

MEMORANDUM

DATE: July 2, 2021

TO: City of Mercer Island, WA

FROM: Chris Forster, P.E. / Chandler Waldal
TENW

SUBJECT: Traffic Scoping Memo for the proposed Mercer Island Rowhouse – Mercer Island, WA
TENW Project No. 2021-124

This memorandum is intended to provide the preliminary traffic information for the proposed Mercer Island Rowhouse project located on the southwest corner of SE 29th St/77th Ave SE. This memo includes a project description, trip generation calculations, project trip distribution and assignment, and a preliminary list of potential study intersections.

Project Description

The proposed Mercer Island Rowhouse site is located on the southwest corner of SE 29th St/77th Ave SE as shown in the **Attachment A** Vicinity Map. The project proposal includes up to 40 three-story townhomes located on a site that is currently occupied by one office building and its associated parking garage. The existing office building will remain with the proposed project; however, a portion of the parking garage will be removed as part of the project's future development. Vehicular access is proposed via a new driveway on 77th Ave SE that will be located mid-way between SE 29th Street to the north and the existing office parking access to the south. A preliminary site plan is shown in **Attachment B**.

Project Trip Generation

The new weekday daily, AM and PM peak hour trip generation estimates for full buildout of the project were based on methodology documented in the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 10th Edition for Land Use Code (LUC) 221 (Multifamily Housing (Mid-Rise)). **Table 1** summarizes the new weekday trip generation with detailed trip generation calculations provided in **Attachment C**.

Table 1. Trip Generation Summary

Time Period	New Trips Generated		
	In	Out	Total
Weekday Daily	108	108	216
Weekday AM Peak Hour	4	10	14
Weekday PM Peak Hour	11	7	18

As shown in **Table 1**, the proposed project is estimated to generate 216 new weekday daily trips, with 14 new trips (4 in, 10 out) occurring during the weekday AM peak hour and 18 new trips (11 in, 7 out) occurring during the weekday PM peak hour.

Project Trip Distribution and Assignment

The distribution of project-generated trips during the weekday AM and PM peak hours was estimated based on a review of existing travel patterns and on the residential trip distribution patterns approved by the City of Mercer Island for the *Mercer Island Mixed Use* project located adjacent to the site at 2885 78th Ave SE. In addition, the proposed Mercer Island Rowhouse project assigned 5% of exiting project trips to the eastbound High-Occupancy Vehicle (HOV) direct access on-ramp located on 80th Ave SE. The preliminary distribution and assignment of the weekday AM and PM peak hour project trips are shown graphically in **Attachment D**.

Potential study intersections were identified as intersections impacted by 10 or more peak hour project-generated trips. The following two off-site intersections have been identified as potential study intersections:

1. 77th Ave SE/SE 29th St
2. 77th Ave SE/SE 27th St

In addition to these two off-site study intersections, the proposed site access driveway on 77th Ave SE is a potential study intersection.

Traffic Study Scope Confirmation

Upon your review of this information, we would like to discuss and confirm the scope for additional traffic analysis that may be required for this project.

If you have any questions regarding the information presented in this memo, please contact me at (760) 994-7376 or chandler@tenw.com.

cc: Kate Suski – Ryan Companies

- Attachments:
- A. Project Site Vicinity
 - B. Preliminary Site Plan
 - C. Trip Generation Calculations
 - D. Peak Hour Project Trip Distribution and Assignment



Attachment A: Project Site Vicinity



ATTACHMENT C

Trip Generation Calculations

Mercer Island Rowhouse

Weekday Trip Generation Estimate

Land Use	Size / Units	ITE LUC ¹	Trip Rate ¹	Directional Split ¹		Vehicle Trip Generation		
				Enter	Exit	Enter	Exit	Total
DAILY								
<u>Proposed Uses:</u>								
Townhomes (Multifamily Housing (Mid-Rise))	40 DU	221	EQN	50%	50%	108	108	216
Total Proposed New Daily Trips =						108	108	216
AM PEAK HOUR								
<u>Proposed Uses:</u>								
Townhomes (Multifamily Housing (Mid-Rise))	40 DU	221	EQN	26%	74%	4	10	14
Total Proposed New AM Peak Hour Trips =						4	10	14
PM PEAK HOUR								
<u>Proposed Uses:</u>								
Townhomes (Multifamily Housing (Mid-Rise))	40 DU	221	EQN	61%	39%	11	7	18
Total Proposed New PM Peak Hour Trips =						11	7	18

Notes:

1. Land Use Code, trip rates, and directional splits from Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition, 2017.



Attachment D: Peak Hour Project Trip Distribution and Assignment

