



# PEMBERTON BENCHLANDS

## Neighbourhood Concept Plan

Schedule "D" to the Village of Pemberton  
Official Community Plan, Bylaw No. 435, 1999

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With the Assistance of



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# EXECUTIVE SUMMARY

## OVERVIEW

The Benchlands Neighbourhood Concept Plan (NCP) establishes a land use and servicing framework for the future development of a unique hillside neighbourhood adjacent to Pemberton's commercial village centre, British Columbia. The Plan sets a high standard for development in the Village of Pemberton that conforms to the overall development policies outlined in *The Corporation of the Village of Pemberton Official Community Plan* (Bylaw No. 435, 1999) (OCP). Informed by physical site analysis and community consultation, the Plan proposes land uses and infrastructure for the future rezoning and development of the Benchlands neighbourhood.

## LOCATION & DEVELOPMENT VISION

- The Benchlands NCP covers an area of 95.7 ha (236.5 ac) generally located in the highlands above Pemberton Meadows Road, framed by Crown held forest to the west, the Dogwood neighbourhood to the south, Collins Road to the north, and agricultural lands to the north and east. A small portion of the plan area is located in the lowlands to the east of Pemberton Meadows Road and is bounded by agricultural reserve lands. Rising southward from the agricultural lowlands in the north and east, the Benchlands is almost entirely above the Lillooet River floodplain. The Benchlands area offers panoramic views over the Pemberton Valley and is within close proximity to the existing village centre. (**Figure 2 – Benchlands Neighbourhood within the Village of Pemberton**).
- The OCP provides policies to guide the future growth and development of Pemberton, requiring the preparation of an NCP for the Benchlands. It also presents broad objectives that address the form and character of existing and future land use, transportation patterns and infrastructure provision. Central to this vision is protecting the Village of Pemberton's unique character and significant recreational areas; strengthening the downtown economy and developing a vibrant, pedestrian-oriented neighbourhood.
- The NCP proposes a mixed use, hillside residential neighbourhood in the Benchlands that links the rugged highlands with the existing Village and its adjacent lowlands. The neighbourhood is composed of a broad range of single family and multi-family housing units, neighbourhood commercial services, an elementary school, a community playfield, and an integrated network of parks and trails providing connections to Pemberton's village centre and to the backcountry. (**Schedule A – Land Use Plan**).

## PHYSICAL INVENTORY & ANALYSIS

- The Benchlands landscape is characterized by distinct terraces that step 185m down the hillside to the floodplain, serving to cluster future development and screen its visual impact from the valley (**Figure 6 – Landform Analysis**). The NCP area is bisected by a spiny ridge marked with a series of rock knolls that define two separate hillside water catchment areas.
- Consistent with its hillside character, the NCP area contains a high percentage of lands with slopes greater than 30%. Elevations range from 390m at the highest point on the most western promontory to 205m in the lowlands along Pemberton Meadows Road (**Figure 7 – Slope Analysis**). Detailed analysis reveals that only approximately 30% of land (28.7 ha) is well suited for development. The remaining 70% (67.0 ha) of land has severe limitations to development owing to steep slopes, potential rockfall hazards, environmentally sensitive habitats, floodplain hazards, Agricultural Land Reserve designation, or is already under development as Benchlands Phase 1. While limited development within these areas is envisaged, additional studies are required prior to zoning and subdivision.
- An Environmental Review conducted in the fall of 2004 identified the primary environmental issues in the Benchlands Neighbourhood Plan area as those which related to hydrology and sensitive ecosystems. In particular, the Environmental Review noted that the Benchlands contains four ephemeral watercourses requiring buffering, seven Environmentally Sensitive Areas, and potential habitat for a number of wildlife species.

## LAND USE SUMMARY

- The Plan proposes an ultimate development yield for the Benchlands including Phase 1, of 503 dwelling units, composed of both single family and multi-family homes. The land use plan allows a diversity of ground-oriented housing forms, including detached single family homes, with a range of lot sizes and multi-family townhomes, as outlined in Table 1 – Benchlands Land Use Summary.
- Following the patterns established in other residential neighbourhoods in Pemberton, it is anticipated that some homes on the Benchlands will have secondary suites. For the purposes of determining the potential population of the new neighbourhood, the Plan assumes that 75%, or 189, of the Large and Medium Single Family units will have a secondary suite.
- A public commons with a small park and neighbourhood commercial services, such as a corner store or small café, has been thoughtfully

located to serve as the neighbourhood “heart” and social gathering place. Higher density townhomes supported by rear lanes are clustered in this area, providing the needed pedestrian activity to support the neighbourhood commercial uses and to define the neighbourhood “heart” through built form.

- A joint elementary school and neighbourhood park is proposed to meet the needs of Benchlands residents and the growing population of Pemberton. The school portion of the site is approximately 2.8ha (6.9ac) in size with space for an elementary school program with a gymnasium, playground, and limited parking. Adjacent to the elementary school is a community playfield to service both the physical education programmes of the school as well as the recreational needs of the broader community.

Table 1 : Benchlands Land Use Summary

Land Use	Area (ha)	% of Total Area
<b>Private Realm</b>		
Large Single Family	9.3	10%
Medium Single Family	12.3	13%
Small Single Family	7.7	8%
Townhome Multi-Family	0.9	1%
Rural Residential (in ALR)	14.0	15%
Phase 1 - Single Family	4.0	4%
Neighbourhood Commercial	0.04	-
<b>Sub Total</b>	<b>48.3</b>	<b>50.4%</b>
<b>Public Realm</b>		
Public Natural Areas	20.6	21%
Elementary School	1.2	1.27%
Community Playfield	1.6	1.66%
Civic & Infrastructure	0.4	0.42%
Parks	11.7	12.18%
Streets and Lanes	12.0	13%
<b>Sub Total</b>	<b>47.4</b>	<b>49.6%</b>
<b>TOTAL</b>	<b>95.7</b>	<b>100%</b>

## PARKS & ENVIRONMENT

- A series of public Community Nature Parks that occupy the three landmark knolls with spectacular valley vistas are proposed for the Benchlands NCP area (**Schedule B - Park & Environmental Network Plan**). The Community Nature Parks will serve to provide active and passive recreation opportunities, protect environmentally sensitive areas, preserve view corridors, reduce the visual impact of the Benchlands development, and support wildlife movement.
- Smaller Neighbourhood Parks are situated throughout the Benchlands plan area, to frame individual neighbourhoods and to ensure that all homes have easy access to community outdoor space.

- A Joint School and Neighbourhood Park with limited active play space and equipment will be provided in the Benchlands in association with the Elementary School. The play field will be approximately 60m x 100m in order to accommodate a variety of field sports, including soccer and baseball, and serve to protect views for public enjoyment.
- A comprehensive network of recreational trails will link the Benchlands to Pemberton’s village centre, local points of interest such as Pemberton Creek falls, and the backcountry of Crown lands.

## HILLSIDE STREET STANDARDS

- Hillside street standards will be required in order to meet the specific demands presented by the Benchlands’ challenging landscape. Hillside street standards will reduce the visual, physical and environmental impact of streets within hillside landscapes.

## TRANSPORTATION

- Primary access for the Benchlands is provided along the proposed Collector Loop street which links individual neighbourhood clusters to Pemberton Meadows Road, a designated collector road, while protecting existing neighbourhoods from an excessive increase in through traffic. The Collector Street creates a coherent street hierarchy that will ensure safety, access and an enhanced public realm (**Schedule C – Street Hierarchy Plan**).
- Rear lanes enhance the pedestrian experience by eliminating driveways, strengthening the visual prominence of street fronting homes, and directing car traffic to the rear of properties. The use of rear lanes will be sought in pedestrian-oriented neighbourhood centres, specifically around the neighbourhood commons, the Joint School and Park, and wetland commons adjacent to Pemberton Meadows Road.

## SERVICING

- The proposed development will be serviced by the domestic potable water system which currently serves the demands of both the Village and the Regional District (**Schedule D – Water Distribution Plan**). Based on the NCP, an additional water reservoir at an elevation of 385 metres will be required with one pump station and two pressure reducing valves (PRVs).



- The Benchlands will be serviced by a gravity sanitary sewer connected to the existing municipal sewer system (**Schedule E – Sanitary Master Plan**) at Pemberton Meadows Rd. In some specific locations individual pumping will be required for sewage to be lifted to connect to the gravity sewer system.
- Storm water is proposed to be accommodated on-site through a drainage system that aims to simulate pre-development conditions according to best management practices. Detention ponds will be required in some locations to assist in the regulation of post-development flows (**Schedule F – Drainage Master Plan**).
- The Benchlands neighbourhood will also be serviced with underground hydro, telephone, cable and gas.

## S U S T A I N A B I L I T Y

- To ensure that the Benchlands NCP area becomes a vibrant and safe neighbourhood, a series of initiatives in sustainability are provided that relate specifically to Housing Initiatives, Transportation Initiatives, Environmental Management, Fire Hazard Mitigation, and Hillside Development Management.

## I M P L E M E N T A T I O N

- Due to the diverse and potentially changing land ownership of the Benchlands, phased implementation of the NCP will be required and will likely take place over many years. With this in mind, flexibility has been incorporated into the Plan so that it remains relevant throughout its implementation.
- In order to realize the vision for the Benchlands, collaboration by landowners and the Village of Pemberton will be required, particularly in the preparation of Development Servicing Agreements at the time of rezoning.
- As part of implementation of the NCP, amendments will be required to the Village of Pemberton Official Community Plan (Bylaw No. 435, 1999), specifically the requirement for 25% of new housing in the Benchlands to be multi-family units (Section 3, Residential Policy No.3).
- Policy recommendations are made for implementation tools and mechanisms specifically related to land use, urban design, environment, and transportation.



# 1 O V E R V I E W

The Benchlands Neighbourhood Concept Plan (NCP) area is generally located to the west of Pemberton Meadows Road, to the north of Pemberton's village centre. The plan area encompasses 95.7 ha (236.5 ac) and is framed Collins Road to the north, the Dogwood neighbourhood to the South, undeveloped Crown lands to the west, and Pemberton Meadows Road to the east, with a portion of the NCP area lying east of Pemberton Meadows Road (**Figure 3 – Aerial Photograph**). Due to its proximity to the village centre and location upland of the Lillooet River floodplain, the Benchlands area is designated as the primary source of land for future residential development in *The Corporation of the Village of Pemberton Official Community Plan* (Bylaw No. 435, 1999), or OCP.

Planning for the Benchlands area has involved the exploration of development opportunities through the full engagement of local residents and stakeholders during the analysis of the site. This document represents the culmination of these efforts and forms the basis of the Benchlands NCP.

## 1.1 PURPOSE

In anticipation of future growth in the Village of Pemberton, the Benchlands NCP is intended to guide land use and servicing decisions to effectively manage change, while preserving the character of the landscape and broader community. Conforming to the development policies outlined in the Village of Pemberton OCP, the Plan reconciles land use, density, servicing, infrastructure, transportation, urban design, environmental concerns, implementation issues, and economic considerations necessary for the creation of an integrated and sustainable neighbourhood. Its purpose is to serve as the foundation for future rezoning, development permit and subdivision, towards the development of the Benchlands as Pemberton's core hillside neighbourhood.

As the first comprehensive Neighbourhood Plan led by the Village of Pemberton, the Benchlands NCP sets a high standard of community development. Site-specific design and hillside development standards will ensure that natural features and sensitive areas are adequately protected while also accommodating future growth. With panoramic views over the Pemberton Valley and close proximity to the village centre, the residential neighbourhood will support a diversity of housing types with complementary municipal services, parks, trails, and an elementary school.

## 1.2 PLANNING CONTEXT

The Pemberton Benchlands is designated as Future Residential lands in the Village of Pemberton's *Official Community Plan* (Bylaw No. 435, 1999). The Official Community Plan (OCP) also provides a vision for future growth in Pemberton, as outlined in Section 2.2 of the OCP, and aims to achieve the following:

- The preservation of a small town, rural lifestyle;
- A vibrant and accessible village centre with a range of amenities;
- A comprehensive network of parks and trails;
- A diversity of housing forms within close proximity to village amenities;
- Urban form that respects the current character of the Village; and,
- A stable and diverse economy that capitalizes on the natural, recreational, and situational amenities of the Village.

As the primary source of land for residential development in Pemberton, the Benchlands neighbourhood will make a significant contribution to the realization of this vision.

The OCP also describes the Village’s long-range planning policies to guide its future growth and development. These policies specifically address land use, the form and character of development, transportation patterns, and infrastructure requirements. The Benchlands NCP supports and is compliant with OCP policies as outlined in detail in **Appendix E – OCP Policy Summary** in the Sub-Consultant Reports Appendices.

### 1.3 SITE CONTEXT

The majority of the Benchlands NCP area is located within the Village of Pemberton municipal boundary, with a portion of the NCP area located in the Squamish-Lillooet Regional District and currently under application for annexation to the Village. There are currently five landowners in the Benchlands NCP area, with the majority of land being held by the Crown (**Figure 4 – Land Ownership**).

In order to appreciate the unique community context and understand its complex landscape, a thorough analysis of the Benchlands was undertaken to assist in ensuring that the NCP addresses current and future community values and needs. Outlined in this section is a summary of the site analysis undertaken to prepare the NCP.

#### 1.3.1 Community Context

The Benchlands area is located within close proximity to the Pemberton village centre, a well established compact community heart where retail services, offices, and community amenities are concentrated. This prominent location makes the Benchlands a critical element in the sustainable growth and development of Pemberton, according to principles of “Smart Growth”.

**Table 2 – Demographic Characteristics** illustrates that between the last two census periods Pemberton’s population has nearly doubled from 857 in 1996 to 1,637 in 2001. This population increase represents an annualized growth rate of 14%, significantly higher than the provincial average growth rate of 1%. Population growth continues in Pemberton, with the 2004

population projected at 2,204 (*B.C. Stats*), an annualized rate of 10% since 2001, once again well above the provincial average.

Table 2 : Demographic Characteristics

<b>Population Growth</b>		
	Village of Pemberton	B.C.
1996	857	3,874,276
2001	1,637	4,078,447
<b>Annualized Growth (1996 - 2001)</b>	13.8%	1.0%
<b>Average Household Size</b>		
	Village of Pemberton	B.C.
1996	2.6	2.7
2001	2.5	2.7
<b>Median Age</b>		
	Village of Pemberton	B.C.
2001	32.6	38.4

\* Data is from the 1996 and 2001 Canada Census.

Pemberton’s natural setting and its location in the Sea-to-Sky Corridor has attracted a large number of young people to the community. The median age of Pemberton is 32.6, significantly below the provincial average of 38.4. Over half of Pemberton’s residents are between the ages of 25 and 44, while the province as a whole has only one third of its population in this age range. Average household sizes in Pemberton are 2.5 persons per household, slightly below the provincial average of 2.7, suggesting young people in Pemberton have yet to start families. This demographic picture points to a need to provide smaller ‘starter’ homes for young families, in expectation that this segment of the population will require affordable and flexible housing as they mature and grow. It further illustrates the likelihood that secondary suites will be desired for the Benchlands, as they serve to provide lower cost rental accommodation for the community and also serve as “mortgage helpers” for home buyers.

The increasing regional and international popularity of the nearby Resort Municipality of Whistler, and the associated increase in real estate values in the region, has resulted in many people working in Whistler, while making their home in Pemberton. In addition, Pemberton’s proximity to both Whistler and Vancouver will likely see an increase in opportunities for investment and increased tourism in Pemberton in coming years.

Development within Pemberton over the last five years has occurred primarily east of the village core. Of 96 vacant lot sales between 2000 and 2005, over half (51) were located in, or adjacent to, the village core. Another 23 sales occurred in the eastern valley along Pinewood Drive. Land in the eastern portions of the Village of Pemberton tends to be within the Agricultural Land Reserve, thereby limiting development potential.

Over the long-term, real estate values in the Village of Pemberton have been consistently rising, and affordable housing has become a prevalent issue for the municipality. The existing housing stock offers little diversity in single

family housing options, while townhome developments have been used to provide a more affordable alternative. Surveyed public opinion during the public consultation process has stated that affordable single family housing options are desirable, and that secondary suites are a necessary component of future growth in the Village. The Benchlands NCP aims to meet this demand by designating a broad range of single family lot sizes, multi-family townhomes, and the provision for accommodating secondary suites in larger single family homes.

### 1.3.2 Traffic Context

Currently, the Benchlands NCP area is accessed at three locations (**Figure 5 – Traffic Context**). The northern portion of the site is accessible by Collins Road, while the eastern portion of the site is accessible by Eagle Drive off of Pemberton Meadows Road, a new road constructed to access Benchlands Phase 1. The third access point to the Benchlands is from the southeast via Dogwood Street. A collector road is proposed for the Benchlands in the OCP (Policy No.41), to service the neighbourhood by linking it to the existing street network.

Off-site traffic impacts of the Benchlands are a concern for the community, particularly those residents of the Dogwood neighbourhood in the southeast of the plan area. A traffic study has been undertaken as part of the NCP process, to determine the impacts and mitigation measures of Benchlands traffic (**Appendix B – Traffic Summary** in the Sub-Consultant Reports Appendices).

### 1.3.3 Physical Inventory & Analysis

The Benchlands neighbourhood is situated above the Lillooet River floodplain, on a pronounced benchland composed of a series of distinct terraces that step 185m up the hillside. Elevations range from 390m at the highest point, to 205m in the lowlands (**Figure 6 - Landform Analysis**). An 18.2 ha portion of the Plan area located in the north is below the 212 metre contour line, which defines the 200 year extent of the Lillooet River floodplain.

The Benchlands are bisected by a spiny ridge marked with a series of rocky knolls defining two separate water catchment areas. While much of the land is not suitable for development due to steep slopes over 30%, the large terraces present an opportunity for clustered development with minimal visual impact to residents of the valley below (**Figure 7 – Slope Analysis**). Detailed analysis shows that approximately 30% of the land (28.7ha) is developable as part of the Benchlands neighbourhood. The remaining 70% (67.0ha) of land has severe limitations to development owing to steep slopes, potential rockfall hazards, environmental sensitivity, the Lillooet River floodplain hazard or is within the Agricultural Land Reserve (ALR). In addition, a 4.0 ha portion of the Benchlands has already been approved for development, currently being sold as Benchlands Phase 1.

The Benchlands NCP area occupies a predominantly east-facing terrace, providing spectacular panoramic north and east views over the Pemberton valley (See **Figure 8 – Aspect Analysis**). Benches on the site provide good eastern solar orientation for the future neighbourhood, consistent with other areas of Pemberton.

#### 1.3.4 Environmental Review

An Environmental Review of the Benchlands NCP area was conducted by EBA Engineering Consultants Ltd. (**Appendix A – Environmental and Geotechnical Hazard Summary** in the Sub-Consultant Reports Appendices). The purpose of the study was to complete an inventory of ecosystems, wildlife, wildlife habitat, aquatic resources/hydrology and geotechnical hazards; identify Environmentally Sensitive Areas (ESAs); and provide recommendations relating to environmental constraints, enhancement opportunities, and mitigation measures for the development of the NCP.

In general, the findings of the Environmental Review were as follows:

- Four ephemeral, seasonal watercourses were identified on the site. It is not likely that these watercourses would sustain any fish populations, however they are an important source of clean water and nutrients to fish bearing waters downstream.
- Seven Environmentally Sensitive Areas (ESAs) were identified in the Benchlands area. Three of the ESAs are riparian ecosystems, two are wetlands, one is a rocky outcrop, and one is a stand of old growth forest on a rocky outcrop.
- There are several types of rare wildlife potentially present in the Benchlands area, based on the available habitat. Riparian areas are most likely to have the greatest diversity of species and to function as wildlife movement corridors. Additional study is required to determine the presence of any rare wildlife species.
- Steep slopes on the site may be unsuitable for development or may require remedial works to ensure stability. In the western portion of the site a rockfall hazard exists from the bedrock bluff above the plan area.
- A portion of the site is within the Lillooet River floodplain. This area in the northeast of the plan area is therefore in a flood hazard area, as is much of Pemberton.
- Risk of avalanche on the site is considered to be low.
- Two former shooting ranges exist on the site, requiring detailed assessment to determine the extent of lead contamination.

In their report, EBA identified a number of recommendations for the design and development of the Benchlands. In particular, EBA recommends protection of the Environmentally Sensitive Areas, as they are important in preserving biodiversity and can provide an opportunity to incorporate special environmental features to enhance aesthetics of the development. To this end

they recommend that setbacks be established for riparian areas at the time of subdivision and/or development permit application. Regarding geotechnical hazards, EBA recommends avoiding the location of any permanent or temporary building within the rockfall hazard zone. Roads, driveways and footpaths where human use is transient are acceptable in the rockfall hazard zone under certain conditions. Engineered solutions to mitigate the rockfall hazard, such as ditches and berms, rock scaling, rock bolting, or cable/wire mesh fences could mitigate hazards and require more detailed evaluation as part of subdivision approval.

EBA also recommends that several additional studies be undertaken prior to rezoning of the Benchlands. Specifically, the recommended studies are:

- Rare plant survey;
- Rare wildlife survey;
- Detailed hydrological mapping and riparian area assessment; and,
- Environmental site assessment of the two former shooting ranges.

### 1.3.5 Archaeological Analysis

An archaeological Overview Assessment report was prepared by Antiquus Archaeological Consultants Ltd. in May 1999 for the Crown portion of the Benchlands. This report concludes that with the exception of the southeastern corner of Lot 8556, the archaeological potential for the Crown's properties, and the areas immediately adjacent, are classified as "low". It was concluded that no additional archaeological work such as an Archaeological Impact Assessment (AIA) is required for this area. The report does recommend that an AIA study be conducted for the southwestern corner of Lot 8556 if any land alteration is proposed, however as the Benchlands NCP does not designate this area for development a study is not required. Further, in March 2001 Archaeo Research Ltd. prepared a report that indicates that there are no registered archaeological sites on the Crown portion of the Benchlands.

While archaeological studies have not been conducted on the privately held land in the Benchlands NCP area, these lands have been significantly disturbed such that their archaeological potential is likely low. It is noted that the Heritage Conservation Act protects all archaeological sites from disturbance, intentional or inadvertent. In the case that archaeological remains are discovered in the Benchlands NCP area during development, all ground disturbance in the immediate vicinity must cease pending further archaeological investigation and analysis.

## 1.4 PLANNING PROCESS

The planning process for the Benchlands NCP was funded by landowners and was led by the Village of Pemberton, in collaboration with EKISTICS Town Planning Inc. Preparation of this plan began in October 2004 and concluded



in August 2005. The Village established a Steering Committee and Neighbourhood Advisory Committee to assist in the development of the Plan.

#### 1.4.1 Benchlands Steering Committee

Throughout the process of preparing the NCP, EKISTICS has received guidance and direction from the Benchlands Steering Committee. Members of the committee represented Benchlands property owners, the Squamish-Lillooet Regional District (SLRD), and the Village of Pemberton. The primary function of the Benchlands Steering Committee was to provide direction to the Planning Consultant and to guide the development of the Benchlands NCP.

#### 1.4.2 Benchlands Neighbourhood Advisory Committee (NAC)

After an open call for interest, Council appointed five residents to serve on the Benchlands Neighbourhood Advisory Committee (NAC). The appointees were residents from the adjacent Dogwood neighbourhood, located southeast of the Benchlands area. The NAC had two primary roles in the preparation of the NCP, specifically to:

- Function as a community resource for the Consulting Team that undertook the preparation of the NCP (**Appendix F – Consulting Team** in the Sub-Consultant Reports Appendices); and,
- Provide recommendations to Council on the Neighbourhood Plan.

A series of meetings, briefings, and a workshop were held with the NAC throughout the planning process.

In addition to the two committees described above, consultation was also held with Village of Pemberton staff and Council, the Advisory Land Use Planning Committee, local First Nations, and members of the public throughout the preparation of the NCP.

### 1.5 FIRST NATIONS CONSULTATION

The Benchlands NCP area is within the traditional territory of the Lil'wat Nation. The Lil'wat Nation has been consulted in the Benchlands NCP planning process, and was invited to comment on the various land use options that were presented.

A majority of land in the NCP area is owned by the Crown, who is represented on the Benchlands Steering Committee by the Ministry of Agriculture and Lands (MAL). On May 10, 2005, the Ministry of Sustainable Resources and the then responsible Land and Water British Columbia Inc. signed an accommodation agreement with the Lil'wat Nation for the Crown land in the Benchlands NCP area. This accommodation agreement provides a payment to the Lil'wat for each phase of the development as it is sold, to fulfill any applicable legal obligations of consultation and accommodation on

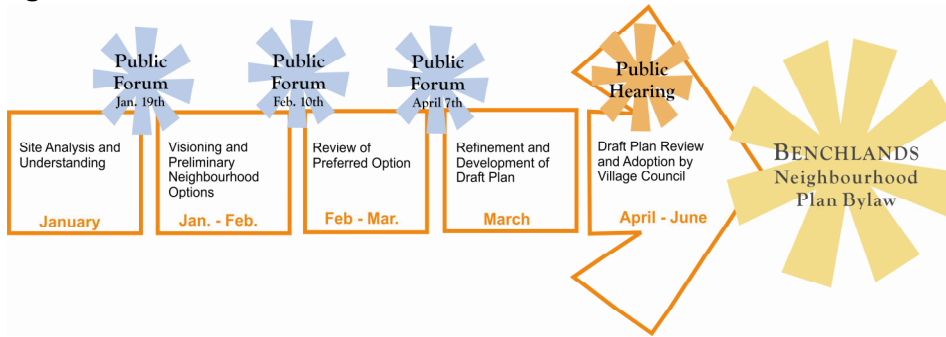
the Crown land. Nothing in the accommodation agreement affects the Heritage Conservation Act, should any archaeological sites be discovered during construction.

In addition to the May 10, 2005 agreement, the 3.84 hectare triangular portion of the Benchlands NCP area to the northeast of Pemberton Meadows Road (known as Parcel 2A) will be transferred to the Lil'wat Nation by the Crown as part of the Ministry of Transportation Sea to Sky corridor accommodation package.

## 1.6 PUBLIC CONSULTATION

Central to the preparation of a Neighbourhood Concept Plan is the involvement of the community and public stakeholders. Three public forums were held in Pemberton at key stages of plan development, in order to provide meaningful consultation with Pemberton residents and interested parties. The feedback received at the public forums was used to inform and guide the development of the NCP. A brief summary of the public forums is provided below and is outlined in **Figure 1 – Pemberton Benchlands Public Consultation Schedule**.

Figure 1 : Pemberton Benchlands Public Consultation Schedule



The first public forum took place on February 10<sup>th</sup>, 2005. The purpose of this meeting was to inform the public of the NCP planning process and provide a preliminary site assessment. Site context, history, development opportunities and constraints, as well as a physical analysis of the site were presented. Feedback received from this public forum centred around the issues of affordable housing, environmental sensitivity of the site, geotechnical and avalanche risks, and traffic impacts on the larger community. These issues have been addressed in the completed environmental, traffic, and engineering studies attached as **Appendices A, B, and C** respectively.

The second public forum took place on March 3<sup>rd</sup>, 2005. Three illustrated land use concepts were presented. The intent of this forum was to provide stakeholders with a variety of land use options as well as a framework to weigh the relative merits of each alternative. Support was expressed at the conclusion of this forum for a combination of the three concepts presented. Other feedback received focused on housing issues (type, location, density,

affordability), traffic issues (parking, street widths, site access), and the proposed elementary school and park.

The third public forum took place on May 26<sup>th</sup>, 2005. A draft of the Preferred Land Use Plan was presented, a “hybrid” of the earlier concepts reached through consultation with the Village, the Steering Committee, the NAC, and the public. The intent of this forum was to gain public comment on the preferred option. The majority of comments received from this forum expressed support for the Preferred Land Use Plan.

Full summaries of the feedback heard at each public forum are included in **Appendix D – Public Forum Summaries** in the Sub-Consultant Reports Appendices.



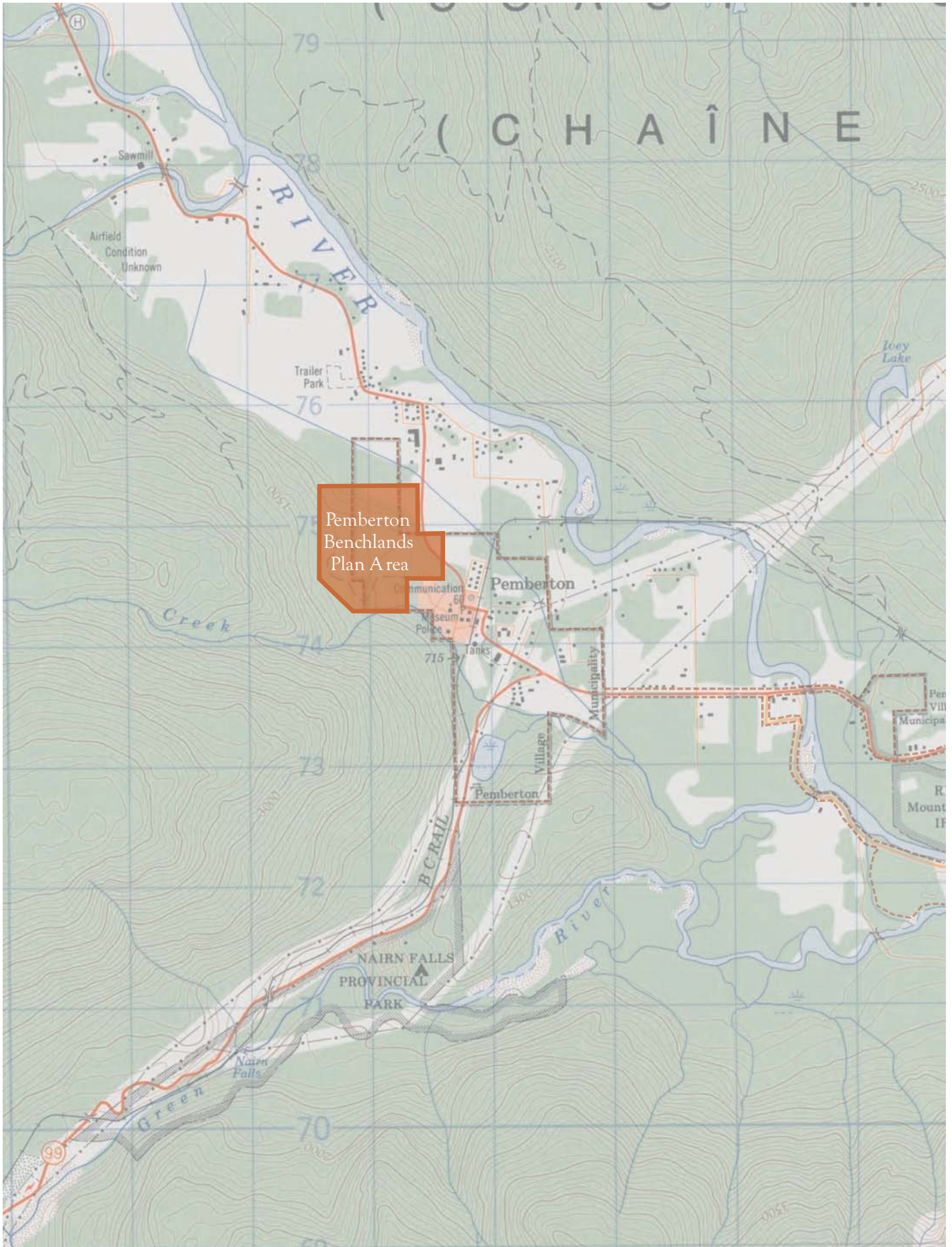


Figure 2: Location of the Benchlands within the Village of Pemberton



# BENCHLANDS NEIGHBOURHOOD PLAN

P E M B E R T O N , B C

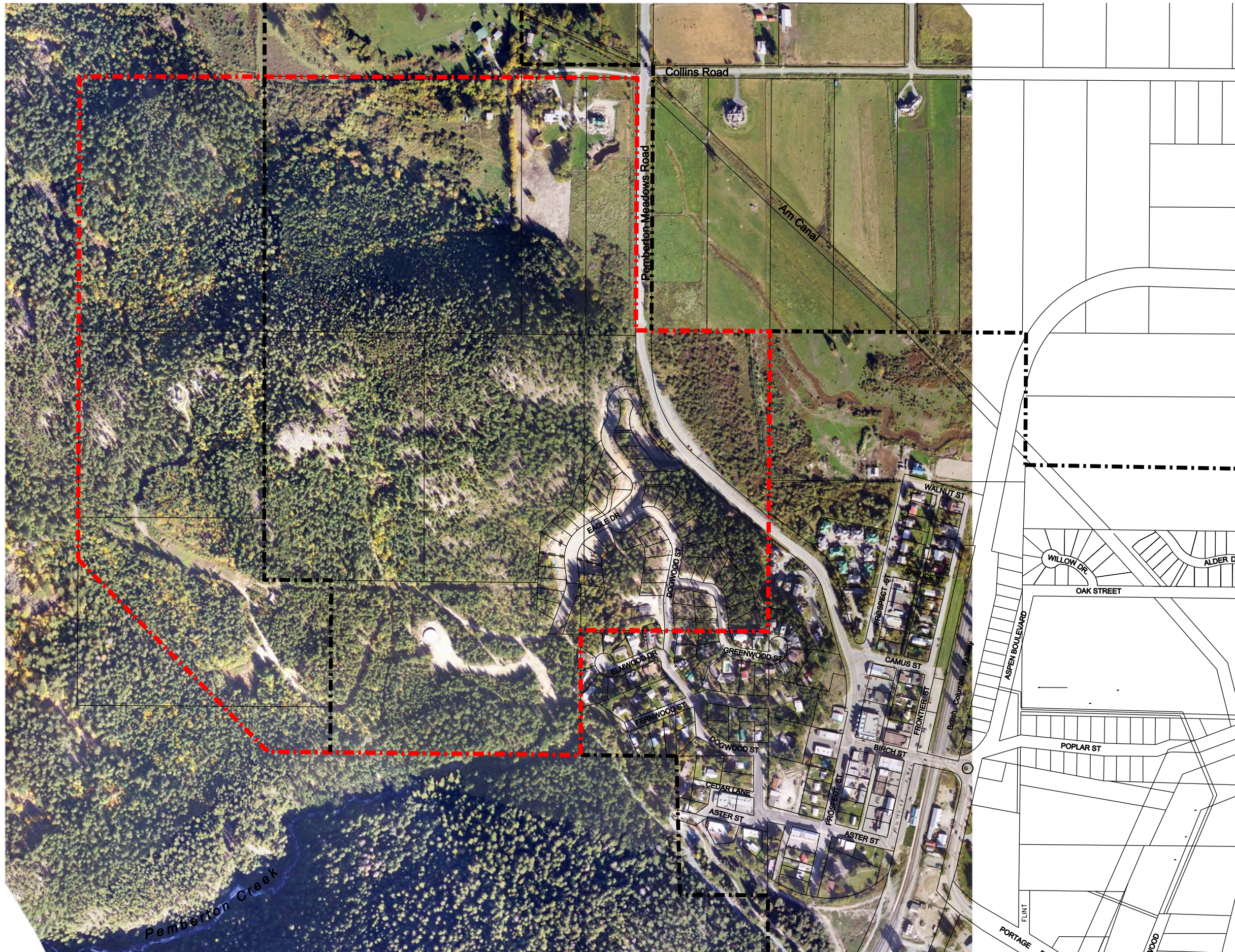
Figure 3

## AERIAL PHOTOGRAPH

JANUARY 2007

### LEGEND

- Village Municipal Boundary
- - - Neighbourhood Plan Boundary



SCALE 1:6000



EKISTICS





# BENCHLANDS NEIGHBOURHOOD PLAN









PEMBERTON, B.C.

Figure 4

## LAND OWNERSHIP PLAN

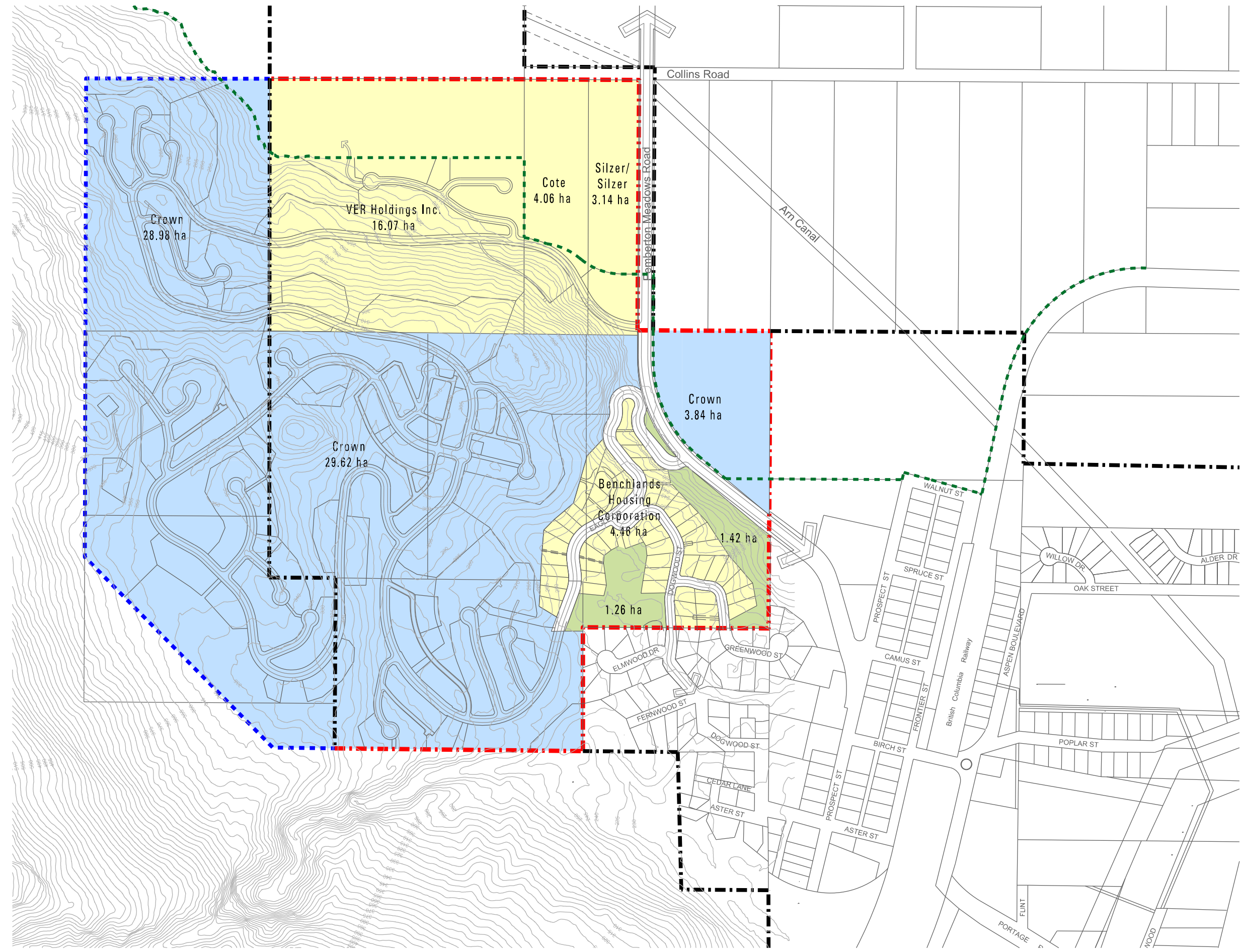
JANUARY 2007

### LEGEND

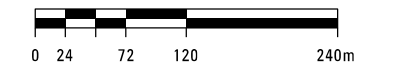
-  Village Municipal Boundary
-  Proposed Village Boundary Expansion
-  Neighbourhood Plan Boundary
-  ALR
-  Crown Land (62.44 ha)
-  Private Land (27.73 ha)
-  Municipal Land (2.68 ha)
-  ROW (2.93 ha)

Total 95.78 ha

\* Lands Within ALR 14.06 ha



SCALE 1:6000





# BENCHLANDS NEIGHBOURHOOD PLAN






PEMBERTON, B.C.

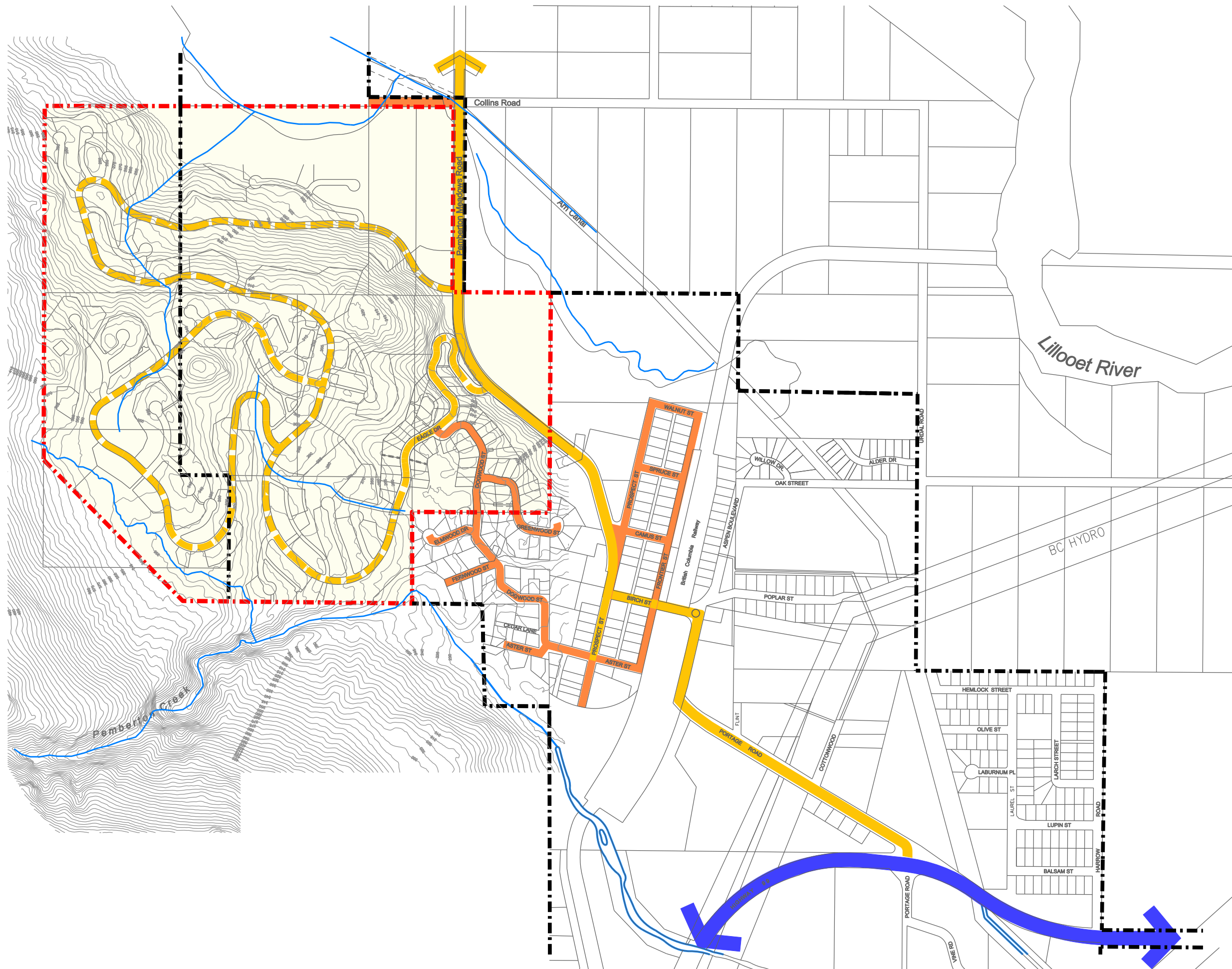
## Figure 5

### TRAFFIC CONTEXT PLAN

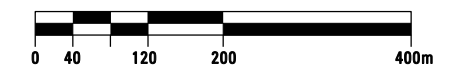
JANUARY 2007

#### LEGEND

-  Village Municipal Boundary
-  Neighbourhood Plan Boundary
-  Arterial (Highway 99)
-  Collector Street
-  Proposed Collector Street
-  Local Street



SCALE 1:8000



EKISTICS



# BENCHLANDS NEIGHBOURHOOD PLAN





















P E M B E R T O N , B C

## Figure 6 LANDFORM ANALYSIS

JANUARY 2007

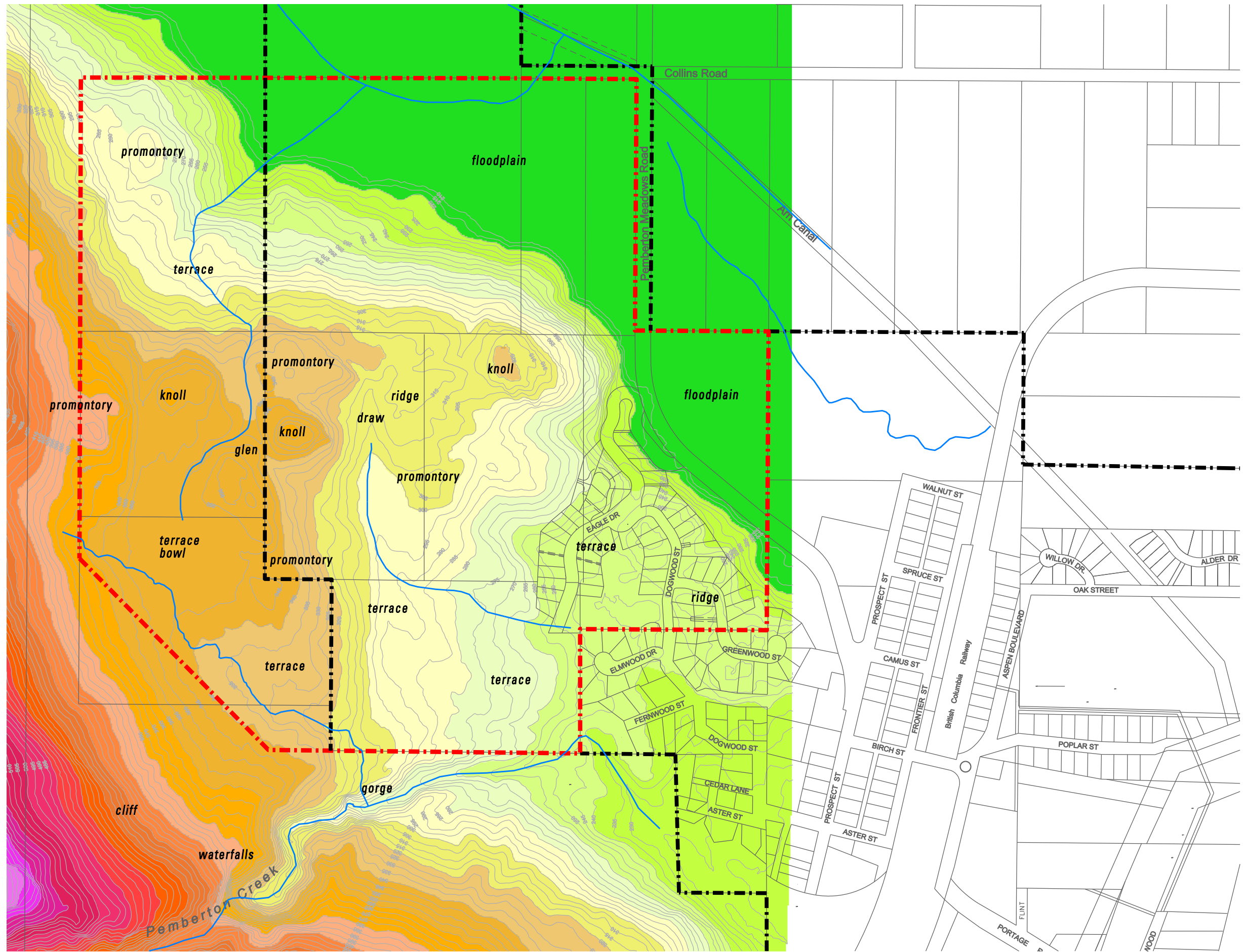
### LEGEND

-  Village Municipal Boundary
-  Neighbourhood Plan Boundary
-  Watercourses

-  580m
-  560m
-  540m
-  520m
-  500m
-  480m
-  460m
-  440m
-  420m
-  400m
-  380m
-  360m
-  340m
-  320m
-  300m
-  280m
-  260m
-  240m
-  220m
-  200m



SCALE 1:6000













# BENCHLANDS NEIGHBOURHOOD PLAN

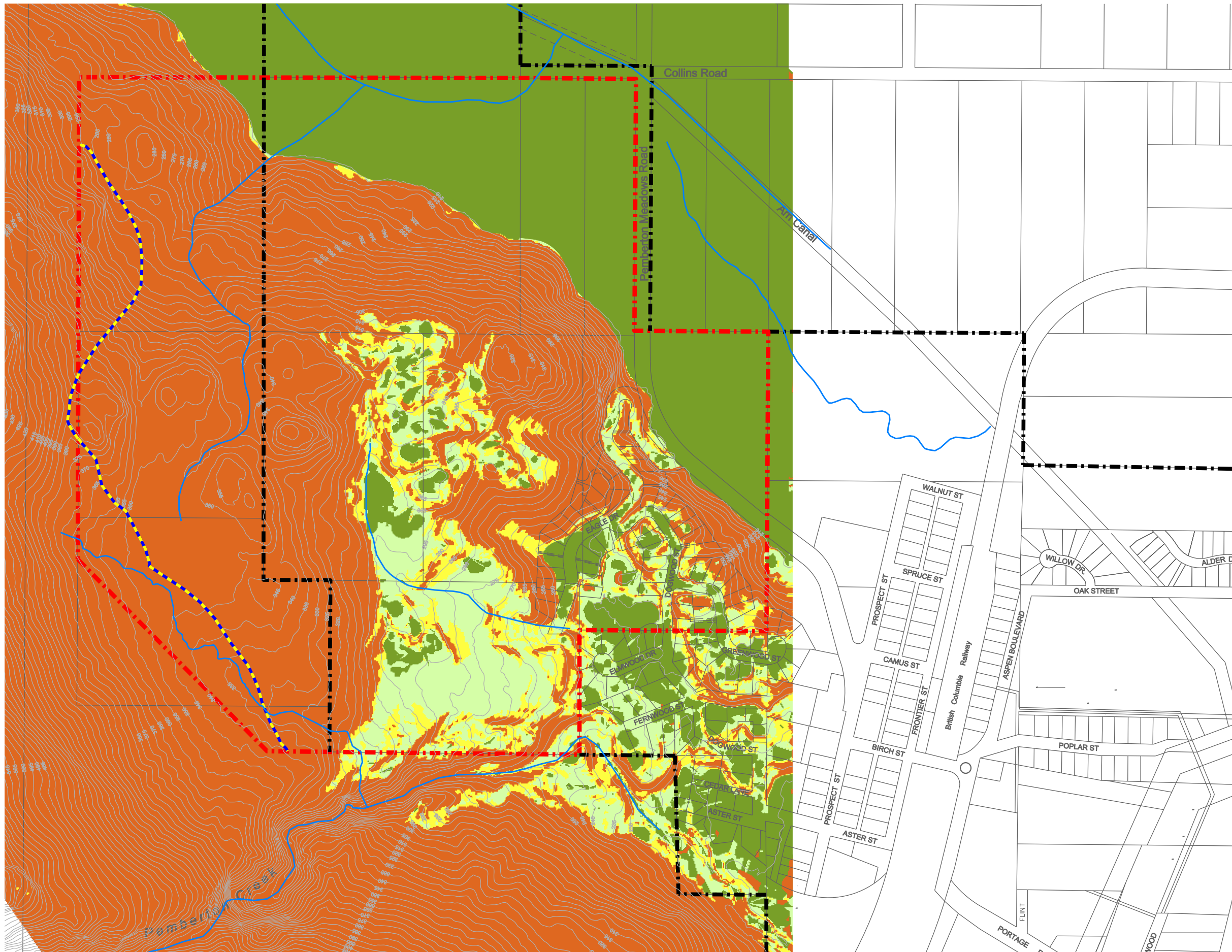
P E M B E R T O N , B C

## Figure 7 SLOPE ANALYSIS

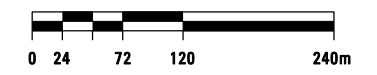
JANUARY 2007

### LEGEND

-  Village Municipal Boundary
-  Neighbourhood Plan Boundary
-  Rockfall Hazard Line
-  Watercourses
-  0-10%
-  10-20%
-  20-30%
-  30% And Greater



SCALE 1:6000



EKISTICS





# BENCHLANDS NEIGHBOURHOOD PLAN

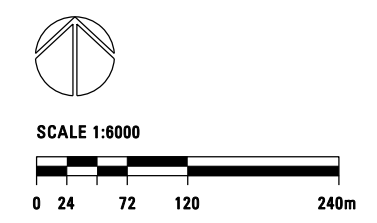
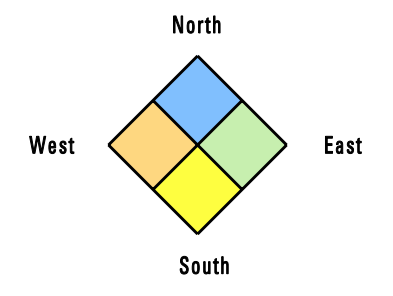
P E M B E R T O N , B C

## Figure 8 ASPECT ANALYSIS

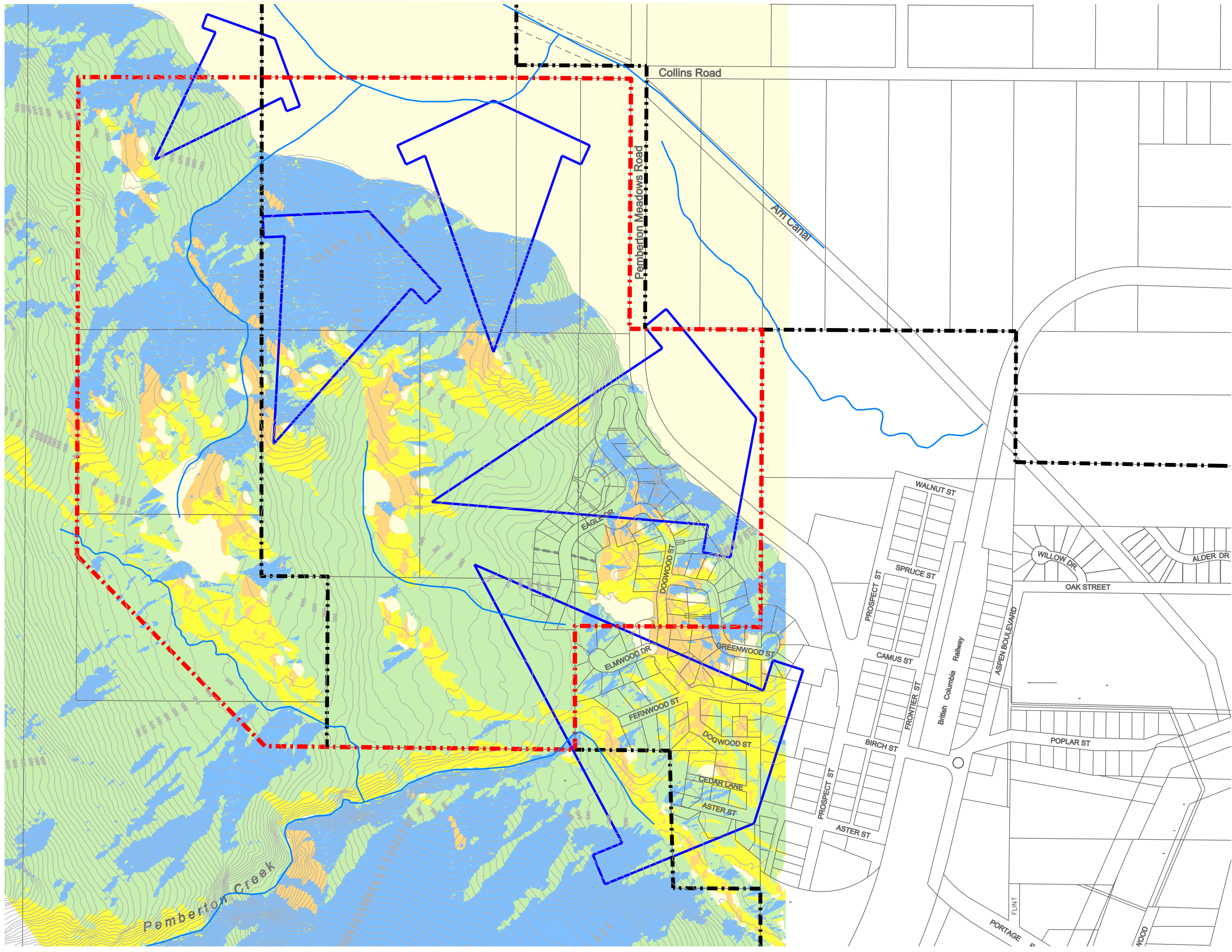
JANUARY 2007

### LEGEND

-  Village Municipal Boundary
-  Neighbourhood Plan Boundary
-  Watercourses
-  Flat Lands
-  Dominant Views



**EKISTICS**





## 2 V I S I O N

The Benchlands Neighbourhood Concept Plan (NCP) is predicated on the concept of sensitively integrating the built form in a manner that protects the integrity of the surrounding landscape. Prominent rocky knolls and dramatic valley views afforded from stepping terraces are integral to the character of the Benchlands neighbourhood. The proposed land use plan and parks & environmental network provide for the protection of natural features and environmentally sensitive areas.

The Plan proposes the development of a well-integrated mix of ground-oriented single family and multi-family homes within close proximity to Pemberton's existing village centre. In the southern and central portions of the site, single family and multi-family residential precincts complement and complete the existing Dogwood neighbourhood and Benchlands Phase 1.

The Plan creates a social heart for the Benchlands neighbourhood, with a public commons and small scale neighbourhood commercial area, such as a corner store surrounded by higher density ground-oriented row homes. A joint elementary school and park provide a second neighbourhood focal point, offering dramatic valley views for public enjoyment. The proximity and connectivity of the neighbourhood to Pemberton's village centre ensures that the Benchlands will support and strengthen the existing commercial area of the Village of Pemberton.

A network of parks and natural open space is woven throughout the Benchlands, ensuring habitat connectivity and protection of the visual quality of the plan area. In addition, an integrated network of public trails and pedestrian pathways provide a variety of routes to explore the Benchlands neighbourhood. Trail connections will be provided to the village centre, existing community amenities, and the backcountry.

The Benchlands Neighbourhood Plan seeks to provide residents with transportation choices, by introducing a new street network to the area, which will include pedestrian amenities such as sidewalks, lanes, and connections to the trail network. This street network will provide people with alternative routes to access the Benchlands, and will avoid funnelling traffic onto one street.

By providing development opportunities on Pemberton's hillsides, the Benchlands will relieve development pressure on agricultural land on the valley floor. Development on the Benchlands will also serve to protect adjacent agricultural lands, by providing a development buffer between the residential uses of the Benchlands and the adjacent Agricultural Land Reserve (ALR).

The planning process for the NCP incorporated stakeholder input into the development of a shared vision for Benchlands, one that successfully achieves the development intent set out in *The Corporation of the Village of Pemberton Official Community Plan* (Bylaw No. 435, 1999). This vision promotes an innovative planning model based on sound principles for creating complete communities.

## 2 . 1 P L A N N I N G P R I N C I P L E S

The Benchlands NCP has been developed and informed by principles for creating “Complete Communities”. By using these principles as a guide and model for the NCP, it is intended that the Benchlands neighbourhood will contribute to the overall completeness of the Village of Pemberton. These planning principles are:

### 1. Design compact pedestrian friendly neighbourhoods:

- Provide a coherent neighbourhood pattern with a variety of lot sizes.
- Ensure homes address the public realm with “eyes on the street”.
- Establish pedestrian oriented streets and walking paths.

### 2. Create an integrated parks & environmental network:

- Provide public open space within a 5 minute walking distance of each home.
- Link neighbourhoods and natural areas with a pedestrian network.
- Program park spaces for community gathering and recreation.

### 3. Conserve ecological integrity:

- Protect, restore and enhance terrestrial and aquatic ecosystems.
- Develop innovative low-impact stormwater management solutions.

### 4. Celebrate local natural and cultural heritage:

- Steward environmental habitats and resources.
- Celebrate local people, places and events.

### 5. Plan for alternative transportation:

- Provide cycling and pedestrian pathways.
- Explore alternative non-vehicular options to reduce auto-dependence.
- Establish a transit friendly street network and collector routes.

### 6. Foster a vibrant and diverse age-mixed community:

- Provide a variety of housing choices.
- Accommodate diversity of lifestyles and life-stages.
- Plan for ‘aging in place’ in response to the maturing population.
- Allow a variety of tenures.

### 7. Establish an economically viable and mixed-use village:

- Encourage local employment opportunities.
- Support a mixture of retail, office, commercial, and residential spaces.

- Support the village centre with close proximity of higher density neighbourhoods.

## 2.2 NEIGHBOURHOOD DESIGN OBJECTIVES

Based on principles for complete communities, neighbourhood design objectives have also been identified that foster the incremental and sustainable development of Pemberton. The following design objectives have been incorporated into the Plan where possible, and will serve as guides for future stages of development. Through the employment of these design objectives, the Benchlands NCP represents a significant departure from conventional approaches to residential community design.

### 2.2.1 Built Form & Land Use

- Ensure that the built form of roads, housing, and their associated cut and fill slopes respond to the complex topography and climate conditions of the Benchlands, so that the physical, visual and environmental impact of development is minimized.
- Focus multi-family residential uses centrally, around the public commons and neighbourhood commercial area.
- Provide a range of single family lot sizes and frontages to increase neighbourhood housing diversity and affordability.
- Plan for secondary suites in medium and large lot homes.
- Provide an adequate buffer to the adjacent Agricultural Land Reserve in the north and northeast.
- Establish an opportunity for small scale neighbourhood commercial services at the public to serve the daily commercial needs of residents and to reduce the number of required vehicle trips per day.
- Preserve and enhance important visual resources and cultural amenities afforded by the Benchlands landscape, through the strategic location of Community Nature parks, the joint elementary school and neighbourhood park, and designated hillside covenant areas.
- Minimize the amount of streetlight and other night time ambient light to preserve the rural experience of Pemberton, through “Night Sky” light design guidelines.

### 2.2.2 Environmental Conservation

- Protect and enhance Environmentally Sensitive Areas as identified in the Neighbourhood Concept Plan, with appropriate mitigation and compensation measures where required to accommodate development.
- Preserve contiguous areas of natural open space to conserve habitat diversity.
- Protect wildlife movement corridors to support habitat connectivity along riparian corridors and by preserving rocky knolls.
- Remediate disturbed areas, specifically the former shooting ranges, and mitigate development impacts.
- Utilize a combination of source control and low-impact development practices for on-site stormwater management, improved water quality, and water conservation.

### 2.2.3 Parks & Community Facilities

- Designate three community nature parks to provide recreation opportunities and to ensure the preservation of unique ecosystems and habitat.
- Designate a series of neighbourhood parks throughout the NCP area for active recreation opportunities.
- Establish a dedicated public trail network to connect the Benchlands with the existing community and the backcountry.
- Promote on-site reuse and water conservation measures.

## 2.2.4 Transportation & Circulation

- Employ hillside street standards to minimize required earthworks and hillside disturbance, establish a narrowed street right-of-way, and implement a lower design speed for increased neighbourhood safety.
- Develop two neighbourhood entry points linking Pemberton Meadows Road with the proposed Collector Street, increasing transportation options for residents and visitors.
- Create a coherent, multi-modal circulation system to provide direct routes to important neighbourhood destinations and encourage non-motorized modes of transportation, such as pedestrian sidewalks and trails.
- Implement traffic calming measures in the Dogwood neighbourhood to discourage through traffic as required.
- Establish “green streets” to enhance the pedestrian realm and allow for park front living.
- Provide emergency access into the Benchlands’ clustered neighbourhoods through restricted emergency access routes where required.
- Provide a safe, accessible and connected pedestrian environment to encourage walking and cycling, including public walkways, streets and trails.
- Ensure that parking addresses access, safety, and landscaping standards without detracting from a high quality pedestrian experience.
- Consider annual snowfall storage and winter conditions maintenance in detailed street designs and construction.





### 3 LAND USE ELEMENTS

The general land use designations for the Benchlands Neighbourhood Concept Plan are outlined in the Benchlands Land Use Plan (**Schedule A – Land Use Plan**), and summarized in Table 3 - Benchlands Development Summary. This Section describes the proposed land use elements, their planning rationale and associated policies intended to guide the future development of the Benchlands. The Neighbourhood Plan provides a conceptual framework for development, which may be adapted over time.

Table 3: Benchlands Development Summary

Land Use	Area (ha)	% of Total Area	Net Density (uph)	Yield (units)	% of Total Yield
<b>Private Realm</b>					
Large Single Family	9.3	10%	4 – 4.5*	38-42	8%
Medium Single Family	12.3	13%	11 – 12	135-148	30%
Small Single Family	7.7	8%	26 – 28	200-216	43%
Townhome Multi-Family	0.9	1%	34 – 39	30-35	7%
Rural Residential (in ALR)	14.0	15%	0.3	4	1%
Phase 1 - Single Family	4.0	4%	13.5	54	11%
Neighbourhood Commercial	0.04	-	-	-	-
<b>Sub Total</b>	<b>48.3</b>	<b>50.4%</b>		<b>461-499</b>	<b>100%</b>
<b>Public Realm</b>					
Public Natural Areas	20.6	22%	-	-	-
Elementary School	1.2	1.27%	-	-	-
Community Playfield	1.6	1.66%	-	-	-
Civic & Infrastructure	0.4	0.42%	-	-	-
Parks	11.7	12.18%	-	-	-
Streets and Lanes	12.0	13%	-	-	-
<b>Sub Total</b>	<b>47.5</b>	<b>49.6%</b>			
<b>TOTAL</b>	<b>95.8</b>	<b>100%</b>			

\*Large Single Family density is net of Hillside Protection Areas.

#### 3.1 RESIDENTIAL

##### 3.1.1 Description of Designation

###### Single Family Residential

Single family residential lands will contribute to the creation of a traditional neighbourhood atmosphere in the Benchlands, as well as significantly increase housing choice in Pemberton. These lands will be comprised of a mix of lot sizes to increase neighbourhood diversity and affordability. Three single family lot sizes have been identified for the Benchlands neighbourhood:

- *Large Single Family* with lot frontages ranging from 18-25m wide;
- *Medium Single Family* with lot frontages ranging from 16-18m wide; and,

- *Small Single Family* with lot frontages ranging from 10-16m wide.

Small single family lots comprise 43% of all homes, while Medium single family lots comprise 30% of all homes, and Large single family lots comprise only 8% of all homes. In addition, single family lots are under development in Phase 1 and exist in three lots within the Agricultural Land Reserve. Together, single family homes represent 93% of all dwelling units on the Benchlands and are the predominant land use in the Benchlands neighbourhood.

## **Multi-Family Residential**

Multi-family residential lands contribute to housing diversity within the Village of Pemberton, and offer a more affordable housing alternative to single family homes. Ground-oriented multi-family townhomes increase density, creating a more sustainable form of development as well as adding the necessary vitality to create spatially well defined neighbourhood gathering places. Multi-family townhomes represent 7% of all dwelling units in the Benchlands.

A significant multi-family development is located in the centre of the Plan area, at the public commons and neighbourhood heart. This precinct will be the site for all multi-family townhomes in the NCP.

### **3.1.3 Rationale**

Residential uses establish a significant permanent resident population in the Benchlands NCP area. These designated lands are carefully integrated into the existing terraced landscape, capitalizing on the clustered development opportunity afforded by the terrain to preserve open spaces and protect sensitive natural features and views. The successful integration of intensive residential uses (Small Lot Single Family lots with frontages 12m (40ft) and under) will be assured through the application of Development Permits, as discussed in Section 5. Both the single family and multi-family residential designations attempt to establish a high level of interconnectivity between residential areas, park areas, and the existing village centre, fostering a liveable, pedestrian oriented environment. The residential areas are well connected by walking and cycling paths, as well as rear lanes whenever possible, to permit easy access to neighbourhood commercial sites and the existing amenities in the village centre.

A variety of housing forms and lot sizes provide a mix of housing opportunities and price ranges, identified as desirable for the Benchlands through the public consultation process. This range allows for the integration of the Benchlands neighbourhood within the existing built form of the Village, which presently includes large single family lots and townhouses. Housing in the Benchlands will include a range of single family products, including small and compact lot units which have previously not existed in Pemberton, but are of interest to home buyers. The Benchlands

Neighbourhood Plan does not meet the OCP requirement (Policy No. 3) for a minimum yield of 25% multi-family units, due to the current saturation of the multi-family market in Pemberton. However, the wide variety of single family lot sizes, in particular the Small Lot Single Family which can achieve similar densities to some multi-family housing forms, will meet the intent of this policy by offering more affordable housing choices than the standard single family home.

All residences in the Benchlands will be oriented towards the street to improve the pedestrian experience, and are sited so as to minimize disturbance to hillsides and take advantage of vistas over the Pemberton Valley.

### 3.1.4 Policies

- Ensure that residential development addresses the vision outlined in the Benchlands NCP Section 2, and that future development respects and is compatible with the Benchlands NCP objectives and policies.
- Require the use of design guidelines to sensitively integrate all residential development into the hillside landscape of the Benchlands.
- Require the provision of a variety of housing forms, lot widths and sizes to provide a diversity of residences to support a range of income levels and age groups.
- Require all multi-family and intensive (Small Lot Single Family with frontages 12m (40ft) or less) residential development within the Residential designation to obtain a Development Permit as outlined in Section 5 of this NCP.
- Require building form and the arrangement of residential units to address liveability and privacy issues.
- Secure additional community amenities as part of new development for public and semi-private open space and facilities such as pedestrian green spaces between buildings and pocket parks.
- Require the provision of pedestrian amenities such as universally accessible pathways, benches, and street trees along major streets, as appropriate.

## 3.2 NEIGHBOURHOOD COMMERCIAL

### 3.2.1 Description of Designation

The Neighbourhood Commercial designation is intended to create the opportunity for a public commons in the Benchlands, as well as to minimize the need for automobile use by residents.

Neighbourhood Commercial uses in the Benchlands are located in the uplands, establishing a distinct community focal point. The area is located in the centre of the Benchlands public commons, at the key crossroads of the proposed Collector Streets. Higher density residential surrounds the Neighbourhood Commercial site, to provide pedestrian activity and define the neighbourhood “heart”.

The Neighbourhood Commercial site in the centre of the Benchlands provides the opportunity for a small neighbourhood retail store (approximately 100 m<sup>2</sup> or 1076 ft<sup>2</sup> in size) on the corner of the ground floor of a row of townhomes. This could be a small convenience store providing staple foods, movie rentals, and light café items intended to serve local residents.

Development of this commercial node will occur when market conditions are supportive, and the developer decides to establish this amenity.

### 3.2.2 Rationale

In keeping with the Official Community Plan, the Neighbourhood Commercial area will create a sense of community within the Benchlands neighbourhood, while decreasing reliance on the automobile by locating amenities within an easy walking distance. By limiting the commercial opportunities to small commercial retail, the focus of retail and commercial services in Pemberton will remain in the Village centre.

### 3.2.3 Policies

- Require all development within the Neighbourhood Commercial designation to obtain a Development Permit as outlined in Section 5 of this NCP.
- Reinforce and strengthen the viability of the public commons by permitting mixed-use residential and commercial buildings, with all commercial activities fronting on the street and associated public parks.
- Encourage the development of a strong public realm within the Neighbourhood Commercial designation through the street orientation of buildings, entrances, balconies, and at-grade retail activity.

- Encourage and facilitate the provision of shade and protection from the elements for pedestrians through urban design elements such as awnings, overhangs, and/or canopies over the sidewalk.
- Require the provision of pedestrian amenities such as benches, human-scaled lighting, street trees, garbage receptacles and bicycle racks in the public commons.
- Require that sidewalks and parking areas be designed according to barrier free access standards.
- Promote the accommodation of required commercial parking through on-street parallel parking.

### 3 . 3 P A R K S

#### 3.3.1 Overview

Parks designations are intended for the preservation of natural landscapes and the outdoor recreation pursuits of residents and visitors to Pemberton (**Schedule B - Park & Environmental Network Plan**). Parks also protect sensitive habitats and provide corridors for wildlife movement and community trails. The Park designation accommodates both active and passive parks for community recreation and enjoyment.

With a potential population of 1,668 in the Benchlands (the mid-point of the projected population range for the Plan area as shown in Table 4 – Benchlands Population Estimate), this will equate to approximately 76 square metres of park land per person. This amount of dedicated park space exceeds that of other neighbourhood plans, such as Upper Hyde Creek in Coquitlam (56 square metres per person), and the community of Auguston in Abbotsford (24 square metres per person).

Dedicated parks account for 13.3 ha in the Benchlands, or 14% of the total site area in the form of Community Nature parks, a community playfield associated with the Elementary School, and Neighbourhood Parks.

#### 3.3.2 Community Nature Parks

##### Description of Designation

The Benchlands NCP provides three large Community Nature Parks located throughout the NCP area.

**Benchlands Park** is located in the eastern portion of the Plan area, at the intersection of Pemberton Meadows Road and the northern section of the lower proposed Collector Street. Visible from throughout the valley, this

landmark park is a defining feature of the Benchlands. It includes a prominent rocky knoll, as well as a significant stand of mature Douglas Fir forest identified as an ESA in the Environmental Baseline Review. Protection of this Park will ensure the preservation of this neighbourhood landmark and will create a transition zone between the Plan area and the adjoining Agricultural Land Reserve.

**Summit Knoll Park** is located in the central portion of the Plan area, and is accessible by the proposed upper Collector Street. Breathtaking views over the Pemberton Valley are afforded by the steep rocky knoll that forms the most prominent feature of this public park.

**Gateway Park** is located on the western boundary of the Benchlands, and is the highest point in the Plan area. This park will also be a potential relocation site for the cell towers as well as a new water reservoir. It will serve as a potential staging area and access point to the backcountry.

### **Rationale**

Intended to remain naturally vegetated and relatively undisturbed, Community Nature Parks provide essential routes of movement into and through the Benchlands neighbourhood for wildlife. While predominantly maintained in their natural state, pedestrian trails provide access to these areas and to the adjoining backcountry.

### **3.3.4 Joint School & Community Playfield**

#### **Description of Designation**

A community playfield is provided in association with the elementary school site. The playfield is approximately 60m x 100m in size, and is provided in conjunction with an active playground and landscaped passive park site. A field of this size will be able to accommodate children's soccer, baseball and other field sports. The community playfield serves to preserve significant valley views for public enjoyment, while providing a central recreational amenity to the Benchlands elementary school.

### **Rationale**

The community playfield is intended to meet the requirements of both the school and local residents for an active playing field within the Benchlands NCP area. The sharing of the facility between residents and the school represents an opportunity to eliminate overlap in providing recreational facilities, and also offers a chance to capitalize on one of the few central, gently sloping sites in the NCP area.

### 3.3.6 Neighbourhood Parks

#### Description of Designation

The Benchlands Neighbourhood Concept Plan identifies seven neighbourhood park sites. These parks serve as small neighbourhood gathering places, and provide an important visual amenity and neighbourhood design element to development clusters. Included within the neighbourhood park designation is a series of green streets that provide park front living by locating vehicular access in rear lanes.

#### Rationale

An extensive network of parks is the cornerstone of the design concept for the Benchlands neighbourhood. The intent of the Neighbourhood Park designation is to integrate local serving parks within residential areas in order to meet the recreational demands of residents. These parks are intended to be programmed according to the needs of surrounding residential areas, and contain features such as playgrounds, seating and plantings.

### 3.3.8 Policies

- Provide open space and parkland for the recreational use and enjoyment of residents and visitors.
- Provide pathway linkages that connect the development areas to parks, the elementary school, the public commons, and the village centre.
- Provide for trail connections from the Benchlands to the backcountry for recreational enjoyment and stewardship education. Ensure that the alignment of trails is sensitive to the environment, wildlife, surrounding residential uses, and where possible the existing trail network.
- Incorporate a range of trail classes to provide for a variety of recreational uses and skills.
- Establish destination points such as areas for sitting, picnicking and enjoying valley views.
- Protect sensitive features and lands with a slope greater than 30% through the establishment of designated Hillside Protection Areas either by dedication (public) or by restrictive covenant (private) at the time of development. These areas should be maintained as open space in a naturally vegetated, undisturbed state.

## 3.4 ENVIRONMENT

### 3.4.1 Overview

Environmentally sensitive areas of the site include rocky outcrops and riparian areas. The environmental network in the Benchlands NCP area is comprised of Public Natural Areas and Hillside Protection Areas. Public Natural Areas protect sensitive habitats, providing corridors for wildlife movement and community walking and hiking trails, while Hillside Protection Areas direct development away from visually sensitive and intact slopes. Public Natural Areas, account for 21% of the total NCP area, while Hillside Protection Areas on private land account for 3.5% of the total NCP area.

### 3.4.2 Public Natural Areas

#### Description of Designation

Public Natural Area designations are intended for the preservation of natural landscapes and preserving wildlife habitat and movement corridors. They are intended to be naturally vegetated and relatively undisturbed.

The Benchlands open space network includes a variety of landforms which stretch from the agricultural valley floor to the upland portions of the site. Public Natural Areas link the site together providing essential routes of movement into and through the Benchlands for indigenous wildlife and offering limited opportunities for community trails. Preserving natural areas and wetlands also assists in stormwater management on the Benchlands, through the establishment and enhancement of wetland areas and stormwater detention ponds. Public Natural Areas in the Benchlands are outlined in **Schedule B - Park & Environmental Network Plan**.

The Public Natural Area in the Benchlands is focussed on lands with steep slopes or environmentally sensitive habitat, as well as other land that is not suited for development based on neighbourhood design.

#### Rationale

Public Natural Areas are intended to provide protection for wildlife habitat and movement, and other environmentally sensitive areas. They are also intended to provide limited recreational opportunities in the form of walking trails and other low impact programming.



### 3.4.3 Hillside Protection Areas

#### Description of Designation

Certain lands within the NCP area require special protection due to their steepness and the natural landscape quality of their forested slopes. These areas are designated as Hillside Protection Areas and are not recommended for development due to the difficulty and cost of development in addition to the aesthetic value they provide. Protection of these lands will be ensured through registration of a Hillside Covenant on title at the time of subdivision. Additional discussion of hillsides on the Benchlands is located in **Section 6.5 - Hillside Management**.

#### Rationale

Hillside Protection Areas are intended to minimize development costs by avoiding building on terrain which requires extensive land clearing, regarding, and geotechnical modification. The preservation of sensitive hillside areas is also achieved through the designation of Hillside Protection Areas.

### 3.4.4 Hazard Areas

#### Description of Designation

Due to the topographical and geographical conditions of the Benchlands, several natural hazard areas exist in the Neighbourhood Plan Area. These hazards include rockfall, steep slopes, riparian edges, and wildfire. In addition, a portion of the Benchlands is within the Lillooet River floodplain. Design of the Benchlands neighbourhood was undertaken with consideration of these hazards and aims to ensure that people and property are adequately protected through avoidance, buffering, or mitigation.

### 3.4.5 Policies

- Protect environmentally sensitive areas through the establishment of protected areas, setbacks and buffer zones, either by dedication (public) or by restrictive covenant (private) at the time of development. Where protection of an environmentally sensitive area is not possible, ensure that required mitigation and/or compensation occur.
- Protect lands with a slope greater than 30% through the establishment of designated Hillside Protection Areas either by dedication (public) or by restrictive covenant (private) at the time of development. These areas should be maintained as open space in a naturally vegetated, undisturbed state.

- Retain natural vegetation in the Benchlands area where possible and encourage the use of native vegetation in the landscape design of new development.

### 3.5 AGRICULTURAL LAND RESERVE

#### 3.5.1 Description of Designation

In addition to protection of habitat and environmentally sensitive areas, the Benchlands NCP also includes lands designated as Agricultural Land Reserve (ALR).

The Agricultural Land Reserve (ALR) abuts the site to the north and northeast. The need to provide a transition zone between proposed residential development along the northern ALR boundary will be achieved through the establishment of landscape buffers that are located entirely on the non-ALR side of the adjacency. Site specific buffering will be determined at subdivision according to the ALC's Landscape Buffer Specifications.

#### 3.5.2 Policies

- Buffer adjacent agricultural uses, especially those within the Agricultural Land Reserve, from residential uses within the Benchlands Plan area according to the Landscape Buffer Specifications of the Agricultural Land Commission. Buffer specifications shall be responsive to the density of the residential subdivision.
- Encourage the use of lands designated Rural within the ALR as farmland through the provision of road access, transition area buffers and adequate drainage works.
- Secure legal access to the ALR land within the VER Holdings property from the western end of Collins Road, with the work of the Village of Pemberton and Benchlands landowners at the time of subdivision and development applications.

### 3.6 CIVIC AND INFRASTRUCTURE

#### 3.6.1 Joint Elementary School and Park

##### Description of Designation

Based on population projections and input by School District No. 48 and the Village of Pemberton, a future elementary school will be required for the Benchlands neighbourhood. The future elementary school site has been located near the public commons and adjacent to the community playfield, ensuring its siting at later stages of development, when needed. School site size and location is somewhat limited due to topographical conditions within the NCP site.

## Rationale

Currently, Signal Hill Elementary in Pemberton is operating at 67% of its 500 student capacity. According to School District estimates, it is projected to reach capacity by September 2010, although the growth of the school age population in the Benchlands prior to this date may accelerate this timeline faster than is currently projected. Pemberton Secondary School is currently 25% over capacity, a situation which is expected to worsen over the next 15 years. Capital investments to this facility are anticipated within the next decade. Negotiations between the School District, Village of Pemberton and the Benchlands landowners will be required to secure the joint school and park site on the Benchlands. While it is not known when the elementary school will be needed, the site will be reserved exclusively for this use.

The elementary school site is proposed in conjunction with an adjacent community playfield, which is intended to accommodate the recreational needs of the school, as well as provide an amenity for the entire community. Outside of school hours, the facility can be used for community sports and recreation such as children's soccer, softball and other field sports.

### 3.6.2 Infrastructure

The expansion of the Village's infrastructure will be necessary to accommodate the proposed future development in the Benchlands. **Schedules D, E, and F** illustrate the utility servicing concept for the Benchlands NCP. While recognizing the importance of satisfying the functional demand created by population growth, the planning of new infrastructure will also take into account environmental development impacts and in particular, stormwater management. Section 4 provides detailed descriptions of the utility servicing concept planned for the Benchlands neighbourhood.

### 3.6.3 Policies

- Secure the joint school and park site with work of the School District and the Village of Pemberton and Benchlands landowners
- Provide shared utility corridors wherever possible in the Pemberton Benchlands.
- Coordinate delivery of municipal services, and ensure that the utility requirements of the Village are met.
- Incorporate lands within the Benchlands NCP within the Pemberton valley Dyking District.
- Require that the Benchlands developers finance infrastructure improvements required for those lands, the details of which will be worked out in a development servicing agreement prior to rezoning.

### 3.7 STATISTICAL SUMMARY

Development yields and population estimates have been calculated for the Benchlands neighbourhood, based on the land use designations set out in the Land Use Plan (**Schedule A – Land Use Plan**) as well as average lot sizes. Household sizes are based on Canada Census (2001) data, and have been scaled up to reflect the potential for renters living in secondary suites. Community feedback in Pemberton reflected that household sizes were larger than reported in the Census, and household sizes should be adjusted upwards regardless of the presence of suites. This upward adjustment creates a conservative overestimate of population for the Benchlands.

Table 4: Benchlands Population Estimate

Unit Type	Estimated Units	Persons /Unit*	Estimated Population
Large Single Family**	38-42	3.0	114-126
Medium Single Family**	135-148	2.8	378-414
Small Single Family	200-216	2.7	540-583
Townhome Multi-Family	30-35	2.7	81-95
Rural Residential (in ALR)**	4	3.0	12
Phase 1 - Single Family**	54	3.0	162
Secondary Suites (within larger homes)	176-189	1.8	317-340
<b>TOTAL</b>	<b>637-688</b>	<b>-</b>	<b>1604-1732</b>

\* Population estimates are based on 2001 census data. The Pemberton average household size is used with modification.

\*\* It is estimated that 75% of these single family units will have secondary suites.

Table 5: Benchlands Student Population Estimate

Unit Type	# of Units	Elementary Students / Unit	Total Elementary Students	High School Students / Unit	Total High School Students
Large Single Family	38-42	0.57	22-24	0.28	11-12
Medium Single Family	135-148	0.57	77-84	0.28	38-41
Small Single Family	200-216	0.34	68-73	0.28	56-60
Townhome Multi-Family	30-35	0.34	10-12	0.2	6-7
Rural Residential (in ALR)	4	0.57	2	0.28	1
Phase 1 - Single Family	54	0.57	31	0.28	15
Secondary Suites (within larger homes)	176-189	0.2	35-38	-	-
<b>Total</b>	<b>637-688</b>	<b>-</b>	<b>245-264</b>	<b>-</b>	<b>127-136</b>

\* Estimates for number of school children per unit are based on population projections used by other municipalities and are consistent with School District No. 48.



## 4 INFRASTRUCTURE AND SERVICES

### 4.1 TRANSPORTATION

A sustainable community design provides a choice of transportation modes and routes. The Neighbourhood Concept Plan (NCP) for Benchlands is carefully designed to facilitate walking and cycling as viable modes of transportation within the community and in adjacent areas of the Village of Pemberton.

#### 4.1.1 Streets and Lanes

The Benchlands neighbourhood is serviced by a framework of two looping collector streets that connect to Pemberton Meadows Road, as shown in **Schedule C – Street Hierarchy Plan**. From these collector streets are a series of local streets that link to residential areas, including the existing Dogwood neighbourhood. Where possible, rear lanes are provided to create a walkable neighbourhood by moving vehicular access to the rear.

Due to the challenging topography of the Benchlands, some streets will require maximum grades in order to reach upper portions of the NCP area. Further, certain areas will potentially have significant cuts and fills in order to achieve the needed elevation gain required for these streets (**Appendix C – Engineering Summary** in the Sub-Consultant Reports Appendices).

To minimize the overall impact of street construction in the hillside landscape, the Village of Pemberton will implement the use of hillside street standards, which can be developed based on the experience of innovative hillside design in other communities. These standards will minimize the impact of streets on sensitive hillside environments by aiming to reduce the amount of cut and fill where possible, thereby reducing the footprint of road right of ways.

#### Winter Conditions

Snow removal from streets and lanes within the Benchlands will follow Village of Pemberton standards. Research into snow removal (Federation of Canadian Municipalities, 1998) in an Ontario neighbourhood which employed ‘alternative’ design standards, including smaller street widths, reflected that snowplowing costs are identical to those in ‘conventional’ neighbourhoods, and that neighbourhoods which employ alternative design standards contribute to a safer pedestrian experience in the winter.

Streets within the Benchlands will demand slow speeds due to the required grades and curve radii to access the upper development areas. Winter conditions will further require slow speeds on these streets to ensure safe travel.

#### 4.1.2 Benchlands Neighbourhood Traffic Study

As part of the Benchlands Neighbourhood Plan process, a traffic study was commissioned to assess the impacts of any development on the existing municipal and regional road network (**Appendix B – Traffic Summary** in the Sub-Consultant Reports Appendices).

The traffic study examined existing peak hour (P.M.) traffic volumes, as well as projected volumes for two different development scenarios. The first scenario was a development of 550 units with no secondary suites in any unit, while the second scenario was for a development of 747 units, which includes 197 secondary suites.

Five key intersections were examined, including the two new access points to the Benchlands neighbourhood, the downtown intersection of Prospect Street and Birch Street, the roundabout located at Birch Street and Portage Road, and the intersection of Portage Road with Highway 99.

The report concluded that off-site improvements which would be required as a result of either development scenario consisted of:

- the signalization of the intersection at Birch Street and Prospect Street, and
- the construction of left turn lanes on Pemberton Meadow Road at Eagle Drive.

These improvements would address the increased traffic generated by development of the Benchlands, and would also create residual capacity that would benefit any future developments which utilize these intersections.

The existing Dogwood neighbourhood was projected to see a modest increase in traffic volumes, with the majority of Benchlands traffic using Eagle Drive as the primary access. The traffic study projected that the approximately 27 units which front on Dogwood Street would use Dogwood as their primary access into Pemberton, as well as a small portion of other Benchland homes which would use Dogwood to access the southern downtown area.

#### 4.1.3 Policies

- Apply established Hillside Street Standards throughout the neighbourhood to minimize cut and fill in street construction and preserve existing topography.
- Adhere to the recommendations for traffic management presented, in the Benchlands Traffic Summary (**Appendix C – Engineering Summary** in the Sub-Consultant Reports Appendices).
- Employ traffic calming measures as needed to discourage through traffic on Dogwood Street, such as traffic circles and curb bump-outs.



- Coordinate with School District No. 48 to accommodate school transportation needs if and when they arise in the future.
- Provide a trail network to accommodate walking and cycling.
- Provide sidewalks on at least one side of all streets.
- Create a positive pedestrian realm within the Plan area through the provision of rear lanes where appropriate, green streets with restricted vehicular access, wide public pathways, street trees, landscaping, special paving treatments, and coordinated street furniture.
- Apply street design standards that minimizes impermeable surfaces and apply innovative design elements, such as pervious asphalt or block pavers.
- Ensure that street design standards are compatible with winter maintenance requirements of the Village of Pemberton, particularly plowing operations.
- Provide for secure bicycle storage, such as bike racks, in the neighbourhood heart, and adjacent to neighbourhood commercial uses.

## 4.2 MUNICIPAL SERVICES

The adequate provision of municipal infrastructure is critical to the success of a community, economically, socially, and environmentally. Working with analysis conducted by InterCAD Services Ltd., Consulting Engineers (**Appendix D – Engineering Summary** in the Sub-Consultant Reports Appendices), the following measures for water distribution, sanitary sewer, and stormwater drainage have been incorporated into the Benchlands Neighbourhood Concept Plan (NCP).

### 4.2.1 Water Distribution Plan

The proposed Benchlands development will be serviced by the local domestic water source, accessed from a municipal well on Prospect Street (**Schedule D – Water Distribution Master Plan**).

Based on the proposed development plan and existing site topography, three pressure zones have been identified in the Benchlands NCP area. An existing 1,600 cubic-metre reservoir is located in the Benchlands at 290m which provides service to Phase 1. This existing reservoir provides adequate pressure to service new construction (Phases 2 and 3) below the 260m metre

contour of Pressure Zone 1. In order to develop the balance of the NCP area, a water reservoir at an elevation of approximately 385m will be required. This reservoir would service Pressure Zones 2 and 3, and it is expected that the new reservoir would be similar in size to the existing reservoir.

To support the proposed neighbourhood service elevations, the complete water system will include one pump station and two pressure reducing valves. Pump station and reservoir sizing will be designed based on the Village of Pemberton design criteria. An existing trunk water main on Pemberton Meadows Road that serves as a water supply for the Squamish Lillooet Regional District, metered at Pemberton's municipal boundary, could serve most of Pressure Zone 1; however, upper portions of Pressure Zone 1 may require supplementation of fire flows from Pressure Zone 2. An alternative would be to alter the Pressure Zone 1/2 boundary in this location. The specific elevations, locations and sizing of these systems will be dependent on the final design of the subject lands.

#### 4.2.2 Sanitary Sewer System

All lots within the subject lands will be serviced by a gravity sanitary sewer system that is connected to the existing sanitary lift station on Pemberton Meadows Road and Eagle Drive (**Schedule E – Sanitary Sewer Master Plan**). There are three gravity sewer system catchment areas in the Benchlands that will drain into the existing lift station. This lift station, and other parts of the sanitary sewer system, may require upgrading to be determined through future analysis. The gravity system will be accommodated through lines in proposed roads and lanes, and in rear lot easements. In one specific location within Catchment A (north of the elementary school site) uphill pumping via a lift station and force main is likely required. Due to the steep and rugged terrain below this area, a gravity connection is not practical. There are a number of lots that may require individual private pumping to move sewage from their buildable area into the gravity sewer system.

#### 4.2.3 Drainage Master Plan

The focus of the stormwater management concept illustrated in **Schedule F – Drainage Master Plan**, is to simulate natural (pre-development) conditions in which much of the stormwater on-site either evaporates, supports vegetation, or enters the ground close to where it falls rather than draining directly into watercourses. Incorporating and routing storm water flows through seven catchment areas and using stormwater detention ponds as required will accomplish this. While it is possible to manage on-site stormwater in some areas of the development, in certain areas stormwater will be routed through drainage courses to the lower elevations.

To reduce the amount of stormwater piped into a curb and gutter storm system, the storm water planning will incorporate many of the following principles where possible:

- Provide ditch drainage instead of piped systems;
- Within larger development areas, incorporate local ponds for storm water detention that discharge to an overland flow route at a controlled rate; and,
- Provide ground water infiltration where possible.

#### 4.2.4 Further Infrastructure Studies

Additional studies of infrastructure requirements for the Pemberton Benchlands NCP will be needed as development progresses. In addition to detailed design of roads and infrastructure, the following issues have been identified by InterCAD as requiring further analysis:

- Boundary of water servicing Pressure Zone 1 and Zone 2 in the north of the site, related to fire flow requirements
- Pemberton’s overall water supply
- Existing sanitary lift station and downstream sewer system, and the wastewater treatment plant
- Integrated stormwater management

#### 4.2.5 Shallow Utilities

The Benchlands Neighbourhood Concept Plan area will be serviced with underground hydro, telephone and cable and gas service. Alternative and renewable energy arrangements, including geothermal heating and district heating should be explored.

#### 4.2.6 Cellular Towers

Cellular communication towers within the Benchlands Neighbourhood Concept Plan area will be encouraged to relocate to the highest point of the plan area in the west, in the Gateway Park as described in Section 3.3.2.

The expansion of the Village’s infrastructure will be necessary to accommodate the proposed future development in the Benchlands. Schedules D, E, F illustrate the utility servicing concept for the Benchlands Neighbourhood Concept Plan. While recognizing the importance of satisfying the functional demand created by residential growth, the next stages of planning and detailed design of this new infrastructure must take into account the reduction and mitigation of environmental development impacts.

#### 4.2.7 Policies

- Provide for shared infrastructure corridors wherever possible.
- Study, design, finance and build infrastructure for the Benchlands neighbourhood in a coordinated manner, to ensure that development occurs efficiently and that future phases of development are taken into consideration.
- Improve Benchlands drainage works in such a way as to increase the capacity of existing drainage works to remove excess water from farmland within the NCP Area.

## 5 DEVELOPMENT PERMIT AREAS

In accordance with the Local Government Act [Sec 919.1 (1)] and the Village of Pemberton Official Community Plan, development of certain lands will be regulated through development permit. In the Benchlands Neighbourhood, lands zoned for intensive residential (Small Lot Single Family), multi-family residential, and neighbourhood commercial use are designated as Development Permit Areas. In addition, all lands designated as hazardous, or determined to be environmentally sensitive in the Environmental Baseline Review (**Appendix A – Environmental and Geotechnical Hazard Summary** in the Sub-Consultant Reports Appendices) are also designated as a Development Permit Area. Designation of Development Permit Areas (DPAs) in the Benchlands, as shown in **Schedule G – Development Permit Areas**, will ensure that their development is consistent with the Benchland’s Neighbourhood Concept Plan.

Once lands have been designated as Development Permit Areas, they shall not be subdivided, nor shall the construction of a building, or building addition for which a building permit is required, be commenced unless the owner first obtains a development permit. Development permit exemptions in the Village of Pemberton are outlined in Section 4.2 of the OCP. Some lands in the Benchlands are located within more than one Development Permit Area. In this instance, the guidelines for all DPAs shall apply.

Currently, the Village of Pemberton OCP designates three Development Permit Areas. Certain lands in the Benchlands shall be designated as two of these existing DPA regulations, specifically:

**Development Permit Area 1: Multi-Family Residential**

**Development Permit Area 2: Town Centre Commercial**  
*(Applies to lands designated as Neighbourhood Commercial in the Benchlands NCP.)*

In addition to these existing DPAs, three new Development Permit Areas are required in the Benchlands. Justification and guidelines for these new Development Permit Areas are required outlined below.

### 5.1 INTENSIVE RESIDENTIAL AREAS

#### 5.1.1 Justification

- To encourage high-quality intensive residential development that ensures sufficient set-backs and private open space for residents through housing forms which make efficient use of buildable area.
- Intensive residential developments include all Small Lot Single Family developments where lot frontages are less than 12m (40 feet).

- To ensure a sound relationship between different land uses in the Development Permit Areas, and between those uses and adjacent natural open space, park and commercial areas.
- To ensure a coherent neighbourhood character that supports intensive residential uses.
- To ensure a high level of design and construction quality into the development of the Plan's private and public realms.
- To encourage high-quality intensive residential development that ensures sufficient private open space for residents.
- To ensure that adequate circulation for all transportation modes is maintained.

### 5.1.2 Guidelines

- Proposed sites for new development shall be of a configuration that does not result in remainders of land that would be difficult to develop for the uses designated on **Schedule A – Land Use Plan**.
- The form, siting and character of intensive residential development will take into account established adjacent development and shall, where appropriate, provide screening or a landscape buffer to lessen impact on adjacent lands.
- All development on steep terrain will be designed in a manner that minimizes the requirement for cut and fill.
- Building and roof forms should compliment the surrounding terrain, and views to and from the Benchlands should be taken into consideration in their design.
- All developments should be landscaped and a Landscape Plan should be submitted for each proposed development.

## 5.2 HAZARD AREAS

### 5.2.1 Justification

- To ensure adequate protection of people and property from natural hazards within the Benchlands, including rockfall, steep slopes, riparian edges, floods and wildfires.
- To incorporate transition zones and buffers to separate residential, commercial and recreational uses from hazard areas.

- To implement the Community Wildfire Protection Plan in the detailed design and construction of the Benchlands neighbourhood, where appropriate.

### 5.2.2 Guidelines

- All development will be according to Statutory Building Scheme registered on title at the time of subdivision and supported by the Village of Pemberton.
- All development on steep terrain (exceeding 30%) should be designed in a manner that minimizes the requirement for cut and fill.
- Development or alteration of land within the rockfall hazard area and in areas with slopes exceeding 30% shall require a geotechnical report prepared by a professional engineer. This report shall provide a description of the site, a review of previous studies, an assessment of the geotechnical hazard, proposed mitigative works and recommendations for reduction of exposure to the hazard.
- Development with proximity to riparian edges shall require setbacks as prescribed by the Ministry of Environment or defined by a registered professional biologist, as well as a geotechnical assessment where required. This assessment shall include a report as outlined above.
- Any development within the Lillooet River floodplain shall meet the requirements of the Ministry of Environment with respect to building elevations, setbacks and stream bank vegetation.
- All development in the Benchlands will be required to follow the Village of Pemberton's Community Wildfire Prevention Plan (CWPP), as appropriate.

## 5.3 ENVIRONMENTAL AREAS

### 5.3.1 Justification

- To protect Environmentally Sensitive Areas, including riparian areas, from potentially negative impacts of residential, commercial and recreational uses.
- To preserve contiguous areas of natural open space to conserve habitat diversity and wildlife movement.
- To incorporate transition zones and buffers to separate residential uses from natural open spaces and the Agricultural Land Reserve.

- To remediate disturbed areas and possible soil contamination, particularly the two former shooting ranges.
- To protect and enhance Environmentally Sensitive Areas, or provide compensation where the NCP indicates alternate land uses for ESA areas in order to achieve neighbourhood objectives.
- To promote the use of source control and low-impact development practices for on-site stormwater management, improved air quality and water conservation.

### 5.3.2 Guidelines

- All development on steep terrain should be designed in a manner that minimizes the requirement for cut and fill.
- All developments should be landscaped and a Landscape Plan should be submitted for each proposed development.
- All riparian areas shall be adequately protected from abutting development, and be enhanced, if required.
- All development adjacent to the ALR shall include an on-site buffer zone according to the Landscape Buffer Specifications outlined by the Agricultural Land Commission.
- To manage and mitigate the possible impact of upland development on downstream areas, all development in proximity to watercourses shall provide a storm water management plan that shows how downstream impacts will be avoided and mitigated.
- An environmental development permit will be undertaken by a professional registered biologist for all identified environmentally sensitive features located in the proposed development areas prior to subdivision.



## 6 SUSTAINABILITY INITIATIVES

With the increasing need to reduce reliance on natural resources, initiatives in sustainability are an essential part of community planning. In this regard, the Village of Pemberton can become a leader in sustainable living by leaving behind the conventional methods of development and implementing more responsible community building practices. The Benchlands Neighbourhood Concept Plan (NCP) proposes a number of initiatives to create a more sustainable neighbourhood on the Benchlands.

### 6.1 COMMUNITY HOUSING

The Benchlands NCP contributes to community-oriented housing in Pemberton, including affordable housing, in the following ways:

- Housing choice provided through:
  - > A mix of sizes and types ranging from townhomes, small single-family to large single-family units; and,
  - > Rental opportunities provided by secondary suites in larger single-family homes
- Density higher than that found in existing single-family home neighbourhoods
- Compact design to create a walkable neighbourhood
- School site located within the neighbourhood
- Neighbourhood close to Pemberton's village core and essential services
- Neighbourhood close to existing transportation services

Specifically, the Benchlands NCP proposes an integrated mix of both lot size and housing form throughout the Benchlands neighbourhood. Overall, the Plan includes four different lot sizes ranging from large single family lots with 18-25 metre frontages to ground-oriented multi-family townhome lots with 7 metre frontages.

Small single family units form the majority (43%) of the total residential units in the Benchlands NCP area, offering a smaller housing type than currently available. The smaller lot sizes provided for these units will increase affordability and contribute to the creation of a more compact, pedestrian-friendly neighbourhood. At the same

time, a denser form of development creates a more environmentally sustainable neighbourhood with a maximized amount of preserved natural habitat and open space.

The Plan's multi-family lots form 7% of the total lots, and like small single family lots, contribute to affordability, enhanced pedestrian experience, and environmental conservation. Together, multi-family townhomes, and small single family lots equal 50% of all lots in the Benchlands. In addition to improving affordability, offering this variety of unit sizes will ensure that the Benchlands neighbourhood can be home to people in various life-cycle stages, thereby encouraging a vibrant and diverse residential community.

The Benchlands NCP also provides the opportunity for the development of secondary suites. Secondary suites will provide rental units within the Benchlands neighbourhood, an important housing tenure type which will assist the financial viability of home ownership, and satisfy the seasonal employment demands of recreational activities both within the Village and in nearby Whistler. Secondary suites have been accounted for in the population projections, with an estimated 75% of the larger single family lot types anticipated to have suites.

#### **6.1.1 Community Housing Policies**

In addition to the integration of affordable housing considerations into the overall NCP land use concept, the following policies will ensure that the neighbourhood provides community-oriented housing, such as affordable housing, to the Pemberton community:

- 5% of dwelling units in the NCP area will be dedicated for Community Housing;
- These units will be provided in a variety of formats, such as a land grant, payment in lieu, rental housing, or price restricted housing, the details of which will be worked out through a rezoning process;
- The Village of Pemberton will administer the land for the development of Community Housing as required, based on project phasing and community need.

For the purposes of the Benchlands NCP, Community Housing is intended to be oriented toward those persons who have special housing needs as defined by such factors as age, disability, or income.

Subsequent to the adoption of the NCP, and prior to final adoption of a rezoning amendment bylaw, a specific process will be created by the Village of Pemberton, in collaboration with Benchlands property

owners, which will formalize the process to secure the land grant or payments in lieu of land for Community Housing within the Benchlands neighbourhood.

## 6.2 TRANSPORTATION INITIATIVES

The Benchlands NCP promotes transportation choice by establishing a finely grained network of streets and trails with a greater level of street connectivity and accessibility than in conventional developments. Narrower street widths, rear lanes where possible, as well as sidewalks and the implementation of curb bulges for shorter crosswalk distances, serve to enhance the pedestrian experience and create safer, more pedestrian friendly streets.

The Village of Pemberton also has the opportunity to implement further transportation initiatives at a municipal level, either through the development agreement process, or as municipal initiatives. Key transportation amenities and services to be encouraged in the Benchlands neighbourhood include:

### **Traffic Circles**

Traffic circles contribute to reduced speeds and also enhance the neighbourhood through green streets planting programs.

### **Enhanced Pedestrian Crossings**

Enhancing pedestrian crossings at major arterial and collector street intersections to alert vehicles to pedestrians and improve safety include flashing overhead lights and ground lit crosswalks. At local street intersections, crosswalk distances can be shortened through sidewalk bulges.

### **Walking School Bus Program**

Working with the school board and residents, a sponsored “Walking School Bus” program would ensure that children are able to walk to school with a supervised adult, increasing activity levels while reducing the use of vehicles within the Benchlands neighbourhood.

### **Car Sharing and Car Pooling Programs**

With a large percentage of Village of Pemberton residents leaving the community for work, the Village has a significant opportunity to establish a car co-op service or provide incentives for car pool travel. Both of these options will decrease commuter costs for residents, while providing a more environmentally sustainable mode of travel. Partnerships with surrounding municipalities where Pemberton residents work (such as Whistler) to reduce single occupancy vehicle commuting is encouraged.

### 6.3 ENVIRONMENTAL MANAGEMENT

The Benchlands NCP strives to conserve and protect the natural environment through a number of initiatives in environmental management. The creation of a comprehensive network of parks and open space ensures the preservation of wildlife corridors and habitat continuity. This network will also preserve environmentally sensitive landscapes, steep slopes, and mature forest stands, while integrating these distinctive physical elements into the neighbourhood. A clustered pattern of development will ensure that the maximum amount of natural landscape is preserved and maintained, by minimizing the development footprint.

The Benchlands NCP also proposes the development of stormwater quality ponds. While the overall stormwater management of peak flows in the Benchlands neighbourhood depends on the use of these detention ponds and flow diversion, low-impact development practices are also encouraged to aid in the retention of summer base flows and reduce stormwater infrastructure requirements over the long term. Low impact development practices proposed for the Benchlands NCP area include disconnecting and minimizing impervious surfaces, use of absorbent landscaping, infiltration and storage facilities, as well as rainwater catchment and reuse.

The following objectives will also ensure that the natural landscape is conserved and protected in the Benchlands neighbourhood:

- Provide natural reserves that are representative of existing ecosystems on the site. Each habitat type should be represented, with individual areas interconnected and large enough to sustain plant life and wildlife.
- Restore existing damaged habitat where possible.
- Develop a Wildlife Management Plan to minimize confrontations between humans and predators such as bear and cougar, and to address methods of preventing the integration of adaptable species such as raccoons into residential and commercial uses.
- Provide wildlife corridors linking the reserves with each other and with adjacent lands. Wildlife corridors should allow for both north-south and east-west movements. Provide culverts under roadways where required to allow for the passage of small animals.
- Provide Environmental Protection Plans (EPPs) for wetlands and mature forest stands at the Development Permit or subdivision stage. These should include areas of retention, areas of enhancement, and erosion control measures.
- Prepare a detailed stormwater management plan for the Benchlands development and the broader Village of Pemberton.

- Implement water conservation methods for residential development to minimize impact on natural vegetation. Measures to be used include the use of rain sensors, organic mulch in planting beds and lawns, yearly aeration and regular maintenance of irrigation systems.
- Employ alternative park maintenance standards to protect the Pemberton Benchlands from harmful source pollutants.

#### 6.4 FIRE HAZARD MITIGATION

The natural forest on the Benchlands provides significant environmental, recreational and visual amenities for the neighbourhood, however it also presents increased wildfire risk for residents. To ensure that appropriate safety precautions are taken, Benchlands landowners and developers will be required to work with the Village of Pemberton to mitigate current and future wildfire risk through fuels management and mitigation.

While most fire hazard mitigation measures are implemented at more detailed stages of development, the NCP responds to fire hazard on the Benchlands by incorporating a street network that ensures multiple access points for entry and egress of the neighbourhood. As well, access for emergency vehicles, both within the neighbourhood and to the surrounding natural area, will be taken into consideration at detailed design stages in the future.

It is also noted that developers of the Benchlands neighbourhood will be required to adhere to the Village of Pemberton Community Wildfire Protection Plan (CWPP), which is currently being prepared by the municipality. The CWPP, which will be based on FireSmart concepts, will stipulate fire mitigation measures for new developments. The CWPP will require developers to undertake a forest interface or fire hazard assessment to identify areas where the use of non-combustible or fire-retardant building materials are mandatory, the type of landscaping that is acceptable in these areas, and the required fuels management measures for interface areas including undeveloped natural open space.

#### 6.5 HILLSIDE MANAGEMENT

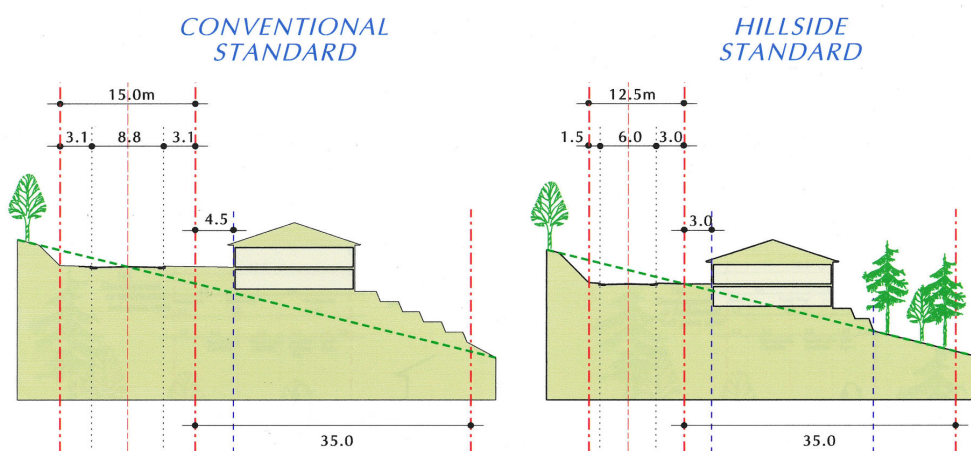
Hillside development standards are intended to minimize the physical, visual and environmental impact of development on hillsides. In addition to directing development away from slopes over 30%, the policies encourage appropriate lot layout, building design and road standards to minimize environmental and visual damage associated with development in topographically complex areas. To ensure the sensitive development of the Benchlands Neighbourhood Plan area, the use of hillside street standards and hillside Protection Areas are proposed as future steps.

### 6.5.1 Hillside Street Standards

Hillside street standards enhance sustainability through two primary means. First, a greatly narrowed street right-of-way significantly reduces the resulting area of disturbance, extending from the uphill side of the road to the downhill edge of fill; and second, implementing lower design speed criteria results in slower traffic and greater safety. Hillside street standards offer an alternative to conventional street designs by ensuring that streets fit into the landscape and respect the natural environment (see **Figure 9 – Conventional Hillside Standards vs. Hillside Standards**). They also focus on creating livable hillside streets for all users rather than designing for a standard “level of service” (high vehicular speed). Principles which guide the development of hillside street standards in the Benchlands will include:

- The public interest requires safe, livable and attractive streets that contribute to the urban fabric;
- Streets should be designed to suit their function. Many streets, especially local ones, have purposes other than serving vehicular traffic;
- A hierarchical street network should have a rich variety of types, including bicycle, pedestrian and transit routes;
- Standards should be developed to enhance the urban design of local streets. Factors such as pedestrian experience, landscaping, parking, building setbacks, surface materials, street furniture, signs and street lighting contribute to the livability of neighbourhoods and can be determined through street standards and public realm design guidelines.

Figure 9: Conventional Development Standards vs. Hillside Standards



### 6.5.2 Hillside Protection Areas

Hillside conservation areas contribute to sustainability by preserving the existing natural terrain and features on private realm lands while preventing soil erosion. In addition, hillside conservation areas provide a valuable tool in wildfire hazard management, an important factor for the site as discussed in the previous section. To preserve the integrity of hillside conservation areas, regardless of whether these areas are located on public or private lands, covenants could be registered on affected parcels to prohibit site disturbances. Covenants could limit the construction of any permanent structures, the removal of significant trees, or the excavation of soils.





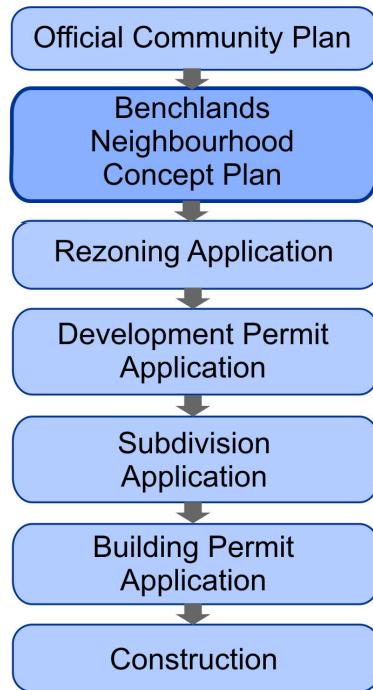
## 7 IMPLEMENTATION

Successful implementation of the Benchlands NCP will require a series of actions to be undertaken by the Village and the landowners. The Village will assist in the implementation process by outlining requirements for landowners and developers, amending the OCP as required, assessing impacts of the Benchlands development on municipal services, and creating a monitoring and review process. Landowners will participate in the implementation process through the creation of land development plans and the submission of rezoning and development applications.

### 7.1 DEVELOPMENT PROCESS

The NCP is the second phase of a multi-step development process. Prior to construction of the new neighbourhood many details need to be defined and analysed, and many approvals will need to be granted by the Village of Pemberton as outlined in **Figure 10 – Pemberton Benchlands Development Process**. Development of the 54 housing units in Benchlands – Phase 1 is currently underway, as this portion of the site entered the development process before the NCP was prepared.

*Figure 10: Pemberton Benchlands Development Process*



Each of the steps outlined in **Figure 10 - Pemberton Benchlands Development Process** will have many detailed components, designed to ensure the vision set out in the Neighbourhood Plan is realized through development on the ground. **Figure 11 - Proposed Rezoning Requirements for development in the Benchlands** illustrates the potential content of any rezoning application.

*Figure 11: Proposed Rezoning Requirements for development in the Benchlands*

**Rezoning Application - Requirements**

- Lot layout / Land use proposal
- Detailed utilization of Hillside Street Standards
- Proposed building forms
- Street layout including cross sections
- Proposed zoning plan
- Legal requirements

## 7.2 PHASING

Timing of development will be dependant upon many factors, such as market conditions, housing demand and absorption, as well as the collaborative efforts of landowners, developers, and the Village of Pemberton regarding development plans, servicing and infrastructure. All of these factors will contribute to the timing and rate of development of the Benchlands neighbourhood. As a result, the number of phases and approvals required to achieve build-out can not be estimated at this time. However, by reviewing the needed infrastructure servicing eight possible phases for development sequencing have been identified (**Figure 12 – Conceptual Phasing Plan**).

## 7.3 BYLAW REVISIONS

The Benchlands NCP will require adjustments to a number of Village bylaws and regulations.

Changes include amending the Official Community Plan (**Bylaw No. 435, 1999**) Section 3.1.1, where the OCP suggests a minimum multi-family housing threshold in the Benchlands of 25%, as well as Section 4 to incorporate the three new Development Permit Areas identified in the NCP. Pemberton's Zoning Bylaw (**Bylaw No. 466, 2001**) will require revisions to allow for new densities, lot sizes, and allowable uses within the Benchlands NCP area. Changes to the Subdivision and Development Bylaw (**Bylaw No. 219, 1989**) will address hillside street standards and hillside development standards. Potential changes also may be made to the Community Wildfire Protection Plan, in order to incorporate development in the Benchlands NCP area.

In addition, new bylaws, regulations and policies may be required for implementation of the Benchlands NCP to address, among others:

- Community Amenity Charges
- Public Realm Design Guidelines
- Private Realm Design Guidelines
- "Night Sky" Lighting Guidelines
- Stormwater Management
- Transportation Demand Management

## 7.4 FUTURE STUDIES

As the Benchlands' Neighbourhood Plan moves towards implementation, more research into the impacts of development will be necessary. These impacts include investment in infrastructure such as water, sewer and road upgrades, as well as other general community services including recreational and cultural facilities.

### 7.4.1 Order of Magnitude Impacts

Developing the Benchlands will create both on-site and off-site impacts. By anticipating and planning for these impacts, actions can be taken to mitigate negative implications and leverage those that are positive.

Several Municipal and Provincial services will be impacted by an increased population in Pemberton, specifically:

- Municipal maintenance services, in particular snow removal, are not predicted to be impacted by development in the Benchlands NCP area. Research carried out through the Federation of Canadian Municipalities has shown that alternative street standards (such as narrower roadways) are not a hindrance to snow removal, and do not increase snow maintenance costs.
- Projected impacts with regards to schooling include School District services as noted in Section 3.6 of the Benchlands NCP.
- Policing costs are not anticipated to increase as a result of development of the Benchlands NCP area, as the projected Benchland's population will not elevate Pemberton into a different tier of municipal police funding.

- The Benchlands is within the response area of the Village's fire department, and its street network will accommodate all emergency service vehicles.
- With respect to health care, Pemberton is currently served by a community clinic, which is anticipated to accommodate the additional population introduced by development of the Benchlands. Further consultation with the Sea to Sky Hospital District and Squamish Lillooet Hospital District will be necessary to confirm health care requirements.

Other impacts generated by the Benchlands development will include increased vehicle traffic, as well as an increased property tax base. Future order of magnitude cost estimates for the increased demand for public services can be determined through analysis of the Village's annual budget and tax base and comparing current expenditures to the dwelling unit and population projections for the Benchlands.

#### **7.4.2 Needs Assessment & Funding Opportunities**

The Village will conduct a Needs Assessment to assess how municipal services will need to be expanded over the long term and how funding for these services will be sourced. This Needs Assessment might include population projections for the entire Village of Pemberton, and the associated needs for community services, such as recreation facilities, community facilities, schools, daycare, as well as police, fire, ambulance and other services.

One funding opportunity for community recreation projects is through development levies on new projects, such as Community Amenity Charges (CACs). While not intended to pay for infrastructure such as sewer and water, CACs may form part of an overall funding scheme for public projects which benefit the entire Village. Adoption of a CAC system would require drafting an enabling bylaw.

### **7.5 MONITORING & REVISIONS**

Development of the Benchlands Neighbourhood Concept Plan has required significant commitment and investment by both the Village and landowners, in addition to many groups and individuals. Implementation of the NCP will require a continuation of this commitment and investment over the long term.

In order to ensure that the vision of the NCP is upheld throughout the implementation process, regular monitoring and evaluation will be required. The principles in Section 2.1 that form the NCP planning model are based on the principles for creating "Complete Communities". These principles will continue to assist in development of the Benchlands as they serve as objectives from which monitoring indicators can be drawn.

As an example, aspects of development in the Benchlands which may be subject to monitoring could be evaluated based on the following indicators:

<b>Principle: Design pedestrian friendly neighbourhoods</b>
<input type="checkbox"/> Are sidewalks being provided?
<input type="checkbox"/> Are streets designed to a pedestrian scale, with narrow streets, lanes, and green streets where possible?
<b>Principle: Create a Park and Environmental Network</b>
<input type="checkbox"/> Are parks dedicated in the Benchlands in accordance with the Neighbourhood Concept Plan?
<input type="checkbox"/> Is the park and trail system connected to the village centre?



# BENCHLANDS NEIGHBOURHOOD PLAN






PEMBERTON, BC

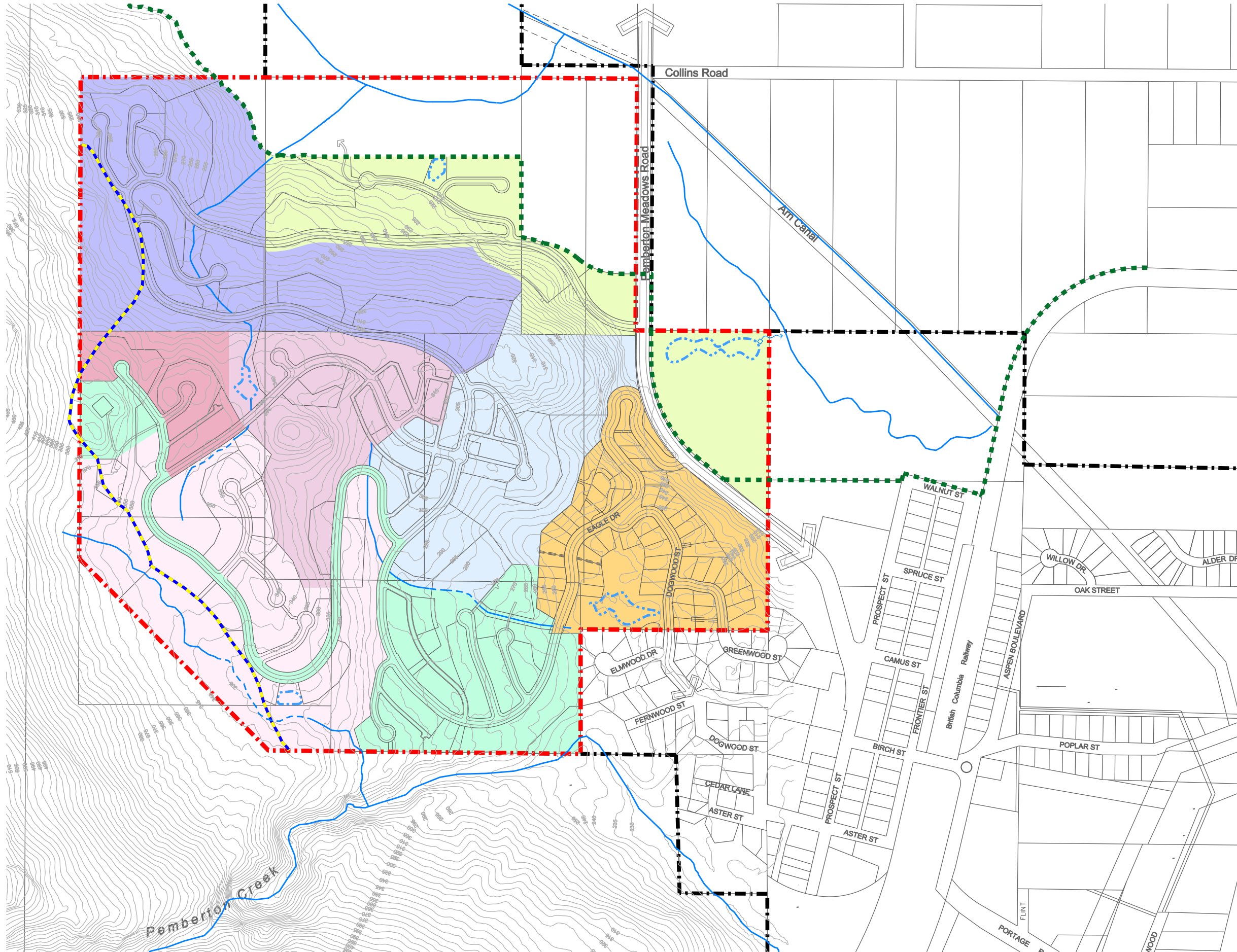
Figure 12

## CONCEPTUAL PHASING PLAN

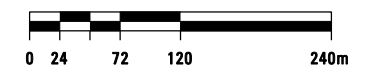
JANUARY 2007

### LEGEND

-  Village Municipal Boundary
-  Neighbourhood Plan Boundary
-  ALR
-  Phase 1
-  Phase 2
-  Phase 3
-  Phase 4
-  Phase 5
-  Phase 6
-  Phase 7
-  Watercourses
-  Proposed Watercourse Realignment
-  Rockfall Hazard Boundary



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## 8 SCHEDULES

- Schedule A: Land Use Plan
- Schedule A1: Land Use Concept Plan
- Schedule B: Park & Environmental Network Plan
- Schedule B1: Park & Environmental Concept Plan
- Schedule C: Street Hierarchy Plan
- Schedule D: Water Distribution Plan
- Schedule E: Sanitary Sewer Plan
- Schedule F: Drainage Master Plan
- Schedule G: Development Permit Area Plan



# BENCHLANDS NEIGHBOURHOOD PLAN

P E M B E R T O N , B C

## Schedule A

## LAND USE PLAN

JUNE 2007

### LEGEND

-  Village Municipal Boundary
-  Neighbourhood Plan Boundary
-  ALR
-  Rural within ALR
-  Large Single Family (18-25m width)
-  Medium Single Family (16-18 m lot width)
-  Small Single Family (10-16m lot width)
-  Townhome Multi Family (7m lot width)
-  Neighbourhood Commercial
-  Elementary School
-  Community Nature Park
-  Neighbourhood Park
-  Natural Area
-  Civic & Infrastructure
-  Hillside Protection Area
-  Stormwater Detention
-  Watercourses
-  Proposed Watercourse Realignment
-  Rockfall Hazard Boundary
-  Proposed Streets & Lanes
-  Trails

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# BENCHLANDS NEIGHBOURHOOD PLAN

PEMBERTON, B.C.

Schedule A1

## LAND USE CONCEPT PLAN

JUNE 2007

### LEGEND

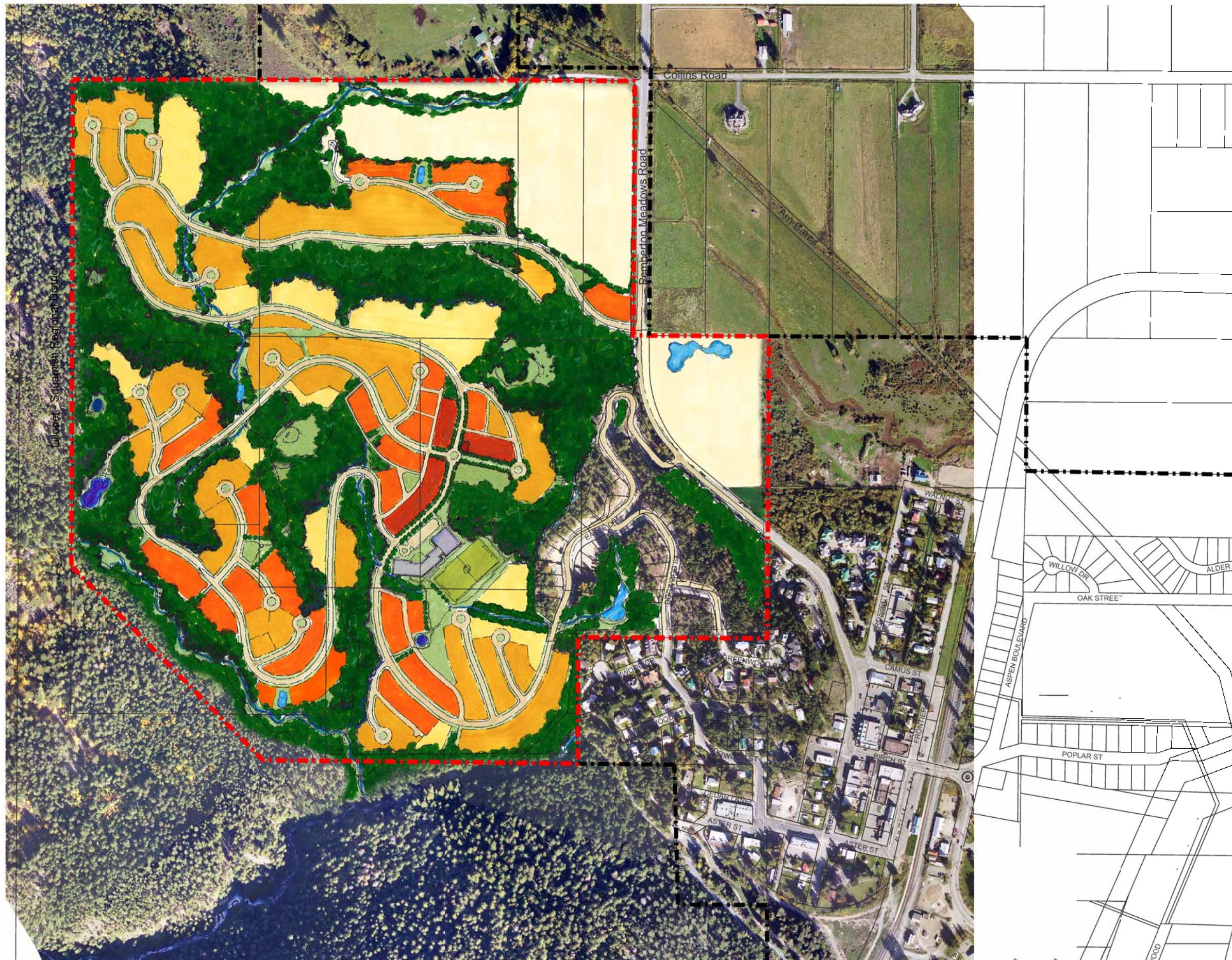
-  Village Municipal Boundary
-  Neighbourhood Plan Boundary
-  Large Single Family
-  Medium Single Family
-  Small Single Family
-  Townhome Multi Family
-  Neighbourhood Commercial
-  Rural within ALR
-  Elementary School
-  Community Nature Park & Natural Area
-  Neighbourhood Park
-  Civic & Infrastructure
-  Stormwater Detention
-  Watercourses
-  Proposed Streets & Lanes



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# BENCHLANDS NEIGHBOURHOOD PLAN










P E M B E R T O N , B C

## Schedule B

### PARK & ENVIRONMENTAL NETWORK PLAN

JUNE 2007

#### LEGEND

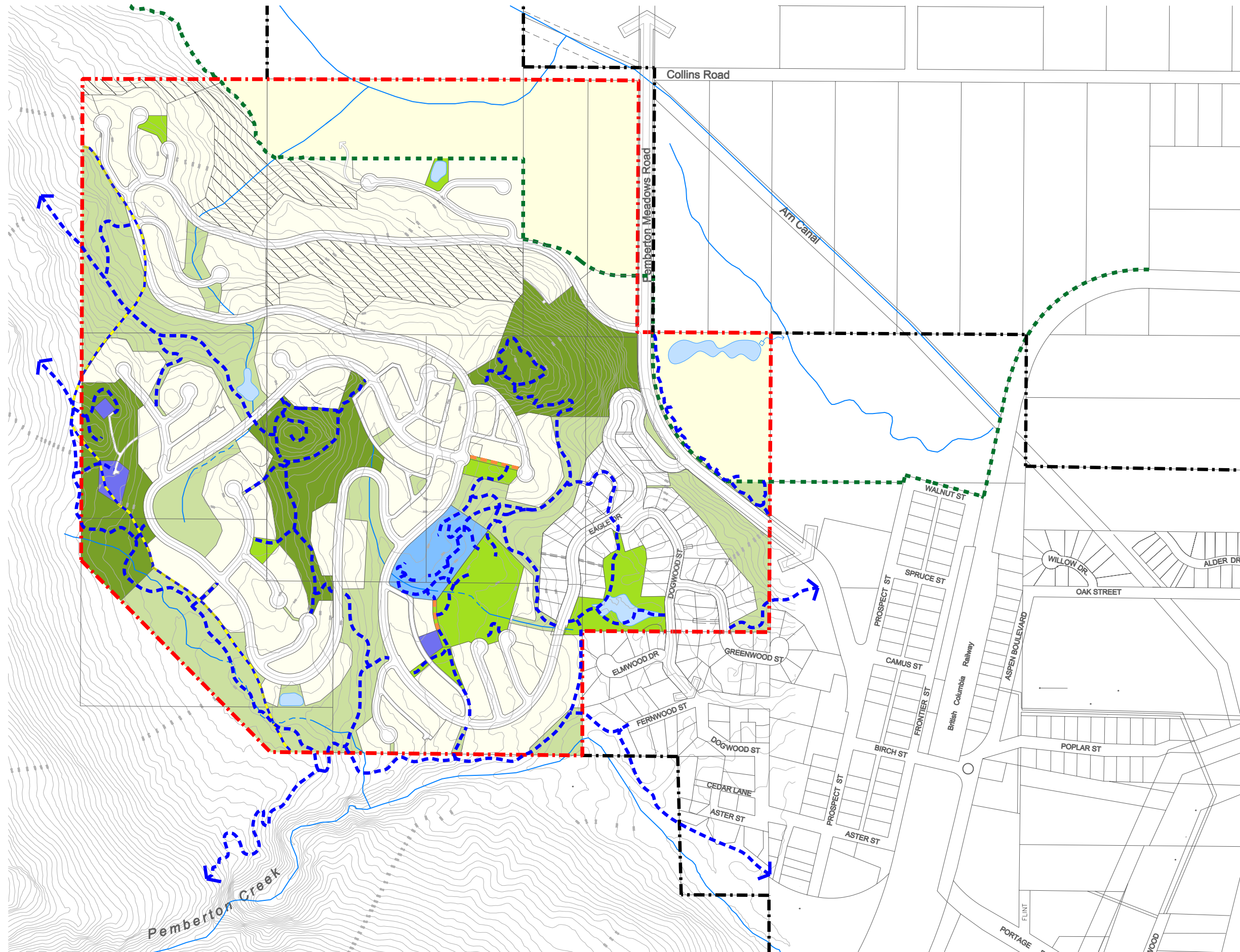
-  Village Municipal Boundary
-  Neighbourhood Plan Boundary
-  ALR
-  Areas of Development
-  Rural within ALR
-  Community Nature Park
-  Neighbourhood Park
-  Elementary School Site
-  Public Natural Area
-  Civic & Infrastructure
-  Hillside Protection Area
-  Green Street
-  Recreational Trails
-  Stormwater Detention
-  Watercourses
-  Realigned Watercourses
-  Rockfall Hazard Boundary



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# BENCHLANDS NEIGHBOURHOOD PLAN

P E M B E R T O N , B C

## Schedule B1

### PARK & ENVIRONMENTAL CONCEPT PLAN

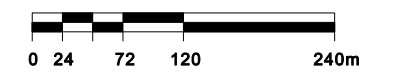
JANUARY 2007

#### LEGEND

- Village Municipal Boundary
- - - Neighbourhood Plan Boundary
- Areas of Development
- Rural within ALR
- Community Nature Park & Natural Area
- Neighbourhood Park
- Community Path
- Reservoir
- Stormwater Detention
- Watercourses



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# BENCHLANDS NEIGHBOURHOOD PLAN

P E M B E R T O N , B C

## Schedule C

## STREET HIERARCHY PLAN

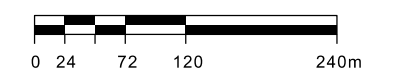
JUNE 2007

### LEGEND

- - - Neighbourhood Plan Boundary
- - - ALR
- Collector Street
- Local Street
- Green Street
- Primary Access Lane
- Standard Lane
- Driveway
- Areas of Development
- Parks & Public Natural Area
- Civic & Infrastructure
- Stormwater Detention
- Watercourses
- - - Realigned Watercourses
- · - · - Rockfall Hazard Boundary

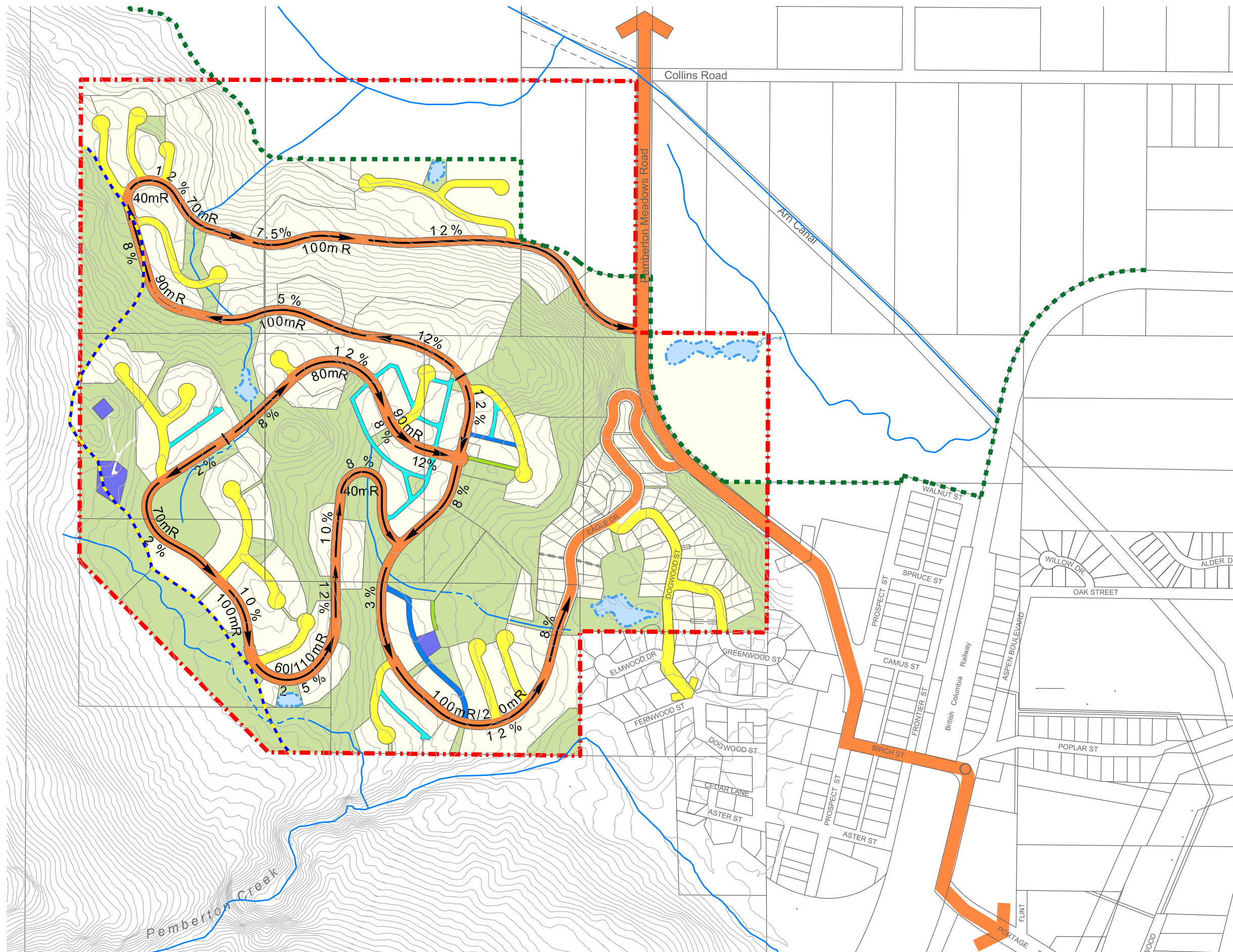


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# BENCHLANDS NEIGHBOURHOOD PLAN

P E M B E R T O N , B C

## Schedule D

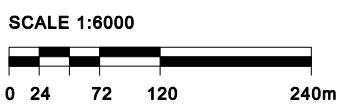
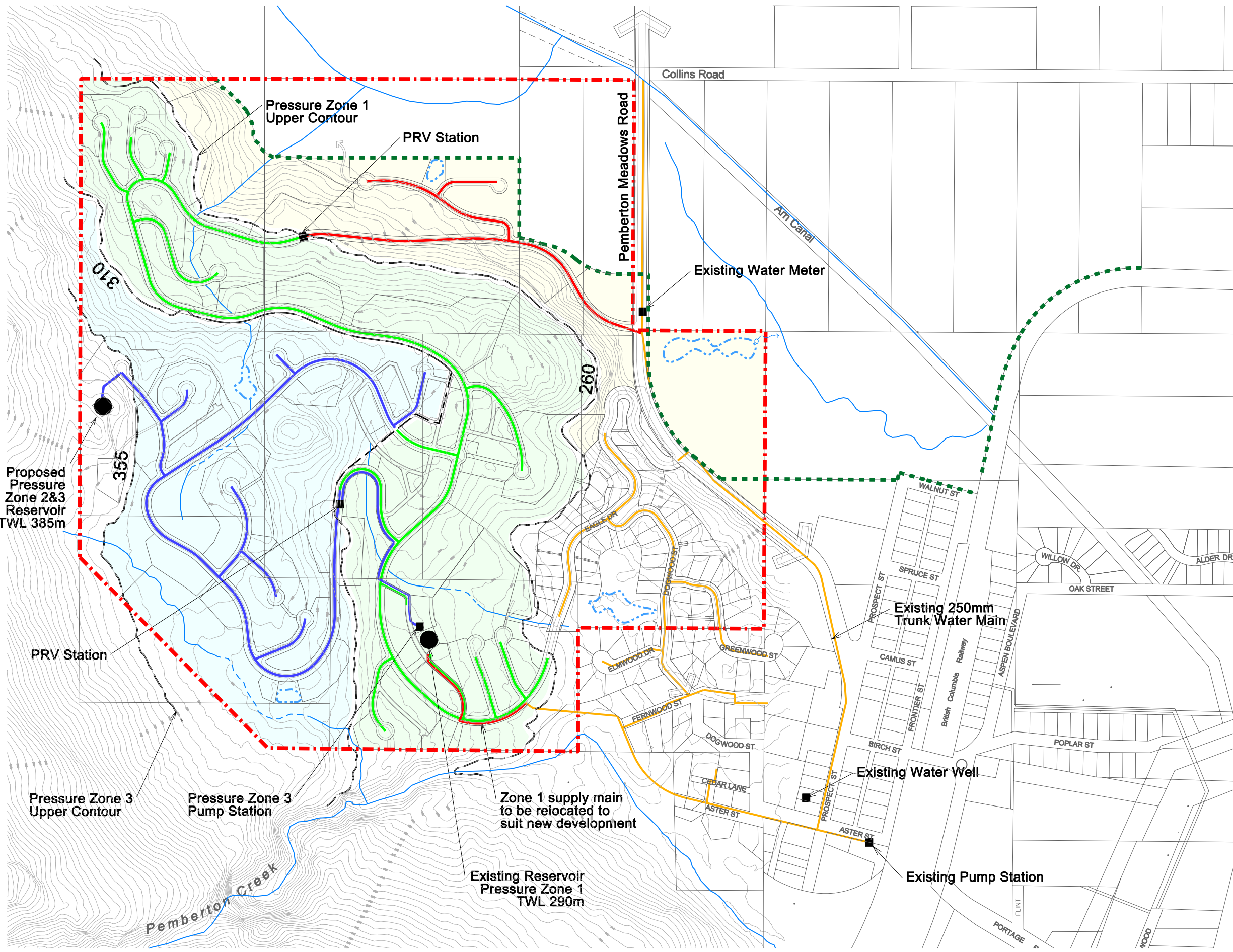
### WATER DISTRIBUTION PLAN

JUNE 2007

#### LEGEND

- - - Neighbourhood Plan Boundary
- - - ALR
- - - Pressure Zone Boundaries
- Existing Water Line
- Proposed Water Line in 260m Pressure Zone 1
- Proposed Water Line in 310m Pressure Zone 2
- Proposed Water Line in 355m Pressure Zone 3

Note: Full Engineering Summary by InterCAD located in Appendix C of NCP



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# BENCHLANDS NEIGHBOURHOOD PLAN

PEMBERTON, B.C.

## Schedule E

## SANITARY SEWER PLAN

JUNE 2007

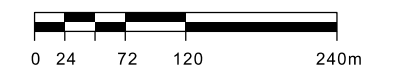
### LEGEND

- - - Neighbourhood Plan Boundary
- - - ALR
- Catchment A
- Catchment B
- Catchment C
- Existing Sanitary Lift Station
- Existing Sanitary Force Main
- Existing Sanitary Line
- Proposed Sanitary Lift Station
- Proposed Sanitary Force Main
- Proposed Sanitary Line
- Individual Pumping Possibly Required

Note: Full Engineering Summary  
by InterCAD located in  
Appendix C of NCP

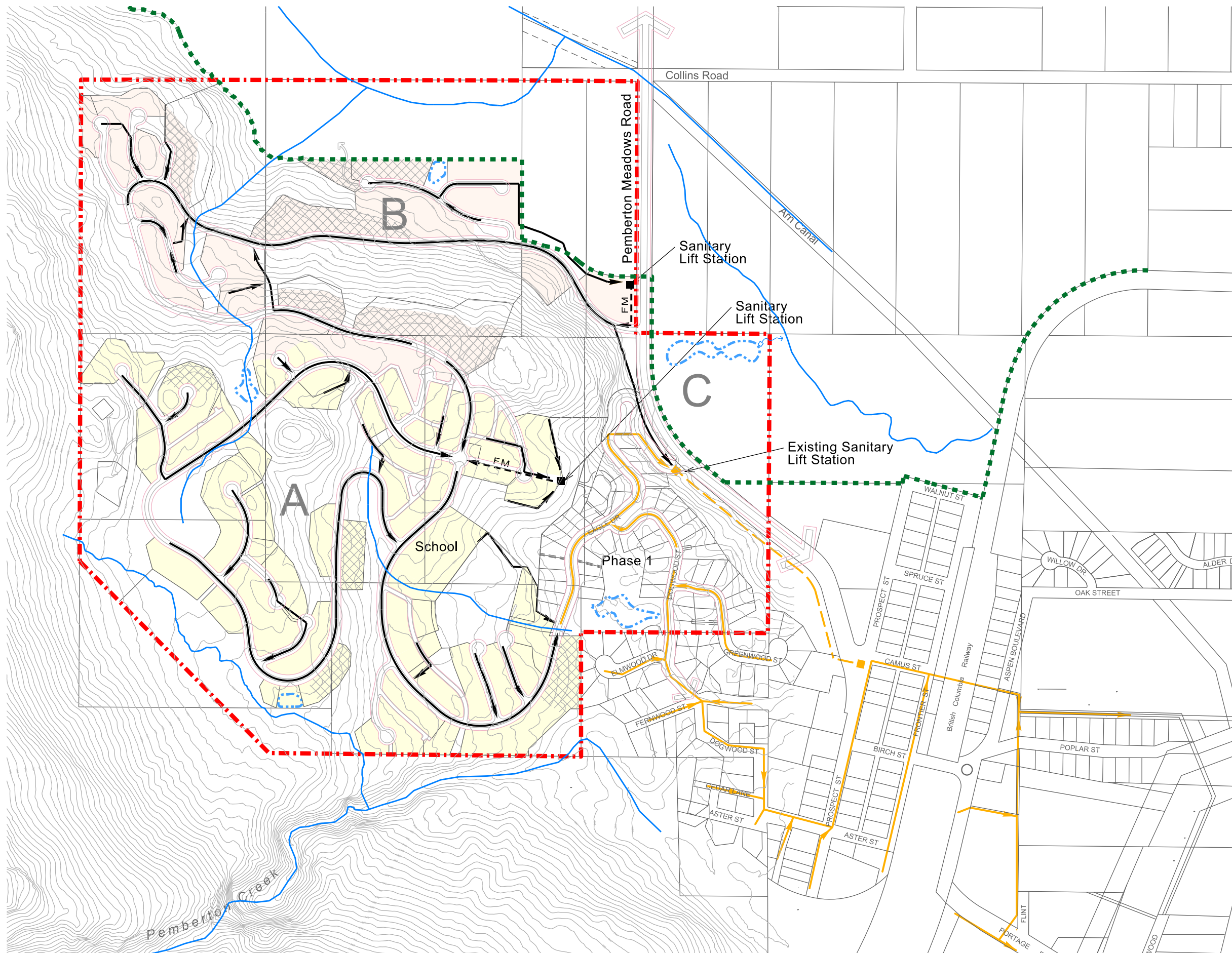


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# BENCHLANDS NEIGHBOURHOOD PLAN

PEMBERTON, B.C.

## Schedule F

## DRAINAGE MASTER PLAN

JUNE 2007

### LEGEND

- - - Neighbourhood Plan Boundary
- - - ALR
- Existing Drainage Route
- Proposed Drainage Route
- Catchment Boundary
- Watercourses
- Catchment Area 1
- Catchment Area 2
- Catchment Area 3
- Catchment Area 4
- Catchment Area 5
- Catchment Area 6
- Catchment Area 7
- Existing Developed Areas

Note: Full Engineering Summary  
by InterCAD located in  
Appendix C of NCP

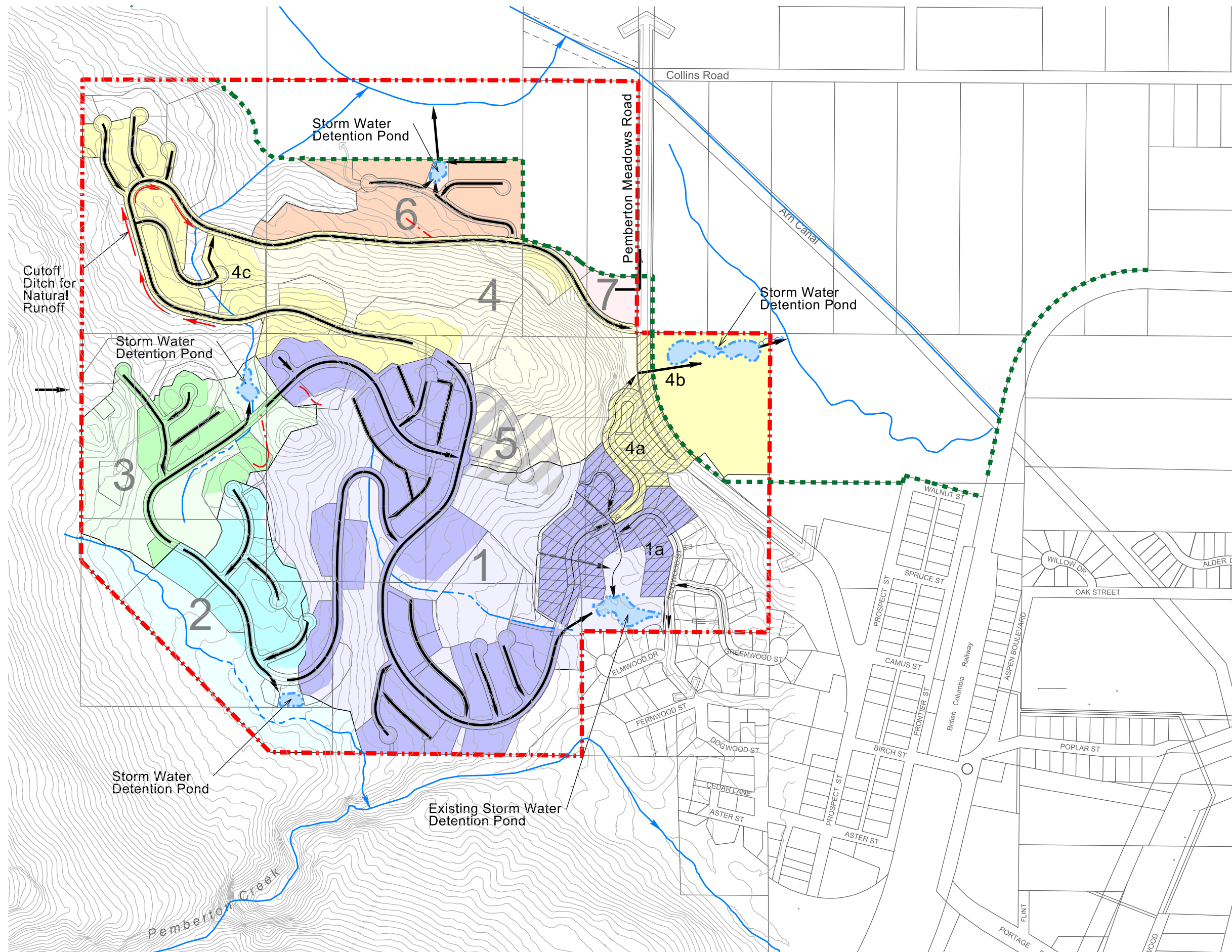


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# BENCHLANDS NEIGHBOURHOOD PLAN







P E M B E R T O N , B C

## Schedule G



## DEVELOPMENT PERMIT AREAS

JUNE 2007

### LEGEND

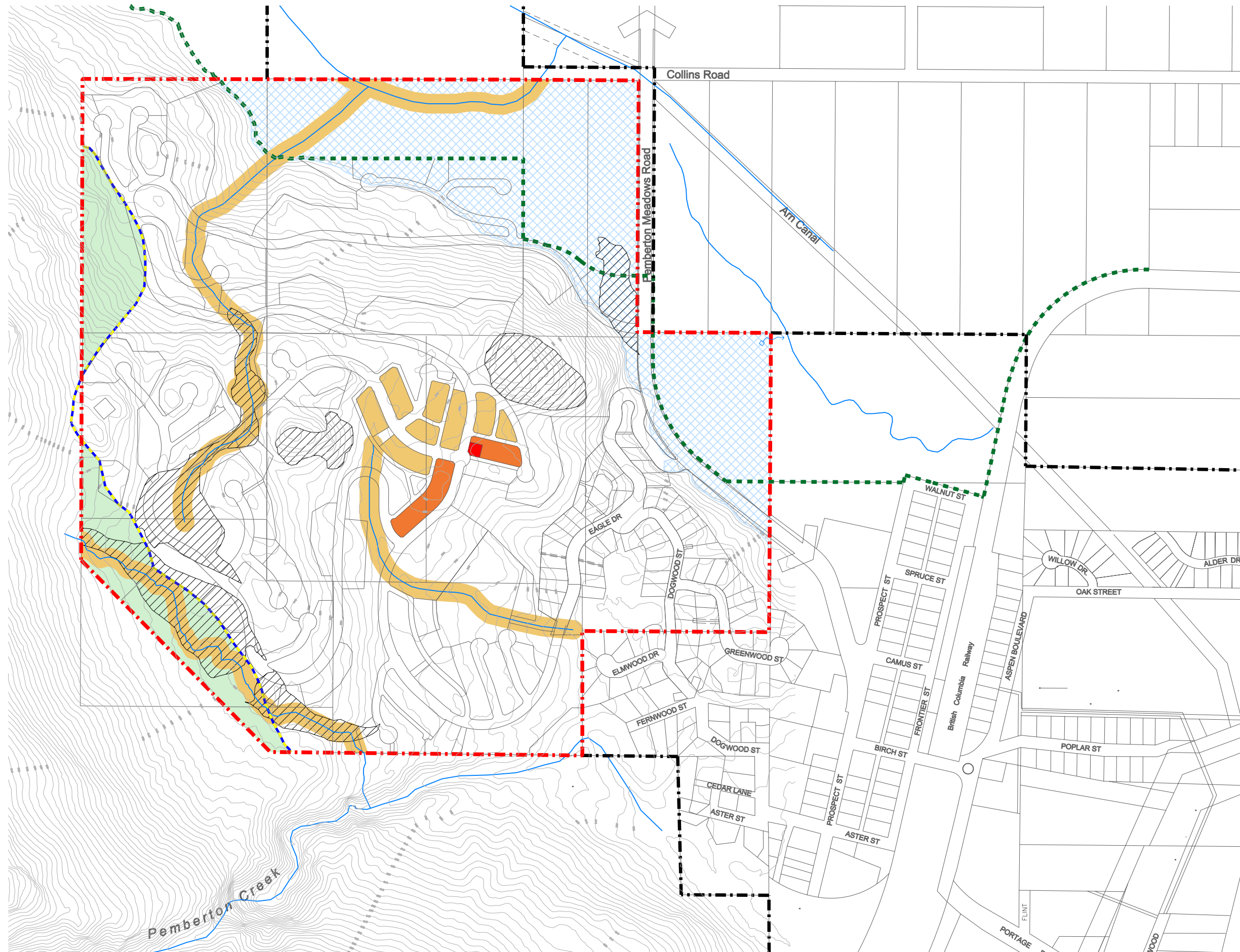
-  Village Municipal Boundary
-  Neighbourhood Plan Boundary
-  ALR
-  Intensive Residential Area
-  Multi-Family Area (DP Area 1)
-  Neighbourhood Commercial Area (DP Area 2)

### Environmental Areas

-  Environmentally Sensitive Area
-  Riparian Area

### Hazard Areas

-  Rockfall
-  Steep Slopes (30%+)
-  Floodplain



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