7840 LOCHSIDE DRIVE

Parking Study

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1.0 INTRODUCTION

Watt Consulting Group (WATT) was retained by Starlight Developments Ltd. to conduct a parking study for the proposed development at 7840 Lochside Drive in the District of Central Saanich. The purpose of this study is to determine the total parking demand for the subject site and how that compares to the proposed supply.

1.1 SUBJECT SITE

The proposed development site is located at 7840 Lochside Drive in the District of Central Saanich (see **Figure 1**).

Figure 1. Subject Site

1.2 SITE CHARACTERISTICS & POLICY CONSIDERATIONS

The following section provides information regarding services and transportation options in proximity to the subject site.

SERVICES

The site is located at the north-eastern boundary of the District of Central Saanich and it has access to a small number of commercial and retail amenities. Within 400m (about a 5-minute walk) of the site, residents can access a small number of amenities (Tim Hortons Café, McDonald's, Shell Gas station, Waddling Dog Pub, Marigold Cafe). The Saanich Peninsula Hospital is located 1.3 km away from the site. Saanichton Village is 2km away from the site (about a 4-minute drive, 10-minute transit ride, 8-minute bike ride, and 25-minute walk) and offers a more comprehensive set of amenities and services, including a grocery store, pharmacy, liquor store, medical services, office buildings, and restaurants.

TRANSIT

There are two bus stops—within 150m (about a 2-minute walk) of the subject site. The bus stops are served by two bus routes (#81 – Brentwood / Saanichton / Sidney / Swartz Bay, #82 – Sidney / Saanichton via Stautw) that provide service to employment hubs and destinations within the region including Swartz Bay, Sidney, Saanichton, and Brentwood Bay.

The Victoria Region Transit Future Plan[1] provides guidance on future transit networks in the Victoria Region. The subject site is in proximity to the proposed Park & Ride facility and associated bus stops at the intersection of Mount Newton Cross Road and Highway 1. In addition,

[1] BC Transit. (2011). Transit Future Plan Victoria Region. Executive Summary. Available online at: https://www.bctransit.com/documents/1507213421003

BC Transit has identified Mt. Newton as part of the Peninsula RapidBus Line, which will receive Rapid Transit Frequency[2]. RapidBus will be a connected, frequent, fast, and reliable service. BC Transit is proposing to implement the first RapidBus line between Westshore and downtown Victoria within the next three years followed by the Peninsula RapidBus thereafter. Specifically, as identified in the Peninsula Local Area Transit Plan, the initial implementation of the Peninsula RapidBus Line is one of the medium-term service priorities. There would be improvements to Route 70 to achieve 30-minute all day service, seven days a week. This would require 17,500 hours of new service and 7 buses.[3]

WALKING

The subject site can be described as car-dependent with a walk score of 42, suggesting that almost all errands require a vehicle.[4] However, it is expected that the walk score will increase over the near future as the nearby development of Marigold Lands get build-out, providing some services steps away from the proposed development.[5] While the subject site's walkability is currently poor, the District of Central Saanich Official Community Plan (OCP) contains several active transportation policies that direct the District to prioritize walking and pedestrian infrastructure improvements.[6] Further, the District's Active Transportation Plan identifies a future multi-use pathway (MUP) along Mount Newton Cross Road as a priority project. Specifically, a multi-use pathway is recommended on the south side of Mount Newton Cross Road between

[2] RapidBus service would have a targeted minimum frequency of every 10 minutes, with higher frequency as demand requires. More information about RapidBus is available online at: https://engage.bctransit.com/peninsula2021?tool=news_feed#tool_tab

[3] More information about the Peninsula Local Area Transit Plan is available online at: https://www.bctransit.com/documents/1529716646896

[4] More information about walk score is available online at: https://www.walkscore.com/score/7840-lochside-dr-saanichton-bc-canada

[5] Some of the existing services are not registered in the Walkscore website.

[6] More information about the OCP is available online at: https://letstalkcentralsaanich.ca/OCP

Central Saanich Road and Highway 17. This facility, in combination with the future MUP further west along Mount Newton Cross Road, is anticipated to improve the walkability of the site and enhance overall connections to key destinations such as Saanichton Village.[7]

CYCLING

There are bike lanes on both sides of Lochside Drive. The site also benefits from direct proximity to the Lochside Regional Trail connecting to both Sidney and Victoria. This is a convenient, efficient and safe trail network to encourage users in the Capital Region to use alternative modes of transportation.

The District's Active Transportation Plan identifies a future on-road cycling facility on Mount Newton Cross Road between Highway 17 and Lochside Drive. If implemented, this is anticipated to improve cycling connectivity for the subject site as it will allow residents to connect to other parts of Central Saanich including Saanichton Village and Brentwood Bay. Further, the Active Transportation Plan has identified the improvement of cyclist accommodation along the Lochside Trail in the vicinity to the subject site.

[7] District of Central Saanich & Urban Systems. (2021). Central Saanich Active Transportation Plan. Available online at: https://www.centralsaanich.ca/sites/default/files/uploads/documents/dcs_active_transportation_plan.pdf

2.0 PROPOSED DEVELOPMENT

2.1 LAND USE

A detailed description of the land uses that will be used to calculate parking demand are presented below. The proposed development is for a 131-unit multi-family market rental building, two buildings containing 12 townhouses, and a 183.75m^2 commercial / retail space. The proposed development is located on the same site with two existing market-rental buildings (7840 Lochside Drive & 2530 Mt Newton Cross Road) that have a total of 126 units. Therefore, the total number of units is 269 (existing and proposed units combined).

Table 1. Proposed Unit Mix

Unit Type	Unit Count - Proposed *Multi-family*	Unit Count - Existing *Multi-family*
Residential		
Studio	6	4
1 bedroom	76	57
1 bedroom + den	9	0
2 bedroom	28	65
3 bedroom	12	0
Total	**131**	**126**
	Townhouses	*Townhouses*
3 bedroom	12	-
Total	**12**	**-**
Commercial / Retail		
	183.75 m^2	**-**

2.2 PARKING SUPPLY

2.2.1 VEHICLE PARKING

The proposed development includes a total of 313 vehicle parking spaces.

2.2.2 BICYCLE PARKING

The proposed development includes a total of 372 long-term bicycle parking spaces and 62 short-term bicycle parking spaces.

3.0 PARKING BYLAW REQUIREMENTS

3.1 VEHICLE PARKING

The District of Central Saanich Land Use Bylaw No. 2072 determines the minimum parking supply requirement. Per the Bylaw, the required parking supply for this site is 1.5 spaces per dwelling unit plus 0.25 spaces per unit for visitor parking. This rate applies to both apartments and townhouses. Also, the commercial/retail area within the site would be required to provide parking at a rate of 1 space per 22m^2. Therefore, the parking requirement for the entire site is 479 parking spaces. See **Table 2 and Table 3**. The proposed development is short 166 parking spaces from the parking requirement.

Table 2. Minimum Parking Supply Requirement (Existing Building)

Use	Bylaw Rate	Quantity *(Units / Floor Area)*	Required Spaces
Residential Apartment	1.5 per dwelling unit	126	189
Visitor	0.25 per dwelling unit	126	31.5
		Sub-total	**220.5**

Table 3. Minimum Parking Supply Requirement (New Buildings)

Use	Bylaw Rate	Quantity *(Units / Floor Area)*	Required Spaces *Required Spaces*
Residential Attached	1.5 per dwelling unit	131	196.5
Residential Apartment	1.5 per dwelling unit	12	18
Visitor	0.25 per dwelling unit	143	35.75
Retail	1 per 22m^2 of GFA	183.75	8.35
		Sub-total	**258.6**
		Total (Existing + New)	**479 spaces (220.5 + 258.68)**

3.2 BICYCLE PARKING

The District also requires 1 short-term bicycle parking (i.e., Class 2 in the form of bicycle rack) per 10 required vehicular parking spaces and 1.5 long-term (i.e., Class 1) bicycle parking spaces per unit. See Table 4. This results in a total of 386 long-term bicycle parking spaces in a secure, weather-protected bicycle parking facility and 48 short-term bicycle parking spaces located across the entrances of the seven buildings (three market-rental multi-family buildings + two townhouse buildings + commercial). The total bicycle parking requirement is 343 spaces. Even though the applicant is slightly short on the long-term bicycle parking bike parking, it is still meeting the overall bike parking requirement of 434 spaces.

4.0 EXPECTED PARKING DEMAND

Expected parking demand for the site is estimated in the following sections to determine if the proposed supply will adequately accommodate demand. Expected parking demand is based on [a] ICBC vehicle ownership data for representative multi-family apartment building sites in the District of Central Saanich, District of Saanich, and the West Shore and [b] parking observations of the two existing market-rental buildings (7840 Lochside Drive & 2530 Mt Newton Cross Road). Note, WATT was originally retained to complete the parking study in 2021. WATT also completed parking work at the site in 2019 prior to the COVID-19 pandemic. As such, the data in this section are from 2019 and 2021 and are still considered valid.

4.1 EXISTING BUILDINGS – RESIDENT PARKING DEMAND

4.1.1 OBSERVATIONS

Observations were conducted at the existing multifamily market-rental buildings at 7840 Lochside Drive and 2530 Mt Newton Cross Road to understand how the existing parking supply is utilized. To better analyze parking demand for the existing sites, both recent and historical data were used.

Observations were conducted on Tuesday January 8th, 2019, Wednesday January 9th, 2019, Tuesday November 16th, 2021, and Wednesday November 17th, 2021 from 9:00pm to 10:00pm (representing the peak period for residential land uses). Results indicate an average parking demand of 0.94 vehicles per unit and range from 0.92 to 0.96 vehicles per unit. See **Table 4**.

Table 4. Summary of Observations at Existing Sites

Site	Number of Units	Tuesday November 16th, 2021 9:00pm		Wednesday November 17th, 2021 9:00pm		Tuesday January 8th, 2019 9:00pm		Wednesday January 9th, 2019 9:00pm	
		Vehicles Observed	Demand Rate (vehicles per unit)	Vehicles Observed	Demand Rate (vehicles per unit)	Vehicles Observed	Demand Rate (vehicles per unit)	Vehicles Observed	Demand Rate (vehicles per unit)
7840 Lochside Drive*	126	116	0.92	116	0.92	121	0.96	120	0.95
2530 Mount Newton Cross Road*									

The parking lots of these sites were treated as one as there was no clear distinction between them.

4.1.2 ADJUSTMENT FACTORS

Observations are a useful method of assessing parking demand rates; however, there are limitations to this method. One of these limitations is that residents' vehicles may not be present at the time of observation.

To mitigate this limitation, observations were conducted after 9:00pm when residents are most likely to be home. However, there is still a chance that some resident vehicles may not be present at the time of observation due a multitude of reasons. This issue was addressed by a study commissioned by Metro Vancouver, that recommended an adjustment factor of 10% should be applied when parking observations are conducted after 9:00pm.[8] This adjustment factor was applied to the observation count with the highest number of observed vehicles to create an adjusted demand rate of 1.06 vehicles per unit. (See **Table 5**).

[8] Metro Vancouver. (2012). The Metro Vancouver Apartment Parking Study, Technical Report. Available online at: http://www.metrovancouver.org/services/regional-planning/PlanningPublications/Apartment_Parking_Study_TechnicalReport.pdf

Table 5. Adjusted Parking Demand at Representative Sites

Site	Number of Units	Average Parking Demand Rate (vehicles per unit)	Adjusted Parking Demand Rate (vehicles per unit)
7840 Lochside Drive	126	0.96	1.06
2530 Mount Newton Cross Road			

4.1.3 PARKING DEMAND BY UNIT SIZE

Unit size type refers to the number of bedrooms provided within a residential unit. Research has shown that larger units will generally have more occupants or a family, therefore increasing the likelihood that additional vehicles will be owned by occupants and increase the parking demand. [9]

Parking demand by unit type was calculated using:

1. Adjusted peak parking demand at each site;
2. The breakdown of unit type (i.e., number of bedrooms) at each site[10]; and
3. The assumed "ratio differences" in parking demand between each unit type based on the King County Metro[11] study, which recommends one-bedroom units have a 20% higher parking demand than studio units; two-bedroom units have a 60% higher parking demand than one-bedroom units; and three-bedroom units have a 15% higher parking demand than two-bedroom units.

[9] Metro Vancouver. (2018). Regional Parking Study – Technical Report, pg. 18.
[10] The unit size breakdown for the representative sites was obtained via email from the Canada Mortgage and Housing Corporation.
[11] King County Metro. (2013). Right Size Parking Model Code. Table 2, page 21. Available online at: http://metro.kingcounty.gov/programs-projects/right-size-parking/pdf/140110-rsp-model-code.pdf

Table 6. Parking Demand at Existing Sites, Factored for Unit Type

Site	Adjusted Parking Demand Rate (vehicles per unit)	Unit Type			
		Studio	One-Bedroom	Two-Bedroom	Three-Bedroom
7840 Lochside Drive	1.06	0.43	0.94	1.19	1.46
2530 Mount Newton Cross Road					

4.2 PROPOSED BUILDINGS – RESIDENT PARKING DEMAND

4.2.1 MULTI-FAMILY

ICBC vehicle ownership data was obtained for 10 representative multi-family residential sites representing 624 units. A summary of the representative sites is outlined in Table 7. Sites were selected based on having comparable walk sores, transit access, and located in a more semi-urban / suburban setting. The average parking demand is 1 space per unit.

Table 7. Vehicle Ownership Rates at Representative Sites

Site	Units	Number of Vehicles	Parking Demand Rate (vehicles per unit)
1085 Goldstream Avenue	166	134	0.81
1338 Stellys Cross Rd	103	111	1.08
7878 East Saanich Road	48	49	1.02
665 Redington Avenue	50	49	0.98
1230 Verdier Avenue	36	38	1.06
1255 Verdier Avenue	24	32	1.33
665 Redington Avenue	50	49	0.98
380 Belmont Road	18	14	0.78
284 Belmont Road	48	48	1.00
2699 Peatt Road	81	83	1.02
		Average	**1.00**

4.2.2 PARKING DEMAND BY UNIT SIZE

Similar to the rationale provided in **Section 4.1.3**, the parking demand was adjusted by unit type for each representative site. The parking demand rates by unit type are shown below:

- Studio Units | 0.60 spaces per unit
- 1-Bedroom Units | 0.78 spaces per unit
- 2-Bedroom Units | 1.22 spaces per unit
- 3-Bedroom Units | 1.40 spaces per unit

4.2.3 TOWNHOUSE RESIDENT PARKING DEMAND

ICBC vehicle ownership data was obtained for four representative townhouse sites representing 197 units. Similar to the multi-family residential units, these sites were selected based on having comparable walk sores, transit access, and located in a more semi-urban / suburban setting. A summary of the representative sites is outlined in **Table 8** along with the number of units and number of vehicles per site. The average parking demand is 1.62 spaces per unit.

Table 8. Vehicle Ownership Rates at Representative Sites

Site	Units	Number of Vehicles	Parking Demand Rate (vehicles per unit)
3351 Luxton Road	72	114	1.58
350 Latoria Blvd	32	51	1.59
1255 Wain Road	75	123	1.56
1893 Prosser Road	18	30	1.67
		Average	**1.62**

4.3 VISITOR PARKING DEMAND

Visitor parking demand rates have been demonstrated in the range of 0.05 to 0.07 vehicles per unit for multi-residential buildings across the Greater Victoria region. In addition, other parking studies completed by WATT have found visitor parking to be in the range of 0.07-0.12 per unit in Lanford, Colwood, and Saanich, which indicates that visitor parking demand is not strongly influenced by location.

Based on past parking studies, a rate of 0.1 spaces per unit is recommended for visitor parking.

4.4 COMMERCIAL / RETAIL PARKING

The applicant is proposing a commercial-retail unit that is 183.75m^2. At the time of completing this report, the applicant has not finalized the specific use. Therefore, to be conservative, the use was assumed to be a convenience market, which has a high parking generation rate. The Institute of Transportation Engineers (ITE) Parking Generation Manual (5th edition) was utilized. Specifically, land use code 851 (convenience market) was selected. The average parking demand for this use is 5.44 spaces per 1,000 square feet (93m^2). This translates into a demand of 1 space per 17m^2, which is recommended for the site.

4.5 SUMMARY OF EXPECTED PARKING DEMAND

Results from the analysis of expected parking demand for the proposed development is presented in Table 9, with a breakdown of expected parking demand for the site. A total demand of 311 spaces is expected for the subject site, which is 2 spaces lower than the supply.

Table 9. Summary of Expected Parking Demand

Land Use			Quantity	Demand Rate	Total Parking Spaces
Existing	Multi-Family Apartment	Studio Units	4 units	0.43 spaces / unit	2
		One-Bedroom Units	57 units	0.94 spaces / unit	55
		Two-Bedroom Units	65 units	1.19 spaces / unit	73
		Three-Bedroom Units	0 units	1.46 spaces / unit	4
Proposed	Multi-Family Apartment	Studio Units	6 units	0.60 spaces / unit	4
		One-Bedroom Units	85 units	0.78 spaces / unit	69
		Two-Bedroom Units	28 units	1.22 spaces / unit	29
		Three-Bedroom Units	12 units	1.40 spaces / unit	17
	Townhouses	Townhouses	12 units	1.62 spaces / unit	19
Existing + Proposed	Residential Visitor		269 units	0.1 spaces / unit	27
Proposed	Commercial/Retail		183.75 m^2	1 space / 17m^2	11
				Total Expected Parking Demand	**311**

5.0 ON-STREET PARKING ASSESSMENT

An on-street parking analysis was conducted in the area surrounding the subject site. Two counts were completed to capture the peak periods. The first count was completed on Wednesday October 11th, 2023 at 11:30am, which captures the peak time for a typical convenience market. Parking demand for the Marigold Café peaks during this time and it was therefore important to understand the on-street parking conditions surrounding the café. A second count was completed on Wednesday October 11th, 2023 at 9:30pm to capture residential peak parking demand (i.e., when residents are most likely to be home). Counts were completed on the following street segments:

- **Lochside Drive** (Mt. Newton Cross Road – Ferguson Road)
- **Lochside Drive** (Ferguson Road – Hackett Crescent South)
- **Hackett Crescent** (Lochside Drive – Lochside Drive)

A total of 56 on-street spaces were observed. On-street parking utilization was highest during the morning (11:30am) period where 78% (44 out of 56 spaces) were occupied. The evening count was less busy with a parking occupancy of 55%. This indicates that the on-street parking conditions are well utilized in the morning.

Further, the on-street parking conditions on the segment of Lochside Drive from Mt. Newton Cross Road to Ferguson Road were highly utilized with 100% occupancy during both count periods. In addition, when isolating the analysis to Hackett Crescent only, the parking occupancy is 83% during the morning period, suggesting that even less parking is available during the busier time.

6.0 CONCLUSIONS

The proposed development is for a 131-unit multi-family market rental building, two buildings containing 12 townhouses, a 183.75m^2 commercial / retail space, and preserving the two existing market-rental buildings (7840 Lochside Drive & 2530 Mt Newton Cross Road) that have a total of 126 units. A total of 269 units are proposed as part of the development.

The parking analysis determined that the total expected parking demand for the site is 311 parking spaces, which is 2 spaces under the proposed supply (313). The on-street parking analysis found that the streets surrounding the site are well occupied, especially during the morning period. Therefore, there is little capacity for parking spillover.