

November 9, 2018

Patrick Donnelly, AIA, LEED AP Architect, Senior Associate Integrus Architecture 117 S Main Street, Suite 100 Seattle, Washington 98104

Via email: pdonnelly@integrusarch.com

Regarding: Traffic Impact Study

Wallace Elementary School Replacement

410 Elm Street

Kelso, Washington 98626 PBS Project 71314.000

Dear Mr. Donnelly:

This traffic impact study has been prepared for the Wallace Elementary School Replacement project to address possible traffic impacts associated with the school replacement and the increase in trips associated with a larger school and more students. It also provides transportation analysis of the proposed road closure of Elm Street between S 4th Avenue and S 5th Avenue. The report has been kept brief based on the very low volumes in the studied streets and intersections, but more details are available upon request.

FINDINGS AND RECOMMENDATIONS

Based on our observations and analysis, we came to the following findings:

- The existing school generates parking complaints associated with the drop-off and pick-up of students.
- The existing school generates a high number of pedestrian trips to and from the school.
- Traffic volumes and speeds are relatively modest on the roadways surrounding the school.
- The school replacement will not significantly impact traffic operation or safety.
- The proposed closure of Elm Street between S 4th Avenue and S 5th Avenue will not significantly impact streets or intersections near the school.
- The traffic volume on Chestnut Street between S 4th And S 5th Avenues may increase, due to the closures of Elm Street, but should not increase beyond a typical local street and the proposed school traffic circulation plan should minimize the increase.
- The number of collisions at the studied intersections and area around the school are very low. The Mill Street/S 4th Avenue intersection appears to have collisions correctable by installing stop signs on S 4th Avenue.

The following recommendations are intended to address existing traffic complaints and minimize any impacts associated with the additional school trips and the proposed closure of Elm Street between S 4th Avenue and S 5th Avenue:

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- Implement a passenger loading zone (PLZ) on S 5th Avenue between Elm Street and Laurel Street that is 400 feet long. The PLZ should include the following:
 - Widen S 5th from Elm Street to Laurel Street to provide 8 feet of parking on the west side of S 5th Avenue, along the school frontage, and two 10-foot travel lanes.
 - o A passenger waiting area at the south end of the PLZ.
 - o Provide adult supervision of the passenger loading operation to maintain optimum operation.
- The school should prepare and distribute a school traffic circulation map to instruct parents to approach the school from the north, southbound on S 5th Avenue. The map would direct school traffic to stay on the collectors/arterials in the area: Mill Street, Pacific Avenue, and Yew Street. See Figure 7 for an example.
- The school should update and upgrade the Safe Route to School maps to the school families. See Figure 8 for a proposed walk to school route map.
- The City of Kelso (City) should consider upgrading the stop signs at Mill Street and S 4th Avenue from two-way stop to four-way stop control.
- With the closure of Elm Street between S 4th Avenue and S 5th Avenue, the stop signs at S 5th Avenue and Elm Street modified to a one-way stop on Elm Street.
- Assure the proposed driveways meet safe stopping distance. See Figure 2 for sight distance dimensions.

Introduction

The project site is located on 410 Elm Street in Kelso, Washington. The project proposes demolishing the existing elementary school building, which comprises approximately 49,000 square feet. The new elementary school will be built on the same site and will be approximately 57,000-gross-square-foot of building. The existing school will remain in operation while the new school is being built on the southern end of the school grounds. The overall student capacity will increase from 350 to 450 students with the replaced elementary school. See Figure 1 for the vicinity map, existing trip distribution, and school boundary.

The Wallace Elementary School replacement project proposes closure of Elm Street from S 4th Avenue to S 5th Avenue. The intent is to extend the school grounds across Elm Street and the two residential lots on the north side of Elm Street between S 4th and 5th Avenues. The closure of Elm Street provides additional room for the expansion of the school building and provides additional outdoor room for recreation. See Figure 2 for the site plan.

Traffic near the school has generated traffic complaints primarily based on drop-off and pick-up of students. The undisciplined parking has been a source of complaints by adjacent residents near the school. Parking on lawns, plus blocking driveways and walkways are examples of comments. With parking on both sides of S 5th Avenue, there is not room for two-way traffic. This type of complaint has mainly focused on S 4th and 5th Avenues and generated interest in a suggestion to convert the two-way streets into a one-way couplet: S 5th Avenue, southbound and S 4th Avenue, northbound.

The South Kelso Community Health Advocates prepared a parent survey and walking route audit to the school. The comments were reviewed and addressed when appropriate in this report. See Appendix A for the summary of comments.

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Existing Conditions

The existing streets and intersections studied in this report were identified after consultation with City staff. These include S 4th Avenue, S 5th Avenue, and their intersections with Chestnut Street, Elm Street, and Yew Street. The primary intent was to verify that the proposed closure of Elm Street between S 4th and S 5th Avenues would not have significant impacts on the adjacent streets.

All the studied streets are classified as local streets, except for Yew Street, which is a classified as a collector. All intersections are two-way stop sign controlled with one lane in each direction. See Figure 3 for the roadway classifications, crosswalks, school signs, and the stop sign placements at the intersections near the school. The area reviewed is bound by Pacific Avenue, Mill Street, S 7th St and Yew Street.

The streets near the school are narrow streets matching the City of Kelso Standard Plans for local streets. Most are approximately 32 feet wide with S 4th Avenue between Laurel and Elm Street being 36 feet wide. This is effective keeping the speed of traffic at or below 25 MPH but, during peak traffic periods at the school, can result in midblock congestion associated with parked vehicles and two-way traffic. The congestion is most acute on S 5th Avenue between Elm Street and Yew Street. S 5th Avenue is 32 feet wide and, with dense parking on both sides, does not provide adequate roadway width for two-way traffic.

The sidewalk network is relatively complete with sidewalks on many streets leading to the school but missing on some streets and lacking curb ramps at many intersections. The City recently completed a Safe Route to School project that added sidewalks on Laurel Street.

Traffic count data was collected in the school peak hours, 8–9 AM and 3–4 PM, as well as the peak PM peak for the adjacent streets (4–5 PM). For the analysis, the 3–4 PM peak hour was used, as this was the highest afternoon traffic period. Speed survey and 24-hour traffic count data was collected mid-block on both S 4th Avenue and S 5th Avenue between Laurel Street and Elm Street. See Figure 4 for the existing traffic volumes and speed survey data. See Appendix B for traffic count data.

The turning movement counts collected pedestrian and bicycle crossing data at each studied intersection. The volume of pedestrians near the school is very high compared to other schools. This appears related to the proximity of low to moderate income residential land use and the school. See Figure 5 for the pedestrian crossing volumes at the studied intersections. See Appendix B for pedestrian count data.

Proposed Traffic Conditions

This study evaluated potential transportation impacts of a few alternatives:

- New school trips
- Elm Street closure
- Widening S 5th Avenue between Laurel Street and Elm Street
- One-way couplet on S 4th Avenue and S 5th Avenue
- School walk routes to school

The proposed school will increase the square footage of the building by approximately 8,000 square feet and the enrollment ultimately by 100 students. Based on the ITE *Trip Generation Manual* this will result in an increase in school trips as summarized in Table 1.

Table 1. ITE Trip Generation for Wallace Elementary School Replacement

Land Use (ITE Code)	Sch	entary nool 20)	Sch	entary ool 20)
Independent Variable		Square eet	Stud	ents
Size	8	3	10	00
Average Weekday Trips (ADT)	12	24	13	30
Peak Hour Trips	AM	PM	AM	PM
In	23	11	25	13
Out	18	14	20	15
Total Trips	41	25	45	28

The 2025 future traffic without the project is based on traffic background traffic growth of an assumed 1 percent annual growth rate. The new school trips, based on 100 new students, were added to the 2025 volumes without the project. The new school trips were distributed based on the existing school trip distribution and circulation changes due to the closure of Elm Street between S 4th Avenue and S 5th Avenue. The redistribution of trips due to the Elm Street closure is based on professional judgement, the volumes entering and exiting Elm Street, the shortest new paths to and from the school, and the access through the visitor parking. See Figure 1 for the trip distribution. See Figure 6 for the 2025 traffic volumes with the project.

Because of the Elm Street closure, the volume of traffic on Chestnut Street will increase from approximately 20 vehicles per hour in the peak period to 44 vehicle per hour in the peak period. This hourly volume is within typical local street volumes of under 50 vehicles per hour. To minimize impacts, a traffic circulation map is proposed that would direct school traffic destined for the PLZ on S 5th Avenue to use Mill Street. See Figure 7 for school traffic circulation map. The intent is the school administration will circulate this map to school staff and parents. The analysis of impacts to the studied intersections used the distribution based on Figure 1, which is closer to the existing trips distribution, as this is more conservative than the trip distribution based on Figure 7.

Based on complaints of congestion, primarily on S 5th Avenue between Laurel Street and Elm Street, a one-way couplet was considered as mitigation. This is envisioned as one-way southbound on S 5th Avenue and one-way northbound on S 4th Avenue. One-way on S 5th Avenue would address two-way traffic on narrow streets with parked vehicles. On S 5th Avenue, with parking related to the drop-off and pick-up of students, there are often vehicles parked on both sides with only 12 to 14 feet of clear roadway width for two-way traffic.

The school proposes to widen S 5th Avenue by 6 feet on the west side along the school frontage to provide enough width to allow parking on both sides and enough width (20 feet) for two-way traffic. Thus, the need for one-way streets is not necessary. Furthermore, traffic circulation can be significantly improved with specific directions to parents and employees as proposed in Figure 7.

One key area of improvement with the new school is a proposed PLZ operation for student drop-off and pick-up. As noted above, S 5th Avenue will be widened to allow street parking and roadway width for two-way traffic. This

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will include a significantly longer PLZ on S 5th Avenue for a total of 400 feet of zone for parents to use to drop-off and pick-up students. The PLZ operation can be significantly improved with on-site supervision. One successful strategy is to cluster the children waiting for pick-up at the head of the PLZ. This encourages the adult waiting for the child to pull forward to reduce the queue length of waiting vehicles. With parents directed to enter from the north and exit to the south to Yew Street, the congestion is further reduced by eliminating northbound school traffic on S 5th Avenue.

Wallace Elementary School has a large volume of students walking to and from school. The walking survey prepared by the South Kelso Community Health Advocates came to a similar conclusion with a count of approximately 60–70 pedestrians and cyclists using Laurel Street after school. See appendix A for a summary of community comments and pedestrian counts prepared in 2016 for a school walk route audit. Based on these comments and proposed changes to traffic circulation, modifications are recommended to the Wallace School walk routes. See Figure 8 for the existing and proposed modifications to the walk routes to Wallace Elementary School. The plan suggests using S 6th Avenue as opposed to 5th Avenue were traffic is intended to access the school.

Intersection Operation and Roadway Capacity Analysis

The level of service (LOS) was calculated for each of the studied intersections using Synchro software and Highway Capacity Manual 2010 reports. See Appendix C for a copy of the LOS reports. The LOS is a measure of delay, typically associated with the volume of traffic and the capacity of the intersections based on the type of traffic control and number of lanes. LOS is given a letter grade to denote the magnitude of the delay with LOS A signifying little to no delay and LOS F signifying high delay that most drivers find unacceptable. All intersections were analyzed based on a single-lane approach and two-way stop controls.

The LOS calculations for the AM and PM peak hours are summarized below in Tables 2 and 3 for the existing and future conditions, respectively. The delay is associated with the stop-controlled approach.

Table 2. 2018 Level of Service for Existing Conditions for Study Area Intersections

Intersection	AM	Peak Hour	PM	Peak Hour
(critical lane group)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)
Chestnut Street / S 4th Avenue Westbound approach	А	9.6	А	9.7
Chestnut Street / S 5th Avenue Westbound approach	Α	9.4	А	9.2
Elm Street / S 4th Avenue Eastbound approach	Α	9.5	А	9.4
Elm Street / S 5th Avenue Southbound approach	В	10.3	Α	9.4
Yew Street / S 4th Avenue Northbound approach	А	9.5	А	9.4
Yew Street / S 5th Avenue Northbound approach	А	9.5	А	9.5

Table 3. 2025 Level of Service for Future Conditions with Project Trips

Intersection	AM	Peak Hour	PM	Peak Hour
(critical lane group)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)
Chestnut Street / S 4th Avenue Westbound approach	А	9.7	А	9.9
Chestnut Street / S 5th Avenue Westbound approach	Α	9.8	Α	9.3
Elm Street / S 4th Avenue Eastbound approach	Α	8.8	Α	8.9
Elm Street / S 5th Avenue Westbound approach	А	9.4	Α	8.9
Yew Street / S 4th Avenue Northbound approach	А	9.4	А	9.5
Yew Street / S 5th Avenue Northbound approach	А	9.6	А	9.3

All the studied intersections currently operate at a high level of service and will continue to operate at a high level of service with the additional school trips and the closure of Elm Street.

Safety Analysis

The traffic collisions were reviewed for the studied intersections and roadways in the vicinity of the school. The most recent collision history was provided by the Washington State Department of Transportation for the years 2013 to 2017. There was one collision at the S 5th Avenue / Elm Street intersection and one collision on S 5th Avenue 150 feet south of Elm Street. Neither collision resulted in injuries. There were no other collisions at the studied intersection or on streets fronting the school. The lack of collisions is likely related to the low traffic volumes and the low speed of traffic in the neighborhood. The narrow streets are a proven method for keeping the speed of traffic low. The speed surveys on S 4th Avenue and S 5th Avenue are typical examples of the traffic speeds on the other streets in the area.

The Mill Street and S 4th Avenue intersection has a pattern of two collisions per year susceptible to correction by an upgrade from a two-way to four-way stop sign traffic control. This is likely related to the stop control on the Mill Street, the higher-volume roadway, and is not related to school traffic. The City should consider installing four-way stop traffic controls at this intersection. See Appendix E for the collision history in vicinity of Wallace Elementary School.

The driveways in the proposed site plan were evaluated for stopping sight distance. The site plan shows trees near each driveway that may require relocation to meet safe stopping sight distance (150 feet for 25 MPH). See Figure 2 for an example of the clear corner triangles for the proposed driveways.

Conclusion

In conclusion, the Wallace Elementary School replacement, with the closure of Elm Street, will have minimal traffic impacts. Most of the existing school traffic complaints can be addressed with widening S 5th Avenue as proposed

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and consolidating the passenger loading zone on S 5th Avenue along the school frontage. Further refinement can be made by instructing parents to approach the PLZ from the north and exit to the south as shown on Figure 7. The walk routes to school map should be revised as proposed on Figure 8.

Please feel free to contact me at 360.567.2117 or john.manix@pbsusa.com with any questions or comments.

Sincerely,

John Manix, PE Senior Traffic Engineer

Attachments: Figures

Appendix A – Safe Routes to School Community Recommendations, Wallace Safe Routes to

School After School Counts

Appendix B – Traffic and Pedestrian Count Data

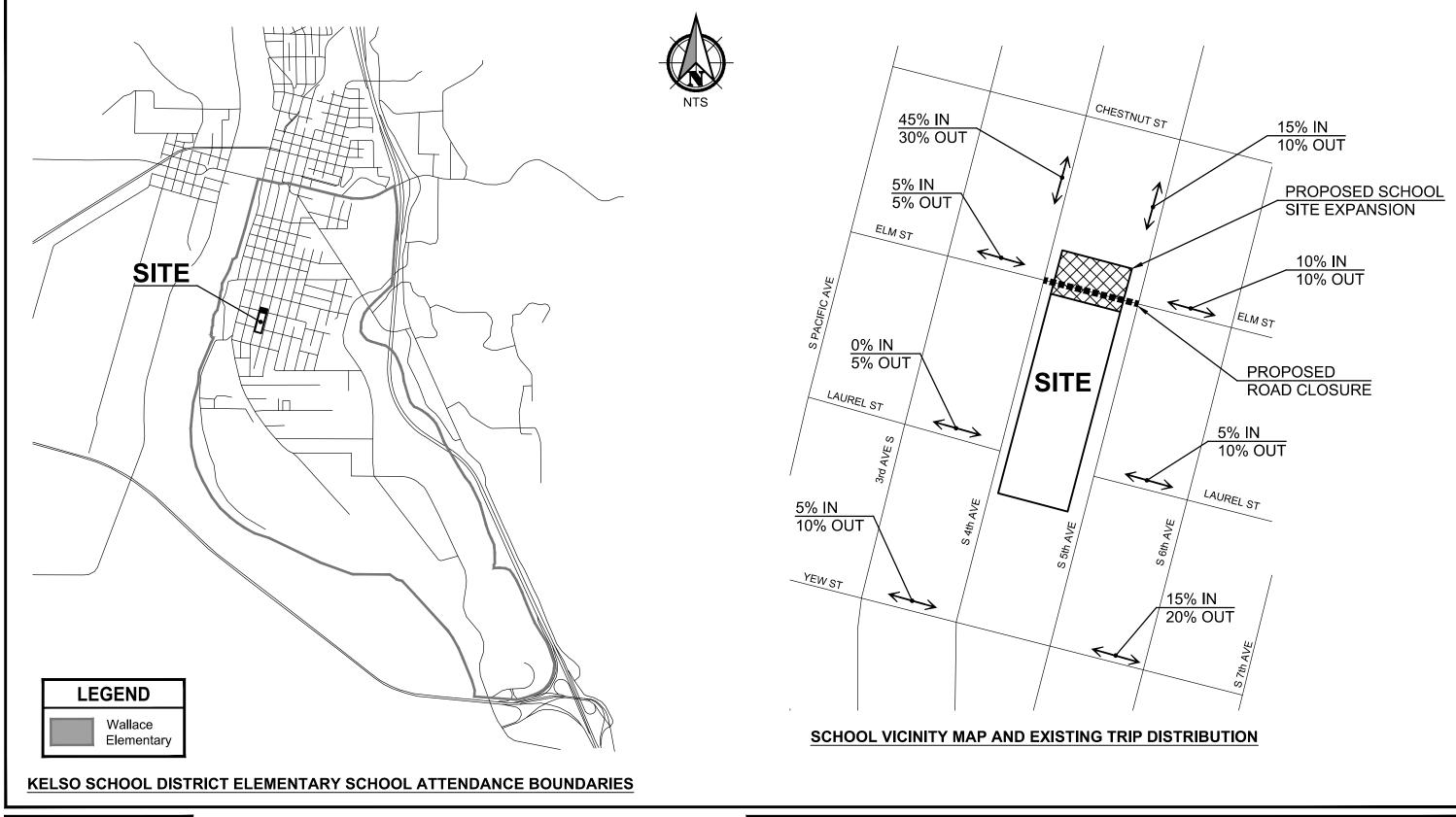
Appendix C – Trip Generation Report Appendix D – Level of Service Reports

Appendix E – Collision Report

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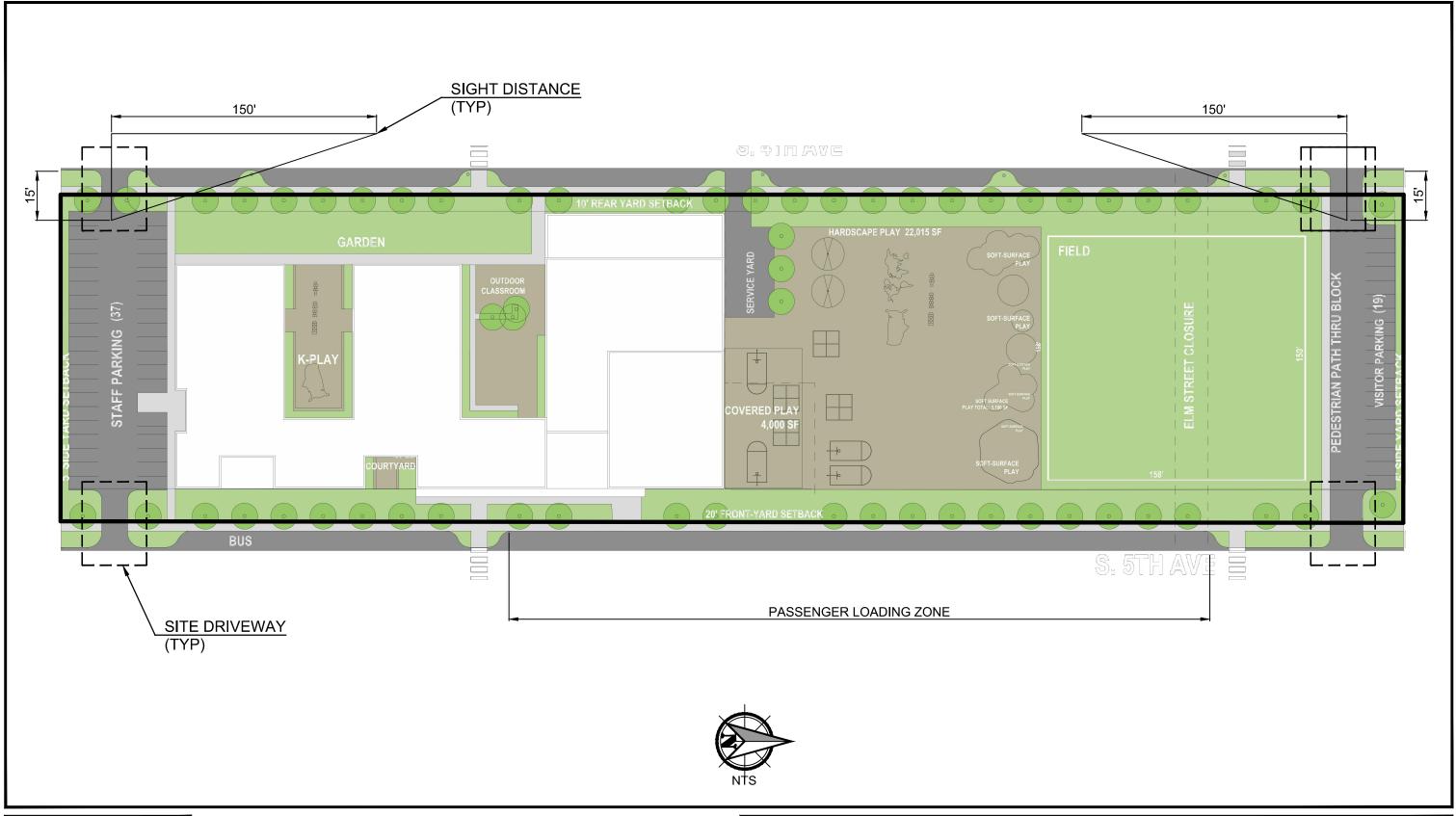


Figures



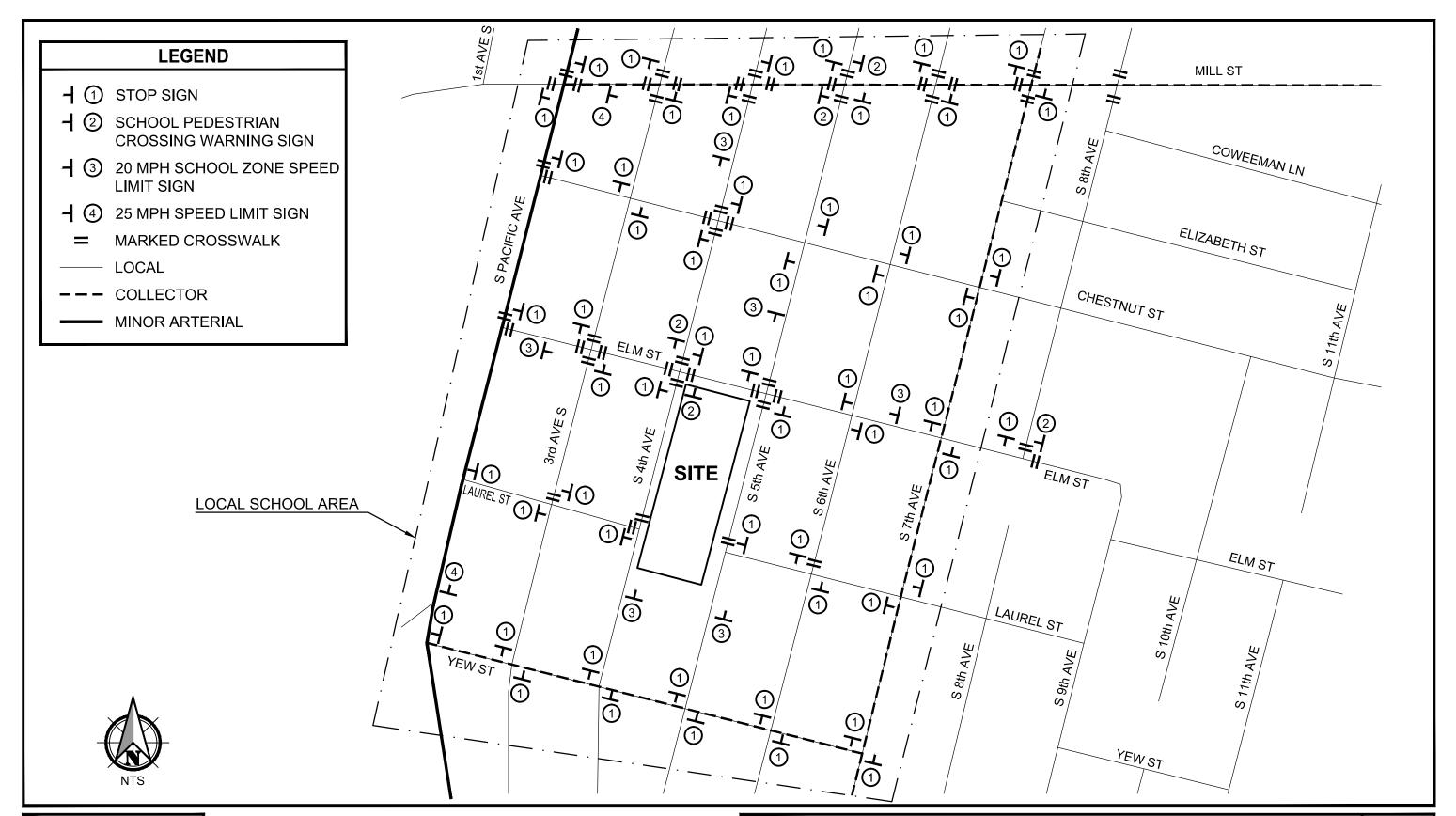


Vicinity Map and Trip Distribution
Wallace Elementary School



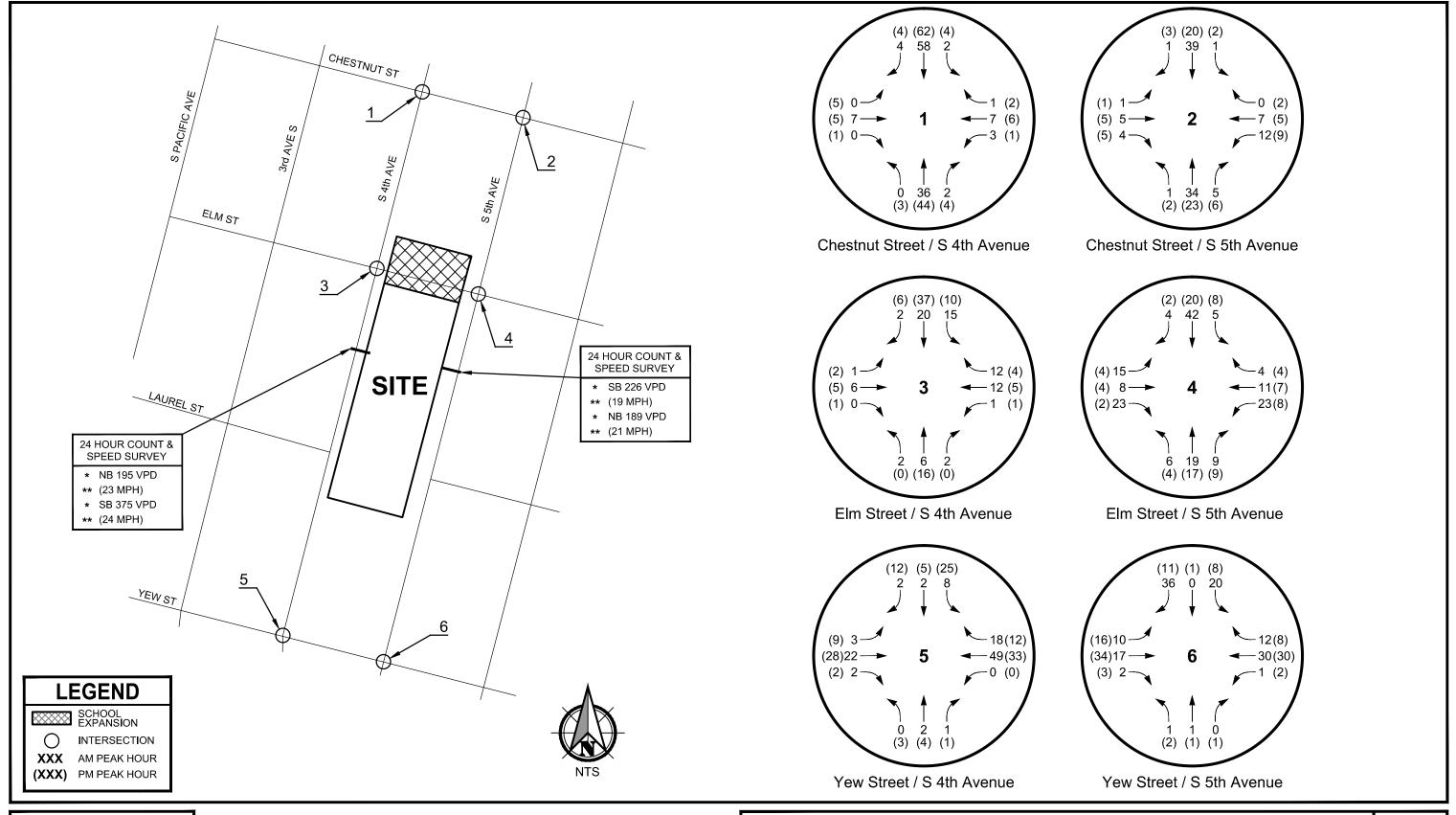


Site Plan
Wallace Elementary School



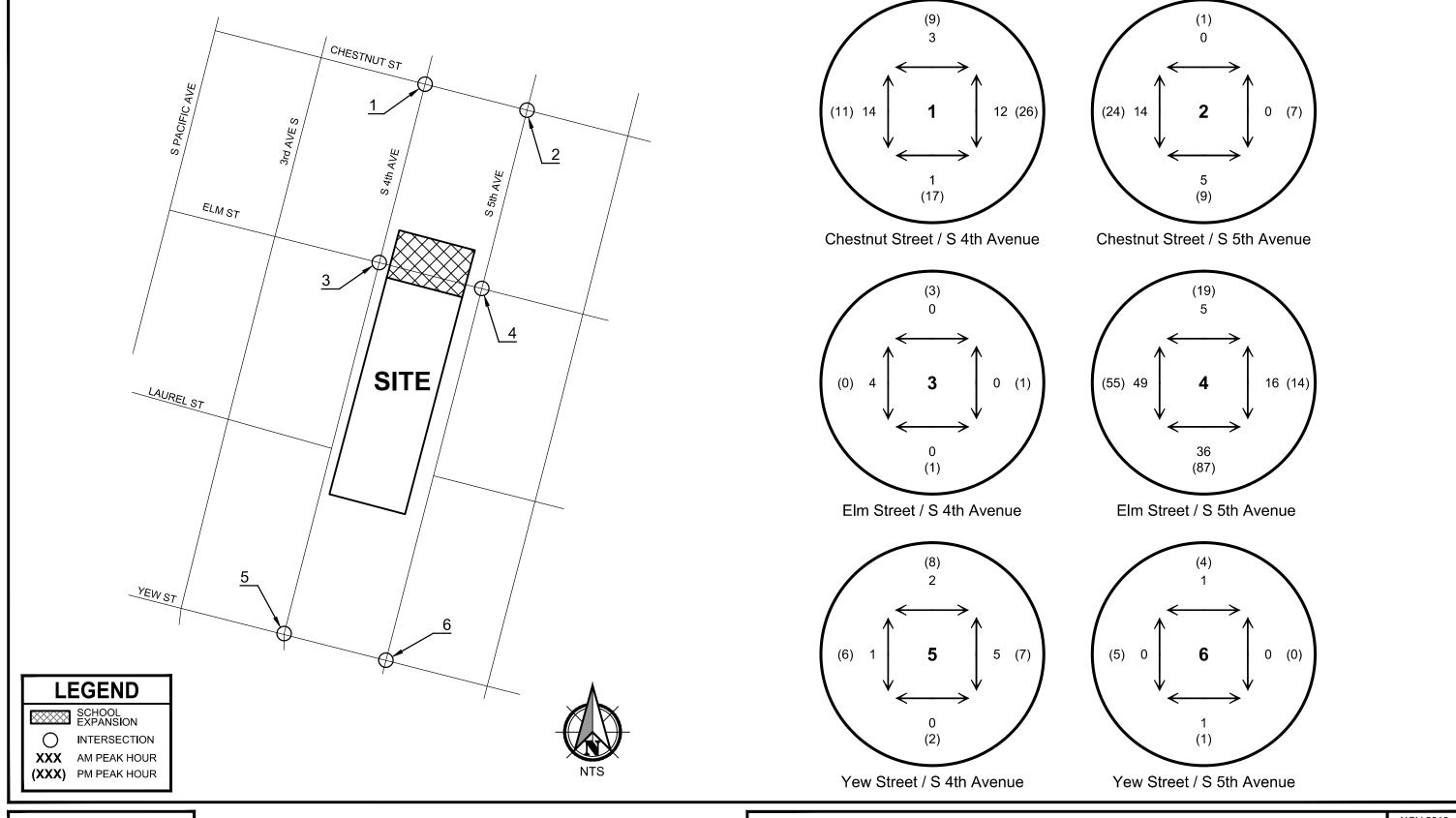


Existing Road Classifications, Traffic Control Signs & Crosswalks
Wallace Elementary School



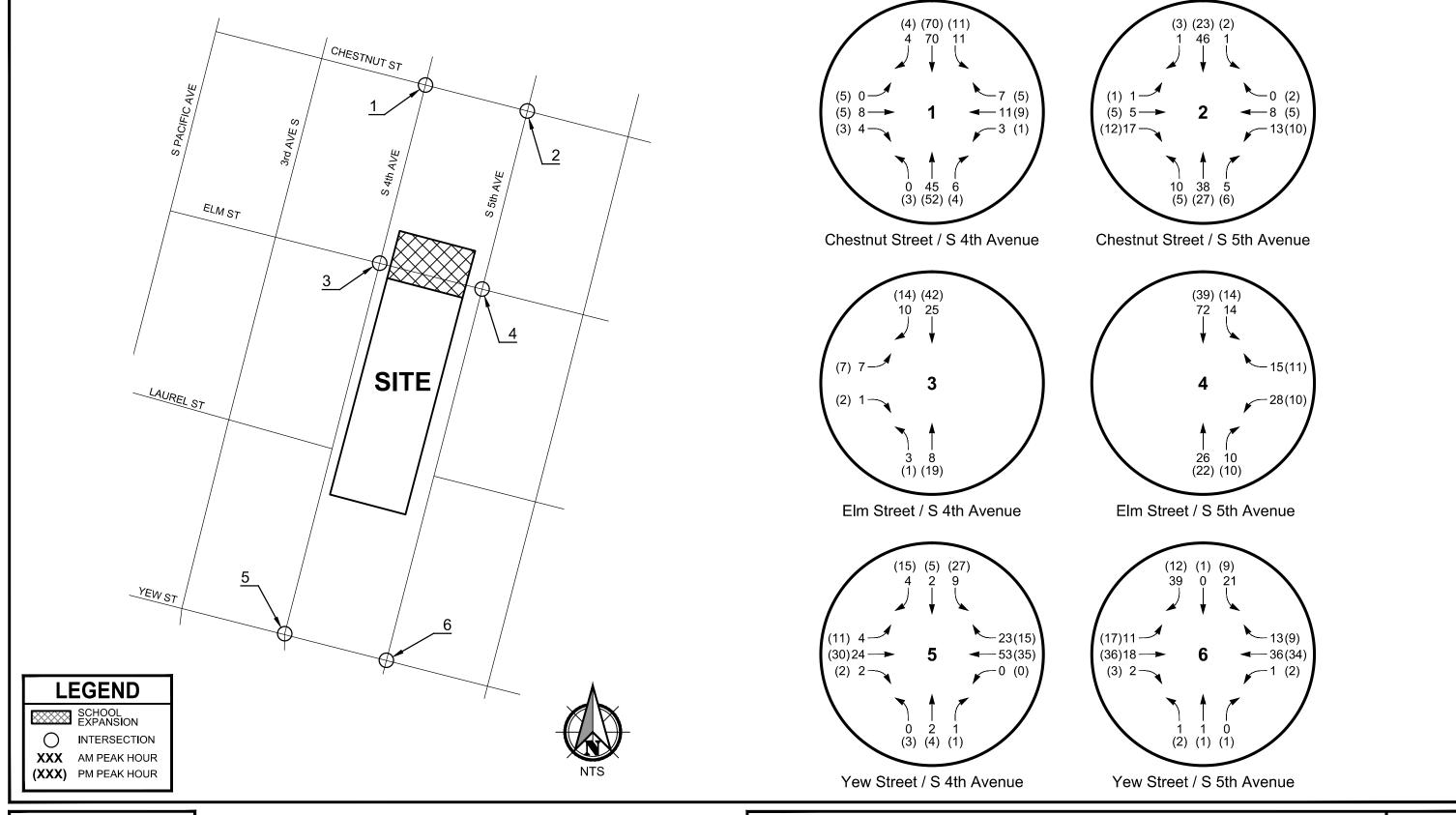


Existing Traffic Volumes Wallace Elementary School



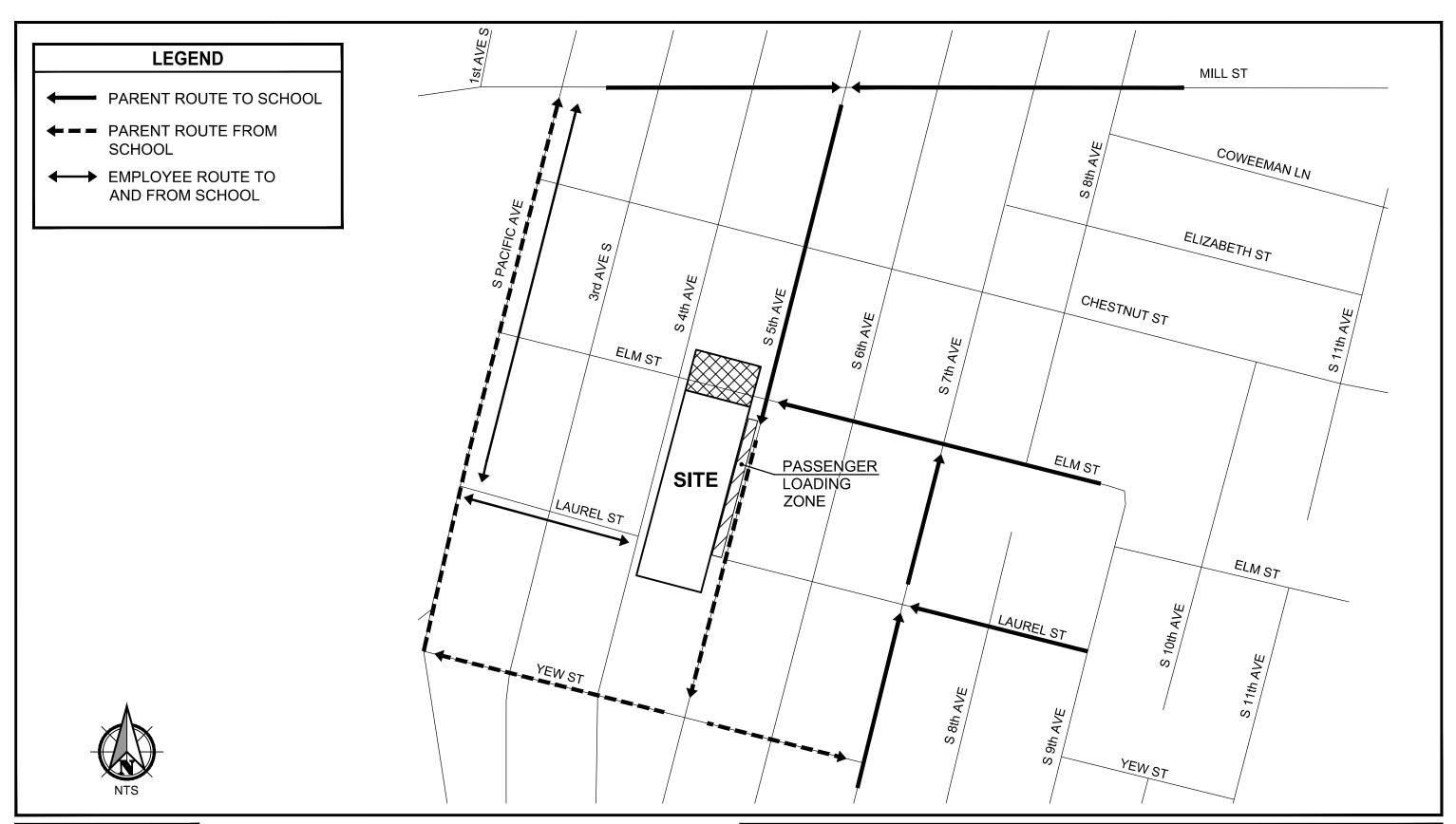


Existing Pedestrian VolumesWallace Elementary School





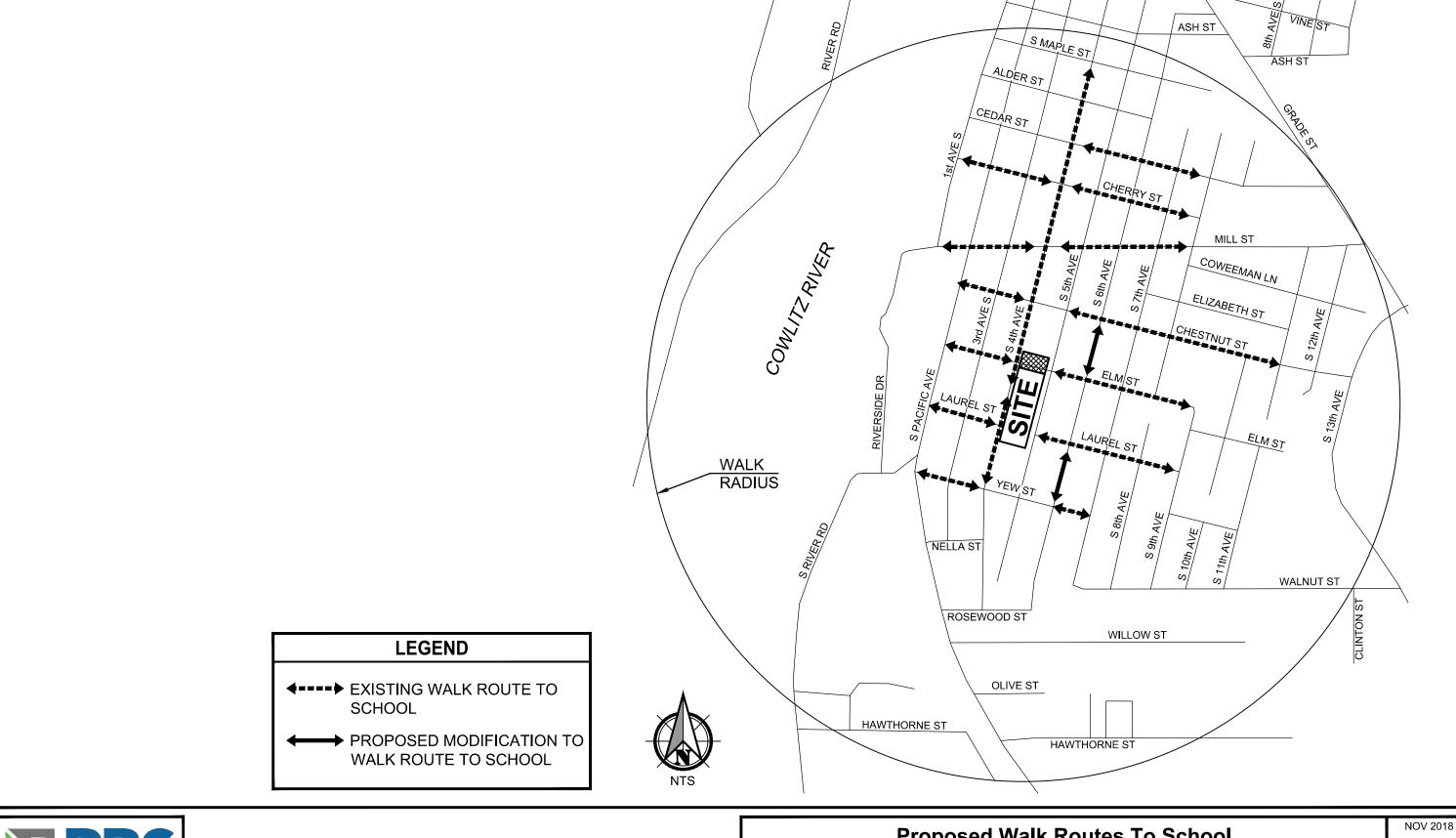
2025 With Project Traffic Volumes
Wallace Elementary School





Proposed School Traffic Circulation Plan Wallace Elementary School

NOV 2018
FIGURE
7





Proposed Walk Routes To School Wallace Elementary School

Appendix A

Safe Routes to School Community Recommendations Wallace Safe Routes to School After School Counts

Wallace Safe Routes to School Summary

Describe the community engagement used during the planning and/or project development of this proposal:

The South Kelso Community Health Advocates (CHAS), part of the Healthy Living Collaborative of Southwest Washington, have found many ways to support Wallace Elementary School in the heart of the neighborhood where more than half the students walk or bike to school. The advocates heard and saw a need for safer walking, biking, and rolling routes in a neighborhood with very few safe walking paths. The team decided to pursue the first ever Safe Routes to School Grant in Kelso and convened a local stakeholder group with the city, school district, police department, elementary school, and local health department.

Through the Healthy Living Collaborative, a regional coalition of over 50 community partners, the advocates had the opportunity to partner with Kari Schlosshauer from the Safe Routes to School National Partnership, Pacific Northwest Regional Network and Lauren Henricksen with the Cowlitz County Health and Human Services Department and lead for Walkable Cowlitz. Both organizations provided expertise and support throughout this process.

The Community Health Advocates completed 25 in-person surveys with Spanish and English speaking families about why they do or do not walk to school. Safety was the main issue for many parents not allowing their children to walk to school, specifically due to sex offenders living in the neighborhood. The Kelso Police Department has agreed to assist the school with this concern by providing a personal safety assembly for all grade levels. The advocates also completed 2 days of before and after school observations and discovered that there are not enough school staff supporting the crossing guard students. A walking audit was successfully completed with almost 15 community members, parents, students, city and county staff. This created a wonderful opportunity for community members to ask a city engineer questions and in turn for the city to learn about community concerns. We then compiled all community recommendations from the previous activities and shared them with the SRTS stakeholder group to determine a project. The stakeholders also received a map map showing where Wallace students live in South Kelso identifying that the Kelso Housing Authority as a high volume for residing children and families. Finally, our team completed a 2 day after school pedestrian count along the project path that was chosen. Everyone learned so much from this project and once again the solutions came from the community members and families that will be impacted.

For any question please contact:

Jenn Schapman
South Kelso Community Health Advocate Coach
Healthy Living Collaborative of Southwest Washington
(360) 846-3920
jenn.hlcsw@gmail.com
healthylivingcollaborative.org

Typical Walk Route challenges to be addressed with this project.



Parked car blocking walk route at corner



Missing sidewalk and corner ADA ramps

Wallace Safe Routes to School Community Recommendations

25 Family Surveys, Before/After School Observations, and Walking Audit completed

I. Wallace School Perimeter

- 1. Between Laurel & Elm on 5th Street: Add lighting either from sidewalk lamp posts or attached to exterior school wall especially near the gymnasium- all after school events take place here.
- 2. Regular School Bus Stop between Laurel & Elm on 5th Street: Curb is too high, school bus has to park 3 ft. from curb to open doors, children jump from bus to curb or else land in deep puddles. (**City and school district already working on a solution**)
- 3. Student with special needs School Bus Stop between Laurel & Elm on 4th Street
- 4. Family vehicle pick-up/drop-off designation routes: Work with school to figure out better method.
- 5. Re-paint No Parking Areas (possibly city summer help project)
- 6. More parking for staff and Head Start families

II. Yew Street

7. City has plans to rebuild road from $\mathbf{1}^{\text{st}}$ to $\mathbf{7}^{\text{th}}$ Ave. (Possibly use as in-kind)

III. Laurel Street

- 8. Laurel & 4th: Crosswalk goes straight into bushes and needs ADA ramps (take out bushes and add ADA ramp)
- 9. Laurel & 5th- 9th: Add sidewalks on one side to connect children walking from housing authority (**Top priority project from community standpoint**)
- 10. Laurel & 5th- 9th: Add school zone and flashing speed limit signage

IV. Elm Street

- 11. 4th & Elm: Four way stop
- 12. Blind corner after 8th Ave: Need traffic calming (speed humps or mural), better signage, sidewalk route
- 13. 6th & Elm: Need sidewalks
- 14. Lads and Lassies Park: More lighting
- 15. ADA ramps on 4th & 5th

V. Chestnut Street: City working on large storm water drain project- possibly use as in-kind

- 16. 4th & Chestnut: Cracked sidewalks, pot holes, and no crosswalk. 17. 4th Grade Street: New sidewalks, fix roads/potholes
- 18. 6th & Chestnut: cannot see through parked cars to ongoing traffic

VI. Mill Street: Grant covers 2 mile radius

- 19. 4th & Mill: 4-way stop to reduce speeding on 4th Ave. in school zone
- 20. Blinking speed limit signage/more enforcement of speed. (Mobile speed trailer)
- 21. Change Mill Street to 20mph during school walking hours 7-9am and 1-4pm
- 22. Dog poop on sidewalk is a problem- Need doggy poop bags and garbage receptacles

VII. Other grant ideas:

- 23. Personal safety assemblies with KPD
- 24. Walking School Bus
- 25. New bike racks
- 26. Print professional walking routes maps for children and families

Wallace SRTS After School Pedestrian Count Monday, April 25 & Tuesday, April 26

1. Intersection at 5th & Laurel (South)

2. Intersection at 5th & Laurel (North)

3. Between 5th & 6th on Laurel Street

4. Corner of 9th & Laurel

4/26/16, 3:20-3:45 = 16 walkers/3 bikers

Appendix B Traffic and Pedestrian Count Data

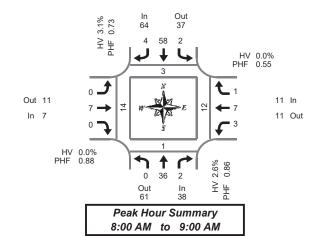
Total Vehicle Summary



Thursday, October 11, 2018 7:00 AM to 9:30 AM

4th Ave S & Chestnut St

15-Minute Interval Summary 7:00 AM to 9:30 AM



7:00 AW	lO .	9.30 A	IVI																	
Interval		North	bound			South	bound			Eastb	ound			Westl	bound				Pedes	trians
Start		4th A	Ave S			4th A	Ave S			Chest	nut St			Ches	tnut St		Interval		Cross	swalk
Time	L	Т	R	Bikes	L	Т	R	Bikes	L	Т	R	Bikes	L	Т	R	Bikes	Total	North	South	East
7:00 AM	0	3	0	0	0	5	0	0	0	0	0	0	0	1	0	0	9	1	2	0
7:15 AM	0	2	0	0	0	2	3	0	0	0	0	0	0	0	0	0	7	0	0	2
7:30 AM	0	4	1	0	0	9	1	0	1	0	0	0	0	0	0	0	16	0	1	0
7:45 AM	0	7	0	1	0	11	0	0	0	0	0	0	0	0	0	1	18	0	0	0
8:00 AM	0	8	0	0	1	15	1	0	0	2	0	0	2	3	0	0	32	1	1	2
8:15 AM	0	8	2	0	0	21	1	0	0	2	0	0	0	1	0	0	35	0	0	8
8:30 AM	0	11	0	0	1	9	1	1	0	2	0	0	1	2	1	0	28	2	0	2
8:45 AM	0	9	0	1	0	13	1	0	0	1	0	0	0	1	0	0	25	0	0	0
9:00 AM	0	4	0	0	0	5	0	0	0	0	0	0	0	0	0	0	9	0	0	0
9:15 AM	0	1	0	0	2	2	0	0	1	0	0	0	0	1	0	0	7	0	0	0
Total Survey	0	57	3	2	4	92	8	1	2	7	0	0	3	9	1	1	186	4	4	14

Peak Hour Summary 8:00 AM to 9:00 AM

Ву			bound Ave S				bound Ave S			Eastb Chest	ound nut St				oound tnut St		Total
Approach	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	
Volume	38	61	99	1	64	37	101	1	7	11	18	0	11	11	22	0	120
%HV		2.0	6%	•	3.1%					0.0)%			0.0)%		2.5%
PHF		0.	86		0.73					0.	88			0.	55		0.86

	Pedes	trians												
Crosswalk														
North South East West														
3	1	12	14											

0 0 0

By Movement			bound we S				bound we S			Eastb Chest	ound nut St				ound nut St		Total
Movement	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	
Volume	0	36	2	38	2	58	4	64	0	7	0	7	3	7	1	11	120
%HV	0.0%	2.8%	0.0%	2.6%	0.0%	3.4%	0.0%	3.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.5%
PHF	0.00	0.82	0.25	0.86	0.50	0.69	1.00	0.73	0.00	0.88	0.00	0.88	0.38	0.58	0.25	0.55	0.86

Rolling Hour Summary 7:00 AM to 9:30 AM

Interva	al		Northi	bound			South	bound			Easth	ound			Westl	oound				Pedes	trians	
Start	:		4th A	ve S			4th A	Ave S			Chest	nut St			Chest	nut St		Interval		Cros	swalk	
Time		L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	Total	North	South	East	West
7:00 A	.M	0	16	1	1	0	27	4	0	1	0	0	0	0	1	0	1	50	1	3	2	0
7:15 A	.M	0	21	1	1	1	37	5	0	1	2	0	0	2	3	0	1	73	1	2	4	0
7:30 A	.M	0	27	3	1	1	56	3	0	1	4	0	0	2	4	0	1	101	1	2	10	9
7:45 A	.M	0	34	2	1	2	56	3	1	0	6	0	0	3	6	1	1	113	3	1	12	14
8:00 A	.M	0	36	2	1	2	58	4	1	0	7	0	0	3	7	1	0	120	3	1	12	14
8:15 A	.M	0	32	2	1	1	48	3	1	0	5	0	0	1	4	1	0	97	2	0	10	14
8:30 A	.M	0	25	0	1	3	29	2	1	1	3	0	0	1	4	1	0	69	2	0	2	7

Heavy Vehicle Summary



4th Ave S & Chestnut St

Thursday, October 11, 2018 7:00 AM to 9:30 AM

0

Out 0

In 0

Peak Hour Summary 8:00 AM to 9:00 AM

Heavy Vehicle 15-Minute Interval Summary 7:00 AM to 9:30 AM

Interval Start		North	bound				bound Ive S				ound tnut St				oound		Interval
Time	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	Total
7:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	0	2	0	2	0	3	0	3	0	0	0	0	0	1	0	1	6

Heavy Vehicle Peak Hour Summary 8:00 AM to 9:00 AM

Ву			bound			bound			ound			bound	
Approach	In	Out	Ave S Total	In	Out Ath A	tve S Total	In	Out	tnut St Total	In	Out	tnut St Total	Total
Volume	1	2	3	2	1	3	0	0	0	0	0	0	3
PHF	0.25			0.25			0.00			0.00			0.25

By		North 4th A	bound we S			South 4th A	bound Ive S				ound nut St			West! Chest	ound nut St		Total
Movement	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	
Volume	0	1	0	1	0	2	0	2	0	0	0	0	0	0	0	0	3
PHF	0.00	0.25	0.00	0.25	0.00	0.25	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25

Heavy Vehicle Rolling Hour Summary 7:00 AM to 9:30 AM

Interval		North	bound			South	bound			Eastb	ound			West	oound		
Start		4th A	Ave S			4th A	Ave S			Chest	nut St			Chest	nut St		Interval
Time	L	T	R	Total	L	Т	R	Total	L	T	R	Total	L	T	R	Total	Total
7:00 AM	0	1	0	1	0	1	0	1	0	0	0	0	0	1	0	1	3
7:15 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
7:30 AM	0	1	0	1	0	2	0	2	0	0	0	0	0	0	0	0	3
7:45 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
8:00 AM	0	1	0	1	0	2	0	2	0	0	0	0	0	0	0	0	3
8:15 AM	0	1	0	1	0	2	0	2	0	0	0	0	0	0	0	0	3
8:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1

Peak Hour Summary All Traffic Data Clay Carney (503) 833-2740 4th Ave S & Chestnut St 8:00 AM to 9:00 AM Thursday, October 11, 2018 4th Ave S Bikes 1 64 37 2 58 K 3 Peds 3 Chestnut St Bikes 0 K 1 11 **←** 7 11 3 4 Peds 7 0 11 7 7 **→** 0 ¥ Bikes 0 Chestnut St Peds 1 1 K 7 0 36 2 61 38 4th Ave S Bikes HV% **Approach PHF** Volume 0.0% EB 0.88 7 WB 0.0% 0.55 11 2.6% 38 NB 0.86 SB 0.73 3.1% 64 Intersection 0.86 2.5% 120 Count Period: 7:00 AM to 9:30 AM

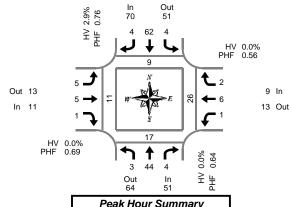
Total Vehicle Summary



4th Ave S & Chestnut St

Thursday, October 11, 2018 2:00 PM to 4:00 PM

15-Minute Interval Summary 2:00 PM to 4:00 PM



Peak Hour Summary 3:00 PM to 4:00 PM

Interval		North	bound			South	bound			Easth	ound			West	oound				Pedes	trians	
Start		4th A	Ave S			4th A	ve S			Chest	nut St			Chest	nut St		Interval		Cros	swalk	
Time	L	Т	R	Bikes	L	Т	R	Bikes	L	T	R	Bikes	L	Т	R	Bikes	Total	North	South	East	West
2:00 PM	0	0	0	0	1	3	1	0	0	1	2	0	0	1	1	1	10	2	2	0	1
2:15 PM	1	4	2	0	0	5	2	0	0	2	0	0	0	2	0	0	18	2	0	0	0
2:30 PM	0	6	2	0	0	13	0	0	2	0	0	0	0	2	0	0	25	0	0	1	1
2:45 PM	0	2	0	0	0	6	1	0	1	1	1	0	0	1	1	1	14	2	2	2	0
3:00 PM	0	2	0	0	0	12	0	0	2	1	0	0	1	1	0	0	19	0	0	1	2
3:15 PM	1	11	4	0	1	21	1	0	0	1	1	0	0	2	2	0	45	3	5	10	2
3:30 PM	2	18	0	0	2	14	0	0	1	1	0	0	0	3	0	0	41	6	11	15	7
3:45 PM	0	13	0	0	1	15	3	0	2	2	0	0	0	0	0	0	36	0	1	0	0
Total Survey	4	56	8	0	5	89	8	0	8	9	4	0	1	12	4	2	208	15	21	29	13

Peak Hour Summary 3:00 PM to 4:00 PM

By Approach			bound Ave S				bound Ive S				ound nut St				oound nut St		Total
Approach	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	
Volume	51	64	115	0	70	51	121	0	11	13	24	0	9	13	22	0	141
%HV		0.0	0%			2.9	9%			0.0	0%			0.0	0%		1.4%
PHF		0.	64			0.	76			0.	69			0.	56		0.78

	Pedes	trians													
	Crosswalk														
North	South	East	West												
9	17	26	11												

Ву			bound live S				bound Ive S			Eastb Chest	ound nut St				ound nut St		Total
Movement	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	
Volume	3	44	4	51	4	62	4	70	5	5	1	11	1	6	2	9	141
%HV	0.0%	0.0%	0.0%	0.0%	0.0%	3.2%	0.0%	2.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.4%
PHF	0.38	0.61	0.25	0.64	0.50	0.74	0.33	0.76	0.63	0.63	0.25	0.69	0.25	0.50	0.25	0.56	0.78

Rolling Hour Summary 2:00 PM to 4:00 PM

Interval		North	bound			South	bound			Eastb	ound			West	oound				Pedes	trians	
Start		4th /	Ave S			4th A	ve S			Chest	nut St			Chest	nut St		Interval		Cross	swalk	
Time	L	Т	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	Total	North	South	East	West
2:00 PM	1	12	4	0	1	27	4	0	3	4	3	0	0	6	2	2	67	6	4	3	2
2:15 PM	1	14	4	0	0	36	3	0	5	4	1	0	1	6	1	1	76	4	2	4	3
2:30 PM	1	21	6	0	1	52	2	0	5	3	2	0	1	6	3	1	103	5	7	14	5
2:45 PM	3	33	4	0	3	53	2	0	4	4	2	0	1	7	3	1	119	11	18	28	11
3:00 PM	3	44	4	0	4	62	4	0	5	5	1	0	1	6	2	0	141	9	17	26	11

Heavy Vehicle Summary



4th Ave S & Chestnut St

Thursday, October 11, 2018 2:00 PM to 4:00 PM

Out 0

In 0

Peak Hour Summary 3:00 PM to 4:00 PM

Heavy Vehicle 15-Minute Interval Summary 2:00 PM to 4:00 PM

Interval Start			bound Ave S				bound ve S				ound tnut St				oound nut St		Interval
Time	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	Total
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	0	0	1	1	0	3	0	3	0	0	0	0	0	0	0	0	4

Heavy Vehicle Peak Hour Summary 3:00 PM to 4:00 PM

Bv			bound			bound			ound			bound	
		4th A	Ave S		4th A	lve S		Chest	nut St		Ches	tnut St	Total
Approach	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	2	2	2	0	2	0	0	0	0	0	0	2
PHF	0.00			0.17			0.00			0.00			0.17

D		North	bound			South	bound			Eastb	ound			Westl	ound		
By		4th A	Ave S			4th A	lve S			Chest	nut St			Chest	nut St		Total
Movement	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	
Volume	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
PHF	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17

Heavy Vehicle Rolling Hour Summary 2:00 PM to 4:00 PM

Interval Start			bound Ave S				bound Ave S				ound nut St				oound inut St		Interval
Time	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	Total
2:00 PM	0	0	1	1	0	1	0	1	0	0	0	0	0	0	0	0	2
2:15 PM	0	0	1	1	0	1	0	1	0	0	0	0	0	0	0	0	2
2:30 PM	0	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	3
2:45 PM	0	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	3
3:00 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2

Peak Hour Summary All Traffic Data Clay Carney (503) 833-2740 4th Ave S & Chestnut St 3:00 PM to 4:00 PM Thursday, October 11, 2018 4th Ave S Bikes 0 70 51 62 4 K Peds 9 Chestnut St Bikes 0 2 13 6 9 1 **5**6 5 11 5 **→** 13 1 ¥ Bikes 0 Chestnut St Peds 17 1 K 7 3 44 64 51 Bikes HV% **Approach PHF** Volume 0.0% ΕB 0.69 11 0.0% **WB** 0.56 9 0.0% 51 NB 0.64 SB 0.76 2.9% 70 Intersection 0.78 1.4% 141 Count Period: 2:00 PM to 4:00 PM

Total Vehicle Summary

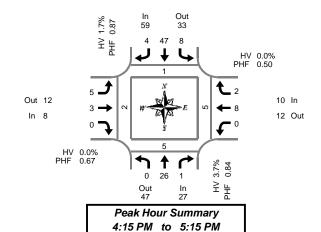


Clay Carney (503) 833-2740

4th Ave S & Chestnut St

Thursday, October 11, 2018 4:00 PM to 6:00 PM

15-Minute Interval Summary 4:00 PM to 6:00 PM



Interval		North	bound			South	bound			Eastb	ound			Westl	ound				Pedes	trians	
Start		4th A	Ave S			4th A	lve S			Chest	nut St			Chest	nut St		Interval		Cros	swalk	
Time	L	Т	R	Bikes	L	Т	R	Bikes	L	Т	R	Bikes	L	Т	R	Bikes	Total	North	South	East	West
4:00 PM	1	3	1	0	2	14	2	0	0	1	0	0	0	1	2	1	27	0	1	0	0
4:15 PM	0	6	1	0	4	12	1	0	2	0	0	0	0	1	1	0	28	1	0	0	1
4:30 PM	0	5	0	0	1	12	0	0	1	1	0	0	0	0	0	0	20	0	3	1	1
4:45 PM	0	7	0	0	2	11	2	0	2	1	0	0	0	3	0	0	28	0	2	0	0
5:00 PM	0	8	0	0	1	12	1	1	0	1	0	0	0	4	1	0	28	0	0	4	0
5:15 PM	1	2	0	0	0	10	0	0	1	0	0	0	1	0	0	0	15	3	0	1	0
5:30 PM	0	6	0	1	0	13	1	0	2	0	0	0	0	1	0	0	23	3	0	2	0
5:45 PM	0	3	0	0	1	6	2	0	0	0	0	0	1	3	3	0	19	1	0	1	0
Total Survey	2	40	2	1	11	90	9	1	8	4	0	0	2	13	7	1	188	8	6	9	2

Peak Hour Summary 4:15 PM to 5:15 PM

By Approach			bound Ave S				bound Ive S				ound tnut St				bound tnut St		Total
Approach	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	
Volume	27	47	74	0	59	33	92	1	8	12	20	0	10	12	22	0	104
%HV		3.7	7%			1.7	7%			0.0	0%			0.0	0%		1.9%
PHF		0.	84			0.	87			0.	67			0.	50		0.93

Pedestrians Crosswalk North South Fast West														
0.000														
Crosswalk														

Ву			bound lve S				bound lve S				ound nut St				ound nut St		Total
Movement	L	T T	R	Total	L	T T	R	Total	L	T	R	Total	L	T	R	Total	Total
Volume	0	26	1	27	8	47	4	59	5	3	0	8	0	8	2	10	104
%HV	0.0%	3.8%	0.0%	3.7%	0.0%	0.0%	25.0%	1.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.9%
PHF	0.00	0.81	0.25	0.84	0.50	0.98	0.50	0.87	0.63	0.75	0.00	0.67	0.00	0.50	0.50	0.50	0.93

Rolling Hour Summary 4:00 PM to 6:00 PM

	Interval		North					bound				ound				bound		late med			trians	
	Start		4tn <i>F</i>	ve S			4tn <i>F</i>	Ave S			Cnes	nut St			Cnesi	tnut St		Interval		Cros	swalk	
	Time	L	T	R	Bikes	L	T	R	Bikes	L	Т	R	Bikes	L	T	R	Bikes	Total	North	South	East	West
ſ	4:00 PM	1	21	2	0	9	49	5	0	5	3	0	0	0	5	3	1	103	1	6	1	2
ı	4:15 PM	0	26	1	0	8	47	4	1	5	3	0	0	0	8	2	0	104	1	5	5	2
ı	4:30 PM	1	22	0	0	4	45	3	1	4	3	0	0	1	7	1	0	91	3	5	6	1
ı	4:45 PM	1	23	0	1	3	46	4	1	5	2	0	0	1	8	1	0	94	6	2	7	0
	5:00 PM	1	19	0	1	2	41	4	1	3	1	0	0	2	8	4	0	85	7	0	8	0

Heavy Vehicle Summary



4th Ave S & Chestnut St

Thursday, October 11, 2018 4:00 PM to 6:00 PM

Out 1

In 0

Peak Hour Summary 4:15 PM to 5:15 PM

Heavy Vehicle 15-Minute Interval Summary 4:00 PM to 6:00 PM

Interval			bound				bound				oound				oound		
Start		4th <i>F</i>	Ave S			4th A	Ave S			Chest	tnut St			Chest	nut St		Interval
Time	L	Т	R	Total	L	T	R	Total	L	Т	R	Total	L	Т	R	Total	Total
4:00 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	1	0	1	0	0	1	1	0	0	0	0	0	0	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	0	1	0	1	0	2	1	3	0	0	0	0	0	0	0	0	4

Heavy Vehicle Peak Hour Summary 4:15 PM to 5:15 PM

Bv		North	bound		South	bound		Eastb	ound		West	bound	
		4th Ave S			4th A	lve S		Chest	nut St		Chest	tnut St	Total
Approach	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	1	0	1	1	1	2	0	1	1	0	0	0	2
PHF	0.25		•	0.13		•	0.00			0.00			0.25

Du		North	bound			South	bound			Eastb	ound			Westl	oound		
By		4th A	ve S			4th A	lve S			Chest	nut St			Chest	nut St		Total
Movement	L	Т	R	Total	٦	Т	R	Total	Ы	Т	R	Total	L	T	R	Total	
Volume	0	1	0	1	0	0	1	1	0	0	0	0	0	0	0	0	2
PHF	0.00	0.25	0.00	0.25	0.00	0.00	0.25	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25

Heavy Vehicle Rolling Hour Summary 4:00 PM to 6:00 PM

Interval Start			bound Ave S				bound Ave S			Eastb Chest	ound nut St				oound nut St		Interval
Time	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	Total
4:00 PM	0	1	0	1	0	2	1	3	0	0	0	0	0	0	0	0	4
4:15 PM	0	1	0	1	0	0	1	1	0	0	0	0	0	0	0	0	2
4:30 PM	0	1	0	1	0	0	1	1	0	0	0	0	0	0	0	0	2
4:45 PM	0	1	0	1	0	0	1	1	0	0	0	0	0	0	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Peak Hour Summary All Traffic Data Clay Carney (503) 833-2740 4th Ave S & Chestnut St 4:15 PM to 5:15 PM Thursday, October 11, 2018 4th Ave S Bikes 1 59 33 47 8 K Peds 1 Chestnut St Bikes 0 2 12 8 10 0 5 8 3 **→** 12 0 4 Bikes 0 Chestnut St Peds 5 1 K 7 0 26 47 27 Bikes HV% **Approach PHF** Volume 0.0% ΕB 0.67 8 **WB** 0.50 0.0% 10 3.7% 27 NB 0.84 SB 0.87 1.7% 59 Intersection 0.93 1.9% 104 Count Period: 4:00 PM to 6:00 PM

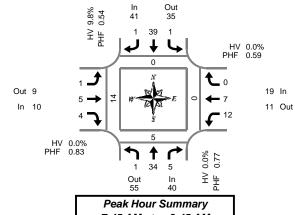
Total Vehicle Summary



5th Ave S & Chestnut St

Thursday, October 11, 2018 7:00 AM to 9:30 AM

15-Minute Interval Summary 7:00 AM to 9:30 AM



7:45 AM to 8:45 AM

Interval		North	bound			South	bound			Eastk	ound			Westl	bound				Pedes	trians	
Start		5th A	Ave S			5th A	lve S			Chest	nut St			Ches	tnut St		Interval		Cross	swalk	
Time	L	T	R	Bikes	L	Т	R	Bikes	L	T	R	Bikes	L	Т	R	Bikes	Total	North	South	East	West
7:00 AM	0	1	0	0	0	1	0	0	0	1	0	0	0	1	1	0	5	0	0	0	0
7:15 AM	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3	0	0	4	0
7:30 AM	0	0	1	1	0	1	0	0	0	0	0	0	0	0	1	0	3	0	0	0	0
7:45 AM	0	7	0	0	0	6	0	0	0	1	0	0	0	0	0	0	14	0	0	0	0
8:00 AM	1	11	1	0	0	9	1	0	1	0	2	0	5	3	0	0	34	0	5	0	0
8:15 AM	0	5	2	1	0	19	0	0	0	2	1	0	5	1	0	0	35	0	0	0	7
8:30 AM	0	11	2	0	1	5	0	0	0	2	1	0	2	3	0	0	27	0	0	0	7
8:45 AM	0	2	0	0	0	4	0	0	1	1	0	0	0	2	2	0	12	0	0	0	0
9:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
9:15 AM	0	1	0	0	1	1	0	0	2	0	0	0	0	1	1	0	7	0	0	0	0
Total Survey	1	40	6	2	2	48	1	0	4	7	4	0	12	11	5	0	141	0	5	4	14

Peak Hour Summary 7:45 AM to 8:45 AM

Ву			bound Ave S				bound ve S				ound tnut St				bound tnut St		Total
Approach	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	
Volume	40	55	95	1	41	35	76	0	10	9	19	0	19	11	30	0	110
%HV		0.0	0%			9.8	3%			0.0	0%			0.0	0%		3.6%
PHF		0.	77			0.	54			0.	83			0.	59		0.79

Pedes	trians													
Crosswalk														
5	0	14												
	Cross													

By Movement			bound Ave S			South 5th A	bound Ive S				ound nut St			West! Chest	oound nut St		Total
Movement	٦	Т	R	Total	L	T	R	Total	L	Т	R	Total	L	Т	R	Total	
Volume	1	34	5	40	1	39	1	41	1	5	4	10	12	7	0	19	110
%HV	0.0%	0.0%	0.0%	0.0%	0.0%	10.3%	0.0%	9.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.6%
PHF	0.25	0.77	0.63	0.77	0.25	0.51	0.25	0.54	0.25	0.63	0.50	0.83	0.60	0.58	0.00	0.59	0.79

Rolling Hour Summary 7:00 AM to 9:30 AM

Interval		North	bound			South	bound			Eastb	ound			Westl	oound				Pedes	trians	
Start		5th A	ve S			5th A	ve S			Chest	nut St			Chest	nut St		Interval		Cros	swalk	
Time	L	Т	R	Bikes	L	T	R	Bikes	L	Т	R	Bikes	L	T	R	Bikes	Total	North	South	East	West
7:00 AM	0	10	1	1	0	9	0	0	0	2	0	0	0	1	2	0	25	0	0	4	0
7:15 AM	1	20	2	1	0	17	1	0	1	1	2	0	5	3	1	0	54	0	5	4	0
7:30 AM	1	23	4	2	0	35	1	0	1	3	3	0	10	4	1	0	86	0	5	0	7
7:45 AM	1	34	5	1	1	39	1	0	1	5	4	0	12	7	0	0	110	0	5	0	14
8:00 AM	1	29	5	1	1	37	1	0	2	5	4	0	12	9	2	0	108	0	5	0	14
8:15 AM	0	18	4	1	1	29	0	0	1	5	2	0	7	6	2	0	75	0	0	0	14
8:30 AM	0	14	2	0	2	11	0	0	3	3	1	0	2	6	3	0	47	0	0	0	7

Heavy Vehicle Summary



5th Ave S & Chestnut St

Thursday, October 11, 2018 7:00 AM to 9:30 AM

Out 0 In 0

Peak Hour Summary 7:45 AM to 8:45 AM

Heavy Vehicle 15-Minute Interval Summary 7:00 AM to 9:30 AM

Interval Start		North 5th A	bound we S				bound Ive S				ound tnut St				oound nut St		Interval
Time	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
8:30 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	0	0	0	0	0	5	0	5	0	0	0	0	0	1	0	1	6

Heavy Vehicle Peak Hour Summary 7:45 AM to 8:45 AM

Ву			bound Ave S			bound Ave S			ound tnut St			bound tnut St	Total
Approach	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	4	4	4	0	4	0	0	0	0	0	0	4
PHF	0.00	•		0.25			0.00		•	0.00		•	0.25

By Movement		North 5th A	bound we S			South 5th A	bound Ive S				ound nut St				ound nut St		Total
Movement	٦	T	R	Total	L	Т	R	Total	Ы	Т	R	Total	L	Т	R	Total	
Volume	0	0	0	0	0	4	0	4	0	0	0	0	0	0	0	0	4
PHF	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25

Heavy Vehicle Rolling Hour Summary 7:00 AM to 9:30 AM

Interval Start			bound \ve S				bound Ive S				ound tnut St				oound nut St		Interval
Time	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	Total
7:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
7:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	3
7:45 AM	0	0	0	0	0	4	0	4	0	0	0	0	0	0	0	0	4
8:00 AM	0	0	0	0	0	4	0	4	0	0	0	0	0	0	0	0	4
8:15 AM	0	0	0	0	0	4	0	4	0	0	0	0	0	0	0	0	4
8:30 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2

Peak Hour Summary All Traffic Data Clay Carney (503) 833-2740 5th Ave S & Chestnut St 7:45 AM to 8:45 AM Thursday, October 11, 2018 5th Ave S Bikes 0 41 35 39 1 K Peds 0 Chestnut St Bikes 0 0 7 19 12 7 11 10 5 **→** 4 Bikes 0 Chestnut St Peds 5 1 K 7 1 34 55 40 Bikes HV% **Approach PHF** Volume 0.0% ΕB 0.83 10 0.0% **WB** 0.59 19 0.0% 40 NB 0.77 SB 0.54 9.8% 41 Intersection 0.79 3.6% 110 Count Period: 7:00 AM to 9:30 AM

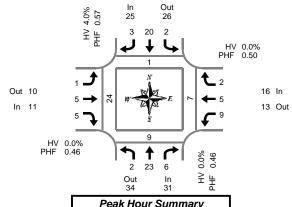
Total Vehicle Summary



5th Ave S & Chestnut St

Thursday, October 11, 2018 2:00 PM to 4:00 PM

15-Minute Interval Summary 2:00 PM to 4:00 PM



Peak Hour Summary 2:45 PM to 3:45 PM

Interval		North	bound			South	bound			Easth	ound			West	bound				Pedes	trians	
Start		5th A	Ave S			5th A	Ave S			Chest	nut St			Chest	tnut St		Interval		Cros	swalk	
Time	L	Т	R	Bikes	L	Т	R	Bikes	L	T	R	Bikes	L	Т	R	Bikes	Total	North	South	East	West
2:00 PM	0	3	0	0	0	1	0	0	0	2	0	1	1	1	0	1	8	1	1	1	0
2:15 PM	2	4	0	0	2	3	0	1	0	1	2	0	0	0	0	0	14	2	0	0	1
2:30 PM	0	9	0	0	1	1	0	0	0	1	1	0	1	2	0	0	16	0	0	0	0
2:45 PM	0	6	0	0	1	2	1	0	0	0	1	0	1	0	0	2	12	0	2	6	1
3:00 PM	0	2	1	1	0	6	0	0	0	1	0	0	1	2	1	0	14	0	0	0	2
3:15 PM	0	4	1	0	0	10	1	0	0	2	1	0	6	2	0	0	27	0	2	1	9
3:30 PM	2	11	4	0	1	2	1	0	1	2	3	0	1	1	1	0	30	1	5	0	12
3:45 PM	0	2	2	1	1	3	0	1	0	2	1	0	0	0	0	0	11	0	0	0	1
Total Survey	4	41	8	2	6	28	3	2	1	11	9	1	11	8	2	3	132	4	10	8	26

Peak Hour Summary 2:45 PM to 3:45 PM

By Approach			bound Ave S				bound Ave S				ound tnut St				oound inut St		Total
Approach	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	
Volume	31	34	65	1	25	26	51	0	11	10	21	0	16	13	29	2	83
%HV		0.0	0%			4.0	0%			0.0	0%			0.0	0%		1.2%
PHF		0.	46			0.	57			0.	46			0.	50		0.69

	Pedes	trians	
	Cross	swalk	
North	South	East	West
1	9	7	24

Bv		North	bound			South	bound			Eastb	ound			West	oound		
Movement		5th A	Ave S			5th A	ve S			Chest	nut St			Chest	nut St		Total
Movement	٦	Т	R	Total	L	Т	R	Total	٦	Т	R	Total	L	Т	R	Total	
Volume	2	23	6	31	2	20	3	25	1	5	5	11	9	5	2	16	83
%HV	0.0%	0.0%	0.0%	0.0%	0.0%	5.0%	0.0%	4.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.2%
PHF	0.25	0.52	0.38	0.46	0.50	0.50	0.75	0.57	0.25	0.63	0.42	0.46	0.38	0.63	0.50	0.50	0.69

Rolling Hour Summary 2:00 PM to 4:00 PM

Interval		N	orthb	ound			South	bound			Eastk	ound			West	bound				Pedes	trians	
Start		,	5th A	ve S			5th A	ve S			Chest	nut St			Chest	tnut St		Interval		Cross	swalk	
Time	L		T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	Total	North	South	East	West
2:00 PM	2		22	0	0	4	7	1	1	0	4	4	1	3	3	0	3	50	3	3	7	2
2:15 PN	2	2	21	1	1	4	12	1	1	0	3	4	0	3	4	1	2	56	2	2	6	4
2:30 PN	0	2	21	2	1	2	19	2	0	0	4	3	0	9	6	1	2	69	0	4	7	12
2:45 PN	2		23	6	1	2	20	3	0	1	5	5	0	9	5	2	2	83	1	9	7	24
3:00 PM	2	1	19	8	2	2	21	2	1	1	7	5	0	8	5	2	0	82	1	7	1	24

Heavy Vehicle Summary



5th Ave S & Chestnut St

Thursday, October 11, 2018 2:00 PM to 4:00 PM

Out 0

In 0

Peak Hour Summary 2:45 PM to 3:45 PM

Heavy Vehicle 15-Minute Interval Summary 2:00 PM to 4:00 PM

Interval		North	bound			South	bound			Eastk	ound			West	oound		
Start		5th A	Ave S			5th A	Ave S			Chest	tnut St			Chest	nut St		Interval
Time	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	Total
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	0	0	0	0	0	1	0	1	0	0	1	1	0	0	0	0	2

Heavy Vehicle Peak Hour Summary 2:45 PM to 3:45 PM

Ву			bound Ave S			bound Ave S			oound tnut St			bound tnut St	Total
Approach	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	1	1	1	0	1	0	0	0	0	0	0	1
PHF	0.00			0.25			0.00			0.00			0.25

Bv		North	bound			South	bound			Eastb	ound			Westl	oound		
		5th A	Ave S			5th A	lve S			Chest	nut St			Chest	nut St		Total
Movement	٦	Т	R	Total	٦	T	R	Total	Ы	Т	R	Total	L	T	R	Total	
Volume	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
PHF	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25

Heavy Vehicle Rolling Hour Summary 2:00 PM to 4:00 PM

Interval Start	Northbound 5th Ave S				Southbound 5th Ave S				Eastbound Chestnut St				Westbound Chestnut St				Interval
Time	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	Total
2:00 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
2:15 PM	0	0	0	0	0	1	0	1	0	0	1	1	0	0	0	0	2
2:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
2:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
3:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1

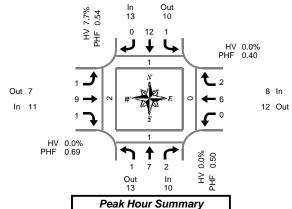
Peak Hour Summary All Traffic Data Clay Carney (503) 833-2740 5th Ave S & Chestnut St 2:45 PM to 3:45 PM Thursday, October 11, 2018 5th Ave S Bikes 0 25 26 2 3 20 K 4 Peds 1 Chestnut St Bikes 2 2 10 5 16 9 24 7 1 11 5 **→** 13 5 Bikes 0 Chestnut St Peds 9 1 K 7 2 23 34 31 Bikes HV% **Approach PHF** Volume 0.0% ΕB 0.46 11 0.0% **WB** 0.50 16 0.0% 31 NB 0.46 SB 0.57 4.0% 25 Intersection 0.69 1.2% 83 Count Period: 2:00 PM to 4:00 PM



5th Ave S & Chestnut St

Thursday, October 11, 2018 4:00 PM to 6:00 PM

15-Minute Interval Summary 4:00 PM to 6:00 PM



4:00 PM to 5:00 PM

Interval		North	bound			South	bound			Easth	oound			West	bound				Pedes	trians	
Start		5th A	Ave S			5th A	Ave S			Chest	tnut St			Chest	tnut St		Interval		Cross	swalk	
Time	١	Т	R	Bikes	L	Т	R	Bikes	١	T	R	Bikes	L	Т	R	Bikes	Total	North	South	East	West
4:00 PM	1	3	1	0	1	1	0	1	1	3	0	0	0	2	0	0	13	0	1	0	0
4:15 PM	0	0	0	1	0	1	0	0	0	2	1	0	0	1	0	0	5	1	0	0	0
4:30 PM	0	4	0	0	0	4	0	2	0	2	0	0	0	0	0	0	10	0	0	0	2
4:45 PM	0	0	1	0	0	6	0	0	0	2	0	0	0	3	2	0	14	0	0	0	0
5:00 PM	0	1	0	0	0	2	0	0	0	0	0	0	0	3	1	0	7	0	0	0	0
5:15 PM	0	0	0	0	0	1	0	0	1	0	0	1	0	1	0	0	3	0	0	0	0
5:30 PM	0	3	0	0	0	2	1	0	0	0	0	0	1	0	0	0	7	0	0	0	0
5:45 PM	1	3	0	0	0	3	1	1	0	1	0	1	0	5	0	0	14	0	0	0	0
Total Survey	2	14	2	1	1	20	2	4	2	10	1	2	1	15	3	0	73	1	1	0	2

Peak Hour Summary 4:00 PM to 5:00 PM

By Approach			bound Ave S				bound Ave S				ound tnut St				bound tnut St		Total
Approach	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	
Volume	10	13	23	1	13	10	23	3	11	7	18	0	8	12	20	0	42
%HV		0.0%				7.7	7%			0.0	0%			0.0	0%		2.4%
PHF		0.50				0.	54			0.	69			0.	40		0.75

	Pedes	trians											
	Cross	swalk											
North South East West													
1	1	0	2										

By			bound Ave S				bound Ave S				ound nut St			West	oound nut St		Total
Movement	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	
Volume	1	7	2	10	1	12	0	13	1	9	1	11	0	6	2	8	42
%HV	0.0%	0.0%	0.0%	0.0%	0.0%	8.3%	0.0%	7.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.4%
PHF	0.25	0.44	0.50	0.50	0.25	0.50	0.00	0.54	0.25	0.75	0.25	0.69	0.00	0.50	0.25	0.40	0.75

Rolling Hour Summary 4:00 PM to 6:00 PM

Interval			bound				bound				ound				bound					trians	
Start		5th <i>F</i>	Ave S			5th A	lve S			Chest	nut St			Chest	tnut St		Interval		Cross	swalk	
Time	L	T	R	Bikes	L	Т	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	Total	North	South	East	West
4:00 PM	1	7	2	1	1	12	0	3	1	9	1	0	0	6	2	0	42	1	1	0	2
4:15 PM	0	5	1	1	0	13	0	2	0	6	1	0	0	7	3	0	36	1	0	0	2
4:30 PM	0	5	1	0	0	13	0	2	1	4	0	1	0	7	3	0	34	0	0	0	2
4:45 PM	0	4	1	0	0	11	1	0	1	2	0	1	1	7	3	0	31	0	0	0	0
5:00 PM	1	7	0	0	0	8	2	1	1	1	0	2	1	9	1	0	31	0	0	0	0



5th Ave S & Chestnut St

Thursday, October 11, 2018 4:00 PM to 6:00 PM

Out 0

In 0

Peak Hour Summary 4:00 PM to 5:00 PM

Heavy Vehicle 15-Minute Interval Summary 4:00 PM to 6:00 PM

Interval Start			bound lve S				bound Ave S				oound tnut St				oound nut St		Interval
Time	L	Т	R	Total	L	T	R	Total	L	Т	R	Total	L	T	R	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1

Heavy Vehicle Peak Hour Summary 4:00 PM to 5:00 PM

Bv		North	bound		South	bound		Eastk	ound		West	bound	
Approach		5th A	Ave S		5th A	Ave S		Chest	tnut St		Ches	tnut St	Total
Approacri	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	1	1	1	0	1	0	0	0	0	0	0	1
PHF	0.00	0.00		0.25	•		0.00			0.00	•		0.25

D		North	bound			South	bound			Eastb	ound			Westl	ound		
By		5th Ave S				5th A	lve S			Chest	nut St			Chest	nut St		Total
Movement	L	Т	R	Total	L	Т	R	Total	٦	Т	R	Total	L	Т	R	Total	
Volume	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
PHF	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25

Heavy Vehicle Rolling Hour Summary 4:00 PM to 6:00 PM

Interval			bound				bound				ound				bound		
Start		5th A	Ave S			5th A	Ave S			Chest	nut St			Chest	tnut St		Interval
Time	L	Т	R	Total	┙	T	R	Total	L	Т	R	Total	┙	T	R	Total	Total
4:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

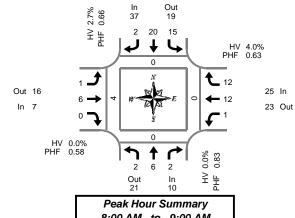
Peak Hour Summary All Traffic Data Clay Carney (503) 833-2740 5th Ave S & Chestnut St 4:00 PM to 5:00 PM Thursday, October 11, 2018 5th Ave S Bikes 3 13 10 0 12 1 K Peds 1 Chestnut St Bikes 0 2 6 8 0 7 11 9 **→** 12 1 ¥ Bikes 0 Chestnut St Peds 1 1 K 7 1 7 2 13 10 Bikes HV% **Approach PHF** Volume 0.0% ΕB 0.69 11 0.0% **WB** 0.40 8 0.50 0.0% NB 10 SB 0.54 7.7% 13 Intersection 0.75 2.4% 42 Count Period: 4:00 PM to 6:00 PM



4th Ave S & Elm St

Monday, October 15, 2018 7:00 AM to 9:30 AM

15-Minute Interval Summary 7:00 AM to 9:30 AM



8:00 AM to 9:00 AM

Interval		North	bound			South	bound			Eastk	ound			Westl	bound				Pedes	trians	
Start		4th A	Ave S			4th A	lve S			Eln	n St			Eln	n St		Interval		Cross	swalk	
Time	L	Т	R	Bikes	L	Т	R	Bikes	١	Т	R	Bikes	L	Т	R	Bikes	Total	North	South	East	West
7:00 AM	0	4	0	0	1	5	0	0	1	1	0	0	0	1	1	0	14	1	0	0	0
7:15 AM	0	1	0	0	3	3	0	0	0	0	0	0	1	0	1	0	9	0	0	0	0
7:30 AM	0	1	0	0	0	3	0	0	0	0	0	0	0	2	1	0	7	0	0	0	0
7:45 AM	0	3	0	0	2	3	1	0	0	0	0	0	0	1	2	0	12	0	0	0	0
8:00 AM	1	1	0	0	3	4	1	0	1	2	0	1	0	2	2	0	17	0	0	0	1
8:15 AM	1	1	1	0	6	7	1	0	0	2	0	0	0	2	8	0	29	0	0	0	1
8:30 AM	0	2	0	0	3	3	0	0	0	2	0	0	1	4	1	0	16	0	0	0	1
8:45 AM	0	2	1	0	3	6	0	0	0	0	0	0	0	4	1	0	17	0	0	0	1
9:00 AM	0	1	0	1	5	3	0	0	0	0	0	0	0	1	1	1	11	0	0	0	0
9:15 AM	0	3	1	0	0	5	2	0	1	1	0	0	1	0	0	0	14	0	0	0	0
Total Survey	2	19	3	1	26	42	5	0	3	8	0	1	3	17	18	1	146	1	0	0	4

Peak Hour Summary 8:00 AM to 9:00 AM

By			bound Ave S				bound Ive S				ound n St				oound n St		Total
Approach	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	
Volume	10	21	31	0	37	19	56	0	7	16	23	1	25	23	48	0	79
%HV		0.0%				2.	7%			0.0	0%			4.0	0%		2.5%
PHF		0.83				0.	66			0.	58			0.	63		0.68

	Pedes	trians											
	Cross	swalk											
North South East West													
0	0	0	4										
U	U	U											

By Movement			bound Ave S				bound Ave S				ound n St			Westl Eln	oound n St		Total
Movement	٦	Т	R	Total	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	
Volume	2	6	2	10	15	20	2	37	1	6	0	7	1	12	12	25	79
%HV	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	50.0%	2.7%	0.0%	0.0%	0.0%	0.0%	0.0%	8.3%	0.0%	4.0%	2.5%
PHF	0.50	0.75	0.50	0.83	0.63	0.71	0.50	0.66	0.25	0.75	0.00	0.58	0.25	0.75	0.38	0.63	0.68

Rolling Hour Summary 7:00 AM to 9:30 AM

Interval		North	bound			South	bound			Eastb	ound			Westl	oound				Pedes	trians	
Start		4th A	Ave S			4th A	Ave S			Eln	n St			Eln	n St		Interval		Cros	swalk	
Time	L	Т	R	Bikes	L	T	R	Bikes	L	Т	R	Bikes	L	T	R	Bikes	Total	North	South	East	West
7:00 AM	0	9	0	0	6	14	1	0	1	1	0	0	1	4	5	0	42	1	0	0	0
7:15 AM	1	6	0	0	8	13	2	0	1	2	0	1	1	5	6	0	45	0	0	0	1
7:30 AM	2	6	1	0	11	17	3	0	1	4	0	1	0	7	13	0	65	0	0	0	2
7:45 AM	2	7	1	0	14	17	3	0	1	6	0	1	1	9	13	0	74	0	0	0	3
8:00 AM	2	6	2	0	15	20	2	0	1	6	0	1	1	12	12	0	79	0	0	0	4
8:15 AM	1	6	2	1	17	19	1	0	0	4	0	0	1	11	11	1	73	0	0	0	3
8:30 AM	0	8	2	1	11	17	2	0	1	3	0	0	2	9	3	1	58	0	0	0	2



4th Ave S & Elm St

Monday, October 15, 2018 7:00 AM to 9:30 AM

Out 2

In 0

Peak Hour Summary 8:00 AM to 9:00 AM

Heavy Vehicle 15-Minute Interval Summary 7:00 AM to 9:30 AM

Interval Start			bound Ave S				bound ve S				ound n St			Westl Eln	oound n St		Interval
Time	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	L	T	R	Total	Total
7:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
8:15 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
Total Survev	0	0	0	0	0	2	1	3	0	0	0	0	0	1	0	1	4

Heavy Vehicle Peak Hour Summary 8:00 AM to 9:00 AM

Ву			bound Ave S			bound Ave S			oound n St			bound n St	Total
Approach	In	Out	Total	ln	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	0	0	1	0	1	0	2	2	1	0	1	2
PHF	0.00	•		0.25			0.00			0.25		•	0.25

By Movement			bound we S			South 4th A	bound ve S				ound n St				oound n St		Total
Movement	L	T	R	Total	٦	Т	R	Total	L	Т	R	Total	L	Т	R	Total	
Volume	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	1	2
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.25	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.25	0.25

Heavy Vehicle Rolling Hour Summary 7:00 AM to 9:30 AM

Interval		North	bound			South	bound			Eastb	ound			Westk	oound		
Start		4th A	ve S			4th A	Ave S			Eln	n St			Eln	n St		Interval
Time	┙	T	R	Total	┙	T	R	Total	L	T	R	Total	┙	T	R	Total	Total
7:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
7:30 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	1	2
7:45 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	1	2
8:00 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	1	2
8:15 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1

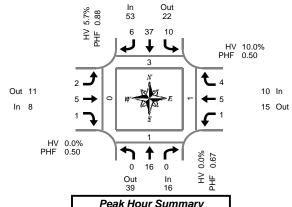
Peak Hour Summary All Traffic Data Clay Carney (503) 833-2740 4th Ave S & Elm St 8:00 AM to 9:00 AM Monday, October 15, 2018 4th Ave S Bikes 0 37 19 2 20 15 K Peds 0 Elm St Bikes 0 12 16 12 25 1 7 6 **→** 23 0 Bikes 1 Elm St Peds 0 1 K 7 2 6 2 21 10 Bikes HV% **Approach PHF** Volume 0.0% ΕB 0.58 7 4.0% **WB** 0.63 25 0.0% 10 NB 0.83 SB 0.66 2.7% 37 Intersection 0.68 2.5% 79 Count Period: 7:00 AM to 9:30 AM



4th Ave S & Elm St

Monday, October 15, 2018 2:00 PM to 4:00 PM

15-Minute Interval Summary 2:00 PM to 4:00 PM



Peak Hour Summary 2:30 PM to 3:30 PM

Interval		North	bound			South	bound			Eastb	ound			West	bound				Pedes	trians	
Start		4th A	Ave S			4th A	ve S			Eln	n St			Eln	n St		Interval		Cros	swalk	
Time	L	T	R	Bikes	L	Т	R	Bikes	L	Т	R	Bikes	L	Т	R	Bikes	Total	North	South	East	West
2:00 PM	0	4	0	0	0	8	1	0	1	1	0	0	0	1	0	0	16	1	0	0	1
2:15 PM	0	5	0	0	2	5	1	0	2	2	1	0	0	3	1	0	22	3	0	5	0
2:30 PM	0	4	0	0	3	10	0	0	1	1	0	0	0	0	1	0	20	0	0	0	0
2:45 PM	0	3	0	1	4	9	2	0	0	1	0	1	0	0	1	0	20	3	1	0	0
3:00 PM	0	6	0	0	1	8	1	0	0	1	0	0	1	3	1	0	22	0	0	0	0
3:15 PM	0	3	0	2	2	10	3	0	1	2	1	0	0	2	1	0	25	0	0	1	0
3:30 PM	0	3	0	0	2	10	0	0	2	0	0	0	0	2	0	0	19	0	0	0	0
3:45 PM	0	4	0	1	3	4	1	0	0	0	0	0	0	1	3	0	16	0	2	0	3
Total Survey	0	32	0	4	17	64	9	0	7	8	2	1	1	12	8	0	160	7	3	6	4

Peak Hour Summary 2:30 PM to 3:30 PM

By Approach			bound Ave S				bound Ive S				ound n St				oound n St		Total
Approach	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	
Volume	16	39	55	3	53	22	75	0	8	11	19	1	10	15	25	0	87
%HV		0.0	0%			5.7	7%			0.0	0%			10.	0%		4.6%
PHF		0.67				0.	88			0.	50			0.	50		0.87

	Pedes	trians	
	Cross	swalk	
North	South	East	West
3	1	1	0

Ву			bound Ave S				bound Ive S			Eastb Elm	ound n St			Westb Elm			Total
Movement	L	Т	R	Total	L	T	R	Total	L	T	R	Total	L	Т	R	Total	
Volume	0	16	0	16	10	37	6	53	2	5	1	8	1	5	4	10	87
%HV	0.0%	0.0%	0.0%	0.0%	10.0%	5.4%	0.0%	5.7%	0.0%	0.0%	0.0%	0.0%	0.0%	20.0%	0.0%	10.0%	4.6%
PHF	0.00	0.67	0.00	0.67	0.63	0.93	0.50	0.88	0.50	0.63	0.25	0.50	0.25	0.42	1.00	0.50	0.87

Rolling Hour Summary 2:00 PM to 4:00 PM

Interval Start			bound Ave S				bound Ave S				oound n St				bound n St		Interval			strians swalk	
Time	L	Т	R	Bikes	┙	T	R	Bikes	١	T	R	Bikes	L	T	R	Bikes	Total	North	South	East	West
2:00 PM	0	16	0	1	9	32	4	0	4	5	1	1	0	4	3	0	78	7	1	5	1
2:15 PM	0	18	0	1	10	32	4	0	3	5	1	1	1	6	4	0	84	6	1	5	0
2:30 PM	0	16	0	3	10	37	6	0	2	5	1	1	1	5	4	0	87	3	1	1	0
2:45 PM	0	15	0	3	9	37	6	0	3	4	1	1	1	7	3	0	86	3	1	1	0
3:00 PM	0	16	0	3	8	32	5	0	3	3	1	0	1	8	5	0	82	0	2	1	3



4th Ave S & Elm St

Monday, October 15, 2018 2:00 PM to 4:00 PM

Out 1

In 0

Peak Hour Summary 2:30 PM to 3:30 PM

Heavy Vehicle 15-Minute Interval Summary

2:00 PM to 4:00 PM

Interval			bound				bound				ound				oound		
Start		4th A	Ave S			4th A	Ave S			Eln	n St			Eln	n St		Interval
Time	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	Total
2:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
2:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
2:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
2:45 PM	0	0	0	0	1	1	0	2	0	0	0	0	0	0	0	0	2
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	0	0	0	0	1	4	0	5	0	0	0	0	0	1	0	1	6

Heavy Vehicle Peak Hour Summary

2:30 PM to 3:30 PM

Ву			bound Ave S		South 4th A	bound ve S			oound n St			oound n St	Total
Approach	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	2	2	3	0	3	0	1	1	1	1	2	4
PHF	0.00		•	0.19			0.00		•	0.25		•	0.25

Du		North	bound			South	bound			Eastb	ound			Westl	oound		
By		4th A	Ave S			4th A	lve S			Elm	n St			Eln	n St		Total
Movement	٦	T	R	Total	٦	Т	R	Total	Ы	Т	R	Total	L	T	R	Total	
Volume	0	0	0	0	1	2	0	3	0	0	0	0	0	1	0	1	4
PHF	0.00	0.00	0.00	0.00	0.25	0.17	0.00	0.19	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.25	0.25

Heavy Vehicle Rolling Hour Summary

2:00 PM to 4:00 PM

Interval Start			bound Ave S				bound Ave S				ound n St				oound n St		Interval
Time	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	Total
2:00 PM	0	0	0	0	1	4	0	5	0	0	0	0	0	0	0	0	5
2:15 PM	0	0	0	0	1	3	0	4	0	0	0	0	0	1	0	1	5
2:30 PM	0	0	0	0	1	2	0	3	0	0	0	0	0	1	0	1	4
2:45 PM	0	0	0	0	1	1	0	2	0	0	0	0	0	1	0	1	3
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1

Peak Hour Summary All Traffic Data Clay Carney (503) 833-2740 4th Ave S & Elm St 2:30 PM to 3:30 PM Monday, October 15, 2018 4th Ave S Bikes 0 53 22 6 37 10 K Peds 3 Elm St Bikes 0 4 11 5 10 1 7 2 8 5 **→** 15 1 4 Bikes 1 Elm St Peds 1 1 K 7 0 16 39 16 Bikes HV% **Approach PHF** Volume ΕB 0.50 0.0% 8 **WB** 0.50 10.0% 10 0.0% NB 0.67 16 SB 0.88 5.7% 53 Intersection 0.87 4.6% 87 Count Period: 2:00 PM to 4:00 PM

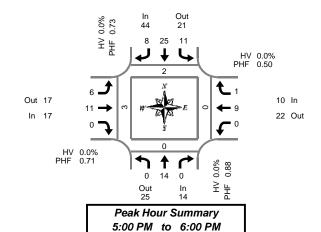


Clay Carney (503) 833-2740

4th Ave S & Elm St

Monday, October 15, 2018 4:00 PM to 6:00 PM

15-Minute Interval Summary 4:00 PM to 6:00 PM



Interval		North	bound			South	bound			Eastb	ound			Westk	ound				Pedes	trians	
Start		4th A	Ave S			4th A	lve S			Eln	n St			Elm	n St		Interval		Cross	swalk	
Time	L	Т	R	Bikes	L	Т	R	Bikes	L	Т	R	Bikes	L	Т	R	Bikes	Total	North	South	East	West
4:00 PM	0	4	0	0	3	6	2	0	1	1	0	0	0	3	0	0	20	0	4	0	2
4:15 PM	0	4	0	0	2	13	0	0	0	3	0	0	1	0	0	0	23	0	0	0	0
4:30 PM	0	3	0	0	2	11	0	0	1	3	0	0	0	1	1	0	22	0	1	0	0
4:45 PM	0	2	1	0	3	3	0	0	0	1	0	0	0	1	0	0	11	0	0	1	1
5:00 PM	0	4	0	0	5	5	1	1	2	0	0	0	0	2	0	0	19	0	0	0	0
5:15 PM	0	3	0	0	2	6	2	0	2	3	0	0	0	1	0	0	19	0	0	0	1
5:30 PM	0	3	0	0	3	8	4	0	2	4	0	0	0	5	0	0	29	2	0	0	0
5:45 PM	0	4	0	0	1	6	1	2	0	4	0	0	0	1	1	0	18	0	0	0	2
Total Survev	0	27	1	0	21	58	10	3	8	19	0	0	1	14	2	0	161	2	5	1	6

Peak Hour Summary 5:00 PM to 6:00 PM

By Approach			bound Ave S				bound Ave S				oound n St				oound n St		Total
Approach	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	
Volume	14	25	39	0	44	21	65	3	17	17	34	0	10	22	32	0	85
%HV		0.0	0%			0.0	0%			0.0	0%			0.0	0%		0.0%
PHF		0.	88			0.	73			0.	71			0.	50		0.73

	Pedes	trians	
	Cross	swalk	
North	South	East	West
2	0	0	3

Ву			bound Ave S				bound Ive S				ound n St			Westk Elm	oound n St		Total
Movement	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	L	T	R	Total	
Volume	0	14	0	14	11	25	8	44	6	11	0	17	0	9	1	10	85
%HV	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
PHF	0.00	0.88	0.00	0.88	0.55	0.78	0.50	0.73	0.75	0.69	0.00	0.71	0.00	0.45	0.25	0.50	0.73

Rolling Hour Summary 4:00 PM to 6:00 PM

Interval Start			bound we S			South 4th A	bound Ive S			Eastb Eln					bound n St		Interval			trians swalk	
Time	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	Total	North	South	East	West
4:00 PM	0	13	1	0	10	33	2	0	2	8	0	0	1	5	1	0	76	0	5	1	3
4:15 PM	0	13	1	0	12	32	1	1	3	7	0	0	1	4	1	0	75	0	1	1	1
4:30 PM	0	12	1	0	12	25	3	1	5	7	0	0	0	5	1	0	71	0	1	1	2
4:45 PM	0	12	1	0	13	22	7	1	6	8	0	0	0	9	0	0	78	2	0	1	2
5:00 PM	0	14	0	0	11	25	8	3	6	11	0	0	0	9	1	0	85	2	0	0	3



4th Ave S & Elm St

Monday, October 15, 2018 4:00 PM to 6:00 PM

Out 0

In 0

Peak Hour Summary 5:00 PM to 6:00 PM

Heavy Vehicle 15-Minute Interval Summary 4:00 PM to 6:00 PM

Interval			bound				bound				oound				bound		
Start		4th A	Ave S			4th A	Ave S			Elr	n St			Eln	n St		Interval
Time	L	Т	R	Total	L	Т	R	Total	٦	Т	R	Total	L	T	R	Total	Total
4:00 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	0	0	0	0	0	2	1	3	0	0	0	0	0	0	0	0	3

Heavy Vehicle Peak Hour Summary 5:00 PM to 6:00 PM

Ву			bound Ave S			bound Ave S			oound n St			bound n St	Total
Approach	In	Out	Total	ln	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	0.00			0.00			0.00		•	0.00			0.00

Du		North	bound			South	bound			Eastb	ound			Westl	oound		
By		4th A	Ave S			4th A	lve S			Eln	n St			Eln	n St		Total
Movement	٦	T	R	Total	٦	Т	R	Total	Ы	T	R	Total	L	T	R	Total	
Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Heavy Vehicle Rolling Hour Summary 4:00 PM to 6:00 PM

Interval Start			bound Ave S				bound Ave S				ound n St				bound n St		Interval
Time	L	T	R	Total	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	Total
4:00 PM	0	0	0	0	0	2	1	3	0	0	0	0	0	0	0	0	3
4:15 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Peak Hour Summary All Traffic Data Clay Carney (503) 833-2740 4th Ave S & Elm St 5:00 PM to 6:00 PM Monday, October 15, 2018 4th Ave S Bikes 3 44 21 8 25 11 K Peds 2 Elm St Bikes 0 K 1 17 9 10 22 17 11 **→** 0 ¥ Bikes 0 Elm St Peds 0 1 K 7 0 14 25 14 Bikes HV% **Approach PHF** Volume ΕB 0.71 0.0% 17 **WB** 0.50 0.0% 10 14 0.0% NB 0.88 SB 0.73 0.0% 44 Intersection 0.73 0.0% Count Period: 4:00 PM to 6:00 PM



5th Ave S & Elm St

Thursday, October 11, 2018 7:00 AM to 9:30 AM

Northbound

5th Ave S т

R

15-Minute Interval Summary 7:00 AM to 9:30 AM

Interval

Start

Time

7:00 AM

7:15 AM 7:30 AM

7:45 AM

8:00 AM

8:15 AM

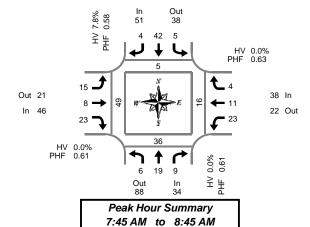
8:30 AM 8:45 AM

9:00 AM

9:15 AM

Total

Survey



					7:4	O AIVI	10 6:45	, ,	4111	
Easth	ound			Westl	ound			11		Ī
Eln	n St			Eln	n St		Interval			
Т	R	Bikes	L	Т	R	Bikes	Total		North	
1	0	0	1	1	0	0	4	11	2	Ī
1	0	0	0	0	0	0	2	Ш	1	Г
1	0	0	1	5	0	0	11		2	
2	0	0	1	4	0	1	18		0	
2	8	0	5	0	0	0	47	Ш	5	
1	6	0	11	3	1	1	56		0	
3	9	1	6	4	3	0	48	ı	0	ľ

Peak Hour Summary

7:45 AM	to	8:45 A	M														
Bv		North	bound			South	bound			Eastb	ound			West	bound		
Approach	oach 5th Ave S				5th A	Ave S			Eln	n St			Eln	n St		Total	
Арргоасп	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	
Volume	34	88	122	0	51	38	89	0	46	21	67	1	38	22	60	2	169
%HV		0.0%				7.8	8%			0.0	0%			0.0	0%		2.4%
		٥			0	59			0	61			0	63		0.75	

Southbound

5th Ave S

8

	Pedes	trians											
Crosswalk													
North	South	East	West										
5	36	16	49										

Pedestrians Crosswalk
South East West

8

By Movement			bound we S			South 5th A	bound ive S			Eastb Elm	ound n St				ound n St		Total
Movement	٦	Т	R	Total	L	Т	R	Total	Ы	Т	R	Total	L	Т	R	Total	
Volume	6	19	9	34	5	42	4	51	15	8	23	46	23	11	4	38	169
%HV	0.0%	0.0%	0.0%	0.0%	0.0%	9.5%	0.0%	7.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.4%
PHF	0.50	0.48	0.45	0.61	0.42	0.55	0.33	0.58	0.54	0.67	0.64	0.61	0.52	0.69	0.33	0.63	0.75

Rolling Hour Summary 7:00 AM to 9:30 AM

Interval		North	bound			South	bound			Eastb	ound			West	oound				Pedes	trians	
Start		5th A	Ave S			5th A	Ave S			Eln	n St			Eln	n St		Interval		Cros	swalk	
Time	L	Т	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	Total	North	South	East	West
7:00 AM	3	4	0	1	0	5	3	0	2	5	0	0	3	10	0	1	35	5	7	12	5
7:15 AM	5	14	2	1	1	16	4	0	6	6	8	0	7	9	0	1	78	8	18	13	22
7:30 AM	5	16	7	1	4	35	4	0	10	6	14	0	18	12	1	2	132	7	29	13	43
7:45 AM	6	19	9	0	5	42	4	0	15	8	23	1	23	11	4	2	169	5	36	16	49
8:00 AM	3	18	10	0	5	40	4	0	15	10	23	1	23	10	4	1	165	5	30	12	49
8:15 AM	3	8	9	0	4	29	3	0	11	10	16	1	18	11	4	1	126	0	19	6	33
8:30 AM	3	6	4	0	1	11	3	0	7	11	10	1	7	10	3	0	76	3	8	5	12



5th Ave S & Elm St

Thursday, October 11, 2018 7:00 AM to 9:30 AM

Out 0

In 0

Peak Hour Summary 7:45 AM to 8:45 AM

Heavy Vehicle 15-Minute Interval Summary 7:00 AM to 9:30 AM

Interval Start			bound Ave S				bound Ive S				oound n St			Westl Eln	oound n St		Interval
Time	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
8:30 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	0	0	0	0	0	5	0	5	0	0	0	0	0	0	0	0	5

Heavy Vehicle Peak Hour Summary 7:45 AM to 8:45 AM

Ву			bound Ave S			bound Ave S			oound n St			bound n St	Total
Approach	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	4	4	4	0	4	0	0	0	0	0	0	4
PHF	0.00		0.25			0.00			0.00			0.25	

By Movement		North 5th A	bound we S			South 5th A	bound ve S			Eastb Eln	ound n St				oound n St		Total
Movement	٦	Т	R	Total	٦	T	R	Total	Ы	Т	R	Total	L	Т	R	Total	
Volume	0	0	0	0	0	4	0	4	0	0	0	0	0	0	0	0	4
PHF	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25

Heavy Vehicle Rolling Hour Summary 7:00 AM to 9:30 AM

Interval Start			bound we S				bound Ave S				oound n St				oound n St		Interval
Time	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	Total
7:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	3
7:45 AM	0	0	0	0	0	4	0	4	0	0	0	0	0	0	0	0	4
8:00 AM	0	0	0	0	0	4	0	4	0	0	0	0	0	0	0	0	4
8:15 AM	0	0	0	0	0	4	0	4	0	0	0	0	0	0	0	0	4
8:30 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2

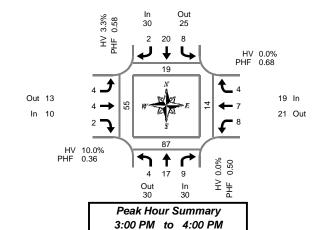
Peak Hour Summary All Traffic Data Clay Carney (503) 833-2740 5th Ave S & Elm St 7:45 AM to 8:45 AM Thursday, October 11, 2018 5th Ave S Bikes 0 51 38 5 42 K Peds 5 Elm St Bikes 2 4 21 11 38 23 15 46 8 **→** 22 23 Bikes 1 Elm St Peds 36 1 K 7 6 19 88 34 Bikes HV% **Approach PHF** Volume 0.0% ΕB 0.61 46 0.0% **WB** 0.63 38 0.0% 34 NB 0.61 SB 0.58 7.8% 51 Intersection 0.75 2.4% 169 Count Period: 7:00 AM to 9:30 AM



5th Ave S & Elm St

Thursday, October 11, 2018 2:00 PM to 4:00 PM

15-Minute Interval Summary 2:00 PM to 4:00 PM



Interval		North	bound			South	bound			Eastb	ound			Westk	ound				Pedes	strians	
Start		5th A	Ave S			5th A	lve S			Eln	n St			Elm	n St		Interval		Cross	swalk	
Time	L	T	R	Bikes	L	Т	R	Bikes	L	Т	R	Bikes	L	Т	R	Bikes	Total	North	South	East	West
2:00 PM	1	2	0	0	0	2	0	1	1	1	0	0	0	2	1	0	10	0	1	1	0
2:15 PM	0	1	2	0	0	5	0	1	0	0	0	0	0	0	4	0	12	4	2	0	5
2:30 PM	0	8	0	0	1	2	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0
2:45 PM	0	4	0	0	0	4	0	0	0	1	0	0	0	1	0	2	10	1	4	6	3
3:00 PM	0	3	1	0	1	5	0	0	0	0	0	0	2	0	0	0	12	0	3	0	3
3:15 PM	0	4	4	0	4	9	0	0	0	0	0	0	4	0	3	0	28	11	76	13	39
3:30 PM	3	8	4	0	2	5	2	0	3	2	2	0	2	2	1	0	36	6	8	0	11
3:45 PM	1	2	0	0	1	1	0	0	1	2	0	1	0	5	0	0	13	2	0	1	2
Total Survey	5	32	11	0	9	33	2	2	5	6	2	1	8	10	9	2	132	24	94	21	63

Peak Hour Summary 3:00 PM to 4:00 PM

By			bound Ave S				bound Ave S				ound n St				bound n St		Total
Approach	In				In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	
Volume	30	30	60	0	30	25	55	0	10	13	23	1	19	21	40	0	89
%HV		0.0%				3.	3%			10.	0%			0.0	0%		2.2%
PHF						0.	58			0.	36			0.	68		0.62

	Pedes	trians												
	Crosswalk													
North	South	East	West											
19	87	14	55											

Ву			bound Ave S			South 5th A	bound Ive S				oound n St			Westk Elm			Total
Movement	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	L	T	R	Total	
Volume	4	17	9	30	8	20	2	30	4	4	2	10	8	7	4	19	89
%HV	0.0%	0.0%	0.0%	0.0%	0.0%	5.0%	0.0%	3.3%	0.0%	0.0%	50.0%	10.0%	0.0%	0.0%	0.0%	0.0%	2.2%
PHF	0.33	0.53	0.56	0.50	0.50	0.56	0.25	0.58	0.33	0.50	0.25	0.36	0.50	0.35	0.33	0.68	0.62

Rolling Hour Summary 2:00 PM to 4:00 PM

Interval Start			bound Ave S			South 5th A					ound n St				oound n St		Interval			strians swalk	
Time	L	Т	R	Bikes	L	Т	R	Bikes	L	Т	R	Bikes	L	T	R	Bikes	Total	North	South	East	West
2:00 PM	1	15	2	0	1	13	0	2	1	2	0	0	0	3	5	2	43	5	7	7	8
2:15 PM	0	16	3	0	2	16	0	1	0	1	0	0	2	1	4	2	45	5	9	6	11
2:30 PM	0	19	5	0	6	20	0	0	0	1	0	0	6	1	3	2	61	12	83	19	45
2:45 PM	3	19	9	0	7	23	2	0	3	3	2	0	8	3	4	2	86	18	91	19	56
3:00 PM	4	17	9	0	8	20	2	0	4	4	2	1	8	7	4	0	89	19	87	14	55



5th Ave S & Elm St

Thursday, October 11, 2018 2:00 PM to 4:00 PM

Out 0

In 1

Peak Hour Summary 3:00 PM to 4:00 PM

Heavy Vehicle 15-Minute Interval Summary 2:00 PM to 4:00 PM

Interval			bound				bound				ound				oound		
Start		5th F	Ave S			5th A	Ave S			Eir	n St			EIn	n St		Interval
Time	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	L	T	R	Total	Total
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	0	0	0	0	0	2	0	2	0	0	1	1	0	0	0	0	3

Heavy Vehicle Peak Hour Summary 3:00 PM to 4:00 PM

By			bound Ave S			bound Ave S			oound n St			bound n St	Total
Approach	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	2	2	1	0	1	1	0	1	0	0	0	2
PHF	0.00			0.25			0.25			0.00			0.25

Du		North	bound			South	bound			Eastb	ound			Westl	oound		
By		5th A	Ave S			5th A	lve S			Elm	n St			Eln	n St		Total
Movement	٦	T	R	Total	٦	Т	R	Total	Ы	Т	R	Total	L	T	R	Total	
Volume	0	0	0	0	0	1	0	1	0	0	1	1	0	0	0	0	2
PHF	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.25	0.00	0.00	0.25	0.25	0.00	0.00	0.00	0.00	0.25

Heavy Vehicle Rolling Hour Summary 2:00 PM to 4:00 PM

Interval Start			bound Ave S				bound Ave S			Eastb Eln	ound n St				bound n St		Interval
Time	L	T	R	Total	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	Total
2:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
2:15 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
2:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
2:45 PM	0	0	0	0	0	1	0	1	0	0	1	1	0	0	0	0	2
3:00 PM	0	0	0	0	0	1	0	1	0	0	1	1	0	0	0	0	2

Peak Hour Summary All Traffic Data Clay Carney (503) 833-2740 5th Ave S & Elm St 3:00 PM to 4:00 PM Thursday, October 11, 2018 5th Ave S Bikes 0 30 25 2 20 8 K Peds 19 Elm St Bikes 0 4 7 13 19 8 55 4 7 10 4 **→** 21 2 Bikes 1 Elm St Peds 87 1 K 7 17 30 30 Bikes HV% **Approach PHF** Volume ΕB 0.36 10.0% 10 **WB** 0.68 0.0% 19 0.0% 30 NB 0.50 SB 0.58 3.3% 30 Intersection 0.62 2.2% Count Period: 2:00 PM to 4:00 PM



Clay Carney (503) 833-2740

5th Ave S & Elm St

Thursday, October 11, 2018 4:00 PM to 6:00 PM

Northbound

5th Ave S

R

15-Minute Interval Summary 4:00 PM to 6:00 PM

Interval

Start

Time

4:00 PM

4:15 PM

4:30 PM 4:45 PM

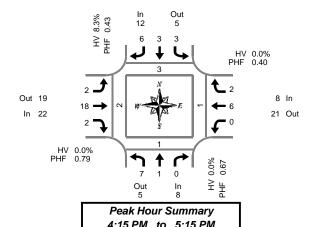
5:00 PM

5:15 PM

5:30 PM

5:45 PM

Total



			_	4. 1	3 PIVI	10 5.15	P IVI	_		
oound n St				oound n St		Interval			strians swalk	
 R	Bikes	L	T	R	Bikes	Total	North	South	East	,
1	0	1	0	0	0	11	0	0	1	
1	0	0	0	0	0	11	2	0	0	
0	0	0	0	2	0	14	0	1	1	
1	0	0	1	0	1	12	0	0	0	
0	0	0	5	0	0	13	1	0	0	
0	0	1	4	0	0	10	0	1	0	
1	0	0	2	0	0	11	2	0	3	

Peak Hour Summary 4:15 PM to 5:15 PM

By			bound Ave S				bound Ave S				oound n St			West! Eln	oound n St		Total
Approach	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	
Volume	8	5	13	0	12	5	17	2	22	19	41	0	8	21	29	1	50
%HV		0.0	0%	•		8.3	3%	•		0.0	0%			0.0	0%	•	2.0%
PHF		0.	67			0.	43			0.	79			0.	40		0.89

Southbound 5th Ave S T R

	Pedes	trians	
	Cross	swalk	
North	South	East	West
3	1	1	2

Bv		North	bound			South	bound			Eastb	ound			West	oound		
Movement		5th A	Ave S			5th A	ve S			Eln	n St			Eln	n St		Total
Movement	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	
Volume	7	1	0	8	3	3	6	12	2	18	2	22	0	6	2	8	50
%HV	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	0.0%	8.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%
PHF	0.58	0.25	0.00	0.67	0.25	0.75	0.50	0.43	0.25	0.75	0.50	0.79	0.00	0.30	0.25	0.40	0.89

Rolling Hour Summary 4:00 PM to 6:00 PM

Interval Start			bound Ave S				bound Ive S				ound n St				bound n St		Interval			strians swalk	
Time	L	T	R	Bikes	L	T	R	Bikes	L	Т	R	Bikes	L	T	R	Bikes	Total	North	South	East	West
4:00 PM	7	3	1	0	3	2	7	2	3	15	3	0	1	1	2	1	48	2	1	2	5
4:15 PM	7	1	0	0	3	3	6	2	2	18	2	0	0	6	2	1	50	3	1	1	2
4:30 PM	4	1	0	0	3	3	5	2	2	17	1	0	1	10	2	1	49	1	2	1	2
4:45 PM	3	4	0	1	3	2	4	0	0	15	2	0	1	12	0	1	46	3	1	3	3
5:00 PM	6	5	0	1	0	2	2	0	0	17	2	0	1	11	1	0	47	3	1	3	4



5th Ave S & Elm St

Thursday, October 11, 2018 4:00 PM to 6:00 PM

Out 0

In 0

Peak Hour Summary 4:15 PM to 5:15 PM

Heavy Vehicle 15-Minute Interval Summary 4:00 PM to 6:00 PM

Interval Start			bound we S				bound Ave S				oound n St				oound n St		Interval
Time	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	L	T	R	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	0	0	0	0	0	1	0	1	0	1	0	1	0	1	0	1	3

Heavy Vehicle Peak Hour Summary 4:15 PM to 5:15 PM

By			bound Ave S		South 5th A	bound Ave S			oound n St			bound n St	Total
Approach	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	1	1	1	0	1	0	0	0	0	0	0	1
PHF	0.00			0.25			0.00			0.00			0.25

Du		North	bound			South	bound			Eastb	ound			Westl	oound		
By		5th A	Ave S			5th A	lve S			Elm	n St			Eln	n St		Total
Movement	٦	Т	R	Total	٦	Т	R	Total	L	Т	R	Total	L	T	R	Total	
Volume	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
PHF	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25

Heavy Vehicle Rolling Hour Summary 4:00 PM to 6:00 PM

Interval Start			bound Ave S				bound Ave S				oound n St				bound n St		Interval
Time	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	Total
4:00 PM	0	0	0	0	0	1	0	1	0	1	0	1	0	0	0	0	2
4:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1

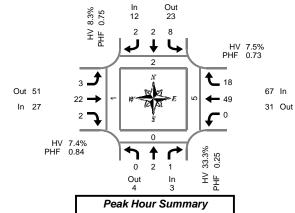
Peak Hour Summary All Traffic Data Clay Carney (503) 833-2740 5th Ave S & Elm St 4:15 PM to 5:15 PM Thursday, October 11, 2018 5th Ave S Bikes 2 12 5 3 6 3 K Peds 3 Elm St Bikes 1 2 19 6 8 0 2 7 22 18 **→** 21 2 4 Bikes 0 Elm St Peds 1 1 K 7 7 1 5 8 Bikes HV% **Approach PHF** Volume 0.0% ΕB 0.79 22 0.0% **WB** 0.40 8 0.0% 8 NB 0.67 SB 0.43 8.3% 12 Intersection 0.89 2.0% 50 Count Period: 4:00 PM to 6:00 PM



4th Ave S & Yew St

Thursday, October 11, 2018 7:00 AM to 9:30 AM

15-Minute Interval Summary 7:00 AM to 9:30 AM



7:45 AM to 8:45 AM

Interval		North	bound			South	bound			Eastb	ound			Westl	bound				Pedes	trians	
Start		4th A	Ave S			4th A	lve S			Yev	v St			Ye	w St		Interval		Cross	swalk	
Time	L	Т	R	Bikes	L	Т	R	Bikes	١	Т	R	Bikes	L	Т	R	Bikes	Total	North	South	East	West
7:00 AM	0	0	0	0	0	1	1	0	0	1	1	0	0	0	1	0	5	1	0	0	0
7:15 AM	1	0	0	0	0	0	0	0	0	5	0	0	0	4	1	0	11	0	1	0	0
7:30 AM	0	1	0	0	1	1	0	0	1	2	0	0	0	3	3	0	12	0	0	0	0
7:45 AM	0	0	0	0	2	1	0	0	1	5	0	0	0	7	1	0	17	0	0	2	0
8:00 AM	0	0	0	0	1	0	1	0	0	5	1	0	0	9	4	0	21	2	0	0	1
8:15 AM	0	0	0	0	3	1	0	0	1	6	0	0	0	15	8	0	34	0	0	3	0
8:30 AM	0	2	1	0	2	0	1	0	1	6	1	0	0	18	5	0	37	0	0	0	0
8:45 AM	0	0	0	1	2	3	0	0	0	4	0	0	1	5	2	1	17	0	0	0	0
9:00 AM	1	0	0	0	2	1	0	0	0	3	1	0	0	4	1	0	13	0	1	0	0
9:15 AM	0	0	0	0	0	1	2	0	0	6	0	0	0	1	1	0	11	0	2	2	0
Total Survey	2	3	1	1	13	9	5	0	4	43	4	0	1	66	27	1	178	3	4	7	1

Peak Hour Summary 7:45 AM to 8:45 AM

Ву			bound Ave S				bound ve S				ound v St				oound v St		Total
Approach	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	
Volume	3	4	7	0	12	23	35	0	27	51	78	0	67	31	98	0	109
%HV		33.	.3%			8.	3%			7.4	1%			7.	5%		8.3%
PHF		0.	25			0.	75			0.	84			0.	73		0.74

Crosswalk North South East West		Pedes	trians	
North South East West		Cross	swalk	
	North	South	East	West
2 0 5 1	2	0	5	1

By Movement			bound Ave S			South 4th A	bound Ive S				oound w St			Westl Yev	oound v St		Total
Movement	٦	Т	R	Total	L	Т	R	Total	L	Т	R	Total	L	T	R	Total	
Volume	0	2	1	3	8	2	2	12	3	22	2	27	0	49	18	67	109
%HV	0.0%	0.0%	#####	33.3%	12.5%	0.0%	0.0%	8.3%	0.0%	4.5%	50.0%	7.4%	0.0%	10.2%	0.0%	7.5%	8.3%
PHF	0.00	0.25	0.25	0.25	0.67	0.50	0.50	0.75	0.75	0.92	0.50	0.84	0.00	0.68	0.56	0.73	0.74

Rolling Hour Summary 7:00 AM to 9:30 AM

Interval		North	bound			South	bound			Eastb	ound			Westl	oound				Pedes	strians	
Start		4th A	Ave S			4th A	Ave S			Yev	v St			Yev	v St		Interval		Cros	swalk	
Time	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	Total	North	South	East	West
7:00 AM	1	1	0	0	3	3	1	0	2	13	1	0	0	14	6	0	45	1	1	2	0
7:15 AM	1	1	0	0	4	2	1	0	2	17	1	0	0	23	9	0	61	2	1	2	1
7:30 AM	0	1	0	0	7	3	1	0	3	18	1	0	0	34	16	0	84	2	0	5	1
7:45 AM	0	2	1	0	8	2	2	0	3	22	2	0	0	49	18	0	109	2	0	5	1
8:00 AM	0	2	1	1	8	4	2	0	2	21	2	0	1	47	19	1	109	2	0	3	1
8:15 AM	1	2	1	1	9	5	1	0	2	19	2	0	1	42	16	1	101	0	1	3	0
8:30 AM	1	2	1	1	6	5	3	0	1	19	2	0	1	28	9	1	78	0	3	2	0



4th Ave S & Yew St

Thursday, October 11, 2018 7:00 AM to 9:30 AM

Out 5

ln 2

Peak Hour Summary 7:45 AM to 8:45 AM

Heavy Vehicle 15-Minute Interval Summary 7:00 AM to 9:30 AM

Interval Start			bound Ave S				bound Ive S				oound w St			Westl Yev	oound v St		Interval
Time	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
7:45 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	1	0	0	1	0	0	0	0	0	3	0	3	4
8:30 AM	0	0	1	1	0	0	0	0	0	0	1	1	0	1	0	1	3
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3	3
9:00 AM	1	0	0	1	0	0	0	0	0	0	1	1	0	0	0	0	2
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	1	0	1	2	1	0	0	1	0	3	2	5	0	7	2	9	17

Heavy Vehicle Peak Hour Summary 7:45 AM to 8:45 AM

Ву			bound Ave S			bound Ave S			oound w St			bound w St	Total
Approach	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	1	1	2	1	0	1	2	5	7	5	3	8	9
PHF	0.13			0.25		•	0.25		•	0.18			0.23

By Movement		North 4th A				South 4th A	bound ve S				ound v St				oound v St		Total
Movement	٦	Т	R	Total	٦	Т	R	Total	٦	Т	R	Total	L	Т	R	Total	
Volume	0	0	1	1	1	0	0	1	0	1	1	2	0	5	0	5	9
PHF	0.00	0.00	0.25	0.13	0.25	0.00	0.00	0.25	0.00	0.13	0.13	0.25	0.00	0.21	0.00	0.18	0.23

Heavy Vehicle Rolling Hour Summary 7:00 AM to 9:30 AM

Interval		North	bound			South	bound			Eastb	ound			Westl	oound		
Start		4th A	Ave S			4th A	ve S			Yev	v St			Yev	v St		Interval
Time	٦	Т	R	Total	┙	T	R	Total	L	Т	R	Total	┙	T	R	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	3	0	3	0	1	1	2	5
7:15 AM	0	0	0	0	0	0	0	0	0	2	0	2	0	1	1	2	4
7:30 AM	0	0	0	0	1	0	0	1	0	1	0	1	0	4	1	5	7
7:45 AM	0	0	1	1	1	0	0	1	0	1	1	2	0	5	0	5	9
8:00 AM	0	0	1	1	1	0	0	1	0	0	1	1	0	6	1	7	10
8:15 AM	1	0	1	2	1	0	0	1	0	0	2	2	0	6	1	7	12
8:30 AM	1	0	1	2	0	0	0	0	0	0	2	2	0	3	1	4	8

Peak Hour Summary All Traffic Data Clay Carney (503) 833-2740 4th Ave S & Yew St 7:45 AM to 8:45 AM Thursday, October 11, 2018 4th Ave S Bikes 0 12 23 2 8 2 K Peds 2 Yew St Bikes 0 18 51 49 67 0 3 27 22 **→** 31 2 Bikes 0 Yew St Peds 0 1 K 7 0 2 3 Bikes HV% **Approach PHF** Volume 7.4% ΕB 0.84 27 **WB** 0.73 7.5% 67 33.3% 3 NB 0.25 SB 0.75 8.3% 12 Intersection 0.74 8.3% 109 Count Period: 7:00 AM to 9:30 AM

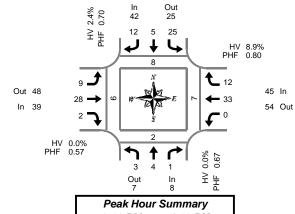


Clay Carney (503) 833-2740

4th Ave S & Yew St

Thursday, October 11, 2018 2:00 PM to 4:00 PM

15-Minute Interval Summary 2:00 PM to 4:00 PM



3:00 PM to 4:00 PM

Interval		North	bound			South	bound			Easth	ound			West	bound				Pedes	trians	
Start		4th A	Ave S			4th A	Ave S			Yev	n St			Yev	w St		Interval		Cross	swalk	
Time	L	Т	R	Bikes	L	Т	R	Bikes	٦	Т	R	Bikes	L	Т	R	Bikes	Total	North	South	East	West
2:00 PM	0	0	0	0	1	2	0	1	0	6	0	1	0	9	1	0	19	1	0	1	0
2:15 PM	0	0	2	0	6	0	0	0	0	4	2	0	0	9	2	0	25	0	0	0	0
2:30 PM	0	1	1	0	5	5	1	0	1	7	0	0	0	12	1	0	34	3	0	0	0
2:45 PM	1	0	0	0	1	1	0	0	0	9	0	0	0	10	0	1	22	0	2	1	0
3:00 PM	0	2	0	0	4	0	1	0	1	3	1	0	0	9	3	2	24	0	0	0	0
3:15 PM	0	2	0	0	10	2	3	0	5	12	0	0	0	9	3	0	46	3	0	6	3
3:30 PM	1	0	0	1	6	1	5	0	2	6	0	0	0	9	5	1	35	5	2	1	3
3:45 PM	2	0	1	0	5	2	3	0	1	7	1	0	0	6	1	1	29	0	0	0	0
Total Survey	4	5	4	1	38	13	13	1	10	54	4	1	0	73	16	5	234	12	4	9	6

Peak Hour Summary 3:00 PM to 4:00 PM

By Approach			bound Ave S				bound Ive S				oound w St				oound v St		Total
Approach	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	
Volume	8	7	15	1	42	25	67	0	39	48	87	0	45	54	99	4	134
%HV		0.0	0%			2.4	4%			0.0	0%			8.9	9%		3.7%
PHF		0.0% 0.67				0.	70			0.	57			0.	80		0.73

	Pedes	trians											
	Cross	swalk											
North South East West													
8 2 7 6													

By			bound Ave S			South 4th A	bound Ive S				ound v St			Westl Yev	oound v St		Total
Movement	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	
Volume	3	4	1	8	25	5	12	42	9	28	2	39	0	33	12	45	134
%HV	0.0%	0.0%	0.0%	0.0%	4.0%	0.0%	0.0%	2.4%	0.0%	0.0%	0.0%	0.0%	0.0%	9.1%	8.3%	8.9%	3.7%
PHF	0.38	0.50	0.25	0.67	0.63	0.63	0.60	0.70	0.45	0.58	0.50	0.57	0.00	0.92	0.60	0.80	0.73

Rolling Hour Summary 2:00 PM to 4:00 PM

Interval		North	bound			South	bound			Eastb	ound			Westl	oound				Pedes	trians	
Start		4th A	Ave S			4th A	ve S			Yev	v St			Yev	v St		Interval		Cross	swalk	
Time	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	┙	T	R	Bikes	Total	North	South	East	West
2:00 PM	1	1	3	0	13	8	1	1	1	26	2	1	0	40	4	1	100	4	2	2	0
2:15 PM	1	3	3	0	16	6	2	0	2	23	3	0	0	40	6	3	105	3	2	1	0
2:30 PM	1	5	1	0	20	8	5	0	7	31	1	0	0	40	7	3	126	6	2	7	3
2:45 PM	2	4	0	1	21	4	9	0	8	30	1	0	0	37	11	4	127	8	4	8	6
3:00 PM	3	4	1	1	25	5	12	0	9	28	2	0	0	33	12	4	134	8	2	7	6



4th Ave S & Yew St

Thursday, October 11, 2018 2:00 PM to 4:00 PM

Out 3

In 0

Peak Hour Summary 3:00 PM to 4:00 PM

Heavy Vehicle 15-Minute Interval Summary 2:00 PM to 4:00 PM

Interval		North	bound			South	bound			Eastk	ound			West	bound		
Start		4th A	Ave S			4th A	lve S			Yev	w St			Ye	w St		Interval
Time	L	Т	R	Total	L	Ţ	R	Total	L	Т	R	Total	L	Ţ	R	Total	Total
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	3	0	3	0	3	0	3	6
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
3:15 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total Survey	0	0	0	0	1	0	0	1	0	3	0	3	0	7	1	8	12

Heavy Vehicle Peak Hour Summary 3:00 PM to 4:00 PM

Ву			bound Ave S			bound Ave S			oound w St			bound w St	Total
Approach	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	0	0	1	1	2	0	3	3	4	1	5	5
PHF	0.00	•		0.25		•	0.00		•	0.25			0.16

Du		North	bound			South	bound			Eastb	ound			Westl	oound		
By		4th A	Ave S			4th A	lve S			Yev	v St			Yev	v St		Total
Movement	٦	T	R	Total	٦	T	R	Total	L	Т	R	Total	L	T	R	Total	
Volume	0	0	0	0	1	0	0	1	0	0	0	0	0	3	1	4	5
PHF	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.19	0.25	0.25	0.16

Heavy Vehicle Rolling Hour Summary 2:00 PM to 4:00 PM

Interval Start			bound Ave S				bound Ave S				ound v St				bound w St		Interval
Time	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	Total
2:00 PM	0	0	0	0	0	0	0	0	0	3	0	3	0	4	0	4	7
2:15 PM	0	0	0	0	0	0	0	0	0	3	0	3	0	5	0	5	8
2:30 PM	0	0	0	0	1	0	0	1	0	3	0	3	0	4	0	4	8
2:45 PM	0	0	0	0	1	0	0	1	0	3	0	3	0	5	1	6	10
3:00 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	3	1	4	5

Peak Hour Summary All Traffic Data Clay Carney (503) 833-2740 4th Ave S & Yew St 3:00 PM to 4:00 PM Thursday, October 11, 2018 4th Ave S Bikes 0 42 25 12 5 25 K 4 Peds 8 Yew St Bikes 4 12 48 33 45 0 7 9 39 **→** 54 28 2 Bikes 0 Yew St Peds 2 1 K 7 3 4 7 8 Bikes HV% **Approach PHF** Volume ΕB 0.57 0.0% 39 **WB** 0.80 8.9% 45 0.0% 8 NB 0.67 SB 0.70 2.4% 42 Intersection 0.73 3.7% 134 Count Period: 2:00 PM to 4:00 PM



Clay Carney (503) 833-2740

4th Ave S & Yew St

Thursday, October 11, 2018 4:00 PM to 6:00 PM

15-Minute Interval Summary 4:00 PM to 6:00 PM

Interval

Start

Time 4:00 PM

4:15 PM

4:45 PM

5:00 PM

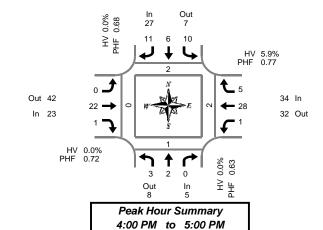
5:15 PM

5:30 PM

5:45 PM

Total

Survey



	,, va. 0	u	u, y															
0	6:00 P	М																
	North	bound			South	bound			Eastk	ound			West	oound				-
	4th A	Ave S			4th A	lve S			Yev	w St			Yev	v St		Interval		
L	Т	R	Bikes	L	T	R	Bikes	٦	T	R	Bikes	L	T	R	Bikes	Total	North	
1	0	0	0	3	1	5	0	0	3	0	0	0	10	1	0	24	0	
1	1	0	0	1	1	3	0	0	6	1	1	0	6	0	1	20	1	
0	0	0	0	5	2	3	0	0	8	0	0	1	7	1	1	27	0	
1	1	0	0	1	2	0	0	0	5	0	0	0	5	3	0	18	1	
0	1	0	0	1	3	0	1	0	8	0	0	0	4	0	0	17	1	
0	0	0	0	1	1	3	0	0	5	2	0	0	4	2	0	18	0	Ī
0	1	0	0	5	1	2	0	0	7	1	0	0	5	0	0	22	0	
1	0	1	0	0	0	4	0	2	5	0	0	0	7	0	0	20	1	Ī
4	4	1	0	17	11	20	1	2	47	4	1	1	48	7	2	166	4	

Peak Hour Summary 4:00 PM to 5:00 PM

By Approach			bound Ave S			South 4th A	bound Ive S				ound v St				oound v St		Total
Approach	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	
Volume	5	8	13	0	27	7	34	0	23	42	65	1	34	32	66	2	89
%HV		0.0	0%			0.0	0%			0.0	0%			5.9	9%		2.2%
PHF		0.63				0.	68			0.	72			0.	77		0.82

	Pedes	trians											
	Cross	swalk											
North South East West													
2	1	2	0										

2

Pedestrians

Crosswalk
South East West

0

0

0

3

0

0

0

0

0

0

0

Ву			bound we S				bound Ive S			Eastb Yev	ound v St				oound v St		Total
Movement	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	L	T	R	Total	
Volume	3	2	0	5	10	6	11	27	0	22	1	23	1	28	5	34	89
%HV	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.6%	20.0%	5.9%	2.2%
PHF	0.75	0.50	0.00	0.63	0.50	0.75	0.55	0.68	0.00	0.69	0.25	0.72	0.25	0.70	0.42	0.77	0.82

Rolling Hour Summary 4:00 PM to 6:00 PM

Interval		North	bound			South	bound			Eastb	ound			Westl	oound				Pedes	trians	
Start		4th A	Ave S			4th A	ve S			Yev	v St			Yev	v St		Interval		Cross	swalk	
Time	L	Т	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	Total	North	South	East	West
4:00 PM	3	2	0	0	10	6	11	0	0	22	1	1	1	28	5	2	89	2	1	2	0
4:15 PM	2	3	0	0	8	8	6	1	0	27	1	1	1	22	4	2	82	3	0	0	0
4:30 PM	1	2	0	0	8	8	6	1	0	26	2	0	1	20	6	1	80	2	1	1	0
4:45 PM	1	3	0	0	8	7	5	1	0	25	3	0	0	18	5	0	75	2	1	1	0
5:00 PM	1	2	1	0	7	5	9	1	2	25	3	0	0	20	2	0	77	2	1	1	0



4th Ave S & Yew St

Thursday, October 11, 2018 4:00 PM to 6:00 PM

Out 1

In 0

Peak Hour Summary 4:00 PM to 5:00 PM

Heavy Vehicle 15-Minute Interval Summary 4:00 PM to 6:00 PM

Interval Start			bound Ave S				bound Ave S				ound v St				oound v St		Interval
Time	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
5:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	0	0	0	0	1	0	0	1	0	1	0	1	0	1	1	2	4

Heavy Vehicle Peak Hour Summary 4:00 PM to 5:00 PM

By			bound Ave S			bound Ave S			oound v St			bound w St	Total
Approach	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	0	0	0	1	1	0	1	1	2	0	2	2
PHF	0.00			0.00			0.00			0.25			0.25

Du		North	bound			South	bound			Eastb	ound			Westl	oound		
By		4th A	ve S			4th A	lve S			Yev	v St			Yev	v St		Total
Movement	L	T	R	Total	٦	Т	R	Total	Ы	Т	R	Total	L	T	R	Total	
Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.25	0.25	0.25

Heavy Vehicle Rolling Hour Summary 4:00 PM to 6:00 PM

Interval Start			bound Ave S				bound Ave S				oound w St				bound w St		Interval
Time	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2
4:15 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	1	2	3
4:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	1	2
4:45 PM	0	0	0	0	1	0	0	1	0	1	0	1	0	0	1	1	3
5:00 PM	0	0	0	0	1	0	0	1	0	1	0	1	0	0	0	0	2

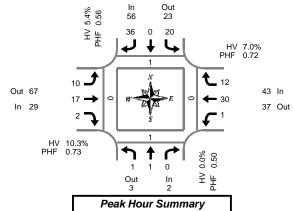
Peak Hour Summary All Traffic Data Clay Carney (503) 833-2740 4th Ave S & Yew St 4:00 PM to 5:00 PM Thursday, October 11, 2018 4th Ave S Bikes 0 27 7 11 6 10 K Peds 2 Yew St Bikes 2 5 42 **+** 28 34 1 0 23 22 **→** 32 1 ¥ Bikes 1 Yew St Peds 1 1 K 7 3 2 8 5 Bikes HV% **Approach PHF** Volume ΕB 0.72 0.0% 23 **WB** 0.77 5.9% 34 0.0% 5 NB 0.63 SB 0.68 0.0% 27 Intersection 0.82 2.2% Count Period: 4:00 PM to 6:00 PM



5th Ave S & Yew St

Thursday, October 11, 2018 7:00 AM to 9:30 AM

15-Minute Interval Summary 7:00 AM to 9:30 AM



7:45 AM to 8:45 AM

Interval		North	bound			South	bound			Eastk	ound			West	oound				Pedes	trians	
Start		5th A	Ave S			5th A	lve S			Yev	v St			Yev	v St		Interval		Cross	swalk	
Time	L	Т	R	Bikes	L	Т	R	Bikes	L	Т	R	Bikes	L	Т	R	Bikes	Total	North	South	East	West
7:00 AM	0	0	1	0	1	1	0	0	0	1	0	0	0	2	0	0	6	0	0	0	2
7:15 AM	0	1	0	0	0	0	0	0	0	5	0	0	0	5	0	0	11	0	0	0	0
7:30 AM	1	0	1	0	1	0	1	0	0	3	0	0	0	5	0	0	12	0	0	0	0
7:45 AM	0	0	0	0	0	0	2	0	1	5	1	0	0	5	3	0	17	0	0	0	0
8:00 AM	0	0	0	0	6	0	7	0	4	1	0	0	0	7	3	0	28	1	0	0	0
8:15 AM	0	1	0	0	6	0	10	0	1	6	0	0	1	10	4	0	39	0	0	0	0
8:30 AM	1	0	0	0	8	0	17	0	4	5	1	0	0	8	2	0	46	0	1	0	0
8:45 AM	0	0	1	0	0	0	6	0	0	5	1	0	0	2	1	1	16	0	0	0	0
9:00 AM	1	0	0	0	0	1	1	0	0	4	1	0	0	3	0	0	11	1	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	4	0	0	0	1	1	0	6	0	0	0	0
Total Survey	3	2	3	0	22	2	44	0	10	39	4	0	1	48	14	1	192	2	1	0	2

Peak Hour Summary 7:45 AM to 8:45 AM

By			bound Ave S				bound Ave S				ound v St				oound v St		Total
Approach	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	
Volume	2	3	5	0	56	23	79	0	29	67	96	0	43	37	80	0	130
%HV		0.0	0%	•		5.4	4%	•		10.	3%			7.0	0%		6.9%
PHF		0.	50			0.	56			0.	73			0.	72		0.71

	Pedes	trians	
	Cross	swalk	
North	South	East	West
1	1	0	0

By Movement		North 5th A	bound we S				bound Ive S				oound w St			Westk Yev	oound v St		Total
Movement	٦	Т	R	Total	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	
Volume	1	1	0	2	20	0	36	56	10	17	2	29	1	30	12	43	130
%HV	0.0%	0.0%	0.0%	0.0%	5.0%	0.0%	5.6%	5.4%	10.0%	5.9%	50.0%	10.3%	0.0%	10.0%	0.0%	7.0%	6.9%
PHF	0.25	0.25	0.00	0.50	0.63	0.00	0.53	0.56	0.63	0.71	0.50	0.73	0.25	0.75	0.75	0.72	0.71

Rolling Hour Summary 7:00 AM to 9:30 AM

Interval		North	bound			South	bound			Eastb	ound			West	oound				Pedes	trians	
Start		5th A	Ave S			5th A	Ave S			Yev	v St			Yev	v St		Interval		Cros	swalk	
Time	L	Т	R	Bikes	┙	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	Total	North	South	East	West
7:00 AM	1	1	2	0	2	1	3	0	1	14	1	0	0	17	3	0	46	0	0	0	2
7:15 AM	1	1	1	0	7	0	10	0	5	14	1	0	0	22	6	0	68	1	0	0	0
7:30 AM	1	1	1	0	13	0	20	0	6	15	1	0	1	27	10	0	96	1	0	0	0
7:45 AM	1	1	0	0	20	0	36	0	10	17	2	0	1	30	12	0	130	1	1	0	0
8:00 AM	1	1	1	0	20	0	40	0	9	17	2	0	1	27	10	1	129	1	1	0	0
8:15 AM	2	1	1	0	14	1	34	0	5	20	3	0	1	23	7	1	112	1	1	0	0
8:30 AM	2	0	1	0	8	1	24	0	4	18	3	0	0	14	4	1	79	1	1	0	0



5th Ave S & Yew St

Thursday, October 11, 2018 7:00 AM to 9:30 AM

Out 5

In 3

Peak Hour Summary 7:45 AM to 8:45 AM

Heavy Vehicle 15-Minute Interval Summary 7:00 AM to 9:30 AM

Interval			bound				bound				oound				oound		
Start		5th A	Ave S			5th A	Ave S			Ye	w St			Yev	v St		Interval
Time	L	Т	R	Total	L	T	R	Total	L	Т	R	Total	L	T	R	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	1	2
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	1	0	0	1	0	1	0	1	0	1	0	1	3
8:30 AM	0	0	0	0	0	0	2	2	0	0	1	1	0	1	0	1	4
8:45 AM	0	0	1	1	0	0	2	2	0	0	0	0	0	1	0	1	4
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	0	0	1	1	1	0	5	6	1	3	1	5	0	4	0	4	16

Heavy Vehicle Peak Hour Summary 7:45 AM to 8:45 AM

Ву			bound Ave S			bound Ave S			oound w St			bound w St	Total
Approach	In	Out	Total	ln	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	1	1	3	1	4	3	5	8	3	2	5	9
PHF	0.00	•	•	0.15			0.38		•	0.25			0.20

By		North 5th A	bound we S			South 5th A	bound Ive S				ound v St			Westl Yev	oound v St		Total
Movement	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	
Volume	0	0	0	0	1	0	2	3	1	1	1	3	0	3	0	3	9
PHF	0.00	0.00	0.00	0.00	0.25	0.00	0.13	0.15	0.25	0.13	0.25	0.38	0.00	0.25	0.00	0.25	0.20

Heavy Vehicle Rolling Hour Summary 7:00 AM to 9:30 AM

Interval			bound				bound ve S				ound				oound		
Start		5th F	Ave S	1		5tn F		1		Yev	w St			Yev	v St		Interval
Time	L	Т	R	Total	L	T	R	Total	L	Т	R	Total	L	T	R	Total	Total
7:00 AM	0	0	0	0	0	0	1	1	1	2	0	3	0	1	0	1	5
7:15 AM	0	0	0	0	0	0	1	1	1	1	0	2	0	1	0	1	4
7:30 AM	0	0	0	0	1	0	1	2	1	1	0	2	0	2	0	2	6
7:45 AM	0	0	0	0	1	0	2	3	1	1	1	3	0	3	0	3	9
8:00 AM	0	0	1	1	1	0	4	5	0	1	1	2	0	3	0	3	11
8:15 AM	0	0	1	1	1	0	4	5	0	1	1	2	0	3	0	3	11
8:30 AM	0	0	1	1	0	0	4	4	0	0	1	1	0	2	0	2	8

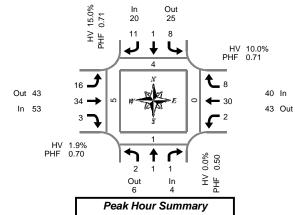
Peak Hour Summary All Traffic Data Clay Carney (503) 833-2740 5th Ave S & Yew St 7:45 AM to 8:45 AM Thursday, October 11, 2018 5th Ave S Bikes 0 56 23 36 0 20 K 4 Peds 1 Yew St Bikes 0 12 67 30 43 1 10 29 **→** 37 17 2 Bikes 0 Yew St Peds 1 1 K 7 1 1 2 Bikes HV% **Approach PHF** Volume ΕB 0.73 10.3% 29 7.0% **WB** 0.72 43 0.50 0.0% 2 NB SB 0.56 5.4% 56 Intersection 0.71 6.9% 130 Count Period: 7:00 AM to 9:30 AM



5th Ave S & Yew St

Thursday, October 11, 2018 2:00 PM to 4:00 PM

15-Minute Interval Summary 2:00 PM to 4:00 PM



3:00 PM to 4:00 PM

Interval		North	bound			South	bound			Eastk	ound			Westl	ound				Pedes	strians	
Start		5th A	Ave S			5th A	Ave S			Yev	v St			Yev	v St		Interval		Cros	swalk	
Time	١	T	R	Bikes	١	Т	R	Bikes	Ы	Т	R	Bikes	L	Т	R	Bikes	Total	North	South	East	West
2:00 PM	1	0	0	1	0	1	0	0	2	5	0	1	0	8	0	0	17	0	0	0	0
2:15 PM	0	0	0	0	0	3	2	0	2	10	0	0	0	9	0	0	26	0	0	0	0
2:30 PM	4	1	0	0	1	0	1	0	1	10	1	0	0	9	1	0	29	0	0	0	0
2:45 PM	0	1	0	0	0	0	1	1	1	7	1	0	0	7	0	0	18	0	0	0	2
3:00 PM	2	0	0	0	1	1	2	1	2	4	2	0	0	11	1	1	26	0	0	0	2
3:15 PM	0	0	1	0	2	0	5	0	9	10	0	0	1	4	3	0	35	1	0	0	0
3:30 PM	0	1	0	0	4	0	3	1	5	9	0	0	1	10	3	0	36	2	1	0	3
3:45 PM	0	0	0	0	1	0	1	0	0	11	1	0	0	5	1	1	20	1	0	0	0
Total Survey	7	3	1	1	9	5	15	3	22	66	5	1	2	63	9	2	207	4	1	0	7

Peak Hour Summary 3:00 PM to 4:00 PM

By Approach			bound Ave S				bound Ave S				oound w St				oound v St		Total
Approach	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	
Volume	4	6	10	0	20	25	45	2	53	43	96	0	40	43	83	2	117
%HV		0.0	0%			15.	.0%			1.9	9%			10.	0%		6.8%
PHF		0.	50			0.	71			0.	70			0.	71		0.81

1		Pedes	trians	
		Cross	swalk	
	North	South	East	West
1	4	1	0	5

By Movement			bound Ave S				bound Ave S				ound v St			Westk Yev			Total
wovement	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	L	T	R	Total	
Volume	2	1	1	4	8	1	11	20	16	34	3	53	2	30	8	40	117
%HV	0.0%	0.0%	0.0%	0.0%	25.0%	0.0%	9.1%	15.0%	0.0%	2.9%	0.0%	1.9%	0.0%	13.3%	0.0%	10.0%	6.8%
PHF	0.25	0.25	0.25	0.50	0.50	0.25	0.55	0.71	0.44	0.77	0.38	0.70	0.50	0.68	0.67	0.71	0.81

Rolling Hour Summary 2:00 PM to 4:00 PM

Interval Start			bound Ave S				bound Ave S				oound w St				bound w St		Interval		Pedes Cros	strians swalk	
Time	L	Т	R	Bikes	L	Т	R	Bikes	L	Т	R	Bikes	L	Т	R	Bikes	Total	North	South	East	We
2:00 PM	5	2	0	1	1	4	4	1	6	32	2	1	0	33	1	0	90	0	0	0	2
2:15 PM	6	2	0	0	2	4	6	2	6	31	4	0	0	36	2	1	99	0	0	0	4
2:30 PM	6	2	1	0	4	1	9	2	13	31	4	0	1	31	5	1	108	1	0	0	4
2:45 PM	2	2	1	0	7	1	11	3	17	30	3	0	2	32	7	1	115	3	1	0	7
3:00 PM	2	1	1	0	8	1	11	2	16	34	3	0	2	30	8	2	117	4	1	0	5



5th Ave S & Yew St

Thursday, October 11, 2018 2:00 PM to 4:00 PM

Out 5

In 1

Peak Hour Summary 3:00 PM to 4:00 PM

Heavy Vehicle 15-Minute Interval Summary 2:00 PM to 4:00 PM

Interval			bound				bound				ound				oound		
Start		5th F	Ave S			5th A	Ave S			Ye	n St			Yev	v St		Interval
Time	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	L	T	R	Total	Total
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	1	0	1	3
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
3:15 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
3:30 PM	0	0	0	0	1	0	1	2	0	0	0	0	0	1	0	1	3
3:45 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	1	2
Total Survey	0	0	0	0	2	0	2	4	0	3	0	3	0	5	0	5	12

Heavy Vehicle Peak Hour Summary 3:00 PM to 4:00 PM

Ву			bound Ave S			bound Ave S			oound w St			bound w St	Total
Approach	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	0	0	3	0	3	1	5	6	4	3	7	8
PHF	0.00			0.25			0.08			0.33			0.33

Du		North	bound			South	bound			Eastb	ound			Westl	oound		
By		5th A	Ave S			5th A	lve S			Yev	v St			Yev	v St		Total
Movement	L	T	R	Total	٦	T	R	Total	Ы	T	R	Total	L	T	R	Total	
Volume	0	0	0	0	2	0	1	3	0	1	0	1	0	4	0	4	8
PHF	0.00	0.00	0.00	0.00	0.25	0.00	0.25	0.25	0.00	0.08	0.00	80.0	0.00	0.33	0.00	0.33	0.33

Heavy Vehicle Rolling Hour Summary 2:00 PM to 4:00 PM

Interval Start			bound lve S				bound Ave S				oound w St				oound v St		Interval
Time	L	T	R	Total	L	Т	R	Total	L	T	R	Total	L	Т	R	Total	Total
2:00 PM	0	0	0	0	0	0	1	1	0	2	0	2	0	1	0	1	4
2:15 PM	0	0	0	0	0	0	1	1	0	2	0	2	0	3	0	3	6
2:30 PM	0	0	0	0	0	0	0	0	0	3	0	3	0	3	0	3	6
2:45 PM	0	0	0	0	1	0	1	2	0	3	0	3	0	4	0	4	9
3:00 PM	0	0	0	0	2	0	1	3	0	1	0	1	0	4	0	4	8

Peak Hour Summary All Traffic Data Clay Carney (503) 833-2740 5th Ave S & Yew St 3:00 PM to 4:00 PM Thursday, October 11, 2018 5th Ave S Bikes 2 20 25 8 11 K Peds 4 Yew St Bikes 2 8 43 **+** 30 40 2 16 53 **→** 43 34 3 ¥ Bikes 0 Yew St Peds 1 1 K 7 2 1 6 4 5th Ave S Bikes HV% **Approach PHF** Volume ΕB 0.70 1.9% 53 **WB** 0.71 10.0% 40 0.0% 4 NB 0.50 SB 0.71 15.0% 20 Intersection 0.81 6.8% 117 Count Period: 2:00 PM to 4:00 PM

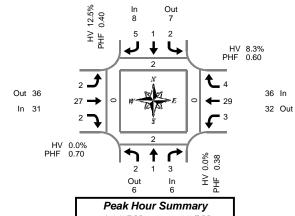
Total Vehicle Summary



5th Ave S & Yew St

Thursday, October 11, 2018 4:00 PM to 6:00 PM

15-Minute Interval Summary 4:00 PM to 6:00 PM



4:00 PM to 5:00 PM

Interval		North	bound			South	bound			Eastk	ound			West	oound				Pedes	trians	
Start		5th A	Ave S			5th A	Ave S			Yev	v St			Yev	v St		Interval		Cross	swalk	
Time	L	Т	R	Bikes	L	Т	R	Bikes	٦	Т	R	Bikes	٦	Т	R	Bikes	Total	North	South	East	West
4:00 PM	1	1	2	0	1	0	1	0	0	5	1	0	2	12	1	0	27	0	2	0	0
4:15 PM	1	0	1	0	0	0	0	0	0	7	1	0	0	4	1	1	15	1	0	0	0
4:30 PM	0	0	0	0	1	0	0	0	2	9	0	1	0	8	2	1	22	0	0	0	0
4:45 PM	0	0	0	0	0	1	4	0	0	6	0	1	1	5	0	0	17	1	0	0	0
5:00 PM	1	0	0	0	1	1	0	0	3	7	1	0	0	3	1	0	18	2	1	0	0
5:15 PM	1	0	0	0	1	0	0	0	0	6	0	0	0	5	0	0	13	0	1	1	0
5:30 PM	0	0	0	0	0	0	0	0	2	10	1	0	0	4	0	0	17	0	1	1	0
5:45 PM	0	0	0	0	2	0	0	0	2	3	1	0	0	8	1	0	17	1	0	0	0
Total Survey	4	1	3	0	6	2	5	0	9	53	5	2	3	49	6	2	146	5	5	2	0

Peak Hour Summary 4:00 PM to 5:00 PM

By			bound Ave S				bound Ave S				ound v St				oound v St		Total
Approach	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	
Volume	6	6	12	0	8	7	15	0	31	36	67	2	36	32	68	2	81
%HV		0.0	0%			12.	.5%			0.0	0%			8.3	3%		4.9%
PHF		0.	38			0.	40			0.	70			0.	60		0.75

	Pedes	trians							
	Cross	swalk							
Pedestrians Crosswalk North South East W 2 2 0									
Crosswalk									

By Movement			bound Ave S				bound Ave S				ound v St			Westl Yev	oound v St		Total
Movement	٦	Т	R	Total	L	Т	R	Total	Ы	Т	R	Total	L	Т	R	Total	
Volume	2	1	3	6	2	1	5	8	2	27	2	31	3	29	4	36	81
%HV	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	20.0%	12.5%	0.0%	0.0%	0.0%	0.0%	0.0%	3.4%	50.0%	8.3%	4.9%
PHF	0.50	0.25	0.38	0.38	0.50	0.25	0.31	0.40	0.25	0.75	0.50	0.70	0.38	0.60	0.50	0.60	0.75

Rolling Hour Summary 4:00 PM to 6:00 PM

Interval Start			bound lve S				bound Ave S				ound v St				bound ៷ St		Interval		Pedes	trians swalk	
Time	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	Total	North	South	East	West
4:00 PM	2	1	3	0	2	1	5	0	2	27	2	2	3	29	4	2	81	2	2	0	0
4:15 PM	2	0	1	0	2	2	4	0	5	29	2	2	1	20	4	2	72	4	1	0	0
4:30 PM	2	0	0	0	3	2	4	0	5	28	1	2	1	21	3	1	70	3	2	1	0
4:45 PM	2	0	0	0	2	2	4	0	5	29	2	1	1	17	1	0	65	3	3	2	0
5:00 PM	2	0	0	0	4	1	0	0	7	26	3	0	0	20	2	0	65	3	3	2	0

Heavy Vehicle Summary



5th Ave S & Yew St

Thursday, October 11, 2018 4:00 PM to 6:00 PM

Out 2

In 0

Peak Hour Summary 4:00 PM to 5:00 PM

Heavy Vehicle 15-Minute Interval Summary 4:00 PM to 6:00 PM

Interval		North	bound			South	bound			Eastk	ound			West	oound		
Start		5th A	Ave S			5th A	Ave S			Yev	v St			Yev	v St		Interval
Time	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	L	Т	R	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
4:45 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	1	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	0	0	0	0	0	0	1	1	1	1	0	2	0	1	3	4	7

Heavy Vehicle Peak Hour Summary 4:00 PM to 5:00 PM

By			bound Ave S		South 5th A	bound Ave S			ound v St			bound w St	Total
Approach	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	0	0	1	2	3	0	2	2	3	0	3	4
PHF	0.00			0.25			0.00			0.25			0.25

Bv		North	bound			South	bound			Eastb	ound			Westl	oound		
		5th A	Ave S			5th A	lve S			Yev	v St			Yev	v St		Total
Movement	٦	T	R	Total	٦	Т	R	Total	Ы	Т	R	Total	L	T	R	Total	
Volume	0	0	0	0	0	0	1	1	0	0	0	0	0	1	2	3	4
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.25	0.00	0.00	0.00	0.00	0.00	0.25	0.25	0.25	0.25

Heavy Vehicle Rolling Hour Summary 4:00 PM to 6:00 PM

Interval Start			bound lve S				bound ve S				oound v St				bound w St		Interval
Time	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	Total
4:00 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	1	2	3	4
4:15 PM	0	0	0	0	0	0	1	1	1	0	0	1	0	1	3	4	6
4:30 PM	0	0	0	0	0	0	1	1	1	0	0	1	0	0	2	2	4
4:45 PM	0	0	0	0	0	0	1	1	1	1	0	2	0	0	1	1	4
5:00 PM	0	0	0	0	0	0	0	0	1	1	0	2	0	0	1	1	3

Peak Hour Summary All Traffic Data Clay Carney (503) 833-2740 5th Ave S & Yew St 4:00 PM to 5:00 PM Thursday, October 11, 2018 5th Ave S Bikes 0 8 7 5 2 K Peds 2 Yew St Bikes 2 4 36 29 36 3 7 2 31 27 **→** 32 2 4 Bikes 2 Yew St Peds 2 1 K 7 2 1 6 6 5th Ave S Bikes HV% **Approach PHF** Volume 0.0% ΕB 0.70 31 8.3% **WB** 0.60 36 0.38 0.0% 6 NB SB 0.40 12.5% 8 Intersection 0.75 4.9% 81 Count Period: 4:00 PM to 6:00 PM

Site Code: 1 4th Ave S S-O Elm St

NB							•										
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		85th	95th
Time	15	20	25	30	35	40	45	50	55	60	65	70	7 T	999	Total	Percent	Percent
10/10/18	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	2	4	4	1	0	0	0	0	0	0	0	0	0	0	11	24	27
13:00	13	6	2	0	0	0	0	0	0	0	0	0	0	0	21	19	22
14:00	9	10	2	0	0	0	0	0	0	0	0	0	0	0	21	19	22
15:00	4	7	3	1	0	0	0	0	0	0	0	0	0	0	15	22	26
16:00	3	5	6	1	1	0	0	0	0	0	0	0	0	0	16	24	30
17:00	2	6	10	2	0	0	0	0	0	0	0	0	0	0	20	24	27
18:00	1	5	5	1	0	0	0	0	0	0	0	0	0	0	12	24	26
19:00	1	2	2	0	0	0	0	0	0	0	0	0	0	0	5	23	24
20:00	0	1	2	2	0	0	0	0	0	0	0	0	0	0	5	28	29
21:00	0	1	0	1	1	0	0	0	0	0	0	0	0	0	3	32	34
22:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	19	19
23:00	1_	0	0	1	1	0	0	0	0	0	0	0	0	0	3	32	34
Total	36	48	36	10	3	0	0	0	0	0	0	0	0	0	133		
Percent	27.1%	36.1%	27.1%	7.5%	2.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak Vol.																	
PM Peak	13:00	14:00	17:00	17:00	16:00										13:00		
Vol.	13	10	10	2	1										21		

Site Code: 1 4th Ave S S-O Elm St

Start	NB																	
Time		1	16	21	26	31	36	41	46	51	56	61	66	71	76		85th	95th
10/11/18 0 0 2 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 3 27 29 10/10/10/10 0 0 0 1 1 0 0 0 0 0 0 0 0 0		15														Total		
02:00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	10/11/18						0	0	0	0	0	0	0	0	0	3		
02:00	01:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	24	24
04:00 0 3 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
05:00 0 2 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0	03:00	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2	23	24
06:00 0 1 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 2 28 29 29 07:00 3 6 3 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 13 23 26 08:00 3 19 6 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 30 22 26 09:00 6 4 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 11 19 22 10:00 2 3 3 3 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0	04:00	0	3	1	0	0	0	0	0	0	0	0	0	0	0	4		
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12 PM				3	1	1												32
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14:00					1													
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23:00 0 <td></td> <td></td> <td>-</td> <td></td> <td>-</td> <td>~</td> <td>-</td> <td></td> <td>*</td>			-		-	~	-	-	-	-	-	-	-	-	-	-		*
Total 66 81 36 12 2 0 0 0 0 0 0 0 197 Percent 33.5% 41.1% 18.3% 6.1% 1.0% 0.0% </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>*</td> <td>*</td>							-										*	*
Percent 33.5% 41.1% 18.3% 6.1% 1.0% 0.0%																		
AM Peak 11:00 08:00 08:00 10:00 Vol. 11 19 6 2 1 PM Peak 15:00 15:00 15:00 17:00																131		
Vol. 11 19 6 2 1 PM Peak 15:00 15:00 15:00 15:00							0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	08:00		
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Site Code: 1 4th Ave S S-O Elm St

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			30	35	40	45	50	55	60	65	70	75	999	Total	Percent	Percent
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0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
400	400	70	00	-	0	0	0	0	0	0	0	0	0	000		_
102	129	72	22	5	Ü	U	U	U	U	U	U	U	U	330		
30.9%	39.1%	21.8%	6.7%	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
				7 MPH												
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15th Percentile: 7 MPH 50th Percentile: 17 MPH 85th Percentile: 23 MPH 95th Percentile: 27 MPH

Statistics 10 MPH Pace Speed: 16-25 MPH

Number in Pace : 201
Percent in Pace : 60.9%
picles > 55 MPH : 0

 Number of Vehicles > 55 MPH :
 0

 Percent of Vehicles > 55 MPH :
 0.0%

 Mean Speed(Average) :
 17 MPH

Site Code: 1 4th Ave S S-O Elm St

							•		_,								
SB																	
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		85th	95th
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Percent	Percent
10/10/18	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	3	6	5	1	0	0	0	0	0	0	0	0	0	0	15	23	26
13:00	13	12	4	2	0	0	0	0	0	0	0	0	0	0	31	21	26
14:00	8	13	5	1	0	0	0	0	0	0	0	0	0	0	27	21	24
15:00	6	8	8	2	0	0	0	0	0	0	0	0	0	0	24	23	26
16:00	1	8	9	3	0	0	0	0	0	0	0	0	0	0	21	24	28
17:00	3	9	9	2	0	0	0	0	0	0	0	0	0	0	23	24	27
18:00	4	8	6	4	0	0	0	0	0	0	0	0	0	0	22	25	28
19:00	1	8	14	3	1	0	0	0	0	0	0	0	0	0	27	24	29
20:00	0	1	4	5	0	0	0	0	0	0	0	0	0	0	10	28	29
21:00	1	2	4	1	0	0	0	0	0	0	0	0	0	0	8	24	27
22:00	0	5	6	0	0	0	0	0	0	0	0	0	0	0	11	23	24
23:00	0	0	0	2	1	0	0	0	0	0	0	0	0	0	3	32	34
Total	40	80	74	26	2	0	0	0	0	0	0	0	0	0	222		
Percent	18.0%	36.0%	33.3%	11.7%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak																	
Vol.																	
PM Peak	13:00	14:00	19:00	20:00	19:00										13:00		
Vol.	13	13	14	5	1										31		

Site Code: 1 4th Ave S S-O Elm St

							•										
SB																	
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		85th	95th
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Percent	Percent
10/11/18	1	3	5	1	1	0	0	0	0	0	0	0	0	0	11	26	32
01:00	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2	28	29
02:00	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2	18	19
03:00	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	24	24
04:00	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	12	14
05:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	19	19
06:00	1	1	1	1	1	0	0	0	0	0	0	0	0	0	5	31	33
07:00	3	8	4	0	1	0	0	0	0	0	0	0	0	0	16	23	30
08:00	8	15	3	2	0	0	0	0	0	0	0	0	0	0	28	21	26
09:00	2	8	6	0	0	0	0	0	0	0	0	0	0	0	16	23	24
10:00	3	6	4	0	0	0	0	0	0	0	0	0	0	0	13	22	24
11:00	4	11	7	1	0	0	0	0	0	0	0	0	0	0	23	23	24
12 PM	4	9	4	0	0	0	0	0	0	0	0	0	0	0	17	21	23
13:00	10	12	7	1	0	0	0	0	0	0	0	0	0	0	30	22	24
14:00	9	10	9	2	0	0	0	0	0	0	0	0	0	0	30	23	26
15:00	34	21	7	0	0	0	0	0	0	0	0	0	0	0	62	19	22
16:00	2	16	11	5	0	0	0	0	0	0	0	0	0	0	34	24	28
17:00	2	4	12	7	0	0	0	0	0	0	0	0	0	0	25	27	29
18:00	3	1	3	3	1	0	0	0	0	0	0	0	0	0	11	28	32
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
21:00 22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
Total	<u>0</u> 89	127	<u>0</u> 86	24	4	0	0	0	0	0	0	0	0	0	330		
Percent	27.0%	38.5%	26.1%	7.3%	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	330		
AM Peak	08:00	08:00	11:00	08:00	00:00	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	08:00		
Vol.	8	15	7	2	1										28		
PM Peak	15:00	15:00	17:00	17:00	18:00						-				15:00		
Vol.	34	21	12	7	1										62		

Site Code: 1 4th Ave S S-O Elm St

0.0							•										
SB		10	0.4					40			0.4			70		05:1	054
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76	.	85th	95th
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Percent	Percent
10/12/18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		*
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		*
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Percent	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak																	
Vol.																	
PM Peak																	
Vol.																	
Grand	129	207	160	50	6	0	0	0	0	0	0	0	0	0	552		
Total															332		
Percent	23.4%	37.5%	29.0%	9.1%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
		•	15th Percent	tile :	9 MPH												

15th Percentile: 9 MPH 50th Percentile: 18 MPH 85th Percentile: 24 MPH

95th Percentile : 27 MPH

Statistics 10 MPH Pace Speed: 16-25 MPH Number in Pace: 367

| Number in Pace : 367 |
| Percent in Pace : 66.5% |
Number of Vehicles > 55	MPH : 0
Percent of Vehicles > 55	MPH : 0.0%
Mean Speed(Average) : 18	MPH

Site Code: 1 5th Ave S S-O Elm St

NB																	
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		85th	95th
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Percent	Percent
10/10/18	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	3	3	0	0	0	0	0	0	0	0	0	0	0	0	6	18	19
13:00	18	3	0	0	0	0	0	0	0	0	0	0	0	0	21	14	18
14:00	9	3	1	0	0	0	0	0	0	0	0	0	0	0	13	18	21
15:00	3	4	1	0	0	0	0	0	0	0	0	0	0	0	8	19	22
16:00	6	5	1	0	0	0	0	0	0	0	0	0	0	0	12	19	21
17:00	6	3	3	0	0	0	0	0	0	0	0	0	0	0	12	22	24
18:00	4	2	2	0	0	0	0	0	0	0	0	0	0	0	8	22	23
19:00	2	4	2	0	0	0	0	Ö	Ö	0	Ö	Ö	0	0	8	22	24
20:00	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3	19	19
21:00	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	24	24
22:00	0	0	1	0	1	0	0	0	0	0	0	0	0	0	2	33	34
23:00	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	24	24
Total	51	30	15	0	1	0	0	0	0	0	0	0	0	0	97		
Percent	52.6%	30.9%	15.5%	0.0%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	<u> </u>		
AM Peak	2=:070	22.070		2.070	,0	2.370	2.370	2.370	2.070	2.070	2.070	2.270	2.070	2.370			
Vol.																	
PM Peak	13:00	16:00	17:00		22:00										13:00		
Vol.	18	5	3		1										21		

Site Code: 1 5th Ave S S-O Elm St

ND							•										
NB Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		85th	95th
Time	15	20	25	30	35	40	45	50	55	60	65	70	7 T	999	Total	Percent	Percent
10/11/18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
01:00	0	0	0	ĭ	0	0	0	0	0	0	0	0	0	0	1	29	29
02:00	ő	1	1	0	Ő	Ö	0	ő	0	0	Ő	0	0	Ő	2	23	24
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	12	14
05:00	1	1	1	0	0	0	0	0	0	0	0	0	0	0	3	22	24
06:00	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	12	14
07:00	6	2	1	0	0	0	0	0	0	0	0	0	0	0	9	19	22
08:00	30	2	0	0	0	0	0	0	0	0	0	0	0	0	32	13	15
09:00	3	0	3	1	0	0	0	0	0	0	0	0	0	0	7	24	28
10:00	3	1	1	0	0	0	0	0	0	0	0	0	0	0	5	21	23
11:00	4	5	1	0	0	0	0	0	0	0	0	0	0	0	10	19	22
12 PM	1	4	2	0	0	0	0	0	0	0	0	0	0	0	7	22	24
13:00	7	4	2	0	0	0	0	0	0	0	0	0	0	0	13	20	23
14:00	4	8	5	0	0	0	0	0	0	0	0	0	0	0	17	22	24
15:00	29	5	0	0	0	0	0	0	0	0	0	0	0	0	34	14	18
16:00	4	0	4	2	0	0	0	0	0	0	0	0	0	0	10	26	28
17:00	1	3	3	2	2	0	0	0	0	0	0	0	0	0	11	30	33
18:00	5	2	4	0	1	0	0	0	0	0	0	0	0	0	12	23	31
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	
20:00 21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
Total	101	38	28	6	3	0	0	0	0	0	0	0	0	0	176		
Percent	57.4%	21.6%	15.9%	3.4%	1.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	170		
AM Peak	08:00	11:00	09:00	01:00	111 70	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	08:00		
Vol.	30	5	3	1											32		
PM Peak	15:00	14:00	14:00	16:00	17:00										15:00		
Vol.	29	8	5	2	2										34		
Grand Total	152	68	43	6	4	0	0	0	0	0	0	0	0	0	273		
Percent	55.7%	24.9%	15.8%	2.2%	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

4 MPH 15th Percentile: 50th Percentile: 13 MPH 85th Percentile: 21 MPH 95th Percentile: 24 MPH

10 MPH Pace Speed: Statistics 11-20 MPH

Number in Pace : 119 Percent in Pace : 43.6% Number of Vehicles > 55 MPH: 0 0.0%

Percent of Vehicles > 55 MPH: Mean Speed(Average): 14 MPH

Site Code: 1 5th Ave S S-O Elm St

SB																	
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		85th	95th
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Percent	Percent
10/10/18	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	4	5	0	0	0	0	0	0	0	0	0	0	0	0	9	18	19
13:00	15	5	0	0	0	0	0	0	0	0	0	0	0	0	20	17	19
14:00	9	2	1	0	0	0	0	0	0	0	0	0	0	0	12	17	21
15:00	3	8	4	0	0	0	0	0	0	0	0	0	0	0	15	22	24
16:00	3	3	3	0	0	0	0	0	0	0	0	0	0	0	9	22	24
17:00	14	7	4	0	0	0	0	0	0	0	0	0	0	0	25	20	23
18:00	3	3	0	0	0	0	0	0	0	0	0	0	0	0	6	18	19
19:00	1	2	1	0	0	0	0	0	0	0	0	0	0	0	4	22	24
20:00	1	3	2	1	0	0	0	0	0	0	0	0	0	0	7	24	28
21:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	24	24
22:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	24	24
23:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	19	19
Total	53	39	17	1	0	0	0	0	0	0	0	0	0	0	110		
Percent	48.2%	35.5%	15.5%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak Vol.																	
PM Peak	13:00	15:00	15:00	20:00											17:00		
Vol.	15.00	8	4	20.00											25		

Site Code: 1 5th Ave S S-O Elm St

0.0							•										
SB		4.0														0.5.1	05:1
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76	T-1-1	85th	95th
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Percent	Percent
10/11/18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	19	19
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		•
03:00	1	0	2	0	0	0	0	0	0	0	0	0	0	0	3	23	24
04:00	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2	18	19
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
06:00	1	1	0	1	0	0	0	0	0	0	0	0	0	0	3	27	29
07:00	6	3	0	1	0	0	0	0	0	0	0	0	0	0	10	19	27
08:00	72	14	1	0	0	0	0	0	0	0	0	0	0	0	87	15	18
09:00	3	2	0	0	0	0	0	0	0	0	0	0	0	0	5	18	19
10:00	7	4	0	1	0	0	0	0	0	0	0	0	0	0	12	18	26
11:00	3	7	1	0	0	0	0	0	0	0	0	0	0	0	11	19	22
12 PM	3	2	0	0	0	0	0	0	0	0	0	0	0	0	5	18	19
13:00	2	6	2	0	0	0	0	0	0	0	0	0	0	0	10	21	23
14:00	8	3	3	0	0	0	0	0	0	0	0	0	0	0	14	21	23
15:00	28	4	0	0	0	0	0	0	0	0	0	0	0	0	32	14	17
16:00	1	2	3	0	0	0	0	0	0	0	0	0	0	0	6	23	24
17:00	0	3	1	1	0	0	0	0	0	0	0	0	0	0	5	26	28
18:00	4	3	3	1	0	0	0	0	0	0	0	0	0	0	11	23	27
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
Total	140	56	16	5	0	0	0	0	0	0	0	0	0	0	217		
Percent	64.5%	25.8%	7.4%	2.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	08:00	03:00	06:00											08:00		
Vol	72	14	2	11											87		
PM Peak	15:00	13:00	14:00	17:00											15:00		
Vol.	28	6	3	1											32		
Grand Total	193	95	33	6	0	0	0	0	0	0	0	0	0	0	327		
Percent	59.0%	29.1%	10.1%	1.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

15th Percentile: 3 MPH
50th Percentile: 12 MPH
85th Percentile: 19 MPH
95th Percentile: 23 MPH

Statistics 10 MPH Pace Speed: 11-20 MPH Number in Pace: 159

Percent in Pace : 48.6%

Number of Vehicles > 55 MPH : 0

Percent of Vehicles > 55 MPH : 0.0%

Mean Speed(Average) : 13 MPH

Appendix C Trip Generation Report



August 22, 2018

Patrick Donnelly, AIA, LEED AP Architect, Senior Associate Integrus Architecture 117 S Main Street, Suite 100 Seattle, Washington 98104

Via email: pdonnelly@integrusarch.com

Regarding: Trip Generation and Distribution Letter

Wallace Elementary School Replacement

410 Elm Street

Kelso, Washington 98626 PBS Project 0071314.000

Dear Mr. Donnelly:

This trip generation letter has been prepared for the Wallace Elementary School Replacement project's preapplication narrative to provide an estimate of the number of trips generated by the proposed project and for distribution of those trips onto surrounding roads. It also provides preliminary transportation analysis of the proposed road closure of Elm Street between S 4th Avenue and S 5th Avenue. The intent of the letter is to provide information to make decisions on the need for further transportation analysis.

Project Description

The project proposes demolish the existing elementary school building, which comprises a total of approximately 49,000 square feet. The new elementary school campus will be built on the same site and will be replaced by an approximately 57,000-gross-square-foot building. The existing school will remain in operation while the new school is being built on the southern end of the school grounds. No site plan is available currently. The overall student capacity will increase from 350 to 450 students with the replaced elementary school. The project site is located on 410 Elm Street in Kelso, Washington. See Figure 1 for the vicinity map.

The Wallace Elementary School replacement project proposes closure of Elm Street from S 4th Avenue to S 5th Avenue. The intent is to extend the school ground across Elm Street and the two homes on the north side of Elm Street between S 4th and 5th Avenues.

Trip Generation

Trips to be generated by the Wallace Elementary School Replacement project are estimated using land use models within the ITE *Trip Generation Manual*, 9th Edition. Two alternatives were used to provide a range of trip generation. Alternative 1 and Alternative 2 calculated the net increase in trips based on the increase in size of building and the number of students, respectively. In each case, average trip rates for Elementary School (Land Use Code 520) were used. Alternative 1 used gross square feet as the independent variable, whereas, Alternative 2 used the number of enrolled students as the independent variable.

Wallace Elementary School Replacement Trip Generation Letter August 22, 2018 Page 2 of 3

Using the larger of the two alternatives, the proposed project will generate 130 average weekday trips, including 45 AM peak hour trips and 28 PM peak hour trips. The supporting calculations are attached, and the trips are shown in Table 1.

The land use within the existing school boundary is built-out and the growth in student population is assumed to be related to school attendance area boundary adjustment. No boundary adjustment information was available, but we assume the boundary would shift north to annex the southern portion of Catlin Elementary School's service area. With any boundary adjustment that increases the size of the Wallace School attendance area, the Kelso School District should consider expanding the bus service to reduce parents driving to drop-off or pick-up of students.

The Kelso School District reports that the Wallace Elementary School has many students walking to school. Based on the grid street network, small service area and surrounding residential land use, this school should have a lower than normal trip generation rate. With the reported congestion, the Kelso School District should consider providing incentives to increasing walking to and from school.

Table 1. ITE Trip Generation for Wallace Elementary School Replacement

Land Use (ITE Code)	Sch	entary lool 20)	Sch	entary lool 20)
Independent Variable		Square eet	Stud	lents
Size	79	9.8	10	00
Average Weekday Trips (ADT)	12	24	13	30
Peak Hour Trips	AM	PM	AM	PM
In	23	11	25	13
Out	18	14	20	15
Total Trips	41	25	45	28

No trip generation estimates were made related to the construction of the new school building. Construction traffic is temporary, but attention should be given to minimize any overlap in start and end times with the school, truck delivery of materials, and where construction workers will park.

Trip Distribution

The distribution of the net new trip for the proposed project is shown on Figure 1. The trip distribution is based on engineering judgement, arterial street network, and assumed boundary adjustment to the north.

Elm Street Closure analysis

No traffic data is available to estimate the impacts of traffic diversion to other streets because of the proposed street closure of Elm Street between S 4th Avenue and S 5th Avenue. Based on engineering judgement, our preliminary evaluation of the transportation system supports this change to the roadway network for the following reasons:

Wallace Elementary School Replacement Trip Generation Letter August 22, 2018 Page 3 of 3

- Closure of Elm Street should improve pedestrian safety of children walking to school by reducing the volume of traffic on Elm Street and near the school. Non-school related traffic will be diverted away from Elm Street. Elm Street provides a direct walk route to and from the school with crosswalks at several crossing streets.
- Elm Street is classified as a local street with the intent of providing access to the abutting properties. It is not intended as a through street.
- This area of Kelso has a relatively complete grid network of streets that provide abundant access into and out of the neighborhood by the residents of the Elm Street.
- The existing school site is relatively small, and the proposed change will provide additional open space for the new school and the neighborhood.

Transportation recommendations related to the Elm Street closure:

- Notify stakeholders such as residents in the vicinity, emergency services, trash collection services, street sweeping, and post office of the change to solicit comments.
- The roadway should be kept open to pedestrians and bicyclists.
- To address school congestion, passenger loading zones should be established on both sides of the school. A southbound drop-off zone on S 5th Avenue, and a northbound drop-off zone on S 4th Avenue.
- If traffic impacts are a concern, a traffic impact study should count the Elm Street/S 4th Avenue and Elm Street/S 5th Avenue intersections to measure the potential traffic diversion and level of service impacts to adjacent intersections.

Please feel free to contact me at 360.567.2117 or john.manix@pbsusa.com with any questions or comments.

Sincerely,

Digitally signed by John Manix Date: 2018.08.22 16:18:23 -07'00'

John Manix, PE Senior Engineer

PBS Engineering and Environmental Inc.

Attachments: Trip Generation Calculation

Figure 1. Vicinity Map and Trip Distribution

TLF:JAM:mo

Trip Generation Based on Weighted Average RatesPBS Engineering and Environmental

General										
Land Use Code Elementary School (sf, PM peak for School										
Independent Variable 1,000 Sq Ft										
Size (X)		49.00								
ITE Land Use Code		520								

Date: Analyst: Project:

8/20/2018 TLF Kelso SD - Wallace ES (Proj No. 0071314.000)

	In	Out	Total
Average Weekday	378	378	756
New Trips	378	378	756
AM Peak Hour for ac	143	112	255
New Trips	143	112	255
PM peak hour for ad	67	85	152
New Trips	67	85	152

Estimated trips based on building size

Existing School

Analysis Period	Weekday		
Average Rate	Rate		Trips
	15.43		756
Entering / Exiting			
% entering	50%		378
% exiting	50%		378
New Trips			
% internal			
% pass-by			
		In	Out
Total Trips		378	378
Internal Trips		0	0
Pass-By Trips		0	0
New Trips		378	378

	AM Peak Hour for adjacent street										
Average Rate	Rate		Trips								
	5.2		255								
Entering / Exiting											
% entering	56%		143								
% exiting	44%		112								
New Trips											
% internal											
% pass-by											
		In	Out								
Total Trips		143	112								
Internal Trips		0	0								
Pass-By Trips		0	0								
New Trips		143	112								

Analysis Period	PM peak hour for adjacent street			
Average Rate	Rate		Trips	
	3.11		152	
Entering / Exiting				
% entering	44%		67	
% exiting	56%		85	
New Trips				
% internal				
% pass-by				
		In	Out	
Total Trips		67	85	
Internal Trips		0	0	
Pass-By Trips		0	0	
New Trips		67	85	

Trip Generation Based on Weighted Average Rates PBS Engineering and Environmental

General			
Land Use Code	Element	ary Sch	ool (students, PM peak fo
Independent Variable	Э	Students	3
Size (X)		350.00	
ITE Land Use Code		520	

Analyst: Project: Date:

8/20/2018 TLF Kelso SD - Wallace ES

(Proj No. 0071314.000)

	In	Out	Total
Average Weekday	226	226	452
New Trips	226	226	452
AM Peak Hour for ac	87	71	158
New Trips	87	71	158
PM peak hour for ad	44	54	98
New Trips	44	54	98

Estimated trip generation based on number of students

Existing School

	AM Peak Hour for adjacent street			
Average Rate	Rate		Trips	
	0.45		158	
Entering / Exiting				
% entering	55%		87	
% exiting	45%		71	
New Trips				
% internal				
% pass-by				
		In	Out	
Total Trips		87	71	
Internal Trips		0	0	
Pass-By Trips		0	0	
New Trips		87	71	

Analysis Period	Weekday		
Average Rate	Rate		Trips
	1.29		452
Entering / Exiting	3		
% entering	50%		226
% exiting	50%		226
New Trips			
% internal			
% pass-by			
		In	Out
Total Trips		226	226
Internal Trips		0	0
Pass-By Trips		0	0
New Trips		226	226

Analysis Period	PM peak hour for adjacent street			
Average Rate	Rate		Trips	
	0.28		98	
Entering / Exiting				
% entering	45%		44	
% exiting	55%		54	
New Trips				
% internal				
% pass-by				
		In	Out	
Total Trips		44	54	
Internal Trips		0	0	
Pass-By Trips		0	0	
New Trips		44	54	

Trip Generation Based on Weighted Average RatesPBS Engineering and Environmental

General				
Land Use Code	Element	tary Sch	ool (sf, PM peak for Scho	
Independent Variable 1,000 Sq Ft				
Size (X)		57.00		
ITE Land Use Code		520		

Date: Analyst: Project:

8/20/2018 TLF Kelso SD - Wallace ES (Proj No. 0071314.000)

	In	Out	Total
Average Weekday	440	440	880
New Trips	440	440	880
AM Peak Hour for ac	166	130	296
New Trips	166	130	296
PM peak hour for ad	78	99	177
New Trips	78	99	177

Estimated trips based on building size

Proposed school

'8	99	177	
'8	99	177	
bι	uilding s	size	10
į.			
eal	k Hour fo	or adjacent street	Analysis Pe
)		Trips	Average Ra
		296	
			Entering / E
		166	% entering
		130	% exiting
			New Trips
٦			% internal
7			% pass-by

Analysis Period	Weekday		
Average Rate	Rate		Trips
	15.43		880
Entering / Exiting			
% entering	50%		440
% exiting	50%		440
New Trips			
% internal			
% pass-by			
		In	Out
Total Trips		440	440
Internal Trips		0	0
Pass-By Trips		0	0
New Trips		440	440

	AM Pea	AM Peak Hour for adjacent street		
Average Rate	Rate		Trips	
	5.2		296	
Entering / Exiting				
% entering	56%		166	
% exiting	44%		130	
New Trips				
% internal				
% pass-by				
		In	Out	
Total Trips		166	130	
Internal Trips		0	0	
Pass-By Trips		0	0	
New Trips		166	130	
·	· ·			

Analysis Period	PM peak hour for adjacent street				
Average Rate	Rate	Trips			
	3.11		177		
Entering / Exiting					
% entering	44%		78		
% exiting	56%		99		
New Trips					
% internal					
% pass-by					
		In	Out		
Total Trips		78	99		
Internal Trips		0	0		
Pass-By Trips		0	0		
New Trips		78	99		

Trip Generation Based on Weighted Average RatesPBS Engineering and Environmental

General			
Land Use Code	Element	ary Sch	ool (students, PM peak fo
Independent Variable	Э ;	Students	3
Size (X)		450.00	
ITE Land Use Code		520	

Date: Analyst: Project:

8/20/2018 TLF Kelso SD - Wallace ES

(Proj No. 0071314.000)

	In	Out	Total
Average Weekday	291	291	581
New Trips	291	291	582
AM Peak Hour for ac	112	91	203
New Trips	112	91	203
PM peak hour for ad	57	69	126
New Trips	57	69	126

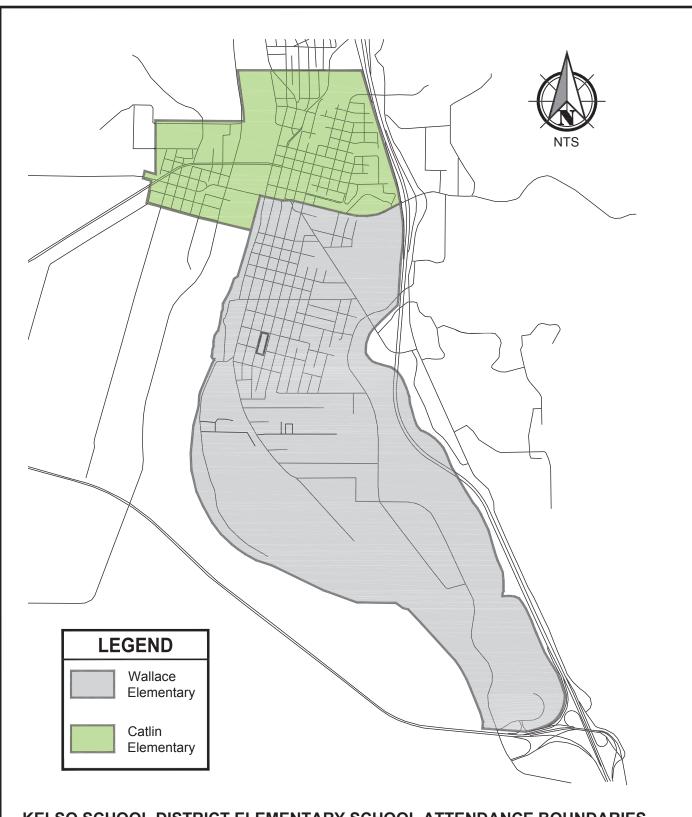
Estimated trip generation based on number of students

Proposed school

	AM Pea	k Hour fo	or adjacent street
Average Rate	Rate		Trips
	0.45		203
Entering / Exiting			
% entering	55%		112
% exiting	45%		91
New Trips			
% internal			
% pass-by			
		In	Out
Total Trips		112	91
Internal Trips		0	0
Pass-By Trips		0	0
New Trips		112	91

Analysis Period	Weekday		
Average Rate	Rate		Trips
	1.29		581
Entering / Exiting			
% entering	50%		291
% exiting	50%		291
New Trips			
% internal			
% pass-by			
		In	Out
Total Trips		291	291
Internal Trips		0	0
Pass-By Trips		0	0
New Trips		291	291

Analysis Period	PM peak h	our for adja	cent street
Average Rate	Rate		Trips
	0.28		126
Entering / Exiting			
% entering	45%		57
% exiting	55%		69
New Trips			
% internal			
% pass-by			
		In	Out
Total Trips		57	69
Internal Trips		0	0
Pass-By Trips		0	0
New Trips		57	69







Appendix D Level of Service Reports

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Vol, veh/h	0	7	0	3	7	1	0	36	2	2	58	4
Future Vol, veh/h	0	7	0	3	7	1	0	36	2	2	58	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	- -	- -	None	-	-	None	-	-	None
Storage Length	_	_	-	_	_	-	_	_	-	_	_	-
Veh in Median Storage	e.# -	0	_	_	0	_	_	0	_	_	0	_
Grade, %	- -	0	_	_	0	_	_	0	_	_	0	_
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mymt Flow	0	9	0	4	9	1	0	45	3	3	73	5
WWW.	- 0	J	0	7	- 3	- 1	0	70	- 0	- 0	10	- 3
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	131	128	75	130	129	46	78	0	0	48	0	0
Stage 1	80	80	75	46	46			-	U			
Stage 2	51	48	-	84	83	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12		-
•	6.12	5.52	0.22	6.12	5.52	U.ZZ	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-		-
Critical Hdwy Stg 2			2 240			2 240	2.218	-	-	2.218	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318		-	-		-	-
Pot Cap-1 Maneuver	841	763	986	843 968	762	1023	1520	-	-	1559	-	-
Stage 1	929	828	-		857	-	-	-	-	-	-	-
Stage 2	962	855	-	924	826	-	-	-	-	-	-	-
Platoon blocked, %	024	764	000	024	760	1000	1500	-	-	1550	-	-
Mov Cap-1 Maneuver	831	761	986	834	760	1023	1520	-	-	1559	-	-
Mov Cap-2 Maneuver	831	761	-	834	760	-	-	-	-	-	-	-
Stage 1	929	826	-	968	857	-	-	-	-	-	-	-
Stage 2	951	855	-	912	824	-	-	-	-	-	-	-
Ammanah	ED			MD			ND			CD		
Approach	EB			WB			NB			SB		
HCM Control Delay, s	9.8			9.6			0			0.2		
HCM LOS	Α			Α								
								0.5.5				
Minor Lane/Major Mvn	nt	NBL	NBT	NBR	EBLn1\		SBL	SBT	SBR			
Capacity (veh/h)		1520	-	-	, , ,	798	1559	-	-			
HCM Lane V/C Ratio		-	-	-		0.017		-	-			
HCM Control Delay (s)		0	-	-	9.8	9.6	7.3	0	-			
HCM Lane LOS		Α	-	-	Α	Α	Α	Α	-			
HCM 95th %tile Q(veh	1)	0	-	-	0	0.1	0	-	-			

Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Vol, veh/h	1	5	4	12	7	0	1	34	5	1	39	1
Future Vol, veh/h	1	5	4	12	7	0	1	34	5	1	39	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	_	-	None	-	-	None	-	_	None	-	_	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage	,# -	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	6	5	15	9	0	1	43	6	1	49	1
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	105	103	49	106	101	46	50	0	0	49	0	0
Stage 1	52	52	-	48	48	-	-	-	-	-	-	-
Stage 2	53	51	-	58	53	_	_	_	_	_	_	_
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	_	4.12	_	_
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318		4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	875	787	1020	873	789	1023	1557	-	-	1558	-	-
Stage 1	961	852	-	965	855	-	-	-	-	-	-	-
Stage 2	960	852	-	954	851	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	866	785	1020	862	787	1023	1557	-	-	1558	-	-
Mov Cap-2 Maneuver	866	785	-	862	787	-	-	-	-	-	-	-
Stage 1	960	851	-	964	854	-	-	-	-	-	-	-
Stage 2	949	851	-	941	850	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	9.2			9.4			0.2			0.2		
HCM LOS	Α			A								
Minor Lane/Major Mvm	nt _	NBL	NBT	NBR	EBLn1V	VBLn1	SBL	SBT	SBR			
Capacity (veh/h)		1557	-	-	874	833	1558	_	-			
HCM Lane V/C Ratio		0.001	-	-	0.014	0.029	0.001	-	-			
HCM Control Delay (s)		7.3	0	-	9.2	9.4	7.3	0	-			
HCM Lane LOS		Α	Α	-	Α	Α	Α	Α	-			
HCM 95th %tile Q(veh))	0	-	-	0	0.1	0	-	-			
,												

Intersection												
Int Delay, s/veh	5.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Vol, veh/h	1	6	0	1	12	12	2	6	2	15	20	2
Future Vol, veh/h	1	6	0	1	12	12	2	6	2	15	20	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage	e,# -	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	8	0	1	15	15	3	8	3	19	25	3
Major/Minor	Minor2			Minor1			Major1		1	Major2		
Conflicting Flow All	93	79	26	82	79	9	28	0	0	10	0	0
Stage 1	64	64	-	14	14	-	-	-	-	-	-	-
Stage 2	29	15	-	68	65	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	891	811	1050	905	811	1073	1585	-	-	1610	-	-
Stage 1	947	842	-	1006	884	-	-	-	-	-	-	-
Stage 2	988	883	-	942	841	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	857	800	1050	889	800	1073	1585	-	-	1610	-	-
Mov Cap-2 Maneuver	857	800	-	889	800	-	-	-	-	-	-	-
Stage 1	945	832	-	1004	882	-	-	-	-	-	-	-
Stage 2	956	881	-	922	831	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	9.5			9.1			1.5			2.9		
HCM LOS	A			A								
				,,								
Minor Lane/Major Mvn	nt	NBL	NBT	NBR	EBLn1V	VBL n1	SBL	SBT	SBR			
Capacity (veh/h)	-	1585	-	-	808		1610	-	-			
HCM Lane V/C Ratio		0.002	_		0.011			_	_			
HCM Control Delay (s)		7.3	0	-	9.5	9.1	7.3	0	_			
HCM Lane LOS		7.5 A	A	-	9.5 A	9.1 A	7.5 A	A	_			
HCM 95th %tile Q(veh)	0	-		0	0.1	0	-	-			
HOW JOHN JOHN WINE WINE	1	U		_	U	0.1	U	_	_			

Intersection												
Int Delay, s/veh	6.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			44			4	
Traffic Vol, veh/h	15	8	23	23	11	4	6	19	9	5	42	4
Future Vol, veh/h	15	8	23	23	11	4	6	19	9	5	42	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage	e,# -	0	-	-	0	-	-	0	_	-	0	-
Grade, %	_	0	-	-	0	-	-	0	_	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	19	10	29	29	14	5	8	24	11	6	53	5
Major/Minor	Major1		1	Major2			Minor1		1	Minor2		
Conflicting Flow All	19	0	0	39	0	0	165	138	24	153	150	16
Stage 1	-	-	-	-	-	-	62	62	-	74	74	-
Stage 2	_	-	-	-	_	-	103	76	-	79	76	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	_	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1597	-	-	1571	-	-	800	753	1052	814	742	1063
Stage 1	-	-	-	-	-	-	949	843	-	935	833	-
Stage 2	-	-	-	-	-	-	903	832	-	930	832	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1597	-	-	1571	-	-	734	730	1052	767	719	1063
Mov Cap-2 Maneuver	-	-	-	-	-	-	734	730	-	767	719	-
Stage 1	-	-	-	-	-	-	938	833	-	924	817	-
Stage 2	-	-	-	-	-	-	825	816	-	883	822	-
, and the second												
Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.4			4.4			9.8			10.3		
HCM LOS							Α			В		
Minor Lane/Major Mvm	nt l	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)		795	1597	-	-	1571	-	-	742			
HCM Lane V/C Ratio		0.053	0.012	-	-	0.018	-	-	0.086			
HCM Control Delay (s)		9.8	7.3	0	-	7.3	0	-	10.3			
HCM Lane LOS		Α	Α	Α	-	Α	Α	-	В			
HCM 95th %tile Q(veh))	0.2	0	-	-	0.1	-	-	0.3			

Intersection												
Int Delay, s/veh	5.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Vol, veh/h	3	8	23	23	11	4	6	19	9	8	2	2
Future Vol, veh/h	3	8	23	23	11	4	6	19	9	8	2	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage	e, # -	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	10	29	29	14	5	8	24	11	10	3	3
Major/Minor I	Major1		ľ	Major2			Minor1		- 1	Minor2		
Conflicting Flow All	19	0	0	39	0	0	108	108	24	123	120	16
Stage 1	-	-	-	-	-	-	32	32	-	74	74	-
Stage 2	-	-	-	-	-	-	76	76	-	49	46	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1597	-	-	1571	-	-	871	782	1052	852	770	1063
Stage 1	-	-	-	-	-	-	984	868	-	935	833	-
Stage 2	-	-	-	-	-	-	933	832	-	964	857	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1597	-	-	1571	-	-	852	765	1052	809	753	1063
Mov Cap-2 Maneuver	-	-	-	-	-	-	852	765	-	809	753	-
Stage 1	-	-	-	-	-	-	981	865	-	932	817	-
Stage 2	-	-	-	-	-	-	910	816	-	925	854	-
,												
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.6			4.4			9.5			9.4		
HCM LOS							A			Α		
Minor Lane/Major Mvm	nt N	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)		841	1597	_	_	1571	_	_	832			
HCM Lane V/C Ratio		0.051	0.002	_	-	0.018	-	_	0.018			
HCM Control Delay (s)		9.5	7.3	0	-	7.3	0	-	9.4			
HCM Lane LOS		A	A	A	_	Α	A	_	A			
HCM 95th %tile Q(veh))	0.2	0	-	-	0.1	-	-	0.1			
		7.2				J. 1			3.1			

Intersection												
Int Delay, s/veh	4.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			44	
Traffic Vol, veh/h	10	17	2	1	30	12	1	1	0	20	0	36
Future Vol, veh/h	10	17	2	1	30	12	1	1	0	20	0	36
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage	e, # -	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	21	3	1	38	15	1	1	0	25	0	45
Major/Minor I	Major1			Major2			Minor1		-	Minor2		
Conflicting Flow All	53	0	0	24	0	0	118	103	23	96	97	45
Stage 1	-	-	-	-	-	-	48	48	-	48	48	-
Stage 2	-	-	-	-	-	-	70	55	-	48	49	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1553	-	-	1591	-	-	858	787	1054	887	793	1025
Stage 1	-	-	-	-	-	-	965	855	-	965	855	-
Stage 2	-	-	-	-	-	-	940	849	-	965	854	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1553	-	-	1591	-	-	815	780	1054	880	786	1025
Mov Cap-2 Maneuver	-	-	-	-	-	-	815	780	-	880	786	-
Stage 1	-	-	-	-	-	-	957	848	-	957	854	-
Stage 2	-	-	-	-	-	-	898	848	-	956	847	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.5			0.2			9.5			9		
HCM LOS							A			Α		
Minor Lane/Major Mvm	nt l	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)		797	1553	-		1591	-	-	968			
HCM Lane V/C Ratio		0.003		_		0.001	_		0.072			
HCM Control Delay (s)		9.5	7.3	0	_	7.3	0	_	9			
HCM Lane LOS		Α.	Α.	A	_	Α.	A	_	A			
HCM 95th %tile Q(veh))	0	0	-	-	0	-	-	0.2			
									0.2			

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Vol, veh/h	1	5	5	1	6	2	3	44	4	4	62	4
Future Vol, veh/h	1	5	5	1	6	2	3	44	4	4	62	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage	e,# -	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	6	6	1	8	3	4	55	5	5	78	5
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	160	158	80	161	158	58	83	0	0	60	0	0
Stage 1	90	90	-	65	65	50	- 03	U	U	UU	-	-
Stage 2	70	68	-	96	93	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	0.22	6.12	5.52	0.22	4.12	-	-	4.12	-	-
	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2		4.018	3.318	3.518	4.018	3.318	2.218	-	_	2.218	_	-
Follow-up Hdwy	3.518							-	-	1544	-	-
Pot Cap-1 Maneuver	806	734	980	804	734	1008	1514	-	-	1544	-	-
Stage 1	917	820	-	946	841	-	-	-	-	-	-	-
Stage 2	940	838	-	911	818	-	-	-	-	-	-	-
Platoon blocked, %	70.4	700	000	700	700	1000	1511	-	-	1511	-	-
Mov Cap-1 Maneuver	794	730	980	790	730	1008	1514	-	_	1544	-	-
Mov Cap-2 Maneuver	794	730	-	790	730	-	-	-	-	-	-	-
Stage 1	914	818	-	943	838	-	-	-	-	-	-	-
Stage 2	926	835	-	896	816	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	9.4			9.7			0.4			0.4		
HCM LOS	A			A								
NA: 1		ND	NDT	NDD		A/DL 4	051	OPT	000			
Minor Lane/Major Mvn	nt	NBL	NBT	NBR	EBLn1V		SBL	SBT	SBR			
Capacity (veh/h)		1514	-	-	833	785	1544	-	-			
HCM Lane V/C Ratio		0.002	-	-		0.014		-	-			
HCM Control Delay (s)		7.4	0	-	9.4	9.7	7.3	0	-			
HCM Lane LOS		Α	Α	-	Α	Α	Α	Α	-			
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-	-			

Intersection												
Int Delay, s/veh	3.3											
• •						==						
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Vol, veh/h	1	5	5	9	5	2	2	23	6	2	20	3
Future Vol, veh/h	1	5	5	9	5	2	2	23	6	2	20	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage	e,# -	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	6	6	11	6	3	3	29	8	3	25	4
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	74	73	27	76	72	33	29	0	0	36	0	0
•	32	32		38	38	33	29	U	U	30		
Stage 1 Stage 2	42	32 41	-	38	38	-	-	-	-	-	-	-
•	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy	6.12	5.52	0.22	6.12	5.52	0.22	4.12	-	_	4.12	-	-
Critical Hdwy Stg 1			-	6.12		-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	2 240		5.52	2 240	2 240	-	-	2.218	-	-
Follow-up Hdwy	3.518	4.018		3.518	4.018	3.318	2.218	-	-		-	-
Pot Cap-1 Maneuver	916	817	1048	914	818	1041	1584	-	-	1575	-	-
Stage 1	984	868	-	977	863	-	-	-	-	-	-	-
Stage 2	972	861	-	977	867	-	-	-	-	-	-	-
Platoon blocked, %	000	011	1040	000	045	1044	1501	-	-	1575	-	-
Mov Cap-1 Maneuver	906	814	1048	900	815	1041	1584	-	-	1575	-	-
Mov Cap-2 Maneuver	906	814	-	900	815	-	-	-	-	-	-	-
Stage 1	982	866	-	975	861	-	-	-	-	-	_	-
Stage 2	961	859	-	962	865	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	9			9.2			0.5			0.6		
HCM LOS	A			A								
Minor Lane/Major Mvn	nt	NBL	NBT	NBR	EBLn1V	VBLn1	SBL	SBT	SBR			
Capacity (veh/h)		1584	-	-	0.4-	886	1575	-	-			
HCM Lane V/C Ratio		0.002	_		0.015			_	_			
HCM Control Delay (s))	7.3	0	-	9	9.2	7.3	0	_			
HCM Lane LOS		A	A	_	A	A	A	A	_			
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	_			
TOM OUT /OUT & (VOI)	'/	- 0			- 0	0.1	- 0					

Intersection												
Int Delay, s/veh	2.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Vol, veh/h	2	5	1	1	5	4	0	16	0	10	37	6
Future Vol, veh/h	2	5	1	1	5	4	0	16	0	10	37	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage	e,# -	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	6	1	1	6	5	0	20	0	13	46	8
Major/Minor	Minor2			Minor1			Major1		1	Major2		
Conflicting Flow All	101	95	50	99	99	20	54	0	0	20	0	0
Stage 1	75	75	-	20	20		-	-	-	-	-	-
Stage 2	26	20	-	79	79	_	_	_	_	_	-	_
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	_	_	4.12	_	_
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	_	_	-	-	_
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	_	_
Follow-up Hdwy	3.518	4.018	3.318			3.318	2.218	_	_	2.218	-	_
Pot Cap-1 Maneuver	880	795	1018	883	791	1058	1551	-	-	1596	_	_
Stage 1	934	833	-	999	879	-	-	_	_	-	-	_
Stage 2	992	879	-	930	829	_	-	-	-	-	_	-
Platoon blocked, %								-	_		-	-
Mov Cap-1 Maneuver	865	789	1018	871	785	1058	1551	-	-	1596	-	-
Mov Cap-2 Maneuver	865	789	-	871	785	-	-	-	-	-	-	-
Stage 1	934	826	-	999	879	_	-	-	-	-	-	-
Stage 2	980	879	-	914	822	_	-	-	_	_	-	_
0 -												
Approach	EB			WB			NB			SB		
HCM Control Delay, s	9.4			9.1			0			1.4		
HCM LOS	A			Α								
Minor Lane/Major Mvm	nt	NBL	NBT	NBR	EBLn1V	VBLn1	SBL	SBT	SBR			
Capacity (veh/h)		1551	-	-	831	885	1596	-	-			
HCM Lane V/C Ratio		-	-	_	0.012			-	-			
HCM Control Delay (s)		0	-	-	9.4	9.1	7.3	0	-			
HCM Lane LOS		A	-	-	Α	Α	Α	Ā	-			
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-			
	,											

Intersection												
Int Delay, s/veh	7.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			44	
Traffic Vol, veh/h	4	4	2	8	7	4	4	17	9	8	20	2
Future Vol, veh/h	4	4	2	8	7	4	4	17	9	8	20	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage	e, # -	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	5	3	10	9	5	5	21	11	10	25	3
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	14	0	0	8	0	0	61	50	6	64	49	11
Stage 1	-	-	-	-	-	-	16	16	-	31	31	-
Stage 2	-	-	-	-	-	-	45	34	-	33	18	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1604	-	-	1612	-	-	934	841	1077	930	843	1070
Stage 1	-	-	-	-	-	-	1004	882	-	986	869	-
Stage 2	-	-	-	-	-	-	969	867	-	983	880	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1604	-	-	1612	-	-	904	833	1077	896	835	1070
Mov Cap-2 Maneuver	-	-	-	-	-	-	904	833	-	896	835	-
Stage 1	-	-	-	-	-	-	1001	879	-	983	864	-
Stage 2	-	-	-	-	-	-	933	862	-	946	877	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.9			3.1			9.2			9.4		
HCM LOS							Α			A		
Minor Lane/Major Mvm	nt 1	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR :	SBLn1			
Capacity (veh/h)		904	1604	-	-	1612	_	_	863			
HCM Lane V/C Ratio		0.041		-		0.006	-	_	0.043			
HCM Control Delay (s)		9.2	7.3	0	-	7.2	0	_	9.4			
HCM Lane LOS		Α	Α	A	-	Α	A	-	Α			
HCM 95th %tile Q(veh))	0.1	0	-	-	0	_	_	0.1			

Intersection												
Int Delay, s/veh	4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Vol, veh/h	9	28	2	0	33	12	3	4	1	25	5	12
Future Vol, veh/h	9	28	2	0	33	12	3	4	1	25	5	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	<u>-</u>	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage	, # -	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	35	3	0	41	15	4	5	1	31	6	15
Major/Minor I	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	56	0	0	38	0	0	118	115	36	111	109	49
Stage 1	-	-	-	-	-	-	59	59	-	49	49	-
Stage 2	-	_	-	-	-	-	59	56	-	62	60	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1549	-	-	1572	-	-	858	775	1037	867	781	1020
Stage 1	-	-	-	-	-	-	953	846	-	964	854	-
Stage 2	-	-	-	-	-	-	953	848	-	949	845	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1549	-	-	1572	-	-	836	770	1037	857	776	1020
Mov Cap-2 Maneuver	-	-	-	-	-	-	836	770	-	857	776	-
Stage 1	-	-	-	-	-	-	946	840	-	957	854	-
Stage 2	-	-	-	-	-	-	932	848	-	936	839	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.7			0			9.4			9.3		
HCM LOS							A			A		
										_		
Minor Lane/Major Mvm	nt I	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)		821	1549	_		1572	_	_	886			
HCM Lane V/C Ratio		0.012		_	_	-	-		0.059			
HCM Control Delay (s)		9.4	7.3	0	_	0	-	-	9.3			
HCM Lane LOS		A	A	A	_	A	-	_	A			
HCM 95th %tile Q(veh))	0	0	-	_	0	-	-	0.2			
77												

Intersection												
Int Delay, s/veh	4.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Vol, veh/h	16	34	3	2	30	8	2	1	1	20	0	36
Future Vol, veh/h	16	34	3	2	30	8	2	1	1	20	0	36
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage	e, # -	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	20	43	4	3	38	10	3	1	1	25	0	45
Major/Minor I	Major1		ı	Major2			Minor1			Minor2		
Conflicting Flow All	48	0	0	46	0	0	154	137	44	134	134	43
Stage 1	40	-	U	40	-	U	84	84	- 44	48	48	43
Stage 1	-	-	-	-	-	-	70	53	-	86	86	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	4.12	_	-	4.12	-	-	6.12	5.52	0.22	6.12	5.52	0.22
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	_	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1559	-	-	1562	_	-	813	754	1026	838	757	1027
Stage 1	1559	-	-	1502	-	-	924	825	1020	965	855	1027
Stage 1	-	-	-	-	-	-	940	851	-	905	824	-
Platoon blocked, %	-	-	-	-	_	_	340	001	-	JLZ	024	-
Mov Cap-1 Maneuver	1559	-	-	1562	-	-	768	743	1026	826	746	1027
Mov Cap-1 Maneuver	1559	-	-	1502	-	-	768	743	1020	826	746	1027
Stage 1	-	-	-	-	-	-	912	814		952	853	-
•	-	_	-	_	=	-	897	849	-	908	813	-
Stage 2	-	-	-	_	_	-	097	049	-	900	013	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.2			0.4			9.5			9.1		
HCM LOS							Α			Α		
Minor Lane/Major Mvm	nt 1	NBLn1	EBL	EBT	EBR	WBL	WBT	WRR	SBLn1			
Capacity (veh/h)		812	1559			1562	-	-	945			
HCM Lane V/C Ratio			0.013	_		0.002	_		0.074			
HCM Control Delay (s)		9.5	7.3	0		7.3	0	_	9.1			
HCM Lane LOS		9.5 A	7.3 A	A	_	7.3 A	A	_	9.1 A			
HCM 95th %tile Q(veh)	١	0	0	-	-	0	-	-	0.2			
HOW BOUT JOUILE Q(VEIT)	U	U	-	-	U	_	_	0.2			

Intersection												
Int Delay, s/veh	2.4											
• •												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Vol, veh/h	0	8	4	3	11	7	0	45	6	11	70	4
Future Vol, veh/h	0	8	4	3	11	7	0	45	6	11	70	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage	e,# -	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	10	5	4	14	9	0	56	8	14	88	5
Major/Minor	Minor2			Minor1			Major1		N	Major2		
	191	183	91	186	181	60	93	0	0	64	0	0
Conflicting Flow All		119		60	60	UO	93	U	U	04		
Stage 1	119 72	64	-	126	121	-	-	-	-	-	-	-
Stage 2	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy						0.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12 6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2		5.52	2 240	6.12	5.52	2 240	2 240	-	-	2 240	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	769	711	967	775	713	1005	1501	-	-	1538	-	-
Stage 1	885	797	-	951	845	-	-	-	-	-	-	-
Stage 2	938	842	-	878	796	-	-	-	-	-	-	-
Platoon blocked, %	745	704	067	757	700	1005	1501	-	-	1520	-	-
Mov Cap-1 Maneuver	745	704	967	757	706	1005	1501	-	-	1538	-	-
Mov Cap-2 Maneuver	745	704	-	757	706	-	-	-	-	-	-	-
Stage 1	885	789	-	951	845	-	-	-	-	-	-	-
Stage 2	915	842	-	854	788	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	9.7			9.7			0			1		
HCM LOS	Α			A								
Minor Lane/Major Mvn	nt	NBL	NBT	NBR	EBLn1V	VBLn1	SBL	SBT	SBR			
Capacity (veh/h)		1501	_	-		792	1538	_	_			
HCM Lane V/C Ratio		-	_			0.033		_	_			
HCM Control Delay (s)	0	_	_	9.7	9.7	7.4	0	_			
HCM Lane LOS		A	_	-	Α.	Α	A	A	_			
HCM 95th %tile Q(veh)	0	_	_	0.1	0.1	0	-	_			
HOW JOHN JOHN (VEN	1	U	_	_	0.1	0.1	U	_				

Intersection												
Int Delay, s/veh	3.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Vol, veh/h	1	5	17	13	8	0	10	38	5	1	46	1
Future Vol, veh/h	1	5	17	13	8	0	10	38	5	1	46	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage	e,# -	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	6	21	16	10	0	13	48	6	1	58	1
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	143	141	59	151	138	51	59	0	0	54	0	0
Stage 1	61	61	-	77	77	J1	J.J	<u> </u>		J -1	-	-
Stage 2	82	80	-	74	61	-	_	_	_	_	_	_
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	0.22	6.12	5.52	0.22	7.12	_		7.12	_	_
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	- -	-	<u>-</u>	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318		4.018	3.318	2.218	_	_	2.218	_	_
Pot Cap-1 Maneuver	826	750	1007	816	753	1017	1545	<u>-</u>	_	1551	-	-
Stage 1	950	844	1007	932	831	1017	1040	-	-	1001	_	_
Stage 2	926	828	-	935	844	-	-	-	-	-	-	-
Platoon blocked, %	320	020	-	300	044	-	-	-	-	-	_	_
Mov Cap-1 Maneuver	811	743	1007	787	745	1017	1545	-	-	1551	-	-
Mov Cap-1 Maneuver	811	743	1007	787	745	1017	1343	-	-	1331	-	-
Stage 1	941	843	-	924	824	-	-	-	-	-	-	-
Stage 2	907	821	-	908	843	-	-	-	-	-	_	_
Staye 2	307	021	-	300	043	-	<u>-</u>	_	-	-	_	<u>-</u>
Approach	EB			WB			NB			SB		
HCM Control Delay, s	9			9.8			1.4			0.2		
HCM LOS	Α			Α								
Minor Lane/Major Mvm	nt	NBL	NBT	NBR	EBLn1\	VBI n1	SBL	SBT	SBR			
Capacity (veh/h)		1545	-	-	926	770	1551		0211			
HCM Lane V/C Ratio		0.008	-		0.031	0.034		-	-			
HCM Control Delay (s)		7.3	0	-	9	9.8	7.3	0	<u>-</u>			
HCM Lane LOS					A A	9.0 A	7.3 A	A				
	1	A 0	Α	-	0.1	0.1	0		-			
HCM 95th %tile Q(veh)	U	-	-	0.1	0.1	U	-	-			

Intersection						
Int Delay, s/veh	1.7					
		EDE	ND	NET	ODT	000
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	¥			4	₽	
Traffic Vol, veh/h	7	1	3	8	25	10
Future Vol, veh/h	7	1	3	8	25	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage	e, # 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	1	4	10	31	13
N.A. '. (N.A'	N.4: C					
	Minor2		Major1		//ajor2	
Conflicting Flow All	56	38	44	0	-	0
Stage 1	38	-	-	-	-	-
Stage 2	18	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	952	1034	1564	-	-	-
Stage 1	984	-	-	-	-	-
Stage 2	1005	-	-	-	-	-
Platoon blocked, %				_	_	-
Mov Cap-1 Maneuver	949	1034	1564	-	_	-
Mov Cap-2 Maneuver		-		_	_	_
Stage 1	981	_	_	_	_	_
Stage 2	1005	_	_	_	_	_
Olago Z	1000					
Approach	EB		NB		SB	
HCM Control Delay, s	8.8		2		0	
HCM LOS	Α					
Minor Lane/Major Mvn	nt	NBL	NDT	EBLn1	SBT	SBR
	IIL					אמט
Capacity (veh/h)		1564	-		-	-
HCM Lane V/C Ratio		0.002	-	0.01	-	-
HCM Control Delay (s)	7.3	0	8.8	-	-
HCM Lane LOS		Α	Α	Α	-	-
HCM 95th %tile Q(veh	1)	0	-	0	-	-

Intersection						
Int Delay, s/veh	3.1					
		14/5			0.51	05-
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	. ₩		- ₽			र्स
Traffic Vol, veh/h	28	15	26	10	14	72
Future Vol, veh/h	28	15	26	10	14	72
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage	e, # 0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	35	19	33	13	18	90
	Minor1		/lajor1		Major2	
Conflicting Flow All	166	40	0	0	46	0
Stage 1	40	-	-	-	-	-
Stage 2	126	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	824	1031	-	-	1562	-
Stage 1	982	-	-	-	-	-
Stage 2	900	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	814	1031	_	-	1562	-
Mov Cap-2 Maneuver	814	-	-	-	-	-
Stage 1	982	_	_	_	_	_
Stage 2	889	_	_	_	_	_
Olago 2	000					
Approach	WB		NB		SB	
HCM Control Delay, s	9.4		0		1.2	
HCM LOS	Α					
Minor Lane/Major Mvm	nt	NBT	NRDV	VBLn1	SBL	SBT
	IL.	וטוו	ואוטויו			
Capacity (veh/h)		-	-	879	1562	-
HCM Control Polovice		-		0.061		-
HCM Control Delay (s)		-	-	9.4	7.3	0
		-	-	Α	Α	Α
HCM Lane LOS HCM 95th %tile Q(veh	`		_	0.2	0	-

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Vol, veh/h	4	24	2	0	53	23	0	2	1	9	2	4
Future Vol, veh/h	4	24	2	0	53	23	0	2	1	9	2	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage	, # -	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	30	3	0	66	29	0	3	1	11	3	5
Major/Minor I	Major1			Major2		ı	Minor1			Minor2		
	Major1	^			^			127	32		104	04
Conflicting Flow All	95	0	0	33	0	0	127	137		125 81	124	81
Stage 1	-	-	-	-	-	-	42	42	-		81	-
Stage 2	4 40	-	-	4 40	-	-	85	95	- 6.00	44	43	- 6.00
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	- 0.40	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1499	-	-	1579	-	-	846	754	1042	849	766	979
Stage 1	-	-	-	-	-	-	972	860	-	927	828	-
Stage 2	-	-	-	-	-	-	923	816	-	970	859	-
Platoon blocked, %	4.400	-	-	4===	-	-	000		10.15			0=0
Mov Cap-1 Maneuver	1499	-	-	1579	-	-	838	752	1042	844	764	979
Mov Cap-2 Maneuver	-	-	-	-	-	-	838	752	-	844	764	-
Stage 1	-	-	-	-	-	-	969	857	-	924	828	-
Stage 2	-	-	-	-	-	-	916	816	-	963	856	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1			0			9.4			9.3		
HCM LOS				U			A			Α		
										,\		
Minor Lane/Major Mvm	nt l	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR:				
Capacity (veh/h)		829	1499	-	-	1579	-	-	864			
HCM Lane V/C Ratio		0.005	0.003	-	-	-	-	-	0.022			
HCM Control Delay (s)		9.4	7.4	0	-	0	-	-	9.3			
HCM Lane LOS		Α	Α	Α	-	Α	-	-	Α			
HCM 95th %tile Q(veh))	0	0	-	-	0	-	-	0.1			

Int Delay, s/veh	Intersection													
Movement		4.6												
Traffic Vol, veh/h	•													
Traffic Vol, veh/h		EBL		EBR	WBL		WBR	NBL		NBR	SBL		SBR	
Future Vol, veh/h									4			4		
Conflicting Peds, #/hr O O O O O O O O O	,							1	1	0		0		
Sign Control Free Free Free Free Free Free Free Free Free Stop Stop	Future Vol, veh/h	11	18			36	13		1	0	21		39	
RT Channelized	Conflicting Peds, #/hr	0	0	0	0	0	0				0		0	
Storage Length	Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	
Veh in Median Storage, # - 0	RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None	
Grade, % - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - 0 - 0 - 0 0 80 40 49 Major/Minor Major Major Minor Minor Minor Minor Minor Minor C 0 49 Major/Minor Major Major Minor Minor Minor Minor Minor 2 2 2 2 3 3 <td>Storage Length</td> <td>-</td>	Storage Length	-	-	-	-	-	-	-	-	-	-	-	-	
Grade, % - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - 0 - 0 0 - 0 0 80	Veh in Median Storage	e,# -	0	-	-	0	-	-	0	-	-	0	-	
Heavy Vehicles, % 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		-	0	-	-	0	-	-	0	-	-	0	-	
Mymit Flow 14 23 3 1 45 16 1 1 0 26 0 49 Major/Minor Major1 Major2 Minor1 Minor1 Minor2 Minor2 Conflicting Flow All 61 0 0 26 0 0 133 116 25 108 109 53 Stage 1 - - - - - 53 53 - 55 55 - Stage 2 - - - - 80 63 - 53 54 - - Critical Hdwy Stg 1 - - - - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52		80	80	80	80	80	80	80	80	80	80	80	80	
Mymit Flow 14 23 3 1 45 16 1 1 0 26 0 49 Major/Minor Major1 Major2 Minor1 Minor1 Minor2 Conflicting Flow All 61 0 0 26 0 0 133 116 25 108 109 53 Stage 1 - - - - - 53 53 - 55 55 - Stage 2 - - - - - 80 63 - 53 54 - Critical Hdwy Stg 1 - - - - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 <	Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	
Major/Minor Major Major Minor Minor Minor			23	3	1	45	16	1	1	0	26	0	49	
Conflicting Flow All 61 0 0 26 0 0 133 116 25 108 109 53														
Conflicting Flow All	Major/Minor	Majari			Majora			Minor1			Minor			
Stage 1			^			^			110			400	F0	
Stage 2 - - - - 80 63 - 53 54 - Critical Hdwy 4.12 - - 4.12 - - 7.12 6.52 6.22 7.12 6.52 6.22 Critical Hdwy Stg 1 - - - - - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 183 7.81 1014 8.02 1018 8.02 1014 8.02 1014 8.02 1014 8.02 1014 8.02 1014	•													
Critical Hdwy 4.12 - 4.12 - 7.12 6.52 6.22 7.12 6.52 6.22 Critical Hdwy Stg 1 - - - - 6.12 5.52 - 6.12 5.52 - Critical Hdwy Stg 2 - - - - 6.12 5.52 - 6.12 5.52 - Follow-up Hdwy 2.218 - - 2.218 - - 3.518 4.018 3.318 3.518 4.018 3.318 Pot Cap-1 Maneuver 1542 - 1588 - - 839 774 1051 871 781 1014 Stage 1 - - - - 929 842 - 960 850 - Platoon blocked, % - - - - 793 766 1051 863 773 1014 Mov Cap-1 Maneuver 1542 - - - - 793	•			-	-		-						-	
Critical Hdwy Stg 1 - - - - 6.12 5.52 - 6.12 5.22 - 6.12 5.22				-	- 4.40		-						-	
Critical Hdwy Stg 2 - - - - 6.12 5.52 - 6.12 5.52 - Follow-up Hdwy 2.218 - - 2.218 - - 3.518 4.018 3.318 3.518 4.018 3.318 Pot Cap-1 Maneuver 1542 - - 1588 - - 839 774 1051 871 781 1014 Stage 1 - - - - 960 851 - 957 849 - Stage 2 - - - - 929 842 - 960 850 - Platoon blocked, % - - - - - - - 960 850 - - Mov Cap-1 Maneuver 1542 - 1588 - - 793 766 1051 863 773 1014 Mov Cap-1 Maneuver - - - - - </td <td>•</td> <td>4.12</td> <td></td> <td>-</td> <td>4.12</td> <td></td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	•	4.12		-	4.12		-							
Follow-up Hdwy 2.218 2.218 3.518 4.018 3.318 3.518 4.018 3.318 Pot Cap-1 Maneuver 1542 1588 839 774 1051 871 781 1014 Stage 1 960 851 - 957 849 - Stage 2 929 842 - 960 850 - Platoon blocked, % 1588 793 766 1051 863 773 1014 Mov Cap-1 Maneuver 1542 1588 793 766 1051 863 773 1014 Mov Cap-2 Maneuver 951 843 - 948 848 - Stage 2 883 841 - 950 842 883 841 - 950 842		-	-	-	-		-							
Pot Cap-1 Maneuver 1542 - 1588 - - 839 774 1051 871 781 1014 Stage 1 - - - - - 960 851 - 957 849 - Stage 2 - - - - - 929 842 - 960 850 - Platoon blocked, % - </td <td></td> <td></td> <td></td> <td>-</td> <td>-</td> <td></td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>				-	-		-							
Stage 1 - - - - 960 851 - 957 849 - Stage 2 - - - - 929 842 - 960 850 - Platoon blocked, % - - - - - - - Mov Cap-1 Maneuver 1542 - - 1588 - - 793 766 1051 863 773 1014 Mov Cap-2 Maneuver - - - - - 793 766 - 863 773 - Stage 1 - - - - 951 843 - 948 848 - Stage 2 - - - - - 883 841 - 950 842 - Approach EB WB WB NB SB HCM Control Delay, s 2.6 0.1 9.6 9.1 HCM Los NB WB WB WB WB NB <td c<="" td=""><td></td><td></td><td>-</td><td>-</td><td></td><td>-</td><td>-</td><td></td><td></td><td></td><td></td><td></td><td></td></td>	<td></td> <td></td> <td>-</td> <td>-</td> <td></td> <td>-</td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>			-	-		-	-						
Stage 2 - - - - 929 842 - 960 850 - Platoon blocked, % - <td>•</td> <td>1542</td> <td>-</td> <td>-</td> <td>1588</td> <td>-</td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>1014</td>	•	1542	-	-	1588	-	-						1014	
Platoon blocked, % 1588 793 766 1051 863 773 1014 Mov Cap-1 Maneuver 1542 1588 793 766 1051 863 773 1014 Mov Cap-2 Maneuver 793 766 - 863 773 - Stage 1 951 843 - 948 848 - Stage 2 883 841 - 950 842 - Approach EB WB NB SB HCM Control Delay, s 2.6 0.1 9.6 9.1 HCM LOS A A Minor Lane/Major Mvmt NBLn1 EBL EBT EBR WBL WBT WBR SBLn1 Capacity (veh/h) 779 1542 1588 955 HCM Lane V/C Ratio 0.003 0.009 0.001 0.079		-	-	-	-	-	-			-			-	
Mov Cap-1 Maneuver 1542 - - 793 766 1051 863 773 1014 Mov Cap-2 Maneuver - - - - - 793 766 - 863 773 - Stage 1 - - - - 951 843 - 948 848 - Stage 2 - - - - - 883 841 - 950 842 - Approach EB WB NB SB SB HCM Control Delay, s 2.6 0.1 9.6 9.1 HCM LOS A A A Minor Lane/Major Mvmt NBLn1 EBL EBT EBR WBL WBT WBR SBLn1 Capacity (veh/h) 779 1542 1588 955 HCM Lane V/C Ratio 0.003 0.009 0.001 - 0.001 - 0.0079		-	-	-	-	-	-	929	842	-	960	850	-	
Mov Cap-2 Maneuver - - - - 793 766 - 863 773 - Stage 1 - - - - 951 843 - 948 848 - Stage 2 - - - - - 883 841 - 950 842 - Approach EB WB NB SB HCM Control Delay, s 2.6 0.1 9.6 9.1 HCM LOS A A A Minor Lane/Major Mvmt NBLn1 EBL EBR WBL WBT WBR SBLn1 Capacity (veh/h) 779 1542 - - 1588 - - 955 HCM Lane V/C Ratio 0.003 0.009 - - 0.001 - - 0.079			-	-		-	-							
Stage 1 - - - - 951 843 - 948 848 - Stage 2 - - - - - - 883 841 - 950 842 - Approach EB WB NB SB HCM Control Delay, s 2.6 0.1 9.6 9.1 HCM LOS A A A Minor Lane/Major Mvmt NBLn1 EBL EBT EBR WBL WBT WBR SBLn1 Capacity (veh/h) 779 1542 - - 1588 - - 955 HCM Lane V/C Ratio 0.003 0.009 - - 0.001 - - 0.079		1542	-	-	1588	-	-			1051			1014	
Stage 2 - - - - - 883 841 - 950 842 - Approach EB WB NB SB HCM Control Delay, s 2.6 0.1 9.6 9.1 HCM LOS A A A Minor Lane/Major Mvmt NBLn1 EBL EBT EBR WBL WBT WBR SBLn1 Capacity (veh/h) 779 1542 - - 1588 - - 955 HCM Lane V/C Ratio 0.003 0.009 - - 0.001 - - 0.079	•	-	-	-	-	-	-			-			-	
Approach EB WB NB SB HCM Control Delay, s 2.6 0.1 9.6 9.1 HCM LOS A A A Minor Lane/Major Mvmt NBLn1 EBL EBT EBR WBL WBT WBR SBLn1 Capacity (veh/h) 779 1542 - - 1588 - - 955 HCM Lane V/C Ratio 0.003 0.009 - - 0.001 - - 0.079	-	-	-	-	-	-	-			-			-	
HCM Control Delay, s 2.6 0.1 9.6 9.1	Stage 2	-	-	-	-	-	-	883	841	-	950	842	-	
HCM Control Delay, s 2.6 0.1 9.6 9.1														
HCM Control Delay, s 2.6 0.1 9.6 9.1	Approach	FR			WB			NR			SB			
Minor Lane/Major Mvmt NBLn1 EBL EBT EBR WBL WBT WBR SBLn1 Capacity (veh/h) 779 1542 - - 1588 - - 955 HCM Lane V/C Ratio 0.003 0.009 - - 0.001 - - 0.079														
Minor Lane/Major Mvmt NBLn1 EBL EBR WBL WBT WBR SBLn1 Capacity (veh/h) 779 1542 - - 1588 - - 955 HCM Lane V/C Ratio 0.003 0.009 - - 0.001 - - 0.079	•	2.0			0.1									
Capacity (veh/h) 779 1542 1588 955 HCM Lane V/C Ratio 0.003 0.009 0.001 0.079	I IOWI LOO										^			
Capacity (veh/h) 779 1542 1588 955 HCM Lane V/C Ratio 0.003 0.009 0.001 0.079														
HCM Lane V/C Ratio 0.003 0.009 0.001 0.079	Minor Lane/Major Mvm	nt	NBLn1		EBT	EBR		WBT	WBR	SBLn1				
					-			-	-					
HOM O (I D. I / .) 0.0 7.4 0 7.0 0.4	HCM Lane V/C Ratio		0.003	0.009	-	-	0.001	-	-	0.079				
HCM Control Delay (s) 9.6 7.4 0 - 7.3 0 - 9.1	HCM Control Delay (s)		9.6	7.4	0	-	7.3	0	-	9.1				
HCM Lane LOS A A A - A A - A			Α	Α	Α	-	Α	Α	-	Α				
HCM 95th %tile Q(veh) 0 0 0.3	HCM 95th %tile Q(veh)	0	0	-	_	0	-	-	0.3				

Intersection												
Int Delay, s/veh	2.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Vol, veh/h	5	5	3	1	9	5	3	52	4	11	70	4
Future Vol, veh/h	5	5	3	1	9	5	3	52	4	11	70	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	_	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage	e,# -	0	-	-	0	-	_	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	6	4	1	11	6	4	65	5	14	88	5
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	203	197	91	200	197	68	93	0	0	70	0	0
Stage 1	119	119	-	76	76	-	-	-	-	-	-	-
Stage 2	84	78	-	124	121	_	_	_	_	_	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	_	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	_	_	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	_
Follow-up Hdwy	3.518	4.018	3.318			3.318	2.218	_	_	2.218	-	-
Pot Cap-1 Maneuver	755	699	967	759	699	995	1501	-	-	1531	_	_
Stage 1	885	797	-	933	832	-	-	_	_	-	-	-
Stage 2	924	830	-	880	796	_	-	-	-	-	_	-
Platoon blocked, %								_	_		-	-
Mov Cap-1 Maneuver	734	690	967	743	690	995	1501	-	-	1531	-	-
Mov Cap-2 Maneuver	734	690	-	743	690	-	-	-	-	-	-	-
Stage 1	882	789	-	930	830	_	-	-	-	-	-	-
Stage 2	903	828	-	861	788	_	_	-	_	-	-	-
0 -												
Approach	EB			WB			NB			SB		
HCM Control Delay, s	9.9			9.8			0.4			1		
HCM LOS	Α			Α								
Minor Lane/Major Mvm	nt	NBL	NBT	NBR	EBLn1V	VBLn1	SBL	SBT	SBR			
Capacity (veh/h)		1501	-	-	758	773	1531	-	_			
HCM Lane V/C Ratio		0.002	-	_	0.021			_	_			
HCM Control Delay (s)		7.4	0	_	9.9	9.8	7.4	0	_			
HCM Lane LOS		Α	A	_	A	A	Α	A	_			
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	_			
	,				0.1	0.1	_					

Int Delay, s/veh 3.7
Movement
Lane Configurations
Traffic Vol, veh/h
Future Vol, veh/h Conflicting Peds, #/hr Conf
Conflicting Peds, #/hr Stop Sto
Sign Control Stop Stop Stop Stop Stop Stop Free
RT Channelized - None -<
Storage Length
Weh in Median Storage, # - 0 - 0 - - 0 - 0 - 0 0 4 2
Grade, % - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 0 4 0<
Peak Hour Factor
Heavy Vehicles, % 2 2 2 2 2 2 2 2 2
Mynt Flow 1 6 15 13 6 3 6 34 8 3 29 4 Major/Minor Minor2 Minor1 Major1 Major2 Conflicting Flow All 92 91 31 98 89 38 33 0 0 42 0 0 Stage 1 37 37 - 50 50 -
Mynt Flow 1 6 15 13 6 3 6 34 8 3 29 4 Major/Minor Minor1 Major1 Major2 Conflicting Flow All 92 91 31 98 89 38 33 0 0 42 0 0 Stage 1 37 37 - 50 50 -
Conflicting Flow All 92 91 31 98 89 38 33 0 0 42 0 0 Stage 1 37 37 - 50 50 -
Conflicting Flow All 92 91 31 98 89 38 33 0 0 42 0 0 Stage 1 37 37 - 50 50 -
Conflicting Flow All 92 91 31 98 89 38 33 0 0 42 0 0 Stage 1 37 37 - 50 50 -
Stage 1 37 37 - 50 50
Stage 2 55 54 - 48 39 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
Critical Hdwy 7.12 6.52 6.22 7.12 6.52 6.22 4.12 - 4.12 - - 4.12 -
Critical Hdwy Stg 1 6.12 5.52 - 6.12 5.52
Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52
Follow-up Hdwy 3.518 4.018 3.318 3.518 4.018 3.318 2.218 2.218 Pot Cap-1 Maneuver 892 799 1043 884 801 1034 1579 1567 Stage 1 978 864 - 963 853
Pot Cap-1 Maneuver 892 799 1043 884 801 1034 1579 - - 1567 -
Stage 1 978 864 - 963 853 -
Stage 2 957 850 - 965 862 -
Platoon blocked, % Mov Cap-1 Maneuver 880 794 1043 862 796 1034 1579 1567 Mov Cap-2 Maneuver 880 794 - 862 796 Stage 1 974 862 - 959 850 Stage 2 944 847 - 942 860
Mov Cap-1 Maneuver 880 794 1043 862 796 1034 1579 - - 1567 - - Mov Cap-2 Maneuver 880 794 - 862 796 -
Mov Cap-2 Maneuver 880 794 - 862 796 Stage 1 974 862 - 959 850
Stage 1 974 862 - 959 850 -
Stage 2 944 847 - 942 860
Stage 2 944 847 - 942 860
Approach FB WB NB SB
The state of the s
HCM LOS A A
Minor Lane/Major Mvmt NBL NBT NBR EBLn1WBLn1 SBL SBT SBR
Capacity (veh/h) 1579 950 858 1567
HCM Lane V/C Ratio 0.004 0.024 0.025 0.002
HCM Control Delay (s) 7.3 0 - 8.9 9.3 7.3 0 -
HCM Lane LOS A A - A A A -
HCM 95th %tile Q(veh) 0 0.1 0.1 0

Intersection						
Int Delay, s/veh	1					
	•					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	N/W			र्स	₽	
Traffic Vol, veh/h	7	2	1	19	42	14
Future Vol, veh/h	7	2	1	19	42	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage	e,# 0	_	-	0	0	-
Grade, %	0	_	-	0	0	_
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2
Mymt Flow	9	3	1	24	53	18
IVIVIII I IOW	5	3		27	00	10
Major/Minor	Minor2		Major1	N	/lajor2	
Conflicting Flow All	88	62	71	0	-	0
Stage 1	62	-	-	-	-	-
Stage 2	26	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	_	-	_	-	_
Critical Hdwy Stg 2	5.42	_	_	_	_	_
Follow-up Hdwy	3.518	3.318	2.218	_	_	_
Pot Cap-1 Maneuver	913	1003	1529	_	_	_
Stage 1	961	-		_	_	_
Stage 2	997				_	_
Platoon blocked, %	331	_	_	_	_	
	040	1000	1500			-
Mov Cap-1 Maneuver		1003	1529	-	-	-
Mov Cap-2 Maneuver	912	-	-	-	-	-
Stage 1	960	-	-	-	-	-
Stage 2	997	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay, s	8.9		0.4		0	
HCM LOS	A		V. 1		•	
	71					
Minor Lane/Major Mvn	nt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)		1529	-	931	-	-
HCM Lane V/C Ratio		0.001	-	0.012	-	-
HCM Control Delay (s)	7.4	0	8.9	-	-
HCM Lane LOS		Α	Α	Α	-	-
HCM 95th %tile Q(veh	1)	0	-	0	-	-
70410 4(101	,			•		

Intersection						
Int Delay, s/veh	2.7					
		W/DD	NET	NES	051	057
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	N/		Դ			ની
Traffic Vol, veh/h	10	11	22	10	14	39
Future Vol, veh/h	10	11	22	10	14	39
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage	e, # 0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	14	28	13	18	49
NA - 1 - 1 NA1	M		4.1.4		4.1.0	
	Minor1		//ajor1		Major2	
Conflicting Flow All	120	35	0	0	41	0
Stage 1	35	-	-	-	-	-
Stage 2	85	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	876	1038	-	-	1568	-
Stage 1	987	-	-	-	-	-
Stage 2	938	-	-	-	-	-
Platoon blocked, %			_	-		-
Mov Cap-1 Maneuver	865	1038	_	_	1568	-
Mov Cap-2 Maneuver	865	-	_	_	-	_
Stage 1	987	_	_	_	_	_
Stage 2	927	_			_	_
Olage 2	JLI					
Approach	WB		NB		SB	
HCM Control Delay, s	8.9		0		1.9	
HCM LOS	Α					
Minor Long/Major Mym	.1	NDT	NDDV	VDI 51	CDI	CDT
Minor Lane/Major Mvm	IL	NBT		VBLn1	SBL	SBT
Capacity (veh/h)		-	-	0.0	1568	-
HCM Lane V/C Ratio		-		0.028		-
HCM Control Delay (s)		-	-	8.9	7.3	0
HCM Lane LOS		-	-	Α	Α	Α
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection												
Int Delay, s/veh	4.1											
		EDT	EDD	WDL	MOT	MPP	NDI	NDT	NDD	ODI	ODT	ODB
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Vol, veh/h	11	30	2	0	35	15	3	4	1	27	5	15
Future Vol, veh/h	11	30	2	0	35	15	3	4	1	27	5	15
Conflicting Peds, #/hr	_ 0	_ 0	_ 0	_ 0	_ 0	_ 0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage	, # -	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	38	3	0	44	19	4	5	1	34	6	19
Major/Minor I	Major1		-	Major2			Minor1			Minor2		
Conflicting Flow All	63	0	0	41	0	0	134	131	40	125	123	54
Stage 1	-	-	-	-	-	-	68	68	-	54	54	-
Stage 2	_	_	_	_	_	_	66	63	_	71	69	_
Critical Hdwy	4.12	_	_	4.12	_	_	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1		_	_	T. 1Z	_	_	6.12	5.52	0.22	6.12	5.52	0.22
Critical Hdwy Stg 2	_	_	_	_		_	6.12	5.52	_	6.12	5.52	_
Follow-up Hdwy	2.218	_	_	2.218	_	_	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1540			1568	_		838	760	1031	849	767	1013
Stage 1	1040			1000	_		942	838	1031	958	850	-
Stage 2	-	-	-	<u>-</u>	<u>-</u>	-	945	842	_	939	837	-
Platoon blocked, %	_	_	_	_	_	_	J 4 J	042	_	303	007	_
Mov Cap-1 Maneuver	1540	-	-	1568	_	-	812	753	1031	838	760	1013
Mov Cap-1 Maneuver	1040	-	-	1500	-	-	812	753	1031	838	760	1013
Stage 1	-	-	-	-	-	-	934	830	-	949	850	-
Stage 2	-	-	-	-	-	-	934	842	-	949	829	_
Slaye 2	-	-	-	-	-	-	3Z I	042	-	324	029	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.9			0			9.5			9.4		
HCM LOS							Α			Α		
Minor Lane/Major Mvm	nt I	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBI n1			
Capacity (veh/h)	i I	802	1540			1568	-		877			
HCM Lane V/C Ratio				-	-	1000		-				
			0.009	-	-	-	-		0.067			
HCM Long LOS		9.5	7.4	0	-	0	-	-	9.4			
HCM Lane LOS		A	A	Α	-	A	-	-	A			
HCM 95th %tile Q(veh))	0	0	-	-	0	-	-	0.2			

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Vol, veh/h	3	36	17	2	34	9	2	1	1	9	1	12
Future Vol, veh/h	3	36	17	2	34	9	2	1	1	9	1	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage	, # -	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	45	21	3	43	11	3	1	1	11	1	15
Major/Minor I	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	54	0	0	66	0	0	127	124	56	120	129	49
Stage 1	-	-	-	-	-	-	64	64	-	55	55	-
Stage 2	_	_	_	_	_	-	63	60	-	65	74	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1551	-	-	1536	-	-	846	766	1011	855	762	1020
Stage 1	-	-	-	-	-	-	947	842	-	957	849	-
Stage 2	-	-	-	-	-	-	948	845	-	946	833	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1551	-	-	1536	-	-	829	762	1011	850	758	1020
Mov Cap-2 Maneuver	-	-	-	-	-	-	829	762	-	850	758	-
Stage 1	-	-	-	-	-	-	944	839	-	954	847	-
Stage 2	-	-	-	-	-	-	931	843	-	941	831	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.4			0.3			9.3			9		
HCM LOS							A			A		
Minor Lane/Major Mvm	ıt l	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)		849	1551	_		1536	-	-	929			
HCM Lane V/C Ratio		0.006		-		0.002	-	-	0.03			
HCM Control Delay (s)		9.3	7.3	0	-	7.3	0	-	9			
HCM Lane LOS		Α	Α	A	_	Α	A	-	A			
HCM 95th %tile Q(veh))	0	0	-	-	0	-	-	0.1			

Appendix E Collision Report

														#
					COMP									# B
			DIST		DIR						#	#	- 1	PI
			FROM	MI	FROM						1			E K
PRIMARY	BLOCK	INTERSECTING	REF	or	REF	REFERENCE	REPORT			MOST SEVERE INJURY	Ν			D E
TRAFFICWAY	NUMBER	TRAFFICWAY	POINT	FT	POINT	POINT NAME	NUMBER	DATE	TIME	TYPE	J	Т	Н :	SS
ELM ST	200	S 3RD ST					E490744	12/05/2015	16:16	Possible Injury	1	0	2	0 0
ELM ST	500		116	F	W	S 6TH AVE	E605049	11/05/2016	16:07	No Apparent Injury	0	0	2	0 0
ELM ST		S 3RD AVE					E233925	03/20/2013	15:55	Possible Injury	4	0	2	0 0
ELM ST	200	S 3RD AVE					E329285	05/20/2014	20:27	No Apparent Injury	0	0	2	0 0
LAUREL ST	500	S 7TH AVE					E424207	05/12/2015	17:30	No Apparent Injury	0	0	2	0 0
MILL ST	300	S 4TH AVE					E239467	04/22/2013	18:44	No Apparent Injury	0	0	2	0 0
MILL ST	200	S 4TH AVE					3463289	12/06/2014	20:18	Suspected Minor Injury	1	0	2	0 0
MILL ST	200	S 4TH AVE					E373806	11/10/2014	15:07	No Apparent Injury	0	0	2	0 0
MILL ST	300	S 4TH AVE					E289159	11/29/2013	08:01	No Apparent Injury	0	0	2	0 0
MILL ST	0	S 5TH AVE					E704633	08/24/2017	18:55	No Apparent Injury	0	0	3	0 0
MILL ST	500	S 6TH AVE					E248779	06/06/2013	09:47	No Apparent Injury	0	0	2	0 0
MILL ST	700	S 8TH AVE					E346762	08/05/2014	11:42	No Apparent Injury	0	0	2	0 0
MILL ST	0	S PACIFIC AVE					E750406	12/21/2017	12:56	No Apparent Injury	0	0	2	0 0
MILL ST	100	S PACIFIC AVE					E517808	02/19/2016	17:09	No Apparent Injury	0	0	2	0 0
S 3RD ST	100		152	F	S	ELM ST	E740439	11/20/2017	23:36	No Apparent Injury	0	0	2	0 0
S 4TH AVE	1300		200	F	S	LAUREL ST	E627864	01/03/2017	20:06	No Apparent Injury	0	0	4	0 0
S 4TH AVE	900	MILL ST					E461482	09/15/2015	07:54	Possible Injury	1	0	2	0 0
S 4TH AVE	900	MILL ST					E405790	03/06/2015	12:36	No Apparent Injury	0	0	2	0 0
S 5TH AVE	1200		150	F	S	ELM ST	E677909	06/05/2017	09:27	No Apparent Injury	0	0	2	0 0
S 5TH AVE	1200	ELM ST					3463290	12/11/2014	17:56	No Apparent Injury	0	0	2	0 0
S 6TH AVE	1100		125	F	N	ELM ST	3463421	06/08/2017	19:10	No Apparent Injury	0	0	2	0 0
S 6TH AVE	1200		300	F	Ν	LAUREL ST	E427904	05/27/2015	13:47	Suspected Minor Injury	1	0	2	0 0
S 6TH AVE	1200		40	F	Ν	LAUREL ST	E324107	04/28/2014	14:11	No Apparent Injury	0	0	2	0 0
S 6TH AVE	0	ELM ST					E689522	07/09/2017	18:48	Possible Injury	2	0	3	0 0
S 6TH AVE	0	ELM ST					E660864	04/11/2017	08:20	No Apparent Injury	0	0	2	0 0
YEW ST	0	S 6TH AVE					E686419	06/29/2017	13:34	No Apparent Injury	0	0	2	0 0

				DOADIMAY	
				ROADWAY SURFACE	LIGHTING
VEHICLE 1 TYPE	VEHICLE 2 TYPE	JUNCTION RELATIONSHIP	WEATHER	CONDITION	CONDITION
Pickup,Panel Truck or Vanette			Raining	Wet	Dusk
Passenger Car	Passenger Car	At Driveway		Wet	Daylight
Passenger Car	•	At Intersection and Related	Overcast	Dry	Daylight
Pickup,Panel Truck or Vanette	• •	At Intersection and Related	Overcast	Dry	Dusk
Passenger Car	Passenger Car	At Intersection and Related		Dry	Daylight
Passenger Car	Passenger Car	At Intersection and Related		Dry	Daylight
Pickup,Panel Truck or Vanette			Overcast	Dry	Dark-Street Ligh
Passenger Car	·	At Intersection and Related		Dry	Daylight Daylight
Pickup,Panel Truck or Vanette	·		Overcast	Dry	Daylight
Passenger Car	Passenger Car	At Intersection and Related		Dry	Daylight
Passenger Car	Passenger Car	At Intersection and Related	Clear or Partly Cloudy		Daylight
Passenger Car	Passenger Car	At Intersection and Related	Clear or Partly Cloudy	•	Daylight
Passenger Car		At Intersection and Related		Dry	Daylight
Pickup,Panel Truck or Vanette	Passenger Car	At Intersection and Related	Raining	Wet	Daylight
Not Stated	Passenger Car	Not at Intersection and Not Re	Overcast	Wet	Dark-Street Ligi
Passenger Car	Passenger Car	Not at Intersection and Not Re	Clear or Partly Cloudy	Dry	Dark-Street Ligi
Passenger Car	Pickup,Panel Truck or Va	At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight
Passenger Car	Passenger Car	At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight
Passenger Car	Passenger Car	Not at Intersection and Not Re	Clear or Partly Cloudy	Dry	Daylight
Pickup, Panel Truck or Vanette	Passenger Car	At Intersection and Related	Raining	Wet	Dark-Street Ligl
Passenger Car	Passenger Car	Not at Intersection and Not Re	Clear or Partly Cloudy	Dry	Daylight
Passenger Car	Passenger Car	Not at Intersection and Not Re	Clear or Partly Cloudy	Dry	Daylight
Passenger Car	Pickup,Panel Truck or Va	At Driveway	Clear or Partly Cloudy	Dry	Daylight
Pickup,Panel Truck or Vanette	Passenger Car	At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight
Pickup,Panel Truck or Vanette	Pickup,Panel Truck or Va	At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight
Passenger Car	Passenger Car	At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight

			VEHICLE 1	
			COMPASS	VEHICLE 1
			DIRECTION	COMPASS
FIRST COLLISION TYPE / OBJECT STRUCK	VEHICLE 1 ACTION	VEHICLE 2 ACTION	FROM	DIRECTION TO
Entering at angle	Going Straight Ahead	Making Left Turn	West	East
Entering at angle	Backing	Going Straight Ahead	North	Vehicle Backing
Entering at angle	Going Straight Ahead	Going Straight Ahead	ļ	North
Entering at angle	Going Straight Ahead	Going Straight Ahead	North	South
Entering at angle	Going Straight Ahead	Going Straight Ahead	West	East
Entering at angle	Going Straight Ahead	Going Straight Ahead	East	West
Entering at angle	Going Straight Ahead	Going Straight Ahead	West	East
Entering at angle	Going Straight Ahead	Going Straight Ahead	West	East
Entering at angle	Going Straight Ahead	Making Left Turn	East	West
Entering at angle	Going Straight Ahead	Going Straight Ahead	North	South
Entering at angle	Starting in Traffic Lane	Going Straight Ahead	South	North
Entering at angle	Going Straight Ahead	Going Straight Ahead	South	North
Entering at angle	Going Straight Ahead	Going Straight Ahead	West	East
Entering at angle	Making Left Turn	Going Straight Ahead	East	South
One parkedone moving	Going Straight Ahead	Legally Parked, Unoccupied		
One parkedone moving	Going Straight Ahead	Legally Parked, Unoccupied	South	North
Entering at angle	Starting From Parked Position	Going Straight Ahead	Vehicle Stopped	West
Entering at angle	Going Straight Ahead	Going Straight Ahead	North	South
From opposite direction - one stopped - head-on	Going Straight Ahead	Stopped in Roadway	North	South
Entering at angle	Going Straight Ahead	Going Straight Ahead	West	East
One parkedone moving	Going Straight Ahead	Legally Parked, Unoccupied	South	North
One parkedone moving	Going Straight Ahead	Illegally Parked, Unoccupied	South	North
One parkedone moving	Backing	Legally Parked, Unoccupied	Vehicle Backing	Vehicle Backing
Entering at angle	Going Straight Ahead	Going Straight Ahead	East	West
Entering at angle	Going Straight Ahead	Going Straight Ahead	East	West
Entering at angle	Going Straight Ahead	Going Straight Ahead	North	South

VEHICLE 2	VELUCI 5 2				
VEHICLE 2 VEHICLE 2					
COMPASS DIRECTION	COMPASS DIRECTION	MV DRIVER CONTRIBUTING	MAY DRIVED CONTRIBUTING	MV DRIVER CONTRIBUTING	
FROM	TO	CIRCUMSTANCE 1 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 2 (UNIT 1)	CIRCUMSTANCE 3 (UNIT 1)	
South	West	Exceeding Stated Speed Limit	CIRCOIVISTANCE 2 (UNIT 1)	CIRCUIVISTAINCE 5 (UNIT 1)	
East	West	Inattention	Improper Backing	Did Not Grant RW to Vehicle	
East	West	Disregard Stop Sign - Flashing Red	Improper Backing	Did NOT Grant KW to Venicle	
West	East	Disregard Stop Sign - Flashing Red			
North	South	Disregard Stop Sign - Flashing Red	Driver Interacting with Passenger	Anim	
North	South	Disregard Stop Sign - Flashing Red	Driver Interacting with Passengers, Anim Driver Distractions Outside Vehicle		
North	South	Disregard Stop Sign - Flashing Ked	Driver distractions outside verifici	е	
North	South	Did Not Grant RW to Vehicle	Driver Not Distracted		
North	East	Inattention	Did Not Grant RW to Vehicle		
	West		Did Not Grant RW to Vehicle		
		Disregard Stop Sign - Flashing Red Did Not Grant RW to Vehicle	Driver Distractions Outside Vehicle		
West East					
East	West	Disregard Stop Sign - Flashing Red	Did Not Grant RW to Vehicle	Unknown Driver Distraction	
North	South	Disregard Stop Sign - Flashing Red	Inattention	Did Not Grant RW to Vehicle	
South	North	Did Not Grant RW to Vehicle			
		Other			
		Under Influence of Alcohol	Driver Operating Handheld Teleco	mmunicat	
South	North	Did Not Grant RW to Vehicle			
East	West	None			
South	North	Inattention	Did Not Grant RW to Vehicle		
South	North	Other			
Vehicle Backin	Vehicle Stoppe		Other Driver Distractions Inside Vehicle		
		Unknown Driver Distraction			
		Other			
South	North	Disregard Stop Sign - Flashing Red	Inattention		
South	North	Disregard Stop Sign - Flashing Red	Inattention		
West	East	Disregard Stop Sign - Flashing Red	Inattention		