

Technical Memorandum

February 18, 2025

Project# 29385

To: Todd Johnson & Garrett Sabourin
City of Bend

From: Matt Kittelson, PE, Jacki Smith, PE, Pavithran Balan, Kittelson & Associates, Inc.

RE: Bend Midtown Crossing - Greenwood Traffic Monitoring: Post-Construction January 2025

TRAFFIC MONITORING SUMMARY

As part of the Midtown Crossing Progressive Design Build effort, Kittelson & Associates, Inc. (Kittelson) is supporting a traffic data monitoring inventory for the Greenwood Avenue Quick Build. The Quick Build is a one-year pilot project to evaluate the safety and operations impact of transforming the existing roadway on Greenwood Avenue from 2nd Street to Wall Street to a three-lane cross section with buffered bike lanes. Kittelson will monitor the pre- and post-construction volume, travel speed, and travel time data to assess the project's effects on traffic operations.

The memorandum documents the findings after the second round of post-construction data collection in January 2025. **Notes and observations related to the January 2025 data are bolded in this report.**

As part of the monitoring process, the following data were collected:

- Traffic Count Data
 - 48-hour travel volume, speed, and vehicle classification data for vehicles
 - 48-hour pedestrian and bicycle volumes
- Travel Time Data
 - Google API
 - INRIX

Data will be collected during the following time periods for evaluation:

- Pre-construction – May 2024 (Complete and included in this memorandum)
- Post-construction 1 – September 2024 (Complete and included in this memorandum)
- Post-construction 2 – January 2025 (**Complete and included in this memorandum**)
- Post-construction 3 – May/June 2025 (*Pending*)

Data Collection Conditions

This section provides a summary of conditions during each data collection period. The purpose of this summary is to note conditions during the data collection period so that trends can be identified over time, as travel patterns may be influenced by ideal or adverse weather conditions.

Pre-Construction – May 14th & 15th, 2024:

Conditions during this data collection period were slightly warmer than seasonal averages for spring, with lows around 38°F and highs between 71-80°F. There was no reported precipitation and winds were calm. Air quality was reported to be good on both days.

Post-Construction 1 – September 24th & 25th, 2024:

Conditions during this data collection period were warmer than seasonal averages for fall, with lows around 49-56°F and highs between 80-90°F. Winds ranged from calm to gusts up to 40+ mph during midday on September 25th. Air quality was moderate on the days data were collected, although the area had experienced unhealthy conditions the prior week due to late-season wildfires.

Post-Construction 2 – January 29th & 30th, 2025:

During this period of data collection, temperatures were above the seasonal averages for winter. Early morning lows ranged from 10°F to 19°F, while midday highs were between 55°F and 59°F. Both days experienced clear and dry conditions with no residual snow present on the ground. Wind speeds were moderate, reaching up to 9 mph in the late morning.

Due to the City's dedication to implementing transportation projects and improvements, there has been significant construction activity throughout the City. As part of the ongoing Awbrey Butte Waterline Improvement project, Portland Avenue from 1st Street to 9th Street was closed in November 2024 and is expected to remain closed until the spring. The designated detour directs traffic south on 9th Street and east to Greenwood Avenue/Wall Street. These conditions were not presents during either the May or September data collection periods.

Following the closure of Portland Avenue, the project team received numerous public comments indicating increased travel times and congestion for eastbound traffic on Newport Avenue at Wall Street.

The Olney Avenue and Wall Street intersection, just north of Greenwood Avenue, was closed on Monday, February 3rd due to an infrastructure and transportation facilities project at that intersection and along the Olney Avenue corridor. That closure occurred after this data was collected and, therefore, the effects of that closure are not reflected in the observations presented in this memorandum.

Traffic Count Data Analysis

Traffic counts and speed data were collected to understand the pre- and post-construction travel demand on Greenwood Avenue. For each round of data collection, two days (48 hours) of vehicle, pedestrian, and bicycle counts were collected at two locations:

- Greenwood Avenue between Harriman Street and Hill Street (west of Hill Street).
- Greenwood Avenue between Hill Street and 1st Street (east of Hill Street near the undercrossing).

The data were collected on the following dates:

- Pre-construction: Tuesday May 14, 2024, and Wednesday May 15, 2024
- Post-construction 1: Tuesday Sep 24, 2024, and Wednesday Sep 25, 2024
- **Post-construction 2: Wednesday Jan 29, 2025, and Thursday Jan 30, 2025**

The volume and speed data during pre-construction, post-construction 1, and post-construction 2 periods are provided in Appendix A, Appendix B, and Appendix C, respectively.

Vehicle Volume

Kittelson analyzed the traffic volumes by averaging two days of data, as shown in Table 1. Key findings are summarized below:

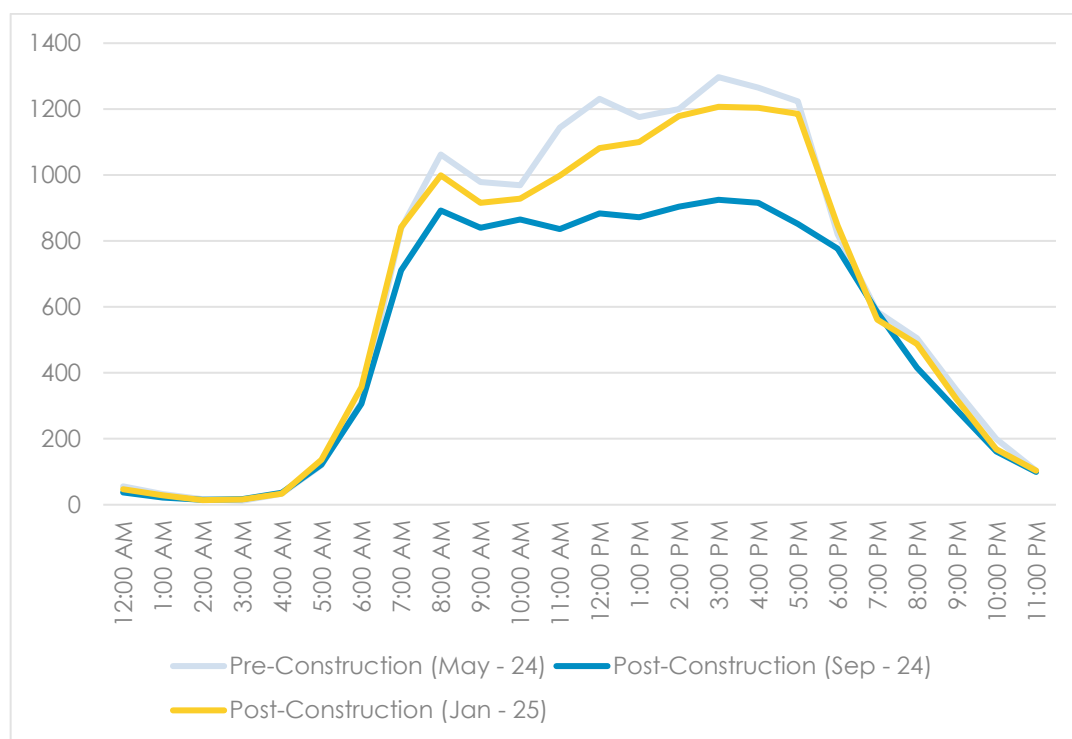
- Compared to pre-construction levels in May 2024, in September 2024, after the project's implementation, vehicle volumes dropped by 18 percent east of Hill Street and 20 percent west of Hill Street. **In January 2025, volumes were four and five percent below pre-construction levels, respectively.**
- At both count locations, the eastbound traffic volumes were less elastic, showing a lesser extent of reduction in September 2024 and a faster rebound in January 2025. **In January 2025, the eastbound volumes were similar to pre-construction levels, while the westbound volumes remained 7 to 12 percent below May observations.**

Table 1 Greenwood Avenue Daily Volume

Location and Direction	Pre-Construction	Post-Construction 1		Post-Construction 2	
	May-24	Sep-24		Jan-25	
	Volume	Volume	% Difference from Pre-Construction	Volume	% Difference from Pre-Construction
East of Hill Street					
Eastbound traffic	10,079	8,492	-16%	9,909	-2%
Westbound traffic	7,842	6,227	-21%	7,325	-7%
Total traffic	17,921	14,719	-18%	17,234	-4%
West of Hill Street					
Eastbound traffic	8,526	7,103	-17%	8,619	+1%
Westbound traffic	7,046	5,313	-25%	6,191	-12%
Total traffic	15,572	12,416	-20%	14,810	-5%

Figure 1 shows the hourly volume distribution on Greenwood Avenue west of Hill Street pre- and post-construction. The initial post-construction period (September 2024) shows a notable decrease in volumes between 7:00 AM and 7:00 PM, resulting in a "flatter" peak period with more consistent hourly volumes throughout the day. During this period, the maximum volume was 925 vehicles per hour, compared to 1,297 vehicles per hour pre-construction. However, **in the second post-construction period (January 2025), volumes rebounded and showed a higher afternoon peak, with a maximum of 1,207 vehicles per hour.**

Figure 1 Greenwood Avenue Volume Distribution by Time of Day (Bidirectional)



Vehicle Speed Distribution

Speed data were reported in five-mph intervals from the collected counts. The counts were set at midblock locations so that the recorded speeds were not affected by traffic control at intersections. Kittelson aggregated the two days of data and identified the 85th percentile speed, as shown in Table 2. Key findings are summarized below:

- **In general, the 85th percentile speeds dropped by two to four mph at both directions and count locations for both post-construction periods.**
- The 85th percentile speeds were higher at the count location east of Hill Street compared to the location west of Hill Street. And the eastbound 85th percentile speeds were slightly faster than westbound. The trends are consistent pre- and post-construction.

Table 2 Greenwood Avenue 85th Percentile Speed (mph)

Location and Direction	Pre-Construction	Post-Construction 1	Post-Construction 2
	May-24	Sep-24	Jan-25
East of Hill Street			
Eastbound	34	32	33
Westbound	33	29	29
West of Hill Street			
Eastbound	32	28	28
Westbound	30	26	28

To supplement the 85th percentile speed metric, Kittelson also analyzed the time-of-day trend of average speed by assigning an estimated speed to each vehicle based on the five-mph interval recorded. For example, if a vehicle's speed was between 26 mph and 30 mph, its speed was assumed to be 28 mph. The following trends were found:

- Average speed during peak hours dropped post-construction.
 - Pre-construction, the average speed ranged from 25 mph to 35 mph, except for westbound traffic at the west of Hill Street location, which dropped to 22 mph around noon (12 PM to 2 PM).
 - **During both post-construction periods, the average speed generally ranged from 20 mph to 35 mph, except for westbound traffic, which dropped below 20 mph (to a minimum of 14 mph) between 11 AM and 5 PM.**
- Similar to the trend found through 85th percentile speeds, the estimated average speed of eastbound traffic is slightly higher than westbound traffic.
 - Pedestrian and Bicycle Volume

Table 3, Table 4, and Figure 2 summarize the average daily pedestrian and bicycle volumes for pre- and post-construction periods. The following trends were found:

- Pedestrian volumes declined and redistributed between north and south sidewalks.
 - Both east and west of Hill Street experienced drops in pedestrian volumes after construction in September. However, **total daily pedestrian volumes rebounded during the second post-construction period (January 2025) but remained 21 to 39 percent below pre-construction levels.**
 - Pre-construction, the north sidewalk had higher pedestrian volumes than the south sidewalk at both count locations. However, the north sidewalk saw larger drops in volumes in September 2024 and the **volumes declined slightly again in January 2025 to 42 to 59 percent below pre-construction levels.**
 - In contrast, the south sidewalk saw less pedestrian activity pre-construction and was less affected by the construction. In September 2024, the volumes on the south sidewalk declined by 5 to 10 percent. **In January 2025, the volumes rebounded and exceeded the pre-construction level by 16 to 34 percent.**
 - Because of the volume decline at the north sidewalk and the increase at the south sidewalk, **in January, pedestrian volumes were generally balanced on the two sides.**
- **Bicycle volume dropped in January 2025 after initial increase in September 2024. Notably, weather conditions were much cooler in January 2025 compared to September 2024, consistent with typical Bend weather patterns.**
 - After the project construction which added bike lanes along the corridor, average daily bicycle volumes increased in September 2024, by 24 percent east of Hill Street and 64 percent west of Hill Street.

- In January 2025, volumes decreased by 20 percent east of Hill Street and 35 percent west of Hill Street compared to pre-construction counts.

Table 3 NW Greenwood Avenue Average Daily Pedestrian Volume Summary

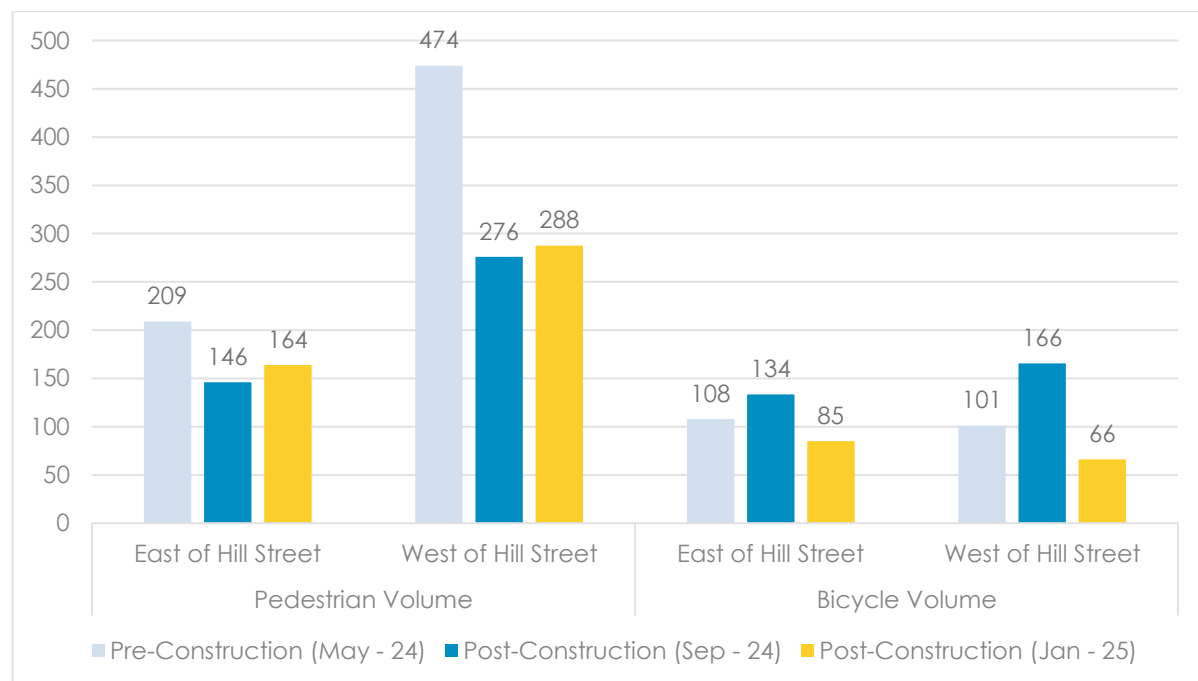
Location and Direction	Pre-Construction	Post-Construction 1		Post-Construction 2	
	May-24	Sep-24		Jan-25	
	Volume	Volume	% Difference from Pre-Construction	Volume	% Difference from Pre-Construction
East of Hill Street					
North Sidewalk	154	93	-40%	90	-42%
South Sidewalk	56	53	-5%	75	+34%
Combined Total	209	146	-30%	165	-21%
West of Hill Street					
North Sidewalk	349	163	-53%	142	-59%
South Sidewalk	126	114	-10%	146	+16%
Combined Total	474	276	-42%	288	-39%

Note: Average volumes were rounded and might not add to total volume.

Table 4 NW Greenwood Avenue Average Daily Bicycle Volume Summary

Location and Direction	Pre-Construction	Post-Construction 1		Post-Construction 2	
	May-24	Sep-24		Jan-25	
	Volume	Volume	% Difference from Pre-Construction	Volume	% Difference from Pre-Construction
East of Hill Street					
Eastbound	53	71	+33%	50	-6%
Westbound	55	63	+15%	36	-35%
Combined Total	108	134	+24%	86	-20%
West of Hill Street					
Eastbound	55	89	+61%	40	-27%
Westbound	46	77	+67%	26	-43%
Combined Total	101	166	+64%	66	-35%

Note: Average volumes were rounded and might not add to total volume.

Figure 2 Greenwood Avenue Daily Average Pedestrian and Bicycle Volume

Travel Time Analysis

This following section compares pre- and post-construction travel time findings from two data sources, INRIX and Google API. To monitor the cumulative, systemwide effect of the Quick Build project, three parallel corridors are included in this analysis, as shown in Figure 3 and described below.

■ **Primary Corridor:**

- Greenwood Avenue, from Wall Street to 3rd Street.

■ **Parallel Corridors:**

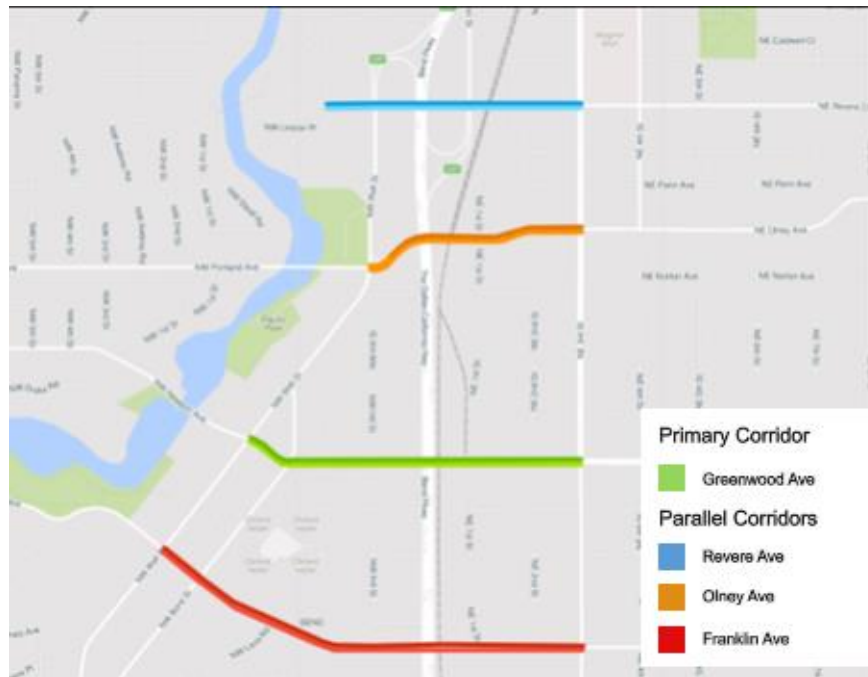
- Revere Avenue, from Harriman Street to 3rd Street.
- Olney Avenue, from Wall Street to 3rd Street.
- Franklin Avenue, from Wall Street to 3rd Street.

Travel time data were collected during the same week of volume and speed data collection. The detailed methodology is described in Appendix D.¹ INRIX travel time data are attached in Appendix E (pre-construction), Appendix F (post-construction 1), and Appendix G (post-construction 2). Google API travel time data are attached in Appendix H (pre-construction), Appendix I (post-construction 1) and Appendix J (post construction 2).

It is important to note that the INRIX and Google API data might provide different travel time results. This discrepancy can be due to various factors, such as whether intersections at the ends of the corridors are included in the reported data and different methodology used to calculate travel times - INRIX is based on data collected from GPS-enabled devices and Google API utilizes a mix of inputs including distance, posted speed limit, historical travel time, and real-time traffic conditions. Therefore, travel times are not compared directly between the data sources. Instead, trends are observed within each data source relative to pre- and post-construction conditions. Additional observations about the data are included at the end of this section.

¹ Note: For the post-construction period in January 2025, the confidence level threshold for data at 7:00 PM on eastbound Olney Avenue was lowered to 80 instead of 85 as no data were available at a confidence level of 85 or higher.

Figure 3 Primary and Parallel Corridors



INRIX Travel Time Data

Daily Average Travel Time

As shown in Table 5, in general, Greenwood Avenue travel times increased in both directions for both post-construction periods. This is consistent with the travel lane removal and the observed drop of 85th percentile speed as described in the Vehicle Speed Distribution section. The following trends were found:

- Along eastbound Greenwood Avenue, the average travel times increased from 85 seconds to 97 seconds in September 2024, and increased to **107 seconds in January 2025. The travel times exceed pre-construction levels by 14 percent (12 seconds) and 26 percent (22 seconds), respectively. The longer eastbound travel times may be associated with the detour and closure on Portland Avenue.**
- Along westbound Greenwood Avenue, the average travel times increased from 86 seconds to 100 seconds in September 2024 and remained stable at **99 seconds in January 2025, reflecting a consistent 16 percent increase compared to pre-construction conditions.**
- Travel times along parallel corridors fluctuated between post-construction periods.
 - In September 2024, travel times generally saw a slight increase on parallel corridors.
 - **In January 2025 the change of travel times fluctuate. The decrease in travel times on eastbound Revere Avenue and eastbound/westbound Olney Avenue is likely impacted by the detour and closure on Portland Avenue. Minimal change was observed on Franklin Avenue and westbound Revere Avenue.**

Table 5 Average Daily INRIX Travel Time

Corridor	Pre-Construction	Post-Construction 1		Post-Construction 2	
	May-24	Sep-24		Jan-25	
	Travel Time (Sec)	Travel Time (Sec)	% Difference from Pre-Construction	Travel Time (Sec)	% Difference from Pre-Construction
Primary Corridor					
EB Greenwood Avenue	85	97	+14%	107	+26%
WB Greenwood Avenue	86	100	+16%	99	+16%
Parallel Corridors					
EB Revere Avenue	96	97	+2%	82	-15%
WB Revere Avenue	91	90	<-1%	92	+1%
EB Olney Avenue	64	65	+1%	63	-2%
WB Olney Avenue	62	64	+3%	60	-2%
EB Franklin Avenue	119	124	+4%	117	-2%
WB Franklin Avenue	120	123	+3%	121	+1%

Peak Hour Travel Time

As shown in Table 6, Kittelson also analyzed peak hour travel time as it reflects the highest travel demand and therefore the most congested condition. For this analysis, peak hour is identified as the 60-minute period with the highest pre-construction volumes, which is between 3:00 and 4:00 PM at both count locations.

Compared to the daily average travel time, peak hour travel time increases are more substantial along Greenwood Avenue:

- Along eastbound Greenwood Avenue, the average travel time increased from 93 seconds pre-construction to 112 seconds in September 2024, and further to **122 seconds in January 2025, exceeding pre-construction levels by 20 percent (19 seconds) and 31 percent (29 seconds), respectively. The longer eastbound travel times may be associated with the detour and closure on Portland Avenue.**
- Along westbound Greenwood Avenue, the average travel time increased from 93 seconds to 117 seconds in September 2024, reflecting a 26 percent (24 seconds) increase. **In January 2025, the westbound travel time decreased slightly to 109 seconds in January 2025, representing a 18 percent (16 seconds) increase from pre-construction levels.**

Travel times along the parallel corridors increased to a lesser extent compared to Greenwood Avenue or decreased.

- In September 2024, the maximum increase occurs at westbound Olney Avenue and westbound Franklin Avenue (eight percent [five seconds] and seven percent [ten seconds], respectively).
- In January 2025, eastbound Revere Avenue experienced a 17 percent decrease (18 seconds) in travel times. **The decrease in travel times on eastbound Revere Avenue and eastbound/westbound Olney Avenue is likely impacted by the detour and closure on Portland Avenue.**
- Other than the corridors mentioned, the travel time changes of other parallel corridors are within five percent from pre-construction levels.

Table 6 Average Peak Hour INRIX Travel Time

Corridor	Pre-Construction	Post-Construction 1		Post-Construction 2	
	May-24	Sep-24		Jan-25	
	Travel Time (Sec)	Travel Time (Sec)	% Difference from Pre-Construction	Travel Time (Sec)	% Difference from Pre-Construction
Primary Corridor					
EB Greenwood Avenue	93	112	+20%	122	+31%
WB Greenwood Avenue	93	117	+26%	109	+18%
Parallel Corridors					
EB Revere Avenue	102	100	-1%	84	-17%
WB Revere Avenue	95	96	+1	98	+4%
EB Olney Avenue	70	70	<1%	67	-5%
WB Olney Avenue	63	68	+8%	62	-1%
EB Franklin Avenue	139	145	+4%	134	-4%
WB Franklin Avenue	127	137	+7%	128	+1%

Google API Travel Time

Daily Average Travel Time

As shown in Table 7, the Google API data presented a notably different picture of travel time trends before and after the Quick Build project. Along Greenwood Avenue, the data indicated slightly improved travel times in both directions, contrasting with the INRIX findings:

- **The average eastbound travel times on Greenwood Avenue decreased from 132 seconds pre-construction to 127 seconds post-construction in both September 2024 and January 2025, representing a 4 percent drop (5 seconds).**
- **The average westbound travel times on Greenwood Avenue decreased from 132 seconds to 130 seconds in September 2024 and 126 seconds in January 2025, reflecting a 1 percent (2 seconds) and 5 percent (6 seconds) reduction, reflectively.**

The parallel corridor analysis showed fluctuation in travel time on Olney Avenue in September 2024. Other than that, travel times generally remained similar or improved slightly in both post-construction periods:

- **Travel times on both direction of Olney Avenue increased by more than 20 percent (up to 22 seconds) in September 2024. In January 2025, the travel times dropped to four percent below pre-construction levels.**
- **Other than Olney Avenue, travel times on other parallel corridors stayed stable or decreased slightly. The maximum decrease occurred on Franklin Avenue in January 2025, where both directions' travel times dropped by six percent (ten seconds).**

Table 7 Average Daily Google API Travel Time

Corridor	Pre-Construction	Post-Construction 1		Post-Construction 2	
	May-24	Sep-24		Jan-25	
	Travel Time (Sec)	Travel Time (Sec)	% Difference from Pre-Construction	Travel Time (Sec)	% Difference from Pre-Construction
Primary Corridor					
EB Greenwood Avenue	132	127	-4%	127	-4%
WB Greenwood Avenue	132	130	-1%	126	-5%
Parallel Corridors					
EB Revere Avenue	121	119	-2%	123	1%
WB Revere Avenue	108	108	0	108	0%
EB Olney Avenue	94	114	+21%	90	-4%
WB Olney Avenue	91	113	+25%	88	-4%
EB Franklin Avenue	160	158	-1%	150	-6%
WB Franklin Avenue	154	147	-4%	144	-6%

Peak Hour Travel Time

Table 8 shows the peak hour travel time results from Google API. Similar to INRIX peak hour analysis, travel times between 3:00 and 4:00 PM were used.

Along Greenwood Avenue, similar to the average daily travel times, peak hour travel times also decreased slightly:

- Eastbound peak hour travel times decreased from 155 seconds to 145 seconds post-construction in September 2024, representing a 6 percent decrease (10 seconds). **By January 2025, the travel time increased slightly to 151 seconds, 3 percent (4 seconds) below pre-construction levels.**
- **Westbound peak hour travel times** remained the same (151 seconds) in September 2024 but **decreased to 144 seconds in January 2025, showing a 5 percent (7 seconds) reduction.**

Similar to the daily travel time trends, travel times along the parallel corridors decreased in general, except Olney Avenue, where travel times increased in September 2024:

- Travel times on both directions of Olney Avenue increased by about 20 percent (up to 22 seconds) in September 2024. **In January 2025, the eastbound and westbound travel times dropped to three and four percent below pre-construction levels, respectively.**
- **Other than Olney Avenue, travel times on other parallel corridors stayed stable or decreased slightly. The maximum decrease occurred on westbound Franklin Avenue, which dropped to 9 percent (17 seconds) below pre-construction levels in both September 2024 and January 2025 count periods.**

Table 8 Average Peak Hour Google API Travel Time

Corridor	Pre-Construction	Post-Construction 1		Post-Construction 2	
	May-24	Sep-24		Jan-25	
	Travel Time (Sec)	Travel Time (Sec)	% Difference from Pre-Construction	Travel Time (Sec)	% Difference from Pre-Construction
Primary Corridor					
EB Greenwood Avenue	155	145	-6%	151	-3%
WB Greenwood Avenue	151	151	<1%	144	-5%
Parallel Corridors					
EB Revere Avenue	137	128	-7%	130	-5%
WB Revere Avenue	115	114	-1%	114	-1%
EB Olney Avenue	99	116	+18%	96	-3%
WB Olney Avenue	96	118	+23%	92	-4%
EB Franklin Avenue	203	189	-7%	195	-4%
WB Franklin Avenue	172	157	-9%	157	-9%

BPD Incident Report Data

The City of Bend provided incident report data from the Bend Police Department pre- and post-construction. Pre-construction data is presented between March 15th, 2024 to August 15th 2024 and post-construction data is provided from August 16th, 2024 to January 15th, 2025. Data provided in the report includes:

- Motor vehicle accident and hit and run calls for service
- DMV crash reports
- Traffic citations

The data is provided in Appendix K

Summary of Key Observations

The purpose of this memorandum is to report the monitoring results following the Quick Build project on Greenwood Avenue. While these results provide insight into vehicle travel times and multimodal usage, it's important to note that numerous factors such as weather, adjacent construction closures/detours, events, and crashes can influence these metrics. Therefore, definitive conclusions on the project's positive or negative effects are premature and will require ongoing monitoring. This section provides general observations based on the data collected thus far.

Traffic Count Data Analysis

The following are key observations based on the multimodal demand and speed data collection along Greenwood Avenue:

- After the project's implementation in September 2024, vehicle volumes decreased — by 18 percent east of Hill Street and 20 percent west of Hill Street—compared to pre-construction levels. **In January 2025, traffic volumes rebounded to four and five percent below pre-construction level, respectively.**
- **In general, the post-construction 85th percentile speeds decreased by two to four mph. In January 2025, the 85th percentile speeds showed a slight rebound from September 2024, but remained below pre-construction levels. Eastbound traffic maintained slightly higher speeds than westbound traffic.**
- **Pedestrian volumes declined at both count locations during both post-construction periods. The decrease ranged from 21 percent to 42 percent depending on count period and location.**
- **Bicycle volumes increased at both locations (24 percent east and 64 percent west of Hill Street) in September 2024 but decreased in January 2024 by 20 and 35 percent, respectively. The decrease in ridership may have been impacted by colder temperatures and general reductions in users during the winter months.**

Travel Time Analysis

The following are key observations based on INRIX and Google API travel time data along Greenwood Avenue and parallel corridors:

- Travel time results varied between the two data sources: INRIX travel times were generally shorter than Google API travel times. This discrepancy might be due to several factors:
 - INRIX travel time data are based on pre-determined XD segments that may not precisely align with the origins and destinations specified in Google API queries.
 - It is unclear how the two platforms handle boundary intersections at the ends of the selected corridor (i.e., whether the delays at the first and the last intersections are included in travel time results).
- **INRIX average daily travel times along Greenwood Avenue showed increases during both post-construction periods, ranging from 14 to 26 percent above pre-construction levels. In contrast, Google API travel times showed slight decrease in both post-construction periods, up to five percent. This difference is likely because Google API uses historical speed data as part of the travel time estimate and might lag in reflecting the latest trends in travel times. In contrast, INRIX data are based on GPS-enabled devices and road sensors and were filtered to only include real-time data for this analysis. Based on the methodology of the two data sources and the observed drop in 85th percentile speed on Greenwood Avenue, it is likely that the INRIX travel times better reflect the current conditions.**

- INRIX travel time data indicated a higher increase in travel time in January 2025 than September 2024 for eastbound Greenwood Avenue. The increase is likely related to the detour and closure of Portland Avenue.
- Decreased travel time on parallel routes – particularly eastbound Revere Avenue and eastbound/westbound Olney Avenue are likely related to the detour and closure of Portland Avenue.

Data Collection Comparison

The summary table below provides a comparison of data collected during the post-construction periods with data collected pre-construction. Specific volumes, speeds, and travel times are detailed in the main report and the appendices.

Data Type	Post-Construction 1		Post-Construction 2	
	Sep-24		Jan-25	
	Eastbound	Westbound	Eastbound	Westbound
Vehicle Volume	-16%	-21%	-2%	-7%
Vehicle Speed	-2mph	-4mph	-1mph	-4mph
Pedestrian Volume ¹	-30%		-21%	
Bicycle Volume ¹	+24%		-20%	
Average Daily Travel Time	+14%	+16%	+26%	+16%
Peak Hour Travel Time	+20%	+26%	+31%	+18%

¹Reflects volumes west of Hills St

Next Steps

The upcoming data collection periods scheduled for May/June 2025 will be important in providing continued valuable insights into the corridor's performance post-construction. The final period will employ the same methodology for traffic counts and travel time measurements, ensuring a comprehensive understanding of seasonal trends. By closely monitoring these future data collection efforts, we can better assess the long-term effectiveness of the Greenwood Avenue Quick Build project and make informed decisions for ongoing corridor management.

Appendix A Traffic Volume Pre-Construction

Type of report: Tube Count - Volume Data

LOCATION: NW Greenwood Ave btwn Harriman and Hill							QC JOB #: 16414404			
SPECIFIC LOCATION:							DIRECTION: EB			
CITY/STATE: Bend, OR							DATE: May 14 2024 - May 15 2024			
Start Time	Mon 14 May 24	Tue 15 May 24	Wed 15 May 24	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
12:00 AM		7	15			11			11	<div></div>
12:15 AM		6	10			8			8	<div></div>
12:30 AM		5	8			7			7	<div></div>
12:45 AM		6	1			4			4	<div></div>
01:00 AM		5	10			8			8	<div></div>
01:15 AM		7	5			6			6	<div></div>
01:30 AM		4	4			4			4	<div></div>
01:45 AM		2	5			4			4	<div></div>
02:00 AM		3	2			3			3	<div></div>
02:15 AM		1	2			2			2	<div></div>
02:30 AM		2	3			3			3	<div></div>
02:45 AM		2	4			3			3	<div></div>
03:00 AM		4	2			3			3	<div></div>
03:15 AM		2	2			2			2	<div></div>
03:30 AM		0	1			1			1	<div></div>
03:45 AM		2	3			3			3	<div></div>
04:00 AM		3	2			3			3	<div></div>
04:15 AM		3	6			5			5	<div></div>
04:30 AM		2	7			5			5	<div></div>
04:45 AM		8	7			8			8	<div></div>
05:00 AM		10	7			9			9	<div></div>
05:15 AM		14	14			14			14	<div></div>
05:30 AM		16	15			16			16	<div></div>
05:45 AM		30	29			30			30	<div></div>
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
Comments:										

Report generated on 5/22/2024 7:53 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

LOCATION: NW Greenwood Ave btwn Harriman and Hill							QC JOB #: 16414404			
SPECIFIC LOCATION:							DIRECTION: EB			
CITY/STATE: Bend, OR							DATE: May 14 2024 - May 15 2024			
Start Time	Mon 14 May 24	Tue 15 May 24	Wed 15 May 24	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
06:00 AM		15	18			17			17	<div></div>
06:15 AM		29	29			29			29	<div></div>
06:30 AM		47	28			38			38	<div></div>
06:45 AM		60	50			55			55	<div></div>
07:00 AM		67	71			69			69	<div></div>
07:15 AM		83	68			76			76	<div></div>
07:30 AM		98	103			101			101	<div></div>
07:45 AM		134	136			135			135	<div></div>
08:00 AM		113	103			108			108	<div></div>
08:15 AM		135	131			133			133	<div></div>
08:30 AM		121	122			122			122	<div></div>
08:45 AM		138	144			141			141	<div></div>
09:00 AM		103	117			110			110	<div></div>
09:15 AM		91	101			96			96	<div></div>
09:30 AM		113	118			116			116	<div></div>
09:45 AM		134	144			139			139	<div></div>
10:00 AM		128	134			131			131	<div></div>
10:15 AM		145	121			133			133	<div></div>
10:30 AM		114	149			132			132	<div></div>
10:45 AM		110	133			122			122	<div></div>
11:00 AM		128	185			157			157	<div></div>
11:15 AM		135	170			153			153	<div></div>
11:30 AM		144	140			142			142	<div></div>
11:45 AM		173	145			159			159	<div></div>
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
Comments:										

LOCATION: NW Greenwood Ave btwn Harriman and Hill SPECIFIC LOCATION: CITY/STATE: Bend, OR										QC JOB #: 16414404 DIRECTION: EB DATE: May 14 2024 - May 15 2024
Start Time	Mon 14 May 24	Tue 15 May 24	Wed 16 May 24	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
12:00 PM		175	173			174			174	
12:15 PM		174	164			169			169	
12:30 PM		163	188			176			176	
12:45 PM		178	179			179			179	
01:00 PM		158	186			172			172	
01:15 PM		157	200			179			179	
01:30 PM		148	136			142			142	
01:45 PM		157	177			167			167	
02:00 PM		168	199			184			184	
02:15 PM		169	163			166			166	
02:30 PM		176	163			170			170	
02:45 PM		185	185			185			185	
03:00 PM		182	178			180			180	
03:15 PM		212	193			203			203	
03:30 PM		192	205			199			199	
03:45 PM		162	195			179			179	
04:00 PM		189	193			191			191	
04:15 PM		199	171			185			185	
04:30 PM		176	192			184			184	
04:45 PM		173	184			179			179	
05:00 PM		188	182			185			185	
05:15 PM		208	188			198			198	
05:30 PM		165	196			181			181	
05:45 PM		138	127			133			133	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
Comments:										

LOCATION: NW Greenwood Ave btwn Harriman and Hill							QC JOB #: 16414404			
SPECIFIC LOCATION:							DIRECTION: EB			
CITY/STATE: Bend, OR							DATE: May 14 2024 - May 15 2024			
Start Time	Mon 14 May 24	Tue 15 May 24	Wed 16 May 24	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
06:00 PM		126	129			128			128	<div></div>
06:15 PM		101	127			114			114	<div></div>
06:30 PM		80	106			93			93	<div></div>
06:45 PM		80	110			95			95	<div></div>
07:00 PM		91	118			105			105	<div></div>
07:15 PM		63	88			76			76	<div></div>
07:30 PM		94	72			83			83	<div></div>
07:45 PM		80	67			74			74	<div></div>
08:00 PM		66	93			80			80	<div></div>
08:15 PM		87	80			84			84	<div></div>
08:30 PM		66	87			77			77	<div></div>
08:45 PM		77	66			72			72	<div></div>
09:00 PM		67	76			72			72	<div></div>
09:15 PM		54	63			59			59	<div></div>
09:30 PM		42	51			47			47	<div></div>
09:45 PM		30	41			36			36	<div></div>
10:00 PM		45	27			36			36	<div></div>
10:15 PM		53	28			41			41	<div></div>
10:30 PM		39	28			34			34	<div></div>
10:45 PM		25	19			22			22	<div></div>
11:00 PM		17	13			15			15	<div></div>
11:15 PM		20	14			17			17	<div></div>
11:30 PM		21	9			15			15	<div></div>
11:45 PM		16	14			15			15	<div></div>
Day Total		8334	8667			8526			8526	
% Weekday Average		97.7%	101.7%							
% Week Average		97.7%	101.7%			100%				
AM Peak 15-min Vol		11:45 AM 173	11:00 AM 185			11:45 AM 159			11:45 AM 159	
PM Peak 15-min Vol		3:15 PM 212	3:30 PM 205			3:15 PM 203			3:15 PM 203	
Comments:										

Type of report: Tube Count - Volume Data

LOCATION: NW Greenwood Ave btwn Harriman and Hill							QC JOB #: 16414404			
SPECIFIC LOCATION:							DIRECTION: WB			
CITY/STATE: Bend, OR							DATE: May 14 2024 - May 15 2024			
Start Time	Mon	Tue	Wed	Thu	Fri	Average Weekday	Sat	Sun	Average Week	Average Week Profile
		14 May 24	15 May 24			15-min Traffic			15-min Traffic	
12:00 AM		4	6			5			5	
12:15 AM		4	15			10			10	
12:30 AM		3	6			5			5	
12:45 AM		9	6			8			8	
01:00 AM		1	2			2			2	
01:15 AM		3	3			3			3	
01:30 AM		4	1			3			3	
01:45 AM		1	7			4			4	
02:00 AM		0	1			1			1	
02:15 AM		1	2			2			2	
02:30 AM		4	5			5			5	
02:45 AM		2	0			1			1	
03:00 AM		2	1			2			2	
03:15 AM		0	2			1			1	
03:30 AM		0	1			1			1	
03:45 AM		1	1			1			1	
04:00 AM		2	2			2			2	
04:15 AM		1	4			3			3	
04:30 AM		2	5			4			4	
04:45 AM		8	4			6			6	
05:00 AM		9	4			7			7	
05:15 AM		13	11			12			12	
05:30 AM		18	10			14			14	
05:45 AM		25	15			20			20	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
Comments:										

Report generated on 5/22/2024 7:53 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

LOCATION: NW Greenwood Ave btwn Harriman and Hill							QC JOB #: 16414404			
SPECIFIC LOCATION:							DIRECTION: WB			
CITY/STATE: Bend, OR							DATE: May 14 2024 - May 15 2024			
Start Time	Mon 14 May 24	Tue 15 May 24	Wed 16 May 24	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
06:00 AM		26	17			22			22	<div></div>
06:15 AM		37	36			37			37	<div></div>
06:30 AM		52	44			48			48	<div></div>
06:45 AM		60	74			67			67	<div></div>
07:00 AM		65	66			66			66	<div></div>
07:15 AM		109	78			94			94	<div></div>
07:30 AM		146	116			131			131	<div></div>
07:45 AM		187	149			168			168	<div></div>
08:00 AM		140	124			132			132	<div></div>
08:15 AM		138	167			153			153	<div></div>
08:30 AM		129	121			125			125	<div></div>
08:45 AM		146	152			149			149	<div></div>
09:00 AM		127	136			132			132	<div></div>
09:15 AM		134	131			133			133	<div></div>
09:30 AM		109	119			114			114	<div></div>
09:45 AM		120	161			141			141	<div></div>
10:00 AM		108	107			108			108	<div></div>
10:15 AM		105	120			113			113	<div></div>
10:30 AM		106	119			113			113	<div></div>
10:45 AM		126	113			120			120	<div></div>
11:00 AM		111	153			132			132	<div></div>
11:15 AM		141	137			139			139	<div></div>
11:30 AM		111	137			124			124	<div></div>
11:45 AM		147	130			139			139	<div></div>
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
Comments:										

LOCATION: NW Greenwood Ave btwn Harriman and Hill SPECIFIC LOCATION: CITY/STATE: Bend, OR										QC JOB #: 16414404 DIRECTION: WB DATE: May 14 2024 - May 15 2024
Start Time	Mon 14 May 24	Tue 15 May 24	Wed 15 May 24	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
12:00 PM		147	159			153			153	
12:15 PM		119	120			120			120	
12:30 PM		127	116			122			122	
12:45 PM		134	145			140			140	
01:00 PM		136	121			129			129	
01:15 PM		138	123			131			131	
01:30 PM		128	123			126			126	
01:45 PM		117	146			132			132	
02:00 PM		124	135			130			130	
02:15 PM		116	122			119			119	
02:30 PM		105	130			118			118	
02:45 PM		141	118			130			130	
03:00 PM		134	137			136			136	
03:15 PM		144	111			128			128	
03:30 PM		134	134			134			134	
03:45 PM		135	145			140			140	
04:00 PM		138	125			132			132	
04:15 PM		137	129			133			133	
04:30 PM		128	135			132			132	
04:45 PM		136	124			130			130	
05:00 PM		139	151			145			145	
05:15 PM		140	140			140			140	
05:30 PM		132	120			126			126	
05:45 PM		113	119			116			116	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
Comments:										

LOCATION: NW Greenwood Ave btwn Harriman and Hill										QC JOB #: 16414404	
SPECIFIC LOCATION:										DIRECTION: WB	
CITY/STATE: Bend, OR										DATE: May 14 2024 - May 15 2024	
Start Time	Mon	Tue	Wed	Thu	Fri	Average Weekday	Sat	Sun	Average Week	Average Week Profile	
		14 May 24	15 May 24			15-min Traffic			15-min Traffic		
06:00 PM		102	128			115			115	<div></div>	
06:15 PM		97	86			92			92	<div></div>	
06:30 PM		99	99			99			99	<div></div>	
06:45 PM		79	93			86			86	<div></div>	
07:00 PM		71	60			66			66	<div></div>	
07:15 PM		60	60			60			60	<div></div>	
07:30 PM		61	66			64			64	<div></div>	
07:45 PM		56	64			60			60	<div></div>	
08:00 PM		50	74			62			62	<div></div>	
08:15 PM		54	56			55			55	<div></div>	
08:30 PM		43	35			39			39	<div></div>	
08:45 PM		40	35			38			38	<div></div>	
09:00 PM		33	77			55			55	<div></div>	
09:15 PM		26	29			28			28	<div></div>	
09:30 PM		35	32			34			34	<div></div>	
09:45 PM		17	21			19			19	<div></div>	
10:00 PM		22	21			22			22	<div></div>	
10:15 PM		17	12			15			15	<div></div>	
10:30 PM		16	17			17			17	<div></div>	
10:45 PM		12	16			14			14	<div></div>	
11:00 PM		16	11			14			14	<div></div>	
11:15 PM		6	6			6			6	<div></div>	
11:30 PM		11	18			15			15	<div></div>	
11:45 PM		4	9			7			7	<div></div>	
Day Total		6966	7074			7046			7046		
% Weekday Average		98.9%	100.4%								
% Week Average		98.9%	100.4%			100%					
AM Peak 15-min Vol		7:45 AM 187	8:15 AM 167			7:45 AM 168			7:45 AM 168		
PM Peak 15-min Vol		12:00 PM 147	12:00 PM 159			12:00 PM 153			12:00 PM 153		
Comments:											

Type of report: Tube Count - Volume Data

LOCATION: NW Greenwood Ave btwn Hill and 1st										QC JOB #: 16414405
SPECIFIC LOCATION:										DIRECTION: EB
CITY/STATE: Bend, OR										DATE: May 14 2024 - May 15 2024
Start Time	Mon 14 May 24	Tue 15 May 24	Wed 15 May 24	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
12:00 AM		9	12			11			11	<div></div>
12:15 AM		6	9			8			8	<div></div>
12:30 AM		8	12			10			10	<div></div>
12:45 AM		8	4			6			6	<div></div>
01:00 AM		8	14			11			11	<div></div>
01:15 AM		6	5			6			6	<div></div>
01:30 AM		5	4			5			5	<div></div>
01:45 AM		3	7			5			5	<div></div>
02:00 AM		3	2			3			3	<div></div>
02:15 AM		2	3			3			3	<div></div>
02:30 AM		2	5			4			4	<div></div>
02:45 AM		3	4			4			4	<div></div>
03:00 AM		6	2			4			4	<div></div>
03:15 AM		4	2			3			3	<div></div>
03:30 AM		3	3			3			3	<div></div>
03:45 AM		5	5			5			5	<div></div>
04:00 AM		3	4			4			4	<div></div>
04:15 AM		5	7			6			6	<div></div>
04:30 AM		4	13			9			9	<div></div>
04:45 AM		10	11			11			11	<div></div>
05:00 AM		13	12			13			13	<div></div>
05:15 AM		17	18			18			18	<div></div>
05:30 AM		23	26			25			25	<div></div>
05:45 AM		41	39			40			40	<div></div>
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
Comments:										

Report generated on 5/22/2024 7:53 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

LOCATION: NW Greenwood Ave btwn Hill and 1st							QC JOB #: 16414405			
SPECIFIC LOCATION:							DIRECTION: EB			
CITY/STATE: Bend, OR							DATE: May 14 2024 - May 15 2024			
Start Time	Mon 14 May 24	Tue 15 May 24	Wed 15 May 24	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
06:00 AM		26	28			27			27	<div></div>
06:15 AM		45	52			49			49	<div></div>
06:30 AM		63	44			54			54	<div></div>
06:45 AM		92	71			82			82	<div></div>
07:00 AM		91	95			93			93	<div></div>
07:15 AM		101	88			95			95	<div></div>
07:30 AM		121	118			120			120	<div></div>
07:45 AM		150	160			155			155	<div></div>
08:00 AM		137	122			130			130	<div></div>
08:15 AM		167	140			154			154	<div></div>
08:30 AM		148	137			143			143	<div></div>
08:45 AM		173	167			170			170	<div></div>
09:00 AM		123	133			128			128	<div></div>
09:15 AM		117	130			124			124	<div></div>
09:30 AM		144	143			144			144	<div></div>
09:45 AM		160	159			160			160	<div></div>
10:00 AM		144	156			150			150	<div></div>
10:15 AM		163	154			159			159	<div></div>
10:30 AM		136	154			145			145	<div></div>
10:45 AM		125	165			145			145	<div></div>
11:00 AM		147	198			173			173	<div></div>
11:15 AM		161	200			181			181	<div></div>
11:30 AM		171	178			175			175	<div></div>
11:45 AM		207	184			196			196	<div></div>
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
Comments:										

LOCATION: NW Greenwood Ave btwn Hill and 1st SPECIFIC LOCATION: CITY/STATE: Bend, OR										QC JOB #: 16414405 DIRECTION: EB DATE: May 14 2024 - May 15 2024
Start Time	Mon 14 May 24	Tue 15 May 24	Wed 15 May 24	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
12:00 PM		225	211			218			218	
12:15 PM		207	182			195			195	
12:30 PM		194	206			200			200	
12:45 PM		196	201			199			199	
01:00 PM		173	219			196			196	
01:15 PM		187	214			201			201	
01:30 PM		186	185			186			186	
01:45 PM		174	195			185			185	
02:00 PM		191	231			211			211	
02:15 PM		195	194			195			195	
02:30 PM		196	187			192			192	
02:45 PM		220	229			225			225	
03:00 PM		192	215			204			204	
03:15 PM		228	217			223			223	
03:30 PM		213	245			229			229	
03:45 PM		199	227			213			213	
04:00 PM		245	239			242			242	
04:15 PM		235	223			229			229	
04:30 PM		228	221			225			225	
04:45 PM		199	208			204			204	
05:00 PM		230	225			228			228	
05:15 PM		257	247			252			252	
05:30 PM		198	222			210			210	
05:45 PM		162	140			151			151	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
Comments:										

LOCATION: NW Greenwood Ave btwn Hill and 1st							QC JOB #: 16414405			
SPECIFIC LOCATION:							DIRECTION: EB			
CITY/STATE: Bend, OR							DATE: May 14 2024 - May 15 2024			
Start Time	Mon 14 May 24	Tue 15 May 24	Wed 16 May 24	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
06:00 PM		140	149			145			145	<div></div>
06:15 PM		113	147			130			130	<div></div>
06:30 PM		97	135			116			116	<div></div>
06:45 PM		103	123			113			113	<div></div>
07:00 PM		107	135			121			121	<div></div>
07:15 PM		80	100			90			90	<div></div>
07:30 PM		107	88			98			98	<div></div>
07:45 PM		97	84			91			91	<div></div>
08:00 PM		76	100			88			88	<div></div>
08:15 PM		93	81			87			87	<div></div>
08:30 PM		69	83			76			76	<div></div>
08:45 PM		78	91			85			85	<div></div>
09:00 PM		72	90			81			81	<div></div>
09:15 PM		66	73			70			70	<div></div>
09:30 PM		47	56			52			52	<div></div>
09:45 PM		33	44			39			39	<div></div>
10:00 PM		44	30			37			37	<div></div>
10:15 PM		55	32			44			44	<div></div>
10:30 PM		33	33			33			33	<div></div>
10:45 PM		29	23			26			26	<div></div>
11:00 PM		19	19			19			19	<div></div>
11:15 PM		24	17			21			21	<div></div>
11:30 PM		22	12			17			17	<div></div>
11:45 PM		20	16			18			18	<div></div>
Day Total		9863	10243			10079			10079	
% Weekday Average		97.9%	101.6%							
% Week Average		97.9%	101.6%			100%				
AM Peak 15-min Vol		11:45 AM 207	11:15 AM 200			11:45 AM 196			11:45 AM 196	
PM Peak 15-min Vol		5:15 PM 257	5:15 PM 247			5:15 PM 252			5:15 PM 252	
Comments:										

Type of report: Tube Count - Volume Data

LOCATION: NW Greenwood Ave btwn Hill and 1st							QC JOB #: 16414405			
SPECIFIC LOCATION:							DIRECTION: WB			
CITY/STATE: Bend, OR							DATE: May 14 2024 - May 15 2024			
Start Time	Mon	Tue	Wed	Thu	Fri	Average Weekday	Sat	Sun	Average Week	Average Week Profile
		14 May 24	15 May 24			15-min Traffic			15-min Traffic	
12:00 AM		4	6			5			5	<div></div>
12:15 AM		2	16			9			9	<div></div>
12:30 AM		4	9			7			7	<div></div>
12:45 AM		10	4			7			7	<div></div>
01:00 AM		2	2			2			2	<div></div>
01:15 AM		1	1			1			1	<div></div>
01:30 AM		5	2			4			4	<div></div>
01:45 AM		1	5			3			3	<div></div>
02:00 AM		0	2			1			1	<div></div>
02:15 AM		2	3			3			3	<div></div>
02:30 AM		4	5			5			5	<div></div>
02:45 AM		2	1			2			2	<div></div>
03:00 AM		3	1			2			2	<div></div>
03:15 AM		0	1			1			1	<div></div>
03:30 AM		0	2			1			1	<div></div>
03:45 AM		2	1			2			2	<div></div>
04:00 AM		2	3			3			3	<div></div>
04:15 AM		1	3			2			2	<div></div>
04:30 AM		3	6			5			5	<div></div>
04:45 AM		6	6			6			6	<div></div>
05:00 AM		10	5			8			8	<div></div>
05:15 AM		17	14			16			16	<div></div>
05:30 AM		21	12			17			17	<div></div>
05:45 AM		33	17			25			25	<div></div>
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
Comments:										

Report generated on 5/22/2024 7:53 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

LOCATION: NW Greenwood Ave btwn Hill and 1st SPECIFIC LOCATION: CITY/STATE: Bend, OR										QC JOB #: 16414405 DIRECTION: WB DATE: May 14 2024 - May 15 2024
Start Time	Mon 14 May 24	Tue 15 May 24	Wed 16 May 24	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
06:00 AM		31	23			27			27	
06:15 AM		43	45			44			44	
06:30 AM		61	52			57			57	
06:45 AM		69	89			79			79	
07:00 AM		77	80			79			79	
07:15 AM		125	90			108			108	
07:30 AM		178	150			164			164	
07:45 AM		199	178			189			189	
08:00 AM		164	147			156			156	
08:15 AM		155	172			164			164	
08:30 AM		144	137			141			141	
08:45 AM		165	151			158			158	
09:00 AM		144	163			154			154	
09:15 AM		136	146			141			141	
09:30 AM		128	121			125			125	
09:45 AM		124	154			139			139	
10:00 AM		129	125			127			127	
10:15 AM		118	139			129			129	
10:30 AM		122	130			126			126	
10:45 AM		142	123			133			133	
11:00 AM		128	174			151			151	
11:15 AM		133	149			141			141	
11:30 AM		135	157			146			146	
11:45 AM		141	147			144			144	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
Comments:										

LOCATION: NW Greenwood Ave btwn Hill and 1st SPECIFIC LOCATION: CITY/STATE: Bend, OR										QC JOB #: 16414405 DIRECTION: WB DATE: May 14 2024 - May 15 2024
Start Time	Mon 14 May 24	Tue 15 May 24	Wed 16 May 24	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
12:00 PM		171	165			168			168	
12:15 PM		138	156			147			147	
12:30 PM		131	153			142			142	
12:45 PM		169	169			169			169	
01:00 PM		139	149			144			144	
01:15 PM		148	145			147			147	
01:30 PM		138	144			141			141	
01:45 PM		140	167			154			154	
02:00 PM		139	142			141			141	
02:15 PM		114	131			123			123	
02:30 PM		122	150			136			136	
02:45 PM		153	117			135			135	
03:00 PM		143	157			150			150	
03:15 PM		139	131			135			135	
03:30 PM		145	141			143			143	
03:45 PM		145	157			151			151	
04:00 PM		154	140			147			147	
04:15 PM		150	143			147			147	
04:30 PM		145	149			147			147	
04:45 PM		143	139			141			141	
05:00 PM		148	166			157			157	
05:15 PM		155	149			152			152	
05:30 PM		143	138			141			141	
05:45 PM		122	125			124			124	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
Comments:										

LOCATION: NW Greenwood Ave btwn Hill and 1st							QC JOB #: 16414405			
SPECIFIC LOCATION:							DIRECTION: WB			
CITY/STATE: Bend, OR							DATE: May 14 2024 - May 15 2024			
Start Time	Mon 14 May 24	Tue 15 May 24	Wed 16 May 24	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
06:00 PM		124	136			130			130	<div></div>
06:15 PM		104	102			103			103	<div></div>
06:30 PM		110	111			111			111	<div></div>
06:45 PM		88	109			99			99	<div></div>
07:00 PM		81	75			78			78	<div></div>
07:15 PM		71	72			72			72	<div></div>
07:30 PM		65	78			72			72	<div></div>
07:45 PM		64	64			64			64	<div></div>
08:00 PM		56	80			68			68	<div></div>
08:15 PM		54	51			53			53	<div></div>
08:30 PM		51	39			45			45	<div></div>
08:45 PM		44	41			43			43	<div></div>
09:00 PM		42	67			55			55	<div></div>
09:15 PM		35	36			36			36	<div></div>
09:30 PM		36	29			33			33	<div></div>
09:45 PM		17	24			21			21	<div></div>
10:00 PM		28	28			28			28	<div></div>
10:15 PM		20	18			19			19	<div></div>
10:30 PM		18	15			17			17	<div></div>
10:45 PM		15	11			13			13	<div></div>
11:00 PM		15	14			15			15	<div></div>
11:15 PM		6	8			7			7	<div></div>
11:30 PM		10	14			12			12	<div></div>
11:45 PM		6	7			7			7	<div></div>
Day Total		7720	7921			7842			7842	
% Weekday Average		98.4%	101%							
% Week Average		98.4%	101%			100%				
AM Peak 15-min Vol		7:45 AM 199	7:45 AM 178			7:45 AM 189			7:45 AM 189	
PM Peak 15-min Vol		12:00 PM 171	12:45 PM 169			12:45 PM 169			12:45 PM 169	
Comments:										

Appendix B Traffic Volume Post-Construction (September 2024)

Type of report: Tube Count - Volume Data

LOCATION: NW Greenwood Ave btwn Harriman and Hill										QC JOB #: 16734701
SPECIFIC LOCATION:										DIRECTION: EB
CITY/STATE: Bend, OR										DATE: Sep 24 2024 - Sep 25 2024
Start Time	Mon 24 Sep 24	Tue 25 Sep 24	Wed 25 Sep 24	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
12:00 AM		7	5			6			6	
12:15 AM		5	7			6			6	
12:30 AM		5	6			6			6	
12:45 AM		5	3			4			4	
01:00 AM		4	6			5			5	
01:15 AM		3	2			3			3	
01:30 AM		0	7			4			4	
01:45 AM		0	3			2			2	
02:00 AM		3	3			3			3	
02:15 AM		1	1			1			1	
02:30 AM		3	1			2			2	
02:45 AM		0	4			2			2	
03:00 AM		1	1			1			1	
03:15 AM		0	1			1			1	
03:30 AM		3	4			4			4	
03:45 AM		3	4			4			4	
04:00 AM		3	5			4			4	
04:15 AM		6	3			5			5	
04:30 AM		2	4			3			3	
04:45 AM		9	13			11			11	
05:00 AM		4	4			4			4	
05:15 AM		16	17			17			17	
05:30 AM		23	22			23			23	
05:45 AM		27	30			29			29	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
Comments:										

Report generated on 10/1/2024 10:27 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

LOCATION: NW Greenwood Ave btwn Harriman and Hill							QC JOB #: 16734701			
SPECIFIC LOCATION:							DIRECTION: EB			
CITY/STATE: Bend, OR							DATE: Sep 24 2024 - Sep 25 2024			
Start Time	Mon	Tue	Wed	Thu	Fri	Average Weekday	Sat	Sun	Average Week	Average Week Profile
		24 Sep 24	25 Sep 24			15-min Traffic			15-min Traffic	
06:00 AM		21	20			21			21	<div></div>
06:15 AM		29	37			33			33	<div></div>
06:30 AM		49	34			42			42	<div></div>
06:45 AM		63	55			59			59	<div></div>
07:00 AM		58	65			62			62	<div></div>
07:15 AM		70	71			71			71	<div></div>
07:30 AM		101	85			93			93	<div></div>
07:45 AM		153	130			142			142	<div></div>
08:00 AM		104	105			105			105	<div></div>
08:15 AM		115	117			116			116	<div></div>
08:30 AM		117	117			117			117	<div></div>
08:45 AM		138	124			131			131	<div></div>
09:00 AM		105	103			104			104	<div></div>
09:15 AM		114	103			109			109	<div></div>
09:30 AM		110	104			107			107	<div></div>
09:45 AM		122	134			128			128	<div></div>
10:00 AM		125	110			118			118	<div></div>
10:15 AM		129	129			129			129	<div></div>
10:30 AM		129	127			128			128	<div></div>
10:45 AM		138	105			122			122	<div></div>
11:00 AM		129	130			130			130	<div></div>
11:15 AM		134	120			127			127	<div></div>
11:30 AM		128	111			120			120	<div></div>
11:45 AM		150	70			110			110	<div></div>
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
Comments:										

LOCATION: NW Greenwood Ave btwn Harriman and Hill SPECIFIC LOCATION: CITY/STATE: Bend, OR										QC JOB #: 16734701 DIRECTION: EB DATE: Sep 24 2024 - Sep 25 2024
Start Time	Mon 24 Sep 24	Tue 25 Sep 24	Wed 25 Sep 24	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
12:00 PM	146	160				153			153	
12:15 PM	129	122				126			126	
12:30 PM	126	118				122			122	
12:45 PM	123	98				111			111	
01:00 PM	141	155				148			148	
01:15 PM	139	65				102			102	
01:30 PM	128	138				133			133	
01:45 PM	125	122				124			124	
02:00 PM	148	132				140			140	
02:15 PM	163	139				151			151	
02:30 PM	66	146				106			106	
02:45 PM	111	143				127			127	
03:00 PM	164	115				140			140	
03:15 PM	133	183				158			158	
03:30 PM	161	146				154			154	
03:45 PM	101	73				87			87	
04:00 PM	153	70				112			112	
04:15 PM	152	128				140			140	
04:30 PM	141	147				144			144	
04:45 PM	127	158				143			143	
05:00 PM	141	93				117			117	
05:15 PM	96	140				118			118	
05:30 PM	123	126				125			125	
05:45 PM	127	102				115			115	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
Comments:										

LOCATION: NW Greenwood Ave btwn Harriman and Hill							QC JOB #: 16734701			
SPECIFIC LOCATION:							DIRECTION: EB			
CITY/STATE: Bend, OR							DATE: Sep 24 2024 - Sep 25 2024			
Start Time	Mon 24 Sep 24	Tue 25 Sep 24	Wed 26 Sep 24	Thu 27 Sep 24	Fri 28 Sep 24	Average Weekday 15-min Traffic	Sat 29 Sep 24	Sun 30 Sep 24	Average Week 15-min Traffic	Average Week Profile
06:00 PM	123	138				131			131	<div></div>
06:15 PM	117	127				122			122	<div></div>
06:30 PM	95	115				105			105	<div></div>
06:45 PM	101	107				104			104	<div></div>
07:00 PM	89	84				87			87	<div></div>
07:15 PM	101	72				87			87	<div></div>
07:30 PM	90	82				86			86	<div></div>
07:45 PM	68	89				79			79	<div></div>
08:00 PM	71	77				74			74	<div></div>
08:15 PM	85	65				75			75	<div></div>
08:30 PM	68	74				71			71	<div></div>
08:45 PM	54	47				51			51	<div></div>
09:00 PM	47	47				47			47	<div></div>
09:15 PM	32	45				39			39	<div></div>
09:30 PM	51	37				44			44	<div></div>
09:45 PM	66	38				52			52	<div></div>
10:00 PM	39	37				38			38	<div></div>
10:15 PM	33	28				31			31	<div></div>
10:30 PM	22	31				27			27	<div></div>
10:45 PM	23	15				19			19	<div></div>
11:00 PM	16	23				20			20	<div></div>
11:15 PM	18	14				16			16	<div></div>
11:30 PM	20	9				15			15	<div></div>
11:45 PM	14	11				13			13	<div></div>
Day Total	7271	6893				7103			7103	
% Weekday Average	102.4%	97%								
% Week Average	102.4%	97%				100%				
AM Peak 15-min Vol	7:45 AM 153	9:45 AM 134				7:45 AM 142			7:45 AM 142	
PM Peak 15-min Vol	3:00 PM 164	3:15 PM 183				3:15 PM 158			3:15 PM 158	
Comments:										

Type of report: Tube Count - Volume Data

LOCATION: NW Greenwood Ave btwn Harriman and Hill										QC JOB #: 16734701
SPECIFIC LOCATION:										DIRECTION: WB
CITY/STATE: Bend, OR										DATE: Sep 24 2024 - Sep 25 2024
Start Time	Mon	Tue 24 Sep 24	Wed 25 Sep 24	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
12:00 AM		4	6			5			5	<div></div>
12:15 AM		1	6			4			4	<div></div>
12:30 AM		1	7			4			4	<div></div>
12:45 AM		3	2			3			3	<div></div>
01:00 AM		3	3			3			3	<div></div>
01:15 AM		4	2			3			3	<div></div>
01:30 AM		1	2			2			2	<div></div>
01:45 AM		2	2			2			2	<div></div>
02:00 AM		0	2			1			1	<div></div>
02:15 AM		3	4			4			4	<div></div>
02:30 AM		2	1			2			2	<div></div>
02:45 AM		1	0			1			1	<div></div>
03:00 AM		3	3			3			3	<div></div>
03:15 AM		0	3			2			2	<div></div>
03:30 AM		4	0			2			2	<div></div>
03:45 AM		2	1			2			2	<div></div>
04:00 AM		2	3			3			3	<div></div>
04:15 AM		2	2			2			2	<div></div>
04:30 AM		1	7			4			4	<div></div>
04:45 AM		5	5			5			5	<div></div>
05:00 AM		5	6			6			6	<div></div>
05:15 AM		13	10			12			12	<div></div>
05:30 AM		16	9			13			13	<div></div>
05:45 AM		17	24			21			21	<div></div>
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
Comments:										

Report generated on 10/1/2024 10:27 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

LOCATION: NW Greenwood Ave btwn Harriman and Hill SPECIFIC LOCATION: CITY/STATE: Bend, OR										QC JOB #: 16734701 DIRECTION: WB DATE: Sep 24 2024 - Sep 25 2024
Start Time	Mon 24 Sep 24	Tue 25 Sep 24	Wed 25 Sep 24	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
06:00 AM	28	24				26			26	
06:15 AM	28	20				24			24	
06:30 AM	40	38				39			39	
06:45 AM	67	58				63			63	
07:00 AM	53	57				55			55	
07:15 AM	81	79				80			80	
07:30 AM	88	121				105			105	
07:45 AM	117	93				105			105	
08:00 AM	118	116				117			117	
08:15 AM	94	113				104			104	
08:30 AM	103	85				94			94	
08:45 AM	106	111				109			109	
09:00 AM	90	91				91			91	
09:15 AM	93	94				94			94	
09:30 AM	105	109				107			107	
09:45 AM	80	122				101			101	
10:00 AM	103	95				99			99	
10:15 AM	102	71				87			87	
10:30 AM	92	80				86			86	
10:45 AM	89	106				98			98	
11:00 AM	85	90				88			88	
11:15 AM	73	87				80			80	
11:30 AM	97	91				94			94	
11:45 AM	98	79				89			89	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
Comments:										

LOCATION: NW Greenwood Ave btwn Harriman and Hill SPECIFIC LOCATION: CITY/STATE: Bend, OR										QC JOB #: 16734701 DIRECTION: WB DATE: Sep 24 2024 - Sep 25 2024
Start Time	Mon 24 Sep 24	Tue 25 Sep 24	Wed 25 Sep 24	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
12:00 PM	100	108				104			104	
12:15 PM	91	105				98			98	
12:30 PM	87	86				87			87	
12:45 PM	81	88				85			85	
01:00 PM	123	88				106			106	
01:15 PM	78	61				70			70	
01:30 PM	109	92				101			101	
01:45 PM	90	89				90			90	
02:00 PM	88	86				87			87	
02:15 PM	101	92				97			97	
02:30 PM	69	121				95			95	
02:45 PM	89	113				101			101	
03:00 PM	99	96				98			98	
03:15 PM	106	131				119			119	
03:30 PM	88	90				89			89	
03:45 PM	95	69				82			82	
04:00 PM	114	64				89			89	
04:15 PM	97	83				90			90	
04:30 PM	100	91				96			96	
04:45 PM	109	97				103			103	
05:00 PM	122	95				109			109	
05:15 PM	91	96				94			94	
05:30 PM	90	88				89			89	
05:45 PM	80	94				87			87	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
Comments:										

LOCATION: NW Greenwood Ave btwn Harriman and Hill										QC JOB #: 16734701	
SPECIFIC LOCATION:										DIRECTION: WB	
CITY/STATE: Bend, OR										DATE: Sep 24 2024 - Sep 25 2024	
Start Time	Mon 24 Sep 24	Tue 25 Sep 24	Wed 25 Sep 24	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile	
06:00 PM	92	100				96			96	<div></div>	
06:15 PM	94	72				83			83	<div></div>	
06:30 PM	70	66				68			68	<div></div>	
06:45 PM	71	66				69			69	<div></div>	
07:00 PM	76	64				70			70	<div></div>	
07:15 PM	62	74				68			68	<div></div>	
07:30 PM	60	51				56			56	<div></div>	
07:45 PM	48	57				53			53	<div></div>	
08:00 PM	44	48				46			46	<div></div>	
08:15 PM	45	30				38			38	<div></div>	
08:30 PM	30	32				31			31	<div></div>	
08:45 PM	27	35				31			31	<div></div>	
09:00 PM	36	45				41			41	<div></div>	
09:15 PM	26	22				24			24	<div></div>	
09:30 PM	30	16				23			23	<div></div>	
09:45 PM	14	24				19			19	<div></div>	
10:00 PM	19	26				23			23	<div></div>	
10:15 PM	10	12				11			11	<div></div>	
10:30 PM	11	5				8			8	<div></div>	
10:45 PM	3	10				7			7	<div></div>	
11:00 PM	9	11				10			10	<div></div>	
11:15 PM	14	9				12			12	<div></div>	
11:30 PM	8	7				8			8	<div></div>	
11:45 PM	7	8				8			8	<div></div>	
Day Total	5328	5253				5313			5313		
% Weekday Average	100.3%	98.9%									
% Week Average	100.3%	98.9%				100%					
AM Peak 15-min Vol	8:00 AM 118	9:45 AM 122				8:00 AM 117			8:00 AM 117		
PM Peak 15-min Vol	1:00 PM 123	3:15 PM 131				3:15 PM 119			3:15 PM 119		
Comments:											

Type of report: Tube Count - Volume Data

LOCATION: NW Greenwood Ave btwn Hill and 1st							QC JOB #: 16734702			
SPECIFIC LOCATION:							DIRECTION: EB			
CITY/STATE: Bend, OR							DATE: Sep 24 2024 - Sep 25 2024			
Start Time	Mon	Tue	Wed	Thu	Fri	Average Weekday	Sat	Sun	Average Week	Average Week Profile
		24 Sep 24	25 Sep 24			15-min Traffic			15-min Traffic	
12:00 AM		7	6			7			7	<div></div>
12:15 AM		5	7			6			6	<div></div>
12:30 AM		4	9			7			7	<div></div>
12:45 AM		8	4			6			6	<div></div>
01:00 AM		8	7			8			8	<div></div>
01:15 AM		5	3			4			4	<div></div>
01:30 AM		1	6			4			4	<div></div>
01:45 AM		1	6			4			4	<div></div>
02:00 AM		3	2			3			3	<div></div>
02:15 AM		1	1			1			1	<div></div>
02:30 AM		2	1			2			2	<div></div>
02:45 AM		0	4			2			2	<div></div>
03:00 AM		0	1			1			1	<div></div>
03:15 AM		4	1			3			3	<div></div>
03:30 AM		5	9			7			7	<div></div>
03:45 AM		4	9			7			7	<div></div>
04:00 AM		4	6			5			5	<div></div>
04:15 AM		9	4			7			7	<div></div>
04:30 AM		4	6			5			5	<div></div>
04:45 AM		12	17			15			15	<div></div>
05:00 AM		7	7			7			7	<div></div>
05:15 AM		13	20			17			17	<div></div>
05:30 AM		35	29			32			32	<div></div>
05:45 AM		37	46			42			42	<div></div>
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
Comments:										

Report generated on 10/1/2024 10:27 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

LOCATION: NW Greenwood Ave btwn Hill and 1st SPECIFIC LOCATION: CITY/STATE: Bend, OR										QC JOB #: 16734702 DIRECTION: EB DATE: Sep 24 2024 - Sep 25 2024
Start Time	Mon 24 Sep 24	Tue 25 Sep 24	Wed 25 Sep 24	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
06:00 AM	30	27				29			29	
06:15 AM	49	55				52			52	
06:30 AM	58	62				60			60	
06:45 AM	96	86				91			91	
07:00 AM	71	77				74			74	
07:15 AM	78	76				77			77	
07:30 AM	123	119				121			121	
07:45 AM	146	148				147			147	
08:00 AM	128	135				132			132	
08:15 AM	124	135				130			130	
08:30 AM	138	150				144			144	
08:45 AM	161	138				150			150	
09:00 AM	145	123				134			134	
09:15 AM	135	124				130			130	
09:30 AM	128	108				118			118	
09:45 AM	124	126				125			125	
10:00 AM	160	140				150			150	
10:15 AM	164	165				165			165	
10:30 AM	148	147				148			148	
10:45 AM	160	144				152			152	
11:00 AM	153	156				155			155	
11:15 AM	166	142				154			154	
11:30 AM	160	140				150			150	
11:45 AM	185	44				115			115	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
Comments:										

LOCATION: NW Greenwood Ave btwn Hill and 1st SPECIFIC LOCATION: CITY/STATE: Bend, OR										QC JOB #: 16734702 DIRECTION: EB DATE: Sep 24 2024 - Sep 25 2024
Start Time	Mon 24 Sep 24	Tue 25 Sep 24	Wed 25 Sep 24	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
12:00 PM	199	156				178			178	
12:15 PM	120	158				139			139	
12:30 PM	170	94				132			132	
12:45 PM	138	143				141			141	
01:00 PM	148	172				160			160	
01:15 PM	179	134				157			157	
01:30 PM	135	149				142			142	
01:45 PM	168	145				157			157	
02:00 PM	156	183				170			170	
02:15 PM	185	190				188			188	
02:30 PM	177	161				169			169	
02:45 PM	160	175				168			168	
03:00 PM	188	161				175			175	
03:15 PM	173	164				169			169	
03:30 PM	195	165				180			180	
03:45 PM	180	89				135			135	
04:00 PM	174	99				137			137	
04:15 PM	186	153				170			170	
04:30 PM	172	161				167			167	
04:45 PM	184	172				178			178	
05:00 PM	175	134				155			155	
05:15 PM	130	97				114			114	
05:30 PM	168	156				162			162	
05:45 PM	183	156				170			170	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
Comments:										

LOCATION: NW Greenwood Ave btwn Hill and 1st							QC JOB #: 16734702			
SPECIFIC LOCATION:							DIRECTION: EB			
CITY/STATE: Bend, OR							DATE: Sep 24 2024 - Sep 25 2024			
Start Time	Mon 24 Sep 24	Tue 25 Sep 24	Wed 25 Sep 24	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
06:00 PM	134	158				146			146	<div></div>
06:15 PM	140	150				145			145	<div></div>
06:30 PM	113	151				132			132	<div></div>
06:45 PM	125	116				121			121	<div></div>
07:00 PM	91	90				91			91	<div></div>
07:15 PM	107	81				94			94	<div></div>
07:30 PM	98	89				94			94	<div></div>
07:45 PM	77	90				84			84	<div></div>
08:00 PM	77	82				80			80	<div></div>
08:15 PM	88	67				78			78	<div></div>
08:30 PM	69	83				76			76	<div></div>
08:45 PM	42	50				46			46	<div></div>
09:00 PM	54	57				56			56	<div></div>
09:15 PM	34	50				42			42	<div></div>
09:30 PM	55	39				47			47	<div></div>
09:45 PM	56	43				50			50	<div></div>
10:00 PM	40	39				40			40	<div></div>
10:15 PM	26	38				32			32	<div></div>
10:30 PM	24	31				28			28	<div></div>
10:45 PM	22	14				18			18	<div></div>
11:00 PM	16	27				22			22	<div></div>
11:15 PM	19	18				19			19	<div></div>
11:30 PM	26	9				18			18	<div></div>
11:45 PM	16	13				15			15	<div></div>
Day Total	8801	8130				8492			8492	
% Weekday Average	103.6%	95.7%								
% Week Average	103.6%	95.7%				100%				
AM Peak 15-min Vol	11:45 AM 185	10:15 AM 165				10:15 AM 165			10:15 AM 165	
PM Peak 15-min Vol	12:00 PM 199	2:15 PM 190				2:15 PM 188			2:15 PM 188	
Comments:										

Type of report: Tube Count - Volume Data

LOCATION: NW Greenwood Ave btwn Hill and 1st							QC JOB #: 16734702			
SPECIFIC LOCATION:							DIRECTION: WB			
CITY/STATE: Bend, OR							DATE: Sep 24 2024 - Sep 25 2024			
Start Time	Mon	Tue 24 Sep 24	Wed 25 Sep 24	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
12:00 AM		3	9			6			6	<div></div>
12:15 AM		2	8			5			5	<div></div>
12:30 AM		3	7			5			5	<div></div>
12:45 AM		4	4			4			4	<div></div>
01:00 AM		3	2			3			3	<div></div>
01:15 AM		4	2			3			3	<div></div>
01:30 AM		1	3			2			2	<div></div>
01:45 AM		3	2			3			3	<div></div>
02:00 AM		0	3			2			2	<div></div>
02:15 AM		4	4			4			4	<div></div>
02:30 AM		2	2			2			2	<div></div>
02:45 AM		2	0			1			1	<div></div>
03:00 AM		3	3			3			3	<div></div>
03:15 AM		0	4			2			2	<div></div>
03:30 AM		5	0			3			3	<div></div>
03:45 AM		2	1			2			2	<div></div>
04:00 AM		2	3			3			3	<div></div>
04:15 AM		3	2			3			3	<div></div>
04:30 AM		3	9			6			6	<div></div>
04:45 AM		6	6			6			6	<div></div>
05:00 AM		9	7			8			8	<div></div>
05:15 AM		12	12			12			12	<div></div>
05:30 AM		18	11			15			15	<div></div>
05:45 AM		19	31			25			25	<div></div>
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
Comments:										

Report generated on 10/1/2024 10:27 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

LOCATION: NW Greenwood Ave btwn Hill and 1st SPECIFIC LOCATION: CITY/STATE: Bend, OR										QC JOB #: 16734702 DIRECTION: WB DATE: Sep 24 2024 - Sep 25 2024
Start Time	Mon 24 Sep 24	Tue 25 Sep 24	Wed 25 Sep 24	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
06:00 AM	34	29				32			32	
06:15 AM	36	37				37			37	
06:30 AM	45	51				48			48	
06:45 AM	75	76				76			76	
07:00 AM	71	69				70			70	
07:15 AM	106	111				109			109	
07:30 AM	127	147				137			137	
07:45 AM	110	121				116			116	
08:00 AM	164	153				159			159	
08:15 AM	120	138				129			129	
08:30 AM	120	123				122			122	
08:45 AM	117	120				119			119	
09:00 AM	137	108				123			123	
09:15 AM	117	98				108			108	
09:30 AM	115	104				110			110	
09:45 AM	92	124				108			108	
10:00 AM	113	114				114			114	
10:15 AM	126	104				115			115	
10:30 AM	117	114				116			116	
10:45 AM	127	113				120			120	
11:00 AM	99	114				107			107	
11:15 AM	87	116				102			102	
11:30 AM	111	114				113			113	
11:45 AM	129	45				87			87	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
Comments:										

LOCATION: NW Greenwood Ave btwn Hill and 1st SPECIFIC LOCATION: CITY/STATE: Bend, OR										QC JOB #: 16734702 DIRECTION: WB DATE: Sep 24 2024 - Sep 25 2024
Start Time	Mon 24 Sep 24	Tue 25 Sep 24	Wed 25 Sep 24	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
12:00 PM	132	82				107			107	
12:15 PM	89	151				120			120	
12:30 PM	113	63				88			88	
12:45 PM	112	125				119			119	
01:00 PM	132	124				128			128	
01:15 PM	111	113				112			112	
01:30 PM	130	108				119			119	
01:45 PM	127	97				112			112	
02:00 PM	109	110				110			110	
02:15 PM	111	129				120			120	
02:30 PM	142	142				142			142	
02:45 PM	109	120				115			115	
03:00 PM	121	109				115			115	
03:15 PM	126	98				112			112	
03:30 PM	84	99				92			92	
03:45 PM	117	73				95			95	
04:00 PM	104	78				91			91	
04:15 PM	103	93				98			98	
04:30 PM	107	95				101			101	
04:45 PM	117	89				103			103	
05:00 PM	98	95				97			97	
05:15 PM	73	56				65			65	
05:30 PM	99	117				108			108	
05:45 PM	112	106				109			109	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
Comments:										

LOCATION: NW Greenwood Ave btwn Hill and 1st										QC JOB #: 16734702	
SPECIFIC LOCATION:										DIRECTION: WB	
CITY/STATE: Bend, OR										DATE: Sep 24 2024 - Sep 25 2024	
Start Time	Mon	Tue	Wed	Thu	Fri	Average Weekday	Sat	Sun	Average Week	Average Week Profile	
		24 Sep 24	25 Sep 24			15-min Traffic			15-min Traffic		
06:00 PM		103	116			110			110	<div></div>	
06:15 PM		108	96			102			102	<div></div>	
06:30 PM		79	79			79			79	<div></div>	
06:45 PM		78	66			72			72	<div></div>	
07:00 PM		86	77			82			82	<div></div>	
07:15 PM		70	78			74			74	<div></div>	
07:30 PM		71	61			66			66	<div></div>	
07:45 PM		51	68			60			60	<div></div>	
08:00 PM		63	53			58			58	<div></div>	
08:15 PM		51	35			43			43	<div></div>	
08:30 PM		43	41			42			42	<div></div>	
08:45 PM		30	34			32			32	<div></div>	
09:00 PM		41	54			48			48	<div></div>	
09:15 PM		30	27			29			29	<div></div>	
09:30 PM		35	16			26			26	<div></div>	
09:45 PM		18	27			23			23	<div></div>	
10:00 PM		18	28			23			23	<div></div>	
10:15 PM		13	14			14			14	<div></div>	
10:30 PM		13	8			11			11	<div></div>	
10:45 PM		4	17			11			11	<div></div>	
11:00 PM		11	13			12			12	<div></div>	
11:15 PM		12	11			12			12	<div></div>	
11:30 PM		9	6			8			8	<div></div>	
11:45 PM		6	8			7			7	<div></div>	
Day Total		6329	6083			6227			6227		
% Weekday Average		101.6%	97.7%								
% Week Average		101.6%	97.7%			100%					
AM Peak 15-min Vol		8:00 AM 164	8:00 AM 153			8:00 AM 159			8:00 AM 159		
PM Peak 15-min Vol		2:30 PM 142	12:15 PM 151			2:30 PM 142			2:30 PM 142		
Comments:											

Appendix C Traffic Volume Post-Construction (January 2025)

Type of report: Tube Count - Volume Data

LOCATION: NW Greenwood Ave btwn Harriman and Hill (Video)										QC JOB #: 16896201	
SPECIFIC LOCATION:										DIRECTION: EB	
CITY/STATE: Bend, OR										DATE: Jan 29 2025 - Jan 30 2025	
Start Time	Mon	Tue	Wed 29 Jan 25	Thu 30 Jan 25	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile	
12:00 AM			10	8		9			9	<div></div>	
12:15 AM			5	15		10			10	<div></div>	
12:30 AM			4	5		5			5	<div></div>	
12:45 AM			7	4		6			6	<div></div>	
01:00 AM			5	3		4			4	<div></div>	
01:15 AM			6	8		7			7	<div></div>	
01:30 AM			5	1		3			3	<div></div>	
01:45 AM			4	1		3			3	<div></div>	
02:00 AM			1	2		2			2	<div></div>	
02:15 AM			2	1		2			2	<div></div>	
02:30 AM			2	4		3			3	<div></div>	
02:45 AM			0	2		1			1	<div></div>	
03:00 AM			0	1		1			1	<div></div>	
03:15 AM			2	3		3			3	<div></div>	
03:30 AM			0	1		1			1	<div></div>	
03:45 AM			1	4		3			3	<div></div>	
04:00 AM			2	1		2			2	<div></div>	
04:15 AM			5	3		4			4	<div></div>	
04:30 AM			2	11		7			7	<div></div>	
04:45 AM			9	6		8			8	<div></div>	
05:00 AM			8	9		9			9	<div></div>	
05:15 AM			22	18		20			20	<div></div>	
05:30 AM			23	31		27			27	<div></div>	
05:45 AM			32	39		36			36	<div></div>	
Day Total											
% Weekday Average											
% Week Average											
AM Peak 15-min Vol											
PM Peak 15-min Vol											
Comments:											

Report generated on 2/5/2025 4:49 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

LOCATION: NW Greenwood Ave btwn Harriman and Hill (Video)									QC JOB #: 16896201	
SPECIFIC LOCATION:									DIRECTION: EB	
CITY/STATE: Bend, OR									DATE: Jan 29 2025 - Jan 30 2025	
Start Time	Mon	Tue	Wed 29 Jan 25	Thu 30 Jan 25	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
06:00 AM			28	32		30			30	<div></div>
06:15 AM			24	33		29			29	<div></div>
06:30 AM			46	59		53			53	<div></div>
06:45 AM			96	71		84			84	<div></div>
07:00 AM			66	82		74			74	<div></div>
07:15 AM			76	84		80			80	<div></div>
07:30 AM			134	141		138			138	<div></div>
07:45 AM			137	137		137			137	<div></div>
08:00 AM			118	105		112			112	<div></div>
08:15 AM			123	140		132			132	<div></div>
08:30 AM			124	147		136			136	<div></div>
08:45 AM			139	142		141			141	<div></div>
09:00 AM			99	105		102			102	<div></div>
09:15 AM			115	132		124			124	<div></div>
09:30 AM			130	123		127			127	<div></div>
09:45 AM			153	126		140			140	<div></div>
10:00 AM			119	117		118			118	<div></div>
10:15 AM			135	147		141			141	<div></div>
10:30 AM			133	124		129			129	<div></div>
10:45 AM			129	142		136			136	<div></div>
11:00 AM			153	147		150			150	<div></div>
11:15 AM			149	150		150			150	<div></div>
11:30 AM			136	124		130			130	<div></div>
11:45 AM			170	156		163			163	<div></div>
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
Comments:										

LOCATION: NW Greenwood Ave btwn Harriman and Hill (Video)									QC JOB #: 16896201	
SPECIFIC LOCATION:									DIRECTION: EB	
CITY/STATE: Bend, OR									DATE: Jan 29 2025 - Jan 30 2025	
Start Time	Mon	Tue	Wed 29 Jan 25	Thu 30 Jan 25	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
12:00 PM			159	166		163			163	<div></div>
12:15 PM			156	168		162			162	<div></div>
12:30 PM			146	117		132			132	<div></div>
12:45 PM			151	161		156			156	<div></div>
01:00 PM			183	176		180			180	<div></div>
01:15 PM			151	156		154			154	<div></div>
01:30 PM			162	142		152			152	<div></div>
01:45 PM			155	183		169			169	<div></div>
02:00 PM			191	181		186			186	<div></div>
02:15 PM			181	164		173			173	<div></div>
02:30 PM			182	181		182			182	<div></div>
02:45 PM			189	206		198			198	<div></div>
03:00 PM			174	167		171			171	<div></div>
03:15 PM			177	191		184			184	<div></div>
03:30 PM			204	182		193			193	<div></div>
03:45 PM			176	194		185			185	<div></div>
04:00 PM			188	191		190			190	<div></div>
04:15 PM			170	193		182			182	<div></div>
04:30 PM			183	160		172			172	<div></div>
04:45 PM			171	168		170			170	<div></div>
05:00 PM			195	207		201			201	<div></div>
05:15 PM			184	187		186			186	<div></div>
05:30 PM			189	152		171			171	<div></div>
05:45 PM			151	147		149			149	<div></div>
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
Comments:										

LOCATION: NW Greenwood Ave btwn Harriman and Hill (Video)							QC JOB #: 16896201			
SPECIFIC LOCATION:							DIRECTION: EB			
CITY/STATE: Bend, OR							DATE: Jan 29 2025 - Jan 30 2025			
Start Time	Mon	Tue	Wed 29 Jan 25	Thu 30 Jan 25	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
06:00 PM			111	133		122			122	<div></div>
06:15 PM			118	128		123			123	<div></div>
06:30 PM			96	130		113			113	<div></div>
06:45 PM			103	114		109			109	<div></div>
07:00 PM			102	109		106			106	<div></div>
07:15 PM			73	86		80			80	<div></div>
07:30 PM			77	77		77			77	<div></div>
07:45 PM			86	78		82			82	<div></div>
08:00 PM			72	101		87			87	<div></div>
08:15 PM			88	89		89			89	<div></div>
08:30 PM			88	65		77			77	<div></div>
08:45 PM			71	73		72			72	<div></div>
09:00 PM			65	67		66			66	<div></div>
09:15 PM			52	70		61			61	<div></div>
09:30 PM			48	47		48			48	<div></div>
09:45 PM			29	42		36			36	<div></div>
10:00 PM			32	33		33			33	<div></div>
10:15 PM			34	36		35			35	<div></div>
10:30 PM			25	22		24			24	<div></div>
10:45 PM			16	19		18			18	<div></div>
11:00 PM			26	21		24			24	<div></div>
11:15 PM			15	17		16			16	<div></div>
11:30 PM			14	15		15			15	<div></div>
11:45 PM			14	11		13			13	<div></div>
Day Total			8512	8670		8619			8619	
% Weekday Average			98.8%	100.6%						
% Week Average			98.8%	100.6%		100%				
AM Peak 15-min Vol			11:45 AM 170	11:45 AM 156		11:45 AM 163			11:45 AM 163	
PM Peak 15-min Vol			3:30 PM 204	5:00 PM 207		5:00 PM 201			5:00 PM 201	
Comments:										

Type of report: Tube Count - Volume Data

LOCATION: NW Greenwood Ave btwn Harriman and Hill (Video)							QC JOB #: 16896201			
SPECIFIC LOCATION:							DIRECTION: WB			
CITY/STATE: Bend, OR							DATE: Jan 29 2025 - Jan 30 2025			
Start Time	Mon	Tue	Wed 29 Jan 25	Thu 30 Jan 25	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
12:00 AM			3	7		5			5	<div></div>
12:15 AM			5	6		6			6	<div></div>
12:30 AM			4	2		3			3	<div></div>
12:45 AM			4	4		4			4	<div></div>
01:00 AM			7	1		4			4	<div></div>
01:15 AM			3	2		3			3	<div></div>
01:30 AM			2	2		2			2	<div></div>
01:45 AM			5	2		4			4	<div></div>
02:00 AM			0	1		1			1	<div></div>
02:15 AM			4	5		5			5	<div></div>
02:30 AM			2	1		2			2	<div></div>
02:45 AM			0	0		0			0	<div></div>
03:00 AM			3	0		2			2	<div></div>
03:15 AM			4	3		4			4	<div></div>
03:30 AM			2	3		3			3	<div></div>
03:45 AM			3	1		2			2	<div></div>
04:00 AM			2	1		2			2	<div></div>
04:15 AM			3	4		4			4	<div></div>
04:30 AM			3	3		3			3	<div></div>
04:45 AM			6	4		5			5	<div></div>
05:00 AM			4	3		4			4	<div></div>
05:15 AM			8	13		11			11	<div></div>
05:30 AM			10	11		11			11	<div></div>
05:45 AM			20	21		21			21	<div></div>
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
Comments:										

Report generated on 2/5/2025 4:49 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

LOCATION: NW Greenwood Ave btwn Harriman and Hill (Video)									QC JOB #: 16896201	
SPECIFIC LOCATION:									DIRECTION: WB	
CITY/STATE: Bend, OR									DATE: Jan 29 2025 - Jan 30 2025	
Start Time	Mon	Tue	Wed 29 Jan 25	Thu 30 Jan 25	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
06:00 AM			23	22		23			23	<div></div>
06:15 AM			27	29		28			28	<div></div>
06:30 AM			38	52		45			45	<div></div>
06:45 AM			67	66		67			67	<div></div>
07:00 AM			54	55		55			55	<div></div>
07:15 AM			67	85		76			76	<div></div>
07:30 AM			135	131		133			133	<div></div>
07:45 AM			167	133		150			150	<div></div>
08:00 AM			144	115		130			130	<div></div>
08:15 AM			118	111		115			115	<div></div>
08:30 AM			117	114		116			116	<div></div>
08:45 AM			119	122		121			121	<div></div>
09:00 AM			101	99		100			100	<div></div>
09:15 AM			99	96		98			98	<div></div>
09:30 AM			111	108		110			110	<div></div>
09:45 AM			113	122		118			118	<div></div>
10:00 AM			97	106		102			102	<div></div>
10:15 AM			74	103		89			89	<div></div>
10:30 AM			105	101		103			103	<div></div>
10:45 AM			111	113		112			112	<div></div>
11:00 AM			112	93		103			103	<div></div>
11:15 AM			99	104		102			102	<div></div>
11:30 AM			108	78		93			93	<div></div>
11:45 AM			117	100		109			109	<div></div>
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
Comments:										

LOCATION: NW Greenwood Ave btwn Harriman and Hill (Video)									QC JOB #: 16896201	
SPECIFIC LOCATION:									DIRECTION: WB	
CITY/STATE: Bend, OR									DATE: Jan 29 2025 - Jan 30 2025	
Start Time	Mon	Tue	Wed 29 Jan 25	Thu 30 Jan 25	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
12:00 PM			119	118		119			119	<div></div>
12:15 PM			110	135		123			123	<div></div>
12:30 PM			121	101		111			111	<div></div>
12:45 PM			109	127		118			118	<div></div>
01:00 PM			112	137		125			125	<div></div>
01:15 PM			117	106		112			112	<div></div>
01:30 PM			113	97		105			105	<div></div>
01:45 PM			98	111		105			105	<div></div>
02:00 PM			98	101		100			100	<div></div>
02:15 PM			116	88		102			102	<div></div>
02:30 PM			119	117		118			118	<div></div>
02:45 PM			117	126		122			122	<div></div>
03:00 PM			117	108		113			113	<div></div>
03:15 PM			106	113		110			110	<div></div>
03:30 PM			116	101		109			109	<div></div>
03:45 PM			140	148		144			144	<div></div>
04:00 PM			105	122		114			114	<div></div>
04:15 PM			137	133		135			135	<div></div>
04:30 PM			121	108		115			115	<div></div>
04:45 PM			141	116		129			129	<div></div>
05:00 PM			119	118		119			119	<div></div>
05:15 PM			123	134		129			129	<div></div>
05:30 PM			107	125		116			116	<div></div>
05:45 PM			105	129		117			117	<div></div>
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
Comments:										

LOCATION: NW Greenwood Ave btwn Harriman and Hill (Video)									QC JOB #: 16896201	
SPECIFIC LOCATION:									DIRECTION: WB	
CITY/STATE: Bend, OR									DATE: Jan 29 2025 - Jan 30 2025	
Start Time	Mon	Tue	Wed 29 Jan 25	Thu 30 Jan 25	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
06:00 PM			111	102		107			107	<div></div>
06:15 PM			96	99		98			98	<div></div>
06:30 PM			86	107		97			97	<div></div>
06:45 PM			81	79		80			80	<div></div>
07:00 PM			62	72		67			67	<div></div>
07:15 PM			44	42		43			43	<div></div>
07:30 PM			58	40		49			49	<div></div>
07:45 PM			54	61		58			58	<div></div>
08:00 PM			41	54		48			48	<div></div>
08:15 PM			48	48		48			48	<div></div>
08:30 PM			38	36		37			37	<div></div>
08:45 PM			28	36		32			32	<div></div>
09:00 PM			27	32		30			30	<div></div>
09:15 PM			17	38		28			28	<div></div>
09:30 PM			27	31		29			29	<div></div>
09:45 PM			22	26		24			24	<div></div>
10:00 PM			28	11		20			20	<div></div>
10:15 PM			12	25		19			19	<div></div>
10:30 PM			8	11		10			10	<div></div>
10:45 PM			9	14		12			12	<div></div>
11:00 PM			13	9		11			11	<div></div>
11:15 PM			7	13		10			10	<div></div>
11:30 PM			4	8		6			6	<div></div>
11:45 PM			6	12		9			9	<div></div>
Day Total			6143	6183		6191			6191	
% Weekday Average			99.2%	99.9%						
% Week Average			99.2%	99.9%		100%				
AM Peak 15-min Vol			7:45 AM 167	7:45 AM 133		7:45 AM 150			7:45 AM 150	
PM Peak 15-min Vol			4:45 PM 141	3:45 PM 148		3:45 PM 144			3:45 PM 144	
Comments:										

Type of report: Tube Count - Volume Data

LOCATION: NW Greenwood Ave btwn Hill and 1st (Video)										QC JOB #: 16896202	
SPECIFIC LOCATION:										DIRECTION: EB	
CITY/STATE: Bend, OR										DATE: Jan 29 2025 - Jan 30 2025	
Start Time	Mon	Tue	Wed 29 Jan 25	Thu 30 Jan 25	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile	
12:00 AM			9	6		8			8	<div></div>	
12:15 AM			5	18		12			12	<div></div>	
12:30 AM			5	4		5			5	<div></div>	
12:45 AM			9	2		6			6	<div></div>	
01:00 AM			6	7		7			7	<div></div>	
01:15 AM			5	7		6			6	<div></div>	
01:30 AM			5	1		3			3	<div></div>	
01:45 AM			4	1		3			3	<div></div>	
02:00 AM			1	2		2			2	<div></div>	
02:15 AM			3	1		2			2	<div></div>	
02:30 AM			2	4		3			3	<div></div>	
02:45 AM			1	4		3			3	<div></div>	
03:00 AM			0	0		0			0	<div></div>	
03:15 AM			2	3		3			3	<div></div>	
03:30 AM			2	6		4			4	<div></div>	
03:45 AM			4	5		5			5	<div></div>	
04:00 AM			3	6		5			5	<div></div>	
04:15 AM			9	5		7			7	<div></div>	
04:30 AM			3	15		9			9	<div></div>	
04:45 AM			12	15		14			14	<div></div>	
05:00 AM			12	14		13			13	<div></div>	
05:15 AM			22	22		22			22	<div></div>	
05:30 AM			36	37		37			37	<div></div>	
05:45 AM			39	52		46			46	<div></div>	
Day Total											
% Weekday Average											
% Week Average											
AM Peak 15-min Vol											
PM Peak 15-min Vol											
Comments:											

Report generated on 2/5/2025 4:49 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

LOCATION: NW Greenwood Ave btwn Hill and 1st (Video)								QC JOB #: 16896202		
SPECIFIC LOCATION:								DIRECTION: EB		
CITY/STATE: Bend, OR								DATE: Jan 29 2025 - Jan 30 2025		
Start Time	Mon	Tue	Wed 29 Jan 25	Thu 30 Jan 25	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
06:00 AM			41	38		40			40	<div></div>
06:15 AM			44	51		48			48	<div></div>
06:30 AM			57	70		64			64	<div></div>
06:45 AM			131	93		112			112	<div></div>
07:00 AM			78	92		85			85	<div></div>
07:15 AM			99	99		99			99	<div></div>
07:30 AM			151	163		157			157	<div></div>
07:45 AM			141	165		153			153	<div></div>
08:00 AM			139	134		137			137	<div></div>
08:15 AM			140	147		144			144	<div></div>
08:30 AM			142	165		154			154	<div></div>
08:45 AM			159	174		167			167	<div></div>
09:00 AM			118	119		119			119	<div></div>
09:15 AM			122	149		136			136	<div></div>
09:30 AM			137	142		140			140	<div></div>
09:45 AM			158	151		155			155	<div></div>
10:00 AM			138	129		134			134	<div></div>
10:15 AM			153	164		159			159	<div></div>
10:30 AM			157	137		147			147	<div></div>
10:45 AM			155	167		161			161	<div></div>
11:00 AM			182	164		173			173	<div></div>
11:15 AM			183	168		176			176	<div></div>
11:30 AM			155	159		157			157	<div></div>
11:45 AM			179	188		184			184	<div></div>
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
Comments:										

LOCATION: NW Greenwood Ave btwn Hill and 1st (Video)							QC JOB #: 16896202			
SPECIFIC LOCATION:							DIRECTION: EB			
CITY/STATE: Bend, OR							DATE: Jan 29 2025 - Jan 30 2025			
Start Time	Mon	Tue	Wed 29 Jan 25	Thu 30 Jan 25	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
12:00 PM			190	201		196			196	<div></div>
12:15 PM			180	187		184			184	<div></div>
12:30 PM			186	144		165			165	<div></div>
12:45 PM			176	184		180			180	<div></div>
01:00 PM			203	188		196			196	<div></div>
01:15 PM			186	191		189			189	<div></div>
01:30 PM			188	176		182			182	<div></div>
01:45 PM			178	215		197			197	<div></div>
02:00 PM			220	204		212			212	<div></div>
02:15 PM			203	200		202			202	<div></div>
02:30 PM			217	216		217			217	<div></div>
02:45 PM			203	229		216			216	<div></div>
03:00 PM			194	186		190			190	<div></div>
03:15 PM			197	212		205			205	<div></div>
03:30 PM			233	214		224			224	<div></div>
03:45 PM			204	223		214			214	<div></div>
04:00 PM			219	218		219			219	<div></div>
04:15 PM			206	229		218			218	<div></div>
04:30 PM			216	176		196			196	<div></div>
04:45 PM			194	190		192			192	<div></div>
05:00 PM			245	239		242			242	<div></div>
05:15 PM			222	217		220			220	<div></div>
05:30 PM			198	172		185			185	<div></div>
05:45 PM			178	171		175			175	<div></div>
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
Comments:										

LOCATION: NW Greenwood Ave btwn Hill and 1st (Video)								QC JOB #: 16896202		
SPECIFIC LOCATION:								DIRECTION: EB		
CITY/STATE: Bend, OR								DATE: Jan 29 2025 - Jan 30 2025		
Start Time	Mon	Tue	Wed 29 Jan 25	Thu 30 Jan 25	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
06:00 PM			121	140		131			131	<div></div>
06:15 PM			133	126		130			130	<div></div>
06:30 PM			112	135		124			124	<div></div>
06:45 PM			106	117		112			112	<div></div>
07:00 PM			120	116		118			118	<div></div>
07:15 PM			92	92		92			92	<div></div>
07:30 PM			83	84		84			84	<div></div>
07:45 PM			96	83		90			90	<div></div>
08:00 PM			71	112		92			92	<div></div>
08:15 PM			94	90		92			92	<div></div>
08:30 PM			90	86		88			88	<div></div>
08:45 PM			72	79		76			76	<div></div>
09:00 PM			74	73		74			74	<div></div>
09:15 PM			60	88		74			74	<div></div>
09:30 PM			51	52		52			52	<div></div>
09:45 PM			28	54		41			41	<div></div>
10:00 PM			36	35		36			36	<div></div>
10:15 PM			36	38		37			37	<div></div>
10:30 PM			23	28		26			26	<div></div>
10:45 PM			20	20		20			20	<div></div>
11:00 PM			32	25		29			29	<div></div>
11:15 PM			18	17		18			18	<div></div>
11:30 PM			13	21		17			17	<div></div>
11:45 PM			15	12		14			14	<div></div>
Day Total			9790	9970		9909			9909	
% Weekday Average			98.8%	100.6%						
% Week Average			98.8%	100.6%		100%				
AM Peak 15-min Vol			11:15 AM 183	11:45 AM 188		11:45 AM 184			11:45 AM 184	
PM Peak 15-min Vol			5:00 PM 245	5:00 PM 239		5:00 PM 242			5:00 PM 242	
Comments:										

Type of report: Tube Count - Volume Data

LOCATION: NW Greenwood Ave btwn Hill and 1st (Video)										QC JOB #: 16896202	
SPECIFIC LOCATION:										DIRECTION: WB	
CITY/STATE: Bend, OR										DATE: Jan 29 2025 - Jan 30 2025	
Start Time	Mon	Tue	Wed 29 Jan 25	Thu 30 Jan 25	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile	
12:00 AM			3	7		5			5	<div></div>	
12:15 AM			5	6		6			6	<div></div>	
12:30 AM			4	3		4			4	<div></div>	
12:45 AM			3	4		4			4	<div></div>	
01:00 AM			1	2		2			2	<div></div>	
01:15 AM			2	3		3			3	<div></div>	
01:30 AM			2	3		3			3	<div></div>	
01:45 AM			4	2		3			3	<div></div>	
02:00 AM			0	1		1			1	<div></div>	
02:15 AM			6	7		7			7	<div></div>	
02:30 AM			2	1		2			2	<div></div>	
02:45 AM			0	0		0			0	<div></div>	
03:00 AM			3	1		2			2	<div></div>	
03:15 AM			4	3		4			4	<div></div>	
03:30 AM			2	3		3			3	<div></div>	
03:45 AM			4	1		3			3	<div></div>	
04:00 AM			2	1		2			2	<div></div>	
04:15 AM			4	5		5			5	<div></div>	
04:30 AM			4	3		4			4	<div></div>	
04:45 AM			7	6		7			7	<div></div>	
05:00 AM			5	6		6			6	<div></div>	
05:15 AM			12	16		14			14	<div></div>	
05:30 AM			11	12		12			12	<div></div>	
05:45 AM			25	26		26			26	<div></div>	
Day Total											
% Weekday Average											
% Week Average											
AM Peak 15-min Vol											
PM Peak 15-min Vol											
Comments:											

Report generated on 2/5/2025 4:49 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

LOCATION: NW Greenwood Ave btwn Hill and 1st (Video)									QC JOB #: 16896202	
SPECIFIC LOCATION:									DIRECTION: WB	
CITY/STATE: Bend, OR									DATE: Jan 29 2025 - Jan 30 2025	
Start Time	Mon	Tue	Wed 29 Jan 25	Thu 30 Jan 25	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
06:00 AM			28	25		27			27	<div></div>
06:15 AM			41	38		40			40	<div></div>
06:30 AM			43	54		49			49	<div></div>
06:45 AM			92	81		87			87	<div></div>
07:00 AM			70	77		74			74	<div></div>
07:15 AM			98	119		109			109	<div></div>
07:30 AM			174	166		170			170	<div></div>
07:45 AM			217	172		195			195	<div></div>
08:00 AM			176	146		161			161	<div></div>
08:15 AM			133	140		137			137	<div></div>
08:30 AM			161	147		154			154	<div></div>
08:45 AM			160	142		151			151	<div></div>
09:00 AM			115	124		120			120	<div></div>
09:15 AM			118	113		116			116	<div></div>
09:30 AM			129	121		125			125	<div></div>
09:45 AM			133	151		142			142	<div></div>
10:00 AM			111	108		110			110	<div></div>
10:15 AM			91	131		111			111	<div></div>
10:30 AM			123	126		125			125	<div></div>
10:45 AM			125	128		127			127	<div></div>
11:00 AM			132	107		120			120	<div></div>
11:15 AM			119	116		118			118	<div></div>
11:30 AM			122	100		111			111	<div></div>
11:45 AM			149	119		134			134	<div></div>
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
Comments:										

LOCATION: NW Greenwood Ave btwn Hill and 1st (Video)										QC JOB #: 16896202	
SPECIFIC LOCATION:										DIRECTION: WB	
CITY/STATE: Bend, OR										DATE: Jan 29 2025 - Jan 30 2025	
Start Time	Mon	Tue	Wed 29 Jan 25	Thu 30 Jan 25	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile	
12:00 PM			127	131		129			129	<div></div>	
12:15 PM			126	159		143			143	<div></div>	
12:30 PM			154	121		138			138	<div></div>	
12:45 PM			139	145		142			142	<div></div>	
01:00 PM			132	149		141			141	<div></div>	
01:15 PM			135	139		137			137	<div></div>	
01:30 PM			135	113		124			124	<div></div>	
01:45 PM			118	149		134			134	<div></div>	
02:00 PM			119	119		119			119	<div></div>	
02:15 PM			140	123		132			132	<div></div>	
02:30 PM			141	122		132			132	<div></div>	
02:45 PM			149	132		141			141	<div></div>	
03:00 PM			134	125		130			130	<div></div>	
03:15 PM			131	131		131			131	<div></div>	
03:30 PM			135	110		123			123	<div></div>	
03:45 PM			169	163		166			166	<div></div>	
04:00 PM			127	140		134			134	<div></div>	
04:15 PM			157	158		158			158	<div></div>	
04:30 PM			126	136		131			131	<div></div>	
04:45 PM			174	147		161			161	<div></div>	
05:00 PM			132	137		135			135	<div></div>	
05:15 PM			132	141		137			137	<div></div>	
05:30 PM			117	161		139			139	<div></div>	
05:45 PM			122	141		132			132	<div></div>	
Day Total											
% Weekday Average											
% Week Average											
AM Peak 15-min Vol											
PM Peak 15-min Vol											
Comments:											

LOCATION: NW Greenwood Ave btwn Hill and 1st (Video)							QC JOB #: 16896202			
SPECIFIC LOCATION:							DIRECTION: WB			
CITY/STATE: Bend, OR							DATE: Jan 29 2025 - Jan 30 2025			
Start Time	Mon	Tue	Wed 29 Jan 25	Thu 30 Jan 25	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
06:00 PM			120	112		116			116	<div></div>
06:15 PM			111	115		113			113	<div></div>
06:30 PM			100	133		117			117	<div></div>
06:45 PM			91	90		91			91	<div></div>
07:00 PM			75	83		79			79	<div></div>
07:15 PM			54	45		50			50	<div></div>
07:30 PM			75	51		63			63	<div></div>
07:45 PM			62	71		67			67	<div></div>
08:00 PM			41	58		50			50	<div></div>
08:15 PM			61	46		54			54	<div></div>
08:30 PM			42	33		38			38	<div></div>
08:45 PM			26	37		32			32	<div></div>
09:00 PM			30	35		33			33	<div></div>
09:15 PM			17	38		28			28	<div></div>
09:30 PM			27	30		29			29	<div></div>
09:45 PM			22	27		25			25	<div></div>
10:00 PM			33	12		23			23	<div></div>
10:15 PM			16	28		22			22	<div></div>
10:30 PM			8	9		9			9	<div></div>
10:45 PM			11	15		13			13	<div></div>
11:00 PM			15	11		13			13	<div></div>
11:15 PM			8	12		10			10	<div></div>
11:30 PM			8	9		9			9	<div></div>
11:45 PM			8	14		11			11	<div></div>
Day Total			7307	7279		7325			7325	
% Weekday Average			99.8%	99.4%						
% Week Average			99.8%	99.4%		100%				
AM Peak 15-min Vol			7:45 AM 217	7:45 AM 172		7:45 AM 195			7:45 AM 195	
PM Peak 15-min Vol			4:45 PM 174	3:45 PM 163		3:45 PM 166			3:45 PM 166	
Comments:										

Appendix D Methodology Memorandum

Technical Memorandum

November 5, 2024

Project# 29385

To: Todd Johnson & Garrett Sabourin
City of Bend

From: Matt Kittelson, PE, Jacki Smith, PE, Doreen Gui, Kittelson & Associates, Inc.

RE: Bend Midtown Crossing - Greenwood Traffic Monitoring: Preconstruction

TRAFFIC MONITORING SUMMARY

As part of the Midtown Crossing Progressive Design Build effort, Kittelson & Associates, Inc. (Kittelson) is supporting a traffic data monitoring inventory for the Greenwood Avenue Quick Build. The Quick Build is a one-year pilot project to evaluate the safety, operations, and impact of transforming the existing roadway on Greenwood Avenue from 2nd Street to Wall Street to a three-lane cross section with buffered bike lanes. As part of the evaluation, **traffic data will be monitored both pre-and post-construction to document trends in congestion, travel speeds, and traffic volumes.** This memorandum documents the monitoring methodology and presents the initial preconstruction data for future comparison when the quick build is implemented.

As part of the monitoring process, three data collection methods will be collected. These methods include:

- Traffic Count Data
 - 48-hour travel volume, speed, and vehicle classification data for vehicles
 - 48-hour pedestrian and bicycle volumes
- Travel Time Data
 - Google API
 - INRIX

Data will be collected during the following time periods for evaluation:

- Preconstruction – May 2024
 - *Construction Anticipated July/August 2024*
- Postconstruction – September 2024
- Postconstruction – January/February 2024
- Postconstruction – May/June 2024

Traffic Count Data

Traffic counts were collected to understand the existing travel demand on Greenwood Avenue. Two days (48 hours) of vehicle, pedestrian, and bicycle counts were collected at two locations on Tuesday May 14, 2024 and Wednesday May 15, 2024:

- Greenwood Avenue between Harriman Street and Hill Street (west of Hill Street).
- Greenwood Avenue between Hill Street and 1st Street (east of Hill Street near the undercrossing).

Raw traffic volume data is provided in *Appendix C-1*.

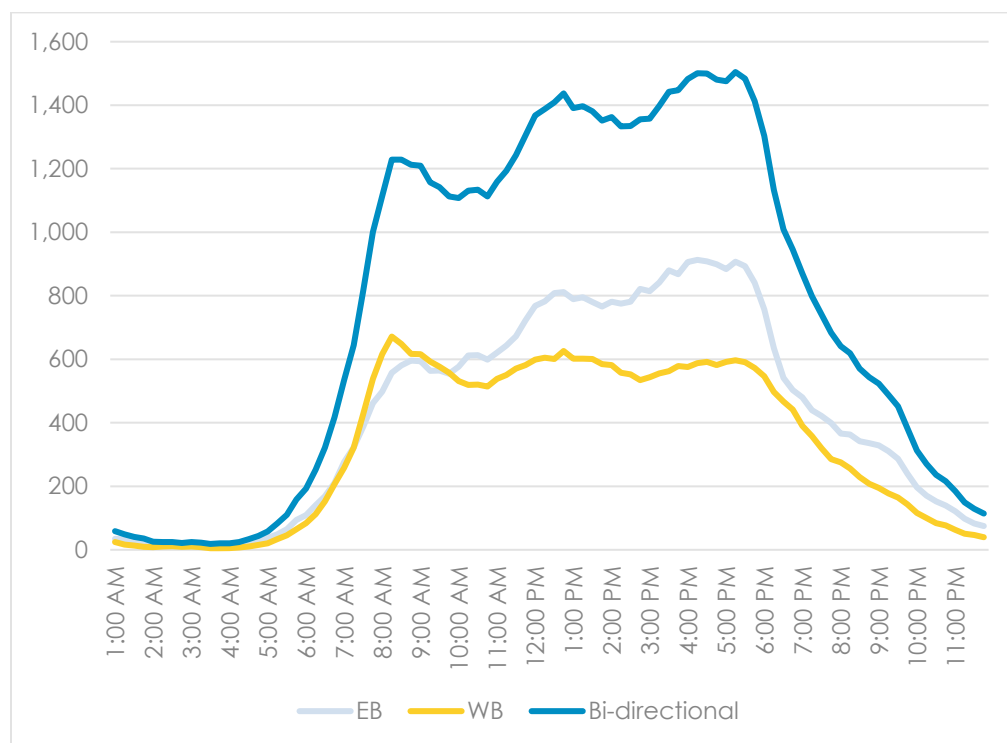
Vehicle Volume

Kittelson analyzed the time-of-day distribution of vehicle volume by averaging two days of data. Similar trends were found at both count locations. Volumes were slightly higher west of Hill Street, with an average daily volume of 17,874 vehicles (2,353 or 15 percent higher than east of Hill Street).

Figure 1 shows the hourly volume distribution on Greenwood Avenue west of Hill Street. The following trends were found:

- The AM peak hour occurs at 7:30 AM to 8:30 AM, with 1,229 total vehicles.
- The PM peak hour occurs at 4:30 PM to 5:30 PM, with 1,505 total vehicles.
- The AM peak is more prominent for westbound traffic and the PM peak is more prominent for eastbound traffic. This is consistent with expected traffic patterns into and out of the downtown area.
- Traffic volumes remain fairly consistent throughout the day with a minor peak during midday (12:00pm-1:00pm).

Figure 1 NW Greenwood Avenue Vehicle Volume Distribution by Time of Day



Vehicle Speed Distribution

Speed data were reported in 5 mph intervals from the collected tube counts. The tubes were set at midblock locations so that the recorded speed was not affected by traffic control at intersections. Kittelson aggregated the two days of data and identified the 85th percentile speed:

- At both count locations, the 85th percentile speeds for both directions are between 31 mph (miles per hour) to 35 mph.
 - The posted speed on Greenwood Avenue is 20mph west of Hill Street and 25mph east of Hill Street.

- The 85th percentile speeds are generally consistent throughout the day.

To supplement the 85th percentile speed metric, Kittelson also analyzed the time-of-day trend of average speed by assigning an estimated speed to each vehicle based on the 5-mph interval recorded. For example, if a vehicle's speed was between 26 mph and 30 mph, its speed was assumed to be 28 mph. The following trends were found:

- Similar to 85th percentile speed, average speed is generally consistent throughout the day. It ranges from 25 mph to 35 mph, except for westbound traffic at the west of Hill Street location, which drops to 22 mph around noon (12 PM to 2 PM).
- At both count locations, the estimated average speed of eastbound traffic is slightly higher than westbound traffic, except in early AM (12 AM to 5 AM).

Pedestrian and Bicycle Volume

Table 1 and Note: Average volumes were rounded and might not add to total.

Table 2 summarize the daily and peak hour pedestrian and bicycle volumes using the average of two days of data. As the peak demand of pedestrian and bicycle activity often does not overlap with peak vehicle demand, the 60-min intervals with highest pedestrian or bicycle count were also listed. The following trends were found:

- Pedestrian volume.
 - At both locations, more than 70% of pedestrians use the sidewalk on the north side of Greenwood Avenue.
 - Pedestrian volumes are higher at the count location west of Hill Street. Less people use the undercrossing sidewalks than the sidewalk facilities near downtown.
- Bicycle volume.
 - Bicycle volumes are relatively balanced between the two count locations and the two directions.

Table 1 NW Greenwood Avenue Pedestrian Volume Summary

Time Period	North Sidewalk	South Sidewalk	Total
West of Hill Street			
Daily	349	126	474
AM Peak Hour (7:30 AM to 8:30 AM)	9	4	13
PM Peak Hour (4:30 PM to 5:30 PM)	14	12	26
Pedestrian Peak Hour (6:55 PM to 7:55 PM)	34	9	43
East of Hill Street (Near Undercrossing)			
Daily	154	56	209
AM Peak Hour (7:30 AM to 8:30 AM)	2	2	4
PM Peak Hour (4:30 PM to 5:30 PM)	12	3	15
Pedestrian Peak Hour (3:25 PM to 4:25 PM)	21	6	27

Note: Average volumes were rounded and might not add to total.

Table 2 NW Greenwood Avenue Bicycle Volume Summary

Time Period	Eastbound	Westbound	Total
West of Hill Street			
Daily	55	46	101
AM Peak Hour (7:30 AM to 8:30 AM)	4	2	6
PM Peak Hour (4:30 PM to 5:30 PM)	5	5	10
Pedestrian Peak Hour (2:25 PM to 3:25 PM)	8	4	12
East of Hill Street (Near Undercrossing)			
Daily	53	55	108
AM Peak Hour (7:30 AM to 8:30 AM)	3	1	3
PM Peak Hour (4:30 PM to 5:30 PM)	5	9	13
Pedestrian Peak Hour (5:15 PM to 6:15 PM)	7	10	16

Note: Average volumes were rounded and might not add up.

Traffic Count Data Comparison

Once the quick build is constructed, three additional data collection periods will be evaluated to compare the “before and after” trends along the Greenwood Avenue corridor. These comparisons will be communicated in a graphical format to observe the trends and changes over time for both volume and speed data.

Travel Time Data

Travel time data from two data sources, INRIX and Google API, are used to monitor the change of travel time preconstruction and postconstruction. The following section presents the methodology used to analyze the data. Detailed preconstruction and postconstruction travel time comparison will be presented after postconstruction data are collected.

Monitoring Period and Corridors

For the preconstruction period, travel time data from INRIX and Google API were downloaded or queried between 6 AM and 9 PM on weekdays (Tuesday, Wednesday, Thursday) for two weeks between May 21 and May 30. To provide consistency between the data sets, traffic count and travel time data will be collected within a 2-3 week period of each other for the remaining data collection periods.

To monitor the cumulative, systemwide effect of the quick-build project, three parallel corridors were also included in this analysis, as shown in Figure 2:

- Revere Avenue, from Harriman Street to 3rd Street.
- Olney Avenue, from Wall Street to 3rd Street.
- Greenwood Avenue, from Wall Street to 3rd Street.
- Franklin Avenue, from Wall Street to 3rd Street.

[illegible]

INRIX provides vehicle travel time and speed data based on aggregated traffic data from GPS-enabled devices and road sensors. The data is available in Regional Integrated Transportation Information System (RITIS), a data sharing and visualization platform. Kittelson accessed INRIX data from RITIS, under Oregon Department of Transportation (ODOT)'s agreement with the platform.

Data was downloaded using the "Massive Data Downloader" tool in RITIS following the steps below for the preconstruction period. A similar process will be applied to the postconstruction data sets:

- $$\text{i. } XD \text{ segment speed} = \frac{n}{\left(\frac{1}{\text{speed}_1} + \frac{1}{\text{speed}_2} + \dots + \frac{1}{\text{speed}_n}\right)}$$

Kittelson & Associates, Inc.

1. Identify the corridor (e.g., eastbound NW Greenwood Avenue) corresponding to each XD segment.
2. Filter INRIX records with a "C-Value" lower than 85.
 - a. "C-Value" is a metric used by INRIX to indicate the probability the current value represents the actual roadway conditions based on recent and historical trends. The value ranges from 0 to 100, with 100 indicating high probability.
 - b. Filtering out records with low "C-Value" helps exclude non-recurring congestion, such as incidents and special events.
3. Calculate corridor travel time of each 15-minute window by summing up travel times of the corresponding XD segments.
 - a. If the travel time of any XD segment is missing for a 15-minute window (due to lack of real time data or low "C-Value"), the corridor travel time will not be reported at that timestamp, as the data are incomplete.
4. The average corridor travel time can be calculated by averaging data over the two-week period.

INRIX Data Summary

Below lists the initial results from the preconstruction period:

- Eastbound and westbound travel times on Greenwood Avenue from Wall Street to 3rd Street are similar and generally range from 70 to 105 seconds between 6 AM to 9 PM.
- Consistent with the trend identified from tube counts, eastbound travel times increase during PM peak hour, while the effect is less prominent for westbound travel time.

INRIX output sheets are provided in Appendix C-2.

Google API

Another source of travel time data is Google Directions API. It uses an algorithm to incorporate distance, speed limit, historical speed data, and real-time traffic conditions collected from GPS devices.

Google API Methodology

Travel times were queried and aggregated using the following steps. A similar process will be applied to the postconstruction data sets:

1. Set up corridors.
 - a. Specify the longitude and latitude of the origins and destinations of the monitoring corridors.
 - b. As API searches for the fastest path, add intermediate waypoints along the monitoring corridor to fix the path.
2. Select mode to be driving.
3. Call the API every 15 minutes.
 - a. A python script was developed to query travel time every 15 minutes between 6 AM to 9 PM on weekdays and record the data.
4. The average corridor travel time can be calculated by averaging data over the two-week period between May 21 and May 30.

Google API Data Summary

Below lists the initial results from the preconstruction period:

- Eastbound and westbound travel times on NW Greenwood Avenue are similar and generally range from 95 to 175 seconds between 6 AM to 9 PM.
 - Note the Google API travel time results can vary from INRIX result as the INRIX XD segments might not coincide exactly with the origins and destinations specified in Google API. In addition, as the monitoring corridors start and end at intersections, INRIX and Google API might have different ways to handle the starting and ending intersections.
 - It is recommended that quantitative results of preconstruction and postconstruction travel time should be compared using the same data source, and that trends from INRIX and Google API should be compared qualitatively.
- Similar with trends identified from tube counts and INRIX data, eastbound travel times increase during PM peak hour, while the effect is less prominent for westbound travel time.

Google API output sheets are provided in Appendix C-3.

Travel Time Data Comparison

Similar to traffic count data, once the quick build is constructed, three additional data collection periods will be evaluated to compare the “before and after” trends along the Greenwood Avenue corridor and along the parallel routes identified above. These comparisons will be communicated in a graphical format to observe the trends and changes over time.

Appendix D - 1 Traffic Volume Data

Type of report: Tube Count - Volume Data

LOCATION: NW Greenwood Ave btwn Harriman and Hill							QC JOB #: 16414404			
SPECIFIC LOCATION:							DIRECTION: EB			
CITY/STATE: Bend, OR							DATE: May 14 2024 - May 15 2024			
Start Time	Mon 14 May 24	Tue 15 May 24	Wed 15 May 24	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
12:00 AM		7	15			11			11	<div></div>
12:15 AM		6	10			8			8	<div></div>
12:30 AM		5	8			7			7	<div></div>
12:45 AM		6	1			4			4	<div></div>
01:00 AM		5	10			8			8	<div></div>
01:15 AM		7	5			6			6	<div></div>
01:30 AM		4	4			4			4	<div></div>
01:45 AM		2	5			4			4	<div></div>
02:00 AM		3	2			3			3	<div></div>
02:15 AM		1	2			2			2	<div></div>
02:30 AM		2	3			3			3	<div></div>
02:45 AM		2	4			3			3	<div></div>
03:00 AM		4	2			3			3	<div></div>
03:15 AM		2	2			2			2	<div></div>
03:30 AM		0	1			1			1	<div></div>
03:45 AM		2	3			3			3	<div></div>
04:00 AM		3	2			3			3	<div></div>
04:15 AM		3	6			5			5	<div></div>
04:30 AM		2	7			5			5	<div></div>
04:45 AM		8	7			8			8	<div></div>
05:00 AM		10	7			9			9	<div></div>
05:15 AM		14	14			14			14	<div></div>
05:30 AM		16	15			16			16	<div></div>
05:45 AM		30	29			30			30	<div></div>
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
Comments:										

Report generated on 5/22/2024 7:53 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

LOCATION: NW Greenwood Ave btwn Harriman and Hill							QC JOB #: 16414404			
SPECIFIC LOCATION:							DIRECTION: EB			
CITY/STATE: Bend, OR							DATE: May 14 2024 - May 15 2024			
Start Time	Mon 14 May 24	Tue 15 May 24	Wed 15 May 24	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
06:00 AM		15	18			17			17	<div></div>
06:15 AM		29	29			29			29	<div></div>
06:30 AM		47	28			38			38	<div></div>
06:45 AM		60	50			55			55	<div></div>
07:00 AM		67	71			69			69	<div></div>
07:15 AM		83	68			76			76	<div></div>
07:30 AM		98	103			101			101	<div></div>
07:45 AM		134	136			135			135	<div></div>
08:00 AM		113	103			108			108	<div></div>
08:15 AM		135	131			133			133	<div></div>
08:30 AM		121	122			122			122	<div></div>
08:45 AM		138	144			141			141	<div></div>
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09:45 AM		134	144			139			139	<div></div>
10:00 AM		128	134			131			131	<div></div>
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11:30 AM		144	140			142			142	<div></div>
11:45 AM		173	145			159			159	<div></div>
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
Comments:										

LOCATION: NW Greenwood Ave btwn Harriman and Hill							QC JOB #: 16414404			
SPECIFIC LOCATION:							DIRECTION: EB			
CITY/STATE: Bend, OR							DATE: May 14 2024 - May 15 2024			
Start Time	Mon 14 May 24	Tue 15 May 24	Wed 16 May 24	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
12:00 PM		175	173			174			174	<div></div>
12:15 PM		174	164			169			169	<div></div>
12:30 PM		163	188			176			176	<div></div>
12:45 PM		178	179			179			179	<div></div>
01:00 PM		158	186			172			172	<div></div>
01:15 PM		157	200			179			179	<div></div>
01:30 PM		148	136			142			142	<div></div>
01:45 PM		157	177			167			167	<div></div>
02:00 PM		168	199			184			184	<div></div>
02:15 PM		169	163			166			166	<div></div>
02:30 PM		176	163			170			170	<div></div>
02:45 PM		185	185			185			185	<div></div>
03:00 PM		182	178			180			180	<div></div>
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04:45 PM		173	184			179			179	<div></div>
05:00 PM		188	182			185			185	<div></div>
05:15 PM		208	188			198			198	<div></div>
05:30 PM		165	196			181			181	<div></div>
05:45 PM		138	127			133			133	<div></div>
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
Comments:										

LOCATION: NW Greenwood Ave btwn Harriman and Hill							QC JOB #: 16414404			
SPECIFIC LOCATION:							DIRECTION: EB			
CITY/STATE: Bend, OR							DATE: May 14 2024 - May 15 2024			
Start Time	Mon 14 May 24	Tue 15 May 24	Wed 15 May 24	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
06:00 PM		126	129			128			128	<div></div>
06:15 PM		101	127			114			114	<div></div>
06:30 PM		80	106			93			93	<div></div>
06:45 PM		80	110			95			95	<div></div>
07:00 PM		91	118			105			105	<div></div>
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09:00 PM		67	76			72			72	<div></div>
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09:30 PM		42	51			47			47	<div></div>
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11:45 PM		16	14			15			15	<div></div>
Day Total		8334	8667			8526			8526	
% Weekday Average		97.7%	101.7%							
% Week Average		97.7%	101.7%			100%				
AM Peak 15-min Vol		11:45 AM 173	11:00 AM 185			11:45 AM 159			11:45 AM 159	
PM Peak 15-min Vol		3:15 PM 212	3:30 PM 205			3:15 PM 203			3:15 PM 203	
Comments:										

Type of report: Tube Count - Volume Data

LOCATION: NW Greenwood Ave btwn Harriman and Hill							QC JOB #: 16414404			
SPECIFIC LOCATION:							DIRECTION: WB			
CITY/STATE: Bend, OR							DATE: May 14 2024 - May 15 2024			
Start Time	Mon 14 May 24	Tue 15 May 24	Wed 15 May 24	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
12:00 AM		4	6			5			5	<div></div>
12:15 AM		4	15			10			10	<div></div>
12:30 AM		3	6			5			5	<div></div>
12:45 AM		9	6			8			8	<div></div>
01:00 AM		1	2			2			2	<div></div>
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05:30 AM		18	10			14			14	<div></div>
05:45 AM		25	15			20			20	<div></div>
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
Comments:										

Report generated on 5/22/2024 7:53 AM

























SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

LOCATION: NW Greenwood Ave btwn Harriman and Hill							QC JOB #: 16414404			
SPECIFIC LOCATION:							DIRECTION: WB			
CITY/STATE: Bend, OR							DATE: May 14 2024 - May 15 2024			
Start Time	Mon 14 May 24	Tue 15 May 24	Wed 16 May 24	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
06:00 AM		26	17			22			22	<div></div>
06:15 AM		37	36			37			37	<div></div>
06:30 AM		52	44			48			48	<div></div>
06:45 AM		60	74			67			67	<div></div>
07:00 AM		65	66			66			66	<div></div>
07:15 AM		109	78			94			94	<div></div>
07:30 AM		146	116			131			131	<div></div>
07:45 AM		187	149			168			168	<div></div>
08:00 AM		140	124			132			132	<div></div>
08:15 AM		138	167			153			153	<div></div>
08:30 AM		129	121			125			125	<div></div>
08:45 AM		146	152			149			149	<div></div>
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10:30 AM		106	119			113			113	<div></div>
10:45 AM		126	113			120			120	<div></div>
11:00 AM		111	153			132			132	<div></div>
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11:30 AM		111	137			124			124	<div></div>
11:45 AM		147	130			139			139	<div></div>
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
Comments:										

LOCATION: NW Greenwood Ave btwn Harriman and Hill							QC JOB #: 16414404			
SPECIFIC LOCATION:							DIRECTION: WB			
CITY/STATE: Bend, OR							DATE: May 14 2024 - May 15 2024			
Start Time	Mon 14 May 24	Tue 15 May 24	Wed 15 May 24	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
12:00 PM		147	159			153			153	<div></div>
12:15 PM		119	120			120			120	<div></div>
12:30 PM		127	116			122			122	<div></div>
12:45 PM		134	145			140			140	<div></div>
01:00 PM		136	121			129			129	<div></div>
01:15 PM		138	123			131			131	<div></div>
01:30 PM		128	123			126			126	<div></div>
01:45 PM		117	146			132			132	<div></div>
02:00 PM		124	135			130			130	<div></div>
02:15 PM		116	122			119			119	<div></div>
02:30 PM		105	130			118			118	<div></div>
02:45 PM		141	118			130			130	<div></div>
03:00 PM		134	137			136			136	<div></div>
03:15 PM		144	111			128			128	<div></div>
03:30 PM		134	134			134			134	<div></div>
03:45 PM		135	145			140			140	<div></div>
04:00 PM		138	125			132			132	<div></div>
04:15 PM		137	129			133			133	<div></div>
04:30 PM		128	135			132			132	<div></div>
04:45 PM		136	124			130			130	<div></div>
05:00 PM		139	151			145			145	<div></div>
05:15 PM		140	140			140			140	<div></div>
05:30 PM		132	120			126			126	<div></div>
05:45 PM		113	119			116			116	<div></div>
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
Comments:										

LOCATION: NW Greenwood Ave btwn Harriman and Hill							QC JOB #: 16414404			
SPECIFIC LOCATION:							DIRECTION: WB			
CITY/STATE: Bend, OR							DATE: May 14 2024 - May 15 2024			
Start Time	Mon 14 May 24	Tue 15 May 24	Wed 16 May 24	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
06:00 PM		102	128			115			115	<div></div>
06:15 PM		97	86			92			92	<div></div>
06:30 PM		99	99			99			99	<div></div>
06:45 PM		79	93			86			86	<div></div>
07:00 PM		71	60			66			66	<div></div>
07:15 PM		60	60			60			60	<div></div>
07:30 PM		61	66			64			64	<div></div>
07:45 PM		56	64			60			60	<div></div>
08:00 PM		50	74			62			62	<div></div>
08:15 PM		54	56			55			55	<div></div>
08:30 PM		43	35			39			39	<div></div>
08:45 PM		40	35			38			38	<div></div>
09:00 PM		33	77			55			55	<div></div>
09:15 PM		26	29			28			28	<div></div>
09:30 PM		35	32			34			34	<div></div>
09:45 PM		17	21			19			19	<div></div>
10:00 PM		22	21			22			22	<div></div>
10:15 PM		17	12			15			15	<div></div>
10:30 PM		16	17			17			17	<div></div>
10:45 PM		12	16			14			14	<div></div>
11:00 PM		16	11			14			14	<div></div>
11:15 PM		6	6			6			6	<div></div>
11:30 PM		11	18			15			15	<div></div>
11:45 PM		4	9			7			7	<div></div>
Day Total		6966	7074			7046			7046	
% Weekday Average		98.9%	100.4%							
% Week Average		98.9%	100.4%			100%				
AM Peak 15-min Vol		7:45 AM 187	8:15 AM 167			7:45 AM 168			7:45 AM 168	
PM Peak 15-min Vol		12:00 PM 147	12:00 PM 159			12:00 PM 153			12:00 PM 153	
Comments:										

Type of report: Tube Count - Volume Data

LOCATION: NW Greenwood Ave btwn Hill and 1st										QC JOB #: 16414405
SPECIFIC LOCATION:										DIRECTION: EB
CITY/STATE: Bend, OR										DATE: May 14 2024 - May 15 2024
Start Time	Mon	Tue	Wed	Thu	Fri	Average Weekday	Sat	Sun	Average Week	Average Week Profile
		14 May 24	15 May 24			15-min Traffic			15-min Traffic	
12:00 AM		9	12			11			11	
12:15 AM		6	9			8			8	
12:30 AM		8	12			10			10	
12:45 AM		8	4			6			6	
01:00 AM		8	14			11			11	
01:15 AM		6	5			6			6	
01:30 AM		5	4			5			5	
01:45 AM		3	7			5			5	
02:00 AM		3	2			3			3	
02:15 AM		2	3			3			3	
02:30 AM		2	5			4			4	
02:45 AM		3	4			4			4	
03:00 AM		6	2			4			4	
03:15 AM		4	2			3			3	
03:30 AM		3	3			3			3	
03:45 AM		5	5			5			5	
04:00 AM		3	4			4			4	
04:15 AM		5	7			6			6	
04:30 AM		4	13			9			9	
04:45 AM		10	11			11			11	
05:00 AM		13	12			13			13	
05:15 AM		17	18			18			18	
05:30 AM		23	26			25			25	
05:45 AM		41	39			40			40	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
Comments:										

Report generated on 5/22/2024 7:53 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

LOCATION: NW Greenwood Ave btwn Hill and 1st							QC JOB #: 16414405			
SPECIFIC LOCATION:							DIRECTION: EB			
CITY/STATE: Bend, OR							DATE: May 14 2024 - May 15 2024			
Start Time	Mon 14 May 24	Tue 15 May 24	Wed 15 May 24	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
06:00 AM		26	28			27			27	<div></div>
06:15 AM		45	52			49			49	<div></div>
06:30 AM		63	44			54			54	<div></div>
06:45 AM		92	71			82			82	<div></div>
07:00 AM		91	95			93			93	<div></div>
07:15 AM		101	88			95			95	<div></div>
07:30 AM		121	118			120			120	<div></div>
07:45 AM		150	160			155			155	<div></div>
08:00 AM		137	122			130			130	<div></div>
08:15 AM		167	140			154			154	<div></div>
08:30 AM		148	137			143			143	<div></div>
08:45 AM		173	167			170			170	<div></div>
09:00 AM		123	133			128			128	<div></div>
09:15 AM		117	130			124			124	<div></div>
09:30 AM		144	143			144			144	<div></div>
09:45 AM		160	159			160			160	<div></div>
10:00 AM		144	156			150			150	<div></div>
10:15 AM		163	154			159			159	<div></div>
10:30 AM		136	154			145			145	<div></div>
10:45 AM		125	165			145			145	<div></div>
11:00 AM		147	198			173			173	<div></div>
11:15 AM		161	200			181			181	<div></div>
11:30 AM		171	178			175			175	<div></div>
11:45 AM		207	184			196			196	<div></div>
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
Comments:										

LOCATION: NW Greenwood Ave btwn Hill and 1st SPECIFIC LOCATION: CITY/STATE: Bend, OR										QC JOB #: 16414405 DIRECTION: EB DATE: May 14 2024 - May 15 2024
Start Time	Mon 14 May 24	Tue 15 May 24	Wed 15 May 24	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
12:00 PM		225	211			218			218	
12:15 PM		207	182			195			195	
12:30 PM		194	206			200			200	
12:45 PM		196	201			199			199	
01:00 PM		173	219			196			196	
01:15 PM		187	214			201			201	
01:30 PM		186	185			186			186	
01:45 PM		174	195			185			185	
02:00 PM		191	231			211			211	
02:15 PM		195	194			195			195	
02:30 PM		196	187			192			192	
02:45 PM		220	229			225			225	
03:00 PM		192	215			204			204	
03:15 PM		228	217			223			223	
03:30 PM		213	245			229			229	
03:45 PM		199	227			213			213	
04:00 PM		245	239			242			242	
04:15 PM		235	223			229			229	
04:30 PM		228	221			225			225	
04:45 PM		199	208			204			204	
05:00 PM		230	225			228			228	
05:15 PM		257	247			252			252	
05:30 PM		198	222			210			210	
05:45 PM		162	140			151			151	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
Comments:										

LOCATION: NW Greenwood Ave btwn Hill and 1st								QC JOB #: 16414405		
SPECIFIC LOCATION:								DIRECTION: EB		
CITY/STATE: Bend, OR								DATE: May 14 2024 - May 15 2024		
Start Time	Mon 14 May 24	Tue 15 May 24	Wed 16 May 24	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
06:00 PM		140	149			145			145	<div></div>
06:15 PM		113	147			130			130	<div></div>
06:30 PM		97	135			116			116	<div></div>
06:45 PM		103	123			113			113	<div></div>
07:00 PM		107	135			121			121	<div></div>
07:15 PM		80	100			90			90	<div></div>
07:30 PM		107	88			98			98	<div></div>
07:45 PM		97	84			91			91	<div></div>
08:00 PM		76	100			88			88	<div></div>
08:15 PM		93	81			87			87	<div></div>
08:30 PM		69	83			76			76	<div></div>
08:45 PM		78	91			85			85	<div></div>
09:00 PM		72	90			81			81	<div></div>
09:15 PM		66	73			70			70	<div></div>
09:30 PM		47	56			52			52	<div></div>
09:45 PM		33	44			39			39	<div></div>
10:00 PM		44	30			37			37	<div></div>
10:15 PM		55	32			44			44	<div></div>
10:30 PM		33	33			33			33	<div></div>
10:45 PM		29	23			26			26	<div></div>
11:00 PM		19	19			19			19	<div></div>
11:15 PM		24	17			21			21	<div></div>
11:30 PM		22	12			17			17	<div></div>
11:45 PM		20	16			18			18	<div></div>
Day Total		9863	10243			10079			10079	
% Weekday Average		97.9%	101.6%							
% Week Average		97.9%	101.6%			100%				
AM Peak 15-min Vol		11:45 AM 207	11:15 AM 200			11:45 AM 196			11:45 AM 196	
PM Peak 15-min Vol		5:15 PM 257	5:15 PM 247			5:15 PM 252			5:15 PM 252	
Comments:										

Type of report: Tube Count - Volume Data

LOCATION: NW Greenwood Ave btwn Hill and 1st										QC JOB #: 16414405	
SPECIFIC LOCATION:										DIRECTION: WB	
CITY/STATE: Bend, OR										DATE: May 14 2024 - May 15 2024	
Start Time	Mon 14 May 24	Tue 15 May 24	Wed 15 May 24	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile	
12:00 AM		4	6			5			5	<div></div>	
12:15 AM		2	16			9			9	<div></div>	
12:30 AM		4	9			7			7	<div></div>	
12:45 AM		10	4			7			7	<div></div>	
01:00 AM		2	2			2			2	<div></div>	
01:15 AM		1	1			1			1	<div></div>	
01:30 AM		5	2			4			4	<div></div>	
01:45 AM		1	5			3			3	<div></div>	
02:00 AM		0	2			1			1	<div></div>	
02:15 AM		2	3			3			3	<div></div>	
02:30 AM		4	5			5			5	<div></div>	
02:45 AM		2	1			2			2	<div></div>	
03:00 AM		3	1			2			2	<div></div>	
03:15 AM		0	1			1			1	<div></div>	
03:30 AM		0	2			1			1	<div></div>	
03:45 AM		2	1			2			2	<div></div>	
04:00 AM		2	3			3			3	<div></div>	
04:15 AM		1	3			2			2	<div></div>	
04:30 AM		3	6			5			5	<div></div>	
04:45 AM		6	6			6			6	<div></div>	
05:00 AM		10	5			8			8	<div></div>	
05:15 AM		17	14			16			16	<div></div>	
05:30 AM		21	12			17			17	<div></div>	
05:45 AM		33	17			25			25	<div></div>	
Day Total											
% Weekday Average											
% Week Average											
AM Peak 15-min Vol											
PM Peak 15-min Vol											
Comments:											

Report generated on 5/22/2024 7:53 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

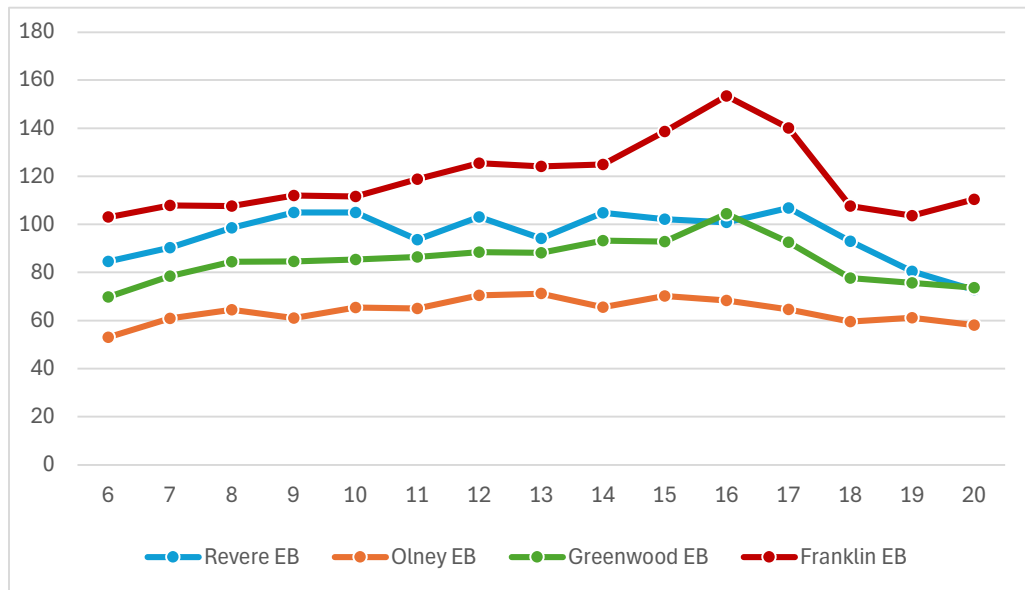
LOCATION: NW Greenwood Ave btwn Hill and 1st SPECIFIC LOCATION: CITY/STATE: Bend, OR										QC JOB #: 16414405 DIRECTION: WB DATE: May 14 2024 - May 15 2024
Start Time	Mon 14 May 24	Tue 15 May 24	Wed 15 May 24	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
06:00 AM		31	23			27			27	
06:15 AM		43	45			44			44	
06:30 AM		61	52			57			57	
06:45 AM		69	89			79			79	
07:00 AM		77	80			79			79	
07:15 AM		125	90			108			108	
07:30 AM		178	150			164			164	
07:45 AM		199	178			189			189	
08:00 AM		164	147			156			156	
08:15 AM		155	172			164			164	
08:30 AM		144	137			141			141	
08:45 AM		165	151			158			158	
09:00 AM		144	163			154			154	
09:15 AM		136	146			141			141	
09:30 AM		128	121			125			125	
09:45 AM		124	154			139			139	
10:00 AM		129	125			127			127	
10:15 AM		118	139			129			129	
10:30 AM		122	130			126			126	
10:45 AM		142	123			133			133	
11:00 AM		128	174			151			151	
11:15 AM		133	149			141			141	
11:30 AM		135	157			146			146	
11:45 AM		141	147			144			144	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
Comments:										

LOCATION: NW Greenwood Ave btwn Hill and 1st SPECIFIC LOCATION: CITY/STATE: Bend, OR										QC JOB #: 16414405 DIRECTION: WB DATE: May 14 2024 - May 15 2024
Start Time	Mon 14 May 24	Tue 15 May 24	Wed 16 May 24	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
12:00 PM		171	165			168			168	
12:15 PM		138	156			147			147	
12:30 PM		131	153			142			142	
12:45 PM		169	169			169			169	
01:00 PM		139	149			144			144	
01:15 PM		148	145			147			147	
01:30 PM		138	144			141			141	
01:45 PM		140	167			154			154	
02:00 PM		139	142			141			141	
02:15 PM		114	131			123			123	
02:30 PM		122	150			136			136	
02:45 PM		153	117			135			135	
03:00 PM		143	157			150			150	
03:15 PM		139	131			135			135	
03:30 PM		145	141			143			143	
03:45 PM		145	157			151			151	
04:00 PM		154	140			147			147	
04:15 PM		150	143			147			147	
04:30 PM		145	149			147			147	
04:45 PM		143	139			141			141	
05:00 PM		148	166			157			157	
05:15 PM		155	149			152			152	
05:30 PM		143	138			141			141	
05:45 PM		122	125			124			124	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
Comments:										

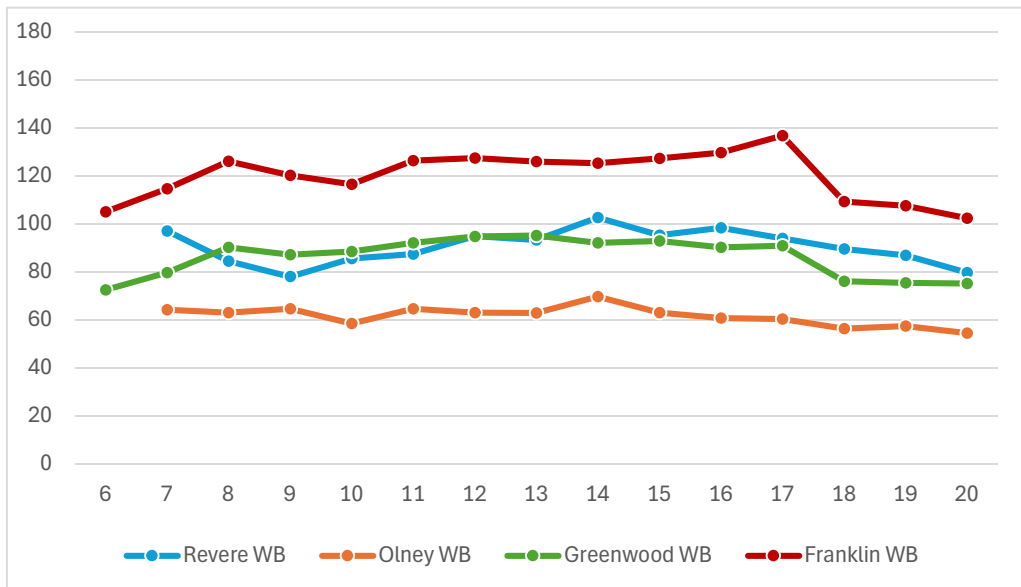
LOCATION: NW Greenwood Ave btwn Hill and 1st										QC JOB #: 16414405	
SPECIFIC LOCATION:										DIRECTION: WB	
CITY/STATE: Bend, OR										DATE: May 14 2024 - May 15 2024	
Start Time	Mon 14 May 24	Tue 15 May 24	Wed 16 May 24	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile	
06:00 PM		124	136			130			130	<div></div>	
06:15 PM		104	102			103			103	<div></div>	
06:30 PM		110	111			111			111	<div></div>	
06:45 PM		88	109			99			99	<div></div>	
07:00 PM		81	75			78			78	<div></div>	
07:15 PM		71	72			72			72	<div></div>	
07:30 PM		65	78			72			72	<div></div>	
07:45 PM		64	64			64			64	<div></div>	
08:00 PM		56	80			68			68	<div></div>	
08:15 PM		54	51			53			53	<div></div>	
08:30 PM		51	39			45			45	<div></div>	
08:45 PM		44	41			43			43	<div></div>	
09:00 PM		42	67			55			55	<div></div>	
09:15 PM		35	36			36			36	<div></div>	
09:30 PM		36	29			33			33	<div></div>	
09:45 PM		17	24			21			21	<div></div>	
10:00 PM		28	28			28			28	<div></div>	
10:15 PM		20	18			19			19	<div></div>	
10:30 PM		18	15			17			17	<div></div>	
10:45 PM		15	11			13			13	<div></div>	
11:00 PM		15	14			15			15	<div></div>	
11:15 PM		6	8			7			7	<div></div>	
11:30 PM		10	14			12			12	<div></div>	
11:45 PM		6	7			7			7	<div></div>	
Day Total		7720	7921			7842			7842		
% Weekday Average		98.4%	101%								
% Week Average		98.4%	101%			100%					
AM Peak 15-min Vol		7:45 AM 199	7:45 AM 178			7:45 AM 189			7:45 AM 189		
PM Peak 15-min Vol		12:00 PM 171	12:45 PM 169			12:45 PM 169			12:45 PM 169		
Comments:											

Appendix D - 2 INRIX Travel Time Data

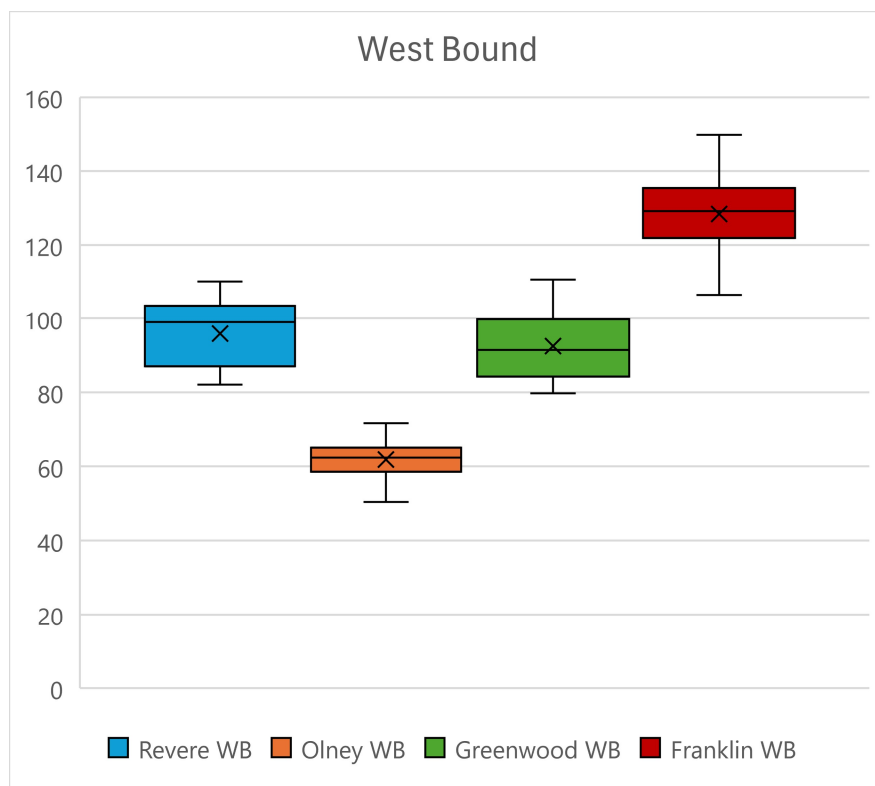
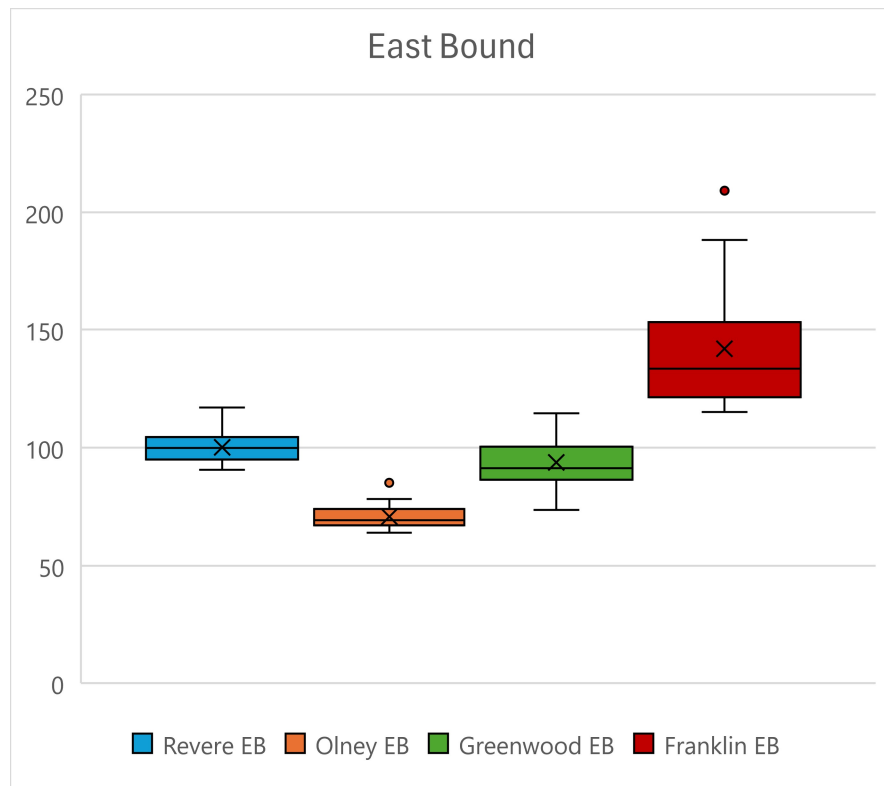
Average Travel Time EB				
Hour	Revere EB	Olney EB	Greenwood EB	Franklin EB
6	84.59	53.04	69.86	103.05
7	90.26	60.88	78.43	107.93
8	98.53	64.45	84.47	107.57
9	104.94	61.08	84.58	112.05
10	104.96	65.38	85.38	111.55
11	93.63	65.07	86.49	118.80
12	103.09	70.46	88.41	125.50
13	94.19	71.22	88.16	124.06
14	104.78	65.49	93.20	124.91
15	102.12	70.27	92.89	138.59
16	100.88	68.30	104.47	153.40
17	106.86	64.61	92.62	140.14
18	93.02	59.58	77.70	107.56
19	80.43	61.13	75.71	103.59
20	72.82	58.15	73.73	110.44



Average Travel Time WB				
Hour	Revere WB	Olney WB	Greenwood WB	Franklin WB
6			72.53	105.09
7	97.06	64.21	79.76	114.59
8	84.45	63.01	90.18	126.16
9	78.05	64.62	87.17	120.22
10	85.63	58.47	88.50	116.49
11	87.50	64.69	92.13	126.41
12	94.95	63.04	94.73	127.47
13	93.24	62.95	95.21	125.91
14	102.70	69.76	92.15	125.25
15	95.27	63.09	92.87	127.25
16	98.38	60.83	90.24	129.70
17	93.92	60.32	90.83	136.80
18	89.56	56.36	76.15	109.35
19	86.96	57.43	75.45	107.52
20	79.74	54.53	75.12	102.37

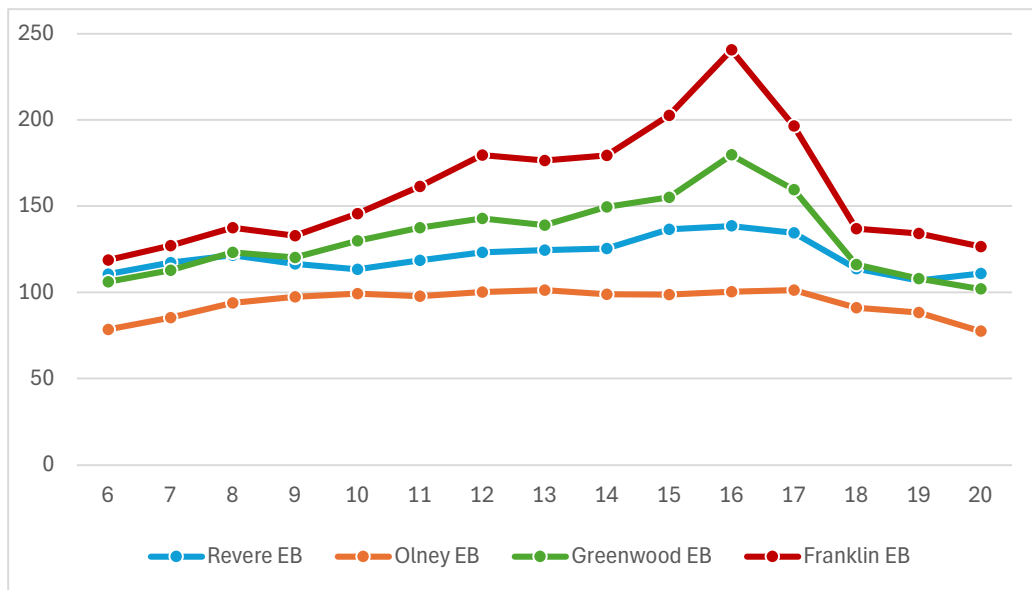


Variance in Travel Time during the Peak Hour

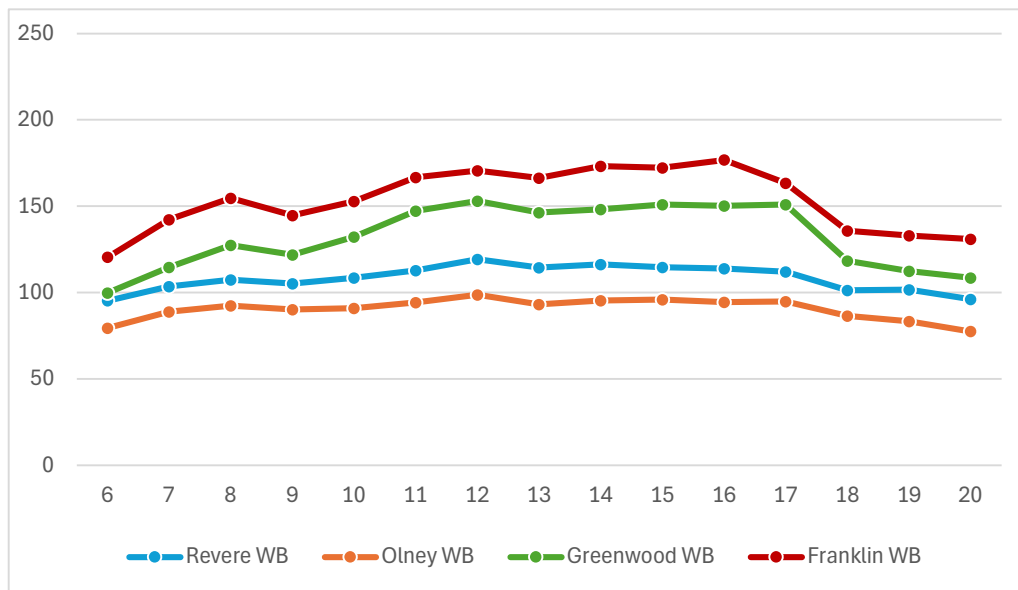


Appendix D - 3 Google API Travel Time Data

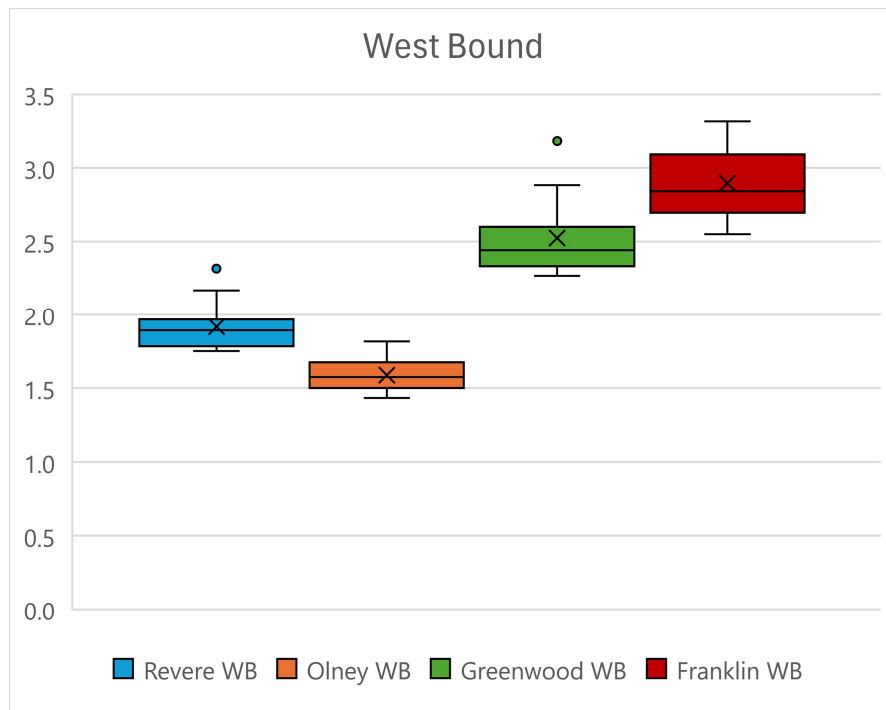
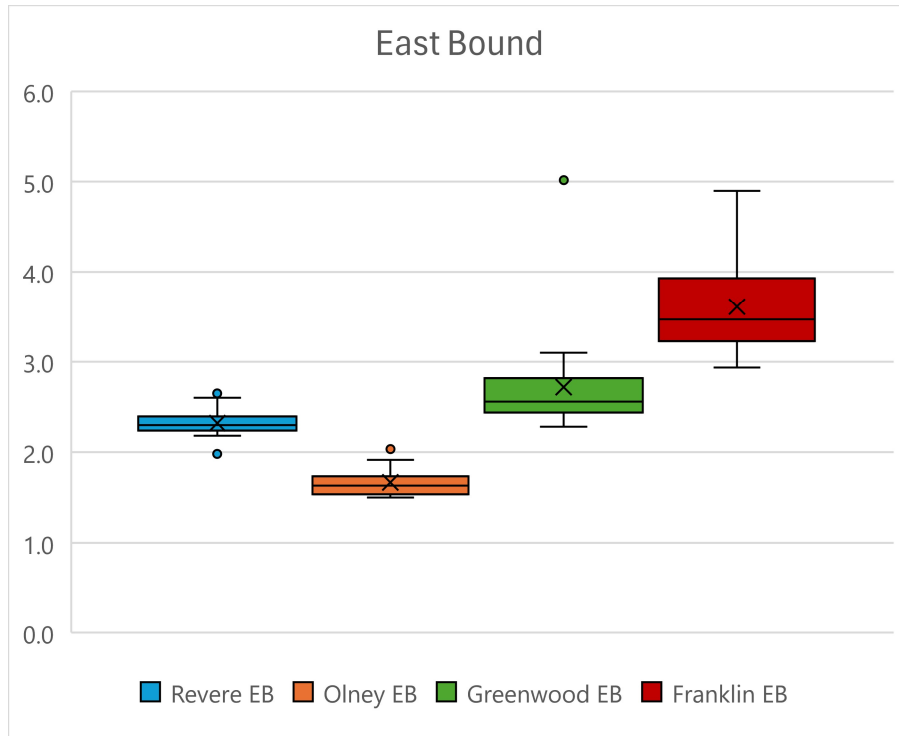
Average Travel Time EB				
Hour	Revere EB	Olney EB	Greenwood EB	Franklin EB
6	110.63	78.42	106.04	118.79
7	117.17	85.25	112.75	127.13
8	121.54	93.83	123.25	137.38
9	116.50	97.33	120.25	132.75
10	113.25	99.17	129.92	145.63
11	118.46	97.75	137.38	161.42
12	123.25	100.13	142.88	179.58
13	124.42	101.25	138.92	176.42
14	125.46	98.87	149.42	179.38
15	136.58	98.75	155.04	202.50
16	138.54	100.42	179.67	240.54
17	134.54	101.33	159.58	196.38
18	113.71	91.04	116.13	136.96
19	107.00	88.33	107.96	134.17
20	110.83	77.46	102.00	126.50



Average Travel Time WB				
Hour	Revere WB	Olney WB	Greenwood WB	Franklin WB
6	95.33	79.33	99.79	120.46
7	103.50	88.79	114.54	142.21
8	107.38	92.42	127.46	154.63
9	105.13	90.21	121.88	144.58
10	108.42	90.87	132.17	152.79
11	112.79	94.29	147.17	166.79
12	119.33	98.75	153.04	170.67
13	114.38	93.04	146.29	166.38
14	116.21	95.42	148.17	173.17
15	114.67	95.83	150.92	172.21
16	113.83	94.33	150.17	176.83
17	112.04	94.83	150.88	163.33
18	101.21	86.42	118.38	135.75
19	101.58	83.33	112.38	132.96
20	96.04	77.50	108.46	130.88

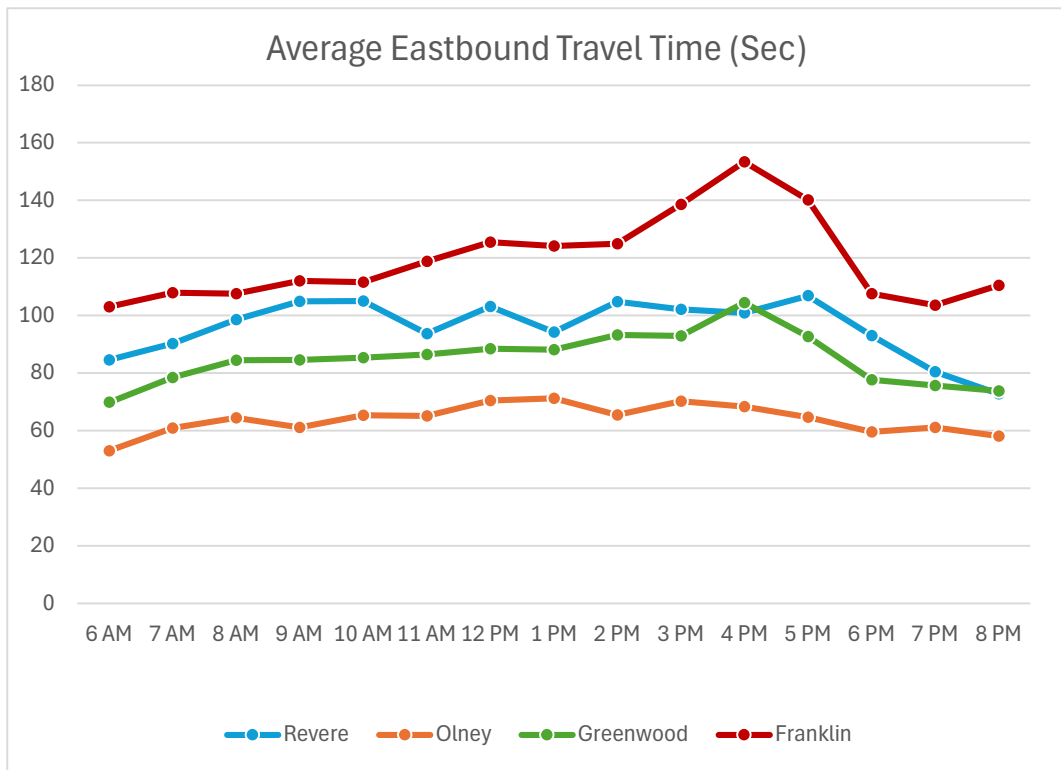


Variance in Travel Time During the Peak Hour



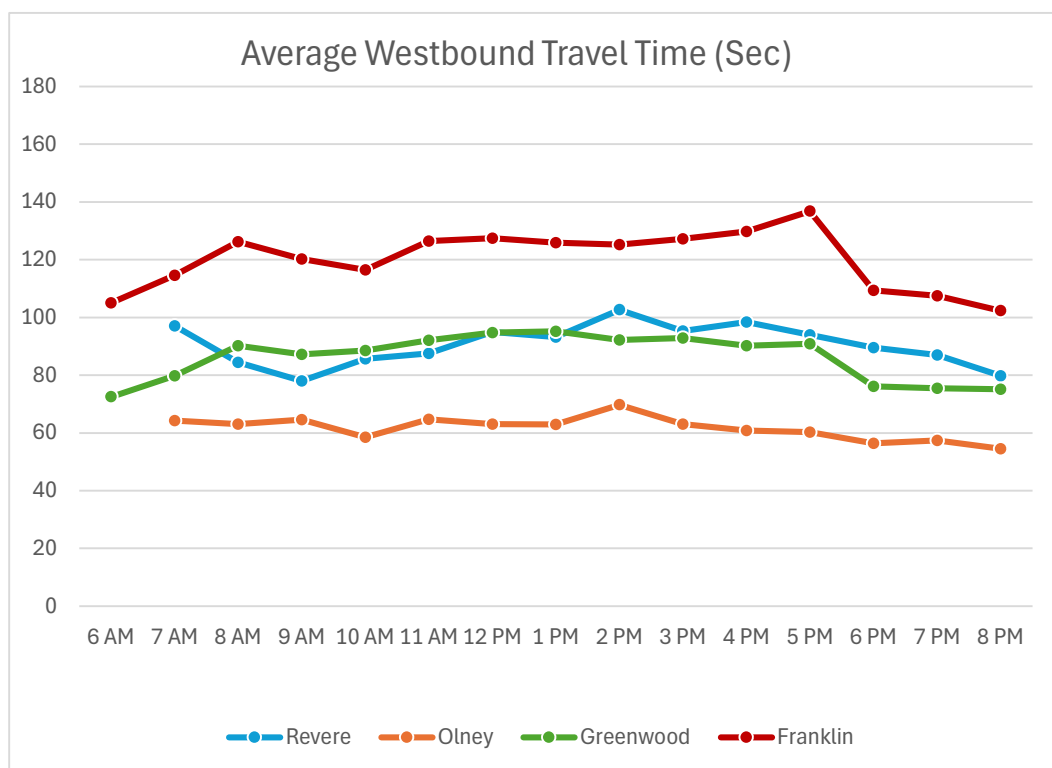
Appendix E INRIX Travel Time Pre-Construction

Average Eastbound Travel Time (Sec)				
Hour	Revere	Olney	Greenwood	Franklin
6:00 AM	85	53	70	103
7:00 AM	90	61	78	108
8:00 AM	99	64	84	108
9:00 AM	105	61	85	112
10:00 AM	105	65	85	112
11:00 AM	94	65	86	119
12:00 PM	103	70	88	125
1:00 PM	94	71	88	124
2:00 PM	105	65	93	125
3:00 PM	102	70	93	139
4:00 PM	101	68	104	153
5:00 PM	107	65	93	140
6:00 PM	93	60	78	108
7:00 PM	80	61	76	104
8:00 PM	73	58	74	110



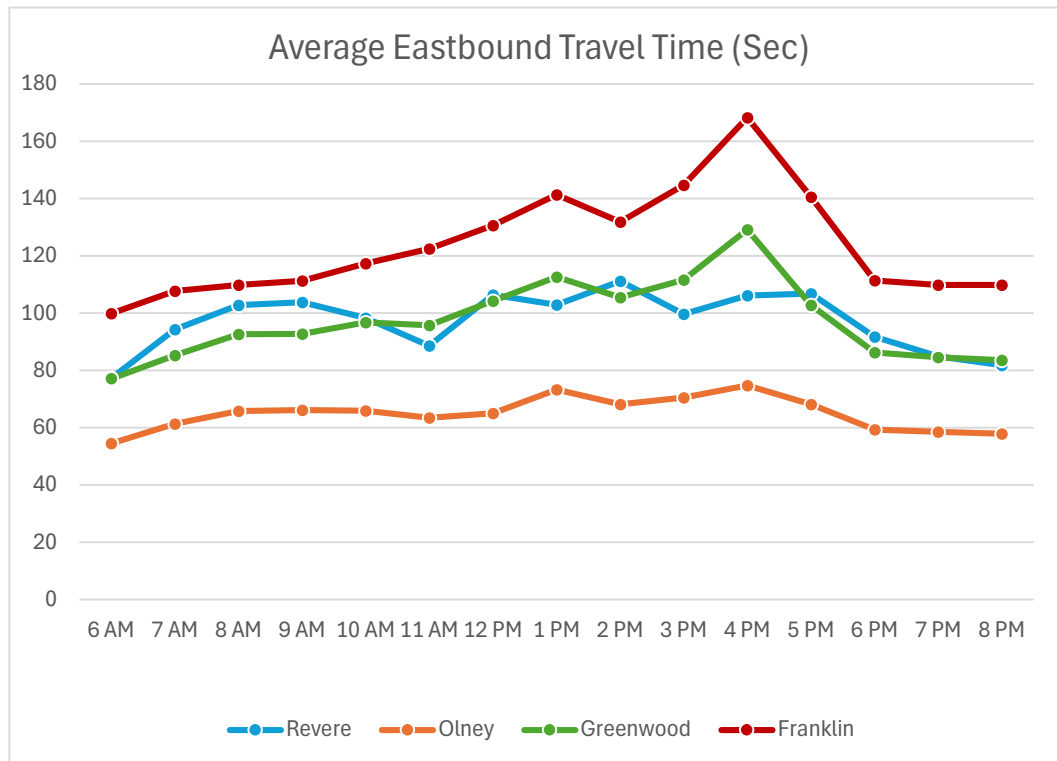
Average Westbound Travel Time (Sec)				
Hour	Revere	Olney	Greenwood	Franklin
6:00 AM			73	105
7:00 AM	97	64	80	115
8:00 AM	84	63	90	126
9:00 AM	78	65	87	120
10:00 AM	86	58	89	116
11:00 AM	87	65	92	126
12:00 PM	95	63	95	127
1:00 PM	93	63	95	126
2:00 PM	103	70	92	125
3:00 PM	95	63	93	127
4:00 PM	98	61	90	130
5:00 PM	94	60	91	137
6:00 PM	90	56	76	109
7:00 PM	87	57	75	108
8:00 PM	80	55	75	102

*Empty cell denotes no data of good quality is available



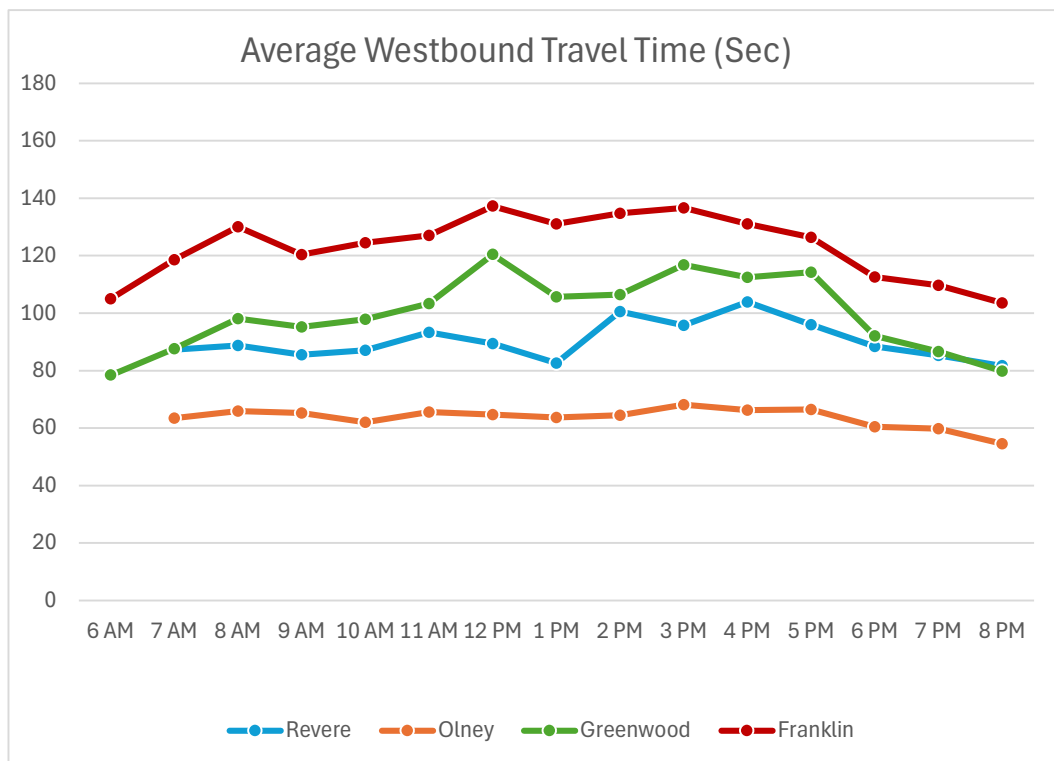
Appendix F INRIX Travel Time Post-Construction (September 2024)

Average Eastbound Travel Time (Sec)				
Hour	Revere	Olney	Greenwood	Franklin
6:00 AM	77	55	77	100
7:00 AM	94	61	85	108
8:00 AM	103	66	93	110
9:00 AM	104	66	93	111
10:00 AM	98	66	97	117
11:00 AM	89	63	96	122
12:00 PM	106	65	104	131
1:00 PM	103	73	113	141
2:00 PM	111	68	105	132
3:00 PM	100	70	112	145
4:00 PM	106	75	129	168
5:00 PM	107	68	103	140
6:00 PM	92	59	86	111
7:00 PM	85	58	85	110
8:00 PM	82	58	83	110



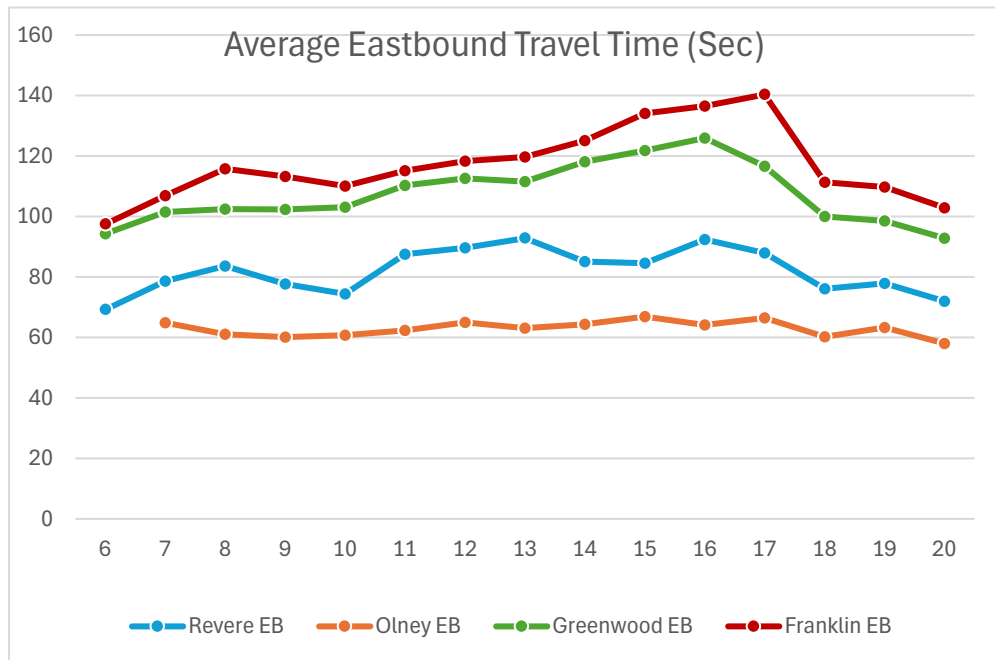
Average Westbound Travel Time (Sec)				
Hour	Revere	Olney	Greenwood	Franklin
6:00 AM			78	105
7:00 AM	87	63	88	119
8:00 AM	89	66	98	130
9:00 AM	86	65	95	120
10:00 AM	87	62	98	124
11:00 AM	93	66	103	127
12:00 PM	89	65	120	137
1:00 PM	83	64	106	131
2:00 PM	101	64	106	135
3:00 PM	96	68	117	137
4:00 PM	104	66	112	131
5:00 PM	96	67	114	126
6:00 PM	88	60	92	113
7:00 PM	85	60	87	110
8:00 PM	82	55	80	104

*Empty cell denotes no data of good quality is available

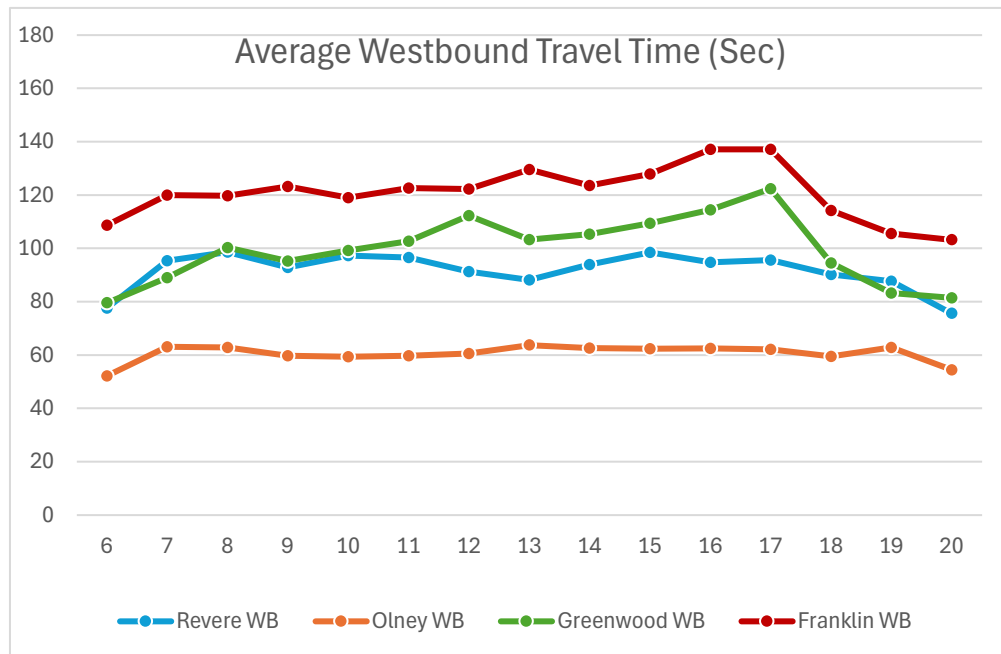


Appendix G INRIX Travel Time Post-Construction (January 2025)

Average Travel Time EB (Sec)				
Hour	Revere EB	Olney EB	Greenwood EB	Franklin EB
6	69		94	98
7	79	65	101	107
8	84	61	102	116
9	78	60	102	113
10	74	61	103	110
11	88	62	110	115
12	90	65	113	118
13	93	63	111	120
14	85	64	118	125
15	84	67	122	134
16	92	64	126	136
17	88	66	117	140
18	76	60	100	111
19	78	63	98	110
20	72	58	93	103

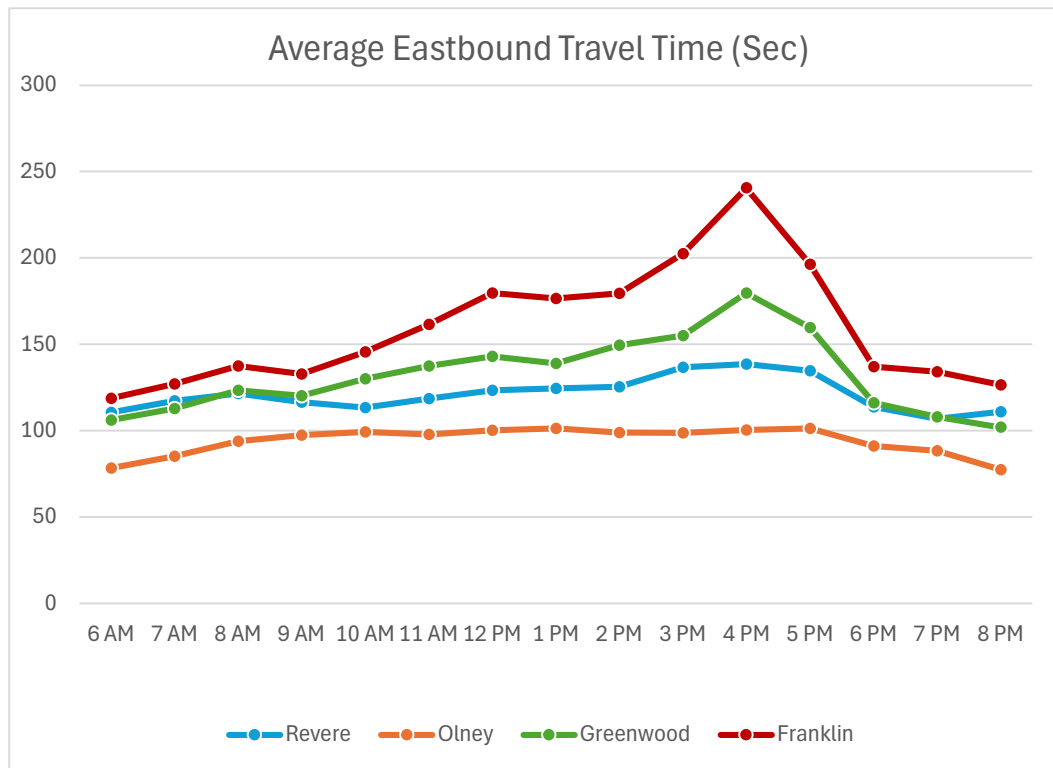


Average Travel Time WB (Sec)				
Hour	Revere WB	Olney WB	Greenwood WB	Franklin WB
6	78	52	80	109
7	95	63	89	120
8	99	63	100	120
9	93	60	95	123
10	97	59	99	119
11	97	60	103	123
12	91	61	112	122
13	88	64	103	130
14	94	63	105	124
15	98	62	109	128
16	95	62	114	137
17	96	62	122	137
18	90	59	95	114
19	88	63	83	106
20	76	54	81	103

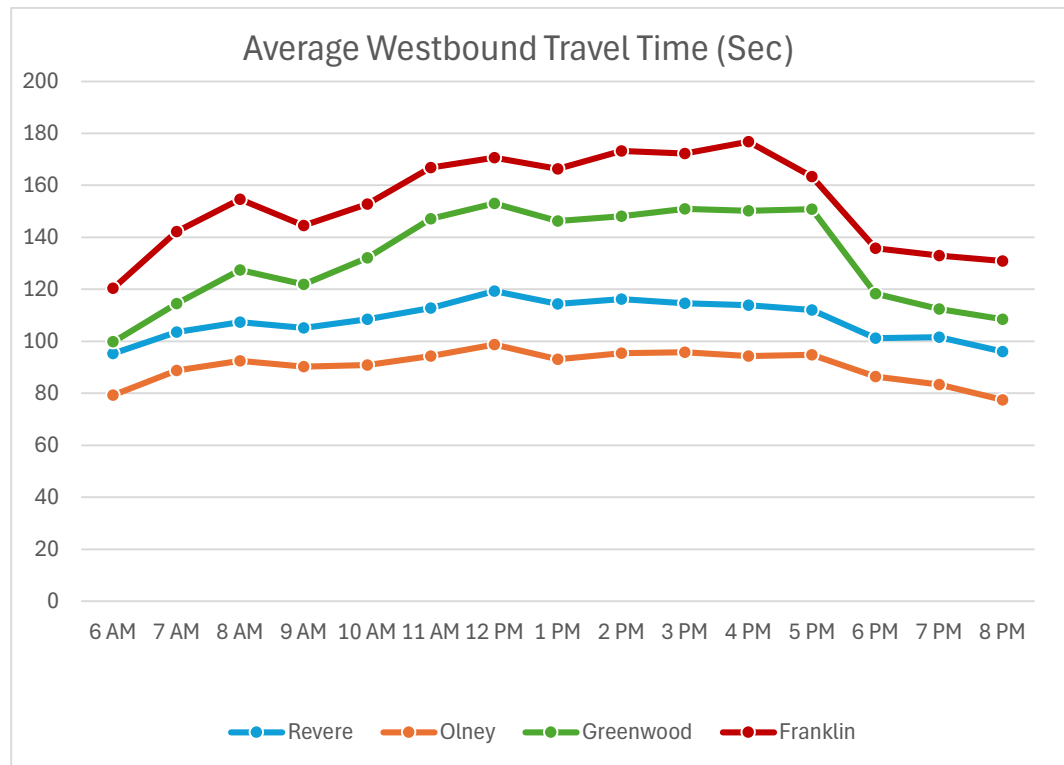


Appendix H Google API Travel Time Pre-Construction

Average Eastbound Travel Time (Sec)				
Hour	Revere	Olney	Greenwood	Franklin
6:00 AM	111	78	106	119
7:00 AM	117	85	113	127
8:00 AM	122	94	123	137
9:00 AM	117	97	120	133
10:00 AM	113	99	130	146
11:00 AM	118	98	137	161
12:00 PM	123	100	143	180
1:00 PM	124	101	139	176
2:00 PM	125	99	149	179
3:00 PM	137	99	155	203
4:00 PM	139	100	180	241
5:00 PM	135	101	160	196
6:00 PM	114	91	116	137
7:00 PM	107	88	108	134
8:00 PM	111	77	102	127

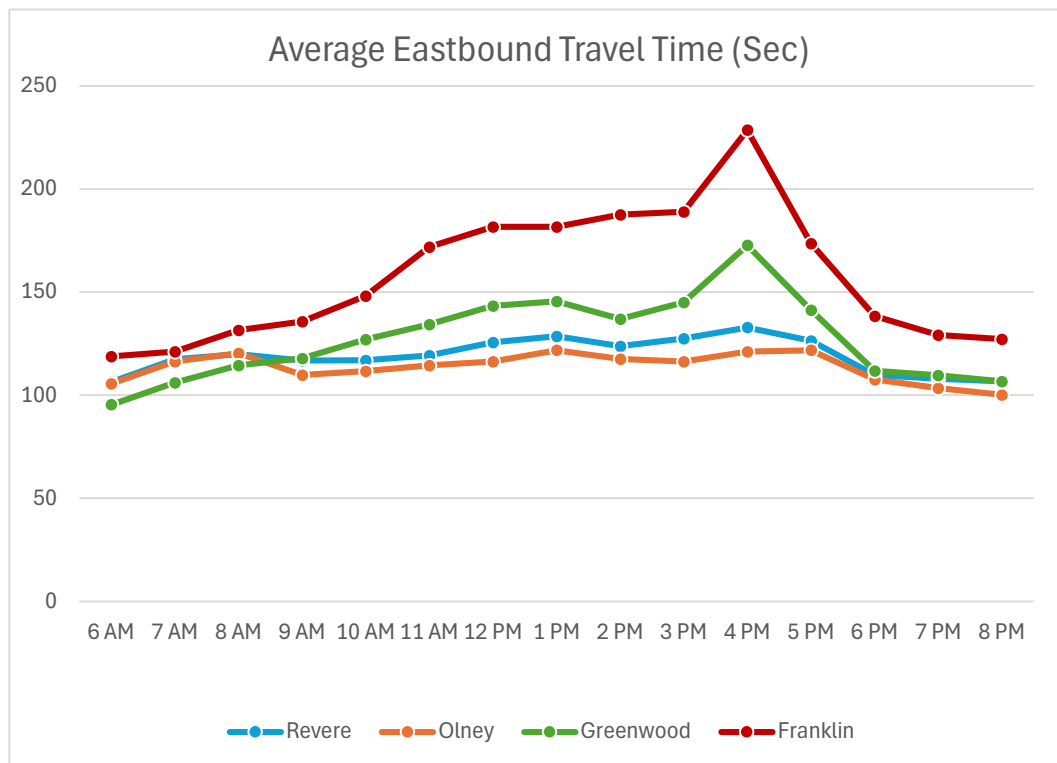


Average Westbound Travel Time (Sec)				
Hour	Revere	Olney	Greenwood	Franklin
6:00 AM	95	79	100	120
7:00 AM	104	89	115	142
8:00 AM	107	92	127	155
9:00 AM	105	90	122	145
10:00 AM	108	91	132	153
11:00 AM	113	94	147	167
12:00 PM	119	99	153	171
1:00 PM	114	93	146	166
2:00 PM	116	95	148	173
3:00 PM	115	96	151	172
4:00 PM	114	94	150	177
5:00 PM	112	95	151	163
6:00 PM	101	86	118	136
7:00 PM	102	83	112	133
8:00 PM	96	77	108	131

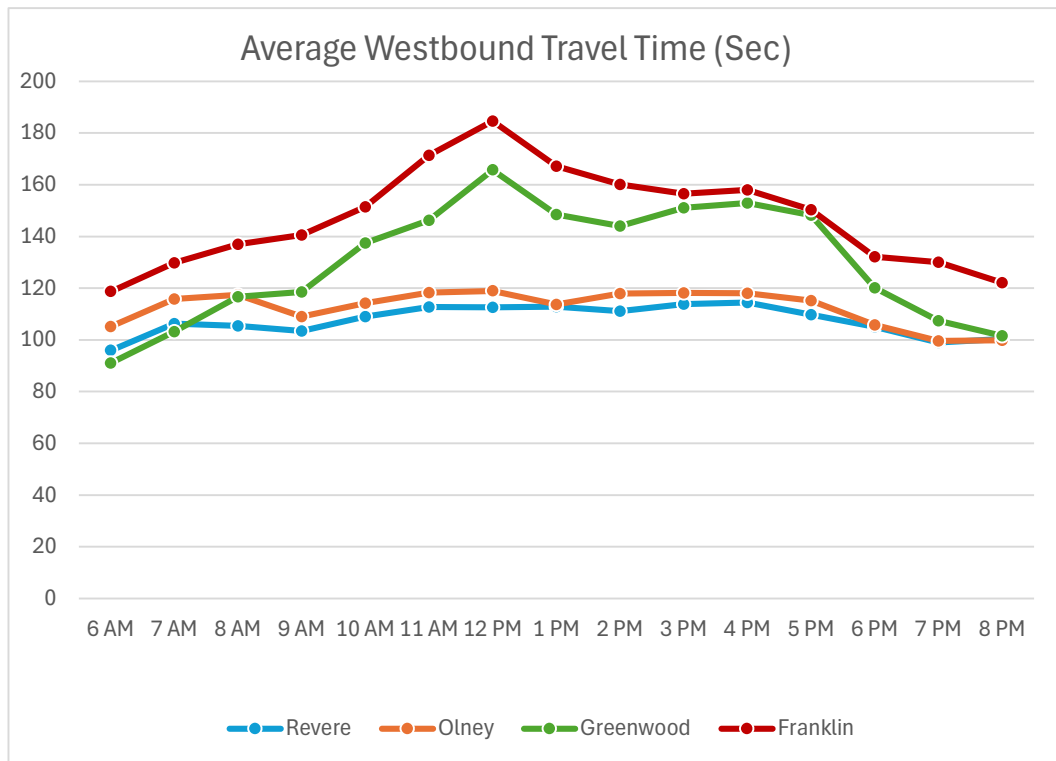


Appendix I Google API Travel Time Post- Construction (September 2024)

Average Eastbound Travel Time (Sec)				
Hour	Revere	Olney	Greenwood	Franklin
6:00 AM	107	106	95	119
7:00 AM	117	116	106	121
8:00 AM	120	120	115	132
9:00 AM	117	110	118	136
10:00 AM	117	112	127	148
11:00 AM	119	115	134	172
12:00 PM	126	116	143	182
1:00 PM	129	122	146	182
2:00 PM	124	118	137	188
3:00 PM	128	116	145	189
4:00 PM	133	121	173	229
5:00 PM	126	122	141	174
6:00 PM	110	108	112	138
7:00 PM	108	104	110	129
8:00 PM	107	100	107	127

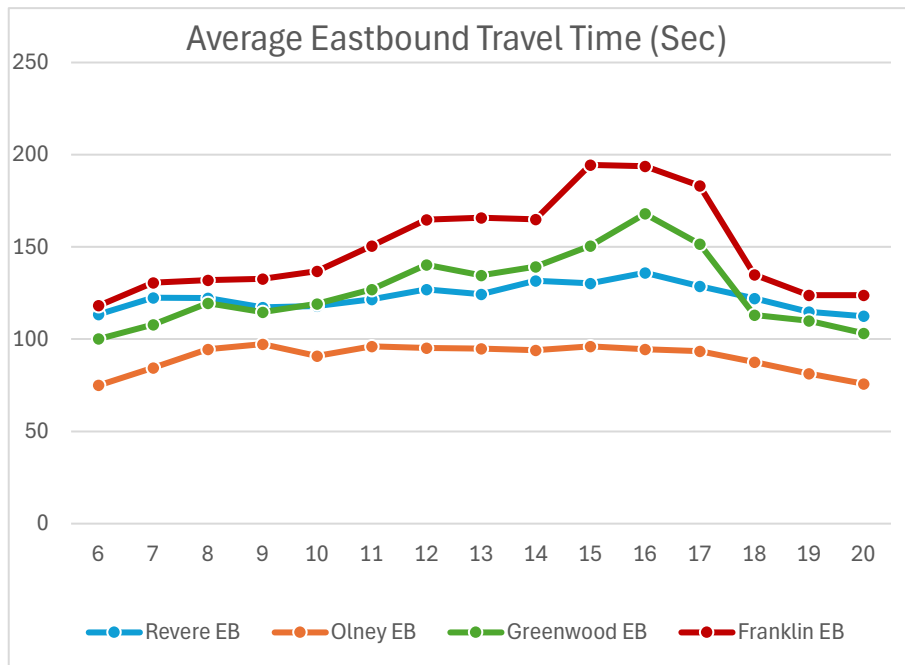


Average Westbound Travel Time (Sec)				
Hour	Revere	Olney	Greenwood	Franklin
6:00 AM	96	105	91	119
7:00 AM	106	116	103	130
8:00 AM	105	117	117	137
9:00 AM	103	109	119	141
10:00 AM	109	114	138	152
11:00 AM	113	118	146	171
12:00 PM	113	119	166	185
1:00 PM	113	114	149	167
2:00 PM	111	118	144	160
3:00 PM	114	118	151	157
4:00 PM	115	118	153	158
5:00 PM	110	115	148	150
6:00 PM	105	106	120	132
7:00 PM	99	100	107	130
8:00 PM	100	100	102	122

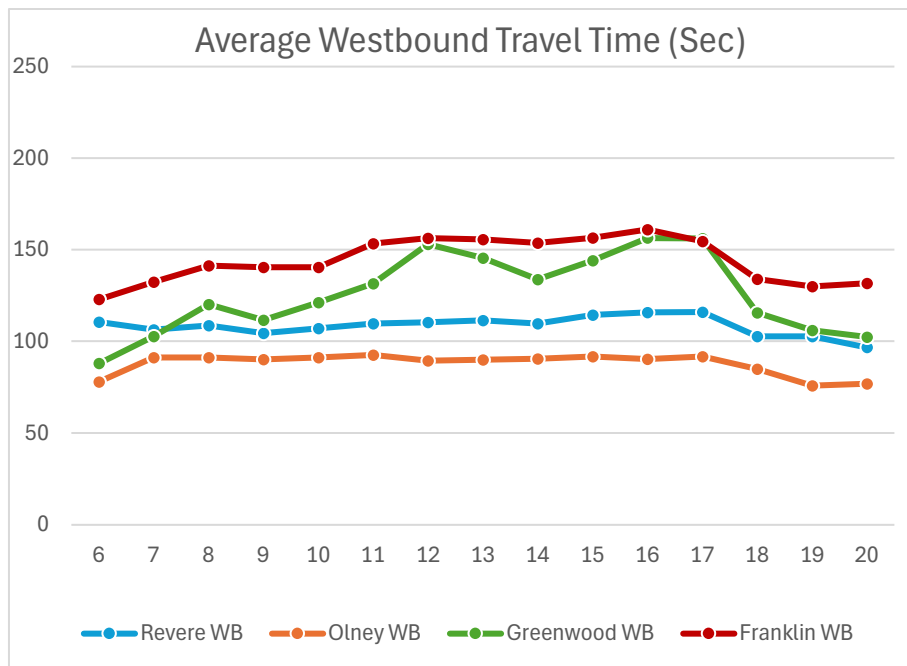


Appendix J Google API Travel Time Post- Construction (January 2025)

Average Travel Time Eastbound (Sec)				
Hour	Revere EB	Olney EB	Greenwood EB	Franklin EB
6	113	75	100	118
7	123	84	108	131
8	122	95	119	132
9	117	97	115	133
10	118	91	119	137
11	122	96	127	151
12	127	95	140	165
13	124	95	135	166
14	132	94	139	165
15	130	96	151	195
16	136	95	168	194
17	129	93	152	183
18	122	88	113	135
19	115	81	110	124
20	113	76	103	124



Average Travel Time Westbound (Sec)				
Hour	Revere WB	Olney WB	Greenwood WB	Franklin WB
6	111	78	88	123
7	106	91	103	132
8	109	91	120	141
9	105	90	112	140
10	107	91	121	140
11	110	93	132	153
12	110	89	153	156
13	111	90	146	156
14	110	90	134	154
15	114	92	144	157
16	116	90	156	161
17	116	92	156	155
18	103	85	116	134
19	103	76	106	130
20	97	77	102	132



Appendix K Greenwood Quick Build Data

BPD Greenwood Ave Quick-Build Data



Included data types:



Motor Vehicle Accident and Hit & Run Calls for Service



DMV Crash Reports



Traffic Citations

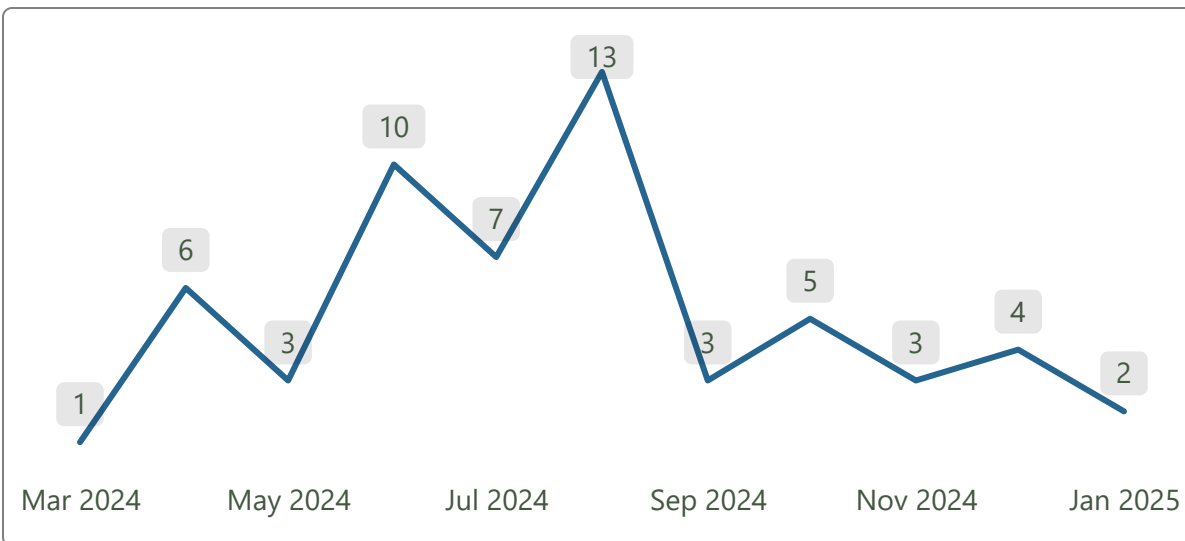
Data from:

New World LERMS and Enterprise Mobile
Mappable events only

Timeframe:

Pre-Construction — 3.15.2024 - 8.15.2024
Post-Construction — 8.16.2024 - 1.15.2025

Motor Vehicle Accident and Hit & Run Calls for Service (CFS)



57

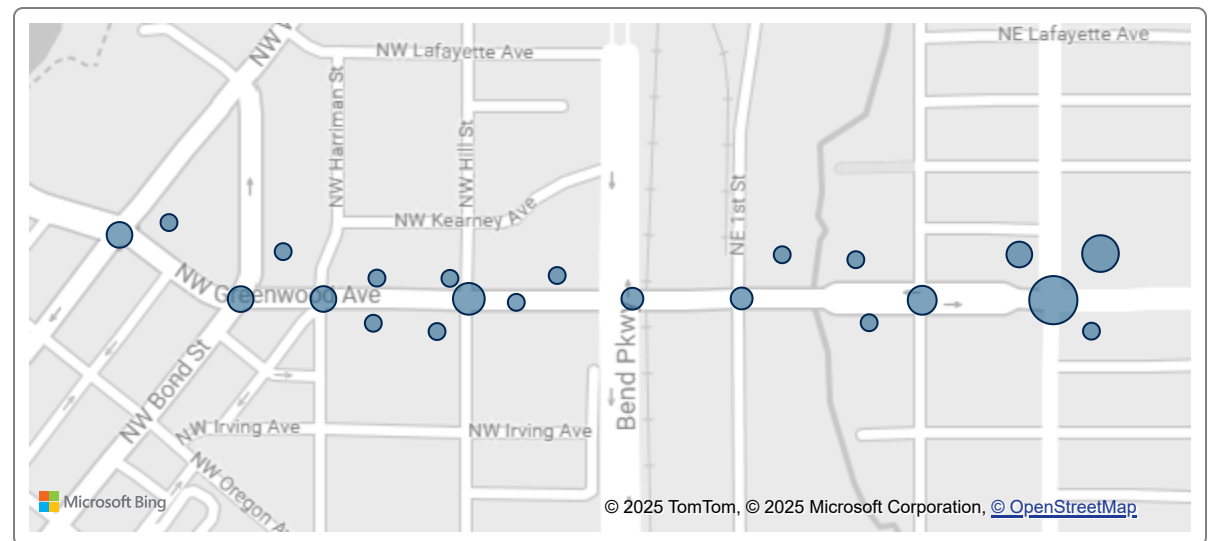
Total CFS

32

Pre-Construction

25

Post-Construction

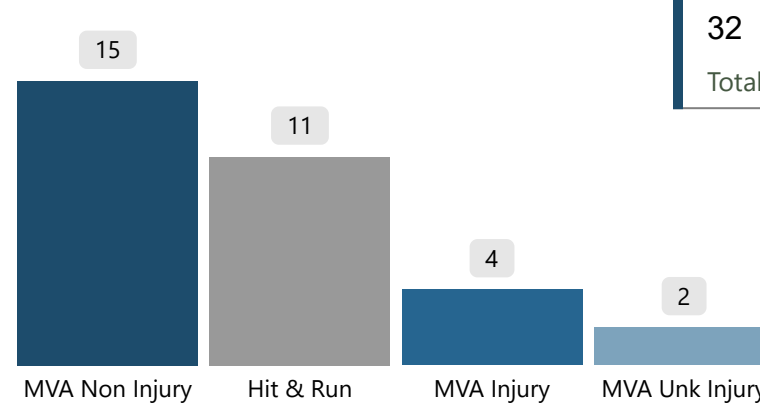


Top Locations Pre-Construction

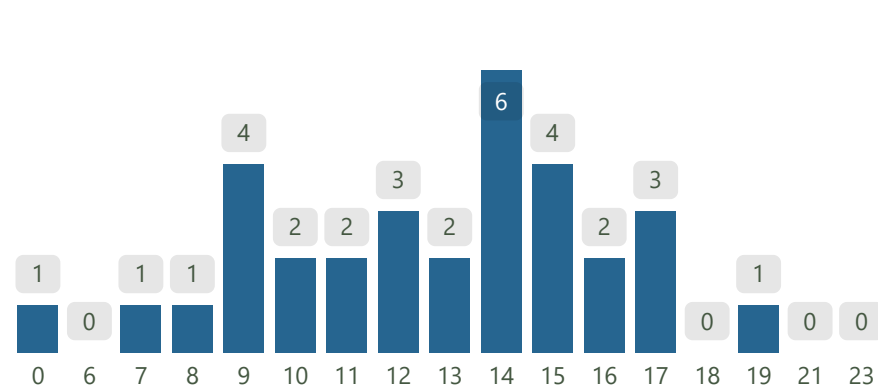
Location	Count
NE 3RD ST / NE GREENWOOD AVE	8
NW HILL ST / NW GREENWOOD AVE	3
304 NE GREENWOOD AVE	2
NE 2ND ST / NE GREENWOOD AVE	2
NW BOND ST / NW GREENWOOD AVE	2
NW HARRIMAN ST / NW GREENWOOD AVE	2

P
R
E

Call Type Pre-Construction



Hour of CFS Pre-Construction

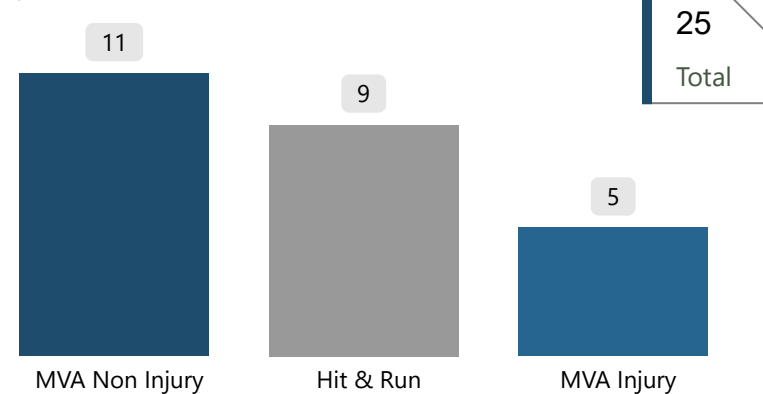


Top Locations Post-Construction

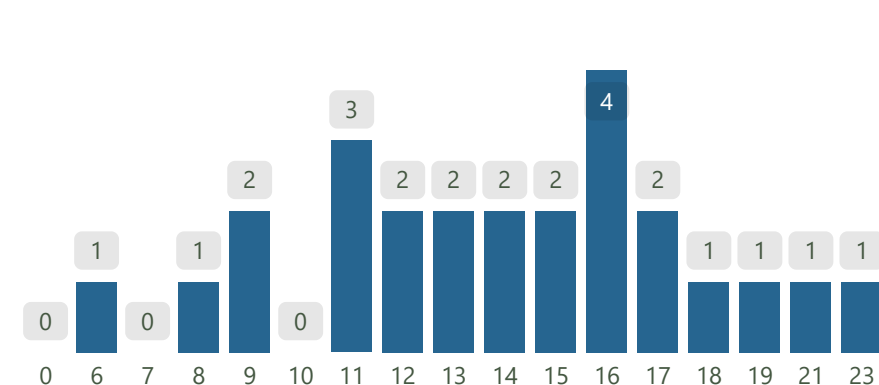
Location	Count
304 NE GREENWOOD AVE	5
NE 3RD ST / NE GREENWOOD AVE	5
250 NE GREENWOOD AVE	2
NE 2ND ST / NE GREENWOOD AVE	2
NW HILL ST / NW GREENWOOD AVE	2
NW WALL ST / NW GREENWOOD AVE	2

P
O
S
T

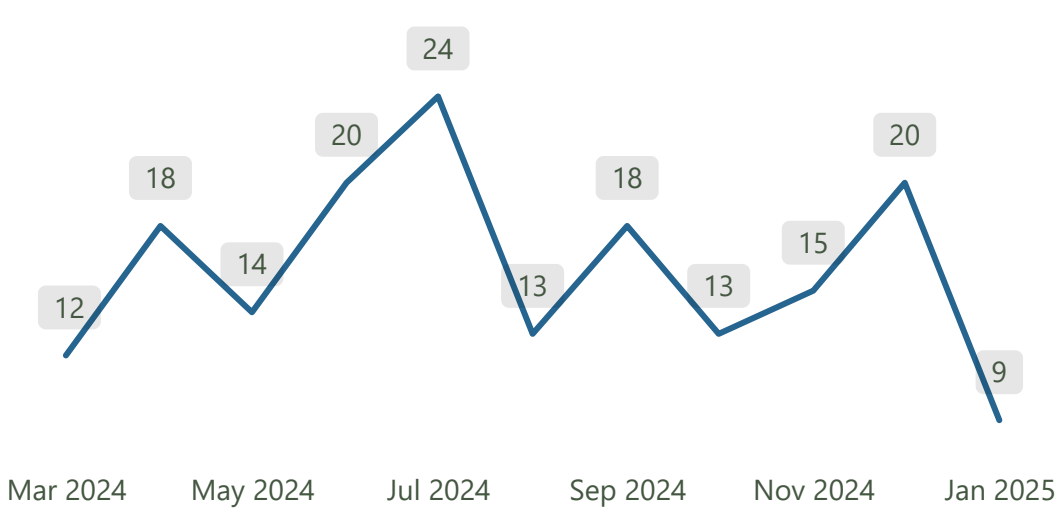
Call Type Post-Construction



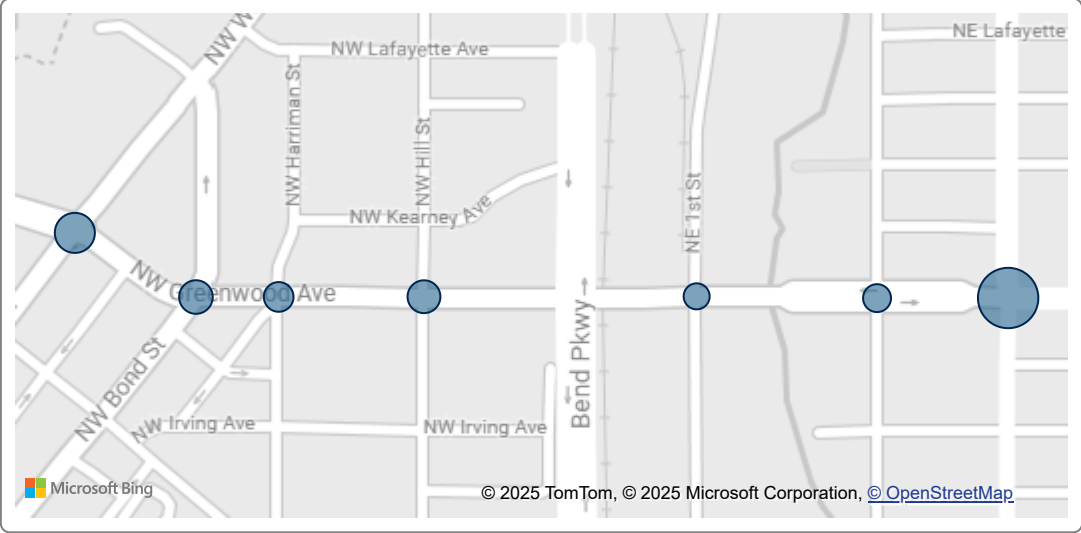
Hour of CFS Post-Construction



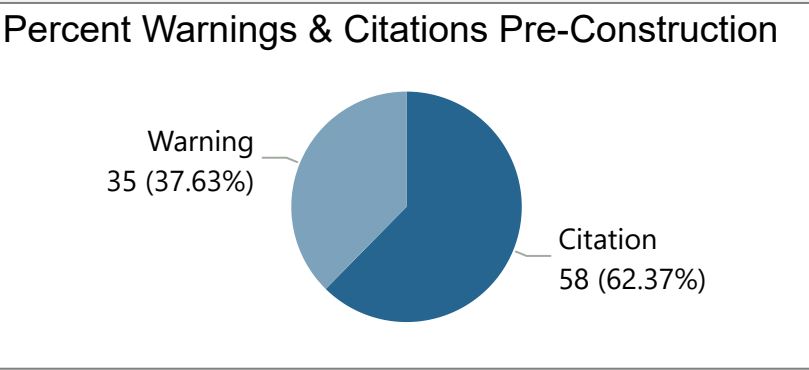
Traffic Tickets



176	189
Total Tickets	Total Offenses
91	93
Pre-Construction	Pre-Construction
85	96
Post-Construction	Post-Construction

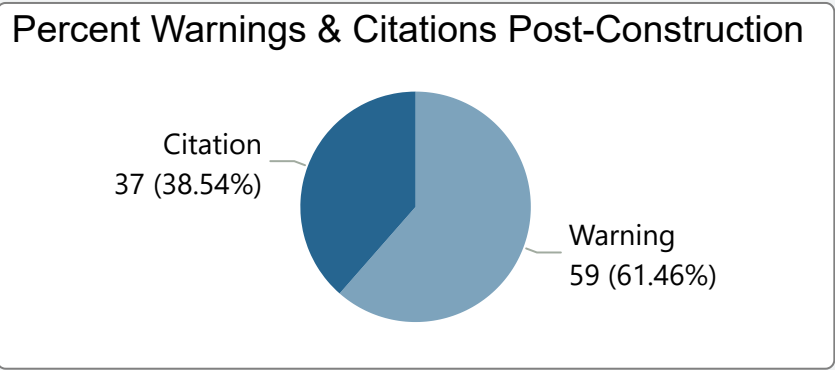


Locations Pre-Construction	Count
NE 3RD ST / NE GREENWOOD AVE	36
NW WALL ST / NW GREENWOOD AVE	18
NW HARRIMAN ST / NW GREENWOOD AVE	10
NW HILL ST / NW GREENWOOD AVE	10
NE 1ST ST / NE GREENWOOD AVE	8
NW BOND ST / NW GREENWOOD AVE	6
NE 2ND ST / NE GREENWOOD AVE	5
Total	93



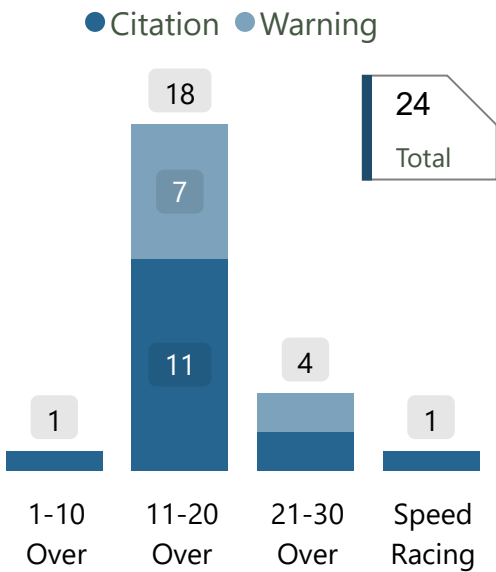
P
R
E

Locations Post-Construction	Count
NE 3RD ST / NE GREENWOOD AVE	45
NW BOND ST / NW GREENWOOD AVE	17
NW WALL ST / NW GREENWOOD AVE	12
NW HILL ST / NW GREENWOOD AVE	8
NE 2ND ST / NE GREENWOOD AVE	7
NW HARRIMAN ST / NW GREENWOOD AVE	5
NE 1ST ST / NE GREENWOOD AVE	2
Total	96



P
O
S
T

Speed Offenses Pre-Construction



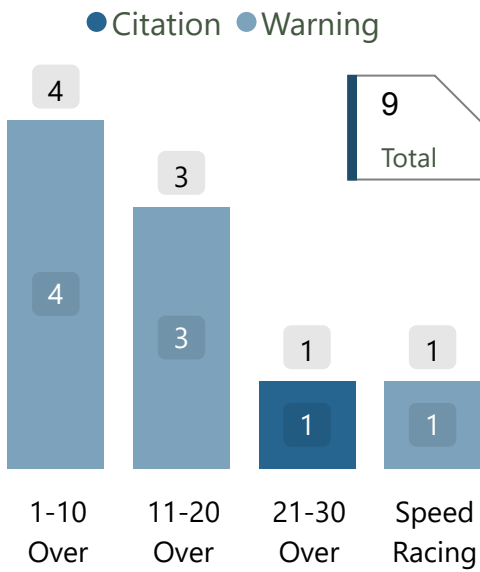
Top Traffic Offenses Pre-Construction

Ticket Charge Statute Description	Count
Cell 1st Offense - Operate MV While Using a Mobile Device	11
Violating a Speed Limit (11-20 over)	11
Fail to Obey Traffic Control Device	10
Driving While Suspended - Violation	9
Fail to Obey Traffic Control Device - Warning	8
Violating a Speed Limit (11-20 over)-Warning	7
Unlawful/Unsignaled Lane Change - Warning	5
Cell 1st Offense - Operate MV While Using a Mobile Device - Warning	3
Total	64

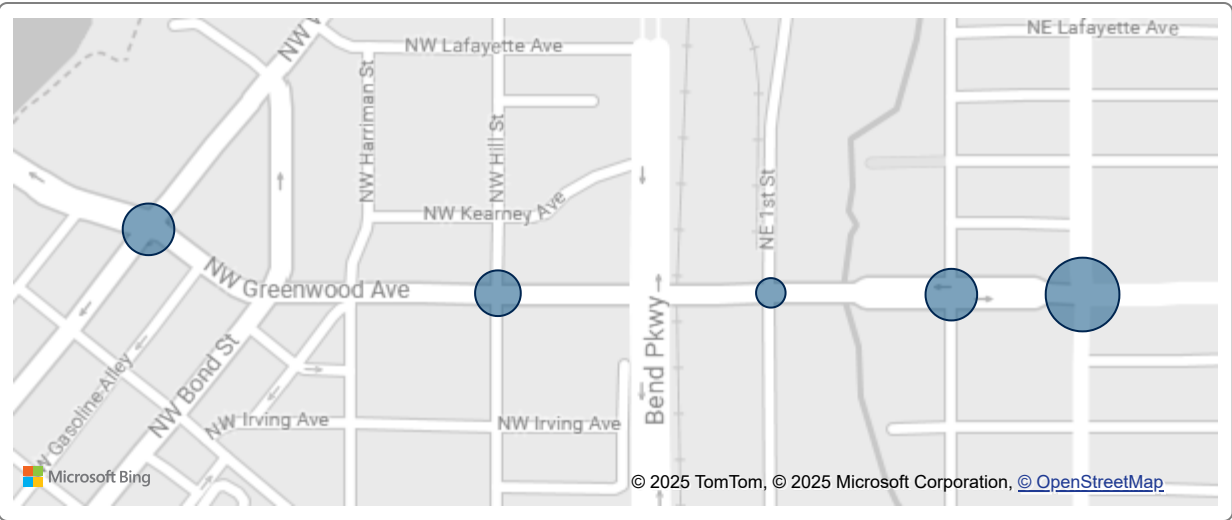
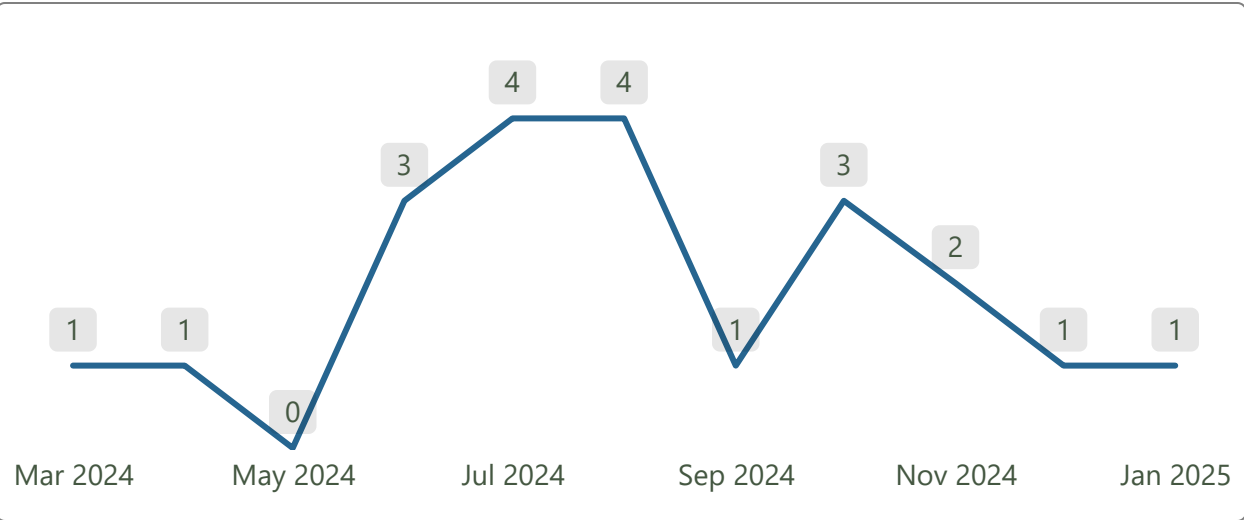
Top Traffic Offenses Post-Construction

Ticket Charge Statute Description	Count
Fail to Obey Traffic Control Device - Warning	12
Driving While Suspended - Violation	9
Fail to Obey Traffic Control Device	7
Unlawful Fail to Use Lights - Warning	7
Cell 1st Offense - Operate MV While Using a Mobile Device	5
Fail to Use Signal Lights - Warning	5
Illegal U-Turn - Warning	4
Improperly Executed Left Turn - Warning	4
Total	53

Speed Offenses Post-Construction

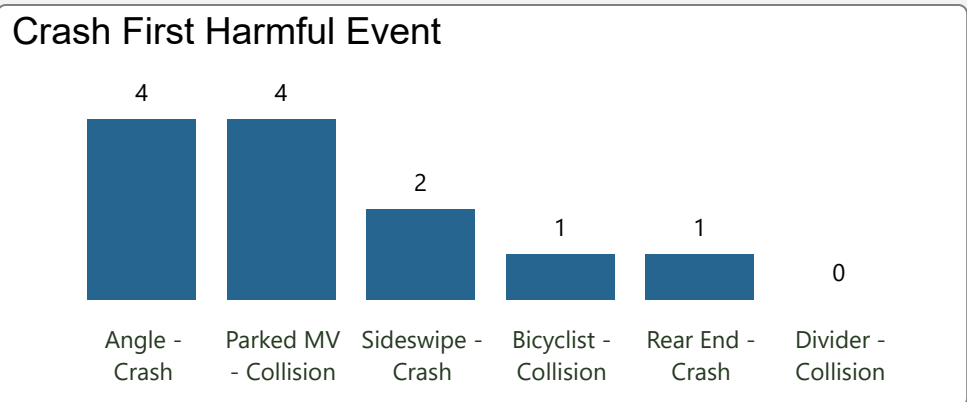
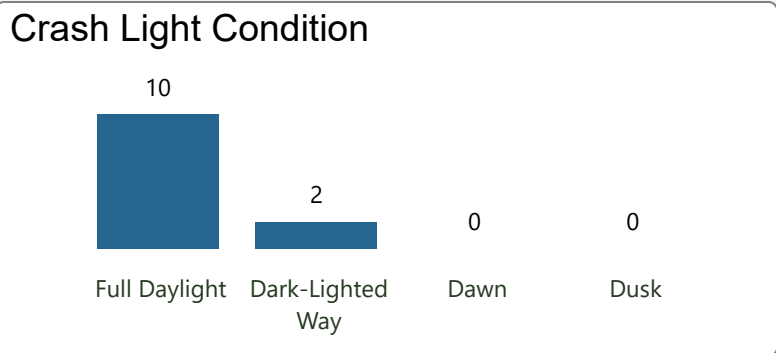
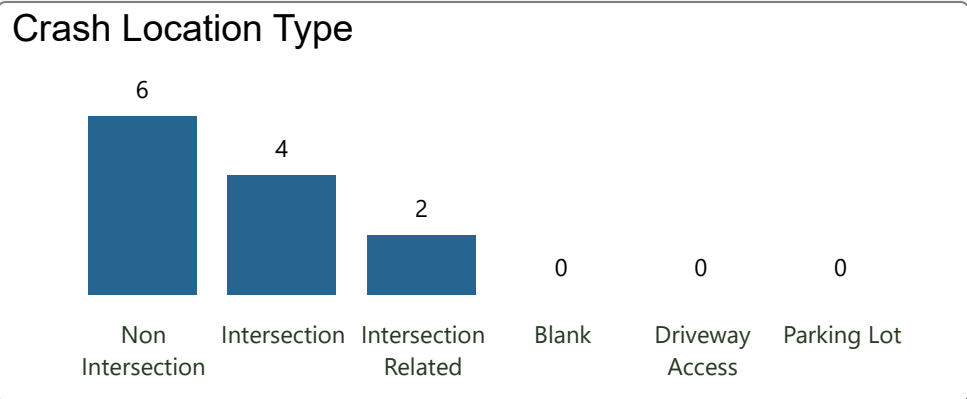


DMV Crash Reports



Locations	Count
NE 3RD ST / NE GREENWOOD AVE	5
NE 2ND ST / NE GREENWOOD AVE	2
NW HILL ST / NW GREENWOOD AVE	2
NW WALL ST / NW GREENWOOD AVE	2
NE 1ST ST / NE GREENWOOD AVE	1
Total	12

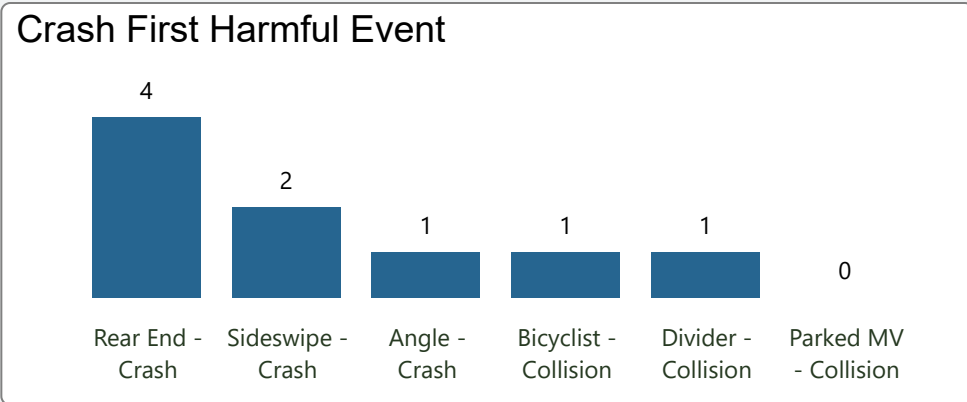
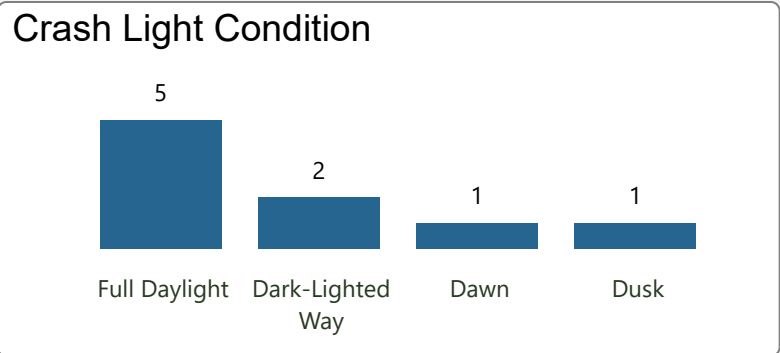
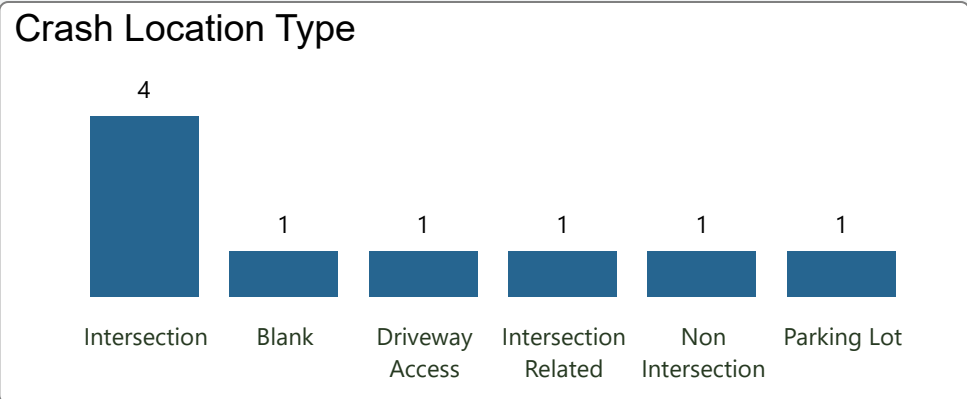
Pre-Construction



Unit Type & Injury	Blank	Complaint of Pain	None	Total
Driver	1	1	11	13
Bicyclist	1	1		2
Parked Vehicle	1			1
Pedestrian	1			1
Total	4	2	11	17

Post-Construction

Locations	Count
NE 3RD ST / NE GREENWOOD AVE	4
NE 2ND ST / NE GREENWOOD AVE	2
NW WALL ST / NW GREENWOOD AVE	2
NW HILL ST / NW GREENWOOD AVE	1
Total	9



Unit Type & Injury	Blank	None	Visible Injury	Total
Driver		9		9
Bicyclist	1		1	2
Property Damage	1			1
Total	2	9	1	12