

TECHNICAL MEMORANDUM

DATE: April 29, 2025
TO: Eric Molinari and Jay Monty, City of Everett
FROM: Casey Cooper and Kyle Casiglio, Boston Region MPO
RE: Fall 2024 Everett Traffic Count Data

The City of Everett contacted the Boston Region Metropolitan Planning Organization (MPO) through the Community Transportation Technical Assistance Program (CTTA) for assistance in collecting traffic counts at locations throughout the city where improvements for nonmotorized users had either recently been completed or were planned. The Massachusetts Department of Transportation (MassDOT), on behalf of the MPO, collected bicycle and pedestrian counts, turning movement counts (TMCs), and traffic volume, speed, and vehicle classification data using automatic traffic recorders (ATRs) in Everett during October and November 2024.

1 STUDY AREA

On the following page, Figure 1 illustrates the four intersections where the TMCs were collected: (1) Main Street at Oakes Street/Tileston Street, (2) Ferry Street at Glendale Street/Shute Street, (3) Ferry Street at Elm Street, and (4) Woodlawn Avenue at Elm Street, as well as the seven locations where the ATRs were installed: (1) Air Force Road south of Rivergreen Drive, (2) Main Street north of Tileston Street/Oakes Street, (3) 366 Broadway, (4) 484 Broadway, (5) Ferry Street south of Elm Street, (6) Ferry Street south of Shute Street, and (7) Elm Street East of Woodlawn Avenue.

2 TURNING MOVEMENT COUNTS

MassDOT collected turning movement counts at the above locations during weekday AM (7:00 AM - 9:00 AM) and PM (3:00 PM - 6:00PM) peak periods as well as during the weekend midday peak period (11:00 AM - 2:00 PM). What follows is a summary of the peak hour data. These peak hour counts are illustrated in Figure 2 below.

Figure 1
Automatic Traffic Recorder and Turning Movement Count Locations

2.1 Main Street at Oakes Street/Tileston Street

The intersection of Main Street and Oakes Street/Tileston Street is a signalized intersection in southwest Everett. During evening (PM) and midday weekend peak hours, we recorded 1,454 and 1,395 vehicles respectively at the intersection. Morning (AM) peak hour traffic was lower, with approximately 1,138 vehicles. Approximately 62 percent of all traffic at this intersection was through traffic moving north or south along Main Street, with AM traffic more heavily southbound and PM traffic more heavily northbound. Despite the AM peak hour traffic having the lowest total volume, it was the period of highest volume for the Oakes Street westbound approach, where vehicles from this approach made up approximately 26 percent of total volume.

Pedestrian traffic at the intersection ranged from 3 to 6 percent of volume during peak hours, with the weekday PM peak seeing the highest pedestrian share and 89 pedestrians crossing the intersection. The weekend peak hour had both the lowest pedestrian share and total, with 51 pedestrians passing through. Nine bicyclists were observed traveling through the intersection during the AM peak hour, with five on the roadway and four on the intersection's crosswalks. Three bicyclists were observed during the PM peak hour, all in the roadway. Nine bicyclists were observed during the weekend peak hour, six on the roadway and three using crosswalks.

2.2 Ferry Street at Glendale Street/Shute Street

Total vehicle volumes during the peak periods at this intersection consistently hovered around 1,150 (1,168 during the AM weekday peak, 1,148 during the PM peak, and 1,152 during the weekend peak). Significant pedestrian volumes were observed during the AM peak, when pedestrians comprised approximately 10 percent of volume. Pedestrian volumes were much lower in the PM and weekend midday peak, making up 5.5 percent and 4.9 percent of volume, respectively.

During the weekday AM peak volumes at each approach to the intersection had little variability, ranging from a low of 266 vehicles (Glendale Street) to 325 vehicles (Ferry Street southbound). The splits during the weekday PM peak and weekend midday peak were much wider, with Shute Street seeing significantly less traffic than the other three approaches. The majority of people driving through this intersection were utilizing Ferry Street, either as through traffic or turning onto it from Shute and Glendale Streets. Turns onto Shute Street or through traffic coming from Glendale composed no more than 30 percent of vehicular volume during any of the peak periods.

The greatest number of bicyclists were recorded at the intersection during the PM peak period, with a total of 19 people bicycling. Only two were observed during the AM peak and nine during the weekend midday peak for a total of 30 people bicycling across three peak hours for which we collected counts. These bicyclists were only slightly more likely to be travelling in the road (17/30) as they were to be in the crosswalks (13/30).

2.3 Ferry Street at Elm Street

Volumes at Ferry Street's intersection with Elm Street are heavily influenced by its proximity to Everett High School. The intersection also benefitted from safety improvements that were completed shortly before the data were collected, including curb extensions and grade-separated bicycle facilities in the northbound direction. Volumes at the intersection were highest during the AM peak period, with 1461 vehicles, likely due to traffic heading towards the school. During the PM peak there were 1358 vehicles and 1341 vehicles passed through the intersection during the weekend midday peak period.

Pedestrian traffic was also highest in terms of both total pedestrians (223) and as a percentage of vehicle volume (15.3 percent) during the AM peak, with a significant drop-off to the PM peak (52) and weekend midday peak (39). Bicycle traffic showed the opposite trend, with 14 bicyclists observed during the PM peak and five each during both the AM and weekend midday peaks. No vehicular traffic was observed from the Elm Street eastbound approach, a short dead-end street, during peak hours. People riding bikes through this intersection were exactly as likely to be riding in the road as they were to be using the crosswalks.

2.4 Woodlawn Avenue at Elm Street

Elm Street and Woodlawn Avenue intersect at the entrance to the large Woodlawn Cemetery. Counts of those entering or exiting the cemetery were not collected and are not included in this memorandum. Volumes at this intersection were highest during the PM peak, with 1,044 vehicles passing through the intersection. During the AM peak, 922 vehicles were observed while 919 were observed during the weekend midday peak. Volumes had high directional splits during the weekdays based on time of day, with AM traffic being primarily westbound and PM traffic being primarily eastbound. Weekend traffic had very little directional split.

The majority of vehicles were through traffic on Elm Street, ranging from a low of 60.8 percent of all volume during the AM peak to 74.3 percent of all traffic during the weekend midday peak. Pedestrian volumes were significantly higher during the AM peak (65) than during the PM peak (22) or weekend midday peak (19). The volume of bicyclists was highest during the weekend peak hour (10) and lower during the AM (5) and PM (6) peak hours. Bicyclists at this intersection were much more likely to be riding in the road (17/21) than in the crosswalk.

Figure 2
Turning Movement Counts

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3 VEHICLE VOLUMES

MPO staff compiled the vehicle volume data collected at the seven count locations in Everett. These data included MassDOT's average daily traffic (ADT) calculations, which used the data from the collection days. At three locations a significant gap in ADT (greater than 10 percent) based on direction was identified, with Elm Street east of Woodlawn Avenue seeing 10.2 percent more traffic travelling eastbound than westbound, Main Street north of Tileston/Oakes Street seeing 11.4 percent more northbound traffic than southbound, and 484 Broadway seeing 20.3 percent more traffic moving northbound than southbound. The greatest ADT of 10,250 was calculated for northbound travel on Main Street north of Tileston/Oakes Street. The lowest overall ADT (3,704) was reported for northbound traffic at Air Force Road south of Rivergreen Drive. ADT is listed below in Table 1 and visualized on the following page in Figure 3.

Table 1
Average Daily Traffic by Direction at Select Locations in Everett

Dates	Location	Direction	Weekday Average Daily Traffic (ADT)
10.15.2024 - 10.20.2024	Air Force Road (South of Rivergreen Drive)	Northbound	3,704
		Southbound	4,053
10.15.2024 - 10.20.2024	Main Street (North of Tileston/Oakes Street)	Northbound	10,250
		Southbound	9,087
11.18.2024 - 11.22.2024	366 Broadway	Northbound	7,164
		Southbound	7,407
11.18.2024 - 11.22.2024	484 Broadway	Northbound	8,623
		Southbound	6,877
12.02.2024 - 12.06.2024	Ferry Street (South of Elm Street)	Northbound	6,357
		Southbound	6,270
11.18.2024 - 11.22.2024	Ferry Street (South of Shute Street)	Northbound	5,935
		Southbound	5,990
12.02.2024 - 12.06.2024	Elm Street (East of Woodlawn Avenue)	Eastbound	7,073
		Westbound	6,358

Source: MassDOT.

Figure 3
Vehicle Volumes and Speeds at Select Locations in Everett
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4 VEHICLE SPEEDS

MPO staff gathered the average vehicle speeds at each data collection location. We also assessed the 85th percentile speeds, which reflect the speed at which 85 percent of motorists drove below. Motorists moved the most slowly on Ferry Street, particularly at the collection location south of Shute Street, while they drove most quickly along Air Force Road south of Rivergreen Drive. Average speeds and 85th percentile speeds can be found above in Figure 3, as well as in Table 2 on the following page.

4.1 Posted Speed Limits

The posted speed limits in the project area are as follows:

- Air Force Road: A sign right next to the collection location indicated a 25 miles per hour (mph) city-wide speed limit unless otherwise posted, along with an advisory “Thickly Settled” sign.
- Main Street: A sign just south of the collection location indicated a speed limit of 30 mph.
- 366 Broadway: A sign just south of the collection location indicated a 25 mph city-wide speed limit unless otherwise posted, along with an advisory “Thickly Settled” sign.
- 484 Broadway: A posted speed limit sign was not identified proximate to the collection location. It is presumed that the 25 mph city-wide speed limit applies.
- Ferry Street south of Elm Street: A posted speed limit sign was not identified proximate to the collection location. It is presumed that the 25 mph city-wide speed limit applies.
- Ferry Street south of Shute Street: A posted speed limit sign was not identified proximate to the collection location. It is presumed that the 25 mph city-wide speed limit applies.
- Elm Street east of Woodlawn Avenue: A sign just east of the collection location indicated a 25 mph city-wide speed limit unless otherwise posted, along with a “Slow Down. Save Lives.” message.

Despite a higher speed limit along Main Street, most people drive well below the posted limit. This may be influenced by the high vehicle volumes and would explain why northbound traffic moves slower than southbound traffic. Where volumes are lowest, at Air Force Road, is also where speeds are the highest, with the average driver moving faster than the posted speed limit. Elm Street east of Woodlawn Avenue was observed in both directions to have 85th percentile speeds above the posted speed limit, while the collection location at 484 Broadway observed an 85th percentile speed above the posted speed limit only in the southbound direction.

Table 2
Vehicle Speeds at Select Locations in Everett

Dates	Location	Average Speed (mph)		85th Percentile Speed (mph)	
		Northbound	Southbound	Northbound	Southbound
10.15.2024 - 10.20.2024	Air Force Road (South of Rivergreen Drive)	25.6	25.9	29.9	31.0
10.15.2024 - 10.20.2024	Main Street (North of Tileston/ Oakes Street)	17.4	18.3	22.1	24.6
11.18.2024 - 11.22.2024	366 Broadway	22.5	17.6	28.5	23.9
11.18.2024 - 11.22.2024	484 Broadway	16.9	21.8	22.3	27.8
12.02.2024 - 12.06.2024	Ferry Street (South of Elm Street)	17.1	19.3	22.0	23.6
11.18.2024 - 11.22.2024	Ferry Street (South of Shute Street)	18.5	15.7	24.6	19.6
12.02.2024 - 12.06.2024	Elm Street (East of Woodlawn Street)	<i>Eastbound</i>	<i>Westbound</i>	<i>Eastbound</i>	<i>Westbound</i>
		20.9	21.6	26.7	25.8

mph = miles per hour.

Source: MassDOT.

5 VEHICLE CLASSIFICATIONS

Passenger vehicle share varied widely across the collection locations. The highest share of truck and bus traffic (8.6 percent) was recorded for southbound travel at the Main Street location while the lowest was southbound travel on Air Force Road (1.7 percent). Large differentiation was found between directions at many collection locations, with four locations having double the percentage of trucks and buses traveling in one direction than the other. Vehicle classification data can be found in Table 3 on the following page.

Table 3
Vehicle Classification by Direction at Select Locations in Everett

Dates	Location	Percent Passenger Vehicles		Percent Trucks and Buses	
		Northbound	Southbound	Northbound	Southbound

10.15.2024 - 10.20.2024	Air Force Road (South of Rivergreen Drive)	97.7	98.3	2.3	1.7
10.15.2024 - 10.20.2024	Main Street (North of Tileston/ Oakes Street)	97.0	91.4	3.0	8.6
11.18.2024 - 11.22.2024	366 Broadway	93.8	95.7	6.2	4.3
11.18.2024 - 11.22.2024	484 Broadway	96.9	96.9	3.1	3.1
12.02.2024 - 12.06.2024	Ferry Street (South of Elm Street)	93.6	97.1	6.4	2.9
11.18.2024 - 11.22.2024	Ferry Street (South of Shute Street)	95.4	97.2	4.6	2.8
12.02.2024 - 12.06.2024	Elm Street (East of Woodlawn Street)	<i>Eastbound</i>	<i>Westbound</i>	<i>Eastbound</i>	<i>Westbound</i>
		95.1	97.5	4.9	2.5

Source:MassDOT.

6 CONCLUSION

The data summarized in this memorandum provide a snapshot of traffic conditions in Everett during fall 2024, offering insights into multimodal activity at key intersections and corridors. These findings may support ongoing planning efforts to enhance safety and accessibility for people walking, biking, and driving. We welcome the opportunity to further discuss how this information can inform future improvements across the city's transportation network.

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