

## MEMORANDUM Site Plan Review – Class 3

<b>To:</b>	City of Salem Community Development Department	<b>Date:</b>	08/25/2022
<b>Project:</b>	Stop-N-Save Gas Station with Additional Retail and Oil Change Facility 3997 Carson Dr SE Salem OR 97317	<b>Architect's Project No:</b>	2020-109
<b>From:</b>	Leonard Lodder, AIA, LEED AP for: Studio 3 Architecture, Inc 275 Court Street NE Salem OR 97301	<b>Sent Via:</b>	Email
<b>Subject:</b>	SPR Class III with driveway permit and lot line adjustment. Application Checklist		

### Project Description:

- The owners of the project have acquired the property currently identified as tax lot 10100 immediately to north of the property at 3997 Carson Drive SE, and are looking to add the following elements to the project:
  - A 4 pump gas station.
  - A propane refill station.
  - A cashier's station for the fueling pad.
  - An enlarged, secure trash enclosure.
  - An additional retail commercial building.
  - An Oil Change facility.
  - With other site improvements.
- A driveway permit is included to facilitate a new driveway onto Hagers Grove, "left out and left in only.
- A driveway permit to allow widening of the existing driveway exiting west from the site.
- A lot line adjustment to make one contiguous lot for the entire facility.

### Application Checklist:

#### X COMPLETED APPLICATION FORM.

*The application form must be signed by the applicant(s), property owner(s), and/or duly authorized representative(s). If the applicant and/or property owner is a Limited Liability Company (LLC), please also provide a list of all members of the LLC with your land use application.*  
See attached.

#### X APPLICATION FEE.

*The application fee must be paid at the time of filing your application.*

We anticipate a significant credit from Application 22 102069 00 RP to be applied to this application.

o NEIGHBORHOOD ASSOCIATION CONTACT.

*Neighborhood association contact, pursuant to SRC 300.310, is required prior to submitting this land use application. A copy of the required e-mail or letter to the neighborhood association, and a list of the e-mail or postal addresses to which the e-mail or letter was sent shall be submitted or the land use application will not be accepted.*

See attached pdf of email sent to Southeast Mill Creek Association on 01/12/2022

o RECORDED DEED/LAND SALES CONTRACT WITH LEGAL DESCRIPTION.

*A copy of the recorded deed/land sales contract of the total contiguous ownership of the applicant.*

See attached Deed and Title Report for Tax Lots 10000 and 10100, recently acquired.

o HOMEOWNERS ASSOCIATION INFORMATION.

*A statement indicating whether the subject property is subject to an active and duly incorporated Homeowner's Association (HOA) registered with the Oregon Secretary of State. If so, the applicant shall provide the HOA name, name of the registered agent and the mailing address for the registered agent.*

Not Applicable

X TRIP GENERATION ESTIMATE (TGE) FORM.

*A Trip Generation Estimate (TGE) form must be completed by the applicant and submitted to the Department of Public Works, Traffic Engineering Section, Room 325, to determine whether a Transportation Impact Analysis (TIA) is required for the application.*

See Attached

o TRANSPORTATION IMPACT ANALYSIS (TIA).

*If required for the development, a TIA shall be provided in the format, and based on thresholds, specified in standards established by the Director of Public Works.*

Updated and attached.

o GEOLOGICAL ASSESSMENT OR GEOTECHNICAL REPORT.

*If required by SRC Chapter 810, or a statement from an engineer certifying that landslide risk on the site is low, and that there is no need for further landslide risk assessment.*

Site is not located in a landslide risk area.

X SITE PLAN.

*The site plan must include the following information:*

- *The total site area, dimensions, and orientation relative to north;*

See Site plan

- *The location of all proposed primary and accessory structures and other improvements, including fences, walls, and driveways, indicating distance from the structures and improvements to all property lines and adjacent on-site structures;*

See Site Plan.

- *Loading areas, if included with proposed development;*

Loading Area shown on site plan adjacent to Trash Enclosure.

- *The size and location of solid waste and recyclables storage and collection areas, and amount of overhead clearance above such enclosures, if included with proposed development;*

See the Site Plan for the location and size.

- *An indication of future phases of development on the site, if applicable;*

This proposal will max out the site development.

275 Court Street NE Salem, Oregon 97301-3442 T: 503.390.6500 www.studio3architecture.com

- *All proposed landscape areas on the site, with an indication of square footage and their percentage of the total site area (complete landscape and irrigation plans are required with the building permit application);*

Landscape areas are shown on the Site Plan. Design of Landscape elements will follow.

- *The location, height, and material of fences, berms, walls, and other proposed screening as they relate to landscaping and screening required by SRC Chapter 807;*

Refer to Civil Plans for location of Storm water treatment Facilities.

- *The location of all trees and vegetation required to be protected pursuant to SRC Chapter 808;*

See Site Plan. Note: there are no existing trees on the currently vacant portion of the site.

- *The location of all street trees, if applicable, or proposed location of street trees required to be planted at time of development pursuant to SRC Chapter 86; and*

Deferred to Landscape design. Currently Right-of-Way is bounded by sidewalks and paving with no space for street trees.

- *Identification of vehicle, pedestrian, and bicycle parking and circulation areas, including handicapped parking stalls, disembarking areas, accessible routes of travel, and proposed ramps.*

See Site Plan.

- Bicycle parking shown central to site.
- Vehicle circulation shown on site plan.
- Pedestrian connections identified to all abutting streets.

## X EXISTING CONDITIONS PLAN.

*The existing conditions plan must include the following information:*

- *The total site area, dimensions, and orientation relative to north;*

See Site Plan – Existing Conditions

- *The location of existing structures and other improvements on the site, including accessory structures, fences, walls, and driveways, noting their distance from property lines;*

See Site Plan – Existing Conditions

- *The location of the 100-year flood plain, if applicable.*

Not Applicable

- *The zoning district, comprehensive plan designation, and land uses for all properties abutting the site;*

See Site Plan – Existing Conditions

- *Driveway locations, public and private streets, bike paths, transit stops, sidewalks, and other bike and pedestrian pathways, curbs, and easements;*

See Site Plan – Existing Conditions

- *The elevation of the site at 2-foot contour intervals, with specific identification of slopes in excess of 15 percent; and*

See Site Plan – Existing Conditions

- *The location of drainage patterns and drainage courses, if applicable.*

See Site Plan – Existing Conditions

## o PRELIMINARY UTILITY PLAN.

*A preliminary utility plan shall be submitted showing capacity needs for municipal water, stormwater management, and sewer service, and schematic location of connection points to existing municipal water and sewer services. It is suggested that the utility plan contain the following items:*

See Civil Engineering Drawings.

- *Existing drainage plan and drainage courses;*

See Civil Engineering Drawings.

- *Water service connection and meter location;*

See Civil Engineering Drawings.

- *Maximum water meter size required;*

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See Civil Engineering Drawings.

- *Maximum fire flow needs for development;*

See Civil Engineering Drawings. New and Existing buildings do not require fire sprinklers.

- *Sanitary sewer location and connection to public main;*

See Civil Engineering Drawings.

- *Maximum sanitary sewer service size required; and*

See Civil Engineering Drawings.

- *Storm drain service location and point of disposal.*

See Civil Engineering Drawings.

o PRELIMINARY GRADING PLAN.

*A preliminary utility plan shall be submitted depicting proposed site conditions following completion of the proposed development, when grading of the subject property will be necessary to accommodate the proposed development.*

See Civil Engineering Drawings.

o ARCHITECTURAL DRAWINGS.

*For development in the Mixed Use-I (MU-I) and Mixed Use-II (MU-II) zones, architectural drawings, renderings, or sketches showing all elevations of the existing buildings and the proposed buildings as they will appear on completion.*

This site is not in an MU-1 or MU-2 zone.

X SUMMARY TABLE.

*A summary table shall be submitted which identifies the zoning designation for the subject property; total site area; gross floor area by use (i.e. manufacturing, office, retail, storage); building height; itemized number of full size, compact, and handicapped parking stalls, and the collective total number; total lot coverage proposed, including areas to be paved for parking and sidewalks.*

See Site Plan Sheet

WRITTEN STATEMENT.

*A written statement is recommended to be submitted describing how the proposed development meets the following approval criteria for Class 3 Site Plan Review:*

The new development expands on the existing uses current at the site including a convenience store and related retail units.

Additional development includes the following:

- A new 4-pump gas station,
- A propane refill station,
- A cashier's station to serve the re-fueling pad,
- Additional retail space,
- An enlarged and secure trash/recycling facility, and
- An oil change facility.
- Additional site improvements to support the new uses.

The new and existing uses are compatible service commercial uses that enhance their co-dependence and contribute to needs in the area.

- *The application meets all applicable standards of the UDC;*

Yes, every attempt has been made to satisfy UDC requirements. The plans submitted with this application respond to two sets of responses to a previous attempt to gain a Class III Site Plan Approval for this site. We would have requested that the file would be declared complete with that response but the city has declared that the application has expired.



- *The transportation system provides for the safe, orderly, and efficient circulation of traffic into and out of the proposed development, and negative impacts to the transportation system are mitigated adequately;*

New and existing access points have been designed to enhance efficient movement of traffic within the site and its interface with public streets.

- *Parking areas and driveways are designed to facilitate safe and efficient movement of vehicles, bicycles, and pedestrians; and*

New and existing parking areas have been designed to enhance efficient movement of traffic within the site. Owners recent experiences with conflicts on the site have been mitigated by introducing wider driveway aisles.

- *The proposed development will be adequately served with City water, sewer, storm drainage, and other utilities appropriate to the nature of the development.*

The expanded development will be adequately served with City water, sewer, storm drainage and other utilities as appropriate for the type of development.

# Signed Application

275 Court Street NE Salem, Oregon 97301-3442 T: 503.390.6500 [www.studio3architecture.com](http://www.studio3architecture.com)

Memorandum

Stop-N-Save Gas Station

**File: 2020-109.01**

Project No: 2020-109

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**Planning/Permit Application Center**

City Hall / 555 Liberty St. SE / Room 320 / Salem, OR 97301-3513

503-588-6173 \* [planning@cityofsalem.net](mailto:planning@cityofsalem.net)

If you need the following translated in Spanish, please call 503-588-6256.

Si usted necesita lo siguiente traducido en español, por favor llame 503-588-6256.

(For office use only)

Permit #:

**Application type**

Please describe the type of land use action requested:

**Work site location and information**

<b>Street address or location of subject property</b>	
<b>Total size of subject property</b>	
<b>Assessor tax lot numbers</b>	
<b>Existing use structures and/or other improvements on site</b>	
<b>Zoning</b>	
<b>Comprehensive Plan Designation</b>	
<b>Project description</b>	

**People information**

	<b>Name</b>	<b>Full Mailing Address</b>	<b>Phone Number and Email address</b>
<b>Applicant</b>			
<b>Agent</b>			
<b>Paid By</b>			

**Project information**

<b>Project Valuation for Site Plan Review</b>	
<b>Neighborhood Association</b>	
<b>Have you contacted the Neighborhood Association?</b>	Yes No
<b>Date Neighborhood Association contacted</b>	
<b>Describe contact with the affected Neighborhood Association</b> (The City of Salem recognizes, values, and supports the involvement of residents in land use decisions affecting neighborhoods across the city and strongly encourages anyone requesting approval for any land use proposal to contact the affected neighborhood association(s) as early in the process as possible.)	
<b>Have you contacted Salem-Keizer Transit?</b> <a href="mailto:planning@cherriots.org">planning@cherriots.org</a>	Yes No
<b>Date Salem-Keizer Transit contacted</b>	
<b>Describe contact with Salem-Keizer Transit</b>	
<b>Type the name and address of the Homeowners Association</b> (If none, type "N/A".)	

### Authorization by property owner(s)/applicant

\*If the applicant and/or property owner is a Limited Liability Company (LLC), please also provide a list of all members of the LLC with your application.

**Copyright release for government entities:** I hereby grant permission to the City of Salem to copy, in whole or part, drawings and all other materials submitted by me, my agents, or representatives. This grant of permission extends to all copies needed for administration of the City's regulatory, administrative, and legal functions, including sharing of information with other governmental entities.

**Authorizations:** Property owners and contract purchasers are required to authorize the filing of this application and must sign below.

- All signatures represent that they have full legal capacity to and hereby do authorize the filing of this application and certify that the information and exhibits herewith submitted are true and correct.
- I (we) hereby grant consent to the City of Salem and its officers, agents, employees, and/or independent contractors to enter the property identified above to conduct any and all inspections that are considered appropriate by the City to process this application.
- I (we) hereby give notice of the following concealed or unconcealed dangerous conditions on the property:

**Electronic signature certification:** By attaching an electronic signature (whether typed, graphical or free form) I certify herein that I have read, understood and confirm all the statements listed above and throughout the application form.

Authorized Signature: Inderjit Singh

Print Name: Inderjit Singh Dhaliwal Date: 8-22-2020

Address (include ZIP): 2433 NW Broadway St Albany OR 97321

Authorized Signature: Talwinder Singh

Print Name: Talwinder Dhaliwal Date: 8-22-2022

Address (include ZIP):

(For office use only)		
Received by	Date:	Receipt Number:

**Not using Internet Explorer?**

Save the file to your computer and email to [planning@cityofsalem.net](mailto:planning@cityofsalem.net).

# Trip Generation Report:



**CITY OF Salem**  
AT YOUR SERVICE

Traffic Engineering Section  
Public Works Department  
555 Liberty Street SE, Room 325 Telephone: 503-588-6211  
Salem, Oregon 97301-3513 TTY: 503-588-6292

## Trip Generation Estimate

Street \_\_\_\_\_

Bin # \_\_\_\_\_ TGE # \_\_\_\_\_

Date Received \_\_\_\_\_

### Section 1 (To be completed by applicant.)

Applicant Name: Inderjit S. Dhaliwahi Telephone: 503.999.6545

Applicant Mailing Address: 2433 NW Broadway St Albany OR 97321

Location of New Development: 3997 Carson Dr SE Salem OR 97317

(Please provide street address. If unknown, provide approximate address and geographical description/nearest cross streets.)

Description and Size of New Development: 4 Pump Gas Station, 4,315sf Retail Bldg, 1,888sf two bay Oil Change Bldg.  
(e.g., 150 single-family homes, 20,000 sq. ft. office addition, 12-pump gas station, 50-student day care, additional parking, etc.)

Description and Size of Existing/Past Development, if any (note whether to remain or be removed): See attached previous calc. Existing 5,918sf Retail Building. (note: previous approval for 6,000sf Retail plus 1,500sf drive through retail, not built.

Planning Action Involved, if any: Site Plan Review Class III Building Permit Involved:  
(e.g., zone change, subdivision, partition, conditional use, PUD, mobile home park, etc.) Yes ☒ No ☐

### Section 2 (To be completed by City staff.)

Proposed Use	Existing Use
Development Quantity: _____	Development Quantity: _____
ITE Land Use Code: _____	ITE Land Use Code: _____
Trip Generation Rate/Equation: _____	Trip Generation Rate or Equation: _____
Average Daily Trips: _____	Average Daily Trips: _____
ELNDT Adjustment Factors	ELNDT Adjustment Factors
Trip Length: _____ Linked Trip: _____	Trip Length: _____ Linked Trip: _____
TSDC Trips: _____	TSDC Trips: _____

### Section 3 (To be completed by City staff.)

Transportation Impact Analysis (TIA)	Transportation Systems Development Charge
Net Increase in Average Daily Trips: _____ (Proposed use minus existing use.)	Net Increase in TSDC Trips: _____ (Proposed use minus existing use.)
<input type="checkbox"/> A TIA <b>will</b> be required:	<input type="checkbox"/> A TSDC <b>will</b> be required.
<input type="checkbox"/> Arterial/Collector—1000 Trip/day Threshold <input type="checkbox"/> Local Street/Alley—200 Trip/day Threshold <input type="checkbox"/> Other: _____	(Fee determined by Development Services.)
<input type="checkbox"/> A TIA <b>will not</b> be required.	<input type="checkbox"/> A TSDC <b>will not</b> be required.

(For additional information, refer to the back of this application.)

### Section 4 (To be completed by City staff.)

Remarks: \_\_\_\_\_ Date: \_\_\_\_\_

cc: ☐ Chief Development Services Engineer  
☐ Community Development  
☐ Building Permit Application  
☐ \_\_\_\_\_

By: \_\_\_\_\_

## Information Required to Assess the Need for a Traffic Impact Analysis and Transportation Systems Development Charge



The following information is required in order to assess the need for a Traffic Impact Analysis (TIA) and to calculate the Transportation Systems Development Charge (TSDC) to be levied on a proposed new development.

### TIA Determination:

The City of Salem may require that a TIA be prepared as part of the approval process for major new development. The purpose of a TIA is to estimate the traffic impacts created by a new development on the surrounding street system. Any significantly adverse traffic impacts identified in the TIA must be mitigated by the applicant.

The estimated daily traffic generation of a new development is used as the criteria for determining whether a TIA is needed. If the new development access is located on an arterial or collector and the estimated daily traffic generation is more than 1000 trips, a TIA may be required. If access is located on a local street or alley and the generated trips exceed 200, a TIA may be required. Other criteria such as site access issues, driveway restrictions, and existing facilities deficiencies may also be used, if recommended by City Traffic Engineering staff.

The City Traffic Engineer makes the determination as to whether a TIA is required. (For more information on TIA criteria, see Development Bulletin No. 19 dated January 20, 1995.) When the determination has been made, copies of the Trip Generation Estimate form are sent to Public Works Development Services Division and the applicant. If a planning action is required, a copy is also forwarded to the Community Development Department.

### TSDC Analysis:

The City of Salem charges a TSDC on all new development that creates a net increase in traffic on the surrounding street system. The total charge is assessed on a per trip fee times the TSDC trips calculated for the development. For more information on the TSDC, see Council Staff Report dated October 9, 1995.

To assist in estimating the daily trips generated by a new development, please answer the questions in Section 1 of this sheet and return it to Room 325 of the Civic Center. If you have any questions, Traffic Engineering staff are available at 503-588-6211. A copy of the completed trip generation estimate will be returned to you at the address provided in Section 1.

***No Land Use, Planning, or Development Approval applications requiring Trip Generation Estimates will be processed until this information has been provided and the TIA/TSDC assessment has been made by City Traffic Engineering staff.***



**CITY OF Salem**  
AT YOUR SERVICE

Traffic Engineering Section  
Public Works Department  
555 Liberty Street SE, Room 325 Telephone: 503-588-6211  
Salem, Oregon 97301-3513 TTY: 503-588-6292

### Trip Generation Estimate

Street \_\_\_\_\_  
Bin # \_\_\_\_\_ TGE # 2016109  
Date Received 12-8-2016

#### Section 1 (To be completed by applicant.)

Applicant Name: Inderjit S. Dhalwani Telephone: 503-999-6545  
Applicant Mailing Address: 2433 NW Broadway St., Albany OR 97321  
Location of New Development: 1691 Lancaster Dr SE  
(Please provide street address. If unknown, provide approximate address and geographical description/nearest cross streets.)  
Description and Size of New Development: 6000 SF Convenience store & 1500 SF drive-through establishment  
(e.g., 150 single-family homes, 20,000 sq. ft. office addition, 12-pump gas station, 50-student day care, additional parking, etc.)  
Description and Size of Existing/Past Development, if any (note whether to remain or be removed):  
vacant lot  
Planning Action Involved, if any: Site Plan Review, Class 3 Building Permit Involved:  
(e.g., zone change, subdivision, partition, conditional use, PUD, mobile home park, etc.) Yes ☒ No ☐

#### Section 2 (To be completed by City staff.)

Proposed Use	Existing Use
Development Quantity: <u>6000 SF</u> <u>1500 SF</u>	Development Quantity: <u>Vacant</u>
ITE Land Use Code: <u>852</u> <u>937</u>	ITE Land Use Code: _____
Trip Generation Rate/Equation: <u>446.75/SF</u> <u>818.58/SF</u>	Trip Generation Rate or Equation: _____
Average Daily Trips: <u>2675 + 1228 = 3903</u>	Average Daily Trips: _____
ELNDT Adjustment Factors	ELNDT Adjustment Factors
Trip Length: <u>0.02, 0.09</u> Linked Trip: <u>0.35, 0.51</u>	Trip Length: _____ Linked Trip: _____
TSDC Trips: <u>75 + 56 = 131</u>	TSDC Trips: <u>0</u>

#### Section 3 (To be completed by City staff.)

Transportation Impact Analysis (TIA)	Transportation Systems Development Charge
Net Increase in Average Daily Trips: <u>3903</u> (Proposed use minus existing use.)	Net Increase in TSDC Trips: <u>131</u> (Proposed use minus existing use.)
<input checked="" type="checkbox"/> A TIA will be required: <input checked="" type="checkbox"/> Arterial/Collector—1000 Trip/day Threshold <input type="checkbox"/> Local Street/Alley—200 Trip/day Threshold <input type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> A TSDC will be required. (Fee determined by Development Services.)
<input type="checkbox"/> A TIA will not be required.	<input type="checkbox"/> A TSDC will not be required.

(For additional information, refer to the back of this application.)

#### Section 4 (To be completed by City staff.)

Remarks: TIA HAS BEEN SUBMITTED. Date: 12-16-2016

cc: ☐ Chief Development Services Engineer  
☐ Community Development  
☐ Building Permit Application  
☒ Amy Dixon

By: Tomy

16-116753



# Traffic Impact Analysis:



lancaster  
**mobley**

## Stop N Save Development

Transportation Impact  
Study

Salem, Oregon



RENEWS: 6/30/2024

Date:  
July 6, 2022

Prepared for:  
Leonard Lodder

Prepared by:  
Jessica Hajar  
Daniel Stumpf, PE

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## Executive Summary

1. A gas station and retail space are proposed to be located on a 0.67-acre property (Tax Lot 082W06AB100000) in Salem, Oregon. The restaurant/retail space will encompass approximately 4,315 square feet, and the proposed gas station will be comprised of 8 fueling positions and a 300 square foot building which houses the cashier. The development will construct a site access along the northern property line and share the existing western and southern site access with the property to the south.
2. The trip generation calculations show that the proposed project is projected to generate a total of 53 morning peak hour primary trips, 72 evening peak hour primary trips, and 1,062 average weekday primary trips.
3. No significant trends or crash patterns were identified at any of the study intersections that would be affected by the proposed development. Accordingly, no safety mitigation is recommended per the crash data analysis.
4. Preliminary traffic signal warrants are not projected to be met any of the unsignalized study intersections upon full buildout of the proposed development. Accordingly, no related mitigation is necessary or recommended.
5. Left-turn lanes are not projected to be met at the applicable intersections upon full buildout of the proposed development. Accordingly, no related mitigation is necessary or recommended.
6. All study intersections are currently operating acceptably per jurisdictional standards and are projected to continue operating acceptably through the 2024 site buildout year.



# Project Description

## Introduction

A gas station and retail space are proposed to be located on a 0.67-acre property (Tax Lot 082W06AB100000) in Salem, Oregon. The restaurant/retail space will encompass approximately 4,315 square feet, and the proposed gas station will be comprised of 8 fueling positions and a 300 square foot building which houses the cashier.

Based on correspondence with City of Salem, the report conducts safety and capacity/level of service analyses at the following intersections:

1. Hagers Grove Road SE at northern site access;
2. Hagers Grove Road SE at western site access;
3. Hagers Grove Road SE at southern site access; and
4. Lancaster Drive SE at Hagers Grove Road SE/Carson Drive SE.

The purpose of this study is to determine whether the transportation system within the vicinity of the site is capable of safely and efficiently supporting the existing and proposed uses, and to determine any mitigation that may be necessary to do so. Detailed information on traffic counts, trip generation calculations, safety analyses, and level of service calculations is included in the appendix to this report.

## Location Description

The subject property is located east of Interstate 5 and south of Highway 22 (North Santiam Highway SE). The development will construct a site access along the northern property line and share the existing western and southern site access with the property to the south. Figure 1 on the following page shows the site vicinity with the subject site highlighted in red.





Figure 1: Vicinity Map

### Vicinity Streets

The proposed development is expected to impact three roadways near the site. Table 1 provides a description of each vicinity roadway.

Table 1: Vicinity Roadway Descriptions

Street Name	Jurisdiction	Functional Classification	Cross-Section	Speed (MPH)	Curbs & Sidewalks	On-Street Parking	Bicycle Facilities
Lancaster Drive SE	City of Salem	Major Arterial	2-3 lanes	40 mph posted	Both sides	Not Permitted	Partial
Hagers Grove Road SE	City of Salem	Local Road	2 lanes	20 mph statutory	Partial both sides	Permitted	None
Carson Drive SE	City of Salem	Local Road	2 lanes	25 mph posted	Partial both sides	Permitted	None

### Study Intersections

Based on coordination with City of Salem staff, four intersections were identified for analysis. A summarized description of these study intersections is provided in Table 2.

Table 2: Study Intersection Configurations










Intersection		Geometry	Traffic Control	Phasing/Stopped Approaches
1	Hagers Grove Road SE at northern site access	Three-Legged	Stop-Controlled	Northbound Stop-Controlled
2	Hagers Grove Road SE at western site access	Three-Legged	Stop-Controlled	Westbound Stop-Controlled
3	Hagers Grove Road SE at southern site access	Three-Legged	Stop-Controlled	Southbound Stop-Controlled
4	Lancaster Drive SE at Hagers Grove Road SE/Carson Drive SE	Four-Legged	Traffic Signal	Protected/Permitted with FYA North and Southbound Lefts, Permitted West and Eastbound Lefts

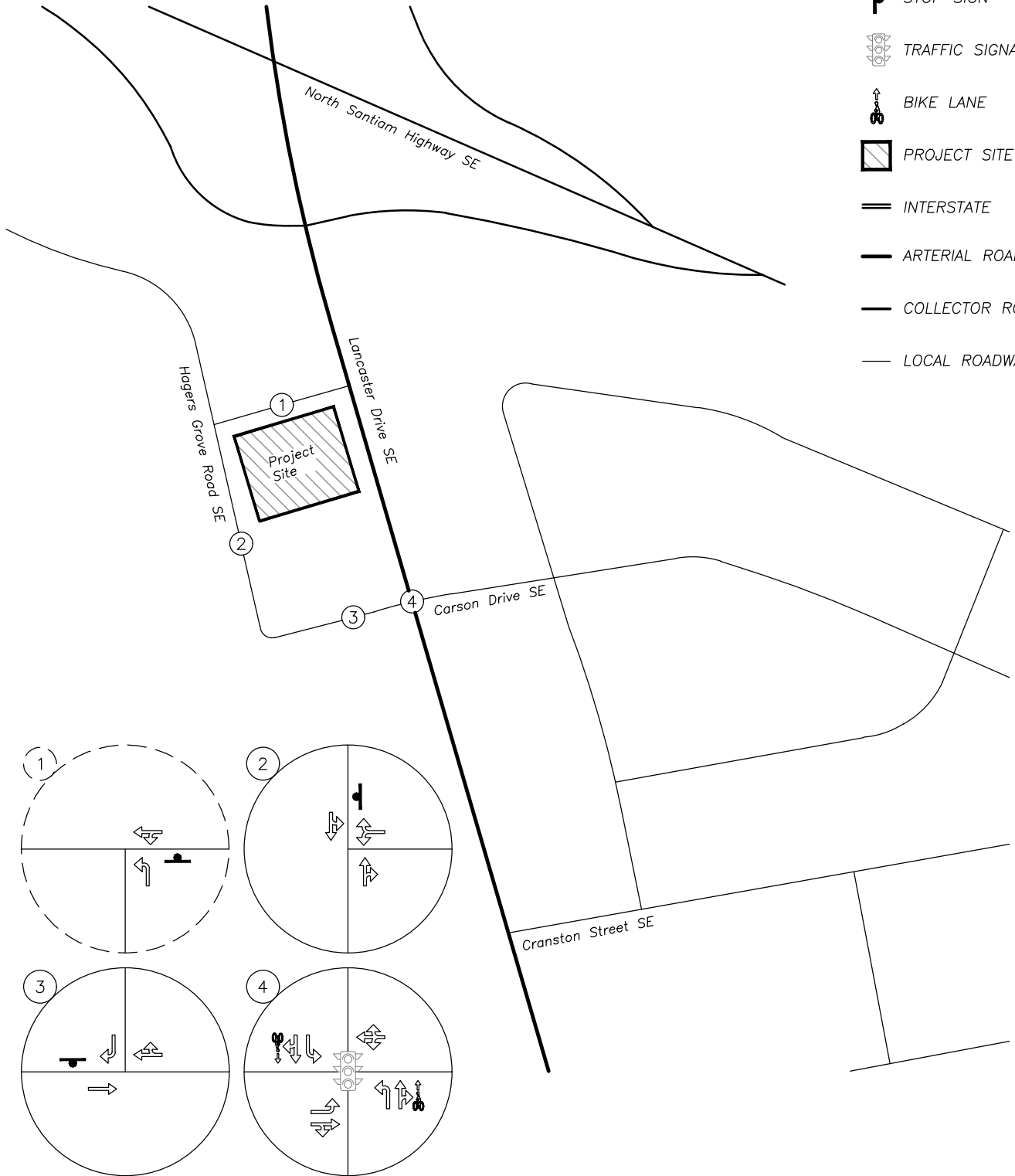
FYA = *flashing yellow arrow*

A vicinity map showing the project site, vicinity streets, and study intersection configurations is shown in Figure 2.



# LEGEND

-  STUDY INTERSECTION
-  STOP SIGN
-  TRAFFIC SIGNAL
-  BIKE LANE
-  PROJECT SITE
-  INTERSTATE
-  ARTERIAL ROADWAY
-  COLLECTOR ROADWAY
-  LOCAL ROADWAY



no scale

## Site Trips

### Trip Generation

To estimate the number of trips that will be generated by the proposed use, trip rates from the *Trip Generation Manual*<sup>1</sup> were used. Trip generation for the proposed retail/restaurant use was estimated using data from land use code 932, *High Turnover Restaurant*, based on the building's gross floor area. Trip generation for the proposed gas station was estimated using data from land use code 944, *Gasoline Service Station*, based on the number of fueling positions.

Reductions at off-site intersections are taken to account for pass-by trips, which patronize retail/service uses within the site on the way to another destination. Since these trips would otherwise already be on the surrounding street system, they do not increase major-street volumes, but do affect turning movements at area intersections. Pass-by trip rates for land use codes 932 and 944 were used from the most recent edition of the *Trip Generation Manual*. Since no rate was given for land use code 932 during the morning peak hour, the evening pass-by rate was used for both peak hours.

The trip generation calculations show that the proposed project is projected to generate a total of 53 morning peak hour primary trips, 72 evening peak hour primary trips, and 1,062 average weekday primary trips. The trip generation estimates are summarized in Table 3. Detailed trip generation calculations are included as an attachment to this memorandum.

Table 3: Trip Generation Summary

		Morning Peak Hour			Evening Peak Hour			Weekday
Land Use – ITE Code	Size	In	Out	Total	In	Out	Total	Total
High Turnover Restaurant – 932	4,315 sq ft	22	19	41	24	15	39	462
Pass-by	(43%/43%)	-9	-9	-18	-8	-8	-16	-198
Gasoline Service Station – 944	8 FPs	41	41	82	55	56	111	1,376
Pass-by	(63%/57%)	-26	-26	-52	-31	-31	-62	-578
<b>Total Trip Generation</b>		63	60	123	79	71	150	1,838
<b>Total Pass-By</b>		-35	-35	-70	-39	-39	-78	-776
<b>Primary Trips</b>		28	25	53	40	32	72	1,062

<sup>1</sup> Institute of Transportation Engineers (ITE), Trip Generation Manual, 11th Edition, 2021.



## Trip Distribution

The directional distribution of site trips to/from the project site was estimated based on locations of likely trip destinations, locations of major transportation facilities in the site vicinity, and existing travel patterns at study intersections.

The following trip distribution is projected:

- Approximately 70 percent of entering/exiting site trips will travel from/to the north along Lancaster Drive SE;
- Approximately 25 percent of entering/exiting site trips will travel from/to the south along Lancaster Drive SE;
- Approximately 5 percent of entering/exiting site trips will travel from/to the east along Carson Drive SE.

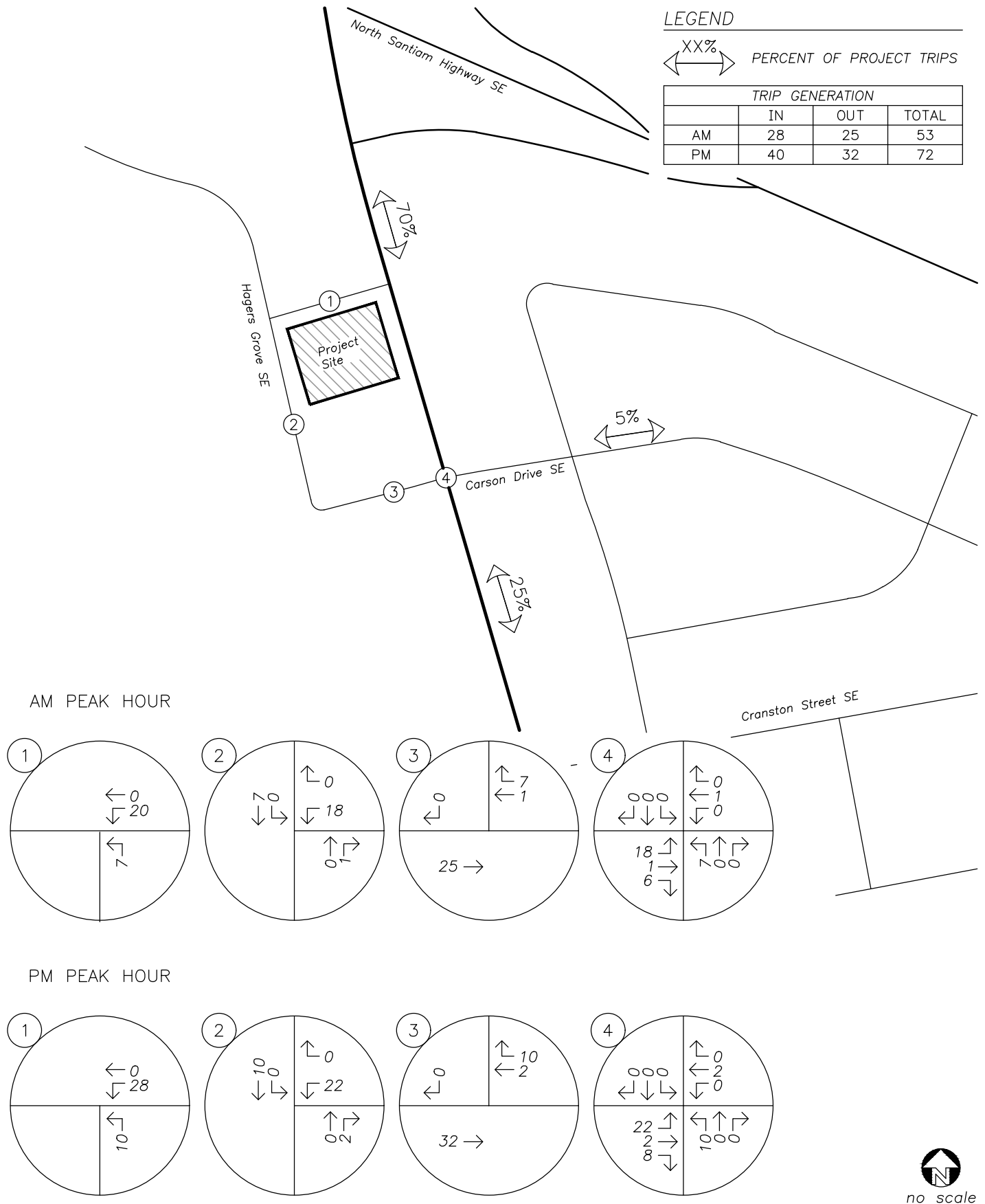
The trip distribution and assignment during the morning and evening peak hours is shown in Figure 3 for the primary trip generation and Figure 4 for the pass-by trip generation.



# LEGEND

XX% PERCENT OF PROJECT TRIPS

TRIP GENERATION			
	IN	OUT	TOTAL
AM	28	25	53
PM	40	32	72



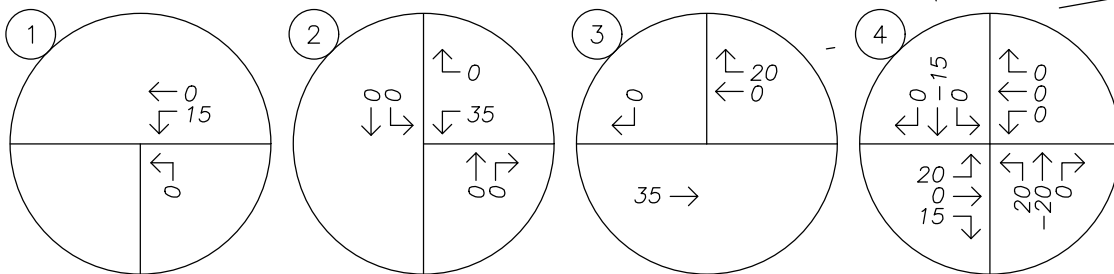
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XX% PERCENT OF PASS-BY TRIPS

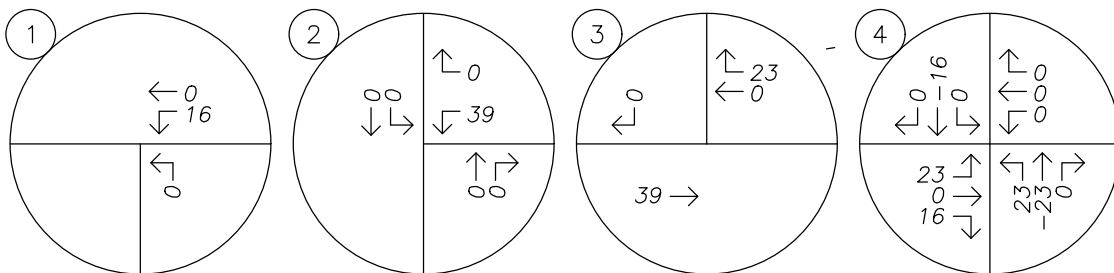
TRIP GENERATION			
	IN	OUT	TOTAL
AM	35	35	70
PM	39	39	78



## AM PEAK HOUR



## PM PEAK HOUR



no scale

## Traffic Volumes

### Existing Conditions

The ongoing COVID-19 pandemic is still causing a significant decrease in traffic due to closed or limited business operations and telecommuting. Therefore, historical data was used which was collected before the onset of the pandemic, with a growth rate applied to reflect the existing year 2022 traffic. This methodology was approved with the City during the scoping process.

Traffic counts were collected at all study intersections during the morning (between 7:00 AM and 9:00 AM) and evening (between 4:00 PM and 6:00 PM) peak hours on Wednesday, November 9<sup>th</sup>, 2016. Each intersection's peak hour was used for analysis. A compounded growth rate of two percent per year was applied to the 2016 traffic volumes to approximate year 2022 existing conditions.

Additionally, trips associated with the previously approved donut shop and convenience market were added as in-process traffic which would have been reflected in recent counts, had those been collected.

The existing traffic volumes at the study intersections during the morning and evening peak hours are shown in Figure 5.

### Background Conditions

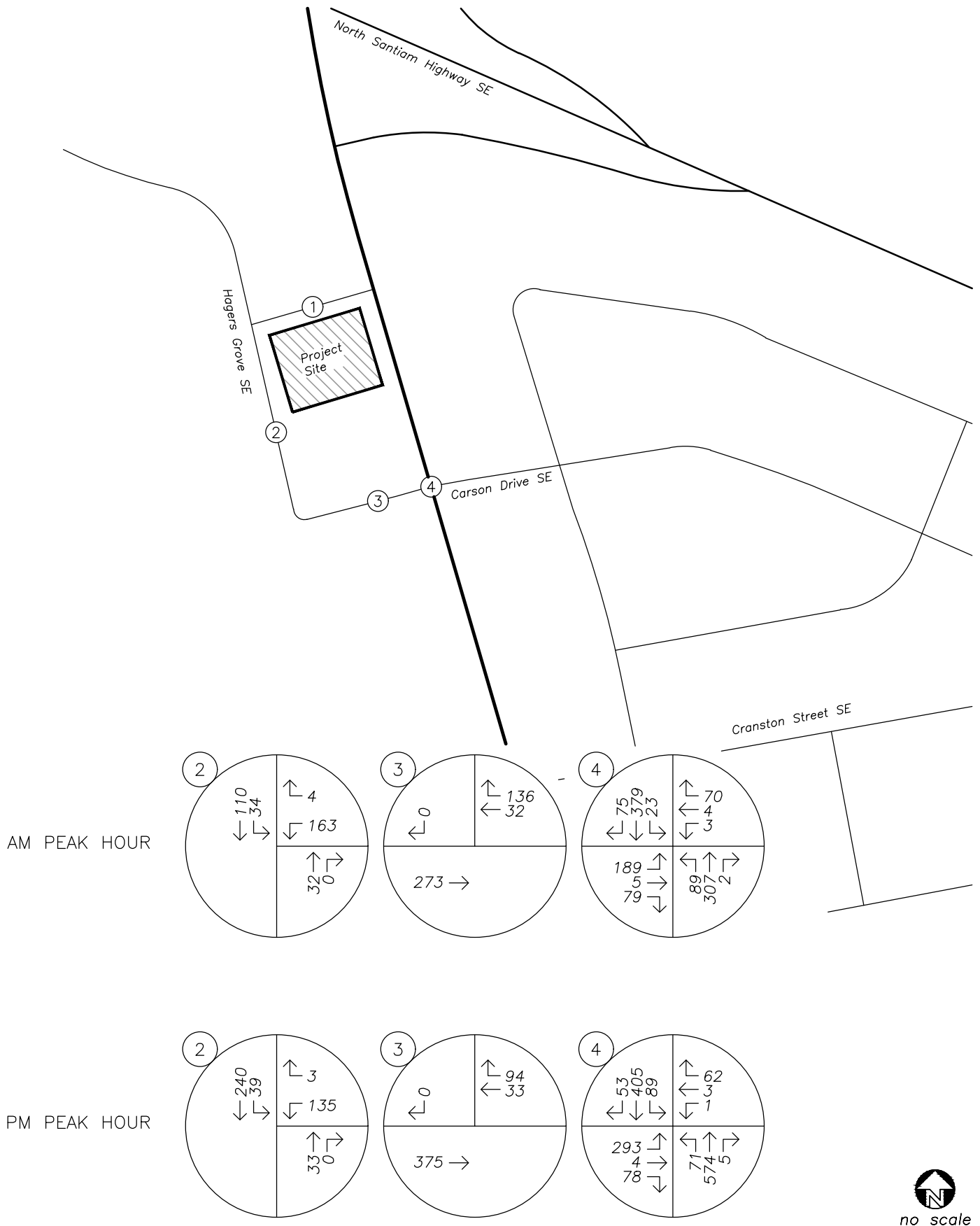
To provide analysis of the impact of the proposed development on the existing transportation facilities, an estimation of future traffic volumes is required. To calculate future traffic volumes for the year 2024 conditions, a compounded growth rate of two percent per year was applied. A build-out condition of two years was assumed.

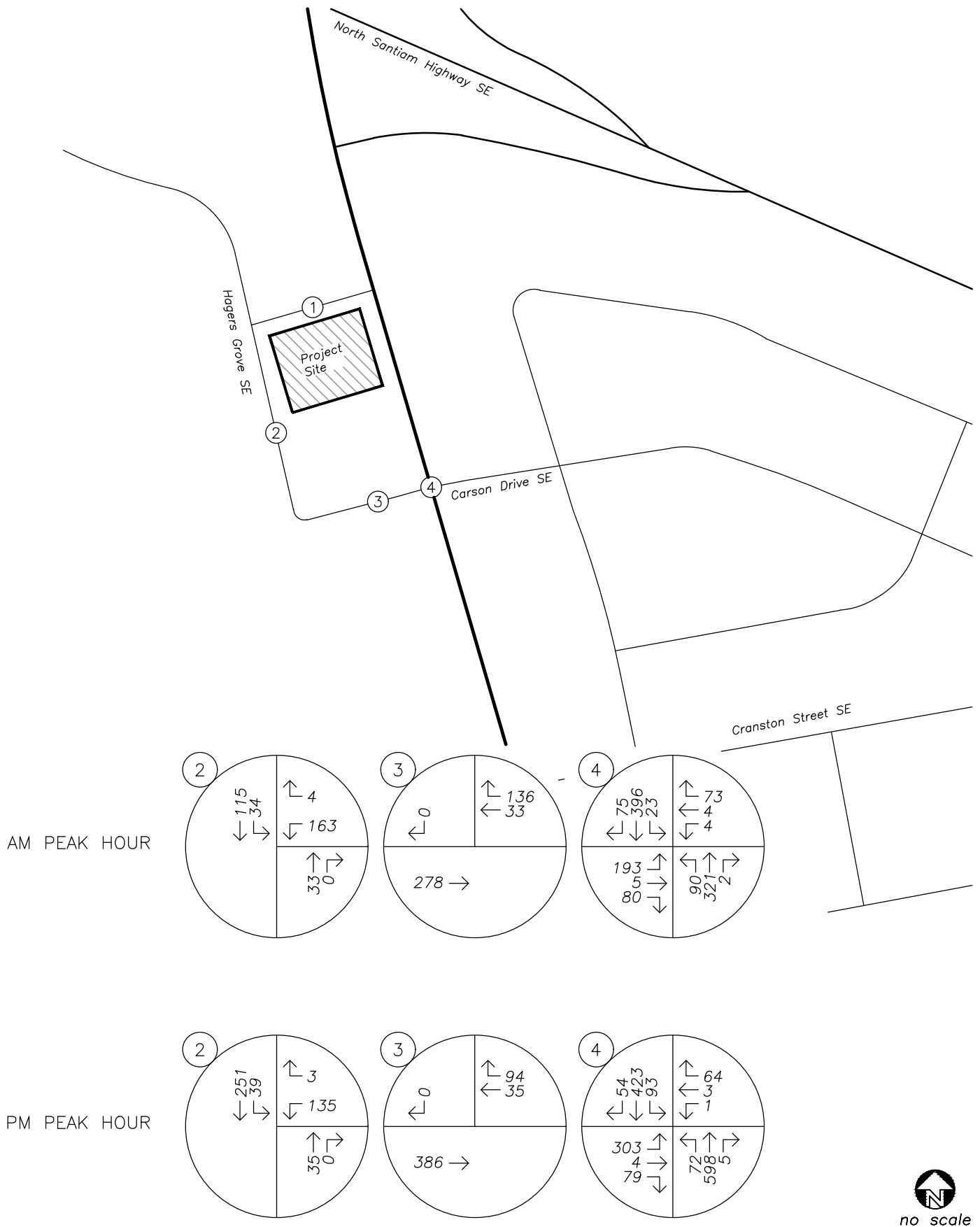
The background traffic volumes at the study intersections during the morning and evening peak hours are shown in Figure 6.

### Buildout Conditions

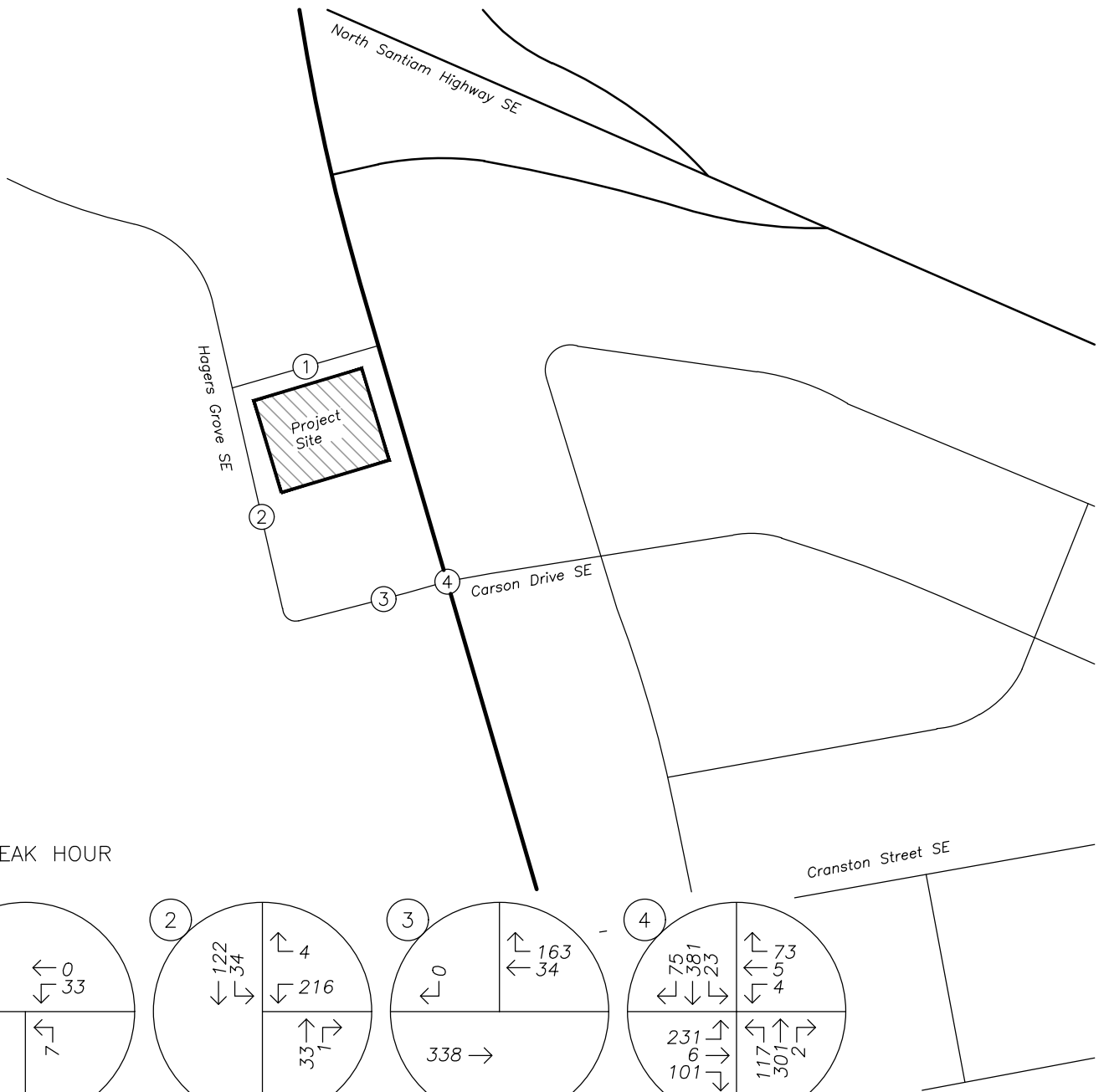
Peak hour trips calculated to be generated by the proposed development, as described earlier within the *Site Trips* section, were added to the projected year 2024 background traffic volumes to obtain the expected 2024 site buildout volumes.

The buildout traffic volumes at the study intersections during the morning and evening peak hours are shown in Figure 7.

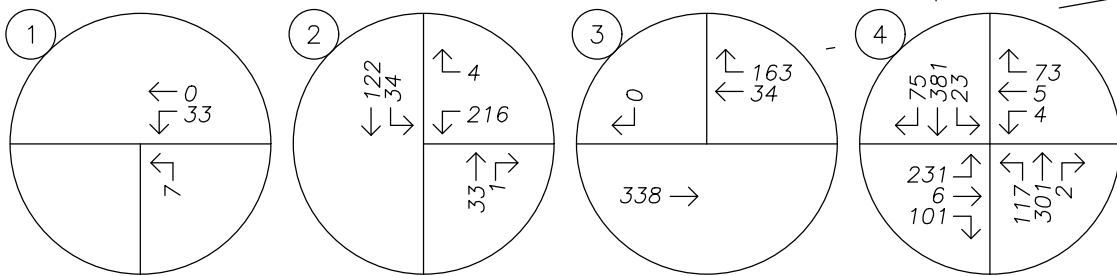




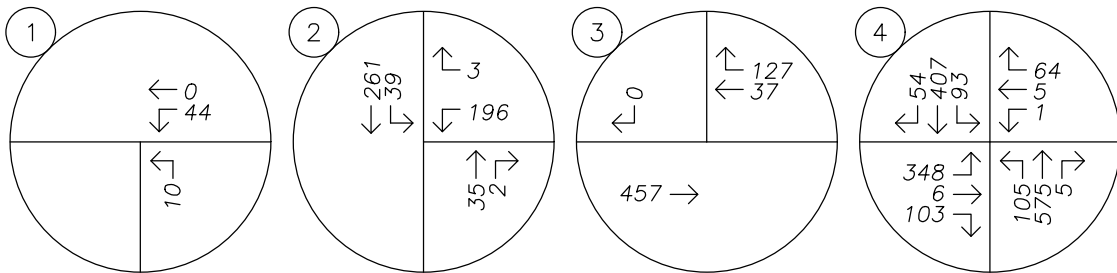




### AM PEAK HOUR



### PM PEAK HOUR



no scale

## Safety Analysis

### Crash History Review

Using data obtained from ODOT's Crash Data System, a review of approximately five years of the most recent available crash history (January 2016 through December 2020) was performed at the study intersections. The crash data was evaluated based on the number of crashes, the type of collisions, and the severity of the collisions. Crash severity is based on injuries sustained by people involved in the crash, and includes five categories:

- Property Damage Only (PDO)
- Possible Injury (Injury C)
- Non-Incapacitating Injury (Injury B)
- Incapacitating Injury (Injury A)
- Fatality or Fatal Injury

Crash rates provide the ability to compare safety risks at different intersections by accounting for both the number of crashes that have occurred during the study period and the number of vehicles that typically travel through the intersection. Crash rates were calculated using the common assumption that traffic counted during the evening peak period represents approximately 10 percent of the annual average daily traffic (AADT) at the intersection.

Table 4 provides a summary of crash types while Table 5 summarizes crash severities and rates for each of the study intersections. Detailed crash data is provided in the appendix to this report.

**Table 4: Crash Type Summary**

Intersection		Crash Type								Total Crashes
		Turn	Rear End	Angle	Fixed Object	Side Swipe	Ped	Bike	Other	
4	Hagers Grove Road SE at Lancaster Drive SE	2	2	1	0	0	0	0	0	5

**Table 5: Crash Severity and Rate Summary**

Intersection		Severity					Total Crashes	Peak Hour Volume	Crash Rate
		PDO	C	B	A	Fatal			
4	Hagers Grove Road SE at Lancaster Drive SE	3	2	0	0	0	5	1,771	0.15

Based on review of the most recent five years of available crash data, no significant trends or crash patterns were identified at any of study intersections that would be affected by the proposed development. Accordingly, no safety mitigation is recommended per crash data analysis.



## Preliminary Traffic Signal Warrant Analysis

Traffic signal warrants were examined for all unsignalized intersections based on the methodologies in the Manual on Uniform Traffic Control Devices (MUTCD) published by the Federal Highway Administration in 2009. Volumes were used from the year 2024 buildout conditions. Warrant 1, Eight Hour Vehicular Volumes, was evaluated based on the common assumption that traffic counted during the evening peak hour represents ten percent of the ADT. Detailed information on the traffic signal warrant analysis is included in the attached appendix.

Preliminary traffic signal warrants are not projected to be met any of the unsignalized study intersections upon full buildout of the proposed development.

## Left-Turn Lane Warrants

A left-turn refuge lane is primarily a safety consideration for the major-street, removing left-turning vehicles from the through traffic stream. The left-turn lane warrants were examined for all intersections in which site trips are expected to increase the major street left turn movement using methodologies provided within the National Cooperative Highway Research Program's (NCHRP) Report 457. Turn lane warrants were evaluated based on the number of advancing and opposing vehicles as well as the number of turning vehicles, the travel speed, and the number of through lanes.

Left-turn lane warrants are not projected to be met at the applicable study intersection under the year 2024 buildout scenario.



## Operational Analysis

### Intersection Capacity Analysis

A capacity and delay analysis were conducted for each of the study intersections per the unsignalized intersection analysis methodologies in the *Highway Capacity Manual* (HCM)<sup>2</sup>. Intersections are generally evaluated based on the average control delay experienced by vehicles and are assigned a grade according to their operation. The level of service (LOS) of an intersection can range from LOS A, which indicates very little, or no delay experienced by vehicles, to LOS F, which indicates a high degree of congestion and delay.

### Performance Standards

According to the City of Salem's Transportation System Plan (TSP), the City shall allow its existing streets and intersections to function at LOS E during the morning and evening peak travel hours. However, traffic impacts created by new development, as identified in a traffic impact analysis, must be mitigated to maintain peak hour LOS D or better

### Delay & Capacity Analysis

The LOS, delay, and v/c results of the capacity analysis are shown in Table 6 for the evening peak hour. Detailed calculations as well as tables showing the relationship between delay and LOS are included in the appendix to this report.

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<sup>2</sup> Transportation Research Board, *Highway Capacity Manual 6<sup>th</sup> Edition*, 2016.



Table 6: Capacity Analysis Summary

Intersection & Condition	AM Peak Hour			PM Peak Hour		
	LOS	Delay (s)	V/C	LOS	Delay (s)	V/C
1. Hagers Grove Road SE at Northern Site Access						
Year 2024 Buildout Conditions	A	9	0.01	A	9	0.01
2. Hagers Grove Road SE at Western Site Access						
Year 2022 Existing Conditions	B	11	0.24	B	13	0.25
Year 2024 Background Conditions	B	12	0.25	B	13	0.25
Year 2024 Buildout Conditions	B	12	0.33	B	15	0.37
3. Hagers Grove Road SE at Southern Site Access						
Year 2022 Existing Conditions	A	9	0.01	A	9	0.01
Year 2024 Background Conditions	A	9	0.01	A	9	0.01
Year 2024 Buildout Conditions	A	9	0.01	A	9	0.01
4. Hagers Grove Road SE at Lancaster Drive SE						
Year 2022 Existing Conditions	B	14	0.77	B	14	0.82
Year 2024 Background Conditions	B	15	0.79	B	14	0.85
Year 2024 Buildout Conditions	B	16	0.86	B	17	0.89

Based on the results of the operational analysis, all study intersections are currently operating acceptably per jurisdictional standards and are projected to continue operating acceptably through the 2024 site buildout year. No operational mitigation is necessary or recommended at these intersections.

## Conclusions

Key findings include:

- No significant trends or crash patterns were identified at any of the study intersections that would be affected by the proposed development. Accordingly, no safety mitigation is recommended per the crash data analysis.
- Preliminary traffic signal warrants are not projected to be met any of the unsignalized study intersections upon full buildout of the proposed development. Accordingly, no related mitigation is necessary or recommended.
- Left-turn lanes are not projected to be met at the applicable intersections upon full buildout of the proposed development. Accordingly, no related mitigation is necessary or recommended.
- All study intersections are currently operating acceptably per jurisdictional standards and are projected to continue operating acceptably through the 2024 site buildout year.



## Appendix A – Site Data

Site Plan

Trip Generation Calculations



# Stop-N-Save Gas

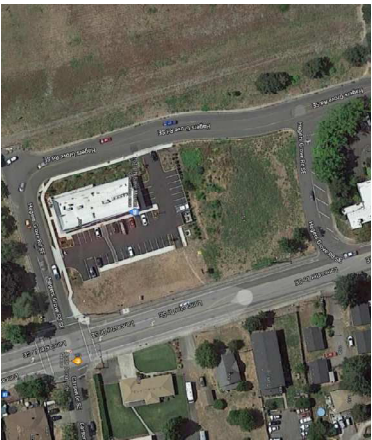
## New Gas Station and C-Store

3997 Carson Dr SE Salem OR 97317

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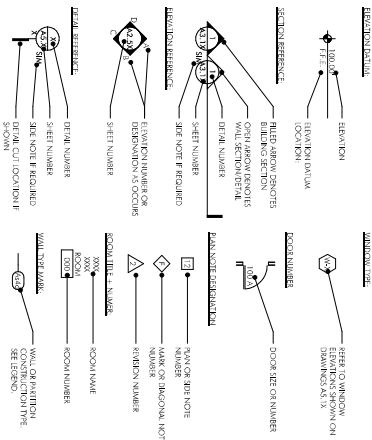
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DRAWINGS LIST:

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SYMBOL LEGEND:



PROJECT TEAM:

**OWNER:**  
Indefinite Development  
Stop N Save No. 12  
2433 NW Broadway St., Albany, OR 97321  
P: 503.999.6545 E: hbour@indefinite.com

**ARCHITECT:**  
STUDIO 3 ARCHITECTURE, Inc.  
275 Court Street SE, Salem, OR 97303-3442  
P: 503.390.0500  
Project Architect: Jeff Housh, AIA, LEED AP  
D: 971.229.0207  
E: hbour@studio3architecture.com  
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**CIVIL ENGINEERING:**  
WESTECH ENGINEERING, Inc.  
3841 Fairview Industrial Dr., Suite 100 Salem, OR 97302  
P: 503.585.2474 E: jtw@westech-eng.com

**LANDSCAPE ARCHITECT:**  
LAURUS DESIGNS, LLC  
1012 Pine Street SE, Salem, OR 97381  
Laura A. Anderson, LA  
P: 503.784.6494 E: laura\_a\_anderson@hotmail.com

**STRUCTURAL ENGINEERING:**

STUDIO

3

ARCHITECTURE  
INCORPORATED  
2433 NW BROADWAY ST., ALBANY, OR 97321  
P: 503.999.6545  
WWW.STUDIO3ARCHITECTURE.COM

PROJECT # 2020-109  
DATE 01/17/2022  
REVISIONS

Stop-N-Save Gas  
New Gas Station  
3997 Carson Dr SE Salem OR 97317

SHEET:  
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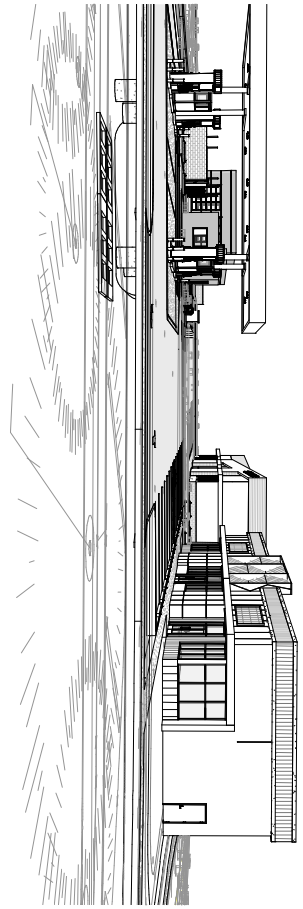


# Stop-N-Save Gas New Gas Station

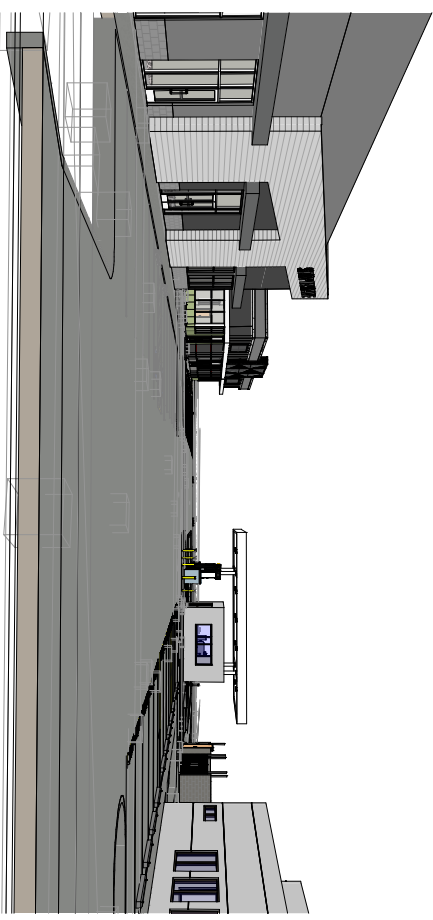
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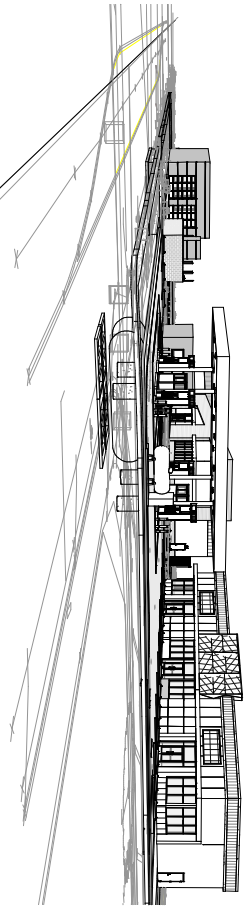
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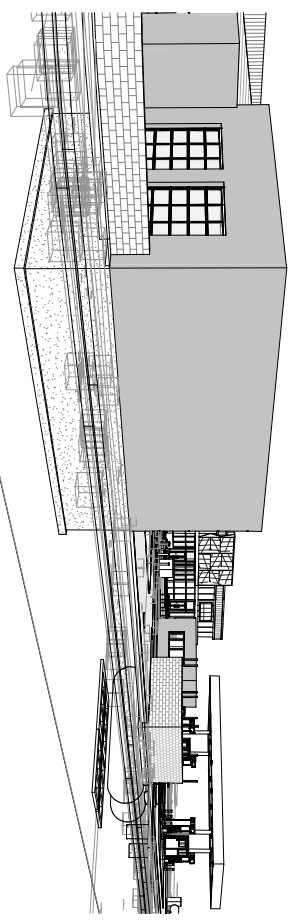
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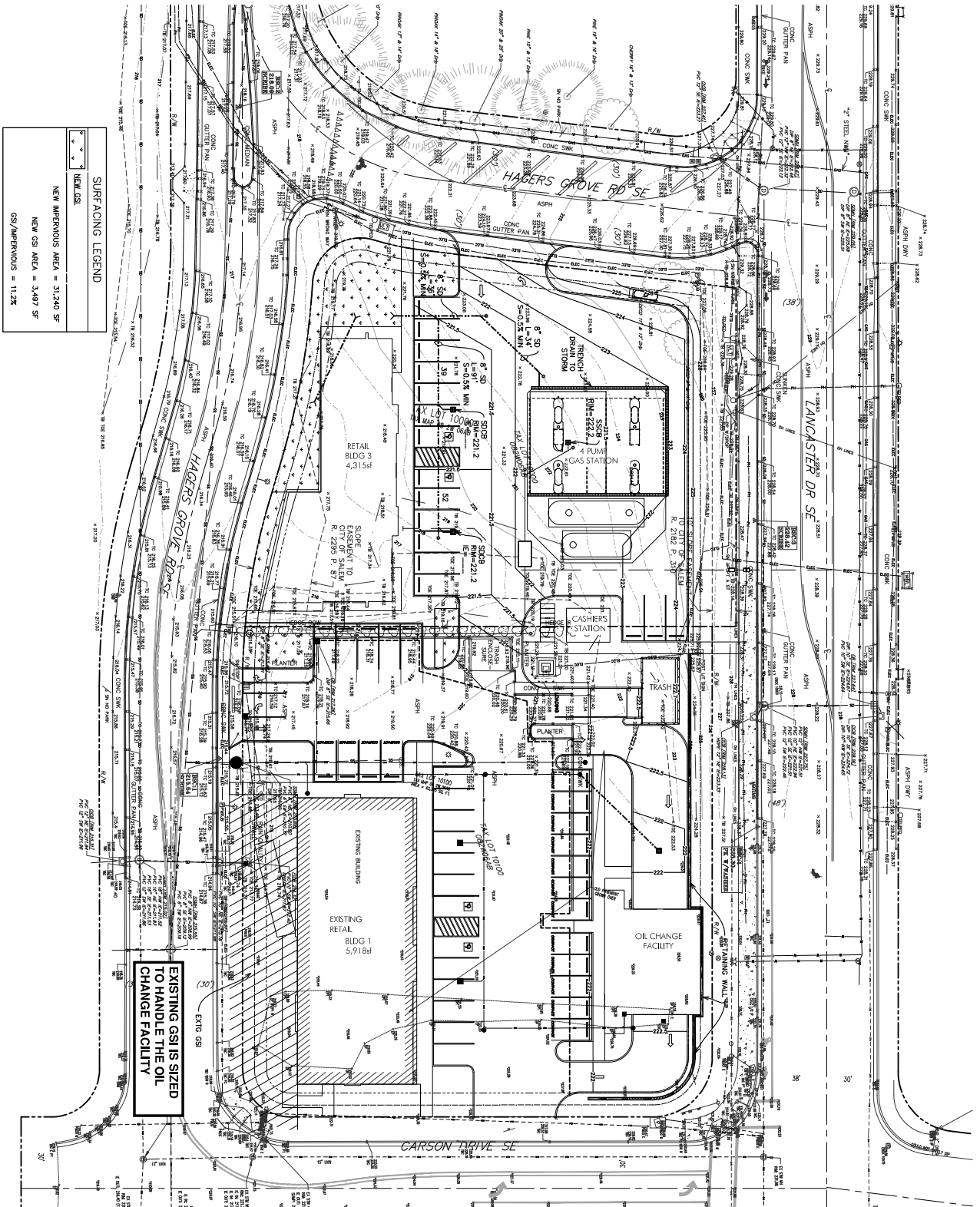
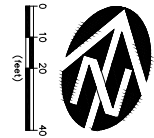
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3 3D View 2



4 3D View 1



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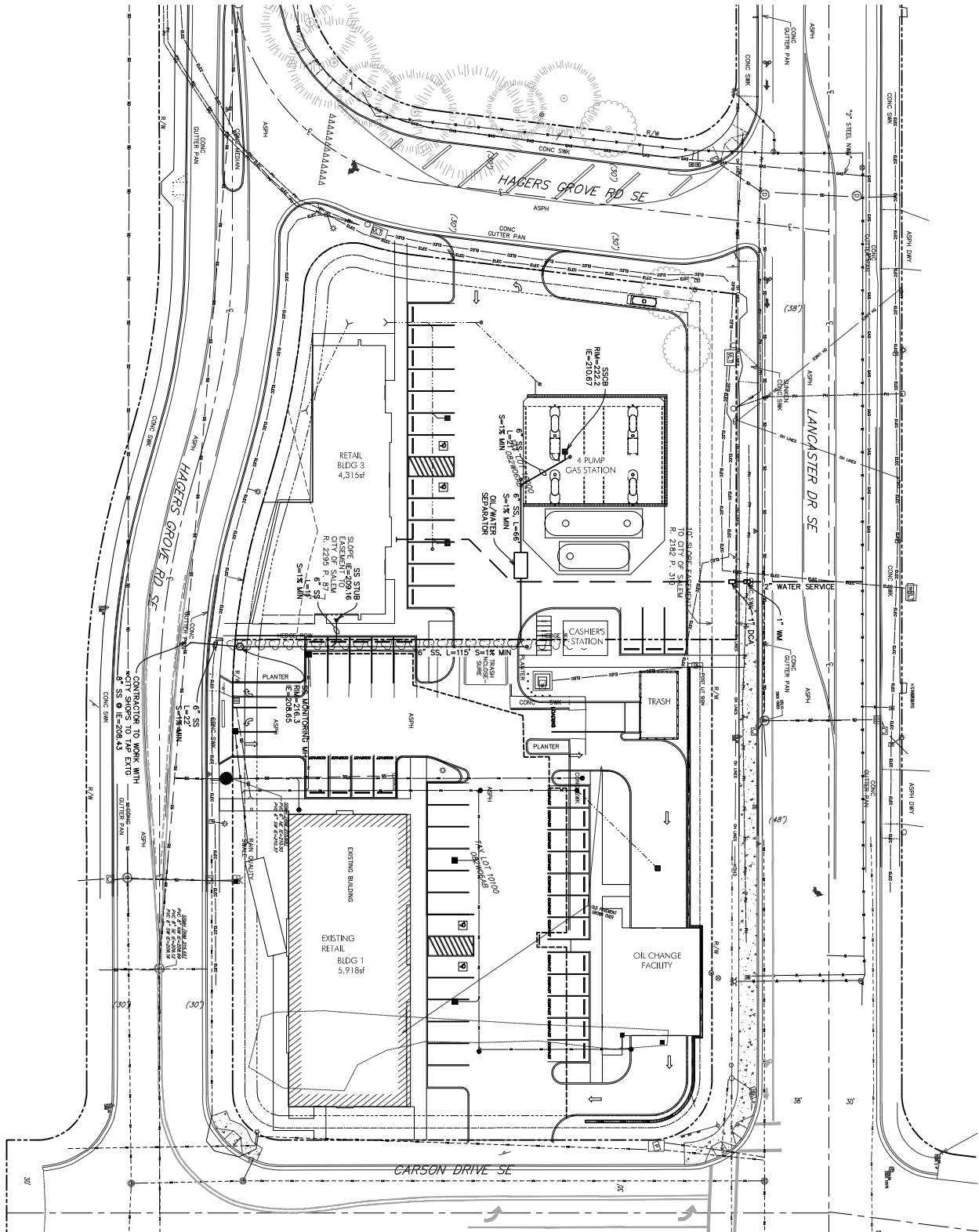
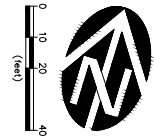
STUDIO3 ARCHITECTURE  
STOP 'N' SAVE HAGERS GROVE  
GRADING & DRAINAGE PLAN

**WE** WESTECH ENGINEERING, INC.  
CONSULTING ENGINEERS AND PLANNERS  
3841 Fairview Industrial Dr. S.E., Suite 100, Salem, OR 97302  
Phone: (503) 585-2474 Fax: (503) 585-3986  
E-mail: westech@westech-eng.com

**REVIEW**  
REGISTERED PROFESSIONAL ENGINEER  
WILLIAM J. WELLS  
REVISION: 4/26/2022

VERIFY SCALE  
ON ORIGINAL DRAWING  
IF ANY ONE BOX  
THIS SHEET, ADJUST  
SIZES AND DIMENSIONS  
DSN. JW  
DRN. AK  
CKD. JW  
DATE: 01/20/22

NO.	DATE	DESCRIPTION	BY
1			
		REVISIONS	



JOB NUMBER  
3265.0000.0

DRAWING  
C3.0

STUDIO3 ARCHITECTURE  
STOP 'N' SAVE HAGERS GROVE  
  
UTILITY PLAN

**WESTTECH ENGINEERING, INC.**  
CONSULTING ENGINEERS AND PLANNERS  
3841 Fairview Industrial Dr. S.E., Suite 100, Salem, OR 97302  
Phone: (503) 585-2474 Fax: (503) 585-3986  
E-mail: westtech@westtech-eng.com

**REVIEW**  
REGISTERED PROFESSIONAL ENGINEER  
WILLIAM J. WELLS  
REVISION: 4/20/2022

VERIFY SCALE  
BY MEASURING ON ORIGINAL DRAWING  
IF ANY ONE BOX OF THIS SHEET, ADJUST SCALE PROPORTIONALLY

NO.	DATE	DESCRIPTION	BY
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

- THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN A MAP AND MAY ONLY BE OBTAINED FROM THE CITY OF CHICAGO DEPARTMENT OF PERMITTING. THE CONTRACTOR SHALL OBTAIN THE LOCATION OF ALL UTILITIES BEFORE THE PROCEEDING OF ANY WORK AND AGREE TO FLUSH THE MAINS FOR ANY AND ALL CONTRACTORS. ALL UTILITIES SHALL BE PROTECTED AND ANY DAMAGE SHALL BE REPAIRED AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
- PROTECT EXISTING UTILITIES. PROTECTING EXISTING UTILITIES AND UNDERGROUND CONSTRUCTION SHALL BE DONE TO PREVENT DAMAGE TO EXISTING UTILITIES.
- REFER TO CITY DRAWINGS FOR GRADING. CITY REFUSED TO VERIFY THE WORK OF GRADING. THE CONTRACTOR SHALL VERIFY THE GRADING. THE CITY OF CHICAGO'S RECORD SHALL NOT BE USED TO VERIFY ANY OF THE GRADING. ANY DISCREPANCY SHALL BE CORRECTED BY THE CONTRACTOR.
- JOHN'S IN CONCRETE WAS REPORTED AS E. 48' AND THE CITY OF CHICAGO'S RECORD SHALL NOT BE USED TO VERIFY ANY OF THE GRADING. ANY DISCREPANCY SHALL BE CORRECTED BY THE CONTRACTOR.
- SEE ARCHITECTURAL DRAWINGS FOR LANDSCAPE AND PLANTING. THE CONTRACTOR SHALL VERIFY THE PLANTING. THE CITY OF CHICAGO'S RECORD SHALL NOT BE USED TO VERIFY ANY OF THE PLANTING.
- SEE ELECTRICAL DRAWINGS FOR THE PLANTING.

[illegible]

BUILDINGS	12,973.00	18.25%
LANDSCAPING	13,881.45	20.47%
ASPHALT PAVING	31,044.56	45.76%
ACCESSORY STRUCTURES	448.80	0.66%
CONCRETE SIDEWALKS	5,281.94	7.76%
CONCRETE CURBS	745.16	1.10%
CONCRETE RE-LEVELING PAD	4,024.80	5.94%
MISCELLANEOUS	0.00	0.00%
	67,798.91	100.00%

COST LOCATION	COST AMOUNT	PERCENT	COST REMOVAL
RE-FUELING CANOPY	2,320.00	100.00%	
1	2,320.00	100.00%	

- 1 PROPERTY LINE
- 2 RIGHT-OF-WAY DEDICATION
- 3 BUILDINGS SETBACK LINE
- 4 VEHICLE USE AREA SETBACK LINE
- 5 NEW DRIVEWAY REMAIN, LEFT OUT, LEFT IN, ONLY
- 6 DRIVEWAY REMAIN, WIDEN DRIVEWAY TO 36-57  
TO PROVIDE LEFT AND RIGHT OUT LINES.
- 7 FEDESTRIAN CONNECTION POINT TO NEW OR  
EXISTING CITY SIDEWALK



3997 Carson Dr SE Salem OR 97317

[illegible]

- PROVIDE CONSTRUCTION FENCING AS REQUIRED TO SECURE SITE AND BUILDING DURING CONSTRUCTION.
- SEE LANDSCAPE DRAWINGS FOR LANDSCAPE AND IRRIGATION ELEMENTS.
- EXTREME CARE SHOULD BE TAKEN TO PRESERVE EXISTING ROOTS OF TREES TO REMAIN.
- SEE ELECTRICAL DRAWINGS FOR SITE LIGHTING.

COMPETITIVE PLAN	CR	Commercial Retail
<ul style="list-style-type: none"> <li>1 SPACES PER 3,500 <math>\pm</math> OR MAXIMUM 4 SPACES</li> <li>THEREFORE PROVIDE 4 BIKE PARKING SPACES.</li> </ul>		

• BLDG 1 RETAIL:	@ 5,918¢/250sf =
• BLDG 2 RETAIL:	@ 4,315¢/250sf =
• BLDG 3 CASHIER:	@ 252¢/900sf =
• BLDG 4 OIL:	@ 1,888¢/900sf =
• FUEL CANOPY:	@ 2,320¢/900sf =
Total Parking Paved:	= 45,88¢/sq. ft.

### SITE PLAN NOTES:

### 3 BUILDINGS SETBACK LINE

**6 DRIVEWAY PERMIT, WIDEN DRIVEWAY TO PROVIDE LEFT AND RIGHT OUT LANE**

---

# High-Turnover (Sit-Down) Restaurant (932)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,  
Peak Hour of Adjacent Street Traffic,  
One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 37

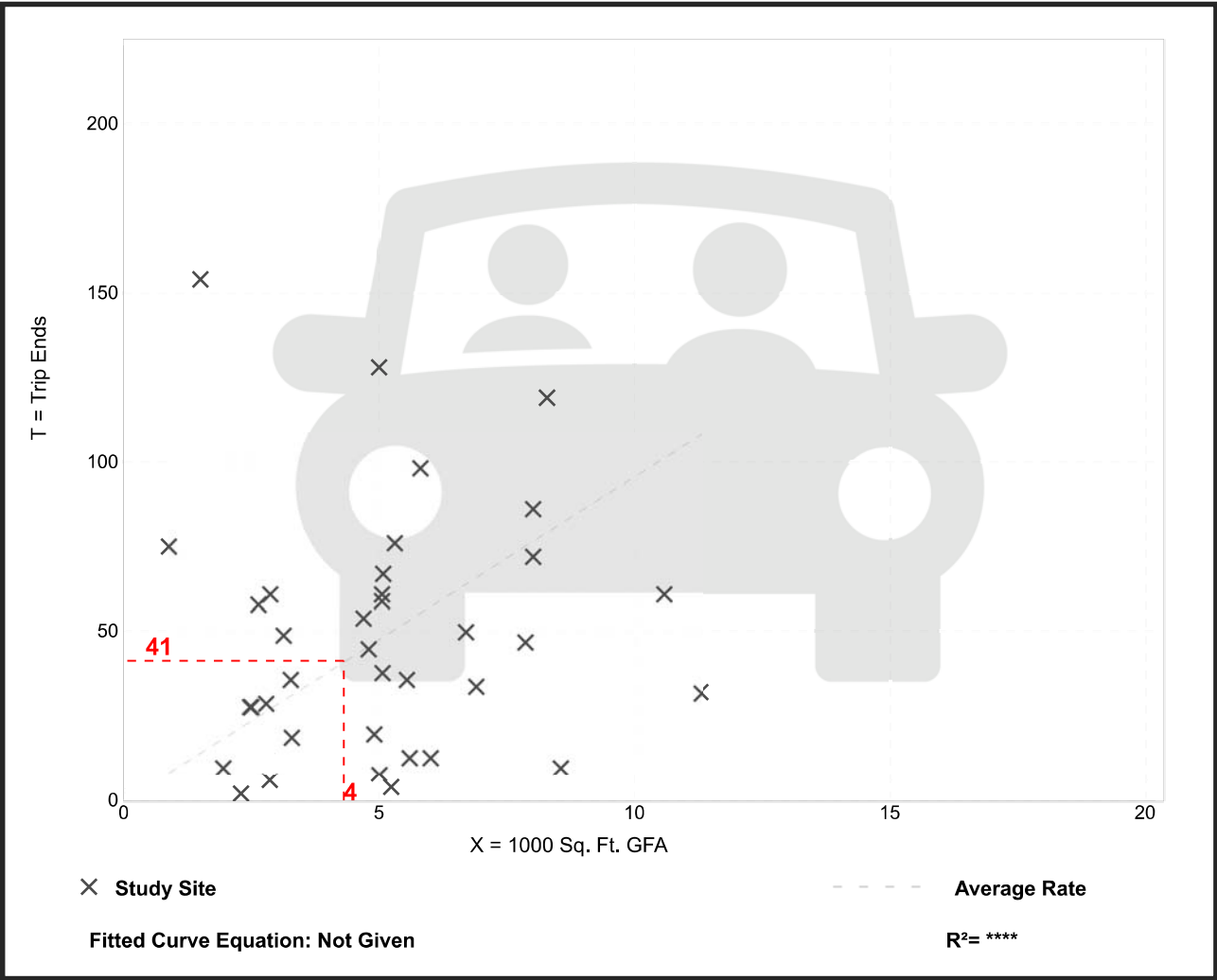
Avg. 1000 Sq. Ft. GFA: 5

Directional Distribution: 55% entering, 45% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
9.57	0.76 - 102.39	11.61

## Data Plot and Equation



# High-Turnover (Sit-Down) Restaurant (932)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,  
Peak Hour of Adjacent Street Traffic,  
One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 104

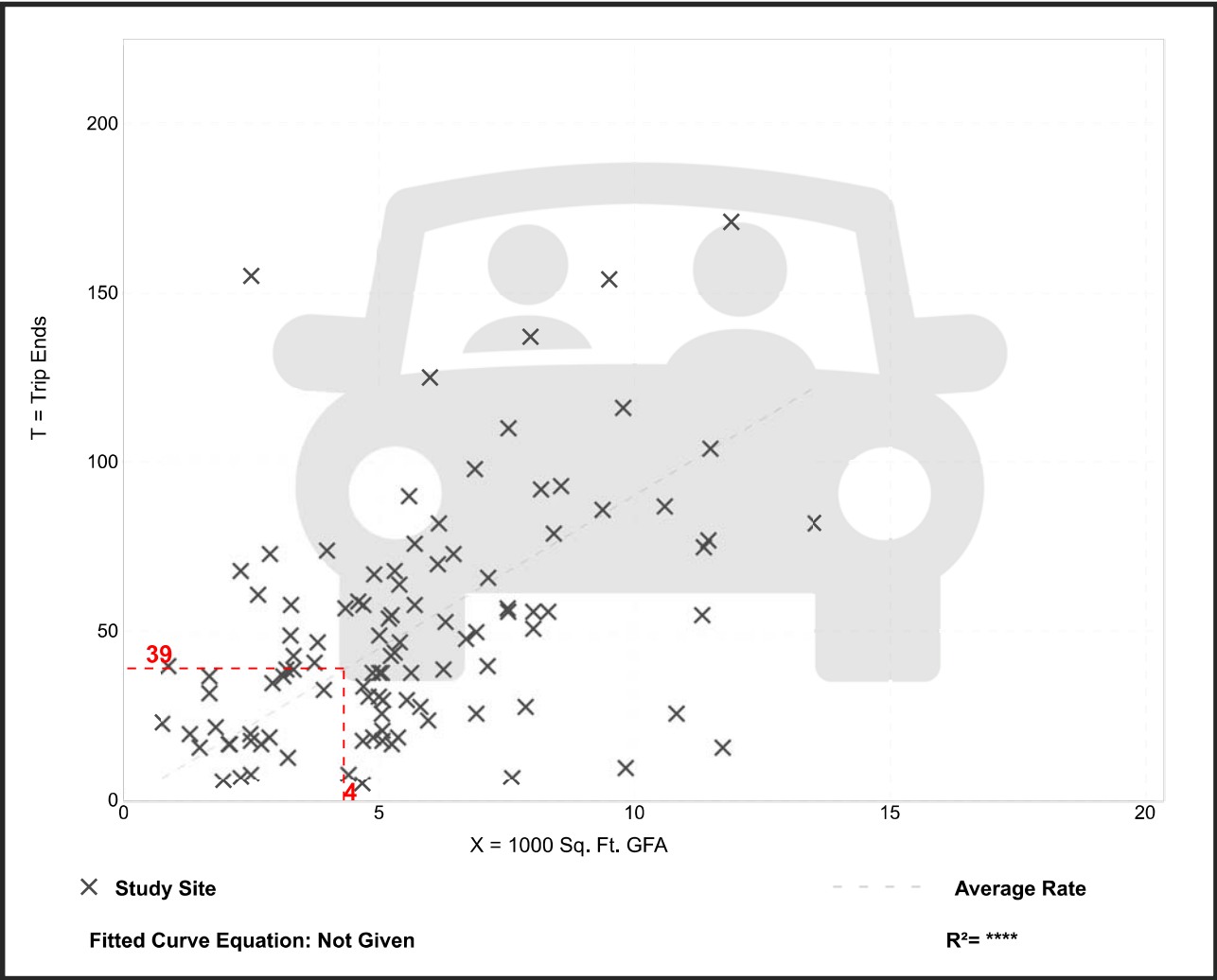
Avg. 1000 Sq. Ft. GFA: 6

Directional Distribution: 61% entering, 39% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
9.05	0.92 - 62.00	6.18

## Data Plot and Equation





# Gasoline/Service Station

## (944)

Vehicle Trip Ends vs:

Vehicle Fueling Positions

On a:

Weekday,  
Peak Hour of Adjacent Street Traffic,  
One Hour Between 7 and 9 a.m.

Setting/Location:

General Urban/Suburban

Number of Studies:

53

Avg. Num. of Vehicle Fueling Positions:

9

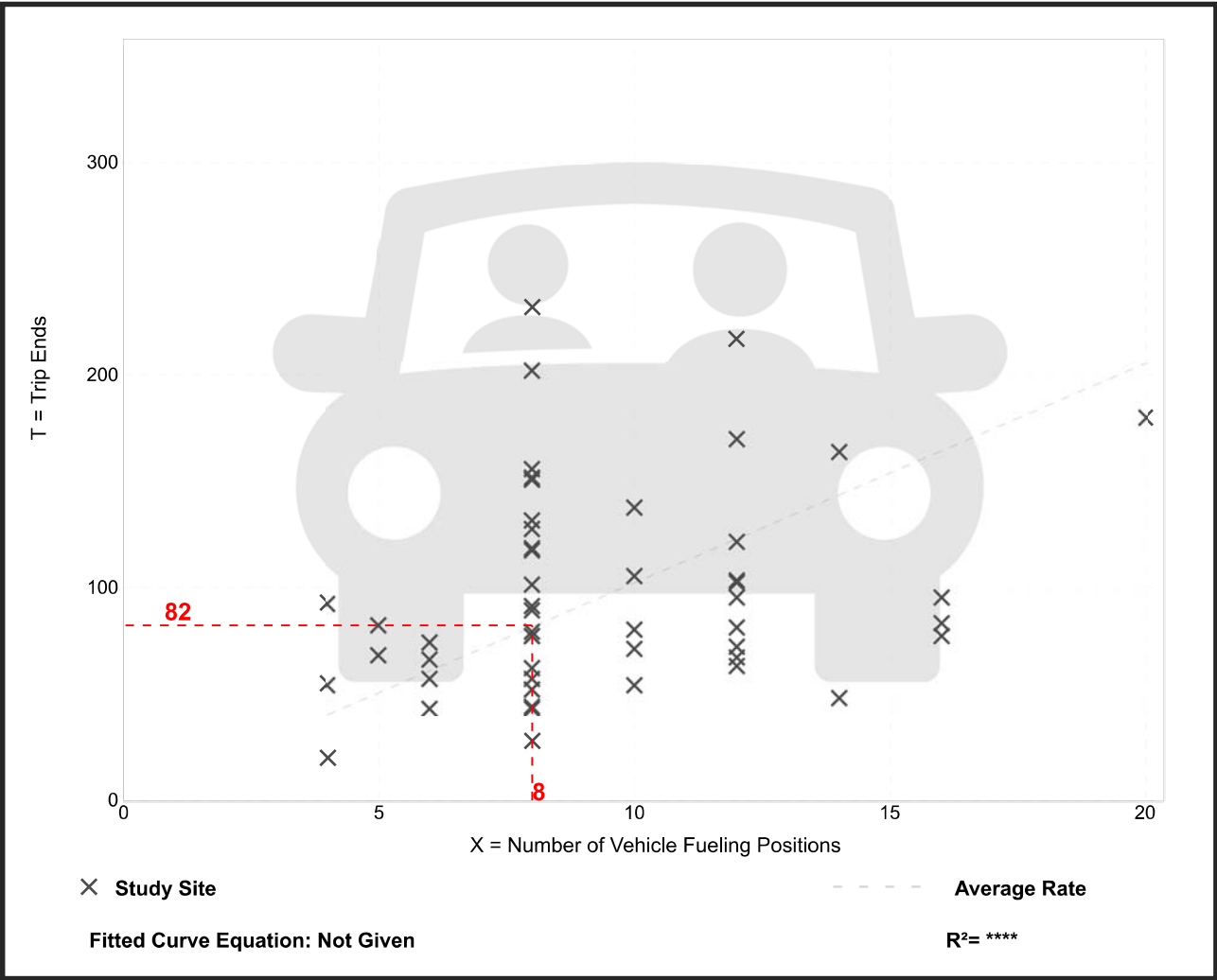
Directional Distribution:

50% entering, 50% exiting

### Vehicle Trip Generation per Vehicle Fueling Position

Average Rate	Range of Rates	Standard Deviation
10.28	3.50 - 29.00	5.36

### Data Plot and Equation



# Gasoline/Service Station (944)

Vehicle Trip Ends vs:

On a:

Setting/Location:

Number of Studies:

Avg. Num. of Vehicle Fueling Positions:

Directional Distribution:

Vehicle Fueling Positions

Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 4 and 6 p.m.

General Urban/Suburban

65

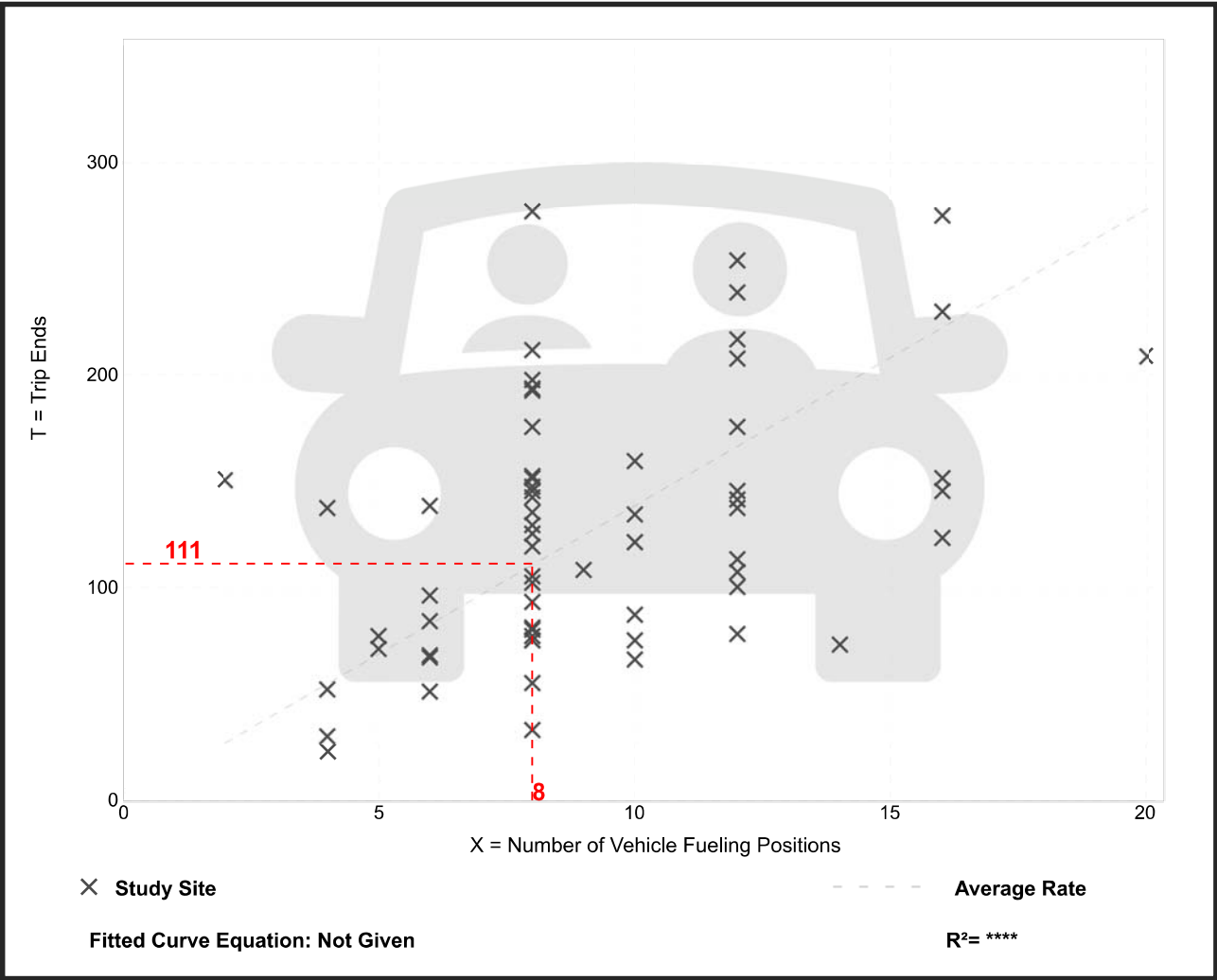
9

50% entering, 50% exiting

## Vehicle Trip Generation per Vehicle Fueling Position

Average Rate	Range of Rates	Standard Deviation
13.91	4.25 - 75.50	6.93

## Data Plot and Equation





## Vehicle Pass-By Rates by Land Use

Source: ITE *Trip Generation Manual*, 11th Edition

[illegible]

## Vehicle Pass-By Rates by Land Use

Source: ITE *Trip Generation Manual*, 11th Edition

944									
Land Use Code	Gasoline/Service Station								
Land Use	General Urban/Suburban								
Setting	Weekday PM Peak Period								
Time Period	17								
# Data Sites	57%								
Average Pass-By Rate	Pass-By Characteristics for Individual Sites								

## Appendix B – Traffic Data

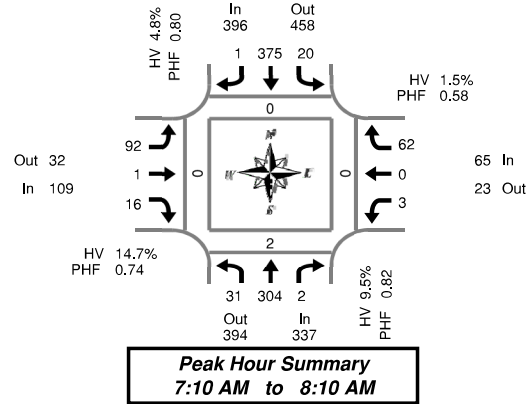
### Traffic Counts



## Total Vehicle Summary



Clay Carney  
(503) 833-2740



## Lancaster Dr SE & Hagers Grove Rd SE

Wednesday, November 09, 2016

7:00 AM to 9:00 AM

### 5-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound Lancaster Dr SE				Southbound Lancaster Dr SE				Eastbound Hagers Grove Rd SE				Westbound Hagers Grove Rd SE				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	0	21	0	0	1	20	1	0	6	0	1	0	0	0	7	0	57	0	0	0	0
7:05 AM	2	19	0	0	3	20	0	0	5	0	2	0	0	0	7	0	58	0	0	0	0
7:10 AM	4	26	0	0	1	29	0	0	4	0	1	0	0	0	7	0	72	0	0	0	0
7:15 AM	2	18	1	0	2	25	0	0	10	0	0	0	0	0	5	0	63	0	1	0	0
7:20 AM	1	26	0	0	2	30	0	0	4	0	1	0	0	0	2	0	66	0	0	0	0
7:25 AM	4	25	0	0	2	23	0	0	7	0	2	0	0	0	7	0	70	0	0	0	0
7:30 AM	2	27	1	0	0	30	0	0	5	0	3	0	0	0	3	0	71	0	0	0	0
7:35 AM	2	38	0	0	1	37	0	0	5	1	2	0	1	0	8	0	95	0	0	0	0
7:40 AM	4	24	0	0	0	32	0	0	14	0	0	0	0	0	14	0	88	0	0	0	0
7:45 AM	2	33	0	0	3	42	0	0	11	0	2	0	0	0	5	0	98	0	1	0	0
7:50 AM	1	26	0	0	1	36	0	0	8	0	2	0	0	0	1	0	75	0	0	0	0
7:55 AM	4	18	0	0	1	40	1	0	8	0	0	0	0	0	5	0	77	0	0	0	0
8:00 AM	2	18	0	0	4	28	0	0	9	0	2	0	1	0	1	0	65	0	0	0	0
8:05 AM	3	25	0	0	3	23	0	0	7	0	1	0	1	0	4	0	67	0	0	0	0
8:10 AM	3	15	1	0	1	22	0	0	6	0	2	0	0	0	3	0	53	0	0	0	0
8:15 AM	2	20	0	0	1	18	0	0	11	0	2	0	0	0	5	0	59	0	0	0	1
8:20 AM	2	21	1	0	0	21	0	0	11	0	2	0	0	0	4	0	62	0	0	0	0
8:25 AM	5	21	0	1	1	28	0	0	11	0	5	0	0	0	6	0	77	0	0	0	0
8:30 AM	2	17	0	0	1	28	1	0	8	1	1	0	0	0	3	0	62	0	0	0	0
8:35 AM	5	24	1	0	1	19	0	0	9	1	2	0	1	0	4	0	67	0	0	0	0
8:40 AM	0	29	1	0	4	24	1	0	11	0	2	0	0	0	1	0	73	0	0	1	0
8:45 AM	3	29	0	0	2	17	1	0	14	0	3	0	0	1	5	0	75	0	0	0	0
8:50 AM	5	28	0	0	2	29	0	0	10	0	0	0	0	0	3	0	77	0	0	0	0
8:55 AM	3	27	0	0	3	17	0	0	9	0	4	0	0	0	2	0	65	0	0	0	0
Total Survey	63	575	6	1	40	638	5	0	203	3	42	0	4	1	112	0	1,692	0	2	1	1

### 15-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound Lancaster Dr SE				Southbound Lancaster Dr SE				Eastbound Hagers Grove Rd SE				Westbound Hagers Grove Rd SE				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	6	66	0	0	5	69	1	0	15	0	4	0	0	0	21	0	187	0	0	0	0
7:15 AM	7	69	1	0	6	78	0	0	21	0	3	0	0	0	14	0	199	0	1	0	0
7:30 AM	8	89	1	0	1	99	0	0	24	1	5	0	1	0	25	0	254	0	0	0	0
7:45 AM	7	77	0	0	5	118	1	0	27	0	4	0	0	0	11	0	250	0	1	0	0
8:00 AM	8	58	1	0	8	73	0	0	22	0	5	0	2	0	8	0	185	0	0	0	0
8:15 AM	9	62	1	1	2	67	0	0	33	0	9	0	0	0	15	0	198	0	0	0	1
8:30 AM	7	70	2	0	6	71	2	0	28	2	5	0	1	0	8	0	202	0	0	1	0
8:45 AM	11	84	0	0	7	63	1	0	33	0	7	0	0	1	10	0	217	0	0	0	0
Total Survey	63	575	6	1	40	638	5	0	203	3	42	0	4	1	112	0	1,692	0	2	1	1

### Peak Hour Summary

7:10 AM to 8:10 AM

By Approach	Northbound Lancaster Dr SE				Southbound Lancaster Dr SE				Eastbound Hagers Grove Rd SE				Westbound Hagers Grove Rd SE				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	337	394	731	0	396	458	854	0	109	32	141	0	65	23	88	0	907	0	2	0	0
%HV	9.5%				4.8%				14.7%				1.5%				7.5%				
PHF	0.82				0.80				0.74				0.58				0.81				

By Movement	Northbound Lancaster Dr SE				Southbound Lancaster Dr SE				Eastbound Hagers Grove Rd SE				Westbound Hagers Grove Rd SE				Total				
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total					
Volume	31	304	2	337	20	375	1	396	92	1	16	109	3	0	62	65	907				
%HV	9.7%	9.5%	0.0%	9.5%	10.0%	4.5%	0.0%	4.8%	14.1%	0.0%	18.8%	14.7%	0.0%	0.0%	1.6%	1.5%	7.5%				
PHF	0.86	0.80	0.50	0.82	0.63	0.79	0.25	0.80	0.70	0.25	0.57	0.74	0.38	0.00	0.57	0.58	0.81				

### Rolling Hour Summary

7:00 AM to 9:00 AM

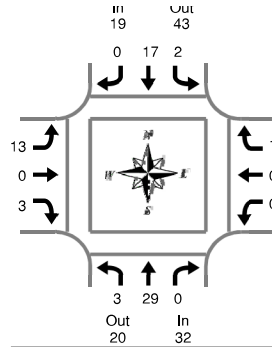
Interval Start Time	Northbound Lancaster Dr SE				Southbound Lancaster Dr SE				Eastbound Hagers Grove Rd SE				Westbound Hagers Grove Rd SE				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	28	301	2	0	17	364	2	0	87	1	16	0	1	0	71	0	890	0	2	0	0
7:15 AM	30	293	3	0	20	368	1	0	94	1	17	0	3	0	58	0	888	0	2	0	0
7:30 AM	32	286	3	1	16	357	1	0	106	1	23	0	3	0	59	0	887	0	1	0	1
7:45 AM	31	267	4	1	21	329	3	0	110	2	23	0	3	0	42	0	835	0	1	1	1
8:00 AM	35	274	4	1	23	274	3	0	116	2	26	0	3	1	41	0	802	0	0	1	1

# Heavy Vehicle Summary



Clay Carney  
(503) 833-2740

Out 3  
In 16



## Lancaster Dr SE & Hagers Grove Rd SE

Wednesday, November 09, 2016

7:00 AM to 9:00 AM

**Peak Hour Summary**  
7:10 AM to 8:10 AM

### Heavy Vehicle 5-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound Lancaster Dr SE				Southbound Lancaster Dr SE				Eastbound Hagers Grove Rd SE				Westbound Hagers Grove Rd SE				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
7:05 AM	1	1	0	2	0	2	0	2	0	0	0	0	0	0	0	0	4
7:10 AM	0	1	0	1	0	2	0	2	0	0	0	0	0	0	0	0	3
7:15 AM	0	1	0	1	0	1	0	1	1	0	0	1	0	0	0	0	3
7:20 AM	1	1	0	2	0	2	0	2	0	0	0	0	0	0	0	0	4
7:25 AM	0	3	0	3	0	0	0	0	1	0	0	1	0	0	0	0	4
7:30 AM	0	1	0	1	0	1	0	1	0	0	1	1	0	0	0	0	3
7:35 AM	1	4	0	5	1	1	0	2	1	0	0	1	0	0	0	0	8
7:40 AM	0	1	0	1	0	0	0	0	2	0	0	2	0	0	0	0	3
7:45 AM	1	5	0	6	1	2	0	3	2	0	1	3	0	0	0	0	12
7:50 AM	0	3	0	3	0	2	0	2	2	0	0	2	0	0	0	0	7
7:55 AM	0	3	0	3	0	3	0	3	1	0	0	1	0	0	0	0	7
8:00 AM	0	2	0	2	0	1	0	1	1	0	1	2	0	0	0	0	5
8:05 AM	0	4	0	4	0	2	0	2	2	0	0	2	0	0	1	1	9
8:10 AM	0	3	0	3	0	1	0	1	2	0	0	2	0	0	0	0	6
8:15 AM	0	2	0	2	0	1	0	1	1	0	0	1	0	0	0	0	4
8:20 AM	1	4	0	5	0	3	0	3	1	0	0	1	0	0	0	0	9
8:25 AM	0	3	0	3	0	3	0	3	2	0	0	2	0	0	0	0	8
8:30 AM	0	5	0	5	0	3	0	3	1	1	0	2	0	0	0	0	10
8:35 AM	1	1	0	2	0	3	0	3	0	0	0	0	0	0	0	0	5
8:40 AM	0	5	1	6	1	2	0	3	2	0	0	2	0	0	0	0	11
8:45 AM	0	4	0	4	1	1	0	2	2	0	1	3	0	0	0	0	9
8:50 AM	2	10	0	12	0	3	0	3	1	0	0	1	0	0	0	0	16
8:55 AM	0	3	0	3	1	4	0	5	3	0	1	4	0	0	0	0	12
Total Survey	8	72	1	81	5	43	0	48	28	1	5	34	0	0	1	1	164

### Heavy Vehicle 15-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound Lancaster Dr SE				Southbound Lancaster Dr SE				Eastbound Hagers Grove Rd SE				Westbound Hagers Grove Rd SE				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	1	4	0	5	0	4	0	4	0	0	0	0	0	0	0	0	9
7:15 AM	1	5	0	6	0	3	0	3	2	0	0	2	0	0	0	0	11
7:30 AM	1	6	0	7	1	2	0	3	3	0	1	4	0	0	0	0	14
7:45 AM	1	11	0	12	1	7	0	8	5	0	1	6	0	0	0	0	26
8:00 AM	0	9	0	9	0	4	0	4	5	0	1	6	0	0	1	1	20
8:15 AM	1	9	0	10	0	7	0	7	4	0	0	4	0	0	0	0	21
8:30 AM	1	11	1	13	1	8	0	9	3	1	0	4	0	0	0	0	26
8:45 AM	2	17	0	19	2	8	0	10	6	0	2	8	0	0	0	0	37
Total Survey	8	72	1	81	5	43	0	48	28	1	5	34	0	0	1	1	164

### Heavy Vehicle Peak Hour Summary

7:10 AM to 8:10 AM

By Approach	Northbound Lancaster Dr SE			Southbound Lancaster Dr SE			Eastbound Hagers Grove Rd SE			Westbound Hagers Grove Rd SE			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	32	20	52	19	43	62	16	3	19	1	2	3	68
PHF	0.67			0.59			0.57			0.25			0.65

By Movement	Northbound Lancaster Dr SE				Southbound Lancaster Dr SE				Eastbound Hagers Grove Rd SE				Westbound Hagers Grove Rd SE				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	3	29	0	32	2	17	0	19	13	0	3	16	0	0	1	1	68
PHF	0.38	0.66	0.00	0.67	0.25	0.61	0.00	0.59	0.54	0.00	0.75	0.57	0.00	0.00	0.25	0.25	0.65

### Heavy Vehicle Rolling Hour Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound Lancaster Dr SE				Southbound Lancaster Dr SE				Eastbound Hagers Grove Rd SE				Westbound Hagers Grove Rd SE				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	4	26	0	30	2	16	0	18	10	0	2	12	0	0	0	0	60
7:15 AM	3	31	0	34	2	16	0	18	15	0	3	18	0	0	1	1	71
7:30 AM	3	35	0	38	2	20	0	22	17	0	3	20	0	0	1	1	81
7:45 AM	3	40	1	44	2	26	0	28	17	1	2	20	0	0	1	1	93
8:00 AM	4	46	1	51	3	27	0	30	18	1	3	22	0	0	1	1	104



# Peak Hour Summary

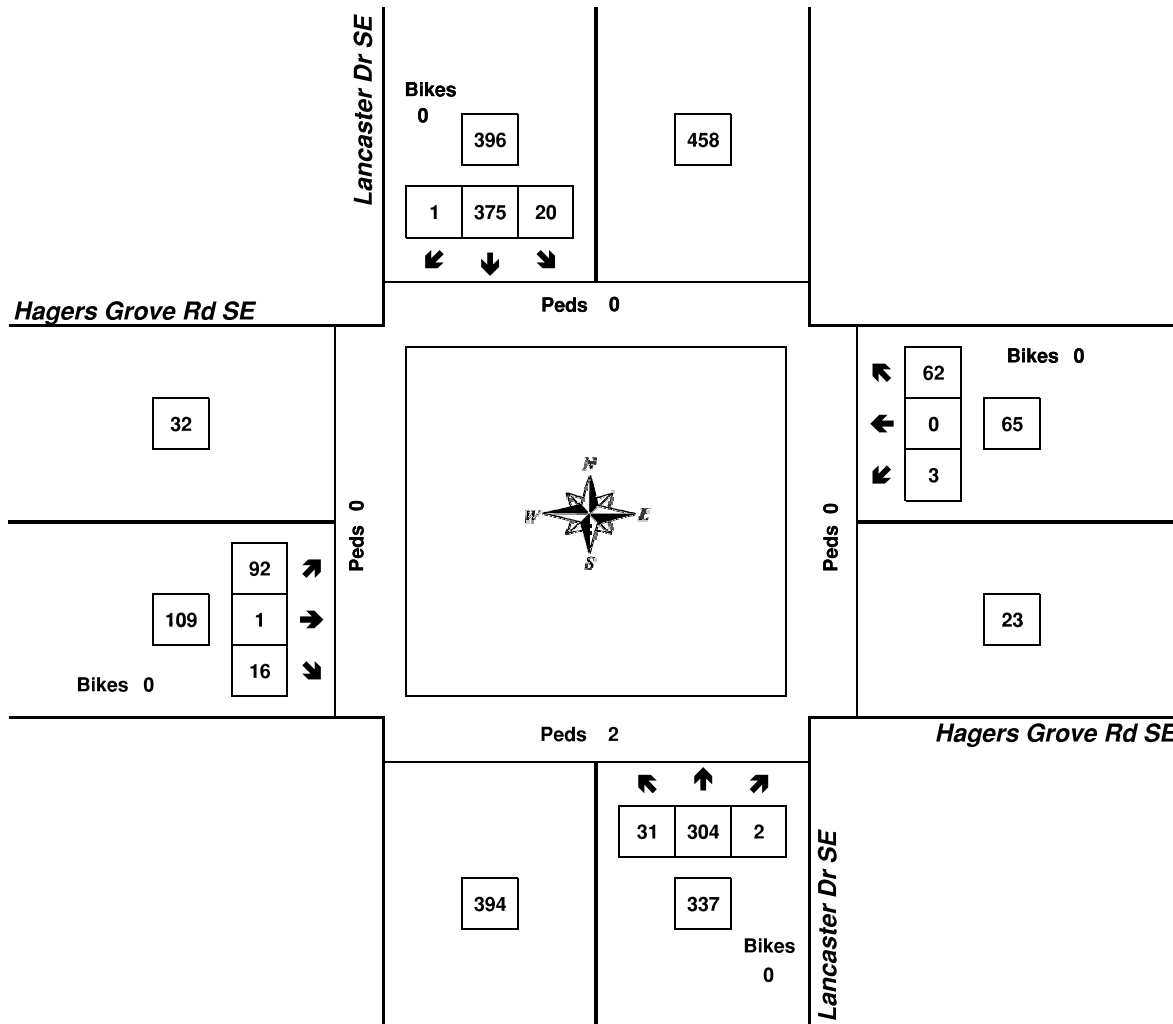


Clay Carney  
(503) 833-2740

## Lancaster Dr SE & Hagers Grove Rd SE

7:10 AM to 8:10 AM

Wednesday, November 09, 2016

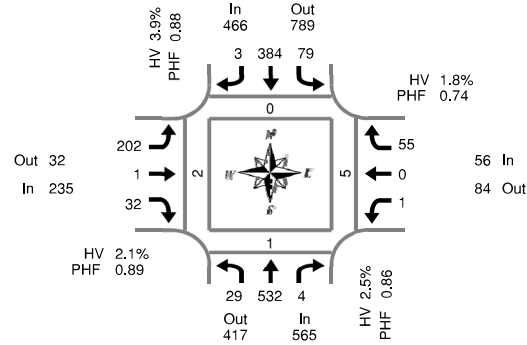


Count Period: 7:00 AM to 9:00 AM

## Total Vehicle Summary



Clay Carney  
(503) 833-2740



## Lancaster Dr SE & Hagers Grove Rd SE

Wednesday, November 09, 2016

4:00 PM to 6:00 PM

Peak Hour Summary  
4:15 PM to 5:15 PM

### 5-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound Lancaster Dr SE				Southbound Lancaster Dr SE				Eastbound Hagers Grove Rd SE				Westbound Hagers Grove Rd SE				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	4	16	0	0	8	32	0	0	14	0	7	0	0	0	1	3	0	1	0	0	0
4:05 PM	3	27	0	0	4	43	0	0	15	0	2	0	0	0	6	0	100	0	0	0	0
4:10 PM	2	39	0	0	6	34	1	0	17	0	5	0	1	0	2	0	107	0	0	0	0
4:15 PM	4	39	1	0	8	23	0	0	20	1	4	0	0	0	3	0	103	0	0	0	0
4:20 PM	4	35	0	0	5	31	0	0	16	0	2	0	0	0	7	0	100	0	0	0	0
4:25 PM	2	51	1	0	7	40	1	0	19	0	4	0	0	0	9	0	134	0	0	0	0
4:30 PM	2	49	0	0	9	39	0	0	14	0	2	0	0	0	2	0	117	0	0	4	0
4:35 PM	1	26	0	0	6	27	0	0	24	0	3	1	1	0	7	0	95	0	0	0	0
4:40 PM	2	53	2	0	6	28	0	0	16	0	5	0	0	0	3	0	115	0	0	1	0
4:45 PM	2	63	0	0	5	26	1	0	12	0	3	0	0	0	5	0	117	0	0	0	0
4:50 PM	3	39	0	0	4	26	0	0	18	0	2	0	0	0	5	0	97	0	1	0	2
4:55 PM	3	47	0	0	11	31	0	0	13	0	4	0	0	0	2	0	111	0	0	0	0
5:00 PM	1	44	0	0	9	39	1	0	25	0	1	0	0	0	5	0	125	0	0	0	0
5:05 PM	3	40	0	0	5	37	0	0	6	0	2	0	0	0	4	0	97	0	0	0	0
5:10 PM	2	46	0	0	4	37	0	0	19	0	0	0	0	0	3	0	111	0	0	0	0
5:15 PM	4	30	1	0	3	27	0	0	5	0	5	0	2	0	7	0	84	2	0	2	0
5:20 PM	1	30	2	0	13	47	0	0	12	0	3	0	0	0	3	0	111	0	0	0	0
5:25 PM	2	33	0	0	6	26	0	0	15	0	4	0	0	0	2	0	88	0	0	0	0
5:30 PM	1	38	0	0	8	21	0	0	14	0	3	0	0	0	3	0	88	0	0	0	0
5:35 PM	2	30	0	0	8	30	1	0	13	0	4	0	0	0	5	0	93	0	1	0	0
5:40 PM	4	30	1	0	2	24	1	0	13	0	3	0	0	1	3	0	82	0	0	0	0
5:45 PM	2	26	0	0	11	48	0	0	10	0	2	0	0	0	3	0	102	0	0	0	0
5:50 PM	0	14	0	0	4	26	0	0	15	0	2	0	0	0	2	0	63	0	0	1	0
5:55 PM	3	28	0	0	8	26	1	0	11	0	1	0	0	0	4	0	82	0	2	0	0
Total Survey	57	873	8	0	160	768	7	0	356	1	73	1	4	2	98	0	2,407	3	4	8	2

### 15-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound Lancaster Dr SE				Southbound Lancaster Dr SE				Eastbound Hagers Grove Rd SE				Westbound Hagers Grove Rd SE				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	9	82	0	0	18	109	1	0	46	0	14	0	1	1	11	0	292	1	0	0	0
4:15 PM	10	125	2	0	20	94	1	0	55	1	10	0	0	0	19	0	337	0	0	0	0
4:30 PM	5	128	2	0	21	94	0	0	54	0	10	1	1	0	12	0	327	0	0	5	0
4:45 PM	8	149	0	0	20	83	1	0	43	0	9	0	0	0	12	0	325	0	1	0	2
5:00 PM	6	130	0	0	18	113	1	0	50	0	3	0	0	0	12	0	333	0	0	0	0
5:15 PM	7	93	3	0	22	100	0	0	32	0	12	0	2	0	12	0	283	2	0	2	0
5:30 PM	7	98	1	0	18	75	2	0	40	0	10	0	0	1	11	0	263	0	1	0	0
5:45 PM	5	68	0	0	23	100	1	0	36	0	5	0	0	0	9	0	247	0	2	1	0
Total Survey	57	873	8	0	160	768	7	0	356	1	73	1	4	2	98	0	2,407	3	4	8	2

### Peak Hour Summary

4:15 PM to 5:15 PM

By Approach	Northbound Lancaster Dr SE				Southbound Lancaster Dr SE				Eastbound Hagers Grove Rd SE				Westbound Hagers Grove Rd SE				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	565	417	982	0	466	789	1,255	0	235	32	267	1	56	84	140	0	1,322	0	1	5	2
%HV	2.5%				3.9%				2.1%				1.8%				2.9%				
PHF	0.86				0.88				0.89				0.74				0.94				

By Movement	Northbound Lancaster Dr SE				Southbound Lancaster Dr SE				Eastbound Hagers Grove Rd SE				Westbound Hagers Grove Rd SE				Total				
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total					
Volume	29	532	4	565	79	384	3	466	202	1	32	235	1	0	55	56	1,322				
%HV	3.4%	2.4%	0.0%	2.5%	2.5%	4.2%	0.0%	3.9%	2.0%	0.0%	3.1%	2.1%	####	0.0%	0.0%	1.8%	2.9%				
PHF	0.73	0.86	0.50	0.86	0.79	0.85	0.75	0.88	0.89	0.25	0.73	0.89	0.25	0.00	0.72	0.74	0.94				

### Rolling Hour Summary

4:00 PM to 6:00 PM

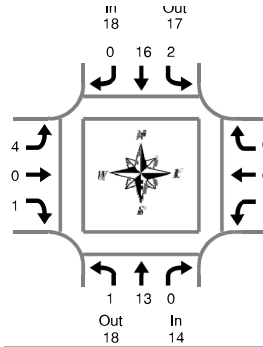
Interval Start Time	Northbound Lancaster Dr SE				Southbound Lancaster Dr SE				Eastbound Hagers Grove Rd SE				Westbound Hagers Grove Rd SE				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	32	484	4	0	79	380	3	0	198	1	43	1	2	1	54	0	1,281	1	1	5	2
4:15 PM	29	532	4	0	79	384	3	0	202	1	32	1	1	0	55	0	1,322	0	1	5	2
4:30 PM	26	500	5	0	81	390	2	0	179	0	34	1	3	0	48	0	1,268	2	1	7	2
4:45 PM	28	470	4	0	78	371	4	0	165	0	34	0	2	1	47	0	1,204	2	2	2	2
5:00 PM	25	389	4	0	81	388	4	0	158	0	30	0	2	1	44	0	1,126	2	3	3	0

# Heavy Vehicle Summary



Clay Carney  
(503) 833-2740

Out 1  
In 5



## Lancaster Dr SE & Hagers Grove Rd SE

Wednesday, November 09, 2016

4:00 PM to 6:00 PM

**Peak Hour Summary**  
4:15 PM to 5:15 PM

### Heavy Vehicle 5-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound Lancaster Dr SE				Southbound Lancaster Dr SE				Eastbound Hagers Grove Rd SE				Westbound Hagers Grove Rd SE				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	0	1	0	1	1	5	0	6	1	0	0	1	0	0	0	0	8
4:05 PM	0	2	0	2	0	3	0	3	2	0	0	2	0	0	0	0	7
4:10 PM	0	1	0	1	0	0	1	1	0	0	0	0	0	0	0	0	2
4:15 PM	0	0	0	0	0	0	0	0	1	0	1	2	0	0	0	0	2
4:20 PM	0	1	0	1	0	4	0	4	0	0	0	0	0	0	0	0	5
4:25 PM	1	1	0	2	0	2	0	2	1	0	0	1	0	0	0	0	5
4:30 PM	0	2	0	2	1	1	0	2	0	0	0	0	0	0	0	0	4
4:35 PM	0	1	0	1	0	1	0	1	0	0	0	0	1	0	0	1	3
4:40 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	1	1	0	2	1	0	0	1	0	0	0	0	3
4:50 PM	0	3	0	3	0	3	0	3	0	0	0	0	0	0	0	0	6
4:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	3	0	3	0	1	0	1	0	0	0	0	0	0	0	0	4
5:05 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
5:10 PM	0	1	0	1	0	3	0	3	0	0	0	0	0	0	0	0	4
5:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
5:20 PM	0	2	1	3	0	0	0	0	0	0	0	0	0	0	0	0	3
5:25 PM	0	0	0	0	0	1	0	1	2	0	0	2	0	0	1	1	4
5:30 PM	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	2
5:35 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:40 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
5:50 PM	0	0	0	0	0	5	0	5	0	0	0	0	0	0	0	0	5
5:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	1	21	1	23	3	32	1	36	9	0	1	10	1	0	1	2	71

### Heavy Vehicle 15-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound Lancaster Dr SE				Southbound Lancaster Dr SE				Eastbound Hagers Grove Rd SE				Westbound Hagers Grove Rd SE				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	0	4	0	4	1	8	1	10	3	0	0	3	0	0	0	0	17
4:15 PM	1	2	0	3	0	6	0	6	2	0	1	3	0	0	0	0	12
4:30 PM	0	4	0	4	1	2	0	3	0	0	0	0	1	0	0	1	8
4:45 PM	0	3	0	3	1	4	0	5	1	0	0	1	0	0	0	0	9
5:00 PM	0	4	0	4	0	4	0	4	1	0	0	1	0	0	0	0	9
5:15 PM	0	3	1	4	0	1	0	1	2	0	0	2	0	0	1	1	8
5:30 PM	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	2
5:45 PM	0	0	0	0	0	6	0	6	0	0	0	0	0	0	0	0	6
Total Survey	1	21	1	23	3	32	1	36	9	0	1	10	1	0	1	2	71

### Heavy Vehicle Peak Hour Summary

4:15 PM to 5:15 PM

By Approach	Northbound Lancaster Dr SE			Southbound Lancaster Dr SE			Eastbound Hagers Grove Rd SE			Westbound Hagers Grove Rd SE			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	14	18	32	18	17	35	5	1	6	1	2	3	38
PHF	0.58			0.56			0.42			0.25			0.68

By Movement	Northbound Lancaster Dr SE				Southbound Lancaster Dr SE				Eastbound Hagers Grove Rd SE				Westbound Hagers Grove Rd SE				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	1	13	0	14	2	16	0	18	4	0	1	5	1	0	0	1	38
PHF	0.25	0.54	0.00	0.58	0.50	0.57	0.00	0.56	0.50	0.00	0.25	0.42	0.25	0.00	0.00	0.25	0.68

### Heavy Vehicle Rolling Hour Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound Lancaster Dr SE				Southbound Lancaster Dr SE				Eastbound Hagers Grove Rd SE				Westbound Hagers Grove Rd SE				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	1	13	0	14	3	20	1	24	6	0	1	7	1	0	0	1	46
4:15 PM	1	13	0	14	2	16	0	18	4	0	1	5	1	0	0	1	38
4:30 PM	0	14	1	15	2	11	0	13	4	0	0	4	1	0	1	2	34
4:45 PM	0	11	1	12	1	10	0	11	4	0	0	4	0	0	1	1	28
5:00 PM	0	8	1	9	0	12	0	12	3	0	0	3	0	0	1	1	25

# Peak Hour Summary

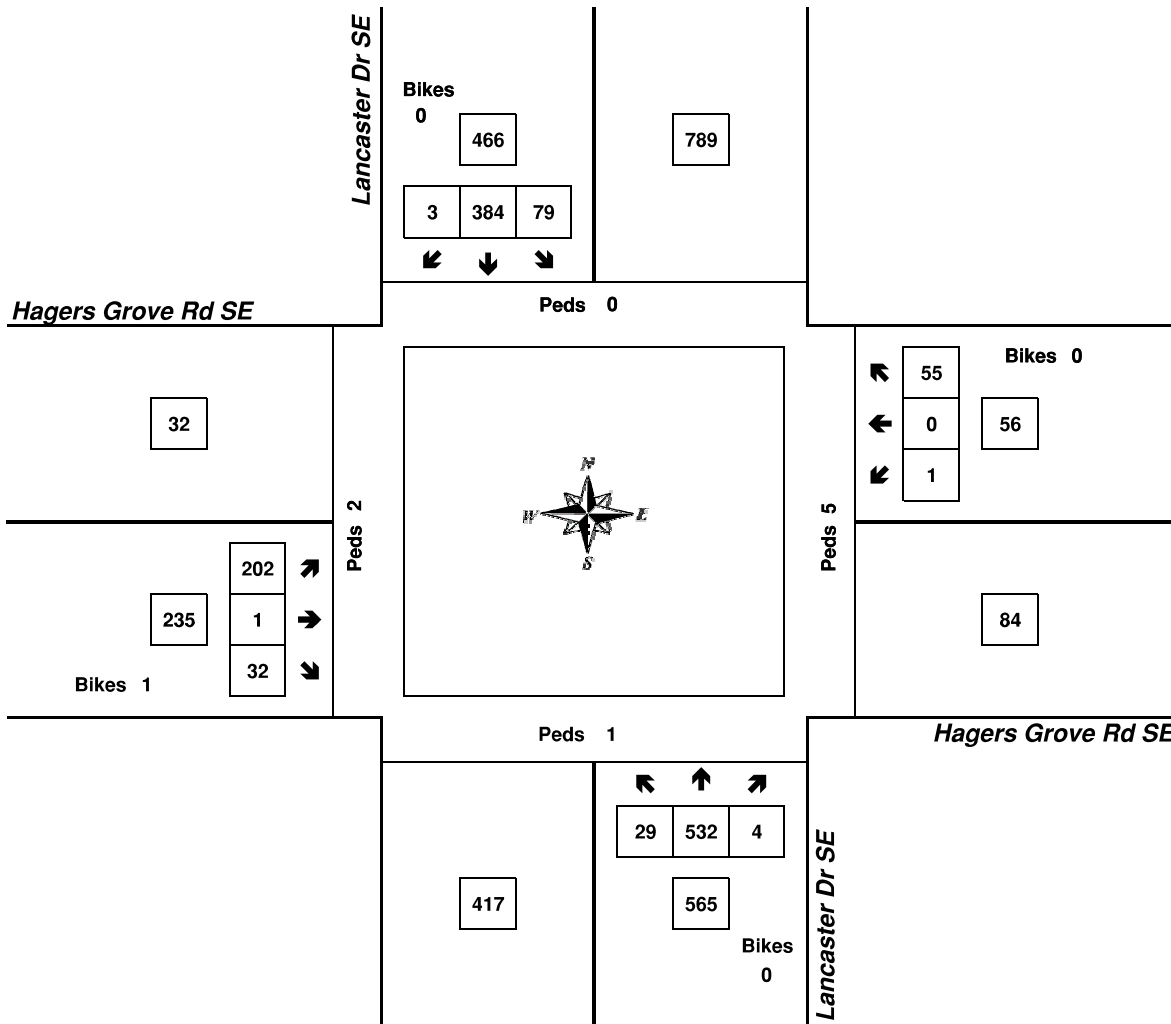


Clay Carney  
(503) 833-2740

## Lancaster Dr SE & Hagers Grove Rd SE

4:15 PM to 5:15 PM

Wednesday, November 09, 2016



Approach	PHF	HV%	Volume
EB	0.89	2.1%	235
WB	0.74	1.8%	56
NB	0.86	2.5%	565
SB	0.88	3.9%	466
<b>Intersection</b>	<b>0.94</b>	<b>2.9%</b>	<b>1,322</b>

Count Period: 4:00 PM to 6:00 PM

## Appendix C - Safety

Crash History Data

Preliminary Signal Warrants

Left-turn Lane Warrants



OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION  
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT  
URBAN NON-SYSTEM CRASH LISTING  
**HAGERS GROVE at CARSON DR, City of Salem, Marion County, 01/01/2016 to 12/31/2020**  
1 - 3 of 3 Crash records shown.

S	D	M	SER#	F R J S W DATE	CLASS	CITY STREET	INT-TYPE	INT-REL	OFFRD	WTHR	CRASH	SECT. USE	MOVE	PRTC	A S	E LICNS	PED	ERROR	ACT	EVENT	CAUSE		
INVEST	E A U I C O DAY	DIST	RD DPT	E L G N H R TIME	FROM	SECOND STREET	DIRECT	LESS	TRAF-	RNDBT	SIDE	COLL	OWNER	FROM	PRTC	INT	G E	LICNS	PED	ERROR	ACT	EVENT	CAUSE
UNLCG?	D C S V L K LAT	LONG	IAS	LOCN	(#LANES)	CONTL	DRWAY	LIGHT	SVRTY	VA TYPE	TO	P# TYPE	SVRTY	E X	RES	LOC	ERROR	ACT	EVENT	CAUSE			
NONE	SA	0	HAGERS GROVE	CN	0	YIELD	N	N	CLR	ANGI-OTH	01 NONE	9	TURN-R								02		
N	1P	44 54 40.65 -122 58			02		N	DAY	PDO	PSNGR CAR		01	DRVR	NONE	00	Unk	UNK				000		00
N		48.24								02 NONE	9	STRGHT									000		00
										N/A	S -N	01	DRVR	NONE	00	Unk	UNK				000		00
										PSNGR CAR													
01825	N N N	06/21/2020	19	CARSON DR	INTER	3-LEG	N	N	CLR	ANGI-OTH	01 NONE	9	TURN-R								02		
NONE	SU	0	HAGERS GROVE	CN		YIELD	N	DRY	TURN	N/A	SE-N										000		00
N	10A	44 54 40.62 -122 58			02		N	DAY	PDO	PSNGR CAR		01	DRVR	NONE	00	Unk	UNK				000		00
N		48.22								02 NONE	9	STRGHT									000		00
										N/A	S -N	01	DRVR	NONE	00	Unk	UNK				000		00
										PSNGR CAR													
01286	N N N	04/19/2020	19	CARSON DR	INTER	3-LEG	N	N	UNK	ANGI-OTH	01 NONE	9	TURN-R								02		
NONE	SU	0	HAGERS GROVE	CN		YIELD	N	UNK	TURN	N/A	SE-N										000		00
N	5P	44 54 40.63 -122 58			02		N	DAY	PDO	PSNGR CAR		01	DRVR	NONE	00	Unk	UNK				000		00
N		48.24								02 NONE	9	STRGHT									000		00
										N/A	S -N	01	DRVR	NONE	00	Unk	UNK				000		00
										PSNGR CAR													

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because substantial of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.



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TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT  
URBAN NON-SYSTEM CRASH LISTING

[illegible]













## Traffic Signal Warrant Analysis



Project: Stop N Save Development  
Date: 7/6/2022  
Scenario: Year 2024 Buildout

Major Street:	Hagers Grove Road SE	Minor Street:	Northern Site Access
Number of Lanes:	1	Number of Lanes:	1
PM Peak Hour Volumes:	44	PM Peak Hour Volumes:	10

### Warrant Used:

    X     100 percent of standard warrants used  
           70 percent of standard warrants used due to 85th percentile speed in excess of 40 mph or isolated community with population less than 10,000.

Number of Lanes for Moving Traffic on Each Approach:		ADT on Major St. (total of both approaches)		ADT on Minor St. (higher-volume approach)	
		100%	70%	100%	70%
<u>Major St.</u>	<u>Minor St.</u>	<u>Warrants</u>	<u>Warrants</u>	<u>Warrants</u>	<u>Warrants</u>
1	1	8,850	6,200	2,650	1,850
2 or more	1	10,600	7,400	2,650	1,850
2 or more	2 or more	10,600	7,400	3,550	2,500
1	2 or more	8,850	6,200	3,550	2,500
<u>WARRANT 1, CONDITION B</u>					
1	1	13,300	9,300	1,350	950
2 or more	1	15,900	11,100	1,350	950
2 or more	2 or more	15,900	11,100	1,750	1,250
1	2 or more	13,300	9,300	1,750	1,250

Note: ADT volumes assume 8th highest hour is 5.6% of the daily volume

	Approach Volumes	Minimum Volumes	Is Signal Warrant Met?
<i>Warrant 1</i>			
<i>Condition A: Minimum Vehicular Volume</i>			
Major Street	440	8,850	
Minor Street*	100	2,650	<b>No</b>
<i>Condition B: Interruption of Continuous Traffic</i>			
Major Street	440	13,300	
Minor Street*	100	1,350	<b>No</b>
<i>Combination Warrant</i>			
Major Street	440	10,640	
Minor Street*	100	2,120	<b>No</b>

\* Minor street right-turning traffic volumes reduced by 25%

## Traffic Signal Warrant Analysis



Project: Stop N Save Development  
 Date: 7/6/2022  
 Scenario: Year 2024 Buildout

Major Street:	Hagers Grove Road SE	Minor Street:	Western Site Access
Number of Lanes:	1	Number of Lanes:	1
PM Peak Hour Volumes:	337	PM Peak Hour Volumes:	198

### Warrant Used:

    X     100 percent of standard warrants used  
           70 percent of standard warrants used due to 85th percentile speed in excess  
 of 40 mph or isolated community with population less than 10,000.

Number of Lanes for Moving Traffic on Each Approach:		ADT on Major St. (total of both approaches)		ADT on Minor St. (higher-volume approach)	
		100%	70%	100%	70%
<u>Major St.</u>	<u>Minor St.</u>	<u>Warrants</u>	<u>Warrants</u>	<u>Warrants</u>	<u>Warrants</u>
1	1	8,850	6,200	2,650	1,850
2 or more	1	10,600	7,400	2,650	1,850
2 or more	2 or more	10,600	7,400	3,550	2,500
1	2 or more	8,850	6,200	3,550	2,500

<u>WARRANT 1, CONDITION B</u>					
1	1	13,300	9,300	1,350	950
2 or more	1	15,900	11,100	1,350	950
2 or more	2 or more	15,900	11,100	1,750	1,250
1	2 or more	13,300	9,300	1,750	1,250

Note: ADT volumes assume 8th highest hour is 5.6% of the daily volume

	Approach Volumes	Minimum Volumes	Is Signal Warrant Met?
<i>Warrant 1</i>			
<i>Condition A: Minimum Vehicular Volume</i>			
Major Street	3,370	8,850	
Minor Street*	1,980	2,650	<b>No</b>
<i>Condition B: Interruption of Continuous Traffic</i>			
Major Street	3,370	13,300	
Minor Street*	1,980	1,350	<b>No</b>
<i>Combination Warrant</i>			
Major Street	3,370	10,640	
Minor Street*	1,980	2,120	<b>No</b>

\* Minor street right-turning traffic volumes reduced by 25%

## Traffic Signal Warrant Analysis



Project: Stop N Save Development  
Date: 7/6/2022  
Scenario: Year 2024 Buildout

Major Street:	Hager Grove Road SE	Minor Street:	Southern Site Access
Number of Lanes:	3	Number of Lanes:	1
PM Peak Hour Volumes:	621	PM Peak Hour Volumes:	1

### Warrant Used:

    X     100 percent of standard warrants used  
           70 percent of standard warrants used due to 85th percentile speed in excess  
                    of 40 mph or isolated community with population less than 10,000.

Number of Lanes for Moving Traffic on Each Approach:		ADT on Major St. (total of both approaches)		ADT on Minor St. (higher-volume approach)	
		100%	70%	100%	70%
<u>Major St.</u>	<u>Minor St.</u>	<u>Warrants</u>	<u>Warrants</u>	<u>Warrants</u>	<u>Warrants</u>
1	1	8,850	6,200	2,650	1,850
2 or more	1	10,600	7,400	2,650	1,850
2 or more	2 or more	10,600	7,400	3,550	2,500
1	2 or more	8,850	6,200	3,550	2,500
<b>WARRANT 1, CONDITION B</b>					
1	1	13,300	9,300	1,350	950
2 or more	1	15,900	11,100	1,350	950
2 or more	2 or more	15,900	11,100	1,750	1,250
1	2 or more	13,300	9,300	1,750	1,250

Note: ADT volumes assume 8th highest hour is 5.6% of the daily volume

	Approach Volumes	Minimum Volumes	Is Signal Warrant Met?
<b>Warrant 1</b>			
<b>Condition A: Minimum Vehicular Volume</b>			
Major Street	6,210	10,600	
Minor Street*	10	2,650	<b>No</b>
<b>Condition B: Interruption of Continuous Traffic</b>			
Major Street	6,210	15,900	
Minor Street*	10	1,350	<b>No</b>
<b>Combination Warrant</b>			
Major Street	6,210	12,720	
Minor Street*	10	2,120	<b>No</b>

\* Minor street right-turning traffic volumes reduced by 85% of the capacity



## Left-Turn Lane Warrant Analysis



Project: Stop N Save Development  
Intersection: Hagers Grove Rd SE at Western Site Access  
Date: 7/6/2022  
Scenario: 2024 buildout conditions PM (SB)

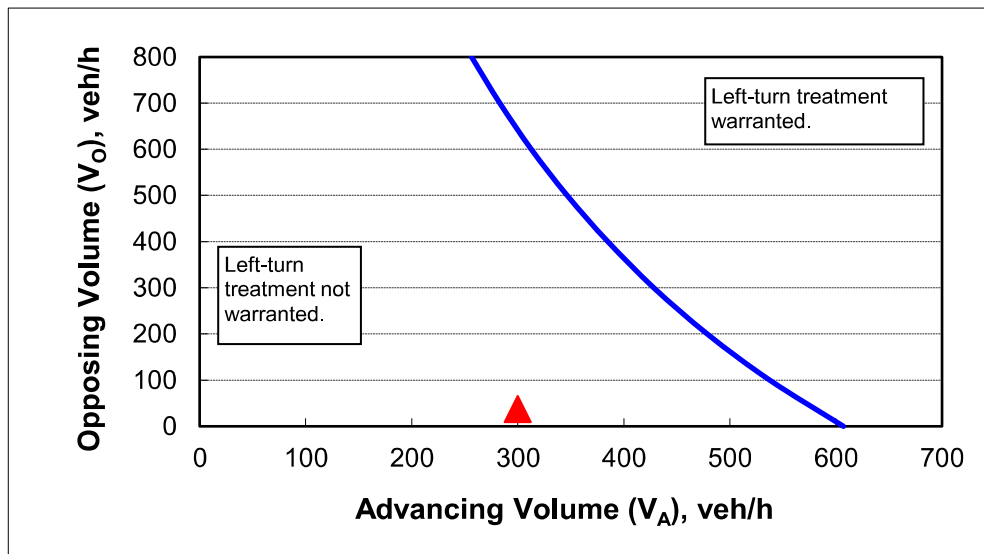
### 2-lane roadway (English)

#### INPUT

Variable	Value
85 <sup>th</sup> percentile speed, mph:	25
Percent of left-turns in advancing volume ( $V_A$ ), %:	13%
Advancing volume ( $V_A$ ), veh/h:	300
Opposing volume ( $V_O$ ), veh/h:	37

#### OUTPUT

Variable	Value
Limiting advancing volume ( $V_A$ ), veh/h:	580
<b>Guidance for determining the need for a major-road left-turn bay:</b>	
<b>Left-turn treatment NOT warranted.</b>	



#### CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

## Left-Turn Lane Warrant Analysis



Project: Stop N Save Development  
Intersection: Hagers Grove Rd SE at Western Site Access  
Date: 7/6/2022  
Scenario: 2024 buildout conditions AM (SB)

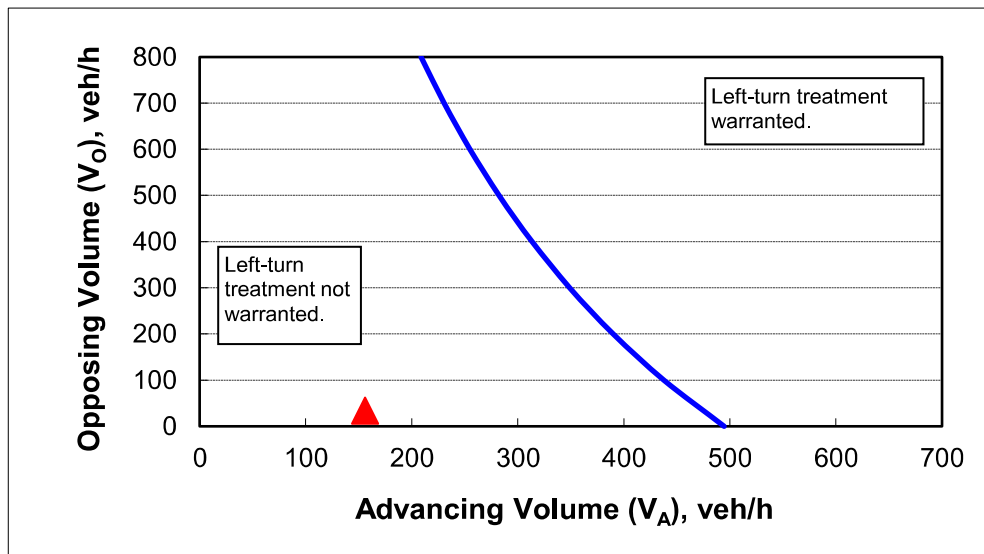
### 2-lane roadway (English)

#### INPUT

Variable	Value
85 <sup>th</sup> percentile speed, mph:	25
Percent of left-turns in advancing volume ( $V_A$ ), %:	22%
Advancing volume ( $V_A$ ), veh/h:	156
Opposing volume ( $V_O$ ), veh/h:	34

#### OUTPUT

Variable	Value
Limiting advancing volume ( $V_A$ ), veh/h:	474
<b>Guidance for determining the need for a major-road left-turn bay:</b>	
<b>Left-turn treatment NOT warranted.</b>	



#### CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

## Appendix D – Operations




### Capacity Reports



# HCM 6th TWSC

## 2: Hagers Grove Road & Western Access

05/23/2022

Intersection						
Int Delay, s/veh	6.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	163	4	32	0	34	110
Future Vol, veh/h	163	4	32	0	34	110
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	177	4	35	0	37	120
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	229	35	0	0	35	0
Stage 1	35	-	-	-	-	-
Stage 2	194	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	759	1038	-	-	1576	-
Stage 1	987	-	-	-	-	-
Stage 2	839	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	740	1038	-	-	1576	-
Mov Cap-2 Maneuver	740	-	-	-	-	-
Stage 1	962	-	-	-	-	-
Stage 2	839	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	11.4	0	1.7			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	745	1576	-	
HCM Lane V/C Ratio	-	-	0.244	0.023	-	
HCM Control Delay (s)	-	-	11.4	7.3	0	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	1	0.1	-	

# HCM 6th TWSC

## 3: Hagers Grove Road & Southern Access




















05/23/2022

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	273	32	136	0	0
Future Vol, veh/h	0	273	32	136	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	297	35	148	0	0
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	-	0	-	0	-	109
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	0	-	-	-	0	945
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	945
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1		
Capacity (veh/h)	-	-	-	-		
HCM Lane V/C Ratio	-	-	-	-		
HCM Control Delay (s)	-	-	-	0		
HCM Lane LOS	-	-	-	A		
HCM 95th %tile Q(veh)	-	-	-	-		

# HCM 6th Signalized Intersection Summary

## 4: Lancaster Drive SE & Hagers Grove Road/Carson Drive SE




05/23/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	189	5	79	3	4	70	89	307	2	23	379	75
Future Volume (veh/h)	189	5	79	3	4	70	89	307	2	23	379	75
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1589	1589	1589	1772	1772	1772	1660	1660	1660	1730	1730	1730
Adj Flow Rate, veh/h	233	6	98	4	5	86	110	379	2	28	468	93
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	15	15	15	2	2	2	10	10	10	5	5	5
Cap, veh/h	450	18	301	92	29	323	133	726	4	33	526	105
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.08	0.44	0.44	0.02	0.38	0.38
Sat Flow, veh/h	1106	78	1275	20	123	1367	1581	1649	9	1647	1401	278
Grp Volume(v), veh/h	233	0	104	95	0	0	110	0	381	28	0	561
Grp Sat Flow(s),veh/h/ln	1106	0	1353	1510	0	0	1581	0	1658	1647	0	1680
Q Serve(g_s), s	5.5	0.0	2.7	0.0	0.0	0.0	2.9	0.0	7.1	0.7	0.0	13.4
Cycle Q Clear(g_c), s	7.7	0.0	2.7	2.2	0.0	0.0	2.9	0.0	7.1	0.7	0.0	13.4
Prop In Lane	1.00		0.94	0.04		0.91	1.00		0.01	1.00		0.17
Lane Grp Cap(c), veh/h	450	0	320	444	0	0	133	0	730	33	0	631
V/C Ratio(X)	0.52	0.00	0.33	0.21	0.00	0.00	0.83	0.00	0.52	0.86	0.00	0.89
Avail Cap(c_a), veh/h	835	0	791	964	0	0	369	0	1395	231	0	1256
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.2	0.0	13.5	13.3	0.0	0.0	19.3	0.0	8.7	20.9	0.0	12.5
Incr Delay (d2), s/veh	0.3	0.0	0.2	0.1	0.0	0.0	4.8	0.0	0.2	20.0	0.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	0.7	0.7	0.0	0.0	1.1	0.0	1.7	0.4	0.0	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.5	0.0	13.7	13.4	0.0	0.0	24.1	0.0	8.9	40.9	0.0	14.3
LnGrp LOS	B	A	B	B	A	A	C	A	A	D	A	B
Approach Vol, veh/h	337			95			491			589		
Approach Delay, s/veh	15.0			13.4			12.3			15.6		
Approach LOS	B			B			B			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.6	21.1		14.1	4.8	23.8		14.1				
Change Period (Y+Rc), s	4.0	5.0		4.0	4.0	5.0		4.0				
Max Green Setting (Gmax), s	10.0	32.0		25.0	6.0	36.0		25.0				
Max Q Clear Time (g_c+l1), s	4.9	15.4		4.2	2.7	9.1		9.7				
Green Ext Time (p_c), s	0.0	0.7		0.1	0.0	0.4		0.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay	14.2											
HCM 6th LOS	B											

# HCM 6th TWSC

## 2: Hagers Grove Road & Western Access

07/06/2022

Intersection						
Int Delay, s/veh	4.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	135	3	33	0	39	240
Future Vol, veh/h	135	3	33	0	39	240
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	147	3	36	0	42	261
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	381	36	0	0	36	0
Stage 1	36	-	-	-	-	-
Stage 2	345	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	621	1037	-	-	1575	-
Stage 1	986	-	-	-	-	-
Stage 2	717	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	602	1037	-	-	1575	-
Mov Cap-2 Maneuver	602	-	-	-	-	-
Stage 1	955	-	-	-	-	-
Stage 2	717	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	12.8	0		1		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	608	1575	-	
HCM Lane V/C Ratio	-	-	0.247	0.027	-	
HCM Control Delay (s)	-	-	12.8	7.3	0	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	1	0.1	-	

# HCM 6th TWSC

## 3: Hagers Grove Road & Southern Access

07/06/2022

### Intersection

Int Delay, s/veh 0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	375	33	94	0	1
Future Vol, veh/h	0	375	33	94	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	408	36	102	0	1

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	- 0 - 87
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - 6.22
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - 3.318
Pot Cap-1 Maneuver	0	-	- 0 971
Stage 1	0	-	- 0 -
Stage 2	0	-	- 0 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - 971
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	8.7
HCM LOS			A




















Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	971
HCM Lane V/C Ratio	-	-	-	0.001
HCM Control Delay (s)	-	-	-	8.7
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	0



# HCM 6th Signalized Intersection Summary

## 4: Lancaster Drive SE & Hagers Grove Road/Carson Drive SE




07/06/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	293	4	78	1	3	62	71	574	5	89	405	53
Future Volume (veh/h)	293	4	78	1	3	62	71	574	5	89	405	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1772	1772	1772	1772	1772	1772	1758	1758	1758	1744	1744	1744
Adj Flow Rate, veh/h	312	4	83	1	3	66	76	611	5	95	431	56
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	3	3	3	4	4	4
Cap, veh/h	515	19	393	81	22	388	367	678	6	292	605	79
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.04	0.39	0.39	0.05	0.40	0.40
Sat Flow, veh/h	1258	69	1438	5	82	1422	1674	1741	14	1661	1512	196
Grp Volume(v), veh/h	312	0	87	70	0	0	76	0	616	95	0	487
Grp Sat Flow(s),veh/h/ln	1258	0	1507	1508	0	0	1674	0	1755	1661	0	1708
Q Serve(g_s), s	8.7	0.0	2.0	0.0	0.0	0.0	1.2	0.0	15.2	1.6	0.0	11.0
Cycle Q Clear(g_c), s	10.3	0.0	2.0	1.6	0.0	0.0	1.2	0.0	15.2	1.6	0.0	11.0
Prop In Lane	1.00		0.95	0.01		0.94	1.00		0.01	1.00		0.11
Lane Grp Cap(c), veh/h	515	0	412	491	0	0	367	0	684	292	0	683
V/C Ratio(X)	0.61	0.00	0.21	0.14	0.00	0.00	0.21	0.00	0.90	0.33	0.00	0.71
Avail Cap(c_a), veh/h	856	0	820	898	0	0	505	0	1391	404	0	1346
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.7	0.0	12.9	12.7	0.0	0.0	9.0	0.0	13.2	10.4	0.0	11.6
Incr Delay (d2), s/veh	0.4	0.0	0.1	0.0	0.0	0.0	0.1	0.0	1.8	0.2	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.0	0.6	0.5	0.0	0.0	0.3	0.0	4.6	0.4	0.0	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.1	0.0	13.0	12.8	0.0	0.0	9.1	0.0	15.0	10.6	0.0	12.1
LnGrp LOS	B	A	B	B	A	A	A	A	B	B	A	B
Approach Vol, veh/h	399			70			692			582		
Approach Delay, s/veh	15.4			12.8			14.4			11.9		
Approach LOS	B			B			B			B		
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	6.0	23.4	16.6		6.5	22.9	16.6					
Change Period (Y+Rc), s	4.0	5.0	4.0		4.0	5.0	4.0					
Max Green Setting (Gmax), s	5.8	36.2	25.0		5.6	36.4	25.0					
Max Q Clear Time (g_c+l1), s	3.2	13.0	3.6		3.6	17.2	12.3					
Green Ext Time (p_c), s	0.0	0.6	0.1		0.0	0.7	0.2					
Intersection Summary												
HCM 6th Ctrl Delay	13.7											
HCM 6th LOS	B											

# HCM 6th TWSC

## 2: Hagers Grove Road & Western Access

05/23/2022

Intersection						
Int Delay, s/veh	6.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	163	4	33	0	34	115
Future Vol, veh/h	163	4	33	0	34	115
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	177	4	36	0	37	125
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	235	36	0	0	36	0
Stage 1	36	-	-	-	-	-
Stage 2	199	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	753	1037	-	-	1575	-
Stage 1	986	-	-	-	-	-
Stage 2	835	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	734	1037	-	-	1575	-
Mov Cap-2 Maneuver	734	-	-	-	-	-
Stage 1	961	-	-	-	-	-
Stage 2	835	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	11.5	0		1.7		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	739	1575	-	
HCM Lane V/C Ratio	-	-	0.246	0.023	-	
HCM Control Delay (s)	-	-	11.5	7.3	0	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	1	0.1	-	

# HCM 6th TWSC

## 3: Hagers Grove Road & Southern Access




















05/23/2022

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	278	33	136	0	0
Future Vol, veh/h	0	278	33	136	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	302	36	148	0	0
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	-	0	-	0	-	110
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	0	-	-	-	0	943
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	943
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1		
Capacity (veh/h)	-	-	-	-		
HCM Lane V/C Ratio	-	-	-	-		
HCM Control Delay (s)	-	-	-	0		
HCM Lane LOS	-	-	-	A		
HCM 95th %tile Q(veh)	-	-	-	-		

# HCM 6th Signalized Intersection Summary

## 4: Lancaster Drive SE & Hagers Grove Road/Carson Drive SE




05/23/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	193	5	80	4	4	73	90	321	2	23	396	75
Future Volume (veh/h)	193	5	80	4	4	73	90	321	2	23	396	75
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1589	1589	1589	1772	1772	1772	1660	1660	1660	1730	1730	1730
Adj Flow Rate, veh/h	238	6	99	5	5	90	111	396	2	28	489	93
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	15	15	15	2	2	2	10	10	10	5	5	5
Cap, veh/h	445	18	304	90	30	324	135	744	4	32	545	104
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.09	0.45	0.45	0.02	0.39	0.39
Sat Flow, veh/h	1102	77	1276	24	127	1359	1581	1650	8	1647	1413	269
Grp Volume(v), veh/h	238	0	105	100	0	0	111	0	398	28	0	582
Grp Sat Flow(s),veh/h/ln	1102	0	1353	1510	0	0	1581	0	1658	1647	0	1681
Q Serve(g_s), s	5.9	0.0	2.9	0.0	0.0	0.0	3.1	0.0	7.8	0.8	0.0	14.5
Cycle Q Clear(g_c), s	8.3	0.0	2.9	2.4	0.0	0.0	3.1	0.0	7.8	0.8	0.0	14.5
Prop In Lane	1.00		0.94	0.05		0.90	1.00		0.01	1.00		0.16
Lane Grp Cap(c), veh/h	445	0	323	444	0	0	135	0	748	32	0	648
V/C Ratio(X)	0.53	0.00	0.33	0.23	0.00	0.00	0.82	0.00	0.53	0.86	0.00	0.90
Avail Cap(c_a), veh/h	799	0	757	922	0	0	353	0	1335	221	0	1203
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.8	0.0	14.1	13.9	0.0	0.0	20.1	0.0	8.9	21.9	0.0	12.9
Incr Delay (d2), s/veh	0.4	0.0	0.2	0.1	0.0	0.0	4.7	0.0	0.2	20.8	0.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	0.8	0.7	0.0	0.0	1.1	0.0	1.9	0.4	0.0	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.2	0.0	14.3	14.0	0.0	0.0	24.8	0.0	9.1	42.7	0.0	14.8
LnGrp LOS	B	A	B	B	A	A	C	A	A	D	A	B
Approach Vol, veh/h	343			100			509			610		
Approach Delay, s/veh	15.6			14.0			12.5			16.1		
Approach LOS	B			B			B			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.8	22.2		14.7	4.9	25.2		14.7				
Change Period (Y+Rc), s	4.0	5.0		4.0	4.0	5.0		4.0				
Max Green Setting (Gmax), s	10.0	32.0		25.0	6.0	36.0		25.0				
Max Q Clear Time (g_c+l1), s	5.1	16.5		4.4	2.8	9.8		10.3				
Green Ext Time (p_c), s	0.0	0.7		0.2	0.0	0.4		0.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay	14.7											
HCM 6th LOS	B											

# HCM 6th TWSC

## 2: Hagers Grove Road & Western Access

07/06/2022

Intersection						
Int Delay, s/veh	4.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	135	3	35	0	39	251
Future Vol, veh/h	135	3	35	0	39	251
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	147	3	38	0	42	273
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	395	38	0	0	38	0
Stage 1	38	-	-	-	-	-
Stage 2	357	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	610	1034	-	-	1572	-
Stage 1	984	-	-	-	-	-
Stage 2	708	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	591	1034	-	-	1572	-
Mov Cap-2 Maneuver	591	-	-	-	-	-
Stage 1	953	-	-	-	-	-
Stage 2	708	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	13	0	1			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	597	1572	-	
HCM Lane V/C Ratio	-	-	0.251	0.027	-	
HCM Control Delay (s)	-	-	13	7.4	0	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	1	0.1	-	

# HCM 6th TWSC

## 3: Hagers Grove Road & Southern Access

07/06/2022

### Intersection

Int Delay, s/veh 0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	386	35	94	0	1
Future Vol, veh/h	0	386	35	94	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	420	38	102	0	1

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	- 0 - 89
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - 6.22
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - 3.318
Pot Cap-1 Maneuver	0	-	- 0 969
Stage 1	0	-	- 0 -
Stage 2	0	-	- 0 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - 969
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -




















Approach	EB	WB	SB
HCM Control Delay, s	0	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	969
HCM Lane V/C Ratio	-	-	-	0.001
HCM Control Delay (s)	-	-	-	8.7
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	0

# HCM 6th Signalized Intersection Summary

## 4: Lancaster Drive SE & Hagers Grove Road/Carson Drive SE

07/06/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	303	4	79	1	3	64	72	598	5	93	423	54
Future Volume (veh/h)	303	4	79	1	3	64	72	598	5	93	423	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1772	1772	1772	1772	1772	1772	1758	1758	1758	1744	1744	1744
Adj Flow Rate, veh/h	322	4	84	1	3	68	77	636	5	99	450	57
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	3	3	3	4	4	4
Cap, veh/h	512	19	400	76	22	396	359	698	5	281	626	79
Arrive On Green	0.28	0.28	0.28	0.28	0.28	0.28	0.04	0.40	0.40	0.06	0.41	0.41
Sat Flow, veh/h	1256	68	1438	4	80	1424	1674	1742	14	1661	1517	192
Grp Volume(v), veh/h	322	0	88	72	0	0	77	0	641	99	0	507
Grp Sat Flow(s),veh/h/ln	1256	0	1507	1508	0	0	1674	0	1755	1661	0	1709
Q Serve(g_s), s	9.6	0.0	2.2	0.0	0.0	0.0	1.3	0.0	16.9	1.7	0.0	12.2
Cycle Q Clear(g_c), s	11.4	0.0	2.2	1.8	0.0	0.0	1.3	0.0	16.9	1.7	0.0	12.2
Prop In Lane	1.00		0.95	0.01		0.94	1.00		0.01	1.00		0.11
Lane Grp Cap(c), veh/h	512	0	420	494	0	0	359	0	704	281	0	705
V/C Ratio(X)	0.63	0.00	0.21	0.15	0.00	0.00	0.21	0.00	0.91	0.35	0.00	0.72
Avail Cap(c_a), veh/h	802	0	768	841	0	0	476	0	1303	378	0	1268
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.7	0.0	13.6	13.4	0.0	0.0	9.4	0.0	13.9	11.1	0.0	12.0
Incr Delay (d2), s/veh	0.5	0.0	0.1	0.0	0.0	0.0	0.1	0.0	2.0	0.3	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.0	0.7	0.5	0.0	0.0	0.3	0.0	5.3	0.4	0.0	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.1	0.0	13.7	13.5	0.0	0.0	9.5	0.0	15.9	11.3	0.0	12.5
LnGrp LOS	B	A	B	B	A	A	A	A	B	B	A	B
Approach Vol, veh/h	410			72			718			606		
Approach Delay, s/veh	16.4			13.5			15.2			12.4		
Approach LOS	B			B			B			B		
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	6.2	25.2	17.7		6.7	24.7	17.7					
Change Period (Y+Rc), s	4.0	5.0	4.0		4.0	5.0	4.0					
Max Green Setting (Gmax), s	5.6	36.4	25.0		5.6	36.4	25.0					
Max Q Clear Time (g_c+l1), s	3.3	14.2	3.8		3.7	18.9	13.4					
Green Ext Time (p_c), s	0.0	0.6	0.1		0.0	0.8	0.2					
Intersection Summary												
HCM 6th Ctrl Delay	14.4											
HCM 6th LOS	B											

Intersection						
Int Delay, s/veh	1.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations				↔	↔	
Traffic Vol, veh/h	0	0	33	0	7	0
Future Vol, veh/h	0	0	33	0	7	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	36	0	8	0
Major/Minor		Major2		Minor1		
Conflicting Flow All		0	0	72	-	-
Stage 1		-	-	0	-	-
Stage 2		-	-	72	-	-
Critical Hdwy		4.12	-	6.42	-	-
Critical Hdwy Stg 1		-	-	-	-	-
Critical Hdwy Stg 2		-	-	5.42	-	-
Follow-up Hdwy		2.218	-	3.518	-	-
Pot Cap-1 Maneuver		-	-	932	0	-
Stage 1		-	-	-	0	-
Stage 2		-	-	951	0	-
Platoon blocked, %		-	-	-	-	-
Mov Cap-1 Maneuver		-	-	932	-	-
Mov Cap-2 Maneuver		-	-	932	-	-
Stage 1		-	-	-	-	-
Stage 2		-	-	951	-	-
Approach		WB		NB		
HCM Control Delay, s				8.9		
HCM LOS				A		
Minor Lane/Major Mvmt	NBLn1	WBL	WBT			
Capacity (veh/h)	932	-	-			
HCM Lane V/C Ratio	0.008	-	-			
HCM Control Delay (s)	8.9	-	-			
HCM Lane LOS	A	-	-			
HCM 95th %tile Q(veh)	0	-	-			






# HCM 6th TWSC

## 2: Hagers Grove Road & Western Access

07/06/2022

### Intersection

Int Delay, s/veh 7.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	216	4	33	1	34	122
Future Vol, veh/h	216	4	33	1	34	122
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	235	4	36	1	37	133

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	244	37	0
Stage 1	37	-	-
Stage 2	207	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	744	1035	-
Stage 1	985	-	-
Stage 2	828	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	725	1035	-
Mov Cap-2 Maneuver	725	-	-
Stage 1	960	-	-
Stage 2	828	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.3	0	1.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	729	1574
HCM Lane V/C Ratio	-	-	0.328	0.023
HCM Control Delay (s)	-	-	12.3	7.3
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1.4	0.1

# HCM 6th TWSC

## 3: Hagers Grove Road & Southern Access

07/06/2022

### Intersection

Int Delay, s/veh 0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	338	34	163	0	1
Future Vol, veh/h	0	338	34	163	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	367	37	177	0	1

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	- 0 - 126
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - 6.22
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - 3.318
Pot Cap-1 Maneuver	0	-	- - 0 924
Stage 1	0	-	- - 0 -
Stage 2	0	-	- - 0 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - 924
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -




















Approach	EB	WB	SB
HCM Control Delay, s	0	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	924
HCM Lane V/C Ratio	-	-	-	0.001
HCM Control Delay (s)	-	-	-	8.9
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	0

# HCM 6th Signalized Intersection Summary

## 4: Lancaster Drive SE & Hagers Grove Road/Carson Drive SE

07/06/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	231	6	101	4	5	73	117	301	2	23	381	75
Future Volume (veh/h)	231	6	101	4	5	73	117	301	2	23	381	75
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1589	1589	1589	1772	1772	1772	1660	1660	1660	1730	1730	1730
Adj Flow Rate, veh/h	285	7	125	5	6	90	144	372	2	28	470	93
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	15	15	15	2	2	2	10	10	10	5	5	5
Cap, veh/h	476	20	354	85	40	373	319	713	4	432	520	103
Arrive On Green	0.28	0.28	0.28	0.28	0.28	0.28	0.08	0.43	0.43	0.02	0.37	0.37
Sat Flow, veh/h	1101	72	1281	22	143	1348	1581	1649	9	1647	1402	277
Grp Volume(v), veh/h	285	0	132	101	0	0	144	0	374	28	0	563
Grp Sat Flow(s),veh/h/ln	1101	0	1353	1513	0	0	1581	0	1658	1647	0	1680
Q Serve(g_s), s	8.4	0.0	3.7	0.0	0.0	0.0	2.5	0.0	7.9	0.5	0.0	15.2
Cycle Q Clear(g_c), s	10.9	0.0	3.7	2.5	0.0	0.0	2.5	0.0	7.9	0.5	0.0	15.2
Prop In Lane	1.00		0.95	0.05		0.89	1.00		0.01	1.00		0.17
Lane Grp Cap(c), veh/h	476	0	374	497	0	0	319	0	717	432	0	623
V/C Ratio(X)	0.60	0.00	0.35	0.20	0.00	0.00	0.45	0.00	0.52	0.06	0.00	0.90
Avail Cap(c_a), veh/h	631	0	565	708	0	0	379	0	918	589	0	923
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.2	0.0	13.9	13.4	0.0	0.0	10.6	0.0	10.0	9.3	0.0	14.2
Incr Delay (d2), s/veh	0.5	0.0	0.2	0.1	0.0	0.0	0.4	0.0	0.2	0.0	0.0	6.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.0	1.0	0.8	0.0	0.0	0.6	0.0	2.1	0.1	0.0	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.6	0.0	14.1	13.5	0.0	0.0	11.0	0.0	10.2	9.3	0.0	20.8
LnGrp LOS	B	A	B	B	A	A	B	A	B	A	A	C
Approach Vol, veh/h	417			101			518			591		
Approach Delay, s/veh	15.8			13.5			10.4			20.3		
Approach LOS	B			B			B			C		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.9	22.8		17.2	4.9	25.7		17.2				
Change Period (Y+Rc), s	4.0	5.0		4.0	4.0	5.0		4.0				
Max Green Setting (Gmax), s	5.7	26.3		20.0	5.5	26.5		20.0				
Max Q Clear Time (g_c+l1), s	4.5	17.2		4.5	2.5	9.9		12.9				
Green Ext Time (p_c), s	0.0	0.6		0.1	0.0	0.4		0.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay	15.6											
HCM 6th LOS	B											

# HCM 6th TWSC

## 1: Site Access & Hagers Grove Road

07/06/2022

### Intersection

Int Delay, s/veh 1.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations				↔	↔	
Traffic Vol, veh/h	0	0	44	0	10	0
Future Vol, veh/h	0	0	44	0	10	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	48	0	11	0

Major/Minor	Major2	Minor1
Conflicting Flow All	0	96
Stage 1	-	0
Stage 2	-	96
Critical Hdwy	4.12	6.42
Critical Hdwy Stg 1	-	-
Critical Hdwy Stg 2	-	5.42
Follow-up Hdwy	2.218	3.518
Pot Cap-1 Maneuver	-	903
Stage 1	-	0
Stage 2	-	928
Platoon blocked, %	-	-
Mov Cap-1 Maneuver	-	903
Mov Cap-2 Maneuver	-	903
Stage 1	-	-
Stage 2	-	928




Approach	WB	NB
HCM Control Delay, s		9
HCM LOS		A

Minor Lane/Major Mvmt	NBLn1	WBL	WBT
Capacity (veh/h)	903	-	-
HCM Lane V/C Ratio	0.012	-	-
HCM Control Delay (s)	9	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0	-	-

# HCM 6th TWSC

## 2: Hagers Grove Road & Western Access

07/06/2022

Intersection						
Int Delay, s/veh	6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	196	3	35	2	39	261
Future Vol, veh/h	196	3	35	2	39	261
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	213	3	38	2	42	284
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	407	39	0	0	40	0
Stage 1	39	-	-	-	-	-
Stage 2	368	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	600	1033	-	-	1570	-
Stage 1	983	-	-	-	-	-
Stage 2	700	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	581	1033	-	-	1570	-
Mov Cap-2 Maneuver	581	-	-	-	-	-
Stage 1	952	-	-	-	-	-
Stage 2	700	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	14.7	0		1		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	- 585		1570	-	
HCM Lane V/C Ratio	-	- 0.37		0.027	-	
HCM Control Delay (s)	-	- 14.7		7.4	0	
HCM Lane LOS	-	- B		A	A	
HCM 95th %tile Q(veh)	-	- 1.7		0.1	-	

# HCM 6th TWSC

## 3: Hagers Grove Road & Southern Access

07/06/2022

### Intersection

Int Delay, s/veh 0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	457	37	127	0	1
Future Vol, veh/h	0	457	37	127	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	497	40	138	0	1

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	- 0 - 109
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - 6.22
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - 3.318
Pot Cap-1 Maneuver	0	-	- - 0 945
Stage 1	0	-	- - 0 -
Stage 2	0	-	- - 0 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - 945
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -




















Approach	EB	WB	SB
HCM Control Delay, s	0	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	945
HCM Lane V/C Ratio	-	-	-	0.001
HCM Control Delay (s)	-	-	-	8.8
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	0

# HCM 6th Signalized Intersection Summary

## 4: Lancaster Drive SE & Hagers Grove Road/Carson Drive SE

07/06/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	348	6	103	1	5	64	105	575	5	93	407	54
Future Volume (veh/h)	348	6	103	1	5	64	105	575	5	93	407	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1772	1772	1772	1772	1772	1772	1758	1758	1758	1744	1744	1744
Adj Flow Rate, veh/h	370	6	110	1	5	68	112	612	5	99	433	57
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	3	3	3	4	4	4
Cap, veh/h	544	24	448	70	37	436	351	670	5	268	571	75
Arrive On Green	0.31	0.31	0.31	0.31	0.31	0.31	0.06	0.38	0.38	0.06	0.38	0.38
Sat Flow, veh/h	1254	78	1431	4	119	1392	1674	1741	14	1661	1509	199
Grp Volume(v), veh/h	370	0	116	74	0	0	112	0	617	99	0	490
Grp Sat Flow(s),veh/h/ln	1254	0	1509	1514	0	0	1674	0	1755	1661	0	1708
Q Serve(g_s), s	12.4	0.0	3.0	0.0	0.0	0.0	2.1	0.0	17.6	1.9	0.0	13.2
Cycle Q Clear(g_c), s	14.3	0.0	3.0	1.9	0.0	0.0	2.1	0.0	17.6	1.9	0.0	13.2
Prop In Lane	1.00		0.95	0.01		0.92	1.00		0.01	1.00		0.12
Lane Grp Cap(c), veh/h	544	0	472	543	0	0	351	0	675	268	0	646
V/C Ratio(X)	0.68	0.00	0.25	0.14	0.00	0.00	0.32	0.00	0.91	0.37	0.00	0.76
Avail Cap(c_a), veh/h	815	0	799	870	0	0	423	0	1109	350	0	1079
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.1	0.0	13.5	13.1	0.0	0.0	10.8	0.0	15.4	12.2	0.0	14.3
Incr Delay (d2), s/veh	0.6	0.0	0.1	0.0	0.0	0.0	0.2	0.0	4.6	0.3	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	0.0	0.9	0.6	0.0	0.0	0.6	0.0	6.3	0.5	0.0	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.7	0.0	13.6	13.2	0.0	0.0	10.9	0.0	20.1	12.6	0.0	15.0
LnGrp LOS	B	A	B	B	A	A	B	A	C	B	A	B
Approach Vol, veh/h	486			74			729			589		
Approach Delay, s/veh	16.7			13.2			18.7			14.6		
Approach LOS	B			B			B			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.3	25.0		20.5	7.0	25.3		20.5				
Change Period (Y+Rc), s	4.0	5.0		4.0	4.0	5.0		4.0				
Max Green Setting (Gmax), s	5.6	33.4		28.0	5.6	33.4		28.0				
Max Q Clear Time (g_c+l1), s	4.1	15.2		3.9	3.9	19.6		16.3				
Green Ext Time (p_c), s	0.0	0.6		0.1	0.0	0.7		0.2				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay	16.7											
HCM 6th LOS	B											

Signalized Intersection V/C Calculation Summary

MORNING PEAK HOUR

Intersection 4: Hagers Grove Road SE & Carson Drive

Year 2022												Critical Intersection V/C:		
Critical Movement:	Protected/Permitted Left-Turn Phasing						Permitted Left-Turn Phasing							
Adjusted Flow Rate:	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT		WBR	Sum of Critical Flow Ratios:
Saturated Flow:	110	379	2	28	468	93	233	6	98	4	5		86	Cycle Length (seconds):
Flow Ratio:	1581	1649	9	1647	1401	278	1106	78	1275	20	123		1367	Lost Time per Phase (seconds):
	0.07	0.23	0.22	0.02	0.33	0.33	0.21	0.08	0.08	0.20	0.04	0.06	Number of Phases:	
0.40														
0.21														
0.61														
80														
4														
4														

Year 2024 Background												Critical Intersection V/C:	
Protected/Permitted Left-Turn Phasing						Permitted Left-Turn Phasing							
Critical Movement:	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT		WBR
Adjusted Flow Rate:	111	396	2	28	489	93	238	6	99	5	5		90
Saturated Flow:	1581	1650	8	1647	1413	269	1102	77	1276	24	127		1359
Flow Ratio:	0.07	0.24	0.25	0.02	0.35	0.35	0.22	0.08	0.08	0.21	0.04	0.07	
0.42													
0.22													
Sum of Critical Flow Ratios:												0.63	
Cycle Length (seconds):												80	
Lost Time per Phase (seconds):												4	
Number of Phases:												4	

Year 2024 Buildout												Critical Intersection V/C:	
Protected/Permitted Left-Turn Phasing						Permitted Left-Turn Phasing							
Critical Movement:	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT		WBR
Adjusted Flow Rate:	144	372	2	28	470	93	285	7	125	5	6		90
Saturated Flow:	1581	1649	9	1647	1403	277	1101	72	1281	22	142		1348
Flow Ratio:	0.09	0.23	0.22	0.02	0.33	0.34	0.26	0.10	0.10	0.23	0.04	0.07	
0.43													
0.26													
Sum of Critical Flow Ratios:												0.69	
Cycle Length (seconds):												80	
Lost Time per phase (seconds):												4	
Number of Phases:												4	

EVENING PEAK HOUR

Intersection 4: Hagers Grove Road SE & Carson Drive

Year 2022												Critical Intersection V/C:	
Critical Movement: Adjusted Flow Rate: Saturated Flow: Flow Ratio:	Protected/Permitted Left-Turn Phasing						Permitted Left-Turn Phasing						
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT		WBR
	76	611	5	95	431	56	312	4	83	1	3		66
	1674	1741	14	1661	1512	196	1258	69	1438	4	82		1422
0.05	0.35	0.36	0.06	0.29	0.29	0.25	0.06	0.06	0.25	0.04	0.05		
0.41													
0.25													
Sum of Critical Flow Ratios:												0.66	
Cycle Length (seconds):												80	
Lost Time per Phase (seconds):												4	
Number of Phases:												4	

Year 2024 Background												Critical Intersection V/C:	
Protected/Permitted Left-Turn Phasing						Permitted Left-Turn Phasing							
Critical Movement:	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT		WBR
Adjusted Flow Rate:	77	636	5	99	450	57	322	4	84	1	3		68
Saturated Flow:	1674	1742	14	1661	1517	192	1256	68	1438	4	80		1424
Flow Ratio:	0.05	0.37	0.36	0.06	0.30	0.30	0.26	0.06	0.06	0.25	0.04	0.05	
0.42													
0.26													
Sum of Critical Flow Ratios:												0.68	
Cycle Length (seconds):												80	
Lost Time per Phase (seconds):												4	
Number of Phases:												4	

Year 2024 Buildout												Critical Intersection V/C:	
Protected/Permitted Left-Turn Phasing						Permitted Left-Turn Phasing							
Critical Movement:	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT		WBR
Adjusted Flow Rate:	112	617	5	99	433	57	370	6	110	1	5		68
Saturated Flow:	1674	1741	14	1661	1511	198	1254	79	1430	4	119		1392
Flow Ratio:	0.07	0.35	0.36	0.06	0.29	0.29	0.30	0.08	0.08	0.25	0.04	0.05	
0.42													
0.30													
Sum of Critical Flow Ratios:												0.71	
Cycle Length (seconds):												80	
Lost Time per phase (seconds):												4	
Number of Phases:												4	

Notes:

Since NB and SB left-turn phases are protected, critical ring is either EBL+WBT or WBL+EBT - HCM6 does not show reductions for permitted left turns  
Since EB and WB left-turn phases are permitted, critical ring is maximum of any lane group.



# Deed/Title Report for Tax Lot 10000

275 Court Street NE Salem, Oregon 97301-3442 T: 503.390.6500 [www.studio3architecture.com](http://www.studio3architecture.com)

Memorandum

Stop-N-Save Gas Station

**File: 2020-109.01**

Project No: 2020-109

Page 9 of 12



# TICOR TITLE™

## Property Profile Report

*Client Name:*

*Today's Date:*

**08/16/2022**

*Owner Name:*

**Dhaliwal, Inderjit Singh  
Dhaliwaland, Harender K**

*Property Address:*

**1545 Lancaster Dr SE  
Salem OR 97317**

*Reference Number:*

**082W06AB10000**

*Account Number:*

**529459**

### Seven Ticor Mid-Valley locations to serve you:

220 SW 6th Ave Albany, OR 97321 541.926.2111	400 SW 4th St Ste 100 Corvallis, OR 97330 541.757.1466	52 E Airport Rd Lebanon, OR 97355 541.258.2813	1215 NE Baker St McMinnville, OR 97128 503.472.6101	315 Commercial St SE, Ste 150 Salem, OR 97301 503.585.1881	115 N College St STE 200 Newberg, OR 97132 503.542.1400	206 N 1st St Silverton, OR 97381 503.873.5305
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This title information has been furnished, without charge, in conformance with guidelines approved by the State of Oregon Insurance Commissioner. The Insurance Division cautions that indiscriminate use only benefiting intermediaries will not be permitted. No liability is assumed for any errors in this record.

The information compiled in this report(s) was imported from a vendor-provided database source. Although the information is deemed reliable and every effort has been taken to correct data imperfections, Ticor Title cannot be held responsible for any inaccuracies.

## TITLE AND ESCROW SERVICES

[www.TicorMidValley.com](http://www.TicorMidValley.com)

For all your customer service needs: **MVCS@TicorTitle.com**

**Parcel Information**

<b>Parcel #:</b>	529459
<b>Tax Lot:</b>	082W06AB10000
<b>Site Address:</b>	1545 Lancaster Dr SE
	Salem OR 97317
<b>Owner:</b>	Dhaliwal, Inderjit Singh
<b>Owner2:</b>	Dhaliwaland, Harender K
<b>Owner Address:</b>	417 Main St E
	Monmouth OR 97361 - 2336
<b>Twn/Range/Section:</b>	08S / 02W / 06 / NE
<b>Parcel Size:</b>	0.62 Acres (27,007 SqFt)
<b>Plat/Subdivision:</b>	
<b>Lot:</b>	10000
<b>Block:</b>	
<b>Census Tract/Block:</b>	001803 / 2016
<b>Waterfront:</b>	

**Tax Information**

<b>Levy Code Area:</b>	24013
<b>Levy Rate:</b>	19.6609
<b>Tax Year:</b>	2021
<b>Annual Tax:</b>	\$2,464.08
<b>Exempt Desc:</b>	

**Legal**

ACRES 0.62

**Assessment Information**

<b>Market Value Land:</b>	\$371,350.00
<b>Market Value Impr:</b>	\$0.00
<b>Market Value Total:</b>	\$371,350.00
<b>Assessed Value:</b>	\$125,330.00

**Land**

<b>Zoning:</b>	CR - Retail Commercial	<b>Cnty Bldg Use:</b>	Commercial Cmlse Commercial Secondary
<b>Cnty Land Use:</b>	200 - Commercial land only	<b>Neighborhood:</b>	
<b>Std Land Use:</b>	CMSC - Commercial Miscellaneous	<b>Recreation:</b>	
<b>School District:</b>	24J - Salem-Keizer	<b>Primary School:</b>	MILLER ELEMENTARY SCHOOL
<b>Middle School:</b>	HOUCK MIDDLE SCHOOL	<b>High School:</b>	NORTH SALEM HIGH SCHOOL

**Improvement**

<b>Year Built:</b>	<b>Stories:</b>	<b>Finished Area:</b>
<b>Bedrooms:</b>	<b>Bathrooms:</b>	<b>Garage:</b>
<b>Basement Fin:</b>		

**Transfer Information**

<b>Rec. Date:</b>	08/31/2020	<b>Sale Price:</b>	\$390,000.00	<b>Doc Num:</b>	43790017	<b>Doc Type:</b>	Deed
<b>Owner:</b>	Inderjit S Dhaliwal	<b>Grantor:</b>	EPPING FOUNDATION HOLDINGS LLC	<b>Title Co:</b>	TICOR TITLE		
<b>Orig. Loan Amt:</b>		<b>Lender:</b>					
<b>Finance Type:</b>		<b>Loan Type:</b>					

Sentry Dynamics, Inc. and its customers make no representations, warranties or conditions, express or implied, as to the accuracy or completeness of information contained in this report.

**Parcel Information**

<b>Parcel #:</b>	337069
<b>Tax Lot:</b>	082W06AB10000
<b>Site Address:</b>	1545 Lancaster Dr SE
	Salem OR 97317
<b>Owner:</b>	Dhaliwal, Inderjit Singh
<b>Owner2:</b>	Dhaliwaland, Harender K
<b>Owner Address:</b>	417 Main St E
	Monmouth OR 97361 - 2336
<b>Twtn/Range/Section:</b>	08S / 02W / 06 / NE
<b>Parcel Size:</b>	0.05 Acres (2,248 SqFt)
<b>Plat/Subdivision:</b>	
<b>Lot:</b>	10000
<b>Block:</b>	
<b>Census Tract/Block:</b>	001803 / 2016
<b>Waterfront:</b>	

**Tax Information**

<b>Levy Code Area:</b>	24943
<b>Levy Rate:</b>	19.6609
<b>Tax Year:</b>	2021
<b>Annual Tax:</b>	\$186.38
<b>Exempt Desc:</b>	

**Legal**

ACRES 0.05

**Assessment Information**

<b>Market Value Land:</b>	\$30,910.00
<b>Market Value Impr:</b>	\$0.00
<b>Market Value Total:</b>	\$30,910.00
<b>Assessed Value:</b>	\$9,480.00

**Land**

<b>Zoning:</b>	CR - Retail Commercial	<b>Cnty Bldg Use:</b>	Commercial Cmlse Commercial Secondary
<b>Cnty Land Use:</b>	200 - Commercial land only	<b>Neighborhood:</b>	
<b>Std Land Use:</b>	CMSC - Commercial Miscellaneous	<b>Recreation:</b>	
<b>School District:</b>	24J - Salem-Keizer	<b>Primary School:</b>	MILLER ELEMENTARY SCHOOL
<b>Middle School:</b>	HOUCK MIDDLE SCHOOL	<b>High School:</b>	NORTH SALEM HIGH SCHOOL

**Improvement**

<b>Year Built:</b>	<b>Stories:</b>	<b>Finished Area:</b>
<b>Bedrooms:</b>	<b>Bathrooms:</b>	<b>Garage:</b>
<b>Basement Fin:</b>		

### **Transfer Information**

<b>Rec. Date:</b> 08/31/2020	<b>Sale Price:</b> \$390,000.00	<b>Doc Num:</b> 43790017	<b>Doc Type:</b> Deed
<b>Owner:</b> Inderjit S Dhaliwal		<b>Grantor:</b> EPPING FOUNDATION HOLDINGS LLC	
<b>Orig. Loan Amt:</b>		<b>Title Co:</b> TICOR TITLE	
<b>Finance Type:</b>	<b>Loan Type:</b>	<b>Lender:</b>	

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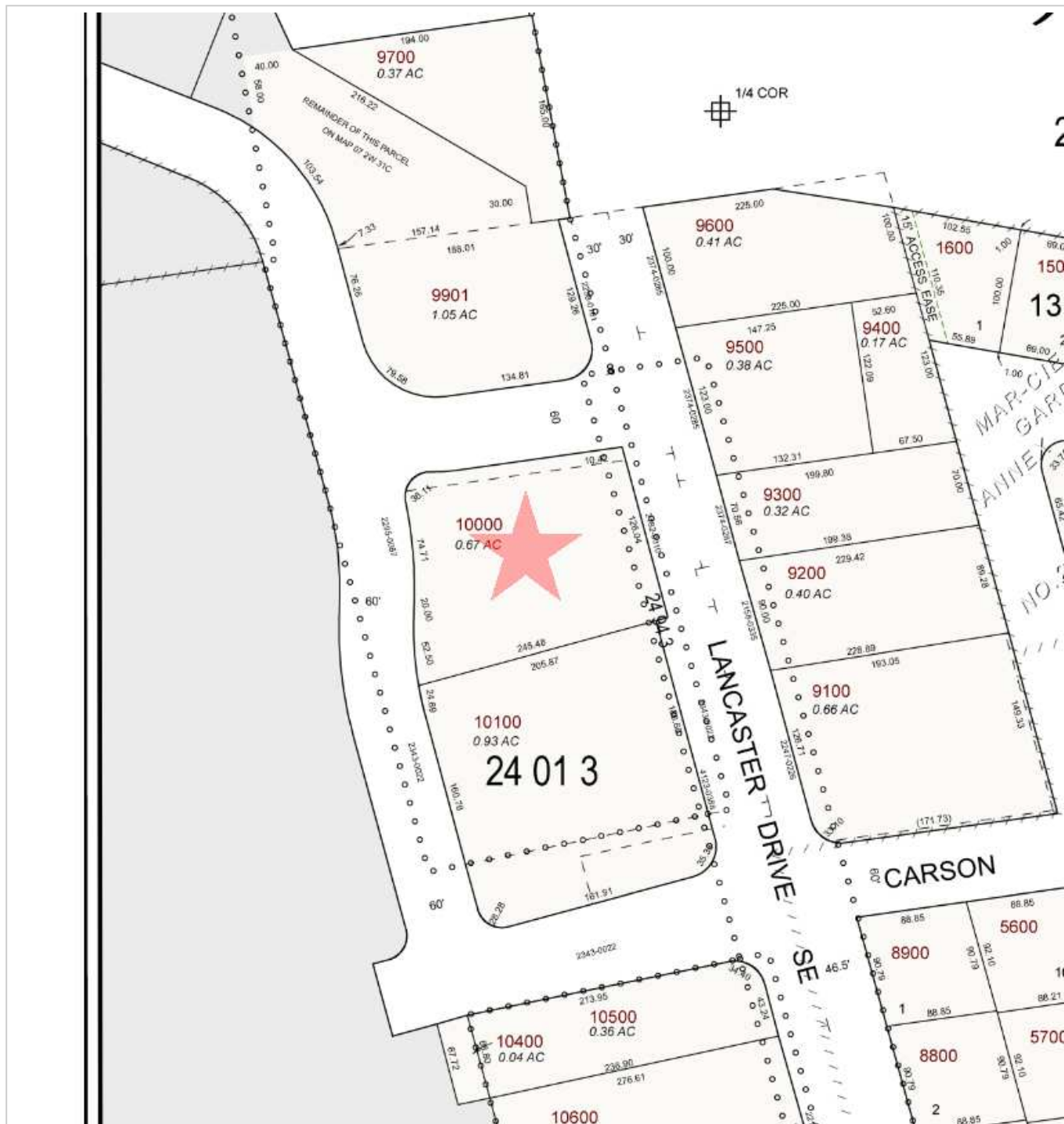
Transfer Record(s) Found For: 529459  
1545 Lancaster Dr SE, Salem OR 97317

<b>Recording Date</b>	08/31/2020	<b>Sale Amount</b>	\$390,000.00	<b>Mtg 1 Amount</b>	\$0.00
<b>Grantee Name</b>	INDERJIT S DHALIWAL	<b>Title Co</b>	TICOR TITLE	<b>Mtg 1 Loan Type</b>	
<b>Grantor Name</b>	EPPING FOUNDATION HOLDINGS LLC	<b>Doc #</b>	43790017	<b>Doc Type</b>	G
<b>Lender</b>					

<b>Recording Date</b>	08/01/2017	<b>Sale Amount</b>	\$0.00	<b>Mtg 1 Amount</b>	\$0.00
<b>Grantee Name</b>	EPPING FOUNDATION HOLDINGS LLC	<b>Title Co</b>		<b>Mtg 1 Loan Type</b>	
<b>Grantor Name</b>	LARRY & JEANETTE EPPING FAMILY	<b>Doc #</b>	39770009	<b>Doc Type</b>	G
<b>Lender</b>					

<b>Recording Date</b>	03/10/2005	<b>Sale Amount</b>	\$0.00	<b>Mtg 1 Amount</b>	\$0.00
<b>Grantee Name</b>	LARRY & JEANETTE EPPING FAM FO	<b>Title Co</b>		<b>Mtg 1 Loan Type</b>	
<b>Grantor Name</b>	GRANADA LAND	<b>Doc #</b>	24490009	<b>Doc Type</b>	G
<b>Lender</b>					

# Assessor Map



**TICOR TITLE COMPANY**

Parcel ID: 529459

Site Address: 1545 Lancaster Dr SE

Sentry Dynamics, Inc. and its customers make no representations, warranties or conditions, express or implied, as to the accuracy or completeness of information contained in this report.

# Full Assessor Map



**TICOR TITLE COMPANY**

**Parcel ID: 529459**

**Site Address: 1545 Lancaster Dr SE**

Sentry Dynamics, Inc. and its customers make no representations, warranties or conditions, express or implied, as to the accuracy or completeness of information contained in this report.



Aerial Map



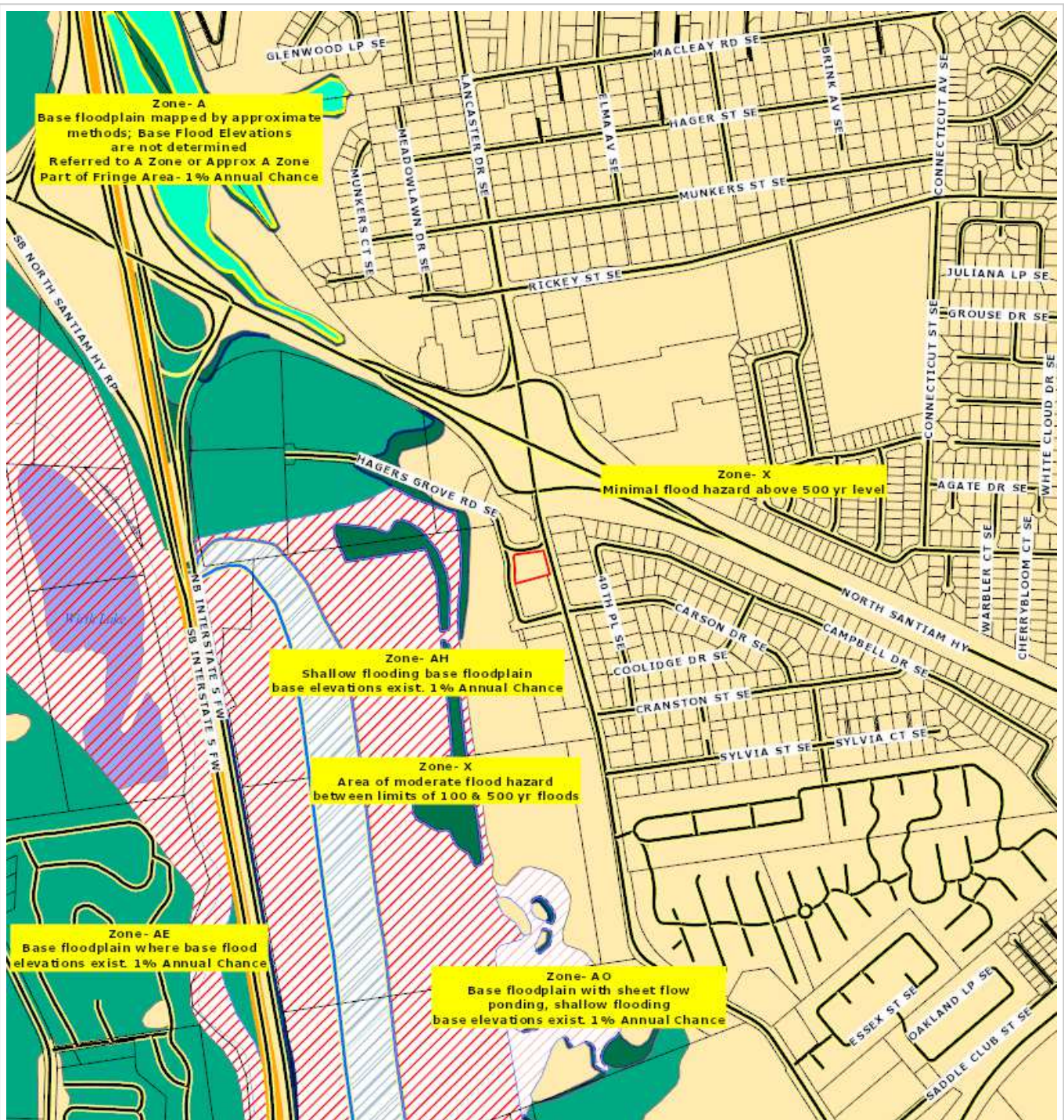
**TICOR TITLE COMPANY**

Parcel ID: 529459

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# Flood Map



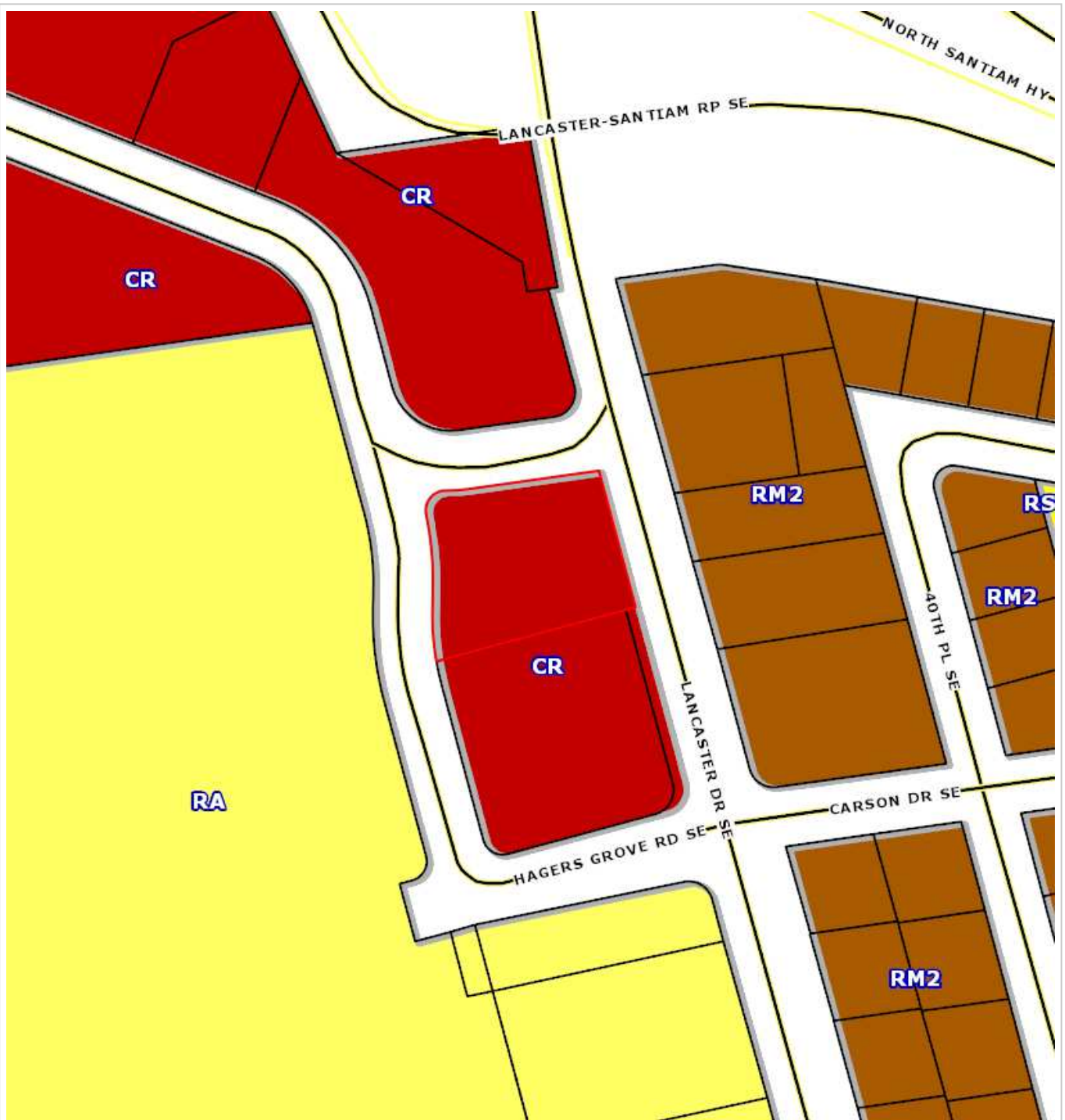
**TICOR TITLE COMPANY**

Parcel ID: 529459

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Zoning Map



**TICOR TITLE COMPANY**

Parcel ID: 529459

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RECORDING REQUESTED BY:



315 Commercial St SE, Ste 150  
Salem, OR 97301

**GRANTOR'S NAME:**

Epping Foundation Holdings LLC

**GRANTEE'S NAME:**

Inderjit Singh Dhaliwal, Harender K. Dhaliwal, Talwinder Singh  
Dhaliwal, and Varinder K. Dhaliwal

REEL 4379 PAGE 17  
MARION COUNTY  
BILL BURGESS, COUNTY CLERK  
08-31-2020 01:21 pm.  
Control Number 615746 \$ 96.00  
Instrument 2020 00047399

**AFTER RECORDING RETURN TO:**

Order No.: 471820096292-LN

Inderjit Singh Dhaliwal and Harender K. Dhaliwal and Talwinder  
Singh Dhaliwal and Varinder K. Dhaliwal, not as tenants in  
common, but with the rights of survivorship  
417 Main St E  
Monmouth, OR 97361

**SEND TAX STATEMENTS TO:**

Inderjit Singh Dhaliwal  
417 Main St E  
Monmouth, OR 97361

APN: 529459

Map: 082W06AB10000

1545 Lancaster Drive SE, Salem, OR 97317

SPACE ABOVE THIS LINE FOR RECORDER'S USE

**STATUTORY WARRANTY DEED**

**Epping Foundation Holdings LLC**, Grantor, conveys and warrants to **Inderjit Singh Dhaliwal and Harender K. Dhaliwal and Talwinder Singh Dhaliwal and Varinder K. Dhaliwal, not as tenants in common, but with the rights of survivorship**, Grantee, the following described real property, free and clear of encumbrances except as specifically set forth below, situated in the County of Marion, State of Oregon:

A parcel of land lying in the South half of the Benjamin Munkers Donation Land Claim No. 52 in Section 6 of Township 8 South, Range 2 West of the Willamette Meridian, in the City of Salem, County of Marion, State of Oregon, being more particularly described as follows:

Beginning at Engineer's Station 61-66.63 in the center of Lancaster Drive on the line dividing the North and South halves of the said Munkers Donation Land Claim as shown in C.S. 33072 a recorded in the Marion County Surveyors Office; thence South 15°05'13" East, along the centerline of said Lancaster Drive, a distance of 326.71 feet to a point on the South line of that tract of land described and recorded in Reel 155, page 450, Deed Records for Marion County, Oregon; thence South 74°51'55" West, along the South line of said tract, a distance of 38.00 feet to the Westerly right-of-way line of said Lancaster Drive and being the TRUE POINT OF BEGINNING: thence South 74°51'55" West, along said South line, a distance of 205.87 feet to a point on the Easterly line of the relocated Hagers Grove Road; thence Northerly, along said Easterly line, on the arc of a 270.00 foot radius curve to the right, (the chord of which bears North 04°18'10" West 52.42 feet), a distance of 52.50 feet; thence North 01°16'05" East, along said Easterly line, a distance of 20.00 feet; thence Northerly, along said Easterly line, on the arc of a 330.00 foot radius curve to the left, (the chord of which bears North 05°13'04" West 74.55 feet), a distance of 74.71 feet; thence Northeasterly, along the arc of a 20.00 foot radius curve to the right, (the chord of which bears North 40°01'27" East 31.40 feet), a distance of 36.11 feet to a point on the Southerly right-of-way line of Hagers Grove Road; thence Northeasterly, along said right-of-way line, on the arc of a 120.00 foot radius curve to the left, (the chord of which bears North 86°47'08" East 20.78 feet), a distance of 20.80 feet; thence North 81°49'08" East, along said right-of-way, a distance of 132.52 feet to a point on the Westerly right-of-way line of said Lancaster Drive; thence South 15°05'13" East, along said right-of-way line, a distance of 141.72 feet to the TRUE POINT OF BEGINNING.

THE TRUE AND ACTUAL CONSIDERATION FOR THIS CONVEYANCE IS THREE HUNDRED NINETY THOUSAND AND NO/100 DOLLARS (**\$390,000.00**). (See ORS 93.030).

**Subject to:**

Property taxes in an undetermined amount, which are a lien but not yet payable, including any assessments collected with taxes to be levied for the fiscal year 2020-2021.

Any rights, liens, claims or equities, if any, in favor of East Salem Sewer and Drainage District.

Rights of the public to any portion of the Land lying within the area commonly known as streets, roads and/or highways.

## STATUTORY WARRANTY DEED

(continued)

Limited access to and from the Land as set forth in Deed shown below, which provides that there shall be no right of easement or right of access to, from or across the State Highway other than as expressly provided for in said Deed:

Grantor:  
Grantee: State of Oregon, by and through its State Highway Commission  
Recording Date: November 19, 1952  
Recording No.: Book 445, page 426

Limited access to and from the Land as set forth in Deed shown below, which provides that there shall be no right of easement or right of access to, from or across the State Highway other than as expressly provided for in said Deed:

Grantee: State of Oregon, by and through its State Highway Commission  
Recording Date: May 14, 1958  
Recording No.: Book 511, page 606

Easement(s) for the purpose(s) shown below and rights incidental thereto, as granted in a document:

Granted to: Suburban East Salem Water District  
Purpose: Water pipe  
Recording Date: June 16, 1972  
Recording No: Book 728, page 666

Easement(s) for the purpose(s) shown below and rights incidental thereto, as granted in a document:

Granted to: City of Salem  
Purpose: Slopes  
Recording Date: August 22, 2003  
Recording No: Reel 2182, page 311  
Affects: Reference is hereby made to said document for full particulars

Easement(s) for the purpose(s) shown below and rights incidental thereto, as granted in a document:

Granted to: City of Salem  
Purpose: Public utilities and appurtenances  
Recording Date: August 22, 2003  
Recording No: Reel 2182, page 312  
Affects: Reference is hereby made to said document for full particulars

Easement(s) for the purpose(s) shown below and rights incidental thereto, as granted in a document:

Granted to: City of Salem  
Purpose: Slopes  
Recording Date: March 30, 2004  
Recording No: Reel 2295, page 88  
Affects: Reference is hereby made to said document for full particulars

**BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON TRANSFERRING FEE TITLE SHOULD INQUIRE ABOUT THE PERSON'S RIGHTS, IF ANY, UNDER ORS 195.300, 195.301 AND 195.305 TO 195.336 AND SECTIONS 5 TO 11, CHAPTER 424, OREGON LAWS 2007, SECTIONS 2 TO 9 AND 17, CHAPTER 855, OREGON LAWS 2009, AND SECTIONS 2 TO 7, CHAPTER 8, OREGON LAWS 2010. THIS INSTRUMENT DOES NOT ALLOW USE OF THE PROPERTY DESCRIBED IN THIS INSTRUMENT IN VIOLATION OF APPLICABLE LAND USE LAWS AND REGULATIONS. BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON ACQUIRING FEE TITLE TO THE PROPERTY SHOULD CHECK WITH THE APPROPRIATE CITY OR COUNTY PLANNING DEPARTMENT TO VERIFY THAT THE UNIT OF LAND BEING TRANSFERRED IS A LAWFULLY ESTABLISHED LOT OR PARCEL, AS DEFINED IN ORS 92.010 OR 215.010, TO VERIFY THE APPROVED USES OF THE LOT OR PARCEL, TO DETERMINE ANY LIMITS ON LAWSUITS AGAINST FARMING OR FOREST PRACTICES, AS DEFINED IN ORS 30.930, AND TO INQUIRE ABOUT THE RIGHTS OF NEIGHBORING PROPERTY OWNERS, IF ANY, UNDER ORS 195.300, 195.301 AND 195.305 TO 195.336 AND SECTIONS 5 TO 11, CHAPTER 424, OREGON LAWS 2007, SECTIONS 2 TO 9 AND 17, CHAPTER 855, OREGON LAWS 2009, AND SECTIONS 2 TO 7, CHAPTER 8, OREGON LAWS 2010.**

# STATUTORY WARRANTY DEED

(continued)

IN WITNESS WHEREOF, the undersigned have executed this document on the date(s) set forth below.

Dated: 8-27-2020

Epping Foundation Holdings LLC

BY: William C. Davis

William C. Davis  
Authorized Signer

BY: Michael Pettyjohn

Michael Pettyjohn  
Trust Officer for Pioneer Trust Bank NA

State of Oregon  
County of Marion

This instrument was acknowledged before me on 8/27/2020 by Michael Pettyjohn, as Trust Officer for Pioneer Trust Bank NA for Epping Foundation Holdings LLC and William C. Davis, as Authorized Signer for Epping Foundation Holdings LLC.

Marianne Scheelar  
Notary Public - State of Oregon

My Commission Expires: 01/28/2023



**REEL: 4379**

**PAGE: 17**

**August 31, 2020, 01:21 pm.**

**CONTROL #: 615746**

State of Oregon  
County of Marion

I hereby certify that the attached  
instrument was received and duly  
recorded by me in Marion County  
records:

**FEE: \$ 96.00**

**BILL BURGESS  
COUNTY CLERK**

**THIS IS NOT AN INVOICE.**

# Deed/Title Report for Tax Lot 10100

275 Court Street NE Salem, Oregon 97301-3442 T: 503.390.6500 [www.studio3architecture.com](http://www.studio3architecture.com)

Memorandum

Stop-N-Save Gas Station

**File: 2020-109.01**

Project No: 2020-109

Page 10 of 12





# TICOR TITLE™

## Property Profile Report

*Client Name:*

*Today's Date:*

**08/16/2022**

*Owner Name:*

**Avi LLC**

*Property Address:*

**3997 Carson Dr SE  
Salem OR 97317 6187**

*Reference Number:*

**082W06AB10100**

*Account Number:*

**529457**

### Seven Ticor Mid-Valley locations to serve you:

220 SW 6th Ave Albany, OR 97321 541.926.2111	400 SW 4th St Ste 100 Corvallis, OR 97330 541.757.1466	52 E Airport Rd Lebanon, OR 97355 541.258.2813	1215 NE Baker St McMinnville, OR 97128 503.472.6101	315 Commercial St SE, Ste 150 Salem, OR 97301 503.585.1881	115 N College St STE 200 Newberg, OR 97132 503.542.1400	206 N 1st St Silverton, OR 97381 503.873.5305
--	--	---	--	---	---	--

This title information has been furnished, without charge, in conformance with guidelines approved by the State of Oregon Insurance Commissioner. The Insurance Division cautions that indiscriminate use only benefiting intermediaries will not be permitted. No liability is assumed for any errors in this record.

The information compiled in this report(s) was imported from a vendor-provided database source. Although the information is deemed reliable and every effort has been taken to correct data imperfections, Ticor Title cannot be held responsible for any inaccuracies.

## TITLE AND ESCROW SERVICES

[www.TicorMidValley.com](http://www.TicorMidValley.com)

For all your customer service needs: **MVCS@TicorTitle.com**

**Parcel Information**

<b>Parcel #:</b>	529457
<b>Tax Lot:</b>	082W06AB10100
<b>Site Address:</b>	3997 Carson Dr SE
	Salem OR 97317 - 6187
<b>Owner:</b>	Avi LLC
<b>Owner2:</b>	
<b>Owner Address:</b>	2433 Broadway St NW
	Albany OR 97321 - 1282
<b>Twn/Range/Section:</b>	08S / 02W / 06 / NE
<b>Parcel Size:</b>	0.68 Acres (29,705 SqFt)
<b>Plat/Subdivision:</b>	
<b>Lot:</b>	
<b>Block:</b>	
<b>Census Tract/Block:</b>	001803 / 2016
<b>Waterfront:</b>	

**Tax Information**

<b>Levy Code Area:</b>	24013
<b>Levy Rate:</b>	19.6609
<b>Tax Year:</b>	2021
<b>Annual Tax:</b>	\$10,563.79
<b>Exempt Desc:</b>	

**Legal**

ACRES 0.68

**Assessment Information**

<b>Market Value Land:</b>	\$269,570.00
<b>Market Value Impr:</b>	\$420,180.00
<b>Market Value Total:</b>	\$689,750.00
<b>Assessed Value:</b>	\$537,300.00

**Land**

<b>Zoning:</b>	CR - Retail Commercial	<b>Cnty Bldg Use:</b>	595 - Commercial Cmlsr Commercial Standard - Row Store
<b>Cnty Land Use:</b>	201 - Commercial improved	<b>Neighborhood:</b>	
<b>Std Land Use:</b>	CSTO - Stores, Retail	<b>Recreation:</b>	
<b>School District:</b>	24J - Salem-Keizer	<b>Primary School:</b>	MILLER ELEMENTARY SCHOOL
<b>Middle School:</b>	HOUCK MIDDLE SCHOOL	<b>High School:</b>	NORTH SALEM HIGH SCHOOL

**Improvement**

<b>Year Built:</b>		<b>Stories:</b>		<b>Finished Area:</b>	5,805
<b>Bedrooms:</b>		<b>Bathrooms:</b>		<b>Garage:</b>	
<b>Basement Fin:</b>					

**Transfer Information**

<b>Loan Date:</b>	07/28/2020	<b>Loan Amt:</b>	\$1,686,000.00	<b>Doc Num:</b>	43640273	<b>Doc Type:</b>	Deed Of Trust
<b>Loan Type:</b>		<b>Finance Type:</b>	Conventional	<b>Lender:</b>	READYCAP LNDG LLC		

<b>Rec. Date:</b> 09/20/2018	<b>Sale Price:</b>	<b>Doc Num:</b> 41230388	<b>Doc Type:</b> Deed
<b>Owner:</b> City Of Salem		<b>Grantor:</b> DHALIWAL TALWINDER S & INDERJIT S	
<b>Orig. Loan Amt:</b>		<b>Title Co:</b>	
<b>Finance Type:</b>	<b>Loan Type:</b>	<b>Lender:</b>	

Sentry Dynamics, Inc. and its customers make no representations, warranties or conditions, express or implied, as to the accuracy or completeness of information contained in this report.

**Parcel Information**

<b>Parcel #:</b>	332584
<b>Tax Lot:</b>	082W06AB10100
<b>Site Address:</b>	3997 Carson Dr SE
	Salem OR 97317 - 6187
<b>Owner:</b>	Avi LLC
<b>Owner2:</b>	
<b>Owner Address:</b>	2433 Broadway St NW
	Albany OR 97321 - 1282
<b>Twn/Range/Section:</b>	08S / 02W / 06 / NE
<b>Parcel Size:</b>	0.22 Acres (9,739 SqFt)
<b>Plat/Subdivision:</b>	
<b>Lot:</b>	
<b>Block:</b>	
<b>Census Tract/Block:</b>	001803 / 2016
<b>Waterfront:</b>	

**Tax Information**

<b>Levy Code Area:</b>	24010
<b>Levy Rate:</b>	19.6609
<b>Tax Year:</b>	2021
<b>Annual Tax:</b>	\$5,220.92
<b>Exempt Desc:</b>	

**Legal**

ACRES 0.22

**Assessment Information**

<b>Market Value Land:</b>	\$88,380.00
<b>Market Value Impr:</b>	\$252,790.00
<b>Market Value Total:</b>	\$341,170.00
<b>Assessed Value:</b>	\$265,550.00

**Land**

<b>Zoning:</b>	CR - Retail Commercial	<b>Cnty Bldg Use:</b>	595 - Commercial Cmlsr Commercial Standard - Row Store
<b>Cnty Land Use:</b>	201 - Commercial improved	<b>Neighborhood:</b>	
<b>Std Land Use:</b>	CSTO - Stores, Retail	<b>Recreation:</b>	
<b>School District:</b>	24J - Salem-Keizer	<b>Primary School:</b>	MILLER ELEMENTARY SCHOOL
<b>Middle School:</b>	HOUCK MIDDLE SCHOOL	<b>High School:</b>	NORTH SALEM HIGH SCHOOL

**Improvement**

<b>Year Built:</b>	<b>Stories:</b>	<b>Finished Area:</b>
<b>Bedrooms:</b>	<b>Bathrooms:</b>	<b>Garage:</b>
<b>Basement Fin:</b>		

**Transfer Information**

<b>Loan Date:</b>	09/20/2019	<b>Loan Amt:</b>	\$160,000.00	<b>Doc Num:</b>	42440238	<b>Doc Type:</b>	Deed Of Trust
<b>Loan Type:</b>		<b>Finance Type:</b>	Conventional	<b>Lender:</b>	PRECISION CAP		

<b>Rec. Date:</b> 06/25/2018	<b>Sale Price:</b>	<b>Doc Num:</b> 40910319	<b>Doc Type:</b> Deed
<b>Owner:</b> Avi LLC		<b>Grantor:</b> DHALI WAL TALWINDER S & INDERJIT S	
<b>Orig. Loan Amt:</b>		<b>Title Co:</b> ATTORNEY ONLY	
<b>Finance Type:</b>	<b>Loan Type:</b>	<b>Lender:</b>	

Sentry Dynamics, Inc. and its customers make no representations, warranties or conditions, express or implied, as to the accuracy or completeness of information contained in this report.

**Parcel Information**

<b>Parcel #:</b>	337070
<b>Tax Lot:</b>	082W06AB10100
<b>Site Address:</b>	3997 Carson Dr SE
	Salem OR 97317 - 6187
<b>Owner:</b>	Avi LLC
<b>Owner2:</b>	
<b>Owner Address:</b>	2433 Broadway St NW
	Albany OR 97321 - 1282
<b>Twtn/Range/Section:</b>	08S / 02W / 06 / NE
<b>Parcel Size:</b>	0.02 Acres (922 SqFt)
<b>Plat/Subdivision:</b>	
<b>Lot:</b>	
<b>Block:</b>	
<b>Census Tract/Block:</b>	001803 / 2016
<b>Waterfront:</b>	

**Tax Information**

<b>Levy Code Area:</b>	24943
<b>Levy Rate:</b>	19.6609
<b>Tax Year:</b>	2021
<b>Annual Tax:</b>	\$127.99
<b>Exempt Desc:</b>	

**Legal**

ACRES 0.02

**Assessment Information**

<b>Market Value Land:</b>	\$8,370.00
<b>Market Value Impr:</b>	\$0.00
<b>Market Value Total:</b>	\$8,370.00
<b>Assessed Value:</b>	\$6,510.00

**Land**

<b>Zoning:</b>	CR - Retail Commercial	<b>Cnty Bldg Use:</b>	Commercial Cmlsr Commercial Standard
<b>Cnty Land Use:</b>	200 - Commercial land only	<b>Neighborhood:</b>	
<b>Std Land Use:</b>	CMSC - Commercial Miscellaneous	<b>Recreation:</b>	
<b>School District:</b>	24J - Salem-Keizer	<b>Primary School:</b>	MILLER ELEMENTARY SCHOOL
<b>Middle School:</b>	HOUCK MIDDLE SCHOOL	<b>High School:</b>	NORTH SALEM HIGH SCHOOL

**Improvement**

<b>Year Built:</b>	<b>Stories:</b>	<b>Finished Area:</b>
<b>Bedrooms:</b>	<b>Bathrooms:</b>	<b>Garage:</b>
<b>Basement Fin:</b>		

### **Transfer Information**

<b>Rec. Date:</b> 06/25/2018	<b>Sale Price:</b>	<b>Doc Num:</b> 40910319	<b>Doc Type:</b> Deed
<b>Owner:</b> Avi LLC		<b>Grantor:</b> DHALIWAL TALWINDER S & INDERJIT S	
<b>Orig. Loan Amt:</b>		<b>Title Co:</b> ATTORNEY ONLY	
<b>Finance Type:</b>	<b>Loan Type:</b>	<b>Lender:</b>	

Sentry Dynamics, Inc. and its customers make no representations, warranties or conditions, express or implied, as to the accuracy or completeness of information contained in this report.

**Parcel Information**

<b>Parcel #:</b>	337071
<b>Tax Lot:</b>	082W06AB10100
<b>Site Address:</b>	3997 Carson Dr SE
	Salem OR 97317 - 6187
<b>Owner:</b>	Avi LLC
<b>Owner2:</b>	
<b>Owner Address:</b>	2433 Broadway St NW
	Albany OR 97321 - 1282
<b>Twtn/Range/Section:</b>	08S / 02W / 06 / NE
<b>Parcel Size:</b>	0.93 Acres (183 SqFt)
<b>Plat/Subdivision:</b>	
<b>Lot:</b>	
<b>Block:</b>	
<b>Census Tract/Block:</b>	001803 / 2016
<b>Waterfront:</b>	

**Tax Information**

<b>Levy Code Area:</b>	24940
<b>Levy Rate:</b>	19.6609
<b>Tax Year:</b>	2021
<b>Annual Tax:</b>	\$25.38
<b>Exempt Desc:</b>	

**Legal**

ACRES 0.00

**Assessment Information**

<b>Market Value Land:</b>	\$1,660.00
<b>Market Value Impr:</b>	\$0.00
<b>Market Value Total:</b>	\$1,660.00
<b>Assessed Value:</b>	\$1,290.00

**Land**

<b>Zoning:</b>	CR - Retail Commercial	<b>Cnty Bldg Use:</b>	Commercial Cmlsr Commercial Standard
<b>Cnty Land Use:</b>	200 - Commercial land only	<b>Neighborhood:</b>	
<b>Std Land Use:</b>	CMSC - Commercial Miscellaneous	<b>Recreation:</b>	
<b>School District:</b>	24J - Salem-Keizer	<b>Primary School:</b>	MILLER ELEMENTARY SCHOOL
<b>Middle School:</b>	HOUCK MIDDLE SCHOOL	<b>High School:</b>	NORTH SALEM HIGH SCHOOL

**Improvement**

<b>Year Built:</b>	<b>Stories:</b>	<b>Finished Area:</b>
<b>Bedrooms:</b>	<b>Bathrooms:</b>	<b>Garage:</b>
<b>Basement Fin:</b>		



### **Transfer Information**

<b>Rec. Date:</b> 06/25/2018	<b>Sale Price:</b>	<b>Doc Num:</b> 40910319	<b>Doc Type:</b> Deed
<b>Owner:</b> Avi LLC		<b>Grantor:</b> DHALIWAL TALWINDER S & INDERJIT S	
<b>Orig. Loan Amt:</b>		<b>Title Co:</b> ATTORNEY ONLY	
<b>Finance Type:</b>	<b>Loan Type:</b>	<b>Lender:</b>	

Sentry Dynamics, Inc. and its customers make no representations, warranties or conditions, express or implied, as to the accuracy or completeness of information contained in this report.

Transfer Record(s) Found For: 529457  
3997 Carson Dr SE, Salem OR 97317

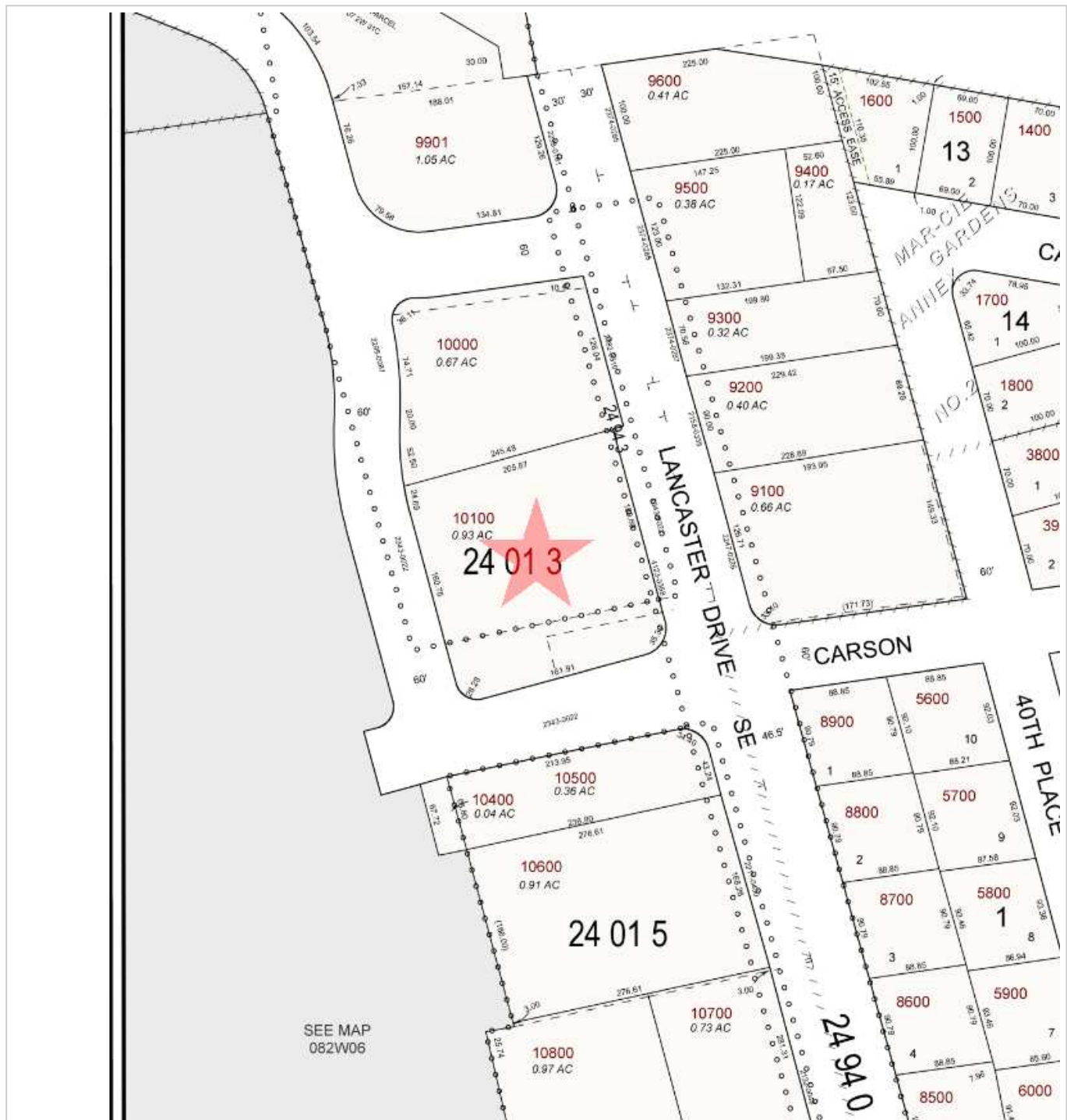
<b>Recording Date</b>	07/28/2020	<b>Sale Amount</b>	\$0.00	<b>Mtg 1 Amount</b>	\$1,686,000.00
<b>Grantee Name</b>	AVI LLC	<b>Title Co</b>	ATTORNEY ONLY	<b>Mtg 1 Loan Type</b>	CNV
<b>Grantor Name</b>		<b>Doc #</b>	43640273	<b>Doc Type</b>	T
<b>Lender</b>	READYCAP LNDG LLC				

<b>Recording Date</b>	09/20/2018	<b>Sale Amount</b>	\$0.00	<b>Mtg 1 Amount</b>	\$0.00
<b>Grantee Name</b>	CITY OF SALEM	<b>Title Co</b>		<b>Mtg 1 Loan Type</b>	
<b>Grantor Name</b>	DHALIWAL TALWINDER S & INDERJIT S	<b>Doc #</b>	41230388	<b>Doc Type</b>	G
<b>Lender</b>					

<b>Recording Date</b>	06/25/2018	<b>Sale Amount</b>	\$0.00	<b>Mtg 1 Amount</b>	\$0.00
<b>Grantee Name</b>	AVI LLC	<b>Title Co</b>	ATTORNEY ONLY	<b>Mtg 1 Loan Type</b>	
<b>Grantor Name</b>	DHALIWAL TALWINDER S & INDERJIT S	<b>Doc #</b>	40910319	<b>Doc Type</b>	G
<b>Lender</b>					

<b>Recording Date</b>	04/28/2017	<b>Sale Amount</b>	\$526,113.00	<b>Mtg 1 Amount</b>	\$0.00
<b>Grantee Name</b>	DHALIWAL TALWINDER SINGH	<b>Title Co</b>	TICOR TITLE	<b>Mtg 1 Loan Type</b>	
<b>Grantor Name</b>	YELLOW DOG HOLDINGS LLC	<b>Doc #</b>	39400167	<b>Doc Type</b>	G
<b>Lender</b>					

# Assessor Map



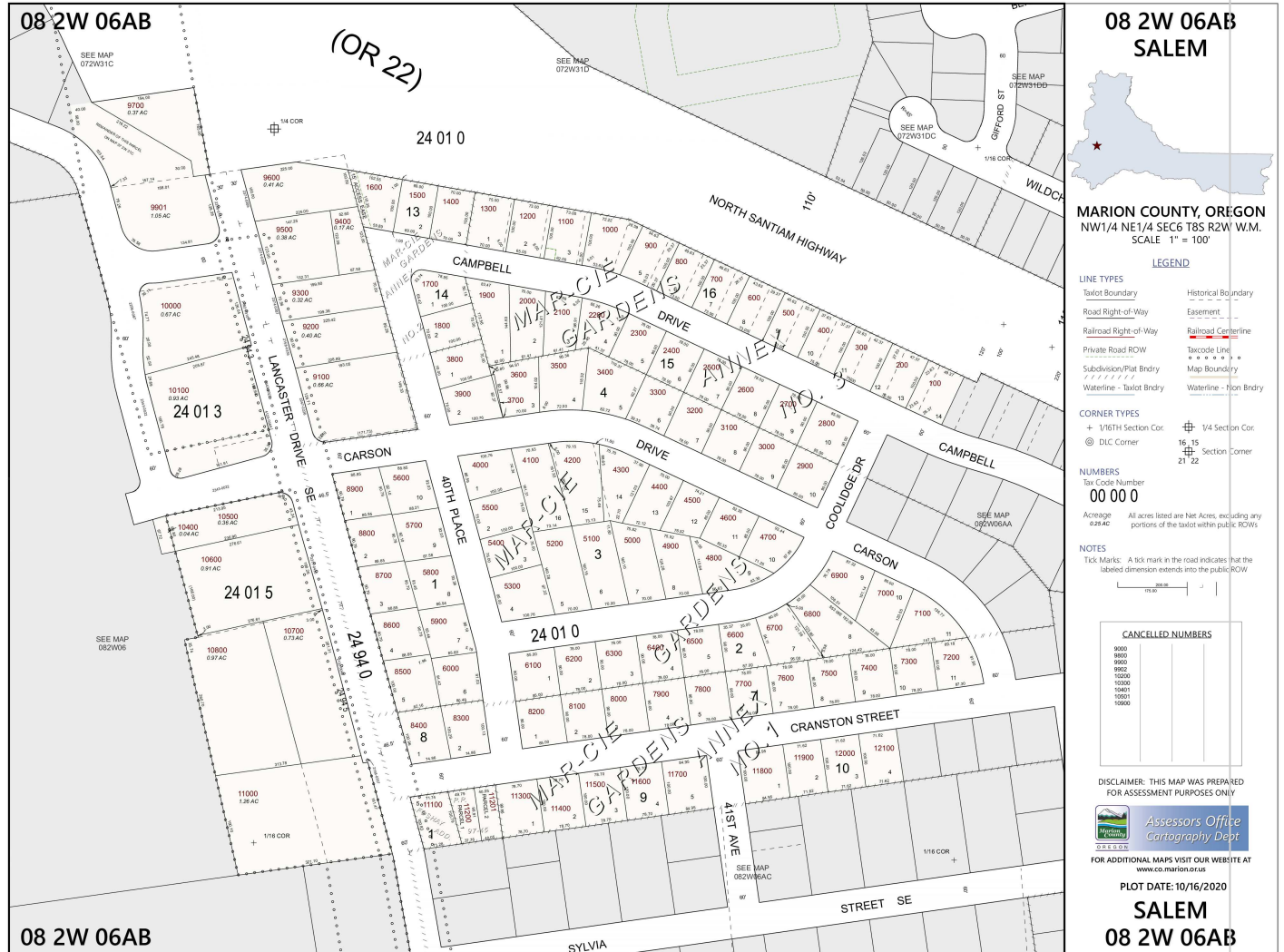
**TICOR TITLE COMPANY**

Parcel ID: 529457

Site Address: 3997 Carson Dr SE

Sentry Dynamics, Inc. and its customers make no representations, warranties or conditions, express or implied, as to the accuracy or completeness of information contained in this report.

# Full Assessor Map



**TICOR TITLE COMPANY**

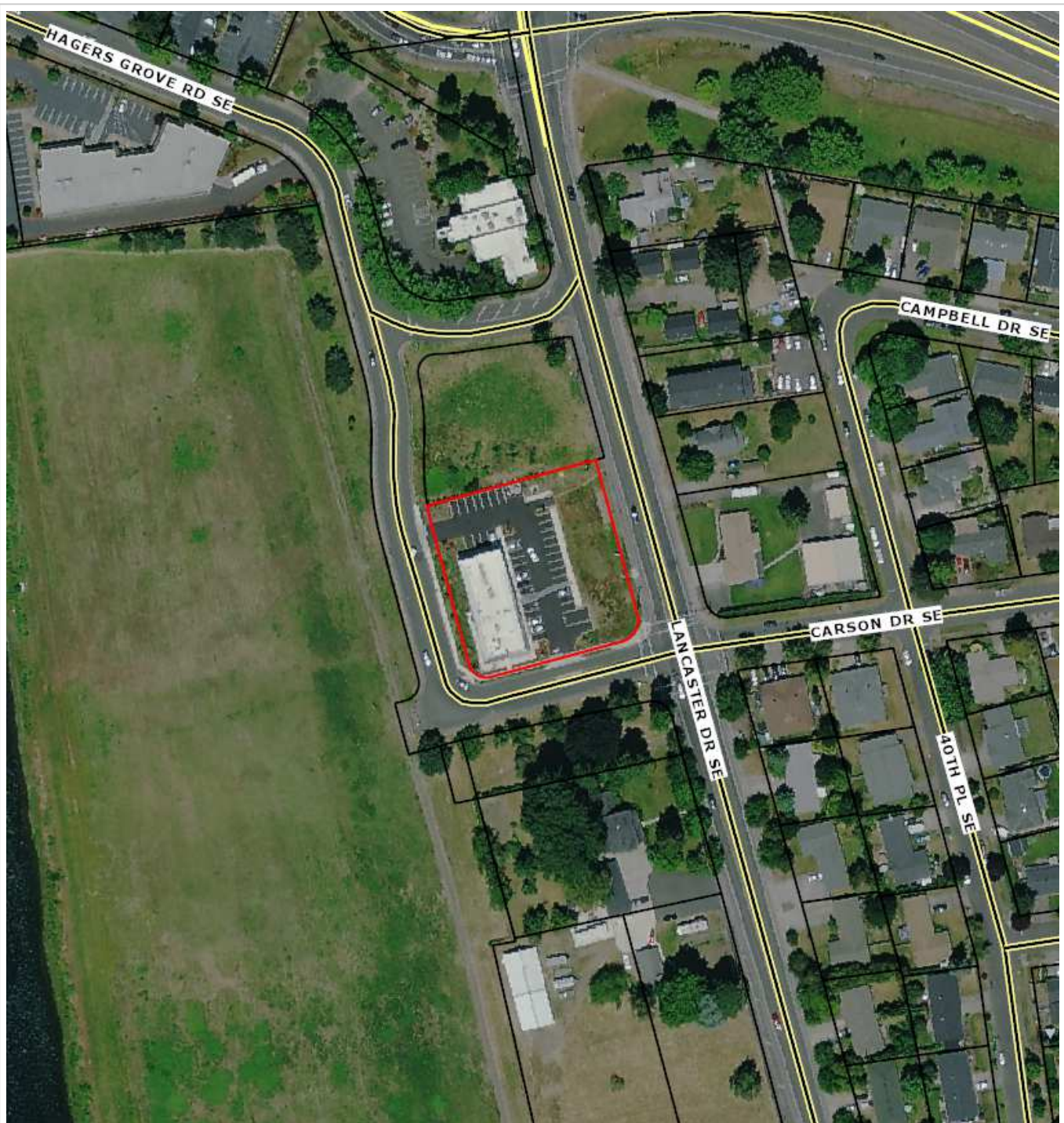
**Parcel ID: 529457**

**Site Address: 3997 Carson Dr SE**

Sentry Dynamics, Inc. and its customers make no representations, warranties or conditions, express or implied, as to the accuracy or completeness of information contained in this report.



Aerial Map



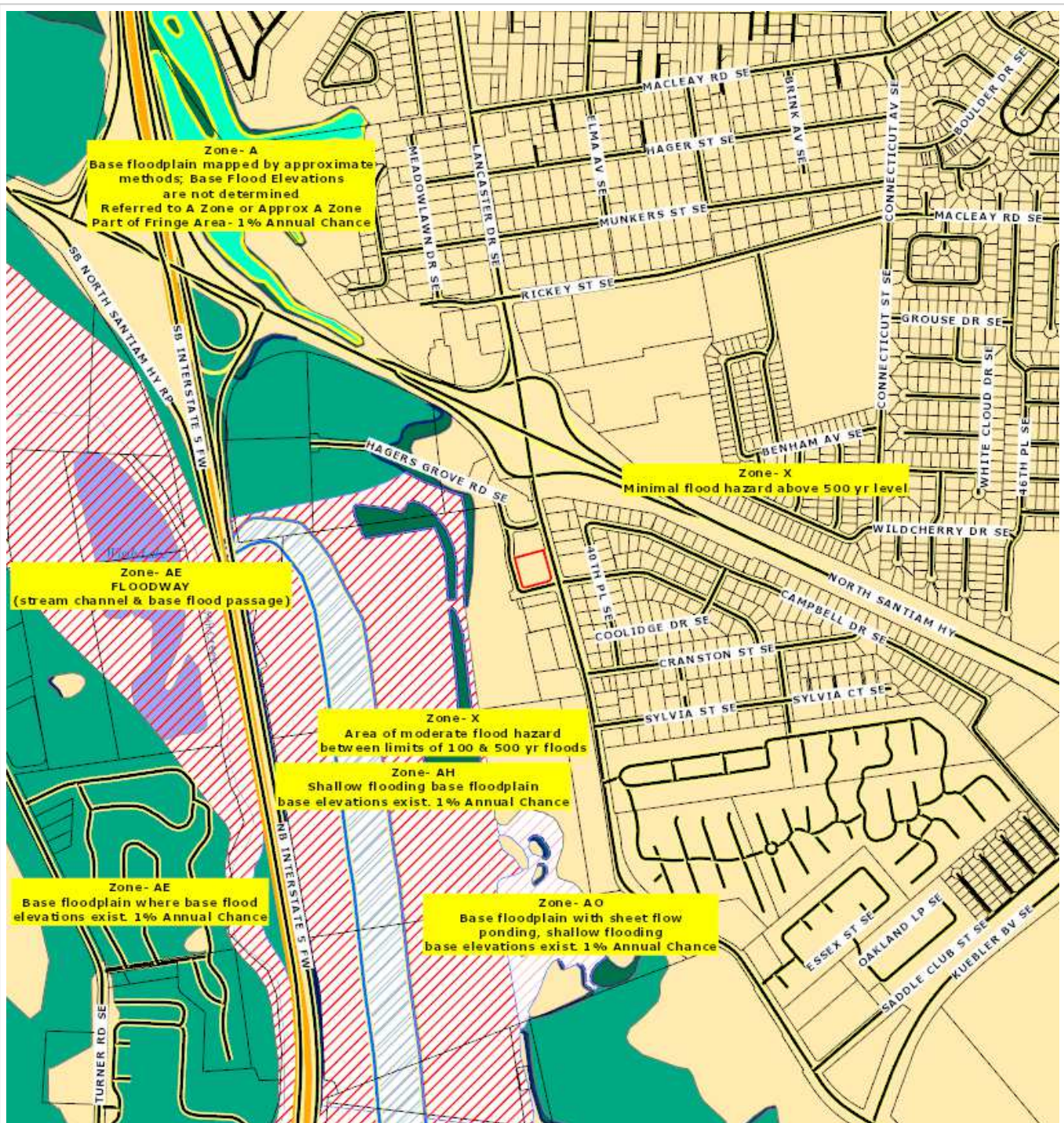
**TICOR TITLE COMPANY**

Parcel ID: 529457

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# Flood Map



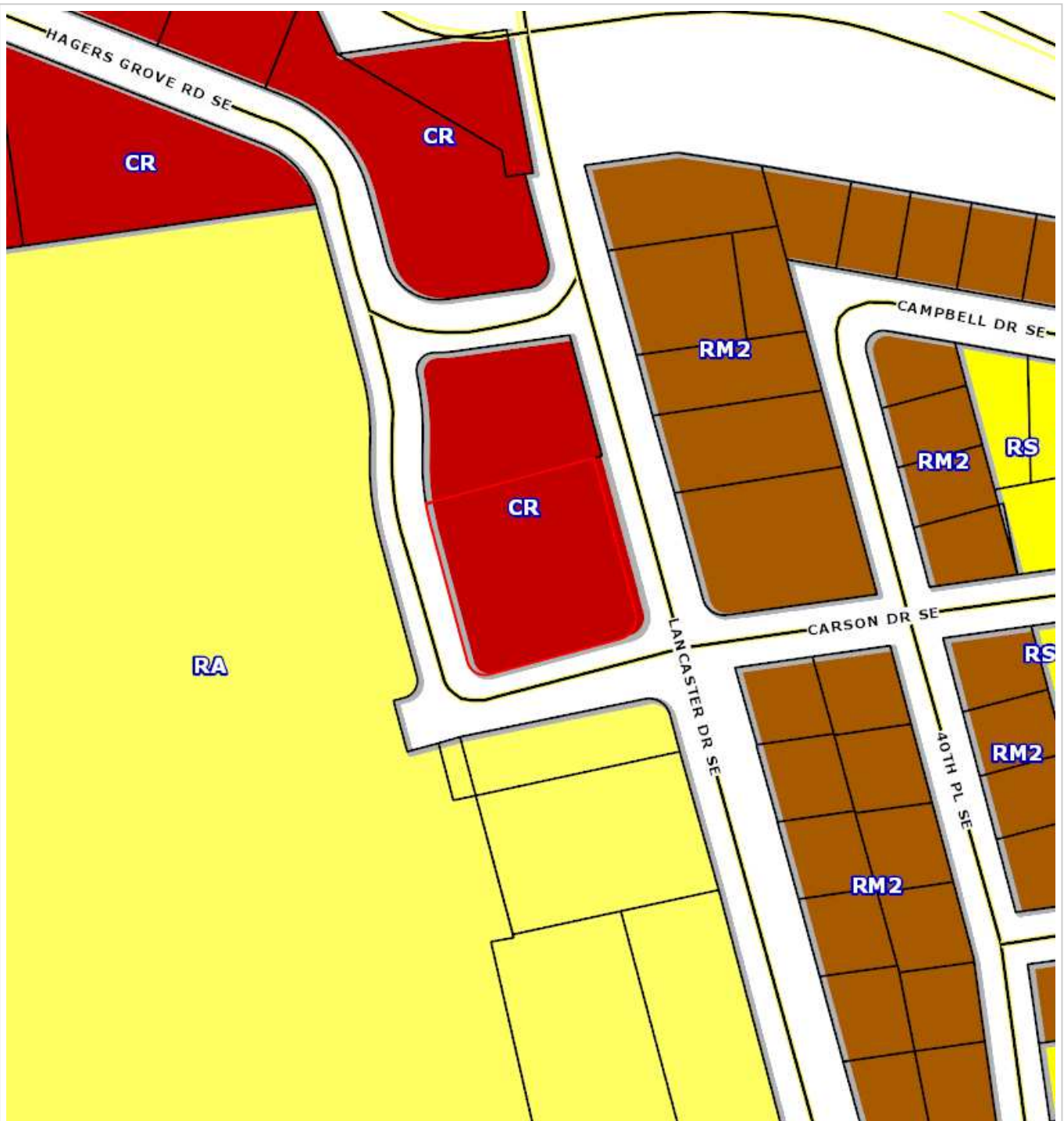
**TICOR TITLE COMPANY**

Parcel ID: 529457

Sentry Dynamics, Inc. and its customers make no representations, warranties or conditions, express or implied, as to the accuracy or completeness of information contained in this report.



Zoning Map



**TICOR TITLE COMPANY**

Parcel ID: 529457

Sentry Dynamics, Inc. and its customers make no representations, warranties or conditions, express or implied, as to the accuracy or completeness of information contained in this report.

**After Recording Return To:**  
John Hasbrook, P.C.  
PO Box 368  
Monmouth OR 97361

**Mail Tax Statements To:**  
Avi, LLC  
2433 Broadway St., NW  
Albany, OR 97321

REEL 4091 PAGE 319  
MARION COUNTY  
BILL BURGESS, COUNTY CLERK  
06-25-2018 02:30 pm.  
Control Number 512596 \$ 91.00  
Instrument 2018 00030050

**Consideration:**  
\$nil monetary consideration

### **BARGAIN AND SALE DEED**

Talwinder Singh Dhaliwal and Inderjit Singh Dhaliwal, Grantors, do hereby convey and transfer to Avi, LLC, and Oregon Limited Liability Company, Grantee, all of their right, title, and interest in and to that real property situated in Marion County, Oregon, to wit:

#### **LEGAL DESCRIPTION:**

That property conveyed to Grantors in that Deed Instrument recorded at Reel 3940, Page 167, recorded on April 28, 2017, Marion County Deed Records, State of Oregon.

SUBJECT TO roads, easements, reservations, and other matters as set forth in the above referenced Deed Instrument.

SITUS ADDRESS: A lot on Lancaster Drive, Salem, Oregon 97317.

TAX ACCOUNT NO: R29457, R332584, R337070, and R337071

MAP AND TAX LOT: 082W06AB10100

The true and actual consideration for this conveyance is \$nil monetary consideration. This Deed is recorded as a transfer to an Oregon LLC.

BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON TRANSFERRING FEE TITLE SHOULD INQUIRE ABOUT THE PERSON'S RIGHTS, IF ANY, UNDER ORS 195.300, 195.301 AND 195.305 TO 195.336 AND SECTIONS 5 TO 11, CHAPTER 424, OREGON LAWS 2007, SECTIONS 2 TO 9 AND 17, CHAPTER 855, OREGON LAWS 2009, AND SECTIONS 2 TO 7, CHAPTER 8, OREGON LAWS 2010. THIS INSTRUMENT DOES NOT ALLOW USE OF THE PROPERTY DESCRIBED IN THIS INSTRUMENT IN VIOLATION OF APPLICABLE LAND USE LAWS AND REGULATIONS. BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON ACQUIRING FEE TITLE TO THE PROPERTY SHOULD CHECK WITH THE APPROPRIATE CITY OR COUNTY PLANNING DEPARTMENT TO VERIFY THAT THE UNIT OF LAND BEING TRANSFERRED IS A LAWFULLY ESTABLISHED LOT OR PARCEL, AS DEFINED IN ORS 92.010 OR 215.010, TO VERIFY THE APPROVED USES OF THE LOT OR PARCEL, TO DETERMINE ANY LIMITS ON LAWSUITS AGAINST FARMING OR FOREST PRACTICES, AS DEFINED IN ORS 30.930, AND TO INQUIRE ABOUT THE RIGHTS OF NEIGHBORING PROPERTY OWNERS, IF ANY, UNDER ORS 195.300, 195.301 AND 195.305 TO 195.336 AND SECTIONS 5 TO 11, CHAPTER 424, OREGON LAWS 2007, SECTIONS 2 TO 9 AND 17, CHAPTER 855, OREGON LAWS 2009, AND SECTIONS 2 TO 7, CHAPTER 8, OREGON LAWS 2010.

 TS

PAGE 1 of 2 - BARGAIN AND SALE DEED



DATED: 5-30-18, 2018

Talwinder Singh  
Talwinder Singh Dhaliwal, Grantor

DATED: 5/30/, 2018

Inderjit Singh  
Inderjit Singh Dhaliwal, Grantor

STATE OF OREGON        )  
County of Polk        ) ss.

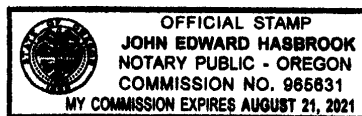
On May 30, 2018, personally appeared the above named Talwinder Singh Dhaliwal, Grantor, and acknowledged the foregoing instrument to be their voluntary act and deed. Before me:



[Signature]  
Notary Public for Oregon  
My Commission Expires: 8/21/21

STATE OF OREGON        )  
County of Polk        ) ss.

On May 30, 2018, personally appeared the above named Inderjit Singh Dhaliwal, Grantor, and acknowledged the foregoing instrument to be their voluntary act and deed. Before me:



[Signature]  
Notary Public for Oregon  
My Commission Expires: 8/21/21

C:\Dropbox\WORK\DEEDS\18366.bs deed 053018.wpd

**REEL: 4091**

**PAGE: 319**

**June 25, 2018, 02:30 pm.**

CONTROL #: 512596

State of Oregon  
County of Marion

I hereby certify that the attached  
instrument was received and duly  
recorded by me in Marion County  
records:

FEE: \$ 91.00

BILL BURGESS  
COUNTY CLERK

THIS IS NOT AN INVOICE.

---

✓  
**After recording, return to:**  
City Recorder, City of Salem  
555 Liberty Street SE, Room 205  
Salem OR 97301-3513

**REEL 4123 PAGE 388**  
MARION COUNTY  
BILL BURGESS, COUNTY CLERK  
09-20-2018 12:55 pm.  
Control Number 524164 \$ 111.00  
Instrument 2018 00046119

**Send tax statements to:**  
Finance Department, City of Salem  
555 Liberty Street SE, Room 230  
Salem OR 97301-3513

## Warranty Deed

Talwinder Singh Dhaliwal and Inderjit Singh Dhaliwal, hereinafter called Grantor, 417 Main Street E, Monmouth, Oregon 97361, conveys and warrants to the CITY OF SALEM, an Oregon municipal corporation, organized and existing under and by virtue of the laws of the State of Oregon, hereinafter called Grantee, 555 Liberty Street SE, Salem, Oregon 97301-3513, all that real property situated in Marion County, State of Oregon, described as follows:

See Exhibit A attached and as shown on Exhibit B attached.

Grantor covenants that it is the owner of the above-described property free of all encumbrances, except those of record, and will warrant and defend the same against all persons who may lawfully claim the same, except as shown above.

The true and actual consideration for this transfer is no money, but for other valuable consideration.

“BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON TRANSFERRING FEE TITLE SHOULD INQUIRE ABOUT THE PERSON’S RIGHTS, IF ANY, UNDER ORS 195.300, 195.301, AND 195.305 TO 195.336, AND SECTIONS 5 TO 11 CHAPTER 424, OREGON LAWS 2007, SECTIONS 2 TO 9 AND 17, CHAPTER 855, OREGON LAWS 2009, AND SECTIONS 2 TO 7, CHAPTER 8, OREGON LAWS 2010. THIS INSTRUMENT DOES NOT ALLOW USE OF THE PROPERTY DESCRIBED IN THIS INSTRUMENT IN VIOLATION OF APPLICABLE LAND USE LAWS AND REGULATIONS. BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON ACQUIRING FEE TITLE TO THE PROPERTY SHOULD CHECK WITH THE APPROPRIATE CITY OR COUNTY PLANNING DEPARTMENT TO VERIFY THAT THE UNIT OF LAND BEING TRANSFERRED IS A LAWFULLY ESTABLISHED LOT OR PARCEL, AS DEFINED IN ORS 92.010 OR 215.010, TO VERIFY THE APPROVED USES OF THE LOT OR PARCEL, TO DETERMINE ANY LIMITS ON LAWSUITS AGAINST

FARMING OR FOREST PRACTICES, AS DEFINED IN ORS 30.930, AND TO INQUIRE ABOUT THE RIGHTS OF NEIGHBORING PROPERTY OWNERS, IF ANY, UNDER ORS 195.300, 195.301, AND 195.305 TO 195.336 AND SECTIONS 5 TO 11, CHAPTER 424, OREGON LAWS 2007, SECTIONS 2 TO 9 AND 17, CHAPTER 855, OREGON LAWS 2009, AND SECTIONS 2 TO 7, CHAPTER 8, OREGON LAWS 2010.”

Grantee assumes no liability for any hazardous waste on or from this Property. Grantor, its successors, and assigns, agree to defend, indemnify, and hold harmless the Grantee, its officers, agents, and employees against any and all liabilities, damages, penalties, losses, claims, demands, actions, suits, and judgments (including attorney fees and costs), and any costs or expenses incurred resulting from the presence of hazardous waste onto or from the Property, including any and all costs associated with clean up or remediation that may be required. This provision shall not apply to a release of hazardous waste onto or from the Property caused by the officers, agents, or employees of Grantee. Any action taken pursuant to this provision shall not constitute an admission of liability or waiver of any defenses to liability. “Hazardous waste” has the same meaning as provided in Oregon Revised Statutes 466.005, as may be amended.

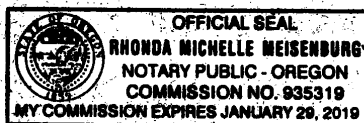
Dated this Aug. 7 day of 7, 20 18.

GRANTOR

By: Talwinder Singh  
Talwinder Singh Dhaliwal, Owner

STATE OF OREGON )  
County of Marion ) ss.

This instrument was acknowledged before me on 7, 20 18,  
by Talwinder Singh Dhaliwal, as Owner.



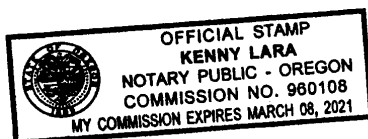
[Signature]  
Notary Public—State of Oregon  
My commission expires: \_\_\_\_\_

GRANTOR

By: Inderjit Singh  
Inderjit Singh Dhaliwal, Owner


STATE OF OREGON )  
County of Polk ) ss.

This instrument was acknowledged before me on August 7, 20 18,  
by Inderjit Singh Dhaliwal, as Owner.



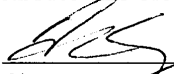
[Signature]  
Notary Public—State of Oregon  
My commission expires: 03/08/2021

ACCEPTED ON BEHALF OF THE CITY  
OF SALEM BY:

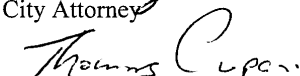


Kacey Duncan, Deputy City Manager


APPROVED AS TO FORM:



City Attorney



Print Name

Checked By:   
Permit Number: 17-124483-CO  
July 30, 2018



AKS ENGINEERING & FORESTRY, LLC  
 12965 SW Herman Road, Suite 100, Tualatin, OR 97062  
 P: (503) 563-6151 F: (503) 563-6152

OFFICES IN: TUALATIN, OR - VANCOUVER, WA - KEIZER, OR - BEND, OR

## EXHIBIT A

### Legal Description

A tract of land located in the northeast One-Quarter of Section 6, Township 8 South, Range 2 West, Willamette Meridian, Marion County, Oregon and being more particularly described as follows:

Commencing at a Point of Tangency of a 20.00 foot radius curve located at the southwest corner of that property described in Reel 3940, Page 167 of the Marion county deed records and also being on the north right-of-way line of Carson Drive SE, being 30.00 feet north of the centerline when measured perpendicular thereto; thence along said north right-of-way line, north  $74^{\circ}54'47''$  east, 151.91 feet to the Point of Beginning; thence leaving said north right-of-way line and running along a 25.00 foot radius curve to the left, through a central angle of  $90^{\circ}00'00''$  (the longchord of which bears north  $29^{\circ}54'47''$  east, 35.36 feet) an arc distance of 39.27 feet to the end thereof, also being 48.00 feet west of the centerline of Lancaster Drive SE when measured perpendicular thereto; thence north  $15^{\circ}05'13''$  west, 48.00 feet west of and parallel with the centerline of said Lancaster Drive SE, 180.69 feet to a point on the south line of that property described in Reel 2449, Page 9 of the Marion County deed records; thence along said south line, north  $74^{\circ}56'35''$  east, 10.00 feet to a point on the west right-of-way of Lancaster Drive SE; thence leaving said south line and running on said westerly Right-of-way line south  $15^{\circ}05'13''$  east, 180.68 feet to the beginning of a tangent 25.00 foot radius curve to the right; thence on said curve through a central angle of  $90^{\circ}00'00''$  (the longchord of which bears south  $29^{\circ}54'47''$  west, 35.36 feet) an arc distance of 39.27 feet to a point on the north right-of-way line of Carson Drive SE, being 30.00 feet north of the centerline when measured perpendicular thereto; thence on said north right-of-way line, south  $74^{\circ}54'47''$  West, 10.00 feet to the Point of Beginning.

The above described tract of land contains 2,057 square feet, more or less.



REGISTERED  
PROFESSIONAL  
LAND SURVEYOR

*Scott M. Grubbs*

OREGON  
JULY 13, 2004  
SCOTT M. GRUBBS  
54728

RENEWS: 6/30/19

TAX LOT 10000  
TAX MAP 08 2W 06AB

REEL 2449, PAGE 9

REEL 3940, PAGE 167

TAX LOT 10100  
TAX MAP 08 2W 06AB

10.00 FOOT WIDE  
RIGHT-OF-WAY DEDICATION  
AREA = 2,057 S.F. +/-

N74°56'35"E  
10.00'

38'

30'

10.00'

S15°05'13"E 180.68'  
68.69' N 180.68' W 21°50'51"N

LANCASTER DRIVE SE

10.00'

38'

D=90°00'00"  
R=25.00'  
L=39.27'  
CB=N29°54'47"E

POINT OF  
BEGINNING

D=90°00'00"  
R=25.00'  
L=39.27'  
CB=S29°54'47"W

POINT OF  
COMMENCEMENT

N74°54'47"E

151.91'

30'

VARIES

CARSON DRIVE SE

DATE: 07/23/2018

RIGHT-OF-WAY\_DEDICATION

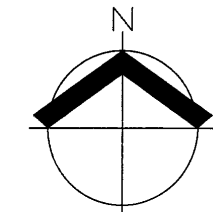
EXHIBIT  
**B**

AKS ENGINEERING & FORESTRY, LLC  
12965 SW HERMAN ROAD, SUITE 100  
TUALATIN, OR 97062  
P: 503.563.6151

aks-eng.com

**AKS**

DRWN: SMG  
CHKD: NW  
AKS JOB:  
5540



SCALE: 1" = 40 FEET





**REEL: 4123**

**PAGE: 388**

**September 20, 2018, 12:55 pm.**

CONTROL #: 524164

State of Oregon  
County of Marion

I hereby certify that the attached  
instrument was received and duly  
recorded by me in Marion County  
records:

FEE: \$ 111.00

BILL BURGESS  
COUNTY CLERK

THIS IS NOT AN INVOICE.

---

# Contact with Neighborhood Assoc.

## Leonard Lodder

---

**To:** robosushi@robosushi.com; arasmussen@modernbuildingsystems.com  
**Subject:** Stop-N-Save Gas Station  
**Attachments:** 2020-109 Stop-N-Save Gas (01-11-2022).pdf

Our client is expanding the development located at 3997 Carson Dr SE Salem OR 97317, to include a new 4-pump gas station, an additional retail building, and an oil change facility. We have attached a copy of the proposed site plan, a plan that forms part of the documentation submitted to the city for an SPR Class III. This email satisfies an SRC requirement to inform the neighborhood association of intended development.

Leonard Lodder, AIA, LEED AP

Studio 3 Architecture, Inc.

275 Court St. NE

Salem, OR 97301-3442

P: 503.390.6500

D: 971.239.0207

C: 503.949.3301

E: [leonard@studio3architecture.com](mailto:leonard@studio3architecture.com)

W: [www.studio3architecture.com](http://www.studio3architecture.com)



End of Application documentation.

The Application is supported by a separate pdf file containing the following sheets:

General Drawings:

Sheet G0.01 Cover Sheet

Sheet G0.02 General Notes

Sheet G3.01 Perspective Views

Civil Engineering Drawings:

Sheet C2.0 Grading and Drainage Plan

Sheet C3.0 Utility Plan

Architectural Drawings:

Sheet A1.01 Site Plan

Sheet A1.02 Site Plan – Existing Conditions

Separate Drawing:

Topographic Survey.