

Memorandum

To: Erin Upham
Axis Design Group

From: Daniel Stumpf, PE

Date: November 7, 2022

Subject: Herzog Meier Volkswagen Volvo Transportation Impact Analysis – Addendum



RENEWS: 6/30/2024

Introduction

This memorandum is written to serve as an addendum to the *Herzog Meier Volkswagen Volvo Traffic Impact Analysis (TIA)*, dated July 6, 2021. The TIA reviewed impacts associated with the replacement of an existing 5,703 square foot service building with a new 24,900 square foot service building (a net increase of 19,197 square feet of building space) at the Herzog-Meier Volkswagen-Volvo dealership, addressed at 4275 SW 139th Way in Beaverton, Oregon.

After receiving approval for the initial development application, the following modifications to the development plan were proposed:

- The proposed building footprint will decrease from 24,900 square feet to 23,700 square feet.
- The prior proposed rooftop parking and vehicle ramp will be removed.
- The proposed building will consist of simple tilt-up concrete construction.
- No changes to the number of existing service bays are proposed.
- No change to parking locations or quantities are proposed.

Specific to the change in the building square footage, this addendum includes an updated evaluation of the proposed development's trip generation and compares the proposed modification's trip generation relative to the prior approved trip generation in the TIA. The trip generation analysis is intended to determine if the project exceeds the City of Beaverton's or ODOT's trip generation thresholds for requiring an updated TIA.

Trip Generation

The proposed site modification decreases the building square footage of the prior approved dealership service building from 24,900 square feet to 23,700 square feet. Under both the prior and current proposals, an existing 5,703 square foot service building will be removed.

To estimate the number of trips generated by the proposed project, trip rates from the *Trip Generation Manual*¹ were used. To be consistent with the TIA, data from the 10th Edition of the *Trip Generation Manual* was used in lieu of the current 11th Edition manual. Data from land use code 840, *Automobile Sales (New)*, was used to estimate and compare the project's trip generation based on the square footage of the gross building floor area.

The trip generation calculations show that the proposal is expected to reduce the overall trip generation of the prior approved development plan by 3 morning peak hour trips, 3 evening peak hour trips, and 34 average weekday trips. The trip generation estimates are summarized in Table 1. Detailed trip generation calculations are included as an attachment to this addendum.

Table 1: Trip Generation Summary

	ITE Code	Size	Morning Peak Hour			Evening Peak Hour			Weekday Total
			Enter	Exit	Total	Enter	Exit	Total	
Prior Approved TIA Trip Generation									
Existing Service Building	840	5,703 SF	8	3	11	6	8	14	158
Proposed Service Building	840	24,900 SF	34	13	47	24	37	61	694
Net Increase		19,197 SF	26	10	36	18	29	47	536
Proposed Modification Trip Generation									
Existing Service Building	840	5,703 SF	8	3	11	6	8	14	158
Proposed Service Building	840	23,700 SF	32	12	44	23	35	58	660
Net Increase		17,997 SF	24	9	33	17	27	44	502
Net Change In Trip Generation									
Net Decrease		1,200 SF	-2	-1	-3	-1	-2	-3	-34

Per the City of Beaverton's Development Code Section 60.55.20.2 Analysis Threshold, "A *Traffic Impact Analysis* is required when the proposed land use change or development will generate 300 vehicles or more per day (vpd) in average weekday trips as determined by the City Engineer." Additionally, per Table 3.2: *TIA Threshold and Analysis Areas* in ODOT's *Development Review Guidelines*², a TIA will be necessary if the proposal were to generate 50 morning or evening peak hour trips, or 300 average daily trips impacts to ODOT intersections. Since the proposed project is projected to result in a net decrease in peak hour and average weekday trips relative to the prior approved development proposal, the above thresholds for requiring a new TIA are not met.

¹ Institute of Transportation Engineers (ITE), *Trip Generation Manual*, 10th Edition, 2017.

² Oregon Department of Transportation, *Development Review Guidelines*, 2017.



Conclusions

The proposed revisions to the construction of the prior approved Herzog-Meier Volkswagen-Volvo dealership development plan are projected to decrease site trip generation by 3 morning peak hour trips, 3 evening peak hour trips, and 34 average weekday site trips. According to City of Beaverton's Development Code Section 60.55.20.2 and ODOT's intersection impact thresholds, the proposed project is not projected to trigger either agency's peak hour or average daily trip generation thresholds for requiring a full TIA. Therefore, the preparation of this trip generation analysis and addendum to the July 2021 TIA is sufficient to report the minimal impacts of the proposed development to the transportation system.

If you have any questions or concerns regarding this analysis or need further assistance, please don't hesitate to contact us.





TRIP GENERATION CALCULATIONS Existing Conditions

Land Use: Automobile Sales (New)
Land Use Code: 840
Setting/Location: General Urban/Suburban
Variable: 1,000 Sq. Ft. GFA
Variable Value: 5.703

AM PEAK HOUR

Trip Rate: 1.87

	Enter	Exit	Total
Directional Distribution	73%	27%	
Trip Ends	8	3	11

PM PEAK HOUR

Trip Rate: 2.43

	Enter	Exit	Total
Directional Distribution	40%	60%	
Trip Ends	6	8	14

WEEKDAY

Trip Rate: 27.84

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	79	79	158



TRIP GENERATION CALCULATIONS
Prior Approved TIA Proposed Conditions

Land Use: Automobile Sales (New)
Land Use Code: 840
Setting/Location: General Urban/Suburban
Variable: 1,000 Sq. Ft. GFA
Variable Value: 24.9

AM PEAK HOUR

Trip Rate: 1.87

	Enter	Exit	Total
Directional Distribution	73%	27%	
Trip Ends	34	13	47

PM PEAK HOUR

Trip Rate: 2.43

	Enter	Exit	Total
Directional Distribution	40%	60%	
Trip Ends	24	37	61

WEEKDAY

Trip Rate: 27.84

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	347	347	694



TRIP GENERATION CALCULATIONS Proposed Modification Conditions

Land Use: Automobile Sales (New)

Land Use Code: 840

Setting/Location: General Urban/Suburban

Variable: 1,000 Sq. Ft. GFA

Variable Value: 23.7

AM PEAK HOUR

Trip Rate: 1.87

	Enter	Exit	Total
Directional Distribution	73%	27%	
Trip Ends	32	12	44

PM PEAK HOUR

Trip Rate: 2.43

	Enter	Exit	Total
Directional Distribution	40%	60%	
Trip Ends	23	35	58

WEEKDAY

Trip Rate: 27.84

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	330	330	660