

# **Comprehensive Plan Map Amendment and Zone Change**

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Proposed for:

26-Acre Site at  
NE Cumulus Avenue and NE Atlantic Street

McMinnville, OR

Prepared By:

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## LIST OF EXHIBITS

- A. Land Use Application**
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## APPLICANT AND SUBJECT PROPERTY SUMMARY

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**PROPOSED PROJECT:** Comp Plan Map Amendment / Zone Change to  
Three Mile Land Plan Designations

**PROPERTY LOCATION:** NE Cumulus Avenue / NE Atlantic Street  
McMinnville, Oregon

**TAX MAP/LOTS:** 4.4.22CC / 100,400,500,600,601,700,800,1100,1102

**SITE SIZE:** 26.07 AC.

**EXISTING ZONING:** M-2 General Industrial: 15.1 AC  
C-3 General Commercial: 2.49 AC  
R-4 Medium, High-Density Residential: 2.06 AC  
R-1 Low-Density Residential: 1.79 AC  
Floodplain: 4.63 AC

**PROPOSED REZONE:** Mixed Use C-3: 3.62 AC  
R-4 Medium, High-Density Residential: 17.83 AC  
Floodplain: 4.63 AC

## PROJECT OVERVIEW

This Application requests a Comprehensive Plan Map Amendment and Zone Change for a 26.07-acre site located at 2245 NE Cumulus Avenue (NE Cumulus Avenue/NE Atlantic Street). The site is located north of Three Mile Lane (Highway 18) within the Three Mile Lane Area Plan (3MLAP) boundary, and encompasses nine tax lots: Tax Lots 100, 400, 500, 600, 601, 700, 800, 1100, and 1102 of Tax Map 4.4.22CC.

The McMinnville Comprehensive Plan Map designations for the subject site include Industrial, Residential, Commercial and Floodplain. The site has existing zoning designations of General Industrial M-2, Residential Low Density R-1, Medium, High-Density R-4, Commercial C-3, and Floodplain F-P on the McMinnville Zoning Map.

The proposed map amendment and zone changes are consistent with the recently adopted Three Mile Lane Area Plan. The 3MLAP was developed through a multi-year process that resulted an “implementable vision for the area’s future land uses and multi-modal transportation system.” The plan is intended to be implemented through the City’s codes and ordinances, as well as amendments to the Comprehensive Plan Map and Zoning Map.

The proposed rezone will assist the City in implementing the goals and objectives of the Three Mile Lane Area Plan and address potential long-term compatibility issues of existing industrial zoning with the surrounding residential and commercial zoning and uses. In addition, the proposed rezone to housing and commercial zones contributes to the reduction of the projected commercial land deficit identified in the 2023 EOA and the housing deficit identified in the 2024 Housing Needs Analysis.

The site has been identified through the 3MLAP as a key site for the plan area’s future development. At over 26 acres, the subject site offers a future opportunity for more cohesive planned development. The 3MLAP concept identifies the site as suitable for a mix of medium/high density residential and a neighborhood commercial node to serve the local area. The proposed comprehensive plan map amendment and zone changes proposed through this application are consistent with the 3MLAP. Accordingly, the Applicant proposes zone changes from General Industrial (M-2) and Low-Density Residential (R-1) to an overall mix of General Commercial C-3 and Medium, High-Density Residential (R-4).

The portion of the site proposed for the C-3 has frontage on—and direct access to—Cumulus Avenue. A significant portion of the site is proposed for R-4 residential zoning to accommodate a range of housing types, both attached and detached.

No development is proposed through this Application. Any subsequent development proposal will be reviewed under the applicable procedures and standards set forth in *Chapter 17.72* of the *McMinnville Zoning Ordinance*.



## OVERVIEW OF THE SUBJECT SITE AND SURROUNDING AREA

The subject site includes a total of 26.07 acres of land. The site is located on the north side of Three Mile Lane (Highway 18) and is within the Three Mile Lane Area Plan boundary. Access to the site is provided from Cumulus Avenue and Atlantic Street.

**Figure 1. Aerial Photo**



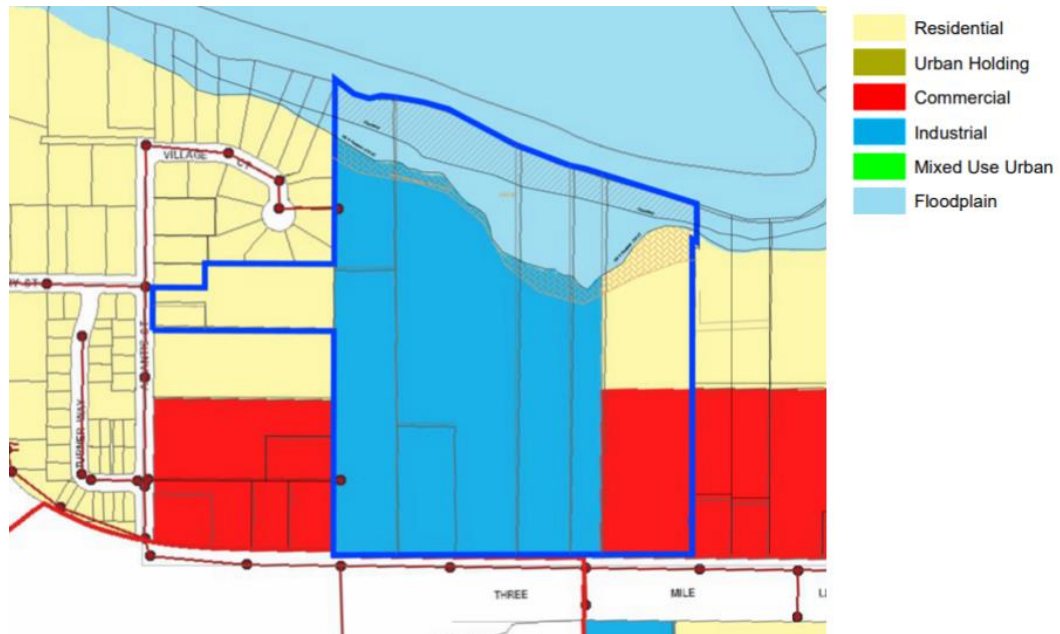
The existing use on the industrial-zoned portion of the site includes a ready-mix concrete manufacturer. In the R-1 zoned area, a single-family home exists. Other portions of the site zoned R-4 and C-3 are not developed with those uses. A 4.6-acre portion of the site along the north boundary is located within the floodplain and will not be developed.

Adjacent uses include residential development, plant nursery, gas station, and other commercial and medical services, as well as the South Yamhill River. Other uses in the vicinity along the north side of Three Mile Lane include Chemeketa Community College, and the Evergreen Aviation Museum. Across Three Mile Lane (Highway 18), existing land uses include agricultural acreage, commercial supply and services, and a mobile home park.

## CURRENT PLAN DESIGNATIONS

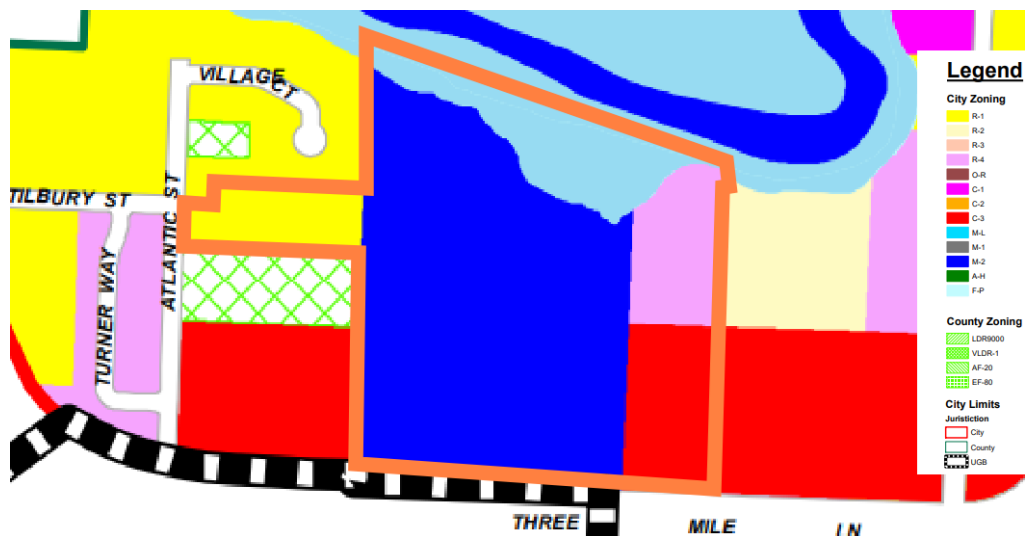
As shown in Figure 2., the McMinnville Comprehensive Plan designations for the site include Industrial, Commercial, Residential and Floodplain.

**Figure 2. Comprehensive Plan Map**



The McMinnville Zoning Map designations of residential, commercial and industrial zoning are shown in Figure 3, below. Industrial M-2 zoned land accounts for the largest portion of the site, with a total of 15.1 acres. Commercial C-3 zoned land totals 2.49 acres, and residentially zoned land includes 2.06 acres of High/Medium-Density R-4 land, and 1.79 acres of Low-Density R-1 land. The northern portion of the site includes 4.63 acres of Floodplain.

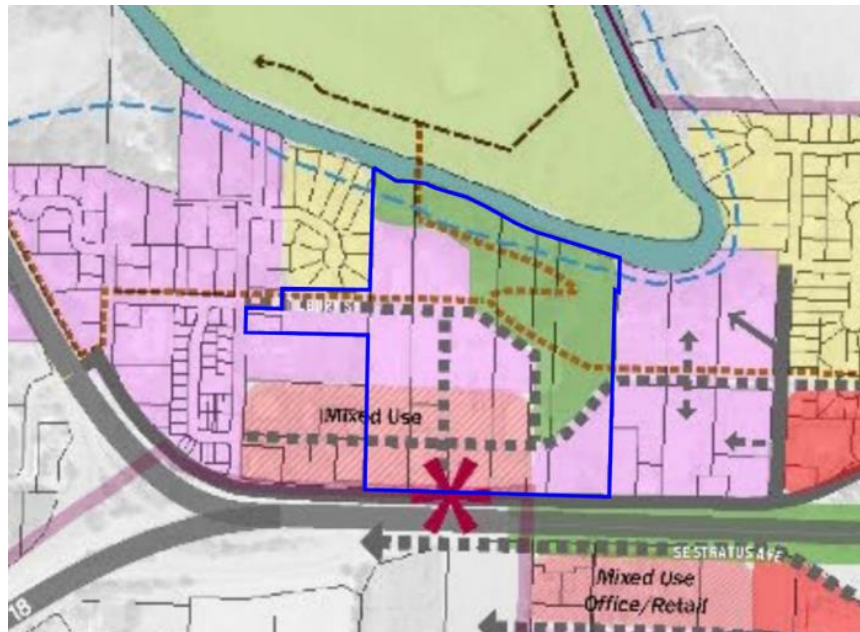
**Figure 3. Zoning Map**



### THREE MILE LANE AREA PLAN

The Three Mile Lane Area Plan (3MLAP), adopted in November 2022, provides a vision for future land uses and multi-modal transportation in the 1,340-acre plan area in the southeast portion of the City of McMinnville. With its adoption, the plan is now an element of the McMinnville Comprehensive Plan and is being implemented through the City's Zoning Ordinance and the Three Mile Lane Planned Development overlay. In addition, implementation of the plan will require amendments to the Comprehensive Plan Map, as is proposed through this application.

**Figure 4. Three Mile Lane Area Plan**



The Three Mile Lane Area Plan identifies the subject site (Baker Rock Site) as a potential location for mixed-use development and needed housing. The 3MLAP highlights these key features which are consistent with this Application:

- Allow for a variety of commercial and residential uses in the area, including housing, neighborhood retail and amenities, and “enhanced multi-modal transportation connectivity” that supports walking and biking to jobs, services, and recreation areas.
- The subject site (Baker Rock site) is an opportunity to explore a small mixed-use commercial concept, which can be implemented through a planned development overlay for the site.
- The subject site provides an opportunity to “protect natural areas and views, connect to parks and open spaces, provide a connected, bike and pedestrian-friendly neighborhood, and encourage mixed-use development with diverse housing types and unique, high-quality design.”
- The southern portion of the site is better suited to retail uses as that portion of the site more visible and accessible from OR 18 and Cumulus Avenue. As shown in the existing Comprehensive Plan Map and Zoning Map, a portion of the site is designated C-3 commercial. This application reconfigures the commercial area slightly to orient more of the area to Cumulus Avenue.

Site characteristics that support future development with medium/high density residential and mixed-use commercial include:

- **Site size:** The site, at 26 acres, is of adequate size to accommodate the proposed mix of uses.
- **Topography:** The portion of the site proposed for future development within the R-4 and C-3 zones is mostly level. The steeply sloped portion of the site within the open space area and the floodplain area provide views of the S. Yamhill River and Joe Dancer Park.
- **Location:** With the site bordering Cumulus Avenue along its southern property line, future development within the proposed commercial/mixed-use development area located closest to Cumulus Avenue will have visibility as well as direct access to the site from both east and west.

Consistent with the 3MLAP, future development of the site will be guided by the 3MLAP's key Urban Design Elements, such as a local street grid system, buildings oriented to frontage with parking behind, and pedestrian-scale building design.

## **McMINNVILLE HOUSING AND ECONOMIC BACKGROUND INFORMATION**

While the City's adopted 3MLAP has identified the site as an area suitable for medium/high density residential development and a local-serving commercial node, other housing and commercial trends also support this application for Comprehensive Plan Map Amendment and Zone Change. Below is a summary of highlights from McMinnville's Housing Needs Analysis, Housing Production Strategy, and Economic Opportunities Analysis.

### **Housing Needs Analysis**

As required by Oregon Statewide Planning Goal 10, McMinnville has updated their buildable lands inventory to support the City's Housing Needs Analysis (HNA), which was adopted in 2024. The analysis forecasts both housing and residential land needed over a 20-year planning horizon, from 2021 to 2041. The HNA identifies demographic and housing trends that will shape the City's housing supply over the next 20 years, and includes the following results:

- The population is expected to increase by 31% between 2021 and 2041, with young households and aging households accounting for a significant portion of the population. For both of these demographic groups, housing affordability is a concern.
- The HNA projects that 4,657 dwelling units will be needed to accommodate the projected growth in population by 2041—a total of units that exceeds the projected capacity of residential land.
- As seen throughout Oregon, housing prices are increasing faster than incomes in McMinnville and Yamhill County. As a result, housing affordability in the City is expected to be a significant challenge during the planning period. Currently, over 50% of renters are cost burdened, and the study identifies a lack of affordable units as a cause.
- Policy changes recommended in the HNA include “providing opportunities for development of housing of all types but development across the affordability spectrum; in particular...more affordable housing types.”

- Generally, smaller single-family detached homes, townhomes, and multifamily housing are considered more affordable housing types.

### **Housing Production Strategies**

The City is in the process of updating their Housing Production Strategy (HPS), which is to be completed in 2025. The 2019 DRAFT Housing Production Strategy identified strategic priorities and land use strategies that could be used to increase housing supply. Among the tools identified were map amendments to increase density or amount of residentially-zoned land. In addition, the City recognized that a greater variety of housing types that would be more affordable to different income levels was a priority. The 2025 HPS will formalize the City's strategies and provide specific actions to be implemented in the short-term and long-term.

### **Economic Opportunities Analysis**

The City periodically updates an Economic Opportunities Analysis (EOA) to reflect changing economic factors that impact land availability. The most recently adopted 2023 EOA concluded that, over the 20-year planning horizon through 2041, a deficit of 159 acres of commercial land and a deficit of 29 acres of industrial land are projected. The 2023 EOA recommends that the City adopt policy updates, including changes that reflect the 3MLAP concepts.

### **ZONE CHANGE SUMMARY**

The proposed map amendment and zone changes are consistent with the recently adopted Three Mile Lane Area Plan. The 3MLAP was developed through a multi-year process that resulted in an "implementable vision for the area's future land uses and multi-modal transportation system." The plan is intended to be implemented through the City's codes and ordinances, as well as amendments to the Comprehensive Plan Map.

The subject site currently has 15 acres of M-2 General Industrial zoned land which is proposed to be rezoned to R-4 Medium/High Density residential and C-3 General Commercial zoned land. Both residential and commercial land use categories have identified deficits and, as such, this proposal will contribute to the reduction of the existing and projected commercial land deficit identified in the 2023 EOA, and the housing deficit identified in the 2024 Housing Needs analysis. Furthermore, the proposed rezone will assist the City in implementing the goals and objectives of the Three Mile Lane Area Plan and address potential compatibility issues of existing industrial zoning with the surrounding residential and commercial zoning and uses.

#### **Commercial C-3**

This application proposes a total of 3.62 acres of C-3 commercial zoned land for the subject site. This proposal reconfigures the C-3 land to better meet the vision of the 3MLAP. The portion of the site proposed for C-3 zoning is located near the southern border of the site along the Cumulus Avenue frontage.

Consistent with the 3MLAP, that portion of the site will be developed in the future with a mix of commercial uses to serve the surrounding residential neighborhoods. The area is located with visibility from and direct access to Cumulus Avenue, providing connectivity to the east and west and the transit corridor.

### Medium, High-Density Residential R-4

This application proposes a total of 17.83 acres of Medium, High-Density R-4 residential zoned land. The site's large size makes it well suited to provide a substantial number of residential units to help meet the City's growing population and need for more affordable housing options, including small-lot single-family detached, attached townhome, and multi-family development.

### **SUMMARY OF BASES FOR APPROVAL:**

The Applicant requests that the City approve the Application for the following reasons:

- The Application complies with the applicable approval criteria in the Zoning Ordinance, Comprehensive Plan and state law, and the adopted Three Mile Lane Area Plan as detailed in the Applicable Review Criteria section below.
- The site is identified in the adopted Three Mile Lane Plan as a potential location for a neighborhood mixed-use commercial node and a medium/high density residential area to accommodate future development of a variety of housing types.
- The subject site includes site characteristics that make it suitable for rezoning to R-4 and C-3. The site size and location will allow for needed housing, as well as retail and service development that serves local retail needs. Other key characteristics include access to Cumulus Avenue, a collector street; proximity to existing uses that would be compatible with the proposed uses; opportunity to take advantage of open spaces and views; and proximity to a transit corridor.
- Based on the Transportation Impact Analyses (TIA) completed by Lancaster and Mobley, attached as Exhibit F, the projected trips generated by the proposed comprehensive plan map amendment and zone change will not change the functional classification of any of facilities within the study area.

## **APPLICABLE REVIEW CRITERIA**

The Applicant reviewed the McMinnville Comprehensive Plan and Zoning Ordinance, and Statewide Planning Goals, and determined the following criteria to be applicable to this Application.

### **Statewide Planning Goals**

- Goal 2: Land Use Planning
- Goal 5: Natural Resources, Scenic and Historic Areas, and Open Spaces
- Goal 9: Economy of the State
- Goal 10: Housing
- Goal 11: Public Facilities and Services
- Goal 12: Transportation

### **McMinnville Comprehensive Plan (Volume 2: Goals and Policies)**

- Chapter II: Natural Resources
- Chapter IV: Economy of McMinnville
- Chapter V: Housing and Residential Development
- Chapter VII: Community Facilities and Services
- Chapter VIII: Energy
- Chapter IX: Urbanization
- Chapter X: Citizen Involvement

### **McMinnville Zoning Ordinance**

- 17.72 Applications and Review Process
- 17.74 Review Criteria – Comprehensive Plan Map and Zone Change (17.74.020)

## APPLICANT'S RESPONSES TO APPLICABLE CRITERIA

### STATEWIDE PLANNING GOALS

#### **Goal 1: Citizen Involvement**

**To provide for “the opportunity for citizens to be involved in all phases of the planning process.”**

**APPLICANT'S RESPONSE:** In compliance with the MZO requirements of Chapter 17.72, the Applicant held a neighborhood meeting with the community to discuss the proposed map amendment and zone change. Documentation of the meeting is included with this application as Exhibit D. In addition, the review procedures of Chapter 17.72 provide an opportunity for citizen comment on the proposal at future Planning Commission and City Council hearings.

#### **Goal 2: Land Use Planning**

**To establish a land use planning process and policy framework as a basis for all decisions and actions related to use of land and to assure an adequate factual base for such decisions and actions.**

**APPLICANT'S RESPONSE:** In addition to these Statewide Planning Goals, this application addresses applicable policies and approval criteria of the McMinnville Comprehensive Plan and Zoning Ordinance and the Three Mile Lane Area Plan. As demonstrated by this narrative and supporting documentation, this application is consistent with applicable criteria and with Goal 2.

#### **Goal 5: Open Spaces, Scenic and Historic Areas and Natural Resources**

**To protect natural resources and conserve scenic and historic areas and open spaces.**

**APPLICANT'S RESPONSE:** The northeast portion of the site has land that is located within the floodplain and areas of steep slopes. The proposed rezone does not alter the zoning designations for the area which is now zoned Floodplain. No future development is proposed within that area, which will be protected by applicable buffers and setbacks.

#### **Goal 9: Economy of the State**

**To provide adequate opportunities throughout the state for a variety of economic activities vital to the health, welfare, and prosperity of Oregon's citizens.**

**APPLICANT'S RESPONSE:** The aim of Goal 9 is to ensure the availability of land suitable for economic growth and development opportunities over a 20-year planning period. To satisfy Goal 9, the City periodically updates an Economic Opportunities Analysis (EOA) to reflect changing economic factors that impact land availability. The most recently adopted 2023 EOA concluded that, over the 20-year planning horizon through 2041, a deficit of 159 acres of commercial land and a deficit of 29 acres of industrial land are projected.

This Application proposes to redesignate 15.1 acres of land from Industrial M-2 zone to residential R-4 and commercial C-3 zones. As proposed, 1.13 acres of M-2 land will be redesignated as C-3, which would bring the total C-3 land on the site to 3.62 acres. This application proposes to reconfigure the C-3 land to be consistent with the 3MLAP, enabling that portion of the site to be developed in the future with a mix of commercial uses to serve the on-site residents and surrounding residential neighborhoods. The proposed commercial-zoned area is



located with visibility from and direct access to Cumulus Avenue, providing connectivity to the east and west and the transit corridor.

The proposed rezone is not anticipated to have significant impact on the adequacy of the city's future industrial land supply which, as of the 2023 EOA, was estimated to be 215 acres. Industrial M-2 zoned land makes up the largest category of available industrial land, according to the 2023 EOA.

The proposed rezone will assist the City in implementing the goals and objectives of the Three Mile Lane Area Plan and address potential long-term compatibility issues of existing industrial zoning with the surrounding residential and commercial zoning and uses. In addition, the proposed rezone to housing and commercial zones contributes to the reduction of the projected commercial land deficit identified in the 2020 EOA and the housing deficit identified in the 2023 Housing Needs Analysis.

**Goal 10: Housing**

***To provide for the housing needs of citizens of the state.***

**APPLICANT'S RESPONSE:** This application proposes a zone change from R-1 and M-2 zones to R-4 and C-3 on the 26-acre site. The City's 2023 Housing Needs Analysis identifies demographic and housing trends that will shape the city's housing supply over the next 20 years. Trends indicate that a variety of housing types and densities will be required to meet the needs of the City's aging and growing populations. Smaller and more affordable housing types are identified as being needed over the next 20 years.

The proposed rezone of the subject site would allow for development of attached housing such as townhomes and multifamily units, making a greater impact on identified housing needs. The proposed Comprehensive Plan map amendment and rezone meet the intent of Goal 10.

**Goal 11: Public Facilities and Services**

***To provide for efficient planning of public services such as sewers, water, law enforcement, and fire protection.***

**APPLICANT'S RESPONSE:**

This application proposes a zone change for the 26-acre subject site which is located within the Three Mile Lane Area Plan boundary. In preliminary coordination with service providers, no deficiencies have been identified in the water, sanitary sewer or power availability. Similarly, there are no known deficiencies in public services such as fire protection and law enforcement. As noted in this application, the approval of the proposed zone change will result in the provision of park land (open space) consistent with the approved 3MLAP.

Upon application for development of the site, the design and adequacy of public facilities and services for the proposed development will be reviewed. The provision of adequate facilities can be assured through conditions of approval.

**Goal 12: Transportation**

***Implemented by the administrative rules in OAR Chapter 660, Division 12, the purpose of Goal 12 is to "provide and encourage a safe, convenient and economic transportation system." Known as the "Transportation Planning Rule" or "TPR," ...***

**APPLICANT'S RESPONSE:** A Transportation Impact Analysis (TIA) addressing the requirements of Goal 12 and the Transportation Planning Rule (TPR) was completed by Lancaster Mobley and is attached as Exhibit F. The analysis found that the proposed Comprehensive Plan Map Amendment and Zone Change will not change the

functional classification of any existing or planned facility. For additional information, please see the attached TIA report.

## ***McMinnville Comprehensive Plan (Volume 2: Goals and Policies)***

### ***Chapter II: Natural Resources***

***Goal II 1: To preserve the quality of the air, water, and land resources within the planning area.***

**APPLICANT'S RESPONSE:** This application proposes change from industrial to residential and mixed-use commercial uses for the site. The proposed change is not anticipated to increase impacts to the quality of the air, water or land resources. Future development on the site will include uses permitted in the proposed zones. The existing floodplain and steep slopes in the northeast portion of the site will be preserved, with no development proposed within applicable buffers or setbacks.

### **Chapter IV: Economy of McMinnville**

**Goal IV 1:** *To encourage the continued growth and diversification of McMinnville's economy in order to enhance the general well-being of the community and provide employment opportunities for its citizens.*

**Goal IV 2:** *To encourage the continued growth of McMinnville as the commercial center of Yamhill County in order to provide employment opportunities, goods, and services for the city and county residents.*

**APPLICANT'S RESPONSE:** With the proposed rezoning of 1.13 acres to C-3, the commercial zoning on the site will total 3.62 acres. The 3MLAP identified the site as having potential for a mixed-use neighborhood commercial node, which could include a variety of local-serving commercial services and retail as well as create opportunities for local employment and economic growth.

Furthermore, the future commercial development located in proximity to on-site residents as well as the existing surrounding neighborhoods would enable local residents to travel to future shops, services and restaurants through a variety of modes, including walking and biking. The benefits generated by a future locally-focused commercial hub include increased convenience for residents, reduced road congestion and impact on air quality, and opportunities for social interaction among neighbors.

**Policy 21.01:** *The City shall periodically update its economic opportunities analysis to ensure that it has within its urban growth boundary (UGB) a 20-year supply of lands designated for commercial and industrial uses. The City shall provide an adequate number of suitable, serviceable sites in appropriate locations within its UGB. If it should find that it does not have an adequate supply of lands designated for commercial or industrial use it shall take corrective actions which may include, but are not limited to, re-designation of lands for such purposes, or amending the UGB to include lands appropriate for industrial or commercial use.*

**APPLICANT'S RESPONSE:** The adopted 2023 EOA documents a 159-acre deficit of commercial land and 29-acre deficit of industrial land over the 20-year planning period. The subject site currently has 15.1 acres zoned M-2 Industrial that is proposed for rezoning to C-3 Commercial and R-4 Medium/High Density Residential.

The proposed rezone of 15.1 acres of M-2 land is not anticipated to have significant impact on the adequacy of the city's future industrial land supply. Industrial M-2 zoned land which, as of the 2023 EOA was estimated to total 215 acres city-wide, makes up the largest category of available industrial land. In addition, this application proposes rezoning this portion of the site to housing and commercial, both categories which have identified deficits.

The 3MLAP concept for the subject site designates the area as a potential mixed-use neighborhood commercial node with a mix of uses that would serve the future on-site residents and existing surrounding residential neighborhoods. In addition, the site is identified as an area that can support a variety of housing types that will address the City's identified housing needs.

The proposed rezone of the M-2 land on the subject site is consistent with the adopted 3MLAP and addresses the City's identified needs for additional commercial and housing development. As such, the proposal is consistent with *Policy 21.01*.

***Policy 21.03: The City shall support existing businesses and industries and the establishment of locally owned, managed, or controlled small businesses.***

**APPLICANT'S RESPONSE:** The proposed rezone to C-3 will create opportunities for small, locally owned businesses to serve the local community. The subject site has been identified in the 3MLAP as an appropriate location for a mixed-use node that would serve future residents of the site and residents of the surrounding area.

***Goal IV 3: To ensure commercial development that maximizes efficiency of land use through utilization of existing commercially designated lands, through appropriately locating future commercial lands, and discouraging strip development.***

**APPLICANT'S RESPONSE:** This application proposes to rezone 1.13 acres of land from M-2 to C-3, which would bring the total C-3 land on the site to 3.62 acres. This application proposes to reconfigure the C-3 land to better meet the vision of the 3MLAP. Consistent with the 3MLAP, a mixed-use commercial node is proposed for the C-3 zoned area, enabling that portion of the site to be developed in the future with a mix of commercial uses to serve the surrounding residential neighborhoods. The area is located with visibility from and direct access to Cumulus Avenue, providing connectivity to the east and west and the transit corridor.

No development is proposed through this application for a comprehensive plan map amendment and zone change. Future application for development of the site will be subject the review process of Chapter 17.72 of the City's Zoning Ordinance.

***General Policies:***

***Policy 22.00 The maximum and most efficient use of existing commercially designated lands will be encouraged as will the revitalization and reuse of existing commercial properties.***

**APPLICANT'S RESPONSE:** The subject site currently has 2.49 acres of commercial C-3 zoned land. This application proposes to rezone 1.13 acres of M-2 land to C-3, resulting in a total of 3.62 acres of C-3 zoned land. The Applicant proposes to reconfigure the commercial-zoned area to create a commercial/mixed-use node with adjacent existing commercial land and take advantage of the site's frontage on Cumulus Avenue along the south property line. This proposal complies with the 3MLAP, which has identified the subject site as a potential future node of mixed-use commercial development to serve residents of the area.

***Policy 23.00 Areas which could in the future serve as commercial sites shall be protected from encroachment by incompatible uses.***

**APPLICANT'S RESPONSE:** This application proposes to add 1.13 acres of C-3 zoned land, for a total of 3.62 acres of C-3, to provide for future retail and services as prioritized by the adopted 3MLAP. The remainder of the subject site is proposed to be rezoned to R-4 Medium-High Density Residential. As the future local commercial node will be aimed at serving the local neighborhoods, the future development of housing will be compatible with the C-3 zoned area.

***Policy 24.00 The cluster development of commercial uses shall be encouraged rather than auto-oriented strip development.***

**APPLICANT'S RESPONSE:** This application requests a comprehensive plan map amendment and zone change to Commercial C-3 and R-4 Residential, which encourages variety in uses and development patterns, and efficient use of space.

The adopted 3MLAP has identified the subject site as a potential mixed-use commercial node, or cluster, which could include a mix of retail and commercial services as neighborhood-serving amenities. This proposal to rezone and reconfigure C-3 land near the Cumulus frontage of the site is in conformance with the adopted 3MLAP and supports future compliance with Policy 24.

***Policy 24.50 The location, type, and amount of commercial activity within the urban growth boundary shall be based on community needs as identified in the Economic Opportunities Analysis.***

**APPLICANT'S RESPONSE:** The 2023 EOA identified a commercial land deficit in McMinnville of 159 acres through 2041. The adopted 3MLAP has identified the subject site as a suitable location for a mixed-use commercial node envisioned to provide a mix of local-serving retail and commercial services to the surrounding residential community. This application proposes to rezone 1.13 acres to C-3 which, along with the existing C-3 zoned land on site, would result in a total of 3.62 acres of C-3 land. As shown in the CPMA-ZC Site Plan, attached as Exhibit B, this area is proposed to be located along the site's Cumulus Avenue frontage to take advantage of the area's accessibility, visibility, and the availability of suitable land.

***Policy 25.00 Commercial uses will be located in areas where conflicts with adjacent land uses can be minimized and where city services commensurate with the scale of development are or can be made available prior to development.***

***Policy 26.00 The size of, scale of, and market for commercial uses shall guide their locations. Large-scale, regional shopping facilities, and heavy traffic-generating uses shall***

*be located on arterials or in the central business district, and shall be located where sufficient land for internal traffic circulation systems is available (if warranted) and where adequate parking and service areas can be constructed.*

**Policy 27.00**      *Neighborhood commercial uses will be allowed in residential areas. These commercial uses will consist only of neighborhood oriented businesses and will be located on collector or arterial streets. More intensive, large commercial uses will not be considered compatible with or be allowed in neighborhood commercial centers.*

**APPLICANT'S RESPONSE:** The 3MLAP envisions future development of the site to include medium/high density residential development and a mixed-use commercial node that provides neighborhood commercial retail and services to the surrounding residential community. The subject site is an appropriate location for a smaller mixed-use commercial development located on Cumulus Avenue, which is classified as a Minor Collector in McMinnville's TSP. These future uses are compatible with the surrounding area which has been similarly designated through the 3MLAP.

The 3MLAP area is located within the City limits and municipal services are provided to the area. Any future development application will need to confirm adequate facilities, which can be assured through conditions of approval.

#### **Design Policies**

**Policy 30.00:** *Access locations for commercial developments shall be placed so that excessive traffic will not be routed through residential neighborhoods and the traffic-carrying capacity of all adjacent streets will not be exceeded.*

**Policy 31.00:** *Commercial developments shall be designed in a manner which minimizes bicycle/pedestrian conflicts and provides pedestrian connections to adjacent residential development through pathways, grid street systems, or other appropriate mechanisms. (Ord.4796, October 14, 2003)*

**Policy 32.00:** *Where necessary, landscaping and/or other visual and sound barriers shall be required to screen commercial activities from residential areas.*

**Policy 33.00:** *Encourage efficient use of land for parking; small parking lots and/or parking lots that are broken up with landscaping and pervious surfaces for water quality filtration areas. Large parking lots shall be minimized where possible. All parking lots shall be interspersed with landscaping islands to provide a visual break and to provide energy savings by lowering the air temperature outside commercial structures on hot days, thereby lessening the need for inside cooling. (Ord.4796, October 14, 2003)*

#### **APPLICANT'S RESPONSE:**

The subject site is located within the 3MLAP area, which calls for future development to incorporate certain urban design elements, including a local street grid, buildings oriented to local street frontages, pedestrian amenities, landscaped green buffers, parking behind buildings and other features. The incorporation of 3MLAP urban design elements in future development of the site will implement Design Policies 30, 31, 32 and 33.

No development is proposed through this Application. Any subsequent development application will address applicable criteria of the McMinnville Zoning Ordinance at that time.

### ***Industrial Development***

***Goal IV 5 To continue the growth and diversification of McMinnville's industrial base through the provision of an adequate amount of properly designated lands.***

**APPLICANT'S RESPONSE:** The subject site currently has 15.1 acres zoned M-2 Industrial that is proposed for rezoning to C-3 Commercial and R-4 Medium, High-Density Residential. The proposed rezone of the M-2 land is not anticipated to have significant impact on the adequacy of the city's future industrial land supply. Industrial M-2 zoned land which, as of the 2023 EOA was estimated to total 215 acres, makes up the largest category of available industrial land. In addition, this application proposes rezoning the land to housing and commercial, both categories which have identified deficits, and is consistent with the adopted 3MLAP.

***Goal IV 6 To ensure industrial development that maximizes efficiency of land uses, that is appropriately located in relation to surrounding land uses, and that meets necessary environmental standards.***

### ***Locational Policies***

***Policy 49.00 The City of McMinnville shall use its zoning and other regulatory methods to prevent encroachment into industrial areas by incompatible land uses.***

***Policy 49.01 The City shall designate an adequate supply of suitable sites to meet identified needs for a variety of different parcel sizes at locations which have direct access to an arterial or collector street without having to pass through residential neighborhoods.***

***Policy 49.02 The location, type, and amount of industrial activity within the Urban Growth Boundary shall be based on community needs as identified in the Economic Opportunities Analysis.***

**APPLICANT'S RESPONSE:** This Application proposes the rezoning of 15.1 acres of M-2 zoned industrial land to residential and commercial designations on the subject site.

Under the current zoning, the industrial portion of the site is surrounded by non-industrial zoned land and existing uses. The City adopted the 3MLAP to guide development and transportation improvements in the SE Three Mile Lane area and ensure compatibility of uses. Rezoning this land from industrial to residential and commercial uses is consistent with the 3MLAP and provides the opportunity for greater compatibility of proposed and existing uses as the area redevelops. In addition, the proposed change will help address a commercial land deficit and the City's need for attainable housing.

## ***Chapter V: Housing and Residential Development***

***Goal V 1: To promote development of affordable, quality housing for all city residents.***

***Policy 58.00 City land development ordinances shall provide opportunities for development of a variety of housing types and densities.***

***Policy 59.00 Opportunities for multiple-family and mobile home developments shall be provided in McMinnville to encourage lower-cost renter and owner-occupied housing. Such housing shall be located and developed according to the residential policies in this plan and the land development regulations of the City.***

***Policy 60.00 Attached single-family dwellings and common property ownership arrangements (condominiums) shall be allowed in McMinnville to encourage land-intensive, cost-effective, owner-occupied dwellings.***

**APPLICANT'S RESPONSE:** This application proposes a total of 17.8 acres of R-4 Medium, High-Density residentially zoned land for the 26-acre subject site.

The City's adopted Housing Needs Analysis identified a need for more housing that is attainable at a range of income levels. In addition, the City's adopted 3MLAP envisions future medium-high density residential on a significant portion of the subject site. In response to those adopted directives, the proposed zone change will allow future development of the site to include a mix of attached single-family development and multi-family housing at a range of housing densities. As such, the proposed rezone is consistent with Goal V 1 and Policies 58, 59 and 60.

***Goal V 2: To promote a residential development pattern that is land intensive and energy efficient, that provides for an urban level of public and private services, and that allows unique and innovative development techniques to be employed in residential designs.***

### ***Policies:***

***Policy 68.00 The City of McMinnville shall encourage a compact form of urban development by directing residential growth close to the city center and to those areas where urban services are already available before committing alternate areas to residential use.***

***Policy 70.00 The City of McMinnville shall continue to update zoning and subdivision ordinances to include innovative land development techniques and incentives that provide for a variety of housing types, densities, and price ranges that will adequately meet the present and future needs of the community.***

***Policy 71.00 The City of McMinnville shall designate specific lands inside the urban growth boundary as residential to meet future projected housing needs. Lands so designated may be developed for a variety of housing types. All residential zoning classifications shall be allowed in areas designated as residential on the Comprehensive Plan Map.***

**APPLICANT'S RESPONSE:** The proposed Comprehensive Plan Amendment and rezone is consistent with the recently adopted 3MLAP, which is being implemented through the McMinnville Zoning Ordinance

and Comprehensive Plan. Future development of the site will adhere to applicable current zoning and subdivision regulations in effect at the time of development.

The R-4 Medium-High density zoning proposed for 17.8 acres of the site will address the City's identified housing needs and support a variety of housing types and densities, allowing for overall compact and efficient development of the site. Housing types such as townhomes and multi-dwelling residential units are allowed through the R-4 zone, and provide more attainable options for diverse household income levels.

The subject site is located near the city center and has good access to urban services and public transit. In addition, the future on-site commercial mixed-use development will provide services and retail goods to residents in the neighborhood and be accessed via the onsite streets and pedestrian system, potentially reducing the need for vehicle trips to other parts of the city.

**Policy 71.06** *Low Density Residential Development (R-1 and R-2) Low-density residential development should be limited to the following:*

- 1. Areas which are committed to low density development and shown on the buildable lands inventory as "developed" land;*
- 2. Areas where street facilities are limited to collector and local streets;*
- 3. Areas with mapped development limitations such as steep slopes, floodplains, stream corridors, natural drainageways, and wetlands; and*
- 4. Areas with limited capacity for development identified in approved facility master plans, including sanitary sewer, water, drainage, and transportation facilities. (Ord. 4796, October 14, 2003)*

**APPLICANT'S RESPONSE:** This application proposes to rezone 1.79 acres of R-1 zoned land to R-4 Medium, High-Density zoning. This proposed change is supported by the 3MLAP, which envisions a mix of uses and diverse housing types for the site. Further, the City's Housing Needs Analysis identified a need for more housing types that are affordable at different household incomes. The proposed R-4 zoning will allow for housing that is more attainable at a range of income levels, including small-lot single-family detached, attached single-family and multi-family development.

As shown in the submitted CPMA-ZC Site Plan, attached as Exhibit B, the portion of the site planned for residential development will have access from existing and future local streets. The northern portion of the site, which contains the floodplain, provides view opportunities and as per the 3MLAP is an area for a future open space connection.

**Policy 71.07** *The R-1 zoning designation shall be applied to limited areas within the McMinnville urban growth boundary. These include:*

- 1. The steeply sloped portions of the West Hills;*
- 2. Neighborhoods and properties within the current urban growth boundary that are developed or have been approved for such densities (Michelbook, for example);*
- 3. Fox Ridge Road area;*
- 4. Redmond Hill Road area;*
- 5. Residential lands adjacent to existing or planned industrial areas. (Ord. 4796, October 14, 2003)*

**APPLICANT'S RESPONSE:** A 1.79-acre portion of the subject site is zoned R-1 Residential. The City's adopted 3MLAP has identified the site's future development to include Medium, High-Density R-4 residential zoning with the goal of creating mixed-use residential neighborhoods with a range of



attainable housing types that will help address the City's identified housing deficit. As such, the rezoning of the site's existing R-1 for future development of medium-high density residential is consistent with this policy.

**Policy 71.09**     *Medium and High-Density Residential (R-3 and R-4) - The majority of residential lands in McMinnville are planned to develop at medium density range (4 – 8 dwelling units per net acre). Medium density residential development uses include small lot single-family detached uses, single family attached units, duplexes and triplexes, and townhouses. High density residential development (8 – 30 dwelling units per net acre) uses typically include townhouses, condominiums, and apartments:*

- 1. Areas that are not committed to low density development;*
- 2. Areas that have direct access from collector or arterial streets;*
- 3. Areas that are not subject to development limitations such as topography, flooding, or poor drainage;*
- 4. Areas where the existing facilities have the capacity for additional development;*
- 5. Areas within one-quarter mile of existing or planned public transportation; and*
- 6. Areas that can be buffered from low density residential areas in order to maximize the privacy of established low density residential areas. (Ord. 4961, January 8, 2013; Ord. 4796, October 14, 2003)*

**APPLICANT'S RESPONSE:** This application proposes a change in zoning from primarily industrial land to a mix of residential R-4 and commercial C-3 zones. The site has direct access to Cumulus Avenue, a collector street, and local streets in the area. The site was identified in the 3MLAP as an opportunity site for a mix of commercial uses and needed housing due in part to the size of the site. At 26 acres, the site can support a variety of housing types and densities and remain compatible with the existing surrounding uses. The large size of the site will allow for an efficient development layout as well as economies of scale during development. The northern portion of the site is characterized by slopes and areas within the floodplain, which will be buffered from future development by open space. The site has access to public facilities that currently exist on the site and adjacent land, and is proximate to local public transit.

**Policy 71.13**     *The following factors should serve as criteria in determining areas appropriate for high-density residential development:*

- 1. Areas which are not committed to low or medium density development;*
- 2. Areas which can be buffered by topography, landscaping, collector or arterial streets, or intervening land uses from low density residential areas in order to maximize the privacy of established low density residential areas;*
- 3. Areas which have direct access from a major collector or arterial street;*
- 4. Areas which are not subject to development limitations;*
- 5. Areas where the existing facilities have the capacity for additional development;*
- 6. Areas within a one-half mile wide corridor centered on existing or planned public transit routes;*
- 7. Areas within one-quarter mile from neighborhood and general commercial shopping centers; and*
- 8. Areas adjacent to either private or public permanent open space. (Ord. 4796, October 14, 2003)*

**APPLICANT'S RESPONSE:** The proposed zone change will result in a total of 17.8 acres of R-4 land. Currently, the majority of the site is zoned industrial and is occupied by a cement manufacturer.

The northern portion of the site contains areas with floodplain and steep slopes which will be buffered from future development by open space. Cumulus Avenue, a collector street, provides direct access to the site and will connect with the on-site local streets as future development occurs.

The site is located within 0.1 mile of a public transit route. Public facilities exist on and adjacent to the site and can be made to be adequate to serve future development.

The proposed rezoning will support future development that will be consistent with the 3MLAP, which calls for medium-high residential density development and neighborhood-serving commercial on the site. As shown in the submitted plan, Exhibit B, a portion of the site adjacent to Cumulus Avenue is proposed to be zoned C-3 to accommodate services and retail oriented to the needs of future on-site residents and surrounding neighborhoods.

***Residential Design Policies:***

***79.00 The density allowed for residential developments shall be contingent on the zoning classification, the topographical features of the property, and the capacities and availability of public services including but not limited to sewer and water. Where densities are determined to be less than that allowed under the zoning classification, the allowed density shall be set through adopted clear and objective code standards enumerating the reason for the limitations, or shall be applied to the specific area through a planned development overlay. Densities greater than those allowed by the zoning classification may be allowed through the planned development process or where specifically provided in the zoning ordinance or by plan policy. (Ord. 4796, October 14, 2003)***

**APPLICANT'S RESPONSE:** This application requests rezoning that will result in a total of 17.8 acres of R-4 residential. No development is proposed through this application. Future residential development on the site will be subject to applicable code requirements at the time of development. Floodplain and sloped areas of the site will be buffered from future development by open space and applicable setbacks. Upon application for development of the site, the adequacy of municipal facilities for the proposed development will be reviewed. The provision of adequate facilities can be assured through conditions of approval.

***80.00 In proposed residential developments, distinctive or unique natural features such as wooded areas, isolated preservable trees, and drainage swales shall be preserved wherever feasible.***

**APPLICANT'S RESPONSE:** The northern portion of the subject site is characterized by floodplain and sloped areas which offer views of the South Yamhill River and Joe Dancer Park. These areas will be buffered from future development by open space and applicable setbacks.

***81.00 Residential designs which incorporate pedestrian and bikeway paths to connect with activity areas such as schools, commercial facilities, parks, and other residential areas, shall be encouraged.***

***82.00 The layout of streets in residential areas shall be designed in a manner that preserves the development potential of adjacent properties if such properties are recognized for development on the McMinnville Comprehensive Plan Map.***

***83.00 The City of McMinnville shall review the design of residential developments to insure site orientation that preserves the potential for future utilization of solar energy.***

**APPLICANT'S RESPONSE:** The City's adopted 3MLAP incorporates design elements that encourage pedestrian and bicycle connectivity throughout the development and with adjacent development. As such, future development of the site will incorporate features supportive of connectivity. No development is currently proposed through this application. A future development application will be subject to the applicable code requirements at that time.

***Multiple-family Development Policies:***

***86.00 Dispersal of new multiple-family housing development will be encouraged throughout the residentially designated areas in the City to avoid a concentration of people, traffic congestion, and noise. The dispersal policy will not apply to areas on the fringes of the downtown "core," and surrounding Linfield College where multiple-family developments shall still be allowed in properly designated areas.***

**APPLICANT'S RESPONSE:** The proposed zone change and comprehensive plan map amendment reflect the direction provided by the adopted 3MLAP. The subject site was identified in the plan as a suitable site for medium-high density R-4 residential development, which allows for a variety of housing types including small-lot detached homes, attached townhomes, and multi-family development. No development is proposed through this application. This application is consistent with this policy.

***89.00 Zoning standards shall require that all multiple-family housing developments provide landscaped grounds. (Ord. 4796, October 14, 2003)***

**APPLICANT'S RESPONSE:** Future development of the site will comply with applicable landscape standards in effect at the time of development application.

***90.00 Greater residential densities shall be encouraged to locate along major and minor arterials, within one-quarter mile from neighborhood and general commercial shopping centers, and within a one-half mile wide corridor centered on existing or planned public transit routes. (Ord. 4840, January 11, 2006; Ord. 4796, October 14, 2003)***

***91.00 Multiple-family housing developments, including condominiums, boarding houses, lodging houses, rooming houses but excluding campus living quarters, shall be***

***required to access off of arterials or collectors or streets determined by the City to have sufficient traffic carrying capacities to accommodate the proposed development. (Ord. 4573, November 8, 1994)***

***92.00 High-density housing developments shall be encouraged to locate along existing or potential public transit routes.***

**APPLICANT'S RESPONSE:** The subject site is located on Cumulus Avenue, a collector that provides access to Hwy 18, an arterial. The site is within 0.1 mile of both City and County public transit lines. Future development of the site will incorporate safe and efficient on-site circulation that will provide connectivity with transportation routes and with the surrounding area.

This rezone request supports the vision of the adopted 3MLAP, which identified the site as having characteristics needed to support medium/high density housing, including small-lot single-family detached, attached townhomes, and multifamily development. In addition, the 3MLAP identified the site's potential for a mixed-use commercial node that would provide goods and services for future on-site residents and the surrounding neighborhood. As shown in the proposed rezone plan, attached as Exhibit B, this node is located near the southern boundary of the subject site, with visibility and access from Cumulus Avenue.

The attached Transportation Impact Analysis (TIA), prepared by Lancaster Mobley and attached as Exhibit F, concludes that there will be no impact from the proposed rezoning to the functional classifications existing or planned facilities within the study area.

***92.01 High-density housing shall not be located in undesirable places such as near railroad lines, heavy industrial uses, or other potential nuisance areas unless design factors are included to buffer the development from the incompatible use. (Ord. 4796, October 14, 2003)***

***92.02 High-density housing developments shall, as far as possible, locate within reasonable walking distance to shopping, schools, and parks, or have access, if possible, to public transportation. (Ord. 4796, October 14, 2003)***

**APPLICANT'S RESPONSE:** With the proposed rezoning of the M-2 industrial land to R-4 residential and C-3 commercial, future redevelopment of the site will not include any industrial uses, making the site more compatible with higher densities of residential development.

As called for in the adopted 3MLAP, the site will incorporate mixed-use commercial development that will serve on-site residents as well as the surrounding neighborhoods. Nearby transit stops will offer residents and visitors to the site an alternative mode of transportation, potentially reducing vehicle trips. The proposed rezone supports Policies 92.01 and 92.02.

***Urban Policies:***

***99.00 An adequate level of urban services shall be provided prior to or concurrent with all proposed residential development, as specified in the acknowledged Public Facilities Plan. Services shall include, but not be limited to:***

- 1. Sanitary sewer collection and disposal lines. Adequate municipal waste treatment plant***

*capacities must be available.*

2. *Storm sewer and drainage facilities (as required).*
3. *Streets within the development and providing access to the development, improved to city standards (as required).*
4. *Municipal water distribution facilities and adequate water supplies (as determined by City Water and Light). (as amended by Ord. 4796, October 14, 2003)*
5. *Deleted as per Ord. 4796, October 14, 2003.*

**APPLICANT'S RESPONSE:** Municipal facilities currently exist and serve the vicinity of the site via main lines located in the Cumulus Avenue and Atlantic Street rights-of-way. No development is proposed through this Application. Upon application for development of the site, the adequacy of municipal facilities for the proposed development will be reviewed. The provision of adequate facilities can be assured through conditions of approval.

## **Chapter VI: Transportation System**

### **Streets**

**Policy 117.00** *The City of McMinnville shall endeavor to insure that the roadway network provides safe and easy access to every parcel.*

**Policy 119.00** *The City of McMinnville shall encourage utilization of existing transportation corridors, wherever possible, before committing new lands.*

**APPLICANT'S RESPONSE:** As demonstrated in the TIA, attached as Exhibit F, the planned zone change will not impact or alter the functional classification of any existing or planned transportation facility. Future development of the site will include a safe and efficient street system ensuring access throughout the site, as well as connectivity with adjacent sites. Please refer to the TIA report for additional information.

**122.00** *The City of McMinnville shall encourage the following provisions for each of the three functional road classifications:*

### **2. Major, minor collectors.**

- Designs should minimize impacts on existing neighborhoods.*
- Sufficient street rights-of-way should be obtained prior to development of adjacent lands.*
- On-street parking should be limited wherever necessary.*
- Landscaping should be required along public rights-of-way. (Ord.4922, February 23, 2010)*
- As far as is practical, residential collector streets should be no further than 1,800 feet apart in order to facilitate a grid pattern of collector streets in residential areas.*

### **3. Local Streets**

- Designs should minimize through-traffic and serve local areas only.*

- Street widths should be appropriate for the existing and future needs of the area.*
- Off-street parking should be encouraged wherever possible.*
- Landscaping should be encouraged along public rights-of-way.*

**APPLICANT'S RESPONSE:** No development is proposed through this application. Upon future development of the site, the design of new on-site streets will comply with the applicable roadway design standards in effect at the time of development.

***Policy 123.00*** *The City of McMinnville shall cooperate with other governmental agencies and private interest to insure the proper development and maintenance of the road network within the urban growth boundary.*

**APPLICANT'S RESPONSE:** The TIA prepared by Lancaster Mobley, attached as Exhibit F, provides an analysis of trips generated by the proposed zone change. In accordance with the application review process, the scope, methodology, findings and recommendations of the TIA have been coordinated with the City of McMinnville and ODOT.

#### ***Parking***

***Policy 126.00*** *The City of McMinnville shall continue to require adequate off-street parking and loading facilities for future developments and land use changes.*

***Policy 127.00*** *The City of McMinnville shall encourage the provision of off-street parking where possible, to better utilize existing and future roadways and rights-of-way as transportation routes.*

**APPLICANT'S RESPONSE** No development is proposed through this application. Upon future development of the site, the provision of off-street parking will comply with the applicable development standards in effect at that time.

#### ***Bike Paths***

***Policy 130.05*** *In areas where bikeways are planned, the City may require that new development provide bikeway improvements such as widened streets, bike paths, or the elimination of on-street parking. At the minimum, new development shall be required to make provisions for the future elimination of on-street parking along streets where bikeways are planned so that bike lanes can be striped in the future. Bike lanes and bike paths in new developments shall be constructed to standards recommended in the bikeway plan.*

**APPLICANT'S RESPONSE:** The subject site is located within the 3MLAP area. The 3MLAP encourages safe, bicycle-friendly routes that provide connectivity to and through the site for bicyclists. No development is proposed through this application. Future bicycle connectivity design will adhere to applicable development standards in effect at the time of development application.

### ***Connectivity and Circulation***

***Policy 132.26.05*** *New street connections, complete with appropriately planned pedestrian and bicycle features, shall be incorporated in all new developments consistent with the Local Street Connectivity map.*

**APPLICANT'S RESPONSE:** The McMinnville TSP identifies future local street connections for the Highway 18 corridor, as shown on the map below (TSP, Exhibit 2-1). As shown on the map, there are no local street connections identified for the subject site on the City's Local Street Connections Map. The 3MLAP addresses pedestrian and bicycle circulation to and through the plan area with recommendations for facility improvements that will improve access, mobility and comfort for all users. Accordingly, the 3MLAP requires a smaller-block grid system for on-site local streets, which will support pedestrian and bicycle connectivity. Any future development application will be required to be consistent with the McMinnville TSP and ensure appropriately planned pedestrian and bicycle features and connectivity with any existing and planned adjacent facilities.



- Legend**
- ▶ Future Local Street Connections
  - Hwy 18 Plan
  - Tax Lots
  - City Streets & State Highways
  - - - City limits (2003)
  - UGB (Adopted - 2003)

***Policy 132.27.00*** *The provision of transportation facilities and services shall reflect and support the land use designations and development patterns identified in the McMinnville Comprehensive Plan. The design and implementation of transportation facilities and services shall be based on serving current and future travel demand—both short-term and long-term planned uses.*

**APPLICANT'S RESPONSE:** The TIA, attached as Exhibit F, evaluated both existing conditions and planning horizon (2041) impacts of the proposed zone change on the transportation system. The TIA and TPR analyses concluded that the zone change would not result in any change to functional classification of the facilities within the study area. For additional information, please refer to the TIA.

***Policy 132.29.00          The construction of transportation facilities in the McMinnville planning area shall be timed to coincide with community needs, and shall be implemented so as to minimize impacts on existing development. Prioritization of improvements should consider the City's level of service standards.***

**APPLICANT'S RESPONSE:** No development is proposed through this application. Upon future development of the site, the onsite facilities will be designed and timed to provide safe and efficient movement to and through the site for pedestrians, bicycles and vehicles, while prioritizing the City's level of service standards.

#### ***Growth Management***

***Policy 132.40.00          Mobility standards will be used to evaluate the transportation impacts of long-term growth. The City should adopt the intersection mobility standards as noted in Chapter 2 of the Transportation System Plan.***

**APPLICANT'S RESPONSE:** The TIA, attached as Exhibit F, studied intersections within the City's and ODOT's jurisdictions and applied each jurisdiction's applicable mobility standard as a basis for its analysis. As noted in the TIA, the proposed zone change will not result in any classification changes of any study intersections. Please refer to the TIA for additional information.

#### ***McMinnville TSP Implementation***

***Policy 132.62.00          TSP as Legal Basis -- The City of McMinnville shall use the McMinnville TSP as the legal basis and policy foundation for actions by decision-makers, advisory bodies, staff, and citizens in transportation issues. The goals, objectives, policies, implementation strategies, principles, maps, and recommended projects shall be considered in all decision-making processes that impact or are impacted by the transportation system.***

**APPLICANT'S RESPONSE:** The proposed rezone of the subject site to residential R-4 and commercial C-3 is consistent with the goals, objectives, policies, implementation strategies, principles, maps and recommended projects of the TSP. The City's goal and supplemental policies are addressed below.



**GOAL (Chapter VI) : TO ENCOURAGE DEVELOPMENT OF A TRANSPORTATION SYSTEM THAT PROVIDES FOR THE COORDINATED MOVEMENT OF PEOPLE AND FREIGHT IN A SAFE AND EFFICIENT MANNER.**

**APPLICANT'S RESPONSE:** The proposed rezone and future residential and commercial development work in the direction of achieving this goal by providing future onsite local streets that will provide safe and efficient connectivity for pedestrians, bicyclists, and vehicles through the neighborhood, as well as connectivity to Cumulus Avenue and the surrounding local street network. Future on-site transportation improvements will be designed to promote safety and traffic flow to and through the site and surrounding roadway network for all users.

***Supplemental Policies:***

***1. Transportation System Plan***

Future development of the subject site will be reviewed for consistency with the TSP policies in effect at the time of development.

***2. Complete Streets***

The design of the on-site circulation system will address the safety and convenience of pedestrians, bicyclists, transit users and motor vehicle drivers.

***3. Multi-Modal Transportation System***

The City's review of future development and onsite circulation plans for pedestrians, cyclists and vehicles will assure compliance with this policy.

***4. Connectivity and Circulation***

Future design and development of the site will address the connectivity elements of the 3MLAP to provide access for pedestrians, bicycles, and vehicles on the site.

***5. Supportive of General Land Use Plan Designations and Development Patterns***

The TIA, included as Exhibit F, provides an existing conditions (2025) and long-term (2041) analysis of trip generation impacts in the vicinity of the site and concludes that the proposed rezone of the subject site would result in no changes to functional classification of facilities within the study area.

***6. Regional Mobility***

The location of the proposed site on Cumulus Avenue provides ease of access to downtown McMinnville and regional employment centers such as Lafayette and Newberg.

***7. Growth Management***

The 2024 HNA demonstrates that there is a need for attainable housing options to address the projected housing deficit. Additionally, the 2023 EOA identified a deficit in commercial land throughout the City. The proposed rezone will allow for Medium, High-Density housing development as well as a node of neighborhood-serving commercial on the site. As such, the proposed zone change meets the needs of the surrounding community.

***8. Transportation System and Energy Efficiency***

The location of the proposed site, with direct access to Cumulus Avenue, provides opportunity for transportation system and energy efficiency with easy access for residents to downtown McMinnville and nearby commercial and employment centers, as well as the City's transit system.

### **9. Transportation Safety**

Future on-site transportation facilities will be designed and constructed in compliance with applicable standards in effect at the time of development.

### **10. Public Safety**

The future site plan review process will ensure that emergency vehicle access is provided on the proposed site.

### **11. Accessibility for Persons with Disabilities**

On-site connections and intersection improvements will be designed and constructed in compliance with applicable Americans with Disabilities (ADA) guidelines.

### **12. Economic Development**

The site is located within the 3MLAP area and has been identified as a potential mixed-use node, including local-serving retail and commercial services which will provide jobs for the local community. In addition, future development of the medium-high density residential housing will address the projected housing deficit and provide housing for the local workforce.

### **13. Livability**

Future design of on-site transportation facilities will incorporate features that provide efficient and safe use by pedestrians, cyclists and vehicles. Connectivity to offsite street and sidewalk systems will provide opportunity for accessing public transit, thereby reducing vehicle trips.

### **14. Health and Welfare**

The proposed site will be accessible via alternative modes of transportation, including transit and active transportation (by bicycle and by foot).

### **15. Transportation Sustainability**

The location of the proposed site along Cumulus Avenue provides easy access for residents to downtown McMinnville and nearby employment centers. In addition, public transit is easily accessed for residents and employees to travel to and from the site.

### **16. Aesthetics and Streetscaping**

Future site design will incorporate aesthetics and streetscaping to enhance residents' experience and livability of the neighborhood.

### **17. Intergovernmental Coordination and Consistency**

Lancaster Mobley prepared the TIA and TPR analyses for the proposed site. The methodology, findings and recommendations have been coordinated with the City of McMinnville and ODOT.

## ***Chapter VII: Community Facilities and Services***

***Goal VII-1 To provide necessary public and private facilities and utilities at levels commensurate with urban development, extended in a phased manner, and planned and provided in advance of or concurrent with development, in order to promote the orderly conversion of urbanizable and future urbanizable lands to urban lands within the McMinnville Urban Growth Boundary.***

**APPLICANT'S RESPONSE:** This Goal is targeted at rural lands that are not within the UGB and are proposed to be transitioned to urban land. The subject site is located within the McMinnville UGB and therefore this Goal is not applicable. Nonetheless, there will be necessary public and private facilities and utilities at levels commensurate with urban development at the time of development. Public utilities currently serve the vicinity of the subject site via main service lines located in the Cumulus Avenue and Atlantic Street rights-of-way. No development is proposed through this Application. Upon application for development of the site, the adequacy of public and private facilities for the proposed development will be reviewed. The provision of adequate facilities can be assured through conditions of approval.

***Policy 136.00 The City of McMinnville shall insure that urban developments are connected to the municipal sewage system pursuant to applicable city, state, and federal regulations.***

**APPLICANT'S RESPONSE:** Municipal sewer facilities currently serve the vicinity of the site via main lines located in the Cumulus Avenue and Atlantic Street rights-of-way. No development is proposed through this Application. Upon application for development of the sites, the adequacy of the sewer facilities for the proposed development will be reviewed. The provision of adequate facilities can be assured through conditions of approval.

***139.00 The City of McMinnville shall extend or allow extension of sanitary sewage collection lines within the framework outlined below:***

- 1. Sufficient municipal treatment plant capacities exist to handle maximum flows of effluents.***
- 2. Sufficient trunk and main line capacities remain to serve undeveloped land within the projected service areas of those lines.***
- 3. Public water service is extended or planned for extension to service the area at the proposed development densities by such time that sanitary sewer services are to be utilized.***
- 4. Extensions will implement applicable goals and policies of the comprehensive plan.***

**APPLICANT'S RESPONSE:** Municipal sewer facilities currently exist and serve the vicinity of the site via main lines located in the Cumulus Avenue and Atlantic Street rights-of-way. No development is proposed through this Application. Upon application for development of the site, the adequacy of the sewer facilities for the proposed development will be reviewed. The provision of adequate facilities can be assured through conditions of approval.

***Policy 142.00 The City of McMinnville shall insure that adequate storm water drainage is provided in urban developments through review and approval of storm drainage systems, and through requirements for connection to the municipal storm drainage system, or to natural drainage ways, where required.***

**APPLICANT'S RESPONSE:** No development is proposed through this Application. Upon application for development of the site, the design and adequacy of the stormwater drainage facilities for the proposed development will be reviewed. The provision of adequate facilities can be assured through conditions of approval.

**145.00** *The City of McMinnville, recognizing McMinnville Water and Light as the agency responsible for water system services, shall extend water services within the framework outlined below:*

- 1.** *Facilities are placed in locations and in such a manner as to insure compatibility with surrounding land uses.*
- 2.** *Extensions promote the development patterns and phasing envisioned in the McMinnville Comprehensive Plan.*
- 3.** *For urban level developments within McMinnville, sanitary sewers are extended or planned for extension at the proposed development densities by such time as the water services are to be utilized.*
- 4.** *Applicable policies for extending water services, as developed by the City Water and Light Commission, are adhered to.*

**APPLICANT'S RESPONSE:** No development is proposed through this Application. Upon application for development of the site, the design and adequacy of the water and sanitary sewer facilities for the proposed development will be reviewed. The provision of adequate facilities can be assured through conditions of approval.

#### **Water and Sewer—Land Development Criteria Policies**

**Policy 151.00** *The City of McMinnville shall evaluate major land use decisions, including but not limited to urban growth boundary, comprehensive plan amendment, zone changes, and subdivisions using the criteria outlined below:*

- 1.** *Sufficient municipal water system supply, storage and distribution facilities, as determined by McMinnville Water and Light, are available or can be made available, to fulfill peak demands and insure fire flow requirements and to meet emergency situation needs.*
- 2.** *Sufficient municipal sewage system facilities, as determined by the City Public Works Department, are available, or can be made available, to collect, treat, and dispose of maximum flows of effluents.*
- 3.** *Sufficient water and sewer system personnel and resources, as determined by McMinnville Water and Light and the City, respectively, are available, or can be made available, for the maintenance and operation of the water and sewer systems.*
- 4.** *Federal, state, and local water and waste-water quality standards can be adhered to.*
- 5.** *Applicable policies of McMinnville Water and Light and the City relating to water and sewer systems, respectively, are adhered to.*

**APPLICANT'S RESPONSE:** There are no known water or sewer deficiencies in the vicinity of the subject site. No development is proposed through this Application. Upon future application for development of the site, the availability and adequacy of the water, sewer, and stormwater drainage facilities and services to serve the proposed development will be reviewed. The provision of adequate facilities can be assured through conditions of approval.

## **Police and Fire Protection Policies**

**Policy 153.00** *The City of McMinnville shall continue coordination between the planning and fire departments in evaluating major land use decisions.*

**Policy 155.00** *The ability of existing police and fire facilities and services to meet the needs of new service areas and populations shall be a criterion used in evaluating annexations, subdivision proposals, and other major land use decisions.*

**APPLICANT'S RESPONSE:** There are no known police or fire service deficiencies in the vicinity of the subject site. No development is proposed through this application. Upon future application for development of the site, the availability and adequacy of the police and fire facilities and services to serve the proposed development will be reviewed. The provision of adequate facilities can be assured through conditions of approval.

***Goal VII 3: To provide parks and recreation facilities, open spaces, and scenic areas for the use and enjoyment of all citizens of the community.***

***163.00 The City of McMinnville shall continue to require land, or money in lieu of land, from new residential developments for the acquisition and/or development of parklands, natural areas, and open spaces.***

***163.05 The City of McMinnville shall locate future community and neighborhood parks above the boundary of the 100-year floodplain. Linear parks, greenways, open space, trails, and special use parks are appropriate recreational uses of floodplain land to connect community and other park types to each other, to neighborhoods, and services, provided that the design and location of such uses can occur with minimum impacts on such environmentally sensitive lands. (Ord. 4840, January 11, 2006)***

***164.00 The City of McMinnville shall continue to acquire floodplain lands through the provisions of Chapter 17.53 (Land Division Standards) of the zoning ordinance and other available means, for future use as natural areas, open spaces, and/or parks.***

***168.00 Distinctive natural features and areas shall be retained, wherever possible, in future urban developments.***

***170.00 The City of McMinnville shall require the provision of lands for parks from all subdivisions on Three Mile Lane, except when an existing park is available and reachable by safe and convenient pedestrian access. Where no land is dedicated, money in lieu of land shall be required.***

**APPLICANT'S RESPONSE:** The subject site has not been designated for any park development in the McMinnville Parks, Recreation and Open Space Plan. The portions of the site with floodplain lands or steep slopes will not be developed and will present future opportunities to preserve views of the South Yamhill River and Joe Dancer Park.

## **Chapter VIII Energy**

### **Energy Conservation**

**Goal VIII 2:**     *To conserve all forms of energy through utilization of land use planning tools.*

**Policy 178.00**    *The City of McMinnville shall encourage a compact urban development pattern to provide for conservation of all forms of energy.*

**APPLICANT'S RESPONSE:** The subject site is located within an urban area that is currently served by local energy providers. Future development of the site with R-4 medium-high density residential development will be consistent with the 3MLAP and will be characterized by compact development including a variety of attached housing types.

### **Chapter IX: Urbanization**

**Goal IX 1**        *To provide adequate lands to service the needs of the projected population to the year 2023, and to ensure the conversion of these lands in an orderly, timely manner to urban uses.*

**APPLICANT'S RESPONSE:** The proposed Comprehensive Plan Map Amendment and zone change address the need for additional residential and commercial land through 2041, identified in the 2024 Housing Needs Analysis and the 2023 EOA. Furthermore, the proposed zone change is consistent with the City's adopted 3MLAP, which envisions medium-high density residential and a mixed-use commercial node on the site in the future.

### **Land Use Development Tools Policies**

**Policy 186.00**    *The City of McMinnville shall place planned development overlays on areas of special significance identified in Volume I of the McMinnville Comprehensive Plan. Those overlays shall set forth the specific conditions for development of the affected properties. Areas of significance identified in the plan shall include but not be limited to:*

#### ***1. Three Mile Lane (north and south).***

**APPLICANT'S RESPONSE:** The subject site is located within the Three Mile Lane Overlay area. No development is proposed through this application. Future development will adhere to the policies and requirements of the overlay.

## **GREAT NEIGHBORHOOD PRINCIPLES**

### **Policies:**

*187.10 The City of McMinnville shall establish Great Neighborhood Principles to guide the land use patterns, design, and development of the places that McMinnville citizens live, work, and play. The Great Neighborhood Principles will ensure that all developed places include characteristics and elements that create a livable, egalitarian, healthy, social, inclusive, safe, and vibrant neighborhood with enduring value, whether that place is a completely new development or a redevelopment or infill project within an existing built area.*

*187.20 The Great Neighborhood Principles shall encompass a wide range of characteristics and elements, but those characteristics and elements will not function independently. The Great Neighborhood Principles shall be applied together as an integrated and assembled approach to neighborhood design and development to create a livable, egalitarian, healthy, social, inclusive, safe, and vibrant neighborhood, and to create a neighborhood that supports today's technology and infrastructure and can accommodate future technology and infrastructure.*

*187.30 The Great Neighborhood Principles shall be applied in all areas of the city to ensure equitable access to a livable, egalitarian, healthy, social, inclusive, safe, and vibrant neighborhood for all McMinnville citizens.*

*187.40 The Great Neighborhood Principles shall guide long range planning efforts including, but not limited to, master plans, small area plans, and annexation requests. The Great Neighborhood Principles shall also guide applicable current land use and development applications.*

*187.50 The McMinnville Great Neighborhood Principles are provided below. Each Great Neighborhood Principle is identified by number below (numbers 1 – 13), and is followed by more specific direction on how to achieve each individual principle.*

**APPLICANT'S RESPONSE:** This application is for a Comprehensive Plan Map and Zone Change for the 26-acre subject site located within the City's adopted 3MLAP area. As such, future development of the subject site will be reviewed for consistency with the Great Neighborhood Principles under the applicable procedures and standards of the McMinnville Zoning Ordinance.

### **Principles:**

*1. Natural Feature Preservation. Great Neighborhoods are sensitive to the natural conditions and features of the land.*

*a. Neighborhoods shall be designed to preserve significant natural features including, but not limited to, watercourses, sensitive lands, steep slopes, wetlands, wooded areas, and landmark trees.*

### **APPLICANT'S RESPONSE:**

The subject site is characterized by floodplain and slopes located within the northern portion of the site. Appropriate setbacks and open space buffer will prevent development within those areas.

2. Scenic Views. Great Neighborhoods preserve scenic views in areas that everyone can access.

a. Public and private open spaces and streets shall be located and oriented to capture and preserve scenic views, including, but not limited to, views of significant natural features, landscapes, vistas, skylines, and other important features.

**APPLICANT'S RESPONSE:**

The northern portion of the site has potential to provide views of the South Yamhill River and Joe Dancer Park. Proposed development will be reviewed for consistency with the 3MLAP and Great Neighborhood Principles and with applicable development standards.

3. Parks and Open Spaces. Great Neighborhoods have open and recreational spaces to walk, play, gather, and commune as a neighborhood.

a. Parks, trails, and open spaces shall be provided at a size and scale that is variable based on the size of the proposed development and the number of dwelling units.

b. Central parks and plazas shall be used to create public gathering spaces where appropriate.

c. Neighborhood and community parks shall be developed in appropriate locations consistent with the policies in the Parks Master Plan.

**APPLICANT'S RESPONSE:**

Future design of the site's development will incorporate appropriate gathering places for residents and users of the site, in addition to providing connections to existing adjacent developments and neighborhoods, natural areas, parks and trails in the vicinity.

4. Pedestrian Friendly. Great Neighborhoods are pedestrian friendly for people of all ages and abilities.

a. Neighborhoods shall include a pedestrian network that provides for a safe and enjoyable pedestrian experience, and that encourages walking for a variety of reasons including, but not limited to, health, transportation, recreation, and social interaction.

b. Pedestrian connections shall be provided to commercial areas, schools, community facilities, parks, trails, and open spaces, and shall also be provided between streets that are disconnected (such as cul-de-sacs or blocks with lengths greater than 400 feet).

**APPLICANT'S RESPONSE:**

The future design of the site will be guided by the 3MLAP and Great Neighborhood Principles to include on-site pedestrian features that provide circulation through the site and plan area to improve access, mobility and comfort for all users.

5. Bike Friendly. Great Neighborhoods are bike friendly for people of all ages and abilities.



- a. Neighborhoods shall include a bike network that provides for a safe and enjoyable biking experience, and that encourages an increased use of bikes by people of all abilities for a variety of reasons, including, but not limited to, health, transportation, and recreation.*
- b. Bike connections shall be provided to commercial areas, schools, community facilities, parks, trails, and open spaces.*

**APPLICANT'S RESPONSE:**

The future development of the site will be consistent with the goals of the 3MLAP and will include bicycle features that provide safe routes to and through the site and the plan area to improve access, mobility and comfort for bicycle riders.

*6. Connected Streets. Great Neighborhoods have interconnected streets that provide safe travel route options, increased connectivity between places and destinations, and easy pedestrian and bike use.*

*a. Streets shall be designed to function and connect with the surrounding built environment and the existing and future street network, and shall incorporate human scale elements including, but not limited to, Complete Streets features as defined in the Comprehensive Plan, grid street networks, neighborhood traffic management techniques, traffic calming, and safety enhancements.*

*b. Streets shall be designed to encourage more bicycle, pedestrian and transit mobility with a goal of less reliance on vehicular mobility.*

**APPLICANT'S RESPONSE:**

Future design and development of the site will be reviewed for consistency with the 3MLAP, which calls for a grid street system to provide connectivity within the site as well as with adjacent neighborhoods and streets. The future design of transportation improvements will address safety and convenience of pedestrians, bicyclists, transit users.

*7. Accessibility. Great Neighborhoods are designed to be accessible and allow for ease of use for people of all ages and abilities.*

*a. To the best extent possible all features within a neighborhood shall be designed to be accessible and feature elements and principles of Universal Design.*

*b. Design practices should strive for best practices and not minimum practices.*

**APPLICANT'S RESPONSE:**

Future design and development of the site will be guided by the access and connectivity elements of the 3MLAP. On-site connections will also be designed and constructed in compliance with accessibility standards in effect at the time of development.

*8. Human Scale Design. Great Neighborhoods have buildings and spaces that are designed to be comfortable at a human scale and that foster human interaction within the built environment.*

- a. The size, form, and proportionality of development is designed to function and be balanced with the existing built environment.*
- b. Buildings include design elements that promote inclusion and interaction with the right-of-way and public spaces, including, but not limited to, building orientation towards the street or a public space and placement of vehicle-oriented uses in less prominent locations.*
- c. Public spaces include design elements that promote comfortability and ease of use at a human scale, including, but not limited to, street trees, landscaping, lighted public areas, and principles of Crime Prevention through Environmental Design (CPTED).*

**APPLICANT’S RESPONSE:**

The subject site is located in the 3MLAP area, which includes as a key feature of the site a neighborhood-serving commercial node and medium-high density residential designated land which can support housing of varying scale. Future site design will be reviewed for consistency with 3MLAP elements addressing site features such as building orientation, parking, landscaping, lighting and CPTED.

*9. Mix of Activities. Great Neighborhoods provide easy and convenient access to many of the destinations, activities, and local services that residents use on a daily basis.*

- a. Neighborhood destinations including, but not limited to, neighborhood serving commercial uses, schools, parks, and other community services, shall be provided in locations that are easily accessible to surrounding residential uses.*
- b. Neighborhood-serving commercial uses are integrated into the built environment at a scale that is appropriate with the surrounding area.*
- c. Neighborhoods are designed such that owning a vehicle can be optional.*

**APPLICANT’S RESPONSE:**

This application proposes to rezone the subject site from primarily industrial zoning to residential and commercial zones. Consistent with the 3MLAP concept, future development will include mixed-use commercial uses that will serve the on-site and surrounding community, as well as a variety of housing types such as townhomes and multi-dwelling apartments. No development is proposed through this application. The future site development review process will ensure that the scale of future development is appropriate.

*10. Urban-Rural Interface. Great Neighborhoods complement adjacent rural areas and transition between urban and rural uses.*

- a. Buffers or transitions in the scale of uses, buildings, or lots shall be provided on urban lands adjacent to rural lands to ensure compatibility.*

**APPLICANT’S RESPONSE:**

The subject site is located within the 3MLAP area, which proposes a variety of complementary uses that will not conflict with the rural uses near the plan area. The proposed rezoning of the subject site to residential and commercial use is consistent with the 3MLAP. Future site design and development will

be consistent with the design elements of the 3MLAP and will be reviewed under the applicable zoning standards.

*11. Housing for Diverse Incomes and Generations. Great Neighborhoods provide housing opportunities for people and families with a wide range of incomes, and for people and families in all stages of life.*

*a. A range of housing forms and types shall be provided and integrated into neighborhoods to provide for housing choice at different income levels and for different generations.*

**APPLICANT'S RESPONSE:**

This application proposes a Zone Change and Comprehensive Plan Map change to result in a total of 17.8 acres of R-4 Medium, High-density zoned land. The proposed zoning will allow for a variety housing types, including small-lot single-dwelling homes, attached townhomes, and multi-dwelling apartments. These housing types are typically more attainable, providing choice at a variety of income levels.

*12. Housing Variety. Great Neighborhoods have a variety of building forms and architectural variety to avoid monoculture design.*

*a. Neighborhoods shall have several different housing types.*

*b. Similar housing types, when immediately adjacent to one another, shall provide variety in building form and design.*

**APPLICANT'S RESPONSE:** This application proposes 17.8 acres of R-4 Medium, High-Density zoned land on the subject site. The R-4 zone will allow for a variety of housing types at different scale and form, including small-lot single-family detached, attached townhomes, and multi-family dwellings. The proposed zone change is consistent with the City's adopted 3MLAP.

*13. Unique and Integrated Design Elements. Great Neighborhoods have unique features, designs, and focal points to create neighborhood character and identity. Neighborhoods shall be encouraged to have:*

*a. Environmentally friendly construction techniques, green infrastructure systems, and energy efficiency incorporated into the built environment.*

*b. Opportunities for public art provided in private and public spaces.*

*c. Neighborhood elements and features including, but not limited to, signs, benches, park shelters, street lights, bike racks, banners, landscaping, paved surfaces, and fences, with a consistent and integrated design that are unique to and define the neighborhood. (Ord 5066 §2, April 9, 2019)*

**APPLICANT'S RESPONSE:**

The subject site is located within the 3MLAP area. No development is proposed through this application. Future site design will be guided by the 3MLAP and incorporate integrated design elements of the 3MLAP that are appropriate for the residential and commercial mixed-uses on the site. Future

proposed development will be reviewed under the applicable development standards in effect at the time of development.

### ***Chapter X: Citizen Involvement and Plan Amendment***

***Goal X 2 To periodically review and amend the McMinnville Comprehensive Plan to reflect changes in community circumstances, in citizen desires, and in the statewide goals.***

**APPLICANT'S RESPONSE:** The 3MLAP was developed through a multi-year public involvement process that resulted in an "implementable vision for the area's future land uses and multi-modal transportation system." That vision reflects changes in community circumstances and citizen needs. The 3MLAP is intended to be implemented through the City's codes and ordinances, as well as amendments to the Comprehensive Plan Map. The rezoning of the subject site to residential and commercial mixed-use zoning is consistent with this goal.

### ***McMinnville Zoning Ordinance***

#### ***17.21 R-4 Medium, High-Density, 5000 SF Lot Residential Zone***

**APPLICANT'S RESPONSE:** This application proposes a total of 17.8 acres of land to be zoned with the R-4 Medium, High-Density zoning designation. Permitted uses within the R-4 residential zone include small-lot single-family detached units, attached townhomes and multifamily developments, among other uses. No development is proposed through this application. Future development applications will be subject to the City's review process described in *Chapter 17.72*.

#### ***17.33 C-3 General Commercial Zone***

**APPLICANT'S RESPONSE:** This application proposes a total of 3.62 acres of land to be zoned with the C-3 General Commercial zoning designation. Neighborhood-serving retail and service uses are permitted within the C-3 zone. No development is proposed through this application. Future development applications will be subject to the City's review process described in *Chapter 17.72*.

#### ***17.72.020 Application Submittal Requirements***

**APPLICANT'S RESPONSE:** The Applicant has submitted the required materials for this application for Comprehensive Plan Map Amendment and Zone Change.

#### ***17.72.095 Neighborhood Meetings***

**APPLICANT'S RESPONSE:** The Applicant held a Neighborhood Meeting on March 4, 2025. All noticing was done in accordance with *17.72.095*. Documentation of the meeting is attached as Exhibit D.

**17.74.020 Comprehensive Plan Map Amendment and Zone Change - Review Criteria.**

***An amendment to the official zoning map may be authorized, provided that the proposal satisfies all relevant requirements of this ordinance, and also provided that the applicant demonstrates the following:***

***A. The proposed amendment is consistent with the goals and policies of the Comprehensive Plan.***

**APPLICANT'S RESPONSE:** The applicable findings included in the narrative above demonstrate that the proposed comprehensive plan map amendment and zone change are consistent with the goals and policies of the Comprehensive Plan.

***B. The proposed amendment is orderly and timely, considering the pattern of development in the area, surrounding land uses, and any changes which may have occurred in the neighborhood or community to warrant the proposed amendment;***

**APPLICANT'S RESPONSE:** The subject site is located within the plan area of the City's adopted 3MLAP. This proposed comprehensive plan map amendment and zone change will bring the site's zoning into compliance with the 3MLAP land use concept plan. Further, this requested amendment and zone change address a need for additional attainable housing options for the city's growing population, identified in the 2024 Housing Needs Analysis.

No development is proposed through this Application. This Application is timely in that needed residential and commercial land would be designated and made available for future development with the uses envisioned in the 3MLAP.

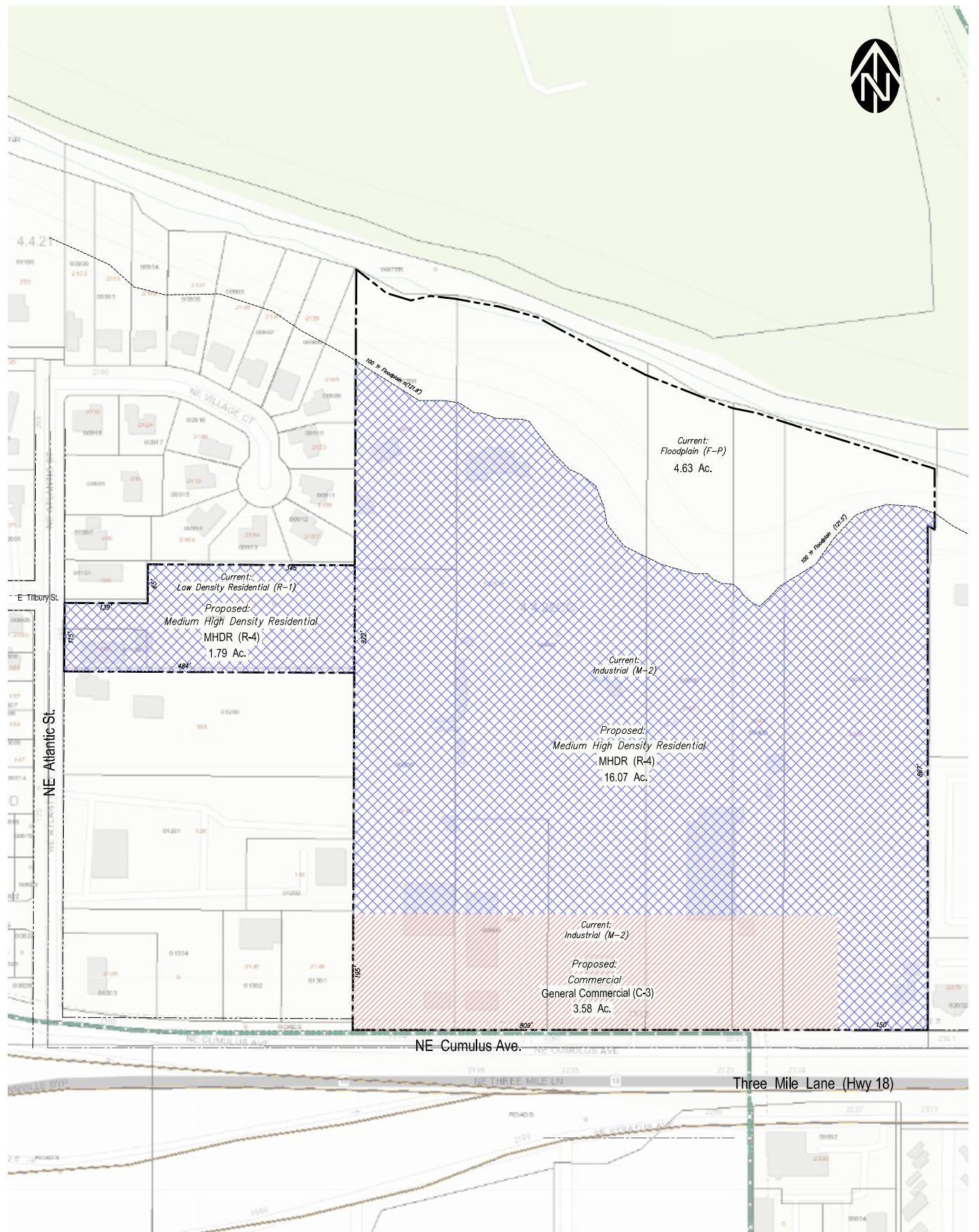
Upon future application for development, site development plans will be subject to the review process of *Chapter 17.72* of the *McMinnville Zoning Ordinance*.

***C. Utilities and services can be efficiently provided to serve the proposed uses or other potential uses in the proposed zoning district.***

**APPLICANT'S RESPONSE:** No development is proposed through this Application. Upon submittal of a development application, proposed plans will be subject to applicable zone requirements, as well as the public hearing and review process of *Chapter 17.72* of the *McMinnville Zoning Ordinance*. The efficient provision of utilities and services to the proposed development could be assured through conditions of approval.

**CONCLUSION**

This Application includes substantial evidence demonstrating that the proposed Comprehensive Plan Map Amendment and Zone Change satisfies all applicable standards of the City of McMinnville. The Applicant respectfully requests approval of this Application as proposed.



## CPA-ZC Site Plan

Comprehensive Plan Map Amendment & Zone Change

4-4-22CC Tax Lots 100, 400, 500, 600, 601, 700, 800, 1100, & 1102  
NE Cumulus & NE Atlantic BRR Properties, LLC

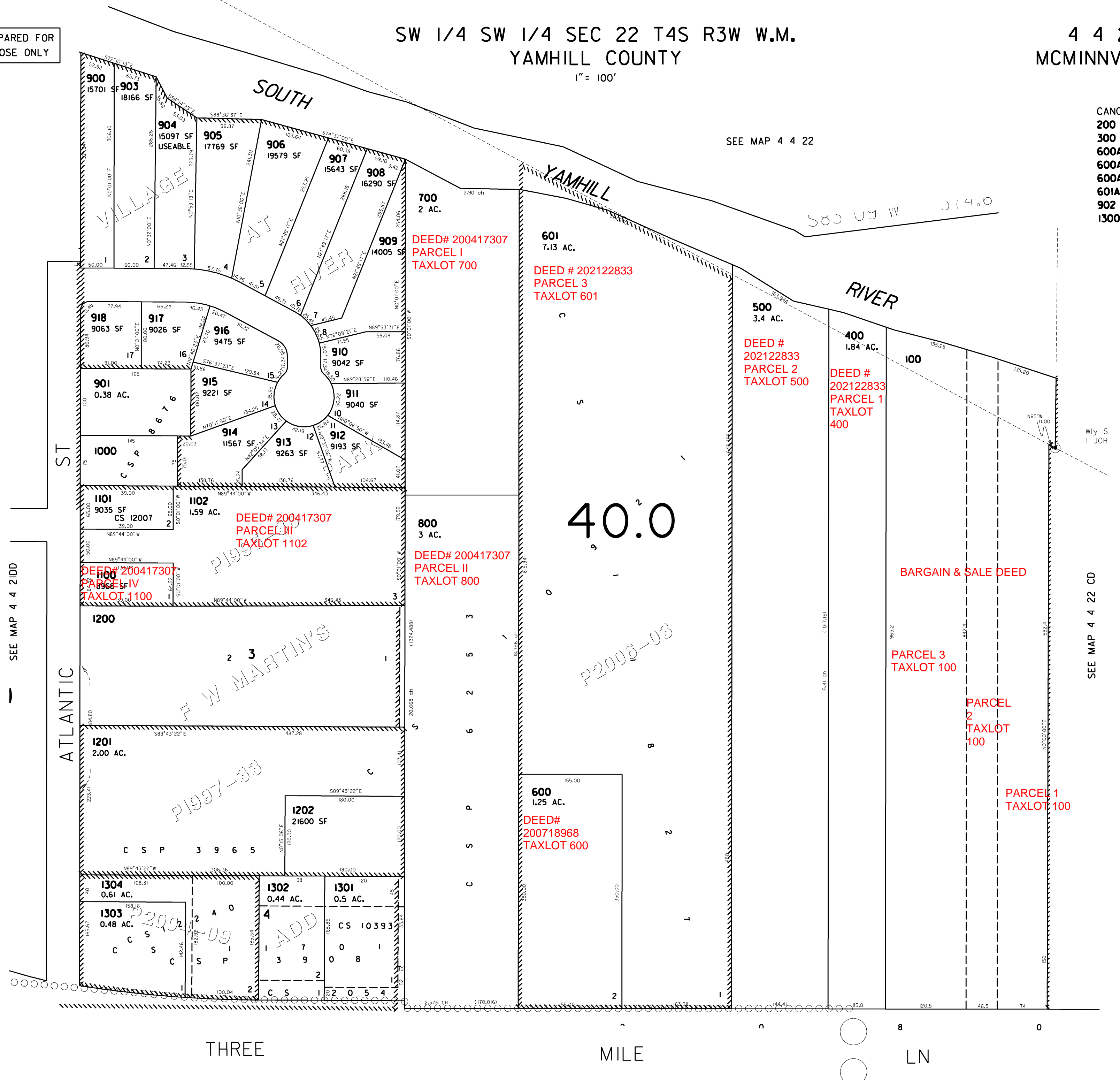
**WESTLAKE**  
CONSULTANTS INC.

ENGINEERING • SURVEYING • PLANNING

PACIFIC CORPORATE CENTER  
15115 S.W. SEQUOIA PARKWAY, SUITE 150 (503) 684-0652  
TIGARD, OREGON 97224 FAX (503) 624-0187



CANCELLED  
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SEE MAP 4 4 27

**TAX MAP 4422CC, TAX LOT 700  
DEED# 200417307**

Order No. 40-0113104

**EXHIBIT "A"**

**PARCEL I:**

All that portion of the following described real property lying North of an Easterly extension of the North line of "B" Street as shown on the Plat of F.W. MARTIN'S SUBDIVISION, a part of the Nehemiah Martin Donation Land Claim, Notification No. 1436, Claim No. 83 in Township 4 South, Range 4 West of the Willamette Meridian in Yamhill County Oregon and BEGINNING at an iron pin  $\frac{1}{2}$  X 20" set in the center of the County Road and 7.01  $\frac{1}{2}$  chains East of the Southwest corner of Section 22, said point being the Southeast corner of that certain tract conveyed to Alberta Copeland by deed recorded March 11, 1910 in Book 58, Page 85, Deed Records; thence North along the East line of said Copeland tract, 20.068 chains to the North line of the said Claim in the Yamhill River; thence South  $63^{\circ} 00'$  East along Claim line, 2.89 chains to the Northwest corner of that certain tract conveyed to O.C. Yocom Ready Mix, an Oregon corporation by deed recorded August 9, 1951 in Book 162, Page 446, Deed Records; thence South along the West line of the said Ready Mix tract, 18.756 chains to iron pin  $\frac{1}{2}$  X 20" set on Section line and in center of County Road; thence West, 2.576 chains to BEGINNING.

WT&E 2244-14



**TAX MAP 4422C, TAX LOT 800**  
**DEED# 200417307**

**PARCEL II:**

All that portion of the following described real property lying South of an Easterly extension of the North line of "B" Street as shown on the Plat of F.W. MARTIN SUBDIVISION, a part of the Nehemiah Martin Donation Land Claim, Notification No. 1436, Claim No. 83 in Township 4 South, Range 4 West of the Willamette Meridian in Yamhill County, Oregon, and BEGINNING at an iron pin  $\frac{1}{2}$  X 20" set in the center of the County Road and 7.01  $\frac{1}{2}$  chains East of the Southwest corner of Section 22, said point being the Southeast corner of that certain tract conveyed to Alberta Copeland by deed recorded March 11, 1910 in Book 58, Page 85, Deed Records; thence North along the East line of said Copeland tract, 20.068 chains to the North line of the said Claim in the Yamhill River; thence South  $63^{\circ} 00'$  East along Claim line, 2.89 chains to the Northwest corner of that certain tract conveyed to O.C. Yocom Ready Mix, an Oregon corporation by deed recorded August 9, 1951 in Book 162, Page 446, Deed Records; thence South along the West line of the said Ready Mix tract, 18.756 chains to iron pin  $\frac{1}{2}$  X 20" set on Section line and in center of County Road; thence West, 2.576 chains to BEGINNING.

WT&E 2244-14-1

**TAX MAP 4422CC, TAX LOT 1102**  
**DEED# 200417307**

Order No. 40-0113104

**PARCEL III:**

Parcel 3 of Partition Plat 96-36 in Section 22, Township 4 South, Range 4 West of the Willamette Meridian, Yamhill County, Oregon

**TAX MAP 4422CC. TAX LOT 1100**  
**DEED# 200417307**

**PARCEL IV:**

Parcel 1 of Partition Plat 96-36 in Section 22, Township 4 South, Range 4 West of the Willamette Meridian, Yamhill County, Oregon

**TAX MAP 4422CC. TAX LOT 400  
DEED # 202122833**

**EXHIBIT "A"**

**Legal Description**

**PARCEL 1:**

Being a part of the Nehemiah Martin Donation Land Claim No. 83, Notification No. 1436 in Section 22, Township 4 South, Range 4 West of the Willamette Meridian in Yamhill County, Oregon, and beginning at a point on the Northerly line of said Martin Claim that is 281.5 feet North 63° West from the most Westerly Southwest corner of the Isaiah M. Johns Donation Land Claim; thence South, 965.2 feet to the North line of State Highway No. 18; thence West along said North line 85.80 feet, more or less, to a point on the East line of that tract conveyed to Byron Nelson Rubens and Mary Anna Harper, by Deed recorded February 23, 1967 in Film Volume 58, Page 329, Deed and Mortgage Records; thence North along said East line, 15.41 chains, more or less, to the North line of said Martin Claim; thence South 63° East along said North line to the Point of Beginning.

**TAX MAP 4422CC. TAX LOT 500  
DEED # 202122833**

**PARCEL 2:**

Being a part of the Nehemiah Martin Donation Land Claim No. 83, Notification No. 1436 in Section 22, Township 4 South, Range 4 West of the Willamette Meridian in Yamhill County, Oregon, and Beginning in the center of the County Road on Section line between Sections 22 and 27 at a point 14.418 chains East of the Southwest corner of Section 22; thence North 16.586 chains to a stake on the North line of the said Nehemiah Martin Claim, from which stake an ash 50 inches in diameter bears South 54° West, 38 links and an Alder 12 inches in diameter bears South 86°15' West, 63-1/2 links; thence South 61°44' East along North line of Martin Claim, 2.484 chains to a stake from which an Alder 10 inches in diameter bears North 10°31' East, 11-1/2 links and an Alder 12 inches in diameter bears North 47°15' East, 11 links; thence South 15.41 chains to an iron pipe 1 X 24 inches set in center of County Road on South line of Section 22; thence West along Section line, 2.188 chains to the Point of Beginning.

**TAX MAP 4422CC. TAX LOT 601  
DEED # 202122833**

PARCEL 3:

Parcel 1, PARTITION PLAT NO. 2006-03, recorded February 10, 2006, as Instrument No. 200602976, in the City of McMinnville, County of Yamhill, State of Oregon.

**TAX MAP 4422CC. TAX LOT 600  
DEED # 200718968**

Parcel 2, Partition Plat 2006-03, recorded February 10, 2006, instrument no. 200602976, City of McMinnville, Yamhill County, Oregon.

**TAXMAP 4422CC. TAX LOT 100  
BARGAIN AND SALE DEED AS ATTACHED**

**AFTER RECORDING, RETURN TO:**

Cumulus Road, LLC  
21800 SW Farmington Road  
Beaverton, OR 97007

**UNTIL FURTHER NOTICE, SEND  
PROPERTY TAX STATEMENTS TO:**

Cumulus Road, LLC  
21800 SW Farmington Road  
Beaverton, OR 97007  
(This is Grantee's address.)

**GRANTOR:**

Oregon Mainline Paving, LLC,  
an Oregon limited liability company  
2245 NE Cumulus Avenue  
McMinnville, OR 97128

**BARGAIN AND SALE DEED**

**OREGON MAINLINE PAVING, LLC**, an Oregon limited liability company, Grantor, conveys to **CUMULUS ROAD, LLC**, an Oregon limited liability company, Grantee, property in Yamhill County, described on the attached Exhibit "A".

The true consideration for this conveyance, stated in terms of dollars is **SEVEN HUNDRED EIGHTEEN THOUSAND SIX HUNDRED TWENTY-FIVE (\$718,625.00) DOLLARS**.

"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, OF 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, OF CHAPTER 424, OREGON LAWS 2007, AND SECTIONS 2 TO 9 AND 17, CHAPTER 855, OREGON LAWS 2009, AND SECTIONS 2 TO 7, CHAPTER 8, OREGON LAWS 2010."

**SELLER:**

OREGON MAINLINE PAVING, LLC,  
an Oregon limited liability company

By: T. A. Baker  
Todd A. Baker, Manager

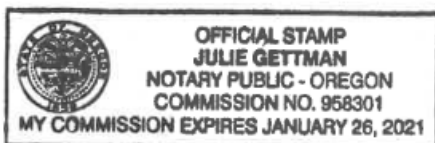
By: R. M. Seehawer  
Ryan M. Seehawer, Manager

STATE OF OREGON )  
COUNTY OF Yamhill ) SS.

This instrument was acknowledged before me on this date by Todd A. Baker and Ryan M. Seehawer, who, being duly sworn, stated they are Managers of Oregon Mainline Paving, LLC, an Oregon limited liability company, and are duly authorized to sign on behalf of the LLC.

Dated: 7/30/2020

Julie Gettman  
NOTARY PUBLIC FOR OREGON  
My Commission Expires: 1/26/2021



## **EXHIBIT A**

### **PARCEL NO. 1:**

**Beginning at a point on the Northeasterly line of the Nehemiah Martin Donation Land Claim No. 83, Notification No. 1436 in Township 4 South, Range 4 West of the Willamette Meridian in Yamhill County, Oregon, which point is 11 feet North 63° West from the most Westerly Southwest corner of the Isaiah M. Johns Donation Land Claim; thence South 842.4 feet to a point on the North line of the county road and the true point of beginning; thence West along the North line of the county road, 74 feet to a point; thence North 150 feet to a point; thence East parallel with the said North line of said county road, 74 feet to a point; thence South 150 feet to the true place of beginning.**

### **PARCEL NO. 2:**

**Beginning at a point on the Northerly line of the Nehemiah Martin Donation Land Claim No. 83, Notification No. 1436, in Township 4 South, Range 4 West of the Willamette Meridian in Yamhill County, Oregon and being a part of said Claim said beginning point being 11 feet North 63° West from the most Westerly Southwest corner of the Isaiah M. Johns Donation Land Claim and running thence North 63° West 135.25 feet; thence South about 842.4 feet to the North line of the County road leading from McMinnville to Dayton; thence East along the North line of said county road, 46-1/2 feet; thence North 150 feet; thence East 74 feet; thence North about 692.4 feet to the said beginning point.**

### **PARCEL NO. 3:**

**Beginning at a point on the Northerly line of the Nehemiah Martin Donation Land Claim No. 83, Notification No. 1436 in Township 4 South, Range 4 West of the Willamette Meridian in Yamhill County, Oregon, and being a part of the said Claim, said beginning point being 11 feet North 63° West from the most Westerly Southwest corner of the Isaiah M. Johns Donation Land Claim and running thence North 63° West 270.5 feet to the true place of beginning; thence South about 965.2 feet to the North line of the county road leading from McMinnville to Dayton; thence East along the North line of said county road, 120-1/2 feet, more or less, to the Southwest corner of tract conveyed to Ivan Earl Dimmitt and wife by deed recorded September 10, 1953, in Book 171, Page 85, Deed Records; thence North along the West line of said Dimmitt tract to a point on the North line of the Nehemiah Martin Donation Land Claim; thence North 63° West along the North line of said Donation Land Claim to beginning.**



## Neighborhood Meeting

February 10, 2025

**RE: Cumulus Avenue / Atlantic Street – 26-Acre Site**

**Proposed: Plan Amendment and Rezone to Three Mile Lane Plan Zone Designations**

Dear Property Owners:

Westlake Consultants, Inc. is representing BRR Properties, LLC for the property located at 2245 NE Cumulus Avenue, McMinnville, OR 97128. The site is approximately 26 acres in size and is identified as Tax Lots 100, 400, 500, 600, 601, 700, 800, 1100, and 1102 of Tax Map 4.4.22CC – see map provided on the reverse side of this letter.

We are considering a proposal for land use approval of a Comprehensive Plan Map Amendment and Rezone of the site to be consistent with Three Mile Lane Plan zoning designations. Prior to applying to the City of McMinnville, we would like to take the opportunity to discuss the proposal in more detail with you.

You are invited to attend an in-person meeting:

**Tuesday March 4<sup>th</sup>, 2025 6:00 p.m.**  
**225 N.W. Adams Street – McMinnville Public Library, Carnegie Room**

The purpose of this meeting is to provide a forum for the Applicant and surrounding Property Owners/Residents to review the proposal and to identify issues so that they can be considered before formal land use applications are submitted to the City. This meeting gives you the opportunity to share with us any special information you know about the property involved. We will attempt to answer questions which may be relevant to our project.

Please note this meeting will be an informational meeting on preliminary development plans. These plans may be altered prior to submittal of the applications to the City of McMinnville.

We look forward to more specifically discussing the proposal with you. Contact me at 503-684-0652 or [ksandblast@westlakeconsultants.com](mailto:ksandblast@westlakeconsultants.com) if you have questions.

Sincerely,



Kenneth Sandblast, AICP  
Director of Planning

THIS MAP WAS PREPARED FOR  
ASSESSMENT PURPOSE ONLY

SW 1/4 SW 1/4 SEC 22 T4S R3W W.M.

YAMHILL COUNTY

4 4 22CC  
MCMINNVILLE

**CANCELLED**  
**200**  
**300**  
**600A1**  
**600A2**  
**600A3**  
**601A1**  
**902**  
**1300**

SEE MAP 4 4 22

SEE MAP 4 4 2IDD

SEE MAP 4 4 22 CD

THREE

MILE

Z

SEE MAP 4 4 27

4 4 22CC

REVISÉ 12-8-06 SB

©



## Neighborhood Meeting

Comprehensive Plan Map Amendment & Rezone

4-4-22CC Tax Lots 100, 400, 500, 600, 601, 700, 800, 1100, & 1102  
NE Cumulus & NE Atlantic BRR Properties, LLC

**WESTLAKE**  
CONSULTANTS INC.

ENGINEERING • SURVEYING • PLANNING

PACIFIC CORPORATE CENTER  
15115 S.W. SEQUOIA PARKWAY, SUITE 150 (503) 684-0652  
TIGARD, OREGON 97224 FAX (503) 624-0187

SITUS	OWNER	OWNER	MAILING ADD	MAILING AD MAIL	MAILING
217 NE ATLANTIC ST	BONNETT MARIBETH	BONNETT ROY E	217 NE ATLANTIC ST	MCMINNVIL OR	97128
219 NE ATLANTIC ST		CARPENTER LARRY R & ELSIE S	219 NE ATLANTIC ST	MCMINNVIL OR	97128
2015 NE TILBURY ST		SAYLER JOHN D	2015 NE TILBURY ST	MCMINNVIL OR	97128
2025 NE TILBURY ST		PITTMAN ZACHARIAH R	2025 NE TILBURY ST	MCMINNVIL OR	97128
215 NE ATLANTIC ST		HUSTON DAVID W & SENGCHANH	215 NE ATLANTIC ST	MCMINNVIL OR	97128
2019 NE TILBURY ST	ALAMEDA FRANK C	ALAMEDA BECKY L	2019 NE TILBURY ST	MCMINNVIL OR	97128
2012 NE TILBURY ST	TRONCOSO MA G T	FLORES-CEJA JUAN &	2012 NE TILBURY ST	MCMINNVIL OR	97128
2016 NE TILBURY ST		FOX IRENE J	2016 NE TILBURY ST	MCMINNVIL OR	97128
2020 NE TILBURY ST	GARCIA EVA	GARCIA JOSE	2020 NE TILLBURY ST	MCMINNVIL OR	97128
2030 NE TILBURY ST		ESPINOZA-LOPEZ BARBARA	2030 NE TILLBURY ST	MCMINNVIL OR	97128
161 NE ATLANTIC ST		SPURGEON TRACI	161 NE ATLANTIC ST	MCMINNVIL OR	97128
157 NE ATLANTIC ST	RAMIREZ MARIA	GARCIA FRANCISCO &	157 NE ATLANTIC ST	MCMINNVIL OR	97128
153 NE ATLANTIC ST	RAMIREZ ADOLFO JUAREZ	CAMPUZANO MARICELA	153 NE ATLANTIC ST	MCMINNVIL OR	97128
147 NE ATLANTIC ST		CRAIN JENNIFER	147 NE ATLANTIC ST	MCMINNVIL OR	97128
0		MCMINNVILLE AREA HABITAT FOR HUMANITY	PO BOX 301	MCMINNVIL OR	97128
158 NE TURNER WAY		SHERWOOD EMBER	158 NE TURNER WAY	MCMINNVIL OR	97128
154 NE TURNER WAY		VARGAS JAVIER MARTINEZ	154 NE TURNER WAY	MCMINNVIL OR	97128
146 NE TURNER WAY	FLOYD YADIRA E	FLOYD EDWARD L	146 NE TURNER WAY	MCMINNVIL OR	97128
0		MCMINNVILLE AREA HABITAT FOR HUMANITY	PO BOX 301	MCMINNVIL OR	97128
137 NE ATLANTIC ST		FLINN NICOLE	137 NE ATLANTIC ST	MCMINNVIL OR	97128
135 NE ATLANTIC ST	REYES MA DEJESUS MATA	PACHECO MARCO	135 NE ATLANTIC ST	MCMINNVIL OR	97128
0		MCMINNVILLE AREA HABITAT FOR HUMANITY	PO BOX 301	MCMINNVIL OR	97128
136 NE TURNER WAY		LOPEZ GERARDO R	136 NE TURNER WAY	MCMINNVIL OR	97128
138 NE TURNER WAY		DARNELL STEPHANIE	138 NE TURNER WAY	MCMINNVIL OR	97128
143 NE TURNER WAY		MCMINNVILLE AREA HABITAT FOR HUMANITY	PO BOX 301	MCMINNVIL OR	97128
145 NE TURNER WAY		MCMINNVILLE AREA HABITAT FOR HUMANITY	PO BOX 301	MCMINNVIL OR	97128
151 NE TURNER WAY		MCMINNVILLE AREA HABITAT FOR HUMANITY	PO BOX 301	MCMINNVIL OR	97128
155 NE TURNER WAY		MAGGARD MIRANDA	155 NE TURNER WAY	MCMINNVIL OR	97128
159 NE TURNER WAY		GARCIA LORENA	159 NE TURNER WAY	MCMINNVIL OR	97128
2010 NE TILBURY ST	JEHOVAHS WITNESSES MCM	WEST CONGREGATION OF	2010 NE TILBURY ST	MCMINNVIL OR	97128
R4422 02300		MCMINNVILLE CITY OF	230 NE 2ND ST	MCMINNVIL OR	97128
R4422 02300		MCMINNVILLE CITY OF	230 NE 2ND ST	MCMINNVIL OR	97128

2355 NE CUMULUS AVE		CUMULUS ROAD LLC	PO BOX 1369	BEAVERTON OR	97075
2325 NE THREE MILE LN		BRR PROPERTIES LLC	PO BOX 1369	BEAVERTON OR	97075
2305 NE CUMULUS AVE		BRR PROPERTIES LLC	PO BOX 1369	BEAVERTON OR	97075
2225 NE CUMULUS AVE		LAUREL HEIGHTS LLC	PO BOX 1369	BEAVERTON OR	97075
2245 NE CUMULUS AVE		BRR PROPERTIES LLC	PO BOX 1369	BEAVERTON OR	97075
2205 NE CUMULUS AVE		BAKER ROCK ACQUISITIONS LLC	PO BOX 1369	BEAVERTON OR	97075
2215 NE CUMULUS AVE		BAKER ROCK ACQUISITIONS LLC	PO BOX 1369	BEAVERTON OR	97075
210 NE ATLANTIC ST		KELLER LARRY G & SHIRLEY A	210 NE ATLANTIC ST	MCMINNVIL OR	97128
2127 NE VILLAGE CT		MCNAMARA MARYALICE	2127 NE VILLAGE CT	MCMINNVIL OR	97128
2135 NE VILLAGE CT	CEBALLOS-MCLEOD NADIA J	MCLEOD J FRANKLIN JR	2135 NE VILLAGE CT	MCMINNVIL OR	97128
2147 NE VILLAGE CT	RODRIGUEZ-KAMMERZELT S	KAMMERZELT JOHN	2147 NE VILLAGE CT	MCMINNVIL OR	97128
2155 NE VILLAGE CT		OWEN PHYLLIS D	2155 NE VILLAGE CT	MCMINNVIL OR	97128
2165 NE VILLAGE CT	BRODEUR EMILIA J	BRODEUR EDWARD S &	2165 NE VILLAGE CT	MCMINNVIL OR	97128
2173 NE VILLAGE CT	WOOD JULIE M	WOOD ROSS N	2173 NE VILLAGE CT	MCMINNVIL OR	97128
2185 NE VILLAGE CT	LEE BARBARA A	LEE ALAN D &	2185 NE VILLAGE CT	MCMINNVIL OR	97128
2197 NE VILLAGE CT		SERVIN LUIS C	2197 NE VILLAGE CT	MCMINNVIL OR	97128
2194 NE VILLAGE CT		JONES DANIEL W	2194 NE VILLAGE CT	MCMINNVIL OR	97128
2184 NE VILLAGE CT		KEIHLE DONNA	2184 NE VILLAGE CT	MCMINNVIL OR	97128
2172 NE VILLAGE CT	SCHAECHER PAUL C	SCHAECHER DARLENE	2172 NE VILLAGE CT	MCMINNVIL OR	97128
2160 NE VILLAGE CT	MCKINNEY KATHLEEN G TRU	MCKINNEY KATHLEEN G TRUSTEE	2160 NE VILLAGE CT	MCMINNVIL OR	97128
2124 NE VILLAGE CT	SCHMIDT CHLOE A	SCHMIDT AARON D	2124 NE VILLAGE CT	MCMINNVIL OR	97128
2110 NE VILLAGE CT	HUGHET NATHAN H	HUGHET ERIN R	2110 NE VILLAGE CT	MCMINNVIL OR	97128
200 NE ATLANTIC ST	AXTELL PRISCILLA (DECEASE	AXTELL RODNEY D	200 NE ATLANTIC ST	MCMINNVIL OR	97128
160 NE ATLANTIC ST		BAKER ROCK ACQUISITIONS LLC	PO BOX 1369	BEAVERTON OR	97075
190 NE ATLANTIC ST	BRENNER SHERIDEEN K REV	BRENNER SHERIDEEN K TRUSTEE	40201 NE MEYERS RD	LA CENTER WA	98629
R4422CC 01102		BAKER ROCK ACQUISITIONS LLC	PO BOX 1369	BEAVERTON OR	97075
158 NE ATLANTIC ST		NICKOLISEN GARY J & PAMELLA	158 NE ATLANTIC ST	MCMINNVIL OR	97128
126 NE ATLANTIC ST		AMERICAN LEGION POST 21	PO BOX 11	MCMINNVIL OR	97128
118 NE ATLANTIC ST		HIS PROMISE LLC	15575 SE WEBFOOT RD	DAYTON OR	97114
2149 NE CUMULUS AVE		CUMULUS LLC	PO BOX 828	MCMINNVIL OR	97128
2147 NE CUMULUS AVE		CUMULUS LLC	PO BOX 828	MCMINNVIL OR	97128
R4422CC 01304		CUMULUS LLC	PO BOX 828	MCMINNVIL OR	97128
165 NE DUNN PL	FULL KAY	FULL MICHAEL	165 NE DUNN PL	MCMINNVIL OR	97128

2435 NE CUMULUS AVE	PMC INVESTMENTS LLC	2435 NE CUMULUS AVE MCMINNVIL OR	97128
2395 NE CUMULUS AVE LINCK ANGELA	LINCK DELWIN	2395 NE CUMULUS AVE MCMINNVIL OR	97128
R4422CD 02001	PMC INVESTMENTS LLC	2435 NE CUMULUS AVE MCMINNVIL OR	97128
2375 NE CUMULUS AVE	SARTORIUS PROPERTIES LLC	PO BOX 821 MCMINNVIL OR	97128
2397 NE CUMULUS AVE	K SHORE HOLDINGS LLC	9800 NE MEADOW LOC NEWBERG OR	97132
2400 SE STRATUS AVE 38	STRATUS AVENUE HOLDINGS LLC	18150 SW BOONES FEE PORTLAND OR	97224
2300 SE STRATUS AVE	AAB PROPERTIES LLC	1725 NW 5TH CT MCMINNVIL OR	97128
2330 SE STRATUS AVE	AAB PROPERTIES LLC	1725 NW 5TH CT MCMINNVIL OR	97128
R4427 00603	STRATUS AVENUE HOLDINGS LLC	18150 SW BOONES FEE PORTLAND OR	97224
2320 SE STRATUS AVE FEERO ANDREA M	FEERO JENNIFER L	701 S RIVERSIDE DR ST CHARLES MO	63302
2270 SE THREE MILE LN MCMULLIN GREGORY K TRUS	MOYER PHYLLIS TRUSTEE FOR	6738 E HUBBELL SCOTTSDAL AZ	85257
R4427 00800 WEAKLEY SUSAN 1/2	WEAKLEY SUSAN TRUSTEE FOR	32175 SW EAST LAKE P WILSONVIL OR	97070



**NEIGHBORHOOD MEETING**  
Future Land Use Application:  
COMPREHENSIVE PLAN MAP  
2nd ZONE CHANGE  
To Three Mile Lane First Street Designation

DATE	MARCH 4, 2025
TIME	6:00 PM

Meeting Location:  
225 N.W. ADAMS ST.  
MADISONVILLE PUBLIC LIBRARY

City of Madisonville Planning Department  
City Engineer: [Name] City Manager: [Name]  
City Clerk: [Name] City Attorney: [Name]

SPEED  
10





**NEIGHBORHOOD  
MEETING**  
Future Land Use Application:  
**COMPREHENSIVE PLAN MAP  
and ZONE CHANGE**  
To Three Mile Lane Plan Zoning Designations

DATE:	MARCH 4, 2025
TIME:	6:00 PM
Meeting Location:	225 N.W. ADAMS ST. MCMINNVILLE PUBLIC LIBRARY Contact Name: KIM LUGGLEY, RETAILER CONSULTANT Contact Number: 864-882-0022



# Virtual Neighborhood Meeting

## Comprehensive Plan Amendment & Zone Change

Tuesday, March 4, 2025 6:00 p.m.

### McMinnville Public Library

### Sign-in Sheet

Name	Address	Phone	E-mail
Alex + Barbara Lei	2185 N.E. Village Ct	541-5103-845	Fordtruck95@Comcast.net
Nancy Collins	594 NE Norton Lane	<del>503-388-3935</del>	<del>ncollins@comcast.net</del>
Dorinda Kiehle	2184 NE Village Ct	971-237-5256	
Gene Hamilton	225 Atlantic St.	503-798-2999	sjagene317@yahoo.com
Christine Hamilton	"	503-434-2170	flowerh34@yahoo
Larry Carpenter	219 NE Atlantic St.	971-312-2402	LeCarpenter@Frontier.com
Edythe Carpenter	219 NE Atlantic St.	971-267-6163	lecarpet@Frontier.com
Nanette Cramer	538 NE Clark Ct	503-883-3935	Cramer1138@comcast.net
John W. Cramer	538 NE Clark Ct.	503-883-3935	Cramer1138@comcast.net
Kathleen McKinney	2166 NE Village Ct	503-883-9429	irishgarden2@yahoo.com
Lana Brown	2664 NE Cole Ave	503-320-0863	Cmckay540@hotmail.com
Mike & Lori Schneider	2183 NE Cole Ave.	503-883-3247	mschneider1@Frontier.com
Glen & Carina Rice	2732 NE Destiny Dr	971-241-3180	
Morrist Barbara Thacker	541 NE Haven Ln	503-550-1307	cam.man@outlook.com
Emily Schaper	2103 NE Village Ct		petrichorlove@gmail.com
Pam. Nickolausen	199 Atlantic St	971-241-6544	

# Virtual Neighborhood Meeting

## Comprehensive Plan Amendment & Zone Change

Tuesday, March 4, 2025 6:00 p.m.

### McMinnville Public Library

### Sign-in Sheet

Name	Address	Phone	E-mail
Garv Nickolisen	1588 Atlantic St	503-769-9734	garvnickolisen@hotmail.com
Marty Viete	2228 NE Cole Ave, McMinnville	503-540-9172	batbird@sbglobal.net
Norina Viete	2728 NE Cole Ave, McMinnville	503-382-7828	catbird@sbglobal.net
Scott Neubig	535 NE Clark Ct McMinnville	503-883-1364	scottneubig@gmail.com
Aaron Schmidt	2124 NE Village Ct, McMinnville	503-467-0649	aaron.schmidt@gmail.com
Charles Laughlin	2147 NE Cumulus Ave	503-474-7399	clayg@lmsjournal.com
Wendy Hitecock	1827 SE Nehalem Lane, Mac	503-702-3019	heartlandrecreation@gmail.com
Nathaniel Hitecock	" "	503-437-8053	nathanowknoes@gmail.com
Alex Botten	1785 NW 5th Ct, Ave	503-520-5237	
Andrea Botten	1725 NW 5th Ct McMinnville	503-568-2443	abotten1@frontier.com
Michael Owens	7000 SE Sartore Rd, Amity, OR	971-237-1944	moovens@forestalenrepair.com
Barbara Tracy	265 NE Dunn Place, McMinnville	701-321-0678	b.d.bessac@att.net
Luke O'Halloran	118 NE Atlantic St, McMinnville	971-241-7009	luke@yourcrawlspacequys.com
Colton O'Halloran	118 NE Atlantic St McMinnville	971-241-8405	coltonohalloran@gmail.com
Larry O'Halloran	118 NE Atlantic St McMinnville	971-241-9360	Larry@YourCrawlspacequys.com
Christine M. Luke	2559 N.E. Norton St, McM	503-435-2164	omajm57@yahoo.com

[illegible]

# Three Mile Lane North District

## Comprehensive Plan Amendment & Zone Change

Neighborhood Meeting  
Tuesday March 4, 2025  
6:00pm Start

**Virtual Neighborhood Meeting**  
**Comprehensive Plan Amendment & Zone Change**  
**Tuesday, March 4, 2025 6:00 p.m.**

Presenter: Ken Sandblast, Westlake Consultants

	<b>AGENDA</b>
5 Min.	Introductions
10 Min.	Site & Zoning
10 Min.	Three Mile Lane Plan
10 Min.	Transportation
10 Min.	Proposed Rezone Plan
15 Min.	Question & Answer

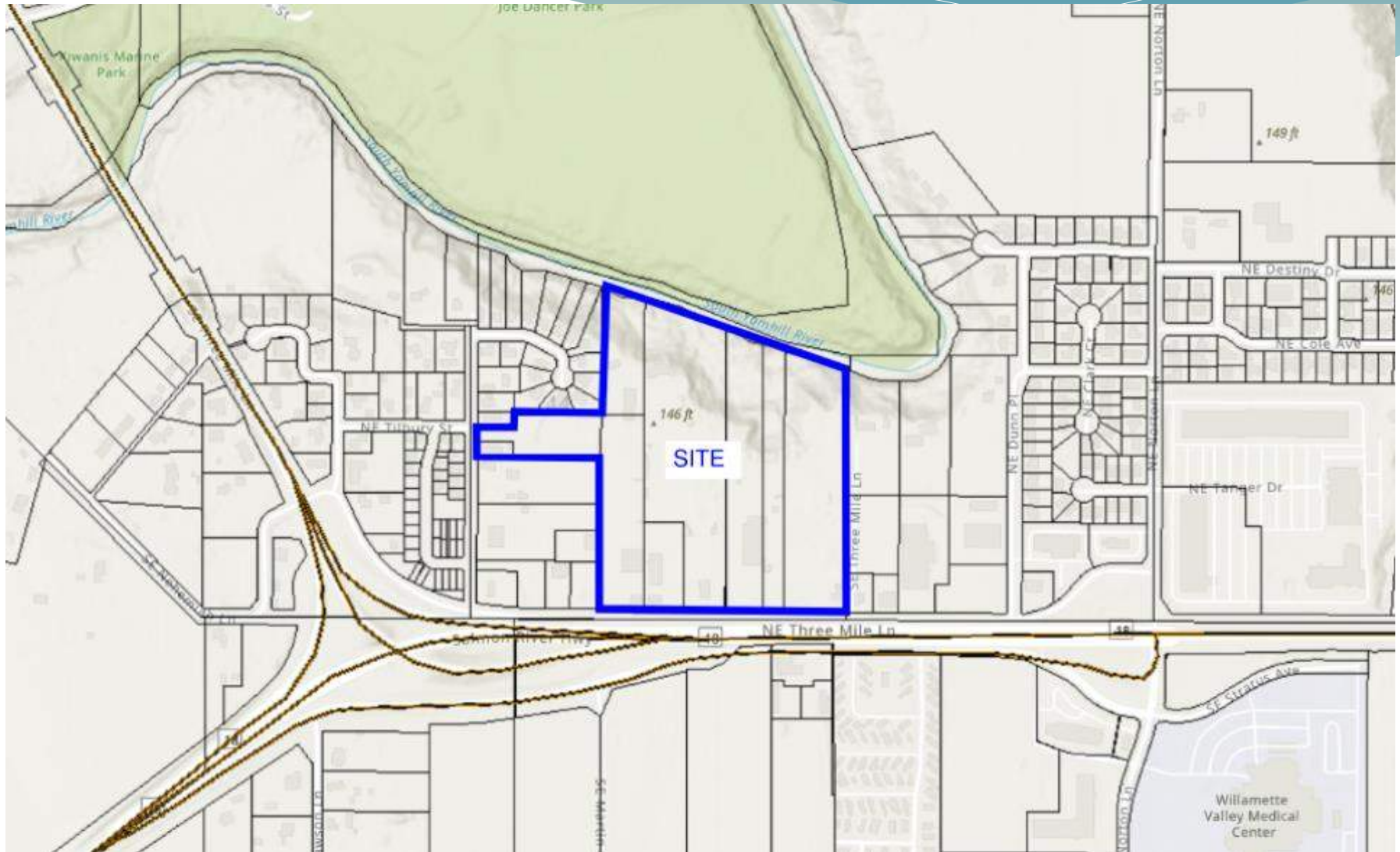
**Virtual Neighborhood Meeting**  
**Comprehensive Plan Amendment & Zone Change**  
**Tuesday, March 4, 2025 6:00 p.m.**  
**McMinnville Public Library**  
**Sign-in Sheet**

Name	Address	Phone	E-mail

# VICINITY and SITE



# Vicinity Map



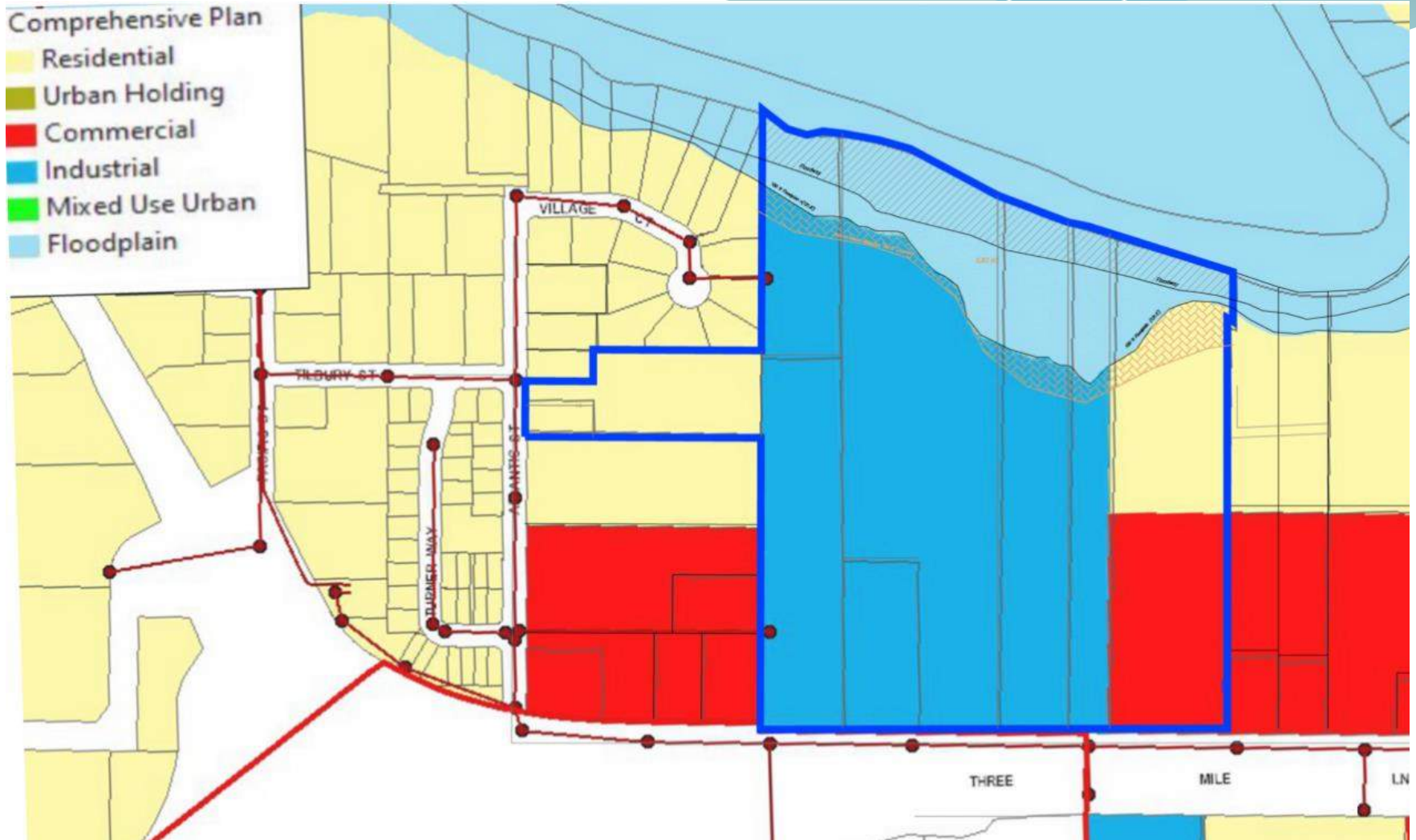


# Aerial Photo



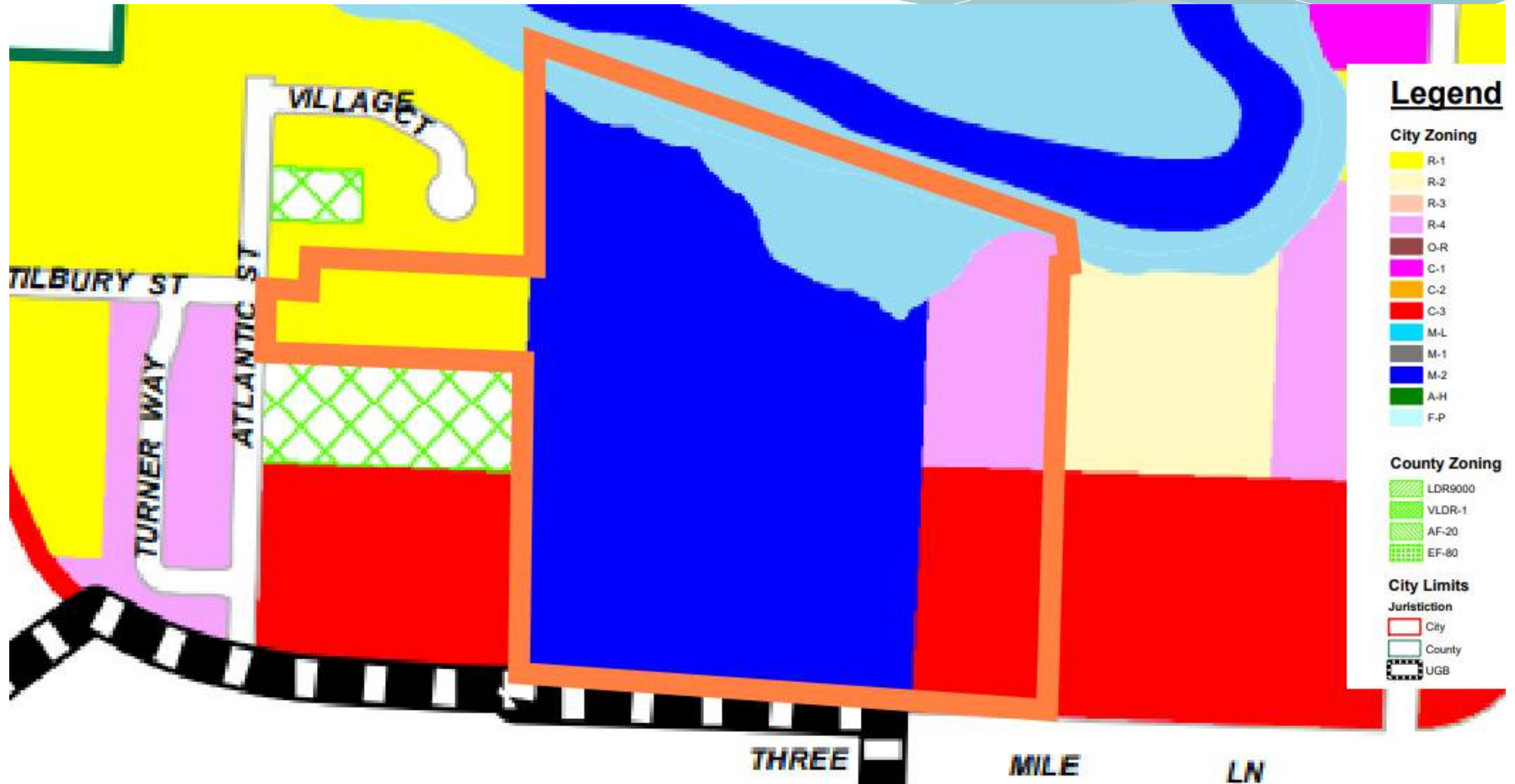
# EXISTING ZONING MAPS

# Comprehensive Plan Map





# Zoning Map

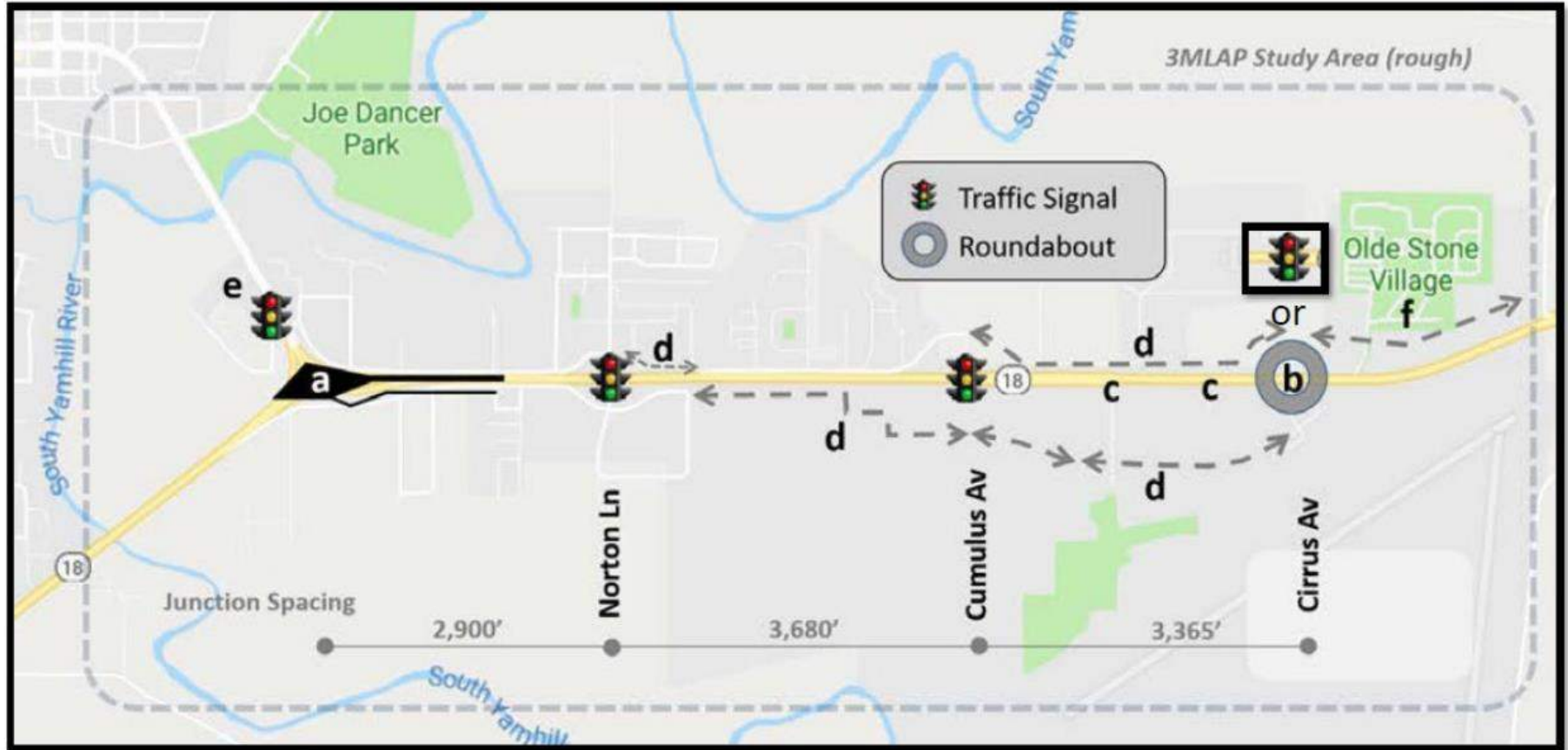


# TRANSPORTATION

# Transportation

## Preferred Facility Design

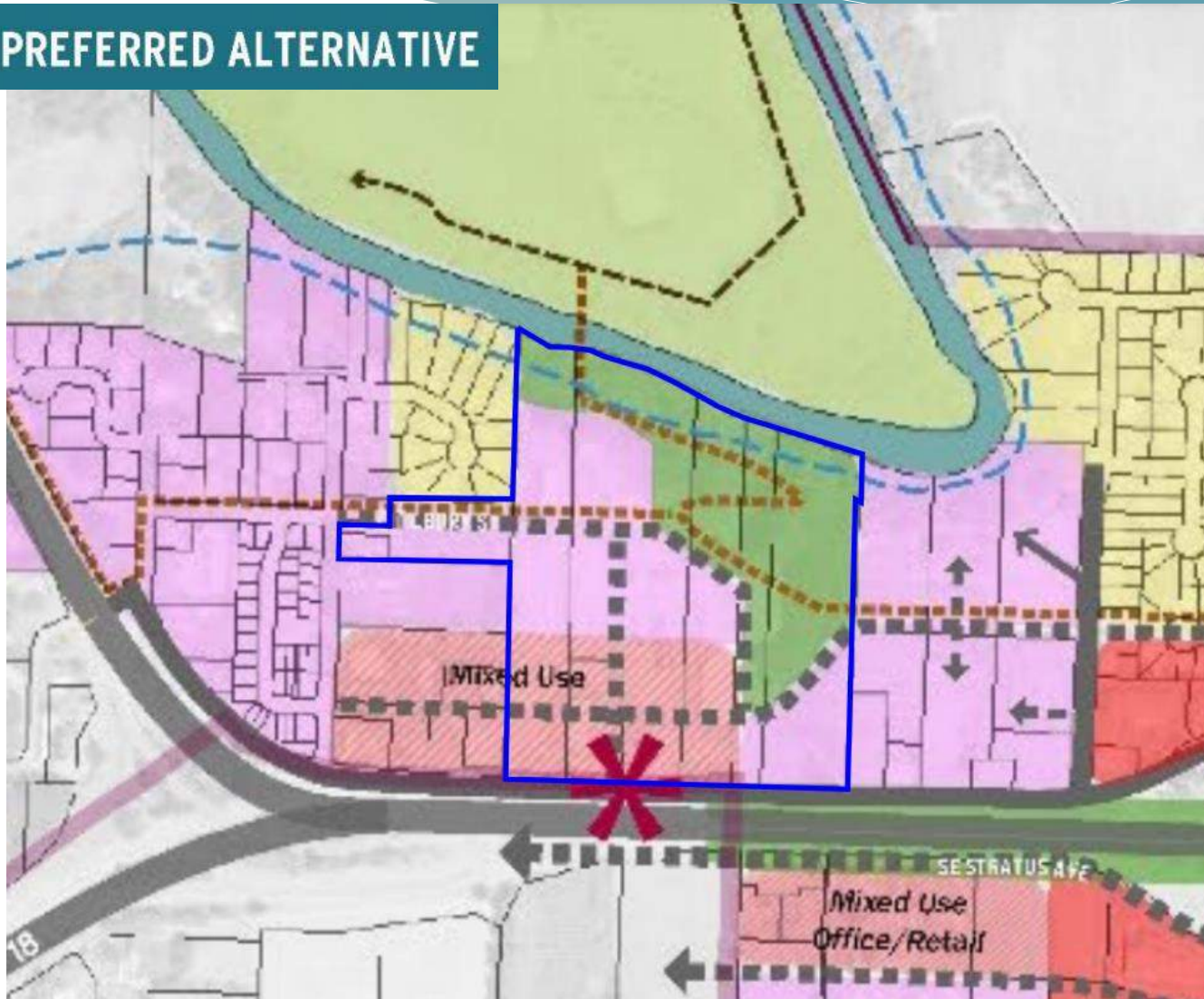
Figure 12. Preferred Facility Design Concept



# PROPOSED REZONE

# Three Mile Lane Plan

## PREFERRED ALTERNATIVE

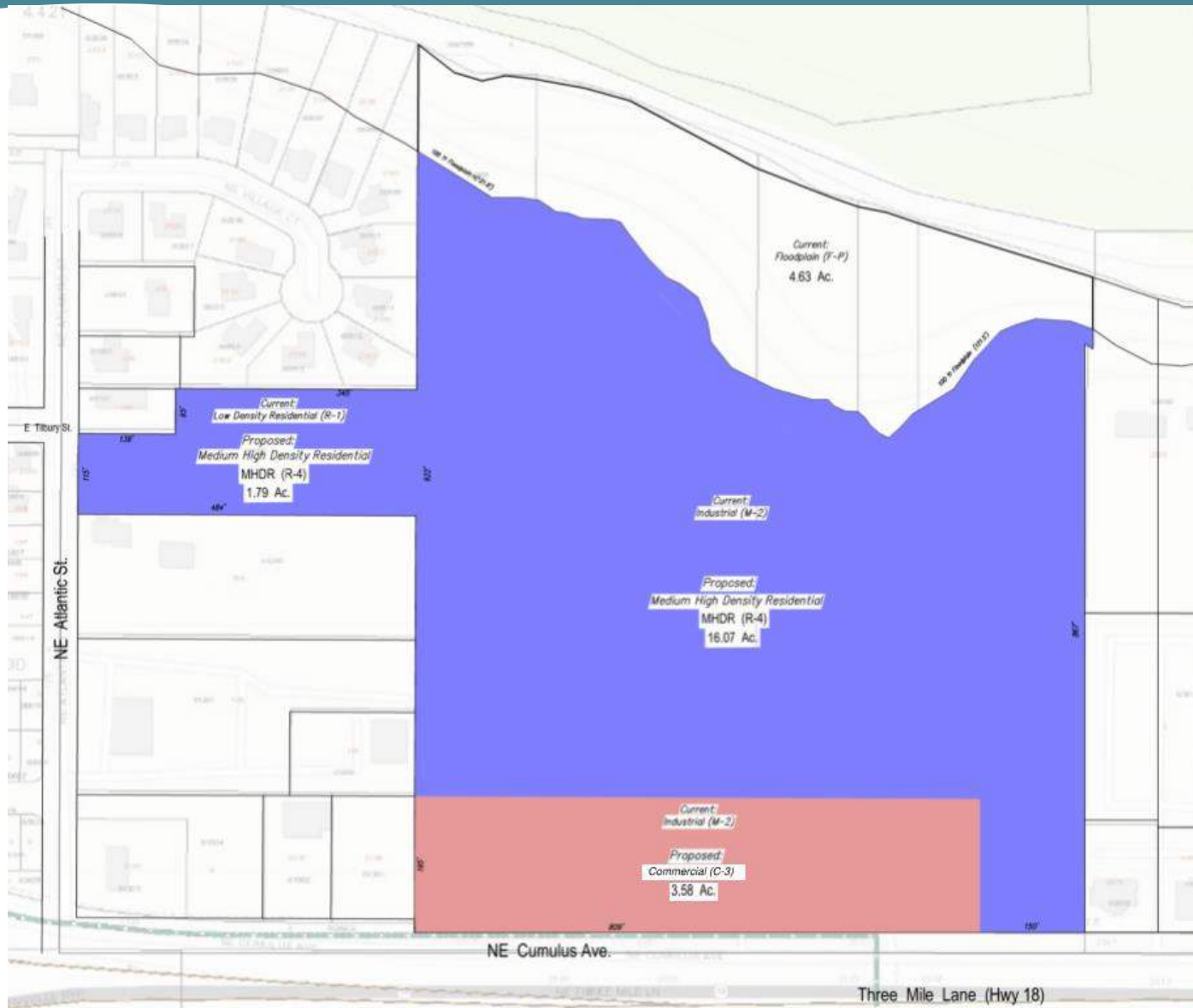




# 3ML Plan – North District

Figure 7. *Mixed Use Area (Baker Rock Site) Conceptual Design*





# Q & A

# Contact Information

For any questions or input you may have that was not addressed at tonight's meeting, email or call:

Ken Sandblast  
Westlake Consultants

[ksandblast@westlakeconsultants.com](mailto:ksandblast@westlakeconsultants.com)

503-684-0652

**Cumulus Avenue / Atlantic Street – 26-Acre Site**  
**Proposed: Plan Amendment and Rezone to Three Mile Lane Plan Zone Designations**  
**Neighborhood Meeting Notes**

Date: Tuesday, March 4, 2025, 6:00 p.m.

Location: McMinnville Public Library, 225 NW Adams St., Carnegie Room

Presenter: Ken Sandblast, Westlake Consultants, Inc.

Applicant: BRR Properties, LLC / Todd Baker, Property Owner

Ken Sandblast began the meeting at approximately 6:00 p.m. Ken reviewed the agenda and explained the City's code requirements for the Neighborhood Meeting and notification process. He then provided an overview of the proposed project, which is a Comprehensive Plan Map Amendment and Zone Change for the 26-acre site located on Cumulus Avenue/Atlantic Street. A previous meeting was held in August 2024.

A PowerPoint presentation provided visual representation of the project and key aspects of the site. Exhibits included:

- Vicinity Map
- Aerial Photograph of the Site
- Comprehensive Plan Map
- Zoning Map
- Three Mile Lane Plan Map
- Three Mile Lane North District Map
- Proposed Zone Change Plan Map
- Transportation Map: Three Mile Lane

Ken discussed the location of the site, specific features of the site such as topography and street access, zoning of the site and surrounding area, and the site's Three Mile Lane zoning designations. In addition, he explained the timeline of the land use application and review process for the proposed Map Amendment and Zone Change.

Questions raised during the meeting were addressed during Ken's presentation and the Q & A session. A summary of questions/issues and responses follows.

## Summary of Issues/Questions and Responses

***Are you aware of the 300+ apartments going in across Hwy 18 from the site? There is no guarantee that there won't be more high-density/apartment development.***

No housing is proposed at this time. Future planning for development of housing on the subject site will take into account the market, including projects that have been recently developed.

***With over 16 acres proposed to be rezoned to Medium/High-density, what is the overall density proposed for the site?***

The Medium/High Density zone allows for a range of density, depending upon the type of housing. Future development may include small-lot single-family homes, townhomes and multi-dwelling apartments. There is no specific plan for housing development on the site at this time; the overall density for the site is estimated to range from 23 to 30 units per acre.

***Why are you proposing to combine the existing R-1 portion with the proposed R-4 portion? Can the existing home remain and the road not go through there? The City cannot force the change from R-1 to R-4.***

The proposed rezone area (total project site) is under one ownership, therefore, the proposal includes all of the tax parcels included under that ownership.

The adopted 3MLAP includes a conceptual plan for future transportation changes that are anticipated as being needed as the area continues to develop, such as a grid street system that will provide needed connectivity.

In addition, the entire site is located within the City's adopted Three Mile Lane Area Plan (3MLAP), which is intended to guide future development in a designated area north and south of Three Mile Lane (Hwy 18). The proposed rezone of the subject site is consistent with the 3MLAP. The City cannot force the rezoning of the R-1 portion to R-4, however, the Owner of the site has the option of doing so, based on the adopted 3MLAP.

***I am the Owner of a shop on Cumulus next to the project site. We are already dealing with crime and traffic bottlenecks with the morning traffic. I am concerned about the added traffic that future development of the site will bring.***

The 3MLAP and the City's development code will require the extension of a grid-type street system on the site that meets block-length requirements and provides the necessary connectivity. The exact location of those future streets has not yet been

---



determined, but any future development plans will be required to show detailed plans for streets.

***I am concerned that traffic will be bad. Any plans to accommodate increased congestion on roads in the area?***

The future development of the site will require a land use application that details the alignment of proposed streets, which will need to meet the City's and 3MLAP grid system and block-length requirements. There is a traffic study in process to look at the impacts of a zone change. Upon future development of the site, specific development plans will be subject to additional traffic analysis.

***There is no infrastructure (retail) currently being put up to serve residents of the area. What plans do you have to help develop services in this area?***

The project site was identified in the 3MLAP as an area suitable for commercial retail and services that serve the local area. The proposed rezoning plan for the project site includes a portion of C-3 (commercial) zoned land along the southern portion of the site, bordering on Cumulus Avenue. Future development of that portion of the site will address the need for retail and services.

***My concern related to needed infrastructure is the current addition of apartments (across Hwy 18) and more housing coming. There are no schools nearby, and kids need to be bused miles away. Any more density will be a problem regarding schools.***

Typically, a school district will periodically review capacity for any potential need, as demand increases/decreases as part of District long-range planning, including considering school attendance boundary adjustment.

***Have you looked at other areas with high density?***

Future development will be planned based on what the market will support. The proposed R-4 zoning allows for a range of housing types. Future development of the site could potentially include small-lot single-family housing, townhomes and apartments.

***What about businesses that may not want to move?***

Existing businesses that aren't a 'permitted use' under the new zoning designations would become 'non-conforming uses', however, they could not be forced to move. The existing business on the site, CalPortland, has future lease options to remain operating

---

at the site for potentially years to come. They would not be allowed to expand or intensify their use of the site, nor could they replace facilities if damaged.

***What about the cumulative traffic impact to roadways in the area?***

The traffic impact study that is currently being conducted for the proposed rezone is taking into account traffic from other development activities. In addition, the Government will monitor traffic impacts from development on the transportation infrastructure as they update the Transportation System Plan.

***Is the cement operation leaving?***

Cal Portland has options to continue leasing the site for a number of years into the future. Under the proposed zoning, the operation could remain on the site as is, but could not expand or intensify their use of the site and could not replace any damaged facilities.

***Is the plan to develop the small portion (to the west) of the site first? What is the timing?***

The rezoning process will need to be completed before a land use application for subdivision of the small westerly site can occur.

We are waiting for the completion of the traffic study and then will be submitting the rezone application. The City's review process for the rezone is likely to take 4-6 months for public comment and the issuance of a Decision. It is possible that a development application for the subdivision could be submitted by the end of the year, with the City's review taking several months.

***Can you tell the City to mail notices to attendees of the meeting?***

As part of our application submittal, we will provide meeting notes and the sign-in sheet to the City. We can request that they add attendee names/addresses to the list for future notices on the project.

***What is the general time frame for the development of properties within the 3MLAP area?***

The 3MLAP will be implemented over time as development is done by each property owner. In each case, the proposed development will be required to go through the City's review and public comment process.

For this zone change proposal, the traffic study is currently in process. Once the land use application is submitted, there will be 4 to 6 months of review and public comment before a Decision is issued by the City Council.

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***Will businesses in the proposed mixed-use area have direct access to Cumulus Avenue?***

The 3MLAP conceptual plan shows consolidated street access via a grid street system. Buildings will be oriented to the internal streets, with parking located behind the building. The grid system will provide connectivity to Cumulus Avenue.

Other concerns mentioned:

***Some trails near the river will be inaccessible during the rainy season.***

Those areas are likely within the floodplain.

***Parking continues to be a problem along Atlantic, which has 'No Parking' signs.***

This is an enforcement issue.

***Can you put parking under the homes?***

It is too early to know any specific design features of future homes.

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lancaster  
**moble**y

## 2245 NE Cumulus Avenue Zone Change

Transportation Impact  
Analysis

McMinnville, OR

Date:

June 24, 2025

Prepared for:

Todd Baker

Prepared by:

Todd Mobley, PE

Ken Kim, PE



EXPIRES: 12/31/2026

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## Executive Summary

- This Transportation Impact Analysis (TIA) is prepared to support the rezoning of nine parcels of land totaling approximately 26.07 acres from a mixed zone of General Industrial (M-2), Residential (R-1 & R-4), and General Commercial (C-3) to a mixed zone of Residential (R-4) and General Commercial (C-3). The purpose of the rezoning is to allow for a future mixed-use development on the site, consistent with the adopted Three Mile Lane Area Plan.
- The trip generation calculations show that the proposed zone change is estimated to generate 52 additional trips during the morning peak hour, 139 additional trips during the evening peak hour, and 2,054 additional trips during the average weekday.
- Based on the review of crash history, no geometric deficiencies are evident at any study intersections. None of the study intersections were identified to have crash rates exceeding 1.00 or ODOT 90<sup>th</sup> percentile crash rates for similar intersections. Accordingly, no safety mitigation is necessary or recommended at these intersections.
- Signal warrants are not projected to be met at any of the unsignalized study intersections under the 2041 planning horizon with the zone change implemented.
- Left-turn-lane warrants are met for the southbound approach at the intersection of NE Cumulus Avenue/SE Nehemiah Lane and NE Three Mile Lane under all analysis scenarios during the evening peak hour, including existing conditions. The need for this left-turn lane is not triggered by the proposed zone change or any development on the site. It is recommended that at the time of development, the applicant coordinate with the City to participate in the construction of a left-turn lane at this intersection.
- In addition to the southbound left-turn lane mentioned above, a westbound right-turn lane is recommended at the intersection of SE Nehemiah Lane/NE Cumulus Avenue & NE Three Mile Lane to mitigate the potential impact from the zone change. The westbound right-turn lane would improve v/c ratio to better than no-build conditions (0.56).
- The planned zone change will not impact or alter the functional classification of any existing or planned facility and the proposal does not include a change to any functional classification standards. With the recommended improvement at the intersection of SE Nehemiah Lane/NE Cumulus Avenue & NE Three Mile Lane, all study intersections are expected to have sufficient capacity to accommodate the planned zone change. Accordingly, the Transportation Planning Rule is satisfied.



# Project Description

## Introduction

This Transportation Impact Analysis (TIA) is prepared to support the rezoning of nine parcels of land totaling approximately 26.07 acres from a mixed zone of General Industrial (M-2), Residential (R-1 & R-4), and General Commercial (C-3) to a mixed zone of Residential (R-4) and General Commercial (C-3). The purpose of the rezoning is to allow for a future mixed-use development on the site, consistent with the adopted Three Mile Lane Area Plan.

The purposes of this study are to determine whether the transportation system within the vicinity of the site is capable of supporting the proposed zone change, to determine any mitigation that may be necessary to do so, and to demonstrate compliance with the Transportation Planning Rule (TPR).

Based on conversations with staff at the City of McMinnville and the Oregon Department of Transportation (ODOT) Region 2 office, the report includes safety and capacity analyses at 7 intersections:

1. NE 3rd Street & NE Johnson Street
2. SE 1st Street & SE Three Mile Lane
3. SE Nehemiah Lane/NE Cumulus Avenue & NE Three Mile Lane
4. NE Cumulus Avenue & NE Pacific Street
5. NE Cumulus Avenue & NE Norton Lane
6. NE Three Mile Lane (OR 18) & NE Norton Lane
7. NE Three Mile Lane (OR 18) & Cumulus Avenue

This report will identify the potential increase in traffic and will include an analysis of intersection operations for existing conditions as well as the 2041 planning horizon year traffic conditions, both with and without the addition of potential site trips associated with the proposed zone change. Because the proposed land use action is only a change in zoning and not a specific development plan, no near-term build-out year is examined. A safety analysis will also be conducted that provides a detailed examination of crash history at the study intersections and evaluates the needs for turn lanes and traffic signals. Detailed information on traffic counts, crash data, and level of service calculations are included in the appendix to this report.

## Site Description

The nine parcels proposed for rezoning are located north of NE Cumulus Avenue and east of NE Atlantic Street on Tax Map R4422CC Lot 100, 400, 500, 600, 601, 700, 800, 1100, and 1102, as shown in Figure 1.



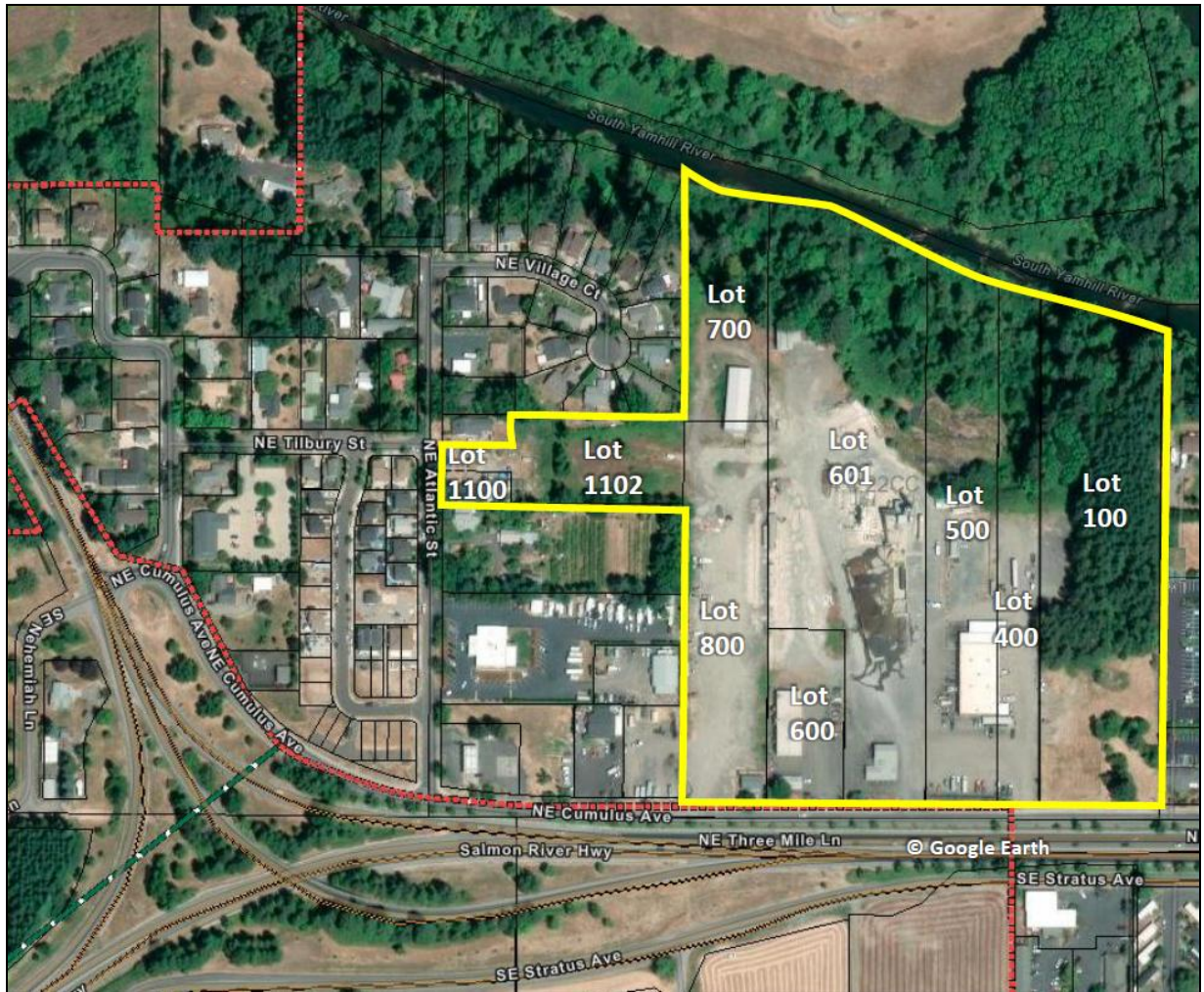


Figure 1: Aerial Photo of Site Vicinity

### Vicinity Streets

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

Table 1: Vicinity Roadway Descriptions

Street Name	Jurisdiction	Functional Classification	Speed (MPH)	Curbs & Sidewalks	On-Street Parking	Bicycle Facilities
NE 3 <sup>rd</sup> Street	City of McMinnville	Major Collector	20 mph	Both Sides	Partial Both Sides	Partial Both Sides
NE Johnson Street	City of McMinnville	Minor Arterial/ Minor collector	25 mph	Both Sides	Partial Both Sides	Partial Both Sides
SE 1 <sup>st</sup> Street	City of McMinnville	Minor Collector/ Local Street	25	Both Sides	Both Sides	None



Street Name	Jurisdiction	Functional Classification	Speed (MPH)	Curbs & Sidewalks	On-Street Parking	Bicycle Facilities
SE Three Mile Lane	City of McMinnville	Major Collector	35	Both Sides	Prohibited	Both Sides
NE Three Mile Lane	ODOT	Statewide/ District Highway	35/40/55	Partial Both Sides	Prohibited	None
SE Nehemiah Lane	Yamhill County	Local	25	None	Prohibited	None
NE Cumulus Avenue	ODOT	Minor Collector	35	North Side	Prohibited	None
NE Pacific Street	City of McMinnville	Local	25	Both Sides	Partial Both Sides	None
NE Norton Lane	Yamhill County/ ODOT	Local	25	Both Sides	Partial Both Sides	None
SE Norton Lane	City of McMinnville/ ODOT	Local	25	Both Sides	Partial Both Sides	None
Cumulus Avenue	City of McMinnville/ ODOT	Major/Minor Collector	25	Partial West Side	Prohibited	None

### Study Intersections

Based on coordination with City of McMinnville and Oregon Department of Transportation (ODOT) staff, seven intersections were identified for analysis. A summarized description of the study intersections is provided in Table 2.



Table 2: Study Intersection Descriptions

Intersection		Geometry	Traffic Control	Phasing/Stopped Approaches
1	NE 3rd Street & NE Johnson Street	Four-Legged	Signalized	Protected/FYA Eastbound/Westbound /Southbound Left Turns Permissive Northbound Left WB Right Channelized (Yield)
2	SE 1st Street & SE Three Mile Lane	Four-Legged	Stop-Controlled	Eastbound/Westbound Stop-Controlled
3	SE Nehemiah Lane/NE Cumulus Avenue & NE Three Mile Lane	Four-Legged	Stop-Controlled	Eastbound/Westbound Stop-Controlled
4	NE Cumulus Avenue & NE Pacific Street	Three-Legged	Stop-Controlled	Southbound Stop-Controlled
5	NE Cumulus Avenue & NE Norton Lane	Three-Legged	Stop-Controlled	Eastbound Stop-Controlled
6	NE Three Mile Lane (OR 18) & NE Norton Lane	Four-Legged	Signalized	All Approaches Protected Left Turns
7	NE Three Mile Lane (OR 18) & Cumulus Avenue	Four-Legged	Signalized	Protected Eastbound/Westbound Left Permissive Northbound/Southbound Left

## Transit

The project is located near one Yamhill County transit line that has stops within an approximate 0.1-mile walking/biking distance of the site.

*Route 2 –McMinnville* provides service from downtown McMinnville to Willamette Valley Medical Center and Chemeketa Community College Yamhill Valley Campus. The nearest bus stops to the site are located near the intersection of NE Cumulus Avenue at NE Atlantic Street. Weekday service is scheduled from approximately 7:01 AM to 5:30 PM and has headways of approximately 60 minutes. There is currently no Saturday, Sunday or holiday service.

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
- ARTERIAL ROADWAY
- COLLECTOR ROADWAY
- LOCAL ROADWAY

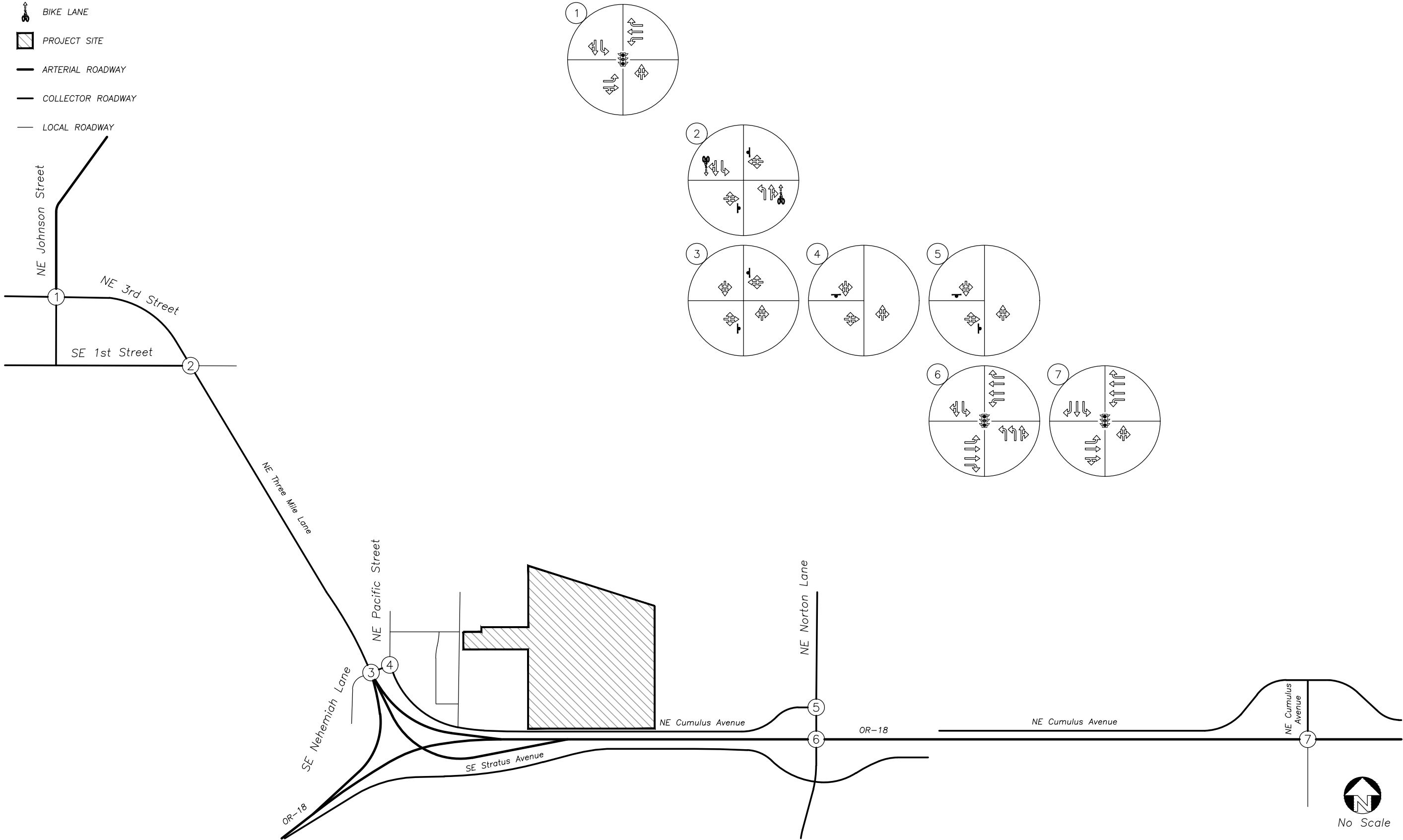


Figure 2  
2245 NE Cumulus Avenue Zone Change  
6/24/2025

# Site Trips

## Trip Generation

Because the proposed land use action involves a change in zoning, it is necessary to address the TPR<sup>1</sup>, which is in place to ensure that the transportation system can support possible increases in traffic intensity that could result from changes to adopted plans and land-use regulations. It requires an analysis of a reasonable worst-case development scenario of the site under existing and proposed zoning. The assumptions and potential development scenarios are described below.

### Existing Zoning

The existing zoning of the project site consists of as follows:

- General Industrial (M-2): 15.1 acres
- General Commercial (C-3): 2.49 acres
- Low-Density, 9000 SF Lot Residential (R-1): 1.79 acres
- Medium, High-Density, 5000 SF Lot Residential (R-4): 2.06 acres
- Flood Area (F-P): 4.63 acres
- Total: 26.07 acres

The existing land uses currently located on the project site do not represent a reasonable worst-case development scenario under either the existing or proposed zoning. Therefore, development scenarios need to be created for the site. The area considered for the development scenarios is 17.15 acres, an 8.92-acre reduction from the total parcel size to exclude 20% right-of-way and flood area along the northern boundary.

The following development scenarios are considered as reasonable worst case under existing zoning:

- General Industrial (M-2)
  - 157,861 SF of General Light Industrial – Per ITE, “a light industrial facility is a free-standing facility devoted to a single use. The facility has an emphasis on activities other than manufacturing and typically has minimal office space.”
- General Commercial (C-3)
  - 21,671 SF of Strip Retail Plaza(<40k) – Per ITE, “a strip retail plaza is an integrated group of commercial establishments that is planned, developed, owned, and managed as a unit. Each study site in this land use has less than 40,000 square feet of gross leasable area (GLA).”
- Medium, High-Density, 5000 SF Lot Residential (R-4)

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<sup>1</sup> Oregon Administrative Rule (OAR) Section 660, Division 12, also known as the Transportation Planning Rule (TPR) requires consistency between land use and transportation system plans. Specifically, OAR 660-012-0060 requires that if “an amendment to a functional plan, an acknowledged comprehensive plan, or a land use regulation (including a zoning map) would significantly affect an existing or planned transportation facility,” then measures must be put in place to remedy the impacts.



- 59 units of Multifamily Housing - 30 units/acre of Multifamily Housing
- Low-Density, 9000 SF Lot Residential (R-1)
  - 28 units of Single-Family Attached Housing – 4 dwelling units/9,000 SF Lot

The assumptions used to calculate these scenarios are summarized in the attachment to this memorandum. To estimate trips that will be generated by the redevelopment, trip rates from the *Trip Generation Manual*<sup>2</sup> were used based on the building square footage (SF) and number of residential units. The trip generation estimates are summarized in Table 3.

**Table 3: Trip Generation – Existing Zoning**

Land Use Assumption (ITE Code)	Intensity	Morning Peak Hour			Evening Peak Hour			Weekday Trips
		In	Out	Total	In	Out	Total	
1. General Industrial (M-2)								
General Light Industrial (110)	157,861 SF	103	14	117	14	89	103	768
2. General Commercial (C-3)								
Strip Retail Plaza (<40k)(822)	21,671 SF	31	20	51	72	71	143	1,180
3. Medium, High-Density, 5000 SF Lot Residential (R-4)								
Multifamily Housing (Low-Rise) (220)	59 units	6	18	24	19	11	30	398
4. Low-Density, 9000 SF Lot Residential (R-1)								
Single-Family Attached Housing (215)	28 units	3	10	13	9	7	16	202
Overall Trip Generation								
Total		143	62	205	114	178	292	2,548

The trip generation calculations show that the existing zoning is projected to generate 205 morning peak hour, 292 evening peak hour, and 2,548 average weekday trips.

### Proposed Zoning

The proposed zoning of the project site consists of as follows:

- General Commercial (C-3): 3.62 acres
- Medium, High-Density, 5000 SF Lot Residential (R-4): 17.83 acres
- Flood Area (F-P): 4.63 acres
- Total: 26.07 acres

The following development scenarios are considered as reasonable worst case under proposed zoning:

<sup>2</sup> Institute of Transportation Engineers (ITE), *Trip Generation Manual*, 11<sup>th</sup> Edition, 2021.

- General Commercial (C-3): Strip Retail Plaza
  - 31,581 SF of Strip Retail Plaza(<40k)
- Medium, High-Density, 5000 SF Lot Residential (R-4)
  - 200 units of Single-Family Attached Housing and 214 units of Multifamily Housing – 50% of the area with 30 units/acre of Multifamily Housing and 50% of the area with 28 units/acre of Single-Family Attached Housing

The assumptions used to calculate these scenarios are summarized in the attachment to this memorandum. To estimate trips that will be generated by the redevelopment, trip rates from the *Trip Generation Manual*<sup>3</sup> were used based on the building square footage (SF). The trip generation estimates are summarized in Table 4.

**Table 4: Trip Generation – Proposed Zoning**

Land Use Assumption (ITE Code)	Intensity	Morning Peak Hour			Evening Peak Hour			Weekday Trips
		In	Out	Total	In	Out	Total	
3. General Commercial (C-3)								
Strip Retail Plaza (<40k)(822)	31,581 SF	45	30	75	104	104	208	1,720
4. Medium, High-Density, 5000 SF Lot Residential (R-4)								
Single-Family Attached Housing (215)	200 units	24	72	96	67	47	114	1,440
Multifamily Housing (Low-Rise) (220)	214 units	21	65	86	69	40	109	1,442
Total		45	137	182	136	87	223	2,882
Overall Trip Generation								
Total		90	167	257	240	191	431	4,602

The trip generation calculations show that the proposed zoning is projected to generate 257 morning peak hour, 431 evening peak hour, and 4,602 average weekday trips.

### Trip Generation Comparison

As shown in Table 5, the trip generation calculations show that the proposed zone change is estimated to generate 52 additional trips during the morning peak hour, 139 additional trips during the evening peak hour, and 2,054 additional trips during the average weekday.

<sup>3</sup> Institute of Transportation Engineers (ITE), *Trip Generation Manual*, 11<sup>th</sup> Edition, 2021.

Table 5: Trip Generation Comparison

Scenario	Morning Peak Hour			Evening Peak Hour			Weekday Trips
	In	Out	Total	In	Out	Total	
Existing Zone	143	62	205	114	178	292	2,548
Proposed Zone	90	167	257	240	191	431	4,602
Net New Trips	-53	105	52	126	13	139	2,054

## Trip Distribution

The project trip distribution was developed based on the ODOT's Transportation Planning and Analysis Unit's (TPAU) 2015-2045 travel demand model. This is the model that is reflective of the City of McMinnville's current zoning map, including the Three Mile Lane Area Plan as currently adopted. The model does *not* reflect any potential upcoming changes that may result from the McMinnville Innovation Campus planning project or the upcoming Transportation System Plan (TSP) update.

The following trip distribution is projected for the project site:

- Approximately 32% of site trips to/from the east on SE Three Mile Lane.
- Approximately 23% of site trips to/from the north on NE Johnson Street
- Approximately 18% of site trips to/from the west on SE 1<sup>st</sup> Street
- Approximately 12% of site trips to/from the southwest on OR 18.
  - Site ingress trips will travel via NE Norton Lane.
  - Site egress trips will travel via NE Cumulus Avenue/SE Nehemiah Lane.
- Approximately 6% of site trips to/from the west on NE 3<sup>rd</sup> Street.
- Approximately 6% of site trips to/from the south on NE Norton Lane.
- Approximately 3% of site trips to/from the north on NE Norton Lane.

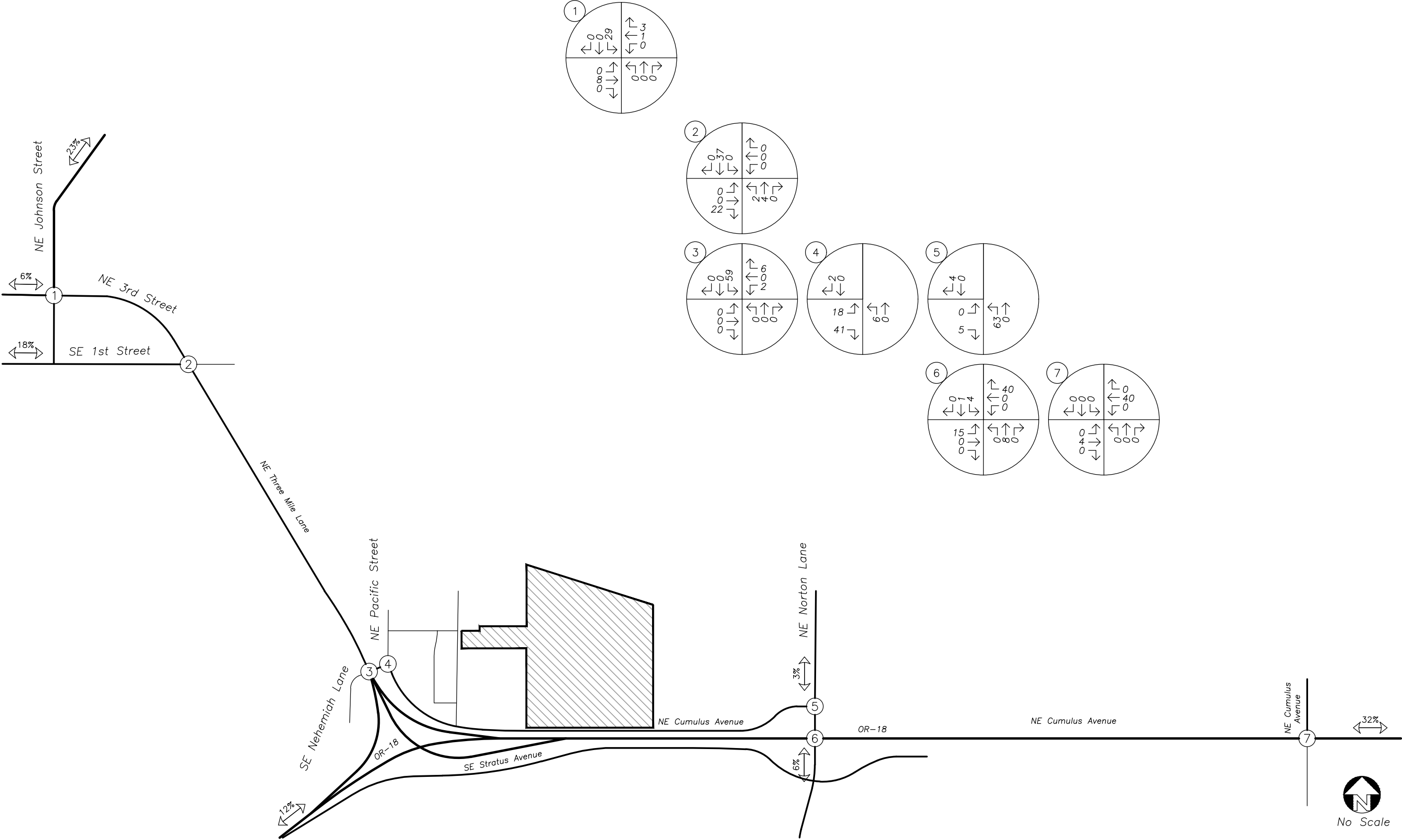
The trip distribution and assignment for the zone change during the morning and evening peak hours are shown in Figure 3.



XX%

PERCENT OF PROJECT TRIPS

	NET NEW TRIPS		
	IN	OUT	TOTAL
AM	-54	104	50
PM	125	12	137



SITE TRIP DISTRIBUTION & ASSIGNMENT

Figure 3  
2245 NE Cumulus Avenue Zone Change  
6/24/2025

Zone Change - Site Trips  
PM Peak Hour

## Traffic Volumes

### Existing Conditions

Traffic counts were conducted at the study intersections on Thursday, January 30, 2025, at the following time periods:

1. NE 3rd Street & NE Johnson Street: From 4:00 PM to 6:00 PM.
2. SE 1st Street & SE Three Mile Lane: From 4:00 PM to 6:00 PM.
3. SE Nehemiah Lane/NE Cumulus Avenue & NE Three Mile Lane: From 3:00 PM to 6:00 PM.
4. NE Cumulus Avenue & NE Pacific Street: From 3:00 PM to 6:00 PM.
5. NE Cumulus Avenue & NE Norton Lane: From 3:00 PM to 6:00 PM.
6. NE Three Mile Lane (OR 18) & NE Norton Lane: From 3:00 PM to 6:00 PM.
7. NE Three Mile Lane (OR 18) & Cumulus Avenue: From 3:00 PM to 6:00 PM.

The counts were collected on a day when schools within the McMinnville School District were in session and operating on a regular bell schedule. Data was used from each intersection's evening peak hour.

Figure 4 shows the year 2025 existing traffic volumes at the study intersection during the PM peak hour.

### Planning Horizon Year 2041 Background Conditions

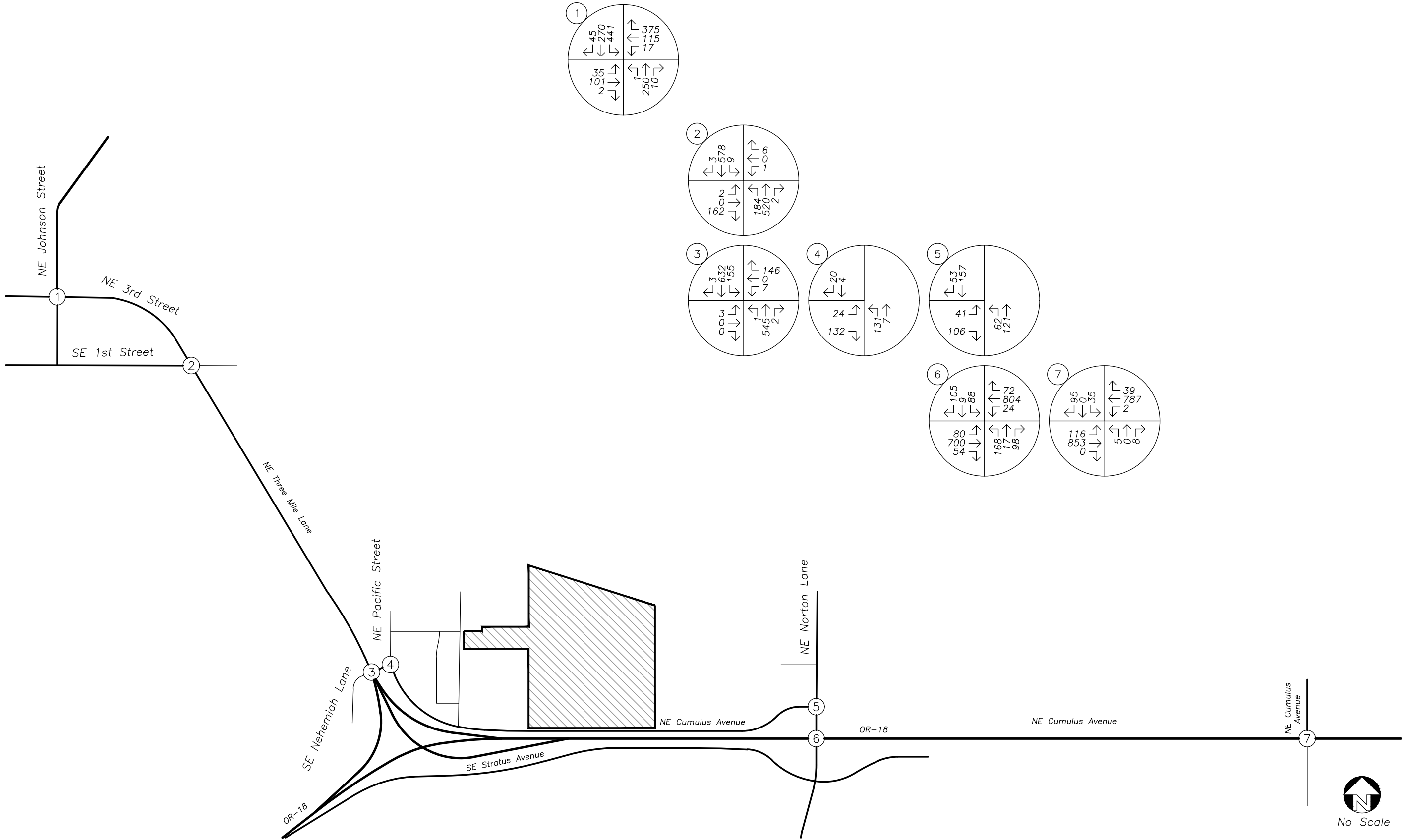
To provide analysis of the potential impact of the proposed zone change on the nearby transportation facilities, an estimate of future traffic volumes is required. Planning Horizon Year 2041 growth rates were estimated based on the ODOT TPAU 2015-2045 travel demand model that was described previously. An annual growth rate for each approach of the study intersections was derived from the travel demand model and applied to the year 2025 existing conditions baseline volumes for sixteen years to account for background growth through the year 2041. Traffic volume data was then balanced between intersections as appropriate.

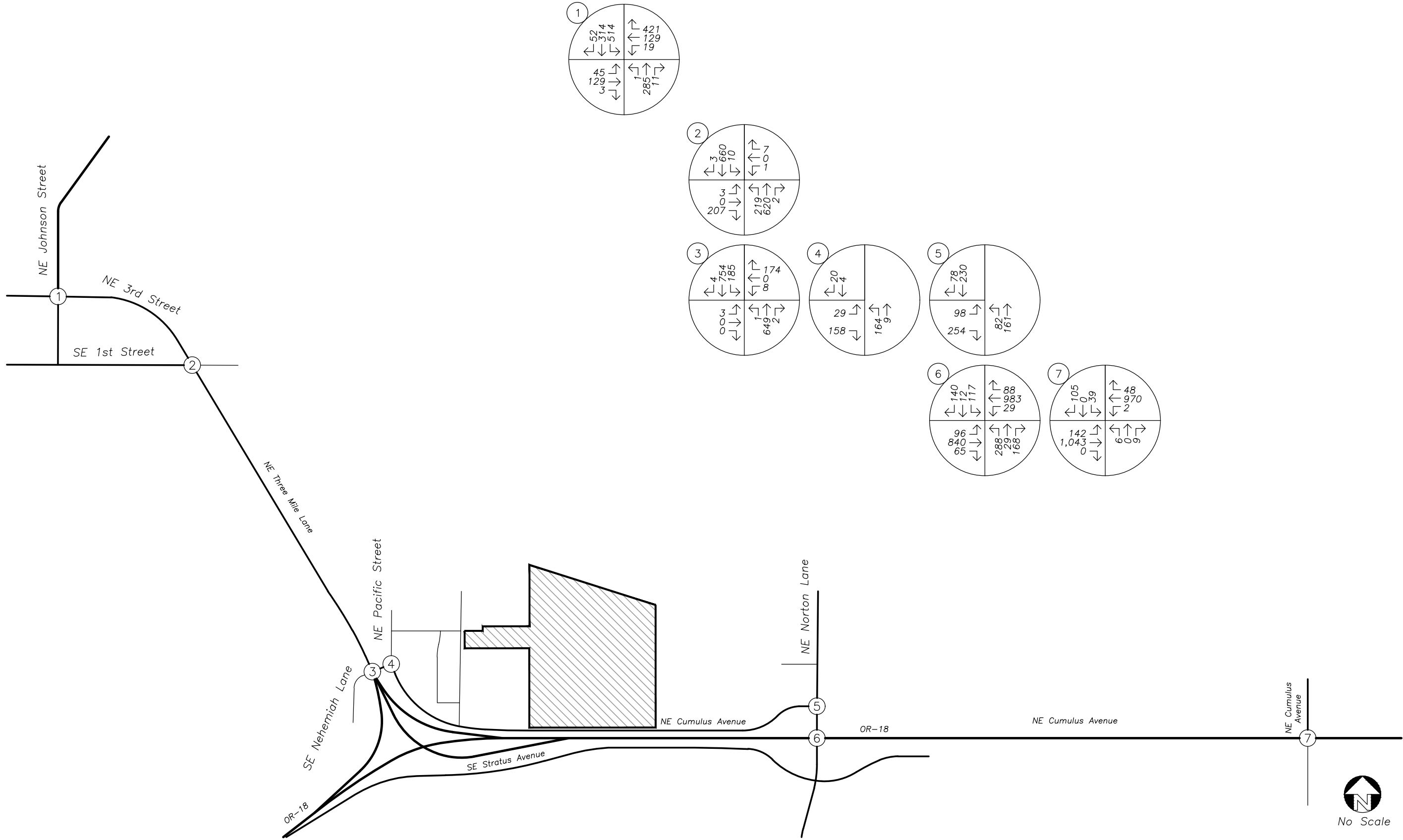
The resulting evening peak hour 2041 traffic forecasts are presented in Figure 5.

### Planning Horizon Year 2041 Buildout Conditions

The net change in potential peak hour trips estimated to be generated by the proposed zone change, as described earlier in the *Site Trips* section, were added to the projected year 2041 planning horizon traffic volumes to obtain the expected 2041 planning horizon volumes with the zone change implemented.

Figure 6 shows the 2041 planning year volumes with the zone change implemented at the study intersections during the evening peak hour.





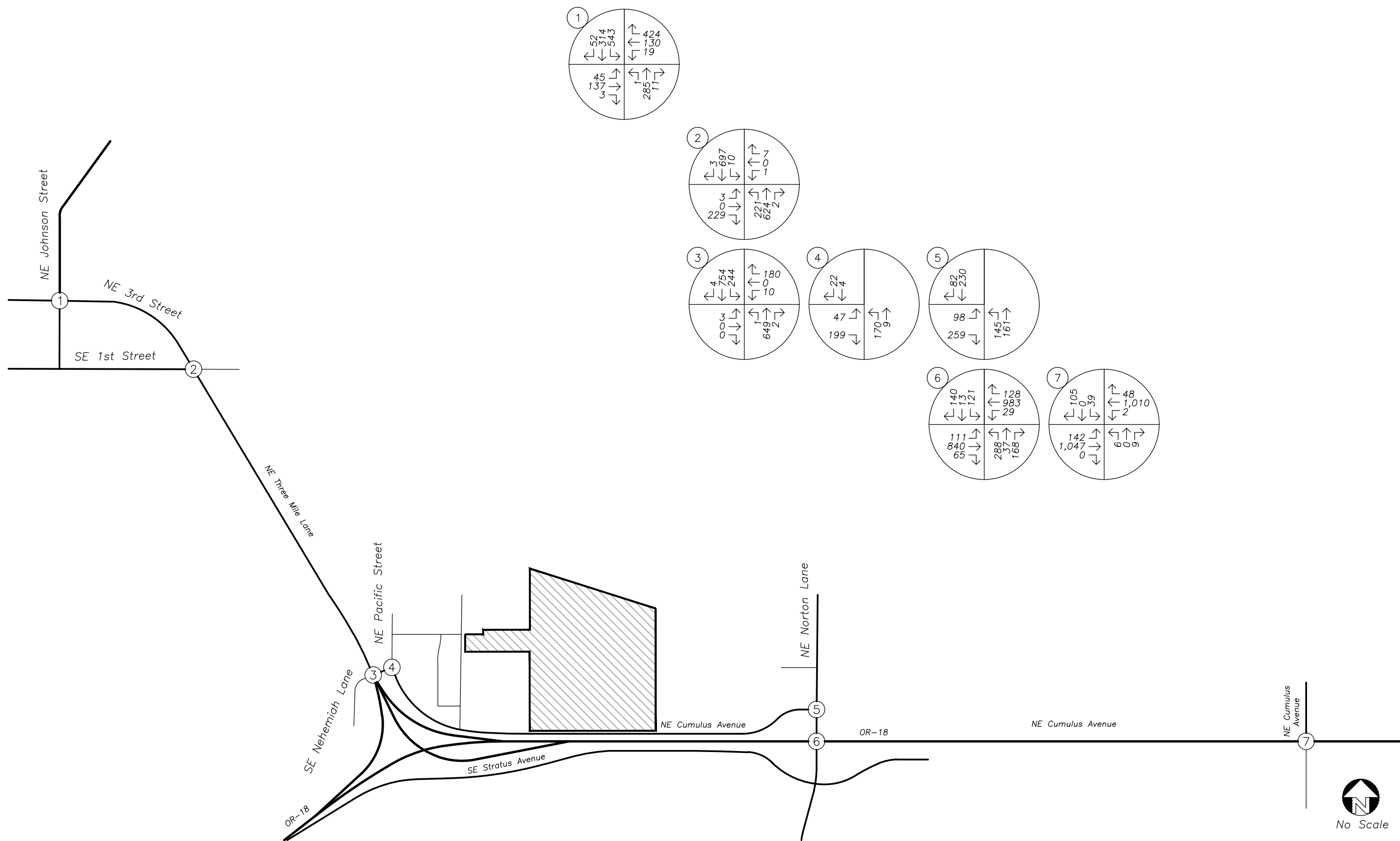


Figure 6  
2245 NE Cumulus Avenue Zone Change  
6/24/2025

## TRAFFIC VOLUMES

Planning Horizon w/ Zone Change Year 2041  
PM Peak Hour

# 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 2018 through December 2022) 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)
- Suspected Minor Injury (Injury B)
- Suspected Serious Injury (Injury A)
- Fatal Injury

The study intersections adhere to the crash analysis methodologies within ODOT's APM. According to *Exhibit 4-1: Intersection Crash Rates per MEV by Land Type and Traffic Control* of the APM, intersections which experience crash rates in excess of their respective 90<sup>th</sup> percentile crash rates should be "flagged for further analysis". Crash rates in excess of 90<sup>th</sup> percentile crashes per million entering vehicles (CMEV) may be indicative of design deficiencies and therefore require a need for further investigation and possible mitigation.

For intersections in urban settings, the following 90<sup>th</sup> percentile rates are applicable to the study intersections:

- Unsignalized, three-leg intersection: 0.293 CMEV;
- Signalized, three-leg intersection: 0.509 CMEV;
- Unsignalized, four-leg intersection: 0.408 CMEV; and
- Signalized, four-leg intersection: 0.860 CMEV.

Table 6 provides a summary of crash types while Table 7 summarizes crash severities and rates for each of the study intersections. Detailed crash data is provided in the appendix to this report.



Table 6: Crash Type Summary

Intersection		Crash Type								Total Crashes
		Turn	Rear End	Angle	Fixed Object	Side swipe	Ped/ Bike	Backing	Other	
1	NE 3 <sup>rd</sup> Street & NE Johnson Street	4	0	2	0	0	0	0	0	6
2	SE 1 <sup>st</sup> Street & SE Three Mile Lane	5	2	2	0	0	2	0	0	11
3	NE Cumulus Avenue & NE Three Mile Lane	4	3	1	0	0	0	0	0	8
4	NE Cumulus Avenue & NE Pacific Street	0	0	0	0	0	0	0	0	0
5	NE Cumulus Avenue & NE Norton Lane	2	0	0	0	0	0	0	0	2
6	NE Three Mile Lane (OR 18) & NE Norton Lane	4	22	0	2	5	0	0	0	33
7	NE Three Mile Lane (OR 18) & Cumulus Avenue	4	15	1	3	1	0	0	0	24



Table 7: Crash Severity and Rate Summary

Intersection		Severity					Total Crashes	Peak Hour Volume	Crash Rate	ODOT 90th% Rate
		PDO	C	B	A	Fatality				
1	NE 3 <sup>rd</sup> Street & NE Johnson Street	2	2	2	0	0	6	1,662	0.198	N/A
2	SE 1 <sup>st</sup> Street & SE Three Mile Lane	5	2	4	0	0	11	1,467	0.411	N/A
3	NE Cumulus Avenue & NE Three Mile Lane	3	3	2	0	0	8	1,494	0.293	0.408
4	NE Cumulus Avenue & NE Pacific Street	0	0	0	0	0	0	318	0	0.293
5	NE Cumulus Avenue & NE Norton Lane	1	1	0	0	0	2	540	0.203	0.293
6	NE Three Mile Lane (OR 18) & NE Norton Lane	15	12	5	1	0	33	2,219	0.814	0.860
7	NE Three Mile Lane (OR 18) & Cumulus Avenue	9	10	5	0	0	24	1,940	0.678	0.860

Table Notes: **BOLDED** indicates a crash rate above the 90<sup>th</sup> percentile rate.

### Crash Severity

None of the crashes reported in the five-year analysis period resulted in a fatality but a crash resulted Suspected Serious Injury (Injury A) at the intersection of NE Three Mile Lane (OR 18) at NE Norton Lane. The crash occurred when the driver of an eastbound vehicle followed too closely and struck two ahead vehicles.

### Pedestrian and Bicycle Collisions

Two crashes at the intersection of SE 1<sup>st</sup> Street at SE Three Mile Lane involved a pedestrian or bicyclist within the five-year analysis period as described below:

- A pedestrian-related crash occurred when the driver of a northbound left-turning vehicle failed to yield right-of-way and struck a pedestrian with non-reflective clothing. The crash was classified as *Injury C*.
- A bicycle-related crash occurred when the driver of a northbound through vehicle failed to yield right-of-way and struck a bicyclist at the intersection. The crash was classified as *Injury B*.

Based on the review of crash history, no geometric deficiencies are evident at any study intersections. None of the study intersections were identified to have crash rates exceeding 1.00 or ODOT 90<sup>th</sup> percentile crash rates for similar intersections. Accordingly, no safety mitigation is necessary or recommended at these intersections.

## Warrant Analysis

### Preliminary Traffic Signal Warrants

Preliminary traffic signal warrants were examined for the unsignalized study intersections to determine whether the installation of a new traffic signal will be warranted at the intersections by the 2041 planning horizon with the zone change implemented. Based on the preliminary analysis following a review of Warrant 1 in the *Manual on Uniform Traffic Control Devices*, or MUTCD, traffic signal warrants are not projected to be met at any of the unsignalized study intersections under year 2041 conditions, regardless of whether or not the proposed zone change is implemented. Therefore, no new traffic signals are necessary or recommended as part of the zone change application. Detailed analysis worksheets can be found in the appendix to this report.

### Left-Turn Lane Warrants

A left-turn refuge is primarily a safety consideration for the major-street approach, removing left-turning vehicles from the through traffic stream. Warrants were based on the methodology outlined in the National Cooperative Highway Research Program (NCHRP) Report Number 457<sup>4</sup>. This methodology evaluates the need for a left-turn lane based on the number of left-turning vehicles, the number of travel lanes, the number of advancing and opposing vehicles, and the roadway travel speed. Detailed information on the warrant analysis is included in the appendix to this report.

The left-turn-lane warrant was met for the southbound approach at the intersection of NE Cumulus Avenue/SE Nehemiah Lane and NE Three Mile Lane under all analysis scenarios during the evening peak hour. As part of the mitigation conditions, a southbound left-turn lane is recommended to be installed.

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<sup>4</sup> Bonneson, James A. and Michael D. Fontaine, NCHRP Report 457: An Engineering Study Guide for Evaluating Intersection Improvements, Transportation Research Board, 2001.

# Operational Analysis

## Intersection Capacity Analysis

A capacity and delay analysis were conducted for each of the study intersections per the signalized and unsignalized intersection analysis methodologies in the *Highway Capacity Manual* (HCM)<sup>5</sup>, as well as the signalized intersection analysis methodology detailed in ODOT's APM Section 13. 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. The volume-to-capacity (v/c) ratio is a measure that compares the traffic volumes (demand) against the available capacity of an intersection.

## Performance Standards

### *City of McMinnville*

According to the McMinnville Transportation System Plan (TSP), the Mobility Standard for all local (City) intersections and streets shall be a volume/capacity (v/c) ratio of 0.90.

### *ODOT*

Five (5) study intersections along OR-18 and NE Cumulus Avenue operate under the jurisdiction of ODOT. The applicable minimum operation standards for these facilities are established under the *Oregon Highway Plan*<sup>6</sup> (OHP) and are based on the v/c ratio of the intersection. According to these documents, the following operation standards are applicable to the study intersections:

- The intersections of OR-18 at SE Norton Lane and Cumulus Avenue are to operate with a maximum allowable v/c ratio of 0.80.
- The intersection of SE Three Mile Lane at SE Nehemiah Lane/NE Cumulus Avenue is to operate with a maximum allowable v/c ratio of 0.90
- The intersections of NE Cumulus Avenue at NE Pacific Street and NE Norton Lane are to operate with a maximum allowable v/c ratio of 0.95.

## Delay & Capacity Analysis

The TrafficWare Synchro software utilized for analysis does not report the overall v/c ratio of signalized intersections in the HCM 7<sup>th</sup> Edition capacity reports. Therefore, HCM 2000 result was used for the City's signalized intersection. For the ODOT's signalized intersections, v/c ratio was calculated utilizing methods detailed in ODOT's APM Sections 13.

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<sup>5</sup> Transportation Research Board, *Highway Capacity Manual 6<sup>th</sup> Edition*, 2016.

<sup>6</sup> Oregon Department of Transportation, *1999 Oregon Highway Plan*: Including amendments November 1999 through May 2015, 1999

For the intersection of NE Cumulus Avenue at NE Norton Lane, due to the atypical traffic controls at the intersection (i.e. free-flow northbound approach and stop-controlled eastbound and southbound approaches) the HCM 7<sup>th</sup> Edition does not provide intersection capacity outputs. In order to generate capacity outputs, the following was conducted:

- The northbound approach was modeled to operate as yield-control in lieu of free-flow.
- HCM 2000 results were used and the highest approach v/c ratio was reported.

The LOS, delay, and v/c results of the capacity analysis are shown in Table 8 for PM peak hour. Detailed calculations as well as tables showing the relationship between delay and LOS are included in the appendix to this report.

**Table 8: Evening Peak Hour Capacity Analysis Summary**

Intersection & Condition	Mobility Target	PM Peak Hour		
		LOS	Delay (s)	V/C
1. NE 3rd Street & NE Johnson Street				
2025 Existing Conditions	0.90	B	15	0.67
2041 Planning Horizon Conditions		B	17	0.79
2041 Planning Horizon w/ Zone Change		B	18	0.83
2. SE 1st Street & SE Three Mile Lane				
2025 Existing Conditions	0.90	C	18	0.37
2041 Planning Horizon Conditions		C	24	0.54
2041 Planning Horizon w/ Zone Change		D	28	0.63
3. SE Nehemiah Lane/NE Cumulus Avenue & NE Three Mile Lane				
2025 Existing Conditions	0.90	F	95	0.43
2041 Planning Horizon Conditions		F	249	0.71
2041 Planning Horizon w/ Zone Change		F	439	1.00
4. NE Cumulus Avenue & NE Pacific Street				
2025 Existing Conditions	0.95	A	10	0.03
2041 Planning Horizon Conditions		A	10	0.04
2041 Planning Horizon w/ Zone Change		B	10	0.04
5. NE Cumulus Avenue & NE Norton Lane				
2025 Existing Conditions	0.95	A	9	0.29
2041 Planning Horizon Conditions		B	13	0.52
2041 Planning Horizon w/ Zone Change		B	14	0.56
6. NE Three Mile Lane (OR 18) & NE Norton Lane				
2025 Existing Conditions	0.80	B	18	0.50
2041 Planning Horizon Conditions		C	22	0.68
2041 Planning Horizon w/ Zone Change		C	23	0.70

**Table 8: Evening Peak Hour Capacity Analysis Summary**

Intersection & Condition	Mobility Target	PM Peak Hour		
		LOS	Delay (s)	V/C
7. NE Three Mile Lane (OR 18) & Cumulus Avenue				
2025 Existing Conditions	0.80	A	8	0.44
2041 Planning Horizon Conditions		A	10	0.54
2041 Planning Horizon w/ Zone Change		A	10	0.55

**BOLDED** text indicates intersection operation above jurisdictional standards.

As shown, all study area intersections are calculated to operate acceptably within the relevant jurisdictional standards under all analysis scenarios, with the exception of the following intersections:

3. SE Nehemiah Lane/NE Cumulus Avenue & NE Three Mile Lane – Planning Horizon (with Zone Change) PM Peak Hour (**v/c > 0.90**)

## Mitigation

The following mitigation is recommended to improve intersection operations under the Year 2041 Planning Horizon with Zone Change scenario at the identified impacted study area intersection:

3. SE Nehemiah Lane/NE Cumulus Avenue & NE Three Mile Lane
  - Install a westbound right turn lane on the eastern leg of the intersection.
    - Improves v/c ratio to better than no build conditions (0.56).

Concurrent with the implementation of the proposed zone change, mitigation at the impacted intersection will reduce volume-to-capacity ratio as shown in Table 9.

**Table 9: Planning Horizon Conditions with Mitigation**

Intersection & Condition	Mitigation	PM Peak Hour		
		LOS	Delay (s)	V/C
3 SE Nehemiah Lane/NE Cumulus Avenue & NE Three Mile Lane				
2041 Planning Horizon Conditions	Install a westbound right turn lane on the east leg of the intersection	F	249	0.71
2041 Planning Horizon w/ Zone Change		F	439	1.00
2041 Planning Horizon w/ Zone Change & Mitigation		F	439	0.56

## Transportation Planning Rule

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

660-012-0060

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

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

Regarding subsection (c), as described in the *Operational Analysis* section the intersections of SE Nehemiah Lane/NE Cumulus Avenue & NE Three Mile Lane is not projected to operate within acceptable ODOT's standards through the 2041 Planning Horizon with the planned zone change implementation. With the

recommended improvement at the intersection of SE Nehemiah Lane/NE Cumulus Avenue & NE Three Mile Lane in the *Mitigation* section, all study intersections are expected to have sufficient capacity to accommodate the planned zone change. Accordingly, the Transportation Planning Rule is satisfied.





## Conclusions

Key findings of this study include:

- Based on the review of crash history, no geometric deficiencies are evident at any study intersections. None of the study intersections were identified to have crash rates exceeding 1.00 or ODOT 90<sup>th</sup> percentile crash rates for similar intersections. Accordingly, no safety mitigation is necessary or recommended at these intersections.
- Signal warrants are not projected to be met at any of the applicable study intersections under the 2041 planning horizon with the zone change implemented.
- Left-turn-lane warrants are met for the southbound approach at the intersection of NE Cumulus Avenue/SE Nehemiah Lane and NE Three Mile Lane under all analysis scenarios during the evening peak hour, including existing conditions. The need for this left-turn lane is not triggered by the proposed zone change or any development on the site. It is recommended that at the time of development, the applicant coordinate with the City to participate in the construction of a left-turn lane at this intersection.
- In addition to the southbound left-turn lane mentioned above, a westbound right-turn lane is recommended at the intersection of SE Nehemiah Lane/NE Cumulus Avenue & NE Three Mile Lane to mitigate the potential impact from the zone change. The westbound right-turn lane would improve v/c ratio to better than no-build conditions (0.56).
- The planned zone change will not impact or alter the functional classification of any existing or planned facility and the proposal does not include a change to any functional classification standards. With the recommended improvement at the intersection of SE Nehemiah Lane/NE Cumulus Avenue & NE Three Mile Lane, all study intersections are expected to have sufficient capacity to accommodate the planned zone change. Accordingly, the Transportation Planning Rule is satisfied.



## Appendix A

### Site Map



THIS MAP WAS PREPARED FOR  
ASSESSMENT PURPOSE ONLY

SW 1/4 SW 1/4 SEC 22 T4S R3W W.M.  
YAMHILL COUNTY

$$1'' = 100'$$

4 4 22CC  
MCMINNVILLE

CANCELLED  
200  
300  
600A1  
600A2  
600A3  
601A1  
902  
300

SEE MAP 4 4 22

500 UY W 514.0

RIVER

~~400~~  
~~1.84 AC.~~

JOH

SEE MAP 4 4 22 CD

40.0<sup>2</sup>

**600**  
1.25 AC.

THREE

MILE

LN

SEE MAP 4 4 27

4 4 22CC

REVISÉD 12-8-06 SB

## Appendix B

Trip Generation Calculations

Zoning Area Calculations





TRIP GENERATION CALCULATIONS  
Source: Trip Generation Manual, 11th Edition

*Land Use:* General Light Industrial  
*Land Use Code:* 110  
*Land Use Subcategory:* All Sites  
*Setting/Location:* General Urban/Suburban  
*Variable:* 1000 SF GFA  
*Trip Type:* Vehicle  
*Formula Type:* Rate  
*Variable Quantity:* 157.861

AM PEAK HOUR

*Trip Rate:* 0.74

	Enter	Exit	Total
Directional Split	88%	12%	
Trip Ends	103	14	117

PM PEAK HOUR

*Trip Rate:* 0.65

	Enter	Exit	Total
Directional Split	14%	86%	
Trip Ends	14	89	103

WEEKDAY

*Trip Rate:* 4.87

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	384	384	768

SATURDAY

*Trip Rate:* 0.69

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	54	54	108

*Caution: Small Sample Size*



TRIP GENERATION CALCULATIONS  
Source: Trip Generation Manual, 11th Edition

*Land Use:* Strip Retail Plaza (<40k)  
*Land Use Code:* 822  
*Land Use Subcategory:* All Sites  
*Setting/Location:* General Urban/Suburban  
*Variable:* 1000 SF GFA  
*Trip Type:* Vehicle  
*Formula Type:* Rate  
*Variable Quantity:* 21.671

AM PEAK HOUR

*Trip Rate:* 2.36

	Enter	Exit	Total
Directional Split	60%	40%	
Trip Ends	31	20	51

PM PEAK HOUR

*Trip Rate:* 6.59

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	72	71	143

WEEKDAY

*Trip Rate:* 54.45

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	590	590	1,180

SATURDAY

*Trip Rate:* 0

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	NA	NA	NA



## TRIP GENERATION CALCULATIONS

*Land Use:* Multifamily Housing (Low-Rise)

*Land Use Code:* 220

*Land Use Subcategory:* Not Close to Rail Transit

*Setting/Location:* General Urban/Suburban

*Variable:* Dwelling Units

*Trip Type:* Vehicle

*Formula Type:* Rate

*Variable Quantity:* 59

### AM PEAK HOUR

*Trip Rate:* 0.4

	Enter	Exit	Total
Directional Split	24%	76%	
Trip Ends	6	18	24

### PM PEAK HOUR

*Trip Rate:* 0.51

	Enter	Exit	Total
Directional Split	63%	37%	
Trip Ends	19	11	30

### WEEKDAY

*Trip Rate:* 6.74

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	199	199	398

### SATURDAY

*Trip Rate:* 4.55

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	134	134	268

*Caution: Small Sample Size*

Source: Trip Generation Manual, 11th Edition





## TRIP GENERATION CALCULATIONS

*Land Use:* Single-Family Attached Housing

*Land Use Code:* 215

*Land Use Subcategory:* All Sites

*Setting/Location:* General Urban/Suburban

*Variable:* Dwelling Units

*Trip Type:* Vehicle

*Formula Type:* Rate

*Variable Quantity:* 28

### AM PEAK HOUR

*Trip Rate:* 0.48

	Enter	Exit	Total
Directional Split	25%	75%	
Trip Ends	3	10	13

### PM PEAK HOUR

*Trip Rate:* 0.57

	Enter	Exit	Total
Directional Split	59%	41%	
Trip Ends	9	7	16

### WEEKDAY

*Trip Rate:* 7.2

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

### SATURDAY

*Trip Rate:* 8.76

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	123	123	246

Source: Trip Generation Manual, 11th Edition



TRIP GENERATION CALCULATIONS  
Source: Trip Generation Manual, 11th Edition

*Land Use:* Strip Retail Plaza (<40k)  
*Land Use Code:* 822  
*Land Use Subcategory:* All Sites  
*Setting/Location:* General Urban/Suburban  
*Variable:* 1000 SF GFA  
*Trip Type:* Vehicle  
*Formula Type:* Rate  
*Variable Quantity:* **31.581**

AM PEAK HOUR

*Trip Rate:* 2.36

	Enter	Exit	Total
Directional Split	60%	40%	
Trip Ends	<b>45</b>	<b>30</b>	<b>75</b>

PM PEAK HOUR

*Trip Rate:* 6.59

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	<b>104</b>	<b>104</b>	<b>208</b>

WEEKDAY

*Trip Rate:* 54.45

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	<b>860</b>	<b>860</b>	<b>1,720</b>

SATURDAY

*Trip Rate:* 0

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	<b>NA</b>	<b>NA</b>	<b>NA</b>



## TRIP GENERATION CALCULATIONS

*Land Use:* Single-Family Attached Housing

*Land Use Code:* 215

*Land Use Subcategory:* All Sites

*Setting/Location:* General Urban/Suburban

*Variable:* Dwelling Units

*Trip Type:* Vehicle

*Formula Type:* Rate

*Variable Quantity:* 200

### AM PEAK HOUR

*Trip Rate:* 0.48

	Enter	Exit	Total
Directional Split	25%	75%	
Trip Ends	24	72	96

### PM PEAK HOUR

*Trip Rate:* 0.57

	Enter	Exit	Total
Directional Split	59%	41%	
Trip Ends	67	47	114

### WEEKDAY

*Trip Rate:* 7.2

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	720	720	1,440

### SATURDAY

*Trip Rate:* 8.76

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	876	876	1,752

Source: Trip Generation Manual, 11th Edition



## TRIP GENERATION CALCULATIONS

*Land Use:* Multifamily Housing (Low-Rise)

*Land Use Code:* 220

*Land Use Subcategory:* Not Close to Rail Transit

*Setting/Location:* General Urban/Suburban

*Variable:* Dwelling Units

*Trip Type:* Vehicle

*Formula Type:* Rate

*Variable Quantity:* 214

### AM PEAK HOUR

*Trip Rate:* 0.4

	Enter	Exit	Total
Directional Split	24%	76%	
Trip Ends	21	65	86

### PM PEAK HOUR

*Trip Rate:* 0.51

	Enter	Exit	Total
Directional Split	63%	37%	
Trip Ends	69	40	109

### WEEKDAY

*Trip Rate:* 6.74

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	721	721	1,442

### SATURDAY

*Trip Rate:* 4.55

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	487	487	974

*Caution: Small Sample Size*

Source: Trip Generation Manual, 11th Edition

## Existing Zoning

Zone	Gross Acres	Net Acres	Assumed FAR	Bldg SF	MFDensity	DwellingUnits	SFADensity	DwellingUnits	Assumed Use
M-2	15.1	12.08	30%	<b>157,861</b>					General Light Industrial
C-3	2.49	1.99	25%	<b>21,671</b>					Strip Retail Plaza
R-4 MHDR	2.06	1.96			30	<b>59</b>			Low Rise
R-1	1.79	1.43					4 DU per	<b>28</b>	SF Attached
Flood Plain	4.63						9,000 SF		
	<u>26.07</u>						Lot		

### Development Summary:

General Light Industrial	157,861 square feet
Strip Retail Plaza	21,671 square feet
Multi-Family Low Rise	59 dwelling units
Single-Family Attached	28 dwelling units

## Proposed Zoning

Zone	Gross Acres	Net Acres	Assumed FAR	Bldg SF	MFDensity	DwellingUnits	SFADensity	DwellingUnits	Assumed Use
M-2	0								General Light Industrial
C-3	3.62	2.9	25%	<b>31,581</b>					Strip Retail Plaza
R-4 MHDR	17.83	14.26			30	<b>214</b>	28	<b>200</b>	Low Rise & SF Attached
R-1	0								
Flood Plain	4.63								
	<u>26.08</u>								

### Development Summary:

Strip Retail Plaza	31,581 square feet
Multi-Family Low Rise	214 dwelling units
Single-Family Attached	200 dwelling units

## Appendix C

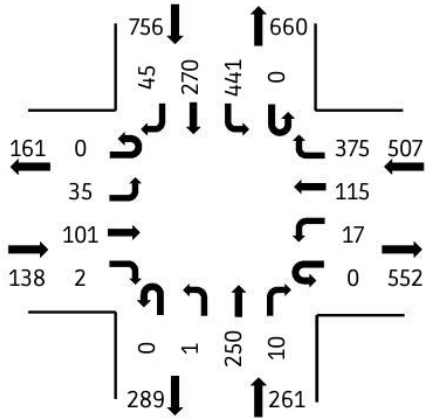
### Traffic Counts



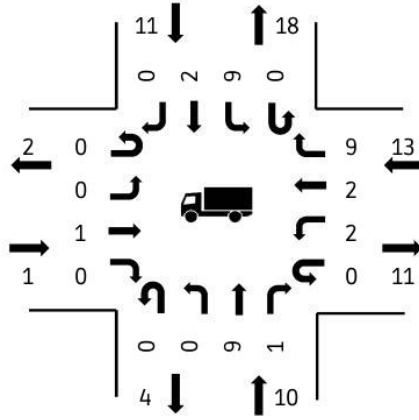


Location: NE Johnson St & NE 3rd St  
Date: 2025-01-30  
Peak Hour Start: 04:15 PM  
Peak 15 Minute Start: 05:00 PM  
Peak Hour Factor: 0.94

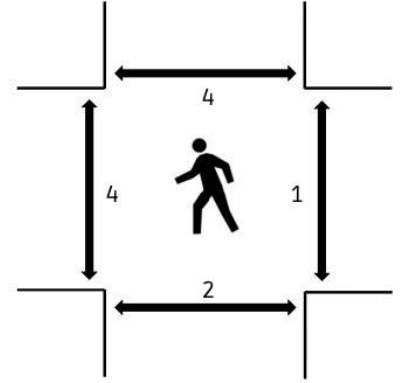
Motorized Vehicles



Heavy Vehicles



Pedestrians



(peak hour)

All Vehicle Volumes

Time	NB (NE Johnson St)					SB (NE Johnson St)					EB (NE 3rd St)					WB (NE 3rd St)					Totals	
	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
04:00:00 PM	0	26	2	0	0	30	22	4	0	0	2	8	0	0	0	2	10	34	0	0	435	
04:05:00 PM	0	22	0	0	0	51	22	6	0	0	1	4	0	0	0	3	9	41	0	0		
04:10:00 PM	0	25	0	0	0	32	25	3	0	0	2	3	0	0	0	0	8	38	0	0		
04:15:00 PM	0	26	0	0	0	35	22	3	0	0	2	12	0	0	0	1	14	38	0	0		
04:20:00 PM	0	22	0	0	0	28	26	5	0	0	4	6	0	0	0	1	11	31	0	0		
04:25:00 PM	0	17	0	0	0	41	20	4	0	0	2	6	0	0	0	1	7	38	0	0		
04:30:00 PM	0	18	1	0	0	23	22	5	0	0	4	2	0	0	0	3	8	29	0	0		
04:35:00 PM	0	23	2	0	0	39	22	5	0	0	3	11	0	0	0	1	11	34	0	0		
04:40:00 PM	0	21	2	0	0	33	31	5	0	0	2	5	0	0	0	0	9	26	0	0		
04:45:00 PM	0	16	0	0	0	40	19	0	0	0	3	12	0	0	0	3	5	25	0	0		
04:50:00 PM	0	16	1	0	0	35	21	2	0	0	2	8	0	0	0	4	12	34	0	0	392	
04:55:00 PM	1	28	2	0	0	39	20	6	0	0	4	6	0	0	0	0	11	23	0	0	398	1656
05:00:00 PM	0	25	0	0	0	32	23	3	0	0	2	6	0	0	0	2	8	33	0	0	409	1650
05:05:00 PM	0	19	0	0	0	43	23	2	0	0	3	23	0	0	0	0	14	37	0	0	438	1655
05:10:00 PM	0	19	2	0	0	53	21	5	0	0	4	4	2	0	0	1	5	27	0	0	441	1662
05:15:00 PM	0	18	3	0	0	36	23	6	0	0	1	4	0	0	0	3	6	25	0	0	432	1634
05:20:00 PM	0	11	1	0	0	29	27	3	0	0	2	7	0	0	0	1	7	37	0	0	393	1625
05:25:00 PM	0	9	0	0	0	44	20	6	0	0	2	2	0	0	0	0	9	30	0	0	372	1611
05:30:00 PM	0	15	5	0	0	32	23	2	0	0	2	6	0	0	0	0	7	20	0	0	359	1608
05:35:00 PM	0	13	0	0	0	35	26	9	0	0	2	4	0	0	0	1	7	32	0	0	363	1586
05:40:00 PM	0	14	2	0	0	28	22	3	0	0	2	4	0	0	0	4	8	24	0	0	352	1563
05:45:00 PM	0	9	2	0	0	30	19	2	0	0	3	9	0	0	0	1	8	27	0	0	350	1550
05:50:00 PM	0	15	3	0	0	15	14	5	0	0	3	4	0	0	0	0	7	23	0	0	310	1504
05:55:00 PM	0	7	0	0	0	13	10	3	0	0	1	3	0	0	0	1	5	9	0	0	251	1416



## Car Volumes

Time	NB (NE Johnson St)					SB (NE Johnson St)					EB (NE 3rd St)					WB (NE 3rd St)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
04:00:00 PM	0	23	2	0	0	29	22	4	0	0	2	8	0	0	0	2	9	32	0	0	420	1612
04:05:00 PM	0	22	0	0	0	51	22	6	0	0	1	4	0	0	0	3	9	37	0	0		
04:10:00 PM	0	23	0	0	0	32	25	3	0	0	2	3	0	0	0	0	8	36	0	0		
04:15:00 PM	0	23	0	0	0	35	22	3	0	0	2	11	0	0	0	1	14	36	0	0		
04:20:00 PM	0	21	0	0	0	28	25	5	0	0	4	6	0	0	0	1	10	29	0	0		
04:25:00 PM	0	16	0	0	0	38	20	4	0	0	2	6	0	0	0	1	7	38	0	0		
04:30:00 PM	0	18	0	0	0	23	22	5	0	0	4	2	0	0	0	3	8	28	0	0		
04:35:00 PM	0	23	2	0	0	37	22	5	0	0	3	11	0	0	0	1	11	33	0	0		
04:40:00 PM	0	20	2	0	0	33	31	5	0	0	2	5	0	0	0	0	9	25	0	0		
04:45:00 PM	0	16	0	0	0	40	19	0	0	0	3	12	0	0	0	3	5	24	0	0		
04:50:00 PM	0	15	1	0	0	35	21	2	0	0	2	8	0	0	0	2	11	33	0	0		
04:55:00 PM	1	27	2	0	0	39	20	6	0	0	4	6	0	0	0	0	11	23	0	0		
05:00:00 PM	0	25	0	0	0	30	23	3	0	0	2	6	0	0	0	2	8	33	0	0	401	1611
05:05:00 PM	0	19	0	0	0	41	22	2	0	0	3	23	0	0	0	0	14	37	0	0	432	1617
05:10:00 PM	0	18	2	0	0	53	21	5	0	0	4	4	2	0	0	1	5	27	0	0	435	1627
05:15:00 PM	0	17	3	0	0	36	23	6	0	0	1	3	0	0	0	3	5	25	0	0	425	1602
05:20:00 PM	0	11	1	0	0	29	27	3	0	0	2	7	0	0	0	1	7	37	0	0	389	1598
05:25:00 PM	0	9	0	0	0	43	19	6	0	0	2	2	0	0	0	0	9	29	0	0	366	1585
05:30:00 PM	0	15	3	0	0	32	23	2	0	0	2	6	0	0	0	0	7	18	0	0	352	1580
05:35:00 PM	0	13	0	0	0	35	26	9	0	0	2	4	0	0	0	1	7	32	0	0	356	1561
05:40:00 PM	0	12	2	0	0	28	22	3	0	0	2	4	0	0	0	3	8	24	0	0	345	1537
05:45:00 PM	0	9	2	0	0	29	19	2	0	0	3	9	0	0	0	1	8	27	0	0	346	1524
05:50:00 PM	0	15	3	0	0	15	14	5	0	0	3	4	0	0	0	0	7	23	0	0	306	1483
05:55:00 PM	0	7	0	0	0	12	10	3	0	0	1	3	0	0	0	1	5	9	0	0	249	1395

## Truck Volumes

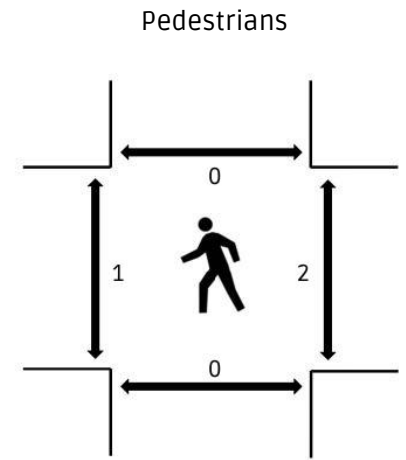
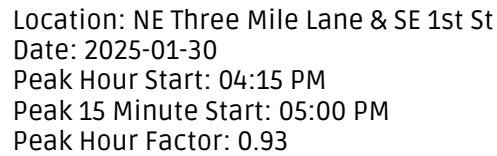
[illegible]

Bike Volumes

Time	NB (NE Johnson St)					SB (NE Johnson St)					EB (NE 3rd St)					WB (NE 3rd St)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
04:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	
04:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
04:30:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
04:35:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
04:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
04:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
04:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
05:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
05:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
05:10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
05:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
05:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
05:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
05:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:35:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Pedestrian Volumes

Time	Pedestrians				Totals	
Time	North	South	East	West	15min	1hr
04:00:00 PM	0	1	0	0		
04:05:00 PM	0	0	0	0		
04:10:00 PM	0	0	0	0	1	
04:15:00 PM	1	0	0	1	2	
04:20:00 PM	0	0	0	0	2	
04:25:00 PM	1	0	0	1	4	
04:30:00 PM	1	0	0	0	3	
04:35:00 PM	0	0	0	1	4	
04:40:00 PM	0	2	0	0	4	
04:45:00 PM	0	0	0	0	3	
04:50:00 PM	0	0	0	0	2	
04:55:00 PM	0	0	1	0	1	10
05:00:00 PM	0	0	0	0	1	9
05:05:00 PM	0	0	0	1	2	10
05:10:00 PM	1	0	0	0	2	11
05:15:00 PM	1	0	0	0	3	10
05:20:00 PM	0	0	0	0	2	10
05:25:00 PM	1	0	0	1	3	10
05:30:00 PM	0	0	0	0	2	9
05:35:00 PM	0	1	0	1	4	10
05:40:00 PM	0	0	0	0	2	8
05:45:00 PM	1	0	0	0	3	9
05:50:00 PM	0	0	0	0	1	9
05:55:00 PM	0	0	0	0	1	8



Time	NB (NE Three Mile Lane)					SB (NE Three Mile Lane)					EB (SE 1st St)					WB (SE 1st St)					Totals		
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr	
04:00:00 PM	14	45	0	0	0	0	56	2	0	0	1	0	18	0	0	0	0	0	0	0	391		
04:05:00 PM	16	59	0	0	0	1	54	2	0	0	0	0	14	0	0	0	0	0	0	0			
04:10:00 PM	17	44	0	0	0	2	32	0	0	0	0	0	12	0	0	0	1	1	0	0			
04:15:00 PM	22	47	0	0	0	2	49	1	0	0	0	0	18	0	0	0	0	1	0	0			395
04:20:00 PM	15	40	0	0	0	0	38	0	0	0	1	0	17	0	0	1	0	1	0	0			362
04:25:00 PM	16	52	0	0	0	0	44	0	0	0	0	0	14	0	0	0	0	0	0	0			379
04:30:00 PM	16	36	0	0	0	1	39	0	0	0	0	0	11	0	0	0	0	0	0	0			342
04:35:00 PM	12	49	0	0	0	1	54	1	0	0	0	0	19	0	0	0	0	1	0	0			366
04:40:00 PM	6	36	0	0	0	0	41	0	0	0	0	0	15	0	0	0	0	0	0	0			338
04:45:00 PM	15	41	1	0	0	1	51	0	0	0	0	0	8	0	0	0	0	1	0	0			353
04:50:00 PM	23	44	0	0	0	0	49	0	0	0	0	0	6	0	0	0	0	1	0	0	339		
04:55:00 PM	16	47	1	0	0	2	42	0	0	0	1	0	6	0	0	0	0	0	0	0	356	1464	
05:00:00 PM	9	45	0	0	0	1	46	0	0	0	0	0	12	0	0	0	0	1	0	0	352	1442	
05:05:00 PM	12	49	0	0	0	1	65	0	0	0	0	0	17	0	0	0	0	0	0	0	373	1440	
05:10:00 PM	22	34	0	0	0	0	60	1	0	0	0	0	19	0	0	0	0	0	0	0	394	1467	
05:15:00 PM	28	33	1	0	0	1	53	0	0	0	0	0	17	0	0	0	0	0	0	0	413	1460	
05:20:00 PM	13	43	0	0	0	0	45	0	0	0	0	0	12	0	0	1	0	1	0	0	384	1462	
05:25:00 PM	22	37	0	0	0	2	43	0	0	0	0	0	9	0	0	0	0	1	0	0	362	1450	
05:30:00 PM	8	38	0	0	0	0	46	0	0	0	1	0	6	0	0	0	0	0	0	0	328	1446	
05:35:00 PM	17	35	0	0	0	4	43	0	0	0	0	0	17	0	0	0	0	2	0	0	331	1427	
05:40:00 PM	15	32	0	0	0	0	40	1	0	0	0	0	10	0	0	0	0	0	0	0	315	1427	
05:45:00 PM	13	42	0	0	0	2	43	0	0	0	0	0	11	0	0	0	0	0	0	0	327	1420	
05:50:00 PM	11	25	0	0	0	0	26	0	0	0	1	0	13	0	0	0	0	0	0	0	285	1373	
05:55:00 PM	4	28	1	0	0	0	24	0	0	0	0	0	6	0	0	1	0	0	0	0	251	1322	

## Car Volumes

Time	NB (NE Three Mile Lane)					SB (NE Three Mile Lane)					EB (SE 1st St)					WB (SE 1st St)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
04:00:00 PM	14	42	0	0	0	0	56	2	0	0	1	0	17	0	0	0	0	0	0	0	381	1429
04:05:00 PM	16	55	0	0	0	1	54	2	0	0	0	0	14	0	0	0	0	0	0	0		
04:10:00 PM	17	42	0	0	0	2	32	0	0	0	0	0	12	0	0	0	1	1	0	0		
04:15:00 PM	22	43	0	0	0	2	48	1	0	0	0	0	18	0	0	0	0	1	0	0		
04:20:00 PM	15	38	0	0	0	0	38	0	0	0	1	0	17	0	0	1	0	1	0	0		
04:25:00 PM	15	52	0	0	0	0	42	0	0	0	0	0	14	0	0	0	0	0	0	0		
04:30:00 PM	15	35	0	0	0	1	38	0	0	0	0	0	11	0	0	0	0	0	0	0		
04:35:00 PM	12	48	0	0	0	1	52	1	0	0	0	0	18	0	0	0	0	1	0	0		
04:40:00 PM	6	35	0	0	0	0	41	0	0	0	0	0	13	0	0	0	0	0	0	0		
04:45:00 PM	15	39	1	0	0	1	51	0	0	0	0	0	8	0	0	0	0	1	0	0		
04:50:00 PM	22	42	0	0	0	0	49	0	0	0	0	0	6	0	0	0	0	1	0	0		
04:55:00 PM	16	47	1	0	0	2	42	0	0	0	1	0	6	0	0	0	0	0	0	0		
05:00:00 PM	9	45	0	0	0	1	44	0	0	0	0	0	12	0	0	0	0	1	0	0	347	1409
05:05:00 PM	12	48	0	0	0	1	63	0	0	0	0	0	17	0	0	0	0	0	0	0	368	1408
05:10:00 PM	22	34	0	0	0	0	60	1	0	0	0	0	19	0	0	0	0	0	0	0	389	1437
05:15:00 PM	27	32	1	0	0	1	52	0	0	0	0	0	17	0	0	0	0	0	0	0	407	1432
05:20:00 PM	13	43	0	0	0	0	45	0	0	0	0	0	12	0	0	1	0	1	0	0	381	1436
05:25:00 PM	20	36	0	0	0	2	43	0	0	0	0	0	9	0	0	0	0	1	0	0	356	1424
05:30:00 PM	7	36	0	0	0	0	44	0	0	0	1	0	6	0	0	0	0	0	0	0	320	1418
05:35:00 PM	17	35	0	0	0	4	43	0	0	0	0	0	17	0	0	0	0	2	0	0	323	1403
05:40:00 PM	15	31	0	0	0	0	40	1	0	0	0	0	10	0	0	0	0	0	0	0	309	1405
05:45:00 PM	12	42	0	0	0	2	42	0	0	0	0	0	11	0	0	0	0	0	0	0	324	1398
05:50:00 PM	11	25	0	0	0	0	26	0	0	0	1	0	13	0	0	0	0	0	0	0	282	1354
05:55:00 PM	4	27	1	0	0	0	23	0	0	0	0	0	6	0	0	1	0	0	0	0	247	1301

## Truck Volumes

[illegible]

Bike Volumes

Time	NB (NE Three Mile Lane)					SB (NE Three Mile Lane)					EB (SE 1st St)					WB (SE 1st St)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
04:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:25:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
04:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
04:35:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
04:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:35:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Pedestrian Volumes

Time	Pedestrians				Totals	
Time	North	South	East	West	15min	1hr
04:00:00 PM	0	0	0	0		
04:05:00 PM	0	0	0	0		
04:10:00 PM	0	0	0	0	0	
04:15:00 PM	0	0	0	0	0	
04:20:00 PM	0	0	0	0	0	
04:25:00 PM	0	0	1	0	1	
04:30:00 PM	0	0	0	0	1	
04:35:00 PM	0	0	1	0	2	
04:40:00 PM	0	0	0	1	2	
04:45:00 PM	0	0	0	0	2	
04:50:00 PM	0	0	0	0	1	
04:55:00 PM	0	0	0	0	0	3
05:00:00 PM	0	0	0	0	0	3
05:05:00 PM	0	0	0	0	0	3
05:10:00 PM	0	0	0	0	0	3
05:15:00 PM	0	0	1	0	1	4
05:20:00 PM	0	0	0	0	1	4
05:25:00 PM	0	0	0	0	1	3
05:30:00 PM	0	0	0	0	0	3
05:35:00 PM	0	0	1	0	1	3
05:40:00 PM	0	0	0	0	1	2
05:45:00 PM	0	0	0	0	1	2
05:50:00 PM	0	0	0	0	0	2
05:55:00 PM	0	0	0	0	0	2



Location: SE 3 Mile Lane & NE Cumulus Ave

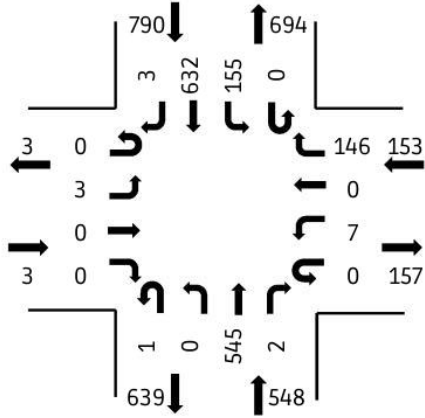
Date: 2025-01-30

Peak Hour Start: 03:25 PM

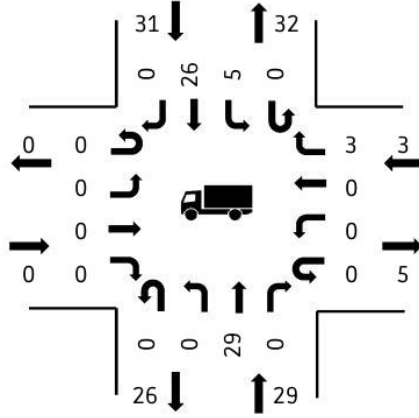
Peak 15 Minute Start: 04:00 PM

Peak Hour Factor: 0.93

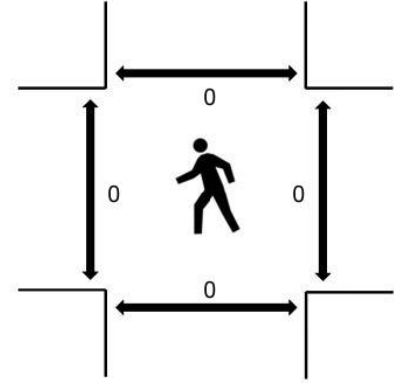
Motorized Vehicles



Heavy Vehicles



Pedestrians



(peak hour)

All Vehicle Volumes

Time	NB (SE 3 Mile Lane)					SB (SE 3 Mile Lane)					EB (NE Cumulus Ave)					WB (NE Cumulus Ave)					Totals	
	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
03:00:00 PM	0	34	0	0	0	16	42	1	0	0	1	0	0	0	0	3	0	7	0	0		
03:05:00 PM	0	50	1	0	0	10	43	0	0	0	0	0	0	0	0	0	0	17	0	0		
03:10:00 PM	0	40	1	0	0	7	45	0	0	0	0	0	0	0	0	2	0	8	0	0	328	
03:15:00 PM	0	46	0	0	0	11	41	1	0	0	0	0	0	0	0	2	0	7	0	0	332	
03:20:00 PM	0	38	0	1	0	13	34	0	0	0	0	0	0	0	0	2	0	9	0	0	308	
03:25:00 PM	0	37	0	1	0	19	52	0	0	0	0	0	0	0	0	0	0	14	0	0	328	
03:30:00 PM	0	40	1	0	0	11	60	0	0	0	1	0	0	0	0	0	0	12	0	0	345	
03:35:00 PM	0	49	0	0	0	17	63	1	0	0	0	0	0	0	0	0	0	12	0	0	390	
03:40:00 PM	0	33	0	0	0	15	47	0	0	0	0	0	0	0	0	2	0	6	0	0	370	
03:45:00 PM	0	40	0	0	0	14	59	0	0	0	0	0	0	0	0	1	0	10	0	0	369	
03:50:00 PM	0	51	0	0	0	13	51	0	0	0	0	0	0	0	0	0	0	8	0	0	350	
03:55:00 PM	0	44	0	0	0	7	43	0	0	0	1	0	0	0	0	0	0	14	0	0	356	1382
04:00:00 PM	0	51	1	0	0	10	64	1	0	0	0	0	0	0	0	2	0	17	0	0	378	1424
04:05:00 PM	0	44	0	0	0	11	54	0	0	0	0	0	0	0	0	1	0	17	0	0	382	1430
04:10:00 PM	0	64	0	0	0	11	45	1	0	0	0	0	0	0	0	0	0	8	0	0	402	1456
04:15:00 PM	0	44	0	0	0	16	49	0	0	0	0	0	0	0	0	1	0	11	0	0	377	1469
04:20:00 PM	0	48	0	0	0	11	45	0	0	0	1	0	0	0	0	0	0	17	0	0	372	1494
04:25:00 PM	0	41	0	0	0	12	40	0	0	0	0	0	0	0	0	0	0	16	0	0	352	1480
04:30:00 PM	0	37	0	0	0	9	53	0	0	0	0	0	0	0	0	1	0	16	0	0	347	1471
04:35:00 PM	0	37	0	0	0	6	54	0	0	0	0	0	0	0	0	3	0	6	0	0	331	1435
04:40:00 PM	0	40	0	0	0	11	44	1	0	0	0	0	0	0	0	0	0	20	0	0	338	1448
04:45:00 PM	0	49	0	0	0	6	61	0	0	0	0	0	0	0	0	2	0	18	0	0	358	1460
04:50:00 PM	0	49	0	0	0	7	41	0	0	0	0	0	0	0	0	1	0	10	0	0	360	1445
04:55:00 PM	0	37	1	0	0	6	53	0	0	0	0	0	0	0	0	0	0	14	0	0	355	1447
05:00:00 PM	1	42	0	0	0	10	58	0	0	0	1	0	0	0	0	0	0	24	0	0	355	1437
05:05:00 PM	0	34	0	0	0	10	78	1	0	0	0	0	0	0	0	0	0	16	0	0	386	1449
05:10:00 PM	0	50	0	0	0	7	62	0	0	0	0	0	0	0	0	0	0	14	0	0	408	1453
05:15:00 PM	1	34	0	0	0	13	54	0	0	0	0	0	0	0	0	3	0	20	0	0	397	1457
05:20:00 PM	0	48	0	0	0	4	56	0	0	0	0	0	0	0	0	3	0	13	0	0	382	1459
05:25:00 PM	0	25	0	0	0	7	41	0	0	0	0	0	0	0	0	0	0	11	0	0	333	1434
05:30:00 PM	0	47	0	0	0	9	60	0	0	0	1	0	0	0	0	1	0	13	0	0	339	1449
05:35:00 PM	0	38	0	0	0	7	43	0	0	0	0	0	0	0	0	2	0	11	0	0	316	1444
05:40:00 PM	0	45	0	0	0	13	43	1	0	0	0	0	0	0	0	0	0	7	0	0	341	1437
05:45:00 PM	0	38	0	0	0	7	36	0	0	0	0	0	0	0	0	1	0	3	0	0	295	1386
05:50:00 PM	0	34	0	0	0	9	36	0	0	0	0	0	0	0	0	0	0	11	0	0	284	1368
05:55:00 PM	0	29	0	0	0	5	26	0	0	0	0	0	0	0	0	0	0	8	0	0	243	1325

Car Volumes

Time	NB (SE 3 Mile Lane)					SB (SE 3 Mile Lane)					EB (NE Cumulus Ave)					WB (NE Cumulus Ave)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
03:00:00 PM	0	33	0	0	0	15	40	1	0	0	1	0	0	0	0	3	0	7	0	0	318	324
03:05:00 PM	0	49	1	0	0	10	42	0	0	0	0	0	0	0	0	0	0	17	0	0		
03:10:00 PM	0	39	1	0	0	7	43	0	0	0	0	0	0	0	0	2	0	7	0	0		
03:15:00 PM	0	45	0	0	0	11	40	1	0	0	0	0	0	0	0	2	0	7	0	0		
03:20:00 PM	0	37	0	1	0	12	31	0	0	0	0	0	0	0	0	2	0	9	0	0		
03:25:00 PM	0	34	0	1	0	18	45	0	0	0	0	0	0	0	0	0	0	13	0	0	309	326
03:30:00 PM	0	40	1	0	0	11	58	0	0	0	1	0	0	0	0	0	0	12	0	0	326	
03:35:00 PM	0	46	0	0	0	14	62	1	0	0	0	0	0	0	0	0	0	11	0	0	368	
03:40:00 PM	0	32	0	0	0	15	44	0	0	0	0	0	0	0	0	2	0	6	0	0	356	
03:45:00 PM	0	36	0	0	0	14	55	0	0	0	0	0	0	0	0	1	0	10	0	0	349	
03:50:00 PM	0	49	0	0	0	13	48	0	0	0	0	0	0	0	0	0	0	8	0	0	333	339
03:55:00 PM	0	41	0	0	0	7	42	0	0	0	1	0	0	0	0	0	0	14	0	0	1322	
04:00:00 PM	0	47	1	0	0	10	62	1	0	0	0	0	0	0	0	2	0	17	0	0	363	1362
04:05:00 PM	0	42	0	0	0	11	54	0	0	0	0	0	0	0	0	1	0	17	0	0	370	1368
04:10:00 PM	0	60	0	0	0	11	44	1	0	0	0	0	0	0	0	0	0	8	0	0	389	1393
04:15:00 PM	0	41	0	0	0	16	48	0	0	0	0	0	0	0	0	1	0	11	0	0	366	1404
04:20:00 PM	0	48	0	0	0	10	44	0	0	0	1	0	0	0	0	0	0	16	0	0	360	1431
04:25:00 PM	0	40	0	0	0	11	40	0	0	0	0	0	0	0	0	0	0	15	0	0	342	1426
04:30:00 PM	0	36	0	0	0	9	50	0	0	0	0	0	0	0	0	1	0	16	0	0	337	1415
04:35:00 PM	0	36	0	0	0	6	51	0	0	0	0	0	0	0	0	3	0	6	0	0	320	1383
04:40:00 PM	0	38	0	0	0	11	43	1	0	0	0	0	0	0	0	0	0	20	0	0	327	1397
04:45:00 PM	0	46	0	0	0	6	61	0	0	0	0	0	0	0	0	2	0	18	0	0	348	1414
04:50:00 PM	0	49	0	0	0	7	41	0	0	0	0	0	0	0	0	1	0	10	0	0	354	1404
04:55:00 PM	0	36	1	0	0	6	52	0	0	0	0	0	0	0	0	0	0	14	0	0	350	1408
05:00:00 PM	1	41	0	0	0	8	57	0	0	0	1	0	0	0	0	0	0	24	0	0	349	1400
05:05:00 PM	0	34	0	0	0	10	78	1	0	0	0	0	0	0	0	0	0	16	0	0	380	1414
05:10:00 PM	0	49	0	0	0	7	61	0	0	0	0	0	0	0	0	0	0	13	0	0	401	1420
05:15:00 PM	1	34	0	0	0	13	54	0	0	0	0	0	0	0	0	3	0	20	0	0	394	1428
05:20:00 PM	0	46	0	0	0	4	56	0	0	0	0	0	0	0	0	3	0	13	0	0	377	1431
05:25:00 PM	0	22	0	0	0	7	40	0	0	0	0	0	0	0	0	0	0	10	0	0	326	1404
05:30:00 PM	0	47	0	0	0	9	59	0	0	0	1	0	0	0	0	1	0	13	0	0	331	1422
05:35:00 PM	0	37	0	0	0	7	42	0	0	0	0	0	0	0	0	1	0	11	0	0	307	1418
05:40:00 PM	0	44	0	0	0	13	43	1	0	0	0	0	0	0	0	0	0	7	0	0	336	1413
05:45:00 PM	0	38	0	0	0	7	35	0	0	0	0	0	0	0	0	1	0	3	0	0	290	1364
05:50:00 PM	0	34	0	0	0	9	36	0	0	0	0	0	0	0	0	0	0	11	0	0	282	1346
05:55:00 PM	0	29	0	0	0	4	25	0	0	0	0	0	0	0	0	0	0	8	0	0	240	1303



## Truck Volumes

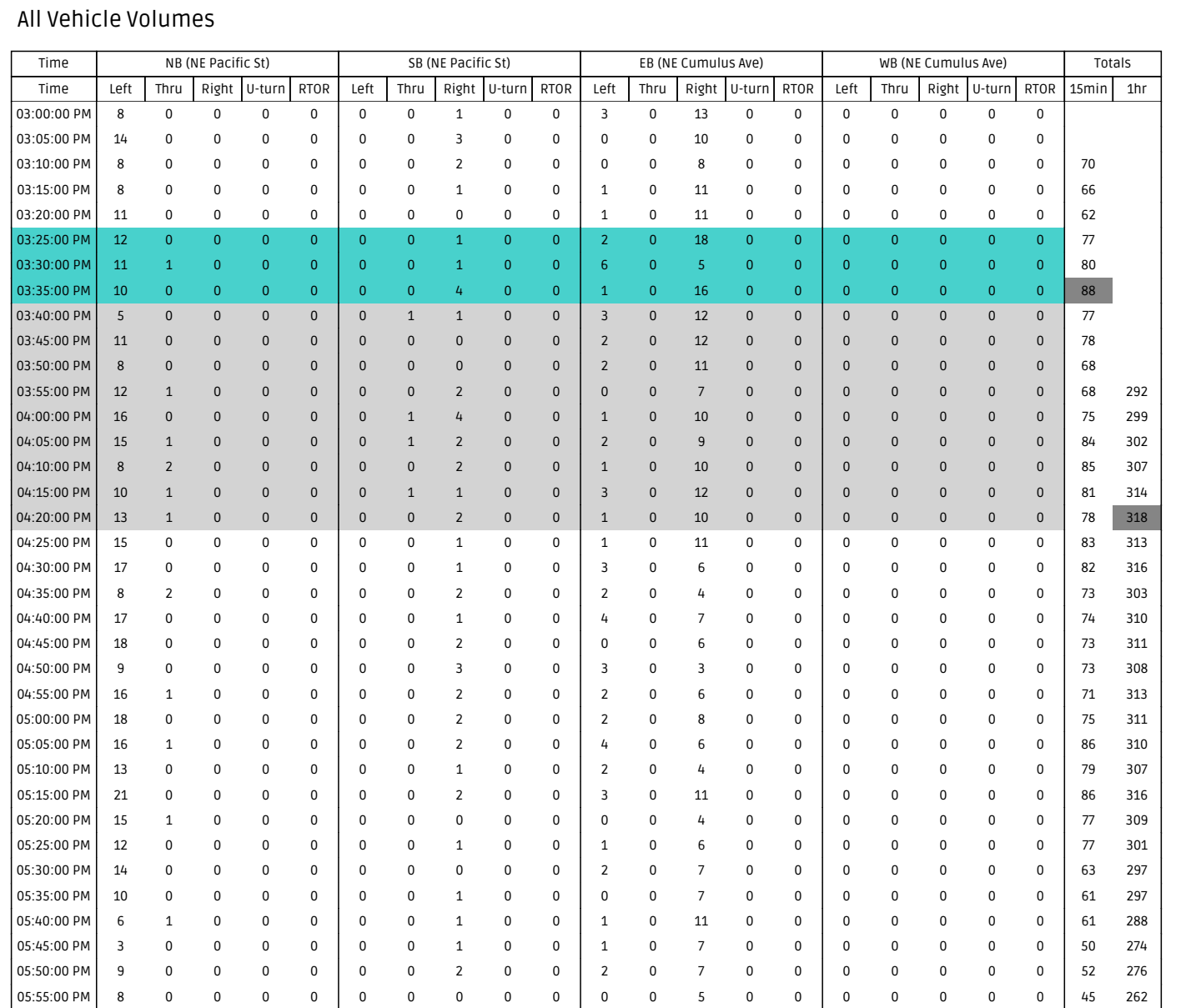
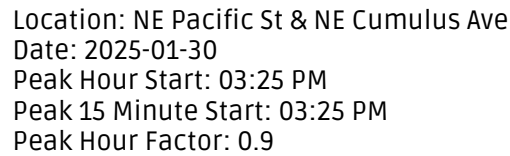
Time	NB (SE 3 Mile Lane)					SB (SE 3 Mile Lane)					EB (NE Cumulus Ave)					WB (NE Cumulus Ave)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
03:00:00 PM	0	1	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	10	
03:05:00 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0		
03:10:00 PM	0	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0		
03:15:00 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0		
03:20:00 PM	0	1	0	0	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0		
03:25:00 PM	0	3	0	0	0	1	7	0	0	0	0	0	0	0	0	0	0	1	0	0	19	
03:30:00 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0		
03:35:00 PM	0	3	0	0	0	3	1	0	0	0	0	0	0	0	0	0	0	1	0	0		
03:40:00 PM	0	1	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0		
03:45:00 PM	0	4	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0		
03:50:00 PM	0	2	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	17	60
03:55:00 PM	0	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:00:00 PM	0	4	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:05:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:10:00 PM	0	4	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:15:00 PM	0	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	11	65
04:20:00 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	12	63
04:25:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	10	54
04:30:00 PM	0	1	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	10	56
04:35:00 PM	0	1	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	11	52
04:40:00 PM	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	11	51
04:45:00 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	46
04:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	41
04:55:00 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	5	39
05:00:00 PM	0	1	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	6	37
05:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	35
05:10:00 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	7	33
05:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	29
05:20:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	28
05:25:00 PM	0	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	7	30
05:30:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	8	27
05:35:00 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	9	26
05:40:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	24
05:45:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	5	22
05:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	22
05:55:00 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3	22

## Bike Volumes

[illegible]

Pedestrian Volumes

Time	Pedestrians				Totals	
	North	South	East	West	15min	1hr
03:00:00 PM	0	0	0	0		
03:05:00 PM	0	0	0	0		
03:10:00 PM	0	0	0	0	0	
03:15:00 PM	0	0	0	0	0	
03:20:00 PM	0	0	0	0	0	
03:25:00 PM	0	0	0	0	0	
03:30:00 PM	0	0	0	0	0	
03:35:00 PM	0	0	0	0	0	
03:40:00 PM	0	0	0	0	0	
03:45:00 PM	0	0	0	0	0	
03:50:00 PM	0	0	0	0	0	
03:55:00 PM	0	0	0	0	0	0
04:00:00 PM	0	0	0	0	0	0
04:05:00 PM	0	0	0	0	0	0
04:10:00 PM	0	0	0	0	0	0
04:15:00 PM	0	0	0	0	0	0
04:20:00 PM	0	0	0	0	0	0
04:25:00 PM	0	0	0	0	0	0
04:30:00 PM	0	0	0	0	0	0
04:35:00 PM	0	0	0	0	0	0
04:40:00 PM	0	0	0	0	0	0
04:45:00 PM	0	0	0	0	0	0
04:50:00 PM	0	0	0	0	0	0
04:55:00 PM	0	0	0	0	0	0
05:00:00 PM	0	0	0	0	0	0
05:05:00 PM	0	0	0	0	0	0
05:10:00 PM	0	0	0	0	0	0
05:15:00 PM	0	0	0	0	0	0
05:20:00 PM	0	0	0	0	0	0
05:25:00 PM	0	0	0	0	0	0
05:30:00 PM	0	0	0	0	0	0
05:35:00 PM	0	0	0	0	0	0
05:40:00 PM	0	0	0	0	0	0
05:45:00 PM	0	0	0	0	0	0
05:50:00 PM	0	0	0	0	0	0
05:55:00 PM	1	0	0	0	1	1



## Car Volumes

Time	NB (NE Pacific St)					SB (NE Pacific St)					EB (NE Cumulus Ave)					WB (NE Cumulus Ave)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
03:00:00 PM	8	0	0	0	0	0	0	1	0	0	2	0	13	0	0	0	0	0	0	0		
03:05:00 PM	14	0	0	0	0	0	0	3	0	0	0	0	10	0	0	0	0	0	0	0		
03:10:00 PM	7	0	0	0	0	0	0	2	0	0	0	0	8	0	0	0	0	0	0	0	68	
03:15:00 PM	8	0	0	0	0	0	0	1	0	0	1	0	11	0	0	0	0	0	0	0	65	
03:20:00 PM	11	0	0	0	0	0	0	0	0	0	1	0	10	0	0	0	0	0	0	0	60	
03:25:00 PM	11	0	0	0	0	0	0	1	0	0	2	0	17	0	0	0	0	0	0	0	74	
03:30:00 PM	11	1	0	0	0	0	0	1	0	0	6	0	5	0	0	0	0	0	0	0	77	
03:35:00 PM	9	0	0	0	0	0	0	4	0	0	1	0	13	0	0	0	0	0	0	0	82	
03:40:00 PM	5	0	0	0	0	0	0	1	0	0	3	0	12	0	0	0	0	0	0	0	72	
03:45:00 PM	11	0	0	0	0	0	0	0	0	0	2	0	12	0	0	0	0	0	0	0	73	
03:50:00 PM	8	0	0	0	0	0	0	0	0	0	2	0	11	0	0	0	0	0	0	0	67	
03:55:00 PM	12	1	0	0	0	0	0	2	0	0	0	0	7	0	0	0	0	0	0	0	68	282
04:00:00 PM	16	0	0	0	0	0	0	4	0	0	1	0	10	0	0	0	0	0	0	0	74	289
04:05:00 PM	15	1	0	0	0	0	1	2	0	0	2	0	9	0	0	0	0	0	0	0	83	292
04:10:00 PM	8	2	0	0	0	0	0	2	0	0	1	0	10	0	0	0	0	0	0	0	84	298
04:15:00 PM	10	1	0	0	0	0	1	1	0	0	3	0	12	0	0	0	0	0	0	0	81	305
04:20:00 PM	12	1	0	0	0	0	0	2	0	0	1	0	9	0	0	0	0	0	0	0	76	308
04:25:00 PM	14	0	0	0	0	0	0	1	0	0	1	0	10	0	0	0	0	0	0	0	79	303
04:30:00 PM	17	0	0	0	0	0	0	1	0	0	3	0	6	0	0	0	0	0	0	0	78	306
04:35:00 PM	8	2	0	0	0	0	0	2	0	0	2	0	4	0	0	0	0	0	0	0	71	297
04:40:00 PM	17	0	0	0	0	0	0	1	0	0	4	0	7	0	0	0	0	0	0	0	74	305
04:45:00 PM	18	0	0	0	0	0	0	2	0	0	0	0	6	0	0	0	0	0	0	0	73	306
04:50:00 PM	9	0	0	0	0	0	0	3	0	0	3	0	3	0	0	0	0	0	0	0	73	303
04:55:00 PM	16	1	0	0	0	0	0	2	0	0	2	0	6	0	0	0	0	0	0	0	71	308
05:00:00 PM	18	0	0	0	0	0	0	2	0	0	2	0	6	0	0	0	0	0	0	0	73	305
05:05:00 PM	16	1	0	0	0	0	0	2	0	0	4	0	6	0	0	0	0	0	0	0	84	304
05:10:00 PM	12	0	0	0	0	0	0	1	0	0	2	0	4	0	0	0	0	0	0	0	76	300
05:15:00 PM	21	0	0	0	0	0	0	2	0	0	3	0	11	0	0	0	0	0	0	0	85	309
05:20:00 PM	15	1	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	76	304
05:25:00 PM	11	0	0	0	0	0	0	1	0	0	1	0	6	0	0	0	0	0	0	0	76	297
05:30:00 PM	13	0	0	0	0	0	0	0	0	0	2	0	7	0	0	0	0	0	0	0	61	292
05:35:00 PM	10	0	0	0	0	0	0	1	0	0	0	0	7	0	0	0	0	0	0	0	59	292
05:40:00 PM	6	1	0	0	0	0	0	1	0	0	1	0	11	0	0	0	0	0	0	0	60	283
05:45:00 PM	3	0	0	0	0	0	0	1	0	0	1	0	7	0	0	0	0	0	0	0	50	269
05:50:00 PM	9	0	0	0	0	0	0	2	0	0	2	0	7	0	0	0	0	0	0	0	52	271
05:55:00 PM	8	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	44	256

## Truck Volumes

Time	NB (NE Pacific St)					SB (NE Pacific St)					EB (NE Cumulus Ave)					WB (NE Cumulus Ave)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
03:00:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2 1 2 3 3 6	
03:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
03:10:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
03:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
03:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0		
03:25:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0		
03:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
03:35:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0		
03:40:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	5	10 10 10 9 9 10
03:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
03:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
03:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:00:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:20:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	10
04:25:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	4	10
04:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	10
04:35:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	6
04:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
04:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
04:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
04:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
05:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	6
05:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	6
05:10:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	7
05:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7
05:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5
05:25:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4
05:30:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	5
05:35:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	5
05:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5
05:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
05:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
05:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	6

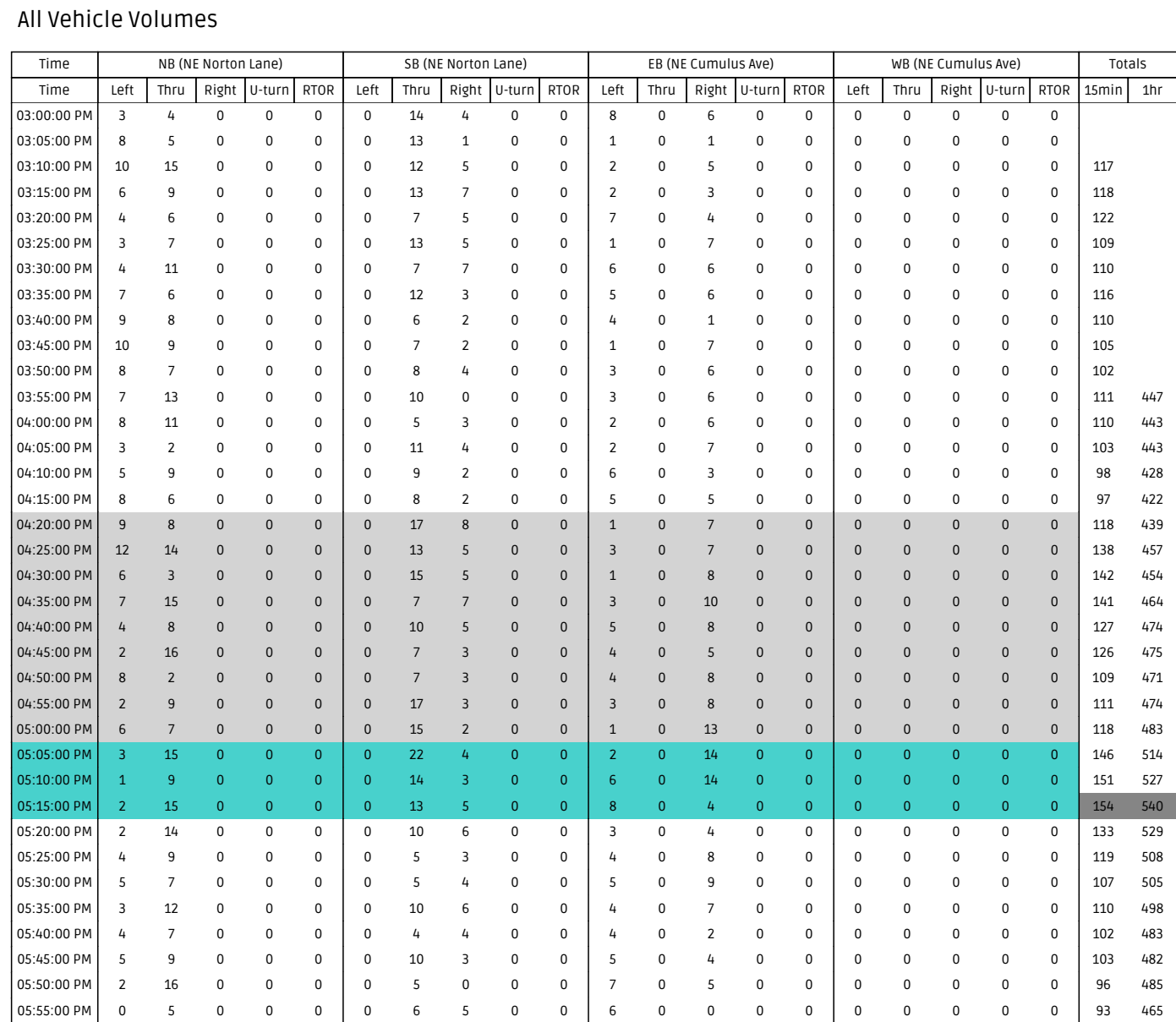
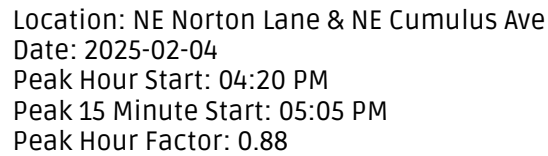
## Bike Volumes

[illegible]

Pedestrian Volumes

Time	Pedestrians				Totals	
	North	South	East	West	15min	1hr
03:00:00 PM	0	0	0	0		
03:05:00 PM	0	0	0	0		
03:10:00 PM	0	0	0	0	0	
03:15:00 PM	2	0	0	0	2	
03:20:00 PM	0	0	0	0	2	
03:25:00 PM	0	0	0	0	2	
03:30:00 PM	1	0	0	0	1	
03:35:00 PM	0	0	0	0	1	
03:40:00 PM	0	0	0	0	1	
03:45:00 PM	0	0	0	0	0	
03:50:00 PM	0	0	0	0	0	
03:55:00 PM	0	0	0	0	0	3
04:00:00 PM	0	0	0	0	0	3
04:05:00 PM	0	0	0	0	0	3
04:10:00 PM	0	0	0	0	0	3
04:15:00 PM	0	0	0	0	0	1
04:20:00 PM	0	0	0	0	0	1
04:25:00 PM	0	0	0	0	0	1
04:30:00 PM	2	0	0	0	2	2
04:35:00 PM	0	0	0	0	2	2
04:40:00 PM	0	0	0	0	2	2
04:45:00 PM	0	0	0	0	0	2
04:50:00 PM	1	0	0	0	1	3
04:55:00 PM	0	0	0	0	1	3
05:00:00 PM	0	0	0	0	1	3
05:05:00 PM	0	0	0	0	0	3
05:10:00 PM	0	0	0	0	0	3
05:15:00 PM	0	0	0	0	0	3
05:20:00 PM	1	0	0	0	1	4
05:25:00 PM	0	0	0	0	1	4
05:30:00 PM	1	0	0	0	2	3
05:35:00 PM	0	0	0	0	1	3
05:40:00 PM	0	0	0	0	1	3
05:45:00 PM	0	0	0	0	0	3
05:50:00 PM	0	0	0	0	0	2
05:55:00 PM	0	0	0	0	0	2





## Car Volumes

Time	NB (NE Norton Lane)					SB (NE Norton Lane)					EB (NE Cumulus Ave)					WB (NE Cumulus Ave)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
03:00:00 PM	3	3	0	0	0	0	13	4	0	0	8	0	6	0	0	0	0	0	0	0		
03:05:00 PM	8	5	0	0	0	0	13	1	0	0	1	0	1	0	0	0	0	0	0	0		
03:10:00 PM	9	15	0	0	0	0	12	5	0	0	2	0	5	0	0	0	0	0	0	0	114	
03:15:00 PM	4	8	0	0	0	0	13	7	0	0	2	0	3	0	0	0	0	0	0	0	114	
03:20:00 PM	4	5	0	0	0	0	6	5	0	0	7	0	4	0	0	0	0	0	0	0	116	
03:25:00 PM	3	7	0	0	0	0	13	5	0	0	1	0	7	0	0	0	0	0	0	0	104	
03:30:00 PM	4	11	0	0	0	0	7	7	0	0	6	0	6	0	0	0	0	0	0	0	108	
03:35:00 PM	7	6	0	0	0	0	11	3	0	0	5	0	4	0	0	0	0	0	0	0	113	
03:40:00 PM	8	8	0	0	0	0	6	2	0	0	4	0	1	0	0	0	0	0	0	0	106	
03:45:00 PM	9	8	0	0	0	0	6	2	0	0	1	0	7	0	0	0	0	0	0	0	98	
03:50:00 PM	8	7	0	0	0	0	7	4	0	0	3	0	6	0	0	0	0	0	0	0	97	
03:55:00 PM	7	13	0	0	0	0	10	0	0	0	3	0	5	0	0	0	0	0	0	0	106	430
04:00:00 PM	7	10	0	0	0	0	5	3	0	0	2	0	5	0	0	0	0	0	0	0	105	425
04:05:00 PM	3	2	0	0	0	0	10	3	0	0	2	0	7	0	0	0	0	0	0	0	97	423
04:10:00 PM	5	9	0	0	0	0	9	2	0	0	6	0	3	0	0	0	0	0	0	0	93	409
04:15:00 PM	8	6	0	0	0	0	8	2	0	0	5	0	5	0	0	0	0	0	0	0	95	406
04:20:00 PM	9	7	0	0	0	0	17	8	0	0	1	0	7	0	0	0	0	0	0	0	117	424
04:25:00 PM	11	14	0	0	0	0	13	5	0	0	3	0	7	0	0	0	0	0	0	0	136	441
04:30:00 PM	3	3	0	0	0	0	15	5	0	0	0	0	8	0	0	0	0	0	0	0	136	434
04:35:00 PM	6	15	0	0	0	0	7	7	0	0	3	0	10	0	0	0	0	0	0	0	135	446
04:40:00 PM	3	8	0	0	0	0	10	5	0	0	5	0	8	0	0	0	0	0	0	0	121	456
04:45:00 PM	2	15	0	0	0	0	7	3	0	0	4	0	4	0	0	0	0	0	0	0	122	458
04:50:00 PM	8	2	0	0	0	0	6	3	0	0	4	0	7	0	0	0	0	0	0	0	104	453
04:55:00 PM	2	9	0	0	0	0	17	3	0	0	3	0	7	0	0	0	0	0	0	0	106	456
05:00:00 PM	5	7	0	0	0	0	15	2	0	0	1	0	12	0	0	0	0	0	0	0	113	466
05:05:00 PM	2	15	0	0	0	0	22	3	0	0	2	0	14	0	0	0	0	0	0	0	141	497
05:10:00 PM	1	9	0	0	0	0	14	3	0	0	6	0	13	0	0	0	0	0	0	0	146	509
05:15:00 PM	2	14	0	0	0	0	13	5	0	0	8	0	4	0	0	0	0	0	0	0	150	521
05:20:00 PM	2	13	0	0	0	0	10	6	0	0	3	0	4	0	0	0	0	0	0	0	130	510
05:25:00 PM	4	9	0	0	0	0	5	3	0	0	4	0	8	0	0	0	0	0	0	0	117	490
05:30:00 PM	5	7	0	0	0	0	5	4	0	0	5	0	9	0	0	0	0	0	0	0	106	491
05:35:00 PM	3	12	0	0	0	0	10	6	0	0	4	0	6	0	0	0	0	0	0	0	109	484
05:40:00 PM	4	7	0	0	0	0	4	3	0	0	4	0	2	0	0	0	0	0	0	0	100	469
05:45:00 PM	5	9	0	0	0	0	10	3	0	0	5	0	3	0	0	0	0	0	0	0	100	469
05:50:00 PM	2	16	0	0	0	0	5	0	0	0	7	0	5	0	0	0	0	0	0	0	94	474
05:55:00 PM	0	5	0	0	0	0	6	5	0	0	6	0	0	0	0	0	0	0	0	0	92	455

## Truck Volumes

[illegible]

## Bike Volumes

[illegible]

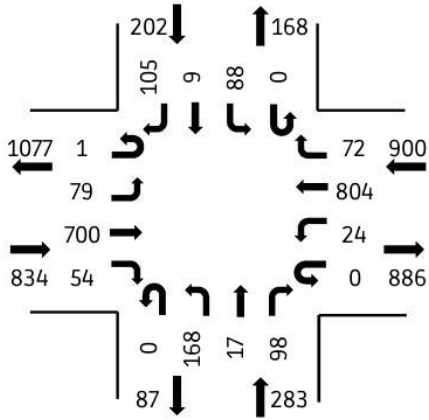
Pedestrian Volumes

Time	Pedestrians				Totals	
	North	South	East	West	15min	1hr
03:00:00 PM	0	0	0	0		
03:05:00 PM	0	0	0	0		
03:10:00 PM	0	0	0	0	0	
03:15:00 PM	0	0	0	0	0	
03:20:00 PM	0	0	0	0	0	
03:25:00 PM	0	0	0	0	0	
03:30:00 PM	0	0	0	0	0	
03:35:00 PM	0	0	0	0	0	
03:40:00 PM	0	0	0	0	0	
03:45:00 PM	0	0	0	0	0	
03:50:00 PM	0	0	0	0	0	
03:55:00 PM	0	0	0	0	0	0
04:00:00 PM	0	0	0	0	0	0
04:05:00 PM	0	0	0	0	0	0
04:10:00 PM	0	0	0	0	0	0
04:15:00 PM	0	0	0	0	0	0
04:20:00 PM	0	0	0	8	8	8
04:25:00 PM	0	0	0	0	8	8
04:30:00 PM	0	0	0	0	8	8
04:35:00 PM	0	0	0	8	8	16
04:40:00 PM	0	0	0	1	9	17
04:45:00 PM	0	0	0	0	9	17
04:50:00 PM	0	0	0	0	1	17
04:55:00 PM	0	0	0	0	0	17
05:00:00 PM	0	0	0	0	0	17
05:05:00 PM	1	0	0	0	1	18
05:10:00 PM	0	0	0	0	1	18
05:15:00 PM	0	0	0	0	1	18
05:20:00 PM	0	0	0	0	0	10
05:25:00 PM	0	0	0	0	0	10
05:30:00 PM	0	0	0	0	0	10
05:35:00 PM	0	0	0	0	0	2
05:40:00 PM	0	0	0	0	0	1
05:45:00 PM	0	0	0	0	0	1
05:50:00 PM	0	0	0	0	0	1
05:55:00 PM	0	0	0	0	0	1

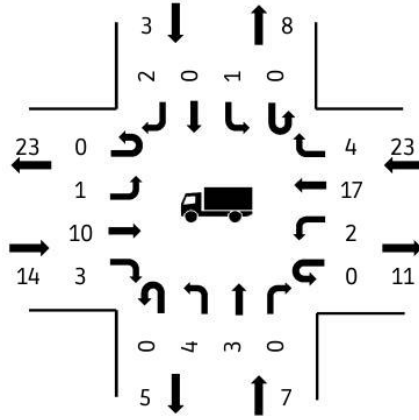


Location: NE Norton Lane & OR 18  
Date: 2025-01-30  
Peak Hour Start: 03:55 PM  
Peak 15 Minute Start: 04:05 PM  
Peak Hour Factor: 0.91

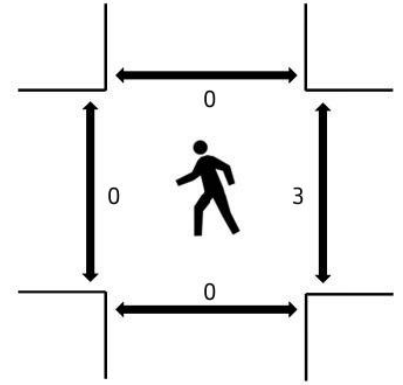
Motorized Vehicles



Heavy Vehicles



Pedestrians



(peak hour)

All Vehicle Volumes

Time	NB (NE Norton Lane)					SB (NE Norton Lane)					EB (OR 18)					WB (OR 18)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
03:00:00 PM	14	1	7	0	0	8	2	10	0	0	9	37	5	0	0	1	38	9	0	0		
03:05:00 PM	6	3	3	0	0	4	1	8	0	0	7	52	5	0	0	1	75	3	0	0		
03:10:00 PM	9	4	4	0	0	4	0	4	0	0	4	48	3	0	0	3	74	13	0	0	479	
03:15:00 PM	16	3	3	0	0	7	3	5	0	0	7	37	7	0	0	2	55	8	0	0	491	
03:20:00 PM	13	2	3	0	0	11	2	11	0	0	5	58	5	0	0	2	62	8	0	0	505	
03:25:00 PM	19	2	8	0	0	4	7	9	0	0	5	45	6	0	0	0	60	9	0	0	509	
03:30:00 PM	6	3	11	0	0	4	2	10	0	0	6	48	7	0	0	2	57	5	0	0	517	
03:35:00 PM	20	1	13	0	0	11	2	6	0	0	5	66	10	0	0	4	58	5	0	0	536	
03:40:00 PM	14	2	4	0	0	10	0	6	0	0	6	55	9	0	0	4	50	3	0	0	525	
03:45:00 PM	11	0	4	0	0	9	0	4	0	0	5	60	6	0	0	2	66	7	0	0	538	
03:50:00 PM	14	0	3	0	0	8	1	13	0	0	8	54	11	0	0	3	64	4	0	0	520	
03:55:00 PM	11	1	8	0	0	4	0	6	0	0	4	57	6	0	0	3	66	12	0	0	535	2048
04:00:00 PM	11	4	8	0	0	13	0	11	0	0	9	39	4	1	0	2	60	9	0	0	532	2078
04:05:00 PM	21	0	24	0	0	4	1	8	0	0	5	65	1	0	0	4	77	5	0	0	564	2125
04:10:00 PM	12	2	18	0	0	10	0	10	0	0	9	54	4	0	0	2	66	7	0	0	580	2149
04:15:00 PM	7	0	4	0	0	8	1	13	0	0	10	53	9	0	0	0	91	7	0	0	612	2199
04:20:00 PM	11	6	6	0	0	13	0	7	0	0	8	55	3	0	0	3	54	6	0	0	569	2189
04:25:00 PM	11	1	7	0	0	6	2	12	0	0	5	50	5	0	0	0	70	4	0	0	548	2188
04:30:00 PM	6	2	6	0	0	4	0	7	0	0	7	72	5	0	0	2	67	5	0	0	528	2210
04:35:00 PM	24	0	5	0	0	12	1	10	0	0	2	64	6	0	0	0	48	3	0	0	531	2184
04:40:00 PM	15	1	1	0	0	3	0	3	0	0	8	60	3	0	0	2	63	5	0	0	522	2185
04:45:00 PM	26	0	7	0	0	3	1	6	0	0	5	56	5	0	0	3	73	4	0	0	528	2200
04:50:00 PM	13	0	4	0	0	8	3	12	0	0	7	75	3	0	0	3	69	5	0	0	555	2219
04:55:00 PM	15	1	4	0	0	4	2	3	0	0	10	51	5	0	0	4	66	4	0	0	560	2210
05:00:00 PM	18	1	3	0	0	13	0	6	0	0	6	55	2	0	0	4	67	3	0	0	549	2217
05:05:00 PM	11	0	2	0	0	25	0	10	0	0	1	69	3	0	0	1	64	3	0	0	536	2191
05:10:00 PM	7	0	3	0	0	12	0	2	0	0	3	89	4	0	0	1	83	5	0	0	576	2206
05:15:00 PM	16	1	6	0	0	8	0	11	0	0	8	60	6	0	0	5	49	6	0	0	574	2179
05:20:00 PM	14	0	4	0	0	11	0	7	0	0	8	44	3	0	0	4	62	14	0	0	556	2178
05:25:00 PM	3	0	2	0	0	7	0	7	0	0	5	52	1	0	0	3	60	5	0	0	492	2150
05:30:00 PM	6	1	1	0	0	6	0	8	0	0	3	50	3	0	0	2	63	2	0	0	461	2112
05:35:00 PM	9	0	5	0	0	1	0	4	0	0	3	56	6	0	0	1	70	5	0	0	450	2097
05:40:00 PM	14	0	0	0	0	7	0	8	0	0	3	41	3	0	0	0	67	6	0	0	454	2082
05:45:00 PM	8	0	2	0	0	8	0	4	0	0	6	36	4	0	0	0	50	9	0	0	436	2020
05:50:00 PM	5	1	2	0	0	2	0	5	0	0	5	30	7	0	0	2	63	9	0	0	407	1949
05:55:00 PM	8	1	3	0	0	6	0	5	0	0	5	36	6	0	0	1	63	8	0	0	400	1922

Car Volumes

Time	NB (NE Norton Lane)					SB (NE Norton Lane)					EB (OR 18)					WB (OR 18)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
03:00:00 PM	14	1	6	0	0	8	2	10	0	0	9	35	5	0	0	1	36	9	0	0		
03:05:00 PM	6	3	2	0	0	4	1	8	0	0	6	49	5	0	0	1	71	2	0	0		
03:10:00 PM	9	4	4	0	0	4	0	4	0	0	4	47	3	0	0	3	72	13	0	0	461	
03:15:00 PM	16	3	3	0	0	7	3	5	0	0	7	33	6	0	0	2	53	6	0	0	469	
03:20:00 PM	13	1	3	0	0	11	2	11	0	0	5	54	5	0	0	2	62	8	0	0	488	
03:25:00 PM	19	2	8	0	0	3	6	9	0	0	5	44	6	0	0	0	59	9	0	0	491	
03:30:00 PM	6	3	11	0	0	4	2	8	0	0	6	48	6	0	0	2	56	5	0	0	504	
03:35:00 PM	20	1	13	0	0	10	2	5	0	0	5	65	10	0	0	4	57	5	0	0	524	
03:40:00 PM	14	2	4	0	0	10	0	6	0	0	6	54	9	0	0	4	47	3	0	0	513	
03:45:00 PM	10	0	4	0	0	9	0	4	0	0	5	60	5	0	0	2	64	7	0	0	526	
03:50:00 PM	12	0	3	0	0	8	1	10	0	0	8	53	11	0	0	3	61	4	0	0	503	
03:55:00 PM	10	1	8	0	0	4	0	6	0	0	4	57	6	0	0	3	63	11	0	0	517	1982
04:00:00 PM	10	3	8	0	0	13	0	10	0	0	9	39	3	1	0	2	57	8	0	0	510	2009
04:05:00 PM	21	0	24	0	0	4	1	7	0	0	4	65	1	0	0	3	76	5	0	0	547	2062
04:10:00 PM	12	2	18	0	0	9	0	10	0	0	9	53	4	0	0	2	65	6	0	0	564	2085
04:15:00 PM	6	0	4	0	0	8	1	13	0	0	10	53	8	0	0	0	90	7	0	0	601	2141
04:20:00 PM	11	4	6	0	0	13	0	7	0	0	8	54	3	0	0	3	53	6	0	0	558	2132
04:25:00 PM	11	1	7	0	0	6	2	12	0	0	5	50	5	0	0	0	69	4	0	0	540	2134
04:30:00 PM	6	2	6	0	0	4	0	7	0	0	7	72	5	0	0	1	65	5	0	0	520	2157
04:35:00 PM	24	0	5	0	0	12	1	10	0	0	2	63	5	0	0	0	48	2	0	0	524	2132
04:40:00 PM	15	1	1	0	0	3	0	3	0	0	8	56	3	0	0	2	62	5	0	0	511	2132
04:45:00 PM	25	0	7	0	0	3	1	6	0	0	5	54	5	0	0	3	71	4	0	0	515	2146
04:50:00 PM	13	0	4	0	0	8	3	12	0	0	7	74	3	0	0	3	68	5	0	0	543	2172
04:55:00 PM	15	1	4	0	0	4	2	3	0	0	9	51	5	0	0	4	65	4	0	0	551	2166
05:00:00 PM	17	1	3	0	0	13	0	6	0	0	5	52	2	0	0	3	67	3	0	0	539	2175
05:05:00 PM	11	0	2	0	0	25	0	10	0	0	1	68	3	0	0	1	64	3	0	0	527	2152
05:10:00 PM	7	0	3	0	0	11	0	2	0	0	3	88	4	0	0	1	80	5	0	0	564	2166
05:15:00 PM	16	1	6	0	0	8	0	11	0	0	8	59	5	0	0	5	48	6	0	0	565	2139
05:20:00 PM	14	0	3	0	0	11	0	7	0	0	8	44	2	0	0	4	61	13	0	0	544	2138
05:25:00 PM	2	0	2	0	0	7	0	7	0	0	5	51	1	0	0	3	60	4	0	0	482	2108
05:30:00 PM	6	1	1	0	0	6	0	8	0	0	3	50	3	0	0	2	62	2	0	0	453	2072
05:35:00 PM	9	0	4	0	0	1	0	4	0	0	3	56	5	0	0	1	70	5	0	0	444	2058
05:40:00 PM	12	0	0	0	0	7	0	8	0	0	3	41	3	0	0	0	67	6	0	0	449	2046
05:45:00 PM	8	0	2	0	0	8	0	4	0	0	6	35	4	0	0	0	49	9	0	0	430	1987
05:50:00 PM	5	1	2	0	0	2	0	5	0	0	4	30	7	0	0	2	62	9	0	0	401	1916
05:55:00 PM	8	1	3	0	0	5	0	5	0	0	5	36	6	0	0	1	63	8	0	0	395	1890





## Bike Volumes

[illegible]

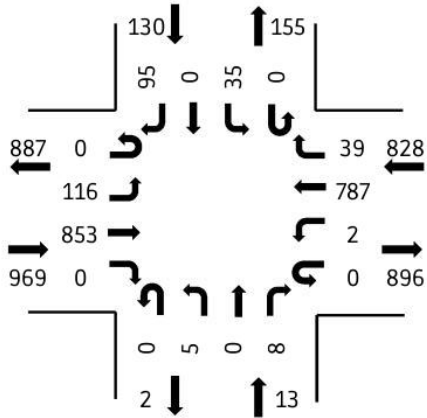
Pedestrian Volumes

Time	Pedestrians				Totals	
	North	South	East	West	15min	1hr
03:00:00 PM	0	0	0	0		
03:05:00 PM	0	1	0	2		
03:10:00 PM	0	0	0	0	3	
03:15:00 PM	0	0	0	0	3	
03:20:00 PM	0	0	0	0	0	
03:25:00 PM	0	0	0	0	0	
03:30:00 PM	0	0	0	0	0	
03:35:00 PM	0	0	0	0	0	
03:40:00 PM	0	0	0	0	0	
03:45:00 PM	0	0	0	1	1	
03:50:00 PM	0	0	0	0	1	
03:55:00 PM	0	0	0	0	1	4
04:00:00 PM	0	0	1	0	1	5
04:05:00 PM	0	0	0	0	1	2
04:10:00 PM	0	0	0	0	1	2
04:15:00 PM	0	0	0	0	0	2
04:20:00 PM	0	0	0	0	0	2
04:25:00 PM	0	0	0	0	0	2
04:30:00 PM	0	0	0	0	0	2
04:35:00 PM	0	0	0	0	0	2
04:40:00 PM	0	0	1	0	1	3
04:45:00 PM	0	0	1	0	2	3
04:50:00 PM	0	0	0	0	2	3
04:55:00 PM	0	0	0	0	1	3
05:00:00 PM	0	0	0	0	0	2
05:05:00 PM	0	0	0	1	1	3
05:10:00 PM	0	0	1	0	2	4
05:15:00 PM	0	0	0	0	2	4
05:20:00 PM	0	0	0	0	1	4
05:25:00 PM	0	0	0	0	0	4
05:30:00 PM	0	0	0	0	0	4
05:35:00 PM	0	0	0	0	0	4
05:40:00 PM	0	0	0	0	0	3
05:45:00 PM	0	0	0	0	0	2
05:50:00 PM	0	0	0	0	0	2
05:55:00 PM	0	0	0	0	0	2

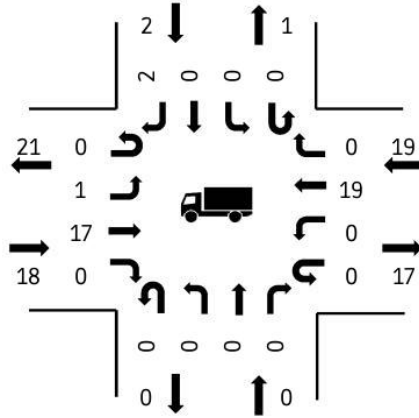


Location: SE Cumulus Ave & OR 18  
Date: 2025-01-30  
Peak Hour Start: 04:20 PM  
Peak 15 Minute Start: 05:05 PM  
Peak Hour Factor: 0.88

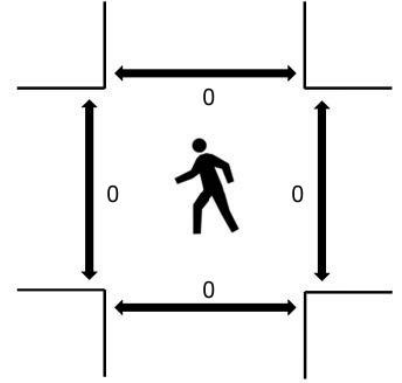
Motorized Vehicles



Heavy Vehicles



Pedestrians



(peak hour)

All Vehicle Volumes

Time	NB (SE Cumulus Ave)					SB (SE Cumulus Ave)					EB (OR 18)					WB (OR 18)					Totals	
	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
03:00:00 PM	0	0	0	0	0	2	0	4	0	0	6	54	0	0	0	0	43	3	0	0		
03:05:00 PM	0	0	0	0	0	4	0	15	0	0	8	47	1	0	0	0	71	5	0	0		
03:10:00 PM	1	0	0	0	0	4	0	8	0	0	11	47	0	0	0	0	74	4	0	0	412	
03:15:00 PM	0	0	0	0	0	3	0	8	0	0	10	48	0	0	0	0	65	2	0	0	436	
03:20:00 PM	0	0	0	0	0	3	0	6	0	0	7	64	0	0	0	0	59	5	0	0	429	
03:25:00 PM	0	1	0	0	0	2	0	3	0	0	13	54	0	0	0	0	69	3	0	0	425	
03:30:00 PM	0	0	0	0	0	4	0	9	0	0	5	52	0	0	0	1	59	3	0	0	422	
03:35:00 PM	0	0	0	0	0	5	0	6	0	0	20	68	0	0	0	0	57	2	0	0	436	
03:40:00 PM	0	0	0	0	0	1	1	6	0	0	7	74	0	0	0	0	52	9	0	0	441	
03:45:00 PM	0	0	0	0	0	6	0	14	0	0	16	68	0	0	0	0	62	4	0	0	478	
03:50:00 PM	0	0	0	0	0	3	0	7	0	0	7	64	0	0	0	0	68	0	0	0	469	
03:55:00 PM	0	0	0	0	0	1	0	11	0	0	8	64	0	0	0	0	74	2	0	0	479	1757
04:00:00 PM	0	0	0	0	0	2	0	12	0	0	12	53	0	0	0	0	68	3	0	0	459	1795
04:05:00 PM	1	0	0	0	0	5	0	12	0	0	15	84	0	0	0	0	66	1	0	0	494	1828
04:10:00 PM	1	0	0	1	0	6	0	15	0	0	2	85	0	0	0	0	64	3	0	0	511	1856
04:15:00 PM	0	0	1	0	0	2	0	11	0	0	8	62	0	0	0	1	65	10	0	0	521	1880
04:20:00 PM	1	0	0	0	0	2	0	10	0	0	9	63	0	0	0	0	73	4	0	0	499	1898
04:25:00 PM	0	0	1	0	0	3	0	6	0	0	8	58	0	0	0	0	55	1	0	0	454	1885
04:30:00 PM	0	0	1	0	0	4	0	8	0	0	6	72	0	0	0	0	61	3	0	0	449	1907
04:35:00 PM	1	0	0	0	0	0	0	9	0	0	12	81	0	0	0	2	51	7	0	0	450	1912
04:40:00 PM	1	0	1	0	0	3	0	9	0	0	12	39	0	0	0	0	62	4	0	0	449	1893
04:45:00 PM	1	0	0	0	0	2	0	5	0	0	6	77	0	0	0	0	82	2	0	0	469	1898
04:50:00 PM	0	0	0	0	0	1	0	4	0	0	12	82	0	0	0	0	64	4	0	0	473	1916
04:55:00 PM	0	0	1	0	0	1	0	6	0	0	7	61	0	0	0	0	70	3	0	0	491	1905
05:00:00 PM	1	0	1	0	0	4	0	16	0	0	11	58	0	0	0	0	61	4	0	0	472	1911
05:05:00 PM	0	0	1	0	0	7	0	9	0	0	14	88	0	0	0	0	67	2	0	0	493	1915
05:10:00 PM	0	0	1	0	0	6	0	5	0	0	6	87	0	0	0	0	64	2	0	0	515	1909
05:15:00 PM	0	0	1	0	0	2	0	8	0	0	13	87	0	0	0	0	77	3	0	0	550	1940
05:20:00 PM	0	0	1	0	0	4	0	9	0	0	8	61	0	0	0	0	72	1	0	0	518	1934
05:25:00 PM	0	0	0	0	0	5	0	4	0	0	10	61	0	0	0	0	54	4	0	0	485	1940
05:30:00 PM	1	0	1	0	0	3	0	10	0	0	11	35	0	0	0	0	66	2	0	0	423	1914
05:35:00 PM	0	0	0	0	0	1	0	7	0	0	4	81	0	0	0	0	71	0	0	0	431	1915
05:40:00 PM	1	0	1	0	0	2	0	11	0	0	11	41	0	0	0	0	52	3	0	0	415	1906
05:45:00 PM	0	0	0	0	0	3	0	9	0	0	3	47	0	0	0	0	49	3	0	0	400	1845
05:50:00 PM	0	0	1	0	0	2	0	7	0	0	5	51	0	0	0	0	52	2	0	0	356	1798
05:55:00 PM	0	0	0	0	0	2	0	8	0	0	7	44	0	0	0	0	46	3	0	0	344	1759

Car Volumes

Time	NB (SE Cumulus Ave)					SB (SE Cumulus Ave)					EB (OR 18)					WB (OR 18)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
03:00:00 PM	0	0	0	0	0	2	0	4	0	0	5	51	0	0	0	0	40	3	0	0		
03:05:00 PM	0	0	0	0	0	4	0	15	0	0	8	45	1	0	0	0	67	5	0	0		
03:10:00 PM	1	0	0	0	0	4	0	8	0	0	11	44	0	0	0	0	71	4	0	0	393	
03:15:00 PM	0	0	0	0	0	3	0	7	0	0	10	44	0	0	0	0	64	2	0	0	418	
03:20:00 PM	0	0	0	0	0	3	0	6	0	0	7	61	0	0	0	0	57	5	0	0	412	
03:25:00 PM	0	1	0	0	0	2	0	3	0	0	11	53	0	0	0	0	67	3	0	0	409	
03:30:00 PM	0	0	0	0	0	4	0	9	0	0	5	48	0	0	0	1	59	3	0	0	408	
03:35:00 PM	0	0	0	0	0	5	0	6	0	0	18	66	0	0	0	0	56	2	0	0	422	
03:40:00 PM	0	0	0	0	0	1	1	6	0	0	7	72	0	0	0	0	50	8	0	0	427	
03:45:00 PM	0	0	0	0	0	6	0	14	0	0	16	64	0	0	0	0	60	4	0	0	462	
03:50:00 PM	0	0	0	0	0	3	0	7	0	0	6	64	0	0	0	0	65	0	0	0	454	
03:55:00 PM	0	0	0	0	0	1	0	11	0	0	8	63	0	0	0	0	70	2	0	0	464	1693
04:00:00 PM	0	0	0	0	0	2	0	11	0	0	12	52	0	0	0	0	66	3	0	0	446	1734
04:05:00 PM	1	0	0	0	0	5	0	11	0	0	14	84	0	0	0	0	64	1	0	0	481	1769
04:10:00 PM	1	0	0	1	0	6	0	15	0	0	2	84	0	0	0	0	64	3	0	0	502	1802
04:15:00 PM	0	0	1	0	0	2	0	11	0	0	8	60	0	0	0	1	64	10	0	0	513	1829
04:20:00 PM	1	0	0	0	0	2	0	9	0	0	9	62	0	0	0	0	72	4	0	0	492	1849
04:25:00 PM	0	0	1	0	0	3	0	6	0	0	8	58	0	0	0	0	54	1	0	0	447	1840
04:30:00 PM	0	0	1	0	0	4	0	8	0	0	6	72	0	0	0	0	57	3	0	0	441	1862
04:35:00 PM	1	0	0	0	0	0	0	9	0	0	12	80	0	0	0	2	50	7	0	0	443	1870
04:40:00 PM	1	0	1	0	0	3	0	9	0	0	12	36	0	0	0	0	61	4	0	0	439	1852
04:45:00 PM	1	0	0	0	0	2	0	5	0	0	5	75	0	0	0	0	78	2	0	0	456	1856
04:50:00 PM	0	0	0	0	0	1	0	4	0	0	12	81	0	0	0	0	64	4	0	0	461	1877
04:55:00 PM	0	0	1	0	0	1	0	6	0	0	7	61	0	0	0	0	69	3	0	0	482	1870
05:00:00 PM	1	0	1	0	0	4	0	15	0	0	11	54	0	0	0	0	61	4	0	0	465	1875
05:05:00 PM	0	0	1	0	0	7	0	9	0	0	14	87	0	0	0	0	65	2	0	0	484	1880
05:10:00 PM	0	0	1	0	0	6	0	5	0	0	6	84	0	0	0	0	61	2	0	0	501	1869
05:15:00 PM	0	0	1	0	0	2	0	8	0	0	13	86	0	0	0	0	76	3	0	0	539	1901
05:20:00 PM	0	0	1	0	0	4	0	9	0	0	8	61	0	0	0	0	69	1	0	0	507	1895
05:25:00 PM	0	0	0	0	0	5	0	4	0	0	10	59	0	0	0	0	51	4	0	0	475	1897
05:30:00 PM	1	0	1	0	0	3	0	10	0	0	11	35	0	0	0	0	66	2	0	0	415	1875
05:35:00 PM	0	0	0	0	0	1	0	7	0	0	4	81	0	0	0	0	71	0	0	0	426	1878
05:40:00 PM	1	0	1	0	0	2	0	11	0	0	11	40	0	0	0	0	52	3	0	0	414	1872
05:45:00 PM	0	0	0	0	0	3	0	9	0	0	3	46	0	0	0	0	48	3	0	0	397	1816
05:50:00 PM	0	0	1	0	0	2	0	7	0	0	5	50	0	0	0	0	50	2	0	0	350	1767
05:55:00 PM	0	0	0	0	0	2	0	8	0	0	7	44	0	0	0	0	45	3	0	0	338	1728

Truck Volumes

Time	NB (SE Cumulus Ave)					SB (SE Cumulus Ave)					EB (OR 18)					WB (OR 18)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
03:00:00 PM	0	0	0	0	0	0	0	0	0	0	1	3	0	0	0	0	3	0	0	0		
03:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	4	0	0	0		
03:10:00 PM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	0	0	0	19	
03:15:00 PM	0	0	0	0	0	0	0	1	0	0	0	4	0	0	0	0	1	0	0	0	18	
03:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	2	0	0	0	17	
03:25:00 PM	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	2	0	0	0	16	
03:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	14	
03:35:00 PM	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	1	0	0	0	14	
03:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	1	0	0	14	
03:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	2	0	0	0	16	
03:50:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	3	0	0	0	15	
03:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	4	0	0	0	15	64
04:00:00 PM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	2	0	0	0	13	61
04:05:00 PM	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2	0	0	0	13	59
04:10:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	9	54
04:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	1	0	0	0	8	51
04:20:00 PM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	0	0	0	7	49
04:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	7	45
04:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	8	45
04:35:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	7	42
04:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	1	0	0	0	10	41
04:45:00 PM	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	4	0	0	0	13	42
04:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	12	39
04:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	9	35
05:00:00 PM	0	0	0	0	0	0	0	1	0	0	0	4	0	0	0	0	0	0	0	0	7	36
05:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	0	0	0	9	35
05:10:00 PM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	0	0	0	14	40
05:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	11	39
05:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	11	39
05:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	3	0	0	0	10	43
05:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	39
05:35:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	37
05:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	34
05:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	3	29
05:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	0	0	0	6	31
05:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	6	31

## Bike Volumes

[illegible]

Pedestrian Volumes

Time	Pedestrians				Totals	
	North	South	East	West	15min	1hr
03:00:00 PM	0	0	0	0		
03:05:00 PM	0	0	0	0		
03:10:00 PM	0	0	0	0	0	
03:15:00 PM	0	0	0	0	0	
03:20:00 PM	0	0	0	0	0	
03:25:00 PM	0	0	0	0	0	
03:30:00 PM	0	0	0	0	0	
03:35:00 PM	0	0	0	0	0	
03:40:00 PM	0	0	0	0	0	
03:45:00 PM	0	0	0	0	0	
03:50:00 PM	0	0	0	0	0	
03:55:00 PM	0	0	0	0	0	0
04:00:00 PM	0	0	0	0	0	0
04:05:00 PM	0	0	0	0	0	0
04:10:00 PM	0	0	0	0	0	0
04:15:00 PM	0	0	0	0	0	0
04:20:00 PM	0	0	0	0	0	0
04:25:00 PM	0	0	0	0	0	0
04:30:00 PM	0	0	0	0	0	0
04:35:00 PM	0	0	0	0	0	0
04:40:00 PM	0	0	0	0	0	0
04:45:00 PM	0	0	0	0	0	0
04:50:00 PM	0	0	0	0	0	0
04:55:00 PM	0	0	0	0	0	0
05:00:00 PM	0	0	0	0	0	0
05:05:00 PM	0	0	0	0	0	0
05:10:00 PM	0	0	0	0	0	0
05:15:00 PM	0	0	0	0	0	0
05:20:00 PM	0	0	0	0	0	0
05:25:00 PM	0	0	0	0	0	0
05:30:00 PM	0	0	0	0	0	0
05:35:00 PM	0	0	0	0	0	0
05:40:00 PM	0	0	0	0	0	0
05:45:00 PM	0	0	0	0	0	0
05:50:00 PM	0	0	0	0	0	0
05:55:00 PM	0	0	0	0	0	0

## Appendix D

Crash History Data

Traffic Signal Warrants

Left-Turn Lane Warrants



















































039: SALMON RIVER

Highway 039 ALL ROAD TYPES, MP 47.15 to 47.55 01/01/2018 to 12/31/2022, Both Add and Non-Add mileage, ALL Crashes Severity, ALL Crashes Circumstance

18 - 23 of 24 Crash records shown.

SER#	P	R	J	S	W	DATE	COUNTY	RD#	FC	CONN#	RD	CHAR	INT-TYPE	SPCL USE																		
INVEST	E	A	U	I	C	O	CITY	COMPNT	FIRST	STREET	DIRECT	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR	QTY	MOVE	A S												
RD DPT	E	L	G	N	H	R	URBAN AREA	MLG	TYP	SECOND	STREET	LOCTN	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	G	E	LICNS	PED							
UNLOC?	D	C	S	V	L	K	LONG	MILEPNT	LRS																							
														(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V#	TYPE	TO	P#	TYPE	SVRTY	E	X	RES	LOC	ERROR	ACT	EVENT	CAUSE
00646	N	N	N	N		07/06/2019	YAMHILL	1	14			INTER	CROSS	N		N	CLD	O-1 L-TURN	01	NONE	STRGHT				04,02							
STATE						SA	MCMINNVILLE	MN	0	SALMON RIVER HY	CN		TRF SIGNAL	N		DRY	TURN	PRVTE	E -W					000	00							
N						9P	MCMINVL UA	47.39	CUMULUS AVE	CN	02	0			N	DAY	INJ	PSNGR CAR		01	DRVR	INJC	26	F	OR-Y	000	000	00				
N						45 12 3.23	-123 9 8.34			003900100S00														OR<25								
																			02	NONE	TURN-L											
																			PRVTE	W -N					000	00						
																			PSNGR CAR		01	DRVR	INJC	19	M	NONE	020,004,028	000	04,02			
																								OR<25								
00824	N	N	N	N	N	08/29/2021	YAMHILL	1	14			STRGHT		Y		N	CLR	S-1STOP	01	NONE	0	STRGHT			07,27,29							
STATE						SU	MCMINNVILLE	MN	0	SALMON RIVER HY	E	(NONE)	TRF SIGNAL	N		DRY	REAR	PRVTE	W -E					000	00							
N						7P	MCMINVL UA	47.40	CUMULUS AVE	CN	03				N	DAY	INJ	PSNGR CAR		01	DRVR	NONE	19	M	OTH-Y	043,016,026	000	07,27,29				
N						45 12 3.23	-123 9 7.59			003900100S00		(04)												OR>25								
																			02	NONE	0	STOP										
																			PRVTE	W -E					011	00						
																			PSNGR CAR		01	DRVR	INJC	36	F	SUSP	000	000	00			
																								OR>25								
00293	Y	N	Y	N	N	04/01/2022	YAMHILL	1	14			STRGHT		N		Y	CLR	FIX OBJ	01	NONE	0	STRGHT			053	30,16						
CITY						FR	MCMINNVILLE	MN	0	SALMON RIVER HY	E	(NONE)	NONE	N		DRY	FIX	PRVTE	E -W					000	053	00						
Y						5A	MCMINVL UA	47.46	CUMULUS AVE	CN	08				N	DARK	INJ	PSNGR CAR		01	DRVR	INJB	32	M	SUSP	050,080,081	025	30,16				
N						45 12 3.22	-123 9 3.14			003900100S00		(04)												OR>25								
00818	N	N	N	N	N	10/17/2020	YAMHILL	1	14			STRGHT		N		Y	CLR	FIX OBJ	01	NONE	9	STRGHT			079,053	16						
STATE						SA	MCMINNVILLE	MN	0	SALMON RIVER HY	W	(NONE)	UNKNOWN	N		DRY	FIX	N/A	W -E					088	00							
Y						1A	MCMINVL UA	47.50	ARMORY WAY		08				N	DARK	PDO	PSNGR CAR		01	DRVR	NONE	00	Unk	UNK	000	000	00				
N						45 12 3.22	-123 9 .17			003900100S00		(04)												UNK								
01016	N	N	N	N	N	07/04/2019	YAMHILL	1	14			STRGHT		N		N	CLR	S-STRGHT	01	NONE	9	STRGHT			13,06,02							
NONE						TH	MCMINNVILLE	MN	0	SALMON RIVER HY	UN	(NONE)	UNKNOWN	N		DRY	SS-O	N/A	W -E					052	00							
N						8P	MCMINVL UA	47.54	CUMULUS AVE	CN	03				N	DAY	PDO	PSNGR CAR		01	DRVR	NONE	00	Unk	UNK	000	000	00				
N						45 12 3.2	-123 8 57.2			003900100S00		(04)												UNK								
																			02	NONE	9	STRGHT										
																			N/A	W -E					000	00						
																			PSNGR CAR		01	DRVR	NONE	00	Unk	UNK	000	000	00			
																								UNK								
00391	N	N	N	N	N	05/29/2020	YAMHILL	1	19	1		INTER	3-LEG	N		N	CLR	S-1STOP	01	NONE	0	STRGHT			07,27							
CITY						FR	MCMINNVILLE	CN	0	SALMON RIVER HY	N		TRF SIGNAL	N		DRY	REAR	PRVTE	N -S					000	00							
N						10A	MCMINVL UA	47.39	CUMULUS AVE	CN	06	0			N	DAY	INJ	PSNGR CAR		01	DRVR	INJC	16	F	OR-Y	043,026,016	038	07,27				
N						45 12 3.25	-123 9 8.35			0039BB100S00														OR<25								
																			02	NONE	0	STOP										
																			PRVTE	N -S					011	00						
																			PSNGR CAR		01	DRVR	INJC	52	F	OR-Y	000	000	00			
																								OR<25								

Not Related

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 submittal 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.

CONTINUOUS SYSTEM CRASH LISTING

039: SALMON RIVER

Highway 039 ALL ROAD TYPES, MP 47.15 to 47.55 01/01/2018 to 12/31/2022, Both Add and Non-Add mileage, ALL Crashes Severity, ALL Crashes Circumstance

24 - 24 of 24 Crash records shown.

SER#	P	R	J	S	W	DATE	COUNTY	RD#	FC	CONN#	RD	CHAR	INT-TYPE	OFFRD	WTHR	CRASH	SPCL	USE	MOVE	A	S									
INVEST	E	A	U	I	C	O DAY	CITY	COMPNT	FIRST	STREET	DIRECT	(MEDIAN)	INT-REL	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	G	E	LICNS	PED						
RD DPT	E	L	G	N	H	R TIME	URBAN AREA	MLG	TYP	SECOND	STREET	LOCTN	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	P#	TYPE	SVRTY	E	X	RES	LOC	ERROR	ACT	EVENT	CAUSE
UNLOC?	D	C	S	V	L	K LAT	LONG	MILEPNT	LRS			(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V#	TYPE	TO	P#	TYPE	SVRTY	E	X	RES	LOC	ERROR	ACT	EVENT	CAUSE
00164	N	N	N	N		02/08/2018	YAMHILL	1	19	1	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE	9	STRGHT										07,29
NONE						TH	MCMINNVILLE	CN	0	SALMON RIVER HY	N		TRF SIGNAL	N	DRY	REAR	N/A	N	-S									000		00
N						10A	MCMINVL UA	47.41		CUMULUS AVE CN	06	0		N	DAY	PDO		PSNGR	CAR		01	DRVR	NONE	00	Unk	UNK		000	000	00
N						45 12 4.2	-123 9 8.36			0039BB100S00		(02)						02	NONE	9	STOP									
																		N/A	N	-S								012		00
																		PSNGR	CAR		01	DRVR	NONE	00	Unk	UNK		000	000	00
																									UNK					

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 submittal 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.

## Left-Turn Lane Warrant Analysis



Project: 2245 NE Cumulus Avenue Zone Change  
Intersection: NE Cumulus Avenue & NE Three Mile Lane  
Date: 6/24/2025  
Scenario: 2041 Buildout Conditions - PM Peak Hour (SB)

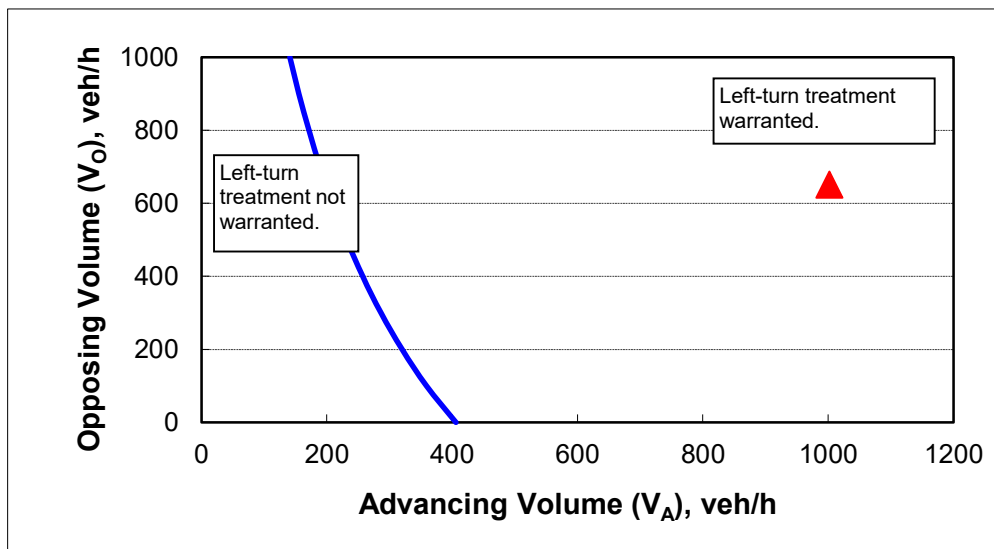
### 2-lane roadway (English)

#### INPUT

Variable	Value
85 <sup>th</sup> percentile speed, mph:	40
Percent of left-turns in advancing volume ( $V_A$ ), %:	24%
Advancing volume ( $V_A$ ), veh/h:	1002
Opposing volume ( $V_O$ ), veh/h:	651

#### OUTPUT

Variable	Value
Limiting advancing volume ( $V_A$ ), veh/h:	199
<b>Guidance for determining the need for a major-road left-turn bay:</b>	
<b>Left-turn treatment 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: 2245 NE Cumulus Avenue Zone Change  
Intersection: NE Cumulus Avenue & NE Three Mile Lane  
Date: 6/24/2025  
Scenario: 2041 Background Conditions - PM Peak Hour (SB)

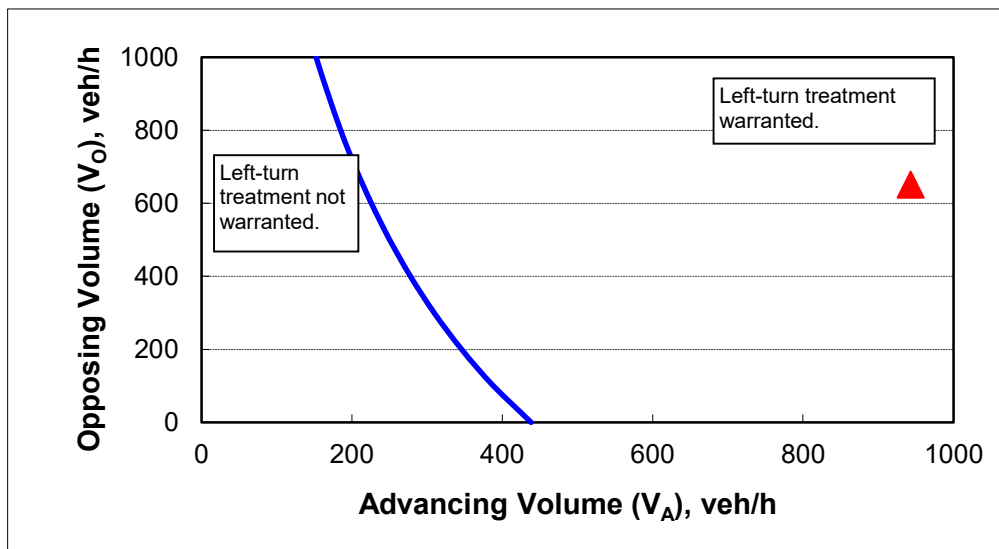
### 2-lane roadway (English)

#### INPUT

Variable	Value
85 <sup>th</sup> percentile speed, mph:	40
Percent of left-turns in advancing volume ( $V_A$ ), %:	20%
Advancing volume ( $V_A$ ), veh/h:	943
Opposing volume ( $V_O$ ), veh/h:	651

#### OUTPUT

Variable	Value
Limiting advancing volume ( $V_A$ ), veh/h:	215
<b>Guidance for determining the need for a major-road left-turn bay:</b>	
<b>Left-turn treatment 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: 2245 NE Cumulus Avenue Zone Change  
Intersection: NE Cumulus Avenue & NE Three Mile Lane  
Date: 6/24/2025  
Scenario: 2025 Existing Conditions - PM Peak Hour (SB)

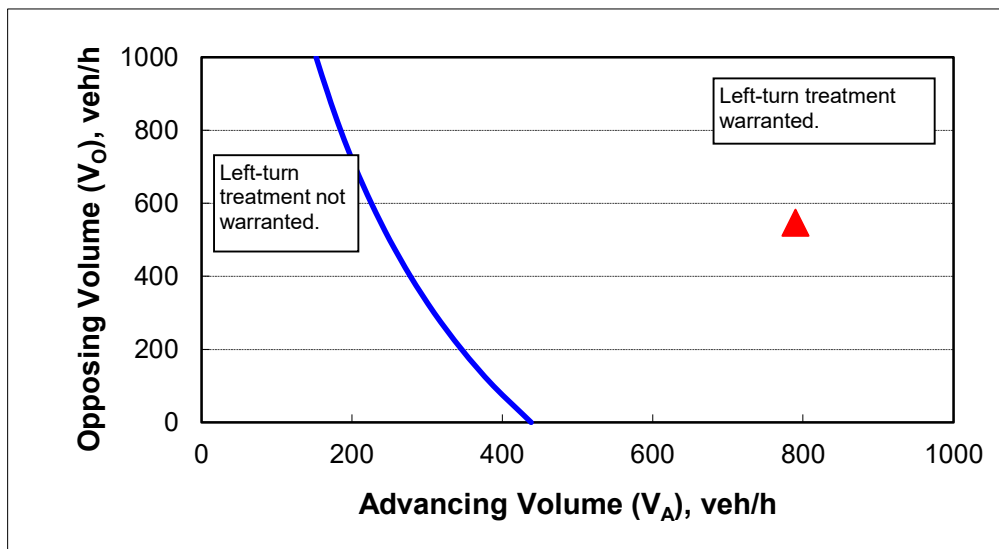
### 2-lane roadway (English)

#### INPUT

Variable	Value
85 <sup>th</sup> percentile speed, mph:	40
Percent of left-turns in advancing volume ( $V_A$ ), %:	20%
Advancing volume ( $V_A$ ), veh/h:	790
Opposing volume ( $V_O$ ), veh/h:	547

#### OUTPUT

Variable	Value
Limiting advancing volume ( $V_A$ ), veh/h:	238
<b>Guidance for determining the need for a major-road left-turn bay:</b>	
<b>Left-turn treatment 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: 2245 NE Cumulus Avenue Zone Change  
Intersection: NE Cumulus Avenue & NE Three Mile Lane  
Date: 6/24/2025  
Scenario: 2041 Buildout Conditions - PM Peak Hour (NB)

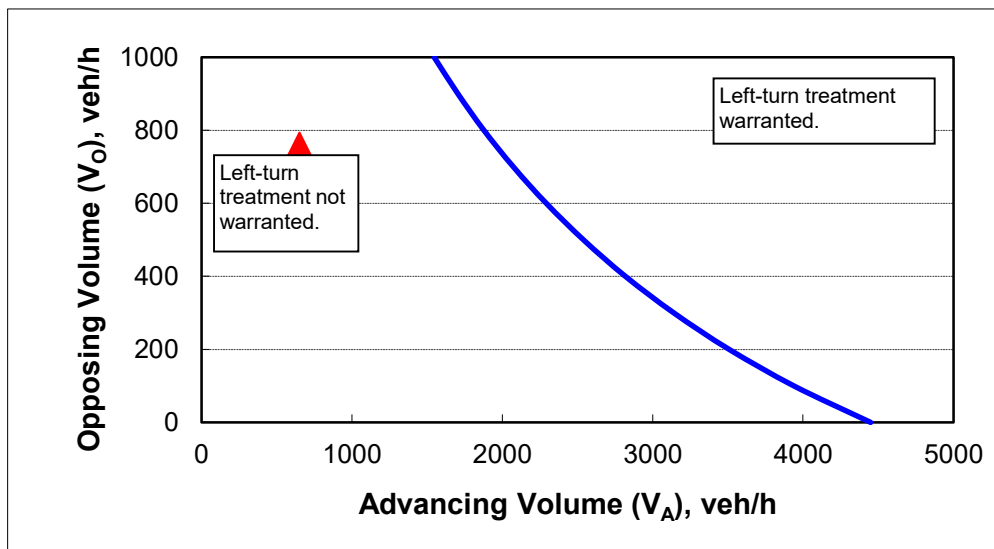
### 2-lane roadway (English)

#### INPUT

Variable	Value
85 <sup>th</sup> percentile speed, mph:	40
Percent of left-turns in advancing volume ( $V_A$ ), %:	0%
Advancing volume ( $V_A$ ), veh/h:	652
Opposing volume ( $V_O$ ), veh/h:	758

#### OUTPUT

Variable	Value
Limiting advancing volume ( $V_A$ ), veh/h:	1958
<b>Guidance for determining the need for a major-road left-turn bay:</b>	
Left-turn treatment NOT warranted.	



#### 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

<p align="center"><b>Oregon Department of Transportation</b>  <b>Transportation Development Branch</b>  <b>Transportation Planning Analysis Unit</b></p>					
<p align="center"><b>Preliminary Traffic Signal Warrant Analysis<sup>1</sup></b></p>					
<b>Major Street:</b> Three Mile Lane			<b>Minor Street:</b> SE 1st Street		
<b>Project:</b> 2245 NE Cumulus Avenue ZC			<b>City/County:</b> McMinnville		
<b>Year:</b> 2041			<b>Alternative:</b> 0		
<p align="center"><b>Preliminary Signal Warrant Volumes</b></p>					
Number of Approach lanes		ADT on major street approaching from both directions		ADT on minor street, highest approaching volume	
Major Street	Minor Street	Percent of standard warrants 100	70	Percent of standard warrants 100	70
<p align="center"><b>Case A: Minimum Vehicular Traffic</b></p>					
1	1	8850	6200	2650	1850
2 or more	1	10600	7400	2650	1850
2 or more	2 or more	10600	7400	3550	2500
1	2 or more	8850	6200	3550	2500
<p align="center"><b>Case B: Interruption of Continuous Traffic</b></p>					
1	1	13300	9300	1350	950
2 or more	1	15900	11100	1350	950
2 or more	2 or more	15900	11100	1750	1250
1	2 or more	13300	9300	1750	1250
<b>X</b>	100 percent of standard warrants				
	70 percent of standard warrants <sup>2</sup>				
<p align="center"><b>Preliminary Signal Warrant Calculation</b></p>					
	Street	Number of Lanes	Warrant Volumes	Approach Volumes	Warrant Met
Case A	Major	1	8850	15570	N
	Minor	1	2650	30	
Case B	Major	1	13300	15570	N
	Minor	1	1350	30	
Analyst and Date:			Reviewer and Date:		

<sup>1</sup> Meeting preliminary signal warrants does **not** guarantee that a signal will be installed. When preliminary signal warrants are met, project analysts need to coordinate with Region Traffic to initiate the traffic signal engineering investigation as outlined in the Traffic Manual. Before a signal can be installed, the engineering investigation must be conducted or reviewed by the Region Traffic Manager who will forward signal recommendations to headquarters. Traffic signal warrants must be met and the State Traffic Engineer's approval obtained before a traffic signal can be installed on a state highway.

<sup>2</sup> Used due to 85th percentile speed in excess of 40 mph or isolated community with population of less than 10,000.

Oregon Department of Transportation					
Transportation Development Branch					
Transportation Planning Analysis Unit					
Preliminary Traffic Signal Warrant Analysis <sup>1</sup>					
Major Street: Three Mile Lane			Minor Street: Nehemiah Ln/Cumulus Ave		
Project: 2245 NE Cumulus Avenue ZC			City/County: McMinnville		
Year: 2041			Alternative: 0		
Preliminary Signal Warrant Volumes					
Number of Approach lanes		ADT on major street approaching from both directions		ADT on minor street, highest approaching volume	
Major Street	Minor Street	Percent of standard warrants 100	70	Percent of standard warrants 100	70
Case A: Minimum Vehicular Traffic					
1	1	8850	6200	2650	1850
2 or more	1	10600	7400	2650	1850
2 or more	2 or more	10600	7400	3550	2500
1	2 or more	8850	6200	3550	2500
Case B: Interruption of Continuous Traffic					
1	1	13300	9300	1350	950
2 or more	1	15900	11100	1350	950
2 or more	2 or more	15900	11100	1750	1250
1	2 or more	13300	9300	1750	1250
	100 percent of standard warrants				
X	70 percent of standard warrants <sup>2</sup>				
Preliminary Signal Warrant Calculation					
	Street	Number of Lanes	Warrant Volumes	Approach Volumes	Warrant Met
Case A	Major	1	6200	16540	N
	Minor	1	1850	90	
Case B	Major	1	9300	16540	N
	Minor	1	950	90	
Analyst and Date:			Reviewer and Date:		

<sup>1</sup> Meeting preliminary signal warrants does **not** guarantee that a signal will be installed. When preliminary signal warrants are met, project analysts need to coordinate with Region Traffic to initiate the traffic signal engineering investigation as outlined in the Traffic Manual. Before a signal can be installed, the engineering investigation must be conducted or reviewed by the Region Traffic Manager who will forward signal recommendations to headquarters. Traffic signal warrants must be met and the State Traffic Engineer's approval obtained before a traffic signal can be installed on a state highway.

<sup>2</sup> Used due to 85th percentile speed in excess of 40 mph or isolated community with population of less than 10,000.

<p align="center"><b>Oregon Department of Transportation</b>  <b>Transportation Development Branch</b>  <b>Transportation Planning Analysis Unit</b></p>					
<p align="center"><b>Preliminary Traffic Signal Warrant Analysis<sup>1</sup></b></p>					
<b>Major Street:</b> NE Cumulus Avenue			<b>Minor Street:</b> NE Pacific Street		
<b>Project:</b> 2245 NE Cumulus Avenue ZC			<b>City/County:</b> McMinnville		
<b>Year:</b> 2041			<b>Alternative:</b> 0		
<p align="center"><b>Preliminary Signal Warrant Volumes</b></p>					
Number of Approach lanes		ADT on major street approaching from both directions		ADT on minor street, highest approaching volume	
Major Street	Minor Street	Percent of standard warrants 100	70	Percent of standard warrants 100	70
<p align="center"><b>Case A: Minimum Vehicular Traffic</b></p>					
1	1	8850	6200	2650	1850
2 or more	1	10600	7400	2650	1850
2 or more	2 or more	10600	7400	3550	2500
1	2 or more	8850	6200	3550	2500
<p align="center"><b>Case B: Interruption of Continuous Traffic</b></p>					
1	1	13300	9300	1350	950
2 or more	1	15900	11100	1350	950
2 or more	2 or more	15900	11100	1750	1250
1	2 or more	13300	9300	1750	1250
<b>X</b>	100 percent of standard warrants				
	70 percent of standard warrants <sup>2</sup>				
<p align="center"><b>Preliminary Signal Warrant Calculation</b></p>					
	Street	Number of Lanes	Warrant Volumes	Approach Volumes	Warrant Met
Case A	Major	1	8850	4260	N
	Minor	1	2650	40	
Case B	Major	1	13300	4260	N
	Minor	1	1350	40	
Analyst and Date:			Reviewer and Date:		

<sup>1</sup> Meeting preliminary signal warrants does **not** guarantee that a signal will be installed. When preliminary signal warrants are met, project analysts need to coordinate with Region Traffic to initiate the traffic signal engineering investigation as outlined in the Traffic Manual. Before a signal can be installed, the engineering investigation must be conducted or reviewed by the Region Traffic Manager who will forward signal recommendations to headquarters. Traffic signal warrants must be met and the State Traffic Engineer's approval obtained before a traffic signal can be installed on a state highway.

<sup>2</sup> Used due to 85th percentile speed in excess of 40 mph or isolated community with population of less than 10,000.

Oregon Department of Transportation					
Transportation Development Branch					
Transportation Planning Analysis Unit					
<b>Preliminary Traffic Signal Warrant Analysis<sup>1</sup></b>					
<b>Major Street:</b> NE Cumulus Avenue			<b>Minor Street:</b> NE Norton Lane		
<b>Project:</b> 2245 NE Cumulus Avenue ZC			<b>City/County:</b> McMinnville		
<b>Year:</b> 2041			<b>Alternative:</b> 0		
<b>Preliminary Signal Warrant Volumes</b>					
Number of Approach lanes		ADT on major street approaching from both directions		ADT on minor street, highest approaching volume	
Major Street	Minor Street	Percent of standard warrants 100	70	Percent of standard warrants 100	70
<b>Case A: Minimum Vehicular Traffic</b>					
1	1	8850	6200	2650	1850
2 or more	1	10600	7400	2650	1850
2 or more	2 or more	10600	7400	3550	2500
1	2 or more	8850	6200	3550	2500
<b>Case B: Interruption of Continuous Traffic</b>					
1	1	13300	9300	1350	950
2 or more	1	15900	11100	1350	950
2 or more	2 or more	15900	11100	1750	1250
1	2 or more	13300	9300	1750	1250
X	100 percent of standard warrants				
	70 percent of standard warrants <sup>2</sup>				
<b>Preliminary Signal Warrant Calculation</b>					
	Street	Number of Lanes	Warrant Volumes	Approach Volumes	Warrant Met
Case A	Major	1	8850	6620	N
	Minor	1	2650	2300	
Case B	Major	1	13300	6620	N
	Minor	1	1350	2300	
Analyst and Date:			Reviewer and Date:		

<sup>1</sup> Meeting preliminary signal warrants does **not** guarantee that a signal will be installed. When preliminary signal warrants are met, project analysts need to coordinate with Region Traffic to initiate the traffic signal engineering investigation as outlined in the Traffic Manual. Before a signal can be installed, the engineering investigation must be conducted or reviewed by the Region Traffic Manager who will forward signal recommendations to headquarters. Traffic signal warrants must be met and the State Traffic Engineer's approval obtained before a traffic signal can be installed on a state highway.

<sup>2</sup> Used due to 85th percentile speed in excess of 40 mph or isolated community with population of less than 10,000.

## Appendix E

Level of Service Descriptions

Capacity Reports







## LEVEL OF SERVICE

Level of service is used to describe the quality of traffic flow. Levels of service A to C are considered good, and rural roads are usually designed for level of service C. Urban streets and signalized intersections are typically designed for level of service D. Level of service E is considered to be the limit of acceptable delay. For unsignalized intersections, level of service E is generally considered acceptable. Here is a more complete description of levels of service:

*Level of service A:* Very low delay at intersections, with all traffic signal cycles clearing and no vehicles waiting through more than one signal cycle. On highways, low volume and high speeds, with speeds not restricted by other vehicles.

*Level of service B:* Operating speeds beginning to be affected by other traffic; short traffic delays at intersections. Higher average intersection delay than for level of service A resulting from more vehicles stopping.

*Level of service C:* Operating speeds and maneuverability closely controlled by other traffic; higher delays at intersections than for level of service B due to a significant number of vehicles stopping. Not all signal cycles clear the waiting vehicles. This is the recommended design standard for rural highways.

*Level of service D:* Tolerable operating speeds; long traffic delays occur at intersections. The influence of congestion is noticeable. At traffic signals many vehicles stop, and the proportion of vehicles not stopping declines. The number of signal cycle failures, for which vehicles must wait through more than one signal cycle, are noticeable. This is typically the design level for urban signalized intersections.

*Level of service E:* Restricted speeds, very long traffic delays at traffic signals, and traffic volumes near capacity. Flow is unstable so that any interruption, no matter how minor, will cause queues to form and service to deteriorate to level of service F. Traffic signal cycle failures are frequent occurrences. For unsignalized intersections, level of service E or better is generally considered acceptable.

*Level of service F:* Extreme delays, resulting in long queues which may interfere with other traffic movements. There may be stoppages of long duration, and speeds may drop to zero. There may be frequent signal cycle failures. Level of service F will typically result when vehicle arrival rates are greater than capacity. It is considered unacceptable by most drivers.



*LEVEL OF SERVICE CRITERIA  
FOR SIGNALIZED INTERSECTIONS*

LEVEL OF SERVICE	CONTROL DELAY PER VEHICLE (Seconds)
A	<10
B	10-20
C	20-35
D	35-55
E	55-80
F	>80





















*LEVEL OF SERVICE CRITERIA  
FOR UNSIGNALIZED INTERSECTIONS*

LEVEL OF SERVICE	CONTROL DELAY PER VEHICLE (Seconds)
A	<10
B	10-15
C	15-25
D	25-35
E	35-50
F	>50

# HCM Signalized Intersection Capacity Analysis

## 1: NE Johnson Street & NE 3rd Street/NE Three Mile Lane






















06/06/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	101	2	17	115	375	1	250	10	441	270	45
Future Volume (vph)	35	101	2	17	115	375	1	250	10	441	270	45
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.0	4.0		3.0	4.0	3.0		4.0		3.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	
Frpb, ped/bikes	1.00	0.99		1.00	1.00	0.97		0.99		1.00	0.99	
Flpb, ped/bikes	0.99	1.00		0.99	1.00	1.00		0.99		0.99	1.00	
Frt	1.00	0.99		1.00	1.00	0.85		0.99		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.99		0.95	1.00	
Satd. Flow (prot)	1642	1727		1611	1699	1412		1672		1646	1690	
Flt Permitted	0.52	1.00		0.68	1.00	1.00		0.99		0.31	1.00	
Satd. Flow (perm)	908	1727		1165	1699	1412		1670		543	1690	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	37	107	2	18	122	399	1	266	11	469	287	48
RTOR Reduction (vph)	0	1	0	0	0	0	0	2	0	0	6	0
Lane Group Flow (vph)	37	108	0	18	122	399	0	276	0	469	329	0
Confl. Peds. (#/hr)	4		2	2		4	4		1	1		1
Confl. Bikes (#/hr)			1						1			1
Heavy Vehicles (%)	1%	1%	1%	3%	3%	3%	4%	4%	4%	1%	1%	1%
Turn Type	pm+pt	NA		pm+pt	NA	Free	Perm	NA		pm+pt	NA	
Protected Phases	3	8		7	4			6		5	2	
Permitted Phases	8			4		Free	6			2		
Actuated Green, G (s)	21.7	17.5		14.3	13.3	71.2		15.7		38.7	38.7	
Effective Green, g (s)	23.5	18.5		16.3	14.3	71.2		16.7		39.7	39.7	
Actuated g/C Ratio	0.33	0.26		0.23	0.20	1.00		0.23		0.56	0.56	
Clearance Time (s)	5.0	5.0		4.0	5.0			5.0		4.0	5.0	
Vehicle Extension (s)	2.5	2.5		2.5	2.5			2.5		2.5	2.5	
Lane Grp Cap (vph)	353	448		279	341	1412		391		612	942	
v/s Ratio Prot	0.01	0.06		0.00	0.07					c0.22	0.19	
v/s Ratio Perm	0.03			0.01		c0.28		0.17		c0.21		
v/c Ratio	0.10	0.24		0.06	0.35	0.28		0.70		0.76	0.34	
Uniform Delay, d1	16.4	20.8		21.4	24.4	0.0		25.0		11.3	8.6	
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	
Incremental Delay, d2	0.0	0.2		0.0	0.4	0.5		5.3		5.4	0.1	
Delay (s)	16.5	21.0		21.4	24.9	0.5		30.3		16.8	8.8	
Level of Service	B	C		C	C	A		C		B	A	
Approach Delay (s/veh)		19.8			6.7			30.3			13.4	
Approach LOS		B			A			C			B	
<b>Intersection Summary</b>												
HCM 2000 Control Delay (s/veh)			14.6				HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio			0.67									
Actuated Cycle Length (s)			71.2				Sum of lost time (s)			15.0		
Intersection Capacity Utilization			61.2%				ICU Level of Service			B		
Analysis Period (min)			15									
c Critical Lane Group												

# HCM 7th Signalized Intersection Summary

## 1: NE Johnson Street & NE 3rd Street/NE Three Mile Lane

06/06/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	101	2	17	115	375	1	250	10	441	270	45
Future Volume (veh/h)	35	101	2	17	115	375	1	250	10	441	270	45
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	0.99		0.97	0.99		1.00	1.00		0.97	1.00		0.98
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	1736	1736	1736	1709	1709	1709	1695	1695	1695	1736	1736	1736
Adj Flow Rate, veh/h	37	107	1	18	122	0	1	266	9	469	287	42
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, %	1	1	1	3	3	3	4	4	4	1	1	1
Cap, veh/h	414	436	4	418	331		60	364	12	726	785	115
Arrive On Green	0.08	0.25	0.24	0.03	0.19	0.00	0.21	0.22	0.21	0.26	0.53	0.52
Sat Flow, veh/h	1654	1717	16	1628	1709	1448	1	1626	55	1654	1476	216
Grp Volume(v), veh/h	37	0	108	18	122	0	276	0	0	469	0	329
Grp Sat Flow(s),veh/h/ln	1654	0	1733	1628	1709	1448	1683	0	0	1654	0	1692
Q Serve(g_s), s	1.0	0.0	3.0	0.5	3.8	0.0	0.0	0.0	0.0	11.7	0.0	6.9
Cycle Q Clear(g_c), s	1.0	0.0	3.0	0.5	3.8	0.0	9.4	0.0	0.0	11.7	0.0	6.9
Prop In Lane	1.00		0.01	1.00		1.00	0.00		0.03	1.00		0.13
Lane Grp Cap(c), veh/h	414	0	440	418	331		409	0	0	726	0	900
V/C Ratio(X)	0.09	0.00	0.25	0.04	0.37		0.68	0.00	0.00	0.65	0.00	0.37
Avail Cap(c_a), veh/h	530	0	654	630	645		666	0	0	841	0	1277
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	1.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.6	0.0	18.1	18.4	21.3	0.0	22.0	0.0	0.0	10.0	0.0	8.3
Incr Delay (d2), s/veh	0.1	0.0	0.2	0.0	0.5	0.0	1.5	0.0	0.0	1.2	0.0	0.2
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	0.4	0.0	1.2	0.2	1.5	0.0	3.7	0.0	0.0	3.8	0.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	15.7	0.0	18.3	18.4	21.8	0.0	23.5	0.0	0.0	11.1	0.0	8.5
LnGrp LOS	B		B	B	C	C				B	A	
Approach Vol, veh/h	145					140	276			798		
Approach Delay, s/veh	17.6					21.4	23.5			10.1		
Approach LOS	B					C	C			B		
Timer - Assigned Phs	2		3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	36.4		8.7	15.8	18.8	17.7	5.1	19.5				
Change Period (Y+Rc), s	5.0		5.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	45.0		8.0	22.0	19.0	22.0	9.0	22.0				
Max Q Clear Time (g_c+I1), s	8.9		3.0	5.8	13.7	11.4	2.5	5.0				
Green Ext Time (p_c), s	1.5		0.0	0.6	1.1	0.8	0.0	0.6				
Intersection Summary												
HCM 7th Control Delay, s/veh			14.8									
HCM 7th LOS			B									
Notes												
User approved pedestrian interval to be less than phase max green.												
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 7th TWSC  
2: NE Three Mile Lane & NE 1st Street

06/06/2025

Intersection												
Int Delay, s/veh	3.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↖		↗	↖	
Traffic Vol, veh/h	2	0	162	1	0	6	184	520	2	9	578	3
Future Vol, veh/h	2	0	162	1	0	6	184	520	2	9	578	3
Conflicting Peds, #/hr	0	0	0	0	0	0	1	0	2	2	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	-	150	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	0	0	0	2	2	2	2	2	2
Mvmt Flow	2	0	174	1	0	6	198	559	2	10	622	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1599	1603	625	1599	1604	562	627	0	0	563	0	0
Stage 1	644	644	-	958	958	-	-	-	-	-	-	-
Stage 2	955	959	-	641	646	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.1	6.5	6.2	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.5	4	3.3	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	86	105	485	87	107	530	955	-	-	1008	-	-
Stage 1	461	468	-	312	338	-	-	-	-	-	-	-
Stage 2	310	335	-	467	470	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	66	82	484	43	83	529	953	-	-	1006	-	-
Mov Cap-2 Maneuver	167	184	-	79	160	-	-	-	-	-	-	-
Stage 1	456	462	-	247	268	-	-	-	-	-	-	-
Stage 2	243	265	-	296	465	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v17.07		17.68	2.54	0.13
HCM LOS	C	C		




Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	953	-	-	473 291	1006	-	-
HCM Lane V/C Ratio	0.208	-	-	0.373 0.026	0.01	-	-
HCM Control Delay (s/veh)	9.8	-	-	17.1 17.7	8.6	-	-
HCM Lane LOS	A	-	-	C C	A	-	-
HCM 95th %tile Q(veh)	0.8	-	-	1.7 0.1	0	-	-

Intersection												
Int Delay, s/veh	3.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	0	0	7	0	146	1	545	2	155	632	3
Future Vol, veh/h	3	0	0	7	0	146	1	545	2	155	632	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	2	2	2	5	5	5	4	4	4
Mvmt Flow	3	0	0	8	0	157	1	586	2	167	680	3

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1603	1605	681	1602	1605	587	683	0	0	588	0	0
Stage 1	1015	1015	-	589	589	-	-	-	-	-	-	-
Stage 2	588	590	-	1013	1016	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.12	6.52	6.22	4.15	-	-	4.14	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.518	4.018	3.318	2.245	-	-	2.236	-	-
Pot Cap-1 Maneuver	86	106	454	85	105	509	896	-	-	977	-	-
Stage 1	290	319	-	494	495	-	-	-	-	-	-	-
Stage 2	499	498	-	288	315	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	43	77	454	62	76	509	896	-	-	977	-	-
Mov Cap-2 Maneuver	43	77	-	62	76	-	-	-	-	-	-	-
Stage 1	210	231	-	493	494	-	-	-	-	-	-	-
Stage 2	344	497	-	209	229	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s/v	95.2		21.34		0.02		1.85	
HCM LOS	F		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	3	-	-	43	382	353	-
HCM Lane V/C Ratio	0.001	-	-	0.075	0.43	0.171	-
HCM Control Delay (s/veh)	9	0	-	95.2	21.3	9.4	0
HCM Lane LOS	A	A	-	F	C	A	A
HCM 95th %tile Q(veh)	0	-	-	0.2	2.1	0.6	-

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	24	132	131	7	4	20
Future Vol, veh/h	24	132	131	7	4	20
Conflicting Peds, #/hr	1	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	90	90	90	90	90	90
Heavy Vehicles, %	3	3	2	2	8	8
Mvmt Flow	27	147	146	8	4	22

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	154	0	0 350 150
Stage 1	-	-	- 150 -
Stage 2	-	-	- 200 -
Critical Hdwy	4.13	-	- 6.48 6.28
Critical Hdwy Stg 1	-	-	- 5.48 -
Critical Hdwy Stg 2	-	-	- 5.48 -
Follow-up Hdwy	2.227	-	- 3.572 3.372
Pot Cap-1 Maneuver	1420	-	- 635 880
Stage 1	-	-	- 863 -
Stage 2	-	-	- 820 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1419	-	- 621 880
Mov Cap-2 Maneuver	-	-	- 621 -
Stage 1	-	-	- 844 -
Stage 2	-	-	- 819 -











Approach	EB	WB	SB
HCM Control Delay, s/v	1.17	0	9.52
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	277	-	-	-	822
HCM Lane V/C Ratio	0.019	-	-	-	0.032
HCM Control Delay (s/veh)	7.6	0	-	-	9.5
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

# HCM Unsignalized Intersection Capacity Analysis

## 5: SE Norton Lane & NE Cumulus Avenue

























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Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Yield	Stop	
Traffic Volume (vph)	41	106	62	121	157	53
Future Volume (vph)	41	106	62	121	157	53
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	47	120	70	138	178	60
Direction, Lane #	EB 1	EB 2	NB 1	SB 1		
Volume Total (vph)	47	120	208	238		
Volume Left (vph)	47	0	70	0		
Volume Right (vph)	0	120	0	60		
Hadj (s)	0.57	-0.63	0.17	-0.13		
Departure Headway (s)	6.1	4.9	4.8	4.5		
Degree Utilization, x	0.08	0.16	0.28	0.29		
Capacity (veh/h)	549	680	723	771		
Control Delay (s/veh)	8.4	7.7	9.6	9.3		
Approach Delay (s/veh)	7.9		9.6	9.3		
Approach LOS	A		A	A		
Intersection Summary						
Delay			9.0			
Level of Service			A			
Intersection Capacity Utilization			36.4%	ICU Level of Service	A	
Analysis Period (min)			15			



# HCM 7th Signalized Intersection Summary 6: SE Norton Lane & NE Three Mile Lane (OR 18)






















06/06/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	700	54	24	804	72	168	17	98	88	9	105
Future Volume (veh/h)	80	700	54	24	804	72	168	17	98	88	9	105
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
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	1723	1723	1723	1709	1709	1709	1723	1723	1723	1736	1736	1736
Adj Flow Rate, veh/h	88	769	27	26	884	31	185	19	17	97	10	12
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	3	3	3	2	2	2	1	1	1
Cap, veh/h	168	1629	727	94	1472	656	371	108	96	174	84	101
Arrive On Green	0.10	0.50	0.50	0.06	0.45	0.45	0.12	0.13	0.12	0.10	0.12	0.10
Sat Flow, veh/h	1641	3273	1460	1628	3247	1448	3183	835	747	1654	715	858
Grp Volume(v), veh/h	88	769	27	26	884	31	185	0	36	97	0	22
Grp Sat Flow(s),veh/h/ln	1641	1637	1460	1628	1624	1448	1591	0	1581	1654	0	1573
Q Serve(g_s), s	3.9	11.7	0.7	1.2	15.5	0.9	4.1	0.0	1.5	4.2	0.0	1.0
Cycle Q Clear(g_c), s	3.9	11.7	0.7	1.2	15.5	0.9	4.1	0.0	1.5	4.2	0.0	1.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.47	1.00		0.55
Lane Grp Cap(c), veh/h	168	1629	727	94	1472	656	371	0	204	174	0	185
V/C Ratio(X)	0.53	0.47	0.04	0.28	0.60	0.05	0.50	0.00	0.18	0.56	0.00	0.12
Avail Cap(c_a), veh/h	216	1855	827	193	1797	802	419	0	229	240	0	249
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.3	12.5	9.8	34.2	15.6	11.6	31.4	0.0	29.7	32.3	0.0	30.2
Incr Delay (d2), s/veh	1.9	0.2	0.0	1.2	0.3	0.0	0.8	0.0	0.3	2.1	0.0	0.2
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	1.5	3.6	0.2	0.4	4.6	0.3	1.6	0.0	0.6	1.8	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	34.2	12.7	9.8	35.4	15.9	11.6	32.2	0.0	30.0	34.4	0.0	30.4
LnGrp LOS	C	B	A	D	B	B	C		C	C		C
Approach Vol, veh/h	884			941			221			119		
Approach Delay, s/veh	14.7			16.3			31.9			33.6		
Approach LOS	B			B			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.4	41.8	12.8	12.9	11.7	38.4	12.0	13.8				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	8.0	42.0	9.0	11.0	9.0	41.0	10.0	10.0				
Max Q Clear Time (g_c+I1), s	3.2	13.7	6.1	3.0	5.9	17.5	6.2	3.5				
Green Ext Time (p_c), s	0.0	8.9	0.2	0.0	0.1	15.9	0.1	0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh				18.2								
HCM 7th LOS				B								
Notes												
User approved pedestrian interval to be less than phase max green.												

# HCM 7th Signalized Intersection Summary

## 7: Cumulus Avenue & NE Three Mile Lane (OR 18)





















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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	116	853	0	2	787	39	5	0	8	35	0	95
Future Volume (veh/h)	116	853	0	2	787	39	5	0	8	35	0	95
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1723	1723	1723	1723	1723	1723	1750	1750	1750	1723	1723	1723
Adj Flow Rate, veh/h	132	969	0	2	894	24	6	0	0	40	0	31
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	0	0	0	2	2	2
Cap, veh/h	217	2206	0	34	1840	821	272	0	0	275	192	355
Arrive On Green	0.13	0.67	0.00	0.02	0.56	0.56	0.09	0.00	0.00	0.11	0.00	0.11
Sat Flow, veh/h	1641	3359	0	1641	3273	1460	1400	0	0	1418	1723	1460
Grp Volume(v), veh/h	132	969	0	2	894	24	6	0	0	40	0	31
Grp Sat Flow(s),veh/h/ln	1641	1637	0	1641	1637	1460	1400	0	0	1418	1723	1460
Q Serve(g_s), s	4.7	8.5	0.0	0.1	10.2	0.5	0.2	0.0	0.0	1.3	0.0	1.0
Cycle Q Clear(g_c), s	4.7	8.5	0.0	0.1	10.2	0.5	0.2	0.0	0.0	1.6	0.0	1.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	217	2206	0	34	1840	821	250	0	0	275	192	355
V/C Ratio(X)	0.61	0.44	0.00	0.06	0.49	0.03	0.02	0.00	0.00	0.15	0.00	0.09
Avail Cap(c_a), veh/h	478	3074	0	239	2597	1158	343	0	0	370	307	453
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	1.00	0.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.3	4.7	0.0	29.7	8.1	6.0	24.9	0.0	0.0	25.1	0.0	18.1
Incr Delay (d2), s/veh	2.0	0.1	0.0	0.5	0.1	0.0	0.0	0.0	0.0	0.2	0.0	0.1
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	1.7	1.1	0.0	0.0	2.2	0.1	0.1	0.0	0.0	0.5	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	27.3	4.8	0.0	30.2	8.3	6.0	25.0	0.0	0.0	25.2	0.0	18.1
LnGrp LOS	C	A		C	A	A	C			C		B
Approach Vol, veh/h	1101			920			6			71		
Approach Delay, s/veh	7.5			8.3			25.0			22.1		
Approach LOS	A			A			C			C		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.3	45.6		10.9	12.2	38.7		10.9				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	8.0	57.0		10.0	17.0	48.0		10.0				
Max Q Clear Time (g_c+I1), s	2.1	10.5		3.6	6.7	12.2		2.2				
Green Ext Time (p_c), s	0.0	27.5		0.1	0.2	21.6		0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh	8.4											
HCM 7th LOS	A											
Notes												
User approved pedestrian interval to be less than phase max green.												

# HCM Signalized Intersection Capacity Analysis

## 1: NE Johnson Street & NE 3rd Street/NE Three Mile Lane






















06/06/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	129	3	19	129	421	1	285	11	514	314	52
Future Volume (vph)	45	129	3	19	129	421	1	285	11	514	314	52
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.0	4.0		3.0	4.0	3.0		4.0		3.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	
Frpb, ped/bikes	1.00	0.99		1.00	1.00	0.97		0.99		1.00	0.99	
Flpb, ped/bikes	0.99	1.00		0.99	1.00	1.00		0.99		0.99	1.00	
Frt	1.00	0.99		1.00	1.00	0.85		0.99		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.99		0.95	1.00	
Satd. Flow (prot)	1642	1726		1611	1699	1412		1672		1646	1691	
Flt Permitted	0.51	1.00		0.66	1.00	1.00		0.99		0.29	1.00	
Satd. Flow (perm)	888	1726		1132	1699	1412		1671		502	1691	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	48	137	3	20	137	448	1	303	12	547	334	55
RTOR Reduction (vph)	0	1	0	0	0	0	0	1	0	0	6	0
Lane Group Flow (vph)	48	139	0	20	137	448	0	315	0	547	383	0
Confl. Peds. (#/hr)	4		2	2		4	4		1	1		1
Confl. Bikes (#/hr)			1						1			1
Heavy Vehicles (%)	1%	1%	1%	3%	3%	3%	4%	4%	4%	1%	1%	1%
Turn Type	pm+pt	NA		pm+pt	NA	Free	Perm	NA		pm+pt	NA	
Protected Phases	3	8		7	4			6		5	2	
Permitted Phases	8			4		Free	6			2		
Actuated Green, G (s)	19.9	15.7		14.9	12.7	73.0		17.3		41.1	41.1	
Effective Green, g (s)	21.9	16.7		16.9	13.7	73.0		18.3		42.1	42.1	
Actuated g/C Ratio	0.30	0.23		0.23	0.19	1.00		0.25		0.58	0.58	
Clearance Time (s)	5.0	5.0		4.0	5.0			5.0		4.0	5.0	
Vehicle Extension (s)	2.5	2.5		2.5	2.5			2.5		2.5	2.5	
Lane Grp Cap (vph)	320	394		283	318	1412		418		615	975	
v/s Ratio Prot	0.01	0.08		0.00	c0.08					c0.25	0.23	
v/s Ratio Perm	0.03			0.01		c0.32		0.19		c0.26		
v/c Ratio	0.15	0.35		0.07	0.43	0.31		0.75		0.88	0.39	
Uniform Delay, d1	18.5	23.6		21.8	26.2	0.0		25.2		13.0	8.4	
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	
Incremental Delay, d2	0.1	0.3		0.0	0.6	0.5		7.1		14.6	0.1	
Delay (s)	18.6	24.0		21.9	26.8	0.5		32.3		27.6	8.6	
Level of Service	B	C		C	C	A		C		C	A	
Approach Delay (s/veh)		22.6			7.2			32.3			19.7	
Approach LOS		C			A			C			B	
<b>Intersection Summary</b>												
HCM 2000 Control Delay (s/veh)			18.3			HCM 2000 Level of Service				B		
HCM 2000 Volume to Capacity ratio			0.79									
Actuated Cycle Length (s)			73.0			Sum of lost time (s)				15.0		
Intersection Capacity Utilization			77.6%			ICU Level of Service				D		
Analysis Period (min)			15									
c Critical Lane Group												

# HCM 7th Signalized Intersection Summary







## 1: NE Johnson Street & NE 3rd Street/NE Three Mile Lane

06/06/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	129	3	19	129	421	1	285	11	514	314	52
Future Volume (veh/h)	45	129	3	19	129	421	1	285	11	514	314	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	0.99		0.97	0.99		1.00	1.00		0.97	1.00		0.98
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	1736	1736	1736	1709	1709	1709	1695	1695	1695	1736	1736	1736
Adj Flow Rate, veh/h	48	137	2	20	137	0	1	303	11	547	334	49
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, %	1	1	1	3	3	3	4	4	4	1	1	1
Cap, veh/h	378	414	6	377	301		54	389	14	723	828	121
Arrive On Green	0.09	0.24	0.23	0.03	0.18	0.00	0.22	0.24	0.22	0.28	0.56	0.55
Sat Flow, veh/h	1654	1706	25	1628	1709	1448	1	1622	59	1654	1475	216
Grp Volume(v), veh/h	48	0	139	20	137	0	315	0	0	547	0	383
Grp Sat Flow(s),veh/h/ln	1654	0	1731	1628	1709	1448	1682	0	0	1654	0	1692
Q Serve(g_s), s	1.4	0.0	4.5	0.7	4.8	0.0	0.0	0.0	0.0	15.1	0.0	8.7
Cycle Q Clear(g_c), s	1.4	0.0	4.5	0.7	4.8	0.0	12.0	0.0	0.0	15.1	0.0	8.7
Prop In Lane	1.00		0.01	1.00		1.00	0.00		0.03	1.00		0.13
Lane Grp Cap(c), veh/h	378	0	420	377	301		432	0	0	723	0	949
V/C Ratio(X)	0.13	0.00	0.33	0.05	0.46		0.73	0.00	0.00	0.76	0.00	0.40
Avail Cap(c_a), veh/h	458	0	590	564	582		601	0	0	756	0	1153
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	1.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.8	0.0	21.0	21.4	24.9	0.0	24.1	0.0	0.0	10.7	0.0	8.5
Incr Delay (d2), s/veh	0.1	0.0	0.3	0.0	0.8	0.0	2.2	0.0	0.0	4.0	0.0	0.2
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	0.5	0.0	1.8	0.3	2.0	0.0	4.9	0.0	0.0	5.5	0.0	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	17.9	0.0	21.4	21.4	25.7	0.0	26.3	0.0	0.0	14.7	0.0	8.7
LnGrp LOS	B		C	C	C		C			B		A
Approach Vol, veh/h	187			157			315			930		
Approach Delay, s/veh	20.5			25.2			26.3			12.2		
Approach LOS	C			C			C			B		
Timer - Assigned Phs	2		3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	41.9		9.7	15.9	21.7	20.2	5.3	20.4				
Change Period (Y+Rc), s	5.0		5.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	45.0		8.0	22.0	19.0	22.0	9.0	22.0				
Max Q Clear Time (g_c+I1), s	10.7		3.4	6.8	17.1	14.0	2.7	6.5				
Green Ext Time (p_c), s	1.8		0.0	0.7	0.5	0.8	0.0	0.7				
Intersection Summary												
HCM 7th Control Delay, s/veh	17.3											
HCM 7th LOS	B											
Notes												
User approved pedestrian interval to be less than phase max green.												
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 7th TWSC  
2: NE Three Mile Lane & NE 1st Street

06/06/2025

Intersection												
Int Delay, s/veh	4.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	0	207	1	0	7	219	620	2	10	660	3
Future Vol, veh/h	3	0	207	1	0	7	219	620	2	10	660	3
Conflicting Peds, #/hr	0	0	0	0	0	0	1	0	2	2	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	-	150	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	0	0	0	2	2	2	2	2	2
Mvmt Flow	3	0	223	1	0	8	235	667	2	11	710	3
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1872	1877	713	1872	1877	670	715	0	0	671	0	0
Stage 1	735	735	-	1141	1141	-	-	-	-	-	-	-
Stage 2	1138	1142	-	731	736	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.1	6.5	6.2	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.5	4	3.3	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	55	72	432	56	72	461	885	-	-	920	-	-
Stage 1	411	426	-	246	278	-	-	-	-	-	-	-
Stage 2	245	275	-	416	428	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	39	52	431	19	52	460	884	-	-	918	-	-
Mov Cap-2 Maneuver	122	139	-	~-61	113	-	-	-	-	-	-	-
Stage 1	406	420	-	180	203	-	-	-	-	-	-	-
Stage 2	177	202	-	199	422	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s/v23.48			4.45		2.75		0.13					
HCM LOS	C		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	884	-	-	416	+	918	-	-				
HCM Lane V/C Ratio	0.266	-	-	0.543	-	0.012	-	-				
HCM Control Delay (s/veh)	10.5	-	-	23.5	4.4	9	-	-				
HCM Lane LOS	B	-	-	C	A	A	-	-				
HCM 95th %tile Q(veh)	1.1	-	-	3.1	-	0	-	-				
Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined				*: All major volume in platoon				

Intersection												
Int Delay, s/veh	6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	0	0	8	0	174	1	649	2	185	754	4
Future Vol, veh/h	3	0	0	8	0	174	1	649	2	185	754	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	2	2	2	5	5	5	4	4	4
Mvmt Flow	3	0	0	9	0	187	1	698	2	199	811	4




Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1911	1913	813	1910	1914	699	815	0	0	700	0	0
Stage 1	1211	1211	-	701	701	-	-	-	-	-	-	-
Stage 2	700	702	-	1209	1213	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.12	6.52	6.22	4.15	-	-	4.14	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.518	4.018	3.318	2.245	-	-	2.236	-	-
Pot Cap-1 Maneuver	52	69	382	52	68	440	799	-	-	888	-	-
Stage 1	225	257	-	429	441	-	-	-	-	-	-	-
Stage 2	433	443	-	223	255	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	18	40	382	30	40	440	799	-	-	888	-	-
Mov Cap-2 Maneuver	18	40	-	30	40	-	-	-	-	-	-	-
Stage 1	133	152	-	428	440	-	-	-	-	-	-	-
Stage 2	248	442	-	132	150	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v249.4		44.3	0.01	2.01
HCM LOS	F	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	3	-	-	18	276	353	-
HCM Lane V/C Ratio	0.001	-	-	0.182	0.708	0.224	-
HCM Control Delay (s/veh)	9.5	0	-	249.4	44.3	10.2	0
HCM Lane LOS	A	A	-	F	E	B	A
HCM 95th %tile Q(veh)	0	-	-	0.5	4.9	0.9	-

Intersection

Int Delay, s/veh 1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	29	158	164	9	4	20
Future Vol, veh/h	29	158	164	9	4	20
Conflicting Peds, #/hr	1	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	90	90	90	90	90	90
Heavy Vehicles, %	3	3	2	2	8	8
Mvmt Flow	32	176	182	10	4	22

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	193	0	0 428 188
Stage 1	-	-	- 188 -
Stage 2	-	-	- 240 -
Critical Hdwy	4.13	-	- 6.48 6.28
Critical Hdwy Stg 1	-	-	- 5.48 -
Critical Hdwy Stg 2	-	-	- 5.48 -
Follow-up Hdwy	2.227	-	- 3.572 3.372
Pot Cap-1 Maneuver	1374	-	- 572 839
Stage 1	-	-	- 830 -
Stage 2	-	-	- 786 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1373	-	- 556 838
Mov Cap-2 Maneuver	-	-	- 556 -
Stage 1	-	-	- 807 -
Stage 2	-	-	- 785 -











Approach	EB	WB	SB
HCM Control Delay, s/v	1.19	0	9.83
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	279	-	-	-	773
HCM Lane V/C Ratio	0.023	-	-	-	0.035
HCM Control Delay (s/veh)	7.7	0	-	-	9.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

# HCM Unsignalized Intersection Capacity Analysis

## 5: SE Norton Lane & NE Cumulus Avenue


























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Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Yield	Stop	
Traffic Volume (vph)	98	254	82	161	230	78
Future Volume (vph)	98	254	82	161	230	78
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	111	289	93	183	261	89
Direction, Lane #	EB 1	EB 2	NB 1	SB 1		
Volume Total (vph)	111	289	276	350		
Volume Left (vph)	111	0	93	0		
Volume Right (vph)	0	289	0	89		
Hadj (s)	0.57	-0.63	0.17	-0.14		
Departure Headway (s)	6.8	5.5	5.7	5.3		
Degree Utilization, x	0.21	0.45	0.44	0.52		
Capacity (veh/h)	505	616	594	651		
Control Delay (s/veh)	10.3	11.7	13.1	13.8		
Approach Delay (s/veh)	11.3		13.1	13.8		
Approach LOS	B		B	B		
Intersection Summary						
Delay			12.6			
Level of Service			B			
Intersection Capacity Utilization			48.3%	ICU Level of Service	A	
Analysis Period (min)			15			



# HCM 7th Signalized Intersection Summary 6: SE Norton Lane & NE Three Mile Lane (OR 18)






















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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 		 					
Traffic Volume (veh/h)	96	840	65	29	983	88	288	29	168	117	12	140
Future Volume (veh/h)	96	840	65	29	983	88	288	29	168	117	12	140
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
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	1723	1723	1723	1709	1709	1709	1723	1723	1723	1736	1736	1736
Adj Flow Rate, veh/h	105	923	33	32	1080	40	316	32	34	129	13	22
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	3	3	3	2	2	2	1	1	1
Cap, veh/h	165	1622	724	102	1486	663	432	106	112	179	64	108
Arrive On Green	0.10	0.50	0.50	0.06	0.46	0.46	0.14	0.14	0.13	0.11	0.11	0.10
Sat Flow, veh/h	1641	3273	1460	1628	3247	1448	3183	761	809	1654	576	975
Grp Volume(v), veh/h	105	923	33	32	1080	40	316	0	66	129	0	35
Grp Sat Flow(s),veh/h/ln	1641	1637	1460	1628	1624	1448	1591	0	1570	1654	0	1550
Q Serve(g_s), s	5.0	16.3	1.0	1.5	22.2	1.3	7.8	0.0	3.1	6.2	0.0	1.7
Cycle Q Clear(g_c), s	5.0	16.3	1.0	1.5	22.2	1.3	7.8	0.0	3.1	6.2	0.0	1.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.52	1.00		0.63
Lane Grp Cap(c), veh/h	165	1622	724	102	1486	663	432	0	218	179	0	172
V/C Ratio(X)	0.63	0.57	0.05	0.31	0.73	0.06	0.73	0.00	0.30	0.72	0.00	0.20
Avail Cap(c_a), veh/h	200	1636	730	179	1583	706	504	0	230	242	0	208
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.4	14.5	10.7	36.8	18.1	12.4	34.0	0.0	32.0	35.4	0.0	33.5
Incr Delay (d2), s/veh	3.7	0.4	0.0	1.3	1.5	0.0	4.1	0.0	0.6	5.4	0.0	0.4
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	2.1	5.2	0.3	0.6	7.1	0.4	3.2	0.0	1.2	2.7	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	39.2	14.9	10.7	38.0	19.6	12.4	38.1	0.0	32.6	40.8	0.0	33.9
LnGrp LOS	D	B	B	D	B	B	D		C	D		C
Approach Vol, veh/h	1061				1152				382		164	
Approach Delay, s/veh	17.2				19.8				37.1		39.4	
Approach LOS	B				B				D		D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.1	44.7	15.1	13.1	12.3	41.5	12.9	15.4				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	8.0	40.0	12.0	10.0	9.0	39.0	11.0	11.0				
Max Q Clear Time (g_c+I1), s	3.5	18.3	9.8	3.7	7.0	24.2	8.2	5.1				
Green Ext Time (p_c), s	0.0	9.8	0.3	0.0	0.0	12.4	0.1	0.1				
Intersection Summary												
HCM 7th Control Delay, s/veh			22.4									
HCM 7th LOS			C									
Notes												
User approved pedestrian interval to be less than phase max green.												

# HCM 7th Signalized Intersection Summary

## 7: Cumulus Avenue & NE Three Mile Lane (OR 18)





















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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	142	1043	0	2	970	48	6	0	9	39	0	105
Future Volume (veh/h)	142	1043	0	2	970	48	6	0	9	39	0	105
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1723	1723	1723	1723	1723	1723	1750	1750	1750	1723	1723	1723
Adj Flow Rate, veh/h	161	1185	0	2	1102	29	7	0	0	44	0	68
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	0	0	0	2	2	2
Cap, veh/h	222	2283	0	30	1901	848	258	0	0	266	199	366
Arrive On Green	0.14	0.70	0.00	0.02	0.58	0.58	0.10	0.00	0.00	0.12	0.00	0.12
Sat Flow, veh/h	1641	3359	0	1641	3273	1460	1354	0	0	1418	1723	1460
Grp Volume(v), veh/h	161	1185	0	2	1102	29	7	0	0	44	0	68
Grp Sat Flow(s),veh/h/ln	1641	1637	0	1641	1637	1460	1354	0	0	1418	1723	1460
Q Serve(g_s), s	6.7	12.2	0.0	0.1	15.2	0.6	0.3	0.0	0.0	1.6	0.0	2.6
Cycle Q Clear(g_c), s	6.7	12.2	0.0	0.1	15.2	0.6	0.3	0.0	0.0	2.0	0.0	2.6
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	222	2283	0	30	1901	848	239	0	0	266	199	366
V/C Ratio(X)	0.73	0.52	0.00	0.07	0.58	0.03	0.03	0.00	0.00	0.17	0.00	0.19
Avail Cap(c_a), veh/h	437	2710	0	207	2250	1004	272	0	0	301	242	402
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	1.00	0.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.6	5.1	0.0	34.4	9.4	6.4	28.5	0.0	0.0	28.7	0.0	21.0
Incr Delay (d2), s/veh	3.4	0.1	0.0	0.7	0.2	0.0	0.0	0.0	0.0	0.2	0.0	0.2
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	2.5	1.9	0.0	0.0	3.6	0.1	0.1	0.0	0.0	0.7	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	32.9	5.2	0.0	35.1	9.6	6.4	28.5	0.0	0.0	28.9	0.0	21.2
LnGrp LOS	C	A		D	A	A	C			C		C
Approach Vol, veh/h	1346			1133			7			112		
Approach Delay, s/veh	8.6			9.6			28.5			24.2		
Approach LOS	A			A			C			C		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.3	53.7		12.2	13.6	45.4		12.2				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	8.0	58.0		9.0	18.0	48.0		9.0				
Max Q Clear Time (g_c+I1), s	2.1	14.2		4.6	8.7	17.2		2.3				
Green Ext Time (p_c), s	0.0	32.2		0.2	0.3	23.2		0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh	9.7											
HCM 7th LOS	A											
Notes												
User approved pedestrian interval to be less than phase max green.												

# HCM Signalized Intersection Capacity Analysis

## 1: NE Johnson Street & NE 3rd Street/NE Three Mile Lane






















06/06/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	137	3	19	130	424	1	285	11	543	314	52
Future Volume (vph)	45	137	3	19	130	424	1	285	11	543	314	52
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.0	4.0		3.0	4.0	3.0		4.0		3.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	
Frpb, ped/bikes	1.00	0.99		1.00	1.00	0.97		0.99		1.00	0.99	
Flpb, ped/bikes	0.99	1.00		0.99	1.00	1.00		0.99		0.99	1.00	
Frt	1.00	0.99		1.00	1.00	0.85		0.99		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.99		0.95	1.00	
Satd. Flow (prot)	1642	1727		1611	1699	1412		1672		1646	1691	
Flt Permitted	0.51	1.00		0.66	1.00	1.00		0.99		0.29	1.00	
Satd. Flow (perm)	884	1727		1123	1699	1412		1671		502	1691	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	48	146	3	20	138	451	1	303	12	578	334	55
RTOR Reduction (vph)	0	1	0	0	0	0	0	1	0	0	6	0
Lane Group Flow (vph)	48	148	0	20	138	451	0	315	0	578	383	0
Confl. Peds. (#/hr)	4		2	2		4	4		1	1		1
Confl. Bikes (#/hr)			1						1			1
Heavy Vehicles (%)	1%	1%	1%	3%	3%	3%	4%	4%	4%	1%	1%	1%
Turn Type	pm+pt	NA		pm+pt	NA	Free	Perm	NA		pm+pt	NA	
Protected Phases	3	8		7	4			6		5	2	
Permitted Phases	8			4		Free	6			2		
Actuated Green, G (s)	19.9	15.7		14.9	12.7	73.0		17.3		41.1	41.1	
Effective Green, g (s)	21.9	16.7		16.9	13.7	73.0		18.3		42.1	42.1	
Actuated g/C Ratio	0.30	0.23		0.23	0.19	1.00		0.25		0.58	0.58	
Clearance Time (s)	5.0	5.0		4.0	5.0			5.0		4.0	5.0	
Vehicle Extension (s)	2.5	2.5		2.5	2.5			2.5		2.5	2.5	
Lane Grp Cap (vph)	319	395		281	318	1412		418		615	975	
v/s Ratio Prot	0.01	c0.09		0.00	0.08					c0.27	0.23	
v/s Ratio Perm	0.03			0.01		c0.32		0.19		c0.27		
v/c Ratio	0.15	0.37		0.07	0.43	0.31		0.75		0.93	0.39	
Uniform Delay, d1	18.5	23.7		21.8	26.2	0.0		25.2		14.1	8.4	
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	
Incremental Delay, d2	0.1	0.4		0.0	0.6	0.5		7.1		22.2	0.1	
Delay (s)	18.6	24.1		21.9	26.9	0.5		32.3		36.3	8.6	
Level of Service	B	C		C	C	A		C		D	A	
Approach Delay (s/veh)		22.8			7.2			32.3			25.2	
Approach LOS		C			A			C			C	
<b>Intersection Summary</b>												
HCM 2000 Control Delay (s/veh)			20.8			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.83									
Actuated Cycle Length (s)			73.0			Sum of lost time (s)				15.0		
Intersection Capacity Utilization			79.4%			ICU Level of Service				D		
Analysis Period (min)			15									
c Critical Lane Group												

# HCM 7th Signalized Intersection Summary







## 1: NE Johnson Street & NE 3rd Street/NE Three Mile Lane





06/06/2025




												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	137	3	19	130	424	1	285	11	543	314	52
Future Volume (veh/h)	45	137	3	19	130	424	1	285	11	543	314	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	0.99		0.97	0.99		1.00	1.00		0.97	1.00		0.98
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	1736	1736	1736	1709	1709	1709	1695	1695	1695	1736	1736	1736
Adj Flow Rate, veh/h	48	146	2	20	138	0	1	303	11	578	334	49
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, %	1	1	1	3	3	3	4	4	4	1	1	1
Cap, veh/h	370	408	6	363	296		53	387	14	733	838	123
Arrive On Green	0.08	0.24	0.22	0.03	0.17	0.00	0.22	0.24	0.22	0.29	0.57	0.55
Sat Flow, veh/h	1654	1708	23	1628	1709	1448	1	1622	59	1654	1475	216
Grp Volume(v), veh/h	48	0	148	20	138	0	315	0	0	578	0	383
Grp Sat Flow(s),veh/h/ln	1654	0	1731	1628	1709	1448	1682	0	0	1654	0	1692
Q Serve(g_s), s	1.5	0.0	4.9	0.7	5.0	0.0	0.0	0.0	0.0	16.5	0.0	8.7
Cycle Q Clear(g_c), s	1.5	0.0	4.9	0.7	5.0	0.0	12.2	0.0	0.0	16.5	0.0	8.7
Prop In Lane	1.00		0.01	1.00		1.00	0.00		0.03	1.00		0.13
Lane Grp Cap(c), veh/h	370	0	414	363	296		429	0	0	733	0	961
V/C Ratio(X)	0.13	0.00	0.36	0.06	0.47		0.73	0.00	0.00	0.79	0.00	0.40
Avail Cap(c_a), veh/h	447	0	579	546	572		590	0	0	741	0	1132
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	1.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.4	0.0	21.8	21.9	25.6	0.0	24.6	0.0	0.0	11.0	0.0	8.3
Incr Delay (d2), s/veh	0.1	0.0	0.4	0.0	0.9	0.0	2.5	0.0	0.0	5.4	0.0	0.2
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	0.6	0.0	2.0	0.3	2.0	0.0	5.0	0.0	0.0	6.3	0.0	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	18.5	0.0	22.2	22.0	26.4	0.0	27.1	0.0	0.0	16.4	0.0	8.5
LnGrp LOS	B		C	C	C		C			B		A
Approach Vol, veh/h	196			158			315			961		
Approach Delay, s/veh	21.3			25.9			27.1			13.3		
Approach LOS	C			C			C			B		
Timer - Assigned Phs	2		3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	43.1		9.8	15.9	22.7	20.4	5.3	20.4				
Change Period (Y+Rc), s	5.0		5.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	45.0		8.0	22.0	19.0	22.0	9.0	22.0				
Max Q Clear Time (g_c+I1), s	10.7		3.5	7.0	18.5	14.2	2.7	6.9				
Green Ext Time (p_c), s	1.8		0.0	0.7	0.2	0.8	0.0	0.8				
Intersection Summary												
HCM 7th Control Delay, s/veh	18.1											
HCM 7th LOS	B											
Notes												
User approved pedestrian interval to be less than phase max green.												
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 7th TWSC  
2: NE Three Mile Lane & NE 1st Street

06/06/2025

Intersection												
Int Delay, s/veh	5.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	0	229	1	0	7	221	624	2	10	697	3
Future Vol, veh/h	3	0	229	1	0	7	221	624	2	10	697	3
Conflicting Peds, #/hr	0	0	0	0	0	0	1	0	2	2	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	-	150	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	0	0	0	2	2	2	2	2	2
Mvmt Flow	3	0	246	1	0	8	238	671	2	11	749	3
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1921	1925	753	1920	1926	674	755	0	0	675	0	0
Stage 1	775	775	-	1149	1149	-	-	-	-	-	-	-
Stage 2	1146	1150	-	771	776	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.1	6.5	6.2	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.5	4	3.3	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	51	67	410	51	67	458	856	-	-	916	-	-
Stage 1	391	408	-	244	275	-	-	-	-	-	-	-
Stage 2	242	273	-	396	410	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	36	47	409	15	48	457	854	-	-	914	-	-
Mov Cap-2 Maneuver	117	134	- ~	-207	104	-	-	-	-	-	-	-
Stage 1	386	403	-	176	198	-	-	-	-	-	-	-
Stage 2	172	196	-	156	405	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s/v28.34			9.77		2.83		0.13					
HCM LOS	D		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	854	-	-	396	763	914	-	-				
HCM Lane V/C Ratio	0.278	-	-	0.63	0.011	0.012	-	-				
HCM Control Delay (s/veh)	10.8	-	-	28.3	9.8	9	-	-				
HCM Lane LOS	B	-	-	D	A	A	-	-				
HCM 95th %tile Q(veh)	1.1	-	-	4.2	0	0	-	-				
Notes												
~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    *: All major volume in platoon												

Intersection												
Int Delay, s/veh	13.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	0	0	10	0	180	1	649	2	244	754	4
Future Vol, veh/h	3	0	0	10	0	180	1	649	2	244	754	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	2	2	2	5	5	5	4	4	4
Mvmt Flow	3	0	0	11	0	194	1	698	2	262	811	4
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2038	2040	813	2037	2041	699	815	0	0	700	0	0
Stage 1	1338	1338	-	701	701	-	-	-	-	-	-	-
Stage 2	700	702	-	1335	1340	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.12	6.52	6.22	4.15	-	-	4.14	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.518	4.018	3.318	2.245	-	-	2.236	-	-
Pot Cap-1 Maneuver	42	57	382	42	56	440	799	-	-	888	-	-
Stage 1	191	224	-	429	441	-	-	-	-	-	-	-
Stage 2	433	443	-	189	221	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	11	26	382	19	26	440	799	-	-	888	-	-
Mov Cap-2 Maneuver	11	26	-	19	26	-	-	-	-	-	-	-
Stage 1	88	103	-	428	440	-	-	-	-	-	-	-
Stage 2	242	442	-	87	102	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s/veh	439.38		111.11		0.01		2.62					
HCM LOS	F		F									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	3	-	-	11	205	438	-	-				
HCM Lane V/C Ratio	0.001	-	-	0.296	0.998	0.296	-	-				
HCM Control Delay (s/veh)	9.5	0	-	439.4	111.1	10.7	0	-				
HCM Lane LOS	A	A	-	F	F	B	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.7	8.7	1.2	-	-				
Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s			+: Computation Not Defined			*: All major volume in platoon				

Intersection						
Int Delay, s/veh	1.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	47	199	170	9	4	22
Future Vol, veh/h	47	199	170	9	4	22
Conflicting Peds, #/hr	1	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	90	90	90	90	90	90
Heavy Vehicles, %	3	3	2	2	8	8
Mvmt Flow	52	221	189	10	4	24

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	200	0	-	0	520 195
Stage 1	-	-	-	-	195 -
Stage 2	-	-	-	-	326 -
Critical Hdwy	4.13	-	-	-	6.48 6.28
Critical Hdwy Stg 1	-	-	-	-	5.48 -
Critical Hdwy Stg 2	-	-	-	-	5.48 -
Follow-up Hdwy	2.227	-	-	-	3.572 3.372
Pot Cap-1 Maneuver	1366	-	-	-	506 831
Stage 1	-	-	-	-	824 -
Stage 2	-	-	-	-	718 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1365	-	-	-	483 831
Mov Cap-2 Maneuver	-	-	-	-	483 -
Stage 1	-	-	-	-	787 -
Stage 2	-	-	-	-	718 -











Approach	EB	WB	SB
HCM Control Delay, s/v	1.48	0	10.01
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	344	-	-	-	748
HCM Lane V/C Ratio	0.038	-	-	-	0.039
HCM Control Delay (s/veh)	7.7	0	-	-	10
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

# HCM Unsignalized Intersection Capacity Analysis

## 5: SE Norton Lane & NE Cumulus Avenue

























06/06/2025

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Yield	Stop	
Traffic Volume (vph)	98	259	145	161	230	82
Future Volume (vph)	98	259	145	161	230	82
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	111	294	165	183	261	93
Direction, Lane #	EB 1	EB 2	NB 1	SB 1		
Volume Total (vph)	111	294	348	354		
Volume Left (vph)	111	0	165	0		
Volume Right (vph)	0	294	0	93		
Hadj (s)	0.57	-0.63	0.20	-0.14		
Departure Headway (s)	7.0	5.8	5.8	5.5		
Degree Utilization, x	0.22	0.47	0.56	0.54		
Capacity (veh/h)	488	580	591	630		
Control Delay (s/veh)	10.7	12.6	16.0	14.7		
Approach Delay (s/veh)	12.1		16.0	14.7		
Approach LOS	B		C	B		
Intersection Summary						
Delay			14.2			
Level of Service			B			
Intersection Capacity Utilization			52.4%	ICU Level of Service	A	
Analysis Period (min)			15			



# HCM 7th Signalized Intersection Summary 6: SE Norton Lane & NE Three Mile Lane (OR 18)






















06/06/2025






												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	840	65	29	983	128	288	37	168	121	13	140
Future Volume (veh/h)	111	840	65	29	983	128	288	37	168	121	13	140
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
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	1723	1723	1723	1709	1709	1709	1723	1723	1723	1736	1736	1736
Adj Flow Rate, veh/h	122	923	33	32	1080	60	316	41	25	133	14	19
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	3	3	3	2	2	2	1	1	1
Cap, veh/h	171	1614	720	102	1467	654	433	137	83	183	74	100
Arrive On Green	0.10	0.49	0.49	0.06	0.45	0.45	0.14	0.14	0.12	0.11	0.11	0.10
Sat Flow, veh/h	1641	3273	1460	1628	3247	1448	3183	999	609	1654	664	901
Grp Volume(v), veh/h	122	923	33	32	1080	60	316	0	66	133	0	33
Grp Sat Flow(s),veh/h/ln	1641	1637	1460	1628	1624	1448	1591	0	1608	1654	0	1564
Q Serve(g_s), s	5.9	16.2	1.0	1.5	22.3	1.9	7.8	0.0	3.0	6.3	0.0	1.6
Cycle Q Clear(g_c), s	5.9	16.2	1.0	1.5	22.3	1.9	7.8	0.0	3.0	6.3	0.0	1.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.38	1.00		0.58
Lane Grp Cap(c), veh/h	171	1614	720	102	1467	654	433	0	220	183	0	175
V/C Ratio(X)	0.71	0.57	0.05	0.31	0.74	0.09	0.73	0.00	0.30	0.73	0.00	0.19
Avail Cap(c_a), veh/h	221	1646	734	180	1553	693	508	0	237	243	0	211
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.3	14.6	10.7	36.5	18.4	12.8	33.8	0.0	31.8	35.1	0.0	33.1
Incr Delay (d2), s/veh	6.2	0.4	0.0	1.3	1.6	0.0	4.0	0.0	0.6	5.9	0.0	0.4
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	2.5	5.2	0.3	0.6	7.1	0.6	3.2	0.0	1.2	2.8	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	41.5	15.0	10.7	37.8	20.0	12.8	37.7	0.0	32.4	41.0	0.0	33.5
LnGrp LOS	D	B	B	D	B	B	D		C	D		C
Approach Vol, veh/h	1078			1172			382			166		
Approach Delay, s/veh	17.8			20.1			36.8			39.5		
Approach LOS	B			C			D			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.1	44.2	15.1	13.1	12.5	40.8	13.0	15.2				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	8.0	40.0	12.0	10.0	10.0	38.0	11.0	11.0				
Max Q Clear Time (g_c+I1), s	3.5	18.2	9.8	3.6	7.9	24.3	8.3	5.0				
Green Ext Time (p_c), s	0.0	9.8	0.3	0.0	0.1	11.6	0.1	0.1				
Intersection Summary												
HCM 7th Control Delay, s/veh	22.7											
HCM 7th LOS	C											
Notes												
User approved pedestrian interval to be less than phase max green.												

# HCM 7th Signalized Intersection Summary

## 7: Cumulus Avenue & NE Three Mile Lane (OR 18)

06/06/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	142	1047	0	2	1010	48	6	0	9	39	0	105
Future Volume (veh/h)	142	1047	0	2	1010	48	6	0	9	39	0	105
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1723	1723	1723	1723	1723	1723	1750	1750	1750	1723	1723	1723
Adj Flow Rate, veh/h	161	1190	0	2	1148	29	7	0	0	44	0	70
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	0	0	0	2	2	2
Cap, veh/h	221	2307	0	30	1926	859	252	0	0	260	195	362
Arrive On Green	0.13	0.70	0.00	0.02	0.59	0.59	0.10	0.00	0.00	0.11	0.00	0.11
Sat Flow, veh/h	1641	3359	0	1641	3273	1460	1352	0	0	1418	1723	1460
Grp Volume(v), veh/h	161	1190	0	2	1148	29	7	0	0	44	0	70
Grp Sat Flow(s),veh/h/ln	1641	1637	0	1641	1637	1460	1352	0	0	1418	1723	1460
Q Serve(g_s), s	6.9	12.4	0.0	0.1	16.3	0.6	0.3	0.0	0.0	1.7	0.0	2.8
Cycle Q Clear(g_c), s	6.9	12.4	0.0	0.1	16.3	0.6	0.3	0.0	0.0	2.0	0.0	2.8
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	221	2307	0	30	1926	859	233	0	0	260	195	362
V/C Ratio(X)	0.73	0.52	0.00	0.07	0.60	0.03	0.03	0.00	0.00	0.17	0.00	0.19
Avail Cap(c_a), veh/h	425	2678	0	201	2232	995	246	0	0	273	211	375
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	1.00	0.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.5	5.0	0.0	35.4	9.6	6.3	29.4	0.0	0.0	29.7	0.0	21.8
Incr Delay (d2), s/veh	3.4	0.1	0.0	0.7	0.3	0.0	0.0	0.0	0.0	0.2	0.0	0.2
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	1.9	0.0	0.0	3.9	0.1	0.1	0.0	0.0	0.7	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	33.9	5.1	0.0	36.1	9.8	6.3	29.5	0.0	0.0	29.9	0.0	22.0
LnGrp LOS	C	A		D	A	A	C			C		C
Approach Vol, veh/h	1351				1179		7				114	
Approach Delay, s/veh	8.6				9.8		29.5				25.0	
Approach LOS	A				A		C				C	
Timer - Assigned Phs	1	2			4	5	6	8				
Phs Duration (G+Y+Rc), s	5.3	55.7			12.3	13.9	47.2	12.3				
Change Period (Y+Rc), s	5.0	5.0			5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	8.0	59.0			8.0	18.0	49.0	8.0				
Max Q Clear Time (g_c+I1), s	2.1	14.4			4.8	8.9	18.3	2.3				
Green Ext Time (p_c), s	0.0	32.8			0.1	0.3	23.9	0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh	9.9											
HCM 7th LOS	A											
Notes												
User approved pedestrian interval to be less than phase max green.												

Intersection												
Int Delay, s/veh	5.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	0	0	10	0	180	1	649	2	244	754	4
Future Vol, veh/h	3	0	0	10	0	180	1	649	2	244	754	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	25	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	2	2	2	5	5	5	4	4	4
Mvmt Flow	3	0	0	11	0	194	1	698	2	262	811	4
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2038	2040	813	2037	2041	699	815	0	0	700	0	0
Stage 1	1338	1338	-	701	701	-	-	-	-	-	-	-
Stage 2	700	702	-	1335	1340	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.12	6.52	6.22	4.15	-	-	4.14	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.518	4.018	3.318	2.245	-	-	2.236	-	-
Pot Cap-1 Maneuver	42	57	382	42	56	440	799	-	-	888	-	-
Stage 1	191	224	-	429	441	-	-	-	-	-	-	-
Stage 2	433	443	-	189	221	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	11	26	382	19	26	440	799	-	-	888	-	-
Mov Cap-2 Maneuver	11	26	-	19	26	-	-	-	-	-	-	-
Stage 1	88	103	-	428	440	-	-	-	-	-	-	-
Stage 2	242	442	-	87	102	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s/veh	439.38		35.85		0.01		2.62					
HCM LOS	F		E									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR					
Capacity (veh/h)	3	-	-	11	19	440	438	-	-			
HCM Lane V/C Ratio	0.001	-	-	0.296	0.558	0.44	0.296	-	-			
HCM Control Delay (s/veh)	9.5	0	-	\$ 439.4	\$ 331	19.5	10.7	0	-			
HCM Lane LOS	A	A	-	F	F	C	B	A	-			
HCM 95th %tile Q(veh)	0	-	-	0.7	1.5	2.2	1.2	-	-			
Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s			+: Computation Not Defined				*: All major volume in platoon			

6. NE Three Mile Lane (OR 18) & SE Norton Lane

APM Section 13.4.4: Critical Intersection v/c ratio

- Method:
- Determine Critical Movements in HCM 2000 reports
  - HCM 6th reports, determine adjusted and sat flow rates
  - Adjust Flow/Sat Flow
  - Sum up Crit Movement Flow Rates
  - Xc of intersection = sum(crit.move. Flow rates\*(C/(C-L)))

PM Peak Hour																				
					Adjust Flow				Saturated Flow				Adj/Sat Flows							
Critcial Movement					EBL	WBT	NBT	SBL	EBL	WBT	NBT	SBL	EBL	WBT	NBT	SBL	Sum	C	L	Xc
2025 Existing					88	884	36	97	1641	3247	1582	1654	0.053626	0.272251	0.022756	0.058646	0.407279	90	16	0.495
2041 HZBG	EBL	WBT	NBT	SBL	105	1080	66	129	1641	3247	1570	1654	0.063985	0.332615	0.042038	0.077993	0.516631	90	16	0.628
2041 HZBO					122	1080	66	133	1641	3247	1608	1654	0.074345	0.332615	0.041045	0.080411	0.528416	90	16	0.643

7. NE Three Mile Lane (OR 18) & Cumulus Avenue

APM Section 13.4.4: Critical Intersection v/c ratio

- Method:
- Determine Critical Movements in HCM 2000 reports

HCM 6th reports, determine adjusted and sat flow rates

Adjust Flow/Sat Flow

Sum up Crit Movement Flow Rates

Xc of intersection = sum(crit.move. Flow rates\*(C/(C-L))

PM Peak Hour																			
	Adjust Flow				Saturated Flow				Adj/Sat Flows				Sum	C	L	Xc			
	Critical Movement	EBL	WBT	SBL	0	EBL	WBT	SBL	0	EBL	WBT	SBL					0		
2025 Existing				132	894	40	0	1641	3273	1418	1	0.080439	0.273144	0.028209	0	0.381791	90	12	0.441
2041 HZBG	EBL	WBT	SBL	161	1102	44	0	1641	3273	1418	1	0.098111	0.336694	0.03103	0	0.465835	90	12	0.538
2041 HZBO				161	1148	44	0	1641	3273	1418	1	0.098111	0.350749	0.03103	0	0.479889	90	12	0.554