

TRAFFIC IMPACT STUDY PROPOSED CHICK-FIL-A RESTAURANT

99 Stafford Street
Worcester, MA

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Introduction

Bowman has completed a traffic impact study for the proposed Chick-fil-A restaurant to be located at 99 Stafford Street in Worcester, Massachusetts, as shown in Figure 1. This traffic impact study is based on the Concept Plan prepared by Bohler Engineering, dated April 23, 2024 for a proposed 5,331 square foot (sf) Chick-fil-A restaurant. The purpose of this traffic impact study is to evaluate existing and projected traffic operations and safety conditions associated with the proposed development within the study area.

The traffic impact study is based on a review of existing traffic volumes, recent crash data, and the anticipated traffic generating characteristics of the proposed project. The study examines existing and projected traffic operations (both with and without the proposed development) at key intersections in the vicinity of the project site. The study area was selected based on a review of the surrounding roadway network and anticipated trip generating characteristics of the proposed project. This study provides a detailed analysis of traffic operations during the weekday midday, weekday afternoon and Saturday midday peak hours, when the combination of adjacent roadway volumes and project trips is expected to be the greatest.

Based on the analysis presented in this study, the proposed development is not expected to have a significant impact on the safety and operations of the area roadways. The following report documents these findings.

Project Description

The existing project site at 99 Stafford Street is bounded by railway tracks to the south, Heard Street to the west, Stafford Street to the north, and commercial properties to the east. The existing building, which previously housed a Walgreens, would be demolished and the proposed project would construct a new 5,331 sf Chick-fil-A restaurant with dual drive-through lanes. Access to the project site would be provided via two driveways located on Stafford Street (Northeast Site Driveway and Northwest Site Driveway) and one driveway on Heard Street (South Site Driveway). The Northeast Site Driveway on Stafford Street is proposed in the same location as the existing driveway and would be an exit-only driveway from the proposed drive-through. The Northwest Site Driveway would be constructed to provide right-turn, enter-only movements from Stafford Street. The South Site Driveway on Heard Street is proposed in the same location as the existing driveway and would allow for full access to and from the site.

With the proposed project in place, a total of 75 parking spaces would be provided, three of which would be accessible spaces adjacent to the proposed building. Dual drive-through lanes, each with their own order board and pickup area are proposed as part of this development. The drive-through lanes would circulate in a counterclockwise direction and an escape lane is provided after the order boards to the parking area. Two-way circulation would be provided throughout the parking areas on site.



FIGURE 1
STUDY AREA

PROPOSED CHICK-FIL-A
WORCESTER, MA



Study Methodology

This traffic impact study evaluates existing and projected traffic operations within the study area for the weekday midday, weekday afternoon, and Saturday midday peak hour traffic conditions, when the combination of the adjacent roadway volumes and estimated project trips would be expected to be the greatest.

The study was conducted in three steps. The first step consisted of an inventory of existing traffic conditions within the project study area. As part of this inventory, manual turning movement counts were collected in the vicinity of the project site during the weekday midday, weekday afternoon and Saturday midday peak periods. A field visit was also completed to document intersection and roadway geometries. Crash data at the study area intersections was obtained from the Massachusetts Department of Transportation (MassDOT) to determine if the study area intersections have any existing traffic safety deficiencies.

The second step of the study builds on the data collected in the first step to establish the basis for evaluating potential transportation impacts associated with the projected future conditions. During the second step, the projected traffic demands associated with any planned future developments that could influence traffic volumes at the study area intersections were assessed. Consistent with MassDOT traffic study guidelines, 2024 Existing traffic volumes were forecasted to the future year 2031 to establish 2031 No Build (without project) conditions and 2031 Build (with project) conditions.

The third step of this study determined if measures were necessary to improve existing or future traffic operations and safety, minimize potential traffic impacts, and provide safe and efficient access to the proposed project site.

Study Area Intersections

In coordination with the City of Worcester, the following study area intersections were selected for analysis:

- Stafford Street at Heard Street/Curtis Parkway
- Stafford Street at Northwest Site Driveway (Proposed)
- Stafford Street at Northeast Site Driveway
- Heard Street at South Site Driveway

The traffic impact study documents existing and future traffic conditions for the study area intersections noted above.

Existing Conditions

The existing conditions assessment included in this study consists of an inventory of intersection and roadway geometries, an inventory of traffic control devices, the collection of peak period traffic volumes, and a review of recent crash data. The existing conditions in the vicinity of the project site are summarized below.

Roadway Network

Stafford Street

Stafford Street generally extends in a southwest-northeast direction through the City of Worcester and is classified as an urban minor arterial under the City of Worcester jurisdiction. In the vicinity of the project site, Stafford Street generally provides one approximately 20-foot-wide travel lane in each direction with additional turning lanes at key intersections. Although no separate bicycle lanes are provided, the travel lanes are wide enough to accommodate bicycles. Sidewalks measuring approximately eight-feet-wide are provided on both sides of the roadway in the vicinity of the project site. Stafford Street has a posted speed limit of 35 miles per hour (mph).

Heard Street

Heard Street generally extends in north-south direction from the signalized intersection with Stafford Street in the north to Oxford Street in the south. Heard Street is classified as an urban collector under the City of Worcester jurisdiction. In the vicinity of the project site, Heard Street generally provides one 11-foot-wide travel lane in each direction with additional turning lanes at key intersections. Sidewalks measuring approximately five-feet-wide are provided on both sides of the roadway in the vicinity of the project site. Heard Street has a posted speed limit of 30 mph.

Signalized Intersection

Stafford Street at Heard Street/Curtis Parkway

The signalized intersection of Stafford Street at Heard Street/Curtis Parkway is a four-way intersection with Curtis Parkway forming the north leg, Heard Street forming the south leg and Stafford Street forming the east and west legs. The Curtis Parkway southbound approach consists of a single lane for shared left/through/right-turn movements. The Heard Street northbound approach consists of an exclusive left-turn lane and a shared through/right-turn lane. The Stafford Street eastbound approach consists of a shared lane left-turn/through lane and a shared through/right-turn lane. The Stafford Street westbound approach consists of an exclusive left-turn lane and a shared through/right-turn lane. Crosswalks are provided across all approaches to the intersection.

Unsignalized Intersections

Stafford Street at Northeast Site Driveway

The unsignalized intersection of Stafford Street at Northeast Site Driveway consists of Stafford Street forming the east and west legs and the Northeast Site Driveway forming the south leg. The Stafford Street eastbound approach consists of a shared through/right-turn lane. The Stafford Street westbound approach consists of a shared left-turn/through lane. The Northeast Site Driveway northbound approach consists of a single lane for left- and right-turn movements. A crosswalk is provided across the east leg of Stafford Street.

Heard Street at South Site Driveway

The unsignalized intersection of Heard Street at South Site Driveway consists of Heard Street forming the north and south legs and the South Site Driveway forming the east leg. All approaches to the intersection consist of a single lane.

Area Transit Services

Public transportation in Worcester is provided by the Worcester Regional Transit Authority (WRTA) bus and shuttle routes. Fixed bus Routes 27 and 825 operate along Stafford Street. Bus Route 27 provides service between the Union Hub Station and the Auburn Mall and Bus Route 825 provides service between the Union Hub Station and the YMCA on Shore Drive. The bus stop is located directly in front of the project site near the Northeast Site Driveway.

Pedestrian & Bicycle Facilities

Sidewalks are provided on both sides of Stafford Street and Heard Street within the study area. Crosswalks are provided on all legs at the signalized intersection of Stafford Street at Heard Street/Curtis Parkway. An unsignalized crosswalk is provided just east of the Northeast Site Driveway.

Existing Traffic Volumes

To assess peak hour traffic conditions, turning movement counts (TMCs) were conducted at the existing study area intersections during the weekday midday, weekday afternoon, and Saturday midday peak periods. In addition to the peak period TMCs, automatic traffic recorder (ATR) data was collected on Stafford Street and Heard Street.

Turning Movement Count Data

TMCs were conducted on Thursday, August 22, 2024, from 11:00 AM to 2:00 PM and 4:00 PM to 6:00 PM, as well as on Saturday, August 24, 2024 from 11:00 AM to 2:00 PM. The results of the turning movement counts are tabulated by 15-minute periods and are provided in Appendix A. The four highest consecutive 15-minute intervals during each of these count periods constitute the peak hours that are the basis of the traffic analysis provided in this report. Based on a review of the peak period traffic data, the weekday midday peak hour occurs between 12:45 PM and 1:45 PM, the weekday afternoon peak hour occurs between 4:30 PM and 5:30 PM, and the Saturday midday peak hour occurs between 1:00 PM and 2:00 PM.

In order to understand the potential difference in traffic operations between the previous on-site land use and the proposed land use, it was decided in coordination with the City to include Walgreens trips in the Existing year analysis. As the existing Walgreens is currently not operational, the Institute of Transportation Engineers' (ITE) publication, *Trip Generation Manual, 11th Edition*, was referenced to develop peak hour trips associated with the Walgreens. The estimated Walgreens trips are shown in Table 1 below.

Table 1: Existing Walgreens Trip Generation

Description	Weekday Midday Peak Hour			Weekday Afternoon Peak Hour			Saturday Midday Peak Hour		
	In	Out	Total	In	Out	Total	In	Out	Total
Existing Walgreens Trips ¹	83	83	166	76	76	152	64	66	130

¹ ITE Land Use Code 881 (Pharmacy/Drugstore w/ Drive-Thru) based on 14,853 s.f.

The estimated trips associated with the Walgreens were distributed onto the study area network based on existing travel patterns.

Seasonal Variation

Based on MassDOT’s 2022 Weekday Seasonal Factors, August traffic volumes on urban principal arterials and all the others roadway types are shown to be higher than during an average month. This is consistent with MassDOT continuous count station data available nearby on Interstate 290 (Station ID 3894). Therefore, to provide a conservative analysis, the counted volumes were not seasonally adjusted downward to reflect an average month. The MassDOT seasonal adjustment data is provided in Appendix B.

Automatic Traffic Recorder Data

ATR data was obtained on Stafford Street, east of the Northeast Site Driveway and on Heard Street, south of the South Site Driveway. The ATR counts were collected over a 48-hour period from Wednesday, August 21 through Thursday, August 22, 2024. The ATR data is summarized in Table 2 and provided in Appendix A.

Table 2: ATR Summary

Location	Direction	Weekday ADT ¹	Midday Peak ² (vph)	Afternoon Peak ³ (vph)	Vehicle Speeds ⁴ (mph)
Heard Street, south of South Site Driveway	Northbound	3,800	226	397	30
	Southbound	2,800	184	237	33
	TOTAL	6,600	410	634	
Stafford Street, east of Northeast Site Driveway	Eastbound	6,500	405	451	37
	Westbound	6,200	384	557	34
	TOTAL	12,700	789	1,008	

(1) Average Daily Traffic based on ATR conducted from August 21-22, 2024.

(2) Weekday midday peak hour volumes occurred between 12:30 PM - 1:30 PM on Heard St and 12:00 PM - 1:00 PM on Stafford St.

(3) Weekday afternoon peak hour volumes occurred between 4:45 PM - 5:45 PM.

(4) Based on 85th percentile speeds.

As shown in Table 2, the average daily traffic (ADT) on Heard Street, south of the South Site Driveway is approximately 6,600 vehicles (3,800 northbound vehicles and 2,800 southbound vehicles) per day. The 85th

percentile speeds on Heard Street were measured to be 30 mph and 33 mph in the northbound and southbound directions, respectively.

The ADT on Stafford Street, east of the Northeast Site Driveway is approximately 12,700 vehicles (6,500 eastbound vehicles and 6,200 westbound vehicles) per day. The 85th percentile speeds on Stafford Street were measured to be 37 mph and 34 mph in the eastbound and westbound directions, respectively.

The resulting 2024 Existing weekday midday, weekday afternoon, and Saturday midday peak hour traffic volumes are presented in the traffic projection model provided in Appendix C and are presented in Figure 2, Figure 3, and Figure 4, respectively.

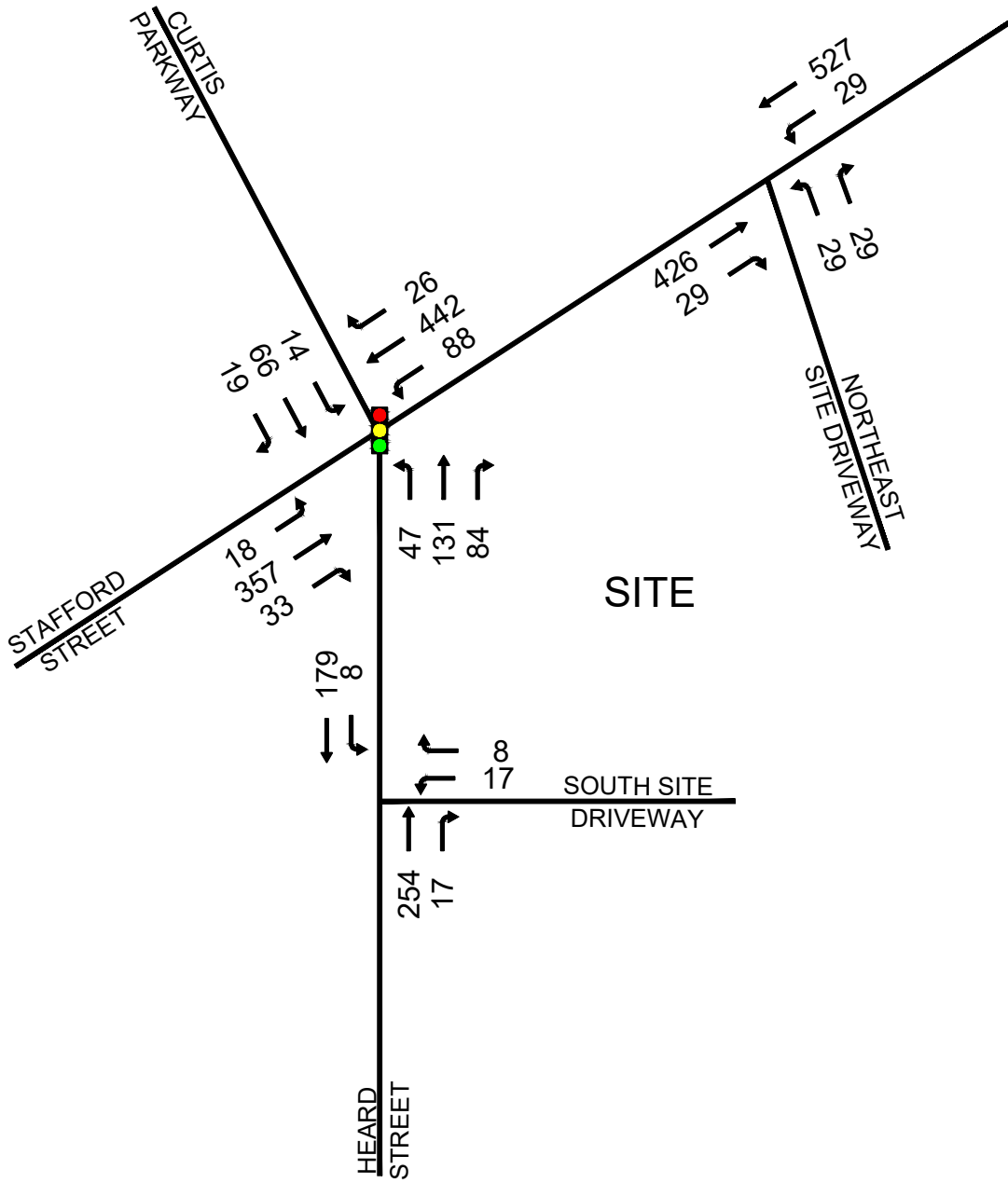


FIGURE 2
2024 EXISTING TRAFFIC VOLUMES
WEEKDAY MIDDAY PEAK HOUR

PROPOSED CHICK-FIL-A
WORCESTER, MA



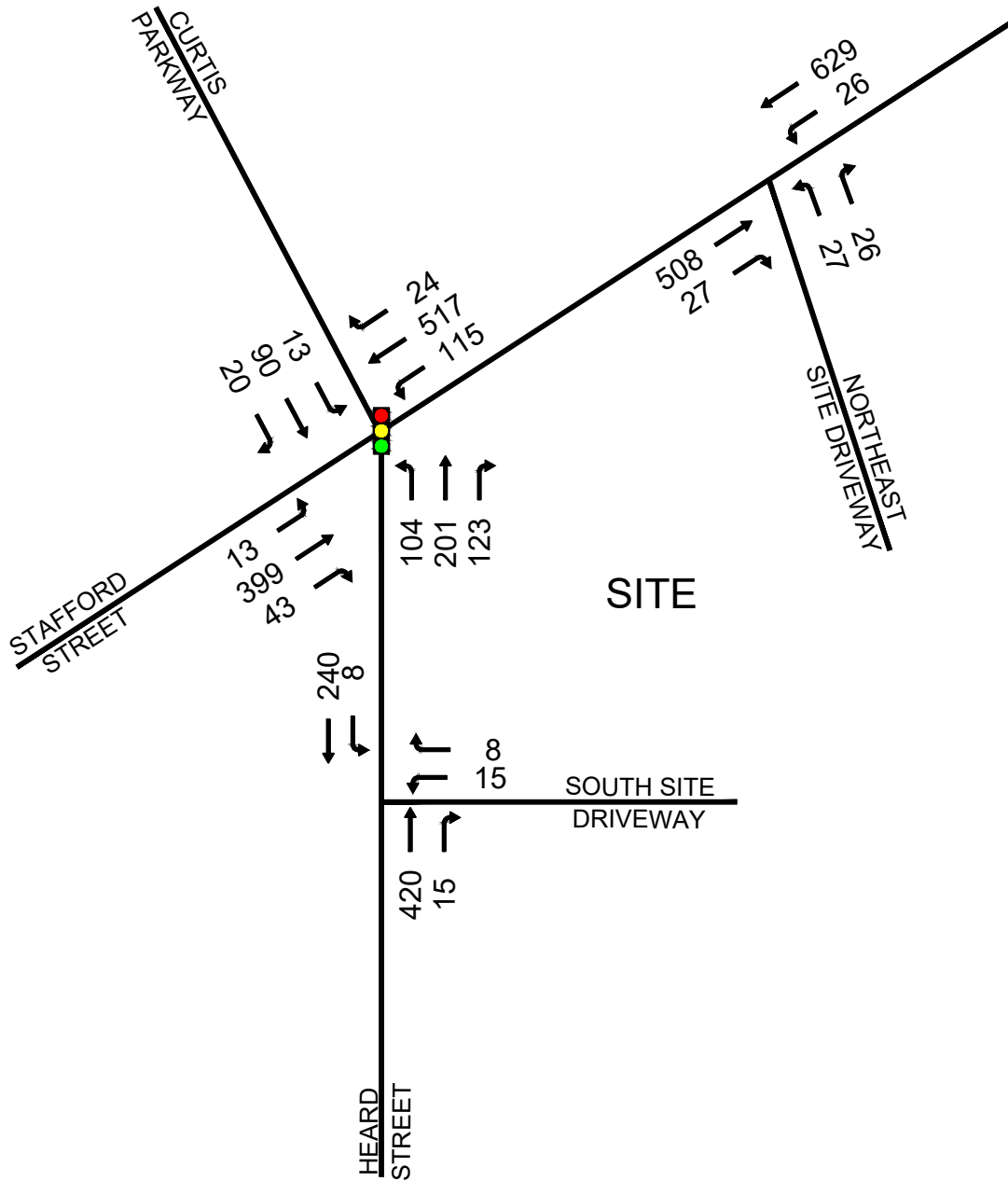
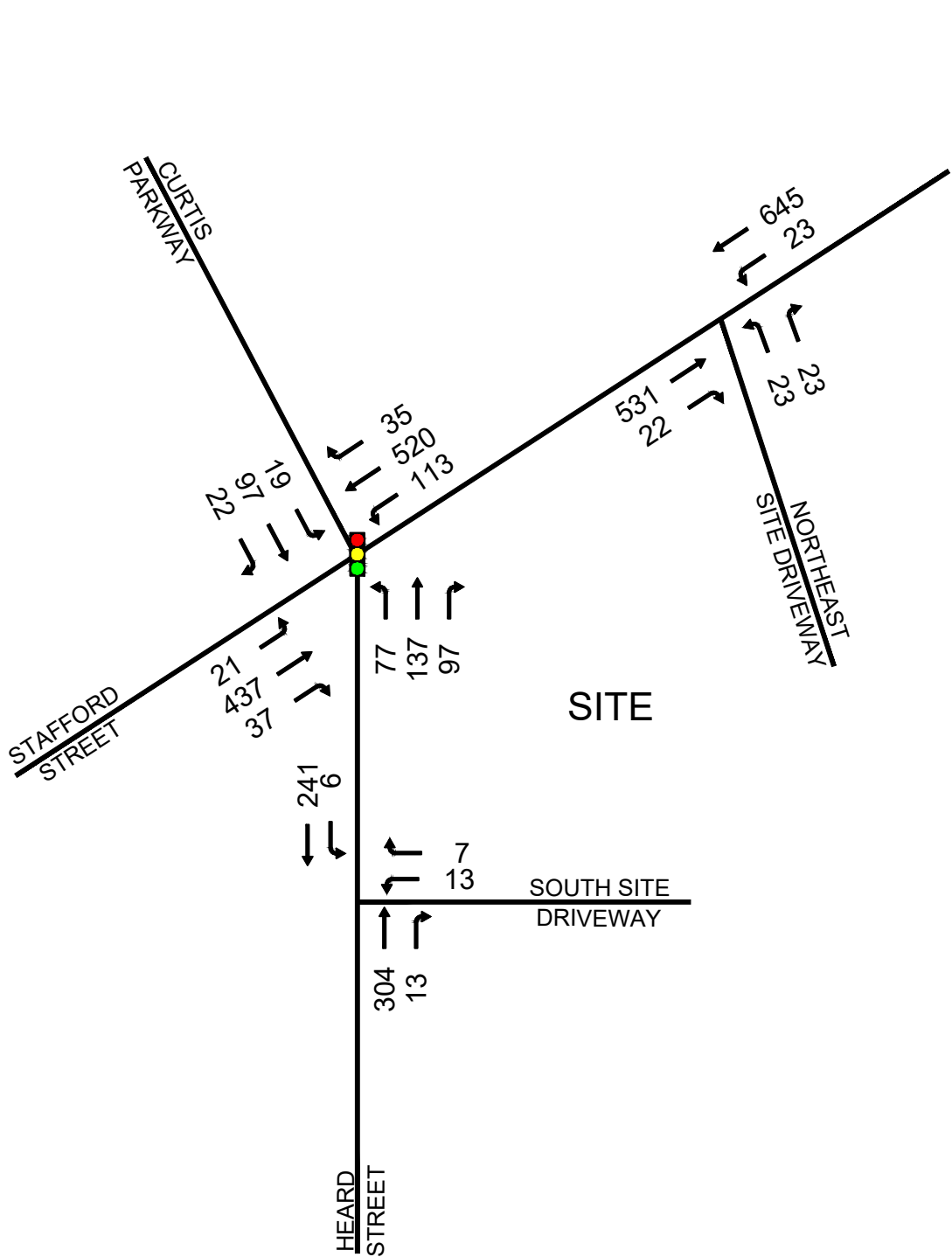


FIGURE 3
2024 EXISTING TRAFFIC VOLUMES
WEEKDAY AFTERNOON PEAK HOUR

PROPOSED CHICK-FIL-A
WORCESTER, MA





SITE

SOUTH SITE DRIVEWAY

FIGURE 4
2024 EXISTING TRAFFIC VOLUMES
SATURDAY MIDDAY PEAK HOUR

PROPOSED CHICK-FIL-A
WORCESTER, MA



Crash Summary

Crash data at the study area intersections was obtained from MassDOT for the most recent five-year period available. This data includes complete yearly crash summaries for the years 2017 through 2021. A detailed summary of the crash data is provided in Appendix D.

The MassDOT Crash Rate Worksheet calculations were used to determine whether the crash frequencies at the study area intersections were unusually high given the travel demands at each location. The MassDOT Crash Rate Worksheet calculates a crash rate expressed in crashes per million entering vehicles (MEV). The calculated rate is then compared to the average rate for signalized and unsignalized intersections statewide and within MassDOT District 3. For signalized intersections, the statewide average crash rate is 0.78 crashes per MEV, and the MassDOT District 3 crash rate is 0.89 crashes per MEV. For unsignalized intersections, the statewide average crash rate is 0.57 crashes per MEV, and MassDOT District 3 average crash rate is 0.61 crashes per MEV.

The signalized intersection of Stafford Street at Heard Street/Curtis Parkway is reported to have experienced a total of 41 crashes during the five-year period analyzed, resulting in a crash rate of 1.28 crashes per MEV, which is higher than the statewide and District 3 crash rates for signalized intersections. Of the 41 reported crashes at the intersection, 21 crashes were angle collisions, nine crashes were rear-end collisions, five crashes were head-on collisions, four crashes were sideswipe collisions, one crash was single vehicle collision, and one crash was of unknown type. Eight crashes resulted in personal injury, 28 crashes resulted in property damage only, and five crashes were of unknown severity. This intersection was listed as a 2019-2021 Highway Safety Improvement Program (HSIP) cluster. A Road Safety Audit (RSA) has not been completed for this intersection. As discussed in later sections, there are proposed improvements at this intersection and along Stafford Street which are anticipated to help improve safety at the intersection.

The unsignalized intersection of Stafford Street at the Northeast Site Driveway is reported to have experienced a total of six crashes during the five-year period analyzed, resulting in a crash rate of 0.45 crashes per MEV, which is lower than the statewide and District 3 crash rates for unsignalized intersections. Of the six reported crashes at the intersection, three crashes were rear-end collisions, two crashes were angle collisions, and one crash was a sideswipe collision. Two crashes resulted in personal injury and the remaining four crashes resulted in property damage only.

The unsignalized intersection of Heard Street at the South Site Driveway is reported to have experienced one crash during the five-year period analyzed, resulting in a crash rate of 0.04 crashes per MEV, which is lower than the statewide and District 3 crash rates for unsignalized intersections. The reported crash was an angle collision that resulted in property damage only.

No crashes involving pedestrians or bicyclists were reported at the study area intersections within the time frame analyzed.

Future Conditions

To determine future traffic demands on the study area roadways and intersections, the 2024 Existing traffic volumes were projected to the future-year 2031, in accordance with MassDOT guidelines. Traffic volumes on the study area roadways in 2031 are considered to include existing traffic, as well as new traffic resulting from general growth in the study area and from other planned development projects, independent of the proposed project. The potential background traffic growth, unrelated to the proposed project, was considered in the development of the 2031 No Build (without project) peak hour traffic volumes. The estimated traffic increases associated with the proposed project were then added to the 2031 No Build volumes to reflect the 2031 Build (with project) traffic conditions. A more detailed description of the development of the 2031 No Build and 2031 Build traffic volume networks is presented below.

Planned Roadway Improvements

Planned roadway improvement projects can impact travel patterns and future traffic operations. To develop a clearer understanding of future area roadway operations, The City of Worcester Planning Department was consulted, and the MassDOT Project Portal was reviewed to identify other improvement projects in the vicinity of the site. Based on this review, improvements on Stafford Street are proposed which would include improvements to the intersection with Heard Street. The project would consist of modifying the westbound left-turn lane on Stafford Street and converting the eastbound shared left-turn/through lane into an exclusive left-turn lane. Additionally, bicycle lanes would be provided on both sides of Stafford Street. The existing unsignalized crosswalk located just east of the Northeast Site Driveway would also be removed as part of the corridor improvements. The geometry for this project was incorporated in the future no build and build analyses.

Background Traffic Growth

Traffic growth is generally a function of changes in motor vehicle use and expected land development within the area. To establish the rate at which traffic on the study area roadways can be expected to grow during the seven-year forecast period (2024 to 2031), both historical traffic growth and planned area developments were reviewed.

Historical Traffic Growth

Background traffic growth accounts for changes in traffic volumes associated with general changes in population and other developments that are not known at this time. Coordination with Central Massachusetts Regional Planning Commission (CMRPC) and the City of Worcester identified annual background growth rates from 0.5% to 1.0%. To present a more conservative analysis, the background traffic growth rate of 1.0% per year, compounded annually, was utilized for the study area to grow the 2024 traffic volumes to 2031 future year conditions.

Site-Specific Growth

The City of Worcester Planning Department was contacted to inquire about additional developments in the area. The City of Worcester identified a proposed Starbucks at 105-117 Stafford Street; however, no traffic impact study was identified for the proposed Starbucks to incorporate into future projections. Based on information within the *ITE Trip Generation Manual*, a significant portion of trips to and from a coffee shop with drive through are considered

to be pass-by trips. Since pass-by trips are vehicles already traveling on the adjacent roadways, they do not specifically represent new traffic on the roadways. Therefore, the trips associated with the proposed Starbucks are considered to be included within the 1.0% background growth rate.

2031 No Build Traffic Volumes

The 2024 Existing peak hour traffic volumes were grown by 1.0% per year, compounded annually, over the seven-year study horizon to establish the 2031 baseline volumes. The resulting 2031 No Build weekday midday, weekday afternoon, and Saturday midday peak hour traffic volumes are documented in the traffic projection model presented in Appendix C and illustrated in Figure 5, Figure 6, and Figure 7, respectively.

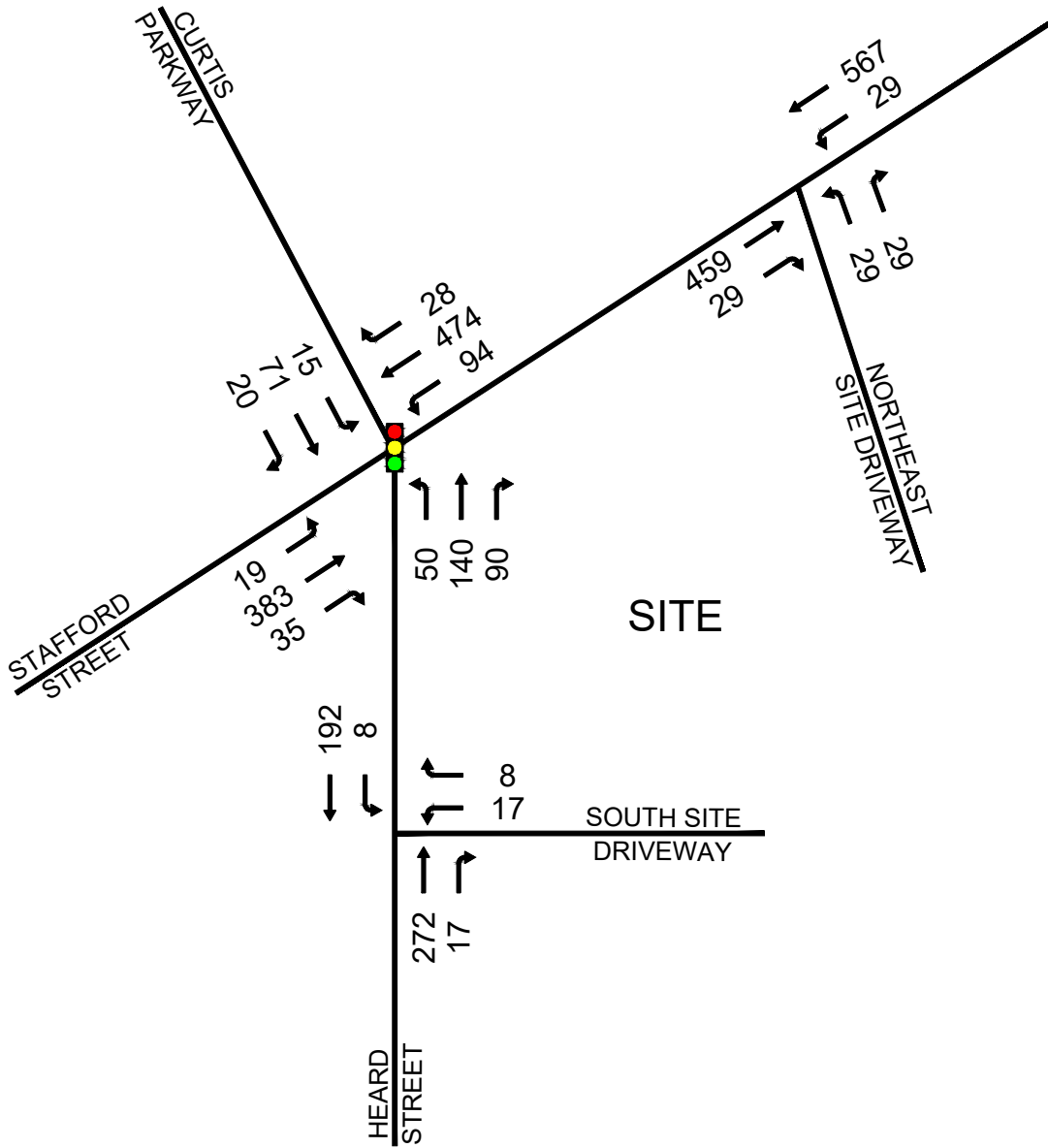


FIGURE 5
2031 NO BUILD TRAFFIC VOLUMES
WEEKDAY MIDDAY PEAK HOUR

PROPOSED CHICK-FIL-A
WORCESTER, MA



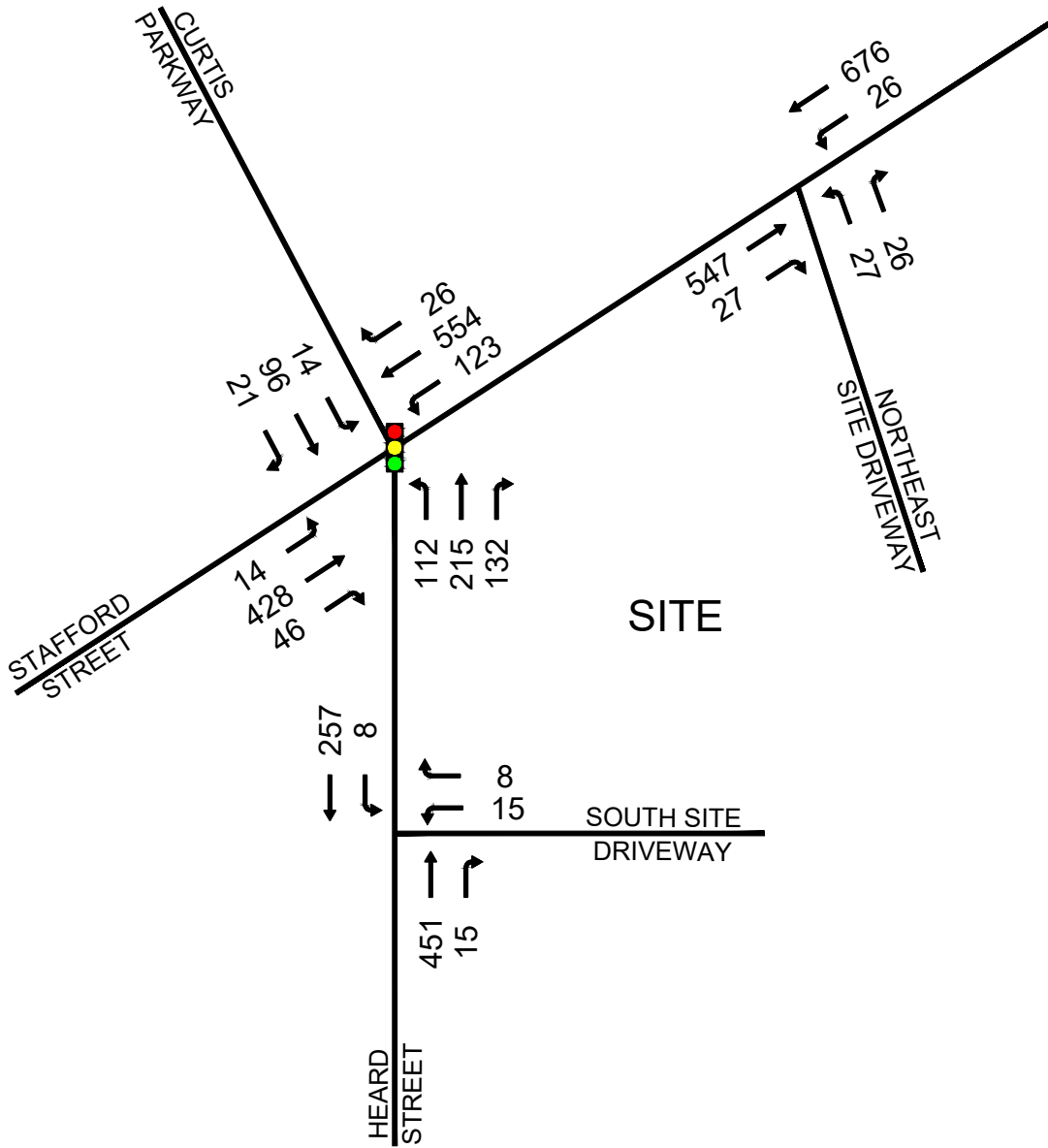


FIGURE 6
2031 NO BUILD TRAFFIC VOLUMES
WEEKDAY AFTERNOON PEAK HOUR

PROPOSED CHICK-FIL-A
WORCESTER, MA



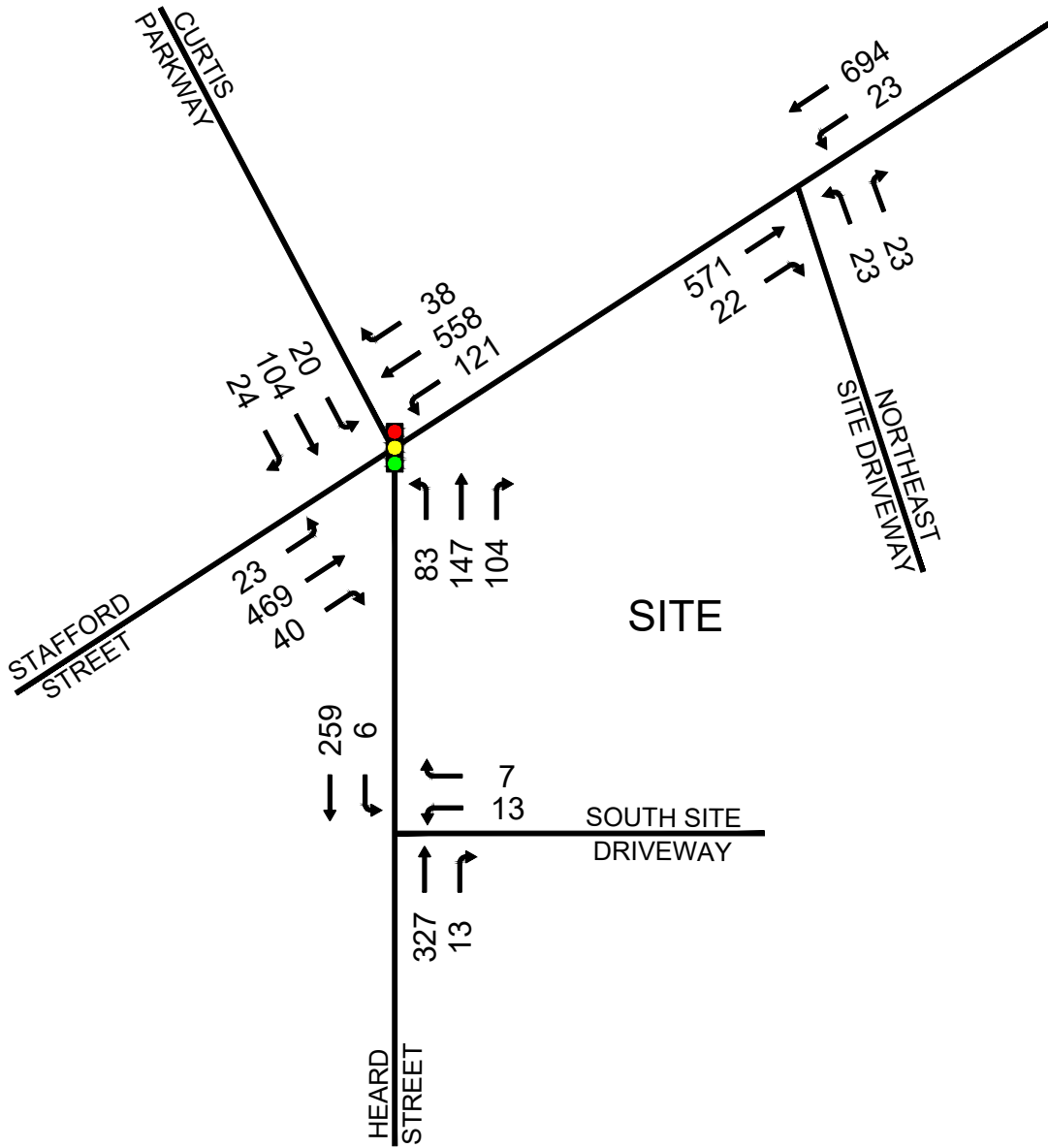


FIGURE 7
2031 NO BUILD TRAFFIC VOLUMES
SATURDAY MIDDAY PEAK HOUR

PROPOSED CHICK-FIL-A
WORCESTER, MA



Trip Generation

To estimate the number of vehicle trips associated with the proposed Chick-fil-A restaurant, the ITE publication, *Trip Generation Manual, 11th Edition*, was referenced. ITE is a national research organization of transportation professionals, and the *Trip Generation Manual, 11th Edition* provides traffic generation information for various land uses compiled from studies conducted by members nationwide. This reference establishes vehicle trip rates (in this case expressed in trips per square foot) based on actual traffic counts conducted at similar types of existing land uses. Vehicle trip estimates for the proposed Chick-fil-A restaurant were developed based on data presented for Land Use Code (LUC) 934 (Fast-food Restaurant with Drive-Through).

Not all trips to fast food restaurants are considered “new” trips. In fact, a significant portion of the total trips attracted to such land uses are “pass-by” trips. Since pass-by traffic is already on the adjacent roadway network, this portion of the total development traffic is reflected in the existing, base traffic volumes, and does not represent new traffic on the roadway network. Therefore, the total traffic volume associated with the project is reduced by the pass-by volume to estimate the “new” traffic generated by the project.

According to ITE data for LUC 934, approximately 50% of weekday morning trips and 55% of weekday afternoon trips can be attributed as pass-by trips. As no data is provided for the weekday midday or Saturday midday trips, the 50% pass-by rate was applied to the weekday midday and Saturday midday peak hours. A summary of the peak hour trip generation estimates for the project are shown in Table 3 below.

Table 3: Vehicular Trip Generation

Description	Weekday Midday Peak Hour			Weekday Afternoon Peak Hour			Saturday Midday Peak Hour		
	In	Out	Total	In	Out	Total	In	Out	Total
Proposed Chick-fil-A Trips ¹	138	133	271	92	85	177	150	144	294
- Pass-By Trips ²	-68	-68	-136	-49	-49	-98	-73	-73	-146
New Trips	70	65	135	43	36	79	77	71	148

¹ ITE Land Use Code 934 (Fast-Food Restaurant w/ Drive-Thru) based on 5,331 s.f.

² According to ITE, approximately 50% of weekday morning and 55% of weekday afternoon peak hour trips for Land Use Code 934 (Fast-Food Restaurant w/ Drive-Thru) are attributed to pass-by trips. No pass-by data is available for weekday midday or Saturday midday. To be conservative, the 50% pass-by rate was applied to the weekday midday and Saturday midday peak hour trip generation estimates.

As shown in Table 3 above, the proposed project is estimated to result in approximately 135 new trips (70 entering vehicles and 65 exiting vehicles) during weekday midday peak hour, approximately 79 new trips (43 entering vehicles and 36 exiting vehicles) during the weekday afternoon peak hour, and approximately 148 new trips (77 entering vehicles and 71 exiting vehicles) during Saturday midday peak hour. The trips summarized in Table 3 do not include the removal of trips associated with the prior Walgreens.

Trip Distribution and Assignment

The traffic estimated to be generated by the proposed development was distributed onto the study area roadways and intersections based on the existing travel patterns of the adjacent roadways. The trips were distributed to the

project site driveways based on the ease of access and anticipated utilization of drive-through and dine-in facilities on site. The resulting arrival and departure patterns are presented in Figure 8 and are documented in the traffic projection model located in Appendix C.

The project-related traffic was assigned to the surrounding roadway network based on the project trip distribution patterns presented in Figure 8. The resulting distributed new project trips are shown in Figure 9, Figure 10, and Figure 11 for the weekday midday, weekday afternoon and Saturday midday peak hours, respectively.

2031 Build Traffic Volumes

To establish the 2031 Build peak hour traffic volumes, the distributed project trips shown were added to the 2031 No Build peak hour traffic volumes and the existing Walgreens trips were removed to establish the 2031 Build peak hour traffic volumes. The resulting 2031 Build weekday midday, weekday afternoon, and Saturday midday peak hour traffic volumes are documented in the traffic projection model presented in Appendix C and presented in Figure 12, Figure 13, and Figure 14, respectively.

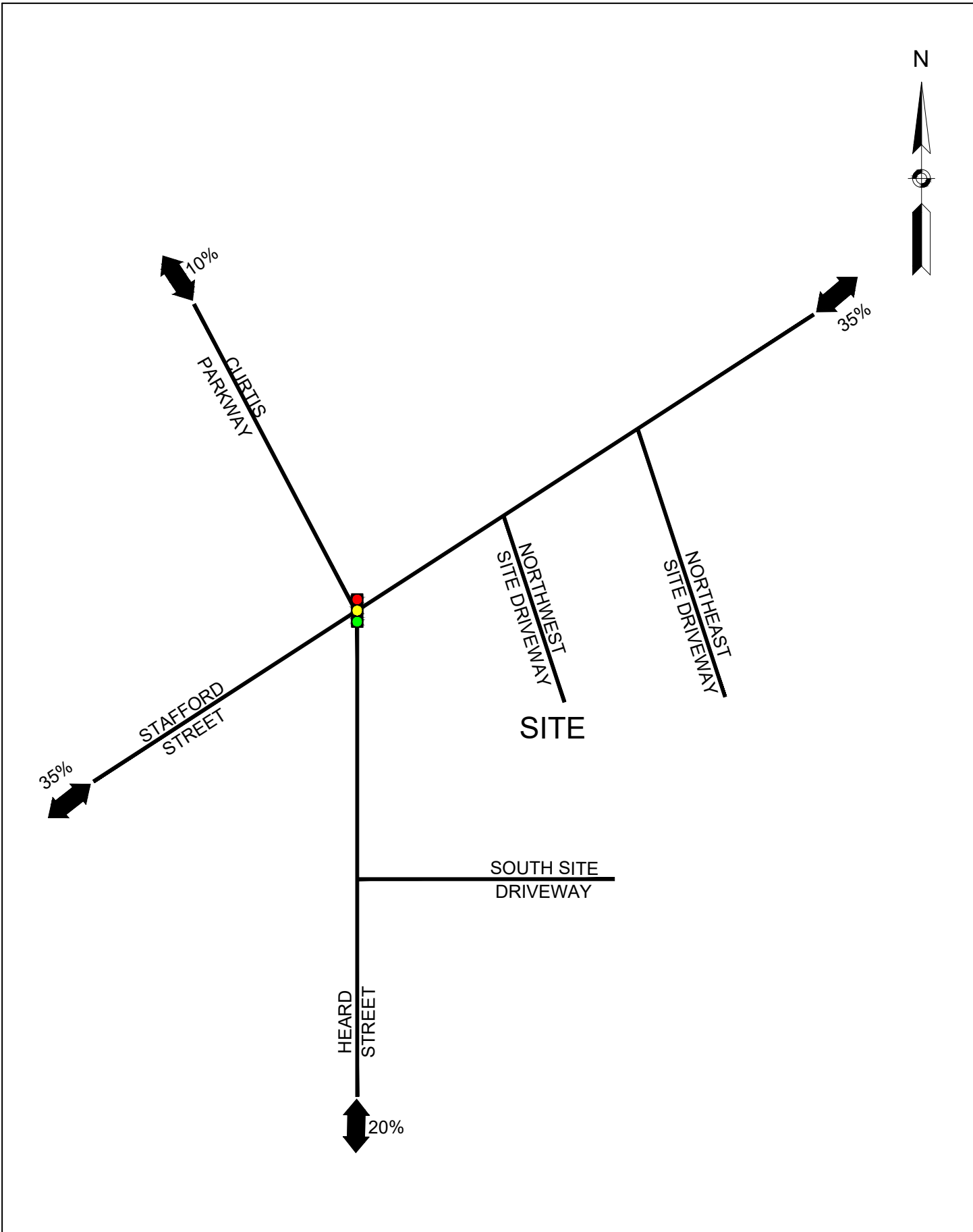
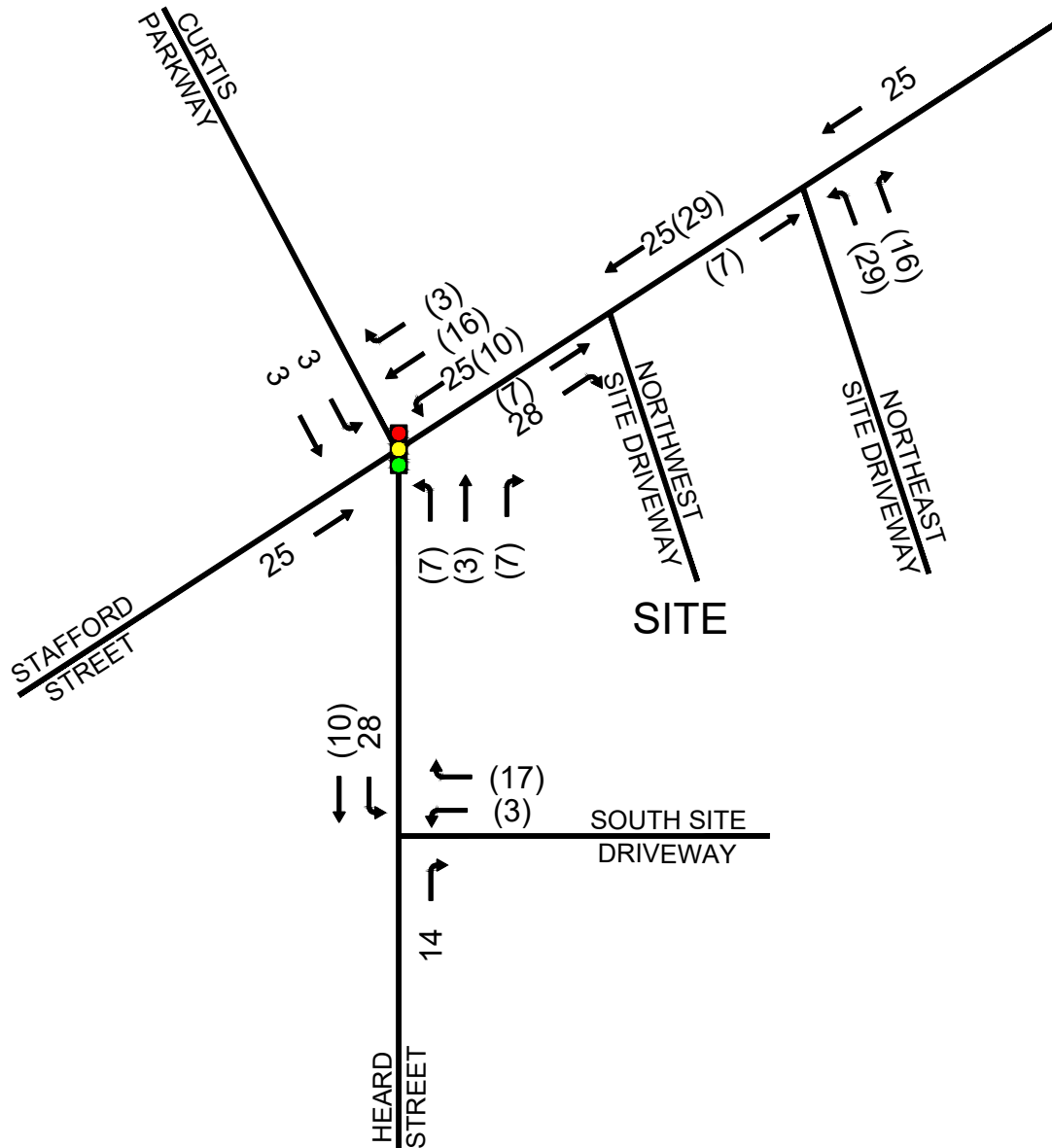


FIGURE 8
DIRECTION OF ARRIVALS AND
DEPARTURES

PROPOSED CHICK-FIL-A
WORCESTER, MA



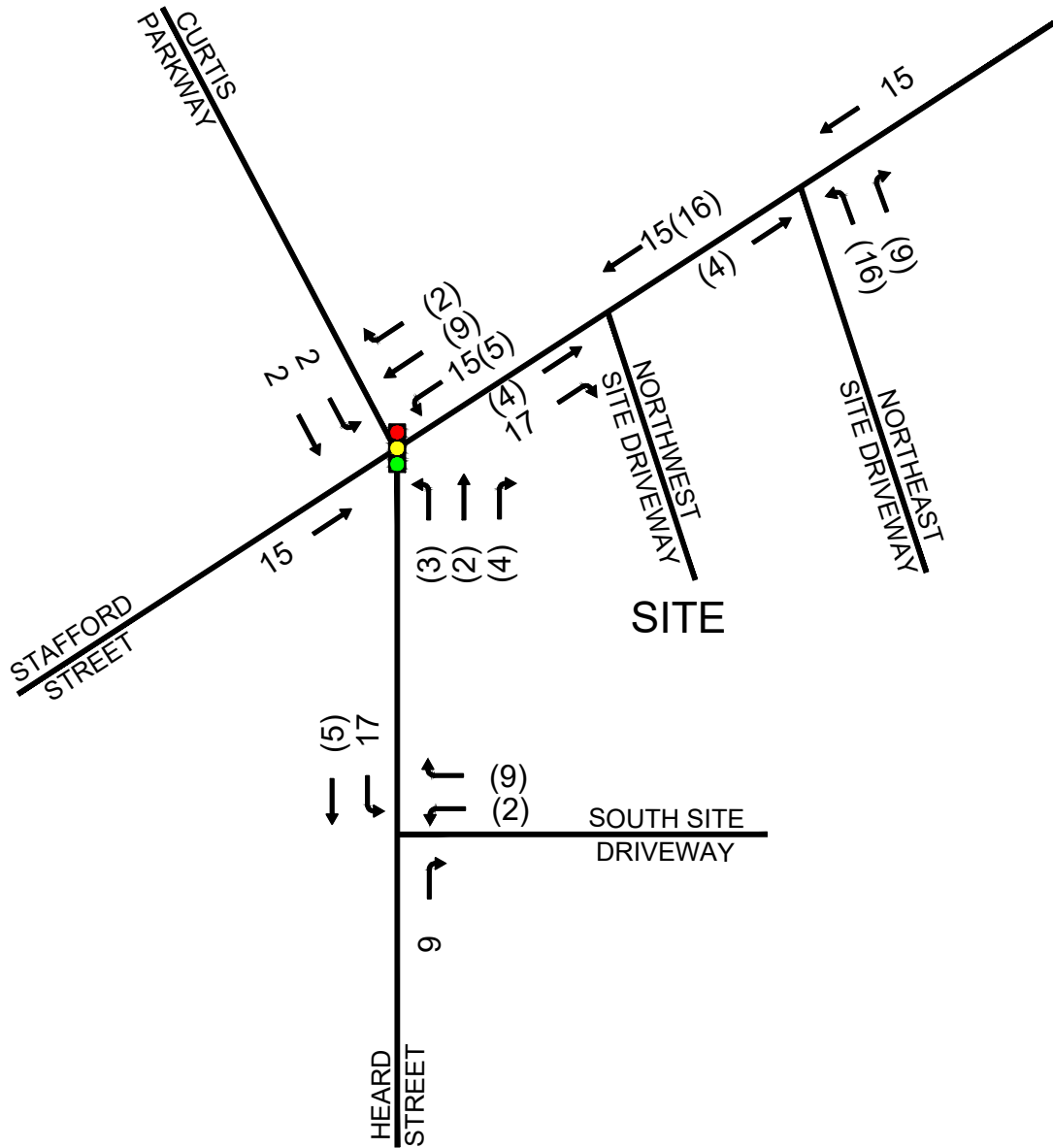


XX = ENTER
 (XX) = EXIT

FIGURE 9
 NET NEW TRAFFIC VOLUMES
 WEEKDAY MIDDAY PEAK HOUR

PROPOSED CHICK-FIL-A
 WORCESTER, MA



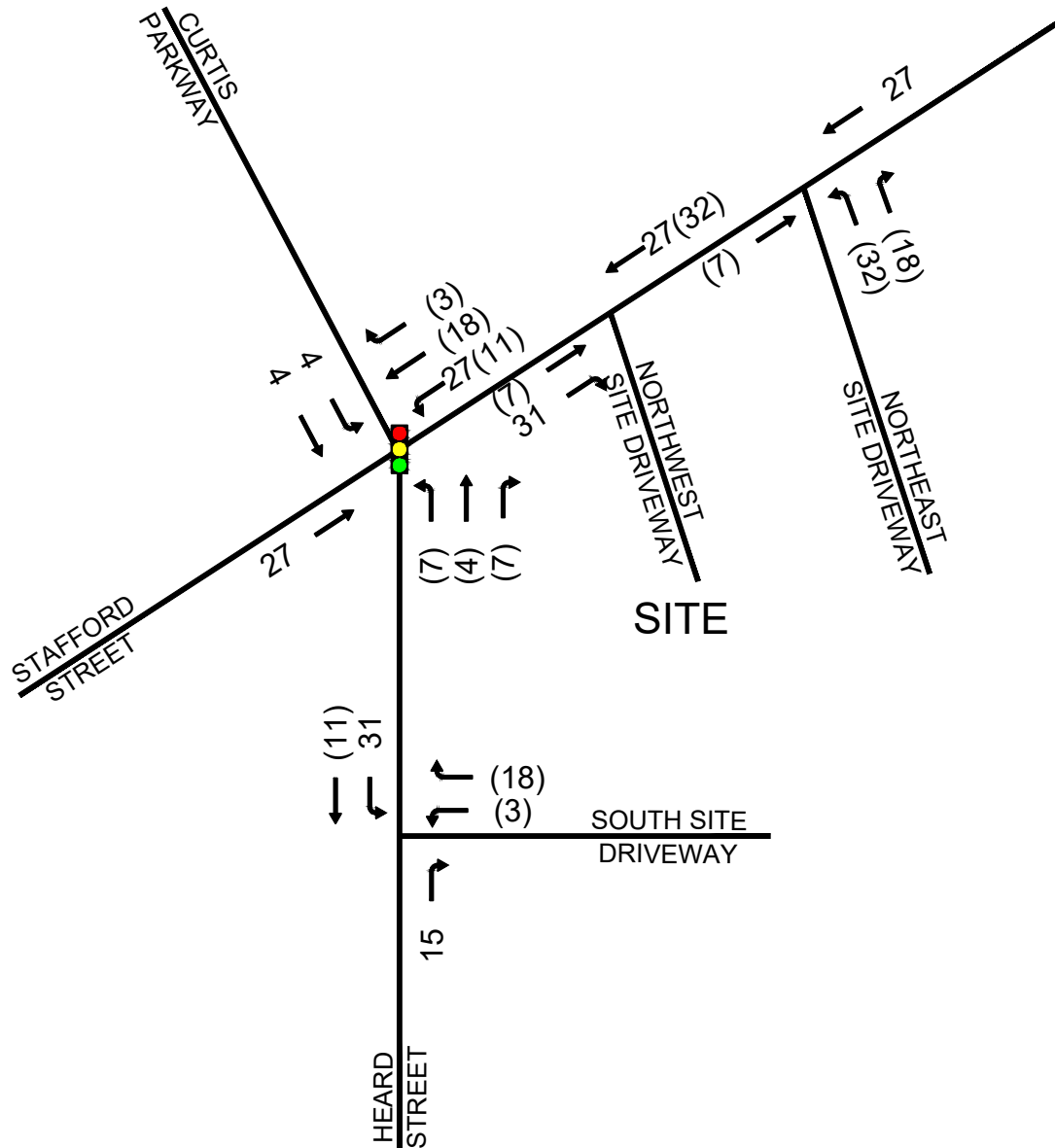


XX = ENTER
 (XX) = EXIT

FIGURE 10
 NET NEW TRAFFIC VOLUMES
 WEEKDAY AFTERNOON PEAK HOUR

PROPOSED CHICK-FIL-A
 WORCESTER, MA





XX = ENTER
 (XX) = EXIT

FIGURE 11
 NET NEW TRAFFIC VOLUMES
 SATURDAY MIDDAY PEAK HOUR

PROPOSED CHICK-FIL-A
 WORCESTER, MA



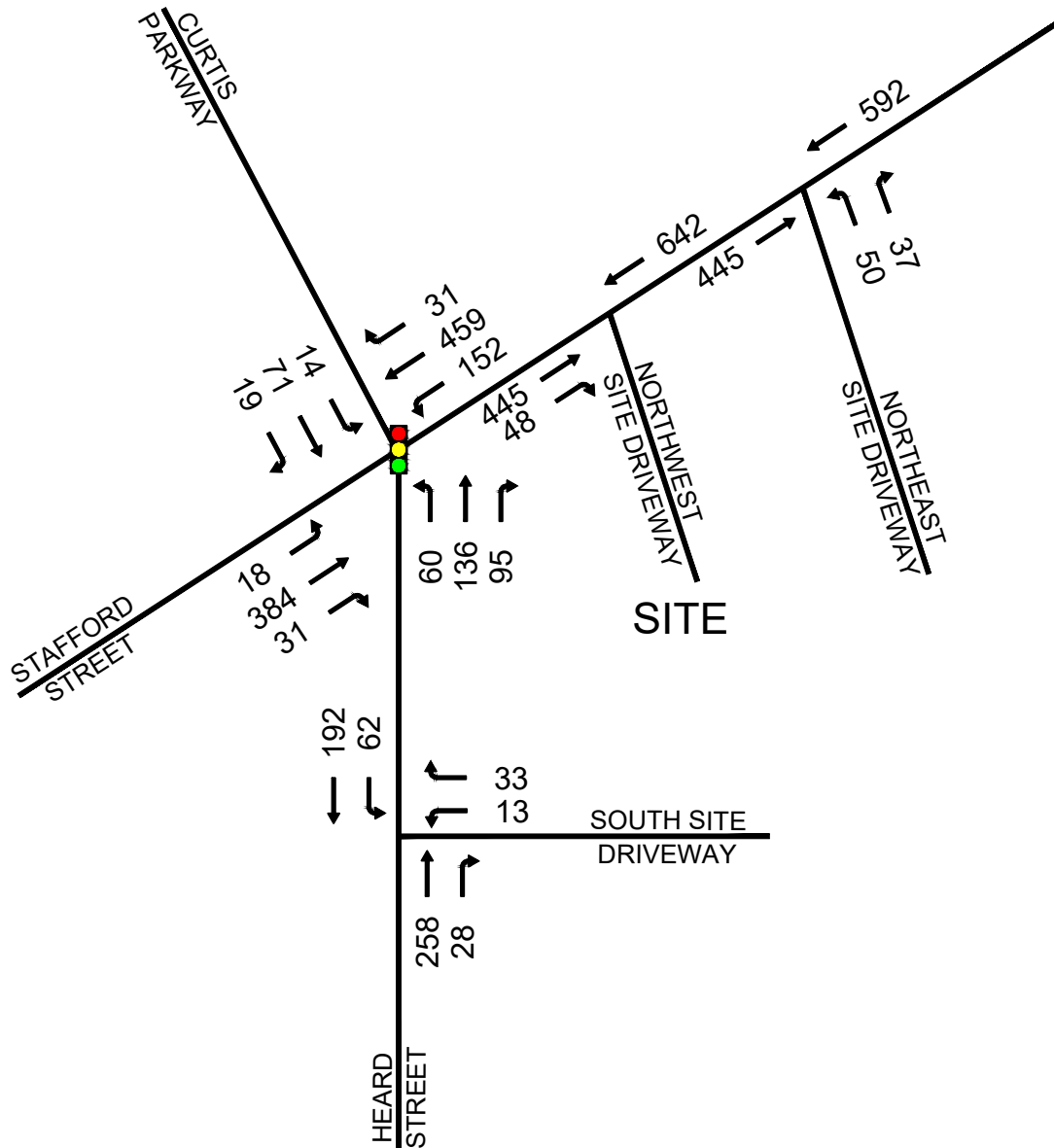


FIGURE 12
2031 BUILD TRAFFIC VOLUMES
WEEKDAY MIDDAY PEAK HOUR

PROPOSED CHICK-FIL-A
WORCESTER, MA



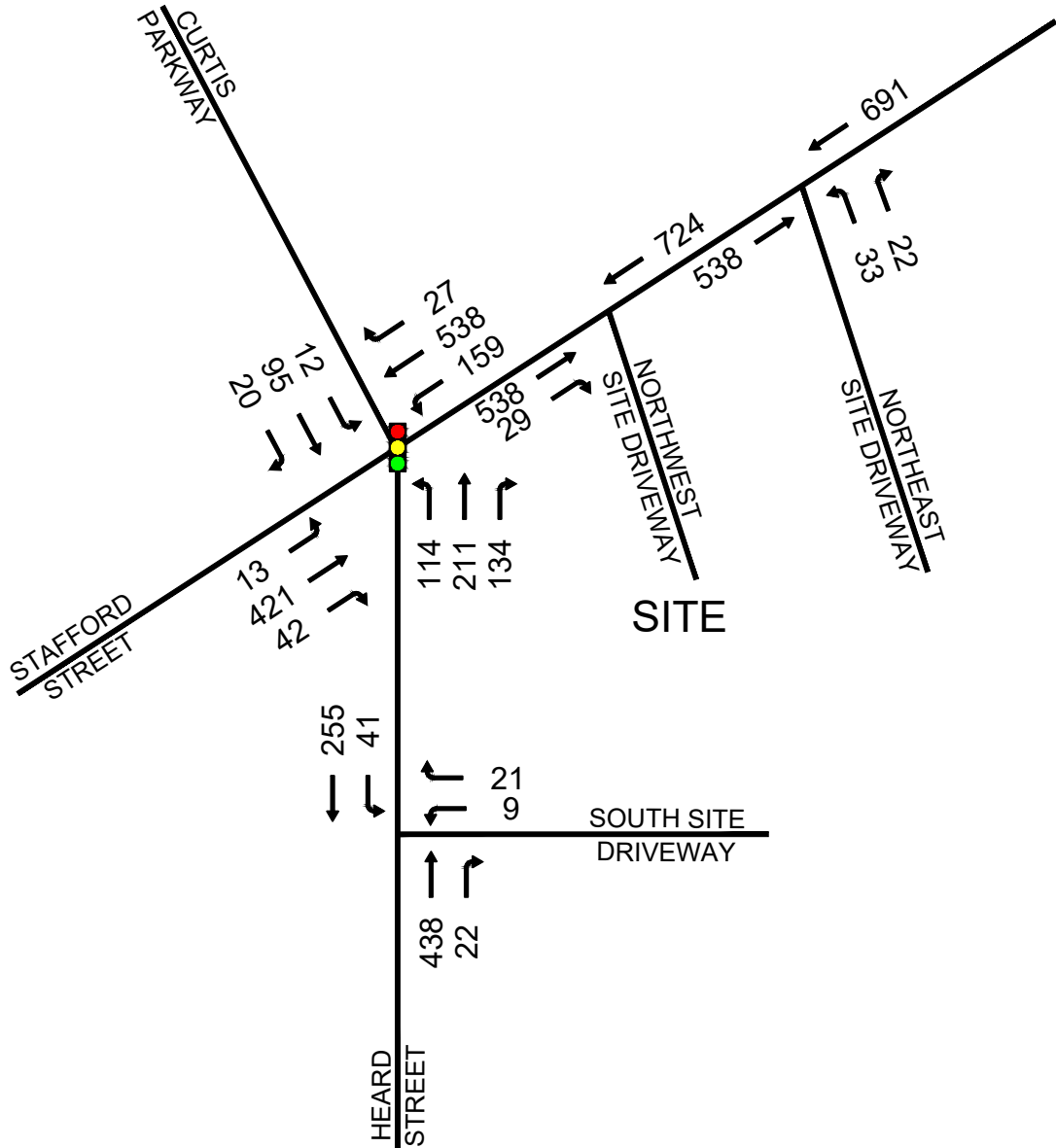
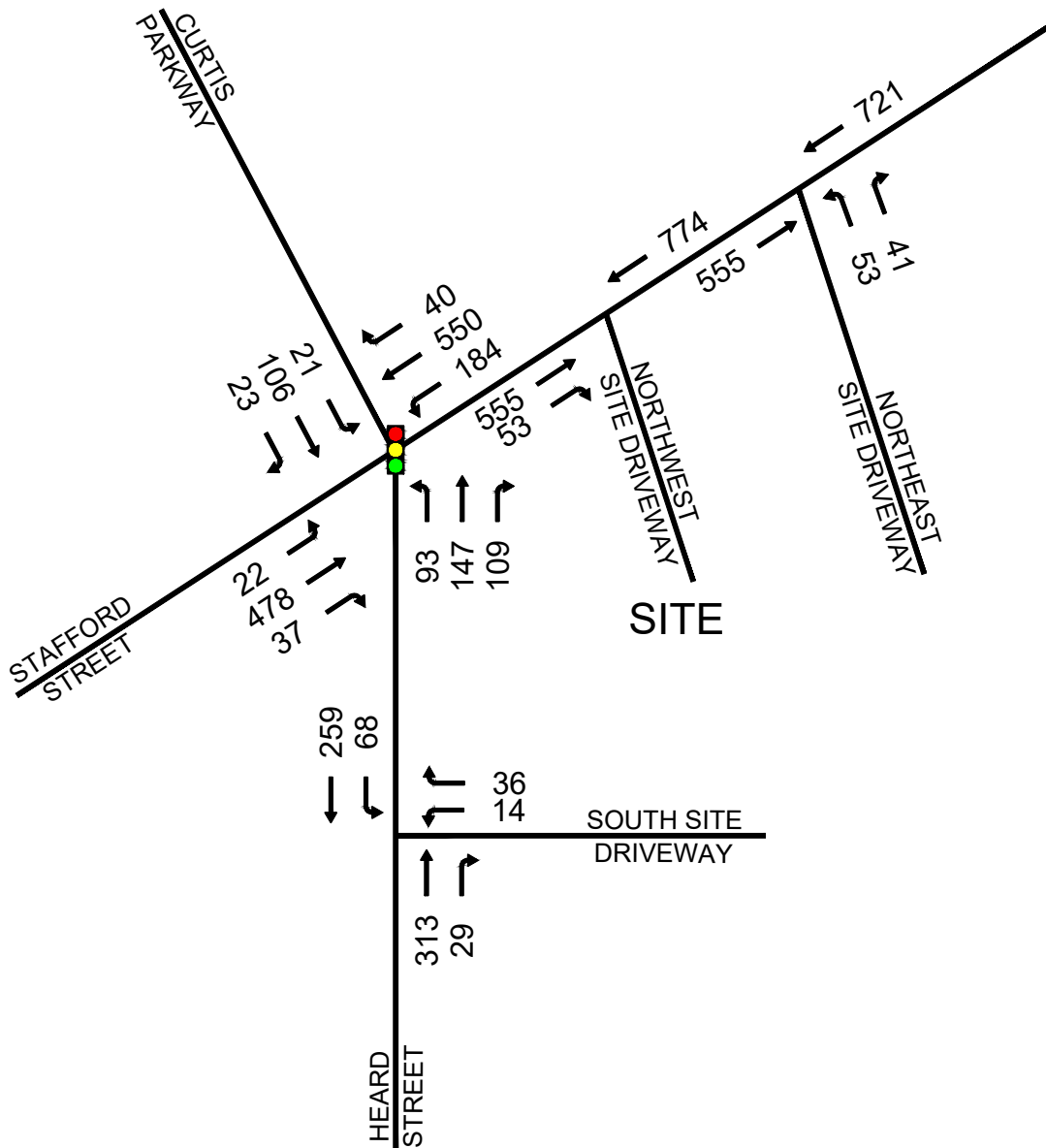


FIGURE 13
2031 BUILD TRAFFIC VOLUMES
WEEKDAY AFTERNOON PEAK HOUR

PROPOSED CHICK-FIL-A
WORCESTER, MA





SITE

FIGURE 14
2031 BUILD TRAFFIC VOLUMES
SATURDAY MIDDAY PEAK HOUR

PROPOSED CHICK-FIL-A
WORCESTER, MA



Traffic Operations Analysis

In previous sections of this report, the quantity of traffic at the study area intersections has been discussed. This section describes the overall quality of the traffic flow at the study area intersections during the weekday midday, weekday afternoon, and Saturday midday peak hours. To complete this assessment, intersection capacity analysis was conducted using the Synchro capacity analysis software at the study area intersections under the 2024 Existing, 2031 No Build, and 2031 Build scenarios for the three peak hour traffic conditions. The analysis is based on Synchro capacity analysis methodologies and procedures contained in the *Highway Capacity Manual, 6th Edition* (HCM), which are summarized in Appendix E. A discussion of the evaluation criteria and a summary of the results of the capacity analysis are presented below.

Level-of-Service Criteria

Average total vehicle delay is reported as level-of-service (LOS) on a scale of A to F. LOS A represents delays of 10 seconds or less, while LOS F represents delays in excess of 50 seconds for unsignalized intersections and greater than 80 seconds for signalized intersections. A more detailed description of the LOS criteria is provided in Appendix E.

Capacity Analysis Results

Intersection capacity analysis was conducted using the Synchro capacity analysis software for the study area intersections to evaluate the 2024 Existing, 2031 No Build, and 2031 Build traffic conditions during the weekday midday, weekday afternoon and Saturday midday peak hours. The peak hour traffic volumes utilized as part of this analysis are provided in the traffic projection model, attached in Appendix C.

The Synchro capacity analysis results for the 2024 Existing, 2031 No Build, and 2031 Build traffic conditions are presented in Appendix F, Appendix G, and Appendix H, respectively. The capacity analysis results for the signalized and unsignalized study area intersections are presented in Table 4 and Table 5 below, respectively. The results of the specific capacity analysis at the study area intersections are discussed below, with a more detailed summary of the capacity analysis for the study area intersections provided in Appendix I.

Table 4: Signalized Intersection Overall Levels-of-Service

Intersection	Period	2024 Existing			2031 No Build			2031 Build		
		LOS ¹	Delay ²	ICU ³	LOS	Delay	ICU	LOS	Delay	ICU
Stafford Street at	MIDDAY	C	20.5	0.70	C	23.5	0.70	C	24.0	0.68
Heard Street/Curtis Parkway	PM	C	24.5	0.76	C	29.8	0.75	C	29.6	0.74
	SAT	C	23.1	0.83	C	29.1	0.81	C	30.7	0.82

1 Level-of-Service

2 Average vehicle delay, in seconds

3 Intersection capacity utilization

As displayed above, the signalized intersection of Stafford Street at Heard Street/Curtis Parkway is shown to currently operate at overall LOS C during the weekday midday, weekday afternoon, and Saturday midday peak hours. Under 2031 No Build and 2031 Build conditions, with the proposed improvements along Stafford Street and the addition of the proposed Chick-fil-A trips, the intersection is projected to continue to operate at overall LOS C during the weekday midday, weekday afternoon, and Saturday midday peak hours.

Table 5: Unsignalized Intersection Levels-of-Service

Intersection	Period	Movement	2024 Existing			2031 No Build			2031 Build		
			LOS ¹	Delay ²	V/C ³	LOS	Delay	V/C	LOS	Delay	V/C
Stafford Street at	MIDDAY		C	18.9	0.20	C	20.6	0.22	C	21.9	0.31
Northeast Site Driveway	PM	NB - LR	C	21.4	0.21	C	24.0	0.23	C	23.5	0.24
	SAT		C	23.9	0.21	D	27.1	0.24	D	34.8	0.46
Heard Street at South Site Driveway	MIDDAY		B	11.7	0.05	B	12.1	0.05	B	11.8	0.09
	PM	WB - LR	B	13.7	0.06	B	14.3	0.06	B	13.3	0.07
	SAT		B	12.9	0.05	B	13.3	0.05	B	13.2	0.11

1 Level-of-Service

2 Average vehicle delay, in seconds

3 Volume to capacity ratio

As displayed above, the critical Northeast Site Driveway northbound approach at its unsignalized intersection with Stafford Street is shown to currently operate at LOS C during the weekday midday, weekday afternoon, and Saturday midday peak hours. Under 2031 No Build and 2031 Build conditions, the critical northbound approach is projected to continue to operate at LOS C during the weekday midday and weekday afternoon peak hours and is projected to operate at LOS D during the Saturday midday peak hour.

The critical South Site Driveway westbound approach at the unsignalized intersection of Heard Street at the South Site Driveway is shown to currently operate at LOS B during the weekday midday, weekday afternoon, and Saturday midday peak hours. Under 2031 No Build and 2031 Build conditions, the critical westbound approach is projected to continue to operate at LOS B during the weekday midday, weekday afternoon, and Saturday midday peak hours.

Due to the proposed enter-only configuration of the Northwest Site Driveway, no capacity analysis results for movements exiting the site are provided.

Site Access and Circulation

Access to the project site would be provided via the two driveways located on Stafford Street (Northeast Site Driveway and Northwest Site Driveway) and one driveway located on Heard Street (South Site Driveway). The Northeast Site Driveway, proposed in the same location as the existing site driveway, would become an exit-only driveway serving the vehicles leaving the drive-through. The Northwest Site Driveway would be constructed to provide right-turn enter-only movements from Stafford Street accessing the parking area of the site. The South Site Driveway located at the existing site driveway on Heard Street is proposed to remain in its existing location and provide full access between Heard Street and the project site.

With the proposed project in place, a total of 75 parking spaces would be provided, three of which would be accessible spaces adjacent to the proposed building. Two-way circulation would be provided through the parking areas which are located on the south and west sides of the proposed building. Dual drive-through lanes, each with their own order board and pickup area are proposed as part of this development. The drive-through lanes would circulate in a counterclockwise direction around the south and east sides of the site and provide approximately 400 feet of queue storage in each lane. An exit lane to the proposed parking area is proposed just north of the order boards for vehicles needing to leave the drive-through lanes.

Sight Distance

A field review of the available sight distance was conducted at the project site driveway locations on Stafford Street and Heard Street. The American Association of State Highway and Transportation Officials (AASHTO) publication, *A Policy on Geometric Design, 2018 Edition*, defines minimum and recommended sight distances at intersections and was used to conduct this review.

The minimum sight distance is based on the required stopping sight distance (SSD) for vehicles traveling along the main road. According to AASHTO, "If the available sight distance for an entering or crossing vehicle is at least equal to the appropriate stopping sight distance for the major road, then drivers have sufficient time to anticipate and avoid collisions."

The required SSD based on the respective 85th percentile speeds and the corresponding field-measured sight distances are reported in below in Table 6 below.

Table 6: Stopping Sight Distance

Site Driveway Location	Approaching	Speed Limit (mph)	85th % Speed (mph)	SSD¹ Required	SSD Measured	Meets Required SSD?
Northwest Site Driveway	Eastbound	35	37	270	>450'	Yes
Stafford Street	Westbound	35	34	240	>450'	Yes
Northeast Site Driveway	Eastbound	35	37	270	>450'	Yes
Stafford Street	Westbound	35	34	240	>450'	Yes
South Site Driveway at	Northbound	30	30	210	185	Yes ²
Heard Street	Southbound	30	33	215	270	Yes

1 Stopping sight distance (see AASHTO equations 3-2 and 3-3) for the 85th percentile speeds.

2 SSD met with requisite landscaping management.

As shown in Table 6, the available SSD for vehicles approaching the Northwest Site Driveway and Northeast Site Driveway on Stafford Street exceed the minimum SSD requirements for the 85th percentile speeds. The available SSD for vehicles approaching the South Site Driveway in the southbound direction exceeds the minimum SSD requirement and would meet the northbound SSD requirement with requisite landscaping management. The project team is committed to coordinating landscape clearing, as appropriate, with the City of Worcester.

Overall, with the proposed project and requisite landscaping management in place, sight distances from the project site driveways would allow for safe access and egress to and from the project site.

Conclusion

The proposed project includes the demolition of the existing building, which previously housed a Walgreens, and the construction of a new 5,331 sf Chick-fil-A restaurant with dual drive-through lanes. Access to the project site would be provided via two driveways located on Stafford Street (Northeast Site Driveway and Northwest Site Driveway) and one driveway on Heard Street (South Site Driveway). The Northeast Site Driveway on Stafford Street is proposed in the same location as the existing driveway and would be an exit-only driveway from the proposed drive-through. The Northwest Site Driveway would be constructed to provide right-turn, enter-only movements from Stafford Street. The South Site Driveway on Heard Street is proposed in the same location as the existing driveway and would allow for full access to and from the site.

With the proposed project in place, a total of 75 parking spaces would be provided, three of which would be accessible spaces adjacent to the proposed building. Dual drive-through lanes, each with their own order board and pickup area are proposed as part of this development. The drive-through lanes would circulate in a counterclockwise direction and an escape lane is provided after the order boards to the parking area. Two-way circulation would be provided throughout the parking areas on site.

Not accounting for the prior Walgreens land use on-site, the proposed project is estimated to generate approximately 135 new trips (70 entering vehicles and 65 exiting vehicles) during weekday midday peak hour, approximately 79 new trips (43 entering vehicles and 36 exiting vehicles) during the weekday afternoon peak hour, and approximately 148 new trips (77 entering vehicles and 71 exiting vehicles) during Saturday midday peak hour.

With the proposed project in place under 2031 Build conditions, the intersection of Stafford Street at Heard Street/Curtis Parkway is shown to experience minor increases in overall average vehicle delay and is projected to continue operating at overall LOS C during all peak hours analyzed. The project site driveway approaches are shown to operate at LOS D or better and under capacity during each analyzed peak hour.

Sight lines at the project site driveways are projected to meet the minimum stopping sight distance requirements with landscaping management to allow for safe access to and from the project site.

Based on a review of the analysis contained within this traffic impact study, the proposed development is not shown to have a significant impact on the traffic operations at the study area intersections.



APPENDIX FOR TRAFFIC IMPACT STUDY PROPOSED CHICK-FIL-A RESTAURANT

99 Stafford Street
Worcester, MA

Prepared by
Bowman Consulting Group, Ltd.
120 Water Street, 4th Floor
Boston, MA 02109
617.556.0020

Prepared for
Bohler

September 2024

The top of the page features a dark green triangular shape on the left containing the word "Bowman" in white. To the right, a white-bordered collage of images is visible, including a large stone archway, a roundabout with a central tree, and a residential street with houses.

Bowman

APPENDIX A

TRAFFIC COUNT DATA

PDI File #: **240116 A**
 Location: **N: Curtis Parkway S: Heard Street**
 Location: **E: Stafford Street W: Stafford Street SE: Crosswalk**
 City, State: **Worcester, MA**
 Client: **Bowman/ L. Fall**
 Site Code: **314158-01-001**
 Count Date: **Thursday, August 22, 2024**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Cars and Heavy Vehicles (Combined)

	Curtis Parkway					Stafford Street					Heard Street					Stafford Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	1	12	10	0	23	6	71	22	0	99	19	21	11	0	51	11	76	3	0	90	263
11:15 AM	3	23	5	0	31	9	91	18	0	118	16	19	7	0	42	7	79	1	0	87	278
11:30 AM	8	13	5	0	26	6	70	16	0	92	20	16	8	0	44	8	101	3	0	112	274
11:45 AM	8	18	8	0	34	3	86	22	0	111	16	29	10	0	55	3	83	6	0	92	292
Total	20	66	28	0	114	24	318	78	0	420	71	85	36	0	192	29	339	13	0	381	1107
12:00 PM	11	19	7	0	37	5	101	16	0	122	25	21	11	0	57	12	84	1	0	97	313
12:15 PM	4	9	2	0	15	6	88	24	0	118	23	20	10	0	53	7	101	3	0	111	297
12:30 PM	7	19	4	0	30	4	87	15	0	106	19	16	14	0	49	7	106	4	0	117	302
12:45 PM	8	8	1	0	17	7	112	29	0	148	18	22	7	0	47	9	85	5	0	99	311
Total	30	55	14	0	99	22	388	84	0	494	85	79	42	0	206	35	376	13	0	424	1223
1:00 PM	2	23	5	0	30	5	101	21	0	127	16	38	10	0	64	7	83	3	0	93	314
1:15 PM	6	13	2	0	21	6	104	17	0	127	24	35	10	0	69	6	84	4	0	94	311
1:30 PM	3	16	2	0	21	4	100	17	0	121	24	28	15	0	67	6	80	6	0	92	301
1:45 PM	3	11	1	0	15	5	92	18	0	115	24	34	9	0	67	6	86	7	0	99	296
Total	14	63	10	0	87	20	397	73	0	490	88	135	44	0	267	25	333	20	0	378	1222
Grand Total	64	184	52	0	300	66	1103	235	0	1404	244	299	122	0	665	89	1048	46	0	1183	3552
Approach %	21.3	61.3	17.3	0.0		4.7	78.6	16.7	0.0		36.7	45.0	18.3	0.0		7.5	88.6	3.9	0.0		
Total %	1.8	5.2	1.5	0.0	8.4	1.9	31.1	6.6	0.0	39.5	6.9	8.4	3.4	0.0	18.7	2.5	29.5	1.3	0.0	33.3	
Exiting Leg Total	411					1344					508					1289					3552
Cars	60	181	46	0	287	62	1057	233	0	1352	241	295	119	0	655	88	1002	44	0	1134	3428
% Cars	93.8	98.4	88.5	0.0	95.7	93.9	95.8	99.1	0.0	96.3	98.8	98.7	97.5	0.0	98.5	98.9	95.6	95.7	0.0	95.9	96.5
Exiting Leg Total	401					1289					502					1236					3428
Heavy Vehicles	4	3	6	0	13	4	46	2	0	52	3	4	3	0	10	1	46	2	0	49	124
% Heavy Vehicles	6.3	1.6	11.5	0.0	4.3	6.1	4.2	0.9	0.0	3.7	1.2	1.3	2.5	0.0	1.5	1.1	4.4	4.3	0.0	4.1	3.5
Exiting Leg Total	10					55					6					53					124

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

	Curtis Parkway					Stafford Street					Heard Street					Stafford Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
12:30 PM	7	19	4	0	30	4	87	15	0	106	19	16	14	0	49	7	106	4	0	117	302
12:45 PM	8	8	1	0	17	7	112	29	0	148	18	22	7	0	47	9	85	5	0	99	311
1:00 PM	2	23	5	0	30	5	101	21	0	127	16	38	10	0	64	7	83	3	0	93	314
1:15 PM	6	13	2	0	21	6	104	17	0	127	24	35	10	0	69	6	84	4	0	94	311
Total Volume	23	63	12	0	98	22	404	82	0	508	77	111	41	0	229	29	358	16	0	403	1238
% Approach Total	23.5	64.3	12.2	0.0		4.3	79.5	16.1	0.0		33.6	48.5	17.9	0.0		7.2	88.8	4.0	0.0		
PHF	0.719	0.685	0.600	0.000	0.817	0.786	0.902	0.707	0.000	0.858	0.802	0.730	0.732	0.000	0.830	0.806	0.844	0.800	0.000	0.861	0.986
Cars	23	63	10	0	96	21	385	81	0	487	77	109	40	0	226	29	345	14	0	388	1197
Cars %	100.0	100.0	83.3	0.0	98.0	95.5	95.3	98.8	0.0	95.9	100.0	98.2	97.6	0.0	98.7	100.0	96.4	87.5	0.0	96.3	96.7
Heavy Vehicles	0	0	2	0	2	1	19	1	0	21	0	2	1	0	3	0	13	2	0	15	41
Heavy Vehicles %	0.0	0.0	16.7	0.0	2.0	4.5	4.7	1.2	0.0	4.1	0.0	1.8	2.4	0.0	1.3	0.0	3.6	12.5	0.0	3.7	3.3
Cars Enter Leg	23	63	10	0	96	21	385	81	0	487	77	109	40	0	226	29	345	14	0	388	1197
Heavy Enter Leg	0	0	2	0	2	1	19	1	0	21	0	2	1	0	3	0	13	2	0	15	41
Total Entering Leg	23	63	12	0	98	22	404	82	0	508	77	111	41	0	229	29	358	16	0	403	1238
Cars Exiting Leg	144					432					173					448					1197
Heavy Exiting Leg	5					15					1					20					41
Total Exiting Leg	149					447					174					468					1238

PDI File #: **240116 A**
 Location: **N: Curtis Parkway S: Heard Street**
 Location: **E: Stafford Street W: Stafford Street SE: Crosswalk**
 City, State: **Worcester, MA**
 Client: **Bowman/ L. Fall**
 Site Code: **314158-01-001**
 Count Date: **Thursday, August 22, 2024**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Cars

	Curtis Parkway					Stafford Street					Heard Street					Stafford Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	1	11	10	0	22	6	69	22	0	97	18	20	11	0	49	10	74	3	0	87	255
11:15 AM	3	23	4	0	30	8	87	18	0	113	16	19	7	0	42	7	75	1	0	83	268
11:30 AM	8	13	5	0	26	5	64	16	0	85	19	16	8	0	43	8	95	3	0	106	260
11:45 AM	5	17	7	0	29	3	85	21	0	109	16	29	9	0	54	3	77	6	0	86	278
Total	17	64	26	0	107	22	305	77	0	404	69	84	35	0	188	28	321	13	0	362	1061
12:00 PM	10	19	5	0	34	5	97	16	0	118	25	21	11	0	57	12	78	1	0	91	300
12:15 PM	4	9	2	0	15	6	84	24	0	114	23	20	9	0	52	7	101	3	0	111	292
12:30 PM	7	19	3	0	29	4	84	15	0	103	19	15	13	0	47	7	100	4	0	111	290
12:45 PM	8	8	1	0	17	7	109	28	0	144	18	22	7	0	47	9	83	3	0	95	303
Total	29	55	11	0	95	22	374	83	0	479	85	78	40	0	203	35	362	11	0	408	1185
1:00 PM	2	23	4	0	29	5	94	21	0	120	16	37	10	0	63	7	78	3	0	88	300
1:15 PM	6	13	2	0	21	5	98	17	0	120	24	35	10	0	69	6	84	4	0	94	304
1:30 PM	3	15	2	0	20	3	97	17	0	117	24	28	15	0	67	6	76	6	0	88	292
1:45 PM	3	11	1	0	15	5	89	18	0	112	23	33	9	0	65	6	81	7	0	94	286
Total	14	62	9	0	85	18	378	73	0	469	87	133	44	0	264	25	319	20	0	364	1182
Grand Total	60	181	46	0	287	62	1057	233	0	1352	241	295	119	0	655	88	1002	44	0	1134	3428
Approach %	20.9	63.1	16.0	0.0		4.6	78.2	17.2	0.0		36.8	45.0	18.2	0.0		7.8	88.4	3.9	0.0		
Total %	1.8	5.3	1.3	0.0	8.4	1.8	30.8	6.8	0.0	39.4	7.0	8.6	3.5	0.0	19.1	2.6	29.2	1.3	0.0	33.1	
Exiting Leg Total	401					1289					502					1236					3428

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

	Curtis Parkway					Stafford Street					Heard Street					Stafford Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
12:45 PM	8	8	1	0	17	7	109	28	0	144	18	22	7	0	47	9	83	3	0	95	303
1:00 PM	2	23	4	0	29	5	94	21	0	120	16	37	10	0	63	7	78	3	0	88	300
1:15 PM	6	13	2	0	21	5	98	17	0	120	24	35	10	0	69	6	84	4	0	94	304
1:30 PM	3	15	2	0	20	3	97	17	0	117	24	28	15	0	67	6	76	6	0	88	292
Total Volume	19	59	9	0	87	20	398	83	0	501	82	122	42	0	246	28	321	16	0	365	1199
% Approach Total	21.8	67.8	10.3	0.0		4.0	79.4	16.6	0.0		33.3	49.6	17.1	0.0		7.7	87.9	4.4	0.0		
PHF	0.594	0.641	0.563	0.000	0.750	0.714	0.913	0.741	0.000	0.870	0.854	0.824	0.700	0.000	0.891	0.778	0.955	0.667	0.000	0.961	0.986
Entering Leg	19	59	9	0	87	20	398	83	0	501	82	122	42	0	246	28	321	16	0	365	1199
Exiting Leg	158					412					170					459					1199
Total	245					913					416					824					2398

PDI File #: **240116 A**
 Location: **N: Curtis Parkway S: Heard Street**
 Location: **E: Stafford Street W: Stafford Street SE: Crosswalk**
 City, State: **Worcester, MA**
 Client: **Bowman/ L. Fall**
 Site Code: **314158-01-001**
 Count Date: **Thursday, August 22, 2024**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**



Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Curtis Parkway					Stafford Street					Heard Street					Stafford Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	1	0	0	1	0	2	0	0	2	1	1	0	0	2	1	2	0	0	3	8
11:15 AM	0	0	1	0	1	1	4	0	0	5	0	0	0	0	0	0	4	0	0	4	10
11:30 AM	0	0	0	0	0	1	6	0	0	7	1	0	0	0	1	0	6	0	0	6	14
11:45 AM	3	1	1	0	5	0	1	1	0	2	0	0	1	0	1	0	6	0	0	6	14
Total	3	2	2	0	7	2	13	1	0	16	2	1	1	0	4	1	18	0	0	19	46
12:00 PM	1	0	2	0	3	0	4	0	0	4	0	0	0	0	0	0	6	0	0	6	13
12:15 PM	0	0	0	0	0	0	4	0	0	4	0	0	1	0	1	0	0	0	0	0	5
12:30 PM	0	0	1	0	1	0	3	0	0	3	0	1	1	0	2	0	6	0	0	6	12
12:45 PM	0	0	0	0	0	0	3	1	0	4	0	0	0	0	0	0	2	2	0	4	8
Total	1	0	3	0	4	0	14	1	0	15	0	1	2	0	3	0	14	2	0	16	38
1:00 PM	0	0	1	0	1	0	7	0	0	7	0	1	0	0	1	0	5	0	0	5	14
1:15 PM	0	0	0	0	0	1	6	0	0	7	0	0	0	0	0	0	0	0	0	0	7
1:30 PM	0	1	0	0	1	1	3	0	0	4	0	0	0	0	0	0	4	0	0	4	9
1:45 PM	0	0	0	0	0	0	3	0	0	3	1	1	0	0	2	0	5	0	0	5	10
Total	0	1	1	0	2	2	19	0	0	21	1	2	0	0	3	0	14	0	0	14	40
Grand Total	4	3	6	0	13	4	46	2	0	52	3	4	3	0	10	1	46	2	0	49	124
Approach %	30.8	23.1	46.2	0.0		7.7	88.5	3.8	0.0		30.0	40.0	30.0	0.0		2.0	93.9	4.1	0.0		
Total %	3.2	2.4	4.8	0.0	10.5	3.2	37.1	1.6	0.0	41.9	2.4	3.2	2.4	0.0	8.1	0.8	37.1	1.6	0.0	39.5	
Exiting Leg Total	10					55					6					53					124
Buses	0	0	5	0	5	0	5	0	0	5	0	0	0	0	0	0	7	0	0	7	17
% Buses	0.0	0.0	83.3	0.0	38.5	0.0	10.9	0.0	0.0	9.6	0.0	0.0	0.0	0.0	0.0	0.0	15.2	0.0	0.0	14.3	13.7
Exiting Leg Total	0					12					0					5					17
Single-Unit Trucks	2	3	1	0	6	4	30	2	0	36	3	4	3	0	10	1	31	2	0	34	86
% Single-Unit	50.0	100.0	16.7	0.0	46.2	100.0	65.2	100.0	0.0	69.2	100.0	100.0	100.0	0.0	100.0	100.0	67.4	100.0	0.0	69.4	69.4
Exiting Leg Total	10					35					6					35					86
Articulated Trucks	2	0	0	0	2	0	11	0	0	11	0	0	0	0	0	0	8	0	0	8	21
% Articulated	50.0	0.0	0.0	0.0	15.4	0.0	23.9	0.0	0.0	21.2	0.0	0.0	0.0	0.0	0.0	0.0	17.4	0.0	0.0	16.3	16.9
Exiting Leg Total	0					8					0					13					21

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

	Curtis Parkway					Stafford Street					Heard Street					Stafford Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:15 AM	0	0	1	0	1	1	4	0	0	5	0	0	0	0	0	0	4	0	0	4	10
11:30 AM	0	0	0	0	0	1	6	0	0	7	1	0	0	0	1	0	6	0	0	6	14
11:45 AM	3	1	1	0	5	0	1	1	0	2	0	0	1	0	1	0	6	0	0	6	14
12:00 PM	1	0	2	0	3	0	4	0	0	4	0	0	0	0	0	0	6	0	0	6	13
Total Volume	4	1	4	0	9	2	15	1	0	18	1	0	1	0	2	0	22	0	0	22	51
% Approach Total	44.4	11.1	44.4	0.0		11.1	83.3	5.6	0.0		50.0	0.0	50.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.333	0.250	0.500	0.000	0.450	0.500	0.625	0.250	0.000	0.643	0.250	0.000	0.250	0.000	0.500	0.000	0.917	0.000	0.000	0.917	0.911
Buses	0	0	3	0	3	0	3	0	0	3	0	0	0	0	0	0	3	0	0	3	9
Buses %	0.0	0.0	75.0	0.0	33.3	0.0	20.0	0.0	0.0	16.7	0.0	0.0	0.0	0.0	0.0	0.0	13.6	0.0	0.0	13.6	17.6
Single-Unit Trucks	2	1	1	0	4	2	8	1	0	11	1	0	1	0	2	0	14	0	0	14	31
Single-Unit %	50.0	100.0	25.0	0.0	44.4	100.0	53.3	100.0	0.0	61.1	100.0	0.0	100.0	0.0	100.0	0.0	63.6	0.0	0.0	63.6	60.8
Articulated Trucks	2	0	0	0	2	0	4	0	0	4	0	0	0	0	0	0	5	0	0	5	11
Articulated %	50.0	0.0	0.0	0.0	22.2	0.0	26.7	0.0	0.0	22.2	0.0	0.0	0.0	0.0	0.0	0.0	22.7	0.0	0.0	22.7	21.6
Buses	0	0	3	0	3	0	3	0	0	3	0	0	0	0	0	0	3	0	0	3	9
Single-Unit Trucks	2	1	1	0	4	2	8	1	0	11	1	0	1	0	2	0	14	0	0	14	31
Articulated Trucks	2	0	0	0	2	0	4	0	0	4	0	0	0	0	0	0	5	0	0	5	11
Total Entering Leg	4	1	4	0	9	2	15	1	0	18	1	0	1	0	2	0	22	0	0	22	51
Buses	0					6					0					3					9
Single-Unit Trucks	2					16					2					11					31
Articulated Trucks	0					5					0					6					11
Total Exiting Leg	2					27					2					20					51

PDI File #: **240116 A**
 Location: **N: Curtis Parkway S: Heard Street**
 Location: **E: Stafford Street W: Stafford Street SE: Crosswalk**
 City, State: **Worcester, MA**
 Client: **Bowman/ L. Fall**
 Site Code: **314158-01-001**
 Count Date: **Thursday, August 22, 2024**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Buses

	Curtis Parkway					Stafford Street					Heard Street					Stafford Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	3
11:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
11:45 AM	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	3
Total	0	0	2	0	2	0	3	0	0	3	0	0	0	0	0	0	2	0	0	2	7
12:00 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	4
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	2	0	2	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	6
1:00 PM	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	3
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	4
Grand Total	0	0	5	0	5	0	5	0	0	5	0	0	0	0	0	0	7	0	0	7	17
Approach %	0.0	0.0	100.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
Total %	0.0	0.0	29.4	0.0	29.4	0.0	29.4	0.0	0.0	29.4	0.0	0.0	0.0	0.0	0.0	0.0	41.2	0.0	0.0	41.2	
Exiting Leg Total	0					12					0					5					17

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

	Curtis Parkway					Stafford Street					Heard Street					Stafford Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:15 AM	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	3
11:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
11:45 AM	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	3
12:00 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
Total Volume	0	0	3	0	3	0	3	0	0	3	0	0	0	0	0	0	3	0	0	3	9
% Approach Total	0.0	0.0	100.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.750	0.000	0.750	0.000	0.750	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.000	0.750	0.750
Entering Leg	0	0	3	0	3	0	3	0	0	3	0	0	0	0	0	0	3	0	0	3	9
Exiting Leg	0					6					0					3					9
Total	3					9					0					6					18

PDI File #: **240116 A**
 Location: **N: Curtis Parkway S: Heard Street**
 Location: **E: Stafford Street W: Stafford Street SE: Crosswalk**
 City, State: **Worcester, MA**
 Client: **Bowman/ L. Fall**
 Site Code: **314158-01-001**
 Count Date: **Thursday, August 22, 2024**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Single-Unit Trucks

	Curtis Parkway					Stafford Street					Heard Street					Stafford Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	1	0	0	1	0	0	0	0	0	1	1	0	0	2	1	1	0	0	2	5
11:15 AM	0	0	0	0	0	1	3	0	0	4	0	0	0	0	0	0	1	0	0	1	5
11:30 AM	0	0	0	0	0	1	3	0	0	4	1	0	0	0	1	0	5	0	0	5	10
11:45 AM	1	1	0	0	2	0	0	1	0	1	0	0	1	0	1	0	4	0	0	4	8
Total	1	2	0	0	3	2	6	1	0	9	2	1	1	0	4	1	11	0	0	12	28
12:00 PM	1	0	1	0	2	0	2	0	0	2	0	0	0	0	0	0	4	0	0	4	8
12:15 PM	0	0	0	0	0	0	4	0	0	4	0	0	1	0	1	0	0	0	0	0	5
12:30 PM	0	0	0	0	0	0	2	0	0	2	0	1	1	0	2	0	3	0	0	3	7
12:45 PM	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	2	2	0	4	6
Total	1	0	1	0	2	0	9	1	0	10	0	1	2	0	3	0	9	2	0	11	26
1:00 PM	0	0	0	0	0	0	5	0	0	5	0	1	0	0	1	0	4	0	0	4	10
1:15 PM	0	0	0	0	0	1	5	0	0	6	0	0	0	0	0	0	0	0	0	0	6
1:30 PM	0	1	0	0	1	1	2	0	0	3	0	0	0	0	0	0	2	0	0	2	6
1:45 PM	0	0	0	0	0	0	3	0	0	3	1	1	0	0	2	0	5	0	0	5	10
Total	0	1	0	0	1	2	15	0	0	17	1	2	0	0	3	0	11	0	0	11	32
Grand Total	2	3	1	0	6	4	30	2	0	36	3	4	3	0	10	1	31	2	0	34	86
Approach %	33.3	50.0	16.7	0.0		11.1	83.3	5.6	0.0		30.0	40.0	30.0	0.0		2.9	91.2	5.9	0.0		
Total %	2.3	3.5	1.2	0.0	7.0	4.7	34.9	2.3	0.0	41.9	3.5	4.7	3.5	0.0	11.6	1.2	36.0	2.3	0.0	39.5	
Exiting Leg Total	10					35					6					35					86

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

	Curtis Parkway					Stafford Street					Heard Street					Stafford Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
1:00 PM	0	0	0	0	0	0	5	0	0	5	0	1	0	0	1	0	4	0	0	4	10
1:15 PM	0	0	0	0	0	1	5	0	0	6	0	0	0	0	0	0	0	0	0	0	6
1:30 PM	0	1	0	0	1	1	2	0	0	3	0	0	0	0	0	0	2	0	0	2	6
1:45 PM	0	0	0	0	0	0	3	0	0	3	1	1	0	0	2	0	5	0	0	5	10
Total Volume	0	1	0	0	1	2	15	0	0	17	1	2	0	0	3	0	11	0	0	11	32
% Approach Total	0.0	100.0	0.0	0.0		11.8	88.2	0.0	0.0		33.3	66.7	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.250	0.000	0.000	0.250	0.500	0.750	0.000	0.000	0.708	0.250	0.500	0.000	0.000	0.375	0.000	0.550	0.000	0.000	0.550	0.800
Entering Leg	0	1	0	0	1	2	15	0	0	17	1	2	0	0	3	0	11	0	0	11	32
Exiting Leg	4					12					1					15					32
Total	5					29					4					26					64

PDI File #: **240116 A**
 Location: **N: Curtis Parkway S: Heard Street**
 Location: **E: Stafford Street W: Stafford Street SE: Crosswalk**
 City, State: **Worcester, MA**
 Client: **Bowman/ L. Fall**
 Site Code: **314158-01-001**
 Count Date: **Thursday, August 22, 2024**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Articulated Trucks

	Curtis Parkway					Stafford Street					Heard Street					Stafford Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
11:30 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3
11:45 AM	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	3
Total	2	0	0	0	2	0	4	0	0	4	0	0	0	0	0	0	5	0	0	5	11
12:00 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
12:45 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
Total	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	2	0	0	2	6
1:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
1:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
1:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	4
Grand Total	2	0	0	0	2	0	11	0	0	11	0	0	0	0	0	0	8	0	0	8	21
Approach %	100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
Total %	9.5	0.0	0.0	0.0	9.5	0.0	52.4	0.0	0.0	52.4	0.0	0.0	0.0	0.0	0.0	0.0	38.1	0.0	0.0	38.1	
Exiting Leg Total	0					8					0					13					21

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

	Curtis Parkway					Stafford Street					Heard Street					Stafford Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
11:30 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3
11:45 AM	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	3
Total Volume	2	0	0	0	2	0	4	0	0	4	0	0	0	0	0	0	5	0	0	5	11
% Approach Total	100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.250	0.000	0.000	0.000	0.250	0.000	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.625	0.000	0.000	0.625	0.917
Entering Leg	2	0	0	0	2	0	4	0	0	4	0	0	0	0	0	0	5	0	0	5	11
Exiting Leg	0					5					0					6					11
Total	2					9					0					11					22

PDI File #: 240116 A
 Location: N: Curtis Parkway S: Heard Street
 Location: E: Stafford Street W: Stafford Street SE: Crosswalk
 City, State: Worcester, MA
 Client: Bowman/ L. Fall
 Site Code: 314158-01-001
 Count Date: Thursday, August 22, 2024
 Start Time: 11:00 AM
 End Time: 2:00 PM
 Class:



Pedestrians

	Curtis Parkway							Stafford Street							Crosswalk			Heard Street							Stafford Street							Total	
	from North							from East							from far-east			from South							from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	CW-SB	CW-NB	Total	Hard Right	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB		Total
11:00 AM	0	0	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
11:15 AM	0	0	0	0	1	1	2	0	0	0	0	1	0	1	0	1	1	0	0	0	0	0	2	0	2	0	0	0	0	0	0	6	
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
11:45 AM	0	0	0	0	2	2	4	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	2	2	0	0	0	2	0	10		
Total	0	0	0	0	4	3	7	0	0	0	0	2	0	2	2	2	4	0	0	0	0	0	2	2	4	0	0	0	0	2	0	19	
12:00 PM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2		
12:15 PM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2		
12:30 PM	0	0	0	0	3	2	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5		
12:45 PM	0	0	0	0	2	0	2	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	0	4		
Total	0	0	0	0	7	2	9	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0	1	0	1	0	0	0	0	0	13		
1:00 PM	0	0	0	0	2	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4		
1:15 PM	0	0	0	0	3	2	5	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	6		
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	2		
1:45 PM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	3		
Total	0	0	0	0	6	4	10	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2	1	3	0	0	0	0	0	1	15	
Grand Total	0	0	0	0	17	9	26	0	0	0	0	2	0	2	5	3	8	0	0	0	0	0	5	3	8	0	0	0	0	2	1	3	47
Approach %	0	0	0	0	65.4	34.6		0	0	0	0	100	0		62.5	37.5		0	0	0	0	0	62.5	37.5		0	0	0	0	66.7	33.3		
Total %	0	0	0	0	36.2	19.1	55.3	0	0	0	0	4.26	0	4.26	10.6	6.38	17	0	0	0	0	0	10.6	6.38	17	0	0	0	0	4.26	2.13	6.38	
Exiting Leg Total	26							2							8			8							3							47	

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

	Curtis Parkway							Stafford Street							Crosswalk			Heard Street							Stafford Street							Total	
	from North							from East							from far-east			from South							from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	CW-SB	CW-NB	Total	Hard Right	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB		Total
11:00 AM	0	0	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2		
11:15 AM	0	0	0	0	1	1	2	0	0	0	0	1	0	1	0	1	1	0	0	0	0	0	2	0	2	0	0	0	0	0	6		
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
11:45 AM	0	0	0	0	2	2	4	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	2	2	0	0	0	2	0	10		
Total Volume	0	0	0	0	4	3	7	0	0	0	0	2	0	2	2	2	4	0	0	0	0	0	2	2	4	0	0	0	0	2	0	19	
% Approach Total	0.0	0.0	0.0	0.0	57.1	42.9		0.0	0.0	0.0	0.0	100.0	0.0		50.0	50.0		0.0	0.0	0.0	0.0	0.0	50.0	50.0		0.0	0.0	0.0	0.0	100.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.500	0.375	0.438	0.000	0.000	0.000	0.000	0.500	0.000	0.500	0.250	0.500	0.500	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.500	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.475
Entering Leg	0	0	0	0	4	3	7	0	0	0	0	2	0	2	2	2	4	0	0	0	0	0	2	2	4	0	0	0	0	2	0	19	
Exiting Leg	7							2							4			4							2							19	
Total	14							4							8			8							4							38	

PDI File #: **240116 A**
 Location: **N: Curtis Parkway S: Heard Street**
 Location: **E: Stafford Street W: Stafford Street SE: Crosswalk**
 City, State: **Worcester, MA**
 Client: **Bowman/ L. Fall**
 Site Code: **314158-01-001**
 Count Date: **Thursday, August 22, 2024**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Cars and Heavy Vehicles (Combined)

	Curtis Parkway					Stafford Street					Heard Street					Stafford Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	6	23	2	0	31	5	134	16	0	155	25	46	21	0	92	12	87	5	0	104	382
4:15 PM	5	21	2	0	28	6	128	29	0	163	32	45	21	0	98	9	99	1	0	109	398
4:30 PM	3	19	2	0	24	7	126	23	0	156	36	37	20	0	93	7	92	0	0	99	372
4:45 PM	6	16	3	0	25	4	125	27	0	156	28	57	29	0	114	11	93	1	0	105	400
Total	20	79	9	0	108	22	513	95	0	630	121	185	91	0	397	39	371	7	0	417	1552
5:00 PM	6	20	3	0	29	6	126	30	0	162	27	55	22	0	104	7	94	3	0	104	399
5:15 PM	5	27	1	0	33	3	117	29	0	149	32	48	29	0	109	12	97	9	0	118	409
5:30 PM	5	21	2	0	28	7	122	31	0	160	31	38	17	0	86	7	74	8	0	89	363
5:45 PM	3	10	3	0	16	7	106	25	0	138	36	44	10	0	90	14	98	10	0	122	366
Total	19	78	9	0	106	23	471	115	0	609	126	185	78	0	389	40	363	30	0	433	1537
Grand Total	39	157	18	0	214	45	984	210	0	1239	247	370	169	0	786	79	734	37	0	850	3089
Approach %	18.2	73.4	8.4	0.0		3.6	79.4	16.9	0.0		31.4	47.1	21.5	0.0		9.3	86.4	4.4	0.0		
Total %	1.3	5.1	0.6	0.0	6.9	1.5	31.9	6.8	0.0	40.1	8.0	12.0	5.5	0.0	25.4	2.6	23.8	1.2	0.0	27.5	
Exiting Leg Total	452					999					446					1192					3089
Cars	39	157	17	0	213	44	971	206	0	1221	242	368	166	0	776	79	721	36	0	836	3046
% Cars	100.0	100.0	94.4	0.0	99.5	97.8	98.7	98.1	0.0	98.5	98.0	99.5	98.2	0.0	98.7	100.0	98.2	97.3	0.0	98.4	98.6
Exiting Leg Total	448					980					442					1176					3046
Heavy Vehicles	0	0	1	0	1	1	13	4	0	18	5	2	3	0	10	0	13	1	0	14	43
% Heavy Vehicles	0.0	0.0	5.6	0.0	0.5	2.2	1.3	1.9	0.0	1.5	2.0	0.5	1.8	0.0	1.3	0.0	1.8	2.7	0.0	1.6	1.4
Exiting Leg Total	4					19					4					16					43

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Curtis Parkway					Stafford Street					Heard Street					Stafford Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:30 PM	3	19	2	0	24	7	126	23	0	156	36	37	20	0	93	7	92	0	0	99	372
4:45 PM	6	16	3	0	25	4	125	27	0	156	28	57	29	0	114	11	93	1	0	105	400
5:00 PM	6	20	3	0	29	6	126	30	0	162	27	55	22	0	104	7	94	3	0	104	399
5:15 PM	5	27	1	0	33	3	117	29	0	149	32	48	29	0	109	12	97	9	0	118	409
Total Volume	20	82	9	0	111	20	494	109	0	623	123	197	100	0	420	37	376	13	0	426	1580
% Approach Total	18.0	73.9	8.1	0.0		3.2	79.3	17.5	0.0		29.3	46.9	23.8	0.0		8.7	88.3	3.1	0.0		
PHF	0.833	0.759	0.750	0.000	0.841	0.714	0.980	0.908	0.000	0.961	0.854	0.864	0.862	0.000	0.921	0.771	0.969	0.361	0.000	0.903	0.966
Cars	20	82	8	0	110	19	485	108	0	612	121	196	98	0	415	37	371	13	0	421	1558
Cars %	100.0	100.0	88.9	0.0	99.1	95.0	98.2	99.1	0.0	98.2	98.4	99.5	98.0	0.0	98.8	100.0	98.7	100.0	0.0	98.8	98.6
Heavy Vehicles	0	0	1	0	1	1	9	1	0	11	2	1	2	0	5	0	5	0	0	5	22
Heavy Vehicles %	0.0	0.0	11.1	0.0	0.9	5.0	1.8	0.9	0.0	1.8	1.6	0.5	2.0	0.0	1.2	0.0	1.3	0.0	0.0	1.2	1.4
Cars Enter Leg	20	82	8	0	110	19	485	108	0	612	121	196	98	0	415	37	371	13	0	421	1558
Heavy Enter Leg	0	0	1	0	1	1	9	1	0	11	2	1	2	0	5	0	5	0	0	5	22
Total Entering Leg	20	82	9	0	111	20	494	109	0	623	123	197	100	0	420	37	376	13	0	426	1580
Cars Exiting Leg	228					500					227					603					1558
Heavy Exiting Leg	2					8					1					11					22
Total Exiting Leg	230					508					228					614					1580

PDI File #: **240116 A**
 Location: **N: Curtis Parkway S: Heard Street**
 Location: **E: Stafford Street W: Stafford Street SE: Crosswalk**
 City, State: **Worcester, MA**
 Client: **Bowman/ L. Fall**
 Site Code: **314158-01-001**
 Count Date: **Thursday, August 22, 2024**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Cars

	Curtis Parkway					Stafford Street					Heard Street					Stafford Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	6	23	2	0	31	5	130	15	0	150	25	46	21	0	92	12	86	5	0	103	376
4:15 PM	5	21	2	0	28	6	128	29	0	163	31	45	20	0	96	9	96	1	0	106	393
4:30 PM	3	19	2	0	24	7	124	23	0	154	36	37	20	0	93	7	92	0	0	99	370
4:45 PM	6	16	3	0	25	4	123	27	0	154	26	57	29	0	112	11	93	1	0	105	396
Total	20	79	9	0	108	22	505	94	0	621	118	185	90	0	393	39	367	7	0	413	1535
5:00 PM	6	20	2	0	28	5	122	29	0	156	27	54	22	0	103	7	93	3	0	103	390
5:15 PM	5	27	1	0	33	3	116	29	0	148	32	48	27	0	107	12	93	9	0	114	402
5:30 PM	5	21	2	0	28	7	122	30	0	159	30	37	17	0	84	7	73	7	0	87	358
5:45 PM	3	10	3	0	16	7	106	24	0	137	35	44	10	0	89	14	95	10	0	119	361
Total	19	78	8	0	105	22	466	112	0	600	124	183	76	0	383	40	354	29	0	423	1511
Grand Total	39	157	17	0	213	44	971	206	0	1221	242	368	166	0	776	79	721	36	0	836	3046
Approach %	18.3	73.7	8.0	0.0		3.6	79.5	16.9	0.0		31.2	47.4	21.4	0.0		9.4	86.2	4.3	0.0		
Total %	1.3	5.2	0.6	0.0	7.0	1.4	31.9	6.8	0.0	40.1	7.9	12.1	5.4	0.0	25.5	2.6	23.7	1.2	0.0	27.4	
Exiting Leg Total	448					980					442					1176					3046

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Curtis Parkway					Stafford Street					Heard Street					Stafford Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:30 PM	3	19	2	0	24	7	124	23	0	154	36	37	20	0	93	7	92	0	0	99	370
4:45 PM	6	16	3	0	25	4	123	27	0	154	26	57	29	0	112	11	93	1	0	105	396
5:00 PM	6	20	2	0	28	5	122	29	0	156	27	54	22	0	103	7	93	3	0	103	390
5:15 PM	5	27	1	0	33	3	116	29	0	148	32	48	27	0	107	12	93	9	0	114	402
Total Volume	20	82	8	0	110	19	485	108	0	612	121	196	98	0	415	37	371	13	0	421	1558
% Approach Total	18.2	74.5	7.3	0.0		3.1	79.2	17.6	0.0		29.2	47.2	23.6	0.0		8.8	88.1	3.1	0.0		
PHF	0.833	0.759	0.667	0.000	0.833	0.679	0.978	0.931	0.000	0.981	0.840	0.860	0.845	0.000	0.926	0.771	0.997	0.361	0.000	0.923	0.969
Entering Leg	20	82	8	0	110	19	485	108	0	612	121	196	98	0	415	37	371	13	0	421	1558
Exiting Leg	228					500					227					603					1558
Total	338					1112					642					1024					3116

PDI File #: **240116 A**
 Location: **N: Curtis Parkway S: Heard Street**
 Location: **E: Stafford Street W: Stafford Street SE: Crosswalk**
 City, State: **Worcester, MA**
 Client: **Bowman/ L. Fall**
 Site Code: **314158-01-001**
 Count Date: **Thursday, August 22, 2024**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**



	Curtis Parkway					Stafford Street					Heard Street					Stafford Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	4	1	0	5	0	0	0	0	0	0	1	0	0	1	6
4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	3	0	0	3	5
4:30 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	2	0	0	2	2	0	0	0	2	0	0	0	0	0	4
Total	0	0	0	0	0	0	8	1	0	9	3	0	1	0	4	0	4	0	0	4	17
5:00 PM	0	0	1	0	1	1	4	1	0	6	0	1	0	0	1	0	1	0	0	1	9
5:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	2	0	2	0	4	0	0	4	7
5:30 PM	0	0	0	0	0	0	0	1	0	1	1	1	0	0	2	0	1	1	0	2	5
5:45 PM	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	0	3	0	0	3	5
Total	0	0	1	0	1	1	5	3	0	9	2	2	2	0	6	0	9	1	0	10	26
Grand Total	0	0	1	0	1	1	13	4	0	18	5	2	3	0	10	0	13	1	0	14	43
Approach %	0.0	0.0	100.0	0.0		5.6	72.2	22.2	0.0		50.0	20.0	30.0	0.0		0.0	92.9	7.1	0.0		
Total %	0.0	0.0	2.3	0.0	2.3	2.3	30.2	9.3	0.0	41.9	11.6	4.7	7.0	0.0	23.3	0.0	30.2	2.3	0.0	32.6	
Exiting Leg Total	4					19					4					16					43
Buses	0	0	1	0	1	0	4	0	0	4	0	0	0	0	0	0	4	0	0	4	9
% Buses	0.0	0.0	100.0	0.0	100.0	0.0	30.8	0.0	0.0	22.2	0.0	0.0	0.0	0.0	0.0	0.0	30.8	0.0	0.0	28.6	20.9
Exiting Leg Total	0					5					0					4					9
Single-Unit Trucks	0	0	0	0	0	1	7	4	0	12	5	2	3	0	10	0	7	1	0	8	30
% Single-Unit	0.0	0.0	0.0	0.0	0.0	100.0	53.8	100.0	0.0	66.7	100.0	100.0	100.0	0.0	100.0	0.0	53.8	100.0	0.0	57.1	69.8
Exiting Leg Total	4					12					4					10					30
Articulated Trucks	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	4
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	15.4	0.0	0.0	11.1	0.0	0.0	0.0	0.0	0.0	0.0	15.4	0.0	0.0	14.3	9.3
Exiting Leg Total	0					2					0					2					4

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Curtis Parkway					Stafford Street					Heard Street					Stafford Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	4	1	0	5	0	0	0	0	0	0	1	0	0	1	6
4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	3	0	0	3	5
4:30 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	2	0	0	2	2	0	0	0	2	0	0	0	0	0	4
Total Volume	0	0	0	0	0	0	8	1	0	9	3	0	1	0	4	0	4	0	0	4	17
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	88.9	11.1	0.0		75.0	0.0	25.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.250	0.000	0.450	0.375	0.000	0.250	0.000	0.500	0.000	0.333	0.000	0.000	0.333	0.708
Buses	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	0.0	22.2	0.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	0.0	25.0	17.6
Single-Unit Trucks	0	0	0	0	0	0	5	1	0	6	3	0	1	0	4	0	2	0	0	2	12
Single-Unit %	0.0	0.0	0.0	0.0	0.0	0.0	62.5	100.0	0.0	66.7	100.0	0.0	100.0	0.0	100.0	0.0	50.0	0.0	0.0	50.0	70.6
Articulated Trucks	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	12.5	0.0	0.0	11.1	0.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	0.0	25.0	11.8
Buses	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3
Single-Unit Trucks	0	0	0	0	0	0	5	1	0	6	3	0	1	0	4	0	2	0	0	2	12
Articulated Trucks	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
Total Entering Leg	0	0	0	0	0	0	8	1	0	9	3	0	1	0	4	0	4	0	0	4	17
Buses	0					1					0					2					3
Single-Unit Trucks	0					5					1					6					12
Articulated Trucks	0					1					0					1					2
Total Exiting Leg	0					7					1					9					17

PDI File #: **240116 A**
 Location: **N: Curtis Parkway S: Heard Street**
 Location: **E: Stafford Street W: Stafford Street SE: Crosswalk**
 City, State: **Worcester, MA**
 Client: **Bowman/ L. Fall**
 Site Code: **314158-01-001**
 Count Date: **Thursday, August 22, 2024**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Buses

	Curtis Parkway					Stafford Street					Heard Street					Stafford Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
4:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3
5:00 PM	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
5:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
Total	0	0	1	0	1	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	6
Grand Total	0	0	1	0	1	0	4	0	0	4	0	0	0	0	0	0	4	0	0	4	9
Approach %	0.0	0.0	100.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
Total %	0.0	0.0	11.1	0.0	11.1	0.0	44.4	0.0	0.0	44.4	0.0	0.0	0.0	0.0	0.0	0.0	44.4	0.0	0.0	44.4	
Exiting Leg Total	0					5					0					4					9

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Curtis Parkway					Stafford Street					Heard Street					Stafford Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
4:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3
% Approach Total	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.750
Entering Leg	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3
Exiting Leg	0					1					0					2					3
Total	0					3					0					3					6

PDI File #: **240116 A**
 Location: **N: Curtis Parkway S: Heard Street**
 Location: **E: Stafford Street W: Stafford Street SE: Crosswalk**
 City, State: **Worcester, MA**
 Client: **Bowman/ L. Fall**
 Site Code: **314158-01-001**
 Count Date: **Thursday, August 22, 2024**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Single-Unit Trucks

	Curtis Parkway					Stafford Street					Heard Street					Stafford Street					Total					
	from North					from East					from South					from West										
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total						
4:00 PM	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	0	0	0	0	0	3					
4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	2	0	0	2	4					
4:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1					
4:45 PM	0	0	0	0	0	0	2	0	0	2	2	0	0	0	2	0	0	0	0	0	4					
Total	0	0	0	0	0	0	5	1	0	6	3	0	1	0	4	0	2	0	0	2	12					
5:00 PM	0	0	0	0	0	1	2	1	0	4	0	1	0	0	1	0	1	0	0	1	6					
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	2	0	0	2	4					
5:30 PM	0	0	0	0	0	0	0	1	0	1	1	1	0	0	2	0	1	1	0	2	5					
5:45 PM	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	0	1	0	0	1	3					
Total	0	0	0	0	0	1	2	3	0	6	2	2	2	0	6	0	5	1	0	6	18					
Grand Total	0	0	0	0	0	1	7	4	0	12	5	2	3	0	10	0	7	1	0	8	30					
Approach %	0.0	0.0	0.0	0.0		8.3	58.3	33.3	0.0		50.0	20.0	30.0	0.0		0.0	87.5	12.5	0.0							
Total %	0.0	0.0	0.0	0.0	0.0	3.3	23.3	13.3	0.0	40.0	16.7	6.7	10.0	0.0	33.3	0.0	23.3	3.3	0.0	26.7						
Exiting Leg Total						4					12					4					10					30

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Curtis Parkway					Stafford Street					Heard Street					Stafford Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:45 PM	0	0	0	0	0	0	2	0	0	2	2	0	0	0	2	0	0	0	0	0	4
5:00 PM	0	0	0	0	0	1	2	1	0	4	0	1	0	0	1	0	1	0	0	1	6
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	2	0	0	2	4
5:30 PM	0	0	0	0	0	0	0	1	0	1	1	1	0	0	2	0	1	1	0	2	5
Total Volume	0	0	0	0	0	1	4	2	0	7	3	2	2	0	7	0	4	1	0	5	19
% Approach Total	0.0	0.0	0.0	0.0		14.3	57.1	28.6	0.0		42.9	28.6	28.6	0.0		0.0	80.0	20.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.250	0.500	0.500	0.000	0.438	0.375	0.500	0.250	0.000	0.875	0.000	0.500	0.250	0.000	0.625	0.792
Entering Leg	0					1					3					0					19
Exiting Leg	4					7					2					6					19
Total	4					14					9					11					38

PDI File #: **240116 A**
 Location: **N: Curtis Parkway S: Heard Street**
 Location: **E: Stafford Street W: Stafford Street SE: Crosswalk**
 City, State: **Worcester, MA**
 Client: **Bowman/ L. Fall**
 Site Code: **314158-01-001**
 Count Date: **Thursday, August 22, 2024**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Articulated Trucks

	Curtis Parkway					Stafford Street					Heard Street					Stafford Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
5:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
Grand Total	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	4
Approach %	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	50.0	
Exiting Leg Total	0					2					0					2					4

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Curtis Parkway					Stafford Street					Heard Street					Stafford Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
% Approach Total	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.250
Entering Leg	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
Exiting Leg	0					1					0					1					2
Total	0					2					0					2					4

PDI File #: 240116 A
Location: N: Curtis Parkway S: Heard Street
Location: E: Stafford Street W: Stafford Street SE: Crosswalk
City, State: Worcester, MA
Client: Bowman/ L. Fall
Site Code: 314158-01-001
Count Date: Thursday, August 22, 2024
Start Time: 4:00 PM
End Time: 6:00 PM
Class:



Bicycles (on Roadway and Crosswalks)

	Curtis Parkway							Stafford Street							Crosswalk			Heard Street							Stafford Street							Total		
	from North							from East							from far-east			from South							from West									
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	CW-SB	CW-NB	Total	Hard Right	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB		Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	3
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Grand Total	0	1	0	0	1	0	2	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	4
Approach %	0.0	50.0	0.0	0.0	50.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		100.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0	0.0	0.0			
Total %	0.0	25.0	0.0	0.0	25.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	25.0		
Exiting Leg Total						1							0				1								2						0		4	

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Curtis Parkway							Stafford Street							Crosswalk			Heard Street							Stafford Street							Total		
	from North							from East							from far-east			from South							from West									
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	CW-SB	CW-NB	Total	Hard Right	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB		Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	3
% Approach Total	0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		100.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0	0.0	0.0			
PHF	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000		0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000		0.250	0.000	0.000	0.000	0.000	0.000	0.250	0.750	
Entering Leg	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	3
Exiting Leg						1							0				1								1						0		3	
Total						2							0				2								1						1		6	

PDI File #: **240116 A**
 Location: **N: Curtis Parkway S: Heard Street**
 Location: **E: Stafford Street W: Stafford Street SE: Crosswalk**
 City, State: **Worcester, MA**
 Client: **Bowman/ L. Fall**
 Site Code: **314158-01-001**
 Count Date: **Thursday, August 22, 2024**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Pedestrians

	Curtis Parkway								Stafford Street								Crosswalk			Heard Street								Stafford Street								Total
	from North								from East								from far-east			from South								from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total		Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total		CW-SB	CW-NB	Total	Hard Right	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
4:30 PM	0	0	0	0	0	3	3	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4			
4:45 PM	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	5		
Total	0	0	0	0	2	3	5	0	0	0	0	1	0	1	1	1	2	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	11		
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1			
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	1	0	0	0	0	1	0	1	3			
5:30 PM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3	3			
Total	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	1	0	0	0	0	3	2	5	8			
Grand Total	0	0	0	0	3	3	6	0	0	0	0	1	0	1	1	2	3	0	0	0	0	0	1	3	4	0	0	0	0	3	2	5	19			
Approach %	0	0	0	0	50	50		0	0	0	0	100	0		33.3	66.7		0	0	0	0	0	25	75		0	0	0	0	60	40					
Total %	0	0	0	0	15.8	15.8	31.6	0	0	0	0	5.26	0	5.26	5.26	10.5	15.8	0	0	0	0	0	5.26	15.8	21.1	0	0	0	0	15.8	10.5	26.3				
Exiting Leg Total	6								1								3			4								5								

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Curtis Parkway								Stafford Street								Crosswalk			Heard Street								Stafford Street								Total
	from North								from East								from far-east			from South								from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total		Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total		CW-SB	CW-NB	Total	Hard Right	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
4:30 PM	0	0	0	0	0	3	3	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4			
4:45 PM	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	5		
Total Volume	0	0	0	0	2	3	5	0	0	0	0	1	0	1	1	1	2	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	11			
% Approach Total	0.0	0.0	0.0	0.0	40.0	60.0		0.0	0.0	0.0	0.0	100.0	0.0		50.0	50.0		0.0	0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0				
PHF	0.000	0.000	0.000	0.000	0.250	0.250	0.417	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.250	0.250	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.550			
Entering Leg	0	0	0	0	2	3	5	0	0	0	0	1	0	1	1	1	2	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	11			
Exiting Leg	5								1								2			3								0								
Total	10								2								4			6								0								

PDI File #: **240116 A**
 Location: **N: Curtis Parkway S: Heard Street**
 Location: **E: Stafford Street W: Stafford Street SE: Crosswalk**
 City, State: **Worcester, MA**
 Client: **Bowman/ L. Fall**
 Site Code: **314158-01-001**
 Count Date: **Saturday, August 24, 2024**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Cars and Heavy Vehicles (Combined)

	Curtis Parkway					Stafford Street					Heard Street					Stafford Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	6	14	1	0	21	5	113	20	0	138	21	6	7	0	34	7	114	14	1	136	329
11:15 AM	8	17	1	0	26	10	106	25	0	141	23	7	2	0	32	12	98	10	0	120	319
11:30 AM	3	28	6	0	37	5	125	21	0	151	13	7	0	0	20	6	114	4	0	124	332
11:45 AM	12	34	7	0	53	4	127	18	0	149	23	7	2	0	32	6	111	10	0	127	361
Total	29	93	15	0	137	24	471	84	0	579	80	27	11	0	118	31	437	38	1	507	1341
12:00 PM	7	46	7	0	60	4	132	13	0	149	16	14	4	0	34	8	147	7	0	162	405
12:15 PM	8	26	3	0	37	5	122	28	0	155	24	10	11	0	45	5	115	6	0	126	363
12:30 PM	7	24	6	0	37	5	120	17	0	142	20	8	3	0	31	7	104	9	0	120	330
12:45 PM	3	13	5	0	21	6	139	28	0	173	19	19	11	0	49	3	104	7	0	114	357
Total	25	109	21	0	155	20	513	86	0	619	79	51	29	0	159	23	470	29	0	522	1455
1:00 PM	3	18	6	0	27	7	134	35	0	176	21	25	12	0	58	10	121	11	0	142	403
1:15 PM	7	28	3	0	38	5	127	27	0	159	19	37	20	0	76	9	91	2	0	102	375
1:30 PM	10	29	3	0	42	9	122	23	0	154	23	24	25	0	72	11	105	4	0	120	388
1:45 PM	2	18	4	0	24	11	117	27	0	155	33	47	15	0	95	4	101	4	0	109	383
Total	22	93	16	0	131	32	500	112	0	644	96	133	72	0	301	34	418	21	0	473	1549
Grand Total	76	295	52	0	423	76	1484	282	0	1842	255	211	112	0	578	88	1325	88	1	1502	4345
Approach %	18.0	69.7	12.3	0.0		4.1	80.6	15.3	0.0		44.1	36.5	19.4	0.0		5.9	88.2	5.9	0.1		
Total %	1.7	6.8	1.2	0.0	9.7	1.7	34.2	6.5	0.0	42.4	5.9	4.9	2.6	0.0	13.3	2.0	30.5	2.0	0.0	34.6	
Exiting Leg Total	375					1632					665					1673					4345
Cars	75	293	52	0	420	76	1463	280	0	1819	254	207	111	0	572	85	1304	85	1	1475	4286
% Cars	98.7	99.3	100.0	0.0	99.3	100.0	98.6	99.3	0.0	98.8	99.6	98.1	99.1	0.0	99.0	96.6	98.4	96.6	100.0	98.2	98.6
Exiting Leg Total	368					1610					658					1650					4286
Heavy Vehicles	1	2	0	0	3	0	21	2	0	23	1	4	1	0	6	3	21	3	0	27	59
% Heavy Vehicles	1.3	0.7	0.0	0.0	0.7	0.0	1.4	0.7	0.0	1.2	0.4	1.9	0.9	0.0	1.0	3.4	1.6	3.4	0.0	1.8	1.4
Exiting Leg Total	7					22					7					23					59

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

1:00 PM	Curtis Parkway					Stafford Street					Heard Street					Stafford Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
1:00 PM	3	18	6	0	27	7	134	35	0	176	21	25	12	0	58	10	121	11	0	142	403
1:15 PM	7	28	3	0	38	5	127	27	0	159	19	37	20	0	76	9	91	2	0	102	375
1:30 PM	10	29	3	0	42	9	122	23	0	154	23	24	25	0	72	11	105	4	0	120	388
1:45 PM	2	18	4	0	24	11	117	27	0	155	33	47	15	0	95	4	101	4	0	109	383
Total Volume	22	93	16	0	131	32	500	112	0	644	96	133	72	0	301	34	418	21	0	473	1549
% Approach Total	16.8	71.0	12.2	0.0		5.0	77.6	17.4	0.0		31.9	44.2	23.9	0.0		7.2	88.4	4.4	0.0		
PHF	0.550	0.802	0.667	0.000	0.780	0.727	0.933	0.800	0.000	0.915	0.727	0.707	0.720	0.000	0.792	0.773	0.864	0.477	0.000	0.833	0.961
Cars	22	91	16	0	129	32	492	110	0	634	95	132	71	0	298	34	414	21	0	469	1530
Cars %	100.0	97.8	100.0	0.0	98.5	100.0	98.4	98.2	0.0	98.4	99.0	99.2	98.6	0.0	99.0	100.0	99.0	100.0	0.0	99.2	98.8
Heavy Vehicles	0	2	0	0	2	0	8	2	0	10	1	1	1	0	3	0	4	0	0	4	19
Heavy Vehicles %	0.0	2.2	0.0	0.0	1.5	0.0	1.6	1.8	0.0	1.6	1.0	0.8	1.4	0.0	1.0	0.0	1.0	0.0	0.0	0.8	1.2
Cars Enter Leg	22	91	16	0	129	32	492	110	0	634	95	132	71	0	298	34	414	21	0	469	1530
Heavy Enter Leg	0	2	0	0	2	0	8	2	0	10	1	1	1	0	3	0	4	0	0	4	19
Total Entering Leg	22	93	16	0	131	32	500	112	0	644	96	133	72	0	301	34	418	21	0	473	1549
Cars Exiting Leg	185					525					235					585					1530
Heavy Exiting Leg	1					5					4					9					19
Total Exiting Leg	186					530					239					594					1549

PDI File #: **240116 A**
 Location: **N: Curtis Parkway S: Heard Street**
 Location: **E: Stafford Street W: Stafford Street SE: Crosswalk**
 City, State: **Worcester, MA**
 Client: **Bowman/ L. Fall**
 Site Code: **314158-01-001**
 Count Date: **Saturday, August 24, 2024**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Cars

	Curtis Parkway					Stafford Street					Heard Street					Stafford Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	5	14	1	0	20	5	111	20	0	136	21	6	7	0	34	7	113	13	1	134	324
11:15 AM	8	17	1	0	26	10	105	25	0	140	23	7	2	0	32	11	96	10	0	117	315
11:30 AM	3	28	6	0	37	5	122	21	0	148	13	7	0	0	20	6	112	4	0	122	327
11:45 AM	12	34	7	0	53	4	127	18	0	149	23	7	2	0	32	6	108	10	0	124	358
Total	28	93	15	0	136	24	465	84	0	573	80	27	11	0	118	30	429	37	1	497	1324
12:00 PM	7	46	7	0	60	4	130	13	0	147	16	14	4	0	34	8	142	7	0	157	398
12:15 PM	8	26	3	0	37	5	120	28	0	153	24	10	11	0	45	5	114	5	0	124	359
12:30 PM	7	24	6	0	37	5	119	17	0	141	20	8	3	0	31	5	103	9	0	117	326
12:45 PM	3	13	5	0	21	6	137	28	0	171	19	16	11	0	46	3	102	6	0	111	349
Total	25	109	21	0	155	20	506	86	0	612	79	48	29	0	156	21	461	27	0	509	1432
1:00 PM	3	18	6	0	27	7	132	35	0	174	20	25	11	0	56	10	121	11	0	142	399
1:15 PM	7	28	3	0	38	5	126	26	0	157	19	37	20	0	76	9	89	2	0	100	371
1:30 PM	10	27	3	0	40	9	119	22	0	150	23	24	25	0	72	11	103	4	0	118	380
1:45 PM	2	18	4	0	24	11	115	27	0	153	33	46	15	0	94	4	101	4	0	109	380
Total	22	91	16	0	129	32	492	110	0	634	95	132	71	0	298	34	414	21	0	469	1530
Grand Total	75	293	52	0	420	76	1463	280	0	1819	254	207	111	0	572	85	1304	85	1	1475	4286
Approach %	17.9	69.8	12.4	0.0		4.2	80.4	15.4	0.0		44.4	36.2	19.4	0.0		5.8	88.4	5.8	0.1		
Total %	1.7	6.8	1.2	0.0	9.8	1.8	34.1	6.5	0.0	42.4	5.9	4.8	2.6	0.0	13.3	2.0	30.4	2.0	0.0	34.4	
Exiting Leg Total	368					1610					658					1650					4286

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

1:00 PM	Curtis Parkway					Stafford Street					Heard Street					Stafford Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
1:00 PM	3	18	6	0	27	7	132	35	0	174	20	25	11	0	56	10	121	11	0	142	399
1:15 PM	7	28	3	0	38	5	126	26	0	157	19	37	20	0	76	9	89	2	0	100	371
1:30 PM	10	27	3	0	40	9	119	22	0	150	23	24	25	0	72	11	103	4	0	118	380
1:45 PM	2	18	4	0	24	11	115	27	0	153	33	46	15	0	94	4	101	4	0	109	380
Total Volume	22	91	16	0	129	32	492	110	0	634	95	132	71	0	298	34	414	21	0	469	1530
% Approach Total	17.1	70.5	12.4	0.0		5.0	77.6	17.4	0.0		31.9	44.3	23.8	0.0		7.2	88.3	4.5	0.0		
PHF	0.550	0.813	0.667	0.000	0.806	0.727	0.932	0.786	0.000	0.911	0.720	0.717	0.710	0.000	0.793	0.773	0.855	0.477	0.000	0.826	0.959
Entering Leg	22	91	16	0	129	32	492	110	0	634	95	132	71	0	298	34	414	21	0	469	1530
Exiting Leg	185					525					235					585					1530
Total	314					1159					533					1054					3060

PDI File #: **240116 A**
 Location: **N: Curtis Parkway S: Heard Street**
 Location: **E: Stafford Street W: Stafford Street SE: Crosswalk**
 City, State: **Worcester, MA**
 Client: **Bowman/ L. Fall**
 Site Code: **314158-01-001**
 Count Date: **Saturday, August 24, 2024**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)

	Curtis Parkway					Stafford Street					Heard Street					Stafford Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	1	0	0	0	1	0	2	0	0	2	0	0	0	0	0	0	1	1	0	2	5
11:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	2	0	0	3	4
11:30 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	2	0	0	2	5
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	3
Total	1	0	0	0	1	0	6	0	0	6	0	0	0	0	0	1	8	1	0	10	17
12:00 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	5	0	0	5	7
12:15 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	1	0	2	4
12:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2	1	0	0	3	4
12:45 PM	0	0	0	0	0	0	2	0	0	2	0	3	0	0	3	0	2	1	0	3	8
Total	0	0	0	0	0	0	7	0	0	7	0	3	0	0	3	2	9	2	0	13	23
1:00 PM	0	0	0	0	0	0	2	0	0	2	1	0	1	0	2	0	0	0	0	0	4
1:15 PM	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	2	0	0	2	4
1:30 PM	0	2	0	0	2	0	3	1	0	4	0	0	0	0	0	0	2	0	0	2	8
1:45 PM	0	0	0	0	0	0	2	0	0	2	0	1	0	0	1	0	0	0	0	0	3
Total	0	2	0	0	2	0	8	2	0	10	1	1	1	0	3	0	4	0	0	4	19
Grand Total	1	2	0	0	3	0	21	2	0	23	1	4	1	0	6	3	21	3	0	27	59
Approach %	33.3	66.7	0.0	0.0		0.0	91.3	8.7	0.0		16.7	66.7	16.7	0.0		11.1	77.8	11.1	0.0		
Total %	1.7	3.4	0.0	0.0	5.1	0.0	35.6	3.4	0.0	39.0	1.7	6.8	1.7	0.0	10.2	5.1	35.6	5.1	0.0	45.8	
Exiting Leg Total	7					22					7					23					59
Buses	0	2	0	0	2	0	7	0	0	7	1	1	0	0	2	0	5	0	0	5	16
% Buses	0.0	100.0	0.0	0.0	66.7	0.0	33.3	0.0	0.0	30.4	100.0	25.0	0.0	0.0	33.3	0.0	23.8	0.0	0.0	18.5	27.1
Exiting Leg Total	1					6					2					7					16
Single-Unit Trucks	1	0	0	0	1	0	10	1	0	11	0	3	0	0	3	3	15	3	0	21	36
% Single-Unit	100.0	0.0	0.0	0.0	33.3	0.0	47.6	50.0	0.0	47.8	0.0	75.0	0.0	0.0	50.0	100.0	71.4	100.0	0.0	77.8	61.0
Exiting Leg Total	6					15					4					11					36
Articulated Trucks	0	0	0	0	0	0	4	1	0	5	0	0	1	0	1	0	1	0	0	1	7
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	19.0	50.0	0.0	21.7	0.0	0.0	100.0	0.0	16.7	0.0	4.8	0.0	0.0	3.7	11.9
Exiting Leg Total	0					1					1					5					7

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

	Curtis Parkway					Stafford Street					Heard Street					Stafford Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
12:45 PM	0	0	0	0	0	0	2	0	0	2	0	3	0	0	3	0	2	1	0	3	8
1:00 PM	0	0	0	0	0	0	2	0	0	2	1	0	1	0	2	0	0	0	0	0	4
1:15 PM	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	2	0	0	2	4
1:30 PM	0	2	0	0	2	0	3	1	0	4	0	0	0	0	0	0	2	0	0	2	8
Total Volume	0	2	0	0	2	0	8	2	0	10	1	3	1	0	5	0	6	1	0	7	24
% Approach Total	0.0	100.0	0.0	0.0		0.0	80.0	20.0	0.0		20.0	60.0	20.0	0.0		0.0	85.7	14.3	0.0		
PHF	0.000	0.250	0.000	0.000	0.250	0.000	0.667	0.500	0.000	0.625	0.250	0.250	0.250	0.000	0.417	0.000	0.750	0.250	0.000	0.583	0.750
Buses	0	2	0	0	2	0	3	0	0	3	1	1	0	0	2	0	2	0	0	2	9
Buses %	0.0	100.0	0.0	0.0	100.0	0.0	37.5	0.0	0.0	30.0	100.0	33.3	0.0	0.0	40.0	0.0	33.3	0.0	0.0	28.6	37.5
Single-Unit Trucks	0	0	0	0	0	0	5	1	0	6	0	2	0	0	2	0	4	1	0	5	13
Single-Unit %	0.0	0.0	0.0	0.0	0.0	0.0	62.5	50.0	0.0	60.0	0.0	66.7	0.0	0.0	40.0	0.0	66.7	100.0	0.0	71.4	54.2
Articulated Trucks	0	0	0	0	0	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0	2
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	10.0	0.0	0.0	100.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0	8.3
Buses	0	2	0	0	2	0	3	0	0	3	1	1	0	0	2	0	2	0	0	2	9
Single-Unit Trucks	0	0	0	0	0	0	5	1	0	6	0	2	0	0	2	0	4	1	0	5	13
Articulated Trucks	0	0	0	0	0	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0	2
Total Entering Leg	0	2	0	0	2	0	8	2	0	10	1	3	1	0	5	0	6	1	0	7	24
Buses	1					3					2					3					9
Single-Unit Trucks	3					4					1					5					13
Articulated Trucks	0					0					1					1					2
Total Exiting Leg	4					7					4					9					24

PDI File #: **240116 A**
 Location: **N: Curtis Parkway S: Heard Street**
 Location: **E: Stafford Street W: Stafford Street SE: Crosswalk**
 City, State: **Worcester, MA**
 Client: **Bowman/ L. Fall**
 Site Code: **314158-01-001**
 Count Date: **Saturday, August 24, 2024**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



**PRECISION
D A T A
INDUSTRIES, LLC**
 157 Washington Street, Suite 2
 Hudson, MA 01749
 Office: 508-875-0100 Fax: 508-875-0118

Buses

	Curtis Parkway					Stafford Street					Heard Street					Stafford Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	4
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	2
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	3	0	0	3	4
1:00 PM	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	2
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
1:30 PM	0	2	0	0	2	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	4
1:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	2	0	0	2	0	4	0	0	4	1	0	0	0	1	0	1	0	0	1	8
Grand Total	0	2	0	0	2	0	7	0	0	7	1	1	0	0	2	0	5	0	0	5	16
Approach %	0.0	100.0	0.0	0.0		0.0	100.0	0.0	0.0		50.0	50.0	0.0	0.0		0.0	100.0	0.0	0.0		
Total %	0.0	12.5	0.0	0.0	12.5	0.0	43.8	0.0	0.0	43.8	6.3	6.3	0.0	0.0	12.5	0.0	31.3	0.0	0.0	31.3	
Exiting Leg Total	1					6					2					7					16

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

	Curtis Parkway					Stafford Street					Heard Street					Stafford Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	2
1:00 PM	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	2
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
1:30 PM	0	2	0	0	2	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	4
Total Volume	0	2	0	0	2	0	3	0	0	3	1	1	0	0	2	0	2	0	0	2	9
% Approach Total	0.0	100.0	0.0	0.0		0.0	100.0	0.0	0.0		50.0	50.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.250	0.000	0.000	0.250	0.000	0.375	0.000	0.000	0.375	0.250	0.250	0.000	0.000	0.500	0.000	0.500	0.000	0.000	0.500	0.563
Entering Leg	0	2	0	0	2	0	3	0	0	3	1	1	0	0	2	0	2	0	0	2	9
Exiting Leg	1					3					2					3					9
Total	3					6					4					5					18

PDI File #: **240116 A**
 Location: **N: Curtis Parkway S: Heard Street**
 Location: **E: Stafford Street W: Stafford Street SE: Crosswalk**
 City, State: **Worcester, MA**
 Client: **Bowman/ L. Fall**
 Site Code: **314158-01-001**
 Count Date: **Saturday, August 24, 2024**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Single-Unit Trucks

	Curtis Parkway					Stafford Street					Heard Street					Stafford Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	1	1	0	2	4
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	2
11:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	3
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
Total	1	0	0	0	1	0	2	0	0	2	0	0	0	0	0	1	6	1	0	8	11
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	4
12:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	1	0	2	3
12:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2	0	0	0	2	3
12:45 PM	0	0	0	0	0	0	2	0	0	2	0	2	0	0	2	0	1	1	0	2	6
Total	0	0	0	0	0	0	4	0	0	4	0	2	0	0	2	2	6	2	0	10	16
1:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
1:15 PM	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	1	0	0	1	3
1:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	3
1:45 PM	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	2
Total	0	0	0	0	0	0	4	1	0	5	0	1	0	0	1	0	3	0	0	3	9
Grand Total	1	0	0	0	1	0	10	1	0	11	0	3	0	0	3	3	15	3	0	21	36
Approach %	100.0	0.0	0.0	0.0		0.0	90.9	9.1	0.0		0.0	100.0	0.0	0.0		14.3	71.4	14.3	0.0		
Total %	2.8	0.0	0.0	0.0	2.8	0.0	27.8	2.8	0.0	30.6	0.0	8.3	0.0	0.0	8.3	8.3	41.7	8.3	0.0	58.3	
Exiting Leg Total	6					15					4					11					36

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

	Curtis Parkway					Stafford Street					Heard Street					Stafford Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	4
12:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	1	0	2	3
12:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2	0	0	0	2	3
12:45 PM	0	0	0	0	0	0	2	0	0	2	0	2	0	0	2	0	1	1	0	2	6
Total Volume	0	0	0	0	0	0	4	0	0	4	0	2	0	0	2	2	6	2	0	10	16
% Approach Total	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	100.0	0.0	0.0		20.0	60.0	20.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.500	0.000	0.250	0.000	0.000	0.250	0.250	0.375	0.500	0.000	0.625	0.667
Entering Leg	0	0	0	0	0	0	4	0	0	4	0	2	0	0	2	2	6	2	0	10	16
Exiting Leg	4					6					2					4					16
Total	4					10					4					14					32

PDI File #: **240116 A**
 Location: **N: Curtis Parkway S: Heard Street**
 Location: **E: Stafford Street W: Stafford Street SE: Crosswalk**
 City, State: **Worcester, MA**
 Client: **Bowman/ L. Fall**
 Site Code: **314158-01-001**
 Count Date: **Saturday, August 24, 2024**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Articulated Trucks

	Curtis Parkway					Stafford Street					Heard Street					Stafford Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
12:00 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
12:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	3
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0	2
Grand Total	0	0	0	0	0	0	4	1	0	5	0	0	1	0	1	0	1	0	0	1	7
Approach %	0.0	0.0	0.0	0.0		0.0	80.0	20.0	0.0		0.0	0.0	100.0	0.0		0.0	100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	57.1	14.3	0.0	71.4	0.0	0.0	14.3	0.0	14.3	0.0	14.3	0.0	0.0	14.3	
Exiting Leg Total	0					1					1					5					7

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

	Curtis Parkway					Stafford Street					Heard Street					Stafford Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
Total Volume	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3
% Approach Total	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.375
Entering Leg	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3
Exiting Leg	0					1					0					2					3
Total	0					3					0					3					6

PDI File #: 240116 A
 Location: N: Curtis Parkway S: Heard Street
 Location: E: Stafford Street W: Stafford Street SE: Crosswalk
 City, State: Worcester, MA
 Client: Bowman/ L. Fall
 Site Code: 314158-01-001
 Count Date: Saturday, August 24, 2024
 Start Time: 11:00 AM
 End Time: 2:00 PM
 Class:



Bicycles (on Roadway and Crosswalks)

	Curtis Parkway								Stafford Street								Crosswalk			Heard Street								Stafford Street								Total		
	from North								from East								from far-east			from South								from West										
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total		Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total		CW-SB	CW-NB	Total	Hard Right	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total				
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	1	2	0	3		
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1:30 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	1	2	0	4		
Grand Total	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	1	2	0	5		
Approach %	0.0	0.0	0.0	0.0	0.0	100.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0		0.0	0.0	0.0	0.0	0.0	100.0			50.0	0.0	0.0	0.0	0.0	50.0					
Total %	0.0	0.0	0.0	0.0	0.0	40.0	40.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0		0.0	0.0	0.0	0.0	20.0	20.0		20.0	0.0	0.0	0.0	0.0	20.0	40.0				
Exiting Leg Total	2								0								0			2								1								5		

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

12:45 PM	Curtis Parkway								Stafford Street								Crosswalk			Heard Street								Stafford Street								Total	
	from North								from East								from far-east			from South								from West									
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total		Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total		CW-SB	CW-NB	Total	Hard Right	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total			
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	1	2	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:30 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	1	2	0	4	
% Approach Total	0.0	0.0	0.0	0.0	0.0	100.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0		0.0	0.0	0.0	0.0	0.0	100.0			50.0	0.0	0.0	0.0	0.0	50.0				
PHF	0.000	0.000	0.000	0.000	0.000	0.250	0.250		0.000	0.000	0.000	0.000	0.000	0.000	0.000			0.000	0.000		0.000	0.000	0.000	0.000	0.250	0.250		0.250	0.000	0.000	0.000	0.000	0.250	0.250		0.333	
Entering Leg	0	0	0	0	0	1	1		0	0	0	0	0	0			0	0		0	0	0	0	0	1	1		1	0	0	0	0	1	2		4	
Exiting Leg	1								0								0			2								1								4	
Total	2								0								0			3								3								8	

PDI File #: 240116 A
 Location: N: Curtis Parkway S: Heard Street
 Location: E: Stafford Street W: Stafford Street SE: Crosswalk
 City, State: Worcester, MA
 Client: Bowman/ L. Fall
 Site Code: 314158-01-001
 Count Date: Saturday, August 24, 2024
 Start Time: 11:00 AM
 End Time: 2:00 PM
 Class:



Pedestrians

	Curtis Parkway							Stafford Street							Crosswalk			Heard Street							Stafford Street							Total		
	from North							from East							from far-east			from South							from West									
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	CW-SB	CW-NB	Total	Hard Right	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB		Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
11:30 AM	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	1	4	
1:00 PM	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	6
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
1:30 PM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2
1:45 PM	0	0	0	0	1	0	1	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
Total	0	0	0	0	4	0	4	0	0	0	0	2	0	2	0	4	4	0	0	0	0	0	1	0	1	0	0	0	0	3	0	3	14	
Grand Total	0	0	0	0	7	0	7	0	0	0	0	2	2	4	3	4	7	0	0	0	0	0	2	0	2	0	0	0	0	3	1	4	24	
Approach %	0	0	0	0	100	0	0	0	0	0	0	50	50	42.9	42.9	57.1	42.9	0	0	0	0	0	100	0	0	0	0	0	0	75	25	0	0	
Total %	0	0	0	0	29.2	0	29.2	0	0	0	0	8.33	8.33	16.7	12.5	16.7	29.2	0	0	0	0	0	8.33	0	8.33	0	0	0	0	12.5	4.17	16.7	0	
Exiting Leg Total	7							4							7			2							4							24		

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

1:00 PM	Curtis Parkway							Stafford Street							Crosswalk			Heard Street							Stafford Street							Total		
	from North							from East							from far-east			from South							from West									
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	CW-SB	CW-NB	Total	Hard Right	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB		Total	
1:00 PM	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	6
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
1:30 PM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2
1:45 PM	0	0	0	0	1	0	1	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
Total Volume	0	0	0	0	4	0	4	0	0	0	0	2	0	2	0	4	4	0	0	0	0	0	1	0	1	0	0	0	0	3	0	3	14	
% Approach Total	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	
PHF	0.000	0.000	0.000	0.000	0.500	0.000	0.500	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.333	0.333	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.583	
Entering Leg	0	0	0	0	4	0	4	0	0	0	0	2	0	2	0	4	4	0	0	0	0	0	1	0	1	0	0	0	0	3	0	3	14	
Exiting Leg	4							2							4			1							3							14		
Total	8							4							8			2							6							28		

PDI File #: 240116 B
 Location: N: Heard Street S: Heard Street
 Location: E: Walgreens Driveway W: CVS Driveway
 City, State: Worcester, MA
 Client: Bowman/ L. Fall
 Site Code: 314158-01-001
 Count Date: Thursday, August 22, 2024
 Start Time: 11:00 AM
 End Time: 2:00 PM
 Class:



Cars and Heavy Vehicles (Combined)

	Heard Street					Walgreens Driveway					Heard Street					CVS Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	4	43	0	0	47	0	0	0	0	0	0	50	2	0	52	4	0	2	0	6	105
11:15 AM	4	42	0	0	46	0	0	0	0	0	0	43	5	0	48	3	0	1	0	4	98
11:30 AM	4	34	0	0	38	0	0	0	0	0	0	45	3	0	48	3	0	1	0	4	90
11:45 AM	3	44	0	0	47	0	0	0	0	0	0	49	4	0	53	4	0	2	0	6	106
Total	15	163	0	0	178	0	0	0	0	0	0	187	14	0	201	14	0	6	0	20	399
12:00 PM	3	49	0	0	52	0	0	0	0	0	0	58	4	0	62	2	0	3	0	5	119
12:15 PM	5	39	0	0	44	0	0	0	0	0	0	51	6	1	58	5	0	2	0	7	109
12:30 PM	3	39	0	0	42	0	0	1	0	1	0	45	10	0	55	1	0	4	0	5	103
12:45 PM	2	49	0	0	51	0	0	0	0	0	0	47	5	0	52	3	0	1	0	4	107
Total	13	176	0	0	189	0	0	1	0	1	0	201	25	1	227	11	0	10	0	21	438
1:00 PM	5	48	0	0	53	0	0	0	0	0	0	68	8	0	76	2	0	2	0	4	133
1:15 PM	2	35	0	0	37	0	0	0	0	0	0	66	7	1	74	4	0	2	0	6	117
1:30 PM	3	35	0	0	38	0	1	0	0	1	0	67	2	0	69	4	0	1	0	5	113
1:45 PM	2	34	0	0	36	0	0	0	0	0	0	61	8	0	69	2	0	4	0	6	111
Total	12	152	0	0	164	0	1	0	0	1	0	262	25	1	288	12	0	9	0	21	474
Grand Total	40	491	0	0	531	0	1	1	0	2	0	650	64	2	716	37	0	25	0	62	1311
Approach %	7.5	92.5	0.0	0.0		0.0	50.0	50.0	0.0		0.0	90.8	8.9	0.3		59.7	0.0	40.3	0.0		
Total %	3.1	37.5	0.0	0.0	40.5	0.0	0.1	0.1	0.0	0.2	0.0	49.6	4.9	0.2	54.6	2.8	0.0	1.9	0.0	4.7	
Exiting Leg Total	675					0					531					105					1311
Cars	40	484	0	0	524	0	1	1	0	2	0	639	63	2	704	37	0	25	0	62	1292
% Cars	100.0	98.6	0.0	0.0	98.7	0.0	100.0	100.0	0.0	100.0	0.0	98.3	98.4	100.0	98.3	100.0	0.0	100.0	0.0	100.0	98.6
Exiting Leg Total	664					0					524					104					1292
Heavy Vehicles	0	7	0	0	7	0	0	0	0	0	0	11	1	0	12	0	0	0	0	0	19
% Heavy Vehicles	0.0	1.4	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	1.7	1.6	0.0	1.7	0.0	0.0	0.0	0.0	0.0	1.4
Exiting Leg Total	11					0					7					1					19

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

	Heard Street					Walgreens Driveway					Heard Street					CVS Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
1:00 PM	5	48	0	0	53	0	0	0	0	0	0	68	8	0	76	2	0	2	0	4	133
1:15 PM	2	35	0	0	37	0	0	0	0	0	0	66	7	1	74	4	0	2	0	6	117
1:30 PM	3	35	0	0	38	0	1	0	0	1	0	67	2	0	69	4	0	1	0	5	113
1:45 PM	2	34	0	0	36	0	0	0	0	0	0	61	8	0	69	2	0	4	0	6	111
Total Volume	12	152	0	0	164	0	1	0	0	1	0	262	25	1	288	12	0	9	0	21	474
% Approach Total	7.3	92.7	0.0	0.0		0.0	100.0	0.0	0.0		0.0	91.0	8.7	0.3		57.1	0.0	42.9	0.0		
PHF	0.600	0.792	0.000	0.000	0.774	0.000	0.250	0.000	0.000	0.250	0.000	0.963	0.781	0.250	0.947	0.750	0.000	0.563	0.000	0.875	0.891
Cars	12	151	0	0	163	0	1	0	0	1	0	260	25	1	286	12	0	9	0	21	471
Cars %	100.0	99.3	0.0	0.0	99.4	0.0	100.0	0.0	0.0	100.0	0.0	99.2	100.0	99.3	100.0	0.0	100.0	0.0	100.0	99.4	
Heavy Vehicles	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	3
Heavy Vehicles %	0.0	0.7	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.6
Cars Enter Leg	12	151	0	0	163	0	1	0	0	1	0	260	25	1	286	12	0	9	0	21	471
Heavy Enter Leg	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	3
Total Entering Leg	12	152	0	0	164	0	1	0	0	1	0	262	25	1	288	12	0	9	0	21	474
Cars Exiting Leg	269					0					164					38					471
Heavy Exiting Leg	2					0					1					0					3
Total Exiting Leg	271					0					165					38					474

PDI File #: **240116 B**
 Location: **N: Heard Street S: Heard Street**
 Location: **E: Walgreens Driveway W: CVS Driveway**
 City, State: **Worcester, MA**
 Client: **Bowman/ L. Fall**
 Site Code: **314158-01-001**
 Count Date: **Thursday, August 22, 2024**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Cars

	Heard Street					Walgreens Driveway					Heard Street					CVS Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	4	41	0	0	45	0	0	0	0	0	0	47	2	0	49	4	0	2	0	6	100
11:15 AM	4	42	0	0	46	0	0	0	0	0	0	40	5	0	45	3	0	1	0	4	95
11:30 AM	4	34	0	0	38	0	0	0	0	0	0	44	3	0	47	3	0	1	0	4	89
11:45 AM	3	41	0	0	44	0	0	0	0	0	0	48	4	0	52	4	0	2	0	6	102
Total	15	158	0	0	173	0	0	0	0	0	0	179	14	0	193	14	0	6	0	20	386
12:00 PM	3	49	0	0	52	0	0	0	0	0	0	58	3	0	61	2	0	3	0	5	118
12:15 PM	5	39	0	0	44	0	0	0	0	0	0	51	6	1	58	5	0	2	0	7	109
12:30 PM	3	39	0	0	42	0	0	1	0	1	0	44	10	0	54	1	0	4	0	5	102
12:45 PM	2	48	0	0	50	0	0	0	0	0	0	47	5	0	52	3	0	1	0	4	106
Total	13	175	0	0	188	0	0	1	0	1	0	200	24	1	225	11	0	10	0	21	435
1:00 PM	5	48	0	0	53	0	0	0	0	0	0	67	8	0	75	2	0	2	0	4	132
1:15 PM	2	35	0	0	37	0	0	0	0	0	0	66	7	1	74	4	0	2	0	6	117
1:30 PM	3	34	0	0	37	0	1	0	0	1	0	67	2	0	69	4	0	1	0	5	112
1:45 PM	2	34	0	0	36	0	0	0	0	0	0	60	8	0	68	2	0	4	0	6	110
Total	12	151	0	0	163	0	1	0	0	1	0	260	25	1	286	12	0	9	0	21	471
Grand Total	40	484	0	0	524	0	1	1	0	2	0	639	63	2	704	37	0	25	0	62	1292
Approach %	7.6	92.4	0.0	0.0		0.0	50.0	50.0	0.0		0.0	90.8	8.9	0.3		59.7	0.0	40.3	0.0		
Total %	3.1	37.5	0.0	0.0	40.6	0.0	0.1	0.1	0.0	0.2	0.0	49.5	4.9	0.2	54.5	2.9	0.0	1.9	0.0	4.8	
Exiting Leg Total	664					0					524					104					1292

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

	Heard Street					Walgreens Driveway					Heard Street					CVS Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
1:00 PM	5	48	0	0	53	0	0	0	0	0	0	67	8	0	75	2	0	2	0	4	132
1:15 PM	2	35	0	0	37	0	0	0	0	0	0	66	7	1	74	4	0	2	0	6	117
1:30 PM	3	34	0	0	37	0	1	0	0	1	0	67	2	0	69	4	0	1	0	5	112
1:45 PM	2	34	0	0	36	0	0	0	0	0	0	60	8	0	68	2	0	4	0	6	110
Total Volume	12	151	0	0	163	0	1	0	0	1	0	260	25	1	286	12	0	9	0	21	471
% Approach Total	7.4	92.6	0.0	0.0		0.0	100.0	0.0	0.0		0.0	90.9	8.7	0.3		57.1	0.0	42.9	0.0		
PHF	0.600	0.786	0.000	0.000	0.769	0.000	0.250	0.000	0.000	0.250	0.000	0.970	0.781	0.250	0.953	0.750	0.000	0.563	0.000	0.875	0.892
Entering Leg	12	151	0	0	163	0	1	0	0	1	0	260	25	1	286	12	0	9	0	21	471
Exiting Leg	269					0					164					38					471
Total	432					1					450					59					942

PDI File #: **240116 B**
 Location: **N: Heard Street S: Heard Street**
 Location: **E: Walgreens Driveway W: CVS Driveway**
 City, State: **Worcester, MA**
 Client: **Bowman/ L. Fall**
 Site Code: **314158-01-001**
 Count Date: **Thursday, August 22, 2024**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Buses

	Heard Street					Walgreens Driveway					Heard Street					CVS Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	0					0					0					0					0

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

11:00 AM	Heard Street					Walgreens Driveway					Heard Street					CVS Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0					0					0					0					0
Exiting Leg	0					0					0					0					0
Total	0					0					0					0					0

PDI File #: **240116 B**
 Location: **N: Heard Street S: Heard Street**
 Location: **E: Walgreens Driveway W: CVS Driveway**
 City, State: **Worcester, MA**
 Client: **Bowman/ L. Fall**
 Site Code: **314158-01-001**
 Count Date: **Thursday, August 22, 2024**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Single-Unit Trucks

	Heard Street					Walgreens Driveway					Heard Street					CVS Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	5
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	3
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
11:45 AM	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	4
Total	0	5	0	0	5	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	13
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
12:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	1	0	0	1	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	3
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Total	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	3
Grand Total	0	7	0	0	7	0	0	0	0	0	0	11	1	0	12	0	0	0	0	0	19
Approach %	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	91.7	8.3	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	36.8	0.0	0.0	36.8	0.0	0.0	0.0	0.0	0.0	0.0	57.9	5.3	0.0	63.2	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	11					0					7					1					19

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

11:00 AM	Heard Street					Walgreens Driveway					Heard Street					CVS Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	5
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	3
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
11:45 AM	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	4
Total Volume	0	5	0	0	5	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	13
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.417	0.000	0.000	0.417	0.000	0.000	0.000	0.000	0.000	0.000	0.667	0.000	0.000	0.667	0.000	0.000	0.000	0.000	0.000	0.650
Entering Leg	0	5	0	0	5	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	13
Exiting Leg	8					0					5					0					13
Total	13					0					13					0					26

PDI File #: **240116 B**
 Location: **N: Heard Street S: Heard Street**
 Location: **E: Walgreens Driveway W: CVS Driveway**
 City, State: **Worcester, MA**
 Client: **Bowman/ L. Fall**
 Site Code: **314158-01-001**
 Count Date: **Thursday, August 22, 2024**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Articulated Trucks

	Heard Street					Walgreens Driveway					Heard Street					CVS Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total	0					0					0					0					0

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

11:00 AM	Heard Street					Walgreens Driveway					Heard Street					CVS Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0					0					0					0					0
Exiting Leg	0					0					0					0					0
Total	0					0					0					0					0

PDI File #: 240116 B
 Location: N: Heard Street S: Heard Street
 Location: E: Walgreens Driveway W: CVS Driveway
 City, State: Worcester, MA
 Client: Bowman/ L. Fall
 Site Code: 314158-01-001
 Count Date: Thursday, August 22, 2024
 Start Time: 11:00 AM
 End Time: 2:00 PM
 Class:



Bicycles (on Roadway and Crosswalks)

	Heard Street								Walgreens Driveway								Heard Street								CVS Driveway								Total
	from North								from East								from South								from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total		Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total		Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total		Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Grand Total	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
Approach %	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Exiting Leg Total	0								1								0								0								1

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

	Heard Street								Walgreens Driveway								Heard Street								CVS Driveway								Total
	from North								from East								from South								from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total		Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total		Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total		Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0				
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250			
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
Exiting Leg	0								1								0								0								1
Total	0								2								0								0								2

PDI File #: 240116 B
 Location: N: Heard Street S: Heard Street
 Location: E: Walgreens Driveway W: CVS Driveway
 City, State: Worcester, MA
 Client: Bowman/ L. Fall
 Site Code: 314158-01-001
 Count Date: Thursday, August 22, 2024
 Start Time: 11:00 AM
 End Time: 2:00 PM
 Class:



Pedestrians

	Heard Street								Walgreens Driveway								Heard Street								CVS Driveway								Total
	from North								from East								from South								from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total		Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total		Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total		Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2			
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1			
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2			
Total	0	0	0	0	0	0	0	0	0	0	0	2	2	4	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	5			
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	3	0	3	0	0	0	0	0	0	0	4				
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1				
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1				
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	3				
Total	0	0	0	0	0	0	0	0	0	0	0	2	1	3	0	0	0	0	3	0	3	0	3	0	0	2	1	3	9				
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	1	1	0	0	0	0	0	0	0	4				
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1				
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0	1	0	1	3				
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1				
Total	0	0	0	0	0	0	0	0	0	0	0	3	3	6	0	0	0	0	1	1	2	0	0	0	0	1	0	1	9				
Grand Total	0	0	0	0	0	0	0	0	0	0	0	7	6	13	0	0	0	0	4	2	6	0	0	0	0	3	1	4	23				
Approach %	0	0	0	0	0	0	0	0	0	0	0	53.8	46.2		0	0	0	0	66.7	33.3		0	0	0	0	75	25						
Total %	0	0	0	0	0	0	0	0	0	0	0	30.4	26.1	56.5	0	0	0	0	17.4	8.7	26.1	0	0	0	0	13	4.35	17.4					
Exiting Leg Total	0								13								6								4								23

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

	Heard Street								Walgreens Driveway								Heard Street								CVS Driveway								Total
	from North								from East								from South								from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total		Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total		Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total		Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	3			
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	4			
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0	1	0	1	3				
Total Volume	0	0	0	0	0	0	0	0	0	0	0	3	4	7	0	0	0	0	1	1	2	0	0	0	0	1	1	2	11				
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.9	57.1		0.0	0.0	0.0	0.0	50.0	50.0		0.0	0.0	0.0	0.0	50.0	50.0						
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.333	0.583	0.000	0.000	0.000	0.000	0.250	0.250	0.500	0.000	0.000	0.000	0.000	0.250	0.250	0.500	0.688				
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	3	4	7	0	0	0	0	1	1	2	0	0	0	0	1	1	2	11				
Exiting Leg	0								7								2								2								11
Total	0								14								4								4								22

PDI File #: **240116 B**
 Location: **N: Heard Street S: Heard Street**
 Location: **E: Walgreens Driveway W: CVS Driveway**
 City, State: **Worcester, MA**
 Client: **Bowman/ L. Fall**
 Site Code: **314158-01-001**
 Count Date: **Thursday, August 22, 2024**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Cars and Heavy Vehicles (Combined)

	Heard Street					Walgreens Driveway					Heard Street					CVS Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	1	55	0	0	56	0	0	0	0	0	0	93	4	0	97	1	0	0	0	1	154
4:15 PM	5	57	0	0	62	0	0	0	0	0	0	101	6	0	107	2	0	2	0	4	173
4:30 PM	5	47	0	0	52	0	0	0	0	0	0	95	3	0	98	5	0	1	0	6	156
4:45 PM	5	58	0	0	63	0	0	0	0	0	0	105	5	0	110	7	0	4	0	11	184
Total	16	217	0	0	233	0	0	0	0	0	0	394	18	0	412	15	0	7	0	22	667
5:00 PM	1	55	0	0	56	0	0	0	0	0	0	108	5	0	113	4	0	1	0	5	174
5:15 PM	0	69	0	0	69	0	0	0	0	0	0	104	7	0	111	7	0	1	0	8	188
5:30 PM	9	50	0	0	59	0	0	0	0	0	0	88	5	0	93	5	0	0	0	5	157
5:45 PM	5	44	0	0	49	0	0	0	0	0	0	93	3	0	96	2	0	3	0	5	150
Total	15	218	0	0	233	0	0	0	0	0	0	393	20	0	413	18	0	5	0	23	669
Grand Total	31	435	0	0	466	0	0	0	0	0	0	787	38	0	825	33	0	12	0	45	1336
Approach %	6.7	93.3	0.0	0.0		0.0	0.0	0.0	0.0		0.0	95.4	4.6	0.0		73.3	0.0	26.7	0.0		
Total %	2.3	32.6	0.0	0.0	34.9	0.0	0.0	0.0	0.0	0.0	0.0	58.9	2.8	0.0	61.8	2.5	0.0	0.9	0.0	3.4	
Exiting Leg Total	799					0					468					69					1336
Cars	31	430	0	0	461	0	0	0	0	0	0	779	38	0	817	33	0	12	0	45	1323
% Cars	100.0	98.9	0.0	0.0	98.9	0.0	0.0	0.0	0.0	0.0	0.0	99.0	100.0	0.0	99.0	100.0	0.0	100.0	0.0	100.0	99.0
Exiting Leg Total	791					0					463					69					1323
Heavy Vehicles	0	5	0	0	5	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	13
% Heavy Vehicles	0.0	1.1	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0
Exiting Leg Total	8					0					5					0					13

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:45 PM	Heard Street					Walgreens Driveway					Heard Street					CVS Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:45 PM	5	58	0	0	63	0	0	0	0	0	0	105	5	0	110	7	0	4	0	11	184
5:00 PM	1	55	0	0	56	0	0	0	0	0	0	108	5	0	113	4	0	1	0	5	174
5:15 PM	0	69	0	0	69	0	0	0	0	0	0	104	7	0	111	7	0	1	0	8	188
5:30 PM	9	50	0	0	59	0	0	0	0	0	0	88	5	0	93	5	0	0	0	5	157
Total Volume	15	232	0	0	247	0	0	0	0	0	0	405	22	0	427	23	0	6	0	29	703
% Approach Total	6.1	93.9	0.0	0.0		0.0	0.0	0.0	0.0		0.0	94.8	5.2	0.0		79.3	0.0	20.7	0.0		
PHF	0.417	0.841	0.000	0.000	0.895	0.000	0.000	0.000	0.000	0.000	0.000	0.938	0.786	0.000	0.945	0.821	0.000	0.375	0.000	0.659	0.935
Cars	15	229	0	0	244	0	0	0	0	0	0	400	22	0	422	23	0	6	0	29	695
Cars %	100.0	98.7	0.0	0.0	98.8	0.0	0.0	0.0	0.0	0.0	0.0	98.8	100.0	0.0	98.8	100.0	0.0	100.0	0.0	100.0	98.9
Heavy Vehicles	0	3	0	0	3	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	8
Heavy Vehicles %	0.0	1.3	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	1.1
Cars Enter Leg	15	229	0	0	244	0	0	0	0	0	0	400	22	0	422	23	0	6	0	29	695
Heavy Enter Leg	0	3	0	0	3	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	8
Total Entering Leg	15	232	0	0	247	0	0	0	0	0	0	405	22	0	427	23	0	6	0	29	703
Cars Exiting Leg	406					0					252					37					695
Heavy Exiting Leg	5					0					3					0					8
Total Exiting Leg	411					0					255					37					703

PDI File #: **240116 B**
 Location: **N: Heard Street S: Heard Street**
 Location: **E: Walgreens Driveway W: CVS Driveway**
 City, State: **Worcester, MA**
 Client: **Bowman/ L. Fall**
 Site Code: **314158-01-001**
 Count Date: **Thursday, August 22, 2024**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Cars

	Heard Street					Walgreens Driveway					Heard Street					CVS Driveway					Total	
	from North					from East					from South					from West						
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total		
4:00 PM	1	54	0	0	55	0	0	0	0	0	0	93	4	0	97	1	0	0	0	1	153	
4:15 PM	5	57	0	0	62	0	0	0	0	0	0	99	6	0	105	2	0	2	0	4	171	
4:30 PM	5	47	0	0	52	0	0	0	0	0	0	95	3	0	98	5	0	1	0	6	156	
4:45 PM	5	58	0	0	63	0	0	0	0	0	0	104	5	0	109	7	0	4	0	11	183	
Total	16	216	0	0	232	0	0	0	0	0	0	391	18	0	409	15	0	7	0	22	663	
5:00 PM	1	55	0	0	56	0	0	0	0	0	0	108	5	0	113	4	0	1	0	5	174	
5:15 PM	0	67	0	0	67	0	0	0	0	0	0	102	7	0	109	7	0	1	0	8	184	
5:30 PM	9	49	0	0	58	0	0	0	0	0	0	86	5	0	91	5	0	0	0	5	154	
5:45 PM	5	43	0	0	48	0	0	0	0	0	0	92	3	0	95	2	0	3	0	5	148	
Total	15	214	0	0	229	0	0	0	0	0	0	388	20	0	408	18	0	5	0	23	660	
Grand Total	31	430	0	0	461	0	0	0	0	0	0	779	38	0	817	33	0	12	0	45	1323	
Approach %	6.7	93.3	0.0	0.0		0.0	0.0	0.0	0.0		0.0	95.3	4.7	0.0		73.3	0.0	26.7	0.0			
Total %	2.3	32.5	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	58.9	2.9	0.0	61.8	2.5	0.0	0.9	0.0	3.4		
Exiting Leg Total						791					0					463					69	1323

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Heard Street					Walgreens Driveway					Heard Street					CVS Driveway					Total	
	from North					from East					from South					from West						
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total		
4:30 PM	5	47	0	0	52	0	0	0	0	0	0	95	3	0	98	5	0	1	0	6	156	
4:45 PM	5	58	0	0	63	0	0	0	0	0	0	104	5	0	109	7	0	4	0	11	183	
5:00 PM	1	55	0	0	56	0	0	0	0	0	0	108	5	0	113	4	0	1	0	5	174	
5:15 PM	0	67	0	0	67	0	0	0	0	0	0	102	7	0	109	7	0	1	0	8	184	
Total Volume	11	227	0	0	238	0	0	0	0	0	0	409	20	0	429	23	0	7	0	30	697	
% Approach Total	4.6	95.4	0.0	0.0		0.0	0.0	0.0	0.0		0.0	95.3	4.7	0.0		76.7	0.0	23.3	0.0			
PHF	0.550	0.847	0.000	0.000	0.888	0.000	0.000	0.000	0.000	0.000	0.000	0.947	0.714	0.000	0.949	0.821	0.000	0.438	0.000	0.682	0.947	
Entering Leg	11	227	0	0	238	0	0	0	0	0	0	409	20	0	429	23	0	7	0	30	697	
Exiting Leg						416					0					250					31	697
Total						654					0					679					61	1394

PDI File #: **240116 B**
 Location: **N: Heard Street S: Heard Street**
 Location: **E: Walgreens Driveway W: CVS Driveway**
 City, State: **Worcester, MA**
 Client: **Bowman/ L. Fall**
 Site Code: **314158-01-001**
 Count Date: **Thursday, August 22, 2024**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**



Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)

	Heard Street					Walgreens Driveway					Heard Street					CVS Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Total	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	4
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	4
5:30 PM	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	3
5:45 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
Total	0	4	0	0	4	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	9
Grand Total	0	5	0	0	5	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	13
Approach %	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	38.5	0.0	0.0	38.5	0.0	0.0	0.0	0.0	0.0	0.0	61.5	0.0	0.0	61.5	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	8					0					5					0					13
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Buses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total	0					0					0					0					0
Single-Unit Trucks	0	5	0	0	5	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	13
% Single-Unit	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0
Exiting Leg Total	8					0					5					0					13
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total	0					0					0					0					0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Heard Street					Walgreens Driveway					Heard Street					CVS Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	4
5:30 PM	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	3
5:45 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
Total Volume	0	4	0	0	4	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	9
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.625	0.000	0.000	0.625	0.000	0.000	0.000	0.000	0.000	0.563
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Single-Unit Trucks	0	4	0	0	4	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	9
Single-Unit %	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Single-Unit Trucks	0	4	0	0	4	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	9
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	0	4	0	0	4	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	9
Buses	0					0					0					0					0
Single-Unit Trucks	5					0					4					0					9
Articulated Trucks	0					0					0					0					0
Total Exiting Leg	5					0					4					0					9

PDI File #: **240116 B**
 Location: **N: Heard Street S: Heard Street**
 Location: **E: Walgreens Driveway W: CVS Driveway**
 City, State: **Worcester, MA**
 Client: **Bowman/ L. Fall**
 Site Code: **314158-01-001**
 Count Date: **Thursday, August 22, 2024**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Buses

	Heard Street					Walgreens Driveway					Heard Street					CVS Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total	0					0					0					0					0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Heard Street					Walgreens Driveway					Heard Street					CVS Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0					0					0					0					0
Total	0					0					0					0					0

PDI File #: **240116 B**
 Location: **N: Heard Street S: Heard Street**
 Location: **E: Walgreens Driveway W: CVS Driveway**
 City, State: **Worcester, MA**
 Client: **Bowman/ L. Fall**
 Site Code: **314158-01-001**
 Count Date: **Thursday, August 22, 2024**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Single-Unit Trucks

	Heard Street					Walgreens Driveway					Heard Street					CVS Driveway					Total					
	from North					from East					from South					from West										
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total						
4:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	4
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	4
5:30 PM	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	3
5:45 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
Total	0	4	0	0	4	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	9
Grand Total	0	5	0	0	5	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	0	0	0	0	0	13
Approach %	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	38.5	0.0	0.0	38.5	0.0	0.0	0.0	0.0	0.0	0.0	61.5	0.0	0.0	61.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	8					0					5					0					13					

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Heard Street					Walgreens Driveway					Heard Street					CVS Driveway					Total					
	from North					from East					from South					from West										
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total						
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	4
5:30 PM	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	3
5:45 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
Total Volume	0	4	0	0	4	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	9
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.625	0.000	0.000	0.625	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.563
Entering Leg	0	4	0	0	4	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	9
Exiting Leg	5					0					4					0					9					
Total	9					0					9					0					18					

PDI File #: **240116 B**
 Location: **N: Heard Street S: Heard Street**
 Location: **E: Walgreens Driveway W: CVS Driveway**
 City, State: **Worcester, MA**
 Client: **Bowman/ L. Fall**
 Site Code: **314158-01-001**
 Count Date: **Thursday, August 22, 2024**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Articulated Trucks

	Heard Street					Walgreens Driveway					Heard Street					CVS Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total	0					0					0					0					0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Heard Street					Walgreens Driveway					Heard Street					CVS Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0					0					0					0					0
Total	0					0					0					0					0

PDI File #: **240116 B**
 Location: **N: Heard Street S: Heard Street**
 Location: **E: Walgreens Driveway W: CVS Driveway**
 City, State: **Worcester, MA**
 Client: **Bowman/ L. Fall**
 Site Code: **314158-01-001**
 Count Date: **Thursday, August 22, 2024**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Heard Street								Walgreens Driveway								Heard Street								CVS Driveway								Total
	from North								from East								from South								from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total		Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total		Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total		Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
Approach %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Exiting Leg Total	0								1								0								0								1

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Heard Street								Walgreens Driveway								Heard Street								CVS Driveway								Total
	from North								from East								from South								from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total		Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total		Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total		Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250			
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
Exiting Leg	0								1								0								0								1
Total	0								2								0								0								2

PDI File #: **240116 B**
 Location: **N: Heard Street S: Heard Street**
 Location: **E: Walgreens Driveway W: CVS Driveway**
 City, State: **Worcester, MA**
 Client: **Bowman/ L. Fall**
 Site Code: **314158-01-001**
 Count Date: **Thursday, August 22, 2024**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Pedestrians

	Heard Street								Walgreens Driveway								Heard Street								CVS Driveway								Total
	from North								from East								from South								from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total		Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total		Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total		Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2		
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	2		
Total	0	0	0	0	0	0	0	0	0	0	0	2	2	4	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	5			
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1			
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1			
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1			
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	3			
Grand Total	0	0	0	0	0	0	0	0	0	0	0	2	2	4	0	0	0	0	0	1	1	0	0	0	0	1	2	3	8				
Approach %	0	0	0	0	0	0	0	0	0	0	0	50	50	0	0	0	0	0	100	0	0	0	0	33.3	66.7								
Total %	0	0	0	0	0	0	0	0	0	0	0	25	25	50	0	0	0	0	0	12.5	12.5	0	0	0	0	12.5	25	37.5					
Exiting Leg Total	0							4							1							3							8				

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Heard Street								Walgreens Driveway								Heard Street								CVS Driveway								Total
	from North								from East								from South								from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total		Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total		Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total		Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2		
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	2		
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1			
Total Volume	0	0	0	0	0	0	0	0	0	0	0	2	2	4	0	0	0	0	0	1	1	0	0	0	0	0	1	1	6				
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	50.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0								
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.500	0.500	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.750				
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	2	2	4	0	0	0	0	0	1	1	0	0	0	0	0	1	1	6				
Exiting Leg	0							4							1							1							6				
Total	0							8							2							2							12				

PDI File #: **240116 B**
 Location: **N: Heard Street S: Heard Street**
 Location: **E: Walgreens Driveway W: CVS Driveway**
 City, State: **Worcester, MA**
 Client: **Bowman/ L. Fall**
 Site Code: **314158-01-001**
 Count Date: **Saturday, August 24, 2024**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Cars and Heavy Vehicles (Combined)

	Heard Street					Walgreens Driveway					Heard Street					CVS Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	7	41	0	0	48	0	0	0	0	0	0	32	3	0	35	3	0	1	0	4	87
11:15 AM	2	51	0	0	53	0	0	0	0	0	0	33	2	0	35	2	0	0	0	2	90
11:30 AM	6	50	0	0	56	0	0	0	0	0	0	19	3	0	22	6	0	0	0	6	84
11:45 AM	5	50	0	0	55	0	0	0	0	0	0	31	5	0	36	4	0	2	0	6	97
Total	20	192	0	0	212	0	0	0	0	0	0	115	13	0	128	15	0	3	0	18	358
12:00 PM	8	61	0	0	69	0	0	0	0	0	0	31	3	0	34	3	0	3	0	6	109
12:15 PM	4	54	0	0	58	0	0	0	0	0	0	38	2	0	40	2	0	4	0	6	104
12:30 PM	3	46	0	0	49	0	0	0	0	0	0	30	2	0	32	4	0	1	0	5	86
12:45 PM	8	32	0	0	40	0	0	0	0	0	0	46	4	0	50	3	0	2	0	5	95
Total	23	193	0	0	216	0	0	0	0	0	0	145	11	0	156	12	0	10	0	22	394
1:00 PM	6	60	0	0	66	0	0	0	0	0	0	59	4	0	63	4	0	0	0	4	133
1:15 PM	1	63	0	0	64	0	0	0	0	0	0	76	5	0	81	5	0	0	0	5	150
1:30 PM	5	55	0	0	60	0	0	0	0	0	0	73	2	0	75	1	0	0	0	1	136
1:45 PM	2	49	0	0	51	0	0	0	0	0	0	96	3	0	99	1	0	0	0	1	151
Total	14	227	0	0	241	0	0	0	0	0	0	304	14	0	318	11	0	0	0	11	570
Grand Total	57	612	0	0	669	0	0	0	0	0	0	564	38	0	602	38	0	13	0	51	1322
Approach %	8.5	91.5	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	93.7	6.3	0.0		74.5	0.0	25.5	0.0		
Total %	4.3	46.3	0.0	0.0	50.6	0.0	0.0	0.0	0.0	0.0	0.0	42.7	2.9	0.0	45.5	2.9	0.0	1.0	0.0	3.9	
Exiting Leg Total					577					0				650					95		1322
Cars	57	606	0	0	663	0	0	0	0	0	0	555	38	0	593	38	0	13	0	51	1307
% Cars	100.0	99.0	0.0	0.0	99.1	0.0	0.0	0.0	0.0	0.0	0.0	98.4	100.0	0.0	98.5	100.0	0.0	100.0	0.0	100.0	98.9
Exiting Leg Total					568					0				644					95		1307
Heavy Vehicles	0	6	0	0	6	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	15
% Heavy Vehicles	0.0	1.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	1.1
Exiting Leg Total					9					0				6					0		15

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

1:00 PM	Heard Street					Walgreens Driveway					Heard Street					CVS Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
1:00 PM	6	60	0	0	66	0	0	0	0	0	0	59	4	0	63	4	0	0	0	4	133
1:15 PM	1	63	0	0	64	0	0	0	0	0	0	76	5	0	81	5	0	0	0	5	150
1:30 PM	5	55	0	0	60	0	0	0	0	0	0	73	2	0	75	1	0	0	0	1	136
1:45 PM	2	49	0	0	51	0	0	0	0	0	0	96	3	0	99	1	0	0	0	1	151
Total Volume	14	227	0	0	241	0	0	0	0	0	0	304	14	0	318	11	0	0	0	11	570
% Approach Total	5.8	94.2	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	95.6	4.4	0.0		100.0	0.0	0.0	0.0		
PHF	0.583	0.901	0.000	0.000	0.913	0.000	0.000	0.000	0.000	0.000	0.000	0.792	0.700	0.000	0.803	0.550	0.000	0.000	0.000	0.550	0.944
Cars	14	223	0	0	237	0	0	0	0	0	0	301	14	0	315	11	0	0	0	11	563
Cars %	100.0	98.2	0.0	0.0	98.3	0.0	0.0	0.0	0.0	0.0	0.0	99.0	100.0	0.0	99.1	100.0	0.0	0.0	0.0	100.0	98.8
Heavy Vehicles	0	4	0	0	4	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	7
Heavy Vehicles %	0.0	1.8	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	1.2
Cars Enter Leg	14	223	0	0	237	0	0	0	0	0	0	301	14	0	315	11	0	0	0	11	563
Heavy Enter Leg	0	4	0	0	4	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	7
Total Entering Leg	14	227	0	0	241	0	0	0	0	0	0	304	14	0	318	11	0	0	0	11	570
Cars Exiting Leg					301					0				234					28		563
Heavy Exiting Leg					3					0				4					0		7
Total Exiting Leg					304					0				238					28		570

PDI File #: **240116 B**
 Location: **N: Heard Street S: Heard Street**
 Location: **E: Walgreens Driveway W: CVS Driveway**
 City, State: **Worcester, MA**
 Client: **Bowman/ L. Fall**
 Site Code: **314158-01-001**
 Count Date: **Saturday, August 24, 2024**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Cars

	Heard Street					Walgreens Driveway					Heard Street					CVS Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	7	41	0	0	48	0	0	0	0	0	0	32	3	0	35	3	0	1	0	4	87
11:15 AM	2	50	0	0	52	0	0	0	0	0	0	32	2	0	34	2	0	0	0	2	88
11:30 AM	6	50	0	0	56	0	0	0	0	0	0	19	3	0	22	6	0	0	0	6	84
11:45 AM	5	50	0	0	55	0	0	0	0	0	0	31	5	0	36	4	0	2	0	6	97
Total	20	191	0	0	211	0	0	0	0	0	0	114	13	0	127	15	0	3	0	18	356
12:00 PM	8	61	0	0	69	0	0	0	0	0	0	30	3	0	33	3	0	3	0	6	108
12:15 PM	4	54	0	0	58	0	0	0	0	0	0	38	2	0	40	2	0	4	0	6	104
12:30 PM	3	45	0	0	48	0	0	0	0	0	0	29	2	0	31	4	0	1	0	5	84
12:45 PM	8	32	0	0	40	0	0	0	0	0	0	43	4	0	47	3	0	2	0	5	92
Total	23	192	0	0	215	0	0	0	0	0	0	140	11	0	151	12	0	10	0	22	388
1:00 PM	6	58	0	0	64	0	0	0	0	0	0	57	4	0	61	4	0	0	0	4	129
1:15 PM	1	62	0	0	63	0	0	0	0	0	0	76	5	0	81	5	0	0	0	5	149
1:30 PM	5	54	0	0	59	0	0	0	0	0	0	73	2	0	75	1	0	0	0	1	135
1:45 PM	2	49	0	0	51	0	0	0	0	0	0	95	3	0	98	1	0	0	0	1	150
Total	14	223	0	0	237	0	0	0	0	0	0	301	14	0	315	11	0	0	0	11	563
Grand Total	57	606	0	0	663	0	0	0	0	0	0	555	38	0	593	38	0	13	0	51	1307
Approach %	8.6	91.4	0.0	0.0		0.0	0.0	0.0	0.0		0.0	93.6	6.4	0.0		74.5	0.0	25.5	0.0		
Total %	4.4	46.4	0.0	0.0	50.7	0.0	0.0	0.0	0.0	0.0	0.0	42.5	2.9	0.0	45.4	2.9	0.0	1.0	0.0	3.9	
Exiting Leg Total	568					0					644					95					1307

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

	Heard Street					Walgreens Driveway					Heard Street					CVS Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
1:00 PM	6	58	0	0	64	0	0	0	0	0	0	57	4	0	61	4	0	0	0	4	129
1:15 PM	1	62	0	0	63	0	0	0	0	0	0	76	5	0	81	5	0	0	0	5	149
1:30 PM	5	54	0	0	59	0	0	0	0	0	0	73	2	0	75	1	0	0	0	1	135
1:45 PM	2	49	0	0	51	0	0	0	0	0	0	95	3	0	98	1	0	0	0	1	150
Total Volume	14	223	0	0	237	0	0	0	0	0	0	301	14	0	315	11	0	0	0	11	563
% Approach Total	5.9	94.1	0.0	0.0		0.0	0.0	0.0	0.0		0.0	95.6	4.4	0.0		100.0	0.0	0.0	0.0		
PHF	0.583	0.899	0.000	0.000	0.926	0.000	0.000	0.000	0.000	0.000	0.000	0.792	0.700	0.000	0.804	0.550	0.000	0.000	0.000	0.550	0.938
Entering Leg	14	223	0	0	237	0	0	0	0	0	0	301	14	0	315	11	0	0	0	11	563
Exiting Leg	301					0					234					28					563
Total	538					0					549					39					1126

PDI File #: **240116 B**
 Location: **N: Heard Street S: Heard Street**
 Location: **E: Walgreens Driveway W: CVS Driveway**
 City, State: **Worcester, MA**
 Client: **Bowman/ L. Fall**
 Site Code: **314158-01-001**
 Count Date: **Saturday, August 24, 2024**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Buses

	Heard Street					Walgreens Driveway					Heard Street					CVS Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
Approach %	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	50.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total	1					0					1					0					2

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

11:00 AM	Heard Street					Walgreens Driveway					Heard Street					CVS Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
Entering Leg	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Exiting Leg	0					0					1					0					1
Total	1					0					1					0					2

PDI File #: **240116 B**
 Location: **N: Heard Street S: Heard Street**
 Location: **E: Walgreens Driveway W: CVS Driveway**
 City, State: **Worcester, MA**
 Client: **Bowman/ L. Fall**
 Site Code: **314158-01-001**
 Count Date: **Saturday, August 24, 2024**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Single-Unit Trucks

	Heard Street					Walgreens Driveway					Heard Street					CVS Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0
Total	0	1	0	0	1	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	5
1:00 PM	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0
1:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0
Total	0	3	0	0	3	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	6
Grand Total	0	4	0	0	4	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	12
Approach %	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	33.3	0.0	0.0	33.3	0.0	0.0	0.0	0.0	0.0	0.0	66.7	0.0	0.0	66.7	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total	8					0					4					0					12

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

	Heard Street					Walgreens Driveway					Heard Street					CVS Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
12:30 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0
1:00 PM	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0
1:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	4	0	0	4	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	9
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.625	0.000	0.000	0.625	0.000	0.000	0.000	0.000	0.000	0.563
Entering Leg	0	4	0	0	4	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	9
Exiting Leg	5					0					4					0					9
Total	9					0					9					0					18

PDI File #: **240116 B**
 Location: **N: Heard Street S: Heard Street**
 Location: **E: Walgreens Driveway W: CVS Driveway**
 City, State: **Worcester, MA**
 Client: **Bowman/ L. Fall**
 Site Code: **314158-01-001**
 Count Date: **Saturday, August 24, 2024**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Articulated Trucks

	Heard Street					Walgreens Driveway					Heard Street					CVS Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Grand Total	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Approach %	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	0					0					1					0					1

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

	Heard Street					Walgreens Driveway					Heard Street					CVS Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
Entering Leg	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Exiting Leg	0					0					1					0					1
Total	1					0					1					0					2

PDI File #: **240116 B**
 Location: **N: Heard Street S: Heard Street**
 Location: **E: Walgreens Driveway W: CVS Driveway**
 City, State: **Worcester, MA**
 Client: **Bowman/ L. Fall**
 Site Code: **314158-01-001**
 Count Date: **Saturday, August 24, 2024**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Pedestrians

	Heard Street								Walgreens Driveway								Heard Street								CVS Driveway								Total
	from North								from East								from South								from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total		Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total		Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total		Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2		
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2		
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Total	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	5		
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1			
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
12:30 PM	0	0	0	0	1	0	1	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3			
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Total	0	0	0	0	1	0	1	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	5			
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	3			
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2			
Total	0	0	0	0	0	0	0	0	0	0	0	3	1	4	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	5			
Grand Total	0	0	0	0	1	0	1	0	0	0	0	6	4	10	0	0	0	0	0	1	1	0	0	0	0	2	1	3	15				
Approach %	0	0	0	0	100	0		0	0	0	0	60	40		0	0	0	0	0	100		0	0	0	0	66.7	33.3						
Total %	0	0	0	0	6.67	0	6.67	0	0	0	0	40	26.7	66.7	0	0	0	0	0	6.67	6.67	0	0	0	0	13.3	6.67	20					
Exiting Leg Total	1							10							1							3							15				

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

	Heard Street								Walgreens Driveway								Heard Street								CVS Driveway								Total
	from North								from East								from South								from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total		Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total		Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total		Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2		
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2			
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Total Volume	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	5		
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	100.0	0.0						
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.375	0.000	0.375		0.000	0.000	0.000	0.000	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.625			
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	5			
Exiting Leg	0							3							0							2							5				
Total	0							6							0							4							10				

Heard Street
 south of CVS Driveway
 City, State: Worcester, MA
 Client: Bowman/ L. Fall
 Site Code: 314158-01-001



157 Washington Street, Suite 2
 Hudson, MA 01749
 Office: 508-875-0100 Fax: 508-875-0118

PDI File #: 240116 ATR-A

Count Date: Wednesday, August 21, 2024
 Direction: NB

AM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	5	0	0	0	5
12:15 AM	0	0	7	0	0	0	7
12:30 AM	0	0	4	0	0	0	4
12:45 AM	0	0	4	0	0	0	4
1:00 AM	0	0	6	0	0	0	6
1:15 AM	0	0	3	0	0	0	3
1:30 AM	0	0	2	0	0	0	2
1:45 AM	0	0	1	0	0	0	1
2:00 AM	0	0	4	0	0	0	4
2:15 AM	0	0	0	0	0	0	0
2:30 AM	0	0	3	0	0	0	3
2:45 AM	0	0	2	0	0	0	2
3:00 AM	0	0	1	0	0	0	1
3:15 AM	0	0	1	0	0	0	1
3:30 AM	0	1	1	0	0	0	2
3:45 AM	0	0	3	0	0	0	3
4:00 AM	0	0	3	0	0	0	3
4:15 AM	0	0	3	0	0	0	3
4:30 AM	0	0	5	0	1	0	6
4:45 AM	0	0	9	0	0	0	9
5:00 AM	0	0	14	0	0	0	14
5:15 AM	0	0	10	0	0	0	10
5:30 AM	0	0	23	0	0	0	23
5:45 AM	0	0	9	0	0	0	9
6:00 AM	0	0	8	0	0	0	8
6:15 AM	0	0	21	0	0	0	21
6:30 AM	0	0	8	0	0	0	8
6:45 AM	0	0	20	0	0	0	20
7:00 AM	0	0	31	0	0	0	31
7:15 AM	0	0	29	0	1	0	30
7:30 AM	0	0	46	0	1	0	47
7:45 AM	0	0	36	0	1	0	37
8:00 AM	0	0	34	0	0	0	34
8:15 AM	0	0	45	0	2	0	47
8:30 AM	0	0	53	0	1	0	54
8:45 AM	0	0	53	0	0	0	53
9:00 AM	0	0	40	1	4	0	45
9:15 AM	0	0	44	0	0	1	45
9:30 AM	0	0	51	0	0	0	51
9:45 AM	0	1	39	0	2	0	42
10:00 AM	0	0	39	0	0	0	39
10:15 AM	0	0	41	0	1	0	42
10:30 AM	0	0	45	0	0	0	45
10:45 AM	0	0	58	0	1	0	59
11:00 AM	0	0	44	0	1	1	46
11:15 AM	0	0	43	0	2	0	45
11:30 AM	0	0	57	0	0	0	57
11:45 AM	0	1	35	0	2	0	38

AM Total 0 3 1043 1 20 2 1069
Percentage 0.00% 0.28% 97.57% 0.09% 1.87% 0.19%

AM Peak 12:00 AM 2:45 AM 10:45 AM 8:15 AM 8:15 AM 8:30 AM 10:45 AM
Volume 0 1 202 1 7 1 207

PM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total
12:00 PM	0	0	56	0	1	0	57
12:15 PM	0	0	56	0	1	0	57
12:30 PM	0	0	60	0	1	0	61
12:45 PM	0	0	56	0	0	0	56
1:00 PM	0	0	46	0	0	0	46
1:15 PM	0	0	55	0	0	0	55
1:30 PM	0	0	50	0	0	0	50
1:45 PM	1	0	59	0	0	0	60
2:00 PM	0	0	62	0	1	0	63
2:15 PM	0	0	78	0	0	0	78
2:30 PM	0	0	69	0	0	0	69
2:45 PM	0	0	74	0	0	0	74
3:00 PM	0	0	86	0	1	0	87
3:15 PM	0	1	86	0	2	0	89
3:30 PM	0	0	82	0	0	0	82
3:45 PM	0	1	98	0	1	0	100
4:00 PM	0	0	95	0	1	0	96
4:15 PM	0	1	81	0	1	0	83
4:30 PM	1	2	74	0	0	0	77
4:45 PM	0	0	94	0	1	0	95
5:00 PM	0	0	89	0	0	0	89
5:15 PM	0	0	106	0	0	0	106
5:30 PM	0	0	87	0	2	0	89
5:45 PM	0	0	71	0	0	0	71
6:00 PM	0	0	67	0	0	0	67
6:15 PM	0	0	61	0	0	0	61
6:30 PM	0	0	54	0	0	0	54
6:45 PM	0	0	65	0	0	0	65
7:00 PM	0	0	53	0	0	0	53
7:15 PM	0	0	56	0	0	0	56
7:30 PM	0	0	38	0	0	0	38
7:45 PM	0	0	50	0	0	0	50
8:00 PM	1	1	53	0	0	0	55
8:15 PM	0	1	40	0	0	0	41
8:30 PM	0	0	46	0	0	0	46
8:45 PM	0	1	24	0	0	0	25
9:00 PM	0	0	32	0	0	0	32
9:15 PM	0	0	23	0	0	0	23
9:30 PM	0	0	18	0	0	0	18
9:45 PM	0	0	21	0	0	0	21
10:00 PM	0	1	10	0	0	0	11
10:15 PM	0	0	17	0	0	0	17
10:30 PM	0	0	11	0	0	0	11
10:45 PM	0	0	16	0	0	0	16
11:00 PM	0	0	12	0	0	0	12
11:15 PM	0	0	14	0	0	0	14
11:30 PM	0	0	12	0	0	0	12
11:45 PM	0	0	5	0	0	0	5

PM Total 3 9 2568 0 13 0 2593
Percentage 0.12% 0.35% 99.04% 0.00% 0.50% 0.00%

PM Peak 1:00 PM 3:45 PM 4:45 PM 12:00 PM 3:00 PM 12:00 PM 4:45 PM
Volume 1 4 376 0 4 0 379

Day Total 3 12 3611 1 33 2 3662
Percentage 0.08% 0.33% 98.61% 0.03% 0.90% 0.05%

Heard Street
 south of CVS Driveway
 City, State: Worcester, MA
 Client: Bowman/ L. Fall
 Site Code: 314158-01-001



PDI File #: 240116 ATR-A

Count Date: Thursday, August 22, 2024
 Direction: NB

AM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	7	0	0	0	7
12:15 AM	0	0	7	0	0	0	7
12:30 AM	0	0	3	0	0	0	3
12:45 AM	0	0	3	0	0	0	3
1:00 AM	0	0	7	0	0	0	7
1:15 AM	0	0	3	0	0	0	3
1:30 AM	0	0	2	0	0	0	2
1:45 AM	0	0	6	0	0	0	6
2:00 AM	0	0	3	0	0	0	3
2:15 AM	0	0	1	0	0	0	1
2:30 AM	0	0	8	0	0	0	8
2:45 AM	0	0	2	0	1	0	3
3:00 AM	0	0	0	0	0	0	0
3:15 AM	0	0	3	0	0	0	3
3:30 AM	0	0	1	0	0	0	1
3:45 AM	0	0	3	0	0	0	3
4:00 AM	0	0	2	0	0	0	2
4:15 AM	0	0	1	0	0	0	1
4:30 AM	0	0	1	0	0	0	1
4:45 AM	0	0	13	0	0	0	13
5:00 AM	0	0	16	0	0	0	16
5:15 AM	0	0	10	0	0	0	10
5:30 AM	0	0	17	0	0	0	17
5:45 AM	0	0	8	0	0	0	8
6:00 AM	0	0	10	0	0	0	10
6:15 AM	0	0	16	0	2	0	18
6:30 AM	0	0	10	0	0	0	10
6:45 AM	0	0	30	0	0	0	30
7:00 AM	0	0	21	0	2	0	23
7:15 AM	0	0	47	0	0	0	47
7:30 AM	1	0	52	0	1	1	55
7:45 AM	0	0	55	0	1	0	56
8:00 AM	0	0	41	0	2	0	43
8:15 AM	0	0	30	0	0	0	30
8:30 AM	0	0	46	0	1	0	47
8:45 AM	0	0	43	0	1	0	44
9:00 AM	1	0	34	0	1	0	36
9:15 AM	0	0	54	0	0	0	54
9:30 AM	0	0	35	0	0	0	35
9:45 AM	0	0	47	0	4	0	51
10:00 AM	0	0	40	0	1	0	41
10:15 AM	0	0	45	0	1	0	46
10:30 AM	0	0	55	0	0	0	55
10:45 AM	0	0	41	0	1	0	42
11:00 AM	0	1	49	0	2	1	53
11:15 AM	0	0	42	0	2	0	44
11:30 AM	0	0	46	0	1	0	47
11:45 AM	0	0	48	0	1	0	49

AM Total	2	1	1064	0	25	2	1094
Percentage	0.18%	0.09%	97.26%	0.00%	2.29%	0.18%	
AM Peak	6:45 AM	10:15 AM	7:15 AM	12:00 AM	9:30 AM	6:45 AM	7:15 AM
Volume	1	1	195	0	6	1	201

PM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total
12:00 PM	0	0	61	0	0	0	61
12:15 PM	0	0	53	0	1	0	54
12:30 PM	0	0	49	0	1	0	50
12:45 PM	0	0	48	0	0	0	48
1:00 PM	0	0	68	0	1	0	69
1:15 PM	0	0	67	0	0	0	67
1:30 PM	0	0	68	0	0	0	68
1:45 PM	0	0	65	0	1	0	66
2:00 PM	0	0	74	1	0	0	75
2:15 PM	0	1	58	0	0	0	59
2:30 PM	0	0	79	0	0	1	80
2:45 PM	0	1	96	0	1	0	98
3:00 PM	0	0	75	0	0	0	75
3:15 PM	1	1	63	0	1	0	66
3:30 PM	0	0	84	0	1	0	85
3:45 PM	2	1	106	0	0	0	109
4:00 PM	0	0	94	0	0	0	94
4:15 PM	0	0	100	0	2	0	102
4:30 PM	0	0	95	0	0	0	95
4:45 PM	0	1	107	0	1	0	109
5:00 PM	0	0	109	0	1	0	110
5:15 PM	0	0	104	0	2	0	106
5:30 PM	0	0	87	0	1	1	89
5:45 PM	0	0	94	0	2	0	96
6:00 PM	0	0	87	0	0	0	87
6:15 PM	0	0	64	0	0	0	64
6:30 PM	0	2	74	0	0	0	76
6:45 PM	0	0	49	0	0	0	49
7:00 PM	0	0	60	0	0	0	60
7:15 PM	0	0	55	0	0	0	55
7:30 PM	0	0	51	0	0	0	51
7:45 PM	0	0	34	0	0	0	34
8:00 PM	0	0	63	0	0	0	63
8:15 PM	0	0	41	0	0	0	41
8:30 PM	0	0	39	0	0	0	39
8:45 PM	0	0	29	0	0	0	29
9:00 PM	0	0	25	0	0	0	25
9:15 PM	0	0	22	0	0	0	22
9:30 PM	0	0	23	0	0	0	23
9:45 PM	0	0	13	0	0	0	13
10:00 PM	0	0	14	0	0	0	14
10:15 PM	1	0	12	0	0	0	13
10:30 PM	0	0	12	0	0	0	12
10:45 PM	0	0	16	0	0	0	16
11:00 PM	0	1	9	0	0	0	10
11:15 PM	0	0	16	0	0	0	16
11:30 PM	0	0	11	0	0	0	11
11:45 PM	0	0	10	0	0	0	10

PM Total	4	8	2733	1	16	2	2764
Percentage	0.14%	0.29%	98.88%	0.04%	0.58%	0.07%	
PM Peak	3:00 PM	2:00 PM	4:30 PM	1:15 PM	5:00 PM	1:45 PM	4:30 PM
Volume	3	2	415	1	6	1	420
Day Total	6	9	3797	1	41	4	3858
Percentage	0.16%	0.23%	98.42%	0.03%	1.06%	0.10%	

Heard Street
 south of CVS Driveway
 City, State: Worcester, MA
 Client: Bowman/ L. Fall
 Site Code: 314158-01-001



PRECISION
 DATA
 INDUSTRIES, LLC
 157 Washington Street, Suite 2
 Hudson, MA 01749
 Office: 508-875-0100 Fax: 508-875-0118

PDI File #: 240116 ATR-A

Count Date: Wednesday, August 21, 2024
 Direction: SB

AM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	0	0	0	0	0
12:15 AM	0	0	5	0	0	0	5
12:30 AM	0	0	3	0	0	0	3
12:45 AM	0	0	5	0	0	0	5
1:00 AM	0	0	5	0	0	0	5
1:15 AM	0	0	1	0	0	0	1
1:30 AM	0	0	2	0	0	0	2
1:45 AM	0	0	1	0	0	0	1
2:00 AM	0	0	2	0	0	0	2
2:15 AM	0	0	1	0	0	0	1
2:30 AM	0	0	0	0	0	0	0
2:45 AM	0	0	4	0	0	0	4
3:00 AM	0	0	0	0	0	0	0
3:15 AM	0	0	3	0	0	0	3
3:30 AM	0	0	1	0	0	0	1
3:45 AM	0	0	0	0	0	0	0
4:00 AM	0	0	4	0	0	0	4
4:15 AM	0	0	3	0	0	0	3
4:30 AM	0	0	10	0	0	0	10
4:45 AM	0	0	8	0	0	0	8
5:00 AM	0	0	7	0	0	0	7
5:15 AM	0	0	13	0	0	0	13
5:30 AM	0	0	20	0	0	0	20
5:45 AM	0	0	29	0	0	0	29
6:00 AM	0	0	17	0	0	0	17
6:15 AM	0	0	33	0	0	0	33
6:30 AM	0	0	21	0	0	0	21
6:45 AM	0	0	30	0	0	0	30
7:00 AM	0	0	27	0	1	0	28
7:15 AM	0	0	35	0	1	0	36
7:30 AM	0	0	44	0	0	0	44
7:45 AM	0	0	40	0	0	0	40
8:00 AM	0	0	21	0	0	0	21
8:15 AM	0	0	38	0	0	0	38
8:30 AM	0	0	41	0	1	0	42
8:45 AM	0	0	38	0	0	0	38
9:00 AM	0	0	27	0	0	1	28
9:15 AM	0	0	33	0	1	0	34
9:30 AM	0	0	44	0	2	0	46
9:45 AM	0	0	47	0	0	0	47
10:00 AM	0	0	30	0	1	0	31
10:15 AM	0	0	45	0	0	0	45
10:30 AM	0	0	36	0	0	0	36
10:45 AM	0	0	34	0	2	0	36
11:00 AM	0	0	46	0	2	0	48
11:15 AM	0	0	36	0	0	0	36
11:30 AM	0	0	39	1	1	0	41
11:45 AM	0	1	49	0	1	0	51

AM Total	0	1	978	1	13	1	994
Percentage	0.00%	0.10%	98.39%	0.10%	1.31%	0.10%	
AM Peak	12:00 AM	11:00 AM	11:00 AM	10:45 AM	10:45 AM	8:15 AM	11:00 AM
Volume	0	1	170	1	5	1	176

PM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total
12:00 PM	0	0	36	0	0	0	36
12:15 PM	0	0	50	0	2	0	52
12:30 PM	0	0	52	0	1	0	53
12:45 PM	0	0	45	0	0	0	45
1:00 PM	0	0	38	0	0	0	38
1:15 PM	0	0	47	0	1	0	48
1:30 PM	0	0	35	0	1	0	36
1:45 PM	0	0	40	0	0	0	40
2:00 PM	0	0	51	0	1	0	52
2:15 PM	0	0	54	0	0	0	54
2:30 PM	0	0	46	0	0	0	46
2:45 PM	0	0	40	0	0	0	40
3:00 PM	0	0	52	0	2	0	54
3:15 PM	0	0	58	0	0	0	58
3:30 PM	0	0	51	1	0	0	52
3:45 PM	0	0	54	0	0	0	54
4:00 PM	0	1	50	0	0	0	51
4:15 PM	0	0	51	0	1	1	53
4:30 PM	0	1	49	0	0	0	50
4:45 PM	0	0	57	1	1	0	59
5:00 PM	0	0	49	0	0	0	49
5:15 PM	0	0	60	1	0	0	61
5:30 PM	0	1	48	0	0	0	49
5:45 PM	0	0	50	0	0	0	50
6:00 PM	0	0	55	0	1	0	56
6:15 PM	0	0	46	0	0	0	46
6:30 PM	0	0	38	0	0	0	38
6:45 PM	0	0	55	0	0	0	55
7:00 PM	0	0	41	0	0	0	41
7:15 PM	0	0	35	0	0	0	35
7:30 PM	0	0	33	0	0	0	33
7:45 PM	0	0	43	0	0	0	43
8:00 PM	0	0	18	0	0	0	18
8:15 PM	0	0	30	0	0	0	30
8:30 PM	0	0	39	0	0	0	39
8:45 PM	0	0	20	0	0	0	20
9:00 PM	0	0	21	0	0	0	21
9:15 PM	0	0	19	0	1	0	20
9:30 PM	0	0	15	0	0	0	15
9:45 PM	0	0	12	0	0	0	12
10:00 PM	0	0	22	0	0	0	22
10:15 PM	0	0	16	0	0	0	16
10:30 PM	0	0	13	0	0	0	13
10:45 PM	0	0	9	0	0	0	9
11:00 PM	0	0	5	0	0	0	5
11:15 PM	0	0	7	0	0	0	7
11:30 PM	0	0	1	0	0	0	1
11:45 PM	0	0	5	0	0	0	5

PM Total	0	3	1761	3	12	1	1780
Percentage	0.00%	0.17%	98.93%	0.17%	0.67%	0.06%	
PM Peak	12:00 PM	3:45 PM	3:00 PM	4:30 PM	12:00 PM	3:30 PM	4:30 PM
Volume	0	2	215	2	3	1	219
Day Total	0	4	2739	4	25	2	2774
Percentage	0.00%	0.14%	98.74%	0.14%	0.90%	0.07%	

Heard Street
south of CVS Driveway
City, State: Worcester, MA
Client: Bowman/ L. Fall
Site Code: 314158-01-001



PDI File #: 240116 ATR-A

Count Date: Thursday, August 22, 2024
Direction: SB

AM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	5	0	0	0	5
12:15 AM	0	0	1	0	0	0	1
12:30 AM	0	0	1	0	0	0	1
12:45 AM	0	0	7	0	0	0	7
1:00 AM	0	0	3	0	0	0	3
1:15 AM	0	0	2	0	0	0	2
1:30 AM	0	0	3	0	0	0	3
1:45 AM	0	0	4	0	0	0	4
2:00 AM	0	0	7	0	0	0	7
2:15 AM	0	0	1	0	0	0	1
2:30 AM	0	0	0	0	0	0	0
2:45 AM	0	0	3	0	1	0	4
3:00 AM	0	0	1	0	0	0	1
3:15 AM	0	0	3	0	0	0	3
3:30 AM	0	0	0	0	0	0	0
3:45 AM	0	0	3	0	0	0	3
4:00 AM	0	0	3	0	0	0	3
4:15 AM	0	0	4	0	0	0	4
4:30 AM	0	0	7	0	0	0	7
4:45 AM	0	0	9	0	0	0	9
5:00 AM	0	0	8	0	0	0	8
5:15 AM	0	0	16	0	0	0	16
5:30 AM	0	0	29	0	0	0	29
5:45 AM	0	0	18	0	0	0	18
6:00 AM	0	0	25	0	0	0	25
6:15 AM	0	0	31	0	1	0	32
6:30 AM	0	0	24	0	0	0	24
6:45 AM	0	0	25	0	0	0	25
7:00 AM	0	0	36	0	0	0	36
7:15 AM	0	0	29	0	1	0	30
7:30 AM	0	1	36	0	0	0	37
7:45 AM	0	0	33	0	0	0	33
8:00 AM	1	0	53	0	1	0	55
8:15 AM	0	0	31	0	0	0	31
8:30 AM	0	0	29	0	1	0	30
8:45 AM	0	0	31	0	1	0	32
9:00 AM	0	0	40	0	0	0	40
9:15 AM	0	0	35	0	1	0	36
9:30 AM	0	0	35	0	1	0	36
9:45 AM	0	0	31	0	1	0	32
10:00 AM	0	0	42	0	1	0	43
10:15 AM	0	1	35	0	0	0	36
10:30 AM	0	0	34	0	1	0	35
10:45 AM	0	0	37	0	0	0	37
11:00 AM	0	0	44	0	0	2	46
11:15 AM	0	1	43	0	1	0	45
11:30 AM	0	1	35	0	0	0	36
11:45 AM	0	0	45	0	2	1	48

PM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total
12:00 PM	0	0	50	0	1	0	51
12:15 PM	0	0	45	0	0	0	45
12:30 PM	0	0	41	0	0	0	41
12:45 PM	0	0	51	0	2	0	53
1:00 PM	0	0	50	0	0	0	50
1:15 PM	0	0	40	0	0	0	40
1:30 PM	0	0	37	0	1	0	38
1:45 PM	0	0	35	0	0	0	35
2:00 PM	0	0	70	0	0	0	70
2:15 PM	0	0	63	0	0	0	63
2:30 PM	0	0	59	0	1	0	60
2:45 PM	0	0	58	0	2	0	60
3:00 PM	0	0	68	0	3	0	71
3:15 PM	0	0	47	0	1	0	48
3:30 PM	0	0	52	0	0	0	52
3:45 PM	0	1	47	0	0	0	48
4:00 PM	0	0	56	0	1	0	57
4:15 PM	0	1	57	0	0	0	58
4:30 PM	0	0	53	0	0	0	53
4:45 PM	0	0	65	0	0	0	65
5:00 PM	0	0	60	0	0	0	60
5:15 PM	0	0	75	0	1	0	76
5:30 PM	0	0	54	0	1	0	55
5:45 PM	0	0	45	0	1	0	46
6:00 PM	0	2	46	0	0	0	48
6:15 PM	0	0	52	0	0	0	52
6:30 PM	0	0	43	0	0	0	43
6:45 PM	0	1	41	0	0	0	42
7:00 PM	0	0	36	0	0	0	36
7:15 PM	0	0	31	0	0	0	31
7:30 PM	0	1	34	0	1	0	36
7:45 PM	0	0	29	0	1	0	30
8:00 PM	0	0	30	0	0	0	30
8:15 PM	0	0	27	0	0	0	27
8:30 PM	0	0	26	0	0	0	26
8:45 PM	0	0	24	0	0	0	24
9:00 PM	0	0	18	0	0	0	18
9:15 PM	0	0	25	0	0	0	25
9:30 PM	0	1	15	0	0	0	16
9:45 PM	0	0	21	0	0	0	21
10:00 PM	0	0	15	0	0	0	15
10:15 PM	0	0	19	0	0	0	19
10:30 PM	0	0	10	0	0	0	10
10:45 PM	0	0	7	0	0	0	7
11:00 PM	0	0	5	0	0	0	5
11:15 PM	0	0	11	0	0	0	11
11:30 PM	0	0	5	0	0	0	5
11:45 PM	0	0	2	0	0	0	2

AM Total	1	4	977	0	14	3	999
Percentage	0.10%	0.40%	97.80%	0.00%	1.40%	0.30%	
AM Peak	7:15 AM	10:45 AM	11:00 AM	12:00 AM	9:15 AM	11:00 AM	11:00 AM
Volume	1	2	167	0	4	3	175

PM Total	0	7	1850	0	17	0	1874
Percentage	0.00%	0.37%	98.72%	0.00%	0.91%	0.00%	
PM Peak	12:00 PM	6:00 PM	4:45 PM	12:00 PM	2:30 PM	12:00 PM	4:45 PM
Volume	0	3	254	0	7	0	256
Day Total	1	11	2827	0	31	3	2873
Percentage	0.03%	0.38%	98.40%	0.00%	1.08%	0.10%	

Heard Street
south of CVS Driveway
City, State: Worcester, MA
Client: Bowman/ L. Fall
Site Code: 314158-01-001



PRECISION
DATA
INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

PDI File # 240116 ATR-A

Direction: NB

Weekly Report

Day Date	Wednesday 08/21/24		Thursday 08/22/24												Week Ave			
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM		
12:00	5	57	7	61	0	0	0	0	0	0	0	0	0	0	6	59		
12:15	7	57	7	54	0	0	0	0	0	0	0	0	0	0	7	56		
12:30	4	61	3	50	0	0	0	0	0	0	0	0	0	0	4	56		
12:45	4	56	3	48	0	0	0	0	0	0	0	0	0	0	4	52		
1:00	6	46	7	69	0	0	0	0	0	0	0	0	0	0	7	58		
1:15	3	55	3	67	0	0	0	0	0	0	0	0	0	0	3	61		
1:30	2	50	2	68	0	0	0	0	0	0	0	0	0	0	2	59		
1:45	1	60	6	66	0	0	0	0	0	0	0	0	0	0	4	63		
2:00	4	63	3	75	0	0	0	0	0	0	0	0	0	0	4	69		
2:15	0	78	1	59	0	0	0	0	0	0	0	0	0	0	1	69		
2:30	3	69	8	80	0	0	0	0	0	0	0	0	0	0	6	75		
2:45	2	74	3	98	0	0	0	0	0	0	0	0	0	0	3	86		
3:00	1	87	0	75	0	0	0	0	0	0	0	0	0	0	1	81		
3:15	1	89	3	66	0	0	0	0	0	0	0	0	0	0	2	78		
3:30	2	82	1	85	0	0	0	0	0	0	0	0	0	0	2	84		
3:45	3	100	3	109	0	0	0	0	0	0	0	0	0	0	3	105		
4:00	3	96	2	94	0	0	0	0	0	0	0	0	0	0	3	95		
4:15	3	83	1	102	0	0	0	0	0	0	0	0	0	0	2	93		
4:30	6	77	1	95	0	0	0	0	0	0	0	0	0	0	4	86		
4:45	9	95	13	109	0	0	0	0	0	0	0	0	0	0	11	102		
5:00	14	89	16	110	0	0	0	0	0	0	0	0	0	0	15	100		
5:15	10	106	10	106	0	0	0	0	0	0	0	0	0	0	10	106		
5:30	23	89	17	89	0	0	0	0	0	0	0	0	0	0	20	89		
5:45	9	71	8	96	0	0	0	0	0	0	0	0	0	0	9	84		
6:00	8	67	10	87	0	0	0	0	0	0	0	0	0	0	9	77		
6:15	21	61	18	64	0	0	0	0	0	0	0	0	0	0	20	63		
6:30	8	54	10	76	0	0	0	0	0	0	0	0	0	0	9	65		
6:45	20	65	30	49	0	0	0	0	0	0	0	0	0	0	25	57		
7:00	31	53	23	60	0	0	0	0	0	0	0	0	0	0	27	57		
7:15	30	56	47	55	0	0	0	0	0	0	0	0	0	0	39	56		
7:30	47	38	55	51	0	0	0	0	0	0	0	0	0	0	51	45		
7:45	37	50	56	34	0	0	0	0	0	0	0	0	0	0	47	42		
8:00	34	55	43	63	0	0	0	0	0	0	0	0	0	0	39	59		
8:15	47	41	30	41	0	0	0	0	0	0	0	0	0	0	39	41		
8:30	54	46	47	39	0	0	0	0	0	0	0	0	0	0	51	43		
8:45	53	25	44	29	0	0	0	0	0	0	0	0	0	0	49	27		
9:00	45	32	36	25	0	0	0	0	0	0	0	0	0	0	41	29		
9:15	45	23	54	22	0	0	0	0	0	0	0	0	0	0	50	23		
9:30	51	18	35	23	0	0	0	0	0	0	0	0	0	0	43	21		
9:45	42	21	51	13	0	0	0	0	0	0	0	0	0	0	47	17		
10:00	39	11	41	14	0	0	0	0	0	0	0	0	0	0	40	13		
10:15	42	17	46	13	0	0	0	0	0	0	0	0	0	0	44	15		
10:30	45	11	55	12	0	0	0	0	0	0	0	0	0	0	50	12		
10:45	59	16	42	16	0	0	0	0	0	0	0	0	0	0	51	16		
11:00	46	12	53	10	0	0	0	0	0	0	0	0	0	0	50	11		
11:15	45	14	44	16	0	0	0	0	0	0	0	0	0	0	45	15		
11:30	57	12	47	11	0	0	0	0	0	0	0	0	0	0	52	12		
11:45	38	5	49	10	0	0	0	0	0	0	0	0	0	0	44	8		
Total	1069	2593	1094	2764	0	0	0	0	0	0	0	0	0	0	1082	2679		
Day Total	3662		3858		0		0		0		0		0		3760			
Peak HR	10:45 AM	4:45 PM	7:15 AM	4:30 PM													10:45 AM	4:45 PM
Volume	207	379	201	420													197	397

Heard Street
 south of CVS Driveway
 City, State: Worcester, MA
 Client: Bowman/ L. Fall
 Site Code: 314158-01-001



PDI File # 240116 ATR-A

Direction: SB

Weekly Report

Day Date	Wednesday 08/21/24		Thursday 08/22/24												Week Ave			
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM		
12:00	0	36	5	51	0	0	0	0	0	0	0	0	0	0	3	44		
12:15	5	52	1	45	0	0	0	0	0	0	0	0	0	0	3	49		
12:30	3	53	1	41	0	0	0	0	0	0	0	0	0	0	2	47		
12:45	5	45	7	53	0	0	0	0	0	0	0	0	0	0	6	49		
1:00	5	38	3	50	0	0	0	0	0	0	0	0	0	0	4	44		
1:15	1	48	2	40	0	0	0	0	0	0	0	0	0	0	2	44		
1:30	2	36	3	38	0	0	0	0	0	0	0	0	0	0	3	37		
1:45	1	40	4	35	0	0	0	0	0	0	0	0	0	0	3	38		
2:00	2	52	7	70	0	0	0	0	0	0	0	0	0	0	5	61		
2:15	1	54	1	63	0	0	0	0	0	0	0	0	0	0	1	59		
2:30	0	46	0	60	0	0	0	0	0	0	0	0	0	0	0	53		
2:45	4	40	4	60	0	0	0	0	0	0	0	0	0	0	4	50		
3:00	0	54	1	71	0	0	0	0	0	0	0	0	0	0	1	63		
3:15	3	58	3	48	0	0	0	0	0	0	0	0	0	0	3	53		
3:30	1	52	0	52	0	0	0	0	0	0	0	0	0	0	1	52		
3:45	0	54	3	48	0	0	0	0	0	0	0	0	0	0	2	51		
4:00	4	51	3	57	0	0	0	0	0	0	0	0	0	0	4	54		
4:15	3	53	4	58	0	0	0	0	0	0	0	0	0	0	4	56		
4:30	10	50	7	53	0	0	0	0	0	0	0	0	0	0	9	52		
4:45	8	59	9	65	0	0	0	0	0	0	0	0	0	0	9	62		
5:00	7	49	8	60	0	0	0	0	0	0	0	0	0	0	8	55		
5:15	13	61	16	76	0	0	0	0	0	0	0	0	0	0	15	69		
5:30	20	49	29	55	0	0	0	0	0	0	0	0	0	0	25	52		
5:45	29	50	18	46	0	0	0	0	0	0	0	0	0	0	24	48		
6:00	17	56	25	48	0	0	0	0	0	0	0	0	0	0	21	52		
6:15	33	46	32	52	0	0	0	0	0	0	0	0	0	0	33	49		
6:30	21	38	24	43	0	0	0	0	0	0	0	0	0	0	23	41		
6:45	30	55	25	42	0	0	0	0	0	0	0	0	0	0	28	49		
7:00	28	41	36	36	0	0	0	0	0	0	0	0	0	0	32	39		
7:15	36	35	30	31	0	0	0	0	0	0	0	0	0	0	33	33		
7:30	44	33	37	36	0	0	0	0	0	0	0	0	0	0	41	35		
7:45	40	43	33	30	0	0	0	0	0	0	0	0	0	0	37	37		
8:00	21	18	55	30	0	0	0	0	0	0	0	0	0	0	38	24		
8:15	38	30	31	27	0	0	0	0	0	0	0	0	0	0	35	29		
8:30	42	39	30	26	0	0	0	0	0	0	0	0	0	0	36	33		
8:45	38	20	32	24	0	0	0	0	0	0	0	0	0	0	35	22		
9:00	28	21	40	18	0	0	0	0	0	0	0	0	0	0	34	20		
9:15	34	20	36	25	0	0	0	0	0	0	0	0	0	0	35	23		
9:30	46	15	36	16	0	0	0	0	0	0	0	0	0	0	41	16		
9:45	47	12	32	21	0	0	0	0	0	0	0	0	0	0	40	17		
10:00	31	22	43	15	0	0	0	0	0	0	0	0	0	0	37	19		
10:15	45	16	36	19	0	0	0	0	0	0	0	0	0	0	41	18		
10:30	36	13	35	10	0	0	0	0	0	0	0	0	0	0	36	12		
10:45	36	9	37	7	0	0	0	0	0	0	0	0	0	0	37	8		
11:00	48	5	46	5	0	0	0	0	0	0	0	0	0	0	47	5		
11:15	36	7	45	11	0	0	0	0	0	0	0	0	0	0	41	9		
11:30	41	1	36	5	0	0	0	0	0	0	0	0	0	0	39	3		
11:45	51	5	48	2	0	0	0	0	0	0	0	0	0	0	50	4		
Total	994	1780	999	1874	0	0	0	0	0	0	0	0	0	0	997	1827		
Day Total	2774		2873		0		0		0		0		0		2824			
Peak HR	11:00 AM	4:30 PM	11:00 AM	4:45 PM													11:00 AM	4:45 PM
Volume	176	219	175	256													176	237

Heard Street
south of CVS Driveway
City, State: Worcester, MA
Client: Bowman/ L. Fall
Site Code: 314158-01-001



PDI File #: 240116 ATR-A (Speed)

Count Date
Wednesday, August 21, 2024

Speed (60-minute)

NB																
Start Time:	1 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70+	Total	85th %ile	Ave Speed
12:00 AM	0	1	2	1	1	1	0	0	0	0	0	0	0	6	33.0	26.3
1:00 AM	0	0	2	4	3	0	0	0	0	0	0	0	0	9	31.0	27.2
2:00 AM	0	0	0	3	2	0	0	0	0	0	0	0	0	5	32.4	28.4
3:00 AM	0	0	0	3	1	1	0	0	0	0	0	0	0	5	34.4	30.6
4:00 AM	0	0	4	7	2	2	0	0	0	0	0	0	0	15	31.8	28.1
5:00 AM	0	0	6	12	11	2	1	0	0	0	0	0	0	32	32.0	28.9
6:00 AM	0	0	7	12	16	1	0	0	0	0	0	0	0	36	32.0	28.4
7:00 AM	0	0	5	38	14	5	0	0	0	0	0	0	0	62	31.9	28.4
8:00 AM	8	2	21	51	17	3	0	0	0	0	0	0	0	102	30.0	25.7
9:00 AM	1	3	27	54	17	2	0	0	0	0	0	0	0	104	30.6	26.3
10:00 AM	0	1	19	40	24	6	0	0	0	0	0	0	0	90	31.7	27.7
11:00 AM	0	5	29	46	16	0	0	0	0	0	0	0	0	96	30.0	25.8
12:00 PM	3	4	24	47	24	2	0	0	0	0	0	0	0	104	31.0	26.0
1:00 PM	0	2	19	56	24	4	0	0	0	0	0	0	0	105	31.0	27.6
2:00 PM	14	2	35	77	21	2	0	0	0	0	0	0	0	151	29.5	24.8
3:00 PM	6	3	43	81	24	1	1	0	0	0	0	0	0	159	30.0	25.7
4:00 PM	7	5	42	89	30	2	0	0	0	0	0	0	0	175	30.0	25.9
5:00 PM	2	5	45	84	22	4	0	0	0	0	0	0	0	162	30.0	26.2
6:00 PM	1	3	31	60	22	4	0	0	0	0	0	0	0	121	30.0	26.5
7:00 PM	2	2	32	58	14	2	0	0	0	0	0	0	0	110	29.0	25.8
8:00 PM	4	6	28	41	9	1	0	0	0	0	0	0	0	89	28.8	24.8
9:00 PM	0	2	6	27	12	0	0	0	0	0	0	0	0	47	30.0	27.2
10:00 PM	0	1	11	15	7	0	1	0	0	0	0	0	0	35	31.0	27.0
11:00 PM	0	0	4	11	7	0	0	0	0	0	0	0	0	22	30.0	27.7
Total	48	47	442	917	340	45	3	0	0	0	0	0	0	1842	30.0	26.3
Percent	2.61%	2.55%	24.00%	49.78%	18.46%	2.44%	0.16%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%			

AM Peak	8:00 AM	11:00 AM	11:00 AM	9:00 AM	10:00 AM	10:00 AM	5:00 AM									9:00 AM
Volume	8	5	29	54	24	6	1	0	0	0	0	0	0	0	0	104
PM Peak	2:00 PM	8:00 PM	5:00 PM	4:00 PM	4:00 PM	1:00 PM	3:00 PM									4:00 PM
Volume	14	6	45	89	30	4	1	0	0	0	0	0	0	0	175	

15th Percentile:	23.0 MPH	Average Speed:	26.3 MPH	Posted Speed Limit:	25 MPH
50th Percentile:	27.0 MPH	10 MPH Pace:	23 to 32 MPH	Number of Vehicles > 25 MPH:	1131
85th Percentile:	30.0 MPH	Number in Pace:	1485	Percent of Vehicles > 25 MPH:	61.4%
95th Percentile:	33.0 MPH	Percent in Pace:	80.6%		

Heard Street
south of CVS Driveway
City, State: Worcester, MA
Client: Bowman/ L. Fall
Site Code: 314158-01-001



PDI File #: 240116 ATR-A (Speed)

Count Date
Wednesday, August 21, 2024

Speed (60-minute)

SB																
Start Time:	1 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70+	Total	85th %ile	Ave Speed
12:00 AM	0	1	2	5	5	0	0	0	0	0	0	0	0	13	31.2	26.8
1:00 AM	0	0	4	1	3	1	0	0	0	0	0	0	0	9	33.2	27.8
2:00 AM	0	0	2	2	2	0	1	0	0	0	0	0	0	7	32.8	29.0
3:00 AM	0	0	0	2	1	1	0	0	0	0	0	0	0	4	34.2	30.0
4:00 AM	0	1	2	8	10	3	0	0	0	0	0	0	0	24	33.6	29.9
5:00 AM	0	0	2	20	35	10	1	0	0	0	0	0	0	68	35.0	31.1
6:00 AM	0	0	10	27	48	13	2	0	0	0	0	0	0	100	34.2	30.3
7:00 AM	3	8	8	53	72	7	1	0	0	0	0	0	0	152	33.0	29.0
8:00 AM	2	8	12	49	54	7	2	1	0	0	0	0	0	135	33.0	28.7
9:00 AM	1	9	20	52	60	11	1	0	0	0	0	0	0	154	33.0	28.6
10:00 AM	0	3	21	63	49	10	1	0	0	0	0	0	0	147	33.0	28.6
11:00 AM	2	10	24	59	61	7	1	0	0	0	0	0	0	164	32.6	27.8
12:00 PM	4	9	20	73	65	12	0	0	0	0	0	0	0	183	33.0	28.1
1:00 PM	0	10	20	57	66	2	3	0	0	0	0	0	0	158	32.0	28.3
2:00 PM	5	12	27	54	80	7	0	1	0	0	0	0	0	186	33.0	27.9
3:00 PM	9	36	36	72	72	10	0	0	0	0	0	0	0	235	32.0	25.9
4:00 PM	17	11	30	79	71	16	1	0	0	0	0	0	0	225	33.0	27.2
5:00 PM	4	22	31	67	74	7	1	1	0	0	0	0	0	207	32.0	27.2
6:00 PM	2	16	21	67	64	12	5	0	0	0	0	0	0	187	33.0	28.3
7:00 PM	4	15	20	60	49	16	0	0	0	0	0	0	0	164	33.0	27.7
8:00 PM	3	6	22	44	33	3	1	0	0	0	0	0	0	112	31.0	26.8
9:00 PM	1	3	13	21	27	5	0	0	0	0	0	0	0	70	33.0	28.3
10:00 PM	0	4	6	26	21	4	2	0	0	0	0	0	0	63	33.7	28.7
11:00 PM	0	1	4	5	6	1	0	0	0	0	0	0	0	17	32.0	27.5
Total	57	185	357	966	1028	165	23	3	0	0	0	0	0	2784	33.0	28.0
Percent	2.05%	6.65%	12.82%	34.70%	36.93%	5.93%	0.83%	0.11%	0.00%	0.00%	0.00%	0.00%	0.00%			

AM Peak	7:00 AM	11:00 AM	11:00 AM	10:00 AM	7:00 AM	6:00 AM	6:00 AM	8:00 AM								11:00 AM
Volume	3	10	24	63	72	13	2	1	0	0	0	0	0	0	0	164
PM Peak	4:00 PM	3:00 PM	3:00 PM	4:00 PM	2:00 PM	4:00 PM	6:00 PM	2:00 PM								3:00 PM
Volume	17	36	36	79	80	16	5	1	0	0	0	0	0	0	235	

15th Percentile:	23.0 MPH	Average Speed:	28.0 MPH	Posted Speed Limit:	25 MPH
50th Percentile:	29.0 MPH	10 MPH Pace:	24 to 33 MPH	Number of Vehicles > 25 MPH:	2058
85th Percentile:	33.0 MPH	Number in Pace:	2005	Percent of Vehicles > 25 MPH:	73.9%
95th Percentile:	35.0 MPH	Percent in Pace:	72.0%		

Heard Street
south of CVS Driveway
City, State: Worcester, MA
Client: Bowman/ L. Fall
Site Code: 314158-01-001



PDI File #: 240116 ATR-A (Speed)

Count Date
Wednesday, August 21, 2024

Speed (60-minute)

Combined NB and SB

Start Time:	1 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70+	Total	85th %ile	Ave Speed
12:00 AM	0	2	4	6	6	1	0	0	0	0	0	0	0	19	32.0	26.6
1:00 AM	0	0	6	5	6	1	0	0	0	0	0	0	0	18	31.5	27.5
2:00 AM	0	0	2	5	4	0	1	0	0	0	0	0	0	12	32.4	28.8
3:00 AM	0	0	0	5	2	2	0	0	0	0	0	0	0	9	35.2	30.3
4:00 AM	0	1	6	15	12	5	0	0	0	0	0	0	0	39	33.3	29.2
5:00 AM	0	0	8	32	46	12	2	0	0	0	0	0	0	100	34.0	30.4
6:00 AM	0	0	17	39	64	14	2	0	0	0	0	0	0	136	34.0	29.8
7:00 AM	3	8	13	91	86	12	1	0	0	0	0	0	0	214	33.0	28.8
8:00 AM	10	10	33	100	71	10	2	1	0	0	0	0	0	237	32.0	27.4
9:00 AM	2	12	47	106	77	13	1	0	0	0	0	0	0	258	32.0	27.6
10:00 AM	0	4	40	103	73	16	1	0	0	0	0	0	0	237	32.6	28.2
11:00 AM	2	15	53	105	77	7	1	0	0	0	0	0	0	260	32.0	27.0
12:00 PM	7	13	44	120	89	14	0	0	0	0	0	0	0	287	32.0	27.4
1:00 PM	0	12	39	113	90	6	3	0	0	0	0	0	0	263	32.0	28.0
2:00 PM	19	14	62	131	101	9	0	1	0	0	0	0	0	337	32.0	26.5
3:00 PM	15	39	79	153	96	11	1	0	0	0	0	0	0	394	31.0	25.8
4:00 PM	24	16	72	168	101	18	1	0	0	0	0	0	0	400	32.0	26.6
5:00 PM	6	27	76	151	96	11	1	1	0	0	0	0	0	369	31.0	26.7
6:00 PM	3	19	52	127	86	16	5	0	0	0	0	0	0	308	32.0	27.6
7:00 PM	6	17	52	118	63	18	0	0	0	0	0	0	0	274	32.0	27.0
8:00 PM	7	12	50	85	42	4	1	0	0	0	0	0	0	201	31.0	25.9
9:00 PM	1	5	19	48	39	5	0	0	0	0	0	0	0	117	32.6	27.8
10:00 PM	0	5	17	41	28	4	3	0	0	0	0	0	0	98	33.0	28.1
11:00 PM	0	1	8	16	13	1	0	0	0	0	0	0	0	39	31.0	27.6
Total	105	232	799	1883	1368	210	26	3	0	0	0	0	0	4626	32.0	27.3
Percent	2.27%	5.02%	17.27%	40.70%	29.57%	4.54%	0.56%	0.06%	0.00%	0.00%	0.00%	0.00%	0.00%			

AM Peak	8:00 AM	11:00 AM	11:00 AM	9:00 AM	7:00 AM	10:00 AM	5:00 AM	8:00 AM								11:00 AM
Volume	10	15	53	106	86	16	2	1	0	0	0	0	0	0	0	260
PM Peak	4:00 PM	3:00 PM	3:00 PM	4:00 PM	2:00 PM	4:00 PM	6:00 PM	2:00 PM								4:00 PM
Volume	24	39	79	168	101	18	5	1	0	0	0	0	0	0	400	

15th Percentile:	23.0 MPH	Average Speed:	27.3 MPH	Posted Speed Limit:	25 MPH
50th Percentile:	28.0 MPH	10 MPH Pace:	24 to 33 MPH	Number of Vehicles > 25 MPH:	3189
85th Percentile:	32.0 MPH	Number in Pace:	3406	Percent of Vehicles > 25 MPH:	68.9%
95th Percentile:	35.0 MPH	Percent in Pace:	73.6%		

Heard Street
south of CVS Driveway
City, State: Worcester, MA
Client: Bowman/ L. Fall
Site Code: 314158-01-001



PDI File #: 240116 ATR-A (Speed)

Count Date
Thursday, August 22, 2024

Speed (60-minute)

NB																
Start Time:	1 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70+	Total	85th %ile	Ave Speed
12:00 AM	0	0	2	6	3	0	0	0	0	0	0	0	0	11	30.0	26.9
1:00 AM	0	0	2	4	4	0	0	0	0	0	0	0	0	10	31.7	28.5
2:00 AM	1	1	2	3	0	0	0	0	0	0	0	0	0	7	25.2	21.7
3:00 AM	0	2	0	2	0	0	0	0	0	0	0	0	0	4	27.6	22.8
4:00 AM	0	0	3	2	6	2	0	0	0	0	0	0	0	13	34.2	30.0
5:00 AM	0	0	5	16	6	2	1	0	0	0	0	0	0	30	31.7	27.8
6:00 AM	0	1	8	17	11	2	0	0	0	0	0	0	0	39	32.3	27.6
7:00 AM	3	2	8	47	22	2	0	0	0	0	0	0	0	84	32.0	27.4
8:00 AM	1	3	19	42	17	3	0	0	0	0	0	0	0	85	31.0	26.6
9:00 AM	2	1	16	47	20	3	0	0	0	0	0	0	0	89	31.0	27.0
10:00 AM	0	2	35	42	10	2	0	0	0	0	0	0	0	91	29.0	25.9
11:00 AM	0	3	22	46	15	1	1	0	0	0	0	0	0	88	30.0	26.3
12:00 PM	3	0	24	46	25	0	0	0	0	0	0	0	0	98	31.0	26.3
1:00 PM	4	3	30	76	22	1	0	0	0	0	0	0	0	136	30.0	26.0
2:00 PM	3	3	27	56	22	3	0	0	0	0	0	0	0	114	31.0	26.4
3:00 PM	10	11	36	77	16	2	0	0	0	0	0	0	0	152	29.0	24.9
4:00 PM	9	4	41	100	24	2	0	0	0	0	0	0	0	180	29.0	25.6
5:00 PM	14	5	30	93	39	1	0	0	0	0	0	0	0	182	30.0	25.6
6:00 PM	2	3	32	60	22	2	1	0	0	0	0	0	0	122	30.0	26.3
7:00 PM	0	1	35	53	14	1	0	0	0	0	0	0	0	104	29.0	26.2
8:00 PM	2	6	25	44	9	1	1	0	0	0	0	0	0	88	29.0	25.4
9:00 PM	2	1	8	21	10	1	0	0	0	0	0	0	0	43	32.7	26.3
10:00 PM	1	0	11	18	9	0	0	0	0	0	0	0	0	39	30.0	26.3
11:00 PM	0	4	2	10	5	2	0	0	0	0	0	0	0	23	31.0	26.9
Total	57	56	423	928	331	33	4	0	0	0	0	0	0	1832	30.0	26.1
Percent	3.11%	3.06%	23.09%	50.66%	18.07%	1.80%	0.22%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%			

AM Peak	7:00 AM	8:00 AM	10:00 AM	7:00 AM	7:00 AM	8:00 AM	5:00 AM									10:00 AM
Volume	3	3	35	47	22	3	1	0	0	0	0	0	0	0	0	91
PM Peak	5:00 PM	3:00 PM	4:00 PM	4:00 PM	5:00 PM	2:00 PM	6:00 PM									5:00 PM
Volume	14	11	41	100	39	3	1	0	0	0	0	0	0	0	182	

15th Percentile:	22.0 MPH	Average Speed:	26.1 MPH	Posted Speed Limit:	25 MPH
50th Percentile:	27.0 MPH	10 MPH Pace:	22 to 31 MPH	Number of Vehicles > 25 MPH:	1130
85th Percentile:	30.0 MPH	Number in Pace:	1460	Percent of Vehicles > 25 MPH:	61.7%
95th Percentile:	33.0 MPH	Percent in Pace:	79.7%		

Heard Street
south of CVS Driveway
City, State: Worcester, MA
Client: Bowman/ L. Fall
Site Code: 314158-01-001



PDI File #: 240116 ATR-A (Speed)

Count Date
Thursday, August 22, 2024

Speed (60-minute)

SB																
Start Time:	1 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70+	Total	85th %ile	Ave Speed
12:00 AM	0	1	3	5	5	0	1	0	0	0	0	0	0	15	32.8	28.0
1:00 AM	0	0	3	6	2	0	0	0	0	0	0	0	0	11	30.0	26.6
2:00 AM	1	0	3	5	1	1	0	0	0	0	0	0	0	11	29.5	24.8
3:00 AM	0	0	2	0	5	0	0	0	0	0	0	0	0	7	32.1	29.0
4:00 AM	0	2	3	6	9	3	0	1	0	0	0	0	0	24	34.6	29.5
5:00 AM	0	2	6	19	27	9	3	0	0	0	0	0	0	66	35.0	30.0
6:00 AM	1	4	7	38	48	9	1	0	0	0	0	0	0	108	34.0	29.4
7:00 AM	0	4	6	43	64	13	1	0	0	0	0	0	0	131	34.0	30.1
8:00 AM	1	4	10	53	50	23	0	0	0	0	0	0	0	141	35.0	29.6
9:00 AM	0	6	14	44	68	12	2	0	0	0	0	0	0	146	33.0	29.4
10:00 AM	6	16	19	60	48	8	0	0	0	0	0	0	0	157	31.0	26.6
11:00 AM	3	14	21	63	54	20	0	0	0	0	0	0	0	175	33.0	28.0
12:00 PM	1	11	20	76	63	12	1	0	0	0	0	0	0	184	32.0	28.2
1:00 PM	4	11	30	35	64	14	1	0	0	0	0	0	0	159	33.0	27.9
2:00 PM	8	10	36	86	82	14	3	0	0	0	0	0	0	239	33.0	27.8
3:00 PM	6	12	29	72	71	17	0	0	0	0	0	0	0	207	33.0	27.8
4:00 PM	6	18	28	81	80	15	1	0	0	0	0	0	0	229	33.0	27.9
5:00 PM	12	25	28	87	80	14	2	0	0	0	0	0	0	248	33.0	26.9
6:00 PM	4	8	26	59	62	20	4	0	1	0	0	0	0	184	34.0	28.7
7:00 PM	1	10	18	48	50	4	3	0	0	0	0	0	0	134	32.0	27.9
8:00 PM	5	7	15	40	34	8	0	0	0	0	0	0	0	109	32.8	27.2
9:00 PM	0	3	13	30	28	2	1	0	0	0	0	0	0	77	32.0	28.1
10:00 PM	0	1	7	22	15	9	0	0	0	0	0	0	0	54	35.0	28.9
11:00 PM	0	2	5	10	4	1	1	0	0	0	0	0	0	23	32.0	27.1
Total	59	171	352	988	1014	228	25	1	1	0	0	0	0	2839	33.0	28.2
Percent	2.08%	6.02%	12.40%	34.80%	35.72%	8.03%	0.88%	0.04%	0.04%	0.00%	0.00%	0.00%	0.00%			

AM Peak	10:00 AM	10:00 AM	11:00 AM	11:00 AM	9:00 AM	8:00 AM	5:00 AM	4:00 AM							11:00 AM
Volume	6	16	21	63	68	23	3	1	0	0	0	0	0	0	175
PM Peak	5:00 PM	5:00 PM	2:00 PM	5:00 PM	2:00 PM	6:00 PM	6:00 PM		6:00 PM						5:00 PM
Volume	12	25	36	87	82	20	4	0	1	0	0	0	0	248	

15th Percentile:	23.0 MPH	Average Speed:	28.2 MPH	Posted Speed Limit:	25 MPH
50th Percentile:	29.0 MPH	10 MPH Pace:	24 to 33 MPH	Number of Vehicles > 25 MPH:	2123
85th Percentile:	33.0 MPH	Number in Pace:	2002	Percent of Vehicles > 25 MPH:	74.8%
95th Percentile:	36.0 MPH	Percent in Pace:	70.5%		

Heard Street
south of CVS Driveway
City, State: Worcester, MA
Client: Bowman/ L. Fall
Site Code: 314158-01-001



PDI File #: 240116 ATR-A (Speed)

Count Date
Thursday, August 22, 2024

Speed (60-minute)
Combined NB and SB

Start Time:	1 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70+	Total	85th %ile	Ave Speed
12:00 AM	0	1	5	11	8	0	1	0	0	0	0	0	0	26	31.0	27.5
1:00 AM	0	0	5	10	6	0	0	0	0	0	0	0	0	21	32.0	27.5
2:00 AM	2	1	5	8	1	1	0	0	0	0	0	0	0	18	27.0	23.6
3:00 AM	0	2	2	2	5	0	0	0	0	0	0	0	0	11	31.5	26.7
4:00 AM	0	2	6	8	15	5	0	1	0	0	0	0	0	37	34.6	29.7
5:00 AM	0	2	11	35	33	11	4	0	0	0	0	0	0	96	34.8	29.3
6:00 AM	1	5	15	55	59	11	1	0	0	0	0	0	0	147	33.0	28.9
7:00 AM	3	6	14	90	86	15	1	0	0	0	0	0	0	215	33.0	29.0
8:00 AM	2	7	29	95	67	26	0	0	0	0	0	0	0	226	34.0	28.5
9:00 AM	2	7	30	91	88	15	2	0	0	0	0	0	0	235	32.0	28.5
10:00 AM	6	18	54	102	58	10	0	0	0	0	0	0	0	248	31.0	26.4
11:00 AM	3	17	43	109	69	21	1	0	0	0	0	0	0	263	33.0	27.4
12:00 PM	4	11	44	122	88	12	1	0	0	0	0	0	0	282	32.0	27.5
1:00 PM	8	14	60	111	86	15	1	0	0	0	0	0	0	295	32.0	27.0
2:00 PM	11	13	63	142	104	17	3	0	0	0	0	0	0	353	32.0	27.3
3:00 PM	16	23	65	149	87	19	0	0	0	0	0	0	0	359	32.0	26.6
4:00 PM	15	22	69	181	104	17	1	0	0	0	0	0	0	409	32.0	26.9
5:00 PM	26	30	58	180	119	15	2	0	0	0	0	0	0	430	31.0	26.4
6:00 PM	6	11	58	119	84	22	5	0	1	0	0	0	0	306	33.0	27.8
7:00 PM	1	11	53	101	64	5	3	0	0	0	0	0	0	238	31.5	27.1
8:00 PM	7	13	40	84	43	9	1	0	0	0	0	0	0	197	31.0	26.4
9:00 PM	2	4	21	51	38	3	1	0	0	0	0	0	0	120	32.2	27.4
10:00 PM	1	1	18	40	24	9	0	0	0	0	0	0	0	93	32.0	27.8
11:00 PM	0	6	7	20	9	3	1	0	0	0	0	0	0	46	32.0	27.0
Total	116	227	775	1916	1345	261	29	1	1	0	0	0	0	4671	32.0	27.4
Percent	2.48%	4.86%	16.59%	41.02%	28.79%	5.59%	0.62%	0.02%	0.02%	0.00%	0.00%	0.00%	0.00%			

AM Peak	10:00 AM	10:00 AM	10:00 AM	11:00 AM	9:00 AM	8:00 AM	5:00 AM	4:00 AM							11:00 AM
Volume	6	18	54	109	88	26	4	1	0	0	0	0	0	0	263

PM Peak	5:00 PM	5:00 PM	4:00 PM	4:00 PM	5:00 PM	6:00 PM	6:00 PM		6:00 PM						5:00 PM
Volume	26	30	69	181	119	22	5	0	1	0	0	0	0	430	

15th Percentile:	23.0 MPH	Average Speed:	27.4 MPH	Posted Speed Limit:	25 MPH
50th Percentile:	28.0 MPH	10 MPH Pace:	24 to 33 MPH	Number of Vehicles > 25 MPH:	3253
85th Percentile:	32.0 MPH	Number in Pace:	3387	Percent of Vehicles > 25 MPH:	69.6%
95th Percentile:	35.0 MPH	Percent in Pace:	72.5%		

Stafford Street
just east of Walgreens Driveway
City, State: Worcester, MA
Client: Bowman/ L. Fall
Site Code: 314158-01-001



PDI File #: 240116 ATR-B

Count Date: Wednesday, August 21, 2024
Direction: EB

AM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	14	0	0	0	14
12:15 AM	0	0	22	0	0	0	22
12:30 AM	0	0	9	0	0	0	9
12:45 AM	0	0	8	0	0	0	8
1:00 AM	0	0	6	0	0	0	6
1:15 AM	0	0	5	0	0	0	5
1:30 AM	0	0	7	0	0	0	7
1:45 AM	0	0	4	0	1	0	5
2:00 AM	0	0	3	0	0	0	3
2:15 AM	0	0	9	0	0	0	9
2:30 AM	0	0	3	0	0	0	3
2:45 AM	0	0	3	0	0	0	3
3:00 AM	0	0	1	0	0	0	1
3:15 AM	0	0	3	0	0	0	3
3:30 AM	0	0	5	0	0	0	5
3:45 AM	0	0	3	0	0	0	3
4:00 AM	0	0	6	0	0	0	6
4:15 AM	0	0	6	0	1	0	7
4:30 AM	0	0	9	0	0	0	9
4:45 AM	0	1	9	0	0	0	10
5:00 AM	0	0	22	0	0	0	22
5:15 AM	0	0	24	0	0	0	24
5:30 AM	1	0	33	0	2	0	36
5:45 AM	0	2	33	0	0	0	35
6:00 AM	1	0	35	0	1	0	37
6:15 AM	0	0	38	0	1	0	39
6:30 AM	0	0	71	2	2	0	75
6:45 AM	0	3	81	0	1	0	85
7:00 AM	0	0	89	1	1	0	91
7:15 AM	0	1	93	1	3	1	99
7:30 AM	1	1	136	1	2	0	141
7:45 AM	0	1	129	0	3	0	133
8:00 AM	0	2	119	0	3	1	125
8:15 AM	0	0	136	1	7	2	146
8:30 AM	0	2	113	1	6	3	125
8:45 AM	0	0	122	1	2	1	126
9:00 AM	0	0	88	1	1	0	90
9:15 AM	0	0	96	1	2	0	99
9:30 AM	0	0	97	1	0	1	99
9:45 AM	0	0	108	0	5	0	113
10:00 AM	0	1	95	2	1	0	99
10:15 AM	0	0	88	0	0	1	89
10:30 AM	0	1	97	2	3	0	103
10:45 AM	0	0	94	0	3	1	98
11:00 AM	1	0	89	0	1	2	93
11:15 AM	0	0	89	2	4	1	96
11:30 AM	0	0	105	0	3	1	109
11:45 AM	0	1	94	3	5	1	104

PM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total
12:00 PM	0	1	101	0	4	0	106
12:15 PM	0	0	96	0	8	3	107
12:30 PM	0	2	102	0	2	0	106
12:45 PM	0	0	89	0	2	0	91
1:00 PM	0	0	96	0	6	1	103
1:15 PM	0	0	81	1	2	0	84
1:30 PM	0	0	91	1	3	0	95
1:45 PM	0	0	105	0	1	0	106
2:00 PM	0	0	90	0	2	0	92
2:15 PM	0	1	92	0	0	0	93
2:30 PM	0	0	109	2	3	0	114
2:45 PM	0	0	113	0	3	0	116
3:00 PM	0	0	116	2	1	0	119
3:15 PM	0	1	111	1	7	0	120
3:30 PM	0	2	100	1	2	0	105
3:45 PM	0	1	103	1	5	0	110
4:00 PM	0	1	102	1	1	0	105
4:15 PM	0	2	78	1	4	0	85
4:30 PM	0	4	110	1	1	0	116
4:45 PM	0	2	97	0	2	0	101
5:00 PM	0	0	137	0	1	0	138
5:15 PM	0	0	111	0	0	0	111
5:30 PM	0	0	116	1	2	0	119
5:45 PM	0	0	117	0	3	1	121
6:00 PM	0	0	96	0	3	0	99
6:15 PM	1	1	79	0	1	0	82
6:30 PM	0	3	97	2	3	0	105
6:45 PM	1	0	79	1	2	0	83
7:00 PM	0	1	72	0	0	0	73
7:15 PM	0	0	73	1	0	0	74
7:30 PM	0	0	70	0	0	0	70
7:45 PM	0	0	67	0	0	0	67
8:00 PM	0	2	66	0	0	1	69
8:15 PM	0	1	60	1	0	0	62
8:30 PM	0	0	64	1	0	0	65
8:45 PM	0	0	54	1	0	0	55
9:00 PM	0	0	51	0	1	0	52
9:15 PM	0	0	46	0	0	0	46
9:30 PM	0	0	47	0	0	0	47
9:45 PM	0	0	43	0	0	0	43
10:00 PM	0	0	38	0	0	0	38
10:15 PM	0	0	32	0	0	0	32
10:30 PM	0	0	32	0	0	0	32
10:45 PM	0	0	27	0	0	0	27
11:00 PM	0	0	27	0	0	0	27
11:15 PM	0	0	25	0	0	0	25
11:30 PM	0	0	22	0	0	0	22
11:45 PM	0	0	7	0	0	0	7

AM Total	4	16	2549	20	64	16	2669
Percentage	0.15%	0.60%	95.50%	0.75%	2.40%	0.60%	
AM Peak	5:15 AM	6:45 AM	7:30 AM	11:00 AM	7:45 AM	8:00 AM	7:30 AM
Volume	2	5	520	5	19	7	545

PM Total	2	25	3737	20	75	6	3865
Percentage	0.05%	0.65%	96.69%	0.52%	1.94%	0.16%	
PM Peak	6:00 PM	4:00 PM	5:00 PM	2:30 PM	12:15 PM	12:15 PM	5:00 PM
Volume	2	9	481	5	18	4	489

Day Total	6	41	6286	40	139	22	6534
Percentage	0.09%	0.63%	96.20%	0.61%	2.13%	0.34%	

Stafford Street
 just east of Walgreens Driveway
 City, State: Worcester, MA
 Client: Bowman/ L. Fall
 Site Code: 314158-01-001



PDI File #: 240116 ATR-B

Count Date: Thursday, August 22, 2024
 Direction: EB

AM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	15	0	0	0	15
12:15 AM	0	0	21	0	0	0	21
12:30 AM	0	1	3	0	0	0	4
12:45 AM	0	0	11	0	0	0	11
1:00 AM	0	0	10	0	0	0	10
1:15 AM	0	1	8	0	0	0	9
1:30 AM	0	0	4	0	0	0	4
1:45 AM	0	0	4	0	0	1	5
2:00 AM	0	0	5	0	0	0	5
2:15 AM	0	0	10	0	0	0	10
2:30 AM	0	0	10	0	0	0	10
2:45 AM	0	0	2	0	0	0	2
3:00 AM	0	0	6	0	0	0	6
3:15 AM	0	0	4	0	1	0	5
3:30 AM	0	0	3	0	0	0	3
3:45 AM	0	0	6	0	0	0	6
4:00 AM	0	0	8	0	2	0	10
4:15 AM	0	0	8	0	0	0	8
4:30 AM	0	0	5	0	1	0	6
4:45 AM	0	0	16	0	1	0	17
5:00 AM	0	0	18	0	1	1	20
5:15 AM	0	1	19	0	0	0	20
5:30 AM	1	0	22	0	1	0	24
5:45 AM	0	0	34	0	3	1	38
6:00 AM	0	1	31	0	0	1	33
6:15 AM	1	0	54	0	0	0	55
6:30 AM	0	1	48	2	3	0	54
6:45 AM	0	1	86	0	0	2	89
7:00 AM	0	0	95	1	3	0	99
7:15 AM	0	1	96	2	5	0	104
7:30 AM	1	1	117	0	5	0	124
7:45 AM	0	1	122	1	3	0	127
8:00 AM	0	0	117	0	3	0	120
8:15 AM	0	0	108	1	3	0	112
8:30 AM	0	1	108	0	7	0	116
8:45 AM	0	1	102	1	5	0	109
9:00 AM	0	0	85	1	3	0	89
9:15 AM	0	0	106	1	6	0	113
9:30 AM	0	0	92	0	3	0	95
9:45 AM	0	0	91	0	3	0	94
10:00 AM	0	0	91	2	3	3	99
10:15 AM	0	0	90	0	1	0	91
10:30 AM	0	0	80	1	6	0	87
10:45 AM	0	0	86	1	1	0	88
11:00 AM	0	1	88	0	2	0	91
11:15 AM	0	0	89	2	4	1	96
11:30 AM	0	1	108	0	7	0	116
11:45 AM	0	1	84	1	6	0	92

AM Total	3	14	2426	17	92	10	2562
Percentage	0.12%	0.55%	94.69%	0.66%	3.59%	0.39%	
AM Peak	5:30 AM	6:00 AM	7:30 AM	6:30 AM	8:30 AM	6:00 AM	7:30 AM
Volume	2	3	464	5	21	3	483

PM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total
12:00 PM	0	0	88	0	6	0	94
12:15 PM	0	0	102	0	0	0	102
12:30 PM	0	1	105	2	3	0	111
12:45 PM	0	0	91	0	2	0	93
1:00 PM	0	0	85	0	5	0	90
1:15 PM	0	1	97	0	0	0	98
1:30 PM	0	0	88	2	2	1	93
1:45 PM	0	0	91	0	5	0	96
2:00 PM	0	0	96	0	1	0	97
2:15 PM	0	0	93	1	2	0	96
2:30 PM	0	1	103	1	1	0	106
2:45 PM	0	0	111	2	3	0	116
3:00 PM	0	1	101	0	0	0	102
3:15 PM	0	1	92	1	3	1	98
3:30 PM	0	0	101	0	2	2	105
3:45 PM	0	1	106	1	0	0	108
4:00 PM	0	0	102	2	1	1	106
4:15 PM	0	1	112	1	4	0	118
4:30 PM	0	0	93	0	0	0	93
4:45 PM	0	0	108	0	3	0	111
5:00 PM	0	0	101	1	2	0	104
5:15 PM	0	0	109	1	2	1	113
5:30 PM	0	3	99	0	2	0	104
5:45 PM	0	2	110	2	2	0	116
6:00 PM	0	1	109	1	2	0	113
6:15 PM	0	1	91	0	0	0	92
6:30 PM	0	1	90	1	2	0	94
6:45 PM	0	3	77	1	2	0	83
7:00 PM	1	1	82	1	3	0	88
7:15 PM	0	1	93	0	1	0	95
7:30 PM	1	0	67	0	0	0	68
7:45 PM	0	1	80	3	1	0	85
8:00 PM	0	1	68	0	1	1	71
8:15 PM	0	0	86	0	0	0	86
8:30 PM	0	3	66	0	0	0	69
8:45 PM	0	0	55	2	0	0	57
9:00 PM	0	2	54	0	0	0	56
9:15 PM	0	2	39	0	0	0	41
9:30 PM	0	1	49	0	0	0	50
9:45 PM	0	2	37	0	0	0	39
10:00 PM	0	0	46	0	1	0	47
10:15 PM	0	0	49	0	2	0	51
10:30 PM	0	0	34	0	0	0	34
10:45 PM	0	1	37	0	0	0	38
11:00 PM	0	0	14	0	0	0	14
11:15 PM	0	0	31	0	0	0	31
11:30 PM	0	0	21	0	1	0	22
11:45 PM	0	0	18	0	0	0	18

PM Total	2	33	3777	26	67	7	3912
Percentage	0.05%	0.84%	96.55%	0.66%	1.71%	0.18%	
PM Peak	6:45 PM	5:30 PM	5:15 PM	2:00 PM	1:00 PM	3:15 PM	5:15 PM
Volume	2	7	427	4	12	4	446
Day Total	5	47	6203	43	159	17	6474
Percentage	0.08%	0.73%	95.81%	0.66%	2.46%	0.26%	

Stafford Street
 just east of Walgreens Driveway
 City, State: Worcester, MA
 Client: Bowman/ L. Fall
 Site Code: 314158-01-001



PDI File #: 240116 ATR-B

Count Date: Wednesday, August 21, 2024
 Direction: WB

AM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	9	0	0	0	9
12:15 AM	0	0	9	0	0	0	9
12:30 AM	0	0	11	0	0	0	11
12:45 AM	0	0	7	0	0	1	8
1:00 AM	0	0	9	0	2	0	11
1:15 AM	0	0	8	0	0	0	8
1:30 AM	0	0	3	0	0	0	3
1:45 AM	0	0	5	0	0	0	5
2:00 AM	0	0	3	0	0	0	3
2:15 AM	0	0	4	0	0	0	4
2:30 AM	0	0	3	0	0	0	3
2:45 AM	0	0	1	0	0	0	1
3:00 AM	0	0	1	0	0	0	1
3:15 AM	0	0	3	0	0	0	3
3:30 AM	0	0	4	0	0	0	4
3:45 AM	0	0	5	0	0	0	5
4:00 AM	0	0	6	0	0	0	6
4:15 AM	0	0	10	0	0	0	10
4:30 AM	0	0	13	0	0	0	13
4:45 AM	0	0	11	0	1	0	12
5:00 AM	0	0	12	0	0	0	12
5:15 AM	0	0	18	0	0	0	18
5:30 AM	0	0	28	0	0	0	28
5:45 AM	0	0	20	0	0	0	20
6:00 AM	0	0	17	1	0	1	19
6:15 AM	0	0	26	0	1	1	28
6:30 AM	0	0	33	0	1	0	34
6:45 AM	0	0	47	1	0	1	49
7:00 AM	1	0	41	1	2	0	45
7:15 AM	0	0	51	0	4	0	55
7:30 AM	1	0	59	0	1	0	61
7:45 AM	0	0	48	2	2	0	52
8:00 AM	0	0	57	0	3	2	62
8:15 AM	0	0	77	1	3	1	82
8:30 AM	0	0	54	0	2	1	57
8:45 AM	0	1	92	0	2	1	96
9:00 AM	0	1	78	1	5	1	86
9:15 AM	0	0	63	2	2	1	68
9:30 AM	0	0	66	1	3	0	70
9:45 AM	0	0	66	0	2	1	69
10:00 AM	0	1	79	1	4	0	85
10:15 AM	0	0	83	0	1	1	85
10:30 AM	0	0	73	0	2	0	75
10:45 AM	0	0	93	1	4	0	98
11:00 AM	0	0	82	0	2	0	84
11:15 AM	0	0	103	1	1	0	105
11:30 AM	0	2	90	0	2	0	94
11:45 AM	0	0	84	2	4	0	90

PM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total
12:00 PM	0	0	80	0	3	0	83
12:15 PM	0	0	98	0	2	0	100
12:30 PM	0	0	80	1	3	0	84
12:45 PM	0	0	78	0	2	2	82
1:00 PM	0	0	85	1	3	1	90
1:15 PM	0	0	103	0	1	0	104
1:30 PM	0	0	76	0	4	0	80
1:45 PM	0	0	118	1	0	0	119
2:00 PM	0	0	118	1	3	2	124
2:15 PM	0	0	115	1	4	0	120
2:30 PM	0	0	116	0	0	0	116
2:45 PM	0	0	111	1	1	0	113
3:00 PM	0	0	126	3	1	1	131
3:15 PM	1	2	116	2	1	0	122
3:30 PM	0	1	135	1	1	0	138
3:45 PM	0	1	111	1	1	0	114
4:00 PM	0	1	120	1	2	0	124
4:15 PM	0	1	142	0	1	1	145
4:30 PM	0	0	130	1	0	0	131
4:45 PM	0	0	131	1	1	0	133
5:00 PM	0	0	138	1	0	0	139
5:15 PM	0	2	155	0	0	0	157
5:30 PM	0	2	137	1	0	0	140
5:45 PM	0	0	110	0	0	0	110
6:00 PM	0	0	137	2	0	0	139
6:15 PM	0	0	89	1	0	0	90
6:30 PM	0	1	114	0	0	0	115
6:45 PM	0	0	102	1	1	1	105
7:00 PM	0	1	94	0	0	1	96
7:15 PM	0	3	109	1	0	0	113
7:30 PM	0	0	90	0	1	0	91
7:45 PM	0	0	91	1	0	0	92
8:00 PM	0	0	72	0	0	0	72
8:15 PM	0	1	62	0	0	0	63
8:30 PM	0	2	60	1	0	0	63
8:45 PM	0	0	55	0	0	0	55
9:00 PM	0	0	51	1	1	0	53
9:15 PM	0	0	49	0	0	0	49
9:30 PM	0	0	40	1	0	0	41
9:45 PM	0	0	27	0	0	0	27
10:00 PM	0	0	48	0	0	0	48
10:15 PM	0	0	29	0	0	0	29
10:30 PM	0	0	32	0	0	0	32
10:45 PM	0	0	16	0	0	0	16
11:00 PM	0	0	22	0	0	0	22
11:15 PM	0	0	21	0	0	0	21
11:30 PM	0	0	17	0	0	0	17
11:45 PM	0	0	20	0	0	0	20

AM Total	2	5	1765	15	56	13	1856
Percentage	0.11%	0.27%	95.10%	0.81%	3.02%	0.70%	
AM Peak	6:45 AM	8:15 AM	10:45 AM	8:45 AM	8:15 AM	8:00 AM	10:45 AM
Volume	2	2	368	4	12	5	381

PM Total	1	18	4176	27	37	9	4268
Percentage	0.02%	0.42%	97.84%	0.63%	0.87%	0.21%	
PM Peak	2:30 PM	3:15 PM	4:45 PM	2:45 PM	1:30 PM	12:15 PM	4:45 PM
Volume	1	5	561	7	11	3	569
Day Total	3	23	5941	42	93	22	6124
Percentage	0.05%	0.38%	97.01%	0.69%	1.52%	0.36%	

Stafford Street
just east of Walgreens Driveway
City, State: Worcester, MA
Client: Bowman/ L. Fall
Site Code: 314158-01-001



PDI File #: 240116 ATR-B

Count Date: Thursday, August 22, 2024
Direction: WB

AM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	11	0	0	1	12
12:15 AM	0	0	9	0	0	0	9
12:30 AM	0	0	6	0	0	0	6
12:45 AM	0	0	10	0	1	0	11
1:00 AM	0	0	8	0	0	0	8
1:15 AM	0	0	5	0	1	0	6
1:30 AM	0	0	8	0	0	0	8
1:45 AM	0	0	6	0	0	0	6
2:00 AM	0	0	7	0	0	0	7
2:15 AM	0	0	4	0	0	0	4
2:30 AM	0	0	3	0	0	1	4
2:45 AM	0	0	2	0	0	0	2
3:00 AM	0	0	2	0	0	0	2
3:15 AM	0	0	5	0	1	0	6
3:30 AM	0	0	2	0	0	1	3
3:45 AM	0	0	3	0	0	0	3
4:00 AM	0	0	1	0	0	0	1
4:15 AM	0	0	11	0	0	0	11
4:30 AM	0	0	11	0	0	0	11
4:45 AM	0	0	10	0	0	0	10
5:00 AM	0	0	12	0	1	0	13
5:15 AM	0	0	15	0	1	0	16
5:30 AM	1	0	19	0	0	0	20
5:45 AM	0	1	21	1	0	0	23
6:00 AM	0	0	24	0	1	0	25
6:15 AM	0	0	29	0	2	0	31
6:30 AM	0	1	37	1	0	1	40
6:45 AM	0	0	57	1	2	0	60
7:00 AM	0	0	67	1	4	0	72
7:15 AM	0	0	36	0	3	0	39
7:30 AM	0	0	52	0	3	0	55
7:45 AM	0	0	45	1	2	0	48
8:00 AM	0	0	50	1	1	2	54
8:15 AM	0	0	65	1	1	1	68
8:30 AM	0	0	70	0	2	0	72
8:45 AM	0	0	69	0	4	0	73
9:00 AM	0	0	78	1	4	0	83
9:15 AM	0	0	71	0	2	0	73
9:30 AM	0	0	78	1	1	1	81
9:45 AM	0	1	73	0	0	0	74
10:00 AM	0	1	77	1	2	0	81
10:15 AM	0	0	106	0	1	3	110
10:30 AM	0	1	81	1	1	2	86
10:45 AM	0	0	99	1	1	1	102
11:00 AM	0	0	71	0	3	0	74
11:15 AM	0	0	93	1	2	0	96
11:30 AM	0	0	72	1	5	1	79
11:45 AM	0	0	83	1	1	0	85

PM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total
12:00 PM	0	0	99	0	3	0	102
12:15 PM	0	0	96	0	5	0	101
12:30 PM	0	0	92	1	1	0	94
12:45 PM	0	0	117	0	2	2	121
1:00 PM	0	2	88	1	2	1	94
1:15 PM	0	0	115	0	7	1	123
1:30 PM	0	0	86	0	1	2	89
1:45 PM	0	0	98	0	3	0	101
2:00 PM	0	0	109	1	1	1	112
2:15 PM	1	0	119	1	3	0	124
2:30 PM	0	1	116	0	1	0	118
2:45 PM	0	1	131	0	3	2	137
3:00 PM	0	0	125	0	1	0	126
3:15 PM	0	0	115	1	1	1	118
3:30 PM	0	0	121	0	3	0	124
3:45 PM	0	2	116	1	1	0	120
4:00 PM	0	1	136	1	3	1	142
4:15 PM	0	0	126	0	0	0	126
4:30 PM	0	0	132	1	0	0	133
4:45 PM	0	1	132	0	2	1	136
5:00 PM	0	2	142	0	3	1	148
5:15 PM	0	0	116	1	0	0	117
5:30 PM	0	1	141	0	1	0	143
5:45 PM	0	1	120	0	0	0	121
6:00 PM	0	2	124	1	1	0	128
6:15 PM	0	0	120	1	1	0	122
6:30 PM	0	1	115	0	2	0	118
6:45 PM	0	1	137	0	0	1	139
7:00 PM	0	0	105	0	0	0	105
7:15 PM	0	0	89	1	1	0	91
7:30 PM	1	2	97	0	0	0	100
7:45 PM	0	0	81	0	1	0	82
8:00 PM	0	0	80	0	1	0	81
8:15 PM	0	1	53	1	1	0	56
8:30 PM	0	0	60	0	0	0	60
8:45 PM	0	2	60	0	1	0	63
9:00 PM	0	0	60	0	0	0	60
9:15 PM	0	0	43	1	0	0	44
9:30 PM	0	3	47	0	0	0	50
9:45 PM	0	0	45	0	0	0	45
10:00 PM	0	1	45	0	2	0	48
10:15 PM	0	0	49	0	0	0	49
10:30 PM	0	0	40	0	0	0	40
10:45 PM	0	0	25	0	0	0	25
11:00 PM	0	1	23	0	0	0	24
11:15 PM	0	0	30	0	1	0	31
11:30 PM	0	0	21	0	0	0	21
11:45 PM	0	0	10	0	0	0	10

AM Total	1	5	1774	15	53	15	1863
Percentage	0.05%	0.27%	95.22%	0.81%	2.84%	0.81%	
AM Peak	4:45 AM	9:45 AM	10:00 AM	6:15 AM	6:45 AM	10:00 AM	10:00 AM
Volume	1	3	363	3	12	6	379

PM Total	2	26	4347	14	59	14	4462
Percentage	0.04%	0.58%	97.42%	0.31%	1.32%	0.31%	
PM Peak	1:30 PM	8:45 PM	4:15 PM	3:15 PM	1:00 PM	12:45 PM	4:45 PM
Volume	1	5	532	3	13	6	544

Day Total	3	31	6121	29	112	29	6325
Percentage	0.05%	0.49%	96.77%	0.46%	1.77%	0.46%	

Stafford Street
 just east of Walgreens Driveway
 City, State: Worcester, MA
 Client: Bowman/ L. Fall
 Site Code: 314158-01-001



PRECISION
 DATA
 INDUSTRIES, LLC
 157 Washington Street, Suite 2
 Hudson, MA 01749
 Office: 508-875-0100 Fax: 508-875-0118

PDI File # 240116 ATR-B

Direction: EB

Weekly Report

Day Date	Wednesday 08/21/24		Thursday 08/22/24												Week Ave			
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM		
12:00	14	106	15	94	0	0	0	0	0	0	0	0	0	0	15	100		
12:15	22	107	21	102	0	0	0	0	0	0	0	0	0	0	22	105		
12:30	9	106	4	111	0	0	0	0	0	0	0	0	0	0	7	109		
12:45	8	91	11	93	0	0	0	0	0	0	0	0	0	0	10	92		
1:00	6	103	10	90	0	0	0	0	0	0	0	0	0	0	8	97		
1:15	5	84	9	98	0	0	0	0	0	0	0	0	0	0	7	91		
1:30	7	95	4	93	0	0	0	0	0	0	0	0	0	0	6	94		
1:45	5	106	5	96	0	0	0	0	0	0	0	0	0	0	5	101		
2:00	3	92	5	97	0	0	0	0	0	0	0	0	0	0	4	95		
2:15	9	93	10	96	0	0	0	0	0	0	0	0	0	0	10	95		
2:30	3	114	10	106	0	0	0	0	0	0	0	0	0	0	7	110		
2:45	3	116	2	116	0	0	0	0	0	0	0	0	0	0	3	116		
3:00	1	119	6	102	0	0	0	0	0	0	0	0	0	0	4	111		
3:15	3	120	5	98	0	0	0	0	0	0	0	0	0	0	4	109		
3:30	5	105	3	105	0	0	0	0	0	0	0	0	0	0	4	105		
3:45	3	110	6	108	0	0	0	0	0	0	0	0	0	0	5	109		
4:00	6	105	10	106	0	0	0	0	0	0	0	0	0	0	8	106		
4:15	7	85	8	118	0	0	0	0	0	0	0	0	0	0	8	102		
4:30	9	116	6	93	0	0	0	0	0	0	0	0	0	0	8	105		
4:45	10	101	17	111	0	0	0	0	0	0	0	0	0	0	14	106		
5:00	22	138	20	104	0	0	0	0	0	0	0	0	0	0	21	121		
5:15	24	111	20	113	0	0	0	0	0	0	0	0	0	0	22	112		
5:30	36	119	24	104	0	0	0	0	0	0	0	0	0	0	30	112		
5:45	35	121	38	116	0	0	0	0	0	0	0	0	0	0	37	119		
6:00	37	99	33	113	0	0	0	0	0	0	0	0	0	0	35	106		
6:15	39	82	55	92	0	0	0	0	0	0	0	0	0	0	47	87		
6:30	75	105	54	94	0	0	0	0	0	0	0	0	0	0	65	100		
6:45	85	83	89	83	0	0	0	0	0	0	0	0	0	0	87	83		
7:00	91	73	99	88	0	0	0	0	0	0	0	0	0	0	95	81		
7:15	99	74	104	95	0	0	0	0	0	0	0	0	0	0	102	85		
7:30	141	70	124	68	0	0	0	0	0	0	0	0	0	0	133	69		
7:45	133	67	127	85	0	0	0	0	0	0	0	0	0	0	130	76		
8:00	125	69	120	71	0	0	0	0	0	0	0	0	0	0	123	70		
8:15	146	62	112	86	0	0	0	0	0	0	0	0	0	0	129	74		
8:30	125	65	116	69	0	0	0	0	0	0	0	0	0	0	121	67		
8:45	126	55	109	57	0	0	0	0	0	0	0	0	0	0	118	56		
9:00	90	52	89	56	0	0	0	0	0	0	0	0	0	0	90	54		
9:15	99	46	113	41	0	0	0	0	0	0	0	0	0	0	106	44		
9:30	99	47	95	50	0	0	0	0	0	0	0	0	0	0	97	49		
9:45	113	43	94	39	0	0	0	0	0	0	0	0	0	0	104	41		
10:00	99	38	99	47	0	0	0	0	0	0	0	0	0	0	99	43		
10:15	89	32	91	51	0	0	0	0	0	0	0	0	0	0	90	42		
10:30	103	32	87	34	0	0	0	0	0	0	0	0	0	0	95	33		
10:45	98	27	88	38	0	0	0	0	0	0	0	0	0	0	93	33		
11:00	93	27	91	14	0	0	0	0	0	0	0	0	0	0	92	21		
11:15	96	25	96	31	0	0	0	0	0	0	0	0	0	0	96	28		
11:30	109	22	116	22	0	0	0	0	0	0	0	0	0	0	113	22		
11:45	104	7	92	18	0	0	0	0	0	0	0	0	0	0	98	13		
Total	2669	3865	2562	3912	0	0	0	0	0	0	0	0	0	0	2616	3889		
Day Total	6534		6474		0		0		0		0		0		6504			
Peak HR	7:30 AM	5:00 PM	7:30 AM	5:15 PM													7:30 AM	5:00 PM
Volume	545	489	483	446													514	463

Stafford Street
just east of Walgreens Driveway
City, State: Worcester, MA
Client: Bowman/ L. Fall
Site Code: 314158-01-001



PRECISION
DATA
INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

PDI File # 240116 ATR-B

Direction: WB

Weekly Report

Day Date	Wednesday 08/21/24		Thursday 08/22/24												Week Ave			
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM		
12:00	9	83	12	102	0	0	0	0	0	0	0	0	0	0	11	93		
12:15	9	100	9	101	0	0	0	0	0	0	0	0	0	0	9	101		
12:30	11	84	6	94	0	0	0	0	0	0	0	0	0	0	9	89		
12:45	8	82	11	121	0	0	0	0	0	0	0	0	0	0	10	102		
1:00	11	90	8	94	0	0	0	0	0	0	0	0	0	0	10	92		
1:15	8	104	6	123	0	0	0	0	0	0	0	0	0	0	7	114		
1:30	3	80	8	89	0	0	0	0	0	0	0	0	0	0	6	85		
1:45	5	119	6	101	0	0	0	0	0	0	0	0	0	0	6	110		
2:00	3	124	7	112	0	0	0	0	0	0	0	0	0	0	5	118		
2:15	4	120	4	124	0	0	0	0	0	0	0	0	0	0	4	122		
2:30	3	116	4	118	0	0	0	0	0	0	0	0	0	0	4	117		
2:45	1	113	2	137	0	0	0	0	0	0	0	0	0	0	2	125		
3:00	1	131	2	126	0	0	0	0	0	0	0	0	0	0	2	129		
3:15	3	122	6	118	0	0	0	0	0	0	0	0	0	0	5	120		
3:30	4	138	3	124	0	0	0	0	0	0	0	0	0	0	4	131		
3:45	5	114	3	120	0	0	0	0	0	0	0	0	0	0	4	117		
4:00	6	124	1	142	0	0	0	0	0	0	0	0	0	0	4	133		
4:15	10	145	11	126	0	0	0	0	0	0	0	0	0	0	11	136		
4:30	13	131	11	133	0	0	0	0	0	0	0	0	0	0	12	132		
4:45	12	133	10	136	0	0	0	0	0	0	0	0	0	0	11	135		
5:00	12	139	13	148	0	0	0	0	0	0	0	0	0	0	13	144		
5:15	18	157	16	117	0	0	0	0	0	0	0	0	0	0	17	137		
5:30	28	140	20	143	0	0	0	0	0	0	0	0	0	0	24	142		
5:45	20	110	23	121	0	0	0	0	0	0	0	0	0	0	22	116		
6:00	19	139	25	128	0	0	0	0	0	0	0	0	0	0	22	134		
6:15	28	90	31	122	0	0	0	0	0	0	0	0	0	0	30	106		
6:30	34	115	40	118	0	0	0	0	0	0	0	0	0	0	37	117		
6:45	49	105	60	139	0	0	0	0	0	0	0	0	0	0	55	122		
7:00	45	96	72	105	0	0	0	0	0	0	0	0	0	0	59	101		
7:15	55	113	39	91	0	0	0	0	0	0	0	0	0	0	47	102		
7:30	61	91	55	100	0	0	0	0	0	0	0	0	0	0	58	96		
7:45	52	92	48	82	0	0	0	0	0	0	0	0	0	0	50	87		
8:00	62	72	54	81	0	0	0	0	0	0	0	0	0	0	58	77		
8:15	82	63	68	56	0	0	0	0	0	0	0	0	0	0	75	60		
8:30	57	63	72	60	0	0	0	0	0	0	0	0	0	0	65	62		
8:45	96	55	73	63	0	0	0	0	0	0	0	0	0	0	85	59		
9:00	86	53	83	60	0	0	0	0	0	0	0	0	0	0	85	57		
9:15	68	49	73	44	0	0	0	0	0	0	0	0	0	0	71	47		
9:30	70	41	81	50	0	0	0	0	0	0	0	0	0	0	76	46		
9:45	69	27	74	45	0	0	0	0	0	0	0	0	0	0	72	36		
10:00	85	48	81	48	0	0	0	0	0	0	0	0	0	0	83	48		
10:15	85	29	110	49	0	0	0	0	0	0	0	0	0	0	98	39		
10:30	75	32	86	40	0	0	0	0	0	0	0	0	0	0	81	36		
10:45	98	16	102	25	0	0	0	0	0	0	0	0	0	0	100	21		
11:00	84	22	74	24	0	0	0	0	0	0	0	0	0	0	79	23		
11:15	105	21	96	31	0	0	0	0	0	0	0	0	0	0	101	26		
11:30	94	17	79	21	0	0	0	0	0	0	0	0	0	0	87	19		
11:45	90	20	85	10	0	0	0	0	0	0	0	0	0	0	88	15		
Total	1856	4268	1863	4462	0	0	0	0	0	0	0	0	0	0	1860	4365		
Day Total	6124		6325		0		0		0		0		0		6225			
Peak HR	10:45 AM	4:45 PM	10:00 AM	4:45 PM													10:45 AM	4:45 PM
Volume	381	569	379	544													366	557

Stafford Street
 just east of Walgreens Driveway
 City, State: Worcester, MA
 Client: Bowman/ L. Fall
 Site Code: 314158-01-001



PDI File #: 240116 ATR-B (Speed)

Count Date
 Wednesday, August 21, 2024

Speed (60-minute)

EB																
Start Time:	1 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70+	Total	85th %ile	Ave Speed
12:00 AM	0	0	0	4	13	22	8	3	1	0	1	0	0	52	43.0	37.1
1:00 AM	1	0	0	2	7	8	5	1	0	0	0	0	0	24	42.6	35.2
2:00 AM	0	0	0	2	5	4	5	2	0	1	0	0	0	19	43.6	38.2
3:00 AM	0	0	0	1	1	6	2	2	1	0	0	0	0	13	49.0	39.2
4:00 AM	3	3	1	2	9	13	5	3	0	0	0	0	0	39	40.3	32.9
5:00 AM	6	10	1	4	26	38	25	2	1	0	0	0	0	113	41.0	33.7
6:00 AM	8	15	8	13	70	82	31	7	2	1	0	0	0	237	40.0	33.6
7:00 AM	13	17	7	25	187	150	36	9	0	0	0	0	0	444	39.0	33.3
8:00 AM	10	15	18	61	181	116	33	4	2	1	0	0	0	441	37.0	32.3
9:00 AM	18	17	23	61	166	71	10	2	0	0	0	0	0	368	36.0	30.1
10:00 AM	24	15	24	57	143	62	24	2	0	0	0	0	0	351	37.0	30.0
11:00 AM	25	13	19	94	134	63	9	0	0	0	0	0	0	357	36.0	29.4
12:00 PM	33	26	27	106	142	43	9	0	0	0	0	0	0	386	34.0	27.8
1:00 PM	25	20	31	111	130	50	11	6	0	0	0	0	0	384	35.0	28.8
2:00 PM	38	17	18	106	147	68	7	2	0	0	0	0	0	403	35.0	28.7
3:00 PM	25	15	29	92	155	58	13	4	1	0	1	0	0	393	36.0	29.4
4:00 PM	35	23	31	74	136	49	16	1	1	0	0	0	0	366	36.0	28.3
5:00 PM	50	19	31	88	160	61	17	3	1	0	0	0	0	430	35.0	28.4
6:00 PM	25	15	16	86	113	54	13	3	0	0	0	0	0	325	36.0	29.1
7:00 PM	26	12	18	60	124	45	8	2	0	0	0	0	0	295	35.0	29.1
8:00 PM	28	15	22	49	81	38	8	5	0	0	0	0	0	246	36.0	28.3
9:00 PM	4	11	16	46	79	29	10	2	1	0	0	0	0	198	36.0	30.4
10:00 PM	1	2	3	12	62	36	14	1	0	0	0	0	0	131	38.0	33.3
11:00 PM	2	0	2	7	42	25	6	0	0	0	0	0	0	84	37.6	33.3
Total	400	280	345	1163	2313	1191	325	66	11	3	2	0	0	6099	37.0	30.1
Percent	6.56%	4.59%	5.66%	19.07%	37.92%	19.53%	5.33%	1.08%	0.18%	0.05%	0.03%	0.00%	0.00%			

AM Peak	11:00 AM	7:00 AM	10:00 AM	11:00 AM	7:00 AM	7:00 AM	7:00 AM	7:00 AM	6:00 AM	2:00 AM	12:00 AM					7:00 AM
Volume	25	17	24	94	187	150	36	9	2	1	1	0	0			444
PM Peak	5:00 PM	12:00 PM	1:00 PM	1:00 PM	5:00 PM	2:00 PM	5:00 PM	1:00 PM	3:00 PM		3:00 PM					5:00 PM
Volume	50	26	31	111	160	68	17	6	1	0	1	0	0			430

15th Percentile: 24.0 MPH Average Speed: 30.1 MPH Posted Speed Limit: 30 MPH
 50th Percentile: 32.0 MPH 10 MPH Pace: 27 to 36 MPH Number of Vehicles > 30 MPH: 3593
 85th Percentile: 37.0 MPH Number in Pace: 3798 Percent of Vehicles > 30 MPH: 58.9%
 95th Percentile: 40.0 MPH Percent in Pace: 62.3%

Stafford Street
just east of Walgreens Driveway
City, State: Worcester, MA
Client: Bowman/ L. Fall
Site Code: 314158-01-001



PDI File #: 240116 ATR-B (Speed)

Count Date
Wednesday, August 21, 2024

Speed (60-minute)

WB																
Start Time:	1 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70+	Total	85th %ile	Ave Speed
12:00 AM	0	0	1	3	11	6	2	0	0	0	0	0	0	23	36.0	33.0
1:00 AM	0	0	0	2	6	9	4	1	1	0	0	0	0	23	40.0	36.7
2:00 AM	0	0	0	0	6	1	3	0	0	0	0	0	0	10	42.0	35.3
3:00 AM	0	0	0	1	5	0	1	1	0	0	0	0	0	8	40.7	34.3
4:00 AM	2	0	2	2	11	11	5	1	0	0	0	0	0	34	40.0	33.2
5:00 AM	4	2	2	5	13	17	6	3	0	0	0	0	0	52	40.0	32.3
6:00 AM	10	2	2	11	35	23	7	1	0	0	0	0	0	91	38.0	30.6
7:00 AM	11	5	9	26	43	44	8	2	0	0	0	0	0	148	37.0	30.3
8:00 AM	10	3	19	33	54	24	5	1	0	0	0	0	0	149	35.8	29.1
9:00 AM	16	9	12	35	60	31	5	0	0	0	1	0	0	169	35.0	28.4
10:00 AM	9	10	33	53	59	24	1	0	0	0	0	0	0	189	34.0	27.7
11:00 AM	8	14	23	62	78	17	2	0	0	0	0	0	0	204	33.6	27.8
12:00 PM	7	14	25	61	80	22	1	0	0	0	0	0	0	210	34.0	27.8
1:00 PM	14	13	26	59	82	18	1	2	0	0	0	0	0	215	33.0	27.5
2:00 PM	19	6	31	64	69	13	2	0	0	0	0	0	0	204	33.6	26.8
3:00 PM	25	12	54	74	84	22	2	0	0	0	0	0	0	273	33.0	26.3
4:00 PM	25	8	40	85	63	25	1	0	0	0	0	0	0	247	34.0	26.3
5:00 PM	29	32	36	79	63	15	3	1	0	0	0	0	0	258	32.0	24.9
6:00 PM	26	18	35	61	67	9	0	1	0	0	0	0	0	217	33.0	25.3
7:00 PM	19	9	30	54	66	16	2	0	0	0	0	0	0	196	32.0	26.7
8:00 PM	15	8	16	56	46	20	1	0	0	0	0	0	0	162	34.0	27.1
9:00 PM	9	8	13	41	47	24	2	1	0	0	0	0	0	145	35.0	28.6
10:00 PM	6	7	10	24	40	16	2	0	0	0	0	0	0	105	35.0	28.7
11:00 PM	1	1	0	12	22	12	4	0	0	0	0	0	0	52	38.0	32.0
Total	265	181	419	903	1110	419	70	15	1	0	1	0	0	3384	34.0	27.7
Percent	7.83%	5.35%	12.38%	26.68%	32.80%	12.38%	2.07%	0.44%	0.03%	0.00%	0.03%	0.00%	0.00%			

AM Peak	9:00 AM	11:00 AM	10:00 AM	11:00 AM	11:00 AM	7:00 AM	7:00 AM	5:00 AM	1:00 AM		9:00 AM			11:00 AM
Volume	16	14	33	62	78	44	8	3	1	0	1	0	0	204
PM Peak	5:00 PM	5:00 PM	3:00 PM	4:00 PM	3:00 PM	4:00 PM	11:00 PM	1:00 PM						3:00 PM
Volume	29	32	54	85	84	25	4	2	0	0	0	0	0	273

15th Percentile:	20.0 MPH	Average Speed:	27.7 MPH	Posted Speed Limit:	30 MPH
50th Percentile:	29.0 MPH	10 MPH Pace:	25 to 34 MPH	Number of Vehicles > 30 MPH:	1405
85th Percentile:	34.0 MPH	Number in Pace:	2013	Percent of Vehicles > 30 MPH:	41.5%
95th Percentile:	38.0 MPH	Percent in Pace:	59.5%		

Stafford Street
 just east of Walgreens Driveway
 City, State: Worcester, MA
 Client: Bowman/ L. Fall
 Site Code: 314158-01-001



PDI File #: 240116 ATR-B (Speed)

Count Date
 Wednesday, August 21, 2024

Speed (60-minute)

Combined EB and WB

Start Time:	1 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70+	Total	85th %ile	Ave Speed
12:00 AM	0	0	1	7	24	28	10	3	1	0	1	0	0	75	40.9	35.9
1:00 AM	1	0	0	4	13	17	9	2	1	0	0	0	0	47	41.1	35.9
2:00 AM	0	0	0	2	11	5	8	2	0	1	0	0	0	29	43.0	37.2
3:00 AM	0	0	0	2	6	6	3	3	1	0	0	0	0	21	45.0	37.3
4:00 AM	5	3	3	4	20	24	10	4	0	0	0	0	0	73	40.0	33.1
5:00 AM	10	12	3	9	39	55	31	5	1	0	0	0	0	165	41.0	33.3
6:00 AM	18	17	10	24	105	105	38	8	2	1	0	0	0	328	39.0	32.7
7:00 AM	24	22	16	51	230	194	44	11	0	0	0	0	0	592	38.0	32.5
8:00 AM	20	18	37	94	235	140	38	5	2	1	0	0	0	590	37.0	31.5
9:00 AM	34	26	35	96	226	102	15	2	0	0	1	0	0	537	36.0	29.6
10:00 AM	33	25	57	110	202	86	25	2	0	0	0	0	0	540	36.0	29.2
11:00 AM	33	27	42	156	212	80	11	0	0	0	0	0	0	561	35.0	28.8
12:00 PM	40	40	52	167	222	65	10	0	0	0	0	0	0	596	34.0	27.8
1:00 PM	39	33	57	170	212	68	12	8	0	0	0	0	0	599	34.0	28.3
2:00 PM	57	23	49	170	216	81	9	2	0	0	0	0	0	607	35.0	28.1
3:00 PM	50	27	83	166	239	80	15	4	1	0	1	0	0	666	35.0	28.2
4:00 PM	60	31	71	159	199	74	17	1	1	0	0	0	0	613	35.0	27.5
5:00 PM	79	51	67	167	223	76	20	4	1	0	0	0	0	688	34.0	27.1
6:00 PM	51	33	51	147	180	63	13	4	0	0	0	0	0	542	34.0	27.6
7:00 PM	45	21	48	114	190	61	10	2	0	0	0	0	0	491	34.0	28.2
8:00 PM	43	23	38	105	127	58	9	5	0	0	0	0	0	408	35.0	27.8
9:00 PM	13	19	29	87	126	53	12	3	1	0	0	0	0	343	36.0	29.6
10:00 PM	7	9	13	36	102	52	16	1	0	0	0	0	0	236	37.0	31.2
11:00 PM	3	1	2	19	64	37	10	0	0	0	0	0	0	136	38.0	32.8
Total	665	461	764	2066	3423	1610	395	81	12	3	3	0	0	9483	36.0	29.3
Percent	7.01%	4.86%	8.06%	21.79%	36.10%	16.98%	4.17%	0.85%	0.13%	0.03%	0.03%	0.00%	0.00%			

AM Peak	9:00 AM	11:00 AM	10:00 AM	11:00 AM	8:00 AM	7:00 AM	7:00 AM	7:00 AM	6:00 AM	2:00 AM	12:00 AM					7:00 AM
Volume	34	27	57	156	235	194	44	11	2	1	1	0	0			592
PM Peak	5:00 PM	5:00 PM	3:00 PM	1:00 PM	3:00 PM	2:00 PM	5:00 PM	1:00 PM	3:00 PM		3:00 PM					5:00 PM
Volume	79	51	83	170	239	81	20	8	1	0	1	0	0			688

15th Percentile:	22.0 MPH	Average Speed:	29.3 MPH	Posted Speed Limit:	30 MPH
50th Percentile:	31.0 MPH	10 MPH Pace:	27 to 36 MPH	Number of Vehicles > 30 MPH:	4998
85th Percentile:	36.0 MPH	Number in Pace:	5750	Percent of Vehicles > 30 MPH:	52.7%
95th Percentile:	40.0 MPH	Percent in Pace:	60.6%		

Stafford Street
just east of Walgreens Driveway
City, State: Worcester, MA
Client: Bowman/ L. Fall
Site Code: 314158-01-001



PDI File #: 240116 ATR-B (Speed)

Count Date
Thursday, August 22, 2024

Speed (60-minute)

EB																
Start Time:	1 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70+	Total	85th %ile	Ave Speed
12:00 AM	0	1	0	5	16	19	6	3	0	0	0	0	0	50	40.0	35.6
1:00 AM	0	0	0	3	8	8	7	1	0	0	1	0	0	28	42.0	37.1
2:00 AM	1	0	0	1	9	12	3	1	0	0	0	0	0	27	39.1	34.7
3:00 AM	2	0	1	0	3	11	1	2	0	0	0	0	0	20	38.8	33.6
4:00 AM	0	6	0	0	12	11	12	2	2	0	0	0	0	45	43.4	35.3
5:00 AM	5	8	2	5	34	43	19	0	2	0	0	0	0	118	40.0	33.4
6:00 AM	10	18	10	14	61	80	33	3	1	1	0	0	0	231	40.0	32.8
7:00 AM	20	27	27	56	152	88	20	1	0	0	0	0	0	391	37.0	30.2
8:00 AM	23	10	25	86	159	84	7	0	0	0	0	0	0	394	35.0	29.9
9:00 AM	39	21	28	77	141	49	17	0	0	0	0	0	0	372	35.0	28.2
10:00 AM	45	16	30	74	126	67	16	0	0	0	0	0	0	374	36.0	28.4
11:00 AM	27	14	23	98	140	65	7	4	0	0	0	0	0	378	36.0	29.3
12:00 PM	32	23	26	119	118	54	7	3	0	0	0	0	0	382	35.0	28.1
1:00 PM	35	25	38	80	133	53	8	1	0	1	0	0	0	374	35.0	27.9
2:00 PM	45	22	26	76	139	65	14	1	0	0	0	0	0	388	35.0	28.2
3:00 PM	38	22	37	84	126	55	9	1	0	0	0	0	0	372	35.0	28.0
4:00 PM	33	35	38	100	123	63	17	3	0	0	0	0	0	412	35.0	28.2
5:00 PM	27	20	25	98	145	57	16	2	0	0	0	0	0	390	35.0	29.0
6:00 PM	44	37	41	83	124	66	14	1	0	0	0	0	0	410	35.0	27.5
7:00 PM	43	19	31	75	112	56	6	0	0	2	0	0	0	344	35.0	27.6
8:00 PM	14	14	19	52	106	39	5	4	0	0	0	0	0	253	35.0	29.4
9:00 PM	10	8	1	29	80	34	7	3	0	0	0	0	0	172	36.4	30.8
10:00 PM	12	7	5	13	74	46	17	1	1	0	0	0	0	176	39.0	31.9
11:00 PM	4	6	3	6	27	39	13	3	0	0	0	0	0	101	40.0	33.0
Total	509	359	436	1234	2168	1164	281	40	6	4	1	0	0	6202	36.0	29.2
Percent	8.21%	5.79%	7.03%	19.90%	34.96%	18.77%	4.53%	0.64%	0.10%	0.06%	0.02%	0.00%	0.00%			

AM Peak	10:00 AM	7:00 AM	10:00 AM	11:00 AM	8:00 AM	7:00 AM	6:00 AM	11:00 AM	4:00 AM	6:00 AM	1:00 AM				8:00 AM
Volume	45	27	30	98	159	88	33	4	2	1	1	0	0	394	
PM Peak	2:00 PM	6:00 PM	6:00 PM	12:00 PM	5:00 PM	6:00 PM	4:00 PM	8:00 PM	10:00 PM	7:00 PM				4:00 PM	
Volume	45	37	41	119	145	66	17	4	1	2	0	0	0	412	

15th Percentile:	21.0 MPH	Average Speed:	29.2 MPH	Posted Speed Limit:	30 MPH
50th Percentile:	31.0 MPH	10 MPH Pace:	27 to 36 MPH	Number of Vehicles > 30 MPH:	3360
85th Percentile:	36.0 MPH	Number in Pace:	3752	Percent of Vehicles > 30 MPH:	54.2%
95th Percentile:	40.0 MPH	Percent in Pace:	60.5%		

Stafford Street
 just east of Walgreens Driveway
 City, State: Worcester, MA
 Client: Bowman/ L. Fall
 Site Code: 314158-01-001



PDI File #: 240116 ATR-B (Speed)

Count Date
 Thursday, August 22, 2024

Speed (60-minute)

WB																
Start Time:	1 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70+	Total	85th %ile	Ave Speed
12:00 AM	0	0	0	5	5	9	5	1	0	0	1	0	0	26	41.3	35.8
1:00 AM	0	0	0	2	4	10	4	2	0	0	0	0	0	22	41.7	36.8
2:00 AM	0	0	0	1	7	3	1	0	0	0	0	0	0	12	37.7	33.7
3:00 AM	1	0	0	0	5	1	2	0	0	0	0	0	0	9	39.0	31.7
4:00 AM	0	0	0	1	8	8	1	3	0	0	0	0	0	21	40.0	36.2
5:00 AM	4	2	1	2	26	14	7	2	0	0	0	0	0	58	39.5	32.4
6:00 AM	2	3	7	12	39	26	12	0	0	0	0	0	0	101	39.0	32.2
7:00 AM	12	13	12	27	39	19	3	0	0	0	0	0	0	125	35.0	27.1
8:00 AM	13	5	9	41	69	22	2	0	1	0	0	0	0	162	34.9	28.5
9:00 AM	15	9	22	51	66	14	3	0	0	0	0	0	0	180	34.0	27.1
10:00 AM	16	12	33	64	64	18	2	0	0	0	0	0	0	209	33.0	26.7
11:00 AM	14	15	26	81	51	17	3	0	0	0	0	0	0	207	33.0	26.6
12:00 PM	10	7	37	56	69	20	5	1	1	0	0	0	0	206	34.0	28.0
1:00 PM	20	15	36	74	50	11	5	0	0	0	0	0	0	211	33.0	25.8
2:00 PM	33	27	46	84	71	17	2	0	0	0	0	0	0	280	33.0	25.2
3:00 PM	33	18	32	79	79	24	7	0	0	0	0	0	0	272	33.0	26.2
4:00 PM	9	7	34	73	75	21	1	0	0	0	1	0	0	221	34.0	28.0
5:00 PM	30	21	44	80	63	27	1	0	0	0	0	0	0	266	33.0	25.4
6:00 PM	25	30	33	79	68	27	1	1	0	0	0	0	0	264	33.0	26.0
7:00 PM	12	11	38	56	63	13	2	0	0	0	0	0	0	195	32.0	26.7
8:00 PM	3	4	19	48	52	19	2	1	0	0	0	0	0	148	34.0	29.2
9:00 PM	4	4	10	33	46	22	6	0	0	0	0	0	0	125	36.0	29.9
10:00 PM	5	2	0	14	45	25	2	0	0	0	1	0	0	94	37.0	31.7
11:00 PM	2	1	3	14	18	12	2	0	0	0	0	0	0	52	36.0	30.5
Total	263	206	442	977	1082	399	81	11	2	0	3	0	0	3466	34.0	27.5
Percent	7.59%	5.94%	12.75%	28.19%	31.22%	11.51%	2.34%	0.32%	0.06%	0.00%	0.09%	0.00%	0.00%			

AM Peak	10:00 AM	11:00 AM	10:00 AM	11:00 AM	8:00 AM	6:00 AM	6:00 AM	4:00 AM	8:00 AM		12:00 AM			10:00 AM
Volume	16	15	33	81	69	26	12	3	1	0	1	0	0	209
PM Peak	2:00 PM	6:00 PM	2:00 PM	2:00 PM	3:00 PM	5:00 PM	3:00 PM	12:00 PM	12:00 PM		4:00 PM			2:00 PM
Volume	33	30	46	84	79	27	7	1	1	0	1	0	0	280

15th Percentile:	20.0 MPH	Average Speed:	27.5 MPH	Posted Speed Limit:	30 MPH
50th Percentile:	29.0 MPH	10 MPH Pace:	25 to 34 MPH	Number of Vehicles > 30 MPH:	1367
85th Percentile:	34.0 MPH	Number in Pace:	2059	Percent of Vehicles > 30 MPH:	39.4%
95th Percentile:	38.0 MPH	Percent in Pace:	59.4%		

Stafford Street
 just east of Walgreens Driveway
 City, State: Worcester, MA
 Client: Bowman/ L. Fall
 Site Code: 314158-01-001



PDI File #: 240116 ATR-B (Speed)

Count Date
 Thursday, August 22, 2024

Speed (60-minute)
Combined EB and WB

Start Time:	1 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70+	Total	85th %ile	Ave Speed
12:00 AM	0	1	0	10	21	28	11	4	0	0	1	0	0	76	41.0	35.7
1:00 AM	0	0	0	5	12	18	11	3	0	0	1	0	0	50	42.0	37.0
2:00 AM	1	0	0	2	16	15	4	1	0	0	0	0	0	39	39.0	34.4
3:00 AM	3	0	1	0	8	12	3	2	0	0	0	0	0	29	39.6	33.0
4:00 AM	0	6	0	1	20	19	13	5	2	0	0	0	0	66	43.3	35.6
5:00 AM	9	10	3	7	60	57	26	2	2	0	0	0	0	176	40.0	33.1
6:00 AM	12	21	17	26	100	106	45	3	1	1	0	0	0	332	39.4	32.6
7:00 AM	32	40	39	83	191	107	23	1	0	0	0	0	0	516	36.0	29.5
8:00 AM	36	15	34	127	228	106	9	0	1	0	0	0	0	556	35.0	29.5
9:00 AM	54	30	50	128	207	63	20	0	0	0	0	0	0	552	34.4	27.9
10:00 AM	61	28	63	138	190	85	18	0	0	0	0	0	0	583	35.0	27.8
11:00 AM	41	29	49	179	191	82	10	4	0	0	0	0	0	585	35.0	28.4
12:00 PM	42	30	63	175	187	74	12	4	1	0	0	0	0	588	35.0	28.1
1:00 PM	55	40	74	154	183	64	13	1	0	1	0	0	0	585	34.0	27.2
2:00 PM	78	49	72	160	210	82	16	1	0	0	0	0	0	668	34.0	26.9
3:00 PM	71	40	69	163	205	79	16	1	0	0	0	0	0	644	34.0	27.2
4:00 PM	42	42	72	173	198	84	18	3	0	0	1	0	0	633	35.0	28.1
5:00 PM	57	41	69	178	208	84	17	2	0	0	0	0	0	656	35.0	27.5
6:00 PM	69	67	74	162	192	93	15	2	0	0	0	0	0	674	35.0	26.9
7:00 PM	55	30	69	131	175	69	8	0	0	2	0	0	0	539	34.0	27.3
8:00 PM	17	18	38	100	158	58	7	5	0	0	0	0	0	401	35.0	29.3
9:00 PM	14	12	11	62	126	56	13	3	0	0	0	0	0	297	36.0	30.4
10:00 PM	17	9	5	27	119	71	19	1	1	0	1	0	0	270	38.0	31.8
11:00 PM	6	7	6	20	45	51	15	3	0	0	0	0	0	153	38.0	32.1
Total	772	565	878	2211	3250	1563	362	51	8	4	4	0	0	9668	36.0	28.6
Percent	7.99%	5.84%	9.08%	22.87%	33.62%	16.17%	3.74%	0.53%	0.08%	0.04%	0.04%	0.00%	0.00%			

AM Peak	10:00 AM	7:00 AM	10:00 AM	11:00 AM	8:00 AM	7:00 AM	6:00 AM	4:00 AM	4:00 AM	6:00 AM	12:00 AM				11:00 AM
Volume	61	40	63	179	228	107	45	5	2	1	1	0	0	585	
PM Peak	2:00 PM	6:00 PM	1:00 PM	5:00 PM	2:00 PM	6:00 PM	10:00 PM	8:00 PM	12:00 PM	7:00 PM	4:00 PM			6:00 PM	
Volume	78	67	74	178	210	93	19	5	1	2	1	0	0	674	

15th Percentile:	21.0 MPH	Average Speed:	28.6 MPH	Posted Speed Limit:	30 MPH
50th Percentile:	30.0 MPH	10 MPH Pace:	27 to 36 MPH	Number of Vehicles > 30 MPH:	4727
85th Percentile:	36.0 MPH	Number in Pace:	5746	Percent of Vehicles > 30 MPH:	48.9%
95th Percentile:	39.0 MPH	Percent in Pace:	59.4%		

The top of the page features a dark green triangular shape on the left containing the word "Bowman" in white. To the right, a white-bordered triangular shape contains an aerial photograph of a city street intersection with a roundabout and a building with arches.

Bowman

APPENDIX B

SEASONAL ADJUSTMENT DATA

Massachusetts Highway Department
Statewide Traffic Data Collection
2022 Weekday Seasonal Factors

Factor Group	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Axle Factor
R1	1.25	1.18	1.12	1.08	1.02	0.96	0.92	0.91	0.99	1.00	1.02	1.04	0.80
R3	1.08	1.08	1.02	0.95	0.91	0.89	0.86	0.86	0.92	0.91	0.97	0.99	0.98
R4-R7	1.17	1.16	1.09	1.00	0.92	0.91	0.88	0.87	0.92	0.93	1.01	1.05	0.98
U1-Boston	1.14	1.09	0.99	0.95	0.93	0.91	0.91	0.91	0.92	0.93	0.96	0.99	0.96
U1-Essex	1.17	1.13	1.05	1.01	0.95	0.90	0.86	0.86	0.93	0.96	1.00	1.03	0.96
U1-Southeast	1.19	1.12	1.04	0.98	0.93	0.87	0.84	0.84	0.90	0.94	0.98	1.03	0.96
U1-West	1.11	1.06	1.01	0.99	0.96	0.93	0.92	0.91	0.92	0.93	0.97	0.98	0.86
U1-Worcester	1.09	1.05	0.97	0.94	0.91	0.90	0.91	0.91	0.92	0.92	0.94	0.97	0.92
U3	1.03	1.04	0.96	0.93	0.90	0.90	0.91	0.91	0.91	0.91	0.94	0.98	0.96
U4-U7	1.00	1.01	0.94	0.92	0.87	0.90	0.95	0.94	0.90	0.88	0.89	0.94	0.99
UR2	1.09	1.05	0.97	0.94	0.92	0.89	0.90	0.90	0.91	0.92	0.94	0.98	0.99
Rec - East	1.24	1.21	1.10	1.01	0.92	0.83	0.77	0.79	0.90	0.97	1.03	1.08	0.99
Rec - West	1.47	1.43	1.28	1.02	0.89	0.80	0.68	0.70	0.93	0.89	1.11	1.30	0.99

Round off:
0-999 = 10
>1000 = 100

U = Urban
R = Rural

- 1 - Interstate
- 2 - Freeway and Expressway
- 3 - Other Principal Arterial
- 4 - Minor Arterial
- 5 - Major Collector
- 6 - Minor Collector
- 7 - Local Road and Street

UR2 Group - Combination of Urban Freeways and Expressways and Rural Freeways and Expressways.
Recreational - East Group - Cape Cod (all towns) including the town of Plymouth south of Route 3A (stations 7014,7079,7080,7090,7091,7092,7093,7094,7095,7096,7097,7108 and 7178), Martha's Vineyard and Nantucket.
Recreational - West Group - Continuous Stations 2 and 189 including stations 1066,1067,1083,1084,1085,1086,1087,1088,1089,1090,1091,1092,1093,1094,1095,1096,1097,1098,1099,1100,1101,1102,1103,1104,1105,1106,1107,1108,1113,1114,1116,2196,2197 and 2198.

Massachusetts Highway Department

3894: Monthly Hourly Volume for August 2023

Location ID: **3894**
 County: **Worcester**
 Functional Class: **1**
 Location: **INTERSTATE 290**

Seasonal Factor Group: **U1-Worcester**
 Daily Factor Group:
 Axle Factor Group: **U1-Worcester**
 Growth Factor Group:

	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	TOTAL	QC Status
1	673	541	501	612	1,063	2,528	4,557	5,541	5,196	4,770	4,736	4,637	4,682	5,056	5,498	6,025	6,316	6,010	4,525	3,400	2,704	2,096	1,662	1,152	84,481	Accepted
2	730	568	415	440	981	2,488	4,417	5,546	5,325	4,899	4,615	4,993	4,756	4,909	5,442	5,947	6,182	6,003	4,515	3,581	3,010	2,326	1,717	1,188	84,993	Accepted
3	743	559	529	614	1,090	2,231	3,942	5,141	5,384	5,244	5,263	5,387	4,962	5,242	5,687	6,287	6,416	6,259	5,174	4,249	3,223	2,614	1,946	1,539	89,725	Accepted
4	897	667	576	596	1,173	2,443	4,159	5,044	4,759	4,770	5,340	5,885	6,298	6,169	6,504	6,613	6,772	6,909	5,525	4,295	3,334	2,872	2,216	1,623	95,439	Accepted
5	951	728	577	476	716	1,183	2,259	3,408	4,480	5,142	5,917	6,257	6,051	6,031	5,964	5,582	5,222	4,907	4,634	3,898	3,466	2,931	2,601	1,715	85,096	Accepted
6	1,082	729	541	361	429	706	1,386	2,220	3,263	4,419	5,006	6,023	5,870	5,677	5,686	5,615	5,645	5,312	4,854	4,517	3,768	2,836	2,122	1,286	79,353	Accepted
7	773	565	448	533	1,098	2,426	4,345	5,167	5,130	4,683	4,756	5,219	5,285	5,497	5,687	5,829	5,953	5,590	4,217	3,224	2,445	1,829	1,430	1,077	83,206	Accepted
8	648	460	393	589	1,125	2,335	4,254	5,434	4,803	4,523	4,783	4,568	4,919	5,157	5,739	5,825	6,188	5,733	4,219	3,255	2,362	1,917	1,555	1,185	81,969	Accepted
9	674	513	461	609	1,165	2,596	4,508	5,689	5,337	5,077	4,735	4,870	4,891	5,313	5,682	6,143	6,503	6,121	4,673	3,620	3,129	2,061	1,445	1,002	86,817	Accepted
10	650	428	424	450	1,125	2,491	4,518	5,531	5,309	4,864	5,004	4,964	5,234	5,262	6,046	6,012	6,242	6,273	5,001	3,976	3,021	2,415	1,690	1,365	88,295	Accepted
11	907	641	545	646	1,189	2,443	4,246	4,906	5,078	4,915	5,472	6,057	6,049	6,399	6,544	6,411	6,512	6,635	5,825	5,167	4,103	3,246	2,733	1,806	98,475	Accepted
12	1,055	777	609	502	724	1,246	2,376	3,552	4,568	5,111	6,142	6,227	5,832	6,097	6,095	5,630	5,479	5,015	4,500	4,117	3,643	3,009	2,368	1,688	86,362	Accepted
13	1,015	645	465	370	386	627	1,373	2,085	3,070	4,408	5,002	6,312	6,172	6,181	6,083	5,830	5,622	5,394	4,760	4,506	3,701	2,520	1,718	1,795	80,040	Accepted
14	891	575	488	599	1,118	2,420	4,371	5,172	5,085	4,644	4,875	5,220	5,217	5,621	5,951	6,348	6,365	5,881	4,310	3,525	2,792	2,056	1,586	1,182	86,292	Accepted
15	681	522	481	580	1,010	2,309	4,267	5,420	4,745	4,375	4,547	4,914	5,065	5,171	5,847	5,964	5,969	5,746	4,486	3,255	2,770	2,055	1,587	1,121	82,887	Accepted
16	660	512	494	591	1,197	2,471	4,389	5,608	5,118	4,820	4,870	4,698	5,205	5,071	5,728	6,068	6,102	6,030	4,466	3,633	2,854	2,309	1,719	1,184	85,797	Accepted
17	723	565	470	606	1,160	2,494	4,478	5,530	5,276	5,100	4,999	5,175	5,424	5,954	6,188	6,677	6,615	6,228	4,959	3,975	3,234	2,731	1,692	1,238	91,491	Accepted
18	798	573	528	649	1,136	2,318	4,148	4,874	4,302	4,742	5,112	5,811	6,396	6,318	6,262	6,466	5,882	6,751	5,693	4,564	3,700	3,024	2,553	1,758	94,358	Accepted
19	1,054	725	526	499	652	1,107	2,290	3,304	4,301	5,265	6,193	6,360	6,055	5,919	5,976	5,964	5,089	4,987	4,664	4,189	3,460	2,828	2,241	1,781	85,429	Accepted
20	976	649	553	390	390	716	1,390	2,180	3,275	4,466	5,080	6,327	6,388	5,576	5,943	5,817	5,883	5,370	4,893	4,544	3,761	3,020	2,198	1,402	81,187	Accepted
21	776	497	457	553	1,126	2,415	4,358	5,484	5,228	4,832	4,857	5,366	5,271	5,357	5,764	6,250	6,270	6,041	4,328	3,482	2,592	2,098	1,552	1,083	86,037	Accepted
22	611	483	437	572	1,129	2,506	4,426	5,819	5,246	4,903	4,954	4,742	4,997	5,232	5,887	5,970	6,148	6,066	4,541	3,549	2,804	2,119	1,617	1,155	85,913	Accepted
23	664	483	490	573	1,140	2,460	4,499	5,590	5,427	4,808	4,791	5,004	5,064	5,206	5,542	5,754	6,303	6,048	4,895	3,825	3,201	2,287	1,619	1,169	86,842	Accepted
24	717	556	486	576	1,147	2,420	4,516	5,793	5,252	4,700	4,936	5,445	5,070	5,390	5,851	6,232	6,525	6,483	5,320	4,056	3,250	2,457	1,895	1,295	90,368	Accepted
25	822	540	521	565	1,047	2,170	3,466	4,827	4,816	4,663	5,023	5,624	6,048	6,038	5,703	5,604	6,198	6,200	6,273	4,447	3,019	2,643	2,041	1,481	89,779	Accepted
26	960	628	517	476	622	1,129	2,156	3,081	3,983	5,089	5,663	6,430	6,313	6,462	6,201	5,775	5,316	5,382	4,436	4,274	3,767	3,143	2,462	1,758	86,023	Accepted
27	1,030	672	517	334	342	649	1,426	2,115	3,219	4,463	5,246	5,978	6,357	6,350	6,157	5,776	5,849	5,595	5,137	4,115	3,592	2,599	1,721	1,151	80,390	Accepted
28	638	466	396	484	1,056	2,498	4,626	5,498	5,087	4,729	4,699	4,927	4,795	5,027	5,619	5,780	6,162	5,628	4,327	3,218	2,663	1,884	1,510	1,110	82,827	Accepted
29	610	453	448	548	1,075	2,436	4,810	5,786	5,188	4,652	4,599	4,471	4,744	5,018	5,583	6,100	6,051	5,876	4,458	3,377	2,626	1,975	1,603	1,053	83,540	Accepted
30	637	501	446	589	1,085	2,394	4,589	5,377	4,685	4,496	4,489	4,486	4,848	4,972	5,844	5,984	6,165	6,006	4,597	3,550	2,837	2,185	1,655	1,178	83,595	Accepted
31	683	516	463	555	1,128	2,514	4,765	5,632	5,154	4,765	4,821	4,765	5,010	5,130	5,702	6,114	6,372	6,154	5,096	4,169	3,439	2,704	1,910	1,531	89,092	Accepted

Aug 2023 ADT	86,326
2023 AADT	80,351
Adjustment	-6.9%

The top of the page features a dark green triangular shape on the left containing the word "Bowman" in white. To the right, a white-bordered triangular shape contains an aerial photograph of a complex traffic interchange with a roundabout and several lanes of traffic.

Bowman

APPENDIX C

TRAFFIC PROJECTION MODEL

TRAFFIC PROJECTION MODEL

**Weekday Midday Peak Hour
Proposed Chick-Fil-A Restaurant
Worcester, MA**

Intersection	Dir.	Turn	2024 Counted Volumes	Walgreens Trips TOTAL	2024 Existing Volumes	Background Growth 1.00% per year	2031 No Build Volumes	New Trips PERCENT ENTER	New Trips ENTER	New Trips PERCENT EXIT	New Trips EXIT	New Trips TOTAL	Pass-by Trips	2031 Build Volumes
Stafford Street at	EB	L	18	0	18	1	19					0	-1	18
Heard Street/Curtis Parkway	T	R	332	25	357	26	383	35%	25			25	1	384
		L	28	4	33	2	35					0		31
	WB	L	84	0	88	6	94	35%	25	15%	10	35	23	152
		T	417	25	442	32	474			25%	16	16	-6	459
	R	L	22	4	26	2	28			5%	3	3	4	31
		T	42	4	47	3	50			10%	7	7	7	60
	NB	L	123	4	131	9	140			5%	3	3	-3	136
		R	82	0	84	6	90			10%	7	7	-2	95
	SB	L	10	4	14	1	15	5%	3			3		14
		T	60	4	66	5	71	5%	3			3	1	71
R	R	19	0	19	1	20					0	-1	19	
Stafford Street at	EB	T	424	29	455	33	488			10%	7	7	-21	445
Northwest Site Driveway	R	T	0	0	0		0	40%	28			28	20	48
		T	523	29	556	40	596	35%	25	45%	29	54	21	642
Stafford Street at	EB	T	424	0	426	33	459			10%	7	7	-21	445
Northeast Site Driveway	R	L	0	29	29		29					0		0
		T	0	29	29		29					0		0
	WB	L	0	29	29		29					0		0
		T	523	0	527	40	567	35%	25			25		592
	NB	L	0	29	29		29			45%	29	29	21	50
R		0	29	29		29			25%	16	16	21	37	
Heard Street at	WB	L	0	17	17		17			5%	3	3	10	13
South Site Driveway	R	L	0	8	8		8			25%	17	17	16	33
		T	254	0	254	18	272					0	-14	258
	NB	R	0	17	17		17	20%	14			14	14	28
		L	0	8	8		8	40%	28			28	34	62
	T	179	0	179	13	192			15%	10	10	-10	192	

Peak Hour: 12:45 PM to 1:45 PM

TRAFFIC PROJECTION MODEL

**Weekday Afternoon Peak Hour
Proposed Chick-Fil-A Restaurant
Worcester, MA**

Intersection	Dir.	Turn	2024 Counted Volumes	Walgreens Trips TOTAL	2024 Existing Volumes	Background Growth 1.00% per year	2031 No Build Volumes	New Trips PERCENT ENTER	New Trips ENTER	New Trips PERCENT EXIT	New Trips EXIT	New Trips TOTAL	Pass-by Trips	2031 Build Volumes
Stafford Street at	EB	L	13	0	13	1	14					0	-1	13
Heard Street/Curtis Parkway		T	376	23	399	29	428	35%	15			15	1	421
		R	37	4	43	3	46					0		42
	WB	L	109	0	115	8	123	35%	15	15%	5	20	16	159
		T	494	23	517	37	554			25%	9	9	-2	538
		R	20	4	24	2	26			5%	2	2	3	27
	NB	L	100	4	104	8	112			10%	3	3	3	114
		T	197	4	201	14	215			5%	2	2	-2	211
		R	123	0	123	9	132			10%	4	4	-2	134
	SB	L	9	4	13	1	14	5%	2			2		12
		T	82	4	90	6	96	5%	2			2	1	95
		R	20	0	20	1	21					0	-1	20
Stafford Street at	EB	T	508	27	535	39	574			10%	4	4	-13	538
Northwest Site Driveway		R	0	0	0		0	40%	17			17	12	29
	WB	T	623	27	656	47	703	35%	15	45%	16	31	17	724
Stafford Street at	EB	T	508	0	508	39	547			10%	4	4	-13	538
Northeast Site Driveway		R	0	27	27		27					0		0
	WB	L	0	26	26		26					0		0
		T	623	0	629	47	676	35%	15			15		691
	NB	L	0	27	27		27			45%	16	16	17	33
		R	0	26	26		26			25%	9	9	13	22
Heard Street at	WB	L	0	15	15		15			5%	2	2	7	9
South Site Driveway		R	0	8	8		8			25%	9	9	12	21
	NB	T	419	0	420	31	451					0	-13	438
		R	0	15	15		15	20%	9			9	13	22
	SB	L	0	8	8		8	40%	17			17	24	41
		T	240	0	240	17	257			15%	5	5	-7	255

Peak Hour: 4:30 PM to 5:30 PM

TRAFFIC PROJECTION MODEL

**Saturday Midday Peak Hour
Proposed Chick-Fil-A Restaurant
Worcester, MA**

Intersection	Dir.	Turn	2024 Counted Volumes	Walgreens Trips TOTAL	2024 Existing Volumes	Background Growth 1.00% per year	2031 No Build Volumes	New Trips PERCENT ENTER	New Trips ENTER	New Trips PERCENT EXIT	New Trips EXIT	New Trips TOTAL	Pass-by Trips	2031 Build Volumes
Stafford Street at Heard Street/Curtis Parkway	EB	L	21	0	21	2	23					0	-1	22
		T	418	19	437	32	469	35%	27			27	1	478
		R	34	3	37	3	40					0		37
	WB	L	112	0	113	8	121	35%	27	15%	11	38	25	184
		T	500	20	520	38	558			25%	18	18	-6	550
		R	32	3	35	3	38			5%	3	3	2	40
	NB	L	72	4	77	6	83			10%	7	7	7	93
		T	133	3	137	10	147			5%	4	4	-1	147
		R	96	0	97	7	104			10%	7	7	-2	109
	SB	L	16	3	19	1	20	5%	4			4		21
		T	93	3	97	7	104	5%	4			4	1	106
		R	22	0	22	2	24					0	-1	23
Stafford Street at Northwest Site Driveway	EB	T	530	22	553	40	593			10%	7	7	-23	555
		R	0	0	0		0	40%	31			31	22	53
	WB	T	644	23	668	49	717	35%	27	45%	32	59	21	774
Stafford Street at Northeast Site Driveway	EB	T	530	0	531	40	571			10%	7	7	-23	555
		R	0	22	22		22					0		0
	WB	L	0	23	23		23					0		0
		T	644	0	645	49	694	35%	27			27		721
	NB	L	0	23	23		23			45%	32	32	21	53
	R	0	23	23		23			25%	18	18	23	41	
Heard Street at South Site Driveway	WB	L	0	13	13		13			5%	3	3	11	14
		R	0	7	7		7			25%	18	18	18	36
	NB	T	304	0	304	23	327					0	-14	313
		R	0	13	13		13	20%	15			15	14	29
	SB	L	0	6	6		6	40%	31			31	37	68
	T	241	0	241	18	259			15%	11	11	-11	259	

Peak Hour: 1:00 PM to 2:00 PM

The top of the page features a dark green triangular shape on the left containing the word "Bowman" in white. To the right is an aerial photograph of a roundabout with a central tree island, overlaid with white geometric lines.

Bowman

APPENDIX D

CRASH SUMMARY

CRASH SUMMARY

Proposed Chick-Fil-A Restaurant Worcester, MA

	Stafford Street at Heard Street/ Curtis Parkway	Stafford Street at Northeast Site Driveway	Heard Street at South Site Driveway
Year			
2017	7	0	0
2018	13	3	0
2019	4	1	0
2020	8	2	1
2021	9	0	0
Type			
Angle	21	2	1
Rear-end	9	3	0
Sideswipe	4	1	0
Head-on	5	0	0
Single Vehicle	1	0	0
Unknown	1	0	0
Severity			
Property Damage	28	4	1
Personal Injury	8	2	0
Fatality	0	0	0
Unknown	5	0	0
Weather			
Clear	24	6	1
Cloudy	11	0	0
Rain	5	0	0
Snow	0	0	0
Unknown	1	0	0
Road Surface			
Dry	32	6	1
Wet	8	0	0
Ice	0	0	0
Snow	1	0	0
Time			
7:00 AM to 9:00 AM	3	1	0
9:00 AM to 4:00 PM	19	4	0
4:00 PM to 6:00 PM	7	1	0
6:00 PM to 7:00 AM	12	0	1
Total	41	6	1
Crash Rate	1.28	0.45	0.04
State Average	0.78	0.57	0.57
District 3 Average	0.89	0.61	0.61

Source: MassDOT

The top of the page features a dark green triangular shape on the left containing the word "Bowman" in white. To the right, a white-bordered collage of images shows a highway interchange, a roundabout with a central tree, and a residential street. The rest of the page is white.

Bowman

APPENDIX E

HIGHWAY CAPACITY MANUAL METHODOLOGIES

CAPACITY/LEVEL-OF-SERVICE ANALYSES METHODOLOGY

The detailed capacity/level-of-service analysis contained in this traffic impact study was performed in accordance with the standard techniques contained in the *Highway Capacity Manual*.⁽¹⁾ By definition, capacity represents “the maximum rate of flow that can reasonably be expected to pass a point on a uniform section of a lane or roadway under prevailing roadway, traffic, and control conditions.” The level of functioning of an intersection or a uniform section of a lane or roadway can be expressed in terms of levels of service. Level of service (LOS) is defined as “a qualitative measure describing operational conditions within a traffic stream, and their perception by motorists and/or passengers”. Such measures include “speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety.”

At unsignalized intersections, a methodology for evaluating the relative functioning of intersections controlled by stop or yield signs has been developed, and is based on several assumptions, including:

- Major street flows are not affected by the minor (stop-sign controlled) street movements.
- Left turns from the major street to the minor street are influenced only by opposing major street through flow.
- Minor street left turns are impeded by all major street traffic plus opposing minor street traffic.
- Minor street through traffic is impeded by all major street traffic.
- Minor street right turns are impeded only by the major street traffic coming from the left.

The concept of stop-controlled or yield-controlled intersection analysis is based on the estimate of average total delay on minor streets. The methodology of analysis relies on three elements: the size and distribution of gaps in the major traffic stream, the usefulness of these gaps to the minor stream drivers, and the relative priority of the various traffic streams at the intersection. The results of the analysis provide an estimate of average total delay for the various critical movements at the unsignalized intersections. Correlation between average total delay and the respective levels of service are provided for unsignalized intersections as follows:

(1) *Transportation Research Board, Highway Capacity Manual, 6th Edition, published by the Transportation Research Board, Washington, DC, 2016.*

Unsignalized Intersections

Level of Service	Control Delay Per Vehicle (seconds)
A	0 – 10
B	>10 – 15
C	>15 – 25
D	>25 – 35
E	>35 – 50
F	> 50

At signalized intersections, an additional element must be considered: time allocation. Level of service is based on the average control delay per vehicle for various movements within the intersection. Volume/capacity relationships also affect the operations of signalized intersections. Thus, both volume/capacity and delay must be considered to evaluate the overall operation of a signalized intersection. Correlation between average delay per vehicle and the respective levels of service are provided for signalized intersections as follows:

Signalized Intersections

Level of Service	Control Delay Per Vehicle (seconds)
A	≤ 10
B	>10 – 20
C	>20 – 35
D	>35 – 55
E	>55 – 80
F	> 80

The top of the page features a dark green triangular shape on the left containing the word "Bowman" in white. To the right, a white diagonal line separates this from a light green aerial photograph of a city street intersection with a roundabout. The rest of the page is white.

Bowman

APPENDIX F

2024 EXISTING CAPACITY/ LEVEL-OF-SERVICE ANALYSIS

CFA Worcester
3: Heard St/Curtis Pkwy & Stafford St

Weekday Midday Peak Hour
Timing Plan: 2024 Existing



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕		↖	↗		↖	↗			↕↕	
Traffic Volume (vph)	18	357	33	88	442	26	47	131	84	14	66	19
Future Volume (vph)	18	357	33	88	442	26	47	131	84	14	66	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	110		0	150		0	0		0	0		0
Storage Lanes	1		0	1		0	1		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	3452	0	1787	1791	0	1805	1777	0	0	1788	0
Flt Permitted		0.911		0.352			0.786				0.921	
Satd. Flow (perm)	0	3151	0	662	1791	0	1493	1777	0	0	1658	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			4			28				10
Link Speed (mph)		30			30			30				30
Link Distance (ft)		340			181			185				253
Travel Time (s)		7.7			4.1			4.2				5.8
Peak Hour Factor	0.95	0.95	0.95	0.88	0.88	0.88	0.89	0.89	0.89	0.80	0.80	0.80
Heavy Vehicles (%)	11%	3%	0%	1%	5%	9%	0%	1%	0%	10%	2%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	430	0	100	532	0	53	241	0	0	125	0
Turn Type	Perm	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		2		1	6			8				4
Permitted Phases	2			6			8			4		
Detector Phase	2	2		1	6		8	8		4		4
Switch Phase												
Minimum Initial (s)	10.0	10.0		7.0	10.0		4.0	4.0		7.0		7.0
Minimum Split (s)	17.0	17.0		14.0	17.0		10.0	10.0		13.0		13.0
Total Split (s)	40.0	40.0		14.0	52.0		26.0	26.0		26.0		26.0
Total Split (%)	38.8%	38.8%		13.6%	50.5%		25.2%	25.2%		25.2%		25.2%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0		4.0
All-Red Time (s)	3.0	3.0		3.0	3.0		2.0	2.0		2.0		2.0
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0				0.0
Total Lost Time (s)		7.0		7.0	7.0		6.0	6.0				6.0
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?	Yes	Yes		Yes								
Recall Mode	Min	Min		None	Min		None	None		None		None
Act Effct Green (s)		16.4		27.4	27.4		13.1	13.1				13.1
Actuated g/C Ratio		0.28		0.47	0.47		0.23	0.23				0.23
v/c Ratio		0.48		0.21	0.63		0.16	0.57				0.33
Control Delay		21.3		11.7	16.8		24.9	27.4				24.9
Queue Delay		0.0		0.0	0.0		0.0	0.0				0.0
Total Delay		21.3		11.7	16.8		24.9	27.4				24.9
LOS		C		B	B		C	C				C
Approach Delay		21.3			16.0			27.0				24.9
Approach LOS		C			B			C				C
Queue Length 50th (ft)		58		14	99		13	57				29
Queue Length 95th (ft)		160		67	368		62	207				104
Internal Link Dist (ft)		260			101			105				173
Turn Bay Length (ft)				150								
Base Capacity (vph)		2038		467	1496		588	717				659

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	23.0
Total Split (s)	23.0
Total Split (%)	22%
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	

CFA Worcester
 3: Heard St/Curtis Pkwy & Stafford St

Weekday Midday Peak Hour
 Timing Plan: 2024 Existing



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0		0	0		0	0			0	
Spillback Cap Reductn		0		0	0		0	0			0	
Storage Cap Reductn		0		0	0		0	0			0	
Reduced v/c Ratio		0.21		0.21	0.36		0.09	0.34			0.19	

Intersection Summary

Area Type:	Other
Cycle Length:	103
Actuated Cycle Length:	58
Natural Cycle:	70
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.63
Intersection Signal Delay:	20.5
Intersection LOS:	C
Intersection Capacity Utilization	69.8%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 3: Heard St/Curtis Pkwy & Stafford St



Lane Group	Ø9
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Intersection						
Int Delay, s/veh	0.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	R	T	R	L	T
Traffic Vol, veh/h	17	8	254	17	8	179
Future Vol, veh/h	17	8	254	17	8	179
Conflicting Peds, #/hr	2	0	0	7	7	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	91	91	84	84
Heavy Vehicles, %	0	0	1	0	0	1
Mvmt Flow	18	9	279	19	10	213

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	531	296	0	0	305	0
Stage 1	296	-	-	-	-	-
Stage 2	235	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	512	748	-	-	1267	-
Stage 1	759	-	-	-	-	-
Stage 2	809	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	503	743	-	-	1259	-
Mov Cap-2 Maneuver	503	-	-	-	-	-
Stage 1	754	-	-	-	-	-
Stage 2	800	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.7	0	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	561	1259
HCM Lane V/C Ratio	-	-	0.048	0.008
HCM Control Delay (s)	-	-	11.7	7.9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.2	0

Intersection						
Int Delay, s/veh	1.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	426	29	29	527	29	29
Future Vol, veh/h	426	29	29	527	29	29
Conflicting Peds, #/hr	0	0	0	0	0	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	88	88	92	92
Heavy Vehicles, %	3	0	0	4	0	0
Mvmt Flow	444	30	33	599	32	32

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	474	0	1124
Stage 1	-	-	-	-	459
Stage 2	-	-	-	-	665
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1099	-	229
Stage 1	-	-	-	-	641
Stage 2	-	-	-	-	515
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1099	-	219
Mov Cap-2 Maneuver	-	-	-	-	219
Stage 1	-	-	-	-	641
Stage 2	-	-	-	-	492

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	18.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	321	-	-	1099	-
HCM Lane V/C Ratio	0.196	-	-	0.03	-
HCM Control Delay (s)	18.9	-	-	8.4	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.7	-	-	0.1	-

CFA Worcester
3: Heard St/Curtis Pkwy & Stafford St

Weekday Afternoon Peak Hour
Timing Plan: 2024 Existing



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕		↖	↗		↖	↗			↕↕	
Traffic Volume (vph)	13	399	43	115	517	24	104	201	123	13	90	20
Future Volume (vph)	13	399	43	115	517	24	104	201	123	13	90	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	110		0	150		0	0		0	0		0
Storage Lanes	1		0	1		0	1		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	3525	0	1787	1847	0	1770	1767	0	0	1828	0
Flt Permitted		0.928		0.299			0.703				0.943	
Satd. Flow (perm)	0	3274	0	562	1847	0	1310	1767	0	0	1733	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			3			25				8
Link Speed (mph)		30			30			30				30
Link Distance (ft)		340			181			185				253
Travel Time (s)		7.7			4.1			4.2				5.8
Peak Hour Factor	0.90	0.90	0.90	0.96	0.96	0.96	0.92	0.92	0.92	0.84	0.84	0.84
Heavy Vehicles (%)	0%	1%	0%	1%	2%	5%	2%	1%	2%	11%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	505	0	120	564	0	113	352	0	0	146	0
Turn Type	Perm	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		2		1	6			8				4
Permitted Phases	2			6			8			4		
Detector Phase	2	2		1	6		8	8		4		4
Switch Phase												
Minimum Initial (s)	10.0	10.0		7.0	10.0		4.0	4.0		7.0		7.0
Minimum Split (s)	17.0	17.0		14.0	17.0		10.0	10.0		13.0		13.0
Total Split (s)	39.0	39.0		20.0	55.0		29.0	29.0		29.0		29.0
Total Split (%)	35.1%	35.1%		18.0%	49.5%		26.1%	26.1%		26.1%		26.1%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0		4.0
All-Red Time (s)	3.0	3.0		3.0	3.0		2.0	2.0		2.0		2.0
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0				0.0
Total Lost Time (s)		7.0		7.0	7.0		6.0	6.0				6.0
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?	Yes	Yes		Yes								
Recall Mode	Min	Min		None	Min		None	None		None		None
Act Effct Green (s)		18.6		30.8	30.8		20.7	20.7				20.7
Actuated g/C Ratio		0.27		0.45	0.45		0.30	0.30				0.30
v/c Ratio		0.56		0.29	0.68		0.29	0.64				0.28
Control Delay		26.8		14.5	20.9		26.5	29.9				24.3
Queue Delay		0.0		0.0	0.0		0.0	0.0				0.0
Total Delay		26.8		14.5	20.9		26.5	29.9				24.3
LOS		C		B	C		C	C				C
Approach Delay		26.8			19.8			29.1				24.3
Approach LOS		C			B			C				C
Queue Length 50th (ft)		92		25	158		33	107				40
Queue Length 95th (ft)		211		84	425		123	#386				131
Internal Link Dist (ft)		260			101			105				173
Turn Bay Length (ft)				150								
Base Capacity (vph)		1674		505	1443		479	663				639

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	23.0
Total Split (s)	23.0
Total Split (%)	21%
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	

CFA Worcester
 3: Heard St/Curtis Pkwy & Stafford St

Weekday Afternoon Peak Hour
 Timing Plan: 2024 Existing

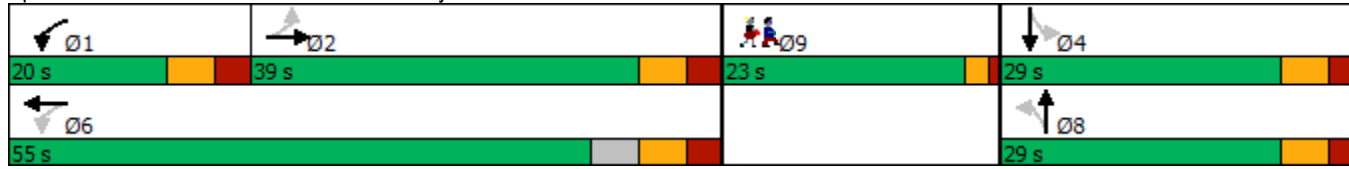


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0		0	0		0	0			0	
Spillback Cap Reductn		0		0	0		0	0			0	
Storage Cap Reductn		0		0	0		0	0			0	
Reduced v/c Ratio		0.30		0.24	0.39		0.24	0.53			0.23	

Intersection Summary

Area Type: Other
 Cycle Length: 111
 Actuated Cycle Length: 68.7
 Natural Cycle: 80
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.68
 Intersection Signal Delay: 24.5 Intersection LOS: C
 Intersection Capacity Utilization 76.2% ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 3: Heard St/Curtis Pkwy & Stafford St



Lane Group	Ø9
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Intersection						
Int Delay, s/veh	0.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	R	T	R	L	T
Traffic Vol, veh/h	15	8	420	15	8	240
Future Vol, veh/h	15	8	420	15	8	240
Conflicting Peds, #/hr	1	0	0	3	3	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	96	96	87	87
Heavy Vehicles, %	0	0	1	0	0	1
Mvmt Flow	16	9	438	16	9	276

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	744	449	0	0	457
Stage 1	449	-	-	-	-
Stage 2	295	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	385	614	-	-	1114
Stage 1	647	-	-	-	-
Stage 2	760	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	380	612	-	-	1111
Mov Cap-2 Maneuver	380	-	-	-	-
Stage 1	645	-	-	-	-
Stage 2	752	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.7	0	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	438	1111
HCM Lane V/C Ratio	-	-	0.057	0.008
HCM Control Delay (s)	-	-	13.7	8.3
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.2	0

Intersection						
Int Delay, s/veh	1.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	508	27	26	629	27	26
Future Vol, veh/h	508	27	26	629	27	26
Conflicting Peds, #/hr	0	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	96	96	92	92
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	518	28	27	655	29	28

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	546	0	1241
Stage 1	-	-	-	-	532
Stage 2	-	-	-	-	709
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1033	-	195
Stage 1	-	-	-	-	593
Stage 2	-	-	-	-	491
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1033	-	187
Mov Cap-2 Maneuver	-	-	-	-	187
Stage 1	-	-	-	-	593
Stage 2	-	-	-	-	471

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	21.4
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	277	-	-	1033	-
HCM Lane V/C Ratio	0.208	-	-	0.026	-
HCM Control Delay (s)	21.4	-	-	8.6	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.8	-	-	0.1	-

CFA Worcester
3: Heard St/Curtis Pkwy & Stafford St

Saturday Midday Peak Hour
Timing Plan: 2024 Existing



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕		↖	↗		↖	↗			↕↕	
Traffic Volume (vph)	21	437	37	113	520	35	77	137	97	19	97	22
Future Volume (vph)	21	437	37	113	520	35	77	137	97	19	97	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	110		0	150		0	0		0	0		0
Storage Lanes	1		0	1		0	1		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	3532	0	1770	1848	0	1787	1765	0	0	1820	0
Flt Permitted		0.906		0.270			0.656				0.905	
Satd. Flow (perm)	0	3206	0	503	1848	0	1234	1765	0	0	1658	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			4			31				8
Link Speed (mph)		30			30			30				30
Link Distance (ft)		340			181			185				253
Travel Time (s)		7.7			4.1			4.2				5.8
Peak Hour Factor	0.83	0.83	0.83	0.91	0.91	0.91	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	0%	1%	0%	2%	2%	0%	1%	1%	1%	0%	2%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	597	0	124	609	0	96	292	0	0	173	0
Turn Type	Perm	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		2		1	6			8				4
Permitted Phases	2			6			8			4		
Detector Phase	2	2		1	6		8	8		4		4
Switch Phase												
Minimum Initial (s)	10.0	10.0		7.0	10.0		4.0	4.0		7.0		7.0
Minimum Split (s)	17.0	17.0		14.0	17.0		10.0	10.0		13.0		13.0
Total Split (s)	40.0	40.0		14.0	52.0		26.0	26.0		26.0		26.0
Total Split (%)	38.8%	38.8%		13.6%	50.5%		25.2%	25.2%		25.2%		25.2%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0		4.0
All-Red Time (s)	3.0	3.0		3.0	3.0		2.0	2.0		2.0		2.0
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0				0.0
Total Lost Time (s)		7.0		7.0	7.0		6.0	6.0				6.0
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?	Yes	Yes		Yes								
Recall Mode	Min	Min		None	Min		None	None		None		None
Act Effct Green (s)		20.1		30.8	30.8		16.3	16.3				16.3
Actuated g/C Ratio		0.31		0.48	0.48		0.25	0.25				0.25
v/c Ratio		0.59		0.32	0.69		0.31	0.62				0.41
Control Delay		23.6		13.5	19.3		28.1	29.9				27.2
Queue Delay		0.0		0.0	0.0		0.0	0.0				0.0
Total Delay		23.6		13.5	19.3		28.1	29.9				27.2
LOS		C		B	B		C	C				C
Approach Delay		23.6			18.3			29.4				27.2
Approach LOS		C			B			C				C
Queue Length 50th (ft)		96		21	142		28	82				49
Queue Length 95th (ft)		204		83	452		93	221				143
Internal Link Dist (ft)		260			101			105				173
Turn Bay Length (ft)				150								
Base Capacity (vph)		1830		393	1399		426	629				577

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	23.0
Total Split (s)	23.0
Total Split (%)	22%
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	

CFA Worcester
 3: Heard St/Curtis Pkwy & Stafford St

Saturday Midday Peak Hour
 Timing Plan: 2024 Existing



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0		0	0		0	0			0	
Spillback Cap Reductn		0		0	0		0	0			0	
Storage Cap Reductn		0		0	0		0	0			0	
Reduced v/c Ratio		0.33		0.32	0.44		0.23	0.46			0.30	

Intersection Summary

Area Type: Other
 Cycle Length: 103
 Actuated Cycle Length: 64.4
 Natural Cycle: 80
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.69
 Intersection Signal Delay: 23.1 Intersection LOS: C
 Intersection Capacity Utilization 82.9% ICU Level of Service E
 Analysis Period (min) 15

Splits and Phases: 3: Heard St/Curtis Pkwy & Stafford St



Lane Group	Ø9
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Intersection						
Int Delay, s/veh	0.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	R	T	R	L	T
Traffic Vol, veh/h	13	7	304	13	6	241
Future Vol, veh/h	13	7	304	13	6	241
Conflicting Peds, #/hr	1	0	0	4	4	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	80	80	91	91
Heavy Vehicles, %	0	0	1	0	0	2
Mvmt Flow	14	8	380	16	7	265

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	672	392	0	0	400	0
Stage 1	392	-	-	-	-	-
Stage 2	280	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	424	661	-	-	1170	-
Stage 1	687	-	-	-	-	-
Stage 2	772	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	419	658	-	-	1166	-
Mov Cap-2 Maneuver	419	-	-	-	-	-
Stage 1	684	-	-	-	-	-
Stage 2	766	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.9	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	480	1166
HCM Lane V/C Ratio	-	-	0.045	0.006
HCM Control Delay (s)	-	-	12.9	8.1
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Intersection						
Int Delay, s/veh	1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	531	22	23	645	23	23
Future Vol, veh/h	531	22	23	645	23	23
Conflicting Peds, #/hr	0	0	0	0	0	4
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	91	91	92	92
Heavy Vehicles, %	1	0	0	2	0	0
Mvmt Flow	590	24	25	709	25	25

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	614	0	1361
Stage 1	-	-	-	-	602
Stage 2	-	-	-	-	759
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	975	-	165
Stage 1	-	-	-	-	551
Stage 2	-	-	-	-	466
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	975	-	158
Mov Cap-2 Maneuver	-	-	-	-	158
Stage 1	-	-	-	-	551
Stage 2	-	-	-	-	446

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	23.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	240	-	-	975	-
HCM Lane V/C Ratio	0.208	-	-	0.026	-
HCM Control Delay (s)	23.9	-	-	8.8	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.8	-	-	0.1	-

The top of the page features a dark green triangular shape on the left containing the word "Bowman" in white. To the right, a white diagonal line separates this from a grayscale aerial photograph of a city street intersection with a roundabout. The rest of the page is white.

Bowman

APPENDIX G

2031 NO BUILD CAPACITY/
LEVEL-OF-SERVICE ANALYSIS

CFA Worcester
3: Heard St/Curtis Pkwy & Stafford St

Weekday Midday Peak Hour
Timing Plan: 2031 No Build



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	383	35	94	474	28	50	140	90	15	71	20
Future Volume (vph)	19	383	35	94	474	28	50	140	90	15	71	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	85		0	70		0	0		0	0		0
Storage Lanes	1		0	1		0	1		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1626	1825	0	1787	1791	0	1805	1777	0	0	1790	0
Flt Permitted	0.450			0.250			0.730				0.921	
Satd. Flow (perm)	770	1825	0	470	1791	0	1387	1777	0	0	1660	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			4			28			10	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		340			181			185			253	
Travel Time (s)		7.7			4.1			4.2			5.8	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.88	0.88	0.88	0.89	0.89	0.89	0.80	0.80	0.80
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	11%	3%	0%	1%	5%	9%	0%	1%	0%	10%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	20	440	0	107	571	0	56	258	0	0	133	0
Turn Type	Perm	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		2		1	6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		1	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	10.0	10.0		7.0	10.0		4.0	4.0		7.0	7.0	
Minimum Split (s)	17.0	17.0		14.0	17.0		10.0	10.0		13.0	13.0	
Total Split (s)	40.0	40.0		14.0	52.0		26.0	26.0		26.0	26.0	
Total Split (%)	38.8%	38.8%		13.6%	50.5%		25.2%	25.2%		25.2%	25.2%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	3.0	3.0		3.0	3.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0		7.0	7.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?	Yes	Yes		Yes								
Recall Mode	Min	Min		None	Min		None	None		None	None	
Act Effect Green (s)	22.1	22.1		32.7	32.7		14.9	14.9		None	14.9	
Actuated g/C Ratio	0.34	0.34		0.50	0.50		0.23	0.23			0.23	
v/c Ratio	0.08	0.71		0.27	0.64		0.18	0.60			0.34	
Control Delay	20.5	28.7		12.1	17.0		27.8	31.0			27.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Total Delay	20.5	28.7		12.1	17.0		27.8	31.0			27.6	

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	23.0
Total Split (s)	23.0
Total Split (%)	22%
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	

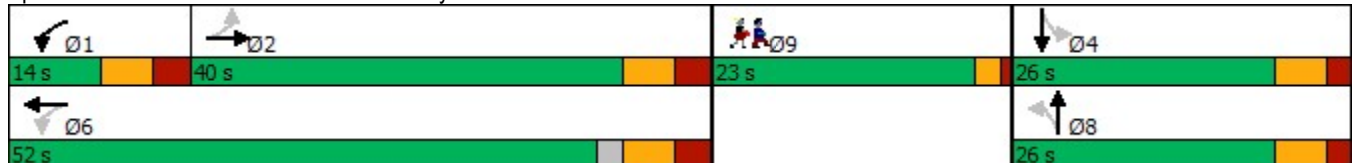


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	C	C		B	B		C	C			C	
Approach Delay		28.4			16.3			30.4			27.6	
Approach LOS		C			B			C			C	
Queue Length 50th (ft)	5	141		17	124		17	77			39	
Queue Length 95th (ft)	27	374		71	403		67	#228			112	
Internal Link Dist (ft)		260			101			105			173	
Turn Bay Length (ft)	85			70								
Base Capacity (vph)	441	1047		395	1335		481	635			582	
Starvation Cap Reductn	0	0		0	0		0	0			0	
Spillback Cap Reductn	0	0		0	0		0	0			0	
Storage Cap Reductn	0	0		0	0		0	0			0	
Reduced v/c Ratio	0.05	0.42		0.27	0.43		0.12	0.41			0.23	

Intersection Summary

Area Type: Other
 Cycle Length: 103
 Actuated Cycle Length: 65.2
 Natural Cycle: 80
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.71
 Intersection Signal Delay: 23.5
 Intersection LOS: C
 Intersection Capacity Utilization 69.7%
 ICU Level of Service C
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 3: Heard St/Curtis Pkwy & Stafford St



Lane Group	Ø9
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Intersection						
Int Delay, s/veh	0.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	R	T	R	L	T
Traffic Vol, veh/h	17	8	272	17	8	192
Future Vol, veh/h	17	8	272	17	8	192
Conflicting Peds, #/hr	2	0	0	7	7	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	91	91	84	84
Heavy Vehicles, %	0	0	1	0	0	1
Mvmt Flow	18	9	299	19	10	229

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	567	316	0	0	325
Stage 1	316	-	-	-	-
Stage 2	251	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	488	729	-	-	1246
Stage 1	744	-	-	-	-
Stage 2	795	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	479	724	-	-	1238
Mov Cap-2 Maneuver	479	-	-	-	-
Stage 1	739	-	-	-	-
Stage 2	786	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.1	0	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	537	1238
HCM Lane V/C Ratio	-	-	0.051	0.008
HCM Control Delay (s)	-	-	12.1	7.9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.2	0

Intersection						
Int Delay, s/veh	1.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	459	29	29	567	29	29
Future Vol, veh/h	459	29	29	567	29	29
Conflicting Peds, #/hr	0	0	0	0	0	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	88	88	92	92
Heavy Vehicles, %	3	0	0	4	0	0
Mvmt Flow	478	30	33	644	32	32

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	508	0	1203
Stage 1	-	-	-	-	493
Stage 2	-	-	-	-	710
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1067	-	206
Stage 1	-	-	-	-	618
Stage 2	-	-	-	-	491
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1067	-	196
Mov Cap-2 Maneuver	-	-	-	-	196
Stage 1	-	-	-	-	618
Stage 2	-	-	-	-	467

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	20.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	293	-	-	1067	-
HCM Lane V/C Ratio	0.215	-	-	0.031	-
HCM Control Delay (s)	20.6	-	-	8.5	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.8	-	-	0.1	-

CFA Worcester
3: Heard St/Curtis Pkwy & Stafford St

Weekday Afternoon Peak Hour
Timing Plan: 2031 No Build



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	428	46	123	554	26	112	215	132	14	96	21
Future Volume (vph)	14	428	46	123	554	26	112	215	132	14	96	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	85		0	70		0	0		0	0		0
Storage Lanes	1		0	1		0	1		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1805	1855	0	1787	1847	0	1770	1767	0	0	1827	0
Flt Permitted	0.436			0.175			0.633				0.796	
Satd. Flow (perm)	828	1855	0	329	1847	0	1179	1767	0	0	1462	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			3			25				8
Link Speed (mph)		30			30			30				30
Link Distance (ft)		340			181			185				253
Travel Time (s)		7.7			4.1			4.2				5.8
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.96	0.96	0.96	0.92	0.92	0.92	0.84	0.84	0.84
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	1%	2%	5%	2%	1%	2%	11%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%				0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	16	527	0	128	604	0	122	377	0	0	156	0
Turn Type	Perm	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		2		1	6			8				4
Permitted Phases	2			6			8			4		
Detector Phase	2	2		1	6		8	8		4		4
Switch Phase												
Minimum Initial (s)	10.0	10.0		7.0	10.0		4.0	4.0		7.0		7.0
Minimum Split (s)	17.0	17.0		14.0	17.0		10.0	10.0		13.0		13.0
Total Split (s)	39.0	39.0		20.0	55.0		29.0	29.0		29.0		29.0
Total Split (%)	35.1%	35.1%		18.0%	49.5%		26.1%	26.1%		26.1%		26.1%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0		4.0
All-Red Time (s)	3.0	3.0		3.0	3.0		2.0	2.0		2.0		2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0		0.0
Total Lost Time (s)	7.0	7.0		7.0	7.0		6.0	6.0		6.0		6.0
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?	Yes	Yes		Yes								
Recall Mode	Min	Min		None	Min		None	None		None		None
Act Effct Green (s)	31.2	31.2		47.1	47.1		23.1	23.1		None		23.1
Actuated g/C Ratio	0.36	0.36		0.54	0.54		0.27	0.27				0.27
v/c Ratio	0.05	0.79		0.39	0.60		0.39	0.77				0.40
Control Delay	23.2	36.7		15.1	18.2		34.0	42.0				31.3
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0				0.0
Total Delay	23.2	36.7		15.1	18.2		34.0	42.0				31.3

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	23.0
Total Split (s)	23.0
Total Split (%)	21%
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	

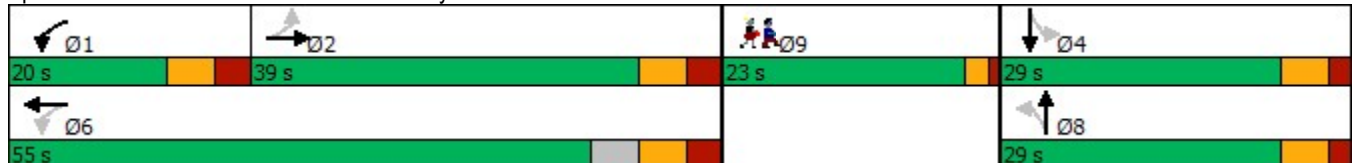


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	C	D		B	B		C	D			C	
Approach Delay		36.3			17.6			40.0			31.3	
Approach LOS		D			B			D			C	
Queue Length 50th (ft)	5	229		29	186		51	167			62	
Queue Length 95th (ft)	26	#594		88	464		140	#449			149	
Internal Link Dist (ft)		260			101			105			173	
Turn Bay Length (ft)	85			70								
Base Capacity (vph)	309	695		399	1122		316	492			398	
Starvation Cap Reductn	0	0		0	0		0	0			0	
Spillback Cap Reductn	0	0		0	0		0	0			0	
Storage Cap Reductn	0	0		0	0		0	0			0	
Reduced v/c Ratio	0.05	0.76		0.32	0.54		0.39	0.77			0.39	

Intersection Summary

Area Type: Other
 Cycle Length: 111
 Actuated Cycle Length: 87.1
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.79
 Intersection Signal Delay: 29.8 Intersection LOS: C
 Intersection Capacity Utilization 75.1% ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 3: Heard St/Curtis Pkwy & Stafford St



Lane Group	Ø9
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Intersection						
Int Delay, s/veh	0.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	15	8	451	15	8	257
Future Vol, veh/h	15	8	451	15	8	257
Conflicting Peds, #/hr	1	0	0	3	3	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	96	96	87	87
Heavy Vehicles, %	0	0	1	0	0	1
Mvmt Flow	16	9	470	16	9	295

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	795	481	0	0	489
Stage 1	481	-	-	-	-
Stage 2	314	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	359	589	-	-	1085
Stage 1	626	-	-	-	-
Stage 2	745	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	354	587	-	-	1082
Mov Cap-2 Maneuver	354	-	-	-	-
Stage 1	624	-	-	-	-
Stage 2	737	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.3	0	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	411	1082
HCM Lane V/C Ratio	-	-	0.061	0.008
HCM Control Delay (s)	-	-	14.3	8.4
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.2	0

Intersection						
Int Delay, s/veh	1.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	547	27	26	676	27	26
Future Vol, veh/h	547	27	26	676	27	26
Conflicting Peds, #/hr	0	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	96	96	92	92
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	558	28	27	704	29	28

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	586	0	1330
Stage 1	-	-	-	-	572
Stage 2	-	-	-	-	758
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	999	-	172
Stage 1	-	-	-	-	569
Stage 2	-	-	-	-	466
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	999	-	164
Mov Cap-2 Maneuver	-	-	-	-	164
Stage 1	-	-	-	-	569
Stage 2	-	-	-	-	445

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	24
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	247	-	-	999	-
HCM Lane V/C Ratio	0.233	-	-	0.027	-
HCM Control Delay (s)	24	-	-	8.7	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.9	-	-	0.1	-

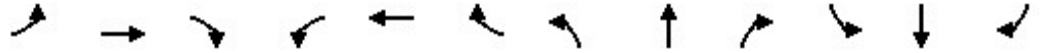
CFA Worcester
3: Heard St/Curtis Pkwy & Stafford St

Saturday Midday Peak Hour
Timing Plan: 2031 No Build



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	23	469	40	121	558	38	83	147	104	20	104	24
Future Volume (vph)	23	469	40	121	558	38	83	147	104	20	104	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	85		0	70		0	0		0	0		0
Storage Lanes	1		0	1		0	1		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1805	1860	0	1770	1846	0	1787	1765	0	0	1820	0
Flt Permitted	0.409			0.146			0.565				0.718	
Satd. Flow (perm)	777	1860	0	272	1846	0	1063	1765	0	0	1316	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			4			31				8
Link Speed (mph)		30			30			30				30
Link Distance (ft)		340			181			185				253
Travel Time (s)		7.7			4.1			4.2				5.8
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.83	0.83	0.83	0.91	0.91	0.91	0.80	0.80	0.80	0.80	0.80	0.80
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	2%	2%	0%	1%	1%	1%	0%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%				0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	28	613	0	133	655	0	104	314	0	0	185	0
Turn Type	Perm	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		2		1	6			8				4
Permitted Phases	2			6			8			4		
Detector Phase	2	2		1	6		8	8		4		4
Switch Phase												
Minimum Initial (s)	10.0	10.0		7.0	10.0		4.0	4.0		7.0		7.0
Minimum Split (s)	17.0	17.0		14.0	17.0		10.0	10.0		13.0		13.0
Total Split (s)	40.0	40.0		14.0	52.0		26.0	26.0		26.0		26.0
Total Split (%)	38.8%	38.8%		13.6%	50.5%		25.2%	25.2%		25.2%		25.2%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0		4.0
All-Red Time (s)	3.0	3.0		3.0	3.0		2.0	2.0		2.0		2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0		0.0
Total Lost Time (s)	7.0	7.0		7.0	7.0		6.0	6.0		6.0		6.0
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?	Yes	Yes		Yes								
Recall Mode	Min	Min		None	Min		None	None		None		None
Act Effect Green (s)	33.5	33.5		47.6	47.6		18.6	18.6		None		18.6
Actuated g/C Ratio	0.40	0.40		0.57	0.57		0.22	0.22				0.22
v/c Ratio	0.09	0.82		0.47	0.62		0.44	0.75				0.62
Control Delay	20.2	34.6		16.4	17.2		36.5	41.0				39.5
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0				0.0
Total Delay	20.2	34.6		16.4	17.2		36.5	41.0				39.5

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	23.0
Total Split (s)	23.0
Total Split (%)	22%
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	

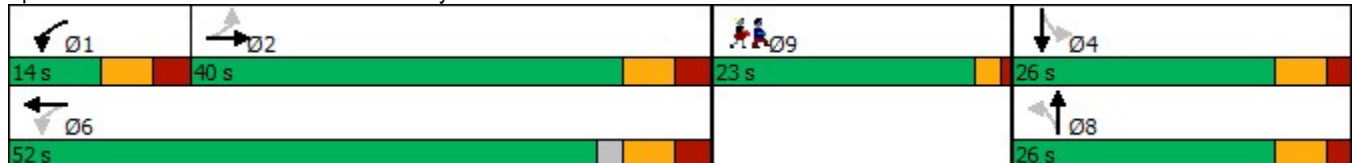


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	C	C		B	B		D	D			D	
Approach Delay		34.0			17.0			39.9			39.5	
Approach LOS		C			B			D			D	
Queue Length 50th (ft)	8	259		27	189		43	128			77	
Queue Length 95th (ft)	32	#565		88	503		102	#265			163	
Internal Link Dist (ft)		260			101			105			173	
Turn Bay Length (ft)	85			70								
Base Capacity (vph)	312	751		283	1060		259	453			327	
Starvation Cap Reductn	0	0		0	0		0	0			0	
Spillback Cap Reductn	0	0		0	0		0	0			0	
Storage Cap Reductn	0	0		0	0		0	0			0	
Reduced v/c Ratio	0.09	0.82		0.47	0.62		0.40	0.69			0.57	

Intersection Summary

Area Type: Other
 Cycle Length: 103
 Actuated Cycle Length: 83.1
 Natural Cycle: 100
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.82
 Intersection Signal Delay: 29.1
 Intersection LOS: C
 Intersection Capacity Utilization 80.9%
 ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 3: Heard St/Curtis Pkwy & Stafford St



Lane Group	Ø9
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Intersection						
Int Delay, s/veh	0.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	R	T	R	L	T
Traffic Vol, veh/h	13	7	327	13	6	259
Future Vol, veh/h	13	7	327	13	6	259
Conflicting Peds, #/hr	1	0	0	4	4	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	80	80	91	91
Heavy Vehicles, %	0	0	1	0	0	2
Mvmt Flow	14	8	409	16	7	285

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	721	421	0	0	429
Stage 1	421	-	-	-	-
Stage 2	300	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	397	637	-	-	1141
Stage 1	667	-	-	-	-
Stage 2	756	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	392	635	-	-	1137
Mov Cap-2 Maneuver	392	-	-	-	-
Stage 1	664	-	-	-	-
Stage 2	750	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.3	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	453	1137
HCM Lane V/C Ratio	-	-	0.048	0.006
HCM Control Delay (s)	-	-	13.3	8.2
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.2	0

Intersection						
Int Delay, s/veh	1.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	571	22	23	694	23	23
Future Vol, veh/h	571	22	23	694	23	23
Conflicting Peds, #/hr	0	0	0	0	0	4
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	91	91	92	92
Heavy Vehicles, %	1	0	0	2	0	0
Mvmt Flow	634	24	25	763	25	25

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	658	0	1459
Stage 1	-	-	-	-	646
Stage 2	-	-	-	-	813
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	939	-	144
Stage 1	-	-	-	-	526
Stage 2	-	-	-	-	440
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	939	-	137
Mov Cap-2 Maneuver	-	-	-	-	137
Stage 1	-	-	-	-	526
Stage 2	-	-	-	-	420

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	27.1
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	212	-	-	939	-
HCM Lane V/C Ratio	0.236	-	-	0.027	-
HCM Control Delay (s)	27.1	-	-	8.9	0
HCM Lane LOS	D	-	-	A	A
HCM 95th %tile Q(veh)	0.9	-	-	0.1	-

The top of the page features a dark green triangular shape on the left containing the word "Bowman" in white. To the right, a white diagonal line separates this from an aerial photograph of a city street intersection with a roundabout. The rest of the page is white.

Bowman

APPENDIX H

2031 BUILD CAPACITY/ LEVEL-OF-SERVICE ANALYSIS

CFA Worcester
3: Heard St/Curtis Pkwy & Stafford St

Weekday Midday Peak Hour
Timing Plan: 2031 Build



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	384	31	152	459	31	60	136	95	14	71	19
Future Volume (vph)	18	384	31	152	459	31	60	136	95	14	71	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	85		0	70		0	0		0	0		0
Storage Lanes	1		0	1		0	1		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1626	1828	0	1787	1789	0	1805	1772	0	0	1791	0
Flt Permitted	0.456			0.240			0.725				0.923	
Satd. Flow (perm)	781	1828	0	451	1789	0	1377	1772	0	0	1664	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			4			30				10
Link Speed (mph)		30			30			30				30
Link Distance (ft)		340			87			185				253
Travel Time (s)		7.7			2.0			4.2				5.8
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.88	0.88	0.88	0.89	0.89	0.89	0.80	0.80	0.80
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	11%	3%	0%	1%	5%	9%	0%	1%	0%	10%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%				0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	19	437	0	173	557	0	67	260	0	0	131	0
Turn Type	Perm	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		2		1	6			8				4
Permitted Phases	2			6			8			4		
Detector Phase	2	2		1	6		8	8		4		4
Switch Phase												
Minimum Initial (s)	10.0	10.0		7.0	10.0		4.0	4.0		7.0		7.0
Minimum Split (s)	17.0	17.0		14.0	17.0		10.0	10.0		13.0		13.0
Total Split (s)	40.0	40.0		14.0	52.0		26.0	26.0		26.0		26.0
Total Split (%)	38.8%	38.8%		13.6%	50.5%		25.2%	25.2%		25.2%		25.2%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0		4.0
All-Red Time (s)	3.0	3.0		3.0	3.0		2.0	2.0		2.0		2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0				0.0
Total Lost Time (s)	7.0	7.0		7.0	7.0		6.0	6.0				6.0
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?	Yes	Yes		Yes								
Recall Mode	Min	Min		None	Min		None	None		None		None
Act Effect Green (s)	21.4	21.4		36.4	36.4		14.6	14.6				14.6
Actuated g/C Ratio	0.32	0.32		0.54	0.54		0.22	0.22				0.22
v/c Ratio	0.08	0.75		0.45	0.58		0.23	0.64				0.36
Control Delay	20.5	31.4		14.9	15.8		28.4	32.3				27.6
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0				0.0
Total Delay	20.5	31.4		14.9	15.8		28.4	32.3				27.6

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	23.0
Total Split (s)	23.0
Total Split (%)	22%
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	

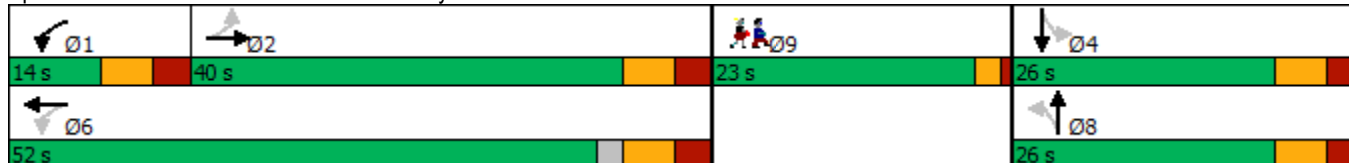


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	C	C		B	B		C	C			C	
Approach Delay		31.0			15.6			31.5			27.6	
Approach LOS		C			B			C			C	
Queue Length 50th (ft)	5	140		29	120		20	77			38	
Queue Length 95th (ft)	26	371		108	391		78	#232			111	
Internal Link Dist (ft)		260			7			105			173	
Turn Bay Length (ft)	85			70								
Base Capacity (vph)	405	950		388	1323		433	578			530	
Starvation Cap Reductn	0	0		0	0		0	0			0	
Spillback Cap Reductn	0	0		0	0		0	0			0	
Storage Cap Reductn	0	0		0	0		0	0			0	
Reduced v/c Ratio	0.05	0.46		0.45	0.42		0.15	0.45			0.25	

Intersection Summary

Area Type: Other
 Cycle Length: 103
 Actuated Cycle Length: 67.9
 Natural Cycle: 80
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.75
 Intersection Signal Delay: 24.0
 Intersection LOS: C
 Intersection Capacity Utilization 68.1%
 ICU Level of Service C
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 3: Heard St/Curtis Pkwy & Stafford St



Lane Group	Ø9
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Intersection						
Int Delay, s/veh	1.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	13	33	258	28	62	192
Future Vol, veh/h	13	33	258	28	62	192
Conflicting Peds, #/hr	2	0	0	7	7	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	91	91	84	84
Heavy Vehicles, %	0	0	1	0	0	1
Mvmt Flow	14	36	284	31	74	229

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	686	307	0	0	322
Stage 1	307	-	-	-	-
Stage 2	379	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	416	738	-	-	1249
Stage 1	751	-	-	-	-
Stage 2	696	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	384	733	-	-	1241
Mov Cap-2 Maneuver	384	-	-	-	-
Stage 1	746	-	-	-	-
Stage 2	647	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.8	0	2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	583	1241
HCM Lane V/C Ratio	-	-	0.086	0.059
HCM Control Delay (s)	-	-	11.8	8.1
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.3	0.2

Intersection						
Int Delay, s/veh	1.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↕	
Traffic Vol, veh/h	445	0	0	592	50	37
Future Vol, veh/h	445	0	0	592	50	37
Conflicting Peds, #/hr	0	0	0	0	0	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	88	88	92	92
Heavy Vehicles, %	3	0	0	4	0	0
Mvmt Flow	464	0	0	673	54	40

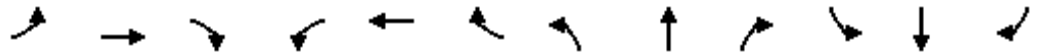
Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	-	-	-	1137 466
Stage 1	-	-	-	-	464 -
Stage 2	-	-	-	-	673 -
Critical Hdwy	-	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	-	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	-	0	0	-	225 601
Stage 1	-	0	0	-	637 -
Stage 2	-	0	0	-	511 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	225 600
Mov Cap-2 Maneuver	-	-	-	-	225 -
Stage 1	-	-	-	-	637 -
Stage 2	-	-	-	-	511 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	21.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	306	-	-
HCM Lane V/C Ratio	0.309	-	-
HCM Control Delay (s)	21.9	-	-
HCM Lane LOS	C	-	-
HCM 95th %tile Q(veh)	1.3	-	-

CFA Worcester
3: Heard St/Curtis Pkwy & Stafford St

Weekday Afternoon Peak Hour
Timing Plan: 2031 Build



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	421	42	159	538	27	114	211	134	12	95	20
Future Volume (vph)	13	421	42	159	538	27	114	211	134	12	95	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	85		0	70		0	0		0	0		0
Storage Lanes	1		0	1		0	1		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1805	1857	0	1787	1847	0	1770	1765	0	0	1832	0
Flt Permitted	0.443			0.175			0.643				0.844	
Satd. Flow (perm)	842	1857	0	329	1847	0	1198	1765	0	0	1554	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			3			26				8
Link Speed (mph)		30			30			30				30
Link Distance (ft)		340			87			185				253
Travel Time (s)		7.7			2.0			4.2				5.8
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.96	0.96	0.96	0.92	0.92	0.92	0.84	0.84	0.84
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	1%	2%	5%	2%	1%	2%	11%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%				0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	14	515	0	166	588	0	124	375	0	0	151	0
Turn Type	Perm	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		2		1	6			8				4
Permitted Phases	2			6			8			4		
Detector Phase	2	2		1	6		8	8		4		4
Switch Phase												
Minimum Initial (s)	10.0	10.0		7.0	10.0		4.0	4.0		7.0		7.0
Minimum Split (s)	17.0	17.0		14.0	17.0		10.0	10.0		13.0		13.0
Total Split (s)	39.0	39.0		20.0	55.0		29.0	29.0		29.0		29.0
Total Split (%)	35.1%	35.1%		18.0%	49.5%		26.1%	26.1%		26.1%		26.1%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0		4.0
All-Red Time (s)	3.0	3.0		3.0	3.0		2.0	2.0		2.0		2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0				0.0
Total Lost Time (s)	7.0	7.0		7.0	7.0		6.0	6.0				6.0
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?	Yes	Yes		Yes								
Recall Mode	Min	Min		None	Min		None	None		None		None
Act Effct Green (s)	30.1	30.1		46.7	46.7		22.9	22.9				22.9
Actuated g/C Ratio	0.35	0.35		0.54	0.54		0.26	0.26				0.26
v/c Ratio	0.05	0.79		0.49	0.59		0.39	0.77				0.36
Control Delay	23.5	37.4		16.8	17.8		34.1	41.7				30.6
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0				0.0
Total Delay	23.5	37.4		16.8	17.8		34.1	41.7				30.6

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	23.0
Total Split (s)	23.0
Total Split (%)	21%
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	

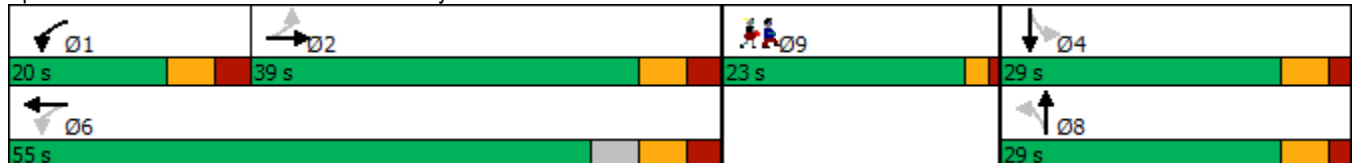


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	C	D		B	B		C	D				C
Approach Delay		37.0			17.5			39.8				30.6
Approach LOS		D			B			D				C
Queue Length 50th (ft)	5	226		38	179		53	168				60
Queue Length 95th (ft)	24	#574		111	447		141	#443				143
Internal Link Dist (ft)		260			7			105				173
Turn Bay Length (ft)	85			70								
Base Capacity (vph)	318	704		401	1135		325	498				427
Starvation Cap Reductn	0	0		0	0		0	0				0
Spillback Cap Reductn	0	0		0	0		0	0				0
Storage Cap Reductn	0	0		0	0		0	0				0
Reduced v/c Ratio	0.04	0.73		0.41	0.52		0.38	0.75				0.35

Intersection Summary

Area Type: Other
 Cycle Length: 111
 Actuated Cycle Length: 86.5
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.79
 Intersection Signal Delay: 29.6
 Intersection LOS: C
 Intersection Capacity Utilization 74.2%
 ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 3: Heard St/Curtis Pkwy & Stafford St



Lane Group	Ø9
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Intersection						
Int Delay, s/veh	1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	9	21	438	22	41	255
Future Vol, veh/h	9	21	438	22	41	255
Conflicting Peds, #/hr	1	0	0	3	3	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	96	96	87	87
Heavy Vehicles, %	0	0	1	0	0	1
Mvmt Flow	10	23	456	23	47	293

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	859	471	0	0	482	0
Stage 1	471	-	-	-	-	-
Stage 2	388	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	329	597	-	-	1091	-
Stage 1	632	-	-	-	-	-
Stage 2	690	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	311	595	-	-	1088	-
Mov Cap-2 Maneuver	311	-	-	-	-	-
Stage 1	630	-	-	-	-	-
Stage 2	653	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.3	0	1.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	467	1088
HCM Lane V/C Ratio	-	-	0.07	0.043
HCM Control Delay (s)	-	-	13.3	8.5
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1

Intersection						
Int Delay, s/veh	1.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	↑
Traffic Vol, veh/h	538	0	0	691	33	22
Future Vol, veh/h	538	0	0	691	33	22
Conflicting Peds, #/hr	0	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	96	96	92	92
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	549	0	0	720	36	24

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	-	-	-	1269 550
Stage 1	-	-	-	-	549 -
Stage 2	-	-	-	-	720 -
Critical Hdwy	-	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	-	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	-	0	0	-	188 539
Stage 1	-	0	0	-	583 -
Stage 2	-	0	0	-	486 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	188 538
Mov Cap-2 Maneuver	-	-	-	-	188 -
Stage 1	-	-	-	-	583 -
Stage 2	-	-	-	-	486 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	23.5
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	254	-	-
HCM Lane V/C Ratio	0.235	-	-
HCM Control Delay (s)	23.5	-	-
HCM Lane LOS	C	-	-
HCM 95th %tile Q(veh)	0.9	-	-

CFA Worcester
3: Heard St/Curtis Pkwy & Stafford St

Saturday Midday Peak Hour
Timing Plan: 2031 Build



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	22	478	37	184	550	40	93	147	109	21	106	23
Future Volume (vph)	22	478	37	184	550	40	93	147	109	21	106	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	85		0	70		0	0		0	0		0
Storage Lanes	1		0	1		0	1		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1805	1862	0	1770	1847	0	1787	1761	0	0	1821	0
Flt Permitted	0.410			0.133			0.565				0.723	
Satd. Flow (perm)	779	1862	0	248	1847	0	1063	1761	0	0	1326	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			5			32				8
Link Speed (mph)		30			30			30				30
Link Distance (ft)		340			87			185				253
Travel Time (s)		7.7			2.0			4.2				5.8
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.83	0.83	0.83	0.91	0.91	0.91	0.80	0.80	0.80	0.80	0.80	0.80
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	2%	2%	0%	1%	1%	1%	0%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%				0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	27	621	0	202	648	0	116	320	0	0	188	0
Turn Type	Perm	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		2		1	6			8				4
Permitted Phases	2			6			8			4		
Detector Phase	2	2		1	6		8	8		4		4
Switch Phase												
Minimum Initial (s)	10.0	10.0		7.0	10.0		4.0	4.0		7.0		7.0
Minimum Split (s)	17.0	17.0		14.0	17.0		10.0	10.0		13.0		13.0
Total Split (s)	40.0	40.0		14.0	52.0		26.0	26.0		26.0		26.0
Total Split (%)	38.8%	38.8%		13.6%	50.5%		25.2%	25.2%		25.2%		25.2%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0		4.0
All-Red Time (s)	3.0	3.0		3.0	3.0		2.0	2.0		2.0		2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0		0.0
Total Lost Time (s)	7.0	7.0		7.0	7.0		6.0	6.0		6.0		6.0
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?	Yes	Yes		Yes								
Recall Mode	Min	Min		None	Min		None	None		None		None
Act Effct Green (s)	33.4	33.4		47.5	47.5		19.5	19.5		19.5		19.5
Actuated g/C Ratio	0.40	0.40		0.57	0.57		0.23	0.23		0.23		0.23
v/c Ratio	0.09	0.84		0.75	0.62		0.47	0.74		0.60		0.60
Control Delay	20.2	36.3		32.7	17.3		37.2	39.9		38.5		38.5
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0		0.0
Total Delay	20.2	36.3		32.7	17.3		37.2	39.9		38.5		38.5

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	23.0
Total Split (s)	23.0
Total Split (%)	22%
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	

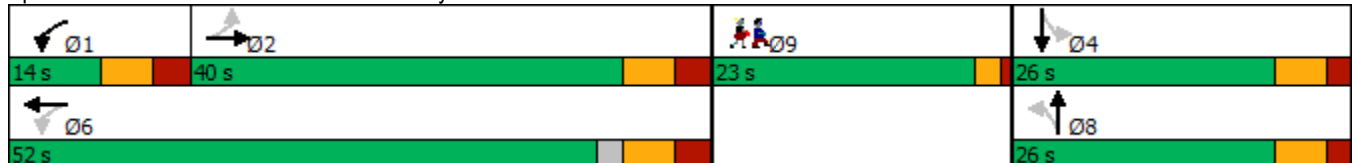


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	C	D		C	B		D	D				D
Approach Delay		35.6			21.0			39.2				38.5
Approach LOS		D			C			D				D
Queue Length 50th (ft)	8	264		43	185		49	130				78
Queue Length 95th (ft)	32	#574		#206	493		114	#273				165
Internal Link Dist (ft)		260			7			105				173
Turn Bay Length (ft)	85			70								
Base Capacity (vph)	309	742		268	1048		256	448				325
Starvation Cap Reductn	0	0		0	0		0	0				0
Spillback Cap Reductn	0	0		0	0		0	0				0
Storage Cap Reductn	0	0		0	0		0	0				0
Reduced v/c Ratio	0.09	0.84		0.75	0.62		0.45	0.71				0.58

Intersection Summary

Area Type: Other
 Cycle Length: 103
 Actuated Cycle Length: 83.9
 Natural Cycle: 100
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.84
 Intersection Signal Delay: 30.7
 Intersection LOS: C
 Intersection Capacity Utilization 81.5%
 ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 3: Heard St/Curtis Pkwy & Stafford St



Lane Group	Ø9
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Intersection						
Int Delay, s/veh	1.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	R	T	R	L	T
Traffic Vol, veh/h	14	36	313	29	68	259
Future Vol, veh/h	14	36	313	29	68	259
Conflicting Peds, #/hr	1	0	0	4	4	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	80	80	91	91
Heavy Vehicles, %	0	0	1	0	0	2
Mvmt Flow	15	39	391	36	75	285

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	849	413	0	0	431
Stage 1	413	-	-	-	-
Stage 2	436	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	334	643	-	-	1139
Stage 1	672	-	-	-	-
Stage 2	656	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	306	641	-	-	1135
Mov Cap-2 Maneuver	306	-	-	-	-
Stage 1	669	-	-	-	-
Stage 2	604	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.2	0	1.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	491	1135
HCM Lane V/C Ratio	-	-	0.111	0.066
HCM Control Delay (s)	-	-	13.2	8.4
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.4	0.2

Intersection						
Int Delay, s/veh	2.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↓	↓
Traffic Vol, veh/h	555	0	0	721	53	41
Future Vol, veh/h	555	0	0	721	53	41
Conflicting Peds, #/hr	0	0	0	0	0	4
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	91	91	92	92
Heavy Vehicles, %	1	0	0	2	0	0
Mvmt Flow	617	0	0	792	58	45

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	-	-	-	1409 621
Stage 1	-	-	-	-	617 -
Stage 2	-	-	-	-	792 -
Critical Hdwy	-	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	-	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	-	0	0	-	154 491
Stage 1	-	0	0	-	542 -
Stage 2	-	0	0	-	450 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	154 489
Mov Cap-2 Maneuver	-	-	-	-	154 -
Stage 1	-	-	-	-	542 -
Stage 2	-	-	-	-	450 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	34.8
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	220	-	-
HCM Lane V/C Ratio	0.464	-	-
HCM Control Delay (s)	34.8	-	-
HCM Lane LOS	D	-	-
HCM 95th %tile Q(veh)	2.3	-	-

The top of the page features a dark green background on the left with the word "Bowman" in white. To the right, a white diagonal line separates this from a photograph of a city street scene, including a roundabout with a central tree and a building with arches in the background.

Bowman

APPENDIX I

CAPACITY/LEVEL-OF-SERVICE ANALYSIS SUMMARY

CAPACITY ANALYSIS SUMMARY

**Weekday Midday Peak Hour
Proposed Chick-Fil-A Restaurant
Worcester, MA**

Intersection	Movement	2024 Existing			2031 No Build			2031 Build		
		LOS ¹	Delay ²	V/C ³	LOS	Delay	V/C	LOS	Delay	V/C
Stafford Street at Heard Street/Curtis Parkway	EB L	n/a	n/a	n/a	C	20.5	0.08	C	20.5	0.08
	LTR/TR	C	21.3	0.48	C	28.7	0.71	C	31.4	0.75
	WB L	B	11.7	0.21	B	12.1	0.27	B	14.9	0.45
	TR	B	16.8	0.63	B	17.0	0.64	B	15.8	0.58
	NB L	C	24.9	0.16	C	27.8	0.18	C	28.4	0.23
	TR	C	27.4	0.57	C	31.0	0.60	C	32.2	0.64
	SB LTR	C	24.9	0.33	C	27.6	0.34	C	27.6	0.36
<i>Overall</i>		C	20.5	0.70	C	23.5	0.70	C	24.0	0.68
Stafford Street at Northeast Site Driveway	EB TR/T	A	0.0	0.00	A	0.0	0.00	A	0.0	0.00
	WB LT/T	A	0.4	0.03	A	0.4	0.03	A	0.0	0.00
	NB LR	C	18.9	0.20	C	20.6	0.22	C	21.9	0.31
Heard Street at South Site Driveway	WB LR	B	11.7	0.05	B	12.1	0.05	B	11.8	0.09
	NB TR	A	0.0	0.00	A	0.0	0.00	A	0.0	0.00
	SB LT	A	0.3	0.01	A	0.3	0.01	A	2.0	0.06

1 Level-of-Service

2 Average vehicle delay, in seconds

3 Volume to capacity ratio

QUEUE SUMMARY

**Weekday Midday Peak Hour
Proposed Chick-Fil-A Restaurant
Worcester, MA**

Intersection	Movement		2024 Existing		2031 No Build		2031 Build	
			50th Q ¹	95th Q ²	50th Q	95th Q	50th Q	95th Q
Stafford Street at	EB	L	n/a	n/a	5	27	5	26
Heard Street/Curtis Parkway		LTR/TR	58	160	141	374	140	371
	WB	L	14	67	17	71	29	108
		TR	99	368	124	403	120	391
	NB	L	13	62	17	67	20	78
		TR	57	207	77	228	77	232
	SB	LTR	29	104	39	112	38	111
Stafford Street at	EB	TR/T	n/a	0	n/a	0	n/a	0
Northeast Site Driveway	WB	LT/T	n/a	3	n/a	3	n/a	0
	NB	LR	n/a	18	n/a	20	n/a	33
Heard Street at	WB	LR	n/a	5	n/a	5	n/a	8
South Site Driveway	NB	TR	n/a	0	n/a	0	n/a	0
	SB	LT	n/a	0	n/a	0	n/a	5

¹ 50th percentile queue length, in feet

² 95th percentile queue length, in feet

n/a Not Applicable

CAPACITY ANALYSIS SUMMARY

**Weekday Afternoon Peak Hour
Proposed Chick-Fil-A Restaurant
Worcester, MA**

Intersection	Movement	2024 Existing			2031 No Build			2031 Build		
		LOS ¹	Delay ²	V/C ³	LOS	Delay	V/C	LOS	Delay	V/C
Stafford Street at Heard Street/Curtis Parkway	EB L	n/a	n/a	n/a	C	23.2	0.05	C	23.5	0.05
	LTR/TR	C	26.8	0.56	D	36.7	0.79	D	37.4	0.79
	WB L	B	14.5	0.29	B	15.1	0.39	B	16.8	0.49
	TR	C	20.9	0.68	B	18.2	0.60	B	17.8	0.59
	NB L	C	26.5	0.29	C	34.0	0.39	C	34.1	0.39
	TR	C	29.9	0.64	D	42.0	0.77	D	41.7	0.77
	SB LTR	C	24.3	0.28	C	31.3	0.40	C	30.6	0.36
<i>Overall</i>		C	24.5	0.76	C	29.8	0.75	C	29.6	0.74
Stafford Street at Northeast Site Driveway	EB TR/T	A	0.0	0.00	A	0.0	0.00	A	0.0	0.00
	WB LT/T	A	0.3	0.03	A	0.3	0.03	A	0.0	0.00
	NB LR	C	21.4	0.21	C	24.0	0.23	C	23.5	0.24
Heard Street at South Site Driveway	WB LR	B	13.7	0.06	B	14.3	0.06	B	13.3	0.07
	NB TR	A	0.0	0.00	A	0.0	0.00	A	0.0	0.00
	SB LT	A	0.3	0.01	A	0.3	0.01	A	1.2	0.04

1 Level-of-Service

2 Average vehicle delay, in seconds

3 Volume to capacity ratio

QUEUE SUMMARY

**Weekday Afternoon Peak Hour
Proposed Chick-Fil-A Restaurant
Worcester, MA**

Intersection	Movement	2024 Existing		2031 No Build		2031 Build	
		50th Q ¹	95th Q ²	50th Q	95th Q	50th Q	95th Q
Stafford Street at	EB L	n/a	n/a	5	26	5	24
Heard Street/Curtis Parkway	LTR/TR	92	211	229	594	226	574
	WB L	25	84	29	88	38	111
	TR	158	425	186	464	179	447
	NB L	33	123	51	140	53	141
	TR	107	386	167	449	168	443
	SB LTR	40	131	62	149	60	143
Stafford Street at	EB TR/T	n/a	0	n/a	0	n/a	0
Northeast Site Driveway	WB LT/T	n/a	3	n/a	3	n/a	0
	NB LR	n/a	20	n/a	23	n/a	23
Heard Street at South Site Driveway	WB LR	n/a	5	n/a	5	n/a	5
	NB TR	n/a	0	n/a	0	n/a	0
	SB LT	n/a	0	n/a	0	n/a	3

¹ 50th percentile queue length, in feet

² 95th percentile queue length, in feet

n/a Not Applicable

CAPACITY ANALYSIS SUMMARY

**Saturday Midday Peak Hour
Proposed Chick-Fil-A Restaurant
Worcester, MA**

Intersection	Movement	2024 Existing			2031 No Build			2031 Build		
		LOS ¹	Delay ²	V/C ³	LOS	Delay	V/C	LOS	Delay	V/C
Stafford Street at Heard Street/Curtis Parkway	EB L	n/a	n/a	n/a	C	20.2	0.09	C	20.2	0.09
	LTR/TR	C	23.6	0.59	C	34.6	0.82	D	36.3	0.84
	WB L	B	13.5	0.32	B	16.4	0.47	C	32.7	0.75
	TR	B	19.3	0.69	B	17.2	0.62	B	17.3	0.62
	NB L	C	28.1	0.31	D	36.5	0.44	D	37.2	0.47
	TR	C	29.9	0.62	D	41.0	0.75	D	39.9	0.74
	SB LTR	C	27.2	0.41	D	39.5	0.62	D	38.5	0.60
<i>Overall</i>		C	23.1	0.83	C	29.1	0.81	C	30.7	0.82
Stafford Street at Northeast Site Driveway	EB TR/T	A	0.0	0.00	A	0.0	0.00	A	0.0	0.00
	WB LT/T	A	0.3	0.03	A	0.3	0.03	A	0.0	0.00
	NB LR	C	23.9	0.21	D	27.1	0.24	D	34.8	0.46
Heard Street at South Site Driveway	WB LR	B	12.9	0.05	B	13.3	0.05	B	13.2	0.11
	NB TR	A	0.0	0.00	A	0.0	0.00	A	0.0	0.00
	SB LT	A	0.2	0.01	A	0.2	0.01	A	1.7	0.07

1 Level-of-Service

2 Average vehicle delay, in seconds

3 Volume to capacity ratio

QUEUE SUMMARY

**Saturday Midday Peak Hour
Proposed Chick-Fil-A Restaurant
Worcester, MA**

Intersection	Movement		2024 Existing		2031 No Build		2031 Build	
			50th Q ¹	95th Q ²	50th Q	95th Q	50th Q	95th Q
Stafford Street at	EB	L	n/a	n/a	8	32	8	32
Heard Street/Curtis Parkway		LTR/TR	96	204	259	565	264	574
	WB	L	21	83	27	88	43	206
		TR	142	452	189	503	185	493
	NB	L	28	93	43	102	49	114
		TR	82	221	128	265	130	273
	SB	LTR	49	143	77	163	78	165
Stafford Street at	EB	TR/T	n/a	0	n/a	0	n/a	0
Northeast Site Driveway	WB	LT/T	n/a	3	n/a	3	n/a	0
	NB	LR	n/a	20	n/a	23	n/a	58
Heard Street at South Site Driveway	WB	LR	n/a	3	n/a	5	n/a	10
	NB	TR	n/a	0	n/a	0	n/a	0
	SB	LT	n/a	0	n/a	0	n/a	5

¹ 50th percentile queue length, in feet

² 95th percentile queue length, in feet

n/ Not Applicable