4.0 LAND-USE AND DEVELOPMENT PERFORMANCE STANDARDS AND DESIGN GUIDELINES

These guidelines, along with Surrey's Official Community Plan, the Clayton General Land-Use Plan and the Surrey Zoning By-law, will be used to guide development in East Clayton. The primary intent of these guidelines is to facilitate the co-ordinated development of an identifiable, mixed-use, and pedestrian-oriented community that is consistent with the seven principles for sustainable communities and development objectives outlined in Section 1.3.1 of this report. The development performance standards and guidelines are organized by the following four land use types proposed by the plan, including:

1. **Residential areas**
2. **Commercial areas**
3. **Live/work, Work/Live areas**
4. **Techno-Business Park area**

4.1 Residential Areas

The intent of the residential areas design guidelines is to encourage the development of a variety of housing types, densities, and forms that will provide a varitey of housing options while still ensuring a strong and unified residential character for East Clayton. These guidelines support the sustainable planning principles outlined in Section 1.3.1 of this report, with a special emphasis on the following:

Principle No. 1

Conserve land and energy by designing compact walkable neighbourhoods. This will encourage pedestrian activities where basic services (e.g., schools, parks, transit, shops, etc.) are within a five- to six- minute walk of their homes.

Principle No. 2

Provide different dwelling types (a mix of housing types, including a broad range of densities from single-family homes to apartment buildings) in the same neighbourhood and even on the same street.

Principle No. 3

Communities are designed for people; therefore, all dwellings should present a friendly face to the street in order to promote social interaction.

Principle No. 4

Ensure that car storage and services are handled at the rear of dwellings.

Objectives

- to provide a diversity of housing types (i.e., detached, semi-detached, fee-simple row housing, townhouses, and apartments) and tenures so as to accommodate a wide range of individuals (i.e., single parents, couples, families with children, seniors, people with special needs, and others);
- to increase housing options for people at a variety of income levels and family types;
- to allow as many dwellings as possible to address the street;
- to encourage walking and cycling to local destinations and thereby reduce dependence on cars;
- to include on-street parking, street trees, swales/boulevards, and sidewalks;
- to establish front-yard setbacks that will ensure a clear definition between private and public space and that will enhance crime prevention by increasing the number of “eyes on the street”;
- to encourage a design that respects the regional heritage, climate, and landscape while maximizing opportunities for views, natural ventilation, and solar access;
- to enhance public safety through the application of crime prevention through environmental design (CPTED) principles; and
- to reduce the cost of new homes.

1. Half-acre Residential (Aloha Estates)

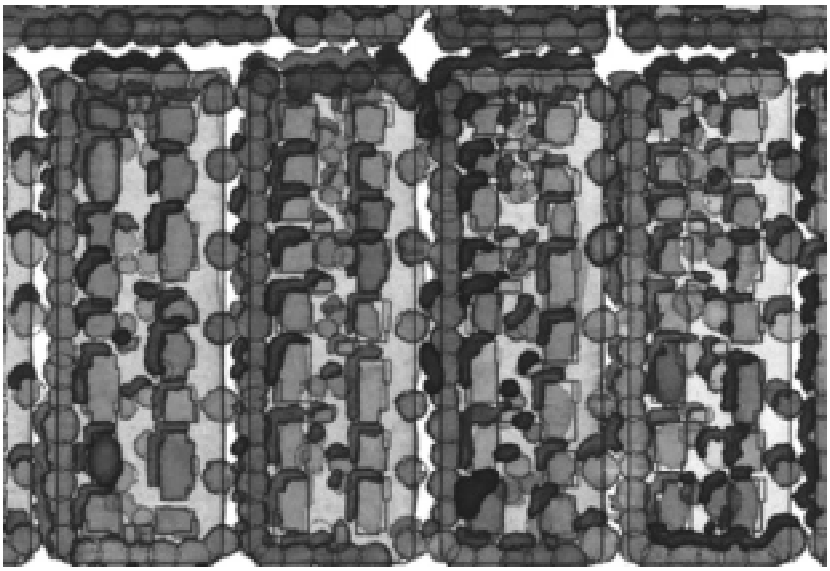
Single-family homes with and without ancillary and/or coach house units on half-acre lots up to a maximum density of 4 units per acre. Development standards/regulations should generally be in accordance with the RH Zones contained in Surrey's Zoning By-law.

In keeping with the objective of providing a variety of housing types and sizes, the Aloha Estates area south-west of 72nd Avenue (currently one-acre lots) may eventually be redeveloped into half-acre lots (with or without coach houses). The subdivision potential and timing will be dependant upon road infrastructure and servicing and will require a high level of cooperation among property owners. The design of coach houses is to reflect the existing "estate" character of the Aloha Estates area.

2. Low Density Residential

Single-family homes (with and without ancillary and/or coach house units) and duplexes on lots of approximately 371.6m^2 to 414m^2 (4,000 to 4,500 sq. ft.) up to a maximum of 557.4 m^2 (6,000 sq. ft.) with and without lanes at densities between 6 and 10 units per acre, with a desirable density of 8 units per acre or above.

This plan view of a low-density area shows single-family homes on a variety of lot sizes on blocks without lanes. Small front setbacks allow more room for private backyard space. All corner lots are to have coach house units to increase diversity, to provide unity to the streetscape, and to increase "eyes on the street." Garages are accessed via front driveways (or on blocks with lanes, via the lane). On-street parking is provided where possible.



This single-family streetscape illustrates the character of larger lots within the low density area.

Dominant characteristics:

- entries that retain a human scale (i.e., no higher than one storey) and that relate to the street;
- front porches with overhangs;
- small front-yard setback and clear delineation of public and private space;
- façades articulated with window details and projections;
- steep sloped gable roofs;
- high quality materials and finishes (i.e., wood, masonry); and
- garages are accessed via the rear lane or (on blocks without rear lanes) are recessed behind the front façade.

3. Medium Density Residential

Primarily single-family residential homes in more compact neighbourhoods are permitted while allowing for additional accommodation in the form of two-family dwellings (i.e., duplexes), on narrow 270m^2 to 360 m^2 (3,000 to 4,000 sq. ft.) lots with lanes at densities between 10 and 15 units per acre, with a desirable density of 12.5 units per acre or above.

This plan view of a medium-density area exhibits a range of housing types – single-family homes, single family homes with secondary units, and duplex units – all within the same block and all maintaining a single-family character. Front setbacks of between 4 and 5 metres (13 and 16.5 ft.) reinforce the human scale of the street and allow more room for backyard space. Lots range from between approxmiately 270m^2 (3,000 sq. ft.) and 360 m^2 (4,000 sq. ft.). Garages and ancillary dwelling units are accessed via the rear lane or, in the case of corner unts, via the side street. Parking is allowed on both sides of the street wherever possible.

Medium-density areas retain single-family character while providing a range of housing types.

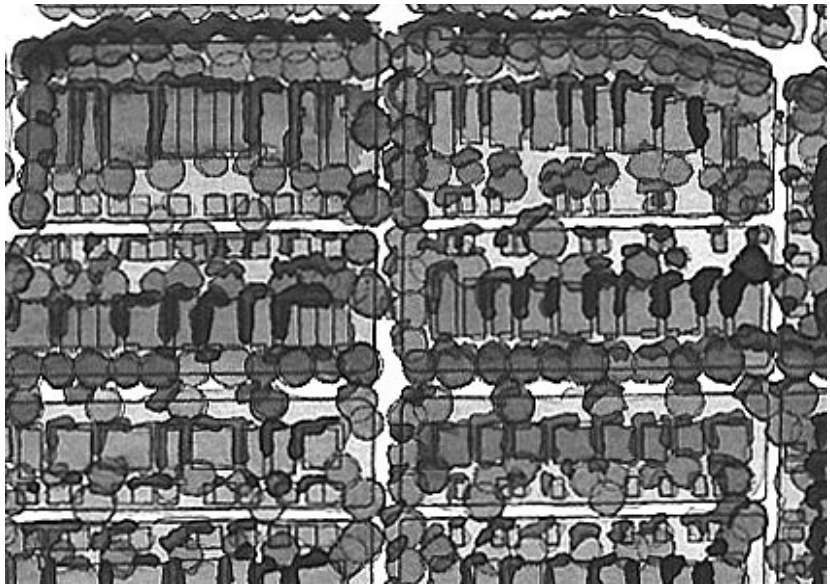
Dominant characteristics:

- strongly defined front entry that relates to the street;
- front porches with overhangs;
- small front-yard setback with clear delineation of public and semi private space;
- façades articulated with appropriately proportioned windows and roof projections;
- strong roof forms to provide interest and rhythm to the streetscape;
- use of materials that reflect regional context (i.e., wood, cedar shingles, stone) and careful detailing; and
- garage and ancillary units are accessed via rear lanes;
- no garages front onto the street.

4. Medium-High Density

Medium-high density development, comprising semi-detached single-family duplexes and fee-simple row houses, and at the higher density range, integrated townhouse developments, are permitted between the ranges of 15 and 25 units per acre, with a desirable average density of 20 units per acre. Emphasis is on recognizing the neighbourhood character of East Clayton, ensuring a compatibility of design with other residential areas, and promoting a high number of ground-oriented units.

This plan veiw shows a variety of lot dimensions and housing types including semi-detached single-family duplexes and fee-simple row houses. Front setbacks are between 4 and 5 metres (13 to 16.5 ft.) for single-family and semi-detached lots and 3 metres (10 ft.) for rowhouse and townhouse units. Parking is provided via lane-accessed garages and on the street.



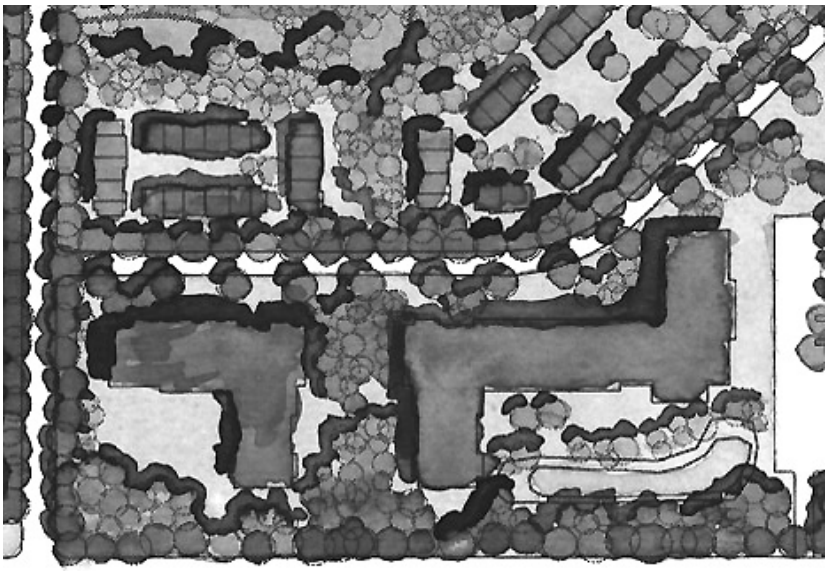
Row houses are designed to reinforce the character of single-family areas and contribute to a unified streetscape.

Dominant characteristics:

- ground-oriented units;
- clearly identified front entry and yard that relates to the street;
- extended porches and recessed entries;
- massing and detailing that relates to the surrounding single-family context;
- massing based on simple, regular shapes with strong, gabled roof forms; and
- garages are not a part of streetscape but, rather are accessed via rear lanes.

5. High Density

High-density residential development between the ranges of 25 and 45 units per acre is permitted with a desirable average density of 35 units per acre. Emphasis is on recognizing the neighbourhood character of East Clayton, ensuring a compatibility of design with other residential areas, and promoting the highest possible number of ground-oriented units with a direct connection to the street.



High-density areas are comprised of stacked townhouses, row houses, and/or garden apartments at densities between 25 and 45 units per acre. This plan view shows high-density row houses across the street from apartments. Front setbacks are minimized in order to create a strong street-orientation. Parking is provided in individual garages at the rear, in rear parking areas, or underground.

High-density apartments have ground-oriented access with a strong orientation to the street.

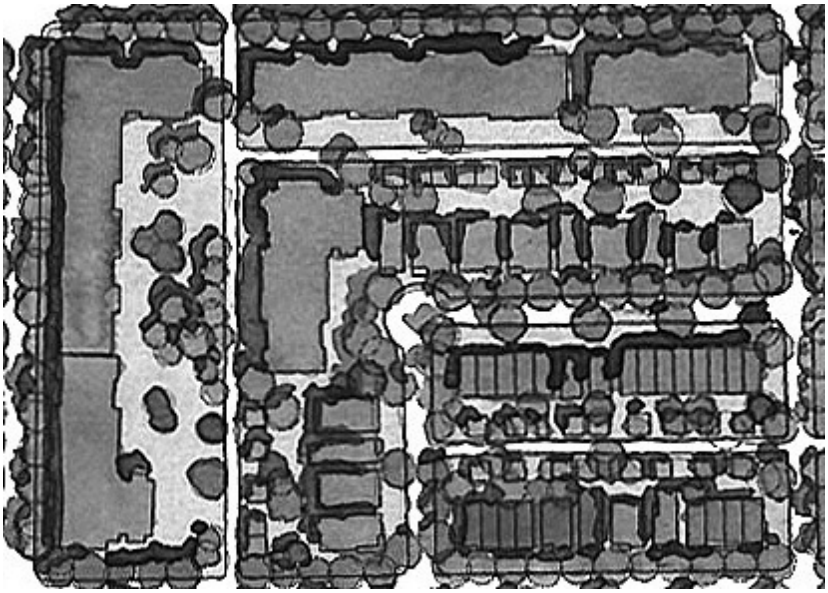
Dominant characteristics:

- a maxium number of individual entries front onto the street;
- clear deliniation between private and public space;
- recessed front entries or porches to articulate façade and reinforce unified residential character;
- upper-floor units have private roofdecks or balconies;
- massing and proportions contribute to human scale of the street; and
- high-quality materials and detailing that is compatible with adjacent single-family residential areas.

6. Mixed-Use Main Street Residential

High-density residential units of densities between 25 and 45 units per acre are permitted within the context of a mixed-use neighbourhood and with desriable average densities of 35 units per acre. The Main Street district serves as the "heart," or central locale first for the East Clayton community and ultimately, for the Clayton district as a whole. In the Main Street residential area residential units are designed to visually and functionally integrate with commercial uses. The external design of buildings is oriented to the pedestrian realm, with a direct and close connection to the public sidewalk. All parking is to be provided via rear lanes, underground, or on the street.

The Main Street residential area is envisioned as a high-density mixed-use area that accommodates apartments or townhouses above ground-floor commercial uses. The residential density of this area ranges between 25 and 45 units per acre. Front setbacks of between zero and 2 metres (6.5 feet). Building heights should not exceed 4 storeys. Parking is provided at the back with access from the lane.
(see also Mixed-Use Commercial, Section 4.2.1)



The Main Street residential area features commercial uses along the ground floor with residential units above. Lot coverage is up to 80% to ensure street frontage continuity. Residences are accessed via a separate entrance that is integrated into the façade of the building. Awnings, canopies, and/or arcades provide pedestrian weather protection and articulate ground-floor retail uses.

4.1.1 Housing Density and Diversity

4.1.1.1 Net Density

Assuming that the average density for each residential zone is reached, the total net residential density (total site area excluding rights-of-ways and other undevelopable area) is 27.28 units per hectare/11 units per acre.

4.1.1.2 Block Diversity

To reach the overall residential density target in East Clayton and to ensure effective and efficient operation of the services, infrastructure, and the integrated community structure, a mix and variety of residential types along with the target densities must be achieved.

- The target densities are those at the average to higher range identified in the NCP (see ***Table 3.1***)
- Target land use mixes comprise a wide array of different dwelling types in the same neighbourhood and on the same block arranged in compatible building forms.
- Residential development projects will be required to provide a variety of dwelling types and densities according to the criteria identified in section 7.0 “Implementation.”

4.1.2 Relation of Buildings to Streets - Building Footprint Standards

The relationship between density, land use integration, and street connectivity is important in reaching the various objectives of the plan. With this in mind, the interconnected system of streets and lanes shall be maintained as per the Land Use Plan.

4.1.2.1 Building Coverage

Achieving the various performance objectives related to green infrastructure and drainage requires minimizing the amount of impervious surface area consequent to buildings and other surfaces on each lot.

- The total lot coverage of low and medium density lots (including coach houses) shall be no greater than 45 percent. In medium-high density areas, site coverage shall be no greater than 45 percent for single family lots with coach houses and 55 percent for semi-detached duplex and row house lots. In high density areas, building coverage should not exceed 55 percent. Mixed-use developments may have a lot coverage of up to 80 percent, while still meeting infiltration performance standards.

4.1.2.2 Building Height

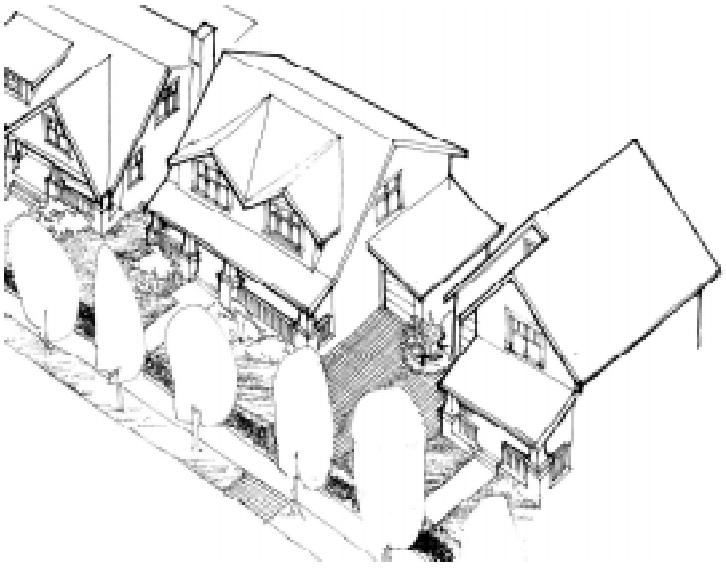
- The height of principal single-family dwellings on low, medium and medium-high density lots should not exceed 2 and a half storeys plus basement. (Note: where applicable, the floor above the second floor [i.e., space within the roof gable] is considered habitable space.) The height of coach houses in these areas shall not exceed 2 and a half storeys.
- The height of row houses and townhomes in medium-high and high-density areas shall not exceed 3 storeys plus full basement.
- High-density and mixed-use apartments shall not exceed 4 storeys.

4.1.2.3 Parking and Garages

For low, medium, medium-high, and portions of high density areas (i.e., row house/ townhouse developments), a minimum of 2 parking spaces per unit is required. One of these spaces must be on the site. The second space may be provided on the site or on the street, provided that a parking count confirms that the parking requirements for all dwelling units on the block/street plus 20 percent (for visitors and cueing space) can be accommodated.

- Lanes must be provided if on-street parking is counted as part of the required parking.
- Parking in the lane ROW is not allowed.
- Access to parking is to be provided off of the lanes; on those exceptional blocks where this is not feasible, parking is to be provided from the street (from shared drives) and incorporated in such a way as to enhance the streetscape of the neighbourhood.
- Garages for single-family dwellings are to have a maximum of one garage door with a maximum width of 3 metres (10 feet). On blocks without lanes garages should be set back from the façade of the house a minimum of 2 metres (6.6 feet).
- On blocks without lanes, entry drives are to be a maximum of 3.5 metres (12 feet) in width. Driveways may flare slightly on private property to provide a parking court or storage next to the garage.
- On blocks without lanes, entry drives and curb cuts are to be minimized by combining two drives for entry off the street.
- On blocks without lanes, the massing of garages is to be secondary to the primary form of the home. The design and detailing of the garage should be consistent with the architectural style of the home.
- Permeable materials (i.e., individual pavers, permeable asphalt, “grass-crete”, gravel, ribbon-strip treatments) are required for driveways, parking pads, and parking courts.
- All garage doors visible from a public street or open space are to have the same quality of detail and craft as does the primary building.
- In low-, medium- and medium-high density areas, attached garages and garage doors are to be integrated into the building mass. In high-density areas, placement of the

On blocks without lanes, recessed garages with minimum dimensions are integrated into the home. Shared curb cuts, “ribbon strips” (median planted area), and individual pavers increase the permeable surface area of the driveway.

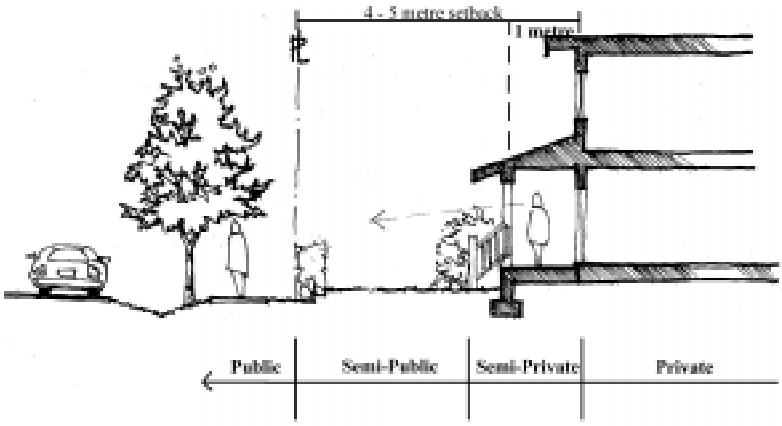


parking entrance shall be integrated with, but secondary to, the rest of the building façade. The parking entrance shall be accessed via the side street or lane.

- Lane-accessed garages and coach houses should be set back a minimum of 1 metre from the lane right-of-way.

4.1.2.4 Front Setbacks

- Front setbacks should reinforce the human scale of the street and neighbourhood (i.e., in low, medium, and medium-high density areas, front setbacks for primary dwelling units on single family lots should be a minimum of 4 metres [13 feet] and a maximum of 5 metres [15 feet]).
- Special front setbacks of 7.5 metres (25 feet) are required for lots facing portions of 188th, 192nd, and 196th Streets, and portions of 64th Avenue (see Land-Use Plan).
- Front porches may project up to 1 metre (3.3 feet) into the front yard setback.
- Coach houses on a flanking street should have a front setback that is compatible to the sideyard setback of the primary dwelling unit (i.e., 3 metres/10 feet).
- Front setbacks for row houses and townhouses in medium-high and high-density areas should be a minimum of 3 metres (10 feet) from the front property line. Where town/row houses abut single-family lots, the front setback should be the same as the single-family dwelling.
- Mixed-use residential/commercial dwellings should have a front setback of between zero and 2 metres (6.6 ft.).



An approrpriate relationship between private single-family residence and public street. The front porch is allowed to extend a maximum of 1 metre (3.3 feet) into the front setback. Low shrubs along the property line make a clear distinction between the private front yard and the public street.

4.1.2.5 Building Orientation

- All residential buildings are to have their primary façades facing public streets, parks, and greenways. In cases where buildings are fronting two streets, they should address both.

A small home facing two streets. Note the porch addresses both streets, provides a generous amount of outdoor space and incorporates the front entry door.

4.1.2.6 Entries, Porches, and Front Yards

- Where appropriate, fencing and hedging should be provided in order to help delineate public and semi-private space. Hedging or fences should be kept low, and the latter should be designed to be in keeping with the architectural character of the dwelling. The maximum recommended height of any front-yard fencing is 1 metre (3.3 feet).
- Wood or stone fencing, or a combination of the two, is acceptable while chainlink metal fencing is not. Picket, lattice, or other similar wood fencing is acceptable while solid fence panels are not.
- Gates and/or arbours should be consistent with the style of the fence.
- Front doors, or individual entries, on ground-oriented units are to be emphasized through the use of entry porches (or recessed front doors).

On this row house street, all units access the street from a recessed front entry and a small front porch. Low fences (1metre/3.3 feet) and landscaping distinguish public from private space and contribute to a neighbourly character.

- The addition of large porches facing the street is encouraged. These promote neighbourhood interaction and provide semi-private outdoor space. They should have a clear depth of 1.8 metres (6 feet) and may project a maximum of 1 metre (3.3 feet) into the front-yard setback. Porches are to be raised a minimum of 0.5 metre (18 inches) above the ground.
- In High-density residential areas, as many units as possible are to be provided with individual access to the street.
- "Gated Communities" are not consistent with the planning principles and are therefore not permitted.

This corner duplex also incorporates a small coach house in the rear yard. Note the 3 metre (10 feet) side yard setback on the primary unit is consistent with the front yard setback of the coach house. Massing, roof forms and porch elements are complementary to the primary dwelling and contribute to a unified streetscape.

4.1.2.7 Coach Houses

- Coach houses are required on all corner lots in low- and medium-density areas.
- The principal entry for all corner coach-house units is to face the flanking street.
- The design of coach houses is to be compatible in scale and character with that of the primary residence.
- On lots other than corner lots, entries to coach houses must connect to streets via side yards.
- As of April, 2000, policy and regulatory development is underway with respect to coach houses and other ancillary dwelling units. Contact the Department of Planning and Development for the status of policies and regulations.

4.1.3 Built Form and Materials

Consideration is to be given to massing and materials of all buildings in order to create a rich overall neighbourhood character with rhythm and variety, while keeping within a cohesive design framework.

4.1.3.1 Built Form Diversity

- In addition to the diversity of building forms between the different residential density areas, diversity of building forms is encouraged within the same area and on the same street.
- A variety of unit types (i.e., single-family, duplex and row houses) are encouraged within each block in order to provide a variety of tenures and add variation to the streetscape.
- Variation in individual housing types results in different "models." Each model may have the same lot size and basic floor plan but must be differentiated by varied exterior treatments and materials.
- No street block should have more than two consecutive single-family homes with the identical house model; the same models should have variations on its expression toward the street. Variations in the expression of the building towards the street, through the location of porches, roof form, façade articulation and front elevation design details (i.e., window proportions, trim, and materials) is encouraged.

4.1.3.2 Building Massing

- The massing of individual houses or buildings should express a strong and clear hierarchy of forms.
- Building massing should reflect the character of homes found in traditional West Coast urban neighbourhoods (especially in the low-, medium- and medium-/high-density areas). This massing should incorporate strong, pitched roof forms, porches and/or recessed entries.
- The scale of adjacent buildings should minimize overlook and shadowing between buildings.

4.1.3.3 Roof Forms

- Buildings in low-, medium- and medium/high-density areas should have strong primary roof forms, with secondary roofs gables, sheds, or integrated skirt roofs being incorporated to express a clear formal heirarchy and to visually support the primary roof form.

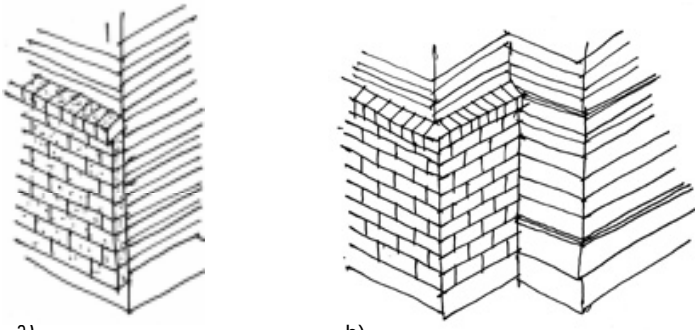
Examples of appropriate roof forms.

- The incorporation of living spaces within the roof form is encouraged.
- Roof slopes of a minimum of 8 in 12 are encouraged, with steeper roofs preferred on dominant and primary roofs.
- Garage roofs are to complement the roof form of the house.
- Consideration should be given to the roofing materials so as to achieve an appropriate fit with the building's structural massing, articulation, and roof forms.

4.1.3.4 Building Finishes

- Building and roofing materials are to reflect the regional heritage and climate as well as to express a high level of craft.
- Recommended exterior finishes include wood and vinyl siding, shingle siding, brick, stone, and stucco. A maximum of two material finishes is encouraged on any elevation, with a third material being permitted above the upper storey on gable ends or dormers. On three- or four-storey buildings there should be a layering of cladding materials in order to create a base, middle, and top wherever appropriate.
- Siding treatments should continue around corners in order to avoid a "pasted on" appearance.
- Flashings and gutters should be integrated into the design through colour or other methods.

Recommended treatment for changes in cladding. Image a) shows an abrubt change from brick to wood cladding that is unacceptable. Image b) shows the change occuring an acceptable distance around the corner of the principle elevation and at an appropriate junction.



a) b)

4.1.3.5 Windows

- Windows are to be visually prominent and are to be articulated with colour and/or trim. The largest group of windows, or those belonging to the primary living spaces within the building, should be of a scale that is compatible with the massing and roof forms of the building and be clearly visible from the street.
- Windows are to be of a simple configuration, carefully composed to support the massing of the buildings. Groupings in bays are encouraged. Large horizontal picture windows are discouraged.
- Vertical or square windows (individual or in groups) are preferred.

The image at left shows an appropriate treatment for windows. Windows are of a rectangular shape, with wide trim. Wood trim is used around windows and doors in a manner consistent throughout building elevations.

4.1.4 Environmental Design Considerations

4.1.4.1 Climatic Response

- All residences are to be oriented so that a maximum amount of primary living space receives direct sunlight. They are also to incorporate overhangs, awnings, or trellises that will allow the low winter sun, but not the high summer sun, to penetrate the unit. Wherever possible, principal rooms are to have windows on two walls in order to provide balanced daylighting and to facilitate natural cooling and ventilation.

4.1.4.2 Views

- Views from the larger Clayton district, featuring the agricultural lowlands, Mount Baker, and other visually significant amenities are to be preserved wherever possible. Residential development within East Clayton is to ensure that existing views are not unduly compromised by insensitive siting, massing or orientation and that potential views are protected.

4.1.4.3 Topography

- Planning and building designs should be responsive to the contours and natural features of the site. Specific slope conditions are to be considered in building layout, and designs should ensure that the functional and visual integrity of the site's grade, as well as its relationship to adjoining sites, is maintained.

4.1.4.4 Useable Outdoor Space

- Provide a generous amount of usable private ground-orientated outdoor space for each residential unit. Upper-storey terraces, patios, and/or rooftop gardens for upper-storey units in high-density residential areas would be an acceptable alternative to ground-oriented outdoor space only when it is impossible to provide direct ground access.

4.1.4.5 Crime Prevention Through Environmental Design

- Developers and designers are to consider appropriate safety and natural surveillance measures (such as lighting design, visual access/surveillance) as per CPTED principles.
    - The maximum number of units are to face onto greenways and neighbourhood parks.
    - Homes are to be designed so that primary living areas have a clear view of the street, park, and/or greenway.
    - Garages are to be oriented so that they do not block the view of the street or lane.
    - All blocks with lanes will have coach house units at the lane entry.
    - The largest group of windows, or those belonging to primary living areas (e.g., kitchens, family rooms, or master bedrooms) are to directly overlook rear yards and lanes.
    - Adequate lighting is to be provided on streets and in lanes.
    - In order to increase surveillance onto the lane, where possible, coach houses should include at least one room on the ground floor or have windows facing the lane.
    - Functional porches are to be provided on the street-facing elevation of residences.
    - On principal residences, the first-floor elevation is to be set high enough to provide a commanding view of the street.