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

TECHNICAL MEMORANDUM #3

June 20, 2025 Project# 27003.045

To: Thomas Guevara Jr, Oregon Department of Transportation (ODOT)

Anthony Pagano and Ryan Baxter, City of Gold Beach

From: Susan Wright, PE; Amy Griffiths, PE; Eza Gaigalas; and Sam Godon

RE: TM#3: Analysis Methodology Memorandum

Gold Beach US 101 Community Connections Plan

Introduction

This memorandum documents the transportation methodology and key assumptions to be used in generating the existing conditions, future conditions, and alternatives analyses for the Gold Beach US 101 Community Connections Plan, which evaluates opportunities to improve safety and multimodal facilities for all users of US Highway 101 (US 101) between Jerry's Flat Road and Hunter Creek Loop. The methodology and assumptions documented herein are based on guidance provided in the Oregon Department of Transportation (ODOT) Analysis Procedures Manual (APM, Reference 1).

Study Area

The study area encompasses US 101 and adjacent city streets from Jerry's Flat Road to Hunter Creek Loop in Gold Beach. The analysis includes operational analysis at key locations throughout the study area and a multimodal analysis along US 101 and potential parallel routes. The study area and study intersections are illustrated in Figure 1 and study intersections are listed below:

- 1. US 101 / Jerry's Flat Road
- 2. US 101 / Harbor Way
- 3. US 101 / Moore Street
- 4. US 101 / Caughell Street
- 5. US 101 / 1st Street
- 6. US 101 / 2nd Street
- 7. US 101 / 3rd Street

- 8. US 101 / 4th Street
- 9. US 101 / 6th Street
- 10. US 101 / 8th Street
- 11. US 101 / 10th Street
- 12. US 101 / 11th Street
- 13. US 101 / Vizcaino Court / Pacific Vista Drive
- 14. US 101 / Hunter Creek Road



Analysis Periods

To evaluate the impact of potential alternatives, weekday PM peak hour operations will be assessed under the following analysis periods:

- Existing 2025 No-Build Conditions (Summer Peak and Non-Summer Peak)
- Existing 2025 Build Conditions (Three Alternatives, PMT to select Summer or Non-Summer Peak Analysis)
- Future 2045 No-Build Conditions¹ (Summer Peak and Non-Summer Peak)
- Future 2045 Build Conditions (Three Alternatives, PMT to select Summer or Non-Summer Peak Analysis)

Volume Development

This section describes how traffic volumes will be developed for the study intersections.

TRAFFIC COUNTS

Manual turning movement counts were provided by ODOT from August or September 2024. The counts were conducted on a typical midweek day. The counts include the total number of pedestrians, bicyclists, and motor vehicles that entered the study intersections in 15-minute intervals. Table 1 shows the traffic count information. Traffic counts were post-processed by Quality Counts, LLC and the count worksheets are provided in *Appendix A*.

Table 1. Traffic Count Summary

#	Intersection	Count Date	Count Type
1	US 101 / Jerry's Flat Road	8/5/2024	16-hour
2	US 101 / Harbor Way	8/5/2024	16-hour
3	US 101 / Moore Street	8/5/2024	16-hour
4	US 101 / Caughell Street	8/6/2024	16-hour
5	US 101 / 1st Street	8/5/2024	4-hour
6	US 101 / 2nd Street	8/7/2024	4-hour
7	US 101 / 3rd Street	8/7/2024	4-hour
8	US 101 / 4th Street	9/30/2024	4-hour
9	US 101 / 6th Street	8/6/2024	16-hour
10	US 101 / 8th Street	8/12/2024	4-hour
11	US 101 / 10th Street	8/7/2024	16-hour
12	US 101 / 11th Street	8/12/2024	4-hour
13	US 101 / Vizcaino Court / Pacific Vista Drive	8/12/2024	4-hour
14	US 101 / Hunter Creek Road	8/12/2024	16-hour

¹ The Statewide Transportation Improvement Program (STIP) was reviewed to identify projects to include in the 2045 No-Build analysis; no projects were identified that would impact traffic operations.

BASE YEAR TRAFFIC VOLUMES

Base year traffic volumes will be developed for the variety of count years using the following steps:

- Identifying a system peak hour.
- Developing 30th Hour Volumes (30 HV) for intersections based on the nearest Automatic Traffic Recorders (ATR).
- Growing traffic volumes based on historical trends to reflect Year 2025 volumes.

System Peak Hour

Based on the overall turning movement count (TMC) volumes, the overall system peak occurs between 3:15-4:15 PM. Count data is included in Appendix A.

Year 2025 Volumes

ODOT provided growth rates based on the Oregon Statewide Integrated Model (SWIM). The linear annual growth rate along US 101 in the study area is 0.75%. Traffic count data will be increased by 0.75% to account for recent growth.

30th HV (Summer Peak) and Non-Summer Peak

The APM identifies three methods for identifying seasonal adjustment factors for highway traffic volumes. All three methods utilize information provided by ATRs located in select areas throughout the state highway system that collect traffic data 24 hours a day, 365 days a year. Consistent with the Curry County *Transportation System Plan* (Reference 2), the On-Site ATR method was used. The nearest ATR is ATR 08-009 in Port Orford.

Table 2 presents values that represent the percent of Average Annual Daily Traffic (AADT) at these ATRs from the past five years during their average peak month and the month when traffic counts were collected, which result in their respective seasonal adjustment factors. As shown, the seasonal adjustment between July and August is within 1%. This difference is considered negligible, therefore counts from August will not be adjusted. The counts along US 101 from September will be adjusted up to balance with August counts at adjacent intersections.

The existing conditions analysis will include both a summer peak (30th HV) and non-summer peak. The non-summer peak will be developed by adjusting the through volumes along US 101 at the north end and south end of the corridor by a factor of 0.67 and then balancing that reduction along the remaining study intersections. Turning movement counts will also be reduced to/from US 101/Harbor Way, Jerry's Flat Road, and Hunter Creek Road with the expectation of seasonal travel along those roadways.

Table 2. Seasonal Adjustment Factor Calculation (ATR 08-009 - US 101, Port Orford)

Year	2019	2020	2021	2022	2023	Average	Seasonal Adjustment
Non-Summer Peak (October)	96	109	90	94	102	97.33	0.67
Peak Month (July)	149	147	148	139	143	146.00	N/A
Primary Count Month (August)	142	155	137	135	157	144.67	1.01

Note: Shaded values are dropped from average calculation per ODOT methodology. Calculations are based on the percentage of AADT from the peak month divided by the percentage of AADT from the count month.

FUTURE YEAR TRAFFIC VOLUMES

The road volumes in SWIM are not calibrated to the level that city/Metropolitan Planning Organization models are, therefore ODOT recommends using a linear annual growth rate to develop future volumes. The SWIM was used to establish a linear annual growth rate of 0.75%, as described under the Base Year Traffic Volumes. When comparing the SWIM model to ODOT's Future Volume Table, the SWIM is a higher (more conservative) estimate.

ODOT Operating Standards

The 1999 OHP Policy 1F (see Reference 3) outlines specific mobility targets to be maintained along ODOT facilities as part of adopted Highway Mobility Policy. The OHP designates the following mobility targets for US 101 in Gold Beach:

- Signalized intersections
 - Overall intersection v/c less than or equal to 0.90 where the posted speed is less than or equal to
 35 MPH
 - Overall intersection v/c less than or equal to 0.85 where the posted speed is greater than 35 MPH
- Unsignalized intersections
 - State highway approaches achieve the v/c ratios listed above
 - Non-state highway approaches are expected to achieve the v/c ratios for District/Local Interest roads, which is less than or equal to 0.95 where the posted speed is less than or equal to 35 MPH and 0.90 where the posted speed is greater than 35 MPH.

Future build alternatives for ODOT facilities will be developed and evaluated based on the standards provided in The Highway Design Manual Table 1200-2: 20 Year Design-Mobility Standards (Volume/Capacity [v/c]) Ratio (Reference 4). The applicable operating standards for each study intersection are shown in Table 3. TM#1: Plans, Policy, and Code Review includes excerpts of these tables.

Table 3. Operating Standards

#	Intersection	Lead Agency	Traffic Control	Existing and Future No- Build Operating Standard ¹	Future Build Operating Standard ¹
1	US 101 / Jerry's Flat Road	ODOT	TWSC ²	v/c ≤ 0.95	v/c ≤ 0.80
2	US 101 / Harbor Way	ODOT	TWSC ²	v/c ≤ 0.95	v/c ≤ 0.80
3	US 101 / Moore Street	ODOT	Signal	v/c ≤ 0.90	v/c ≤ 0.75
4	US 101 / Caughell Street	ODOT	TWSC	v/c ≤ 0.95	v/c ≤ 0.80
5	US 101 / 1st Street	ODOT	TWSC ²	v/c ≤ 0.95	v/c ≤ 0.80
6	US 101 / 2nd Street	ODOT	TWSC	v/c ≤ 0.95	v/c ≤ 0.80
7	US 101 / 3rd Street	ODOT	TWSC	v/c ≤ 0.95	v/c ≤ 0.80
8	US 101 / 4th Street	ODOT	TWSC	v/c ≤ 0.95	v/c ≤ 0.80
9	US 101 / 6th Street	ODOT	Signal	v/c ≤ 0.90	v/c ≤ 0.75
10	US 101 / 8th Street	ODOT	TWSC	v/c ≤ 0.95	v/c ≤ 0.80
11	US 101 / 10th Street	ODOT	TWSC	v/c ≤ 0.95	v/c ≤ 0.80
12	US 101 / 11th Street	ODOT	TWSC ²	v/c ≤ 0.95	v/c ≤ 0.80
13	US 101 / Vizcaino Court / Pacific Vista Drive	ODOT	TWSC	v/c ≤ 0.90	v/c ≤ 0.80
14	US 101 / Hunter Creek Road	ODOT	TWSC ² /Free Right-Turn ³	v/c ≤ 0.90	v/c ≤ 0.80

TWSC = two-way stop-control; v/c = volume to capacity.

Analysis Methodology

All analyses will follow the operational procedures per the *Highway Capacity Manual, 7th Edition* (see Reference 5) and be completed using Synchro 12 software for the study intersections.

Table 4 summarizes the operational parameters and assumptions that will be used in the analyses per the ODOT APM (see Reference 1) requirements.

¹The Existing and Future No-Build Operating Standards reflect OHP mobility targets while the Future Build Operating Standards reflect HDM mobility standards.

² This intersection is three-legged and has stop control on the minor approach.

³ This intersection has a right-turn slip lane on the minor approach.

Table 4. ODOT Operations Intersection Parameters and Assumptions

Intersection Parameters	Assumption
Peak Hour Factor (Existing and Future Year)	From traffic counts ¹
Flow Rates	15 min
Conflicting Bikes and Pedestrians per Hour	From traffic counts, as available
Ideal Saturation Flow Rate (for All Movements)	1,750 pcphg
Percent Heavy Vehicles	From traffic counts by movement, as available
Percent Grade	Estimated based on field observations
Intersection Signal Phasing	From ODOT
Intersection Signal Timing Optimization Limits	Maximum cycle length = 120 seconds
Minimum Green Time	From timing plans
Yellow and All-Red Time	From timing plans
SimTraffic Vehicle, Driver, and Interval Parameters	Updated according to APM Chapter 15

pcphg = passenger cars per hour green per lane.

INTERSECTION AND TRAFFIC ANALYSIS PARAMETERS

This section 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 of Gold Beach and ODOT.

- Intersection and roadway geometry data (lane numbers and arrangements, cross-section elements, signal phasing, etc.) will be collected through aerial photography and confirmed by City and ODOT staff.
- Operational data (posted speeds, intersection control, parking, transit stops, right-turn on red, etc.)
 will be collected through a site visit and review of Google Earth aerial imagery.
- 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 PHFs². However, if the existing PHFs are greater than the default PHFs, then the existing PHFs will be applied.

¹ Default peak hour factors (PHFs) from the APM may be used for the future conditions analysis if they are higher than the existing PHFs.

² PHF will be assumed to be a minimum of 0.92 for major arterial-minor arterial (US 101/Jerry's Flat Road). The APM does not include default PHF for major arterial-collector, so the PHF for minor arterial and collector (0.88) will be conservatively assumed to be the minimum for US 101/Hunter Creek Road. The APM does not include default PHF for arterial-local roadway, therefore the PHF for collector-collector or lower classification (0.85) will be the assumed minimum PHF for all other intersections.

- Traffic volume development is described above.
- 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.
- Traffic operations data
 - The methodologies identified in the *Highway Capacity Manual, 7th Edition* (see Reference 5) will be used to analyze traffic operations at the study intersections.
 - Synchro 12 will be used to conduct the traffic operations analyses at intersections. Synchro 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.
 - SimTraffic will be used to evaluate 95th percentile queues. 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. Vehicle, Driver, and Interval parameters will be adjusted according to Chapter 15 of the APM.

SAFETY ANALYSIS

The five most recent years of crash data will be reviewed at the study intersections consistent with the methodologies outlined in Chapter 4 of the APM. Segment crashes will be evaluated along US 101 between Jerry's Flat Road and Hunter Creek Road. Currently, complete crash data is available for January 1, 2019, through December 31, 2023. The data will be analyzed for number, type, severity, and location to identify potential crash patterns and million entering vehicle (MEV) crash rates (critical crash rates will also be developed and evaluated as applicable). Intersection crash rates will be compared to the published 90th percentile crash rates in Exhibit 4.1 of the APM and critical crash rates. Reported intersection crashes will also be analyzed according to the Excess Proportions of Specific Crash Types Method. ODOT's top 10 percent of Safety Priority System sites will be reviewed, as appropriate³.

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

A multimodal inventory will be conducted along US 101 and potential parallel routes. This will include the following features, as data permits:

- Pedestrian Facilities
 - Identification of all formal and informal pedestrian facilities (enhanced pedestrian crossings, sidewalks, paved and unpaved pathways)
 - Identification of the typical width, condition, and use of pedestrian facilities for the corridor by major segment.

³ No locations in the study area were identified in ODOT's SPIS 2019-2023 lists.

- Identification of the consistency of pedestrian facilities with applicable state, regional, and local design standards.
- Identification of intermodal connections (e.g. access to transit).
- Identification of major pedestrian generators (e.g. origins and destinations).

Bicycle Facilities

- Identification of on-street bicycle facilities by type, such as shared lane pavement markings, onstreet bike lanes, enhanced bicycle crossings, cycle tracks, separated bike facilities, multi-use trails, etc.
- Identification of the general location of public, off-street bicycle facilities by type, such as bike hubs, short- and long-term bike parking, etc.
- Identification of the consistency of facilities with applicable state, regional, and local standards;
- Identification of critical/priority bicycle network.
- Identification of major bicycle generators (e.g. origin and destination).
- Identification of intermodal connections such as bicycle hubs and parking at transit facilities.
- Identification of bicycle tourism routes and related infrastructure.

Public Transportation

- Identification of transit service providers.
- Identification of fixed-route and dial-a-ride service areas and the location of fixed routes and stops.
- Identification of service characteristics, such as days and hours of operation and service frequency.
- Identification of intercity bus and passenger rail terminals and park-and-ride facilities.
- Identification of the location of transportation-disadvantaged and disabled populations according to the ODOT Social Equity Index.
- Identification of transit stop amenities by transit stop.
- Identification of bicycle and pedestrian facilities adjacent to transit stops.
- Identification of ADA accessibility to individual transit stops.
- Identification of local shuttle, carpool, and vanpool services.
- Identification of planned stops or services.

Multimodal analysis will be conducted using Level of Traffic Stress for pedestrians and bicycles for US 101 and potential parallel routes in accordance with Chapter 14 of the APM. The transit analysis will focus on pedestrian and bicycle access to the transit stop located in the Ray's parking lot located at US 101/6th Street.

Access Management

Access management is a tool available to designers, planners, and other transportation professionals to improve traffic safety, capacity, and efficiency while promoting economic development.

ODOT manages access to the state highway system. According to OAR 734-051-4020, the Access Management Spacing Standards for state highways with AADT over 5,000⁴ is 500 feet where the posted speed is 30-35 MPH, and 800 feet where the posted speed is 40-45 MPH.

As part of the alternatives analysis, opportunities to consolidate access to improve safety for multimodal users while supporting the needs of local business owners will be considered.

Design Parameters

Design parameters from the Highway Design Manual (Reference 4), ODOT Roadside Design Guide (Reference 6), ODOT Traffic Manual (Reference 7), and AASHTO Roadside Design (Reference 8) will be applied as needed. Based on the *Community Transportation Framework Memorandum*, the existing land use context for US 101 is Urban Mix between Moore Street and 11th Street and Suburban Fringe for the remainder the corridor. Table 5 provides the design element recommendations associated with each relevant context from the HDM. This plan is also intended to help improve the safety and comfort of downtown Gold Beach, therefore the alternatives considered will strive to achieve the design element recommendations—particularly for the pedestrian zone—of Traditional Downtown/Central Business District between Moore Street and 11th Street.

⁴ Per TransGIS, the AADT ranges between 7,300 and 9,500 along the corridor. Effective Date: 2023.

Table 5. Design Element Recommendations based on Desired Land Use Context

Realm	Design Element	Traditional Downtown/CBD Context Width Guidance	Urban Mix Width Guidance	Suburban Fringe Width Guidance
	Frontage Zone	4' to 2'	1′	1′
Pedestrian	Pedestrian Zone	10' to 8'	8' to 5'	8' to 10'
Realm	Buffer/Furniture Zone	6' to 0'	6' to 0'	6' to 0'
	Curb/Gutter	2' to 0.5'	2' to 0.5'	2' to 0.5'
	Separated Bicycle Lane Width (Curb Constrained Facility)	8' to 7'	8' to 7'	8' to 7'
Transition	On-Street Bicycle Lane Width (not including Buffer)	6' to 5'	6' to 5'	6'
Realm	Bicycle/Street Buffer	3' to 2'	4' to 2'	5' to 2'
	Right Side Shoulder (if travel lane directly adjacent to curb)	2' to 0'	2' to 0'	6' to 0'
	On-Street Parking	7' to 8'	8'	N/A
	Travel Lane	11'	11' to 12'	11' to 12'
	Right Turn Lane (including Shy Distances)	11' to 12'	11' to 12'	12' to 13'
	Left Turn Lane	11'	11' ft 12'	12' to 14'
Travelway	Left Side / Right Side Shy Distance	1' to 0'	1' to 0'	1' to 0'
Realm	Two-Way-Left-Turn Lane	11' to 12'	11' to 12'	12' to 14'
	Raised Median – No Turn Lane (including Shy Distances)	8' to 11'	8' to 11'	8' to 13'
	Left-Turn Lane with Raised Curb Median/separator (includes 16" separator & Shy Distances)	12' to 14'	12' to 14'	14' to 16'

Guidance from the ODOT Traffic Manual, shown in Figure 2, will be applied for recommending enhanced crossing treatments. ODOT approvals will be required for recommended enhanced crossing treatments.

Figure 2. Uncontrolled Marked Crosswalk Treatments

Table 310.3-A: Uncontrolled marked crosswalk treatments

١	*	ъ						AA	NDT &	Posted	Speed ¹	***				
	Lanes Crossed**	ge Island	V	<3000 ehicles/			000-900 hicles/da	-		00-12,0 hicles/o		12,000-15, vehicles/c			>15,000 hicles/d	
	Lanes	Refuge	≤30 mph		40-45 mph	≤30 mph		40-45 mph	≤30 mph	35 mph	40-45 mph	≤30 35 mph mph	40-45 mph	≤30 mph		40-45 mph
	1	N/A	A* B	E G I	(A) C	▲ B C E	E	B C	O E I	A C E G I	⊗ c ⊚ ι	A CA C E E G I G I	(А) С (С) I	O E -	E	В С
	,	Yes	A* B O	G I	(A) C	A B C D E	E	в В п	O E -	A C E G I	(B) (B) (C) (C) (C) (C) (C) (C) (C) (C) (C) (C	A CA C DE E G IG I	(B) (B) (C) (C) (C) (C) (C) (C) (C) (C) (C) (C	A E I	E	(а) С (в I
	2	No		E F	(A) (E) F	A B C D E F	E F	E F	O E F G I	A G F		A	A	() E E -	(A) E F	A E F
Ī	2	Yes	D E G	A C E	(A) (E)	AB G DE G I	A ⊕ (0	E	D E G I		(A) (E) (F) (F) (F) (F) (F) (F) (F) (F) (F) (F	A	(A) (E) (G) (D E I		A
	3	No	D E I	E F		A B G D E F G I		B E I	D E 🛈	E ()	0	6 6	A E	6 I	E ()	E (7)
Ī	4	Yes	A E G	(A) (E) (G) (G) (G) (G) (G) (G) (G) (G) (G) (G	A E	A	Ø ⊚ (Ø	Е	● E - G H G H G H G H G H G H G H G H G H G	Е	(A)		E	DE	В Н	А © Е Н ①
	4	No	(2) G (3)	(A) (C) (F) (G) (F) (F) (F) (F) (F) (F) (F) (F) (F) (F	A E ()	△	(A) (E) (F) (F) (F) (F) (F) (F) (F) (F) (F) (F	E (F	Θ € €	⊕ E		(a) (b) (c) (c) (d) (d) (d) (d) (d) (d) (d) (d) (d) (d	(A) E (F) H (I)	(A) E H	A E B	A E (3) H (1)

^{*} Treatment "A" recommended for school crosswalks and midblock crosswalks.

Installation of a treatment(s) at any location is subject to an engineering study that accounts for factors such as sight distance, safety, operations, other field conditions, and local land use.

- X = Treatment optional
- Treatment recommended.
- Treatment recommended and should be installed with other identified treatments.

The absence of a letter means the treatment is generally not appropriate, but exceptions may be considered through the engineering study and state traffic engineer approval process

- A = Continental-style crosswalk markings, parking restrictions on crosswalk approach (see Table 310.3-B), lighting according to the ODOT Traffic Lighting Design Manual. Crossing warning sign(s) for school crosswalks, midblock crosswalks, or speed ≥30 mph.

 B = Raised crosswalk, except on freight routes, emergency
- 8 = Raised crosswalk, except on freight routes, emergency response routes, arterial roadways, and snowplow routes.
- C = If 2+ lanes in one direction, wide advance stop bar and STOP HERE FOR Pedestrians sign.
- D = In-street pedestrian crossing sign (R1-6a). If refuge island present, install on the refuge island.
- E = Curb extension.
- F = If crossing 2-way traffic, pedestrian refuge island (at least 6 feet wide).
- G = Rectangular rapid flashing beacon (RRFB).
- H = Reduce number of motor vehicle lanes.
- I = Traffic signal or pedestrian hybrid beacon (PHB).
- Blue = All treatments shown in category optional. Treatment "A" recommended for school and midblock crosswalks
- Green = Visibility enhancements recommended.
- Yellow = RRFB treatment recommended.
- Red = Traffic signal or PHB recommended.

Next Steps

This memorandum will be reviewed by the project management team (PMT) and ODOT staff. Next, the project team will evaluate existing and future conditions and develop and evaluate alternatives according to the methodology documented herein.

References

- Oregon Department of Transportation. Analysis Procedures Manual, 2022.
- 2. Curry County. Transportation System Plan (Adoption Draft). 2024
- 3. Oregon Department of Transportation. *Oregon Highway Plan*, 2015.
- 4. Oregon Department of Transportation. *Highway Design Manual*. 2023.
- 5. National Academies of Sciences, Engineering, and Medicine. *Highway Capacity Manual 7th Edition: A Guide for Multimodal Mobility Analysis.* 2022.
- 6. Oregon Department of Transportation. *Roadside Design Guide*. 2025.
- 7. Oregon Department of Transportation. Traffic Manual. 2024
- 8. American Association of State Highway and Transportation Officials. Roadside Design Guide. 2018.

Appendix

Appendix A: Traffic Counts

^{**} Total motor vehicle lanes crossed to complete the crossing, including TWLTL and left/right turn lanes. Bicycle lanes and refuge islands at least 6 feet wide are not lanes crossed. STE approval required for uncontrolled marked crosswalks across 5+ lanes.

^{***} See Speed discussion in the Special Considerations subsection. 85th percentile speed may be used instead of the posted speed. Except at roundabouts, uncontrolled marked crosswalks should not be installed where the posted speed is 50 mph or higher. This table does not apply to temporary marked crosswalks. See the TCP Manual (3) for temporary uncontrolled marked crosswalks.



Appendix A. Traffic Counts

1:15 PM

1:30 PM

1:45 PM

2:00 PM

2:15 PM

2:30 PM

2:45 PM

3:00 PM

3:15 PM

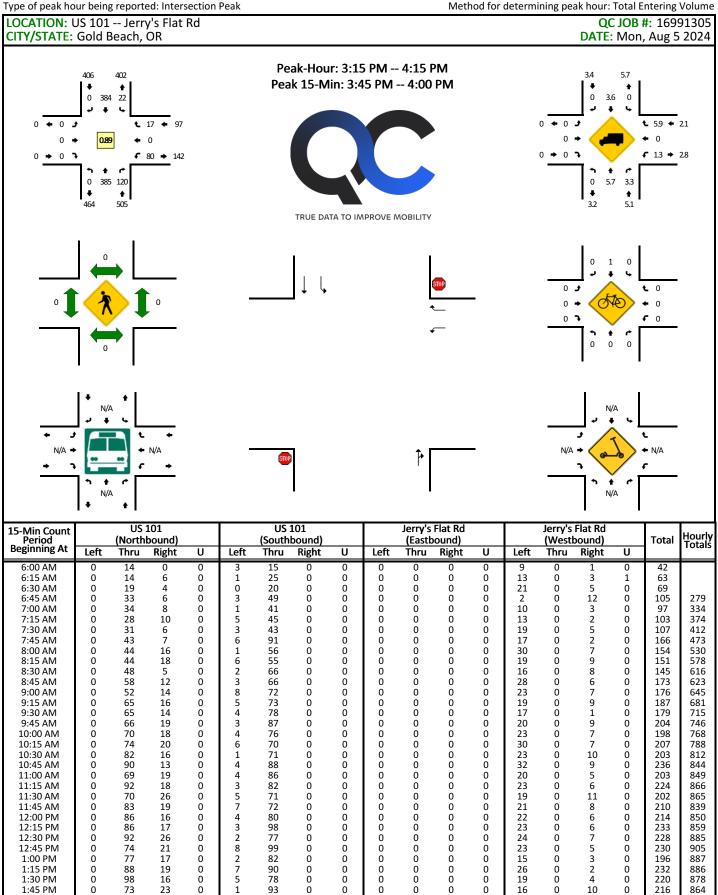
0

O

98

O

4 3



n

O

O

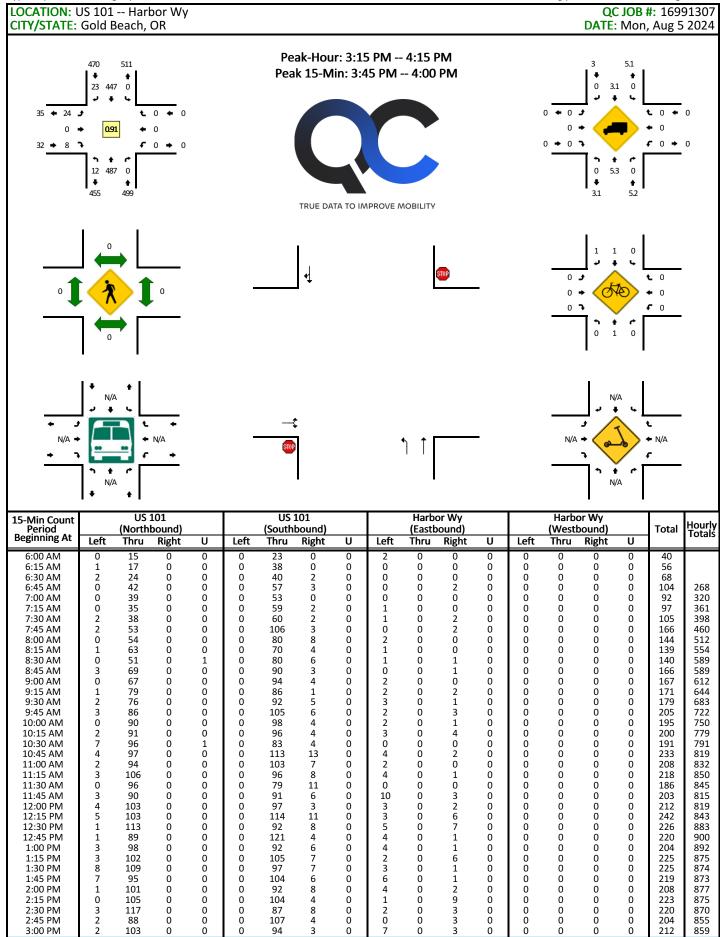
O

19

O

O

15-Min Count Period			101 bound)			US (South	101 bound)				Flat Rd ound)				Flat Rd bound)		Total Hour				
Beginning At	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	1014	Totalś			
3:30 PM	0	99	32	0	9	87	0	0	0	0	0	0	17	0	5	0	249	917			
3:45 PM	0	124	24	0	4	112	0	0	0	0	0	0	15	0	3	0	282	986			
4:00 PM	0	73	34	0	2	91	0	0	0	0	0	0	26	0	4	0	230	1008			
4:15 PM	0	85	33	0	6	83	0	0	0	0	0	0	22	0	3	0	232	993			
4:30 PM	0	81	24	0	7	88	0	0	0	0	0	0	20	0	6	0	226	970			
4:45 PM	0	81	34	0	9	89	0	0	0	0	0	0	14	0	2	0	229	917			
5:00 PM	0	102	31	0	9	87	0	0	0	0	0	0	22	0	1	0	252	939			
5:15 PM	0	73	27	0	6	82	0	0	0	0	0	0	19	0	3	0	210	917			
5:30 PM	0	81	31	0	5	71	0	0	0	0	0	0	17	0	6	0	211	902			
5:45 PM	0	73	32	0	8	70	0	0	0	0	0	0	24	0	9	0	216	889			
6:00 PM	0	56	27	0	3	53	0	0	0	0	0	0	16	0	4	0	159	796			
6:15 PM	0	80	33	0	1	57	0	0	0	0	0	0	15	0	1	0	187	773			
6:30 PM	0	55	14	0	6	45	0	0	0	0	0	0	14	0	2	0	136	698			
6:45 PM	0	49	19	0	5	52	0	0	0	0	0	0	17	0	2	0	144	626			
7:00 PM	0	53	22	0	2	50	0	0	0	0	0	0	14	0	5	0	146	613			
7:15 PM	0	49	21	0	3	34	0	0	0	0	0	0	10	0	3	0	120	546			
7:30 PM	0	35	14	0	7	32	0	0	0	0	0	0	11	0	0	0	99	509			
7:45 PM	0	26	14	0	3	42	0	0	0	0	0	0	5	0	1	0	91	456			
8:00 PM	0	33	10	0	3	44	0	0	0	0	0	0	10	0	5	0	105	415			
8:15 PM	0	34	13	0	2	31	0	0	0	0	0	0	15	0	0	0	95	390			
8:30 PM	0	32	17	0	4	18	0	0	0	0	0	0	5	0	1	0	77	368			
8:45 PM	0	19	9	0	5	19	0	0	0	0	0	0	4	0	3	0	59	336			
9:00 PM	0	20	11	0	2	24	0	0	0	0	0	0	7 7	0	2	0	66	297			
9:15 PM	0	20	10	0	3	17	0	0	0	0	0	0	-	0	1	0	58	260 226			
9:30 PM 9:45 PM	0	13 10	14 9	0	1	9 9	0 0	0 0	0	0	0 0	0	3 8	0	3 3	0	43 42	209			
	U		bound	U	3	South	_	U	U	_	ound	U	٥	Westl		U	42	209			
Peak 15-Min Flowrates	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	To	tal			
				_													11	20			
All Vehicles	0	496	96	0	16	448	0 0	0	0	0	0	0	60	0	12	0		.28			
Heavy Trucks	0	24	4		0	8	U		0	0	0		0	0	4		4	.0			
Buses Pedestrians		0				0				0				0				1			
Bicycles	0	0	0		0	0 4	0		0	0	0		0	0	0) 4			
Scooters	U	U	U		U	4	U		U	U	U		U	U	U		•	+			
Comments:																					



0

871

n

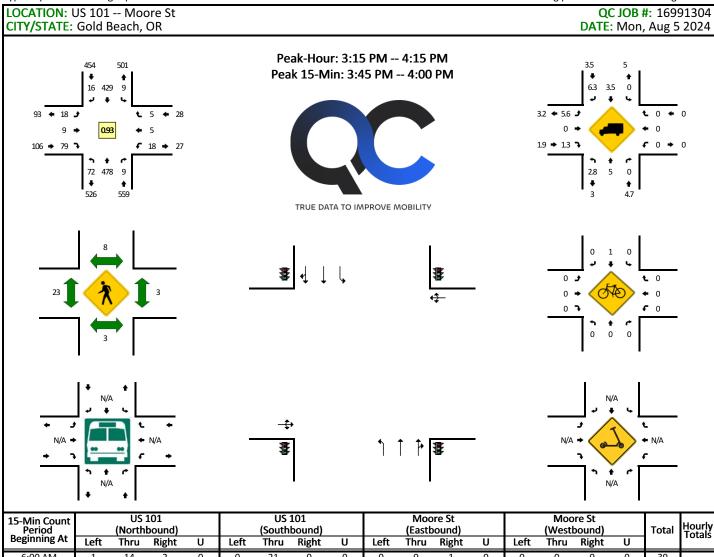
107

3:15 PM

109

0

15-Min Count Period	riod (Northbound)						101 bound)				or Wy oound)				or Wy bound)		Total	<u>H</u> ourly
Beginning At	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		Totalś
3:30 PM	5	136	0	0	0	105	5	0	3	0	4	0	0	0	0	0	258	909
3:45 PM	1	135	0	0	0	121	7	0	11	0	0	0	0	0	0	0	275	980
4:00 PM	4	107	0	0	0	114	4	0	4	0	0	0	0	0	0	0	233	1001
4:15 PM	1	111	0	0	0	94	7	0	6	0	4	0	0	0	0	0	223	989
4:30 PM	1	102	0	0	0	101	9	0	7	0	2	0	0	0	0	0	222	953
4:45 PM	2	111	0	0	0	102	3	0	4	0	6	0	0	0	0	0	228	906
5:00 PM	3	132	0	0	0	112	2	0	3	0	2	0	0	0	0	0	254	927
5:15 PM	0	98	0	0	0	91	5	0	4	0	5	0	0	0	0	0	203	907
5:30 PM	0	108	0	0	0	86	7	0	4	0	1	0	0	0	0	0	206	891
5:45 PM	3	99	0	0	0	88	5	0	2	0	5	0	0	0	0	0	202	865
6:00 PM	4	79	0	0	0	66	2	0	5	0	2	0	0	0	0	0	158	769
6:15 PM	1	112	0	0	0	68	4	0	5	0	0	0	0	0	0	0	190	756
6:30 PM	0	66	0	0	0	60	1	0	3	0	1	0	0	0	0	0	131	681
6:45 PM	3	64	0	0	0	68	2	0	1	0	4	0	0	0	0	0	142	621
7:00 PM	1	76	0	0	0	59	2	0	1	0	1	0	0	0	0	0	140	603
7:15 PM	3	68	0	0	0	41	3	0	1	0	0	0	0	0	0	0	116	529
7:30 PM	0	46	0	0	0	45	0	0	2	0	0	0	0	0	0	0	93	491
7:45 PM	0	38	0	0	0	44	1	0	3	0	0	0	0	0	0	0	86	435
8:00 PM	0	41	0	0	0	54	1	0	2	0	0	0	0	0	0	0	98	393
8:15 PM	0	43	0	0	0	42	1	1	3	0	1	0	0	0	0	0	91	368
8:30 PM	1	48	0	0	0	25	1	0	2	0	2	0	0	0	0	0	79	354
8:45 PM	2	26	0	0	0	20	3	0	1	0	1	0	0	0	0	0	53	321
9:00 PM	1	33	0	0	0	30	1	0	0	0	0	0	0	0	0	0	65	288
9:15 PM	3	29	0	0	0	23	0	0	1	0	0	0	0	0	0	0	56	253
9:30 PM	0	22	0	0	0	13	0	0	2	0	1	0	0	0	0	0	38	212
9:45 PM	0	19	0	0	0	13	1	0	0	0	0	0	0	0	0	0	33	192
Peak 15-Min		North	bound				bound				ound				oound		To	tal
Flowrates	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	10	tai
All Vehicles	4	540	0	0	0	484	28	0	44	0	0	0	0	0	0	0	11	.00
Heavy Trucks	0	28	0		0	8	0		0	0	0		0	0	0		3	6
Buses																		
Pedestrians		0				0				0				0			()
Bicycles Scooters	0	4	0		0	4	0		0	0	0		0	0	0		8	3
Comments:																		



15-Min Count		US				US :					re St				re St			11
Period		(North	bound)			(South	bound)				ound)			(Westl	oound)		Total	Hourly Totals
Beginning At	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		Totals
6:00 AM	1	14	2	0	0	21	0	0	0	0	1	0	0	0	0	0	39	
6:15 AM	4	16	0	0	0	34	0	0	0	0	0	0	1	0	0	0	55	
6:30 AM	2	26	0	0	0	33	0	0	0	0	0	0	0	0	0	0	61	
6:45 AM	3	44	2	0	0	65	2	0	1	0	2	0	0	0	0	0	119	274
7:00 AM	4	41	1	0	0	47	0	0	0	0	4	0	0	0	0	0	97	332
7:15 AM	12	37	4	0	1	51	0	0	0	0	5	0	2	0	0	0	112	389
7:30 AM	10	41	0	0	0	50	3	0	1	0	4	0	0	0	0	0	109	437
7:45 AM	8	56	2	0	2	94	1	0	0	0	3	0	2	1	0	0	169	487
8:00 AM	5	57	5	0	1	64	0	0	1	2	4	0	1	1	1	0	142	532
8:15 AM	5	54	0	0	1	73	3	0	0	0	6	0	2	1	1	0	146	566
8:30 AM	11	55	3	0	2	67	0	0	1	1	6	0	1	3	0	0	150	607
8:45 AM	6	76	2	0	2	78	1	0	0	0	11	0	4	0	1	0	181	619
9:00 AM	10	71	0	0	1	91	2	0	0	0	9	0	5	0	0	0	189	666
9:15 AM	7	81	2	0	0	69	3	0	3	1	15	0	0	0	1	0	182	702
9:30 AM	10	77	1	0	1	72	2	0	4	0	11	0	2	1	0	0	181	733
9:45 AM	7	85	2	0	1	105	4	0	1	3	10	0	3	0	2	0	223	775
10:00 AM	15	87	4	0	2	89	1	0	2	0	16	0	5	1	1	0	223	809
10:15 AM	12	89	1	0	3	87	0	0	2	0	12	0	2	0	0	0	208	835
10:30 AM	12	106	1	0	3	88	1	0	3	1	19	0	4	1	4	0	243	897
10:45 AM	15	100	3	0	1	99	3	0	3	0	21	0	3	0	4	0	252	926
11:00 AM	15	91	4	0	3	104	4	0	4	2	16	0	5	2	1	0	251	954
11:15 AM	18	120	2	0	0	95	1	0	3	1	22	0	3	1	0	0	266	1012
11:30 AM	12	89	2	0	1	76	0	0	5	0	14	0	7	2	0	0	208	977
11:45 AM	13	96	4	0	1	89	5	0	1	1	22	0	6	0	4	0	242	967
12:00 PM	25	93	1	0	0	87	2	0	5	0	29	0	10	1	1	0	254	970
12:15 PM	25	108	1	0	1	105	11	0	4	1	26	0	4	2	5	0	293	997
12:30 PM	20	97	4	0	1	102	5	0	6	1	19	0	3	1	2	0	261	1050
12:45 PM	17	93	2	0	3	111	9	0	3	0	19	0	7	3	3	0	270	1078
1:00 PM	14	90	0	0	3	95	6	0	1	1	17	0	7	2	3	0	239	1063
1:15 PM	15	105	2	0	1	97	4	0	3	1	19	0	2	3	3	0	255	1025
1:30 PM	17	115	3	0	3	105	8	0	6	1	28	0	2	1	3	0	292	1056
1:45 PM	13	87	1	0	4	105	6	0	2	3	18	0	1	2	1	0	243	1029
2:00 PM	12	92	3	0	2	84	0	0	8	U	23	0	6	2	3	0	235	1025
2:15 PM	15	99	2	0	0	110	3	0	1	1	14	0	3	0	2	0	250	1020
2:30 PM	8	104	0	0	0	107	3	0	7	0	5	0	3	0	2	0	239	967
2:45 PM	11	83	2	0	0	106	1	0	5	2	25	0	5	3	1	0	250	974
3:00 PM	27	104	0	0	0	97	1	0	6	0	11	0	2	0	3	0	251	990
3:15 PM	22	102	4	0	4	106	1	0	5	3	25	0	3	1	1	0	277	1017

15-Min Count			101 bound)				101 bound)				re St oound)				re St oound)		Total Hour			
Period Beginning At	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	TOLAI	Totals		
3:30 PM	18	135	3	0	0	103	3	0	2	1	21	0	3	0	1	0	290	1068		
3:45 PM	17	135	2	0	1	115	6	0	4	3	16	0	5	1	2	0	307	1125		
4:00 PM	15	106	0	0	4	105	6	0	7	2	17	0	7	3	1	0	273	1147		
4:15 PM	11	102	3	0	1	91	3	0	3	0	23	0	7	0	2	0	246	1116		
4:30 PM	15	109	2	0	0	123	5	0	2	0	12	0	9	2	2	0	281	1107		
4:45 PM	12	100	0	0	2	116	3	0	6	3	14	0	6	0	0	0	262	1062		
5:00 PM	22	105	3	0	2	124	3	0	11	1	16	0	11	1	1	0	300	1089		
5:15 PM	11	86	0	0	0	102	3	0	8	0	19	0	0	0	0	0	229	1072		
5:30 PM	7	99	2	0	1	93	1	0	5	0	9	0	6	0	1	0	224	1015		
5:45 PM	12	94	1	0	1	95	3	0	7	2	7	0	5	1	1	0	229	982		
6:00 PM	6	80	0	0	0	70	2	0	2	0	10	0	5	0	0	0	175	857		
6:15 PM	9	101	1	0	1	68	5	0	4	0	7	0	4	0	1	0	201	829		
6:30 PM	11	62	0	0	0	53	5	0	5	0	8	0	2	0	2	0	148	753		
6:45 PM	5	61	0	0	0	71	4	0	3	1	7	0	1	1	0	0	154	678		
7:00 PM	6	72	0	0	0	61	0	0	3	0	10	0	2	2	2	0	158	661		
7:15 PM	11	61	1	0	0	42	2	0	4	0	7	0	0	1	0	0	129	589		
7:30 PM	9	42	1	0	0	48	1	0	4	1	5	0	0	0	1	0	112	553		
7:45 PM	4	36	0	0	0	50	1	0	1	0	5	0	0	0	0	0	97	496		
8:00 PM	6	41	1	0	0	59	3	0	3	0	5	0	1	0	0	0	119	457		
8:15 PM	2	35	1	0	0	42	2	0	4	0	/	0	0	0	1	0	94	422		
8:30 PM	7	42	1	0	0	27	1	0	3	0	5	0	2	0	0	0	88	398		
8:45 PM	6	28	0	0	0	27	2	0	3	0	5	0	0	0	0	0	71	372		
9:00 PM	3	31	0	0	0	37	0	0	1	0	6	0	1	0	0	0	79 67	332		
9:15 PM	3	31 22	0	0	0	24 15	2	0		0	3	0	0	0	0	0	67	305 257		
9:30 PM 9:45 PM	1 2	22 17	0	0	0	15 14	0 0	0	0	0 1	1 2	0	1 0	0	0	0	40 36	257		
	Z		bound	U	U		bound	U	U		ound	U	U	West	_	U	30	222		
Peak 15-Min Flowrates	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	То	tal		
All Vehicles	68	540	8	0	4	460	24	0	16	12	64	0	20	4	8	0	12	28		
Heavy Trucks	8	28	0	U	0	12	0	U	4	0	4	U	0	0	0	U		6		
Buses	0	20	U		J	12	U		-	U	-		J	U	U			U		
Pedestrians		4				8				36				4			5	2		
Bicycles	0	0	0		0	4	0		0	0	0		0	0	0			1		
Scooters	J	- 0	0			7	- 0		J	0	- 0		J	0	0					
Comments:																				

12:45 PM

1:00 PM

1:15 PM

1:30 PM

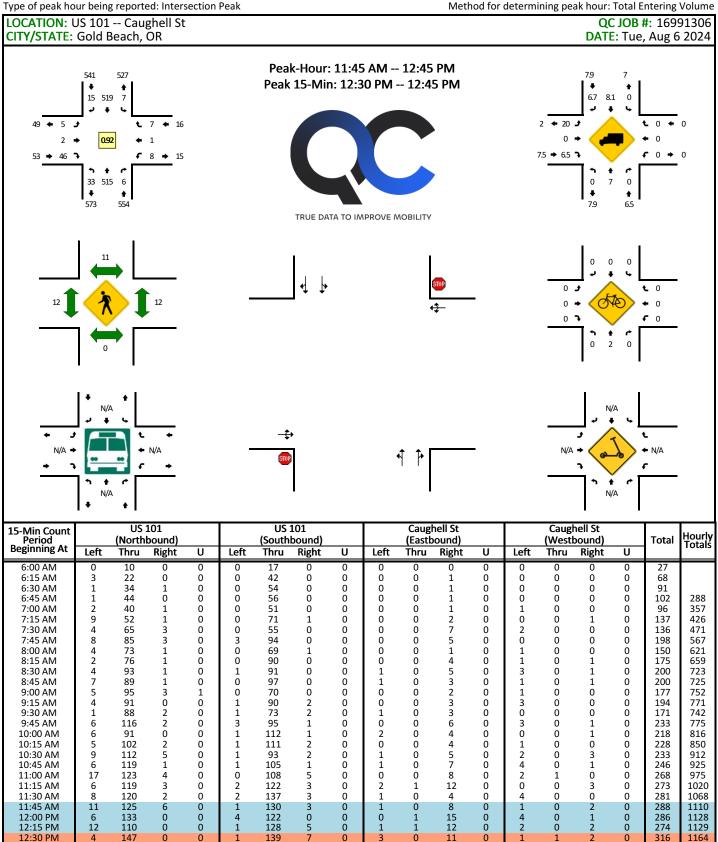
1:45 PM

2:00 PM

2:30 PM

2:45 PM

3:00 PM



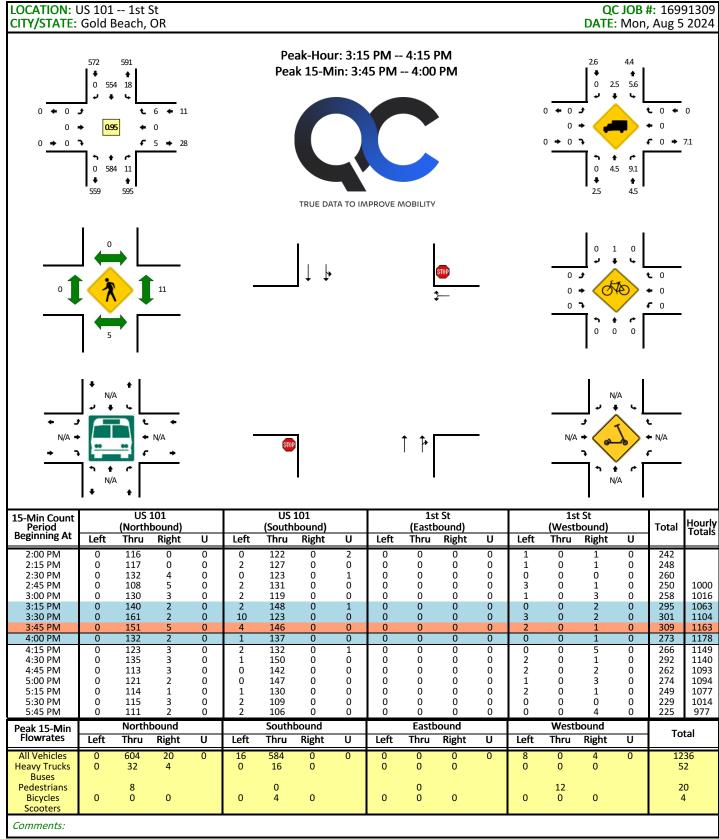
1 5

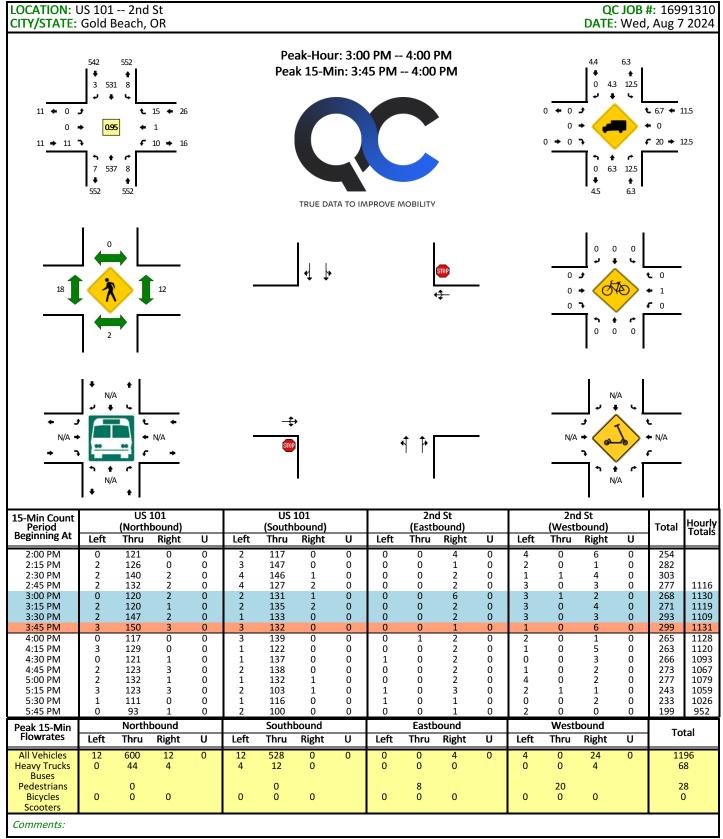
Ō

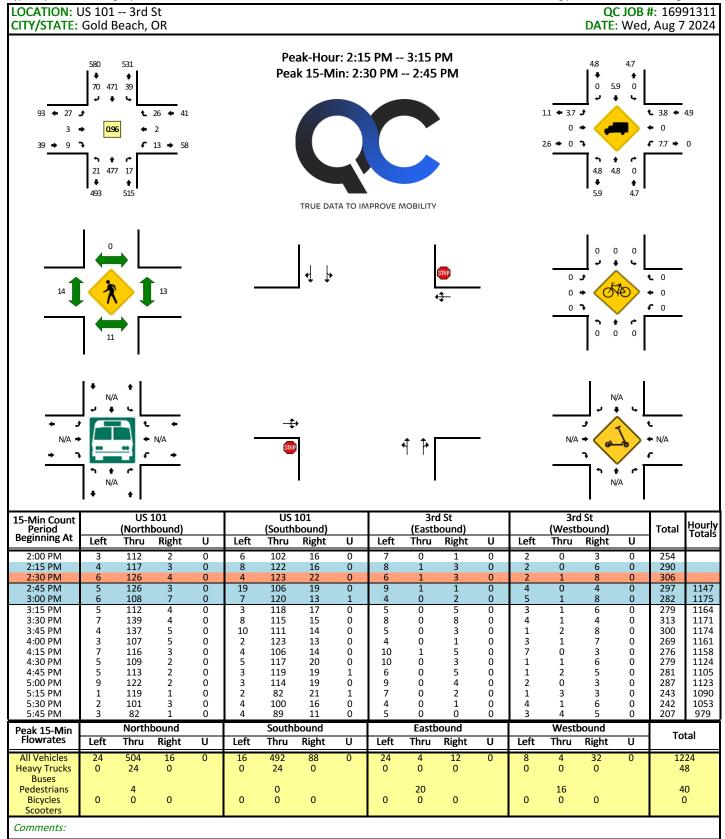
114

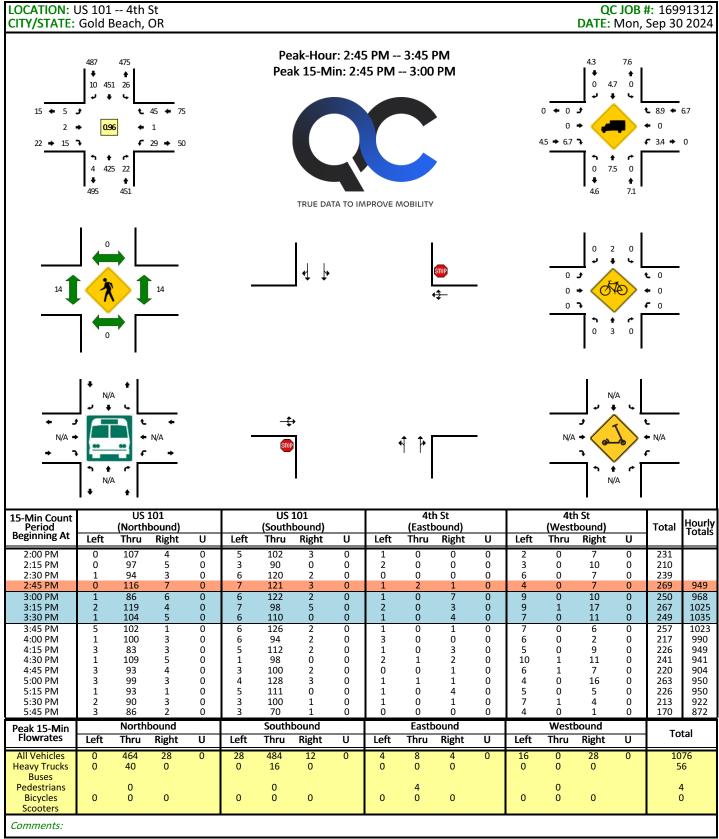
2 2

15-Min Count	Period (Northbound)						101 bound)				hell St bound)				hell St bound)		Total	Hourly
Beginning At	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Total	Totalś
3:30 PM	4	125	1	0	2	127	2	0	1	0	12	0	0	0	2	0	276	1095
3:45 PM	7	132	1	0	2	117	1	0	2	0	13	0	3	0	1	0	279	1063
4:00 PM	7	121	2	0	1	119	2	0	3	0	9	0	1	0	0	0	265	1076
4:15 PM	6	104	6	0	3	129	5	1	3	0	4	0	0	0	1	0	262	1082
4:30 PM	8	112	5	0	0	102	1	0	2	0	2	0	1	0	2	0	235	1041
4:45 PM	5	115	3	0	1	153	3	0	1	0	11	0	3	0	1	0	296	1058
5:00 PM	7	130	2	0	3	149	4	0	0	0	4	0	3	0	2	0	304	1097
5:15 PM	6	113	6	0	3	109	3	0	1	0	8 7	0	3	0	2	0	254	1089
5:30 PM	7	109	3	0	0	107	0	0	1	0	,	0	1	1	4	0	240	1094
5:45 PM	4	99	3	0	3	96	2	0	1	0	3	0	1	0	2	0	214	1012
6:00 PM 6:15 PM	5 7	101 78	3 4	0 0	3 5	84 68	2	0 0	1 3	0	10 10	0	6 0	0	0	0	215 179	923 848
6:30 PM	6	78 76	4 5	0	1	68	8	0	0	1	7	0	7	0	1	0	180	788
6:45 PM	3	76 75	2	0	1	72	2	0	1	0	10	0	1	0	1	0	168	768 742
7:00 PM	6	75 72	0	0	0	72 74	2	0	0	0	2	0	2	1	2	0	161	688
7:00 PM 7:15 PM	6	72 59	1	0	0	60	3	0	2	0	4	0	0	0	0	0	135	644
7:30 PM	5	44	2	0	0	60	4	0	1	0	11	0	1	0	2	0	130	594
7:45 PM	1	36	0	0	1	67	4	0	4	0	3	0	Ō	0	0	0	116	542
8:00 PM	4	46	0	0	1	52	0	0	1	0	6	0	2	0	0	0	112	493
8:15 PM	1	36	0	0	ō	40	1	0	1	0	9	0	1	0	1	0	90	448
8:30 PM	5	30	0	0	ő	39	0	0	2	0	2	0	ō	0	0	0	78	396
8:45 PM	2	35	1	1	ő	43	0	0	1	0	3	Ö	1	0	0	0	87	367
9:00 PM	1	29	Ō	Ō	ő	24	Ö	0	ō	Ô	1	0	ō	0	0	0	55	310
9:15 PM	1	30	1	Ö	ő	27	0	Ö	ő	Ô	3	0	ő	0	0	0	62	282
9:30 PM	Ō	25	0	Ö	ő	27	Ö	Ö	ő	Ö	2	Ö	ő	0	0	Ö	54	258
9:45 PM	0	18	0	Ö	ő	22	0	Ö	ő	0	2	0	ő	0	0	0	42	213
Peak 15-Min		North	bound			South	bound	-		Eastb	ound	-		Westl	oound	-		
Flowrates	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	l lo	tal
All Vehicles	16	588	0	0	4	556	28	0	12	0	44	0	4	4	8	0	12	64
Heavy Trucks	0	48	Ö		Ö	40	4		0	0	0	-	Ö	ò	0			2
Buses			·												- J			
Pedestrians		0				8				8				4			2	0
Bicycles	0	8	0		0	Ö	0		0	Ö	0		0	Ö	0			3
Scooters																		
Comments:																		





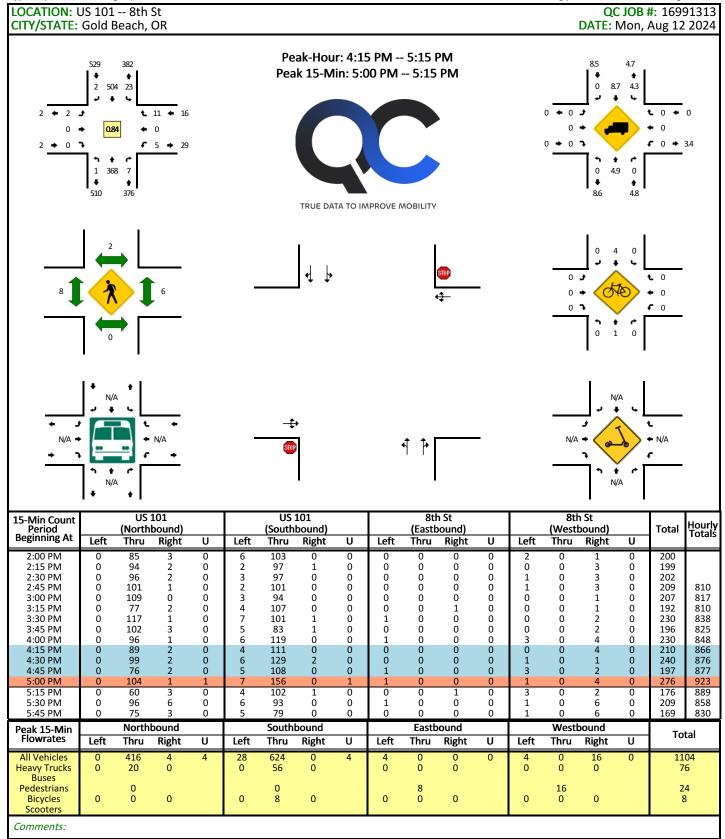


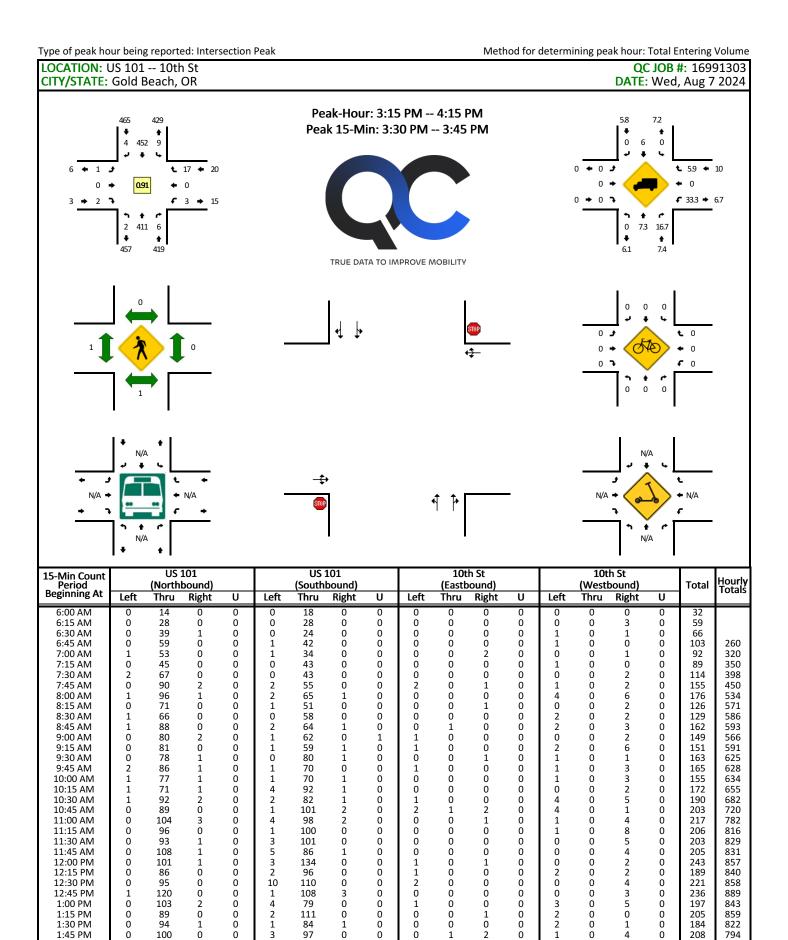


LOCATION: US 101 -- 6th St QC JOB #: 16991302 CITY/STATE: Gold Beach, OR DATE: Tue, Aug 6 2024 Peak-Hour: 12:45 PM -- 1:45 PM 517 Peak 15-Min: 12:45 PM -- 1:00 PM 0 **4** 3.1 **3** 0 → 0 → 6.3 → 9.4 → **€** 5.9 **→** 8.7 64 **→** 32 **→ €** 17 **→** 46 18 462 16 + + 495 496 0 7.8 12.5 • • TRUE DATA TO IMPROVE MOBILITY

15-Min Count		US				US					h St				n St			Hourly
Period Beginning At			bound)				bound)				ound)				bound)		Total	Totals
beginning At	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 AM	0	9	2	0	0	11	0	0	0	0	0	0	0	0	1	0	23	
6:15 AM	0	26	1	0	1	19	1	0	0	0	1	0	2	0	0	0	51	
6:30 AM	3	38	0	0	0	44	1	0	1	0	1	0	1	0	6	0	95	
6:45 AM	3	46	6	0	1	53	0	0	1	0	1	0	2	0	0	0	113	282
7:00 AM	0	60	3	0	1	38	0	0	0	0	0	0	7	0	2	0	111	370
7:15 AM	2	59	5	0	5	56	2	0	4	0	2	0	3	0	4	0	142	461
7:30 AM	0	70	2	0	6	54	0	0	5	0	3	0	2	1	4	0	147	513
7:45 AM	1	85	3	0	10	53	1	0	1	0	2	0	5	0	10	0	171	571
8:00 AM	2	66	10	0	9	52	1	0	3	1	2	0	4	2	5	0	157	617
8:15 AM	3	78	7	0	11	55	1	0	2	0	1	0	6	1	6	0	171	646
8:30 AM	4	82	3	0	10	57	0	0	6	1	3	0	4	0	12	0	182	681
8:45 AM	4	84	7	0	10	59	3	0	3	0	0	0	6	0	7	0	183	693
9:00 AM	3	80	2	0	8	57	2	0	6	0	4	0	7	1	5	0	175	711
9:15 AM	4	75	6	0	4	75	2	0	4	0	2	0	4	0	5	0	181	721
9:30 AM	3	86	3	0	4	68	1	0	5	0	3	0	4	1	8	0	186	725
9:45 AM	5	97	5	0	11	71	0	0	6	0	1	0	4	1	7	0	208	750
10:00 AM	6	68	3	0	6	96	0	0	2	2	5	0	3	3	3	0	197	772
10:15 AM	5	91	0	0	5	89	1	0	5	1	4	0	4	2	4	0	211	802
10:30 AM	4	105	4	0	2	82	2	0	5	1	2	0	6	0	6	0	219	835
10:45 AM	3	118	3	0	5	84	1	0	5	0	7	0	2	1	7	0	236	863
11:00 AM	1	112	4	0	7	86	2	0	6	0	3	0	4	0	4	0	229	895
11:15 AM	2	104	4	0	8	98	1	0	3	0	11	0	3	0	3	0	237	921
11:30 AM	4	102	1	0	5	121	0	0	7	3	2	0	5	0	12	0	262	964
11:45 AM	2	120	4	0	10	116	1	0	4	1	4	0	4	0	10	0	276	1004
12:00 PM	4	102	7	0	10	122	3	0	10	2	4	0	7	1	7	0	279	1054
12:15 PM	3	92	8	0	10	100	1	0	5	0	4	0	5	2	9	0	239	1056
12:30 PM	4	97	2	0	8	107	4	0	9	1	5	0	10	0	10	0	257	1051
12:45 PM	7	123	6	0	11	117	3	0	9	0	8	0	2	0	4	0	290	1065
1:00 PM	3	121	3	0	5	103	1	0	8	0	5	0	4	1	12	0	266	1052
1:15 PM	4	107	3	0	8	117	2	0	7	0	13	0	6	1	3	0	271	1084
1:30 PM	4	111	4	0	6	109	2	0	8	0	6	0	5	0	4	0	259	1086
1:45 PM	2	100	7	0	8	103	5	0	5	0	5	0	6	2	7	0	250	1046
2:00 PM	6	118	6	0	4	122	0	0	6	0	4	0	4	0	8	0	278	1058
2:15 PM	7	89	1	0	5	103	3	0	7	1	9	0	4	1	3	0	233	1020
2:30 PM	6	101	3	0	4	101	3	0	8	0	3	0	6	0	5	0	240	1001
2:45 PM	0	120	5	0	4	126	1	0	10	0	2	0	4	0	6	0	278	1029
3:00 PM	2	96	4	0	5	103	3	0	8	0	6	0	2	1	3	0	233	984
3:15 PM	4	106	6	0	6	102	2	1	3	1	10	0	6	1	6	0	254	1005

15-Min Count Period			101 bound)				101 bound)				h St oound)				n St bound)		Total	Hourly
Beginning At	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	TOLAI	Totals
3:30 PM	6	105	3	0	5	116	2	0	10	0	5	0	5	1	7	0	265	1030
3:45 PM	3	115	6	0	10	103	1	0	6	0	3	0	4	1	9	0	261	1013
4:00 PM	3	83	2	0	8	108	2	0	5	0	10	0	7	2	5	0	235	1015
4:15 PM	2	88	3	0	3	115	2	0	5	0	4	0	4	0	0	0	226	987
4:30 PM	3	97	5	0	6	106	3	0	7	1	5	0	10	1	9	0	253	975
4:45 PM	4	100	6	0	6	135	1	0	2	1	2	0	5	0	4	0	266	980
5:00 PM	3	103	4	0	10	129	5	0	10	4	7	0	5	1	3	0	284	1029
5:15 PM	4	95	4	0	3	105	0	0	10	2	3	0	5	2	5	0	238	1041
5:30 PM	5	99	2	0	6	102	3	1	3	2	8	0	1	0	5	0	237	1025
5:45 PM	5	95	5	0	4	87	2	0	10	0	3	0	1	2	8	0	222	981
6:00 PM	0	85	6	0	3	97	3	0	6	1	8	0	6	0	3	0	218	915
6:15 PM	8	59	5	0	4	78	3	0	2	0	8	0	1	0	5	0	173	850
6:30 PM	6	66	1	0	4	62	0	0	8	1	3	0	2	0	5	0	158	771
6:45 PM	5	56	2	0	2	61	1	0	5	0	5	0	0	0	4	0	141	690
7:00 PM	4	49	2	0	5	72	2	0	6	0	2	0	1	0	2	0	145	617
7:15 PM	0	45	1	0	3	65	1	0	4	0	6	0	1	0	5	0	131	575
7:30 PM	2	39	3	0	5	63	1	0	3	1	2	0	2	0	3	0	124	541
7:45 PM	2	23	1	0	1	50 57	2	0	3	0	2	0	0	0	2	0	87	487
8:00 PM	1	35	1	0	3		0	0	2	•	4	0	1	0	4	•	109 90	451
8:15 PM	5	25 26	1	0	1 4	48	2 0	0	5 0	0	2	0	0	0	5	0	90 86	410
8:30 PM 8:45 PM	1	26 36	2	0 0	1	43 28	1	0	6	1	2 2	0	0	1 0	2	0	86 81	372 366
9:00 PM	2 0	21	3	0	0	28 28	0	0	0	0	2	0	1	0	2	0	56	313
9:00 PM 9:15 PM	2	19	3 1	0	2	28 27	1	0	1	1	1	0	0	0	2	0	56 57	280
9:15 PM 9:30 PM	1	22	0	0	2	27 25	1	0	4	0	2	0	1	0	0	0	57 58	252
9:45 PM	0	13	1	0	0	25 17	0	0	0	0	1	0	0	0	2	0	34	205
Peak 15-Min	U		bound	U	U		bound	U	U	_	ound	U	U		oound	U	34	203
Flowrates	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	То	tal
All Vehicles	28	492	24	0	44	468	12	0	36	0	32	0	8	0	16	0	11	60
Heavy Trucks	0	36	0	J	0	36	0	J	4	0	4	0	0	0	0	0	8	
Buses	Ü	30	U		J	30	U		7	-	7		J	0	0			
Pedestrians		4				0				0				4			8	3
Bicycles	0	0	0		0	0	0		0	Ö	0		0	0	0			
Scooters																	· ·	
Comments:																		





O

O

O

O

209

1:45 PM

2:00 PM

2:15 PM

2:30 PM

2:45 PM

3:00 PM

3:15 PM

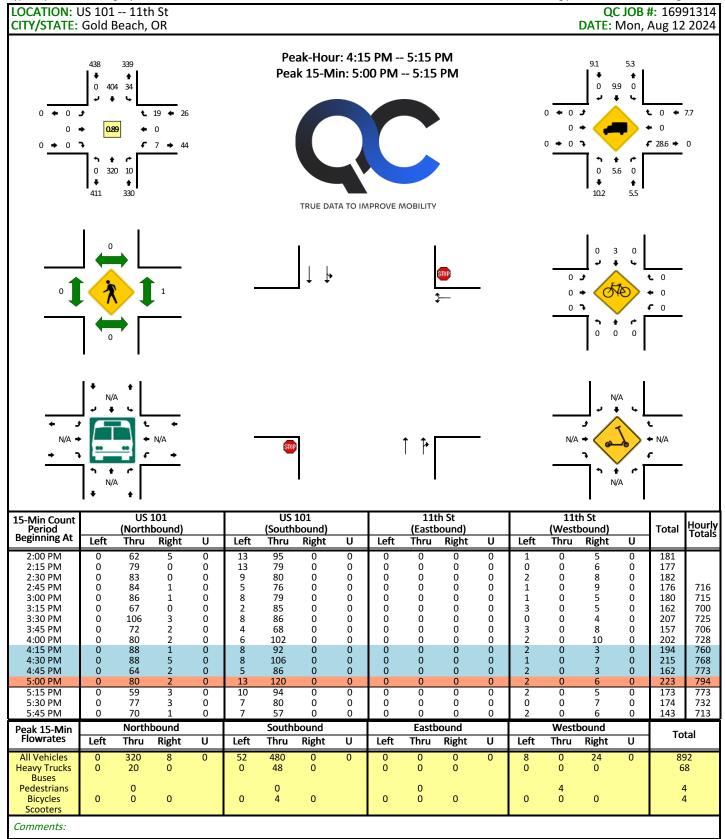
O

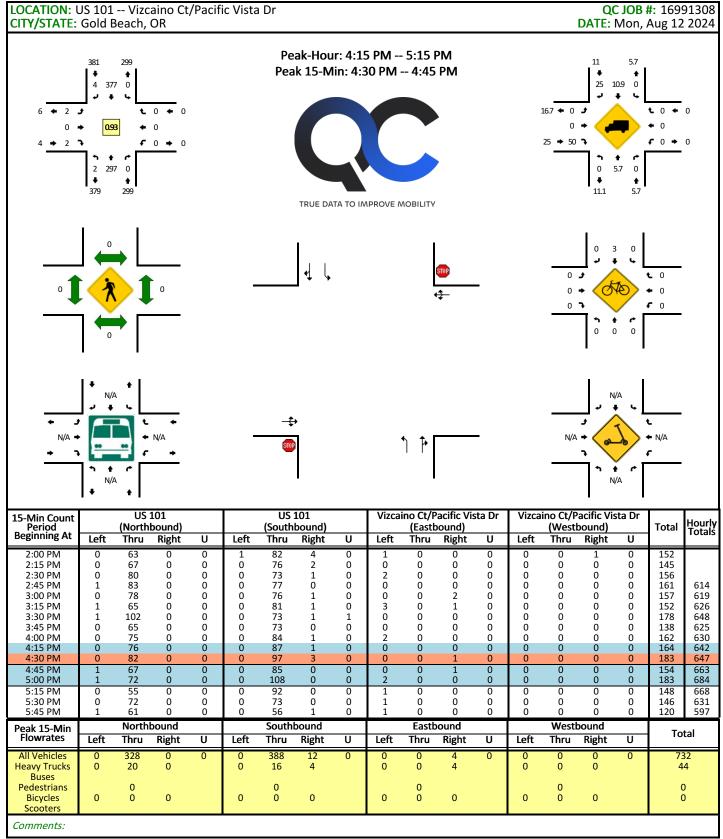
0

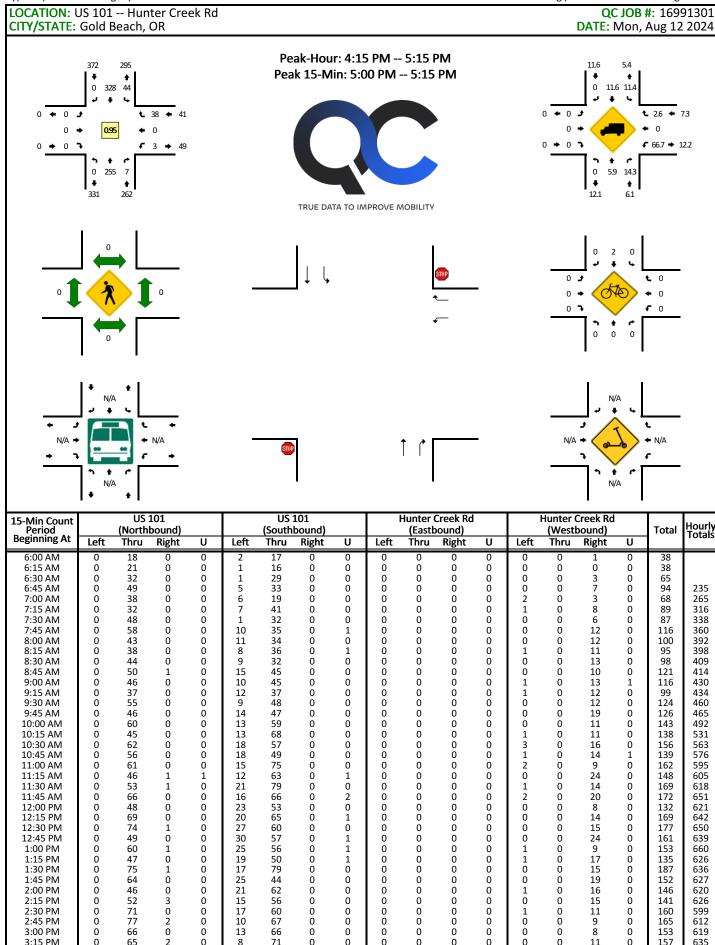
4

4 7

15-Min Count Period			101 bound)				101 bound)				h St oound)				h St bound)		Total	Hourly
Beginning At	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	TOLAI	Totalś
3:30 PM	0	127	3	0	1	114	0	0	0	0	0	0	1	0	2	0	248	879
3:45 PM	0	111	1	0	4	106	1	0	0	0	0	0	1	0	4	0	228	901
4:00 PM	0	84	0	0	3	124	2	0	1	0	1	0	0	0	7	0	222	907
4:15 PM	0	85	1	0	7	89	1	0	0	0	0	0	0	0	2	0	185	883
4:30 PM	0	98	0	0	6	101	1	0	1	0	0	0	1	0	5	0	213	848
4:45 PM	0	95	0	0	5	122	0	0	0	0	0	0	3	0	5	0	230	850
5:00 PM	0	85	1	0	6	114	1	0	1	0	1	0	0	0	3	0	212	840
5:15 PM	0	84	1	0	1	77	1	0	1	0	2	0	2	0	5	0	174	829
5:30 PM	1	80	2	0	4	91	0	0	0	0	1	0	0	0	1	0	180	796
5:45 PM	0	70	2	0	2	85	1	0	0	0	0	0	2	0	3	0	165	731
6:00 PM	1	72	0	0	4	102	0	0	0	0	0	0	0	1	2	0	182	701
6:15 PM	2	71	0	0	4	70	3	0	2	0	1	0	2	0	4	0	159	686
6:30 PM	0	52	0	0	1	75	0	0	1	0	0	0	1	0	2	0	132	638
6:45 PM	0	56	1	0	2	60	0	0	2	0	2	0	0	0	1	0	124	597
7:00 PM	0	42	0	0	3	44	0	0	1	0	0	0	1	0	2	0	93	508
7:15 PM	1	42	1	0	1	44	1	0	1	0	1	0	1	0	3	0	96	445
7:30 PM	1	41	0	0	5	47	0	0	0	0	0	0	0	0	1	0	95	408
7:45 PM	0	40	0	0	4	59	0	0	0	0	0	0	1	0	4	0	108	392
8:00 PM	0	35	0	0	1	43	1	0	1	1	1	0	0	0	1	0	84	383
8:15 PM	0	13	0	0	1	26	0	0	0	0	0	0	0	0	2	0	42	329
8:30 PM	0	37	1	0	2	34	1	0	0	1	0	0	0	0	2	0	78	312
8:45 PM	0	25	0	0	0	41	1	0	0	0	0	0	0	0	2	0	69	273
9:00 PM	0	28	2	0	3	26	0	0	0	0	0	0	0	0	3	0	62	251
9:15 PM	0	24	1	0	1	23	0	0	1	0	0	0	0	0	2	0	52	261
9:30 PM	0	15	0	0	1	30	1	0	1	0	1	0	1	0	0	0	50	233
9:45 PM	0	13	1	0	1	18	0	0	0	0	0	0	0	0	0	0	33	197
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	Lai
All Vehicles	0	508	12	0	4	456	0	0	0	0	0	0	4	0	8	0	99	92
Heavy Trucks	0	40	0		0	28	0		0	0	0		4	0	0			2
Buses																		
Pedestrians		0				0				0				0			()
Bicycles	0	Ō	0		0	Ō	0		0	0	0		0	Ō	0		ő	
Scooters					_								_		-			
Comments:																		
comments.																		







n

15-Min Count Period			101 bound)			US (South	101 bound)				Creek Rd				Creek Rd		Total	Hourly
Beginning At	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	- Otta	Totalś
3:30 PM	0	79	1	0	7	56	0	0	0	0	0	0	1	0	9	0	153	628
3:45 PM	0	48	0	0	14	58	0	0	0	0	0	0	0	0	16	0	136	599
4:00 PM	0	58	0	0	8	78	0	0	0	0	0	0	0	0	17	0	161	607
4:15 PM	0	77	1	0	10	77	0	0	0	0	0	0	1	0	4	0	170	620
4:30 PM	0	60	3	0	15	75	0	1	0	0	0	0	1	0	12	0	167	634
4:45 PM	0	55	3	0	8	81	0	0	0	0	0	0	0	0	13	0	160	658
5:00 PM	0	63	0	0	9	95	0	1	0	0	0	0	1	0	9	0	178	675
5:15 PM	0	51	1	0	17	76	0	0	0	0	0	0	0	0	3	0	148	653
5:30 PM	0	56	1	0	11	62	0	0	0	0	0	0	1	0	15	0	146	632
5:45 PM	0	53	1	0	5	50	0	1	0	0	0	0	2	0	8	0	120	592
6:00 PM	0	47	0	1	7	67	0	0	0	0	0	0	1	0	5	0	128	542
6:15 PM	0	50	0	0	3	37	0	0	0	0	0	0	0	0	2	0	92	486
6:30 PM	0	34	0	0	8	36	0	0	0	0	0	0	0	0	5	0	83	423
6:45 PM	0	40	0	0	7	41	0	0	0	0	0	0	0	0	4	0	92	395
7:00 PM	0	27	0	0	4	49	0	0	0	0	0	0	0	0	4	0	84	351
7:15 PM	0	10	0	0	7	31	0	0	0	0	0	0	1	0	3	0	52	311
7:30 PM	0	26	0	0	3	42	0	1	0	0	0	0	0	0	4	0	76	304
7:45 PM	0	19	0	0	7	32	0	0	0	0	0	0	1	0	6	0	65	277
8:00 PM	0	22	0	0	6	25	0	0	0	0	0	0	0	0	5	0	58	251
8:15 PM	0	22	1	0	4	10	0	1	0	0	0	0	2	0	3	0	43	242
8:30 PM	0	23	1	0	9	22	0	0	0	0	0	0	0	0	4	0	59	225
8:45 PM	0	11	0	0	3	13	0	0	0	0	0	0	0	0	2	0	29	189
9:00 PM	0	20	0	0	8	16	0	0	0	0	0	0	0	0	3	0	47	178
9:15 PM	0	11	1	0	4	10	0	0	0	0	0	0	0	0	6	0	32	167
9:30 PM	0	11	1	0	0	14	0	0	0	0	0	0	0	0	3	0	29	137
9:45 PM	0	9	0	0	1	13	0	0	0	0	0	0	0	0	3	0	26	134
Peak 15-Min			bound		Southbound				Eastbound					Westbound				tal
Flowrates	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	0	252	0	0	36	380	0	4	0	0	0	0	4	0	36	0	712	
Heavy Trucks	0	16	0		4	44	0		0	0	0		0	0	0		6	54
Buses																		
Pedestrians		0				0				0				0			(0
Bicycles Scooters	0	0	0		0	4	0		0	0	0		0	0	0		4	
Comments:																		