



PUBLIC WASHROOM DESIGN & TECHNICAL GUIDELINES

REAL ESTATE, ENVIRONMENT AND FACILITIES MANAGEMENT

Facility Planning and Development

JULY 2024

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1. INTRODUCTION

The City of Vancouver is dedicated to the provision of safe, inclusive, and accessible public washrooms. The City operates a large portfolio of public washroom amenities located in parks, libraries, community halls and other facilities.

Everyone needs access to public washrooms they can use with ease and dignity. Over the years, the design of City-owned washrooms has evolved to reflect changing needs and attitudes to accessibility, safety, privacy, and maintenance. These include the needs of senior citizens, people with disabilities, and members of the Two-Spirit, trans, and gender diverse communities.

The City of Vancouver Public Washroom Design and Technical Guidelines (WDTG) are meant for purpose-built, stand-alone washroom facilities in parks, often referred to as fieldhouses, and washrooms in other public spaces. These guidelines are meant for the design of safe, accessible, and durable public washrooms. They are not intended to be prescriptive and should be considered within the context of the project and the particular needs of users.

Accessibility requirements appear throughout the Washroom Guidelines in relevant sections. They follow VBBL unless otherwise noted – follow VBBL requirements for accessible fixtures and amenities when possible – to reinforce a higher and more consistent standard of usability and access for all. Specifications and requirements that follow other standards and guidelines go above-and-beyond VBBL without contradicting its requirements.

2. GENERAL

2.1 INTENT

These technical guidelines are:

- To be applied to the design and construction of new or renovation of existing public washroom facilities.
- Supplementary technical requirements are located in the Facilities Standards Manual, and as such should be read in conjunction with this Technical Guideline.
- Notwithstanding the requirements of applicable building and plumbing bylaws, they are meant to clarify the minimum standard required by the City of Vancouver as building owner, for materials, finishes, equipment and other items. Variations from these guidelines may be considered but are not to proceed without prior discussion and acceptance by the REFM-FPD department of the City of Vancouver.

2.2 SCOPE OF DESIGN GUIDELINES

This document is intended as a guide to the design of public washrooms (“Washroom Guidelines”), both stand-alone and within other buildings.

These guidelines are intended to assist with satisfying the following objectives:

- Safety Considerations
- Equity of Access
- Environmental Sustainability
- Siting and Site Access
- Building Design: Size and Configuration
- Durability, Ease and Economy of maintenance

In addition to complying with these guidelines, the design shall comply with the regulatory framework set out in the Vancouver Building Bylaw (VBBL) and the Zoning and Development Bylaw (VZDBL) and requirements outlined in the Facility Standards Manual. The scope of this document excludes specialist amenities such as sports change rooms, beach change rooms and showers.

New projects and buildings are required to follow all guideline parameters. Renovations and upgrades are to follow the guidelines to the best extent possible given facility needs, constraints, and opportunities.

2.3 REGULATIONS AND STANDARDS

Consultants shall ensure that all applicable building codes, government acts and health regulations, and City of Vancouver standards herein, are met. These include, but are not limited to the following list below. For any park development or park restoration work associated with any new or redeveloped washroom or building, the VPB Park Development Standards, at a minimum, shall apply, subject to verification for completeness, correctness, and industry best practices.

- The City of Vancouver Building Bylaw (VBBL) (latest edition).
- Building Access Handbook (latest edition), BC Office of Housing and Construction Standards.
- Building a Path to Parks & Recreation for All: Reducing Barriers for Trans* & Gender Variant Community Members. Vancouver Board of Parks and Recreation.
- [Vancouver Board of Parks and Recreation \(VPB\), C, May 2015 or latest edition](#)
- CSA Group B651 National Standard of Canada: Accessible design for the built environment (current edition).
- The City of Vancouver Facilities Standards Manual.
- Rick Hansen Foundation Accessibility Certification – Professional Handbook v3.0, May 2020.
- Washroom Design and Monitoring in Vancouver Coastal Health Downtown Eastside Facilities: Principles and Recommendations.

2.4 SAFETY CONSIDERATIONS

Public washroom facilities shall be designed in such a manner as to avoid any possibility of the public slipping and falling on or banging into objects or surfaces that can cause major harm.

Additionally, the facility shall not facilitate climbing nor create opportunities where persons can be locked in without a way to escape. Allowing for some sightlines into the washroom vanity areas is desirable, while still protecting stall privacy. Avoid hallways and blind corners; ensure exterior doors are clearly visible. Apply the principles of Crime Prevention Through Environmental Design (CPTED).

1. OVERDOSE PREVENTION AND HARM REDUCTION STRATEGIES

The design of all public washrooms must consider the City's current overdose prevention and harm reduction strategies. Components of the Washroom Guidelines that intersect with harm reduction are flagged in each respective section.

Harm reduction is an approach to reduce harms associated with substance use and sexual health for individuals and communities. Some special facilities may require the following:

- Washrooms within buildings are located close to the front door, allowing easy access for everyone, eliminating the need to walk through a perceived unsafe space.
- Locks are secure and have a safety mechanism that allows staff or emergency responders to open from the outside.
- Sharps containers are securely fixed to the wall (beyond normal measures).
- No blue lighting is used (it has not been shown to deter drug use but instead poor lighting leads to more harm for those who do use).
- Washroom and stalls are large enough to allow easy access for emergency responders.
- Washroom and stall doors open outward to allow easy access for emergency responders.
- Washrooms are located in the line of sight of staff, not hidden down hallways, alcoves, or recessed areas.
- Design eliminates need for an entrance door into a multi-stall washroom or the door can be locked open to allow easy line of sight for washroom monitoring.
- Toilet stall doors leave a space between bottom of door and floor to allow others to see if user may be in distress.

- Toilets shall be tankless to eliminate space to discard syringes or other items.
- Ceiling and wall tiles or paneling, as well as ventilation covers are securely affixed to eliminate spaces to conceal or discard syringes or other items.

For additional information on harm reduction approaches, see section 3.0 References and Resources.

2.5 EQUITY OF ACCESS

1. ACCESSIBILITY

Building for accessibility is an important part of being an inclusive city. Over 15% of Vancouver residents have some form of physical disability or mobility restriction. This includes people using motorized mobility devices, wheelchairs, walkers, canes, and strollers. Together with accompanying family and friends, approximately 50% of Vancouver residents are affected by poor access to buildings.

Access means that a person with disabilities is, without assistance, able to approach, enter, pass to and from, and make use of an area and its facilities. The accessibility of a building is provided by properly designed entrance and access corridors including door opening widths, adequate space around doors, door handles/opening devices, ramps, and handrails. A person's strength, dexterity, hearing, and vision are examples of other factors affect how accessible a space is for them.

Beyond the requirements outlined in the VBBL, include Universal Design Principles in the design of facilities, making additional references to the BC Housing Design Guidelines and Construction Standards.

2. REDUCING BARRIERS FOR TRANSGENDER AND GENDER-VARIANT COMMUNITY MEMBERS

- Washrooms shall have inclusive signage for Two-Spirit, transgender and gender diverse individuals.
- Function-based icons are used on signage, as opposed to gender figures.
- Stall doors shall have minimal gaps allow for maximum privacy.
- Refer to Vancouver Board of Parks and Recreation "[Building a Path to Parks & Recreation for All: Reducing Barriers for Trans* & Gender Variant Community Members](#)"
- Refer to Council Report – Supporting Trans* Equality and an Inclusive Vancouver
["Report - Supporting Trans Equality and an Inclusive Vancouver"](#)

2.6 SUSTAINABILITY

The information provided in the Facilities Standards Manual (General Considerations section), describes the City of Vancouver’s sustainable design criteria for new buildings and existing buildings, and should be considered for the design of public washroom facilities only to the extent of economy and practicality. Many of these facilities are unheated or minimally heated buildings. The below are specific requirements for Public Washroom designs:

- Public washrooms should be designed to be unheated, if possible, or heated only to prevent freezing. Where heat trace is used, heat trace must be guarded against theft and vandalism behind pad lockable access.
- Small public washroom buildings that are required to be heated shall use only low carbon fuel sources.
- Mechanical and control systems should be designed to be as simple as possible to reduce maintenance costs and the need for specialized maintenance expertise.
- Reducing water consumption through controlled flow and volume of plumbing fixtures. In special/pilot situations, consideration shall be made to use of grey water recycling or rainwater collection systems for toilet flushing.

2.7 DISCLAIMERS

- Some items that have been noted throughout this document are Operator preferences and the selection should be confirmed with the City of Vancouver regarding their appropriateness for each Facility.
- Any specific products named in this document are not to be taken as the City of Vancouver’s endorsement of that product, but rather as an example of a standard of quality that has proven successful in the past. Any other products that meet this level of quality will be considered for use, but their use is not to proceed without prior discussion and acceptance by the City of Vancouver.

3. PLANNING

3.1 SITING AND SITE ACCESS

A host of factors such as safety (including CPTED), maintenance access, relationship to existing uses and other facilities, location of existing utilities, soils, drainage, and topography must be considered when siting a washroom facility within a park. Siting of new facilities within parks must be determined in

collaboration with VBPR Planning and/or Park Development staff and will be subject to Park Board approval.

3.2 ENTRANCE RAMPS

- Grade changes shall be connected via the use of ramps. Stairs are not acceptable.

3.3 BUILDING DESIGN: SIZE AND CONFIGURATION

1. LAYOUTS

Coordinate program requirements with City staff. Service spaces shall be adequately sized for the particular need of each facility. Mechanical and electrical systems and controls are to be accommodated in dedicated spaces separate from public use or janitorial functions.

Ensure relevant harm reduction strategies including visibility and proximity are considered and incorporated whenever possible and as appropriate based on facility and context. See current best practice documents.

- Washroom layouts:
 - Universal washroom
 - Stand-alone accessible washroom.
 - Contains required clear space / turning radius, transfer space, accessible toilet with back rest, grabs bars, sink, and accessories.
 - Unisex washroom
 - Stand-alone washroom.
 - Contains toilet, sink, and accessories.
 - Gender neutral multi-stall washroom
 - See resources and best practice documents for crucial characteristics of safe, welcoming, and successful gender neutral multi-stall facilities.
 - Gender designated multi-stall washroom
 - Men's / women's washrooms. (Note: these washrooms are open to all people with washroom signage that incorporates Gender Diverse People Welcome.)
See Appendix C: Washroom Signage Guidelines.

- Stall types for multi-stall layouts:
 - Accessible stall
 - Contains required clear space / turning radius, transfer space, accessible toilet with back rest, grabs bars, and accessories.
See Appendix B: Figure 3.
 - Limited mobility stall
 - Contains accessible toilet with back rest, grabs bars, and accessories.
 - Beneficial in facilities used by high numbers of seniors, or people with limited mobility and strength, for example.
See Appendix B: Figure 4.
 - Regular stall
 - Contains standard toilet and accessories.

2. CLEAR SPACE REQUIREMENTS

- Universal washroom
 - A minimum of one universal washroom with 2500 x 2500 mm internal clear space is to be provided to accommodate a range of manual and powered wheeled mobility devices. Increase the clear space to 3150 x 3150 mm whenever possible to expand the range of devices accommodated to include large scooters.
 - Dimensions may be reduced to 2130 x 2130 mm only when necessary, in renovating or upgrading existing facilities.
 - All other universal washrooms will provide minimum internal clear space as per VBBL.
 - All doors to open outward regardless of internal dimensions.
 - All universal washrooms to include the transfer space and clear space required for an accessible sink, accessible toilet, and adult change table (where provided) as per Sections 2.4.7, 2.4.8, and 2.4.9 in these Washroom Guidelines.
See Appendix B: Figures 1, 2, and 6.
- Accessible stall
 - Provide minimum internal dimensions of at least 1600 × 1500 mm, and 1700 x 1700 mm clear space in front of accessible stall. Increase internal dimensions whenever possible to

accommodate a minimum 1700 x 1700 mm clear space, the minimum required to enable turning inside the stall.

- All doors to open outward regardless of internal dimensions.
- Ensure internal clear space as per VBBL.
- All accessible stalls to include the transfer space required for an accessible toilet as per Sections 2.5.8 in these Washroom Guidelines.

See Appendix B: Figures 3 and 6.

3. SCREEN WALL ENTRY

- Use colour contrast to highlight position of second wall in screen wall entries.

3.4 DURABILITY, EASE AND ECONOMY OF MAINTENANCE

- Durability, ease, and economy of maintenance are key to the design of public washrooms.
- Refer to technical guidelines for details in Section 4.0.

4. TECHNICAL GUIDELINES

4.1 GENERAL REQUIREMENTS

1. SUBMITTALS

All building shop drawings and samples are to be made available for review by City staff prior to commencement of the work.

Procedures for shop drawing, operation and maintenance manuals, warranty/guarantee submittals shall be as outlined in the construction contract.

4.2 EXISTING CONDITIONS & HAZARDOUS MATERIALS

Appropriate authorities must be notified of intention to carry out operations in the vicinity of a utility or structure prior to the commencement of such operation and obtain approval for access to any operations carried out on adjacent public property.

The City of Vancouver's Environmental Services shall be consulted on all existing buildings to determine if there are any hazardous materials present. For hazardous materials on site, receive approval of WorkSafeBC procedures from City of Vancouver Environmental Services prior to commencing construction.

4.3 EXTERIOR AND BUILDING CONSTRUCTION

Generally, free-standing washroom buildings shall be designed to be unheated/minimally heated and be constructed of materials that allow for hose-down maintenance. Concrete or concrete block without added cladding would be appropriate for these unheated/minimally heated buildings. Use building technologies, and consider sun orientation and vegetation, to mediate indoor and outdoor air temperatures. Protect walls with overhangs but do not create loitering opportunities (i.e. depth of overhang shall be sufficient only to protect wall, not provide a gathering space or rain shelter).

Renovations or upgrades to existing wood frame buildings shall reference Wood Frame Envelopes in the Coastal Climate of British Columbia, Best Practice Guide (CMHC).

1. BUILDING ENVELOPE

- **Walls**
 - Vandalism is a major issue to consider. All new construction must be durable, simply, and robustly detailed using materials such as concrete, concrete block and galvanized steel.
 - Extensive use of wood finishes is not recommended for long term maintenance. Use wood as an accent material and/or where protected under eaves and away from direct sunlight. Any wood used should be ACQ not CCA preservative/pressure treated and capable of taking a paint finish.
 - Concrete, concrete block, or masonry are the preferred materials for exterior walls of unheated buildings.
 - A non-sacrificial anti-graffiti coating must be applied to all exterior masonry, concrete, brick or stucco wall finishes. For paint finishes, use a compatible sealer and paint with an exterior semi-gloss alkyd enamel.
- **Roof**
 - Roof design shall be simple, durable and easy to maintain. Adequate overhangs shall be provided.
 - Pitched roofs shall be 4/12 or greater for positive drainage. Asphalt shingles and metal roofing are acceptable finishes.
 - Rainwater shall be dealt with on site with landscaped drainage systems.
 - Provide anti-bird perch devices.
 - Refer to the Facilities Standards Manual for additional information.
- **Exterior Doors and Windows**
 - Doors widths shall be a minimum of 914mm (36") wide.

- Use of windows for daylighting (clerestory or high windows preferable for reduced vandalism) is recommended to reduce the reliance on electricity. Glass block is not acceptable as breakage is difficult to repair.
- Windows in unheated/minimally heated buildings shall be tempered single glazed safety glass in metal frames; in heated buildings to be multiple glazing as per the VBBL's energy rating, tempered safety glass on the outside lite, in thermally broken metal frames.
- Exterior doors shall be solid core wood or hollow steel. Wood doors shall be exterior paint grade solid core with lumber core, not particle board. Frames shall be painted galvanized 16 Ga steel, thermally broken for heated buildings.
- Ensure colour contrast between door or door frame and surrounding surfaces.
- Doors must be completely weather-stripped and have vinyl top caps. Provide a drip cap above all doors.
- Use heavy duty hardware, stainless steel type 304 with a satin finish. In corrosive conditions such as by the ocean, use corrosion resistant hardware made of stainless steel type 316.
- Refer to the Facilities Standards Manual for additional information.
- See section 2.4.6 Hardware for door hardware.

4.4 STRUCTURAL SYSTEM

- Structural systems of concrete or concrete block may be exposed as a way to reduce the use of added finishing materials.
- Use of timber/heavy timber construction as a low carbon, renewable building material for this region to be considered where appropriate, such as for the roof.

4.5 MECHANICAL SYSTEM

- Use simple proven systems selected with consideration for maintenance, operation and availability of spare parts, and vandal-resistant. System and equipment shall be fail-safe and of a quality consistent with the anticipated building life.
- Consolidate mechanical layouts using minimum space consistent with maintenance, service requirements and accessibility and protecting controls from public access.
- Avoid the use of roof top mounted heating and ventilating units as they are a maintenance problem and have shorter life spans than equipment housed inside a building.
- Refer to the Facilities Standards Manual for additional details on Mechanical systems.

1. HVAC

- HVAC system to be designed to suit spaces with operable windows and optimized natural ventilation. Ideally, washroom buildings shall be unheated/minimally heated and mechanically ventilated for the removal of odours only. Air intake and exhaust grilles to be optimally located to provide uniform airflow across the entire room.
- All rooms to be adequately ventilated to remove odours (to meet ASHRAE Standard 62, “Ventilation for Acceptable Indoor Air Quality,” referenced in the Vancouver Building By-law).
- All air intakes to be located away from sources of fumes or dust, including parking and/or loading areas. Refer to Vancouver Building By-law for minimum separation distance of outdoor air intake from sources of contaminants.
- For spaces where heating is provided, low carbon electric heating systems such as commercial grade recessed electric wall cabinets, electric unit heaters, radiant ceiling panels, or air source heat pump forced air heating systems are required. Baseboard radiators are not acceptable for reasons of vandalism.
- Where thermostat is remote mounted on a wall, a vented locking cover shall be provided to reduce vandalism.
- Better than average exhaust ventilation shall be provided for Washrooms. Notwithstanding project’s energy requirements, a minimum six (6) air changes per hour (ACH) is preferred. Exhaust fan must be rated for continuous operation with a rating of less than 3.5 sones.
- Consider passive solar heating where appropriate.
- Aluminum ductwork and grilles are preferred in high-humidity environments, such as shower areas. Ductwork to be sloped back to air inlet/outlets to prevent condensate pooling inside ductwork.
- Refer to Facilities Standards Manual for additional information on serviceability and access.

2. PLUMBING

- Make allowances in system design to accommodate loads for future requirements as set forth in the building program.
- Locate domestic hot water heaters and tanks close to the point of application to minimize hot water and recirculation water requirements. Hot water recirculation to be provided for distribution systems over 15m from heater. Large hot water storage tanks shall be concrete lined - small tanks shall be glass lined. Seismic restraints, temperature-relief valve, pressure-relief valve, drain pan piped to nearby acceptable drainage location must be specified.
- Plumbing systems to have limited exposed pipework and must be provided with sufficient shut-off valves to permit localized repairs without need to shut down complete systems. Refer to the Facilities Standards Manual for additional information.
- Domestic hot water systems should be capable of maintaining 42°C. Hot water supply lines must be designed to recirculate the water or be heat traced to maintain the temperature in the lines

in locations where there is low flow to prevent the development of bacteria i.e. Legionnaire's disease. Refer to the Facilities Standards Manual for additional information.

- All domestic water piping, valves and equipment, such as domestic cold water, domestic hot water and recirculation piping, heaters, tanks, and pumps shall be clearly identified and labelled. Flow direction arrows shall be shown on all piping.
- Domestic hot water systems should be provided by electric heat pump or other electric hot water system to reduce GHG emissions. Consider the use of instantaneous on-demand electric water heaters for locations with a small demand where sufficient electrical capacity is available. Refer to Facilities Standards Manual for additional information on heat pump hot water requirements.
- Locate exterior frost proof hose bibs c/w isolation valves and backflow preventers around the perimeter of the building to permit watering of all landscaped areas with a standard 30 m (100 ft.) hose.
- Provide a tamper proof hose bib underneath the vanity c/w backflow preventer and activated by a sill cock key. Hose bibs to be:
 - Frost-free with a vacuum breaker.
 - Vandal proof when they occur at grade or at any location that is accessible to the public.
- Hot water shall be temperature adjustable.

3. FIRE PROTECTION

- Shall be designed to conform to the VBBL.

4.6 ELECTRICAL SYSTEM

1. POWER

- A weather-proof outlet to be provided at any roof-top or exterior-located mechanical equipment conforming to the VBBL.
- Appropriate power provisions to be made for:
 - Janitorial equipment
 - Future power door openers
- All power in Change Rooms, Shower areas, and Washrooms must be Class A Ground Fault Circuit Interrupter (GFCI), on individual dedicated circuit breakers and have decora style stainless steel cover plates.

- Provide power outlet adjacent to each accessible toilet to support use of adaptive devices. Design professional to recommend options above and beyond VBBL per CSA or other best practices for consideration per the specific needs at each facility.

2. LIGHTING

- Lighting shall be vandal-resistant LED type. For renovations, existing non-LED lighting shall be changed to LED.
- No field assembled luminaires or strip lights are allowed.
- Refer to the Facilities Standards Manual for details on lighting and lighting controls (where applicable).
- Use shatterproof fixture covers and tamperproof fasteners.
- Use vapour proof and rust resistant light fixtures in Change Rooms, Showers and Washrooms.
- Consider the use of solar photovoltaics for lighting power where there is good sun exposure and if it makes economic sense.
- Emergency lighting conforming to the VBBL.

3. LIGHTING CONTROLS

- Passive Infrared (PIR) occupancy sensors shall be provided to control lighting for new and retrofit outdoor public washrooms. Lighting should dim after 15 minutes of no motion detected. The lighting should turn off automatically after 20 minutes of no occupancy.
- Dual technology occupancy sensors (DT) shall be provided for indoor (as part of a building) public washrooms. The lighting should turn off automatically after 15 minutes of no occupancy.
- Exterior lighting shall be dimmable, operate with motion sensors and have photocell control to shut off during daylight hours. Motion sensor shall dim the lighting to 50% after no motion is detected.
- All occupancy sensors shall be hard wired.
- Lighting control system to be connected to DDC system. Refer to City of Vancouver DDC Technical Guidelines for additional information and requirements.

4.7 METERING AND CONTROLS

- Facilities to have dedicated, electricity and water metering and/or sub-metering.
- Where a Facility occurs in a mixed-use building, meters and/or sub-meters are to be located in service rooms that are easily accessible to the staff of the Facility.
- All sub meters to be connected to DDC and trended for monitoring.
- Confirm control types needed in each facility.

4.8 COMMUNICATIONS SYSTEM

Section reserved.

4.9 SERVICE & CUSTODIAL SPACES

- Provide a separate lockable janitor room with floor sink, space for storing bucket, mops, brooms, vacuum, ladder, supplies for cleaning, shelves for paper products, light bulbs, etc. This requirement may vary based on the facility. Confirm with CoV project manager.
- Refer to Facilities Standards Manual for service room design requirements.

4.10 LIFE SAFETY AND SECURITY

- Fire Alarm, where required by building and fire codes
 - Coordinate set-up of fire alarm monitoring with the monitoring company of the City's choice – to be confirmed for each Facility.
- Fire and Life Safety Plans
 - Fire safety plans, where required, to be reviewed with the Operator and CCFL prior to submitting to the Fire Department at Occupancy.
 - Ensure a copy is provided to the City of Vancouver with the operations and Maintenance Manuals.
- Security
 - Consider remote access controls and interior motion alarms for exterior public access doors, to be networked back to the Security Operations Centre or Department responsible for remote programming and access.
 - Ensure entrance doors can be blocked open, to make it safer for someone to “sweep” the bathroom.
 - Exterior hasp for a deadbolt required in addition to the dead bolt (for when the lock breaks, it can still be secured quickly without a locksmith).
 - Security requirements shall vary and be confirmed for each facility with the Project Manager.
 - Refer to the City of Vancouver Electronic Security Systems specifications, and Facility Standards Manual for additional information.
- Emergency Call Buttons

- Provide emergency call buttons in universal washrooms, unisex washrooms, accessible stalls, and all stalls in multi-stall washrooms with full-height doors and partitions. Design professional to recommend options above and beyond VBBL per CSA or other best practices for consideration per the specific needs at each facility, including increased need in spaces where there is a high risk of overdose. Ensure relevant harm reduction strategies are considered and incorporated. See current best practice documents.
- Mounted call button within 600 mm of the toilet on an open clear wall. Ensure it is usable by a person who is unable to get up from the floor.
 - For models with a pull cord, mount call button control at a maximum height of 1100 mm above the finished floor and ensure the cord descends to a maximum height of 450 mm above the finished floor.
 - If no pull cord, install call button control with centreline 450 mm above the finished floor.
- Alarm to activate audible and visual signal devices inside and outside of the washroom. A sign having lettering at least 25 mm and posted above the emergency button shall indicate that signal devices will activate when the button is pushed.

4.11 SITEWORK

- Refer to VPB, Park Development Standards for best practice guidelines, specifications and technical drawings for all Sitework requirements.

4.12 INTERIOR CONSTRUCTION

Note: All references to acceptable manufacturers/products are open to consideration of approved alternatives.

1. WALLS

- Walls in wet areas: To be painted/sealed concrete and/or concrete block, or some other durable waterproof material. Frame walls are acceptable if constructed of steel studs on a 200mm (8") concrete or concrete block upstand. Frame walls shall be sheathed with cement board, not moisture resistant gypsum wallboard, and clad with a durable and washable finish such as ceramic/porcelain tile. Use a dark colored epoxy grout.
- Walls in showers shall have a porcelain tile finish, floor to ceiling, on concrete block or cement board. Use a dark colored epoxy grout.
- A non-sacrificial anti-graffiti coating must be applied to all concrete, concrete block, brick, or tile finish walls.

- In non-wet areas, where use of wood frame walls is the best solution, these walls to be constructed on a minimum 200mm (8") concrete or concrete block upstand wall. Gypsum wall board shall not be used as a finish below 1200mm (4'-0"). Stainless steel or some other durable hard-wearing material such as porcelain tile or masonry shall be used. Standard gypsum-based products are not acceptable. All wall board products shall be mold and impact resistant (heavy duty applications).
- All walls in public washroom areas including concrete and masonry to have a durable and washable finish.
- Paint: painting and finishing to be "Premium Grade" following the Master Painter and Decorators Association –Master Painters Institute Architectural Specification Manual and the Maintenance Repainting Manual. Products to be MPI approved, graded as Institutional, low odour and low VOC quality paint.
 - Gloss levels:
 - Walls and ceilings to be G5 (semi-gloss) for washability.
- Tile: porcelain tile installation to be in accordance with the recommendations of the Terrazzo Tile and Marble Association of Canada.
- Concrete or masonry walls shall be painted with graffiti resistant paint.
- Provide adequate blocking in walls at all plumbing, millwork, washroom accessory and other locations as necessary to securely anchor and support the loads of the fixture or fitting.
- Securely affix all tiles and paneling. Ensure relevant harm reduction strategies are considered and incorporated whenever possible and as appropriate based on facility and context. See current best practice documents.

2. TOILET PARTITIONS

- Determine partition height and construction for multi-stall washrooms to maximize privacy while also incorporating design features and accessories that prioritize safety. For gender designated multi-stall washrooms, consider following best practices for gender neutral multi-stall washrooms to facilitate potential conversion to gender neutral in the future. Consider stud wall construction instead of partial- height panels. Design professional to help determine strategy based on the specific needs at each facility and current best practices for inclusive design.
- Partitions and doors with the required VBBL gap may contradict privacy best practices that support the success and adoption of gender-neutral multi-stall washrooms. A variety of other safety

measures and equipment could mitigate risk, including occupancy indicators, emergency call buttons, and hardware that enables emergency access.

- Toilet partitions are particularly susceptible to vandalism and must be carefully selected. Do not use metal toilet stalls or urinal screens.
- For type C washrooms, use high pressure laminate on high density particle board; acceptable product: Bobrick 1040 series or pre-approved alternate.
- For type A and B washrooms, use solid phenolic or other solid composite material; acceptable product: Bobrick 1080/1180 series or pre-approved alternate.
- Use floor mounted overhead braced partitions.
- Hardware: shall be equipped with emergency release hardware allowing first responders to lift the doors off its hinges; heavy duty stainless steel with tamper- proof screws, concealed.
- Provide coat hook on doors (see 2.4.9).
- Toilet stall partitions and doors shall be colour contrasted with surrounding environment.

3. FLOORS

- Use hard wearing, durable materials that are easily maintained in public areas. All finish materials shall be non-slip in both wet and dry conditions, non-glare, hard wearing and durable as well as easily maintained. Acceptable finishes include exposed sealed concrete, sheet rubber, non-slip quarry or porcelain/quarry tile, and terrazzo. All resilient flooring must have heat welded seams. Use dark coloured epoxy grout in tile floors.
- Concrete finished floors shall be placed on a waterproof membrane running a minimum of four (4) feet up the walls.
- Floors to be sloped to drain with a minimum slope of 2% (1/4" per foot). The entire perimeter of the floor must be at a constant elevation with all slopes directed towards drains located away from foot traffic. This allows the floor finish to continue up the walls to a common datum.
- Consider the use of Portland Limestone Cement, a product that has similar performance as Ordinary Portland Cement but with lower CO2 emissions in its production.
- Integral cove base is required for all finish floor materials to a minimum height of 150mm (6"). Concrete finished floors shall have concrete cove base not rubber base.

- A non-sacrificial anti-graffiti coating may be applied to concrete or tile finish floors as suitable for the washroom type. The coating must not create a slip hazard.
- Use dark colored epoxy grout in porcelain/quarry tile floors.
- Floor finishes of non-slip porcelain/quarry tile shall have porcelain/quarry tile integral baseboard, not rubber base, to a minimum of 150mm (6") AFF. Provide multiple 150mm (6") drains as required.
- Locate floor drains away from the path of travel in locations where people have to walk or stand, such as under toilet partitions and vanities.
- For floor drains, use drains with a 200mm body and collar assembly to clamp the waterproof membrane in place. Extend the waterproof membrane 600mm beyond all sides of the drain.
- Floor drain strainers to be polished nickel bronze type with bronze tamper-resistant screws. Cast iron strainers can be used in service areas such as janitor closet and mechanical rooms. All drains to have a primer line. Ensure proper access to the trap primer lines by installing lockable access doors.
- Use adhesives and sealants that have low VOC levels per LEED® requirements listed under credit 4.1 "Low-Emitting Materials, Adhesives and Sealants".

4. CEILINGS

- All washrooms to have ceiling finishes that are washable.
- Do not use moisture resistant gypsum board in shower ceilings. Use cement board or other appropriate waterproof backerboard ceiling material. Exposed sealed.
- Concrete is also acceptable. Slope the ceiling a minimum of 1% to allow condensation to run off.
- Do not use t-bar ceiling. Expose ceiling structure (such as wood decking or concrete) only when aesthetically pleasing or use moisture resistant 16mm (5/8") gypsum board. Ceilings should be as high as practical.
- Painted ceilings shall be of low VOC alkyd enamel paint.
- Exposed wood ceilings shall be finished with water-based oil-modified polyurethane or paint.
- Securely affix all tiles and paneling. Ensure relevant harm reduction strategies are considered and incorporated whenever possible and as appropriate based on facility and context. See current best practice documents.

5. DOORS

- Doors widths shall be a minimum of 914mm (36") wide.
- Wood doors to meet AWMAC requirements for millwork (refer to 3.4 Architectural Millwork).
- Interior room doors shall be constructed of 1 3/4" solid wood core, not particle board core, paint grade in pressed steel frames.
- Doors in wet areas shall be hollow metal doors and frames galvanized using the G90 process. Wipe coat galvanizing is not acceptable.
- In extremely wet or corrosive conditions use stainless steel doors, frames and hardware.
- Ensure colour contrast between door or door frame and surrounding surfaces.
- Doors to open outward or have hardware that ensure access from the outside in case of emergency. Ensure relevant harm reduction strategies are considered and incorporated whenever possible and as appropriate based on facility and context. See current best practice documents.

6. HARDWARE

- Refer to Facility Standards Manual for details.
- All hardware to meet accessibility requirements. Consider the use of Push-Pull door hardware where appropriate.
- Ensure colour contrast between surrounding surfaces and door handles, door locks, and automatic door opener buttons.
- Maximum force required to open all doors is 22 N.
- Door Closers: commercial heavy duty by LCN / Sargent / Corbin / Norton; shall be provided for all washrooms; hold-open device for main washroom doors.
- Door Handles:
 - Main door of interior multi-stall washrooms: Push and pull hardware.
 - Main door of exterior multi-stall washrooms: Push and pull hardware with deadbolt lockable with key only both sides.

- Universal washrooms: Push and pull hardware with deadbolt, lockable with thumb turn on the inside, key outside. Ensure people with reduced or limited dexterity are able to manipulate hardware.
- Coordinate required level of extra security with end user.
- Hinges: Stanley / Monthard / Hager / McKinney (Doors over 7 ft. shall have a minimum of 4 hinges.) Swing away hinges are an acceptable way to increase existing doorway widths. Hinges shall be ball bearing-type or continuous hinge for strength and durability.
- Automatic door openers:
 - Specify automatic door openers for as many washrooms as possible where appropriate. Follow VBBL for specifics on opener mounting location and height. Design professional to recommend options above and beyond VBBL per CSA or other best practices for consideration per the specific needs at each facility.
 - Electronic door control: Automatic opener. Acceptable manufacturer: Camden Door Controls
 - Service locks shall be mechanical, not electronic with Best Standard cores or approved alternative.
 - Privacy locks: Electric strike with door operator. Alternative control location of privacy lock in janitor's closet for security access.
- Door locks:
 - Lock Cylinders: Best Standard (ME603) or approved alternative.
 - Deadbolts: Best T Series Tubular Deadbolts (Best 83 – ME603) or approved alternative.
 - Punch code locks shall be KABA Commercial: mechanical pushbutton mortise lock Simplex 8100 or approved alternative.
- Janitor and service rooms to have “storeroom” function.
- Doorstops, swings and holders: Install overhead stops, wall stops and floor stops where required to prevent damage to walls, etc. from door contact. Confirm with FPD or Parks project manager.
- Kick plates and push plates are required on the push side of all doors with closers and at all storage room doors.
- All locks to ensure access in case of an emergency. Ensure relevant harm reduction strategies are considered and incorporated whenever possible and as appropriate based on facility and context. See current best practice documents.

7. MILLWORK

- Construction / Quality
 - Refer to Facilities Standards Manual for details.
- Vanity Countertops
 - To be moisture resistant 19mm (3/4") exterior grade plywood, with heavy duty plastic laminate or other solid surfacing material. Particle boards are not acceptable. Countertops to be post-formed with 150mm (6") backsplash and rounded edges; provide intermittent bracket support under unsupported spans over 914mm.
 - Exposed 90-degree corners to be rounded, all edges shall be eased.
 - Acceptable materials: plastic laminate (post-formed edges), solid surface material or other (confirm requirements for each Facility).
 - Wood shall not be used for countertop edges.
 - Vanities must be enclosed below the countertop to protect the plumbing, infrared controls, soap dispensers etc. The enclosure must be easily removed for maintenance.
 - Knee clearance for accessibility must be provided as required by the VBBL with width of clearance increased to 800 mm.
 - Alternatively, if budget allows: fully integrated stainless steel countertop with molded backsplash and continuous sink, supported by 3/4" exterior grade plywood sub-structure.
- Shelves
 - Provide at least one shelf in any washroom where sinks are wall-hung with no counter space. Ensure a usable surface of minimum 200 x 400 mm.¹
 - Install with surface not more than 1100 mm above the finished floor.
 - Exposed 90 degree corners to be rounded, all edges shall be eased.
 - Shelves or other projections shall be located as not to present a hazard to children or persons with vision loss/no vision.
- Backsplashes
 - All counters with sinks shall have minimum 100 mm (4") backsplashes and side-splashes.
 - Gypsum board with paint finish or vinyl wall covering is not acceptable.
 - Acceptable materials: plastic laminate (post-formed), porcelain/quarry tile, glass or other (confirm requirements for each Facility).

8. PLUMBING FIXTURES

- Refer to Facilities Standards Manual for additional details for all fixtures.
- Plumbing fixtures shall generally be heavy duty, commercial grade, durable and have parts readily available for ease of maintenance.
- Each plumbing fixture to have its own shut-off valve.
- Access doors of an adequate size shall be installed for all valves, clean-outs, etc. and be readily accessible. Use stainless steel doors when adjacent to floor finish, and all other moisture laden areas. Locate access doors so that they are easily accessible for maintenance. Do not locate them under fixtures. Use one large access door rather than several smaller access doors in locations with multiple access points.
- See **Appendix D** for samples of acceptable product fixtures. Consultants shall review and confirm the availability of products. Alternative products shall be submitted to the Project Manager for approval.

1. Lavatories/Sinks

- Lavatories shall generally be vanity mounted, not wall hung, except in dedicated accessible washrooms for people with disabilities. Use wall hung lavatories complete with in-wall floor mounted lavatory carriers in low vandalism areas only.
- Knee clearance for accessibility must be provided as required by the VBBL with width of clearance increased to 800 mm. Use offset drains for all lavatories, and concealed arm carriers with insulated supply and drain lines if plumbing exposed.
See Appendix B: Figure 5.
- In high vandalism or heavy use areas use stainless steel sinks.
- Exposed traps and drains shall be chrome plated steel with matching escutcheon plates on each water and drain line where they enter the wall. Black plastic drain assemblies are not acceptable.
- Continuous integral vanity/stainless steel sink shall be considered if budget allows. To be mounted on 3/4" exterior grade plywood sub-structure. Do not use particle board.
- Acceptable manufacturers: American Standard, Kohler; for stainless steel, Kindred, Franke, Toto.

¹ Harm reduction strategies recommend reducing surfaces to eliminate spaces where syringes and other items may be discarded. Balance between harm reduction and accessibility needs to be determined for each facility.

2. Toilets

- Universal washrooms and accessible stalls to provide transfer space beside toilet as per VBBL.
- All toilets to be installed such that toilet seat height is per VBBL.
- Maximum throat sizes shall be specified for all toilets.
- Floor mount type toilets are preferred in fieldhouses; wall hung toilets complete with in-wall floor mounted carrier in high volume use facilities and where cleanliness is of particular importance such as swimming pools.
- Accessible toilets shall be equipped with a seat lid or other back support. Ensure seat lid do not interfere with the automatic flush valve sensor when the lid is lifted.
- Generally flush valves are to be used unless there is an insufficient water supply. Manual flush shall be used in fieldhouses. Infrared flush valves shall be used in high volume use facilities. Electronic type flush valves shall be hard wired at 24V or be self-charging (disposable battery powered types not allowed).
- Ensure flush handle is on transfer side of all accessible toilets and that manual flush override controls are easy to reach.
- Water hammer arrestors shall be installed in the piping system when flush valve plumbing fixtures are used.
- If a tank type water closet is used, specify a bolt down lid and pressure assisted tank².
- Installation of low-flush/high efficiency toilets with extremely long drainage distances may require evaluation on a site-by site basis, especially if no supplemental flows (e.g., from Showers or baths) are available.
- Acceptable manufacturers: American Standard, Kohler, Sloan, Toto.

3. Urinals

- Use wall mounted urinals complete with in-wall floor mounted carriers.
- Waterless urinals are not recommended. They have not performed well in institutional or public applications.
- Generally flush valves are to be used unless there is an insufficient water supply. Manual flush shall be used in fieldhouses. Infrared flush valves shall be used in high volume use facilities. Electronic type flush valves shall be hard wired at 24V or be self-charging (disposable battery powered types not allowed).
- Ensure flush handle is on transfer side of all accessible urinals and that manual flush override controls are easy to reach.
- Urinals should be mounted at two heights. At least one urinal in every set of urinals should be mounted no higher than 430 mm from the lower rim to the floor. The other urinals should be mounted at 600 mm from the lower rim to the floor.

² Harm reduction strategies recommend tankless toilets to eliminate spaces to discard syringes or other items.

- The upper rim should not be lower than 860 mm from the rim to the floor.
- At least one urinal of each height shall have grab bars that are:
 - at least 600 mm long;
 - mounted vertically on the back wall at each side of the urinal;
 - not more than 380 mm from the centre of the urinal; and
 - with the centre line 1000 mm from the floor; and
 - colour-contrasted with the back wall.
- All urinals shall have:
 - Privacy screens. Do not use metal toilet stalls or urinal screens.
 - A clear floor area in front of the urinal that is
 - adjacent to an accessible route;
 - centered on the urinal;
 - at least 800 mm wide x 1350 mm deep; and
 - unobstructed by floor level changes or privacy screens.
 - a flush control with operation and height of controls as per accessible VBBL specifications.
 - a vertical element centre line indicator that:
 - is centered on the urinal;
 - extends to a height of at least 1300 mm from the floor, but
 - never less than 150 mm above the upper urinal rim;
 - is at least 50 mm wide;
 - is raised at least 3 mm from the wall surface; and
 - is colour-contrasted not less than 70% with the back wall.
- **See Appendix B: Figure 7 for dimensions and layout configuration.**
- Acceptable manufacturers: American Standard, Kohler, Sloan, Toto.

4. Utility Sink

- Provide a mop sink in each Janitor room, complete with approved backflow preventer valve.
- Mop sink shall be floor mounted, one piece precast terrazzo construction with ground smooth sealed finish, minimum 300mm high, complete with stainless steel caps on all curbs, stainless steel strainer, and 75 mm (3") drain outlet.
- Provide wall mounted two handles utility / mop faucet, complete with:
 - rigid piping connections
 - unrestricted hose end outlet
 - 203 mm (8") projection spout with atmospheric vacuum breaker

- bucket hook
- wall brace support
- Provide wall hooks, 914mm (36") long hose, mop hangers, and stainless steel back splash surround panels.
- Acceptable manufacturers: Stern-Williams, Fiat, Acorn, Chicago Faucets.

9. WASHROOM ACCESSORIES

- The following list of surface mounted accessories shall be shown on the architectural drawings to establish location. (Supply and installation to be confirmed by Owner).
 - Toilet Tissue Dispensers
 - Provide open-roll toilet dispensers, or ones with as much exposed roll as possible.
 - Dimensions and locations as per accessible VBBL specifications.
See Appendix B: Figure 6.
 - Soap Dispensers
 - Automatic soap dispensers preferred. Dimensions and locations as per accessible VBBL specifications.
 - Dispensers are to be operable with one hand to dispense soap on the palm of that hand.
 - Automatic dispensers to be hard wired.
See Appendix B: Figure 9.
 - Hand Dryers
 - Surface mounted, air powered, no heat, all metal construction. Acceptable product: newest model of Dyson Airblade available (Airblade V or newer).
 - Mount all hand dryers adjacent to lavatories:
 - located within a 500 mm reach of a person seated at the lavatory;
 - no higher than 1100 mm
 - **See Appendix B: Figure 9.**
 - Hand dryers to be hard wired.
 - No paper towels nor waste receptacles will be used. However, identify future potential location for bins in the event of changes to practice and/or guidelines to ensure turning radius and clear space below dryers/dispensers are not impeded.

- If paper towel dispensers are installed they are to follow VBBL accessibility requirements and hand dryer dimensions and locations. Paper towel dispensers to be hard wired if powered/automatic.
 - Dryer noise from open multi-stall layouts – gender neutral or gender designated – may necessitate the specification of paper towel dispensers over hand dryers. Design professional to recommend options per the specific needs at each facility.
- Sanitary Disposal Bins
 - Provide sanitary disposal bins in all stalls, universal washrooms, and unisex washrooms. This includes all stalls in gender designated multi-stall washrooms, including men’s.
 - Sanitary disposal boxes must be located on the side wall under any grab bars and near the front edge for the toilet, not on the rear wall.

See Appendix B: Figure 6.
 - Sanitary Product Dispensers
 - If sanitary product dispensers are provided, install in all gender neutral and women’s multi-stall washrooms, universal washrooms, and unisex washrooms.
 - Mount such that controls are located at a max height of 1100 mm.
 - Dispensers to comply with VBBL accessibility requirements.

See Appendix B: Figure 9.
 - Sharps Containers
 - Provide a sharps container in all washrooms.
 - Consider providing sharps containers in all stalls, especially in spaces with frequent drug use. Design professional to recommend options above and beyond VBBL per CSA or other best practices for consideration per the specific needs at each facility. See current harm reduction best practice documents.
 - Locking Sharps Container Cabinet will be supplied and managed by Vancouver Coastal Health (VCH).
 - Securely affix to the wall. Locate as recommended by VCH (away from sink vanity and toilet stalls but be highly visible, mounted as recommended by manufacturer to prevent access by children). Ensure opening located at a maximum height of 1100 mm above finished floor.

See Appendix B: Figure 9.

The following list of accessories is not necessarily required for all washroom facilities. Confirm with Project Manager. Accessories shall generally be robust (constructed of stainless steel) and securely

mounted on solid (wood) backing. Confirm any other requirements for each Facility. Acceptable manufacturers: Bobrick, Georgia-Pacific Professional.

- Grab Bars

- Grab bar: Use 32mm (1 ¼") diameter, 18 gauge stainless steel bars with a satin finish, grab areas should have a knurled finish. Provide appropriate substrate wall backing to support grab bar load. Sizes and locations as per VBBL for all accessible toilets.
- Provide additional rear-wall-mounted, fold-down grab bar located on the transfer side of every accessible toilet. The force required to pull down grab bar should not exceed 22 N.
 - Match the installation height and distance from toilet of horizontal portion of wall-mounted bar.
- Provide grab bars for non-accessible toilets to create limited mobility stalls in facilities where need may be higher, e.g. facilities with high numbers of seniors or people with reduced strength and/or mobility. Design professional to recommend options above and beyond VBBL per CSA or other best practices for consideration per the specific needs at each facility.

See Appendix B: Figures 4 and 6.

- Mirrors

- Mirrors: In types A and B washrooms, shall be shatter-proof stainless steel instead of glass. To be securely anchored to solid backing in the walls or as recommended by the manufacturer. All fasteners shall be hidden or vandal-resistant.
- Mirrors: In type C washrooms, for large wall mirrors, use 6mm (¼") thick mirror (wall to wall over vanities). For small mirrors use 450 x 760mm (18" x 30") mirrors in a stainless steel frame.
- Mount all mirrors with their bottom edge not more than 1000 mm above the floor.
- All mirrors shall be fixed, not inclined/tilted.

See Appendix B: Figure 9.

- Hooks

- Coat hooks shall be provided in all washrooms and stalls.
- In universal washrooms and accessible stalls, mount all hooks not more than 1200 mm above the floor on a side wall and projecting not more than 40 mm from the wall.
- In all other stalls, provide a second hook at 1200 mm above the floor.

- Adult Change Tables
 - Provide, where possible, an adult change table in a universal washroom in all facilities with accessible toilets. Adjustable-height change tables are preferred but a fixed-height adult change table may be installed such that the surface height is 450 to 500 mm above the finished floor. Design professional to recommend options above and beyond VBBL per CSA or other best practices for consideration per the specific needs at each facility.
 - Provide appropriate substrate wall backing to support wall-mounted change table loads of at least 272 kg for bariatrics capacity.
 - Ensure a transfer space of 900 x 1500 mm adjacent to the adult change table. An adult change table, whether of the fixed or fold-down type, shall be installed so that it does not encroach into the transfer space when it is positioned for use. Controls for the table, if present, shall be no higher than 1200 mm.
 - An adult change table, where provided, shall:
 - be located on an accessible route;
 - be at least 760 mm wide × 1830 mm long;
 - have a surface height above the finished floor that can be adjusted from between 450 and 500 mm at the low range to between 850 and 900 mm at the high range;
 - have its surfaces free of sharp edges, corners, or abrasive materials;
 - be easy to clean;
 - have a horizontal grab bar that;
 - complies with accessibility requirements;
 - is centered on the long dimension of the bench;
 - is at least 1200 mm long; and
 - is mounted so that it can be used regardless of the bench height adjustment.
 - **See Appendix B: Figures 1 and 8.**
 - Examples of adult change tables:
 - [Pressalit 3000 Adult Changing Table](#) (fixed and adjustable models available)
- Baby Change Tables
 - Provide a baby change table in one of each multi-stall washroom (men's, women's, and gender neutral), universal washroom, and unisex washroom. It may be a prefabricated item or a countertop with post-formed upturn edges. Acceptable product: Koala Kare surface mounted change station that supports static loads up to 200 lbs complete with child protection straps. Or pre-approved alternate.
 - Provide appropriate substrate wall backing to support change table loads.

- Mounted such that the surface of the change table is at an operating height of 865 mm.

See Appendix B: Figure 9.

4.13 GARBAGE AND RECYCLING

- Any garbage and recycling will be accommodated either outside or within other areas of associated buildings.
 - No garbage nor recycling shall be provided within washrooms (this does not include sanitary disposal bins). However, identify future potential location for bins in the event of changes to practice and/or guidelines to ensure turning radius and clear space below dryers/dispensers are not impeded.
- Allocate sufficient area for bins such that they do not impede path of travel, clear space, or knee clearance for doors, controls, sinks, water fountains, dispensers, and amenities.
- Bins to be colour contrasting with surroundings.

4.14 SIGNAGE

- To conform to the City of Vancouver Sign By-Law.
- Signage shall be provided for the following:
 - To identify the facility
 - At entries to each group
 - At service rooms
 - Other as required by specific facility.
- Washroom and change room signage to conform to the City of Vancouver's standard signage for universal, functions-based designation.
- *See Appendix C: Washroom Signage Guidelines.*
- Multilingual signs may be required (confirm requirements for each facility).
- Service rooms shall have "AUTHORIZED PERSONNEL ONLY" signs.
- Ensure all signage required by Building Code, including Fire and Life Safety Evacuation Plans are provided.

5. APPENDICES

APPENDIX A: WASHROOM TYPES

- The following is a table outlining the types of washrooms that are to be considered when choosing construction materials and methods.
- Please note that all requirements in the table shall be confirmed with the City’s representative and/or project manager for specific projects.

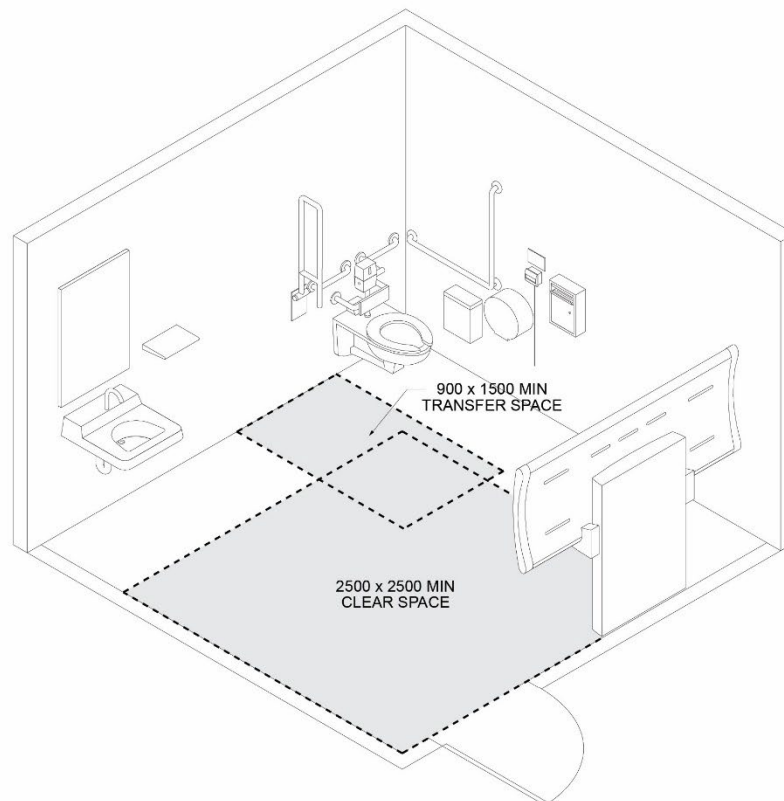
	TYPE A	TYPE B	TYPE C	TYPE D
	<p>High Abuse-resistant / Vandal-proof.</p> <p><i>E.g. Oppenheimer Park.</i></p>	<p>Seasonal / Low-Medium Use</p> <p><i>E.g. Fieldhouses; beach houses This type of washroom opens directly to the outside; needs to be vandal-resistant and made of materials that require minimal maintenance</i></p>	<p>Conventional Use.</p> <p>Washrooms within other buildings and accessed from within the building.</p> <p><i>E.g. QE Bloedel Conservatory</i></p>	<p>Unique Situations/Temporary Use.</p> <p>Innovative solutions are needed for situations where there is limited or no access to water/sewer systems; for temporary use</p>
Walls	Graffiti-resistant finish on concrete or concrete block	Graffiti-resistant finish on concrete or concrete block is preferred; other acceptable finishes: hose-downable stainless steel or other suitable finish, over waterproof membrane for frame walls, minimum of 4 feet above the floor; painted or ceramic/porcelain tile above 4 feet acceptable	Washable finishes on waterproof frame walls are acceptable such as ceramic / porcelain tile, stainless steel or other metal panel, cement panels, a minimum of 4 feet above the floor	Special construction/ pre-fab
Floor	Graffiti-resistant finish on concrete	Graffiti-resistant finish on concrete	Graffiti-resistant finish on concrete; heavy duty resilient flooring, porcelain / quarry tile, terrazzo flooring are acceptable	Special construction/ pre-fab

	TYPE A	TYPE B	TYPE C	TYPE D
	<p>High Abuse-resistant / Vandal-proof.</p> <p><i>E.g. Oppenheimer Park.</i></p>	<p>Seasonal / Low-Medium Use</p> <p><i>E.g. Fieldhouses; beach houses This type of washroom opens directly to the outside; needs to be vandal-resistant and made of materials that require minimal maintenance</i></p>	<p>Conventional Use. Washrooms within other buildings and accessed from within the building.</p> <p><i>E.g. QE Bloedel Conservatory</i></p>	<p>Unique Situations/Temporary Use. Innovative solutions are needed for situations where there is limited or no access to water/sewer systems; for temporary use</p>
Plumbing Features	'Security' grade fixtures; no wall hung fixtures; no electronic infrared fixtures	Heavy duty commercial grade; toilets to be wall or floor mounted; no electronic infrared fixtures	Heavy duty commercial grade; wall mounted toilets are preferable	Special construction/pre-fab
Other Fixtures & Accessories	'Security' grade fixtures and accessories: no use of glass mirrors	Heavy duty commercial grade; no use of glass mirrors	Heavy duty commercial grade; glass mirrors can be used here	Special construction/pre-fab

APPENDIX B: FIGURES

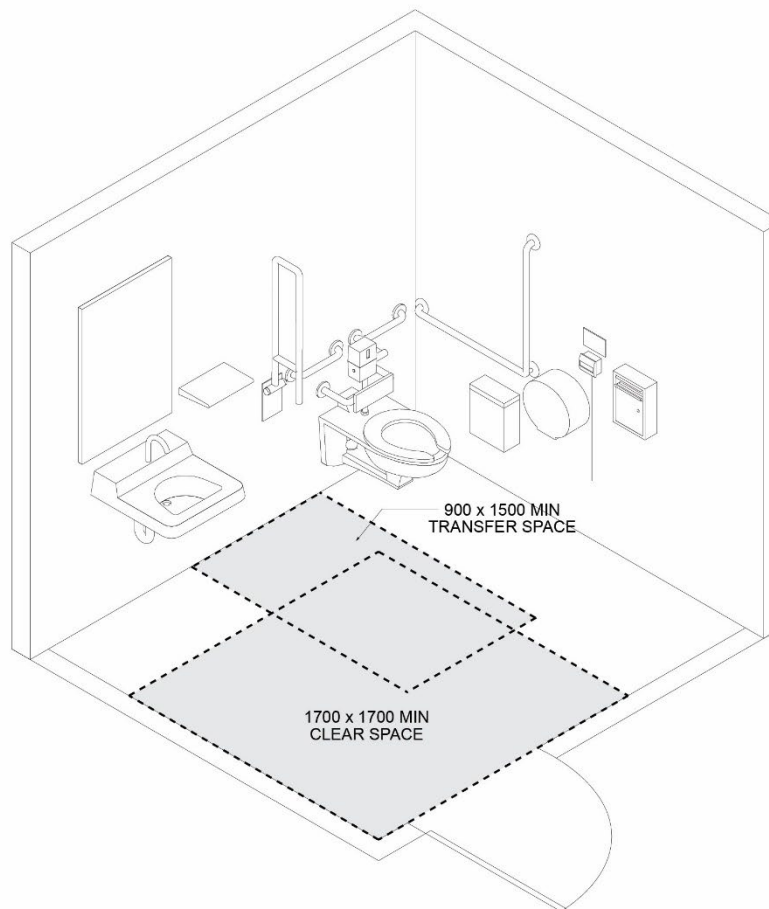
1. Figure 1:

Sample universal washroom layout with adult change table and clear space that can accommodate a range of manual and powered wheeled mobility devices. Increase clear space from 2500 x 2500 mm to 3150 x 3150 mm whenever possible to expand the range of devices accommodated to include large scooters. Dimensions indicated are per VBBL 2019. Comply with latest version.



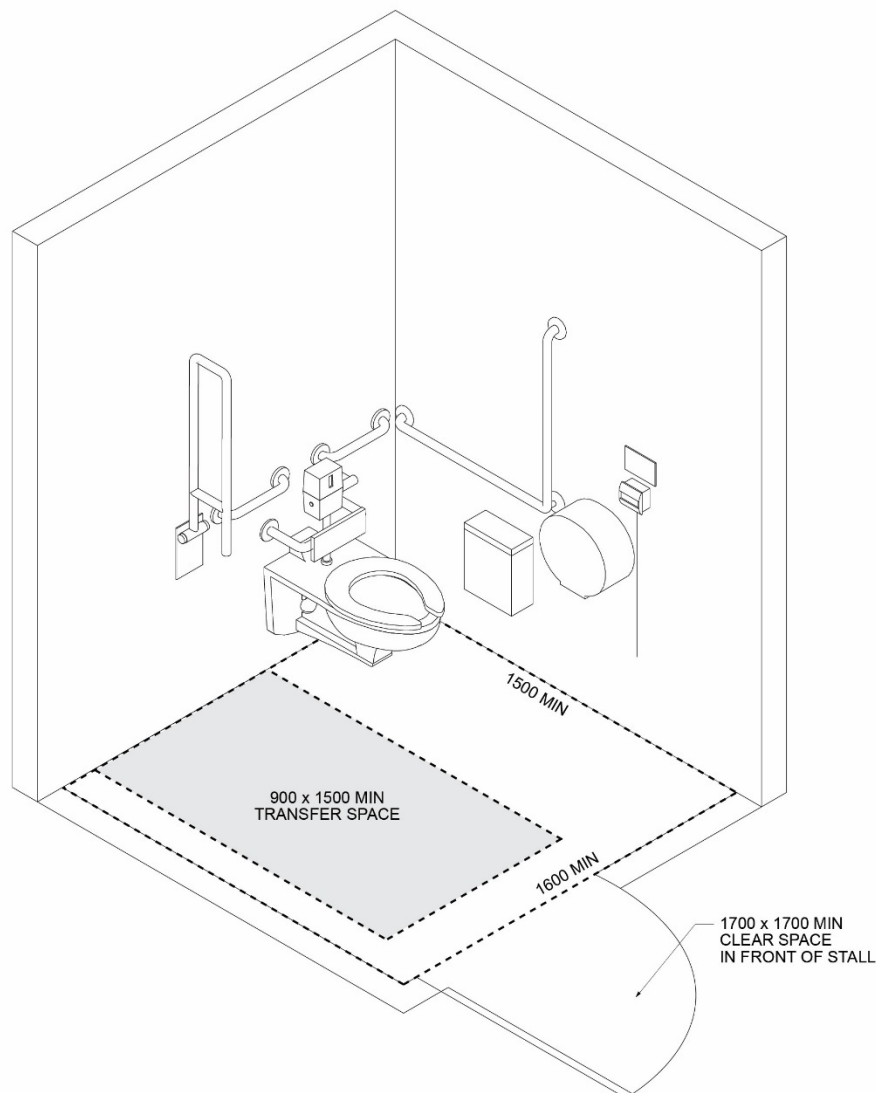
2. **Figure 2:**

Sample universal washroom layout that can accommodate manual and some power wheeled mobility devices. Increase clear space whenever possible to expand the range of devices accommodated. Dimensions indicated are per VBBL 2019. Comply with latest version.



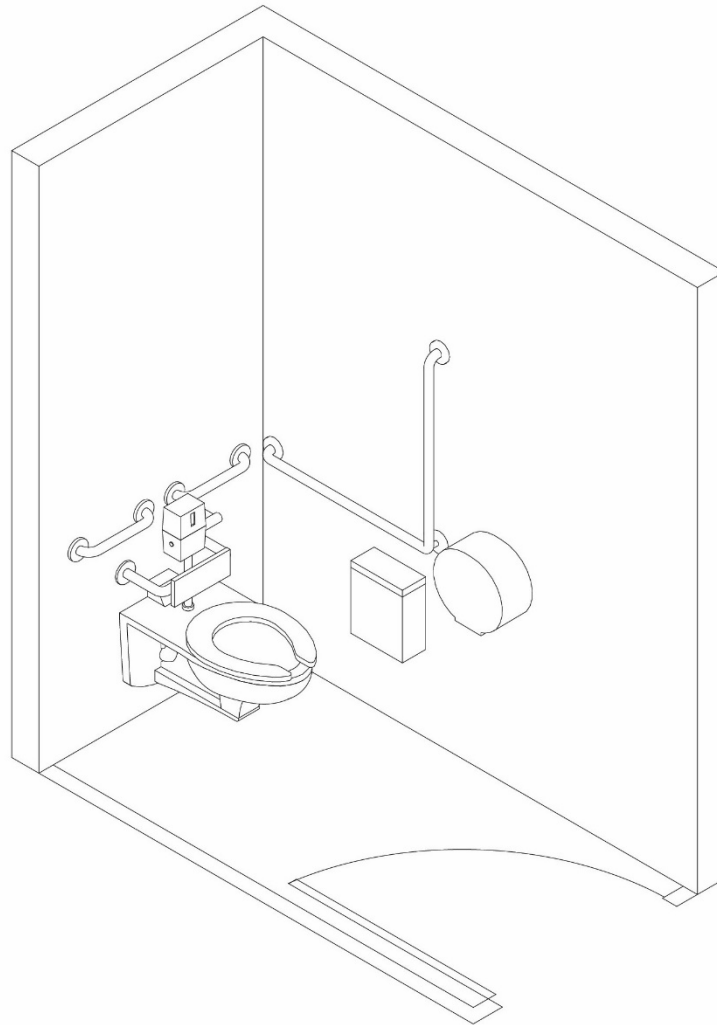
3. Figure 3:

Sample accessible stall. Provide minimum internal dimensions of at least 1600 x 1500 mm, and 1700 x 1700 mm clear space in front of accessible stall. Increase internal dimensions whenever possible to accommodate a minimum 1700 x 1700 mm clear space, the minimum required to enable turning inside the stall. Dimensions indicated are per VBBL 2019. Comply with latest version.



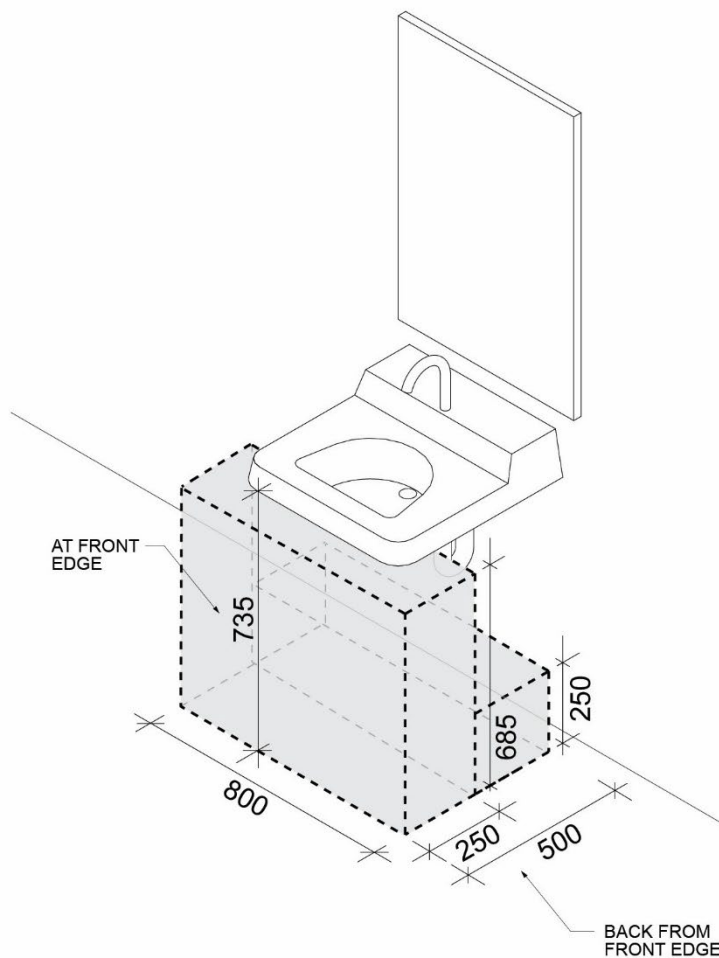
4. Figure 4:

Sample limited mobility stall layout that can accommodate persons who benefit from grabs bars and toilet backrests. Dimensions indicated are per VBBL 2019. Comply with latest version.



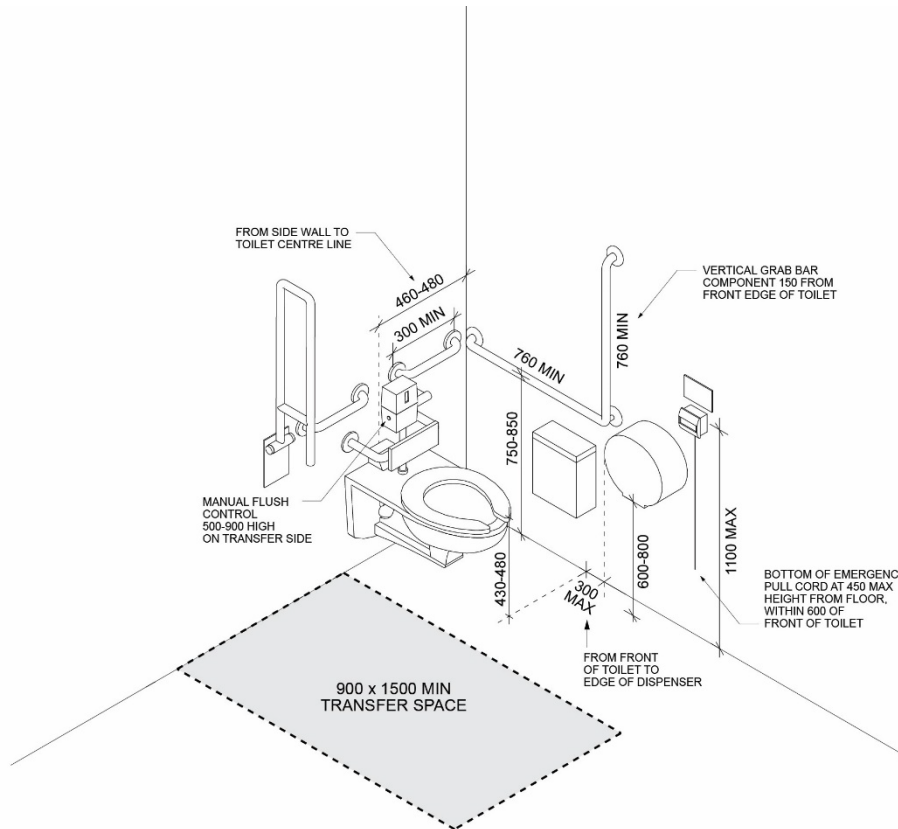
5. **Figure 5:**

Knee clearance required under sinks and vanities. All dimensions in mm. Dimensions indicated are per VBBL 2019. Comply with latest version.



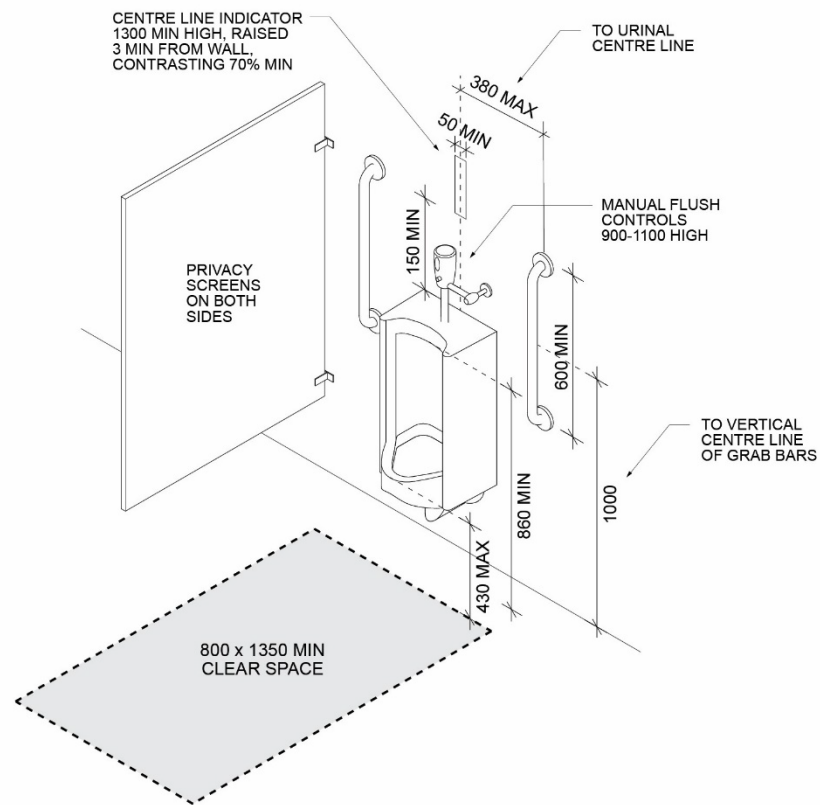
6. **Figure 6:**

Accessible toilet components and features. All dimensions in mm. Dimensions indicated are per VBBL 2019. Comply with latest version.



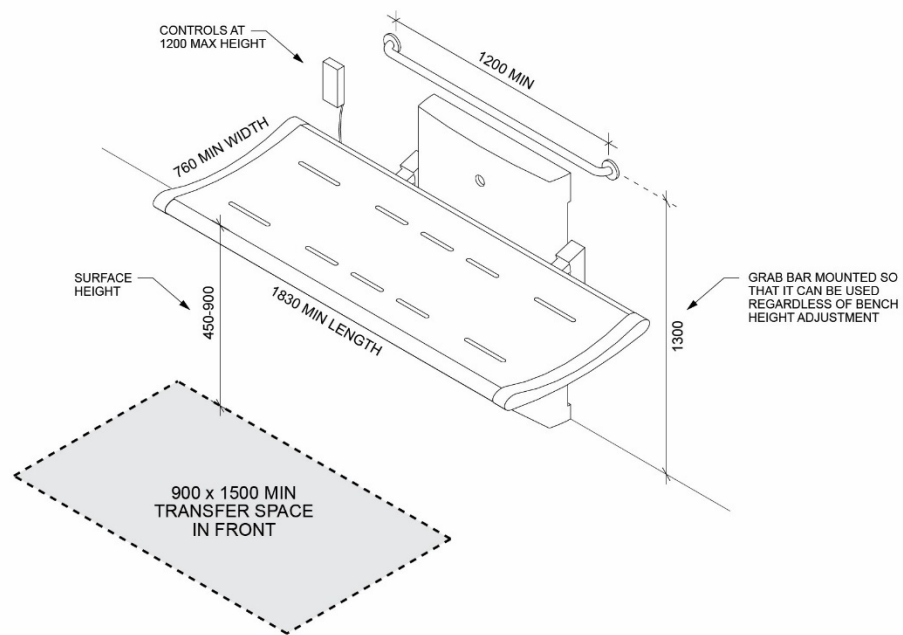
7. Figure 7:

Accessible urinal components and features. All dimensions in mm. Dimensions indicated are per VBBL 2019. Comply with latest version.



8. Figure 8:

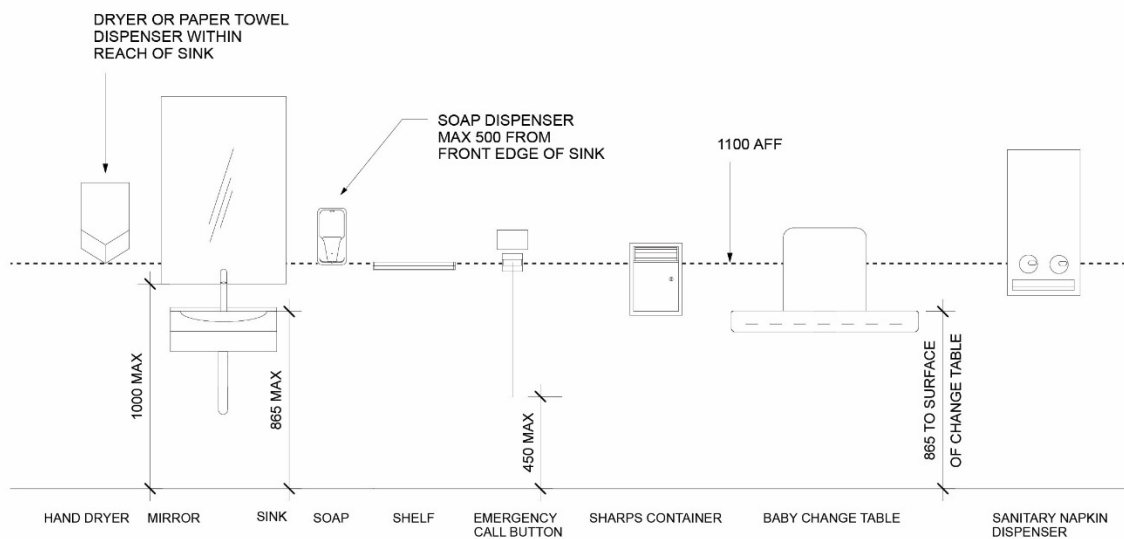
Dimensions of adult change table and associated grab bar. All dimensions in mm.



9. Figure 9:

Accessory and amenity mounting heights. Unless noted otherwise, controls, operable parts, and openings are to be located max 1100 mm above the finished floor (AFF). All dimensions in mm.

Dimensions indicated are per VBL 2019. Comply with latest version.

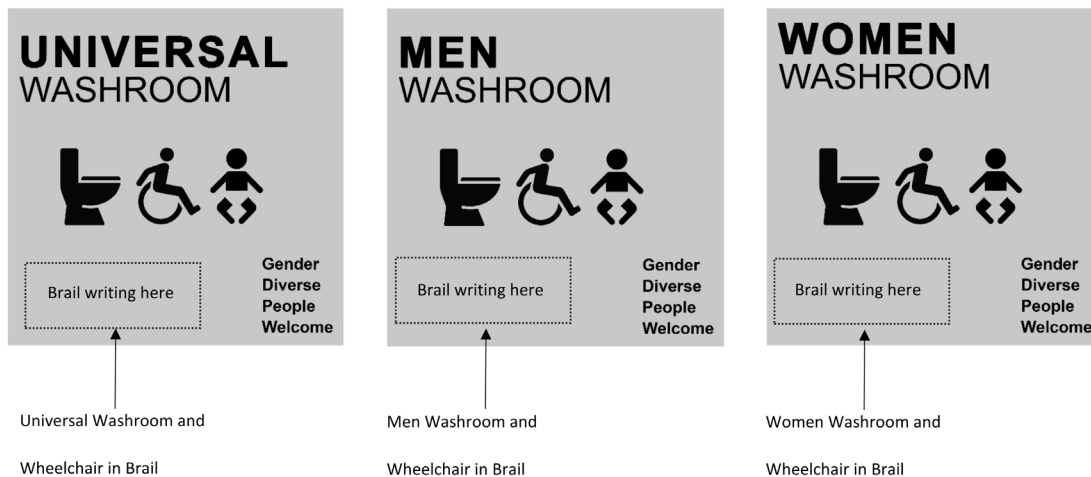


APPENDIX C: WASHROOM SIGNAGE GUIDELINES

Prepared by: REFM Facilities Planning Interiors Team

City of Vancouver - Washroom Signage Guidelines

- **Location:** Signage should be located at the door or on wall where it is clearly visible to general public. Provide extra directional signs in case a facility is not located in direct public access. Signage should be located at height that provide easy access for Braille Stripe to assist persons with Visual Impairment. (Refer “The Building Access Handbook - Building Requirements for Persons with Disabilities from British Columbia Building Code” for details).
- Signage could vary in **Shape** (Square, Rectangle, Circular, Triangular etc); **Size** (6”x6”, 8”x8”, 6”x8”, 4”x10” etc); **Orientation** (Horizontal or Vertical).
- Signage shall have a tag-line “**Gender Diverse People Welcome**”.
- Signage design elements, layout, color, material could match as per interior’s theme.
- **Braille** shall have information about the type and facility of washroom - Men, Women, Universal, Wheelchair, Shower, Baby Changing Tray, Locker Room etc.
- **Symbols** on Signage should focus on the function of the space and refrain from using gendered symbols of bodies on Signage. For example: Use Toilet symbol for washroom instead of Male/Female symbols.
- **Installation:** Signage could be installed using double side tape. If bolted, it should not obstruct any text on Signage.



Please consider that not all people with sight issues can read braille, so instead they rely on the use of raised lettering. Signs with only engraved lettering is not sufficient.

Washroom Signage Symbols



Toilet
(could vary in design,
preferrably side ways)



Wheelchair



Baby Changing Tray



Shower
(could be side ways)



APPENDIX D: SAMPLE OF ACCEPTABLE PLUMBING PRODUCTS