

Part 1 General

1.1 RELATED REQUIREMENTS

- .1 Section 01 35 20 - LEED General
- .2 Section 01 74 19 - WMD

1.2 REFERENCES

- .1 Canada Green Building Council (CaGBC)
 - .1 ARI 1010, Self Contained, Mechanically Refrigerated Drinking-Water Coolers
 - .2 LEED Canada-LEED 2009 New Construction, LEED (Leadership in Energy and Environmental Design): Green Building Rating System Reference Package For New Construction and Major Renovations (including Addenda).
- .2 Canadian Standards Association (CSA International)
 - .1 CAN/CSA-B45 Series, Plumbing Fixtures.
 - .2 CAN/CSA-B125.3, Plumbing Fittings.
 - .3 CAN/CSA-B651, Accessible Design for the Built Environment.
- .3 Green Seal Environmental Standards (GSES)
 - .1 Standard GS-36, Commercial Adhesives.

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 washroom fixtures, and include product characteristics, performance criteria, physical size, finish and limitations.
- .3 Indicate fixtures and trim:
 - .1 Dimensions, construction details, roughing-in dimensions.
 - .2 Factory-set water consumption per flush at recommended pressure.
 - .3 (For water closets, urinals): minimum pressure required for flushing.
- .4 Sustainable Design Submittals:
 - .1 LEED Submittals: in accordance with Section 01 35 20 - LEED Sustainable Requirements.

1.4 CLOSEOUT SUBMITTALS

- .1 Provide operation and maintenance data for washroom fixtures, for incorporation into manual specified in Section 01 78 00 - Closeout Submittals.
- .2 Include:
 - .1 Description of fixtures and trim, giving manufacturer's name, type, model, year, capacity.

- .2 Details of operation, servicing, maintenance.
- .3 List of recommended spare parts.

1.5 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle in accordance with Section 01 61 00 - Common Product Requirements.
- .2 Deliver materials to site in original factory packaging, labelled with manufacturer's name, address.
- .3 Packaging Waste Management: remove for reuse or recycling in accordance with Section 01 74 19 - Waste Management and Disposal.

Part 2 Products

2.1 SUSTAINABLE MATERIAL

- .1 Sustainable Requirements:
 - .1 Materials and resources in accordance with Section 01 35 20 – LEED Sustainable Requirements.
- .2 Adhesives and sealants: In accordance with Section 01 35 20 - LEED Sustainable Requirements.

2.2 P-1 WATER CLOSET

- .1 White, vitreous china, 3.0Lpf, BSB flushing technology, 51mm trap diameter, 305mm rough in, 10 year warranty on parts, 1 year warranty on valves. To meet or exceed ASME A112.19.2, IAPMO/UPC, and CSA B35.
- .2 Seat & Supply: Soft close toilet seat
- .3 Minimum MAP rating: 800 grams.
- .4 Acceptable Product: "Proficiency", Water Matrix model N7717 as specified (or approved equal in accordance with B7).

2.3 P-2 BARRIER FREE WATER CLOSET

- .1 ADA compliant, white, vitreous china, 3.0Lpf, BSB flushing technology, 51mm trap diameter, 305mm rough in, 10 year warranty on parts, 1 year warranty on valves. To meet or exceed ASME A112.19.2, IAPMO/UPC, and CSA B35.
- .2 Seat & Supply: Soft close toilet seat
- .3 Minimum MAP rating: 800 grams.
- .4 Acceptable Product: "Proficiency", Water Matrix model N7717 as specified (or approved equal in accordance with B7).

2.4 P-3 LAVATORY

- .1 Sink: 18-gauge 304 Stainless Steel, self-rimming, 146 mm (5-3/4") bowl depth, satin finish, protected underside to prevent condensation and deaden sound, 406 mm x 318mm (16" x 12-1/2") overall dimensions, 41 mm (1-5/8") drain opening, overflow assembly, complies with ANSI A112.19.3M.
- .2 Faucet: Cast brass one piece body with integral water proof sensor and connector, 102 mm (4") spout, vandal resistant 1.9 LPM (0.5 USGPM) flow control non-aerating spray outlet, serviceable filter upstream of the solenoid valve, metal hold-down package, adjustable sensing range and timeout, chrome finish, CSA certified, complies to ASME A112.18.1/CSA B125.1, ADA compliant.
- .3 Aerator: 1.3 LPM (0.35 USGPM) max, vandal proof, pressure compensating for constant flow from 138 to 552 kPa (20 to 80 PSI), anti-clogging dome screen, acetal body material, EPDM o-ring, EPDM washer, 66°C (150°F) working temperature, 862 kPa (125 PSI) working pressure, meets or exceeds ANSI/NSF 61.
- .4 Acceptable Products: Sink "Elkay" model LLVR1310, faucet "Delta" 591T0258TR and aerator "NEOPERL", (or approved equal in accordance with B7).

2.5 P-4 BARRIER FREE LAVATORY

- .1 Sink: 18-gauge 304 Stainless Steel, self-rimming, 146 mm (5-3/4") bowl depth, satin finish, protected underside to prevent condensation and deaden sound, 406 mm x 318mm (16" x 12-1/2") overall dimensions, 41 mm (1-5/8") drain opening, overflow assembly, complies with ANSI A112.19.3M.
- .2 Faucet: Cast brass one piece body with integral water proof sensor and connector, 102 mm (4") spout, vandal resistant 1.9 LPM (0.5 USGPM) flow control non-aerating spray outlet, serviceable filter upstream of the solenoid valve, metal hold-down package, adjustable sensing range and timeout, chrome finish, CSA certified, complies to ASME A112.18.1/CSA B125.1, ADA compliant.
- .3 Aerator: 1.3 LPM (0.35 USGPM) max, vandal proof, pressure compensating for constant flow from 138 to 552 kPa (20 to 80 PSI), anti-clogging dome screen, acetal body material, EPDM o-ring, EPDM washer, 66°C (150°F) working temperature, 862 kPa (125 PSI) working pressure, meets or exceeds ANSI/NSF 61.
- .4 Acceptable Products: Sink "Elkay" model LLVR1310, faucet "Delta" 591T0258TR and aerator "NEOPERL", (or approved equal in accordance with B7).

2.6 P-5 KITCHEN SINK

- .1 Sink: Triple compartment sink with faucet edge, 18 gauge, type 304 18-10 stainless steel, self-rimming, exposed surfaces are satin finished, undercoated to reduce condensation and resonance, 89 mm (3-1/2") crumb cub waste assembly, compartment size: 457 x 406 x 254 mm (18" x 16" x 10"), overall size 573 x 1330 mm (22-9/16" x 52-3/8").
- .2 Faucet: Single handle, deck mounted, all metal fabricated body, 221 mm (8-11/16") long spout, 180° swing, 5.7 LPM (1.5 USGPM) aerator, lever handle shall return to neutral when faucet is turned off, red and blue on handle to indicate hot/cold, diamond coated ceramic cartridge control mechanism, adjustable handle limit stop, complies with ASME A112.12.1/CSA B125.1, NSF 61.

- .3 Acceptable Products: Sink “Kindred” model LBT8610P-1/1 and faucet “Delta” model 101LF-HDF, (or approved equal in accordance with B7).

2.7 P-6 HANDWASH SINK

- .1 Sink: Single compartment sink with faucet edge, 18 gauge, type 304 18-10 stainless steel, self-rimming, exposed surfaces are satin finished, undercoated to reduce condensation and resonance, factory applied rim seal, 89 mm (3-1/2”) crumb cup waste assembly, compartment size 305 x 432 x 203 mm (12” x 17” x 8”), overall size 432 x 486 mm (17”x 19-1/8”).
- .2 Faucet: 406 mm (16”) high, 229 mm (9”) long, spout swings 360°, lever handle, diamond embedded ceramic disk cartridge control mechanism, control shall return to neutral position when faucet is turned off, 2 function stream/spray head, red and blue graphics to indicate hot/cold, magnetic docking system secures sprayer to spout, 5 year limited warranty, complies with ASME A112.18.1/CSA B125.1, ASME A112.18.6.
- .3 Aerator: 1.3 LPM (0.35 USGPM) max, vandal proof, pressure compensating for constant flow from 138 to 552 kPa (20 to 80 PSI), anti-clogging dome screen, acetal body material, EPDM o-ring, EPDM washer, 66°C (150°F) working temperature, 862 kPa (125 PSI) working pressure, meets or exceeds ANSI/NSF 61.
- .4 Acceptable Products: Sink “Kindred” model LBS2708P-1/1, faucet “Delta” model 9158-DST and aerator “NEOPERL” (or approved equal in accordance with B7).

2.8 P-7 WALL MOUNTED LAVATORY

- .1 Sink: Wall mounted, stainless steel, satin finish, seamless welded bowl, bowl dimensions 400x300x135mm (16” x 12” x 5-5/16”), 102mm (4”) faucet ledge, front panel with 45° angles, pre-welded mounting brackets, overflow, includes screws and dowels.
- .2 Faucet: Cast brass one piece body with integral water proof sensor and connector, 102 mm (4”) spout, vandal resistant 1.9 LPM (0.5 USGPM) flow control non-aerating spray outlet, serviceable filter upstream of the solenoid valve, metal hold-down package, adjustable sensing range and timeout, chrome finish, CSA certified, complies to ASME A112.18.1/CSA B125.1, ADA compliant.
- .3 **Aerator: 1.3 LPM (0.35 USGPM) max, vandal proof, pressure compensating for constant flow from 138 to 552 kPa (20 to 80 PSI), anti-clogging dome screen, acetal body material, EPDM o-ring, EPDM washer, 66°C (150°F) working temperature, 862 kPa (125 PSI) working pressure, meets or exceeds ANSI/NSF 61.**
- .4 **Acceptable Products: “Franke” model WT500C-8 (or approved equal in accordance with B7).**

2.9 P-8 FLOOR DRAIN

- .1 50 mm (2”) dura-coated cast iron body with bottom outlet, adjustable “Type B” polished nickel bronze round strainer. Include trap primer connection and vandal proof secured top.
- .2 Acceptable Product: “Zurn” ZN-211-B (or approved equal in accordance with B7).

2.10 P-9 DRINKING FOUNTAIN

- .1 Dual 14 gauge stainless steel basins, wall mounted, front mounted push-button activation, built-in 100 micron strainer, low flow chrome plated brass bubbler, heavy duty galvanized steel frame, perforated galvanized steel screens, 30.2 LPH (8 GPH) high efficiency chiller. ADA compliant, NSF 61 approval, cUL approval, CSA B45 approval.
- .2 Acceptable Product: “Franke” model KEPGV8ACSL-14G (or approved equal in accordance with B7).

2.11 P-10 URINAL

- .1 Urinal: White, vitreous china, 0.47 LPF (0.125 GPF), flushing rim, elongated 356 mm (14”) rim from finished wall, extended sides, 19mm (3/4”) inlet spud, 51mm (2”) inside NPTF outlet connection, strainer included, nominal dimensions 359 x 479 x 664 mm (14-1/8” x 18-7/8” x 26-1/8”).
- .2 Flush Valve: 0.47 LPF (0.125 GPF), manual urinal flush valve shall feature self-cleaning brass piston valve with integral wiper spring in bypass orifice to prevent clogging. Valve remains closed and does not need to be reset after loss of water pressure. Includes cast brass valve body and cover with chrome finish and vandal resistant stop cap. Includes sweat solder kit with wall flange and cover tube. 19 mm angle stop with back-flow protection and vacuum breaker included.
- .3 Acceptable Products: Urinal “American Standard” model 6590.530 and flush valve “American Standard” model 6045.013.002 (or approved equal in accordance with B7).

2.12 P-11 MOP SINK

- .1 Basin: Overall dimensions 610 x 610 x 254 mm (24” x 24” x 10”), one piece body, includes stainless steel combination dome strainer and lint basket, factory installed stainless steel drain body to accept 76 mm (3”) pipe.
- .2 Faucet: Chrome plated, vacuum breaker, integral stops, adjustable wall brace, body inlets 203 mm (8”) center to center, red/blue indicator colors for hot and cold, 19 mm (3/4”) hose thread on spout, meets or exceeds the requirements of CSA B125, CSA B64.1.1 and CSA B64.0.
- .3 Acceptable Products: Basin “Fiat” model MSB 2424 and faucet “Fiat” model 830-AA (or approved equal in accordance with B7).

2.13 P-12 FUNNEL FLOOR DRAIN

- .1 50mm (2”) Dura-coated cast iron body with bottom outlet, adjustable “Type BF” polished nickel bronze round strainer, secured open throat oval funnel with 83 x 203 mm (3-1/4”x 8”) funnel size
- .2 Acceptable Product: “Zurn” ZN-211-BF (or approved equal in accordance with B7).

2.14 GREASE INTERCEPTOR, GI-1:

- .1 Flow rating of 15 LPM (4 USGPM) with grease capacity of 3.6 kg (8 lbs).
- .2 Fabricated steel, epoxy coated inside and outside.

- .3 Unit shall include one piece removable baffle assembly, code approved deep seal trap, secured gasketed non slip cover and standard inlet and outlet.
- .4 Acceptable Product: “Watts” WD-104 (or approved equal in accordance with B7).

2.15 P-13 INTERIOR HOSE BIBB

- .1 13mm (1/2”), exposed, anti-siphon, wall faucet for use in moderate climate installation, complete with external backflow preventer, all bronze interior components, vandal-resistant operating stem, rough bronze exterior and male hose connection (Conform to ASME B1.20.7).
- .2 Acceptable Product: “Zurn” model Z1341-BFP (or approved equal in accordance with B7).

2.16 HOSE REEL, HS-1:

- .1 Electric hose reel with a 3-way hose guide, 76m (250 ft) long 25 mm (1”) I.D. hose and wall bracket. Include stainless steel fluid path material.
- .2 Provide four-way hose guide HR1059 at exterior wall penetration. Layout of mechanical room may require additional guides.
- .3 Mechanical contractor to provide shut-off valve and back-flow prevention.
- .4 Acceptable Product: “Reelcraft” Nordic Series Model 3900-31-16 (or approved equal in accordance with B7).

2.17 MANUFACTURED UNITS

- .1 Fixtures: manufacture in accordance with CAN/CSA-B45 series.
- .2 Trim, fittings: manufacture in accordance with CAN/CSA-B125.3.
- .3 Exposed plumbing brass to be chrome plated.
- .4 Number, locations: as indicated.
- .5 Fixtures in any one location to be product of one manufacturer and of same type.
- .6 Trim in any one location to be product of one manufacturer and of same type.

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 Mounting heights:
 - .1 Standard: to manufacturer's recommendations.

- .2 Wall-hung fixtures: as indicated.
- .3 Barrier free: to most stringent standard (Manitoba Building Code, CAN/CSA B651).

3.3 ADJUSTING

- .1 Conform to water conservation requirements specified this section.
- .2 Adjustments:
 - .1 Adjust water flow rate to design flow rates.
 - .2 Adjust pressure to fixtures to ensure no splashing at maximum pressures.
 - .3 Adjust flush valves to suit actual site conditions.
 - .4 Adjust urinal flush timing mechanisms.
 - .5 Set controls of automatic flush valves for WCs and urinals to prevent unnecessary flush cycles.
- .3 Checks:
 - .1 Water closets, urinals: flushing action.
 - .2 Aerators: operation, cleanliness.
 - .3 Vacuum breakers, backflow preventers: operation under all conditions.
- .4 Thermostatic controls:
 - .1 Verify temperature settings, operation of control, limit and safety controls.

3.4 CLEANING

- .1 Clean in accordance with Section 01 74 11 - Cleaning.
 - .1 Remove surplus materials, excess materials, rubbish, tools and equipment.
- .2 Waste Management: separate waste materials for reuse or recycling in accordance with Section 01 74 19 - Waste Management and Disposal and 01 35 20 - LEED Submittal Requirements.

END OF SECTION