
Technical Memorandum

To: David Ehrhardt, c/o 28165 Yukon Inc.

From: Donna Howes, P.Eng., PTOE, FEC, Howes Technical Advantage Ltd.

Date: April 25, 2025

Re: **Wedgewood Development**
– High Level Transportation Review – Addendum 1

1. Introduction

This memorandum is an Addendum to the Draft High Level Transportation Review issued in March 2020¹ (March 2020 Memo). This memorandum provides input on a significantly reduced development on the west side of Highway 99 as part of the Wedgewood Development. Howes Technical Advantage Ltd. has been retained to provide this input for the rezoning application for this site.

This memorandum provides an overview of the estimated traffic impact for additional single-family units as part of an expansion of the Wedgewood Development on the west side of Highway 99.

2. Scope of work

The current application under consideration with SLRD is for a small expansion of the current development west of Highway 99 consisting of 6 duplex units with a total of 12 homes. The proposed development layout is shown in **Attachment 1**. The work will include an extension of Riverside Drive to the west with the layout and geometry as shown in **Attachment 1**.

In the original memo, the analysis was undertaken for 60 units on the west side of Highway 99.

3. Assumptions

The following assumptions were made for the analysis:

- **Reference:** The March 2020 Memo will be used as the base reference.
- **Opening day:** The proposed development is assumed to be complete in 2026.
- **Trip Generation:** Trip generation rates were determined using data provided by the latest version of the ITE Trip Generation Manual – 11th Edition.
- **Development:** 6 duplex with a total of 12 units.
- **Data:** This review does not include new data collection.

4. Site Traffic

Trip generation

The latest 11th edition of the Institute of Transportation Engineers (ITE) Trip Generation Handbook has been used. To be conservative, the Single Family (#210) was used and the general urban suburban rate. These rates are slightly less than the 10th Edition used in the March 2020 Memo. No trip reduction factors have been used based on the location and that there is limited transit service at this time. It is important to note that the demographic for the

¹ Draft: Wedgewood Development – High Level Transportation Review, March 24, 2020, Howes Technical Advantage Ltd.

single family dwellings is likely to have 30% retirees who would not be commuting during peak hours. However, no trip reductions were included and as a result the site trips for single family are conservative.

The trip rates are shown in **Table 1** below.

Table 1: ITE Trip Rates

DESCRIPTION	ITE REF #	ITE Description	AM PEAK HOUR			PM PEAK HOUR		
			RATE IN	RATE OU	TOTAL RATE	RATE IN	RATE OU	TOTAL RATE
Single family	10th 210	Gen Urban Suburban Detached	0.18	0.52	0.70	0.59	0.35	0.94
		Directional dist.	26%	74%		63%	37%	

Site Trips:

The site trips for the AM and PM peak hour were developed by applying the trip generation rates to the number of units. In the March 2020 Memo, these trips were identified as Part 2 and are shown in **Table 3** below.

Table 2: Site Trips – Part 2 (West side)²

DESCRIPTION	UNITS	AM PEAK HOUR			PM PEAK HOUR		
		TRIPS IN	TRIPS OUT	TRIPS	TRIPS IN	TRIPS OUT	TRIPS
Multifamily Housing (Low Rise)	60	7	21	28	21	13	34

The previously estimated site two-way vehicle trips were **28** trips in the AM peak hour and **34** trips in the PM peak hour.

By comparison, the new trips generated for the west side have been developed and shown in **Table 3**.

Table 3: New Site Trips

DESCRIPTION	UNITS	AM PEAK HOUR			PM PEAK HOUR		
		TRIPS IN	TRIPS OUT	TRIPS	TRIPS IN	TRIPS OUT	TRIPS
Single family	12	2	6	8	7	4	11

The estimated new site two-way vehicle trips are **8** trips in the AM peak hour and **11** trips in the PM peak hour.

As can be seen, the new development proposed will have significantly less trips than previously proposed with a 71% reduction in trips in the AM Peak hour and a 68% reduction in trips in the PM Peak Hour.

5. Future Total Traffic

The previous work included the analysis of the Future Total Traffic for 2024 which included 60 units on the west side of Highway 99. The analysis focussed on the operation of the upgraded intersection at Riverside Drive and Highway 99. The worst case scenario is the PM Peak hour. The analysis showed that the intersection is estimated to operate

² Table 4, Wedgewood Development – High Level Transportation Review, March 24, 2020, Howes Technical Advantage Ltd.

well as an unsignalized intersection with some minor delays to the side streets. All movements operate at LOS C or better. This is shown in **Table 4**.

Table 4: Future Total Traffic Operation (2024) PM Pk Hr – March 2020 Memo³

Movement	PM Pk Hr		
	LOS	95% Q (m)	v/c
WB L + T	C	4	0.14
EB L + T	B	1	0.02
NB L	A	1	0.01
SB L	A	1	0.02

The future volume analysis were adjusted to reflect the Opening day of year 2026 and the reduced volumes on the west leg of the intersection. The analysis was rerun and the results are shown in **Table 5**. With the adjusted lower volumes on the west leg of the intersection with this application, there is slight improvement in the overall operation. The analysis showed that the intersection is estimated to operate well as an unsignalized intersection with limited delays to the side streets. All movements operate at LOS C or better.

Table 5: Future Total Traffic Operation (2026) – PM Pk Hr – Updated Volumes

Movement	PM Pk Hr		
	LOS	95% Q (m)	v/c
WB L + T	C	4	0.14
EB L + T	B	0	0.005
NB L	A	1	0.005
SB L	A	1	0.02

6. Conclusions

This section provides conclusions based on the review undertaken.

- The estimated two-way total site vehicle trips for the new development are 8 trips in the AM peak hour and 11 trips in the PM peak hour. Compared to the previous analysis, this is a reduction of a 71% reduction in trips in the AM Peak hour and a 68% reduction in trips in the PM Peak Hour for the west leg of the intersection.
- The forecast traffic on Highway 99 at this location for 2026, which includes the development traffic, is estimated at ~580 two way trips in AM Peak hour and ~750 two way trips in PM peak hour. The new site trips make up 1.5% of the total peak hour traffic. The increase of new traffic is small and is well within the capacity of the intersection.
- The unsignalized intersection of Riverside Drive and Highway 99 operates well at full build out in 2026. All movements operate at LOS C or better.

³ Table 7, Wedgewood Development – High Level Transportation Review, March 24, 2020, Howes Technical Advantage Ltd.

7. Recommendations

The proposed development will not unduly affect traffic operation on Highway 99 as the traffic demand is low in relation to the overall traffic volume on Highway 99. It is recommended that no further upgrades to the existing transportation infrastructure as a result of this development are required.

Respectfully submitted,



25 April 2025

Donna Howes, P.Eng., FEC, PTOE

Director

Howes Technical Advantage Ltd.

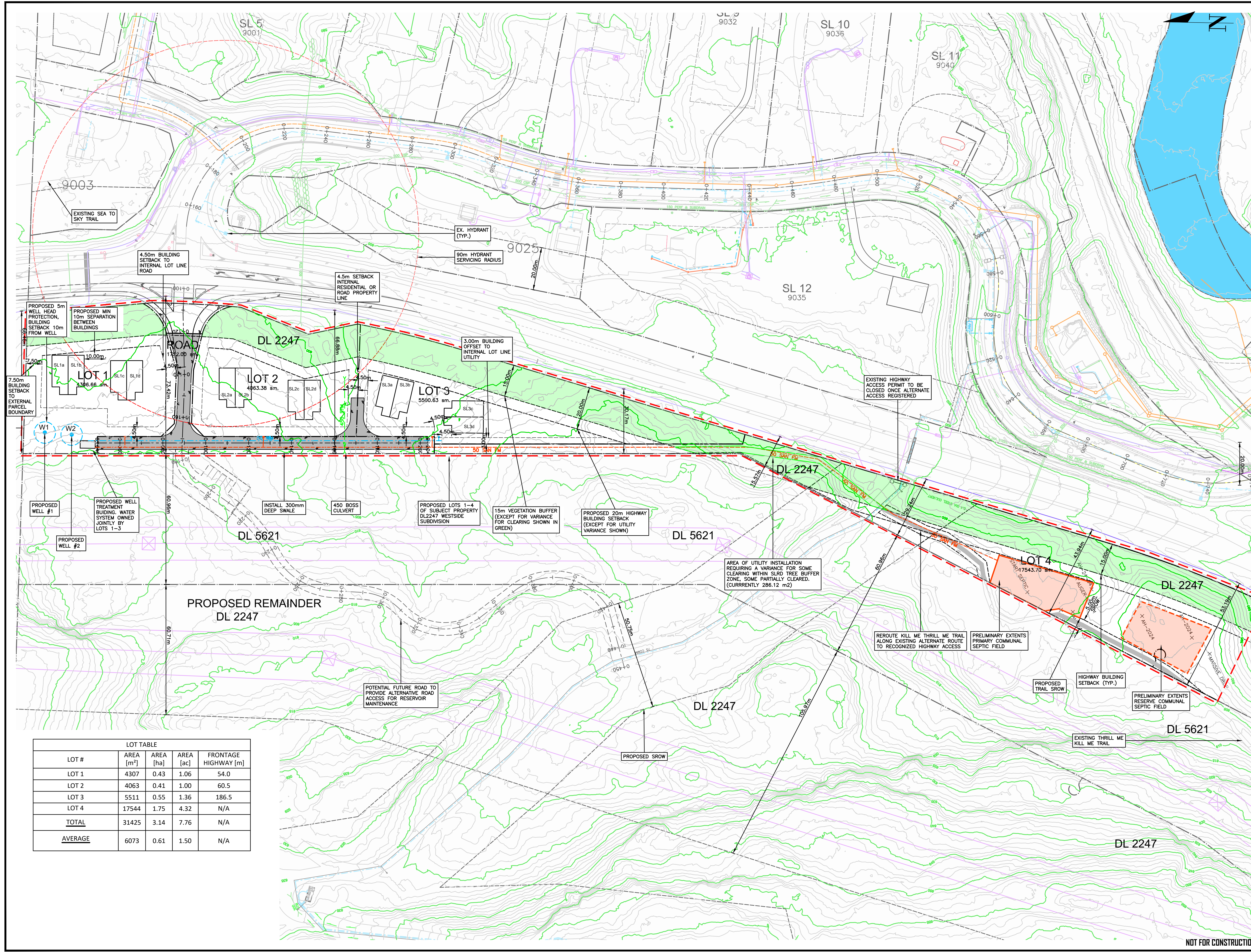
Permit to Practice # 1000164

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ATTACHMENT 1

Proposed Development Layout



DRAWING LEGEND

	EXISTING	PROP.	TO BE REMOVED
LEGAL LINE	---	---	---
EASEMENT	---	---	---
WATERMAIN	---	---	---
SEWER	---	---	---
STREET LIGHT	---	---	---
GAS	---	---	---
FIRE HYDRANT	---	---	---
GATE VALVE	---	---	---
REDUCER	---	---	---
INSPECTION CHAMBER	---	---	---
CATCHBASIN (CIB/CO)	---	---	---
MANHOLE	---	---	---
POWER POLE	---	---	---
STREET LIGHT	---	---	---

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PRELIMINARY SERVICING PLAN

LOT TABLE

LOT #	AREA [m ²]	AREA [ha]	AREA [ac]	FRONTAGE HIGHWAY [m]
LOT 1	4307	0.43	1.06	54.0
LOT 2	4063	0.41	1.00	60.5
LOT 3	5511	0.55	1.36	186.5
LOT 4	17544	1.75	4.32	N/A
TOTAL	31425	3.14	7.76	N/A
AVERAGE	6073	0.61	1.50	N/A

no.	date	revision	by
9	25-03-24	ISSUED FOR SLRD REZONING	CLW
8	25-03-08	ISSUED FOR REVIEW	TW
7	24-09-03	UPDATED PER SLRD INPUT	EYC
6	24-07-16	ISSUED FOR MOTI PRE APPLICATION	CLW
5	24-07-09	ISSUED FOR INTERNAL REVIEW	CLW
4	24-06-11	ISSUED FOR REVIEW	R.JL
3	24-05-10	REVISED PER FIELD REVIEW	CLW
2	24-05-03	ISSUED FOR SITE INVESTIGATION	CLW

engineer of record: KBH
 designed by: KBH
 drawn by: CLW
 date: 24-04-24

scale: 1:750
 sheet no.: 09803
 drawing no.: SERV

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