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3. RM-9, RM-9A, RM-9N, RM-9AN and RM-9BN Guidelines

THAT amendments to the document entitled "RM-9, RM-9A, RM-9N, RM-9AN and RM-9BN Guidelines" be approved by Council for use by applicants and staff for development applications in all RM-9, RM-9A, RM-9N, RM-9AN and RM-9BN Districts.

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RM-9, RM-9A, RM-9N, RM-9AN AND RM-9BN GUIDELINES

Adopted by City Council on June 24, 2014 Amended February 2, 2016 Amended October 4, 2016

1 Application and Intent

These guidelines are to be used in conjunction with the RM-9, RM-9A, RM-9N, RM-9AN *and RM-9BN* Districts Schedule of the **Zoning and Development By-law**.

RM-9, RM-9N and RM-9BN Zones

Under the Districts Schedule, areas zoned RM-9, RM-9N *and RM-9BN* include "multiple dwelling" and "freehold rowhouses" as conditional uses. In *these zones*, a multiple dwelling may take a variety of forms, including low-rise apartment, courtyard rowhouse, stacked townhouse or a strata row house development. Freehold rowhouses are listed as a separate use, however, strata rowhouse and freehold rowhouse developments follow the same regulations and guidelines. Throughout these guidelines, they are simply referred to as "rowhouses".

The difference between a strata rowhouse and a freehold rowhouse development, aside from tenure, is the minimum width of the rowhouse. In order to provide services (e.g. water, sewer, gas) to a freehold rowhouse and subdivide the development into fee simple lots, a minimum lot width and frontage of 5.0 m (16.4 ft.) is required.

The developer needs to decide at the initial stage of the application whether a rowhouse development will be freehold or strata. For freehold rowhouse developments, additional zoning regulations in Section 11.25 of the Zoning and Development By-law need to be met.

RM-9A and RM-9AN Zones

Under the Districts Schedule, areas zoned RM-9A and RM-9AN permit "multiple dwelling" primarily in the form of four-storey low-rise apartments, with some stacked townhouses, in order to provide a transition between the higher densities and mid-rise buildings on Kingsway, and the ground-oriented residential neighbourhoods behind Kingsway.

1.1 Intent

For RM-9, RM-9N *and RM-9BN* zones, the intent of these guidelines is to encourage the development of medium-density multiple dwellings in a variety of forms, that include a range of unit sizes, many of which are suitably sized for families (i.e. include three-bedroom units). Rowhouses can be strata titled or subdivided into freehold rowhouses and, to simplify, are referred to as rowhouses throughout this document;

For RM-9A and RM-9AN zones, the intent of these guidelines is to encourage the development of four-storey low-rise apartments (all dwelling units at grade or accessed by an elevator). Low-rise apartments may include a range of unit sizes, including those suitable for families (i.e. three-bedroom units) as well as smaller sized units suitable for seniors. On exceptionally deep lots, stacked townhouses will be considered in conjunction with an apartment building. However, a maximum Dwelling Unit Density applies, in order to ensure a minimum stock of family-oriented dwelling units.

For all zones under the Districts Schedule, the intent of these guidelines is to:

(a) Ensure a high standard of liveability for all new dwelling units, including lockoff units. Emphasis is placed on natural light and cross-ventilation, as well as usable private outdoor space for each unit. Ground-oriented access is encouraged where practical;

- (b) Encourage activation of residential street life;
- (c) Consider design solutions that minimize overlook and shadowing onto neighbouring properties, while recognizing that the new development's form and siting is not intended to be the same as development under RS zoning;
- (d) Ensure durable and sustainable design, while allowing architectural diversity rather than prescribing any particular architectural character; and
- (e) Support the retention and renovation of pre-1940s houses, that retain original character elements, and to permit infill one-family dwellings on these sites.

1.2 Application

These guidelines apply to most new conditional residential development, as well as significant renovations or additions.

For developments proposing a one-family dwelling with secondary suite (and/or laneway house), these guidelines do not apply. One-family dwellings and one-family dwellings with secondary suite as the only principal building on a site refer to RS-1. Additional regulations apply for laneway housing, such as Section 11.24 of the **Zoning and Development By-law**.

In situations where an applicant proposes an addition of less than 9.3 m² (100 sq. ft.) that is not visible from the street, the application will only be evaluated against Sections 2 and 4 of these guidelines.

2 General Design Considerations

2.1 Neighbourhood/Streetscape Character

The existing neighbourhoods consist of single family homes and show many characteristics of a typical Vancouver single-family neighbourhood, such as a regular spacing of houses, individual front yards, etc. New development should reflect desirable characteristics of the existing area that are practical for a multiple dwelling such as:

- (a) a clear entry identity from the street including, for ground level units, individual front doors, porches, steps and front yards;
- (b) an articulated building shape that creates an incremental rhythm by visually breaking the facade into smaller individual components;
- (c) enhanced landscape character by providing varied plants of substantial size; and
- (d) locating vehicular access and parking in garages or underground, at the rear of the site.

2.2 Development Scenarios and Building Typologies

2.2.1 Development Scenarios

The zones under the Districts Schedule provide flexibility for a variety of multiple dwelling types. Many will require lot consolidation. In RM-9, RM-9N *and RM-9BN* there are options for individual lots, including a triplex (multiple dwelling containing no more than 3 dwelling units, not including lock-off units).

In RM-9A and RM-9AN, new multiple dwelling development can be considered for development sites that are less than 15.2 m in width only where there is no opportunity to assemble lots (i.e. all private properties directly adjacent have already been developed under the RM-9A or RM-9AN District Schedule, or under the preceding Norquay Village – Apartment Transition Area Rezoning Policy).

For all zones under the Districts Schedule, sites that retain a building constructed before January 1, 1940, which maintains significant elements of its original character, or is renovated to restore character elements as part of the development proposal, may be permitted to construct an infill. Retention of a pre-1940's building is at the applicant's discretion.

2.2.2 Building Typologies

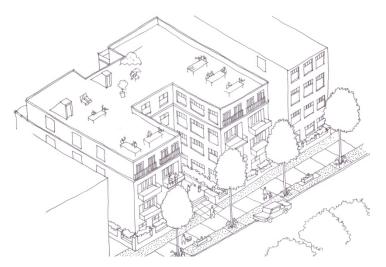
The zones under the Districts Schedule accommodate many types of multiple dwelling, to provide diversity in building form.

- RM-9, RM-9N *and RM-9BN*: Apartments, stacked townhouses, rowhouses. Other types that demonstrate a high degree of liveability will be considered.
- RM-9A and RM-9AN: Apartments, and on exceptionally deep lots, stacked townhouses in conjunction with apartments.
- (a) 3 to 4 Storey Apartment Characteristics:

Designs that vary from the standard "double-loaded" corridor typology are encouraged and proposals should provide:

- (i) more than 4 corner units per floor (e.g. "alphabet buildings") to provide cross-ventilation and natural lighting to most units (see Figure 1).
- (ii) some ground-oriented units with doors at the street;
- (iii) a range of unit types, including 3-bedroom units;
- (iv) private or semi-private outdoor space for all units; and
- (v) variation in form and expression at the upper level.

Figure 1: 4-Storey Apartment



- (b) Stacked Townhouse Characteristics:
 - (i) A stacked townhouse development is comprised of units that are stacked on top of each other. This can include three units located on top of each other, two-level units stacked on top of one-level units, or two-level units stacked on top of two-level units. Other layout solutions may be possible (see Figures 2 and 3).
 - (ii) Stacked townhouses feature private open spaces for all units and entries that are directly accessible from grade facing the street or from a courtyard. Visibility of unit entries from the street should be maximized.
 - (iii) Access to each unit is achieved through external and internal stairs, without reliance on shared corridors.
 - (iv) 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.).

Figure 2: Multiple unit (four or more) stacked townhouse on assembled site or large lot

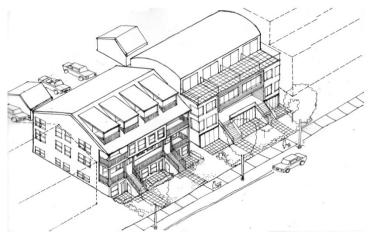
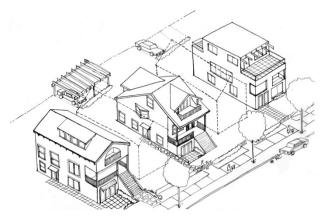


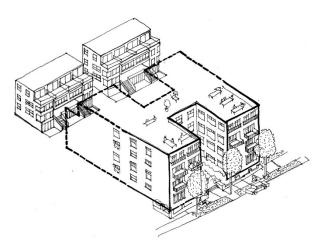
Figure 3: Three-unit stacked townhouse (triplex) on single lot



(c) Courtyard Apartment with Stacked Townhouse Characteristics: For exceptionally deep continuous sites of 150 ft. or more, a development with an apartment building may be supplemented by a second building in the stacked townhouse typology. In these cases, the stacked townhouses should be sited behind the apartment, at the rear portion of the site.

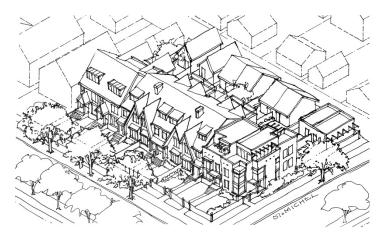
- (i) The predominant building that contains the majority of dwelling units should be in the apartment typology. This apartment should follow the design guidelines as delineated in 2.2.2 (a) above, including "entry" courtyards (see Section 2.6.3).
- (ii) The stacked townhouses located at the rear of the site, should be wellseparated from the apartment by a "garden" courtyard to ensure adequate access to natural light (see Section 2.6.3).
- (iii) All required vehicular parking spaces should be provided underground.
- (iv) A visible and intuitive pathway from the street/sidewalk to the stacked townhouses should be provided, via a wide, clearly delineated landscaped sideyard or a formal entryway that leads through the apartment building's entry courtyards.

Figure 4: Courtyard apartment with stacked townhouse



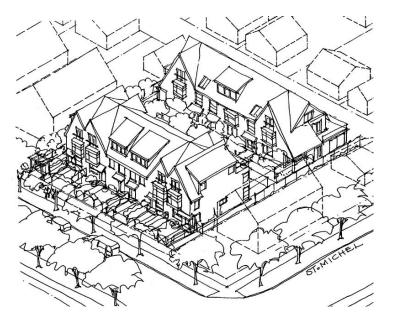
- (d) Rowhouse Characteristics:
 - (i) A rowhouse development is comprised of side-by-side units units are not stacked on top of each other (see Figure 5).
 - (ii) Each rowhouse has access to the front and rear yard.
 - (iii) Rowhouse developments consist of one row of units at the front of the site. The row may be broken up into more than one building.
 - (iv) The individual rowhouse unit should be no less than 3.6 m (12 ft.) clear, measured from internal wall finish to internal wall finish. Narrower units can be considered if improved liveability is provided (e.g. end units with three exposures).
 - (v) Rowhouses can be strata titled or freehold. The term "rowhouse" in these guidelines refers to any rowhouse development whether they will be strata titled or subdivided into freehold lots.

Figure 5: Rowhouse



- (e) Courtyard Rowhouse Characteristics:
 - (i) The basic type will have one row of side-by-side units near the street, and one near the lane (i.e. two principal buildings) with parking provided at grade under the rear row of units, or underground (see Figure 6).
 - (ii) The row of side-by-side units may be broken up into more than one building.
 - (iii) Each unit has access to private open space and entries that are accessible from the street (for the front row of units) or the courtyard (for the rear row of units).
 - (iv) Stacked units may be considered.
 - (v) Individual rowhouses should be no less than 3.6 m (12 ft.) clear, measured from internal wall finish to internal wall finish. Narrower units can be considered if improved liveability is provided (e.g. end units with three exposures).

Figure 6. Courtyard Rowhouse



2.3 Orientation

Wherever possible, designs should emphasize street-facing front door entries. An apartment form with single entry to the building will be considered, but incorporating direct street access to ground level units is strongly encouraged. Private outdoor spaces for ground-level dwelling units may be located in the front yard.

The intent is to maximize active street life, and the following elements are strongly encouraged, especially in row and townhouse buildings: front entry porches, generous porch stairs and street-facing living room windows. In addition, balconies, and front patios help activate the street.

- (a) Developments should orient the main entrances to the street, and entries should be clearly visible from the street and the sidewalk. Discrete lighting of paths and entries should be provided.
- (b) On corner sites, building fronts and entrances should be located facing both streets.
- (c) Units in the rear buildings of courtyard rowhouses should have front entrances oriented to the internal courtyard. A generous and clearly marked passage from the street to the courtyard should be provided (see section 2.11). On a corner or double-fronting site, all elevations which face a street should be fully designed and detailed.
- (d) Stacked townhouses on interior sites may have the main entrance to the lower level dwelling unit from a side or rear yard. However, a larger side yard setback with a minimum of 2.4 m (8 ft.) should be provided for the portion of travel between the front property line and the front entrance.
- (e) Entrances to lock-off units may be located on a building elevation that is not directly oriented toward the street. However, there must be a wayfinding element at the front of the site that clearly directs individuals to the entrance of the lock-off unit.

2.6 Light and Ventilation

Access to natural light and ventilation affects the liveability of dwelling units. A focused design effort is required to ensure these qualities in multiple dwellings.

2.6.1 Access to Natural Light

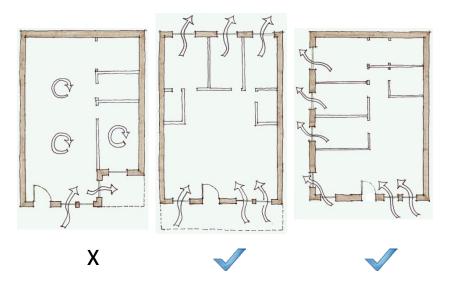
- (a) Daylight for interior and exterior spaces for all housing types should be maximized.
- (b) Multiple dwellings have to meet the Horizontal Angle of Daylight requirements of the RM 9, RM-9A, RM-9N, RM-9AN *and RM-9BN* Districts Schedule.
- (c) Each dwelling unit should have two exterior walls to maximize light access and ventilation through windows.
- (d) For all housing types, all habitable rooms (not including bathrooms and kitchens) should have at least one window on an exterior wall
- (e) Some shadowing on adjacent sites is expected but should be minimized.
- (f) Dwelling units that do not have two exterior walls (e.g. studio or one-bedroom), should not be any deeper than 8.5 m (28 ft.) to ensure adequate natural light to the primary dwelling spaces.

2.6.2 Natural Ventilation

Natural ventilation allows the exchange of stale indoor air with fresh outdoor air and has an impact on the heating and cooling of spaces that is not energy intensive. Natural ventilation is affected by several factors, such as the size, type and placement of windows, ceiling heights, and prevailing winds. Natural ventilation is greatly increased when two windows on two different exposures are opened within a dwelling unit.

- (a) Most dwelling units should have at least two major exposures that face opposite directions or at right angles to each other (see Figure 7).
- (b) The provision of natural ventilation should work in conjunction with Horizontal Angle of Daylight regulations to ensure that each habitable room is equipped with an openable window.

Figure 7 Dwelling Unit with a single exposure lacks the opportunity for natural displacement of indoor air (left) vs dwelling units with two exposures (right)



- (c) Where a dwelling unit is located directly beneath the roof of a building, the stack effect of internalized air may be exploited by placing openable skylights in the roof.
- (d) Ceiling heights greater than 2.4 m (8 ft.) are encouraged, especially for floors that contain living space (e.g. living rooms).
- (e) Employing window types that facilitate air exchange are encouraged. Doublehung windows offer the choice of ventilating a high zone, a low zone or a combination thereof, of interior space. Casement windows, when oriented with prevailing winds, can facilitate air flow from outside into interior spaces (scoop effect).
- (f) Where development is exposed to heavy vehicular traffic or an ALRT, the need to mitigate noise impacts could conflict with providing light and ventilation along those exposures. New development must achieve solutions to this conflict to ensure residential liveability and consider the intent of other sections of these guidelines.

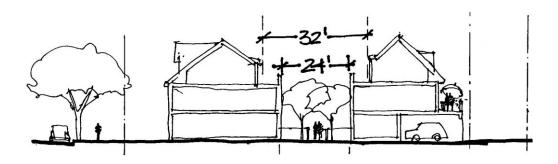
2.6.3 Light and Ventilation for Courtyards

Courtyards provide light and ventilation to adjacent units, as well as an open space for residents to share.

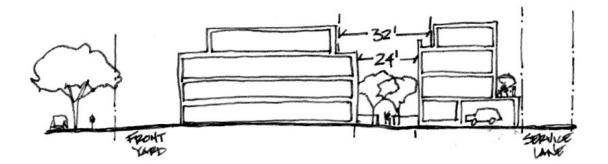
- (a) Entry Courtyards
 - (i) Street-facing "entry courtyards" are encouraged in all apartment development. The width for this entry courtyard should be a minimum of 8.0 m (26 ft.). While entry courtyards serve to facilitate the requirement for cross ventilation through large dwelling units, they also serve to enliven the public realm with greenery and activity.
 - (ii) All entry courtyards should be sited against the front or rear property lines.
 - (iii) Projections such as balconies that are permitted into the entry courtyard should be carefully coordinated and limited to ensure that natural light is not restricted.
- (b) Garden Courtyards
 - (i) Where there are two or more buildings on a site, a "garden courtyard" is expected to be provided in the space between the buildings. Garden courtyards should be a minimum of 7.3 m (24 ft.) clear depth on the first and second levels, and a minimum of 9.8 m (32 ft.) on levels above (Figure 8).
 - (ii) There are no set restrictions on what rooms can face the garden courtyard, but privacy and light access should be considered.
 - (iii) Projections permitted into the garden courtyard should be carefully coordinated, and limited to ensure that natural light is not restricted.

Figure 8 Garden Courtyards

RM-9/N and RM-9BN: Minimum 24' depth on first and second levels, increased to 32' on upper levels



RM-9A/N: On exceptionally deep lots only, minimum 24' depth on first, second and third levels, increased to 32' on upper level



2.8 Noise

- 2.8.1 Noise from vehicular traffic and/or the ALRT affect sites in the RM-9N, RM-9AN and RM-9BN districts. These sites will require special measures to ensure livability. New development should minimize the potential noise impact on habitable areas. Design buildings on the sites to meet the standards set out in the by-law. This can be achieved through measures which may include:
 - (a) Locating rooms most affected by noise such as living rooms and/or bedrooms away from the noise source;
 - (b) Locating areas not affected by noise such as stairwells and single loaded corridors between the noise source and dwelling units;
 - (c) Using materials and construction methods that limit noise transmission such as masonry construction, double stud insulated walls, triple glazing and glass block;
 - (d) Locating noise buffers such as enclosed balconies, and landscape elements between the noise source and dwelling units;
 - (e) Providing alternate ventilation systems such as baffled wall vents.

Regardless of the design approach chosen, the noise mitigation response needs to consider the intent of the guidelines, including building orientation, access and circulation and architectural components.

- 2.8.2 The intent of this section is to guarantee an acceptable level of acoustic separation between dwelling units within a development.
 - (a) All shared walls between separate dwelling units should strive to achieve an STC rating of 65. This will most likely require a wall thickness of 25 cm (10 in.).
 - (b) The overall room layouts and their relationship to adjacent units should be considered. Noise-sensitive rooms, such as bedrooms, should be located adjacent to noise-sensitive rooms in the neighbouring unit.
 - (c) Locating building elements such as stairs and closets to act as noise buffers against shared walls is also an effective design solution to minimize noise impact from neighbouring units.
 - (d) For structural floors between separate stacked townhouse dwelling units, a high acoustical rating is recommended. Furthermore, other measures designed to dampen the transfer of vibrations should also be provided.
 - (e) Details reflecting the method of noise mitigation proposed for the exterior walls should be included with the drawing set as required in section 4.15 (Acoustics) of the Districts Schedule.

2.9 Privacy

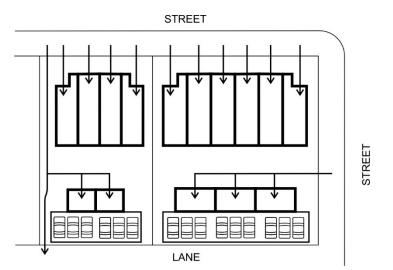
While some overlook of private open space and lines of sight into windows may be unavoidable, the intent of these guidelines is to minimize these impacts.

- (a) The location and orientation of windows, decks and balconies in new development should be carefully considered to reduce looking into close-by windows of existing adjacent development.
- (b) Visual privacy for units, balconies and private open space should be enhanced as much as possible through unit planning, landscape screening, and other elements, such as solid railings.
- (c) In stacked townhouse developments, external stairs leading to upper level units should be located close to the entry doors so that people do not need to pass the front doors and windows of other units in order to access their own units.

2.11 Access and Circulation

- (a) As many units as possible should have pedestrian access to the front doors from the street.
- (b) Corridors in apartment buildings should be limited in length. Vertical circulation can be used to limit long corridors. Corridors should have natural light and ventilation.
- (c) For courtyard rowhouse development, a pedestrian path with a minimum width of 3.6 m (12 ft.) should be provided between street-fronting buildings to the courtyard from the street. If the only access is along a side yard, a minimum access of 2.4 m (8 ft.) should be provided. Access to entry doors in the rear building should be from the common courtyard. Pedestrian access should also be provided between the lane and the courtyard through the side yard space (Figure 9).

Figure 9. Access and Circulation for Courtyard Rowhouse



(d) For proposals with buildings containing dwelling units at the rear of the site, applicants should review specific siting conditions with Building By-law and Fire Prevention staff. Additionally, in order to provide fire access to buildings at the rear of sites:

- (i) Pedestrian access route(s) to buildings at the rear should maintain a minimum building separation of 2.4 m (8 ft.) and clear path of 2.0 m (6.5 ft.); and
- (ii) On lots without lanes, additional requirements for firefighter access, or upgrades to fire protection standards may affect the placement, separation, or construction of buildings.
- (e) Hard surface circulation should be minimized to provide only what is necessary to access dwelling units, common outdoor space or services located at the rear of the site.
- (f) Vehicular access should be from the lane, where one exists.
 - (i) Sites must be assembled in such a way that vehicular access from a lane is possible.
 - (ii) On sites without lane access, and with no means to acquire lane access through consolidation, access may be from the street and the curb cut should be minimized. An offset, rather than a centred curb cut should be considered in order to consolidate space left for landscape.
- (g) For freehold rowhouse applications in RM-9, RM-9N *and RM-9BN*, applicants should consult in advance with the City of Vancouver Engineering Department and third-party utilities to determine lot layouts and access locations that will accommodate the required services and utilities.

2.12 Internal Storage

The internal design of dwelling units should consider the storage needs of families. Insuite storage areas should be provided within individual dwelling units or within residential storage areas located in underground parking structures. A floor space exclusion is provided for bulk residential storage space that is located underground.

3 Uses

3.1 Lock-off Units

- (a) The Districts Schedule permits a "Principal Dwelling with a Lock-off Unit" in multiple dwellings. A lock-off unit is a portion of the main dwelling unit that can be locked off to be used separately or rented out. The intent of allowing lock-off units in multiple dwellings is to increase the rental stock in the neighbourhood and to provide the option of having a mortgage helper for the owner of the unit (similar to the option of having a secondary suite in one- and two-family dwellings).
- (b) A lock-off unit is an optional and flexible use, and therefore the lock-off unit has to be equipped with an internal access to the main unit.
- (c) A lock-off unit cannot be strata-titled. This is secured by covenant.
- (d) While lock-off units do not require additional vehicle parking, they do need separate bicycle parking (see Section 4.9).
- (e) In order to ensure safety and acceptable standards of liveability, lock-off units must comply with the **Principal Dwelling Unit with a Lock-off Unit Guidelines**.
- (f) The maximum number of lock-off units in apartments, stacked townhouse or courtyard rowhouse developments is one lock-off for every three units.
- (g) The maximum number of lock-off units in rowhouse developments is one lock-off unit for every rowhouse unit.

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

4.2 Frontage

- (a) In RM-9, RM-9N *and RM-9BN*, the minimum frontage for a multiple dwelling with four or more units (not including lock-off units) is 12.8 m (42 ft.). This is the minimum frontage for a stacked townhouse development. Wider frontages are required to practically accommodate other multiple dwelling types:
 - (i) Rowhouse developments require a minimum frontage of 14.6 m (48 ft.) for three rowhouses and 18.9 m (62 ft.) for four rowhouses. This width accommodates the minimum width for rowhouse units [4 m (13.3 ft.) between the centre of walls] and a 1.2 m (4 ft.) side yard on either side of the development.
 - (ii) Courtyard rowhouse developments require a minimum frontage of 18.9 m (62 ft.).
 - (iii) Apartment buildings will generally require a minimum frontage of 15.2 m (50 ft.) in order to accommodate underground parking.
- (b) In RM-9A and RM-9AN, the minimum frontage for a multiple dwelling with four or more units (not including lock-off units) is 15.2 m (50 ft.) in order to accommodate underground parking.
- (c) The districts schedule prescribes a maximum frontage width to encourage a variety of smaller developments. The Director of Planning can relax this maximum only to ensure that individual lots are not "locked in" or "orphaned" with no opportunity to consolidate and develop with other adjacent lots. Where the maximum frontage is relaxed, an exceptional effort should be made to create variety between the street-fronting buildings on site.

4.3 Height

4.3.1 Height in RM-9, RM-9N and RM-9BN

The permitted height for multiple dwellings is higher than for the existing single-family dwellings. In order to achieve a degree of compatibility with adjacent existing development, the massing and roof forms should be designed to reduce apparent scale (refer to additional guidelines in Section 5.0).

(a) For buildings sited along the street the Director of Planning may permit an increase in building height to 12.2 m (40 ft.). These buildings should generally take a 3 storey form with a partial fourth storey. For townhouse and rowhouse buildings, the lower storey may be recessed into grade up to 0.9 m (3 ft.) and any height increase should achieve good liveability for units located at the lowest level.

The upper storey should have a reduced massing to assist with compatibility with the existing streetscape. This can be achieved in several ways such as containing the upper storey in a pitched roof, or setting back the walls of the upper level from those below.

- (b) For buildings in the rear of the site, the maximum height of 10.7 m (35 ft.) and 3 storeys should be maintained, except that a reduced height of 9.1 m (30 ft.) should be incorporated within 4.9 m (16 ft.) of adjacent properties.
- (c) For buildings located in the rear of the site and adjacent to a zone or policy area where permitted heights are greater than 12.2 m (40 ft.), the Director of Planning may permit an increase in building height to 12.2 m (40 ft.) and 4 storeys.
- (d) For apartment buildings, the Director of Planning may permit an increase in building height to 12.2 m (40 ft.), and 4 storeys, provided the Director of Planning considers the intent of these Guidelines, with particular regard to General Design Provisions of section 2.
- (e) The Director of Planning may permit an additional increase in building height to 13.7 m (45 ft.) and 4 storeys to accommodate sloped roof forms that complement the architectural design of the building, sloping sites, and urban design conditions such as adjacencies to higher buildings.
- (f) The maximum allowable roof height may only be attained at localized points within the development, rather than as a continuous height around the perimeter of the building.
- 4.3.2 Height in RM-9A and RM-9AN

The Director of Planning may permit an increase in building height to 13.7 m (45 ft.). These buildings should generally take a 4-storey form.

- (a) The intent of this district is to permit buildings that are a physical transition from the mid-rise buildings on Kingsway, to the ground-oriented residential neighbourhoods behind Kingsway. Flat roofs are permitted and encouraged. Further, the 13.7 m (45 ft.) height is intended to enable ceiling heights that are taller than the typical 2.4 m (8 ft.).
- (b) For sloping sites, the lower storey may be recessed into grade up to 0.9 m (3 ft.) and any height increase should achieve good liveability for units located at the lowest level.

4.4 Front Yard

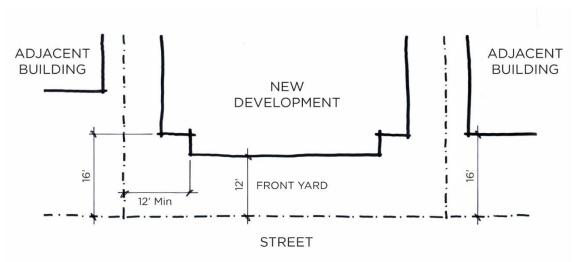
The front yards of existing single-family homes vary among properties, but are often 7.3 m (24 ft.). New development will have shallower front yards. The wider sideyards required for some building types will help with a visual transition in the streetscape. To better assist with this transition the sidewalls of these new buildings should be treated with materials and fenestration that avoid the appearance of a "blank wall".

The Director of Planning may permit a reduction in the minimum front yard to 3.7 m (12 ft.):

- (a) to allow apartments and courtyard developments to achieve improved liveability for the dwelling units if this cannot be better achieved with a rear yard relaxation; or
- (b) on lots less than 27.4 m (90 ft.) in depth.

However, in RM-9, RM-9N *and RM-9BN*, where the front yard of the adjacent building is 4.9 m (16 ft.) or more, the front yard on that side of the proposed development should be 4.9 m (16 ft.) within 3.7 m (12 ft.) of the side property line (see Figure 10).

Figure 10: Front yard setbacks depend on the setback of adjacent buildings in RM-9, RM-9N and RM-9BN



4.5 Side Yard

A side yard setback of 2.1 m (7 ft.) is required for multiple dwelling developments. This side yard should be a minimum for apartment developments, and may be increased in some designs to improve access to light and air to dwelling units.

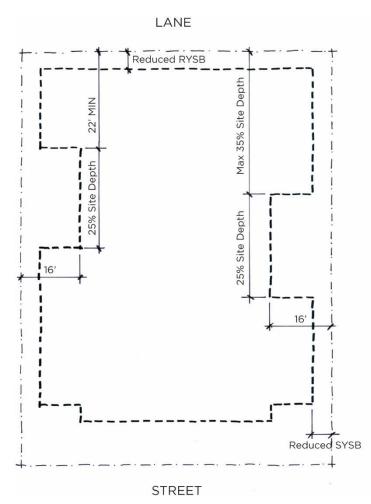
Other multiple dwelling forms have less impact on neighbouring buildings. The Director of Planning may allow a reduction in the side yard setback:

- (a) for rowhouse and stacked townhouse developments with a single row of buildings at the street to 1.2 m (4 ft.), subject to section 2.3 of these guidelines;
- (b) for courtyard rowhouse or townhouse developments, to 1.5 m (5 ft.), provided an enhanced side yard (see Figure 10) is provided mid-site at interior property lines to allow a neighbourly relationship to the rear yards of adjacent development:
 - (a) with a minimum width of 4.9 m (16 ft.) and a minimum length equal to 25 percent of the site depth;
 - (b) located so that its rear boundary is not less than 6.7 m (22 ft.), nor more than a distance equal to 35 per cent of the site depth, from the ultimate rear property line;
 - (c) the location of the enhanced side yards is flexible in order to allow a variety of development scenarios and need not be located in the same position on both sides and may need to vary from the dimensions above on sites deeper than 41 m (135 ft.).

This enhanced mid-site side yard setback is in addition to an increased setback to accommodate access.

(c) Generally, exterior side yards should not be reduced from the minimum.

Figure 11: Enhanced side yards diagram for courtyard developments



4.6 Rear Yard

The Director of Planning may allow a reduction in the rear yard setback if the resulting building form allows developments to achieve improved liveability for the dwelling units, by assuring at least 2 exterior walls per unit. The rear yard may be reduced to:

- (a) a minimum of 3.7 m (12 ft.) for apartment buildings;
- (b) a minimum of 1.2 m (4 ft.) for courtyard developments.

4.7 Floor Space Ratio (FSR)

These districts schedules offer the opportunity for a wide variety of development types, with a range of floor space ratios. Depending on the site and the form of development chosen, it may not be possible to achieve the highest FSR (e.g. courtyard rowhouse on standard depth lot).

In these districts schedules, some FSR exclusions for parking and bike storage differ significantly from other districts. Please refer to section 4.9 Off-Street Parking and Bicycle Storage for more detail.

4.8 Site Coverage and Impermeability

Generally the site coverage should not be relaxed, as provision of open space and landscaped surfaces are encouraged. However, for apartment buildings otherwise achieving the intent of the guidelines, the Director of Planning may increase the area of site coverage to 65 per cent of the site area.

For developments providing underground parking, the Director of Planning may increase the area of impermeable materials of the site, provided landscaped surfaces are maximized and impermeable surfaces minimized to what is absolutely necessary for site function.

4.9 Off-Street Parking and Bicycle Storage

4.9.1 Parking

Parking, and access to underground parking, should be located at the rear of the site, from the lane. For all multiple dwellings, underground parking is permitted and will receive a standard exclusion for the purpose of FSR calculations (see districts schedule).

For some multiple dwelling types, it may be possible to provide parking at grade from the lane:

- (a) For a single row of rowhouses or stacked townhouses, the following applies:
 - (i) Parking can be provided in open parking spaces or garages, however, enclosed parking is counted as part of the allowable floor space. There is no exclusion for above ground parking in accessory buildings for the purpose of FSR calculations.
 - (ii) To be able to provide one garage per rowhouse, the Director of Planning can increase the total floor area of all accessory buildings to a maximum of 24 m^2 (258 sq. ft.) for each rowhouse as well as increase the proportion of the width of the site that can be occupied by an accessory building to a maximum of 80 per cent.
 - (iii) For stacked townhouses on sites where underground parking is not provided, the Director of Planning can increase the proportion of the width of the site that can be occupied by accessory buildings to a maximum of 80%.
 - (iv) Up to two spaces may be located in one accessory building. Garages with three or more spaces are not permitted. The garages containing one or two parking spaces should be separated, with areas of open space to break up the massing of the buildings and provide pedestrian access from the rear yard to the lane.
 - (vii) Some freehold rowhouse units may be limited to a parking pad, in order to allow sufficient space to accommodate servicing and third-party utilities.
- (b) For courtyard townhouses/rowhouses, the following applies:
 - (i) Parking at grade may be provided under the rear building, accessed directly off the lane. However, to manage building bulk, there is no FSR exclusion for above ground parking.

- (c) Open parking spaces should be paved with pavers that are permeable to reduce stormwater sewer loads. However, since most permeable pavers lose their permeability over time, parking areas with permeable pavers are counted as impermeable surface.
- 4.9.2 Bicycle Storage
 - (a) While there is no FSR exclusion for above grade parking in multiple dwellings, the Districts Schedule specifies that the portion of required bicycle parking located in an accessory building may be excluded from floor area calculations.
 - (b) Creative bike parking solutions should be sought, such as under stairs and patios, in crawl spaces and in freestanding boxes.
 - (c) In rowhouse developments, bicycle parking for a lock-off unit should be provided in a location separate from the garage for the principal dwelling, such as underneath the external stair or in a bike box located at the rear of the garage or at the entrance to the lock-off unit.

4.10 Horizontal Angle of Daylight

The Horizontal Angle of Daylight regulation helps to ensure the 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.

- (a) The relaxation of horizontal angle of daylight requirements provided for in the RM-9, RM-9A, RM-9N, RM-9AN *and RM-9BN* Districts Schedule should be used to achieve a minimum standard of natural light access for rooms that are not primary living spaces, such as bedrooms, dens and dining rooms.
- (b) With the exception of lock-off units, the main living space for each dwelling unit should face a street, rear yard, or courtyard. Relaxation of the horizontal angle of daylight for primary living spaces (i.e. living rooms) should not reduce the requirement to less than 15.2 m (50 ft.) of uninterrupted sightlines, or 7.3 m (24 ft.) in courtyard townhouse/rowhouse developments;
- (c) To ensure the liveability of rooms at the basement level, the basement floor should not be more than 0.9 m (3 ft.) below the adjacent exterior grade. A minimum ceiling height of 2.4 m (8 ft.) should be provided.
- (d) In the case of lock-off units, the required distance for an unobstructed view is detailed in the **Principal Dwelling Unit with Lock-Off Unit Guidelines**.

4.16 Building Depth

No maximum building depth is specified for multiple dwellings with 4 or more units. This is to provide flexibility in building form to achieve the goals of the General Design Considerations in Section 2, with particular regard to light, ventilation and privacy.

As a new building will project further into the site, designs should also consider the impacts on privacy and shadowing to neighbours. Design revisions that still achieve liveability goals for the subject site, and minimize overlook and shadowing to neighbour sites should be explored, such as creating larger side yards in the rear portion of the site, and setting back upper storeys.

4.18 Dwelling Unit Density

The Districts Schedule places a limit to the density of dwelling units permitted for each development site, based on site size and floor area. The intent is to encourage developments to include dwelling units large enough to accommodate families. The Dwelling Unit Density in 4.18.1 is calibrated for rowhouses and stacked townhouses – developments that typically require internal staircases, which may displace floor area that could otherwise be dedicated to living areas (e.g. bedrooms, living rooms). As such, the provision in 4.18.2 for the Director of Planning to permit a Dwelling Unit Density increase for projects above 1.2 FSR should only be considered for developments that provide single-storey dwelling units, where a majority of units are accessible by a shared elevator (i.e. 4-storey apartment buildings). This permission will nevertheless be dependent on design criteria set out in the Guidelines including: number of 2- and 3-bedroom units; dwelling unit size and liveability; opportunity for cross-ventilation; and provision of useable private open space.

In some cases in RM-9A and RM-9AN, a development site that is exceptionally deep will allow a Courtyard Apartment with Stacked Townhouse development scenario with two or more buildings. On these sites, where at least one building is a 4-storey apartment building, the Dwelling Unit Density increase provisions in 4.18.2 may be considered.

4.19 Number of Buildings on Site

The Director of Planning may permit more than one building on a site to allow courtyard form development and to help provide an incremental rhythm in the streetscape to reflect the existing development pattern.

In all cases, allowing more than one building on a site should provide a superior site planning solution and assist with achieving natural light and ventilation as discussed in Section 2.

4.19.1 Number of Buildings on Site in RM-9, RM-9N and RM-9BN

- (a) On sites larger than 670 m^2 (7,212 sq. ft.), courtyard development generally in the form of rowhouse or stacked townhouse, with buildings along the front and the rear of the site, is supported to enable more ground-oriented units.
- (b) Developments on sites wider than 33.5 m (110 ft.), whether single-row or courtyard rowhouse buildings, should create more than one building along the street, or create the appearance of two buildings with the use of a deep courtyard. This is to help break up the massing of the development and create a streetscape that is more consistent with the existing block. Space between the two buildings should be at least 3.6 m (12 ft.).
- (c) For stacked townhouses, buildings should be limited to 24 m (80 ft.) in width. Therefore, on wider sites, more than one building can be permitted. Limiting the building width allows more windows on the sides and allows for better cross-ventilation and access to natural light.
- (d) Apartment buildings on sites wider than 45.7 m (150 ft.) should create more than one building along the street, or create the appearance of two buildings with the use of a deep entry courtyard, with minimum dimensions of 6 m (20 ft.) depth by 8.0 m (26 ft.) width.

- 4.19.2 Number of Buildings on Site in RM-9A and RM-9AN
 - (a) Apartment buildings on sites wider than 45.7 m (150 ft.) should create more than one building along the street, or create the appearance of two buildings with the use of a deep entry courtyard, with minimum dimensions of 6 m (20 ft.) depth by 8.0 m (26 ft.) width.
 - (b) On sites that have a minimum continuous depth of 45.7 m (150 ft.), additional buildings may be considered along the rear property line. The apartment building should be the predominant building form, i.e. located at the front of the site and containing the majority of dwelling units. Buildings at the rear of the site may be stacked townhouses.

5 Architectural Components

Developments are not required to emulate any particular architectural style. Regardless of style, high quality design is expected to contribute to the streetscape. All walls or portions thereof that are visible from the street should include a cohesive and wellscaled composition of cladding materials, trim, fenestration and relief elements such as bays, recesses, porches, balconies which provide shadow play, wall texture, rain protection and human scale.

5.1 Roof and Massing

- 5.1.1 Roofs in RM-9, RM-9N and RM-9BN
 - (a) The forms of roofs on existing buildings in the area are varied, though most are pitched and simple in style. While new development is not expected to emulate the existing building style, it should incorporate roof forms that have a clear, simple concept, and provide variety and texture (see Figure 12).



Figure 12: Varied rooflines on multiple dwellings

- (b) New development can take many forms. In all forms the roof and fourth floor should have a reduced massing to assist with compatibility with the existing streetscape. Fourth floor massing can be reduced by:
 - (i) Containing the upper level in a pitched roof form;
 - (ii) For a flat or shallow pitch roof development, by significantly setting back any building mass at the front and rear of the building. This can be done continuously or in increments;
 - (iii) In rowhouses this can be achieved by reducing the overall height of the end units.
- (c) Secondary roof forms and dormers can be incorporated into a design. They may be useful to emphasize entries and unit identity and create an incremental scale that relates to the existing context. If used, they should be subordinate to the main form.
- (d) Roof top terraces should be set back from the building edge to minimize the view into adjacent yards.

5.1.2 Building Massing

The new housing types permitted are larger than the existing single-family dwellings in the neighbourhood. To assist with a massing transition in the existing streetscapes, and to continue streetscape interest, actual and apparent building width should be limited.

(a) Massing of Apartment Buildings

For apartments, the building face should be articulated so that there are significant recesses. These recesses should be created in the form of inset entry courtyards. This not only assists with a more modulated building massing, but creates the opportunity for additional windows for natural light and ventilation. These entry courtyards should have a minimum width of 8.0 m (26 ft.), and may need to be wider to achieve the required Horizontal Angle of Daylight.

In RM-9A and RM-9AN, setting back the fourth storey from the street-facing elevation abutting the front yard by 2.4 m (8 ft.) is highly encouraged, as a means of reducing the overall scale of the building as viewed from the public sidewalk, as well as to provide ample outdoor balcony space for dwelling units facing the street. Where development sites are located facing a large public park, however, a setback may not be necessary as a larger building scale may be considered in relation to a large public open space.

In RM-9N, buildings facing Granville Street need not provide street-facing courtyards as there is significant street noise, but can provide these at the rear or sides of the building. Vertical articulation can be created through other architectural devices on the front of the building.

In RM-9A and RM-9AN, the rear yard setback at the first floor should be a minimum of 3.7 m (12 ft.). Second, third and fourth storeys should have a minimum rear setback of 6.1 m (20 ft.). This ensures an adequate amount of viewing distance from the living rooms of lane-facing dwelling units to developments across the lane.

(b) Massing of Townhouses, Rowhouses, and Courtyard Buildings

For townhouse and rowhouse buildings, individual buildings should not exceed 24 m (80 ft.) in width, or 4 to 6 rowhouses. Architectural articulation can be used to reduce the massing of rowhouse developments.

Townhouses and rowhouses should visually emphasize individual units. While many successful rowhouse developments rely on simple repetition of identical or near identical side-by-side units, the boundaries of each unit should be obvious and clearly expressed on the street façade.

Figure 13: Illustration of reduced massing of end unit



In RM-9, RM-9N *and RM-9BN*, courtyard rowhouses at the rear of the site should be designed to reduce apparent massing adjacent to the lane and minimize shadowing impacts on adjacent residential properties. Consideration should be given to stepping back the upper floor along the lane to reduce the massing along this exposure. On sites where the height in this area is limited to 10.7 m (35 ft.), this should be achieved in three storeys. Where a building nears the rear yard of an adjacent residential property, the massing should be reduced through decreased height or increased setbacks.

5.3 Entrances, Stairs and Porches

Entrances are a place of interest and interaction on the street. They provide opportunities for individual expression and identity. Provision of individual entries to all ground level dwellings is strongly encouraged, including apartment buildings.

5.3.1 Entrances

- (a) In townhouse and rowhouse buildings, each street fronting principal dwelling unit should have one clearly expressed main entrance area facing the street. In some instances, the Director of Planning may permit a main entry door located off the rear elevation of a stacked townhouse building.
- (b) Other entrances, such as lock-off units, should be located on the front façade wherever possible. However, clarity should be maintained with respect to which is the main entrance. These entrances may include French doors and sliding glass doors.
- (c) Courtyard rowhouse units in the rear building should have main entrances oriented to the internal courtyard.

- (d) On a corner or double-fronting site, all elevations that face a street should accommodate entrances.
- (e) Pedestrian access to the main entries should be clearly visible from the street. Pedestrian pathways to units facing the side yards or rear yards should be clearly visible for way-finding purposes (such as through lighting, addressing and trellises).
- (f) In 4-storey apartment buildings, the main entrance should lead to a shared elevator and stair lobby. Furthermore, this entrance should typically be accessed via the semi-private entry courtyard facing the street (see 2.6.3).

5.3.2 Porches

- (a) For townhouse and rowhouse buildings, each unit should have an entry porch, which can range from a small stoop area to a large, more usable porch. This is also strongly encouraged for ground level units in apartments.
- (b) Larger porches can serve as a private outdoor space for some units.

5.3.3 Stairs

- (a) For courtyard rowhouses and rowhouses, stairs to levels above the main floor must be accommodated within the internal space of the house or unit.
- (b) In stacked townhouses stairs to the upper level units become a major design feature. They should be incorporated into the overall design and not have a "tacked-on" appearance. Exterior stairs should not climb more than 2.1 m (7 ft.). Beyond this height they create excessive projections into the front yard. The Building By-law should be consulted to ensure compliance for exiting requirements.
- (c) Steps are allowed in required side yards only where they are designed to facilitate grade changes from the front to the rear of the site.

5.4 Windows and Skylights

Window placement and design play important roles in the overall visual composition of a building. Windows are also significant for the liveability of a unit, because they let in natural light and air.

- (a) When a window or skylight is the only source for natural light for a room, it should also be possible to open it to guarantee natural ventilation throughout the dwelling.
- (b) Every room should be equipped with an operable window. Bathrooms and small kitchens, however, are exempt.

5.5 Balconies and Decks

- (a) Balconies and decks should be designed as integral parts of the building massing and façade composition.
- (b) Inset, rather than projecting, balconies should be used where privacy of neighbouring properties may is a concern.

5.6 Exterior Walls and Finishing

The finishing materials of new development should be durable. High-quality materials that last longer are more sustainable and create less waste. Materials that perform well 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) Materials should be used in a way that is true to their nature. For example, stone facing should be used as a foundation element, and as the base of columns, but should not be used as a facing on upper levels with no clear means of support below.
- (c) In general, the same materials should be used in consistent proportions on all facades 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'.
- (d) 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.
- (e) Large blank walls should be avoided whenever possible. Window openings, detailing, materials, colour, wall articulation and landscaping should be used to enliven them and reduce their scale.
- (f) Exposed foundations should be limited to 30 cm (12 in.).
- (g) Garage doors for individual units should be single width.

7 Open Space

The provision of open space should be 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.

- (a) Provide useable open space at grade to meet the varied needs of residents:
 - (i) For ground-oriented units, a private garden and/or patio;
 - (ii) For stacked and apartment units, a semi-private area that is designed as an organizing element, not as 'leftover' space. Provide sufficient distance, screening, landscape, and outlook considerations for the mutual comfort of dwellings overlooking the space.
- (b) In addition, a spacious balcony or deck with a minimum depth of 1.8 m (6 ft.) should be provided;
- (c) Roof decks add considerably to the amenity of any unit. Care should be taken to avoid direct sightlines to neighbouring windows, balconies and yards. Roof decks should be well-integrated into the overall form.
- (d) Units that could accommodate families with children (2 bedrooms or larger) should have access to open space that is suitable for children.

8 Landscaping

- (a) Existing trees should be kept and new trees introduced wherever possible.
- (b) Patio areas in the front yard should be screened with planting.
- (c) Visually undesirable building features, such as exposed foundation or utilities, should be screened with landscaping.
- (d) 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 is

encouraged (please refer to **Guidelines for Planting City Boulevards**). The space between the sidewalk and the front property line should receive similar treatment.

- (e) 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, 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.
- (f) Where walls or fences are provided, they should be combined with soft landscaping to provide visual depth, screening and layering.
- (g) Landscaping in semi-private common spaces should be designed to provide screening and filtering of views, relying on plant material, rather than fences. Planting larger caliper trees is particularly necessary in these locations.
- (h) Where dwelling units are located at the lane, every opportunity to enhance the lanescape with landscaping should be taken. This includes:
 - (i) Entry gates and arbors over pedestrian entrances;
 - (ii) Arbors over driveway entrances;
 - (iii) Planted areas or planter boxes between garage doors;
 - (vi) Planting of trees near the lane where possible.

9 Garbage and Recycling

For multiple dwelling developments, appropriate areas for garbage and recycling bins directly off the lane should be provided. The document, Garbage and Recycling Storage Facility Supplement, provides detailed information on the number of containers required and dimensions and specifications of commonly used storage containers. It is available online at: <u>http://vancouver.ca/home-property-development/garbage-and-recycling-storage-facilities.aspx</u> or at the Enquiry Centre, 1st floor, 515 West 10th Avenue.