

February 5, 2024
#01707

TO: City of Woodburn Engineering and Planning Staff

re: TIA Scoping Letter for Greater Woodburn Opportunity Center (GWOC)

GENERAL REQUEST

As discussed by phone, we are requesting a scope of work review. The notes from the pre-application meeting state that the study should include "at least the same intersections as did the DR 22-02 Specht Development TIA Part 2, Figure 1." The reason for this request is to reduce the size of the study area and to get approval on other study assumptions.

Reasons for the reduction in the size of the study area include:

1. The GWOC project is smaller than the Specht Development.
2. A number of the intersections studied would operate well under current standards and the addition of a small amount of traffic would not significantly impact some of these intersections.
3. Some of the intersections in the Specht Development study would not be impacted by the proposed GWOC or the impact would be negligible.

This memorandum documents the reasons for removing selected intersections and suggests an alternative list of study intersections.

In addition, there is the question of whether an a.m. peak assessment would be of any consequence, as at most locations, the a.m. peak hour performs significantly better than the p.m. peak hour. This question is addressed herein.

Finally, there are a number of study assumptions which we would like the city to agree to upfront, so we are not making substantial changes to the traffic study after it is completed. These include:

1. **Trip Generation forecast:** Since the GWOC does not fit neatly into any standard ITE land use category, an approach is suggested where we use a mix of ITE trip generation rates combined with a first-principles assessment. The trip generation forecast is presented herein for advance approval by City staff.
2. **Trip Distribution:** A trip distribution and trip assignment map is included herein both to gain agreement on the distribution assumptions, but also to demonstrate locations which we suggest should be dropped from the TIA.

3. **Pivot Approach:** Rather than re-creating the forecast from the TIA for the Specht Development, it is suggested that the TIA for the GWOC pivot off the Specht Development TIA using the post-development scenario with the Parr Connection Road.
4. **In Process Development:** It is assumed that the traffic study provided by the City includes all in process development that would impact this area.
5. **Horizon Years:** The TIA for the Specht Development was not specific on a year. For the purposes of this report, the same convention will be followed and the horizon year will reflect building of the proposed project as well as buildout of the development considered in the TIS for Specht Development. The applicant has indicated that full development of the site should be completed by 2026.
6. **Growth Rates:** Any growth rates would be the same as in the TIA for the Specht Development.
7. **Street Projects:** Please provide the City's requirements for the Specht development and the timing of any off-site street projects if they are to be completed by the development. (It would be assumed that Evergreen Road is connected to Parr Road.)
8. **Scope:** Please confirm and approach outlined herein is acceptable.

SITE AND PROJECT DESCRIPTION

The site is located towards the south end of Woodburn as shown in Figure 1. There is a substantial amount of material describing the GWOC development submitted to the City. In general, the property will include church services and church related functions, such as a senior program, feeding the hungry, and accommodating various faiths, as well as having space available for other church sponsored community needs. The site would also include space for a day care program, a pre-school, office space for various community-resource organizations, a café, as well as a second building for NW Hub and United Way. In a separate but overlapping phase, affordable housing would also be constructed.

PROJECT PHASING AND LAND USE ASSUMPTIONS

The proposed project may be completed in multiple phases, beginning with the Greater Woodburn Opportunity Center and a separate building, the GWOC Annex for the first phase, followed by a second phase which would consist of a 50-unit affordable housing project. The Wetlands Preserve would also be partitioned as part of the first phase. The two phases may be lumped together into single time-line.

For the purposes of forecasting trips, uses were broken down into land use categories that would fit the descriptions for ITE Land Use Categories. This process is described below.

The Greater Woodburn Opportunity Center would be utilized as shown below in Table 1. The users listed in this table do not readily translate into standard ITE Land Use Categories. Given this, the following assumptions were made:

1. For the purposes of forecasting traffic, Community Action, the ARCHES program, and Home Youth Program would function like comparable county service from a recent survey conducted in Albany Oregon for Linn County Mental Health and other related services, which was found to have a trip rate close to that of Government Office Buildings, which is an established ITE Land Use Category.
2. Family Building Blocks was assumed to operate like a Daycare Center, which is an established ITE Land Use Category.
3. The Church and the Community Gathering space provides a combination of office space, flexible assembly space, and kitchen space. It was determined that the functions of the gathering space and specific church functions would operate as a typical church, which includes outreach programs, senior activities, regular church services, space that can be used for conferences and workshops, music, and so forth, as would typically be experienced at a church building with a high amount of service orientated activities. A church is a standard ITE land use category.
4. Little Lambs pre-school was treated as an elementary school for the purposes of forecasting trip generation, since they are a morning open program and would generate little p.m. peak hour traffic.
5. The common use space was prorated to each of the specific uses in the building. The café was assumed to be patronized by staff, clients, visitors, and parishioners, without being an attraction itself. As such, all trips to the Café were assumed to be internal to the site.

TABLE 1 – ANTICIPATED USER GROUPS FOR GWOC

Function	Square Feet	Staff/day	# clients/day - uses	Program activity
Building 1 -- Greater Woodburn Opportunity Center				
Community Action Agency	1,686	2	15	Clients who have appointments
ARCHES Program	479	1	12	Clients who have appointments
Home Youth Program	795	1	15	Youth, especially after school drop-in
Subtotal for Church Activities as Client Services	2,960	4	42	
Family Building Blocks	2,488	2 to 4	20-30 children/parents a day, 5 days a week	7 am to 5 pm; therapeutic classroom services
Church Space/Community Gathering	4,968	2	25-500/days	Varied church outreach functions
Immanuel Lutheran Church	3,441	2	5-10 visitors a day, 5 days a week	Office and meeting rooms
Subtotal for Varied Church Activities	8,409	4	Highly varied	
Little Lambs Preschool	1,970	3	Up to 12 children a day, 5 days a week	
Common Use Spaces/Café	8,690	2	Café users: 40/day	Indoor and outdoor seating
Subtotal for Other Church Activities	10,660	5	Up to 52/day	
TOTAL GWOC	24,516			
Building 2 – GWOC Annex				
NW Hub (bike repair)	1,950	2	10-20 clients/day - 5 days a week	Bike repairs/sales; youth help with work
United Way	3,691	2	10-15 visitors/day - 5 days a week; picking up donated items	Distribution of items that were returned to Amazon, for distribution to nonprofit groups
Restroom	429			
TOTAL GWOC Annex	6,070			

The allocation of common space is shown in Table 2. This table shows the resulting gross leasable area assigned to each use, for the purposes of calculating trip generation.

TABLE 2 – ALLOCATION OF COMMON SPACE

Church Function	Base Square Footage	Percent Allocation of Common Space	Square Footage Allocated	Total Square Feet
Church Office and Worship	8,409	53.1%	4,617	13,026
Church Supported Client Services	2,960	18.7%	1,625	4,585
Pre School	1,970	12.4%	1,082	3,052
Day Care	2,488	15.7%	1,366	3,854
Subtotal	15,827	100.0%	8,690	
Common Church Space	8,690			
TOTAL	24,517			24,517

Site Generated Traffic

Daily, a.m. and p.m. peak hour trips generated by the proposed project were forecast. The forecast considered pass-by trips and modal split. The peak hour trips were then distributed and assigned to the study area network. Details are presented below.

TRIP GENERATION

Given the unique characteristics of the site and operation the trip generation forecast was approached using a combination of ITE trip generation rates and a first-principles analysis.

For the future trips generated by the project which would fit a standard ITE land use category, trip generation rates were selected from the 11th Edition of Trip Generation (ITE, 2021). ITE Land Use Code 210, Affordable Housing, was used in the trip forecast for the apartment buildings. There are a number of activities used in the space which would best fit the classification of ITE Land Use Code, 560, Church. For the service spaces which would have office space and clients visiting the site, the Government Office rate was unutilized. This trip rate is very close to a trip generation study we recently conducted for the Linn County offices where they staff mental health services as well as other outreach type of offices. (Study is attached for reference.) The forecast for the pre-school was based on elementary school rates (ITE Land Use Category 520) and the day care forecast was based on the standard ITE category Daycare Center (565). Finally, Public Park (ITE Lane Use Category 411) rates were

used for the Wetlands Preserve. The ITE trip generation rates used in this study are summarized in Table 3.

TABLE 3 – TRIP GENERATION RATES

ITE Land Use & Code	Ind. variable	Trip Ends Rate			In/Out Split		
		(trips per t.s.f.)			(percent)		
		AM Peak Hour	PM Peak Hour	Daily	AM Peak Hour	PM Peak Hour	Daily
Affordable Housing 223	DU	0.50	0.46	4.81	29/71	59/41	50/50
Church 560	t.s.f.	0.32	0.49	7.60	62/38	44/56	50/50
Government Office Building 730	t.s.f.	3.34	1.71	22.59	26/74	63/37	50/50
Daycare Center 565	Students	0.78	0.79	4.09	53/47	47/53	50/50
Elementary School 520	Students	0.74	0.16	2.27	54/46	46/54	50/50
Public Park 411	Acres	0.02	0.11	0.78	67/33	55/45	50/50

Notes: Source: *Trip Generation Manual* (ITE, 11th Edition, 2021)

For the second building which would contain NW Hub, a bike repair and service shop aimed at providing low-cost bike transportation to the public as well as providing opportunities for youth to help with the operation and learn bike repair skills, it was estimated that there would be 10 to 20 clients a day with 2 staff positions. Trip generation for this was estimated by assuming that each staff person would make 2.5 trips per day and that each client would make 2 trips, for a total of $(2.5 \times 2) + (20 \times 2) = 45$ trips per day.

The same approach was taken to forecast trips for the United Way operation, which would be a distribution center. In this case, there would also be 2 employees and 10-15 visitors per day, for a total of $2.5 \times 2 + (15 \times 2) = 35$ trips per day.

It was assumed that the a.m. and p.m. peak hour trips would be comparable to the proportions of trips made at small shopping centers. The daily trip rate for ITE Land Use 822, Strip Retail Plaza is 54.54 trips per day per thousand square feet, the a.m. peak hour rate is 2.36 trips per thousand square feet, and the p.m. peak hour rate is 6.59 trips per thousand square feet. The ratio of a.m. and p.m. peak hour trips to daily is 4.33 percent and 12.1 percent, respectively. The resulting forecast is for the second building is shown in Table 4.

TABLE 4 – TRIP FORECAST FOR BUILDING 2 (GWOC ANNEX)

Time Period	Rate	Ratios	NW Hub	United Way	TOTAL
Daily	54.45		45	35	80
AM Peak Hour	2.36	0.04	2	2	3
PM Peak Hour	6.59	0.12	5	4	10

Table 5 shows a combination of the forecast using ITE trip generation rates and the first principles analysis for the GWOC Annex. In total, it was forecast that the development would generate 91 a.m. peak hour trips, 85 p.m. peak hour trips and 795 daily trips.

TABLE 5 – TRIP GENERATION FORECAST

ITE Land Use	Size (units)	AM Peak Hour Trip Ends			PM Peak Hour Trip Ends			Daily
		In	Out	Total	In	Out	Total	
Affordable Housing 223	80 DU	12	28	40	22	15	37	385
Church 560	13 t.s.f.	3	2	4	3	4	6	99
Government Office Building 730	3.5 t.s.f.	3	9	12	4	2	6	79
Daycare Center 565	30 Students	13	11	23	11	13	24	123
Elementary School 520	12 Students	5	4	9	1	1	2	27
Public Park 411	2 Acres	0	0	0	0	0	0	2
Building #2 (Table 4)	6.07 t.s.f.	2	1	3	5	5	10	80
TOTAL		38	53	91	46	40	85	795

PASS-BY TRIPS

Passby trips are trips which would be driving past the site but stopped-in while driving to a primary destination. It is anticipated that very few trips at this location would be pass-by trips; thus, no reduction in trip generation was made to account for pass-by trips.

MODAL SPLIT

No reduction in vehicle trips was made to account for a potential shift away from the automobile. ITE trip rates are based on observed vehicle trip patterns at each land use and thereby account for a basic amount of non-auto travel. With this said, it is of note that the site plan includes a bus stop for future transit service and the June 2023 Transit Development Plan (TDP) shows a new route serving this area. These improvements to transit service will allow for increased numbers of visitors and employees to utilize non-auto travel-modes. To be conservative, no changes in the

trip generation forecast were made to account for increases in transit use with the system enhancements outlined in the TDP.

TRIP DISTRIBUTION AND ASSIGNMENT

The peak hour trips generated by the proposed project were distributed and assigned to the roadway system. The trip distribution percentages were determined based on turning movements at key study intersection, the dispersion of employment, shopping, schools and recreational areas in the city, as well as previous studies and general experience. The a.m. and p.m. peak hour assignments are shown in the attached diagrams.

STUDY INTERSECTIONS

The notes from the pre-application meeting state that the study should include “at least the same intersections as did the DR 22-02 Specht Development TIA Part 2, Figure 1.” The figure from that study is attached for reference. It was found, however, that the list of study intersections included a number of intersections which would only be nominally impacted by the GWOC; or, the intersection would operate at very good levels of service along with a nominal impact. In some cases, the a.m. peak period functioned significantly better than the p.m. peak hour. In these cases, it would be clear that if the p.m. peak hour operated satisfactorily, the a.m. peak hour would also operate satisfactorily, so there was no need to revisit a.m. peak hour operations.

As shown in Table 6, a number of the study intersections from the Specht Deployment would operate at accepted levels of service and it would require a significant increase in traffic to cause these intersections to fail. These intersections were not recommended for inclusion in the GWOC TIA.

There were also some intersections which were failing or near failing, but the GWOC development would add only an insignificant amount of traffic to the intersection. These were excluded from the study. To make this determination, it was noted that the capacity for any critical movement at a signalized intersection could be conservatively estimated at 1,500 vehicles per hour. Volume-capacity ratios are typically reported the nearest 100th, or 0.01, in other words, 1 percent. Accordingly, any signalized intersection where a movement in a lane-group was less than 15 vehicles per hour, the change would be less than 1 percent. For that reason, the following intersections were excluded from the list of recommended study intersections:

- #7 – OR 214/Settlemier Ave (Boones Ferry Rd)
- #8 – OR 214/99 E

The situation is different at unsignalized intersections, where the additional of small amounts of traffic to the stopped approach can make a significant

difference in operations. For that reason, even though volumes were small, it was decided to keep Hayes Street/Settlemer Avenue in the analysis.

TABLE 6 – REVIEW OF WEISZ PROPERTY OPERATIONS ANALYSIS RESULTS

Intersection	Mobility Target (Jurisdiction)	Peak Hour	V/C	LOS	Delay Vehicles/Sec	Recommended for Inclusion
#1 - OR 219/Butteville Road	ODOT V/C-0.90 LOS E	AM	0.46	A	8.3	No
		PM	0.29	A	5.6	No
#2 – OR 219/Woodland Ave	ODOT V/C-0.95	AM	0.57	C	22.7	No
		PM	0.61	C	27.1	No
#3 – OR 219/I-5 Southbound	ODOT V/C-0.95	AM	0.53	B	11.5	No
		PM	0.67	B	16.4	No
#4 – OR 214/I-5 Northbound	ODOT V/C-0.95	AM	0.62	B	15.2	No
		PM	0.79	C	23.6	No
#5 – OR 214 / Evergreen Road	ODOT V/C-0.95	AM	0.82	D	41.6	No
		PM	0.93	E	61.9	Yes
#6 – OR 214 / Oregon Way	ODOT V/C-0.95	AM	0.48	B	11.4	No
		PM	0.63	B	19.5	No
#7 – OR 214/Settlemer Ave (Boones Ferry Rd)	ODOT V/C-0.90	AM	0.96	E	58.6	No*
		PM	0.97	E	58.5	No*
#8 – OR 214/99 E	ODOT V/C-0.90	AM	0.75	C	30.1	No
		PM	1.01	F	84.6	No*
#9 – Evergreen Road / Stacy Allison Way	City V/C-0.90	AM	0.32	C	21.7	No
		PM	0.74	E	46.6	Yes
#10 – Evergreen Road / Hayes St	City V/C-0.90	AM	1.22	F	137.6	No
		PM	1.49	F	228.4	Yes
#11 – Settlemer Ave / Hayes St	City V/C-0.90	AM	0.87	F	201.9	Yes
		PM	0.77	F	155.5	Yes
#12 – Evergreen Road / Hooper St	City V/C-0.90	AM	0.18	B	10.8	Yes
		PM	0.13	B	10.4	Yes
#13 – Evergreen Road / Northern Access	City V/C-0.90	AM	0.01	A	9.5	No
		PM	0.01	A	9.5	No
#14 – Evergreen Road / Southern Access	City V/C-0.90	AM	0.06	A	9.0	No
		PM	0.06	A	9.0	No
#15 – Evergreen Road/Parr Road	County V/C-0.90	AM	0.27	A	8.9	No
		PM	0.20	A	8.2	No
#16 – Industrial Road / East Access	City LOS-E	AM	0.03	A	9.1	No
		PM	0.03	A	9.1	No
#17 – Industrial Road / West Access	City LOS-E	AM	0.04	A	8.9	No
		PM	0.03	A	8.8	No
#20 – Parr Road / Stubb Road	County LOS-E	AM	0.02	B	10.3	No
		PM	0.03	A	9.9	No
#21 – Boones Ferry Road (Settlemer Ave) / Parr Road	City V/C-0.90	AM	0.37	B	12.2	No
		PM	0.47	C	15.3	No
#22 – Butteville Road / Parr Road	County 0.90	AM	0.20	B	11.2	No
		PM	0.27	B	12.8	No

In addition, some intersections were added to the recommended study area since they are in close proximity to the site. The following intersections are suggested for the GWOC TIA study area:

- Evergreen Road/SR 214 (PM only)
- Evergreen Road/Stacy Allison Way (PM Only)
- Evergreen Road /Hayes St (PM Only)
- Settlemier Ave/Hayes St (AM & PM)
- Evergreen Road/Hooper St/Site Access (AM & PM)
- Site Access/Linfield Road (AM & PM)

OTHER SCOPE OF WORK ELEMENTS AND STUDY ASSUMPTIONS

- Update crash assessment at study intersections
- Document Existing Conditions
- Document traffic forecast, including in process development, growth factors, baseline conditions, project traffic, and total future traffic. Prepare graphics to illustrate the forecast.
- Intersection Analysis and Documentation:
 - Capacity Calculations: average delay, volume-capacity ratios, and Levels of Service
 - Queue lengths
 - Safety assessment at sight access points
 - Mitigation and proportionate share contributions for off-site mitigation

OTHER QUESTIONS OR ASSUMPTIONS TO CONSIDER

Please advise if there is more that we need to consider beyond the standard scope outlined herein or if the assumptions outlined in this memorandum need to be refined.

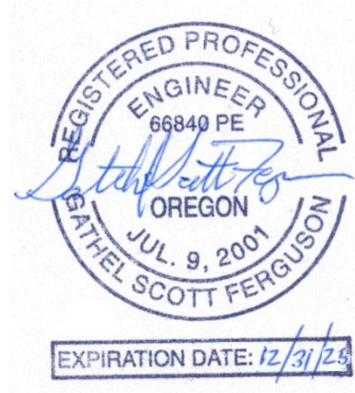
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Please feel free to contact us at your convenience if you would like to discuss any element of this scoping-letter.

Very truly yours,
FERGUSON & ASSOCIATES, INC.

Scott Ferguson, PE

Attachments:
Figure 1 – Site Location
AM & PM Peak hour Assignments
Figure 1 from the Weisz Property TIA



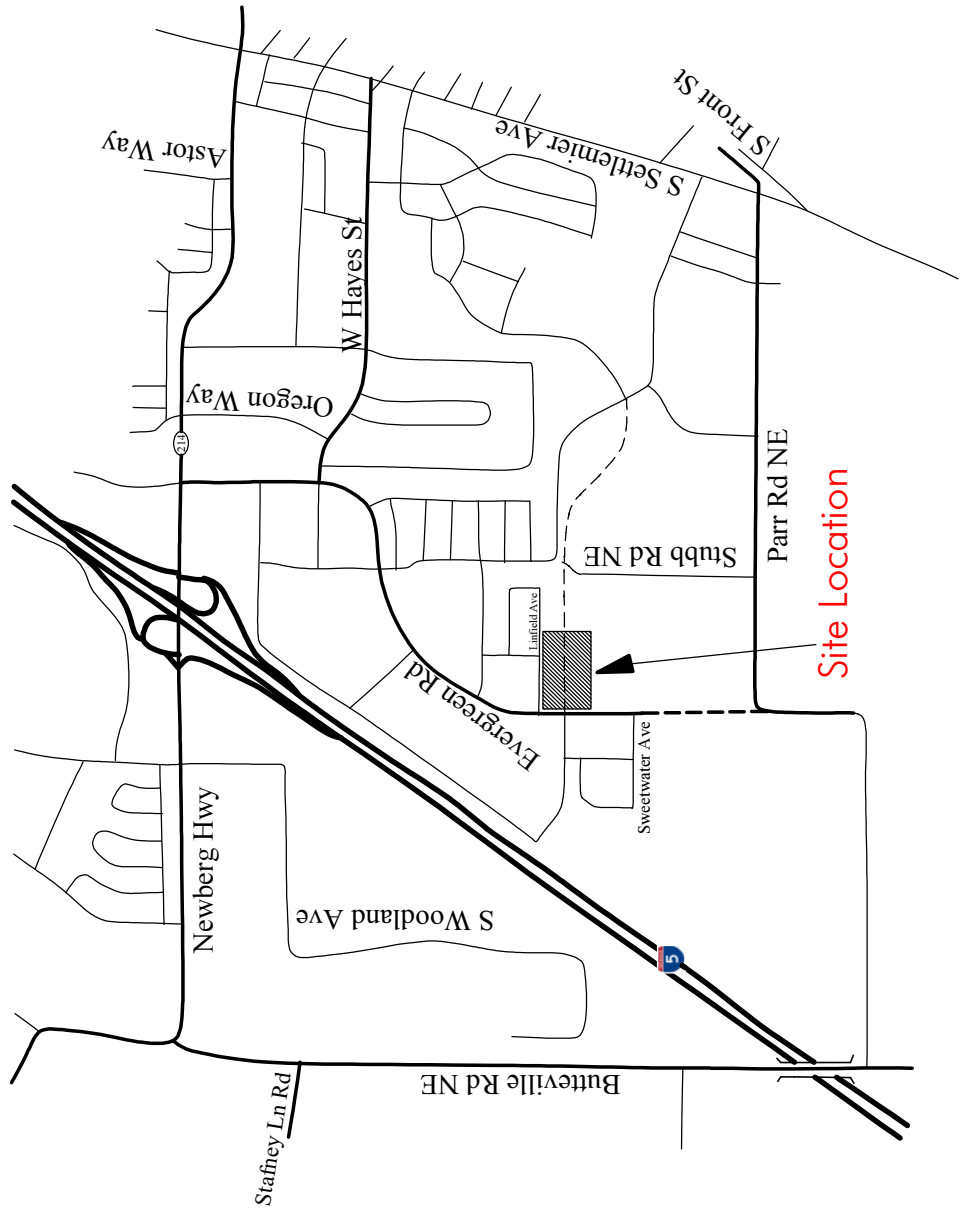
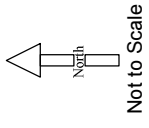
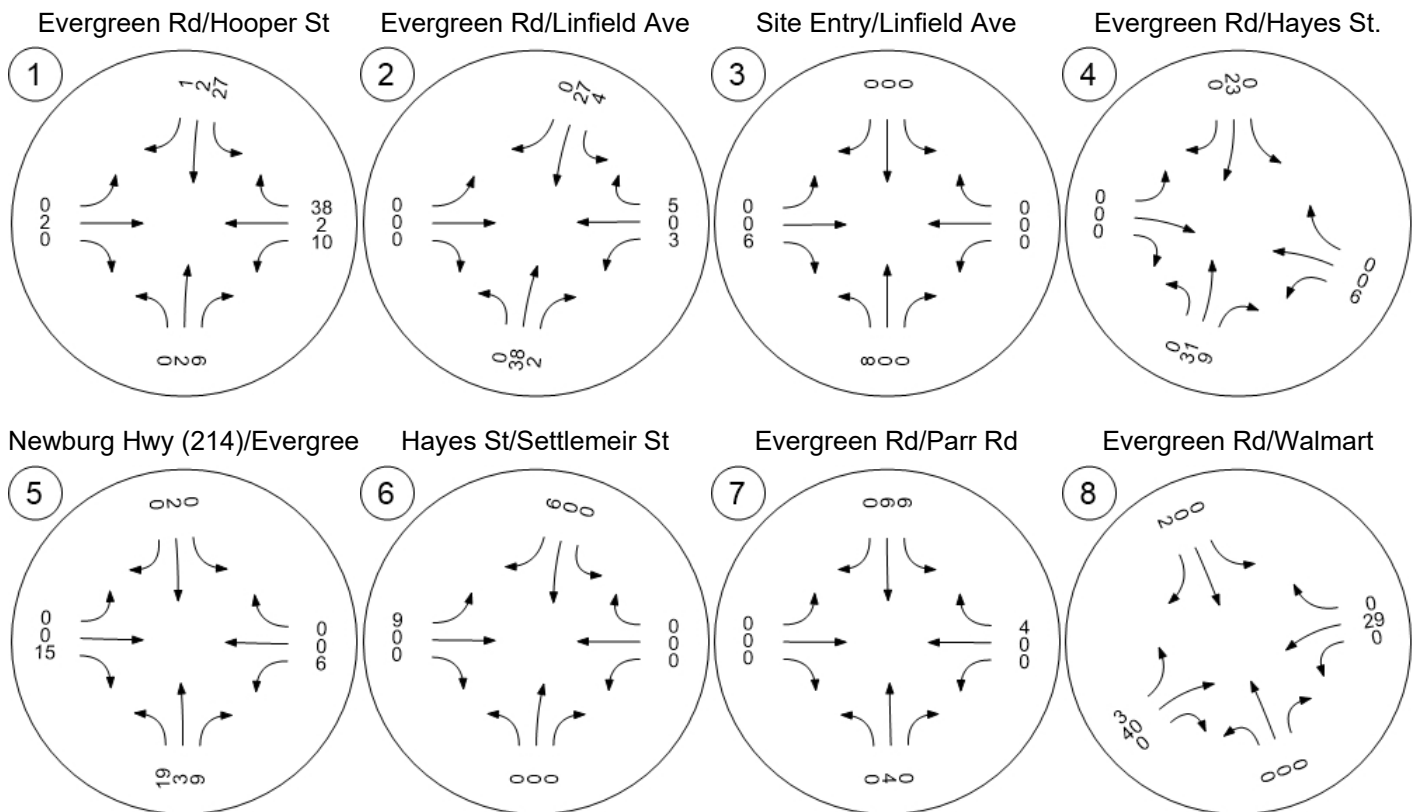


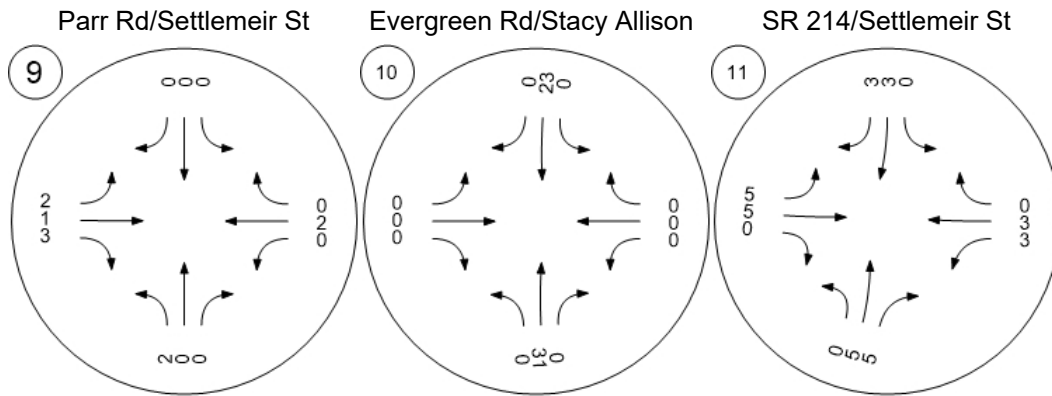
Figure 1
Ferguson & Associates, Inc.

Site Location
Woodburn Opportunity Center - Woodburn, Oregon

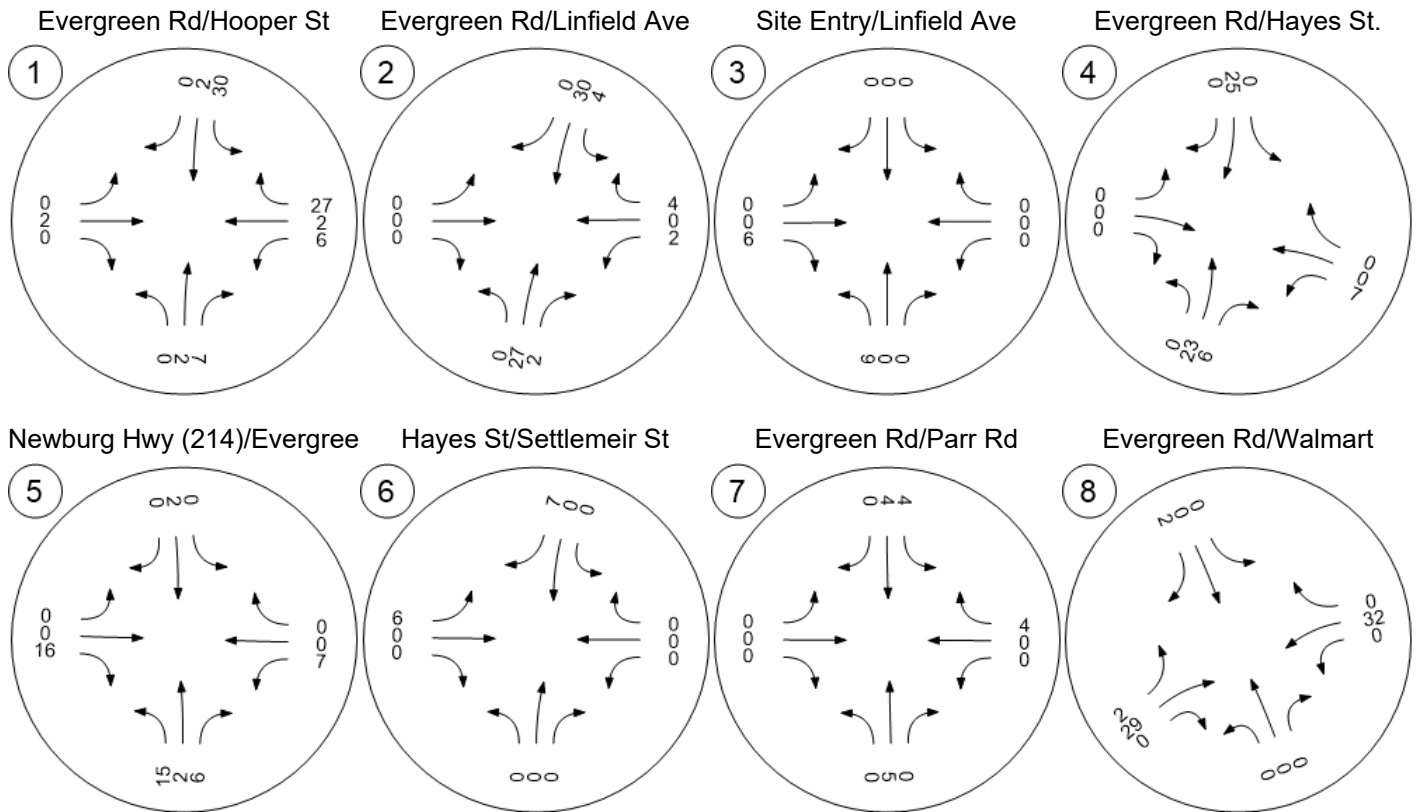
Traffic Volume - Net New Site Trips



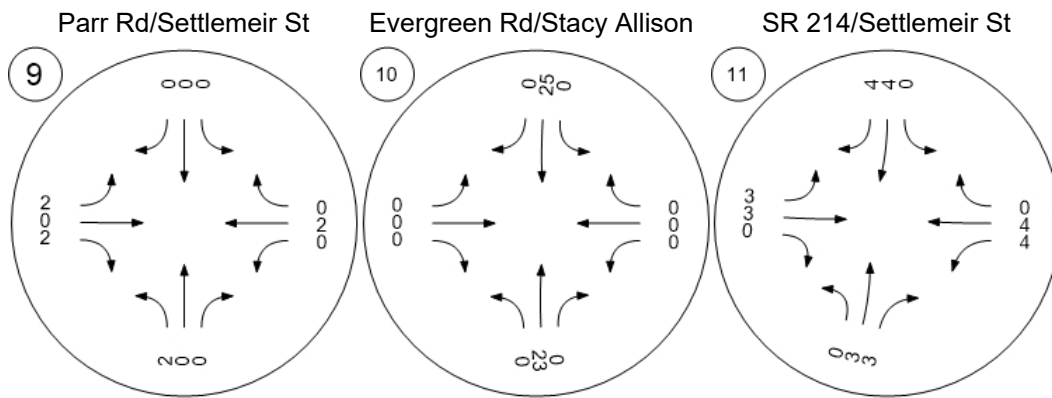
Traffic Volume - Net New Site Trips



Traffic Volume - Net New Site Trips



Traffic Volume - Net New Site Trips





WEISZ PROPERTY
WOODBURN, OREGON

FIGURE
1

VICINITY MAP

DATE: 10.17.2022
DRAWN BY: JHA
CHECKED BY: BTA
JOB NO.: 222008500

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