

Amy Johnson

From: oboeduets@gmail.com
Sent: Monday, August 05, 2019 12:07 PM
To: CityRecorder
Subject: Rebuttal: SUB-ADJ19-02
Attachments: Rebuttal SUB-ADJ19-02.pdf

Categories: Follow-up

To Whom it May Concern;

Please consider the attached rebuttal in case number SUB-ADJ19-02.

Thank you,
Andie Andeen
503-930-6703

% City Recorder
City of Salem Community Development Department
Case Number: SUB-ADJ19-02

August 5, 2019

Mayor and City Councilors,

Thank you for reviewing this decision and considering this rebuttal. For ease of reading, the sequence of my rebuttal parallels the staff report printed on July 30, followed by my response to the letter from the applicant's attorney.

Staff Report, Supplemental Findings

1: Conditions of Appeal

Paragraph 1: "Conditions of appeal are used to protect the public and adjacent property owners from adverse impacts resulting from development." Given the easement along the west side of the proposed development is a "non-exclusive easement" - the maintenance of which is the sole responsibility of the residents (639, 691, 695, 705, 715 Salem Heights) - and if, indeed, the conditions of appeal are intended to protect adjacent property owners, where is the condition stating this easement will not be used by construction vehicles, or the condition stating the applicant will reimburse property owners for damage done to the easement by construction vehicles? Although this easement is not included in the boundaries of the proposed development, a change to the private easement on Lot 7 is included in the proposal and would require construction vehicles to traverse this shared easement. This is a serious concern to those responsible for maintenance of the shared easement, particularly given the nature of the easement and testimony indicating the developer has a history of not being a good neighbor.

Paragraph 2: Communication from city staff has been inadequate, if not contradictory. Initially staff (Olivia Glantz) indicated a new application would be required in order for a barricade to be considered. Subsequently, the same staff member indicated that may not be the case, following review by the legal department (email correspondence to an appellant). According to paragraph 2 of this supplemental finding, we are back to the original interpretation - and without further communication to both applicant and appellant.

Paragraph 3: "Requiring a barricade would take a proposal that currently complies with adopted City policy and codes and change it to a development that does not comply." I would offer that requiring a barricade would *amend* a proposal that currently complies with adopted City policy and codes in order to recognize and mitigate certain shortcomings of current city policy and codes."

2. Subdivision Standards

Regarding the statement, "Current proposal meets the connectivity standard of SRC 803.035(a)" and the argument that a barricade would change the proposal to one that does not meet policies and codes:

Policies and codes are established to protect. Salem Heights is presently a street that falls between the cracks - it's an old county road that's classified as a collector, physically resembles a local street, and is the least improved when compared to all the streets it services. In this case, it is the *policies and codes* that do not meet standard.

3. Adequate Public Notice

Agreed, though this has arguably not been provided up to this point in the current process either. The original public notice signs, as well as those related to the extended testimony period, were placed parallel to Salem Heights and between mature trees and vegetation. They would have been much more noticable if placed perpendicular to Salem Heights. Additionally, the street has no sidewalks and the signs were not large enough to be readable - even if noticed - by those driving past.

4. Traffic Impact

Paragraph 2: I'm pleased to know the City Administrative Rule. Fortunately, the calendar allows for a TIA to be conducted prior to the October 11 deadline. It's not clear why the city doesn't wish to do a TIA.

Paragraph 3: This assessment cannot replace a formal TIA. My next point is illustrative of one reason.

Paragraph 4: "There is only one existing north-south connection along 2,300 feet of Salem Heights" (references the connection via Nohlgren). It needs to be noted that there are two additional north-south connections aside from Nohlgren - Winola and Crestview.

Paragraph 5: I use the same logic as that in the staff report to posit that the proposed development (without a barricade) will attract significantly more traffic, particularly at the off-set intersection with Winola. During peak hours of the day northbound travelers are not permitted to turn left onto Salem Heights. The only alternative that doesn't require backtracking is to turn onto Madrona and take either the Winola or Crestview cut to Salem Heights. Future residents of the proposed development will find the Winola cheat quite handy, as it drops them at the entrance of the development. Additionally, Winola has a unique point of concern in it's sharp turn around a residence.

Paragraph 6: Traffic volume is only a concern as it relates to the two-lane, "old country road" nature of Salem Heights. To reference volume numbers without providing a comparison for streets of similar nature/constraints is to present - intentionally or otherwise - incomplete and inadequate data.

Paragraphs 7-9: This feels like a threat to those who provided testimony related to tree and "character" preservation. The purpose of the required improvements referenced in these paragraphs is "to preserve existing trees" (condition 7). There is no reference to this condition being imposed as a 'safety corridor' or otherwise related to traffic load.

5: Fire and Emergency Services

Paragraph 2: If a gate were to open onto one of the newly-created lots, that would seem ideal, according to the statement in the previous paragraph, "Typically, gates are located on private property, where the property owner provides for adequate maintenance and a power supply."

Paragraph 3: Looking at Attachment B of the July 15 staff report, and given the orientation of lots 15 and 16, it seems unlikely this "potential" would materialize.

Paragraph 4: No one has proposed a turn-around.

6: City/Salem Heights Cross-Section Project

Paragraphs 1-3: To everyone's fortune, there is little interest in designing or finding funding for the full Connector Street improvements as outlined in the city's TSP.

Paragraph 4: While there exist a plurality of ideas re: preferred alternatives for Salem Heights, local residents are united in the sentiment that 400' of development should not dictate how the remainder of the street is developed. That this is suggested by city staff when a collaborative Project Advisory Committee (PAC) process has already begun - and when each piece of testimony from local residents is in opposition to the proposed development - is an insult to the residents who have entered into this collaborative PAC process in good faith.

Attorney Letter

The applicant's attorney states, "The opportunity for exploring such modifications as a condition of the Decision has passed and the respective parties must now move forward based upon the tentative plans submitted by the Applicant and the Decision." If that is not what this process is about then why are we here? Why does City Council have jurisdiction to review such decisions? Why is there an appeal process? Why did Council find it appropriate to keep the record open for a week following the hearing?

SUMMARY

The proposal for this development was not reviewed to the standard of care Salem residents expect.

The conditions and peculiarities of the neighborhood were not given full review, be it the non-traditional classification of the street, the inherent risk in the topography of the street, the protection of adjacent easements, or the nature and geographical layout of the community that Salem Heights serves.

Communication from the city has been inadequate. Signage was placed poorly in both the initial and subsequent periods for public notice. It remains unclear whether a new application would be required for a barricade. And my three written statements on the issue have been addressed to three different entities because it was unclear to whom I was to submit comments (I followed the directions outlined in emails I received from the city).

Finally, weaknesses in some of the Supplemental Findings, as well as my interaction last week with the City Planner responsible for this decision and whose name appears at the bottom of the July 30th report, suggests she is no longer objective on this issue. Her demeanor towards me when I visited the city records office was hostile and aggressive, as witnessed by two city staffers who stayed with me

during the encounter. (I was so distressed by the planner's behavior that I failed to ask their names, though I believe the woman works in Public Records and the gentleman in Public Works.)

I had come to the Records office to ask two questions: "Where can I find out what type of easements line my property (there are two), and do public documents exist that outline the rights and responsibilities of those who live on such easements?"

I was initially aided by the two staff members. I'm not sure why this planner came out to respond to my general questions about easements; her counsel was not only unproductive, the startling aggressive nature of it brought me to tears in a public office. By hostile and aggressive I mean that her comments to me were expressed with a particularly loud voice that could be heard throughout the office. This continued even after I quietly pointed out that I didn't wish to upset her, I was just there to seek general information about easements. Rather than directing me to the county records office - which the other two staff members did and ultimately proved very helpful - this planner repeatedly told me I needed to contact a lawyer. I was discouraged; I didn't feel my questions warranted an attorney - evidenced by the success of my subsequent (and pleasant) visit to the county records office. This planner's irrational reaction to my general inquiry suggests she is no longer objective on this issue. Either that or she was intending to bully.

Mayor and Councilors, thank you for the time and energy you have spent honoring the process for case number SUB-ADJ19-02.

A handwritten signature in cursive script that reads "Alexandra (Andie) Andeen".

Alexandra Andeen
695 Salem Heights Ave. S
Salem, 97302

RON EACHUS

*940 Salem Heights Ave S
Salem, Or 97302*

July 29, 2019

*City Recorder
Room 205
555 Liberty Street SE
Salem, OR 97302*

TO: Members of the Salem City Council

RE: Rebuttal Testimony

City Council Review of Planning Administrator's Decision on Subdivision/Class 1 Adjustment
Case No SUB-ADJ19-02

The following is rebuttal to testimony submitted by the applicant and the staff during the extended open record period in this case. In previous testimony I have focused on the requirement for a Traffic Impact Analysis under Sec. 803.015 (b) (2) and on the alternative of installing a temporary barricade at the connection of the proposed Doughton Street extension and Salem Heights Ave S.

The staff memo addressed the TIA requirement in the context of the proposed barricade. Staff suggested that if there was a barricade it didn't think it would likely change driver behavior. I disagree with this conclusion, but since the barricade was suggested in part as an alternative to eliminate the need for a TIA, I'll direct my rebuttal primarily to the contention that a TIA is not required.

The Traffic Resulting From the Development Will Contribute To "Documented" Traffic Problems

Sec. 803.015 (b) (2) provides that "The increased traffic resulting from the development will contribute to documented traffic problems, based on current accident rates, traffic volumes or speeds, and identified locations where pedestrian and/or bicyclist safety is a concern." Unlike the criteria in 803.015 (b) (1), this criterion is based on current conditions, not street classification.

Salem Heights is classified a collector street in the Transportation System Plan and as such the estimated additional traffic from the Wren Heights development does not exceed the 1000 addition vehicle trips per day threshold to automatically trigger a TIA for a collector street.

Salem Heights is described in the TSP, as well as in other City planning documents, as an unimproved collector street not built to urban standards. It also lists the street as low priority with improvements to be completed within 25 years. According to staff comments, Salem Heights was initially classified as a collector in 1986. That was 33 years ago. If it takes another 25 years for improvements, it will be well over a half a century during which Salem Heights exists as an unimproved collector street. That is why the application of (803.015 (b) (2) based on existing conditions is the relevant criterion to apply.

Staff and applicant have maintained that there is no “documented” evidence that there’s a traffic problem from the development.

The traffic engineer conducted an analysis which he admitted was not at the level of a TIA. In that analysis he examined crash data for 2013 – 2017. He found that there were 15 crashes, 10 of which occurred at the intersection of Salem Heights and Liberty Street. Comparing average crash rates for urban four-way intersections he concluded that the current crash rate is “significantly below average” and that this does not constitute a “documented” safety problem. Staff basically concurred.

However, accident rates are not the only element in the criterion.

“Traffic volumes”

Traffic volume is one of the elements. And it is here that it is important to cast aside the application of the collector street concept and reflect on the impact of the traffic on the actual conditions of the street. Nevertheless, while the impact isn’t based on the classification system, the traffic volumes associated with the classifications are relevant and reveal that the added traffic on Salem Heights justifies a TIA under criterion (b)(2).

The number of added trips per day has varied in this proceeding but for the purposes of this rebuttal I’ll use the 204 estimated trips from the applicants traffic engineer analysis. He estimated the development would generate an additional 303 trips but that some of the traffic would use outlets to the North, thus reducing the number of trips on Salem Heights.

According to the TSP, the range of “Ultimate Design” Average Daily Trips for collector streets is from 10,000 on the high end to 1,600 on the low end. The range for a local street is 1600. For a local street, an addition of 200 or more trips automatically triggers a TIA.

At the requests of the neighborhood residents, the City has done two traffic counts on Salem Heights using two data collection points. The following table summarizes the results of these traffic counts.

East of View Drive S <i>(lower on hill, closer to Liberty)</i>	East of 6th Ave. S <i>(higher on hill, farther from Liberty)</i>	TSP Local Street Ultimate Design ADT
8/2018 Weekday Avg 1767.5	8/2018 Weekday Avg 1405.8	1600
5/2019 Weekday Avg 1938	5/2019 Weekday Avg 1629.33	1600
8/2018 Weekend Avg 1531.5	8/2018 Weekend Avg 1252	1600
5/2019 Weekend Avg 1525.75	5/2019 Weekend Avg 1294	1600

As can be seen by the table, the traffic counts for Salem Heights are not much higher than the local street design. An addition of 204 trips would automatically trigger a TIA on local streets. But since Salem Heights is a collector, it does not.

But it does give a reference point for considering the impact of the added traffic volume on the current conditions of the street. Many of the local streets connecting to Salem Heights are more improved and safer than the unimproved Salem Heights. If the added traffic from the development would automatically trigger a TIA for a local street, then it is evident that the added traffic volume on unimproved Salem Heights, which has close to the same traffic volumes, is sufficient to require a TIA. This is even more so if the estimates of the applicant's traffic engineer prove to be too low and more than 204 trips per day are added to Salem Heights.

The only conclusion on traffic volumes reached by the Staff in its Supplemental comments is that increases in the weekday peak hour traffic on Salem Heights did not create peak hour volumes "that would cause concern with respect to an operational issue." It is unclear what operation issues means. There is no mention or recognition that the street has no sidewalks or bicycle lanes, or the impact added traffic has on pedestrian or bicycle safety near the Liberty Street connection street light where much of the traffic would be concentrated.

It is not a question of asking that Salem Heights be treated as a local street. We are asking that it be treated as an unimproved street that is more unsafe than many of the local streets that connect to, or surround, it. If the added traffic volumes are enough to automatically trigger a TIA for a local street under the current classification system, then those volumes are enough to warrant a TIA for Salem Heights under current conditions.

"Traffic speed"

Another element in the TIA criterion is traffic speeds. Here the city has documented and already recognized that there is a speeding problem. As noted in previous testimony, during the August 2018 traffic count the City also recorded speeds. It found average speeds at the two points of data collection of 32 mph and 35 mph in the 25 mph zone. At a Southwest Area Neighborhood Association meeting, City staff observed that "there's obviously a speeding problem."

Yet, the only place staff addressed this in this proceeding was a comment at the public hearing by the assistant traffic engineer that "speeding happens."

“Identified locations here pedestrian and/or bicycle safety is a concern”

This is the final element and here again Salem Heights meets this criterion. The record is full of reference by the City to the unimproved condition of Salem Heights and its lack of sidewalks, curbs and bike lanes. The Council has received evidence from the neighborhood residents over their concerns about the safety of riding, walking and waiting on Salem Heights.

Determining if a TIA is needed for Salem Heights must be based on the current conditions of the street. Traffic volume cannot be isolated from the lack of improvements and the absence of sidewalks, curbs and bike lanes. Salem Heights may be a collector street, but it is unimproved, and the traffic volumes are comparable to that of improved local streets for which a TIA would be automatically required if the same level of additional trips was added to them.

The traffic problems on Salem Heights have been documented. The traffic volumes have been documented as has the long-standing condition of the street as an unimproved collector not up to urban standards. Speeding has been documented. So have concerns for pedestrian and/or bicyclist safety as evidenced by the lack of sidewalks and bike lanes and testimony by residents.

This Is Not The Way It Should Be Done.

Over the course of this proceeding information relevant to the application of 803.015 (b)(2) based on current conditions of the street have trickled in piece by piece. There has been no comprehensive analysis of whether or not this criterion applies to Salem Heights.

The criterion was completely ignored by the staff and the case manager in the June 6 decision. Staff merely concluded that the volume of traffic did not exceed the 1000 additional trips needed in 803.015 (b)(1) and therefore no TIA was required. They relied solely on the classification of the street, in spite of the fact that 803.015(b)(2) is based on the current conditions of the street regardless of classification.

This pattern continued even after appeals were filed. Staff's comments filed in response to the appeals again referred to previous staff conclusions regarding the 1000 added trips threshold and did not address 803.015 (b)(2) in any way.

The first time any part of the criterion was addressed was in a memo from the applicant's consulting traffic engineer in which he included the crash data and declared the crash and volume data did not indicate a traffic problem. At the same meeting the assistant traffic engineer opined that there really wasn't a "documented" safety problem and that the developer wasn't responsible for the existing issues on the street.

In the extended open record period, the staff addressed the TIA issue primarily in the context of the proposed barricade, reiterating that increased volumes were not significant while failing to consider the other factors such as the narrow lanes and lack of sidewalks and bike lanes.

At the same time staff warned that doing a TIA would delay a decision in the proceeding. Delay would not be necessary if staff would have done what they were supposed to do in the first place – analyze all the elements in 803.015(b)(2) to determine whether the criterion applied to Salem Heights in its current condition.

Instead the Council is faced with cobbling together information that is isolated from the other elements in the criteria. Traffic volumes are considered separate from other safety concerns such as speed, and lack of improvements. And the public, specifically the neighborhood, has not had the opportunity to assess any traffic study that takes all the elements into consideration.

That's not how the process should work. The only remedy is to do a TIA under 803.015(b)(2) based on the current conditions of the street. Applicants and staff have concluded that traffic volumes don't warrant further study, but there's sufficient evidence of volume, speeding, and safety concerns to find otherwise.

Basic Purpose Of A TIA Is Undermined

The basic purpose of the TIA is undermined by the staff and appellants arguments. In its Supplemental memo staff points out that with or without a barricade, "pedestrians and bicyclists will still have the ability to access Salem Heights Road to walk ride along the street if they choose." Again, the lack of sidewalks or bike lanes is ignored. The applicant and staff have focused on how the development provides sidewalks and bike lanes in the development but assumes that is enough. The reality is that the development will make it easy to get through the development, but it will add both vehicle, pedestrian and bicycle traffic to Salem Heights, which will still be without sidewalks and bike lanes.

Staff has maintained that the developer isn't responsible for existing conditions. But that is not the case. The purpose of a TIA, as stated in Sec. 803.015, is to ensure that a development that generates a significant amount of traffic provides the facilities necessary to accommodate the traffic impacts of the proposed development.

803.015 (c) states that "On-site and off-site public or private improvements necessary to address the impacts identified in the traffic impact analysis may be required as conditions of development approval."

It describes those improvements as including, but not limited to "street and intersection improvements, sidewalks, bike lanes, traffic control signs and signals, parking regulation, access controls, driveway approach location and design, and street lighting."

This section is clear. A developer may be responsible for off-site improvements necessary to address the impacts of the development on the conditions that exist in the surrounding area. That's why a TIA is necessary. Its purpose is to assess whether such off-site improvements are justified by the impact of the development. Given the existing conditions on Salem Heights one can't properly conclude that the application meets the requirements of ORS 205.010 without a TIA.

AN ADDENDUM:

There is concern over a comment in the Staff Supplemental testimony that the applicant's proposal to construct sidewalks behind the street trees could serve as a template for how the character of the street can be maintained. This was made in the context of noting that the City has begun a process to work with residents on what was referred to as the "City Salem Heights Ave S Cross-Section Project.

While moving the right-of-way and putting the sidewalks behind the trees to save them is something those concerned about the safety and character of Salem Heights would generally support, I believe residents are nervous that the sidewalks in the development and the collector cross-sections in the TSP will limit the flexibility they have in developing preferred alternative designs for street improvement.

Any order adopted by the Council should make it clear that the improvements on Salem Heights made by the applicant are not meant to predetermine the outcome of the refinement plan process and design of preferred alternatives for improvements to the rest of the street.

Amy Johnson

From: Olivia Glantz
Sent: Monday, August 05, 2019 3:29 PM
To: Amy Johnson
Subject: FW: Wren Heights SUB-ADJ 19-02
Attachments: Wren Heights Rebuttal Memo_080519.pdf

Categories: Follow-up

Olivia Glantz

Planner III

City of Salem | Community Development Department
555 Liberty St SE, Suite 305, Salem OR 97301
oglantz@cityofsalem.net | 503-540-2343
[Facebook](#) | [Twitter](#) | [YouTube](#) | [CityofSalem.net](#)

From: Nathan K. Riemersma [mailto:nathanr@sglaw.com]
Sent: Monday, August 05, 2019 3:27 PM
To: Olivia Glantz <OGlantz@cityofsalem.net>
Cc: Alan M. Sorem <asorem@sglaw.com>; Mark D. Shipman <MShipman@SGLaw.com>; Jennifer S. Marshall <jmarshall@sglaw.com>; Hannah F. Stevenson <HStevenson@sglaw.com>; Rhiya M. Grimmatt <rgrimmatt@sglaw.com>
Subject: Wren Heights SUB-ADJ 19-02

Olivia,

Attached please find a supplemental memo from traffic engineer Mike Ard for incorporation into the record in the Wren Heights Subdivision application. Please confirm receipt of this document.

Best,

Nathan K. Riemersma

Associate Attorney – Real Estate and Land Use



Park Place, Suite 200 | 250 Church Street SE | Salem, Oregon 97301
tel: 503.399.1070 | fax: 503.371.2927
[Email](#) | [Web](#)

This message & attachments hereto are privileged and confidential. Do not forward, copy, or print without authorization. Sender has scrubbed metadata from the attachment & recipient shall not scan for metadata erroneously remaining. If recipient does not agree to all conditions above, recipient shall delete this message & the attachments & notify sender by email.



21370 SW Langer Farms Pkwy
Suite 142, Sherwood, OR 97140

Technical Memorandum

To: Olivia Glantz, City of Salem Planning Department

EXPIRES: 12/31/19

From: Michael Ard, PE

Date: August 5, 2019

Re: Wren Heights Subdivision – Response to Open Record Comments

This memorandum is written in rebuttal of the comments received regarding the Wren Heights Subdivision project during the open record period that ended on Monday July 29, 2019.

Roadway Classification – Salem Heights Avenue

Project opponents have consistently argued that since Salem Heights Avenue S lacks the sidewalks and bike lanes that are currently required for new collector roadways in the City of Salem, that the roadway is “more comparable to a local street than a collector street” and therefore a traffic increase of 200 or more site trips per day should trigger the need for a TIA.

Salem Heights Avenue S is currently classified by the City of Salem as a collector roadway. As described previously in my analysis letter dated July 12, 2019, the function and carrying capacity of Salem Heights Avenue S are consistent with the classification as a collector roadway. Salem Heights Avenue S is a collector roadway in form, function and designation irrespective of whether it conforms to the city’s current cross-section requirements. Staff’s determination that the code standards applied to the Wren Heights Subdivision must reflect the road’s status as a collector roadway is both correct and appropriate. Any alternative determination would be unsupportable given the facts.

Traffic Volumes, Speeds, Pedestrian Safety and Bicycle Safety

Opponents have asserted that historical data collected along Salem Heights Avenue S shows a “documented safety problem” related to “...traffic volumes or speeds, and identified locations where pedestrian and/or bicyclist safety is a concern.” Under this alternative argument, a TIA should have been required for the proposed development due to factors other than the volume of traffic added to the roadway.

Mr. Euchus’ argument focuses on Section 803.015(b)(2) which reads:

“The increased traffic resulting from the development will contribute to documented traffic problems, based on current accident rates, traffic volumes or speeds, and identified locations where pedestrian and/or bicyclist safety is a concern.”



Mr. Euchus focuses on the second half of the statement, going as far as to underline the last half while completely ignoring the first part. This first part is the focus of our response. It reads “The traffic resulting from the development will contribute to documented traffic problems...”

In assessing whether a TIA is required, the city must conclude not only that there is an existing safety problem, but that the proposed development will contribute to the problem. In this case, we have previously demonstrated that examination of current accident rates and traffic volumes shows no indication of safety concerns. Accordingly, we will now focus on whether the proposed development can reasonably be expected to contribute to safety concerns related to speeds, pedestrians or bicycles.

Travel Speeds

Opposition testimony referenced travel speeds of 32 mph and 35 mph for locations along Salem Heights Avenue S. The anecdotal speed references were not accompanied by information regarding the location at which the speed data was collected. Applicant requested this data from the City, and it is attached hereto.

The speed data was collected in August 2018 at two locations along Salem Heights Avenue S, east of View Drive S and east of 6th Avenue S. The speed data was collected over a period of 9 consecutive days. The overall average and 85th percentile speeds over the 9-day study period were as follows:

Location	Average Speed		85th Percentile Speed	
	Westbound	Eastbound	Westbound	Eastbound
East of View Drive S	25.2	28.4	30	33.4
East of 6th Avenue S	29.7	30.3	34.4	35.9

The average recorded speeds ranged from approximately 25 to 30 mph. The 85th percentile speeds ranged from 28 to 36 mph. The 85th percentile speed represents the speed at or below which 85 percent of drivers are traveling. The 85th percentile speed is commonly used as the design speed by engineers since it encompasses the behavior of the majority of motorists while acknowledging that those traveling at the fastest speeds may not be driving in a manner that can be considered reasonable and prudent to driving conditions.

Speed data alone is not evidence of a safety problem, although speeds in excess of the 85th percentile speed or more than 10 mph over the posted limit typically should be subject to increased enforcement, traffic calming, or re-evaluation of the appropriate posted speed limit. In this instance, the speed of through traffic on Salem Heights Avenue S has not resulted in any apparent increase in crash risk in the site vicinity, since the historical crash rate is well below statewide averages for similar facilities.



Although it is not clear that the existing speeds on Salem Heights Avenue are causing a safety problem, even if the existing speeds on Salem Heights Avenue S were deemed to constitute a documented traffic problem, the proposed subdivision would need to contribute to the traffic problem in order to trigger the need for a Traffic Impact Analysis.

In this instance, the proposed Wren Heights Subdivision will add a new public intersection along Salem Heights Avenue S, roughly halfway between its western terminus at Sunridge Drive S and the stop-controlled intersection at Liberty Road S. The presence of an additional intersection along an existing roadway tends to result in a slight decrease in through travel speeds, as does an increase in traffic volume and an increase in apparent roadside density. All three factors point to the likelihood that the proposed development would result in a slight decrease in the through travel speeds of existing traffic traveling along Salem Heights Avenue S.

For new trips associated with the Wren Heights Subdivision, an even more significant decrease in travel speeds would be expected. The majority of site trips will travel along Salem Heights Avenue S between Doughton Street S extension and Liberty Road S. This street segment has a length of approximately one quarter mile. When exiting the Wren Heights Subdivision, new trips will be required to stop prior to entering Salem Heights Avenue. New trips entering the proposed subdivision will similarly need to slow prior to turning onto Doughton Street S. In either instance, the travel speeds of site vehicles in the vicinity of Doughton Street will be substantially lower than the speeds of through vehicles. Since the running distances for new site trips are also approximately half the distance of through trips traveling along Salem Heights Avenue the projected speeds along Salem Heights Avenue S would also be lower than those for through traffic traveling the full length of the street. Accordingly, travel speeds associated with new trip to and from the proposed Wren Heights Subdivision will generally be lower than those associated with existing through traffic.

Based on the analysis, irrespective of whether there is an existing speed problem on Salem Heights Avenue S, the proposed Wren Heights Subdivision would not be expected to contribute to a traffic problem related to speed. Therefore, an existing speed problem on Salem Heights Avenue S could not be used to justify a request for a TIA in conjunction with the proposed Wren Heights Subdivision.

Pedestrians and Bicycles

As stated during the public hearing, the proposed development will include a new local street connection between Salem Heights Avenue S and Missouri Avenue S. This new roadway segment will carry relatively low traffic volumes at low travel speeds and will include sidewalks on both sides of the roadway in conformance with the city's current standards for new local streets. The new roadway connection will do two key things with respect to non-motorized traffic:



- 1) It will provide safe and convenient bicycle and pedestrian access from within the subdivision to adjacent residential areas, transit stops and neighborhood activity centers within one half mile of the site.
- 2) It will provide a safe new street connection for existing residents in the site vicinity allowing them a new convenient option to avoid travel along Salem Heights Avenue S east of Doughton Street.

This new connection will be augmented by the new sidewalk provided on the north side of Salem Heights Avenue S which will extend along the entire site frontage, thereby providing a new safe connection between Liberty Road S and the western side of the Wren Heights Subdivision.

Based on these factors, completion of the proposed Wren Heights Subdivision would be projected to result in an increase in safe travel options for pedestrians and bicyclists in the site vicinity. As such, existing safety concerns regarding pedestrians and cyclists on Salem Heights Avenue S also cannot be used to justify a request for a TIA in conjunction with the proposed Wren Heights Subdivision.

Conclusions

Based on the analysis of the functional classification of Salem Heights Avenue S, it is clear that the roadway has been and remains designated as a collector. Based on this designation, the volume of site traffic added as a result of the proposed subdivision does not trigger the need for a TIA per city code requirements.

The proposed development will not contribute to documented safety problems and is projected to positively impact safety in the site vicinity. Accordingly, city staff's determination that a TIA is not required in conjunction with the Wren Heights Subdivision is appropriate and in keeping with the requirements of city code.

Appendix

City of Salem, OR
555 Liberty St SE / Rm 325
Salem, OR 97301-3503

2018020
8/23/2018
Thursday

Street: SALEM HEIGHTS AVENUE S
Cross St: East of View Drive S
Weather: Sunny

Site:
Date:

Daily Volume

Begin	EBD	WBD	Combined	Begin	EBD	WBD	Combined
12:00 AM	-	-	-	12:00 PM	-	-	-
12:15 AM	-	-	-	12:15 PM	-	-	-
12:30 AM	-	-	-	12:30 PM	-	-	-
12:45 AM	-	-	-	12:45 PM	-	-	-
1:00 AM	-	-	-	1:00 PM	-	-	-
1:15 AM	-	-	-	1:15 PM	-	-	-
1:30 AM	-	-	-	1:30 PM	-	-	-
1:45 AM	-	-	-	1:45 PM	-	-	-
2:00 AM	-	-	-	2:00 PM	-	-	-
2:15 AM	-	-	-	2:15 PM	-	-	-
2:30 AM	-	-	-	2:30 PM	-	-	-
2:45 AM	-	-	-	2:45 PM	-	-	-
3:00 AM	-	-	-	3:00 PM	-	35	37
3:15 AM	-	-	-	3:15 PM	2	5	7
3:30 AM	-	-	-	3:30 PM	16	18	34
3:45 AM	-	-	-	3:45 PM	17	14	31
4:00 AM	-	-	-	4:00 PM	16	22	38
4:15 AM	-	-	-	4:15 PM	15	22	37
4:30 AM	-	-	-	4:30 PM	11	17	28
4:45 AM	-	-	-	4:45 PM	23	15	38
5:00 AM	-	-	-	5:00 PM	19	72	95
5:15 AM	-	-	-	5:15 PM	16	21	37
5:30 AM	-	-	-	5:30 PM	24	28	52
5:45 AM	-	-	-	5:45 PM	13	20	33
6:00 AM	-	-	-	6:00 PM	11	45	64
6:15 AM	-	-	-	6:15 PM	10	19	29
6:30 AM	-	-	-	6:30 PM	12	17	29
6:45 AM	-	-	-	6:45 PM	12	12	24
7:00 AM	-	-	-	7:00 PM	10	46	57
7:15 AM	-	-	-	7:15 PM	11	11	22
7:30 AM	-	-	-	7:30 PM	13	18	31
7:45 AM	-	-	-	7:45 PM	12	14	26
8:00 AM	-	-	-	8:00 PM	11	28	50
8:15 AM	-	-	-	8:15 PM	6	12	18
8:30 AM	-	-	-	8:30 PM	8	13	21
8:45 AM	-	-	-	8:45 PM	3	14	17
9:00 AM	-	-	-	9:00 PM	6	16	30
9:15 AM	-	-	-	9:15 PM	8	9	17
9:30 AM	-	-	-	9:30 PM	1	7	8
9:45 AM	-	-	-	9:45 PM	1	4	5
10:00 AM	-	-	-	10:00 PM	1	12	16
10:15 AM	-	-	-	10:15 PM	6	2	8
10:30 AM	-	-	-	10:30 PM	4	0	4
10:45 AM	-	-	-	10:45 PM	1	7	8
11:00 AM	-	-	-	11:00 PM	1	3	4
11:15 AM	-	-	-	11:15 PM	0	1	1
11:30 AM	-	-	-	11:30 PM	3	1	4
11:45 AM	-	-	-	11:45 PM	3	1	4
24 Hour Volume				Combined			
				757			

Combined
757

12:00 AM - 12:00 PM

12:00 PM - 12:00 AM

Count
Peak Hour
Volume
Factor

Combined
757
4:45 PM
172
0.83

EBD
326
43.1 %
4:45 PM
82
0.85

Combined
0

WBD
0

Count
Peak Hour
Volume
Factor

City of Salem, OR
555 Liberty St SE / Rm 325
Salem, OR 97301-3503

Street: SALEM HEIGHTS AVENUE S
Cross St: East of View Drive S
Weather: Sunny
Site: 2018020
Date: 8/24/2018
Friday

Daily Volume									
Begin	EBD	WBD	Combined	Begin	EBD	WBD	Combined	Begin	EBD
12:00 AM	1	3	4	12:00 PM	15	62	19	12:00 PM	15
12:15 AM	0	0	0	12:15 PM	13	23	19	12:15 PM	13
12:30 AM	1	1	2	12:30 PM	19	22	22	12:30 PM	19
12:45 AM	1	0	1	12:45 PM	15	18	15	12:45 PM	15
1:00 AM	1	3	4	1:00 PM	14	68	15	1:00 PM	14
1:15 AM	0	0	0	1:15 PM	15	30	15	1:15 PM	15
1:30 AM	1	1	2	1:30 PM	13	33	13	1:30 PM	13
1:45 AM	1	1	2	1:45 PM	19	30	11	1:45 PM	19
2:00 AM	1	4	5	2:00 PM	13	49	12	2:00 PM	13
2:15 AM	2	1	3	2:15 PM	14	22	22	2:15 PM	14
2:30 AM	1	1	2	2:30 PM	14	29	15	2:30 PM	14
2:45 AM	0	0	0	2:45 PM	8	24	16	2:45 PM	8
3:00 AM	1	5	6	3:00 PM	8	60	15	3:00 PM	8
3:15 AM	0	1	1	3:15 PM	15	39	24	3:15 PM	15
3:30 AM	0	0	0	3:30 PM	19	40	21	3:30 PM	19
3:45 AM	4	0	4	3:45 PM	18	41	23	3:45 PM	18
4:00 AM	3	10	13	4:00 PM	17	63	18	4:00 PM	17
4:15 AM	1	2	3	4:15 PM	11	29	18	4:15 PM	11
4:30 AM	4	0	4	4:30 PM	14	34	20	4:30 PM	14
4:45 AM	2	0	2	4:45 PM	21	35	14	4:45 PM	21
5:00 AM	0	14	14	5:00 PM	10	62	21	5:00 PM	10
5:15 AM	1	0	1	5:15 PM	15	37	22	5:15 PM	15
5:30 AM	2	0	2	5:30 PM	13	24	19	5:30 PM	13
5:45 AM	11	1	12	5:45 PM	24	45	21	5:45 PM	24
6:00 AM	5	35	40	6:00 PM	17	54	34	6:00 PM	17
6:15 AM	6	3	9	6:15 PM	16	31	34	6:15 PM	16
6:30 AM	8	0	8	6:30 PM	13	18	19	6:30 PM	13
6:45 AM	16	1	17	6:45 PM	8	18	10	6:45 PM	8
7:00 AM	10	44	54	7:00 PM	9	88	11	7:00 PM	9
7:15 AM	12	6	18	7:15 PM	10	24	14	7:15 PM	10
7:30 AM	11	4	15	7:30 PM	8	24	16	7:30 PM	8
7:45 AM	11	10	21	7:45 PM	10	20	10	7:45 PM	10
8:00 AM	15	72	87	8:00 PM	8	89	10	8:00 PM	8
8:15 AM	21	9	30	8:15 PM	14	28	14	8:15 PM	14
8:30 AM	12	4	16	8:30 PM	8	18	10	8:30 PM	8
8:45 AM	24	9	33	8:45 PM	8	25	17	8:45 PM	8
9:00 AM	10	57	67	9:00 PM	8	42	4	9:00 PM	8
9:15 AM	15	8	23	9:15 PM	0	3	3	9:15 PM	0
9:30 AM	11	9	20	9:30 PM	5	11	6	9:30 PM	5
9:45 AM	21	8	29	9:45 PM	4	16	12	9:45 PM	4
10:00 AM	9	63	72	10:00 PM	6	39	8	10:00 PM	6
10:15 AM	23	11	34	10:15 PM	3	12	9	10:15 PM	3
10:30 AM	19	22	41	10:30 PM	2	6	4	10:30 PM	2
10:45 AM	12	19	31	10:45 PM	2	7	5	10:45 PM	2
11:00 AM	16	66	82	11:00 PM	3	31	6	11:00 PM	3
11:15 AM	18	7	25	11:15 PM	3	6	3	11:15 PM	3
11:30 AM	15	14	29	11:30 PM	3	8	5	11:30 PM	3
11:45 AM	17	19	36	11:45 PM	5	8	3	11:45 PM	5

24 Hour Volume									
Count	EBD	WBD	Combined	Count	EBD	WBD	Combined	Count	EBD
61.2 %	376	238	614	56.2 %	537	688	1225	5:15 PM	165
8:00 AM	72	69	139	5:15 PM	70	96	165	5:15 PM	165
0.75	0.75	0.78	0.85	0.71	0.73	0.71	0.81	0.81	0.81
12:00 AM - 12:00 PM									
Count	EBD	WBD	Combined	Count	EBD	WBD	Combined	Count	EBD
38.8 %	238	238	476	43.8 %	537	688	1225	5:15 PM	165
10:15 AM	69	69	139	5:15 PM	70	96	165	5:15 PM	165
0.78	0.78	0.78	0.85	0.71	0.73	0.71	0.81	0.81	0.81

City of Salem, OR
555 Liberty St SE / Rm 325
Salem, OR 97301-3503

Street: SALEM HEIGHTS AVENUE S
Cross St: East of View Drive S
Weather: Sunny
Site: 2018020
Date: 8/25/2018
Saturday

Daily Volume

Begin	EBD	WBD	Combined	Begin	EBD	WBD	Combined
12:00 AM	2	5	3	10	15	25	62
12:15 AM	1		3	12:00 PM	15	15	51
12:30 AM	1		3	12:15 PM	11	11	24
12:45 AM	1		3	12:30 PM	12	13	25
1:00 AM	0		3	12:45 PM	12	12	24
1:15 AM	0		3	1:00 PM	14	10	68
1:30 AM	1		3	1:15 PM	12	24	36
1:45 AM	2		3	1:30 PM	23	31	31
2:00 AM	0		3	1:45 PM	23	26	49
2:15 AM	2		3	2:00 PM	14	19	69
2:30 AM	0		3	2:15 PM	15	15	34
2:45 AM	1		3	2:30 PM	8	22	30
3:00 AM	0		3	2:45 PM	8	13	21
3:15 AM	1		3	3:00 PM	11	22	33
3:30 AM	0		3	3:15 PM	7	10	17
3:45 AM	0		3	3:30 PM	18	10	28
4:00 AM	0		3	3:45 PM	12	12	24
4:15 AM	2		3	4:00 PM	11	18	29
4:30 AM	1		3	4:15 PM	13	12	25
4:45 AM	0		3	4:30 PM	10	15	25
5:00 AM	1		3	4:45 PM	20	10	30
5:15 AM	0		3	5:00 PM	19	16	71
5:30 AM	1		3	5:15 PM	16	18	34
5:45 AM	0		3	5:30 PM	8	20	28
6:00 AM	3	15	1	5:45 PM	8	17	25
6:15 AM	4		1	6:00 PM	9	18	27
6:30 AM	6		1	6:15 PM	11	14	25
6:45 AM	2		1	6:30 PM	9	14	23
7:00 AM	7	27	2	6:45 PM	9	15	24
7:15 AM	9		2	7:00 PM	5	10	45
7:30 AM	8		2	7:15 PM	8	15	23
7:45 AM	3		2	7:30 PM	13	11	24
8:00 AM	5	36	9	7:45 PM	8	9	17
8:15 AM	9		9	8:00 PM	7	16	23
8:30 AM	9		5	8:15 PM	7	7	14
8:45 AM	13		12	8:30 PM	5	9	14
9:00 AM	12	60	11	8:45 PM	6	8	14
9:15 AM	13		10	9:00 PM	7	7	33
9:30 AM	18		14	9:15 PM	3	8	11
9:45 AM	17		9	9:30 PM	2	10	12
10:00 AM	14	59	10	9:45 PM	9	8	17
10:15 AM	11		14	10:00 PM	3	4	21
10:30 AM	13		12	10:15 PM	1	5	6
10:45 AM	21		13	10:30 PM	2	8	10
11:00 AM	20	70	18	10:45 PM	5	4	9
11:15 AM	14		16	11:00 PM	2	3	11
11:30 AM	21		16	11:15 PM	2	5	7
11:45 AM	15		16	11:30 PM	2	2	4
				11:45 PM	0	1	1
24 Hour Volume				Combined			
				1566			
				EBD			
				471			
				WBD			
				579			
				Combined			
				1050			
				Count			
				284			
				55.0 %			
				10:45 AM			
				76			
				0.90			
				Peak Hour			
				Volume			
				139			
				Factor			
				0.91			
				12:00 AM - 12:00 PM			
				WBD			
				232			
				45.0 %			
				11:00 AM			
				66			
				0.92			
				12:00 PM - 12:00 AM			
				WBD			
				579			
				55.1 %			
				1:45 PM			
				82			
				0.79			
				1:15 PM			
				149			
				0.76			

Street: SALEM HEIGHTS AVENUE S
Cross St: East of View Drive S
Weather: Sunny

Site: 2018020
Date: 8/27/2018
Monday

Daily Volume									
Begin	EBD	WBD	Combined	Begin	EBD	WBD	Combined		
12:00 AM	1	3	2	12:00 PM	11	22	33	66	125
12:15 AM	2	1	3	12:15 PM	17	24	41		
12:30 AM	0	1	1	12:30 PM	21	11	32		
12:45 AM	0	0	0	12:45 PM	10	9	19		
1:00 AM	0	2	0	1:00 PM	17	17	34	61	115
1:15 AM	0	0	0	1:15 PM	6	17	23		
1:30 AM	0	0	0	1:30 PM	12	14	26		
1:45 AM	2	0	2	1:45 PM	19	13	32		
2:00 AM	1	1	3	2:00 PM	13	23	36	65	120
2:15 AM	0	0	0	2:15 PM	9	7	16		
2:30 AM	0	1	1	2:30 PM	13	20	33		
2:45 AM	0	2	2	2:45 PM	20	15	35		
3:00 AM	1	1	1	3:00 PM	8	15	23	64	116
3:15 AM	0	0	0	3:15 PM	11	15	26		
3:30 AM	0	1	1	3:30 PM	16	17	33		
3:45 AM	0	0	0	3:45 PM	17	17	34		
4:00 AM	1	6	0	4:00 PM	11	20	31	82	133
4:15 AM	2	0	2	4:15 PM	13	25	38		
4:30 AM	2	0	2	4:30 PM	9	17	26		
4:45 AM	1	0	1	4:45 PM	18	20	38		
5:00 AM	1	17	2	5:00 PM	24	28	52	106	176
5:15 AM	1	0	1	5:15 PM	15	24	39		
5:30 AM	5	0	5	5:30 PM	18	33	51		
5:45 AM	10	1	11	5:45 PM	13	21	34		
6:00 AM	3	29	5	6:00 PM	9	19	28	72	116
6:15 AM	10	4	14	6:15 PM	7	17	24		
6:30 AM	6	2	8	6:30 PM	16	16	32		
6:45 AM	10	1	11	6:45 PM	12	20	32		
7:00 AM	14	61	21	7:00 PM	17	17	34	50	105
7:15 AM	15	4	19	7:15 PM	18	10	28		
7:30 AM	15	8	23	7:30 PM	12	14	26		
7:45 AM	17	5	22	7:45 PM	8	9	17		
8:00 AM	7	53	15	8:00 PM	13	19	32	36	67
8:15 AM	16	5	21	8:15 PM	8	7	15		
8:30 AM	12	5	17	8:30 PM	5	6	11		
8:45 AM	18	1	19	8:45 PM	5	4	9		
9:00 AM	9	47	21	9:00 PM	2	10	12	28	40
9:15 AM	17	7	24	9:15 PM	5	4	9		
9:30 AM	10	11	21	9:30 PM	1	7	8		
9:45 AM	11	2	13	9:45 PM	4	7	11		
10:00 AM	14	34	24	10:00 PM	0	7	7	19	26
10:15 AM	7	14	21	10:15 PM	4	2	6		
10:30 AM	3	12	15	10:30 PM	2	5	7		
10:45 AM	10	14	24	10:45 PM	1	5	6		
11:00 AM	15	52	26	11:00 PM	3	3	6	8	23
11:15 AM	9	11	20	11:15 PM	4	1	5		
11:30 AM	16	12	28	11:30 PM	3	1	4		
11:45 AM	12	16	28	11:45 PM	5	3	8		
24 Hour Volume				Combined				1661	
				EBD				811 (48.8%)	
				WBD				850 (51.2%)	
				Combined				1661	
				EBD				505	
				WBD				657	
				Combined				1162	
				EBD				43.5 %	
				WBD				56.5 %	
				Combined				5:00 PM	
				EBD				75	
				WBD				106	
				Combined				0.87	
				EBD				0.78	
				WBD				0.80	
				Combined				0.87	
				EBD				0.87	
				WBD				0.87	
				Combined				0.87	
				EBD				0.87	
				WBD				0.87	
				Combined				0.87	
				EBD				0.87	
				WBD				0.87	
				Combined				0.87	
				EBD				0.87	
				WBD				0.87	
				Combined				0.87	
				EBD				0.87	
				WBD				0.87	
				Combined				0.87	
				EBD				0.87	
				WBD				0.87	
				Combined				0.87	
				EBD				0.87	
				WBD				0.87	
				Combined				0.87	
				EBD				0.87	
				WBD				0.87	
				Combined				0.87	
				EBD				0.87	
				WBD				0.87	
				Combined				0.87	
				EBD				0.87	
				WBD				0.87	
				Combined				0.87	
				EBD				0.87	
				WBD				0.87	
				Combined				0.87	
				EBD				0.87	
				WBD				0.87	
				Combined				0.87	
				EBD				0.87	
				WBD				0.87	
				Combined				0.87	
				EBD				0.87	
				WBD				0.87	
				Combined				0.87	
				EBD				0.87	
				WBD				0.87	
				Combined				0.87	
				EBD				0.87	
				WBD				0.87	
				Combined				0.87	
				EBD				0.87	
				WBD				0.87	
				Combined				0.87	
				EBD				0.87	
				WBD				0.87	
				Combined				0.87	
				EBD				0.87	
				WBD				0.87	
				Combined				0.87	
				EBD				0.87	
				WBD				0.87	
				Combined				0.87	
				EBD				0.87	
				WBD				0.87	
				Combined				0.87	
				EBD				0.87	
				WBD				0.87	
				Combined				0.87	
				EBD				0.87	
				WBD				0.87	
				Combined				0.87	
				EBD				0.87	
				WBD				0.87	
				Combined				0.87	
				EBD				0.87	
				WBD				0.87	
				Combined				0.87	
				EBD				0.87	
				WBD				0.87	
				Combined				0.87	
				EBD				0.87	
				WBD				0.87	
				Combined				0.87	
				EBD				0.87	
				WBD				0.87	
				Combined				0.87	
				EBD				0.87	
				WBD				0.87	
				Combined				0.87	
				EBD				0.87	
				WBD				0.87	
				Combined				0.87	
				EBD				0.87	
				WBD				0.87	
				Combined				0.87	
				EBD				0.87	
				WBD					

City of Salem, OR
555 Liberty St SE / Rm 325
Salem, OR 97301-3503

Street: SALEM HEIGHTS AVENUE S
Cross St: East of View Drive S
Weather: Sunny

Site: 2018020
Date: 8/28/2018
Tuesday

Daily Volume

Begin	EBD	WBD	Combined	Begin	EBD	WBD	Combined
12:00 AM	3	5	12	12:00 PM	11	59	70
12:15 AM	1	4	5	12:15 PM	22	64	86
12:30 AM	0	0	0	12:30 PM	14	16	30
12:45 AM	1	1	2	12:45 PM	15	15	29
1:00 AM	0	0	1	1:00 PM	12	64	76
1:15 AM	0	3	3	1:15 PM	13	13	26
1:30 AM	0	1	1	1:30 PM	16	19	35
1:45 AM	0	1	1	1:45 PM	18	15	33
2:00 AM	2	2	4	2:00 PM	12	54	66
2:15 AM	0	1	1	2:15 PM	9	11	20
2:30 AM	0	0	0	2:30 PM	16	12	28
2:45 AM	0	0	0	2:45 PM	17	11	28
3:00 AM	0	1	1	3:00 PM	13	52	65
3:15 AM	1	0	1	3:15 PM	16	21	37
3:30 AM	0	1	1	3:30 PM	15	15	30
3:45 AM	0	1	1	3:45 PM	8	18	26
4:00 AM	1	3	4	4:00 PM	19	62	81
4:15 AM	0	1	1	4:15 PM	13	24	37
4:30 AM	1	0	1	4:30 PM	14	22	36
4:45 AM	1	0	1	4:45 PM	16	22	38
5:00 AM	1	14	15	5:00 PM	15	56	71
5:15 AM	2	0	2	5:15 PM	18	22	40
5:30 AM	2	0	2	5:30 PM	12	29	41
5:45 AM	9	0	9	5:45 PM	11	20	31
6:00 AM	5	37	42	6:00 PM	18	50	68
6:15 AM	5	2	7	6:15 PM	16	20	36
6:30 AM	9	1	10	6:30 PM	10	19	29
6:45 AM	18	5	23	6:45 PM	6	12	18
7:00 AM	14	72	86	7:00 PM	7	42	49
7:15 AM	20	9	29	7:15 PM	15	20	35
7:30 AM	18	5	23	7:30 PM	11	16	27
7:45 AM	20	8	28	7:45 PM	9	5	14
8:00 AM	17	60	77	8:00 PM	10	27	37
8:15 AM	8	7	15	8:15 PM	6	9	15
8:30 AM	16	10	26	8:30 PM	9	10	19
8:45 AM	19	11	30	8:45 PM	2	8	10
9:00 AM	18	63	81	9:00 PM	7	15	22
9:15 AM	14	12	26	9:15 PM	3	7	10
9:30 AM	9	13	22	9:30 PM	1	7	8
9:45 AM	22	6	28	9:45 PM	4	8	12
10:00 AM	15	54	69	10:00 PM	1	5	6
10:15 AM	10	18	28	10:15 PM	1	4	5
10:30 AM	15	7	22	10:30 PM	2	3	5
10:45 AM	14	8	22	10:45 PM	1	6	7
11:00 AM	8	59	67	11:00 PM	3	7	10
11:15 AM	26	15	41	11:15 PM	0	4	4
11:30 AM	11	14	25	11:30 PM	1	1	2
11:45 AM	14	19	33	11:45 PM	3	2	5

24 Hour Volume EBD 370 WBD 233 Combined 603
863 (49.9%) 867 (50.1%)

12:00 AM - 12:00 PM

Count EBD 370 WBD 233 Combined 603
61.4 % 38.6 %
Peak Hour Volume 7:15 AM 11:00 AM
Factor 75 123 0.84 0.75

12:00 PM - 12:00 AM

Count EBD 493 WBD 634 Combined 1127
43.7 % 56.3 %
Peak Hour Volume 1:00 PM 5:15 PM
Factor 64 96 0.83 0.90

City of Salem, OR
555 Liberty St SE / Rm 325
Salem, OR 97301-3503

Street: SALEM HEIGHTS AVENUE S
Cross St: East of View Drive S
Weather: Sunny

Site: 2018020
Date: 8/29/2018
Wednesday

Daily Volume									
Begin	EBD	WBD	Combined	Begin	EBD	WBD	Combined	Begin	EBD
12:00 AM	2	4	3	8	12	5	12	12:00 PM	14
12:15 AM	2	3	3	5	12	5	12	12:15 PM	16
12:30 AM	0	1	1	1	12:30 PM	9	19	12:30 PM	19
12:45 AM	0	1	1	1	12:45 PM	16	32	12:45 PM	16
1:00 AM	0	1	1	1	1:00 PM	8	70	1:00 PM	11
1:15 AM	0	1	1	1	1:15 PM	21	52	1:15 PM	8
1:30 AM	0	1	1	1	1:30 PM	20	15	1:30 PM	15
1:45 AM	1	1	1	2	1:45 PM	21	18	1:45 PM	18
2:00 AM	0	2	0	0	2:00 PM	21	64	2:00 PM	10
2:15 AM	2	2	2	4	2:15 PM	8	18	2:15 PM	18
2:30 AM	0	0	0	0	2:30 PM	19	22	2:30 PM	22
2:45 AM	0	1	1	1	2:45 PM	16	19	2:45 PM	19
3:00 AM	0	0	0	3	3:00 PM	11	61	3:00 PM	15
3:15 AM	0	0	0	0	3:15 PM	8	21	3:15 PM	21
3:30 AM	0	1	1	1	3:30 PM	19	23	3:30 PM	23
3:45 AM	0	2	2	2	3:45 PM	23	14	3:45 PM	14
4:00 AM	1	6	1	2	4:00 PM	16	59	4:00 PM	11
4:15 AM	2	1	1	3	4:15 PM	10	17	4:15 PM	17
4:30 AM	2	0	0	2	4:30 PM	19	21	4:30 PM	21
4:45 AM	1	0	0	1	4:45 PM	14	30	4:45 PM	30
5:00 AM	0	15	0	3	5:00 PM	12	56	5:00 PM	20
5:15 AM	1	0	0	1	5:15 PM	19	20	5:15 PM	20
5:30 AM	3	2	2	5	5:30 PM	14	26	5:30 PM	26
5:45 AM	11	1	1	12	5:45 PM	11	31	5:45 PM	31
6:00 AM	5	43	2	17	6:00 PM	24	74	6:00 PM	18
6:15 AM	9	3	3	12	6:15 PM	18	22	6:15 PM	22
6:30 AM	18	5	5	23	6:30 PM	14	29	6:30 PM	29
6:45 AM	11	7	7	18	6:45 PM	18	14	6:45 PM	14
7:00 AM	14	54	2	17	7:00 PM	10	44	7:00 PM	18
7:15 AM	13	4	4	17	7:15 PM	10	21	7:15 PM	21
7:30 AM	16	5	5	21	7:30 PM	9	17	7:30 PM	17
7:45 AM	11	6	6	17	7:45 PM	15	12	7:45 PM	12
8:00 AM	11	68	8	33	8:00 PM	5	29	8:00 PM	11
8:15 AM	21	6	6	19	8:15 PM	10	15	8:15 PM	15
8:30 AM	16	6	6	22	8:30 PM	6	19	8:30 PM	19
8:45 AM	20	13	13	33	8:45 PM	8	12	8:45 PM	12
9:00 AM	19	53	4	26	9:00 PM	4	15	9:00 PM	10
9:15 AM	12	4	4	24	9:15 PM	4	7	9:15 PM	7
9:30 AM	13	5	5	18	9:30 PM	2	6	9:30 PM	6
9:45 AM	9	5	5	14	9:45 PM	5	5	9:45 PM	5
10:00 AM	12	43	7	43	10:00 PM	1	10	10:00 PM	5
10:15 AM	11	8	8	19	10:15 PM	1	4	10:15 PM	4
10:30 AM	10	12	12	22	10:30 PM	5	5	10:30 PM	5
10:45 AM	10	16	16	26	10:45 PM	3	1	10:45 PM	1
11:00 AM	12	50	18	64	11:00 PM	0	4	11:00 PM	3
11:15 AM	13	10	10	23	11:15 PM	1	2	11:15 PM	2
11:30 AM	11	13	13	24	11:30 PM	1	3	11:30 PM	3
11:45 AM	14	23	23	37	11:45 PM	2	2	11:45 PM	2

24 Hour Volume 876 (48.7%)
12:00 AM - 12:00 PM 924 (51.3%)
Combined 1800

Count	EBD	WBD	Combined
	339	223	562
Peak Hour	8:15 AM	11:00 AM	11:00 AM
Volume	76	64	114
Factor	0.90	0.70	0.77
	EBD	WBD	Combined
	537	701	1238
	43.4 %	56.6 %	
	1:15 PM	5:45 PM	5:45 PM
	83	100	167
	0.99	0.81	0.97

City of Salem, OR
555 Liberty St SE / Rm 325
Salem, OR 97301-3503

Street: SALEM HEIGHTS AVENUE S
Cross St: East of View Drive S
Weather: Sunny

Site: 2018020
Date: 8/30/2018
Thursday

Daily Volume

Begin	EBD	WBD	Combined	Begin	EBD	WBD	Combined
12:00 AM	3	4	7	12:00 PM	9	70	79
12:15 AM	0	2	2	12:15 PM	14	25	39
12:30 AM	0	2	2	12:30 PM	24	11	35
12:45 AM	1	0	1	12:45 PM	23	23	46
1:00 AM	0	0	0	1:00 PM	20	52	72
1:15 AM	0	0	0	1:15 PM	5	11	16
1:30 AM	0	0	0	1:30 PM	16	11	27
1:45 AM	1	0	1	1:45 PM	11	22	33
2:00 AM	2	1	3	2:00 PM	18	69	87
2:15 AM	0	0	0	2:15 PM	24	17	41
2:30 AM	0	0	0	2:30 PM	13	15	28
2:45 AM	0	2	2	2:45 PM	14	12	26
3:00 AM	4	2	6	3:00 PM	12	62	74
3:15 AM	0	1	1	3:15 PM	22	13	35
3:30 AM	1	0	1	3:30 PM	15	25	40
3:45 AM	2	0	2	3:45 PM	13	23	36
4:00 AM	0	0	0	4:00 PM	16	70	86
4:15 AM	0	0	0	4:15 PM	12	24	36
4:30 AM	1	0	1	4:30 PM	19	15	34
4:45 AM	1	2	3	4:45 PM	23	23	46
5:00 AM	2	0	2	5:00 PM	17	71	88
5:15 AM	3	2	5	5:15 PM	17	23	40
5:30 AM	4	0	4	5:30 PM	23	43	66
5:45 AM	9	2	11	5:45 PM	14	27	41
6:00 AM	6	1	7	6:00 PM	13	28	41
6:15 AM	9	2	11	6:15 PM	5	15	20
6:30 AM	12	3	15	6:30 PM	11	19	30
6:45 AM	17	7	24	6:45 PM	14	14	28
7:00 AM	16	4	20	7:00 PM	10	42	52
7:15 AM	17	4	21	7:15 PM	10	7	17
7:30 AM	21	9	30	7:30 PM	16	16	32
7:45 AM	18	12	30	7:45 PM	12	14	26
8:00 AM	14	5	19	8:00 PM	6	25	31
8:15 AM	11	5	16	8:15 PM	6	17	23
8:30 AM	7	7	14	8:30 PM	6	12	18
8:45 AM	24	7	31	8:45 PM	7	9	16
9:00 AM	21	11	32	9:00 PM	1	8	9
9:15 AM	16	11	27	9:15 PM	4	20	24
9:30 AM	11	8	19	9:30 PM	3	8	11
9:45 AM	14	11	25	9:45 PM	0	3	3
10:00 AM	14	15	29	10:00 PM	1	8	9
10:15 AM	15	9	24	10:15 PM	3	5	8
10:30 AM	11	14	25	10:30 PM	1	2	3
10:45 AM	11	11	22	10:45 PM	3	7	10
11:00 AM	8	13	21	11:00 PM	1	4	5
11:15 AM	15	16	31	11:15 PM	2	2	4
11:30 AM	16	17	33	11:30 PM	2	3	5
11:45 AM	20	15	35	11:45 PM	3	0	3

24 Hour Volume EBD 906 (50.1%) WBD 902 (49.9%) Combined 1808

12:00 AM - 12:00 PM

12:00 PM - 12:00 AM

Count EBD 378 WBD 237 Combined 615
Peak Hour Volume Factor 61.5 % 38.5 % 11:00 AM 12:00 AM 12:15 PM 5:15 PM 5:15 PM
72 61 81 165 165
0.86 0.90 0.86 0.88 0.96

Combined EBD 528 WBD 665 Combined 1193
44.3 % 55.7 %
12:15 PM 5:15 PM 5:15 PM
81 98 165
0.84 0.88 0.96

City of Salem, OR
555 Liberty St SE / Rm 325
Salem, OR 97301-3503

Street: SALEM HEIGHTS AVENUE S
Cross St: East of View Drive S
Weather: Sunny

Site: 2018020
Date: 8/31/2018
Friday

Daily Volume

Begin	EBD	WBD	Combined	Begin	EBD	WBD	Combined
12:00 AM	1	4	5	12:00 PM	17	14	31
12:15 AM	2	3	5	12:15 PM	17	13	30
12:30 AM	0	0	0	12:30 PM	16	21	37
12:45 AM	1	2	3	12:45 PM	19	17	36
1:00 AM	0	0	0	1:00 PM	9	62	20
1:15 AM	1	1	2	1:15 PM	25	17	42
1:30 AM	0	0	0	1:30 PM	13	25	38
1:45 AM	0	0	0	1:45 PM	15	17	32
2:00 AM	0	0	0				
2:15 AM	0	0	0				
2:30 AM	0	0	0				
2:45 AM	0	1	1				
3:00 AM	1	2	3				
3:15 AM	0	0	0				
3:30 AM	0	0	0				
3:45 AM	1	1	2				
4:00 AM	1	4	5				
4:15 AM	1	0	1				
4:30 AM	0	0	0				
4:45 AM	2	1	3				
5:00 AM	2	12	15				
5:15 AM	0	2	2				
5:30 AM	3	0	3				
5:45 AM	7	1	8				
6:00 AM	4	31	35				
6:15 AM	5	1	6				
6:30 AM	9	3	12				
6:45 AM	13	2	15				
7:00 AM	7	44	51				
7:15 AM	13	4	17				
7:30 AM	11	4	15				
7:45 AM	13	4	17				
8:00 AM	16	64	80				
8:15 AM	10	9	19				
8:30 AM	20	4	24				
8:45 AM	18	11	29				
9:00 AM	15	71	86				
9:15 AM	17	15	32				
9:30 AM	19	11	30				
9:45 AM	20	15	35				
10:00 AM	17	58	75				
10:15 AM	18	11	29				
10:30 AM	10	13	23				
10:45 AM	13	18	31				
11:00 AM	17	62	79				
11:15 AM	13	14	27				
11:30 AM	16	15	31				
11:45 AM	16	13	29				

24 Hour Volume EBD 484 (56.6%) WBD 371 (43.4%) Combined 855

12:00 AM - 12:00 PM

Count	EBD	WBD	Combined
	353	236	589
Peak Hour	59.9 %	40.1 %	
Volume	9:30 AM	10:45 AM	9:00 AM
Factor	74	64	123
	0.93	0.89	0.88

12:00 PM - 12:00 AM

	EBD	WBD	Combined
	131	135	266
	49.2 %	50.8 %	
	12:00 PM	12:45 PM	12:45 PM
	69	70	136
	0.91	0.70	0.81

City of Salem, OR
555 Liberty St SE / Rm 325
Salem, OR 97301-3503

Site: 2018020
Date: 8/23/2018
Thursday

Street: SALEM HEIGHTS AVENUE S
Cross St: East of View Drive S
Weather: Sunny

Daily Summary, per Channel

Volume	Day Total	12:00 AM - 12:00 PM	12:00 PM - 12:00 AM	Peak Hour	Volume	Factor	(EBD)
	326			4:45 PM	82	0.85	

Speed	0 -	15 -	20 -	25 -	30 -	35 -	40 -	45 -	50 -	55 -	60 -	65 -	70 -	(EBD)
mph	< 15	< 20	< 25	< 30	< 35	< 40	< 45	< 50	< 55	< 60	< 65	< 70	< 200	
Count	14	13	50	104	117	25	1	0	0	1	0	0	1	
%	4.3	4.0	15.3	31.9	35.9	7.7	0.3	0.0	0.0	0.3	0.0	0.0	0.3	
Total	326													

Avg. Speed 28.4 mph

Percentile Speeds (mph) 10% 21.4 15% 23.3 50% 29.1 85% 33.2 90% 34.5

Pace Range (mph) 23.9 - 33.9 # in Pace 239 % in Pace 73.3

Speed Exceeded (mph) 45 55 65
Count 2 2 1
% 0.6 0.6 0.3

Classification	Cars & Trailer	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	(EBD)
Count	5	64	1	16	0	0	2	0	0	0	0	0	
%	1.5	19.6	0.3	4.9	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	
Total	326												

Axle Statistics

Sensor A B
Total Hits 1614 1585
% Used 94.5 96.2

Avg. Axles Per Vehicle: 2.01.
Avg. Two-Axle Wheelbase: 9.5 ft.

City of Salem, OR
555 Liberty St SE / Rm 325
Salem, OR 97301-3503

Street: SALEM HEIGHTS AVENUE S
Cross St: East of View Drive S
Weather: Sunny

Site: 2018020
Date: 8/24/2018
Friday

Daily Summary, per Channel

Volume	Day Total	12:00 AM - 12:00 PM	12:00 PM - 12:00 AM	Peak Hour	Volume	Factor	(EBD)
	913			8:00 AM	72	0.75	
				5:30 PM	70	0.73	

Speed	0 -	15 -	20 -	25 -	30 -	35 -	40 -	45 -	50 -	55 -	60 -	65 -	70 -	(EBD)
mph	< 15	< 20	< 25	< 30	< 35	< 40	< 45	< 50	< 55	< 60	< 65	< 70	< 200	
Count	54	58	131	318	274	66	8	0	0	1	0	0	3	
%	5.9	6.4	14.3	34.8	30.0	7.2	0.9	0.0	0.0	0.1	0.0	0.0	0.3	
Total	913													

Avg. Speed 27.6 mph

Percentile Speeds (mph)	10%	15%	50%	85%	90%
	17.7	21.4	28.2	33.2	34.5

Pace	Range (mph)	# in Pace	% in Pace
	23.3 - 33.3	619	67.8

Speed Exceeded (mph)	Count	%
45	4	0.4
55	4	0.4
65	3	0.3

Classification	Cars & Trailer	2 Axle Long	2 Axle Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	(EBD)
Count	11	678	5	52	1	0	5	0	0	0	0	0	
%	1.2	74.3	0.5	5.7	0.1	0.0	0.5	0.0	0.0	0.0	0.0	0.0	
Total	913												

Axle Statistics

Sensor	A	B
Total Hits	4064	3922
% Used	91.5	94.8

Avg. Axles Per Vehicle: 2.02
Avg. Two-Axle Wheelbase: 9.6 ft.

City of Salem, OR
555 Liberty St SE / Rm 325
Salem, OR 97301-3503

Site: 2018020
Date: 8/25/2018
Saturday

Street: SALEM HEIGHTS AVENUE S
Cross St: East of View Drive S
Weather: Sunny

Daily Summary, per Channel

Volume		Peak Hour		Volume		Factor	
Day Total		12:00 AM - 12:00 PM		10:45 AM		0.9	
755		12:00 PM - 12:00 AM		1:30 PM		0.86	

Speed		30 -		40 -		50 -		60 -		70 -	
0 -		25 -		35 -		45 -		55 -		65 -	
< 15		< 20		< 25		< 30		< 35		< 40	
Count		20		87		262		278		76	
%		2.6		11.5		34.7		36.8		10.1	
Total		755									

Avg. Speed 29.1 mph

Percentile Speeds (mph)
10% 23.3
15% 24.5

Pace Range (mph)
24.5 - 34.5
in Pace 567
% in Pace 75.1

Speed Exceeded (mph)
Count 45
% 3
0.4

Classification		2 Axle		3 Axle		4 Axle		5 Axle		6 Axle		> 6 Axle	
Cars & Trailer		Long		Single		Double		Double		Multi		Multi	
Count		125		0		0		0		0		0	
%		16.6		0.0		0.0		0.0		0.0		0.0	
Total		755											

Axle Statistics

Sensor A B
Total Hits 3303 3247
% Used 95.6 97.3

Avg. Axles Per Vehicle: 2.02
Avg. Two-Axle Wheelbase: 9.4 ft.

City of Salem, OR
555 Liberty St SE / Rm 325
Salem, OR 97301-3503

Site: 2018020
Date: 8/26/2018
Sunday

Street: SALEM HEIGHTS AVENUE S
Cross St: East of View Drive S
Weather: Sunny

Daily Summary, per Channel

Volume	Day Total	12:00 AM - 12:00 PM	12:00 PM - 12:00 AM	Peak Hour	Volume	Factor
	745			10:15 AM	91	0.78
				2:30 PM	61	0.85

(EBD)

Speed	0 -	15 -	20 -	25 -	30 -	35 -	40 -	45 -	50 -	55 -	60 -	65 -	70 -
mph	< 15	< 20	< 25	< 30	< 35	< 40	< 45	< 50	< 55	< 60	< 65	< 70	< 200
Count	24	25	107	306	228	52	2	0	0	0	0	0	1
%	3.2	3.4	14.4	41.1	30.6	7.0	0.3	0.0	0.0	0.0	0.0	0.0	0.1
Total	745												

(EBD)

Avg. Speed 28.0 mph

Percentile Speeds (mph) 10% 21.9 15% 23.9 50% 28.6 85% 32.7 90% 33.9

Pace Range (mph) 23.9 - 33.9 # in Pace 567 % in Pace 76.1

Speed Exceeded (mph) 45 55 65
Count 1 1 1
% 0.1 0.1 0.1

Classification	Cars & Trailer	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi
----------------	----------------	-------------	-------	---------------	---------------	---------------	----------------	---------------	----------------	---------------	--------------	---------------

(EBD)

Count	4	129	3	16	0	0	0	0	0	0	0	0
%	0.5	17.3	0.4	2.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Total	745											

Axle Statistics

Sensor A B
Total Hits 3153 3100
% Used 95.5 97.1

Avg. Axles Per Vehicle: 2.01
Avg. Two-Axle Wheelbase: 9.4 ft.

City of Salem, OR
555 Liberty St SE / Rm 325
Salem, OR 97301-3503

Street: SALEM HEIGHTS AVENUE S
Cross St: East of View Drive S
Weather: Sunny

Site: 2018020
Date: 8/27/2018
Monday

Daily Summary, per Channel

Volume	Day Total	12:00 AM - 12:00 PM	12:00 PM - 12:00 AM	Peak Hour 7:00 AM 4:45 PM	Volume 61 75	Factor 0.9 0.78	(EBD)
	811						

Speed	0 - 15 - 20 - 25 - 30 - 35 - 40 - 45 - 50 - 55 - 60 - 65 - 70 -	(EBD)
mph	<15 <20 <25 <30 <35 <40 <45 <50 <55 <60 <65 <70 <200	
Count	25 29 103 324 258 62 6 2 1 0.1 0.0 0.0 0	
%	3.1 3.6 12.7 40.0 31.8 7.6 0.7 0.2 0.1 0.1 0.0 0.0 0.0	
Total	811	

Avg. Speed 28.4 mph

Percentile Speeds (mph) 10% 21.6 15% 23.6 50% 29.1 85% 33.2 90% 34.5

Pace Range (mph) 25.2 - 35.2 # in Pace 600 % in Pace 74.0

Speed Exceeded (mph) 45 55 65
Count 4 1 0
% 0.5 0.1 0.0

Classification	Cars & Trailer	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi	(EBD)
Count	6 611 75.3	146	1	39	0	0	8	0	0	0	0	0	
%	0.7 75.3	18.0	0.1	4.8	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	
Total	811												

Axle Statistics

Sensor A B
Total Hits 3514 3450
% Used 95.5 97.2

Avg. Axles Per Vehicle: 2.02
Avg. Two-Axle Wheelbase: 9.5 ft.

City of Salem, OR
 555 Liberty St SE / Rm 325
 Salem, OR 97301-3503

Site: 2018020
 Date: 8/28/2018
 Tuesday

Street: SALEM HEIGHTS AVENUE S
 Cross St: East of View Drive S
 Weather: Sunny

Daily Summary, per Channel

Volume		Peak Hour		Volume		Factor	
Day Total	863	12:00 AM - 12:00 PM		75		0.94	
		12:00 PM - 12:00 AM		64		0.89	

Speed		0 -		15 -		20 -		25 -		30 -		35 -		40 -		45 -		50 -		55 -		60 -		65 -		70 -		(EBD)
mph Count % Total		< 15		< 20		< 25		< 30		< 35		< 40		< 45		< 50		< 55		< 60		< 65		< 70		< 70		
		27		20		87		339		298		82		6		1		0		0		0		0		3		
		3.1		2.3		10.1		39.3		34.5		9.5		0.7		0.1		0.0		0.0		0.0		0.0		0.3		
		863																										

Avg. Speed 29.2 mph

Percentile Speeds (mph)
 10% 23.3
 15% 24.8

Pace Range (mph)
 25.2 - 35.2
 # in Pace 657
 % in Pace 76.1

Speed Exceeded (mph)
 Count 45
 % 4
 55 3
 65 3
 75 0.3

Classification		Cars & Trailer		2 Axle Long		2 Axle Buses		2 Axle 6 Tire		3 Axle Single		4 Axle Single		<5 Axl Double		5 Axle Double		>6 Axl Double		<6 Axl Multi		6 Axle Multi		>6 Axl Multi	
Count	Blke	638		154		4		44		0		0		7		0		0		0		0		0	
%		73.9		17.8		0.5		5.1		0.0		0.0		0.8		0.0		0.0		0.0		0.0		0.0	
Total		863																							

Axle Statistics

Sensor A B
 Total Hits 3753 3640
 % Used 93.4 96.3

Avg. Axles Per Vehicle: 2.03
 Avg. Two-Axle Wheelbase: 9.5 ft.

City of Salem, OR
555 Liberty St SE / Rm 325
Salem, OR 97301-3503

Site: 2018020
Date: 8/29/2018
Wednesday

Street: SALEM HEIGHTS AVENUE S
Cross St: East of View Drive S
Weather: Sunny

Daily Summary, per Channel

Volume		Peak Hour	Volume	Factor	(EBD)
Day Total	876	12:00 AM - 12:00 PM	76	0.9	
		12:00 PM - 12:00 AM	83	0.99	

Speed		0 -	15 -	20 -	25 -	30 -	35 -	40 -	45 -	50 -	55 -	60 -	65 -	70 -	(EBD)	
	mph	< 15	< 20	< 25	< 30	< 35	< 40	< 45	< 50	< 55	< 60	< 65	< 70	< 75		
Count		37	21	120	338	285	67	5	1	1	0	0	0	1		
	%	4.2	2.4	13.7	38.6	32.5	7.6	0.6	0.1	0.1	0.0	0.0	0.0	0.1		
Total		876														

Avg. Speed 28.3 mph

Percentile Speeds (mph) 10% 21.9 15% 23.6 50% 28.6 85% 33.2 90% 34.5

Pace Range (mph) 24.5 - 34.5 # in Pace 650 % in Pace 74.2

Speed Exceeded (mph) 45 55 65
Count 3 1 1
% 0.3 0.1 0.1

Classification		Cars & Trailer	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	(EBD)
Count		16	158	4	57	1	0	5	0	0	0	0	0	
	%	1.8	18.0	0.5	6.5	0.1	0.0	0.6	0.0	0.0	0.0	0.0	0.0	
Total		876												

Axle Statistics

Sensor A B
Total Hits 3866 3792
% Used 94.1 96.0

Avg. Axles Per Vehicle: 2.02
Avg. Two-Axle Wheelbase: 9.5 ft.

City of Salem, OR
555 Liberty St SE / Rm 325
Salem, OR 97301-3503

Site: 2018020
Date: 8/30/2018
Thursday

Street: SALEM HEIGHTS AVENUE S
Cross St: East of View Drive S
Weather: Sunny

Daily Summary, per Channel

Volume	Day Total	12:00 AM - 12:00 PM	12:00 PM - 12:00 AM	Peak Hour	Volume	Factor
	906			7:00 AM	72	0.86
				12:15 PM	81	0.84

Speed	0 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - >200
mph	< 15	< 20	< 25	< 30	< 35	< 40	< 45	< 50	< 55	< 60	< 65	< 70	< 200
Count	48	35	114	368	277	53	7	4	0	0	0	0	0
%	5.3	3.9	12.6	40.6	30.6	5.8	0.8	0.4	0.0	0.0	0.0	0.0	0.0
Total	906												

Avg. Speed 27.8 mph

Percentile Speeds (mph)
10% 20.5
15% 23.0
50% 28.2
85% 33.2
90% 33.9

Pace Range (mph)
24.5 - 34.5
in Pace 675
% in Pace 74.5

Speed Exceeded (mph)
Count 45
% 4
0.4
55
0
0.0

Classification	Cars & Trailer	2 Axle Long	2 Axle Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi
Count	10	647	185	4	1	0	5	0	0	0	0	0
%	1.1	71.4	20.4	0.4	0.1	0.0	0.6	0.0	0.0	0.0	0.0	0.0
Total	906											

Axle Statistics

Sensor A
Total Hits 3951
% Used 92.9
Sensor B
3821
96.1

Avg. Axles Per Vehicle: 2.03
Avg. Two-Axle Wheelbase: 9.6 ft.

City of Salem, OR
555 Liberty St SE / Rm 325
Salem, OR 97301-3503

Site: 2018020
Date: 8/31/2018
Friday

Street: SALEM HEIGHTS AVENUE S
Cross St: East of View Drive S
Weather: Sunny

Daily Summary, per Channel

Volume	Day Total	12:00 AM - 12:00 PM	12:00 PM - 12:00 AM	Peak Hour	Volume	Factor	(EBD)
	484			9:30 AM	74	0.93	
				12:00 PM	69	0.91	

Speed	0 -	15 -	20 -	25 -	30 -	35 -	40 -	45 -	50 -	55 -	60 -	65 -	70 -	(EBD)
mph	< 15	< 20	< 25	< 30	< 35	< 40	< 45	< 50	< 55	< 60	< 65	< 70	< 75	
Count	15	15	47	177	179	42	5	1	0	2	0	0	1	
%	3.1	3.1	9.7	36.6	37.0	8.7	1.0	0.2	0.0	0.4	0.0	0.0	0.2	
Total	484													

Avg. Speed 29.2 mph

Percentile Speeds (mph) 10% 23.0 15% 24.8 50% 29.6 85% 33.9 90% 35.1

Pace Range (mph) 25.2 - 35.2 # in Pace 372 % in Pace 76.9

Speed Exceeded (mph) 45 55 65
Count 4 3 1
% 0.8 0.6 0.2

Classification	Cars & Trailer	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi	(EBD)
Count	5	89	0	28	1	0	2	0	0	0	0	0	
%	1.0	18.4	0.0	5.8	0.2	0.0	0.4	0.0	0.0	0.0	0.0	0.0	
Total	484												

Axle Statistics

Sensor A B
Total Hits 1839 1794
% Used 93.8 96.2

Avg. Axles Per Vehicle: 2.02
Avg. Two-Axle Wheelbase: 9.6 ft.

City of Salem, OR
555 Liberty St SE / Rm 325
Salem, OR 97301-3503

Street: SALEM HEIGHTS AVENUE S
Cross St: East of View Drive S
Weather: Sunny

Site: 2018020
Date: 8/23/2018
Thursday

Daily Summary, per Channel

Volume	Day Total	12:00 AM - 12:00 PM	12:00 PM - 12:00 AM	Peak Hour	Volume	Factor	(WBD)
	431			5:00 PM	95	0.85	

Speed	0 -	15 -	20 -	25 -	30 -	35 -	40 -	45 -	50 -	55 -	60 -	65 -	70 -	(WBD)
mph	< 15	< 20	< 25	< 30	< 35	< 40	< 45	< 50	< 55	< 60	< 65	< 70	< 200	
Count	17	41	150	169	42	7	4	0	0	0	1	0	0	
%	3.9	9.5	34.8	39.2	9.7	1.6	0.9	0.0	0.0	0.0	0.2	0.0	0.0	
Total	431													

Avg. Speed 24.8 mph

Percentile Speeds (mph)

10%	18.6
15%	20.2
50%	25.2
85%	29.1
90%	30.5

Pace Range (mph)

19.6 - 29.6	# in Pace	325	% in Pace	75.4
-------------	-----------	-----	-----------	------

Speed Exceeded (mph)

45	55
1	1
0.2	0.2
Count	0
%	0.0

Classification	Cars & Trailer	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	(WBD)
Count	5	86	2	12	0	0	0	0	0	0	0	0	
%	1.2	20.0	0.5	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total	431												

Axle Statistics

Sensor	A	B
Total Hits	1614	1585
% Used	94.5	96.2

Avg. Axles Per Vehicle: 2.01
Avg. Two-Axle Wheelbase: 9.5 ft.

City of Salem, OR
555 Liberty St SE / Rm 325
Salem, OR 97301-3503

Street: SALEM HEIGHTS AVENUE S
Cross St: East of View Drive S
Weather: Sunny

Site: 2018020
Date: 8/24/2018
Friday

Daily Summary, per Channel

Volume	Day Total	12:00 AM - 12:00 PM	12:00 PM - 12:00 AM	Peak Hour 10:15 AM 5:15 PM	Volume	Factor	(WBD)
	926				69 96	0.78 0.71	

Speed	0 -	15 -	20 -	25 -	30 -	35 -	40 -	45 -	50 -	55 -	60 -	65 -	70 -	(WBD)
mph	< 15	< 20	< 25	< 30	< 35	< 40	< 45	< 50	< 55	< 60	< 65	< 70	< 200	
Count	96	80	248	355	127	18	1	0	0	0	0	0	1	
%	10.4	8.6	26.8	38.3	13.7	1.9	0.1	0.0	0.0	0.0	0.0	0.0	0.1	
Total	926													

Avg. Speed 24.4 mph

Percentile Speeds (mph)

10%	15%	50%	85%	90%
14.3	17.9	25.5	30.0	31.0

Pace Range (mph) # in Pace % in Pace

21.6 - 31.6	632	68.3
-------------	-----	------

Speed Exceeded (mph)

45	55
Count	1
%	0.1

Classification	Cars & Trailer	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi	(WBD)
Count	9	177	6	39	0	0	10	0	0	0	0	0	
%	1.0	19.1	0.6	4.2	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	
Total	926												

Axle Statistics

Sensor	A	B
Total Hits	4064	3922
% Used	91.5	94.8

Avg. Axles Per Vehicle: 2.02
Avg. Two-Axle Wheelbase: 9.6 ft.

City of Salem, OR
555 Liberty St SE / Rm 325
Salem, OR 97301-3503

Site: 2018020
Date: 8/25/2018
Saturday

Street: SALEM HEIGHTS AVENUE S
Cross St: East of View Drive S
Weather: Sunny

Daily Summary, per Channel

Volume	Day Total	12:00 AM - 12:00 PM	12:00 PM - 12:00 AM	Peak Hour	Volume	Factor	(WBD)
	811			11:00 AM	66	0.92	
				1:45 PM	82	0.79	

Speed	0 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	(WBD)
mph	< 15	< 20	< 25	< 30	< 35	< 40	< 45	< 50	< 55	< 60	< 65	< 70	
Count	25	57	255	323	131	20	0	0	0	0	0	0	
%	3.1	7.0	31.4	39.8	16.2	2.5	0.0	0.0	0.0	0.0	0.0	0.0	
Total	811												

Avg. Speed 25.6 mph

Percentile Speeds (mph) 10% 19.8 15% 21.2 50% 25.9 85% 30.0 90% 31.0

Pace Range (mph) 21.2 - 31.2 # in Pace 614 % in Pace 75.7

Speed Exceeded (mph) 45 55 65
Count 0 0 0
% 0.0 0.0 0.0

Classification	Cars & Trailer	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	(WBD)
Count	13	154	1	19	0	0	4	0	0	0	0	0	
%	1.6	19.0	0.1	2.3	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	
Total	811												

Axle Statistics

Sensor A 3303 B 3247
Total Hits 95.6 97.3
% Used

Avg. Axles Per Vehicle: 2.02
Avg. Two-Axle Wheelbase: 9.4 ft.

City of Salem, OR
555 Liberty St SE / Rm 325
Salem, OR 97301-3503

Street: SALEM HEIGHTS AVENUE S
Cross St: East of View Drive S
Weather: Sunny

Site: 2018020
Date: 8/26/2018
Sunday

Daily Summary, per Channel

Volume	Day Total	12:00 AM - 12:00 PM	12:00 PM - 12:00 AM	Peak Hour 10:30 AM 5:00 PM	Volume 50 77	Factor 0.89 0.8	(WBD)
	752						

Speed	0 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	(WBD)
mph	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<75	
Count	30	56	245	301	105	13	2	0	0	0	0	0	0	
%	4.0	7.4	32.6	40.0	14.0	1.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	
Total	752													

Avg. Speed 25.3 mph

Percentile Speeds (mph)
10% 19.4
15% 20.9
50% 25.5
85% 30.0
90% 31.0

Pace Range (mph)
20.7 - 30.7
in Pace 565
% in Pace 75.1

Speed Exceeded (mph)
Count 45
% 0.0
55 65
0 0
0.0 0.0

Classification	Cars & Trailer	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	(WBD)
Count	2	128	1	19	0	0	4	0	0	0	0	0	
%	0.3	17.0	0.1	2.5	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	
Total	752												

Axle Statistics

Sensor A B
Total Hits 3153 3100
% Used 95.5 97.1

Avg. Axles Per Vehicle: 2.01
Avg. Two-Axle Wheelbase: 9.4 ft.

City of Salem, OR
555 Liberty St SE / Rm 325
Salem, OR 97301-3503

Site: 2018020
Date: 8/27/2018
Monday

Street: SALEM HEIGHTS AVENUE S
Cross St: East of View Drive S
Weather: Sunny

Daily Summary, per Channel

Volume	Day Total	12:00 AM - 12:00 PM	12:00 PM - 12:00 AM	Peak Hour	Volume	Factor	(WBD)
	850			10:15 AM	51	0.91	
				5:00 PM	106	0.8	

Speed	0 -	15 -	20 -	25 -	30 -	35 -	40 -	45 -	50 -	55 -	60 -	65 -	70 -	(WBD)
mph	< 15	< 20	< 25	< 30	< 35	< 40	< 45	< 50	< 55	< 60	< 65	< 70	< 200	
Count	32	57	283	336	124	16	1	0	1	0	0	0	0	
%	3.8	6.7	33.3	39.5	14.6	1.9	0.1	0.0	0.1	0.0	0.0	0.0	0.0	
Total	850													

Avg. Speed 25.4 mph

Percentile Speeds (mph) 10% 19.6 15% 21.2 50% 25.5 85% 30.0 90% 31.0

Pace Range (mph) 21.6 - 31.6 # in Pace 649 % in Pace 76.4

Speed Exceeded (mph) 45 55 65
Count 1 0 0
% 0.1 0.0 0.0

Classification	Cars & Trailer	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	(WBD)
Count	8	152	3	29	0	0	6	0	0	0	0	0	
%	0.9	17.9	0.4	3.4	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	
Total	850												

Axle Statistics

Sensor A B
Total Hits 3514 3450
% Used 95.5 97.2

Avg. Axles Per Vehicle: 2.02
Avg. Two-Axle Wheelbase: 9.5 ft.

City of Salem, OR
555 Liberty St SE / Rm 325
Salem, OR 97301-3503

Site: 2018020
Date: 8/28/2018
Tuesday

Street: SALEM HEIGHTS AVENUE S
Cross St: East of View Drive S
Weather: Sunny

Daily Summary, per Channel

Volume	Day Total	12:00 AM - 12:00 PM	12:00 PM - 12:00 AM	Peak Hour	Volume	Factor	(WBD)
	867			11:00 AM	64	0.84	
				5:15 PM	96	0.83	

Speed	0 -	15 -	20 -	25 -	30 -	35 -	40 -	45 -	50 -	55 -	60 -	65 -	70 -	(WBD)
mph	< 15	< 20	< 25	< 30	< 35	< 40	< 45	< 50	< 55	< 60	< 65	< 70	< 200	
Count	49	46	239	375	132	22	2	1	0	0	0	0	1	
%	5.7	5.3	27.6	43.3	15.2	2.5	0.2	0.1	0.0	0.0	0.0	0.0	0.1	
Total	867													

Avg. Speed 25.7 mph

Percentile Speeds (mph)

10%	15%	85%	90%
19.2	21.4	30.5	31.6

Pace Range (mph)

21.6 - 31.6	# in Pace	% in Pace
	657	75.8

Speed Exceeded (mph)

45	55
Count	1
%	0.1

Classification	Cars & Trailer	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi	(WBD)
Count	10	163	2	32	0	0	9	0	0	0	0	0	
%	1.2	18.8	0.2	3.7	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	
Total	867												

Axle Statistics

Sensor	A	B
Total Hits	3753	3640
% Used	93.4	96.3

Avg. Axles Per Vehicle: 2.03
Avg. Two-Axle Wheelbase: 9.5 ft.

City of Salem, OR
555 Liberty St SE / Rm 325
Salem, OR 97301-3503

Site: 2018020
Date: 8/29/2018
Wednesday

Street: SALEM HEIGHTS AVENUE S
Cross St: East of View Drive S
Weather: Sunny

Daily Summary, per Channel

Volume	Day Total	12:00 AM - 12:00 PM	12:00 PM - 12:00 AM	Peak Hour	Volume	Factor	(WBD)
	924			11:00 AM	64	0.7	
				5:45 PM	100	0.81	

Speed	0 -	15 -	20 -	25 -	30 -	35 -	40 -	45 -	50 -	55 -	60 -	65 -	70 -	(WBD)
mph	< 15	< 20	< 25	< 30	< 35	< 40	< 45	< 50	< 55	< 60	< 65	< 70	< 200	
Count	54	48	320	352	131	15	2	2	0	0	0	0	0	
%	5.8	5.2	34.6	38.1	14.2	1.6	0.2	0.2	0.0	0.0	0.0	0.0	0.0	
Total	924													

Avg. Speed 25.1 mph

Percentile Speeds (mph) 10% 19.2 15% 20.9 50% 25.5 85% 30.0 90% 31.0

Pace Range (mph) 21.2 - 31.2 # in Pace 700 % in Pace 75.8

Speed Exceeded (mph) 45 55 65
Count 2 0 0
% 0.2 0.0 0.0

Classification	Cars &	2 Axle	Long	Buses	6 Tire	3 Axle	4 Axle	<5 Axle	5 Axle	>6 Axle	<6 Axle	6 Axle	>6 Axle	(WBD)
	Trailer					Single	Single	Double	Double	Double	Multi	Multi	Multi	
Count	20	691	171	2	34	0	0	0	0	0	0	0	0	
%	2.2	74.8	18.5	0.2	3.7	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	
Total	924													

Axle Statistics

Sensor A B
Total Hits 3866 3792
% Used 94.1 96.0

Avg. Axles Per Vehicle: 2.02
Avg. Two-Axle Wheelbase: 9.5 ft.

City of Salem, OR
555 Liberty St SE / Rm 325
Salem, OR 97301-3503

Street: SALEM HEIGHTS AVENUE S
Cross St: East of View Drive S
Weather: Sunny

Site: 2018020
Date: 8/30/2018
Thursday

Daily Summary, per Channel

Volume	Day Total	12:00 AM - 12:00 PM	12:00 PM - 12:00 AM	Peak Hour	Volume	Factor	(WBD)
	902			11:00 AM	61	0.9	
				5:15 PM	98	0.88	

Speed	0 -	15 -	20 -	25 -	30 -	35 -	40 -	45 -	50 -	55 -	60 -	65 -	70 -	(WBD)
mph	< 15	< 20	< 25	< 30	< 35	< 40	< 45	< 50	< 55	< 60	< 65	< 70	< 200	
Count	75	65	303	333	108	14	3	1	0	0	0	0	0	
%	8.3	7.2	33.6	36.9	12.0	1.6	0.3	0.1	0.0	0.0	0.0	0.0	0.0	
Total	902													

Avg. Speed 24.4 mph

Percentile Speeds (mph) 10% 17.6 15% 19.6 50% 25.2 85% 29.6 90% 30.5

Pace Range (mph) 20.7 - 30.7 # in Pace 652 % in Pace 72.3

Speed Exceeded (mph) 45 55 65
Count 1 0 0
% 0.1 0.0 0.0

Classification	Cars & Trailer	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	(WBD)
Count	12	185	5	35	1	0	0	0	0	0	0	0	
%	72.4	20.5	0.6	3.9	0.1	0.0	1.2	0.0	0.0	0.0	0.0	0.0	
Total	902												

Axle Statistics

Sensor A B
Total Hits 3951 3821
% Used 92.9 96.1

Avg. Axles Per Vehicle: 2.03
Avg. Two-Axle Wheelbase: 9.6 ft.

City of Salem, OR
555 Liberty St SE / Rm 325
Salem, OR 97301-3503

Street: SALEM HEIGHTS AVENUE S
Cross St: East of View Drive S
Weather: Sunny

Site: 2018020
Date: 8/31/2018
Friday

Daily Summary, per Channel

Volume		Peak Hour	Volume	Factor	(WBD)
Day Total	12:00 AM - 12:00 PM 12:00 PM - 12:00 AM	10:45 AM 12:45 PM	64 70	0.89 0.7	
371					

Speed		(WBD)													
		0 -	15 -	20 -	25 -	30 -	35 -	40 -	45 -	50 -	55 -	60 -	65 -	70 -	
mph		<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<200	
Count		13	30	102	152	63	10	1	0	0	0	0	0	0	
%		3.5	8.1	27.5	41.0	17.0	2.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	
Total		371													

Avg. Speed 25.9 mph

Percentile Speeds (mph) 10% 19.6 15% 21.6 50% 26.2 85% 30.5 90% 32.1

Pace Range (mph) 21.6 - 31.6 # in Pace 273 % in Pace 73.6

Speed Exceeded (mph) 45 55 65
Count 0 0 0
% 0.0 0.0 0.0

Classification		Cars &		2 Axle		Buses		2 Axle		3 Axle		4 Axle		<5 Axl		5 Axle		>6 Axl		<6 Axl		6 Axle		>6 Axl		(WBD)
	<u>Bike</u>	<u>Trailer</u>	<u>Long</u>	<u>2 Axle</u>	<u>6 Tire</u>	<u>3</u>	<u>12</u>	<u>Single</u>	<u>0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>Double</u>	<u>2</u>	<u>Double</u>	<u>0</u>	<u>Double</u>	<u>0</u>	<u>Multi</u>	<u>0</u>	<u>Multi</u>	<u>0</u>	<u>Multi</u>		
Count	2	270	82	3	12	0.8	3.2	0.0	0.0	0.5	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		
%	0.5	72.8	22.1	0.8	3.2																					
Total	371																									

Axle Statistics

Sensor A B
Total Hits 1839 1794
% Used 93.8 96.2

Avg. Axles Per Vehicle: 2.02
Avg. Two-Axle Wheelbase: 9.6 ft.

City of Salem, OR
555 Liberty St SE / Rm 325
Salem, OR 97301-3503

Street: SALEM HEIGHTS AVENUE S
Cross St: East of 6th Avenue S
Weather: Sunny
Site: 2018021
Date: 8/23/2018
Thursday

Daily Volume									
Begin	EBD	WBD	Combined	Begin	EBD	WBD	Combined		
12:00 AM	-	-	-	12:00 PM	-	-	-	-	-
12:15 AM	-	-	-	12:15 PM	-	-	-	-	-
12:30 AM	-	-	-	12:30 PM	-	-	-	-	-
12:45 AM	-	-	-	12:45 PM	-	-	-	-	-
1:00 AM	-	-	-	1:00 PM	-	-	-	-	-
1:15 AM	-	-	-	1:15 PM	-	-	-	-	-
1:30 AM	-	-	-	1:30 PM	-	-	-	-	-
1:45 AM	-	-	-	1:45 PM	-	-	-	-	-
2:00 AM	-	-	-	2:00 PM	-	3	2	5	
2:15 AM	-	-	-	2:15 PM	-	-	-	-	-
2:30 AM	-	-	-	2:30 PM	-	-	-	-	-
2:45 AM	-	-	-	2:45 PM	3	2	5		
3:00 AM	-	-	-	3:00 PM	12	47	58	28	105
3:15 AM	-	-	-	3:15 PM	9	16	25	25	
3:30 AM	-	-	-	3:30 PM	12	18	30	30	
3:45 AM	-	-	-	3:45 PM	14	8	22	22	
4:00 AM	-	-	-	4:00 PM	13	60	68	32	128
4:15 AM	-	-	-	4:15 PM	16	19	36	36	
4:30 AM	-	-	-	4:30 PM	11	20	30	30	
4:45 AM	-	-	-	4:45 PM	20	10	30	30	
5:00 AM	-	-	-	5:00 PM	18	72	73	38	145
5:15 AM	-	-	-	5:15 PM	17	14	31	31	
5:30 AM	-	-	-	5:30 PM	23	22	45	45	
5:45 AM	-	-	-	5:45 PM	14	17	31	31	
6:00 AM	-	-	-	6:00 PM	10	43	52	20	95
6:15 AM	-	-	-	6:15 PM	11	17	28	28	
6:30 AM	-	-	-	6:30 PM	11	16	27	27	
6:45 AM	-	-	-	6:45 PM	11	9	20	20	
7:00 AM	-	-	-	7:00 PM	9	38	46	21	84
7:15 AM	-	-	-	7:15 PM	10	11	21	21	
7:30 AM	-	-	-	7:30 PM	8	17	25	25	
7:45 AM	-	-	-	7:45 PM	11	6	17	17	
8:00 AM	-	-	-	8:00 PM	6	23	46	16	69
8:15 AM	-	-	-	8:15 PM	6	12	18	18	
8:30 AM	-	-	-	8:30 PM	8	14	22	22	
8:45 AM	-	-	-	8:45 PM	3	10	13	13	
9:00 AM	-	-	-	9:00 PM	3	12	25	12	37
9:15 AM	-	-	-	9:15 PM	7	7	14	14	
9:30 AM	-	-	-	9:30 PM	1	5	6	6	
9:45 AM	-	-	-	9:45 PM	1	4	5	5	
10:00 AM	-	-	-	10:00 PM	2	13	13	7	26
10:15 AM	-	-	-	10:15 PM	6	3	9	9	
10:30 AM	-	-	-	10:30 PM	5	0	5	5	
10:45 AM	-	-	-	10:45 PM	0	5	5	5	
11:00 AM	-	-	-	11:00 PM	1	6	5	3	11
11:15 AM	-	-	-	11:15 PM	0	1	1	1	
11:30 AM	-	-	-	11:30 PM	4	1	5	5	
11:45 AM	-	-	-	11:45 PM	1	1	2	2	
24 Hour Volume				Combined				705	
				EBD				317	
				WBD				388 (55.0%)	
				Combined				0	

12:00 AM - 12:00 PM					12:00 PM - 12:00 AM				
Count	EBD	WBD	Combined		EBD	WBD	Combined		
	0	0			317	388	705		
Peak Hour	-	-	-		45.0 %	55.0 %	5:00 PM		
Volume	-	-	-		78	73	145		
Factor	-	-	-		0.85	0.83	0.81		

City of Salem, OR
555 Liberty St SE / Rm 325
Salem, OR 97301-3503

Street: SALEM HEIGHTS AVENUE S
Cross St: East of 6th Avenue S
Weather: Sunny

Site: 2018021
Date: 8/24/2018
Friday

Daily Volume									
Begin	EBD	WBD	Combined	Begin	EBD	WBD	Combined	Begin	Combined
12:00 AM	0	1	3	12:00 PM	10	60	70	12:00 PM	25
12:15 AM	0	0	0	12:15 PM	16	17	33	12:15 PM	33
12:30 AM	1	2	3	12:30 PM	13	17	30	12:30 PM	30
12:45 AM	0	0	0	12:45 PM	21	12	33	12:45 PM	33
1:00 AM	1	2	3	1:00 PM	7	51	58	1:00 PM	58
1:15 AM	0	1	1	1:15 PM	14	10	24	1:15 PM	24
1:30 AM	1	1	2	1:30 PM	15	12	27	1:30 PM	27
1:45 AM	1	1	2	1:45 PM	15	8	23	1:45 PM	23
2:00 AM	1	1	2	2:00 PM	12	41	53	2:00 PM	53
2:15 AM	2	1	3	2:15 PM	10	16	26	2:15 PM	26
2:30 AM	1	1	2	2:30 PM	12	12	24	2:30 PM	24
2:45 AM	0	0	0	2:45 PM	7	10	17	2:45 PM	17
3:00 AM	0	2	2	3:00 PM	9	45	54	3:00 PM	54
3:15 AM	0	1	1	3:15 PM	8	20	28	3:15 PM	28
3:30 AM	0	0	0	3:30 PM	16	14	30	3:30 PM	30
3:45 AM	2	0	2	3:45 PM	12	19	31	3:45 PM	31
4:00 AM	0	6	6	4:00 PM	14	57	71	4:00 PM	71
4:15 AM	0	0	0	4:15 PM	10	12	22	4:15 PM	22
4:30 AM	4	0	4	4:30 PM	13	18	31	4:30 PM	31
4:45 AM	2	0	2	4:45 PM	20	11	31	4:45 PM	31
5:00 AM	0	7	7	5:00 PM	7	49	56	5:00 PM	56
5:15 AM	1	0	1	5:15 PM	16	19	35	5:15 PM	35
5:30 AM	1	0	1	5:30 PM	9	14	23	5:30 PM	23
5:45 AM	5	2	7	5:45 PM	17	24	41	5:45 PM	41
6:00 AM	5	21	26	6:00 PM	16	43	59	6:00 PM	59
6:15 AM	2	4	6	6:15 PM	11	14	25	6:15 PM	25
6:30 AM	2	1	3	6:30 PM	8	12	20	6:30 PM	20
6:45 AM	12	2	14	6:45 PM	8	9	17	6:45 PM	17
7:00 AM	9	34	43	7:00 PM	10	33	43	7:00 PM	43
7:15 AM	8	5	13	7:15 PM	6	14	20	7:15 PM	20
7:30 AM	5	5	10	7:30 PM	10	14	24	7:30 PM	24
7:45 AM	12	10	22	7:45 PM	7	7	14	7:45 PM	14
8:00 AM	8	46	54	8:00 PM	6	32	38	8:00 PM	38
8:15 AM	13	8	21	8:15 PM	11	10	21	8:15 PM	21
8:30 AM	8	4	12	8:30 PM	8	6	14	8:30 PM	14
8:45 AM	17	7	24	8:45 PM	7	15	22	8:45 PM	22
9:00 AM	10	43	53	9:00 PM	9	19	28	9:00 PM	28
9:15 AM	9	7	16	9:15 PM	1	3	4	9:15 PM	4
9:30 AM	10	7	17	9:30 PM	3	7	10	9:30 PM	10
9:45 AM	14	4	18	9:45 PM	6	7	13	9:45 PM	13
10:00 AM	6	46	52	10:00 PM	2	8	10	10:00 PM	10
10:15 AM	15	11	26	10:15 PM	2	3	5	10:15 PM	5
10:30 AM	14	19	33	10:30 PM	2	3	5	10:30 PM	5
10:45 AM	11	11	22	10:45 PM	2	5	7	10:45 PM	7
11:00 AM	11	45	56	11:00 PM	1	5	6	11:00 PM	6
11:15 AM	16	8	24	11:15 PM	1	1	2	11:15 PM	2
11:30 AM	10	10	20	11:30 PM	2	4	6	11:30 PM	6
11:45 AM	8	10	18	11:45 PM	1	3	4	11:45 PM	4
24 Hour Volume				Combined				Combined	
				701 (48.8%)				1437	

24 Hour Volume				Combined				1437			
Count	EBD	WBD	Combined	Count	EBD	WBD	Combined	Count	EBD	WBD	Combined
57.3 %	258	192	450	55.1 %	443	544	987	55.1 %	443	544	987
10:30 AM	52	53	103	12:00 PM	60	82	140	5:15 PM	60	82	140
Volume Factor	0.81	0.70	0.78	Volume Factor	0.71	0.82	0.85	Volume Factor	0.71	0.82	0.85

City of Salem, OR
555 Liberty St SE / Rm 325
Salem, OR 97301-3503

Street: SALEM HEIGHTS AVENUE S
Cross St: East of 6th Avenue S
Weather: Sunny
Site: 2018021
Date: 8/25/2018
Saturday

Daily Volume																			
Begin				WBD		Combined		Begin		WBD		Combined							
12:00 AM				1	3	3	11	4	14	12:00 PM				17	46	11	40	28	86
12:15 AM				1		6		7		12:15 PM				10		14		24	
12:30 AM				0		1		1		12:30 PM				9		6		15	
12:45 AM				1		1		2		12:45 PM				10		9		19	
1:00 AM				0	2	2	6	2	8	1:00 PM				14	58	7	56	21	114
1:15 AM				1		3		4		1:15 PM				12		17		29	
1:30 AM				1		1		2		1:30 PM				15		9		24	
1:45 AM				0		0		0		1:45 PM				17		23		40	
2:00 AM				0	1	0	5	0	6	2:00 PM				11	40	17	57	28	97
2:15 AM				0		1		1		2:15 PM				17		12		29	
2:30 AM				0		1		1		2:30 PM				7		16		23	
2:45 AM				1		3		4		2:45 PM				5		12		17	
3:00 AM				0	2	1	2	1	4	3:00 PM				9	39	19	47	28	86
3:15 AM				2		0		2		3:15 PM				6		7		13	
3:30 AM				0		0		0		3:30 PM				15		10		25	
3:45 AM				0		1		1		3:45 PM				9		11		20	
4:00 AM				0	3	0	0	0	3	4:00 PM				11	41	16	44	27	85
4:15 AM				2		0		2		4:15 PM				13		11		24	
4:30 AM				1		0		1		4:30 PM				5		10		15	
4:45 AM				0		0		0		4:45 PM				12		7		19	
5:00 AM				0	1	0	1	0	2	5:00 PM				17	40	15	67	32	107
5:15 AM				0		0		0		5:15 PM				11		18		29	
5:30 AM				1		0		1		5:30 PM				9		15		24	
5:45 AM				0		1		1		5:45 PM				3		19		22	
6:00 AM				4	13	1	8	5	21	6:00 PM				7	28	12	45	19	73
6:15 AM				2		1		3		6:15 PM				7		15		22	
6:30 AM				5		4		9		6:30 PM				7		10		17	
6:45 AM				2		2		4		6:45 PM				7		8		15	
7:00 AM				7	26	2	11	9	37	7:00 PM				7	30	6	31	13	61
7:15 AM				8		4		12		7:15 PM				8		11		19	
7:30 AM				7		2		9		7:30 PM				9		9		18	
7:45 AM				4		3		7		7:45 PM				6		5		11	
8:00 AM				5	30	6	24	11	54	8:00 PM				4	23	10	35	14	58
8:15 AM				5		2		7		8:15 PM				6		6		12	
8:30 AM				8		5		13		8:30 PM				6		11		17	
8:45 AM				12		11		23		8:45 PM				7		8		15	
9:00 AM				8	51	11	44	19	95	9:00 PM				6	21	6	27	12	48
9:15 AM				15		11		26		9:15 PM				2		8		10	
9:30 AM				14		14		28		9:30 PM				3		7		10	
9:45 AM				14		8		22		9:45 PM				10		6		16	
10:00 AM				12	48	9	45	21	93	10:00 PM				2	11	4	19	6	30
10:15 AM				7		14		21		10:15 PM				2		5		7	
10:30 AM				14		13		27		10:30 PM				1		8		9	
10:45 AM				15		9		24		10:45 PM				6		2		8	
11:00 AM				13	50	11	40	24	90	11:00 PM				2	5	5	10	7	15
11:15 AM				8		8		16		11:15 PM				2		3		5	
11:30 AM				17		14		31		11:30 PM				1		1		2	
11:45 AM				12		7		19		11:45 PM				0		1		1	

City of Salem, OR
555 Liberty St SE / Rm 325
Salem, OR 97301-3503

Street: SALEM HEIGHTS AVENUE S
Cross St: East of 6th Avenue S
Weather: Sunny

Site: 2018021
Date: 8/26/2018
Sunday

Daily Volume

Begin	EBD	WBD	Combined	Begin	EBD	WBD	Combined
12:00 AM	1	3	0	4	1	7	24
12:15 AM	2		2		10	8	18
12:30 AM	0		0		11	17	28
12:45 AM	0		2		9	11	20
1:00 AM	1	4	1	5	14	15	29
1:15 AM	3		4		17	9	26
1:30 AM	0		2		10	11	21
1:45 AM	0		1		8	12	20
2:00 AM	0	1	0	1	13	11	24
2:15 AM	1		2		9	18	27
2:30 AM	0		0		11	7	18
2:45 AM	0		0		13	18	31
3:00 AM	1	2	1	1	8	14	22
3:15 AM	0		0		10	12	22
3:30 AM	0		0		8	20	28
3:45 AM	1		1		12	13	25
4:00 AM	1	2	1	2	12	16	28
4:15 AM	0		0		13	11	24
4:30 AM	1		1		13	16	29
4:45 AM	0		1		9	13	22
5:00 AM	0	1	1	4	12	8	20
5:15 AM	0		0		13	16	29
5:30 AM	1		3		9	18	27
5:45 AM	0		1		12	16	28
6:00 AM	2	7	2	5	8	9	17
6:15 AM	1		1		12	15	27
6:30 AM	1		1		10	16	26
6:45 AM	3		6		4	5	9
7:00 AM	1	17	3	15	7	10	17
7:15 AM	6		8		2	7	9
7:30 AM	7		9		11	9	20
7:45 AM	3		12		7	10	17
8:00 AM	7	32	3	25	4	8	12
8:15 AM	9		10		5	6	11
8:30 AM	8		10		7	7	16
8:45 AM	8		18		4	9	13
9:00 AM	9	41	17	33	2	1	3
9:15 AM	13		17		5	1	6
9:30 AM	9		18		3	6	9
9:45 AM	10		22		5	1	6
10:00 AM	14	56	10	34	3	2	5
10:15 AM	9		15		2	1	3
10:30 AM	19		29		3	4	7
10:45 AM	14		8		0	1	1
11:00 AM	18	46	12	41	4	1	5
11:15 AM	8		11		1	3	4
11:30 AM	14		19		0	2	2
11:45 AM	6		13		0	0	0

City of Salem, OR
555 Liberty St SE / Rm 325
Salem, OR 97301-3503

Street: SALEM HEIGHTS AVENUE S
Cross St: East of 6th Avenue S
Weather: Sunny

Site: 2018021
Date: 8/27/2018
Monday

Daily Volume

Begin	EBD	WBD	Combined	Begin	EBD	WBD	Combined
12:00 AM	1	2	3	12:00 PM	10	46	56
12:15 AM	1	2	3	12:15 PM	14	19	33
12:30 AM	0	0	0	12:30 PM	17	9	26
12:45 AM	0	0	0	12:45 PM	5	9	14
1:00 AM	0	0	0	1:00 PM	12	11	23
1:15 AM	0	0	0	1:15 PM	5	16	21
1:30 AM	0	0	0	1:30 PM	10	10	20
1:45 AM	0	0	0	1:45 PM	17	11	28
2:00 AM	1	2	2	2:00 PM	10	16	26
2:15 AM	0	0	0	2:15 PM	7	8	15
2:30 AM	0	1	1	2:30 PM	14	18	32
2:45 AM	1	2	3	2:45 PM	19	13	32
3:00 AM	0	0	0	3:00 PM	5	42	61
3:15 AM	0	0	0	3:15 PM	11	14	25
3:30 AM	0	1	1	3:30 PM	11	16	27
3:45 AM	0	0	0	3:45 PM	15	18	33
4:00 AM	0	4	4	4:00 PM	13	43	63
4:15 AM	3	0	3	4:15 PM	8	24	32
4:30 AM	0	0	0	4:30 PM	7	17	24
4:45 AM	1	0	1	4:45 PM	15	10	25
5:00 AM	1	10	2	5:00 PM	20	67	81
5:15 AM	1	0	1	5:15 PM	18	20	38
5:30 AM	3	0	3	5:30 PM	15	25	40
5:45 AM	5	1	6	5:45 PM	14	16	30
6:00 AM	1	25	3	6:00 PM	7	38	56
6:15 AM	7	2	9	6:15 PM	12	13	25
6:30 AM	7	2	9	6:30 PM	8	14	22
6:45 AM	10	1	11	6:45 PM	11	17	28
7:00 AM	8	38	14	7:00 PM	14	46	46
7:15 AM	10	4	14	7:15 PM	13	8	21
7:30 AM	9	6	15	7:30 PM	14	14	27
7:45 AM	11	5	16	7:45 PM	6	8	14
8:00 AM	5	35	14	8:00 PM	12	24	32
8:15 AM	11	5	16	8:15 PM	8	16	24
8:30 AM	5	4	9	8:30 PM	1	4	5
8:45 AM	14	2	16	8:45 PM	3	6	9
9:00 AM	9	38	19	9:00 PM	3	13	21
9:15 AM	10	7	17	9:15 PM	7	5	8
9:30 AM	11	10	21	9:30 PM	1	3	10
9:45 AM	8	1	9	9:45 PM	2	7	9
10:00 AM	8	24	15	10:00 PM	0	7	5
10:15 AM	6	10	16	10:15 PM	4	2	6
10:30 AM	3	13	16	10:30 PM	2	2	4
10:45 AM	7	11	18	10:45 PM	1	5	6
11:00 AM	16	48	26	11:00 PM	3	14	8
11:15 AM	7	14	21	11:15 PM	3	2	5
11:30 AM	13	10	23	11:30 PM	3	1	4
11:45 AM	12	9	21	11:45 PM	5	3	8
24 Hour Volume				Combined			
EBD 660 (48.1%)				1372			
WBD 171							
Combined 397							

24 Hour Volume EBD 660 (48.1%) WBD 171 Combined 397

12:00 AM - 12:00 PM

Count 226
Peak Hour Volume 48
Factor 0.75
56.9 %
11:00 AM
43.1 %
10:30 AM
48
0.86
11:00 AM
91
0.88

12:00 PM - 12:00 AM

EBD 434
WBD 541
Combined 975
44.5 %
5:00 PM
55.5 %
5:00 PM
81
0.81
5:00 PM
148
0.93

City of Salem, OR
555 Liberty St SE / Rm 325
Salem, OR 97301-3503

Street: SALEM HEIGHTS AVENUE S
Cross St: East of 6th Avenue S
Weather: Sunny

Site: 2018021
Date: 8/28/2018
Tuesday

Daily Volume

Daily Volume							
Begin	EBD	WBD	Combined	Begin	EBD	WBD	Combined
12:00 AM	2	4	4	8	16	59	28
12:15 AM	1	1	2	12:00 PM	18	15	33
12:30 AM	0	0	0	12:15 PM	11	11	22
12:45 AM	1	1	2	12:30 PM	14	10	24
1:00 AM	0	1	1	12:45 PM	8	48	20
1:15 AM	0	1	1	1:00 PM	13	11	24
1:30 AM	0	1	1	1:15 PM	13	17	30
1:45 AM	1	1	2	1:30 PM	14	12	26
2:00 AM	1	1	3	1:45 PM	11	43	28
2:15 AM	0	0	0	2:00 PM	7	8	15
2:30 AM	0	0	0	2:15 PM	10	9	19
2:45 AM	0	0	0	2:30 PM	15	10	25
3:00 AM	0	1	2	2:45 PM	8	43	20
3:15 AM	1	0	1	3:00 PM	14	16	30
3:30 AM	0	1	1	3:15 PM	12	15	27
3:45 AM	0	0	0	3:30 PM	9	11	20
4:00 AM	0	2	2	3:45 PM	16	57	27
4:15 AM	1	1	2	4:00 PM	11	13	27
4:30 AM	0	1	1	4:15 PM	16	15	31
4:45 AM	1	0	1	4:30 PM	11	15	26
5:00 AM	1	10	11	4:45 PM	14	52	32
5:15 AM	2	0	2	5:00 PM	13	17	30
5:30 AM	2	0	2	5:15 PM	9	20	29
5:45 AM	5	0	5	5:30 PM	16	18	34
6:00 AM	2	28	30	5:45 PM	11	35	27
6:15 AM	2	3	5	6:00 PM	12	15	27
6:30 AM	9	2	11	6:15 PM	7	19	26
6:45 AM	15	6	21	6:30 PM	5	11	16
7:00 AM	13	48	61	6:45 PM	6	35	17
7:15 AM	12	8	20	7:00 PM	12	14	26
7:30 AM	10	6	16	7:15 PM	10	6	16
7:45 AM	13	7	20	7:30 PM	7	6	13
8:00 AM	14	45	59	7:45 PM	4	16	29
8:15 AM	5	9	14	8:00 PM	6	8	12
8:30 AM	12	6	18	8:15 PM	4	6	10
8:45 AM	14	10	24	8:30 PM	2	9	11
9:00 AM	15	43	58	8:45 PM	5	14	8
9:15 AM	8	12	20	9:00 PM	3	5	8
9:30 AM	9	9	18	9:15 PM	1	8	9
9:45 AM	11	7	18	9:30 PM	5	2	7
10:00 AM	15	46	61	9:45 PM	1	5	6
10:15 AM	8	14	22	10:00 PM	1	3	4
10:30 AM	10	6	16	10:15 PM	1	3	4
10:45 AM	13	6	19	10:30 PM	2	5	7
11:00 AM	8	41	49	10:45 PM	3	6	6
11:15 AM	20	11	31	11:00 PM	0	1	1
11:30 AM	6	11	17	11:15 PM	1	1	2
11:45 AM	7	18	25	11:30 PM	2	2	4
				11:45 PM			

City of Salem, OR
555 Liberty St SE / Rm 325
Salem, OR 97301-3503

Street: SALEM HEIGHTS AVENUE S
Cross St: East of 6th Avenue S
Weather: Sunny

Site: 2018021
Date: 8/29/2018
Wednesday

Daily Volume

Begin	EBD	WBD	Combined	Begin	EBD	WBD	Combined
12:00 AM	1	3	4	12:00 PM	8	38	46
12:15 AM	2	2	4	12:15 PM	12	15	27
12:30 AM	0	2	2	12:30 PM	8	15	23
12:45 AM	0	1	1	12:45 PM	10	9	19
1:00 AM	0	1	0	1:00 PM	5	48	53
1:15 AM	0	1	1	1:15 PM	12	2	14
1:30 AM	0	1	1	1:30 PM	17	15	32
1:45 AM	1	1	2	1:45 PM	14	16	30
2:00 AM	0	0	0	2:00 PM	17	52	69
2:15 AM	0	0	0	2:15 PM	5	9	14
2:30 AM	0	1	1	2:30 PM	16	13	29
2:45 AM	0	1	1	2:45 PM	14	17	31
3:00 AM	0	0	0	3:00 PM	10	50	60
3:15 AM	0	0	0	3:15 PM	8	16	24
3:30 AM	0	1	1	3:30 PM	15	20	35
3:45 AM	0	1	1	3:45 PM	17	11	28
4:00 AM	1	5	6	4:00 PM	14	46	60
4:15 AM	1	1	2	4:15 PM	6	11	17
4:30 AM	2	0	2	4:30 PM	13	13	26
4:45 AM	1	0	1	4:45 PM	13	23	36
5:00 AM	0	0	0	5:00 PM	11	16	27
5:15 AM	1	0	1	5:15 PM	20	18	38
5:30 AM	4	2	6	5:30 PM	11	14	25
5:45 AM	4	1	5	5:45 PM	11	25	36
6:00 AM	3	34	37	6:00 PM	14	52	66
6:15 AM	8	3	11	6:15 PM	16	16	32
6:30 AM	12	5	17	6:30 PM	6	24	30
6:45 AM	11	6	17	6:45 PM	16	11	27
7:00 AM	11	38	49	7:00 PM	10	37	47
7:15 AM	9	5	14	7:15 PM	11	15	26
7:30 AM	10	6	16	7:30 PM	8	15	23
7:45 AM	8	3	11	7:45 PM	8	9	17
8:00 AM	4	41	45	8:00 PM	6	27	33
8:15 AM	15	8	23	8:15 PM	9	43	52
8:30 AM	5	6	11	8:30 PM	7	15	22
8:45 AM	17	10	27	8:45 PM	5	9	14
9:00 AM	12	40	52	9:00 PM	2	14	16
9:15 AM	11	11	22	9:15 PM	6	7	13
9:30 AM	8	8	16	9:30 PM	2	5	7
9:45 AM	9	3	12	9:45 PM	4	5	9
10:00 AM	13	36	49	10:00 PM	1	9	10
10:15 AM	6	7	13	10:15 PM	2	3	5
10:30 AM	7	9	16	10:30 PM	3	3	6
10:45 AM	10	16	26	10:45 PM	3	2	5
11:00 AM	13	42	55	11:00 PM	0	5	5
11:15 AM	5	7	12	11:15 PM	0	2	2
11:30 AM	15	13	28	11:30 PM	1	1	2
11:45 AM	9	17	26	11:45 PM	4	1	5

24 Hour Volume EBD 680 (47.9%) WBD 741 (52.1%) Combined 1421

12:00 AM - 12:00 PM

Count EBD 249 WBD 204 Combined 453
Peak Hour 55.0 % 8:15 AM 45.0 % 11:00 AM 10:45 AM
Volume 49 52 94
Factor 0.72 0.76 0.84

12:00 PM - 12:00 AM

Count EBD 431 WBD 537 Combined 968
Peak Hour 44.5 % 1:15 PM 55.5 % 5:15 PM 5:45 PM
Volume 60 80 128
Factor 0.88 0.80 0.84

City of Salem, OR
555 Liberty St SE / Rm 325
Salem, OR 97301-3503

Street: SALEM HEIGHTS AVENUE S
Cross St: East of 6th Avenue S
Weather: Sunny

Site: 2018021
Date: 8/30/2018
Thursday

Daily Volume

Begin	EBD	WBD	Combined	Begin	EBD	WBD	Combined
12:00 AM	1	2	3	12:00 PM	3	47	50
12:15 AM	0	2	2	12:15 PM	11	15	26
12:30 AM	0	2	2	12:30 PM	19	7	26
12:45 AM	1	0	1	12:45 PM	14	21	35
1:00 AM	0	0	0	1:00 PM	16	14	30
1:15 AM	0	0	0	1:15 PM	5	9	14
1:30 AM	0	0	0	1:30 PM	14	8	22
1:45 AM	1	0	1	1:45 PM	9	18	27
2:00 AM	2	4	6	2:00 PM	17	52	69
2:15 AM	0	0	0	2:15 PM	20	11	31
2:30 AM	0	0	0	2:30 PM	8	14	22
2:45 AM	2	1	3	2:45 PM	7	12	19
3:00 AM	0	0	0	3:00 PM	12	17	29
3:15 AM	0	1	1	3:15 PM	14	9	23
3:30 AM	0	0	0	3:30 PM	11	15	26
3:45 AM	2	0	2	3:45 PM	12	21	33
4:00 AM	0	3	3	4:00 PM	8	53	61
4:15 AM	2	2	4	4:15 PM	12	17	29
4:30 AM	0	0	0	4:30 PM	16	9	25
4:45 AM	1	1	2	4:45 PM	17	19	36
5:00 AM	2	15	17	5:00 PM	14	58	72
5:15 AM	3	2	5	5:15 PM	17	16	33
5:30 AM	2	0	2	5:30 PM	19	19	38
5:45 AM	8	2	10	5:45 PM	8	24	32
6:00 AM	2	27	29	6:00 PM	6	34	40
6:15 AM	6	1	7	6:15 PM	4	10	14
6:30 AM	6	3	9	6:30 PM	10	17	27
6:45 AM	13	5	18	6:45 PM	14	8	22
7:00 AM	18	4	22	7:00 PM	10	33	43
7:15 AM	12	5	17	7:15 PM	6	8	14
7:30 AM	12	8	20	7:30 PM	10	15	25
7:45 AM	14	10	24	7:45 PM	7	11	18
8:00 AM	8	3	11	8:00 PM	7	24	31
8:15 AM	8	1	9	8:15 PM	7	13	20
8:30 AM	7	5	12	8:30 PM	5	9	14
8:45 AM	22	7	29	8:45 PM	5	8	13
9:00 AM	15	43	58	9:00 PM	2	8	10
9:15 AM	8	7	15	9:15 PM	3	7	10
9:30 AM	11	9	20	9:30 PM	3	2	5
9:45 AM	9	9	18	9:45 PM	0	2	2
10:00 AM	12	10	22	10:00 PM	1	7	8
10:15 AM	12	8	20	10:15 PM	2	4	6
10:30 AM	5	11	16	10:30 PM	1	2	3
10:45 AM	13	10	23	10:45 PM	3	6	9
11:00 AM	8	46	54	11:00 PM	0	7	7
11:15 AM	9	8	17	11:15 PM	2	1	3
11:30 AM	10	15	25	11:30 PM	2	0	2
11:45 AM	19	13	32	11:45 PM	3	0	3
24 Hour Volume				Combined			
				1419			

24 Hour Volume				12:00 AM - 12:00 PM				12:00 PM - 12:00 AM			
Count	EBD	WBD	Combined	Count	EBD	WBD	Combined	Count	EBD	WBD	Combined
60.5 %	286	187	473	39.5 %	416	530	946	56.0 %	44.0 %	56.0 %	946
7:00 AM	56	45	91	11:00 AM	67	81	148	5:15 PM	4:45 PM	5:15 PM	131
Volume	0.78	0.75	0.71	Factor	0.88	0.84	0.86	Factor	0.88	0.84	0.86

City of Salem, OR
555 Liberty St SE / Rm 325
Salem, OR 97301-3503

Street: SALEM HEIGHTS AVENUE S
Cross St: East of 6th Avenue S
Weather: Sunny

Site: 2018021
Date: 8/31/2018
Friday

Daily Volume

Begin	EBD	WBD	Combined	Begin	EBD	WBD	Combined
12:00 AM	1	4	8	12:00 PM	15	59	74
12:15 AM	2	3	5	12:15 PM	17	10	27
12:30 AM	0	1	1	12:30 PM	18	14	32
12:45 AM	1	2	3	12:45 PM	9	13	22
1:00 AM	0	1	1	1:00 PM	12	36	48
1:15 AM	1	1	2	1:15 PM	18	20	38
1:30 AM	0	0	0	1:30 PM	6	8	14
1:45 AM	0	0	0				
2:00 AM	0	0	1				
2:15 AM	0	0	0				
2:30 AM	0	0	0				
2:45 AM	0	1	1				
3:00 AM	0	1	2				
3:15 AM	0	0	0				
3:30 AM	0	2	2				
3:45 AM	1	0	1				
4:00 AM	1	3	4				
4:15 AM	0	0	0				
4:30 AM	0	0	0				
4:45 AM	2	1	3				
5:00 AM	2	9	11				
5:15 AM	0	2	2				
5:30 AM	3	0	3				
5:45 AM	4	1	5				
6:00 AM	4	24	28				
6:15 AM	3	1	4				
6:30 AM	5	1	6				
6:45 AM	12	3	15				
7:00 AM	9	39	48				
7:15 AM	10	4	14				
7:30 AM	11	5	16				
7:45 AM	9	5	14				
8:00 AM	11	42	53				
8:15 AM	11	9	20				
8:30 AM	6	6	12				
8:45 AM	14	10	24				
9:00 AM	12	45	57				
9:15 AM	8	8	16				
9:30 AM	14	8	22				
9:45 AM	11	14	25				
10:00 AM	14	37	51				
10:15 AM	7	11	18				
10:30 AM	7	11	18				
10:45 AM	9	18	27				
11:00 AM	11	52	63				
11:15 AM	9	12	21				
11:30 AM	18	7	25				
11:45 AM	14	12	26				
24 Hour Volume				Combined			
				632			

12:00 AM - 12:00 PM				12:00 PM - 12:00 AM			
EBD	WBD	Combined		EBD	WBD	Combined	
257	194	451		95	86	181	
57.0 %	43.0 %			52.5 %	47.5 %		
11:00 AM	10:30 AM	10:45 AM		12:00 PM	12:30 PM	12:30 PM	
52	52	95		59	57	114	
Volume	Volume	Volume		Volume	Volume	Volume	
Factor	Factor	Factor		Factor	Factor	Factor	
0.72	0.72	0.88		0.82	0.71	0.75	

City of Salem, OR
555 Liberty St SE / Rm 325
Salem, OR 97301-3503

Street: SALEM HEIGHTS AVENUE S
Cross St: East of 6th Avenue S
Weather: Sunny

Site: 2018021
Date: 8/23/2018
Thursday

Daily Summary, per Channel

Volume	Day Total	12:00 AM - 12:00 PM	12:00 PM - 12:00 AM	Peak Hour	Volume	Factor	(EBD)
	317			4:45 PM	78	0.85	

Speed	0 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	(EBD)
mph	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<200	
Count	3	10	49	93	104	47	9	2	0	0	0	0	0	
%	0.9	3.2	15.5	29.3	32.8	14.8	2.8	0.6	0.0	0.0	0.0	0.0	0.0	
Total	317													

Avg. Speed	29.8 mph													
Percentile Speeds (mph)	10%	15%	50%	85%	90%									
	22.4	24.2	30.0	35.1	36.5									

Pace	Range (mph)	# in Pace	% in Pace											
	23.9 - 33.9	209	65.9											
Speed Exceeded (mph)	45	55												
Count	2	0												
%	0.6	0.0												

Classification	Cars & Trailer	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	(EBD)
Count	4	54	0	13	0	0	1	0	0	0	0	0	
%	1.3	17.0	0.0	4.1	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	
Total	317												

Axle Statistics

Sensor	A	B
Total Hits	1440	1432
% Used	98.7	99.2

Avg. Axles Per Vehicle: 2.02
Avg. Two-Axle Wheelbase: 9.4 ft.

City of Salem, OR
555 Liberty St SE / Rm 325
Salem, OR 97301-3503

Street: SALEM HEIGHTS AVENUE S
Cross St: East of 6th Avenue S
Weather: Sunny

Site: 2018021
Date: 8/24/2018
Friday

Daily Summary, per Channel

Volume		Peak Hour		Volume	Factor	(EBD)
Day Total	701	12:00 AM - 12:00 PM	10:30 AM	52	0.81	
		12:00 PM - 12:00 AM	12:00 PM	60	0.71	

Speed		(EBD)												
mph	0 -	15 -	20 -	25 -	30 -	35 -	40 -	45 -	50 -	55 -	60 -	65 -	70 -	
Count	<u><15</u>	<u><20</u>	<u><25</u>	<u><30</u>	<u><35</u>	<u><40</u>	<u><45</u>	<u><50</u>	<u><55</u>	<u><60</u>	<u><65</u>	<u><70</u>	<u><200</u>	
%	4	19	114	220	205	113	20	4	2	0	0	0	0	
Total	0.6	2.7	16.3	31.4	29.2	16.1	2.9	0.6	0.3	0.0	0.0	0.0	0.0	
	701													

Avg. Speed		29.8 mph											
Percentile Speeds (mph)		10%		15%		50%		85%		90%			
		22.7		23.9		29.6		35.8		37.2			

Pace		Range (mph)		# in Pace		% in Pace							
		25.9 - 35.9		451		64.3							

Speed Exceeded (mph)		45		55									
Count		6		0		0							
%		0.9		0.0		0.0							

Classification		Cars & Trailer		2 Axle Long		Buses		6 Tire		3 Axle Single		4 Axle Single		<5 Axle Double		5 Axle Double		>6 Axle Double		<6 Axle Multi		6 Axle Multi		>6 Axle Multi		(EBD)
Count		2		124		2		34		0		0		0		0		0		0		0		0		
%		0.3		17.7		0.3		4.9		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		
Total		701																								

Axle Statistics

Sensor		A		B	
Total Hits		2918		2916	
% Used		99.2		99.2	

Avg. Axles Per Vehicle: 2.01
Avg. Two-Axle Wheelbase: 9.5 ft.

City of Salem, OR
555 Liberty St SE / Rm 325
Salem, OR 97301-3503

Street: SALEM HEIGHTS AVENUE S
Cross St: East of 6th Avenue S
Weather: Sunny

Site: 2018021
Date: 8/25/2018
Saturday

Daily Summary, per Channel

Volume		Peak Hour	Volume	Factor	(EBD)
Day Total	612	9:15 AM 1:30 PM	55 60	0.92 0.88	

Speed	0 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	(EBD)
mph	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	
Count	3	15	76	175	212	106	22	3	0	0	0	0	
%	0.5	2.5	12.4	28.6	34.6	17.3	3.6	0.5	0.0	0.0	0.0	0.0	
Total	612												

Avg. Speed 30.6 mph

Percentile Speeds (mph)

10%	23.9
15%	24.8
50%	30.5
90%	37.2

Pace Range (mph) 26.6 - 36.6

# in Pace	409
% in Pace	66.8

Speed Exceeded (mph)

45	55
3	0
0.5	0.0

Classification		Cars & Trailer	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi	(EBD)
Count	6	493	94	0	16	0	0	0	0	0	0	0	0	
%	1.0	80.6	15.4	0.0	2.6	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	
Total	612													

Axle Statistics

Sensor	A	B
Total Hits	2610	2618
% Used	99.2	98.9

Avg. Axles Per Vehicle: 2.01
Avg. Two-Axle Wheelbase: 9.4 ft.

City of Salem, OR
555 Liberty St SE / Rm 325
Salem, OR 97301-3503

Street: SALEM HEIGHTS AVENUE S
Cross St: East of 6th Avenue S
Weather: Sunny

Site: 2018021
Date: 8/26/2018
Sunday

Daily Summary, per Channel

Volume	Day Total	12:00 AM - 12:00 PM	12:00 PM - 12:00 AM	Peak Hour	Volume	Factor	(EBD)
	588			10:15 AM	60	0.79	
				12:30 PM	51	0.75	

Speed	0 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	(EBD)
mph	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	
Count	3	17	97	187	191	79	13	1	0	0	0	0	
%	0.5	2.9	16.5	31.8	32.5	13.4	2.2	0.2	0.0	0.0	0.0	0.0	
Total	588												
Avg. Speed	29.5 mph												
Percentile Speeds (mph)	10% 22.4 15% 23.9 50% 29.6 85% 35.1 90% 36.5												
Pace	Range (mph) 23.9 - 33.9 # in Pace 402 % in Pace 68.4												
Speed Exceeded (mph)	45	55	65										
Count	1	0	0										
%	0.2	0.0	0.0										

Classification	Cars & Trailer	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi	(EBD)
Count	2	88	0	8	0	0	0	0	0	0	0	0	
%	0.3	15.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total	588												

Axle Statistics

Sensor	A	B
Total Hits	2464	2469
% Used	98.9	98.7

Avg. Axles Per Vehicle: 2.00
Avg. Two-Axle Wheelbase: 9.3 ft.

City of Salem, OR
555 Liberty St SE / Rm 325
Salem, OR 97301-3503

Street: SALEM HEIGHTS AVENUE S
Cross St: East of 6th Avenue S
Weather: Sunny

Site: 2018021
Date: 8/27/2018
Monday

Daily Summary, per Channel

Volume		(EBD)			
Day Total	660	12:00 AM - 12:00 PM		Peak Hour	Factor
		12:00 PM - 12:00 AM		11:00 AM 4:45 PM	0.75 0.85
				Volume	
				48	
				68	

Speed		(EBD)												
mph	Count	0 -	15 -	20 -	25 -	30 -	35 -	40 -	45 -	50 -	55 -	60 -	65 -	70 -
		<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<200
		4	15	85	188	224	109	22	9	2	0	0	0	2
%		0.6	2.3	12.9	28.5	33.9	16.5	3.3	1.4	0.3	0.0	0.0	0.0	0.3
Total		660												

Avg. Speed		30.7 mph			
Percentile Speeds (mph)					

City of Salem, OR
555 Liberty St SE / Rm 325
Salem, OR 97301-3503

Site: 2018021
Date: 8/28/2018
Tuesday

Street: SALEM HEIGHTS AVENUE S
Cross St: East of 6th Avenue S
Weather: Sunny

Daily Summary, per Channel

Volume	Day Total	12:00 AM - 12:00 PM	12:00 PM - 12:00 AM	Peak Hour 10:30 AM 12:00 PM	Volume 51 59	Factor 0.64 0.82	(EBD)
	683						

Speed	0 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 200	(EBD)
mph	< 15	< 20	< 25	< 30	< 35	< 40	< 45	< 50	< 55	< 60	< 65	< 70	< 200	
Count	4	13	72	183	257	126	22	6	0	0	0	0	0	
%	0.6	1.9	10.5	26.8	37.6	18.4	3.2	0.9	0.0	0.0	0.0	0.0	0.0	
Total	683													

Avg. Speed 30.9 mph

Percentile Speeds (mph)

10%	23.9
15%	25.5
50%	31.6
85%	36.5
90%	37.2

Pace Range (mph) 25.9 - 35.9

# in Pace	473
% in Pace	69.3

Speed Exceeded (mph)

45	55
Count	6
%	0.9
	0.0
	0.0

Classification	Cars & Trailer	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	(EBD)
Count	7	123	1	28	1	0	0	0	0	0	0	0	
%	1.0	18.0	0.1	4.1	0.1	0.0	0.6	0.0	0.0	0.0	0.0	0.0	
Total	683												

Axle Statistics

Sensor	A	B
Total Hits	2834	2835
% Used	98.6	98.5

Avg. Axles Per Vehicle: 2.02
Avg. Two-Axle Wheelbase: 9.5 ft.

City of Salem, OR
555 Liberty St SE / Rm 325
Salem, OR 97301-3503

Street: SALEM HEIGHTS AVENUE S
Cross St: East of 6th Avenue S
Weather: Sunny

Site: 2018021
Date: 8/29/2018
Wednesday

Daily Summary, per Channel

Volume		12:00 AM - 12:00 PM		Peak Hour		Volume		Factor		(EBD)
Day Total		12:00 PM - 12:00 AM		8:15 AM 1:15 PM		49 60		0.72 0.88		
680										
Speed		0 - 15 - 20 - 25 - 30 - 35 -		40 - 45 - 50 - 55 - 60 - 65 - 70 -						(EBD)
mph		< 15 < 20 < 25 < 30 < 35 < 40		< 45 < 50 < 60 < 65 < 70 < 200						
Count		2 14 77 201 235 123		23 4 0 1 0 0						
%		0.3 2.1 11.3 29.6 34.6 18.1		3.4 0.6 0.0 0.1 0.0 0.0						
Total		680								
Avg. Speed		30.8 mph								
Percentile Speeds (mph)		10% 23.6		15% 25.2		50% 31.0		90% 37.2		
Pace		Range (mph) 25.2 - 35.2		# in Pace 465		% in Pace 68.4				
Speed Exceeded (mph)		45 55		65						
Count		5 1		0						
%		0.7 0.1		0.0						
Classification		Cars & Trailer		2 Axle Long Buses		2 Axle 6 Tire		3 Axle Single		(EBD)
Bike		517 113		3 3		36 5		0 0		
Count		6 76.0		0.4 16.6		5.3 0.4		0.0 0.0		
%		0.9 76.0		16.6 0.4		5.3 0.4		0.0 0.0		
Total		680								
Axle Statistics		Sensor		A		B				
Total Hits		2914		2914		2914				
% Used		98.2		98.2		98.2				

City of Salem, OR
555 Liberty St SE / Rm 325
Salem, OR 97301-3503

Street: SALEM HEIGHTS AVENUE S
Cross St: East of 6th Avenue S
Weather: Sunny

Site: 2018021
Date: 8/30/2018
Thursday

Daily Summary, per Channel

Volume		Peak Hour	Volume	Factor	(EBD)
Day Total	702	12:00 AM - 12:00 PM	56	0.78	
		12:00 PM - 12:00 AM	67	0.88	

Speed		0 - 15		15 - 20		20 - 25		25 - 30		30 - 35		35 - 40		40 - 45		45 - 50		50 - 55		55 - 60		60 - 65		65 - 70		70 - <200		(EBD)
mph	Count	5	14	84	224	241	112	16	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1		
%		0.7	2.0	12.0	31.9	34.3	16.0	2.3	0.4	0.3	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	0.1			
Total		702																										

Avg. Speed 30.3 mph

Percentile Speeds (mph) 10% 23.6 15% 25.2 50% 30.0 85% 35.8 90% 37.2

Pace Range (mph) 25.2 - 35.2 # in Pace 485 % in Pace 69.1

Speed Exceeded (mph) 45 55 65
Count 6 1 1
% 0.9 0.1 0.1

Classification		2 Axle		2 Axle		3 Axle		4 Axle		<5 Axle		5 Axle		>6 Axle		<6 Axle		6 Axle		>6 Axle		(EBD)
	Bike	Trailer	Long	Buses	6 Tire	Single	Single	Single	Double	Double	Double	Double	Double	Multi	Multi	Multi	Multi	Multi	Multi	Multi		
Count	1	536	123	4	35	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0		
%	0.1	76.4	17.5	0.6	5.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Total	702																					

Axle Statistics

Sensor A B
Total Hits 2905 2904
% Used 98.8 98.9

Avg. Axles Per Vehicle: 2.02
Avg. Two-Axle Wheelbase: 9.5 ft.

City of Salem, OR
555 Liberty St SE / Rm 325
Salem, OR 97301-3503

Street: SALEM HEIGHTS AVENUE S
Cross St: East of 6th Avenue S
Weather: Sunny

Site: 2018021
Date: 8/31/2018
Friday

Daily Summary, per Channel

Volume							(EBD)
	Day Total	12:00 AM - 12:00 PM	12:00 PM - 12:00 AM	Peak Hour	Volume	Factor	
	352			11:00 AM 12:00 PM	52 59	0.72 0.82	

Speed														(EBD)
	0 - <u>< 15</u>	15 - <u>< 20</u>	20 - <u>< 25</u>	25 - <u>< 30</u>	30 - <u>< 35</u>	35 - <u>< 40</u>	40 - <u>< 45</u>	45 - <u>< 50</u>	50 - <u>< 55</u>	55 - <u>< 60</u>	60 - <u>< 65</u>	65 - <u>< 70</u>	70 - <u>< 200</u>	
mph	0	15	43	112	122	50	8	0	2	0	0	0	0	
Count														
%	0.0	4.3	12.2	31.8	34.7	14.2	2.3	0.0	0.6	0.0	0.0	0.0	0.0	
Total	352													

Avg. Speed 30.0 mph

Percentile Speeds (mph) 10% 22.4 15% 24.5 50% 30.0 85% 35.1 90% 35.8

Pace Range (mph) 25.9 - 35.9 # in Pace 252 % in Pace 71.6

Speed Exceeded (mph) 45 55 65
Count 2 0 0
% 0.6 0.0 0.0

Classification		(EBD)											
	Cars & Trailer	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	
Count	0	61	0	19	0	0	2	0	0	0	0	0	
%	0.0	17.3	0.0	5.4	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	
Total	352												

Axle Statistics

Sensor A B
Total Hits 1293 1295
% Used 98.5 98.4

Avg. Axles Per Vehicle: 2.02
Avg. Two-Axle Wheelbase: 9.6 ft.

City of Salem, OR
555 Liberty St SE / Rm 325
Salem, OR 97301-3503

Street: SALEM HEIGHTS AVENUE S
Cross St: East of 6th Avenue S
Weather: Sunny

Site: 2018021
Date: 8/23/2018
Thursday

Daily Summary, per Channel

Volume	Day Total	12:00 AM - 12:00 PM	12:00 PM - 12:00 AM	Peak Hour	Volume	Factor	(WBD)
	388			5:00 PM	73	0.83	

Speed	0 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	(WBD)
mph	< 15	< 20	< 25	< 30	< 35	< 40	< 45	< 50	< 55	< 60	< 65	< 70	
Count	3	9	55	171	114	31	4	1	0	0	0	0	
%	0.8	2.3	14.2	44.1	29.4	8.0	1.0	0.3	0.0	0.0	0.0	0.0	
Total	388												

Avg. Speed 28.8 mph

Percentile Speeds (mph) 10% 22.7 15% 24.2 50% 28.6 85% 33.2 90% 34.5

Pace Range (mph) 25.2 - 35.2 # in Pace 295 % in Pace 76.0

Speed Exceeded (mph) 45 55 65
Count 1 0 0
% 0.3 0.0 0.0

Classification	Cars & Trailer	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	(WBD)
Count	4	71	0	14	0	0	0	0	0	0	0	0	
%	1.0	18.3	0.0	3.6	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	
Total	388												

Axle Statistics

Sensor A B
Total Hits 1440 1432
% Used 98.7 99.2

Avg. Axles Per Vehicle: 2.02
Avg. Two-Axle Wheelbase: 9.4 ft.

City of Salem, OR
555 Liberty St SE / Rm 325
Salem, OR 97301-3503

Street: SALEM HEIGHTS AVENUE S
Cross St: East of 6th Avenue S
Weather: Sunny

Site: 2018021
Date: 8/24/2018
Friday

Daily Summary, per Channel

Volume		Peak Hour		Volume		Factor		(WBD)
Day Total	736	12:00 AM - 12:00 PM	10:00 AM 5:15 PM	53	82	0.7	0.82	

Speed		(WBD)													
mph	Count	0 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	
Count	0	14	77	261	281	92	10	10	1	0	0	0	0	0	
%	0.0	1.9	10.5	35.5	38.2	12.5	1.4	1.4	0.1	0.0	0.0	0.0	0.0	0.0	
Total	736														

Percentile Speeds (mph)		Avg. Speed		Range (mph)		# in Pace		% in Pace		(WBD)
Count	%	Count	%	Count	%	Count	%	Count	%	
45	10%	24.2	15%	25.9 - 35.9	572	77.7	85%	90%	34.5	35.1

Speed Exceeded (mph)		Count		% Count		(WBD)
Count	%	Count	%	Count	%	
45	1	55	0	0.0	0.0	

Classification		Cars & Trailer		2 Axle Long		Buses		2 Axle 6 Tire		3 Axle Single		4 Axle Single		<5 Axl Double		5 Axle Double		>6 Axl Double		<6 Axl Multi		6 Axle Multi		>6 Axl Multi		(WBD)
Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	
1	0.1	583	79.2	117	15.9	1	0.1	32	4.3	0	0.0	0	0.0	2	0.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	
Total	736																									

Axle Statistics

Sensor		A		B	
Total Hits	% Used	Total Hits	% Used	Total Hits	% Used
2918	99.2	2916	99.2		

Avg. Axles Per Vehicle: 2.01
Avg. Two-Axle Wheelbase: 9.5 ft.

City of Salem, OR
555 Liberty St SE / Rm 325
Salem, OR 97301-3503

Street: SALEM HEIGHTS AVENUE S
Cross St: East of 6th Avenue S
Weather: Sunny

Site: 2018021
Date: 8/25/2018
Saturday

Daily Summary, per Channel

Volume		Peak Hour	Volume	Factor	(WBD)
Day Total	675	12:00 AM - 12:00 PM	47	0.84	
		12:00 PM - 12:00 AM	68	0.74	

Speed		15 -		20 -		25 -		30 -		35 -		40 -		45 -		50 -		55 -		60 -		65 -		70 -		(WBD)		
		0 -		15 -		20 -		25 -		30 -		35 -		40 -		45 -		50 -		55 -		60 -		65 -		70 -		
mph		<15		<20		<25		<30		<35		<40		<45		<50		<55		<60		<65		<70		<200		
Count		0		13		78		239		252		78		14		1		0		0		0		0		0		
%		0.0		1.9		11.6		35.4		37.3		11.6		2.1		0.1		0.0		0.0		0.0		0.0		0.0		
Total		675																										

Avg. Speed		29.9 mph												
Percentile Speeds (mph)		10%		15%		50%		85%		90%				
		23.9		25.2		30.0		34.5		35.8				

Pace	Range (mph)	# in Pace	% in Pace
	25.2 - 35.2	505	74.8

Speed Exceeded (mph)	45	55
Count	1	0
%	0.1	0.0

Classification		Cars &		2 Axle		3 Axle		4 Axle		<5 Axl		5 Axle		>6 Axl		6 Axle		>6 Axl		(WBD)
		Trailer	Long	Buses	6 Tire	Single	Double	Single	Double	Double	Double	Double	Double	Multi	Multi	Multi	Multi	Multi		
Count	6	533	117	0	17	0	0	0	2	0	0.3	0	0	0	0	0	0	0		
%	0.9	79.0	17.3	0.0	2.5	0.0	0.0	0.0	0.3	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Total	675																			

Axle Statistics		Sensor		A		B	
Total Hits	% Used	2610	99.2	2618	98.9		

Avg. Axles Per Vehicle: 2.01
Avg. Two-Axle Wheelbase: 9.4 ft.

City of Salem, OR
555 Liberty St SE / Rm 325
Salem, OR 97301-3503

Street: SALEM HEIGHTS AVENUE S
Cross St: East of 6th Avenue S
Weather: Sunny

Site: 2018021
Date: 8/26/2018
Sunday

Daily Summary, per Channel

Volume	Peak Hour				Factor	(WBD)
	Day Total	12:00 AM - 12:00 PM	12:00 PM - 12:00 AM	10:30 AM 2:45 PM		
	629			41 64	0.85 0.8	

Speed	(WBD)												
	0 -	15 -	20 -	25 -	30 -	35 -	40 -	45 -	50 -	55 -	60 -	65 -	70 -
mph	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<75
Count	3	9	68	247	200	92	6	3	1	0	0	0	0
%	0.5	1.4	10.8	39.3	31.8	14.6	1.0	0.5	0.2	0.0	0.0	0.0	0.0
Total	629												

Avg. Speed 30.0 mph

Percentile Speeds (mph) 10% 24.5 15% 25.2 50% 29.6 85% 35.1 90% 35.8

Pace Range (mph) 25.2 - 35.2 # in Pace 469 % in Pace 74.6

Speed Exceeded (mph) 45 55 65
Count 4 0 0
% 0.6 0.0 0.0

Classification		(WBD)											
		Cars & Trailer	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi
Count	Bike	3	505	0	16	0	0	0	0	0	0	0	0
%		80.3	16.7	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total													

Axle Statistics

Sensor A 2464
Total Hits 2469
% Used 98.7

Avg. Axles Per Vehicle: 2.00
Avg. Two-Axle Wheelbase: 9.3 ft.

City of Salem, OR
555 Liberty St SE / Rm 325
Salem, OR 97301-3503

Street: SALEM HEIGHTS AVENUE S
Cross St: East of 6th Avenue S
Weather: Sunny

Site: 2018021
Date: 8/27/2018
Monday

Daily Summary, per Channel

Volume					(WBD)
	Day Total	12:00 AM - 12:00 PM	12:00 PM - 12:00 AM	Peak Hour	
	712			10:30 AM	
				5:00 PM	
				Volume	Factor
				48	0.86
				81	0.81

Speed											(WBD)
	0 -	15 -	20 -	25 -	30 -	35 -	40 -	45 -	50 -	55 -	
mph	< 15	< 20	< 25	< 30	< 35	< 40	< 45	< 50	< 55	< 60	
Count	1	10	79	253	273	85	9	0	1	0	
%	0.1	1.4	11.1	35.5	38.3	11.9	1.3	0.0	0.1	0.0	
Total	712										

Avg. Speed		30.0 mph									
Percentile Speeds (mph)		10%		15%		50%		85%		90%	
		24.5		25.5		30.0		34.5		35.1	

Pace		Range (mph)		# in Pace		% in Pace	
		25.2 - 35.2		551		77.4	

Speed Exceeded (mph)		45		55		65	
Count		2		1		1	
%		0.3		0.1		0.1	

Classification											(WBD)
	Cars & Trailer	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	
Count	2	104	1	29	0	0	2	0	0	0	
%	0.3	14.6	0.1	4.1	0.0	0.0	0.3	0.0	0.0	0.0	
Total	712										

Axle Statistics		Sensor		A		B	
		Total Hits		2816		2816	
		% Used		98.4		98.4	

Avg. Axles Per Vehicle: 2.02
Avg. Two-Axle Wheelbase: 9.5 ft.

City of Salem, OR
555 Liberty St SE / Rm 325
Salem, OR 97301-3503

Street: SALEM HEIGHTS AVENUE S
Cross St: East of 6th Avenue S
Weather: Sunny

Site: 2018021
Date: 8/28/2018
Tuesday

Daily Summary, per Channel

Volume		Peak Hour		Volume		Factor		(WBD)
Day Total	697	12:00 AM - 12:00 PM	11:00 AM	56	73	0.78	0.91	
		12:00 PM - 12:00 AM	5:00 PM					

Speed		15 -		20 -		25 -		30 -		35 -		40 -		45 -		50 -		55 -		60 -		65 -		70 -		(WBD)
mph	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<75	<80	<85	<90	<95	<100	<105	<110	<115	<120	<125	<130	<135	
Count	0	12	59	241	274	89	16	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(WBD)
%	0.0	1.7	8.5	34.6	39.3	12.8	2.3	0.6	0.3	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	
Total	697																									

Avg. Speed 30.4 mph

Percentile Speeds (mph)
10% 24.8
15% 25.9
50% 30.5
85% 35.1
90% 35.8

Pace Range (mph)
25.2 - 35.2
in Pace 543
% in Pace 77.9

Speed Exceeded (mph)
Count 45
% 6.5
0.9 0.0 0.0

Classification		Cars &		2 Axle		Long		Buses		2 Axle		3 Axle		4 Axle		<5 Axl		5 Axle		>6 Axl		<6 Axl		6 Axle		>6 Axl		(WBD)
Bike	6	Trailer	544	78.0	16.6	116	16.6	0	0.0	6 Tire	23	Single	0	Single	0	Double	8	Double	0	Double	0	Multi	0	Multi	0	Multi	0	
Count	0																											(WBD)
%	0.0																											
Total	697																											

Axle Statistics

Sensor A B
Total Hits 2834 2835
% Used 98.6 98.5

Avg. Axles Per Vehicle: 2.02
Avg. Two-Axle Wheelbase: 9.5 ft.

City of Salem, OR
555 Liberty St SE / Rm 325
Salem, OR 97301-3503

Street: SALEM HEIGHTS AVENUE S
Cross St: East of 6th Avenue S
Weather: Sunny

Site: 2018021
Date: 8/29/2018
Wednesday

Daily Summary, per Channel

Volume	Day Total	12:00 AM - 12:00 PM	12:00 PM - 12:00 AM	Peak Hour	Volume	Factor	(WBD)
	741			11:00 AM	52	0.76	
				5:45 PM	80	0.8	

Speed	0 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - >200	(WBD)
mph	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<200	
Count	1	8	54	263	299	98	18	0	0	0	0	0	0	
%	0.1	1.1	7.3	35.5	40.4	13.2	2.4	0.0	0.0	0.0	0.0	0.0	0.0	
Total	741													

Avg. Speed 30.5 mph

Percentile Speeds (mph)

10%	25.2
15%	26.2
50%	30.5
85%	35.1
90%	35.8

Pace Range (mph)

25.9 - 35.9	# in Pace	% in Pace
	582	78.5

Speed Exceeded (mph)

45	55	65
Count	0	0
%	0.0	0.0

Classification	Cars & Trailer	2 Axle Long	2 Axle Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	(WBD)
Count	7	115	2	26	0	0	5	0	0	0	0	0	
%	0.9	15.5	0.3	3.5	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	
Total	741												

Axle Statistics

Sensor	A	B
Total Hits	2914	2914
% Used	98.2	98.2

Avg. Axles Per Vehicle: 2.01
Avg. Two-Axle Wheelbase: 9.5 ft.

City of Salem, OR
555 Liberty St SE / Rm 325
Salem, OR 97301-3503

Street: SALEM HEIGHTS AVENUE S
Cross St: East of 6th Avenue S
Weather: Sunny

Site: 2018021
Date: 8/30/2018
Thursday

Daily Summary, per Channel

Volume	Day Total	12:00 AM - 12:00 PM	12:00 PM - 12:00 AM	Peak Hour 11:00 AM 5:15 PM	Volume 45 81	Factor 0.75 0.84	(WBD)
	717						

Speed	0 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	(WBD)
mph	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<200	
Count	3	7	78	287	251	82	6	2	0	0	1	0	0	
%	0.4	1.0	10.9	40.0	35.0	11.4	0.8	0.3	0.0	0.0	0.1	0.0	0.0	
Total	717													

Avg. Speed 29.8 mph

Percentile Speeds (mph)	10%	15%	50%	85%	90%
	24.2	25.5	29.6	34.5	35.1

Pace Range (mph) 25.2 - 35.2
in Pace 560
% in Pace 78.1

Speed Exceeded (mph)
Count 45 55 65
% 3 1 0
0.4 0.1 0.0

Classification	Cars & Trailer	2 Axle Long	2 Axle Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	(WBD)
Count	2	130	1	28	1	0	0	0	0	0	0	0	
%	0.3	18.1	0.1	3.9	0.1	0.0	1.0	0.0	0.0	0.0	0.0	0.0	
Total	717												

Axle Statistics

Sensor A B
Total Hits 2905 2904
% Used 98.8 98.9

Avg. Axles Per Vehicle: 2.02
Avg. Two-Axle Wheelbase: 9.5 ft.

City of Salem, OR
555 Liberty St SE / Rm 325
Salem, OR 97301-3503

Street: SALEM HEIGHTS AVENUE S
Cross St: East of 6th Avenue S
Weather: Sunny

Site: 2018021
Date: 8/31/2018
Friday

Daily Summary, per Channel

Volume	Peak Hour				Factor	(WBD)
	Day Total	12:00 AM - 12:00 PM	12:00 PM - 12:00 AM	10:30 AM 12:30 PM		
	280				0.72 0.71	

Speed	# in Pace													(WBD)
	0 - ≤ 15	15 - ≤ 20	20 - ≤ 25	25 - ≤ 30	30 - ≤ 35	35 - ≤ 40	40 - ≤ 45	45 - ≤ 50	50 - ≤ 55	55 - ≤ 60	60 - ≤ 65	65 - ≤ 70	70 - ≤ 200	
mph	4	5	70	109	70	18	2	2	0	0	0	0	0	
Count	4	5	70	109	70	18	2	2	0	0	0	0	0	
%	1.4	1.8	25.0	38.9	25.0	6.4	0.7	0.7	0.0	0.0	0.0	0.0	0.0	
Total	280													

Avg. Speed	27.9 mph
Percentile Speeds (mph)	10% 22.2
	15% 23.3
	50% 27.8
	85% 33.2
	90% 33.9

Speed Exceeded (mph)	% in Pace			
	23.3 - 33.3	33.3 - 43.3	43.3 - 53.3	53.3 - 63.3
Count	2	0	0	0
%	0.7	0.0	0.0	0.0

Classification		(WBD)										
	Cars & Trailer	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi
Count	0	65	2	15	0	0	1	0	0	0	0	0
%	0.0	23.2	0.7	5.4	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0
Total	280											

Axle Statistics		
Sensor	A	B
Total Hits	1293	1295
% Used	98.5	98.4

Avg. Axles Per Vehicle: 2.02
Avg. Two-Axle Wheelbase: 9.6 ft.

Amy Johnson

From: Nathan K. Riemersma <nathanr@sglaw.com>
Sent: Monday, August 05, 2019 5:00 PM
To: CityRecorder
Cc: Alan M. Sorem; Jennifer S. Marshall
Subject: Wren Heights Sub-ADJ 19-02
Attachments: 15128-20190805-Wren Heights Engineers Estimate.pdf

Good afternoon. Please accept the attached evidence on behalf of applicant in the above referenced matter.

Nathan K. Riemersma

Associate Attorney – Real Estate and Land Use



Park Place, Suite 200 | 250 Church Street SE | Salem, Oregon 97301

tel: 503.399.1070 | fax: 503.371.2927

[Email](#) | [Web](#)

This message & attachments hereto are privileged and confidential. Do not forward, copy, or print without authorization. Sender has scrubbed metadata from the attachment & recipient shall not scan for metadata erroneously remaining. If recipient does not agree to all conditions above, recipient shall delete this message & the attachments & notify sender by email.

ENGINEER'S ESTIMATE

PROJECT: Wren Heights Suddivision - Salem Heights Frontage Improvements

DATE: 8/5/2019

PREPARED BY: PROJECT DELIVERY GROUP

DRAWINGS: 15128_Improvement Drawings_20190724



BID ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL COST
1	Storm Sewer Improvements - SD 10" D3034	487	LF	\$55	\$26,785
2	Storm Sewer Improvements - SDMH	2	EA	\$5,600	\$11,200
3	Storm Sewer Improvements - Type-2 Inlet	3	EA	\$2,500	\$7,500
5	Storm Sewer Improvements - Cleanout	1	EA	\$1,000	\$1,000
6	Sanitary Sewer Improvements - 4" PVC D3034 Lateral	111	LF	\$50	\$5,550
7	Waterline Improvements - 8" Hot Tap Saddle & Valve	1	EA	\$7,500	\$7,500
8	Waterline Improvements - 1" Service Line w/ Meter & Box	6	EA	\$1,700	\$10,200
9	Waterline Improvements - 8" DIP Water Main	52	LF	\$62	\$3,224
10	Waterline Improvements - 6" DIP Water Main	33	LF	\$55	\$1,815
11	Waterline Improvements - 6" Hydrant Assembly	1	EA	\$6,500	\$6,500
11	4" Sidewalk - To be built with street	2039	SF	\$6	\$12,234
12	4" Sidewalk - ADA Ramps	4	EA	\$1,500	\$6,000
15	6" Reinforced Concrete Driveway	368	SF	\$9	\$3,312
16	Asphalt - Street: 5"	472	TN	\$105	\$49,560
17	Base Rock	1125	TN	\$45	
18	Sawcut Existing Pavement	689	LF	\$2	\$1,378
19	Geotextile Fabric	617	SY	\$2	\$1,234
20	Curb and Gutter	457	LF	\$18	\$8,226
21	Streetlights	2	EA	\$3,500	\$7,000