRUCTIONS

.1 Prior to installation (sub-section 3.3), the well must be developed a second time. This operation consist to purge the well from sediment accumulated since it’s construction. This operation must be performed by a recognized well digger and under the supervision of a professional in this field, accordingly to the Quebec Professional code (Chapter C-26), article 1.

.2 Any groundwater withdrawal installation realized for the purpose of human consumption must be designed with materials appropriate for potable water distribution. Such installation must be cleaned and disinfected before start-up to eliminate the possibility of water contamination. This apply to all accessory equipment installed after the cleaning and disinfection of such an installation.

.3 When works involve water discharges, direct water flow in the adjacent woodland to avoid water from returning to the well. Water discharge must always take place at a minimum distance of 30 m from any water course.

3.3 INSTALLATION

.1 Make electrical and mechanical connexions between pump, motor and control devices as indicated.

.2 Ensure the pump and motor assembly does not support the piping.

.3 Connect pump to the discharge pipe with a torque arrestor.

.4 Once the assembly is completed and with the cover plate in place, align the submerged pump assembly in the well.

.5 Attach electrical cables to the pump discharge pipe.

.6 Supply a stainless steel safety cable attached to the pump and to the upper section of the well casing.

.7 Connect the discharge pipe to the water conduit provided in section 33 11 16 – Site water utility distribution piping. A pitless adapter must be installed below the frost line.

.8 The installation must be complete and allow normal usage of the well.

.9 Realize tests prescribed in Section 33 11 16 – Site Water Utility Distribution Piping – prior to connecting the raw water pipe to the treatment plant and to the well.

.10 Realize the pumping test prescribed in article 3.5 prior to connecting the well to the raw water pipe.

3.4 FIELD QUALITY CONTROL

.1 Site Tests/Inspection:

.1 Check power supply.

.2 Check starter protective devices.

.2 Start-up, check for proper and safe operation.

.3 Check settings and operation of hand-off-auto selector switch, operating, safety and limit controls, audible and visual alarms, over-temperature and other protective devices.

3.5 START-UP

.1 General:

.1 Procedures:

.1 Check power supply.

.2 Check starter overload heater sizes.

.3 Start the pump.

.4 Check for safe and proper operation.

.5 Check settings, operation of operating, limit, safety controls, over-temperature, audible/visual alarms, other protective devices.

.6 Test operation of hands-on-auto switch.

.7 Run pump for 72 consecutive hours at a rate of 90 l/min.

.1 A water sample will be taken by the Departmental Representative at the end of the test.

.8 Measure pressure and flow (at wellhead) during pumping.

.9 Eliminate causes of cavitation, flashing, air entrainment.

.10 Measure pressure drop across strainer when clean and with flow rates as finally set.

3.6 REPORTS

.1 The reports shall be included to the Project Record Documents as described in section 01 78 00 - Closeout Submittals and include:

.1 PV results on approved PV Report Forms.

.2 Product Information report forms.

.3 Pump performance curves (family of curves) with final point of actual performance.

3.7 TRAINING

.1 The contractor shall provide a 4-hour training session in French describing the system installed, its features, its operation and the required maintenance. This training must be given on the work site.

END OF SECTION

Part 1 General

1.1 RELATED REQUIREMENTS

.1 Section 22 05 00 Common Work Results for Plumbing.

1.2 REFERENCES

.1 American National Standards Institute (ANSI)/American Society of Mechanical Engineers International (ASME)

.1 ANSI/ASME B16.15-13, Cast Bronze Threaded Fittings, Classes 125 and 250.

.2 ANSI/ASME B16.18-12, Cast Copper Alloy Solder Joint Pressure Fittings.

.3 ANSI/ASME B16.22-13, Wrought Copper and Copper Alloy Solder Joint Pressure Fittings.

.4 ANSI/ASME B16.24-11, Cast Copper Alloy Pipe Flanges and Flanged Fittings, Class 150, 300, 400, 600, 900, 1500 and 2500.

.2 ASTM International Inc.

.1 ASTM A307-14, Standard Specification for Carbon Steel Bolts and Studs, 60,000 PSI Tensile Strength.

.2 ASTM A536-84(2014), Standard Specification for Ductile Iron Castings.

.3 ASTM B88M-13, Standard Specification for Seamless Copper Water Tube (Metric).

.3 American National Standards Institute/American Water Works Association (ANSI)/(AWWA)

.1 ANSI/AWWA C111/A21.11-12, Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings.

.4 Canadian Standards Association (CSA International)

.1 CSA B242-16, Groove and Shoulder Type Mechanical Pipe Couplings.

.5 National Research Council (NRC)/Institute for Research in Construction

.1 NRCC, National Plumbing Code of Canada (NPC) - 2010.

1.3 ACTION AND INFORMATIONAL SUBMITTALS

.1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.

.2 Product Data:

.1 Provide manufacturer's printed product literature and datasheets for insulation and adhesives, and include product characteristics, performance criteria, physical size, finish and limitations.

Part 2 Products

2.1 PIPING

.1 Domestic hot, cold and recirculation systems, within building.

.1 Above ground: copper tube, hard drawn, type L: to ASTM B88M.

.2 Buried or embedded: copper tube, soft annealed, type K: to ASTM B88M, in long lengths and with no buried joints.

2.2 FITTINGS

.1 Bronze pipe flanges and flanged fittings, Class 150: to ANSI/ASME B16.24.

.2 Cast bronze threaded fittings, Class 125: to ANSI/ASME B16.15.

.3 Cast copper, solder type: to ANSI/ASME B16.18.

.4 Wrought copper and copper alloy, solder type: to ANSI/ASME B16.22.

.5 NPS 2 and larger: ANSI/ASME B16.18 or ANSI/ASME B16.22 roll grooved to CSA B242.

.6 NPS 1 and smaller: wrought copper to ANSI/ASME B16.22 or cast copper to ANSI/ASME B16.18.

2.3 JOINTS

.1 Rubber gaskets, latex-free 1.6 mm thick: to AWWA C111.

.2 Bolts, nuts, hex head and washers: to ASTM A307, heavy series.

.3 Solder: 95/5 tin copper alloy.

.4 Teflon tape: for threaded joints.

.5 Grooved couplings: designed with angle bolt pads to provide rigid joint, complete with EPDM gasket.

.6 Dielectric connections between dissimilar metals: dielectric fitting, complete with thermoplastic liner.

2.4 BALL VALVES

.1 NPS 2 and under, screwed:

.1 Class 150.

.2 NPS 2 and under, soldered:

.1 To ANSI/ASME B16.18, Class 150.

Part 3 Execution

3.1 APPLICATION

.1 Manufacturer's Instructions: comply with manufacturer's written recommendations, including product technical bulletins, handling, storage and installation instructions, and datasheets.

3.2 INSTALLATION

.1 Install in accordance with NPC 2010.

.2 Assemble piping using fittings manufactured to ANSI standards.

.3 Install CWS piping below and away from HWS and HWC and other hot piping so as to maintain temperature of cold water as low as possible.

.4 Connect to fixtures and equipment in accordance with manufacturer's written instructions unless otherwise indicated.

3.3 VALVES

.1 Isolate equipment, fixtures and branches with ball valves.

3.4 PRESSURE TESTS

.1 Test pressure: greater of 1 time maximum system operating pressure or 860 kPa.

3.5 FLUSHING AND CLEANING

.1 Flush entire system for 8 h. Ensure outlets flushed for 2 hours. Let stand for 24 hours, then draw one sample off longest run. Submit to testing laboratory to verify that system is clean copper to Provincial potable water guidelines. Let system flush for additional 2 hours, then draw off another sample for testing.

3.6 PRE-START-UP INSPECTIONS

.1 Systems to be complete, prior to flushing, testing and start-up.

.2 Verify that system can be completely drained.

.3 Ensure that pressure booster systems are operating properly.

3.7 DISINFECTION

.1 Flush out, disinfect and rinse system to requirements of authority having jurisdiction.

.2 Upon completion, provide laboratory test reports on water quality for Departmental Representative approval.

3.8 START-UP

.1 Timing: start up after:

.1 Pressure tests have been completed.

.2 Disinfection procedures have been completed.

.3 Certificate of static completion has been issued.

.2 Provide continuous supervision during start-up.

.3 Start-up procedures:

.1 Establish circulation and ensure that air is eliminated.

.2 Check pressurization to ensure proper operation and to prevent water hammer, flashing and/or cavitation.

.3 Bring HWS storage tank up to design temperature slowly.

.4 Monitor piping HWS and HWC piping systems for freedom of movement, pipe expansion as designed.

.5 Check control, limit, safety devices for normal and safe operation.

.4 Rectify start-up deficiencies.

END OF SECTION

Part 1 General

1.1 RELATED REQUIREMENTS

.1 Section 22 05 00 Common Work Results for Plumbing.

1.2 REFERENCES

.1 ASTM International Inc.

.1 ASTM B32-08 (2014), Standard Specification for Solder Metal.

.2 ASTM B306-13, Standard Specification for Copper Drainage Tube (DWV).

.3 ASTM C564-14, Standard Specification for Rubber Gaskets for Cast Iron Soil Pipe and Fittings.

.2 Canadian Standards Association (CSA International).

.1 CAN/CSA-B70-12, Cast Iron Soil Pipe, Fittings and Means of Joining.

.2 CAN/CSA-B125.3-12, Plumbing Fittings.

.3 Green Seal Environmental Standards (GSES)

.1 Standard GS-36-00, Commercial Adhesives.

.4 South Coast Air Quality Management District (SCAQMD), California State

.1 SCAQMD Rule 1168-A2005, Adhesive and Sealant Applications.

1.3 ACTION AND INFORMATIONAL SUBMITTALS

.1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.

.2 Product Data:

.1 Provide manufacturer's printed product literature and datasheets for adhesives, and include product characteristics, performance criteria, physical size, finish and limitations.

Part 2 Products

2.1 COPPER TUBE AND FITTINGS

.1 Above ground sanitary and vent Type DWV to: ASTM B306.

.1 Fittings.

.1 Cast brass: to CAN/CSA-B125.3.

.2 Wrought copper: to CAN/CSA-B125.3.

.2 Solder: 95:5, type TA, to ASTM B32.

2.2 CAST IRON PIPING AND FITTINGS

.1 Buried sanitary, storm and vent minimum NPS 3, to: CAN/CSA-B70, with one layer of protective coating.

.1 Joints:

.1 Mechanical joints:

.1 Neoprene or butyl rubber compression gaskets: to ASTM C564 or CAN/CSA-B70.

.2 Compression gaskets with stainless steel clamps.

.2 Above ground sanitary, storm and vent: to CAN/CSA-B70.

.1 Joints:

.1 Mechanical joints:

.1 Neoprene or butyl rubber compression gaskets with stainless steel clamps.

Part 3 Execution

3.1 APPLICATION

.1 Manufacturer's Instructions: comply with manufacturer's written recommendations, including product technical bulletins, handling, storage and installation instructions, and datasheets.

3.2 INSTALLATION

.1 Install in accordance with National Plumbing Code – 2010.

3.3 TESTING

.1 Pressure test buried systems before backfilling.

.2 Hydraulically test to verify grades and freedom from obstructions.

3.4 PERFORMANCE VERIFICATION

.1 Cleanouts:

.1 Ensure accessible and that access doors are correctly located.

.2 Open, cover with linseed oil and re-seal.

.3 Verify that cleanout rods can probe as far as the next cleanout, at least.

.2 Test to ensure traps are fully and permanently primed.

.3 Storm water drainage:

.1 Verify domes are secure.

.2 Ensure weirs are correctly sized and installed correctly.

.3 Verify provisions for movement of roof system.

.4 Ensure that fixtures are properly anchored, connected to system and effectively vented.

END OF SECTION

Part 1 General

1.1 RELATED REQUIREMENTS

.1 Section 22 05 00 Common Work Results for Plumbing.

1.2 REFERENCES

.1 ASTM International

.1 ASTM A126-04(2014), Standard Specification for Gray Iron Castings for Valves, Flanges and Pipe Fittings.

.2 ASTM B62-15, Standard Specification for Composition Bronze or Ounce Metal Castings.

.2 CSA International

.1 CSA-B64 Series-11, Backflow Preventers and Vacuum Breakers.

.2 CSA B79-08 (2013), Commercial and Residential Drains and Cleanouts.

1.3 ACTION AND INFORMATIONAL SUBMITTALS

.1 Submit in accordance with Section 01 33 00 - Submittal Procedures.

.2 Product Data:

.1 Submit manufacturer's instructions, printed product literature and data sheets for plumbing products and include product characteristics, performance criteria, physical size, finish and limitations.

.3 Shop Drawings:

.1 Submit drawings stamped and signed by professional engineer registered or licensed in Province of Quebec, Canada.

.2 Indicate on drawings to indicate materials, finishes, method of anchorage, number of anchors, dimensions, construction and assembly details, accessories, etc.

.4 Instructions: submit manufacturer's installation instructions.

1.4 CLOSEOUT SUBMITTALS

.1 Submit in accordance with Section 01 78 00 - Closeout Submittals.

.2 Operation and Maintenance Data: submit operation and maintenance data for plumbing specialties and accessories for incorporation into manual.

.1 Description of plumbing specialties and accessories, giving manufacturers name, type, model, year and capacity.

.2 Details of operation, servicing and maintenance.

.3 Recommended spare parts list.

Part 2 Products

2.1 FLOOR DRAINS

.1 Floor Drains and Trench Drains: to CSA B79.

.2 Type 1: cast iron body, round, adjustable head, nickel bronze strainer.

.3 Type 3: cast iron body with integral seepage pan, clamping collar, nickel-bronze adjustable head strainer with integral funnel.

.4 Type 4: cast-iron body, round, nickel-bronze adjustable head strainer, antivandal screw.

2.2 CLEANOUTS

.1 Cleanout Plugs: heavy cast iron male ferrule with brass screws and threaded brass or bronze plug. Sealing-caulked lead seat or neoprene gasket.

.2 Access Covers:

.1 Floor Access: round, cast iron body and frame with adjustable secured nickel bronze top and:

.1 Plugs: bolted bronze with neoprene gasket.

2.3 BACK FLOW PREVENTERS

.1 Preventers: to CSA-B64 Series, application as indicated.

2.4 VACUUM BREAKERS

.1 Breakers: to CSA-B64 Series, vacuum breaker atmospheric.

2.5 BACKWATER VALVES

.1 Coated extra heavy cast iron body with bronze seat, revolving bronze flapper and threaded cover.

2.6 SINK

.1 E-1: double compartment, ledge back:

.1 From 1.0 mm thick type 302 stainless steel, self-rimming, undercoated, clamps. Overall sizes: 790 x 520 x 180 mm.

.2 Trim: chrome plated brass, with swing spout, aerator, single lever handle, washerless controls, accessories to limit maximum flow rate to 8.35 litres/minute at 413 kPa, spray fitting.

.3 Waste fitting: integral stainless steel basket strainer/stopper, tailpiece, cast brass P-trap with cleanout.

Part 3 Execution

3.1 EXAMINATION

.1 Verification of Conditions: verify that conditions of substrate previously installed under other Sections or Contracts are acceptable for plumbing specialities and accessories installation in accordance with manufacturer's written instructions.

.1 Visually inspect substrate in presence of Departmental Representative.

.2 Inform Departmental Representative of unacceptable conditions immediately upon discovery.

.3 Proceed with installation only after unacceptable conditions have been remedied and after receipt of written approval to proceed from Departmental Representative.

3.2 MANUFACTURER'S INSTRUCTIONS

.1 Compliance: comply with manufacturer's written recommendations or specifications, including product technical bulletins, handling, storage and installation instructions, and data sheet.

3.3 INSTALLATION

.1 Install in accordance with National Plumbing Code of Canada.

.2 Install in accordance with manufacturer's instructions and as specified.

3.4 CLEANOUTS

.1 Install cleanouts at base of soil and waste stacks, and rainwater leaders, at locations required code, and as indicated.

.2 Bring cleanouts to wall or finished floor unless serviceable from below floor.

.3 Building drain cleanout and stack base cleanouts: line size to maximum NPS 4.

3.5 NON-FREEZE WALL HYDRANTS

.1 Install 600 mm above finished grade and as indicated.

3.6 WATER HAMMER ARRESTORS

.1 Install on branch supplies to fixtures or group of fixtures where indicated.

3.7 BACK FLOW PREVENTERS

.1 Install in accordance with CSA-B64 Series, where indicated and elsewhere as required by code.

.2 Pipe discharge to terminate over nearest drain.

3.8 BACKWATER VALVES

.1 Install in access pit as indicated.

3.9 HOSE BIBBS AND SEDIMENT FAUCETS

.1 Install at bottom of risers, at low points to drain systems, and as indicated.

3.10 STRAINERS

.1 Install with sufficient room to remove basket for maintenance.

3.11 START-UP

.1 General:

.1 In accordance with supplemented as specified herein.

.2 Timing: start-up only after:

.1 Pressure tests have been completed.
.2 Disinfection procedures have been completed.
.3 Certificate of static completion has been issued.

.3 Provide continuous supervision during start-up.

3.12 TESTING AND ADJUSTING

.1 General:

.1 Test and adjust plumbing specialties and accessories in accordance with supplemented as specified.

.2 Timing:

.1 After start-up deficiencies rectified.
.2 After certificate of completion has been issued by authority having jurisdiction.

.3 Floor drains:

.1 Verify operation of trap seal primer.
.2 Prime, using trap primer. Adjust flow rate to suit site conditions.
.3 Check operations of flushing features.
.4 Check security, accessibility, removability of strainer.
.5 Clean out baskets.

.4 Vacuum breakers, backflow preventers, backwater valves:

.1 Test tightness, accessibility for O M of cover and of valve.
.2 Simulate reverse flow and back-pressure conditions to test operation of vacuum breakers, backflow preventers.
.3 Verify visibility of discharge from open ports.

.5 Access doors:

.1 Verify size and location relative to items to be accessed.

.6 Cleanouts:

.1 Verify covers are gas-tight, secure, yet readily removable.

.7 Water hammer arrestors:

.1 Verify proper installation of correct type of water hammer arrester.

.8 Wall, ground hydrants:

.1 Verify complete drainage, freeze protection.
.2 Verify operation of vacuum breakers.

.9 Pressure regulators, PRV assemblies:

.1 Adjust settings to suit locations, flow rates, pressure conditions.

.10 Strainers:

.1 Clean out repeatedly until clear.

.2 Verify accessibility of cleanout plug and basket.

.3 Verify that cleanout plug does not leak.

3.13 CLOSEOUT ACTIVITIES

.1 Commissioning Reports: in accordance with supplemented as specified.

3.14 CLEANING

.1 Progress Cleaning: clean in accordance with Section 01 74 11 - Cleaning.

.1 Leave Work area clean at end of each day.

.2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 11 - Cleaning.

3.15 PROTECTION

.1 Protect installed products and components from damage during construction.

.2 Repair damage to adjacent materials caused by plumbing specialties and accessories installation.

END OF SECTION