NATIONAL HOUSING STRATEGY

Minimum Environmental & Accessibility Requirements

NEW CONSTRUCTION



National Co-Investment Fund

Canada

CMHC SCHL

MINIMUM ENVIRONMENTAL & ACCESSIBILITY REQUIREMENTS – NEW CONSTRUCTION

A. Environmental Efficiency Requirements

Applicants must demonstrate that their project(s) are designed to achieve a minimum 25% decrease in energy consumption and Greenhouse Gas (GHG) emissions outlined in the requirements of the 2015 National Energy Code for Buildings (NECB) or the 2015 National Building Code (NBC) ("base case"), or a 15% decrease relative to the 2017 National Energy Code for Buildings.

Note: CMHC will prioritize applications that exceed the minimum requirements. Applicants should ensure that they clearly state if their projects will exceed the minimum requirements and by how much (e.g. " … will exceed 2015 NECB by 40%").

Prior to Construction, applicants must demonstrate:

- Compliance with energy and GHG emission reduction requirements through the submission of an analysis of the energy consumption and GHG emission performance of a base case building designed to the 2015 NECB or the 2015 NBC and the analysis of the energy consumption and GHG emission performance of the actual design of the proposed project that has, at a minimum, 25% less energy consumption and GHG emissions, or a 15% decrease relative to the 2017 National Energy Code for Buildings.
- The energy and GHG emission reduction analysis has been undertaken by a qualified professional. For Part 3 construction, this includes professionals with energy modelling experience such as a Professional Engineer, Architect, Certified Engineering Technologist (CET) or Certified Energy Manager (CEM). For low-rise (Part 9) single, semis, row houses, duplexes, triplexes and small multi-unit residential buildings with less than four storeys, a Residential Energy Advisor accredited by Natural Resources Canada, or equivalent, may undertake the analysis.
- An appropriate energy simulation software has been used to conduct the analysis. CanQuest and EnergyPlus are examples of accepted energy modelling software used for multi-unit residential buildings (Part 3 of the NBC). For low-rise buildings and townhomes (Part 9 of the NBC), HOT2000 is acceptable software. Other software used must be approved by CMHC prior to the submission of the energy and GHG emission reduction analysis.
- The physical and operational characteristics of the base case building and those of the proposed project that illustrate how the 25% energy and GHG emission reduction over the 2015 NECB or NBC base case will be achieved, or a 15% decrease relative to the 2017 National Energy Code for Buildings.
- The required documentation to demonstrate compliance includes:
  - A brief Executive Summary of the comparison of annual total energy consumption and GHG emission reduction performance between the base case and the proposed project.
  - A summary of the energy modelling of the proposed project that indicates annual energy consumption and GHG emissions for the total building and a breakdown of the estimates for each major energy end use (e.g. space conditioning, hot water, lighting, equipment, appliances, etc.).

- An overview of the key physical and operational features of the base case and proposed building that illustrates the improvements to be made to building envelope, space conditioning, hot water, lighting and other systems, energy recovery and renewable energy systems to achieve compliance.
- Input and output files for the energy consumption modelling for the base case and proposed project. The files must detail monthly energy consumption for the whole building and by major end use (space heating, hot water, lighting, equipment, systems, etc.).
- Any supplemental calculations for energy contributions of renewable energy systems, other systems and conditions not included in the energy and GHG modelling.
- GHG calculations, methodology and assumptions.

At Construction Completion, applicants must:

Identify any major changes to the original design and construction of the project. If there are significant changes between the as-designed and as-constructed cases that would have a material impact on the energy consumption and GHG emissions, an updated analysis must be submitted to CMHC to confirm the performance of the as-built project complies with program requirements.

B. Accessibility requirements

Option 1: 20% of dwelling units meet accessibility standards (see Table A) and common areas are 'barrier-free' (see Table B).

OR

Option 2: The entire project (common areas and dwelling units) has full universal design (see Table C).

Note: CMHC will prioritize applications that exceed these minimum requirements. Applicants should ensure that they clearly state if their projects will exceed the minimum requirements and how.

For either Option, prior to construction

- Indicate commitment to meeting either Option 1 or 2 to meet minimum requirements.

For Option 1:

- Provide the total number of units in the project and the total number of accessible units to be constructed.
- Identify any accessibility requirements from local codes or regulations.
- Provide a narrative of the details of the proposed accessibility strategy within each unit (Table A) and identify the "barrier-free" features from the approach to the building, through the common areas and into the accessible units (Table B).

For Option 2:

- Provide a narrative of the details of the proposed universal design strategy within the dwelling units and throughout the common areas (Table C).
- Identify any accessibility requirements from local codes or regulations.

At Construction Completion

- For Option 1, confirm the total number of accessible units that were constructed and barrier-free common areas have been provided. Confirm that the accessibility features of the project comply with the application and local building codes and regulations.
- For Option 2, confirm all units and common areas were constructed to universal design requirements and confirm compliance with any additional local accessibility building codes and regulations.
- Identify any changes that occurred between the design of the project and completion of construction that may have any impacts on the project eligibility (if applicable).

TABLE A

Technical Criteria For Accessible Dwelling Units

Note: Table incorporates key requirements only - source should be referenced for further detail as required.

Note: Unless noted otherwise, all dimensions are in millimeters.

INDEX

NHS= National Housing Strategy
BP = Better practice
CSA= CSA 8651: Accessible design for the built environment

ID	Category	Sub-Category	Key Features	Source
A1	Application Criteria	Number of Units	20% of units to comply with accessibility standards	NHS
A2	Entrances and Doors	Entrance Landings	Min 1500 x 1500	CSA 7.4.1.5.1
A3	Entrances and Doors	Entrance Landings	Illuminated to at least 50 lx	CSA 7.4.1.5.1
A4	Entrances and Doors	Entrance Doors	No Step - Threshold no more than 13	CSA 7.4.1.5.2
A5	Entrances and Doors	Entrance Doors	Clear opening width of at least 810	CSA 7.4.1.5.2
A6	Entrances and Doors	Entrance Doors	Appropriate manoeuvring space either side	CSA 7.4.1.5.2
A7	Entrances and Doors	Entrance Doors	Appropriate hardware	CSA 7.4.1.5.2
A8	Entrances and Doors	Signage	Identification and numbers appropriately located and configured	CSA 7.4.1.5.3
A9	Entrances and Doors	Door Bells or Intercoms	Appropriately located and configured, including audible and visual signals	CSA 7.4.1.5.3
A10	Entrances and Doors	Door Viewers	Where installed, provide second viewer 1000-1200 high	CSA 7.4.1.5.5
A11	Interior Circulation	Corridors	At least 920 wide	CSA 7.4.2.1
A12	Interior Circulation	Corridors	No steps or changes in level	CSA 7.4.2.1
A13	Interior Circulation	Corridors	Surface stable, firm, slip-resistant, nominal glare, not heavily patterned	CSA 7.4.2.1
A14	Interior Circulation	Corridors	If carpet, low, firm and level pile or loop, carpet + pad max 13, securely fastened	CSA 7.4.2.1
A15	Interior Circulation	Doors and Doorways	Threshold no more than 13 - level threshold preferred including at balcony or patio doors	CSA 7.4.2.2
A16	Interior Circulation	Doors and Doorways	Clear opening width of at least 810	CSA 7.4.2.2
A17	Interior Circulation	Doors and Doorways	Clear opening width of at least 850	BP

ID	Category	Sub-Category	Key Features	Source
A18	Interior Circulation	Doors and Doorways	Appropriate manoeuvring space either side	CSA 7.4.2.2
A19	Interior Circulation	Doors and Doorways	Appropriate hardware	CSA 7.4.2.2
A20	Interior Circulation	Doors and Doorways	Doors to swing out (or be pocket doors) at bathroom/ washroom, roll-in closets and general storage	CSA 7.4.2.2
A21	Interior Circulation	Floor and wall Surfaces	No steps or changes in level	CSA 7.4.2.3
A22	Interior Circulation	Floor and wall Surfaces	Surface stable, firm, slip-resistant, nominal glare, not heavily patterned	CSA 7.4.2.3
A23	Interior Circulation	Floor and Wall Surfaces	If carpet, low, firm and level pile or loop, carpet + pad max 13, securely fastened	CSA 7.4.2.3
A24	Bathrooms	Floor Area	Provide 1500 diameter clear turn space or T-turn	BP
A25	Bathrooms	Lavatory	Clear floor space of at least 800 x 1350 (up to 480 may be under counter)	CSA 7.4.3.1
A26	Bathrooms	Lavatory	Centreline min 460 from side wall	CSA 7.4.3.1
A27	Bathrooms	Lavatory	Top 810-860 above the floor	CSA 7.4.3.1
A28	Bathrooms	Lavatory	Appropriate knee and toe space provided	CSA 7.4.3.1
A29	Bathrooms	Lavatory	Offset hot water pipes and drain (insulate if adjacent to knee and/or toe space)	CSA 7.4.3.1
A30	Bathrooms	Lavatory	Counter with front apron to have 750 wide x 720 high knee clearance	CSA 7.4.3.1
A31	Bathrooms	Lavatory	Appropriate faucet	CSA 7.4.3.1
A32	Bathrooms	Lavatory	Water temperature supply no more than 49 degrees Celsius	CSA 7.4.3.1
A33	Bathrooms	Medicine Cabinets	Adjacent to 750 x 1200 clear floor space with horizontal reach max 500	CSA 7.4.3.2
A34	Bathrooms	Medicine Cabinets	Bottom shelf max 1000 high	CSA 7.4.3.2
A35	Bathrooms	Medicine Cabinets	Appropriate door hardware	CSA 7.4.3.2
A36	Bathrooms	Medicine Cabinets	Illuminated to at least 200 lx	CSA 7.4.3.2
A37	Bathrooms	Storage	A shelf shall be provided, located max 1100	CSA 7.4.3.3
A38	Bathrooms	Towel Bars	Max 1100 high	CSA 7.4.3.4
A39	Bathrooms	Mirrors	Bottom edge no higher than 1000	CSA 7.4.3.5
A40	Bathrooms	Toilets	Seat not spring activated, height 430-485, back support where no seat lid or tank	CSA 7.4.3.6
A41	Bathrooms	Toilets	Centre line of toilet fixture 460-480 from an adjacent wall	CSA 7.4.3.6
A42	Bathrooms	Toilets	Clear transfer space of at least 900 wide x 1500 long on open side of toilet	CSA 7.4.3.6
A43	Bathrooms	Toilets	Automatic flush controls or appropriately configured hand-operated device	CSA 7.4.3.6
A44	Bathrooms	Toilet - Struct. Support	Provide appropriate structural support for grab bars in walls around toilet	CSA 7.4.3.7
A45	Bathrooms	Toilet Paper Dispenser	Provide dispenser within 300 from front of toilet and 600-800 high	CSA 7.4.3.8

ID	Category	Sub-Category	Key Features	Source
A46	Bathrooms	Bathtub	At least 1500 long	CSA 7.4.3.9
A47	Bathrooms	Bathtub	Clear floor area at least 750 wide along full length of open side of the tub (no door)	CSA 7.4.3.9
A48	Bathrooms	Bathtub	Appropriate faucets and other controls	CSA 7.4.3.9
A49	Bathrooms	Bathtub	Appropriate hand-held showerhead	CSA 7.4.3.9
A50	Bathrooms	Bathtub	Water temperature supply no more than 49 degrees Celsius	CSA 7.4.3.9
A51	Bathrooms	Bathtub - Struct. Support	Provide appropriate structural support to ceiling and in the surrounding 3 walls	CSA 7.4.3.9
A52	Bathrooms	Shower Stall	Water temperature supply no more than 49 degrees Celsius	CSA 7.4.3.10
A53	Bathrooms	Shower Stall	Appropriate hand-held showerhead	CSA 7.4.3.10
A54	Bathrooms	Shower Stall	Doors or curtains do not obstruct access to controls or the transfer space	CSA 7.4.3.10
A55	Bathrooms	Shower Stall	Floors sloped minimally to provide positive drainage and slip-resistant when wet	CSA 7.4.3.10
A56	Bathrooms	Shower Stall	Interior clear area at least 900 x 1500	CSA 7.4.3.10
A57	Bathrooms	Shower Stall	Clear floor area in front of the shower entrance of at least 900 x 1500	CSA 7.4.3.10
A58	Bathrooms	Shower Stall	Appropriate faucets and other controls	CSA 7.4.3.10
A59	Bathrooms	Shower Stall	Appropriate threshold - no more than 13	CSA 7.4.3.10
A60	Bathrooms	Shower – Struct. Support	Provide appropriate structural support to ceiling and in the surrounding walls	CSA 7.4.3.10
A61	Kitchens	Floor Area	Clear floor area of at least 750 x 1200 in front of fixtures	CSA 7.4.4.1
A62	Kitchens	Floor Area	Clear floor area of at least 750 x 1200 at one side of open doors and drawers	CSA 7.4.4.1
A63	Kitchens	Counters	At least one counter: 760 wide x 600 deep area, 730-860 high, with knee clearance	CSA 7.4.4.2
A64	Kitchens	Counters	Accessible counter has electrical outlet at side or front	CSA 7.4.4.2
A65	Kitchens	Base Cabinets	Toe space at least 150 deep x 230 high	CSA 7.4.4.3
A66	Kitchens	Sinks	Clear floor space of at least 800 x 1350 (up to 480 may be under counter)	CSA 7.4.4.4
A67	Kitchens	Sinks	At least 460 from side wall	CSA 7.4.4.4
A68	Kitchens	Sinks	Rim 810 - 860 high	CSA 7.4.4.4
A69	Kitchens	Sinks	Appropriate knee and toe space below	CSA 7.4.4.4
A70	Kitchens	Sinks	Appropriate faucets	CSA 7.4.4.4
A71	Kitchens	Sinks	Offset hot water pipes and drain (insulate if adjacent to knee and/or toe space)	CSA 7.4.4.4
A72	Kitchens	Illumination	At least 300 lx at countertops	CSA 7.4.4.5
A73	Kitchens	Illumination	At least 100 lx at switches and controls (200 lx where reading required)	CSA 7.4.4.5
A74	Kitchens	Cooktops	810 - 860 high	CSA 7.4.4.6
A75	Kitchens	Cooktops	Adjacent work surface at least 400 wide, at same height as cooktop	CSA 7.4.4.6

ID	Category	Sub-Category	Key Features	Source
A76	Kitchens	Cooktops	Appropriate knee-clearance below (including insulation as needed)	CSA 7.4.4.6
A77	Kitchens	Cooktops	Clear floor space of at least 800 x 1350 (up to 480 may be under cooktop)	CSA 7.4.4.6
A78	Kitchens	Ovens	Appropriate controls, mounted on front panel, no more than 1200 high	CSA 7.4.4.7
A79	Kitchens	Ovens	At side opening oven, provide heat resistant shelf beside oven door or under oven	CSA 7.4.4.7
A80	Kitchens	Refrigerator	Self-defrosting freezer with freezer shelf space no more than 1100 high	CSA 7.4.4.8
A81	Kitchens	Kitchen Storage	At least one shelf in cupboards no more than 1100 high	CSA 7.4.4.9
A82	Kitchens	Kitchen Storage	D-type door pulls within 400 - 1200 reach range	CSA 7.4.4.9
A83	Bedrooms	Floor Area	Clear floor area of at least 750 × 1200 mm on at least two sides of the bed	CSA 7.4.5
A84	Bedrooms	Floor Area	Provide 1500 diam clear turn space or T-turn in bedroom	BP
A85	Other Rooms	Floor Area	Provide 1500 diameter turn space or T-turn	BP
A86	Other Rooms	Laundry	Provide front-loading appliances with accessible operating controls	CSA 7.4.6.6
A87	Other Rooms	Laundry	Clear floor area of at least 750 x 1200 at one side of open appliance doors	CSA 7.4.6.6
A88	Other Rooms	Laundry	Where provided, laundry tub should allow a side-approach in a wheelchair	CSA 7.4.6.6
A89	General	Emergency + Security Alarms	Provide both audible and visual signals	CSA 7.4.6.1
A90	General	Windows	Where intended for views, sill max 750 above floor	CSA 7.4.6.2
A91	General	Windows	Accessible opening and locking mechanisms	CSA 7.4.6.2
A92	General	Operating Controls	Clear floor space in front at least 1350 x 800, centered	CSA 7.4.6.3
A93	General	Operating Controls	Located 400 -1200 high	CSA 7.4.6.3
A94	General	Operating Controls	Operable using one closed fist, with max 22N force	CSA 7.4.6.3
A95	General	Operating Controls	Provide tactile and/or auditory info indicating function and position of control	CSA 7.4.6.3
A96	General	Operating Controls	Colour contrast with mounting surface	CSA 7.4.6.3
A97	General	Operating Controls	Illuminated to at least 100 lx, 200 lx where reading is required	CSA 7.4.6.3
A98	General	Operating Controls	Where control has visual display, info should be supplemented with tactile/audio	CSA 7.4.6.3
A99	General	Clothes Closets	Clear floor area in front of at least 750 x 1200	CSA 7.4.6.4
A100	General	Clothes Closets	Clothes rail 1200 - 1400	CSA 7.4.6.4
A101	General	Clothes Closets	Where shelves are provided, 3 shelves within 400 -1200 reach range	CSA 7.4.6.4
A102	General	General Storage	Outward-swinging or pocket door	CSA 7.4.6.5

ID	Category	Sub-Category	Key Features	Source
A103	General	General Storage	Electrical outlet in inside, close to door	CSA 7.4.6.5
A104	General	General Storage	Capable of being illuminated to at least 50 lx	CSA 7.4.6.5
A105	General	Outdoor Living Spaces	Located adjacent to an accessible route	CSA 7.4.7
A106	General	Outdoor Living Spaces	At least 1500 x 1500 in area with accessible surface	CSA 7.4.7
A107	General	Outdoor Living Spaces	Appropriate manoeuvring space at appropriately configured accessible door	CSA 7.4.7
A108	General	Outdoor Living Spaces	Capable of being illuminated to at least 50 lx	CSA 7.4.7
A109	General	Outdoor Living Spaces	No step, level threshold through doors	CSA 7.4.7

TABLE B

Technical Criteria for Barrier-Free Common Areas

Note: Table incorporates key requirements only - source should be referenced for further detail as required.

Note: Unless noted otherwise, all dimensions are in millimeters.

INDEX

NHS = National Housing Strategy
BP = Better practice
CSA = CSA B651: Accessible design for the built environment

ID	Category	Sub-Category	Key Features	Source
B1	Circulation	Parking	Where provided, Interior, exterior or covered parking: • Pedestrian routes to comply with CSA 9.2 • Signage to comply with CSA 9.4 • Designated parking spaces to comply with CSA 9.5	CSA 7.4.1.1
B2	Circulation	Passenger Pick-up Areas	Where provided, passenger pick-up areas to comply with CSA 9.3	CSA 7.4.1.2
B3	Circulation	Exterior Routes	Minor changes in level: 0-6 may be vertical, 7-13 to be bevelled	CSA 7.4.1.3
B4	Circulation	Exterior Routes	Clear width of at least 1200	CSA 7.4.1.3
B5	Circulation	Exterior Routes	Stable, firm and slip resistant surfaces	CSA 7.4.1.3
B6	Circulation	Exterior Routes	Level, or sloped no steeper than the ratio of 1:20 (5%)	CSA 7.4.1.3
B7	Circulation	Exterior Routes	Cross-slope no steeper than the ration of 1:50 (2%)	CSA 7.4.1.3
B8	Circulation	Exterior Routes	Edge protection provided at grade changes and other potential hazards	CSA 7.4.1.3
B9	Circulation	Ramps	Slopes steeper than the ratio of 1:20 (5%) to be designed as ramps	CSA 7.4.1.4.1
B10	Circulation	Ramps	No steeper than the ratio of 1:12 (8.3%)	CSA 7.4.1.4.1
B11	Circulation	Ramps	Cross slope ne steeper than the ratio of 1:50 (2%)	CSA 7.4.1.4.1
B12	Circulation	Ramps	Landings no more than 9000 apart	CSA 7.4.1.4.1
B13	Circulation	Ramps	At least 920 wide	CSA 7.4.1.4.1
B14	Circulation	Ramps	Landings at top, bottom and changes in direction. Min 1500 long x at least ramp width. Min 1500 x 1500 at doors.	CSA 7.4.1.4.1
B15	Circulation	Ramps	Appropriate handrails	CSA 7.4.1.4.1
B16	Circulation	Ramps	Appropriate edge protection	CSA 7.4.1.4.1
B17	Circulation	Ramps	Appropriate surfaces, including colour-contrast band at slope transitions	CSA 7.4.1.4.1
B18	Circulation	Stairs	Risers no more than 180 and treads no less than 280 deep	CSA 7.4.1.4.2
B19	Circulation	Stairs	Slip resistant	CSA 7.4.1.4.2
B20	Circulation	Stairs	No open risers	CSA 7.4.1.4.2
B21	Circulation	Stairs	Illuminated to at least 50 lx	CSA 7.4.1.4.2

ID	Category	Sub-Category	Key Features	Source
B22	Circulation	Stairs	Colour-contrast band on nosings	CSA 7.4.1.4.2
B23	Circulation	Stairs	Tactile attention indicators at top of stairs	CSA 7.4.1.4.2
B24	Circulation	Stairs	Appropriate handrails	CSA 7.4.1.4.2
B25	Circulation	Stairs	Appropriate edge protection	CSA 7.4.1.4.2
B26	Circulation	Elevating Devices	Comply with: Appendix E of ASME A17.1/CSA-B44 for elevators and service lifts, or CAN/CSA-B335 for an elevating device	CSA 7.4.1.4.3
B27	Entrances and Doors	Entrance Landings	Min 1500 x 1500	CSA 7.4.1.5.1
B28	Entrances and Doors	Entrance Landings	Illuminated to at least 50 lx	CSA 7.4.1.5.1
B29	Entrances and Doors	Entrance Doors	No Step - Threshold no more than 13	CSA 7.4.1.5.2
B30	Entrances and Doors	Entrance Doors	Clear opening width of at least 810	CSA 7.4.1.5.2
B31	Entrances and Doors	Entrance Doors	Appropriate manoeuvring space either side	CSA 7.4.1.5.2
B32	Entrances and Doors	Entrance Doors	Appropriate hardware and motorized automatic front entry doors	CSA 7.4.1.5.2
B33	Entrances and Doors	Signage	Identification and numbers appropriately located and configured	CSA 7.4.1.5.3
B34	Entrances and Doors	Door Bells or Intercoms	Appropriately located and configured, including audible and visual signals	CSA 7.4.1.5.3
B35	Entrances and Doors	Door Viewers	Where installed, provide second viewer 1000-1200 high	CSA 7.4.1.5.5
B36	Interior Circulation	Corridors	At least 920 wide	CSA 7.4.2.1
B37	Interior Circulation	Corridors	No steps or changes in level	CSA 7.4.2.1
B38	Interior Circulation	Corridors	Surface stable, firm, slip-resistant, nominal glare, not heavily patterned	CSA 7.4.2.1
B39	Interior Circulation	Corridors	If carpet, low, firm and level pile or loop, carpet + pad max 13, securely fastened	CSA 7.4.2.1
B40	Interior Circulation	Doors and Doorways	Threshold no more than 13 - level threshold preferred	CSA 7.4.2.2
B41	Interior Circulation	Doors and Doorways	Clear opening width of at least 810	CSA 7.4.2.2
B42	Interior Circulation	Doors and Doorways	Appropriate manoeuvring space either side	CSA 7.4.2.2
B43	Interior Circulation	Doors and Doorways	Appropriate hardware	CSA 7.4.2.2
B44	Interior Circulation	Doors and Doorways	Doors to swing out at bathroom/washroom, roll-in closets and general storage	CSA 7.4.2.2
B45	Interior Circulation	Floor and Wall Surfaces	No steps or changes in level	CSA 7.4.2.3
B46	Interior Circulation	Floor and Wall Surfaces	Surface stable, firm, slip-resistant, nominal glare, not heavily patterned	CSA 7.4.2.3
B47	Interior Circulation	Floor and Wall Surfaces	If carpet, low, firm and level pile or loop, carpet + pad max 13, securely fastened	CSA 7.4.2.3

ID	Category	Sub-Category	Key Features	Source
B48	Washrooms	Public Washrooms	Multi-stalled public washrooms to comply with CSA 6.2	CSA 6.2
B49	Washrooms	Public Washrooms	Universal public washrooms to comply with CSA 6.3	CSA 6.3
B50	Washrooms	Public Washrooms	Public bathing facilities to comply with CSA 6.5	CSA 6.5
B51	General	Emergency/ Security Alarms	Provide both audible and visual signals	CSA 7.4.6.1
B52	General	Operating Controls	Clear floor space in front at least 1350 x 800, centered	CSA 7.4.6.3
B53	General	Operating Controls	Located 400 -1200 high	CSA 7.4.6.3
B54	General	Operating Controls	Operable using one closed fist, with max 22N force	CSA 7.4.6.3
B55	General	Operating Controls	Provide tactile and/or auditory info indicating function and position of control	CSA 7.4.6.3
B56	General	Operating Controls	Colour contrast with mounding surface	CSA 7.4.6.3
B57	General	Operating Controls	Illuminated to at least 100 lx, 200 lx where reading is required	CSA 7.4.6.3
B58	General	Operating Controls	Where control has visual display, info should be supplemented with tactile/audio	CSA 7.4.6.3
B59	General	Outdoor Living Spaces	Located adjacent to an accessible route	CSA 7.4.7
B60	General	Outdoor Living Spaces	At least 1500 x 1500 in area with accessible surface	CSA 7.4.7
B61	General	Outdoor Living Spaces	Appropriate manoeuvring space at appropriately-configures accessible door	CSA 7.4.7
B62	General	Outdoor Living Spaces	Capable of being illuminated to at least 50 lx	CSA 7.4.7
B63	General	Outdoor Living Spaces	No step, level threshold through doors	CSA 7.4.7
B64	General	Public Amenities	Where amenity spaces are provided for the use or resident and their visitors (such as community rooms, hobby rooms, etc.), they shall be accessible to persons with disabilities	BP

TABLE C

Technical Criteria for Universal Design Dwelling Units

Note: Table incorporates key requirements only - source should be referenced for further detail as required.

Note: Unless noted otherwise, all dimensions are in millimeters.

INDEX

NHS = National Housing Strategy
BP = Better practice
CSA = CSA B651: Accessible design for the built environment

PATH = PATH Housing Series: Universal Design and Accessible Housing
(http://homelesshub.ca/sites/default/files/HousingSeries_AccessibleHousing.pdf)

ID	Category	Sub-Category	Key Features	Source
C1	Application	Entry and Circulation	Accessible route through the main entry door and continuous through all the rooms on the entry level of the unit.	PATH
C2	Application	Access to Spaces and Fixtures	Accessible route to the required floor spaces, leading to all kitchen appliances and to all bathroom fixtures making these spaces and fixtures accessible. The route must also connect with all secondary exterior doors. Spaces include the storage areas and exterior balconies and patios that are part of the dwelling unit.	PATH
C3	Application	Multi-storey Dwelling Units	Configure unit to allow future installation of wheelchair platform lift to provide access to upper or lower floors, without the need for structural alterations to the unit.	BP
C4	Exterior Circulation	Routes	Width at least 920	CSA 7.3.1.1
C5	Exterior Circulation	Surfaces	Stable, firm and slip resistant surfaces	CSA 7.3.1.1
C6	Exterior Circulation	Surfaces	Level, or sloped no steeper than the ratio of 1:20 (5%)	CSA 7.3.1.1
C7	Exterior Circulation	Surfaces	Cross-slope no steeper than the ration of 1:50 (2%)	CSA 7.3.1.1
C8	Exterior Circulation	Edge Protection	Edge protection provided at grade changes and other potential hazards	CSA 7.3.1.1
C9	Entrances and Doors	Entrance Landings	Min 1500 x 1500	CSA 7.3.1.2
C10	Entrances and Doors	Entrance Doors	No Step - Threshold no more than 13	CSA 7.3.2
C11	Entrances and Doors	Entrance Doors	Clear opening width of at least 810	CSA 7.3.2
C12	Entrances and Doors	Entrance Doors	Accessible door hardware	PATH

ID	Category	Sub-Category	Key Features	Source
C13	Interior Circulation	Corridors	At least 920 wide	CSA 7.3.3.1
C14	Interior Circulation	Corridors	No steps or changes in level	CSA 7.3.3.1
C15	Interior Circulation	Doors and Doorways	Threshold no more than 13 - level threshold preferred	CSA 7.3.3.2
C16	Interior Circulation	Doors and Doorways	Clear opening width of at least 810	CSA 7.3.3.2
C17	Interior Circulation	Doors and Doorways	Accessible door hardware	PATH
C18	Environmental Controls	Controls	Located 380-1220 from floor, with space in front to accommodate a wheelchair.	PATH
C19	Washroom	Reinforcement	Provide appropriate structural support for grab bars in walls around toilet.	CSA 7.4.3.7
C20	Washroom	Reinforcement	Provide appropriate structural support for grab bars in walls around bathtub.	CSA 7.4.3.9
C21	Washroom	Reinforcement	Provide appropriate structural support for grab bars in walls around shower stall.	CSA 7.4.3.10
C22	Washrooms and kitchens	Usability	Kitchens and bathrooms must provide sufficient maneuvering space for wheelchair users to approach, operate most appliances and fixtures, and exit.	PATH

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