

Marysville

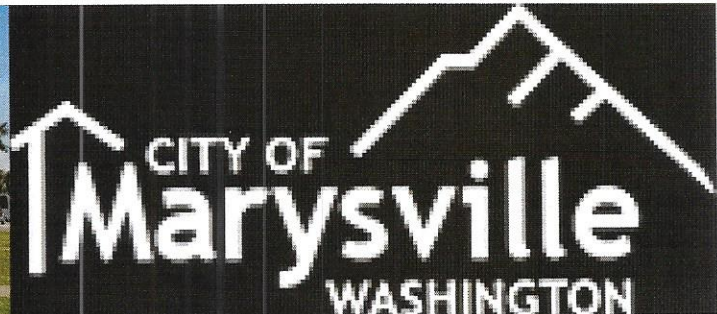
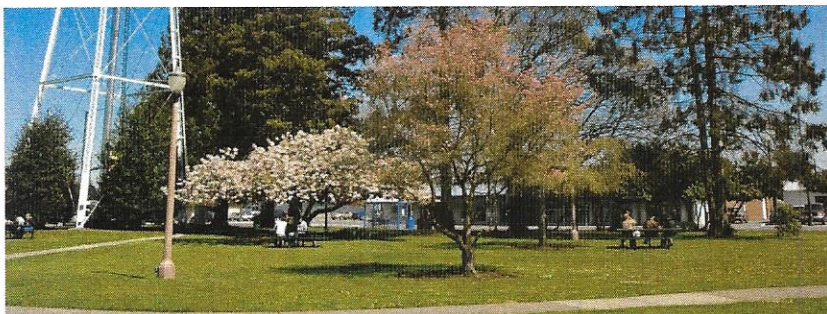
ADULT CARE CENTER TRANSPORTATION MEMORANDUM

May 5, 2022



Jake Traffic Engineering, Inc.

Mark J. Jacobs, PE (OR and WA), PTOE, President
2614 39th Ave. SW – Seattle, WA 98116 – 2503
Tel. 206.762.1978 – Cell 206.799.5692
E-mail jaketraffic@comcast.net





May 5, 2022

HEARTSAVED LLC
Attn: Gibriel Mbowe
8619 36th Ave. NE
Marysville, WA 98270

Re: Adult Care Center – Marysville
Transportation Memorandum

Dear Mr. Mbowe,

I have prepared this Transportation Memorandum for the proposed 16 bed Adult Care facility with about 2,856 sf of commercial office space. The site is located at 8619 36th Ave. NE, Marysville, WA 98270 on Snohomish County Parcel # 004559600000202. The City was provided a Technical e-mail on 02.07.2022 for the project, the commercial space refined to 4,909 sf per City and State requirements. This technical e-mail discussed site traffic generation and inquired regarding traffic documentation needed by the City

An aerial view of the project site obtained from Snohomish County SCOPI is shown below:



HEARTSAVED LLC
Attn: Gibriel Mbowe
May 5, 2022
Page -2-

I have prepared this Transportation Memorandum based on the City response to conduct a trip generation, distribution and identify the likely Traffic Impact Fee. The site access location was presented to the City and the City responded that 36th Ave NE is not an arterial and while alignment of driveways would still be preferred, it would not be required.

The site is currently undeveloped. Attached is a copy of the Site Plan prepared by William Page Architects dated 08.08.2021, updated 05.05.2022. The plan shows the two story 16 unit Adult Care facility with 4,909 sf of commercial space, open space, 27 parking stalls including one accessible, site circulation and access to 36th Avenue Northeast.

SITE TRAFFIC GENERATION AND DISTRIBUTION

Definitions

A vehicle trip is defined as a single or one direction vehicle movement with either the origin or destination (exiting or entering) inside the proposed development.

Traffic generated by development projects consists of the following types:

Pass-By Trips:	Trips made as intermediate stops on the way from an origin to a primary trip destination.
Diverted Link Trips:	Trips attracted from the traffic volume on a roadway within the vicinity of the generator but which require a diversion from that roadway to another roadway in order to gain access to the site.
Captured Trips:	Site trips shared by more than one land use in a multi-use development.
Primary (New) Trips:	Trips made for the specific purpose of using the services of the project.

Trip Generation

The Institute of Transportation Engineers (ITE) Trip Generation 11th Edition provides trip generation data for a variety of Land Use Codes (LUC's). Review of the ITE data indicates the Adult Care as Assisted Living, ITE LUC 254. The commercial space use is unknown and is anticipated to be an office type of use, potentially medical. A Medical/Dental office use, LUC 720, generates more traffic than a Small Office, LUC 712, and thus is presumed to ensure a conservative analysis. All site trips made by all vehicles for all purposes, including commuter, visitor, and service and delivery vehicle trips are included in the ITE trip generation values. The

Using the aforementioned LUC, Table 1 below depicts the site traffic generation.

HEARTSAVED LLC
 Attn: Gibriel Mbowe
 May 5, 2022
 Page -3-

TABLE 1 - TRIP GENERATION ADULT CARE CENTER - MARYSVILLE TRANSPORTATION MEMORANDUM											
Time Period	Size (X)	TG Rate	Enter %	Enter Trips	Exit %	Exit Trips	Total (T)	Pass-by %*	Pass-by Trips	Net Total	
Proposed: Assisted Living (ITE LUC 254; 16 units/beds)											
Weekday	16	2.6	50%	20.8	50%	20.8	41.6	--	--	--	
AM peak hour	16	0.18	60%	1.7	40%	1.2	2.9	--	--	--	
PM peak hour	16	0.24	39%	1.5	61%	2.3	3.8	--	--	--	
Proposed: Medical-Dental Office Building - General Urban/Suburban (ITE LUC 720; 4,909 sf)											
Weekday	4,909	36.00	50%	88.4	50%	88.4	176.7	--	--	--	
AM peak hour	4,909	3.10	79%	12.0	21%	3.2	15.2	--	--	--	
PM peak hour	4,909	3.93	30%	5.8	70%	13.5	19.3	--	--	--	
Total											
Weekday	--	--	--	109.2	--	109.2	218.3	--	--	--	
AM peak hour	--	--	--	13.8	--	4.3	18.1	--	--	--	
PM peak hour	--	--	--	7.3	--	15.8	23.1	--	--	--	

Where X = number of units or sf and T = Trips

* - there would be some pass-by trips associated with service/delivery type trips; and if a medical use is identified patients scheduling their visit on there way to or from work. No refinement for pass-by traffic made based on past City work and the site's location that is not conducive to pass-by traffic.

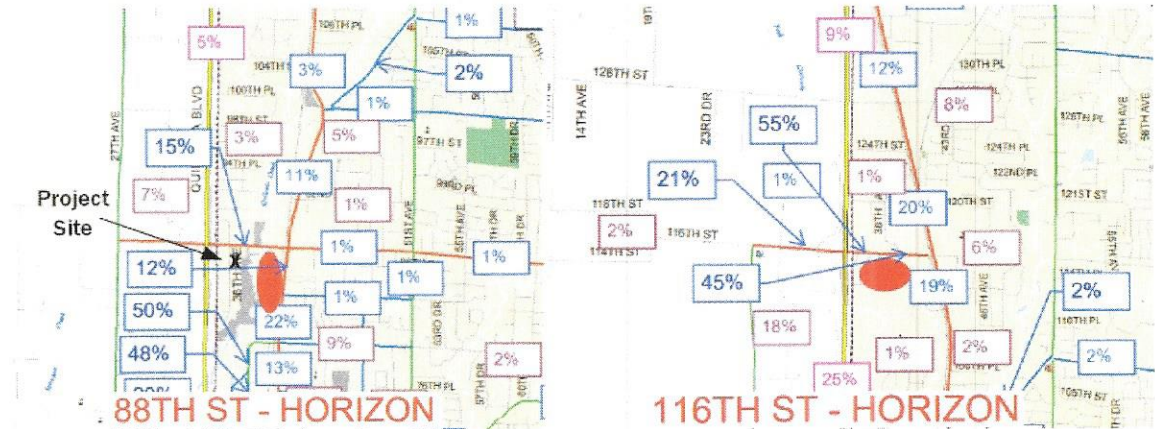
Trip rates per the Institute of Transportation Engineers Trip Generation Manual 11th Edition

Note: Due to rounding some values may not add up.

The proposed project is projected to generate about 23 net new PM peak hour trips with seven entering and 16 exiting, presuming a medical use, a conservative LUC presumption, in the commercial space.

Trip Distribution

I obtained City distribution data for 88th St. NE, the site's location off of 36th Ave. NE is such that site traffic would distribute differently than the node that is oriented to State Avenue. The site's orientation is such that the City's 116th St. NE distribution data provides data that shows traffic to and from SR - 5 in particular that I believe is more relevant. Below are the relevant portions of the City distribution data for the two corridors.



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 Attn: Gibriel Mbowe
 May 5, 2022
 Page -4-

Figure 1 provides the projected Trip Distribution using City distribution for 88th and 116th Street data. The City’s distribution data for both the Existing and Horizon street grid appears consistent for both the corridors. In addition to the City information, the characteristics of the road/street network, existing traffic volume patterns, the location of likely trip origins and destinations (residential, schools, employment, shopping, social and recreational opportunities) are factored.

ACCESS/OPERATIONAL INSPECTION

Table 1 in Traffic Impact Analysis Guidelines July 20, 2020 identifies the use of a 25 PM peak hour site traffic impact threshold to study an intersection; typically noted as classified arterial intersections.

TABLE 1: INTERSECTION ANALYSIS IMPACT THRESHOLDS

SR529/State Avenue/Smokey Point Blvd. Corridor		Threshold for intersection Analysis/LOS Criteria
Site Generated Traffic		25 vehicles transversing through intersection during any defined peak hour
Minimum Level of Service	Signalized, Roundabout or Stop Controlled Intersection	E (mitigated)
State Route 528 (4 th Street/64 th Street NE) and State Route 531 (172 nd St NE)		
Site Generated Traffic		25 vehicles transversing through intersection during any defined peak hour
Minimum Level of Service	Signalized, Roundabout or Stop Controlled Intersection	E (mitigated)
All other intersections of two arterial/arterial or functionally classified streets		
Site Generated Traffic		25 vehicles transversing through intersection during any defined peak hour
Minimum Level of Service	Signalized, Roundabout or Stop Controlled Intersection	D

Thirty Sixth Avenue NE is a 2-lane local access dead end street with a posted speed limit of 25 MPH. Generally a sidewalk exists on the west side of the street for about 600’ south of 88th St. NE and then shifts to the east side and continues south. The intersection 36th Ave. NE at 88th St. NE is signalized.

Traffic data contained in the City of Marysville 2015 Transportation Element dated June 2015 was inspected. No data specific to 36th Ave. NE, an unclassified street, is noted in the report. Via Traffic Engineering Inspection traffic volumes on 36th Ave. NE are modest and the site access intersection would operate satisfactorily.

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Attn: Gibriel Mbowe
May 5, 2022
Page -5-

Below are street view photographs obtained from Google Earth looking to the west and east, respectively.



Presuming vegetation is properly maintained and no signage is located in the sight triangle good sight lines exist at the site access on 36th Avenue Northeast.

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Attn: Gibriel Mbowe
May 5, 2022
Page -6-

AGENCY TRAFFIC IMPACT MITIGATION REQUIREMENTS

City of Marysville

The City of Marysville has a Traffic Impact Fee program. The City's TIF per the February 3, 2021 schedule, per City website data researched 02.21.2022, are:

TRAFFIC (Title 22D.030 MMC)	
Residential (per PM peak hour trip)	\$6,300.00
Commercial (per PM Peak Hour Trip)	\$2,220.00

The appropriate TIF, per the schedule current at the time of building permit and the proposed commercial use, would be required.

Snohomish County

An interlocal agreement between the City of Marysville and the County exists regarding traffic mitigation. I have prepared the Snohomish County Traffic Worksheet and Traffic Study Requirements for Developments in the City of Marysville, attached. The County has two mitigation options, one based on a percent of the County fee and two payment based on a Comprehensive Traffic Study.

Option A. The site is located in County Zone CI-MA-5 that indicates a 15 and 10% contribution rate to the County TIF program for residential and commercial projects, respectively.

Option B. Comprehensive traffic study is to pay proportionate share to County Road Improvement projects is chosen. Per this option no impact fee to the County should be required and is detailed next.

Section 3(b) of the County/City worksheet requires the distribution of site Generated AM and PM peak hour trips down to 3-directional peak hour trips. The **Key Intersections** in the site area are shown in the following map below:

HEARTSAVED LLC
 Attn: Gibriel Mbowe
 May 5, 2022
 Page -7-



No County Key I/S's are projected to be affected by three directional peak hour trips.

The County has two mitigation options, one based on a percent of the County fee and two payment based on a Comprehensive Traffic Study. Option one is a proportionate payment determined by percentage to County Impact Fee program. Option two Comprehensive Traffic Study is chosen. Per the County/City worksheet the proportionate share payment to County projects is based on PM peak hour trips affecting County planned improvements identified in the Transportation Needs Report.

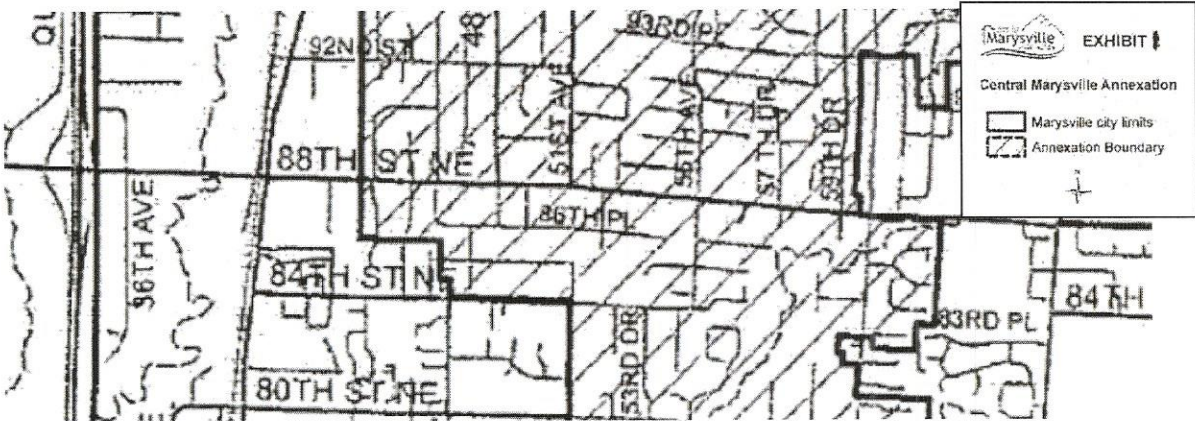
There are three County projects noted in TSA 'A'

TNR Appendix D: Impact Fee Cost Basis

Road Name	Limits	Column 1 Project Cost (\$1,000s)	Column 2 CO %	Source of Cost Estimate	Project Type	TNR ID#
TSA A						
67 Ave NE / 152 St NE		\$5,394	100%	TNR Cost Model	Major Intersection	INT-007
88 St NE	Marysville C/L to Marysville C/L	\$2,855	100%	Marysville Interlocal Agreement	Major Widening	W-017
140 St NE / 23 Ave NE		\$3,498	100%	2015 TE Costs	Major Intersection	INT-006
Subtotal TSA A			\$11,747			

HEARTSAVED LLC
Attn: Gibriel Mbowe
May 5, 2022
Page -8-

Review of the TNR the 88th St. NE is the section annexed into the City via Ordinance #2792 that is generally between 44th Ave. NE and 59th Dr. NE; see below section of Exhibit 1:



The Adult Care Home project traffic would not affect the County projects noted in TSA; thus no Traffic Mitigation payment should be required.

Attached to this report is a Snohomish County Worksheet for the project.

WSDOT

I am not aware of an Interlocal Agreement between the City and WSDOT.

SUMMARY AND RECOMMENDATIONS

I have prepared this Transportation Memorandum for the proposed 16 bed Adult Care facility with about 4,909 sf of commercial space, which I presumed to be a medical office use a conservative assumption. The site is located at 8619 36th Ave. NE 98270 on Snohomish County Parcel # 00455960000202. The City was provided a Technical e-mail on 02.07.2022 for the project.

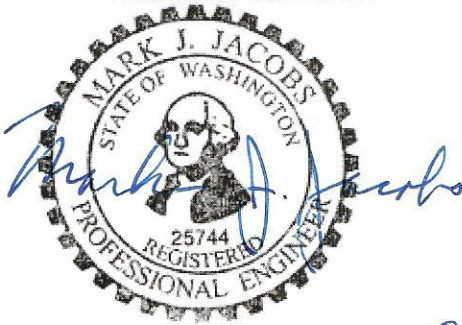
This Memorandum documents the Site Traffic Generation and Distribution, inspects the Site Access and ascertains the Traffic Impact Fee to Marysville. In addition, I have added documents regarding the City’s Interlocal Agreement with Snohomish County. Per County Option B no payment of a TIF to the County should be required.

Based on my analysis I recommend that the project be allowed to move forward with the following transportation mitigation measures:

HEARTSAVED LLC
Attn: Gibriel Mbowe
May 5, 2022
Page -9-

- Construct the site additions as noted on the Site Plans.
- Payment of the applicable TIF to the City.

Please contact me at 206.762.1978 or email us at jaketraffic@comcast.net if you have any questions.



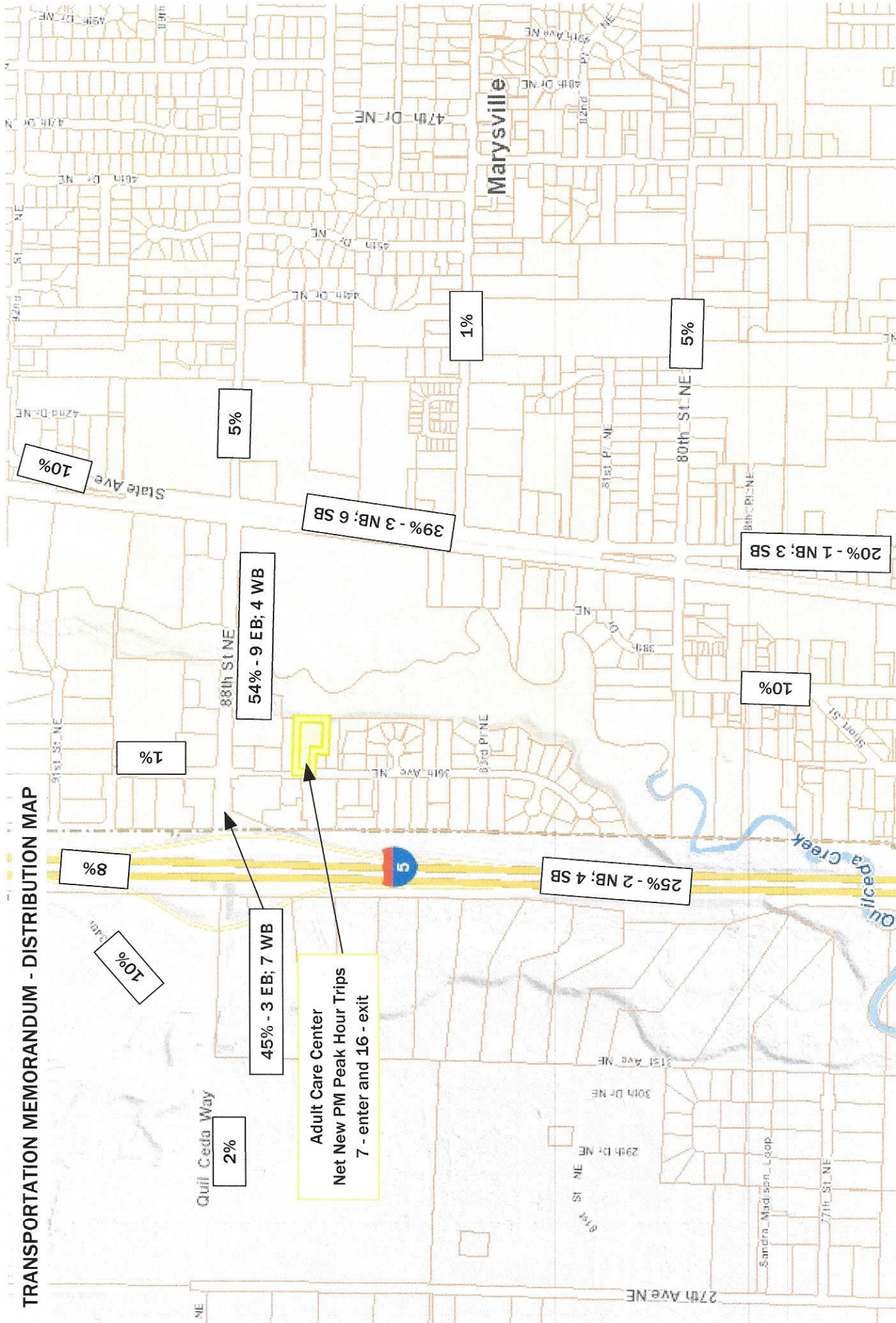
Very truly yours,

Mark J. Jacobs, PE, PTOE, President
JAKE TRAFFIC ENGINEERING, INC.

05.05.2022

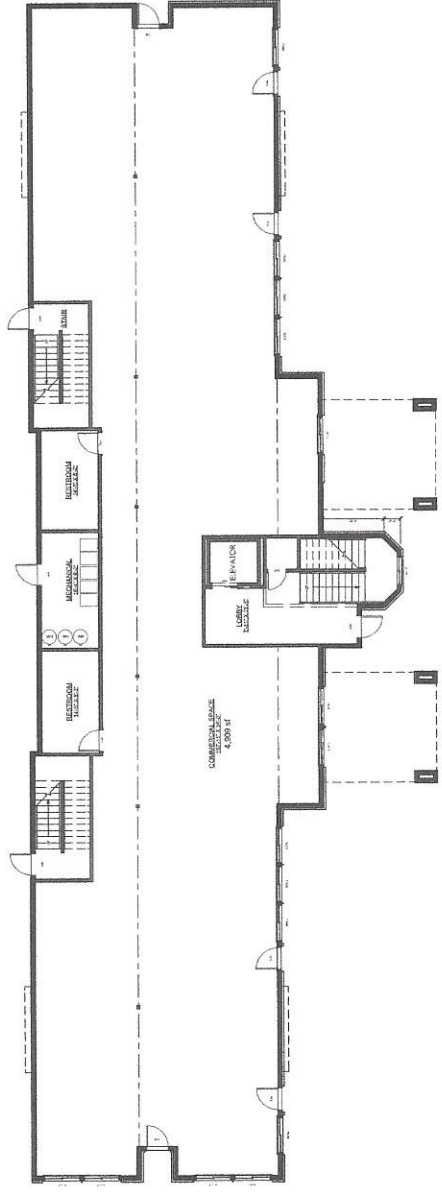
MJJ: mjj

TRANSPORTATION MEMORANDUM - DISTRIBUTION MAP



JTE, Inc.
FIGURE 1
 Reprint in Color Only

**ADULT CARE CENTER - MARYSVILLE
 TRANSPORTATION MEMORANDUM
 SITE GENERATED PM PEAK HOUR TRAFFIC VOLUME
 AND DISTRIBUTION (Existing & Future Street Grid)**



KEY NOTES

- A. WOOD STUD CONSTRUCTION (1) HOUR RATED WALLS AND CEILING
- B. CONCRETE SLAB FLOOR LEVEL 1 CONCRETE OVER PLYWOOD LEVEL 2
- C. ALL DOORS SHALL BE 20 MIN. RATED (2) HINGEL LATCH AND DEADBOLT.
- D. SPRINKLER SYSTEM PHOTOCHOUT
- E. FIRE ALARM SYSTEM
- F. INTERCOM SYSTEM
- G. HEATING SYSTEM TO HAVE INDIVIDUAL CONTROL IN BEDROOMS LEVEL 1, MECHANICAL ROOMS, AND OFFICES.
- H. CEILING HEIGHTS IN BEDROOMS ALL OTHER ROOMS SHALL BE 8'0" MIN. TO CEILING
- I. FLOORING SHALL BE SHEET MATERIAL OVER PREPARED CONCRETE.





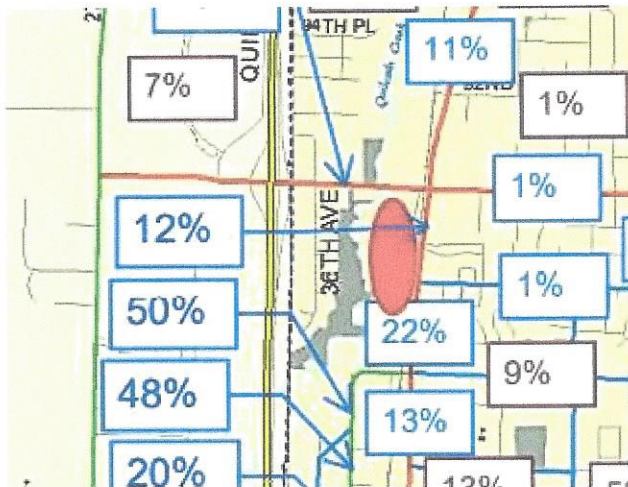


APPENDIX

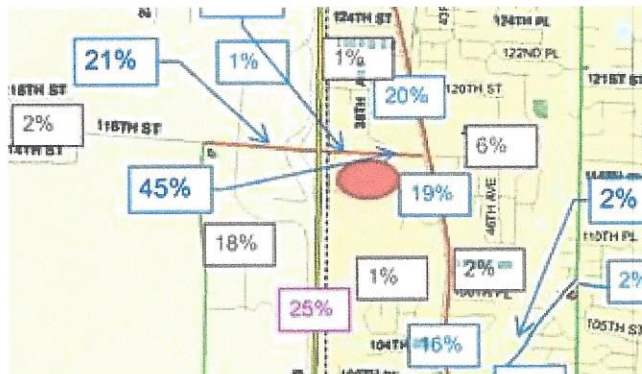
From: Mark J Jacobs, PE, PTO [mailto:JakeTraffic@comcast.net]
Sent: Thursday, February 17, 2022 12:24 PM
To: 'Jesse Hannahs'
Cc: 'Gibriel.Mbowe77@gmail.com'; 'William Page'
Subject: 2022.008 - Adult Care - Marysville

Jesse

Thank you for the City distribution for 88th St. NE, the site's location off of 36th Ave. NE is such that site traffic would distribute differently than the node that is oriented to State Avenue.



The site's orientation is such that the City's 116th St. NE distribution data provides data that shows traffic to and from SR – 5 in particular that is more relevant.



The site's orientation is such that the City's 116th St. NE distribution data provides data that shows traffic to and from SR – 5 in particular that is more relevant.

Regarding the site Trip Generation, the site comprises 16 Adult Care units and 2,858 office/commercial space.

The total building is 10,324 sf.
Level 2 Adult care 5,250 sf

Level 1 Adult care 2,216 sf.
 Level remaining 2,858 sf for office/ commercial.

The Client indicated a potential for a Medical Office Use to use the office space, this use has a higher TFG rate than a small office use and thus is presumed for the purpose of the Traffic Memorandum

TABLE 1 - TRIP GENERATION ADULT CARE CENTER - MARYSVILLE TRANSPORTATION MEMORANDUM										
Time Period	Size (X)	TG Rate	Enter %	Enter Trips	Exit %	Exit Trips	Total (T)	Pass-by %*	Pass-by	Net Total
Proposed: Assisted Living (ITE LUC 254; 16 units/beds)										
Weekday	16	2.6	50%	21	50%	21	42	-	-	-
AM peak hour	16	0.18	60%	2	40%	1	3	-	-	-
PM peak hour	16	0.24	39%	1	61%	2	4	-	-	-
Proposed: Medical-Dental Office Building - General Urban/Suburban (ITE LUC 720; 2,858 sf)										
Weekday	2,858	36.00	50%	51	50%	51	103	-	-	-
AM peak hour	2,858	3.10	79%	7	21%	2	9	-	-	-
PM peak hour	2,858	3.93	30%	3	70%	8	11	-	-	-
Total										
Weekday	-	-	-	72	-	72	144	-	-	-
AM peak hour	-	-	-	9	-	3	12	-	-	-
PM peak hour	-	-	-	5	-	10	15	-	-	-
Where X = number of units or sf and T = Trips										
* - there would be some pass-by trips associated with service/delivery type trips										
Trip rates per the Institute of Transportation Engineers <u>Trip Generation Manual</u> 11th Edition										
Note: Due to rounding some values may not add up.										

Let me know if there is any refining needed to the proposed distribution.

Thank you

Mark
 206.762.1978 o
 206.799.5692 c

From: Jesse Hannahs [mailto:jhannahs@marysvillewa.gov]
Sent: Wednesday, February 16, 2022 6:48 AM
To: Mark J Jacobs, PE, PTO
Subject: RE: [External!] RE: [External!] RE: 2022.008 - Adult Care - Marysville

Jesse L. Hannahs, P.E.
Traffic Engineering Manager
80 Columbia Ave
jhannahs@marysvillewa.gov
360-363-8287

From: Mark J Jacobs, PE, PTO <JakeTraffic@comcast.net>
Sent: Tuesday, February 15, 2022 11:54 AM
To: Jesse Hannahs <jhannahs@marysvillewa.gov>
Subject: [External!] RE: [External!] RE: 2022.008 - Adult Care - Marysville

External Email Warning! Use caution before clicking links or opening attachments.

Jesse

I request a copy of the City distribution for 88th St. NE, or I project based on my Traffic Experience.

Thank you

Mark

From: Jesse Hannahs [<mailto:jhannahs@marysvillewa.gov>]
Sent: Wednesday, February 09, 2022 7:58 AM
To: Mark J Jacobs, PE, PTO
Subject: RE: [External!] RE: 2022.008 - Adult Care - Marysville

Mark,

Email has been received.

Attached is the latest updated TIA Guidelines. With an estimation of only 10 PMPHT, the TIA would likely be limited to trip generation, distribution and identification of TIF.

For access, 36th Ave NE is not an arterial and while alignment of driveways would still be preferred, it would not be required.

Jesse L. Hannahs, P.E.
Traffic Engineering Manager
80 Columbia Ave

jhannahs@marysvillewa.gov
360-363-8287

From: Mark J Jacobs, PE, PTO <JakeTraffic@comcast.net>
Sent: Monday, February 7, 2022 2:43 PM
To: 'Mark J Jacobs, PE, PTO' <JakeTraffic@comcast.net>; Jesse Hannahs <jhannahs@marysvillewa.gov>
Cc: gibriel.mbowe77@gmail.com; pagearchitects@gmail.com
Subject: [External!] RE: 2022.008 - Adult Care - Marysville

External Email Warning! Use caution before clicking links or opening attachments.

Jesse

Thank you for the feedback on the delivery item, I did not realize the pdf file provided by the Architect was 22 megs, I cut the pertinent portion of the plan and added it to the information below.

Please verify receipt, thank you

Mark

88TH ST - EXISTING



City of Marysville

November 2017

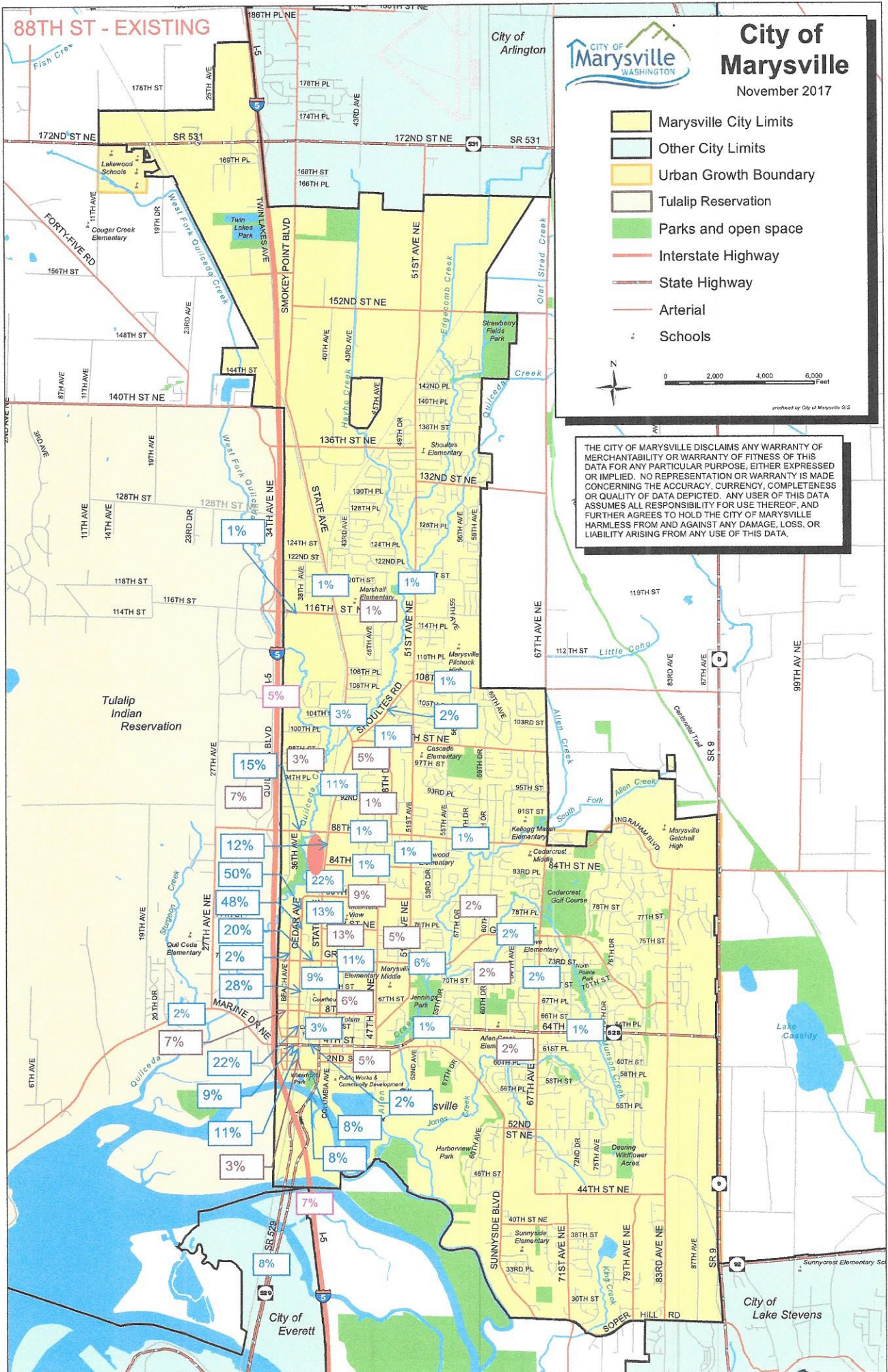
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- Other City Limits
- Urban Growth Boundary
- Tulip Reservation
- Parks and open space
- Interstate Highway
- State Highway
- Arterial
- Schools



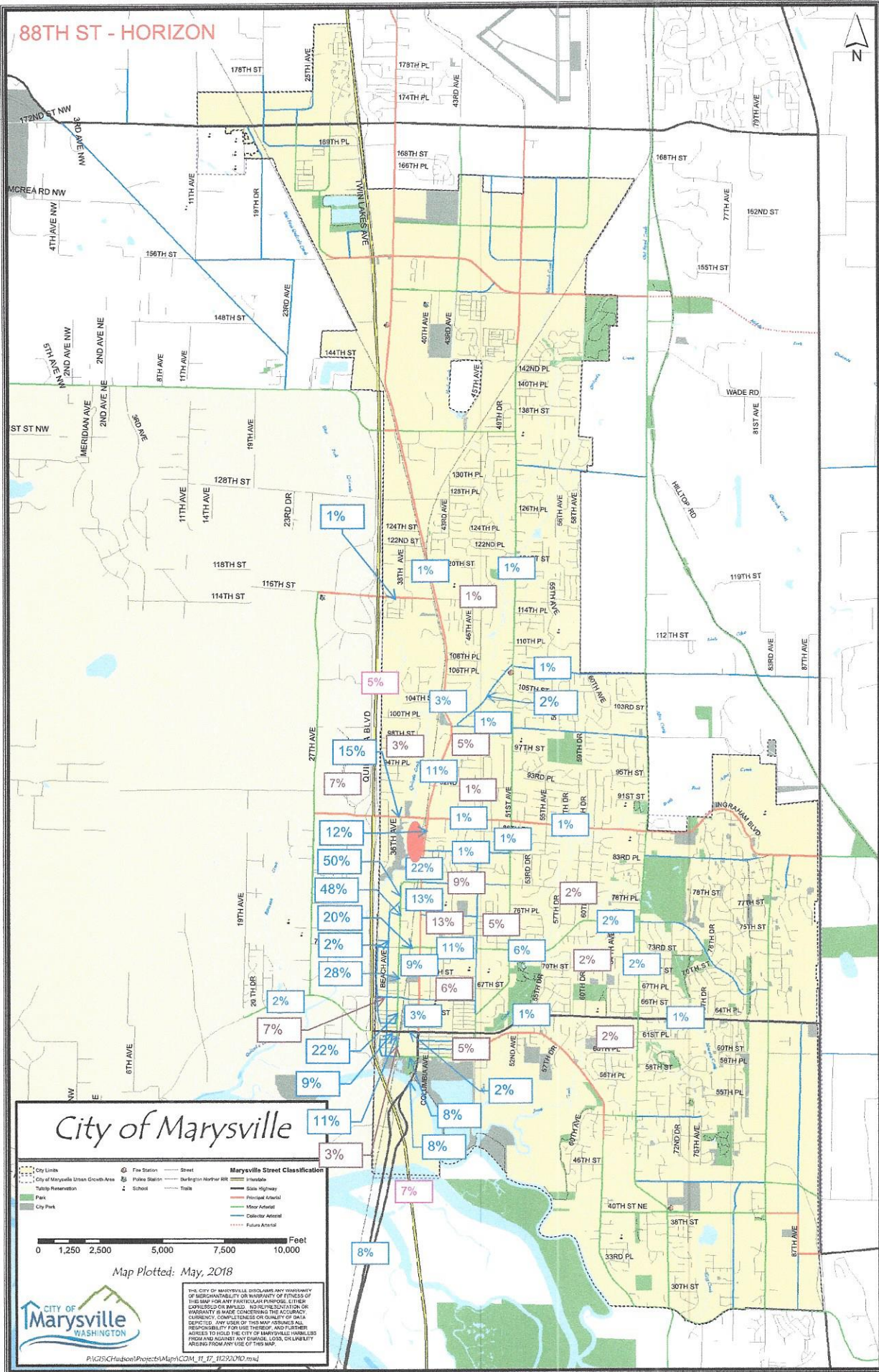
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88TH ST - HORIZON



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116TH ST - EXISTING



City of Marysville

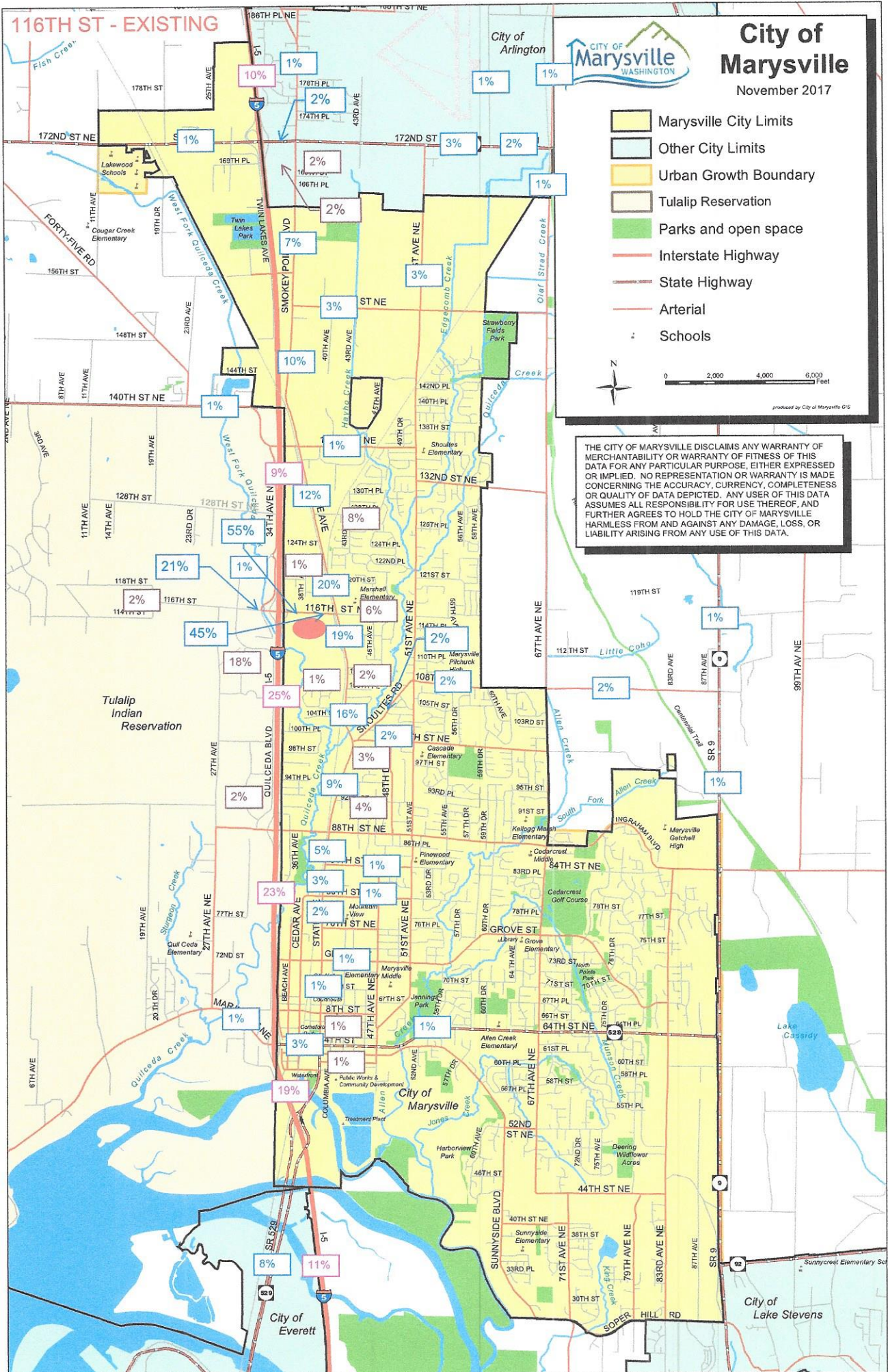
November 2017

- Marysville City Limits
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- Schools

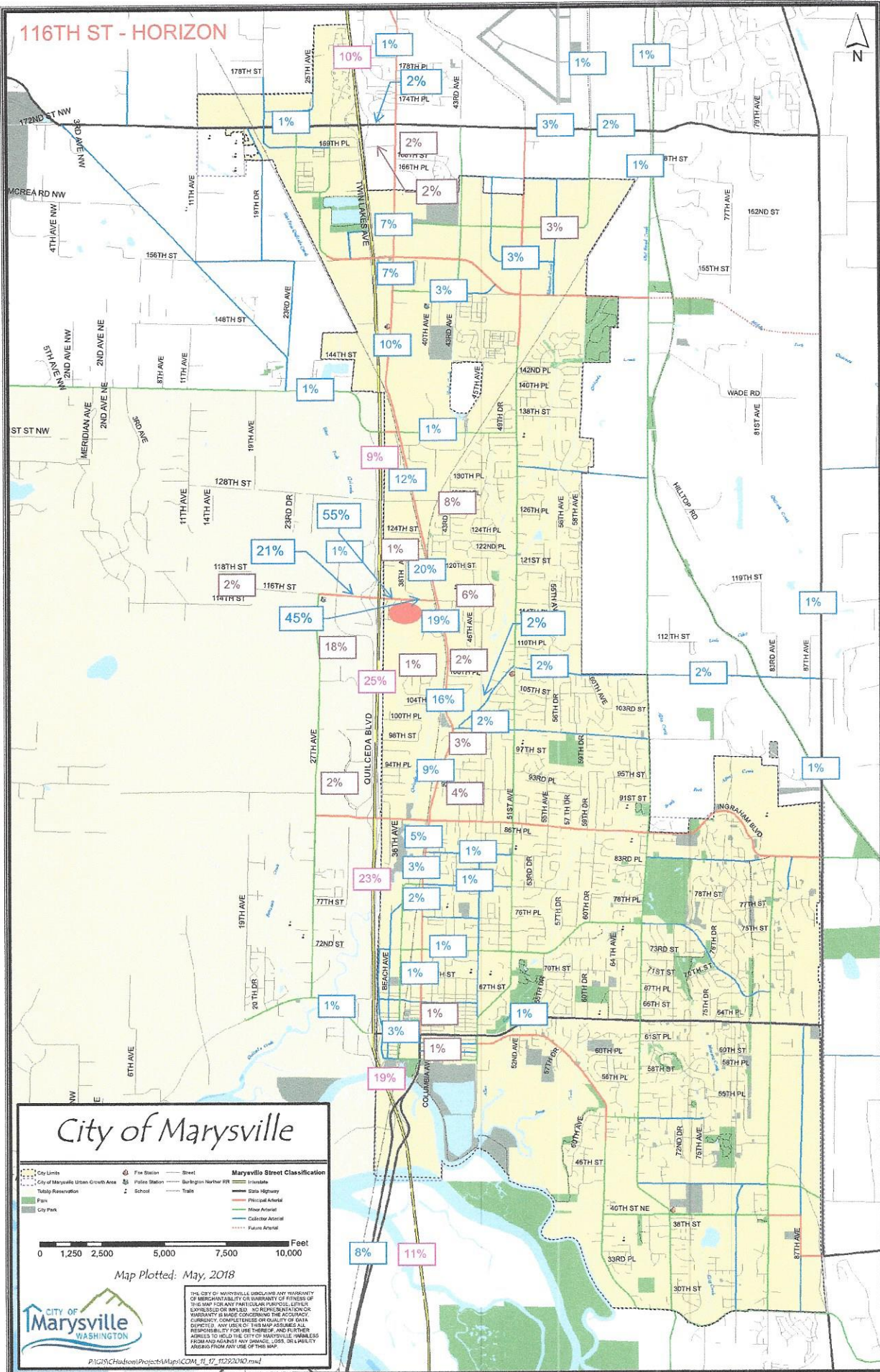


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116TH ST - HORIZON



City of Marysville

2015
TRANSPORTATION ELEMENT

June 2015

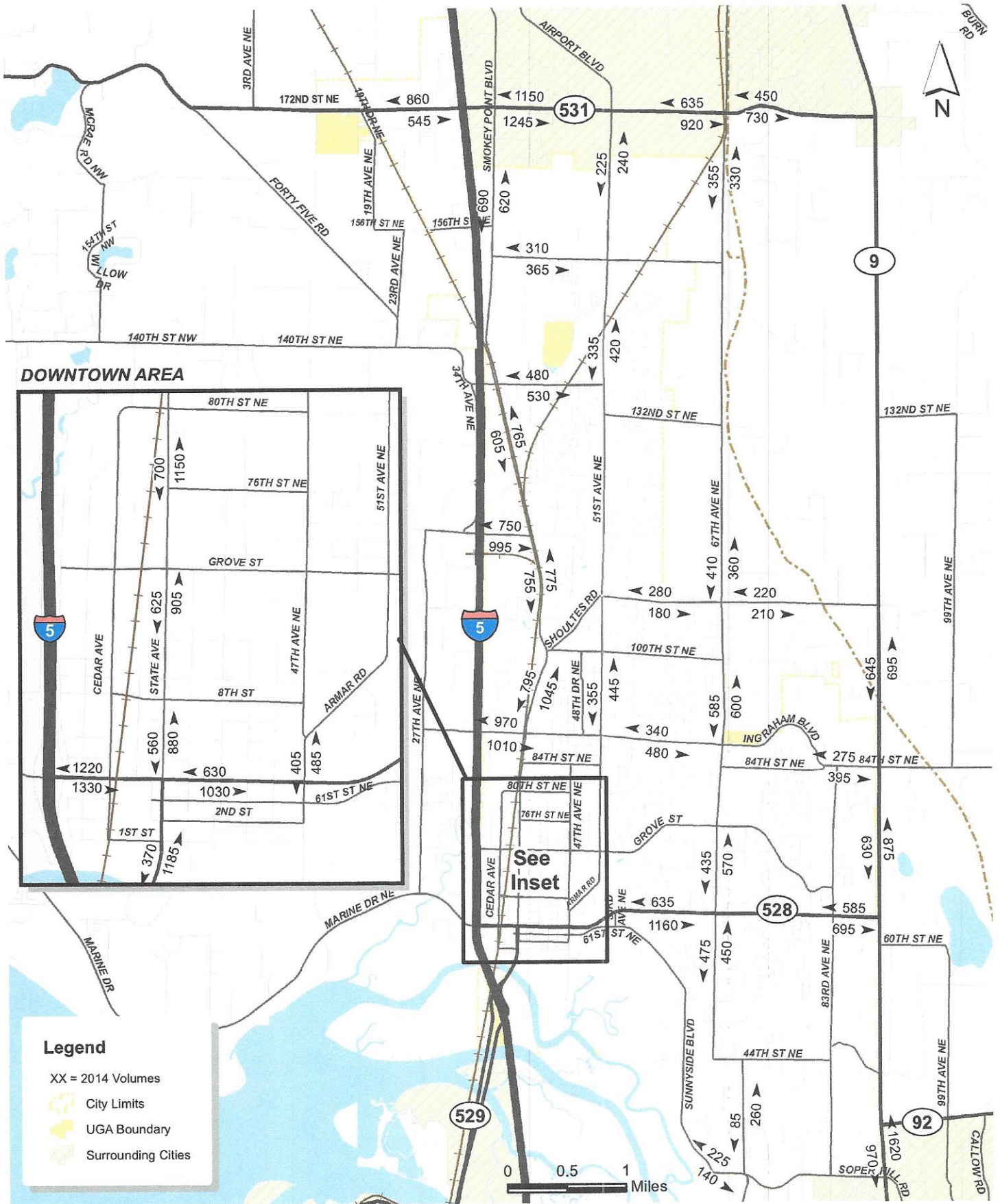
Prepared by:



11730 118th Avenue NE, Suite 600
Kirkland, WA 98034-7120
Phone: 425-821-3665
Fax: 425-825-8434
www.transpogroup.com

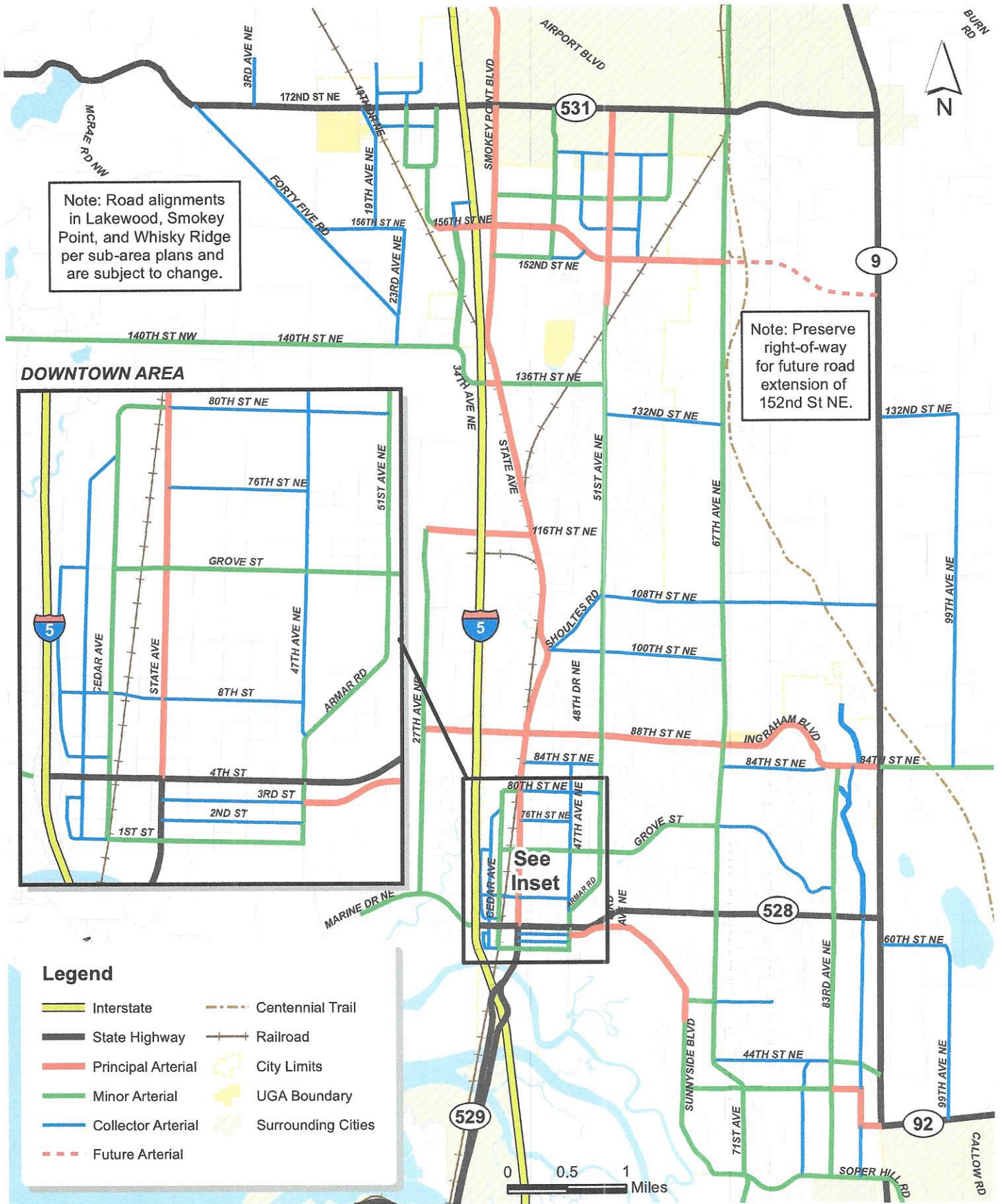
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2014 Weekday PM Peak Hour Traffic Volumes

FIGURE



Roadway Functional Classification

FIGURE

11

Snohomish County Traffic Worksheet and Traffic Study Requirements for Developments in the City of Marysville

Snohomish County government, through an interlocal agreement (ILA) with the City of Marysville, may request traffic mitigation measures from any new development in the city that impacts roads in the unincorporated county. The City will impose the requested mitigation to the extent that the City determines that the mitigation is reasonably related to the impacts of the development. To determine the impacts, and to determine reasonable mitigation measures, the City of Marysville requires a traffic study from any development in the city that may have impacts on county roads. This 'traffic study' may be as simple as completing sections one and two of the county traffic worksheet below, or having a professional traffic engineer conduct a formal traffic study consistent with the requirements in section three below.

- If a development generates less than ten peak-hour trips and the applicant chooses Option A for mitigation payment (standard payment by percent of county impact fee), then the applicant will generally only have to fill out the first two sections of this traffic worksheet and complete a mitigation offer (see section four).
- However, if a development generates more than ten peak-hour trips, or if the applicant chooses Option B for mitigation payment (comprehensive impact analysis), then the applicant will have to fill out the first section of this worksheet, complete a separate traffic study consistent with the requirements in section three, and complete a mitigation offer (see Section Four).
- Applicants should submit all documents to the City as part of their initial submittal.
- Traffic study requirements for impacts on county roads are based on the County's traffic mitigation ordinance (Chapter 30.66B) and the city/county ILA. At the end of this document find references to the county contacts and county web site (sources for many of the documents related to traffic mitigation).
- Following review of the documents submitted, the County may request supplemental information and analysis as necessary to determine the impacts of the development in accordance with the city/county ILA. The City will require the proposed development to submit the supplemental information and analysis to the extent that the City determines that it is necessary to determine the impacts of the development.

Section One (1) Worksheet General Information

- Name of Proposed Development Adult Care Center
City Development File Number (if known) _____
- Name, Address and Phone Number of Applicant Gibriel Mbowe
206.422.4889
gibriel.mbowe77@gmail.com
- Development Site Address 8619 36th Ave NE
Marysville WA 98270
- Is it a residential or commercial development? Commercial
- Description of Development (size and specific type) 16 bed adult care facility with about 4,909 sf of commercial office space
- How many new vehicle trips are expected to be generated by the proposed development? (For many common types of developments this information can be provided by the city or the county. For more complex developments trip generation may have to be determined under section three below)
18 AM Peak Hour 23 PM Peak Hour 218 Average Daily Trips (ADT)
- Proportionate Share Impact Mitigation: All applicants have two options in determining the amount of their traffic mitigation payment:
 For determining the amount based on a percentage of the county fee go to section two.
 For determining the amount based on a comprehensive traffic study go to section three.

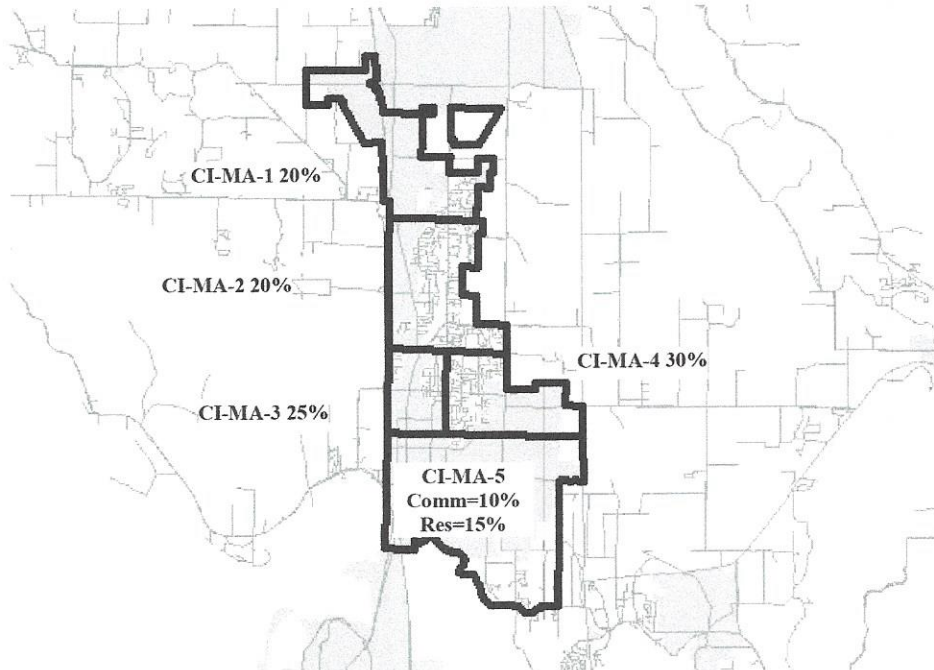
Section Two (2) Proportionate Share Determined by Percentage of County Impact Fee

2(a) Calculation of Payment Amount

1. Standard default estimated percentage of trips impacting the City streets based on subareas (See below) _____ %/0 or 2. Other Percentage: (Note: See author's qualifications in section three below.) Estimated percentage of trips impacting county roads from attached trip distribution: _____ %/0

Sub-Area ID #	* City Subarea Description	Residential Developments	Commercial Developments
CI-MA-1	North of 136th ST SE.	20%	20%
CI-MA-2	North of 100th ST NE and South of 136th ST SE.	20%	20%
CI-MA-3	North of 76th ST NE, South of 100th ST SE, and West of 51st AV NE.	25%	25%
CI-MA-4	North of 76th ST NE, South of 100th ST SE, and East of 51st AV NE.	30%	30%
CI-MA-5	South of 76th ST NE.	15%	10%

* Note: Boundaries are either street centerlines or imaginary extensions of street centerlines in places where the actual streets do not exist.



3. Development New Average Daily Trip Generation (ADT) _____

4. Type of Development (Residential or Commercial) _____

5. County Commercial Fee Rate \$ _____ 6. County Residential Fee Rate \$ _____

(Note: Consistent with county code and the ILA, developments pay the rate in effect at the time of their submittal. As of 07/13/11 the rates were \$39 for commercial developments and \$46 for residential developments. Through ordinance, the County Council can change these rates at any time, so consult with the County or look at Snohomish County Code 30.66B.330 to find the latest fee rates.)

7. Calculation of Proportionate Share Impact Mitigation

$$\frac{\text{\#1 or \#2 above: \% of trips}}{\text{\#1 or \#2 above: \% of trips}} \times \frac{\text{\#3 above: ADT}}{\text{\#3 above: ADT}} \times \frac{\text{\#5 or \#6 above: Fee Rate}}{\text{\#5 or \#6 above: Fee Rate}} = \$ \text{proportionate share mitigating payment}$$

2(b) Determining whether or not an additional traffic study is necessary

Will the development generate more than 10 peak-hour trips *or* are there other impacts that need to be addressed (e.g., level of service, safety, or access and circulation)

- No. Skip section three and go to section four.
- Yes. Read the introduction to section three and skip to section 3(b).

Section Three (3) Traffic Study Requirements

Introduction: This section outlines requirements for traffic studies for impacts on County roads. If an applicant chooses (or is required) to complete a traffic study, then it should be submitted along with this worksheet and a mitigation offer. (Note on Author’s Qualifications: A traffic study under this section must be conducted by an engineer licensed to practice in the state of Washington with special training and experience in traffic engineering and, preferably, membership in the institute of transportation engineers. For individuals/firms not on the City’s approved list, the developer will provide, with the traffic study, the credentials of the individual or firm performing the traffic study certifying compliance with these qualifications.)

3(a) Proportionate share impact mitigation based on comprehensive traffic study

1. Development’s Trip Generation and Distribution. Determine the PM peak-hour trip generation and distribution for the development consistent with Section 3(b) below.
2. Impacted Improvements. Determine which of the road sections with planned improvements in the county’s impact fee cost basis (Transportation Needs Report Appendix D) are impacted by three or more development-generated *directional* PM peak hour trips (PM PHT).
3. Current Counts. For each impacted improvement, provide current traffic counts to determine the PM PHT.
4. Reserve Capacity. Determine “reserve capacity” for each impacted improvement by subtracting the current PM PHT from the maximum service volume (MSV) for the existing facility. Reserve capacity is set to zero if current PM PHT exceeds the MSV. For MSVs see County DPW Rule 4224.
5. New Capacity. New capacity is the incremental increase in PHT that could be accommodated with the planned improvement. Determine the new capacity of each impacted improvement by subtracting the current MSV from the future MSV after the improvement.
6. Chargeable Capacity. For each impacted improvement, add the reserve capacity to the new capacity.
7. Final Adjusted Cost. Find the cost of each impacted improvement and make any adjustments used by the County for tax credits (see Transportation Needs Report Appendix D).
8. Capacity Cost per Peak-Hour Trip. For each impacted improvement, determine the capacity cost per PM PHT by dividing the final adjusted improvement cost by the chargeable capacity.
9. Traffic Impacts. From step one above, take the *total* number of PM PHT (in both directions) impacting each planned improvement.
10. Proportionate Share. For each impacted improvement, determine the proportionate share impact mitigation by multiplying the capacity cost per peak-hour trip by the number of PM PHT impacting the improvement.

none affected

3(b) Trip Generation and AM and PM Peak Hour Trip Distribution and Assignment

Calculate AM, PM and Daily trip generation consistent with the ITE Trip Generation Handbook and Snohomish County Public Works Rule 4220. Determine the trip distribution and assignments consistent with the County’s document titled “Format for Trip Distributions”(available at County web site, see below).

- Within the developments transportation service area (TSA) the distributions will be carried out to each key intersection at which the approach or departure volumes on any leg have three (3) or more peak hour trips. Get the most current list of key intersections on the web site described below. Trips should be distributed onto the road system as it is expected to be in six years.
- The distribution should be a schematic map showing the broad distributions of trips in terms of percentages on different roads. Show all City boundaries.
- The assignment should be a schematic map with the impacted key intersections identified by ID# and turning movements for each shown in separate diagrams on the same page or on different pages. The assignment should also be presented in tabular form listing each intersection by intersection ID#, and the number of trips at each movement.

✓ none affected

3(c) Additional Analysis for Developments Generating More Than Fifty (50) Peak Hour Trips

For large developments (i.e., those generating more than 50 peak-hour trips), the County may request mitigation for impacts on the level of service of County roads, documented safety locations (the County calls such locations “inadequate road conditions” or “IRCs”), and access or circulation. The traffic study requirements below are intended to disclose impacts. Based on this information the County may request through the City that the applicant provide additional information showing possible mitigation measures. If any off-site improvements were needed for mitigation the County would work with the applicant to determine requirements for right-of-way, construction plans, right-of-way use permits, construction/maintenance bonds, and other issues.

Impacts on Level of Service (LOS) of County Arterials

Contact Snohomish County Public Works for the most current list of arterial units in arrears and critical arterial units. Identify any arterial units in arrears or critical arterial units impacted by three or more directional peak-hour trips.

Impacts on Inadequate Road Conditions

Contact Snohomish County Public Works for a list of the current IRCs. Identify any IRCs impacted by three or more peak-hour trips. Note: Unlike LOS impacts in which at least three or more peak hour trips have to be added in one direction to require disclosure (e.g., 3 westbound), for IRCs, any three peak hour trips added to IRC locations are considered an impact for which disclosure is necessary (e.g., 2 westbound plus 1 eastbound).

Impacts on Access or Circulation

The County may request improvements to existing roads to provide safe and efficient access and/or circulation. In some instances, the County may request provisions for future County roads identified in the Comprehensive Plan or in Small Area Transportation Studies. If so, the County will request specific additional information through the City.

Section Four (4) Traffic Mitigation Offer to Snohomish County

The applicant should complete a traffic mitigation offer to Snohomish County that summarizes the mitigation identified in the county traffic worksheet and any additional traffic study. This will facilitate timely review of the development and processing of the application. The form to use for the mitigation offer is titled “Traffic Mitigation Offer to Snohomish County.” This form is typically provided to all applicants along with this traffic study checklist. In addition, copies are available from the county contacts or the Snohomish County web site shown below.

Additional Information

County Web Site

Snohomish County Public Works has a web site with many documents related to traffic studies and mitigation requirements for developers. From the Snohomish County Home Page go to:

Departments/Public Works/Divisions/TES/ProgramPlanning/3066B


County Contacts

- Elbert Esparza, Snohomish County DPW Traffic, 3000 Rockefeller M/S 607, Everett WA 98201, (425) 388-3184, elbert.esparza@snoco.org

Marysville ILA Zone Map



Legend

-  Marysville ILA Zones
-  Centerlines
-  Major Water Body
-  Cities
-  UGA