

Memorandum

To: Robert Bolt
From: Daniel Stumpf, PE
Date: January 2, 2024
Subject: 650 15th Street SE Comprehensive Plan Amendment
Pre-App No. 23-38 (23-107269)
Trip Generation and Transportation Planning Rule Analysis



Introduction

This memorandum reports the findings of a trip generation and Transportation Planning Rule (TPR) analysis related to the proposed zone change and Comprehensive Plan Map amendment of two properties located at 650 15th Street SE in Salem, Oregon. The proposal will include rezoning the properties from *Multiple Family Residential* (RM-II) to *General Industrial* (IG).

The purpose of this memorandum is to examine the change in the trip generation potential of the site following implementation of the proposed change in zoning. The study will review the morning and evening peak hours and average daily trip generation potentials of the site under both existing and proposed zones and will address the TPR to ensure that the transportation system is capable of supporting any changes in traffic intensity resultant of the proposed zone change.

Location Description

Project Site Description

The project site is located north of Mission Street SE (OR-99E) south of Oak Street SE, east of 14th Street SE, and west of 17th Street SE in Salem, Oregon. The subject site is located in a mixed-use area of the City, with a mix of residential single-family houses and industrial/office uses surrounding the site in all directions. The site includes two properties (tax lots 073W26CD-04800 and 04900) which encompass an approximate total of 0.99 acres. Both lots are developed with three light industrial/warehouse/office buildings.

Figure 1 presents an aerial image of the nearby vicinity with the project site outlined in yellow.



Figure 1: Aerial Photo of Site Vicinity (Image from Google Earth)

Trip Generation

The subject site is currently zoned as RM-II and is proposed for a change in zoning to IG. To determine the impacts of the proposed change in zoning, reasonable “worst-case” development scenarios for the existing and proposed zones were determined utilizing data for the most traffic-intensive uses permitted within each zone that could reasonably develop.

Existing RM-II Zone

To determine a reasonable “worst-case” development scenario under the existing zone, City of Salem Code *Section 514: RM-II – Multiple Family Residential* was referenced and compared to land uses provided in the *Trip Generation Manual*¹. Based on an assessment of permitted uses under the RM-II zone, data from land use code 220, *Multifamily Housing (Low-Rise)*, was used based on the number of dwelling units.

Per *Table 514-3 – Dwelling Unit Density*, the maximum density for residential dwelling units on a per acre basis is 31 dwelling units. Given the project site encompasses 0.99 acres, the proposed RM-II zone could include the construction of up to 30 multifamily housing units.

Proposed IG Zone

To determine a reasonable “worst-case” development scenario under the proposed zone, City of Salem Code *Section 554: General Industrial* was referenced and compared to land uses provided in the *Trip Generation Manual*. Based on an assessment of permitted uses under the IG zone and correspondence with City of Salem

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

staff, data from land use 110, *General Light Industrial*, was used based on the square footage of the gross building floor area.

The proposed IG zone area encompasses approximately 0.99 acres (approximately 43,130 square feet) of developable space. Per City of Salem Code *Table 554-5 Lot Coverage; Height*, the IG zone does not have a maximum lot coverage standard. Therefore, it is assumed any potentially developed industrial building would cover approximately 30% of the developable area within the IG zone area (the remaining 70% of space would be dedicated to parking, public space, right-of-way improvements, etc). Therefore, approximately 12,940 square feet of building space (assuming single-floor buildings) may be constructed within the IG zone.

Trip Generation Comparison

The trip generation calculations show that under the existing RM-II zone, the subject site could reasonably generate up to 12 morning peak hour trips, 15 evening peak hour trips, and 202 average weekday trips. Under the proposed IG zone, the site could reasonably generate up to 10 morning peak hour trips, 8 evening peak hour trips, and 64 average weekday trips. Accordingly, the net change in trip generation potential of the site after the proposed rezone is projected to decrease by 2 morning peak hour trips, 7 evening peak hour trips, and 138 average weekday trips.

The trip generation estimates associated with the proposed zone change are summarized in Table 1. Detailed trip generation calculations are included as an attachment to this memorandum.

Table 1: Zone Change Trip Generation Summary

ITE Code		Size/Rate	Morning Peak Hour			Evening Peak Hour			Weekday Total
			Enter	Exit	Total	Enter	Exit	Total	
Existing RM-II Zone									
220	Multifamily Housing (Low-Rise)	30 dwelling units	3	9	12	9	6	15	202
Proposed IG Zone									
110	General Light Industrial	12,940 SF	9	1	10	1	7	8	64
Net Change in Site Trip Generation Potential									
Net Change in Primary Trips			6	-8	-2	-8	1	-7	-138



Transportation Planning Rule

Given the proposed project includes a change in zoning of the project site, the Transportation Planning Rule (TPR) needs to be evaluated. The TPR is in place to ensure that the transportation system is capable of supporting possible increases in traffic intensity that could result from changes to adopted plans and land use regulations. The applicable elements of the TPR are each quoted directly in italics below, with responses following.

660-012-0060

- (1) *If an amendment to a functional plan, an acknowledged comprehensive plan, or a land use regulation (including a zoning map) would significantly affect an existing or planned transportation facility, then the local government must put in place measures as provided in section (2) of this rule, unless the amendment is allowed under section (3), (9) or (10) of this rule. A plan or land use regulation amendment significantly affects a transportation facility if it would:*
- (a) *Change the functional classification of an existing or planned transportation facility (exclusive of correction of map errors in an adopted plan);*
 - (b) *Change standards implementing a functional classification system; or*
 - (c) *Result in any of the effects listed in paragraphs (A) through (C) of this subsection based on projected conditions measured at the end of the planning period identified in the adopted TSP. As part of evaluating projected conditions, the amount of traffic projected to be generated within the area of the amendment may be reduced if the amendment includes an enforceable, ongoing requirement that would demonstrably limit traffic generation, including, but not limited to, transportation demand management. This reduction may diminish or completely eliminate the significant effect of the amendment.*
 - (A) *Types or levels of travel or access that are inconsistent with the functional classification of an existing or planned transportation facility;*
 - (B) *Degrade the performance of an existing or planned transportation facility such that it would not meet the performance standards identified in the TSP or comprehensive plan; or*
 - (C) *Degrade the performance of an existing or planned transportation facility that is otherwise projected to not meet the performance standards identified in the TSP or comprehensive plan.*

Subsections (a) and (b) are not triggered since the proposed zone change will not impact or alter the functional classification of any existing or planned facility and the proposal does not include a change to any functional classification standards.



Regarding subsection (c), the proposed rezone is projected to decrease the morning peak hour, evening peak hour, and average daily trip generation potential of the site. Accordingly, the proposed zone change will have no significant impact on the operation of area streets and intersections since the zone change will not result in an increase in the peak hour or daily trip generation potential of the site. Therefore, subsection (c) will not be triggered.

Based on the above review and evaluation of the TPR, the proposed zone change and subsequent development project will not impact or alter the functional classification of any existing or planned facility, the proposal does not include a change to any functional classification standards, and the zone change will not degrade the performance of any existing or planned transportation facility below acceptable agency standards. Accordingly, the TPR is satisfied.

Conclusions

The trip generation calculations show that under the existing RM-II zone, the subject site could reasonably generate up to 12 morning peak hour trips, 15 evening peak hour trips, and 202 average weekday trips. Under the proposed IG zone, the site could reasonably generate up to 10 morning peak hour trips, 8 evening peak hour trips, and 64 average weekday trips. Accordingly, the net change in trip generation potential of the site after the proposed rezone is projected to decrease by 2 morning peak hour trips, 7 evening peak hour trips, and 138 average weekday trips.

The proposed zone change and subsequent development project will not impact or alter the functional classification of any existing or planned facility, the proposal does not include a change to any functional classification standards, and the zone change will not degrade the performance of any existing or planned transportation facility below acceptable agency standards. Accordingly, the Transportation Planning Rule is satisfied.

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





TRIP GENERATION CALCULATIONS

Source: Trip Generation Manual, 11th Edition

Proposed IG Zone

Land Use: General Light Industrial

Land Use Code: 110

Land Use Subcategory: All Sites

Setting/Location: General Urban/Suburban

Variable: 1000 SF GFA

Trip Type: Vehicle

Formula Type: Rate

Variable Quantity: 12.94

AM PEAK HOUR

Trip Rate: 0.74

	Enter	Exit	Total
Directional Split	88%	12%	
Trip Ends	9	1	10

PM PEAK HOUR

Trip Rate: 0.65

	Enter	Exit	Total
Directional Split	14%	86%	
Trip Ends	1	7	8

WEEKDAY

Trip Rate: 4.87

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	32	32	64

SATURDAY

Trip Rate: 0.69

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	4	4	8

Caution: Small Sample Size



TRIP GENERATION CALCULATIONS

Source: Trip Generation Manual, 11th Edition

Existing RM-II Zone

Land Use: Multifamily Housing (Low-Rise)

Land Use Code: 220

Land Use Subcategory: Not Close to Rail Transit

Setting/Location: General Urban/Suburban

Variable: Dwelling Units

Trip Type: Vehicle

Formula Type: Rate

Variable Quantity: 30

AM PEAK HOUR

Trip Rate: 0.4

	Enter	Exit	Total
Directional Split	24%	76%	
Trip Ends	3	9	12

PM PEAK HOUR

Trip Rate: 0.51

	Enter	Exit	Total
Directional Split	63%	37%	
Trip Ends	9	6	15

WEEKDAY

Trip Rate: 6.74

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	101	101	202

SATURDAY

Trip Rate: 4.55

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	68	68	136

Caution: Small Sample Size