

# JOINT CITY COUNCIL WORKSHOP W/ PLANNING COMMISSION

February 27, 2025 at 6:00 PM Boardman City Hall Council Chambers AGENDA

- 1. CALL TO ORDER
- 2. FLAG SALUTE
- 3. ROLL CALL/EXCUSED ABSENCES
- 4. REPORTS, CORRESPONDENCE, AND DISCUSSION
  - A. Transportation System Plan Update
- 5. ADJOURNMENT

### Zoom Meeting Link: https://us02web.zoom.us/j/2860039400?omn=89202237716

This meeting is being conducted with public access in-person and virtually in accordance with Oregon Public Meeting Law. If remote access to this meeting experiences technical difficulties or is disconnected and there continues to be a quorum of the council present, the meeting will continue.

The meeting location is accessible to persons with disabilities. Individuals needing special accommodations such as sign language, foreign language interpreters or equipment for the hearing impaired must request such services at least 48 hours prior to the meeting. To make your request, please contact a city clerk at 541-481-9252 (voice), or by e-mail at <u>city.clerk@cityofboardman.com</u>.



### MEMORANDUM

To: Mayor Keefer and Chair Barresse Members of the City Council and Planning Commission
cc: Brandon Hammond, City Manager
From: Carla McLane, Planning Official
Date: February 18, 2025
RE: Joint Workshop – Transportation System Plan Update Thursday, February 27, 2025, 6:00 pm City Council Chambers

The intent of this Workshop is to bring both the Planning Commission and City Council up to date on the work that has been underway for the past six months or so and to preview what is coming next related to the Transportation System Plan (TSP) Update.

To date two Public Advisory Committee, or PAC, meetings have occurred with the first in early November of 2024 and the second in late January of 2025. Five technical memorandums have been reviewed by staff and the PAC, three at the first PAC meeting with two more at the second PAC meeting. Those technical memorandums covered the following:

#### Community Profile and Trends (TM #1):

The Community Profile and Trends memorandum is a high-level summary of the City of Boardman's demographic, workforce/jobs, and travel/commuting profile. The profile and trends memo are used to help inform and update the TSP goals and objectives and incorporate a broader range of constituents in the overall planning process.

#### Plans and Policy Review (TM #2):

This memorandum summarizes local, regional, and state planning documents that could influence the development of Boardman's new TSP. Some of the documents and plans reviewed consist of circulation standards, infrastructure improvements, and demographic targets that must comply with statewide planning standards. This memorandum serves as the groundwork for new policy and development code amendments that will be generated at the end of the TSP development process.

#### Goals, Objectives and Evaluation Criteria (TM #3):

The goals and objectives of a modern TSP should reflect the anticipated needs of the multimodal transportation system. This memorandum presents a set of goals and objectives have been developed to guide the Boardman TSP project development and evaluation process. These goals and objectives are rooted in, and build upon, the various goals and objectives developed in the existing TSP and other



relevant transportation-related planning documents. Additional goals and objectives have been proposed to ensure that the updated TSP is forward-focused, reflects the needs of the community, and supports the development of a safe, efficient, and reliable transportation system for all users.

Existing Conditions Inventory and Analysis (TM #4):

The existing conditions inventory and analysis is an assessment of Boardman's current transportation network. This memorandum presents the findings from that assessment.

Future Conditions Analysis (TM #5):

This memorandum summarizes future (no-build) transportation system conditions in Boardman that would be anticipated over the next 20 years. The information provided in this memorandum is based on assumed new residential and commercial development and corresponding growth in multimodal traffic throughout the city. The future deficiencies identified in this memorandum will serve as the basis for developing transportation system alternatives and improvement projects for the TSP update.

As a planning nerd I would encourage you to read every word of the 362 pages that make up those five technical memoranda. But don't. The consultant team did suggest that we not include the appendices but if you want to get into the weeds that's where they are. Each of you will find nuggets in what is provided in those memorandums for different reasons.

My hope for the Joint Workshop is twofold. First to provide a level of understanding about what the function of a TSP is and why it is important and second to share with this group where the TSP Update is at and what the early findings are related to Boardman's current and future transportation network.

Please reach out if you have any questions or concerns. And thank you all for your interest in this planning work. See you next Thursday evening.





# **Technical Memorandum #1**

Date:	January 24, 2025	Kittelson Project No: 30287
То:	Project Management Team (PMT)	
From:	Matt Hughart, AICP – Kittelson & Associates Eza Gaigalas – Kittelson & Associates Shayna Rehberg, AICP – MIG Meg Grzybowski - MIG	
Subject:	Boardman Community Profile and Trends	

## Introduction

The Community Profile and Trends memorandum is a high-level summary of the City of Boardman's demographic, workforce/jobs, and travel/commuting profile. The profile and trends will help inform and update the goals and objectives for the development of a new Transportation System Plan (TSP), achieve statewide goals toward reducing transportation-related climate pollution, and incorporating a broader range of constituents in the overall planning process.

The community profile is divided into four sections:

- 1. Study Area
- 2. Residential Demographic Profile
- 3. Workforce/Jobs Profile
- 4. Travel/Commuting Profile

## **Study Area**

The City of Boardman is located in Morrow County, Oregon. For the purposes of this assessment, the study area incorporates the City of Boardman city limits and Urban Growth Boundary (UGB) shown in **Figure 1**.

### Figure 1. Project Study Area



Blue = Site project area and City of Boardman

# **Demographic Profile**

## Title VI and Underserved Communities

Title VI of the Civil Rights Act of 1964 (Section 601) prevents any person from discrimination on the bases of race, color, or national origin.<sup>1</sup> As it relates to Title VI and Environmental Justice, all programs and activities conducted or completed with the assistance of federal funding must ensure that they are not preventing participation of affected communities or conducting efforts through discriminatory practices based on race, color, or national origin that may lead to

<sup>&</sup>lt;sup>1</sup> Civil Rights Act of 1964, HR 7152, 88<sup>th</sup> Cong., Public Law 88-352 (July 2, 1964).

2045

**13,497** 1.4% **5,429** 3.5%

N/A

environmental and human health impacts.<sup>2</sup> As the TSP update is funded in part through federal funds administered by the Oregon Department of Transportation (ODOT), it is necessary to identify specific communities and affected populations within Boardman. This section includes data from the 2020 Decennial Census, 2022 American Community Survey (ACS) 5-Year Estimates, and 2024 Portland State University's Population Research Center Estimates to identify these populations.

## **Population Profile**

According to American Community Survey (ACS) 5-year estimates (2022), the Boardman city limits is home to approximately 3,828 residents<sup>3</sup>, with the UGB hosting slightly more residents, at 4,160. The Portland State University Population Research Center (PRC) anticipates that the population within the Boardman UGB will continue to grow steadily, increasing by more than 1,200 residents by the year 2045 as shown in **Table 1**.

Historica	Population Forecast						
	2010	2020 203		2035	2040		
Morrow County	11,173	12,186	12,846	13,103	13,317		
Percent Change		8.9%	5.4%	2.0%	1.6%		
Boardman UGB	3,546	4,160	4,828	5,046	5,246		
Percent Change		17.8%	16.5%	4.5%	4.0%		

3,529

12.0%

### **Table 1. Population Growth Forecast**

3,149

Source: PSU Population Research Center (PRC), 2024 for population forecast numbers; ACS 5-year estimates, 2010 and 2022 (Table DP05).

### Age

**City of Boardman** 

Percent Change

Within its UGB, the City of Boardman has a younger population overall as compared to that of the broader Morrow County and the State of Oregon. The median age sits below 30 years, while the County and State are closer to 40 years as shown in **Table 2**. While the percentage of residents

N/A

N/A

N/A

<sup>&</sup>lt;sup>2</sup> United States Environmental Protection Agency, *Title VI and Environmental Justice*, accessed September 25, 2024, https://www.epa.gov/environmentaljustice/title-vi-and-environmental-justice.

<sup>&</sup>lt;sup>3</sup> Note that the Portland State University Population Research Center confirmed that there was an undercount in the 2020 Census and that the accurate City of Boardman population as of April 2020 is 4,272. Verified as of December 30, 2024, this population figure indicates a greater historical growth rate than what is shown in Table 1 (42% between 2010 and 2020, as opposed to 12%). The analysis in this memorandum reflects figures that are consistent with data from 2022 ACS data and demographic break downs of the City's 3,828 population.

under the age of 18 years is relatively similar across all geographies, the representation of residents over 65 years is significantly smaller in Boardman which results in its comparatively lower median age of 27.6 years.

### Table 2. Age Demographics

		Median	Youth (< ′	18 years)	Seniors (> 65 years)	
	Population	(years)	Total	Percent	Total	Percent
State of Oregon	4,237,256	39.9	867,076	20.8%	734,932	17.6%
Morrow County	12,186	36.9	3,159	27.6%	1,715	15.0%
Boardman UGB*	4,160	29.5	1,355	32.6%	347	8.4%
City of Boardman	3,828	27.6	1,189	33.7%	169	4.8%

Source: PSU Population Research Center (PRC) (2024)

\*Source for City UGB is the US Census Decennial 2020

## Racial and Ethnic Minority Groups

Census data was used to collect information on race and ethnicity. The US Census utilizes the 1997 Office of Management and Budget (OMB) definitions, referencing "White," "Black or African American," "American Indian or Alaska Native," "Asian," or Native Hawai'ian or Other Pacific Islander" though participants can self-report as more than one race or a race/ethnicity outside of these identifiers.<sup>4</sup> The race and ethnicity groups represented in **Table 3** are as follows:

- Not Hispanic or Latino: American Indian or Alaska Native alone
- Not Hispanic or Latino: Asian alone
- Not Hispanic or Latino: Black or African American alone
- Hispanic or Latino (of any race)
- Not Hispanic or Latino: Native Hawai'ian or Other Pacific Islander
- Not Hispanic or Latino: Some Other Race
- Not Hispanic or Latino: Two or More Races
- Not Hispanic or Latino: White alone

<sup>&</sup>lt;sup>4</sup> U.S. Census Bureau, *About the Topic of Race,* accessed September 19, 2024,

http://doi.org/10.3886/ICPSR07552.v1.https://www.census.gov/topics/population/race/about.html.

#### Table 3. Race and Ethnicity

	Diversity Index	American Indian or Alaska Native	Asian	Black	Hispanic/ Latino	Native Hawaiian or Other Pacific Islander	Some Other Race	Two or More	White
State of	56.1	42,042	191,797	78,658	588,757	18,197	22,962	258,685	3,036,158
Oregon		(1.0%)	(4.5%)	(1.9%)	(13.9%)	(0.4%)	(0.5%)	(6.1%)	(71.7%)
Morrow	76.9	82	29	37	4,988	5	44	401	6,600
County		(0.7%)	(0.2%)	(0.3%)	(40.9%)	(0.0%)	(0.4%)	(3.3%)	(54.2%)
Boardman	80.6	20	4	17	2,802	1	18	89	1,211
UGB		(0.5%)	(0.0%)	(0.4%)	(67.4%)	(0.0%)	(0.4%)	(2.1%)	(29.1%)
City of	79.1	17	4	15	2,813	0	17	58	904
Boardman		(0.4%)	(0.0%)	(0.4%)	(73.5%)	(0.0%)	(0.4%)	(1.5%)	(23.6%)

Source: US Census Decennial Census estimates (2020), Table P2 \*Source for City UGB is the US Census Decennial 2020

**Table 3** includes a Diversity Index, defined as the likelihood that when two persons are chosen at random from the same area they will belong to different race or ethnic groups. The number represents the percentage of possibility, with an index of 0 indicating no diversity and 100 indicating complete diversity.<sup>5</sup> Compared to the State of Oregon and Morrow County, Boardman has a higher diversity index overall. Boardman also has a larger representation of people that identify as Hispanic or Latino. Though the larger Boardman UGB has a slightly higher diversity index compared to the city has a higher percentage of households in non-white racial groups compared to the UGB as well as the highest representation of Hispanic or Latino communities.

## Limited English Proficiency (LEP)

When looking at the prominent language spoken within the household (for people 5 years and older), two-thirds of the population within Boardman spoke Spanish as the predominant language within the home, while only one-third spoke English as the primary language (**Table 4**).

<sup>&</sup>lt;sup>5</sup> ArcGIS Community Analyst, *Essential* Vocabulary, accessed September 19, 2024, <u>https://doc.arcgis.com/en/community-analyst/help/essential-vocabulary.htm</u>.

### Table 4. Language Spoken at Home

	Population		Language Other than English		
	5 Years and Over	5 Years and English Over Only		Other Language	
Morrow County	10,589	67%	32%	1%	
City of Boardman	3,120	35%	63%	1%	

Source: ACS 5-year estimates (2016-2020), Table S1601

### Low Income and Poverty Levels

In 2022, the federally set poverty threshold for an individual was determined as annual earnings of \$13,590, with \$27,750 being the threshold for a four-person household.<sup>6</sup> The U.S. Census Bureau translates this measure of need into a ratio, calculated by the dividing the family's income by their poverty threshold number. A ratio of 1.00 would imply that the family income matches the measure of need that the family has.<sup>7</sup> Any number below 1.00 qualifies for varying levels of federal assistance programs.

The City of Boardman has a higher proportion of the population that falls below the 1.00 ratio of income to poverty, at approximately 21% (versus 17% and 12% in Morrow County and the State of Oregon respectively) (**Table 5**). While the unemployment rate in the City of Boardman is similar to that of the county (around 1%) and lower than the state (around 3%), residents are either not earning enough income to meet their means, or expenses are higher than they can meet.

<sup>&</sup>lt;sup>6</sup> Office of the Assistant Secretary for Planning and Evaluation (ASPE), *Prior HHS Poverty Guidelines and Federal Register References*, accessed September 19, 2024, <u>https://aspe.hhs.gov/topics/poverty-economic-mobility/poverty-guidelines/prior-hhs-poverty-guidelines-federal-register-references</u>.

<sup>&</sup>lt;sup>7</sup> U.S. Census Bureau, *How the Census Bureau Measures Poverty*, June 15, 2023, <u>https://www.census.gov/topics/income-poverty/guidance/poverty-measures.html</u>.

	State of Oregon		Morrow	County	City of Boardman	
	Total	Percent	Total	Percent	Total	Percent
Population	4,149,034	-	12,095	-	3,829	-
Under 0.50	230,483	5.6%	586	4.8%	180	4.7%
0.50 – 0.99	263,675	6.3%	1,434	11.8%	619	16.1%
1.00 – 1.24	159,051	3.8%	953	7.9%	594	15.5%
1.25 – 1.49	171,293	4.1%	725	6.0%	226	6.0%
1.50 – 1.84	236,823	5.7%	1,061	8.8%	312	8.1%
1.85 – 1.99	104,576	2.5%	433	3.6%	188	4.9%
2.00 and Over	2,983,133	71.9%	6,903	57.1%	1,710	44.7%

#### Table 5. Ratio of Income to Poverty

Source: ACS 5-year estimates (2018-2022), Table C17002

Another way to demonstrate disparities in income is to look at what percentage of the population is living below certain poverty thresholds. As shown in **Table 6**, the City of Boardman had more than half of its population living below 200% poverty, which was greater than both the state and the county. This number is also nearly 4% higher than it was in 2020.<sup>8</sup> Median household income in the City of Boardman is higher than that in the county but is less than in the state (**Table 7**).

Table 6. Population Below 200% Poverty Level

Poverty Level	State of	Oregon	Morrow	County	City of Boardman	
Poverty Level	Total	Percent	Total	Percent	Total	Percent
Populations	4,149,034	-	12,095	-	3,829	-
Below 200%	1,165,901	28.1%	5,192	42.9%	2,119	55.3%

Source: ACS 5-year estimates (2018-2022), Table S1701

<sup>&</sup>lt;sup>8</sup> ACS 2016-2020 5-year estimates, Table S1701

### Table 7. Median Household Income

	Median Household Income
State of Oregon	\$65,667
Morrow County	\$56,572
City of Boardman	\$59,390

Source: ACS 5-year estimates (2016-2020), Table S1901

## Households with Disabilities

Boardman has reportedly less households with one or more people with a disability compared to Morrow County (**Table 8**). Morrow County actually has the highest percentage at nearly 38%, compared to the State of Oregon, which is at 28%.

### Table 8. Households with One or More People with a Disability

	Number of Households	With Disability			
	Number of Householus	Total	Percent		
Morrow County	4,201	1,581	37.6%		
Boardman UGB	1,313	414	31.5%		
City of Boardman	1,119	307	27.4%		

Source: ACS 5-year estimates, 2018-2022 \*\* Source: US Census 2020

### Internet Access

The City of Boardman has nearly twice the percentage of households without internet access as the state of Oregon (**Table 9**). This has implications for accessing planning sessions and services and may mean that these communities will not have as many opportunities to participate in processes that shape the city.

#### Table 9. Households with Internet Subscription

	Number of	With Int	ernet	Without Internet		
	Households	Total	Percent	Total	Percent	
State of Oregon	1,680,800	1,526,087	90.8%	154,713	9.2%	
Morrow County	4,201	3,655	87.0%	546	13.0%	
City of Boardman	1,119	920	82.2%	199	17.8%	

Source: ACS 5-year estimates (2018-2022), Table S2801

## Key Findings

Analysis of the population demographics revealed key findings as they relate to Title VI and Environmental Justice. They are summarized in **Table 10.** 

Table	10.	Summary	of	Population	<b>Demographics</b>
		••••••	•••	. opulation	

Underserved Population Type	City of Boardman	Boardman UGB	Morrow County
65 Years and Over	5%	8%	15%
Non-Majority White	24%	29%	54%
Limited English Proficiency (LEP) Households	64%	N/A	33%
Below 200% Poverty	55%	N/A	43%
Disability	27%	32%	38%
Internet Access	18%	N/A	13%

Boardman consists of communities that are considered "underserved populations," as defined by the Oregon Administrative Rule (OAR 660-012-0125). Notably for Boardman, the demographic populations that fall into this category pertain mainly to:

- Limited English Proficiency (LEP): Boardman has nearly double the county average for residents that speak a language other than English inside the household.
- Minoritized Majority Race: More than three-fourths of Boardman's population is of a minority race or ethnicity (which is 30% more than the county population).
- Income to Poverty Ratio: The City of Boardman has a higher percentage of people living below the 1.00 income to poverty ratio; at nearly ¼ of the population.
- Internet Access: Compared to the county, the City of Boardman has 6% more households without internet access (that's twice the percentage households in the state of Oregon).

# Workforce/Jobs Profile

### **Employment Industries of Boardman**

There are 2,727 residents in Boardman who are 16 years and older and 1,803 of them are in the labor force (66%). The largest industry employers are in Agriculture, Forestry, Fishing, and Mining (27%), Manufacturing (18%), Education (11%), Arts & Entertainment (11%) and Professional Services (11%) (in Figure 2. Employment Industries in Boardman**Figure 2**). These five sectors alone account for 1,376 jobs (78%).<sup>9</sup>

The majority of workers are employed through private sector positions (86%), though some also work for the government (10%) or are self-employed (3%).

### Figure 2. Employment Industries in Boardman



## **Employment Centers**

In a 2021 regional travel assessment released by the Confederated Tribes of the Umatilla Indian Reservation's (CTUIR's) public transportation team, Morrow County, Umatilla County, and the Port of Morrow, major employment areas were analyzed to determine their importance to the area and employees' access to them through current infrastructure. There were many key employment centers identified as employment opportunities in Boardman that are made accessible by the Hermiston-Boardman Connector, in particular.<sup>10</sup> These key employment centers include:

- Lamb-Weston West
- Lamb-Weston East

Oregon Potato Company

<sup>&</sup>lt;sup>9</sup> ACS 5-year estimate, Table DP03, 2022

<sup>&</sup>lt;sup>10</sup> Kittleson & Associates, Inc., Hermiston-Boardman Connector – Port of Morrow Circular, 2021, p. 15.

- Port of Morrow Warehouse Dry Storage
- Port of Morrow Warehousing
- Port of Morrow
- Boardman Foods
- Zeachem
- Pacific Ethanol Columbia, LLC
- Cascades Specialties Inc.
- Amazon

- Oregon Hay Company
- American Rock Company
- Cadman, Inc.
- Tillamook Cheese/Columbia River
   Processing
- Columbia River Health
- Central Business District
- Independent Transport, Inc.

## **Employment Land**

Employment areas in Boardman are zoned as Commercial, Commercial Highway Sub-District, Commercial – Service Center, Light Industrial, General Industrial (City and County), and Port Industrial (County).

Commercially zoned areas, as well as some industrial land, are mainly located south of Interstate 84 and north of Wilson Ln SE. The majority of the industrial and port-specific zones abut the Columbia River and north of Highway 84 and are largely associated with the Port of Morrow.





# **Travel/Commuting Profile**

In addition to the demographic and employment profiles, it is also important to look at the travel characteristics within, to, and from Boardman. The identification of travel patterns can be useful in the development of new transportation-based goals/objectives and prioritizing local and regional infrastructure projects. Sources used in this section include:

- Historical traffic counts
- US Census Bureau's Longitudinal Employer-Household Dynamics (LEHD) program which provides job flow data that can be used to determine employment-based commuting profiles.
- Morrow County Coordinated Transportation Plan

## Historical Traffic Counts

Over the last 15 years, there have been several transportation planning assessments that have involved the collection of traffic counts along key intersections in Boardman. These include the 2009 Boardman Main Street Interchange Area Management Plan and the 2023 Main Street Circulation Assessment. While these two assessments had different study areas, there were multiple common intersections along the Main Street corridor including the two I-84 ramp terminals, Boardman Avenue, and Front Street (north and south). **Exhibit 1** and **Exhibit 2** show the respective weekday PM peak hour traffic volumes from these two studies and **Table 10** summarizes comparable corridor segments. As shown in the Table, volumes along Main Street have increased upwards of 24%.

	Weekday	PM Peak Hou	ur Volumes
Corridor Segment	Year 2006	Year 2022	% Increase
Main Street (north of Boardman Avenue)	305	368	21%
Main Street (I-84 WB Ramp Terminal to Boardman Avenue)	635	774	22%
Main Street (I-84 EB Ramp Terminal to S Front Street)	645	803	24%
Main Street (South of S Front Street)	620	754	22%

### Table 10 – Traffic Count Comparison



Exhibit 1 – 2006 Boardman Main Street Weekday PM Peak Hour Traffic Volumes (Source: 2009 *Boardman Main Street IAMP*, DKS Associates)

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Exhibit 2 – 2022 Main Street Traffic Counts, Weekday PM Peak Hour (Source: 2023 Main Street Circulation Assessment, Kittelson & Associates)

KITTELSON & ASSOCIATES

## **Employment-Based Commuting Profile**

This section provides an overview of the employment-based commuting profiles to/from Boardman based on data from the US Census Bureau's Longitudinal Employer-Household Dynamics (LEHD) program.

### Where Boardman Residents Are Employed

**Table 11** summarizes the locations where residents of Boardman have been employed on a percentage basis over the most recent five years of available data. As shown, the LEHD data indicates a general upward trend in the percentage of Boardman residents who are working in the City. In 2021, this percentage was approximately 32.8%, up from 20.7% in 2017. While this increase is likely due to several factors (a five-year population increase of approximately 20%, additional local employment opportunities, and a greater variety of local jobs), it does indicate that fewer Boardman residents are having to regionally commute outside of the city to their places of employment. Despite this general upward trend, 67% of Boardman residents are still commuting to regional destinations such as Hermiston, Irrigon, and Umatilla. This is significant as it indicates a continued need for regional transportation infrastructure.

	Percentage of Boardman Residents Employed in the Selected City				
City of Employment	Year 2017	Year 2018	Year 2019	Year 2020	Year 2021
Boardman	20.7%	23.5%	20.5%	29.0%	32.8%
Hermiston	9.3%	9.3%	9.2%	3.5%	5.1%
Portland	4.9%	4.7%	4.1%	4.9%	4.5%
Irrigon	3.7%	2.4%	2.2%	2.0%	1.9%
Umatilla	2.8%	3.5%	3.0%	2.7%	1.8%
Heppner	1.5%	2.0%	2.2%	1.5%	1.7%
Salem	1.0%	1.1%	1.8%	1.3%	1.6%
Pendleton	1.6%	1.2%	1.8%	2.0%	1.1%
Pasco/Richland	1.8%	2.3%	0.8%	0.8%	0.8%
All Other Locations	52.7%	50%	54.4%	52.3%	48.7%

#### Table 11 – Where Boardman Residents Are Employed

Source: US Census Bureau. 2024. LEHD Origin-Destination Employment Statistics (2002-2021), Longitudinal Household Dynamics Program, accessed on 9/9/24 at <a href="https://onthemap.ces.census.gov">https://onthemap.ces.census.gov</a>.

### Where Workers Live Who Are Employed in Boardman

**Table 12** summarizes the home city of the workers that are employed at a job located within Boardman on a percentage basis over the most recent five years of available data. As shown, the LEHD data indicates another general upward trend in the percentage of Boardman jobs that are occupied by Boardman residents. In 2021, this percentage was approximately 20%, up from15.7% in 2017. Despite this increasing trend, nearly 80% of the jobs located in Boardman are still held by non-Boardman residents indicating that there are more jobs available in the city than there are local workers. This can also be represented graphically in **Exhibit 3** which shows the Boardman Inflow/Outflow Job Counts in 2021.

	Percentage of the Boardman Workforce Residing in the Selected City			e	
City of Residence	Year 2017	Year 2018	Year 2019	Year 2020	Year 2021
Boardman	15.7%	16.2%	14.3%	20.1%	20.6%
Hermiston	17.7%	16.1%	16.7%	16.1%	15.2%
Kennewick/Pasco/Richland	4.5%	7.3%	8.9%	5.3%	8.1%
Umatilla	6.3%	6.9%	6.5%	8.9%	7.0%
Irrigon	7.4%	8.0%	8.2%	5.0%	3.7%
Pendleton	1.7%	2.0%	2.6%	2.2%	3.0%
Stanfield	1.1%	1.2%	1.1%	1.2%	0.9%
All Other Locations	45.6%	42.3%	41.7%	41.2%	41.5%

#### Table 12 – Where Workers Live Who are Employed in Boardman (Year 2017 vs Year 2021)

Source: US Census Bureau. 2024. LEHD Origin-Destination Employment Statistics (2002-2021), Longitudinal Household Dynamics Program, accessed on 9/9/24 at <a href="https://onthemap.ces.census.gov">https://onthemap.ces.census.gov</a>.





## Transit Supportive Demographic Profile

This section provides an overview of the transit supportive demographic characteristics of Boardman. This data is useful to illustrate a geographic area's concentrations of population groups that face particular mobility challenges. **Table 13** provides a "snapshot" of these demographic characteristics.





PSU Population Research Center (PRC), 2024 and ACS 5-year estimates, 2010 and 2022

## References

- 1. United States Environmental Protection Agency. Title VI and Environmental Justice, n.d.
- Portland State University Population Research Center. Oregon Population Forecast Program, 2022-2025.
- 3. American Community Survey 5-Year Estimates, Table DP05, 2010.
- 4. American Community Survey 5-Year Estimates, Table S1601, 2020.
- 5. American Community Survey 5-Year Estimates, Table DP05, 2022.
- 6. United States Census Bureau, Decennial Census, 2020.
- 7. United States Census Bureau, About the Topic of Race, n.d.
- 8. ArcGIS Community Analyst. Essential Vocabulary, n.d.
- **9.** Office of the Assistant Secretary for Planning and Evaluation. Prior HHS Poverty Guidelines and Federal Register References, n.d.
- 10. United States Census Bureau. How the Census Bureau Measures Poverty, 2023.
- 11. American Community Survey 5-Year Estimates, Table C17002, 2022
- 12. American Community Survey 5-Year Estimates, Table S1701, 2022
- 13. American Community Survey 5-Year Estimates, Table S1901, 2020
- 14. American Community Survey 5-Year Estimates, Table S2801, 2022
- 15. Kittleson & Associates, Inc. Hermiston Boardman Connector / Boardman Port of Morrow Circular, 2021.



# **Technical Memorandum #2**

Date:	October 25, 2024	Kittelson Project No: 30287
То:	Project Advisory Committee (PAC)	
From:	Shayna Rehberg, AICP – MIG Meg Grzybowski – MIG	
Subject:	Plans and Policy Review DRAFT	

# Introduction

The City of Boardman adopted its Transportation System Plan (TSP) in 1999, and the document was last in 2001. This TSP Update will address transportation facility and service updates that align with planned land use and existing and future development. It will integrate regional and statewide network connections that impact local circulation and accommodate the significant growth that occurred in the City of Boardman and the Urban Growth Boundary (UGB) since its last TSP Update. As part of this project, there will be extensive community engagement to better understand the challenges and infrastructure improvement ideas of the community.

This memorandum summarizes local, regional, and state planning documents applicable to the TSP, as outlined by the Oregon Department of Transportation (ODOT) Transportation System Plan Guidelines. Some of the documents and plans reviewed consist of circulation standards, infrastructure improvements, and demographic targets that must be in compliance with the TSP Guidelines and the forecasted 20-year growth allocations for Boardman. This memorandum serves as the groundwork for the proposed policy and development code amendments scoped as part of the implementation work for the project (Task 6). As a note, evaluation of the City's *Development Code* for its consistency with relevant policies – namely, Transportation Planning Rule requirements – will be presented as part of Task 6 implementation work.

# **Plan and Policy Review**

This section highlights the plans, policies, and regulations that have an impact on Boardman's transportation system. The review is organized into a table and separated into local (i.e., City and County) documents in Table 1 and State documents in Table 2. The tables are comprised of a summary of each document, how they relate to the TSP, and suggested recommendations for consistency with the document. The following documents are included in the review.

### Local Plans, Policies, and Ordinances

- Boardman Transportation System Plan (TSP), 2001
- Boardman Development Code
- Main Street Downtown Development Plan, 2001
- Boardman Comprehensive Plan, 2003
- Boardman Main Street Interchange Area Management Plan, 2009
- Boardman Central Urban Renewal Plan, 2008
- Boardman West Urban Renewal Plan, 2013
- Boardman North Urban Renewal Plan, 2023
- Port of Morrow Interchange Area Management Plan, 2011
- Morrow County Transportation System Plan (TSP), Effective 2012, Updated 2022
- Morrow County/Umatilla County Transit Development Strategy, 2018
- Port of Morrow Strategic Business Plan, 2020
- Hermiston-Boardman Connector/Boardman-Port of Morrow Circular, 2021
- Morrow County Coordinated Human Services Transportation Plan, 2022

#### **Statewide Plans and Policies**

- ODOT and Department of Land Conservation and Development (DLCD) Transportation and Growth Management Program (TGM) mission, goals, and objectives
- Oregon Statewide Planning Goals
- Oregon Administrative Rules (OAR) Chapter 660, Division 12 (Transportation Planning Rule)
- OAR Chapter 734, Division 51 (ODOT Highway Division Highway Approaches, Access Control, Spacing Standards, and Medians)
- OAR Chapter 731, Division 12 (Reduction of Vehicle Carrying Capacity)
- Oregon Transportation Plan (2023) and its modal and topic plans
- Oregon Pedestrian and Bicycle Safety Implementation Plan, 2020
- Statewide Transportation Improvement Program (STIP), 2024-2027
- ODOT Highway Design Manual, 2022
- ODOT Blueprint for Urban Design, 2019

### Table 1. Local Plans, Policies, and Ordinances

Document	Overview	TSP Relevance and Recommendations
Boardman Transportation System Plan (TSP), 2001	The 2001 TSP documents Boardman's transportation infrastructure and plans for the needed transportation improvements that align with the anticipated 20-year growth in the city. The Plan consists of goals and associated planning process objectives; a description of existing land use and transportation system conditions; forecasted future conditions (horizon year 2020); and a description of needs for each mode of transportation. Section 7 includes the recommended City transportation policies.	<ul> <li>Relevance: The TSP Update process will also include an existing conditions review and an assessment of transportation facilities, connectivity, and services. The planning process is expected to revisit existing and identify new community goals and needs through public engagement activities that focus, in particular, on underserved communities.</li> <li>Recommendations: <ul> <li>Consider and update the following to reflect current and forecasted conditions: 2001 TSP's Goals, Improvement Needs, Development Code Revisions, and Preferred Land Use Plan/Alternative.</li> <li>Consider modal inventories from the existing TSP when planning for an integrated, multimodal system.</li> <li>Ensure consistency between updated TSP and Public Works standards.</li> </ul> </li> </ul>
City of Boardman Development Code	The City of Boardman Development Code governs land use and development throughout the city. The Development Code regulates standards for development such as access and circulation for pedestrians, bicycles, and vehicles; parking; and public facilities (Chapter 3). The Development Code employs review and permitting processes that align with the TSP.	<ul> <li>Relevance: The TSP will include land use objectives and considerations for access, circulation, and transportation facilities.</li> <li>Recommendations: <ul> <li>Review land use districts in Chapter 2 to assess whether or not transportation facilities and improvements in each land use district are consistent with TSP Update.</li> <li>Revisit access and spacing standards (Chapter 3) to ensure compliance with TSP Update recommendations.</li> </ul> </li> </ul>

Document	Overview	TSP Relevance and Recommendations
		<ul> <li>As needed, amend transportation standards and variances within Section 3.4.100 in order to align with the updated TSP.</li> <li>Identify other code changes necessary for consistency with TSP Update recommendations and regulations such as the Transportation Planning Rule.</li> </ul>
Main Street Downtown Development Plan, 2001	The Main Street Downtown Development Plan identifies needed improvements to support existing businesses and future development at the I-84/Main Street interchange. The Plan includes designs for grid system patterns that consist of blocks and streets	<b>Relevance:</b> The Plan is a focused look at land use and transportation needs near the west-side of the I-84 interchange, at Main Street, and along the streets in the interchange's vicinity. Recommendations related to circulation, connections to existing streets, and pedestrian and bicycle networks will need to be made consistent with other adopted plans, and updated and integrated into the updated TSP.
	with sidewalks and multi-use paths.	<ul> <li>Recommendations:</li> <li>Revisit Plan recommendations, as compared to the 2009 Boardman Main Street Interchange Area Management Plan (IAMP) that encompassed the same area, to ensure concurrency for improvements in the I-84 interchange area and Main Street.</li> <li>Identify the Conceptual Design and Key Plan Components or Elements when developing TSP projects that affect Downtown Boardman, particularly the: <ul> <li>Land Use Plan</li> <li>Street Design Standards</li> <li>Streetscape Elements</li> <li>Traffic Projections and Analysis</li> <li>Cost Estimates</li> <li>Project Objectives and Transportation Benefits</li> </ul> </li> </ul>

Document	Overview	TSP Relevance and Recommendations
Boardman Comprehensive Plan, 2003	The Comprehensive Plan provides the policy framework for long-range planning pertaining to land use, housing, employment, and transportation over a 20-year growth period.	<b>Relevance:</b> The Comprehensive Plan documents the City's land use and transportation needs, infrastructure, services, and facilities based on the projected 20-year population growth. The TSP and Comprehensive Plan will need to align.
	Chapter 12 – Transportation includes 1 overarching goal and 5 policies, one of which references the entirety of the 2001 TSP.	<ul> <li>Recommendations:</li> <li>Ensure adopted goal(s) and policies are consistent with the updated TSP objectives.</li> <li>Retain the current reference to the TSP and Technical Appendix in Chapter 12.</li> </ul>
Boardman Main Street Interchange Area Management Plan 2009	The 2009 Boardman Main Street Interchange Area Management Plan (IAMP) assesses the Interstate 84 (I-84) interchange at Main Street. Within the study area, the IAMP identifies issues, needs, circulation, improvements, and updates to street standards.	<b>Relevance:</b> The IAMP focuses on safety issues and traffic efficiency to decrease congestion at major intersections in the city. Chapter 5 includes proposed transportation alternatives – including cost estimates and prioritization for timing – for improvements on Main Street in the vicinity of the interchange. Recommendations include a local street connectivity plan, pedestrian and bicycle network improvements, and an access management plan outlining access restrictions.
		<ul> <li>Recommendations:         <ul> <li>Review the list of identified alternatives, suggested improvements, management strategies, and improvement timing considering existing and projected transportation conditions. Note projects in the City's CIP that are to be concluded in 2024-2025 FY, including:</li></ul></li></ul>

Document	Overview	TSP Relevance and Recommendations
		<ul> <li>Integrate the elements of the Roadway Network and Classification Plan (Figure 5.1) into the updated TSP as appropriate.</li> <li>Review, update as necessary, and integrate the access management actions for local roadways (Tables 5.1, 5.2).</li> <li>Evaluate Development Code amendments related to access spacing and local street connectivity requirements; incorporate and update, as necessary.</li> <li>Ensure that identified IAMP policies are reflected in updated City transportation policy statements.</li> </ul>
Boardman Central Urban Renewal Plan, 2008	<ul> <li>The Plan provides goals, objectives, tools, and projects to help optimize development and urban renewal in the Central Boardman Urban Renewal Area. The area is roughly 164 acres between SE Front Street to Wilson Lane along the east side of Main Street. It serves as the main connector between north and south Boardman and divides east and west.</li> <li>Plan goals include: <ul> <li>Improve access and connectivity throughout the area</li> <li>Improve and extend utilities to commercial properties</li> <li>Increase employment and business activity in the area</li> <li>Enhance the pedestrian environment on streets throughout the area</li> </ul> </li> </ul>	<ul> <li>Relevance: The Plan looks at the Central Boardman Urban Renewal Area (URA), particularly south of I-84 and along Main Street. Goals 1 and 4 focus on strengthening connections and pedestrian orientation throughout the Central URA through increased traffic circulation and improving access between sidewalks and buildings.</li> <li>Recommendations:         <ul> <li>Review the list of projects and public improvements for alignment with the updated TSP objectives and recommendations. The priority projects identified in the Plan include:                 <ul></ul></li></ul></li></ul>

### Plans and Policy Review DRAFT

City of Boardman | Transportation System Plan Update

Document	Overview	TSP Relevance and Recommendations
		- Review Plan financing in Section V and identify what level of potential funding sources remain for the priority transportation projects and improvements through the year 2030.
Boardman West Urban Renewal Plan and Report, 2013	The Plan provides background information on how to optimize development and determine feasibility in an area on the western side of the city, south of I-84. The area is roughly 170 acres and bordered by SW Wilson Road to the south, Paul Smith Road, and Faler Road to the west, and S Main Street to the east. The Plan includes goals and objectives for improving economic health, residential character, transportation, and aesthetic appearance within the defined area. Preliminary assessment of the area revealed inadequate street connections and other rights-of-way (particularly in the northern portion of the URA).	<ul> <li>Relevance: The Plan's purpose includes creating public improvements, addressing blighting conditions, and increasing utilization of vacant or underutilized parcels.</li> <li>Recommendations: <ul> <li>Review the list of recommended projects and public improvements for alignment with the TSP Update, pertaining to: <ul> <li>Road improvements (SW Faler Road, SW Wilson Road, and Oregon Trail Boulevard)</li> <li>Connector street extensions</li> <li>Land use changes and acquisition for parks, walking trails, and open space</li> </ul> </li> <li>Identify which projects have since been completed and which should be reflected in the updated TSP. <ul> <li>The extension of Oregon Trail Boulevard, estimated to be completed in 2024.</li> <li>Improvements to SW Faler Road through street construction, widening, paving, and additional improvements are not anticipated until 2034.</li> <li>Extensions of local streets through the URA are not anticipated to be completed until 2034.</li> <li>Functionality increases, multimodal access, parking, and other road improvements to SW Wilson Road are not anticipated until 2034.</li> </ul> </li> </ul></li></ul>

City of Boardman | Transportation System Plan Update

Document	Overview	TSP Relevance and Recommendations
		- Review the Summary of Estimated Project Costs (Figure 6.1) to determine how much of the project budgets have been spent and identify the level of funding for existing transportation priority projects that remain through 2034.
Boardman North Urban Renewal Plan and Report, 2023	The Plan provides background information on how to optimize development and urban renewal in an approximately 181-acre area between I-84 and the Columbia River. The stated purpose of the Plan includes addressing infrastructure deficiencies; goals and objectives will guide tax increment financing investment within the area. It includes three main goals for improving infrastructure and distributing resources to the area, focusing on: 1) eliminating blight, 2) facilitating economic development and job creation, and 3) providing resources to administer the Plan.	<ul> <li>Relevance: The Plan includes infrastructure improvements along major roadways and will need to be assessed to determine which projects have been completed and which ones are still remaining and a priority of the City.</li> <li>Recommendations: <ul> <li>Review the list of recommended projects and public improvements for alignment with the TSP Update, pertaining to: <ul> <li>Infrastructure improvements and connecting NE Boardman Avenue to Olson Road</li> <li>NE Front Street improvements and sidewalk additions (2026-2027 FY timeline)</li> <li>Alley improvements from 2<sup>nd</sup> Ave NE to 3<sup>rd</sup> Street NE</li> <li>New road connection between 2<sup>nd</sup> Ave NE to Columbia Ave NE</li> <li>Main Street intersection improvements and roadwork</li> </ul> </li> <li>Identify which projects have been completed and which remain and integrate remaining projects into the TSP Update as needed.</li> <li>Update the estimated total cost project costs as needed.</li> </ul> </li> </ul>

Document	Overview	TSP Relevance and Recommendations
		<ul> <li>Refer to Tax Increment Financing (Sections VI and IX) and revenues that will be generated through 2044 for the North URA priority projects in the TSP Update.</li> <li>Integrate Relationship to Local Objectives elements from Plan into TSP Update objectives and policies as appropriate.</li> </ul>
Port of Morrow	The 2011 Port of Morrow (POM) IAMP	<b>Relevance:</b> The IAMP focuses on safety issues and traffic
Interchange Area	(amended 2022) looks at the short- and long-	efficiency to decrease congestion at the POM interchange. It also
Management	term transportation improvements, access	standards for the major interchange ramp terminals in the
Plan, 2011	and funding strategies to preserve capacity	vicinity of the POM.
(Amended 2022)	at the POM interchange and to align with	-
	ODOT's mobility standards that are set	Recommendations:
	through 2030. The primary roadways in the	- Consider relevance of IAMP evaluation criteria to TSP
	POM interchange include I-84, Laurel Lane,	evaluation criteria, namely:
	and Columbia Avenue.	<ul> <li>Transportation Options</li> </ul>
	Identified objectives include:	o Land Use
	- Consider surrounding land use in	CUSL     Environmental Social and Equity Factors
	relation to the roadway network	<ul> <li>Accessibility</li> </ul>
	- Provide connectivity, right-of-way,	- Consider Section 1 and the IAMP objectives for alignment
	and access control in the area that	with the TSP.
	leads to more efficiency	- Review Section 5 (Future Conditions set through 2030)
	- Prioritize improvements to maintain	for consistency of the 2030 No Build traffic forecasts with
	traffic operations	TSP assumptions, in order to align priority projects and
	- Create improved local street	accurately assess growth.
	connectivity, while limiting cul-de-	- integrate traffic improvements from Table /-1 of Section
	- Align with the TSP and other local	$\sim$ 1-84/l aurel l ane interchange improvements
	plans and ordinances	$\circ$ 1-84 ramp improvements

Document	Overview	TSP Relevance and Recommendations
		<ul> <li>Laurel Lane sight distance improvements</li> <li>Yates Lane access connection</li> <li>Laurel Lane realignment</li> <li>SW quadrant access</li> <li>Review proposed policy and zoning changes for private approaches.</li> <li>Ensure that the IAMP Overlay District and related recommendations are reflected in the City's Comprehensive Plan and updated TSP.</li> <li>Include the statements about the interchange's functions in updated TSP policies.</li> </ul>
Morrow County Transportation System Plan (TSP), 2012 (Amended 2022)	The 2012 Countywide TSP documents Morrow County's transportation infrastructure and plans for transportation services that will align with the anticipated 20-year growth within the county. The Plan consists of 10 goals pertaining to coordination, land use, economic development, quality of life, roadway systems, transit, air transportation, freight and goods, finance, and the Oregon Motor Speedway.	<ul> <li>Relevance: County and City long-range transportation plans need to be in alignment, specifically where recommended improvements have policy, right-of-way, and/or funding implications for both jurisdictions.</li> <li>Recommendations: <ul> <li>At a minimum, ensure that updated Boardman TSP goals and policies do not conflict with goals and policies in the County TSP.</li> <li>Consider needs identified in the County TSP such as an alternative to US 730 between Irrigon and Boardman in the event of an emergency and traffic for the Oregon National Guard's Boardman TSP Update.</li> <li>Assess I-84-related improvements within the County that transect Boardman and reflect relevant projects in the TSP project list update (e.g., overpass near Olson Road in Table 5-2), as appropriate.</li> </ul> </li> </ul>

City of Boardman | Transportation System Plan Update

Document	Overview	TSP Relevance and Recommendations
		<ul> <li>Review County access standards (Table 4-3 and Table 6- 1) and mobility standards for where they may apply to County roads in Boardman.</li> <li>Review Chapter 7 for funding sources to potentially incorporate into the TSP Update.</li> </ul>
Morrow County / Umatilla County Transit Development Strategy, 2018	Both Morrow County and Umatilla County prepared Coordinated Human Services Transportation Plans. This strategy is intended to identify, coordinate, enhance, and improve transportation programs and services for key populations across the counties.	<ul> <li>Relevance: The strategy focuses on enhancing the coordination and availability of transit for key underserved populations – for example, older adults, people with disabilities, and people with low incomes – in both Morrow and Umatilla Counties. The counties serve a wide area and multiple incorporated cities, so coordination is critical. These key demographic groups are also being considered in developing the Boardman TSP Update.</li> <li>Recommendations: <ul> <li>Review the Transit Solutions Assessment and identified transit needs, particularly as they pertain to increasing the geographic scope of transit service in the City of Boardman and identifying park-and-ride facility locations along the I-84 corridor.</li> <li>Assess Table 21 and the Transit Development Strategy Summary to identify priority projects and if they have been moved from the long-term to near-term.</li> <li>Arlington-Boardman Connector (high priority)</li> <li>Hermiston-Boardman Connector (high priority)</li> <li>Reflect regional transit priorities and strategies in City transportation policy.</li> </ul> </li> </ul>

Document	Overview	TSP Relevance and Recommendations
Port of Morrow Strategic Business Plan, 2020	The Plan guides the policies and projects of the Port for the next 20 years. Plan objectives include helping the Port secure funding opportunities for infrastructure improvements.	<ul> <li>Relevance: The Port of Morrow is one of the largest employers for residents of Boardman. As a regional, multi-modal transportation hub with growing facilities and infrastructure needs, it will be important to align growth projections and improvement plans with the TSP Update.</li> <li>The Port owns and manages Light Industrial- and General Industrial-zoned property within the city (Table 5). As stated in the Plan, job growth at the Port leads to urbanization and service delivery in Boardman and increases the demand for housing in the area.</li> <li>Recommendations:         <ul> <li>Review the list of goals and determine which ones should be incorporated or reflected in the update TSP, e.g., Goal 1 and Goal 6.</li> <li>Goal 1: Expand the Port's role as the regional transportation hub by providing superior facilities and services.</li> <li>Goal 6: Increase agency coordination and communication for greater transparency between parties and to help streamline permitting processes and approvals.</li> <li>Consider how the City's transportation system facilitates access to the Port and supports port and rail activities.</li> <li>Ensure Port growth projections are evaluated and</li> </ul> </li> </ul>
		reflected in the future forecasting and transportation needs.
Hermiston- Boardman	This Plan is a coordinated effort between the Confederated Tribes of the Umatilla Indian Reservation's (CTUIR's) public transportation	<i>Relevance:</i> Regional and local transit connections in this Plan will be considered as part of the TSP Update.

Document	Overview	TSP Relevance and Recommendations
Connector / Boardman-Port of Morrow Circular, 2021	branch, Kayak Public Transit, and Morrow County's transit service, The Loop. It also brings in partnerships from Morrow and Umatilla Counties and the Port of Morrow. The Plan articulates a strategic approach to providing expanded transit services to meet the needs of the community and provide alternative routing options for enhanced service. It identifies two main corridors; the (1) Hermiston-Boardman Connector between Umatilla and Morrow County; and (2) Boardman-Port of Morrow Circular between the Port of Morrow and the Hermiston- Boardman Connector.	<ul> <li>Recommendations: <ul> <li>Identify stops in Boardman in Table 8 that still are considered 'fair' or 'poor' and consider including them in the TSP Update as infrastructure projects.</li> <li>Update the TSPs transit element to include information from this Plan related to proposed changes to transit routes and stops within the City.</li> <li>Review federal, state, and local funding sources and opportunities identified in the Plan and determine which ones apply to the TSP updated projects. <ul> <li>Section 5310</li> <li>Section 5339</li> <li>Surface Transportation Block Grant (STBG)</li> <li>Special Transportation Fund (STF)</li> </ul> </li> <li>Assess the Capital Needs Plan and Table 22 to identify costs of updating transit stops, such as Employment stops, the SAGE Center, and Boardman Ave/Main St. facilities.</li> <li>Table 23 looks at previous pedestrian and bicycle facilities identified in the Boardman TSP that are priorities of the City. Identify if these still are priority projects.</li> <li>Extending NE Boardman Avenue to Olson Road</li> <li>Extending Third Street, Second Street, Chaperell Drive, Kinkade Road, and Anderson Road</li> <li>Footbridge crossing the railroad near the Port Offices</li> <li>New multi-use path on Columbia Avenue between Main Street and Olson Road and to the</li> </ul> </li> </ul>

Document	Overview	TSP Relevance and Recommendations
		<ul> <li>south of Wilson Lane, as an extension of Faler Road.</li> <li>Consider the inclusion of Park N Ride properties for the SAGE Center in Boardman.</li> <li>Consider partners and management strategies to determine how they should/if they should be incorporated in the TSP Update, such as:         <ul> <li>Creating a Transportation Management Association (TMA) between the local government and businesses</li> <li>Creating performance measures to monitor transit service performance</li> </ul> </li> </ul>
Morrow County Coordinated Human Services Transportation Plan, 2022	<ul> <li>This type of plan is required in order to be eligible for funding from the Federal Transit Administrations (FTA's) Section 5310 program and the Oregon's Special transportation Fund (STF).</li> <li>The Plan assesses the: <ul> <li>current services and the transportation providers</li> <li>transportation services and mobility opportunities for seniors, people with low income, and people with disabilities.</li> </ul> </li> <li>The Plan also guides future investment by identifying strategies and projects to mitigate gaps between current services and community needs.</li> </ul>	<ul> <li>Relevance: Regional and local connections will need to be considered in the TSP Update.</li> <li>Recommendations: <ul> <li>Consider reflecting goals in updated strengthen City policies .</li> <li>Goal 1. Provide improved service to meet the needs of all community members, with a focus on those reliant on public transportation.</li> <li>Goal 2. Provide reliable transportation options for health-supporting destinations.</li> <li>Goal 3. Provide reliable transportation options for economic opportunities.</li> <li>Goal 4. Improve marketing of services and education across transportation service areas.</li> <li>Goal 5. Pursue stable funding sources to maintain and lower transportation costs for the public.</li> </ul> </li> </ul>

Document	Overview	TSP Relevance and Recommendations
		<ul> <li>Consider including suggested strategies when evaluating transportation solutions and update transportation policy to support the following:         <ul> <li>Implement and continue to monitor the Boardman – Port of Morrow Circular and Hermiston – Boardman Connector</li> <li>Enhance service hours and number of vehicles operating at a time</li> <li>Expand bilingual information</li> <li>Promote rideshares</li> </ul> </li> <li>Review Table 4 in the Plan to reassess Cost, Benefit, and Difficulty of Implementation for these strategies.</li> <li>Table 6 targets funding sources and determines eligibility; the priorities and funding opportunities should be assessed to determine relevancy to the TSP Update.</li> </ul>

### Table 2. Statewide Plans and Policies

Document	Overview	TSP Relevance and Recommendations
ODOT and DLCD Transportation and Growth Management Program (TGM), pertaining to mission, goals, and objectives	The TGM Program addresses the integration of land use and transportation decisions throughout the state. There are 5 main goals, with supporting objectives. The goals include: - Providing transportation choices; - Creating communities; - Supporting economic vitality and growth;	<b>Relevance and Recommendations:</b> Consistent with TGM goals and objectives, the TSP Update will focus on providing transportation opportunities to communities that support mobility and equity, promoting energy efficiency transportation systems and land use patterns, and maximizing the functionality of current facilities to support local networks in Boardman.
Document	Overview	TSP Relevance and Recommendations
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	<ul> <li>Saving public and private costs; and</li> <li>Promoting environmental stewardship.</li> </ul>	
Oregon Statewide Planning Goals	Oregon has a total of 19 statewide planning goals that pertain to land use and other related topics.	<i>Relevance:</i> The TPR requires aligning the City's Comprehensive Plan, Development Code, and TSP. The TPR is discussed in further detail in the section below.
	The Transportation Planning Rule (TPR) (OAR 660-012) implements Statewide Planning Goal 12 – Transportation and is discussed below.	<b>Recommendations:</b> The TSP will need to consider the integration of supporting and other pertinent statewide planning goals, such as, Land Use Planning (Goal 2), Natural Resources (Goal 5), Air and Water Quality (Goal 6), Economic Development (Goal 9), Housing (Goal 10), Public Facilities and Services (Goal 11), Energy Conservation (Goal 13), and Urbanization (Goal 14).
Oregon Administrative Rules (OAR) Chapter 660, Division 12	The TPR implements Statewide Planning Goal 12 – Transportation. There is extensive guidance for implementation of the goal.	<b>Relevance and Recommendations:</b> TPR 0020 outlines the required elements of the TSP that are necessary for the TSP Update process.
(Transportation Planning Rule – TPR)	TPR Section -0020 outlines the require elements of the TSP.	The TSP Update process will need to review changes that have occurred that pertain to Sections -0020 or -0150, and that were not included in the current TSP, such as
	TPR Section -0045 details how jurisdictions need to amend land use regulations to implement and support the TSP.	transportation needs within the community, transportation services provided, roadway or infrastructure or circulation, and transportation facility inventories or providers.
	TPR Section -0060 ensures that land uses are consistent across development code, TSP, and Comprehensive Plans.	Development Code amendments will be developed as part of the TSP Update process to ensure consistency with requirements in TPR Sections -0045 and -0060, as

Document	Overview	TSP Relevance and Recommendations	
	TPR Section -0150 ensures the coordination of transportation and facility and service providers.	well as TSP recommendations. These amendments will be prepared as part of Task 6 TSP implementation work.	
OAR Chapter 734, Division 51 (Highway Approaches, Access Control, Spacing Standards, and Medians)	OAR 734-051 establishes procedures, standards, and approval criteria for governing highway approach permitting and access management. The City of Boardman has interchange facilities on I-84 and will need to comply with OAR 734- 051. Th regulation also includes standards related to spacing distance, sight distance, permitting	<ul> <li>Relevance and Recommendations: Any changes to interchanges along I-84 or surrounding the Port of Morrow in the Boardman UGB proposed as part of the TSP Update will need to comply with this rule.</li> <li>Any modifications to a public approach (City or County streets) to a State facility will need to comply with this rule – in particular, Section -1050.</li> <li>Private approaches must align with Section -3010 and include the public in the planning process.</li> </ul>	
	for approaches, and additional considerations.	include the public in the planning process.	
OAR Chapter 731, Division 12 (Reduction of Vehicle – Carrying Capacity)	OAR 731-012 establishes Reduction Review Routes across the state, in accordance with Oregon Revised Statute (ORS) 366.215. A Reduction Review Route is any section of state highway that connects a travelled route to other state highways, including interchanges.	<b>Relevance and Recommendations:</b> Any proposed changes or priority projects that includes an obstruction, reduction in clearance, or changes to the right-of-way for vehicles and their carrying capacity along a state highway need to comply with the procedures in OAR 731-012 and ORS 366.215.	
	The rule is intended to define terminology surrounding this ruling, outline a review process, and initiate communication for consensus during that process.	Consideration for proposed access and safety actions (Sections 012-0080 and 012-0090) will need to be integrated into the TSP Update.	

Document	Overview	TSP Relevance and Recommendations
Oregon Transportation Plan (OTP) (2023), and its modal and topic plans	The OTP is a statewide, long-range transportation systems plan that looks to guide transportation policy, frameworks, and strategies through 2050.	<b>Relevance:</b> The TSP Update will build upon the OTP Vision and Values, especially as they pertain to safety, equity, and climate impacts – with a focus on meeting the transportation needs of underserved communities.
	The Plans look at transportation networks for different modes and elements – aviation, bicycle and pedestrian infrastructure, freight, public transportation, state and local roadways, rail, safety, options, and funding.	In accordance with the OTP, the TSP Update will address building up a resilient transportation system that integrates context-sensitive solutions through public participation and involvement.
	The OTP and its modal and topic plans have been updated since the last Boardman TSP update.	<ul> <li>Recommendations:</li> <li>Review OTP and modal/topic plan goals and objectives for potential incorporation into the TSP goals or policies.</li> <li>Integrate roadway and bicycle/pedestrian design guidance from the modal plans into TSP recommendations as appropriate.</li> </ul>
Oregon Pedestrian and Bicycle Safety Implementation Plan (2020)	The Safety Implementation Plan (National Cooperative Highway Research Program (NCHRP) Research Report 893) provides a systemic 7-step pedestrian and bicycle safety analysis of ODOT's highway network. Based on crash data, 25 pedestrian sites and 25 bicycle sites on state highways were identified as high-risk locations for pedestrian	<ul> <li>Relevance and Recommendations:</li> <li>The Plan's intention is to provide guidance for ODOT and other jurisdictions and roadway authorities to implement countermeasures outlined in the Plan.</li> <li>These countermeasures in the Plan can be consulted for bicycle and pedestrian safety needs identified through the TSP Update process.</li> </ul>
	and bicycle crashes. These sites are not itemized in the Plan, but the Plan outlines a	

#### Plans and Policy Review DRAFT

City of Boardman | Transportation System Plan Update

Document	Overview	TSP Relevance and Recommendations
	countermeasure process to address high-risk sites.	
Statewide Transportation Improvement Program (STIP), 2024-2027	It is a short-term capital improvement program for regional and statewide transportation improvements and networks. It includes budgeting and financials for the upcoming four-year period.	<ul> <li>Relevance and Recommendations: Review projects in the STIP that are not already integrated into the TSP, and determine which ones need to be accounted for during the update process.</li> <li>The I-84 Interchange pavement project (key 22893), curb cuts (key 22561), and National Electric Vehicle Infrastructure (NEVI, Key 22740) are included in the STIP and should be considered for implementation in the TSP Update.</li> </ul>
		Consider funding gaps and how they can be addressed through the TSP Update process.
ODOT Highway Design Manual (HDM), 2024	The HDM provides uniform standards and procedures for ODOT, and all of their projects related to State highways. The BUD is a Design Concurrence Document that was once a standalone document but has since been integrated into the HDM. This section defines design criteria and is intended to offer more flexibility for the urban context.	Relevance and Recommendations: The TSP Update will need to assess highway facilities that serve Boardman, including I-84, Main Street, and Columbia Avenue. Where needed improvements or projects include or affect state highway facilities, the HDM will provide the guidance for determining which design standards and practical design concepts need to be integrated into the TSP Update.
		The BUD will provide transportation design guidance that is more sensitive to and flexible for urban contexts.



### **Technical Memorandum#3**

Date:	January 7, 2025	Kittelson Project No: 30287
То:	Project Management Team (PMT)	
From:	Matt Hughart, AICP; Eza Gaigalas	
Subject:	Goals, Objectives, and Evaluation Criteria DRAFT	

## Introduction

This memorandum presents the goals, objectives, and evaluation criteria that will be used to develop and evaluate potential transportation improvements generated as part of the City of Boardman Transportation System Plan (TSP) update.

# **Project Background**

The City of Boardman completed and adopted a Transportation System Plan (TSP) in 2001. The Transportation System Plan is an element of the Boardman Comprehensive Plan (incorporated by reference and as a Technical Appendix to the Comprehensive Plan). The TSP provides guidance for the planning, management, funding, and implementation of transportation facilities, policies, and programs within the Boardman Urban Growth Boundary (UGB).

Since the adoption of the 2001 TSP, the City of Boardman has seen significant levels of population growth, new residential and commercial development (in the form of infill development on undeveloped parcels), and continues to see the adjacent Port of Morrow grow as a major regional employment center. In addition to the TSP, there have been other planning efforts completed within this time frame that have helped shape and influence growth, development, and the transportation system including:

- Main Street Downtown Development Plan (2001)
- Comprehensive Plan (2003)
- Boardman Main Street Interchange Area Management Plan (2009)
- Port of Morrow Interchange Area Management Plan (2011)
- Central, North, and West Urban Renewal Plans

- Morrow County TSP (2012)
- Port of Morrow 2020 Strategic Business Plan
- Hermiston-Boardman Connector/Boardman Port of Morrow Circular (2021)
- Morrow County/Umatilla County Transit Development Strategy (2018)
- Morrow County Coordinated Humans Services Transportation Plan (2022)

Accounting for the goals and objectives that drove these past planning efforts and taking into consideration the current and forward-focused needs of the city, a preliminary list of updated goals and objectives has been prepared to help formulate the basis for advancing Boardman's transportation system for the next 20 years.

## **Goals & Objectives**

Goals and objectives are defined as follows:

- **Goals** are broad statements that reflect the community's desires and vision for the entire transportation system. The goals are purposefully visionary and may not be fully attained within the 20-year planning horizon. The goals are supported by the objectives.
- **Objectives** are specific, measurable statements that provide a way for the community to measure progress toward achieving its goals.

The goals and objectives of a modern TSP should reflect the anticipated needs of the multimodal transportation system based on existing and upcoming land uses for the next 20 years, and define a framework for providing safe, reliable, interconnected, and efficient transportation services for all system users. The goals and objectives should also be in fundamental alignment with partnering agencies such as Morrow County and the Oregon Department of Transportation (ODOT).

With these fundamental aspects in mind, the following proposed goals and objectives have been developed to guide the development of the Boardman TSP. These goals and objectives are rooted in, and build upon, the various goals and objectives developed in the existing TSP and other transportation-related planning documents previously outlined. Additional goals and objectives have been proposed to ensure that the updated TSP is forward-focused, reflects the needs of the community, and supports the development of a safe, efficient, and reliable transportation system for all users.

### Goal #1: Safety

Improve the safety and comfort of the multimodal transportation network.

- Objective #1a: Address known safety issues at locations with a history of fatal and/or severe injury crashes.
- Objective #1b: Identify and prioritize transportation improvements that provide safe access for all users, regardless of age, ability, or mode of transportation.
- Objective #1c: Manage vehicular access to key transportation corridors consistent with engineering standards and access management principles, while maintaining reasonable access to adjacent land uses.

### Goal #2: Mobility

Provide an efficient multimodal transportation system.

- Objective #2a: Identify capacity constraints and develop projects and strategies to address those constraints, including intersection improvements, new crossings of I-84, and alternative multimodal connections.
- Objective #2b: Preserve and maintain the existing transportation system.
- Objective #2c: Support local and regional transit services through the advancement of stop amenities, service hubs, etc.

### Goal #3: Accessibility & Connectivity

Provide an interconnected, multimodal transportation network that connects all members of the community to key destinations.

- Objective #3a: Provide new connections to/from Boardman's neighborhoods, schools, parks, transit stops, employment centers, and other key destinations.
- Objective #3b: Address existing walking, biking, and rolling gaps in Boardman's multimodal network.
- Objective #3c: Increase multimodal connectivity across I-84.

### Goal #4: Community & Equity

Provide an equitable multimodal transportation system for all users to promote a livable and fully connected community.

• Objective #4a: Ensure that the transportation system provides equitable multimodal access for underserved and vulnerable populations to schools, parks, employment centers, commercial centers, health and social services, and other essential destinations.

• Objective #4b: Strengthen economic opportunities through the development of new transportation infrastructure.

### Goal #5: Sustainability

Provide a sustainable transportation system by promoting transportation choices and preserving environmental resources.

- Objective #5a: Consider alternative transportation facility designs in constrained areas to avoid or minimize impacts to natural resources.
- Objective #5b: Avoid or minimize transportation impacts to natural and cultural resources in the city.

### Goal #6: Strategic Investment

Make the most of transportation resources by leveraging available funding opportunities, preserve existing infrastructure, and reduce system maintenance costs.

- Objective #6a: Preserve and maintain the existing transportation system assets to extend their useful life.
- Objective #6b: Pursue grants and collaborate with partnering agencies to creatively fund transportation improvements and supporting programs.
- Objective #6c: Identify and maintain stable and diverse revenue sources to address transportation needs.

# **Evaluation Criteria**

The evaluation criteria will be used throughout the TSP update process for two key purposes:

- 1. Evaluating the existing and future transportation system and identifying needs (gaps and deficiencies) and potential mitigation treatments; and
- 2. Comparing and selecting preferred elements to be included in the City of Boardman TSP Update.

The following table outlines a broad set of evaluation criteria that were developed based on the Boardman TSP Goals and Objectives proposed above and the new prioritization factors included in Oregon's Transportation Planning Rule (TPR). Each criterion will be used to assess how the individual transportation projects support the overall goals/objectives statements and prioritization criteria. Each transportation improvement project will be assessed according to the various evaluation criterion.

oals, Objectives, and Evaluation ty of Boardman   Transportation	<b>on Criteria</b> I System Plan Update					January Sectic #30287
Goal Statement	Evaluation Criteria <sup>1</sup>		Scoring Key	Score?	Comments	
		+2	The project is expected to have a positive safety impact and is at a location with a history of serious injury crashes and fatalities.			
	Improve vehicular safety issues on Boardman's roadway network	+1	The project is expected to have a positive safety impact.			
		0	The project is expected to have no impact or measurable safety benefit.			
		+2	The project is expected to have a positive multimodal safety impact and will directly benefit vulnerable system users.			
<b>Safety -</b> Improve the safety and comfort of the multimodal	Improve non-motorized safety issues on Boardman's multimodal network	+1	The project is expected to have a positive multimodal safety impact.			
transportation network.		0	The project is expected to have no impact or measurable multimodal safety benefit.			
	Improve access management on key transportation corridors	+2	The access management project will address operational or safety issues while maintaining reasonable access to adjacent land uses.			
		+1	The access management project will address operational or safety issues but have some impact on access to adjacent land uses.			
		0	The access management project will address operational or safety issues with significant access and circulation impacts to adjacent land uses.			
Mobility -	Identify capacity constraints and develop	+2	The project will address a significant mobility or capacity constraint.			
Provide an efficient nultimodal transportation	constraints, including intersection improvements, new crossings of I-84, and alternative multimodal connections.	+1	The project will generally improve overall mobility.			
system.		0	The project is expected to have no impact on overall mobility.			
Accessibility and Connectivity - Provide an interconnected, multimodal transportation network that connects all members of the	Improve connections to/from Boardman's neighborhoods, schools, parks, transit stops	+2	The project will improve connections to/from multiple key destinations, and/or serves destinations with limited or no multimodal infrastructure.			
	employment centers, and other key destinations.	+1	The project will generally improve connections to/from key destinations.			
community to key destinations.		0	The project does not involve or improve connections to/from key destinations.			

Goal Statement	Evaluation Criteria <sup>1</sup>		Scoring Key	Score?	Comments	
		+2	The project will fully complete an existing multimodal network gap.			
	Address existing gaps in Boardman's multimodal network.	+1	The project will partially fill an existing multimodal network gap.			
		0	The project is does not address an existing multimodal network gap.			
		+2	The project will provide a new multimodal connection across I-84.			
	Improve connectivity between the north and south sides of Boardman.	+1	The project will improve multimodal connections on existing corridors that span I-84.			
	-	0	The project is does not address connectivity between the north and south sides of Boardman.			
<b>Community and Equity -</b> Provide an equitable multimodal transportation system for all users to promote a livable and fully connected community.	Improve multimodal access and connections to/from Boardman's underserved population groups, lower-income neighborhoods, and/or transportation disadvantaged groups.	+2	The project improves access connections to/from underserved population groups, lower-income neighborhoods, and/or transportation disadvantaged groups; and serves areas that have limited or no multimodal infrastructure.			
		+1	The project improves access and connections to/from underserved population groups, lower-income neighborhoods, and/or transportation disadvantaged groups.			
		0	The project does not involve or impact underserved population groups, lower-income neighborhoods, and/or transportation disadvantaged groups.			
ustainability -		+1	The project can be expected to have a positive impact on natural resources.			
insportation system by ponoting transportation	Avoid or minimize transportation impacts to natural and cultural resources in the city.	0	The project has no measurable positive or negative impact on natural resources.			
cnoices and preserving environmental resources.		-1	The project can be expected to have a negative impact on natural resources.			
Strategic Investment - Make the most of ransportation resources Preserve the tra	Preserve the transportation network and system maintenance costs	+1	Project is expected to compliment the existing transportation network and/or reduce system maintenance costs.			
nding opportunities, eserve existing		0	Project has no positive or negative impact on system preservation and maintenance costs			

Goal Statement	Evaluation Criteria <sup>1</sup>		Scoring Key	Score?	
infrastructure, and reduce system maintenance costs.		-1	Project can be expected to negatively impact the existing transportation network or lead to increased system maintenance costs		

<sup>1</sup>Evaluation Criteria written in overall tone of proposed Boardman TSP Goals and Objectives statements

January	Section 4, Item A.
-	#30287

### Comments



### **Technical Memorandum #4**

Date:	February 12, 2025	Kittelson Project No: 30287
То:	Project Management Team (PMT)	
From:	Matt Hughart, AICP; Eza Gaigalas; and Sutapa Bane	erjee
Subject:	Existing Conditions Inventory and Analysis DRAFT	

### Introduction

The existing conditions inventory and analysis is an assessment of Boardman's current transportation network. This memorandum presents the findings from that assessment and provides a baseline understanding of the 20-year transportation needs and deficiencies. This memorandum is organized into two overarching sections:

- 1. Existing Transportation System Inventory: An inventory of the existing transportation system, including the land uses and populations it serves, its multimodal characteristics, and the historic funding sources that have invested in it.
- 2. Existing System Conditions Analysis: A summary of how the current transportation system performs in terms of traffic operations, crash history, and multimodal conditions.

The analysis assumes that the transportation system will serve the urban area's continued economic growth that is consistent with its Comprehensive Plan land use designations as well as regional needs. The TSP addresses transportation needs for people walking, rolling, taking transit, biking, and driving within the Urban Growth Boundary (UGB), namely, the study area, illustrated in Figure 1.

Information summarized in this memorandum was obtained and assembled using available Geographic Information System (GIS) data, traffic counts, and crash data provided or produced by the City of Boardman, Morrow County, the Oregon Department of Transportation (ODOT), and Port of Morrow (POM).

Figure 1. Study Area

## **Executive Summary**

The following summarizes the key findings identified through the existing transportation conditions assessment.

### **Intersection Operations Analysis Findings**

- N Main Street/Boardman Avenue, N Main Street/ N Front Street, and S Main Street/S Front Street exceed the City's mobility target of LOS standard "C" under existing weekday AM peak hour traffic conditions.
- N Main Street/N Front Street, N Main Street/I-84 WB Ramp Terminal, and S Main Street/S Front Street exceed their mobility target under weekday PM peak hour traffic conditions. The mobility target for N Main Street/I-84 WB Ramp Terminal is a v/c ratio of 0.85 on the Main Street approach and 0.80 on the ramp approach. The other two intersections are owned by the City so they use the mobility target of LOS standard "C".
- No intersections experience 95th-percentile queue lengths exceeding available storage during weekday AM and PM peak hour traffic conditions.
- Non-motorized pedestrian and bicycle movements are low at most study intersections.

### **Crash Analysis Findings**

- No fatal crashes were identified in the study area.
- The observed crash rate at the S Main Street / Wilson Lane intersection exceeds the 90<sup>th</sup> percentile crash rate. Angle and turn crashes were predominantly observed at this intersection.
- No study intersections were identified within the 2022 ODOT Region 5 top 15% Safety Priority Index System (SPIS) list.

### **Multimodal Analysis Findings**

- Most arterial/collector streets are PLTS 4, lacking pedestrian facilities.
- PLTS 2 or 3 segments often have narrow sidewalks, minimal buffers, or auto-oriented land uses.
- Achieving PLTS 2 requires full-length sidewalks with proper widths and buffers.
- No segments are rated PLTS 1.
- Several arterial and collector streets are rated BLTS 3 or 4 due to high traffic stress.
- BLTS 3 or 4 segments often have narrow bike lanes, mixed traffic, or lack bike facilities.

- Achieving BLTS 2 requires widening bike lanes to at least 7 feet or restriping shoulders as bike lanes.
- Speed reductions (e.g., to 35 mph) may be needed for segments with low traffic volumes (<750 vehicles/day).

# **Existing Transportation System Inventory**

The existing transportation system inventory evaluates current land uses and population estimates within the study area to understand the types of lands, natural resources, and environmental barriers that the transportation system interacts with as well as the demographic cross section of community members relying on it. The inventory also assesses the current characteristics of the arterial and collector roadway network to understand how it is serving its users today.

### Lands and Population

Land use is a key factor in developing a functional transportation system; the amount of land planned for development, the types of land uses, and how they relate to each other have a direct relationship to the anticipated demands for the transportation system. This section identifies the zoning designations that help define land use within the study area; it also provides information on undevelopable lands within the study area.

### Land Use

The City of Boardman's UGB is largely bordered by agricultural and industrial lands. Boardman's UGB is positioned along the Columbia River, which defines its northern edge, providing access to important water resources. Boardman's development is primarily focused north and south of the I-84/Main Street interchange with the I-84/Laurel Lane interchange continuing to be the primary access to the Port of Morrow, with significant levels of residential land use occurring south of the I-84 corridor. The majority of Boardman's residential growth potential is focused south of the I-84 corridor.

### ZONING

The zoning designations for the study area inform land uses by reflecting existing development patterns and guiding where and how future development will occur. The City zoning districts are summarized in Table 1 and illustrated by category in Figure 2. The Morrow County zoning districts categorize areas located outside city limits but within Boardman's UGB. The zoning provides an indication of the type and intensity of land uses that can be expected within the 2045 planning horizon.

Figure 2. Zoning

Category	City Designations	Morrow County Designations
Residential	<ul> <li>Residential</li> <li>Residential (Sunrise Terrace Sub District)</li> <li>Residential (Multifamily Sub District)</li> <li>Residential (Manufactured Home Sub District)</li> </ul>	<ul> <li>Suburban Residential (1 Acre)</li> <li>Farm Residential (2 Acres)</li> </ul>
Commercial	<ul> <li>Commercial</li> <li>Commercial – Highway Sub District</li> <li>Service Center</li> </ul>	
Industrial	<ul><li>Light Industrial</li><li>General Industrial</li></ul>	<ul><li>General Industrial</li><li>Port Industrial</li></ul>
Special	<ul> <li>BPA Transmission Line Easement Sub District</li> <li>Future Urban</li> </ul>	<ul> <li>Small Farm (40 Acres)</li> <li>Exclusive Farm Use</li> </ul>

#### **Table 1. City Zoning Designations**

The zoning within the study area includes a mix of commercial, industrial, residential, farm and special purpose districts. Industrial areas are generally situated around the rail line and the I-84 interchange at Laurel Lane, while commercial zones are concentrated along Main Street. The City of Boardman is planning a City Center within a commercial district along Kinkade Road or City Center Drive, within 1/4 mile of Main Street.

Most residential development is concentrated in the southwest part of the urban area, where much of the vacant land is zoned for suburban residential and multi-family use to support future growth. There are also some residential areas north of the I-84 and Main Street interchange. Ensuring strong north-south and east-west connections to nearby collector roads will be essential as the city grows.

#### KEY DESTINATIONS/LOCAL ACTIVITY CENTERS

Key destinations or local activity centers that generate multimodal traffic within the UGB are shown in Figure 3. These activity centers will be integrated into considerations to improve multimodal access to these destinations for people living, working, and visiting in Boardman. Additional activity centers, such as concentrations of commercial and employment uses, will also be considered when making recommendations for enhancing access for multiple transportation modes.

Destinations that generate consistent local multimodal trips include Riverside High School/Junior High School, Sam Boardman Elementary School, Windy River Elementary School, and the Boardman Pool & Recreation Center. The South Main Street area is another significant destination for people which features an assortment of locally important commercial uses including a grocery store, bank, pharmacy and other retail uses. There are also recreational uses spread throughout the UGB including Kinkade Park, Marina Park, Boardman Park, Front Street Park, and the Boardman Pool and Recreation Center located on Olson Road. The Port of Morrow is an important employment hub for residents in Boardman and in the larger region. Creating and maintaining access to these and other similar land uses is important for ensuring a high quality of life for all segments of Boardman's population.

### Figure 3. Key Destinations/Local Activity Centers

### **Population Demographics**

The Boardman UGB has approximately 4,000 people, with most living within the city limits. The Portland State University Population Research Center (PRC) anticipates that the population within the Boardman UGB will continue to grow steadily, increasing by more than 1,200 residents by the year 2045. The community population is made up of people of all ages, abilities, and incomes with various transportation needs, and with varying access to the existing transportation system.

Certain populations are statistically more likely to be "transportation disadvantaged" with limited ability to provide their own transportation or requiring use of public transportation.

These populations generally include people who are disabled, youth (under 18), seniors (65 or older), people with Limited English Proficiency (LEP), people living under the federal poverty level, people who are non-white, and households without access to a vehicle. ODOT uses a Transportation Disadvantaged Index (TDI) to calculate a score for each Census block group in Oregon, illustrated in Figure 4. The ODOT TDI data shows that potential transportation-disadvantaged populations are concentrated in specific areas within the UGB, particularly south of I-84, both west and east of S Main Street, extending to the UGB extents. It is noted however that the accuracy of this data is limited due to the large census tracts. Future transportation planning should specifically consider how to enhance services for these areas and populations.

### Figure 4. Potential Transportation Disadvantaged Populations

### Roadway System

Roadways provide infrastructure for motor vehicle, freight, bicycle, pedestrian, and transit facilities. The roadway network establishes links both within the urban area and outside of its boundaries, connecting surrounding regions and neighboring states. The following sections describe an inventory of the existing roadway system within the Boardman urban area, including street jurisdictions and functional classifications, roadway improvement standards, freight routes, key roadway characteristics, and bridges.

### **Street Jurisdiction**

Public streets within the Boardman urban area are operated and maintained by four primary jurisdictions: the City of Boardman, ODOT, Port of Morrow, and Morrow County. These four jurisdictions coordinate planning, operations, maintenance, and improvements of roadway facilities within the urban area and ensure the continued performance and functionality of the transportation system to meet public needs. These jurisdictions are responsible for the following:

- Determining the road's functional classification.
- Defining the roadway's design and multimodal features.
- Approving construction and access permits; and,
- Maintenance and operations.

The City of Boardman has jurisdiction over most streets within city limits while Morrow County and The Port of Morrow have jurisdiction over some streets within the city limits. Streets outside of the city limit but within the UGB are owned by both Morrow Couty and the Port of Morrow. ODOT has jurisdiction over I-84 and the on- and off-ramps at the Main Street and Laurel Lane interchanges. Figure 5 maps roadway facilities by jurisdiction in the Boardman urban area. Figure 5. Street Jurisdiction

### **Functional Classification**

Roadway functional classifications organize streets based on their role in the transportation system. The classifications define a street by their intended mobility and access control as they relate to land use. They designate desired street characteristics such as operational and design characteristics, pavement width, driveway (access) spacing requirements, and context-appropriate pedestrian and bicycle facilities.

Figure 6 maps roadway facilities by functional classification in the Boardman urban area. In the urban area, streets are locally, state, and federally classified, which corresponds to the roadway design standards for relevant entities that maintain and operate the roadways.

### Figure 6. Functional Classifications

#### LOCAL CLASSIFICATIONS

The hierarchy of local roadway functional classification for the Boardman urban area include:

- **Freeways** are limited-access roads designed mainly for motorized vehicles traveling across regions or states. They provide the highest level of mobility and are typically high-speed routes with widely spaced access points in the form of interchanges. Freeways are separated by medians and generally have little or no access for pedestrians and bicyclists.
- Arterials are major roadways designed primarily to facilitate traffic flow into and out of urban areas. They typically support significant intra-urban travel, connecting downtown areas to outlying residential neighborhoods. While arterials may provide access to adjacent properties, their primary function is to accommodate major traffic movements. As the longest and highest-volume roads within the UGB, arterials are key for longer-distance trips. They often feature pedestrian and bicycle activity as part of their streetscape.
- **Minor Collectors** connect arterials with the local street network. Collectors gather traffic from local streets and sometimes provide direct land access, channeling it toward arterial roads. They are generally shorter than arterials and operate at moderate speeds.
- **Neighborhood Collectors** extend into local neighborhoods, providing direct land access and supporting traffic circulation within the area. They typically carry lower traffic volumes at slower speeds compared to typical collectors. On-street parking is more common, and bike facilities may consist of dedicated lanes or shared roadways.
- Local Streets are primarily intended to provide access to abutting land uses. Local street facilities offer the lowest level of mobility and consequently tend to be short, low-speed facilities. As such, local streets should primarily serve passenger cars, pedestrians, and bicyclists; heavy truck traffic is discouraged. On-street parking is common, and sidewalks are typically present.

#### STATE HIGHWAY CLASSIFICATIONS

The state highway classification system established in the Oregon Highway Plan (OHP) divides state highways into five categories based on their function in the State Highway network – Interstate, Statewide, Regional, District, and Local Interest Roads. These categories are used to guide planning and management of State highway facilities and are assigned based on desired land uses, access, movement of freight, or significance as a lifeline or emergency response route. The State does not provide classifications for non-state facilities.

In Boardman, the only Oregon Highway Plan (OHP) classification is Interstate, which applies to I-84. Interstate Highways (NHP) typically provide connections to major cities, regions of the state, and other states. A secondary function in urban areas is to provide connections for regional trips within the metropolitan area. The Interstate Highways are major freight routes, and their objective is to provide mobility. The management objective is to provide safe and efficient high-speed continuous-flow operation in urban and rural areas.

#### FEDERAL CLASSIFICATIONS

The FHWA classifies key urban and rural roadways as Interstates, Other Freeways and Expressways, Other Principal Arterials, Minor Arterials, Major and Minor Collectors, or Local Roads. All public roadways within the urban area are federally designated as urban roadways.

The federal classifications relevant to the Boardman urban area are described below.

- **Major Collectors** serve land access and traffic circulation in higher density residential, commercial, and industrial areas. They provide throughways for residential neighborhoods for significant distances, distribute and channel trips between Local Roads and Arterials, and are characterized by higher speeds and more signalized intersections.
- Local Roads provide direct access to adjacent land, access to higher classified roadway connections, and do not encourage through traffic. They are not intended for long distance travel, except at the origin or destination of the trip, due to their provision of direct access to abutting land.

The FHWA provides financial assistance for roadways through the Federal-aid Highway Program. The FHWA uses the Federal functional classification system to determine eligibility for funding under the Federal-aid Highway Program, which provides financial assistance for construction, maintenance, and operations of local and state roadways. The functional classifications eligible for the Program include urban minor collectors, major collectors, minor arterials, principal arterials, and interstates.

As shown in Figure 6, most of the Federal, State, and City classifications align, except for the roadway segments identified in Table 2.

Street	Extents	Extents FHWA Classification	
Main Street	Columbia Avenue to Kunze Lane	Rural Major Collector	Arterial
Wilson Road	Main Street to UGB	Rural Major Collector	Arterial
Columbia Avenue	Main Street to Olson Road	Rural Major Collector	Arterial
Columbia Avenue	Ullman Boulevard to UGB	Rural Local	Arterial
Marine Drive	Marker 40 Drive to Ullman Boulevard	Rural Local	Minor Collector

Table 2. Streets with	Conflicting Functional	<b>Classification Designations</b>
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### **Roadway Improvement Standards**

Roadway improvement standards refer to specifications and guidelines established by transportation agencies to govern the design, construction, and operation of roadways. These

standards are tied to the roadway functional classification hierarchy to ensure the transportation system is consistent across road classes and jurisdiction.

### CITY

The City currently identifies its local roadway improvement standards in the Public Works Standards.

### COUNTY

Morrow County currently identifies its local roadway improvement standards in their 2012 Transportation System Plan.

### STATE HIGHWAYS

The ODOT Highway Design Manual (HDM)<sup>1</sup> establishes improvement standards for all state highways. The HDM provides typical sections based on project type, including new construction and major reconstruction (4R); resurfacing, restoration, and rehabilitation (3R), and resurfacing (1R) projects. The most recent HDM update incorporates ODOT's 2020 Blueprint for Urban Design (BUD), which provides further flexibility for context-sensitive design to ensure the needs of the specific land use, roadway connectivity, and modal mix are served. The HDM establishes six Urban Contexts that help planners and designers best serve the social, economic, and environmental characteristics for a specific project:

- Traditional Downtown/ Central Business District (CBD)
- Residential Corridor
- Suburban Fringe

- Urban Mix
- Rural Community
- Commercial Corridor
- HDM design standards for each urban context are included in the document. Specific applications of these standards to highway facilities within Boardman are typically established during facility planning efforts, such as corridor refinement plans.

### **Access Management**

Providing adequate and appropriate access to roadways, land uses, and key destinations is a critical element of operating and planning an effective transportation system for all users. To proactively control the locations, spacing, design, and operations of driveways and street connections, transportation agencies implement systemic access management strategies that balance the needs of through traffic with local access for residents, employers, and major destinations. Access standards, mobility, and the hierarchy of functional classifications are directly related. In general, as functional classification increases, access spacing also increases,

<sup>&</sup>lt;sup>1</sup> Oregon Department of Transportation. (2023). *Highway Design Manual*. <u><https://www.oregon.gov/odot/engineering/pages/hwy-design-manual.aspx></u>

providing greater mobility but reduced service to land use activities. These strategies align the distribution of arterials, collectors, and local streets with appropriate access needs to balance the safe and efficient movement of multimodal traffic.

### CITY

Table 3 provides the spacing standards established for City owned roadways. These standards are for intersection-to-intersection.

Street Functional Classification	Public Street (feet)	Private Street (feet)	
Arterial	600 <sup>2</sup>	300	
Collector	300 75		
Neighborhood Collector	200	50	
Local Street	150	15	

Table 3. City Intersection Spacing Standards<sup>1</sup>

<sup>1</sup>Intersection spacing is measured from centerline to centerline.

<sup>2</sup>Public streets can be spaced at 200 feet intervals to promote circulation in the downtown.

### MORROW COUNTY

Table 4 provides the spacing standards established for Morrow County owned roadways. These standards are for intersection-to-intersection and intersection-to driveway.

Table 4. Morrow Coun	y Access S	Spacing	Standards
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Street Functional Classification	Public Street <sup>1</sup> (feet)	Private Street <sup>1</sup> (feet)	Private Driveway <sup>2</sup> (feet)
Arterial	600	600	300
Collector	300	300	100
Local	200	200	Access to each lot

<sup>1</sup>Intersection spacing is measured from centerline to centerline.

<sup>2</sup> Driveway spacing is measured from edge to edge.

### STATE HIGHWAYS

Roadways under ODOT's jurisdiction are subject to the access management standards established in the OHP and Oregon Administrative Rule (OAR) 734-051-4020(8). ODOT has clearly defined access spacing standards for all state facilities within the urban area. The applicable spacing standards for new development in the Boardman urban area are shown in Table 5. The spacing between the Main Street interchange and Laurel Lane interchange does not meet this standard.

### Table 5. ODOT Interchange Spacing Standards<sup>1</sup>

Access Management Classification	Area	Interchange Spacing
Interstate	Urban	3 miles

<sup>1</sup>Interchange spacing is measured from centerline to centerline.

Table 6 and Exhibit 1 show the access spacing standards for interchanges as discussed in the 1999 Oregon Highway Plan Goal 3, Policy 3C: Interchange Access Management Areas. The spacing between the Main Street interchange and Laurel Lane interchange also does not meet these standards.

# Table 6. Minimum Spacing Standards Applicable to Freeway Interchanges with Two-LaneCrossroads

Category of Mainline	Type of Area	Spacing Dimension			
		А	x	Y	Z
Freeway	Urban	1 mi (1.6 km)	1320 feet (400 m)	1320 feet (400 m)	990 feet (300 m)

A = Distance between the start and end of tapers of adjacent interchanges

X = Distance to the first approach on the right; fight in/right out only

Y = Distance to first major intersection; no left turns allowed in this roadway section

Z = Distance between the last right in/right out approach road and the start of the taper for the onramp

### Exhibit 1. Measurement of Spacing Standards for Table 6



### **Roadway Characteristics**

The following sections provide an overview of roadway characteristics for existing arterial and collector streets in the Boardman urban area, including speed limits, pavement conditions, travel lanes, and other key characteristics.

### **PAVEMENT CONDITION**

Roadway facilities by pavement conditions are mapped in Figure 7.

#### **City and Morrow County Pavement Conditions**

Pavement conditions for the City and Morrow County were visually observed and given a pavement condition rating in one of four categories: "Very Good," "Good," "Fair," or "Poor."

Pavement conditions for City collectors and arterials generally rate in the Fair category. There are also several smaller segments of local city and county roadways that are classified as Good, Very Good, and Poor.

#### **State Pavement Conditions**

ODOT provides pavement conditions data for State highway facilities. I-84 is rated to have Fair pavement conditions.

### TRAVEL LANES

Roadway facilities by travel lanes are mapped in Figure 8.

Roadways under City and Morrow County jurisdiction generally have two travel lanes and some include center left turn lanes. There is a segment of Columbia Avenue near the Port of Morrow that has 4 lanes. I-84 includes two lanes in each direction and the entrance and exit ramps have one lane.

### Figure 7. Pavement Conditions

Figure 8. Number of Travel Lanes
#### POSTED SPEEDS

Roadway facilities by posted speeds are mapped in Figure 9. Roadways without posted speed limits are subject to statutory speed limits established by the state (ORS 811.11 and ORS 811.105), except for school zones that are posted at 20 MPH.

Posted speeds on City facilities are generally 25 to 30 MPH. Most posted speeds on Morrow County facilities range from 30 MPH to 45 MPH. State highway facilities have posted speeds of 70 MPH.

#### STUDY INTERSECTION CHARACTERISTICS

The study intersections include 14 intersections, all unsignalized, under either City of Boardman, or ODOT jurisdiction. The four ramp terminal intersections are under ODOT jurisdiction, and the remaining ten intersections are under City jurisdiction. Lane configurations and traffic control devices for the study intersections are shown in Figure 10.

Figure 9. Posted Speeds

## Figure 10. Intersection Lane Configurations and Traffic Control

#### BRIDGES

Bridges are critical structures for the transportation system, providing the means to build roadway infrastructure where physical barriers like railroads or roadways exist. ODOT, the Port of Morrow, and Union Pacific Railroad (UPRR) own and operate bridges within the urban area.

Bridge conditions are evaluated with a sufficiency rating which indicates bridge sufficiency to remain in service, where values range from 0-100, with higher values indicating higher sufficiency ratings. A bridge with a sufficiency rating below 50 indicates that the bridge is in poor condition and is eligible for replacement. Bridges rated between 50 and 80 indicate that the bridge is in fair condition, and that rehabilitation, if cost-effective, will bring the bridge up to current standards. Bridges with sufficiency ratings above 8 may have specific elements that do not meet current minimum standards, but overall are in good or adequate condition and are not eligible for federal funding. Figure 11maps bridges within the urban area by ownership and sufficiency rating.

There are 7 bridges supporting the Boardman urban area transportation system, and of these, 4 are maintained by ODOT, 1 is maintained by the City of Boardman, 2 are maintained by Union Pacific Railroad, and 1 is maintained by the Port of Morrow. The bridge structures include concrete and steel; concrete slab and tee beam bridges; and stringer/girder bridges.

Table 7 summarizes bridges by ownership and sufficiency ratings. A bridge with a sufficiency rating < 50 is classified with "Poor" bridge condition.

Name	ID	Owner	Carries	Crosses	МР	Sufficiency Rating
Main St over UPRR	20053	City	MAIN ST	UPRR	0.33	91.5
Main St. over I-84	08946	ODOT	MAIN ST	I-84 (HWY 2)	164.16	76.7
I-84 WB over Laurel Lane Intchg	16612	ODOT	I-84 (HWY 2) WB	LAUREL LANE	165.76	92.8
I-84 EB over Laurel Lane Intchg	16611	ODOT	I-84 (HWY 2) EB	LAUREL LANE	165.76	94.2
Ullman Blvd over UPRR (Port of Morrow)	49012	UPRR	ULLMAN BOULEVARD	UPRR	0	79.2
East Columbia Ave. over UPRR (Port of Morrow)	49C18	UPRR	E. COLUMBIA AVE	UPRR	0	73.6
Marine Drive Bridge	No Data	Port of Morrow	MARINE DR	UPRR	No Data	>80

#### Table 7. Bridge Sufficiency Rating

#### Figure 11. Bridges by Owner and Sufficiency Rating

# Pedestrian and Bicycle Facilities

Pedestrian and bicycle facilities provide infrastructure for people to walk, bike, roll, or use mobility devices on facilities designated for that mode. In the Boardman urban area, the network of bicycle and pedestrian facilities consists of on-street facilities and a network of multi-use trails. These facilities serve a variety of needs, including relatively short trips between major attractions like schools and parks, recreational trips, access to transit, and commute trips.

## **Pedestrian Facilities**

Pedestrian facilities refer to infrastructure designed for people walking or using mobility devices and typically include sidewalks, trails, crossings, ramps, and technology such as push buttons or pedestrian activated flashing beacons (e.g., Rectangular Rapid Flashing Beacon). A wellconnected pedestrian network provides safe and efficient links between pedestrian trip generators like schools, employment areas, parks and community centers, residential neighborhoods, and other pedestrian attractors.

Figure 12 maps pedestrian facilities on arterial and collector roadways. As shown, the pedestrian network consists of sidewalks on one or both sides of the roadway and a small network of onstreet ped/bike paths and multi-use pathways. The primary gaps on collector and arterial roadways will be discussed later under the Multimodal Analysis section of the Existing System Conditions Analysis.

The Columbia River Heritage Trail (the Heritage Trail) runs through the Boardman area and is a multi-use pathway designed to support both transportation and recreation. The trail connects key cities in the region and provides access to the Columbia River shoreline. The trail utilizes sections of Columbia Boulevard in Boardman and trail design includes 2-foot shoulders on paved roads and 10-foot dedicated paths in urban areas. This trail is a vital part of Morrow County's non-motorized transportation system. Originally detailed in the Columbia River Heritage Trail Concept Plan adopted in 2000, the trail's progress will continue with the adoption of the Trail Master Plan, which began development in 2024. This new planning document will guide improvements over the next 5 to 20 years.

## Figure 12. Pedestrian Facilities

## **Bicycle Facilities**

Bicycle facilities refer to infrastructure designed for people biking, including bike lanes, shared use paths, paved shoulders, and the crossing infrastructure that supports a well-connected bicycle network, such as ramps and RRFBs. Figure 13 maps existing bicycle facilities in the City of Boardman.

Like pedestrian facilities, bicycle facilities serve a variety of trips, including trips to major attractions such as schools, parks, retail centers, and public facilities; commuter trips; recreational trips; and access to transit. The existing bicycle network in the City of Boardman is limited to small segments of striped bike lanes, on-street ped/bike paths, multi-use pathways, and paved shoulders.

The Columbia River Heritage Trail stretches along Marine Drive from the city's western boundary to the east, though it doesn't connect directly to Main Street. As mentioned in the Pedestrian Facilities section, the trail includes 2-foot shoulders on paved roads and 10-foot dedicated paths in urban areas. The trail connects key cities in the region and provides access to the Columbia River shoreline. South of Marine Drive, Main Street features approximately 5-foot shoulders extending to Columbia Avenue. From Columbia Avenue, dedicated bike lanes continue on Main Street until about 50 feet south of the I-84 eastbound off-ramp. Beyond that, a shared-use path extends to Wilson Lane, following Wilson Road up to Faler Road. Additionally, Boardman Avenue NW has an isolated segment with dedicated bike lanes.

Other bicycle travel is accommodated on paved shoulders where there is enough width (i.e., shoulders greater than 4 feet). By law, bicyclists have the right to bike on the road as a vehicle (ORS 814.400).

Figure 13. Bicycle Facilities

# Transit System

Morrow County Public Transit is the primary provider of public transportation in the city, offering free, fixed-route bus service to residents of Boardman, Ione, Lexington, and Heppner. Known as the Loop, this service operates Monday through Saturday and provides reliable transportation for the community. In Boardman, buses run from 6:00 AM to 7:30 PM.

As shown in Figure 14, Morrow County operates one fixed route in the Boardman urban area. The Loop operates fixed Northbound and Southbound routes connecting Boardman, Ione, Lexington, and Heppner. Additionally, there is a Boardman-only route, which follows the same path as the Northbound and Southbound buses within Boardman.

Bus arrival times in Boardman range from approximately 15 minutes to 5 hours and 45 minutes. Stops in Boardman are conveniently located near key destinations, including the Port of Morrow, Riverside High School, Sam Boardman Elementary School, Murry's Pharmacy, and several residential areas. However, there are currently no transit supportive facilities within the Boardman urban area including stations, shelters, signs, or benches. The busses are compliant with the American Disabilities Act (ADA). Some bus stops are not accessible by the disabled.

In addition to the Loop, CareVan Medical Transportation offers Boardman residents free transportation to any Good Shepherd Health Care System-affiliated medical or service provider in Hermiston. The vans are ADA compliant. This service runs Monday through Friday, from 8:00 AM to 6:00 PM, and requires a reservation. Figure 14. Public Transit

# Freight System

Freight route classifications are provided at the State and Federal levels. In Oregon, the OHP documents State freight designations. These freight routes are shown in Figure 15.

ODOT has established I-84 through the urban area as a High Clearance Route<sup>2</sup> and Reduction Review Route<sup>3</sup>. The OHP recognizes I-84, and segments of Columbia Avenue, Ullman Boulevard, and Marine Lane as freight routes also shown in Figure 15.

Additionally, the National Highway System (NHS), a federal designation for interstates and key roadways like principal arterials, recognizes I-84 as part of this network which are critical to state and national economy. I-84 is part of the National Highway System and is intended to serve national and regional trucking movements, providing east-west connectivity to Portland to the west and Boise to the east.

In the Oregon Freight Plan<sup>4</sup>, the Columbia River Corridor (I-84) is identified as a strategic corridor that is critical to freight-dependent industries and the Oregon economy. The OFP identifies I-84 as locally and regionally important for moving goods between Portland and the Midwest.

The major freight generators and receivers in the Boardman urban area are the Port of Morrow, food processing facilities, and local agriculture. The Port of Morrow facilitates the shipping and processing of regional agricultural products, while other companies create high volumes of truck traffic for food processing. Local farms contribute significantly by supplying raw crops, and industrial projects, including renewable energy developments, add to the demand for freight services.

Many trucks transporting wind turbine blades travel eastbound along I-84. Some of these trucks can't clear the Main Street bridge, so they exit, pass through town, and rejoin I-84 at the Laurel Lane interchange. Because these trucks ride low to the ground, they risk scraping if they make the turn too fast at the S Main Street and I-84 EB exit ramp intersection. When trucks move through this intersection slowly, they often create backups on Main Street.

The Columbia River High, Wide, and Heavy Corridor is a proposed infrastructure initiative designed to improve multi-modal transportation for oversized cargo. The route would stretch along the Columbia River from the Port of Longview to Umatilla, where it would connect to truck routes extending to Minnesota and Alberta, Canada. This corridor aims to offer shippers substantial time and cost savings while reducing oversized freight traffic on roadways.

<sup>&</sup>lt;sup>2</sup> Reduction Review Routes are subject to ORS 366.215 prohibiting a reduction in vehicle carrying capacity unless permitted by the Oregon Transportation Commission for safety purposes.

<sup>&</sup>lt;sup>3</sup> High Clearance Routes are established by ODOT as routes that are critical for movement of oversize freight loads, especially tall loads.

<sup>&</sup>lt;sup>4</sup> Oregon Department of Transportation. (2023). *Oregon Freight Plan*, 2023.

#### Figure 15. Freight Routes and Railroad Crossings

# Rail System

Rail is a critical element of transportation facilities with freight rail services operating within the Boardman urban area. Boardman is located on the east-west transcontinental route between Portland and Hinkle, which has intra- and inter-state economic significance facilitating major freight movement within and through the state to Idaho, Wyoming, and Utah which connects to Union Pacific Railroad's (UPRR) Overland Route. UPRR is a Class I Railroad Corridor which owns and operates all rail in the urban area, facilitating freight mobility for Oregon's industries and linking them to the national rail network. The track is maintained to Federal Railroad Administration (FRA) Class 4 specifications.

The railroad facilities in the Boardman urban area are illustrated in Figure 15. The URPR mainline closely parallels the I-84 corridor and runs along Marine Drive through the urban area, passing through the Port of Morrow. Multiple branch lines in the port area enhance shipping and receiving efficiency, supporting rail-to-barge access at marine terminals to facilitate the movement of goods. Grain trains make up the primary rail freight coming into Boardman, where the grain is then either transferred to barges or transported by truck to ranches for livestock feed.

Rail crossings in the city are mostly grade separated. There is one at-grade crossing at Ullman Boulevard that is equipped with gates, lights, and bells, while two other at-grade crossings feature signage only.

The east-west rail route is part of the Strategic Rail Corridor Network (STRACNET), which provides essential rail access for military operations and installations across Oregon. On average, 22 freight trains pass through Boardman a day with a maximum speed of 60 mph.

Between 2018 and 2022, one crash occurred at a rail crossing on Industrial Way (at-grade). This incident did not involve a train; instead, a vehicle collided with a fixed object. The crash happened around 6 AM, in foggy and dark conditions, with icy road conditions. There were no injuries reported, and the incident resulted in property damage only. The cause of the crash was cited as the driver was traveling too fast for the conditions.

# **Intermodal Connectors**

The 1999 OHP<sup>5</sup> defines intermodal connections as short lengths of roads that connect intermodal facilities such as airports, ports, air terminals, and other passenger and freight facilities to Interstate and Statewide highways. Table 8 lists the six Tier 1 NHS Intermodal Connectors identified in Appendix E of the OHP that are in the Boardman urban area.

<sup>&</sup>lt;sup>5</sup> Oregon Department of Transportation (ODOT). *Oregon Highway Plan*, 1999.

#### Table 8. Intermodal Connectors

Ownership	Route Description	Total Miles
State	I-84, Conn. 002HC/Conn. 002HB - Laurel Rd. Ahead	0.14
Morrow County	Laurel Rd./I-84 Conn. 002HC - Boardman-Irrigon Rd.	0.04
Morrow County	Boardman Irrigon Rd./Laurel Rd Ullman Blvd.	043
Port of Morrow	Ulman Blvd./Boardman Rd Port Terminal Facility	0.63
Morrow County	Boardman-Irrigon Rd./Laurel Rd Coyote Station Rd.	1.18
Port of Morrow	Marine Dr./Ullman Rd Port Access Rd.	0.51

# Marine System

The Columbia River borders the northern city limit of Boardman and is used to transport goods. The Port of Morrow is located in the northeast part of the City and serves as the primary economic center of eastern Oregon, facilitating the movement of goods across regional, national, and international markets. As stated in the 2020 Port of Morrow Strategic Business Plan, there are three marine terminals along the Columbia River within city limits. They are as follows:

- Terminal 1 (T-1) is a barge slip managed by the Port in the Boardman Industrial Park. T-1 needs dredging to be functional for larger barges.
- Terminal 2 (T-2) is a barge load-out facility operated by Boardman Chip in the Boardman Industrial Park.
- Terminal 3 (T-3) is a barge slip operated by Tidewater in the Boardman Industrial Park. T-3 is the largest container terminal upriver of Portland handling approximately 11,000 containers 9 to and from barge and truck annually.

The Port of Morrow is located north of I-84 and accessible by Exit 165 which connects to Laurel Lane. North of the freeway ramps, Laurel Lane connects with Columbia Avenue, which intersects with Ulman Boulevard, providing access to terminals along Marine Drive. Along Marine Drive there are bicycle lanes and sidewalks that provide multi modal access to the Port of Morrow.

A Union Pacific Railroad (UPRR) mainline runs parallel to Marine Drive, with a rail spur extending from this mainline to support rail-to-barge shipping along the Columbia River at the three marine terminals. There are no known capacity issues related to infrastructure/programs and port facilities and operations at this time.

# Pipeline System

Gas Transmission Northwest operates a gas pipeline passing through Boardman, where it connects to the Coyote Springs Cogeneration Natural Gas Plant. Located at the northeast corner of Ulma Boulevard and Industrial Way, this gas plant is owned by Portland General Electric. There are no known deficiencies associated with the pipeline at this time.

# Air System

Boardman Airport is located about seven miles west of the Boardman urban area limits. This airport is not in the Project Area.

# **Existing System Conditions Analysis**

The existing system conditions analysis provides insight into the functionality and performance of the transportation system in the Boardman urban area in terms of intersection traffic operations, crash history, and system gaps in the multimodal network. The observed results from these assessments create a foundation for identifying capacity, safety, and other performance deficiencies in the transportation network.

An overview of the methodology and operational standards used for conducting the existing and future conditions analyses is discussed in the *Methodology Memorandum*.

# Intersection Operations Analysis

The intersection operations analysis examines how the 14 study intersections from Figure 1, previously shown at the beginning of this memorandum, function during the weekday AM and PM peak period with their existing traffic control and lane configurations, previously shown in Figure 10. This section summarizes the observed results from intersection operations and vehicle queueing analyses.

## **Traffic Counts**

Traffic count data were provided by ODOT for all the study intersections, which was collected independently. The traffic counts provided by ODOT were collected in May 2024. All count data were collected over a 16-hour period (6:00AM to 10:00PM). These counts were seasonally adjusted to reflect the 30<sup>th</sup> Highest Hour Volumes. The data includes the total number of pedestrians, bicyclists, and motor vehicles that entered the intersections in 15-minute intervals. *Attachment A contains the traffic count worksheets*.

## **Analysis Methodology and Performance Standards**

All traffic operations analyses described in this section conform with State and City standard methodologies and guidelines. Applicable volume-to-capacity thresholds based on ODOT and local mobility targets for the study intersections are identified and discussed in the *Methodology Memorandum*.

# **Traffic Operations Analysis**

The traffic operations analysis helps to identify study intersections that do not meet their mobility targets today. The analysis used PTV Vistro software and its Highway Capacity Manual (HCM) 7<sup>th</sup> Edition reports to summarize the intersection traffic operations in terms of v/c ratios and 95<sup>th</sup>-percentile queues. The v/c ratios are reported for the intersection critical movement at unsignalized intersections. Figure 16 and Figure 17 summarize the existing traffic volumes at the study intersections and the resultant v/c ratios, delay, and level of service (LOS) for the weekday

AM and PM peak hour respectively. Figure 18 and Figure 19 illustrate weekday AM and weekday PM operational results at the study intersections based on their respective performance thresholds. Table 9 identifies the intersections from Figure 18 that are exceeding their performance thresholds (mobility targets) today. As shown, results indicate that study intersections meet mobility targets under the existing conditions during the weekday AM and PM peak hour except the N Main Street & Boardman Avenue (#3), N Main Street & N Front Street (#4), S Main Street & I-84 Westbound Ramp Terminal (#5), S Main Street & S Front Street (#7).

Attachment B contains the existing traffic operations worksheets.

## Table 9. Study Intersection Performance Summary – Existing Traffic Operations

ID	Intersection	Owner	Exceeds Operational Standard			
			Weekday AM Peak Hour	Weekday PM Peak Hour		
1	N Main Street / Marine Drive	City				
2	N Main Street / Columbia Avenue	City				
3	N Main Street / Boardman Avenue	City	✓			
4	N Main Street / N Front Street	City	✓	~		
5	N Main Street / I-84 Westbound Ramp Terminal	ODOT		✓		
6	S Main Street / I-84 Eastbound Ramp Terminal	ODOT				
7	S Main Street / S Front Street	City	✓	✓		
8	S Main Street / Oregon Trail Boulevard	City				
9	S Main Street / Kinkade Road	City				
10	S Main Street / Wilson Lane	City				
11	Olson Street / Columbia Avenue	City				
12	Laurel Lane / Columbia Avenue	City				
13	Laurel Lane / I-84 Westbound Ramp Terminal	ODOT				
14	Laurel Lane / I-84 Eastbound Ramp Terminal	ODOT				

### Figure 16. Existing Intersection Operations, Weekday AM Peak Hour

### Figure 17. Existing Intersection Operations, Weekday PM Peak Hour

## Figure 18. Existing Traffic Operations, Weekday AM Peak Hour

## Figure 19. Existing Traffic Operations, Weekday PM Peak Hour

Table 10 summarizes the 95<sup>th</sup>-percentile queues for intersections having one or more movements that exceed available storage. As shown, queues exceed available storage at none of the study intersections.

				95th-Percentile Queue (ft)			
ID	Intersection	Movement	Storage (ft)	Weekday AM	Weekday PM		
2	N Main Street / Columbia Avenue	NBL	100	25	25		
Z		SBL	150	25	25		
3	N Main Street / Boardman Avenue	NBL	150	25	25		
5	N Main Street / Doardmain Avenue	SBL	100	25	25		
		NBL	75	25	25		
4	N Main Street / N Front Street	SBL	150	25	25		
		EBR	100	25	25		
5	N Main Street / I-84 Westbound Ramp Terminal	WBLTR	1250 <sup>1</sup>	100	300		
6	S Main Street / I-84 Eastbound Ramp Terminal	EBLTR	1300 <sup>1</sup>	25	150		
		NBL	100	0	25		
7	S Main Street / S Front Street	SBL	100	25	25		
		WBR	125	25	25		
11	Olean Street / Ochumbia Avenue	NBTL	100	25	25		
11	Olson Street / Columbia Avenue	EBL	100	25	25		
12	Laurel Lane / Columbia Avenue	WBL	250	25	25		
13	Laurel Lane / I-84 Westbound Ramp Terminal	WBTLR	1300 <sup>1</sup>	50	50		
14	Laurel Lane / I-84 Eastbound Ramp Terminal	EBTLR	1600 <sup>1</sup>	25	25		

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Table 1	10.	EXISTING	Intersection	95th-Percentile	Queues

Note that 95th percentile queue lengths have been rounded up to the nearest car length, assuming one vehicle equals 25 feet.

<sup>1</sup>Storage measured from ramp exit to stop bar at ramp terminal.

# Crash Analysis

Crash data was obtained from the ODOT crash data reporting database for the most recent available five-year period between January 1, 2018, and December 31, 2022. The data includes detailed information on crashes that occurred in the City of Boardman.

The crash data presented information related to crash type, crash severity, time of day, weather condition, and other factors. Table 11 presents crash type and severity summaries for the data whereas Table 12 shows the observed and predicted crash frequencies. A summary of the crash data and analysis is as follows:

- Angle and Turning Movement related crashes were the most common crash types and comprised approximately 52 and 35 percent of the total crashes respectively.
- There were no reported bicycle or pedestrian-related crashes (Majority of the study intersections lack pedestrian and bicycle facilities).
- Approximately 70 percent of the crashes were property damage only (PDO) and approximately 30 percent of the crashes involved minor personal injuries. There were no reported fatalities.
- Two of the reported crashes involved alcohol intoxication and one of the reported crashes was a hit and run case.
- Most crashes (more than 50 percent) occurred between 12:00 PM and 6:00 PM.
- 17 percent of crashes (4) occurred during wet/ snowy conditions. The rest of the crashes occurred during dry/ typical conditions with the exception of one crash that occurred during unknown conditions. 35 percent of crashes occurred during darkness (with streetlights).

A reported crash occurred at the intersection of Laurel Lane and the I-84 eastbound ramp terminal, involving a truck and a mobile home. The incident, classified as a turning movement crash, resulted in non-fatal injuries. The collision was caused by one vehicle failing to yield the right-of-way at a stop-controlled approach. It took place during daylight hours under dry, typical weather conditions.

Attachment C contains the 2018-2022 ODOT crash data.

# Table 11. Reported Crash History (2018 – 2022)

		Crash Type								Crash Severity			
ID	Intersection	Angle	Turn	Rear-End	Side Swipe	Fixed Object	Pedestrian/ Bike	Head - On	Backing	Property Damage Only (PDO)	Non-Fatal Injury Crashes	Fatal and Severe Injury	Total
1	N Main Street / Marine Drive	-	-	-	-	-	-	-	-	-	-	-	-
2	N Main Street / Columbia Avenue	-	1	-	-	1	-	-	-	1	1	-	2
3	N Main Street / Boardman Avenue	-	2	-	-	-	-	-	-	-	2	-	2
4	N Main Street / N Front Street	1	1	-	-	-	-	-	-	2	-	-	2
5	N Main Street / I-84 Westbound Ramp Terminal	3	1	2	-	-	-	-	-	5	1	-	6
6	S Main Street / I-84 Eastbound Ramp Terminal	2	-	-	-	-	-	-	-	2	-	-	2
7	S Main Street / S Front Street	-	-	-	-	-	-	-	-	-	-	-	-
8	S Main Street / Oregon Trail Boulevard	-	-	-	-	-	-	-	-	-	-	-	-
9	S Main Street / Kinkade Road	-	-	-	-	-	-	-	-	-	-	-	-
10	S Main Street / Wilson Lane	4	2	-	-	-	-	-	-	4	2	-	6
11	Olson Street / Columbia Avenue	-	-	-	-	-	-	-	-	-	-	-	-
12	Laurel Lane / Columbia Avenue	-	-	-	-	-	-	-	-	-	-	-	-
13	Laurel Lane / I-84 Westbound Ramp Terminal	2	-	-	-	-	-	-	-	2	-	-	2
14	Laurel Lane / I-84 Eastbound Ramp Terminal	-	1	-	-	-	-	-	-	-	1	-	1
	Total	12	8	2	-	1	-	-	-	16	7	-	23

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Critical crash rates were calculated for the study intersections following the analysis methodology presented in the ODOT *Analysis Procedures Manual (APM,* Reference 5). *APM* Chapter 4 provides 90<sup>th</sup> percentile crash rates per million entering vehicles at a variety of intersection configurations based on number of approaches and traffic control types. The critical crash rate for each intersection is calculated based on the average crash rate for each facility and serves as a threshold for further analysis. Per the APM, intersections with crash rates that exceed the 90<sup>th</sup> percentile values shown in *APM* Exhibit 4-1 or with a crash rate that exceeds its critical crash rate should be flagged for further analysis. Table 12 summarizes the crash rate assessment for each intersection and compares those values to the observed crash rate.

ID	Intersection	No. of crashes	90 <sup>th</sup> Percentile Rate	Observed Crash Rate	Observed Crash rate > 90 <sup>th</sup> Percentile Rate
1	N Main Street / Marine Drive	0	0.293	0.00	No
2	N Main Street / Columbia Avenue	2	0.408	0.28	No
3	N Main Street / Boardman Avenue	2	0.408	0.18	No
4	N Main Street / N Front Street	2	0.408	0.12	No
5	N Main Street / I-84 Westbound Ramp Terminal	6	0.408	0.32	No
6	S Main Street / I-84 Eastbound Ramp Terminal	2	0.408	0.10	No
7	S Main Street / S Front Street	0	0.408	0.00	No
8	S Main Street / Oregon Trail Boulevard	0	0.293	0.00	No
9	S Main Street / Kinkade Road	0	0.293	0.00	No
10	S Main Street / Wilson Lane	6	0.408	0.54	Yes
11	Olson Street / Columbia Avenue	0	0.408	0.00	No
12	Laurel Lane / Columbia Avenue	0	0.293	0.00	No
13	Laurel Lane / I-84 Westbound Ramp Terminal	2	0.408	0.28	No
14	Laurel Lane / I-84 Eastbound Ramp Terminal	1	0.408	0.17	No

#### Table 12. Crash Assessment

As shown above, all study intersections except the S Main Street / Wilson Lane intersection have crash rates above their 90<sup>th</sup> percentile crash rate. The S Main Street / Wilson Lane intersection recorded a majority of angle crashes, along with two turning movement crashes. The turning movement crashes involved left and right turns. Of the reported incidents, most occurred under clear and dry conditions, although one crash took place on snow and ice. Lighting conditions varied, with crashes occurring during both daylight and darkness with streetlights. No fatalities were reported, with crashes resulting in either property damage or non-fatal injuries.

Attachment D contains the intersection crash rate analysis worksheet.

## **ODOT SPIS List**

ODOT maintains Safety Priority Index System (SPIS) lists to identify existing hazardous intersections for potential safety improvements. The SPIS lists consider the crash data for the three prior years. The ODOT Region 5 2022 SPIS list was reviewed to determine if any of the ODOT Interstate 84 /Highway 30 study intersections were identified as having an SPIS score in the top 15 percent and ranking amongst other projects. The SPIS score is calculated based on three factors:

- Frequency of crashes (25% of the SPIS score)
- Rate of crashes (25% of the SPIS score)
- Severity of crashes (50% of the SPIS score)

No study intersections were identified within the 2022 ODOT Region 5 top 15% SPIS list.

# Multimodal Analysis

The multimodal transportation analysis was conducted in accordance with the methodologies identified in Chapter 14 of ODOT's APM.

# **Pedestrian Level of Traffic Stress**

Pedestrian level of traffic stress (PLTS) is a perception-based analysis methodology that is used to evaluate the adequacy of streets to accommodate pedestrians in urban and rural environments. As applied by ODOT, this methodology classifies four levels of traffic stress that a pedestrian can experience on the street, ranging from PLTS 1 (little traffic stress) to PLTS 4 (high traffic stress). A street or street segment that is rated PLTS 1 generally has low traffic volumes and travel speeds and has a sidewalk that is separated from vehicle traffic. These segments are generally suitable for all pedestrians, including children. A street or street segment that is rated PLTS 4 generally has high traffic volumes and travel speeds and curb-tight sidewalks that are perceived as unsafe by most adults. Segments rated PLTS 4 also include those with no sidewalks or other pedestrian facilities. Per the APM, PLTS 2 is considered a reasonable target for most streets due to its acceptability with most pedestrians.

The PLTS score is determined based on four criteria, including sidewalk condition, physical buffer type, total buffering width, and general land use. All four criteria are scored from 1 to 4 and the highest score determines the overall score for the road segment. Table 4 summarizes the results of the PLTS analysis. Figure 20 illustrates the results of the PLTS analysis for the arterial and collector streets in the Boardman urban area. It is important to note that while some segments are shown as PLTS 3 or 4, they may have shorter segments with lower PLTS scores.

As shown in Figure 20, most arterial and collector streets in Boardman have segments are rated PLTS 4. Most of these segments have no sidewalks or other pedestrian facilities. In order for these segments to be rated PLTS 2, sidewalks with appropriate sidewalk and buffer widths would need to be installed along the full length of the roadway. Segments rated PLTS 2 and PLTS 3 may have curb-tight sidewalks, not have adequate buffer width, or be adjacent to industrial or freeway interchange land uses such as along Columbia Avenue and Ullman Boulevard. Per the APM, these segments are automatically rated PLTS 3 or 4 given the auto-oriented nature of these land uses. There are no segments rated PLTS 1.

Attachment E contains detailed information on the PLTS analysis results.

## Figure 20: Pedestrian Level of Traffic Stress (PLTS) Analysis Results

# **Bicycle Level of Traffic Stress**

Similar to PLTS, Bicycle level of traffic stress (BLTS) is a perception-based analysis methodology that is used to evaluate the adequacy of streets to accommodate cyclists in urban and rural environments. As applied by ODOT, this methodology classifies four levels of traffic stress that a cyclist can experience on the street, ranging from BLTS 1 (little traffic stress) to BLTS 4 (high traffic stress). A street or street segment that is rated BLTS 1 generally has low traffic volumes and travel speeds and is suitable for all cyclists, including children. A street or street segment that is rated BLTS 4 generally has high traffic volumes and travel speeds and is perceived as unsafe by most adults. Per the APM, BLTS 2 is considered a reasonable target for streets due to its acceptability with most cyclists.

The BLTS score is determined based on the speed of the street, the number of travel lanes per direction, the presence and width of an on-street bike lane and/or adjacent parking lane, and several other factors. Table 5 summarizes the results of the BLTS analysis. Figure 21 illustrates the results of the BLTS analysis for the arterial and collector streets in the Boardman urban area. It is important to note that while some segments are shown as BLTS 3 or 4, they may have shorter segments with lower BLTS scores.

As shown in Figure 21, several arterial and collector streets in Boardman have segments that are rated BLTS 3 and BLTS 4. The segments rated BLTS 3 or BLTS 4 may have bike lanes that are too narrow for roadway conditions (e.g., high speeds and/or the number of lanes per direction). In order for these segments to be rated BLTS 2, the bike lanes would need to be widened to seven feet. Other segments rated BLTS 3 may not have bike lanes and may be considered mixed traffic (shoulder bikeways or no bicycle facilities present). In order for these segments to be restriped as a bike lane with appropriate width or the posted speed would need to be 35 mph for segments with less than 750 vehicles per day. It should also be noted that a majority of the segments evaluated as mixed traffic that were rated BLTS 2 could include signage and/or striping to remind motorists to share the road.

Attachment E contains detailed information on the BLTS analysis results.

## Figure 21: Bicycle Level of Traffic Stress (BLTS) Analysis Results

# **Attachments**

- A. Traffic Counts for Study Intersections
- B. Existing Traffic Operations Worksheets
- C. ODOT Crash Data
- D. Crash Analysis Worksheet
- E. Detailed Pedestrian and Bicycle Level of Traffic Stress

# Attachment A – Traffic Counts for Study Intersections

# Attachment B – Existing Traffic Operations Worksheets

# Attachment C – ODOT Crash Data
### Attachment D – Crash Analysis Worksheet

# Attachment E – Detailed Pedestrian and Bike Level of Traffic Stress Results



# **Study Area**





Study Intersection City Boundary =, ;-- Urban Growth Boundary Park - Water

0	0.25	0.5 Mile
<b> </b>		





# Zoning



Residential

Commercial

Industrial

Special

Park 

City Boundary

= , Urban Growth Boundary

- Water

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# Key Destinations/ Local Activity Centers



💼 School

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- Health Services
- Community Services
- Ø Fire Station
- 😒 Police Station
- College
- Park
- City Boundary
- =;--- Urban Growth Boundary
- Water







### **Potential Transportation Disadvantaged Populations**



#### Transportation Disadvantaged Population by Block Groups

1.82 - 1.85

- 1.86 2.15
- 2.16 2.53
- City Boundary

- Urban Growth Boundary

- Park
- Water

(	)







# **Street Jurisdiction**



- City of Boardman
- Morrow County
- Oregon Department of Transportation
- Port of Morrow
- Public
- City Boundary
- =;;-' Urban Growth Boundary
- Park
- Water

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# **Functional Classification**



- Freeway
- Arterial
- Minor Collector
- Neighborhood Collector
- Local
- City Boundary
- = , Urban Growth Boundary
- Park
- Water

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# **Pavement Conditions**



- Very Good
- Good
- Fair
- Poor
- No Data
- City Boundary
- = , Urban Growth Boundary
- Park
- Water







# Number of Travel Lanes



- 1 Lane
- 2 Lanes
- ----- 3 Lanes
- 4 Lanes
- City Boundary
- =;;- Urban Growth Boundary
- Park
  - TUIK
- Water

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0.25

0.5 Mile





# **Posted Speeds**



- ------ 20 MPH
- 25 MPH

- City Boundary
- = ... Urban Growth Boundary
- Park
- Water



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# Bridges by Owner and Sufficiency Rating



#### **Sufficiency Rating**

001110	iency kaning
$\bigcirc$	>80
$\bigcirc$	50 to 80
	No Data
Bridge	e Ownership
$\bigcirc$	City of Boardman
	State of Oregon
$\bigcirc$	Railroad
$\bigtriangleup$	Port of Morrow
	City Boundary
=7;F)	Urban Growth Boundary
	Park
	Water





# **Pedestrian Facilities**



- Midblock Crossing
  - Sidewalk
- On-Street Ped/Bike Path
- Multi-Use Path
- City Boundary
- = ... Urban Growth Boundary
- Park
- Water

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# **Bicycle Facilities**



- Bike Lane
- Wide Shoulders
- On-Street Ped/Bike Path
- Multi-Use Path
- City Boundary
- = .... Urban Growth Boundary
- Park
- Water

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0.25

0.5 Mile





# **Public Transit**





Bus Stop Bus Route

City Boundary

- Urban Growth Boundary
  - Park

- Water

0.25	
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# **Freight Routes and Railroad Crossings**





At-Grade Rail Crossing Above Grade Rail Crossing National Highway Freight Route OHP Freight Route Railroad -----City Boundary =;;-- Urban Growth Boundary Park



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### **Existing Traffic Operations -**Weekday AM Peak Hour





Meets Mobility Target/Standard Exceeds Mobility Target/Standard City Boundary - Urban Growth Boundary Park

- Water

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### **Existing Traffic Operations -**Weekday PM Peak Hour





Meets Mobility Target/Standard Exceeds Mobility Target/Standard City Boundary - Urban Growth Boundary Park

- Water

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# Pedestrian Level of Traffic Stress (PLTS) **Analysis Results**

Figure 20



- PLTS 1
- PLTS 2
- PLTS 3
- PLTS 4
- City Boundary
- = ... Urban Growth Boundary
- Park
- Water

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0.25

0.5 Mile





# Bicycle Level of Traffic Stress (BLTS) **Analysis Results**

Figure 21



- BLTS 1
- BLTS 2
- BLTS 3
- BLTS 4
- City Boundary
- =, ;-- Urban Growth Boundary
- Park
- Water

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### **Attachments**

- A. Traffic Counts for Study Intersections
- B. Existing Traffic Operations Worksheets
- C. ODOT Crash Data
- D. Crash Analysis Worksheet
- E. Detailed Pedestrian and Bicycle Level of Traffic Stress

# Attachment A – Traffic Counts for Study Intersections

QC JOB #: 16719901

LOCATION: Laurel Ln -- I-84 EB Ramps CITY/STATE: Boardman, OR



5-Min Count Period		Laur (North	el Ln bound)			Laur (South	el Ln bound)			I-84 EB (Eastb	Ramps ound)			I-84 EB (West	Ramps bound)		Total	Hourly
Beginning At	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		Totals
7:00 AM	0	6	1	0	4	9	0	0	4	0	1	0	0	0	0	0	25	
7:05 AM	0	3	1	0	6	5	0	0	3	0	1	0	0	0	0	0	19	
7:10 AM	0	2	1	0	8	6	0	0	3	1	1	0	0	0	0	0	22	
7:15 AM	0	1	0	0	19	3	0	0	3	0	0	0	0	0	0	0	26	
7:20 AM	0	3	1	0	14	8	0	0	1	0	0	0	0	0	0	0	27	
7:25 AIVI	0	8	2	0	12	3	0	1	5	0	1	0	0	0	0	0	29	
7:30 AIVI 7:25 AM	0	2	5	0	10	5	0	1		0	1	0	0	0	0	0	19	
7.33 AN	0	1	1	0	7	5	0	0	2	0	1	0	0	0	0	0	20	
7:45 AM	0	4	1	0	4	3	0	0	1	Ő	3 I	0	0	0	0	0	16	
7:50 AM	õ	3	1	õ	4	3	õ	õ	3	õ	1	õ	õ	õ	õ	õ	15	
7:55 AM	Ō	3	1	Ō	5	2	Ō	Ō	Ō	1	Ō	Ō	Ō	Ō	Ō	0	12	247
8:00 AM	0	4	3	0	9	5	0	0	1	0	1	0	0	0	0	0	23	245
8:05 AM	0	5	1	0	6	1	0	0	4	0	0	0	0	0	0	0	17	243
8:10 AM	0	0	0	0	3	3	0	0	8	0	2	0	0	0	0	0	16	237
8:15 AM	0	6	1	0	9	1	0	0	4	0	0	0	0	0	0	0	21	232
8:20 AM	0	3	0	0	3	4	0	0	7	0	1	0	0	0	0	0	18	223
8:25 AM	0	3	0	0	8	2	0	0	0	0	0	0	0	0	0	0	13	207
8:30 AM	0	5	1	0	7	3	0	0	4	0	0	0	0	0	0	0	20	208
8:35 AM	0	3	1	0	3	2	0	0	2	0	1	0	0	0	0	0	12	203
8:40 AM	0	1	3	0	4	4	0	0	1	0	0	0	0	0	0	0	13	196
	0	2	1	0	12	5	0	0	4	0	4	0	0	0	0	0	28	208
8.55 AM	0	2	2	0	3	2	0	0	2	0	0	0	0	0	0	0	25 11	210
Dook 15 Min	Ū	North	- hound		Ū	South	bound		-	Fasth	ound		Ū	West	hound			210
Flowrates	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	To	tal
All Vehicles	0	48	8	0	180	56	0	0	36	0	0	0	0	0	0	0	32	28
Heavy Trucks	Õ	8	Õ	Ũ	24	4	Õ	J.	20	Õ	Õ	Ũ	Ő	Õ	Õ	Ĵ	5	6
Buses																		
Pedestrians		0				0				0				0			C	)
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		C	)
Scooters																		

Comments:

Report generated on 8/16/2024 2:46 PM

QC JOB #: 16719902

LOCATION: Laurel Ln -- I-84 WB Ramps CITY/STATE: Boardman, OR



5-Min Count Period		Laur (North	el Ln bound)			Laur (South	el Ln bound)			I-84 WE	3 Ramps			I-84 WE	3 Ramps bound)		Total	Hourly
Beginning At	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	lotai	Totals
7:00 AM	1	9	0	0	0	8	0	0	0	0	0	0	5	0	13	0	36	
7:05 AM	1	5	0	0	0	7	2	0	0	0	0	0	4	0	17	0	36	
7:10 AM	1	4	0	0	0	13	4	0	0	0	0	0	2	0	7	0	31	
7:15 AM	0	3	0	0	0	21	2	0	0	0	0	0	2	0	14	0	42	
7:20 AM	2	3	0	0	0	17	3	0	0	0	0	0	3	0	10	0	38	
7:25 AM	1	10	0	0	0	16	2	0	0	0	0	0	1	0	14	0	44	
7:30 AM	0	4	0	0	0	10	3	0	0	0	0	0	4	0	14	0	35	
7:35 AM	0	3	0	0	0	11	0	0	0	0	0	0	1	0	19	0	34	
7:40 AM	0	6	0	0	0	9	1	0	0	0	0	0	3	0	9	0	28	
7:45 AM	1	4	0	0	0	7	2	0	0	0	0	0	1	0	16	0	31	
7:50 AM	0	5	0	0	0	3	0	0	0	0	0	0	2	0	15	0	25	
7:55 AM	0	4	0	0	0	7	3	0	0	0	0	0	1	0	17	0	32	412
8:00 AM	2	2	0	0	0	11	1	0	0	0	0	0	3	0	13	0	32	408
8:05 AM	1	8	0	0	0	6	2	0	0	0	0	0	0	0	10	0	27	399
8:10 AM	1	7	0	0	0	5	4	0	0	0	0	0	1	0	4	0	22	390
8:15 AM	0	11	0	0	0	12	2	0	0	0	0	0	0	0	13	0	38	386
8:20 AM	0	10	0	0	0	4	3	0	0	0	0	0	2	0	7	0	26	374
8:25 AM	0	3	0	0	0	8	2	0	0	0	0	0	2	0	6	0	21	351
8:30 AM	1	8	0	0	0	7	2	0	0	0	0	0	2	0	5	0	25	341
8:35 AM	1	3	0	0	0	4	3	0	0	0	0	0	2	0	13	0	26	333
8:40 AM	0	2	0	0	0	7	3	0	0	0	0	0	0	0	11	0	23	328
8:45 AM	1	6	0	0	0	20	2	0	0	0	0	0	2	0	5	0	36	333
8:50 AM	3	5	0	0	0	7	3	0	0	0	0	0	3	0	10	0	31	339
8:55 AM	2	3	0	0	0	5	0	0	0	0	0	0	0	0	7	0	17	324
Peak 15-Min		North	bound			South	bound			Eastb	ound			West	bound		То	tal
Flowrates	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	10	tai
All Vehicles	12	64	0	0	0	216	28	0	0	0	0	0	24	0	152	0	49	96
Heavy Trucks	8	16	0		0	28	28		0	0	0		0	0	24		10	04
Buses																		
Pedestrians		0				0				0				0			(	C
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		(	C
Scooters																		
Comments:																		

Report generated on 8/16/2024 2:46 PM

LOCATION: Olson Rd -- Columbia Ave NE QC JOB #: 16719903 CITY/STATE: Boardman, OR DATE: Tue, May 21 2024 Peak-Hour: 7:20 AM -- 8:20 AM 22.2 55.6 9 9 Peak 15-Min: 7:55 AM -- 8:10 AM ● 0 40 ŧ ŧ **↓** 0 0 4 5 ι. **&** 83.3 **+** 14.2 9.5 🔶 0 🍠 84 6 106 ٠ 3 • ŧ. 0.89 5.5 🔸 **←** 8.5 73 🔶 **•** 71 4.9 ⇒ 0 飞 € 13.8 → 8.5 57 81 🌩 • • • 22.2 0 12.5 ∿ 9 ♦ **≜** 0 **r** 16 **♦** 11.8 ŧ ŧ 25 16 TRUE DATA TO IMPROVE MOBILITY 0 0 0 **£** 0 **t** 0 AD 0 1 0 🔸 **+** 0 0 7 **f** 0 ŧ 0 0 1 N/A N/A ÷ • 1 t t N/A → N/A → N/A ← N/A C 1 ſ STOP ç ъ ٩ 4 ŧ r N/A N/A

5-Min Count Period		Olso (North	on Rd bound)			Olsc (South	n Rd bound)			Columbi Eastb)	a Ave NE ound)		(	Columbi (West)	a Ave NE bound)		Total	Hourly
Beginning At	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	. otu.	lotals
7:00 AM	0	1	1	0	3	0	0	0	0	2	0	0	1	3	3	0	14	
7:05 AM	1	0	0	0	3	0	0	0	0	5	0	0	4	5	0	0	18	
7:10 AM	1	0	2	0	0	0	0	0	0	5	0	0	2	4	2	0	16	
7:15 AM	0	0	1	0	1	0	0	0	0	3	0	0	1	6	0	0	12	
7:20 AM	1	0	0	0	0	0	1	0	1	4	0	0	4	10	1	0	22	
7:25 AM	1	0	3	0	0	0	1	0	0	5	1	0	3	7	1	0	22	
7:30 AM	0	0	1	0	0	0	1	0	0	3	0	0	2	4	0	0	11	
7:35 AM	1	0	4	0	2	0	0	0	0	5	1	0	2	3	1	0	19	
7:40 AM	1	0	0	0	0	0	0	0	0	10	2	0	1	5	1	0	20	
7:45 AM	1	0	1	0	0	0	0	0	2	8	0	0	3	4	0	0	19	
7:50 AM	1	0	3	0	1	0	0	0	0	7	1	0	1	2	0	0	16	
7:55 AM	0	0	1	0	0	0	0	0	0	9	0	0	3	9	0	0	22	211
8:00 AM	2	0	1	0	1	0	0	0	0	7	0	0	1	4	1	0	17	214
8:05 AM	1	0	0	0	1	0	0	0	0	5	0	0	5	11	0	0	23	219
8:10 AM	0	0	1	0	0	0	0	0	0	4	0	0	2	4	0	0	11	214
8:15 AM	0	0	1	0	0	0	1	0	0	6	0	0	2	8	1	0	19	221
8:20 AM	0	0	1	0	0	0	0	0	0	2	0	0	1	4	1	0	9	208
8:25 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	2	1	0	4	190
8:30 AM	0	0	0	0	0	0	0	0	1	3	1	0	0	5	0	0	10	189
8:35 AM	3	0	1	0	0	0	0	0	0	2	1	0	1	6	0	0	14	184
8:40 AM	2	0	1	0	0	0	0	0	0	3	3	0	2	3	1	0	15	179
8:45 AM	0	1	2	0	0	0	0	0	0	5	2	0	3	/	2	0	22	182
8:50 AM	2	1	1	0	1	0	0	0	1	4	0	0	3	0	1	0	14	180
Peak 15-Min		North	bound			South	bound			Eastb	ound			West	oound		То	tal
Flowrates	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	10	tai
All Vehicles	12	0	8	0	8	0	0	0	0	84	0	0	36	96	4	0	24	18
Heavy Trucks	0	0	4		4	0	0		0	4	0		0	16	4		3	2
Buses																		
Pedestrians		0				0				0				0			(	)
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		(	)
Scooters																		
C																		

Comments:

Report generated on 8/16/2024 2:46 PM

LOCATION: Laurel Ln -- Columbia Blvd QC JOB #: 16719904 CITY/STATE: Boardman, OR DATE: Tue, May 21 2024 Peak-Hour: 7:00 AM -- 8:00 AM 0 0 0 0 Peak 15-Min: 7:15 AM -- 7:30 AM **₽** 0 ŧ ÷ **↑** 0 0 0 0 0 ٠ 160 🜩 0 20 🔶 0 🍠 ۰ ۵ **4**9.4 0 83 و t 27.5 🜩 **+** 33.3 0.84 40 🌩 **4** 27 € 56 → 132 19.3 🌩 15.8 🥆 € 57.1 → 22.7 135 🔶 95 🤻 • ● 133 0 ↑
 17.3
 0 **ب** 20.7 r 92 **♦** 31.1 ÷ ŧ ٠ 151 225 18.7 TRUE DATA TO IMPROVE MOBILITY 0 0 0 STO **t** 0 **t** 0 AD 0 0 0 🌩 **+** 0 07 **f** 0 ŧ • 0 0 0 N/A N/A ÷ 5 • £ t t N/A → N/A N/A ⇒ ← N/A a ç 1 ٦ ŧ C N/A N/A

5-Min Count Period		Laur North)	el Ln bound)			Laur (South	el Ln bound)			Columi (Eastb	bia Blvd ound)			Columi (Westi	oia Blvd bound)		Total	Hourly
Beginning At	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Total	Totals
7:00 AM	11	0	11	0	0	0	0	0	0	6	4	0	4	2	0	0	38	
7:05 AM	17	0	5	0	0	0	0	0	0	4	5	0	4	2	0	0	37	
7:10 AM	6	0	5	0	0	0	0	0	0	5	11	0	7	6	0	0	40	
7:15 AM	7	0	9	0	0	0	0	0	0	3	17	0	5	0	0	0	41	
7:20 AM	7	0	5	0	0	0	0	0	0	2	12	0	9	7	0	0	42	
7:25 AM	17	0	9	0	0	0	0	0	0	4	12	0	6	1	0	0	49	
7:30 AM	13	0	4	0	0	0	0	0	0	3	7	0	5	0	0	0	32	
7:35 AM	11	0	11	0	0	0	0	0	0	2	9	0	2	4	0	0	39	
7:40 AM	6	0	9	0	0	0	0	0	0	2	5	0	5	2	0	0	29	
7:45 AIVI	12	0	9	0	0	0	0	0	0	5	5	0	3	1	0	0	35	
7.50 AIVI	11	0	9	0	0	0	0	0	0	2	2	0	5	2	0	0	20	112
7.55 AIVI	0	0	7	0	0	0	0	0	0	- 2	6	0	6	2	0	0	20	443
8:00 AIVI 8:05 AM	o Q	0	2 2	0	0	0	0	0	0	1	6	0	2	4	0	0	26 26	445
8.05 AM	3	0	9	0	0	0	0	0	0	6	3	0	7	1	0	0	20	432
8.15 AM	12	0 0	11	Ő	0	Ő	ñ	Ő	ő	3	6	õ	7	2	Ő	ő	41	421
8:20 AM	9	0	8	õ	0	Õ	Ő	õ	Ő	0	3	õ	5	2	õ	õ	27	406
8:25 AM	5	Õ	5	õ	Ő	Õ	õ	õ	Ő	Õ	4	õ	6	1	õ	õ	21	378
8:30 AM	4	0	8	0	0	0	0	0	0	4	2	0	6	1	0	0	25	371
8:35 AM	7	0	9	0	0	0	0	0	0	4	2	0	5	3	0	0	30	362
8:40 AM	4	0	10	0	0	0	0	0	0	2	3	0	7	0	0	0	26	359
8:45 AM	5	0	6	0	0	0	0	0	0	2	9	0	13	4	0	0	39	363
8:50 AM	6	0	8	0	0	0	0	0	0	5	4	0	7	2	0	0	32	369
Peak 15-Min		North	bound			South	bound			Eastb	ound			West	oound		Ter	hal
Flowrates	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	10	tai
All Vehicles	124	0	92	0	0	0	0	0	0	36	164	0	80	32	0	0	52	28
Heavy Trucks	16	0	24		0	0	0		0	8	20		40	8	0		11	6
Buses																		
Pedestrians		0				0				0				0			C	)
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		C	)
Scooters																		

Comments:

Report generated on 8/16/2024 2:46 PM

#### LOCATION: S Main St -- SE Front St OC 1OR #: 16719902 CITY/STATE: Boardman, OR DATE: Tue, May 21 2024 Peak-Hour: 7:00 AM -- 8:00 AM 5.7 6.1 300 392 Peak 15-Min: 7:10 AM -- 7:25 AM ♦ ♦ 1 284 15 ÷ **↑** 0 0 6 . ÷ **t** 21 **4** 33 0 🔶 33.3 🌶 0 0 3 1 ٠ و 0 🔸 0.82 0 0 🌩 • 0 33.3 **→** 0 **¬ €** 0 → 0 3 → 0 🥆 € 12 → 25 • 0 ₽ ↑↑< **°** 0 **↑** 6.3 ۴ 0 ŧ ŧ ŧ 296 378 5.7 6.1 TRUE DATA TO IMPROVE MOBILITY 0 1 0 ÷ 1 **£** 0 **t** 0 AD 1 4 0 **+** 0 ٠ 0 7 **f** 0 € ŧ **م °** 1 N/A N/A ÷ 1 t ÷ N/A 🗢 N/A N/A 1 1

	<b>`` +</b> 															YA		
5-Min Count		S M	ain St			SM	ain St			SE Fr	ont St			SE Fr	ont St			Hourby
Period Beginning At		(North	bound)			(South	bound)			(Easth	pound)			(West	bound)		Total	Totals
Deginning At	Left	Ihru	Right	U	Left	Ihru	Right	U	Left	Ihru	Right	U	Left	Ihru	Right	U		
7:00 AM	0	36	1	0	0	14	1	0	0	0	0	0	0	0	5	0	57	
7:05 AM	0	36	0	0	1	23	0	0	0	0	0	0	2	0	2	0	64	
7:10 AM	0	34	1	0	0	28	0	0	1	0	0	0	0	0	1	0	65	
7:15 AM	0	43	0	0	3	24	0	0	0	0	0	0	1	0	3	0	74	
7:20 AM	0	40	1	0	3	33	0	0	1	0	0	0	1	0	0	0	79	
7:25 AM	0	21	3	0	1	30	0	0	0	0	0	0	1	0	1	0	57	
7:30 AM	0	18	1	0	1	18	0	0	0	0	0	0	0	0	3	0	41	
7:35 AM	0	21	0	0	1	19	0	0	0	0	0	0	2	0	1	0	44	
7:40 AM	0	30	0	0	3	15	0	0	0	0	0	0	1	0	2	0	51	
7:45 AM	0	21	0	0	1	31	0	0	1	0	0	0	2	0	2	0	58	
7:50 AM	0	39	3	0	1	23	0	0	0	0	0	0	1	0	0	0	67	
7:55 AM	0	29	0	0	0	26	0	0	0	0	0	0	1	0	1	0	57	714
8:00 AM	0	25	2	0	1	20	0	0	0	0	0	0	0	0	1	0	49	706
8:05 AM	0	32	2	0	1	26	0	0	0	0	0	0	0	0	0	0	61	703
8:10 AM	0	29	0	0	2	15	0	0	1	0	0	0	1	0	2	0	50	688
8:15 AM	0	14	0	0	0	17	0	0	0	0	0	0	0	0	2	0	33	647
8:20 AM	0	13	1	0	1	15	0	0	0	0	0	0	0	0	4	0	34	602
8:25 AM	0	12	0	0	2	14	1	0	0	0	1	0	1	0	1	0	32	577
8:30 AM	0	12	0	0	2	9	0	0	0	0	0	0	0	0	0	0	23	559
8:35 AIVI	0	25	1	0	2	11	0	0	0	0	0	0	0	0	3	0	42	557
8:40 AIVI	0	15	0	0		11	1	U	1	U	U	U	0	0	3	U	32	538
8:45 AM	1	23	1	0	3	13	1	0	1	0	0	0	1	0		0	45	525
8:50 AIVI	0	21	1	0	1	9	1	U	Z	0	U	0	U	U	6	0	41	499
Peak 15-Min		North	bound			South	bound			Eastk	ound			West	bound		то	tal
Flowrates	Left	Thru	Right	υ	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	10	ldi
All Vehicles	0	468	8	0	24	340	0	0	8	0	0	0	8	0	16	0	8	72
Heavy Trucks	0	16	0		0	16	0		4	0	0		0	0	0		3	6
Buses		0				0				4				4				2
Ricyclos	0	0	0		0	0	0		0	4	0		0	4	0			2 1
Scootors	0	U	U		0	4	0		0	0	0		0	U	0		l í	+
scoolers																		

Comments:

Report generated on 8/16/2024 2:46 PM

QC JOB #: 16719906

DATE: Tue, May 21 2024

#### LOCATION: N Main St -- Front St NW CITY/STATE: Boardman, OR



5-Min Count Period		N Ma North	ain St bound)			N Ma (South	ain St bound)			Front (Eastb	St NW ound)			Front (West	St NW bound)		Total	Hourly
Beginning At	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		lotals
7:00 AM	3	35	4	0	1	9	1	0	0	0	1	0	1	0	1	0	56	
7:05 AM	4	31	4	0	0	16	0	0	0	0	1	0	3	0	0	0	59	
7:10 AM	1	28	3	0	0	26	0	0	3	0	3	0	4	0	1	0	69	
7:15 AM	1	34	3	0	0	23	0	0	1	0	1	0	1	0	2	0	66	
7:20 AM	1	40	4	0	1	30	0	0	0	0	4	0	0	0	2	0	82	
7:25 AM	0	10	3	0	0	18	0	0	0	1	4	0	2	0	0	0	38	
7:30 AM	2	11	1	0	0	16	0	0	1	1	1	0	1	1	0	0	35	
7:35 AM	4	9	5	0	1	9	0	0	2	1	3	0	5	0	0	0	39	
7:40 AM	2	15	4	0	0	13	0	0	0	0	2	0	5	0	0	0	41	
7:45 AM	0	21	2	0	1	21	0	0	2	0	1	0	3	0	0	0	51	
7:50 AM	3	24	7	0	0	15	2	0	1	0	3	0	2	0	1	0	58	
7:55 AM	4	15	9	0	1	15	2	0	0	0	6	0	3	0	3	0	58	652
8:00 AM	4	21	2	0	0	15	0	0	1	2	7	0	2	0	0	0	54	650
8:05 AM	2	26	5	0	1	23	0	0	1	0	3	0	5	0	0	0	66	657
8:10 AM	0	18	8	0	0	15	0	0	0	0	2	0	1	0	0	0	44	632
8:15 AM	0	14	3	0	1	19	0	0	1	1	4	0	1	0	0	0	44	610
8:20 AM	1	9	2	0	0	12	1	0	1	0	1	0	3	0	0	0	30	558
8:25 AM	3	19	1	0	1	15	1	0	0	0	4	0	2	0	1	0	47	567
8:30 AM	2	10	5	0	0	6	0	0	2	0	5	0	3	0	1	0	34	566
8:35 AM	4	16	7	0	0	13	0	0	2	0	3	0	2	2	1	0	50	577
8:40 AM	0	14	7	0	1	14	1	0	2	0	2	0	4	0	0	0	45	581
8:45 AM	1	17	2	0	1	11	1	0	0	1	3	0	4	0	0	0	41	571
8:50 AM	2	27	6	0	1	10	1	0	0	0	4	0	4	0	0	0	55	568
Peak 15-Min		North	bound			South	bound			Eastb	ound			West	bound		Та	tal
Flowrates	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	10	lai
All Vehicles	12	408	40	0	4	316	0	0	16	0	32	0	20	0	20	0	86	68
Heavy Trucks	0	12	0		0	28	0		0	0	4		4	0	4		5	2
Buses		0				0				0								
Pedestrians	0	0	0		0	0	0		0	0	0		0	4	0		2	+
Bicycles	0	0	0		0	U	0		0	U	0		0	U	0		(	J
Scooters																		
C																		

Comments:

Report generated on 8/16/2024 2:46 PM

LOCATION: N Main St -- Boardman Ave NE CITY/STATE: Boardman, OR QC JOB #: 16719907 DATE: Tue, May 21 2024



5-Min Count Period		(North	bound)			(South	bound)			(Eastb	ound)	-	1	(Westl	bound)	-	Total	Hourly
Beginning At	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		Totals
7:00 AM	2	12	19	0	5	4	0	0	1	4	4	0	4	0	0	0	55	
7:05 AM	3	6	22	0	3	4	3	0	1	3	1	0	11	4	3	0	64	
7:10 AM	2	4	24	0	1	6	1	0	0	1	2	0	10	4	5	0	60	
7:15 AM	0	7	28	0	3	8	1	0	0	3	2	0	12	3	0	0	67	
7:20 AM	3	7	32	0	3	10	3	0	1	0	1	0	18	3	2	0	83	
7:25 AM	1	6	2	0	1	8	3	0	3	0	1	0	8	3	2	0	38	
7:30 AM	3	3	6	0	0	11	2	0	0	0	3	0	3	0	0	0	31	
7:35 AM	1	2	5	0	0	4	1	0	0	1	4	0	1	0	0	0	19	
7:40 AM	4	9	2	0	1	5	1	0	0	0	2	0	3	1	3	0	31	
7:45 AM	5	13	4	0	1	13	1	0	2	0	5	0	4	0	1	0	49	
7:50 AM	5	14	6	0	1	12	3	0	3	1	3	0	2	0	0	0	50	500
7:55 AM	5	/	3	0	1	6	2	0	0	0	5	0	3	0	1	0	33	580
8:00 AM	6	9	6	0	2	7	4	0	4	1	3	0	4	0	1	0	47	572
8:05 AM	6	11	9	0	0	14	1	0	0	0	4	0	3	0	1	0	49	55/
8:10 AM		8	3	0	0	9	2	0	1	2	1	0	3	1	0	0	37	534
8:15 AM	6	8	1	0	1	5	1	0	2	0	4	0	3	2	0	0	33	500
8:20 AIVI	2	5	4	0	2	10	0	0	0	0	5	0	1	0	0	0	29	446
8:25 AIVI	4	4	/	0	1	9	0	0	0	1	2	0	2	1	0	0	30	438
8:30 AIVI	4	5	4	0	1	5	2	0	0	0	0	0	1	1	1	0	24	431
0.55 AIVI	1	7	7	0	1	5	1	0	1	1	0	0		0	1	0	27	445
0.40 AIVI	2	/	12	0	1	0	2	0	1	1	3	0	5	1	1	0	25	449
8.45 AN	5	4 0	11	0	1	0	2	0	0	0	2	0	0	1	1	0	27	433
8.30 AIVI	J	0 Newsha	لمستعط	0	1	0 Cauth	baund	0	0	- U	2	0	0	1 \\\/aat	له هد ده ه	0	37	422
Peak 15-Min	1.6	North	Dialat		1.6	South	Dialat		1.6	Easto	Dista		1.6	west	Diala		To	tal
Flowiates	Left	Inru	Right	U	Left	Thru	Right	U	Left	Inru	Right	U	Left	Inru	Right	U		
All Vehicles	20	72	336	0	28	96	20	0	4	16	20	0	160	40	28	0	84	0
Heavy Trucks	4	16	0		0	16	4		0	0	0		8	4	0		5	2
Buses																		
Pedestrians		0				4				0				0			4	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		C	
Scooters																		
Comments:																		

Report generated on 8/16/2024 2:46 PM

QC JOB #: 16719908

DATE: Tue, May 21 2024

LOCATION: N Main St -- Marine Dr NW CITY/STATE: Boardman, OR



5-Min Count Period		N Ma (North	ain St bound)			N Ma (South	ain St bound)			Marine (Eastb	e Dr NW bound)			Marine (Westl	Dr NW		Total	Hourly
Beginning At	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		Totals
7:00 AM	0	0	4	0	0	0	0	0	0	0	2	0	3	0	0	0	9	
7:05 AM	0	0	5	0	0	0	0	0	0	0	0	0	5	0	0	0	10	
7:10 AM	1	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	5	
7:15 AM	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
7:20 AM	1	0	3	0	0	0	0	0	0	0	2	0	1	0	0	0	7	
7:25 AM	0	0	5	0	0	0	0	0	0	0	0	0	2	0	0	0	7	
7:30 AM	0	0	6	0	0	0	0	0	0	0	1	0	4	0	0	0	11	
7:35 AM	1	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	3	
7:40 AM	2	0	4	0	0	0	0	0	0	0	0	0	3	0	0	0	9	
7:45 AM	1	0	4	0	0	0	0	0	0	0	4	0	5	0	0	0	14	
7:50 AM	1	0	4	0	0	0	0	0	0	0	0	0	6	0	0	0	11	
7:55 AM	1	0	4	0	0	0	0	0	0	0	1	0	3	0	0	0	9	97
8:00 AM	1	0	7	0	0	0	0	0	0	0	2	0	2	0	0	0	12	100
8:05 AM	3	0	3	0	0	0	0	0	0	1	1	0	4	0	0	0	12	102
8:10 AM	0	0	2	0	0	0	0	0	0	0	0	0	2	0	0	0	4	101
8:15 AM	2	0	4	0	0	0	0	0	0	0	1	0	2	0	0	0	9	108
8:20 AM	2	0	5	0	0	0	0	0	0	0	0	0	2	1	0	0	10	111
8:25 AIVI	1	0	0	0	0	0	0	0	0	0	3	0	1	0	0	0	5	109
8:30 AM	0	0	4	0	0	0	0	0	0	0	1	0	3	0	0	0	8	106
8:35 AIVI	2	0	2	0	0	0	0	0	0	0	0	0	1	0	0	0	5	108
8:40 AIVI	1	0	3	0	0	0	0	0	0	0	5 1	0		0	0	0	ð	107
	2	0	2 1	0	0	0	0	0	0	1	2	0	4	0	0	0	5	102
8.30 AIVI	0	0		0	0	0		0	0	1	<u></u> .	0	1	0		0	5	90
Peak 15-Min		North	bound			South	bound			Eastb	ound			West	bound		To	tal
Flowrates	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	10	cui
All Vehicles	16	0	48	0	0	0	0	0	0	0	16	0	56	0	0	0	13	36
Heavy Trucks	4	0	0		0	0	0		0	0	8		4	0	0		1	6
Buses																		
Pedestrians		0				0				0				0			(	)
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		(	)
Scooters																		
Comments:																		

Report generated on 8/16/2024 2:46 PM

OC 1OR #: 16719909

DATE: Tue, May 21 2024

LOCATION: N Main St -- Columbia Ave NW CITY/STATE: Boardman, OR



5-Min Count Period		N Ma (North	ain St bound)			N Ma (South	ain St bound)		C	Olumbia (Fasth	a Ave NW ound)	/		olumbia (Westl	/	Total	Hourly	
Beginning At	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Total	Totals
7:00 AM	0	5	11	0	1	3	1	0	0	0	2	0	2	0	0	0	25	
7:05 AM	1	5	6	0	1	2	2	0	0	0	0	0	6	0	1	0	24	
7:10 AM	0	1	4	0	0	4	0	0	0	0	2	0	2	0	0	0	13	
7:15 AM	0	1	6	0	0	0	0	0	0	1	0	0	7	0	0	0	15	
7:20 AM	0	4	5	0	0	3	0	0	0	0	1	0	12	1	0	0	26	
7:25 AM	1	5	3	0	0	2	0	0	1	1	1	0	9	1	1	0	25	
7:30 AM	0	2	1	0	0	5	0	0	0	1	0	0	6	0	2	0	17	
7:35 AM	0	0	3	0	0	0	0	0	0	0	0	0	3	1	2	0	9	
7:40 AM	0	5	6	0	0	2	0	0	0	0	0	0	5	0	1	0	19	
7:45 AM	0	5	10	0	3	6	0	0	0	1	0	0	12	1	0	0	38	
7:50 AM	1	3	12	0	1	6	0	0	1	0	3	0	7	1	1	0	36	
7:55 AM	1	2	5	0	1	2	1	0	0	0	0	0	6	0	2	0	20	267
8:00 AM	0	6	7	0	0	4	0	0	0	0	2	0	9	0	2	0	30	272
8:05 AM	3	6	5	0	2	3	0	0	0	0	1	0	11	1	0	0	32	280
8:10 AM	1	0	5	0	1	1	0	0	0	1	0	0	8	0	2	0	19	286
8:15 AM	0	1	6	0	0	3	0	0	2	0	0	0	2	0	3	0	1/	288
8:20 AM	0	5	0	0	0	2	0	0	0	0	1	0	8	1	2	0	19	281
8:25 AIVI	2	1	3	0	0	3	0	0	0	0	0	0	6	0	1	0	10	272
8:30 AIVI	1	2	3	0	0	5	0	0	0	2	1	0	3	0	1	0	18	2/3
8:35 AIVI	1	5	2	0	1	2	1	0	0	1	1	0	2	2	1	0	1/	201
8:40 AIVI		5	3	0	1	2	1	0	0	1	1	0	4	1	1	0	19	281
0.45 AIVI 8.50 AM	1	5 7	4	0	1	4	0	0	0	2	2	0	4	0	1	0	25	200
0.50 AN									0	Eacth	2 ound	0	4	Worth	13 243			
Peak 15-Min			Dounu D: L:			Juli	Dound D: L :							T			To	tal
TIOWIALES	Left	Inru	Right	U	Left	Inru	Right	U	Left	Inru	Right	U	Left	Inru	Right	U		
All Vehicles	8	40	108	0	20	56	4	0	4	4	12	0	100	8	12	0	37	6
Heavy Trucks	0	0	0		0	8	0		0	0	0		4	0	4		1	6
Buses																		
Pedestrians		0				0				4				0			4	ŀ
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		C	)
Scooters																		
Commontes																		

Comments:

Report generated on 8/16/2024 2:46 PM

OC 1OR #: 16719910

DATE: Tue, May 21 2024

#### LOCATION: N Main St -- I-84 WB Ramps CITY/STATE: Boardman, OR



5-Min Count Period		N Main St (Northbound)				N Main St I-84 WB Ramps I-84 WB Ramps (Southbound) (Eastbound) (Westbound)								Total	Hourly			
Beginning At	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		lotals
7:00 AM	1	29	0	0	0	10	0	0	0	0	0	0	7	0	13	0	60	
7:05 AM	2	30	0	0	0	21	1	0	0	0	0	0	6	0	9	0	69	
7:10 AM	2	28	0	0	0	29	4	0	0	0	0	0	7	0	4	0	74	
7:15 AM	0	38	0	0	0	21	4	0	0	0	0	0	8	0	2	0	73	
7:20 AM	3	38	0	0	0	33	0	0	0	0	0	0	8	0	6	0	88	
7:25 AM	2	9	0	0	0	22	3	0	0	0	0	0	11	0	3	0	50	
7:30 AM	1	14	0	0	0	16	0	0	0	0	0	0	5	1	0	0	37	
7:35 AM	0	13	0	0	0	17	2	0	0	0	0	0	6	0	5	0	43	
7:40 AM	1	20	0	0	0	18	2	0	0	0	0	0	7	0	2	0	50	
7:45 AM	4	18	0	0	0	21	4	0	0	0	0	0	12	0	4	0	63	
7:50 AM	0	35	0	0	0	18	2	0	0	0	0	0	8	0	2	0	65	
7:55 AM	1	22	0	0	0	21	2	0	0	0	0	0	13	0	3	0	62	734
8:00 AM	1	20	0	0	0	22	3	0	0	0	0	0	6	0	8	0	60	734
8:05 AM	1	23	0	0	0	28	3	0	0	0	0	0	6	0	9	0	70	735
8:10 AM	1	22	0	0	0	16	2	0	0	0	0	0	5	0	4	0	50	711
8:15 AM	0	14	0	0	0	19	5	0	0	0	0	0	1	0	3	0	42	680
8:20 AM	0	10	0	0	0	15	1	0	0	0	0	0	4	0	3	0	33	625
8:25 AM	0	17	0	0	0	19	1	0	0	0	0	0	3	0	6	0	46	621
8:30 AM	0	13	0	0	0	12	3	0	0	0	0	0	2	0	3	0	33	617
8:35 AM	0	20	0	0	0	12	6	0	0	0	0	0	3	0	8	0	49	623
8:40 AM	2	17	0	0	0	19	1	0	0	0	0	0	4	0	4	0	47	620
8:45 AM	1	18	0	0	0	16	1	0	0	0	0	0	7	0	3	0	46	603
8:50 AM	1	25	0	0	0	15	2	0	0	0	0	0	4	0	10	0	57	595
Peak 15-Min	Northbound			Southbound				Eastbound				Westbound				<b>T</b>		
Flowrates	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	10	tai
All Vehicles	20	416	0	0	0	332	32	0	0	0	0	0	92	0	48	0	94	10
Heavy Trucks	8	8	0		0	24	12		0	0	0		0	0	4		5	6
Buses																		
Pedestrians		0				0				0				4			2	l I
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		C	)
Scooters																		
Comments:																		

Report generated on 8/16/2024 2:46 PM

QC JOB #: 16719911

LOCATION: S Main St -- I-84 EB Ramps CITY/STATE: Boardman, OR



5-Min Count		S Ma	in St bound)			S Ma (South	in St bound)			I-84 EB	Ramps			I-84 EB	Total Hourly			
Beginning At	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	TOLAI	Totals
7:00 AM	0	31	11	0	6	14	0	0	1	0	1	0	0	0	0	0	64	
7:05 AM	0	32	6	0	4	23	0	0	1	0	1	0	0	0	0	0	67	
7:10 AM	0	28	8	0	5	28	0	0	0	0	0	0	0	0	0	0	69	
7:15 AM	0	39	5	0	3	27	0	0	5	0	0	0	0	0	0	0	79	
7:20 AM	0	33	10	0	4	36	0	0	1	0	0	0	0	0	0	0	84	
7:25 AM	0	9	12	0	3	30	0	0	2	0	1	0	0	0	0	0	57	
7:30 AM	0	15	7	0	3	19	0	0	0	0	0	0	0	0	0	0	44	
7:35 AM	0	13	9	0	5	19	0	0	0	0	1	0	0	0	0	0	47	
7:40 AM	0	23	8	0	4	19	0	0	0	0	0	0	0	0	0	0	54	
7:45 AM	0	19	5	0	3	31	0	0	1	0	1	0	0	0	0	0	60	
7:50 AM	0	34	6	0	5	23	0	0	1	0	0	0	0	0	0	0	69	
7:55 AM	0	23	5	0	8	25	0	0	0	0	2	0	0	0	0	0	63	757
8:00 AM	0	21	7	0	8	19	0	0	0	0	1	0	0	0	0	0	56	749
8:05 AM	0	24	8	0	7	27	0	0	0	0	0	0	0	0	0	0	66	748
8:10 AM	0	23	9	0	5	17	0	0	2	0	1	0	0	0	0	0	57	736
8:15 AM	0	13	3	0	3	16	0	0	0	0	0	0	0	0	0	0	35	692
8:20 AM	0	10	6	0	4	16	0	0	1	0	0	0	0	0	0	0	37	645
8:25 AM	0	12	2	0	3	17	0	0	4	0	0	0	0	0	0	0	38	626
8:30 AM	0	10	2	0	4	11	0	0	2	0	0	0	0	0	0	0	29	611
8:35 AM	0	19	9	0	6	9	0	0	1	0	4	0	0	0	0	0	48	612
8:40 AM	0	17	2	0	11	13	0	0	3	0	0	0	0	0	0	0	46	604
8:45 AM	0	16	9	0	5	17	0	0	2	0	0	0	0	0	0	0	49	593
8:50 AM	0	26	3	0	8	11	0	0	1	0	0	0	0	0	0	0	49	573
Peak 15-Min	Northbound				Southbound					Eastb	ound		Westbound				Tatal	
Flowrates	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	10	ldi
All Vehicles	0	400	92	0	48	364	0	0	24	0	0	0	0	0	0	0	92	8
Heavy Trucks	0	16	4		8	16	0		0	0	0		0	0	0		4	4
Buses																		
Pedestrians		0				0				4				4			8	6
Bicycles	0	0	0		0	4	0		0	0	0		0	0	0		4	
Scooters																		
Comments:																		

Report generated on 8/16/2024 2:46 PM
LOCATION: S Main St -- Oregon Trail Blvd CITY/STATE: Boardman, OR



5-Min Count Period		S Ma (North	ain St bound)			S Ma (South	ain St bound)		(	Dregon <sup>-</sup> (Easth	Frail Blvd oound)		(	Dregon (West)	Trail Blvd bound)	1	Total	Hourly
Beginning At	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		lotals
7:00 AM	0	26	0	0	0	13	0	0	0	0	0	0	0	0	6	0	45	
7:05 AM	0	29	0	0	1	23	0	0	0	0	0	0	0	0	3	0	56	
7:10 AM	0	35	0	0	0	27	0	0	0	0	0	0	0	0	2	0	64	
7:15 AM	0	40	0	0	1	22	0	0	0	0	0	0	0	0	3	0	66	
7:20 AM	0	30	0	0	1	27	0	0	0	0	0	0	0	0	3	0	61	
7:25 AM	0	18	0	0	2	29	0	0	0	0	0	0	0	0	3	0	52	
7:30 AM	0	17	0	0	1	19	0	0	0	0	0	0	0	0	2	0	39	
7:35 AM	0	20	0	0	0	22	0	0	0	0	0	0	0	0	2	0	44	
7:40 AM	0	28	0	0	0	17	0	0	0	0	0	0	0	0	1	0	46	
7:45 AM	0	22	0	0	1	31	0	0	0	0	0	0	0	0	0	0	54	
7:50 AM	0	42	0	0	0	27	0	0	0	0	0	0	0	0	2	0	71	
7:55 AM	0	32	0	0	2	26	0	0	0	0	0	0	0	0	0	0	60	658
8:00 AM	0	26	0	0	2	21	0	0	0	0	0	0	0	0	2	0	51	664
8:05 AM	0	30	0	0	1	24	0	0	0	0	0	0	0	0	0	0	55	663
8:10 AM	0	22	0	0	0	17	0	0	0	0	0	0	0	0	3	0	42	641
8:15 AM	0	17	0	0	2	13	0	0	0	0	0	0	0	0	0	0	32	607
8:20 AM	0	14	0	0	2	15	0	0	0	0	0	0	0	0	0	0	31	577
8:25 AM	0	9	0	0	0	15	0	0	0	0	0	0	0	0	1	0	25	550
8:30 AM	0	14	0	0	0	10	0	0	0	0	0	0	0	0	1	0	25	536
8:35 AM	0	19	0	0	1	10	0	0	0	0	0	0	0	0	1	0	31	523
8:40 AM	0	16	0	0	0	10	0	0	0	0	0	0	0	0	0	0	26	503
8:45 AM	0	23	0	0	0	13	0	0	0	0	0	0	0	0	0	0	36	485
8:50 AM	0	21	0	0	0	7	0	0	0	0	0	0	1	0	0	0	29	443
Peak 15-Min		North	bound			South	bound			Eastb	ound			West	oound		Та	tal
Flowrates	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	10	Lai
All Vehicles	0	420	0	0	8	304	0	0	0	0	0	0	0	0	32	0	76	54
Heavy Trucks	0	16	0		0	8	0		0	0	0		0	0	0		2	4
Buses																		
Pedestrians		0				0				0				0			(	)
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		C	)
Scooters																		
Comments:																		

Report generated on 8/16/2024 2:46 PM

LOCATION: S Main St -- Kinkade Rd

CITY/STATE: Boardman, OR

QC JOB #: 16719913 DATE: Tue, May 21 2024



Deginning At	Left	Thru	Right	U	Left	Ihru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	20	0	0	0	9	2	0	6	0	0	0	0	0	0	0	37	
7:05 AM	0	29	0	0	0	19	2	0	4	0	0	0	0	0	0	0	54	
7:10 AM	0	22	0	0	0	17	2	0	10	0	0	0	0	0	0	0	51	
7:15 AM	1	33	0	0	0	17	1	0	9	0	1	0	0	0	0	0	62	
7:20 AM	1	21	0	0	0	20	7	0	5	0	0	0	0	0	0	0	54	
7:25 AM	1	13	0	0	0	26	1	0	3	0	5	0	0	0	0	0	49	
7:30 AM	3	8	0	0	0	14	2	0	8	0	2	0	0	0	0	0	37	
7:35 AM	0	18	0	0	0	19	4	0	2	0	0	0	0	0	0	0	43	
7:40 AM	0	29	0	0	0	14	1	0	1	0	0	0	0	0	0	0	45	
7:45 AM	0	17	0	0	0	18	8	0	5	0	3	0	0	0	0	0	51	
7:50 AM	0	37	0	0	0	15	5	0	5	0	1	0	0	0	0	0	63	
7:55 AM	3	24	0	0	0	19	5	0	6	0	4	0	0	0	0	0	61	607
8:00 AM	1	23	0	0	0	11	9	0	4	0	1	0	0	0	0	0	49	619
8:05 AM	1	24	0	0	0	6	6	0	5	0	1	0	0	0	0	0	43	608
8:10 AM	1	16	0	0	0	12	2	0	5	0	3	0	0	0	0	0	39	596
8:15 AM	2	9	0	0	0	7	5	0	7	0	1	0	0	0	0	0	31	565
8:20 AM	1	6	0	0	0	12	1	0	5	0	1	0	0	0	0	0	26	537
8:25 AM	2	11	0	0	0	10	3	0	2	0	0	0	0	0	0	0	28	516
8:30 AM	3	9	0	0	0	6	1	0	3	0	3	0	0	0	0	0	25	504
8:35 AM	0	16	0	0	0	2	2	0	3	0	2	0	0	0	0	0	25	486
8:40 AM	0	14	0	0	0	5	3	0	2	0	1	0	0	0	0	0	25	466
8:45 AM	0	17	0	0	0	7	2	0	3	0	2	0	0	0	0	0	31	446
8:50 AM	0	11	0	0	0	7	2	0	7	0	0	0	0	0	0	0	27	410
Peak 15-Min		North	bound			South	bound			Eastb	ound			West	oound		-	
Flowrates	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	101	tal
All Vehicles	12	312	0	0	0	208	72	0	64	0	32	0	0	0	0	0	70	0
Heavy Trucks	0	24	Õ	Ŭ	õ	8	0	Ŭ	0	õ	0	Ŭ	õ	õ	õ	Ũ	3	2
Buses	Ŭ	27	Ŭ		Ŭ	U	Ŭ		Ŭ	U	Ŭ		Ŭ	U	Ŭ			2
Pedestrians		0				0				0				0			C	
Bicycles	0	ñ	0		0	0 0	0		0	ñ	0		0	ñ	0			
Scooters	U	Ū	Ū		Ũ	U	U		Ũ	U	U		Ū	U	U			
Comments:																		

Report generated on 8/16/2024 2:46 PM

LOCATION: S Main St -- Wilson Ln SE

QC JOB #: 16719914 DATE: Tue, May 21 2024



Beginning At	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		Totals
7:00 AM	0	4	1	0	1	1	4	0	14	1	0	0	0	2	1	0	29	
7:05 AM	1	11	0	0	3	1	10	0	17	2	0	0	0	2	2	0	49	
7:10 AM	1	7	0	0	3	2	9	0	14	0	0	0	0	3	0	0	39	
7:15 AM	0	9	1	0	1	3	12	0	18	2	0	0	0	1	3	0	50	
7:20 AM	0	7	1	0	2	2	13	0	6	2	0	0	0	5	4	0	42	
7:25 AM	0	4	0	0	4	9	18	0	8	0	0	0	0	2	3	0	48	
7:30 AM	0	6	0	0	2	2	10	0	3	2	0	0	1	1	1	0	28	
7:35 AM	1	11	2	0	1	2	10	0	8	0	0	0	0	7	0	0	42	
7:40 AM	2	8	0	0	1	4	12	0	17	4	2	0	0	7	3	0	60	
7:45 AM	1	5	0	0	2	3	10	0	14	1	1	0	0	3	2	0	42	
7:50 AM	0	5	0	0	2	1	9	0	23	1	2	0	2	4	4	0	53	
7:55 AM	0	3	1	0	3	2	10	0	19	6	0	0	0	9	3	0	56	538
8:00 AM	0	6	2	0	4	5	5	0	15	3	1	0	0	0	2	0	43	552
8:05 AM	1	4	1	0	1	3	3	0	17	4	0	0	0	4	2	0	40	543
8:10 AM	0	2	1	0	4	1	8	0	9	3	0	0	0	0	2	0	30	534
8:15 AM	0	2	2	0	0	2	4	0	3	4	0	0	0	1	4	0	22	506
8:20 AM	0	3	0	0	3	3	9	0	4	0	0	0	1	2	3	0	28	492
8:25 AM	0	3	0	0	5	2	1	0	5	0	0	0	2	3	3	0	24	468
8:30 AM	0	2	2	0	1	2	3	0	6	2	0	0	0	2	7	0	27	467
8:35 AM	0	6	0	0	3	2	0	0	9	1	0	0	1	3	0	0	25	450
8:40 AM	0	5	0	0	4	1	1	0	4	1	0	0	0	0	2	0	18	408
8:45 AM	0	3	0	0	0	1	4	0	6	2	0	0	0	3	4	0	23	389
8:50 AM	0	2	0	0	2	4	2	0	8	1	0	0	0	0	1	0	20	356
Peak 15-Min		North	bound			South	bound			Eastb	ound			West	ound		Tot	hal
Flowrates	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	10	.di
All Vehicles	12	72	0	0	20	32	124	0	216	24	20	0	8	56	36	0	62	0
Heavy Trucks	4	8	0	-	0	12	4		24	0	0	-	0	0	4	-	5	5
Buses													-					
Pedestrians		0				4				0				0			4	
Bicycles	0	õ	0		0	0	0		0	Õ	0		0	4	0		4	
Scooters	-	-	2		-	2	-		2	2	-				-			
Comments:																		

Report generated on 8/16/2024 2:46 PM

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#### LOCATION: Laurel Ln -- I-84 EB Ramps QC JOB #: 16719915 DATE: Tue, May 21 2024 CITY/STATE: Boardman, OR Peak-Hour: 4:05 PM -- 5:05 PM 5.1 253 51 Peak 15-Min: 4:05 PM -- 4:20 PM ↓0 12.7 **↓** 0 55 198 0 🔶 32.1 🌶 0 28 🖌 0 ٠ 0 t 0 🔸 0 🌩 0.83 + 0 27.5 🜩 16.7 🥆 40 🔹 12 🥆 **↑** 23 **°** 0 • 0 39.1 14.3 42 ŧ + ŧ 13.4 TRUE DATA TO IMPROVE MOBILITY 0 0 • **£** 0 AD 0 0 0 ٠

**-**‡•



Period		(North	bound)			(South	bound)			(Eastb	ound)			(West	bound)		Total	Hourly
Beginning At	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		TOLAIS
4:00 PM	0	1	0	0	13	5	0	0	2	0	2	0	0	0	0	0	23	
4:05 PM	0	1	3	0	37	7	0	0	1	0	2	0	0	0	0	0	51	
4:10 PM	0	2	3	0	26	2	0	0	0	0	0	0	0	0	0	0	33	
4:15 PM	0	1	1	0	14	6	0	0	1	0	1	0	0	0	0	0	24	
4:20 PM	0	2	4	0	11	4	0	0	4	0	0	0	0	0	0	0	25	
4:25 PM	0	5	2	0	10	6	0	0	6	0	3	0	0	0	0	0	32	
4:30 PM	0	1	1	0	17	7	0	0	3	0	0	0	0	0	0	0	29	
4:35 PM	0	1	5	0	18	5	0	0	3	0	3	0	0	0	0	0	35	
4:40 PM	0	1	9	0	20	3	0	0	4	0	0	0	0	0	0	0	37	
4:45 PM	0	5	6	0	7	3	0	0	3	0	1	0	0	0	0	0	25	
4:50 PM	0	1	3	0	8	2	0	0	2	0	1	0	0	0	0	0	17	
4:55 PM	0	0	4	0	11	6	0	0	1	0	1	0	0	0	0	0	23	354
5:00 PM	0	3	1	0	19	4	0	0	0	0	0	0	0	0	0	0	27	358
5:05 PM	0	4	2	0	14	3	0	0	0	0	0	0	0	0	0	0	23	330
5:10 PM	0	2	1	0	12	6	0	0	0	0	0	0	0	0	0	0	21	318
5:15 PM	0	1	1	0	9	5	0	0	0	0	1	0	0	0	0	0	1/	311
5:20 PM	0	2	1	0	13	5	0	0	1	0	1	0	0	0	0	0	23	309
5:25 PIVI	0	2	1	0	14	/	0	0	1	0	0	0	0	0	0	0	25	302
5:30 PIVI	0	1 A	0	0	10	4	0	0		0	0	0	0	0	0	0	16	289
5:35 PIVI	0	4	1	0	15	1	0	0	0	0	1	0	0	0	0	0	22	2/6
	0	4	5	0	13	2	0	0	2	0	0	0	0	0	0	0	24	203
	0	1	1	0	0	1	0	0	4	0	0	0	0	0	0	0	13	201
5:50 PIVI	U	5	Z	0	Э	Z	0	0	1	U	0	0	0	0	U	0	15	247
Peak 15-Min		North	bound			South	bound			Eastb	ound			West	bound		То	tal
Flowrates	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	10	Lai
All Vehicles	0	16	28	0	308	60	0	0	8	0	12	0	0	0	0	0	43	32
Heavy Trucks Buses	0	4	0		0	4	0		4	0	4		0	0	0		1	6
Pedestrians		0				0				0				0			(	)
Bicycles Scooters	0	0	0		0	0	0		0	0	0		0	0	0		(	)
Comments:																		

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I-84 EB Ramps

Report generated on 8/16/2024 2:46 PM

#### LOCATION: Laurel Ln -- I-84 WB Ramps QC JOB #: 16719916 **CITY/STATE:** Boardman, OR DATE: Tue, May 21 2024 Peak-Hour: 4:00 PM -- 5:00 PM 7.1 20.9 267 129 Peak 15-Min: 4:00 PM -- 4:15 PM ♦ ♦ 35 232 0 ♦ 20 5.2 0 ŧ **L** 14.3 🔶 14.9 **t** 84 **•** 101 23.8 🔶 0 🍠 42 🔶 0 ٠ 0 🔸 0.87 **+** 0 0 🌩 **•** 1 0 🔸 0 🥆 € 16 → 0 0 🔸 0 🥆 ↑ ↑ 45 0 ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ **1** 6 ŧ ŧ 51 35.3 TRUE DATA TO IMPROVE MOBILITY 0 0 0 ┥ 0 🖌 **t** 0 570 0 0 0 🔸 **+** 0 ¢ 07 **f** 0 ŧ • 0 **م** 0 N/A N/A ÷ • £ t N/A → N/A N/A ⇒ ← N/A 1 a ç 7 ٦ ŧ C N/A N/A

5-Min Count		Laur (North	el Ln bound)			Laur (South	el Ln bound)			I-84 WE	3 Ramps ound)			I-84 WI (West	3 Ramps bound)		Total	Hourly
Beginning At	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Total	Totals
4:00 PM	2	1	0	0	0	22	2	0	0	0	0	0	0	0	6	0	33	
4:05 PM	1	1	0	0	0	41	1	0	0	0	0	0	2	0	4	0	50	
4:10 PM	0	2	0	0	0	26	3	0	0	0	0	0	0	0	6	0	37	
4:15 PM	0	2	0	0	0	17	2	0	0	0	0	0	2	0	3	0	26	
4:20 PM	0	6	0	0	0	13	3	0	0	0	0	0	2	0	5	0	29	
4:25 PM	1	10	0	0	0	16	5	0	0	0	0	0	0	0	8	0	40	
4:30 PM	0	4	0	0	0	23	3	0	0	0	0	0	2	0	6	0	38	
4:35 PM	0	3	0	0	0	23	3	0	0	0	0	0	1	0	9	0	39	
4:40 PM	0	5	0	0	0	21	2	0	0	0	0	0	1	0	12	0	41	
4:45 PM	1	7	0	0	0	10	2	0	0	0	0	0	1	0	8	0	29	
4:50 PM	1	3	0	0	0	8	3	0	0	0	0	0	1	1	7	0	24	
4:55 PM	0	1	0	0	0	12	6	0	0	0	0	0	4	0	10	0	33	419
5:00 PM	0	3	0	0	0	24	1	0	0	0	0	0	0	0	4	0	32	418
5:05 PM	0	4	0	0	0	17	1	0	0	0	0	0	0	0	5	0	27	395
5:10 PM	0	2	0	0	0	14	2	0	0	0	0	0	3	0	6	0	27	385
5:15 PM	0	1	0	0	0	15	2	0	0	0	0	0	4	0	8	0	30	389
5:20 PM	0	3	0	0	0	15	1	0	0	0	0	0	2	0	10	0	31	391
5:25 PM	1	2	0	0	0	14	0	0	0	0	0	0	3	0	5	0	25	376
5:30 PM	0	1	0	0	0	11	0	0	0	0	0	0	4	0	10	0	26	364
5:35 PM	1	4	0	0	0	15	3	0	0	0	0	0	1	0	5	0	29	354
5:40 PM	0	5	0	0	0	15	2	0	0	0	0	0	0	0	3	0	25	338
5:45 PM	0	6	0	0	0	5	4	0	0	0	0	0	1	0	7	0	23	332
5:50 PM	1	3	0	0	0	5	0	0	0	0	0	0	2	0	2	0	13	321
Peak 15-Min		North	bound			South	bound			Eastb	ound			West	bound		Та	tal
Flowrates	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	10	Lai
All Vehicles	12	16	0	0	0	356	24	0	0	0	0	0	8	0	64	0	48	30
Heavy Trucks Buses	4	4	0		0	12	12		0	0	0		0	0	12		4	4
Pedestrians		0				0				0				0			(	)
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		(	)
Comments:																		

Report generated on 8/16/2024 2:46 PM

OC 1OR #: 10110011

LOCATION: Olson Rd -- Columbia Ave NE CITY/STATE: Boardman, OR



5-Min Count Period		Olso (North	on Rd bound)			Olso (South	on Rd bound)		(	Columbi Fastl	a Ave NE ound)		(	Columbi (West)	a Ave NE bound)		Total	Hourly
Beginning At	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Total	Totals
4:00 PM	2	0	1	0	0	0	0	0	0	6	0	0	3	10	0	0	22	
4:05 PM	2	1	4	0	0	0	0	0	0	0	2	0	2	22	2	0	35	
4:10 PM	0	0	3	0	1	0	0	0	0	1	0	0	2	12	1	0	20	
4:15 PM	0	0	3	0	0	0	0	0	0	9	0	0	0	12	0	0	24	
4:20 PM	1	1	0	0	0	0	0	0	0	2	0	0	2	7	1	0	14	
4:25 PM	1	0	3	0	0	0	0	0	1	3	0	0	0	11	0	0	19	
4:30 PM	1	0	1	0	0	0	0	0	0	3	1	0	2	12	0	0	20	
4:35 PM	1	0	1	0	0	0	0	0	0	6	0	0	0	9	0	0	17	
4:40 PM	1	0	1	0	2	0	0	0	0	3	0	0	3	13	1	0	24	
4:45 PM	1	0	4	0	1	0	0	0	0	4	1	0	1	10	0	0	22	
4:50 PM	0	0	3	0	1	0	0	0	0	0	0	0	1	20	0	0	25	
4:55 PM	1	0	0	0	0	0	0	0	0	4	3	0	2	13	1	0	24	266
5:00 PM	4	0	1	0	0	0	0	0	0	2	1	0	2	15	0	0	25	269
5:05 PM	3	0	1	0	0	0	0	0	0	1	2	0	4	21	1	0	33	267
5:10 PM	1	0	1	0	0	0	0	0	0	3	2	0	1	12	1	0	21	268
5:15 PM	0	0	3	0	0	0	0	0	0	3	1	0	3	15	0	0	25	269
5:20 PM	0	0	1	0	1	0	0	0	0	3	2	0	4	5	0	0	16	271
5:25 PM	0	0	2	0	0	0	0	0	0	6	0	0	1	7	0	0	16	268
5:30 PM	1	1	1	0	3	0	0	0	0	2	1	0	2	11	0	0	22	270
5:35 PM	2	0	0	0	0	0	2	0	0	3	1	0	2	9	0	0	19	272
5:40 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	6	0	0	8	256
5:45 PM	1	0	0	0	1	0	0	0	0	3	0	0	3	2	0	0	10	244
5:50 PM	0	0	2	0	1	0	0	0	0	3	1	0	1	4	1	0	13	232
Peak 15-Min		North	bound			South	bound			Eastb	ound			Westl	bound		Te	hal
Flowrates	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	10	Ldi
All Vehicles	32	0	8	0	0	0	0	0	0	28	24	0	32	196	8	0	32	8
Heavy Trucks	0	0	4		0	0	0		0	0	0		0	4	4		1	2
Buses																		
Pedestrians		0				0				0				0			C	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		C	)
Scooters																		
Comments:																		

Report generated on 8/16/2024 2:46 PM

### LOCATION: Laurel Ln -- Columbia Blvd CITY/STATE: Boardman, OR



5-Min Count Period		Laur (North	el Ln bound)			Laur (South	el Ln bound)			Colum (Eastb	bia Blvd bound)			Colum (West	bia Blvd bound)		Total	Hourly
Beginning At	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		lotais
4:00 PM	5	0	2	0	0	0	0	0	0	0	13	0	11	10	0	0	41	
4:05 PM	2	0	3	0	0	0	0	0	0	1	30	0	13	3	0	0	52	
4:10 PM	7	0	1	0	0	0	0	0	0	1	16	0	12	4	0	0	41	
4:15 PM	3	0	2	0	0	0	0	0	0	4	17	0	3	4	0	0	33	
4:20 PM	4	0	6	0	0	0	0	0	0	3	10	0	8	2	0	0	33	
4:25 PM	10	0	9	0	0	0	0	0	0	0	9	0	9	4	0	0	41	
4:30 PM	5	0	5	0	0	0	0	0	0	2	14	0	13	2	0	0	41	
4:35 PM	4	0	8	0	0	0	0	0	0	3	8	0	17	4	0	0	44	
4:40 PM	11	0	6	0	0	0	0	0	0	3	11	0	12	7	0	0	50	
4:45 PM	6	0	8	0	0	0	0	0	0	2	6	0	6	8	0	0	36	
4:50 PM	5	0	5	0	0	0	0	0	0	1	8	0	5	8	0	0	32	
4:55 PM	7	0	5	0	0	0	0	0	0	1	3	0	13	11	0	0	40	484
5:00 PM	7	0	0	0	0	0	0	0	0	1	11	0	14	9	0	0	42	485
5:05 PM	8	0	1	0	0	0	0	0	0	1	4	0	14	18	0	0	46	479
5:10 PM	5	0	1	0	0	0	0	0	0	0	2	0	14	5	0	0	27	465
5:15 PM	7	0	4	0	0	0	0	0	0	2	9	0	9	5	0	0	36	468
5:20 PM	9	0	4	0	0	0	0	0	0	0	5	0	10	1	0	0	29	464
5:25 PM	5	0	2	0	0	0	0	0	0	1	9	0	6	3	0	0	26	449
5:30 PM	10	0	1	0	0	0	0	0	0	1	5	0	5	3	0	0	25	433
5:35 PM	7	0	2	0	0	0	0	0	0	1	5	0	13	3	0	0	31	420
5:40 PM	4	0	3	0	0	0	0	0	0	0	9	0	8	4	0	0	28	398
5:45 PM	5	0	9	0	0	0	0	0	0	1	2	0	7	1	0	0	25	387
5:50 PM	4	0	1	0	0	0	0	0	0	2	5	0	0	1	0	0	13	368
Peak 15-Min		North	bound			South	bound			Eastb	ound			West	bound		Та	hal
Flowrates	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	10	tai
All Vehicles	80	0	76	0	0	0	0	0	0	32	132	0	168	52	0	0	54	10
Heavy Trucks	12	0	4		0	0	0		0	0	8		16	4	0		4	4
Buses																		
Pedestrians		0				0				0				0			(	)
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		(	)
Scooters																		
<u> </u>																		

Comments:

Report generated on 8/16/2024 2:46 PM

LOCATION: S Main St -- SE Front St

QC JOB #: 16719919 DATE: Tue, May 21 2024



Beginning At	Left	Thru	Right	U														
4:00 PM	0	33	1	0	0	30	1	0	0	0	0	0	2	0	1	0	68	
4:05 PM	0	28	1	0	2	46	0	0	0	0	0	0	2	0	1	0	80	
4:10 PM	0	44	2	0	2	46	0	0	1	0	0	0	0	0	1	0	96	
4:15 PM	0	28	2	0	5	30	0	0	0	0	0	0	3	0	0	0	68	
4:20 PM	1	31	0	0	5	40	3	0	1	0	0	0	2	0	3	0	86	
4:25 PM	0	29	2	0	2	51	3	0	0	1	0	0	0	0	4	0	92	
4:30 PM	0	35	2	0	2	39	1	0	1	0	1	0	4	0	1	0	86	
4:35 PM	2	27	4	0	1	35	2	0	1	0	1	0	3	0	3	0	79	
4:40 PM	0	26	2	0	3	34	0	0	0	0	0	0	2	0	4	0	71	
4:45 PM	0	19	4	0	4	35	0	0	0	0	0	0	0	0	5	0	67	
4:50 PM	0	25	3	0	6	41	1	0	0	0	0	0	1	0	3	0	80	
4:55 PM	1	29	1	0	5	38	0	0	1	0	0	0	2	1	2	0	80	953
5:00 PM	0	35	1	0	4	42	1	0	0	0	0	0	2	0	7	0	92	977
5:05 PM	0	33	4	0	2	44	2	0	0	1	0	0	1	0	2	0	89	986
5:10 PM	0	21	2	0	3	42	3	0	3	0	5	0	5	1	4	0	89	979
5:15 PM	0	23	1	0	0	24	3	0	3	0	2	0	2	0	3	0	61	972
5:20 PM	1	30	4	0	0	35	0	0	1	0	1	0	1	0	2	0	75	961
5:25 PM	0	24	4	0	6	32	1	0	0	0	0	0	2	0	5	0	74	943
5:30 PM	0	22	2	0	2	32	0	0	0	0	1	0	0	0	1	0	60	917
5:35 PM	0	29	0	0	2	36	1	0	0	0	0	0	6	0	3	0	77	915
5:40 PM	0	30	2	0	0	23	0	0	0	0	0	0	1	0	3	0	59	903
5:45 PM	0	38	1	0	5	28	1	0	1	0	0	0	0	0	0	0	/4	910
5:50 PM	0	34	0	0	1	27	1	0	0	0	0	0	1	0	2	0	66	896
Peak 15-Min		North	bound			South	bound			Eastb	ound			Westh	oound		Та	hal
Flowrates	Left	Thru	Right	U	10	lai												
All Vehicles	4	380	16	0	36	520	28	0	8	4	4	0	24	0	32	0	10	56
Heavy Trucks	0	4	0	Ũ	4	8	4	Ũ	Õ	0	0	Ũ	0	õ	4	č	2	4
Buses	Ŭ		Ŭ			Ũ			Ŭ	Ŭ	Ŭ		Ŭ	Č.			-	
Pedestrians		0				0				0				4			4	
Bicycles	0	Õ	0		0	Õ	0		0	Õ	0		0	0	0		C	
Scooters	2	2	-		2		-		2	2	-				-			
Comments:																		

Report generated on 8/16/2024 2:46 PM

DATE: Tue, May 21 2024

### LOCATION: N Main St -- Front St NW CITY/STATE: Boardman, OR



5-Min Count		N Ma North	ain St bound)			N Ma (South	ain St bound)			Front (Fasth	St NW			Front (West	St NW		Total	Hourly
Beginning At	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Total	Totals
4:00 PM	6	28	7	0	0	23	0	0	1	1	2	0	0	1	0	0	69	
4:05 PM	1	16	3	0	0	34	1	0	1	0	8	0	7	0	0	0	71	
4:10 PM	5	24	4	0	0	30	1	0	1	0	5	0	12	1	1	0	84	
4:15 PM	2	22	1	0	0	25	0	0	0	0	4	0	4	0	0	0	58	
4:20 PM	8	17	7	0	0	35	0	0	0	0	11	0	2	0	1	0	81	
4:25 PM	4	29	5	0	0	33	1	0	0	0	3	0	3	0	0	0	78	
4:30 PM	7	29	8	0	1	22	0	0	1	0	6	0	5	0	1	0	80	
4:35 PM	2	28	4	0	1	22	0	0	1	0	5	0	5	1	1	0	70	
4:40 PM	4	29	3	0	0	24	1	0	1	0	5	0	3	0	0	0	70	
4:45 PM	5	14	6	0	1	27	0	0	0	0	6	0	5	0	0	0	64	
4:50 PM	6	18	8	0	0	26	0	0	1	0	6	0	2	1	1	0	69	050
4:55 PM	5	22	/	0	2	20	1	0	0	0	2	0	5	1	0	0	65	859
5:00 PM	5	27	5	0	0	29	2	0	1	0	10	0	5	0	0	0	84	8/4
5:05 PIM	2	21	/	0	0	37	1	0	0	0	/	0	4	0	0	0	/9	882
5:10 PM	3	19	8	0	0	28	1	0	0	0	4	0	4	0	2	0	69	867
5:15 PIM	5	26	/	0	0	21	1	0	0	1	2	0	5	0	0	0	68	8//
5:20 PIVI	8	26	5	0	2	23	1	0	0	0	3 7	0	2	0	0	0	70	866
5:25 PIVI		24	2	0	2	17	1	0	3	1	/	0	4	0	2	0		859
5:30 PIVI	2	22	2	0	2	1/	1	0	0	1	ð	0	0	1	2	0	50	845
5:35 PIVI		27	0	0	0	24	0	0	0	0	5	0		1	0	0	58	033 01E
5.40 PIVI	0	21	4	0	0	20	0	0	5	0	4	0	27	0	1	0	72	820
5.45 FIVI	2	20	4	0	0	18	0	0	1	0	6	0	1	1	1	0	67	823
	2	North	, hound	0	0	South	bound	0	1	Easth	ound	0	1	Wost	- hound	0	07	027
Flowrates	Left	Thru	Right	Ш	Left	Thru	Right	Ш	Left	Thru	Right	11	Left	Thru	Right	11	To	tal
	70	200	116110	0	Leit	200	- A	0	Leite		00	0	40		- Contraction of the second se	0	0.0	
All vehicles	76	300	80	0	4	360	4	0	4	0	80	0	40	0	ð	0	95	00
Heavy Trucks	U	12	0		0	ð	0		0	0	0		4	0	4		2	ð
Duses		0				0				0				0				,
Peuestilaiis	0	0	0		0	0	0		0	0	0		0	0	0			) )
Scooters	0	0	0		0	0	0		0	0	0		0	0	0		L L	,
Comments:																		

Report generated on 8/16/2024 2:46 PM

QC JOB #: 16719921 DATE: Tue, May 21 2024

LOCATION: N Main St -- Boardman Ave NE CITY/STATE: Boardman, OR



5-Min Count Period		N Ma (North	ain St bound)			N Ma (South	ain St bound)		B	oardma (Eastb	in Ave NE ound)	1	E	loardma (Westl)	in Ave NE bound)	1	Total	Hourly
Beginning At	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		Totals
4:00 PM	9	14	3	0	1	13	3	0	1	0	7	0	2	0	1	0	54	
4:05 PM	6	7	3	0	1	23	2	0	0	1	10	0	4	1	2	0	60	
4:10 PM	9	10	2	0	0	20	1	0	3	0	5	0	1	0	1	0	52	
4:15 PM	9	4	6	0	1	17	1	0	1	0	5	0	0	3	0	0	47	
4:20 PM	8	8	2	0	0	19	1	0	1	0	9	0	6	0	0	0	54	
4:25 PM	9	14	2	0	1	20	1	0	0	0	4	0	4	1	1	0	57	
4:30 PM	12	9	7	0	1	14	2	0	2	0	5	0	1	1	0	0	54	
4:35 PM	9	14	5	0	1	12	2	0	1	0	8	0	2	0	2	0	56	
4:40 PM	7	15	1	0	1	14	1	0	0	1	6	0	1	0	1	0	48	
4:45 PM	8	7	2	0	1	23	1	0	0	1	2	0	1	1	0	0	47	
4:50 PM	6	8	1	0	0	10	3	0	0	0	9	0	2	0	1	0	40	
4:55 PM	5	14	4	0	3	17	1	0	0	0	5	0	1	0	0	0	50	619
5:00 PM	8	13	2	0	1	14	4	0	0	0	7	0	5	2	0	0	56	621
5:05 PM	7	11	1	0	0	23	6	0	2	0	5	0	4	1	1	0	61	622
5:10 PM	4	16	3	0	0	21	1	0	2	1	5	0	0	1	2	0	56	626
5:15 PM	4	16	2	0	0	15	3	0	0	0	4	0	3	1	0	0	48	627
5:20 PM	8	12	1	0	0	16	1	0	3	0	6	0	1	1	1	0	50	623
5:25 PM	11	10	4	0	1	13	2	0	1	0	5	0	3	0	1	0	51	617
5:30 PM	9	9	5	0	1	10	0	0	0	1	6	0	1	0	1	0	43	606
5:35 PM	9	10	11	0	0	16	1	0	0	0	5	0	2	0	1	0	55	605
5:40 PM	8	11	2	0	0	8	1	0	1	0	6	0	2	0	0	0	39	596
5:45 PM	8	17	8	0	2	10	1	0	2	2	5	0	5	0	0	0	60	609
5:50 PM	9	13	9	0	0	5	3	0	2	4	5	0	5	1	0	0	56	625
Peak 15-Min		North	bound			South	bound			Eastb	ound			West	oound		То	tal
Flowrates	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	10	Lai
All Vehicles	76	160	24	0	4	232	44	0	16	4	68	0	36	16	12	0	69	92
Heavy Trucks	8	4	0		0	8	0		0	0	4		0	0	0		2	4
Buses																		
Pedestrians		0				0				0				8			8	3
Bicycles	4	0	0		0	0	0		0	0	0		0	0	0		4	1
Scooters																		
Comments:																		

Report generated on 8/16/2024 2:46 PM

LOCATION: N Main St -- Marine Dr NW CITY/STATE: Boardman, OR



5-Min Count		N Ma	ain St bound)			N Ma (South	uin St bound)			Marine (Fasth	Dr NW			Marine (West	Dr NW		Total	Hourly
Beginning At	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Total	Totals
4:00 PM	2	0	5	0	0	0	0	0	0	0	0	0	4	0	0	0	11	
4:05 PM	2	0	2	0	0	0	0	0	0	0	0	0	4	0	0	0	8	
4:10 PM	0	0	3	0	0	0	0	0	0	0	2	0	4	1	0	0	10	
4:15 PM	0	0	1	0	0	0	0	0	0	1	3	0	3	0	0	0	8	
4:20 PM	1	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	5	
4:25 PM	0	0	1	0	0	0	0	0	0	0	0	0	1	1	0	0	3	
4:30 PM	1	0	5	0	0	0	0	0	0	0	4	0	1	0	0	0	11	
4:35 PM	2	0	2	0	0	0	0	0	0	0	1	0	1	0	0	0	6	
4:40 PM	1	0	8	0	0	0	0	0	0	1	1	0	2	0	0	0	13	
4:45 PM	0	0	4	0	0	0	0	0	0	0	4	0	3	0	0	0	11	
4:50 PM	0	0	2	0	0	0	0	0	0	0	1	0	1	1	0	0	5	
4:55 PM	0	0	6	0	0	0	0	0	0	0	0	0	4	0	0	0	10	101
5:00 PM	0	0	2	0	0	0	0	0	0	0	2	0	4	0	0	0	8	98
5:05 PM	0	0	3	0	0	0	0	0	0	0	1	0	6	0	0	0	10	100
5:10 PM	5	0	7	0	0	0	0	0	0	0	0	0	1	0	0	0	13	103
5:15 PM	0	0	5	0	0	0	0	0	0	1	1	0	5	1	0	0	13	108
5:20 PM	0	0	4	0	0	0	0	0	0	1	2	0	6	0	0	0	13	116
5:25 PM	3	0	4	0	0	0	0	0	0	1	1	0	7	0	0	0	16	129
5:30 PM	1	0	3	0	0	0	0	0	0	1	3	0	2	0	0	0	10	128
5:35 PM	2	0	3	0	0	0	0	0	0	0	1	0	1	0	0	0	7	129
5:40 PM	1	0	4	0	0	0	0	0	0	0	1	0	2	0	0	0	8	124
5:45 PM	1	0	11	0	0	0	0	0	0	0	0	0	2	0	0	0	14	127
5:50 PM	2	0	4	0	0	0	0	0	0	0	0	0	4	0	0	0	10	132
Peak 15-Min		North	bound			South	bound			Eastb	ound			West	oound		To	tal
Flowrates	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	10	tai
All Vehicles	12	0	52	0	0	0	0	0	0	12	16	0	72	4	0	0	16	58
Heavy Trucks	0	0	0		0	0	0		0	0	0		4	0	0		4	ł
Buses																		
Pedestrians		0				0				0				0			0	)
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	)
Scooters																	<u> </u>	
Comments:																		

Comments:

Report generated on 8/16/2024 2:46 PM

LOCATION: N Main St -- Columbia Ave NW CITY/STATE: Boardman, OR



5-Min Count Period		N Ma (North	ain St bound)			N Ma (South	ain St bound)		C	olumbia (Fasth	a Ave NW ound)	/	C	olumbia (Westl	a Ave NW bound)	/	Total	Hourly
Beginning At	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Total	Totals
4:00 PM	2	5	10	0	0	5	0	0	0	0	0	0	10	3	1	0	36	
4:05 PM	1	2	5	0	0	4	0	0	0	0	0	0	22	1	3	0	38	
4:10 PM	0	1	9	0	0	7	0	0	0	3	1	0	12	2	1	0	36	
4:15 PM	0	0	7	0	0	5	1	0	0	2	0	0	12	0	1	0	28	
4:20 PM	1	5	3	0	0	0	0	0	0	0	2	0	15	1	0	0	27	
4:25 PM	1	3	6	0	0	1	0	0	0	0	2	0	18	0	0	0	31	
4:30 PM	1	1	8	0	1	3	0	0	1	1	0	0	9	1	2	0	28	
4:35 PM	1	4	7	0	0	3	0	0	0	1	1	0	7	2	0	0	26	
4:40 PM	3	11	9	0	0	3	0	0	2	0	2	0	8	0	0	0	38	
4:45 PM	1	2	2	0	0	7	0	0	0	1	1	0	16	1	1	0	32	
4:50 PM	1	2	8	0	1	0	0	0	0	1	2	0	10	1	0	0	26	
4:55 PM	1	4	5	0	4	1	0	0	0	1	0	0	16	4	1	0	37	383
5:00 PM	1	1	7	0	1	6	0	0	1	0	1	0	12	1	0	0	31	378
5:05 PM	1	2	12	0	0	5	0	0	1	0	3	0	19	2	0	0	45	385
5:10 PM	2	8	8	0	0	3	0	0	0	0	1	0	16	2	3	0	43	392
5:15 PM	3	3	6	0	1	5	0	0	0	0	1	0	8	2	2	0	31	395
5:20 PM	0	5	9	0	1	7	0	0	0	3	1	0	4	0	0	0	30	398
5:25 PM	2	5	3	0	0	6	1	0	1	3	2	0	6	4	0	0	33	400
5:30 PM	0	3	8	0	0	5	0	0	1	0	2	0	6	3	1	0	29	401
5:35 PM	3	4	3	0	0	3	0	0	0	0	2	0	8	0	1	0	24	399
5:40 PM	0	5	7	0	0	3	0	0	0	1	2	0	5	1	0	0	24	385
5:45 PM	2	9	/	0	0	1	0	0	1	0	2	0	/	1	0	0	30	383
5:50 PM	0	4	8	0	1	3	0	0	0	1	1	0	4	0	1	0	23	380
Peak 15-Min		North	bound			South	bound			Eastb	ound			West	bound		To	tal
Flowrates	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	10	Lai
All Vehicles	16	44	108	0	4	56	0	0	8	0	20	0	188	20	12	0	47	76
Heavy Trucks	0	4	0		0	4	0		4	0	0		4	0	0		1	6
Buses																		
Pedestrians		0				0				0				0			C	)
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		C	)
Scooters																		
Commenter																		

Comments:

Report generated on 8/16/2024 2:46 PM

### LOCATION: N Main St -- I-84 WB Ramps CITY/STATE: Boardman, OR



5-Min Count Period	(Northbound)		(Southbound)			(Eastbound)				(Westbound)				Total	Hourly			
Beginning At	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		TOLAIS
4:00 PM	1	29	0	0	0	22	4	0	0	0	0	0	8	0	12	0	76	
4:05 PM	0	15	0	0	0	44	5	0	0	0	0	0	11	0	5	0	80	
4:10 PM	0	25	0	0	0	40	7	0	0	0	0	0	13	0	8	0	93	
4:15 PM	1	19	0	0	0	27	6	0	0	0	0	0	13	0	6	0	72	
4:20 PM	2	23	0	0	0	41	7	0	0	0	0	0	13	0	9	0	95	
4:25 PM	0	28	0	0	0	37	2	0	0	0	0	0	17	0	10	0	94	
4:30 PM	1	30	0	0	0	33	0	0	0	0	0	0	11	0	14	0	89	
4:35 PM	1	26	0	0	0	31	1	0	0	0	0	0	11	0	8	0	78	
4:40 PM	3	25	0	0	0	28	4	0	0	0	0	0	12	0	11	0	83	
4:45 PM	1	20	0	0	0	35	2	0	0	0	0	0	8	0	7	0	73	
4:50 PM	2	22	0	0	0	33	2	0	0	0	0	0	14	0	8	0	81	0.05
4:55 PM	1	26	0	0	0	23	3	0	0	0	0	0	20	0	8	0	81	995
5:00 PM	4	28	0	0	0	42	3	0	0	0	0	0	11	0	9	0	97	1016
5:05 PIM	1	25	0	0	0	46	2	0	0	0	0	0	11	0	6	0	91	1027
5:10 PM	1	23	0	0	0	35	0	0	0	0	0	0	9	0	6	0	74	1008
5:15 PM	0	29	0	0	0	26	3	0	0	0	0	0	5	0	9	0	72	1008
5:20 PIVI	0	28	0	0	0	28	0	0	0	0	0	0	8	0	11	0	75	988
5:25 PIVI	4	24	0	0	0	31	2	0	0	0	0	0	8	0	2	0	76	970
5:30 PIVI	1	27	0	0	0	29	1	0	0	0	0	0	11	0	2	0	/1	952
5:35 PIVI	1	23	0	0	0	25	4	0	0	0	0	0	14	0	0	0	72	940
5:40 PIVI 5:45 DM	1	20	0	0	0	19	2	0	0	0	0	0	9	0	4	0	81 82	924
5.45 FIVI	0	22	0	0	0	24	1	0	0	0	0	0	11	0	5	0	7/	933
5.501101	0	J.J.	U I	0	0	Cauth		0	0			0	11	14/		0	74	520
Peak 15-Min	1.6	North	Dialat		1.6	South	Diskt		1.6	Easto	Diska		1.4	west	Diala		То	tal
Tiowrates	Leπ	Inru	Right	U	Leπ	Inru	Right	U	Leπ	Inru	Right	U	ιεπ	Inru	Right	U		
All Vehicles	12	324	0	0	0	444	36	0	0	0	0	0	164	0	132	0	11	12
Heavy Trucks	0	8	0		0	4	8		0	0	0		4	0	4		2	8
Buses		_																
Pedestrians	•	0				0				0				4			4	ļ
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		(	)
Scooters																		
Comments:																		

Report generated on 8/16/2024 2:46 PM

LOCATION: S Main St -- I-84 EB Ramps CITY/STATE: Boardman, OR



5-Min Count		S Ma	in St bound)			S Ma (South	ain St bound)			I-84 EB	Ramps			I-84 EB	Ramps		Total	Hourly
Beginning At	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	TOLAI	Totals
4:00 PM	0	27	8	0	2	27	0	0	4	1	5	0	0	0	0	0	74	
4:05 PM	0	13	16	0	7	46	0	0	1	0	1	0	0	0	0	0	84	
4:10 PM	0	26	19	0	9	45	0	0	2	0	4	0	0	0	0	0	105	
4:15 PM	0	16	13	0	10	32	0	0	1	0	3	0	0	0	0	0	75	
4:20 PM	0	22	13	0	4	46	0	0	5	0	2	0	0	0	0	0	92	
4:25 PM	0	20	13	0	9	47	0	0	6	0	9	0	0	0	0	0	104	
4:30 PM	0	23	13	0	3	38	0	0	7	0	4	0	0	0	0	0	88	
4:35 PM	0	18	13	0	9	31	0	0	11	0	6	0	0	0	0	0	88	
4:40 PM	0	23	7	0	6	37	0	0	4	0	3	0	0	0	0	0	80	
4:45 PM	0	17	7	0	9	32	0	0	3	0	4	0	0	0	0	0	72	
4:50 PM	0	17	12	0	2	44	0	0	8	0	4	0	0	0	0	0	87	
4:55 PM	0	18	14	0	4	38	0	0	7	0	6	0	0	0	0	0	87	1036
5:00 PM	0	28	13	0	9	40	0	0	3	0	7	0	0	0	0	0	100	1062
5:05 PM	0	24	10	0	13	43	0	0	4	0	4	0	0	0	0	0	98	1076
5:10 PM	0	19	10	0	4	40	0	0	5	0	8	0	0	0	0	0	86	1057
5:15 PM	0	21	7	0	5	26	0	0	7	0	2	0	0	0	0	0	68	1050
5:20 PM	0	25	9	0	2	27	0	0	6	0	7	0	0	0	0	0	76	1034
5:25 PM	0	21	9	0	7	33	0	0	5	0	6	0	0	0	0	0	81	1011
5:30 PM	0	19	4	0	8	31	0	0	6	0	4	0	0	0	0	0	72	995
5:35 PM	0	23	9	0	6	36	0	0	3	0	2	0	0	0	0	0	79	986
5:40 PM	0	23	10	0	8	23	0	0	2	0	0	0	0	0	0	0	66	972
5:45 PM	0	30	8	0	7	32	0	0	7	0	2	0	0	0	0	0	86	986
5:50 PM	0	29	8	0	5	28	0	0	2	0	1	0	0	0	0	0	73	972
Peak 15-Min		North	bound			South	bound			Eastb	ound			West	oound		Ter	hal
Flowrates	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	10	tai
All Vehicles	0	280	148	0	104	484	0	0	56	0	68	0	0	0	0	0	11	40
Heavy Trucks Buses	0	4	0		8	20	0		8	0	8		0	0	0		4	8
Pedestrians		0				0				0				4			4	
Bicycles	0	õ	0		0	Õ	0		0	Õ	0		0	0	0		Ċ	
Scooters																		
Comments:																		

Report generated on 8/16/2024 2:46 PM

LOCATION: S Main St -- Oregon Trail Blvd CITY/STATE: Boardman, OR



5-Min Count Period	unt S Main St (Northbound)				S Ma (South	ain St bound)		(	Oregon (Eastb	Trail Blvd ound)		(	⊂ West)	Frail Blvd bound)		Total	Hourly	
Beginning At	Left	Thru	Right	U	Left	Thru	Right	U	Left	Ťhru	Right	U	Left	Thru	Right	U		lotais
4:00 PM	0	30	0	0	2	36	0	0	0	0	0	0	0	0	1	0	69	
4:05 PM	0	28	1	0	1	40	0	0	0	0	0	0	1	0	2	0	73	
4:10 PM	0	46	1	0	3	42	0	0	0	0	0	0	1	0	1	0	94	
4:15 PM	0	28	0	0	3	37	0	0	0	0	0	0	2	0	2	0	72	
4:20 PM	0	31	1	0	4	35	0	0	0	0	0	0	0	0	3	0	74	
4:25 PM	0	23	0	0	6	46	0	0	0	0	0	0	0	0	3	0	78	
4:30 PM	0	41	0	0	4	35	0	0	0	0	0	0	1	0	0	0	81	
4:35 PM	0	29	2	0	7	33	0	0	0	0	0	0	1	0	3	0	75	
4:40 PM	0	26	1	0	2	36	0	0	0	0	0	0	1	0	1	0	67	
4:45 PM	0	21	2	0	3	31	0	0	0	0	0	0	1	0	4	0	62	
4:50 PM	0	24	0	0	4	38	0	0	0	0	0	0	0	0	2	0	68	
4:55 PM	0	31	2	0	4	34	0	0	0	0	0	0	0	0	2	0	73	886
5:00 PM	0	37	1	0	1	41	0	0	0	0	0	0	0	0	2	0	82	899
5:05 PM	0	31	1	0	5	43	0	0	0	0	0	0	1	0	2	0	83	909
5:10 PIM	0	21	1	0	6	46	0	0	0	0	0	0	1	0	0	0	75	890
5:15 PIM	0	22	1	0	2	30	0	0	0	0	0	0	0	0	1	0	56	874
5:20 PIVI	0	31	0	0	5	32	0	0	0	0	0	0	1	0	1	0	70	8/0
5:25 PIVI	0	24	0	0	2	28	0	0	0	0	0	0	0	0	3	0	57	849 021
5.50 PIVI	0	25	1	0	4	12	0	0	0	0	0	0	2	0	2	0	76	021
5.35 PIVI	0	20	2	0	2	45 24	0	0	0	0	0	0	5	0	2	0	62	03Z 027
5.40 FIVI	0	33	2	0	2	24	0	0	0	0	0	0	2	0	3	0	65	830
5.45 FIVI	0	33	2	0	2	13	0	0	0	0	0	0		0	2	0	52	830 81 <i>1</i>
Dook 15 Min	Ū	North	hound	U	2	South	bound	0	U	Fasth	ound	0	U	West		0	52	014
Flowrates	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	To	tal
All Vahielas	0	120	0	0	40	150	0	0	0	0	0	0	12	0	24	0	00	0
Hoowy Trucks	0	420	0	0	40	450	0	0	0	0	0	0	12	0	24 1	0	90	0
Buses	0	10	0		0	0	0		0	0	0		0	0	4		2	0
Pedestrians		0				0				8				0			2	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0			
Scooters	9	0	Ŭ		J	0	Ŭ		J	0	Ŭ		9	0	Ŭ			
Comments:																		

Report generated on 8/16/2024 2:46 PM

LOCATION: S Main St -- Kinkade Rd

QC JOB #: 16719927



5-Min Count Period		(North	bound) (Southbound) (Eastbound) (Westbound)							Total	Hourly							
Beginning At	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		TOLAIS
4:00 PM	1	24	0	0	0	24	5	0	3	0	2	0	0	0	0	0	59	
4:05 PM	0	23	0	0	0	22	10	0	8	0	0	0	0	0	0	0	63	
4:10 PM	1	37	0	0	0	30	9	0	8	0	2	0	0	0	0	0	87	
4:15 PM	0	21	0	0	0	22	8	0	4	0	1	0	0	0	0	0	56	
4:20 PM	0	25	0	0	0	26	6	0	4	0	1	0	0	0	0	0	62	
4:25 PM	4	13	0	0	0	26	5	0	8	0	3	0	0	0	0	0	59	
4:30 PM	2	23	0	0	0	22	5	0	12	0	5	0	0	0	0	0	69	
4:35 PM	3	25	0	0	0	26	10	0	4	0	3	0	0	0	0	0	71	
4:40 PM	1	16	0	0	0	20	9	0	9	0	1	0	0	0	0	0	56	
4:45 PM	4	15	0	0	0	19	7	0	7	0	1	0	0	0	0	0	53	
4:50 PM	2	14	0	0	0	27	6	0	7	0	6	0	0	0	0	0	62	
4:55 PM	0	18	0	0	0	22	6	0	11	0	3	0	0	0	0	0	60	757
5:00 PM	0	23	0	0	0	24	11	0	12	0	4	0	0	0	0	0	74	772
5:05 PM	0	9	0	0	0	30	6	0	14	0	4	0	0	0	0	0	63	772
5:10 PM	0	13	0	0	0	33	8	0	6	0	3	0	0	0	0	0	63	748
5:15 PM	1	18	0	0	0	17	6	0	5	0	3	0	0	0	0	0	50	742
5:20 PM	1	17	0	0	0	14	11	0	7	0	1	0	0	0	0	0	51	731
5:25 PM	2	18	0	0	0	16	7	0	2	0	1	0	0	0	0	0	46	718
5:30 PM	1	19	0	0	0	19	4	0	8	0	3	0	0	0	0	0	54	703
5:35 PM	1	17	0	0	0	29	8	0	9	0	2	0	0	0	0	0	66	698
5:40 PM	3	24	0	0	0	19	4	0	6	0	1	0	0	0	0	0	57	699
5:45 PM	0	25	0	0	0	16	6	0	3	0	2	0	0	0	0	0	52	698
5:50 PM	2	18	0	0	0	15	2	0	9	0	2	0	0	0	0	0	48	684
Peak 15-Min		North	bound			South	bound			Eastb	ound			West	oound		То	tal
Flowrates	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	10	Lai
All Vehicles	4	324	0	0	0	296	108	0	80	0	12	0	0	0	0	0	82	24
Heavy Trucks	0	16	0		0	12	0		4	0	0		0	0	0		3	2
Buses																		
Pedestrians		0				0				0				0			(	)
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		(	)
Scooters																		
Comments:																		

Report generated on 8/16/2024 2:47 PM

DATE: Tue, May 21 2024

LOCATION: S Main St -- Wilson Ln SE CITY/STATE: Boardman, OR



Periou			bound			Journ	bound			Lasin	ounuj			(WESU	Jounuj		TOLAI	Totals
Beginning At	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		Totals
4:00 PM	0	3	2	0	6	9	4	0	13	4	1	0	0	2	3	0	47	
4:05 PM	0	5	0	0	2	7	10	0	13	0	0	0	1	2	4	0	44	
4:10 PM	0	8	2	0	7	8	17	0	21	3	0	0	0	3	3	0	72	
4:15 PM	0	3	3	0	3	7	12	0	13	3	0	0	0	2	4	0	50	
4:20 PM	1	3	1	0	3	6	8	0	12	1	0	0	1	3	4	0	43	
4:25 PM	0	0	0	0	6	6	13	0	6	1	0	0	3	1	10	0	46	
4:30 PM	0	3	0	0	6	6	15	0	6	4	2	0	3	6	9	0	60	
4:35 PM	0	5	0	0	3	6	12	0	8	1	0	0	1	4	12	0	52	
4:40 PM	0	1	0	0	2	8	10	0	6	1	1	0	2	2	4	0	37	
4:45 PM	0	4	0	0	4	8	9	0	13	1	0	0	2	6	4	0	51	
4:50 PM	0	4	1	0	1	15	14	0	7	2	0	0	1	0	5	0	50	
4:55 PM	1	6	0	0	1	10	12	0	9	2	0	0	2	2	5	0	50	602
5:00 PM	0	/	2	0		4	16	0	10	1	1	0	0	1	2	0	51	606
5:05 PIVI	0	0	1	0	4	12	14	0	5	/	0	0	0	1	1	0	45	607
5:10 PIM	0	3	0	0	4	8	15	0	5	3	1	0	0	0	4	0	43	578
5:15 PIVI	1	/	0	0	3	8	/	0	8	T	0	0	2	4	6	0	47	575
5:20 PIVI	1	ð 1	0	0	4	/	ð 1	0	4	0	0	0	1	5	4	0	38 25	570
5:25 PIVI		4	2	0	1	Ö E	4	0	/	2	1	0	1	1	2	0	33	222
5.30 FIVI	0	2	0	0	2	6	17	0	10	1	0	0	1	4	1	0	40	520
5.40 PM	1	12	2	0	2	5	17	0	5	0	0	0	0	4	6	0	40	5/8
5.45 PM	0	<u>م</u>	0	0	1	5	5	0	12	3	1	0	1	2	5	0	40	540
5:50 PM	0	2	0	0	6	6	2	0	9	3	0	0	0	2	1	0	31	525
Peak 15-Min		North	bound			South	bound			Eastb	ound			West	oound			
Flowrates	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	To	tal
All Vehicles	4	56	24	0	52	84	148	0	184	28	0	0	4	32	44	0	66	50
Heavy Trucks	0	0	8	Ũ	0	8	4	Ũ	4	4	Õ	Ũ	0	0	4	Ũ	3	2
Buses	-					-	·			·	-			-	·		-	
Pedestrians		0				0				0				0			C	)
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		C	)
Scooters																		
Comments:																		

Report generated on 8/16/2024 2:47 PM

# Attachment B – Existing Traffic Operations Worksheets

Version 2024 (SP 0-1)

### Boardman Circulation Study **Existing Traffic Conditions**

Section 4, Item A.

Weekday PM Peak Hour HCM 6th

### HCM 6th

Vistro File: H:\...\30287\_Vistro.vistro Report File: H:\...\EX AM.pdf

Scenario 1 EX AM 10/30/2024

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
2	Main St/Columbia Ave	Two-way stop	HCM 7th Edition	WB Thru	0.010	11.2	В
3	Main St/Boardman Ave	Two-way stop	HCM 7th Edition	WB Left	0.494	35.2	Е
4	Main St/Front St NE	Two-way stop	HCM 7th Edition	WB Left	0.248	29.0	D
5	Main St/I-84 WB Ramp Terminal	Two-way stop	HCM 7th Edition	WB Left	0.600	34.5	D
6	Main St/I-84 EB Ramp Terminal	Two-way stop	HCM 7th Edition	EB Left	0.101	30.0	D
7	Main St/Front St SE	Two-way stop	HCM 7th Edition	EB Left	0.029	26.2	D
8	Main St/Oregon Trail Blvd	Two-way stop	HCM 7th Edition	WB Right	0.040	10.8	В
9	Main St/Kinkade Rd	Two-way stop	HCM 7th Edition	EB Left	0.152	14.3	В
10	Main St/Wilson Ln	All-way stop	HCM 7th Edition	EB Left	0.300	9.4	А
11	Olson Rd/Columbia Ave	Two-way stop	HCM 7th Edition	EB Thru	0.094	9.9	А
12	Laurel Ln/Columbia Ave	Two-way stop	HCM 7th Edition	WB Left	0.132	13.0	В
13	Laurel Ln/I-84 WB Ramp Terminal	Two-way stop	HCM 7th Edition	WB Left	0.049	11.7	В
14	Laurel Ln/I-84 EB Ramp Terminal	Two-way stop	HCM 7th Edition	EB Thru	0.007	14.7	В

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.



Weekday PM Peak Hour



Control Type:

Analysis Method:

Analysis Period:

Two-way stop

HCM 7th Edition

15 minutes

Version 2024 (SP 0-1)

Boardman Circulation Study

HCM 6th

### **Existing Traffic Conditions** Intersection Level Of Service Report

### Intersection 2: Main St/Columbia Ave

Delay (sec /
Level Of Ser
Volume to Capa

veh): 11.2 rvice: acity (v/c):

В 0.010

Name		Main St			Main St		C	olumbia A	ve	Columbia Ave			
Approach	1	lorthboun	d	S	Southboun	d		Eastbound	ł	\	Nestboun	d	
Lane Configuration		٦F			٦F			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0	
Entry Pocket Length [ft]	850.00	100.00	100.00	150.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Speed [mph]		20.00			20.00			25.00			35.00		
Grade [%]		0.00			0.00			0.00			0.00		
Crosswalk		Yes			Yes			Yes			Yes		
Volumes	•												
Name		Main St			Main St		C	olumbia A	ve	C	olumbia A	ve	
Base Volume Input [veh/h]	4	40	68	6	37	3	2	4	9	84	5	12	
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Heavy Vehicles Percentage [%]	0.00	3.00	7.00	0.00	14.00	0.00	0.00	25.00	22.00	5.00	0.00	8.00	
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Total Hourly Volume [veh/h]	4 40 68			6	37	3	2	4	9	84	5	12	
Peak Hour Factor	0.7200 0.7200 0.7200			0.7200	0.7200	0.7200	0.7200	0.7200	0.7200	0.7200	0.7200	0.7200	
Other Adjustment Factor	1.0000 1.0000 1.0000 1			1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Total 15-Minute Volume [veh/h]	1 14 24			2	13	1	1	1	3	29	2	4	
Total Analysis Volume [veh/h]	6 56 94			8	51	4	3	6	13	117	7	17	
Pedestrian Volume [ped/h]		0		1				1		0			

### Boardman Circulation Study

Version 2024 (SP 0-1)

### **Existing Traffic Conditions**

Weekday PM Peak Hour

Section 4, Item A.

HCM 6th

### Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

### Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.01	0.16	0.01	0.02
d_M, Delay for Movement [s/veh]	7.32	0.00	0.00	7.51	0.00	0.00	10.02	10.90	8.88	11.00	11.21	9.95
Movement LOS	A	А	А	A	А	A	В	В	А	В	В	А
95th-Percentile Queue Length [veh/ln]	0.01	0.00	0.00	0.02	0.00	0.00	0.08	0.08	0.08	0.69	0.69	0.69
95th-Percentile Queue Length [ft/ln]	0.29	0.00	0.00	0.42	0.00	0.00	2.10	2.10	2.10	17.13	17.13	17.13
d_A, Approach Delay [s/veh]		0.28			0.95			9.59			10.88	
Approach LOS		А			А			А		В		
d_I, Intersection Delay [s/veh]	4.84											
Intersection LOS	В											



Weekday PM Peak Hour



Version 2024 (SP 0-1)

Boardman Circulation Study

HCM 6th

### **Existing Traffic Conditions** Intersection Level Of Service Report

Intersection 3: Main St/Boardman Ave

Control Type:	
Analysis Method:	
Analysis Period:	

Two-way stop HCM 7th Edition 15 minutes

Delay (sec / veh): Level Of Service: Volume to Capacity (v/c):

Е 0.494

35.2

Name	Main St				Main St		Boardman Ave			Boardman Ave		
Approach	N	lorthboun	d	S	Southboun	d		Eastbound	ł	\	Vestboun	d
Lane Configuration		чŀ			4			+			+	
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]		20.00			20.00		25.00			20.00		
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk	Yes				Yes			Yes		Yes		
Volumes												
Name		Main St			Main St		Bo	ardman A	ve	Boardman Ave		
Base Volume Input [veh/h]	45	104	167	20	112	30	17	12	38	94	21	21
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	16.00	5.00	4.00	12.00	9.00	4.00	0.00	0.00	6.00	9.00	6.00	6.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	45	104	167	20	112	30	17	12	38	94	21	21
Peak Hour Factor	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	17	38	61	7	41	11	6	4	14	35	8	8
Total Analysis Volume [veh/h]	66	153	246	29	165	44	25	18	56	138	31	31
Pedestrian Volume [ped/h]	3			3			1			5		



### Boardman Circulation Study

Version 2024 (SP 0-1)

### **Existing Traffic Conditions**

Weekday PM Peak Hour

Section 4, Item A.

HCM 6th

### Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

### Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.00	0.00	0.03	0.00	0.00	0.09	0.06	0.07	0.49	0.09	0.04	
d_M, Delay for Movement [s/veh]	7.96	0.00	0.00	8.37	0.00	0.00	19.36	19.01	11.36	35.16	32.94	27.14	
Movement LOS	А	А	А	A	А	A	С	С	В	E	D	D	
95th-Percentile Queue Length [veh/ln]	0.16	0.00	0.00	0.08	0.00	0.00	0.79	0.79	0.79	3.99	3.99	3.99	
95th-Percentile Queue Length [ft/In]	4.07	0.00	0.00	2.03	0.00	0.00	19.84	19.84	19.84	99.66	99.66	99.66	
d_A, Approach Delay [s/veh]		1.13			1.02			14.77	4.77 33.57				
Approach LOS		A A						В		D			
d_I, Intersection Delay [s/veh]	8.93												
Intersection LOS		E											

Weekday PM Peak Hour



Version 2024 (SP 0-1)

Boardman Circulation Study

HCM 6th

**Existing Traffic Conditions** Intersection Level Of Service Report

### Intersection 4: Main St/Front St NE

Control Type:	
Analysis Method:	
Analysis Period:	

Two-way stop
HCM 7th Edition
15 minutes

29.0
D
0.248

Name	Main St				Main St		Front St NE			Front St NE		
Approach	1	lorthboun	d	S	Southboun	d		Eastbound	ł	\	Vestboun	d
Lane Configuration		<b>7</b> F			4			Hr .		+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	1	0	0	0
Entry Pocket Length [ft]	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]		30.00			30.00		25.00			25.00		
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk	No				Yes			Yes		Yes		
Volumes												
Name		Main St			Main St		Front St NE			Front St NE		
Base Volume Input [veh/h]	31	309	56	5	260	5	13	6	43	37	1	11
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	8.00	6.00	6.00	25.00	8.00	0.00	0.00	0.00	8.00	16.00	0.00	11.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	31	309	56	5	260	5	13	6	43	37	1	11
Peak Hour Factor	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	103	19	2	87	2	4	2	14	12	0	4
Total Analysis Volume [veh/h]	41	412	75	7	347	7	17	8	57	49	1	15
Pedestrian Volume [ped/h]	0				2			1			3	



### Boardman Circulation Study

Version 2024 (SP 0-1)

### **Existing Traffic Conditions**

Weekday PM Peak Hour

Section 4, Item A.

HCM 6th

### Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane				No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

### Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.00	0.00	0.01	0.00	0.00	0.07	0.03	0.08	0.25	0.00	0.03
d_M, Delay for Movement [s/veh]	8.19	0.00	0.00	8.77	0.00	0.00	21.68	20.83	10.80	28.98	24.30	16.94
Movement LOS	А	А	А	А	А	A	С	С	В	D	С	С
95th-Percentile Queue Length [veh/ln]	0.11	0.00	0.00	0.02	0.00	0.00	0.34	0.34	0.27	1.09	1.09	1.09
95th-Percentile Queue Length [ft/In]	2.72	0.00	0.00	0.55	0.00	0.00	8.44	8.44	6.86	27.34	27.34	27.34
d_A, Approach Delay [s/veh]		0.64			0.17			14.03 26.13				
Approach LOS		А			А			В		D		
d_I, Intersection Delay [s/veh]	3.13											
Intersection LOS		D										

Weekday PM Peak Hour



Version 2024 (SP 0-1)

Boardman Circulation Study

HCM 6th

**Existing Traffic Conditions** 

### Intersection Level Of Service Report Intersection 5: Main St/I-84 WB Ramp Terminal

Control Type:	Two-way stop
Analysis Method:	HCM 7th Edition
Analysis Period:	15 minutes

Delay (sec / veh): 34.5 Level Of Service: D Volume to Capacity (v/c):

0.600

Name	Main St				Main St					I-84 WB		
Approach	1	Northboun	d	5	Southboun	d	1	Eastbound	d	\	Nestboun	d
Lane Configuration		-			F						+	
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]		30.00			30.00		30.00				45.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		No			No		Yes			Yes		
Volumes												
Name		Main St		Main St							I-84 WB	
Base Volume Input [veh/h]	20	339	0	0	308	32	0	0	0	115	1	57
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	24.00	5.00	2.00	2.00	8.00	19.00	2.00	2.00	2.00	4.00	0.00	15.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	339	0	0	308	32	0	0	0	115	1	57
Peak Hour Factor	0.7800	0.7800	1.0000	1.0000	0.7800	0.7800	1.0000	1.0000	1.0000	0.7800	0.7800	0.7800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	109	0	0	99	10	0	0	0	37	0	18
Total Analysis Volume [veh/h]	26	435	0	0	395	41	0	0	0	147	1	73
Pedestrian Volume [ped/h]	0				0			1			4	



### Boardman Circulation Study

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### **Existing Traffic Conditions**

Weekday PM Peak Hour

Section 4, Item A.

HCM 6th

### Intersection Settings

Priority Scheme	Free	Free	Stop	Stop						
Flared Lane				Yes						
Storage Area [veh]	0	0	0	1						
Two-Stage Gap Acceptance				No						
Number of Storage Spaces in Median	0	0	0	0						

#### Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.12
d_M, Delay for Movement [s/veh]	8.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	34.51	33.69	25.94
Movement LOS	A	А			А	A				D	D	D
95th-Percentile Queue Length [veh/ln]	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.92	3.92	3.92
95th-Percentile Queue Length [ft/ln]	1.10	1.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	98.01	98.01	98.01
d_A, Approach Delay [s/veh]		0.48		0.00			0.00				31.67	
Approach LOS		А			A			А			D	
d_I, Intersection Delay [s/veh]		6.46										
Intersection LOS					D							

Weekday PM Peak Hour

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Boardman Circulation Study

HCM 6th

Existing Traffic Conditions

#### Intersection Level Of Service Report Intersection 6: Main St/I-84 EB Ramp Terminal

	intersection of Main	
Control Type:	Two-way stop	Delay (sec / veh):
Analysis Method:	HCM 7th Edition	Level Of Service:
Analysis Period:	15 minutes	Volume to Capacity (v/c):

Name		Main St			Main St			I-84 EB				
Approach	1	lorthboun	d	S	Southboun	d		Eastbound	ł	V	Vestboun	d
Lane Configuration		F			-			+				
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]		30.00			30.00		45.00				30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk	No				No			Yes		Yes		
Volumes												
Name		Main St		Main St			I-84 EB					
Base Volume Input [veh/h]	0	346	105	65	358	0	13	0	8	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	6.00	3.00	15.00	6.00	2.00	18.00	0.00	14.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	346	105	65	358	0	13	0	8	0	0	0
Peak Hour Factor	1.0000	0.8100	0.8100	0.8100	0.8100	1.0000	0.8100	0.8100	0.8100	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	107	32	20	110	0	4	0	2	0	0	0
Total Analysis Volume [veh/h]	0	427	130	80	442	0	16	0	10	0	0	0
Pedestrian Volume [ped/h]		0			0		1			4		

### Boardman Circulation Study

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### **Existing Traffic Conditions**

Weekday PM Peak Hour

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HCM 6th

### Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	
Number of Storage Spaces in Median	0	0	0	0

### Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.08	0.00	0.00	0.10	0.00	0.02	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	8.90	0.00	0.00	29.98	27.96	13.29	0.00	0.00	0.00
Movement LOS		А	А	A	А		D	D	В			
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.14	0.14	0.00	0.40	0.40	0.40	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	3.49	3.49	0.00	9.90	9.90	9.90	0.00	0.00	0.00
d_A, Approach Delay [s/veh]		0.00		1.36				23.56			0.00	
Approach LOS		A A				C A						
d_I, Intersection Delay [s/veh]		1.20										
Intersection LOS		D										

Weekday PM Peak Hour



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Boardman Circulation Study

HCM 6th

**Existing Traffic Conditions** Intersection Level Of Service Report

### Intersection 7: Main St/Front St SE

Control Type:	
Analysis Method:	
Analysis Period:	

Two-way stop HCM 7th Edition 15 minutes

Delay (sec / veh): 26.2 Level Of Service: D Volume to Capacity (v/c):

0.029

Name		Main St			Main St		F	ront St SI	E	Front St SE		
Approach	М	lorthboun	d	S	Southboun	d		Eastbound	ł	Westbound		
Lane Configuration		4			<b>ч</b> Ь			+		۲r		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]		30.00			30.00			25.00			25.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk	Yes				No			Yes			Yes	
Volumes												
Name		Main St		Main St		Front St SE			F	Front St SI	E	
Base Volume Input [veh/h]	0	427	13	19	347	0	4	0	0	14	0	20
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	5.00	0.00	0.00	6.00	0.00	33.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	427	13	19	347	0	4	0	0	14	0	20
Peak Hour Factor	0.8100	0.8100	0.8100	0.8100	0.8100	0.8100	0.8100	0.8100	0.8100	0.8100	0.8100	0.8100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	132	4	6	107	0	1	0	0	4	0	6
Total Analysis Volume [veh/h]	0	527	16	23	428	0	5	0	0	17	0	25
Pedestrian Volume [ped/h]		0			0			1		4		



### Boardman Circulation Study

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### Existing Traffic Conditions

Weekday PM Peak Hour

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HCM 6th

### Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

### Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.00	0.02	0.00	0.00	0.03	0.00	0.00	0.08	0.00	0.05
d_M, Delay for Movement [s/veh]	8.16	0.00	0.00	8.58	0.00	0.00	26.18	21.16	11.32	23.31	21.84	11.93
Movement LOS	А	А	А	A	А	А	D	С	В	С	С	В
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.07	0.00	0.00	0.09	0.09	0.09	0.26	0.26	0.14
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	1.71	0.00	0.00	2.20	2.20	2.20	6.42	6.42	3.60
d_A, Approach Delay [s/veh]		0.00		0.44			26.18				16.54	
Approach LOS		А		A D						С		
d_I, Intersection Delay [s/veh]		0.98										
Intersection LOS		D										

10/30/2024

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Boardman Circulation Study

HCM 6th

Existing Traffic Conditions

#### Intersection Level Of Service Report Intersection 8: Main St/Oregon Trail Blvd

Control Type:	Two-way stop	Delay (sec / veh):
Analysis Method:	HCM 7th Edition	Level Of Service:
Analysis Period:	15 minutes	Volume to Capacity (v/c):

Name	Mai	in St	Ma	in St	Oregon Trail Blvd		
Approach	North	bound	South	bound	West	bound	
Lane Configuration	F		•	1	T		
Turning Movement	Thru	Right	Left	Thru	Left	Right	
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	
No. of Lanes in Entry Pocket	0	0	0	0	0	0	
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	
No. of Lanes in Exit Pocket	0	0	0	0	0	0	
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	
Speed [mph]	30	.00	30.00		25.00		
Grade [%]	0.	00	0	.00	0.	00	
Crosswalk	N	10	1	٩o	N	lo	
Volumes							
Name	Mai	Main St		in St	Oregon Trail Blvd		
Base Volume Input [veh/h]	339	0	11	291	0	23	
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	

Dase volume input [ven/n]	555	0		291	0	25
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	4.00	0.00	18.00	5.00	0.00	9.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	339	0	11	291	0	23
Peak Hour Factor	0.8700	0.8700	0.8700	0.8700	0.8700	0.8700
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	97	0	3	84	0	7
Total Analysis Volume [veh/h]	390	0	13	334	0	26
Pedestrian Volume [ped/h]	(	)	(	)	(	)

# Boardman Circulation Study

Weekday PM Peak Hour

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### **Existing Traffic Conditions**

HCM 6th

### Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

### Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.00	0.04			
d_M, Delay for Movement [s/veh]	0.00	0.00	8.33	0.00	14.80	10.83			
Movement LOS	A	A A		А	В	В			
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.02	0.02	0.13	0.13			
95th-Percentile Queue Length [ft/In]	0.00	0.00	0.55	0.55	3.15	3.15			
d_A, Approach Delay [s/veh]	0.	00	0.	.31	10.83				
Approach LOS		4	В						
d_I, Intersection Delay [s/veh]	0.51								
Intersection LOS		В							

Weekday PM Peak Hour



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Boardman Circulation Study

HCM 6th

**Existing Traffic Conditions** 

### Intersection Level Of Service Report Intersection 9: Main St/Kinkade Rd

Control Type:	Two-way stop
Analysis Method:	HCM 7th Edition
Analysis Period:	15 minutes

aue Ru	
Delay (sec / veh):	14.3
Level Of Service:	В
Volume to Capacity (v/c):	0.152

0.152

Name	Ma	in St	Ma	in St	Kinkade Rd			
Approach	North	ibound	South	nbound	East	bound		
Lane Configuration	•	1	1	F .	Ť			
Turning Movement	Left Thru		Thru	Right	Left	Right		
Lane Width [ft]	12.00 12.00		12.00	12.00 12.00		12.00		
No. of Lanes in Entry Pocket	0 0		0	0 0		0		
Entry Pocket Length [ft]	100.00 100.00		100.00	100.00	100.00	100.00		
No. of Lanes in Exit Pocket	0 0		0	0 0		0		
Exit Pocket Length [ft]	0.00 0.00		0.00	0.00 0.00		0.00		
Speed [mph]	30	0.00	30	0.00	25.00			
Grade [%]	0	.00	0	.00	0.00			
Crosswalk	1	No	1	No	Yes			
Volumes								
Name	Main St		Ma	in St	Kinkade Rd			
Base Volume Input [veh/h]	10	274	209	47	62	17		
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		
Hagury Vahialas Daraantaga [9/1	10.00	E 00	E 00	4.00	0.00	6.00		

Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		
Heavy Vehicles Percentage [%]	10.00	5.00	5.00	4.00	0.00	6.00		
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		
In-Process Volume [veh/h]	0	0	0	0	0	0		
Site-Generated Trips [veh/h]	0	0	0	0	0	0		
Diverted Trips [veh/h]	0	0	0	0	0	0		
Pass-by Trips [veh/h]	0	0	0	0	0	0		
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0		
Other Volume [veh/h]	0	0	0 0		0	0		
Total Hourly Volume [veh/h]	10	274	209	47	62	17		
Peak Hour Factor	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800		
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		
Total 15-Minute Volume [veh/h]	3	78	59	13	18	5		
Total Analysis Volume [veh/h]	11	311	238	53	70	19		
Pedestrian Volume [ped/h]	0		(	)	2	2		

## Boardman Circulation Study

Weekday PM Peak Hour

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HCM 6th

### Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

### Movement, Approach, & Intersection Results

				-					
V/C, Movement V/C Ratio	0.01 0.00		0.00	0.00	0.15	0.02			
d_M, Delay for Movement [s/veh]	7.96 0.00		0.00	0.00	14.33	11.26			
Movement LOS	А	A	A A		В	В			
95th-Percentile Queue Length [veh/ln]	0.02	0.02	0.00	0.00	0.64	0.64			
95th-Percentile Queue Length [ft/In]	0.46	0.46	0.00 0.00		15.89	15.89			
d_A, Approach Delay [s/veh]	0.	27	0	.00	13.67				
Approach LOS		٩		A	В				
d_I, Intersection Delay [s/veh]	1.86								
Intersection LOS		В							

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Boardman Circulation Study

HCM 6th

**Existing Traffic Conditions** Intersection Level Of Service Report

Intersection 10: Main St/Wilson Ln

Control Type:	
Analysis Method:	
Analysis Period:	

All-way stop HCM 7th Edition 15 minutes

Delay (sec / veh): 9.4 Level Of Service: А Volume to Capacity (v/c):

0.300

Name	Main St		Main St		Wilson Ln			Wilson Ln					
Approach	Northbound			S	Southboun	d	Eastbound			Westbound			
Lane Configuration	+				+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0	
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Speed [mph]		35.00			30.00			20.00			30.00		
Grade [%]		0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			No			No			
Volumes													
Name		Main St		Main St		Wilson Ln		Wilson Ln					
Base Volume Input [veh/h]	6	82	7	28	36	128	162	23	6	3	44	27	
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Heavy Vehicles Percentage [%]	50.00	4.00	0.00	11.00	14.00	4.00	5.00	0.00	0.00	0.00	2.00	7.00	
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Total Hourly Volume [veh/h]	6	82	7	28	36	128	162	23	6	3	44	27	
Peak Hour Factor	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900	
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Total 15-Minute Volume [veh/h]	2	23	2	8	10	36	46	6	2	1	12	8	
Total Analysis Volume [veh/h]	7	92	8	31	40	144	182	26	7	3	49	30	
Pedestrian Volume [ped/h]	0			2		0			0				
HCM 6th

Generated with PTV VISTRO

Boardman Circulation Study Existing Traffic Conditions Weekday PM Peak Hour

Version 2024 (SP 0-1)

Lanes				
Capacity per Entry Lane [veh/h]	716	790	718	743
Degree of Utilization, x	0.15	0.27	0.30	0.11
Movement, Approach, & Intersection Res	sults			
95th-Percentile Queue Length [veh]	0.52	1.11	1.26	0.37
95th-Percentile Queue Length [ft]	13.08	27.64	31.48	9.26
Approach Delay [s/veh]	8.91	9.26	10.15	8.44
Approach LOS	А	A	В	A
Intersection Delay [s/veh]		ç	9.40	
Intersection LOS			A	



Weekday PM Peak Hour



Version 2024 (SP 0-1)

Boardman Circulation Study

HCM 6th

Existing Traffic Conditions

#### Intersection Level Of Service Report Intersection 11: Olson Rd/Columbia Ave

Control Type:	Two-way stop
Analysis Method:	HCM 7th Edition
Analysis Period:	15 minutes

Delay (sec / veh):	9.9
Level Of Service:	А
Volume to Capacity (v/c):	0.094

Name	Olson Rd			Olson Rd			Columbia Ave			Columbia Ave			
Approach	Northbound			S	Southboun	d	Eastbound			\	Westbound		
Lane Configuration		٦r		t sir					- 1F				
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	1	0	0	0	
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00	100.00	
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Speed [mph]		30.00			30.00		40.00			40.00			
Grade [%]		0.00			0.00			0.00			0.00		
Crosswalk		Yes		No				Yes			No		
Volumes	mes												
Name	Olson Rd		Olson Rd		Columbia Ave		Columbia Ave		ve				
Base Volume Input [veh/h]	10	0	17	8	0	3	3	71	5	27	63	7	
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Heavy Vehicles Percentage [%]	20.00	0.00	12.00	62.00	0.00	0.00	0.00	4.00	0.00	7.00	8.00	57.00	
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Total Hourly Volume [veh/h]	10	0	17	8	0	3	3	71	5	27	63	7	
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Total 15-Minute Volume [veh/h]	3	0	5	2	0	1	1	19	1	7	17	2	
Total Analysis Volume [veh/h]	11	0	18	9	0	3	3	77	5	29	68	8	
Pedestrian Volume [ped/h]		0			0			0			0		

# Boardman Circulation Study

Version 2024 (SP 0-1)

### **Existing Traffic Conditions**

Weekday PM Peak Hour

Section 4, Item A.

HCM 6th

#### Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane				No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.09	0.00	0.04	0.08	0.01
d_M, Delay for Movement [s/veh]	7.40	0.00	0.00	7.82	0.00	0.00	9.46	9.87	8.32	9.70	9.79	9.24
Movement LOS	А	A	A	A	А	A	А	A	A	А	А	А
95th-Percentile Queue Length [veh/ln]	0.02	0.02	0.00	0.02	0.02	0.02	0.01	0.31	0.01	0.11	0.30	0.30
95th-Percentile Queue Length [ft/ln]	0.55	0.55	0.00	0.45	0.45	0.45	0.28	7.79	0.35	2.84	7.47	7.47
d_A, Approach Delay [s/veh]	2.81			5.86			9.77			9.73		
Approach LOS		А			А			А		А		
d_I, Intersection Delay [s/veh]				•		8.	67					
Intersection LOS							۹					

Weekday PM Peak Hour



Version 2024 (SP 0-1)

Boardman Circulation Study

HCM 6th

Existing Traffic Conditions

#### Intersection Level Of Service Report Intersection 12: Laurel Ln/Columbia Ave

Control Type:	Two-way stop
Analysis Method:	HCM 7th Edition
Analysis Period:	15 minutes

Delay (sec / veh):	13.0
Level Of Service:	В
Volume to Capacity (v/c):	0.132

Name		Laurel Ln					C	olumbia A	ve	C	olumbia A	ve
Approach	1	Northboun	d	S	Southboun	d		Eastbound	ł	۱	Vestboun	d
Lane Configuration								1			٦	
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]		30.00		30.00			40.00			40.00		
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		No			No			No			No	
Volumes												
Name		Laurel Ln				Columbia Ave			Columbia Ave			
Base Volume Input [veh/h]	0	218	0	0	0	0	0	41	97	58	29	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	17.00	19.00	22.00	2.00	2.00	2.00	2.00	29.00	13.00	59.00	31.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	218	0	0	0	0	0	41	97	58	29	0
Peak Hour Factor	0.8400	0.8400	0.8400	1.0000	1.0000	1.0000	1.0000	0.8400	0.8400	0.8400	0.8400	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	65	0	0	0	0	0	12	29	17	9	0
Total Analysis Volume [veh/h]	0	260	0	0	0	0	0	49	115	69	35	0
Pedestrian Volume [ped/h]		0			0			0			0	

# Boardman Circulation Study

Version 2024 (SP 0-1)

### **Existing Traffic Conditions**

Weekday PM Peak Hour

Section 4, Item A.

HCM 6th

#### Intersection Settings

Flared Lane     O       Storage Area [veh]     0     0	0
Storage Area [veh] 0 0 0	0
	0
Two-Stage Gap Acceptance No	No
Number of Storage Spaces in Median         0         0         0         0	0

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.13	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.52	0.00	12.95	0.00	0.00
Movement LOS		А						В		В		
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.00	0.45	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.63	0.00	11.34	0.00	0.00
d_A, Approach Delay [s/veh]	0.00			0.00		11.52			12.95			
Approach LOS		А			А			В			В	
d_I, Intersection Delay [s/veh]						3.	86					
Intersection LOS						E	3					

Weekday PM Peak Hour

11.7

В

0.049



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Boardman Circulation Study

HCM 6th

**Existing Traffic Conditions** 

#### Intersection Level Of Service Report Intersection 13: Laurel Ln/I-84 WB Ramp Terminal

Control Type:	Two-way stop	Delay (sec / veh):
Analysis Method:	HCM 7th Edition	Level Of Service:
Analysis Period:	15 minutes	Volume to Capacity (v/c):

Name	Laurel Ln			Laurel Ln		I-84 WB			I-84 WB			
Approach	1	lorthboun	d	S	Southboun	d	1	Eastbound	t	V	Vestboun	d
Lane Configuration		<b>–</b>			F					+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]		30.00			30.00			30.00			45.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		No			No			No			No	
Volumes												
Name		Laurel Ln		Laurel Ln		I-84 WB			I-84 WB			
Base Volume Input [veh/h]	8	53	0	0	132	23	0	0	0	27	0	165
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	38.00	34.00	2.00	2.00	20.00	91.00	2.00	2.00	2.00	11.00	0.00	14.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	8	53	0	0	132	23	0	0	0	27	0	165
Peak Hour Factor	0.8200	0.8200	1.0000	1.0000	0.8200	0.8200	1.0000	1.0000	1.0000	0.8200	0.8200	0.8200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	16	0	0	40	7	0	0	0	8	0	50
Total Analysis Volume [veh/h]	10	65	0	0	161	28	0	0	0	33	0	201
Pedestrian Volume [ped/h]		0			0			0		0		



# Boardman Circulation Study

Version 2024 (SP 0-1)

### Existing Traffic Conditions

Weekday PM Peak Hour

Section 4, Item A.

HCM 6th

#### Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane				No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance				No
Number of Storage Spaces in Median	0	0	0	0

#### Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.21
d_M, Delay for Movement [s/veh]	8.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.75	12.07	10.09
Movement LOS	A	A			А	A				В	В	В
95th-Percentile Queue Length [veh/ln]	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.03	1.03	1.03
95th-Percentile Queue Length [ft/In]	0.42	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.67	25.67	25.67
d_A, Approach Delay [s/veh]		1.07		0.00			0.00			10.32		
Approach LOS		А		A			A				В	
d_I, Intersection Delay [s/veh]	5.01											
Intersection LOS		В										

10/30/2024

Weekday PM Peak Hour

14.7 В 0.007



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Boardman Circulation Study

HCM 6th

**Existing Traffic Conditions** 

#### Intersection Level Of Service Report Intersection 14: Laurel Ln/I-84 EB Ramp Terminal

Control Type:	Two-way stop	Delay (sec / veh):			
Analysis Method:	HCM 7th Edition	Level Of Service:			
Analysis Period:	15 minutes	Volume to Capacity (v/c):			

Name	Laurel Ln				Laurel Ln		I-84 EB					
Approach	١	lorthboun	d	S	Southbound			Eastbound	ł	Westbound		
Lane Configuration	F				4		+					
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]		30.00			30.00			45.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		No			No			No			No	
Volumes												
Name		Laurel Ln			Laurel Ln			I-84 EB				
Base Volume Input [veh/h]	0	38	15	110	49	0	23	2	9	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	21.00	27.00	21.00	12.00	2.00	61.00	50.00	44.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	38	15	110	49	0	23	2	9	0	0	0
Peak Hour Factor	1.0000	0.7500	0.7500	0.7500	0.7500	1.0000	0.7500	0.7500	0.7500	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	13	5	37	16	0	8	1	3	0	0	0
Total Analysis Volume [veh/h]	0	51	20	147	65	0	31	3	12	0	0	0
Pedestrian Volume [ped/h]		0			0			0		0		



# Boardman Circulation Study

Version 2024 (SP 0-1)

### **Existing Traffic Conditions**

Weekday PM Peak Hour

Section 4, Item A.

HCM 6th

#### Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	
Number of Storage Spaces in Median	0	0	0	0

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.10	0.00	0.00	0.08	0.01	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	7.72	0.00	0.00	14.71	14.75	9.85	0.00	0.00	0.00
Movement LOS		А	А	A	А		В	В	A			
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.27	0.27	0.00	0.32	0.32	0.32	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	6.66	6.66	0.00	8.05	8.05	8.05	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00 5.35 13.45				0.00							
Approach LOS	A		A			В			A			
d_I, Intersection Delay [s/veh]	5.33											
Intersection LOS	В											



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### Boardman Circulation Study **Existing Traffic Conditions**

Section 4, Item A.

Weekday PM Peak Hour HCM 6th

HCM 6th

Vistro File: H:\...\30287\_Vistro.vistro Report File: H:\...\EX PM.pdf

Scenario 2 EX PM 10/30/2024

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
2	Main St/Columbia Ave	Two-way stop	HCM 7th Edition	WB Thru	0.026	12.2	В
3	Main St/Boardman Ave	Two-way stop	HCM 7th Edition	WB Left	0.144	22.8	С
4	Main St/Front St NE	Two-way stop	HCM 7th Edition	WB Left	0.435	43.9	E
5	Main St/I-84 WB Ramp Terminal	Two-way stop	HCM 7th Edition	WB Left	0.931	78.6	F
6	Main St/I-84 EB Ramp Terminal	Two-way stop	HCM 7th Edition	EB Left	0.637	81.0	F
7	Main St/Front St SE	Two-way stop	HCM 7th Edition	WB Left	0.180	35.5	Е
8	Main St/Oregon Trail Blvd	Two-way stop	HCM 7th Edition	WB Left	0.030	18.9	С
9	Main St/Kinkade Rd	Two-way stop	HCM 7th Edition	EB Left	0.253	16.9	С
10	Main St/Wilson Ln	All-way stop	HCM 7th Edition	SB Right	0.397	9.7	A
11	Olson Rd/Columbia Ave	Two-way stop	HCM 7th Edition	EB Left	0.002	12.6	В
12	Laurel Ln/Columbia Ave	Two-way stop	HCM 7th Edition	WB Left	0.190	10.8	В
13	Laurel Ln/I-84 WB Ramp Terminal	Two-way stop	HCM 7th Edition	WB Thru	0.002	12.0	В
14	Laurel Ln/I-84 EB Ramp Terminal	Two-way stop	HCM 7th Edition	EB Left	0.095	16.3	С

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Weekday PM Peak Hour



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Boardman Circulation Study

HCM 6th

**Existing Traffic Conditions** Intersection Level Of Service Report

### Intersection 2: Main St/Columbia Ave

Control Type:	Two-way stop
Analysis Method:	HCM 7th Edition
Analysis Period:	15 minutes

12.2
В
0.026

Name		Main St			Main St		Co	olumbia A	ve	Columbia Ave		
Approach	1	lorthboun	d	S	Southboun	d	I	Eastbound	ł	١	Nestboun	d
Lane Configuration		<b>-1</b> P			1		+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	850.00	100.00	100.00	150.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]		20.00			20.00			25.00			35.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk	Yes				Yes			Yes		Yes		
Volumes												
Name		Main St			Main St		Columbia Ave		Columbia Ave		ve	
Base Volume Input [veh/h]	12	36	83	7	41	1	5	10	15	154	15	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	4.00	0.00	2.00	0.00	20.00	10.00	0.00	1.00	7.00	17.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	36	83	7	41	1	5	10	15	154	15	6
Peak Hour Factor	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	11	24	2	12	0	1	3	4	45	4	2
Total Analysis Volume [veh/h]	14	42	98	8	48	1	6	12	18	181	18	7
Pedestrian Volume [ped/h]		0			0			1			1	

# Boardman Circulation Study

Version 2024 (SP 0-1)

### **Existing Traffic Conditions**

Weekday PM Peak Hour

Section 4, Item A.

HCM 6th

#### Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

V/C. Movement V/C Ratio	0.01	0.00	0.00	0.01	0.00	0.00	0.01	0.02	0.02	0.25	0.03	0.01			
d M Delay for Movement [s/yeb]	7 3 2	0.00	0.00	7.40	0.00	0.00	10.43	10.82	8.73	11.04	12 10	10.85			
	1.52	0.00	0.00	7.45	0.00	0.00	10.45	10.02	0.75	11.34	12.19	10.05			
Movement LOS	А	A	А	A	А	A	В	В	А	В	В	В			
95th-Percentile Queue Length [veh/ln]	0.03	0.00	0.00	0.02	0.00	0.00	0.14	0.14	0.14	1.17	1.17	1.17			
95th-Percentile Queue Length [ft/In]	0.68	0.00	0.00	0.42	0.00	0.00	3.53	3.53	3.53	29.24	29.24	29.24			
d_A, Approach Delay [s/veh]		0.67			1.05			9.71			11.92	29.24 29.24 11.92 B			
Approach LOS		А			А			А		В					
d_I, Intersection Delay [s/veh]	6.55														
Intersection LOS	B														

Weekday PM Peak Hour



Version 2024 (SP 0-1)

Boardman Circulation Study

HCM 6th

**Existing Traffic Conditions** 

#### Intersection Level Of Service Report Intersection 3: Main St/Boardman Ave

Control Type:	Two-way stop
Analysis Method:	HCM 7th Edition
Analysis Period:	15 minutes

Delay (sec / veh):	22.8
Level Of Service:	С
Volume to Capacity (v/c):	0.144

Name		Main St			Main St		Boardman Ave			Boardman Ave			
Approach	1	lorthboun	d	S	Southboun	d	I	Eastbound	ł	\	Vestboun	d	
Lane Configuration		<u>-1</u>			٦F			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0	
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Speed [mph]		20.00			20.00			25.00		20.00			
Grade [%]		0.00			0.00			0.00			0.00		
Crosswalk	Yes				Yes		Yes			Yes			
Volumes													
Name		Main St			Main St		Bo	Boardman Ave			Boardman Ave		
Base Volume Input [veh/h]	115	151	42	12	242	29	12	2	83	33	11	8	
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Heavy Vehicles Percentage [%]	3.00	2.00	17.00	10.00	2.00	0.00	0.00	0.00	3.00	0.00	11.00	14.00	
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Total Hourly Volume [veh/h]	115	151	42	12	242	29	12	2	83	33	11	8	
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Total 15-Minute Volume [veh/h]	31	41	11	3	65	8	3	1	22	9	3	2	
Total Analysis Volume [veh/h]	124	162	45	13	260	31	13	2	89	35	12	9	
Pedestrian Volume [ped/h]		1			0			0			5		



## Boardman Circulation Study

Version 2024 (SP 0-1)

### **Existing Traffic Conditions**

Weekday PM Peak Hour

Section 4, Item A.

HCM 6th

#### Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

V/C, Movement V/C Ratio	0.10	0.00	0.00	0.01	0.00	0.00	0.05	0.01	0.12	0.14	0.04	0.01			
d_M, Delay for Movement [s/veh]	8.15	0.00	0.00	7.78	0.00	0.00	18.91	18.21	10.94	22.83	20.41	12.44			
Movement LOS	А	А	А	A	А	A	С	С	В	С	С	В			
95th-Percentile Queue Length [veh/ln]	0.33	0.00	0.00	0.03	0.00	0.00	0.61	0.61	0.61	0.71	0.71	0.71			
95th-Percentile Queue Length [ft/ln]	8.13	0.00	0.00	0.75	0.00	0.00	15.20	15.20	15.20	17.84	17.84	17.84			
d_A, Approach Delay [s/veh]		3.05			0.33			12.08			20.65	C B 0.71 0.71 17.84 17.84 20.65 C			
Approach LOS		А			А			В		С					
d_I, Intersection Delay [s/veh]	4.43														
Intersection LOS		С													

Weekday PM Peak Hour



Version 2024 (SP 0-1)

Boardman Circulation Study

HCM 6th

**Existing Traffic Conditions** Intersection Level Of Service Report

#### Intersection 4: Main St/Front St NE

Control Type:	
Analysis Method:	
Analysis Period:	

I wo-way stop									
HCM 7th Edition									
15 minutes									

Delay (sec / veh): 43.9 Level Of Service: Е Volume to Capacity (v/c):

0.435

#### Intersection Setup

Name		Main St			Main St		Front St NE			Front St NE		
Approach	1	lorthboun	d	S	Southboun	d		Eastbound	ł	Westbound		
Lane Configuration		<u>-1</u>			1		Чг			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	1	0	0	0
Entry Pocket Length [ft]	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]		30.00			30.00			25.00			25.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk	No				Yes		Yes			Yes		
Volumes												
Name		Main St			Main St		Front St NE			Front St NE		
Base Volume Input [veh/h]	65	336	78	6	393	8	7	0	83	65	5	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	4.00	4.00	3.00	0.00	2.00	0.00	0.00	0.00	3.00	4.00	0.00	40.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	65	336	78	6	393	8	7	0	83	65	5	6
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	18	91	21	2	107	2	2	0	23	18	1	2
Total Analysis Volume [veh/h]	71	365	85	7	427	9	8	0	90	71	5	7
Pedestrian Volume [ped/h]		0			5			0			3	

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# Boardman Circulation Study

Version 2024 (SP 0-1)

### **Existing Traffic Conditions**

Weekday PM Peak Hour

Section 4, Item A.

HCM 6th

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane				No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

V/C, Movement V/C Ratio	0.06	0.00	0.00	0.01	0.00	0.00	0.04	0.00	0.14	0.44	0.02	0.01
d_M, Delay for Movement [s/veh]	8.45	0.00	0.00	8.25	0.00	0.00	23.90	22.49	11.77	43.95	37.77	28.32
Movement LOS	А	А	А	A	А	A	С	С	В	Е	E	D
95th-Percentile Queue Length [veh/ln]	0.20	0.00	0.00	0.02	0.00	0.00	0.13	0.13	0.50	2.23	2.23	2.23
95th-Percentile Queue Length [ft/ln]	5.10	0.00	0.00	0.47	0.00	0.00	3.13	3.13	12.60	55.84	55.84	55.84
d_A, Approach Delay [s/veh]		1.15		0.13				12.76			42.26	
Approach LOS		А			А			В			E	
d_I, Intersection Delay [s/veh]		4.73										
Intersection LOS							Ξ					

Weekday PM Peak Hour

78.6

F

0.931



Control Type:

Analysis Method:

Analysis Period:

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Boardman Circulation Study

HCM 6th

**Existing Traffic Conditions** 

#### Intersection Level Of Service Report Intersection 5: Main St/I-84 WB Ramp Terminal

intersection 5. Main Out-04	
Two-way stop	Delay (sec / veh):
HCM 7th Edition	Level Of Service:
15 minutes	Volume to Capacity (v/c):

Intersection Setup

Name		Main St			Main St					I-84 WB			
Approach	١	lorthboun	d	S	Southboun	d	I	Eastbound	k	V	Vestboun	d	
Lane Configuration		F			F					+			
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0	
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Speed [mph]		30.00			30.00	•		30.00			45.00		
Grade [%]		0.00			0.00			0.00			0.00		
Crosswalk		No			No			Yes			Yes		
Volumes													
Name		Main St			Main St						I-84 WB		
Base Volume Input [veh/h]	20	355	0	0	495	46	0	0	0	183	0	124	
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Heavy Vehicles Percentage [%]	6.00	3.00	2.00	2.00	2.00	8.00	2.00	2.00	2.00	4.00	0.00	5.00	
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Total Hourly Volume [veh/h]	20	355	0	0	495	46	0	0	0	183	0	124	
Peak Hour Factor	0.9200	0.9200	1.0000	1.0000	0.9200	0.9200	1.0000	1.0000	1.0000	0.9200	0.9200	0.9200	
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Total 15-Minute Volume [veh/h]	5	96	0	0	135	13	0	0	0	50	0	34	
Total Analysis Volume [veh/h]	22	386	0	0	538	50	0	0	0	199	0	135	
Pedestrian Volume [ped/h]		0			0			0		4			



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# Boardman Circulation Study

Version 2024 (SP 0-1)

# Existing Traffic Conditions

Weekday PM Peak Hour

Section 4, Item A.

HCM 6th

#### Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane				Yes
Storage Area [veh]	0	0	0	1
Two-Stage Gap Acceptance				No
Number of Storage Spaces in Median	0	0	0	0

#### Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.93	0.00	0.21
d_M, Delay for Movement [s/veh]	8.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	78.63	77.44	67.34
Movement LOS	A	A			А	A				F	F	F
95th-Percentile Queue Length [veh/ln]	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.22	10.22	10.22
95th-Percentile Queue Length [ft/In]	0.93	0.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	255.56	255.56	255.56
d_A, Approach Delay [s/veh]		0.47		0.00				0.00			74.07	
Approach LOS		А			А			А			F	
d_I, Intersection Delay [s/veh]		18.75										
Intersection LOS		F										



10/30/2024

Weekday PM Peak Hour

81.0 F 0.637



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Boardman Circulation Study

HCM 6th

**Existing Traffic Conditions** 

#### Intersection Level Of Service Report Intersection 6: Main St/I-84 EB Ramp Terminal

	intersection o. Main	
Control Type:	Two-way stop	Delay (sec / veh):
Analysis Method:	HCM 7th Edition	Level Of Service:
Analysis Period:	15 minutes	Volume to Capacity (v/c):

Name		Main St			Main St			I-84 EB					
Approach	М	lorthboun	d	S	Southboun	d		Eastbound	ł	\	Vestboun	d	
Lane Configuration		F			-			+					
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0	
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Speed [mph]		30.00			30.00			45.00		30.00			
Grade [%]		0.00			0.00			0.00			0.00		
Crosswalk		No			No			Yes		Yes			
Volumes													
Name		Main St		Main St				I-84 EB					
Base Volume Input [veh/h]	0	302	176	106	572	0	73	0	67	0	0	0	
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Heavy Vehicles Percentage [%]	2.00	3.00	3.00	2.00	2.00	2.00	7.00	0.00	9.00	2.00	2.00	2.00	
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Total Hourly Volume [veh/h]	0	302	176	106	572	0	73	0	67	0	0	0	
Peak Hour Factor	1.0000	0.9400	0.9400	0.9400	0.9400	1.0000	0.9400	0.9400	0.9400	1.0000	1.0000	1.0000	
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Total 15-Minute Volume [veh/h]	0	80	47	28	152	0	19	0	18	0	0	0	
Total Analysis Volume [veh/h]	0	321	187	113	609	0	78	0	71	0	0	0	
Pedestrian Volume [ped/h]		0			0		0			4			



# Boardman Circulation Study

Version 2024 (SP 0-1)

### **Existing Traffic Conditions**

Weekday PM Peak Hour

Section 4, Item A.

HCM 6th

#### Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	
Number of Storage Spaces in Median	0	0	0	0

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.11	0.01	0.00	0.64	0.00	0.15	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	8.56	0.00	0.00	81.01	79.90	59.06	0.00	0.00	0.00
Movement LOS		А	А	A	А		F	F	F			
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.20	0.20	0.00	5.34	5.34	5.34	0.00	0.00	0.00
95th-Percentile Queue Length [ft/In]	0.00	0.00	0.00	5.02	5.02	0.00	133.55	133.55	133.55	0.00	0.00	0.00
d_A, Approach Delay [s/veh]		0.00		1.34				70.55		0.00		
Approach LOS		А			А		F A					
d_I, Intersection Delay [s/veh]		8.32										
Intersection LOS		F										

Weekday PM Peak Hour



Version 2024 (SP 0-1)

Boardman Circulation Study

HCM 6th

**Existing Traffic Conditions** Intersection Level Of Service Report

#### Intersection 7: Main St/Front St SE

Control Type:	
Analysis Method:	
Analysis Period:	

I wo-way stop
HCM 7th Edition
15 minutes

Delay (sec / veh): 35.5 Level Of Service: Е Volume to Capacity (v/c):

0.180

Name		Main St			Main St		F	ront St SI	Ε	Front St SE			
Approach	М	lorthboun	d	S	Southboun	d		Eastbound	ł	\	Nestboun	d	
Lane Configuration		1			<u>אר</u>			+			Чг		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	1	
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Speed [mph]		30.00			30.00			25.00			25.00		
Grade [%]		0.00			0.00			0.00			0.00		
Crosswalk		Yes			No			Yes			Yes		
Volumes													
Name		Main St		Main St			Front St SE			F	Front St SI	E	
Base Volume Input [veh/h]	5	430	32	50	574	15	6	2	2	24	1	42	
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Heavy Vehicles Percentage [%]	0.00	2.00	0.00	12.00	2.00	8.00	0.00	0.00	0.00	0.00	0.00	9.00	
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Total Hourly Volume [veh/h]	5	430	32	50	574	15	6	2	2	24	1	42	
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Total 15-Minute Volume [veh/h]	1	116	9	13	154	4	2	1	1	6	0	11	
Total Analysis Volume [veh/h]	5	462	34	54	617	16	6	2	2	26	1	45	
Pedestrian Volume [ped/h]		0			0			0		4			



# Boardman Circulation Study

Version 2024 (SP 0-1)

### **Existing Traffic Conditions**

Weekday PM Peak Hour

Section 4, Item A.

HCM 6th

#### Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.05	0.01	0.00	0.05	0.01	0.00	0.18	0.01	0.08
d_M, Delay for Movement [s/veh]	8.77	0.00	0.00	8.76	0.00	0.00	33.90	28.27	13.84	35.51	32.12	11.89
Movement LOS	А	А	А	A	А	A	D	D	В	E	D	В
95th-Percentile Queue Length [veh/ln]	0.02	0.00	0.00	0.17	0.00	0.00	0.20	0.20	0.20	0.66	0.66	0.26
95th-Percentile Queue Length [ft/In]	0.39	0.00	0.00	4.23	0.00	0.00	4.90	4.90	4.90	16.41	16.41	6.44
d_A, Approach Delay [s/veh]		0.09			0.69			28.76			20.70	
Approach LOS		А			A D			С				
d_I, Intersection Delay [s/veh]	1.81											
Intersection LOS		E										

Weekday PM Peak Hour



Version 2024 (SP 0-1)

Boardman Circulation Study

HCM 6th

**Existing Traffic Conditions** 

#### Intersection Level Of Service Report Intersection 8: Main St/Oregon Trail Blvd

	interester of main strengen fran Bira				
Control Type:	Two-way stop	Delay (sec / veh):	18.9		
Analysis Method:	HCM 7th Edition	Level Of Service:	С		
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.030		

#### Intersection Setup

Name	Main St		Main St		Oregon Trail Blvd		
Approach	North	nbound	Sout	Southbound		Westbound	
Lane Configuration	F		•	1	T		
Turning Movement	Thru	Right	Left	Thru	Left	Right	
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	
No. of Lanes in Entry Pocket	0	0 0		0	0	0	
Entry Pocket Length [ft]	100.00	100.00 100.00		100.00	100.00	100.00	
No. of Lanes in Exit Pocket	0	0	0	0	0	0	
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	
Speed [mph]	30	0.00	30.00		25.00		
Grade [%]	0	.00	0.00		0.00		
Crosswalk		No	No		No		
Volumes							
Name	Ma	in St	Ma	in St	Oregon Trail Blvd		
Base Volume Input [veh/h]	368	11	46	451	8	25	
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Heavy Vehicles Percentage [%]	2.00	9.00	0.00	2.00	0.00	4.00	
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
In-Process Volume [veh/h]	0	0	0	0	0	0	

0

0

0

0

0

11

0.9500

1.0000

3

12

0

0

0

0

0

46

0.9500

1.0000

12

48

0

0

0

0

0

0

451

0.9500

1.0000

119

475

0

0

0

0

0

8

0.9500

1.0000

2

8

0

0

0

0

0

25

0.9500

1.0000

7

26

0

Site-Generated Trips [veh/h]

Diverted Trips [veh/h]

Pass-by Trips [veh/h]

Existing Site Adjustment Volume [veh/h]

Other Volume [veh/h]

Total Hourly Volume [veh/h]

Peak Hour Factor

Other Adjustment Factor Total 15-Minute Volume [veh/h]

Total Analysis Volume [veh/h]

Pedestrian Volume [ped/h]

0

0

0

0

0

368

0.9500

1.0000

97

387

0



# Boardman Circulation Study

Weekday PM Peak Hour

Version 2024 (SP 0-1)

#### **Existing Traffic Conditions**

Section 4, Item A.

HCM 6th

#### Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

V/C, Movement V/C Ratio	0.00	0.00	0.04	0.00	0.03	0.04	
d_M, Delay for Movement [s/veh]	0.00	0.00	8.13	0.00	18.90	11.08	
Movement LOS	A	А	A	A	С	В	
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.08	0.08	0.22	0.22	
95th-Percentile Queue Length [ft/In]	0.00	0.00	2.05	2.05	5.59	5.59	
d_A, Approach Delay [s/veh]	0.	00	0.	75	12.92		
Approach LOS	A A			В			
d_I, Intersection Delay [s/veh]	0.87						
Intersection LOS	C						

Weekday PM Peak Hour



Version 2024 (SP 0-1)

Boardman Circulation Study

HCM 6th

Existing Traffic Conditions
Intersection Level Of Service Report

Intersection 9: Main St/Kinkade Rd

Control Type:	Two-way stop
Analysis Method:	HCM 7th Edition
Analysis Period:	15 minutes

16.9
С
0.253

Name	Main St		Main St		Kinkade Rd		
Approach	Northbound		South	Southbound		Eastbound	
Lane Configuration	4		F		T		
Turning Movement	Left Thru Thru Right		Left	Right			
Lane Width [ft]	12.00	12.00 12.00		12.00	12.00	12.00	
No. of Lanes in Entry Pocket	0	0	0	0	0	0	
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	
No. of Lanes in Exit Pocket	0	0	0	0	0	0	
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	
Speed [mph]	30	.00	30.00		25.00		
Grade [%]	0.	00	0.00		0.00		
Crosswalk	No		No		Yes		
Volumes							
Name	Mai	n St	Mai	n St	Kinkade Rd		
<b>D</b> 1/1 1 1/1 1/1			004		100		

Name	Mai	Main St Main St		Kinkade Rd		
Base Volume Input [veh/h]	17	239	294	88	100	34
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	6.00	2.00	2.00	3.00	4.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	17	239	294	88	100	34
Peak Hour Factor	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	64	78	23	27	9
Total Analysis Volume [veh/h]	18	254	313	94	106	36
Pedestrian Volume [ped/h]	0		0		3	

# Boardman Circulation Study

Weekday PM Peak Hour

Section 4, Item A.

Version 2024 (SP 0-1)

HCM 6th

#### Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.00	0.25	0.05	
d_M, Delay for Movement [s/veh]	8.22	0.00	0.00	0.00	16.94	13.62	
Movement LOS	A	A	A	A	С	В	
95th-Percentile Queue Length [veh/ln]	0.03	0.03	0.00	0.00	1.28	1.28	
95th-Percentile Queue Length [ft/In]	0.76	0.76	0.00	0.00	31.93	31.93	
d_A, Approach Delay [s/veh]	0.	54	0.	.00	16.10		
Approach LOS		٩		A	С		
d_I, Intersection Delay [s/veh]			2.	.96	•		
Intersection LOS				С			



Weekday PM Peak Hour



Version 2024 (SP 0-1)

Boardman Circulation Study **Existing Traffic Conditions** 

HCM 6th

### Intersection Level Of Service Report

Intersection 10: Main St/Wilson Ln

Control Type:	
Analysis Method:	
Analysis Period:	

All-way stop
HCM 7th Edition
15 minutes

Delay (sec / veh): 9.7 Level Of Service: А Volume to Capacity (v/c):

0.397

Name	Main St Main St Wilson Ln					Wilson Ln							
Approach	1	lorthboun	d	S	Southboun	d		Eastbound	ł	۱	Vestboun	d	
Lane Configuration		+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0	
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Speed [mph]		35.00			30.00			20.00			30.00		
Grade [%]		0.00			0.00			0.00			0.00		
Crosswalk	No				Yes			No		No			
Volumes													
Name		Main St		Main St			Wilson Ln			Wilson Ln			
Base Volume Input [veh/h]	2	44	10	47	96	152	116	27	4	15	31	63	
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Heavy Vehicles Percentage [%]	0.00	0.00	20.00	2.00	6.00	1.00	2.00	4.00	0.00	0.00	0.00	5.00	
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Total Hourly Volume [veh/h]	2	44	10	47	96	152	116	27	4	15	31	63	
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Total 15-Minute Volume [veh/h]	1	12	3	13	26	41	32	7	1	4	8	17	
Total Analysis Volume [veh/h]	2	48	11	51	104	165	126	29	4	16	34	68	
Pedestrian Volume [ped/h]		0			0			0		0			



HCM 6th

Generated with PTV VISTRO

Boardman Circulation Study Existing Traffic Conditions Weekday PM Peak Hour

Version 2024 (SP 0-1)

#### Intersection Settings

Lanes				
Capacity per Entry Lane [veh/h]	724	806	699	755
Degree of Utilization, x	0.08	0.40	0.23	0.16
Movement, Approach, & Intersection Re	sults			
95th-Percentile Queue Length [veh]	0.28	1.91	0.87	0.55
95th-Percentile Queue Length [ft]	6.88	47.86	21.80	13.80
Approach Delay [s/veh]	8.43	10.37	9.66	8.65
Approach LOS	A	В	A	A
Intersection Delay [s/veh]		9.	71	
Intersection LOS			A	
Intersection LOS			A	



Weekday PM Peak Hour



Version 2024 (SP 0-1)

Boardman Circulation Study

HCM 6th

**Existing Traffic Conditions** 

#### Intersection Level Of Service Report Intersection 11: Olson Rd/Columbia Ave

Control Type:	Two-way stop
Analysis Method:	HCM 7th Edition
Analysis Period:	15 minutes

Delay (sec / veh): 12.6 Level Of Service: В Volume to Capacity (v/c):

0.002

Name		Olson Rd			Olson Rd		C	olumbia A	ve	C	ve		
Approach	1	lorthboun	d	S	Southboun	d		Eastbound	b	۱	Nestboun	d	
Lane Configuration		٦r			+			hir			٦Þ		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	1	0	0	0	
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00	100.00	
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Speed [mph]		30.00			30.00			40.00			40.00		
Grade [%]		0.00			0.00			0.00			0.00		
Crosswalk	Yes				No			Yes		No			
Volumes													
Name		Olson Rd		Olson Rd			Columbia Ave			Columbia Ave			
Base Volume Input [veh/h]	14	1	21	5	0	0	1	38	8	19	155	5	
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Heavy Vehicles Percentage [%]	0.00	0.00	5.00	40.00	0.00	0.00	100.00	3.00	0.00	11.00	2.00	60.00	
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Total Hourly Volume [veh/h]	14	1	21	5	0	0	1	38	8	19	155	5	
Peak Hour Factor	0.8100	0.8100	0.8100	0.8100	0.8100	0.8100	0.8100	0.8100	0.8100	0.8100	0.8100	0.8100	
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Total 15-Minute Volume [veh/h]	4	0	6	2	0	0	0	12	2	6	48	2	
Total Analysis Volume [veh/h]	17	1	26	6	0	0	1	47	10	23	191	6	
Pedestrian Volume [ped/h]		1			0			1 0					



### Boardman Circulation Study **Existing Traffic Conditions**

Version 2024 (SP 0-1)

### Weekday PM Peak Hour

HCM 6th

Section 4, Item A.

#### Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane				No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.01	0.03	0.23	0.01	
d_M, Delay for Movement [s/veh]	7.22	0.00	0.00	7.63	0.00	0.00	12.59	9.77	8.35	9.52	10.67	10.18	
Movement LOS	A	A	A	A	A	A	В	A	A	A	В	В	
95th-Percentile Queue Length [veh/ln]	0.03	0.03	0.00	0.01	0.01	0.01	0.01	0.19	0.03	0.09	0.92	0.92	
95th-Percentile Queue Length [ft/In]	0.74	0.74	0.00	0.33	0.33	0.33	0.16	4.66	0.70	2.16	22.96	22.96	
d_A, Approach Delay [s/veh]		2.79			7.63			9.57			10.54		
Approach LOS		А			А			А		В			
d_I, Intersection Delay [s/veh]		9.27											
Intersection LOS							3						

Weekday PM Peak Hour



Version 2024 (SP 0-1)

Boardman Circulation Study

HCM 6th

Existing Traffic Conditions

### Intersection Level Of Service Report Intersection 12: Laurel Ln/Columbia Ave

Control Type:	
Analysis Method:	
Analysis Period:	

Two-way stop HCM 7th Edition 15 minutes

Siumpia Ave	
Delay (sec / veh):	10.8
Level Of Service:	В
Volume to Capacity (v/c):	0.190

Name		Laurel Ln					Co	olumbia A	ve	Columbia Ave			
Approach	1	Northboun	d	5	Southboun	d		Eastbound	b	۱	Vestboun	d	
Lane Configuration		1						İ			Г		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0	
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Speed [mph]		30.00			30.00			40.00			40.00		
Grade [%]		0.00			0.00			0.00			0.00		
Crosswalk		No			No			No		No			
Volumes													
Name		Laurel Ln					Columbia Ave			Columbia Ave			
Base Volume Input [veh/h]	0	133	0	0	0	0	0	22	117	128	81	0	
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Heavy Vehicles Percentage [%]	18.00	19.00	20.00	2.00	2.00	2.00	2.00	9.00	4.00	10.00	4.00	2.00	
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Total Hourly Volume [veh/h]	0	133	0	0	0	0	0	22	117	128	81	0	
Peak Hour Factor	0.8900	0.8900	0.8900	1.0000	1.0000	1.0000	1.0000	0.8900	0.8900	0.8900	0.8900	1.0000	
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Total 15-Minute Volume [veh/h]	0	37	0	0	0	0	0	6	33	36	23	0	
Total Analysis Volume [veh/h]	0	149	0	0	0	0	0	25	131	144	91	0	
Pedestrian Volume [ped/h]		0			0			0			0		

Generated with PTV VISTRO

# Boardman Circulation Study

Version 2024 (SP 0-1)

Existing	Traffic	Conditions

Weekday PM Peak Hour

HCM 6th

### Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane				
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0
Two-Stage Gap Acceptance Number of Storage Spaces in Median	0	0	<b>No</b>	<b>No</b>

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.19	0.00	0.00	
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.11	0.00	10.85	0.00	0.00	
Movement LOS		A						В		В			
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.70	0.00	0.00	
95th-Percentile Queue Length [ft/In]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.66	0.00	17.40	0.00	0.00	
d_A, Approach Delay [s/veh]		0.00		0.00			10.11			10.85			
Approach LOS		А			А			В			В		
d_I, Intersection Delay [s/veh]		5.71											
Intersection LOS		В											

Weekday PM Peak Hour

12.0 B 0.002



Version 2024 (SP 0-1)

Boardman Circulation Study

HCM 6th

Existing Traffic Conditions

# Intersection Level Of Service Report

	Intersection 13. Laurer Lini-64 WB Kamp Terminar								
Control Type:	Two-way stop	Delay (sec / veh):							
Analysis Method:	HCM 7th Edition	Level Of Service:							
Analysis Period:	15 minutes	Volume to Capacity (v/c):							

Name		Laurel Ln			Laurel Ln			I-84 WB			I-84 WB		
Approach	1	Northboun	d	5	Southboun	d	I	Eastbound	ł	۱	Vestboun	d	
Lane Configuration		F			F						+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0	
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Speed [mph]		30.00			30.00			30.00			45.00		
Grade [%]		0.00			0.00			0.00			0.00		
Crosswalk	No				No			No			No		
Volumes													
Name		Laurel Ln		Laurel Ln			I-84 WB			I-84 WB			
Base Volume Input [veh/h]	3	50	0	0	212	34	0	0	0	14	1	83	
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Heavy Vehicles Percentage [%]	67.00	28.00	2.00	2.00	6.00	21.00	2.00	2.00	2.00	21.00	0.00	13.00	
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Total Hourly Volume [veh/h]	3	50	0	0	212	34	0	0	0	14	1	83	
Peak Hour Factor	0.8400	0.8400	1.0000	1.0000	0.8400	0.8400	1.0000	1.0000	1.0000	0.8400	0.8400	0.8400	
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Total 15-Minute Volume [veh/h]	1	15	0	0	63	10	0	0	0	4	0	25	
Total Analysis Volume [veh/h]	4	60	0	0	252	40	0	0	0	17	1	99	
Pedestrian Volume [ped/h]		0			0			0		0			

# Boardman Circulation Study

Version 2024 (SP 0-1)

### **Existing Traffic Conditions**

Weekday PM Peak Hour

Section 4, Item A.

HCM 6th

#### Intersection Settings

Priority Scheme	Free	Free	Stop	Stop							
Flared Lane				No							
Storage Area [veh]	0	0	0	0							
Two-Stage Gap Acceptance				No							
Number of Storage Spaces in Median	0	0	0	0							
Movement, Approach, & Intersection Res	Movement Annroach & Intersection Results										

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V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.10
d_M, Delay for Movement [s/veh]	8.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.86	11.97	9.32
Movement LOS	А	А			Α	A				В	В	А
95th-Percentile Queue Length [veh/ln]	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.46	0.46	0.46
95th-Percentile Queue Length [ft/ln]	0.17	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.42	11.42	11.42
d_A, Approach Delay [s/veh]		0.54 0.00 0.00				9.71						
Approach LOS		А		A A					А			
d_I, Intersection Delay [s/veh]		2.47										
Intersection LOS						E	3					



Weekday PM Peak Hour



Version 2024 (SP 0-1)

Boardman Circulation Study

HCM 6th

**Existing Traffic Conditions** 

#### Intersection Level Of Service Report Intersection 14: Laurel Ln/I-84 EB Ramp Terminal

	Intersection 14. Laurer Lini-64 ED Kamp Terminar								
Control Type:	Two-way stop	Delay (sec / veh):							
Analysis Method:	HCM 7th Edition	Level Of Service:							
Analysis Period:	15 minutes	Volume to Capacity (v/c):							

16.3 С 0.095

Name		Laurel Ln			Laurel Ln			I-84 EB					
Approach	М	lorthboun	d	S	Southboun	d		Eastbound	ł	\	Vestboun	d	
Lane Configuration		F			H			+					
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0	
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Speed [mph]		30.00			30.00			45.00			30.00		
Grade [%]		0.00			0.00			0.00			0.00		
Crosswalk	No				No			No			No		
Volumes													
Name		Laurel Ln			Laurel Ln			I-84 EB					
Base Volume Input [veh/h]	0	26	41	175	51	0	27	0	10	0	0	0	
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Heavy Vehicles Percentage [%]	2.00	31.00	15.00	4.00	16.00	2.00	30.00	0.00	10.00	2.00	2.00	2.00	
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Total Hourly Volume [veh/h]	0	26	41	175	51	0	27	0	10	0	0	0	
Peak Hour Factor	1.0000	0.8200	0.8200	0.8200	0.8200	1.0000	0.8200	0.8200	0.8200	1.0000	1.0000	1.0000	
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Total 15-Minute Volume [veh/h]	0	8	13	53	16	0	8	0	3	0	0	0	
Total Analysis Volume [veh/h]	0	32	50	213	62	0	33	0	12	0	0	0	
Pedestrian Volume [ped/h]		0			0			0		0			



# Boardman Circulation Study

Version 2024 (SP 0-1)

### **Existing Traffic Conditions**

Weekday PM Peak Hour

Section 4, Item A.

HCM 6th

#### Intersection Settings

Priority Scheme	Free Free Stop		Stop	Stop
Flared Lane			No	
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	
Number of Storage Spaces in Median	0	0	0	0

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.14	0.00	0.00	0.09	0.00	0.01	0.00	0.00	0.00	
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	7.66	0.00	0.00	16.34	15.74	9.69	0.00	0.00	0.00	
Movement LOS		А	А	A	А		С	С	A				
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.40	0.40	0.00	0.36	0.36	0.36	0.00	0.00	0.00	
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	10.05	10.05	0.00	8.91	8.91	8.91	0.00	0.00	0.00	
d_A, Approach Delay [s/veh]		0.00			5.94			14.57			0.00		
Approach LOS		А			А			В			A		
d_I, Intersection Delay [s/veh]		5.69											
Intersection LOS						(	2						


# Attachment C – ODOT Crash Data

OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION

TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT

URBAN NON-SYSTEM CRASH LISTING

CITY OF BOARDMAN, MORROW COUNTY

N MAIN ST at MARINE DR, City of Boardman, Morrow County, ALL Crashes Severity, ALL Crashes Circumstance, 01/01/2018 to 12/31/2022

	S	D M																	
SER#	Ρ	R J S W DATE	CLASS	CITY STREET		INT-TYPE					SPCL USE								
INVEST	ΕA	U I C O DAY	DIST	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE			A S				
RD DPT	ЕL	G N H R TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	G E LICNS	PED			
UNLOC?	DC	S V L K LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V# TYPE	TO	P# TYPE	SVRTY	E X RES	LOC	ERROR	ACT EVENT	CAUSE

TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT

URBAN NON-SYSTEM CRASH LISTING

N MAIN ST at MARINE DR, City of Boardman, Morrow County, ALL Crashes Severity, ALL Crashes Circumstance, 01/01/2018 to 12/31/2022

CITY OF BOARDMAN, MORROW COUNTY

TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT

URBAN NON-SYSTEM CRASH LISTING

CITY OF BOARDMAN, MORROW COUNTY

1 - 2 of 2 Crash records shown.

	S D M																		
SER#	P R J S W DATE	CLASS	CITY STREET		INT-TYPE					SPCL USE									
INVEST	E A U I C O DAY	DIST	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE			A	S				
RD DPT	ELGNHRTIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	G	E LICNS	PED			
UNLOC?	D C S V L K LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V# TYPE	то	P# TYPE	SVRTY	Е	X RES	LOC	ERROR	ACT EVENT	CAUSE
00093	N Y N N Y N 07/3	07	COLUMBIA AVE	INTER	CROSS	Ν	Y	CLR	FIX OBJ	01 NONE 0	TURN-R							079,121	08
CITY	SU	0	N MAIN ST	CN		UNKNOWN	Ν	DRY	FIX	PRVTE	SE-NE							000 079,121	00
N	1A			04	0		N	DLIT	INJ	PSNGR CAR		01 DRVR	INJB	22	F OR-Y		081	000	08
N	45 5	0 34.36 -119 42 6.88													OR<25				
00088	N N N N N N 07/2	.7/2022 07	COLUMBIA AVE	INTER	CROSS	N	N	CLR	ANGL-OTH	01 NONE 9	STRGHT								03,02
CITY	WE	0	N MAIN ST	CN		STOP SIGN	Ν	DRY	TURN	N/A	SW-NE							000	00
N	11P			03	0		Ν	DLIT	PDO	UNKNOWN		01 DRVR	NONE	00	Unk UNK		000	000	00
Ν	45 5	6 34.36 -119 42													UNK				
		0.00								02 NONE 9	TURN-L								
										N/A	SE-SW							000	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 submitted of crash report 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 prope damage only crashes being eligible for inclusion in the Statewide Crash Data File.

CDS380 11/27/2024

# N MAIN ST at COLUMBIA AVE, City of Boardman, Morrow County, ALL Crashes Severity, ALL Crashes Circumstance, 01/01/2018 to 12/31/2022

CITY OF BOARDMAN, MORROW COUNTY

TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT

URBAN NON-SYSTEM CRASH LISTING

N MAIN ST at COLUMBIA AVE, City of Boardman, Morrow County, ALL Crashes Severity, ALL Crashes Circumstance, 01/01/2018 to 12/31/2022

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 submitted of crash report 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 proper damage only crashes being eligible for inclusion in the Statewide Crash Data File.

221

CDS38	0				0	REGON DEPA	RTMENT OF	TRANSE	ORTATION	- TRANSPORTATION D	EVELOPMENT I	DIVISION							<b></b>
11/27/2	2024					TRANSPOR	TATION D	ATA SEC	TION - CR	ASH ANAYLYSIS AND	REPORTING UN	IT							Section
								URBAN I	NON-SYSTE	M CRASH LISTING									
CITY OF	F BOARDMAN, MORROW COUNTY		N MA	IN ST at BOARD	MAN AVE, Cit	ty of Boardma	n, Morro	w Count	y, ALL Cra	ashes Severity, AL	L Crashes Ci	rcumstance,	01/01,	2018 t	o 12/3	1/2022			
							1 - 2	: 0	of 2 Cra	ash records shown.									
	S D M																		
SER#	P R J S W DATE	CLASS	CITY STREET		INT-TYPE					SPCL USE									
INVEST	E A U I C O DAY	DIST	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE			A	S				
RD DPT	E L G N H R TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	G	E LICN	IS PED			
UNLOC?	D C S V L K LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V# TYPE	TO	P# TYPE	SVRTY	Е	X RES	LOC	ERROR	ACT EVENT	CAUSE
00118	N N N N Y N 11/03/2021	07	BOARDMAN AVE	INTER	CROSS	Ν	Ν	CLR	0-1 L-T	URN 01 NONE 0	STRGHT								02
CITY	WE	0	N MAIN ST	CN		STOP SIGN	N	DRY	TURN	PRVTE	W -E							000	00
Ν	7A			03	0		Ν	DAY	INJ	PSNGR CAR		01 DRVR	NONE	19 M	OR-Y	7	000	000	00
N	45 50 23.7	9 -119 42													OR<2	25			
		5.98																	
										02 NONE 0	TURN-L							000	0.0
										PRVIE DENCE CAR	E -S	01 מעמת	TNTC	20 E	OP-V	7	004	000	00
										PSNGR CAR		UI DRVR	INOC	30 F	OR-1 OR<2	25	004	000	02
00108	N N N N N N 10/22/2021	07	BOARDMAN AVE	INTER	CROSS	N	N	CLR	0-1 L-T	URN 01 NONE 0	TURN-L								02,27
CITY	FR	0	N MAIN ST	CN		UNKNOWN	N	DRY	TURN	PRVTE	S -W							000	00
N	20			01	0		N	DAV	TNT	DSNGR CAR			NONE	16 M	NONE	1	028 016	038	02 27
N	45 50 23.7	9 -119 42		01	0		14	DAI	INO	I DIVOR CAR		OI DRVR	NONE	10 14	OR<2	25	020,010	050	02,27
		5.98																	
										02 NONE 0	STRGHT								
										PRVTE	N -S	01 557-		<u> </u>		-		000	00
										PSNGR CAR		UI DRVR	INJC	20 F	OR-Y OR<2	2 25	000	000	00

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 submitted of crash report 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 proper damage only crashes being eligible for inclusion in the Statewide Crash Data File.

CITY OF BOARDMAN, MORROW COUNTY

TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT

URBAN NON-SYSTEM CRASH LISTING

N MAIN ST at BOARDMAN AVE, City of Boardman, Morrow County, ALL Crashes Severity, ALL Crashes Circumstance, 01/01/2018 to 12/31/2022

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 the responsibility of the individual driver, the Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report 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 proper damage only crashes being eligible for inclusion in the Statewide Crash Data File.

223

CDS38	0					01	REGON DEPAR	RTMENT OF	TRANSP	ORTATION -	TRANSPORTATION D	EVELOPMENT	DIVISION							
11/2//	2024						TRANSPOR	TATION DA	ATA SECI	TON - CRASE	H ANAYLYSIS AND F	REPORTING UN	11.1.							Sectio
									URBAN N	ION-SYSTEM C	CRASH LISTING									
CITY O	F BOARDMAN, M	ORROW COUNTY		N MA	IN ST at NW FF	RONT ST, Cit	y of Boardman	1, Morrow	County	, ALL Crash	es Severity, ALL	Crashes Ci	rcumstance,	01/01/2	018 to	5 12/31/	2022			
								1 - 2	C	f 2 Crash	n records shown.									
	S D M																			
SER#	P R J S	W DATE	CLASS	CITY STREET		INT-TYPE					SPCL USE									
INVEST	EAUIC	O DAY	DIST	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR OTY	MOVE			А	S				
דיים מא	E L G N H	RTIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	~ OWNER	FROM	PRTC	TNJ	G	E LICNS	PED			
UNLOC?		ктат	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V# TYPE	TO	P# TYPE	SVRTY	E.	X RES	LOC	ERROR	ACT EVENT	CAUSE
00127	NNNN	11/20/2021	07	NW FRONT ST	INTER	CROSS	N	N	CLR	ANGL-OTH	01 NONE 9	STRGHT	1, 1115	BVILLI				Bitton		02
0012,		11, 20, 2021	0.7			0110000			0211	11102 0111		51110111								02
NO RPT		SA		N MAIN ST	CN		STOP SIGN	Ν	DRY	ANGL	N/A	S -N							000	00
Ν		6P			04	0		N	DUSK	PDO	PSNGR CAR		01 DRVR	NONE	00 U	nk UNK		000	000	00
Ν		45 50 21.09	9 -119 42													UNK				
			5.49																	
											02 NONE 9	STRGHT							0.0.0	0.0
											N/A DSNGR CAR	W -E		NONF	0.0 11	nk IINK		000	000	00
											I BNOR CAR		OI DRVR	NONE	00 0	UNK		000	000	00
00069	N N N N	08/10/2020	07	NW FRONT ST	INTER	CROSS	N	N	UNK	0-1 L-TURI	N 01 NONE 9	STRGHT								08,02
NO RPT		MO	0	N MAIN ST	CN		UNKNOWN	Ν	DRY	TURN	N/A	N -S							000	00
Ν		2P			01	0		N	DAY	PDO	PSNGR CAR		01 DRVR	NONE	00 U	nk UNK		000	000	00
Ν		45 50 21.1	-119 42													UNK				
			5.49								0.2 NONE 0	TUDN_T								
											N/A	S -W							000	0.0
											PSNGR CAR	5	01 DRVR	NONE	00 U	nk UNK		000	000	00

UNK

TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT

URBAN NON-SYSTEM CRASH LISTING

N MAIN ST at NW FRONT ST, City of Boardman, Morrow County, ALL Crashes Severity, ALL Crashes Circumstance, 01/01/2018 to 12/31/2022

CITY OF BOARDMAN, MORROW COUNTY

OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION

TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT

URBAN NON-SYSTEM CRASH LISTING

CITY OF BOARDMAN, MORROW COUNTY

N MAIN ST at NE FRONT ST, City of Boardman, Morrow County, ALL Crashes Severity, ALL Crashes Circumstance, 01/01/2018 to 12/31/2022

	S	D M																		
SER#	Ρ	R J S W DATE	CLASS	CITY STREET		INT-TYPE					SPCL USE									
INVEST	ΕA	U I C O DAY	DIST	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE			A S					
RD DPT	ΕL	G N H R TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	GE	LICNS	PED			
UNLOC?	DC	S V L K LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V# TYPE	ТО	P# TYPE	SVRTY	E X	RES	LOC	ERROR	ACT EVENT	CAUSE

OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION

TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT

URBAN NON-SYSTEM CRASH LISTING

N MAIN ST at NE FRONT ST, City of Boardman, Morrow County, ALL Crashes Severity, ALL Crashes Circumstance, 01/01/2018 to 12/31/2022

CITY OF BOARDMAN, MORROW COUNTY

CDS380 11/27/2024				C	DREGON DEPAI TRANSPOR	RTMENT OI TATION D	F TRANSI DATA SEC	PORTATION - TION - CRAS	TRANSPORTATION D H ANAYLYSIS AND F	DEVELOPMENT	DIVISION NIT							Section
					al. c =		URBAN	NON-SYSTEM	CRASH LISTING									
CITY OF BOARDMA	AN, MORROW COUNTY	N MAIN ST	at WB EX N	. MAIN ST C4,	, City of Boar	rdman, Mo	orrow Co -	ounty, ALL C	rashes Severity,	ALL Crashe	s Circumsta	ance, 01	L/01/20	18 to 12	2/31/2022	2		
						1 - :	5	or 5 Crasi	n records snown.									
S D	M								25 <u>25</u> 1125									
SER# P R	J S W DATE CLASS	CITY STREET		INT-TYPE		00000	LITTE		SPCL USE	NOTE				a				
INVEST E A U	I C O DAY DIST	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WITHR	CRASH	TRER QTY	MOVE	5580		A	S				
	N H K I ME FROM	SECOND SIREEI	LOCTN	(#IANES)	IRAF -	RNDBI	JURF	CULL	UWINER	FROM	PRIC D# TVDE	LNU	G F	E LICNE	T OC	FDDAD	አ // ም ፍኒፖድለም	CALLER
00075 N N N	N N N 07/07/2019 01	N MAIN ST	INTER	CROSS	N	N	CLR	S-1STOP	01 NONE 9	STRGHT	r# 11FD	SVICII	. 13	X RES	DOC	ERROR	ACI EVENI	32.27.29
			1111 111	0110000			0.Lit	5 10101		01110111								02,27,27
COUNTY	SU	WB EX N. MAIN ST C4	SE		STOP SIGN	Ν	DRY	REAR	N/A	SE-NW							000	00
N	5P		06	0		Ν	DAY	PDO	PSNGR CAR		01 DRVR	NONE	00 U	nk UNK		000	000	00
Ν	45 50 19.55 -119 42 5 2	2 0002GZ100S00												UNK				
	5.2								02 NONE 9	STOP								
									N/A	SE-NW							011	00
									PSNGR CAR		01 DRVR	NONE	00 U	nk UNK		000	000	00
00054 N N N	N 06/26/2020 01	N MAIN ST	TNTER	CROSS	N	N	CLR	S-1STOP	0.1 NONE 9	STRGHT				01111				29
	14 00/20/2020 01		INTER	CICODD	14	14	CLIR	5 15101		01100111								
NO RPT	FR	WB EX N. MAIN ST C4	SE		UNKNOWN	N	DRY	REAR	N/A	SE-NW							006	00
N	9A		06	0		N	DAY	PDO	PSNGR CAR		01 DRVR	NONE	00 U	nk UNK		000	000	00
Ν	45 50 19.56 -119 42 5 19	2 0002GZ100S00												UNK				
	5.19								02 NONE 9	STOP								
									N/A	SE-NW							011	00
									PSNGR CAR		01 DRVR	NONE	00 U	nk UNK		000	000	00
00042 N N N	N 05/22/2019 01	N MATN CT	тмтер	CROSS	N	N	CT P	ANCI OTH	01 NONE 0	CTDCUT				UNIC				02.22
00042 N N N	N 05/22/2016 01	N MAIN SI	INTER	CROSS	IN	IN	CLR	ANGL-UIH	OI NOME O	SIRGHI								03,22
NO RPT	TU	WB EX N. MAIN ST C4	CN		STOP SIGN	Ν	DRY	ANGL	PRVTE	N -S							000	00
N	1P		01	0		N	DAY	INJ	PSNGR CAR		01 DRVR	INJB	63 F	OR-Y		000	000	00
N	45 50 19.55 -119 42	2 0002GZ100S00												OR<25	5			
	5.19								02 NONE 0	STRGHT								
									PRVTE	SE-NW							000	22
									MOTRHOME		01 DRVR	NONE	75 M	OR-Y		021	000	03
00000 N N N	N 00/10/0010 01		TNEED	<b>GD 0 G G</b>			CNOV		01 NONE 0					0R>25	)			
00023 N N N	N 02/10/2019 01	N MAIN ST	INTER	CROSS	N	N	SNOW	ANGL-OTH	UI NONE 9	TURN-L								03,08,02
NO RPT	SU	WB EX N. MAIN ST C4	CN		STOP SIGN	N	ICE	TURN	N/A	SE-S							015	00
N	9P		01	0		N	DLIT	PDO	PSNGR CAR		01 DRVR	NONE	00 U	nk UNK		000	000	00
Ν	45 50 19.56 -119 42	2 0002GZ100S00												UNK				
	5.19								02 NONE 9	STRGHT								
									N/A	N -S							000	00
									PSNGR CAR		01 DRVR	NONE	00 U	nk UNK		000	000	00
														UNK				
υυυ69 Ν Ν Ν	N 07/29/2021 01	N MAIN ST	INTER	CROSS	Ν	N	CLR	ANGL-OTH	UL NONE 9	STRGHT								03
CITY	TH	WB EX N. MAIN ST C4	CN		STOP SIGN	Ν	DRY	ANGL	N/A	E -W							000	00
N	10P		02	0		N	DLIT	PDO	PSNGR CAR		01 DRVR	NONE	00 U	nk UNK		000	000	00
N	45 50 19.55 -119 42	2 0002GZ100S00												UNK				
	5.19								02 NONE 9	STRGHT								
									N/A	S -N							000	00
									PSNGR CAR		01 DRVR	NONE	00 U	nk UNK		000	000	00

00023 N N N N	02/10/2019 01	N MAIN ST	INTER	CROSS	N	N	SNOW	ANGL-OTH	01 NONE 9	TURN-L				
NO RPT	SU	WB EX N. MAIN ST C4	CN		STOP SIGN	Ν	ICE	TURN	N/A	SE-S				
N N	9P 45 50 19.56 -119 42 5.19	0002GZ100S00	01	0		Ν	DLIT	PDO	PSNGR CAR		01 DRVR	NONE	00 U	nk UNK UNK
									02 NONE 9 N/A	STRGHT N -S				
									PSNGR CAR		01 DRVR	NONE	00 U	nk UNK UNK
00069 N N N N	07/29/2021 01	N MAIN ST	INTER	CROSS	N	N	CLR	ANGL-OTH	01 NONE 9	STRGHT				
CITY	TH	WB EX N. MAIN ST C4	CN		STOP SIGN	Ν	DRY	ANGL	N/A	E -W				
N N	10P 45 50 19.55 -119 42 5 19	0002GZ100S00	02	0		Ν	DLIT	PDO	PSNGR CAR		01 DRVR	NONE	00 U	nk UNK UNK
	5.17								02 NONE 9 N/A	STRGHT S -N				
									PSNGR CAR		01 DRVR	NONE	00 U	nk UNK

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TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT

URBAN NON-SYSTEM CRASH LISTING

N MAIN ST at WB EX N. MAIN ST C4, City of Boardman, Morrow County, ALL Crashes Severity, ALL Crashes Circumstance, 01/01/2018 to 12/31/2022

CITY OF BOARDMAN, MORROW COUNTY

Section 4, Item A.

229

TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT

URBAN NON-SYSTEM CRASH LISTING

CITY OF BOARDMAN, MORROW COUNTY

1 - 1 of 1 Crash records shown.

	S	DM																			
SER#	Ρ	R J S	W DATE	CLASS	CITY STREET		INT-TYPE					SPCL USE									
INVEST	ΕA	U I C	O DAY	DIST	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE			А	S				
RD DPT	ΕL	G N H	R TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	G	E LICNS	PED			
UNLOC?	DC	S V L	K LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V# TYPE	ТО	P# TYPE	SVRTY	Е	X RES	LOC	ERROR	ACT EVENT	CAUSE
00006	N N	N N	01/28/2019	01	N MAIN ST	INTER	CROSS	N	Ν	CLR	ANGL-OTH	01 NONE 9	STRGHT								02
NO RPT			MO		WB EF N. MAIN ST C5	CN		STOP SIGN	N	DRY	ANGL	N/A	SE-NW							015	00
N			12P			01	0		N	DAY	PDO	PSNGR CAR		01 DRVR	NONE	00 U	Jnk UNK		000	000	00
Ν			45 50 19.56	-119 42 5 2	0002HA100S00												UNK				
				J.2								02 NONE 9	STRGHT								
												N/A	N -S							000	00
												PSNGR CAR		01 DRVR	NONE	00 U	Jnk UNK		000	000	00

UNK

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CDS380 11/27/2024

TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT

URBAN NON-SYSTEM CRASH LISTING

N MAIN ST at WB EF N. MAIN ST C5, City of Boardman, Morrow County, ALL Crashes Severity, ALL Crashes Circumstance, 01/01/2018 to 12/31/2022

CITY OF BOARDMAN, MORROW COUNTY

Section 4, Item A.

231

TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT

URBAN NON-SYSTEM CRASH LISTING

CITY OF BOARDMAN, MORROW COUNTY

1 - 1 of 1 Crash records shown.

	S	DM																			
SER#	Ρ	RJS	W DATE	CLASS	CITY STREET		INT-TYPE					SPCL USE									
INVEST	ΕA	U I C	O DAY	DIST	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE			А	S				
RD DPT	ΕL	G N H	R TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	G	E LICNS	PED			
UNLOC?	DC	S V L	K LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V# TYPE	ТО	P# TYPE	SVRTY	Е	X RES	LOC	ERROR	ACT EVENT	CAUSE
00135	ΝY	N N	12/18/2021	01	EB EX S. MAIN ST Cl	INTER	CROSS	N	N	RAIN	ANGL-OTH	01 NONE 9	STRGHT								03
CITY			SA		S MAIN ST	UN		STOP SIGN	Ν	WET	ANGL	N/A	N -S							000	00
Ν			5P			01	0		N	DLIT	PDO	PSNGR CAR		01 DRVR	NONE	00 t	Jnk UNK		000	000	00
N			45 50 13.87	-119 42 4 16	0002GW100S00												UNK				
				1.10								02 NONE 9	STRGHT								
												N/A	W -E							000	00
												PSNGR CAR		01 DRVR	NONE	00 t	Jnk UNK		000	000	00

UNK

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CDS380

11/27/2024

TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT

URBAN NON-SYSTEM CRASH LISTING

S MAIN ST at EB EX S. MAIN ST C1, City of Boardman, Morrow County, ALL Crashes Severity, ALL Crashes Circumstance, 01/01/2018 to 12/31/2022

CITY OF BOARDMAN, MORROW COUNTY

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Section 4, Item A.

TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT

URBAN NON-SYSTEM CRASH LISTING

CITY OF BOARDMAN, MORROW COUNTY

1 - 1 of 1 Crash records shown.

	S D	Μ																		
SER#	P R	J S W DATE	CLASS	CITY STREET		INT-TYPE					SPCL USE									
INVEST	EAU	I C O DAY	DIST	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE			A	S				
RD DPT	ELG	N H R TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	G	E LICNS	PED			
UNLOC?	DCS	V L K LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V# TYPE	ТО	P# TYPE	SVRTY	Е	X RES	LOC	ERROR	ACT EVENT	CAUSE
00032	N N N	N 04/09/20	20 01	S MAIN ST	INTER	CROSS	N	Ν	CLR	ANGL-OTH	01 NONE 9	STRGHT								02
NO RPT		TH		EB EF S. MAIN ST C3	CN		STOP SIGN	Ν	DRY	ANGL	N/A	SW-NE							000	00
N		6P			04	0		N	DAY	PDO	PSNGR CAR		01 DRVR	NONE	00 t	Jnk UNK		000	000	00
Ν		45 50 13	.87 -119 42 4.16	0002GY100S00												UNK				
											02 NONE 9	STRGHT								
											N/A	S -N							000	00
											PSNGR CAR		01 DRVR	NONE	00 T	Jnk UNK		000	000	00

UNK

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CDS380 11/27/2024

# S MAIN ST at EB EF S. MAIN ST C3, City of Boardman, Morrow County, ALL Crashes Severity, ALL Crashes Circumstance, 01/01/2018 to 12/31/2022

TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT

URBAN NON-SYSTEM CRASH LISTING

S MAIN ST at EB EF S. MAIN ST C3, City of Boardman, Morrow County, ALL Crashes Severity, ALL Crashes Circumstance, 01/01/2018 to 12/31/2022

CITY OF BOARDMAN, MORROW COUNTY

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Section 4, Item A.

OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION

TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT

URBAN NON-SYSTEM CRASH LISTING

CITY OF BOARDMAN, MORROW COUNTY

S MAIN ST at SW FRONT ST, City of Boardman, Morrow County, ALL Crashes Severity, ALL Crashes Circumstance, 01/01/2018 to 12/31/2022

	S	D M																	
SER#	Ρ	R J S W DATE	CLASS	CITY STREET		INT-TYPE					SPCL USE								
INVEST	ΕA	U I C O DAY	DIST	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE			A S				
RD DPT	ЕL	G N H R TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	G E LICNS	PED			
UNLOC?	DC	S V L K LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V# TYPE	TO	P# TYPE	SVRTY	E X RES	LOC	ERROR	ACT EVENT	CAUSE

TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT

URBAN NON-SYSTEM CRASH LISTING

S MAIN ST at SW FRONT ST, City of Boardman, Morrow County, ALL Crashes Severity, ALL Crashes Circumstance, 01/01/2018 to 12/31/2022

CDS380 11/27/2024

CITY OF BOARDMAN, MORROW COUNTY

OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION

TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT

URBAN NON-SYSTEM CRASH LISTING

CITY OF BOARDMAN, MORROW COUNTY

S MAIN ST at SE FRONT ST, City of Boardman, Morrow County, ALL Crashes Severity, ALL Crashes Circumstance, 01/01/2018 to 12/31/2022

S	D	М																		
SER# F	R	J S W DATE	CLASS	CITY STREET		INT-TYPE					SPCL USE									
INVEST E	A U	I C O DAY	DIST	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE			A S					
RD DPT E	L G	N H R TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	G E	LICNS	PED			
UNLOC? D	CS	V L K LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V# TYPE	то	P# TYPE	SVRTY	E X	RES	LOC	ERROR	ACT EVENT	CAUSE

TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT

URBAN NON-SYSTEM CRASH LISTING

S MAIN ST at SE FRONT ST, City of Boardman, Morrow County, ALL Crashes Severity, ALL Crashes Circumstance, 01/01/2018 to 12/31/2022

CDS380 11/27/2024

CITY OF BOARDMAN, MORROW COUNTY

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### OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION

TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT

URBAN NON-SYSTEM CRASH LISTING

CITY OF BOARDMAN, MORROW COUNTY

# S MAIN ST at OREGON TRAIL BLVD, City of Boardman, Morrow County, ALL Crashes Severity, ALL Crashes Circumstance, 01/01/2018 to 12/31/2022

S		DM																			
SER# P		R J	S W DATE	CLASS	CITY STREET		INT-TYPE					SPCL USE									
INVEST E	А	υI	C O DAY	DIST	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE			А	S				
RD DPT E	L	G N	H R TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	G	E LICNS	PED			
UNLOC? D	C	s v	L K LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V# TYPE	ТО	P# TYPE	SVRTY	Е	X RES	LOC	ERROR	ACT EVENT	CAUSE

TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT

URBAN NON-SYSTEM CRASH LISTING

S MAIN ST at OREGON TRAIL BLVD, City of Boardman, Morrow County, ALL Crashes Severity, ALL Crashes Circumstance, 01/01/2018 to 12/31/2022

CITY OF BOARDMAN, MORROW COUNTY

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Section 4, Item A.

OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION

### TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT

URBAN NON-SYSTEM CRASH LISTING

CITY OF BOARDMAN, MORROW COUNTY

S MAIN ST at KINKADE RD, City of Boardman, Morrow County, ALL Crashes Severity, ALL Crashes Circumstance, 01/01/2018 to 12/31/2022

S D M																	
SER# P R J S W DA	ATE CLASS	CITY STREET		INT-TYPE				SPCL USE									
INVEST E A U I C O DA	AY DIST	FIRST STREET	RD CHAR	(MEDIAN) INT-RE	L OFFRD	WTHR	CRASH	TRLR QTY	MOVE			А	S				
RD DPT ELGNHRT	IME FROM	SECOND STREET	DIRECT	LEGS TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	G	E LICNS	PED			
UNLOC? DCSVLKLA	AT LONG	LRS	LOCTN	(#LANES) CONTL	DRVWY	LIGHT	SVRTY	V# TYPE	TO	P# TYPE	SVRTY	Е	X RES	LOC	ERROR	ACT EVENT	CAUSE

TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT

URBAN NON-SYSTEM CRASH LISTING

S MAIN ST at KINKADE RD, City of Boardman, Morrow County, ALL Crashes Severity, ALL Crashes Circumstance, 01/01/2018 to 12/31/2022

CDS380 11/27/2024

CITY OF BOARDMAN, MORROW COUNTY

TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT

URBAN NON-SYSTEM CRASH LISTING

CITY OF BOARDMAN, MORROW COUNTY

1 - 5 of 6 Crash records shown.

S D M																			
SER# P R J S	W DATE	CLASS	CITY STREET		INT-TYPE					SPCL USE									
INVEST E A U I C	O DAY	DIST	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE			A	S				
RD DPT ELGNH	R TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	G	E LICN	S PED			
UNLOC? D C S V L	K LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V# TYPE	TO	P# TYPE	SVRTY	Е	X RES	LOC	ERROR	ACT EVENT	CAUSE
00007 N N N N	01/19/2018	07	S MAIN ST	INTER	CROSS	Ν	Ν	CLR	ANGL-OTH	01 NONE 9	TURN-R								02,29
NO RPT	FR	0	WILSON RD	CN		STOP SIGN	Ν	DRY	ANGL	N/A	N -W							000	00
N N	6P 45 49 40.75	5 -119 42 1.74		01	0		Ν	DLIT	PDO	PSNGR CAR		01 DRVR	NONE	00 τ	Jnk UNK UNK		000	000	00
										02 NONE 9 N/A PSNGR CAR	STRGHT E -W	01 DRVR	NONE	00 τ	Jnk UNK UNK		000	015 000	00000
00010 N N N N	02/04/2019	07	S MAIN ST	INTER	CROSS	N	N	SNOW	0-1 L-TURN	N 01 NONE 0	TURN-L							124	02
NONE	MO	0	WILSON RD	CN		STOP SIGN	Ν	ICE	TURN	PRVTE	W -N							015	00
N N	6P 45 49 40.75	5 -119 42 1.75		02	0		Ν	DLIT	INJ	PSNGR CAR		01 DRVR	INJC	48 I	F OR-Y OR<2	5	000	000	00
										02 NONE 0 PRVTE PSNGR CAR	STRGHT E -W	01 DRVR	NONE	32 M	M OTH- N-RE	Y S	028	000 124 017	00 02
00093 N N N N	08/07/2019	07	S MAIN ST	INTER	CROSS	N	N	CLR	ANGL-OTH	01 NONE 9	STRGHT								03,02
NO RPT	WE	0	WILSON RD	CN		STOP SIGN	Ν	DRY	ANGL	N/A	N -S							000	00
N N	8P 45 49 40.75	5 -119 42		01	0		Ν	DAY	PDO	MOTRHOME		01 DRVR	NONE	00 τ	Jnk UNK UNK		000	000	00
		1.71								02 NONE 9 N/A PSNGR CAR	STRGHT E -W	01 DRVR	NONE	00 τ	Jnk UNK UNK		000	015 000	00 00
00073 N N N N N	N 08/10/2021	07	S MAIN ST	INTER	CROSS	Ν	N	CLR	ANGL-OTH	01 NONE 9	STRGHT							121	02
CITY	TU	0	WILSON RD	CN		STOP SIGN	Ν	DRY	ANGL	N/A	N -S							000	00
N N	6P 45 49 40.75	5 -119 42 1.74		03	0		Ν	DAY	PDO	PSNGR CAR		01 DRVR	NONE	00 τ	Jnk UNK UNK		000	000	00
										02 NONE 9 N/A PSNGR CAR	STRGHT W -E	01 DRVR	NONE	00 τ	Jnk UNK UNK		000	000 000	00 00
00014 N N N N	02/16/2021	07	S MAIN ST	INTER	CROSS	N	N	CLR	ANGL-OTH	01 NONE 9	TURN-R								03,08
NO RPT	TU	0	WILSON RD	CN		STOP SIGN	N	WET	TURN	N/A	E –N							000	00
N N	6P 45 49 40.75	5 -119 42 1 74		02	0		Ν	DLIT	PDO	PSNGR CAR		01 DRVR	NONE	00 τ	Jnk UNK UNK		000	000	00
		±•, •								02 NONE 9 N/A UNKNOWN	TURN-R N -W	01 DRVR	NONE	00 τ	Unk UNK UNK		000	000 000	00 00

TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT

URBAN NON-SYSTEM CRASH LISTING

S MAIN ST at WILSON RD, City of Boardman, Morrow County, ALL Crashes Severity, ALL Crashes Circumstance, 01/01/2018 to 12/31/2022

CITY OF BOARDMAN, MORROW COUNTY

TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT

URBAN NON-SYSTEM CRASH LISTING

CITY OF BOARDMAN, MORROW COUNTY

б-б of 6 Crash records shown.

	S D M																				
SER#	P RJS	W DATE	CLASS	CITY STREET		INT-TYPE					SPCL USE										
INVEST	EAUIC	O DAY	DIST	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE			А	S					
RD DPT	ELGNH	R TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	G	E LICNS	PED				
UNLOC?	DCSVL	K LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V# TYPE	ТО	P# TYPE	SVRTY	Е	X RES	LOC	ERROR	ACT E	IVENT	CAUSE
00065	N N N N N	N 06/06/2022	07	S MAIN ST	INTER	CROSS	Ν	N	CLR	ANGL-OTH	01 NONE 0	STRGHT							0	93	03
CITY		MO	0	WILSON RD	CN		STOP SIGN	Ν	DRY	ANGL	PRVTE	N -S							000		00
N		7P			03	0		N	DAY	INJ	PSNGR CAR		01 DRVR	INJB	86 M	OR-Y		000	000		00
N		45 49 40.75	5 -119 42													OR<25					
			1.74								02 NONE 0	STRGHT									
											PRVTE	W -E							000		00
											PSNGR CAR		01 DRVR	NONE	44 M	OR-Y		003	000 0	93	03
																OR<25					

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11/27/2024

# S MAIN ST at WILSON RD, City of Boardman, Morrow County, ALL Crashes Severity, ALL Crashes Circumstance, 01/01/2018 to 12/31/2022

TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT

URBAN NON-SYSTEM CRASH LISTING

S MAIN ST at WILSON RD, City of Boardman, Morrow County, ALL Crashes Severity, ALL Crashes Circumstance, 01/01/2018 to 12/31/2022

CITY OF BOARDMAN, MORROW COUNTY

OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION

TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT

URBAN NON-SYSTEM CRASH LISTING

CITY OF BOARDMAN, MORROW COUNTY

OLSON RD at COLUMBIA AVE, City of Boardman, Morrow County, ALL Crashes Severity, ALL Crashes Circumstance, 01/01/2018 to 12/31/2022

S	D M	I																		
SER# P	R J	S W DATE	CLASS	CITY STREET		INT-TYPE					SPCL USE									
INVEST E	A U I	C O DAY	DIST	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE			A S					
RD DPT E	L G N	I H R TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	G E L	ICNS	PED			
UNLOC? D	CSV	' L K LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V# TYPE	ТО	P# TYPE	SVRTY	E X R	ES	LOC	ERROR	ACT EVENT	CAUSE

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TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT

URBAN NON-SYSTEM CRASH LISTING

OLSON RD at COLUMBIA AVE, City of Boardman, Morrow County, ALL Crashes Severity, ALL Crashes Circumstance, 01/01/2018 to 12/31/2022

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CITY OF BOARDMAN, MORROW COUNTY

### OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION

TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT

URBAN NON-SYSTEM CRASH LISTING

CITY OF BOARDMAN, MORROW COUNTY

LAUREL LN at COLUMBIA AVE, City of Boardman, Morrow County, ALL Crashes Severity, ALL Crashes Circumstance, 01/01/2018 to 12/31/2022

S	D	М																		
SER# P	R	J S W DATE	CLASS	CITY STREET		INT-TYPE					SPCL USE									
INVEST E	A U	I C O DAY	DIST	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE			A S					
RD DPT E	L G	N H R TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	G E	LICNS	PED			
UNLOC? D	C S	V L K LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V# TYPE	ТО	P# TYPE	SVRTY	E X	RES	LOC	ERROR	ACT EVENT	CAUSE

TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT

URBAN NON-SYSTEM CRASH LISTING

LAUREL LN at COLUMBIA AVE, City of Boardman, Morrow County, ALL Crashes Severity, ALL Crashes Circumstance, 01/01/2018 to 12/31/2022

CITY OF BOARDMAN, MORROW COUNTY

TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT

URBAN NON-SYSTEM CRASH LISTING

CITY OF BOARDMAN, MORROW COUNTY

WB ENFR PORT MORROW at PORT MORROW/LAUREL, City of Boardman, Morrow County, ALL Crashes Severity, ALL Crashes Circumstance, 01/01/2018 to 12/31/2022

S D M																		
SER# P R J S W DATE	CLASS	CITY STREET		INT-TYPE					SPCL USE									
INVEST E A U I C O DAY	DIST	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE			А	S				
RD DPT E L G N H R TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	G	E LICNS	PED			
UNLOC? D C S V L K LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V# TYPE	ТО	P# TYPE	SVRTY	Е	X RES	LOC	ERROR	ACT EVENT	CAUSE

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Section 4, Item A.
TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT

URBAN NON-SYSTEM CRASH LISTING

WB ENFR PORT MORROW at PORT MORROW/LAUREL, City of Boardman, Morrow County, ALL Crashes Severity, ALL Crashes Circumstance, 01/01/2018 to 12/31/2022

CITY OF BOARDMAN, MORROW COUNTY

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Section 4, Item A.

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11/27/2024			TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT												Secti				
								URBAN I	NON-SYSTEM	CRASH LISTING									
CITY OF BOARDMAN, M	MORROW COUNTY		WB EXTO PORT MC	RROW at POR	T MORROW/LAU	JREL, City of	Boardma	n, Morre	ow County,	ALL Crashes Seve	rity, ALL Cr	ashes Circu	unstance	e, 01/	01/2018	to 12/31	/2022		
							1 - 2	2	of 2 Crasl	n records shown.									
S D M																			
SER# P R J S	W DATE	CLASS	CITY STREET		INT-TYPE					SPCL USE									
INVEST E A U I C	O DAY	DIST	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE			A	S				
RD DPT ELGNH	R TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	G	E LICN	S PED			
UNLOC? DCSVL	K LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V# TYPE	TO	P# TYPE	SVRTY	Е	X RES	LOC	ERROR	ACT EVENT	CAUSE
00012 N N N N	02/11/2021	01	WB EXTO PORT MORROW	INTER	CROSS	Ν	N	SNOW	ANGL-OTH	01 NONE 9	STRGHT							124	12
NO RPT	TH		PORT MORROW/LAUREL	CN		STOP SIGN	N	ICE	ANGL	N/A	N -S							000	00
Ν	4P			02	0		Ν	DAY	PDO	PSNGR CAR		01 DRVR	NONE	00	Unk UNK		000	000	00
Ν	45 50 29.43	1 -119 40	0002HE100S00												UNK				
		5.96								0.2 NONE 9	ק_אסוויד								
										N/A	E –N							000	0.0
										PSNGR CAR		01 DRVR	NONE	00	Unk UNK		000	000	00
															UNK				
00055 N N N N	06/21/2021	01	PORT MORROW/LAUREL	INTER	CROSS	Ν	Ν	CLR	ANGL-OTH	01 NONE 9	STRGHT								03
NO RPT	МО		WB EXTO PORT MORROW	CN		STOP SIGN	Ν	DRY	ANGL	N/A	E -W							000	00
N	7A			01	0		Ν	DAY	PDO	PSNGR CAR		01 DRVR	NONE	00	Unk UNK		000	000	00
Ν	45 50 29.43	1 -119 40 5.96	0002HE100S00												UNK				
										02 NONE 9	STRGHT								
										N/A	N -S							000	00
										PSNGR CAR		01 DRVR	NONE	00	Unk UNK UNK		000	000	00

TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT

URBAN NON-SYSTEM CRASH LISTING

WB EXTO PORT MORROW at PORT MORROW/LAUREL, City of Boardman, Morrow County, ALL Crashes Severity, ALL Crashes Circumstance, 01/01/2018 to 12/31/2022

CDS380 11/27/2024

CITY OF BOARDMAN, MORROW COUNTY

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TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT

URBAN NON-SYSTEM CRASH LISTING

CITY OF BOARDMAN, MORROW COUNTY

EB ENFR PORT MORROW at PORT MORROW/LAUREL, City of Boardman, Morrow County, ALL Crashes Severity, ALL Crashes Circumstance, 01/01/2018 to 12/31/2022

S D M																			
SER# P R J S	G W DATE C	LASS	CITY STREET		INT-TYPE					SPCL USE									
INVEST E A U I C	C O DAY D	IST	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE			A	S				
RD DPT ELGNH	IRTIME F	ROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	G	E LICNS	PED			
UNLOC? D C S V L	KLAT L	ONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V# TYPE	ТО	P# TYPE	SVRTY	Е	X RES	LOC	ERROR	ACT EVENT	CAUSE

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Section 4, Item A.

TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT

URBAN NON-SYSTEM CRASH LISTING

EB ENFR PORT MORROW at PORT MORROW/LAUREL, City of Boardman, Morrow County, ALL Crashes Severity, ALL Crashes Circumstance, 01/01/2018 to 12/31/2022

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CITY OF BOARDMAN, MORROW COUNTY

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TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT

URBAN NON-SYSTEM CRASH LISTING

CITY OF BOARDMAN, MORROW COUNTY

1 - 1 of 1 Crash records shown.

	S	DM																			
SER#	P	RJSI	W DATE	CLASS	CITY STREET		INT-TYPE					SPCL USE									
INVEST	ΕA	UIC	O DAY	DIST	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE			A	S				
RD DPT	ΕL	GNH	R TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	G I	E LICNS	PED			
UNLOC?	DC	SVLI	K LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V# TYPE	то	P# TYPE	SVRTY	E	X RES	LOC	ERROR	ACT EVENT	CAUSE
00073	N N	N N	07/01/2019	01	EB EXTO PORT MORROW	INTER	CROSS	N	Ν	CLR	S-1TURN	01 NONE 1	TURN-R								14,02
STATE			MO		PORT MORROW/LAUREL	W		STOP SIGN	N	DRY	TURN	PRVTE	NW-S							015	00
N			9A			06	0		N	DAY	INJ	SEMI TOW		01 DRVR	NONE	42 F	OR-Y		000	000	00
Ν			45 50 22.97	-119 40 6.66	0002HB100S00												OR<25				
												02 NONE 0	STOP								
												PRVTE	NW-SE							011	00
												PSNGR CAR		01 DRVR	INJB	41 F	OTH-Y		003,028	000	14,02
																	N-RES				

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 submitted for an analysis and Reporting Unit is committed to providing the highest quality crash data to customers. 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 prope damage only crashes being eligible for inclusion in the Statewide Crash Data File.

CDS380 11/27/2024

### EB EXTO PORT MORROW at PORT MORROW/LAUREL, City of Boardman, Morrow County, ALL Crashes Severity, ALL Crashes Circumstance, 01/01/2018 to 12/31/2022

TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT

URBAN NON-SYSTEM CRASH LISTING

CITY OF BOARDMAN, MORROW COUNTY

EB EXTO PORT MORROW at PORT MORROW/LAUREL, City of Boardman, Morrow County, ALL Crashes Severity, ALL Crashes Circumstance, 01/01/2018 to 12/31/2022

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CDS380 11/27/2024

Section 4, Item A.

ACTION	SHORT
CODE	DESCRIPTION

CODE	DESCRIPTION	LONG DESCRIPTION
000	NONE	NO ACTION OR NON-WARRANTED
001	SKIDDED	SKIDDED
002	ON/OFF V	GETTING ON OR OFF STOPPED OR PARKED VEHICLE
003	LOAD OVR	OVERHANGING LOAD STRUCK ANOTHER VEHICLE, ETC.
006	SLOW DN	SLOWED DOWN
007	AVOIDING	AVOIDING MANEUVER
008	PAR PARK	PARALLEL PARKING
009	ANG PARK	ANGLE PARKING
010	INTERFERE	PASSENGER INTERFERING WITH DRIVER
011	STOPPED	STOPPED IN TRAFFIC NOT WAITING TO MAKE A LEFT TURN
012	STP/L TRN	STOPPED BECAUSE OF LEFT TURN SIGNAL OR WAITING, ETC.
013	STP TURN	STOPPED WHILE EXECUTING A TURN
014	EMR V PKD	EMERGENCY VEHICLE LEGALLY PARKED IN THE ROADWAY
015	GO A/STOP	PROCEED AFTER STOPPING FOR A STOP SIGN/FLASHING RED.
016	TRN A/RED	TURNED ON RED AFTER STOPPING
017	LOSTCTRL	LOST CONTROL OF VEHICLE
018	EXIT DWY	ENTERING STREET OR HIGHWAY FROM ALLEY OR DRIVEWAY
019	ENTR DWY	ENTERING ALLEY OR DRIVEWAY FROM STREET OR HIGHWAY
020	STR ENTR	BEFORE ENTERING ROADWAY, STRUCK PEDESTRIAN, ETC. ON SIDEWALK OR SHOULDER
021	NO DRVR	CAR RAN AWAY - NO DRIVER
022	PREV COL	STRUCK, OR WAS STRUCK BY, VEHICLE OR PEDESTRIAN IN PRIOR COLLISION BEFORE ACC. STABILIZED
023	STALLED	VEHICLE STALLED OR DISABLED
024	DRVR DEAD	DEAD BY UNASSOCIATED CAUSE
025	FATIGUE	FATIGUED, SLEEPY, ASLEEP
026	SUN	DRIVER BLINDED BY SUN
027	HDLGHTS	DRIVER BLINDED BY HEADLIGHTS
028	ILLNESS	PHYSICALLY ILL
029	THRU MED	VEHICLE CROSSED, PLUNGED OVER, OR THROUGH MEDIAN BARRIER
030	PURSUIT	PURSUING OR ATTEMPTING TO STOP A VEHICLE
031	PASSING	PASSING SITUATION
032	PRKOFFRD	VEHICLE PARKED BEYOND CURB OR SHOULDER
033	CROS MED	VEHICLE CROSSED EARTH OR GRASS MEDIAN
034	X N/SGNL	CROSSING AT INTERSECTION - NO TRAFFIC SIGNAL PRESENT
035	X W/ SGNL	CROSSING AT INTERSECTION - TRAFFIC SIGNAL PRESENT
036	DIAGONAL	CROSSING AT INTERSECTION - DIAGONALLY
037	BTWN INT	CROSSING BETWEEN INTERSECTIONS
020	DISTRACT	DRIVER'S ATTENTION DISTRACTED
039	W/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER WITH TRAFFIC
040	A/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER FACING TRAFFIC
041	W/TRAF-P	WALKING, RUNNING, RIDING, EIC., ON PAVEMENT WITH TRAFFIC
042	A/TRAF-P	WALKING, KUNNING, KIDING, EIC., ON PAVEMENT FACING TRAFFIC
043	PLATINKD	PLATING IN SIREEI OK KOAD DURUING OD MODRING ON VEULGLE IN DOAD OD ON SUOULDED
045	FOSH MV	MORKING ON WORKING ON VEHICLE IN ROAD OR ON SHOULDER
046	WORK ON W/ TRAFIC	NON-MOTORIST WALKING DINNING DIDING FTC WITH TRAFTC
047	A/ TRAFIC	NON-MOTORIST WALKING, RUNNING, RIDING, EIC. WITH IRAFFIC
050	TAY ON PD	STANDING OR LYING IN ROADWAY
051	ENT OFFRD	ENTERING / STARTING IN TRAFFIC LANE FROM OFF ROAD
052	MERGING	MERGING

SPRAY 055 BLINDED BY WATER SPRAY

### ACTION CODE TRANSLATION LIST

ACTION	SHORT		Section 4 Item A
CODE	DESCRIPTION	LONG DESCRIPTION	
088 099	OTHER UNK	OTHER ACTION UNKNOWN ACTION	

261

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### CAUSE CODE TRANSLATION LIST

### COLLISION TYPE CODE TRANSLATION LIST

CAUSE CODE	SHORT DESCRIPTION	LONG DESCRIPTION	COLL CODE	SHORT DESCRIPTION	LONG DESCRIPTION
00	NO CODE	NO CAUSE ASSOCIATED AT THIS LEVEL	æ	OTH	MISCELLANEOUS
01	TOO-FAST	TOO FAST FOR CONDITIONS (NOT EXCEED POSTED SPEED	-	BACK	BACKING
02	NO-YIELD	DID NOT YIELD RIGHT-OF-WAY	0	PED	PEDESTRIAN
03	PAS-STOP	PASSED STOP SIGN OR RED FLASHER	1	ANGL	ANGLE
04	DIS SIG	DISREGARDED TRAFFIC SIGNAL	2	HEAD	HEAD-ON
05	LEFT-CTR	DROVE LEFT OF CENTER ON TWO-WAY ROAD; STRADDLING	3	REAR	REAR-END
06	IMP-OVER	IMPROPER OVERTAKING	4	SS-M	SIDESWIPE - MEETING
07	TOO-CLOS	FOLLOWED TOO CLOSELY	5	SS-0	SIDESWIPE - OVERTAKING
08	IMP-TURN	MADE IMPROPER TURN	6	TURN	TURNING MOVEMENT
09	DRINKING	ALCOHOL OR DRUG INVOLVED	7	PARK	PARKING MANEUVER
10	OTHR-IMP	OTHER IMPROPER DRIVING	8	NCOL	NON-COLLISION
11	MECH-DEF	MECHANICAL DEFECT	9	FIX	FIXED OBJECT OR OTHER OBJECT
12	OTHER	OTHER (NOT IMPROPER DRIVING)			
13	IMP LN C	IMPROPER CHANGE OF TRAFFIC LANES			
14	DIS TCD	DISREGARDED OTHER TRAFFIC CONTROL DEVICE			
15	WRNG WAY	WRONG WAY ON ONE-WAY ROAD; WRONG SIDE DIVIDED RO			
16	FATIGUE	DRIVER DROWSY/FATIGUED/SLEEPY			
17	ILLNESS	PHYSICAL ILLNESS			
18	IN RDWY	NON-MOTORIST ILLEGALLY IN ROADWAY			
19	NT VISBL	NON-MOTORIST NOT VISIBLE; NON-REFLECTIVE CLOTHIN			
20	IMP PKNG	VEHICLE IMPROPERLY PARKED		653.6H MI	
21	DEF STER	DEFECTIVE STEERING MECHANISM		CRASH TY	PE CODE TRANSLATION LIST
22	DEF BRKE	INADEQUATE OR NO BRAKES	CRASH	SHORT	
24	LOADSHFT	VEHICLE LOST LOAD OR LOAD SHIFTED	TYPE	DESCRIPTION	LONG DESCRIPTION
25	TIREFAIL	TIRE FAILURE			
26	PHANTOM	PHANTOM / NON-CONTACT VEHICLE	&	OVERTURN	OVERTORNED
27	INATTENT	INATTENTION	0	NON-COLL	OTHER NON-COLLISION
28	NM INATT	NON-MOTORIST INATTENTION	1	OTH RDWY	MOTOR VEHICLE ON OTHER ROADWAY
29	F AVOID	FAILED TO AVOID VEHICLE AHEAD	2	PRKD MV	PARKED MOTOR VEHICLE
30	SPEED	DRIVING IN EXCESS OF POSTED SPEED	3	PED	PEDESTRIAN
31	RACING	SPEED RACING (PER PAR)	4	TRAIN	RAILWAY TRAIN
32	CARELESS	CARELESS DRIVING (PER PAR)	6	BIKE	PEDALCYCLIST
33	RECKLESS	RECKLESS DRIVING (PER PAR)	/	ANIMAL	ANIMAL
34	AGGRESV	AGGRESSIVE DRIVING (PER PAR)	8	FIX OBJ	FIXED ORDECL
35	RD RAGE	ROAD RAGE (PER PAR)	9	OTH OBJ	UTHER UBJECT
40	VIEW OBS	VIEW OBSCURED	A	ANGL-STP	ENTERING AT ANGLE - ONE VEHICLE STOPPED
50	USED MDN	IMPROPER USE OF MEDIAN OR SHOULDER	В	ANGL-OTH	ENTERING AT ANGLE - ALL OTHERS
51	FAIL LN	FAILED TO MAINTAIN LANE	C	S-STRGHT	FROM SAME DIRECTION - BOTH GOING STRAIGHT
52	OFF RD	RAN OFF ROAD	D _	S-ITURN	FROM SAME DIRECTION - ONE TURN, ONE STRAIGHT
			E	S-ISTOP	FROM SAME DIRECTION - ONE STOPPED
			F	S-OTHER	FROM SAME DIRECTION-ALL OTHERS, INCLUDING PARKING
			G	U-STRGHT	FROM OPPOSITE DIRECTION - BOTH GOING STRAIGHT

H O-1 L-TURN FROM OPPOSITE DIRECTION-ONE LEFT TURN, ONE STRAIGHT

I O-1STOP FROM OPPOSITE DIRECTION - ONE STOPPED

J O-OTHER FROM OPPOSITE DIRECTION-ALL OTHERS INCL. PARKING

Section 4, Item A.

DRIVER LICENSE CODE TRANSLATION LIST

### DRIVER RESIDENCE CODE TRANSLATION LIST

LIC	SHORT		RES	SHORT		Section 4. Item A.
CODE	DESC	LONG DESCRIPTION	CODE	DESC	LONG DESCRIPTION	,
0	NONE	NOT LICENSED (HAD NEVER BEEN LICENSED)	1	OR<25	OREGON RESIDENT WITHIN 25 MILE OF HOME	
1	OR-Y	VALID OREGON LICENSE	2	OR>25	OREGON RESIDENT 25 OR MORE MILES FROM HOME	
2	OTH-Y	VALID LICENSE, OTHER STATE OR COUNTRY	3	OR-?	OREGON RESIDENT - UNKNOWN DISTANCE FROM HOME	
3	SUSP	SUSPENDED/REVOKED	4	N-RES	NON-RESIDENT	
4	EXP	EXPIRED	9	UNK	UNKNOWN IF OREGON RESIDENT	
8	N-VAL	OTHER NON-VALID LICENSE				

9 UNK UNKNOWN IF DRIVER WAS LICENSED AT TIME OF CRASH

### ERROR CODE TRANSLATION LIST

ERROR SHORT

CODE	DESCRIPTION	FULL DESCRIPTION
000	NONE	NO ERROR
001	WIDE TRN	WIDE TURN
002	CUT CORN	CUT CORNER ON TURN
003	FAIL TRN	FAILED TO OBEY MANDATORY TRAFFIC TURN SIGNAL, SIGN OR LANE MARKINGS
004	L IN TRF	LEFT TURN IN FRONT OF ONCOMING TRAFFIC
005	L PROHIB	LEFT TURN WHERE PROHIBITED
006	FRM WRNG	TURNED FROM WRONG LANE
007	TO WRONG	TURNED INTO WRONG LANE
008	ILLEG U	U-TURNED ILLEGALLY
009	IMP STOP	IMPROPERLY STOPPED IN TRAFFIC LANE
010	IMP SIG	IMPROPER SIGNAL OR FAILURE TO SIGNAL
011	IMP BACK	BACKING IMPROPERLY (NOT PARKING)
012	IMP PARK	IMPROPERLY PARKED
013	UNPARK	IMPROPER START LEAVING PARKED POSITION
014	IMP STRT	IMPROPER START FROM STOPPED POSITION
015	IMP LGHT	IMPROPER OR NO LIGHTS (VEHICLE IN TRAFFIC)
016	INATTENT	INATTENTION (FAILURE TO DIM LIGHTS PRIOR TO 4/1/97)
017	UNSF VEH	DRIVING UNSAFE VEHICLE (NO OTHER ERROR APPARENT)
018	OTH PARK	ENTERING/EXITING PARKED POSITION W/ INSUFFICIENT CLEARANCE; OTHER IMPROPER PARKING MANEUVER
019	DIS DRIV	DISREGARDED OTHER DRIVER'S SIGNAL
020	DIS SGNL	DISREGARDED TRAFFIC SIGNAL
021	RAN STOP	DISREGARDED STOP SIGN OR FLASHING RED
022	DIS SIGN	DISREGARDED WARNING SIGN, FLARES OR FLASHING AMBER
023	DIS OFCR	DISREGARDED POLICE OFFICER OR FLAGMAN
024	DIS EMER	DISREGARDED SIREN OR WARNING OF EMERGENCY VEHICLE
025	DIS RR	DISREGARDED RR SIGNAL, RR SIGN, OR RR FLAGMAN
026	REAR-END	FAILED TO AVOID STOPPED OR PARKED VEHICLE AHEAD OTHER THAN SCHOOL BUS
027	BIKE ROW	DID NOT HAVE RIGHT-OF-WAY OVER PEDALCYCLIST
028	NO ROW	DID NOT HAVE RIGHT-OF-WAY
029	PED ROW	FAILED TO YIELD RIGHT-OF-WAY TO PEDESTRIAN
030	PAS CURV	PASSING ON A CURVE
031	PAS WRNG	PASSING ON THE WRONG SIDE
032	PAS TANG	PASSING ON STRAIGHT ROAD UNDER UNSAFE CONDITIONS
033	PAS X-WK	PASSED VEHICLE STOPPED AT CROSSWALK FOR PEDESTRIAN
034	PAS INTR	PASSING AT INTERSECTION
035	PAS HILL	PASSING ON CREST OF HILL
036	N/PAS ZN	PASSING IN "NO PASSING" ZONE
037	PAS TRAF	PASSING IN FRONT OF ONCOMING TRAFFIC
038	CUT-IN	CUTTING IN (TWO LANES - TWO WAY ONLY)
039	WRNGSIDE	DRIVING ON WRONG SIDE OF THE ROAD (2-WAY UNDIVIDED ROADWAYS)
040	THRU MED	DRIVING THROUGH SAFETY ZONE OR OVER ISLAND
041	F/ST BUS	FAILED TO STOP FOR SCHOOL BUS

ERROR CODE	SHORT DESCRIPTION	FULL DESCRIPTION
042	F/SLO MV	FAILED TO DECREA
043	TOO CLOSE	FOLLOWING TOO CL
044	STRDL LN	STRADDLING OR DR
045	IMP CHG	IMPROPER CHANGE
046	WRNG WAY	WRONG WAY ON ONE
047	BASCRULE	DRIVING TOO FAST
048	OPN DOOR	OPENED DOOR INTO
049	IMPEDING	IMPEDING TRAFFIC
050	SPEED	DRIVING IN EXCES
051	RECKLESS	RECKLESS DRIVING
052	CARELESS	CARELESS DRIVING

Section	Δ	ltom	Δ
Secuon	4,	nem	А.

)42	F/SLO MV	FAILED TO DECREASE SPEED FOR SLOWER MOVING VEHICLE
)43	TOO CLOSE	FOLLOWING TOO CLOSELY (MUST BE ON OFFICER'S REPORT)
)44	STRDL LN	STRADDLING OR DRIVING ON WRONG LANES
045	IMP CHG	IMPROPER CHANGE OF TRAFFIC LANES
046	WRNG WAY	WRONG WAY ON ONE-WAY ROADWAY; WRONG SIDE DIVIDED ROAD
)47	BASCRULE	DRIVING TOO FAST FOR CONDITIONS (NOT EXCEEDING POSTED SPEED)
048	OPN DOOR	OPENED DOOR INTO ADJACENT TRAFFIC LANE
)49	IMPEDING	IMPEDING TRAFFIC
)50	SPEED	DRIVING IN EXCESS OF POSTED SPEED
)51	RECKLESS	RECKLESS DRIVING (PER PAR)
)52	CARELESS	CARELESS DRIVING (PER PAR)
)53	RACING	SPEED RACING (PER PAR)
054	X N/SGNL	CROSSING AT INTERSECTION, NO TRAFFIC SIGNAL PRESENT
)55	X W/SGNL	CROSSING AT INTERSECTION, TRAFFIC SIGNAL PRESENT
)56	DIAGONAL	CROSSING AT INTERSECTION - DIAGONALLY
)57	BTWN INT	CROSSING BETWEEN INTERSECTIONS
)59	W/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER WITH TRAFFIC
060	A/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER FACING TRAFFIC
061	W/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT WITH TRAFFIC
062	A/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT FACING TRAFFIC
063	PLAYINRD	PLAYING IN STREET OR ROAD
064	PUSH MV	PUSHING OR WORKING ON VEHICLE IN ROAD OR ON SHOULDER
065	WORK IN RD	WORKING IN ROADWAY OR ALONG SHOULDER
070	LAY ON RD	STANDING OR LYING IN ROADWAY
)71	NM IMP USE	IMPROPER USE OF TRAFFIC LANE BY NON-MOTORIST
)73	ELUDING	ELUDING / ATTEMPT TO ELUDE
)79	F NEG CURV	FAILED TO NEGOTIATE A CURVE
080	FAIL LN	FAILED TO MAINTAIN LANE
081	OFF RD	RAN OFF ROAD
)82	NO CLEAR	DRIVER MISJUDGED CLEARANCE
083	OVRSTEER	OVER-CORRECTING
)84	NOT USED	CODE NOT IN USE
)85	OVRLOAD	OVERLOADING OR IMPROPER LOADING OF VEHICLE WITH CARGO OR PASSENGERS

097 UNA DIS TC UNABLE TO DETERMINE WHICH DRIVER DISREGARDED TRAFFIC CONTROL DEVICE

EVENT SHORT CODE DESCRIPTION LONG DESCRIPTION

059 HYDRANT

HYDRANT

001	FEL/JUMP	OCCUPANT FELL, JUMPED OR WAS EJECTED FROM MOVING VEHICLE
002	INTERFER	PASSENGER INTERFERED WITH DRIVER
003	BUG INTF	ANIMAL OR INSECT IN VEHICLE INTERFERED WITH DRIVER
004	INDRCT PED	PEDESTRIAN INDIRECTLY INVOLVED (NOT STRUCK)
005	SUB-PED	"SUB-PED", PEDESTRIAN INJURED SUBSEQUENT TO COLLISION, ETC
005	TNDDOT DIV	DEDITION INTERCTIVITATION DEDITION DEDITION DE CONTRACTOR DE
000	INDECI DIE	HERALGICLIST INDIRECILI INVOLVED (NOI STRUCK)
007	HITCHIKR	HITCHHIKER (SOLICITING A RIDE)
008	PSNGR TOW	PASSENGER OR NON-MOTORIST BEING TOWED OR PUSHED ON CONVEYANCE
009	ON/OFF V	GETTING ON/OFF STOPPED/PARKED VEHICLE (OCCUPANTS ONLY; MUST HAVE PHYSICAL CONTACT W/ VEHIC
010	SUB OTRN	OVERTURNED AFTER FIRST HARMFUL EVENT
011	MV PUSHD	VEHICLE BEING PUSHED
012	MV TOWED	VEHICLE TOWED OR HAD BEEN TOWING ANOTHER VEHICLE
013	FORCED	VEHICLE FORCED BY IMPACT INTO ANOTHER VEHICLE, PEDALCYCLIST OR PEDESTRIAN
014	SET MOTN	VEHICLE SET IN MOTION BY NON-DRIVER (CHILD RELEASED BRAKES, ETC.)
015	RR ROW	AT OR ON RAILROAD RIGHT-OF-WAY (NOT LIGHT RAIL)
016	LT RL ROW	AT OR ON LIGHT-RAIL RIGHT-OF-WAY
017	RR HIT V	TRAIN STRUCK VEHICLE
018	V HIT RR	VEHICLE STRUCK TRAIN
019	HTT RR CAR	VEHICLE STRUCK BAILBOAD CAR ON BOADWAY
020	TACKNIFE	JACKKNIFF, TRAILER OR TOWED VEHICLE STRUCK TOWING VEHICLE
020	TPL OTPN	TRATIER OF TOWER VEHICLE OVERTIDNED
021	CN PROKE	TRAILED CONNECTION BOOKE OVERTORNED
022	DETACI TDI	INFILLER CONNECTION DROKE
023	ULIACH IKL	VEHICLE DOD ODDECT STRUCK OTHER VEHICLE, NON-MOTORIST, OR OBJECT
024	V DOOR OPN	VEHICLE DOOR OPENED INTO ADJACENT TRAFFIC LANE
025	WHEELOFF	WHEEL CAME OFF
026	HOOD UP	HOOD FLEW UP
028	LOAD SHIFT	LOST LOAD, LOAD MOVED OR SHIFTED
029	TIREFAIL	TIRE FAILURE
030	PET	PET: CAT, DOG AND SIMILAR
031	LVSTOCK	STOCK: COW, CALF, BULL, STEER, SHEEP, ETC.
032	HORSE	HORSE, MULE, OR DONKEY
033	HRSE&RID	HORSE AND RIDER
034	GAME	WILD ANIMAL, GAME (INCLUDES BIRDS; NOT DEER OR ELK)
035	DEER ELK	DEER OR ELK, WAPITI
036	ANML VEH	ANIMAL-DRAWN VEHICLE
037	CULVERT	CULVERT, OPEN LOW OR HIGH MANHOLE
038	ATENUATN	IMPACT ATTENUATOR
039	PK METER	PARKING METER
040	CURB	CURB (ALSO NARROW SIDEWALKS ON BRIDGES)
041	JIGGLE	JIGGLE BAR OR TRAFFIC SNAKE FOR CHANNELIZATION
042	GDRL END	LEADING EDGE OF GUARDRAIL
043	GARDRAIL	GUARD RAIL (NOT METAL MEDIAN BARRIER)
044	BARRIER	MEDIAN BARRIER (RAISED OR METAL)
045	WALL	RETAINING WALL OR TUNNEL WALL
046	BR RAIL	BRIDGE RAILING OR PARAPET (ON BRIDGE OR APPROACH)
047	BR ABUTMNT	BRIDGE ABUTMENT (INCLUDED "APPROACH END" THRU 2013)
048	BR COLMN	BRIDGE PILLAR OR COLUMN
049	BR GIRDR	BRIDGE GIRDER (HORIZONTAL BRIDGE STRUCTURE OVERHEAD)
050	ISLAND	TRAFFIC RAISED ISLAND
051	GORE	GORE
052	POLE UNK	POLE - TYPE UNKNOWN
053	POLE UTL	POLE - POWER OR TELEPHONE
054	ST LIGHT	POLE - STREET LIGHT ONLY
0.5.5	TRF SGNL	POLE - TRAFTIC SIGNAL AND PED SIGNAL ONLY
056	SGN BRDG	POLE - SIGN BRIDGE
057	STOPSICN	STOP OF VIELD SIGN
058	OTH SIGN	OTHER SIGN, INCLUDING STREET SIGNS
	~ ~ · · · · · · · · · · · · · · · · · ·	

265

LONG DESCRIPTION

EVENT SHORT

CODE

DESCRIPTION

060	MARKER	DELINEATOR OR MARKER (REFLECTOR POSTS)
061	MAILBOX	MAILBOX
062	TREE	TREE, STUMP OR SHRUBS
063	VEG OHED	TREE BRANCH OR OTHER VEGETATION OVERHEAD, ETC.
064	WIRE/CBL	WIRE OR CABLE ACROSS OR OVER THE ROAD
065	TEMP SGN	TEMPORARY SIGN OR BARRICADE IN ROAD, ETC
066	PERM SGN	DERMANENT SIGN OF BARRICADE IN/OFF ROLD
067	SI THE	CITES DITEN OF DITTED DATE AND CITES
007	EDCN OD I	EXPECT OPERATION / DEDUCT IN DOAD (NOT CRAVEL)
000	FRGN OBJ	FOREIGN OBSIRUCTION/JEERIS IN ROAD (NOT GRAVEL)
069	EQP WORK	EQUIPMENT WORKING IN/OFF ROAD
070	OTH EQP	OTHER EQUIPMENT IN OR OFF ROAD (INCLUDES PARKED TRAILER, BOAT)
0/1	MAIN EQP	WRECKER, STREET SWEEPER, SNOW PLOW OR SANDING EQUIPMENT
072	OTHER WALL	ROCK, BRICK OR OTHER SOLID WALL
073	IRRGL PVMT	OTHER BUMP (NOT SPEED BUMP), POTHOLE OR PAVEMENT IRREGULARITY (PER PAR)
074	OVERHD OBJ	OTHER OVERHEAD OBJECT (HIGHWAY SIGN, SIGNAL HEAD, ETC.); NOT BRIDGE
075	CAVE IN	BRIDGE OR ROAD CAVE IN
076	HI WATER	HIGH WATER
077	SNO BANK	SNOW BANK
078	LO-HI EDGE	LOW OR HIGH SHOULDER AT PAVEMENT EDGE
079	DITCH	CUT SLOPE OR DITCH EMBANKMENT
080	OBJ FRM MV	STRUCK BY ROCK OR OTHER OBJECT SET IN MOTION BY OTHER VEHICLE (INCL. LOST LOADS)
081	FLY-OBJ	STRUCK BY ROCK OR OTHER MOVING OR FLYING OBJECT (NOT SET IN MOTION BY VEHICLE)
082	VEH HID	VEHICLE OBSCURED VIEW
083	VEG HID	VEGETATION OBSCURED VIEW
084	BLDG HID	VIEW OBSCURED BY FENCE, SIGN, PHONE BOOTH, ETC.
085	WIND GUST	WIND GUST
086	IMMERSED	VEHICLE IMMERSED IN BODY OF WATER
087	FIRE/EXP	FIRE OF EXPLOSION
088	FENC/BLD	FENCE OR BUILDING ETC
000	OTHR CRASH	CRASH DELATED TO ANOTHER SEDADATE CRASH
000	TO 1 SIDE	TWO-WAY TRAFETC ON DIVINED DOADWAY ALL DOUTED TO ONE SIDE
0.00	DITIDINC	NO WAI INATTIC ON DIVIDED NOADWAI ALL NOTED TO ONE SIDE
091	DUILDING	OTLEDING ON OHIER SINCEIONE
092	CELL DUONE	CHIL DUDNE (ON DAD OD DDIVED IN NGE)
093	CELL PHONE	CELL PHONE (ON PAR OR DRIVER IN USE)
094	VIOL GDL	TEENAGE DRIVER IN VIOLATION OF GRADUATED LICENSE PGM
095	GUY WIRE	GUY WIRE
096	BERM	BERM (EARTHEN OR GRAVEL MOUND)
097	GRAVEL	GRAVEL IN ROADWAY
098	ABR EDGE	ABRUPT EDGE
099	CELL WTNSD	CELL PHONE USE WITNESSED BY OTHER PARTICIPANT
100	UNK FIXD	FIXED OBJECT, UNKNOWN TYPE.
101	OTHER OBJ	NON-FIXED OBJECT, OTHER OR UNKNOWN TYPE
102	TEXTING	TEXTING
103	WZ WORKER	WORK ZONE WORKER
104	ON VEHICLE	PASSENGER RIDING ON VEHICLE EXTERIOR
105	PEDAL PSGR	PASSENGER RIDING ON PEDALCYCLE
106	MAN WHLCHR	PEDESTRIAN IN NON-MOTORIZED WHEELCHAIR
107	MTR WHLCHR	PEDESTRIAN IN MOTORIZED WHEELCHAIR
108	OFFICER	LAW ENFORCEMENT / POLICE OFFICER
109	SUB-BIKE	"SUB-BIKE": PEDALCYCLIST INJURED SUBSEQUENT TO COLLISION, ETC.
110	N-MTR	NON-MOTORIST STRUCK VEHICLE
111	S CAR VS V	STREET CAR/TROLLEY (ON RAILS OR OVERHEAD WIRE SYSTEM) STRUCK VEHICLE
112	V VS S CAR	VEHICLE STRUCK STREET CAR/TROLLEY (ON RAILS OR OVERHEAD WIRE SYSTEM)
113	S CAR ROW	AT OR ON STREET CAR OR TROLLEY RIGHT-OF-WAY
114	RR EOUIP	VEHICLE STRUCK RAILROAD EQUIPMENT (NOT TRAIN) ON TRACKS
115	DSTRCT GPS	DISTRACTED BY NAVIGATION SYSTEM OR GES DEVICE
116	DSTRCT OTH	DISTRACTED BY OTHER ELECTRONIC DEVICE
117	RR GATE	RATI, CROSSING DROP-ARM GATE
'		The second protection of the second s

LONG DESCRIPTION

EVENT SHORT

CODE

DESCRIPTION

118 119 120	EXPNSN JNT JERSEY BAR WIRE BAR	EXPANSION JOINT JERSEY BARRIER WIRE OR CABLE MEDIAN BARRIER
121	CRT IN VEU	FENCE OF TECH IN VEHICLE STRUCK OCCURANT
124	SLIPPERY	SUDDING OR SWERVING DIE TO WET, ICY, SLIPPERY OR LOOSE SURFACE (NOT GRAVEL)
125	SHLDR	SHOULDER GAVE WAY
126	BOULDER	ROCK(S), BOULDER (NOT GRAVEL; NOT ROCK SLIDE)
127	LAND SLIDE	ROCK SLIDE OR LAND SLIDE
128	CURVE INV	CURVE PRESENT AT CRASH LOCATION
129	HILL INV	VERTICAL GRADE / HILL PRESENT AT CRASH LOCATION
130	CURVE HID	VIEW OBSCURED BY CURVE
131	HILL HID	VIEW OBSCURED BY VERTICAL GRADE / HILL
132	WINDOW HID	VIEW OBSCURED BY VEHICLE WINDOW CONDITIONS
133	SPRAY HID	VIEW OBSCURED BY WATER SPRAY
134	TORRENTIAL	TORRENTIAL RAIN (EXCEPTIONALLY HEAVY RAIN)

#### FUNC DESCRIPTION CLASS

- 01 RURAL PRINCIPAL ARTERIAL - INTERSTATE
- 02 RURAL PRINCIPAL ARTERIAL - OTHER
- 06 RURAL MINOR ARTERIAL
- 07 RURAL MAJOR COLLECTOR
- 08 RURAL MINOR COLLECTOR
- 09 RURAL LOCAL
- 11 URBAN PRINCIPAL ARTERIAL - INTERSTATE
- 12 URBAN PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXP
- 14 URBAN PRINCIPAL ARTERIAL - OTHER
- 16 URBAN MINOR ARTERIAL
- 17 URBAN MAJOR COLLECTOR
- 18 URBAN MINOR COLLECTOR
- 19 URBAN LOCAL
- 78 UNKNOWN RURAL SYSTEM
- 79 UNKNOWN RURAL NON-SYSTEM
- 98 UNKNOWN URBAN SYSTEM
- 99 UNKNOWN URBAN NON-SYSTEM

#### CODE DESCRIPTION

- 0 MAINLINE STATE HIGHWAY
- 1 COUPLET
- 3 FRONTAGE ROAD
- CONNECTION 6
- 8 HIGHWAY - OTHER

#### INJURY SEVERITY CODE TRANSLATION LIST

	SHORT	
CODE	DESC	LONG DESCRIPTION
1	KILL	FATAL INJURY
2	INJA	INCAPACITATING INJURY - BLEEDING, BROKEN BONES
3	INJB	NON-INCAPACITATING INJURY
4	INJC	POSSIBLE INJURY - COMPLAINT OF PAIN
5	PRI	DIED PRIOR TO CRASH
7	NO<5	NO INJURY - 0 TO 4 YEARS OF AGE
9	NONE	PARTICIPANT UNINJURED, OVER THE AGE OF 4

### LIGHT CONDITION CODE TRANSLATION LIST

	SHORT	
CODE	DESC	LONG DESCRIPTION
0	UNK	UNKNOWN
1	DAY	DAYLIGHT
2	DLIT	DARKNESS - WITH STREET LIGHTS
3	DARK	DARKNESS - NO STREET LIGHTS
4	DAWN	DAWN (TWILIGHT)
5	DUSK	DUSK (TWILIGHT)

### MEDIAN TYPE CODE TRANSLATION LIST

### MILEAGE TYPE CODE TRANSLATION LIST

	SHORT	
CODE	DESC	LONG DESCRIPTION
0	NONE	NO MEDIAN
1	RSDMD	SOLID MEDIAN BARRIER
2	DIVMD	EARTH, GRASS OR PAVED MEDIAN

CODE	LONG DESCRIPTION	
0	REGULAR MILEAGE	
Т	TEMPORARY	

- TEMPORARY SPUR
- Υ
- Ζ OVERLAPPING

### MOVEMENT TYPE CODE TRANSLATION LIST

	SHORT		
CODE	DESC	LONG DESCRIPTION	
0	UNK	UNKNOWN	
1	STRGHT	STRAIGHT AHEAD	
2	TURN-R	TURNING RIGHT	
3	TURN-L	TURNING LEFT	
4	U-TURN	MAKING A U-TURN	
5	BACK	BACKING	
6	STOP	STOPPED IN TRAFFIC	
7	PRKD-P	PARKED - PROPERLY	
8	PRKD-I	PARKED - IMPROPERLY	
9	PARKNG	PARKING MANEUVER	

### NON-MOTORIST LOCATION CODE TRANSLATION LIST

### CODE LONG DESCRIPTION

99 UNKNOWN LOCATION

### ROAD CHARACTER CODE TRANSLATION LIST

	SHORT		
CODE	DESC	LONG DESCRIPTION	
0	UNK	UNKNOWN	
1	INTER	INTERSECTION	
2	ALLEY	DRIVEWAY OR ALLEY	
3	STRGHT	STRAIGHT ROADWAY	
4	TRANS	TRANSITION	
5	CURVE	CURVE (HORIZONTAL CURVE)	
6	OPENAC	OPEN ACCESS OR TURNOUT	
7	GRADE	GRADE (VERTICAL CURVE)	
8	BRIDGE	BRIDGE STRUCTURE	
9	TUNNEL	TUNNEL	

### PARTICIPANT TYPE CODE TRANSLATION LIST

	SHORT	
CODE	DESC	LONG DESCRIPTION
0	OCC	UNKNOWN OCCUPANT TYPE
1	DRVR	DRIVER
2	PSNG	PASSENGER
3	PED	PEDESTRIAN
4	CONV	PEDESTRIAN USING A PEDESTRIAN CONVEYA
5	PTOW	PEDESTRIAN TOWING OR TRAILERING AN OB
6	BIKE	PEDALCYCLIST
7	BTOW	PEDALCYCLIST TOWING OR TRAILERING AN (
8	PRKD	OCCUPANT OF A PARKED MOTOR VEHICLE
9	UNK	UNKNOWN TYPE OF NON-MOTORIST

### TRAFFIC CONTROL DEVICE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
000	NONE	NO CONTROL
001	TRF SIGNAL	TRAFFIC SIGNALS
002	FLASHBCN-R	FLASHING BEACON - RED (STOP)
003	FLASHBCN-A	FLASHING BEACON - AMBER (SLOW)
004	STOP SIGN	STOP SIGN
005	SLOW SIGN	SLOW SIGN
006	REG-SIGN	REGULATORY SIGN
007	YIELD	YIELD SIGN
008	WARNING	WARNING SIGN
009	CURVE	CURVE SIGN
010	SCHL X-ING	SCHOOL CROSSING SIGN OR SPECIAL SIGNAL
011	OFCR/FLAG	POLICE OFFICER, FLAGMAN - SCHOOL PATROL
012	BRDG-GATE	BRIDGE GATE - BARRIER
013	TEMP-BARR	TEMPORARY BARRIER
014	NO-PASS-ZN	NO PASSING ZONE
015	ONE-WAY	ONE-WAY STREET
016	CHANNEL	CHANNELIZATION
017	MEDIAN BAR	MEDIAN BARRIER
018	PILOT CAR	PILOT CAR
019	SP PED SIG	SPECIAL PEDESTRIAN SIGNAL
020	X-BUCK	CROSSBUCK
021	THR-GN-SIG	THROUGH GREEN ARROW OR SIGNAL
022	L-GRN-SIG	LEFT TURN GREEN ARROW, LANE MARKINGS, OR SIGNAL
023	R-GRN-SIG	RIGHT TURN GREEN ARROW, LANE MARKINGS, OR SIGNAL
024	WIGWAG	WIGWAG OR FLASHING LIGHTS W/O DROP-ARM GATE
025	X-BUCK WRN	CROSSBUCK AND ADVANCE WARNING
026	WW W/ GATE	FLASHING LIGHTS WITH DROP-ARM GATES
027	OVRHD SGNL	SUPPLEMENTAL OVERHEAD SIGNAL (RR XING ONLY)
028	SP RR STOP	SPECIAL RR STOP SIGN
029	ILUM GRD X	ILLUMINATED GRADE CROSSING
037	RAMP METER	METERED RAMPS
038	RUMBLE STR	RUMBLE STRIP
090	L-TURN REF	LEFT TURN REFUGE (WHEN REFUGE IS INVOLVED)
091	R-TURN ALL	RIGHT TURN AT ALL TIMES SIGN, ETC.
092	EMR SGN/FL	EMERGENCY SIGNS OR FLARES
093	ACCEL LANE	ACCELERATION OR DECELERATION LANES
094	R-TURN PRO	RIGHT TURN PROHIBITED ON RED AFTER STOPPING
095	BUS STPSGN	BUS STOP SIGN AND RED LIGHTS
099	UNKNOWN	UNKNOWN OR NOT DEFINITE

### Section 4, Item A.

### VEHICLE TYPE CODE TRANSLATION LIST

### WEATHER CONDITION CODE TRANSLATION LIST

Section 4, Item A.

CODE	SHORT DESC	LONG DESCRIPTION	CODE	SHORT DESC	LONG DESCRIPTION
0.0	PDO	NOT COLLECTED FOR PDO CRASHES	0	UNK	UNKNOWN
01	PSNGR CAR	PASSENGER CAR. PICKUP, LIGHT DELIVERY, ETC	1	CLR	CLEAR
02	BOBTATI	TRUCK TRACTOR WITH NO TRAILERS (ROBTAIL)	2	CLD	CLOUDY
02	FARM TROTR	FARM TRACTOR OR SELF-PROPELLED FARM FOULDMENT	3	RAIN	RAIN
0.0	SEMI TOW	TRUCK TRACTOR WITH TRAILER/MORILE HOME IN TOW	4	SLT	SLEET
05	TRUCK	TROCK HIGHEION WITH HATLEN, MODILE HOME IN TOW	5	FOG	FOG
05	MORED	MODED MINIBIKE SEATED MOTOR SCOOTER MOTOR BIKE	6	SNOW	SNOW
07	SCHL BUS	SCHOOL BUS (INCLUDES VAN)	7	DUST	DUST
0.8	OTH BUS	OTHER BUS	8	SMOK	SMOKE
00	MTRCYCLE	MOTORCYCLE DIRT RIKE	9	ASH	ASH
10	OTHER	OTHER FORKLIFT BACKHOE ETC			
11	MOTRHOME	MOTORHOME			
12	TROLLEY	MOTORIZED STREET CAR/TROLLEY (NO RAILS/WIRES)			
13					
11	MTPSCTP	MOTORIZED SCOOTER (STANDING)			
15	SNOWMOBILE	SNOWMORTIE			
тJ	DIMONITOD T TTC	SNOWHODITE			

99 UNKNOWN UNKNOWN VEHICLE TYPE

# **Attachment D – Crash Analysis Worksheet**

# Intersection Crash History (January 1, 2018 through December 31, 2022)

					Collision	Туре							
	Location	Angle	Turn	Rear End	Side Swipe	Backing	Fixed Object	Ped/Bike	Head-On	PDO <sup>1</sup>	Injury	Fatal	Total
1	N Main Street / Marine Drive												0
2	N Main Street / Columbia Avenue		1				1				1		2
3	N Main Street / Boardman Avenue		2								2		2
4	N Main Street / N Front Street	1	1							2			2
5	S Main Street / I-84 Westbound Ramp Terminal	3	1	2						5	1		6
6	S Main Street / I-84 Eastbound Ramp Terminal	2								2			2
7	S Main Street / S Front Street												0
8	S Main Street / Oregon Trail Boulevard												0
9	S Main Street / Kinkade Road												0
10	S Main Street / Wilson Lane	4	2							4	2		6
11	Olson Street / Columbia Avenue												0
12	Laurel Lane / Columbia Avenue									2			0
13	Laurel Lane / I-84 Westbound Ramp Terminal	2									1		2
14	Laurel Lane / I-84 Eastbound Ramp Terminal		1										1

# 2024 existing volumes

TEV AM	TEV PM	TEV Daily	N	Crash rate				
	100	1,000	5	0.00				
	385	3,850	5	0.28				
	622	6,220	5	0.18				
	882	8,820	5	0.12				
	1,027	10,270	5	0.32				
	1076	10,760	5	0.10				
	986	9,860	5	0.00				
	909	9,090	5	0.00				
	772	7,720	5	0.00				
	607	6,070	5	0.54				
	267	2,670	5	0.00				
	479	4,790	5	0.00				
	395	3,950	5	0.28				
	330	3,300	5	0.17				

# **Intersection Crash Rate Assessment**

	Location	Total Crashes	Observed Crash Rate	90 <sup>th</sup> Percentile Crash Rate by Land Type and Traffic Control	Observed Crash Rate>Critical Crash Rate?	
1	N Main Street / Marine Drive	0	0.00	0.293	No	
2	N Main Street / Columbia Avenue	2	0.28	0.408	No	
3	N Main Street / Boardman Avenue	2	0.18	0.408	No	
4	N Main Street / N Front Street	2	0.12	0.408	No	
5	S Main Street / I-84 Westbound Ramp Terminal	Vestbound Ramp 6 0.32 0.408				
6	S Main Street / I-84 Eastbound Ramp Terminal	2	0.10	0.408	No	
7	S Main Street / S Front Street	0	0.00	0.408	No	
8	S Main Street / Oregon Trail Boulevard	0	0.00	No		
9	S Main Street / Kinkade Road	0	0.00	0.293	No	
10	S Main Street / Wilson Lane	6	0.54	0.408	Yes	
11	Olson Street / Columbia Avenue	0	0.00	0.408	No	
12	Laurel Lane / Columbia Avenue	0	0.00	0.293	No	
13	Laurel Lane / I-84 Westbound Ramp Terminal	2	0.28	0.408	No	
14	Laurel Lane / I-84 Eastbound Ramp Terminal	1	0.17	0.408	No	

# Attachment E – Detailed Pedestrian and Bike Level of Traffic Stress Results

### Section 4, Item A.

													PLTS Criteria						
Street		from	To	Side	Posted Speed (mph)	Total Nuber of Vehicle Lanes	Illumination?	Sidewalk Width (feet)	Sidewalk Condition	Sidewalk Buffer Type	Buffer Width (feet)	Land Use	Bike Facility Width (feet)	Sidewalk Condition	Physical Buffer Width	Total Buffer Width	General Land Use	PLTS	BLTS
Main St	1	Kunze Ln	City Limits	West	35	2	No	0	No Sidewalk	No Buffer	5	Residential	0	4	3	2	1	4	1
	2	Kunze Ln City Limits	Wilson Ln Rome St	East	35	2	No	0	No Sidewalk	No Buffer	5	Mixed Use Residential	0	4	3	2	2	4	2
	4	Rome St	Wilson Ln	East	35	2	Yes	0	No Sidewalk	No Buffer	5	Residential	0	4	3	2	1	4	1
	5	Wilson Ln	x Dwy	West	30	2	Yes	10	Fair	Vertical	13	CBD	0	1	1	1	1	1	1
	6	Wilson Ln	Oregon Trail Blvd	East	30	2	No	0	No Sidewalk	No Buffer	5	CBD	0	4	3	2	1	4	2
	8	v Road	x Dwy SW Front St	East	25	2	Yes	6	Good	No Buffer	5	Auto-oriented commercial	5	1	3	2	2	3	2
	9	x Road	SW Front St	East	25	2	Yes	6	Good	No Buffer	5	Auto-oriented commercial	5	1	2	2	2	2	2
	10	SW Front St	NW Front St	West	25	2	Yes	6	Good	No Buffer	5	Freeway Interchanges	5	1	2	2	4	4	2
	11	SW Front St	NW Front St	East	25	2	Yes	6	Good	No Buffer	5	Freeway Interchanges	5	1	2	2	4	4	2
	13	NE Front St	Boardman Avenue	East	25	2	Yes	6	Good	No Buffer	5	Auto-oriented commercial	5	1	2	2	3	3	2
	14	Boardman Avenue	Columbia Avenue	West	25	2	Yes	6	Good	No Buffer	5	Residential	5	1	2	2	1	2	2
	15	Boardman Avenue	Columbia Avenue	East	25	2	Yes	6	Good	No Buffer	5	Residential	5	1	2	2	1	2	2
	16 17	Columbia Avenue	Marine Dr Marine Dr	West	25	2	NO	0	No Sidewalk	No Buffer	5	Residential	5	4	2	2	1	4	2
Marine Dr	18	Marina Park	River Lodge Road	North	25	2	No	0	No Sidewalk	No Buffer	1	Residential	0	4	2	2	1	4	1
	19	Marina Park	N Main Street	South	25	2	No	0	No Sidewalk	No Buffer	4	Residential	0	4	2	2	1	4	1
	20	N Main Street	River Lodge Road	South	25 40	2	Yes	0	No Sidewalk Good	No Butter Vertical	3	Park Light Industrial	3	4	2	2	1	4	1
	22	River Lodge Road	Ullman Blvd	North	40	2	No	6	Good	No Buffer	5	Light Industrial	5	2	4	2	3	4	3
Kunze Ln	23	Paul Smith Rd	Main St	South	45	2	No	0	No Sidewalk	No Buffer	5	Residential	0	4	4	2	1	4	3
	24	Paul Smith Rd	Main St	North	45	2	No	0	No Sidewalk	No Buffer	5	Residential	0	4	4	2	1	4	3
	25 26	Main St Main St	Olson Rd	South	45	2	No	0	No Sidewalk	No Buffer	0	Mixed Use	0	4	4	2	1	4	3
Paul Smith Rd	27	Kunze Ln	Wilson Rd	East	40	2	No	0	No Sidewalk	No Buffer	1	Residential	0	4	4	2	1	4	3
Wilson Rd	28	Paul Smith Rd	Faler Rd	South	30	2	Yes	0	No Sidewalk	No Buffer	4	Residential	0	4	3	2	1	4	2
	29	Paul Smith Rd	Faler Rd	North	30	2	Yes	0	No Sidewalk Good	No Buffer	4	Residential	0	4	3	2	1	4	1
	31	Faler Rd	Locust Rd	North	20	2	Yes	10	Fair	Vertical	5	Residential	0	1	1	2	1	2	1
	32	Anthony Dr	Tatone St	South	20	2	Yes	10	Good	No Buffer	18	Residential	0	1	2	1	1	2	1
	33	Locust Rd	Tatone St	North	20	2	Yes	10	Fair	Vertical	5	Residential	0	1	1	2	1	2	1
	34	Tatone St	S Main St S Main St	South	30	2	Yes	10	Fair	Vertical	4	Residential	0	4	3	2	1	4	2
	36	S Main St	Anderson Rd	South	30	2	No	0	No Sidewalk	No Buffer	3	Residential	0	4	3	2	1	4	2
	37	S Main St	Anderson Rd	North	30	2	No	10	Fair	Vertical	5	Strip Commercial	0	2	1	2	2	2	1
	38	Anderson Ave	Olson Rd	South	30	2	No	0	No Sidewalk	No Buffer	3	Residential	0	4	3	2	1	4	2
Anderson Rd	40	Wilson Rd	Oregon Trail Blvd	West	25	2	Yes	0	No Sidewalk	No Buffer	0	Residential	0	4	2	2	1	4	1
	41	Wilson Rd	Oregon Trail Blvd	East	25	2	Yes	0	No Sidewalk	No Buffer	0	Residential	0	4	2	2	1	4	1
Paul Smith Rd	42	Wilson Rd	UGB	East	20	2	No	0	No Sidewalk	No Buffer	0	Residential	0	4	2	2	1	4	1
Oregon Trail Blvd	43 44	S Main St S Main St	1St St Anderson Rd	South	25	2	Yes	0	No Sidewalk	No Buffer	0	Strip Commercial	0	4	2	2	2	4	1
	45	1st St	road end	North	25	2	Yes	0	No Sidewalk	No Buffer	0	Residential	0	4	2	2	1	4	1
	46	Anderson Rd	road end	South	25	2	Yes	6	Good	No Buffer	0	Residential	0	1	2	2	1	2	1
1st St	47	Oregon Trail Blvd	road end	West	20	2	No	6	Good	No Buffer	5	Strip Commercial Strip Commercial	5	2	2	2	2	2	2
Front St	49	1st St NE	2nd Ave NE	North	25	2	No	0	No Sidewalk	No Buffer	10	Strip Commercial	0	4	2	1	2	4	1
	50	2nd Ave NE	Olson Rd	North	25	2	Yes	0	No Sidewalk	No Buffer	10	Strip Commercial	0	4	2	1	2	4	1
Boardman Avenue	51	N Main Street	School Dwy	North	20	2	Yes	6	Good	No Buffer	0	Residential	0	1	2	2	1	2	1
	52	School Dwy	3rd St NF	North	20	2	Yes	0	No Sidewalk	No Buffer	0	Residential	0	4	2	2	2	4	1
	54	2nd Ave NE	3rd St NE	South	20	2	Yes	0	No Sidewalk	No Buffer	0	Residential	0	4	2	2	1	4	1
Olson Road	55	Front St	Columbia Ave	West	25	3	Yes	0	No Sidewalk	No Buffer	1	Light Industrial	0	4	2	3	3	4	1
Columbia Avonuo	56	Front St	Columbia Ave	East	25	3	Yes	6	Good	No Butter	4	Parks and Public Facilities	0	1	2	3	1	3	1
Columbia Avenue	58	N Main Street	Midblock Crossing	South	35	2	Yes	6	Good	Landscape with trees	8	Residential	0	1	1	2	1	2	2
	59	Midblock Crossing	Eldridge Ln	North	35	2	Yes	6	Good	Solid surface	7	Residential	0	1	2	2	1	2	2
	60	Midblock Crossing	2nd St	South	35	2	Yes	0	No Sidewalk	No Buffer	0	Residential	0	4	3	2	1	4	2
	61 62	2nd St	Olson Rd	South	40	3	NO	0	No Sidewalk	No Buffer	12	Light Industrial	0	2	2	2	3	3	3
	63	Olson Rd	Laurel Ln	North	40	4	Yes	5	Good	Solid surface	10	Heavy Industrial	0	2	2	2	4	4	4
	64	Olson Rd	Laurel Ln	South	40	4	Yes	0	No Sidewalk	No Buffer	7	Heavy Industrial	0	4	4	4	4	4	4
	65	Laurel Ln	UGB	North	40 40	4	Yes	5	Good No Sidewalk	No Buffer	10	Heavy Industrial Heavy Industrial	0	2	4	2	4	4	4
Laurel Ln	67	Columbia Blvd	184 EB off ramp	West	35	2	No	0	No Sidewalk	No Buffer	6	Freeway Interchanges	0	4	4	2	4	4	2
	68	Columbia Blvd	184 EB off ramp	East	35	2	No	0	No Sidewalk	No Buffer	6	Freeway Interchanges	0	4	3	2	4	4	2
	69	184 EB off ramp	UGB	West	35	2	No	0	No Sidewalk	No Buffer	2	Light Industrial	0	4	3	2	3	4	2

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	70 I84 E	EB off ramp	UGB	East	35	2	No	0	No Sidewalk	No Buffer	2	Light Industrial	0	4	3	2 3	4	2
Ulman Blvd	71 Mari	rine Dr	Columbia Blvd	West	30	2	Yes	0	No Sidewalk	No Buffer	1	Heavy Industrial	0	4	3	2 4	4	2
	72 Mari	rine Dr	Columbia Blvd	East	30	2	Yes	0	No Sidewalk	No Buffer	1	Heavy Industrial	0	4	3	2 4	4	2
Olson Road	73 Eldri	idge Ln	Columbia Blvd	West	25	2	Yes	0	No Sidewalk	No Buffer	1	Heavy Industrial	0	4	2	2 4	4	1
	74 Eldri	idge Ln	Columbia Blvd	East	25	2	Yes	0	No Sidewalk	No Buffer	0	Heavy Industrial	0	4	2	2 4	4	1
Eldridge Ln	75 Colu	umbia Blvd	Olson Road	North	20	2	No	0	No Sidewalk	No Buffer	0	Heavy Industrial	0	4	2	2 4	4	1
	76 Colu	umbia Blvd	Olson Road	South	20	2	No	0	No Sidewalk	No Buffer	0	Heavy Industrial	0	4	2	2 4	4	1
x Road (riverfront)	77 Mari	rine Dr	x Road	West	20	3	Yes	0	No Sidewalk	No Buffer	1	Auto-oriented commercial	0	4	2	3 3	4	1
	78 Mari	rine Dr	x Road	East	20	3	Yes	0	No Sidewalk	No Buffer	1	Auto-oriented commercial	0	4	2	3 3	4	1
Faler Rd	79 Wils	son Rd	Mt Hood Ave	West	20	2	No	0	No Sidewalk	No Buffer	0	Residential	0	4	2	2 1	. 4	1
	80 Wils	son Rd	Mt Hood Ave	East	20	2	No	0	No Sidewalk	No Buffer	0	Residential	0	4	2	2 1	. 4	1
	81 Mt H	Hood Ave	End (North)	West	20	2	Yes	0	No Sidewalk	No Buffer	0	Residential	0	4	2	2 1	. 4	1
	82 Mt H	Hood Ave	End (North)	East	20	2	Yes	0	No Sidewalk	No Buffer	0	Residential	0	4	2	2 1	. 4	1
Mt Hood Ave	83 Faler	er Rd	Willow Fork Dr	North	20	2	Yes	5	Good	Landscaped	0	Residential	0	2	1	2 1	. 2	1
	84 Faler	er Rd	Willow Fork Dr	South	20	2	Yes	5	Good	Landscaped	0	Residential	0	2	1	1 1	. 2	1
Willow Fork Dr	85 Kink	kade Rd	Locust Rd	South	25	2	Yes	5	Good	No Buffer	0	Residential	0	2	2	2 1	. 2	1
	86 Kink	kade Rd	Locust Rd	North	25	2	Yes	5	Good	No Buffer	0	Residential	0	2	2	2 1	. 2	1
Kinkade Rd	87 Willo	ow Fork Dr	Locust Rd	South	25	2	Yes	5	Good	No Buffer	0	Residential	0	2	2	1 1	. 2	1
	88 Willo	ow Fork Dr	Main St	North	25	2	Yes	5	Good	No Buffer	0	Neighborhood commericial	0	2	2	2 1	. 2	1
Locust Rd	89 Willo	ow Fork Dr	Wilson Rd	West	25	2	Yes	6	Good	No Buffer	0	Residential	0	1	2	2 1	. 2	1
	90 Willo	ow Fork Dr	Wilson Rd	East	25	2	Yes	6	Good	No Buffer	0	Residential	0	1	2	1 1	. 2	1
	91 Willo	ow Fork Dr	Kinkade Rd	West	25	2	Yes	6	Good	No Buffer	0	Residential	0	1	2	2 1	. 2	1
	92 Willo	ow Fork Dr	Kinkade Rd	East	25	2	Yes	6	Good	No Buffer	0	Residential	0	1	2	1 1	. 2	1
Willow Fork Dr	93 Locu	ust Rd	Main St	South	25	2	Yes	6	Good	No Buffer	0	Neighborhood commericial	0	1	2	1 1	. 2	1
	94 Locu	ust Rd	Main St	North	25	2	Yes	6	Good	No Buffer	0	Neighborhood commericial	0	1	2	1 1	. 2	1
Kinkade Rd	95 Locu	ust Rd	Main St	South	25	2	Yes	5	Good	No Buffer	0	Neighborhood commericial	0	2	2	2 1	. 2	1
Boardman Avenue	96 Mair	n St	3rd St NW	North	25	2	Yes	0	No Sidewalk	No Buffer	10	Residential/Commercial/Park	0	4	2	1 1	. 4	1
	97 Mair	n St	3rd St NW	South	25	2	Yes	4	Fair	No Buffer	10	Residential/Commercial	0	2	2	i 1	. 2	1
	98 3rd 9	St NW	Allen Ct	West	25	2	Yes	0	No Sidewalk	No Buffer	6	Residential	6	4	2	i 1	. 4	3
	99 3rd 9	St NW	Allen Ct	East	25	2	Yes	0	No Sidewalk	No Buffer	6	Residential	6	4	2	1 1	. 4	3
	100 Aller	n Ct	N Main St	North	25	2	Yes	5	Fair	No Buffer	0	Residential	0	2	2	1 1	. 2	1
	101 Aller	n Ct	N Main St	South	25	2	Yes	5	Fair	No Buffer	0	Residential	0	2	2	2 1	2	1



# **Technical Memorandum #5**

Date:	February 12, 2025	Kittelson Project No: 30287
То:	Project Management Team (PMT)	
From:	Matt Hughart, AICP and Eza Gaigalas	
Subject:	Future Conditions Analysis DRAFT	

# Introduction

This memorandum summarizes future (no-build) transportation system conditions in Boardman for the Boardman Transportation System Plan (TSP) update. The information provided in this memorandum is based on assumed new residential and commercial development and corresponding growth in multimodal traffic throughout the city. The future deficiencies identified in this memorandum will serve as the basis for developing transportation system alternatives and improvement projects for the TSP update.

The analysis assumes that the transportation system will serve the urban area's continued economic growth that is consistent with its Comprehensive Plan land use designations as well as regional needs. The TSP addresses transportation needs for people walking, rolling, taking transit, biking, and driving within the Urban Growth Boundary (UGB), namely, the study area, illustrated in Figure 1.

Figure 1. Study Area

# **Future System Conditions Analysis**

The future system conditions analysis assesses how the current transportation system in the Boardman urban area is anticipated to perform through the planning horizon year 2045 with assumed continued growth and if no changes occur to the existing transportation network other than what is currently planned and funded.

# Future Travel Forecasts

Land use forecasting and the associated travel activity that occurs from development of vacant/underdeveloped lands is a key component in understanding how to plan for an efficient multimodal transportation system.

Consistent with a land use methodology initially created for the 2009 Main Street IAMP and expanded upon in the more recent 2023 Main Street Circulation Assessment, a larger land development assessment was performed for the entire city. This effort included identifying all vacant/underdeveloped parcels within the city, working with City staff to identify those parcels that are reasonably likely to develop over the next 20 years, reviewing the underlying zoning and development regulations for those parcels, and preparing future development assumptions for those parcels. *Attachment A contains a detailed description of assumed future developments for these parcels and their trip generation estimate*.

From this land use forecast, a future trip generation profile was developed for each vacant parcel with anticipated weekday AM and PM peak hour trips distributed to/from the development and the various study intersections. This distribution was based on the type of land use (highway-oriented commercial/retail uses with a focus to/from the I-84 corridor, Boardman supporting commercial/retail uses with a focus to/from local residential neighborhoods, and residential uses with a commuting focus to/from local and regional employment centers). Attachment B contains the development-generated traffic volumes assigned to the study intersections for the weekday AM and PM peak hours.

# **Planned Transportation Improvements**

While the future system conditions analysis is essentially an assessment of conditions under the existing multimodal infrastructure, the analysis does take into consideration future improvements that are on the Boardman Capital Improvement Program (CIP) and future improvements that are reasonably likely to be implemented through other means such as expected private development projects. Based on discussions with City planning and engineering staff, the following roadway projects and connections were assumed to be included in the future no-build analysis as depicted in Exhibit 1.

- 1. A new backage road connection linking SW Front Street to a future westerly extension of Oregon Trail Boulevard and S Main Street. This project is anticipated to be completed as part of near-term private developments on the underlying parcels.
- 2. A westerly extension of Oregon Trail Boulevard from S Main Street to Faler Road. This project is included on the City CIP and is expected to be completed through a combination of capital expenditures and near-term private development projects.
- **3.** A new local street on the east side of S Main Street connecting Oregon Trail Boulevard to S Main Street.

# Exhibit 1 – Assumed Future Roadway Network Projects Completed as Part of Capital Expenditures or Private Development



# Future No-Build Traffic Operations

The traffic operations analysis helps identify study intersections that are expected to exceed applicable v/c and LOS thresholds in 2045. This analysis helps inform transportation projects, policies, and programs needed to support economic growth through the planning horizon.

Future Year 2045 No-Build weekday AM and PM peak hour traffic volumes were determined by applying the development-related trips to the existing traffic network. Future traffic volumes for Laurel Lane/Columbia Boulevard, Laurel Lane/I-84 WB Ramp, and Laurel Lane/I-84 EB Ramp were taken from the 2020 Port of Morrow IAMP update as this previous planning effort involved a much greater level of detail surrounding future Port of Morrow land development patterns. Assumed lane configurations for the 2045 No-Build scenario are illustrated in Figure 2. Projected Year 2045 No-Build traffic volumes at the study intersections and the resultant v/c ratios, delay, and level of service (LOS) for the weekday AM and PM peak hour are shown in Figure 3 and Figure 4 respectively.

### Figure 2. Year 2045 Assumed Lane Configurations & Traffic Control Devices

# Figure 3. Year 2045 Intersection Operations, Weekday AM Peak Hour

### Figure 4. Year 2045 Intersection Operations, Weekday PM Peak Hour

Figure 5 and Figure 6 illustrate weekday AM and weekday PM operational results at the study intersections based on their respective performance thresholds. Table 1 identifies the intersections from Figure 5 and Figure 6 that are exceeding their performance thresholds (mobility targets) in 20 years.

As shown, the results indicate that seven study intersections are forecast to exceed their performance thresholds during the weekday AM and PM peak hour. This includes N Main Street/Boardman Avenue (#3), N Main Street/Front Street (#4), N Main Street/I-84 WB (#5), S Main Street/I-84 EB Ramp(#6), S Main Street/Front Street (#7), S Main Street/ Oregon Trail Boulevard (#8), S Main Street /Kinkade Road (#9). The Laurel Lane/Columbia Avenue (#10) intersection does not meet the City's operational standard in only the AM peak hour.

Attachment C contains the future traffic operations worksheets.

### Figure 5. Year 2045 Traffic Operations, Weekday AM Peak Hour

# Figure 6. Year 2045 Traffic Operations, Weekday PM Peak Hour

			Exceeds Operational Standard							
ID	Intersection	Owner	Weekday Weekday AM Peak PM Peak Hour Hour		Forecast Operational Challenge(s)					
3	N Main Street / Boardman Avenue	City	¥	¥	Projected long-term growth in traffic demand along the Main Street corridor will increase vehicle delay for the Boardman Avenue approaches. During the weekday morning peak hour, the projected westbound left-turn demand will exceed its available capacity. Traffic control improvement options will need to be investigated in association with access restrictions at N Front Street (see below).					
4	N Main Street / N Front Street	City	¥	¥	Anticipated highway-oriented development along the N Front Street corridor is forecast to generate a significant increase in traffic demand. The Main Street IAMP has previously identified the need for the N Front Street intersection approaches to N Main Street to be limited to right-in/right-out movements through median treatments.					
5	N Main Street / I-84 Westbound Ramp Terminal	ODOT	~	~	The existing I-84/N Main Street interchange has limited capacity to serve anticipated long-term growth in local and freeway-oriented traffic demand. The Main Street IAMP has previously					
6	S Main Street / I-84 Eastbound Ramp Terminal	ODOT	~	$\checkmark$	identified the need for ramp widening and traffic control improvements at the interchange ramp terminals.					
7	S Main Street / S Front Street	City	~	~	Anticipated highway-oriented development along the S Front Street corridor is forecast to generate a significant increase in traffic demand. The Main Street IAMP has previously identified the need for the S Front Street intersection approaches to be limited to right-in/right-out movements through median treatments. The implementation of the access restricting medians is contingent upon the implementation of the local roadway improvements identified in Exhibit 1.					
8	S Main Street / Oregon Trail Boulevard	City	~	~	The assumed westerly extension of Oregon Trail Boulevard west of S Main Street is forecast to accommodate a measurable amount of east-west traffic demand serving existing a new developments in southwest Boardman. This demand will necessitate lane widening and traffic control improvements at the S Main Street/Oregon Trail Boulevard intersection.					
9	S Main Street / Kinkade Road	City	¥	¥	Anticipated residential and commercial growth in southwest Boardman is forecast to increase traffic demands along the Kinkade Road corridor. This demand will necessitate lane widening and potential traffic control improvements at the S Main Street/Kinkade Road intersection.					

# Table 1. Study Intersection Performance Summary – Future Traffic Operations

				Exce	eds Operational Standard
ID	Intersection	Owner	Weekday AM Peak Hour	Weekday PM Peak Hour	Forecast Operational Challenge(s)
12	Laurel Lane / Columbia Avenue	City	V	V	Long-term growth from the City of Boardman and Port of Morrow is forecast to result in over capacity conditions at the Laurel Lane/Columbia Avenue intersection. The POM IAMP has identified the need for a roundabout at this intersection to better accommodate the anticipated increase in freight and peak period traffic demands generated by POM businesses.
### Future Safety Conditions

The safety conditions summarized in the Existing Conditions Crash Analysis are expected to worsen over time if vehicular, pedestrian, and bicycle volumes increase and if no changes are made to the transportation system. The TSP Update will include site-specific countermeasures to address safety conditions. These treatments can be implemented as funding becomes available.

### Future Multimodal Conditions

The Existing Transportation Conditions Inventory & Analysis Memorandum identified notable gaps in infrastructure for people walking and rolling. These gaps are expected to remain as vehicular, pedestrian, and bicycle volumes increase and if no changes are made to the transportation system. Even if volumes were to remain constant, the quality of multimodal facilities would degrade over time without maintenance and improvements.

Improvements to the multimodal network should focus on the locations highlighted in the Pedestrian and Bicycle Level of Traffic Stress analysis from the Existing Transportation Conditions Inventory & Analysis Memorandum. This involves prioritizing areas for sidewalk and bike lanes.

### **Attachments**

- A. Land Use Projections and Trip Generation Estimate
- B. Development Generated Volumes
- C. Future Traffic Operations Worksheets

### Attachment A – Land Use Projections and Trip Generation Estimate

### **Attachment B – Development Generated Volumes**

## Attachment C – Future Traffic Operations Worksheet



### Figure 1

# **Study Area**





Study Intersection City Boundary =, ;-- Urban Growth Boundary Park - Water

0	0.25	0.5 Mile
<b> </b>		



Boardman TSP





Boardman TSP



& ASSOCIATES

Boardman TSP



& ASSOCIATES



### Year 2045 Traffic Operations -Weekday AM Peak Hour





Exceeds Mobility Target Meets Mobility Target City Boundary - Urban Growth Boundary Park

- Water



0

0.25





### Year 2045 Traffic Operations -Weekday PM Peak Hour





Exceeds Mobility Target Meets Mobility Target City Boundary - Urban Growth Boundary Park

- Water



0.25



### **Attachments**

- A. Land Use Projections and Trip Generation Estimate
- B. Development Generated Volumes
- C. Future Traffic Operations Worksheets

### Attachment A – Land Use Projections and Trip Generation Estimate

# CITY ZONING COMMERCIAL RESIDENTIAL COMMERCIAL RESIDENTIAL (SUNRIDGE HWY SUB DISTRICT LIGHT INDUSTRIAL RESIDENTIAL (MULTIFAMILY SUB DISTRICT) GENERAL INDUSTRIAL RESIDENTIAL (MULTIFAMILY SUB DISTRICT) BPA TRANSMISSION LINE EASEMENT SUB DISTRICT FUTURE URBAN SERVICE CENTER EOUNTY ZONING







- 1- Motel 60 rooms
- 2- Fast Food Restaurant 3,000 SF
- 3- Fast Food Restaurant (High Turnover)- 5,000 SF
- 4- Multi-Family Residential 25 units
- 5- Motel 200 rooms





- 6- Single Family Residential 64 units
- 7- Multi-Family Residential 397 units
- 8- Multi-Family Residential 165 units
- 9- Motel 70 rooms RV Park - 20 campsites Restaurant – 15,000 SF





- 15- Single Family Residential 31 units 16- Single Family Residential – 58 units
- 17- Single Family Residential 22 units





18-Shopping Center – 40,000 S 19- Housing (Multi Family) – 120 Units

					Weekday AM Peak Hour		Weekday PM Peak Hour			
Lot		ITE	Size	Daily						
Number	Land Use	Code	(SF/units)	Trips	Total	In	Out	Total	In	Out
1	Motel	320	60	188	24	10	14	25	14	11
2	Fast Food Restaurant with Drive through <sup>1</sup>	934	3000	1052	114	59	55	115	59	56
3	Fast Food Restaurant (High turnover) <sup>1</sup>	932	5,000	402	51	29	22	62	32	30
4	Multi Family Residential	220	25	236	37	9	28	45	28	17
5	Motel	320	200	695	80	33	47	82	45	37
6	Single Family Residential	210	64	669	53	14	39	69	44	25
7	Multi Family Residential	220	397	2620	167	40	127	202	125	77
8	Multi Family Residential	220	165	1133	86	21	65	104	64	40
	Motel	320	70	224	28	11	17	29	16	13
9	RV Park	416	20	-	7	3	4	8	5	3
	Fast Food Restaurant (High turnover) <sup>1</sup>	932	15,000	1206	154	88	66	184	94	90
10	Office	710	5,000	86	13	11	2	14	2	12
11	Office	710	5,000	86	13	11	2	14	2	12
12	Office	710	5,000	86	13	11	2	14	2	12
13	Clinic	630	5,000	214	29	17	12	34	16	18
14	Medical/Dental	720	10,000	322	38	22	16	43	17	26
15	Single Family Residential	210	31	344	29	8	21	35	22	13
16	Single Family Residential	210	58	611	48	12	36	63	40	23
17	Single Family Residential	210	22	251	23	6	17	25	16	9
18	Shopping Plaza <sup>2</sup>	821	40,000	2919	183	96	88	253	124	129
19	Multi Family Residential	220	120	845	70	17	53	85	53	32

<sup>1</sup>The number of trips was reduced by 25% to account for local trips.

 $^2 \text{The}$  number of trips was reduced by 35% to account for local trips.

### Attachment B – Development Generated Volumes

Boardman TSP



& ASSOCIATES

Boardman TSP



& ASSOCIATES

## Attachment C – Future Traffic Operations Worksheet

Vistro File: H:\...\30287\_Vistro.vistro Report File: H:\...\2045 AM.pdf

Scenario 3 2045 AM 1/12/2025

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
2	Main St/Columbia Ave	Two-way stop	HCM 7th Edition	WB Left	0.305	13.8	В
3	Main St/Boardman Ave	Two-way stop	HCM 7th Edition	WB Left	1.026	196.8	F
4	Main St/Front St NE	Two-way stop	HCM 7th Edition	WB Left	2.460	784.9	F
5	Main St/I-84 WB Ramp Terminal	Two-way stop	HCM 7th Edition	WB Left	3.329	1,143.0	F
6	Main St/I-84 EB Ramp Terminal	Two-way stop	HCM 7th Edition	EB Left	2.462	1,082.2	F
7	Main St/Front St SE	Two-way stop	HCM 7th Edition	EB Left	1.675	498.8	F
8	Main St/Oregon Trail Blvd	Two-way stop	HCM 7th Edition	EB Left	0.539	69.8	F
9	Main St/Kinkade Rd	Two-way stop	HCM 7th Edition	EB Left	0.870	94.5	F
10	Main St/Wilson Ln	All-way stop	HCM 7th Edition	EB Left	0.570	13.5	В
11	Olson Rd/Columbia Ave	Two-way stop	HCM 7th Edition	WB Left	0.076	11.3	В
12	Laurel Ln/Columbia Ave	Two-way stop	HCM 7th Edition	WB Left	1.699	400.9	F
13	Laurel Ln/I-84 WB Ramp Terminal	Two-way stop	HCM 7th Edition	WB Left	0.298	138.1	F
14	Laurel Ln/I-84 EB Ramp Terminal	Two-way stop	HCM 7th Edition	EB Left	0.567	44.3	Е

**Intersection Analysis Summary** 

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

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#### Intersection Level Of Service Report

Intersection 2: Main St/Columbia Ave

Control Type:	
Analysis Method:	
Analysis Period:	

Two-way stop					
HCM 7th Edition					
15 minutes					

Delay (sec / veh):	13.8
Level Of Service:	В
Volume to Capacity (v/c):	0.305

Intersection Setup

Name	Main St			Main St		Columbia Ave			Columbia Ave			
Approach	1	lorthboun	d	S	Southbound		Eastbound			Westbound		
Lane Configuration		<u>אר</u>			чŀ		+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	850.00	100.00	100.00	150.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]		20.00			20.00			25.00			35.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		Yes			Yes			Yes			Yes	
Volumes												
Name		Main St		Main St		Columbia Ave			Columbia Ave			
Base Volume Input [veh/h]	9	46	176	6	46	3	2	4	16	133	5	12
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	3.00	7.00	0.00	14.00	0.00	0.00	25.00	22.00	5.00	0.00	8.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	46	176	6	46	3	2	4	16	133	5	12
Peak Hour Factor	0.7200	0.7200	0.7200	0.7200	0.7200	0.7200	0.7200	0.7200	0.7200	0.7200	0.7200	0.7200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	16	61	2	16	1	1	1	6	46	2	4
Total Analysis Volume [veh/h]	13	64	244	8	64	4	3	6	22	185	7	17
Pedestrian Volume [ped/h]		0		1			1			0		

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#### Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

#### Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.02	0.30	0.01	0.02
d_M, Delay for Movement [s/veh]	7.35	0.00	0.00	7.87	0.00	0.00	11.03	12.62	9.02	13.84	13.83	12.20
Movement LOS	A	А	А	A	А	A	В	В	А	В	В	В
95th-Percentile Queue Length [veh/ln]	0.03	0.00	0.00	0.02	0.00	0.00	0.13	0.13	0.13	1.48	1.48	1.48
95th-Percentile Queue Length [ft/ln]	0.64	0.00	0.00	0.48	0.00	0.00	3.17	3.17	3.17	36.98	36.98	36.98
d_A, Approach Delay [s/veh]	0.30			0.83			9.91			13.71		
Approach LOS	А			A			A			В		
d_I, Intersection Delay [s/veh]	5.23											
Intersection LOS	В											

1/12/2025



Version 2024 (SP 0-1)

#### Intersection Level Of Service Report

Intersection 3: Main St/Boardman Ave

Control Type:	
Analysis Method:	
Analysis Period:	

Two-way stop
HCM 7th Edition
15 minutes

Delay (sec / veh):	196.8
Level Of Service:	F
Volume to Capacity (v/c):	1.026

#### Intersection Setup

Name		Main St			Main St		Bo	ardman A	ve	Bo	Boardman Av		
Approach	1	lorthboun	d	S	Southboun	d		Eastbound	ł	۱	Vestboun	d	
Lane Configuration		4			41			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0	
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Speed [mph]	20.00				20.00			25.00			20.00		
Grade [%]	0.00				0.00			0.00			0.00		
Crosswalk	Yes				Yes			Yes		Yes			
Volumes				•									
Name		Main St			Main St			ardman A	ve	Bo	ardman A	ve	
Base Volume Input [veh/h]	52	228	201	20	178	30	17	12	48	106	21	21	
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Heavy Vehicles Percentage [%]	16.00	5.00	4.00	12.00	9.00	4.00	0.00	0.00	6.00	9.00	6.00	6.00	
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Total Hourly Volume [veh/h]	52	228	201	20	178	30	17	12	48	106	21	21	
Peak Hour Factor	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Total 15-Minute Volume [veh/h]	19	84	74	7	65	11	6	4	18	39	8	8	
Total Analysis Volume [veh/h]	76	335	296	29	262	44	25	18	71	156	31	31	
Pedestrian Volume [ped/h]		3			3			1			5		



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Version 2024 (SP 0-1)

#### Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

#### Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.06	0.00	0.00	0.03	0.00	0.00	0.15	0.10	0.10	1.03	0.14	0.05
d_M, Delay for Movement [s/veh]	8.27	0.00	0.00	9.15	0.00	0.00	32.92	30.24	15.61	196.82	189.97	179.51
Movement LOS	A	А	А	A	Α	A	D	D	С	F	F	F
95th-Percentile Queue Length [veh/ln]	0.21	0.00	0.00	0.10	0.00	0.00	1.51	1.51	1.51	11.90	11.90	11.90
95th-Percentile Queue Length [ft/ln]	5.17	0.00	0.00	2.50	0.00	0.00	37.83	37.83	37.83	297.39	297.39	297.39
d_A, Approach Delay [s/veh]		0.89			0.79			21.72			193.39	
Approach LOS		А			А			С			F	
d_I, Intersection Delay [s/veh]		33.14										
Intersection LOS							=					





Version 2024 (SP 0-1)

#### Intersection Level Of Service Report

Intersection 4: Main St/Front St NE

Control Type:	
Analysis Method:	
Analysis Period:	

#### Two-way stop HCM 7th Edition 15 minutes

Delay (sec / veh):	784.9
Level Of Service:	F
Volume to Capacity (v/c):	2.460

#### Intersection Setup

Name		Main St			Main St		F	ront St N	E	F	Front St NE		
Approach	1	lorthboun	d	S	Southboun	d		Eastbound	b	\	Nestboun	d	
Lane Configuration		4			41			Чг			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	1	0	0	0	
Entry Pocket Length [ft]	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Speed [mph]	30.00				30.00			25.00			25.00		
Grade [%]	0.00				0.00			0.00			0.00		
Crosswalk		No			Yes			Yes			Yes		
Volumes				•									
Name		Main St			Main St			ront St N	E	F	Front St N	E	
Base Volume Input [veh/h]	41	474	173	5	348	5	13	6	57	158	1	11	
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Heavy Vehicles Percentage [%]	8.00	6.00	6.00	25.00	8.00	0.00	0.00	0.00	8.00	16.00	0.00	11.00	
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Total Hourly Volume [veh/h]	41	474	173	5	348	5	13	6	57	158	1	11	
Peak Hour Factor	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Total 15-Minute Volume [veh/h]	14	158	58	2	116	2	4	2	19	53	0	4	
Total Analysis Volume [veh/h]	55	632	231	7	464	7	17	8	76	211	1	15	
Pedestrian Volume [ped/h]		0			2			1			3		

6

Generated with PTV VISTRO

Version 2024 (SP 0-1)

#### Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane				No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

#### Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.01	0.00	0.01	0.00	0.00	0.15	0.07	0.13	2.46	0.01	0.04
d_M, Delay for Movement [s/veh]	8.59	0.00	0.00	10.30	0.00	0.00	44.49	42.73	12.11	784.95	768.28	752.12
Movement LOS	А	А	А	В	А	A	E	E	В	F	F	F
95th-Percentile Queue Length [veh/ln]	0.16	0.00	0.00	0.03	0.00	0.00	0.76	0.76	0.45	21.09	21.09	21.09
95th-Percentile Queue Length [ft/ln]	4.11	0.00	0.00	0.77	0.00	0.00	19.10	19.10	11.19	527.13	527.13	527.13
d_A, Approach Delay [s/veh]		0.51			0.15			19.99			782.70	
Approach LOS		А	A C						F			
d_I, Intersection Delay [s/veh]		104.55										
Intersection LOS							=					



Version 2024 (SP 0-1)

#### Intersection Level Of Service Report Intersection 5: Main St/I-84 WB Ramp Terminal

Control Type: Two-way stop Analysis Method: HCM 7th Edition Analysis Period: 15 minutes

3.329

1,143.0

F

Intersection Setup

Name		Main St			Main St						I-84 WB			
Approach	1	Northboun	d	5	Southbour	d		Eastbound	k	۱	Vestboun	d		
Lane Configuration		F			F						+			
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00		
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0		
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00		
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0		
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Speed [mph]		30.00			30.00			30.00			45.00			
Grade [%]		0.00			0.00			0.00			0.00			
Crosswalk		No			No			Yes			Yes			
Volumes														
Name		Main St			Main St						I-84 WB			
Base Volume Input [veh/h]	37	531	0	0	510	53	0	0	0	245	1	157		
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		
Heavy Vehicles Percentage [%]	24.00	5.00	2.00	2.00	8.00	19.00	2.00	2.00	2.00	4.00	0.00	15.00		
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0		
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0		
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0		
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0		
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0		
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0		
Total Hourly Volume [veh/h]	37	531	0	0	510	53	0	0	0	245	1	157		
Peak Hour Factor	0.7800	0.7800	1.0000	1.0000	0.7800	0.7800	1.0000	1.0000	1.0000	0.7800	0.7800	0.7800		
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		
Total 15-Minute Volume [veh/h]	12	170	0	0	163	17	0	0	0	79	0	50		
Total Analysis Volume [veh/h]	47	681	0	0	654	68	0	0	0	314	1	201		
Pedestrian Volume [ped/h]		0			0			1		4				

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Version 2024 (SP 0-1)

#### Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane				Yes
Storage Area [veh]	0	0	0	1
Two-Stage Gap Acceptance				No
Number of Storage Spaces in Median	0	0	0	0

#### Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.06	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	3.33	0.01	0.47
d_M, Delay for Movement [s/veh]	9.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1142.98	1137.37	1113.28
Movement LOS	A	A			Α	A				F	F	F
95th-Percentile Queue Length [veh/ln]	0.08	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.30	49.30	49.30
95th-Percentile Queue Length [ft/ln]	2.01	2.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1232.41	1232.41	1232.41
d_A, Approach Delay [s/veh]		0.62			0.00			0.00			1131.40	
Approach LOS		А			А			А			F	
d_I, Intersection Delay [s/veh]		297.18										
Intersection LOS						F	=					

1/12/2025

1,082.2

F

2.462



Version 2024 (SP 0-1)

#### Intersection Level Of Service Report

Intersection 6: Main St/I-84 EB Ramp Terminal

Control Type:	Two-way stop	Delay (sec / veh):
Analysis Method:	HCM 7th Edition	Level Of Service:
Analysis Period:	15 minutes	Volume to Capacity (v/c):

Intersection Setup

Name	Main St			Main St			I-84 EB					
Approach	1	lorthboun	d	S	Southboun	d		Eastbound	ł	\	Vestboun	d
Lane Configuration		F			-			+				
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]		30.00			30.00			45.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		No			No			Yes		Yes		
Volumes												
Name		Main St		Main St			I-84 EB					
Base Volume Input [veh/h]	0	533	319	173	582	0	33	0	24	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	6.00	3.00	15.00	6.00	2.00	18.00	0.00	14.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	533	319	173	582	0	33	0	24	0	0	0
Peak Hour Factor	1.0000	0.8100	0.8100	0.8100	0.8100	1.0000	0.8100	0.8100	0.8100	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	165	98	53	180	0	10	0	7	0	0	0
Total Analysis Volume [veh/h]	0	658	394	214	719	0	41	0	30	0	0	0
Pedestrian Volume [ped/h]		0			0			1		4		

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Version 2024 (SP 0-1)

#### Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	
Number of Storage Spaces in Median	0	0	0	0

#### Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.00	0.35	0.01	0.00	2.46	0.00	0.07	0.00	0.00	0.00	
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	11.25	0.00	0.00	1082.21	1059.01	874.90	0.00	0.00	0.00	
Movement LOS		А	А	В	А		F	F	F				
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.46	0.46	0.00	8.50	8.50	8.50	0.00	0.00	0.00	
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	11.58	11.58	0.00	212.62	212.62	212.62	0.00	0.00	0.00	
d_A, Approach Delay [s/veh]		0.00			2.58			994.62			0.00		
Approach LOS		А			А			F			A		
d_I, Intersection Delay [s/veh]		35.52											
Intersection LOS							F						



Version 2024 (SP 0-1)

#### Intersection Level Of Service Report

Intersection 7: Main St/Front St SE

Control Type:	
Analysis Method:	
Analysis Period:	

#### Two-way stop HCM 7th Edition 15 minutes

Delay (sec / veh):	498.8
Level Of Service:	F
Volume to Capacity (v/c):	1.675

#### Intersection Setup

Name		Main St			Main St		F	ront St S	E	F	E		
Approach	1	lorthboun	d	S	Southboun	d		Eastbound	b	\	Nestboun	d	
Lane Configuration		4			41			+		- Hr			
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	1	
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Speed [mph]		30.00			30.00			25.00			25.00		
Grade [%]		0.00			0.00			0.00			0.00		
Crosswalk	Yes				No			Yes			Yes		
Volumes													
Name		Main St		Main St			Front St SE			Front St SE			
Base Volume Input [veh/h]	0	760	13	24	523	59	71	0	0	14	0	24	
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Heavy Vehicles Percentage [%]	0.00	5.00	0.00	0.00	6.00	0.00	33.00	0.00	0.00	0.00	0.00	0.00	
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Total Hourly Volume [veh/h]	0	760	13	24	523	59	71	0	0	14	0	24	
Peak Hour Factor	0.8100	0.8100	0.8100	0.8100	0.8100	0.8100	0.8100	0.8100	0.8100	0.8100	0.8100	0.8100	
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Total 15-Minute Volume [veh/h]	0	235	4	7	161	18	22	0	0	4	0	7	
Total Analysis Volume [veh/h]	0	938	16	30	646	73	88	0	0	17	0	30	
Pedestrian Volume [ped/h]		0			0			1			4		

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Version 2024 (SP 0-1)

#### Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

#### Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.00	0.04	0.01	0.00	1.68	0.00	0.00	0.24	0.00	0.09	
d_M, Delay for Movement [s/veh]	9.04	0.00	0.00	10.19	0.00	0.00	498.79	470.92	438.23	70.87	62.56	17.54	
Movement LOS	А	А	А	В	А	A	F	F	F	F	F	С	
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.13	0.00	0.00	8.37	8.37	8.37	0.84	0.84	0.31	
95th-Percentile Queue Length [ft/In]	0.00	0.00	0.00	3.24	0.00	0.00	209.35	209.35	209.35	20.97	20.97	7.77	
d_A, Approach Delay [s/veh]		0.00			0.41			498.79			36.83		
Approach LOS		А			А			F			E		
d_I, Intersection Delay [s/veh]		24.99											
Intersection LOS							F						



Version 2024 (SP 0-1)

#### Intersection Level Of Service Report

Intersection 8: Main St/Oregon Trail Blvd . .

Control Type:	
Analysis Method:	
Analysis Period:	

i wo-way stop	
HCM 7th Edition	
15 minutes	

Delay (sec / veh): Level Of Service: Volume to Capacity (v/c):

F 0.539

69.8

#### Intersection Setup

Name		Main St			Main St					Ore	Blvd		
Approach	1	lorthboun	d	S	Southboun	d		Eastbound	ł	۱	Nestboun	d	
Lane Configuration		+		+				+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0	
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Speed [mph]		30.00			30.00			30.00			25.00		
Grade [%]		0.00			0.00			0.00			0.00		
Crosswalk	No				No			Yes		No			
Volumes													
Name		Main St		Main St						Oregon Trail Blvd			
Base Volume Input [veh/h]	3	604	1	23	402	33	57	10	3	2	8	34	
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Heavy Vehicles Percentage [%]	0.00	4.00	0.00	18.00	5.00	0.00	0.00	0.00	0.00	0.00	0.00	9.00	
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Total Hourly Volume [veh/h]	3	604	1	23	402	33	57	10	3	2	8	34	
Peak Hour Factor	0.8700	0.8700	0.8700	0.8700	0.8700	0.8700	0.8700	0.8700	0.8700	0.8700	0.8700	0.8700	
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Total 15-Minute Volume [veh/h]	1	174	0	7	116	9	16	3	1	1	2	10	
Total Analysis Volume [veh/h]	3	694	1	26	462	38	66	11	3	2	9	39	
Pedestrian Volume [ped/h]		0			0			0		0			
Version 2024 (SP 0-1)

## Intersection Settings

Priority Scheme	Free	Free		Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

## Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.00	0.03	0.00	0.00	0.54	0.06	0.01	0.01	0.05	0.09
d_M, Delay for Movement [s/veh]	8.35	0.00	0.00	9.36	0.00	0.00	69.84	61.68	46.57	33.60	28.94	15.53
Movement LOS	А	А	А	A	А	A	F	F	E	D	D	С
95th-Percentile Queue Length [veh/ln]	0.01	0.01	0.01	0.04	0.04	0.04	3.14	3.14	3.14	0.56	0.56	0.56
95th-Percentile Queue Length [ft/ln]	0.13	0.13	0.13	1.12	1.12	1.12	78.40	78.40	78.40	14.01	14.01	14.01
d_A, Approach Delay [s/veh]		0.04		0.46			67.85			18.67		
Approach LOS		А			А			F		С		
d_I, Intersection Delay [s/veh]		4.90										
Intersection LOS							F					

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# Intersection Level Of Service Report

Intersection 9: Main St/Kinkade Rd

Control Type:	
Analysis Method:	
Analysis Period:	

Two-way stop
HCM 7th Edition
15 minutes

Delay (sec / veh):	94.5
Level Of Service:	F
Volume to Capacity (v/c):	0.870

#### Intersection Setup

Name	Main St		Main St			Kinkade Rd							
Approach	Northbound			S	Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+			
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0	
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Speed [mph]		30.00			30.00			25.00			30.00		
Grade [%]		0.00			0.00			0.00		0.00			
Crosswalk		No			No			Yes	Yes				
Volumes													
Name		Main St		Main St			Kinkade Rd						
Base Volume Input [veh/h]	11	421	59	8	261	103	175	16	18	49	11	7	
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Heavy Vehicles Percentage [%]	10.00	5.00	0.00	0.00	5.00	4.00	0.00	0.00	6.00	0.00	0.00	0.00	
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Total Hourly Volume [veh/h]	11	421	59	8	261	103	175	16	18	49	11	7	
Peak Hour Factor	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Total 15-Minute Volume [veh/h]	3	120	17	2	74	29	50	5	5	14	3	2	
Total Analysis Volume [veh/h]	13	478	67	9	297	117	199	18	20	56	13	8	
Pedestrian Volume [ped/h]		0			0			2		0			

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## Intersection Settings

Priority Scheme	Free	Free		Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.01	0.00	0.00	0.87	0.07	0.03	0.26	0.05	0.01	
d_M, Delay for Movement [s/veh]	8.29	0.00	0.00	8.49	0.00	0.00	94.48	92.84	84.06	28.42	26.58	18.36	
Movement LOS	А	А	А	А	А	А	F	F	F	D	D	С	
95th-Percentile Queue Length [veh/ln]	0.02	0.02	0.02	0.02	0.02	0.02	8.98	8.98	8.98	1.34	1.34	1.34	
95th-Percentile Queue Length [ft/In]	0.56	0.56	0.56	0.40	0.40	0.40	224.53	224.53	224.53	33.45	33.45	33.45	
d_A, Approach Delay [s/veh]		0.19		0.18				93.48		27.07			
Approach LOS		А			А			F			D		
d_I, Intersection Delay [s/veh]		18.86											
Intersection LOS						F	=						



## Intersection Level Of Service Report

Intersection 10: Main St/Wilson Ln

Control Type:	
Analysis Method:	
Analysis Period:	

All-way stop	
HCM 7th Edition	
15 minutes	

Delay (sec / veh):	13.5
Level Of Service:	В
Volume to Capacity (v/c):	0.570

### Intersection Setup

Name	Main St				Main St			Wilson Ln			Wilson Ln		
Approach	Northbound			Southbound			Eastbound			Westbound			
Lane Configuration	+			+			+			+			
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0	
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Speed [mph]		35.00			30.00			20.00			30.00		
Grade [%]		0.00			0.00			0.00		0.00			
Crosswalk		No			Yes			No			No		
Volumes													
Name		Main St		Main St			Wilson Ln			Wilson Ln		I	
Base Volume Input [veh/h]	10	125	8	34	61	193	281	29	11	3	48	41	
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Heavy Vehicles Percentage [%]	50.00	4.00	0.00	11.00	14.00	4.00	5.00	0.00	0.00	0.00	2.00	7.00	
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Total Hourly Volume [veh/h]	10	125	8	34	61	193	281	29	11	3	48	41	
Peak Hour Factor	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900	
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Total 15-Minute Volume [veh/h]	3	35	2	10	17	54	79	8	3	1	13	12	
Total Analysis Volume [veh/h]	11	140	9	38	69	217	316	33	12	3	54	46	
Pedestrian Volume [ped/h]		0			2			0		0			

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## Intersection Settings

#### Lanes

Capacity per Entry Lane [veh/h]	606	678	634	625								
Degree of Utilization, x	0.26	0.48	0.57	0.17								
Movement, Approach, & Intersection Res	sults											
95th-Percentile Queue Length [veh]	1.06	2.59	3.59	0.59								
95th-Percentile Queue Length [ft]	26.40	64.87	89.85	14.69								
Approach Delay [s/veh]	11.06	13.08	15.94	9.91								
Approach LOS	В	В	С	А								
Intersection Delay [s/veh]		13.48										
Intersection LOS		В										

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11.3

В

0.076



Control Type:

Analysis Method:

Analysis Period:

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## Intersection Level Of Service Report

Intersection 11: Olson Rd/Columbia Ave

Two-way stop	Delay (sec / veh):
HCM 7th Edition	Level Of Service:
15 minutes	Volume to Capacity (v/c):

Name		Olson Rd			Olson Rd			Columbia Ave			Columbia Ave		
Approach	1	lorthboun	d	S	Southboun	d		Eastbound	ł	Westbound			
Lane Configuration		Чг			+			лГ			٦Þ		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	1	0	0	0	
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00	100.00	
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Speed [mph]		30.00			30.00			40.00			40.00		
Grade [%]		0.00			0.00			0.00			0.00		
Crosswalk		Yes			No			Yes			No		
Volumes													
Name		Olson Rd			Olson Rd			Columbia Ave			Columbia Ave		
Base Volume Input [veh/h]	10	0	45	8	0	3	3	167	6	43	94	7	
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Heavy Vehicles Percentage [%]	20.00	0.00	12.00	62.00	0.00	0.00	0.00	4.00	0.00	7.00	8.00	57.00	
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Total Hourly Volume [veh/h]	10	0	45	8	0	3	3	167	6	43	94	7	
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Total 15-Minute Volume [veh/h]	3	0	12	2	0	1	1	45	2	12	26	2	
Total Analysis Volume [veh/h]	11	0	49	9	0	3	3	182	7	47	102	8	
Pedestrian Volume [ped/h]		0			0			0		0			

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## Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane				No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.23	0.01	0.08	0.12	0.01
d_M, Delay for Movement [s/veh]	7.40	0.00	0.00	7.90	0.00	0.00	9.91	10.97	8.33	11.27	10.02	9.47
Movement LOS	A	A	А	А	А	A	А	В	А	В	В	А
95th-Percentile Queue Length [veh/ln]	0.02	0.02	0.00	0.02	0.02	0.02	0.01	0.90	0.02	0.24	0.45	0.45
95th-Percentile Queue Length [ft/In]	0.55	0.55	0.00	0.45	0.45	0.45	0.31	22.40	0.49	6.12	11.36	11.36
d_A, Approach Delay [s/veh]		1.36		5.93			10.86			10.36		
Approach LOS		А		A			В			В		
d_I, Intersection Delay [s/veh]	9.18											
Intersection LOS						E	3					



# Intersection Level Of Service Report

Intersection 12: Laurel Ln/Columbia Ave

Control Type:	
Analysis Method:	
Analysis Period:	

I wo-way stop							
HCM 7th Edition							
15 minutes							

Delay (sec / veh):	
Level Of Service:	
Volume to Capacity (v/c):	

F 1.699

400.9

Intersection Setup

Name		Laurel Ln					C	Columbia Ave			Columbia Ave		
Approach	1	Northboun	d	5	Southboun	d		Eastbound	d	۱	Nestboun	d	
Lane Configuration		1						1			ī		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0	
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Speed [mph]		30.00			30.00			40.00			40.00	-	
Grade [%]		0.00			0.00			0.00			0.00		
Crosswalk		No			No		No			No			
Volumes													
Name		Laurel Ln					Columbia Ave			Columbia Ave			
Base Volume Input [veh/h]	0	689	0	0	0	0	0	45	97	162	29	0	
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Heavy Vehicles Percentage [%]	17.00	9.00	22.00	2.00	2.00	2.00	2.00	4.00	13.00	41.00	31.00	2.00	
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Total Hourly Volume [veh/h]	0	689	0	0	0	0	0	45	97	162	29	0	
Peak Hour Factor	0.8400	0.7000	0.8400	1.0000	1.0000	1.0000	1.0000	0.7000	0.8400	0.7000	0.8400	1.0000	
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Total 15-Minute Volume [veh/h]	0	246	0	0	0	0	0	16	29	58	9	0	
Total Analysis Volume [veh/h]	0	984	0	0	0	0	0	64	115	231	35	0	
Pedestrian Volume [ped/h]		0			0			0		0			

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## Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane				
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

V/C, Movement V/C Ratio	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.26	0.00	1.70	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24.65	0.00	400.89	0.00	0.00
Movement LOS		A						С		F		
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.01	0.00	16.98	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.19	0.00	424.55	0.00	0.00
d_A, Approach Delay [s/veh]		0.00		0.00			24.65			400.89		
Approach LOS		А			А		С			F		
d_I, Intersection Delay [s/veh]		73.64										
Intersection LOS		F										



138.1

F



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## Intersection Level Of Service Report Intersection 13: Laurel Ln/I-84 WB Ramp Terminal

Control Type: Two-way stop Analysis Method: HCM 7th Edition Analysis Period: 15 minutes

Delay (sec / veh): Level Of Service: Volume to Capacity (v/c): 0.298

Name		Laurel Ln			Laurel Ln			I-84 WB		I-84 WB		
Approach	1	lorthboun	d	5	Southboun	d	I	Eastbound	d	Westbound		
Lane Configuration		H			F					+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]		30.00			30.00		30.00				45.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		No			No			No			No	
Volumes												
Name		Laurel Ln		Laurel Ln			I-84 WB			I-84 WB		
Base Volume Input [veh/h]	49	183	0	0	281	41	0	0	0	59	0	506
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	17.00	14.00	2.00	2.00	25.00	67.00	2.00	2.00	2.00	3.00	0.00	8.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	49	183	0	0	281	41	0	0	0	59	0	506
Peak Hour Factor	0.7200	0.7200	1.0000	1.0000	0.7200	0.7200	1.0000	1.0000	1.0000	0.7200	0.7200	0.7200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	17	64	0	0	98	14	0	0	0	20	0	176
Total Analysis Volume [veh/h]	68	254	0	0	390	57	0	0	0	82	0	703
Pedestrian Volume [ped/h]		0			0			0		0		



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## Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane				No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance				No
Number of Storage Spaces in Median	0	0	0	0

## Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.00	0.91
d_M, Delay for Movement [s/veh]	8.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	138.06	137.76	129.66
Movement LOS	A	A			А	A				F	F	F
95th-Percentile Queue Length [veh/ln]	0.12	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	27.70	27.70	27.70
95th-Percentile Queue Length [ft/ln]	2.94	2.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	692.47	692.47	692.47
d_A, Approach Delay [s/veh]		1.80		0.00			0.00			130.54		
Approach LOS		А			A A				F			
d_I, Intersection Delay [s/veh]	66.31											
Intersection LOS	F											

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Scenario 3: 3 2045 AM



# Intersection Level Of Service Report

Intersection 14: Laurel Ln/I-84 EB Ramp Terminal

Control Type:	Two-way stop	Delay (sec / veh):	44.3
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.567

Name		Laurel Ln			Laurel Ln			I-84 EB					
Approach	М	lorthboun	d	S	Southboun	d		Eastbound	ł	\	Vestboun	d	
Lane Configuration	F			4			+						
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0	
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Speed [mph]		30.00			30.00		45.00			30.00			
Grade [%]		0.00			0.00			0.00		0.00			
Crosswalk	No			No			No		No				
Volumes													
Name		Laurel Ln			Laurel Ln			I-84 EB					
Base Volume Input [veh/h]	0	135	98	231	109	0	97	0	55	0	0	0	
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Heavy Vehicles Percentage [%]	2.00	9.00	11.00	29.00	4.00	2.00	21.00	0.00	17.00	2.00	2.00	2.00	
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Total Hourly Volume [veh/h]	0	135	98	231	109	0	97	0	55	0	0	0	
Peak Hour Factor	1.0000	0.8800	0.8800	0.8800	0.8800	1.0000	0.8800	0.8800	0.8800	1.0000	1.0000	1.0000	
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Total 15-Minute Volume [veh/h]	0	38	28	66	31	0	28	0	16	0	0	0	
Total Analysis Volume [veh/h]	0	153	111	263	124	0	110	0	63	0	0	0	
Pedestrian Volume [ped/h]	0			0			0			0			

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## Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	
Number of Storage Spaces in Median	0	0	0	0

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.23	0.00	0.00	0.57	0.00	0.07	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	8.56	0.00	0.00	44.26	43.01	29.77	0.00	0.00	0.00
Movement LOS		А	А	A	А		E	E	D			
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.59	0.59	0.00	3.99	3.99	3.99	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	14.84	14.84	0.00	99.64	99.64	99.64	0.00	0.00	0.00
d_A, Approach Delay [s/veh]		0.00			5.81		38.98			0.00		
Approach LOS		А			А			E A				
d_I, Intersection Delay [s/veh]	10.91											
Intersection LOS	E											

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Scenario 4 2045 PM 1/12/2025

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
2	Main St/Columbia Ave	Two-way stop	HCM 7th Edition	WB Thru	0.030	17.6	С
3	Main St/Boardman Ave	Two-way stop	HCM 7th Edition	WB Left	0.245	39.6	Е
4	Main St/Front St NE	Two-way stop	HCM 7th Edition	WB Left	2.576	849.6	F
5	Main St/I-84 WB Ramp Terminal	Two-way stop	HCM 7th Edition	WB Left	5.097	1,933.5	F
6	Main St/I-84 EB Ramp Terminal	Two-way stop	HCM 7th Edition	EB Left	7.587	3,516.7	F
7	Main St/Front St SE	Two-way stop	HCM 7th Edition	EB Left	2.313	818.3	F
8	Main St/Oregon Trail Blvd	Two-way stop	HCM 7th Edition	EB Left	0.627	132.8	F
9	Main St/Kinkade Rd	Two-way stop	HCM 7th Edition	EB Left	1.015	167.4	F
10	Main St/Wilson Ln	All-way stop	HCM 7th Edition	SB Right	0.696	15.2	С
11	Olson Rd/Columbia Ave	Two-way stop	HCM 7th Edition	EB Left	0.003	15.3	С
12	Laurel Ln/Columbia Ave	Two-way stop	HCM 7th Edition	WB Left	0.546	16.8	С
13	Laurel Ln/I-84 WB Ramp Terminal	Two-way stop	HCM 7th Edition	WB Left	0.451	32.0	D
14	Laurel Ln/I-84 EB Ramp Terminal	Two-way stop	HCM 7th Edition	EB Left	0.595	118.9	F

**Intersection Analysis Summary** 

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

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## Intersection Level Of Service Report

Intersection 2: Main St/Columbia Ave

Control Type:	
Analysis Method:	
Analysis Period:	

I wo-way stop	
HCM 7th Edition	
15 minutes	

Delay (sec / veh):	17.6
Level Of Service:	С
Volume to Capacity (v/c):	0.030

#### Intersection Setup

Name	Main St			Main St		Columbia Ave		Columbia Ave				
Approach	1	lorthboun	d	S	Southboun	d		Eastbound	ł	۱	Vestboun	d
Lane Configuration		אר - <u>ר</u> ר			<b>7</b> F			+			+	
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	850.00	100.00	100.00	150.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]		20.00			20.00			25.00			35.00	
Grade [%]		0.00			0.00			0.00		0.00		
Crosswalk	Yes			Yes			Yes		Yes			
Volumes												
Name		Main St		Main St		Columbia Ave		Columbia Ave		ve		
Base Volume Input [veh/h]	23	46	160	7	49	1	5	10	23	261	15	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	4.00	0.00	2.00	0.00	20.00	10.00	0.00	1.00	7.00	17.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	23	46	160	7	49	1	5	10	23	261	15	6
Peak Hour Factor	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	14	47	2	14	0	1	3	7	77	4	2
Total Analysis Volume [veh/h]	27	54	188	8	58	1	6	12	27	307	18	7
Pedestrian Volume [ped/h]	0			0			1		1			

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## Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

## Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.01	0.00	0.00	0.01	0.02	0.03	0.50	0.03	0.01	
d_M, Delay for Movement [s/veh]	7.36	0.00	0.00	7.72	0.00	0.00	11.40	12.07	8.86	17.59	17.64	15.88	
Movement LOS	А	А	А	A	А	A	В	В	А	С	С	С	
95th-Percentile Queue Length [veh/ln]	0.05	0.00	0.00	0.02	0.00	0.00	0.19	0.19	0.19	3.24	3.24	3.24	
95th-Percentile Queue Length [ft/ln]	1.32	0.00	0.00	0.45	0.00	0.00	4.73	4.73	4.73	80.90	80.90	80.90	
d_A, Approach Delay [s/veh]		0.74			0.92			10.06			17.55		
Approach LOS		А			А			В			С		
d_I, Intersection Delay [s/veh]		9.17											
Intersection LOS						(	2						



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## Intersection Level Of Service Report

Intersection 3: Main St/Boardman Ave

Control Type:	
Analysis Method:	
Analysis Period:	

Two-way stop
HCM 7th Edition
15 minutes

Delay (sec / veh):	39.6
Level Of Service:	E
Volume to Capacity (v/c):	0.245

Name		Main St			Main St		Bo	ardman A	ve	Bo	ve	
Approach	1	lorthboun	d	S	Southboun	d		Eastbound	ł	۱ ۱	Vestboun	d
Lane Configuration		4			4			+			+	
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]		20.00			20.00			25.00			20.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		Yes			Yes			Yes			Yes	
Volumes												
Name		Main St		Main St			Boardman Ave			Boardman Ave		
Base Volume Input [veh/h]	127	256	42	13	378	29	12	2	91	33	11	8
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	3.00	2.00	17.00	10.00	2.00	0.00	0.00	0.00	3.00	0.00	11.00	14.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	127	256	42	13	378	29	12	2	91	33	11	8
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	34	69	11	3	102	8	3	1	24	9	3	2
Total Analysis Volume [veh/h]	137	275	45	14	406	31	13	2	98	35	12	9
Pedestrian Volume [ped/h]		1			0			0			5	



Version 2024 (SP 0-1)

## Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

### Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.12	0.00	0.00	0.01	0.00	0.00	0.08	0.01	0.16	0.24	0.06	0.01	
d_M, Delay for Movement [s/veh]	8.67	0.00	0.00	8.07	0.00	0.00	28.32	25.61	13.16	39.56	33.23	19.50	
Movement LOS	A	А	A	A	A	A	D	D	В	E	D	С	
95th-Percentile Queue Length [veh/ln]	0.42	0.00	0.00	0.04	0.00	0.00	0.94	0.94	0.94	1.30	1.30	1.30	
95th-Percentile Queue Length [ft/In]	10.44	0.00	0.00	0.90	0.00	0.00	23.38	23.38	23.38	32.48	32.48	32.48	
d_A, Approach Delay [s/veh]		2.60			0.25			15.12			34.98		
Approach LOS		А			А			С			D		
d_I, Intersection Delay [s/veh]		4.61											
Intersection LOS							Ξ						

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# Intersection Level Of Service Report

Intersection 4: Main St/Front St NE

Control Type:	
Analysis Method:	
Analysis Period:	

### Two-way stop HCM 7th Edition 15 minutes

Delay (sec / veh):	849.6
Level Of Service:	F
Volume to Capacity (v/c):	2.576

Name		Main St			Main St		F	ront St N	E	F	Front St NE		
Approach	1	lorthboun	d	S	Southboun	d		Eastbound	ł	\	Nestboun	d	
Lane Configuration		1			41			٩Ŀ			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	1	0	0	0	
Entry Pocket Length [ft]	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Speed [mph]		30.00			30.00			25.00			25.00		
Grade [%]		0.00			0.00			0.00			0.00		
Crosswalk		No			Yes			Yes			Yes		
Volumes													
Name		Main St		Main St			Front St NE			Front St NE			
Base Volume Input [veh/h]	79	453	208	6	537	8	7	0	95	188	5	6	
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Heavy Vehicles Percentage [%]	4.00	4.00	3.00	0.00	2.00	0.00	0.00	0.00	3.00	4.00	0.00	40.00	
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Total Hourly Volume [veh/h]	79	453	208	6	537	8	7	0	95	188	5	6	
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Total 15-Minute Volume [veh/h]	21	123	57	2	146	2	2	0	26	51	1	2	
Total Analysis Volume [veh/h]	86	492	226	7	584	9	8	0	103	204	5	7	
Pedestrian Volume [ped/h]		0			5			0			3		

Version 2024 (SP 0-1)

## Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane				No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

	-	-		-		-	-	-	-	-		-	
V/C, Movement V/C Ratio	0.09	0.00	0.00	0.01	0.01	0.00	0.08	0.00	0.20	2.58	0.04	0.02	
d_M, Delay for Movement [s/veh]	9.06	0.00	0.00	9.09	0.00	0.00	42.86	40.18	13.91	849.56	831.83	812.54	
Movement LOS	А	А	A	A	А	A	E	E	В	F	F	F	
95th-Percentile Queue Length [veh/ln]	0.29	0.00	0.00	0.02	0.00	0.00	0.25	0.25	0.75	20.66	20.66	20.66	
95th-Percentile Queue Length [ft/In]	7.25	0.00	0.00	0.60	0.00	0.00	6.19	6.19	18.86	516.50	516.50	516.50	
d_A, Approach Delay [s/veh]		0.97			0.11			16.00			847.95		
Approach LOS		А			А			С			F		
d_I, Intersection Delay [s/veh]		107.32											
Intersection LOS							F						



## Intersection Level Of Service Report Intersection 5: Main St/I-84 WB Ramp Terminal

Control Type: Analysis Method: Analysis Period:

Two-way stop HCM 7th Edition 15 minutes

Delay (sec / veh): 1,933.5 Level Of Service: Volume to Capacity (v/c):

5.097

F

Name		Main St Mair			Main St					I-84 WB		
Approach	1	Northboun	d	S	Southbour	ıd	1	Eastbound	d	۱	Nestboun	d
Lane Configuration		-			F						+	
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]		30.00			30.00			30.00			45.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk	No				No		Yes			Yes		
Volumes												
Name		Main St			Main St						I-84 WB	
Base Volume Input [veh/h]	48	522	0	0	743	77	0	0	0	400	0	216
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	6.00	3.00	2.00	2.00	2.00	8.00	2.00	2.00	2.00	4.00	0.00	5.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	48	522	0	0	743	77	0	0	0	400	0	216
Peak Hour Factor	0.9200	0.9200	1.0000	1.0000	0.9200	0.9200	1.0000	1.0000	1.0000	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	142	0	0	202	21	0	0	0	109	0	59
Total Analysis Volume [veh/h]	52	567	0	0	808	84	0	0	0	435	0	235
Pedestrian Volume [ped/h]		0			0			0		4		

Version 2024 (SP 0-1)

## Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane				Yes
Storage Area [veh]	0	0	0	1
Two-Stage Gap Acceptance				No
Number of Storage Spaces in Median	0	0	0	0

### Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.07	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	5.10	0.00	0.46
d_M, Delay for Movement [s/veh]	9.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1933.51	1927.19	1898.35
Movement LOS	A	A			А	A				F	F	F
95th-Percentile Queue Length [veh/ln]	0.09	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	70.93	70.93	70.93
95th-Percentile Queue Length [ft/ln]	2.23	2.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1773.15	1773.15	1773.15
d_A, Approach Delay [s/veh]		0.83			0.00			0.00			1921.18	
Approach LOS		А			А			А			F	
d_I, Intersection Delay [s/veh]		590.42										
Intersection LOS						F	=					

1/12/2025



# Intersection Level Of Service Report

Intersection 6: Main St/I-84 EB Ramp Terminal

Control Type:	Two-way stop
Analysis Method:	HCM 7th Edition
Analysis Period:	15 minutes

Delay (sec / veh): 3,516.7 Level Of Service: F Volume to Capacity (v/c): 7.587

Name	Main St				Main St			I-84 EB				
Approach	1	lorthboun	d	S	Southboun	d		Eastbound	b	\	Vestboun	d
Lane Configuration	H							+				
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]		30.00			30.00			45.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk	No				No			Yes		Yes		
Volumes												
Name		Main St			Main St			I-84 EB				
Base Volume Input [veh/h]	0	457	335	194	949	0	108	0	99	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	3.00	3.00	2.00	2.00	2.00	7.00	0.00	9.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	457	335	194	949	0	108	0	99	0	0	0
Peak Hour Factor	1.0000	0.9400	0.9400	0.9400	0.9400	1.0000	0.9400	0.9400	0.9400	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	122	89	52	252	0	29	0	26	0	0	0
Total Analysis Volume [veh/h]	0	486	356	206	1010	0	115	0	105	0	0	0
Pedestrian Volume [ped/h]		0			0			0		4		

Version 2024 (SP 0-1)

## Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	
Number of Storage Spaces in Median	0	0	0	0

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.26	0.01	0.00	7.59	0.00	0.37	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	9.83	0.00	0.00	3516.73	3496.79	3291.96	0.00	0.00	0.00
Movement LOS		А	А	A	А		F	F	F			
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.39	0.39	0.00	27.09	27.09	27.09	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	9.67	9.67	0.00	677.26	677.26	677.26	0.00	0.00	0.00
d_A, Approach Delay [s/veh]		0.00			1.66			3409.45			0.00	
Approach LOS		А			A F						А	
d_I, Intersection Delay [s/veh]		330.16										
Intersection LOS							F					



## Intersection Level Of Service Report

Intersection 7: Main St/Front St SE

Control Type:	
Analysis Method:	
Analysis Period:	

### Two-way stop HCM 7th Edition 15 minutes

Delay (sec / veh):	818.3
Level Of Service:	F
Volume to Capacity (v/c):	2.313

### Intersection Setup

Name		Main St			Main St		F	ront St SI	Ε	F	Front St SE		
Approach	м	lorthboun	d	S	Southboun	d		Eastbound	ł	۱	Vestboun	d	
Lane Configuration		44			4			+			٦r		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	1	
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Speed [mph]		30.00			30.00			25.00			25.00		
Grade [%]		0.00			0.00			0.00			0.00		
Crosswalk	Yes				No			Yes			Yes		
Volumes													
Name		Main St			Main St		F	Front St SI	Ε	F	Front St SI	E	
Base Volume Input [veh/h]	5	651	32	56	908	83	91	2	2	24	1	49	
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Heavy Vehicles Percentage [%]	0.00	2.00	0.00	12.00	2.00	8.00	0.00	0.00	0.00	0.00	0.00	9.00	
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Total Hourly Volume [veh/h]	5	651	32	56	908	83	91	2	2	24	1	49	
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Total 15-Minute Volume [veh/h]	1	175	9	15	244	22	24	1	1	6	0	13	
Total Analysis Volume [veh/h]	5	700	34	60	976	89	98	2	2	26	1	53	
Pedestrian Volume [ped/h]		0			0			0			4		

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Version 2024 (SP 0-1)

## Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

V/C, Movement V/C Ratio	0.01	0.01	0.00	0.07	0.01	0.00	2.31	0.03	0.01	0.53	0.02	0.13
d_M, Delay for Movement [s/veh]	10.48	0.00	0.00	9.73	0.00	0.00	818.35	788.67	745.80	144.57	128.69	14.96
Movement LOS	В	А	А	A	А	A	F	F	F	F	F	В
95th-Percentile Queue Length [veh/ln]	0.02	0.00	0.00	0.24	0.00	0.00	10.85	10.85	10.85	2.07	2.07	0.44
95th-Percentile Queue Length [ft/In]	0.57	0.00	0.00	5.90	0.00	0.00	271.28	271.28	271.28	51.87	51.87	10.90
d_A, Approach Delay [s/veh]		0.07			0.52			816.34			58.50	
Approach LOS		А			А			F			F	
d_I, Intersection Delay [s/veh]		43.30										
Intersection LOS						F	=					





# Intersection Level Of Service Report

Intersection 8: Main St/Oregon Trail Blvd

Control Type:	
Analysis Method:	
Analysis Period:	

HCM

Delay (sec / veh): Level Of Service: Volume to Capacity (v/c):

F 0.627

132.8

Name	Main St			Main St						Oregon Trail Blvd		
Approach	١	lorthboun	d	Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]		30.00			30.00			30.00			25.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		No			No			Yes			No	
Volumes												
Name		Main St		Main St						Oregon Trail Blvd		
Base Volume Input [veh/h]	1	527	13	62	685	62	44	13	1	9	14	43
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	2.00	9.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	4.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	527	13	62	685	62	44	13	1	9	14	43
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	139	3	16	180	16	12	3	0	2	4	11
Total Analysis Volume [veh/h]	1	555	14	65	721	65	46	14	1	9	15	45
Pedestrian Volume [ped/h]		0			0			6		0		

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## Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

V/C, Movement V/C Ratio	0.00	0.01	0.00	0.06	0.01	0.00	0.63	0.12	0.00	0.11	0.14	0.09
d_M, Delay for Movement [s/veh]	9.32	0.00	0.00	8.63	0.00	0.00	132.79	115.22	92.59	55.19	45.71	19.98
Movement LOS	А	А	А	A	А	А	F	F	F	F	E	С
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.11	0.11	0.11	3.69	3.69	3.69	1.36	1.36	1.36
95th-Percentile Queue Length [ft/In]	0.04	0.04	0.04	2.86	2.86	2.86	92.15	92.15	92.15	33.89	33.89	33.89
d_A, Approach Delay [s/veh]		0.02		0.66				128.10		30.17		
Approach LOS		А			А			F		D		
d_I, Intersection Delay [s/veh]	6.75											
Intersection LOS		F										



# Intersection Level Of Service Report

Intersection 9: Main St/Kinkade Rd

Control Type:	
Analysis Method:	
Analysis Period:	

Two-way stop
HCM 7th Edition
15 minutes

Delay (sec / veh):	167.4
Level Of Service:	F
Volume to Capacity (v/c):	1.015

Name	Main St			Main St			Kinkade Rd						
Approach	Northbound			S	Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+			
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0	
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Speed [mph]		30.00			30.00			25.00			30.00		
Grade [%]		0.00			0.00			0.00			0.00		
Crosswalk		No			No			Yes			Yes		
Volumes													
Name		Main St		Main St			Kinkade Rd						
Base Volume Input [veh/h]	18	306	74	10	407	203	174	20	35	81	27	10	
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Heavy Vehicles Percentage [%]	6.00	2.00	0.00	0.00	2.00	3.00	4.00	0.00	0.00	0.00	0.00	0.00	
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Total Hourly Volume [veh/h]	18	306	74	10	407	203	174	20	35	81	27	10	
Peak Hour Factor	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Total 15-Minute Volume [veh/h]	5	81	20	3	108	54	46	5	9	22	7	3	
Total Analysis Volume [veh/h]	19	326	79	11	433	216	185	21	37	86	29	11	
Pedestrian Volume [ped/h]		0			0			3		0			

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## Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.01	0.00	0.00	1.01	0.09	0.07	0.47	0.14	0.02
d_M, Delay for Movement [s/veh]	8.97	0.00	0.00	8.11	0.00	0.00	167.38	163.20	154.29	50.07	47.54	35.72
Movement LOS	A	А	A	A	Α	A	F	F	F	F	E	E
95th-Percentile Queue Length [veh/ln]	0.03	0.03	0.03	0.02	0.02	0.02	12.06	12.06	12.06	3.59	3.59	3.59
95th-Percentile Queue Length [ft/In]	0.83	0.83	0.83	0.49	0.49	0.49	301.42	301.42	301.42	89.79	89.79	89.79
d_A, Approach Delay [s/veh]	0.40			0.40			0.14 165				48.24	
Approach LOS		А			А		F E					
d_I, Intersection Delay [s/veh]	31.96											
Intersection LOS		F										



## Intersection Level Of Service Report

Intersection 10: Main St/Wilson Ln

Control Type:	
Analysis Method:	
Analysis Period:	

All-way stop
HCM 7th Edition
15 minutes

Delay (sec / veh):	15.2
Level Of Service:	С
Volume to Capacity (v/c):	0.696

### Intersection Setup

Name	Main St			Main St				Wilson Ln	l	Wilson Ln			
Approach	Northbound			S	Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+			
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0	
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Speed [mph]		35.00			30.00			20.00			30.00		
Grade [%]		0.00			0.00			0.00			0.00		
Crosswalk		No			Yes			No			No		
Volumes													
Name		Main St		Main St			Wilson Ln			Wilson Ln		I	
Base Volume Input [veh/h]	4	74	10	63	132	269	201	31	8	15	37	73	
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Heavy Vehicles Percentage [%]	0.00	0.00	20.00	2.00	6.00	1.00	2.00	4.00	0.00	0.00	0.00	5.00	
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Total Hourly Volume [veh/h]	4	74	10	63	132	269	201	31	8	15	37	73	
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Total 15-Minute Volume [veh/h]	1	20	3	17	36	73	55	8	2	4	10	20	
Total Analysis Volume [veh/h]	4	80	11	68	143	292	218	34	9	16	40	79	
Pedestrian Volume [ped/h]		0			0			0		0			

355

## Version 2024 (SP 0-1)

## Intersection Settings

#### Lanes

Capacity per Entry Lane [veh/h]	612	723	607	627							
Degree of Utilization, x	0.16	0.70	0.43	0.22							
Movement, Approach, & Intersection Results											
95th-Percentile Queue Length [veh]	0.55	5.69	2.15	0.81							
95th-Percentile Queue Length [ft]	13.68	142.27	53.87	20.30							
Approach Delay [s/veh]	9.97	18.57	13.33	10.31							
Approach LOS	A	С	В	В							
Intersection Delay [s/veh]		15.25									
Intersection LOS		(	>								





## Intersection Level Of Service Report

Intersection 11: Olson Rd/Columbia Ave

Control Type:	Two-way stop
Analysis Method:	HCM 7th Edition
Analysis Period:	15 minutes

Delay (sec / veh):	15.3
Level Of Service:	С
Volume to Capacity (v/c):	0.003

Name	Olson Rd			Olson Rd			Columbia Ave			Columbia Ave			
Approach	Northbound			Southbound			Eastbound			Westbound			
Lane Configuration	- Hr			+			חור			٦ŀ			
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	1	0	0	0	
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00	100.00	
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Speed [mph]		30.00			30.00			40.00			40.00		
Grade [%]		0.00			0.00			0.00			0.00		
Crosswalk		Yes			No			Yes			No		
Volumes													
Name		Olson Rd		Olson Rd			Columbia Ave			Columbia Ave			
Base Volume Input [veh/h]	17	1	34	5	0	0	1	91	10	38	242	5	
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Heavy Vehicles Percentage [%]	0.00	0.00	5.00	40.00	0.00	0.00	100.00	3.00	0.00	11.00	2.00	60.00	
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Total Hourly Volume [veh/h]	17	1	34	5	0	0	1	91	10	38	242	5	
Peak Hour Factor	0.8100	0.8100	0.8100	0.8100	0.8100	0.8100	0.8100	0.8100	0.8100	0.8100	0.8100	0.8100	
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Total 15-Minute Volume [veh/h]	5	0	10	2	0	0	0	28	3	12	75	2	
Total Analysis Volume [veh/h]	21	1	42	6	0	0	1	112	12	47	299	6	
Pedestrian Volume [ped/h]		1			0			1			0		

Version 2024 (SP 0-1)

## Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane				No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.01	0.07	0.36	0.01
d_M, Delay for Movement [s/veh]	7.23	0.00	0.00	7.67	0.00	0.00	15.34	10.42	8.35	10.54	11.95	11.41
Movement LOS	А	A	A	A	A	А	С	В	А	В	В	В
95th-Percentile Queue Length [veh/ln]	0.04	0.04	0.00	0.01	0.01	0.01	0.01	0.50	0.03	0.22	1.72	1.72
95th-Percentile Queue Length [ft/In]	0.93	0.93	0.00	0.33	0.33	0.33	0.22	12.58	0.84	5.41	43.10	43.10
d_A, Approach Delay [s/veh]		2.37		7.67				10.26		11.75		
Approach LOS		А		A B						В		
d_I, Intersection Delay [s/veh]		10.27										
Intersection LOS						(	C					



# Intersection Level Of Service Report

Intersection 12: Laurel Ln/Columbia Ave

Control Type:	
Analysis Method:	
Analysis Period:	

I wo-way stop									
HCM 7th Edition									
15 minutes									

Delay (sec / veh): Level Of Service: Volume to Capacity (v/c):

0.546

16.8

С

Name	Laurel Ln						Columbia Ave			Columbia Ave				
Approach	Northbound			5	Southbound			Eastbound	ł	Westbound				
Lane Configuration		1					İ			ŗ				
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00		
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0		
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00		
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0		
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Speed [mph]		30.00			30.00			40.00			40.00			
Grade [%]		0.00			0.00			0.00			0.00			
Crosswalk		No			No			No			No			
Volumes														
Name		Laurel Ln					Columbia Ave			Columbia Ave				
Base Volume Input [veh/h]	0	198	0	0	0	0	0	32	117	320	81	0		
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		
Heavy Vehicles Percentage [%]	18.00	19.00	20.00	2.00	2.00	2.00	2.00	9.00	4.00	10.00	4.00	2.00		
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0		
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0		
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0		
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0		
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0		
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0		
Total Hourly Volume [veh/h]	0	198	0	0	0	0	0	32	117	320	81	0		
Peak Hour Factor	0.8900	0.8900	0.8900	1.0000	1.0000	1.0000	1.0000	0.8900	0.8900	0.8900	0.8900	1.0000		
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		
Total 15-Minute Volume [veh/h]	0	56	0	0	0	0	0	9	33	90	23	0		
Total Analysis Volume [veh/h]	0	222	0	0	0	0	0	36	131	360	91	0		
Pedestrian Volume [ped/h]		0			0			0			0			

Version 2024 (SP 0-1)

## Intersection Settings

Priority Scheme	Free	Free	Stop	Stop		
Flared Lane						
Storage Area [veh]	0	0	0	0		
Two-Stage Gap Acceptance			No	No		
Number of Storage Spaces in Median	0	0	0	0		

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.55	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.73	0.00	16.81	0.00	0.00
Movement LOS		A						В		С		
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.00	3.31	0.00	0.00
95th-Percentile Queue Length [ft/In]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.29	0.00	82.72	0.00	0.00
d_A, Approach Delay [s/veh]	0.00			0.00		10.73			16.81			
Approach LOS	А			А		В		С				
d_I, Intersection Delay [s/veh]	10.41											
Intersection LOS	С											
32.0

D



Version 2024 (SP 0-1)

#### Intersection Level Of Service Report Intersection 13: Laurel Ln/I-84 WB Ramp Terminal

Control Type: Two-way stop Analysis Method: HCM 7th Edition Analysis Period: 15 minutes

Delay (sec / veh): Level Of Service: Volume to Capacity (v/c):

0.451

Intersection Setup

Name		Laurel Ln			Laurel Ln			I-84 WB		I-84 WB			
Approach	١	lorthboun	d	S	Southboun	d	I	Eastbound	k	Westbound			
Lane Configuration		-			F						+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0	
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Speed [mph]		30.00			30.00			30.00			45.00		
Grade [%]		0.00			0.00			0.00			0.00		
Crosswalk	No				No			No			No		
Volumes													
Name		Laurel Ln		Laurel Ln			I-84 WB			I-84 WB			
Base Volume Input [veh/h]	54	71	0	0	488	39	0	0	0	94	1	127	
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Heavy Vehicles Percentage [%]	67.00	28.00	2.00	2.00	6.00	21.00	2.00	2.00	2.00	21.00	0.00	13.00	
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	
Total Hourly Volume [veh/h]	54	71	0	0	488	39	0	0	0	94	1	127	
Peak Hour Factor	0.8400	0.8400	1.0000	1.0000	0.8400	0.8400	1.0000	1.0000	1.0000	0.8400	0.8400	0.8400	
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Total 15-Minute Volume [veh/h]	16	21	0	0	145	12	0	0	0	28	0	38	
Total Analysis Volume [veh/h]	64	85	0	0	581	46	0	0	0	112	1	151	
Pedestrian Volume [ped/h]		0			0			0			0		

Generated with PTV VISTRO

Version 2024 (SP 0-1)

#### Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane				No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance				No
Number of Storage Spaces in Median	0	0	0	0

#### Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.09	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.45	0.00	0.16
d_M, Delay for Movement [s/veh]	10.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	31.99	30.58	21.30
Movement LOS	В	A			Α	A				D	D	С
95th-Percentile Queue Length [veh/ln]	0.13	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.01	4.01	4.01
95th-Percentile Queue Length [ft/ln]	3.19	3.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.26	100.26	100.26
d_A, Approach Delay [s/veh]		4.38		0.00			0.00			25.87		
Approach LOS		А		А			A			D		
d_I, Intersection Delay [s/veh]	7.19											
Intersection LOS	D											



Version 2024 (SP 0-1)

#### Intersection Level Of Service Report

Intersection 14: Laurel Ln/I-84 EB Ramp Terminal

Control Type:	Two-way stop	Delay (sec / veh):	118.9
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.595

#### Intersection Setup

Name		Laurel Ln			Laurel Ln		I-84 EB					
Approach	1	lorthboun	d	S	Southboun	d		Eastbound	ł	\	Vestboun	d
Lane Configuration		F			-			+				
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]		30.00		30.00			45.00			30.00		
Grade [%]		0.00			0.00			0.00		0.00		
Crosswalk	No				No			No		No		
Volumes												
Name		Laurel Ln		Laurel Ln				I-84 EB				
Base Volume Input [veh/h]	0	98	106	426	156	0	27	3	57	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	31.00	15.00	4.00	16.00	2.00	30.00	0.00	10.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	98	106	426	156	0	27	3	57	0	0	0
Peak Hour Factor	1.0000	0.8200	0.8200	0.8200	0.8200	1.0000	0.8200	0.8200	0.8200	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	30	32	130	48	0	8	1	17	0	0	0
Total Analysis Volume [veh/h]	0	120	129	520	190	0	33	4	70	0	0	0
Pedestrian Volume [ped/h]		0			0			0		0		

Generated with PTV VISTRO

Version 2024 (SP 0-1)

#### Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	
Number of Storage Spaces in Median	0	0	0	0

#### Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.40	0.00	0.00	0.60	0.06	0.08	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	8.85	0.00	0.00	118.90	105.11	58.29	0.00	0.00	0.00
Movement LOS		А	А	A	А		F	F	F			
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	1.44	1.44	0.00	4.38	4.38	4.38	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	35.94	35.94	0.00	109.42	109.42	109.42	0.00	0.00	0.00
d_A, Approach Delay [s/veh]		0.00		6.48			78.74			0.00		
Approach LOS		А			A		F			A		
d_I, Intersection Delay [s/veh]	12.22											
Intersection LOS	F											



Section 4, Item A.



### CITY OF BOARDMAN TRANSPORTATION SYSTEM PLAN

City Council and Planning Commission Workshop #1 February 27<sup>th</sup>, 2025



#### **Meeting Agenda**

- 🔮 What is a TSP?
- 📀 TSP Project Schedule
- 📀 Overview of Technical Memos #1-5
- 🔮 Next Steps



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# What is a Transportation System Plan?



#### What is a TSP?

- Long-range planning document that identifies multimodal transportation network improvements for the next 20 years.
- Coordinated effort between the City of Boardman and ODOT.
- Current TSP was adopted in 2001. Minor updates since.



KITTELSON

#### Why Are We Updating Now?

- City awarded a TGM Grant.
- Significant population growth, new residential and commercial infill development, and expansion of the Port of Morrow have increased travel demand.
- An updated TSP aligns with evolving city goals for the next 20 years of transportation planning and funding.







## Technical Memo #1: Community Profile and Trends



## **Technical Memo #1: Community Profile and Trends**

Historica	l Populatio	n	Population Forecast							
	2010	2020	2030	2035	2040	2045				
Morrow County	11,173	12,186	12,846	13,103	13,317	13,497				
Percent Change		8.9%	5.4%	2.0%	1.6%	1.4%				
Boardman UGB	3,546	4,160	4,828	5,046	5,246	5,429				
Percent Change		17.8%	16.5%	4.5%	4.0%	3.5%				
City of Boardman	3,149	3,529	N/A	N/A	N/A	N/A				
Percent Change		12.0%								

Source: PSU Population Research Center (PRC), 2024 for population forecast numbers; ACS 5-year estimates, 2010 and 2022 (Table DP05).



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#### **Technical Memo #1: Community Profile and Trends**

Underserved Population Type	City of Boardman	Boardman UGB	Morrow County
65 Years and Over	5%	8%	15%
Non-Majority White	24%	29%	54%
Limited English Proficiency (LEP) Households	64%	N/A	33%
Below 200% Poverty	55%	N/A	43%
Disability	27%	32%	<b>38</b> %
Internet Access	18%	N/A	13%



#### **Technical Memo #1: Community Profile and Trends**

	Percentage of Boardman Residents Employed in the Selected City										
City of Employment	Year 2017	Year 2018	Year 2019	Year 2020	Year 2021						
Boardman	20.7%	23.5%	20.5%	29.0%	32.8%						
Hermiston	9.3%	9.3%	9.2%	3.5%	5.1%						
Portland	4.9%	4.7%	4.1%	4.9%	4.5%						
Irrigon	3.7%	2.4%	2.2%	2.0%	1.9%						
Umatilla	2.8%	3.5%	3.0%	2.7%	1.8%						
Heppner	1.5%	2.0%	2.2%	1.5%	1.7%						
Salem	1.0%	1.1%	1.8%	1.3%	1.6%						
Pendleton	1.6%	1.2%	1.8%	2.0%	1.1%						
Pasco/Richland	1.8%	2.3%	0.8%	0.8%	0.8%						
All Other Locations	52.7%	50%	54.4%	52.3%	48.7%						

Boardman STRATEGIC PLAN CONCERN COMPARING Source: US Census Bureau. 2024. LEHD Origin-Destination Employment Statistics (2002-2021), Longitudinal Household Dynamics Program, accessed on 9/9/24 at https://onthemap.ces.census.gov.

## **Technical Memo #1: Community Profile and Trends**

	Percentage of the Boardman Workforce Residing in the Selected City										
City of Residence	Year 2017	Year 2018	Year 2019	Year 2020	Year 2021						
Boardman	15.7%	16.2%	14.3%	20.1%	20.6%						
Hermiston	17.7%	16.1%	16.7%	16.1%	15.2%						
Kennewick/Pasco/Richland	4.5%	7.3%	8.9%	5.3%	8.1%						
Umatilla	6.3%	6.9%	6.5%	8.9%	7.0%						
Irrigon	7.4%	8.0%	8.2%	5.0%	3.7%						
Pendleton	1.7%	2.0%	2.6%	2.2%	3.0%						
Stanfield	1.1%	1.2%	1.1%	1.2%	0.9%						
All Other Locations	45.6%	42.3%	41.7%	41.2%	41.5%						

Source: US Census Bureau. 2024. LEHD Origin-Destination Employment Statistics (2002-2021), Longitudinal Household Dynamics

Program, accessed on 9/9/24 at https://onthemap.ces.census.gov.



# Technical Memo #2: Plans and Policy Review



#### **Technical Memo #2: Plans and Policy Review**

#### **Document Purpose**

- Outlines policy & regulatory framework for transportation planning.
- Reviews adopted policy and regulations at state, county, and local levels.
- Identifies potential projects or needs to inform this planning effort.



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#### **Technical Memo #2: Plans and Policy Review**

#### <sup>-</sup>Q́-Key Takeaways

- Ensure consistency with statewide policies.
- Build on recent or ongoing planning efforts.
- Integrate the TSP with other local plans.
- Consider code amendments to ensure consistency with TSP objectives and expected outcomes.



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## Technical Memo #3: Goals, Objectives, and Evaluation Criteria



## **Technical Memo #3: Goals, Objectives, and Evaluation Criteria**



## Technical Memo #4: Existing Conditions Inventory and Analysis



#### Technical Memo #4: Existing Conditions Inventory and Analysis

#### **Items Inventoried**

- Street Jurisdictions
- Roadway Classifications
- Pavement Conditions
- Number of Travel Lanes
- Posted Speeds
- Bridge Ownership and Sufficiency Rating

- Bicycle Facilities
- Pedestrian Facilities
- Public Transit
- Freight and Railroad Facilities
- Existing Traffic Operations
- Bicycle and Pedestrian
  Level of Traffic Stress



## Technical Memo #5: Future Conditions Analysis



#### **Technical Memo #5: Future Conditions Analysis**

#### **Document Purpose**

• Summarizes how the future transportation system will perform operationally. This will guide the development of improvement projects.



#### Technical Memo #5: Future Conditions Analysis

#### <sup>™</sup>Q<sup>-</sup>Key Takeaways

- Year 2045 traffic conditions may be an overestimate of growth but does represent a conservative estimate of what could potentially happen.
- There are operational challenges along the Main Street and ramp terminal intersections.
- There is limited access with only two interchanges.



### **Public Outreach**



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#### **Location Specific Comments**

- Travelling along and crossing Main Street (green shape on the map)
- Main Street bridge over I-84 (red shape on the map)
- Laurel Lane interchange (orange shape on the map)
- Elementary school area (purple shape on the map)





#### **Public Outreach**

#### -̀Ď́-Key Takeaways

- **97 people** shared transportation-related feedback either at the community events or through the survey.
- **Improving connections across I-84** is a priority for many in the community.
- Traffic congestion and delays are common barriers to driving.
- **Key roads** can be difficult to navigate at times due of traffic congestion, especially Main Street.



#### **Public Outreach**

#### -ဣ́-Key Takeaways

- Lack of sidewalks is a barrier to walking.
- Lack of bike infrastructure is a barrier to biking.
- Limited bus service and unclear stop locations discourage Loop ridership.
- **Traffic congestion** occurs at the elementary schools during pickup and drop-off periods.





#### **Next Steps**

- Project team to draft Proposed Solutions Memorandum (Tech Memo #6)
- Look out for communications about City Council and Planning Commission Workshop #2 in April



## **Questions and Discussion**

