

## MEMORANDUM

To: Jesse Hannahs, PE, City of Marysville Traffic Engineer  
From: Brad Lincoln, PE  
Project: Mack Townhomes  
Subject: Traffic Analysis  
Date: June 23, 2022



Kimley-Horn and Associates, Inc. has been retained to provide a traffic analysis for the Mack Townhomes development. The site is located east of State Avenue, south of 116<sup>th</sup> Street NE. A site vicinity map is included in Figure 1.



**Figure 1: Site Vicinity Map**

The Mack Townhomes site is proposed to consist of 22 attached residential units across four buildings. The site is proposed to have access via an easement to State Avenue.

## 1. TRIP GENERATION

The Mack Townhomes development is proposed to include 22 units of attached residential units across four buildings. The trip generation calculations have been performed using data published by the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 11<sup>th</sup> Edition* (2021). The average trip generation rates for ITE LUC 215, Single-Family Attached Housing, have been utilized for the trip generation calculations. The trip generation of Mack Townhomes development is summarized in Table 1.

**Table 1: Trip Generation Summary**

17 Units Single-Family Attached	Average Daily Trips			AM Peak-Hour Trips			PM Peak-Hour Trips		
	In	Out	Total	In	Out	Total	In	Out	Total
Generation Rate	7.20 trips per unit			0.48 trips per unit			0.57 trips per unit		
Splits	50%	50%	100%	31%	69%	100%	57%	43%	100%
Trips	79.20	79.20	124.44	3.27	7.29	10.56	7.15	5.39	12.54

The Mack Townhomes development is anticipated to generate approximately 124 new average daily trips with approximately 11 new AM peak-hour trips and approximately 13 new PM peak-hour trips.

## 2. TRIP DISTRIBUTION AND ASSIGNMENT

The trip distribution for the development is based on trip distribution data established by the City of Marysville. It is anticipated that 34% of the trips generated by the development will travel along Interstate-5. It is estimated that 21% of the trips generated by the development will travel along 116<sup>th</sup> Street NE west of Interstate-5. Approximately 36% of the trips generated by the development will travel along State Avenue. The remaining 8% of the trips generated by the development will travel to and from local areas in the site vicinity. The distribution of trips in the vicinity of the site is not anticipated to change with future roadway connections. The City of Marysville trip distributions are included in the attachments.

The City of Marysville threshold for level of service is 25 PM peak-hour trips. Additionally, the City of Marysville has an interlocal agreement with Snohomish County that requires Snohomish County intersections impacted with 3 directional peak-hour trips to be identified. The Mack Townhomes development does not generate 25 PM peak-hour trips and therefore analysis of impacts to City of Marysville intersections is not required. The development generates more than 3 directional peak-hour trips, but there are not any intersections beyond 116<sup>th</sup> Street NE at the Interstate-5 interchange and State Avenue that are impacted by 40% of the trips generated by the development, which is equivalent to 3 directional peak-hour trips. There are not any Snohomish County intersections that will be impacted by 3 directional peak-hour trips generated by the Mack Townhomes development.

### **3. TRAFFIC MITIGATION FEES**

The City of Marysville has an interlocal agreement with Snohomish County that provides for the payment of traffic mitigation fees to Snohomish County for City of Marysville developments. The City of Marysville also has an understanding with WSDOT for the payment of traffic mitigation fees.

#### **3.1. City of Marysville**

The City of Marysville traffic mitigation fees have been calculated using a rate of \$6,300 per PM peak-hour trip. The Mack Townhomes development is anticipated to generate 12.54 new PM peak-hour trips, which results in a City of Marysville traffic mitigation fee of \$79,002.00.

#### **3.2. Snohomish County**

The City of Marysville and Snohomish County have an interlocal agreement that provides for the payment of traffic mitigation for impacts to Snohomish County roadways by developments in the City of Marysville. Traffic mitigation fees are based on predetermined area impacts or impacts to actual improvement projects. None of the Snohomish County improvement projects will be impacted by more than 40% of the trips generated by the Mack Townhomes development, which equates to 3 directional PM peak-hour trips. Snohomish County traffic mitigation fees should therefore not be required for the Mack Townhomes development.

#### **3.3. Washington State Department of Transportation**

There are no current WSDOT improvement projects listed on the WSDOT Exhibit C List that are significantly impacted by trips from the Mack Townhomes development. WSDOT traffic mitigation fees should therefore not be required for the Mack Townhomes development.

## **Attachments**

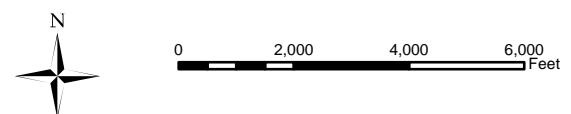
# 116TH ST - EXISTING



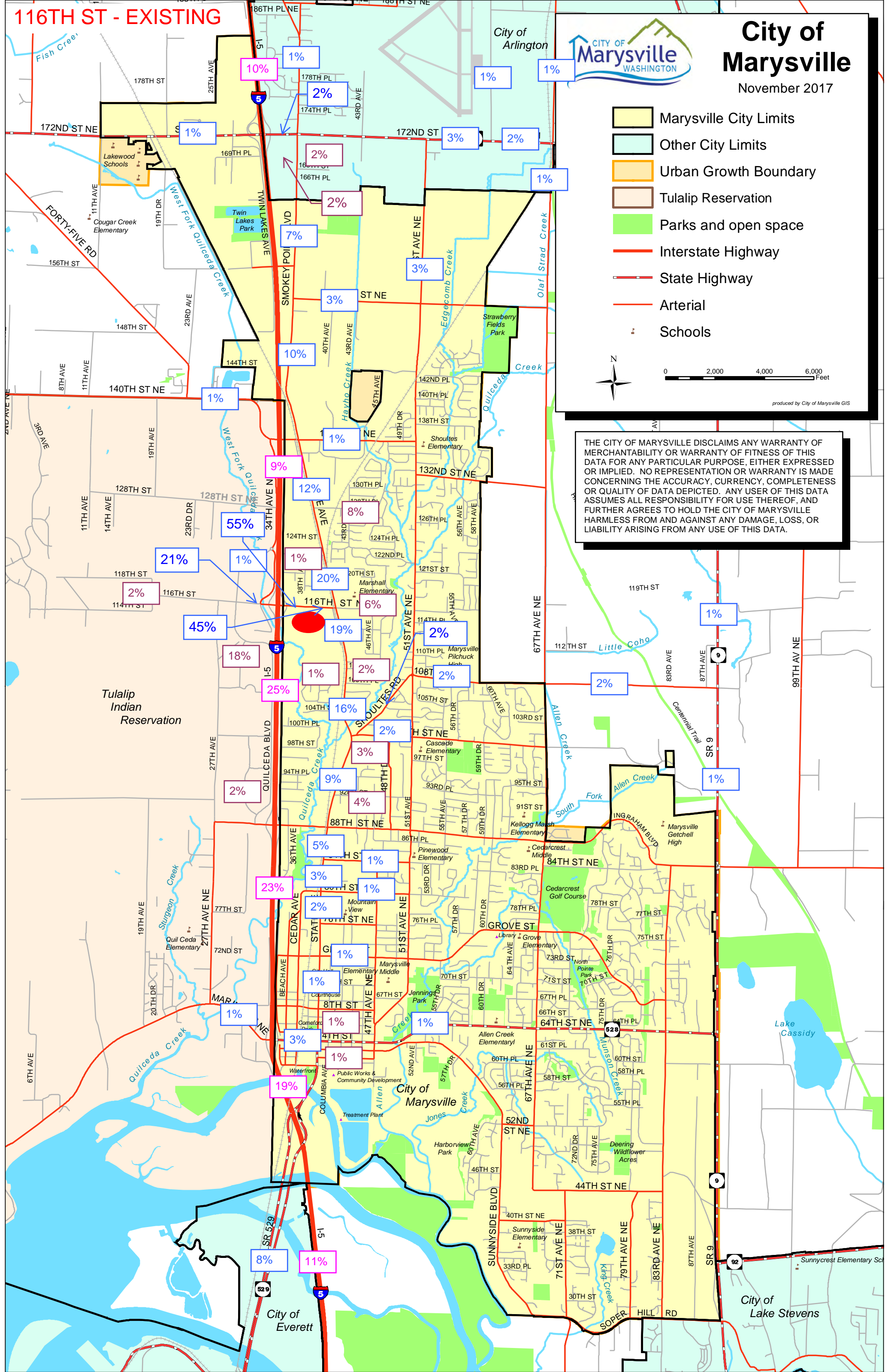
## City of Marysville

November 2017

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



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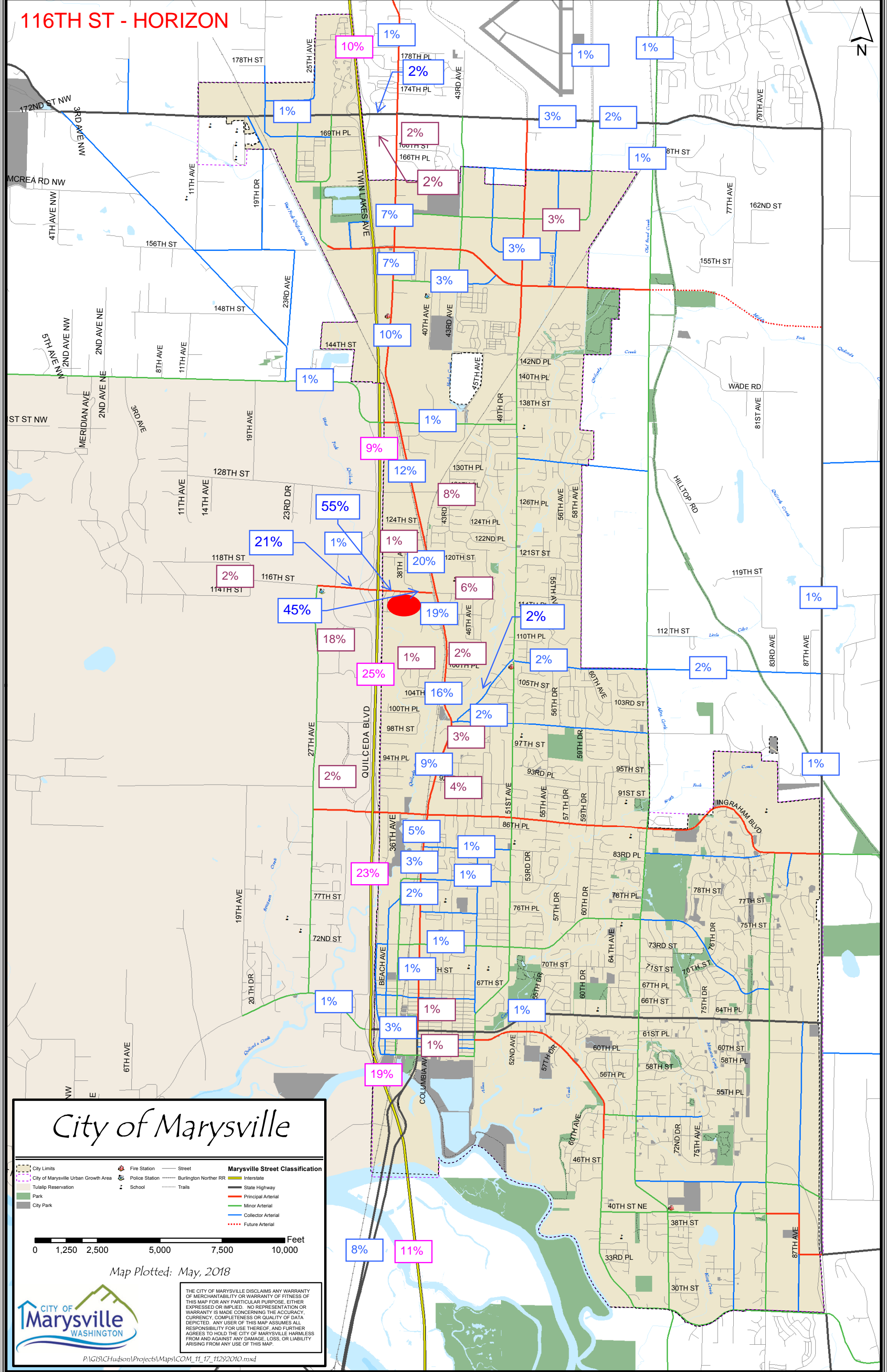
Tulalip Indian Reservation

City of Marysville

City of Everett

City of Lake Stevens

# 116TH ST - HORIZON



## City of Marysville

City Limits	Fire Station	Street	<b>Marysville Street Classification</b>
City of Marysville Urban Growth Area	Police Station	Burlington Northern RR	Interstate
Tulalo Reservation	School	Trails	State Highway
Park			Principal Arterial
City Park			Minor Arterial
			Collector Arterial
			Future Arterial

0 1,250 2,500 5,000 7,500 10,000 Feet

Map Plotted: May, 2018

CITY OF Marysville WASHINGTON

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