Guidelines

Residential Rental Districts Schedules Design Guidelines

Approved by Council January 26, 2022

Last amended October 17, 2023

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Background and Context

These guidelines are to be used in combination with the **Secured Rental Policy** and apply to all developments permitted by the rental Mixed-use Residential (RR-3), Apartment (RR-2) and Townhouse (RR-1) Districts Schedules of the Zoning and Development By-law.

Intent

The intent of these guidelines is to improve diversity of housing choice in neighbourhoods by supporting the development of medium-density missing middle rental housing close to transit and neighbourhood amenities.

The existing neighbourhood may consist primarily of detached houses on single lots (typically 10 m - 33 ft. or 15.2 m - 50 ft. wide) with characteristics such as regular spacing, individual front entries, and generously landscaped front yards.

As new development occurs, there will be an incremental change in the character of the streets. New mixed-use residential buildings, apartments and townhouses will be larger than most existing buildings, but can continue to reflect desirable characteristics of the neighbourhood. The intent is to create missing middle buildings that foster neighbourliness and social connection, and contribute to an evolving streetscape which accommodates more architectural variety as well as diversity of housing options.

Application

The applicable district schedule, which outlines the permitted size and type of new building, is dependent on the site location as outlined in the **Secured Rental Policy** under section *2.4 Rezoning in Low Density Transition Areas*. Generally, 4 or 6-storey mixed-use residential buildings and 5 or 6-storey apartments are permitted on arterial streets; while 4-storey apartments and townhouses are permitted on local streets within the first block adjacent to an arterial street, as illustrated in figure 1.

Figure 1: Illustration of rental building types for arterial and local streetscapes

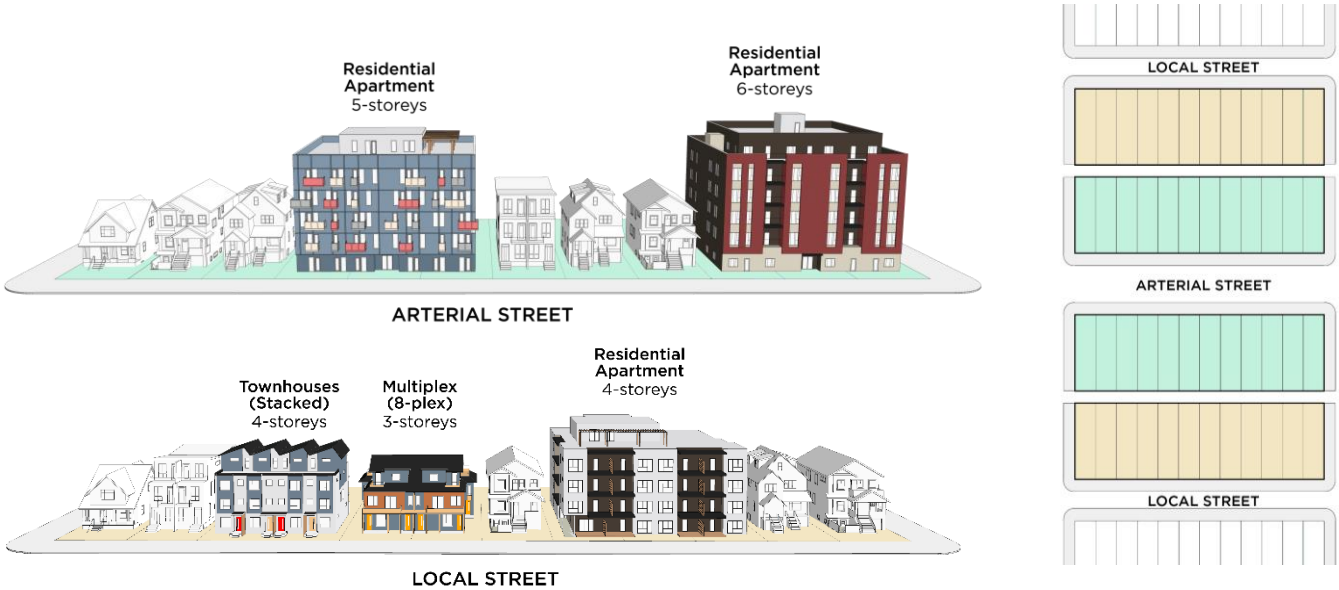


Table 1: Rental district eligibility relative to site location

Rental District		Storeys	Lot Assembly	Site Location	Guidelines Section
Mixed-Use Residential	RR-3A	4	30.1 m (99 ft.) min.	Arterial Street (2)	1.1
	RR-3B	6 (1)	30.1 m (99 ft.) min.	Arterial Street (2)	
Apartment	RR-2A	4	20.1 m (66 ft.) min. 30.1 m (99 ft.) max. (4)	Local Street (3) and Arterial Street (2)	1.2
	RR-2B	5	20.1 m (66 ft.) min.	Local Street (3) (5) Arterial Street (2)	
	RR-2C	6 (1)	30.1 m (99 ft.) min.	Arterial Street (2)	
Townhouse	RR-1	3	20.1 m (66 ft.) min. 40.2 m (132 ft.) max.	Local Street (3)	1.3
	RR-1	4	30.1 m (99 ft.) min. 40.2 m (132 ft.) max.	Local Street (3)	
	RR-1	3	Single Lot (6)	Local Street (3)	1.4

(1) 6-storey buildings are reserved for projects with below-market rents as defined in the Secured Rental Policy under section *4 Affordability*.
(2) Arterial Streets are generally streets with a bus route or as illustrated in the Secured Rental Policy eligibility map.
(3) Local Streets are non-arterial streets within the first block of an arterial street.
(4) Corner sites may be permitted an increase on the assembly (to a site frontage of 45.7 m – 150 ft.) as outlined in section 1.2 (a) of these guidelines
(5) 5-storey buildings are allowed on corner sites flanking an arterial street, if they comply with section 1.2 (i) (ii) of these guidelines.
(6) Small multiplex buildings (triplex to 8-unit townhouses).

Guidelines

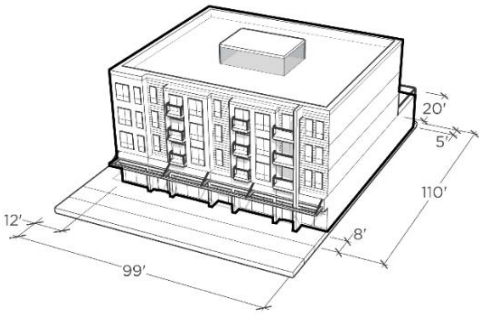
1 Building Typologies and Development Scenarios

1.1 Mixed-use Residential Building

Mixed-use residential buildings should have a simple, compact design to assist in improving the energy performance of the building envelope and to mitigate the impact of the building size (primarily depth) on adjacent sites. Residential levels will typically have a double-loaded corridor plan layout. Designs that vary from double-loaded layouts (i.e. single-loaded or courtyard designs) have benefits in terms of access to daylight and cross ventilation and may also be considered, subject to review of impact on adjacent sites. Mixed-use residential buildings should have a strong pedestrian orientation and direct adjacency to the street edge. The ground level of these buildings is intended to help create an attractive local shopping area by encouraging small scale commercial frontages, while allowing for larger scale stores (i.e. grocery stores) that fit with the neighbourhood context.

Table 2: 4-storey Mixed-use Residential Building Regulations

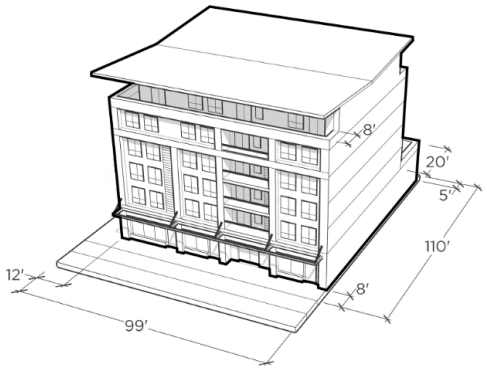
RR-3A



SITE STANDARDS	
Site Area (min.)	920 m^2 9,900 sf.
Site Frontage (min.)	30.1 m 99 ft.
Site Depth (min.)	30.5 m 100 ft.
- Shallow Site (max.)	33.5 m 110 ft.
FSR (min.)	
- Non-dwelling Uses	0.35

Table 3: 6-storey Mixed-use Residential Building Regulations

RR-3B



SITE STANDARDS	
Site Area (min.)	920 m^2 9,900 sf
Site Frontage (min.)	30.1 m 99 ft.
Site Depth (min.)	30.5 m 100 ft.
- Shallow Site (max.)	33.5 m 110 ft.
FSR (min.)	
- Non-dwelling Uses	0.35

FSR (max.)	
- Standard Site	2.4
- Corner Site	2.5 (1)
- Shallow Site	2.5 (1)
BUILDING STANDARDS	
Front Yard (min.)	2.4 m 8 ft.
Side Yard (min.)	
- Adjacent to R district	3.7 m (2) 12 ft.
- Adjacent to C or mixed-use district	0 m (3) 0 ft.
- Adjacent to Flanking St	2.4 m 8 ft.
Rear Yard (min.)	
- Ground Level Storey	1.5 m (4) 5 ft.
- Above Storeys	6.1 m 20 ft.
Height (max.)	15.2 m 50 ft.
- Storeys (max.)	4
Building Depth (max.)	24.4 m 80 ft.
Shoulder Setback (min.)	N/A

FSR (max.)	
- Standard Site	3.4
- Corner Site	3.5 (1)
- Shallow Site	3.5 (1)
BUILDING STANDARDS	
Front Yard (min.)	2.4 m 8 ft.
Side Yard (min.)	
- Adjacent to R district	3.7 m (2) 12 ft.
- Adjacent to C or mixed-use district	0 m (3) 0 ft.
- Adjacent to Flanking St	2.4 m 8 ft.
Rear Yard (min.)	
- Ground Level Storey	1.5 m (4) 5 ft.
- Above Storeys	6.1 m 20 ft.
Height (max.)	22 m 72 ft.
- Storeys (max.)	6 (5)
Building Depth (max.)	24.4 m 80 ft.
Shoulder Setback (min.)	2.4m (6) 8 ft.

(1) Discretionary FSR reserved for shallow sites (less or equal to 33.5 m - 110 ft. in depth) or corner sites.

(2) Minimum side yard setback adjacent to residential sites in an R district.

(3) Minimum side yard setback adjacent to commercial or mixed-use residential site in a C, RR-3 or CD-1 district.

(4) Minimum rear yard setback for non-dwelling uses. If dwelling uses are provided at the ground level storey the minimum rear yard setback must be 6.1 m (20 ft.).

(5) 6-storey option is reserved for projects with below market rents as defined in the Secured Rental Policy under section *4 Affordability*.

(6) Stepback to be provided on all sides of the building above the 5th storey; except for a side adjacent to commercial or mixed-use residential sites in a C, RR-3 or CD-1 district in which case no stepback is required.

(a) Application

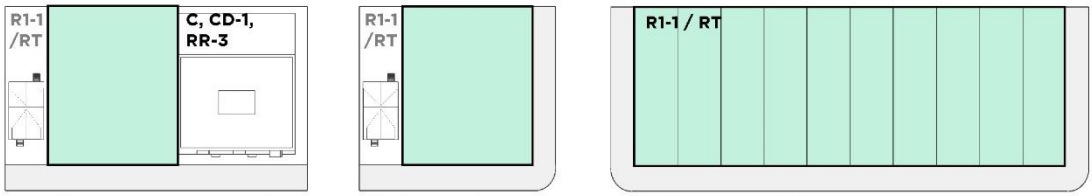
Mixed-use residential buildings will be permitted on arterial streets under the following conditions:

(i) On a site located directly adjacent to an existing commercial or mixed-use residential site in a C, RR-3 or CD-1 district;

(ii) On a corner site in an R1-1 or RT district, particularly when the corner is at an intersection where at least two other corner sites are in a C, RR-3 and/or CD-1 district; or

(iii) On a full block assembly when all R1-1 and/or RT district lots will be redeveloped as RR-3.

Figure 2: Eligible site locations for mixed-use residential buildings



(i) Adjacent to commercial or mixed-use site (ii) Corner sites (iii) Block assemblies

(b) Assembly

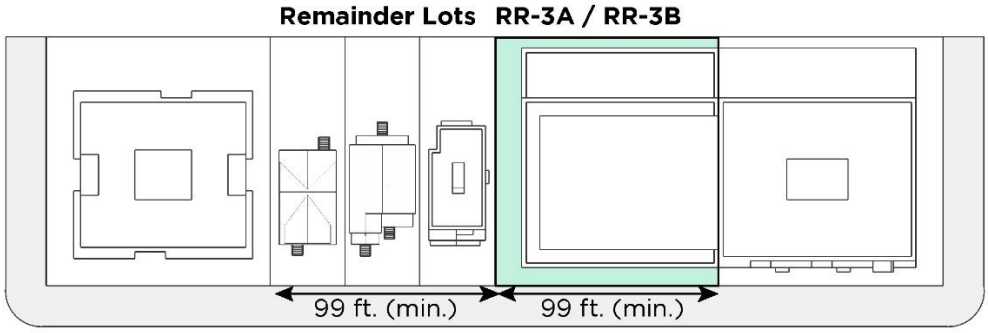
4 to 6-storey mixed-use residential buildings require a minimum site frontage of 30.1 m (99 ft.) which typically means assembly of three standard 10 m (33 ft.) wide lots or two standard 15.2 m (50 ft.) wide lots.

There is no limit on assembly (i.e. no maximum site frontage) recognizing that arterial streets are suitable for the development of medium-density mixed-use residential buildings. For large assemblies, the architectural design should mitigate the appearance of a long, monotonous building.

(c) Remainder Lots

On arterial streets, assemblies should ensure that adjacent lots within the block are able to meet the minimum site frontage of 30.1 m (99 ft.) required for redevelopment. In most neighbourhoods, this means that at least three standard 10 m (33 ft.) wide lots must remain side-by-side.

Figure 3: Minimum assembly and remainder frontage requirements for mixed-use residential buildings



Arterial Street

(d) Front and Side Yard and Setback

The front yard setback requirement is intended to be secured as at-grade statutory right of way (SRW), for sidewalk improvement and widening. The front yard will establish a comfortable pedestrian realm and accommodate an enhanced sidewalk width that fosters social interaction.

For mixed-use residential buildings, the following side yard requirements apply:

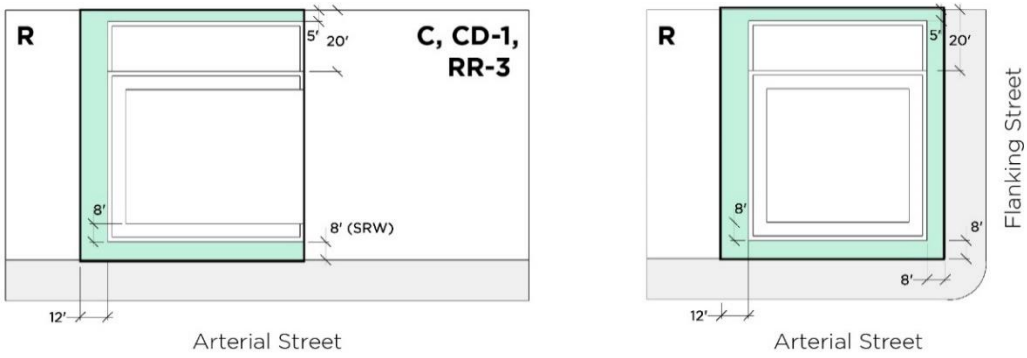
(i) A minimum 3.7 m (12 ft.) side yard should be provided adjacent to residential sites in an R district.

(ii) No side yard is required adjacent to commercial or mixed-use residential sites in C, RR-3 or CD-1 districts.

(iii) On corner sites, a minimum 2.4 m (8 ft.) exterior side yard should be provided adjacent to a flanking street.

For 6-storey mixed-use residential buildings a minimum 2.4 m (8 ft.) setback is required above the fifth storey on all sides, except that when a side adjoins a commercial or mixed-use residential site, no setback is required along that building face.

Figure 4: Required yard and shoulder setbacks for mixed-use residential buildings



(e) Access

(i) Pedestrian access to commercial uses should be level with the adjacent sidewalk. This may require stepping the commercial units to match the street elevation on sites with sloping topography.

(ii) Residential entries should be separate, easily identifiable and architecturally distinct from retail or office entries or lobbies. On corner sites, side street residential entries should be provided.

(iii) Vehicular access to parking, loading and service areas should be provided from the lane. Negative impacts of vehicular access and service areas should be minimized through treatments such as enclosure, screening, high quality finishes, sensitive lighting, and landscaping.

(f) Weather Protection

(i) The ground floor elevation facing the street should include a continuous, architecturally integrated weather protection and signage system.

(ii) Weather protection and signage systems may be composed of glass and steel, canvas or vinyl, but should be designed as part of the building and function principally as weather protection.

(iii) Weather protection should be provided for common entrances, and for exterior residential entrances.

(iv) Weather protection should be located within 3.0 m (10 ft.) of the level it serves to ensure effective protection.

(g) Open Space

(i) The rear yard is intended to provide space for landscaping, lane improvements and beautification, and to facilitate possible commercial patio opportunities.

(ii) Landscaping elements such as trellis, planters and pergolas may protrude into the rear yard when these contribute to the activation of the lane.

(iii) Useable private open space such as balconies and private terraces should generally be provided for each dwelling unit, particularly for family-size units (2 or more bedrooms).

(h) External Design

(i) When party walls are likely to remain exposed because of adjacent low-scale development, these should be carefully designed emphasizing quality materials, textures, articulation, colour and/or landscaped with climbing or hanging plants.

(ii) Ground floor levels should enhance the pedestrian experience by maximizing transparency (e.g. display windows), employing high quality materials and more intensive detailing. Translucent or opaque filming of storefront glazing is highly discouraged.

(i) Development Scenarios

(i) Standard Mid-block

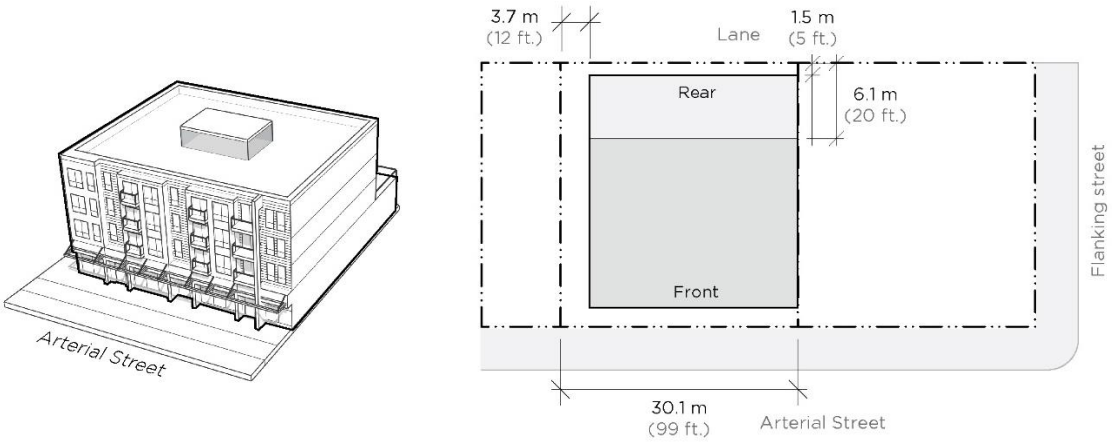
Mid-block sites will typically accommodate a single building with commercial uses at the ground level and residential uses on levels above.

A discretionary increase in floor space ratio may be considered for shallow sites (less or equal to 33.5 m - 110 ft. in depth) as outlined in the tables 2 and 3 in section 1.1 of these guidelines. Sites that are required to provide statutory right of ways (exceeding 8 ft.) or land dedications may not be able to attain this higher density.

Residential use at grade along the rear may be considered. Impacts on unit livability caused by vehicular accesses, parking, loading, garbage collection and service areas should be mitigated.

Commercial uses on the second storey may also be considered.

Figure 5: Illustration of a Mid-block Mixed-use residential development



(ii) Corner Site

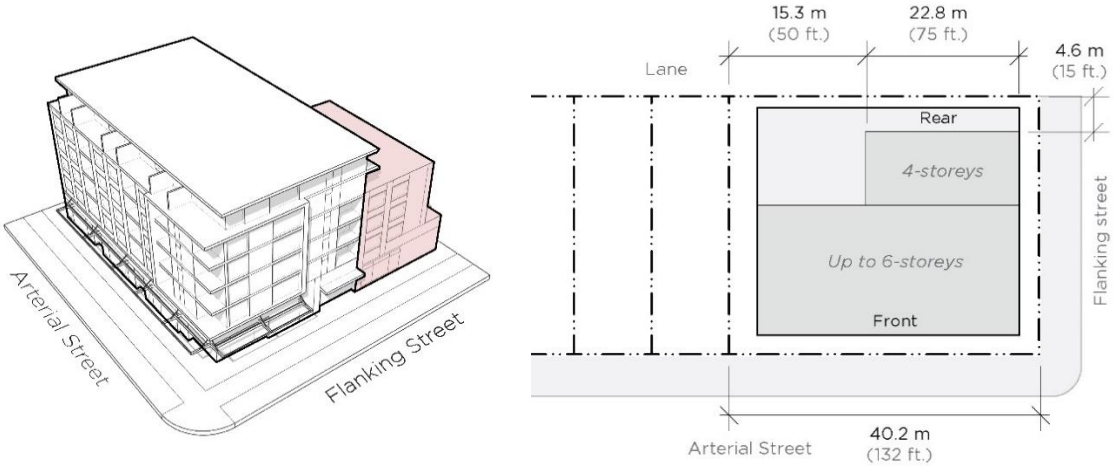
On corner sites, both street-facing façades should be fully developed as front elevations. At-grade commercial use should wrap the corner to create continuation of pedestrian scale and interest, and may be in combination with residential uses.

On corner sites, a building extension (wing) may be permitted along the flanking street up to the fourth storey. This will provide a massing transition to sites to the rear which are eligible for 4-storey apartments under the Secured Rental Policy.

The wing will create a sense of enclosure to the street wall along the flanking street, provide additional opportunities for shops, services and pedestrian interest wrapping the corner, and provide acoustic protection for open spaces oriented towards the lane.

The wing must be located at least 15.3 m (50 ft.) from an adjoining site and must not be wider than 22.8 m (75 ft.). This opportunity is generally limited to sites with a minimum frontage of 40.2 m (132 ft.) along the arterial street and a minimum site area of 1,470 m^2 (15,820 sq. ft.). A minimum 4.6 m (15 ft.) setback from the ultimate rear property line should be provided along the entire elevation of the wing.

Figure 6: Illustration of a corner site Mixed-use residential development with wing extension



A discretionary increase in floor space ratio, as outlined in the tables 2 and 3 in section 1.1 of these guidelines, may be considered for corner sites that achieve a wing extension.

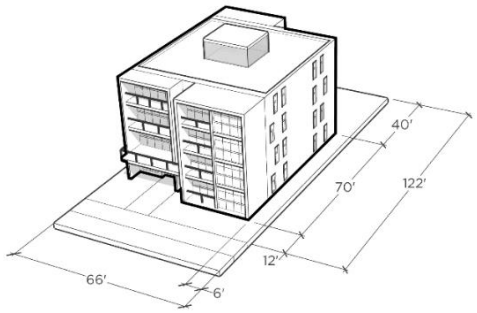
Sites with smaller frontages or site areas than those specified above may not be able to attain this higher density.

1.2 Apartments

Apartments should have a simple, compact design to assist in improving the energy performance of the building envelope and to mitigate the impact of the building size (primarily depth) on adjacent sites. Apartments will typically have a double-loaded corridor plan layout. Designs that vary from double-loaded layouts (i.e. single-loaded or courtyard designs) have benefits in terms of access to daylight and cross ventilation and may also be considered, subject to review of impact on adjacent sites. 4-storey apartment buildings will introduce incremental change to local streets and will typically be limited in frontage width to achieve a higher degree of compatibility with the existing streetscape. 5 and 6-storey apartment buildings will introduce a higher degree of change to arterial streets in response to the greater width and function of the street.

Table 4: 4-storey Apartment Regulations

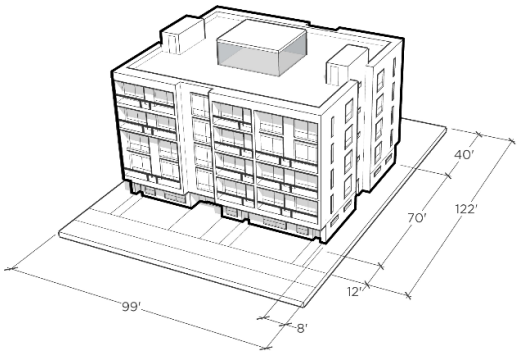
RR-2A



LOT STANDARDS	
Site Area (min.)	613 m^2 6,600 sf.
Site Frontage (min.)	20.1 m 66 ft.
Site Frontage (max.)	30.5 m 100 ft.
- Corner Site	45.7 m 150 ft.
Site Depth (min.)	30.5 m 100 ft.
- Shallow Site (max.)	33.5 m 110 ft.
FSR (max.)	
- Mid-block Site	1.75
- Corner Site	2.0 (1)
- Shallow Site	2.0 (1)
BUILDING STANDARDS	
Front Yard (min.)	3.7 m

Table 5: 5-storey Apartment Regulations

RR-2B



LOT STANDARDS	
Site Area (min.)	613 m^2 6,600 sf.
Site Frontage (min.)	20.1 m 66 ft.
Site Frontage (max.)	N/A
Site Depth (min.)	30.5 m 100 ft.
- Shallow Site (max.)	33.5 m 110 ft.
FSR (max.)	
- Mid-block Site	2.2 (1)
- Corner Site	2.4 (1)
- Shallow Site	2.4 (1)
BUILDING STANDARDS	
Front Yard (min.)	3.7 m 12 ft.
Side Yard (min.)	2.4 m 8 ft.

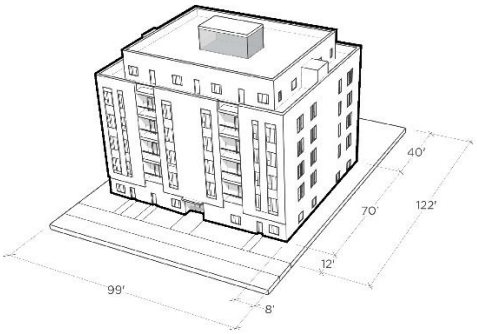
	12 ft.
Side Yard (min.)	1.8 m 6 ft.
Rear Yard (min.)	7.6 m 25 ft.
Height (max.)	13.7 m 45 ft.
- Storeys	4
Building Depth (max.)	22.8 m 75 ft. (2)

Rear Yard (min.)	7.6 m 25 ft.
Height (max.)	16.8 m 55 ft.
- Storeys	5
Building Depth (max.)	22.8 m 75 ft. (2)
Building Width (max.)	45.7 m 150 ft.

(1) Discretionary FSR reserved for shallow sites (less or equal to 33.5 m - 110 ft. in depth) or corner sites.
(2) Maximum average building depth is 21.3 m (70 ft.), and the building at no point must exceed 22.8 m (75 ft.).

Table 6: 6-storey Apartment Regulations

RR-2C



(1) Discretionary FSR reserved for social housing projects on mid-block sites.
(2) Discretionary FSR reserved for shallow sites (less or equal to 33.5 m - 110 ft. in depth) or corner sites.
(3) Discretionary FSR reserved for social housing projects on corner sites.
(4) Maximum average building depth is 21.3 m (70 ft), and the building at no point must exceed 22.8 m (75 ft.).
(5) 6-storey option is reserved for projects with below market rents as defined in the Secured Rental Policy under section *4 Affordability*.
(6) Stepback to be provided on all sides of the building above the 5th storey; except for social housing projects for which no stepback is required.

LOT STANDARDS	
Site Area (min.)	920 m^2 9,900 sf.
Site Frontage (min.)	30.1 m 99 ft.
(max.)	N/A
Site Depth (min.)	30.5 m 100 ft.
FSR (max.)	
- Mid-block Site	2.4
▪ Social Housing	2.7 (1)
- Corner Site	2.7 (2)
▪ Social Housing	3.0 (3)
- Shallow Site	2.7 (2)
BUILDING STANDARDS	
Front Yard (min.)	3.7 m 12 ft.
Side Yard (min.)	2.4 m 8 ft.

Rear Yard (min.)	7.6 m 25 ft.
Height (max.)	19.8 m 65 ft.
- Storeys	6
Building Depth (max.)	22.8 m 75 ft. (5)
Building Width (max.)	45.7 m 150 ft.
Shoulder Stepback (min.)	2.4 m 8 ft. (6)

(a) Assembly

4-storey apartments: a minimum site frontage of 66 ft. is required, which typically means assembly of at least two standard 10 m (33 ft.) wide lots.

There is a limit on assembly (a maximum site frontage of 30.5 m - 100 ft.) for 4-storey apartments on local streets in order to encourage an incremental growth pattern and a variety of smaller developments. In most neighbourhoods, this will limit assembly to three standard 10 m (33 ft.) wide lots or two standard 15.2 m (50 ft.) wide lots.

Corner sites may be permitted an increase on the assembly (a maximum site frontage of 45.7 m – 150 ft.) to enable a building extension along the flanking street as outlined in section 1.2 (i) (ii) of these guidelines.

5-storey apartments: a minimum site frontage of 20.1 m (66 ft.) is required, which typically means assembly of two standard 10 m (33 ft.) wide lots.

6-storey apartments: a minimum site frontage of 30.1 (99 ft.) is required, which typically means assembly of three standard 10 m (33 ft.) wide lots or two standard 15.2 m (50 ft.) wide lots.

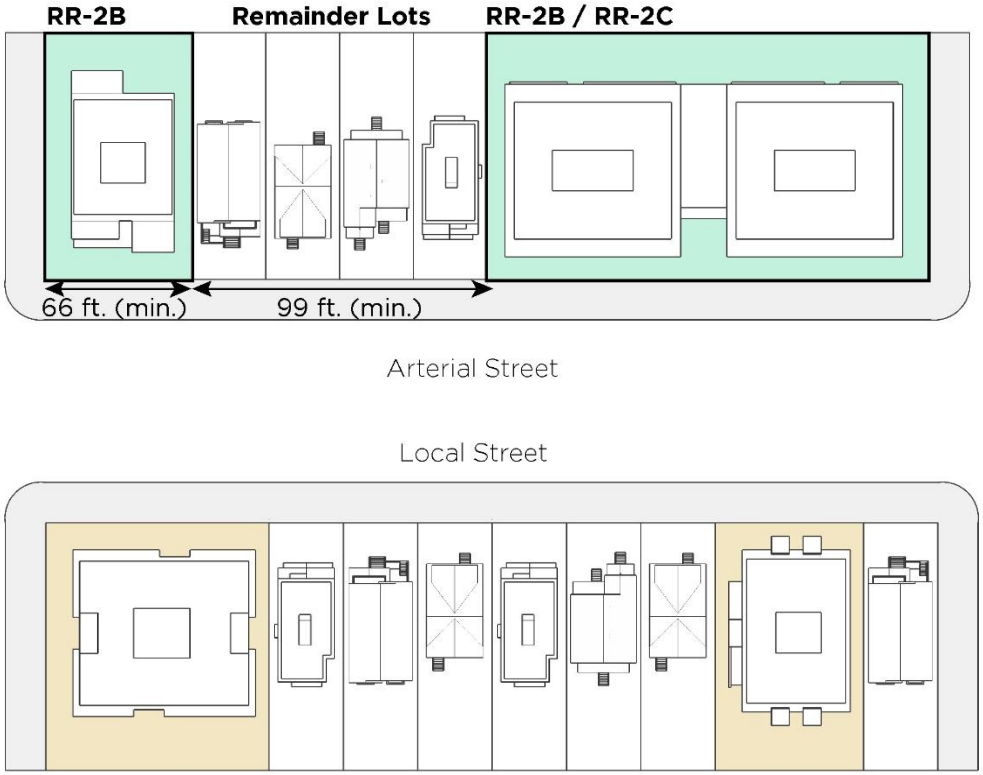
There is no limit on assembly (i.e. no maximum site frontage) for 5 or 6-storey apartments recognizing that arterial streets are suited to the development of medium-density residential apartments. For large assemblies, more than one building is encouraged, located side-by-side with generous spacing; a single building may be permitted if the architectural design mitigates the apparent width as outlined in section 1.2 (i) (iv) of these guidelines.

(b) Remainder Lots

Arterial Streets: assemblies for 5 or 6-storey residential apartments should ensure that adjacent lots are able to meet a minimum site frontage of 30.1 m (99 ft.). In most neighbourhoods, this means that at least three 10 m (33 ft.) wide lots must remain side-by-side.

Local Streets: there is no requirement to maintain a minimum site frontage of 20.1 m (66 ft.) to enable apartments or townhouses. Options for single lot development in the form of multiplexes (triplexes to 8-unit townhouses) are provided in section 1.4 of these guidelines.

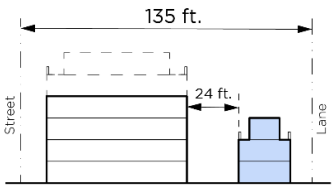
Figure 7: Minimum assembly and remainder frontage requirements for apartments

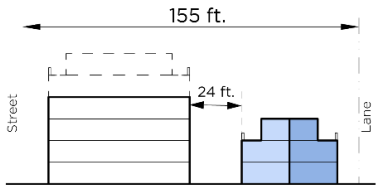
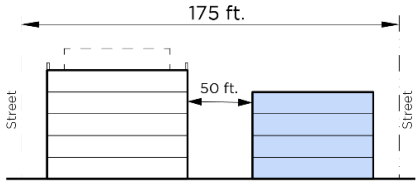


(c) Site Depth

A minimum site depth of 30.5 m (100 ft.) is required for apartment buildings. A second principle building may be permitted at the rear of a site, in a courtyard configuration, if the site depth is equal or grater to 41.1 m (135 ft.). The rear building may be in the form of a row of townhouses, back-to-back townhouses or a 4-storey apartment building relative to the depth of the site as per table 7 below and section 1.2 (i) (iii) of these guidelines.

Table 7: Development scenarios relative to site depth

Site Depth	Rear of the site adjoins a	Development Scenario: front building; and rear building	Illustration of courtyard development scenario and minimum courtyard depth
Less than 41.1 m (135 ft.)	Lane or Street	Apartment (single principle building)	N/A
Greater or equal to 41.1 m (135 ft.), and up to 47.2 m (155 ft.)	Lane or Street	Apartment; and 3-storey [1] row townhouses	

Greater or equal to 47.2 m (155 ft.)	Lane or Street	Apartment; and 3-storey [(1)] back to back townhouses	
Greater or equal to 53.3 m (175 ft.)	Street (double fronting)	Apartment; and 4-storey apartment	

(1) The 3rd storey must be a partial storey not exceeding 60% of the storey immediately below.

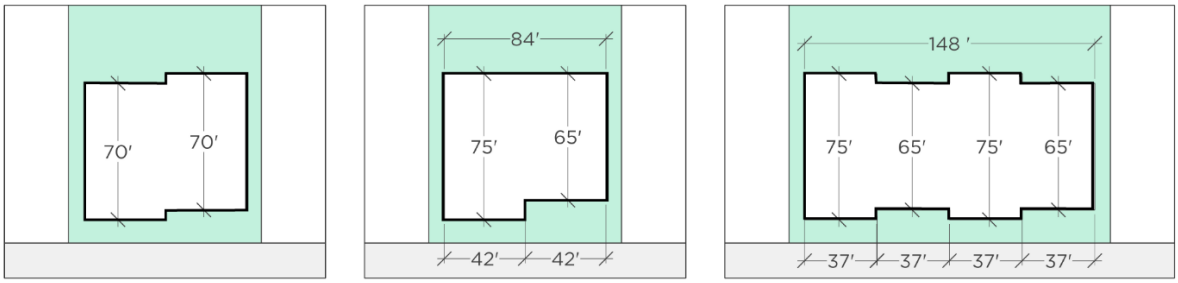
(d) Building Width

Apartment buildings on arterial streets should have a width no greater than 45.7 m (150 ft.). Limiting the building width improves compatibility with adjacent lower-scale buildings, increases permeability, and allows for better cross-ventilation and access to natural light. For larger assemblies more than one building can be permitted on a side-by-side configuration as outlined in section 1.2 (i) (iv) of these guidelines.

(e) Building Depth

For all apartments, the maximum average building depth generally should not be greater than 21.3 m (70 ft.) and the building at no point must exceed 22.8 m (75 ft.) in depth. Limiting the building depth improves livability of units by allowing greater access to natural light. The combination of a building depth average and a maximum building depth allows some flexibility for introducing variation in the architectural expression of buildings as illustrated in figure 8.

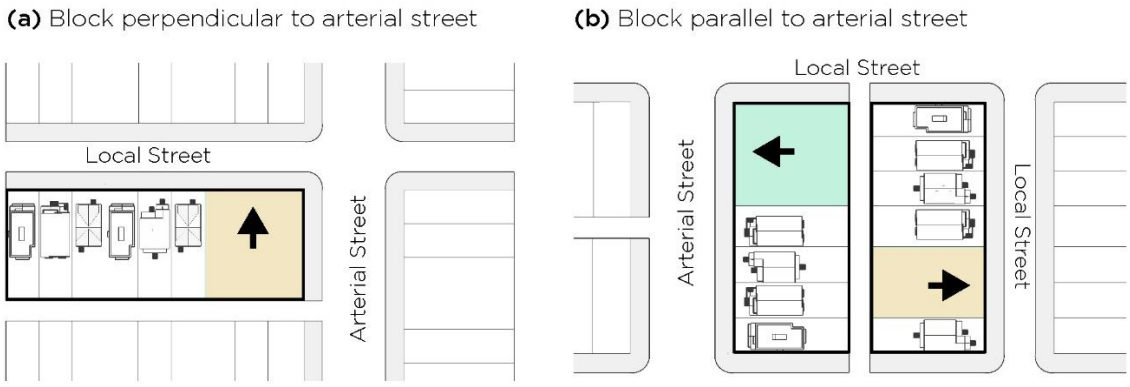
Figure 8: Illustrations of average depth requirement for apartments



(f) Building Orientation

Apartment buildings should generally be oriented as to follow the existing pattern of development in a block, with main entrances facing a street. On blocks that run perpendicular to an arterial street, apartments should include a main frontage towards the local street, including corner sites as illustrated in figure 9.

Figure 9: Apartment building orientation relative to block orientation



(g) Access

(i) Apartment buildings should provide an architecturally prominent main entrance, easily identifiable from the street and including features such as a canopy, a generous glazed lobby and seating.

(ii) Individual dwelling units should be accessed from the main entrance through interior corridors leading to individual unit entrances.

(iii) On corner sites, building entrances should be located facing both streets where possible.

(iv) Fire-fighter access to units in an apartment will be from the main residential entry.

(v) An accessible path of travel from the sidewalk to unit entries and all common spaces for persons with limited mobility should be provided; dwelling units to meet Vancouver Building By-Law's adaptable dwelling unit standards.

(vi) Ground floor units should include entry doors facing the street (in addition to unit entries from the interior corridor) to support activation of residential street life. These should read as secondary in prominence to the main entrance.

(i) For courtyard configurations, ground floor units should have entrances oriented to the internal courtyard. The civic address and fire fighter access for the primary unit entrance is required to be accessed from a path from the street; typically 1.2 m in width and 45 m in length for travel distance. Entry paths should not exceed a 5% slope and discrete lighting should be provided.

(h) Open Space

(i) Visually open, landscaped front yards with semi-private patio spaces should be provided for ground floor units facing the street.

(ii) Common outdoor space in combination with an indoor amenity room is encouraged to be located at the rooftop where practical.

(iii) Private outdoor space should be provided through patios for ground floor units or balconies for upper units. An exception to individual private balconies can be made for studio and one-bedroom units where generous common outdoor space is provided, as outlined in section 6.3 (b) (ii) of these guidelines.

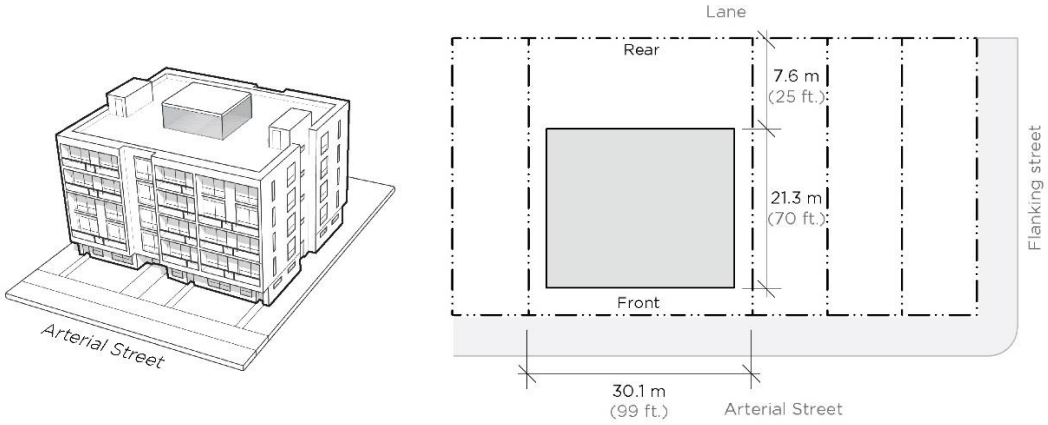
(i) Development Scenarios

(i) Standard Mid-block Site

Mid-block sites with a depth less than 41.1 m (135 ft.) will typically accommodate a single principal building with a double-loaded corridor arrangement.

A discretionary increase in floor space ratio may be considered for shallow sites (less or equal to 33.5 m - 110 ft. in depth) as outlined in the tables 4, 5 and 6 in section 1.2 of these guidelines. Sites that are required to provide dedications of land or statutory right of ways may not be able to attain this higher density.

Figure 10: Illustration of a mid-block apartment



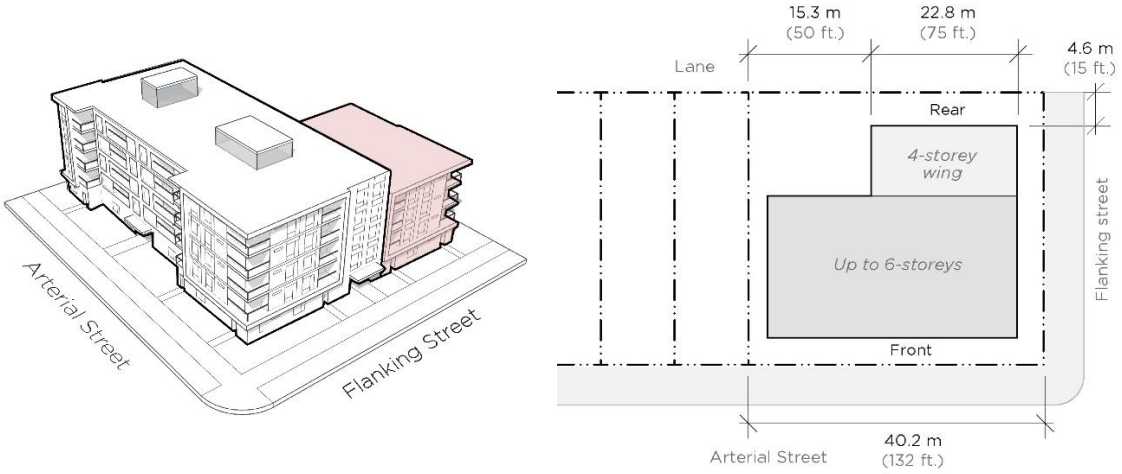
(ii) Corner Site

On corner sites, unit entries should be located facing both streets. The primary façade and building entrance should be oriented to the primary street. All elevations which face a street should be fully designed and detailed as a front.

On corner sites, a building extension (wing) may be permitted along the flanking street up to the 4th storey. On arterial fronting sites the wing will provide a massing transition to sites to the rear which are eligible for 4-storey apartments under the Secured Rental Policy. The 4-storey wing will create a sense of enclosure along the flanking street and provide acoustic protection and privacy for open spaces oriented towards the lane.

The wing must be located at least 15.3 m (50 ft.) from an adjoining site and at no point must be wider than 22.8 m (75 ft.). This opportunity is generally limited to sites with a minimum site area of 1,470 m^2 (15,820 sq. ft.), and a minimum site frontage of 40.2 m (132 ft.) along an arterial street (in the RR-2B and RR-2C districts) or a local street (in the RR-2A district). This allows sufficient open space to be provided at grade and preserves the livability of units in the wing. A minimum 4.6 m (15 ft.) setback from the ultimate rear property line should be provided along the entire rear elevation of the wing.

Figure 11: Illustration of a corner site apartment with a wing extension



A discretionary increase in floor space ratio, as outlined in tables 4, 5 and 6, may be considered for corner sites able to achieve a wing extension. Sites with smaller frontages or shallower depths (less than 36.5m - 120 ft.) may not be able to attain this higher density.

Flanking corner sites on a block that runs perpendicular to an arterial street, as illustrated in figure 12, may develop a 5-storey apartment building along the arterial street if a wing extension provides a transition down to 4-storeys along the local street. The minimum frontage requirement for a wing, as described above, should be applied along the local street for these sites. The maximum density for these developments should not exceed 2.2 FSR, equivalent to the dendsity of a mid-block site in the RR-2B district.

Figure 12: Flanking corner site. Eligible for 5-storey apartment with a wing extension along the local street

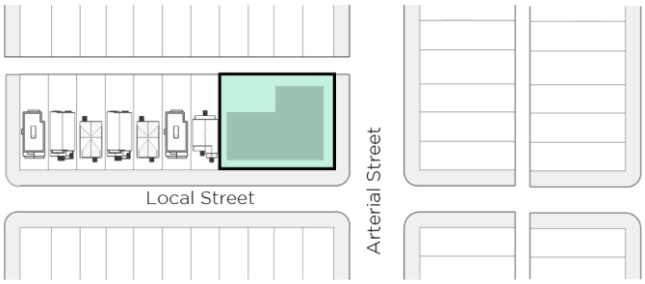
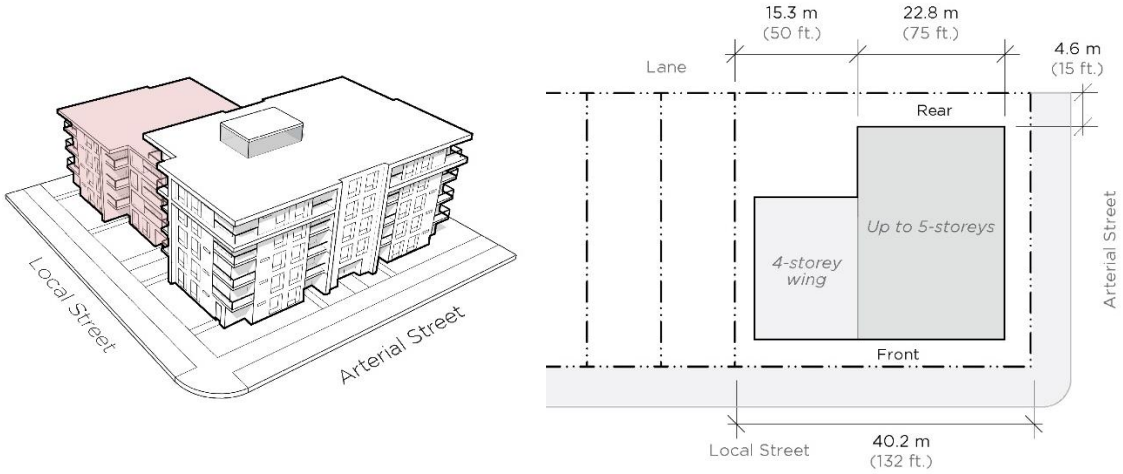


Figure 13: Illustration of a flanking corner site apartment with a wing extension



(iii) Courtyard

On sites with a depth greater or equal to 41.1 m (135 ft.), a second building may be permitted in a courtyard configuration as outlined in table 7 of these guidelines. The second building should be located at the rear of the site, parallel to a lane or street (double fronting). The rear building should generally have a depth no less than 60.1 m (20 ft.). The building at the rear of the site may be a 3-storey townhouse if adjoining a lane, or 4-storey apartment if adjoining a street on a double-fronting site with a depth greater than 53.3 m (175 ft.).

A central courtyard adequately sized to enable light and ventilation to units on either side should be provided between the buildings. For sites with a 3-storey townhouse at the rear, the courtyard should have a minimum clear width of 7.3 m (24 ft.); when building elements such as entrance porches, balconies or landing/steps project within the courtyard space, the minimum clear width should be increased to 9.1 m (30 ft.). For double fronting sites with a 4-storey apartment at the rear, the minimum clear width of the courtyard should be increased to 15.2 m (50 ft.); building elements may project within this increased courtyard space.

For courtyard configurations, a minimum rear yard of 3.1 m (10 ft.) should be provided; except that on double-fronting sites the rear yard should be treated as a front yard with an increased setback of 3.7m (12 ft.). Fire fighter access to the building at the rear of the site must be from a street, not the lane.

Figure 14: Illustration of a courtyard apartment with townhouses at the rear

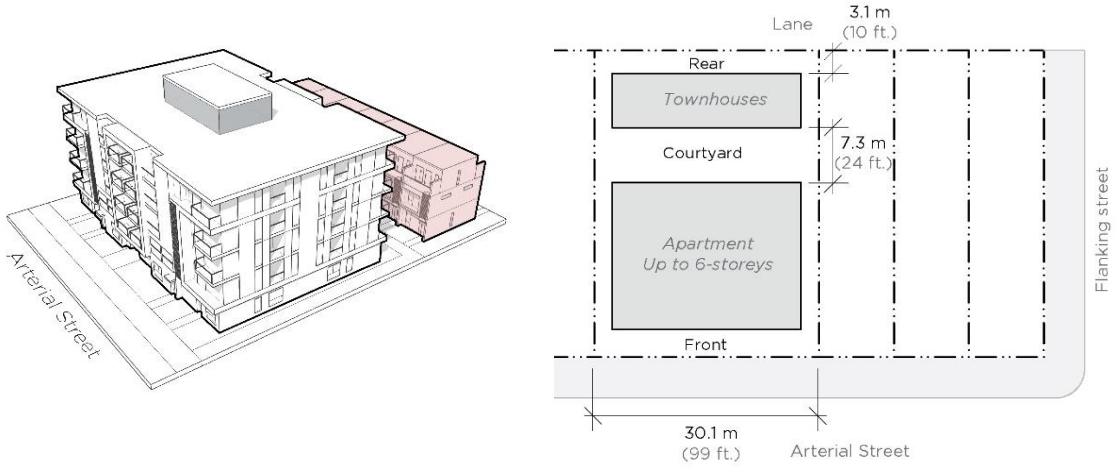
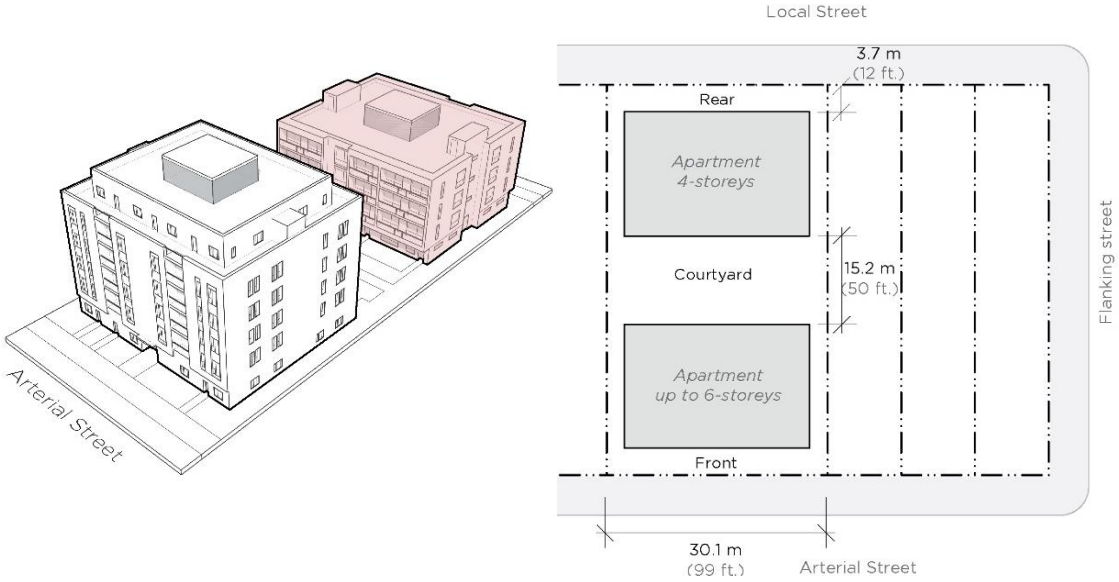


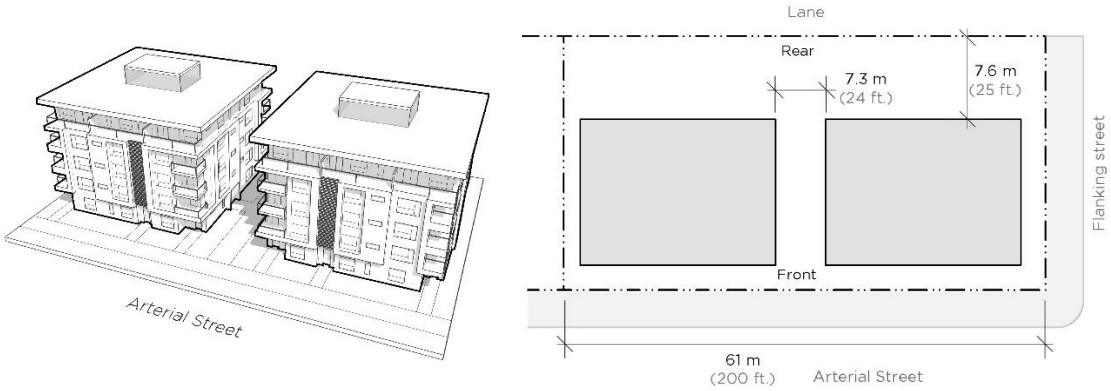
Figure 15: Illustration of a courtyard apartment with a 4-storey apartment at the rear, on a double-fronting site



(iv) Large Assembly

Assemblies with a total site frontage greater than 45.7 m (150 ft.) are only permitted along arterial streets. The maximum building width would require that more than one building be provided on a side-by-side arrangement for these large assemblies. A minimum 7.3 m (24 ft.) spacing between buildings is required, to create opportunities for open space and maximize solar access and cross-ventilation.

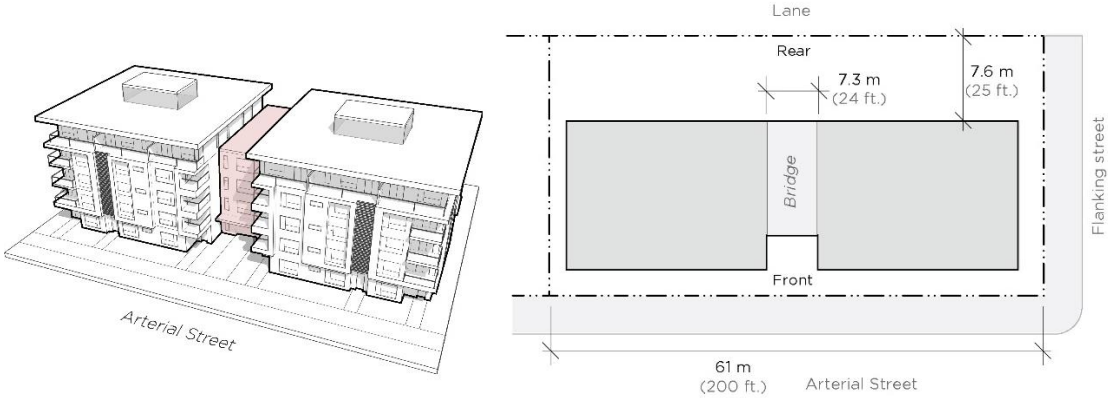
Figure 16: Illustration of a large assembly with multiple apartment buildings



A single building may be considered on assemblies with a total site frontage less than 73.1 m (240 ft.) if a bridge element with a minimum width of 7.3 m (24 ft.) is included. This would provide sufficient vertical articulation to suggest the appearance of two distinct building forms to avoid a long, monotonous front elevation.

The bridge element should be setback from the main front elevation on all storeys, creating an inset entry courtyard, and it should be at a lower height or have a material treatment which is visually lighter and secondary to the main building form. The entry courtyard should have a depth lesser than its width to prevent limited access to sunlight and amplification of street noise.

Figure 17: Illustration of a large assembly with a single apartment building with a bridge element



(v) Large Assembly on Deep Site

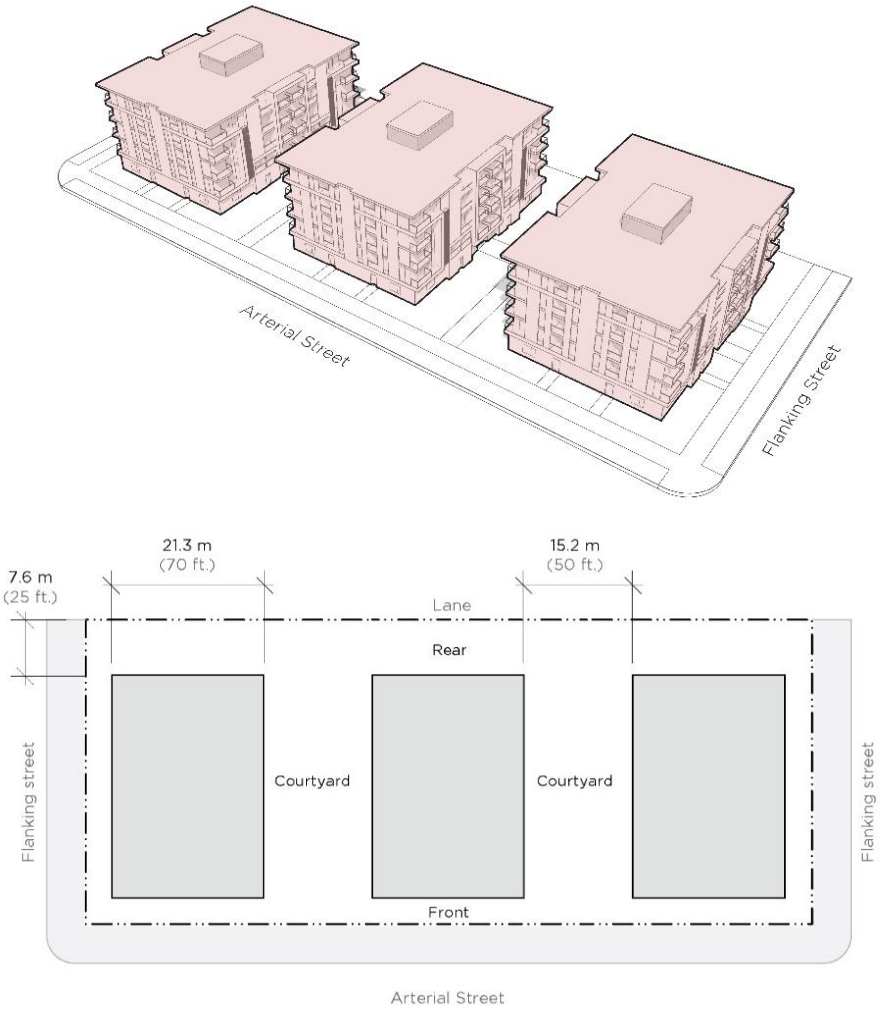
In unique circumstances, buildings may be reoriented so that the longest frontage runs parallel to the side property line, if the site depth is greater or equal to 42.7 m (140 ft.). This opportunity is generally limited to entire block assemblies since these do not have an immediate adjacency to a neighbouring property, and have a lane or street separation to other properties.

Central courtyards with a minimum clear width of 15.2 m (50 ft.) should be provided between buildings, to enable sufficient light and ventilation to units on either side.

Access to main entrances would generally be from the courtyard via a clearly identifiable path connecting to the street. Ground floor units should include Individual entrances (in addition to entries from the interior corridor) in order to activate the street life.

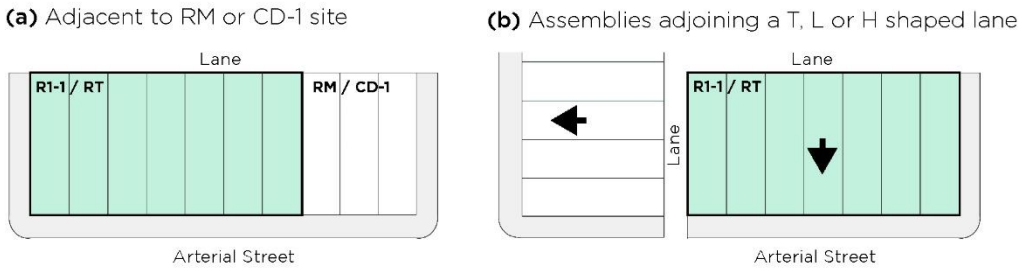
A minimum rear yard of 7.6 m (25 ft.) should be provided to create a generous transition to the properties across the lane. Maximum building depth requirements must be applied to the building frontage running parallel to the arterial street in this arrangement.

Figure 18: Illustration of an entire block assembly with reoriented apartment buildings



Reoriented apartment buildings may also be considered on partial assemblies if remaining lots are in a residential multiple dwelling district (RM or CD-1), and the internal side yard depth is increased to a minimum of 6.1 m (20 ft.); or if the assembly adjoins a T, L or H shaped lane where properties across the lane are oriented towards the flanking street.

Figure 19: Other sites where re-orientation of apartment buildings may be possible

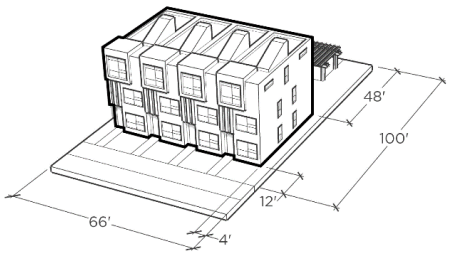


1.3 Townhouses

Townhouses should be located along local streets to better suit their ground oriented form. Townhouses should have individual entrances to each dwelling from the exterior of the building, and will typically have direct access to the front and the rear of the site. Townhouses should have a clear architectural identity for individual dwelling units as viewed from the street, courtyard, or rear yard, through elements such as individual entrance porches and patios. Townhouse buildings may be arranged in single rows or courtyard configurations, with units located side-by-side, back-to-back or stacked as outlined in section 1.3 (e) of these guidelines.

Table 8: 3-storey Townhouse Regulations

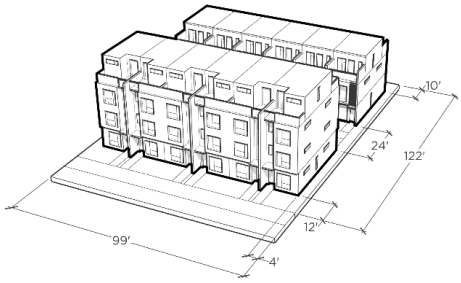
RR-1 (more than 8 units)



LOT STANDARDS	
Site Area (min.)	613 m² 6,600 sf.
(max.)	1,500 m² 16,150 sf.
Frontage (min.)	20.1 m 66 ft.
(max.)	40.2 m 132 ft.
FSR (max.)	1.2

Table 9: 4-storey Townhouse Regulations

RR-1 (more than 8 units)



LOT STANDARDS	
Site Area (min.)	920 m² 9,900 sf.
(max.)	1,500 m² 16,150 sf.
Frontage (min.)	30.1 m 99 ft.
(max.)	40.2 m 132 ft.
FSR (max.)	1.45

BUILDING STANDARDS	
Front Yard (min.)	3.7 m 12 ft.
Side Yard (min.)	1.2 m 4 ft.
Rear Yard (min.)	3.1 m 10 ft.
Height (max.)	
- Front building	11.5 m 38 ft.
▪ Storeys	3
- Rear building	10.7 m 35 ft.
▪ Storeys	3 (1)

BUILDING STANDARDS	
Front Yard (min.)	3.7 m 12 ft.
Side Yard (min.)	1.2 m 4 ft.
Rear Yard (min.)	3.1 m 10 ft.
Height (max.)	
- Front building	13.7 m 45 ft.
▪ Storeys	4 (2)
- Rear building	10.7 m 35 ft.
▪ Storeys	3 (1)

(1) 3rd storey must be a partial storey not exceeding 60% of the storey immediately below.

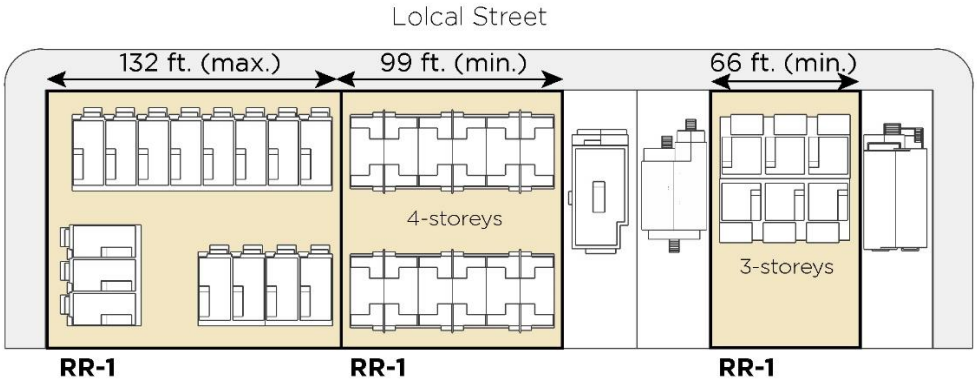
(2) 4th storey must be a partial storey not exceeding 60% of the storey immediately below.

(a) Assembly

3-storey townhouses require a minimum site frontage of 20.1 m (66 ft.) which typically means assembly of at least two standard 10 m (33 ft.) wide lots. 4-storey townhouses will require a minimum site frontage of 30.1 m (99 ft.) which typically means assembly of at least 3 standard 10 m (33 ft.) wide lots or two standard 15.2 m (50 ft.) wide lots.

There is a limit on assembly (a maximum site frontage of 40.2 m - 132 ft.) for townhouses. In most neighbourhoods, this will limit assembly to four 10 m (33 ft.) wide lots.

Figure 20: Minimum assembly requirements for townhouses



(b) Access

(i) Each unit should have an exterior entrance with access to grade. This access will typically be direct, but some units may share exterior passageways to access grade.

(ii) Shared exterior passageways and landings may also be provided to limit the extent of individual exterior landing and stair projections in courtyards; when combined with an

elevator, this type of arrangement can also provide improved accessibility for persons with limited mobility to upper units.

(iii) Unit entrances may face a street, courtyard or lane. Ground floor unit entrances should be level with the sidewalk or courtyard for improved accessibility.

(iv) For courtyard configurations, ground floor units should have entrances oriented to the internal courtyard. The civic address and fire fighter access for the primary unit entrance is required to be accessed from a path from the street; typically 1.2 m in width and 45 m in length for travel distance. Entry paths should not exceed a 5% slope and discrete lighting should be provided.

(v) The primary entrance for units in rear buildings will be from the courtyard. A secondary entrance oriented to the lane is encouraged to activate the lane interface

(vi) On corner sites, building fronts and entrances should be located facing both streets and both street-facing elevations should be fully designed and detailed.

(c) Open Space

(i) Units should provide access to private outdoor space at grade or on the roof top.

(ii) Visually open, landscaped front yards with semi-private patio spaces should be provided for units fronting onto a street.

(iii) Courtyard spaces will serve as the main entrance for some or all units located at the rear of the site. These spaces should be carefully designed and prove common outdoor space.

(d) Site Design

(i) Rows of units may be broken up into more than one building with a minimum spacing of 3.0 m (10 ft.) between buildings.

(ii) Buildings should not exceed 26 m (85 ft.) in width.

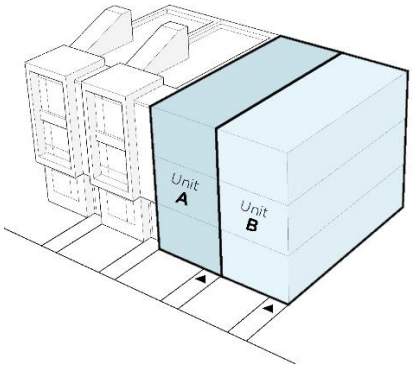
(iii) Individual units should have a width not less than 3.7 m (12 ft.), and the width of major living spaces (i.e. living and dining room) should not be less than 4.2 m (14 ft.). Width of a unit is a clear interior dimension and does not include walls.

(e) Development Scenarios

(i) Rowhouse

Units are located side-by-side. Each unit occupies and has internal access to every storey. Each unit has an entrance at grade to the front and to the rear of the site. For sites with large frontages the row may be broken up into more than one building.

Figure 21: Illustration of townhouse units in a side-by-side arrangement

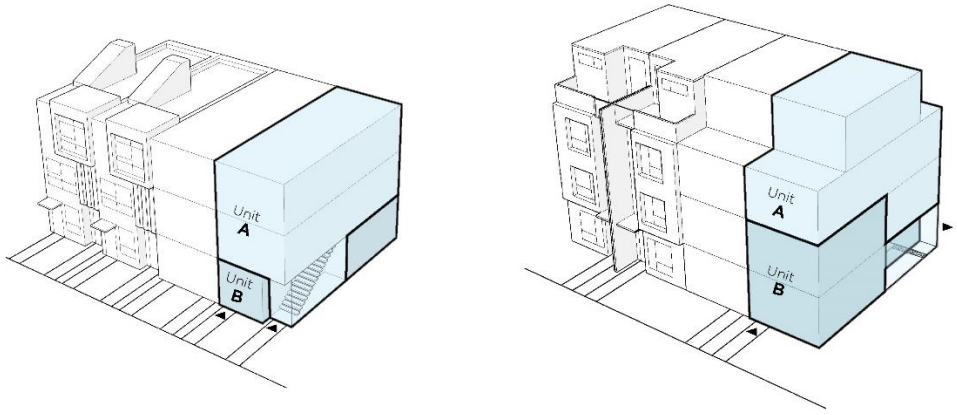


(ii) Stacked

Units are stacked on top of each other. Upper units may have some internal access to the lowest storey, typically limited to stairs or small foyer; while lower units have no access to upper storeys or rooftop. Access to upper units may be achieved through internal and external stairs. Some units may only have direct access to the front or rear of the site.

Stacked townhouse arrangements typically include: three units located on top of each other (flats), a two or three-storey unit stacked on top of a ground level unit, or a two-storey unit stacked on top of a two–storey unit (interlocked). Other configurations may be considered.

Figure 22: Illustration of townhouse units in a stacked arrangement



(iii) Back-to-back

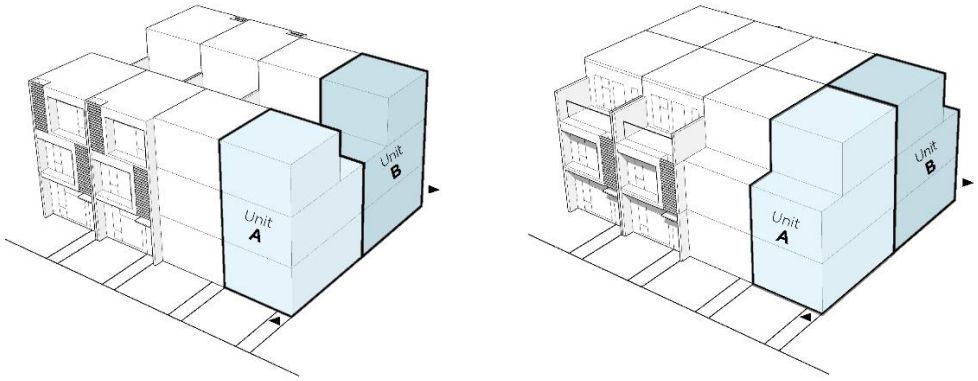
Two rows of townhouses are located back-to-back, with one row of units facing the front of the site and one row facing the rear. Units share side and back walls with adjacent units. Except at corners, units have a single exposure (i.e. a single exterior wall) and should be designed to be wider and not as deep as townhouse units with a double exposure; this will generally mean not exceeding 7.6 m (25 ft.) in depth to avoid internal rooms with no windows and limited access to daylight.

Units have individual entrances facing a street or courtyard/rear yard. Except at corners, units in the front row will not have direct access to the rear of the site. These units will

access the rear of the site by walking along the public sidewalk to a common path, typically in a side yard.

Private patios on the top level may be oriented inwards to create a sense of enclosure, and mitigate noise from the street.

Figure 23: Illustration of townhouse units in a back-to-back arrangement

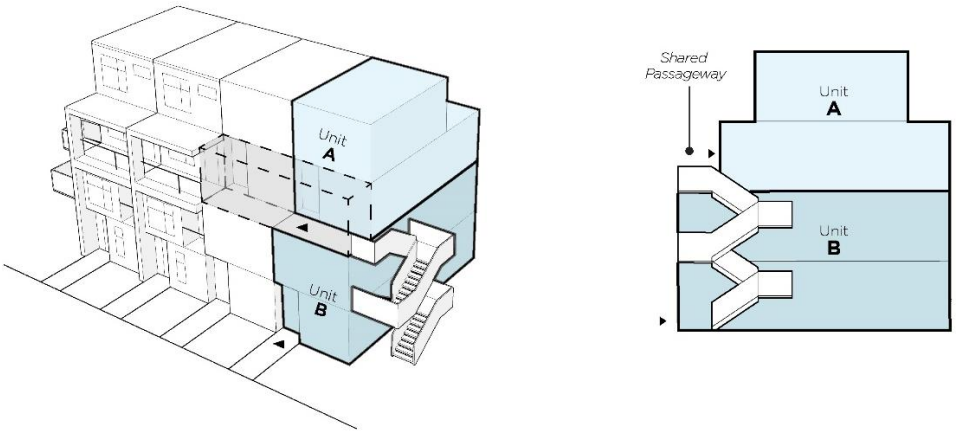


(iv) Hybrid

This is a unique form that combines characteristics of apartments and townhouses. Lower units have direct access to grade like townhouses, while upper units are accessed via a shared corridor (passageway) connected to stairs and/or elevator like an apartment building. Vertical circulation and shared passageways are located on the exterior of the building as illustrated in figure 24.

A hybrid configuration may assist in resolving exiting from the uppermost storey and maintain the lowest storey at grade (i.e. not need for recessing below grade). A hybrid configuration may also improve accessibility for persons with limited mobility as upper units may be accessed via an elevator when provided.

Figure 24: Illustration of townhouse units in a hybrid arrangement



(v) Courtyard

Courtyard configurations may be considered on sites with a depth greater than 33.5 m (110 ft.). Two rows of townhouses are separated by a central courtyard, with one row of units located near the street and one near the lane. Units in a courtyard configuration may be arranged side-by-side, stacked, back-to-back or in a hybrid form. There are no restrictions on what rooms can face the courtyard, but privacy and light access should be considered.

The courtyard should have a minimum clear width of 7.3 m (24 ft.). If building elements such as entrance porches, landings/steps, upper level balconies or sunken patios project into the courtyard space, the minimum clear width should be increased to 9.1 m (30 ft.).

Corner sites in a courtyard configuration should provide a row of units along each street with a separation at the corner with a minimum width of 4.6 m (15 ft.) as illustrated in figure 26.

Figure 25: Illustration of townhouses in a courtyard configuration on a mid-block site

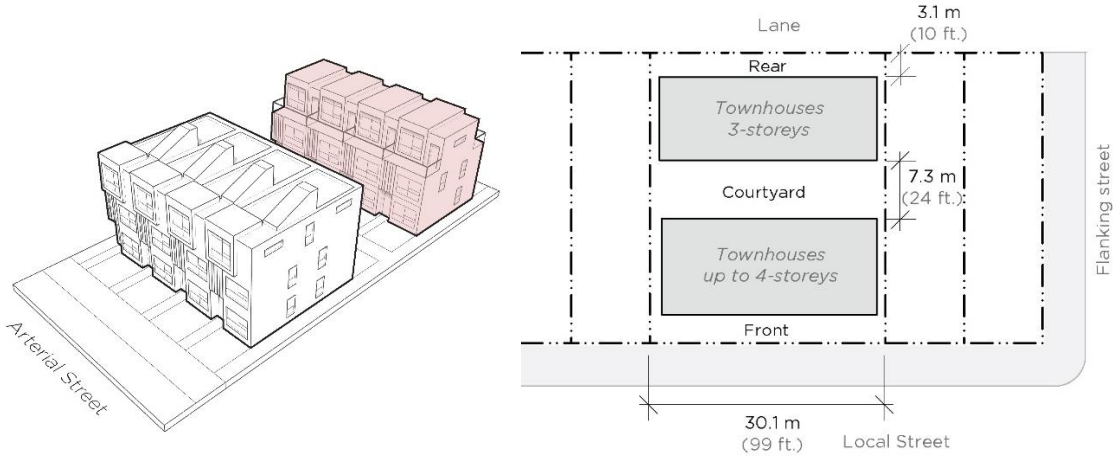
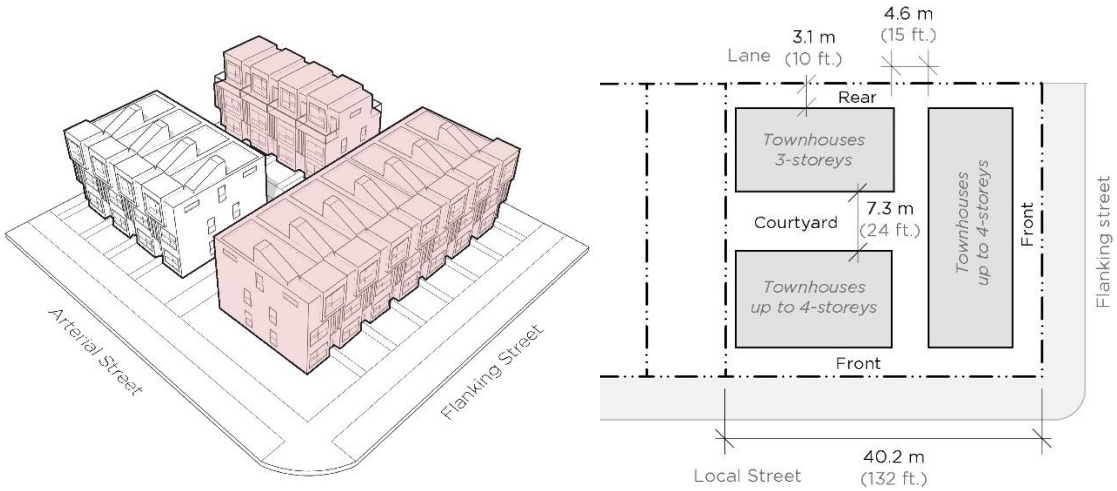


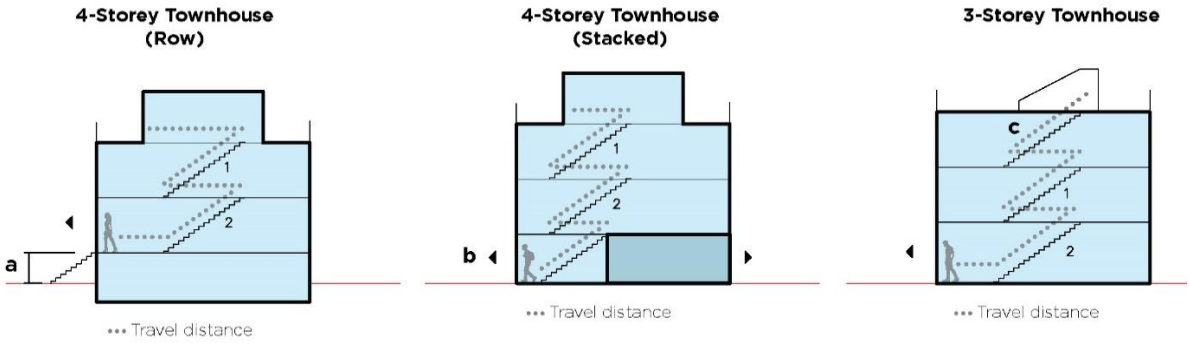
Figure 26: Illustration of townhouses in a courtyard configuration on a corner site



(f) Exiting and Travel Distance

For townhouses that exceed 3 storeys, the Vancouver Building By-Law should be reviewed carefully to ensure compliance with the maximum travel distance from the uppermost storey to an exit. The travel distance should not typically exceed 2-storeys or 25 m (82 ft.) to an exit within 1.5 m (5 ft.) of grade as illustrated in figure 27.

Figure 27: Illustrations of travel distance and exiting regulations for townhouses



a. The ground level exit must be within a maximum of 1.5 m (5 ft.) from grade.

b. For townhouses with a partial 4th storey, egress at ground level must only contain stairs and a landing (no habitable spaces).

c. Roof access stairs are included in the calculation of travel distance.

(g) Daylighting of Below Grade Storeys

While at grade access is preferred, the lowest storey of a 4-storey stacked townhouse may be located partly below grade to comply with exiting from the uppermost storey. The establishment of the main floor elevation should be considered carefully to respond to site topography and to ensure livability and daylighting of the storey below. The lowest storey of a unit with two exposures (i.e. front and rear exterior walls) may be located 0.6m (2 ft.) below grade or more under the following considerations:

(i) At least one exposure should be located at or above grade for its full width, and the second exposure should not be more than 1.5 m (5 ft.) below grade.

(ii) Two storeys should be combined when both exposures of the lowest storey are located below grade. The below grade storey should be used for spaces which require less daylight (i.e. bedrooms), and the above grade storey should be used for primary living space (i.e. living and dining areas).

(iii) Primary unit entrances should be located at or above grade. A primary unit entrance at a sunken patio may be considered if the patio is within 0.6 m (2 ft.) of grade and without guardrails.

(iv) Sunken patios more than 0.6 m (2 ft.) below grade facing an arterial street are to be avoided due to noise and traffic impacts.

(v) Sunken patios more than 0.6 m (2 ft.) below the courtyard/rear yard may be considered to provide outdoor space and daylighting, but should be designed to minimize impact on usable courtyard/rear yard space.

(vi) Units may be wider in order to maximize the extent of the exterior wall that is at or above grade to provide more opportunities for windows and daylight (i.e. the lower units may extend below two of the upper units).

Figure 29: Illustration of below-grade unit scenario not supported

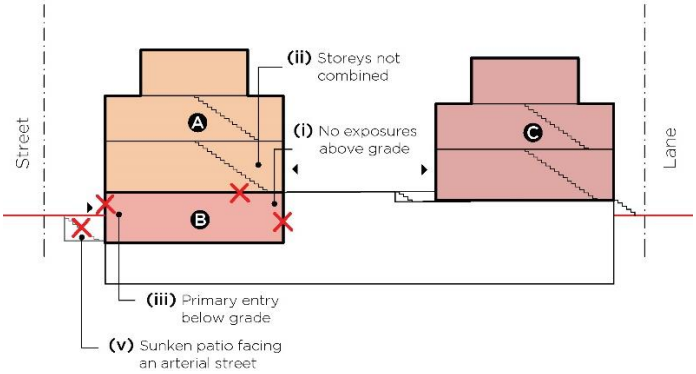
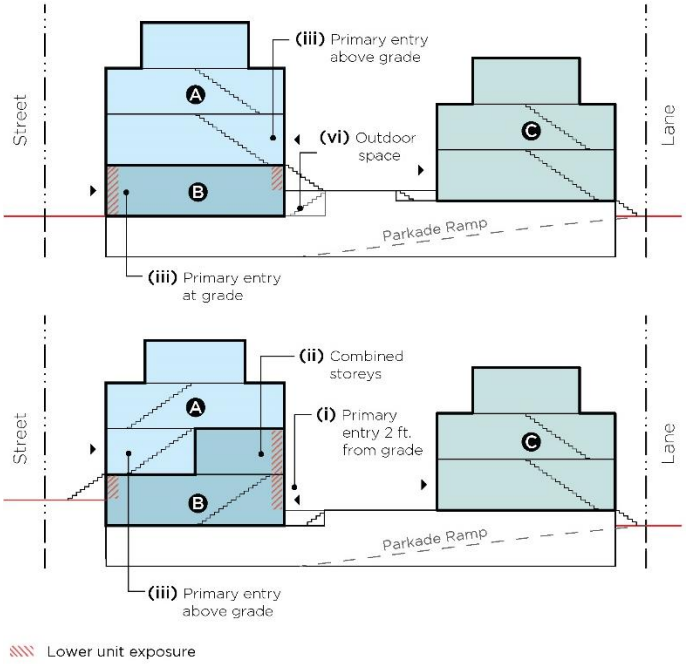


Figure 29: Illustrations of below-grade unit scenarios supported

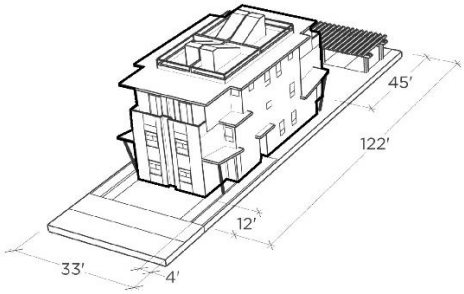


1.4 Small Multiplexes

Small multiplexes are development options in the rental Townhouse District Schedule (RR-1) permitting development on single lots. Small multiplexes (3 to 8 units) reflect the compact scale of residential neighbourhoods and introduce architectural diversity. These buildings continue to reflect characteristics found in detached houses, providing a clear visible identity of dwelling units from the street through elements such as individual front doors, porches, steps and landscaped front yards. Units are typically located in a single building and may be arranged side-by-side, back-to-back and stacked as outlined in section 1.3 (e) of these guidelines.

Table 10: Triplex/Fourplex [(1)] Regulations

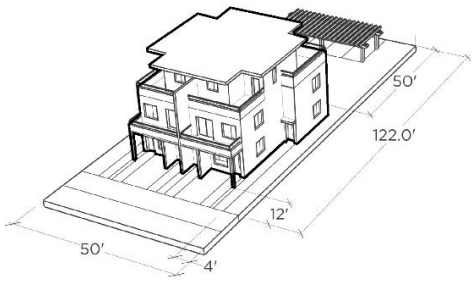
RR-1 (Triplex/Fourplex [(1)])



LOT STANDARDS	
Site Area (min.)	303 m^2 3,260 sq. ft.
Frontage (min.)	10 m 33 ft.
FSR (max.)	1.0
BUILDING STANDARDS	
Front Yard (min.)	3.7 m 12 ft.
Side Yard (min.)	1.2 m 4 ft.
Rear Yard (min.)	3.1 m 10 ft.
Height (max.)	
- Front building	11.5 m 38 ft.
▪ Storeys	3
- Rear building	N/A
▪ Storeys	N/A
Building Depth (max.)	19.8 m 65 ft.

Table 11: 5 to 8-uni Townhouse Regulations

RR-1 (5 to 8 units)



LOT STANDARDS	
Site Area (min.)	464.5 m^2 5,000 sq. ft.
Frontage (min.)	15.2 m 50 ft.
FSR (max.)	1.0
BUILDING STANDARDS	
Front Yard (min.)	3.7 m 12 ft.
Side Yard (min.)	1.2 m 4 ft.
Rear Yard (min.)	3.1 m 10 ft.
Height (max.)	
- Front building	11.5 m 38 ft.
▪ Storeys	3
- Rear building	10.7 m 35 ft.
▪ Storeys	3 [(2)]
Building Depth (max.)	19.8 m 65 ft.

(1) Referred to in the Zoning and Development By-law as a townhouse with 4 units.

(2) 3rd storey must be a partial storey not exceeding 60% of the storey immediately below.

(a) Assembly

Single lots may be developed as small multiplexes (triplexes to 8-unit townhouses) with no assembly required. Combined with the limit on assembly for apartment buildings and larger townhouses on local streets, this encourages a more incremental pattern of development with a variety of smaller buildings interspersed, of a comparable scale to existing houses.

(b) Access

(i) Each unit should have an exterior entrance with access to grade.

(ii) Access to some units may be achieved through internal and external stairs.

(iii) Unit entrances may face a street, a side yard or a rear yard, led to by a path clearly identified and accessible from the street.

(iv) The civic address and fire fighter access for a unit entrance is required to be accessed from a path from the street.

(c) Unit Design

(i) The minimum width of major living spaces (e.g. living room) of any dwelling unit should not be less than 4.2 m (14 ft.).

(ii) All units should have at least two major exposures that face opposite directions or are at right angles to each other.

(d) Open Space

(i) All units and entries directly accessible and visible from the front yard feature private open spaces.

(ii) Units should provide access to private outdoor space at grade or on the roof top.

(e) Parking

(i) Parking should be located within the rear 6.1 m (20 ft.) of the site and limited to surface spaces located at grade.

(ii) Bicycle storage but not vehicular parking may be located in a garage.

(iii) Parking may be incorporated into the ground level of a building located at the rear of the site in a courtyard configuration.

(f) Development Scenarios

(i) Courtyard

Courtyard configurations may be considered on sites with a minimum frontage of 15.2 m (50 ft.) and depth greater than 33.5 m (110 ft.). Buildings are separated by a central courtyard, with a principal building located near the street and the other near the lane. There are no restrictions on what rooms can face the courtyard, but privacy and light access should be considered.

The courtyard should have a minimum clear width of 7.3 m (24 ft.). If building elements such as entrance porches, landings/steps, upper level balconies or sunken patios project into the courtyard space, the minimum clear width should be increased to 9.1 m (30 ft.).

2 General Design Guidelines

The following guidelines should be applied generally to all rental District Schedules and building typologies.

2.1 Topography

Buildings and courtyards should relate directly to the existing or natural grade and blend in with the topography of the surrounding sites.

To the extent possible, new developments should establish a conventional relationship to adjacent grades. Raising development above the level of natural grade can create problematic conditions for adjacent properties, abutting streets and open spaces. These problems relate to issues of drainage, pedestrian access, and the quality of the public realm. Where it is necessary to resolve grade differences, stepped landscape terraces are the preferred solution. Ground floor units should be leveled with grade where possible to provide universal access.

On sloping sites, care must be taken when siting the buildings to ensure that units have adequate access to daylight. The main building (entry) level may need to be stepped to avoid units that are too far below grade. Units should not be located more than 0.9 m (3 ft.) below grade. The rental District Schedules offer a height relaxation for sloping sites that may be requested in exceptional situations where other design measures do not resolve the height overage.

2.2 Views

Projections into Council approved view cones are not permitted.

2.3 Internal Storage

The internal design of dwelling units should consider bulk storage needs, particularly for families. Storage may be provided within the dwelling unit but should not compromise the interior layout. Storage rooms should not be located along exterior walls in order to maximise access to daylight for habitable rooms.

Common storage rooms may also be provided to meet some or all the minimum bulk storage requirements per dwelling unit. These rooms must have an access from a common area. The common storage room floor area may be excluded from computation of floor space ratio (FSR) if the total floor area, including circulation, does not exceed the cumulative exclusions allowed per dwelling unit. For apartments, common storage rooms may be located at the rear of the ground floor of the building as a buffer to surface parking.

Refer to the administration bulletin *Bulk Storage and In-Suite Storage – Multiple Family Residential Developments* for specific requirements.

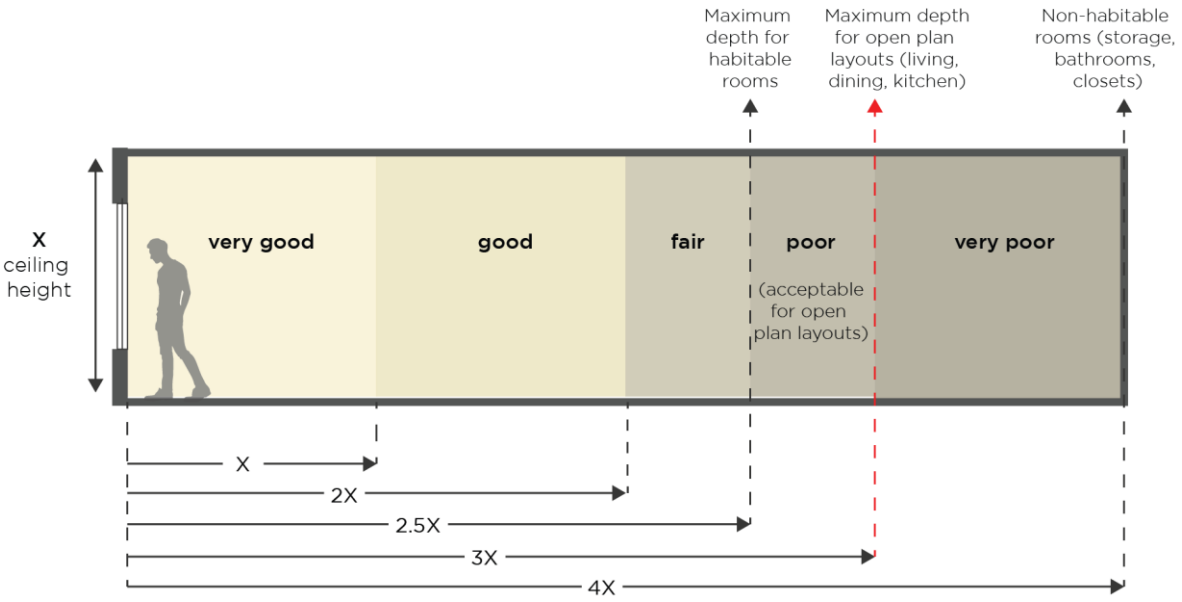
2.4 Access to Natural Light and Ventilation

Access to natural light and ventilation affects the livability of dwelling units. A focused design effort is required to ensure these qualities are part of each unit. The following measures should be considered:

(a) Units may be located facing the street, courtyard or rear yard; units with a single orientation to a side yard are not supported.

(b) For units with a single exterior façade (i.e. single oriented daylight and ventilation access), overall unit depth should generally be limited to 10.6 m (35 ft.). Unit depths greater than 12.2 m (40 ft.), without a second solar and ventilation access (e.g. courtyard scheme), should be avoided.

Figure 30: Unit depth performance relative to ceiling height



(c) All dwelling units and all habitable rooms (not including bathrooms and kitchens) must have at least one window on an exterior wall as per the Horizontal Angle and Daylight regulations.

(d) Floor to floor heights of 3.0 m (10 ft.) are supported.

(e) Employing window types that facilitate air exchange are encouraged. Windows with openers at both a high and low level can help create air flow. Casement windows, when oriented with prevailing winds, can facilitate air flow from outside into interior spaces (scoop effect).

(f) Juliette balconies which allow for patio doors and larger openings to improve access to daylight and ventilation for studio or one-bedroom units without balconies are encouraged.

(g) Primary living spaces (i.e. living and dining room) of any dwelling unit with 2 or more bedrooms should have a minimum width of not less than 4.2 m (14 ft.).

(h) Mechanical ventilation of commercial space should be exhausted at a location that minimizes impact on residential liveability and pedestrian public realm. Typically, the exhaust should be vented on the roof, above the height of any occupiable roof space.

2.5 Off-Street Parking and Bicycle Storage

(a) Off-street Parking

Surface parking is encouraged wherever possible. This may limit site excavation, lower construction costs, minimize greenhouse gas emissions associated with the use of concrete, and allow tree planting and rain water infiltration opportunities.

Transportation Demand Management (TDM) strategies assist in administering parking demand on site. Implementation of a combination of these strategies will result in reduced parking requirements that may be accommodated through surface parking in most cases. Refer to appendix A for guidelines on how to optimize TDM strategies.

The following measures should be considered in the design of surface parking spaces:

(i) Surface parking should be located at the rear of the site and minimize impact on outdoor space.

(ii) Detached garages for vehicular parking are not permitted.

(iii) Surface parking spaces should be treated with permeable pavers or wheel strips in gravel to reduce storm water sewer loads.

(iv) Surface parking spaces need to have a barrier-free path leading to a building or unit entrance.

Underground parking structures may be provided, but should be limited to a single level below grade. Underground parking structures should be absolutely minimized and not occupy the full extent of the property in order to provide unimpeded areas for tree planting and rain water infiltration.

The following measures should be considered in the design of underground parking structures:

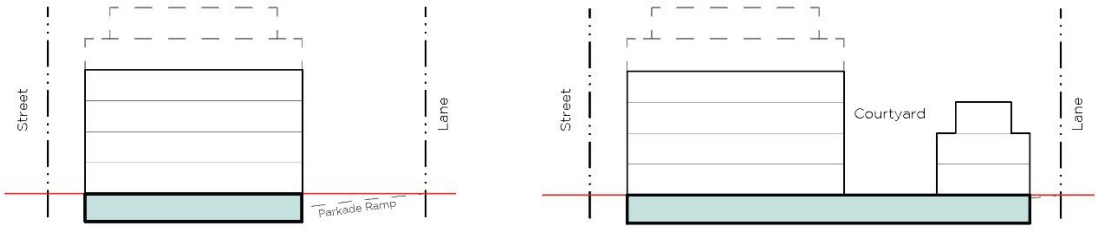
(v) Vehicular access to parking should be from the lane.

(vi) Parkade should not project into required yards, with the exception of parking ramps.

(vii) Underground parkades should generally align with the exterior walls of the building above.

(viii) For courtyard configurations, underground parkades may align with the exterior walls of the principle and secondary building crossing the central courtyard as illustrated in figure 31.

Figure 31: Illustration of underground parking structure extents



(a) Underground parkade for a single building

(b) Underground parkade for a courtyard configuration

(ix) Parkades should not project above grade in courtyard spaces and should provide continuity of grades across the property lines for adjacent courtyards.

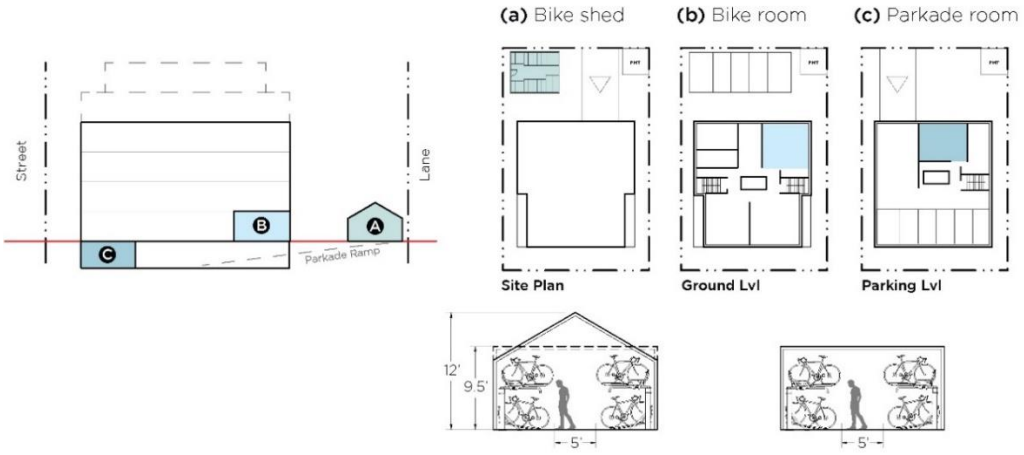
(x) Parkade exit stairs should generally be located in, or incorporated into the building.

(xi) Covered exit stairs may be provided when located at the rear of the site if they do not compromise the livability of adjacent units or the functionality of the courtyard or rear yard. Exit stairs should not be located or encroach into side yards, as this would impede site circulation at grade and impact privacy.

(b) Bicycle Storage

Bicycle storage may be located at the rear of the ground level of apartment buildings, in a detached bicycle storage garage at the rear of the site, or as part of an underground parkade as illustrated in figure 32. Creative solutions to consolidate bike parking can be considered in other above grade locations. All at-grade structures for storage of bicycles, including detached garages, should be attractive and integral to the overall building and landscape design. They should not compromise the functionality of courtyard and rear yards, or compete with at-grade open space.

Figure 32: Illustration of bicycle storage options



2.6 Below-market Rental Units

The rental Apartment and Mixed-use District Schedules reserve 6-storey buildings for projects securing below-market rental units. These units must consist of a minimum of 20% of the residential floor area included in the calculation of floor space ratio.

(a) Below-market rental units may be clustered together or distributed throughout a building. Typically, units will be distributed throughout a single building that contains market rental units. In this case, below market units must account for a minimum 20% of the total dwelling unit area provided.

(b) Where floor area for residential bulk storage is excluded from the calculation of floor space ratio, a minimum of 20% of the excluded area should be located within below-market rental units.

(c) Below-market rental units should provide the same standard of design and livability as market rental units; the two should be generally indistinguishable.

(d) Distribution of unit mix for below-market rental units should generally be proportional to that of market rental units, including family-sized units (two or more bedrooms).

(e) Following initial occupancy and in accordance with the terms of the Housing Agreement, substitution between below-market and market rental units may be possible to enable stability of tenure for residents. Any substitution may not result in a floor space ratio for below-market rental units below the 20% required, or a change in their unit mix.

2.7 Dedication of Land and Statutory Right of Way for Sidewalk and Boulevard Purposes

Dedication may be required with conditional redevelopment to facilitate a surface statutory right of way (SRW) on a portion of the site to provide sidewalk and boulevard improvements, particularly on properties located along arterial streets.

The SRW should be clear of any encumbrance including but not limited to: structures, stairs, walls, mechanical vents and vaults, kiosks and pad mounted transformers, door-swings, and landscape including planters.

The SRW agreement will accommodate underground parking within the SRW area. Where the amount of space within the front yard required to accommodate pedestrian movement according to City engineering standards is less than 2.5 m (8.2 ft.), the SRW area will be reduced to the area required by those standards; however, any reduction of the SRW area will not impact front yard requirements.

3 Guidelines Pertaining to Regulations of the Zoning and Development or Parking By-laws

The following guidelines contain conditions of approval for discretionary variations to the regulations as permitted by the Director of Planning.

3.1 Site Frontage and Site Area

Site frontage and site area regulations are based on site dimensions for standard lots. Site widths are typically 10 m (33 ft.) or 15.2 m (50 ft.), while site depth is typically 37.2 m (122 ft.) and not less than 30.5 m (100 ft.). Recognising that there is greater variety of lot widths and depths, the site frontage and site area may be varied by a modest amount to accommodate assemblies that slightly deviate from these standards.

For local streets, an increase in the maximum site frontage for 4-storey apartments may also be considered to accommodate single lots that exceed 30.5 m (100 ft.), or for entire block assemblies if separate buildings are provided, following the regulations as applied to a series of individual 30.5 (100 ft.) lot assemblies. This would align with the intent of these guidelines, to introduce an incremental growth pattern to the streetscape of local streets, while enabling benefits of a single development (i.e. shared parking). No bridge element or connection between the buildings is allowed in this case.

3.2 Height

The maximum building height excludes stairways and elevator shafts to roof decks and guardrails; and common amenity rooms on roof decks, if the total floor area does not exceed 10% of the roof area.

For sloping sites where the building cannot be reasonably accommodated in the height envelope, an increase in building height may be permitted. Any height increase should achieve good

livability and accessibility for units located at the lowest level, and avoid locating the ground floor below grade.

3.3 Yards

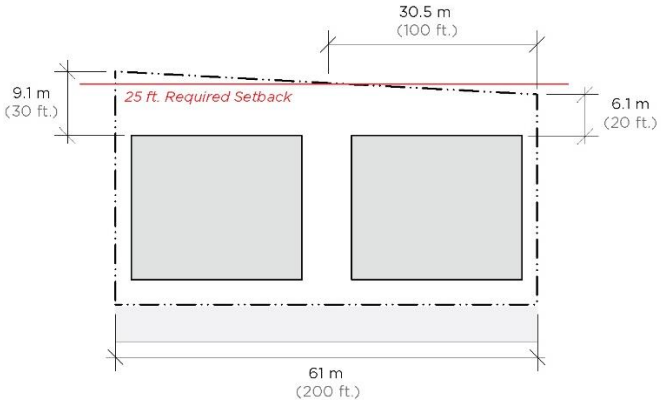
For residential buildings in the RR-1 and RR-2 districts, when a street dedication or statutory right of way is required at the front of the site, a decrease in the rear yard to a minimum of 5.2 m (17 ft.) may be considered. In cases where this decrease is insufficient to accommodate the standard building form (i.e. shallow lots), an additional decrease in the front yard to a minimum of 3.1 m (10 ft.) may be considered. All yards must be measured from the ultimate property line (i.e. after any dedication).

Decreases in required yards for the purpose of accommodating SRW dedications must not be considered for mixed-use residential buildings in the RR-3 districts. The front yard regulations in the rental Mixed-use Residential District Schedule (RR-3) include an allowance for these type of dedications.

Generally, exterior side yards on corner sites should be treated as front yards, and should have a setback equivalent to that of the front yard.

For sites with oblique property lines, modest variations from the required yard setbacks may be considered for portions of the site, if a yard setback with an overall average dimension generally equivalent to the minimum yard requirement is provided.

Figure 33: Illustration of average yard setback on oblique property line



3.4 Floor Space Ratio (FSR)

For mixed-use residential and apartment buildings on corner and shallow sites, a modest increase in FSR may be considered, as outlined in sections 1.1 and 1.2 of these guidelines.

For social housing projects, a modest increase in FSR may be considered on residential 6-storey apartments in the RR-2C district, as outlined in table 6 of section 1.2 of these guidelines.

Not all sites will achieve the maximum discretionary density. Some inhibiting factors may include but are not limited to:

(a) site size and frontage, in particular corner sites with a frontage less than 40.2 m (132 ft.);

(b) land dedications resulting in increased setbacks (i.e. SRW, lane);

(c) sloping site conditions;

(d) tree retention along the perimeter of the site; and

(e) parking and bike storage requirements.

3.5 Horizontal Angle of Daylight

The Horizontal Angle of Daylight regulation helps to ensure liveability within a dwelling unit by requiring a window for each room (except bathrooms and small kitchens). Priority is placed on the major living spaces in which longer periods of time are spent, such as living rooms. The main living space for each dwelling unit should face a street, rear yard, or courtyard.

3.6 Building Width and Depth

Residential buildings should not exceed a maximum building depth of 21.3 m (75 ft.), to limit the impact on adjacent properties and ensure appropriate daylight access into units with only one exterior wall.

For corner sites that propose a wing along the flanking street, the maximum building depth may be increased for portions of the building along the wing. The resulting livability of units, including access to light and ventilation should be carefully considered.

For apartment buildings that propose a bridge element on sites with a frontage no greater than 73.1 m (240 ft.), the maximum building width may be increased. The building must include sufficient vertical articulation as outlined in section 1.2 (i) (iv) of these guidelines.

3.7 External Design

Generally, all external design regulations may be varied to allow for modest changes on the building form.

For 6-storey buildings, a decrease in the upper storey stepback may be considered to provide variation in the architectural expression of the building.

For 6-storey social housing projects, no upper storey setback is required to allow a modest increase in density.

For corner units in a townhouse, a decrease in the minimum width to 3.7 m (12 ft.) may be considered, recognizing that these dwelling units have at least two exterior façades that allow greater access to natural light and ventilation.

Projections of underground parking structures into required yards may be considered on sites unable to provide minimum parking requirements due to unique site conditions or constraints (i.e. shallow sites, sloping sites).

3.8 Number of Buildings on Site

More than one building may be permitted on wider and deeper sites in a side-by-side or courtyard configuration. Multiple buildings may allow an optimized use of the site, improve access to natural light and ventilation, and better reflect an incremental pattern of growth.

4 Conditions of Use

A minimum of 35 percent two or three bedroom units is required as a condition of use for every rental development, to ensure the delivery of housing options suitable for families.

For apartment buildings, is recommended that 10 percent be reserved for three bedroom units where possible. In addition, to support the functionality and livability of family-sized units (2 bedrooms or more), it is recommended to locate a minimum of 50 percent of two and three bedroom units within the first three storeys of apartment buildings.

5 Architectural Design

High-quality architectural design is expected of all developments.

The rental districts encourage simple building forms to help improve the energy performance of the building envelope while ensuring quality, durability, and variety through the façade design. Highly-articulated residential mixed-use and apartment buildings are not anticipated. Buildings may generally have boxy forms and provide visual interest through façade composition and high quality of materials and details as illustrated in the examples in figure 34.

Figure 34: Examples of simple building forms with architectural detailed façades

List of Images:
[from the top left]

1. Saint-Zoquie Residences, Montreal. Nature Humaine.
2. E Georgia, Vancouver. Brimingham & Wood.
3. Jervis, Vancouver. MA+HG.
4. ZAK Boucicaut, Paris. Michel Guthmann.
5. Residential Building, Barcelona. Lola Domenech
6. Bremer Punkt, Bremen. Lin.
7. Housing Complex, St-Cyr. NZI.
8. CORE Modern Homes, Toronto. Batay C-Sorba.
9. Passage de la Brie, Paris. Explorations.
10. Shift, Vancovuer. OMB.

5.1 Roof

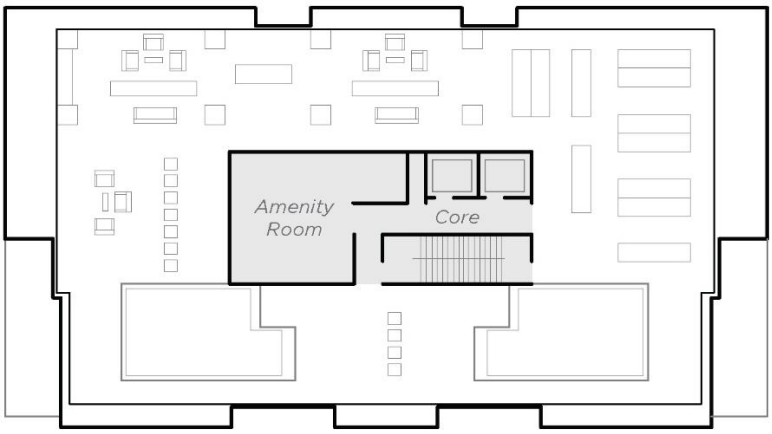
Roof forms on new development should have a clear, simple concept appropriate to the scale of the building. New buildings are not expected to provide pitched roof forms.

Access to the roof is supported and encouraged, to provide outdoor amenity space for residential mixed-use buildings, apartments and townhouses in combination with green roofs where possible. Projections above the roof line for roof deck access should be well integrated with the overall design. Roof decks should be screened or set back from the building edge to minimize the views into adjacent yards. Windscreens on roof decks should be transparent so that their visibility from the street and adjacent properties is minimized. Elevator penthouses, mechanical rooms, equipment and vents should be screened and integrated with the architectural treatment of the roof, and located to minimize their visibility.

Apartments should provide a common roof deck with a common amenity room where practical. The amenity room should be located in combination with the vertical circulation core (elevator and exit stairs), in a central location set back from the building edge as illustrated in figure 35. Selection of materials for the common amenity room should prioritize visual permeability and transparency to minimize their visibility from the street and increase connection to outdoor spaces. The floor area of a roof deck common amenity room should not exceed 10% of the roof area, and is excluded in the computation of floor space ratio. The vertical circulation core (elevator and exit stairs) will be counted as part of the floor space ratio at the roof level.

The Vancouver Building By-Law should be reviewed carefully to ensure compliance with height and exiting for roof decks and rooftop amenity rooms requirements. Generally, common amenity rooms on roof decks are limited to buildings up to 5-storeys in wood-frame construction.

Figure 35: Illustration of rooftop amenity space for mixed-use residential building and apartment



Private roof decks are encouraged for townhouses, in particular for stacked townhouses where the upper unit does not have at-grade private outdoor space. Full height stair penthouses are permitted to access roof decks in townhouses.

5.2 Façade Composition and Materials

Building elevations should present a cohesive and well-scaled composition of cladding materials, windows and elements, such as balconies and solar shading devices.

The following guidelines should be considered when designing façade compositions:

(a) Windows should be placed to create a rationale pattern on the building exterior, not just as a function of the interior layout.

(b) Window size and operation is also significant for the liveability of a unit; window designs should maximize access to natural light and ventilation throughout the dwelling.

(c) Balconies should be designed as integral parts of the overall building design and façade composition.

(d) Inset or projecting balcony designs may be provided. Inset balconies may be located at corners to soften the transition between properties.

(e) Balcony projections into front and rear yards should read as discrete elements limited in width.

(f) Continuous balconies that extend for the full façade width and read as an extension of the building mass are discouraged.

The finishing materials of new development should be durable, high-quality materials that express a sense of permanence. High-quality materials that last longer are more sustainable and create less waste. Materials that perform well and require less maintenance over a long period of time also increase the affordability of the dwelling.

In addition to durability, the following guidelines should be considered when choosing exterior materials:

(a) Create a cohesive image by limiting the number of different finishing materials used.

(b) Material changes and transitions should have a strong relationship to the overall design of the building.

(c) Materials should be used in a way that is true to their nature. For example, masonry may be used at the building base but should not be used as a treatment on upper levels with no clear means of support below.

(d) The primary building façade should be oriented to the primary street. However, the same materials should be used in consistent proportions on all façades and not just on the street face. Materials should carry around corners and terminate at logical points to avoid appearing as a thin veneer or false front.

(e) All sides of a building that extend in front of an adjacent building are visible from the public realm and warrant appropriate design. For corner buildings, the side façade should be articulated and have sufficient windows and detailing, comparable to the front façade.

(f) Large blank walls should be avoided wherever possible. Window openings, detailing, materials, colour, wall articulation and landscaping should be used to enliven them and reduce their scale.

(g) Except for architectural concrete treatments, exposed concrete foundations should be limited to 30 cm (12 in.).

6 Open Space

The provision of open space is required as part of an overall site development and landscape plan and should take into consideration general site circulation patterns, including parking, existing landscape features, sun access, privacy and usability. Open space should be varied, including a mix of soft and hard surfaces, passive and active areas, canopied and open spaces.

6.1 Public Open Space

The rental districts intend to foster neighbourliness and social connection. One way this can be accomplished is to make walking safe, comfortable and convenient. This ensures that streets and sidewalks support a vibrant public life that encourages a walking culture, healthy lifestyles, and social connectedness.

(a) The streets adjacent to new development should provide street trees, if none exist.

(b) The front yard setback requirement in the RR-3 districts is intended to be secured as at-grade statutory right of way (SRW), for sidewalk improvement and widening.

6.2 Semi-private Open Space

Semi-private open spaces, including common amenity spaces for residents, should be used as transitional spaces between public and private spaces, with visual access by both. Opportunities to use semi-private open space to encourage neighbourliness (between building residents, as well as with the broader neighbourhood) is encouraged. Semi-private open space should be designed as an organizing element, not as leftover space.

(a) The rental District Schedules require that any development with four or more units provide a portion of open space on site programmable as children's play area. The *High Density Housing for Families with Children Guidelines* should be consulted to direct the design.

(b) Provide sufficient distance, screening, landscape, and outlook considerations for the mutual comfort of dwellings overlooking or adjacent to the space.

(c) Provide seating, tables, or other fixtures that support social interaction, and provide thoughtful use of transitional spaces.

(d) In developments with a central courtyard, once the main open space is located, it may be possible to have private patios flanking a central walkway. The walkway should be treated as a linear social space, rather than just a corridor.

(e) Utilities such as sumps should be integrated with a paved pathway and not interrupt open space.

6.3 Private Open Space

Private open space for individual units should be provided as follows:

(a) For ground level units, a private garden and/or patio.

(b) For upper level units:

  (i) For family-sized units with 2 or more bedrooms, a generous balcony or roof-deck with a minimum depth of 1.8 m (6 ft.) and a minimum area of 4.5 m^2 (48.4 sq. ft.) should be provided.

  (ii) For 1-bedroom or studio units, juliet balconies that maximize light and ventilation may be provided where it is not practical to include a balcony or roof deck.

  Private outdoor space must be provided for 1-bedroom or studio units, unless common exterior amenity space of no less than 4.5 m^2 (48.4 sq. ft.) per unit is provided, based on total dwelling units of the development. If private outdoor space is not provided, unit layout should maximize solar and ventilation access by maximizing operable glazing units.

Roof decks add considerably to the amenity of units in townhouses or to the common amenity in mixed-use and apartment buildings. Care should be taken to avoid direct sightlines to neighbouring windows, balconies and yards. Roof decks should be well-integrated into the overall form.

7 Landscape Design

7.1 Tree Retention and Boulevards

Existing trees should be kept where possible and new trees introduced with a focus on the perimeter of the site. To support perimeter tree retention, the Direction of Planning may vary provisions regulating siting of a building as outlined in section 5.2.3 of the Zoning and Development By-law.

For residential developments, the front and back boulevard should be landscaped as green space. At a minimum, they should be retained as grassed areas, but more intense planting or environmental design (e.g. bioswale or rain garden) is encouraged where appropriate. Refer to the City's *Boulevard Gardening Guidelines*.

7.2 Parking

Excavation for required parking should be minimized. Surface parking spaces rather than below grade parking structures should be provided where possible. Surface parking spaces should be located along the lane and be screened by planting beds, rather than fences if possible, to limit impact on outdoor open space. Surface parking spaces may be provided with open trellis structures (open walls and roofs) to support landscape and greenery at the lane, while remaining permeable to rainwater.

If parking requirements prevent below parking structures to be held back from site edges, these structures should be designed with an angled slab edge to provide additional space for tree root development.

7.3 Yards and Courtyard

Landscapes in semi-private open spaces, in particular front yards and courtyards, should be designed to provide screening and filtering of views, relying on plant material rather than fences. Planting trees is particularly necessary in these locations. Soft landscape can provide some privacy between units, but retain visual openness to the common open space.

Patio areas should be screened with planting that provides visual porosity, and can be maintained at a height of 1.5 m (5 ft.) or less. Visually undesirable building features, such as exposed foundation or utilities, should be screened with planting beds.

In developments with a central courtyard, planting can create some screened privacy for private patios; however, fences should be kept low. Sufficient depth of soil should be provided to allow substantial planting of courtyards located on parkade roofs.

7.4 Roof

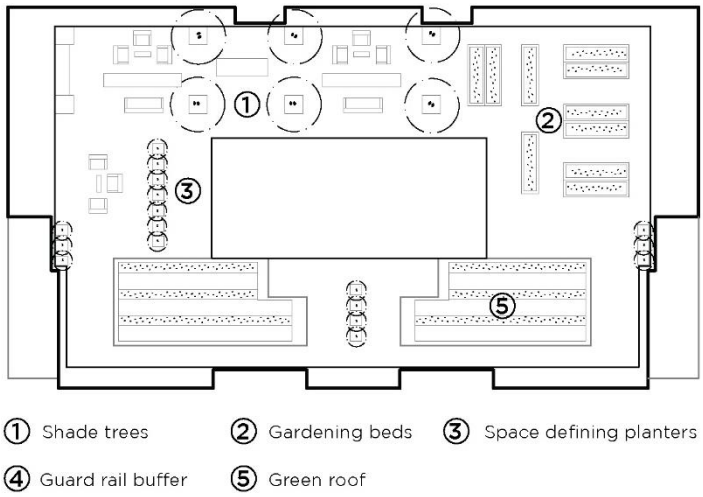
Accessible roof spaces should be combined with intensive and extensive green roof systems, including planters for growing food, wherever possible.

(a) Intensive green roof planters with shade trees and varied plantings may be integrated with, and help spatially define, more actively programmed areas.

(b) Container planters are supported; however, consideration must be given to the minimum soil volumes needed for planting types and the structural design.

(c) Extensive green roofs contribute to advancement of many City wide goals such as biodiversity, air quality and rainwater management, and may be established on non-accessible roof areas.

Figure 35: Illustration of roof landscape design for mixed-use residential building and apartment, including examples



7.5 Fences

In general, the by-law fencing height limit of 1.2 m (4 ft.) in front yards, and 1.8 m (6 ft.) in rear and side yards should be respected. However:

(a) Fences at the rear of the site, adjacent to a building at a lane or street should be reduced in height to 1.2 m (4 ft.). At a lane, they may transition back up to 1.8 m (6 ft.) within 0.6 m (2 ft.) of the rear property line. Soft landscape should be used to provide privacy screening, while still allowing some visibility between the public and private property.

(b) Exceptions may be made for entry arbours, and trellises or screening elements immediately adjacent to patio or deck areas. Over height elements in the front yard should assist with the definition of outdoor space but should not prevent all views or glimpses of the outdoor space from the street. Any over height element should be largely transparent and limited in extent.

8 Sustainability

Development must be designed to reduce energy consumption and emissions. For specific requirements, refer to the **Secured Rental Policy** under section *7 Green Buildings*.

9 Rainwater Management

Underground parking structures should be minimized, and held back from site edges to allow for rain water infiltration. Surface parking spaces should be treated with pavers that are permeable to reduce stormwater sewer loads.

On-site opportunities for Tier 1 Rainwater Infiltration integrated with the landscape plan (such as rain gardens and other absorbent landscape) should be explored. Alternate opportunities for rain water management include enabling transpiration through intensive or extensive green roofs to be provided where possible, or rainwater harvesting.

Refer to the City's *Rainwater Management Bulletin* and *Green Rainwater Infrastructure Typologies*.

10 Garbage and Recycling

For multiple dwelling developments, garbage and recycling will be collected by private contractors. Measures should be taken to ensure that waste bins are not left in the lane. Appropriate areas for garbage and recycling bins should be provided to ensure convenient pickup, either in the underground parkade or directly off the lane. Refer to the *Garbage and Recycling Storage Facility Design Supplement* for detailed information on the number of containers required and dimensions and specifications of commonly used storage containers.

Appendix A: Parking Requirements and Transportation Demand Management (TDM) Measures for Rental Apartments

Although underground parking structures are allowed, the intent of the apartment rental district (RR-2) is to enable open surface parking wherever possible in order to minimize greenhouse gas emissions, reduce construction costs and allow for tree planting and rain water infiltration opportunities.

The following 3 steps should be followed when calculating the Parking By-law requirements to maximize reductions and Transportation Demand Management (TDM) exclusions that may improve the feasibility of surface parking on these developments.

For the purposes of calculating parking spaces, if a calculation results in a fractional number, the nearest whole number must be considered. A fraction of one-half must be rounded up to the next whole number.

1 Off Street Parking Space Regulations (1)

Regulation	Required Parking Spaces
Minimum required parking spaces for secured market rental housing	1 space for each 125 m^2 of floor area; of which 1 accessible parking space for each building containing at least 7 dwelling units, and 0.034 space for each additional dwelling unit
Minimum Required Visitor Parking for Dwelling Uses	0.05 parking spaces for every dwelling unit

(1) Refer to sections 4.1.16, 4.5B and 4.8.4 of the *Parking By-law*. https://bylaws.vancouver.ca/parking/Sec04.pdf

2 Off Street Bicycle Space Regulations (2)

Regulation	Required Parking Spaces
Class A minimum required spaces for multiple dwelling developments of three or more dwelling units in conjunction with another use	1.5 spaces for every dwelling unit under 65 m^2 2.5 spaces for every dwelling unit over 65 m^2 and under 105 m^2 3 spaces for every dwelling unit over 105 m^2
Class B minimum required spaces for multiple dwelling developments of three or more dwelling units in conjunction with another use	2 spaces for a development containing at least 20 dwelling units, and 1 space for every additional 20 dwelling units

(2) Refer to section 6.2.1.2 of the *Parking By-law*. https://bylaws.vancouver.ca/parking/sec06.pdf

3 Off Street Parking Reductions by Transit Accessibility, Land Use and TDM (3)

The maximum parking reduction available to residential developments is 60% overall. This is achieved through combined reductions based on proximity to transit and the implementation of TDM measures. The TDM measures listed in this section include solutions that may be addressed through design, site layout and minor infrastructure. Additional TDM measures are available including Financial Incentives

and Alternative Commute Services, which are dependent on subsidy commitments and third party agreements with limited applicability. The calculation of parking reductions is obtained as follows:

Total Allowable Parking Reduction	=	**(A)** Transit Accessibility + **(B)** TDM Measures for Residential

(A) Parking Reduction for Transit Access

Regulation	Parking Reduction
Level A (available to the majority of the sites eligible under the Secured Rental Policy for Low Density Transition Areas)	**20%** parking reduction for sites located: ▪ 100 m walking distance of any existing FTN (3) route, including B-Line stops; or ▪ 200 m walking distance of any intersection of two existing FTN routes, including B-Line stops; or ▪ 400 m walking distance of a SkyTrain station
Level B (available to some of the sites eligible under the Secured Rental Policy for Low Density Transition Areas)	**10%** parking reduction for sites located: ▪ 101 m to 200 m walking distance of any existing FTN route, including B-Line stops; or ▪ 201 m to 400 m walking distance of any intersection of two existing FTN routes, including B-Line stops; or ▪ 401 m to 800 m walking distance of a SkyTrain station

(3) Refer to table 6 of the *Transportation Demand Management for Developments in Vancouver*. https://vancouver.ca/files/cov/transportation-demand-management-for-developments-in-vancouver.pdf

(4) Frequent Transit Network (FTN) as defined by *Translink*. https://www.translink.ca/Plans-and-Projects/Frequent-TransitNetwork.aspx

(B) TDM Measures for Residential Developments (5)

Regulation	Parking Reduction
Parking Reduction for TDM measures for residential developments (available to all of the sites eligible under the Secured Rental Policy for Low Density Transition Areas)	**Up to 40%** parking reduction through the TDM Plan Point:
	TDM Plan Point Targets (6) ▪ For less than 12 dwelling units, up to 12 points ▪ For 12 to 24 dwelling units, up to one per dwelling unit ▪ For 25 to 220 dwelling units, up to 24 points ▪ For 221 dwelling units or more, up to 24 points

(5) Refer to tables 4 and 5 of the *Transportation Demand Management for Developments in Vancouver*. https://vancouver.ca/files/cov/transportation-demand-management-for-developments-in-vancouver.pdf

(6) Target points equate to the maximum 40% reduction available. If lower point ranges are achieved these need to be prorated to the equivalent lower reduction percentage.

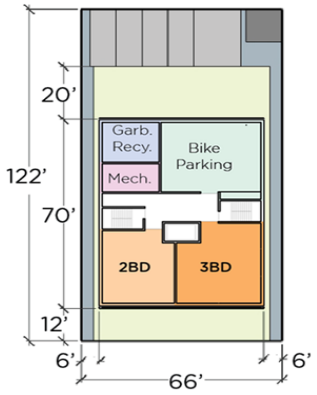
Menu of TDM Measures applicable to all Developments [7]		
Category	**Measure / Points**	**Requirements**
Active Transportation	ACT-01: Additional Class A Bicycle Parking. **8 Points**	Provide 40% additional bicycle parking spaces above the minimum required. Lesser points are available in proportion to the additional percentage provided.
	ACT-02: Improved Access to Class A Bicycle Parking. **6 Points**	4 points for providing 100% of the Class A bicycle parking at-grade; plus Up to 2 points, for providing excellent design.
	ACT-03: Enhanced Class B Bicycle Parking. **2 Points**	Provide enhanced visitor Class B bicycle parking.
	ACT-05: Bicycle Maintenance Facilities. **2 Points**	Provide bicycle maintenance facilities and workspace.
	ACT-08: Shared Bicycle Fleet. **4 Points**	Provide a fleet of bicycles for residents, employees and/or guests to use for 20 years. At a minimum, 6 bicycles shall be provided; or 1 bicycle for each 10 dwelling units. Fewer points may be achieved to commensurate smaller fleet size.
Support, Promotion, Information	SUP-01: Transportation Marketing Services. **2 Points**	Provide marketing campaigns, including incentives to encourage the use of sustainable transportation modes.
	SUP-02: Real-time Information. **2 Points**	Provide real-time sustainable transportation information for 20 years on displays in prominent locations on the project site.

(7) Refer to table 7 of the *Transportation Demand Management for Developments in Vancouver*. https://vancouver.ca/files/cov/transportation-demand-management-for-developments-in-vancouver.pdf; and

Worksheet D of the *Transportation Demand Management (TDM) Plan Summary Worksheets*. https://vancouver.ca/files/cov/transportation-demand-management-schedule-a.pdf

4 Example: 4-storey Apartment with Surface Parking on a Local Street

Project Info	
Lot Size	66 ft. X 122 ft.
Lot Area	8,052 sf
No. of Storeys	4
FSR	1.75
Floor Area (max.)	14,091 sf
No. or Units	20
Unit Mix	
- Studios	8 (40%)
- 1 BDR	5 (25%)
- 2 BDR	5 (25%)
- 3 BDR	3 (10%)



STEP 1 Off Street Parking Space Calculations

Standard Spaces [Max. Floor Area / 125 m^2]	Accessible Spaces [1 space + 0.034 X (No. Units – 7)]	Visitor's Spaces [0.05 X No. Units]
14,091 sf / 1,345 sf = 10.47 spaces	7 units = 1 space 0.034 X 13 units = 0.442 spaces = 1.442 spaces	0.05 X 20 units = 1 space
10 parking spaces (including 1 accessible space) + **1** visitor's parking space		

STEP 2 Off Street Bicycle Space Calculations

Class A

Unit Size	No. of Units	Multiplier	Bicycle Spaces
<65 m^2 (700 sf)	13	1.5	19.5
65 m^2 - 105 m^2 (700 sf – 1,130 sf)	7	2.5	17.5
>105 m^2 (1,130 sf)	0	3	0
		Total Required Spaces	**37**

Class B

Min. **2** spaces for any development containing at least 20 units

STEP 3 Off Street Parking Reduction Calculations

TDM measures for residential projects: **20** points required (at 1 per unit) for a max. **40%** reduction.

TDM Measures	Points	Equivalent Reduction %
ACT-02 Improved Access to Class A Bicycle Parking	6	12%
ACT-03 Enhanced Class B Bicycle Parking	2	4%
ACT-05 Bicycle Maintenance Facilities	2	4%
SUP-01 Transportation Marketing Services	2	4%

SUP-02 Real-Time Information	2	4%
Transit Access	**Level**	**Equivalent Reduction %**
100 m walking distance to an FTN route	A	20%
Total % Reduction		**48%**

Off Street Parking Spaces Required After Reductions

Parking Spaces Required by the Parking-Bylaw	Parking Spaces Reduced TDM + Transit Access	Parking Spaces Required after Reductions
10 spaces (incl. 1 Accessible space) + 1 Visitor's space = 11 spaces	11 spaces X 48% = 5.28 spaces	11 spaces – 5.28 spaces = 5.72 spaces
		= **6** spaces (incl. 1 accessible and 1 visitor's)

5 Example: 4-storey Apartment with Underground Parking on a Local Street

Project Info	
Lot Size	99 ft. X 122 ft.
Lot Area	12,078 sf
No. of Storeys	4
FSR	1.75
Floor Area (max.)	21,136 sf
No. or Units	30
Unit Mix	
- Studios	10 (33%)
- 1 BDR	9 (30%)
- 2 BDR	8 (27%)
- 3 BDR	3 (10%)

STEP 1 Off Street Parking Space Calculations

Standard Spaces [Max. Floor Area / 125 m^2]	Accessible Spaces [1 space + 0.034 X (No. Units – 7)]	Visitor's Spaces [0.05 X No. Units]
21,136 sf / 1,345 sf = 15.7 spaces	7 units = 1 space 0.034 X 23 units = 0.78 spaces = 1.78 spaces	0.05 X 30 units = 1.5 space
16 parking spaces (including 2 accessible space) + **2** visitor's parking space		

STEP 2 Off Street Bicycle Space Calculations

Class A

Unit Size	No. of Units	Multiplier	Bicycle Spaces
<65 m^2 (700 sf)	19	1.5	28.5

65 m^2 - 105 m^2 (700 sf – 1,130 sf)	11	2.5	27.5
>105 m^2 (1,130 sf)	0	3	0
		Total Required Spaces	**56**

Class B

Min. **2** spaces for any development containing at least 20 units, and one additional space for every additional 20 dwelling units

STEP 3 Off Street Parking Reduction Calculations

TDM measures for residential projects: **24** points required (at 1 per unit) for a max. **40%** reduction.

TDM Measures	Points	Equivalent Reduction %
ACT-02 Improved Access to Class A Bicycle Parking	6	9.8%
ACT-03 Enhanced Class B Bicycle Parking	2	3.3%
ACT-05 Bicycle Maintenance Facilities	2	3.3%
SUP-01 Transportation Marketing Services	2	3.3%
SUP-02 Real-Time Information	2	3.3%
Transit Access	**Level**	**Equivalent Reduction %**
Not within walking distance of an FTN route or SkyTrain station	C	0%
	Total % Reduction	**23%**

Off Street Parking Spaces Required After Reductions

Parking Spaces Required by the Parking-Bylaw	Parking Spaces Reduced TDM + Transit Access	Parking Spaces Required after Reductions
16 spaces (incl. 2 Accessible space) + 2 Visitor's space = 18 spaces	18 spaces X 48% = 4.14 spaces	18 spaces – 4.14 spaces = 13.86 spaces
		= **14** spaces (incl. 2 accessible and 2 visitor's)

6 Example: 6-storey Apartment with Surface Parking on an Arterial Street

Project Info	
Lot Size	99 ft. X 110 ft.
Lot Area	10,890 sf
No. of Storeys	6
FSR	2.4
Floor Area (max.)	26,136 sf
No. or Units	40
Unit Mix	
- Studios	26 (65%)
- 1 BDR	0 (0%)

-	2 BDR	9 (22.5%)
-	3 BDR	5 (12.5%)

STEP 1 Off Street Parking Space Calculations

Standard Spaces [Max. Floor Area / 125 m^2]	Accessible Spaces [1 space + 0.034 X (No. Units – 7)]	Visitor's Spaces [0.05 X No. Units]
26,136 sf / 1,345 sf = 19.4 spaces	7 units = 1 space 0.034 X 33 units = 1.12 spaces = 2.12 spaces	0.05 X 30 units = 1.5 space
19 parking spaces (including 2 accessible space) + **2** visitor's parking space		

STEP 2 Off Street Bicycle Space Calculations

Class A

Unit Size	No. of Units	Multiplier	Bicycle Spaces
<65 m^2 (700 sf)	35	1.5	52.5
65 m^2 - 105 m^2 (700 sf – 1,130 sf)	5	2.5	12.5
>105 m^2 (1,130 sf)	0	3	0
		Total Required Spaces	**65**

Class B

Min. 2 spaces for any development containing at least 20 units, and one additional space for every additional 20 dwelling units = **3**

STEP 3 Off Street Parking Reduction Calculations

TDM measures for residential projects: **24** points required (at 1 per unit) for a max. **40%** reduction.

TDM Measures	Points	Equivalent Reduction %
ACT-01 Additional Class A Bicycle Parking	8	13.3%
ACT-02 Improved Access to Class A Bicycle Parking	6	10%
ACT-03 Enhanced Class B Bicycle Parking	2	3.3%
ACT-05 Bicycle Maintenance Facilities	2	3.3%
ACT-08 Shared Bicycle Fleet	3	5%
SUP-01 Transportation Marketing Services	2	3.3%
SUP-02 Real-Time Information	2	3.3%
Transit Access	**Level**	**Equivalent Reduction %**
400 m walking distance of a SkyTrain station	A	20%
Total % Reduction		**60%** (max. reductions)

Off Street Parking Spaces Required After Reductions

Parking Spaces Required by the Parking-Bylaw	Parking Spaces Reduced TDM + Transit Access	Parking Spaces Required after Reductions
19 spaces (incl. 2 Accessible space) + 2 Visitor's space = 21 spaces	21 spaces X 60% = 12.6 spaces	21 spaces – 12.6 spaces = 8.4 spaces
		= **8** spaces (incl. 2 accessible and 2 visitor's)