

# Guidelines

RM-8, RM-8N, RM-8A and RM-8AN Guidelines

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# **1 Application and Intent**

These guidelines are to be used in conjunction with the RM-8, RM-8N, RM-8A and RM-8AN Districts Schedule of the Zoning and Development By-law.

## **1.1 Intent**

The intent of these guidelines is to:

- (a) encourage the development of ground-oriented, medium-density multiple dwellings in the form of freehold rowhouses and townhouses. Units can be stacked, arranged in a courtyard configuration, or as single or back-to-back rows. The majority of units will be suitably sized for families (i.e. 2 and 3-bedroom units). In the RM-8A and RM-8AN districts, a certain percentage of medium-sized units between 900 and 1,200 sq. ft. is required to ensure a greater variety of units sizes, and thereby a greater variety of price points;
- (b) ensure a high standard of liveability for all new dwelling units, including lock-off units. Emphasis is placed on ground-oriented access, natural light and cross-ventilation, as well as usable private outdoor space for each unit;
- (c) ensure a high level of activation and residential street life;
- (d) ensure neighbourliness while recognizing that the new development's siting is not intended to be the same as development under R1-1 zoning;
- (e) ensure durable and sustainable design, while allowing architectural diversity rather than prescribing any particular architectural character; and
- (f) support the retention and renovation of pre-1940s houses that retain original character elements by permitting infill single detached houses or duplexes on these sites.

## **1.2 Application**

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

- (a) townhouses, which may be arranged side-by-side, stacked or in a courtyard configuration;
- (b) freehold rowhouses;
- (c) triplexes (side-by-side or stacked);

- (d) in the RM-8 and RM-8N districts, mixed-use residential buildings with grocery or drug store, a neighbourhood grocery store or retail store;
- (e) multiple conversion dwellings, other than those permitted outright in the RM-8, RM-8N, RM-8A and RM-8AN Districts Schedule;
- (f) infill in combination with the retention of a pre-1940s house; and
- (g) 2 principal buildings (duplex and single detached house or 2 single detached houses, or, on sites of sufficient width to accommodate the required parking, 2 duplexes) on a lot that backs or flanks onto a school or park, on a corner lot, or on a lot that is more than 45.7 m (150 ft.) deep.

These guidelines do not apply to the development of one single principal building on a lot, i.e. duplex, duplex with secondary suite, a single detached house, or a single detached house with secondary suite (and/or laneway house). For single detached houses and single detached houses with secondary suite as the only principal building on a site refer to R1-1. For laneway housing, see regulations in Section 11 of the Zoning and Development By-law.

In situations where an applicant proposes an addition of less than 9.3 m<sup>2</sup> (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 detached houses and show many characteristics of typical single detached house neighbourhoods, such as a regular spacing of houses, individual front yards, etc. While new development will be different in size and massing, it should be compatible with the existing pattern with respect to:

- (a) providing a clear visible identity of dwelling units from the street through elements that can be found in single detached houses, such as individual front doors, porches, steps and front yards;
- (b) providing opportunities for social interaction between the public realm on the sidewalk and the private home; and
- (c) locating garages or vehicular access at the rear of the site.

## 2.2 Development Scenarios and Building Typologies

### 2.2.1 Development Scenarios

The RM-8, RM-8N, RM-8A and RM-8AN districts provide an array of options for individual lots and consolidated sites, as shown in Table 1. Lock-off units are permitted, as per section 3.1 of these guidelines.

**Table 1: Typical Development Scenarios**

Typical Lot Characteristics	Permitted Uses	Maximum Allowable FSR	Notes
Site area minimum 3,595 sq. ft. (334 m <sup>2</sup> )	<ul style="list-style-type: none"> <li>Single detached house</li> <li>Single detached house with secondary suite and/or laneway house (per R1-1)</li> </ul>	0.60 FSR + laneway house; subject to R1-1	<ul style="list-style-type: none"> <li>R1-1 District Schedule applies</li> <li>RM-8, RM-8N, RM-8A and RM-8AN Guidelines do not apply</li> </ul>
Site area minimum 3,260 sq. ft. (303 m <sup>2</sup> )	<ul style="list-style-type: none"> <li>Duplex (with or without secondary suites)</li> </ul>	0.75 FSR	<ul style="list-style-type: none"> <li>Each unit may contain one secondary suite</li> <li>No guidelines, but section 4.8 in District Schedule applies</li> </ul>
	<ul style="list-style-type: none"> <li>Conversion of existing house (Multiple Conversion Dwelling - MCD)</li> </ul>	Existing FSR; up to 0.90 FSR for pre-1940 character building retention	<ul style="list-style-type: none"> <li>MCD to 2 units outright approval</li> <li>MCD to max 3 units conditional approval</li> </ul>
	<ul style="list-style-type: none"> <li>2 principal buildings or infill single detached house or duplex on: <ul style="list-style-type: none"> <li>sites where the rear or side property line abuts a park or school site, with or without the intervention of a lane,</li> </ul> </li> </ul>	0.85 FSR, of which 0.25 FSR can be allocated to the infill or the principal building at the rear of the site	<ul style="list-style-type: none"> <li>RM-8, RM-8N, RM-8A and RM-8AN Guidelines apply</li> </ul>

	<ul style="list-style-type: none"> <li>- corner sites, or</li> <li>- sites with a lot depth of more than 45.7 m (150 ft.)</li> </ul>		
	<ul style="list-style-type: none"> <li>• Infill with retention of pre-1940s building*</li> </ul>	0.90 FSR, of which 0.25 FSR can be allocated to the infill	<ul style="list-style-type: none"> <li>• The infill should be located at the rear of the lot, close to the lane</li> </ul>
	<ul style="list-style-type: none"> <li>• Triplex (with option for lock-off units)</li> </ul>	0.90 FSR	<ul style="list-style-type: none"> <li>• 1 lock-off unit for every 3 principal dwelling units</li> </ul>
Site area minimum 4,790 sq. ft. (445 m <sup>2</sup> ) and lot width 42 ft. (12.8 m)	<ul style="list-style-type: none"> <li>• Townhouse, freehold rowhouse and, in RM-8 and RM-8N, mixed-use residential building, (all with option for lock-off units)</li> </ul>	1.20 FSR	<ul style="list-style-type: none"> <li>• Maximum Dwelling Unit Density 145/ha</li> <li>• 1 lock-off unit for every 3 principal dwelling units</li> <li>• Unit size requirement applies in RM-8A and RM-8AN</li> </ul>

\* Pre-1940 Building Retention:

Buildings constructed before January 1, 1940, and which maintain significant elements of their original character, may be eligible for incentives such as an infill building and/or an FSR increase to 0.9. Retention of a character building is at the applicant's discretion. Pre-1940 buildings which have not retained significant elements of their original character may, if character elements are fully restored as part of the development proposal, allow the proposed development to be considered for the incentives and variances available to developments with pre-1940 buildings.

### 2.2.2 Building Typologies

The RM-8, RM-8N, RM-8A and RM-8AN Districts Schedule encourages the following forms of development: side-by-side townhouses, stacked townhouses, townhouses in a courtyard configuration, freehold rowhouses, triplexes, and in the RM-8 and RM-8N districts, mixed-use residential buildings.

**Stacked townhouses** are units that are stacked on top of each other. This can include 3 units located on top of each other, or 2-level units stacked on top of one-level units. Other layouts may be possible.

**Mixed-use residential buildings** in the RM-8 and RM-8N districts would be similar to a stacked townhouse development but with a mix of dwelling and non-dwelling uses. Other layout solutions may be possible.

**Freehold rowhouses and side-by-side townhouses** are units that are arranged side-by-side, sharing a wall, occupying all levels, from the ground floor to the top floor. Each principal dwelling unit has access to the front and rear yard or courtyard.

### **Unit Arrangements**

Stacked and side-by-side townhouses and freehold rowhouses can be arranged in various layouts, and stacked and side-by-side townhouse forms can be combined in the same development. Layouts include:

- (a) side-by-side at the front of the site (see Figure 1);
- (b) back-to-back arrangement of stacked townhouses or side-by-side townhouses (see Figure 2);
- (c) courtyard arrangements on sites of sufficient depth, with one row of units near the street, and one near the lane (see Figure 3);
- (d) rows perpendicular to the street can only be considered on corner sites, where an “L” shape configuration is possible, or on large assemblies where the perpendicular building is at least 66 ft. (i.e. 2 standard lots) away from the neighbouring properties;
- (e) corner sites should provide a row of units along each street with a “break” at the corner of a minimum of 4.6 m (15 ft.);
- (f) a combination of back-to-back and courtyard arrangements (see Figure 4);
- (g) other layout arrangements are possible and will be considered, provided they meet the requirements of the RM-8, RM-8N, RM-8A and RM-8AN Districts Schedule and these guidelines;
- (h) on single lots, smaller townhouse developments can be accommodated, including triplexes on most standard lots with a minimum lot width of 32 ft. (see Figure 5); and



- (i) townhouses and freehold rowhouses may be broken up into more than one building. Each building may contain 2 or more units.

#### **Characteristics of stacked townhouse or triplex**

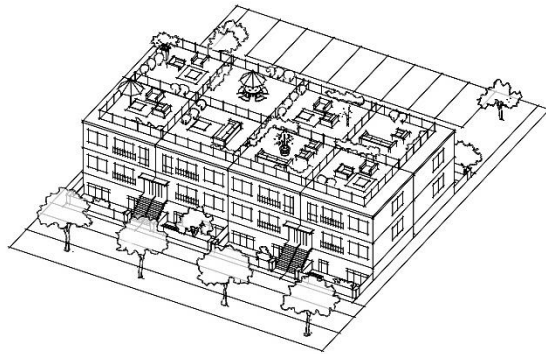
- (a) Stacked townhouses and triplexes feature private open spaces for all units and entries that are directly accessible and visible from the front yard or courtyard.
- (b) Access to each unit is achieved through external and internal stairs.
- (c) Private open space is located at ground level for the lower units, accessible from the street or the courtyard, and on roof decks for the upper units.
- (d) Stacked townhouse developments may be broken up into more than one building.

#### **Characteristics of freehold rowhouse and side-by-side townhouse or triplex**

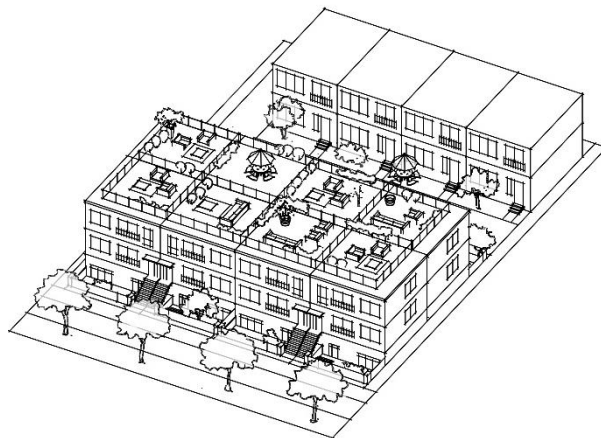
- (a) Each unit has access to private open space and entries that are accessible from the street (for the front row of units) or the courtyard (for the rear row of units).
- (b) For triplex and townhouse developments, the individual unit should be no less than 3.6 m (12 ft.) clear, measured from internal wall finish to internal wall finish. Narrower units can be considered if improved liveability is provided (e.g. end units with 3 exposures).
- (c) The main difference between a townhouse and a freehold rowhouse development 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 development will be freehold or strata. For freehold rowhouse developments, additional zoning regulations in Section 11 of the Zoning and Development By-law need to be met.

**Figure 1: Side-by-side Townhouse, Triplex or Freehold Rowhouse with rear garages**



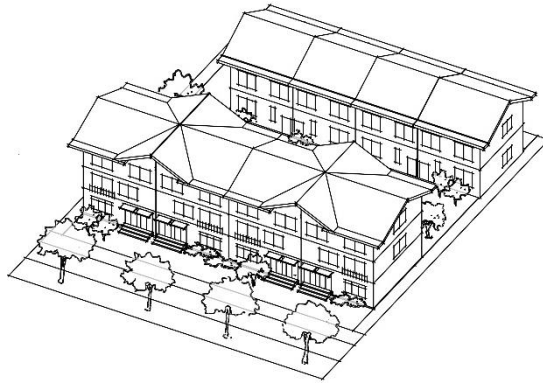
**Figure 2: Illustration of back-to-back arrangement of stacked townhouses or side-by-side townhouses**



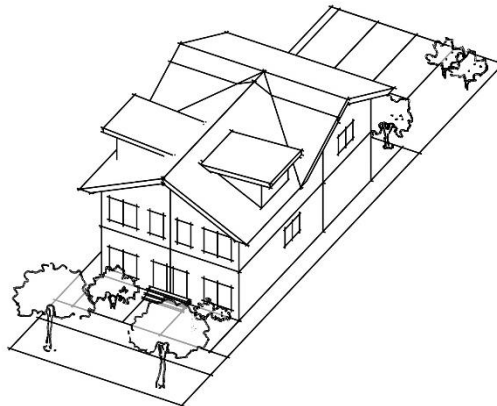
**Figure 3: Illustration of stacked townhouses or side-by-side townhouses in a courtyard configuration**



**Figure 4: Illustration of combination of back-to-back and courtyard configuration**



**Figure 5: Illustration of triplex on single lot**



## **2.3 Orientation**

- (a) Unit entrances should be clearly identified architecturally and oriented to the street or courtyard/rear yard.
- (b) For the rear building of a courtyard configuration, a secondary entrance oriented to the lane is encouraged to activate the lane interface, noting the primary entrance will be from the courtyard.
- (c) On corner sites, building fronts and entrances should be located facing both streets and both street-facing elevations should be fully designed and detailed.
- (d) Stacked townhouses and triplexes on interior sites may have the main entrance to the dwelling unit from a side 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.

## **2.4 Access and Circulation**

- (a) Pedestrian access to unit entrances should be from the street or via a clearly marked path on site to the courtyard/rear yard.
- (b) Side yards may be designed with paths to allow access to rear units, garbage and recycling areas and parking located at the rear of the site. These convenience paths are not required to be a continuous surface, and may be pavers or gravel to increase site permeability.
- (c) Refer to Vancouver's Building By-law for fire fighter access requirements.
- (d) Vehicular access should be from the lane, where one exists. Sites for townhouse, mixed-use residential building and freehold rowhouse developments should be assembled in such a way that vehicular access from a lane is possible.

## **2.5 Light and Ventilation**

Access to natural light and ventilation affects the liveability of dwelling units.

### **2.5.1 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-8, RM-8N, RM-8A and RM-8AN Districts Schedule.
- (c) Shadowing on adjacent sites should be minimized.
- (d) Shadowing of courtyards and other open spaces should be minimized.
- (e) For all housing types, all habitable rooms (not including bathrooms and kitchens) should have at least one window on an exterior wall.

### **2.5.2 Natural Ventilation**

- (a) The majority of dwelling units should aim to have at least 2 major exposures that face opposite directions or are at right angles to each other.
- (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.

- (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) Employing window types that facilitate air exchange is encouraged. Double-hung 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).

### 2.5.3 **Light and Ventilation for Townhouses in a Courtyard Configuration**

The central courtyard plays an important role in providing light and ventilation to both rows of units and should be adequately sized to ensure performance.

- (a) The courtyard should have a minimum of 7.3 m (24 ft.) clear width on the first and second levels. In general, the partial 3rd storey at the lane should be centralized to provide solar access to the courtyard and reduce the apparent building height on the lane. Alternately, configuration can be revised on case by case basis.
- (b) There are no set restrictions on what rooms can face the courtyard, but privacy should be considered.
- (c) Projections permitted into the courtyard should be the same as the allowable projections into yards in section 10.8 of the Zoning and Development Bylaw, except that:
  - (i) On the first level, entry porches and bay windows may project into the minimum courtyard width;
  - (ii) the minimum distance between projecting bay windows should be 7.3 m (24 ft.) on the second level; and
  - (iii) on the third level, portions of roofs sloping away from the courtyard, balcony rails, pergolas and similar architectural features should also be permitted to project into the courtyard width.
- (d) Some units in townhouses in a courtyard configuration may be in close proximity to commercial lanes. Windows to ground level bedrooms in these units should not be located within 3 m (10 ft.) of a commercial lane.

## **2.6 Noise**

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) Unit 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 10.2 of the Zoning and Development By-law.

## **2.7 Privacy**

While some overlook of private open space and direct 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. Where shared access occurs, liveability and privacy should be considered.

- (d) Developments along the lane are encouraged to raise the ground floor at least 0.9 m (3') above the lane to enhance residents' privacy provided the proposed development meets the City's accessibility requirements.

## **2.8 Internal Storage in Stacked Townhouses, Triplexes or Mixed-Use Residential Buildings**

The internal design of stacked townhouses should consider the storage needs of families. In-suite storage areas should be provided within individual dwelling units or within storage areas located in underground parking structures. Refer to the administrative bulletin Bulk Storage and In-Suite Storage – Multiple Dwelling Residential Developments.

# **3 Uses**

## **3.1 Lock-off Units**

- (a) The districts schedule permits a “principal dwelling unit with lock-off unit” in multiple dwellings and freehold rowhouses. 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 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 single detached houses or duplexes).
- (b) A lock-off unit is an optional and flexible use, and therefore the lock-off unit must be equipped with an internal access to the main unit.
- (c) A lock-off unit cannot be strata-titled (secured by covenant).
- (d) While lock-off units do not require additional vehicle parking, they do need separate bicycle parking (see section 4.8 of this guideline).
- (e) In order to ensure safety and acceptable standards of liveability, lock-off units must comply with the Lock-Off Unit Guidelines.
- (f) The maximum number of lock-off units in townhouse or mixed-use residential developments is one lock-off unit for every 3 principal dwelling units.
- (g) The maximum number of lock-off units in freehold rowhouse developments is one lock-off unit for every freehold rowhouse.

- (h) The bedroom in a lock-off unit does **not** count toward the required percentage of 3-bedroom units (i.e. a 2-bedroom unit with a lock-off unit is a 2-bedroom unit, not a 3-bedroom unit).

### **3.2 Conditions of Use for 3-bedroom Units**

In order to ensure an adequate supply of housing suitable for families, as an alternative to single detached houses, townhouses and freehold rowhouses are required to include a minimum of 25% of 3-bedroom units.

### **3.3 Retail**

In the RM-8 and RM-8N districts, retail stores may be permitted on the ground floor of mixed-use residential buildings on specific sites located on major arterials, shown on Map 1: Sites where mixed-use residential building with grocery or drug store or retail store is permitted in the RM-8, RM-8N, RM-8A and RM-8AN Districts Schedule. Development may only occur on sites that have been consolidated with the corner lot. Retail uses that serve the surrounding residential neighbourhoods are encouraged, such as a small grocery store or café.

Residential units above retail uses should meet the requirements of these guidelines for stacked townhouse developments. Parking for retail uses should meet the requirements of the Parking By-law.

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

### **4.1 Frontage**

The minimum site frontage in the districts schedule for townhouses, mixed-use residential buildings or freehold rowhouses is 12.8 m (42 ft.).

### **4.2 Building Height**

- (a) For stacked townhouses, mixed-use residential buildings and side-by-side townhouses adjacent to the street at the front of the site, and, in the case of corner sites, for the full depth of the building on the flanking street side the permitted building height is 11.5 m (37.5 ft.) and 3 storeys,. This allows for adequate layouts and liveability of both upper and lower units.
- (b) Infill or principal buildings, other than townhouses in a courtyard configuration, located in the rear should be 1 and a partial second storey, provided the partial



second storey does not exceed 50% of the storey immediately below, with or without a basement. In considering the partial second storey, the guidelines in section 5 should be followed. The Director of Planning may vary the 7.7 m (25 ft.) building height limit on corner sites and on sloping sites to 9.5 m (31 ft.) where the infill or principal building is more than 4.9 m (16 ft.) from the adjacent property. However, a maximum building height of 7.7 m (25 ft.) should be maintained within 4.9 m (16 ft.) of adjacent properties.

#### **4.3 Front Yard**

For townhouse developments and mixed-use residential buildings the required front yard is 3.7 m. Adjacent existing buildings may have deeper front yards. To assist with this transition the sidewalls of new buildings should be well composed and treated with materials and fenestration to avoid the appearance of a blank 'end wall' condition.

#### **4.4 Side Yard**

The minimum side yard is 1.2 m (4 ft.). See section 2.4 of these guidelines.

#### **4.5 Rear Yard**

A minimum rear yard of 1.8 m (6 ft.) is required for townhouses in a courtyard configuration to provide space for secondary entrance porches and patios as well as space for planting at the lane.

Secondary entrances from the lane are encouraged to provide a residential scale and character. However the lane entry is not considered to be the primary unit entrance for fire-fighter access as required by Vancouver's Building By-Law. The primary unit entrance must be accessed from the street by a continuous path and, as such, will be located facing the courtyard and the front of the site.

#### **4.6 Floor Space Ratio (FSR)**

Floor space ratios for different building types are specified in the RM-8, RM-8N, RN-8A and RM-8AN Districts Schedule and further explained in Table 1 of these guidelines. Depending on site features such as existing trees, topography, and site dimensions (particularly site depth), as well as the other requirements, such as parking requirements, it may not be possible to achieve the maximum permitted floor space ratio on all sites.

In the RM-8A and RM-8AN districts, for townhouse and freehold rowhouse developments to achieve the maximum floor space ratio of 1.2, a certain unit size requirement has to be met. The intent of this unit size requirement is to achieve a mix of unit sizes, which in turn can offer a greater variety of price points. The requirement of a minimum of 45% of the units to be between 900 and 1,200 sq. ft. in size will be easily achievable on most sites. Floor area should be measured from the inside of all outer walls (i.e. “paint-to-paint”), and should exclude a maximum of 3.7 m<sup>2</sup> (40 sq. ft.) of residential storage space. The provision of some wider ground floor units is anticipated for developments to be able to meet the requirement. However, the Director of Planning can accept a slightly lower percentage of units in the 900 to 1,200 sq. ft. range where site-specific circumstances (such as tree retention or slope) prevent the development from achieving the required 45%.

### **Parking and bicycle storage exclusions**

The intent of sections 4.2.2(c)(ii) of the RM-8, RM-8N, RN-8A and RM-8AN Districts Schedule is to exclude accessory buildings used for bicycle parking only. Garages used for vehicular parking are counted in floor area.

### **Floor space under pitched roof**

The intent of section 4.2.1(c) of the RM-8, RM-8N, RN-8A and RM-8AN Districts Schedule is to allow sloped ceilings where they occur directly underneath the structure of a steeply-pitched roof (9:12 pitch or greater). Where such a condition occurs, ceiling heights in excess of 3.7 m (12 ft.) may result for small portions of this space. This means that the space on the top floor below a roof with a steep pitch that is in excess of 3.7 m (12 ft.) will not be counted twice towards overall floor space calculation. The intent of this section is not to permit excessively high ceilings for the lower storeys as this would contribute to the overall external bulk of the building. High ceilings in excess of 3.7 m (12 ft.) in height that are proposed for storeys below the top storey, therefore, will be counted twice towards the overall floor space calculation.

## **4.7 Site Coverage and Impermeability**

For townhouses, mixed-use residential buildings, and triplexes, the Director of Planning can increase the area of impermeable materials to 75% of the site. However, for townhouse developments with underground parking, a further variance may be granted, if:

- (a) the outer limits of the underground parking area does not protrude into the required setbacks on the site, other than the access ramp; and

- (b) for sites zoned RM-8A or RM-8AN in Cambie Corridor, the proposed development meets stormwater and groundwater requirements for the area. See section 10 of these guidelines for more detail.

## **4.8 Off-Street Parking and Bicycle Storage**

### **4.8.1 Parking**

For townhouses and mixed-use residential buildings, the following guidelines apply:

- (a) parking can be provided underground or above ground at the lane;
- (b) underground parkades should not project into the front, side or rear yards and should align with the exterior walls of the buildings above;
- (c) where elevated courtyards are proposed, exposed portions of underground parking should be clad with high-quality, durable materials and screened with plantings at-grade;
- (d) for planting over structures, provide substantial growing medium volumes within irrigated planters (to meet BCSLA latest standard);
- (e) open exit stairs from the underground parkade are discouraged due to Crime Prevention Through Environmental Design concerns;
- (f) covered parkade exit stairs are encouraged and may be located within the building massing or within the courtyard provided they do not compromise the functionality of the courtyard or liveability of adjacent units. Covered parkade exit stairs are not permitted in the side yards;
- (g) where parking is located above ground at the lane it can be accommodated 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 within the residential buildings at the lane or accessory buildings for the purpose of floor space ratio calculations;
- (h) 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; and

- (i) for triplexes, parking should be located within the rear 6.1 m (20 ft.) of the site. Parking may be provided as surface spaces located at grade or in a garage. The garage is limited in size to a 2-car garage of 48 m<sup>2</sup> (400 sq. ft.).

#### **4.8.2 Bicycle Storage**

- (a) 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. They should not compromise the functionality of courtyards or private outdoor amenity space.

### **4.9 Dedication of Land for the Purpose of Road Widening**

Dedications are required from conditional approval development to facilitate increased street right-of-way width to provide 'complete streets' or other public realm improvements on Oak Street and King Edward Avenue.

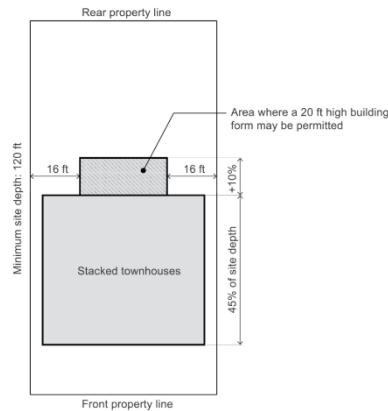
### **4.10 Building Depth and Building Width**

#### **4.10.1 Building Depth**

- (a) For all housing types permitted, except townhouses in a courtyard configuration, infill and 2 principal buildings on a site, the maximum building depth is 40% of the depth of the site, as specified in the RM-8, RM-8N, RN-8A and RM-8AN Districts Schedule.
- (b) For stacked townhouses, back-to-back townhouses, triplexes, or mixed-use buildings, the building depth can be increased to 45% of the site depth, provided all units meet liveability guidelines for light and ventilation.
- (c) For stacked townhouses, back-to-back townhouses , triplexes and mixed-use residential buildings on sites that have a minimum depth of 36.6 m (120 ft.), the building depth can be increased to 55% for any portion of the building located at least 4.9 m (16 ft.) from any side property line (see Figure 6). This would allow the middle section of a building to extend further into the back yard, thereby giving more options for window placement and achieve better liveability for the units in the centre of the development. The portion of the building that extends beyond 45% building depth cannot be more than 6 m (20 ft.) high. While the increase in building depth improves the internal layout, it will be achieved at the

expense of ground level rear yard space. Therefore, an adequate amount of outdoor space should be provided in the form of a generous porch or balcony.

**Figure 6: Increased building depth for middle section of a stacked townhouse building**



#### 4.10.2 Building Width

The housing types permitted in the RM-8, RM-8N, RN-8A and RM-8AN districts are larger than the existing single detached houses in the neighbourhood. To ensure that new forms of development are compatible in massing with the existing streetscapes, building width should be limited. Limiting the building width allows more windows on the sides and allows for better cross-ventilation and access to natural light.

For townhouses and mixed-use residential buildings, the maximum building width is 27 m (90 ft.). This may be increased by the Director of Planning. However, particular care should be taken to avoid monotony in building massing and design. Buildings may be broken up in sections to fit with the variety of the existing streetscape. Other forms of architectural articulation can also be used to reduce the massing of long developments.

### 4.11 External Design

#### 4.11.1 Separation between infill and other dwellings

- (a) The minimum separation between an infill located in the rear yard and any other dwelling uses on the site is 4.9 m (16 ft.). This distance can be reduced to assist in the retention of a pre-1940 building, provided all building code and fire separation regulations can be met.

4.11.2 Separation between adjacent townhouse, mixed-use residential buildings and freehold rowhouse buildings

- (a) Where a development includes 2 or more buildings, the minimum distance between the exterior side walls of the adjacent buildings should be 3.1 m (10 ft.). This minimum separation distance applies to developments with more than one townhouse building in a courtyard configuration but does not apply to the courtyard between the front and rear buildings which must meet the separation requirements in section 2.5.3 of these guidelines.

## **5 Architectural Components**

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

### **5.1 Roof and Massing**

#### **5.1.1 Roofs**

The orientation, form and massing of the roof is limited by the desire to locate liveable space within and the requirement to limit the amount of the building mass as seen from the street. The following guidelines are intended to assist with a neighbourly transition between new development and existing single detached houses:

- (a) the maximum allowable roof height as specified in the districts schedule may only be attained as a localized point within the development, rather than as a continuous height around the perimeter of the building;
- (b) for pitched roofs, the main roof should spring from the upper floor level. It is expected that some of the allowable floor space will be between 1.2 m (4 ft.) and 2.4 m (8 ft.) in height in most developments. In general, the eave height of a sloped roof or the second-storey cornice line on flat roof buildings should not be higher than 7.9 m (26 ft.);
- (c) secondary roof forms and dormers should be clearly subordinate to the main form in size and number. They may vary in the pitch of the main roof;

- (d) roof top terraces should be set back from the edge to minimize the view into adjacent yards; and
- (e) roof top stairwell 'penthouses' should be located to minimize the visual prominence of these elements.

5.1.2 Massing of Townhouses, Townhouses in a Courtyard Configuration and Freehold Rowhouse on the Street

- (a) Developments should visually emphasize individual units. While many successful 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.
- (b) The apparent scale should furthermore be reduced by other aspects, such as floor to floor heights, horizontal elements, changes in material, and the proportion and placement of openings.

5.1.3 Massing of Infill at the Lane and Rear Buildings at the Lane in Townhouses in a Courtyard Configuration

- (a) Infill buildings and rear buildings at the lane in townhouses in a courtyard configuration should be designed to reduce apparent massing adjacent to the lane and neighbouring properties.
- (b) The upper floor facing the lane should be stepped back or contained in a roof form. See section 5.1.1(a) of these guidelines.

## 5.2 Entrances, Stairs and Porches

The intent of these guidelines is to maximize active street life by enlivening the streetscape with residents' use of front entries and porches and front facing yards.

5.2.1 Entrances

- (a) For stacked townhouses, each stacked unit should have one unit entrance facing the street and the other unit in the 'stack' may have their entrance facing the courtyard/rear yard. The location of unit entrances should generally align with adjacent units in the 'row'.
- (b) For back-to-back townhouses, units in the back row can have their entrance facing the courtyard/rear yard.

- (c) For townhouses in a courtyard configuration, units in the rear building should have main entrances facing the internal courtyard and secondary entrances facing the lane.
- (d) Pedestrian pathways to units facing the courtyard should be clearly visible for wayfinding purposes (such as through lighting, addressing and arbours/trellises).

#### 5.2.2 Porches

- (a) For stacked townhouses and triplexes, each stacked unit should be designed with a major private outdoor space on the principal street-facing facade in the form of a front porch, a front patio, a balcony, or a roof deck.
- (b) Entrance porches can range from a small stoop area to a large, more usable porch.

#### 5.2.3 Stairs

- (a) Exterior porch landings and stairs (“stoops”) may access the first storey above grade and play a role as places for informal social interaction. It is recommended that landings are generally no more than 1.5 m (5 ft.) above grade or a courtyard.
- (b) Stairs to upper levels above the main floor either within a unit or to provide access to an upper level stacked unit can be accommodated within the internal space of the house or partially externally.
- (c) Steps are allowed in required side yards where they are designed to facilitate grade changes from the front to the rear of the site.

### 5.3 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.

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.

### 5.4 Balconies and Decks

- (a) Balconies and decks should be designed as integral parts of the building massing and façade composition.



- (b) In order to minimize overlook of neighbouring properties, projection of balconies located above the first floor are discouraged.
- (c) Privacy screens on roof decks should be set back from the roof edge and not exceed 1.8 m (6 ft.) in height so that their visibility from the street and adjacent properties is minimized.

## **5.5 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) 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;
- (b) 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';
- (c) 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;
- (d) 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;
- (e) exposed foundations should be limited to 30 cm (12 in.); and
- (f) garage doors should be single width.

## **5.6 Relationship to Finished Grade and Public Realm**

The establishment of floor elevations should be considered carefully to respond to existing site topography. Conspicuous retaining walls should be avoided. Wherever

possible, protrusions of the underground parking garage should not be evident above the natural grade, particularly in front and side yards.

## **6 Lane Frontage**

For townhouses in a courtyard configuration, the lane will become a focus of development, and in effect, an exposure that is as important as the streetscape. The “lanescape” should be a visually interesting experience for passersby and a pleasant outlook for residences near the lane, while at the same time accommodating necessary services.

- (a) Entry porches, insets, projections and overhangs should be used to lend interest to the lane façade, and to emphasize the presence of living space.
- (b) Trellises should be provided to screen parkade entries and create places for planting.
- (c) Garbage and recycling storage is provided in the underground parkade, or within a screened enclosure.

## **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.

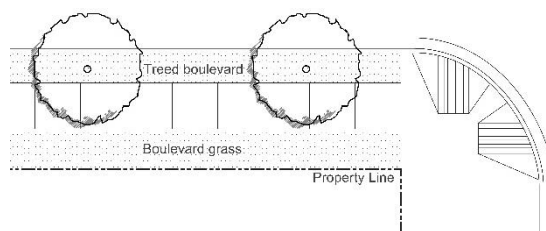
- (a) In side-by-side townhouse developments, open space should be organized in a way that every unit has its own front and rear yard.
- (b) For townhouses in a courtyard configuration, semi-private space or garden/entry courtyards in the centre of the site, should be designed:
  - (i) as a focus of development and an organizing element, not as ‘leftover’ space,
  - (ii) as a primary outlook and entrance for units in the middle and rear sections of a site, and
  - (iii) to provide sufficient distance, screening, landscape, and outlook considerations for the mutual comfort of dwellings overlooking the space.
- (c) For stacked townhouses and mixed-use residential buildings:
  - (i) a ground-level yard is preferable, particularly for larger units,

- (ii) alternatively, a spacious balcony or deck with a minimum depth of 1.8 m (6 ft.) should be provided, and
- (iii) units that could accommodate families with children (2 bedrooms or larger) should provide open space that is suitable for children's play.
- (d) For each lock-off unit, a minimum area of 1.8 m<sup>2</sup> (19 sq. ft.) should be provided immediately adjacent to and accessible from the unit.
- (e) 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, such as cut into sloped roofs in a way that does not upset roof geometry.

## 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. Sidewalk and boulevard arrangement should be consistent with the City's Streetscape Design Guidelines or, in the case of sites in Cambie Corridor, with the Cambie Corridor Public Realm Plan. Typically, a treed boulevard should be provided between the sidewalk and the street (see Figure 7).

**Figure 7: Typical sidewalk and boulevard arrangement**



- (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. The space between the sidewalk and the front property line should receive similar treatment.
- (e) In general, the Zoning and Development 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 landscape to provide visual depth, screening and layering.
- (g) Landscaping in semi-private common spaces in townhouses in a courtyard configuration should be designed to provide screening and filtering of views. Planting larger caliper trees is particularly necessary in these locations.
- (h) Where townhouses in a courtyard configuration 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,
  - (iv) trellised areas along the lane façade, between and above garage entries, to enable “vertical greening” with vines,
  - (v) planters overhanging the lane on balconies and outside the windows of dwellings on upper levels, and
  - (vi) planting of trees near the lane where possible.

## **9 Garbage and Recycling**

For multiple dwelling and mixed-use residential developments and freehold rowhouses, 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 pick up – either in the underground parkade or directly off the lane. The document, Garbage and Recycling Storage Amenity Design Supplement, provides detailed information on the number of containers required and dimensions and specifications of commonly used storage containers.

## 10 Rainwater and Groundwater Management

Underground parking structures should be absolutely minimized, and held back from site edges to allow for tree planting and rain water infiltration. The parking structure should not project into front or side yards (see Figure 8).

For RM-8A and RM-8AN sites in Cambie Corridor, specific rainwater and groundwater management requirements apply. Please refer to the Rainwater Management Bulletin and the Groundwater Management Bulletin for more detail.

**Figure 8: Parkade Structure - Plan and Typical Section**

