KITTELSON & ASSOCIATES
851 SW 6th Avenue, Suite 600
Portland, OR 97204
P 503.228.5230

Technical Memorandum

February 23, 2023 Project# 27003.011

To: Thomas Guevara, *Oregon Department of Transportation*
Deanna Schafer and Kim Clardy, *City of Reedsport*

From: Michael Ruiz-Leon, Allison Woodworth, Matt Bell, and Marc Butorac, PE, PTOE

Project: City of Reedsport Rail Crossing Study and Refinement Plan

RE: Tech Memo #3: Analysis Methodology and Assumptions

TABLE OF CONTENTS

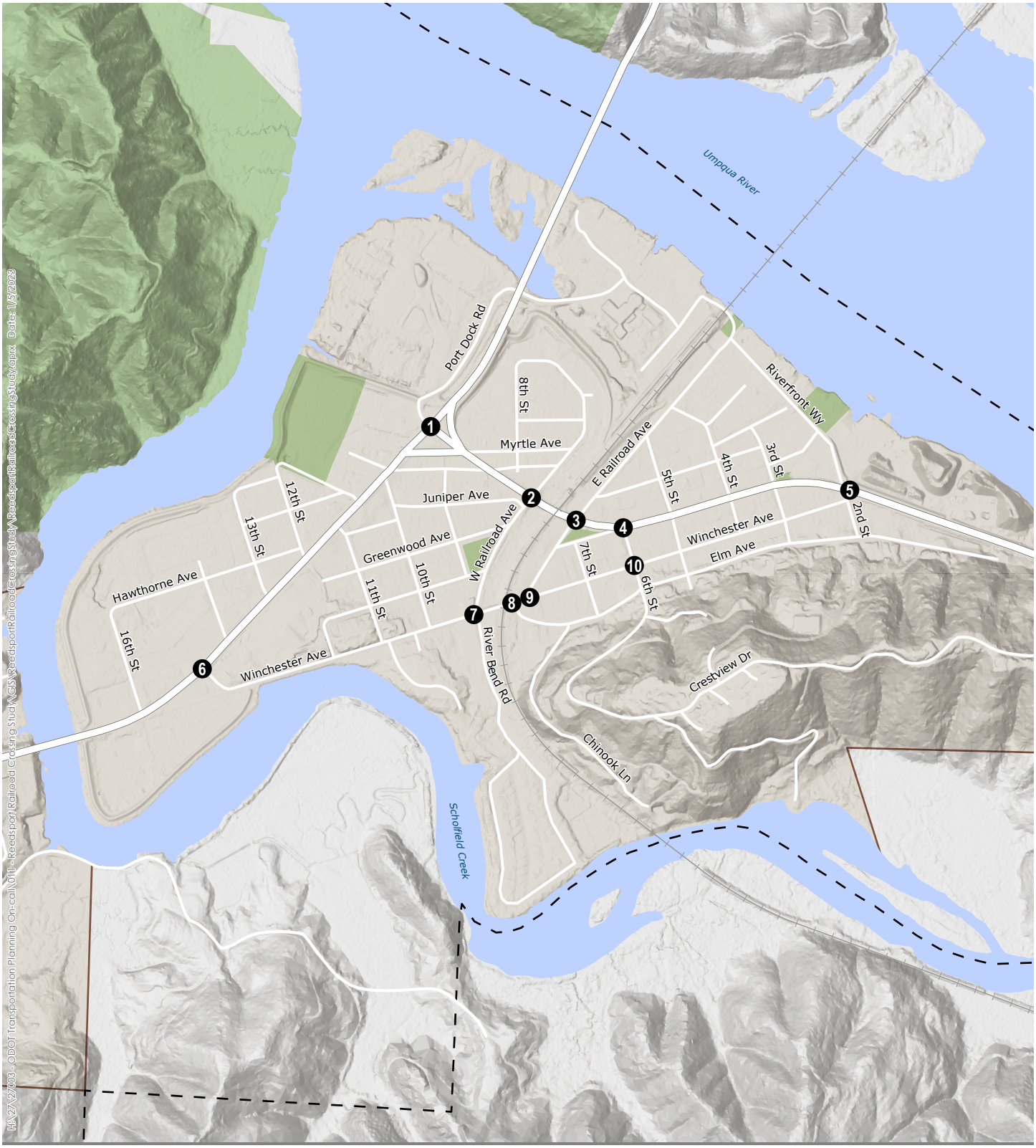
Introduction 1
Study Area and Background 1
Study Intersections 3
Volume Development 3
Traffic Analysis 6
Traffic Analysis Parameters 8
Crash Analysis 9
Multimodal Analysis 9
Rail Crossing Analysis 10
References 11
Attachments 11

INTRODUCTION

This memorandum documents the methodologies and assumptions associated with the existing and future transportation system operations analyses for the City of Reedsport Rail Crossing Study and Refinement Plan (Plan). The methodologies and assumptions included in this memorandum are based on guidance provided in the Oregon Department of Transportation (ODOT) Analysis Procedures Manual (APM – Reference 1), and direction provided by City of Reedsport (City) and ODOT staff. The methodologies and assumptions described in this memorandum will help identify potential gaps and deficiencies in the existing transportation system and the future needs to accommodate the anticipated increase in rail activity along the Coos Bay Rail Line (CBRL) through the City of Reedsport.

STUDY AREA AND BACKGROUND

The study area is the land located within the City limits bordered by the Umpqua River to the north; Scholfield Creek to the west and south; and the OR 38/Riverfront Way/Winchester intersection to the east. The rail crossing on OR 38 is located within the study area and is bordered on the west by W Railroad Avenue and bordered on the east by E Railroad Avenue. The rail crossing on Winchester Avenue is also located within the study area and is bordered on the west by River Bend Road and bordered on the east by Elm Avenue. Figure 1 illustrates the study area.



Study Intersection
City Boundary
Urban Growth Boundary
National Forest or Park
Railroad

0 1,000 Feet

Figure 1

Study Intersections
Reedsport, Oregon

KITTELSON & ASSOCIATES

STUDY INTERSECTIONS

Within the study area, there are 10 study intersections located along state and local facilities, including two signalized and eight unsignalized intersections. The study intersections for the City of Reedsport Rail Crossing Study and Refinement Plan were determined by the City in coordination with ODOT. Safety and capacity analysis at these locations will inform the determination of project-impacts within the study area. Figure 1 illustrates the location of the study intersections.

State Facilities

1. US 101/OR 38 (signalized)
2. W Railroad Avenue/OR 38
3. E Railroad Avenue/OR 38
4. OR 38/Riverfront Way-Winchester Avenue
5. North 6th Street/OR 38
6. US 101/Winchester Avenue (signalized)

Local Facilities

7. W Railroad Avenue/Winchester Avenue
8. Elm Avenue/Winchester Avenue
9. E Railroad Avenue/Winchester Avenue
10. South 6th Street/Winchester Avenue

VOLUME DEVELOPMENT

Traffic Counts

Turning movement counts were conducted at the study intersections in August 2022. The counts were conducted on a typical mid-week day during the peak summer months. The counts conducted at the signalized intersections were conducted over a 16-hour period (6:00 AM to 10:00 PM) while the counts conducted at the unsignalized intersections were conducted over a 4-hour period (2:00 to 6:00 PM). All the counts include the total number of pedestrians, bicyclists, and motor vehicles that entered the study intersections in 15-minute intervals. Table 1 summarizes the traffic count information. *The traffic count worksheets are provided in Attachment A.*

Table 1. Traffic Count Summary

Map ID	Intersection	Count Date	Count Type	Duration
1	US 101/OR 38 (signalized)	8/15/22	16-hour	6 AM to 10 PM
2	W Railroad Avenue/OR 38	8/15/22	4-hour	2 PM to 6 PM
3	E Railroad Avenue/OR 38	8/15/22	4-hour	2 PM to 6 PM
4	OR 38/Riverfront Way-Winchester Avenue	8/17/22	4-hour	2 PM to 6 PM

5	N 6th Street/OR 38	8/17/22	4-hour	2 PM to 6 PM
6	US 101/Winchester Avenue (signalized)	8/15/22	16-hour	6 AM to 10 PM
7	W Railroad Avenue/Winchester Avenue	8/17/22	4-hour	2 PM to 6 PM
8	Elm Avenue/Winchester Avenue	8/15/22	4-hour	2 PM to 6 PM
9	E Railroad Avenue/Winchester Avenue	8/15/22	4-hour	2 PM to 6 PM
10	South 6th Street/Winchester Avenue	8/17/22	4-hour	2 PM to 6 PM

Peak Hour Development

The traffic counts were reviewed to identify a system-wide peak hour and/or individual peak hours for the operational analysis. A system-wide peak hour was found to occur from 2:00 to 3:00 PM while individual intersection peak hours were found to occur at different times throughout the day.

Table 2 summarizes the individual intersection peak hours at the study intersections, the total entering volume (TEV) during the individual intersection peak hours, and the percent difference between the TEV during the individual intersection peak hours and the system-wide peak hour. As shown, the percent difference is greater than five percent at the US 101/OR 38 and US 101/Winchester Avenue intersections, where the individual intersection peak hours were observed at 12:00 to 1:00 PM and differences in TEV is primarily driven by northbound and southbound through volumes along US 101. The percent difference is also greater than five percent at the OR 38/Riverfront Way/Winchester Avenue intersection, but the TEV is relatively low.

Table 2. Study Intersection Peak Hours

Map ID	Intersection	Individual Intersection Peak Hour	Individual Intersection Peak Hour Total Entering Volume (TEV)	System-wide Peak Hour TEV	Percent Difference in TEV
1	US 101/ OR 38 (signalized)	12:00 PM to 1:00 PM	1,284	1,123	-14%
2	W Railroad Avenue/ OR 38	3:30 PM to 4:30 PM	575	554	-4%
3	E Railroad Avenue/ OR 38	3:30 PM to 4:30 PM	576	546	-5%
4	N 6th Street/ OR 38	2:15 PM to 3:15 PM	616	597	-3%
5	OR 38/Riverfront Way-Winchester Avenue	2:15 PM to 3:15 PM	567	518	-9%
6	US 101/Winchester Avenue (signalized)	12:00 PM to 1:00 PM	1,609	1,391	-16%
7	W Railroad Avenue/ Winchester Avenue	3:15 PM to 4:15 PM	238	223	-7%
8	Elm Avenue/ Winchester Avenue	2:00 PM to 3:00 PM	220	220	0%
9	E Railroad Avenue/ Winchester Avenue	2:00 PM to 3:00 PM	223	223	0%
10	South 6th Street/ Winchester Avenue	2:45 PM to 3:45 PM	172	162	-6%

Seasonal Adjustment Factor

30th Hour Volumes (30 HV) will be developed based on the traffic counts collected at the study intersections and the application of seasonal adjustment factors consistent with the methodologies identified in the APM. The APM identifies three methods for developing seasonal adjustment factors for highway traffic volumes. All three methods utilize information provided by Automatic Traffic Recorders (ATRs) in select locations throughout the state highway system. The ATRs collect traffic data 24 hours a day, 365 days a year. Each method was evaluated to determine the most appropriate one for the study intersections. Based on these evaluations, the ATR Characteristic Table Method was used to develop seasonal adjustment factors for the study intersections on US 101 and OR 38. The results of the evaluations and proposed seasonal adjustment factors are summarized below.

ATR Characteristic Table

The ATR Characteristic Table is an Excel spreadsheet that provides general information on ATRs in Oregon. The table is filtered from left to right to find ATRs that share similar characteristics with roadways in the study area. Based on information provided in the 2021 ATR Characteristics Table, one ATR was found that shares similar characteristics with US 101, and two ATRs were found that share similar characteristics with OR 38.

US 101

The Astoria Bridge ATR (#04-004) is located on US 101 approximately 0.01 mile north of the Lower Columbia River Highway (US 30). This segment of US 101 has a coastal destination seasonal traffic trend and a weekend traffic trend, is in a small urban area, and has three travel lanes. The average annual daily traffic (AADT) at the ATR is within 10 percent of the AADT on US 101 in Reedsport. The ATR was installed in September 1995 and has traffic count data for the last 26 years.

Based on data provided by the ATR, the peak month generally occurs in August. Table 3 summarizes the five most recent years of data available from the ATR for the peak month and compares it to the five most recent years of data available for the count month.

Table 3. Astoria Bridge ATR (#04-004) Seasonal Adjustment Factor (ATR Characteristic Table Method)

Year	2017	2018	2019	2020	2021	Average	Seasonal Adjustment
Peak Month (August)	136%*	130%	133%	139%	129%*	133%	N/A
Count Month (August)	136%*	130%	133%	139%	129%*	133%	1.00

*Indicates values that were discarded from the average as indicated in the APM.

Per Table 3, a seasonal adjustment factor of 1.00 will be applied to the study intersections along US 101.

OR 38

The Scottsburg ATR (#10-003) is located on OR 38 approximately 7.08 miles east of Scottsburg West Road. This segment of OR 38 has a coastal destination seasonal traffic trend and a weekend traffic trend, is in a rural area, and has two travel lanes. The AADT at the ATR is within 10 percent of the AADT on OR 38 in Reedsport. The ATR was installed in December 1956 and has traffic count data for the last 65 years.

Based on data provided by the ATR, the peak month generally occurs in August. Table 4 summarizes the five most recent years of data available from the ATR for the peak month and compares it to the five most recent years of data available for the count month.

Table 4. Scottsburg ATR (#10-003) Seasonal Adjustment Factor (ATR Characteristic Table Method)

Year	2017	2018	2019	2020	2021	Average	Seasonal Adjustment
Peak Month (August)	140%	139%	140%	148%*	139%*	140%	N/A
Count Month (August)	140%	139%	140%	148%*	134%*	140%	1.00

*Indicates values that were discarded from the average as indicated in the APM.

Per Table 4, a seasonal adjustment factor of 1.00 will be applied to the study intersections along OR 38.

Future Year Volumes

Forecast traffic volumes will be developed for the study intersections based on the existing traffic volumes and information provided in the Statewide Integrated Model (SWIM). SWIM provides base and forecast year traffic volume projections that reflect anticipated land use changes and planned transportation improvements. This model is up-to-date and readily available with base year 2019 and future year 2045 traffic volume projections.

Forecast traffic volumes will be developed by applying the post-processing methodology identified in the National Cooperative Highway Research Program (NCHRP) Report 765, *Analytical Travel Forecasting Approaches for Project-Level Planning and Design* (Reference 2), which is the update to NCHRP Report 255, *Highway Traffic Data for Urbanized Area Project Planning and Design*. The methodology derives forecast traffic volumes based on the existing traffic volumes and base and future year traffic volume projections in the model. Forecasting traffic volumes will also include engineering judgment and knowledge of the project study area.

TRAFFIC ANALYSIS

This section documents the mobility standards and targets that will be used to evaluate the performance of the study intersections and to identify potential alternatives to address operational issues on ODOT and City facilities.

ODOT Facilities

ODOT uses volume-to-capacity (v/c) ratios to assess intersection operations. Table 6 of the Oregon Highway Plan (OHP – Reference 3) and Table 1200-1 of the Oregon Highway Design Manual (HDM – Reference 4) provide maximum v/c ratios for all signalized and unsignalized intersections located outside the Portland metropolitan area. The OHP ratios are used to evaluate existing and future no-build conditions, while the HDM ratios are used in the creation of future alternatives that involve projects along state highways. The following summarizes the factors that determine the OHP and HDM ratios at the ODOT-controlled intersections within the study area, which are located along US 101 and OR 38.

- US 101 is classified as a Statewide highway and is a designated freight route in the study area. All study intersections on US 101 are located inside the Reedsport urban growth boundary (UGB). US 101 has a posted speed limit of 30 miles per hour (mph) at the study intersections.
- OR 38 is classified as a statewide highway and is a designated freight route in the study area. All study intersections on OR 38 are located inside the Reedsport UGB. OR 38 has a posted speed limit of 25 mph at the study intersections.

Table 5 summarizes the v/c ratios that will be used to identify existing and projected future traffic conditions at the ODOT study intersections.

Table 5. ODOT Mobility Targets

Map ID	Intersection	Traffic Control[1]	Oregon Highway Plan Mobility Target[2]	Highway Design Manual Standard
1	US 101/OR 38	Signalized	V/C = 0.85	V/C = 0.70
2	W Railroad Avenue/OR 38	TWSC	V/C = 0.85 / 0.95	V/C = 0.75
3	E Railroad Avenue/OR 38	TWSC	V/C = 0.85 / 0.95	V/C = 0.75
4	OR 38/ Riverfront Way-Winchester Avenue	TWSC	V/C = 0.85 / 0.95	V/C = 0.75
5	N 6th Street/OR 38	TWSC	V/C = 0.85 / 0.95	V/C = 0.75
6	US 101/Winchester Avenue	Signalized	V/C = 0.85	V/C = 0.70

1. TWSC = Two-Way Stop Control.
2. State highway v/c ratio / side-street v/c ratio

Local Facilities

The City of Reedsport uses the level of service (LOS) to assess intersection operations. Per Section 10.76.026 (Transportation Standards) of the Reedsport Municipal Code, street intersections shall maintain LOS D during the PM peak hour of the day. A lesser standard may be accepted for local street intersections or driveway access points that intersect with collector or arterial streets if these intersections are found to operate safety. Table 6 summarizes the City performance standards that will be used to evaluate existing and projected future traffic conditions at City study intersections.

Table 6. City Performance Standards

Map ID	Intersection	Traffic Control[1]	Performance Standards[2]
7	W Railroad Avenue/Winchester Avenue	TWSC	LOS D
8	Elm Avenue/Winchester Avenue	TWSC	LOS D
9	E Railroad Avenue/Winchester Avenue	TWSC	LOS D
10	S 6th Street/Winchester Avenue	TWSC	LOS D

1. TWSC = Two-Way Stop Control.
2. LOS = level of service.

TRAFFIC ANALYSIS PARAMETERS

The following identifies the specific sources of data and methodologies proposed to conduct the operational analyses. Analyses of all state facilities will be conducted according to the APM, unless otherwise agreed upon by the City and ODOT.

- Intersection/Roadway Geometry data (lane numbers and arrangements, cross-section elements, signal phasing, etc.) will be collected through aerial photography and confirmed through a site visit. Available as-built data may also be used to verify existing roadway geometry. The analysis models will be built on scaled roadway line work from GIS or aerial photography.
- Operational data (posted speeds, intersection control, parking, transit stops, rail crossings, right-turn on red, etc.) will be collected through a site visit.
- Peak Hour Factor (PHF) data will be calculated for each intersection and applied to the existing conditions analyses. Default PHFs from the APM may be used for the future conditions analysis if they are greater than the existing PHFs. However, if the existing PHFs are greater than the default PHFs, then the existing PHFs will be applied.
  - Since the federal functional classification of both US 101 and OR 38 is principal arterial, the US 101/OR 38 and US 101/Winchester Avenue intersection may use a PHF of 0.95, and all other intersections on US 101 and OR 38 may use a PHF of 0.92.
  - Since the federal functional classification of all other major roadways in the City (Winchester Avenue) is collector, all other intersections may use a PHF of 0.85.
- Signal Timing data will be requested from ODOT for use in the existing conditions analysis. Signal parameters such as Flash Don't Walk, Walk, and Minimum Times will be retained in the forecast analysis with the signal splits optimized to better serve the future traffic volume patterns. Optimized signal cycle lengths may range between 60 and 120 seconds.
- Traffic Operations data
  - The methodologies identified in the Highway Capacity Manual, 7th Edition (HCM – Reference 5) will be used to analyze traffic operations at the study intersections.
  - PTV Vistro 2022 (Vistro) will be used to conduct the traffic operations analyses. Vistro is a software tool designed to assist with operations analyses in accordance with HCM methodologies. The analysis results will be reported for the overall intersection at signalized intersections and the critical movement at unsignalized intersections.
  - Vistro will be used to conduct a queuing analysis at the signalized study intersections. The 95th percentile queue lengths will be reported for all separate left- and right-turn movements and compared to available striped storage lengths. The 95th percentile queue and storage lengths will be rounded to the nearest 25 feet. Microsimulation is not proposed as part of this long-range planning effort.
  - Train Event Analysis will be conducted by applying a Poisson distribution to the expected number of vehicle arrivals during a typical train event period and summing the associated probability for each number of arrivals, starting at zero vehicles, until a total probability of 95 percent is attained.

Traffic Analysis Software and Input Assumptions

Vistro will be used to evaluate intersection performance under the conditions and assumptions detailed in Table 7.

Table 7. Operations Parameters/Assumptions

Intersection Parameters	Existing Conditions
Peak Hour Factor	From traffic counts
Conflicting Bikes and Pedestrian per Hour	From traffic counts, as available
Signal Timing Data	From ODOT or City of Reedsport
Ideal Saturation Flow Rate (for all movements)	1,750 passenger cars per hour per lane
Lane Width	12 feet unless field observations suggest otherwise
Percent Heavy Vehicles	From traffic counts by movement
Percent Grade	Estimated based on field observations
95th Percentile Vehicle Queues	Vistro summary output

CRASH ANALYSIS

The six most recent years of complete crash data available will be obtained from ODOT's crash database and reviewed at the study intersections and along study area roadways consistent with the methodologies outlined in Chapter 4 of the APM. Currently, complete crash data is available for the period from January 1, 2015, through December 31, 2020.[1] The crash data will be analyzed for number, type, severity, and location to identify potential crash patterns.

Crash rates and critical crash rates will be developed for the study intersections and roadway segments as applicable. Intersection crash rates will be compared to the 90th percentile crash rates in Table 4.1 of the APM, and segment crash rates will be compared to Table II in the current ODOT State Highway Crash Rate Tables. In addition, ODOT's Safety Priority Index System (SPIS) will be reviewed to identify sites in the top 5 percent and 10 percent, as appropriate. Potential countermeasures (and resulting crash percentage reductions) will be taken from the All Roads Transportation Safety (ARTS) Crash Reduction Factors (CRF) listing, the CRF Appendix, or the Crash Modification Factor (CMF) Clearinghouse; CMFs from the Clearinghouse will be three stars or better.

MULTIMODAL ANALYSIS

The multimodal analysis will be performed in accordance with the methodologies identified in Chapter 14 of the APM and identify the needs associated with pedestrian, bicycle, and public transportation facilities and service. The pedestrian and bicycle analyses will follow the Pedestrian Level of Traffic Stress (PLTS) and Bicycle Level of Traffic Stress (BLTS) analysis methodologies outlined in the APM. Both PLTS and BLTS methods group facilities into four different stress levels for segments, intersection approaches, and intersection crossings. Facilities with an LTS 1 rating have little to no traffic stress, require less attention, and are suitable for all users. Facilities with an LTS 2 rating have little traffic stress, but require more attention and therefore, may or may not be suitable for small children. Facilities with an LTS 3 rating have moderate traffic stress and are suitable for adults. Facilities with an LTS 4 rating have high traffic stress and are suitable only for able-bodied adults with limited options. The transit analysis will follow the qualitative multimodal assessment (QMA) methodology outlined in the APM. Transit QMA provides a qualitative "good," "fair," or "poor"

[1] Typically, this analysis is done over 5 years of data. However, travel patterns in the most recent year of available data (2020) were affected by the COVID-19 pandemic. Thus, crash analysis will cover all 6 years but also retain the ability to compare trends for 5 full years of "regular" traffic patterns.

rating for transit service based on hours of service, service frequency, and service coverage. The multimodal analysis will be conducted for the study area segments of US 101, OR 38, and Winchester Avenue.

RAIL CROSSING ANALYSIS

The existing operations of the CBRL provides freight service to industrial customers in and around Coos Bay and Coquille via interchange connections with the Union Pacific Railroad in Eugene, approximately 120 railroad miles to the north and east. Based upon data obtained from the existing crossing inventories within Reedsport and input from Coos Bay Railroad staff, the current train service on the line through Reedsport consists of a maximum of two trains per day, a maximum operating length of about 1,500 feet, with a maximum train speed of 10 mph though town. The 10 mph speed restriction in place on the Umpqua swing span at the east side of town is the limiting feature along the rail line.

The frequency of operation of the swing span was not provided by the CBRL; however, it was described as infrequent, with vessel passages described as weekly rather than daily, though it was noted to be seasonal, with passages in correlation with the fishing seasons along the Oregon Coast. The current operation of the swing span favors watercraft, with the bridge remaining open until train passage requires closure. CRBL staff reported that efforts are underway to petition the U.S. Coast Guard to allow the bridge to remain closed, with openings for watercraft on a scheduled or on-call basis. This would favor railroad operations, providing the CBRL with the ability to coordinate opening with rail traffic, thus lessening the potential delays incurred by train traffic waiting for bridge openings.

Future operations on the CBRL would increase rail traffic through Reedsport by way of containerized rail traffic moving to/from an international container port that is being planned within Coos Bay. The container terminal is stated to have a target capacity of 1.0 million Twenty foot Equivalent Unit (TEU) per year, which equates to approximately 600,000 containers per year with 40 foot being the predominate container length within the international shipping trade. Based upon double stack operations, 365 day per year operations would provide for movement of approximately 1,643 containers per day by rail. With an average rail car length of 57 feet per paired container, that results in 46,826 train feet per day net to be moved in both directions. Depending upon the operational length of trains on the CBRL, the number of trains could vary from 10 to 12 intermodal trains per day (4,000 to 5,000 feet per train respectively). The operational length of the trains will be limited largely by the grades and curvature along the rail line after improvements, all of which have yet to be finalized. Based upon these findings, Kittelson recommends using a typical intermodal train length of 4,000 feet, with a frequency of 12 trains per day (6 in, 6 out), plus two trains per day (1 in, 1 out) of mixed freight traffic at 1,500 feet of operating train length.

The goal for operational speeds for the improved rail line was stated by CBRL as 40 mph; however, it is quite possible that the Umpqua swing span could still present an operational speed restriction within Reedsport even after capital improvements. Based upon this, Kittleson recommends using an operational speed of 25 mph within Reedsport for a conservative approach with respect to grade crossing blockages by passing trains.

Train characteristics provided by CBRL are summarized in Table 8.

Table 8. Intermodal Train Analysis Assumptions

Operational Attribute	Assumptions
Average Railcar Length	57 Feet of train length per container position
Containers Per Year (Day)	1 Million TEU * 60% = 600,000 (1,643)
Net Train Feet Per Day	(57*1,643) / (2 stacked containers) = 46,826 Feet
Train Frequency (Intermodal) Per Day	10 to 12
Operating Train Length (Intermodal)	4,000 to 5,000 Feet[1]
Train Speeds	CBRL goal of 40 mph. However, the Umpqua swing span is likely to result in operational speed restrictions and necessitate a conservative speed estimate with respect to grade crossing blockages by passing trains.

[1] The operational length of trains will ultimately be determined by curvature and grade of improved rail line. These elements have yet to be finalized.

Based on CBRL train characteristics and potential operational speed restrictions within Reedsport, recommended train analysis assumptions are summarized in Table 9.

Table 9. Train Analysis Recommendations

Operational Attribute	Recommendation
Train Length (intermodal)	4,000 Feet
Train Frequency (intermodal)	12 Trains / Day
Train Length (mixed freight traffic)	1,500 Feet
Train Frequency (mixed freight traffic)	2 Trains / Day
Train Speeds	25 mph

REFERENCES

1. Oregon Department of Transportation. *Analysis Procedures Manual*, 2018.
2. Transportation Research Board. *NCHRP Report 765: Analytical Travel Forecasting Approaches for Project-Level Planning and Design*, 2014.
3. Oregon Department of Transportation. *Oregon Highway Plan*, 2015.
4. Oregon Department of Transportation. *Highway Design Manual*, 2023.
5. Transportation Research Board. *Highway Capacity Manual, 7th Edition*, 2022.

ATTACHMENTS

A. Traffic Counts – the traffic counts that will be used to evaluate traffic operations for the Reedsport Railroad Crossing Study were conducted by ODOT and post-processed by Quality Counts, LLC. The traffic count worksheets included in Attachment A summarize the traffic count information. The images in the worksheets reflect the intersection peak hour and include (from top to bottom and left to right) the total of number of motor vehicles, heavy vehicle percentages, pedestrians, bicyclists, buses, and scooters that entered the study intersections during the peak hour. The Tabular summaries in the worksheets include all motor vehicle movements during the count period, as well as all movements during the peak 15 minutes of traffic at the intersection. The peak 15-minute flow rates are multiplied by 4 to extrapolate the effect of the peak 15 minutes over the whole hour.

Attachment A: Traffic Counts

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Oregon Coast Hwy -- Port Dock Rd/Umpqua Hwy

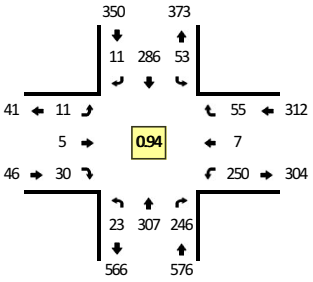
QC JOB #: 16062101

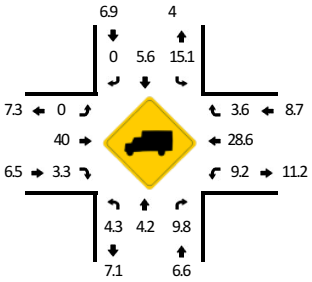
CITY/STATE: Reedsport, OR

DATE: Mon, Aug 15 2022

Peak-Hour: 12:00 PM -- 1:00 PM

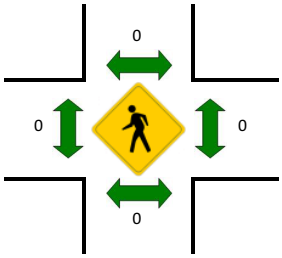
Peak 15-Min: 12:00 PM -- 12:15 PM

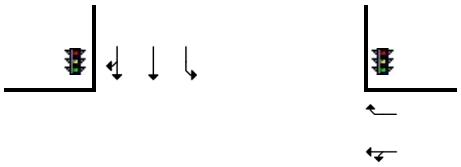


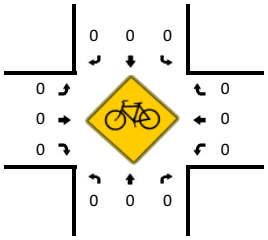


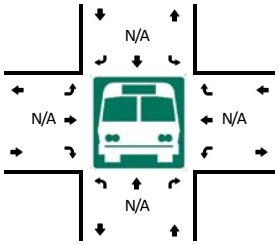
Quality Counts

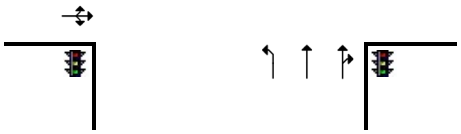
DATA THAT DRIVES COMMUNITIES

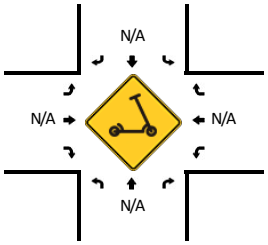












15-Min Count Period Beginning At	Oregon Coast Hwy (Northbound)				Oregon Coast Hwy (Southbound)				Port Dock Rd/Umpqua Hwy (Eastbound)				Port Dock Rd/Umpqua Hwy (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 AM	0	18	20	0	3	6	0	0	0	1	0	0	9	0	2	0	59	
6:15 AM	2	30	12	0	7	12	0	0	0	0	2	0	11	1	2	0	79	
6:30 AM	3	35	24	0	5	14	0	0	0	0	0	0	19	0	6	0	106	
6:45 AM	2	17	21	0	5	13	1	0	0	0	0	0	13	1	4	0	77	321
7:00 AM	6	30	21	0	1	14	2	0	0	0	2	0	29	4	7	0	116	378
7:15 AM	5	36	31	0	5	21	3	0	1	4	3	0	37	2	11	0	159	458
7:30 AM	2	53	22	0	4	22	1	0	2	1	2	0	36	3	7	0	155	507
7:45 AM	5	45	33	0	4	26	3	0	0	0	0	0	26	1	12	0	155	585
8:00 AM	4	33	33	0	4	26	6	0	1	0	7	0	31	2	8	0	155	624
8:15 AM	4	46	26	0	5	20	2	0	2	0	3	0	24	0	7	0	139	604
8:30 AM	2	29	23	0	6	32	2	0	0	0	4	0	28	1	11	0	138	587
8:45 AM	5	45	44	0	10	38	2	0	1	1	4	0	40	2	9	0	201	633
9:00 AM	3	31	47	0	6	45	1	0	3	2	4	0	31	0	10	0	183	661
9:15 AM	7	36	42	0	14	34	3	0	2	2	6	0	35	1	8	0	190	712
9:30 AM	4	33	50	0	12	44	3	0	1	1	7	0	41	1	5	0	202	776
9:45 AM	4	50	58	0	13	43	0	0	4	1	9	0	41	1	16	0	240	815
10:00 AM	6	50	77	0	8	50	1	0	1	1	3	0	39	1	11	0	248	880
10:15 AM	2	61	59	0	10	43	1	0	0	1	4	0	46	2	7	0	236	926
10:30 AM	3	49	64	0	13	47	1	0	3	1	4	0	53	1	12	0	251	975
10:45 AM	6	51	59	0	8	49	3	0	5	2	8	0	60	3	4	0	258	993
11:00 AM	4	66	58	0	7	30	2	0	1	0	8	0	45	2	15	0	238	983
11:15 AM	6	63	56	0	9	40	3	0	4	2	5	0	54	3	13	0	258	1005
11:30 AM	4	77	64	0	9	51	2	0	1	2	7	0	60	3	16	0	296	1050
11:45 AM	7	71	60	0	11	70	4	0	1	5	12	0	42	4	20	0	307	1099
12:00 PM	11	86	53	0	15	81	2	0	1	3	7	0	59	3	19	0	340	1201
12:15 PM	4	93	69	0	7	73	2	0	2	0	9	0	56	0	12	0	327	1270
12:30 PM	5	62	56	0	15	70	2	0	4	1	9	0	58	0	9	0	291	1265
12:45 PM	3	66	68	0	16	62	5	0	4	1	5	0	77	4	15	0	326	1284
1:00 PM	2	75	63	0	11	47	0	0	3	2	6	0	69	1	13	0	292	1236
1:15 PM	4	55	59	0	22	63	5	0	1	0	5	0	83	3	12	0	312	1221
1:30 PM	4	67	45	0	4	41	4	0	2	2	6	0	54	2	13	0	244	1174
1:45 PM	7	47	56	0	11	54	3	0	2	4	4	0	58	3	16	0	265	1113
2:00 PM	4	54	60	0	13	77	4	0	6	4	6	0	48	2	8	0	286	1107
2:15 PM	2	62	48	0	8	67	4	0	2	2	10	0	54	1	7	0	267	1062
2:30 PM	7	75	50	0	15	61	3	0	2	0	7	0	67	2	9	0	298	1116
2:45 PM	4	46	52	0	5	66	3	0	3	2	4	0	65	0	22	0	272	1123
3:00 PM	4	37	48	0	12	72	3	0	3	2	6	0	51	2	15	0	255	1092
3:15 PM	4	62	40	0	10	69	1	0	3	1	8	0	48	0	8	0	254	1079

15-Min Count Period Beginning At	Oregon Coast Hwy (Northbound)				Oregon Coast Hwy (Southbound)				Port Dock Rd/Umpqua Hwy (Eastbound)				Port Dock Rd/Umpqua Hwy (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
3:30 PM	4	59	53	0	12	72	4	0	2	2	6	0	64	0	10	0	288	1069
3:45 PM	5	46	59	0	12	69	4	0	0	0	6	0	73	0	8	0	282	1079
4:00 PM	2	57	56	0	11	80	4	0	5	3	9	0	58	3	16	0	304	1128
4:15 PM	3	45	52	0	10	65	1	0	3	2	3	0	68	0	8	0	260	1134
4:30 PM	8	63	42	0	7	99	2	0	2	2	9	0	53	0	12	0	299	1145
4:45 PM	1	43	58	0	17	92	2	0	2	1	3	0	39	0	4	0	262	1125
5:00 PM	5	49	52	0	6	56	2	0	4	3	7	0	46	0	16	0	246	1067
5:15 PM	0	45	44	0	7	74	0	0	2	1	2	0	30	2	13	0	220	1027
5:30 PM	1	39	38	0	5	58	1	0	2	0	4	0	53	0	14	0	215	943
5:45 PM	1	42	39	0	10	91	0	0	0	0	1	0	21	0	12	0	217	898
6:00 PM	5	41	29	0	11	43	0	0	1	0	7	0	32	0	4	0	173	825
6:15 PM	1	33	30	0	8	55	0	0	1	0	1	0	31	0	7	0	167	772
6:30 PM	2	34	18	0	11	46	1	0	1	1	0	0	25	0	6	0	145	702
6:45 PM	2	37	35	0	2	37	2	0	1	0	4	0	29	0	7	0	156	641
7:00 PM	9	18	21	0	7	29	0	0	2	1	2	0	18	1	8	0	116	584
7:15 PM	1	26	15	0	2	25	1	0	0	1	2	0	26	1	7	0	107	524
7:30 PM	2	20	21	0	5	37	0	0	0	1	1	0	33	0	2	0	122	501
7:45 PM	2	20	20	0	5	28	0	0	1	3	1	0	14	0	2	0	96	441
8:00 PM	1	19	21	0	2	22	0	0	0	0	0	0	18	0	3	0	86	411
8:15 PM	0	16	18	0	2	26	0	0	1	0	1	0	23	0	3	0	90	394
8:30 PM	1	13	9	0	4	15	0	0	0	0	0	0	15	0	3	0	60	332
8:45 PM	0	10	16	0	1	21	0	0	0	1	5	0	12	0	4	0	70	306
9:00 PM	0	13	7	0	0	15	0	0	0	0	2	0	21	0	1	0	59	279
9:15 PM	0	11	10	0	1	24	0	0	0	0	0	0	11	0	1	0	58	247
9:30 PM	2	8	10	0	3	14	0	0	0	0	2	0	23	0	1	0	63	250
9:45 PM	0	3	7	0	0	5	0	0	0	0	0	0	7	1	0	0	23	203

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	44	344	212	0	60	324	8	0	4	12	28	0	236	12	76	0	1360
Heavy Trucks	4	20	12		0	4	0		0	4	0		20	8	4		76
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 1/12/2023 8:56 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

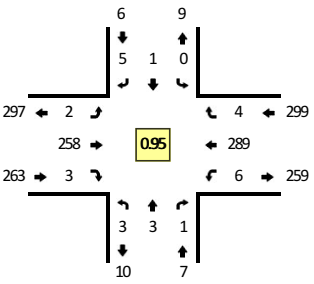
Type of peak hour being reported: Intersection Peak

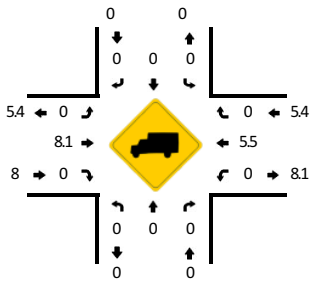
Method for determining peak hour: Total Entering Volume

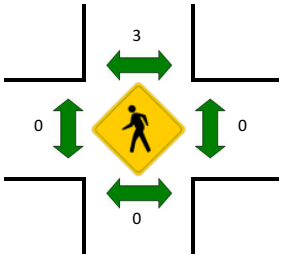
LOCATION: W Railroad Ave -- Umpqua Hwy
CITY/STATE: Reedsport, OR

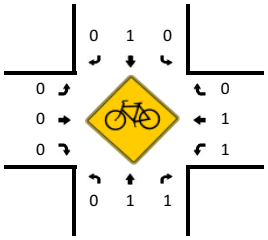
QC JOB #: 16062109
DATE: Mon, Aug 15 2022

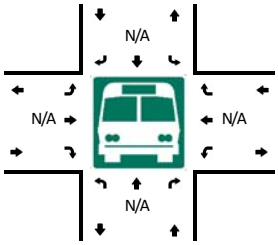
Peak-Hour: 3:30 PM -- 4:30 PM
Peak 15-Min: 3:30 PM -- 3:45 PM

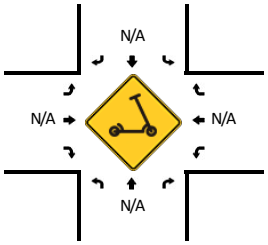












15-Min Count Period Beginning At	W Railroad Ave (Northbound)				W Railroad Ave (Southbound)				Umpqua Hwy (Eastbound)				Umpqua Hwy (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
2:00 PM	0	0	0	0	0	0	1	0	2	73	0	0	1	59	0	0	136	
2:15 PM	1	0	1	0	0	0	2	0	0	56	2	0	0	65	1	0	128	
2:30 PM	3	1	1	0	0	1	1	0	1	62	2	0	0	68	2	0	142	
2:45 PM	0	2	0	0	0	0	0	0	1	57	0	0	4	84	0	0	148	554
3:00 PM	4	0	1	0	2	0	2	0	1	55	2	0	0	65	0	0	132	550
3:15 PM	0	0	0	0	2	0	1	0	0	46	0	0	1	54	1	0	105	527
3:30 PM	0	0	0	0	0	0	2	0	1	66	0	0	1	80	1	0	151	536
3:45 PM	0	1	0	0	0	1	1	0	1	63	0	0	1	77	0	0	145	533
4:00 PM	1	0	1	0	0	0	1	0	0	65	2	0	3	72	0	0	145	546
4:15 PM	2	2	0	0	0	0	1	0	0	64	1	0	1	60	3	0	134	575
4:30 PM	2	1	1	0	0	0	0	0	3	44	0	0	0	55	0	0	106	530
4:45 PM	0	0	2	0	0	0	0	0	0	63	1	0	0	43	0	0	109	494
5:00 PM	1	0	0	0	0	0	2	0	0	54	1	0	0	56	0	0	114	463
5:15 PM	1	0	1	0	0	0	1	0	0	47	0	0	0	43	0	0	93	422
5:30 PM	3	0	0	0	0	0	0	0	0	39	1	0	1	62	0	0	106	422
5:45 PM	0	0	0	0	1	0	0	0	1	38	1	0	0	32	1	0	74	387

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	0	0	8	0	4	264	0	0	4	320	4	0	604
Heavy Trucks	0	0	0		0	0	0		0	24	0		0	16	0		40
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	4	0		0	0	0		0	0	0		4
Scooters																	

Comments:

Report generated on 1/12/2023 8:56 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

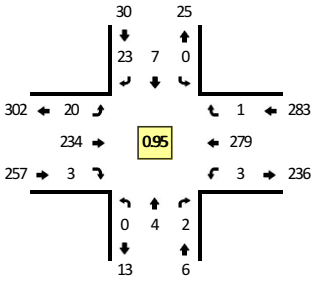
Type of peak hour being reported: Intersection Peak

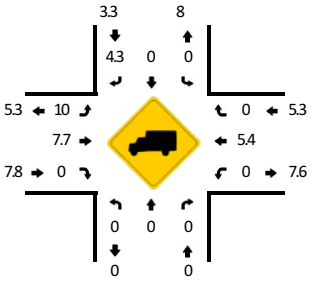
Method for determining peak hour: Total Entering Volume

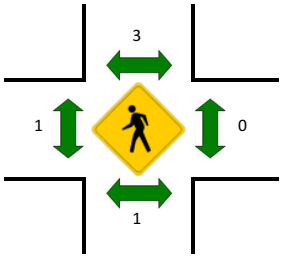
LOCATION: E Railroad Ave -- Umpqua Hwy
CITY/STATE: Reedsport, OR

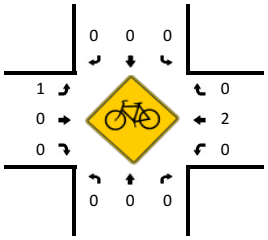
QC JOB #: 16062106
DATE: Mon, Aug 15 2022

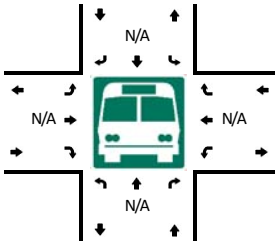
Peak-Hour: 3:30 PM -- 4:30 PM
Peak 15-Min: 3:30 PM -- 3:45 PM

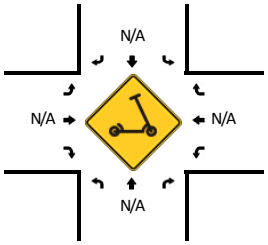












15-Min Count Period Beginning At	E Railroad Ave (Northbound)				E Railroad Ave (Southbound)				Umpqua Hwy (Eastbound)				Umpqua Hwy (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
2:00 PM	0	2	1	0	0	1	2	0	3	69	0	0	0	58	0	0	136	
2:15 PM	0	1	0	0	0	0	2	0	7	51	1	0	0	64	0	0	126	
2:30 PM	0	0	1	0	0	0	7	0	6	53	2	0	0	66	1	0	136	
2:45 PM	0	0	1	0	0	1	6	0	4	53	2	0	1	80	0	0	148	546
3:00 PM	3	0	0	0	0	2	4	0	6	51	0	0	1	58	0	0	125	535
3:15 PM	0	1	0	0	0	1	0	0	3	46	0	0	1	55	3	0	110	519
3:30 PM	0	1	0	0	0	2	6	0	2	61	1	0	1	77	1	0	152	535
3:45 PM	0	1	1	0	0	1	8	0	3	60	0	0	1	69	0	0	144	531
4:00 PM	0	0	0	0	0	1	4	0	9	54	2	0	0	73	0	0	143	549
4:15 PM	0	2	1	0	0	3	5	0	6	59	0	0	1	60	0	0	137	576
4:30 PM	2	0	0	0	0	2	8	0	2	42	2	0	0	42	0	0	100	524
4:45 PM	0	1	0	0	0	0	2	0	8	56	1	0	0	42	0	0	110	490
5:00 PM	1	3	0	0	0	0	5	0	3	51	0	0	0	49	0	0	112	459
5:15 PM	0	1	0	0	0	3	6	0	3	42	1	0	0	37	0	0	93	415
5:30 PM	0	1	0	0	1	0	1	0	2	40	0	0	0	62	0	0	107	422
5:45 PM	0	0	1	0	0	3	1	0	3	35	1	0	0	32	0	0	76	388

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	4	0	0	0	8	24	0	8	244	4	0	4	308	4	0	608
Heavy Trucks	0	0	0		0	0	0		0	20	0		0	12	0		32
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

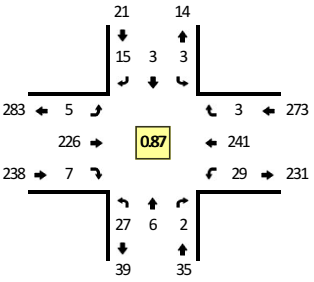
Report generated on 1/12/2023 8:56 AM

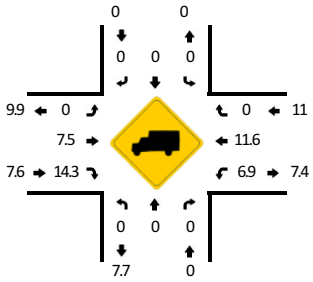
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

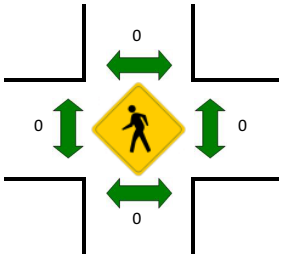
LOCATION: Riverfront Way/Winchester Ave -- Umpqua Hwy | **QC JOB #:** 16062108
CITY/STATE: Reedsport, OR | **DATE:** Wed, Aug 17 2022

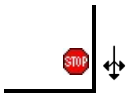
Peak-Hour: 2:15 PM -- 3:15 PM
Peak 15-Min: 2:45 PM -- 3:00 PM

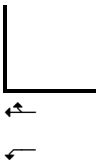


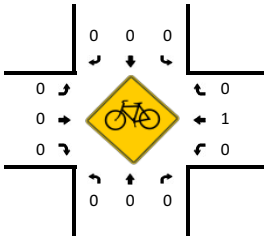


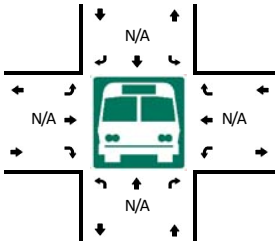
Quality Counts
DATA THAT DRIVES COMMUNITIES

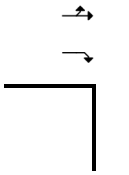


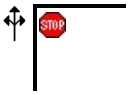


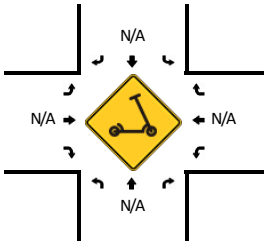












15-Min Count Period Beginning At	Riverfront Way/Winchester Ave (Northbound)				Riverfront Way/Winchester Ave (Southbound)				Umpqua Hwy (Eastbound)				Umpqua Hwy (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
2:00 PM	7	1	0	0	1	0	1	0	2	54	1	0	6	27	3	0	103	
2:15 PM	5	1	1	0	0	1	6	0	3	46	2	0	11	59	3	0	138	
2:30 PM	6	0	0	0	1	1	3	0	0	52	1	0	5	45	0	0	114	
2:45 PM	10	4	0	0	1	0	5	0	0	62	1	0	3	77	0	0	163	518
3:00 PM	6	1	1	0	1	1	1	0	2	66	3	0	10	60	0	0	152	567
3:15 PM	7	1	2	0	1	0	2	0	1	40	3	0	16	63	2	0	138	567
3:30 PM	8	1	0	0	3	2	2	0	1	38	3	0	9	46	0	0	113	566
3:45 PM	5	0	0	0	2	1	4	0	3	48	4	0	6	49	1	0	123	526
4:00 PM	9	1	2	0	3	1	2	0	0	48	0	0	3	50	0	0	119	493
4:15 PM	6	0	1	0	1	0	1	0	0	46	0	0	7	41	0	0	103	458
4:30 PM	13	0	0	0	0	1	2	0	0	58	3	0	4	42	0	0	123	468
4:45 PM	10	0	0	0	0	0	2	0	0	36	1	0	8	33	0	0	90	435
5:00 PM	12	0	0	0	1	0	1	0	2	44	0	0	4	44	0	0	108	424
5:15 PM	8	0	0	0	1	0	0	0	1	40	0	0	3	36	0	0	89	410
5:30 PM	11	0	6	0	0	2	2	0	5	38	1	0	3	27	1	0	96	383
5:45 PM	3	0	0	0	1	1	1	0	0	30	1	0	11	28	2	0	78	371

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	40	16	0	0	4	0	20	0	0	248	4	0	12	308	0	0	652
Heavy Trucks	0	0	0		0	0	0		0	12	0		0	52	0		64
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 1/12/2023 8:56 AM | SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

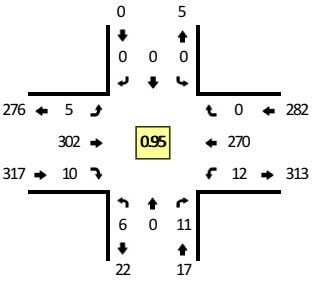
Type of peak hour being reported: Intersection Peak

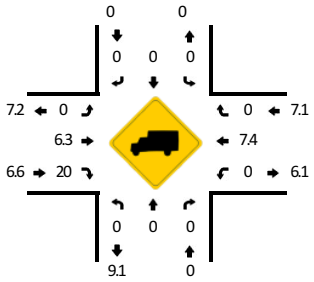
Method for determining peak hour: Total Entering Volume

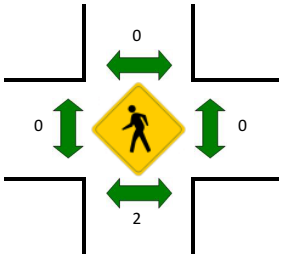
LOCATION: N 6th St/Fir Ave -- Umpqua Hwy
CITY/STATE: Reedsport, OR

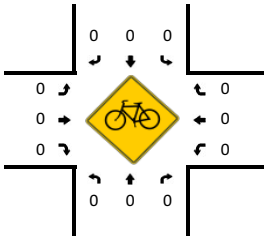
QC JOB #: 16062103
DATE: Wed, Aug 17 2022

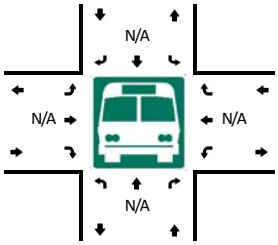
Peak-Hour: 2:15 PM -- 3:15 PM
Peak 15-Min: 2:15 PM -- 2:30 PM

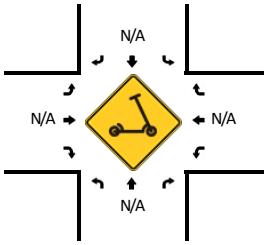












15-Min Count Period Beginning At	N 6th St/Fir Ave (Northbound)				N 6th St/Fir Ave (Southbound)				Umpqua Hwy (Eastbound)				Umpqua Hwy (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
2:00 PM	1	0	1	0	0	0	0	0	1	65	5	0	1	69	0	0	143	
2:15 PM	0	0	3	0	0	0	0	0	2	81	3	0	1	72	0	0	162	
2:30 PM	1	0	3	0	0	0	0	0	2	69	1	0	4	55	0	0	135	
2:45 PM	3	0	1	0	0	0	0	0	1	72	4	0	3	73	0	0	157	597
3:00 PM	2	0	4	0	0	0	0	0	0	80	2	0	4	70	0	0	162	616
3:15 PM	0	0	3	0	0	0	0	0	1	73	4	0	3	51	0	0	135	589
3:30 PM	3	0	4	0	0	0	0	0	0	71	5	0	6	51	0	0	140	594
3:45 PM	3	0	1	0	0	0	0	0	1	67	3	0	3	59	0	0	137	574
4:00 PM	0	0	3	0	0	0	0	0	0	60	3	0	0	55	0	0	121	533
4:15 PM	3	0	3	0	0	0	0	0	0	47	3	0	2	55	0	0	113	511
4:30 PM	2	0	1	0	0	0	0	0	0	54	0	0	5	68	0	0	130	501
4:45 PM	3	0	0	0	0	0	0	0	1	51	2	0	1	47	0	0	105	469
5:00 PM	0	0	0	0	0	0	0	0	0	51	0	0	1	48	0	0	100	448
5:15 PM	2	0	0	0	0	0	0	0	0	44	0	0	3	50	0	0	99	434
5:30 PM	2	0	1	0	0	0	0	0	0	43	0	0	2	47	0	0	95	399
5:45 PM	2	0	1	0	0	0	0	0	0	37	1	0	3	36	0	0	80	374

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	12	0	0	0	0	0	8	324	12	0	4	288	0	0	648
Heavy Trucks	0	0	0		0	0	0		0	28	0		0	28	0		56
Buses																	
Pedestrians		4				0				0				0			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 1/12/2023 8:56 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Oregon Coast Hwy -- Winchester Ave

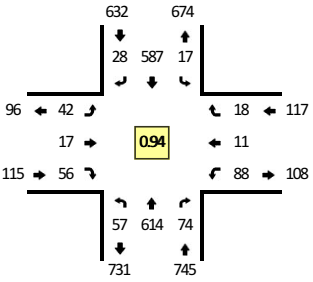
CITY/STATE: Reedsport, OR

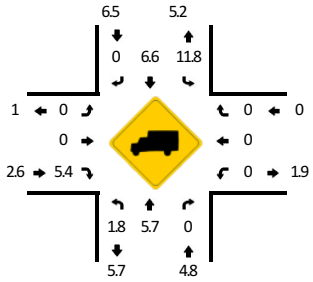
QC JOB #: 16062102

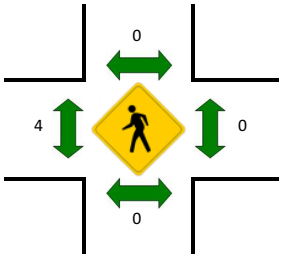
DATE: Mon, Aug 15 2022

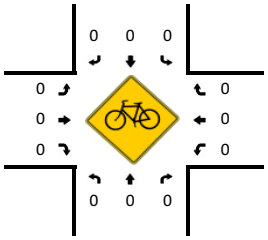
Peak-Hour: 12:00 PM -- 1:00 PM

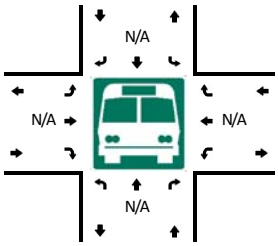
Peak 15-Min: 12:15 PM -- 12:30 PM

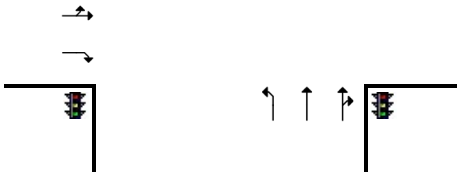


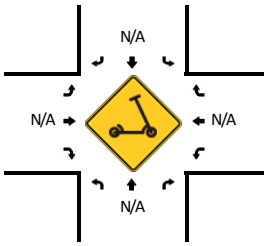












15-Min Count Period Beginning At	Oregon Coast Hwy (Northbound)				Oregon Coast Hwy (Southbound)				Winchester Ave (Eastbound)				Winchester Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 AM	2	34	2	0	1	17	0	0	0	0	0	0	3	0	1	0	60	
6:15 AM	3	45	2	0	0	31	0	0	1	0	0	0	5	0	0	0	87	
6:30 AM	2	69	6	0	1	34	1	0	1	0	0	0	8	0	0	0	122	
6:45 AM	3	42	10	0	0	37	3	0	0	0	0	0	8	0	0	0	103	372
7:00 AM	6	60	9	0	0	36	2	0	4	0	2	0	10	2	0	0	131	443
7:15 AM	1	68	14	0	2	38	2	0	4	3	1	0	7	1	0	0	141	497
7:30 AM	4	85	9	0	2	50	2	0	2	0	4	0	11	1	1	0	171	546
7:45 AM	2	92	12	0	0	60	0	0	9	4	3	0	10	2	0	0	194	637
8:00 AM	6	64	7	0	2	77	2	0	4	1	2	0	9	1	2	0	177	683
8:15 AM	3	71	18	0	0	44	5	0	5	1	2	0	9	3	0	0	161	703
8:30 AM	4	69	8	0	2	73	3	0	2	5	6	0	13	2	2	0	189	721
8:45 AM	4	107	14	0	0	76	4	0	7	3	10	0	13	7	2	0	247	774
9:00 AM	8	98	17	0	1	81	6	0	3	4	6	0	11	2	1	0	238	835
9:15 AM	8	38	12	0	1	77	4	0	3	1	6	0	23	1	2	0	176	850
9:30 AM	4	102	23	0	2	91	4	0	8	5	9	0	21	4	3	0	276	937
9:45 AM	13	116	24	0	4	89	7	0	9	2	11	0	28	4	3	0	310	1000
10:00 AM	13	134	11	0	1	91	10	0	13	1	7	0	14	2	5	0	302	1064
10:15 AM	9	137	21	0	4	100	5	0	7	2	13	0	19	2	4	0	323	1211
10:30 AM	13	125	17	0	1	102	6	0	12	4	5	0	16	4	2	0	307	1242
10:45 AM	18	125	24	0	0	123	6	0	12	1	17	0	25	3	2	0	356	1288
11:00 AM	14	126	16	0	2	113	8	0	8	3	19	0	24	2	4	0	339	1325
11:15 AM	13	145	22	0	3	92	8	0	8	3	11	0	20	3	4	0	332	1334
11:30 AM	15	145	14	0	3	118	3	0	4	2	17	0	18	6	1	0	346	1373
11:45 AM	11	135	19	0	6	126	3	0	13	2	10	0	14	3	4	0	346	1363
12:00 PM	8	157	15	0	5	146	7	0	8	2	13	0	27	3	7	0	398	1422
12:15 PM	18	169	25	0	6	145	5	0	12	5	15	0	20	4	4	0	428	1518
12:30 PM	15	143	14	0	1	156	6	0	12	6	17	0	24	3	3	0	400	1572
12:45 PM	16	145	20	0	5	140	10	0	10	4	11	0	17	1	4	0	383	1609
1:00 PM	9	142	15	0	2	153	7	0	10	4	18	0	23	3	7	0	393	1604
1:15 PM	11	111	14	0	4	131	6	0	8	3	13	0	26	3	1	0	331	1507
1:30 PM	12	118	13	0	1	132	4	0	18	4	11	0	21	2	3	0	339	1446
1:45 PM	4	127	17	0	1	119	8	0	8	2	18	0	12	5	2	0	323	1386
2:00 PM	10	141	25	0	2	132	10	0	8	1	14	0	20	5	5	0	373	1366
2:15 PM	10	124	24	0	5	154	3	0	4	0	11	0	25	5	2	0	367	1402
2:30 PM	12	127	13	0	2	131	6	0	6	2	14	0	14	3	6	0	336	1399
2:45 PM	15	97	18	0	4	128	4	0	6	2	17	0	19	3	2	0	315	1391
3:00 PM	10	109	17	0	3	147	7	0	7	3	9	0	31	1	6	0	350	1368
3:15 PM	8	119	9	0	3	140	8	0	7	2	18	0	20	3	2	0	339	1340

15-Min Count Period Beginning At	Oregon Coast Hwy (Northbound)				Oregon Coast Hwy (Southbound)				Winchester Ave (Eastbound)				Winchester Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
3:30 PM	9	123	19	0	1	148	4	0	9	4	15	0	19	4	6	0	361	1365
3:45 PM	13	109	14	0	4	136	9	0	8	2	11	0	20	2	2	0	330	1380
4:00 PM	7	128	28	0	2	138	3	0	13	3	18	0	16	1	2	0	359	1389
4:15 PM	4	129	18	0	2	154	14	0	5	2	12	0	20	4	1	0	365	1415
4:30 PM	15	113	22	0	5	149	8	0	7	0	17	0	26	4	1	0	367	1421
4:45 PM	12	84	23	0	5	141	7	0	8	3	13	0	20	4	4	0	324	1415
5:00 PM	11	115	18	0	1	122	2	0	8	3	18	0	30	6	0	0	334	1390
5:15 PM	9	102	16	0	2	113	6	0	10	4	9	0	15	4	2	0	292	1317
5:30 PM	12	94	9	0	3	124	11	0	4	0	16	0	21	5	0	0	299	1249
5:45 PM	12	84	7	0	0	124	5	0	8	5	14	0	19	1	6	0	285	1210
6:00 PM	7	80	15	0	1	86	4	0	9	3	15	0	15	2	2	0	239	1115
6:15 PM	9	55	14	0	1	99	3	0	3	4	13	0	9	1	1	0	212	1035
6:30 PM	10	66	9	0	1	66	6	0	2	4	11	0	7	2	2	0	186	922
6:45 PM	4	60	11	0	0	64	3	0	5	3	8	0	12	2	0	0	172	809
7:00 PM	8	64	11	0	1	61	2	0	3	4	11	0	11	1	7	0	184	754
7:15 PM	2	54	8	0	0	61	2	0	2	1	2	0	13	1	1	0	147	689
7:30 PM	4	42	7	0	2	68	1	0	2	1	5	0	9	1	1	0	143	646
7:45 PM	7	46	8	0	2	51	1	0	1	1	7	0	10	2	0	0	136	610
8:00 PM	3	49	6	0	0	50	1	0	0	3	7	0	10	0	2	0	131	557
8:15 PM	4	32	3	0	0	52	2	0	2	1	1	0	8	1	1	0	107	517
8:30 PM	1	30	5	0	1	36	3	0	5	2	5	0	4	0	2	0	94	468
8:45 PM	1	24	7	0	0	39	1	0	0	0	4	0	1	1	1	0	79	411
9:00 PM	5	22	2	0	0	46	1	0	2	0	7	0	6	2	0	0	93	373
9:15 PM	4	27	1	0	0	36	2	0	0	0	3	0	5	0	3	0	81	347
9:30 PM	3	17	1	0	1	36	1	0	2	0	2	0	2	0	1	0	66	319
9:45 PM	3	8	1	0	0	17	1	0	0	0	1	0	2	0	0	0	33	273

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	72	676	100	0	24	580	20	0	48	20	60	0	80	16	16	0	1712
Heavy Trucks	4	36	0		4	52	0		0	0	4		0	0	0		100
Buses																	
Pedestrians		0				0				4				0			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

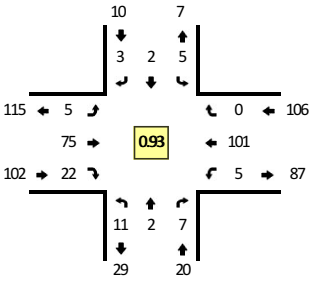
Report generated on 1/12/2023 8:56 AM

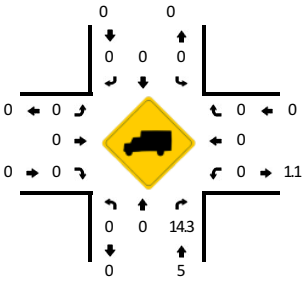
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

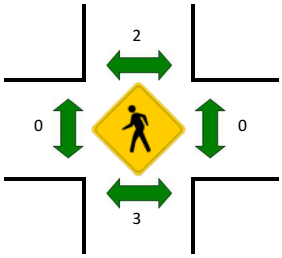
LOCATION: W Railroad Ave -- Winchester Ave | **QC JOB #:** 16062110
CITY/STATE: Reedsport, OR | **DATE:** Wed, Aug 17 2022

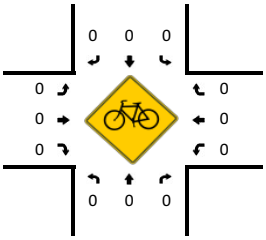
Peak-Hour: 3:15 PM -- 4:15 PM
Peak 15-Min: 3:30 PM -- 3:45 PM

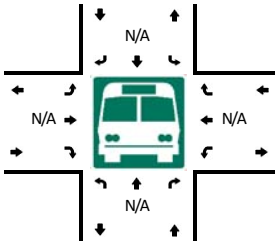


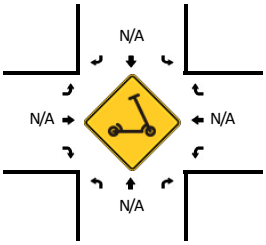


Quality Counts
DATA THAT DRIVES COMMUNITIES









15-Min Count Period Beginning At	W Railroad Ave (Northbound)				W Railroad Ave (Southbound)				Winchester Ave (Eastbound)				Winchester Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
2:00 PM	6	0	1	0	1	1	1	0	0	19	7	0	0	20	0	0	56	
2:15 PM	1	0	0	0	1	0	2	0	1	23	5	0	0	27	0	0	60	
2:30 PM	3	0	1	0	0	0	1	0	0	25	5	0	1	17	0	0	53	
2:45 PM	2	0	2	0	0	0	0	0	0	25	4	0	2	19	0	0	54	223
3:00 PM	5	1	1	0	0	0	0	0	0	20	3	0	3	12	0	0	45	212
3:15 PM	2	1	1	0	1	1	1	0	0	19	8	0	1	28	0	0	63	215
3:30 PM	5	0	3	0	2	0	1	0	1	20	3	0	2	27	0	0	64	226
3:45 PM	3	1	2	0	1	1	1	0	2	14	6	0	0	24	0	0	55	227
4:00 PM	1	0	1	0	1	0	0	0	2	22	5	0	2	22	0	0	56	238
4:15 PM	0	0	1	0	1	1	2	0	2	18	1	0	2	21	0	0	49	224
4:30 PM	4	0	1	0	1	0	2	0	2	16	6	0	2	18	0	0	52	212
4:45 PM	4	1	0	0	1	0	2	0	0	29	1	0	2	20	0	0	60	217
5:00 PM	4	0	0	0	1	1	0	0	1	19	4	0	0	24	0	0	54	215
5:15 PM	2	0	1	0	0	0	0	0	0	19	5	0	1	15	0	0	43	209
5:30 PM	2	0	0	0	0	0	0	0	0	19	5	0	1	10	0	0	37	194
5:45 PM	4	0	0	0	0	0	1	0	0	11	1	0	1	20	1	0	39	173

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	20	0	12	0	8	0	4	0	4	80	12	0	8	108	0	0	256
Heavy Trucks	0	0	4		0	0	0		0	0	0		0	0	0		4
Buses																	
Pedestrians		4				0				0				0			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 1/12/2023 8:56 AM | SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

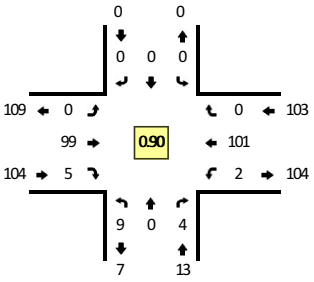
Type of peak hour being reported: Intersection Peak

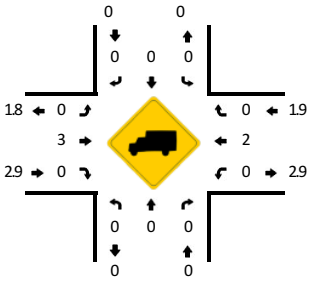
Method for determining peak hour: Total Entering Volume

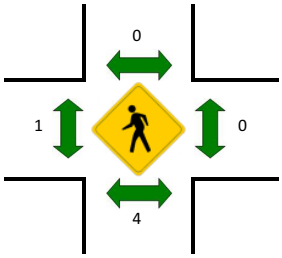
LOCATION: E Elm Ave -- Winchester Ave
CITY/STATE: Reedsport, OR

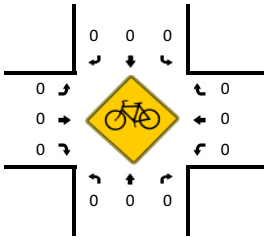
QC JOB #: 16062105
DATE: Mon, Aug 15 2022

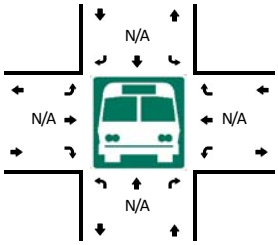
Peak-Hour: 2:00 PM -- 3:00 PM
Peak 15-Min: 2:00 PM -- 2:15 PM

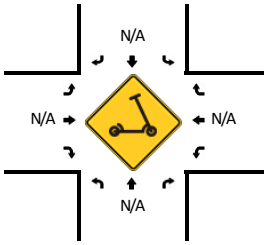












15-Min Count Period Beginning At	E Elm Ave (Northbound)				E Elm Ave (Southbound)				Winchester Ave (Eastbound)				Winchester Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
2:00 PM	3	0	1	1	0	0	0	0	0	27	2	0	0	27	0	0	61	
2:15 PM	3	0	1	0	0	0	0	0	0	26	2	0	1	27	0	0	60	
2:30 PM	0	0	1	0	0	0	0	0	0	22	1	0	0	13	0	1	38	
2:45 PM	2	0	1	0	0	0	0	0	0	24	0	0	0	34	0	0	61	220
3:00 PM	0	0	0	0	0	0	0	0	0	16	0	0	1	23	0	0	40	199
3:15 PM	3	0	0	0	0	0	0	0	0	11	1	0	1	21	0	0	37	176
3:30 PM	0	0	0	0	0	0	0	0	0	21	4	0	0	21	0	0	46	184
3:45 PM	2	0	1	0	0	0	0	0	0	17	0	0	1	23	0	0	44	167
4:00 PM	1	0	0	0	0	0	0	0	0	23	3	0	2	21	0	0	50	177
4:15 PM	2	0	0	0	0	0	0	0	0	22	1	0	0	23	0	0	48	188
4:30 PM	2	0	2	0	0	0	0	0	0	17	1	0	1	23	0	0	46	188
4:45 PM	4	0	0	0	0	0	0	0	0	25	3	0	0	15	0	0	47	191
5:00 PM	4	0	0	0	0	0	0	0	0	21	2	0	0	41	0	0	68	209
5:15 PM	0	0	0	0	0	0	0	0	0	20	1	0	0	22	0	0	43	204
5:30 PM	0	0	0	0	0	0	0	0	0	9	0	0	0	24	0	0	33	191
5:45 PM	0	0	0	0	0	0	0	0	0	10	0	0	0	18	0	0	28	172

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	12	0	4	4	0	0	0	0	0	108	8	0	0	108	0	0	244
Heavy Trucks	0	0	0		0	0	0		0	4	0		0	8	0		12
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 1/12/2023 8:56 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

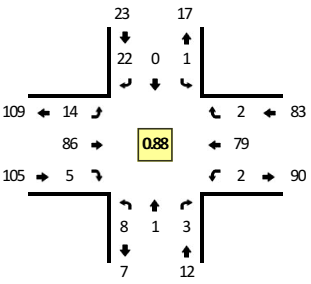
Type of peak hour being reported: Intersection Peak

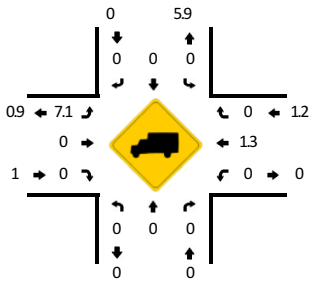
Method for determining peak hour: Total Entering Volume

LOCATION: E Railroad Ave -- Winchester Ave
CITY/STATE: Reedsport, OR

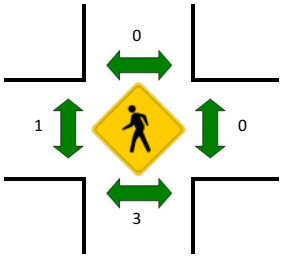
QC JOB #: 16062107
DATE: Wed, Aug 17 2022

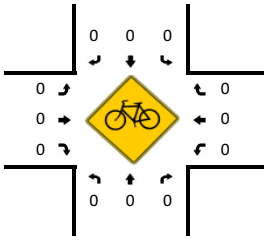
Peak-Hour: 2:00 PM -- 3:00 PM
Peak 15-Min: 2:15 PM -- 2:30 PM

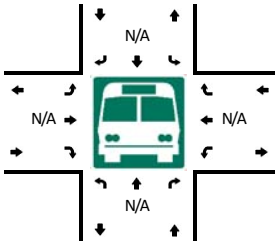


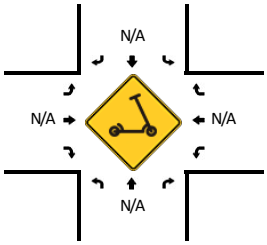


Quality Counts
DATA THAT DRIVES COMMUNITIES









15-Min Count Period Beginning At	E Railroad Ave (Northbound)				E Railroad Ave (Southbound)				Winchester Ave (Eastbound)				Winchester Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
2:00 PM	3	1	0	0	0	0	2	0	5	22	2	0	0	25	0	0	60	
2:15 PM	3	0	1	0	0	0	6	0	3	24	2	0	2	21	1	0	63	
2:30 PM	0	0	1	0	1	0	2	0	4	18	1	0	0	11	1	0	39	
2:45 PM	2	0	1	0	0	0	12	0	2	22	0	0	0	22	0	0	61	223
3:00 PM	0	0	0	0	1	1	8	0	2	14	0	0	0	15	1	0	42	205
3:15 PM	3	0	0	0	1	0	2	0	0	11	1	0	1	19	0	0	38	180
3:30 PM	1	0	0	0	0	1	2	0	3	17	4	0	0	18	0	0	46	187
3:45 PM	2	1	0	0	1	1	4	0	0	17	0	0	1	19	1	0	47	173
4:00 PM	2	0	0	0	0	1	1	0	1	21	3	0	1	19	0	0	49	180
4:15 PM	2	0	0	0	2	0	3	0	2	20	1	0	0	20	0	0	50	192
4:30 PM	2	2	0	0	1	1	1	0	3	16	1	0	0	22	0	0	49	195
4:45 PM	4	0	0	0	0	0	1	0	0	24	3	0	0	14	1	0	47	195
5:00 PM	5	0	0	0	0	0	2	0	4	17	2	0	0	23	0	0	53	199
5:15 PM	1	0	0	0	1	0	4	0	2	18	1	0	0	17	0	0	44	193
5:30 PM	0	0	0	0	0	0	2	0	1	8	0	0	0	22	0	0	33	177
5:45 PM	0	0	0	0	0	0	4	0	0	10	0	0	0	14	0	0	28	158

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	12	0	4	0	0	0	24	0	12	96	8	0	8	84	4	0	252
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

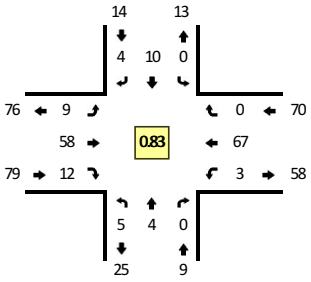
Report generated on 1/12/2023 8:56 AM

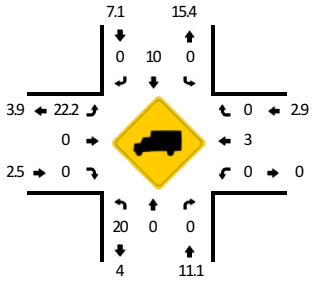
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

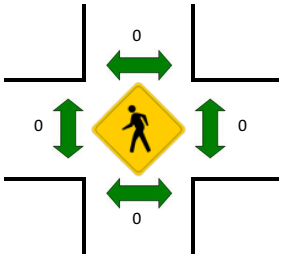
Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

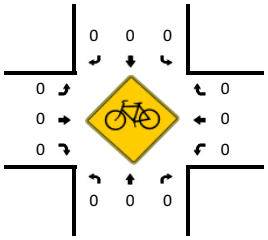
LOCATION: N 6th St -- Winchester Ave | **QC JOB #:** 16062104
CITY/STATE: Reedsport, OR | **DATE:** Wed, Aug 17 2022

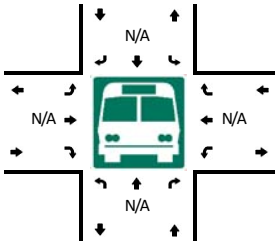
Peak-Hour: 2:45 PM -- 3:45 PM
Peak 15-Min: 3:30 PM -- 3:45 PM

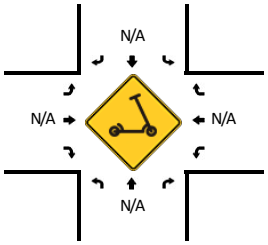












15-Min Count Period Beginning At	N 6th St (Northbound)				N 6th St (Southbound)				Winchester Ave (Eastbound)				Winchester Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
2:00 PM	2	0	0	0	0	0	2	0	0	13	2	0	0	17	0	0	36	
2:15 PM	0	1	1	0	0	0	3	0	2	15	3	0	0	16	0	0	41	
2:30 PM	1	1	0	0	1	3	1	0	2	19	3	0	0	10	0	0	41	
2:45 PM	3	1	0	0	0	3	1	0	1	19	3	0	0	13	0	0	44	162
3:00 PM	0	2	0	0	0	1	0	0	4	12	3	0	0	15	0	0	37	163
3:15 PM	0	0	0	0	0	2	1	0	2	11	1	0	1	21	0	0	39	161
3:30 PM	2	1	0	0	0	4	2	0	2	16	5	0	2	18	0	0	52	172
3:45 PM	2	1	1	0	1	3	0	0	1	8	0	0	0	18	0	0	35	163
4:00 PM	7	0	1	0	0	0	0	0	0	18	2	0	0	12	0	0	40	166
4:15 PM	2	0	0	0	0	1	1	0	1	11	0	0	0	15	0	0	31	158
4:30 PM	0	0	0	0	0	3	0	0	1	11	1	0	0	12	0	0	28	134
4:45 PM	3	3	0	0	0	1	2	0	1	18	5	0	0	14	0	0	47	146
5:00 PM	0	0	0	0	1	0	1	0	0	17	2	0	0	11	0	0	32	138
5:15 PM	1	0	1	0	0	2	1	0	0	13	5	0	0	7	1	0	31	138
5:30 PM	3	2	2	0	0	0	2	0	0	12	2	0	1	9	0	0	33	143
5:45 PM	0	1	0	0	0	2	2	0	1	7	2	0	2	18	0	0	35	131

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	8	4	0	0	0	16	8	0	8	64	20	0	8	72	0	0	208
Heavy Trucks	0	0	0		0	4	0		4	0	0		0	0	0		8
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 1/12/2023 8:56 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212