

# PARKING MANAGEMENT STUDY

CITY OF WEST  
KELOWNA

MARCH 2024



**URBAN**  
SYSTEMS

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# **TABLE OF CONTENTS**

<b>1.0</b>	<b>INTRODUCTION.....</b>	<b>1</b>
<b>2.0</b>	<b>METHODOLOGY .....</b>	<b>2</b>
	2.1 STUDY PROCESS.....	2
	2.2 ENGAGEMENT.....	2
<b>3.0</b>	<b>BACKGROUND REVIEW.....</b>	<b>3</b>
	3.1 STUDY AREAS.....	3
	3.2 DOCUMENTS REVIEWED .....	4
	3.3 CONTEXT SUMMARY .....	5
<b>4.0</b>	<b>ENGAGEMENT &amp; CASE STUDIES.....</b>	<b>7</b>
	4.1 STAFF WORKSHOP SUMMARY .....	7
	4.2 INTERVIEW SUMMARY .....	7
<b>5.0</b>	<b>FORECASTING FUTURE DEMAND.....</b>	<b>10</b>
	5.1 DATA LIMITATIONS.....	10
	5.2 SITE-SPECIFIC PARKING DEMAND CONSIDERATIONS.....	10
	5.3 DEMAND FORECASTS.....	12
<b>6.0</b>	<b>PARKING MANAGEMENT PRACTICES.....</b>	<b>18</b>
	6.1 OFF-STREET PARKING MANAGEMENT CONSIDERATIONS.....	19
	6.2 TRANSPORTATION DEMAND MANAGEMENT (TDM).....	22
	6.3 OTHER CONSIDERATIONS.....	26
<b>7.0</b>	<b>RECOMMENDATIONS .....</b>	<b>28</b>
	7.1 PARKING REDUCTION SCENARIOS & TRIGGERS.....	28
	7.2 RECOMMENDATIONS ON VEHICLE PARKING REQUIREMENTS.....	30
	7.3 RECOMMENDATIONS SUMMARY.....	42
<b>8.0</b>	<b>CONCLUSION.....</b>	<b>44</b>

## APPENDICES

### Appendix A – Study Area Maps

#### FIGURES:

Figure 1 Map of Urban Centres.....	3
Figure 2 Neighbourhood Centres.....	4
Figure 3 Gellatly Village.....	41

#### TABLES

Table 1 Land use Designations for Urban and Neighbourhood Centre from West Kelowna OCP .....	13
Table 2 Estimated Space and Unit Counts.....	14
Table 3 ITE Parking Generation Manual land use classes and their applications to West Kelowna Urban and Neighbourhood Centres.....	16
Table 4 Forecasted Parking Demand in Westbank Urban Centre (2023-2040).....	17
Table 5 Forecasted Parking Demand in Boucherie Urban Centre .....	17
Table 6 Forecasted Parking Demand in Neighbourhood Centres .....	18
Table 7 Comparative Table of Off-Street Parking Requirements Between West Kelowna and Three Comparable Communities.....	20
Table 8 Benefits, Challenges and Management Approaches for Tandem Parking .....	22
Table 9 Parameters with a Potential Impact on Parking Demand in the Transitional Period and Fully Realized OCP Vision .....	29
Table 10 General Parking Recommendations .....	30
Table 11 Suggested Approach to Parking Standards in Neighbourhood Centres.....	31
Table 12 Suggested Approach to Parking Standards in Boucherie Urban Centre & Westbank Centre Residential Shoulders .....	33
Table 13 Suggested Approach to Parking Standards in Westbank Urban Centre (Mixed-Use Corridor and Commercial Core) .....	35
Table 14 Recommended Bicycle Parking Supply Rates .....	37
Table 15. Recommendations Summary Table.....	42

## 1.0 INTRODUCTION

The City of West Kelowna (the City) is one of the fastest-growing municipalities in British Columbia, with an expected population increase of 12,000 by 2040. To accommodate the anticipated population increase, the City has strategically identified where future growth and development should be concentrated through the Official Community Plan (OCP) Update process, which was completed in September 2023. According to the OCP, 40 percent of new residential growth will be accommodated in two Urban Centres (Westbank and Boucherie), while an additional 36 percent will be concentrated in five Neighbourhood Centres (Goats Peak, Gellatly Village, Smith Creek / Shannon Lake, Rose Valley, and Lakeview Heights).

The City is currently undertaking a review of Zoning Bylaw No. 0265 to complement the recently completed OCP Update and respond to the new growth concept. West Kelowna is currently a car-dependent community, given the distance between destinations and limited public transit service. Recognizing that car ownership averaged 1.9 vehicles per household in 2021, an equivalent increase in private vehicles due to residential growth will create additional challenges in parking management. The City is taking a proactive approach by conducting a Parking Management Study (Study) to address ongoing and anticipated future parking challenges, particularly in the areas designated for future growth.

The study's key objective is to address city-wide parking challenges and recommend updates to off-street parking supply rates, parking reduction triggers, bicycle parking and E.V. charging requirements, and loading considerations to inform the Zoning Bylaw update. In addition, commentary on specific segments of on-street parking management is provided. The primary focus of the study is on Urban and Neighbourhood Centres as areas where redevelopment and higher-density mixed-use growth is anticipated while considering a variety of land use designations, including Commercial, Industrial, Medium-Density Residential, and Low- Density Residential.



## 2.0 METHODOLOGY

### 2.1 STUDY PROCESS

The study was initiated in August with an expected completion date of January 2024. The work was conducted in three phases: Project Start-Up and Background Review, Site Analysis and Case Study Review, and Parking Management Study Report, as outlined below.

<b>Phase 1</b>	• Completed a review of background materials	August 2023
	• Conducted a virtual staff workshop	September 2023
	• Analyzed the primary data	September 2023
<b>Phase 2</b>	• Completed a case study review	October 2023
	• Estimated future parking demand	October 2023
<b>Phase 3</b>	• Drafted preliminary recommendations	November 2023
	• Reviewed the preliminary recommendations with staff	November 2023
	• Prepared the final summary report	December 2023

### 2.2 ENGAGEMENT

The engagement component of the study consisted of a staff workshop and interviews with planners in three select communities to inform the case study review.

In September 2023, a two-hour virtual workshop with the City's Project Manager and staff in the Planning, Development, and Engineering and Public Works departments was held to discuss the existing parking conditions and management strategies and future parking considerations, such as anticipated challenges attributed to future urban growth. While the focus of the discussion was on areas designated as Urban Centres and Neighbourhood Centres in the new OCP, Commercial, Industrial, Medium-Density Residential, and Low-Density Residential parking impacts were also discussed.

In October 2023, a series of interviews with planning staff from three B.C. communities with urban characteristics comparable to West Kelowna in land use density, policy context, transit availability, and topography was conducted. The three municipalities chosen as case studies were:

- City of Vernon
- City of Nanaimo
- City of Colwood

The interviews with planning staff supplemented the key findings from our review of the existing parking regulations, parking management strategies, and other relevant reports and studies conducted in these communities.

## 3.0 BACKGROUND REVIEW

### 3.1 STUDY AREAS

This study is focused on providing parking guidance for West Kelowna's Urban (Figure 1) and Neighborhood Centres (Figure 2) which include:

- Westbank Urban Centre
- Boucherie Urban Centre
- Rose Valley Neighbourhood Centre
- Smith Creek and Shannon Lake Neighbourhood Centre
- Lakeview Heights Neighbourhood Centre
- Gellatly Village Neighbourhood Centre
- Goats Peak Neighbourhood Centre

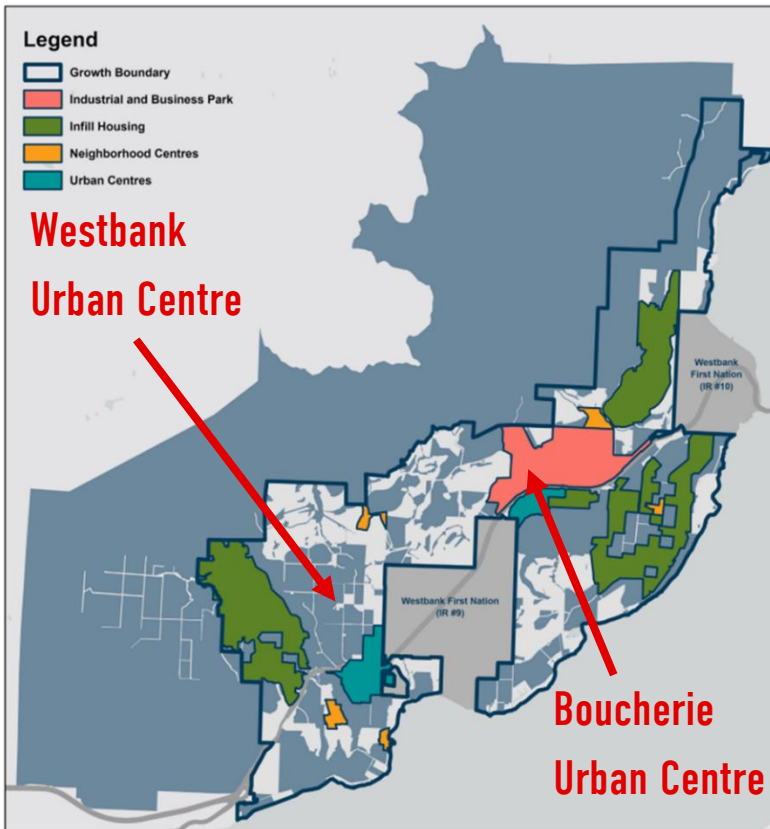


Figure 1 Map of Urban Centres

More detailed maps of each Urban and Neighbourhood Centre are in **Appendix A**.

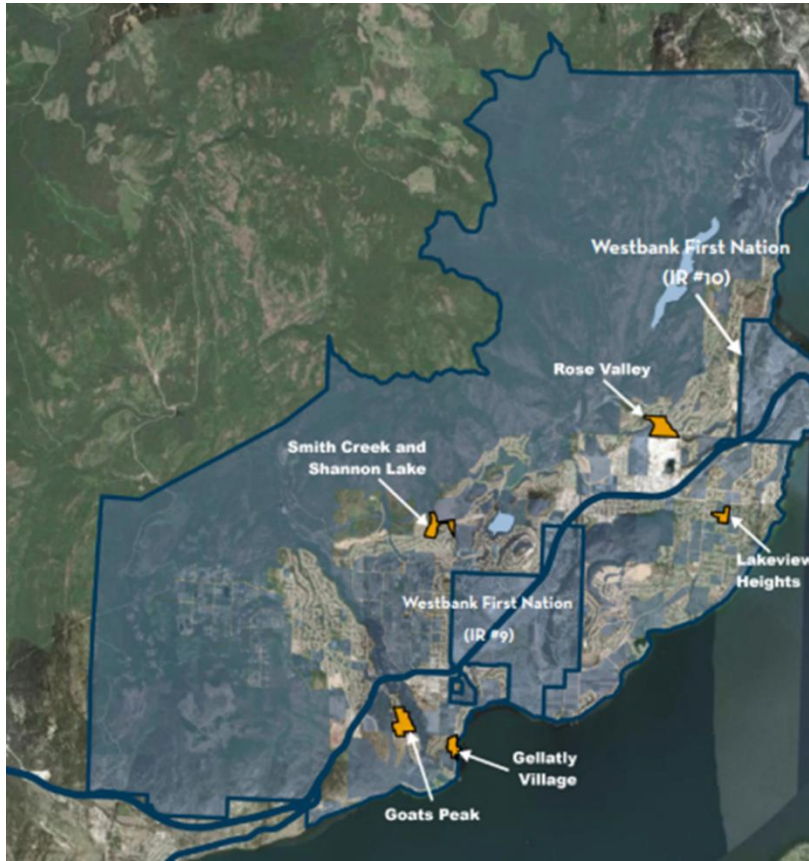


Figure 2 Neighbourhood Centres

### 3.2 DOCUMENTS REVIEWED

As part of Phase 1, a comprehensive review of all applicable background materials, including relevant plans, bylaws, reports, studies, road standard drawings, and mapping, was completed. These include:

- The 2040 City of West Kelowna OCP (2023)
- Zoning Bylaw No. 0265 (2022)
- Transportation Master Plan (2014)
- Previous parking management studies:
  - Westbank Parking Strategy (2019)
  - Business Park and Boucherie Centre Parking Strategy (2019); and
  - Westbank Centre Parking Survey Summary (2012)
- Other relevant studies and reports:
  - City of West Kelowna Housing Needs Assessment (2022)
  - City of West Kelowna Real Estate Inventory and Growth Projections (2021); and
  - Vacant and Underutilized Lands Inventory (2019)
- Primary data:
  - Parking Infraction Summary (2023); and
  - Parking Counts for Urban Centres (2023).



### 3.3 CONTEXT SUMMARY

As prescribed in the 2022 City of West Kelowna Zoning Bylaw, the existing parking regulations have been relatively consistent over the last ten years. During that time, West Kelowna's population has increased by approximately 11 percent, and this trend is expected to continue in the future, with an additional 12,000 new residents expected by 2040. Considering the anticipated population growth and the resulting increase in housing demand, the **existing parking regulations outlined in the Zoning Bylaw require review and consideration for alignment with the City's planning policies.**

The 2040 City of West Kelowna OCP, envisions that most new development will be concentrated in two Urban (Westbank and Boucherie Centre) and five Neighbourhood Centres, predominantly in the form of higher density, multi-unit housing.

The purpose of urban centres is to create high-density downtown cores in the City with various uses, including:

- Townhouses
- Multi-unit housing
- Mixed-use buildings
- Commercial (office, retail)
- Institutional
- Live/work spaces

Urban Centres are anticipated to be composed of mid-rise to high-rise developments which reach heights as high as 12-19 storeys.

Similarly, the purpose of neighbourhood centres is to create smaller centres in various neighbourhoods with uses that complement and mirror uses present in Urban Centres, with a focus on smaller-scale commercial uses and building forms that are low to medium rise with a maximum anticipated height of 6 storeys.

In general, the parking standards for the following areas and land uses need to be evaluated and updated accordingly:

- Urban and Neighbourhood Centres
- Other residential neighbourhoods
- Commercial and industrial lands, and
- New multifamily developments.

According to the OCP, parking in Urban Centres should be provided underground or at the rear of the site, obscured from the public street frontage. In Neighbourhood Centres, consolidating parking in one location, preferably underground or in a structure, is encouraged to minimize the overall footprint. The OCP also calls for specific parking regulations in Gellatly Village where a shared parking structure adequately screened from the public street, either below or above ground, should be provided to support local commercial services and public amenities. In other residential neighbourhoods, a revision of

the existing parking regulations is recommended for emerging multi-dwelling housing typologies, such as secondary suites, carriage homes, duplexes, and others, as well as the recently announced Provincial Small-Scale, Multi-Unit Housing (SSMUH) initiative that permits small-scale, multi-unit (3, 4, or 6 units) on traditional single-family detached lots and duplex zones.

According to the three parking studies conducted between 2012 and 2019, the **existing parking requirements for commercial and industrial land uses are set too high, especially for tourism accommodation, food establishments, and large retail businesses.** In addition, the existing on-street parking is underutilized in Westbank Urban Centre due to the ample parking supply (in terms of time) and low urban density.

Lastly, parking counts for Westbank and Boucherie Urban Centres, as well as parking infractions between 2012 and 2023, were reviewed. The results show that most parking infractions occurred between 2016 and 2021, with a significant decrease over the last two years, which might result from changes in enforcement strategies and/or human resources. The most common parking violations are parking for more than 24 hours (including overnight parking) and illegal parking.

## 4.0 ENGAGEMENT & CASE STUDIES

### 4.1 STAFF WORKSHOP SUMMARY

The first component of the engagement process was the staff workshop. City of West Kelowna staff guided the areas of research needed to inform our recommendations for parking requirements, which was conducted as part of Phase 2. The following topics were discussed:

- Surface and non-surface parking
- Parking requirements for different uses, such as:
  - Restaurants
  - Schools
  - Short-Term Accommodations
  - Multifamily and mixed-use building loading
  - Mixed-use buildings (up to and over 6 storeys)
  - Accessory Dwelling Units (carriage houses and secondary suites)
  - Live-work spaces
  - Strata Townhouses
- On-street parking demand generated from the sale/rental of units and
- Parking deficiencies due to the post-construction industrial and commercial tenant conversion of uses/units.

The workshop also included a discussion of the existing parking-related challenges in two Urban and five Neighbourhood Centres and vision to address these area-specific challenges.

### 4.2 INTERVIEW SUMMARY

A second component of the engagement process was the case review of three case study communities used to inform the study's recommendations. Interviews with municipal planning staff from Vernon, Nanaimo, and Colwood were conducted to better understand their approach to parking regulations and management strategies and learn what innovative approaches they had been experimenting with. The case study communities were chosen for their relative contextual similarities to West Kelowna and for specific aspects of their current programs that aligned with West Kelowna's areas of focus as they relate to parking. A specific focus was put on the following topics:

- Surface and non-surface parking.
- Parking requirements for the list of uses discussed in the staff workshop.
- Commentary on the demand for on-street parking generated from new housing units (including new strata and rental); and
- Commentary on parking challenges associated with post-construction industrial and commercial tenant conversion of uses/units.

The key takeaways from the interviews are categorized into the following themes:

## **ZONED APPROACH TO PARKING REDUCTIONS**

All three municipalities have implemented area-specific parking requirements to different extents. Colwood and Nanaimo have specific parking regulations for their downtown cores, while Nanaimo has implemented a zone approach to regulate parking throughout the City. Nanaimo has five zones with area-specific parking requirements, ranging from the most restrictive ones (Zones 1 and 2, which encompass the downtown core and areas adjacent to the downtown core) to the most permissible ones (Zones 4 and 5), which encompass suburban areas and areas of concentrated large-scale retail development.

Lastly, in September 2023, Vernon reduced the parking requirements for accessory dwelling units in single-family residential zones from three to two (one for the primary residence and one for the accessory dwelling unit).

Beyond the three study communities, other municipalities have established minimum parking supply rates that vary by location or zone based on factors such as proximity to higher-order transit service or OCP land use designations.

## **REDUCTION IN CORE REQUIREMENTS PUSHES OUT PARKING DEMAND**

According to the City of Nanaimo planning staff, the zoned approach to parking reductions has been successful. However, city staff mentioned that parking demand within Zone 2 (which surrounds downtown on its periphery) is facing significant pressures as a result of higher parking reductions in Zone 1 (downtown), which pushes the parking demand into Zone 2.

## **TIMING OF CASH-IN-LIEU PROGRAMS**

A Cash-in-lieu program was implemented in the City of Vernon but has seen limited success due to a lack of developer interest and uptake. Reasons why the program has seen little interest stem from a combination of construction costs, residents' expectations on the provision of parking, and local land economics. The cost to provide parking spaces is less than the per-space cost outlined in the cash-in-lieu program, and since local residents want and/or expect parking, the applicants provide parking to meet the market demand. For these reasons, developers prefer providing the minimum number of parking spaces prescribed in the Zoning Bylaw instead of cash-in-lieu payments.

## **BEST USE OF VISITOR PARKING SPACES**

Vernon adopted an innovative parking management approach in mixed-use areas. If there are two land uses on site, one of them is residential, the visitor parking for the residential use can double as parking for the other use on site (e.g., office, commercial, etc.).

### **PURPOSE-BUILT RENTAL HOUSING PARKING REDUCTIONS**

Nanaimo proposed a 10 percent reduction in parking requirements for new purpose-built residential development. This initiative was not approved by the City Council in 2018. However, it will be reintroduced as part of the upcoming 2024 Parking Bylaw update.

Similar regulations supporting reduced minimum parking supply for market rental apartment uses have been pursued in select other communities (e.g., City of Victoria), while others have formalized policies to support parking reductions by way of variance for market rental uses (e.g., City of Colwood).

### **SIMPLIFYING AND STANDARDIZING PARKING METRICS**

The City of Colwood simplified the land uses and their respective parking requirements in their Parking Bylaw. In addition, the metrics used to determine the parking requirements are standardized using stalls/100 m<sup>2</sup> of gross floor area. These changes were made to support improved legibility and aid staff when interpreting requirements with applicants.

### **EV CHARGING REQUIREMENTS LESSONS LEARNED**

The City of Colwood considered mandating the provision of E.V. charging for all parking stalls in new developments. This was received favourably by the residents but not endorsed by Council after the pushback from the development community due to concerns over building electrical capacity requirements and added development costs. The municipal planning staff is considering reintroducing the E.V. charging requirements in the 2024 Parking Bylaw update.



## 5.0 FORECASTING FUTURE DEMAND

### 5.1 DATA LIMITATIONS

Reliable data is needed to accurately forecast future parking demand and prepare sound recommendations for parking management, including off-street parking supply rates. This includes in-field parking counts conducted in prescribed areas over a specified amount of time to enhance data accuracy or utilizing vehicle registration data available through ICBC for residential uses. In addition, parking demand is highly dependent on the specific uses planned for a particular development and the context (competing uses, transportation network, population, etc.) in which those uses will land. Much of the aim of this study is to anticipate future demand for space in the neighbourhood and urban centres that are planned for future build-out and where there are still many unknowns as to its future development. Future iterations of this study could re-consider these areas as they develop to their full potential.

The primary dataset provided by the municipal planning staff has limitations. For example, the parking count dataset only provides information on municipally operated parking spaces and does not account for private parking lots. Privately owned parking lots provide a significant number of parking spaces not just for the commercial uses they serve but also for other uses that are present in Westbank Centre.

#### 5.1.1 PREVIOUS PARKING STUDIES

The previous parking surveys and strategies were conducted solely for the Westbank Centre area, including the Westbank Centre Parking Survey (2012) and Westbank Centre Parking Strategy (2019). The two parking studies focused primarily on multi-unit developments, and the key insights include:

- Relaxation of minimum parking requirements, depending on the type and location of development.
- Requirement to include short- and long-term bicycle parking.
- Requirement to install Electric Vehicle (E.V.) charging stations; and
- Review of the existing cash-in-lieu of parking regulations for multifamily apartment buildings.

## 5.2 SITE-SPECIFIC PARKING DEMAND CONSIDERATIONS

### 5.2.1 EVOLUTION OF ACTIVE TRANSPORTATION AND TRANSIT NETWORK TO SHIFT MODE SHARE

In recent years, there has been an uptake in using sustainable modes of transportation. Sustainable transportation results in a smaller net impact on the environment or transportation infrastructure compared to single-occupancy vehicles and larger vehicles (e.g., heavy trucks). Sustainable transportation also offers many benefits, such as decreased pollution, congestion, and traffic accidents and better health and well-being. Sustainable

transportation traditionally includes active transportation, public transit, and, in some cases, carpooling.

According to Statistics Canada, between 1996 and 2016, the number of people commuting to work by private vehicle increased by 35.9 percent. However, during the same period, the number of people using **public transit increased by 58.7 percent**, while the number of people **cycling to work increased by 87.9 percent**, significantly higher than the overall growth in the number of vehicle commuters.<sup>1</sup>

Expanding the existing public transit and active transportation networks is crucial to support the shift to sustainable modes of transportation. These networks must be safe, well-connected, and easily accessible to entice the residents to make the switch.

### 5.2.2 PARKING CONSIDERATIONS IN MIXED-USE AREAS

Mixed-use development poses several unique parking complexities, including differing peak parking periods between adjacent uses, which provides opportunities for shared parking. General practice for the existing minimum parking requirements would stipulate that developers provide a certain number of parking spaces for each specific land use. However, this would result in vacant residential spaces during traditional work hours, while commercial spaces would be empty overnight. **Shared parking ensures that parking spaces are utilized as much as possible**, so a proportion of parking spaces could be eliminated. Exact proportions would depend on the number of residential spaces and the specific commercial uses present in the building. The existing Zoning Bylaw allows up to 15 percent of visitor parking for commercial uses on the same site. The existing requirement for visitor parking doubling as parking for commercial uses should be expanded to improve the existing utilization of off-street parking.

### 5.2.3 PARKING SEASONALITY

Seasonality is another important consideration, especially for a tourist destination like West Kelowna. Parking pressures resulting from the peak tourism season (summer) are significantly higher compared to many other months. In addition, during the holiday shopping season (late November to late December), parking pressures for specific land uses, such as large-scale retail or shopping centres, are substantially higher than at most other times during the year.

### 5.2.4 EVOLUTION OVER TIME

Estimating future parking demand over the next 20 years is challenging, especially at a time of unprecedented urban growth, such as the one West Kelowna has been experiencing and will continue to experience in the near future. Parking needs and demand will likely shift considerably over 20 years, especially as environmental considerations, shifting council

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<sup>1</sup> Statistics Canada. "Commuters using sustainable transportation in census metropolitan areas." URL: <https://www12.statcan.gc.ca/census-recensement/2016/as-sa/98-200-x/2016029/98-200-x2016029-eng.cfm>, Last Accessed: December 12, 2023.

priorities, and new and innovative approaches to parking management drive the changing transportation landscape. Given these influences, the assumptions that drive future parking demand forecasts must also align with West Kelowna's vision and key objectives to meet these dynamic challenges.

## 5.3 DEMAND FORECASTS

### 5.3.1 ASSUMPTIONS FOR FORECASTING FUTURE DEMAND

Due to the data limitations outlined in Section 5.1, the demand forecasts presented in this section incorporate several other data sources and assumptions to estimate future parking demand in West Kelowna's Urban and Neighbourhood Centres. These assumptions were derived from an analysis of the City's OCP, the Westbank Parking Strategy (2019), and the Business Park and Boucherie Centre Parking Strategy (2019), unless otherwise noted:

- Average parking demand rates for residential uses from the *ITE Parking Generation Manual, 5<sup>th</sup> Edition* were used to anticipate future residential typologies in the urban centres.
- 70 percent of residential uses in Westbank Urban Centre (Residential Shoulders), Boucherie Urban Centre, and Neighbourhood Centres are mid-rise developments (6-12 storeys), while the remaining 30 percent are low-rise developments (<6 storeys).
- Residential uses in the Mixed-Use Corridor and Commercial Core of Westbank Centre are envisioned to be high-rise development (greater than 12 storeys)
- An average of three commercial parking demand rates (Supermarket, Shopping Centre, Restaurant) from the *ITE Parking Generation Manual, 5<sup>th</sup> Edition* (for the mix of anticipated commercial uses in the Urban Centres.
- Institutional uses within the P2 zone drive the majority of parking demand in these areas.
- The demand rate for institutional uses established in the Westbank Centre Parking Strategy is maintained in other institutional areas with P2 zoning on an area basis.
- Institutional uses in Urban and Neighbourhood Centres will follow the same growth pattern as the population.
- The consistent proportion of P2-zoned institutional land to floor area will be maintained in Urban and Neighbourhood Centres. The future demand for P2-zoned institutional land will be consistent with the anticipated population growth in Urban and Neighbourhood Centres.
- Industrial uses are assumed to have a parcel coverage of 75 percent, consistent with the maximum permitted in the Light Industrial (I1) zone and are assumed to be typically one storey.

### 5.3.2 OVERVIEW OF URBAN AND NEIGHBOURHOOD CENTRE LAND USE DESIGNATIONS

The following table outlines the intention for various land uses in the new OCP in West Kelowna's Urban and Neighbourhood Centres.

Table 1 Land use Designations for Urban and Neighbourhood Centre from West Kelowna OCP

2023 OCP Land Use Designation	Westbank Urban Centre – Mixed-Use Corridor	Westbank Urban Centre – Commercial Core	Westbank Urban Centre – Residential Shoulders	Boucherie Urban Centre	Neighbourhood Centres
<b>Purpose of the Land Use Designation</b>	A high-density downtown core with a mix of residential, commercial/retail, and office uses, with integrated open space and public amenities.	A high-density district with a high concentration of commercial and office uses, while allowing for some mixed-use residential and public and private amenities.	A medium-density residential area that transitions the downtown Westbank Centre to the surrounding neighbourhoods.	A second urban centre that focuses on a mix of residential, commercial/retail, and office uses while providing generous open space and public amenities.	Smaller centres in various neighbourhoods in West Kelowna, allow for diverse types of housing, retail/services, and some office uses, as well as open space amenities.
<b>Land Uses</b>	Mixed-use buildings  Institutional and ancillary housing initiatives  Live-work units	Commercial, including office and retail.  Mixed-use buildings  Institutional and ancillary housing initiatives  Live-work units	Multi-unit housing  Mixed-use buildings (Commercial and Institutional)  Townhouses  Ancillary housing initiatives within Institutional  Live-work units	Mixed-use buildings  Commercial, including office and retail.  Multi-unit housing  Townhouses  Institutional and ancillary housing initiatives  Live-work units	Small-scale commercial uses  Institutional and ancillary housing initiatives  Mixed-use buildings  Multi-unit housing  Townhouses  Live-work units

### 5.3.3 ESTIMATED SPACE AND UNIT COUNTS

The unit counts and space estimates that were used to develop the demand forecasts for the urban and neighbourhood centres are based on:

- OCP growth projections.
- Estimated 2040 demand forecasts (2021 Colliers Real Estate Inventory and Growth Projections report); and
- Existing geographic distribution of land uses in West Kelowna (2021 Colliers Real Estate Inventory and Growth Projections report).

As the forecasted demand for different land uses was done on the city-wide basis, we used the existing geographic distribution of land uses to approximate the need for land in Urban and Neighbourhood Centres.

Table 2 Estimated Space and Unit Counts

2023 OCP Land Use Designation	Westbank Urban Centre – Mixed-Use Corridor	Westbank Urban Centre – Commercial Core	Westbank Urban Centre – Residential Shoulders	Boucherie Urban Centre	Neighbourhood Centres
Residential (Units)	447	353	1,190	791	2,229
Commercial (m <sup>2</sup> )	1,850	2,800	950	1,400	950
Office (m <sup>2</sup> )	2,800	2,300	0	600	850
Institutional (m <sup>2</sup> )	65,000	0.00	0	47,000	79,000
Industrial (m <sup>2</sup> )	0	0	0	0	0

#### Residential

Residential estimates are based on proportional estimates from the growth projections presented in the OCP. Specifically, the anticipated number of housing units in each area is based on the medium population growth scenario, as outlined in the 2023 City of West Kelowna OCP Growth Concept Stats.

#### Commercial, Office and Industrial Space

Commercial estimates are based on figures presented in the Westbank Parking Strategy (2019) and the Business Park and Boucherie Centre Parking Strategy (2019). The numbers presented in the table are proportional to the land area and population. The split used to determine the future demand for commercial, office, and industrial space in each area is based on the existing retail inventory, as outlined in the 2021 Colliers City of West Kelowna Real Estate Inventory and Growth Projections report.



The remainder of the anticipated demand for space outlined in the 2019 reports will be accommodated in other areas (such as the West Kelowna Business Park and Westbank First Nation lands).

No office space is anticipated for the residential shoulder areas of Westbank Centre. Similarly, no industrial space is anticipated for any Neighbourhood or Urban Centres.

### **Institutional**

Institutional estimates are tied to the growth projections presented in the OCP. Since institutional land uses were not a part of the 2021 Colliers Real Estate Inventory and Growth Projections report, we determined the existing amount of institutional land in Urban and Neighbourhood Centres and applied the growth rates identified in the OCP growth projections to determine the future demand for institutional land.

### **5.3.4 FORECASTED RATES FROM ITE PARKING GENERATION MANUAL**

The forecasted parking demand rates were determined using analog land uses present in the ITE Parking Generation Manual. The manual includes rates for different land use contexts such as "**Dense Multi-Use Urban**" (DDMU) and "**General Urban / Suburban**" (GUS). DDMU and GUS consist of residential uses classified in three categories depending on the predominant housing typology:

- High-rise.
- Mid-rise; and
- Low-rise.

The parking rates for these residential uses depend on the proximity to Rail Transit. Since the ITE Parking Generation Manual is highly generalized and based on the predominant North American car-dependent context, the Rail Transit subcategory was developed to account for rapid transit service. Even though in many North American cities rapid transit comes in a form of rail, the Rail Transit subcategory also covers other forms of rapid transit, including bus rapid transit. In the context of West Kelowna, Rail Transit subcategory captures the rates that West Kelowna should strive to achieve in Urban Centres by 2040, depending on the quality, reliability, and frequency of rapid transit achieved by that point.

The parking demand estimates for Westbank Urban Centre are based on the Manual's Dense Multi-Use Urban rates. Parking demand for Boucherie Urban Centre and the Neighbourhood Centres are based on General Urban/Suburban rates.

Table 3 ITE Parking Generation Manual land use classes and their applications to West Kelowna Urban and Neighbourhood Centres

ITE Parking Generation Manual Classes	ITE Land Use Categories	Context	Applied to	Rate (Spaces)	Unit
<b>Multifamily Residential</b>	Multifamily Housing (High-Rise) (Rail Transit)	DMUU	Westbank Multi-Use Core, Westbank Commercial Core	0.44	per unit
	Multifamily Housing (Mid-Rise) (No Rail Transit)	DMUU	Westbank Residential Shoulders, Boucherie Urban Centre	0.90	per unit
	Multifamily Housing (Mid-Rise) (No Rail Transit)	GUS	Neighbourhood Centres	1.31	per unit
	Multifamily Housing (Low-Rise) (No Rail Transit)	DMUU	Westbank Residential Shoulders, Boucherie Urban Centre	0.76	per unit
	Multifamily Housing (Low-Rise) (No Rail Transit)	GUS	Neighbourhood Centres	1.21	per unit
<b>Commercial (DMUU)</b>	Supermarket	DMUU	Westbank Urban Centre (all), Boucherie Urban Centre	1 per 45 m <sup>2</sup>	
	Shopping Centre (Non-December Weekday)	DMUU	Westbank Urban Centre (all), Boucherie Urban Centre	1 per 33 m <sup>2</sup>	
	High-Turnover (Sit Down) Restaurant	DMUU	Westbank Urban Centre (all), Boucherie Urban Centre	1 per 27 m <sup>2</sup>	
<b>Commercial Average (all DDMU commercial land uses)</b>		DMUU		1 per 33 m <sup>2</sup>	
<b>Commercial (GUS)</b>	Supermarket	GUS	Neighbourhood Centres	1 per 33 m <sup>2</sup>	
	Shopping Centre (Non-December Weekday)	GUS	Neighbourhood Centres	1 per 45 m <sup>2</sup>	
	High-Turnover (Sit Down) Restaurant (Weekday)	GUS	Neighbourhood Centres	1 per 20 m <sup>2</sup>	
<b>Commercial Average (all GUS commercial land uses)</b>		GUS		1 per 30 m <sup>2</sup>	
<b>Office</b>	General Office Building	DMUU	Westbank Urban Centre (all), Boucherie Urban Centre	1 per 60 m <sup>2</sup>	
	General Office Building	GUS	Neighbourhood Centres	1 per 40 m <sup>2</sup>	
<b>Institutional</b>	From Westbank Parking Strategy		All	1 per 100 m <sup>2</sup>	

### 5.3.5 WESTBANK URBAN CENTRE

Westbank Centre is West Kelowna's primary urban centre. It is envisioned to accommodate the City's highest densities and greatest variety of land uses and is anticipated to have the highest proportion of parking demand. Parking demand was forecasted for each of Westbank Centre's three sub-areas to reflect the relative difference in anticipated densities and land use mix. The highest demand for residential uses is anticipated in the Residential Shoulders sub-area, with significant demand for commercial uses in the Commercial Core and Mixed-Use Corridor and institutional uses in the Mixed-Use Corridor subarea. The following parking demand estimates have been developed based on the rates from the ITE Parking Generation Manual assumed in section 5.3.4 and the anticipated space and unit counts presented in section 5.3.3.

Table 4 Forecasted Parking Demand in Westbank Urban Centre (2023-2040)

	Mixed-Use Corridor	Commercial Core	Residential Shoulders	Total
<b>Residential</b>	197	155	1,021	<b>1,373</b>
<b>Commercial</b>	55	82	27	<b>164</b>
<b>Office</b>	49	41	0	<b>90</b>
<b>Institutional</b>	220	0	0	<b>220</b>
<b>TOTAL</b>	521	278	1,048	<b>1,847</b>

### 5.3.6 BOUCHERIE URBAN CENTRE

Boucherie, West Kelowna's secondary Urban Centre, is expected to accommodate mid- and low-rise residential, institutional, and small-scale commercial and office uses. The anticipated parking demand is lower than in Westbank Centre. However, off-street parking requirements will be higher than in Westbank Centre due to lower densities and different housing typologies. The following parking demand estimates have been developed based on the rates from the ITE Parking Generation Manual assumed in section 5.3.4 and the anticipated space and unit counts presented in section 5.3.3.

Table 5 Forecasted Parking Demand in Boucherie Urban Centre

	Boucherie Urban Centre
<b>Residential</b>	679
<b>Commercial</b>	41
<b>Office</b>	11
<b>Institutional</b>	158
<b>TOTAL</b>	<b>889</b>

### 5.3.7 NEIGHBOURHOOD CENTRES

Neighbourhood Centres are envisioned as areas of low to medium residential densities and a mix of commercial, office, and/or institutional uses. The most significant driver of the future parking demand in these areas will be residential uses. Since residential densities in Neighbourhood Centres will be comparatively lower than in the two Urban Centres, the off-street parking demand will be the highest. The following parking demand estimates have been developed based on the rates from the ITE Parking Generation Manual assumed in section 5.3.4 and the anticipated space and unit counts presented in section 5.3.3.

Table 6 Forecasted Parking Demand in Neighbourhood Centres

	Neighbourhood Centres
Residential	2,853
Commercial	31
Office	22
Institutional	265
<b>TOTAL</b>	<b>3,214</b>

## 6.0 PARKING MANAGEMENT PRACTICES

Parking management entails a set of policies and programs resulting in more efficient use of parking resources. Effective parking management strategies can substantially reduce the number of parking spaces required, positively impacting environmental, social, and economic sustainability. Some key benefits of effective parking management include:

- Reduced infrastructure costs to governments.
- Improved quality of transit service.
- Revenue generation.
- Efficient use of land.
- Reduced traffic congestion.
- Improved walkability.
- More livable, equitable, and complete communities.

There are many different tactics for managing parking demand in a community. However, every tactic highly depends on the context and overall state of the community's transportation network. Some tactics may not work until certain thresholds have been met for ridership or network build-out. Each one should be evaluated in context to determine when will make the most sense for its deployment. Some direction on thresholds is presented in Section 7.

## **6.1 OFF-STREET PARKING MANAGEMENT CONSIDERATIONS**

To align off-street parking supply requirements with the context of West Kelowna, it is necessary to present possible paths for these regulations based on comparative communities and the City of West Kelowna's policy directions.

Note that all changes to parking supply requirements should be accompanied by a comprehensive review of parking demand using local data collected through observations or other available sources. As such, potential future off-street parking supply rates should be read as possible benchmarks that should be verified and/or adjusted through further study when the City determines it is necessary to adjust them. Given the lifespan of new developments in these centres, consideration should be given to the long-term impact of a gradual increase in parking supply rates and the speed at which the City would like to phase in lower parking rates.

Impending changes to provincial legislation affecting off-street parking requirements in proximity to transit will also profoundly impact the direction of these regulations. Where legislation does not allow for minimum parking requirements, it may be necessary for the City to proactively regulate other possible Traffic Demand Management (TDM) measures that will reduce auto dependence and promote mode shift to transit or active modes. This could be achieved through expanded minimum requirements for bicycle parking, end-of-trip facilities, or other relevant strategies such as mandatory transit pass provision. Lastly, other regulatory structures, such as parking maximums, should be explored when the conditions allow.

### **6.1.1 COMPARISON OF OFF-STREET PARKING REQUIREMENTS WITH CASE STUDY COMMUNITIES**

The first step towards determining the appropriate future off-street parking requirements in West Kelowna is to see how West Kelowna compares to other communities. A comparative analysis of the existing off-street parking requirements in West Kelowna and three case study communities (Vernon, Nanaimo, and Colwood) was developed through the interviews and review described in Section 4.2. Table 7 below summarizes the parking requirements for the most common land uses in West Kelowna and each case study community.



Table 7 Comparative Table of Off-Street Parking Requirements Between West Kelowna and Three Comparable Communities

Land Use	Off-Street Parking Requirements			
	City of West Kelowna (Existing)	City of Vernon	City of Nanaimo	City of Colwood
<b>Multifamily (High-Rise)</b>	1 per 1B unit 1.5 per 1.5+B unit	1 per studio 1.25 per 1B unit 1.5 per 2B unit 2 per 3+B unit	0.45 per studio 0.5 per 1B unit 0.9 per 2B unit 1.2 per 3+B unit	0.8 per studio 1 per 1B unit 1.3 per 2B unit 1.5 per 3+B unit
<b>Multifamily (Mid-Rise) WUC<sup>2</sup></b>			0.9 per studio 1.07 per 1B unit 1.44 per 2B unit 1.68 per 3+B unit	1 per studio 1.25 per 1B unit 1.6 per 2B unit 2 per 3+B unit
<b>Multifamily (Mid-Rise) BUC<sup>3</sup>, NC<sup>4</sup></b>			0.45 per studio 0.5 per 1B unit 0.9 per 2B unit 1.2 per 3+B unit	2 per unit in a duplex 1.5 per unit for attached housing
<b>Multifamily (Low-Rise) WUC</b>	2 per unit		0.9 per studio 1.07 per 1B unit 1.44 per 2B unit 1.68 per 3+B unit	2 per unit
<b>Multifamily (Low-Rise) N.C.</b>			0.9 per studio 1.07 per 1B unit 1.44 per 2B unit 1.68 per 3+B unit	2 per unit
<b>Supermarket WUC</b>	5 per 100 m <sup>2</sup> GFA	2 per 100 m <sup>2</sup> for units <1000 m <sup>2</sup> GFA 3 per 100 m <sup>2</sup> for units >1000 m <sup>2</sup> GFA	4 per 100 m <sup>2</sup> GFA	2.4 per 100 m <sup>2</sup> for units 400-4,000 m <sup>2</sup> GFA 2.1 per 100 m <sup>2</sup> for units >4,000 m <sup>2</sup> GFA
<b>Supermarket BUC, NC</b>				3.3 per 100 m <sup>2</sup> for units 400-4,000 m <sup>2</sup> GFA 2.5 per 100 m <sup>2</sup> for units >4,000 m <sup>2</sup> GFA
<b>Shopping Centre WUC</b>	2 per 100 m <sup>2</sup> for units <1000 m <sup>2</sup> GFA <sup>5</sup> 3 per 100 m <sup>2</sup> for units >1000 m <sup>2</sup> GFA	4.4 per 100 m <sup>2</sup> GFA	3.3 per 100 m <sup>2</sup> GFA	3.3 per 100 m <sup>2</sup> GFA
<b>Shopping Centre BUC, NC</b>				4 per 100 m <sup>2</sup> GFA
<b>Sit-Down Restaurant WUC</b>	1 per 4 seats	1 per 4 seats	1 per 3 seats + 1 per every 2 seats of lounge area	6.7 per 100 m <sup>2</sup> GFA
<b>Sit-Down Restaurant BUC, NC</b>				10 per 100 m <sup>2</sup> GFA
<b>Office WUC</b>	2.5 per 100 m <sup>2</sup> GFA	2 per 100 m <sup>2</sup> GFA	4.5 per 100 m <sup>2</sup> NFA for the first 1000 m <sup>2</sup> NFA and 4 per 100 m <sup>2</sup> NFA for the remainder	2.2 per 100 m <sup>2</sup> GFA
<b>Office BUC, NC</b>				2.9 per 100 m <sup>2</sup> GFA
<b>General Light Industrial</b>	1.5 per 100 m <sup>2</sup> GFA	2 per 100 m <sup>2</sup> GFA	1 per 100 m <sup>2</sup> GFA	1 per 100 m <sup>2</sup> GFA

<sup>2</sup> WUC - Westbank Urban Centre

<sup>3</sup> BUC - Boucherie Urban Centre

<sup>4</sup> NC - Neighbourhood Centres

<sup>5</sup> GFA – Gross Floor Area

### 6.1.2 REMOVING PARKING MINIMUMS

In many cases, parking requirements can significantly impact how much residential development can happen. High parking requirements can be expensive to build and require large amounts of land area, making it difficult to make certain residential projects work. These decisions can have a wider impact on housing availability and affordability.

One potential solution is decoupling parking from housing by removing parking minimums from the Zoning Bylaw. In this case, the number of parking spaces depends on the location of development, proximity to alternative modes of transportation (especially higher-frequency transit networks), and usage rates. There are several prerequisites to eliminating parking minimums:

- Higher residential density and a variety of land uses.
- Proximity to higher-frequency public transit.
- Established active transportation network and
- Access to alternative modes of transportation.

It is important to note that removing minimums too early (i.e. without some of the prerequisites listed above) can cause this approach to put unintended pressure on on-street parking.

### 6.1.3 SMALL CAR PARKING

According to the draft Zoning Bylaw, the City currently allows for **30%** of the total required parking supply in Multiple Residential, Commercial, and P2 zones to be small car spaces, with a reduced parking space depth of **5 metres**. Currently, the standard parking spaces in West Kelowna range between 6 and 7 metres, depending on the angle of the parking stall. In some municipalities, most notably in the Capital Regional District, the percentage of small car parking spaces goes as high as **50%**, with the space depth reduced to **4.5 metres**. In Kelowna, the percentage of small car spaces is **50% for Multifamily and Institutional uses, and 30% for Commercial and Industrial uses**.

### 6.1.4 TANDEM PARKING

Tandem parking is a common space-saving method of parking multiple vehicles on a lot. With increasing densification and more houses permitted to have secondary suites and coach houses, pressures on off-street parking for existing neighbourhoods is likely to increase. Tandem parking has a reputation for being hard to manage because it requires coordination between vehicle owners, as the first car into the space is blocked by the second. However, the benefits of tandem parking go beyond space savings; by being more space efficient, there are additional cost savings for parkers. There are several tools and approaches available to improve the experience of tandem for parkers, as outlined in Table 8

Table 8 Benefits, Challenges and Management Approaches for Tandem Parking

Benefits of Tandem Parking	Challenges of Tandem Parking	Management Approaches
Space Savings	The first car into a space becomes blocked	Set expectations
Reduce pressures to on-street parking.	Reduced flexibility for vehicle owners	Assign spaces
Increase parking supply as single-family neighbourhoods densify	Increased administration and coordination	Coordinate schedules
Introduce cost savings to parkers.		Automatically connect parkers using an app-based approach such as Parkable <sup>6</sup>
Environmental benefits from reduced need for paved parking areas		Coordinate between members of the same household by alternating turns for certain spots or creating a spare car key.

The City of Kelowna also uses tandem parking in low-density neighbourhoods with higher vehicle ownership, such as single-detached housing, semi-detached housing, short-term rentals and townhouses (where the lot is located in a core area)<sup>7</sup>. One management consideration outlined in Kelowna's bylaw is that visitor stalls cannot be configured as tandem parking. Tandem parking is a good solution to help manage parking demand in existing low-density neighbourhoods. As the population of these neighbourhoods increases, tandem parking can help alleviate congestion and accommodate personal vehicles as the conditions for active transportation and transit service improve over time.

## 6.2 TRANSPORTATION DEMAND MANAGEMENT (TDM)

Transportation Demand Management (TDM) is a transportation approach that uses tools to incentivize alternative modes of transportation instead of single-occupancy vehicles. This section will explore the TDM measures as they relate to off-street parking regulations and the potential integration of TDM into the updated Zoning Bylaw.

### 6.2.1 BICYCLE PARKING

Bicycle parking is an important factor in supporting the shift towards more active travel. Providing safe, accessible, and sufficient bicycle parking, alongside investing in the active

<sup>6</sup> <https://parkable.com/blog/tandem-parking-software-solution>

<sup>7</sup> Section 8.2.6 : <https://www.kelowna.ca/homes-building/zoning-land-use/zoning-bylaw/section-8-parking-loading/section-82-street-parking-regulations>

transportation networks, is an important planning tool to encourage modal shifts from residents, commuters, or other people travelling to or within West Kelowna.

Local governments play a key role in ensuring that high-quality bicycle parking is available in sufficient quantities in their communities. People are less likely to cycle when there is not enough bicycle parking or the racks are low quality and poorly located.

Bicycle parking facilities are designed to provide a secure and convenient temporary bicycle parking solution. There are several categories of short- and long-term bicycle parking facilities. These include:

- **Bicycle racks**  
A convenient and free parking solution that supports short-term access (typically under 4 hours) to transit facilities, local businesses, and other destinations.
- **Bicycle lockers**  
Standalone boxes that offer the highest level of security, weather-protected bicycle parking that is suitable for daily or overnight long-term parking. In addition, bicycle lockers can be used to store gear and other accessories.
- **Bicycle parkade**  
A High-capacity sheltered parking facility with an access-controlled entrance that provides a series of bicycle racks.

End-of-trip amenities are equally important in facilitating active travel. End-of-trip amenities include any amenity provided in a development that makes cycling easier, more convenient, and more comfortable, particularly for commuting. Basic end-of-trip amenities typically include:

- Change rooms.
- Storage lockers.
- Showers.
- Sink/wash basin; and
- Bicycle repair equipment (tools, tire pump, workbench, or stand).

### 6.2.2 CASH-IN-LIEU OF PARKING

The Local Government Act (LGA) allows municipalities to collect cash contributions instead of required parking spaces. Cash-in-lieu of parking is typically pursued at the land developer's discretion where private off-street parking is not needed or the accommodation of on-site parking is challenging due to physical or other constraints.

According to the LGA, all contributions must be placed in a reserve fund to provide:

- New and existing off-street parking spaces, or
- Transportation infrastructure that supports walking, bicycling, public transit, or other alternative forms of transportation.

Several specific conditions must be considered if a cash-in-lieu regulation is to be successful:

- **Cost**

A per-space cost must be established for each required parking space that is not provided. In West Kelowna, it is currently set at **\$10,000**. The per-space cost ranges between \$10,000 and \$12,000 in comparable communities. When reviewing rates in the future, consideration should be given to the cost of providing parking, the value to the developer of not offering parking, and the City's desire to accrue funds to support active transportation infrastructure.

- **Gradual Approach**

The current zoning bylaw includes cash-in-lieu direction for multi residential buildings and mixed-use buildings. The bylaw states the maximum percentage of parking that is eligible for cash-in-lieu donations (10% for multi-residential and 50% for mixed use).

These rates could be altered to reflect the gradual implementation of the overall parking management strategy. The City may wish to undertake a more detailed study to determine the per-space upper limit in the future to ensure that a minimum off-street parking supply is provided. This prevents an applicant from attempting to "buy" their way out of supplying parking.

The option for cash-in-lieu of parking may be limited to locations where the municipality is strategically seeking to limit parking supply and/or generate funds for public parking or active transportation facilities. The study would also explore when the factors that can have an impact on the success of a cash-in-lieu program are more favourable for the implementation across West Kelowna (not limited to Westbank Centre).

### 6.2.3 CAR SHARE OPTIONS

Car sharing has been expanding in many Canadian municipalities. It provides a sustainable travel option for infrequent vehicular trip-making and reduces personal vehicle ownership. There are three main types of car share:

- **Roundtrip** (the trip must end at the origin).
- **One-way** (the origin station and destination station are not the same) and
- **Free-floating** (the trip can be completed anywhere in the operator's area).

In British Columbia, especially in the Lower Mainland and Capital Regional District, there are several car share options that have been successful in recent years, including BCAA's Evo and Modo. Car sharing can play an important role in decreasing the need for residents to own a private vehicle or secondary vehicle and be a useful tool in helping to manage overall parking demand.

### 6.2.4 RIDE-HAILING

Ride-hailing is an app-based service where users enter their origin, destination, and other optional trip specifications and are matched with a driver within the ride-hailing fleet willing to complete the requested trip for the specified price. The prevalence of ride-hailing and ride-hailing service providers, also known as Transportation Network Companies (TNCs), has grown significantly over the past decade in communities around the world. In North America, the two most notable ones are Uber and Lyft.

An effective ride-hailing service provides an opportunity to improve personal mobility by providing an additional transportation option to support individuals without access to a personal vehicle. However, ride-hailing can increase congestion and vehicle kilometres driven while pulling trips away from sustainable transportation modes such as transit, walking, and cycling.

Lastly, ride-hailing may lead to reduced parking demand because people who use ride-hailing are willing to pay more to avoid driving, including the stress of finding parking, which can result in reduced parking demand. The development of a ride-hailing policy will be useful to regulate the ride-hailing service in the future, such as the City of North Vancouver's Ride Hailing & Taxi's information<sup>8</sup>.

### 6.2.5 SHARED MOBILITY

The exponential growth in new mobility services such as car-sharing and micro-mobility (e.g., bike-share and e-scooter-sharing services) profoundly impacts parking management. With the increased demand for new mobility services, parking demand is expected to decrease. However, increased demand for curbside space is expected with the introduction of shared mobility. For this reason, curbside management policies will be needed to facilitate the anticipated demand. The City of Coquitlam is currently Conducting a City-Wide Parking Review which will include a Curbside Management Strategy<sup>9</sup> that includes key guiding principles and other considerations for managing curb space usage by shared mobility devices and other activities.

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<sup>8</sup> <https://www.cnv.org/Streets-Transportation/Traffic/Ride-Hailing,-a-,amp;-Taxis>

<sup>9</sup> [https://coquitlam.ca.granicus.com/Viewer.php?view\\_id=2&clip\\_id=2202&meta\\_id=54593](https://coquitlam.ca.granicus.com/Viewer.php?view_id=2&clip_id=2202&meta_id=54593)

## 6.3 OTHER CONSIDERATIONS

### 6.3.1 PARKING IN SINGLE-FAMILY RESIDENTIAL ZONES

For most lower-density residential uses, the current parking requirement is **2 spaces** per principal dwelling unit and **1-2 spaces** for accessory dwelling units (depending on the number of bedrooms). There is room to reduce the number of required parking spaces, especially for parcels with accessory dwelling units. For example, the City of Vernon introduced new reductions in parking requirements for accessory dwellings in September 2023. Before the amendments to the Parking Bylaw, 2 parking spaces were required for the principal residence and 1 for the accessory dwelling unit. The new parking requirement mandates **2 parking spaces for the entire lot**, with no distinction required for principal and accessory dwellings.

### 6.3.2 ELECTRIC MOBILITY

Electric mobility refers to the use of electric cars, electric bikes, and other micro-mobility technologies (e-scooters, e-skateboards, etc.). Electric, hybrid, and alternative energy vehicles are becoming more common and more affordable. While the overall number of electric vehicles (E.V.) remains relatively low, uptake has increased significantly throughout the province due to federal and provincial incentives. This trend is likely to continue, with the costs of batteries declining, charging stations becoming more prevalent, and government subsidies and the federal and provincial **governments banning the sale of new gas-powered vehicles by 2040**.

In addition, e-bikes have significant potential to replace motor vehicle trips, and this has been found in research, especially for commuting-based trips. For example, e-bike sales in B.C. went up **85% in 2019**, aligning with global trends of a large spike in e-bike purchases and usage. However, to encourage people to use e-bikes as a daily means of transport, safe and comfortable facilities are required to ride, park, and charge. The availability of E.V. charging is key to facilitating the adoption of E.V.s. E.V. charging regulations may require:

- **A development to be 'E.V. ready'** (by providing an energized outlet capable of providing Level 2 charging or higher) for future occupants to seek the installation of charging stations. This approach does not present a significant cost for developers and allows for the future installation of E.V. charging stations when demand dictates.
- **Dedicated E.V. charging infrastructure** installed at the time of development. This may include Level 1 charging in residential sites or Level 2 charging in commercial, institutional, or other uses where vehicles are typically parked for a shorter period of time and benefit from a faster charge.



### 6.3.3 ON-STREET PARKING CONSIDERATIONS

On-street parking is an important parking management tool to benefit residents, businesses, and their patrons and ensure safety for all road users. There are several types of on-street parking restrictions which the City should consider implementing:

- **No Parking Zones**

An absolute restriction on all on-street parking regardless of day or time, no parking restrictions are most often indicated by yellow paint along the curb or signage. They are especially effective on high-traffic roads and in areas where parked vehicles could pose a safety concern for road users.

- **Limited-Time Parking Zones**

These zones usually regulate maximum stays between 15 minutes and three hours and are employed to encourage efficient use of parking in high-demand areas and prevent all-day parking. These are most effective in areas with high parking demand or where regular turnover can benefit local businesses, with the specific restrictions indicated by signage.

- **Residential Parking**

These zones restrict on-street parking for the exclusive use of the residents of adjacent homes. These restrictions help prevent parking spillover from adjacent uses and ensure ample on-street parking for residents, guests, or tradespeople working in nearby residential areas. In most cases, these restrictions are implemented at the request of residents.

- **Other Restrictions**

Other types of on-street parking restrictions serve unique uses, users, and contexts. These include but are not limited to parking spaces dedicated to accessible, passenger, and loading zones, as well as restrictions for specific times of day or days of the week. These restrictions can enhance accessibility, facilitate loading for commercial uses, and put temporary, time-specific parking restrictions in place. These measures would be more appropriate in areas with the greatest parking pressures (Urban Centres). However, more analysis would be required to quantify the magnitude of pressure on the parking system to determine the exact nature of the restrictions.

## 7.0 RECOMMENDATIONS

Based on the background review, case study review, research and demand analysis completed in this study, the following recommendations for off-street parking management were developed. This section also provides commentary on other parking considerations, including on-street parking and new mobility trends, which provide a great opportunity to help West Kelowna achieve its sustainability goals.

### 7.1 PARKING REDUCTION SCENARIOS & TRIGGERS

The existing City of West Kelowna OCP presents a vision for West Kelowna to 2040. The vision calls for additional density in key areas, such as Urban and Neighbourhood Centres, a greater variety of land uses, improved walkability and bikeability, etc. To achieve this vision, different levels of development will be required during the mandate of the existing OCP. There will be a transitional period between now and 2040 when the OCP vision should be fully realized. The transitional period is defined by significant progress in achieving the OCP vision. During this period, parking demand will also change. The table below demonstrates how different parameters impacting parking demand can change during the transitional period and when the OCP Vision is fully realized.

Table 9 Parameters with a Potential Impact on Parking Demand in the Transitional Period and Fully Realized OCP Vision

TDM Measure	Transitional Period (Significant Progress on OCP Vision)	Fully Realized OCP Vision
<b>Transit Service</b> <ul style="list-style-type: none"> <li>Access to Frequent Transit Service (access to 15 minute frequency transit within 400 m)</li> <li>Access to Local Transit Service. (with 400 metres)</li> </ul>	Moderate / Medium frequency and access	Good Access / High frequency
<b>Pedestrian Infrastructure</b> <ul style="list-style-type: none"> <li>Pedestrian network coverage</li> <li>(% of land in centres with direct access to sidewalks)</li> <li>Sidewalk connectivity</li> </ul>	Moderate / Medium coverage and connectivity	Good / High coverage and connectivity
<b>Cycling Infrastructure</b> <ul style="list-style-type: none"> <li>Cycling network coverage (% of land in centres within 200 m of cycling network)</li> <li>Cycling network connectivity</li> </ul>	Moderate / Medium coverage and connectivity	Good / High coverage and connectivity
<b>On-Street Parking Occupancy</b> <ul style="list-style-type: none"> <li>% of on-street parking areas over 85% occupancy.</li> </ul>	Medium Occupancy	High Occupancy
<b>Off-Street Parking Occupancy*</b> <ul style="list-style-type: none"> <li>% of on-street parking areas over 85% occupancy.</li> </ul>	Medium Occupancy	High Occupancy
<b>Land Use Mix (availability of amenities and employment)</b>	Medium / Moderate Mix	High Mix
<b>Population Growth (people)</b>	6,000	12,000
<b>Development Pressure</b> <ul style="list-style-type: none"> <li>Number of development permit applications</li> <li>Number of rezoning applications</li> </ul>	Medium / Moderate Development Pressure	High Development Pressure

\*Inadequate off-street parking leads to spillover at on-street parking options.

Many of the TDM Measures listed in Table 9 are indicators that are being measured and evaluated as part of the City’s **Complete Community Assessment**. Measures like Land Use Mix, Cycling and Pedestrian infrastructure and transit service can be measured periodically to track and quantify changes. Additional work will be required to establish specific parameters and values for Table 9 as the City moves towards achieving the OCP vision. Specific policies will have to be developed as decisions are being made based on the triggers identified in Table 9.

Table 10 General Parking Recommendations

GENERAL RECOMMENDATIONS	Transitional Period (Significant Progress on OCP Vision) Recommendation	Fully Realized OCP Vision Recommendation
Off-Street Vehicle Parking Supply	Slightly Decrease	Moderately Decrease
Proportion of Small Car Parking	Up to 40%	Up to 50%
Long-Term Bicycle Parking	Moderately Increase	Greatly Increase
Electric Vehicle Charging Infrastructure	Moderately Increase	Greatly Increase
TDM-Based Reductions (Car-share)	Moderately Increase	Greatly Increase
Cash-in-Lieu	Continue with the implementation in Westbank Centre & conduct an analysis to determine the potential to expand to Boucherie Centre	Implement in Boucherie Centre

## 7.2 RECOMMENDATIONS ON VEHICLE PARKING REQUIREMENTS

As progress is being made in achieving the OCP vision, the proposed off-street parking requirements will be updated to reflect the evolving context of West Kelowna. The proposed approach to updating the parking requirements includes a gradual reduction of parking requirements in the future as the variety of land uses increases, higher densities are achieved, transit access is improved, and active transportation infrastructure is at a point where residents are enticed to use sustainable modes of transportation over driving. The gradual reduction also entails standardizing the parking metrics as much as possible. Table 10, Table 11, Table 12 and Table 13 outline the proposed approach to regulating parking requirements in Neighbourhood and Urban Centres.

Tables 10, through 13 also list uses beyond what is permitted in the OCP. The purpose was to provide direction should a context appropriate application be put forward at some point in the future. However, despite these uses not being currently allowed in urban and Neighbourhood Centres, the rates shown in the present state (West Kelowna 2023) column could be applied to all other areas in West Kelowna.

## NEIGHBOURHOOD CENTRES

Table 11 Suggested Approach to Parking Standards in Neighbourhood Centres

LAND USES	West Kelowna (2023)	Transitional Period	Fully Realized OCP Vision
<b>Studio/Micro</b>	1 per unit	0.9 per unit	0.6 per unit
<b>1 Bedroom Unit</b>	1 per unit	1.0 per unit	0.8 per unit
<b>2 Bedroom Unit</b>	1.5 per unit	1.3 per unit	1.2 per unit
<b>3+ Bedroom Unit</b>	1.5 per unit	1.4 per unit	1.3 per unit
<b>Congregate Housing</b>	0.5 per bedroom plus 0.5 spaces per non-resident on-duty employee or 3.0 spaces (whichever is greater)	1 per employee on duty, plus 1 per 5 dwelling or sleeping units	1 per employee on duty, plus 1 per 5 dwelling or sleeping units
<b>Care Facilities</b> <ul style="list-style-type: none"> <li>Care Facility, Major</li> <li>Extended Medical Treatment Facility</li> <li>Daycare Centre (Major)</li> </ul>	1.6 per 100 m <sup>2</sup> GFA	1 per 75 m <sup>2</sup>	1 per 100 m <sup>2</sup>
<b>Accommodation Services</b> <ul style="list-style-type: none"> <li>Hotel</li> <li>Motel</li> <li>Short-Term Accommodation</li> </ul>	1 per guest room	1 per guest room	1 per guest room
<b>Entertainment Facility (Indoor)</b>	1 per 5 seats	1 per 7 seats	1 per 10 seats
<b>Live/Work Unit</b>	1 per unit plus applicable commercial GFA	1 per unit plus applicable commercial GFA	1 per unit plus applicable commercial GFA
<b>Office</b> <ul style="list-style-type: none"> <li>Bank and Financial Services</li> <li>Personal Service Establishment</li> <li>Veterinary Clinic</li> </ul>	1 per 40 m <sup>2</sup>	1 per 45 m <sup>2</sup>	1 per 50 m <sup>2</sup>
<b>Restaurant</b> <ul style="list-style-type: none"> <li>Coffee Shop</li> <li>Drive-thru Restaurant</li> <li>Neighbourhood Pub</li> <li>Sit-down Restaurant</li> </ul>	1 per 15 m <sup>2</sup> of seating area	1 per 15 m <sup>2</sup> of seating area	1 per 25 m <sup>2</sup> of seating area
<b>Retail</b> <ul style="list-style-type: none"> <li>Retail, General</li> <li>Retail, Convenience</li> <li>Butcher, Bakery, Specialty Grocery, Grocery</li> <li>Equipment Repair or Equipment Rental</li> <li>Building and Garden Supply</li> </ul>	1 per 33 m <sup>2</sup> (GFA >1000 m <sup>2</sup> ) 1 per 50 m <sup>2</sup> (GFA <1000 m <sup>2</sup> )	1 per 40 m <sup>2</sup> (GFA >1000 m <sup>2</sup> ) 1 per 55 m <sup>2</sup> (GFA <1000 m <sup>2</sup> )	1 per 45 m <sup>2</sup> (GFA >1000 m <sup>2</sup> ) 1 per 60 m <sup>2</sup> (GFA <1000 m <sup>2</sup> )

LAND USES	West Kelowna (2023)	Transitional Period	Fully Realized OCP Vision
<ul style="list-style-type: none"> <li>Furniture and Appliance Sales</li> <li>Gasoline Service Station</li> <li>Motor Vehicle Sales, Rental Service and Repair Shops</li> <li>Vehicle Washing Facility</li> </ul>			
<b>INDUSTRIAL</b>			
<b>Alcohol Production Facility</b>	1 per 50 m <sup>2</sup>	1 per 75 m <sup>2</sup>	1 per 100 m <sup>2</sup>
<b>Industry, General</b>	1 per 67 m <sup>2</sup>	1 per 115 m <sup>2</sup>	1 per 165 m <sup>2</sup>
<b>Warehouse</b>	1 per 200 m <sup>2</sup>	1 per 225 m <sup>2</sup>	1 per 250 m <sup>2</sup>
<b>INSTITUTIONAL, CULTURAL, &amp; RECREATIONAL</b>			
<b>Community, Assembly, and Cultural Uses</b> <ul style="list-style-type: none"> <li>Community or Assembly Hall</li> <li>Library, Museum or Art Gallery</li> </ul>	1 per 50 m <sup>2</sup>	1 per 55 m <sup>2</sup>	1 per 60 m <sup>2</sup>
<b>Education Facility – Junior</b> <ul style="list-style-type: none"> <li>School, Elementary or Middle</li> </ul>	2 per classroom	1 per 50 m <sup>2</sup>	1 per 75 m <sup>2</sup>
<b>Education Facility - Senior</b> <ul style="list-style-type: none"> <li>School, Secondary</li> <li>College, University and Commercial School</li> </ul>	5 per classroom	1 per 50 m <sup>2</sup>	1 per 75 m <sup>2</sup>
<b>Fire, Police or Ambulance Service</b>	1 per 40 m <sup>2</sup>	1 per 40 m <sup>2</sup>	1 per 40 m <sup>2</sup>
<b>Recreation Services, Indoor</b>	1 per 33 m <sup>2</sup>	1 per 40 m <sup>2</sup>	1 per 50 m <sup>2</sup>
<b>Recreation Services, Outdoor</b>	1 per 40 m <sup>2</sup>	1 per 40 m <sup>2</sup>	1 per 50 m <sup>2</sup>

## BOUCHERIE URBAN CENTRE & WESTBANK CENTRE RESIDENTIAL SHOULDERS

Table 12 Suggested Approach to Parking Standards in Boucherie Urban Centre & Westbank Centre Residential Shoulders

LAND USES	West Kelowna (2023)	Transitional Period	Fully Realized OCP Vision
<b>Studio/Micro</b>	1 per unit	0.8 per unit	0.5 per unit
<b>1 Bedroom Unit</b>	1 per unit	0.9 per unit	0.7 per unit
<b>2 Bedroom Unit</b>	1.5 per unit	1.2 per unit	1.1 per unit
<b>3+ Bedroom Unit</b>	1.5 per unit	1.3 per unit	1.2 per unit
<ul style="list-style-type: none"> <li><b>Congregate Housing</b></li> </ul>	0.5 per bedroom plus 0.5 spaces per non-resident on-duty employee or 3.0 spaces (whichever is greater)	1 per employee on duty, plus 1 per 5 dwelling or sleeping units	1 per employee on duty, plus 1 per 5 dwelling or sleeping units
<b>Care Facilities</b> <ul style="list-style-type: none"> <li>Care Facility, Major</li> <li>Extended Medical Treatment Facility</li> <li>Daycare Centre (Major)</li> </ul>	1.6 per 100 m <sup>2</sup> GFA	1 per 75 m <sup>2</sup>	1 per 100 m <sup>2</sup>
<b>Office</b> <ul style="list-style-type: none"> <li>Bank and Financial Services</li> <li>Personal Service Establishment</li> <li>Veterinary Clinic</li> </ul>	1 per 40 m <sup>2</sup>	1 per 55 m <sup>2</sup>	1 per 70 m <sup>2</sup>
<b>Restaurant</b> <ul style="list-style-type: none"> <li>Coffee Shop</li> <li>Drive-thru Restaurant</li> <li>Neighbourhood Pub</li> <li>Sit-down Restaurant</li> </ul>	1 per 15 m <sup>2</sup> of seating area	1 per 20 m <sup>2</sup> of seating area	1 per 30 m <sup>2</sup> of seating area
<b>Retail</b> <ul style="list-style-type: none"> <li>Retail, General</li> <li>Retail, Convenience</li> <li>Butcher, Bakery, Specialty Grocery, Grocery</li> <li>Equipment Repair or Equipment Rental</li> <li>Building and Garden Supply</li> <li>Furniture and Appliance Sales</li> <li>Gasoline Service Station</li> <li>Motor Vehicle Sales, Rental Service and Repair Shops</li> <li>Vehicle Washing Facility</li> </ul>	1 per 33 m <sup>2</sup> (GFA >1000 m <sup>2</sup> ) 1 per 50 m <sup>2</sup> (GFA <1000 m <sup>2</sup> )	1 per 40m <sup>2</sup> (GFA >1000 m <sup>2</sup> ) 1 per 60 m <sup>2</sup> (GFA <1000 m <sup>2</sup> )	1 per 45 m <sup>2</sup> (GFA >1000 m <sup>2</sup> ) 1 per 70 m <sup>2</sup> (GFA <1000 m <sup>2</sup> )



LAND USES	West Kelowna (2023)	Transitional Period	Fully Realized OCP Vision
<b>INDUSTRIAL</b>			
<b>Alcohol Production Facility</b>	1 per 50 m <sup>2</sup>	1 per 80 m <sup>2</sup>	1 per 110 m <sup>2</sup>
<b>Industry, General</b>	1 per 67m <sup>2</sup>	1 per 130 m <sup>2</sup>	1 per 180 m <sup>2</sup>
<b>Warehouse</b>	1 per 200 m <sup>2</sup>	1 per 250 m <sup>2</sup>	1 per 300 m <sup>2</sup>
<b>INSTITUTIONAL, CULTURAL, &amp; RECREATIONAL</b>			
<b>Community, Assembly, and Cultural Uses</b> <ul style="list-style-type: none"> <li>Community or Assembly Hall</li> <li>Library, Museum or Art Gallery</li> </ul>	1 per 50 m <sup>2</sup>	1 per 60 m <sup>2</sup>	1 per 70 m <sup>2</sup>
<b>Education Facility – Junior</b> <ul style="list-style-type: none"> <li>School, Elementary or Middle</li> </ul>	2 per classroom	1 per 50 m <sup>2</sup>	1 per 75 m <sup>2</sup>
<b>Education Facility - Senior</b> <ul style="list-style-type: none"> <li>School, Secondary</li> <li>College, University and Commercial School</li> </ul>	5 per classroom	1 per 50 m <sup>2</sup>	1 per 75 m <sup>2</sup>
<b>Fire, Police or Ambulance Service</b>	1 per 40 m <sup>2</sup>	1 per 40 m <sup>2</sup>	1 per 40 m <sup>2</sup>
<b>Recreation Services, Indoor</b>	1 per 33 m <sup>2</sup>	1 per 40 m <sup>2</sup>	1 per 50 m <sup>2</sup>
<b>Recreation Services, Outdoor</b>	1 per 40 m <sup>2</sup>	1 per 40 m <sup>2</sup>	1 per 50 m <sup>2</sup>

\*Rapid Transit

## WESTBANK URBAN CENTRE (MIXED-USE CORRIDOR AND COMMERCIAL CORE)

Table 13 Suggested Approach to Parking Standards in Westbank Urban Centre (Mixed-Use Corridor and Commercial Core)

LAND USES	West Kelowna (2023)	Transitional Period	Fully Realized OCP Vision
<b>Studio/Micro</b>	1 per unit	0.7 per unit	0.4 per unit
<b>1 Bedroom Unit</b>	1 per unit	0.8 per unit	0.7 per unit
<b>2 Bedroom Unit</b>	1.25 per unit	1.1 per unit	1.0 per unit
<b>3+ Bedroom Unit</b>	1.5 per unit	1.2 per unit	1.1 per unit
<ul style="list-style-type: none"> <li><b>Congregate Housing</b></li> </ul>	0.5 per bedroom plus 0.5 spaces per non-resident on-duty employee or 3.0 spaces (whichever is greater)	1 per employee on duty, plus 1 per 5 dwelling or sleeping units	1 per employee on duty, plus 1 per 5 dwelling or sleeping units
<b>Care Facilities</b> <ul style="list-style-type: none"> <li>Care Facility, Major</li> <li>Extended Medical Treatment Facility</li> <li>Daycare Centre (Major)</li> </ul>	1.6 per 100 m <sup>2</sup> GFA	1 per 75 m <sup>2</sup>	1 per 100 m <sup>2</sup>
<b>Office</b> <ul style="list-style-type: none"> <li>Bank and Financial Services</li> <li>Personal Service Establishment</li> <li>Veterinary Clinic</li> </ul>	1 per 40 m <sup>2</sup>	1 per 55 m <sup>2</sup>	1 per 70 m <sup>2</sup>
<b>Restaurant</b> <ul style="list-style-type: none"> <li>Coffee Shop</li> <li>Drive-thru Restaurant</li> <li>Neighbourhood Pub</li> <li>Sit-down Restaurant</li> </ul>	1 per 15 m <sup>2</sup> of seating area	1 per 25 m <sup>2</sup> of seating area	1 per 35 m <sup>2</sup> of seating area
<b>Retail</b> <ul style="list-style-type: none"> <li>Retail, General</li> <li>Retail, Convenience</li> <li>Butcher, Bakery, Specialty Grocery, Grocery</li> <li>Equipment Repair or Equipment Rental</li> <li>Building and Garden Supply</li> <li>Furniture and Appliance Sales</li> <li>Gasoline Service Station</li> <li>Motor Vehicle Sales, Rental Service and Repair Shops</li> <li>Vehicle Washing Facility</li> </ul>	1 per 33 m <sup>2</sup> (GFA >1000 m <sup>2</sup> ) 1 per 50 m <sup>2</sup> (GFA <1000 m <sup>2</sup> )	1 per 45m <sup>2</sup> (GFA >1000 m <sup>2</sup> ) 1 per 65 m <sup>2</sup> (GFA <1000 m <sup>2</sup> )	1 per 50 m <sup>2</sup> (GFA >1000 m <sup>2</sup> ) 1 per 80 m <sup>2</sup> (GFA <1000 m <sup>2</sup> )

LAND USES	West Kelowna (2023)	Transitional Period	Fully Realized OCP Vision
<b>INDUSTRIAL</b>			
Alcohol Production Facility	1 per 50 m <sup>2</sup>	1 per 85 m <sup>2</sup>	1 per 120 m <sup>2</sup>
Industry, General	1 per 67 m <sup>2</sup>	1 per 140 m <sup>2</sup>	1 per 200 m <sup>2</sup>
Warehouse	1 per 200 m <sup>2</sup>	1 per 300 m <sup>2</sup>	1 per 400 m <sup>2</sup>
<b>INSTITUTIONAL, CULTURAL, &amp; RECREATIONAL</b>			
<b>Community, Assembly, and Cultural Uses</b> <ul style="list-style-type: none"> <li>Community or Assembly Hall</li> <li>Library, Museum or Art Gallery</li> </ul>	1 per 50 m <sup>2</sup>	1 per 65 m <sup>2</sup>	1 per 80 m <sup>2</sup>
<b>Education Facility - Junior</b> <ul style="list-style-type: none"> <li>School, Elementary or Middle</li> </ul>	2 per classroom	1 per 50 m <sup>2</sup>	1 per 75 m <sup>2</sup>
<b>Education Facility - Senior</b> <ul style="list-style-type: none"> <li>School, Secondary</li> <li>College, University and Commercial School</li> </ul>	5 per classroom	1 per 50 m <sup>2</sup>	1 per 75 m <sup>2</sup>
<b>Fire, Police or Ambulance Service</b>	1 per 40 m <sup>2</sup>	1 per 40 m <sup>2</sup>	1 per 40 m <sup>2</sup>
<b>Recreation Services, Indoor</b>	1 per 33 m <sup>2</sup>	1 per 40 m <sup>2</sup>	1 per 50 m <sup>2</sup>
<b>Recreation Services, Outdoor</b>	1 per 40 m <sup>2</sup>	1 per 40 m <sup>2</sup>	1 per 50 m <sup>2</sup>

*\*Rapid Transit*

The recommendations presented in the tables above reflect the forecasts completed as part of this project. As each urban and neighbourhood centre develops, follow-up studies are recommended to determine changes in parking demand over time. Future studies could include collecting in-field data and analyzing parking demand in each area of interest to improve data and forecast accuracy.

### 7.2.1 PARKING IN MIXED-USE AREAS

Encouraging visitor parking doubling as parking for other land use in mixed-use areas is recommended. For example, suppose there are residential and non-residential uses on-site. In that case, the visitor parking for the residential use should double as parking for the other land use (e.g., office, commercial, etc.). It is recommended that the existing 15 percent maximum of commercial parking spaces in mixed-use developments which can double as visitor parking for residential uses be retained. The number should be revisited at a later date as development intensity increases.

### 7.2.2 BICYCLE PARKING RECOMMENDATIONS

The following table provides city-wide recommendations for short- and long-term bicycle parking supply rates in West Kelowna. The table below focuses on four types of land uses – multiple-dwelling residential, commercial, institutional, and industrial.

Table 14 Recommended Bicycle Parking Supply Rates

LAND USES		LONG-TERM BICYCLE PARKING STALLS	SHORT-TERM BICYCLE PARKING STALLS
<b>Residential (Multiple-Dwelling)</b> *Includes townhouses, duplexes, triplexes, apartments, and congregate housing.		<ul style="list-style-type: none"> <li>1 per dwelling unit that is less than 45 m<sup>2</sup>.</li> <li>1.25 per dwelling unit, that is more than 45 m<sup>2</sup>.</li> </ul>	<ul style="list-style-type: none"> <li>0.1 spaces per dwelling unit.</li> </ul>
<b>Commercial</b>	Office	<ul style="list-style-type: none"> <li>1 per 150 m<sup>2</sup> floor area.</li> </ul>	<ul style="list-style-type: none"> <li>1 per 400 m<sup>2</sup> floor area.</li> </ul>
	Retail <ul style="list-style-type: none"> <li>Retail, General</li> <li>Retail, Convenience</li> </ul>	<ul style="list-style-type: none"> <li>1 per 200 m<sup>2</sup> floor area.</li> </ul>	<ul style="list-style-type: none"> <li>1 per 200 m<sup>2</sup> floor area.</li> </ul>
	Restaurant	<ul style="list-style-type: none"> <li>1 per 400 m<sup>2</sup> floor area.</li> </ul>	<ul style="list-style-type: none"> <li>1 per 100 m<sup>2</sup> floor area.</li> </ul>
<b>Institutional</b>	Community, Assembly, and Cultural Uses	<ul style="list-style-type: none"> <li>1 per 450 m<sup>2</sup> floor area.</li> </ul>	<ul style="list-style-type: none"> <li>1 per 200 m<sup>2</sup> floor area.</li> </ul>
	Daycare Centre	<ul style="list-style-type: none"> <li>1 per 700 m<sup>2</sup> floor area.</li> </ul>	<ul style="list-style-type: none"> <li>1 per 200 m<sup>2</sup> floor area.</li> </ul>
	Education Facility*	<ul style="list-style-type: none"> <li>1 per 160 m<sup>2</sup> floor area.</li> </ul>	<ul style="list-style-type: none"> <li>1 per 80 m<sup>2</sup> floor area.</li> </ul>
	Recreation Facility, Indoor	<ul style="list-style-type: none"> <li>1 per 400 m<sup>2</sup> floor area.</li> </ul>	<ul style="list-style-type: none"> <li>1 per 100 m<sup>2</sup> floor area.</li> </ul>
<b>Industrial</b>		<ul style="list-style-type: none"> <li>1 per 1,200 m<sup>2</sup> floor area.</li> </ul>	<ul style="list-style-type: none"> <li>Minimum 6 spaces for facilities larger than 2,000 m<sup>2</sup></li> </ul>

\*Standard classroom size of 80 m<sup>2</sup> (source: BC Ministry of Education Area Standards)

The City currently has a cash in lieu program for bicycle parking. To encourage active modes of travel, and to ensure that transportation choice is supported, this option should be eliminated.

### 7.2.3 CASH-IN-LIEU PROGRAM RECOMMENDATIONS

The City currently has a cash-in-lieu program for Westbank Centre. The cash-in-lieu program should only be considered when the appropriate densities and mix of land uses is achieved. Otherwise, the developers will prefer to provide parking instead of contributing to the cash-in-lieu program. The development pressure in West Kelowna may still be too low for this program to be effective. However, since the City already has this program in place, it should retain it in its current form, with a few modifications. While the pressures may not currently exist to make the program attractive for developers, it does not hurt to keep it.

- Current cash in lieu policies should apply to all Urban Centres
- Maximum percentages should reflect the gradual implementation of the parking strategy to match the ultimate OCP vision for Urban Centres. Current maximums should be retained, and revisited based on financial analysis conducted in each time frame.
- Current prices for each space should be revisited based on financial analysis conducted in each time frame.

### 7.2.4 LOADING RECOMMENDATIONS

The current requirements for the provision of loading spaces in West Kelowna are relatively consistent with requirements found in other Okanagan communities. We recommend updating the existing Loading Space Requirements table by consolidating the land uses into three main categories:

- Commercial and Industrial uses
- Office and Institutional uses; and
- Multifamily uses (10+ units).

As a result of anticipated population growth and the corresponding increase in development pressures, additional stress may be placed on existing on-street parking in mixed-use, multifamily, and commercial areas. This increased stress can increase competition for parking and place commercial vehicles in conflict with other road users. For this reason, it is important to develop and implement strategies to address the challenges related to loading and delivery early on. Potential solutions for curbside parking management for loading areas include:

- Implementation of **time restrictions** for loading and delivery. Time restrictions should be implemented outside of peak on-street parking hours.
- Alternatively, in areas with higher densities, **delivery locations can be consolidated** to optimize the amount of space required for loading and delivery and/or
- The City could identify specific on-street loading bays available to delivery vehicles at **specific times of day**.

It is important to note that any of the measures outlined above should be reinforced by enforcement of loading area restrictions.

### 7.2.5 RECOMMENDATIONS FOR CAR SHARE OPTIONS

With the anticipated population growth in West Kelowna, car-share options will become more feasible. The City has an opportunity to support the introduction and expansion of car sharing in West Kelowna through:

- Establishing a car share fleet target in a parking management strategy.
- Encourage developers to include car sharing in proposals.
- Establishing parking incentives in the Zoning Bylaw.
- Supporting car share options on public lots and on-street parking and
- Fostering partnerships with car share operators to establish service in West Kelowna (e.g., OGO Car Share, Modo or BCAA's Evo).

While this may not be directly applicable to the zoning bylaw update now, the **provision of car-share spaces in new developments could be explored** as these areas develop and car-sharing services become more prevalent in West Kelowna. In the short term, current guidelines on car sharing can be retained, and revisited in future. Car share policies should apply to all Urban Centres.

### 7.2.6 RIDE-HAILING RECOMMENDATIONS

Currently, ride-hailing is in its inception in West Kelowna, with URide being the only ride-hailing operator. However, it is important to prepare for expanding these services, especially concerning parking and curbside management.

The City should work to **foster a partnership with the company and actively support its expansion efforts**. The opportunity to offer other ride-hailing services, such as Uber or Lyft, will be dependent on these services being offered in Kelowna since Kelowna is a bigger market. If one of these industry leaders decides to offer its services in Kelowna, its expansion to West Kelowna will become plausible.

As ride-hailing becomes more prevalent in West Kelowna, it may be advisable to **include on-street passenger loading zones in high-traffic areas or near hotels**.

### 7.2.7 RECOMMENDATIONS FOR TANDEM PARKING IN SINGLE-FAMILY RESIDENTIAL ZONES

Tandem parking is a common space-saving method of parking multiple vehicles on a lot. With increasing densification and more houses permitted to have secondary suites and coach houses, pressures on off-street parking for existing neighbourhoods is likely to increase. Tandem parking should be allowed in low density single-detached, semi-detached, and select townhouse developments. However, tandem parking should be accompanied by tools to coordinate between parkers such as:

- Setting expectations and rules
- Coordinating and setting schedules
- Alternating and assigning spaces
- Connecting parkers through an app-based approach.

### 7.2.8 ELECTRIC MOBILITY RECOMMENDATIONS

Several BC municipalities, including Richmond, Saanich, and North Vancouver (City), require all parking spaces for residential uses to be energized (capable of providing at least Level 2 charging) and 35% of non-residential parking spaces to be energized. These E.V. charging requirements consider B.C.'s accelerated E.V. target of 60 percent of all vehicles sold in B.C. to be E.V.s in 2030 and 100 percent in 2035. To ensure future development can accommodate the anticipated and increasing demand for electric vehicle charging, all parking spaces for residential uses and 35% of parking spaces for non-residential should **be energized**.

### 7.2.9 ON-STREET PARKING RECOMMENDATIONS

With the increased development pressures in the future, the City should consider the implementation of the following on-street parking management practices, especially in areas of higher density and variety of land uses:

- **No Parking Zones**
- **Limited-Time Parking Zones**
- **Residential Parking**
- **Other (Context-Specific) Restrictions** (limited to accessible parking, passenger and loading zones, and/or restrictions for certain times of the day or week).
- **Paid parking** (last resort)

These restrictions could be introduced during the transitional period when the scale of development will be comparatively higher than today's trends.

Although paid parking is a tool to manage parking and create revenue, other parking management tools should be applied before implementing charges. The criteria below provide a mechanism for the City to measure the need for paid parking. If all conditions are exceeded, then paid parking should be explored.

1. **Parking Occupancy** – Average Street Occupancy is 85% or greater on a cumulative of 3 street blocks. Analysis should be conducted over one year.
2. **Parking Duration** – Current time limitations have already been reduced to 1 hour or less.
3. **Compliance** – Tickets, fines and enforcement on the corridor are a challenge. A number of tickets have been issued, and complaints have been received related to parking challenges.



### 7.2.10 BOAT LAUNCH PARKING

The City of West Kelowna operates several boat launches across the city. Each of these boat launches has seen additional traffic and activity in recent years which has led to increased congestion and wait times for users. In addition, truck and trailer parking associated with the boat launch consumes a lot of surface space. The Gellatly Neighbourhood Area is topographically constrained, so making best use of the area is critical. Rather than detailing how boat and trailer parking could be accommodated, the City could take the approach of allowing market forces to provide it as part of their developments and managing existing facilities through a reservation system.

In other jurisdictions, the management of boat launch facilities is moving to an online reservation system model, where users reserve their boat launch use in advance. This can greatly reduce congestion and parking pressures around these facilities. With respect to emerging neighbourhood centres, the boat launch at Gellatly Village may see increased pressure as parking demand for other uses also increases. This could include eliminating Section 4.8 of the current zoning bylaw, which provides details on boat and trailer parking.

It is also recommended that the City explore the feasibility of implementing an online reservation system for its boat launch facilities.

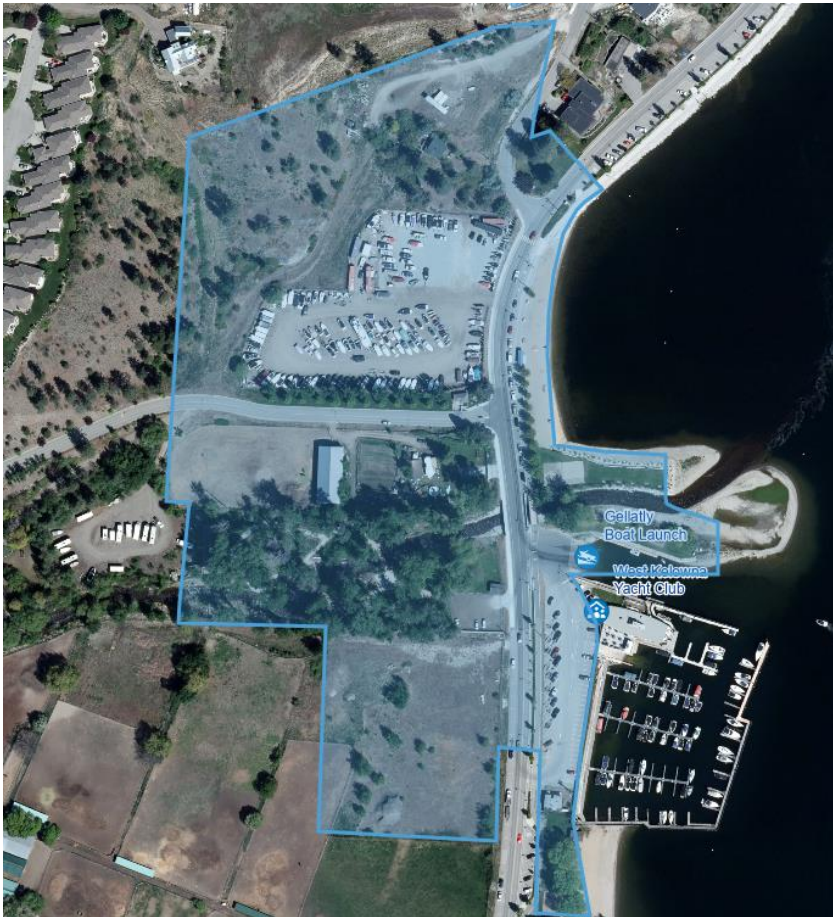


Figure 3 Gellatly Village

### 7.3 RECOMMENDATIONS SUMMARY

The key recommendations for parking management and transportation demand management to support the proposed changes to the City's zoning bylaw are outlined in the table below:

Table 15. Recommendations Summary Table

Parking Management Factors	Recommendation
Off-Street Parking Requirements	<ul style="list-style-type: none"> <li>Standardize the metrics used.</li> <li>Gradually decrease the minimum parking requirements as per Tables 10-12.</li> </ul>
Elimination of Parking Minimums in Higher-Density Areas	<ul style="list-style-type: none"> <li>Consider eliminating the parking minimums in areas of higher density and greater variety of land uses (Urban and Neighbourhood Centres).</li> </ul>
Small Car Parking	<ul style="list-style-type: none"> <li>Increase the percentage of small car parking spaces.</li> <li>Decrease the stall length requirement to 4.5m regardless of the angle of parking spaces.</li> </ul>
Parking in Mixed-Use Areas	<ul style="list-style-type: none"> <li>Encourage visitor parking for residential uses to double as parking for other land uses on mixed-use lots.</li> <li>Review, and update as required, the existing parking provisions outlined in Section 4.12 of the Westbank Centre Area Plan. The percentage of shared parking spaces should increase in the future with higher density, greater variety of land uses, and higher-frequency transit service.</li> <li>Consider expanding the program to Boucherie Urban Centre once sufficient density, land use mix, and frequency of transit service is achieved.</li> </ul>
Cash-in-Lieu Program	<ul style="list-style-type: none"> <li>Continue with the implementation of the cash-in-lieu program in Westbank Centre.</li> <li>Expand cash-in-lieu program to all Urban Centres</li> <li>Maximum percentages should reflect the gradual implementation of the parking strategy to match the ultimate OCP vision for Urban Centres. Current maximums should be retained, and revisited based on financial analysis conducted in each time frame.</li> <li>Current prices for each space should be revisited based on financial analysis conducted in each time frame.</li> <li>Expand the cash-in-lieu program in areas of most significant growth when development pressures can support the successful implementation of the program (e.g., Neighbourhood Centres).</li> </ul>
Bicycle Parking	<ul style="list-style-type: none"> <li>Implement the bicycle parking supply rates as outlined in Table 13.</li> <li>Remove cash in lieu options for bicycle parking</li> </ul>
Loading	<ul style="list-style-type: none"> <li>Implement time restrictions for loading and delivery.</li> <li>Consolidate delivery locations to optimize the amount of space required.</li> <li>Identify specific on-street loading bays available to delivery vehicles at particular times of day.</li> </ul>

Parking Management Factors	Recommendation
<b>Car Share Options</b>	<ul style="list-style-type: none"> <li>• Keep the existing Zoning Bylaw provision related to Cooperative vehicles to encourage developers to provide parking spaces for car share options.</li> <li>• Apply current car share provisions to all Urban Centres.</li> <li>• Develop a car share policy.</li> <li>• Support car share options on public lots and on-street parking.</li> <li>• Foster partnerships with car share operators to establish service in West Kelowna.</li> </ul>
<b>Ride-Hailing</b>	<ul style="list-style-type: none"> <li>• Foster a partnership with URide as the only existing ride-hailing operator in West Kelowna.</li> <li>• Explore possibilities to attract other operators to West Kelowna (e.g., Uber and Lyft).</li> <li>• Explore the provision of on-street passenger loading zones in high-traffic areas or near hotels.</li> </ul>
<b>Shared Mobility</b>	<ul style="list-style-type: none"> <li>• Explore options to introduce shared mobility options in West Kelowna while keeping in mind the potential impact on the facilities required to support this program.</li> </ul>
<b>Tandem Parking Requirements in Single-Family Zones</b>	<ul style="list-style-type: none"> <li>• Setting expectations and rules</li> <li>• Coordinating and setting schedules</li> <li>• Alternating and assigning spaces</li> <li>• Connecting parkers through an app based approach.</li> </ul>
<b>Electric Mobility</b>	<ul style="list-style-type: none"> <li>• Require the minimum number of energized spaces (50% for residential and 35% of all parking spaces for non-residential uses).</li> </ul>
<b>On-Street Parking</b>	<ul style="list-style-type: none"> <li>• Consider implementing context-specific on-street parking restrictions (no parking zones, residential parking zones, time restrictions, and/or other restrictions).</li> </ul>

## 8.0 CONCLUSION

The City of West Kelowna Parking Management Study report identifies the key strategies that can serve as a roadmap for improving parking management in West Kelowna. Most recommendations are tied to off-street parking management to inform the new parking standards as part of the upcoming Zoning Bylaw update. Some recommendations can be implemented in the short term, while others will take longer. The difference between the current context of West Kelowna and the 2040 OCP vision is significant, especially in areas of higher density, such as Urban and Neighbourhood Centres. It will be important to actively monitor the changes in densities and land use patterns to determine the most appropriate time to implement the strategies during the transitional period. Lastly, this Parking Management Study can serve as a foundation for future parking studies and data collection to further understand the existing trends, more accurately project the future parking demand and shape policies and strategies accordingly.



An aerial, black and white, halftone-style photograph of a parking lot. Several cars are parked in a grid pattern. The cars are mostly dark, but there are a few lighter-colored ones. The text 'APPENDIX A' is overlaid on a dark grey rectangular background in the upper left quadrant. The main title 'STUDY AREA MAPS' is overlaid on a large red rectangular background that spans across the middle of the image. The background image shows a parking lot with several cars parked in a grid pattern. The cars are mostly dark, but there are a few lighter-colored ones. The text 'APPENDIX A' is overlaid on a dark grey rectangular background in the upper left quadrant. The main title 'STUDY AREA MAPS' is overlaid on a large red rectangular background that spans across the middle of the image.

**APPENDIX A**

# **STUDY AREA**

# **MAPS**

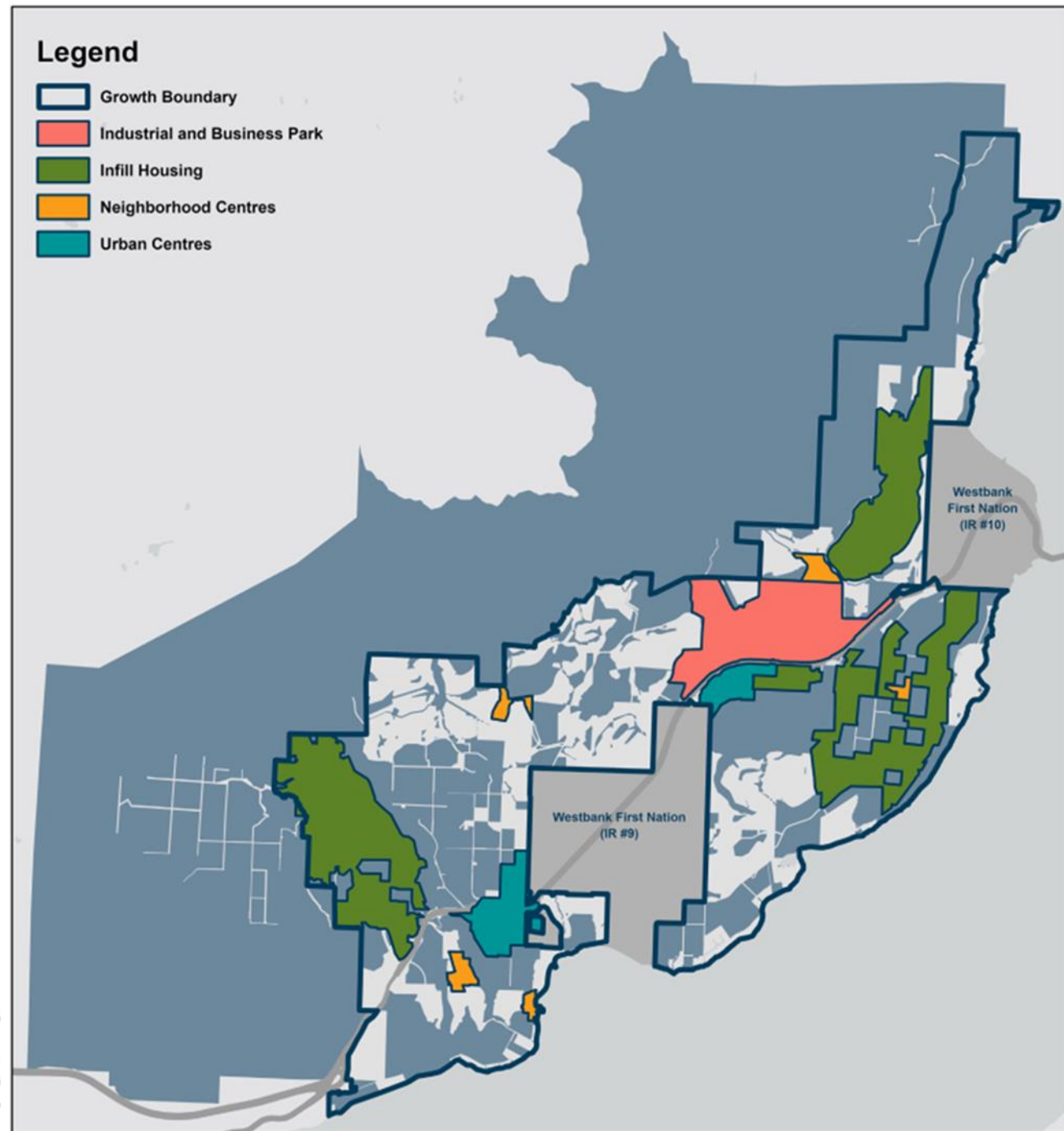
# OCP GROWTH CONCEPT

## URBAN CENTRES (2)

- Westbank
- Boucherie

## NEIGHBOURHOOD CENTRES (5)

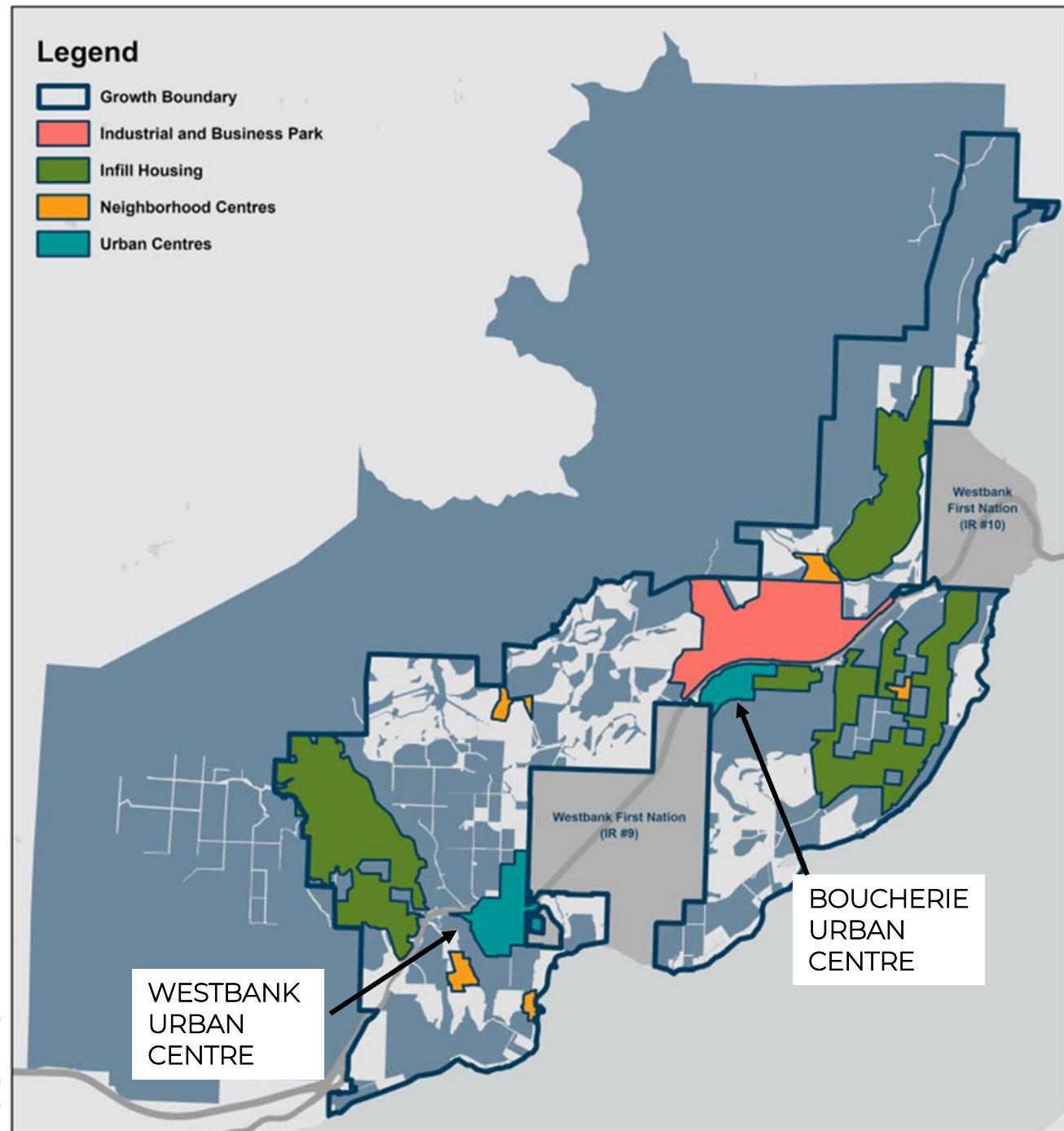
- Rose Valley
- Smith Creek and Shannon Lake
- Lakeview Heights
- Gellatly Village
- Goats Peak





# URBAN CENTRES

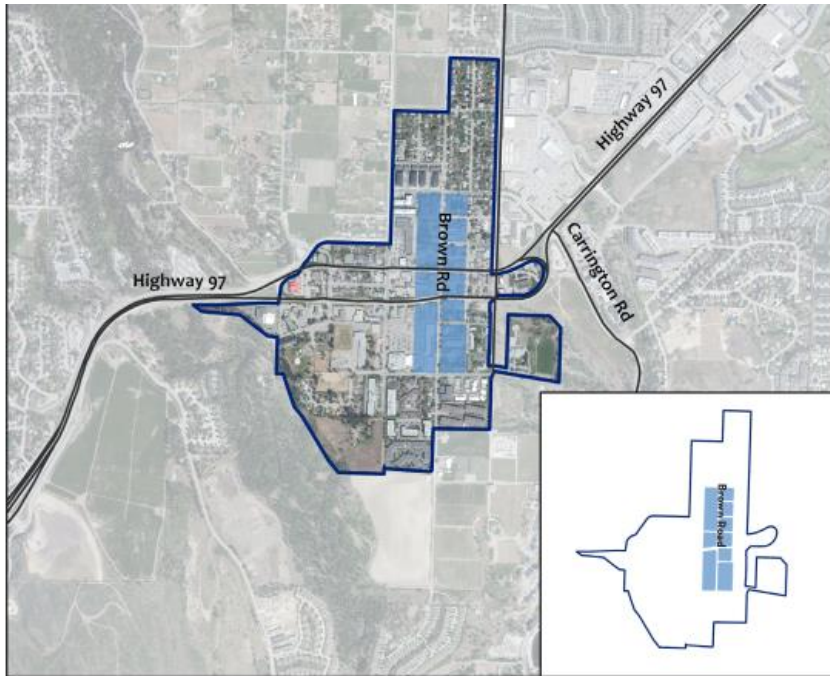
- Purpose of urban centres is to create high density downtown cores in the city with various uses including:
  - Townhouses
  - Multi-unit housing
  - Mixed-use buildings
  - Commercial (office, retail)
  - Institutional
  - Live/work spaces
- Mid-rise to high-rise development
- Max building height can be as high as 12-19 storeys



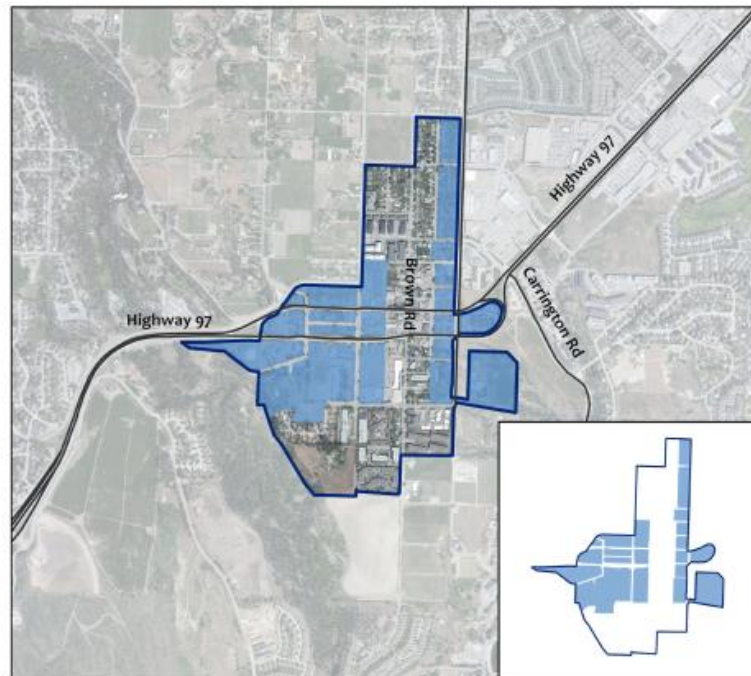


# WESTBANK URBAN CENTRE

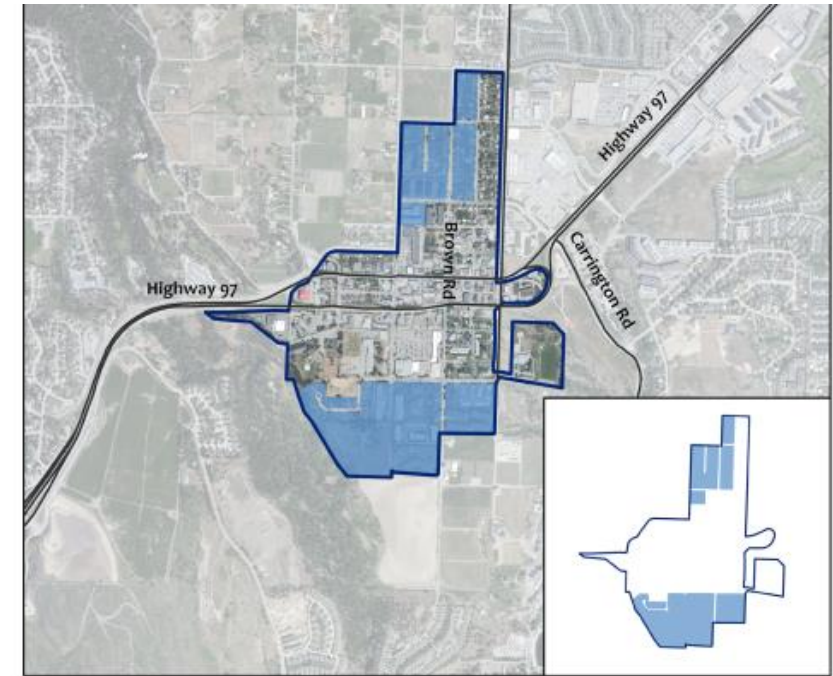
## MIXED-USE CORRIDOR (AREA A)



## COMMERCIAL CORE (AREA B)



## RESIDENTIAL SHOULDERS (AREA C)

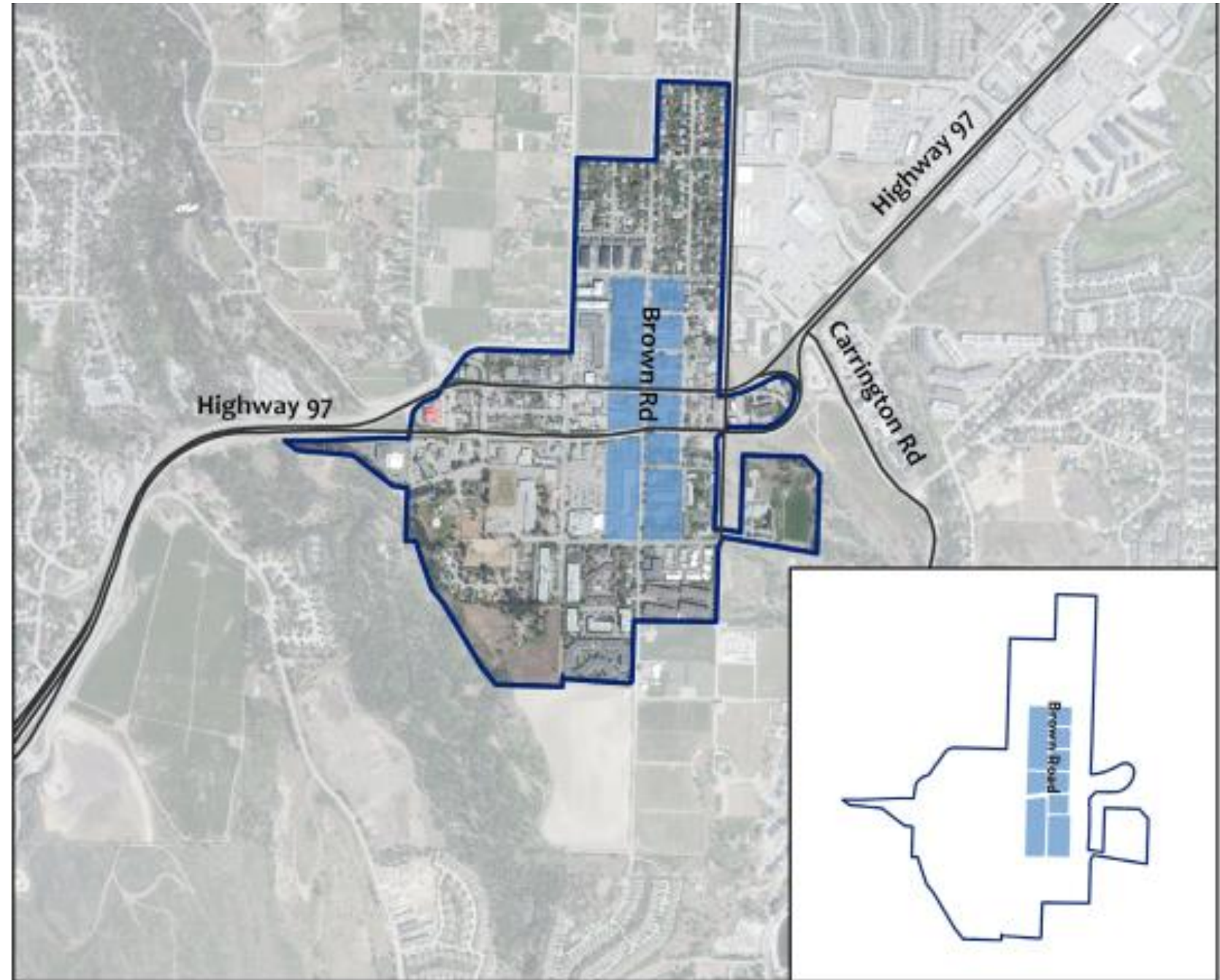


### Key Facilities:

- JBMAC / City Hall / Memorial Park Site
- RCMP
- Westbank Lions Hall
- Senior Centre

# WESTBANK URBAN CENTRE

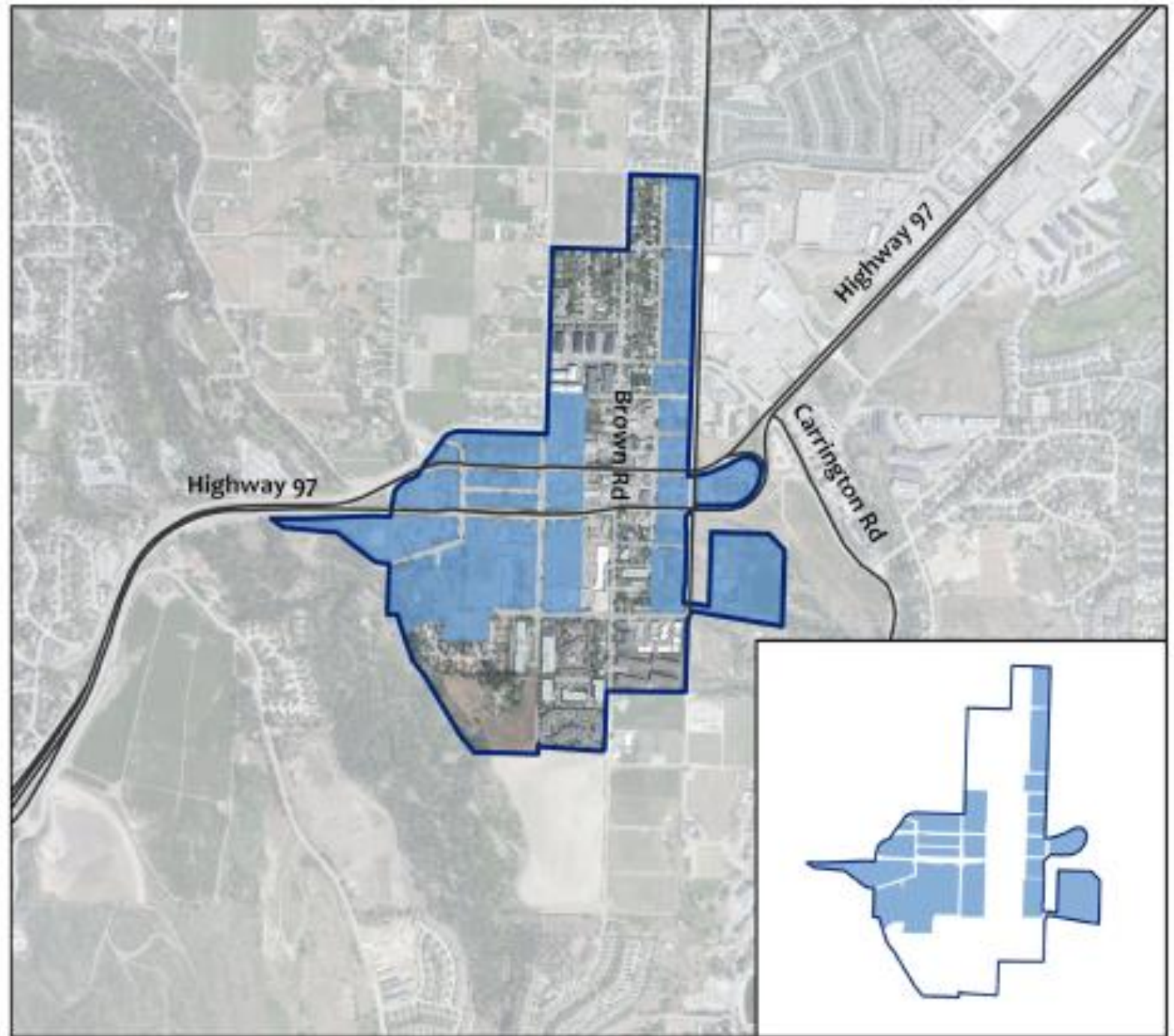
MIXED-USE CORRIDOR (AREA A)





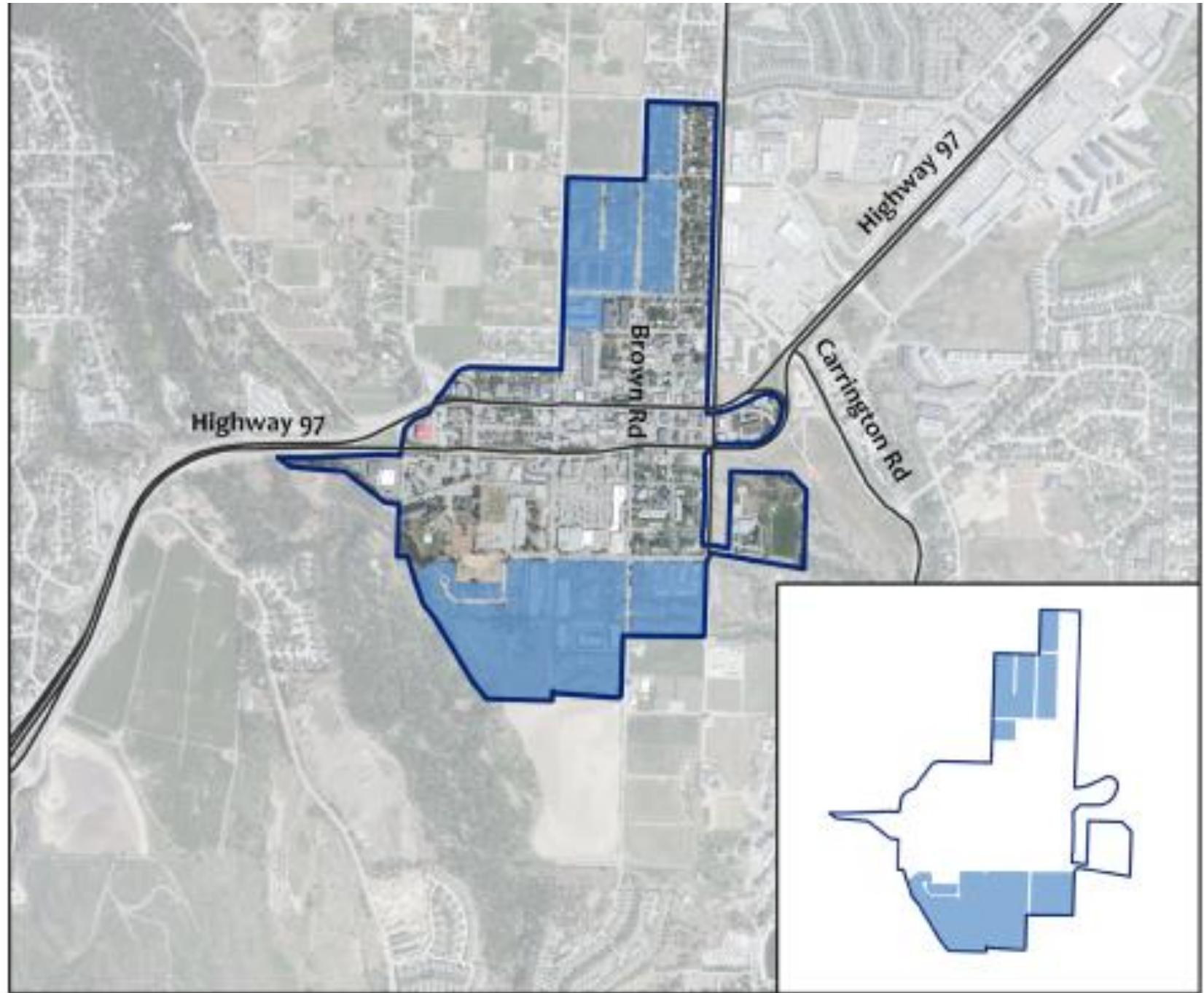
# WESTBANK URBAN CENTRE

COMMERCIAL CORE (AREA B)



# WESTBANK URBAN CENTRE

RESIDENTIAL SHOULDERS  
(AREA C)





# BOUCHERIE URBAN CENTRE



Key facility:

- Mt Boucherie Complex

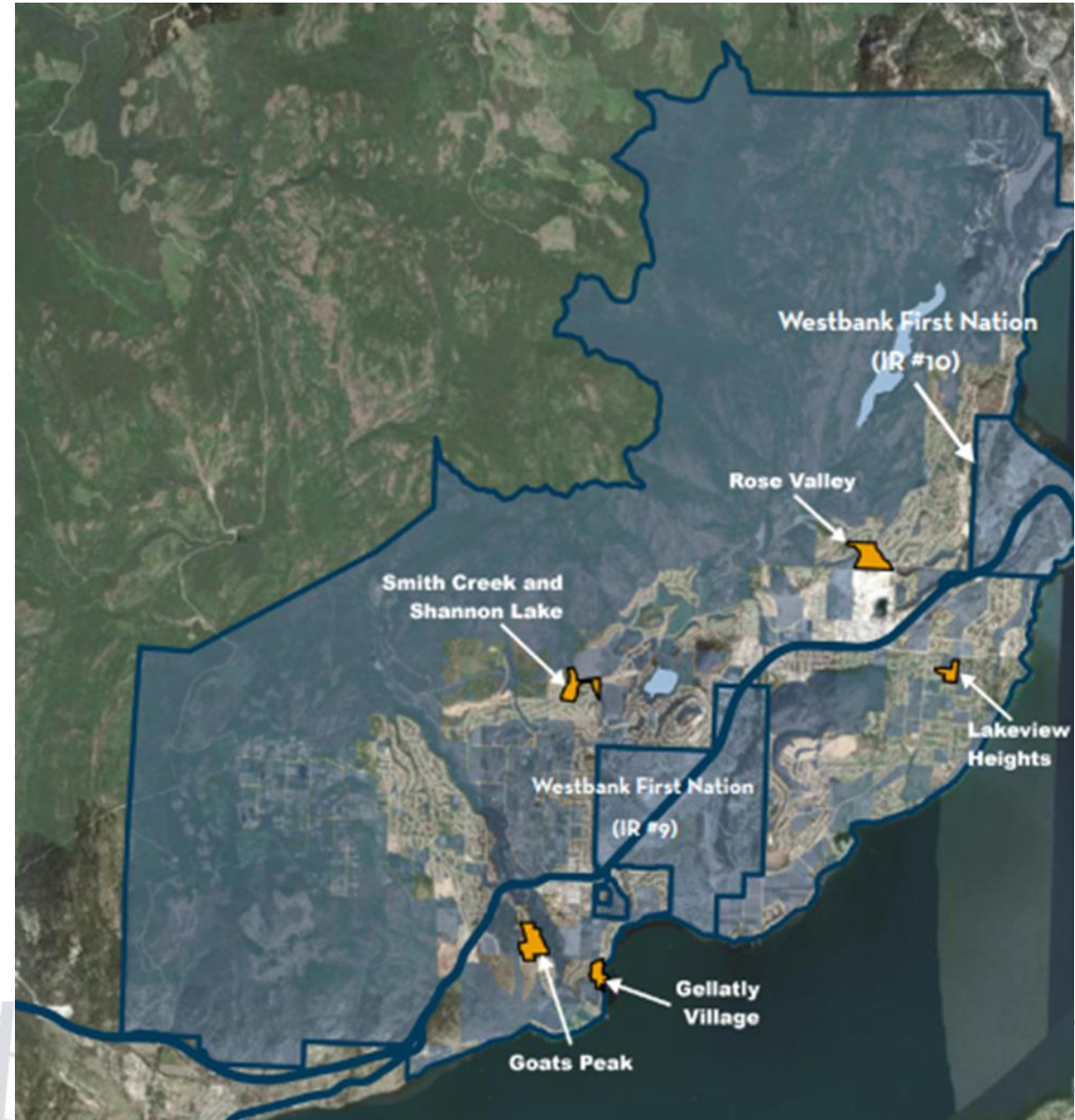




# NEIGHBOURHOOD CENTRES

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- Purpose of neighbourhood centres is to create smaller centres in various neighbourhoods with uses that include:
  - Townhouses
  - Multi-unit housing
  - Small-scale commercial uses
  - Institutional
  - Mixed-use buildings
  - Live/work spaces
- Low-rise to mid-rise development
- Max building heights can be up to 6 storeys





# ROSE VALLEY

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## NEIGHBOURHOOD CENTRE





# SMITH CREEK AND SHANNON LAKE

## NEIGHBOURHOOD CENTRE





# LAKEVIEW HEIGHTS

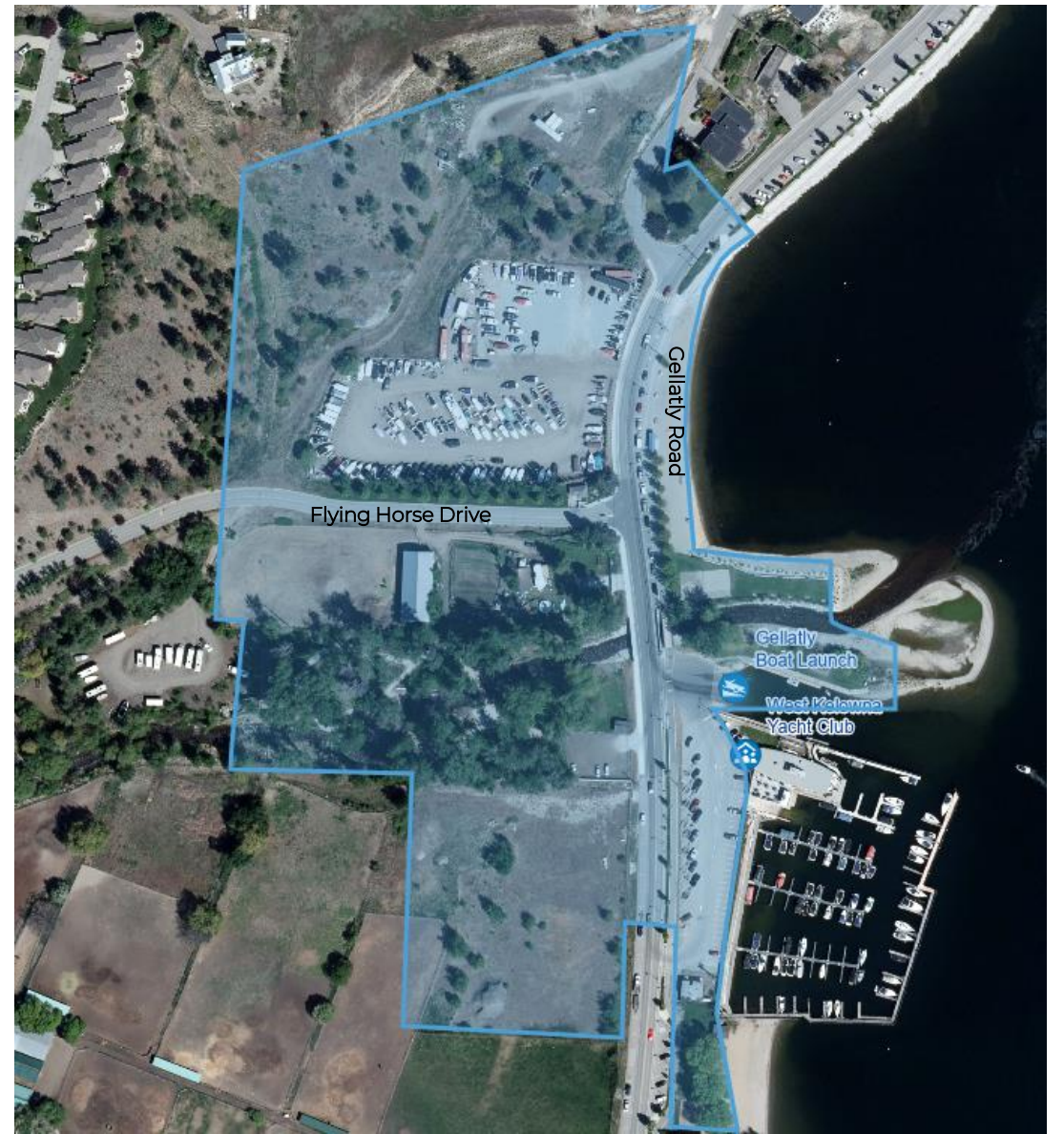
## NEIGHBOURHOOD CENTRE





# GELLATLY VILLAGE

## URBAN CENTRE





# GOATS PEAK

## NEIGHBOURHOOD CENTRE

