

Memorandum

To:	Shane Tapani CT6, LLC
From:	Daniel Stumpf, PE
Date:	March 7, 2025
Subject:	River's Edge on the Landing Subdivision Transportation Compliance Letter



Introduction

This Transportation Compliance Letter (TCL) details a trip generation and accounting analysis for the proposed River's Edge on the Landing Subdivision, to be located within the Landing on the Cowlitz (LOTC) Master Plan area in Castle Rock, Washington. The project will develop a 45-lot residential subdivision a single property (tax parcel 308640100) in Castle Rock, Washington.

Since the proposed development will be located in the Landing on the Cowlitz Master Plan area, according to the LOTC Development Agreement all subsequent land use development applications in the LOTC Master Plan area are required to prepare a trip generation and accounting analysis to verify the following:

- Ensure total site trip generation of all existing/planned/proposed developments within the LOTC Master Plan area does not exceed the reserved number of PM peak hour trips.
- Determine if/when mitigation will be triggered at nearby transportation facilities based on the total PM peak hour trip generation of all existing/planned/proposed developments within the LOTC Master Plan area.

The City of Castle Rock has reserved transportation capacity for the LOTC development. The LOTC development has been granted an initial 1,000 PM peak hour trips for reservation. Additional transportation capacity, up to 1,750 PM peak hour trips, may be reserved when the development consumes 80% (800 PM peak hour trips) of the initial capacity as outlined in the Development Agreement.

Detailed trip generation calculations and supporting data are included as attachments to this memorandum.

Project Site Description

The project site is located southwest of Huntington Avenue S and east/northeast of Larson Lane SW in Castle Rock, Washington. The site consists of three properties (tax parcels 30813, 308120100, and 30812), all of which are currently undeveloped.

As described in the *Introduction*, the site will be redeveloped as a 45-lot residential subdivision consisting of single-family detached houses. Main access to the site will be provided via a proposed Minor Arterial connection to Huntington Avenue S.

Trip Generation Analysis

To estimate the number of trips that will be generated by the proposed use, trip rates from the *Trip Generation Manual*¹ were used. Data from the land use code 210, *Single-Family Detached Housing*, was used to estimate site trip generation based on the square footage of the gross building floor area.

In accordance with the *Landing on the Cowlitz Master Plan Transportation Impact Study* (TIS), dated November 13, 2023, the following internal capture rates were applied to the proposed development's trip generation:

- AM Peak Hour: Approximately 6% of the total site trips.
- PM Peak Hour & Average Weekday: Approximately 13% of the total site trips.

The trip generation calculations show that the proposed development is projected to generate the following:

- Total Trips (Excluding Internal Capture Trips): 30 AM peak hour trips, 37 PM peak hour trips, and 368 average weekday trips.
- Pass-by Trips (Excluding Internal Capture Trips): 0 AM peak hour trips, 0 PM peak hour trips, and 0 average weekday trips.
- Primary Trips (Excluding Internal Capture Trips): 30 AM peak hour trips, 37 PM peak hour trips, and 368 average weekday trips.

The trip generation estimates are summarized in Table 1. Detailed trip generation calculations are included as an attachment to this memorandum.

¹ Institute of Transportation Engineers (ITE), *Trip Generation Manual*, 11th Edition, 2021.



Table	1:	Trip	Generation	Summary
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Land Use Code		Sizo	AM	Peak H	our	PN	Peak H	our	Weekday
		Size	Enter	Exit	Total	Enter	Exit	Total	Total
Single-Family Detached Housing	210	45 units	8	24	32	26	16	42	424
Pass-by Trips	-	0% (0%)	0	0	0	0	0	0	0
Total Prir	nary Trips	i	8	24	32	26	16	42	424
Internal Trip Reduction (Total Trips)			0	2	2	3	2	5	56
Internal Trip Reduc (Pass-by Trips)	tion	6% (13%)	0	0	0	0	0	0	0
Internal Trip Reduction (Primary Trips)			0	2	2	3	2	5	56
Total External Trips		8	22	30	23	14	37	368	
Total External Pass-by Trips		0	0	0	0	0	0	0	
Total External Primary Trips		8	22	30	23	14	37	368	

Table Notes: AM and PM/ADT internal and pass-by rates denoted as AM (PM/ADT).

Trip Accounting Analysis

As described above, the proposed development will be located within the LOTC Master Plan where per the LOTC Development Agreement a reserved number of PM peak hour trips are vested. Additionally, PM peak hour thresholds to determine when transportation mitigation at nearby facilities would be necessary were established. To determine if the proposed development will not exceed the vested trip thresholds or trigger the need for transportation mitigation, a trip accounting analysis was conducted.

LOTC Trip Accounting

The proposed River's Edge on the Landing Subdivision will be the first development application proposed in the LOTC Master Plan area, where currently the total remaining trips vested are 1,000 PM peak hour trips. After approval of the River's Edge on the Landing Subdivision application, 963 PM peak hour trips will remain available in the bank of trips. Table 2 below summarizes the remaining trips vested in the LOTC Master Plan area following approval of the proposed development application.



Table 2: Remaining Vested Trip Summary (Total Trips Generated)

Project Name	Total PM Peak Hour Trips Allocated	Total PM Peak Hour Trips Remaining in Bank	Cumulative PM Peak Hour Trips Consumed from Bank
LOTC Master Plan	-	1,000	-
River's Edge on the Landing	37	963	37

Mitigation Threshold Analysis

Per the *Landing on the Cowlitz Master Plan TIS*, three intersections were identified as requiring capacity related mitigation improvements at specific impact thresholds. These intersections include the following:

- 1. SR-411 at Westside Highway
 - a. Mitigation required under 2043 conditions with or without impacts from the LOTC Master Plan area.
 - b. The LOTC will impact the intersection with 15% of externally generated primary trips.
- 2. Site Access at Huntington Avenue
 - a. Mitigation required once impacted by 657 PM peak hour trips.
 - b. The LOTC will impact the intersection with 100% of externally generated primary trips and pass-by trips.
- 3. I-5 Northbound Ramps at Huntington Avenue
 - a. Mitigation required once impacted by 384 PM peak hour trips.
 - b. The LOTC will impact the intersection with the following:
 - i. 10% of externally generated primary trips exiting the site.
 - ii. 50% of externally generated primary trips entering the site.
 - iii. 47.5% of externally generated pass-by trips.

Table 3 evaluates the PM peak hour trip thresholds of mitigation at nearby transportation facilities and if they will be necessary as part of this application.



Table 3: Mitigation Trip Impact Summary (Externally Generated PM Peak Hour Trips)

Т	ransportation Facility	Planned Mitigation	Mitigation Threshold	Prior Approved Development Impacts	Proposed Development Impacts	Total Trip Impact	Mitigation Threshold Exceeded?
		Apply Exte	rnally Genera	ated Primary Ti	rip Impacts		
1	SR-411 at Westside Highway	TBD, Collect Proportionate Share Contributions	0	0	5	5	Yes
		Apply Externally	Generated I	Primary & Pass	by Trip Impacts	5	
2	Site Access at Huntington Avenue	Single Lane Roundabout with NEB Right-turn Bypass Lane	657	0	37	37	No
3	I-5 NB Ramps at Huntington Avenue	TBD	384	0	13	13	No

A trip assignment figure for the proposed development is included as an attachment to this TCL.

Analysis Summary

Based on Tables 2 and 3, the proposed development will not increase PM peak hour trip generation to a level that exceeds the number of trips vested in the LOTC Master Plan area. The threshold for improvements at the SR-411 at Westside Highway intersection are met; however, these improvements were triggered without impacts from the LOTC Master Plan project. No other mitigation is necessary or recommended as part of the River's Edge on the Landing Subdivision application.

Conclusions

The proposed River's Edge on the Landing Subdivision is projected to generate 30 total AM peak hour trips, 37 total PM peak hour trips, and 368 total average weekday trips. After approval of the development application, 963 PM peak hour trips will remain available in the bank of trips, and therefore, will not increase PM peak hour trip generation to a level that exceeds the number of trips vested in the LOTC Master Plan area.

The threshold for improvements at the SR-411 at Westside Highway intersection are met; however, these improvements were triggered without impacts from the LOTC Master Plan project. No other mitigation is necessary or recommended as part of the River's Edge on the Landing Subdivision application.

If you have any questions or concerns regarding the preparation of this Transportation Compliance Letter, please don't hesitate to contact us.





TRIP GENERATION CALCULATIONS Source: Trip Generation Manual, 11th Edition

Land Use:Single-Family Detached HousingLand Use Code:210Land Use Subcategory:All SitesSetting/LocationGeneral Urban/SuburbanVariable:Dwelling UnitsTrip Type:VehicleFormula Type:RateVariable Quantity:45

AM PEAK HOUR

Trip Rate: 0.7

	Enter	Exit	Total
Directional Split	25%	75%	
Trip Ends	8	24	32

Trip Rate: 0.94

	Enter	Exit	Total
Directional Split	63%	37%	
Trip Ends	26	16	42

WEEKDAY

Trip Rate: 9.43

_	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	212	212	424

SATURDAY

Trip Rate: 9.48

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	213	213	426

Source: Trip Generation Manual, 11th Edition



AM PEAK HOUR



PM PEAK HOUR

 \uparrow $\overline{}$ PRIMARY TRIPS 27 8[^] 2 ¢ο $\overset{\circ\circ\circ\circ}{\downarrow}\overset{\circ}{\downarrow}\overset{\circ}{\downarrow}\overset{\circ}{\downarrow}$ 24 PASS-BY TRIPS K'ò Ó ~`` 2 Ĺ ∇ K'o TOTAL TRIPS 6 8^{^_}





