

COPYRIGHT
PROTECTED



Emily Carr | *Lagoon at Albert Head* | c. 1936 | oil on paper | 51.5 cm x 72.5 cm
The Thomas Gardiner Keir Bequest | Collection of the Art Gallery of Greater Victoria

City of Colwood – Official Community Plan 2008

Bylaw No. 999





BYLAW NO. 999 CITY OF COLWOOD

A BYLAW TO DESIGNATE A COMMUNITY PLAN AS THE OFFICIAL COMMUNITY PLAN FOR THE CITY OF COLWOOD

WHEREAS by Section 876(1) of the Local Government Act, the Council of a Municipality may adopt one or more community plans for one or more areas;

AND WHEREAS by Section 876(2)(b) of the Local Government Act, an official community plan applies to land in the municipality that is designated in the plan as being covered by that plan;

AND WHEREAS the Council of the City of Colwood has had a community plan prepared for all areas of the municipality, attached hereto as Schedule "A";

AND WHEREAS Council deems it desirable to designate the community plan as the Official Community Plan;

NOW THEREFORE the Municipal Council of the City of Colwood, in open meeting assembled, enacts as follows:

1. CITATION:

This Bylaw may be cited for all purposes as the "**Colwood Official Community Plan Bylaw No. 999, 2008.**"

2. REPEAL:

Bylaw No. 373, the "Colwood Official Community Plan Bylaw, 1997" is repealed.

3. SEVERABILITY:

No provision of Schedule "A" depends for its validity on any other provision, and if any provision of Schedule "A" is held by a court to be invalid the remaining provisions of Schedule "A" shall remain in full force and effect.

READ A FIRST TIME THIS 9th DAY OF JUNE, 2008.

PUBLIC HEARING HELD THIS 24th DAY OF JUNE 2008.

READ A SECOND TIME THIS 24th DAY OF JUNE 2008.

READ A THIRD TIME THIS 24th DAY OF JUNE 2008.

FINALLY PASSED AND ADOPTED THIS 24th DAY OF JUNE 2008.

MAYOR

CHIEF ADMINISTRATIVE OFFICER



- *This on-line version is not a certified copy and should not be used in place of the actual city bylaw.*
- *This Bylaw is consolidated in accordance with Bylaw No. 756.*
- *It includes amendments up to May 25, 2010 (Bylaw No. 1306)*
- *If you require an accurate, up to date copy of this bylaw, you may purchase or view a copy at:*

*Colwood City Hall
3300 Wishart Road
Colwood, BC V9C 1R1*

This OCP was prepared by the Holland Barrs Planning Group in 2008 with staff from the Cities of Colwood & Langford.

Other contributors included Lees & Associates Landscape Architects, Eberle Planning & Research, Stevens Engineering, EcoPlan International, MVH Design & Planning, Frank Ducote Urban Design, and D'Ambrosio Architecture + Urbanism.

Table of Contents

Table of Contents.....	iii
List of Maps	v

NOTE: *Italicized* terms in this document appear in the **Glossary** with definitions.

Part I – OCP Overview

1.0	Introduction.....	1-1
2.0	Our Sustainability Goals	2-1
3.0	Our Sustainable City.....	3-1

Part II – Community Objectives & Policies

4.0	Our Natural Setting & Open Spaces.....	4-1
5.0	Our Built Environment.....	5-1
6.0	Our Healthy Community	6-1
7.0	Our Housing	7-1
8.0	Our Multi-Modal Transportation System	8-1
9.0	Our Sustainable Buildings	9-1
10.0	Our Local Economy & Jobs	10-1
11.0	Our Food System	11-1
12.0	Our Community Infrastructure	12-1
13.0	Regional & Inter-Jurisdictional Cooperation.....	13-1
14.0	Development Implementation Information	14-1

Part III – Background Information

15.0	Community Profile	15-1
------	-------------------------	------

Part IV: Development Permit Areas & Guidelines

16.0 General..... 16-1

17.0 Riparian Area & Marine Foreshore Guidelines 17-1

18.0 Steep Slopes, Sensitive Ecosystems & Hazardous
Conditions Guidelines..... 18-1

19.0 General Multi-Family, Commercial & Light Industrial
Guidelines..... 19-1

20.0 Centres Guidelines 20-1

21.0 Business / Light Industrial Centre Guidelines 21-1

22.0 Mixed Use Employment Centre Guidelines 22-1

23.0 Neighbourhood Guidelines 23-1

24.0 Hillside - Shoreline Guidelines 24-1

25.0 Lagoon Estates / Aquattro Guidelines 25-1

Part V: Area Plans

26.0 Royal Bay Area Plan..... 26-1

27.0 Olympic View Area Plan 27-1

Part VI: Glossary 28-1

List of Maps

Map 1-1: Colwood Regional Context.....	1-5
Map 1-2: Planning Area.....	1-6
Map 3-1: Land Use Designations	3-3
Map 4-1: Slopes, Streams & Riparian Areas.....	4-3
Map 4-2: Sensitive Ecosystems & Stream Habitat Areas.....	4-4
Map 4-3: Groundwater Issues, Mined Areas & Beach Types.....	4-5
Map 4-4: Parks & Open Space Inventory.....	4-9
Map 4-5: West Shore Greenbelt Strategy	4-10
Map 4-6: Open Space Integration Strategy.....	4-11
Map 6-1: Institutional Uses & Institutions Inventory.....	6-8
Map 8-1: Regional Transportation System Context.....	8-4
Map 8-2: Multi-Modal Transportation Strategy	8-8
Map 11-1: Agricultural Land Reserve (ALR)	11-4
Map 12-1: Water Infrastructure Inventory.....	12-5
Map 12-2: Sanitary Sewer Inventory	12-6
Map 13-1: Federal Lands Inventory	13-2
Map 16-1: Development Permit Areas - Environment	16-5
Map 16-2: Development Permit Areas – Form & Character	16-6
Map 26-1: Royal Bay Land Use Concept Plan.....	26-2
Map 27-1: Olympic View Land Use Concept	27-3

Part I – OCP Overview

1.0 Introduction

The people of Colwood are passionate about their community, and for good reason. Special places like the Royal Roads Campus, the lagoon and shoreline, the relative and convenient access to a wide range of green spaces and the strong family-orientation of the community are assets that have few parallels. It's no surprise there is strong interest in moving to the community from all parts of the province, country, and indeed, the world. However, most people feel there is room for improving on an already great community. Like many Canadians and British Columbians, climate protection and sustainability are at the forefront of many people's minds. More specifically, citizens are also keenly interested in increasing options for how they get around while others feel the time has come to develop a vibrant arts and culture scene. Other desires have been expressed. Many have expressed a strong interest in promoting a viable local food system. Increasing local jobs, improving housing diversity and affordability and preserving open spaces are top priorities for many.

Meanwhile, Colwood is poised for significant growth and change. Large intact sites such as Royal Bay, Colwood Corners, and many other similar sites, are actively being developed and/or are under discussion for changes in land use. Colwood citizens generally understand that growth and change is inevitable, but have strong feelings about the types and locations of development under consideration and what benefits come back to the community. Ultimately, it's very important for residents that proposed developments have a rationale and logic in terms of form and intensity relative to their location and function in the community. Development must also be a benefit to the broader community and address community objectives.

This Official Community Plan (OCP) provides the rationale and logic for how and where development and land use changes occur. It also addresses community concerns that were expressed during the review process and embraces sustainability as a framework for community planning and development.

This OCP was developed together with the City of Langford.

Both communities make up the urban core of the West Shore and have a strong track record of collaboration.

→ What is an Official Community Plan?

An Official Community Plan is a land use plan and policy document for a community. An OCP vision reflects the ideas and input of our residents, stakeholders, professionals and staff who participated in the preparation of the Plan. The OCP integrates land use, economy, environment, transportation, community facilities and services, and creates a broad strategy to direct growth and development. When focused on sustainability, an OCP is an essential means to assist communities in considering and organizing responses to global, regional and local challenges such as climate change and ecosystem health, social development, and the increasingly changing patterns of economic stability.

OCP's are strategic plans and are mainly intended to guide decision-making and dialogue about choices and directions. Conditions and opinions change frequently in the same way that opportunities or new challenges emerge without notice. For this reason, the *Local Government Act* states that an OCP does not commit or authorize a municipality to implement policies specified in the Plan, however, all bylaws enacted or works undertaken by a Council after the adoption of an OCP must be consistent with the Plan as enacted or amended.

An effective OCP provides clear direction but does not preclude amendments to the plan based on changing circumstances.



Futures Forum (June 2007) attendees locate new neighbourhoods on a map of the community.

→ How was this OCP developed and who was involved?

The cities of Colwood and Langford initiated an innovative joint review of their respective Official Community Plans (OCP) with the objective of creating an integrated and sustainable future for both communities. The process for reviewing the OCPs combined opportunities for community and stakeholder feedback, technical analysis and policy and design development. The diagram below shows the main phases and key events of the OCP review process.

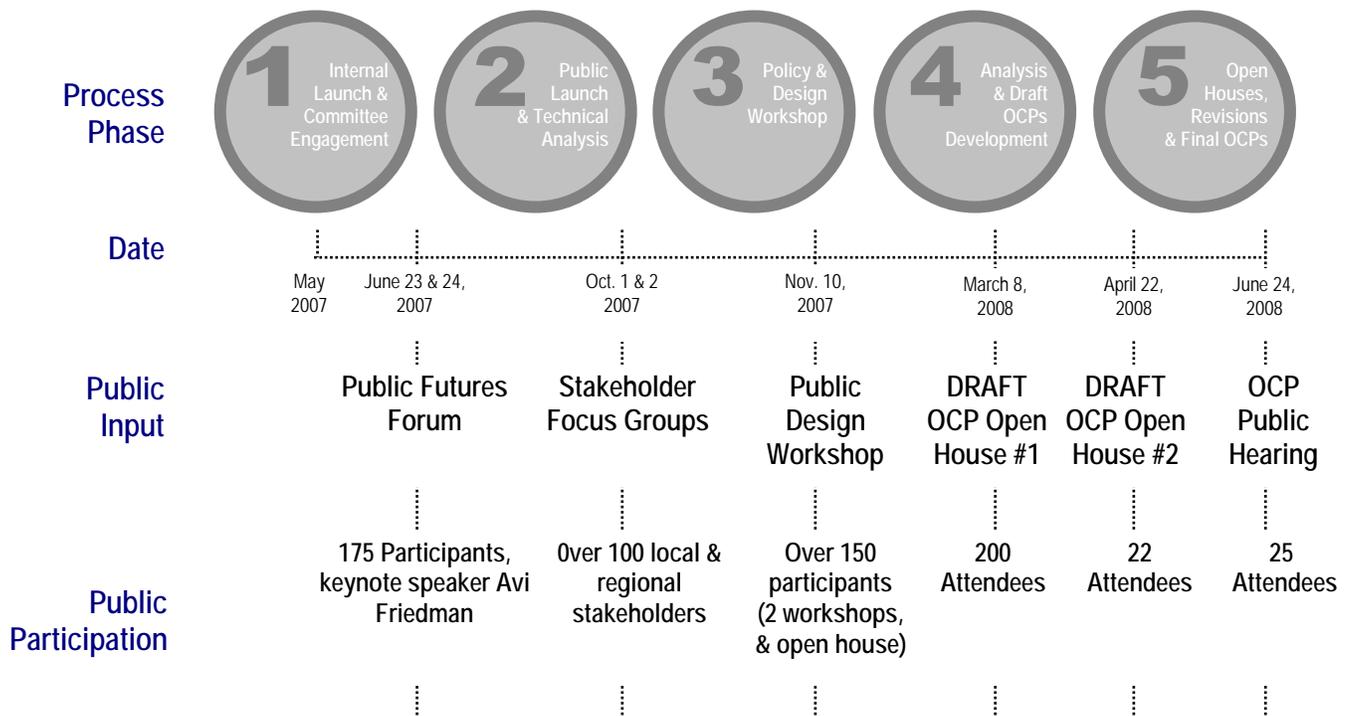
The OCP review process benefited from the oversight of an OCP Steering Committee made up of citizens who are passionate about their community. The Colwood and Langford OCP Steering Committees met separately and together to guide the OCP Review team at key stages. The OCP Review team was made up of staff from communities and professional planners, architects, landscape architects, transportation engineers, and housing and economic development experts.

For a list of stakeholder groups who provided input into the process, please see Section 15, Community Profile – Public and Stakeholder Involvement.



A Futures Forum (June 2007) attendee shares highlights from a group discussion about community priorities.

OCP Review Process Overview



→ Why are we planning?

Our community is facing an uncertain future. Climate change will likely not only compromise quality of life and cause environmental change, but could also undermine local and global economies and ecosystems if not kept in check. The Province of BC has committed to reducing GHG emissions by 33% by 2020. The active involvement of cities will be critically important. Other changes are anticipated. Wetter winters, dryer summers, severe weather events, rising sea levels will increase infrastructure demand. Worse yet, despite concerns about climate change, most energy analysts agree that we are fast approaching “peak oil”. Peak oil refers to the predicted peaking of world oil production in the coming decades. Anticipated results include dwindling supplies and increasing cost of fuels that we rely on for everything from heating buildings to powering cars to producing food. In the face of these changes and many others, the imperative to develop in a more sustainable manner is clearer than ever.

Colwood’s imperative for this OCP is to harness development forces to contribute to sustainable and positive change.

The population in the Capital Regional District (CRD) is anticipated to grow from 353,441 (2006 statistic) to 421,820 in 2028. As a key growth area in the region, the RGS has planned for Colwood to absorb 17,000 new people in approximately 8,032 new homes in the same period. This translates to a population of over 32,000 by 2028. In 2008, approximately 5,900 new units, or 73% of long term housing forecasts, were in various stages of approval (OCP amendment, rezoned, development or building permits) and capacity for new housing still remains in abundance throughout the community. Given the strong demand for housing and the draw to the West Shore, it is likely that the community will absorb more newcomers to the CRD making the possibility of a population much greater than the current projection in the coming decades.

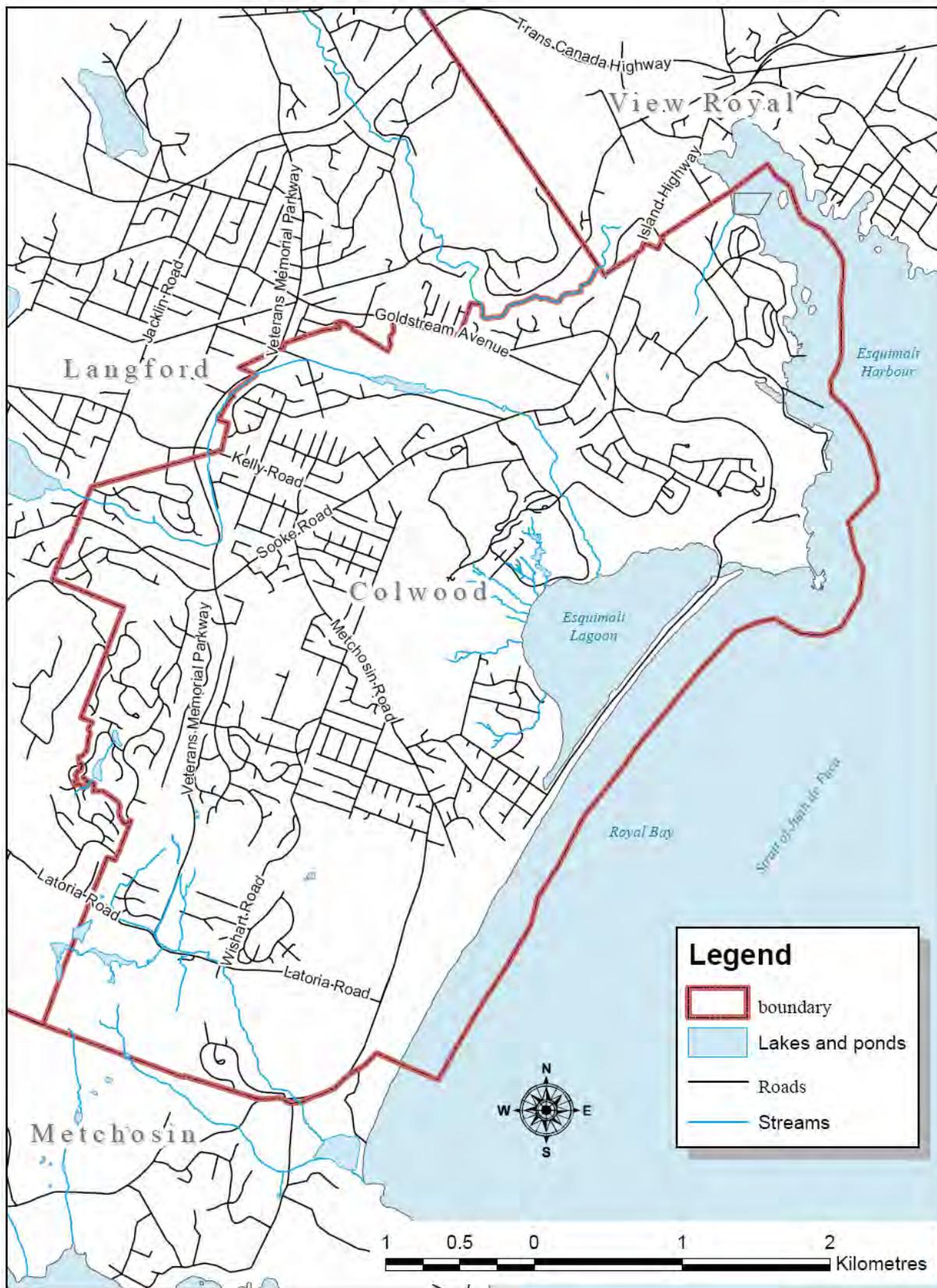
	City of Colwood		CRD
	Population	Dwellings	Population*
2006	15,527	5,501	353,441
2028	32,480	13,533	421,820
Increase	16953	8,032	68,379
Annual Increase	771		3,108
Annual % Increase	5.0%		0.9%

Notes: 2006 dwellings occupied by usual residents, CRD RGS average household size projections based on BC Stats People 32 population projections for CRD August 2007, with share apportioned to Colwood as per CRD Regional Planning Dept. & Eberle Planning & Research Inc.

Map 1-1: Colwood Regional Context



Map 1-2: Planning Area



2.0 Our Sustainability Goals

→ The Sustainability Imperative

“Sustainable development” emerged from the United Nations Brundtland Report in 1987, in recognition that societies need to create prosperous economies and communities, but not irreversibly damage the planet in the process. The report was important because it not only considered the long term implications of environmental and social health that would result from economic growth, but it also predicted the opposite as well: the impacts that degraded ecosystems would have on economic growth into the future. The report concluded that to sustain economic growth, the approach to economic development that would lead to long term prosperity must be transformed from one that generally ignores the environmental and social impacts on the planet, to one that integrated those concerns into everyday business and political decisions and activities.

The insight that this approach has led to, that differentiates it fundamentally from others, was that it offered *a framework for thinking about development that enabled social, environmental and economic concerns to be addressed proactively so that synergistic solutions can be implemented.*



*This OCP is
our community's
sustainability
roadmap.*

→ Community Sustainability Goals

To make progress on community sustainability, it is imperative to address the fundamental aspects of life and living that will enable the community and its residents to function healthily and sustainably over the long term. The following fundamental sustainability goals will be applied to all aspects of community planning and development:

- | | |
|---|--|
| <i>Ecosystems & Biodiversity</i> | 1. <i>Maximize the ecological value of natural areas. Where development occurs, maintain ecosystem values.</i> |
| <i>Community Health</i> | 2. <i>Develop or enhance environments that enable healthy choices in all areas of living that are safe, secure and welcoming for all.</i> |
| <i>Basic Needs</i> | 3. <i>Ensure healthy housing and food is available for all.</i> |
| <i>Personal Health</i> | 4. <i>Ensure healthy recreational, educational, emotional, spiritual, artistic and cultural opportunities for all.</i> |
| <i>Sense of Place</i> | 5. <i>Ensure community planning and design celebrates the community's unique history and natural setting and embraces diversity.</i> |
| <i>Vibrant Local Economy</i> | 6. <i>Enhance economic vitality and opportunity. Ensure local employment and business opportunities.</i> |
| <i>Energy, Climate Protection & Adaptation</i> | 7. <i>Promote energy-use choices that reduce greenhouse gas emissions and contribute to clean air. Plan for climate change adaptation.</i> |
| <i>Water, Resources & Wastes</i> | 8. <i>Promote efficient use and re-use of water and other resources. Reduce the consumption of non-renewable resources in favour of renewable resources.</i> |

→ Climate Action Commitment

The City of Colwood became a Signatory of the British Columbia Climate Action Charter in 2007 and is committed to taking action on climate change, including planning liveable, sustainable communities, encouraging green developments and transit-oriented developments, and implementing innovative infrastructure technologies including production of clean energy.

The adoption of this sustainability-focused OCP as a bylaw demonstrates, *in the most meaningful way*, the city's commitment to ensuring its role in addressing issues related to climate change. Our city also recognizes that reducing emissions will generate social, environmental, economic and health benefits for individuals, families, and businesses throughout the community.

Through this OCP, our city is demonstrating its commitment to implementing actions outlined in the Charter that include:

- Aiming to reduce GHG emissions, including emissions from government buildings and operations, and those created by members of the community;
- Amending legislative, regulatory, policy, or other barriers to taking action on climate change;
- Implementing programs, policies, or legislative actions, within the City's jurisdiction, that facilitates reduced GHG emissions, where appropriate;
- Encouraging centres that are complete and compact and socially responsive; and
- Encouraging infrastructure and a built environment that supports the economic and social needs of the community while minimizing its environmental impact.

As a planned growth area, reducing GHG emissions will be a challenge.

Sustainable development in our community will facilitate lower GHG emissions in the region on a per capita basis.

This is an opportunity for our community to be a leader in sustainability.

Our efforts will benefit the region, the Province and the planet.



Global carbon dioxide (CO₂) levels in parts per million (ppm). From: www.350.org

Objective 2.1 Achieve the following targets for greenhouse gas (GHG) emission reductions and energy reductions for the target years indicated:

TARGET CRITERIA	TARGET YEAR		
	2020	2030	2050
Per Capita GHG emissions reduction from 2007 levels	50%	75%	93%
Total GHG emissions reduction from 2007 levels	33%	49%	80%
Per Capita Energy reduction from 2007 levels	38%	56%	70%
Total Energy reduction from 2007 levels	14%	22%	12%

Policy 2.1.1 The City will develop a flexible Community Energy and Emissions Plan (CEEP) in support of achieving GHG emission and energy reduction targets.”

3.0 Our Sustainable City

Our buildings, streets, and open spaces contribute to the community's overall 'look and feel' and largely determines activity patterns (*e.g. how we get around, how we interact with neighbours, how we play*). Evidently, our community's design and layout are critical for setting the stage for sustainable development. Development often involves changing or modifying natural ecosystems and regardless of location, development has an impact on life sustaining elements such as air, water and soil. Development should therefore maintain the values of natural ecosystems and minimize other impacts when and where feasible. Thoughtful urban design is one of our community's most powerful tools to advance the quality of life of our residents, as well the competitive advantage and attractiveness of the community, which is so critical for attracting business investment and jobs. Breathtaking natural features such as mountains, lakes and the sea will shape future developments as will our city's unique history and people.



→ Our Vision

Our sustainable community, nestled in a rich network of hills, creeks, lakes and the sea, is defined by attractive, compact and complete centres connected by multi-modal transportation corridors.

Our sustainable community is welcoming and inclusive for all and is planned and designed to support the needs of a diverse and changing population.

Colwood will use its regulatory and non-regulatory powers to implement our vision.

→ Growth Management & Land Use Strategy

Our growth management strategy defines centres where growth will be focused as well as areas where development will be controlled. Unique conditions must be addressed, and corresponding development intensities and patterns will emerge.

The following key growth management and land use designations will guide planning and decisions about development intensity. Within this context, site-specific land use and density will be determined at the time of re-zoning. *Map 3.1* details the general configuration of land use designations.

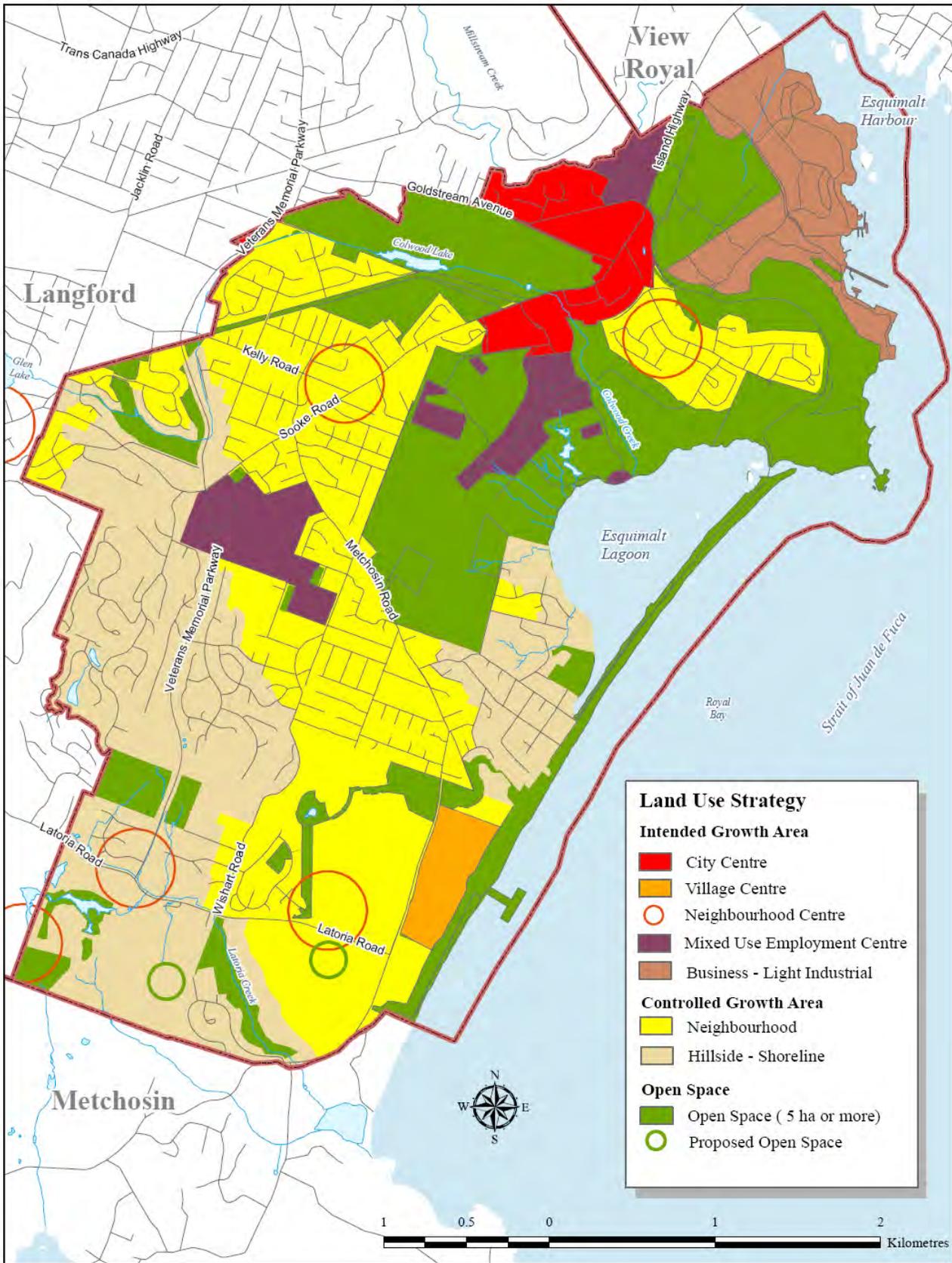
The Growth Management & Land Use Strategy is a key tool to ensure our vision is implemented.

Land Use Designations & Growth Management Strategy Brief Overview:

	Land Use Designation	Area
Growth Management Strategy	Intended Growth Area	
	City Centre	Colwood Corners
	Village Centre	Royal Bay Village Centre
	Mixed-Use Employment Centre	Allandale Pit, Portions of Island Highway & Royal Roads University Lease Lands
	Business or Light Industrial Centre	CFB Esquimalt Lands
	Neighbourhood Centre	4 Neighbourhood Growth Areas
	Controlled Growth Area	
	Neighbourhood	Existing Settled Areas
	Hillside - Shoreline	Undeveloped or Existing Low Intensity Hillside or Shoreline Areas
	Preserved Open Space	
	Open Space	Public and Private Open Spaces

A detailed overview of the Land Use Designations (*Map 3.1*) as well as a detailed overview of each land use designation follows. A brief of overview of the strategy in this OCP to ensure centres are walkable is provided as well.

Map 3-1: Land Use Designations



A Walkable City

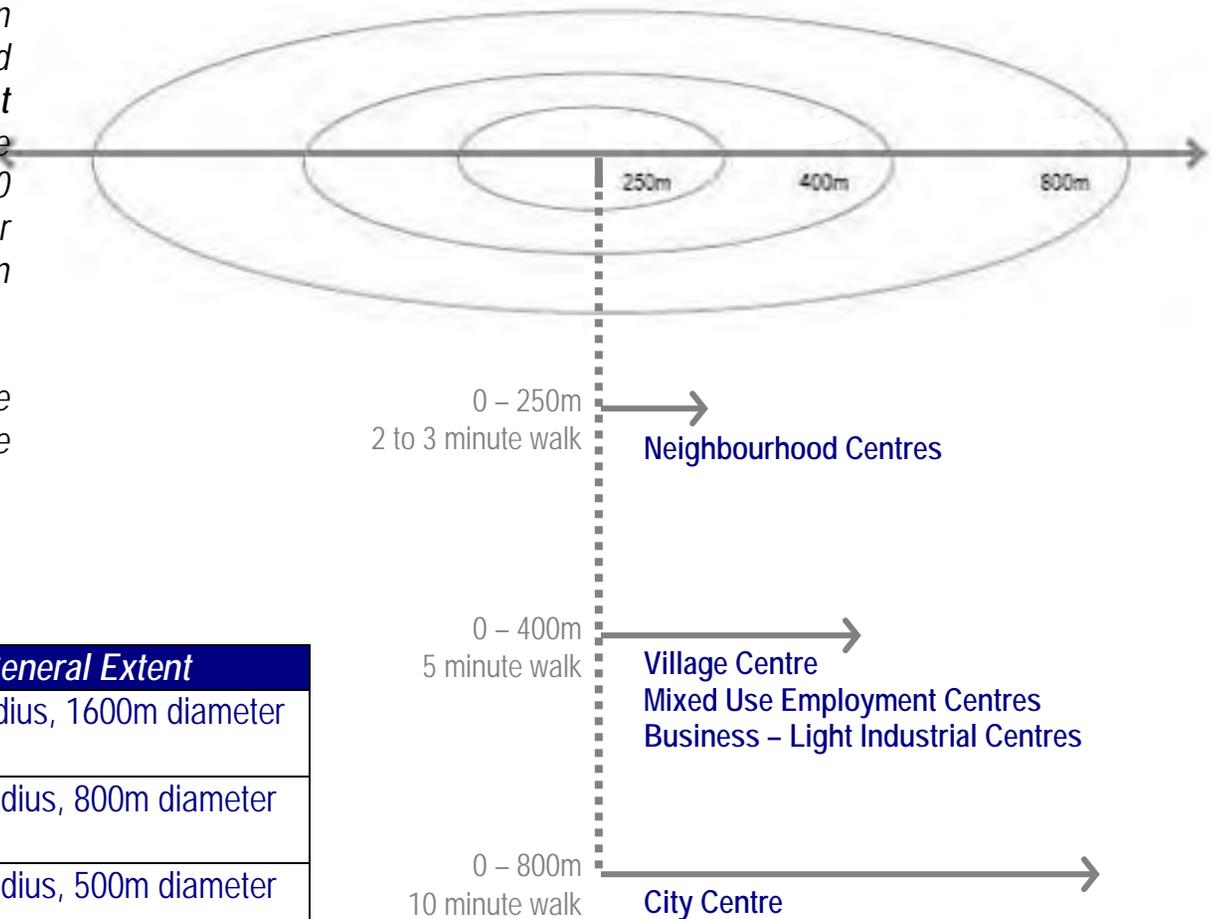
Land use designations for all centres in this OCP are based on the concept of walkability.

A healthy person can comfortably walk 400m in about 5 minutes. It has been shown that provided with an attractive **pedestrian environment** complemented by a **range of uses**, most people will walk this distance rather than drive. The 10 minute walk, or 800m, is also important to consider since many people will also walk this distance given the right conditions as well.

The scale and extent of the following land use designations will ensure that all centres are walkable:

Centre	General Extent
City Centre	800m radius, 1600m diameter
Village Centre	400m radius, 800m diameter
Neighbourhood Centre	250m radius, 500m diameter
Mixed Use Employment Centre	400m radius, 800m diameter
Business – Light Industrial Centre	400m radius, 800m diameter

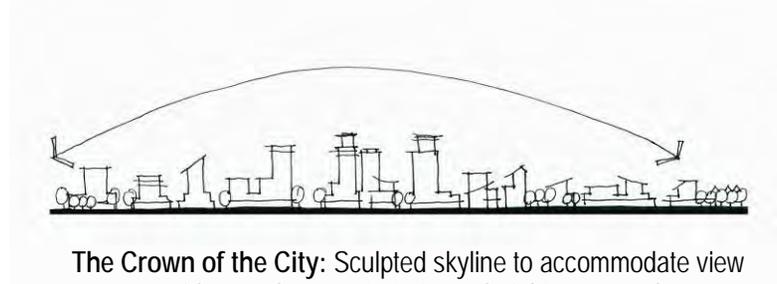
Relative Scale & Extent of Colwood's Walkable Centres



Note: The following land use designations were informed by this concept. Land use designations follow parcel lines and therefore do not appear as circles on the map. The neighbourhood centre designation is the only exception.

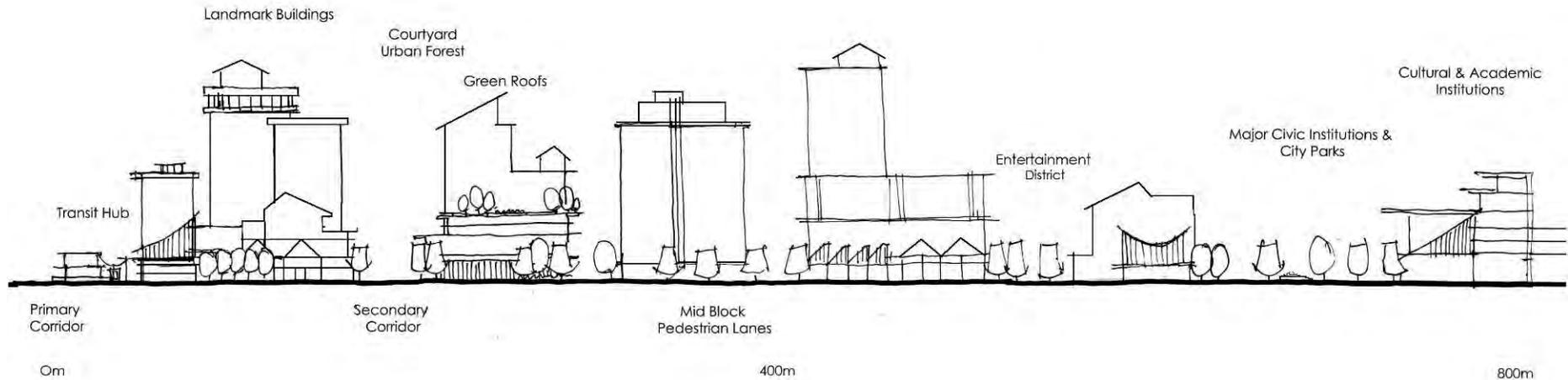
City Centre

- A major regional growth centre that supports a wide range of high density housing, including affordable and rental housing
- A major employment area for institutional, office, commercial, light industrial uses
- Major civic uses and public buildings are key landmarks
- A major place of community gathering and celebration
- A wide range of public squares, parks and open spaces are integrated throughout
- The City's major entertainment and/or cultural precinct
- Inter-city and/or inter-regional transit hub connect residents



The Crown of the City: Sculpted skyline to accommodate view corridors and concentrate tower heights as a node

A Concept for the City Centre



● **General Extent of Centre** = 800m (10 minute walk) from centre to edge or 1600m (diameter) from edge to edge →

● **Density Guideline** = >250 dwelling units per hectare (100 units per acre) for the centre core area (0-400m (radius) →

● **Density Guideline** = 150 – 200 dwelling units per hectare (60-80 units per acre) for the edge of the centre (400 - 800m (radius) →

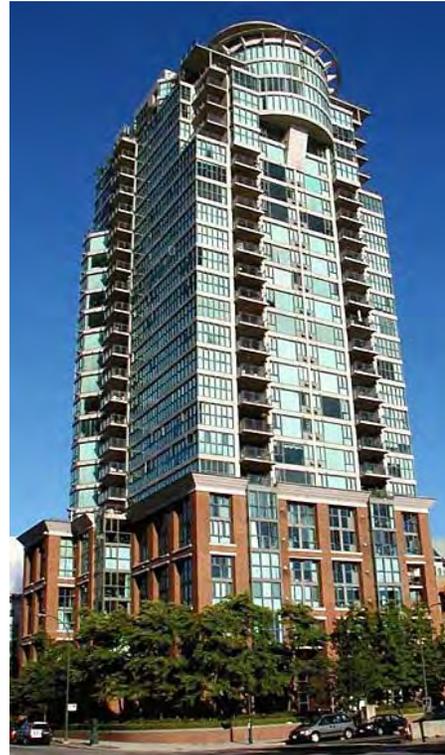
Possibilities for our City Centre



Contextual design directions



Government & business offices



Attractive hi-rise residential buildings



Integrated rail-and/or road-based rapid transit



Rich public realm designed for people



Mid-rise mixed use buildings



Family-oriented townhouses



Distinctive Live/Work units



Hi- & mid-rise buildings together with retail at street level

→ City Centre

Objective 3.1 Promote civic activities in the City Centre.

Policy 3.1.1 Locate and/or maintain civic buildings in the City Centre to reinforce the function and focus of the city centre.

Policy 3.1.2 Ensure that civic buildings remain distinctive as landmarks in the city centre.

Policy 3.1.3 Create a major gathering place in the City Centre to promote civic activities such as parades, celebrations, in proximity to adjacent to commercial, civic, or institutional buildings.

Objective 3.2 Maintain a regional focus.

Policy 3.2.1 Commercial and institutional land uses, services and amenities in the City Centre will balance regional services with amenities and services for local residents.

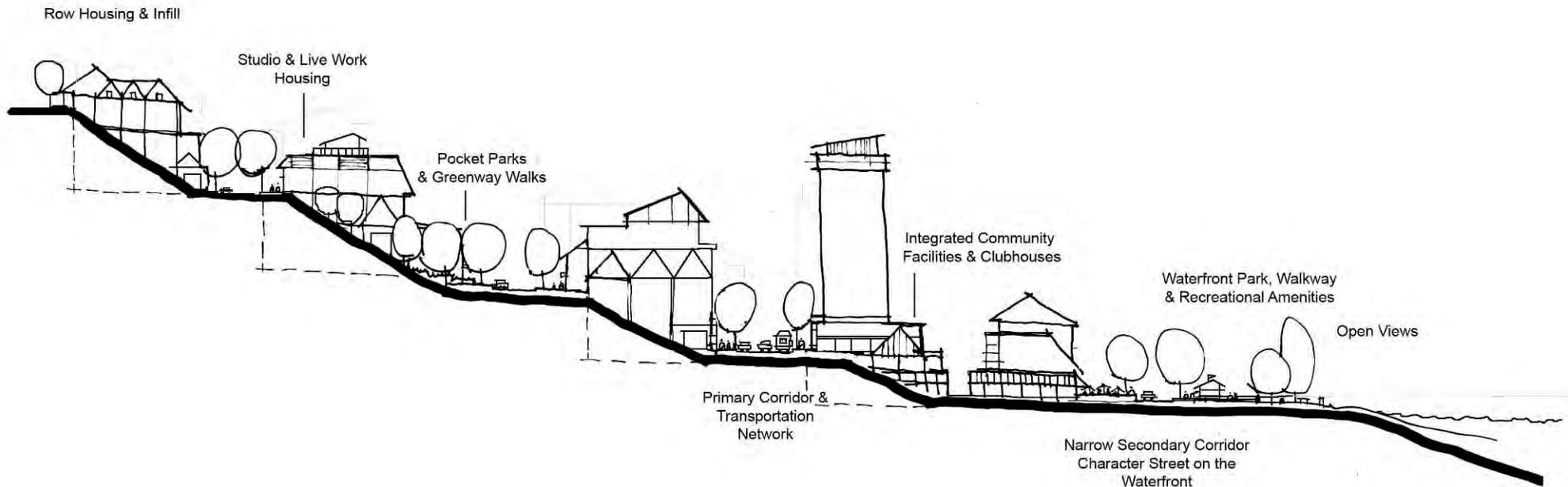
Policy 3.2.2 Transportation services and infrastructure in the City Centre will connect users to regional transportation systems.



Village Centre

- A predominantly residential precinct that supports a wide range of high and moderate density housing, including affordable and rental housing
- A key location in the city for shopping, services, amenities, and any other function that supports local residents' daily needs
- Parks and open spaces and recreational facilities are integrated throughout
- Major educational, health and child care facilities serve the needs of residents' in the city
- Inter-city and/or inter-regional transit hub connect residents

A Concept for our Village Centre



General Extent of Centre = 800m (diameter) from edge to edge or 400m (5 minute walk) from centre to edge

Density Guideline = 150 – 200 dwelling units per hectare (60-80 units per acre) for the edge of the centre

Density Guideline = 200 – 250 dwelling units per hectare (80 - 100 units per acre) for the centre core area (400m (radius))

Density Guideline = 50 – 100 dwelling units per hectare (20-40 units per acre) for the edge of the centre north, south west open space and at the sea (east)

Possibilities for our Village Centre



Pedestrian-friendly public realm



Variety-mid rise & low rise buildings



Lively main streets



Community facilities & involvement



Great pedestrian connections
City of Colwood Official Community Plan (Consolidated)



Housing of all types



Terraced mid-rise buildings



Convenient cycle paths
Bylaw No. 999



Intimate public gathering places
3-9

→ Village Centre

Objective 3.3 Maintain a sub-regional focus.

Policy 3.3.1 Sub-regional commercial and institutional land uses, services and amenities will be balanced with ample local services and amenities.

Policy 3.3.2 Transportation services and infrastructure in the Village Centres will connect users to sub-regional and regional transportation systems.

Objective 3.4 Serve a distinctive role in the City.

Policy 3.4.1 Commercial and institutional land uses, services and amenities in a Village Centre will fulfill a distinctive role in the City and not compete with the role of the City Centre as the major civic centre.

Objective 3.5 Integrate public institutions in to the Village Centre as key focus areas.

Policy 3.5.1 Schools, civic buildings and community facilities will complement their surroundings and be of significant architectural character, in keeping with the form and character of surrounding commercial or multi-family residential development, as the case may be.

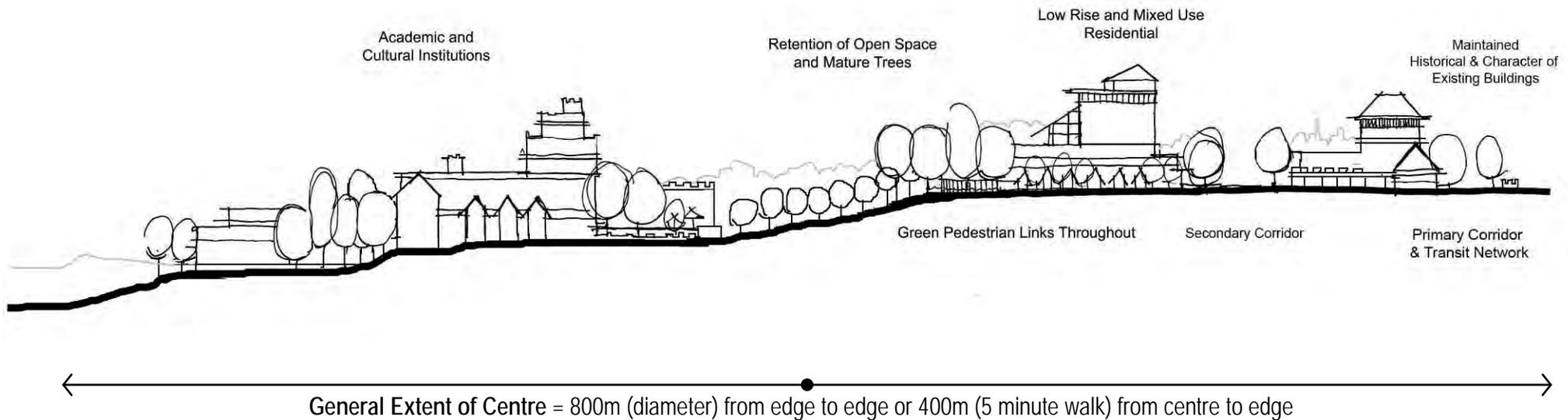
Policy 3.5.2 Schools, civic buildings and community facilities should be located to terminate view corridors, with main entry doors and/or significant architectural features positioned on such an axis.

Policy 3.5.3 Parking for public institutions will be primarily accommodated in side and/or rear yards.

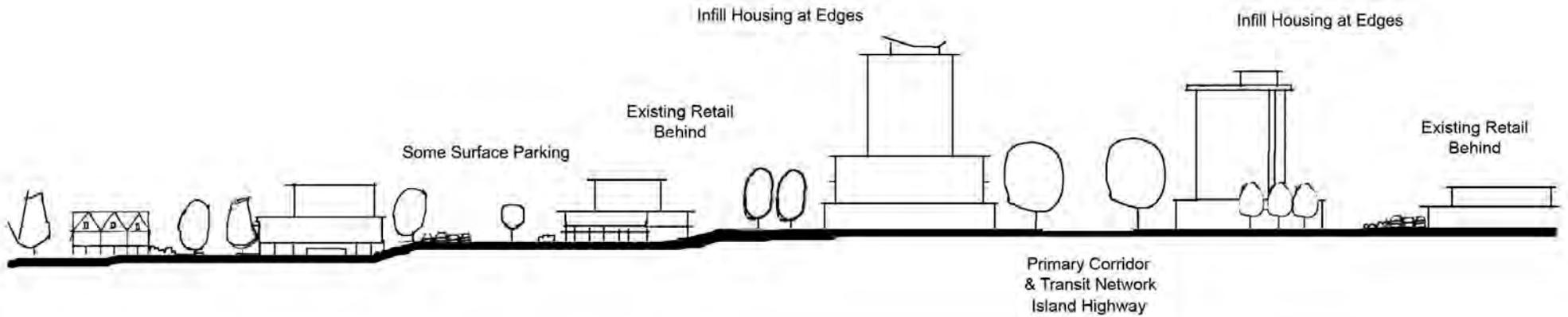
Mixed-Use Employment Centre

- A predominantly workplace precinct that includes business of all types including commercial, accommodation, institutional, and light industrial
- An ideal location for creative or innovative infill housing (such as live-work, mixed-use buildings, student housing, rental housing, etc.) that does not jeopardize the long-term function of the centre as an employment node.
- Parks, public squares, open space, and cycling and pedestrian greenways are integrated throughout
- Centre is an inter-city and/or inter-regional transit hub that connects residents and employees

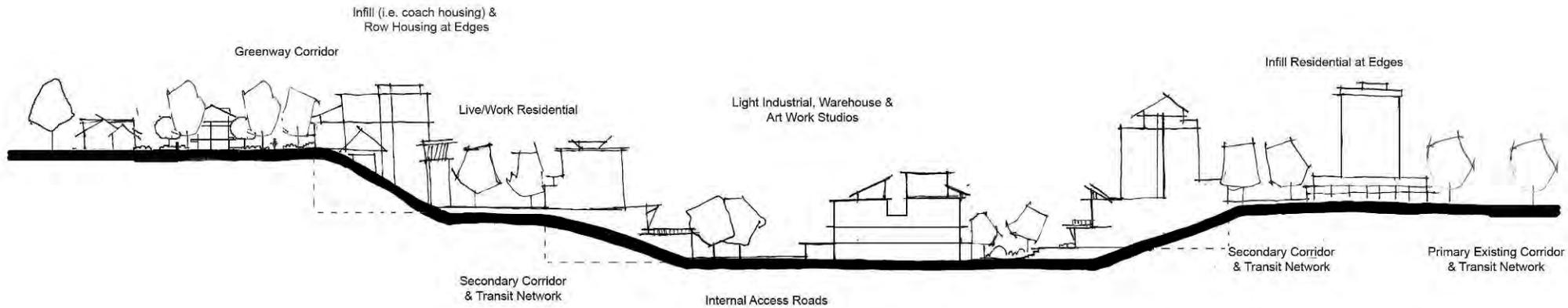
Concepts for our Mixed-Use Employment Centres at Royal Roads University Campus



A Concept for our Mixed-Use Employment Centre along Island Highway



A Concept for our Mixed-Use Employment Centre at Allandale Pit



→ Mixed-Use Employment Centres

Objective 3.6 Maximize adaptive re-use opportunities in greyfield or underdeveloped commercial sites.

Policy 3.6.1 Encourage the infill of auto-oriented commercial sites and strip malls with mixed-use residential development.

Policy 3.6.2 Promote the re-development of brownfield sites as predominantly work place areas that integrate housing.

Policy 3.6.3 Consider property tax incentives for a period of up to 10 years for new mixed use residential development on brownfield and greyfield sites.

Policy 3.6.4 Integrate large format retail stores into mixed use buildings or encourage multi-level large format retail along major corridors.

Objective 3.7 Maintain a workplace focus.

Policy 3.7.1 Ensure a long term supply of employment lands in centres is maintained.

Policy 3.7.2 Ensure choices about land use and density do not preclude the long term role of the centre as an employment area.

Possibilities for our Neighbourhood Centre



Public places for all members of the community



Mixed use buildings at key intersections with rental & affordable housing



Greenways connecting places



Community gathering



"Woonerfs" – streets for all users



Farmers markets



Street oriented buildings & street trees



Live/work housing



Fresh vegetable stands nearby

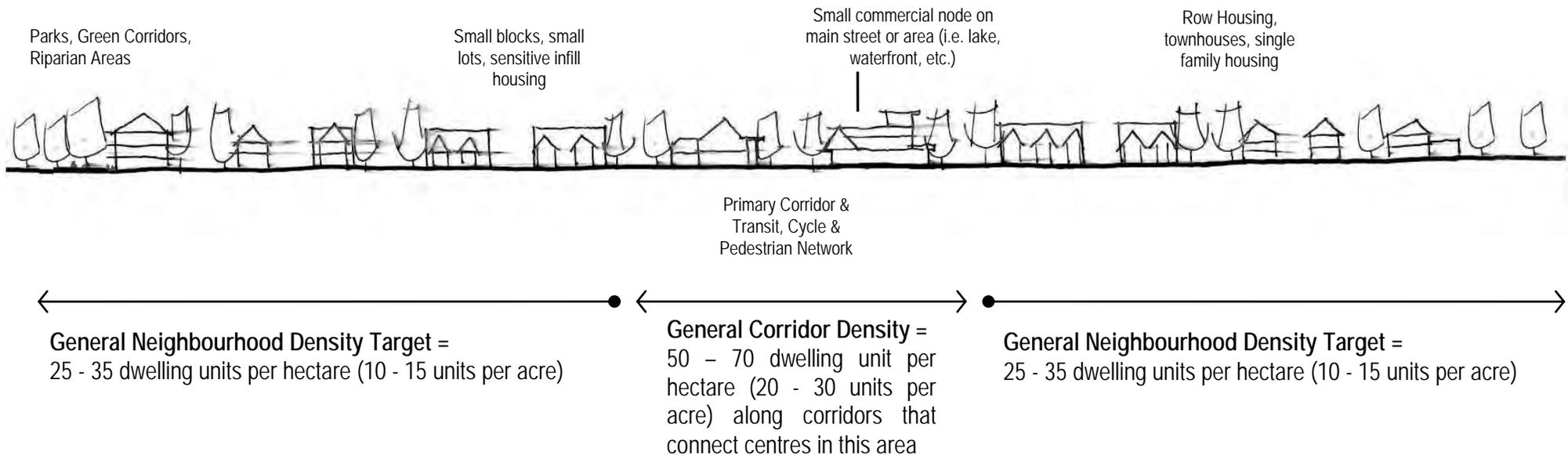
→ Neighbourhood Centres

- Objective 3.8** Allow for the emergence of new neighbourhood areas and/or centres and areas in all parts of the community.
- Policy 3.8.1 Recognizing that general densification over time may lead to the need and/or viability of neighbourhoods and centres that serve the needs of residents, neighbourhoods in all areas of the city will be permitted.
- Policy 3.8.2 Council may request an area plan (e.g. a Neighbourhood Area Plan (NAP) or a Neighbourhood Centre Plan (NCP) prior to considering changes in land uses and/or development approvals, at its discretion. This plan will define, at a minimum, the following:
- i. Rationale for location of neighborhood and/or centre and how it contributes to overall to community vision and goals
 - ii. Land uses including parks & open space
 - iii. Information about building siting based on proposed setbacks
 - iv. Architectural, landscape and/or public realm guidelines
 - v. Amenities
 - vi. Servicing/Infrastructure strategy
- Policy 3.8.3 Council may require that all costs associated with developing and adopting an area plan will be funded by the development proponent(s).
- Policy 3.8.4 Area plan processes will include public and stakeholder education and consultation. These processes may be executed concurrently with other development approvals.
- Policy 3.8.5 Area plans will guide Council decisions about land use and density when in place. They will be adopted by resolution or by bylaw (i.e. OCP Amendment). In instances where an area plan is in effect and changes are proposed over time, they may be considered concurrently with rezoning applications.

Neighbourhood

Existing settled areas throughout the community predominantly located on the valley floor.

- Predominantly residential precinct that supports a range of low and medium density housing choices including secondary suites
- This area allows for residential and mixed use commercial intensification of streets that connect centres and/or are serviced by transit
- Schools, community facilities and other institutional uses are permitted throughout the area
- Retail serving local residents is encouraged along transportation corridors
- Home-based businesses, live-work housing is encouraged
- Parks, open spaces and recreational facilities are integrated throughout the area
- This area allows for *Neighbourhood Centres* to emerge in the form of medium density mixed-use nodes at key intersections.
- Transit stops are located where appropriate



Possibilities for our Neighbourhood Areas



Alternative energy systems



Multi-family buildings



Parks & open spaces



Rear lot coach housing



3-storey townhouses



Row housing



Small lot housing



Corner store / cafe

→ Neighbourhood Areas

Objective 3.9 Redevelop and intensify corridors connecting centres.

Policy 3.9.1 Encourage intensification of transportation corridors in and out of centres as a means to further increase the viability of transit services.

Policy 3.9.2 Ensure redevelopment along corridors is pedestrian-oriented and consistent with liveable street strategies.

Objective 3.10 Permit sensitive infill development.

Policy 3.10.1 Intensive residential small lots under 550m² will be permitted and will be subject to development permits to ensure compatible integration in existing neighbourhoods.

Policy 3.10.2 Flexible housing design will be encouraged to create affordable and adaptable housing options.

Policy 3.10.3 Encourage alternative housing types such as coach housing where rear access is provided, row housing, live/work units and townhouses that diversify the housing stock.

Policy 3.10.4 Permit small lot subdivision and clustered densification in established areas.

Policy 3.10.5 An overall density objective of 30 units per hectare (12 units per acre) for infill development in Neighbourhood designated area will guide choices about density.

Policy 3.10.6 Ensure buildings are sited to complement the type, use and character of adjacent buildings and ensure private outdoor spaces for adjacent properties are respected.

Objective 3.11 Improve road, cycle and pedestrian connections.

Policy 3.11.1 Retrofit cycle, pedestrian and road networks into existing neighbourhoods.

Policy 3.11.2 Secure easements or public right of way (ROW) dedications through rezoning and subdivisions to improve road, cycle or pedestrian network connectivity.

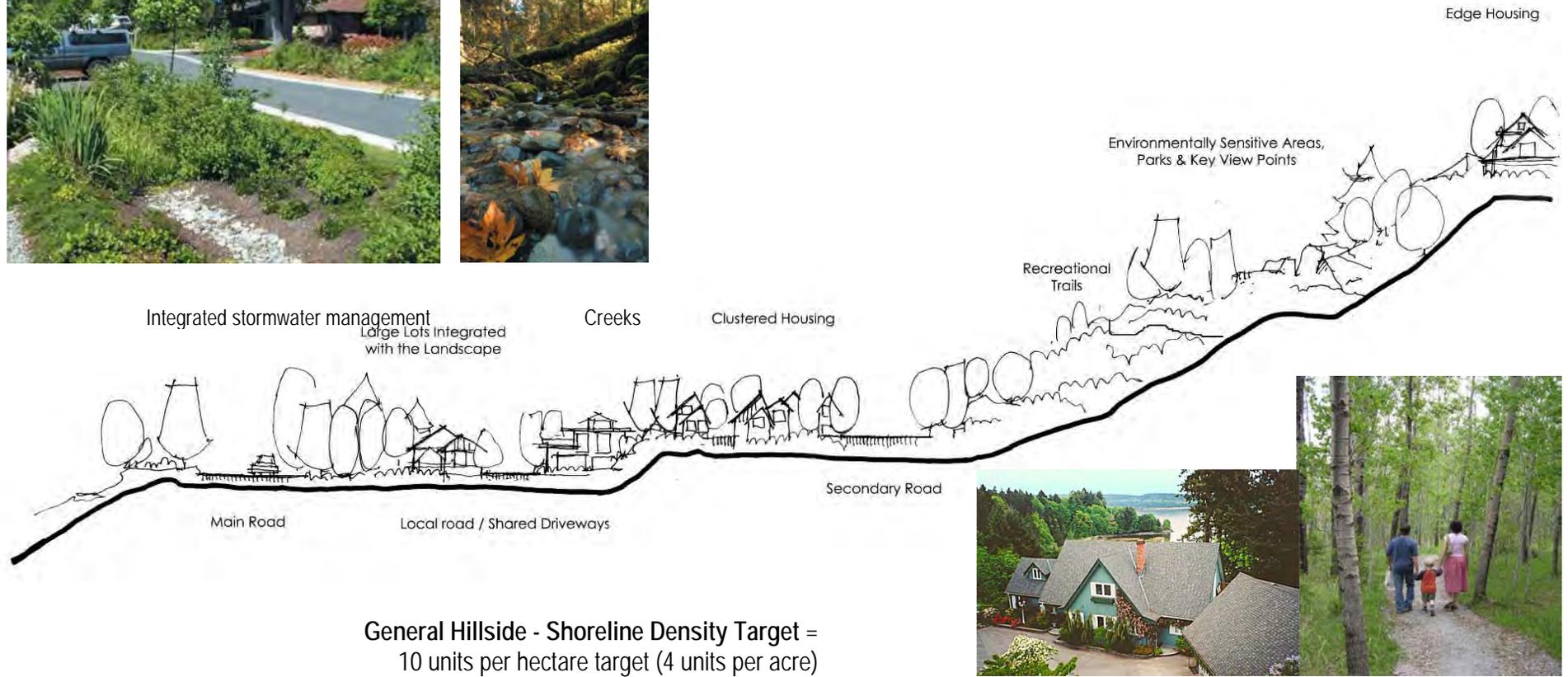


Flexible Housing (see policies 3.10.2 & 7.1.6) is a practical approach to designing and building housing that allows residents to convert space to meet their changing needs. As an example, a 3-storey, 4 bedroom home could be divided into a duplex or smaller suites.

Hillside - Shoreline

Predominantly areas with sensitive environments that are at lower densities settled areas located on a hillside or near the shoreline.

- Predominantly residential precinct that supports a range of low and medium density housing choices including secondary suites
- Schools, community facilities and other institutional uses are permitted throughout the area
- Home-based businesses and live-work housing is encouraged; Home-based accommodations (e.g. Bed & Breakfasts) are permitted
- Parks, open spaces and green corridors (creeks, wildlife corridors, trails, etc.) are integrated throughout the area
- This area allows for *Neighbourhood Centres* to emerge in the form of medium density clustered mixed-use nodes, and may include limited resort uses, including hotels
- Transit stops are located where appropriate



General Hillside - Shoreline Density Target =
10 units per hectare target (4 units per acre)

→ Hillside - Shoreline Areas

Objective 3.12 Retain and restore significant open spaces and ecosystems values.

Policy 3.12.1 An overall density objective of 10 units per hectare (4 units per acre) for infill development in Neighbourhood designated area will guide choices about density.

Policy 3.12.2 When considering development on *greenfield* sites, retain a minimum of 40% of the site area as part public and part private open space. If an area plan (e.g. *NAP* or *NCP*) is in place, each subdivision application will benefit from the overall conditions of the plan as it relates to open space retention on an area-wide basis. That is, if 40% of the area has been retained for open space through the area-wide plan, individual parcels created through subdivision within designated development areas will not be expected to achieve the 40% open space on a site by site basis.

Policy 3.12.3 Ensure connectivity of open spaces so as to create a network that supports water flow (i.e. creeks), trails and/or wildlife movement.

Policy 3.12.4 *Cluster* development so as to minimize impacts of development on ecosystem values:

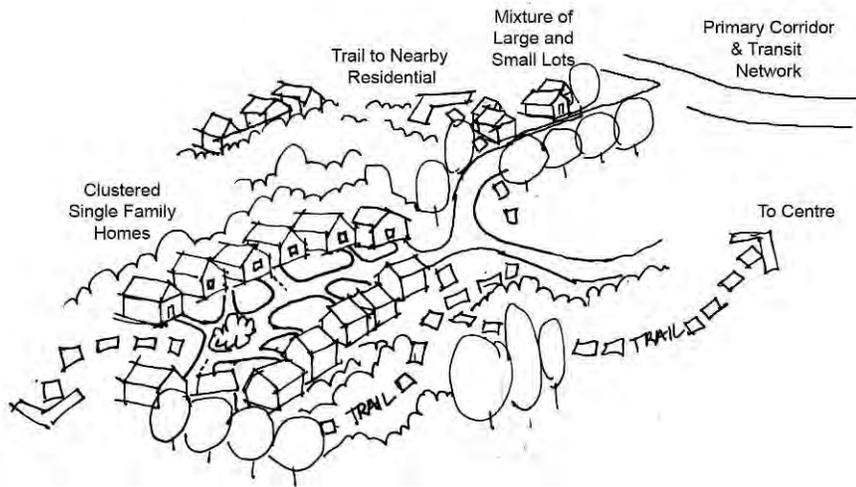
- i. Lower density sites of attached and single detached housing shall integrate open space of preserved historical or environmentally sensitive features.
- ii. Higher building forms, such as point towers, will be permitted to maximize open space when conditions include:
 - Retention of ESAs
 - Designation of 40% minimum open space
 - All residential parking is structured or covered
 - Vigilant application of policy & development permit guidelines



Objective 3.13 Plan for view from lower and higher elevations.

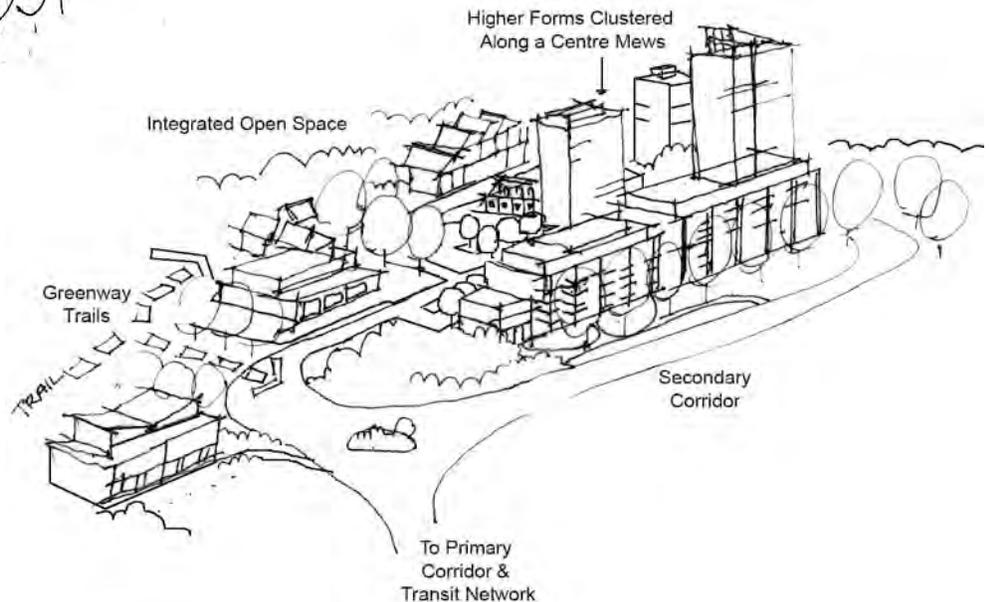
Policy 3.13.1 For large or prominent sites, use 3-D modeling (electronic) as a visual tool for proposed hillside or shoreline developments to guide decisions about siting and massing to ensure views to the site are pleasing and contribute to the sense of place.

Policy 3.13.2 Set targets for view preservation from lower elevations to hills, and from hillsides or shorelines to significant buildings and distant sites (e.g. Victoria, Mt. Baker, Race Rocks). Retain views of key landscape features such as ridgelines, peaks, rocky outcrops, shorelines and environmentally sensitive areas.



Low Density Clustered Development
Development that concentrates buildings and infrastructure into small less intensive sites that integrate public open space, preserved historical or environmentally sensitive features.

High Density Clustered Development
Development that concentrates tall buildings and infrastructure into a very compact development site that is contained within public open space, preserved historical or environmentally sensitive features.



Objective 3.14 Develop hillside or shoreline appropriate standards.

Policy 3.14.1 Modify infrastructure standards to adapt to terrain where emergency access can be addressed. This may include:

- i. Single-loaded travel lanes or one-way streets
- ii. Very low design speeds
- iii. Narrow local roads with parking pull-outs
- iv. Bioengineered steep slopes
- v. Sloping boulevards with modified sidewalks
- vi. Xeriscaped boulevard landscaping
- vii. Low-impact development drainage
- viii. Sanitary and storm services

Business – Light Industrial

→ Business or Light Industrial Centres

Objective 3.15 Ensure long term supply of employment lands.

Policy 3.15.1 Develop and maintain an inventory of commercial and industrial floor space and remaining capacity to ensure that an adequate supply of employment lands is maintained.¹

Policy 3.15.2 Promote high intensity business and light industrial development.

Open Space

→ Open Space

Description: Private and public linked open space of 5 ha or more that includes:

- Environmentally sensitive areas
- Rare & endangered ecosystems
- Ecosystem restoration areas
- Recreational areas
- Agricultural land reserve (ALR) areas

¹ While designating lands alone will not foster economic growth and employment, it does allow for both the community to respond positively to future demand.

→ Allowable Density for Centres

The following table identifies base permitted densities and potential densities in terms of *floor space ratio* (FSR)² for the areas designated as centres. Land use and density will be determined through zoning.

	Base Permitted Floor Space Ratio	Provisions for Increased Density	Potential Floor Space Ratio
City Centre	2.0	Greater densities will be permitted when the following are provided: <ul style="list-style-type: none"> • Affordable Housing • Green building standards certification (ie. BuiltGreen BC, LEED-NC™ or LEED-ND™ or other) • Open space preservation • Child care facilities • Park or public square development • Public art • Community safety initiatives • Community garden and food production • Community shuttle service • Community gathering places such as cultural facilities, meeting spaces • Other amenities as listed by Council policy 	3.0-7.0
Village Centre	1.5		2.0-3.0
Neighbourhood Centre	0.75		1.0-2.0
Mixed-Use Employment Centre	2.0		2.5
Business or Light Industrial Centre	1.75		2.0

² FSR: *Floor space ratio* (or *floor area ratio*) is the figure obtained when the area of all floors in a building is divided by the area of the lot.

Part II – Community Objectives & Policies

4.0 Our Natural Setting & Open Spaces

A community's natural setting, parks and open spaces are form-makers for creating sustainable communities. Colwood is located within the Coastal Douglas-fir zone, found only in the southwest corner of British Columbia. Major watersheds include the Colwood Creek, Millstream Creek and Latoria Creek watersheds. This unique bio-geoclimatic zone includes mature Douglas-fir forests and Garry oak woodlands and associated ecosystems. Biodiversity and species at risk are vital concerns; 118 species including 73 plants, in Garry oak associated ecosystems, were listed as *species at risk* in 2007. This breathtaking natural setting is also defined by the sea, mountains, lakes, creeks, streams, and community parks. The amount, proximity and quality of these places reinforce a unique identity and sense of place. Continued access to these places is a significant aspect of the livability in the region and a top priority of local residents.

→ OCP Strategy

Develop an interconnected network of parks and open spaces that support biodiversity and recreational uses that promote healthier lifestyles.

→ Challenges & Opportunities

- With the projected doubling of the community's population by 2028, not only must we meet the needs of current residents, but we must plan for the next generation, and for our new residents.
- As the community grows, development will create opportunities to designate significant parks or open space connections.
- The current parks and open space system is a patchwork of spaces that lack connection and integration internally and externally to the surrounding context.
- A desire for less formal outdoor recreation and recreation integrated with the day-to-day routines of residents has been expressed.
- Higher residential densities will require changes in the nature of the form and programming of our parks.
- Climate change will bring increased fire risk and drought, and we must address the *wildfire interface* while protecting natural areas.



→ Natural Systems, Habitat & Biodiversity

Objective 4.1 Ensure the long term health of environmentally sensitive areas (ESA).

Policy 4.1.1 Include all ESAs as part of the ESA Development Permit Area for protection of ecosystems, biological diversity and water conservation (see Part IV).

Policy 4.1.2 Update mapping of ESAs as appropriate as part of ongoing planning and development initiatives. ESAs should include, but not necessarily be limited to:

- i. Endangered and threatened habitats such as Garry Oak ecosystems and wildlife corridors and Sensitive Ecosystems Inventory sites
- ii. Older forests and rocky outcroppings that define herbaceous terrestrial ecosystems
- iii. Riparian corridors, wetlands, shoreline habitats
- iv. Heritage landscapes

Policy 4.1.3 Expand policies for protection, stewardship and/or restoration, as appropriate, of ESAs so as to ensure their long term health and function.

Policy 4.1.4 Update Development Permit Area guidelines, based on new technical and scientific data and best practice guidelines as they become available.

Policy 4.1.5 Limit access to ESAs through sensitive design.

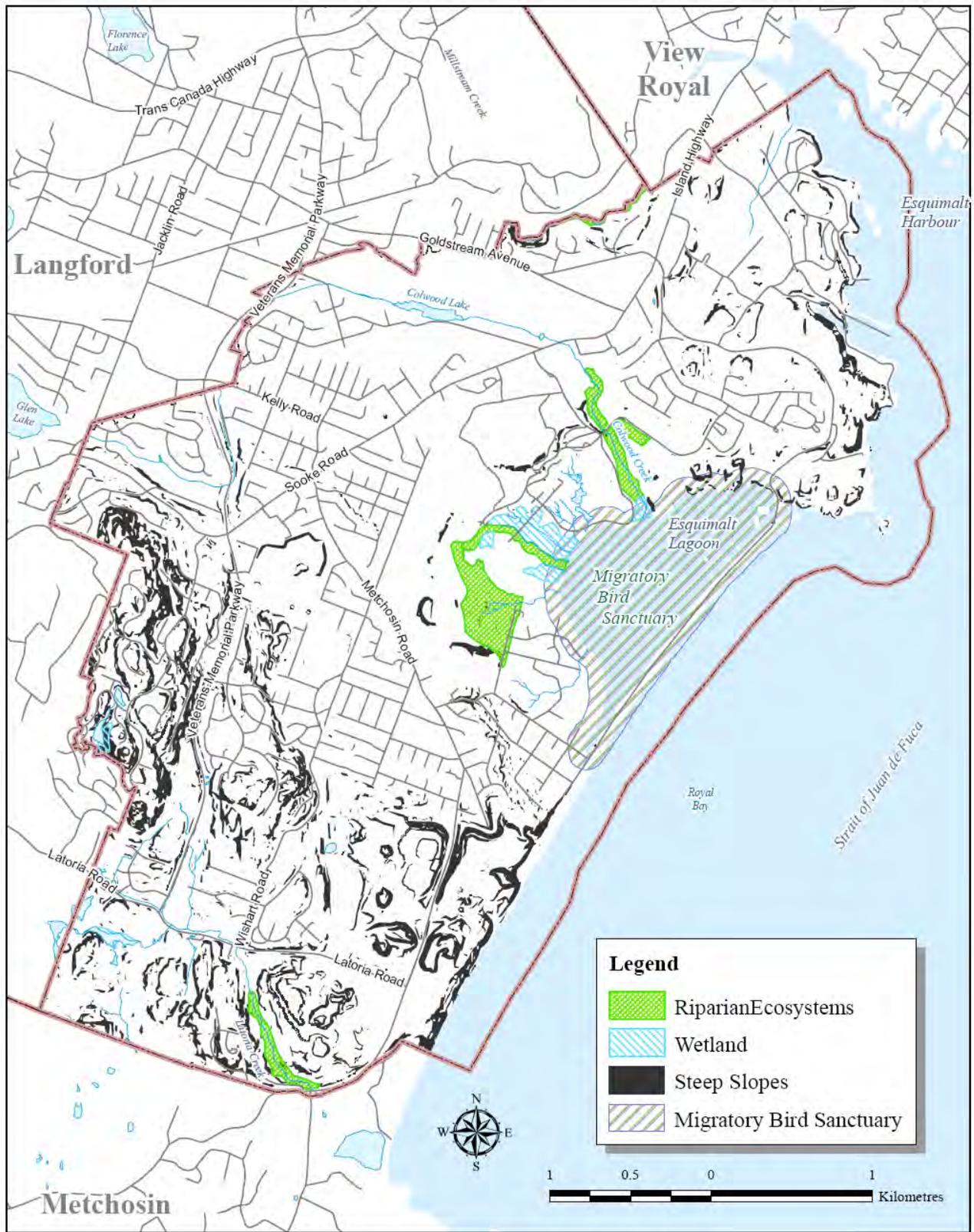


Camas flowers growing through access stairway – photo by Todd Carnahan

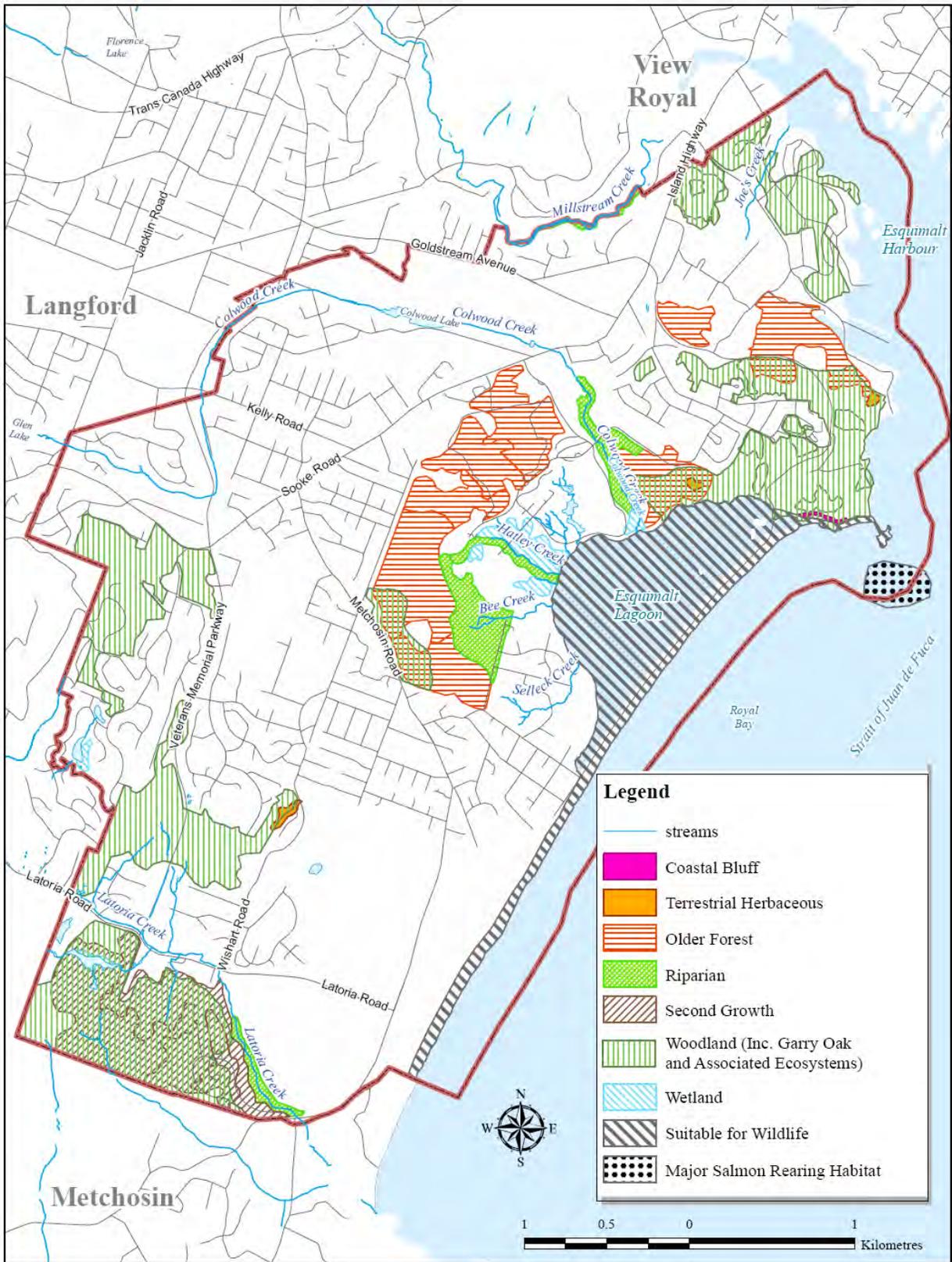


Endangered deltoid balsamroot flowers growing under Garry oak trees – www.goert.ca (photo by Tim Ennis – Nature Conservancy of Canada)

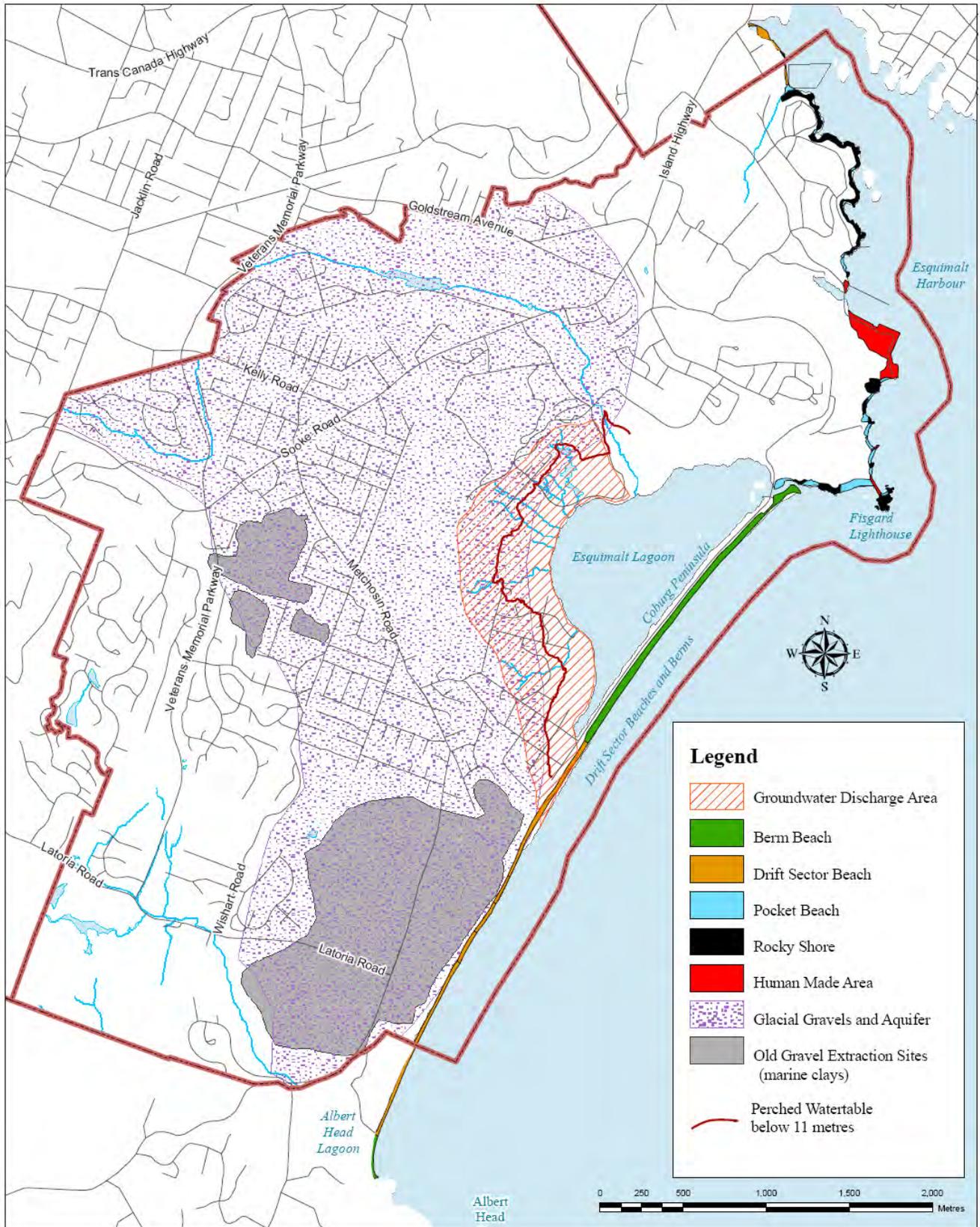
Map 4-1: Slopes, Streams & Riparian Areas



Map 4-2: Sensitive Ecosystems & Stream Habitat Areas



Map 4-3: Groundwater Discharge & High Water Table Areas



- Objective 4.2 Maintain a healthy urban forest.**
- Policy 4.2.1 Set targets for canopy coverage in built areas that result from street trees, urban forests, treed landscapes and/or trees on private property.
- Policy 4.2.2 Adopt policies for trees and forest maintenance and health in the public realm.
- Policy 4.2.3 Establish a tree management bylaw or policy that will guide decisions related to tree cutting, use of biomass (i.e. tree clippings), retention, replacement and planting for private developments.
- Policy 4.2.4 Enhance wildlife biodiversity within the urban forest and landscaping through choice of vegetative species, planting locations and landscaping cover and density.



Mature street trees contribute to character, shade buildings during summer months and provide shelter from the elements.

→ Integrated Parks and Open Space System

- Objective 4.3 Ensure natural areas, parks and open space are connected in a network consistent with open space strategies in this OCP.**
- Policy 4.3.1 Create and maintain a Parks Master Plan (PMP) in order to guide decisions related to property acquisitions, planning, development, design, and delivery of amenities, programs and services. Ensure integration of the Parks Master Plan with the work of the West Shore Parks & Recreation Society and other park planning bodies. The PMP should also define, but not necessarily be limited to:
- i. 4 hectares of park area (ha) per 1000 people; neighbourhood parks and community parks each at a ratio of 2 hectares for each 1,000 people. There is no specific area standard for nature parks;
 - ii. Proximity and walkability criteria (e.g. parks located within 400m walk from all homes);
 - iii. A range of park sizes, experiences and future use potentials;
 - iv. A parks and open space classification system
- Policy 4.3.2 In the consideration of subdivision proposals, require the dedication of the land as park land for any of the following reasons:
- i. The land is or includes a heritage site (as defined by the City of Colwood Heritage Inventory, 1988);
 - ii. The land includes or is adjacent to a lake, river or stream or other body of water;

- iii. The land has features which are environmentally sensitive, for example, stands of trees, native vegetation, or wildlife habitat;
- iv. It is a viewpoint;; or
- v. There is an opportunity to expand or provide additional access to an existing or potential park on adjoining properties.

Policy 4.3.3 As part of development approvals, where 5% dedication is not possible and it is desirable to provide or improve pedestrian open space links, obtain public access (e.g. easements) where possible.

Policy 4.3.4 Acquire parklands to implement strategies in this section. During acquisitions or dedications, meet separate targets for active parkland, environmental protection and commuter purposes.

Policy 4.3.5 Work with the adjacent municipalities and other agencies to plan and develop a 'West Shore Greenbelt' that envelops the urban areas of Colwood & Langford. The greenbelt will be defined by a collection of connected open spaces that will include parks, natural areas, ESAs, trails, agricultural lands as well as developed areas that have open space value.

Policy 4.3.6 Maintain density bonusing strategies as part of parkland dedications with the intent of optimizing all available land acquisition and designation instruments.

Policy 4.3.7 Ensure park planning and design remains integrated with broader community planning initiatives related to land use, residential development, transportation and provision of community amenities, including:

- i. Integrated social, celebratory and contemplative spaces within a rich fabric of public realm uses and programming.
- ii. Integrated public art (elements and programming) with other social and cultural services and programs (e.g. youth mural program).
- iii. Integrated interpretation of heritage, the environment, First Nations culture, veteran and local immigrant culture in the design of parks and public places.
- iv. Create a legacy of rich public gathering places (e.g. places for community celebration and civic engagement).
- v. Decrease the effects of motor vehicle traffic to the Coburg Peninsula and Migratory Bird Sanctuary.

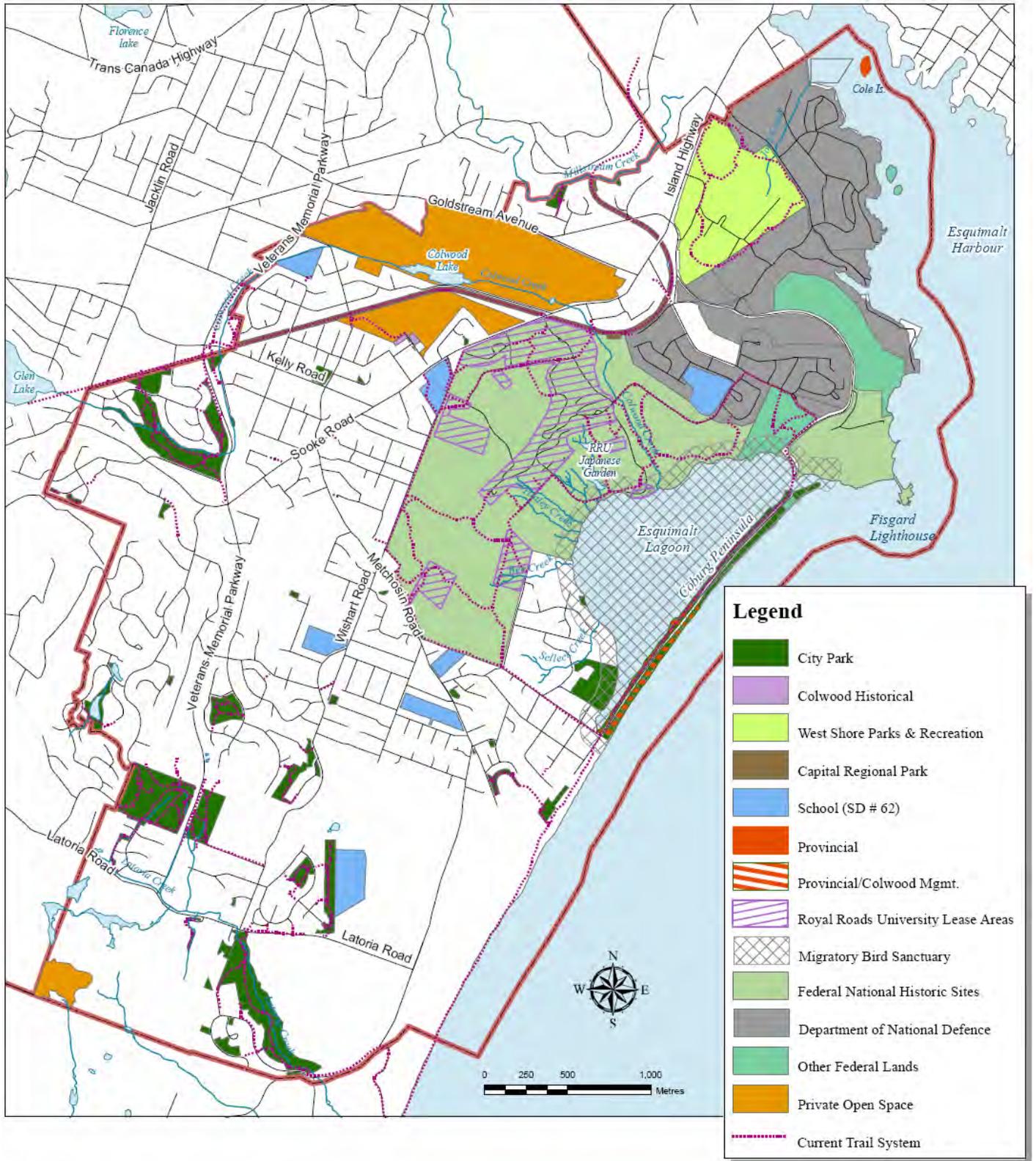
Policy 4.3.8 Ensure movement of wildlife within West Shore Greenbelt such that fencing, roadways, and development do not cause undue impediment.

Policy 4.3.9 When land is being subdivided; acquire neighbourhood park land in the amount of 5% of the land being subdivided, in accordance with the parks and open

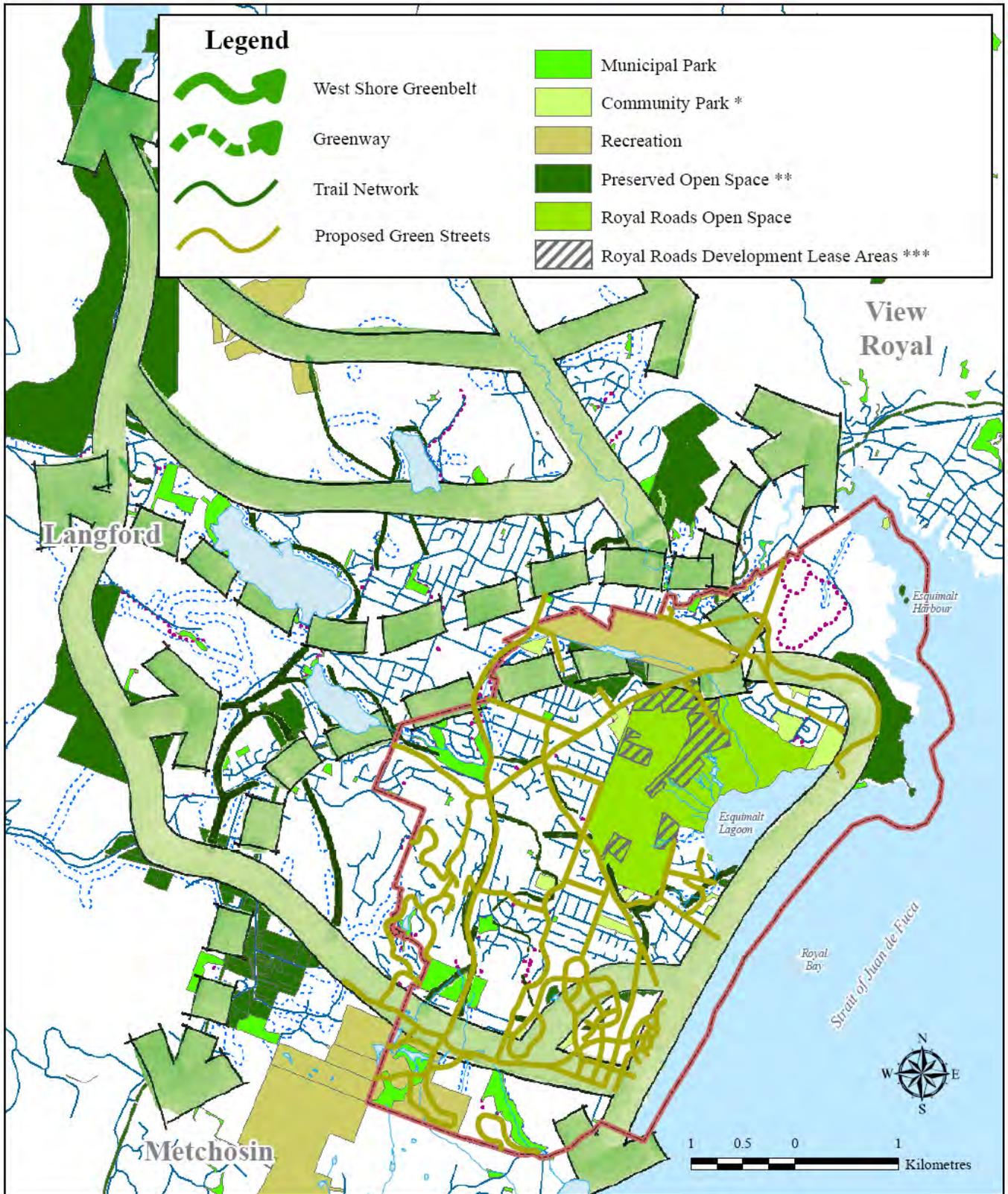
space policies of this Plan, and with Maps 4-5 and 4-6. Obtain a cash equivalent when it is clearly desirable to purchase park land in a different location, or when the 5% park dedication would be less than 700 m² (7,535 ft²) and there are no opportunities for:

- i. expanding an existing or potential park on adjoining properties;
- ii. adding park land to an existing recreation community service facility, school site, fire hall, community hall, hospital, etc;
- iii. the beginning or extension of a trail system;
- iv. acquiring land adjacent to a natural or artificial watercourse, lake, swamp, the sea, or other environmentally sensitive area;
or
- v. establishing a community facility for recreational use, e.g.:
such as a tennis court, tot lot, basketball court.

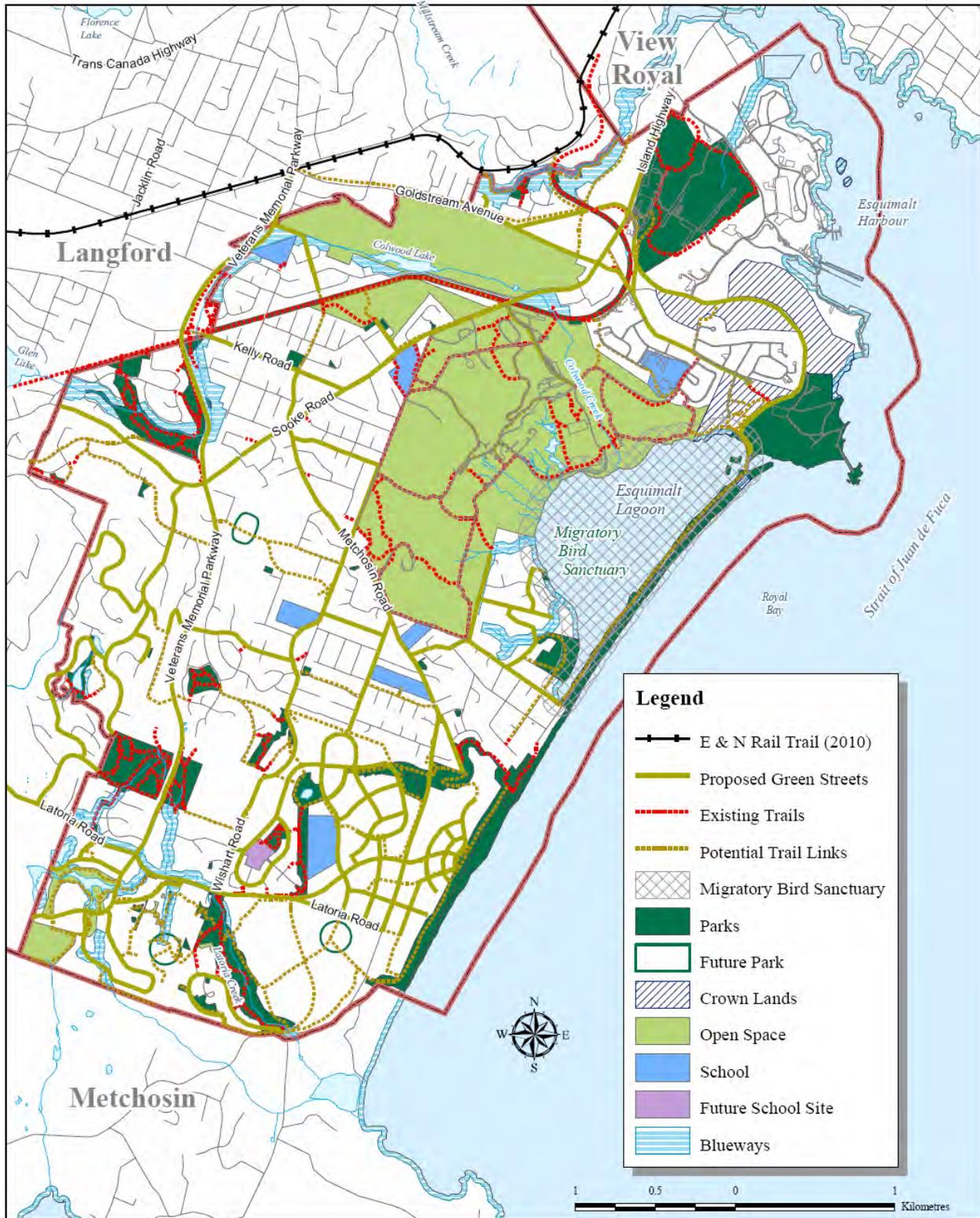
Map 4-4: Parks & Open Space Inventory



Map 4-5: West Shore Greenbelt Strategy



Map 4-6: Open Space Integration Strategy



Objective 4.4 Develop greenways that integrate recreational opportunities and active transportation options.

Policy 4.4.1 Link parks and open space to natural, commercial and social amenities through *greenways*, including *green streets*.

Policy 4.4.2 Exploit opportunities for cross-jurisdictional greenways, habitat corridors, recreational, and cycling and pedestrian network connections.

Objective 4.5 Develop waterfront parks and/or ensure opportunities for public access.

Policy 4.5.1 Maximize public access to the ocean, lakes and creeks. Pursue city ownership wherever feasible.

Policy 4.5.2 Universally apply requirements under the Land Title Act that stipulate access to water bodies at the time of subdivision (BC Land Title Act Section 75 (1) (c)).

→ **Landscaping**

Objective 4.6 Convert to universal use of plant species indigenous to the ecosystem and region.

Policy 4.6.1 Maintain and adopt appropriate City policies to promote native habitat restoration, invasive species removal and other sustainable landscaping strategies, including:

- i. Changing mowing and other maintenance practices
- ii. Integrated Pest Management strategies
- iii. Xeriscaping strategies
- iv. Urban forestry strategies

Policy 4.6.2 When undertaking restoration of habitat areas, removal of invasive plant species will be undertaken. Species of plants indigenous to the area and region will be integrated into restoration practices.

Policy 4.6.3 Promote use of species of plants indigenous to the area and region for private developments.

Policy 4.6.4 Celebrate native plant species in parks and in the public realm (boulevards, medians, etc.)

5.0 Our Built Environment

Urban design of the built environment focuses primarily on the interface between public (streets, open spaces) and private realms (buildings, yards). We also look at the relationship of buildings to each other, in terms of site design, building form and character. The design of the built environment has a significant influence on the community's sustainability performance. Where distances between homes and workplaces or parks and shops are too great for walking or cycling, a car or transit must be taken which in turn influences a community's GHG emissions. Residential density largely determines the viability of local businesses and community services that serve residents such as schools and recreation facilities. Colwood will slowly shift over time our pattern of development to provide better connectivity and mixed use in order for the community to meet sustainability objectives.

→ Challenges & Opportunities

- While newer development projects are being planned with a diversity of uses that will encourage walking, the bulk of residents remain in single use, auto-oriented neighbourhoods. Existing patterns, connections, and relationships between land uses, buildings, streets, and parks are generally such that walking and transit frequency is not convenient.
- New development is generally *greenfield* or *brownfield*. Infill opportunities have not been maximized in order to bring better services and amenities closer to or within existing neighbourhoods.
- New forms of higher density housing are causing concerns about height, location, character, etc. and other offsite impacts such as views and shadows. Responding to residents' concerns while educating them on the benefits associated with mixed use high density development will ensure optimal integration of higher density centres into the community.

→ OCP Strategy

Create dense, compact, and complete centres that are walkable at all scales.

Centres will:

- *Support all modes of transportation;*
- *Be well-connected to all parts of the city for all modes and defined by fine-grained street, cycle and pedestrian networks;*
- *Ensure amenities, services, open spaces and jobs are within walking distance from homes;*
- *Provide for greater housing diversity; and*
- *Feature high quality, safe and pedestrian-scaled streets that contribute to positive social interactions and safe environments.*

→ Urban Design

Objective 5.1 Ensure development in and around centres supports a *nodal pattern* of development.

Policy 5.1.1 Support the focus of centres by locating high intensity development in and around centres. The centre's crown or skyline should be sculpted where taller buildings are generally preferred in the middle of centres and building height decreases in intensity away from the centre.

Policy 5.1.2 Ensure zoning for centres emphasizes appropriate building massing, density and form, and does not unduly restrict land use, in such a way that reinforces the nodal development pattern of centres.

Policy 5.1.3 All buildings over six storeys or 18m in height should:

- i. Exhibit a high order of architectural excellence with distinctive base, middle and top;
- ii. Contribute to an active 'eyes on the street' streetscape with ground floor townhouse-style residences or shops fronting adjacent streets or pathways;
- iii. Contribute the creation of active public or semi-private pedestrian streets;
- iv. Not contribute to adverse microclimate effects through the use of devices such as tower base podiums;
- v. Have signage that should not be located at a height which exceeds the designated height limits.

Policy 5.1.4 Relate all neighbourhood development and infill to the nearest centre through direct and/or improved connections, scale and character.

Objective 5.2 Encourage the growth of business activities in all parts of the community as a mixed-use urban design objective.

Policy 5.2.1 Define performance criteria that enables business uses in all parts of the city provided the use, design and siting of buildings and servicing needs are generally compatible with surrounding uses. Consider land efficiency, increased assessment, interface (with other uses), scale and siting, integration, connectivity, and transportation and servicing.

Policy 5.2.2 Promote the development of purpose-built live/work units that can support retail 'foot traffic' should the owner wish to operate a business on premises.

Policy 5.2.3 Require a minimum amount of office development as part of mixed-use development projects in the City Centre.

Objective 5.3 Centres will contribute to walkability at all scales of development.

Policy 5.3.1 Define walksheds (pedestrian-oriented centres), where the 3 to 10 minute walks (approx. 250 - 800 m radii from the primary street in the centre) where the core area supports a wide range of high intensity land uses and the 10 minute walk (approx. 800 radius from the primary street in the centre) supports a wide range of residential uses with emphasis on ensuring housing diversity.

Policy 5.3.2 Ensure new centres are planned and developed to be defined by finely grained and connected road and/or cycle/pedestrian networks to the extent that landscape conditions will allow.

Policy 5.3.3 Promote walking and cycling in existing areas by developing long term strategies for increasing road, cycle and pedestrian network connectivity.

Policy 5.3.4 Seek access easements or rights of way dedications at time of rezoning and/or subdivision for creating more finely grained street, pedestrian and/or cycle network connectivity.

Objective 5.4 Create liveable streets through scale, form, building orientation and character elements.

Policy 5.4.1 Ensure street-orientation of buildings along all roads and corridors.

Policy 5.4.2 Make extensive use of regulatory and non-regulatory tools to ensure that all streets in the community are designed to include public and design amenities such as:

- i. Street trees
- ii. Sidewalks or pedestrian trails
- iii. Street definition and enclosure defined by a strong street wall that is at a human scale
- iv. Transparent storefronts with significant fenestration
- v. Weather protection for pedestrians and furniture such as awnings and/or street trees
- vi. Street furniture such as seating areas, planters, garbage receptacles, bicycle racks and kiosk stands (for posters).

Objective 5.5 Ensure centres are transit-supportive.

- Policy 5.5.1 Ensure that the design of primary roads in new developments which are conducive to fast and direct transit service.
- Policy 5.5.2 Ensure residential densities and the location of dense development increases viability and frequency of transit service.
- Policy 5.5.3 Ensure street design and private development integrates transit stops into or adjacent to the site and provides high quality transit-rider amenities such as street furniture, lighting, shelters, and retail opportunities where appropriate.
- Policy 5.5.4 Ensure cycling infrastructure is accommodated in development projects and street design near transit stops that serve to facilitate multi-modal connections with transit by installing amenities such as shelters, accessibility features, pedestrian lighting and bike lockers at high activity stops.
- Policy 5.5.5 Ensure transit stops are active and safe by locating them adjacent to local serving retail and mixed use development.
- Policy 5.5.6 Encourage the development of pedestrian pathways in areas that do not have direct walking links to transit through the road network. Examples include pathways at the end of a cul-de-sac that connects to another street or pedestrian connections through open spaces.
- Policy 5.5.7 Given the City's adjacency to the E&N rail corridor, ensure location of development and choices about residential densities are supportive of and do not preclude implementation of rail-based transit along the corridor.
- Policy 5.5.8 Higher density rezonings above the allowable density (see page 36) may be required to upgrade the local bus stop (within 200-400m walking distance) with amenities such as shelters, accessibility features or pedestrian lighting.

While every jurisdiction is different, most experts agree that a minimum overall density target for centres of 37 units per hectare (15 units per acre) and/or an employee density of 185 employees per hectare (75 per acre) will increase transit ridership significantly. ("Developing Around Transit", Urban Land Institute, 2004).

Objective 5.6 Ensure a range of public spaces are distributed and integrated across the city and in centres.

Policy 5.6.1 Ensure parks and open spaces are integrated into the built environment.

Policy 5.6.2 Promote the development of high quality public squares or parks near or adjacent to civic, commercial or institutional buildings that can support formal and informal activities.

Policy 5.6.3 Ensure integration of play spaces at all scales, to encourage both formal and informal play.

Objective 5.7 Ensure accessibility is considered for planning and design of buildings, the public realm and public parks.

Policy 5.7.1 Develop *universal design* guidelines for the public realm, and ensure these are consistent with our other urban design goals.

Policy 5.7.2 Require universal design measures for private development in the public and private realms.

Policy 5.7.3 Require adaptable design of all new multi-family residential housing units.

Objective 5.8 Ensure viability of sustainable infrastructure technologies.

Policy 5.8.1 Ensure residential densities and infrastructure planning can support green or efficient district energy systems at the time of development.

Policy 5.8.2 Ensure buildings and infrastructure systems, including roads, allow for ease of adaptability and retrofitting.

Objective 5.9 Promote a greater sense of place that celebrates our community's unique setting and people.

Policy 5.9.1 Ensure architecture and landscape design reflects local climate, topography, and history.

Policy 5.9.2 Encourage community input into strategies for creating and celebrating our identity and sense of place.



- Policy 5.9.3 Encourage adaptive reuse or preservation of historical land uses, historical sites or architecturally significant buildings.
- Policy 5.9.4 Promote a seasonal or temporary space (e.g. street closure) in the public realm that concentrates activities for the enjoyment of residents and visitors.
- Policy 5.9.5 Encourage the installation of public art on or within public buildings and property, including public waterfronts, parks, and streets. Public art may include permanent and temporary installations of statuary, murals and other visual art displays reflecting local culture.
- Policy 5.9.6 Enhance existing neighbourhoods to ensure they retain and/or enhance the community's character.
- Policy 5.9.7 Support the expression of unique cultural and sub-cultural groups (community gardeners, skateboarders, etc.) in the public realm.
- Objective 5.10 Promote urban agriculture in the built environment.**
- Policy 5.10.1 Create infrastructure for food preparation, outdoor eating, and special event areas that enable people to build community and celebrate food.
- Policy 5.10.2 Specify plants for landscape design that produce food or herbs wherever possible in planters, hedges, shrub beds, or trellises.
- Policy 5.10.3 Locate productive plants in areas that receive an appropriate amount of sun wherever possible.
- Policy 5.10.4 Promote tidy and attractive urban agriculture opportunities in highly visible, public, or semiprivate spaces.
- Policy 5.10.5 Create urban agriculture opportunities in places of education such as schools and community centres so that urban agriculture may foster a connection between children and the process of growing, harvesting and eating fresh produce.
- Policy 5.10.6 Promote a wide range of urban agriculture practices that showcase food growing opportunities especially those that are relevant to private residential spaces that define the area (e.g. containers, rooftops, balconies and patios).

- Policy 5.10.7 Utilize vertical and rooftop growing spaces for urban agriculture.
- Policy 5.10.8 Design urban agriculture spaces so that they are accessible to all people.
- Policy 5.10.9 Design urban agriculture spaces so that they enhance natural habitat for insects, birds, and natural predators of garden pests.



*Grow Food everywhere!
Food can be grown on roofs and balconies, private and common yards, and in parks.*

Rooftop herb garden at the Fairmont Hotel in downtown Vancouver.

6.0 Our Healthy Community

Development has significant impacts on a community's social development and the health of its residents. Residents recognize that unprecedented levels of population growth are putting pressures on the community and leading to real and perceived concerns related to issues such as crime, health, and safety. We need to address growth benefits all members of the community equally without compromising certain groups such as youth, children or seniors. Ultimately, residents strongly value the "small town feel", family-oriented nature, and unique and diverse people that define the West Shore.

→ Challenges & Opportunities

- High levels of growth and a desire to maintain the "small-town" family-friendly feel in the community will demand participation amongst all groups to increase community acceptance of change.
- Five municipalities currently work together to operate the West Shore Parks and Recreation Society recreation facilities on Island Highway. Continued collaboration is an excellent opportunity for healthy community planning.
- Ensure development choices support community social objectives.
- Ensuring strong social infrastructure and cohesion will be critical as the community continues to expand and meet new challenges.
- Our arts, culture and heritage initiatives largely lack focus, facilities and funding, despite strong formal and informal interest and community activity in this area.
- Housing affordability is related to the cost of housing and household income. We require unique strategies to address the needs of low income families and 'the working poor' to ensure their short and long term success in the community.

→ OCP Strategy

We will account for the needs of all members of the community with emphasis on children, youth, seniors and low income families.

The city will aim to:

- *Provide high quality services*
- *Ensure a safe and secure environment for all members of the community*
- *Develop and promote arts, culture and heritage to better define the community's unique people and sense of place in the region.*



→ Social Development

Objective 6.1 Increase social planning activities.

Policy 6.1.1 Establish a cultural and/or social planning council whose mandate will be to develop strategies, review future development projects and advise staff and council on social, arts, culture and heritage related opportunities for the community or as part of a broader working group presenting West Shore Communities.

Policy 6.1.2 Optimize and/or utilize existing administrative structures such as West Shore Parks & Recreation Society to work with local groups to develop and execute social development programming in new or existing facilities.

Policy 6.1.3 Support local agencies seeking to implement social improvement projects.

Objective 6.2 Promote community involvement and improve access to facilities, programs and/or services.

Policy 6.2.1 Work towards a West Shore strategy for social development.

Policy 6.2.2 Improve access to and availability of information regarding community services and volunteer opportunities for all residents.

Policy 6.2.3 Increase community access to public and school facilities (through joint use agreements or MOUs with the School District) and ensure that they are available at affordable rates.

Policy 6.2.4 Communicate, collaborate and advocate with other agencies to ensure that senior government social programs are adequately addressing local needs.

Policy 6.2.5 Enhance City policies with respect to supporting communication and cooperation with residents' associations and other grass root organizations.

Policy 6.2.6 Help build partnerships, alliances and networks among community-based organizations and institutions in order to provide effective services on behalf of residents.

Policy 6.2.7 Assist agencies and individuals to access grants or funding from senior levels of government to address social needs.

Objective 6.3 Ensure the specific needs of children and youth are addressed in all aspects of community and social planning and development.

Policy 6.3.1 Expand and improve inclusive recreational programs for children.

Policy 6.3.2 Provide funding specific to children and youth leadership, counselling, development, sport, teambuilding programs.

Policy 6.3.3 Support the development of playgrounds, skateboard parks, day camps, swimming lessons, beach and playground programs.

Policy 6.3.4 Facilitate the development of childcare and preschool spaces and elder care in the community.

Policy 6.3.5 Work with other agencies to promote and encourage employer-supported child care

Policy 6.3.6 Work with community agencies and developers to develop housing and/or mixed use projects which include child care facilities and/or services.

Policy 6.3.7 Ensure maximum potential for the provision of child care facilities in zoning bylaws.

Objective 6.4 Develop a youth strategy.

Policy 6.4.1 Develop new ways to involve youth in municipal decision-making processes (e.g. advisory councils, forums).

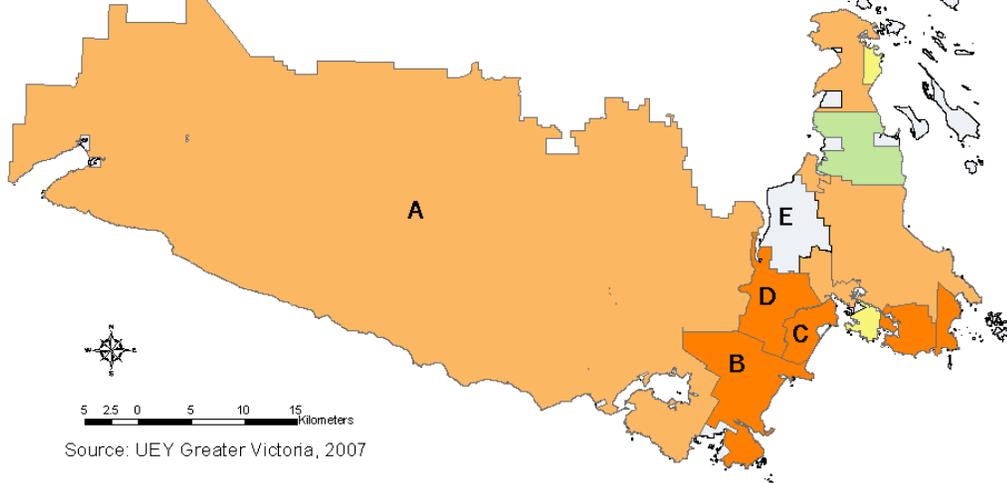
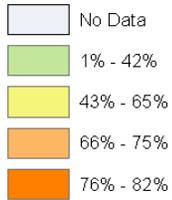
Policy 6.4.2 Support community-based youth services and/or programs which focus on skills development, increased opportunities, and development of self-esteem. Ensure that programming is accessible and affordable, and involves youth in program development.

Policy 6.4.3 Promote or support local service clubs undertaking the establishment of youth drop-in centres.



Percentage of Children Competent in the Language and Cognitive Development Domain

Those with domain scores between the 50th and the 100th percentiles of the site's distribution



Source: UEY Greater Victoria, 2007

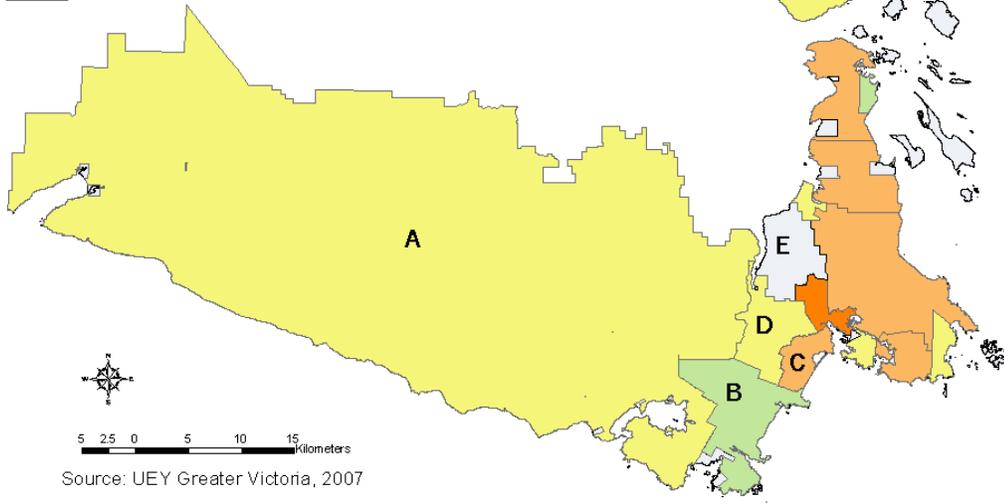
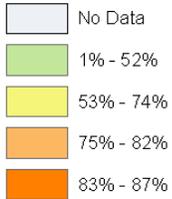
- A - Juan de Fuca/Sooke
- B - Metchosin
- C - Colwood
- D - Langford
- E - Highlands

These maps have been provided by PLAY Victoria. (Partnership in Learning & Advocacy for Young Children)



Percentage of Children Competent in the Emotional Maturity Domain

Those with domain scores between the 50th and the 100th percentiles of the site's distribution



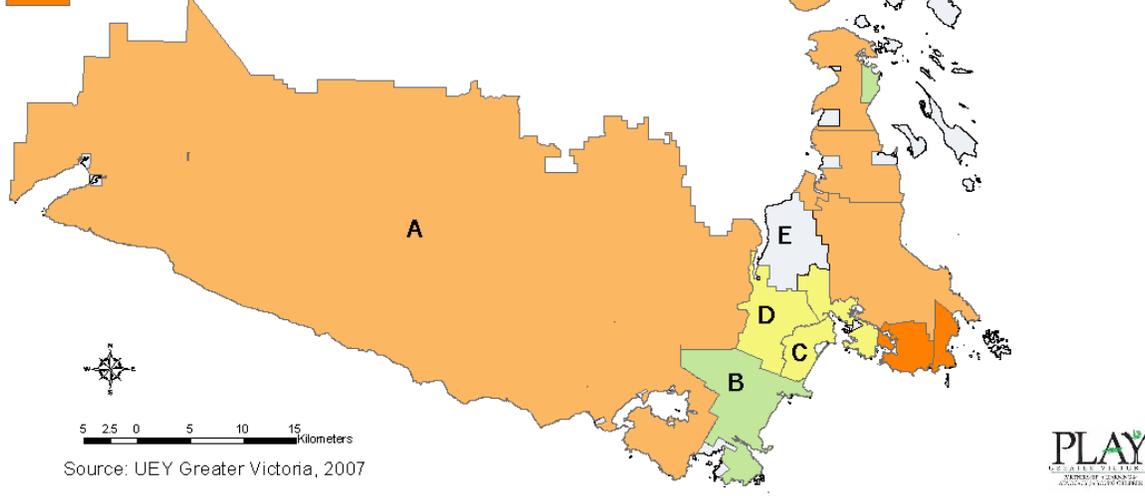
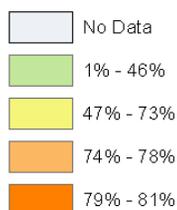
Source: UEY Greater Victoria, 2007

- A - Juan de Fuca/Sooke
- B - Metchosin
- C - Colwood
- D - Langford
- E - Highlands



Percentage of Children Competent in the Social Domain

Those with domain scores between the 50th and the 100th percentiles of the site's distribution



A - Juan de Fuca/Sooke
 B - Metchosin
 C - Colwood
 D - Langford
 E - Highlands

This map has been provided by PLAY Victoria. (Partnership in Learning & Advocacy for Young Children)



→ Recreation

Objective 6.5 Meet the recreational needs of residents.

Policy 6.5.1 Maintain an understanding of community recreational needs through a Parks Master Plan, community surveys, and/or collaboration with community groups.

Policy 6.5.2 Support the role of the West Shore Parks & Recreation Society as a major provider of recreational services and programs in the West Shore, while adding local recreational opportunities within the City of Colwood as needed.

Policy 6.5.3 Provide a range of recreation programs and services for teams and individuals of all ages in indoor facilities, and outdoor natural and programmed areas.

→ Heritage

Objective 6.6 Preserve and protect Colwood's heritage resources.

Policy 6.6.1 Continue to use the Colwood Heritage Commission for recommendations on heritage issues, such as changes to heritage buildings, and to increase public awareness of heritage issues.

Policy 6.6.2 Maintain and update the Heritage Inventory as a basis of managing Colwood's heritage resources.

Policy 6.6.3 Continue to maintain Pioneer Cemetery in accordance with the recommendations contained in Colwood Pioneer Cemetery.

Policy 6.6.4 Explore the possibilities for the protection of heritage resources that are contained in the Heritage Conservation Act and the *Local Government Act*. For example, a community heritage register, which is an official listing of properties identified by the municipality as having heritage value or heritage character, could be prepared.

Policy 6.6.5 Ensure that, prior to the approval of any development on land on which there is an archaeological site, the comments and approval if required of the Heritage Conservation Branch are obtained.

→ Childcare, Education & Skills Training

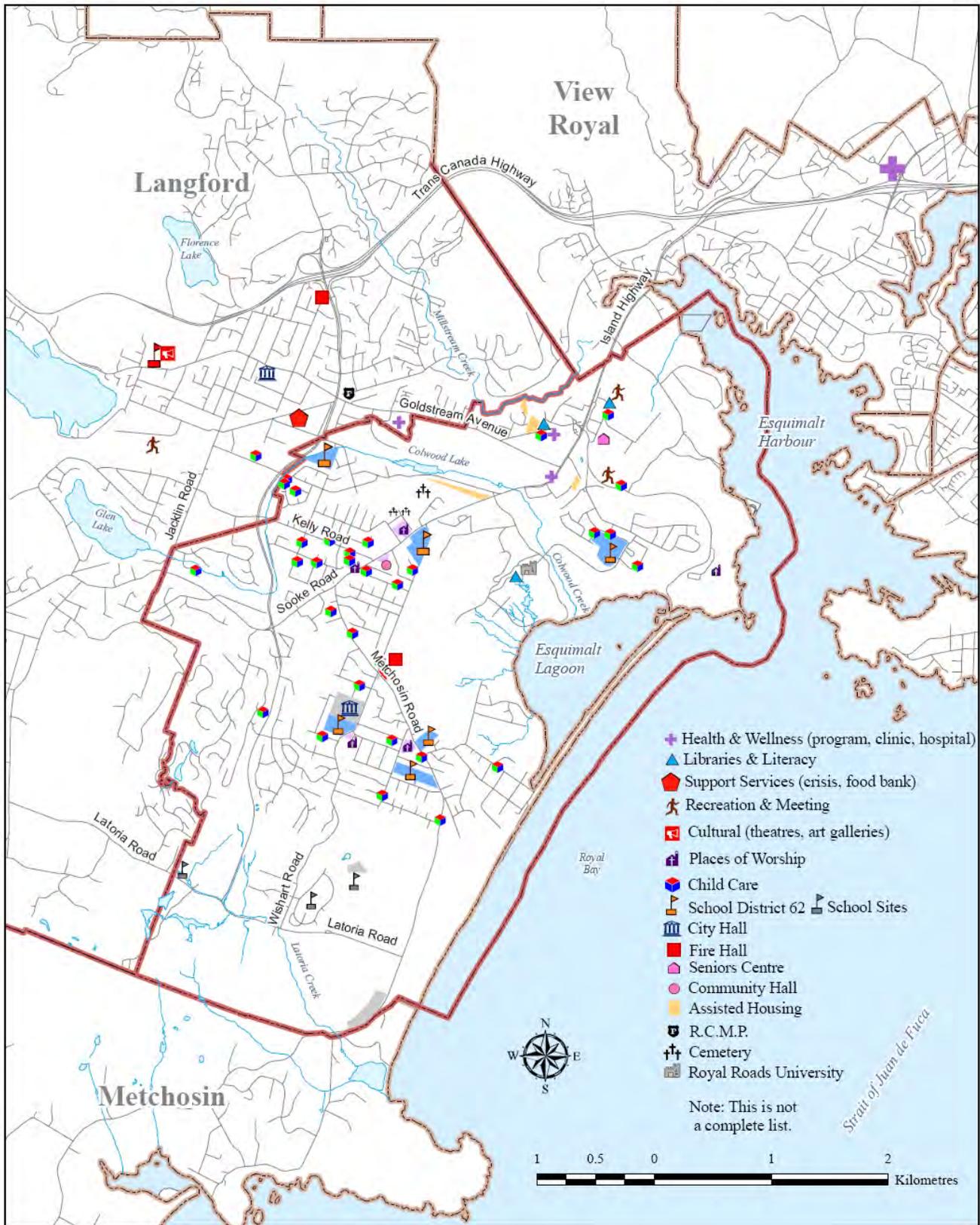
Objective 6.7 Promote community-based education and skills development programming and facilities.

Policy 6.7.1 Promote the concept of the West Shore College Learning Commons with the principle that it will accommodate both accredited and continued education learning opportunities.

Policy 6.7.2 Support community groups in the ongoing development and operation of community-based programs and facilities.

- Objective 6.8** **Ensure adequate supply of day care and pre-school space for young children.**
- Policy 6.8.1 Support preschool programs and out-of-school programs.
- Policy 6.8.2 Locate new group childcare centres, public schools and senior serving facilities in close proximity to each other and promote joint programming and volunteer opportunities.
- Policy 6.8.3 Develop policies and targets for provision of daycare space in new large-scale development projects that reflect the needs of existing and new residents.
- Objective 6.9** **Ensure life long learning opportunities for all citizens.**
- Policy 6.9.1 Enhance bridging opportunities between high schools and post-secondary institutions by way of joint programming, mentoring, orientation sessions, etc.
- Policy 6.9.2 Improve information services regarding post-secondary education, including program options, eligibility criteria, etc.
- Objective 6.10** **Promote the delivery of skills training programs recognizing the need for a skilled workforce for supporting business growth in the community.**
- Policy 6.10.1 Work with senior levels of government to implement local skills training programs for business activities in the community.
- Policy 6.10.2 Work with local business associations and industry groups to participate in mentorship, skills training and career development programs.
- Policy 6.10.3 Promote the development of local trades and technical schools in the community.

Map 6-1: Institutional Uses & Institutions Inventory



→ Arts & Culture

Objective 6.11 Promote local First Nations culture.

Policy 6.11.1 Create in partnership with local First Nations an inventory of cultural and archaeological sites the city to ensure they are properly protected or recognized, as appropriate.

Policy 6.11.2 Engage local First Nations artists to implement public art features as a part of public and/or private development projects.

Policy 6.11.3 Actively promote involvement of First Nations community members in public celebrations and gatherings as performers, exhibitors or attendees.

Objective 6.12 Provide funding for arts and culture groups, initiatives and programs for both regional and city-focused activities.

Policy 6.12.1 Contribute to the CRD Arts Service/Arts Development Fund to allow local non-profit arts groups to access funding and resources through the regional initiative.

Policy 6.12.2 Develop project grants accessible to local non-profit groups for arts, culture and heritage activities.

Objective 6.13 Promote arts & culture initiatives and activities.

Policy 6.13.1 Work with partners to develop and implement a joint arts and culture marketing initiative to better promote local activities, individuals, groups, events, and programs.

Policy 6.13.2 Highlight the activities of local artists and promote public involvement in arts and culture.

Policy 6.13.3 Continue to link the arts sector via beautification, and arts initiatives, public performance spaces (indoor and outdoor) with while supporting City Centre revitalization and development.

→ Community & Cultural Land & Facilities

Objective 6.14 Support the development and promotion of community facilities.

Policy 6.14.1 Work with community groups and residents to support the development of a centre that would service the entire West Shore as a means to showcase local individuals and groups, and encourage greater programming, performance and education.

Policy 6.14.2 Work with other West Shore communities and other partners to contribute funding to an arts and culture centre (dedicated use and/or multi-use).

Policy 6.14.3 Consider provision of municipal properties or proceeds from sales of properties as a contribution to fund a centre and/or operating endowment.

Policy 6.14.4 Work with School District No. 62 to explore opportunities associated with new and existing joint development/use agreements as a means to address the needs of the broader community in a cost and resource effective manner.

Policy 6.14.5 Work with developers, partners and stakeholders to define and create multi-use facilities such as community centres, performance/practice areas, and gathering places as part of development projects, e.g. the proposed Robert Bateman Centre at Royal Roads University.



Objective 6.15 Ensure availability of affordable venues for artists, arts organizations and cultural groups.

Policy 6.15.1 Encourage the development of private performance and gallery spaces.

Policy 6.15.2 Develop public outdoor places that support programmed or spontaneous performance, art installation, and play.

→ Civic Engagement

Objective 6.16 Seek the participation of all sectors of the community in any decision-making or planning process.

Policy 6.16.1 Actively engage the public to participate and be involved in discussions pertaining to the future of the community.

- Policy 6.16.2 Help shape a “civic consciousness” among residents by providing information and education about how the city works and how they can actively become involved.
- Policy 6.16.3 Use creative and flexible communication techniques to out to all parts of the community.
- Objective 6.17 Require development proponents to engage and gather input from the public.**
- Policy 6.17.1 Set goals for public consultation among development proponents which must be fulfilled prior to consideration of development approvals.
- Policy 6.17.2 Require development proponents to describe to citizens regarding how their proposals contribute to the broader community sustainability goals (see Section 2.0).
- Policy 6.17.3 Ensure communications on proposed development from the City and from development proponents address community sustainability goals (see Section 2.0).

→ Emergency Services

- Objective 6.18 Provide appropriate emergency services.**
- Policy 6.18.1 To improve long-term fire fighting capacity, consideration will be given to development of appropriate fire hall sites in current and proposed major development areas of the city in cooperation with the Fire Department.
- Policy 6.18.2 Focus interdepartmental cooperation to reduce fire and emergency response times where possible.

7.0 Our Housing

While new projects are delivering newer forms of housing and diversifying housing choices in the community, many areas of Colwood remain defined by predominantly single family homes. Greater housing diversity allows for *aging in place* and tenureship choice (own, rent, etc.) and creates economic, racial and family diversity that contributes to a vibrant community. Also, affordable housing is a growing need among residents across BC and especially on Southern Vancouver Island.

→ Challenges & Opportunities

- Escalating housing prices and lack of rental stock has led to very real needs related to overall housing affordability. Higher incomes are necessary to purchase homes, which creates a gap between existing and newer residents in relation to income and lifestyle.
- Diversifying housing choices in existing developed areas will ensure opportunities for aging in place, rental housing and greater choice. However, there is a lack of construction of new purpose-built rental housing and a gradual loss of existing affordable housing stock. Some 28% of renter households (13,080 households) in the Capital Region are defined as being in “core housing need” - meaning they do not live in, and are unable to access, housing which is affordable, in adequate condition, and of suitable size.
- Incomes have risen by 16% from 2000 to 2006, while housing costs rose 107% in the same period.
- Housing starts have mirrored the upward trend in population where the pace of housing starts has been steady, growing from less than 100 starts per year in 1997 to approximately 150 per year in 2006, with building permits for over 250 units issued in the first 9 months of 2007.
- Colwood is a relatively youthful, family-oriented community experiencing steady population growth, rapid development, and house price increases that appear unrelated to residents’ incomes. Future prospects are for continued population growth as the West Shore continues to assume most of the region’s growth, as well as declining household size and a gradual aging of the population.

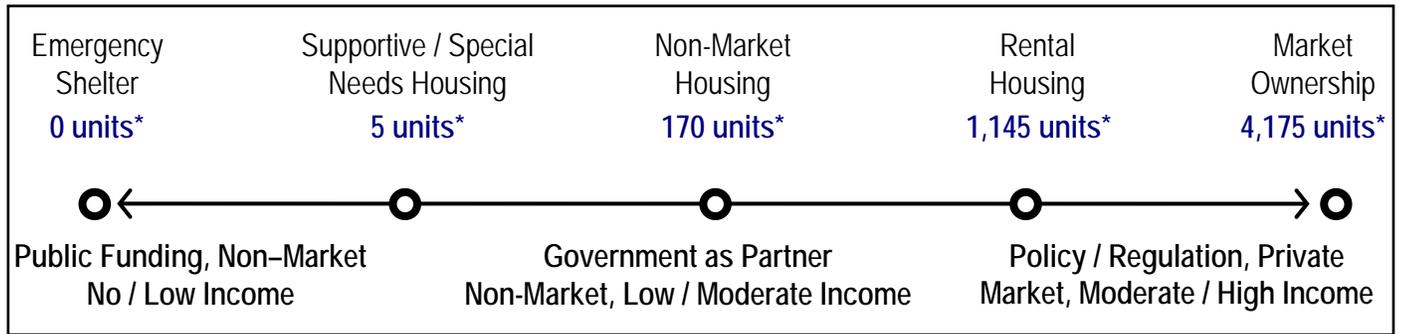
→ OCP Strategy

A range of housing choices along the housing continuum accommodate the needs of all incomes and ages in all parts of the community.



→ Defining the Housing Continuum

The housing continuum recognizes that the delivery of housing must acknowledge that people's housing needs change throughout their life cycle and through changing circumstances in their lives.



* 2006 census statistics.

→ Defining Affordable Housing

Housing affordability is a function of housing cost and household income.

*Council's **Attainable Housing Policy** defines **affordable housing** as: housing which has a market price or rent that does not exceed 30% of income for households which have income that is 80% or less than the median household income for the community.*

***Affordable housing** can be provided by the private, non-profit, cooperative, and public sectors separately or through partnership models. This includes a variety of tenure models including ownership, co-housing, cooperative and rental.*

→ Affordable Housing

Objective 7.1 Preserve and increase the stock of safe and affordable housing.

Policy 7.1.1 Apply and regularly review the *Attainable Housing Policy*. Focus on mechanisms and detailed policies for delivery of attainable housing.

Policy 7.1.2 Regularly review the disbursement of funds in the Affordable Housing Reserve Fund.

Policy 7.1.3 Form partnerships to gain access to other funding mechanisms and programs from senior levels of government. Maximize opportunities for joint initiatives or delivery of programs and services with other jurisdictions.

Policy 7.1.4 Seek partnerships with local agencies and governments to access housing programs directed towards specific populations such as seniors, families with children, people with special needs and those at risk of homelessness.

Policy 7.1.5 Seek development agreements that secure commitments for development proponents to build affordable and attainable housing units.

Policy 7.1.6 Encourage development of housing with additional dwelling units (e.g. *flex housing*, *secondary suites*, *lock-off suites* and *mingle suites*) in all parts of the community in all building types, including multi-family buildings.

Policy 7.1.7 Streamline approvals process for attainable and affordable housing projects.

Policy 7.1.8 Use municipal land and/or other resources and/or community organizations to deliver special needs housing.

Objective 7.2 Support residents in moving through the stages of the housing continuum and facilitate the delivery of a range of housing types along the continuum.

Policy 7.2.1 To meet needs of those residents needing emergency shelter and/or supportive housing, the city will work with local social service providers, culture or religious groups,

Flex Housing allows a house to accommodate renovations for a variety of households over time. A growing family may use the whole building. A smaller household may use 2/3 of space with 1/3 for a suite. A multi-generational household may use the house as three suites.

The house would be constructed with utility corridors to accommodate these future changes.



and senior levels of government to locate emergency shelter facilities in the community on an as needed basis. The city will work with partners to ensure appropriate supportive services are implemented.

- Policy 7.2.2 To meet the needs of those residents needing affordable rental housing, the City will:
- i. Permit or require secondary suites in new and existing single family housing, including small lot housing and fee simple row housing.
 - ii. Permit flexible housing design (used as one, two or three units within one building). Flexible housing can help a growing family or be downsized for elderly residents.
 - iii. Permit or require accessory dwelling units in new and existing multi-family residential buildings in the form of 'lock-off' suites or 'mingles'.
 - iv. Seek commitments from development proponents to develop purpose-built rental housing.
 - v. Work with non-profit groups, special needs groups and/or other governments to plan and develop rental housing.

Policy 7.2.3 To meet the needs of those residents needing market rental and housing, the City will ensure ongoing efficient delivery of approvals so as to ensure housing supply can keep pace with housing demand.



A "Lock-off" suite (image courtesy of SFU UniverCity) is a form of additional dwelling unit in multi-family buildings that acts as a secondary suite. The unit is sold as a two bedroom unit where the blue shaded unit can act as a 2nd bedroom or as a separate one-bedroom suite that can be rented if not used or as a mortgage helper. The lock-off suite has its own entrance to the main corridor or from the main suite.

→ Special & Other Housing Needs

Objective 7.3 Identify the full scope of special needs housing in the community and develop strategies for delivery of special needs housing.

Policy 7.3.1 Undertake a community initiative to define special needs housing.

Policy 7.3.2 Use municipal land and other resources to deliver special needs housing.

Policy 7.3.3 Work with partners and/or community organizations to identify and deliver special needs housing.

Policy 7.3.4 Integrate special needs housing throughout the community, with emphasis on locating special needs housing in new and existing centres.



A "Mingle Suite" is another form of secondary suite in a multi-family building. The suite is sold as a two bedroom unit which includes bedrooms with private bathrooms that share a main living area and kitchen. Each bedroom can be rented if desired.

Objective 7.4 Pursue ‘aging in place’ and accessibility strategies for housing.

Policy 7.4.1 Ensure all apartments have adaptable housing features through development agreements.

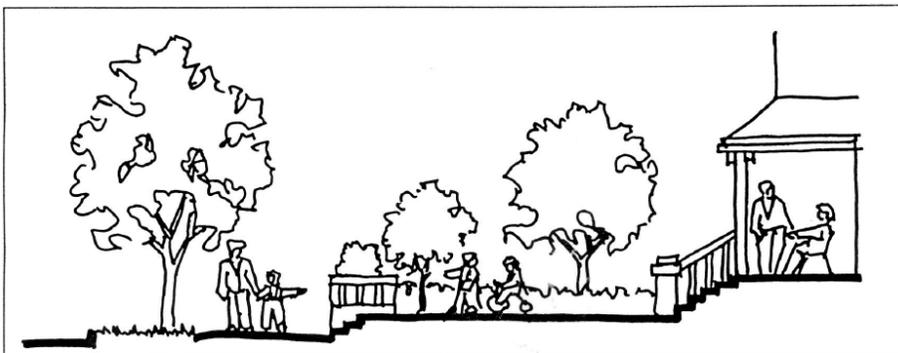
Policy 7.4.2 Ensure the needs of our aging population are met by increasing the diversity of housing options in all parts of the community, with emphasis on integrating housing variety in existing and new centres.

Policy 7.4.3 Require universal design features based on need to facilitate aging in place in all housing types.

Objective 7.5 Set targets for family and ground-oriented housing in high-density development projects.

Policy 7.5.1 Recognizing the family orientation of the community, require a minimum of family-oriented housing in multi-family development projects as in Council’s *Attainable Housing Policy*. Family-oriented housing is typically *ground-oriented*, but some two or more bedroom suites in multi-family apartment buildings may be at higher levels.

Policy 7.5.2 Include *ground-oriented housing* wherever possible to ensure “eyes on the street” and active street life.



Design the front porch to serve multiple purposes

8.0 Our Multi-Modal Transportation System

Colwood has long been a bedroom community to Greater Victoria. This characteristic results, in part, from relatively inexpensive housing prices, lack of good quality high paying jobs, and good connections to greater Victoria east of the Colwood interchange (when compared to other major urban centres in the region). As a result, Colwood has historically developed as a low density, predominantly single family residential community with some supporting commercial development. Understanding this past is critical in developing strategies for improving conditions in the future. Colwood is anticipated to grow rapidly and is predicted to continue growing rapidly for at least the next 20 years. This growth is resulting in transportation pressures that are most evident through congestion at the McKenzie/Admirals intersection which is due, in part, to the large commute from Westshore to downtown Victoria and the Saanich Peninsula employment areas.

Despite relatively recent transportation system improvements in the area, congestion is still increasing because West Shore communities are growing faster than the transportation infrastructure is being improved. Congestion is not necessarily a bad thing. Without congestion it would be much more difficult to attract people out of their cars and to use other modes of transportation such as buses, commuter rail, bicycles and walking. Economic and environmental issues and public attitudes are also changing our perceptions towards automobile travel. The cost of fuel is rising and is predicted to reach historic highs in the near future. Greenhouse gas emissions are also an increasingly important public issue.



→ Challenges & Opportunities

- Auto-oriented, single use neighbourhoods that define much of the community promote motor vehicle use which in turn drives a need for more road improvements and parking. Also, provision of effective transit service is difficult and/or very expensive because lower densities result in lower ridership and higher per capita public transit. Resulting infrequent service will not entice people out of their cars and onto transit. Also, low density development is difficult to service without long walking distances to transit stops, another disincentive for people to change from automobiles to transit.
- Many major and arterial roads are congested at peak travel times and this congestion will get exponentially worse as the population grows unless more and wider roads are constructed or people are enticed out of their cars and onto a transit system, bicycle or walking paths.
- Land use decisions will drive the need for transportation infrastructure as people will have to travel to work, shop and play. High density mixed use nodes will provide an opportunity for those who live there to reduce travel and go about their daily lives within one self contained centre. High density mixed use nodes can be more effectively served with good frequent transit service including conventional buses, bus rapid transit and light rail.
- Transportation infrastructure will drive land use decisions. Any increases in the number or width of automobile focused roadways will attract people away from transit and as a disincentive for implementation of dense mixed use nodes. Building more roadways will only encourage people to live in single family units. For example, replacing the at-grade McKenzie/Admirals intersection with a full movement interchange would make it much easier for automobile users to get to and from downtown Victoria or the Saanich Peninsula for work trips and this could tend to be counterproductive to a strategy to move people onto bus rapid transit. On the other hand transit only improvements would give the transit system an efficiency and service advantage in relation to automobiles.
- Transportation infrastructure is expensive. Investments must be executed wisely and in a way that the community will benefit in accordance with broader community objectives.
- Increasing population within the West Shore will increase travel demand. Demand for automobile travel will increase despite the congestion and the economic and environmental challenges of supporting single occupancy vehicles. Effective transportation planning will reduce (not eliminate) automobile travel growth. The challenge is to create a balance where transit, bicycle and pedestrian modes thrive without the choking effect of major congestion. Some congestion is here to stay and will remain an effective tool that limits automobile travel demand over time.



→ Strategies

The transportation strategies are closely bound with the growth management and land use strategies. The transportation system needs will be closely allied with the achievement of:

- **Economic Development:** Good quality high paying jobs in Colwood will tend to reduce the need to commute to areas east of the Colwood interchange (downtown Victoria and the Saanich Peninsula); (See Section 10.0)
- **Compact Complete Centres:** Dense mixed use (residential, office, light industrial, retail, recreation, entertainment) nodes which promote the use of transit (bus, commuter rail, light rail), cycling and walking (See Section 3.0 & 5.0)
- **Integrated Transportation Systems:** A transportation system that is integrated into the community in an aesthetically pleasing and complementary manner.

Specific multi-modal transportation strategies include:

- Maintain and improve sub-regional connections in and through the community while accommodating the needs of local residents
- Climate-friendly active transportation (i.e. walking, cycling) will be a priority by developing safe and viable multi-modal transportation networks that link compact and mixed centres
- Increase the use of transit for travel within Colwood and adjacent municipalities
- Ensure efficient use of existing roads for local users
- Increase the use of transit (bus, commuter rail, light rail) for travel to employment areas east of the Colwood Interchange (downtown Victoria and the Saanich Peninsula)
- Utilize the existing street systems in the most efficient way while maintaining them in the context of a liveable community
- Manage transportation demand through effective land use policies as well as more direct action



Map 8-1: Regional Transportation System Context



→ Multi-Modal Transportation Network

Objective 8.1 Implement multi-modal travel corridors that move all users according to the *Multi-Modal Transportation Strategy (Map 8.2)*.

Policy 8.1.1 The following modal hierarchy will guide decisions about transportation infrastructure improvements and spending (in this order):

- i. Walking³
- ii. Cycling
- iii. Transit
- iv. High Occupancy Vehicles (HOVs)
- v. Single Occupant Vehicles (SOVs)

Policy 8.1.2 Develop a “Complete Streets” strategy that increases the multi-modality of planned and current streets, and which:

- i. Ensures all roads are pedestrian-friendly by ensuring safe, attractive, comfortable pedestrian facilities that are buffered from fast moving motorized and non-motorized road users as much as feasible through the use of parking lanes, street trees, boulevards and/or street furniture.
- ii. Is consistent with the approved Multi-Modal Transportation Strategy
- iii. Ensures safe interactions between all modes along or adjacent to the public right of way and at intersections. Where volumes and conflicts are high, consider grade separations.
- iv. Implements traffic calming strategies consistent with the intended function of the facility. Local roads that could also be used by through traffic would allow for vehicle passage but limit speed consistent with its multi-modal use in order to discourage unwanted through traffic.
- v. Improves facilities for the greater comfort and convenience of pedestrians. Pedestrian facilities will be improved by such means as reducing unnecessary pedestrian barriers, increasing opportunities for crossing busy roads in safety, providing direct routes where practicable, and providing incentives for walking throughout the city and especially within residential neighbourhoods.
- vi. Identifies pedestrian priority areas in neighbourhood centres where pedestrian environments are to be especially encouraged.
- vii. Implements traffic diversion strategies that allow for pedestrian and cycle passage but not vehicles where required.



Woonerf Street - Woonerf is a Dutch word that translates to “street for living”.

Woonerfs are designed to accommodate the needs of automobile drivers but also integrate the needs of other users, such as pedestrians, cyclists, and playing children. Woonerfs sustain lower traffic speeds through utilisation of chicanes, or, integrated traffic calming and intensive landscaping that forces frequent short turns.



The pedestrian as priority.

³ Includes facilities for people with disabilities.

- Policy 8.1.3 Where appropriate encourage and provide for separate corridors for specific transportation purposes such as the E&N Rail Corridor and the Galloping Goose Trail for cycling, walking and potential future light rail transit or commuter rail.
- Policy 8.1.4 Implement a strategy that will protect the functional integrity of the transportation corridor by:
- i. Providing for a hierarchical street system where the function of the facility is matched with its form in a multi-modal context
 - ii. Limiting or where possible eliminating local access to transportation corridors where the movement of traffic is the primary goal
 - iii. Providing all movement access on local facilities where the movement of through traffic is not a goal but access to individual residences, businesses or buildings is a priority
 - iv. Reducing conflicts between modes along high volume corridors by giving priority to the strategically dominant users or by constructing infrastructure that will eliminate the conflict
- Policy 8.1.5 Assign resources and/or seek senior government funding to modify and/or expand capacity on roads for all modes of transportation.
- Policy 8.1.6 Partner with other levels of government and the business community and continue to promote the development of improved rapid transit links with downtown Victoria including:
- i. Bus rapid transit along Island Highway (connecting to the existing Juan de Fuca exchange) and along the Goldstream Avenue corridor (connecting to a new transit exchange along Station Avenue near Peatt Road).
 - ii. Commuter rail service between new and existing centres in the community and downtown Victoria using the E & N railway with stations at appropriate locations adjacent to developing and planned high density nodes;
 - iii. Ensure new developments are planned to enhance new transit initiatives.
 - iv. Ensure new developments make provisions for transit rights-of-way where appropriate.
 - v. Avoid any development that precludes development of and future implementation of planned transit corridors.
- Policy 8.1.7 Work with BC Transit to develop and promote high quality and frequent bus service between major development nodes within the combined municipalities of Colwood and Langford by:
- i. Designating bus corridors on high volume routes.
 - ii. Providing, over time, as funding and development opportunities arise, properties required for the bus corridors.
 - iii. Working with BC Transit to implement transit service in a proactive manner between high density development nodes.

- iv. Working with BC Transit to implement transit priority measures to provide quick and efficient service. Measures may include bus bulges, queue jumpers and bus priority at traffic signals. Bus-only lanes will be provided on selected routes if and when they become warranted by the increase in vehicle traffic.



Policy 8.1.8 Work with development proponents to improve connectivity of the multi-modal network through dedication of public right of ways, easements, and development agreements.

Objective 8.2 Support the use of alternative transportation modes such as walking or cycling.

Policy 8.2.1 Improve the existing Galloping Goose Trail corridor by supporting paving initiatives, safe street crossings and grade separation at major road network crossings only if needed.

Policy 8.2.2 Support the implementation of the Victoria Rail Trail along the E&N Railway corridor by integrating it into the bicycle and pedestrian network plans.

Policy 8.2.3 Improve connections between the Galloping Goose Trail and Victoria Rail Trail and our community's pedestrian and cycle networks.

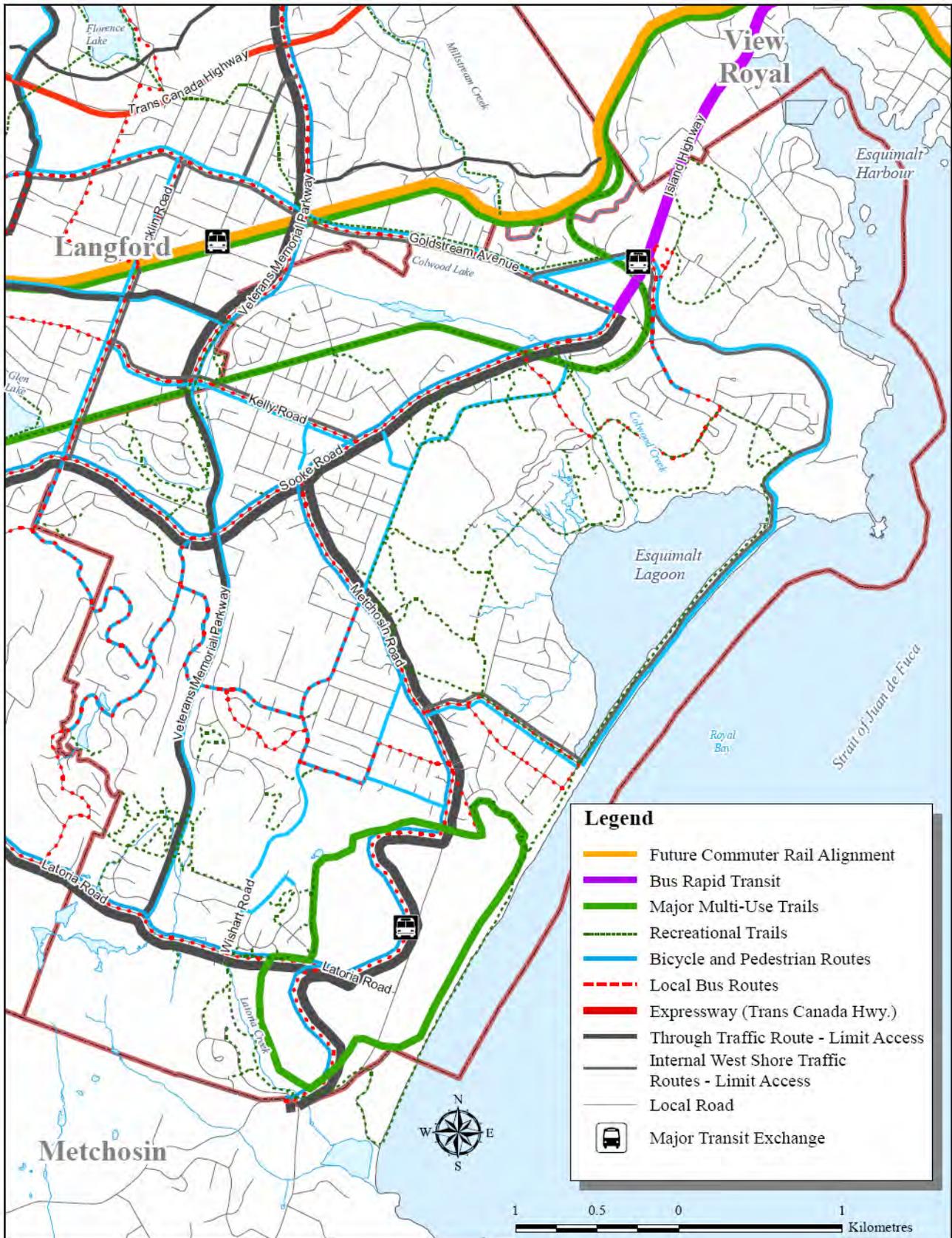
Policy 8.2.4 Incorporate new pedestrian and cycle connections in existing areas, and ensure their connection to new and existing centres.

Policy 8.2.5 Where appropriate, implement Woonerf streets that allow for vehicle passage but use design techniques to reduce traffic speeds while simultaneously providing for safe access and passage of other users. Ensure street design features allow for temporary street closure as a means to support community activities.



Tactile strips for people with disabilities.

Map 8-2: Multi-Modal Transportation Strategy



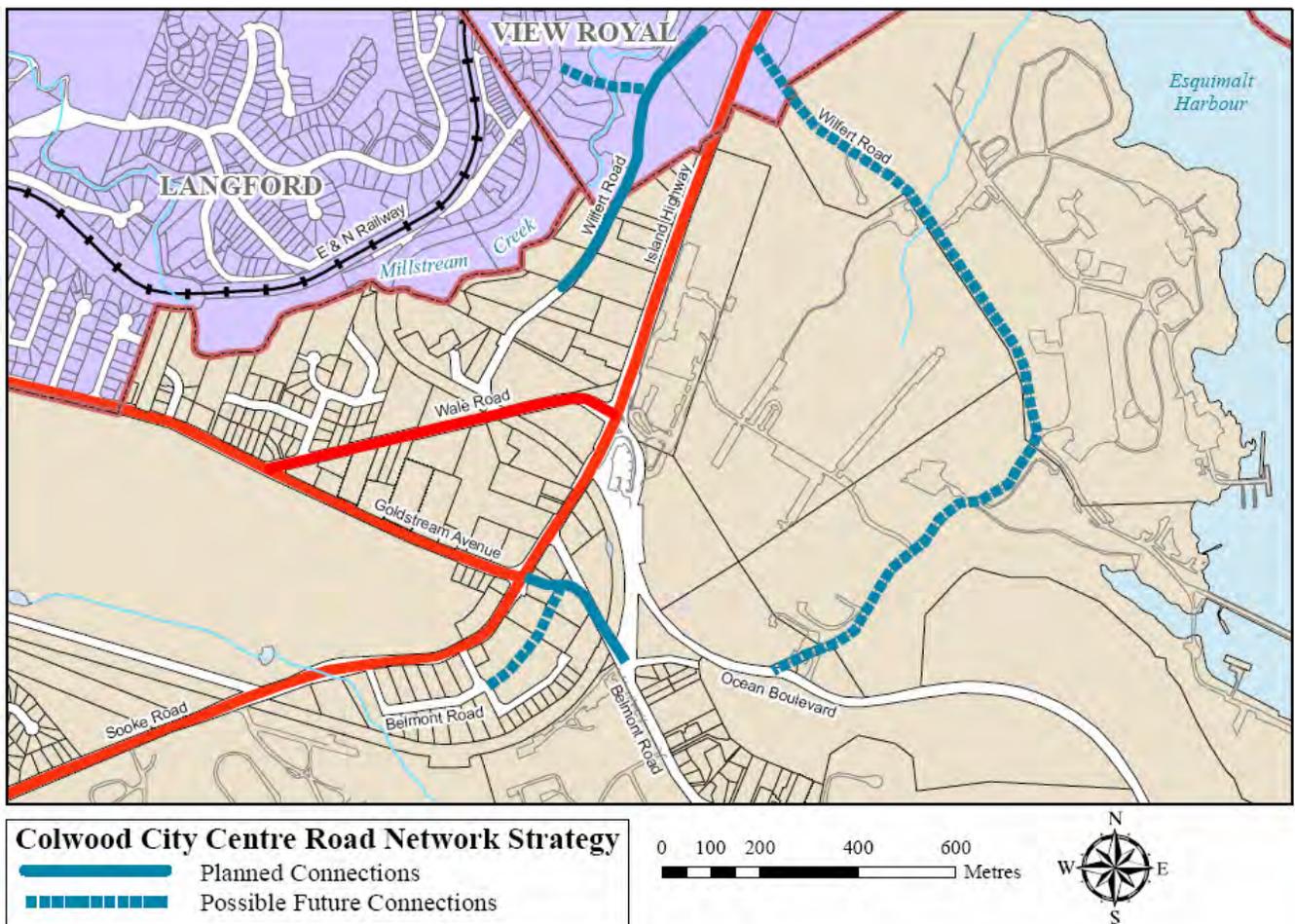
→ Road Network

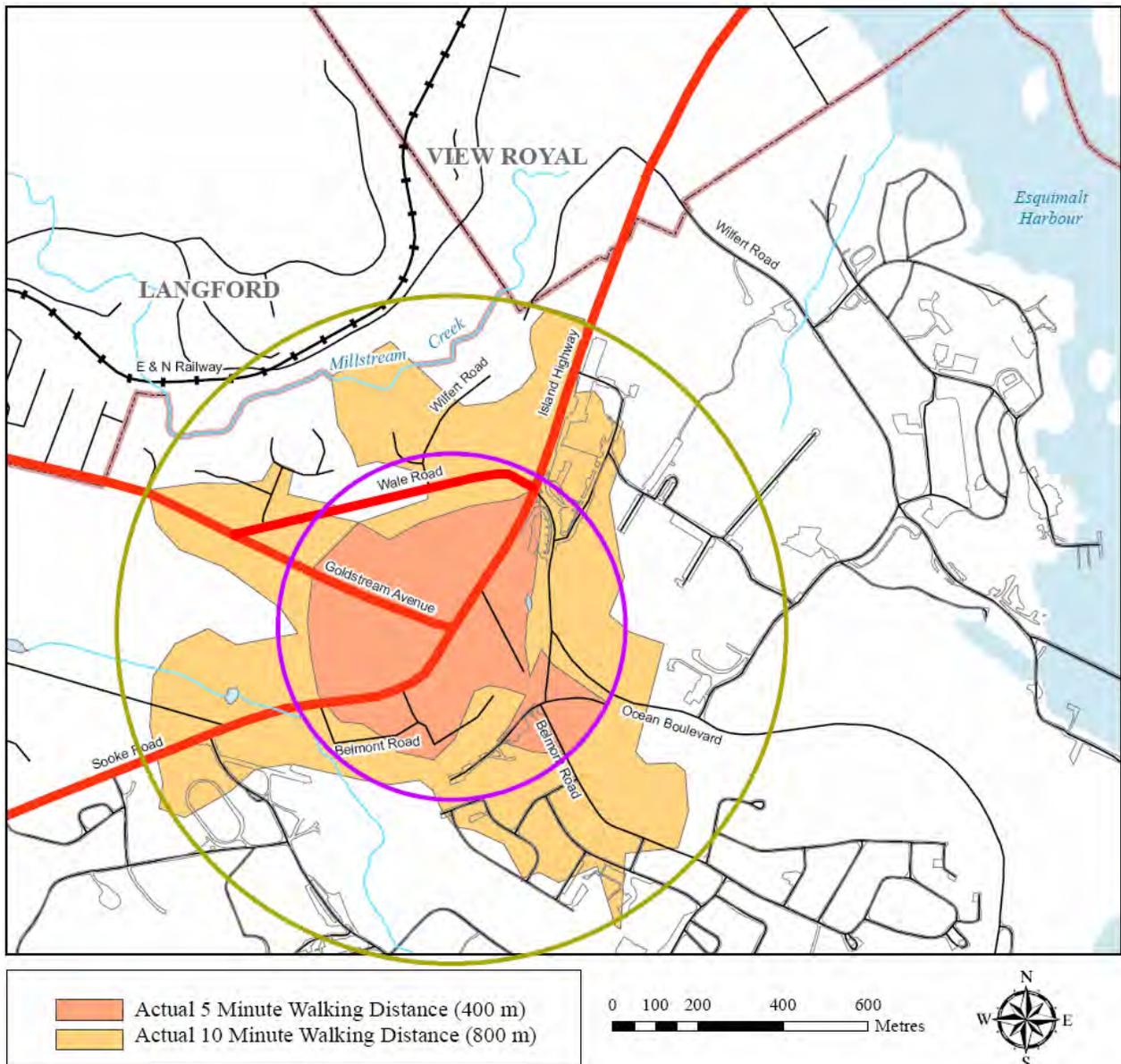
Objective 8.3 Develop more connected and integrated City Centre road networks.

Policy 8.3.1 Develop a long-term network plan for the City Centre that defines a finely-grained and connected road and block network. A fine-grained road and block network will permit greater densities to be developed and will improve circulation in the centre.

Policy 8.3.2 Seek or procure public right of way dedications at the time of rezoning and/or subdivision in the City Centre that is consistent with the City Centre network plan.

Policy 8.3.3 Seek funding for capital improvement projects that work towards implementing the City Centre network plan from development proponents and/or senior levels of government.





A connected City Centre road network will create a more walkable Downtown!

A healthy person can comfortably walk 400m in about 5 minutes. It has been shown that provided with an attractive pedestrian environment complemented by a range of uses, most people will walk this distance rather than drive. The 10 minute walk, or 800m, is also important to consider since many people will also walk this distance given the right conditions.

The above diagram demonstrates how far one can walk from the corner of Goldstream Ave and Island Highway (Sooke Rd). in 5 & 10 minutes along existing streets. The theoretical 5 & 10 minute walks are shown as circles. A more integrated and connected road network will contribute to walking in the City Centre by allowing people to get further quicker!

Transportation Demand Management (TDM)

Objective 8.4 Develop TDM strategies for the Westshore.

Policy 8.4.1 Develop a TDM strategy for Westshore with specific and achievable TDM goals and objectives for new developments and existing developed areas.

Policy 8.4.2 Require new development proponents to develop site-specific TDM strategies and ensure implementation of agreed TDM measures.

Policy 8.4.3 Obtain funding for, develop and implement TDM measures for existing developed areas.

Objective 8.5 Implement parking management programs that promote reduced ownership of cars and/or use of alternative modes of transportation.

Policy 8.5.1 Develop parking management strategies that encourage reduced car ownership and/or usage. Parking management strategies are encouraged when the following conditions are in place:

- i. Housing within 400m of bus service that is in operation and with a minimum 15 minute service frequency.
- ii. Mixed-use development projects and/or in established centres.
- iii. Parking spaces for car share vehicles and purchase of share cars (e.g. for every one share car and dedicated parking stall that is provided, 2 parking stalls can be eliminated).
- iv. Community transit passes or community shuttles are provided.

Policy 8.5.2 Provide preferred (e.g. close to entrances) or dedicated parking stalls for share cars and/or hybrid vehicles.

Policy 8.5.3 Provide free parking for share cars and/or hybrid or highly efficient vehicles on city-owned parking facilities.

Policy 8.5.4 Review parking standards in land use bylaw.

Objective 8.6 Implement programs, services and/or facilities that promote greater transit use.

Policy 8.6.1 Ensure transit service is no more than a 5 minute walk (approx. 400m) from homes and ensure that safe and comfortable transit stops with shelters are integrated throughout the community.



Policy 8.6.2 Work with stakeholders and transit agencies to implement transit pass programs for workplaces, schools (all levels), and/or residential buildings.



Policy 8.6.3 Expand ride-sharing program and situate Park 'n' Ride parking lots near transit facilities wherever possible.

Policy 8.6.4 Work with local and regional employers to implement alternative work hours and/or telecommuting strategies.

Objective 8.7 Educate the public about the benefits of active transportation and transit usage.

Policy 8.7.1 Work with partners or seek funding to implement programs that raise the awareness of health and environment benefits associated with active transportation and transit usage.



Policy 8.7.2 Work with partners to implement a social marketing program that promotes active transportation and the use of transit.

Objective 8.8 Promote car sharing in the community.

Policy 8.8.1 Work with development proponents to include share cars as part of development projects.

Policy 8.8.2 Work with share car service providers to dedicate vehicles for the West Shore that can be used by existing and new residents.



Victoria Car Share Co-Op Logo

9.0 Our Sustainable Buildings

Buildings have a profound effect on the environment. In North America, buildings account on average for 39% of total energy use; 12% of total water consumption; 68% of total electricity consumption; and 38% of total carbon dioxide emissions on average. Green building and building energy efficiency strategies are effective ways to minimize social, environmental and economic impacts. Green building is the practice of increasing the efficiency of buildings and their use of energy, water, and materials. Green buildings also reduce building impacts on human health and the environment, through better siting, design, construction, operation, maintenance, and removal.

→ Challenges & Opportunities

- Buildings represent 51% of community GHG emissions in Colwood (*CRD GHG and Energy Use Inventory, 2004*). Addressing the energy performance of new and existing building stock will be critical for reducing GHG emissions.
- Global demand for resources is leading to escalating costs for building materials such as steel, concrete and wood products.
- Air quality issues related to materials and finishes used in buildings has been recognized as a factor in the poor health of some members of the community.

→ OCP Strategy

We must require improved energy efficiency and/or use of renewable energy in buildings as a minimum due to commitments to climate protection (BC Climate Action Charter).

Green building practices that are healthier for residents and promote efficient use of materials and resources are also a priority for new development projects.

Owners of existing building will be encouraged to retrofit or renovate buildings so as to, as a minimum, increase overall energy efficiency and environmental performance.



Existing Building Stock

- Objective 9.1** Improve the energy efficiency and environmental performance of existing buildings through retrofits or redevelopment.
- Policy 9.1.1 Work with senior levels of government to actively promote grant or incentive programs on our website, city advertising, city mail-outs (i.e. tax invoice) and/or other city literature.
- Policy 9.1.2 Develop incentive programs (e.g. tax or permit discounts, density bonusing) possibly structured around other incentive programs (e.g. senior level government incentive or grant programs) for promoting green renovation and/or energy efficiency retrofits of existing buildings for all uses.
- Policy 9.1.3 At the time of rezoning or development permit stage for rehabilitation, addition to or replacement of existing buildings; negotiate energy efficiency and/or renewable energy targets.
- Policy 9.1.4 Work with community-based groups such as industry organisations, business groups, or community groups to better understand their needs and develop strategies to enable green or energy efficiency upgrades or retrofits.
- Policy 9.1.5 Evaluate opportunities for incentive programs that can be offered through local agents and/or businesses for purchasing of energy efficient household appliances.
- Policy 9.1.6 Engage business and industry groups to develop energy baselines, set targets for energy efficiency, develop action plans and/or participate in third party programs (e.g. BOMA Go Green program; a national environmental recognition and certification program for existing commercial buildings). Activities could be supported by senior government literature, reports, programs including grants/incentives programs.
- Policy 9.1.7 Use Local Improvement Charges (LIC) as a means to finance the capital costs of specific improvements to buildings on a cost-recovery basis. An LIC shows up as an additional line item on the property owner's municipal taxes. LIC's associate repayment of the cost of improvements over time with the property rather than with the building owner.

→ New Buildings

Objective 9.2 Encourage energy efficiency and green building development for new buildings.

Policy 9.2.1 Amend infrastructure policies and standards to enable the development of green and energy efficient buildings and use of renewable energy; tools to be considered include (but not limited to):

- i. Varied development cost charges
- ii. Density bonusing
- iii. Service Area Bylaw(s)

Policy 9.2.2 Use tools to encourage development of green, energy efficient buildings and use of renewable energy such as:

- i. Mandatory completion of a Sustainability Checklist at rezoning and/or development permit application

Policy 9.2.3 Establish comprehensive development (CD) zones as a means to tailor development requirements that will deliver on green building/energy efficiency objectives.

Policy 9.2.4 Obtain green building commitments and increased building energy performance requirements at the time of rezoning in the form of a covenant or development agreement.

Policy 9.2.5 Amend the zoning bylaw to describe the conditions that, if met, will entitle the developer to additional density as a public environmental/health benefit in order to promote green building and increased building energy performance requirements.

Policy 9.2.6 Set policy for discounted Building Permit or other municipal fees for selected buildings for implementation of green building measures.

Policy 9.2.7 Develop and implement a performance-based approvals process (e.g. expedited development/building permit application processing for developer/builder commitment to third party building labelling programs such as *LEED™* or *BuiltGreen™*) if green and/or energy efficient measures are provided for private developments.

Policy 9.2.8 Develop and implement a revitalization tax exemption bylaw for green and/or energy efficient buildings.



- Policy 9.2.9 Where permitted by provincial legislation, use Local Improvement Charges (LIC) as a means to finance the capital costs of any additional cost of building to the highest levels of efficiency (e.g., LEED Gold or R2000) on a cost-recovery basis.
- Policy 9.2.10 Promote the development and implementation of alternative financing strategies and mechanisms to address financial barriers associated with additional costs for green buildings, energy efficiency and/or use of renewable energy. Options include, but are not limited to:
- i. Municipal financing for incremental costs of green building and/or energy efficient measures on a cost recovery basis.
 - ii. Fostering the development of energy efficient mortgages with local mortgage lenders
 - iii. Establish a *revolving loan fund* to provide grants and loans for undertaking special projects to advance significant emission reduction results or green buildings.
 - iv. Foster the development of strata energy mortgages to finance high performance, energy efficient equipment and materials.
- Policy 9.2.11 Support development industry capacity building and education to build knowledge and confidence in energy efficient and/or green building practices.
- Policy 9.2.12 Develop and implement demonstration projects through partnerships and/or incentive/grant programs. The Robert Bateman Centre at Royal Roads University may provide one example of alternative building techniques.
- Policy 9.2.13 Use city-owned land as a means to promote the development of showcase green and/or energy efficient buildings through a land disposition process that incorporates sustainability objectives.
- Objective 9.3 Develop sustainability guidelines and/or user resources.**
- Policy 9.3.1 Provide assistance on marketing of green buildings and neighbourhoods as part of the overall sustainability marketing/brand of the community.
- Policy 9.3.2 Require a 'green operating manual' for homes and/or strata corporations to increase capacity of homeowners to choose and manage green technologies/approaches.

Objective 9.4 Lobby the Federal and Provincial Governments for funding or regulatory changes

Policy 9.4.1 Lobby the federal government to commit to long term funding for building energy efficiency activities for new and existing buildings directly or through other agencies such as the Union of BC Municipalities (UBCM) and/or the CRD.

Policy 9.4.2 Lobby the provincial government to continue to expand the range of energy efficiency activities or equipment eligible for a PST exemption.

10.0 Our Local Economy & Jobs

This OCP elevates the importance and need for supporting expanded local economic development as a critical component for creating a sustainable community. Creating jobs locally is part of the solution to current and future transportation challenges in the West Shore in that it will reduce commuting trips. Creating local jobs is therefore a key strategy for reducing common air contaminants and greenhouse gas emissions that result from transportation activities. Recent economic development trends and positive market conditions for additional commercial and industrial development are creating the supportive conditions for achieving municipal economic development objectives.

→ Challenges & Opportunities

- Further development of the city's jobs-labour force ratio through encouragement of new jobs and businesses in the community.
- Quality of life in a community attracts new businesses.
- Strong demand exists for commercial, industrial, and office land with diminishing land resources and designated areas for these uses in the region.
- Increased property tax revenues and more local jobs are much needed to make progress towards sustainability.
- In the last few decades, the community has been a bedroom community for Victoria. However, the City is maturing and has the opportunity to be seen as a more complete community with important regional employment centres.

→ OCP Strategy

Encourage existing businesses to stay and grow in and welcome new businesses into the community

Key strategies include:

- Increase the ratio of jobs for every member of the resident labour force to 0.7 - 0.9.
- Ensure a short and long term supply of employment lands.
- Promote the community as a business-friendly environment.



→ Economic Development

Objective 10.1 Retain and encourage the growth of existing businesses and attract targeted new businesses to locate in the planning area.

Policy 10.1.1 Work with local business associations to support expansion of local and regional serving businesses located in the community.

Policy 10.1.2 Periodically review the business enabling environment to ensure the city remains a regionally (and provincially) competitive, attractive business destination.

Policy 10.1.3 Permit home-based business in all parts of the community in all dwelling units.

Policy 10.1.4 Explore or encourage the development of a home-based business support centre to support of promote home-based businesses.

Policy 10.1.5 Develop a West Shore Economic Development Strategy with local business associations and other communities in the West Shore.

Objective 10.2 Promote the City Centre as a regional growth area for knowledge, education and creative-based industries.

Policy 10.2.1 Ensure sufficient and appropriate floor space capacity to meet local and regional demands for the planning period.

Policy 10.2.2 Direct new office development to the city centre where practical and feasible.

Policy 10.2.3 Expand existing live-work zoning in areas in and around centres.

Policy 10.2.4 Identify sites for office development and work with development proponents to attract 'anchor' office/business tenants through proactive development partnerships.

Policy 10.2.5 Support those businesses whose needs cannot be met within the city centre in other locations in the city.

- Objective 10.3** Improve the ratio between the resident labour force and jobs.
- Policy 10.3.1 Establish a progressive jobs-labour force target and reevaluate floor area capacities based on this target to ensure an adequate, long-term supply of employment lands (see inset).
- Policy 10.3.2 Prioritize and lobby for job-rich industry types such as government or business office uses.
- Policy 10.3.3 Work with and support West Shore Economic Development Association and other community stakeholders in the Learning Commons initiative - an innovative education initiative with potential community economic benefits, including new business attraction and clustering possibilities.

Local Employment Ratios

A balance in the supply between jobs and population is an indication of a community's "completeness" and helps ensure that there are employment opportunities close to where people live. Ideally, a ratio of jobs to resident labour force closer to 1.0 would mean that people work and live close together. A range of 0.6 - 0.9 jobs for every member of the resident labour force is widely considered a reasonable target for complete communities. The Regional Growth Strategy (RGS) target is measured by using total population, while using a labour force number produces a higher ratio, as shown below.

	1999	2001	2006	2026*	RGS Target
Jobs-Population Ratio					
West Shore (urban)	0.23	0.23	0.29	0.30	0.35
Colwood	0.18	0.19	0.24	0.25	n/a
Langford	0.27	0.25	0.33	0.34	n/a
Jobs-Labour Force Ratio					Local Target
West Shore (urban)	n/a	0.44	0.52	n/a	0.6 – 0.9
Colwood	n/a	0.37	0.44	n/a	n/a
Langford	n/a	0.49	0.57	n/a	n/a

From CRD Planning Services, *=CRD forecast; n/a = not available. See Glossary for definitions

Objective 10.4 Work closely with other communities in the West Shore to promote economic development

Policy 10.4.1 Work with local business groups such as West Shore Economic Development Association and West Shore Chamber of Commerce and other West Shore communities (Metchosin, View Royal, Highlands, Langford) to develop a powerful brand strategy that defines a strong vision for the western communities that clearly defines or describes 'who we are', 'where we are going', and 'what we want'.

Policy 10.4.2 Work cooperatively with other communities in the West Shore to jointly develop land use and economic development strategies that are synergistic and complementary.

Policy 10.4.3 Work with other communities and community partners to continue promoting and developing the West Shore as a regional sport tourism, tourism and recreation destination.

Objective 10.5 Promote economic activity in all sectors of the community.

Policy 10.5.1 Support and strengthen arts and cultural activities such as festivals and performances that support economic development objectives.

Policy 10.5.2 Increase the contribution of the arts to economic development (e.g. support for proposed Robert Bateman Centre at RRU) by developing an arts tourism strategy, arts education and training, arts exports, new media and other digital technologies, and creative services.

Policy 10.5.3 Support the development of non-profit organisations in the community recognizing they are employers and have access to funding (e.g. from senior governments) that bring new resources to the community.

11.0 Our Food System

Food has only recently become an important topic of consideration for community planning. Increasingly, food is becoming one of the most important issues to address due to its associations with human and environmental health and the economy, and its vulnerability in the face of rising energy costs and climate change.

→ Challenges & Opportunities

- Food self reliance is an issue gaining some interest in communities on Vancouver Island; 5% to 10% of the food consumed on the island is grown on the island. Up to 95% of the food is therefore imported leading to negative impacts on GHG emissions, traffic, nutritional quality of food and local economy.
- A recent community energy baseline completed for a local gulf island found that almost 40% of GHG emissions for that community could be attributed to the consumption of imported food.
- As a predominantly urban community, Colwood has very little farmland. The system includes mostly small scale growing and food stores.
- Some small-scale farming is found on lands that are not within the Agricultural Land Reserve.

→ OCP Strategy

Making progress on a vibrant and robust food system will require a vigilant focus on localizing all aspects of the food production, processing and distribution system.



Community Agriculture

Objective 11.1 Promote and support community agriculture activities

Policy 11.1.1 Amend bylaws to allow density bonusing for inclusion of community gardens in new residential developments.

Policy 11.1.2 Develop funding grants for community groups and/or non-profit groups to promote development and operation of food related programs, facilities, and activities.

Policy 11.1.3 Leverage funds from new developments on a per unit basis to generate funds to acquire new lands for community gardens and supportive infrastructure.

Policy 11.1.4 Identify suitable locations for community gardens (e.g. one per neighbourhood) especially in higher density neighbourhoods where residents don't have access to private yards.

Policy 11.1.5 Make community gardens a permitted use in all commercial and residential zones and in public places (e.g. parks, right of ways, utility corridors, etc.).

Policy 11.1.6 Permit greenhouses in most zones; consider development permit guidelines to control form and character as needed.

Policy 11.1.7 Encourage planting of edible plant species as part of landscaping in private developments, parks and local streets where appropriate.

Policy 11.1.8 Facilitate cooperation amongst individuals or groups working towards increasing community agriculture activities.

Policy 11.1.9 Incorporate within new design guidelines for neighbourhoods and/or buildings support for urban agriculture.

Policy 11.1.10 Allow density bonusing in exchange for green roofs on multi-family, commercial and/or institutional buildings that can facilitate food growing or gardening.



Potted Fruit Trees

- Objective 11.2 Promote and support commercial agriculture as a viable business venture.**
- Policy 11.2.1 Require sustainable agriculture practices on city-owned parcels where and when appropriate through lease agreements.
 - Policy 11.2.2 Implement changes to the zoning bylaws to support farming activities as needed and where appropriate.
 - Policy 11.2.3 Perform a cost-benefit analysis on the institution of farm tax exemption policies as a means to establish local farms.
 - Policy 11.2.4 Work with landowners to provide greater security of tenure and affordability for farmlands.
 - Policy 11.2.5 Establish targets for local food production through cooperation with local and regional food security groups.
 - Policy 11.2.6 Provide site selection support and for food processors considering locating in the community.
 - Policy 11.2.7 Develop a municipal procurement policy to purchase local food.
 - Policy 11.2.8 Amend zoning so as to permit farmer markets in public facilities (parks and schools).
 - Policy 11.2.9 Actively promote one or more weekly farmers markets including small pocket markets and/or on-street markets.
 - Policy 11.2.10 Provide support for food fairs, farmers markets and/or celebrations for local food producers.
 - Policy 11.2.11 Work with partners to jointly develop and establish a region-wide branding strategy (e.g. “Locally Grown”, “Buy Local” / “Taste of the Region”).
 - Policy 11.2.12 Encourage the development of locally-owned food/grocery stores and restaurants in new and existing neighbourhoods.
 - Policy 11.2.13 Ensure density targets for new and existing neighbourhoods can support viable local food stores such as grocery store, small fruit markets, and restaurants.

Map 11-1: Agricultural Land Reserve (ALR) & Sand & Gravel Inventory



12.0 Our Community Infrastructure

Infrastructure technologies, as we know them today, were developed in the late nineteenth century in response to the pressures of rapid urbanization and associated health impacts. These systems generally have key similarities: centralized; high capital costs; single purpose; health-oriented but not necessarily environment-oriented; guided by rigid rules and practices; and minimal integration and co-ordination between different systems (such as waste water and water systems). New priorities for sustainability as well as financial challenges lead us to re-consider how infrastructure services are delivered.

→ Challenges & Opportunities

- Traditional infrastructure systems have served our community fairly well; changing circumstances (e.g. energy prices, climate change) and new priorities (e.g. economic development, community health etc.) will create opportunities for doing more with less.
- Sanitary sewers are replacing the need for upgraded or failed septic systems in more and more neighbourhoods.
- Energy infrastructure is an emerging strategy for reducing GHG emissions. Viable systems require denser more compact developments which are sometimes at odds with community priorities of acceptability.
- Integrated Resource Management approaches are replacing those of traditional waste management.
- Solid waste is a service managed by the CRD for most municipalities in the region.

→ OCP Strategy

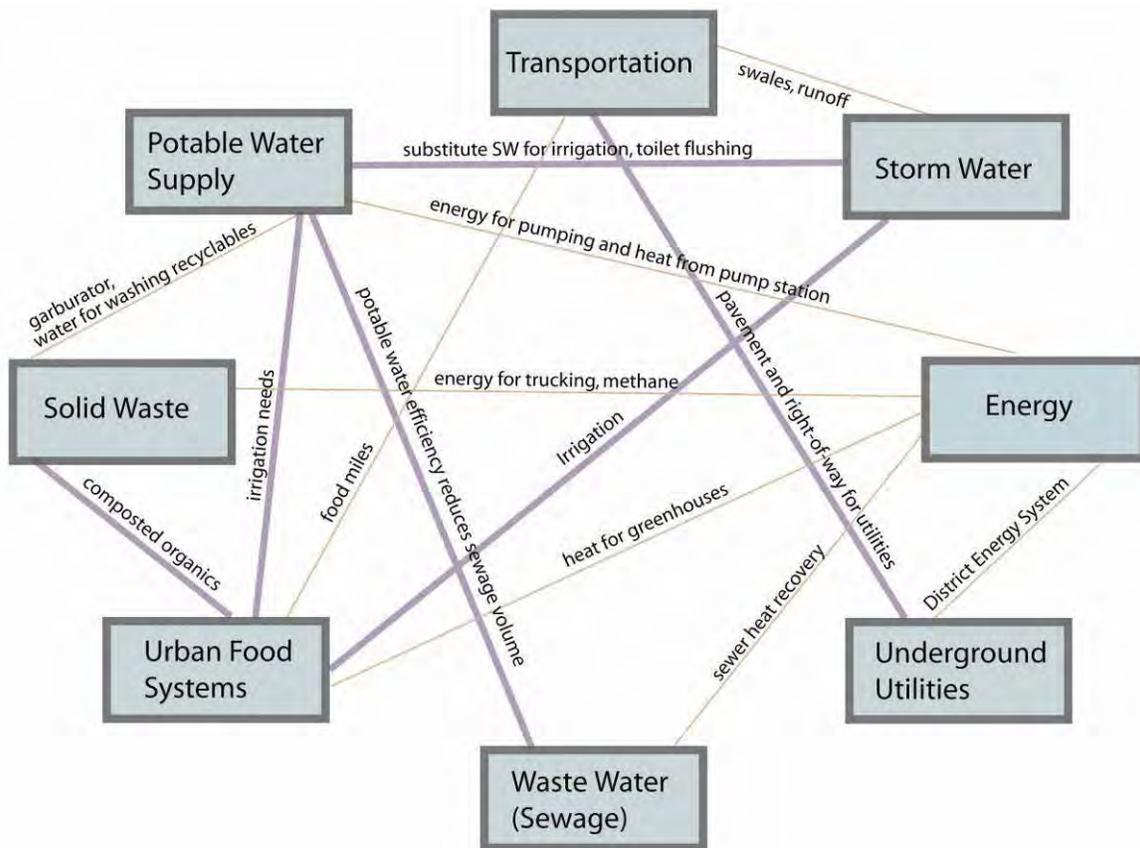
Integrated, green infrastructure systems will address community sustainability goals when and where feasible.

Principles for sustainable and integrated infrastructure include:

- Apply Demand Side Management (DSM) approaches
- Use waste as a resource
- Apply multiple-objective thinking that address social and economical development objectives
- Match resource grade (quality) to end use needs
- Mimic natural systems and incorporate natural systems into design
- Strengthen system resilience and stability though decentralized approaches



→ Examples of Integrated Infrastructure



→ General

- Objective 12.1** Integrate infrastructure systems so as to address multiple objectives.
- Policy 12.1.1 Maximize opportunities for harvesting waste heat or generating energy from water and/or wastewater systems.
- Policy 12.1.2 Maximize opportunities to use treated wastewater or groundwater for irrigation purposes.
- Policy 12.1.3 Maximize opportunities to reuse waste heat from refrigeration systems from commercial and/or civic buildings (e.g. arenas).

Objective 12.2 Practice asset management procedures for municipal infrastructure.

Policy 12.2.1 Develop and adopt asset management policies and procedures.

Policy 12.2.2 Manage aging infrastructure and ensure the resources will be available in the long term to maintain and replace as required.

Objective 12.3 Implement infrastructure programs and projects that ensure mutual benefits to residents and city operations.

Policy 12.3.1 Seek partnerships for the following initiatives:
i. Education (social marketing, workshops, etc.) with other governments and/or non-profits
ii. Use of kinetic energy in water distribution system
iii. Extracting heat energy from sewer mains
iv. On site wastewater treatment and reuse on a neighbourhood or community scale

Objective 12.4 Develop or refine service agreements and develop administrative structures to ensure sustainability objectives are implemented.

Policy 12.4.1 Revise contracts with vendors and/or service providers to address sustainability objectives (see Section 2.0).

Policy 12.4.2 Establish an integrated utility or enter agreements with established utilities to develop and deliver services that deliver on sustainability goals.

Policy 12.4.3 Implement revolving loan funds for promoting energy efficiency upgrades and renewable energy equipment as a means to improve energy-related performance and reduce related GHG emissions.

→ Water

Objective 12.5 Develop a comprehensive development (land and building) strategy that incorporates opportunities for reducing impact on municipal and regional services.

Policy 12.5.1 Adopt strategies that reduce water consumption and wastewater generation such as:

- i. Outdoor technology (irrigation systems, xeriscaping, etc.)
- ii. Greywater reuse (toilet flushing, irrigation)
- iii. Rainwater Harvesting (irrigation, toilet flushing)
- iv. Dual piping systems for fire suppression and indoor residential usage.

Policy 12.5.2 Implement incentives that promote the above strategies including:

- i. FSR exclusions
- ii. Development Cost Charge restructuring
- iii. Density bonusing

→ Wastewater

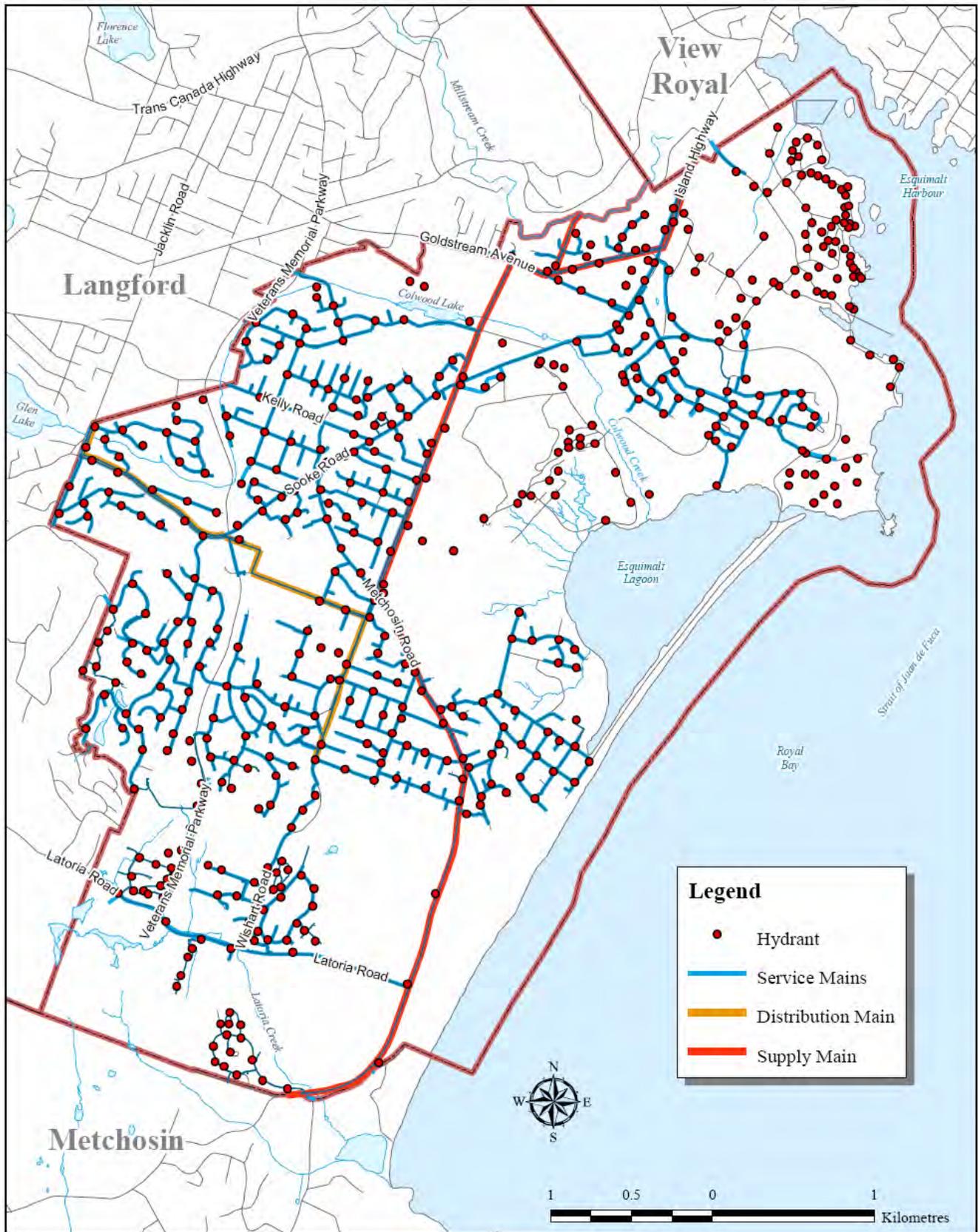
Objective 12.6 Implement sustainable wastewater management and treatment strategies, technologies and infrastructure delivery models.

Policy 12.6.1 Require site-scale wastewater management and treatment for private developments.

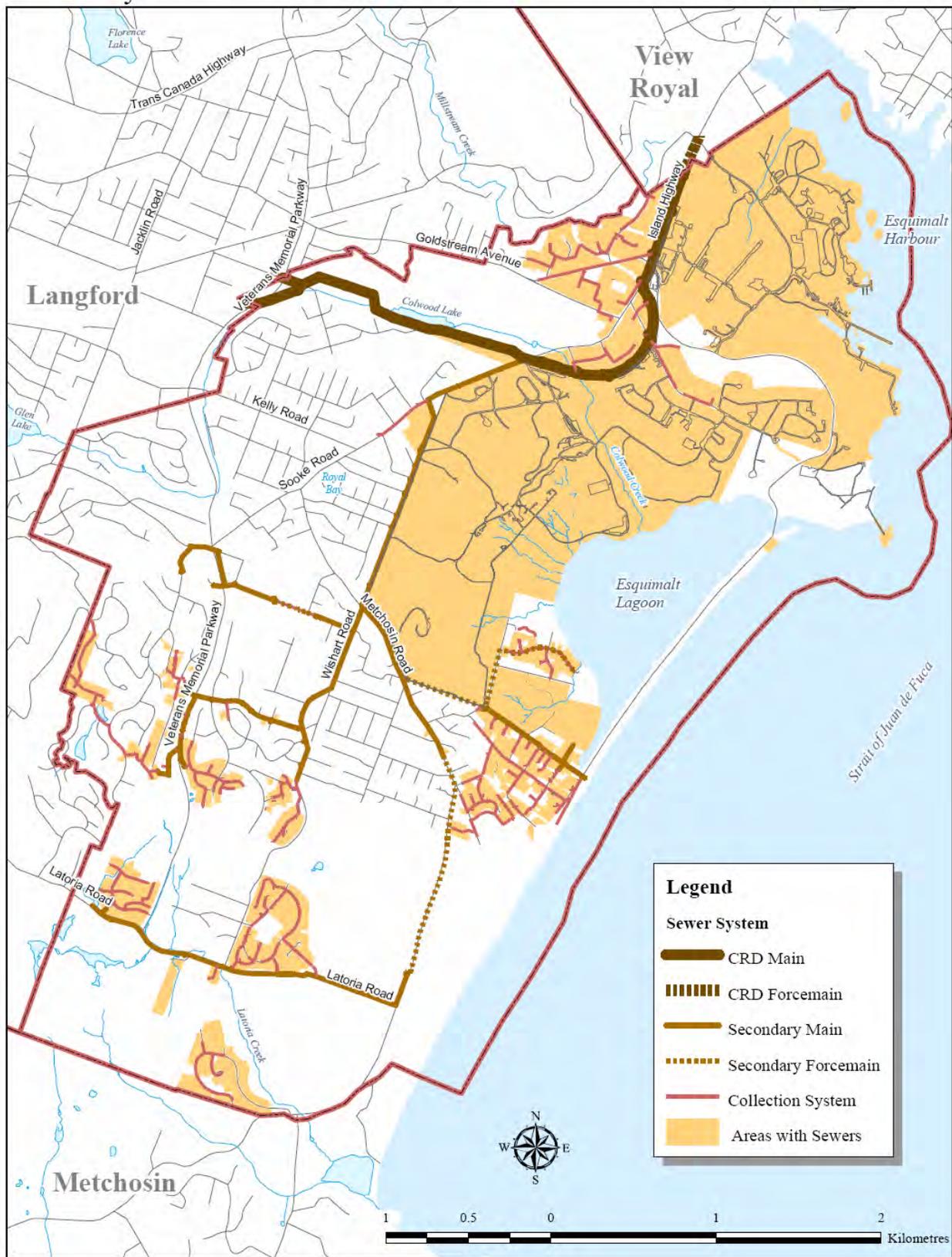
Policy 12.6.2 Investigate and implement integrated wastewater management and treatment technologies that provide local social, economic and environmental benefits.

Policy 12.6.3 Pursue partnerships for delivering wastewater infrastructure for existing and/or new neighbourhoods.

Map 12-1: Water Infrastructure Inventory



Map 12-2: Sanitary Sewer Inventory



→ Rainwater

Objective 12.7 Improve stormwater management practices.

Policy 12.7.1 Develop a stormwater management bylaw or policy that defines best management practices with respect to piping, natural watercourse, setbacks, water quality etc. (e.g. CRD's Model Stormwater Bylaw, or Metchosis's Rainwater Management Bylaw).

Policy 12.7.2 Establish a major flow routing strategy for major storms (e.g. 200 year storm) for the community in collaboration with adjacent municipalities as required.

Objective 12.8 Ensure the long term function of green infrastructure systems are maintained or enhanced.

Policy 12.8.1 Inventory and map green infrastructure and qualify their function (e.g. rainwater drainage, groundwater recharge).

Policy 12.8.2 Plan and design green infrastructure systems in conjunction with "grey infrastructure" systems (roads, sidewalks, public gathering places, schools, etc.) as part of ongoing planning and development. This should occur through:

- i. Integrated Watershed and Stormwater Planning and Management
- ii. Integration of greenways, city, regional and provincial parks
- iii. Stormwater, parks and environmental bylaw updates
- iv. Ongoing planning and development approvals processes

→ Solid Waste

- Objective 12.9** Significantly reduce the amount of solid waste generated.
- Policy 12.9.1 Promote three stream waste separation (recyclables, organics/compostables, and residual garbage) systems to sort at the unit level, building level and possibly at the neighbourhood level.
- Policy 12.9.2 Promote multi-family residential composting programs.
- Policy 12.9.3 Promote community composting in community gardens.
- Policy 12.9.4 Implement a composting demonstration facility that would educate and provide composting instructions for residents.
- Policy 12.9.5 Work with other agencies or businesses to capture the value in waste streams as a means to generate local economic development opportunities.
- Policy 12.9.6 Educate citizens about the benefits of reducing waste as a means to facilitate higher rates of participation in recycling and composting programs.
- Policy 12.9.7 Work with other agencies or businesses to develop a local construction waste recycling program.
- Policy 12.9.8 Discourage construction and demolition waste from building demolition and encourage building disassembly and recycling through varied permit fees (e.g. \$1,000 permit fee for building demolition, \$1 permit fee for disassembly and recycling).

→ Energy Systems

Objective 12.10 Ensure flexibility and ability to adapt to future changes.

Policy 12.10.1 Ensure site service infrastructure can allow for future adaptability.

Policy 12.10.2 Promote 'future-proofing' of buildings and public works to allow for future adaptability and conversion of energy infrastructure systems.

Objective 12.11 Encourage on-site renewable energy generation.

Policy 12.11.1 Secure commitments to on-site renewable energy systems such as geo-exchange, solar energy, wind systems, etc. for development projects.

Policy 12.11.2 Promote reuse of waste heat from civic, industrial and commercial operations for other uses such as heating.

Objective 12.12 Encourage the development of green and efficient district energy systems.

Policy 12.12.1 Ensure densities and infrastructure planning can support viable green or efficient district energy systems at the time of development.

Policy 12.12.2 Secure agreements for district energy systems in private development projects where the scale and density of development will lead to a viable energy system.

Objective 12.13 Utilize energy-efficient or renewable energy equipment for public infrastructure.

Policy 12.13.1 Install or retrofit street lights with more efficient LED light bulbs.

Policy 12.13.2 Install or retrofit traffic lights to use LED bulbs.

Policy 12.13.3 Replace as required all seasonal and festive lights with LED bulbs.

13.0 Regional & Inter-Jurisdictional Cooperation

The City's long term prosperity and ability to thrive is largely influenced by the relationships it maintains with other governments and jurisdictions. The city has a track record of successful collaborations with other jurisdictions and intends to enhance existing relationships and forge new ones as required.

→ Inter-Municipal Cooperation

Objective 13.1 Develop strategies for the efficient co-delivery of services and programs.

Policy 13.1.1 Investigate and implement opportunities to efficiently deliver programs and services with the City of Langford and other neighbouring municipalities. Specific areas may include, but not limited to:

- i. Park acquisition and development
- ii. Recreation programming
- iii. Servicing (e.g. efficient, connected sewers, roads, energy systems or others)
- iv. Ongoing community planning
- v. Greenhouse gas emissions reduction strategies, climate protection and/or climate adaptation
- vi. Sharing and/or providing administrative support services
- vii. Environmental initiatives such as creek and/or watershed enhancement
- viii. West Shore branding
- ix. Local economic development initiatives
- x. Affordable housing

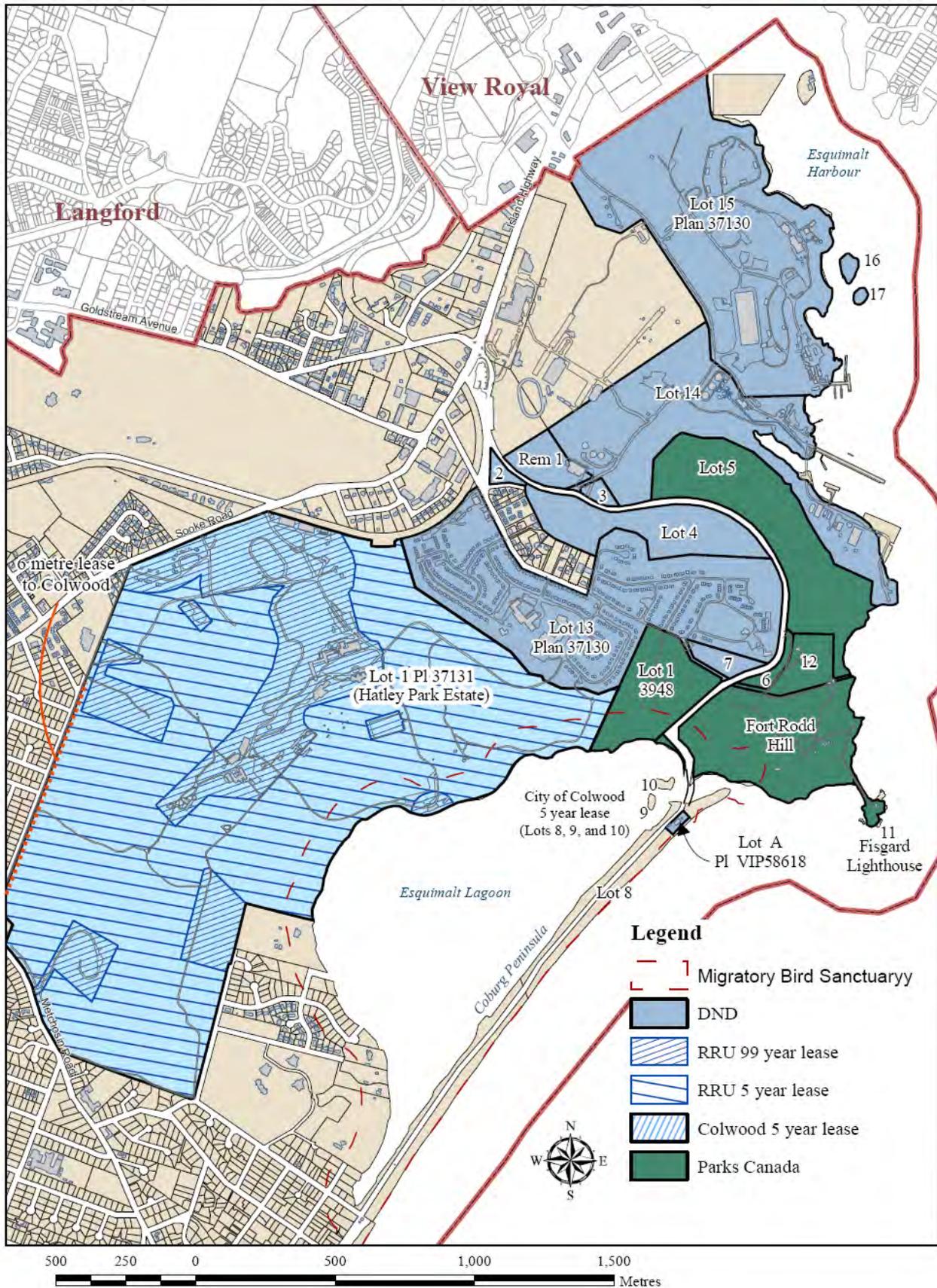
Objective 13.2 Implement regional-scale systems and programs.

Policy 13.2.1 The City recognizes the need for inter-municipal planning in areas such as transportation routes, settlement patterns and economic development. Inter-municipal co-operation and regional liaison on transportation issues such as public transit, road upgrades and rapid transit links (such as LRT or Rapid Bus) between major centres and the metropolitan core is vital to the design and planning process and should be retained on an ongoing basis.

→ OCP Strategy

Work proactively with other jurisdictions to ensure the long term prosperity of the community.

Map 13-1: Federal Lands Inventory



→ Inter-Agency Cooperation

Objective 13.3 Broaden Involvement or Service Agencies in Community Planning.

Policy 13.3.1 Include regional governments and/or private utilities in the planning and development review process.

Objective 13.4 Work with major community institutions and military operations to ensure long-term prosperity in the community.

Policy 13.4.1 Work with Royal Roads University to ensure delivery of programs and services mutually benefit the community and the university.

Policy 13.4.2 Involve the Department of National Defence when considering development applications so as to ensure choices about development (e.g. location and density) do not jeopardize the long term viability of operations in the community.

→ Regional Context Statement

Local planning and land use policies link with and work towards the goals and objectives established in the Capital Regional District's Regional Growth Strategy (RGS). The RGS was approved for the Capital Regional District by the Board for the Capital Region in August 2003. The RGS establishes 8 strategic directions under the following sub-headings:

Managing and Balancing Growth

1. Keep urban settlement compact.
2. Protect the integrity of rural communities

Environment and Resources

3. Protect regional green & blue space
4. Manage natural resources & the environment sustainably

Housing and Community

5. Build complete communities
6. Improve housing affordability

Transportation

7. Increase transportation choice

Economic Development

8. Strengthen the regional economy

Our regional context statement identifies and defines the policy links between the OCP and the RGS. The City of Colwood was incorporated in 1985 and has been experiencing moderate growth and development since this time. However, Colwood is poised for significant growth and change. Large intact sites such as Royal Bay, Colwood Corners, and many other similar sites, are actively being developed and/or are under discussion for changes in land use. This development is consistent with the RGS as it is within the Regional Urban Containment and Servicing Policy Area and the City's centre has been designated as one of the Major Centres on Map 3 (Growth Management Concept Plan) of the RGS. Policies of the City's OCP are generally consistent with or complementary to the policies set out in the RGS, as follows:

Managing and Balancing Growth

<p>1. Keep urban settlement compact.</p>	<p>The City of Colwood boundary is coincident with the Regional Urban Containment and Servicing Policy Area Boundary designated on Map 3 (Growth Management Concept Plan) of the RGS. The Land Use Designation (Map 3.1) of the OCP designates areas where growth is intended and controlled so as to ensure a compact urban settlement. Intended growth areas include a range of centres as land use designations (City Centre, Village Centre & Neighbourhood Centres). Centres are defined by the 5 or 10 minute walkshed that will accommodate a wide range of uses, including residential, commercial, industrial, institutional, and park/open space. Other intended growth areas include a Mixed-use Employment Centre, where mixed-use redevelopment, including housing, is encouraged and Business or light Industrial Centres where business uses are strongly encouraged. The City Centre constitutes the 'Metropolitan Core/Major Centre' in the RGS Map 3 (Growth Management Concept Plan) in Colwood.</p> <p><i>Controlled Growth</i> areas include the existing settled areas in the valley where sensitive infill is permitted and intensification of corridors that connect centres is encouraged. On hillside and shoreline areas that are already developed or undeveloped, development is permitted subject to policies that will limit the extent and intensity of the development.</p> <p>The Our Built Environment Policy Section (Section 5.0) includes detailed policies for each land use designation that focuses on the supporting a nodal pattern of development, transit supportive development and infill generally.</p>
---	---

<p>2. Protect the integrity of rural communities</p>	<p>Colwood does not include any rural communities, being a growth municipality entirely within the Regional Urban Containment and Servicing Policy Area (RUCSPA).</p> <p>The RGS aims to protect the integrity of rural communities through its designations of <i>Capital Green Lands</i> (major parks, ecological reserves and CRD water lands) and <i>Renewable Resource Lands</i> (ALR, FLR and Crown forest). Fort Rodd Hill National Historic Site is identified as a <i>Major Park</i> in the RGS. The OCP puts a high significance of the creation and protection of park areas. The only <i>Renewable Resource Lands</i> identified in Colwood are minor areas of agricultural land reserve. While there is only limited agricultural activity in Colwood and the designated ALR is limited to a golf course and minor park areas, the Colwood OCP contains an objective and policies that are supportive of the community and commercial agriculture.</p> <p>Colwood is adjacent to agricultural land reserve (Renewable Resource Lands) within the District of Metchosin. The <i>Olympic View Area Plan in this OCP</i> contains policies for buffering between this area and urban areas in Colwood. Development Permit Area guidelines for this area contains guidelines with respect to buffering which in turn will be implemented by development permits and covenants prior to development.</p>
---	--

Environment and Resources

<p>3. Protect regional green and blue space</p>	<p>The RGS aims to protect the landscape character, ecological heritage and biodiversity of the Capital Region by supporting the implementation of the Regional Green/Blue Spaces Strategy. Member municipalities agree to work as partners and individually to implement the system identified on Map 4 of the RGS. The OCP in Section 4.0 contains a policy that the City will work with the adjacent municipalities and other agencies to plan parks and open spaces.</p> <p>Areas in Colwood that are identified include the major park and agricultural land reserve areas identified under the previous initiative. The OCP supports a Regional Trail Network and the West Shore Greenbelt. Other areas include land owned by the Government of Canada that is designated on RGS Map 4 as Unprotected Green Space Policy Area. The City's environmental protection and form and character development permit areas are in place to assist in the protection of these lands.</p>
--	---

<p>4. Manage natural resources and the environment sustainably</p>	<p>The RGS intends that residents of the Capital Region enjoy a healthy environment. This strategic direction refers to co-operative initiatives in the area or regional air quality, waste reduction and watershed management. The Colwood OCP contains a number of objectives and policies with respect to environment sustainability.</p>
---	--

Housing and Community

<p>5. Build complete communities</p>	<p>One of the strategic directions under the issue of Housing and Community is the building of “complete communities.” The City’s emphasis on the creation of compact, walkable and mixed-use centres which provide convenient vehicular, transit and cycle/pedestrian access (Section 2.0, 5.0 & 7.0 of OCP) is consistent with Policy 3 of the RGS. Generally, the OCP encourages a variety of housing types and tenures in close proximity to places of work, schools shopping, and recreation.</p>
<p>6. Improve housing affordability</p>	<p>Policy Section 7.0 (Our Housing) of the OCP supports the development of a range of housing choices along the housing continuum to accommodate the needs of all incomes and ages in all parts of the community, including affordable housing. In addition to the types of homes available, secondary suites will be permitted in all parts of the community, in single family and multi-family homes thus increasing the stock of affordable housing options in the City. The City’s Affordable Housing Strategy further addresses the need for affordable housing in the city. Also, Colwood has established an Affordable Housing Reserve Fund to which developer contributions are made when residential density increases are granted.</p>

Transportation

<p>7. Increase transportation choice</p>	<p>The City endeavours to reduce outbound commuting by encouraging an increased supply of housing and work opportunities for people in centres, allowing people to both live, work, and play locally. The OCP identifies a rich multi-modal transportation network that will guide choices about street design that is integrated with the City of Langford and other regional transportation systems. The multi-modal network includes infrastructure for public transit, accommodating a bus rapid transit connection to downtown Victoria, planning long term for rail-based commuter rail service along the E & N Rail corridor, as well as encouraging the creation of pedestrian and bicycle linkages throughout the community connecting centres, extending into surrounding areas and connecting to and through the E&N rail corridor and the Galloping Goose. Also, to increase walking, centres are based on 5 or 10 minutes walksheds (400 & 800m) as a means to focus uses and the intensity of development in such a way that it encourages greater walking. Lastly, a long term plan for a more finely-grained city centre road network is indicated in Section 8.0.</p>
---	--

Economic Development

<p>8. Strengthen the regional economy</p>	<p>The RGS goal of strengthening the regional economy is supported by the City's OCP. The OCP is supportive of development which provides for a variety of uses which add to the interesting and dynamic fabric of the community. A diverse range of economic advancement opportunities are present in the City, from home-based businesses to large scale retail, wholesale commercial areas and business park/industrial areas. An important objective of the OCP is to provide suitable land areas for commercial and business activities to provide local job opportunities and strengthen the City's tax base.</p>
--	---

Inconsistencies between the OCP and RGS

There are no inconsistencies between the OCP and the RGS.

14.0 Development Implementation Information

Pursuant to Section 920.01 of the *Local Government Act*, municipalities are authorized to specify circumstances and designate areas in which development may not proceed until information regarding potential impacts is provided by the developer for assessment by Council. Such additional information may be required as part of the processing of the following types of applications:

- Zoning amendments;
- Development permits;
- Temporary commercial or industrial use permits.

In order to impose the requirement for impact assessments, municipalities must adopt a bylaw under Section 920.1 of the *Local Government Act* which outlines detailed policies concerning the form and content of impact assessment information that is to be provided.

→ Area Designation

All the area within the municipal boundaries of the City of Colwood is hereby designated as a Development Approval Information Area.

→ Justification & Circumstances

Impact assessment information will be used to comprehensively evaluate the consequences of development on community sustainability. Such information will be an integral component of effective land use planning, ensuring that development minimizes adverse affects on the environment, is suitable for the location, makes efficient use of existing community infrastructure and services, accounts for community costs, is the product of informed public consensus and is consistent with the sustainability goals of the City. The development approval information process is therefore intended to:

- Encourage responsive and informed decision-making
- Fully address the range of potential environmental, socio-economic, transportation and fiscal impacts associated with a proposed development
- Facilitate inter-agency cooperation and efficiency
- Promote fairness and consistency in the approval process
- Identify resource needs and constraints, whether public or private, that may impede the success of a development proposal.

In accordance with these objectives, any development which is the subject of an application for rezoning, development permit or temporary use permit and which could appreciably impact may be required to provide development impact assessment information:

- The natural environment
- Transportation patterns
- Local infrastructure
- Public facilities
- Community services
- Social and economic well-being
- Energy conservation
- Water conservation
- Greenhouse gas emissions

Part III – Background Information

15.0 Community Profile

Island & Regional Trends⁴

Most of the population in the Vancouver Island-Coast region is concentrated in the south-east corner of Vancouver Island, particularly within the Capital and Nanaimo regional districts which have experienced population growth and expansions over the past five years.

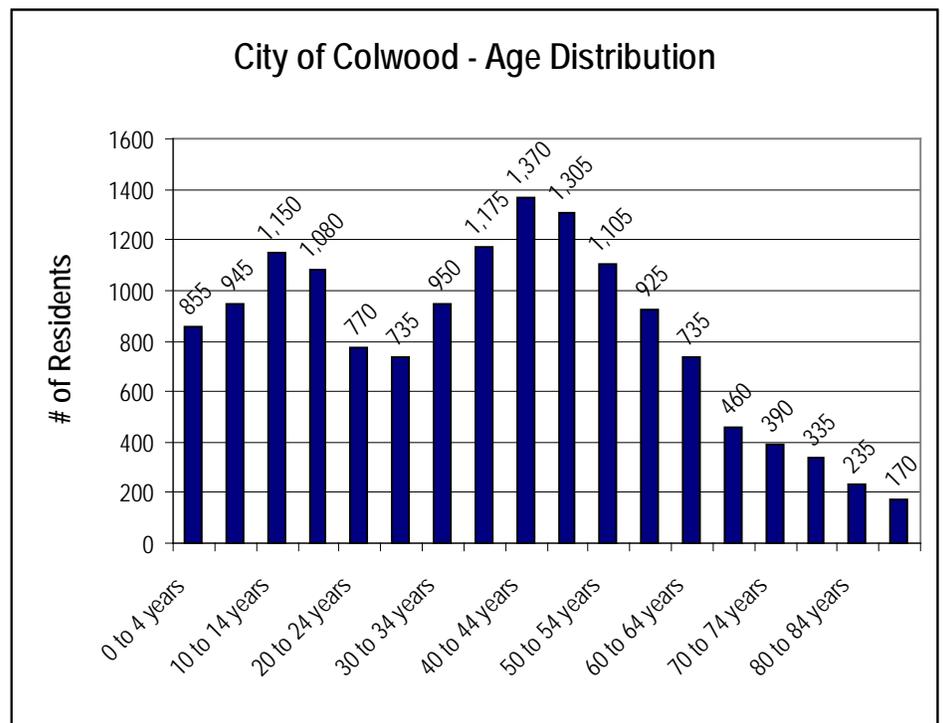
The short-term outlook for south island region is for generally healthy net migration, as the broader area continues to benefit from the recent trends of construction and expansion of its urban areas that are mainly focused in Colwood and Langford. This positive outlook must be tempered somewhat by the continuing decline in labour in the coastal forest industry. Over the long-term, it is expected that the onset of retirement for the 'baby boom' generation will lead to somewhat larger net inflows of migrants to areas like the Capital and Nanaimo regional districts. With the growing number of retirees, attractive areas, particularly those outside of large urban cores will likely experience population growth. From the most heavily populated areas there will likely be some migration outward to nearby communities.

Local Trends

According to Canada Census information, Colwood residents have differing attributes to the average resident of the region. They are younger, having an average age in 2006 of 38.7 years, compared to 43.6 years for the region as a whole.

Not surprisingly, families are larger: the average household size is 2.7, compared to 2.2 for the Capital Region. The average Colwood family has 1.1 children living at home, compared to 0.9 for the region and 1.0 for British Columbia. Other attributes are:

- We are more likely to own our home – 69.7% of private dwellings are owner occupied, compared to 64.7% for the region

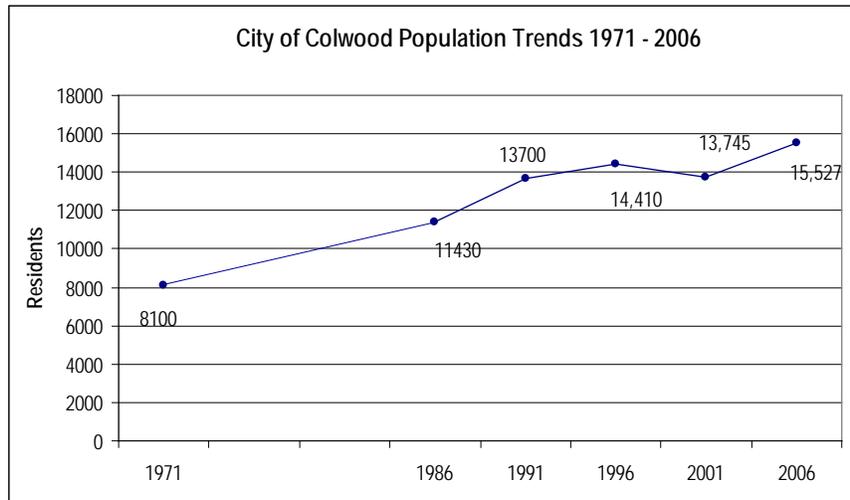


⁴ P.E.O.P.L.E. 32 Regional Migration Assumptions August 2007, BC Stats, Ministry of Labour and Citizens' Services

- We are more likely to live in a single family detached dwelling – 56.9% compared to 42.5% for the region. Today, however, we have more options for housing than in 1991 - single family detached dwelling made up 75% of the housing stock, where in 2006 it represented 56.9% of the total housing stock.

Population Growth

In 1971, Colwood had a population of 8,100 people. Throughout the early 1970's there was rapid growth, with annual growth of 3.7%. While growth slowed in the early 1980's, by 1986 the population had reached 11,430. From 1986 to 1991 there was renewed growth to 13,770 and 14,410 in 1996. As the 1990's progressed growth declined due to market factors and the lack of developable lands that led to a decline in population of 13,745 by 2001.



Developable land and general intensification of land led to a 15,527 persons in 2006. In this period, Colwood's population grew by 7% which was close to the regional average of 6%. Regionally, population growth comes from natural increase and from migration, both inter-provincial and international. Going forward, population projections to 2028 suggest continued growth rates, as the municipality continues to assume a larger share of overall regional population growth. The population is expected to reach over 32,000 in Colwood by 2028. This represents an additional 18,000 persons. Based on population projections, it is estimated that 13,533 dwelling units will be needed in Colwood by 2028. Dwelling estimates assume that average household size declines to 2.4 persons per household in 2028 from the current size of 2.7 persons.

→ What is an Official Community Plan?

An Official Community Plan is a vision, land use plan and policy document for a community. The vision reflects the ideas and input of residents, stakeholders, professionals and staff who participated in the preparation of the Plan. The OCP provides for the integration of land use, economy, environment, transportation, community facilities and services into a broad strategy to direct growth and development. When focused on sustainability, an OCP is an essential means to assist communities in considering and organizing responses to global, regional and local challenges such as climate change and ecosystem health, social development, and the increasingly changing patterns of economic stability.

Some of the key topics that an OCP must address are:

- A vision that reflects community objectives and strategies
- Land use concepts for how, where, what types of development will occur
- Identification and connection of parks and protected areas

- Efficient, serviceable and financially feasible transportation networks that reduce air quality impacts and greenhouse gas emissions;
- A wide variety housing strategies that accommodate the needs of all residents with emphasis on affordable housing;
- Approximate location and area of sand and gravel deposits that are suitable for future sand and gravel extraction;
- Restrictions on the use of land that is subject to hazardous conditions or that is environmentally sensitive to development;
- Approximate location and phasing of any major road, sewer and water systems;
- Regional context statements that detail how the Regional Growth Strategy will be administered and implemented locally;
- Policies respecting the maintenance and enhancement of farming on land in a farming area or in an area designated for agricultural use in the community plan; and
- Policies relating to the preservation, protection, restoration and enhancement of the natural environment, its ecosystems and biological diversity.

OCPs are strategic plans and are mainly intended to guide decision-making and dialogue about choices and directions. Conditions and opinions change frequently in the same way that opportunities or new challenges emerge without notice. For this reason, the *Local Government Act* states that an OCP does not commit or authorize a municipality to implement policies specified in the Plan, however, all bylaws enacted or works undertaken by a Council after the adoption of an OCP must be consistent with the Plan.

→ Community History

The table below gives a brief chronology⁵ of the Colwood area. The City's Heritage Commission and others continue the work of delving into the past to help guide us into the future.

Time	Event
± 10,000 years ago	As the last Ice Age ends, the earth warms & glacial material is deposited as Colwood gravels. A 100m-thick chunk of ice forms a depression as glaciers retreat. Esquimalt Lagoon with its outer peninsula form as ice melts.
± 4,500 years ago	Climate & ecology change; habitats & wildlife establish & help stabilize sandy soil. Tsunami/earthquake events every few hundred years may have caused foreshore erosion.
First People ± 3,000 years ago	People recognize productive ecosystems supporting a bounty of wildlife. Land is used in many ways as settlements come & go over the millennia. Human deposits from two archaeological cultures: ±3000 – 1600 & 1600+ years before the 20 th century. These form the basis for current midden soils.
First Nations	Much of the now-City area is associated with the Teechamitsa family group (pre-1850), as shown in Douglas Treaty documents. Descendents of these & Stsanges people at Tleepet (Albert Head) speak the Lekwungen language, & descendents are known as members of the Esquimalt, Songhees and Becher Bay First Nations. These people developed intensive fish, shellfish, and seafood cultivation, around the foreshore. Elders and modern ethnobotany have revived other land-food management practices (e.g. re: camas, oak acorns) along with hunting practices which date to this time.
18 th & 19 th centuries	New diseases to North America greatly reduce the aboriginal population & economy. Many First Nations people trade with the newcomers through the Chinook, a <i>creole</i> trading language which combined aboriginal languages, English and French.
Colonial Period	The waters off Colwood may have been explored by "Juan de Fuca" (Greek pilot Apostolos Valerianos) for Spain in 1592. In 1790, Manuel Quimper landed at Albert Head/Tleepet and claimed the surrounding area for Spain and named areas. Later that year, as a result of the "Nootka Incident", Spain surrendered its claims to what is now the coast of BC to Great Britain.
1840s	British Navy vessel "HMS Herald" charts & gives English names to land. The Coburg Peninsula's name honours Queen Victoria's consort, Prince Albert of Saxe-Coburg-Gotha (d. 1861), as do the nearby Albert Head, Gotha Point & Saxe Point. HMS Pandora surveyed Esquimalt Harbour and named Fisgard Island after HMS Fisgard and most of the points in the harbour after the officers on the Fisgard, including Rodd Hill and Rodd Point after the 1st Lieutenant, John Rashleigh Rodd. Colony of Vancouver Island (1849) proclaimed. European settlement of the region begins; land surveyed for logging, land clearing and agriculture.
1843	Fort Victoria established at Camosack Harbour. It became the Hudson's Bay Company Pacific Headquarters and base for the Puget Sound Agricultural Company.
1851	James Douglas appointed Governor of Vancouver Island. The Puget Sound Agricultural Company appoints Captain Edward E. Langford "bailiff" of the 242 hectare Esquimalt Farm lying between Esquimalt Harbour and Langford Lake. He calls the farm "Colwood" after his home in Sussex, England.
1850s	Douglas Treaties signed with First Nations family groups (1850) re: continued traditional uses of land. Colony of and British Columbia (1858) established. Huge increase in population with the Fraser River Gold Rush. Esquimalt Harbour made headquarters of British Pacific.
1853 - 55	Chief Justice David Cameron, brother-in-law of Governor Douglas and ex-employee of Hudson's Bay Company, built "Belmont Farm" on land owned by Douglas at now-Fort Rodd Hill National Historic Site. First Royal Navy buildings built on the west side of Esquimalt Harbour.
1860s	Fisgard Lighthouse constructed (1860). Colonies of Vancouver Island and British Columbia

⁵ References include: communication with local National Historic Sites' staff & Millennia Research Ltd Archaeological & Ethnographic Consulting; Heritage Inventory (1988); BC Archives; *A Voice Within Us* by Lillard & Glavin (1998), BC.

	united (1866).
1863	A sawmill, owned by John Gilmore, opened on Colwood Creek in now-Hatley Park National Historic Site.
1871	Gilmore's Sawmill acquired by Mr. Switzer, who converted it to a tannery and shoe factory. July 20: British Columbia becomes the 6th province of the Dominion of Canada
1874	Original Colwood School built on Sooke Road on land donated by Arthur Peatt (Senior), a local farmer.
1879	Possible date of the building of the first Colwood Hotel. Andrew J. Bechtel was the proprietor.
1887	Military maps indicate the presence of a water storage tank and flume across the non-tidal portion of the beach at the south end of the Esquimalt Lagoon. The tank was gravity-filled from one of the springs in this area. Water from this tank was then transported by "Daisy", a flat bottomed stern-wheeler, to Esquimalt Harbour to provide fresh water for Royal Navy vessels. A rifle range also indicated at the north end of the Coburg Peninsula. Lead shot remains left in Esquimalt lagoon & on the Coburg peninsula.
1890's	Saint Matthew's Presbyterian Church moved from Craigflower to Colwood and re-built on land donated by Alfred Peatt. Roland Stuart acquired 100 hectares (250 acres) fronting on Esquimalt Lagoon, naming it Hatley Park. The house he built was destroyed by fire in 1905.
1892	William John Wale leased the Colwood Farm for the sum of \$400 per year.
1895	Fort Rodd Hill gun batteries built and guns installed at Rodd Hill (1897) and Belmont batteries (1900). The Fort guarded the entrance to the Royal Navy yards at Esquimalt.
20 th Century	The area remains highly culturally significant for First Nations & contains much pre & post-contact heritage.
1900	The Oak Dell Hotel, a 2-storey building, built in near the 2100 block of Sooke Rd. The proprietor was Mr. DeMeres.
1905	Honourable James Dunsmuir, member of the B.C. Legislature, coal baron, builder and owner of the Esquimalt and Nanaimo Railway, purchased land for <i>Hatley Park</i> , to be his Edwardian Estate.
1909	Hatley Castle, designed by Samuel McClure, completed at Hatley Park.
1910	The Colwood Women's Institute formed.
1911	Construction begins on the Canadian Northern Pacific Railway from Victoria to Cowichan Lake.
1911-1913	Saint John the Baptist, an Anglican Church, built with the aid of fund-raising by the Women's Institute of Colwood and the support of Mrs. Laura Dunsmuir.
1914	World War I, Ft Rodd Hill manned. Colwood Golf and Country Club formed.
Interwar period	±1920s: First Dug-out Pub built (second after fire in 1939) by Fred Buxton, summer cottages. 1930s: A wooden road bridge is completed to the north end of the Coburg Peninsula, now Ocean Boulevard; naval supply depot built, magazines moved west from Cole Island. First Nations' traditional uses decline with urbanization, anti-hunting laws.
1920+	F.W Jones begins gravel mining between the foreshore and now-Gratton Road, which later expands to the ~250 ha Construction Aggregates/ <i>CA Pit</i> , later Lehigh/ Royal Bay. Other sites developed at now-Alandale Road/ <i>Ridley</i> or <i>Allandale Pit</i> , and at now-Acland Avenue <i>Pattison Pit</i> .
1931	King George V granted the use of "Royal" to the Colwood Golf Course. Esquimalt Migratory Bird Sanctuary created by federal government to 100 m (300 ft) inland.
c.1936	Emily Carr camps in her <i>elephant</i> near Esquimalt Lagoon and paints <i>Above the Gravel Pit and Lagoon at Albert Head</i> .
World War II	Military use intensifies. Defence Department takes over the Dugout pub (now-Ranger Station) and builds shed at south end of Coburg Peninsula as part of degaussing test range. Additional barracks are built at Fort Rodd Hill and Colwood camp and anti-aircraft gun battery are constructed at the current location of the West Shore Recreation Centre.
1940	Federal Government converts the Dunsmuir's Hatley Park estate into a naval training establishment.
1942	The Fortress Fire Command Post for the coastal defence system built on Triangular Hill (now Triangle Mountain).
1946	Colwood Volunteer Fire Department established.
1950	The Royal Canadian Mounted Police took over policing the area, establishing their

	headquarters in the former gatehouse of Hatley Park Estate.
1958	Fort Rodd Hill & Fisgard Light designated National Historic Sites & open to the public in 1962.
1967	Centennial Pool constructed at Juan de Fuca Recreation Centre.
1985	Incorporation of the City of Colwood. City inherits settlement plan from CRD as 1 st OCP.
1988	Completion of Colwood City Hall, designed by Marshall & Goldsworthy, Architects.
1995	First classes at Royal Roads University; Hatley Park designated a National Historic Site.
1997	CRD Trunk sanitary sewer and first phase of the Colwood system in service. Juan de Fuca Library Branch built on Island Highway. Colwood's 2 nd OCP complete.
1999	OCP and Zone amendments permit the Royal Bay mixed-use residential development to begin to take place on 14% of the City's land area in south-east Colwood.
1999 - 2000	Centennial Pool demolished and replaced by new Juan de Fuca swimming pool.
2002	Veterans Memorial Parkway built to connect Latoria Road to the Trans Canada Highway.
2003	The 16.8 ha (40 ac) Havenwood Park established. Island Highway – Sooke Road (View Royal boundary to Veterans Memorial Pkwy/Hwy 14), transferred from Provincial to City responsibility.
2004 - 2006	Promenade (1.4 ha, 3.5 ac), Latoria Creek (12.7 ha, 31.4 ac), and Perimeter Path (3.4 ha, 8.5 ac) Parks dedicated at the Royal Bay development in South Colwood.
2007	The north half of the Coburg Peninsula purchased from the federal government for park.
2008	Gravel mining ends at LeHigh Cement's gravel pit at Royal Bay giving way to the expanded development of a new waterfront community with additional schools City park land. City's 3 rd OCP complete & wins UBCM innovation award for working with the City of Langford.

→ Public & Stakeholder Involvement

This OCP is the result of a one year process that was carried out jointly with the City of Langford. The process involved a broad group of individuals at the following key stages:

OCP Steering Committee <i>May 2007-April 2008</i>	12 volunteers from the community over approx. <i>7 meetings total</i>
Futures Forum <i>June 23-24, 2007</i>	225 people from Colwood & Langford with a minority of individuals from the region
Stakeholder Workshops <i>Oct. 1-2, 2007</i>	Est. 125 local, regional or provincial stakeholders. Representatives from the following organisations participated in one (or more) of 12 workshops: <ul style="list-style-type: none"> • Royal Roads University • West Shore Economic Development Association • West Shore Chamber of Commerce • CFB Esquimalt • Capital Families • Luxton Farmer's Market • Goldstream Food Bank • Agrology Consultant • Capital Region Food & Agricultural Initiative Roundtable • Capital Regional District - Water • Capital Bike and Walk Association • Turner Lane Properties • Inter-municipal Advisory Committee on Disability Issues (IACDI) • Colwood Association for Smart Growth • Esquimalt Lagoon Enhancement Association • School District 62 • Westhills Green Community • Pacifica Housing • M'akola Housing • CRD Housing • BC Housing • Habitat for Humanity • Coordinator of Arts in the Park • Luxton Fall Fair Organizing Committee • Community Council • RCMP • Gary Oak Ecosystem Recovery Team • West Shore Parks & Recreation Society • Esquimalt Lagoon Stewardship Initiative
OCP Design Workshop <i>Nov. 10-14, 2007</i>	150 people from Colwood & Langford over 4 days.
OCP Draft Open House <i>March 8, 2008</i>	200 people from Colwood & Langford
Colwood OCP Draft Open House <i>April 22, 2008</i>	22 people attended at Colwood City Hall

Part IV: Development Permit Areas & Guidelines

16.0 General

→ Background

A development permit may not vary use, density or floodplain provisions. Where an area is designated a development permit area, the following apply unless the owner first obtains a development permit:

- The land within the area shall not be subdivided;
- Construction of or addition to a building or structure shall not be commenced;
- Land must not be altered when it is within an area designated for:
 - Protection of the natural environment, its ecosystems and biological diversity, or
 - Protection of development from hazardous conditions;
- Land, or a building or structure on a Provincial or municipal heritage site, shall not be altered; and
- Land, or a building or other structure on that land, must not be altered when it is within an area designated for:
 - Revitalization of an area in which a commercial use is permitted, or
 - Establishment of objectives to promote: energy conservation, water conservation, or reduction of greenhouse gas emissions.

A development permit issued is to be in accordance with the stated guidelines. All of the respective guidelines may not be applicable in every permit; however, in situations where a guideline is not appropriate to the particular circumstances, Council may deem the guideline to be not applicable.

Council may also issue a development permit which varies or supplements a regulation of the Subdivision or Land Use Bylaw.

Every application for a development permit shall be accompanied by plans indicating the following:

- Location of all buildings and structures;
- Siting of parking areas, driveways, and loading docks;
- The extent and nature of landscaping, including details of trees to be maintained or proposed to be planted;
- The exterior finish, materials, and colour of buildings and roofs; and
- Location, number, and type of signage.

Applicants are required to provide a checklist or statement indicating how their proposal complies with these guidelines. Where some element of the design does not comply with a guideline, a justification stating the divergence and the reason shall be made. Council may diverge from these guidelines where a compelling rationale which preserves the qualitative intent of the guidelines is supplied. If, during a consultative process, Council receives a compelling reason for modifying a guideline, the applicant shall be requested to consider amending the proposal.

The City will require security to ensure the installation and maintenance of landscaping in compliance with these guidelines. All Development Permit applications must provide a professional landscape plan prepared by a Landscape Architect (BCSLA).

→ General Designations, Objectives and Justifications

The City of Colwood has hereby designated all the areas indicated below as development permit areas pursuant to provisions in the *Local Government Act*.

- a) Riparian Area and Marine Foreshore related areas shown on Map 16.1, based on those characteristics indicated on Environmental Inventory Maps 4.1, 4.2 and 4.3. The designation is justified by the City's desire to:
 - i. preserve and enhance riparian features and prevent slope instability and erosion in the areas adjacent to all water bodies;
 - ii. protect and enhance the built and natural environments where clay soils are a barrier to water under pressure or trap surface water;
 - iii. preserve and enhance the sensitive ecosystems, general habitat, biodiversity and natural environment regimes whenever possible; and
 - iv. protect fish habitat in accordance with the Provincial Ministry of Environment's Riparian Areas Regulation enacted under the *Fish Protection Act*.

Areas illustrated on Map 16.1 include the following areas within and adjacent to all streams:

- For a stream, a 30 metre strip on both sides of the stream, measured from the natural boundary;
- For a ravine less than 60 metres wide, a strip on both sides of the stream measured from the natural boundary to a point that is 30 metres beyond the top of the ravine bank;
- For a ravine 60 metres wide or greater, a strip on both sides;
- For a lake or wetland, all areas within 30 metres of the natural boundary; and
- Any area within 15 metres of a non-fish-bearing stream, lake or wetland.

The Stream Riparian Assessment Areas include the following types of riparian areas that provide fish habitat:

- The following watercourses known to have fish present: Colwood Creek, Latoria Creek, Selleck Creek, Bee Creek, Joe's Creek and Millstream Creek; and
- All other streams, lakes and wetlands in the Plan Area, whether mapped or unmapped, are also designated as Development Permit Area as fish or fish habitat may be present, or they may flow into a water body that provides fish habitat.

- b) Sensitive Ecosystems and Hazardous Conditions areas shown on Map 16.1, based on those characteristics indicated on Environmental Inventory Maps 4.1, 4.2 and 4.3. The designation is justified by the City's desire to:
 - i. protect development from hazardous conditions such as slope instability, landslip, erosion and hazards from falling trees; and
 - ii. preserve and enhance the sensitive ecosystems, general habitat, biodiversity and natural environment regimes whenever possible.
- c) Form and Character Areas shown as Centre, Mixed-Use Employment Centre, the Business/Light Industrial Centre, Neighbourhood, Hillside and Lagoon Estates/Aquattro on Map 16.2. The designations are justified by the City's desire to:
 - i. Revitalization of designated commercial areas;

- ii. Establishment of objectives for the form and character of commercial, industrial and multi-family residential and intensive residential development; and
- iii. Establishment of objectives to promote energy conservation, water conservation, and the reduction of greenhouse gas emissions.

→ Exemptions

Notwithstanding the designation of an area as a development permit area, the Local Government Act provides that conditions may be specified under which a development permit is not required. In an Environmental Protection Development Permit Area, a development permit is not required in the case of:

- a) A subdivision which consists of a parcel line adjustment or consolidation;
- b) A subdivision for park purposes;
- c) A one-family dwelling or a two-family dwelling on a parcel which was created by a plan of subdivision for which a development permit has been issued;
- d) Additions or renovations which do not encroach further into the designated development permit area where the building is connected to the community sanitary sewer system;
- e) Additions or renovations on a parcel with in-ground waste water disposal which neither have plumbing (increased water usage for bathroom or kitchen area) nor are less than 15 m² in area;
- f) An accessory building or sundeck less than 15 m² (161 ft²) in area which is located at least 15 metres (50 ft) from the foreshore or at least 3 metres from a slope of 30% or more in grade;
- g) Fences 30 metres (100 ft) or more from a watercourse or foreshore;
- h) Park or trail improvements within a dedicated park;
- i) Road or utility works within a dedicated highway;
- j) Renovations, repairs and maintenance to existing buildings that are protected by Section 911 of the Local Government Act;
- k) Removal of hazardous trees that threaten the immediate safety of life and buildings;
- l) Minor interior and exterior renovations to existing buildings, excluding any additions or increases in building volume;
- m) Removal of invasive non-native vegetation such as Gorse, Scotch Broom, English Ivy, Daphne, and its immediate replacement with vegetation native to the surrounding ecosystem; or
- n) In an area where ground water discharge is the only issue an exemption will be permitted with a subsurface geology report by a professional engineer and an agreement to abide by the report together with the planting of vegetation native to the surrounding ecosystem.

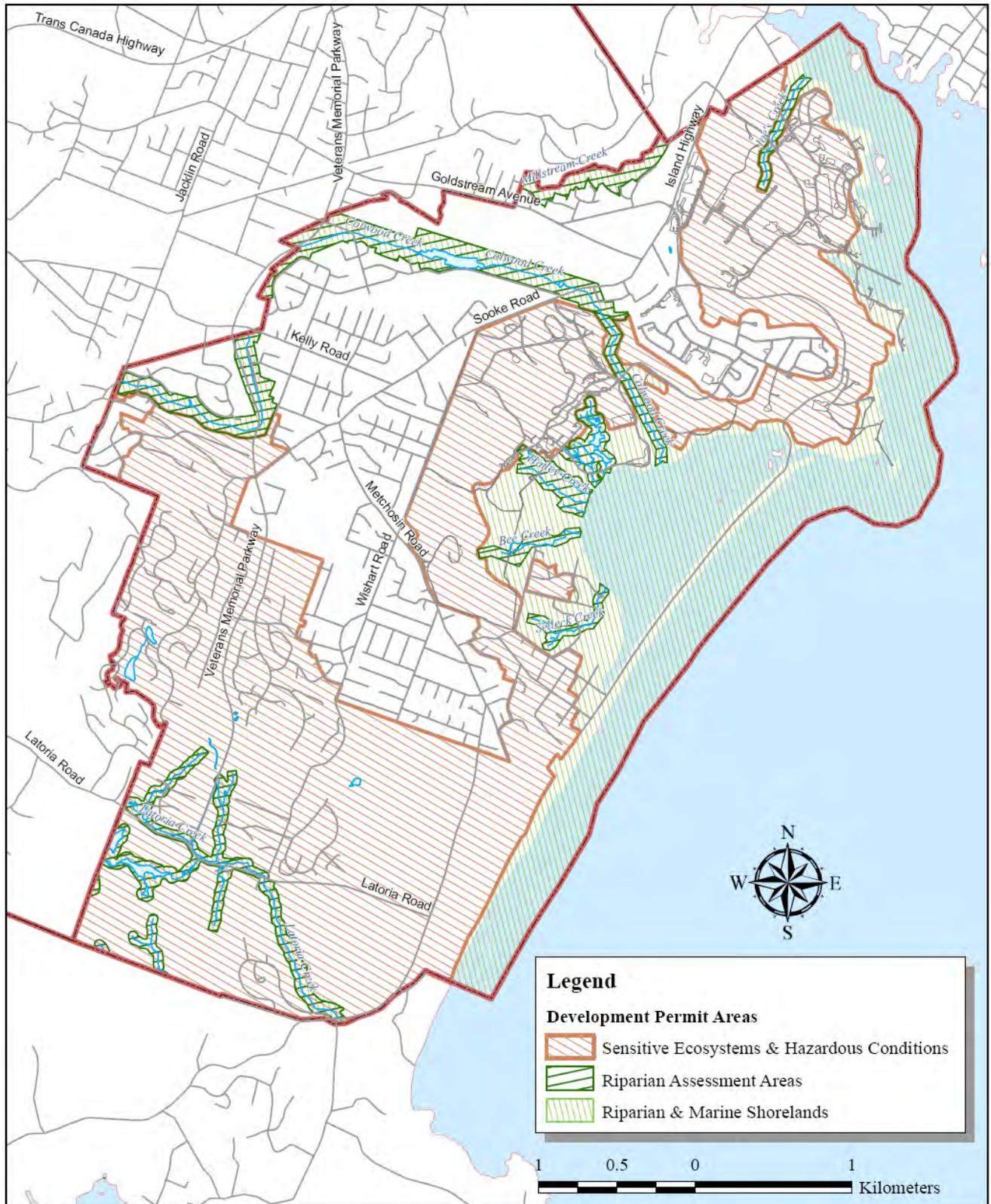
In a Commercial, Industrial, Intensive Residential and Multi-Family Residential development located in the Form & Character Development Permit Areas, a development permit is not required in the case of:

- a) An internal alteration (a change or extension in the interior of a building to any matter or thing regulated by the B.C. Building Code);
- b) A minor alteration to the exterior of a building that does not change the architectural character of the development; For the purpose of this Section, — minor is defined as a change which does not:
 - i. Alter the siting more than 5% of the approved siting (based on the site coverage of all buildings);
 - ii. Increase site coverage more than 5% of the approved coverage;
 - iii. Increase any bylaw non-conformities;
 - iv. Constitute more than \$10,000 in value to construct; or
 - v. Comprise more than 200 m² (2,153 ft²) of gross floor area.

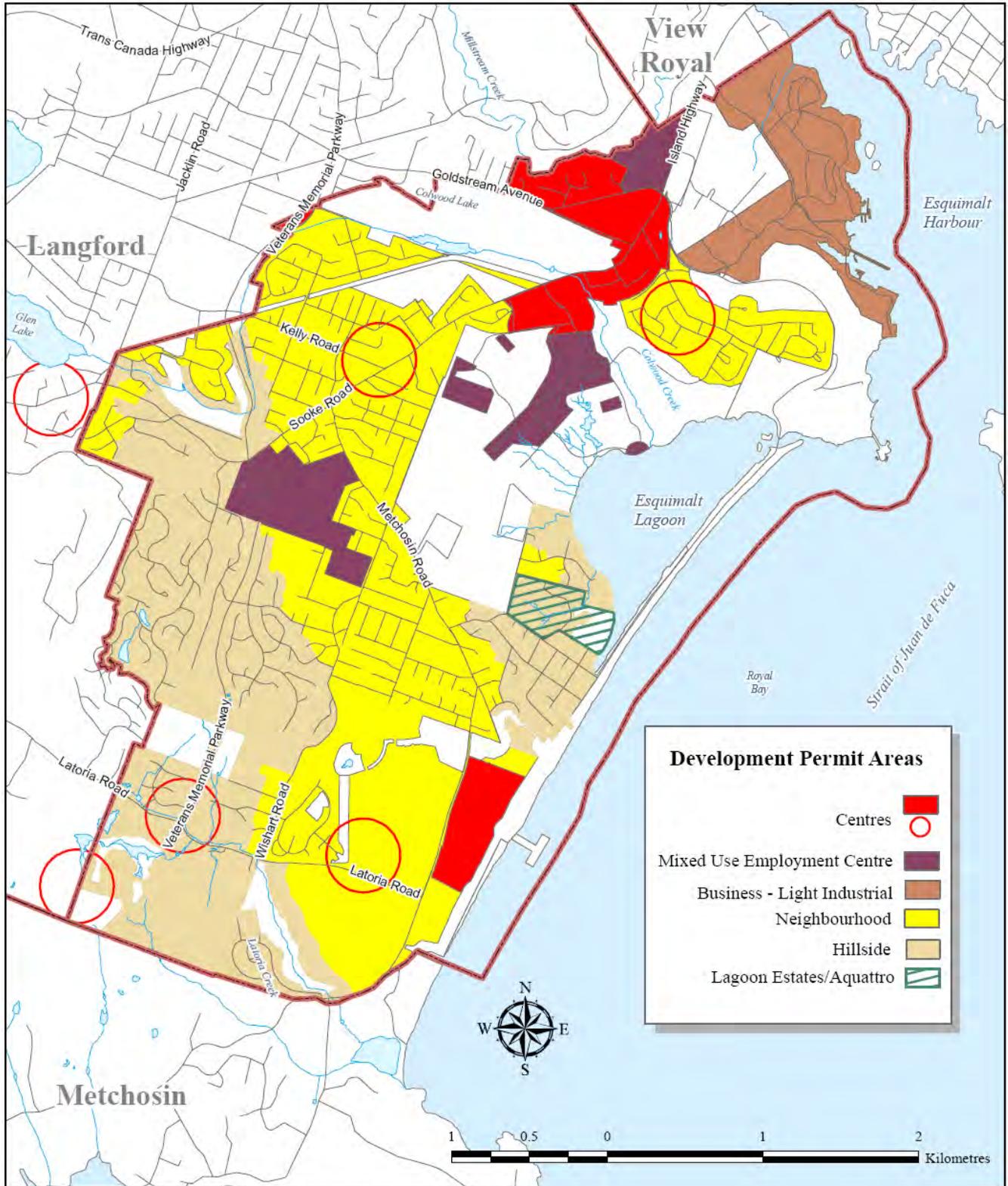
- c) Accessory, other minor buildings, and additions which are consistent with the architectural theme (form, character, materials and colour scheme) of the proposed or existing building provided that the additional structures comprise less than 10% of the total square footage of buildings (as approved in a Development Permit) on the site and provided that they are not in an environmentally sensitive area or floodplain;
- d) Temporary buildings or structures that are erected either for offices for construction or marketing purposes for a period that is not expected to exceed the duration of such construction, or one year, whichever is less;
- e) A fence of not less than 1.5 metres in height;
- f) A subdivision of three parcels or less;
- g) Park or trail improvements within a dedicated park;
- h) Road or utility works within a dedicated highway;
- i) For minor changes to design and finish of buildings, or landscaping; and
- j) Propane tanks where permitted by zoning, provided that they are not located in required front yards and are screened with landscaping (designed and installed by landscaping company) or fencing from adjacent residential properties.
- k) The erection of temporary tent structures, provided that:
 - i. The structures are not erected, or allowed to be standing on site before April 15th or after September 15th of any calendar year; and
 - ii. A building permit has been issued with respect to the tent structure;
 - iii. The tent structure is accessory to a commercial, business park, or industrial use occurring on the same property;
 - iv. The applicant has deposited with the City of Colwood a bond, to the satisfaction of the City Planner, sufficient to allow for the removal of the structure; and
 - v. The structure does not remain in use for a period of more than 14 days.



Map 16-1: Development Permit Areas – Environmental



Map 16-2: Development Permit Areas - Form & Character



17.0 Riparian Area & Marine Foreshore Guidelines

The areas included on Map 16.1 include environmentally sensitive areas in or around lakes, streams, wetlands, and the sea. *Riparian* areas are those areas adjacent to streams that contribute to the proper functioning condition of the stream and are distinctly marked on the map. For the purposes of this Development Permit Area, sensitive *foreshore* areas extend from the low tide mark to 11 m elevation above the sea where it is common to have a very high water table (or “perched water”).

17.1 Riparian & Wet Area Guidelines

17.1.1 Require a development permit for any ‘development’ (as defined by the B.C. Fish Protection Act and Riparian Areas Regulation) in this development permit area. Issuance of a development permit is subject to the following guidelines.

17.1.2 For fish-bearing water bodies, require an assessment report prepared by a qualified environmental professional in accordance with the *Riparian Areas Regulations* in support of a development permit application and for City issuance of a development permit. The report must identify the width of the streamside protection and enhancement area (*SPEA*) to be protected, and measures necessary to protect the integrity of the streamside protection and enhancement area. The qualified environmental professional must:

- Certify he or she is qualified to conduct the assessment;
- Certify he or she has followed the assessment methods set out in the Schedule to the Riparian Areas Regulation;
- Provide an opinion that no natural features, functions or conditions that support fish life processes in the assessment area will be harmfully altered, disrupted or destroyed; and
- In the event that there will be a harmful alteration, disruption or destruction of natural features, functions, and conditions that support fish life processes in the stream riparian assessment area (i.e. a *HADD*), obtain authorization from the Minister of Fisheries and Oceans, Canada or authorization under a regulation under the Fisheries Act (Canada).

City issuance of a development permit is subject to notification from the Ministry of Environment or Fisheries and Oceans Canada that they have been notified of the proposed development, provided a copy of the assessment report with the proper certifications and have provided the proper authorizations.



- 17.1.3 A riparian area assessment report may not be required where a previous report has been done or a SPEA established. Applicants are encouraged to check City and Provincial records.
- 17.1.4 Require a report for all riparian areas from a Registered Professional Biologist, identifying *environmentally valuable resources*¹ and wildlife values other than fish, including but not limited to amphibians and wildlife corridors. The report will identify measures to protect, enhance and restore ecosystem values and the proper functioning condition of the stream, lake and/or wetland.
- 17.1.5 Provide a report, certified by a professional geotechnical or civil engineer that identifies any natural hazards along lakes and streams (including groundwater discharge), to assist Council in determining what conditions or requirements it will impose in the permit.
- 17.1.6 Ensure proper functioning condition by showing that proposed developments and timing of construction that:
- Avoid any damaging impact on the natural features, functions and conditions of the streamside protection and enhancement areas, unless authorized in the *HADD*;
 - Avoid any encroachment into the streamside protection and enhancement areas, except as authorized in the *HADD*; and
 - Avoid or mitigate any erosion or sedimentation that may affect the stream, lake or wetland.
- 17.1.7 Require that:
- Areas of land in addition to the *SPEA*, specified in the permit, must remain free of development, except in accordance with any conditions contained in the permit;
 - Specified natural features or areas be preserved, protected, restored or enhanced in accordance with the permit;
 - Natural watercourses be dedicated through return to Crown or to the City;
 - Require works be constructed to preserve, protect, restore or enhance watercourses or other specified natural features of the environment;
 - Protection measures, including that vegetation or trees be planted or retained in order to preserve, protect, restore or enhance fish or other wildlife habitat;
 - Riparian areas; control drainage, or control erosion or protect banks;
 - An explanatory plan or reference plan prepared by a BC Land Surveyor delineate the identified streamside protection and enhancement area;
 - Development comply with Land Development Guidelines for the Protection of Aquatic Habitat (published by Fisheries and Oceans Canada and the Ministry of Environment, Land and Parks, May, 1992), Develop with Care: Environmental Guidelines for Urban and Rural Land Development in British Columbia (Ministry of Environment, March 2007), Standards and Best Practices for Instream Works (Ministry of Environment, March 2004), Ministry of Environment timing windows for in-stream works and other federal and provincial guidelines that may apply;
 - The water body be protected from any harmful inputs, including from septic fields, stormwater runoff or sedimentation;
 - Dwellings be located as far away as possible from the lake, stream or wetland; and

¹ The Ministry of Environment defines “environmentally valuable resources” to include all features, places, and species whose presence enhances the biodiversity of the area.

- Stream banks be protected by leaving stream banks intact and by not altering slopes and vegetation. Leave strips of adequate width, a minimum of 15 metres (50 feet), adjacent to watercourses, will be maintained in a natural state. All necessary landscaping measures will ensure the stabilization of banks and prevention of erosion.

17.2 Foreshore Guidelines

- 17.2.1 Locate buildings and structures on the site in areas that are the least environmentally sensitive to development and in accordance with the environmental protection policies contained in Section 4.1.2 and on environmental inventory maps 4.1, 4.2 and 4.3. Determine the type, location and condition of natural features on the site and adjacent sites prior to determining what area to build on.
- 17.2.2 Protect water quality and natural systems by leaving stream banks intact and by not altering slopes and vegetation.
- Provide leave strips of adequate width, a minimum of 30 metres (100 feet), adjacent to watercourses and foreshore, to be maintained in a natural state.
 - Require all necessary landscaping measures to ensure the stabilization of banks and prevention of erosion.
 - Ensure that construction in or near waterways complies with provincial and federal legislation and regulations (including the Canada Fisheries Act, BC Fish Protection Act and Riparian Areas Regulation, and BC Water Act).
 - Ensure that construction takes place only during prescribed timing windows for fish and other wildlife.
- 17.2.3 Restrict the entrance of pollutants and effluent into watercourses through best management practices, and prohibit fill material from being placed within 30 metres (100 feet) of any watercourse.
- 17.2.4 Require a report from a Registered Professional Biologist to accompany the request for a development permit. This report will identify all environmentally valuable resources, and provide recommendations on how these values will be protected, enhanced or restored as a condition of development.
- 17.2.5 Retain existing trees and vegetation wherever possible. Minimize tree and vegetation removal within 100 metres (320 feet) of Esquimalt Lagoon. Retain or establish marine near shore riparian vegetation including large trees. Replace all riparian or aquatic vegetation directly or indirectly lost through shoreline activities. Council may request a survey of the existing site and a description of functions the vegetation is providing. Council may request a vegetation management and replanting plan for any project that impacts marine riparian vegetation.
- 17.2.6 Retain trees containing the nests of Great Blue Herons, Eagles, Osprey or other protected species and provide an adequately sized buffer to ensure the continued viability of the nest site.
- Refer to the Ministry of Environment “Develop with Care: Environmental Guidelines for Urban and Rural Land Development” for buffer distances.

- Where there are nest trees, ensure that construction takes place only during the timing windows specified for nesting and rearing birds, as identified by the Ministry of Environment.
- 17.2.7 Do not locate new buildings within the Esquimalt Lagoon Migratory Bird Sanctuary, or at least 100 metres (320 feet) from the lagoon high water mark.
- 17.2.8 No new on-site sewage disposal systems are permitted, unless it can be demonstrated that water discharges are treated to a quality acceptable to the City, Vancouver Island Health Authority and Ministry of Environment.
- 17.2.9 Prior to the issuance of a building permit, a professional engineer will certify that the proposed development, both during and after construction, will not be affected by or contribute to high water table or ground water problems.
- 17.2.10 All storm drainage will pass through an oil separator or approved alternative mechanism prior to discharging into a natural water body. The owner shall be responsible for regular cleaning and maintenance of the oil separator or similar facility.
- 17.2.11 Due to the shallow sensitive nature of Esquimalt Lagoon:
- Minimize the use of power boats on Esquimalt Lagoon through limiting public access to launching sites; and
 - Minimize potential conditions where boats, floats and rafts on may run aground on spawning beds or other sensitive areas.
- 17.2.12 Avoid placing docks or piers in tidal flats because of the excessive length required. Do not permit new docks or structures within Esquimalt Lagoon.
- 17.2.13 Conduct a geotechnical survey to identify anticipated shoreline erosion over the longest period feasible, including impacts from anticipated sea level changes. Enhance natural shoreline processes.
- 17.2.14 Before the issuance of a development permit, the applicant may be requested to furnish, at his expense, a report, certified by a professional geotechnical or civil engineer, and professional biologist/ecologist, to assist Council in determining what conditions or requirements it will impose in the permit.
- 17.2.15 Avoid and minimize over-water structures in areas inventoried as forage fish spawning.
- 17.2.16 Implement sensitive or 'greenshores' activities with other agencies or independently where possible:
- Minimize the footprint and number of pilings associated with over water structures and do not allow use of treated wood.
 - Avoid and minimize area disturbed during near shore construction activities. Minimize construction activity during egg deposition period.
 - Identify intact beaches and protect them through appropriate shoreline designation or uses.
 - Minimize displacement of beach area by pilings or other structures.

- Provide protected migration corridors, especially between estuaries and marine waters through shoreline and open space access management.
- Protect marine riparian area and require mitigation for lost habitat elements such as trees, logs, and boulders associated with it.
- Protect marine vegetation especially kelp and eelgrass beds.



18.0 Steep Slopes, Sensitive Ecosystems & Hazardous Conditions Guidelines

18.1 General Guidelines

- 18.1.1 Conduct Environmental Impact Studies in accordance with the designation made in the features mapped in Section 4.0 of this bylaw. An Environmental Impact Study means a report prepared by one or more registered professional biologists that identifies wildlife, plants and plant communities, wildlife corridors, aquatic species and high value habitat, and recommends:
- development patterns and servicing to minimize impact on rare, endangered or sensitive wildlife and plants;
 - wildlife corridors;
 - appropriate biodiversity;
 - mitigation and enhancement strategies; and
 - stormwater management plans that maintains predevelopment water quality and quantity.
- 18.1.2 Conduct development within the areas identified on Map 16.1 in accordance with the mitigation and enhancement strategies recommended in the Environmental Impact Studies provided to the City.

18.2 Sensitive Ecosystems Guidelines

- 18.2.1 The preservation of wild flower communities and wooded areas is encouraged.
- 18.2.2 Where an environmentally sensitive area comprises part of a parcel being proposed for development, such environmentally sensitive lands may not necessarily be included for the purposes of calculating the number of permitted dwelling units. *Clustering* of density is encouraged as a means for preserving environmentally sensitive areas.
- 18.2.3 Protect sensitive ecosystems to avoid any unnecessary disturbances.
- 18.2.4 Drainage should not be altered in a way that increases or decreases the amount of surface or groundwater or the quality of water available to the sensitive ecosystem.
- 18.2.5 Planting of non-native plants common to the sensitive ecosystem is discouraged.
- 18.2.6 Pollutants shall be prevented from entering lakes and watercourses through control of surrounding drainage.

18.3 Steep Slopes Guidelines

- 18.3.1 When land is altered, due regard shall be given to maintaining the normal drainage system, and regulating storm water run-off. Exposed soil on steep slopes subject to erosion shall be re-vegetated or otherwise protected from run-off erosion.
- 18.3.2 Development will not be permitted on hillsides of 30% or greater slope with poor soil stability or susceptibility to erosion.



19.0 General Intensive Multi-Family, Commercial and Light Industrial Guidelines

→ Site Planning Guidelines

19.1 Use of Natural Site Characteristics

19.1.1 Provide openings in the urban landscape to frame distant views such as Mount Baker, the Olympic Mountains, Mill Hill or significant stands of older growth forest. Terminate near views with prominent architecture, art or landscape features.

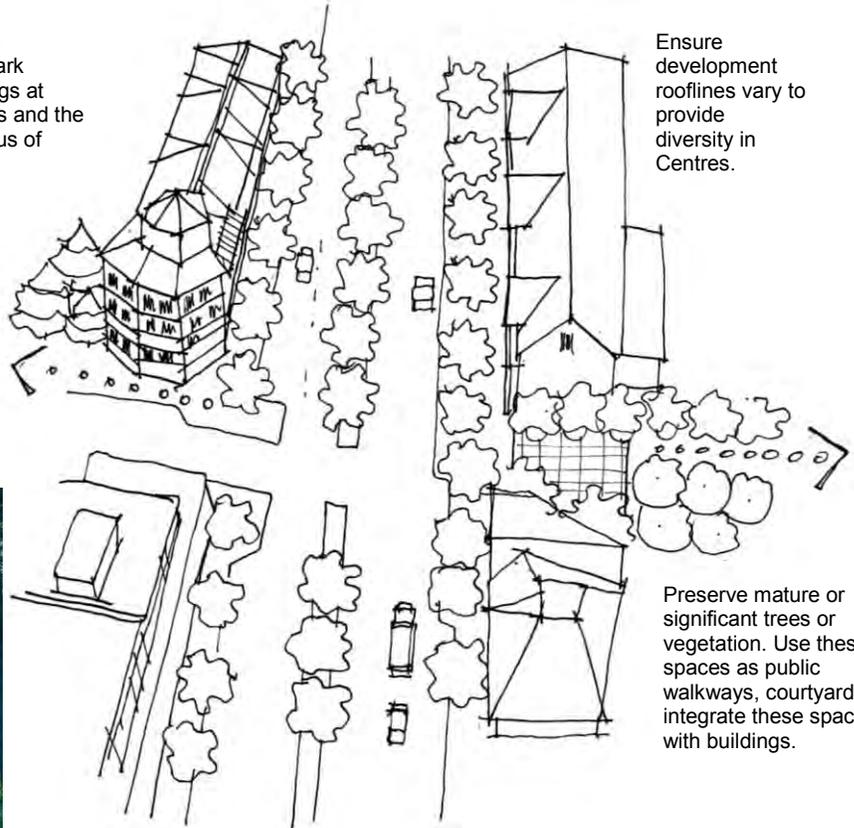


19.1.2 Take advantage of topography and minimize disruption of rock outcroppings, sensitive ecosystems, selected mature stands of trees and culturally significant features.

19.1.3 Design sites to incorporate, protect and enhance remnant riparian zones, watercourses, and urban forests.

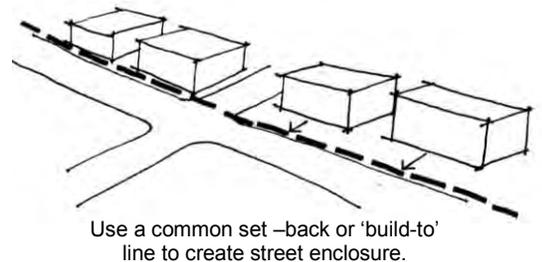
19.1.4 Where retaining walls fronting a public sidewalk are unavoidable, reduce the visual impact on the pedestrian realm by using terraces, living walls, local stone, heavy timbers and native plants.

Locate landmark buildings at corners and the terminus of views



19.2 Building Siting & Orientation

- 19.2.1 Orient buildings towards streets and where possible, frame streets and open spaces to create a sense of enclosure and street vitality and safety.
- 19.2.2 Retain and preserve significant trees and/or vegetation to integrate the urban forest throughout the City.
- 19.2.3 Use entrances, windows, patios and balconies that are clearly visible from and, overlook public sidewalks and open spaces.
- 19.2.4 Create a sense of street enclosure by achieving the following building height to street width proportions as measured from the building façade using the base massing of the building (maximum four storeys):
- 1:1 - 1:1.5 for a mews or court-yard
 - 1:2 – 1:3.5 for streets
 - 1:4 – 1:5 squares and plazas
- 19.2.5 Vary the number of attached housing units per block. This may include a minority of duplex and single detached units.



19.3 Setbacks

- 19.3.1 Setbacks can be varied where:
- A reduction in a setback or setbacks would improve the relationship between a building and an access route or public road;
 - A reduction in a setback or setbacks improves the orientation of the building to an access route, or reduces the impact of development on surrounding lands, or avoid sensitive ecosystems or would result in the preservation of trees on site;
 - A reduction in a setback does not have significant impacts on adjacent properties (impacts may be mitigated through screening and grade differentiation);
 - The setbacks of existing buildings on either side of the development site have differing setbacks from the street, resolve the difference through the design of the new building; and
 - A landscaped or forest leave (retention) area with an increased building setback where residential uses are located at grade along a high traffic corridor, for unit comfort.
- 19.3.2 Where there isn't a consistent setback pattern within a block:
- Setback new development on streets with narrow sidewalks to provide additional space for pedestrian activities and tree planting, if in a commercial district;
 - Provide landscaped setbacks on residential streets for privacy and a transition from the public to private realm;
 - On larger sites, provide additional open space along the street frontage in the form of landscaped setbacks, plazas, forecourts or gardens; and

- 19.3.3 As all at-grade multi-family dwelling units are to be oriented to the ground and street, they need to be set back from the sidewalk edge and at an elevation approximately 1.2 metres above the public space to allow for a semi-private transition area that allows clear views of the street or public thoroughfare while reducing views into residential units.

19.4 Micro-Climate & Shadowing

- 19.4.1 Coordinate pedestrian weather protection between buildings to ensure that the shelter is continuous and the designs are compatible in scale still individualised for each building.
- 19.4.2 Proposals for new projects include sun/shade diagrams of the subject development and the surrounding properties at the following times:
- Equinox: 8 a.m., 12 noon, 4 p.m.
 - Winter Solstice: 9 a.m., 12 noon, 3 p.m.
- 19.4.3 Orient elongated buildings on a north-south axis to minimize shadows.
- 19.4.4 Residential floor plates larger than 600m² (8000 ft²) and commercial floor plates exceeding 1860m² (20,000 ft²) of gross floor construction area may be permitted if they are articulated architecturally to minimize shadows, loss of sky view and wind conditions in adjacent open space.

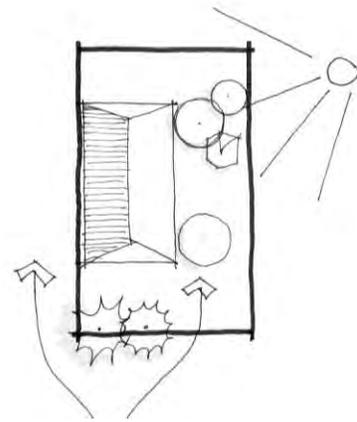
19.5 Solar Access & Views

- 19.5.1 Ensure landscaping and building design allows penetration of sunlight in winter, and shading of afternoon sun in summer to take advantage of passive cooling or solar heating.
- 19.5.2 Site and design new development to minimize disruption of the privacy and outdoor activities of residents in adjacent buildings and private open spaces.
- 19.5.3 Orient new development so that a majority of primary living spaces receive direct sunlight for daytime hours.

19.5.4 Ensure buildings are designed to receive daylight from at least two sides of a building, or from one side and a roof. Where possible, dwellings have a choice of aspect, either front and back, or on two sides for corner units.

19.5.5 Single aspect dwellings (dwelling units with exterior access on one side) will face a good view, good sun, or ideally both, and are more suitable as wide frontages with floor plans that allow adequate penetration of daylight.

19.5.6 Corner and dual aspect units (units with exterior access on two sides) are strongly encouraged to facilitate daylight access and natural ventilation.



19.5.7 Ensure that new development minimizes the blocking views and solar access from existing or anticipated development, and that shadowing impacts on adjacent buildings and useable open spaces are minimized.

Use landscaping to increase sunlight penetration and natural ventilation effectively.

19.5.8 Use 'bounce light' from reflective higher areas of buildings to reflect light to darker areas (e.g. north east) as the last priority for solar access.

19.5.9 Avoid walled development.

19.5.10 Use low stone walls and fences as landscape features, to define territory and to separate pedestrians from automobiles.

19.6 Safety, Security & Accessibility

The following are encouraged for consideration in order to make elevator buildings easier to visit and live in by people with physical limitations. If provided, these features would be in addition to those prescribed by bylaw requirements, or in combination with variances to other requirements in order to increase accessibility.

19.6.1 Require apartment buildings to be constructed using Adaptable Building Design (draft bylaw No.752), and in fewer cases may require this level of disabled person 'visitability' access for attached, duplex or single housing. Additional adaptive features will be considered favourably for 'aging in place'.

19.6.2 The following factors are to be taken into account in order to design urban spaces which people feel safe to use:

- Lighting (others' faces must be visible and blinding glare avoided);
- Sightlines (ability to see the route ahead, and open spaces from buildings);
- Entrapment Spots (avoid small areas shielded on three sides);
- Movement Predictors (avoid unchangeable routes or paths which offer no choice to pedestrians);
- Visibility by Others (design for seeing and being seen);

- Land Use Mix (avoid single use areas; include day and night uses);
- Activity Generators (design places to accommodate uses which attract people and provide opportunities for surveillance); and
- Sense of Ownership (linked with responsive space management and participatory design; fits with the features of street-facing layouts, well-defined access, through route and used public spaces).

19.6.3 Design for ease of movement should be considered in new neighbourhoods. Visual, tactile and acoustic assists and barrier-free changes in grade and road crossings should be considered in all aspects of design.

19.6.4 The needs of all users, including people who are frail or have disabilities need to be addressed to allow the flexible use of buildings despite changes in resident profiles.

19.6.5 Design parking areas be designed to allow natural surveillance by retaining clear lines of site between public sidewalks and building entrance ways both for those who park there and for occupants of nearby. For underground parking, use light coloured walls and glassed waiting areas.

19.6.6 Ensure casual surveillance and “eyes on the street” through placement of windows, balconies and street-level uses. Avoid blank, windowless walls that do not permit residents or workers to observe the street.

19.6.7 Incorporate landscaping that maintains visibility (such as shrubs and trees which branch over 2 metres in height) so there are no branches below head height.

19.6.8 Incorporate creative use of ornamental grille as fencing or over ground floor windows.

19.7 Energy Efficiency

19.7.1 Incorporate narrower building forms and floor plans that maximize corner and through units (dwellings with exterior access on two sides) e.g. via a central courtyard or mews.

19.7.2 Incorporate green roofs to help absorb storm water, reduce heat gain and provide outdoor amenity space for residents. *Intensive green roof* types or “rooftop gardens” will be preferred over *extensive-type green roofs*. Green roofs either meet or exceed the following minimum standards:

- Cover a minimum of 50% of the roof area (excluding areas required to accommodate rooftop equipment and access) with rooftop gardens. This needs to be composed of a suitable growing medium with a depth capable of sustaining a wide range of vegetation, including small trees as well as edible fruits and vegetables. The minimum growing medium depth for a rooftop garden is 15 centimetres, increased to 31 centimetres if the growing medium is contained in planters or other types of containers;
- Provide rooftop gardens designed for extended outdoor living opportunities;
- Incorporate a permanent irrigation system integrated with storm water management;
- For extensive green roofs, a minimum of 75% of the roof area (excluding areas required to accommodate rooftop equipment and access) of each building covered by a suitable growing medium with a depth capable of sustaining a low to medium range of plant

diversity. The minimum growing medium depth for an extensive green roof is 8 centimetres;

- Extensive green roof design incorporates accessibility only for the purposes of minimal general maintenance and has irrigation only through the establishment period of the landscaping;
- A maximum of 10% of either intensive or extensive green roof area surfaced with hard materials for use as accessible area provided that all non-pervious surfaces use light-coloured, high-reflectivity materials or are completely shaded from sunlight; and
- All green roof types included as a critical component of stormwater management plans.

- 19.7.3 As part of a green roof strategy, incorporate the use of roofing materials and colours with a high “albedo” (i.e., materials that reflect heat energy from the sun to reduce the absorption of heat into the building and reduce the “heat island effect”). For example, roof applications with a smooth, bright white surface to reflect solar radiation reduces heat transfer to the interior, and reduce summertime air conditioning demand.
- 19.7.4 Design buildings to provide passive heating, lighting, and cooling.
- 19.7.5 Where possible, incorporate greater floor to ceiling heights to increase the amount of interior space that can be day-lit from windows, and to allow for vertical air ventilation, particularly for units with exterior walls on only one side.
- 19.7.6 Orient roofs and main axis of buildings within 15 degrees of due south to optimize solar energy collection through the use of solar thermal and photo voltaic (PV) modules.
- 19.7.7 Incorporate solar thermal and solar voltaic modules into their building design. When this is not possible, design buildings to be “solar ready” to allow the incorporation of solar modules at a later time.
- 19.7.8 Where solar gain may cause over-heating, provide a higher proportion of glazing on northerly and easterly facing elevations, while south and west-facing elevations will have a reduced percentage of glazing to reduce heat gain. Fenestration on south and west facing elevations be punched or recessed slightly to reduce heat gain.
- 19.7.9 Include units with exterior ventilation (operable windows) on at least two sides to enable passive cooling through cross ventilation.
- 19.7.10 Use glazing that admits daylight while reducing heat gain. Avoid heavily tinted or reflective glasses that reduce solar heat gain but also reduce daylight and exterior views and cause excessive glare.
- 19.7.11 Use exterior shading devices such as fixed awnings or retractable canopies that are adjustable according to season.
- 19.7.12 Incorporate projecting roofs, overhangs, and fixed fins into the building design. Generally, overhangs and fins will be approximately 0.6 metre to allow for winter sun penetration while blocking summer mid-afternoon sun.

Form & Character Guidelines

19.8 Scale & Massing

- 19.8.1 The compatibility of fit with proposed developments in neighbourhoods will be considered. In a mixed use project adjacent to a less intensive zone, site the more compatible use and building type near the edge.
- 19.8.2 Limit the visual building mass of façades (the exterior vertical surfaces of buildings) to lengths of approximately 40 metres or less by incorporating a substantial setback from the main building façade.
- 19.8.3 Break up the building or base massing by providing minor visual breaks in the façade, accentuating individual entrances and units and creating variation and visual interest along the street. Strategies for breaking up the length of buildings can include, but are not limited to, the following:
- Pedestrian courts located in between buildings adjacent to the sidewalk.
 - Framed periodic openings to provide public views into private open space features.

19.9 Exterior Finish & Architecture Features

- 19.9.1 Finish the exterior walls buildings, excluding roof treatments, with stone, brick, finished concrete, architecturally faced block, or wood. In general, incorporate substantial and natural building materials into the façade to avoid a ‘thin veneer’ look and feel. Use colour bands or contrasting materials to introduce interest and distinction in elevations. High quality manufactured ‘natural look’ materials may be considered.
- 19.9.2 Use architectural design and building materials that are of a high standard in order to ensure a character of development that signifies quality, stability and permanence.
- 19.9.3 Large expanses of any one material are not acceptable unless effective architectural details are used to break up the visual monotony.
- 19.9.4 Finish and treat elevations similarly to the front elevation where building elevations are visible from adjacent roads or properties.
- 19.9.5 Avoid the use of vinyl, untreated or unfinished concrete, metal, aluminium or vinyl siding as a final building finish.
- 19.9.6 Incorporate a range of architectural features and design details into façades that respond to the internal function and use of the building while being rich and varied in detail to create human scale and visual interest. Examples of architectural features include:
- Façade Modulation – stepping back, or extending forward a portion of the façade, to create a series of intervals in the façade;

- Repeating window patterns at intervals that correspond to extensions and step backs (articulation);
- Providing a porch, patio, deck, or covered entry for each interval;
- Providing a balcony or bay window for each interval;
- Changing the roof line by alternating dormers, stepped roofs, gables, or other roof elements to reinforce the modulation or articulation interval;
- Changing the materials with the change in building plane; and
- Provide a lighting fixture, trellis, tree, or other landscape feature within each interval.

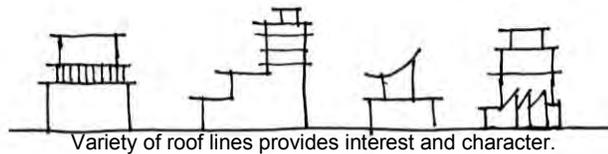
19.9.7 Do not completely enclose balconies as these limit views and sunlight access. Use guard rail materials (e.g., glass, metal railings) that allow sun penetration into the building.

19.9.8 Respond to the architectural characteristics of the area plan or neighbouring heritage buildings or use some or all of the following strategies:

- Similar building articulation, scale and proportions,
- Similar or complimentary architectural style,
- Similar or complimentary roof forms and roof lines,
- Similar building details and fenestration patterns including patterning and placement of doors and windows,
- Similar or complementary materials and colour.

19.9.9 Utilize variations in the character of rooflines, sloping roof lines, gables and dormers. Poor urban design results from large expanses of uninterrupted single height flat roofs.

19.9.10 Clearly distinguish the roof line or top of the building structure from its façade walls.



19.10 Entrances

- 19.10.1 Emphasize primary entrances, and to provide “punctuation” in the overall streetscape treatment and architectural concept of the building through a high level of architectural detail and landscape treatments.
- 19.10.2 Make entrances visible with direct access from public streets and sidewalks to enhance building address and create street vitality.
- 19.10.3 Locate and design entrances to create building identity and to distinguish between individual ground floor units. Alcoves, varied doorway materials and varied compatible colours are encouraged.
- 19.10.4 Provide weather protection for individual ground floor entries to provide comfort for pedestrians.
- 19.10.5 Differentiate between residential and commercial entrances architecturally in mixed-use buildings.
- 19.10.6 Build semi-private or private amenity spaces such as porches or stoops at the front entrance for all ground and street-oriented housing; apartments, attached housing and detached housing.

19.11 Private Open Space & Amenity Areas

- 19.11.1 Site residential buildings to maximize opportunities for creating usable, and well integrated private open spaces and amenity areas including play areas for children.
- 19.11.2 Cluster family-oriented units adjacent to children's play space. Design play areas for children of early childhood ages as safe and secure with good visual access from dwelling units, and include seating for observers.
- 19.11.3 Integrate sheltered dry play areas with building or facility design.
- 19.11.4 Site planning will recognize space needs of older pre-teen and teen age youth.
- 19.11.5 Design parking lots for good surveillance, traffic calming, or temporary play use recognizing that children and youth are attracted to parking areas.
- 19.11.6 Provide a minimum area of private semi-private amenity space for ground-oriented, housing. This outdoor space needs to be not less than 3 metres in width and not less than 10 m² in area per unit. This may be considered with a minimum of 5 percent useable open space of a project parcel.
- 19.11.7 A minimum usable open space common areas in of multi-family residential developments, is recommended to average more than 3m² for each bedroom. Where fewer children are anticipated (fewer two and three-bedroom units) plan for a minimum of 100m² with no dimension to less than 5 metres.
- 19.11.8 Connect all usable open space with public walkways, separated by grade change bollard or 1.2 metres high fencing from both vehicular traffic and parking.
- 19.11.9 Situate all common open space in an area which allows for sunlight penetration. Open space will be consolidated in one compact, non-linear and functional area, preferably in a central location and away from the periphery of the site.
- 19.11.10 Incorporate food or other gardens to be used by individuals or the community.
- 19.11.11 Minimize disruption of the privacy and outdoor activities of residents in adjacent buildings by minimizing the number of windows and decks overlooking neighbouring private open spaces and placing primary (view) windows towards front and rear yards rather than interior side yards.
- 19.11.12 Provide a variety of recreational activity rooms, laundry, storage, daycare or workshop areas in multi-family residential projects.

→ Circulation, Access & Parking Guidelines

19.12 Circulation & Access

- 19.12.1 Site access for vehicles to cause the least disruption to other site uses.
- 19.12.2 Ensure safe and convenient access for cars to central parking areas and dwelling units.
- 19.12.3 Ensure that access for vehicles is separated from pedestrian walkways, provides safe separation distances from nearby road junctions and does not provide left turns onto or from roads of a collector status or higher where alternatives are available.
- 19.12.4 Ensure that on-site roadways provide safe and convenient access for emergency vehicles, moving vans and service vehicles.
- 19.12.5 Minimize or avoid cul-de-sacs and other physical barriers to pedestrian and cyclist movement. Where cul-de-sacs are incorporated they will include a pedestrian or bicycle through connection.
- 19.12.6 Developments will use shared service areas where possible within development blocks, including public and private lanes, driveways and service courts.
- 19.12.7 Consolidate and minimize the width of driveways and curb cuts across the public sidewalk.



Organize drop-off areas and parking or service entries at the side and rear of development sites and provide through lobbies with access to the street.

19.13 Vehicles and the Public Realm

- 19.13.1 Provide accessible parking for residents and visitors which provide convenient access to building entries.
- 19.13.2 Refer to Section 19.6 for Safety & Security.
- 19.13.3 Underground parking will be adequately illuminated and provide security measures.
- 19.13.4 Provide bollards or non-mountable curbs for resident and visitor parking to protect pedestrian paths, building and landscape areas.

- 19.13.5 If parking for recreational vehicles is to be provided, this will be in low traffic areas, preferably at the back of the development, and screened with natural materials such as trees or hedges.
- 19.13.6 Provide safe and secure storage facilities for bicycles as per the guidelines in the Land Use Bylaw.
- 19.13.7 Minimize the size of service openings and garage doors visible from public streets and open spaces or integrated into the street front in character and form.
- 19.13.8 Use shared service areas between developments, including public and private lanes, driveways and service courts.
- 19.13.9 Locate on-street parking on the fronting street at the curb (sidewalk edge) to provide convenient and easy access to commercial and residential entrances.
- 19.13.10 Avoid large parking lots and break up into smaller ones where possible.
- 19.13.11 When it is unavoidable to locate driveways, garages and garage entrances in the fronts of buildings, locate them so that they are visually less dominant, by, for example, recessing them behind the main building line, use windows and break up architecture features into smaller units.
- 19.13.12 Delineate all parking spaces with painted lines and finished in a concrete or asphalt surface.
- 19.13.13 Avoid dominance of garage doors or underground parking entries in elevations.

19.14 Pedestrian & Non-Motorized Vehicle Environment

- 19.14.1 Provide secure pedestrian walkway connections on-site and to City sidewalks including:
- Trail link(s) between housing clusters within a project;
 - Trail link(s) to the larger neighbourhood in a manner that does not compromise the safety and privacy of the development;
 - On-site pedestrian circulation which forms a network connecting dwellings to parking and common areas; and
 - Pedestrian pathways that are constructed to a width and tread standard which meet the needs of the user.

- 19.14.2 Connect and integrate buildings with pedestrian-oriented open spaces such as narrowly-spaced streets, courtyards, gardens, patios, and other landscaped areas.
- 19.14.3 Provide zebra or ladder painted crosswalks, or crosswalks made of special paving materials at all pedestrian crossings to increase driver awareness.
- 19.14.4 Incorporate bulges into the streetscape design (corner, parking scallop, bus stop) to reduce pedestrian crossings distances and provide space for landscaping, seating, and public art.
- 19.14.5 Provide public streetscape amenities including benches, planters, garbage receptacles, bike racks, public telephones, and bus shelters with a high quality of design.
- 19.14.6 Encourage the use of non-mountable concrete curbs with curb-cuts for wheelchairs, walkers, and strollers where appropriate.

→ Landscape Character Guidelines

19.15 Landscaping

- 19.15.1 Retain as many of the existing trees, sensitive ecosystems and other natural features as practicable and augment with ecosystem-appropriate native species. Replacement of trees cut outside proposed building envelopes to be considered at a ratio of 2:1.
- 19.15.2 Maintain and, where possible, restore creek and natural drainage areas to their natural state. Sensitively incorporate with public paths.
- 19.15.3 Native species and low-water consumption landscaping is to be used. Drought-tolerant vegetation or xeriscaping will minimize or eliminate the need for long-term irrigation (past 3-5 years).
- 19.15.4 Reduce the size and dominance of expansive architectural features and provide visual interest to expansive site features such as parking areas by using berms, shrubs beds, low walls, and decorative fences.
- 19.15.5 Incorporate ground cover, shrubs, and trees in hard landscaping treatments such as terraced retaining walls, planters, courtyards, or fountains.
- 19.15.6 Emphasize entries with special planting in conjunction with decorative paving and lighting such as arbours, archways or pergolas where consistent with the architectural theme.
- 19.15.7 Use similar construction materials, colours or elements as neighbouring properties to achieve design continuity.
- 19.15.8 Create clusters of trees, ponds, or other landscape features within the development to create a useable, themed and enclosed common area.
- 19.15.9 Encourage use of interlocking brick as a design feature.
- 19.15.10 To ensure good scale on streetscapes, plant larger street tree species, at a maximum of 7 metres on-centre. For wider roads like Sooke-Island Highway large species such as London Plane are appropriate (e.g. see View Royal Casino trees). Taller species can also be limbed higher to allow good visual access to business fronts and other addresses.

→ Servicing Guidelines

19.16 Signage

- 19.16.1 Use signage that is creative, colourful and complementary to the building.
- 19.16.2 Where possible, signage will employ individual raised letters.
- 19.16.3 Signs should be located on canopies, building façades or pillars.
- 19.16.4 Locate signage with pedestrians in mind.
- 19.16.5 To achieve urban design objectives and pedestrian comfort, free-standing signs need to be pedestal signs of 1.5 metres or less in height and incorporated into the design of the landscaped areas.
- 19.16.6 The following types of signs are only acceptable in very rare and well designed projects: roof signs, awning signs, and signs-as-awnings, and internally illuminated fluorescent box signage.

Multi-family Residential / Mixed Use Buildings Guidelines

- 19.16.7 Make signage architecturally compatible with the style, composition, materials, colours and details of the buildings within the development as well as the residential buildings of the surrounding neighbourhood.
- 19.16.8 Preferred signage materials include wood, externally illuminated metal (or a composite) illuminated only by exposed tubular neon as appropriate to the setting. Use only high-quality, exterior grade wood with suitable finishes for wood signs.
- 19.16.9 Ensure that area is set aside for organized and co-ordinated signage for real estate sales and rentals in the same design context of other signage. Signs may be illuminated by means of an external light source (e.g.: a small flood light illuminating a wooden sign). Consider energy efficiency in lighting choices.
- 19.16.10 Mount signs (and associated electrical service) so that the method of installation is hidden.
- 19.16.11 In addition to general signage for developments, individual units will be required to display a house number.

Commercial Buildings Guidelines

- 19.16.12 Coordinate commercial signage with the overall design of the building and landscaping, with freestanding signs low in height and incorporated into the design of the landscaped areas.
- 19.16.13 Signage using tubular neon will ensure the signage is complimentary to the form and character of the building, is in keeping with surrounding commercial development, and does not negatively impact neighbouring residential areas.
- 19.16.14 Provide visible signage for all entrance ways that also identifies the building address.
- 19.16.15 Provide pedestrian-scaled signage that identifies uses and shops clearly.
- 19.16.16 Coordinated special street name signage and mountings unique to the centre is encouraged to help create and enhance the local identity.
- 19.16.17 Use flush mounted fascia signs where possible where their overall dimensions fit within a 0.9m x 1.5m (36" x 60") horizontal rectangle.
- 19.16.18 Avoid backlit plastic box signs, and pylon signs.
- 19.16.19 Individual cut-out or silhouette letter signs mounted on storefronts are acceptable, with or without illumination. Individual letters will not exceed 46cm (18") in any dimension.
- 19.16.20 External neon signs, as well as small neon signs inside store windows, are acceptable.

19.17 Lighting

- 19.17.1 Provide pedestrian scaled lighting with a high quality of design above sidewalks for night time visibility, comfort and security.
- 19.17.2 Provide architectural lighting on the face of commercial buildings and at main entries to multi-family residential buildings.
- 19.17.3 Use energy efficient LED or fluorescent lighting for building exteriors and general lighting, and incorporate in the design concept.
- 19.17.4 Minimize the illumination of any adjacent residential properties.
- 19.17.5 Minimize the affect of lighting on the night sky. Outdoor lighting is the main source of light pollution. To minimize this impact, coordinate outdoor lighting to control the quantity (e.g. full cut-off), quality and direction of night lighting.
- 19.17.6 Provide electrical outlets at appropriate locations to provide electricity for Christmas lights on site and along frontages spaced at approximately every 20 metres.
- 19.17.7 Provide lighting for all driveways, parking and loading areas to ensure safety and site security.

19.18 Utilities

- 19.18.1 Provide full services on streets fronting and flanking the site, including the provision and upgrading of sidewalks and pavements, street trees and street lighting.
- 19.18.2 Install and maintain all exterior on-site utilities, including (but not limited to) drainage systems; sewers; gas lines; water lines; and electrical, telephone and communication wires and equipment underground. Where above ground locations are the only option, incorporate kiosks into architecture, furniture or art.
- 19.18.3 “Back of house” activities will be located at the rear of buildings where possible. “Back of house” activities include but are not limited to the following:
- Off-street surface parking and access,
 - Access to covered, underground or structured parking, and areas for garbage and recycling storage and collection, loading areas, vents, meters, and transformers.
- 19.18.4 Provide clear lines of site at access points to site servicing, and utility areas to enable casual surveillance and safety.

19.19 Stormwater Management

- 19.19.1 Incorporate Stormceptors™ or equivalent approved equipment, to remove oil wastes and sediments from storm water.

19.20 Unenclosed Storage

- 19.20.1 Identify areas on site that may be used for seasonal unenclosed storage. These areas should be available as space for additional parking when not in use for unenclosed storage.
- 19.20.2 Unenclosed storage will not impede either vehicular or pedestrian traffic.
- 19.20.3 Unenclosed storage should not interfere with sight lines for either pedestrian or vehicular traffic.
- 19.20.4 Screen unenclosed storage from adjacent roads and residential properties, either by fencing or by landscaping.
- 19.20.5 Avoid the use of chain link or temporary wire fencing.
- 19.20.6 Storage areas for toxic, combustible or potentially hazardous material such as liquid petroleum products, fertilizers, herbicides and pesticides must not be sited outside buildings.
- 19.20.7 Unenclosed storage is not permitted in any landscape area, unless integrated with the landscaping in a manner that is unobtrusive, does not deteriorate the plantings and landscape material within the landscaped area; and does not interfere with sight lines.

20.0 Centres Guidelines

The General Intensive Multi-Family, Commercial & Light Industrial Development Permit Guidelines apply in addition to the following guidelines:

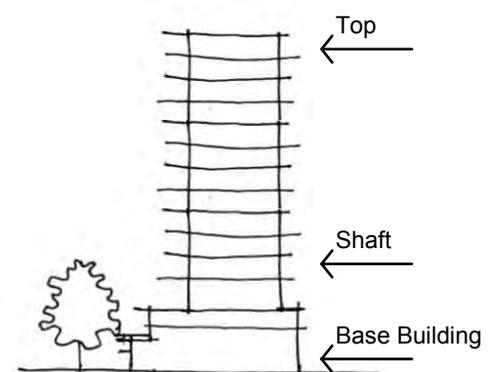
→ Site Planning Guidelines

20.1 Building Siting & Orientation

- 20.1.1 Create and maintain a residential-scale streetscape, with street-oriented entries.
- 20.1.2 Modulate building façades at grade level to enable street activity such as browsing, outdoor cafes, street entertainment and to enable placement of seating and public art.
- 20.1.3 Locate commercial and mixed-use buildings to the edge of the sidewalk and sited continuously and without breaks using a common set back or 'build to line'.
- 20.1.4 New developments with buildings over 6 storeys in height will incorporate a base building at a scale similar to adjacent buildings, or as per area plan.
- 20.1.5 Locate publicly oriented, active uses at grade and at the sidewalk edge.
- 20.1.6 Site and orient multi-family residential buildings or residential uses within mixed-use centres to overlook public streets, parks, and walkways and private communal spaces.

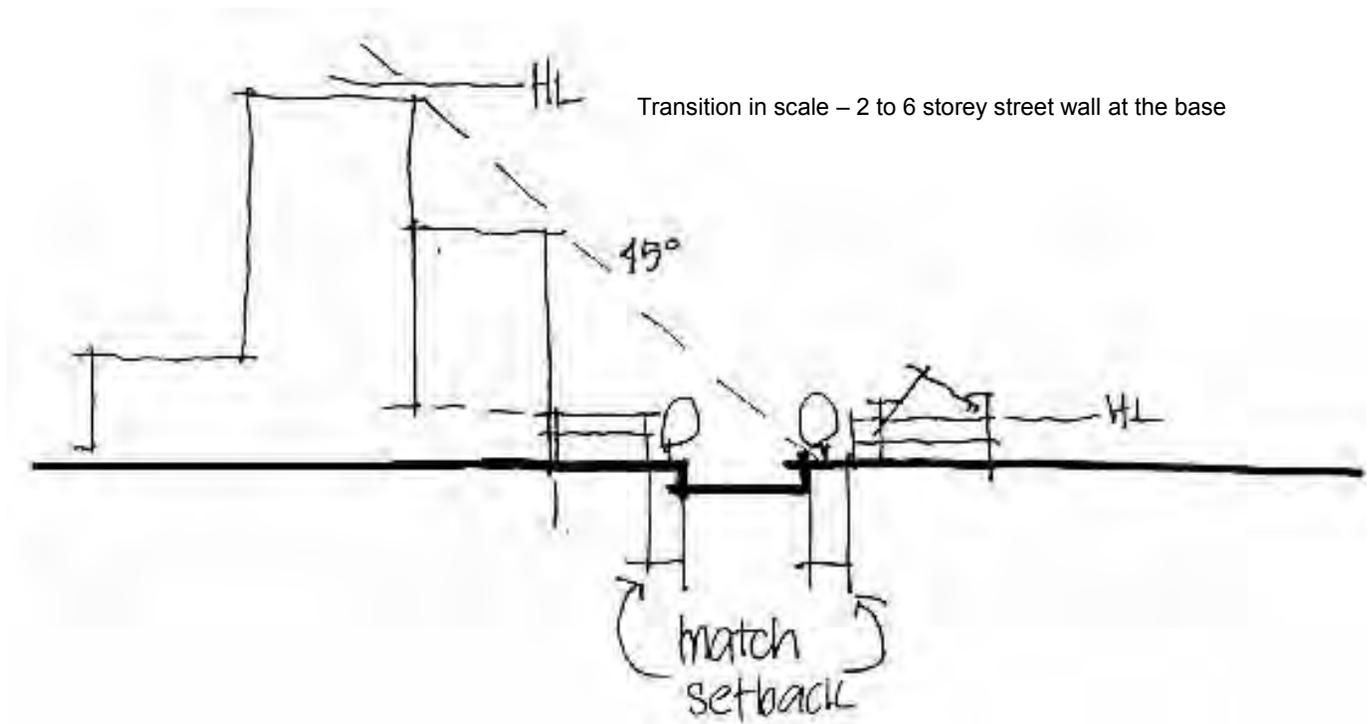
Tall Buildings

- 20.1.7 A point tower form is the preferred typology for tall buildings. Generally, a point tower is when the height of the shaft is three times the width of its base (i.e. the shaft).
- 20.1.8 Incorporate a base building at a scale complimentary to adjacent buildings. Site the primary façade of base building parallel to the street and front property line.
- 20.1.9 The minimum step back of the taller building parts from the street edge of the base building will be 5 meters. Where possible, match the setback of tall buildings with adjacent properties.
- 20.1.10 The minimum base building height will be 2 storeys to a maximum of 6 storeys or as calculated within a 45 degree angular plane, taken from the curb on the opposite side of the street to



Tall Buildings

reduce visual impact at the street level. A higher street wall condition will be considered for increasing office commercial uses, given the applicant can demonstrate a highly articulated and human scaled interface at the public street realm.



20.1.11 Articulate the uppermost floors of tall buildings to achieve a distinct skyline profile. When siting several tall buildings, site buildings and ensure overall height variation to create a distinctive “City Crown” towards the mid-point of the centre. This is also intended to accentuate the natural topography.

- 20.1.12 On a corner site, the base building will be massed to respect the prevailing height of the base building and setback on both streets, but the higher height limit will govern in order to give the building a degree of prominence.
- 20.1.13 Limit the visual building mass of façades (the exterior vertical surfaces of buildings) to lengths of approximately 40 metres or less. Exceeding this length will be considered in mixed use and commercial areas and where buildings can be designed to incorporate a substantial and functional public or semi-private setback from the main building façade (see context, street and amenities).
- 20.1.14 The middle tower portion of tall buildings will have a maximum plate of 25 metres x 25 metres or less to reduce the visual bulk of the building. Larger floor plates will be considered if it architectural features address concerns about bulk.
- 20.1.15 The tower portion of tall buildings will have a minimum spatial separation of 30 metres from tower to tower to allow for natural light, lessen micro-climate effects and better privacy. This is measured perpendicularly to building face at the widest tower width.
- 20.1.16 Incorporate artistic details in roof lines and pitches, façade fenestration and materials in the building or base massing of taller buildings. Reflect the base massing of the adjacent buildings when consistent with other guidelines and policy.
- 20.1.17 Integrate ground floor uses that are consistent with neighbouring buildings.

20.2 Setbacks

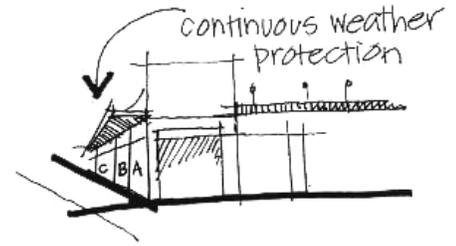
20.2.1 The setbacks below are to serve as guidelines and should inform initial site planning.

Use	Yard / Setback Guidelines		
	Front	Side	Rear
Clustered housing, rowhousing or townhouses	2.0m of lot line along the principal street in the centre; up to 5m on secondary streets	Within 1.5m – 4.5m of any interior side lot line	Within 7.5m of any rear lot line
Multi-Family Residential & Mixed Use Residential Commercial	2.0m - 4.5m	3m – 7.5m of any interior side lot line or a distance equal to 0.6 multiplied by the building height, whichever is less.	Within 3m – 10m of any rear lot line
Commercial, including Office, & Institutional	2.0m of lot line	Within 6m or more to form an interior courtyard	Within 10m of any rear lot line

20.3 Micro-Climate & Shadowing

20.3.1 Proposals for new projects will include sun/shade diagrams of the subject development and the surrounding properties at the following times:

- Equinox: 8 a.m., 12 noon, 4 p.m.
- Winter Solstice: 9 a.m., 12 noon, 3 p.m.



20.3.2 Step back taller building forms (over 12 storeys) from the base building at several locations to reduce downward wind flow. For building components that are stepped back, locate the main building shaft away from the street to reduce the amount of shadow cast and increase sky view from the street. Landscape base building roof areas to reduce wind speeds at grade.

20.3.3 For tall buildings, use middle shafts with small floor plates since they have the least impact on shadowing, winds and views.

20.3.4 Site tall buildings that have elongated slab floor plates that cast biggest shadows in a north-south orientation.

20.3.5 Use horizontal canopies on the windward face of base buildings to minimize downward wind flow.

20.4 Solar Access & Views

20.4.1 Use taller buildings to both accentuate and/or mark prominent locations within a centre's landscape such as a terminating site, corner site, or site that frames open space.

20.4.2 Development will compliment and enhance strategic city views.

20.4.3 Plan around views of historic environments, particularly regarding building height.

20.5 Safety, Security & Accessibility

20.5.1 Provide for safety and privacy for each residential unit.

20.5.2 Design entries to each ground-oriented residential unit to be:

- visible to residents
- partly visible to passers-by (semi-private) according to the context
- made private by staggering or recessing them
- units adjacent to public roads should have their doors visible and accessible from that road
- exterior private use areas should be screened to provide for privacy
- setback from arterial roads should be 12 metres, to allow for screening and berming
- designs for multi-family residential developments are expected to incorporate the basic principles of crime prevention through environmental design (CPTED).

→ Form & Character Guidelines - Centres

20.6 Scale & Massing

20.6.1 Building scale and massing to be reflective of adjacent features or structures unless otherwise specified by area plan.

20.6.2 In a mixed use project adjacent to a less intensive zone, site the more compatible use and building type near the edge.

20.6.3 Provide minor visual breaks in the façade of large buildings to break up the building or base massing and help accentuate individual entrances and units and create variation and visual interest along the street. Strategies for breaking up the length of buildings can include, but are not limited to, the following:

- Pedestrian courts located in between buildings adjacent to the sidewalk.
- Framed periodic openings to provide public views into private open space features.



Highly articulated buildings positively contribute to a vibrant street front.

20.7 Exterior Finish & Architecture Features

20.7.1 Demonstrate physical durability and weather performance of building materials and design.

20.7.2 Use stone as a design element. Use 'signature' elements used at Hatley Park National Historic Site wherever possible.

20.7.3 Integrate multi-level parkades within a structure if above grade. The exterior façade and site development of these structures will need to resemble non-parkade buildings.

20.7.4 Treat all blank walls (e.g. walls without windows) with cladding that is complimentary to the cladding of the building and adds interests to the look and texture of the wall and building, or with a painted mural or other artwork, and that a sufficient setback be provided to enable some articulation of the wall, when the wall is likely to be exposed to public view.

20.7.5 Incorporate adequate fenestration and decorative elements to minimize bulk where buildings face major access roads.

20.7.6 Incorporate large front windows with substantive frames for commercial retail frontages.

20.7.7 Enclose mechanical roof elements, including mechanical equipment, elevator housing and vents with sloped roofs or parapets, or other forms of solid screening.

20.8 Entrances

- 20.8.1 Recess entry-ways to buildings slightly from the sidewalk or property line to emphasize the building entrance.
- 20.8.2 Design public entryways and public interface functions to express a pedestrian scale.
- 20.8.3 Incorporate lobbies with multiple access points where appropriate to enhance building access and connectivity with adjacent open spaces.

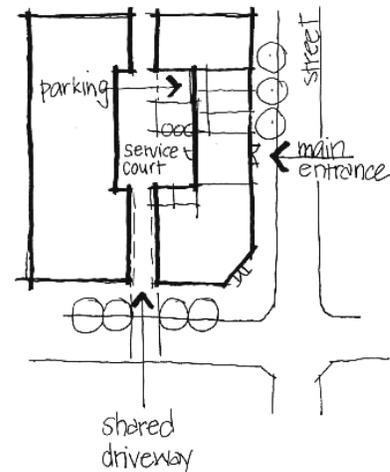
20.9 Private Open Space & Amenity Areas

- 20.9.1 Provide roof top open spaces including play areas, particularly for buildings where the site coverage is over 50%.
- 20.9.2 Ensure upper story terraces open up onto roof top gardens where possible to increase access to semi-private outdoor amenity space.

→ Circulation, Access & Parking Guidelines - Centres

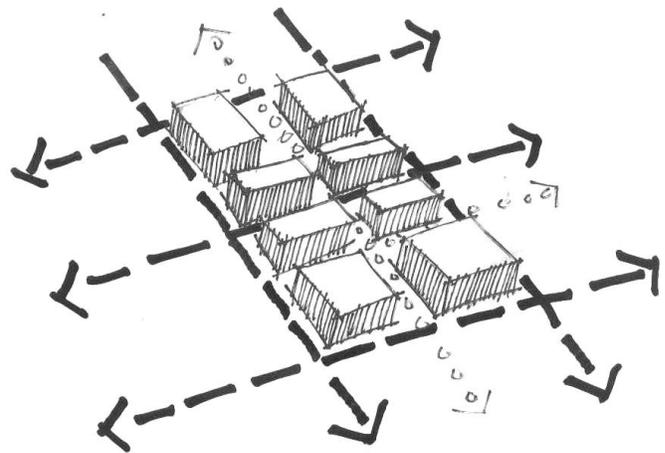
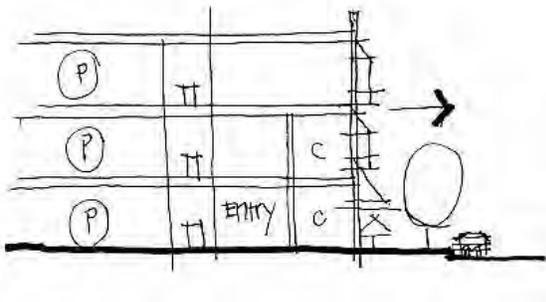
20.10 Circulation & Access

- 20.10.1 For development or re-development of large sites, incorporate a pattern of small blocks and an interconnected network of streets and pedestrian and bicycle pathways to provide direct and safe connections, for pedestrians and cyclists as well as drivers, to primary local destinations and centres.
- 20.10.2 Organize automobile drop-off areas into the side and rear of development sites and provide through lobbies with access to the street and auto-drop-offs areas.
- 20.10.3 Where possible, create blocks to be between 100 metres to 150 metres in length and should not exceed 180 metres in length. Break up large blocks into small blocks by incorporating new streets and pedestrian/cyclist pathways that connect with existing streets and pedestrian/cyclist pathways in surrounding areas. Where large blocks are unavoidable, provide publicly accessible mid-block pedestrian and bicycle pathways.
- 20.10.4 Allow access to adjoining property at-grade parking areas and vehicle manoeuvring aisles that is secured by way of reciprocal access easement registered on title.



20.11 Parking

- 20.11.1 Screen parking areas from sidewalks, public roads and other active open spaces using materials that provide a partial visual buffer to allow clear visibility into the parking areas to promote personal safety. Screening could include landscaping, a trellis, or grillwork with climbing vines.
- 20.11.2 Where possible, avoid off-street surface parking in particular between the front face of a building and the public sidewalk.
- 20.11.3 Integrate above-ground parking structures with the building design and have usable building space (e.g. shallow retail frontages) rather than parking facing the public realm.

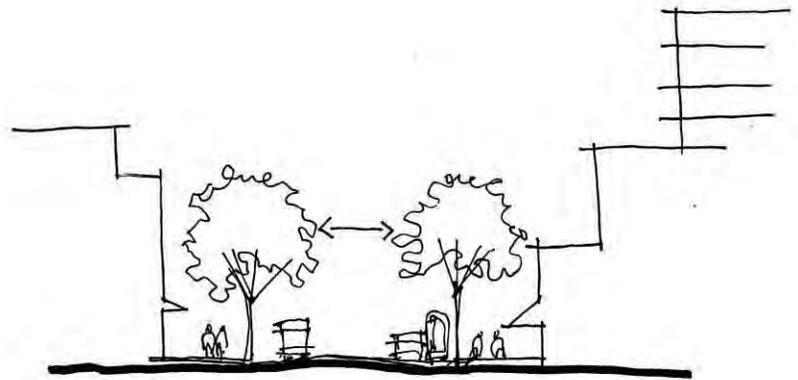


Aim for a maximum block size - 100m x 150m

→ Landscape Character Guidelines - Centres

20.12 Landscaping

- 20.12.1 Promote the “City of Trees” concept by encouraging the use and planting of native trees and plant materials in all landscaped areas.
- 20.12.2 Retain as many of existing trees and other natural features as is practicable, and augment with native species.
- 20.12.3 Use a low stone wall or bollards as a landscape feature and to separate pedestrians from automobiles.
- 20.12.4 Landscaping should be provided with the objective of:
- Provide screening for privacy and security;
 - Providing an effective screen at the time of planting; and
 - The setback shall include landscaping to separate commercial buildings or accessory buildings from adjacent land zoned for single family residential use.
- 20.12.5 Include substantial landscaping along all perimeter areas, including planting of trees in clusters at several locations within the perimeter for large retail complexes and free standing major stores.
- 20.12.6 Include substantive landscape islands to break the expanse of parking areas. Heavily landscape parking lots for comfort and visual interest and to minimize heat gain caused by large contiguous paved surfaces. Provide rain gardens bio-swales, and permeable materials to absorb storm water and reduce irrigation needs.
- 20.12.7 Use street tree canopies to help define and enclose streets, particularly where buildings do not do so. Where existing mature trees exist, and where opportunity exists, an effort should be made to incorporate them into the development.



Use trees to help define and enclose streets

21.0 Business / Light Industrial Centre Guidelines

The General Intensive Multi-Family, Commercial & Light Industrial Development Permit Guidelines apply in addition to the following guidelines:

→ Design Assessment

Colwood will assess designs through an approval process. The goal of this process is to compare the submitted design with these guidelines and to consider the rationale documented in accordance with guidelines. The assessment process is not the design process; which is the responsibility of the developer.

→ Site Planning Guidelines – Business or Light Industrial Centres

21.1 Setbacks

21.1.1 The setbacks below are to serve as guidelines and inform initial site planning.

Use	Setback Guidelines		
	Front	Side	Rear
Business Park and Industrial	3 m of lot line	Within 6 m any side lot line that does not adjoin a lot in commercial, industrial or business park zones	Within 10 m of any rear lot line except for commercial, industrial or business parks.

21.2 Acoustical Design

21.2.1 Accommodate processes likely to be the source of repetitious or very loud noises which create a nuisance on adjacent properties in the design of the development.

21.2.2 Shield outdoor work areas from non-industrial neighbours by buildings or significant structures capable of attenuating incidental noise.

21.2.3 A sound mitigation plan may be required. This needs to be prepared by a qualified acoustical engineer and sound mitigation in accordance for any use that would likely generate noise that could be a nuisance to neighbouring residential uses.

→ Form & Character Guidelines – Business or Light Industrial Centres

21.3 Scale & Massing

- 21.3.1 Express a human scale in window size, sill heights, door shelters, and soffit height. Capitalize on dramatic elements such as towers or mechanisms relating to use or processes associated with the business.
- 21.3.2 Respect the scale and height of adjacent development in the design of new industrial buildings.

21.4 Exterior Finish & Architecture Features

- 21.4.1 Ensure compatibility with existing development with respect to siting, exterior finish, design of buildings, landscaping and design of parking areas.
- 21.4.2 Site overhead bay doors so that they are not fronting the building or visible to the street.
- 21.4.3 Reflect the use in the design Give Office areas, manufacturing areas, storage areas, and other building parts distinctive expression by the use of volumes which express internal activities, proportion of openings, and the choice of building materials, finishes, and signage at a human scale.

21.5 Private Open Space & Amenity Areas

- 21.5.1 Provide outdoor patios or amenity areas of adequate dimensions for site users. Suggested standards is 1m² (10 ft²) per employee or per 200m² (2 153 ft²) of building area, whichever is more.
- 21.5.2 Provide covered picnic/lunch areas for staff and customers, and play areas (in instances where on-site day-care is provided) through the provision of space within the landscaping of the site.

→ Circulation, Access & Parking Guidelines – Business or Light Industrial Centres

21.6 Circulation & Access

- 21.6.1 Minimize access to the main roads with such measures as frontage roads and shared driveways.
- 21.6.2 Provide safe and easily identified access for pedestrians, bicycles and vehicles. Accommodate vehicles contemplated to service the business without obstructing flow of traffic on public roads. For example, lay-bys and room to turn trucks on-site should be provided where a business relies on semi-trailer trucks.

21.6.3 In order to provide for efficient and safe vehicular access to properties and between properties, design of parking areas and vehicle manoeuvring to allow for access to adjoining properties, and this access (to adjoining properties) shall be secured by way of a reciprocal access easement registered on title.

21.7 Parking

21.7.1 Where practical, outdoor parking and loading areas relating to operations of the business should be located to the sides and rear of buildings.

→ Landscape Character Guidelines – Business or Light Industrial Centres

21.8 Landscaping

21.8.1 Screen extensive parking areas with buildings, attractive screens of planting, or low walls. Landscape setback areas. Provide landscaping with the objective of:

- providing screening to protect the privacy of occupants of adjacent properties
- providing an effective screen at the time of planting
- The setback shall be landscaped where they separate Industrial buildings or accessory buildings from adjacent land planned to remain in a single family residential use.
- providing a landscape feature which is of a type and sufficient maturity to be hardy and resistant to abuse, including vandalism;
- providing visual diversity to parking areas
- incorporating the principles of crime prevention through environmental design (CPTED).
- A continuous landscaping strip of not less than 2.5 metres (8 ft) wide should be provided along developed portions of each side of the lot which abuts a highway. This strip may be interrupted by boulevard crossings and pedestrian accesses.
- If fencing is provided, it should be on the inside of the landscaping strip.

21.8.2 Leave undeveloped areas in a natural state if they are substantial existing vegetation or landscaping. “Substantial existing vegetation” means a plantation of trees at least 2 metres (6.5 ft) tall with under-storey forming a recognized ecological succession community.

21.8.3 Incorporate vegetation such as native or commonly used species which relate to the existing character of Colwood. Faster growing species should be used to provide interim planting where slow growing species are incorporated.

21.8.4 Accent intersections to improve visibility and assist with navigation with landscaping.

- 21.8.5 Pave parking areas except as specifically exempted in the Development Permit and incorporate landscape elements to provide breaks in rows of automobile parking stalls. A suggested standard for this is a landscaped area at least one half the width of a parking stall between each row of ten adjacent parking stalls.
- 21.8.6 Screen any parking visible from a fronting or flanking street with plants or fences at least 1 metre (3.28 ft) high on a 3 metre (9.8 ft) wide landscaped area (except pedestrian or vehicular crossings).
- 21.8.7 Density and height of initial planting may substitute for setback.
- 21.8.8 Any areas which may not be used for business purposes should be landscaped within the developed area.

Fencing Guidelines

- 21.8.9 Screen chain link fencing from the street and non-industrial or Business Park uses.
- 21.8.10 Set back fences visible from the street and supplement with landscape materials. Setbacks will be inversely proportional to the initial planting size of vegetation. Where vegetation is the same height as the fence, the fence should be setback 0.5 metre (1.6 ft).
- 21.8.11 Where fences are visible from the street or non-industrial neighbours, provide two materials and articulate changes vertically every 0.5 metre (1.6 ft). Examples of “different materials” include brick piers with wood panels or wood panels with lath lattice along the top.

→ Servicing Guidelines – Business or Light Industrial

21.9 Signage

- 21.9.1 Coordinate signage in the design expressed in the Development Permit. Three types of signage are contemplated:
- Identification Sign: One sign visible from any location outside a development which primarily identifies the development. This sign may be freestanding in a landscaped area or incorporated in the design of the building. It should be no higher than the first storey of the office portion of the primary building on the site it identifies. A freestanding sign should incorporate at least one material, finish, and colour of the main building.
 - Information Signs: Signs occupying co-ordinated locations relating to each tenancy or providing directional information. These should be located on fascias no more than 1 metre (3 ft) wide near or over doors and windows intended for public access. If awnings carry messages, no other signs are permitted.
 - Temporary Signs: Provisions for temporary signage should be made in the Development Permit. No other temporary signs are permitted.

21.10 Lighting

- 21.10.1 Design lighting to foster security, but not to shine onto adjoining lands. Illuminate entries and make them visible from the street. Provide armoured housing for security lighting.
- 21.10.2 Illuminate vehicular and pedestrian access to the site in a manner which facilitates visibility and entrance movements from the adjacent road.

21.11 Utilities

- 21.11.1 Integrate ancillary mechanisms in the design or screen from public view by structures relating to the building design.
- 21.11.2 Site elements such as storage, shipping and loading areas, utility kiosks, transformers and meters, bay doors and garbage receptacles to be screened from adjacent roads.

22.0 Mixed Use Employment Centre Guidelines

The General Intensive Multi-Family, Commercial & Light Industrial Development Permit Guidelines apply in addition to the following guidelines:

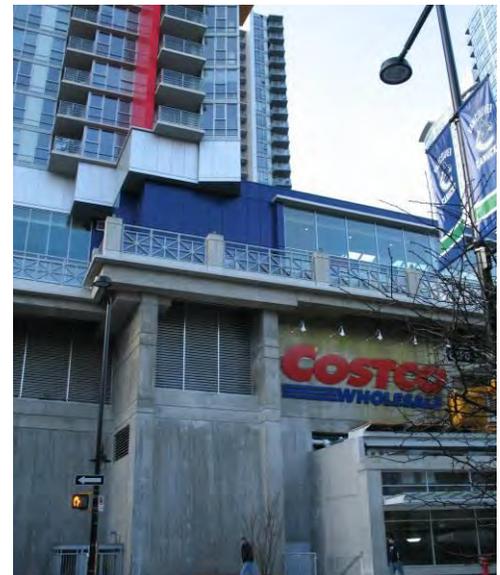
→ Site Planning Guidelines

22.1 Integrate Uses

- 22.1.1 All built forms need to help fulfil pedestrian-oriented objectives.
- 22.1.2 Prior to development of new large format oriented retail, the development will:
- Ensure the location of the site is consistent with any objective, policy, strategy or plan for the area.
 - Prepare a site analysis that documents the character of the area and identifies opportunities and constraints of the subject site location.
- 22.1.3 Where possible, locate new large format retail or light industrial within a mixed use development – for example, in a second storey or at ground level beneath residential.
- 22.1.4 If light industrial uses are integrated into the centre, provide small parcel, artisan and/or light industrial uses that are compatible with multi-family and/or live-work residential.
- 22.1.5 Use live/work residential units, including ground-oriented, where transition is needed between commercial and residential uses



Large format theatre complex „buried“ behind finer grained retail uses in downtown Albuquerque, NM.



Large format retail located below a residential tower - customers live above.



Locate in a centre on a second storey.

- 22.1.6 Medium and/or higher density housing may be used as a transition to adjacent existing residential or other use areas to reduce the apparent scale and impact of large store buildings.
- 22.1.7 Where integration within a mixed use development is not possible, provide a scale transition between existing large format retail buildings and their surrounding streets and residential areas to minimize the visual bulk of developments and/or create a street frontage by “wrapping or capping” a larger retail unit with smaller retail units that front the street edge or units directly around the existing building.
- 22.1.8 Provide corner elements at major intersections and at the end of streets to ensure a consistent street frontage.

22.2 Building Siting & Orientation

22.2.1 Where residential uses are integrated with large format retail, locate retail uses at grade to reinforce a high quality pedestrian realm

22.2.2 Locate commercial and mixed-use buildings to the edge of the sidewalk and site continuously and without breaks using a common set back or ‘build to line’.

22.2.3 To achieve urban design and human scale objectives, the base (or podium) of buildings over 6 storeys in height needs to be at a scale similar to adjacent buildings.

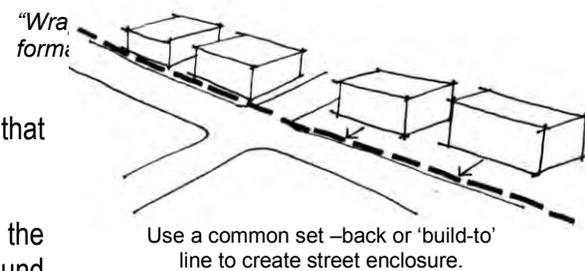
22.2.4 Site buildings to provide a safe, pedestrian network that supplement the streetscape and open space network.

22.2.5 Locate publicly oriented, active uses at grade and at the sidewalk edge. Retail continuity is encouraged on the ground floor, with office or residential uses located above.

22.2.6 Site and orient residential buildings or residential uses within mixed-use buildings to overlook public streets, parks, and walkways and private communal spaces.

22.2.7 Where tall buildings (6 or more storeys) are being proposed in this area, the Centres Development Permit Area Guidelines will be consulted for matters related to site planning, form and character, circulation and access, landscape character, and servicing.

22.2.8 Where ground-oriented residential dwellings are being proposed for this area, the Neighbourhood Development Permit Area Guidelines will be consulted for all matters related to site planning and form and character.



→ Circulation, Access & Parking Guidelines – Mixed Use Employment Centres

22.3 Circulation & Access

22.3.1 Where residential uses are integrated with large format retail, locate retail uses at grade to reinforce a high quality pedestrian realm.

22.3.2 Internal roads are to be finished to a standard similar to municipal roads and shall include curbs, sidewalks, boulevards, and street trees.

22.3.3 Ensure safe and convenient access for cars to central parking areas and dwelling units.

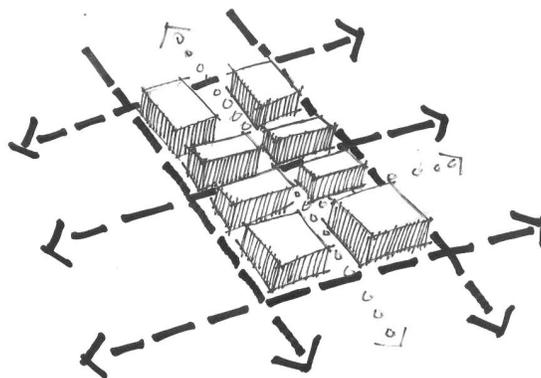
22.3.4 Integrate the development with the surrounding streets by providing clear, safe and direct links, particularly for pedestrians and cyclists.

22.3.5 Where possible, create blocks between 100 metres to 150 metres in length and should not exceed 180 metres in length. Break up large blocks into smaller blocks by incorporating new streets and pedestrian/cyclist pathways that connect with existing streets and pedestrian / cyclist pathways in surrounding areas.

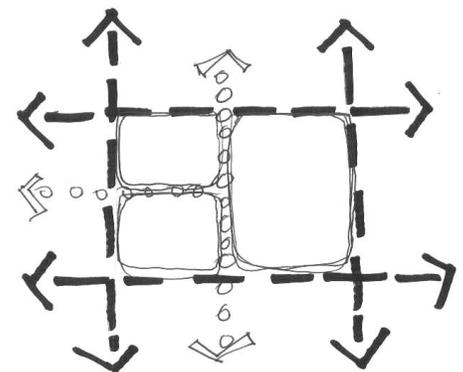
22.3.6 Where large blocks are unavoidable, provide publicly accessible mid-block pedestrian and bicycle pathways.



Large format retail & residential side by side.



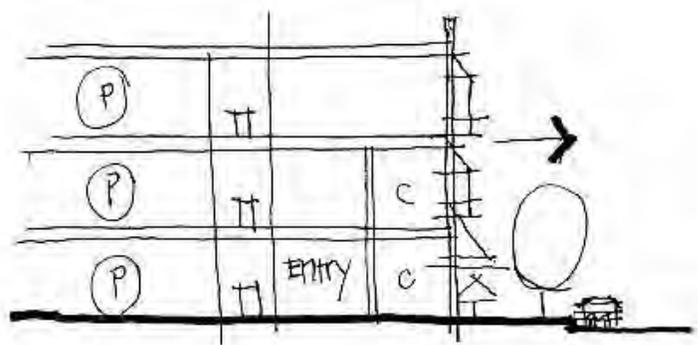
Aim for a maximum block size - 100m x 150m



Where large blocks cannot be avoided, break it up with pedestrian pathways.

22.4 Parking

- 22.4.1 Where possible, wrap buildings around parking to conceal it.
- 22.4.2 Where possible, avoid off-street surface parking. In particular between the front face of a building and the public sidewalk.
- 22.4.3 Locate parking on the roof or underground of retail development to use space efficiently and better integrate buildings to the streetscape at the ground level.
- 22.4.4 Share parking between adjoining facilities to reduce the amount of space required.
- 22.4.5 Maximize opportunities for on-street parking within the area to reduce the amount of on-site parking required. However, avoid unwanted spill-over of parking onto adjoining area uses.
- 22.4.6 Where parking is visible from the street, break up large areas with buildings or landscaping to reduce their visual prominence.
- 22.4.7 Where parking is at-grade, ensure high quality landscaping including shade trees, shrubs and groundcovers without creating places of concealment.
- 22.4.8 Pedestrian access exits from basement or roof-top parking link directly to the main entrance of the development.
- 22.4.9 Where possible provide multiple entry and exit points from roads to off-street parking, to reduce congestion.
- 22.4.10 Avoid large parking lots surfaces.
- 22.4.11 Integrate above-ground parking structures with the building design and have usable building space (e.g. shallow retail frontages) rather than parking facing the public realm.



22.5 Pedestrian Environment

- 22.5.1 Make use of internal spaces within large format retail to create 'pedestrian streets' that also connect to the surrounding external streets.

→ Landscape Character Guidelines – Mixed Use Employment Centres

22.6 Landscaping

- 22.6.1 Provide substantial landscaping along all perimeter areas, including planting of trees in clusters at several locations within the perimeter.
- 22.6.2 Provide substantive landscape islands to break the expanse of parking areas. Heavily landscape parking lots for comfort and visual interest and to minimize heat gain caused by large contiguous paved surfaces. Provide rain gardens bio-swales, and permeable materials to absorb stormwater and reduce irrigation needs.
- 22.6.3 Design parking areas to be multi-functional; integrate areas of public use and stormwater management.

23.0 Neighbourhood Guidelines

→ Application

In the Neighbourhood area, these guidelines mainly apply to:

- Housing with two units or more not including secondary suites
- Intensive residential buildings on lots under 550m² or less

Where commercial, multi-family or mixed-use residential / commercial buildings are being proposed in this area, the *General Multi-Family, Commercial & Light Industrial Development Permit Guidelines* will apply for all matters related to site planning, form and character, circulation and access, landscape character, and servicing.

A special effort will be made to briefly clarify applicable guidelines for small infill developments such as duplexes or 3-unit flex housing.

→ Site Planning Guidelines

23.1 Responding to Site Characteristics

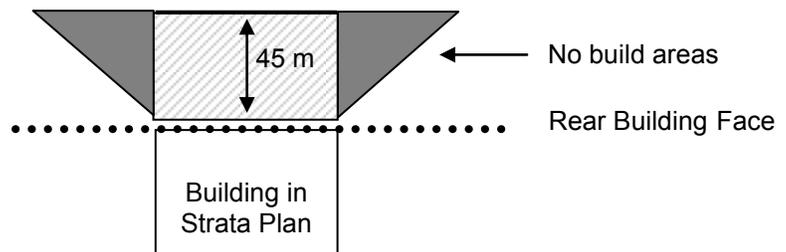
- 23.1.1 Respond to significant natural topographic features and site buildings to take advantage of slope and minimize disruption of natural site features such as rock outcroppings or mature vegetation.
- 23.1.2 Reflect characteristics consistent with the surrounding context as it relates to the orientation, scale, form, height, setbacks and materials proposed for a development. Sites in older neighbourhoods should be developed in a manner that improves the neighbourhood.
- 23.1.3 Council may approve variances where the siting of buildings can be shown to lessen environmental impact.
- 23.1.4 Where development is adjacent to a public open space:
- The open space edge should create design conditions that include the street within the visual realm of the park.
 - As a modification to standard streetscape location requirements, the open space edge landscape treatment of natural parks and open space areas may extend into the area between the curb and property line.
 - Street tree planting at open space edges may be less structured than the standard treatment.
 - The standard sidewalk treatment may be substituted with a bicycle or walking path.
 - Standard location requirements for street furniture and street lighting may be modified at the open space edge condition.

23.2 Building Siting & Orientation

- 23.2.1 Reverse or double-fronting will only be considered where lots have a 10 metres or more landscape leave area, or where there is a change of grade of over 2 metres in the rear yards adjacent to the street. Avoid a walled-street condition. This may create movement predictors or entrapment areas.
- 23.2.2 Detached residential buildings on corner lots should have front and exterior side elevations that are compatible in architectural character. Architectural character includes items such as building materials, roof lines, windows and door treatments.
- 23.2.3 Orient buildings towards and frame public streets and open spaces to create a sense of enclosure, street vitality and safety, and to generally enhance the visual quality and character of development.
- 23.2.4 Ensure that ground-oriented units have their façade facing the street. Front doors need to be visible, not more than 1.3 metres behind the front building line, and entry porches extend a minimum of 0.6 metre forward of a front building line.
- 23.2.5 In areas of transition, Council will consider the proposed future uses of adjacent properties in assessing the compatibility of proposed developments in neighbourhoods.
- 23.2.6 For attached or mixed-types of housing, cluster development on the site such that there are varying numbers of units per townhouse block where townhouse blocks form three or more attached units.
- 23.2.7 For ground-oriented units, orient kitchen area workspace to street or usable open space; orient central living areas to outdoor spaces or views.
- 23.2.8 If a building is on a corner lot, i.e. having two street frontages:
- Present an active front on any visible street frontages; and
 - Orient driveways to the minor roadway.

Duplex or Two Buildings on the Same Building Strata Plan Guidelines

- 23.2.9 Both residential units face the street with a minimum 4.5 metres (14.8 ft) habitable area of wall frontage.
- 23.2.10 No part of a residential building within a building strata plan may be sited directly behind another residential building in the same building strata plan, as defined as within any part of a rectangular area that extends perpendicularly from the rear building face of a residential building to the rear lot line.
- 23.2.11 No part of a residential building within that strata plan may be sited within either triangular area bounded by a line extending 45 metres (148 ft) perpendicularly from the rear building face of another



- building within the same building strata plan and a line extending 63.6 metres (209 ft) along a 45 degree angle from the rear corner of another building within the same building strata plan, as illustrated.
- 23.2.12 Where two buildings form part of the same building strata plan, the distance between the two residential buildings must not be less than 6 metres (20 ft).
- 23.2.13 Where a residential building forms part of a building strata plan on a property greater than 0.8 ha (2 acres) in area, the size of that building's footprint must not exceed 242 m² (2 600 ft²) of gross floor area.
- 23.2.14 Where a residential building forms part of a building strata plan on a property of 0.8 ha (2 acres) or less in area, the size of that building must not exceed 186 m² (2 000 ft²) of gross floor area.
- 23.2.15 Where two residential buildings form part of the same building strata plan, the gross floor area of one building may not be less than 85% of the gross floor area of the other building within that building strata plan.
- 23.2.16 Where two buildings form part of the same building strata plan, no building that forms part of that strata plan may have a width or depth less than 9.7 metres (32 ft).
- 23.2.17 Notwithstanding any other design guideline in this section, where two residential buildings form part of the same building strata plan on a lot of less than 0.8 ha (2 acres), the physical separation between the two buildings must be sufficient to allow a 3 metres (10 ft) wide driveway to be located between the two buildings.
- 23.2.18 Where two residential buildings form part of the same building strata plan on a lot of less than 0.8 ha (2 acres), the setback from any interior side lot line may be reduced to 1.2 metres (4 ft).
- 23.2.19 Notwithstanding any other design guideline in this section, where two residential buildings form part of the same building strata plan on a lot of less than 0.8 ha (2 acres), the front width of any one building may not be less than 85% of the front width of the other building within that strata plan.

23.3 Setbacks

23.3.1 The setbacks below are to serve as guidelines and should inform initial site planning.

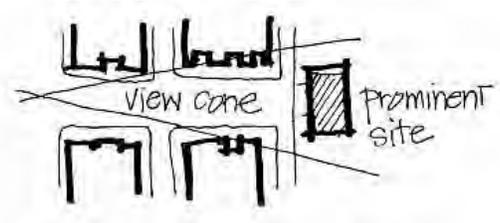
Use	Setback Guidelines		
	Front	Side	Rear
Clustered housing, attached, or small lot lands	6m of lot line	1.5m – 4.5m of any interior side lot line	6m – 7.5m of any rear lot line
Multi-Family Residential	4.5 - 7.5m of lot line	3m or a distance equal to 0.6 multiplied by the building height, whichever is less.	3m – 10m of any rear lot line
Mixed Use Residential Commercial & Commercial	2.0m of lot line	2m; 6m of where the interior side lot line adjoins a residential uses	10m of any rear lot line

Confirm appropriate setbacks based on the remaining guidelines below:

- 23.3.2 The City will consider variances where the siting of buildings can be shown to lessen environmental impact.
- 23.3.3 Reduce building setback or setbacks where this would improve the relationship between a building and an access route or public road.
- 23.3.4 Where Council is satisfied that a reduction in a setback does not have significant impacts on adjacent properties (impacts may be mitigated through screening and grade differentiation).
- 23.3.5 A minimum 1 metre (3.3 ft) setback occurs between the side of the building and any environmentally protected areas.
- 23.3.6 Setback from arterial roads to be 12 metres to allow for screening and berming.
- 23.3.7 For duplexes, developments must provide a minimum 3.7 metres (12 ft) side yard setback. The exceptions are in the case of corner lots, and when all parking is provided within the building.

23.4 Micro-Climate, Shadowing, Solar Access & Views

23.4.1 Define distant view corridors (e.g. to the Strait of Juan de Fuca) with 'leave' areas (unrestricted height areas for buildings and vegetation) and height managed areas within corridors.



23.4.2 Define gateways or "arrival points" with built form, existing natural features and/or significant landscape treatment coordinated with the overall perimeter landscape design.

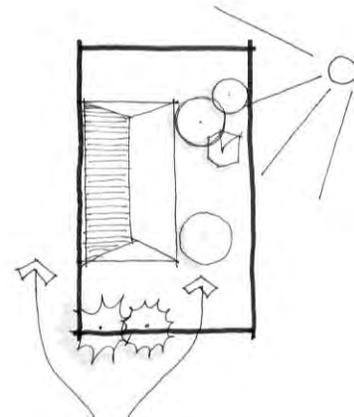
23.4.3 At points where views terminate, locate prominent landscape and architectural features to act as orientation landmarks.

23.4.4 Where heritage features exist, they should become prominent landmarks and may be surrounded with development of a similar or complementary architectural character.

23.4.5 Locate public utilities so that they do not interrupt views.

23.4.6 Include sun/shade diagrams for multi-family projects of the subject development and the surrounding properties at the following times to guide site planning and building massing so as to minimize impacts of shadows on adjacent properties:

- Equinox: 8 a.m., 12 noon, 4 p.m.
- Winter Solstice: 9 a.m., 12 noon, 3 p.m.



Use landscaping to increase sunlight penetration and natural ventilation effectively.

- 23.4.7 Site and design buildings to minimize disruption of the privacy and outdoor activities of residents in adjacent buildings and private open spaces.
- 23.4.8 Orient new development so that a majority of primary living spaces receive direct sunlight for daytime hours.
- 23.4.9 Site single aspect dwellings (dwelling units with exterior access on one side) to take advantage of sun. Wider frontages with shallow floor plans to allow adequate penetration of daylight are encouraged.
- 23.4.10 Design buildings to receive daylight from at least two sides of a building, or from one side and a roof. Where possible, provide dwellings with a choice of aspect, either front and back, or on two sides for corner units.
- 23.4.11 Site buildings to minimize blocking views and solar access from existing or anticipated development, and that shadowing impacts on adjacent buildings and useable open spaces are minimized.
- 23.4.12 Maintain and enhance existing views or vistas from the site where possible.

23.5 Safety, Security & Accessibility

- 23.5.1 Provide for the safety and privacy for each residential unit.
- 23.5.2 Ensure entries to each ground-oriented residential unit are:
- Visible to residents;
 - Made private by staggering or recessing them;
 - Units adjacent to public roads should have their doors visible and accessible from that road;
 - Exterior private use areas should be screened to provide for privacy;
 - Designs for multi-family residential developments are expected to incorporate the basic principles of crime prevention through environmental design (CPTED); and
 - Pedestrian circulation.
- 23.5.3 Ensure new multi-family residential developments are:
- Designed to ensure safe and convenient routes for residents;
 - Provide a trail link between housing clusters within a project;
 - Provide trail links to the larger neighbourhood in a manner that does not compromise the safety and privacy of the development;
 - Provide on-site pedestrian circulation which forms a network connecting dwellings to parking and common areas; and
 - Provide pedestrian pathways that are constructed to a width and tread standard which meet the needs of the user.

23.6 Energy Efficiency

- 23.6.1 See General Multi-Family, Commercial & Light Industrial Development Permit Guidelines.
- 23.6.2 Consider green roofs a low priority as the project size decreases.

→ Form & Character Guidelines

23.7 Scale, Mass & Built Form Transition

- 23.7.1 In order to create a good fit, the scale and height of infill development needs to be the same or create a transition to adjacent houses. This can be achieved when new buildings are greater than two storeys higher than surrounding existing buildings or where landscaping serves a similar height and scale transition.
- 23.7.2 Create visual interest by providing variations in height, rooflines and massing.
- 23.7.3 Avoid long continuous façade frontage and respect the rhythm of the existing streetscape.
- 23.7.4 Ensure articulation of building faces with features such as balconies, porticoes, bay windows, and changes in setback at upper storeys.
- 23.7.5 For small lot buildings:
- Avoid repetition in design. Avoid within any group of three adjacent dwellings, a duplication of building height, roof shape or pitch, porch design, fenestration or finishing materials.
 - Articulate the form of houses on corner lots to address each street frontage including elements like porches that project into side yard setbacks and maintain sightlines.
 - Side yard variances for a minimum of 50% of the elevation may be acceptable. Use natural topography to develop harmonious transition with the built form of adjacent properties unless required a retaining wall exceeding 2.5 m.

23.8 Exterior Finish & Architecture Features

- 23.8.1 Create a well-proportioned, human-scaled, and unified building form that exhibit an overall architectural concept that responds to the established architectural concept through building design elements, details, and materials.
- 23.8.2 Ensure a residential character through:
- Sloping roof lines.
 - Shielded mechanical equipment
 - Variations in windows with window and door trim or casings.
 - Porches and verandas.
 - Dormers and gables.
 - Belt courses.
 - Bargeboards, fascia, soffits, trim, broad overhanging eaves.
 - Variations in finishing materials.

- Variations but complementary façade and elevations in terms of colour, texture and pattern.
- Local materials such as wood, granite, or river rock as a façade treatment and as an element in freestanding signage.

23.8.3 Select building materials based upon the following considerations:

- Materials are to be compatible with, and enhance, surrounding development, topography and natural features
- Recycled, non-toxic building materials be used wherever possible
- No fewer than 2 and no more than 5 building materials be used on any one elevation of the building
- Improve Visual interest by the articulation of planes and volumes,
- convey an image of quality, durability, and performance with building materials
- Suitable primary accent materials include heavy wood timber, rock, and stone
- When using stone or rock accents, these appear as a supporting element to the primary mass and entryway

23.8.4 Treat all blank walls (e.g. those walls without fenestration) with cladding that is complimentary to the cladding of the building and adds interests to the look and texture of the wall and building, or with a painted mural or other artwork, and that a sufficient setback be provided to enable some articulation of the wall, when the wall is likely to be exposed to public view.

23.8.5 Provide sheltered front porches.

23.8.6 Avoid mirror image housing units unless each unit has a significant amount of fenestration and architectural detail.

23.8.7 For small lot buildings, ensure designs achieve harmony among single-family homes in a neighbourhood by providing:

- A balance of visual continuity with distinctive elements.
- Enhanced visual interest, without juxtaposition in any one unit of more than one design theme.
- One or more design themes (e.g., traditional Edwardian, Arts and Crafts, traditional or contemporary West Coast) in a subdivision may be appropriate provided that they complement each other.

23.8.8 As all units near grade are to ground-oriented units, design façades such that:

- The front door and entryway of the house have prominence in the streetscape;
- There is a balance of horizontal and vertical elements;
- Porches, verandas and balconies, when included in the design, are amply proportioned so as to be functional for use by the residents (i.e., they are wide enough to accommodate seating).

23.8.9 Where attached or detached garages are provided on ground-oriented units, design garages for minimal prominence such that:

- Garages be set back from the entryway feature of the residence a minimum of 0.6 metre
- Double garages are not situated on lots of less than 11 metres (36 ft) or less in width unless they have rear access or are recessed by side driveway to the rear of the lot

- A setback of 6 metres (20 ft) from front property line and 3 metres to side lot line to building for each parking stall
- Garage doors integrate into the overall design of the home and create visual interest with trim and decorative accents, window transoms or other elements to break up the mass.

23.8.10 For ground-oriented units, a representative sample of building elevations to be used in the development will be submitted as part of the application.

23.9 Private Open Space & Amenity Areas

23.9.1 To ensure compatible and suitable landscape treatments, especially in environmentally sensitive areas, the owner should enter into private agreements with the builders.

23.9.2 Landscape enclosures such as garden walls, fences and hedges on the exterior side yard of corner lots (or on the front yard, depending on the orientation of the main front entrance) may be provided.

23.9.3 Ensure a minimum area of private outdoor space per unit which is not less than 3 metres in width and not less than 10m² in area. Notwithstanding this guideline, not less than 5 percent of a lot, in a ground-oriented development, shall be developed as useable open space.

23.9.4 In family oriented developments, useable open space should average more than 3m² for each bedroom with a minimum of 100m² required for all multi-family residential developments.

23.9.5 Connect all common open space to public walkways and ensure separation from both vehicular traffic and parking.

23.9.6 Situate all common space in an area which allows for sunlight penetration. Locate the primary private open space on the sunny side of the building, either to the south or to the west where possible.

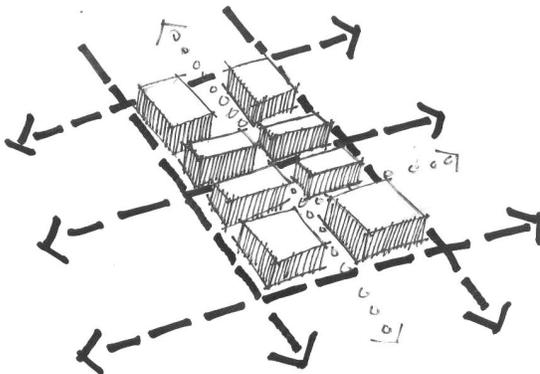
23.9.7 Consolidate all common space in one compact, non-linear and functional area, preferably in a central location and away from the periphery of the site.

23.9.8 Where play equipment is provided in common areas, the equipment must conform to current safety standards.

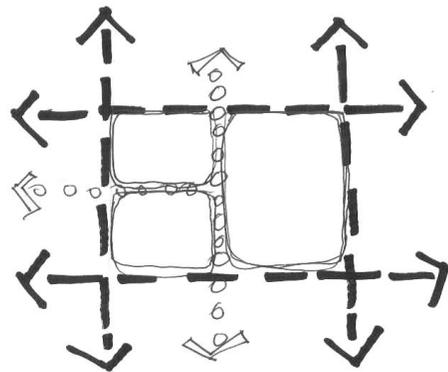
→ Circulation, Access & Parking Guidelines

23.10 Circulation & Access

- 23.10.1 The guidelines of Section 19.6 apply.
- 23.10.2 Ensure that access for vehicles is separated from pedestrian walkways, provides safe separation distances from nearby road junctions and does not encourage left turns onto or from roads of a collector status or higher where alternatives are available.
- 23.10.3 Where ever possible, create rear access for vehicles and leave front access for pedestrians only.
- 23.10.4 Ensure that on-site roadways provide safe and convenient access for emergency vehicles, moving vans and service vehicles.
- 23.10.5 Where possible, create blocks to be between 100 metres to 150 metres in length and not exceed 180 metres in length. Large blocks should be broken up into smaller blocks by incorporating new streets and pedestrian/cyclist pathways that connect with existing streets and pedestrian/cyclist pathways in surrounding areas. Where large blocks are unavoidable, provide publicly accessible mid-block pedestrian and bicycle pathways.
- 23.10.6 Minimize cul-de sacs and other physical barriers to pedestrian and cyclist movement. Where cul-de sacs are incorporated, include a pedestrian or bicycle through connection or where a development site is proposed on the terminus of the cul-de-sac, an easement or public right of way dedication should be sought.



Aim for a maximum block size - 100m x 150m



Where large blocks cannot be avoided, break it up with pedestrian pathways.

23.11 Parking

- 23.11.1 Avoid locating large parking areas for commercial and mixed uses areas between the building and the street. Landscape features should separate aisles.
- 23.11.2 Provide accessible parking for residents and visitors which provide convenient access to building entries. Ensure clear lines of sight from access points to parking areas to enable casual surveillance and safety.
- 23.11.3 Landscape the perimeter resident and visitor parking in a manner and use grass park or similar permeable surfaces.
- 23.11.4 Finish strata driveways in detached townhouse developments to a standard similar to municipal roads, and include curbs, sidewalks, boulevards, and street trees.
- 23.11.5 Locate parking for recreational vehicles, where provided, in low traffic areas preferably at the back of the development, and screen with vegetation.
- 23.11.6 Provide safe and secure indoor and outdoor storage facilities for bicycles.
- 23.11.7 Council may approve variances for reductions in the number of required accessible parking spaces in multi-family residential developments where the building form is that of detached townhouses, and each individual dwelling unit has its own driveway and parking area.
- 23.11.8 Provide separate driveways for each ground-oriented unit.
- 23.11.9 For increased safety for ground-oriented units, minimize the number of driveway accesses through shared or rear access particularly along collector roads.

23.12 Pedestrian Environment

- 23.12.1 Provide pedestrian right of way connectors between streets or streets and open spaces when topography or other difficulties in ensuring direct street connections cannot be provided. All such connectors should be designed with reference to safety and security factors and at a minimum provide a clear sight line from entrance to exit.
- 23.12.2 Standard sidewalk treatment may be substituted with a bicycle or walking path.
- 23.12.3 A system of pedestrian friendly connections along streets should link parks and open spaces.
- 23.12.4 The standard streetscape may be modified on one or both sides by existing trees, an open space edge condition or an area of significant character.
- 23.12.5 A more scenic character is encouraged for the open space connector streetscapes. These streetscapes should visually connect open spaces.
- 23.12.6 Street trees may be selected to represent tree species in the open spaces that they connect. Consideration will be given to the overall image of street trees with respect to seasonal variation.

- 23.12.7 The edge treatment of the right of way should be consistent for the length of the street block. Provide a landscaped planting strip for groundcovers and shrubs in the setback area at the property line.
- 23.12.8 Include pedestrian walkway connections on-site and to City sidewalks including (where appropriate):
- provide a trail link between housing clusters within a project;
 - provide trail links to the larger neighbourhood in a manner that does not compromise the safety and privacy of the development;
 - provide on-site pedestrian circulation which forms a network connecting dwellings to parking and common areas; and
 - provide pedestrian pathways that are constructed to a width and tread standard which meet the needs of the user.
- 23.12.9 Provide zebra or ladder painted crosswalks, or crosswalks made of special paving materials, at all pedestrian crossings to increase driver awareness.
- 23.12.10 Where appropriate, provide corner bus bulges along sidewalks and into the streetscape design to enhance pedestrian crossings and provide space for landscaping, seating and public art. Provide distinctive bus shelters for the comfort of transit users.
- 23.12.11 Provide high quality public streetscape amenities including benches, planters, garbage receptacles, bike racks, public telephones, and bus shelters.

→ Landscape Character Guidelines

23.13 Landscaping

- 23.13.1 A complete rationale for proposed street trees and plantings should be submitted with the development permit application.
- 23.13.2 Landscaping should be provided with the objective of:
- providing screening to protect the privacy of occupants of adjacent properties as well as the residents of the development
 - providing an effective screen at the time of planting
- 23.13.3 Setbacks may be landscaped and shall be provided to separate multifamily residential buildings or accessory buildings from adjacent land zoned for single family residential use.
- 23.13.4 Use plant species which may be considered drought resistant in all landscaping.

- 23.13.5 Provide low-height vegetation between adjacent driveways to mitigate the visual impact of paved surfaces.
- 23.13.6 Provide some effective screening at the time of planting.
- 23.13.7 Use permeable paving, concrete unit pavers, coloured or patterned materials for front access driveways.
- 23.13.8 Ensure fencing along front and exterior setbacks is no more than 1.2 metres (4 ft) in height, and fencing on all exterior setbacks should be no more than 50% wood, using other materials, such as: metal post and rail, picket, wooden rail, and split wood.
- 23.13.9 Fencing on any other lot line should be no more than 1.8 metres (6 ft) in height.
- 23.13.10 Plant street trees along the road frontage or right of way after construction of house and driveway (spacing and variety of trees to the approval of the City Engineer).
- 23.13.11 Ensure retaining walls of stacked rock or stacked rock boulder are no more than 2.5 metres from finished grade, but may exceed 2.5 metres in height if, in the opinion of the City Engineer, the wall will not have a visual impact on surrounding properties or the general public, or the wall is terraced in 2.5 metre lifts with a minimum 1.5 metre landscaping area provided and landscaping and irrigation are installed prior to subdivision approval;
- 23.13.12 Landscape 20% of the portion of each lot, which is not covered by driveway and building with materials other than lawn and gravel;
- 23.13.13 Intensive residential lots will include a maximum width of 6 metres (20 ft) impermeable single-finish driveway, unless at least two materials or permeable paving are used.

→ Servicing Guidelines

23.14 Mailboxes

- 23.14.1 Cluster mailboxes at neighbourhood centres and combined with use of a building or shelter having architectural character. Where this is not possible, locate mailboxes adjacent to other compatible uses such as programmed recreational facilities (e.g. play structures, bike parking).
- 23.14.2 Where conditions only allow freestanding community mailboxes, there should be no more than two together. They should not be located at an inside or outside street corner, at the end of 'T' intersections, or at the front yard of an individual lot.
- 23.14.3 Screening with landscape material may reduce the visual impact of the mailbox.
- 23.14.4 Community mailbox locations at major open space edges should be avoided. Garbage and recycling containers should be provided at mailbox locations.

23.15 Signage

23.15.1 Section 19.16 guidelines apply.

23.16 Lighting

23.16.1 Ensure building and site lighting is:

- Designed to minimize the illumination of adjacent properties.
- Designed to minimize the affect of lighting on the night sky. Outdoor lighting is the main source of light pollution. To minimize this impact, outdoor lighting should be regulated to control the quantity, quality and direction of night lighting.

23.16.2 Provide electrical service at some poles to accommodate temporary or seasonal decorative lighting installations.

23.17 Utilities

23.17.1 Provide containers for garbage collection and recycling. Screen items from view and locate in a safe and convenient location on-site.

23.17.2 Provide full services on streets fronting and flanking the site, including the provision and/or upgrading of sidewalks and pavements, street trees and street lighting;

23.17.3 Provide all services by way of underground wiring (electrical, telephone and cable television).

23.17.4 Large utility buildings are subject to the same guidelines as the adjacent buildings.

23.17.5 Locate utilities' cabinets or pedestals in lanes or lot flankages wherever possible; incorporate with street furniture or artistic elements.

23.17.6 Avoid locating utility cabinets or pedestals at intersections, on streets in areas of significant character or on the open space side of streets. Avoid locating utility cabinets or pedestals should at the end of 'T' intersections.

23.18 Stormwater Management

23.18.1 See General Multi-Family, Commercial & Light Industrial Development Permit Guidelines.

24.0 Hillside – Shoreline Guidelines

→ Application

These guidelines mainly focus on responsible land development that is context specific.

Where commercial, multi-family or mixed-use residential / commercial buildings are being proposed in this area, the *General Multi-Family, Commercial & Light Industrial Development Permit Guidelines* will apply for all matters related to form and character.

→ Site Planning Guidelines

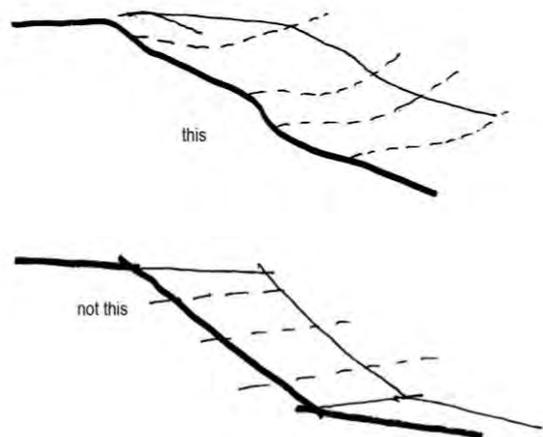
24.1 Site Assessment

- 24.1.1 Complete a topographic survey to assess and plan the site in a manner that respects the slope and special features.
- 24.1.2 Complete a geotechnical assessment to identify and avoid hazardous areas, to make the site safe for human use and to maintain environmental quality.
- 24.1.3 Complete an environmental assessment to identify existing ecosystems and special natural and cultural features of a site.

24.2 Responding to Site Characteristics

Grading Guidelines

- 24.2.1 Avoid grading or alteration of key topographic features (e.g., knolls, ridgelines, bedrock outcrops, cliffs, ravines, etc).
- 24.2.2 Avoid a manufactured appearance for graded slopes. Avoid sharp cuts and long or wide slopes with a uniform grade. Establish contours and gradients that resemble the naturally occurring terrain. Round out slope transitions and blend transitions between lots or adjacent to undisturbed areas.



24.2.3 Minimize grading large flat terraces on hillside sites by developing smaller terraces (e.g., for building pads, lawn areas, patios, stepped retaining walls, etc).

Cut and Fill Guidelines

24.2.4 Where the volume of cut exceeds the volume of fill material for a proposed development, avoid disposing excess fill on site in the form of unnecessary filling, berming or side-casting. Where necessary, dispose of excess material at appropriate off-site locations.

24.2.5 Re-vegetate exposed slopes as quickly as possible to prevent erosion and slope stability problems.

Earthworks Guidelines

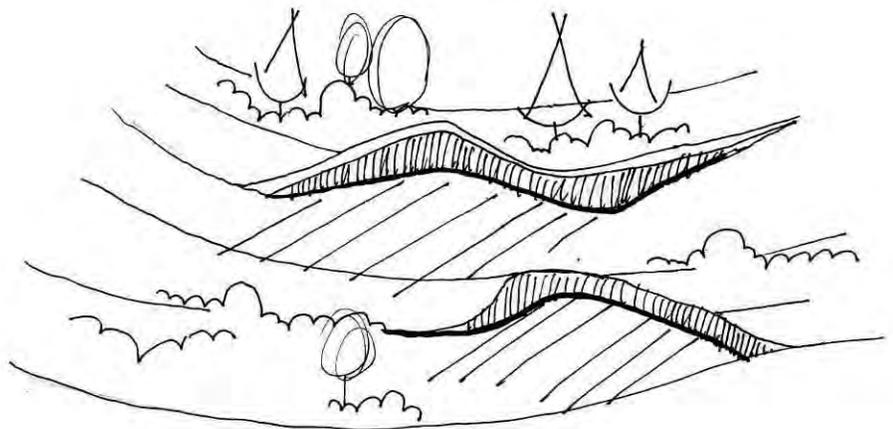
24.2.6 Avoid potentially hazardous or unstable areas of the area and site.

24.2.7 Do not clear more trees and vegetation than is needed to install services for any given phase of the development.

24.2.8 Avoid side-casting of material along undeveloped road frontages.

24.2.9 Avoid the excavations and the placement of fill that result in terrain forms that are not characteristic of the natural topography.

maintain cut forms that are characteristic of the natural topography

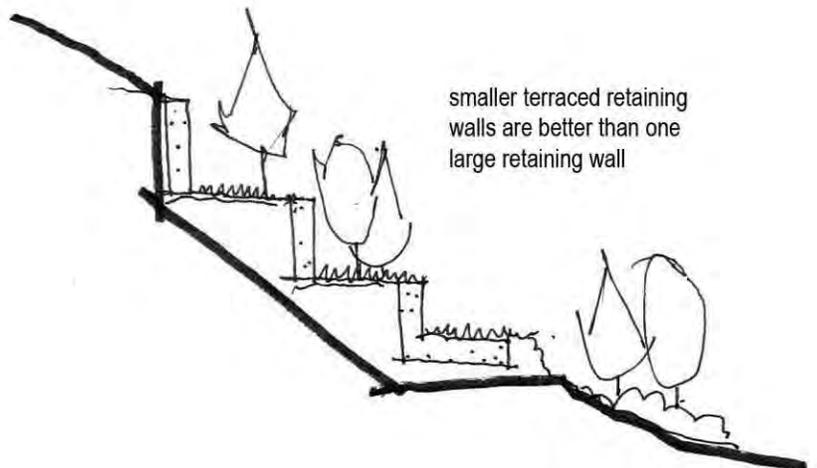


Retaining Wall Guidelines

24.2.10 Use retaining walls where they can reduce disturbing the slope to provide useable construction sites.

24.2.11 Retaining walls will respect the natural character of the site and not be dominating, without texture and terraced and planted.

24.2.12 Where high retaining walls are required, employ a system of smaller terraced retaining



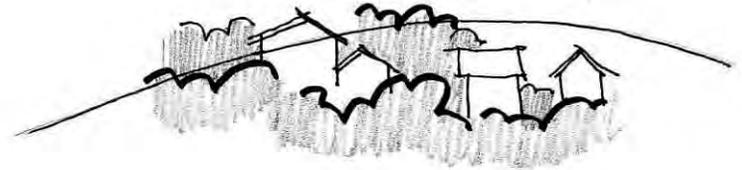
walls. Ensure the height and depth of the wall steps is consistent with the natural terrain or with the slope above and below the walls. For terraced retaining wall systems, landscape the intermediate terraces.

- 24.2.13 If the retaining wall is related to the structural integrity of the building, it will be necessary to address the retaining wall through the building permit process.

Natural Character Preservation Guidelines

- 24.2.14 Site intensive residential development in the vicinity of ridgelines so as to retain trees and other vegetation on ridgelines.

where possible, maintain a natural ridgeline



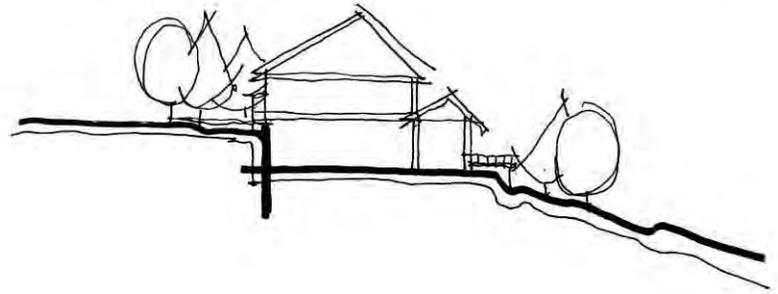
- 24.2.15 Where there are gaps or interruptions in the ridgeline caused by site development, plant trees and vegetation in front of and behind the disturbance to restore a naturally appearing ridgeline.

- 24.2.16 Where interruptions of a ridge occur, ensure they occur in several smaller components rather than one continuous interruption.

- 24.2.17 Site building envelopes below the ridgeline as much as possible.

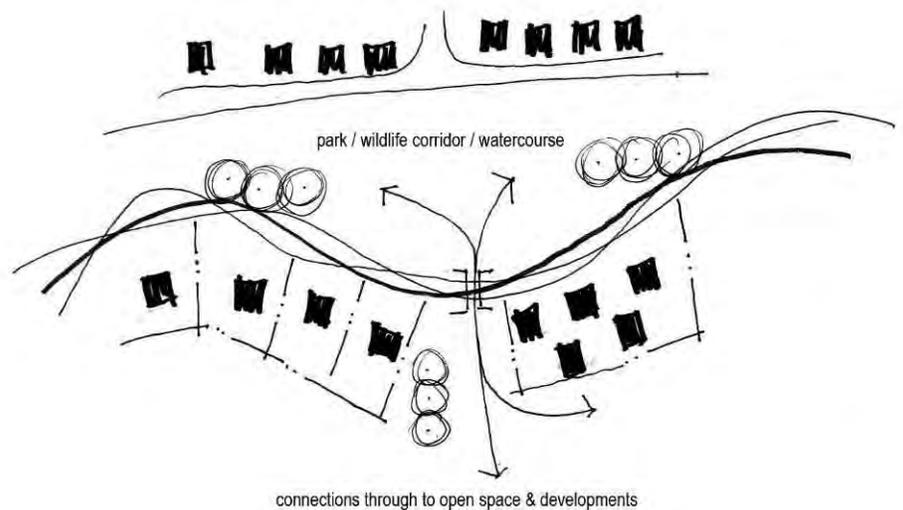
- 24.2.18 Site development in a way so as not to alter, disturb or remove significant scenic features of a parcel such as a rock outcrop, cliff, overhang, knoll, ravine, gully, water body, water course or wetland. Where neighbouring buildings have responded positively and consistently to similar topographic conditions on their site, consider similar treatments.

retain trees & vegetation on ridgelines as much as possible



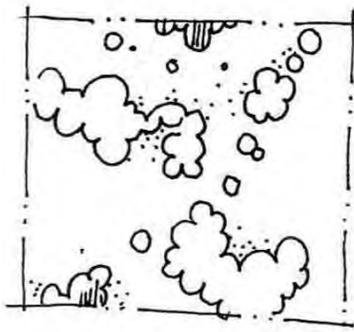
24.3 Open Space Development & Retention

24.3.1 Take cue from key Environmentally Sensitive Areas (ESAs), corridors (wildlife, streams, creeks, etc.) and natural site features for developing an area or site plan that connects and retains as much open space as possible. Incorporate significant features such as rock outcrops, streams, cliffs, and stands of trees into the open space/trail system as much as possible.

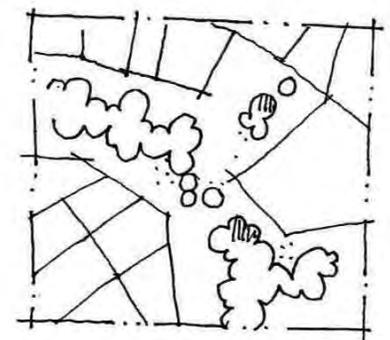


24.3.2 Provide a natural corridor through and/or around the property, or connect to open space in the community.

existing natural features



retain natural spaces with priority to existing corridors, sensitive ecosystems & key features

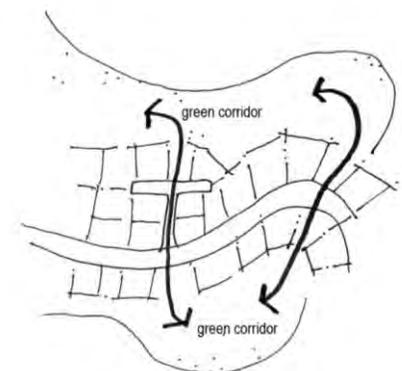


24.3.3 Consider the amount and distribution of open space to be retained, the availability of undeveloped buffers to neighbouring properties and the nature of surrounding development when deciding the appropriate mix of building form.

24.3.4 For large parcels, a minimum of 40% of the gross site area shall be provided as permanent open space where the undeveloped portion of the parcel shall be designated and secured as permanent open space and shall not be further subdivided.

24.3.5 Retain open space and corridors between development cells or lots to provide continuous habitat linkages within the site as well as with neighbouring sites.

24.3.6 Use trails or linear systems to link parts of the hillside community which are not otherwise linked by roads due to topographic constraints. Develop an open space, streetscape and trail system that provides pedestrian access within the



hillside area and to/from key destinations in other parts of the community (e.g., schools, commercial or town centres, parks, other trails, etc).

- 24.3.7 Avoid extensive slope grading to accommodate parks. Establish “pocket” parks for respite where natural terrain permits, or very minor grading is needed, which could serve as a local amenity as well as protect more of the slope.

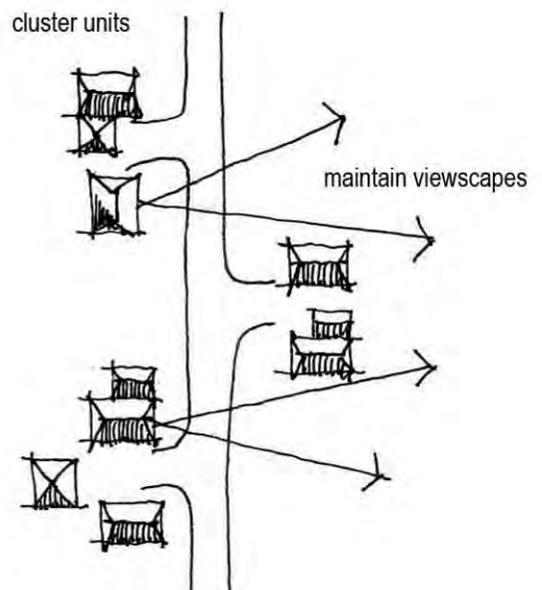
24.4 Building Siting & Orientation

24.4.1 Refer to Hillside – Shoreline policies in Section 3.0 of this bylaw.

24.4.2 Cluster development units and/or provide high density forms of development (i.e. tall buildings) that retain larger amounts of open space, protect the natural environment and reduce grading and overall site disturbance.

24.4.3 Orient buildings to streets and other public spaces using entrances, windows, patios and balconies that are clearly visible from and, where appropriate overlook, public sidewalks and open spaces as much as topographic conditions will allow.

24.4.4 Site residential buildings or residential uses within mixed-use buildings to overlook public streets, parks, and walkways and private communal spaces.



24.5 Setbacks

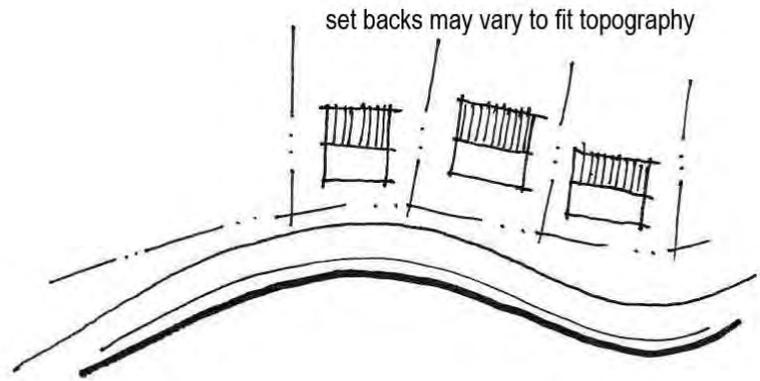
24.5.1 Proponents are encouraged to propose setbacks that are appropriate for the site conditions to serve as a basis for discussion.

Use	Setback Guidelines		
	Front	Side	Rear
Low Density Residential	4.0m to 7.5m of any front lot line	1.5m to 3.0m of any side lot line	10.0m from rear lot line
Multi-Family Residential & Mixed Use Residential Commercial	6.0m of any front lot line reduce for mixed-use	1.5m to 3.0m of any side lot line	7.5m from rear lot line
Commercial, including Office, & Institutional	2.0m of lot line	Within 6m of any interior side lot line if adjoins a residential use	Within 10m of any rear lot line

24.5.2 As much as possible, provide uniform setbacks along a street but not at the expense of extensive cut and fill.

24.5.3 Use building setbacks in a flexible manner to protect slopes and natural features from development encroachments.

24.5.4 Where demonstrated that it will reduce excessive cut/fill, help to avoid hazardous slopes or sensitive areas, and enhance the neighbourhood, a front yard setback can be reduced to 3 m.



24.6 Micro-Climate & Shadowing

24.6.1 When siting tall buildings that have elongated slab floor plates that cast biggest shadows, north-south orientation is encouraged.

24.6.2 Provide continuous pedestrian weather protection along the base of large building. Design awnings or canopies to protect main entrances.

24.6.3 Coordinate pedestrian weather protection between developments on adjacent street frontages to ensure that the shelter is continuous and the designs are compatible in scale.

24.6.4 Landscape base building roof areas to reduce wind speeds at grade.

24.6.5 Where appropriate use horizontal canopies on the windward face of base buildings to minimize downward wind flow.

24.7 Solar Access & Views

24.7.1 Locate buildings to minimize interference with the views of nearby residences. For example, stagger buildings where appropriate to provide views between units that may otherwise limit the field of view.

24.7.2 Plan re-vegetation that will not encroach on viewscales.

24.7.3 Locate key public open spaces (e.g., park, street end, etc) to capitalize on scenic views from the site.

24.7.4 Orient new development projects so that a majority of primary living spaces receive direct sunlight for daytime hours.

- 24.7.5 Site buildings to receive daylight from at least two sides of a building, or from one side and a roof. Where possible, provide dwellings with a choice of aspect, either front and back, or on two sides for corner units.
- 24.7.6 Orient single aspect dwellings (dwelling units with exterior access on one side) towards a good view, good sun, or ideally both, and are more suitable as wide frontages with shallow floor plans to allow adequate penetration of daylight.
- 24.7.7 Corner and dual aspect units (units with exterior access on two sides) are strongly encouraged to facilitate daylight access and natural ventilation.
- 24.7.8 Development will compliment and enhance strategic city views.

24.8 Safety, Security & Accessibility

- 24.8.1 Section 19.16 guidelines apply.

Residential / Mixed Use Guidelines

- 24.8.2 Provide for the safety and privacy for each residential unit.
- 24.8.3 Ensure each at-grade residential unit entry is:
- Visible to residents
 - Made private by staggering or recessing them
 - Units adjacent to public roads should have their doors visible and accessible from that road;
 - Exterior private use areas should be screened to provide for privacy
 - Setback from arterial roads should be 12m, to allow for screening and berming
 - Designs for multi-family residential developments are expected to incorporate the basic principles of crime prevention through environmental design (CPTED).

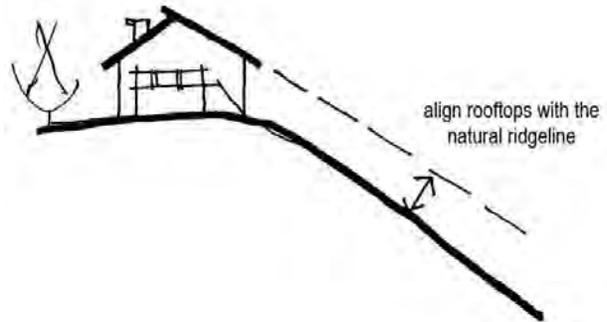
24.9 Energy Efficiency

- 24.9.1 See General Multi-Family, Commercial & Light Industrial Development Permit Guidelines.

→ Form & Character Guidelines

24.10 Exterior Finish & Architecture Features

24.10.1 Design roof pitches to reflect the slope of the natural terrain as much as possible. Align roof pitches so that the angle of the roof is approximately the same or less than the natural slope.



24.10.2 Place supplementary roof structures (chimneys, vents, skylights, HVAC equipment, satellite dishes, etc.) with visual considerations in mind, particularly views from other buildings and public open spaces.

24.10.3 Provide outdoor living space that is compatible with both the building and the hillside setting. Use decks and building terraces on the roof areas of lower levels of the building when possible.

24.10.4 Limit the size of decks that are cantilevered, overhanging or supported by poles or columns. Create stepped decks or several smaller decks as opposed to one large one.

24.10.5 Incorporate local natural materials for exterior finishes as much as possible as a façade treatment and as an element in freestanding signage. The exterior finish of buildings, excluding roof treatments are encouraged to be brick, finished concrete, architecturally faced block, stucco, or wood. In general, new buildings should incorporate substantial and natural building materials into their façade to avoid a 'thin veneer' look and feel.

24.10.6 Respond positively to the desirable architectural characteristics of surrounding buildings to ensure compatibility within the neighbourhood using some or all of the following strategies:

- Similar building articulation, scale and proportions
- Similar or complimentary architectural style
- Similar or complimentary roof forms and roof lines
- Similar building details and fenestration patterns including patterning and placement of doors and windows
- Similar or complementary materials and colour

24.10.7 Enclose unsightly roof elements, including mechanical equipment with roof parapets or other forms of solid screening.

24.11 Entrances

- 24.11.1 Ensure entrances to buildings are visible and have direct access from public streets and sidewalks to enhance building address and create street vitality.
- 24.11.2 Provide weather protection for individual ground floor entries to provide comfort for pedestrians and strengthen building identity.
- 24.11.3 Provide entrances with stoops for townhouses and row-houses.

24.12 Private Open Space & Amenity Areas

- 24.12.1 Ensure a minimum area of private outdoor space per unit which is not less than 3 m in width and not less than 10 m² in area. Notwithstanding this guideline, not less than 5 percent of a lot, in a ground-oriented development, shall be developed as useable open space.
- 24.12.2 Provide space for private and/or community gardens. For multi-family residential buildings, provide rooftop common gardens and planters on balconies.
- 24.12.3 Provide roof top open spaces particularly for buildings where the site coverage is over 50%. Upper story terraces are encouraged to open onto roof top gardens where possible to increase access to semi-private outdoor amenity space.
- 24.12.4 Minimize disruption of the privacy and outdoor activities of residents in adjacent buildings by, for example, minimizing the number of windows and decks overlooking neighbouring private open spaces and placing primary (view) windows towards front and rear yards rather than interior side yards.

→ Circulation, Access & Parking Guidelines

24.13 Circulation & Access

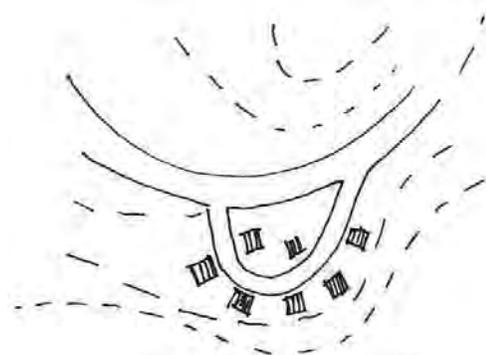
- 24.13.1 Where practical, use woonerf streetscape design principles to design new neighbourhood streets. “Woonerf” is a Dutch word that translates into English as “street for living”. Woonerfs are designed in such a way that the needs of automobile drivers are rectified with the needs of the users of the street as a whole; such users include pedestrians, bicyclists and playing children. Woonerfs therefore sustain lower traffic velocities through the utilization of integrated traffic calming devices and intensive landscaping.
- 24.13.2 Lay out roads and lots in a pattern that offers a variety of sizes and configurations that complement the topography and features of the site.
- 24.13.3 Avoid wide roads that do not adapt well to steep slopes.

- 24.13.4 Align roads to conform to the natural topography. Gentle horizontal and vertical curves are preferable to straight line grid patterns that require significant earthmoving, or create exceptionally steep grades.
- 24.13.5 Local roads (serving houses that front on them) should be kept to a minimum scale and reflect the local resident/pedestrian use.
- 24.13.6 Split roads with 1-way access, may be utilized where:
- Emergency access can be satisfied;
 - Special features or significant natural habitat can be protected;
 - The amount of slope disturbance or the amount of cut and fill compared to a standard two-way road is reduced;
 - The pre-development cross-slope on the road right-of-way exceeds 15%;
 - Using a conventional road on very steep sections makes parcel access difficult;
 - Through traffic can continue to a conventional road connection, or a turnaround can be provided;
 - Intersection clearance is maintained before the split is allowed to occur;
 - Signage is provided to warn motorists of changes in the road configuration and to identify the direction of the flow of traffic; and
 - Pedestrian safety and emergency access is maintained.
- 24.13.7 Where cul-de-sacs are contemplated, incorporate pedestrian connections linking the cul-de-sac to other streets and open spaces.
- 24.13.8 Alternative road-ends (reduced cul-de-sac radii or hammerhead configurations) may be utilized on a site-specific basis where:
- There is lack of sufficient land for a cul-de-sac or very steep slopes would require excessive cutting and filling;
 - The road serves fewer than 16 lots and/or is less than 100 metres in length; and
 - The road end accommodates the turning of service and emergency vehicles.
- 24.13.9 Consider the needs of access by emergency vehicles in locating and designing driveways.

24.14 Parking

Common Driveways Guidelines

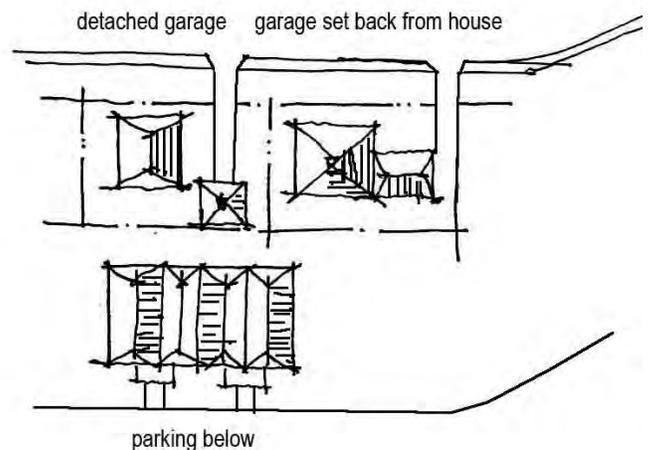
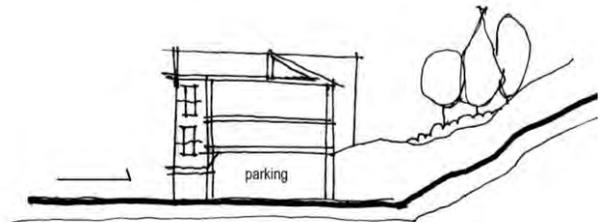
- 24.14.1 Provide common driveways when significant site grading can be reduced.
- 24.14.2 The grade of a common driveway should not exceed 14%.
- 24.14.3 In general, limit in-and-out common driveways to servicing six lots.
- 24.14.4 A “reciprocal access and maintenance agreement” among property owners is required for approval of a common driveway. The City is not a party of these agreements.
- 24.14.5 The civic addresses of the residences located on a common driveway must be displayed on a sign visible from the street.
- 24.14.6 Provide an appropriate location and space at the street for common garbage and recycling pick-up, and postal delivery. The space must be sufficient to allow a service vehicle to pull over off the street. These provisions must be included in the reciprocal access and maintenance agreement.



common driveway are encouraged
only where it reduces
the need for cut and fill

Garages Guidelines

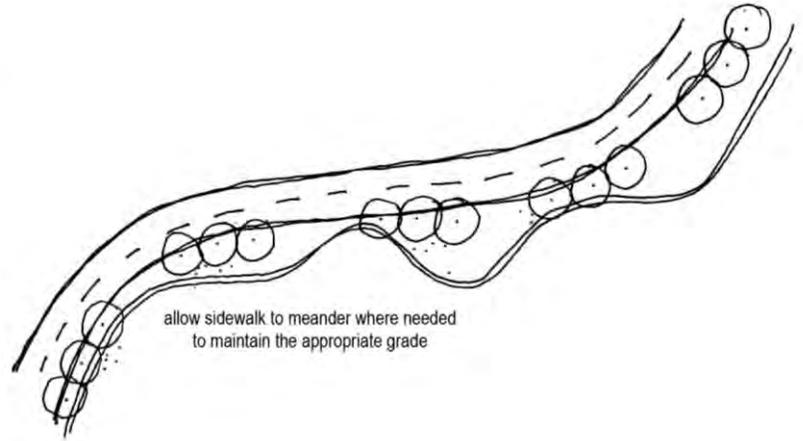
- 24.14.7 Detached garages or parking areas that reduce impacts on the slope and provide easier, safer vehicle access are strongly encouraged.
- 24.14.8 For attached garage structures, step back garages from the house. Set additional stories above garages back from the front of the garage to help reduce the apparent mass.



24.15 Pedestrian Environment

24.15.1 Sidewalks on both sides of roads on steep slopes may be reduced to one side where the predevelopment cross-slope on the road right-of-way exceeds 20%.

24.15.2 The requirement for sidewalks on local roads may be reduced or eliminated on particularly difficult topography where development generates low traffic volume.



24.15.3 Curvilinear or meandering sidewalks and pathways may be used where they eliminate long sustained grades. Varying offsets between the road and the sidewalk may also be considered where it will save a significant feature or reduce grading requirements.

24.15.4 Permit pedestrian connections such as steep stairs to connect open spaces or streets where topographic conditions do not allow for paved sidewalks.

24.15.5 Where alternatives to the City's existing standards and specifications are being proposed to accommodate steep slope conditions, the City commits to review these alternatives on a priority basis.

→ Landscape Character Guidelines

24.16 Landscaping

24.16.1 All Development Permit applications must provide a professional landscape plan.

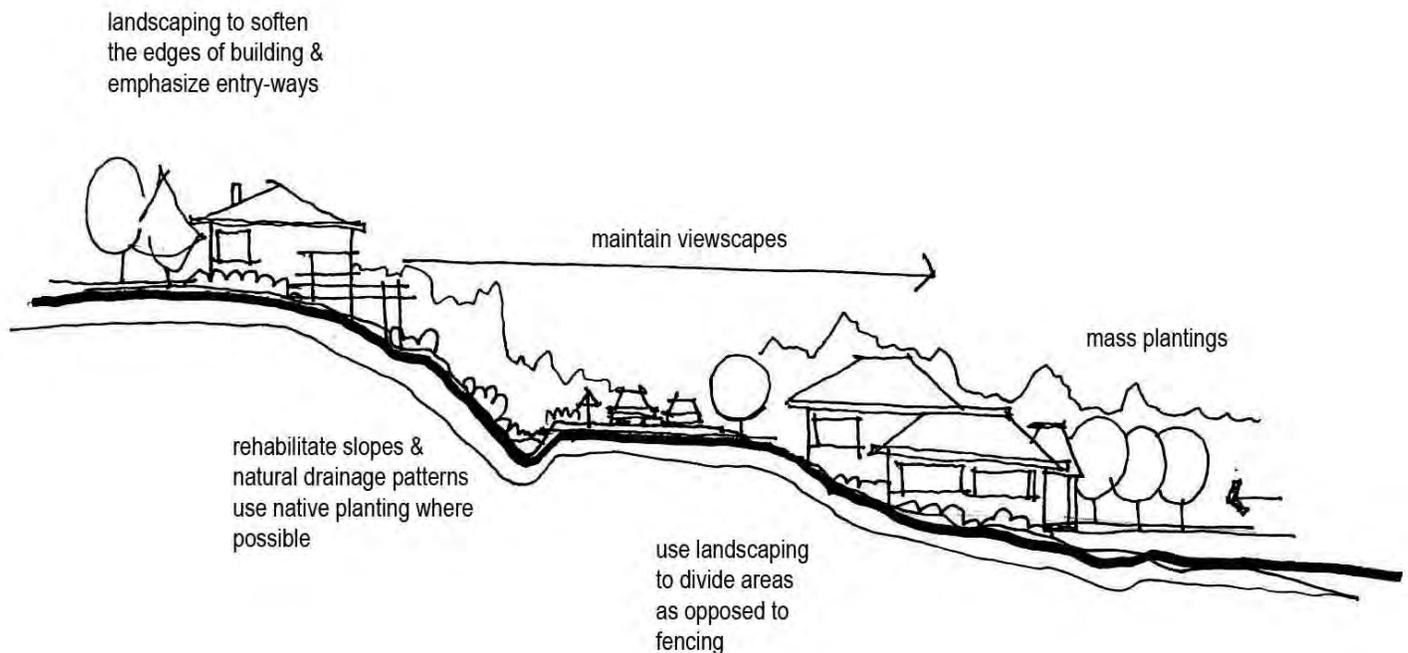
24.16.2 Soften buildings using plants, shrubs, trees, and where necessary, hard landscaping treatments such as terraced retaining walls, planters, courtyards, or fountains.

24.16.3 Emphasize entries with special planting in conjunction with decorative paving and/or lighting.

24.16.4 Fences are not desirable and will be approved only for limited storage areas. Avoid chainlink and/or perimeter fencing.

24.16.5 Restore disturbed areas of the site that are not part of a roadway or formal yard landscaping, to a natural condition as soon as possible after disturbance.

- 24.16.6 Employ restoration practices specifically tailored to address the type and degree of disturbance and the specific conditions of the site.
- 24.16.7 Replace trees in a manner that helps to restore the natural character of the hillside. Specifically, plant trees to screen undesirable views and buffer incompatible uses.
- 24.16.8 Utilize plant material for site restoration and residential landscaping that is native to the region.
- 24.16.9 Plant shrubs and trees in masses and patterns characteristic of a natural setting and with the intent of encouraging biodiversity.



- 24.16.10 Avoid encroaching on viewscapes of others. Take into account the location, height and growth pattern of species planted.
- 24.16.11 For restoration or creation of habitat areas (e.g., riparian areas, ravines, greenways, etc) use plant species that have value as food or cover for wildlife.
- 24.16.12 For dry or south facing slopes, replant with drought and fire-resistant species.
- 24.16.13 Employ water-conserving principles and practices in the choice of plant material (“xeriscaping”), and in the irrigation design and watering of residential and public landscapes on hillside sites.
- 24.16.14 Limit over-spray and run-off due to watering if irrigation systems are used. Provide automatic shut-off valves for irrigation systems to reduce the risk of accidental erosion in the event that a head or pipe breaks.

→ Servicing Guidelines

24.17 Signage

24.17.1 See General Multi-Family, Commercial & Light Industrial Development Permit Guidelines.

24.18 Lighting

24.18.1 See General Multi-Family, Commercial & Light Industrial Development Permit Guidelines.

24.19 Utilities

24.19.1 Install all services and utilities underground.

24.19.2 Where practical, install more than one service in a common trench to reduce the number of trench excavations and therefore the impacts on the terrain. Where the design profile permits, increase the pipe separation to obtain more than one service in a trench. The works must be constructed in accordance with City and Provincial standards regarding separation of water and sewer lines.

24.19.3 Design water service valve and meter boxes with flexible offsets to property lines to maintain ease of access and maintenance. Locate boxes where future grading or landscaping of boulevards will not make access difficult.

24.19.4 Design water system pressure zone boundaries with sufficient range to ensure fire fighting pressures in the highest side of parcels.

24.19.5 Design roads and road rights-of-way to allow flexible offsets for utility trenches and other facilities such as transformers. This will allow more flexibility to grade rights-of-way to match existing ground within the road rights-of-way, which will reduce physical impacts and provide easier servicing in steep slope neighbourhoods.

24.19.6 Where practical, install power, telephone and cablevision in a common trench in accordance with the City's Standards. Installation of these services under sidewalks is encouraged where this can reduce the effective right-of-way required on a steep slope.

- 24.19.7 Alternatively, if no sidewalks are installed on the upper side of a road right-of-way, utilities could be installed deeper than standard, allowing the slope to grade upward from the back of the curb within the road right-of-way. Utility service and transformer boxes, which need to be at road grade, would require suitable grading and retaining structures. However, the net effect can significantly decrease earthwork volumes and grading required to install a road into a steep slope.
- 24.19.8 Locate access to utility boxes, fire hydrants and other services that require periodic inspection in areas where slopes do not exceed 15% and where they are clearly visible from the road.
- 24.19.9 Consider providing hydrants and access behind lots that back onto forested areas where vegetation can be a potential hazard.

24.20 Stormwater Management

- 24.20.1 All commercial developments shall incorporate Stormceptors™, or equivalent approved equipment, to remove oil wastes and sediments from storm water.
- 24.20.2 Plans for all development on steep slopes must indicate how stormwater runoff will be impacted by the development and how those impacts will be mitigated.
- 24.20.3 Depending on the size of the development and complexity of the site conditions, a Drainage Management Plan may be required for the entire site and downstream drainage areas. For hillsides, special attention must be paid to:
- Hydrological conditions prior to and after development;
 - Protection of natural flow paths, volumes and storage resources;
 - Impacts on trees, vegetation and other environmental features due to changes in drainage patterns;
 - Water quality prior to, during and after development;
 - Sediment and erosion control; and
 - On and off-site drainage impacts (e.g., drainage from an upper lot to a lower lot).

25.0 Lagoon Estate / Aquattro Guidelines

The area shown on Map 16.2 is designated as a development permit for the provision of guidelines for the form and character of multi-family residential development.

This designation is justified by Colwood's desire to implement the Lagoon Estates project in a manner that is consistent with the goals, objectives and policies of this Official Community Plan.

→ Lagoon Estates Vision and Character

The vision for Lagoon Estates springs from both its beautiful site and a goal to bring more housing choices to the City of Colwood. The views of this neighbourhood are magnificent from the northeast to the southeast featuring the Lagoon, Esquimalt, Victoria and the Olympic Peninsula Mountains in the distance.

The style and form of the architecture is to be of the highest quality contemporary and modern, but not sterile and soulless. One of the principal landscape ideas is to enhance a beautiful landscape and riparian area, and to open up the buildings to this environment. Connecting the indoor spaces to the outdoor garden/terrace is best achieved through a modern, clear spanning architecture, where glass walls connect the people with nature.

Four types of housing are envisioned and they have specific locations on the site. Mid-rise towers line the west of the site at Heatherbell. 3 to 4 storey terrace buildings nestle against the sharply sloping land along Lagoon and off Heatherbell. Low-rise buildings take advantage of the water views by looking over the lower townhouses which are sprinkled onto the site.

→ General

25.1.1 Figures are added to help explain certain aspects referred to in the written text. Illustration such as explanatory sections, sketches, plans are added to provide conceptual character to certain ideas. These are representational only and are subject to change.

25.1.2 The guidelines generally refer to architectural elements of the development and may be supplemented as necessary.

→ Design Guidelines

This development builds upon the idea of living in a park-like setting. Urban answers such as street wall façades with individual street entries are not envisioned as appropriate for this location.

25.2 Building Type & Location

25.2.1 The site is divided into thirds. A top third at the western edge finds mid-rise towers arranged along Heatherbell, against the heavily treed, Royal Roads lands. This location is where the majority of the building mass should be with a caveat that no buildings should be closer than

35m from the corner of Heatherbell and Lagoon in order to preserve existing views enjoyed by the neighbouring houses south of Lagoon. The mid-rise buildings are to rise no more than 12 levels above an entry level. Principal building entries for these towers are to be off Heatherbell with secondary access from the internal road running parallel with Heatherbell.

- 25.2.2 Buildings along Lagoon Road are to be the terrace stepping type and are not to block existing views from the neighbourhood to the south of Lagoon Road. (see section Building heights) They are to be 4 levels or less.
- 25.2.3 The mid third of the site is reserved for low-rise buildings, six of 4 storeys and one of 6 storeys. The northern six storey building (1F) is to be located contiguous with a group of existing Douglas Fir Trees at the end of Seafield Road and no other place. 15 m setbacks from the edge of the water course are to be respected. One and two storey townhouses can be located anywhere on the top 2/3 of the site.
- 25.2.4 The bottom third of the site is being dedicated to park for the general enjoyment of the citizens of the City of Colwood.



FIGURE 2- Site plan showing building types & number of storeys.

25.3 Building Heights

25.3.1 The following illustration shows maximum heights allowed. Heights are noted in geodetic terms and refer to height in meters above mean sea level.

* Note: the highest point of the site is at Heatherbell and Lagoon, which is +/- 41m.



FIGURE 3 – Site plan showing maximum building heights.

25.4 Massing

- 25.4.1 Since the buildings are limited in height, a larger than normal floor plate size is acceptable. However floor plate modulation is a must. Square or a simple rectangle plate shapes are not acceptable. Floor plate reduction at building tops is desirable, e.g. at mid-rises – the top two floors are to be stepped back at 90% of the floor below.

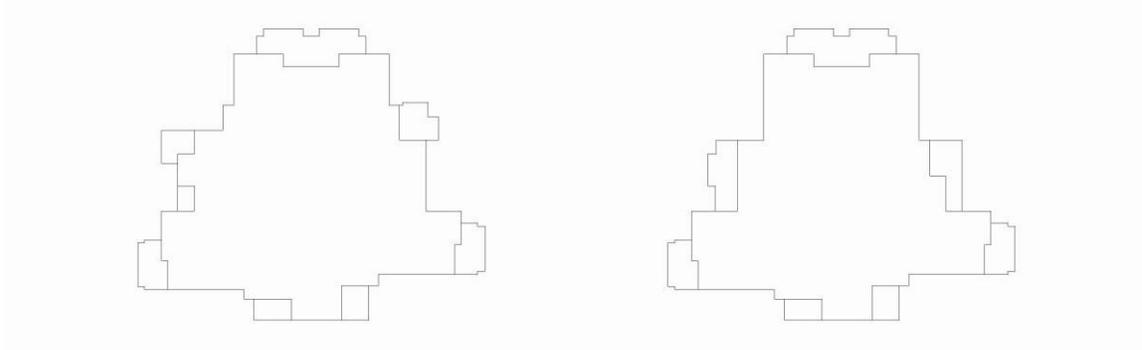


FIGURE 4A – Typical mid-rise floor plan

FIGURE 4B – Mid-rise top floor plan

- 25.4.2 Terrace buildings are to be limited in their length at 85 metres and should feature a focal point or vertical element to complement the horizontal lines of this building type.

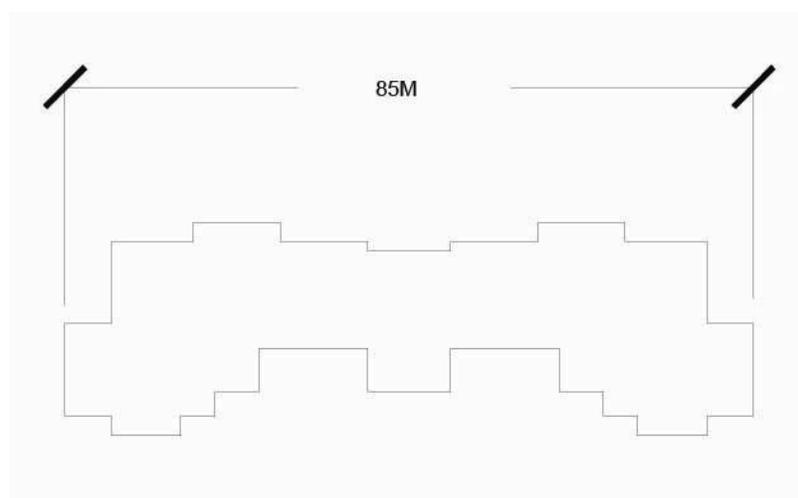


FIGURE 5 – Terrace building floor plan

25.5 Views

- 25.5.1 Views from within the site are to be maximized, i.e. Buildings should look past one another or over top of adjacent buildings to achieve maximum liveability. (see section Setbacks & Building Separations)
- 25.5.2 Existing views from off-site through or over the site are to be maintained as far as possible, i.e. Minimize existing view loss for people along Lagoon, Goldfinch and Seafield Road.

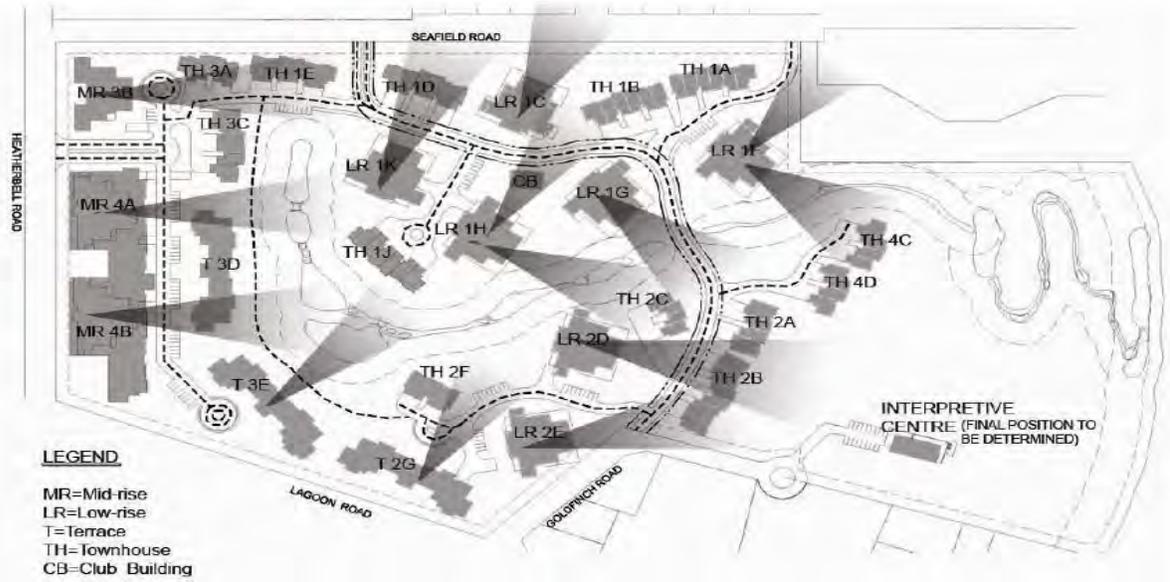


FIGURE 6 – Site plan showing views from within the site



FIGURE 7 – Site plan showing views from off site

25.6 Setbacks and Building Separations

25.6.1 Setbacks are to be observed at all adjacent public streets, as well as the internal public connector street as follows:

Heatherbell Road	- setback to be 7.5m
Seafield Road	- setback to townhouse to be 7.5m
	- setback to 4 storey building to be 12m
Lagoon Road	- setback to be 7.5m
Goldfinch Road	- setback to be 7.5m (road is being widened 4m)
Internal Public Road	- 6m

25.6.2 Minimum building separation on site:

Mid-rise tower to mid-rise tower	- 20m
Low-rise buildings to low-rise or townhouses	- 20m
Townhouses to townhouses	- 3m (at ends)
Terrace building to terrace building	- 20m
Terrace to townhouses	- 20m

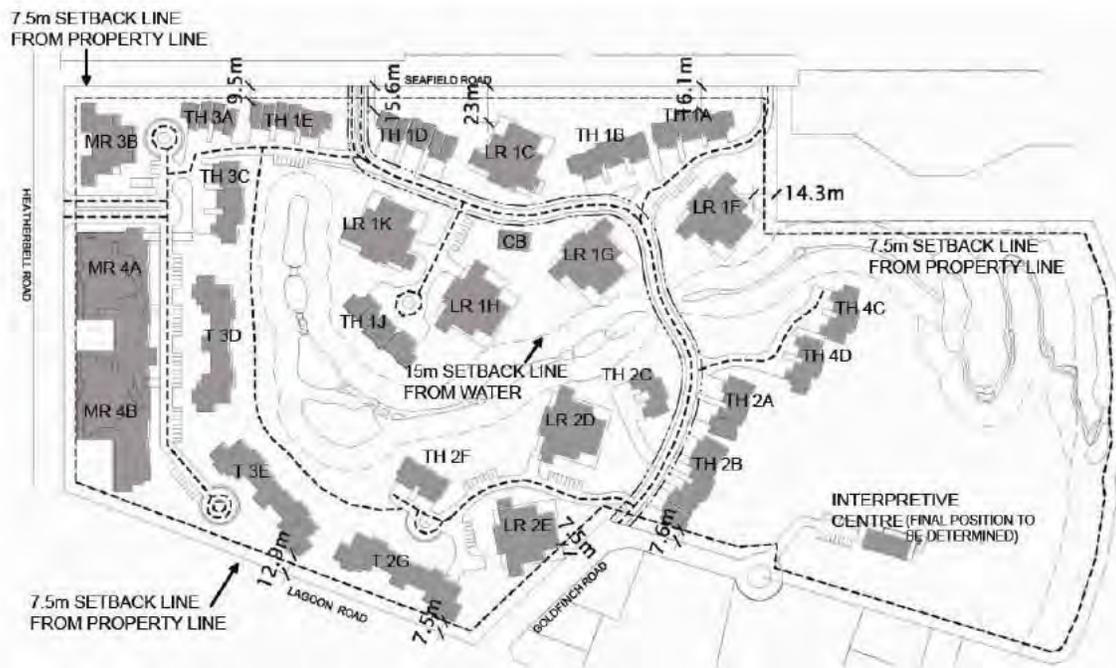


FIGURE 8 – Site plan showing setbacks

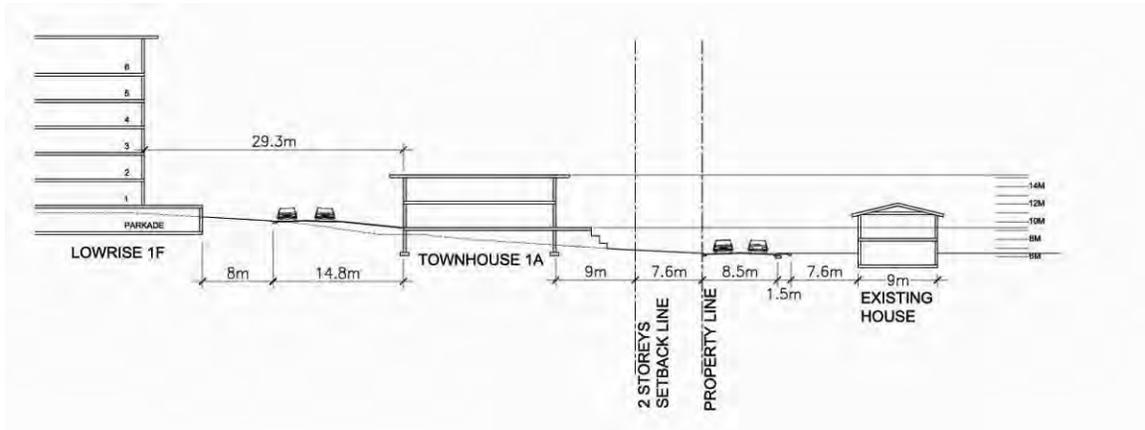


FIGURE 9 – Section through townhouse 1A looking West

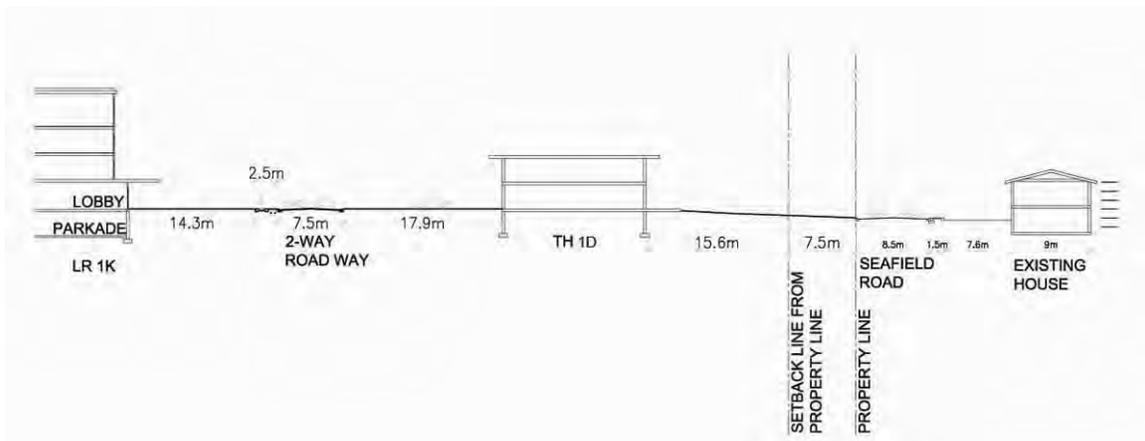


FIGURE 10 – Sections through townhouse 1D looking West

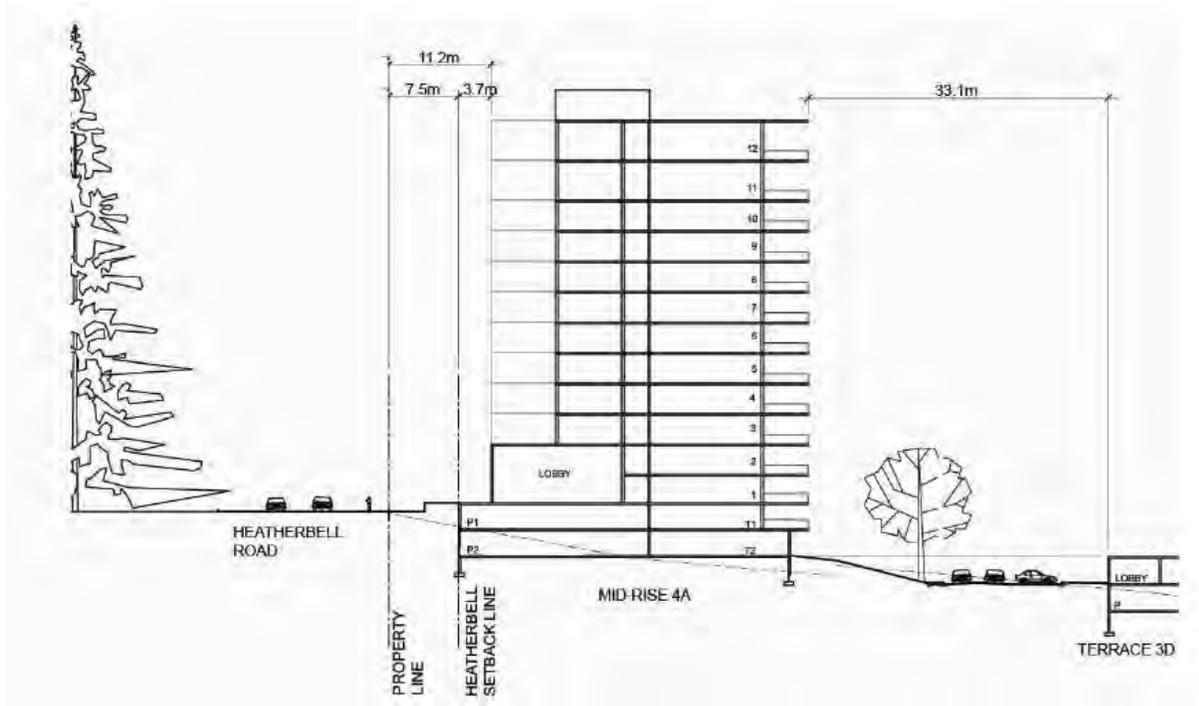


FIGURE 11 – Section through mid-rise 4A looking North

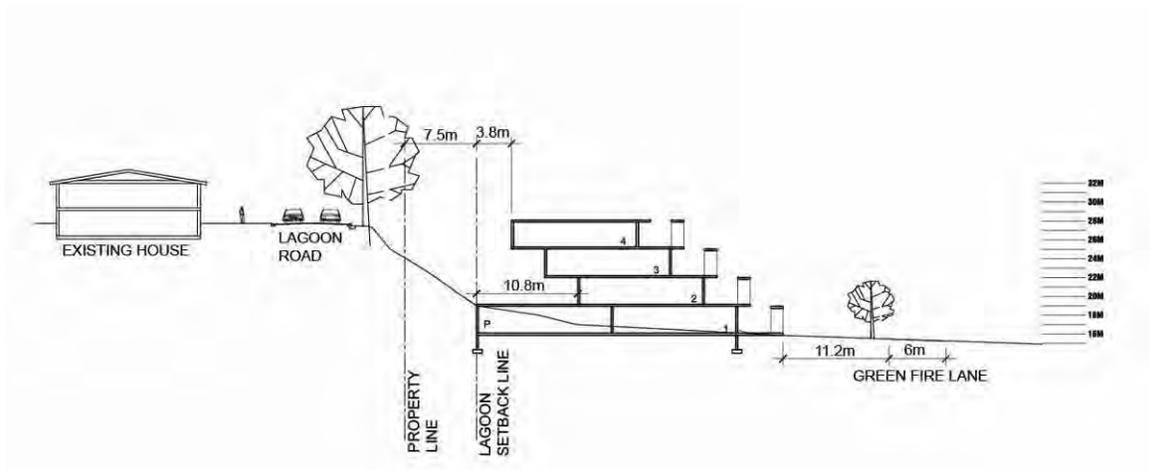


FIGURE 12 – Section through terrace 2G looking West

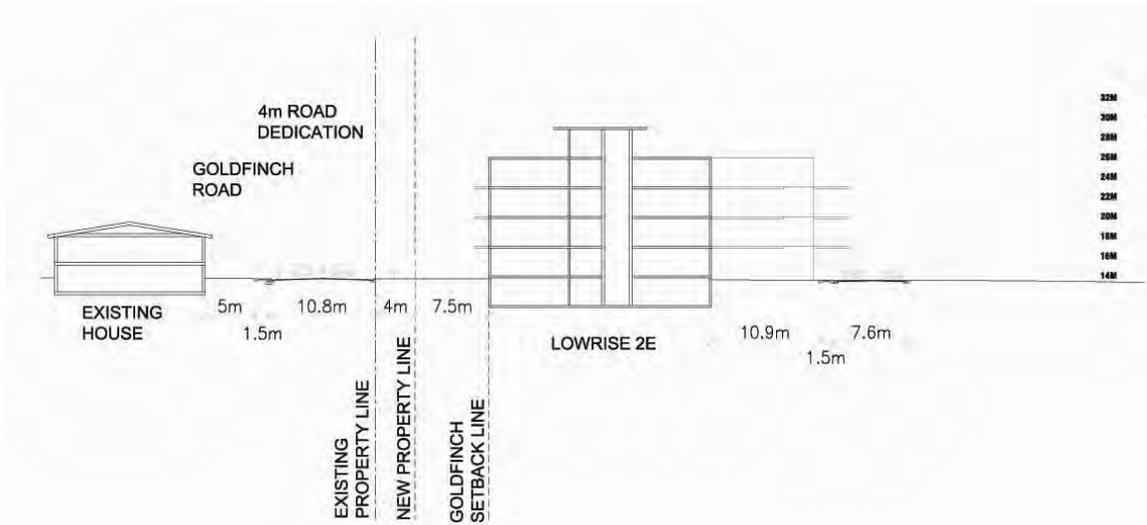


FIGURE 13 – Setback through low-rise 2E looking South West

25.7 Exterior Building Materials

25.7.1 All building types are to have some common elements and materials while keeping their individuality. They are to be natural, indigenous if possible, as well as durable and generally high quality.

Preferred materials:

- Architectural concrete
- Wood and resin panels (wood like in appearance)
- Stone / brick
- Metal (in minor applications)
- Glass (clear preferred)

Materials not to be used:

- Mirrored glass
- Vinyl siding
- Stucco

25.7.2 Materials are to be selected with consideration to LEED implications.

25.8 Decks, Balconies and Roof Gardens

- 25.8.1 Large decks and balconies are encouraged, no dimension to be less than 2.5 metres and are envisioned to be outdoor living spaces. Balconies and decks are not to be enclosed or covered in to create additional indoor living space - this creates unwelcome, increases in building mass and appearance.
- 25.8.2 Roof gardens are encouraged and green roofs are encouraged for the terrace buildings.

25.9 Adaptable Housing

- 25.9.1 The intent is to enhance adaptability as much as possible. To this end the following issues will be addressed:
- Blocking added to bathroom walls for future grab bar installation.
 - Automatic door opener at all main lobby entries.
 - Minimum widths for all interior doors – 2'10" or 850mm.
 - Ample entry areas to building and to suites to allow 5' radius turning circles.
 - Minimal thresholds
 - One bathroom with ample manoeuvring room to be planned in each suite.
 - Switches outlets and door handles located with accessibility in mind.

25.10 CPTED

- 25.10.1 Principles of CPTED (Crime Prevention through Environmental Design) are to be considered for all design issues on site. Overlook is encouraged. "Eyes on the street" approach to design of semi-public areas. Commonly used rooms are to be located near exterior areas to encourage overlook, such as kitchens. Extensive glass in walls and doors is to be used in parking and lobby areas.

25.11 Site Development

- 25.11.1 The open space network should be designed in a comprehensive manner, to provide a convenient amenity accessed by each residential building and incorporated into the existing trail connections.
- 25.11.2 The proposed development should be designed with the intent of creating a long-term net environment benefit by:
- setting aside a portion of the site to be retained as a passive park and natural area;
 - creating a road circulation network that reduces the need for a stream crossing;
 - careful reconstruction of the existing watercourse, to increase opportunities for spawning and rearing habitat enhancements;
 - protecting riparian habitat;
 - incorporating vegetation management practices that protect habitat values throughout the site while recognizing and preserving view corridors

Part V: Area Plans

26.0 Royal Bay Area Plan

The "comprehensive development plan" (CDP) for the Royal Bay area was submitted to the City in September, 1995.

After a review process the CDP became the basis for Bylaw No. 359, an OCP amendment which contained the Royal Bay Area Plan. This approved the concept and density of a new community - a mix of residential properties, parks, perimeter pathways, community facilities and a Village Centre, to be created in four phases over a twenty-year period. It also set out required future approvals and process. It called for the preparation of a Master Environmental and Land Use Plan (MELUP), comprised of a variety of environmental, planning and servicing studies, to be prepared by the owners and submitted to the City to be the basis of a further OCP amendment and to be the basis for consideration of rezoning.

After approval by the City of the MELUP terms of reference (May, 1997), the owners undertook to complete the required studies. Subsequently, in May, 1998, the owners submitted the MELUP studies as the basis for this up-dated Area Plan and for the Royal Bay Development Permit Area, together with a rezoning request for the first phase.

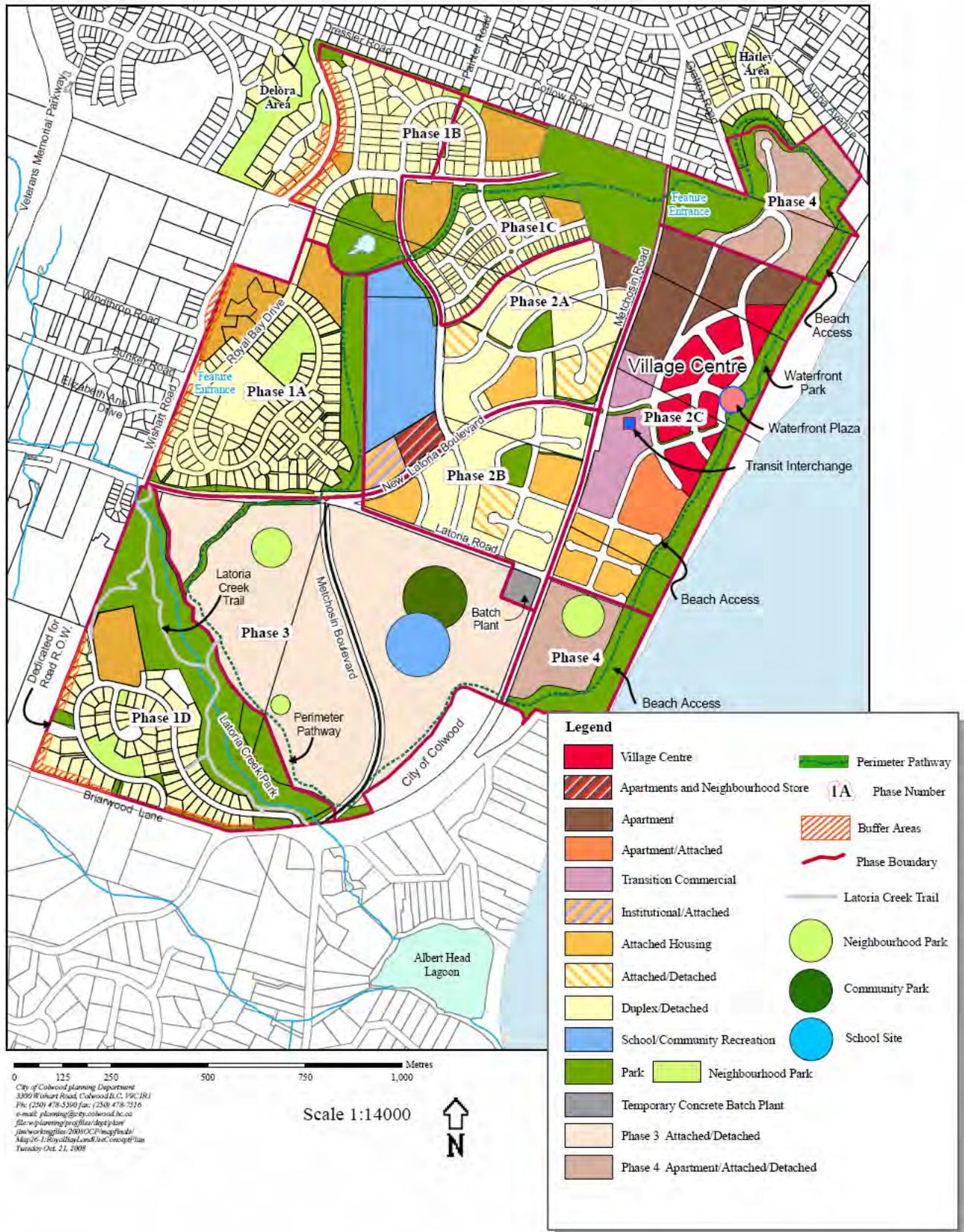
→ Royal Bay Plan Details

A "new community" is proposed for the 251 hectare (620 acres) site. It will be home for approximately 7,000 residents living in 2,800 dwelling units. It will be home to people with a range of incomes, ages, and lifestyles. There will be a 7.5 kilometre path within a greenway linking several environmentally sensitive areas and a 1.8 kilometre waterfront park. This will also connect to a number of local parks and greenways. There will be at least two school sites. Royal Bay is expected to develop in four main phases over at least a twenty-year period.

It is anticipated that Royal Bay will have the following residential mix:

detached units	-	1,650 dwelling units (59%)	
townhouses	-	650 dwelling units (23%)	
apartments	-	<u>500 dwelling units (18%)</u>	
TOTAL:			<u>2,800 dwelling units</u>

Map 26-1: Royal Bay Land Use Concept Plan



There will be a Village Centre with a plaza-promenade near to the waterfront to provide an opportunity for a range of shops, businesses, restaurants, community facilities and professional offices. It will primarily serve Colwood and Metchosin residents, and will provide a clear focus for Royal Bay. It is to be located between Metchosin Road and the waterfront. Upper storey housing over commercial space will be encouraged.

The Land Use Concept Map (Map 26-1) gives a conceptual picture of the Royal Bay community. The *Royal Bay Planning and Design Manual* is intended to give residents and neighbours of Royal Bay a good understanding of what the community will look like in the future as it builds out.

→ Planning Principles

The Royal Bay development is to be in general conformity with the Official Community Plan, including this Area Plan, and with the following Planning Principles:

- unique identity within the broader community
- healthy mix of lifestyles, incomes, ages
- multi use perimeter greenway
- continuous waterfront access
- lively Village Centre
- several distinctive neighbourhoods
- well landscaped boulevard streets
- linkages to near neighbours
- less reliance on cars; more walking, cycling and transit
- energy efficient design
- protection and integration of the environment
- phased development.

→ Policies

- Policy 26.1.1 The basic concept of the new Royal Bay community is approved.
- Policy 26.1.2 This Area Plan and Land Use Concept Map are intended to give a conceptual picture of how the lands may be developed, provided that any necessary studies are completed and approvals are in place.
- Policy 26.1.3 Development of the lands is to be in general conformity with the Official Community Plan, including the Royal Bay Area Plan, and with the Planning Principles.
- Policy 26.1.4 At least 40% of the total number of dwelling units are to be multiple family units.
- Policy 26.1.5 The owners are to establish a temporary park and ride facility on Metchosin Road early in phase 1.
- Policy 26.1.6 The landowners are to establish the Village Centre and its amenities as early as possible. The creation of local employment opportunities are to be fostered.
- Policy 26.1.7 A school site is to be provided as one of the first sub-phases of phase 1, and all school sites must be adequately prepared for school site use.
- Policy 26.1.8 A social housing component is to be included in all major phases of Royal Bay.
- Policy 26.1.9 Neighbourhoods should be designed so as to make it easy, convenient and comfortable to walk and cycle throughout the community. The road network should be sensitive to topography and have multiple connections with relatively direct routes. With the exception of boulevards, streets should be kept as narrow as possible. Traffic calming should be liberally used.
- Policy 26.1.10 Development approvals within Royal Bay are to be tied to the issuance of a master development permit which establishes conditions and responsibilities respecting the sequence and timing of infrastructure development.
- Policy 26.1.11 The landowners are encouraged to phase-out the gravel operation as soon as possible, in order to maximize the preservation of existing trees and landforms.
- Policy 26.1.12 The owners are encouraged to incorporate in mine plans as many of the geotechnical recommendations as possible, e.g. to construct final slopes as part of the mining operation instead of trying to mitigate these problems afterwards.
- Policy 26.1.13 The owners are encouraged to retain as many snags and large trees as possible to provide roosting, loafing and nesting sites for birds.
- Policy 26.1.14 The owners are to ensure that mining activity avoids the Latoria Creek and Murray's Pond areas.
- Policy 26.1.15 The owners are to establish a soil composting and nursery establishment on site as soon as possible, in order to provide trees, native plants, and topsoil for future use.

- Policy 26.1.16 Prior to changes being made to access in the Farhill Road area (phase 3), a study will be completed to ensure the adequacy of emergency access.
- Policy 26.1.17 The Land Use Bylaw, Subdivision Bylaw and agreements between the owners and the builders may be used to achieve:
- prominent landscape and architectural features to be located at points where views terminate, to act as orientation landmarks;
 - in order to reinforce the desired streetscape, minimum and maximum front yard setbacks;
 - a variety of lot types; and
 - a scale, massing and height of medium and high-density residential apartment buildings that is compatible with the surrounding built form.
- Policy 26.1.18 A compatible relationship should be developed among all medium and high density residential apartments and their surrounding environments. It is the intent to encourage development proposals that:
- enhance the public street and other pedestrian zones through the articulation of the ground floor (e.g. with doors/entrances to the street, windows);
 - include buildings that define street corners;
 - provide pedestrian access through strata developments;
 - provide an appropriate transition between higher and lower density residential areas and landscape and/or natural spaces;
 - provide outdoor amenity areas; and
 - enhance transit use.
- Policy 26.1.19 Where a rear lane exists, the implementing Land Use Bylaw may require that garages be located in the rear yard and be accessed from the lane.
- Policy 26.1.20 The Royal Bay Village area will require specific design guidelines to be prepared prior to the issuance of development permits. Royal Bay will prepare an urban design plan which will form the basis of amendments and additions to the Royal Bay Planning and Design Manual and the Royal Bay development permit area guidelines.

27.0 Olympic View Area Plan

The Olympic View development is planned as a mixed-use neighbourhood. The site straddles the Colwood - Langford border, with approximately 56 hectares (140 acres) in Colwood and 52 hectares (130 acres) in the City of Langford. The project in total (Colwood and Langford) will see up to 917 residential units, a new 9-hole “target” golf course, parks and open spaces, together with a resort hotel with a commercial component.

In Colwood, there will be up to 456 residential units. The 9-hole golf course would straddle the border, as would the village resort centre. Land use is divided into five main categories:

- Detached – boundary (lot type 1)
- Detached (lot type 2)
- Cluster/multi-family (attached/townhouse) (lot type 3)
- Resort village
- Parks and open space

A key component of the resort centre would be a luxury hotel of up to 120 rooms, with restaurant, banquet, conference and spa facilities. The Village centre would be a social and recreational amenity for the residents of Olympic View. A mix of housing types and lot sizes is proposed. These will be influenced by the ability to provide access, neighbouring uses, and the topography, which ranges widely, with relatively level areas, low lying wetlands, moderately hilly areas, and steep and rocky outcrops.

As the proposed Olympic View neighbourhood includes lands in both the City of Colwood and the City of Langford and as the entire neighbourhood is accessed and serviced through Colwood, the two municipalities must continue to liaise in its comprehensive planning and creation.

The Olympic View Land Use Concept Map (Map D-5) gives a conceptual picture of the proposed Olympic View neighbourhood.

→ Policies

The policies set out in this section pertain only to those portions of the Olympic View area that are within Colwood.

Policy 27.1.1 The basic concept of a new Olympic View neighbourhood for approximately 1,300 Colwood residents, a maximum of 456 dwellings, a commercial Village Centre, public parks, privately owned open space that is publicly accessible and up to 461 dwellings in the City of Langford is endorsed.

Policy 27.1.2 An inter-municipal servicing agreement (sanitary and storm sewers and roads) is to be concluded between the landowner, Langford and Colwood.

- Policy 27.1.3 This Area Plan including Map 27-1 gives a conceptual picture of how the lands may be developed, provided that necessary environmental and planning studies are satisfactorily completed and the necessary approvals are in place. Designation boundaries and numbers are necessarily approximate and will be refined by further studies and by the development permit and subdivision approval processes.
- Policy 27.1.4 At least 50% of the total number of dwelling units are to be multiple family units (townhouses/attached housing and apartments).
- Policy 27.1.5 The Village centre and its amenities are to be established as early as is feasible in the project.
- Policy 27.1.6 Briarwood Lane is to be used as a greenway/pedestrian route and for emergency access purposes. The width of the right of way is to be determined at the time of development permit and subdivision approval. Consideration is to be given to safety and security in the implementation of this access.
- Policy 27.1.7 The land within 60 m of the Ferris property (510 Briarwood Lane, east of Olympic View Lands) is the last to be developed. This shall not be before 2006.
- Policy 27.1.8 The owners are to use and to encourage the use of water conservation techniques.
- Policy 27.1.9 Provision is to be made for future road network connections to lands to the east of the site.
- Policy 27.1.10 Adequate and appropriate access to parks is to be ensured at the development permit and subdivision stage. Parks are to have adequate street frontage and roads adjacent to parks are to include adequate parking spaces.
- Policy 27.1.11 Public access to privately owned open space (hardhack fen, townhouse setback green space areas, trail networks and areas of the golf course that are not required for greens, tees, site lines, and public safety) is to be secured by restrictive covenant and/or statutory right of way. The golf course shall be open to the public.
- Policy 27.1.12 Transit planning will be considered in more detail in future planning for the project. A bus turn-around should be provided in or near the commercial centre.
- Policy 27.1.13 Adjacent to the District of Metchosin and to the Ferris property, a fence should be constructed which is mutually acceptable to adjacent property owners.
- Policy 27.1.14 In order to ensure that purchasers of residential lots near to Metchosin are aware they will be adjacent to an agricultural area, a prospectus or disclosure statement may be required by the subdivision approving officer to be registered against the title at the time of subdivision approval, pursuant to the Real Estate Act.

Map 27-1: Olympic View Land Use Concept Plan



Part VI: Glossary ¹

A

Accessory Dwelling Unit (*also see: Secondary Suite*)

An accessory dwelling unit is an additional separate dwelling unit on a property, within a house or within a multi-family building that would normally accommodate only one dwelling unit. The unit is considered "accessory" or "secondary" to the primary residence.

Active Transportation

Also known as Non-motorized Transportation includes walking, bicycling, small-wheeled transport such as strollers, skates, skateboards, and push scooters.

Adaptability

Whether it's the design of space in a building or an outdoor space such as a park, it is important to 'build in' the ability to allow changes to whatever we build or design so that we can accommodate the needs of different users in the long term.

Adaptable Housing

Also known as visitable housing; Adaptable Housing is designed and built to allow modest improvements to accessibility and adaptability in residential buildings that make it easier for people to "remain in place" as they age, and experience illness or injury. Increasing the stock of seniors-friendly housing is important for the social well-being of the community. Adaptable Housing features follow *universal design* principles, meaning that the housing can appeal to everyone. Adaptable Housing features are visually unnoticeable, and allow increased flexibility in selling or renting homes. Features include wider doorways and blocking to allow installation of grab bars.

Adaptation (re. Climate Change)

The ability of a system (e.g. ecosystem, social systems) to adapt to climate change or other environmental disturbances. This may mean moderating potential damages, taking advantage of opportunities, or coping with the consequences.

Affordable Housing

Housing affordability is a function of housing cost and household income. Affordable housing is defined as housing which has a market price or rent that does not exceed 30% of a households' income which is 80% or less than the median household income for the community. Affordable housing can be provided by the private, non-profit, cooperative, and public sectors separately or through partnership models. Affordable housing includes a variety of tenure models including ownership, rental, co-housing, cooperative and rental.

Aging in Place

"Aging in place" is growing older without having to move from a building or, more often, a neighbourhood or city.

Asset Management

Asset management is the systematic process of maintaining, upgrading, and operating physical assets in a cost-effective manner.

¹ Terms defined in the Glossary are intended to help readers understand concepts described or alluded to in the body of the Official Community Plan. Terms may be interpreted differently depending on the context and are not intended to be absolute.

Attainable Housing Policy

A 2008 policy of Council which has the goal of increasing the amount of affordable ownership and rental housing. This is largely done when land is rezoned and the density bonus provision of the *Local Government Act* is applied.

B

Bare Land Strata Plan

A strata plan on which the boundaries of the strata lots are defined on a horizontal plane by reference to survey markers and not by reference to the floors, walls or ceilings of a building, or any other strata plan defined by regulation to be a bare land strata plan. Also see *Strata Property Act*.

Baseline

Data on a current process that provides the metrics against which to compare improvements.

Bioregion

An area defined by its unique natural features and ecological characteristics such as watersheds, species, flora, and fauna.

Bioswale

A technology that uses plants, soil and compost to retain and cleanse runoff from a site, roadway, or other source (e.g. vegetated ditch or depression)

Brownfield

Abandoned, idled or underutilized industrial and commercial facilities where expansion or redevelopment is complicated by real or perceived contamination. Also see: *greenfield, greyfield*.

Built Green BC

Built Green™ is a building industry based standard to promote construction of buildings that are healthier for the occupants and healthier for the environment. Sustainable or “green” building practices can reduce the tremendous impact that building has on both people and nature.

Building Code of BC

Provincial legislation containing standards to which buildings must comply with health and safety requirements.

C

Carbon Neutral

The point at which greenhouse gas emissions from one’s activities, such as driving or flying, are offset by planting trees or investing in solar, wind or other clean-energy projects.

Charrette

An intense time limited workshop held early in the design phase of a project in which the design team, contractors, end users, community stakeholders, and technical experts are brought together to develop goals, strategies, and ideas for maximizing the performance of a project.

Chicane

An `S` bend in a roadway that reduces speeds by forcing drivers to drive through in a single file.

Climate Change

Changes in long-term trends in the average climate, such as changes in average temperatures. According to the United Nations Framework Convention on *Climate Change* (UNFCCC), climate change is a change in climate that is attributable directly or indirectly to human activity that alters atmospheric composition.

Cluster Development

Cluster developments may use a combination of housing types or smaller lots with less emphasis on minimum lot size. However, the total number of homes, or density, on a given acreage does not necessarily increase over that allowed in the traditional subdivision designs. The same number of homes is clustered on a smaller portion of the total available land. The remaining land, which would have been allocated to individual home sites, is now converted into protected private or public open space to be used for recreation, common open space, or the preservation of historical or environmentally sensitive features. Co-Housing is one example of cluster development.

CoHousing

Cohousing is a concept that came to North America in 1988 from Denmark where it emerged over 25 years ago. It describes neighbourhoods of 10-35 households which tend to be multigenerational and offer environmentally sensitive design with a pedestrian orientation. Residents usually own their individual homes (e.g. strata property model), which are clustered around a "common house" with shared amenities. These amenities may include a large kitchen and dining room, children's playroom, workshops, guest rooms, and home office support.

Co-operative Housing

A co-op is a corporation that is governed by the *Cooperative Association Act* of BC. Most housing co-ops in Canada are not-for-profit corporations. If you join a co-op, you will be expected to do the following: buy shares in the co-op, pay a monthly housing charge (rent), attend members' meetings and participate in running the co-op. The first co-ops were built in the 1930s. Most of BC's 255 non-profit housing co-ops were developed in the first decade of the years 1973-1993, with a high level of provincial and federal government funding. Co-ops come in many different shapes and sizes, ranging from collections of single unit townhouses and small buildings with 4-12 units to large apartment-style buildings with hundreds of units.

Complete Street

A multi-modal street that is designed and operated to enable safe access for all users. Pedestrians, bicyclists, motorists and bus riders of all ages and abilities are able to safely move along and across a complete street.

Condominium

See: *Strata Property Act*

Construction and Demolition Waste

Waste building materials, tree stumps, and rubble resulting from construction, remodelling, repair, and demolition of homes, commercial buildings and other structures and pavements.

Cost - Benefit Analysis

A method of comparing the cost of a program with its expected benefits in a dollar amount. The benefit-to-cost ratio is a measure of total return expected per unit of money spent. This analysis generally excludes consideration of factors that are not measured ultimately in economic terms. Cost effectiveness compares alternative ways to achieve a specific set of results. Alternatively, cost-benefit analysis may include analysis to achieve alternative health-based standards at given levels of health protection.

Crime Prevention Through Environmental Design (CPTED)

A technique of designing safe outdoor or indoor spaces. CPTED involves reducing crime opportunities by modifying the built environment. They include the traditional CPTED methods, such as access control, natural surveillance, image and maintenance, and territoriality. They also include advanced CPTED methods such as mitigating conflicting user groups, activity vs. crime generators, movement predictors, and controlling displacement effects. A wider range of social crime prevention strategies includes fairs and community meetings to encourage social interaction.

Crown Land

Land owned by a ministry of a provincial or federal government.

D

Densification (see also Infill)

As far as land use planning in BC is concerned, this term means to add new residential units to an existing neighbourhood. This may or may not include population increase, as people per household declines. Infill may include a house, attached housing, an apartment unit or any other form of housing.

Density

In order to describe our built environment, the term density is often used to look at the relationship between a unit of built space and a unit of land area. A clear measure of this relationship is *floor space ratio* (FSR, see below), where building floor area, in square metres, is compared directly with the land area in square metres. For instance, an FSR of 1.0 for a 1,000 m² parcel of land means that a building with a floor area of 1,000 m² could be built. Residential densities are often measured in terms of dwelling units per hectare (or per acre in the USA). This type of density measure may provide a rough way to predict population densities (people per hectare based on number of people per unit type), but is not a good descriptor of a building size. Zoning bylaws define built density in different ways for different parts of a city for a desired function and look determined by the elected Council. Examples that illustrate this point follow:

- Rural (small farm): 1 unit per 4 ha
- Rural: 1 unit per 4,000 m² (1 per ac)
- 1970s neighbourhood: 1 unit / 700 m² ~ 12 units per ha (5 per ac), road area subtracted
- 1990s 'small lot': 1 unit per 300 m² ~ 30 units per ha (12 per ac)
- Apartment (4 storey): 120 units per ha (50 per ac)
- Apartment (20 storey): 300 units per ha (120 per ac) ~ FSR 2.5

Develop With Care

The Ministry of Environment publishes guidelines to encourage development which sensitively takes into account natural systems. This 2006 guide is both comprehensive and specific for each region, see: www.env.gov.bc.ca/wld/documents/bmp/devwithcare2006/develop_with_care_intro. Also see: *low-impact development, sustainable development* and *smart growth*.

District Energy System

District energy is an approach to supplying thermal energy in the form of steam, hot water and cold water through a distribution system of pipe from a central plant to individual users. Users then extract the energy from the distribution system for their individual heating, cooling and process requirements.

E

Easements

A right to use another person's real property for a specific purpose. The most common type of easement is the right to travel over another person's land, known as a right-of-way. In addition, property owners commonly grant easements for the placement of utility poles, utility trenches, water lines or sewer lines. The owner of property that is subject to an easement is said to be "burdened" with the easement, because he or she is not allowed to interfere with its use. At

common law, an easement came to be treated as a property right in itself and is still treated as a kind of property by most jurisdictions.

Environmentally valuable resources

The BC Ministry of Environment defines “environmentally valuable resources” to include all features, places, and species whose presence enhances the biodiversity of the area. Environmentally valuable resources range in size from small patches to extensive landscape features, and can include rare or common habitats, plants and animals. These areas require special management attention to protect fish and wildlife resources, other natural systems or processes, and historical, cultural, or scenic values. They include, but are not limited to: sensitive ecosystems identified for the area; remnants of any sensitive ecosystems; rare and endangered species and ecosystems; rocky outcroppings, caves, cliffs, and islands; old vacant buildings which may shelter bats or birds; large snags, veteran trees, and hollow trees; wetlands, seepages and vernal pools, even if only wet for a few months each year; riparian vegetation, including vegetated gullies; meadows and grasslands; winter ranges for ungulates (deer, bighorn sheep, etc.); snake or lizard dens; turtle nesting sites; raptor nest trees; heronries; wildlife travel corridors (including riparian corridors); wetlands or other areas of high amphibian use; areas of concentrated wildlife use; and fish spawning and rearing areas. See: www.env.gov.bc.ca/wld/bio and www.env.gov.bc.ca/sei/

F

Food Security

Access by all people at all times to enough food for an active, healthy life. Food security includes at a minimum: ready availability of nutritionally adequate and safe foods; and, an assured ability to acquire acceptable foods in socially acceptable ways. (USDA)

Foreshore

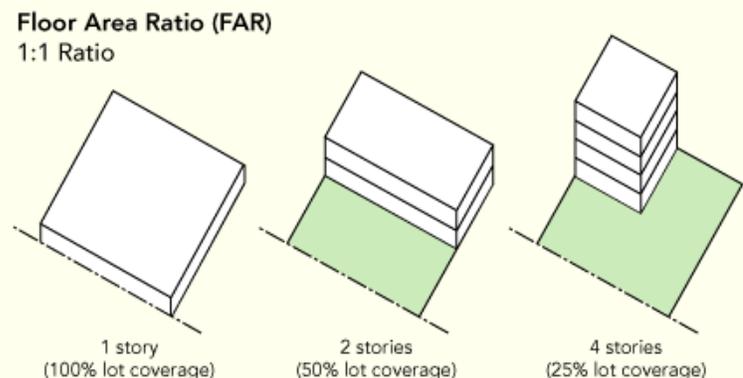
The seaward part of the shore or beach lying between high tide and low tide lines.

Flex House

A residential building that looks like a conventional single-detached dwelling, but its original design allows both the perimeter and interior of a house to be expanded and changed to fit the space needs and budget of current and future owners. The original design will include elements like plumbing and electrical ‘shafts’ to facilitate changing the use of different rooms. As the needs of the household occupants change, so does the design of the home. For example, over time the house may be adapted to be one, two or three units. The flex house is well suited to accommodate multigenerational households and home occupations.

Floor Space Ratio

Also known as floor area ratio (FAR), floor space ratio (FSR) is a measure of development intensity. FSR is the ratio of the amount of floor area of a building to the amount of area of its site. For instance, a one-story building that covers an entire lot has an FAR of 1.0. Similarly, a one-story building that covers half of a lot has an FAR of 0.5.



G

Geo-Exchange

Solar heat stored in the upper layers of the earth. This heat can be extracted and delivered to a building through a ground source heat pump (GSHP).

Green Building

A building that conforms to environmentally sound principles of construction practices, resource use and operations.

Green Infrastructure

The ecological processes, both natural and engineered, that act as the natural infrastructure. This includes, swales, ditches, creeks, wetlands, parks, open space, vegetation, green roofs, gardens, working lands, aquifers and watersheds that supply drinking water.

Green Roof - Intensive

Contained green space on, or integrated with, a building roof. Intensive green roofs, also referred to as “rooftop gardens”, are typically accessible to building occupants, permanently irrigated and can accommodate a wide variety of vegetation, including small trees and shrubs within a growing medium on top of a membrane and drainage system.

Green Roof - Extensive

Similar to “intensive green roofs” except they are typically accessible only for minimal maintenance purposes, require irrigation only through the establishment period and incorporate lesser growing medium depths suitable for a relatively low variety of small plants.

Greenfield

Previously undeveloped parcels of land that are not surrounded by existing development, or are surrounded by partially developed/low-density areas. Also see: *brownfield* and *greyfield*.

Greenhouse Gas (GHG)

Components of the atmosphere that contribute to the "greenhouse effect" (see: *climate change*). Some greenhouse gases occur naturally, while others come from activities such as the burning of fossil fuel and coal. Greenhouse gases include water vapour, carbon dioxide (CO₂), methane, nitrous oxide, and ozone.

Greenway

A protected open-space area or corridor (that may include roads, trails along sections) following a natural or human-made linear feature; greenways are often used for recreation, transportation, and conservation, and to link amenities.

Greyfield Development

The development of non-contaminated retail areas such as old shopping centres, malls, strip malls, or institutional areas into complete, livable communities.

Ground-Oriented Multi-Family Units

Dwelling units that are accessible by ground, including with one flight of stairs, with outdoor living space. Examples include townhouses, rowhouses and duplexes. This may also include first or second floor units of multi-family / apartment buildings.

Growth Management

A general term used regarding regulation of land use and development that seeks to focus, guide or contain urban development.

Grey water

Waste water from the kitchen, laundry and bathroom that usually contains soap, detergents and fats. This does not include water from the toilet, or sewage, which is sometimes called *black water*).

H

High Occupancy Vehicle

A passenger vehicle carrying more than a specified minimum number of passengers, such as an automobile carrying more than one or more than two people. HOVs include carpools and vanpools, as well as buses. The use of HOVs is often compared with that of single-occupant vehicles (SOVs).

Home Streets

See *Woonerf*

I

Infill (see also *Densification*)

As far as land use planning in BC is concerned, this term means to add new residential units to an existing neighbourhood. This may or may not include population increase as people per household declines. This can include a house, attached / townhouse dwellings an apartment unit, or any other form of housing.

Intensive Residential

This is a type of residential development that is at a higher density than the surrounding development, i.e. in Colwood's detached house subdivisions, lots that are under 550m² in area.

Invasive Species

Non-native plants and animals (and other species) that rapidly colonize an area; successful introductions of invasive species usually results in the displacement, decline, or extinction of native species (see: www.invasiveplantcouncilbc.ca or www.for.gov.bc.ca/hra/Plants/). Invasive plants have the capacity to establish quickly and can cause widespread negative economic, social, and environmental impacts. Some invasives such as daphne (or spurge laurel) are also poisonous. More information on this is available through WorkSafeBC and other web sites, e.g. www.worksafebc.com/publications/health_and_safety/bulletins/toxic_plants/, or digir.agr.gc.ca/pls/pp/poison. See *Native Species* for more information.

Inventory (re: *Climate Change*)

A tool developed to better understand and predict the impact of GHG emissions on *climate change*. A *climate change* inventory may be used as a tool to develop atmospheric models, develop mitigation strategies, establish compliance records with allowable emission rates, and track the effectiveness of policies related to GHG emissions.

J

K

L

LEED™

The Leadership in Energy and Environmental Design (LEED) Green Building Rating System™ is a nationally accepted benchmark for the design, construction, and operation of high performance green buildings.

Level of Service

A standardized measure of infrastructure operating conditions, often defined with reference to a benchmark. The most common example is used by transportation engineers to indicate that traffic is moving at ideal, average, or poor efficiency and measured on a grade scale of "A" through "F".

Life Cycle

Refers to all stages of a building's development, from extraction of materials to construction, use, and disposal.

Life Cycle Analysis (LCA)

The assessment of a building's full environmental costs, from raw material to final disposal, in terms of consumption of resources, energy and waste.

Livability

Livability refers to the environmental and social quality of an area as perceived by residents, employees, customers and visitors. This includes safety and health (traffic safety, personal security, and public health), local environmental conditions (cleanliness, noise, dust, air quality, and water quality), the quality of social interactions (neighbourliness, fairness, respect, community identity and pride), opportunities for recreation and entertainment, aesthetics, and existence of unique cultural and environmental resources (e.g., historic structures, mature trees, traditional architectural styles). Livable communities directly benefits people who live in, work in or visit an area, increases property values and business activity, and it can improve public health and safety. Livability is largely affected by conditions in the public realm, places where people naturally interact with each other and their community, including streets, parks, transportation terminals and other public facilities, and so is affected by public policy and planning decisions. (TDM Encyclopaedia, Victoria Transport Policy Institute)

Local Government Act

A law enacted by the BC Legislature formerly called the *Municipal Act*. The purposes of this Act are: (a) to provide a legal framework and foundation for the establishment and continuation of local governments to represent the interests and respond to the needs of their communities, (b) to provide local governments with the powers, duties and functions necessary for fulfilling their purposes, and (c) to provide local governments with the flexibility to respond to the different needs and changing circumstances of their communities.

Location-Efficient Mortgage (LEM)

A mortgage that helps people become homeowners in location efficient communities. These are convenient neighbourhoods in which residents can walk from their homes to stores, schools, recreation, and public transportation. People who live in location efficient communities have less need to drive, which allows them to save money and reduce their environmental impact. The LEM combines a low down payment, competitive interest rates, and flexible criteria for financial qualification.

Long Term Thinking

Sustainability requires us to think long term. 'Long term' has been defined many ways; some think about it as the next generations, some people actually prescribe time lines such as 50 years ahead or even 100 years. For the most part, plans or strategies are developed for 10-20 year time frames. Thinking long term permits us to think about what the future might look like and start planning for it early. If the last 100 years were any indication of how things can change, imagine the next 100!

Low-Impact Development

A comprehensive land planning and engineering design approach with a goal of maintaining and enhancing the pre-development hydrologic regime of urban and developing watersheds. This design approach incorporates strategic planning with micro-management techniques to achieve

superior environmental protection, while allowing for development or infrastructure rehabilitation to occur.

Low Income Households

Low income households include those earning up to the maximum of \$38,000/yr; the 2008 ceiling for eligibility for the provincial Rental Assistance Program.

M

Median Household Income

As reported by the Census, it is a form of average representing the midpoint of all household incomes in an area.

Mitigation (re. *Climate Change*)

An intervention to reduce the extent of global warming through reducing the sources or enhance the sinks of greenhouse gases.

Mixed Use

Provision of a mix of complementary uses, such as residential, commercial, industrial, community and leisure uses, on a site or within a particular area. Mixed use development is a key component of Transit Oriented Development (TOD), Traditional Neighbourhood Development (TND), Livable Communities, and Smart Growth principles. There are three predominant approaches to mixed use development that include: increasing intensity of land uses, increasing diversity of land uses and integrating segregated uses. Benefits to mixed development include: activation of urban areas during more hours of the day (leading to safer environments), increasing housing options for diverse household types, reducing auto dependence and increasing travel options since residents and site users, such as employees or shoppers, can walk or take transit, and reinforcing a local sense of place.

Multi-modal Transportation

Most goods and people movements involve more than one mode of transportation. Main modes include: walking, cycling, transit (e.g. bus, railcar, taxi, ferry, etc.), vehicles (single occupant and high occupant), and trucks, aircraft, boat and railcars for goods movement.

N

Native Species

Native species include plants and animals that originate naturally from a geographic area of interest. Non-indigenous species are those species that did not originate naturally in the geographic area of interest and include *invasive species*. Native species are important in maintaining biodiversity, particularly in light of *climate change*. The Garry Oak Ecosystems Recovery Team (www.goert.ca) has answers to many questions including how to plant and grow.

Neighbourhood

An imprecisely defined area within which people live, work, learn, and play. Its edges may be well-defined or more loosely felt by residents. Although it is often defined by a radius equal to an easy walk, its size may vary, from an easily walkable district to a larger region. In some cases, neighbourhoods may overlap, especially where they are well-connected.

Neo-Traditional Design

A traditional neighbourhood, where a mix of different types of residential and commercial developments form a tightly knit unit. Residents can walk or bike to more of the places they need to go and municipal services costs are lower due to the close proximity of residences. A more

compact development also reduces the amount of rural land that must be converted to serve urban needs.

New Urbanism

Neighbourhood design that promotes the creation and restoration of diverse, walkable, compact, vibrant, mixed-use communities composed of the same components as conventional development, but assembled in a more integrated fashion, in the form of complete communities.

Nodal Development

Concentrating new development into centres with existing, but not always, infrastructure capacity and serviced by transit.

O

Open Space Preservation

The protection of natural areas both within and around communities that provide important community space, habitat for plants and animals, recreational opportunities, farm and ranch land (working lands), places of natural beauty and critical environmental areas (e.g. wetlands).

Orientation (Solar)

Orientation of a structure for controlled solar gain is essential to the success of passive and active solar design elements. Sun charts and software assist in orienting a building for maximum solar benefit. Designing for solar considerations can substantially reduce both heating and cooling.

P

Passive Solar

Strategies for using the sun's energy to heat (or cool) a space, mass, or liquid. A window, oriented for solar gain and coupled with massing for thermal storage (e.g., a Trombe wall) is an example of a passive solar technique.

Peak Oil

The point at which we reach maximum global oil production. Peak Oil is not the end of oil or is it an energy crisis. However, many people increasingly believe it is a liquid fuel crisis and a potential economic, political and social crisis. The concept requires us to think about how we'll transition from a fossil fuel-based lifestyle and economy to one that is void of this convenient and low cost fuel.

Placemaking

Designing a building or space to make it more attractive to the people who use it and compatible with its surrounding geographic and cultural context.

Private Amenity Space

A Private Amenity Space is a required area, defined in square metres, designed and landscaped for the outdoor leisure activities of the residents of a certain dwelling type. The purpose is to ensure that there is a certain amount of space for private activities to occur. Different area requirements are defined in different land use zones.

Q

Qualified Environmental Professional (QEP)

A *Qualified Environmental Professional (QEP)* is a person defined under the *Riparian Areas Regulation* of the *Fish Protection Act* of British Columbia. The QEP assesses conditions of riparian

areas according to the regulation so fish and riparian habitat are protected. The applicable professionals include Professional Biologists, Geoscientists, Foresters, Agrologists, and some Technicians. A QEP must be certified by a method stipulated by the Ministry of Environment.

R

Rainwater Harvest

On-site rainwater harvest and storage systems used to offset potable water needs for a building or landscape.

Recycled Content

The content in a material or product derived from recycled materials versus virgin materials.

Regional Growth Strategy

Growth management is a process involving collective action between government, residents and businesses to develop solutions to problems associated with population growth, and ensure the long-term livability of a region. The Capital Regional District (CRD) Regional Growth Strategy (RGS) was adopted by the CRD Board on August 13, 2003. The strategy represents an agreement, developed and approved by the member municipalities and the regional district in partnership, on social, economic, and environmental goals and priority actions.

Renewable Resource

A natural resource (such as wood, water, wind, solar energy, etc.) that can be replenished or replaced by natural processes.

Revolving Loan Fund

A fund established to finance a cycle of operations to which reimbursements and collections are returned for reuse in a manner such as will maintain the principal of the fund, e.g., working capital funds, industrial funds, and loan funds.

Right of way

The right to pass over property owned by another, usually based upon an easement. A path or thoroughfare over which passage is made or a strip of land over which facilities such as highways, railroads or power lines are built.

Riparian

An area of land adjacent to a stream, river, lake or wetland that contains vegetation that, due to the presence of water, is distinctly different from the vegetation of adjacent upland areas. Riparian areas support biodiversity and support healthy water bodies. For provincial regulation see: www.env.gov.bc.ca/habitat/fish_protection_act/riparian/riparian_areas.

S

Secondary Suite (*also see: Accessory Dwelling Unit*)

Secondary Suite is an urban planning term for an additional separate dwelling unit on a property that would normally accommodate only one dwelling unit, e.g. a single detached house. A secondary suite is considered "secondary" or "accessory" to the primary residence on the parcel.

Shared Parking

A type of parking management in which parking spaces are shared by more than one user, which allows parking facilities to be used more efficiently. Shared Parking takes advantage of the fact that most parking spaces are only used part time by a particular motorist or group, and many parking facilities have a significant portion of unused spaces, with utilization patterns that follow predictable daily, weekly and annual cycles.

Shared Street

A common space created to be shared by pedestrians, bicyclists, and low-speed motor vehicles. They are typically narrow streets without curbs and sidewalks, and vehicles are slowed by placing trees, planters, parking areas, and other obstacles in the street.

Smart Growth

A collection of urban development strategies to reduce sprawl that are fiscally, environmentally and socially responsible. Smart Growth is development that enhances our quality of life, protects our environment, and uses tax revenues wisely.

Social Marketing

The use of marketing principles and techniques to influence an audience to voluntarily accept, reject, modify or abandon behaviour for the benefit of individuals, groups or society as a whole.

Solar Energy

Energy from the sun which is captured and used for various purposes. Some examples include: *passive solar*, where building design elements capture heat from the sun (see *passive solar*); *solar thermal*, where a liquid is heated in solar collectors and used for hot water or space heating; and *photovoltaic* (PV), where cells made of materials including silicon which convert sunlight directly into electricity. Also see: Geo-exchange.

Solid Waste Infrastructure

The set of systems and facilities that are used to manage solid waste (garbage and recyclable materials); this includes storage, collection, transport, recycling, and disposal systems and facilities.

Special Needs Households

Special needs households consist of those households with individuals who require supports to obtain and maintain housing, and may include persons with physical and mental disabilities, mental illness and addictions.

Species At Risk

The term *species at risk* comes from the federal *Species At Risk Act*, which generally applies to federal crown land. It includes the categories of extirpated, endangered or threatened species or a species of special concern. *Extirpated species* are those that no longer exist in the wild in Canada, but exist elsewhere in the wild. *Endangered species* are a wildlife species facing imminent extirpation or extinction. A *threatened species* is one that is likely to become an endangered species if nothing is done to reverse the factors leading to its extirpation or extinction. *Species of special concern* are wildlife species that may become threatened or endangered because of biological or identified threats. For Ministry of Environment information see: www.env.gov.bc.ca/atrisk/. For Garry oak-related species, see: www.goert.ca.

Split Incentive

A market barrier to an innovation, in which higher capital costs of an innovation are borne by one market participant while its operating savings benefit another. The financial incentive to adopt the technology is split from the participant responsible for putting it in place.

Sprawl

The unlimited outward expansion of suburbs created by low-density residential and commercial development. Sprawl is characterized by low-density greenfield development; the separation of residential, work and shopping areas; lack of well-defined centres; and a road network consisting of very large blocks with limited points of entry into the blocks.

Stormwater Infrastructure

Stormwater infrastructure is the network of piping, systems and facilities that manage runoff from areas such as paved surfaces and roofs.

Stormwater Management

Building and landscape strategies to control and limit stormwater pollution and runoff. Usually an integrated package of strategies, elements can include vegetated roofs, compost-amended soils, pervious paving, tree planting, drainage swales, and more.

Strata Property Act

The *Strata Property Act* (which replaced the *Condominium Act* in 2000) is a provincial law defining how strata lots and strata corporations are created and managed. This includes the creation of bare land strata lots and strata apartment units within a building. The City's Approving Officer approves bare land strata plans as a type of subdivision of land with reference to the *Land Title Act*. Refer to the *Act* for definitions and regulations.

Strengths, Weaknesses, Opportunities, Threats (SWOT) Analysis

A strategic planning tool used to evaluate the Strengths, Weaknesses, Opportunities, and Threats involved in a project. Because it concentrates on the issues that potentially have the most impact, it is useful when there is a limited amount of time available to address a complex strategic situation. The SWOT analysis can serve as an interpretative filter to reduce information to a manageable quantity of key information.

Sustainable Development

An approach to progress that meets the needs of the present without compromising the ability of future generations to meet their needs.

Sustainable Infrastructure

Is the term referring to a broader, sustainable approach to water, wastewater, stormwater, solid waste, and energy systems with a focus on climate-friendly strategies.

Sustainable Landscape

A landscape that uses environmental and financial resources efficiently. Characteristics of a sustainable landscape may include water conservation and infiltration, invasive plant prevention, and habitat enhancement.

T

Traditional Neighbourhood Development

Development that is based on human-scale design with concern for walkability, and exhibits several of the following characteristics: alleys, streets laid out in a grid system, buildings oriented to the street, front porches on houses, pedestrian-orientation, compatible and mixed land uses, village squares and greens.

Traffic Calming

Traffic calming involves changes in street alignments, installation of barriers, and other physical measures to reduce traffic speeds and cut-through volumes to improve street safety and livability.

Transit-Oriented Development (TOD)

Moderate and high-density housing concentrated in mixed-use developments located along transit routes. The location, design and mix of uses in a TOD emphasize pedestrian-oriented environments to encourage the use of public transportation.

Transportation Demand Management (TDM)

Transportation Demand Management (TDM) aims to focus efforts on reducing the demand for roadway space through the planning and implementation of programs that seek to reduce road space demand by influencing travel choices and the amount and timing of travel. TDM aims to encourage more walking, cycling, public transit use, car-pooling, and tele-commuting.

U

Unbundled Parking

A parking strategy in which parking spaces are rented or sold separately, rather than automatically included with the rent or purchase price of a residential or commercial unit. Tenants or owners are able to purchase only as much parking as they need, and are given the opportunity to save money and space by using fewer parking stalls. Unbundled parking is more equitable and can reduce the total amount of parking required for the building.

Universal Design

Access to environments and products that are designed to the greatest extent possible, to be accessed and used by everyone regardless of their age, ability, or circumstance.

Urban Agriculture

The practice of growing of plants and raising of animals for food and other uses within and around cities and towns, and related activities such as the production and delivery of inputs and the processing and marketing of products.

Urban Containment Boundary

A boundary established by a land use authority where urban land ends and rural land begins. Typically, a firm urban containment boundary will over time, result in the concentration of growth in a region in centres and connecting corridors, that can be effectively served by express-bus transit.

Urban Forest

The collection of all the trees and shrubs that grow within a city, town or a suburb looked together as one forest. In a wider sense it may include any kind of woody plant vegetation growing in and around human settlements. The benefits of urban forests are many, including beautification, reduction of the urban heat island effect, reduction of stormwater runoff, reduction of air pollution, reduction of energy costs through increased shade over buildings, enhancement of property values, improved wildlife habitat, and mitigation of overall urban environmental impact.

V

View Corridor

A three dimensional area extending out from a viewpoint. The width of the view corridor depends on the focus of the view.

W

Walkability / Walkable

Walkability reflects overall walking conditions and usually takes into account the quality of pedestrian facilities, roadway conditions, land use patterns, community support, security and comfort for walking. The quality of pathways, building access ways and related facilities, the existence of sidewalks and crosswalks, roadway conditions (road widths, traffic volumes and speeds), accessibility (the relative location of common destinations) and the quality of connections between them all affect walkability.

Wastewater

The spent or used water from a home, community, farm, or industry that contains dissolved or suspended matter.

Wastewater Infrastructure

Wastewater infrastructure could include everything between the point where wastewater (sewage and grey water) is collected, and the discharge of treated effluent such as a river or ocean. System components include wastewater collection (sanitary sewers), wastewater treatment plants, residuals (sludge or biosolids) management systems, and effluent discharge systems.

Water & Wastewater Infrastructure

The network of pipes, systems and facilities that provide fresh water supply and wastewater (sewage) management for communities.

Watershed

Area of land that contributes runoff to a particular, common body of water.

Water Supply Infrastructure

Water supply infrastructure could include everything between the water source, and the buildings or site where the water is delivered. System components include water supply conveyance, water treatment plants, and water distribution networks.

Wildfire Interface

The wildland-urban interface where risk of harm to people and property can be significant.

Woonerfs / 'Home Streets'

Woonerf is a Netherlands word that translates to "street for living". Woonerfs are designed to accommodate the needs of automobile drivers but also integrate the needs of other users such as pedestrians, cyclists, and playing children. Woonerfs sustain lower traffic speeds through utilisation of chicanes, or, integrated traffic calming and intensive landscaping that forces frequent short turns.

Work Force Housing

Housing that is affordable for moderate income families, living or working in a city, with at least one dependent child and earning up to the median household income. May consist of single family dwellings, multi-family dwellings and be ownership or rental tenure.

X

Xeriscaping

An environmentally friendly form of landscaping that uses a variety of indigenous and drought-tolerant plants, shrubs, and ground cover.

Y

Z