

PART 1 - GENERAL

- 1.1 REFERENCES
- .1 Canada Green Building Council (CaGBC)
 - .1 LEED Canada 2009 for Design and Construction-2010, LEED Canada 2009 for Design and Construction Leadership in Energy and Environmental Design Green Building Rating System Reference Guide.
 - .2 CSA Group
 - .1 CAN/CSA-B45 Series-02(R2013), Plumbing Fixtures, (Consists of B45.0, B45.1, B45.2, B45.3, B45.4, B45.5, B45.6, B45.7, B45.8 and B45.9).
 - .2 CSA B125.3-12, Plumbing Fittings.
 - .3 CSA B651-12, Accessible Design for the Built Environment.
 - .3 Green Seal (GS)
 - .1 GS-36-2013, Adhesives for Commercial Use.
 - .4 South Coast Air Quality Management District (SCAQMD)
 - .1 SCAQMD Rule 1168-A2011, Adhesive and Sealant Applications.
- 1.2 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 washroom fixtures and include product characteristics, performance criteria, physical size, finish and limitations.
 - .2 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): minimum pressure required for flushing.
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.1 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.
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|------------------------------------------|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.4 DELIVERY,<br>STORAGE AND<br>HANDLING | .1 | Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements and with manufacturer's written instructions.                                                                                                                                                                  |
|                                          | .2 | Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.                                                                                                                                                                        |
|                                          | .3 | Storage and Handling Requirements:<br>.1 Store materials indoors in dry location and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.<br>.2 Store and protect specified materials from nicks, scratches, and blemishes.<br>.3 Replace defective or damaged materials with new. |
|                                          | .4 | Develop Construction Waste Management Plan related to Work of this Section and in accordance with Section 01 35 21 - LEED Requirements.                                                                                                                                                                              |
|                                          | .5 | Packaging Waste Management: remove for reuse or return of pallets, crates, padding, banding, and packaging materials as specified in Construction Waste Management Plan in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal and Section 01 35 21 - LEED Requirements.        |

## PART 2 - PRODUCTS

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| 2.1 SUSTAINABLE<br>MATERIAL | .1 | Adhesives and sealants: maximum VOC limit 70 g/L to SCAQMD Rule 1168 and in accordance with Section 01 35 21 - LEED Requirements. |
| 2.2 MANUFACTURED<br>UNITS   | .1 | Fixtures: manufacture in accordance with CAN/CSA-B45 series.                                                                      |
|                             | .2 | Trim, fittings: manufacture in accordance with 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.
- .7 Water closets:

| WC<br>Type                                                                                                                                                                                                                                                                                                                             | Mounting<br>Wall | Floor | Bowl<br>Elongated | Flush<br>Regular | Flush<br>Valve | Flush<br>Tank | Handicapped |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-------|-------------------|------------------|----------------|---------------|-------------|
| WC-1                                                                                                                                                                                                                                                                                                                                   | X                |       | X                 |                  |                | X             | X           |
| <p>.1 WC-1: wall-mounted, flush tank, low flush, maximum 3.8 litres/flush.</p> <p>.1 Bowl: vitreous china, syphon jet, elongated rim.</p> <p>.2 See plumbing fixture schedule for more details.</p>                                                                                                                                    |                  |       |                   |                  |                |               |             |
| <p>.8 Water Closet Seats.</p> <p>.1 Seat: white, elongated, open front, moulded solid plastic, less cover, stainless steel check hinges, stainless steel insert post. See plumbing fixture schedule for more details.</p>                                                                                                              |                  |       |                   |                  |                |               |             |
| <p>.9 Washroom Lavatories:</p> <p>.1 L-3: wall-hung, for handicapped.</p> <p>.1 Vitreous china, low shelf, with integral back, contoured front, shallow front basin, front overflow, soap depressions, supply openings on 299 mm centres, concealed supports. Sizes: 675 x 500 mm. See plumbing fixture schedule for more details.</p> |                  |       |                   |                  |                |               |             |

- 2.2 MANUFACTURED .10 Washroom Lavatory Trim:  
UNITS  
(Cont'd)
- .1 Chrome plated brass, combination supply and waste fittings, mixing spout, washerless, pop-up waste, tamperproof aerator, metal indexed handles.
    - .1 Provide accessories to limit maximum flow rate to 1.3 l/minute at 413 kPa.
    - .2 Waste fitting: pop-up. See plumbing fixture schedule for more details.
  - .11 Fixture piping:
    - .1 Hot and cold water supplies to fixtures:
      - .1 Chrome plated flexible supply pipes with handwheel stop, reducers, escutcheon.
    - .2 Waste:
      - .1 Brass P trap with clean out on fixtures not having integral trap.
      - .2 Chrome plated in exposed places.
  - .12 Chair carriers:
    - .1 Factory manufactured floor-mounted carrier systems for wall-mounted fixtures.

### 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 washroom fixtures 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.
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- 3.2 INSTALLATION .1 Mounting heights:  
.1 Standard: to manufacturer's recommendations as indicated.  
.2 Wall-hung fixtures: as indicated, measured from finished floor.  
.3 Barrier-free: to most stringent NBCCSA 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.
- .3 Checks:  
.1 Water closets: 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 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.
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- 3.4 CLEANING  
(Cont'd)
- .3 Waste Management: separate waste materials for reuse and recycling in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal and Section 01 35 21 - LEED Requirements.
- .1 Remove recycling containers and bins from site and dispose of materials at appropriate facility.