



August 11, 2022

Jeremy Procon
President
Interstate Towing, Inc.
1660 Westover Road
Chicopee, MA 01020

**RE: Traffic Assessment
Interstate Towing
Proposed Development- 698 Main Street
Sturbridge, MA**

Dear Mr. Procon:

McMahon Associates (McMahon) has completed a Traffic Assessment for the proposed Interstate Towing Project to be located at 698 Main Street (Route 20), in Sturbridge, Massachusetts. This traffic assessment is based on the Site Layout Plan prepared by CMG Engineering, Inc., dated July 18, 2022. The purpose of this assessment is to evaluate existing and projected traffic operations and safety conditions associated with the proposed development within the study area.

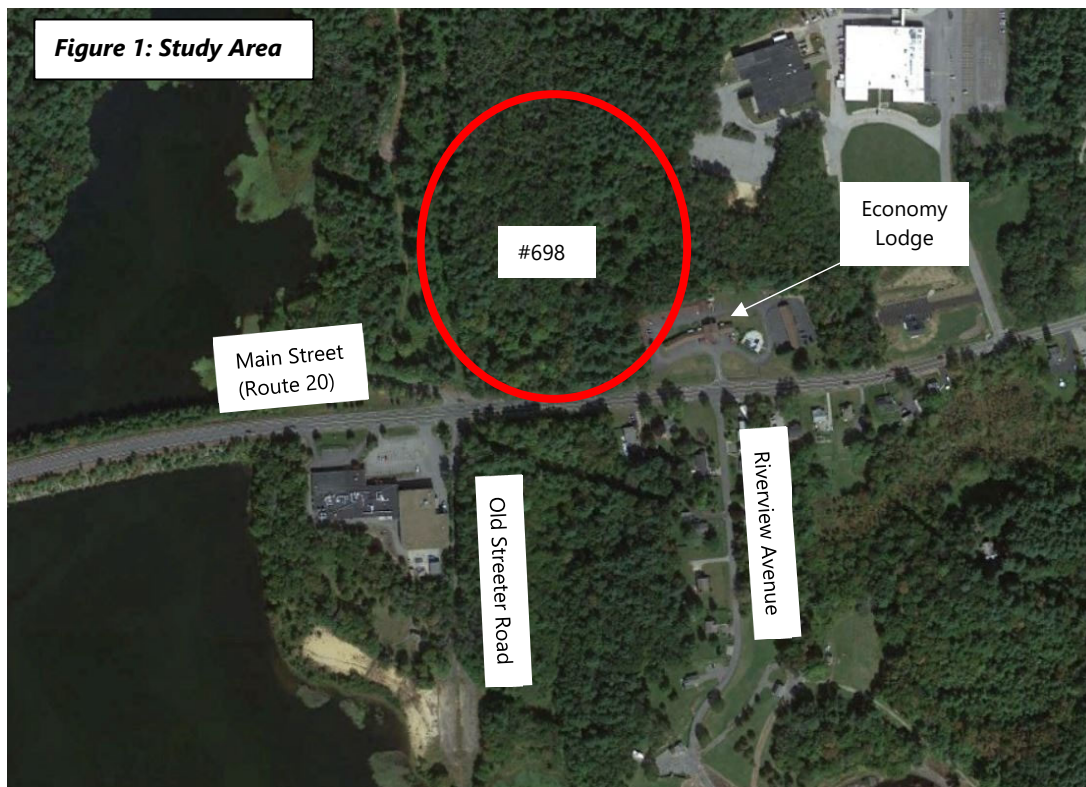
The Traffic Assessment is based on a review of existing traffic volumes, recent crash data, and the anticipated traffic generating characteristics of the proposed project. The assessment examines existing and projected traffic operations (both with and without the proposed development) at key intersections in the vicinity of the project site. The study area was selected based on a review of the surrounding roadway network and the anticipated trip generating characteristics of the proposed project. This assessment provides a detailed analysis of traffic operations during the weekday morning and weekday afternoon 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 assessment, the proposed development is not shown to have a significant effect on the safety and operations of the area roadways and intersections. The following report documents these findings.

Project Description

The project site is located at 698 Main Street (Route 20), as shown in Figure 1 below. The site is currently undeveloped and is bounded by Main Street to the south, the Economy Lodge Motel to the east and undeveloped land to the west.

The proposed project would construct an approximately 7,000 square foot (SF) towing facility. Access to the site would be provided via one full-access driveway on Main Street (Route 20), which would be under stop control for exiting site patrons.



Study Area Intersection

Based on a review of the anticipated traffic generating characteristics of the proposed project and a review of the adjacent roadways serving the project site, the intersection of Main Street (Route 20) at the proposed site driveway was selected for analysis.

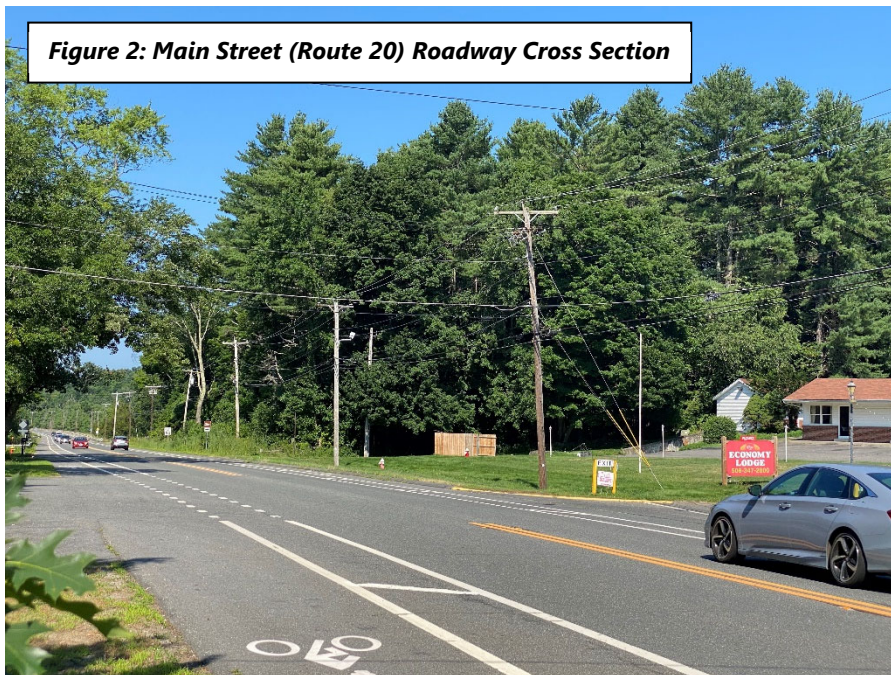
EXISTING CONDITIONS

A field review of the existing study area was conducted on Friday, July 22, 2022. The purpose of the field review was to observe and document the physical and operational characteristics of the study area roadway, traffic control devices, posted speed limits and obtain sight distance measurements at the proposed site driveway on Main Street (Route 20).

Roadway Network

Main Street (Route 20)

Main Street (Route 20) generally extends in an east-west direction through the Town of Sturbridge and is classified as an urban principal arterial under MassDOT jurisdiction. In the vicinity of the project site, Main Street provides one travel lane measuring 12 feet wide in each direction.



Pavement markings generally consist of double yellow center lines. A four-foot painted buffer with diagonal gore lines is provided between the travel way with exclusive 6-foot-wide bicycle lanes along both sides of the roadway. There are rumble strips located on the inside edge of the bicycle lane buffers, adjacent to the travel lanes.

Within the study area, the Project is generally abutted by a mix of residential and commercial land uses. Main Street has a posted speed limit of 50 miles per hour (mph) within the vicinity of the project, with no pedestrian accommodations provided within the study area.

Traffic Counts

Automatic Traffic Recorders (ATR) were conducted by Transportation Data Corporation on Tuesday, July 26, 2022, and Wednesday, July 27, 2022, to collect traffic volumes and vehicle speed data along Main Street (Route 20). Based on a review of the ATR data, the weekday morning peak hour for the study intersection occurs between 7:15 AM and 8:15 AM and the weekday afternoon peak hour occurs between 4:15 PM and 5:15PM. The ATR data is summarized below in Table 1 and shown graphically in Figure 3.

Table 1 – ATR Traffic Data

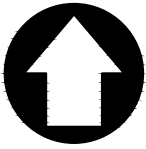
| Roadway | Direction | Daily Volume ¹ | % Heavy Vehicles | AM Peak ² | PM Peak ³ | 85th Percentile Speed |
|-----------------------------------|-----------|---------------------------|------------------|----------------------|----------------------|-----------------------|
| Main Street (Route 20) | Eastbound | 4,710 | 34% | 404 | 365 | 55 |
| | Westbound | 4,720 | 33% | 187 | 458 | 55 |
| | Combined | 9,430 | | 591 | 823 | |

1 Daily volume in vehicles per day.
2 AM peak hour volume in vehicles.
3 PM peak hour volume in vehicles.

As shown in Table 1, Main Street (Route 20) carries an average daily traffic (ADT) of approximately 9,430 vehicles per day (vpd), with approximately 4,710 vpd in the eastbound direction and approximately 4,720 vpd in the westbound direction. Based on the results of the ATR, the 85th percentile speed on Main Street in the vicinity of the project site was measured to be 55 mph in both directions, higher than the posted speed limit of 50 mph.

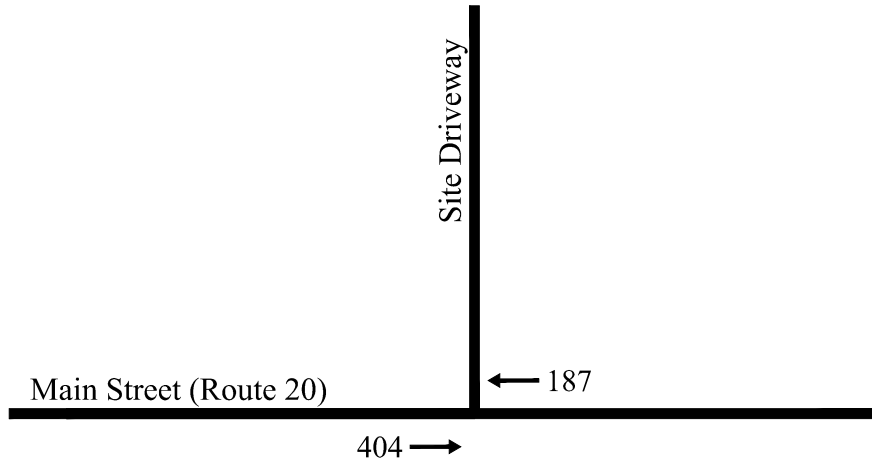
Seasonal Variation

Based on MassDOT's 2019 Weekday Seasonal Factors, July traffic volumes on urban principal arterial roadways like Main Street (Route 20) are higher than an average month. To provide a conservative analysis, the counted volumes were not seasonally adjusted.



SCHEMATIC-
NOT TO SCALE

WEEKDAY AM



WEEKDAY PM



Figure 3
2022 Existing Weekday
Peak Hour Traffic Volumes
Proposed Towing Facility
Sturbridge, Massachusetts

Crash Summary

Crash data along Main Street (Route 20) between the intersections of Old Streeter Road and Riverview Avenue was obtained from MassDOT for the most recent five-year period available. This data includes complete yearly crash summaries for the years 2015 through 2019 and is summarized in Table 2 below. The crash rate for the roadway segment was calculated to determine whether the crash frequencies are unusually high given the travel demand. The roadway crash rate is based on roadway functional classification and is expressed in crashes per million entering vehicles (MEV) and is included as an attachment.

This roadway segment of Main Street (Route 20) is reported to have experienced four crashes during the five-year period analyzed, resulting in a crash rate of 1.55 MEV, which is below the statewide and District 3 crash rates of 2.26 MEV and 3.58 MEV, respectively. Of these four crashes, two were angle collisions and two involved single vehicles. Two crashes resulted in personal injury and two crashes resulted in property damage only.

No crashes involving pedestrians or bicyclists were reported within the time frame analyzed.

The crash data did not reveal safety deficiencies in the vicinity of the project site, as the crash rate for the roadway segment analyzed is below the statewide crash rate and the crash rate for (other) principal arterials.

Table 2 – Crash Summary

| Main Street (Route 20) between Old Streeter Road and Riverview Avenue | |
|---|----------|
| Year | |
| 2015 | 0 |
| 2016 | 0 |
| 2017 | 1 |
| 2018 | 0 |
| 2019 | 3 |
| Type | |
| Angle | 2 |
| Rear-end | 0 |
| Sideswipe | 0 |
| Head-on | 0 |
| Single Vehicle | 2 |
| Severity | |
| Property Damage | 2 |
| Personal Injury | 2 |
| Fatality | 0 |
| Weather | |
| Clear | 1 |
| Cloudy | 2 |
| Rain | 0 |
| Snow | 0 |
| Other | 1 |
| Road Surface | |
| Dry | 2 |
| Wet | 1 |
| Ice | 0 |
| Snow | 1 |
| Time | |
| 7:00 AM to 9:00 AM | 0 |
| 9:00 AM to 4:00 PM | 3 |
| 4:00 PM to 6:00 PM | 0 |
| 6:00 PM to 7:00 AM | 1 |
| Total | 4 |
| Crash Rate | 1.55 |
| State | 2.26 |
| Principal Arterial | 3.58 |

Source: MassDOT

PROPOSED CONDITIONS

Site-Specific Growth

Based on discussions with the Town of Sturbridge Planning Department, four external developments were identified for development:

- **Amazon Robotics Sortation Center, 53 Sturbridge Road (Route 20), Charlton, Massachusetts.** This proposed project consists of construction of an approximately 2.85 million SF of warehouse and distribution facilities.
- **Auto Storage and Towing Facility, 299 Sturbridge Road (Route 20), Charlton, Massachusetts.** This project is currently under construction at 299 Sturbridge Road.
- **NEC Liquefied Natural Gas Facility, 341 Southbridge Road, Charlton, Massachusetts.** The Proposed project consists of construction and operation of a new liquefied natural gas (LNG) liquefaction, storage, and truck loading facility.
- **Travel Center, 195 Charlton Road (Route 20), Sturbridge, Massachusetts.** This proposed project consists of construction of a travel center with an associated fueling facility and an electrical vehicle discovery center to be located at 195, 197, 201 and 201A Charlton Road (Route 20). As proposed, the travel center will include the following components: a 8,437± square foot (sf) building that will contain a convenience store, coffee shop with drive-through window, a restaurant, an ice cream parlor and a common seating area; a 10-pump (20 vehicle fueling position (vfp)) fueling facility; a 4-pump diesel fueling facility; and 10 electric vehicle (EV) charging stations. The electric vehicle discovery center will consist of a separate 16,640± sf building that will contain an 8,866± sf electrical vehicle discovery conference center, 4,482± sf office space and a 120-seat sit-down restaurant.

Traffic projections for these proposed developments have not been included in this assessment, as all locations appear to be a minimum of 3.5 miles from the project site (to the east/southeast of I-84) and would not be expected to affect operations at the proposed driveway.

Site-Generated Traffic

To estimate the number of vehicle trips associated with the proposed towing facility, the Institute of Transportation Engineers' (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 towing facility were developed based on data presented for Land Use Code 942 (Automobile Care Center), which is considered to be conservative for the number of trips based on information provided on the site plans regarding total number of employees.

Table 3 below presents the estimated new trips to the site for the proposed project.

Table 3: Estimated Project Trips

| Description | Size | Weekday AM | | | Weekday PM | | |
|--------------------------|------------|------------|-----|-------|------------|-----|-------|
| | | In | Out | Total | In | Out | Total |
| Proposed Automobile Care | 7,000 s.f. | 10 | 5 | 15 | 14 | 15 | 29 |
| Proposed Project Trips | | 10 | 5 | 15 | 14 | 15 | 29 |

¹ ITE Land Use Code 942 (Automobile Care Center) based on 7,000 square feet.

As shown in Table 3, the proposed project is shown to result in approximately 15 new trips (10 entering vehicles and 5 exiting vehicles) during the weekday morning peak hour, approximately 29 new trips (14 entering vehicles and 15 exiting vehicles) during the weekday afternoon peak hour.

Project Trip Distribution and Assignment

The traffic estimated to be generated by the proposed towing facility was distributed onto the study area roadway and intersection based on the existing and logical travel patterns of the adjacent roadway. The resulting arrival and departure patterns are presented in Figure 4 and are documented in the traffic projection model (attached).

The project-related traffic was then assigned to the surrounding roadway network based on the project trip distribution patterns presented in Figure 4. The resulting distributed new project trips are shown in Figure 5.

2022 Build Traffic Volumes

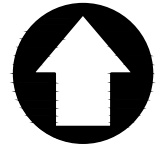
To establish the 2022 Build peak hour traffic volumes, the distributed new project trips associated with the proposed towing facility shown in Figure 5 were added to the 2022 Existing peak hour traffic volumes to reflect the 2022 Build peak hour traffic volumes. The resulting 2022 Build weekday morning and weekday afternoon peak hour traffic volumes are presented in Figure 6 and are also documented in the traffic projection model provided in an attachment.

TRAFFIC OPERATIONS ANALYSIS

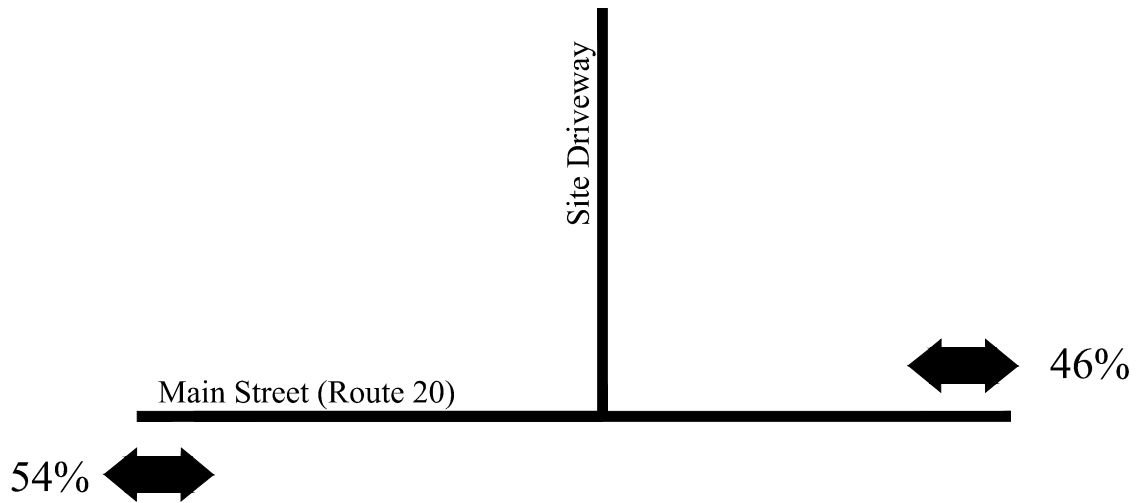
In previous sections of this report, the quantity of traffic at the study area intersections has been discussed. This section describes the overall quality of the traffic flow at the study area intersections during the weekday morning and weekday afternoon peak hours. As a basis for this assessment, intersection capacity analysis was conducted using the Synchro capacity analysis software at the study area intersection under the 2022 Existing and 2022 Build 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 an attachment. A discussion of the evaluation criteria and a summary of the results of the capacity analysis are presented below.

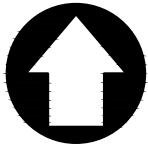
Level-of-Service Criteria

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 and LOS F represents delays in excess of 50 seconds for unsignalized intersections. A more detailed description of the LOS criteria is attached.



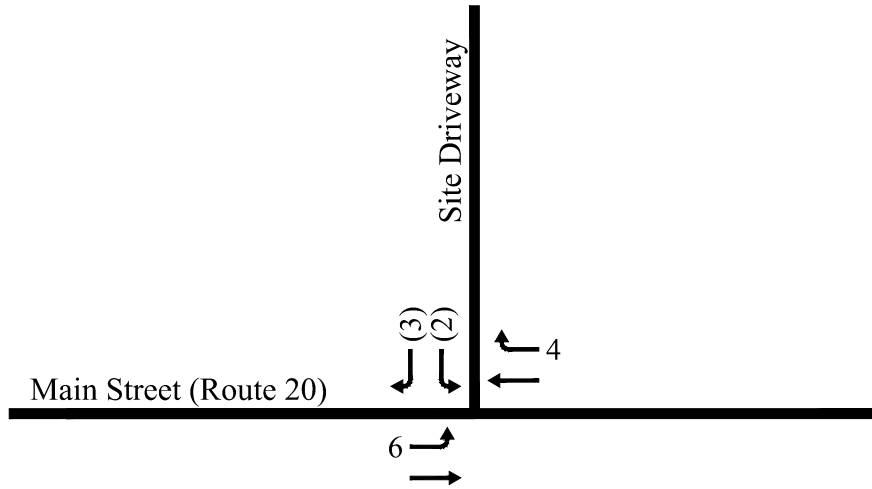
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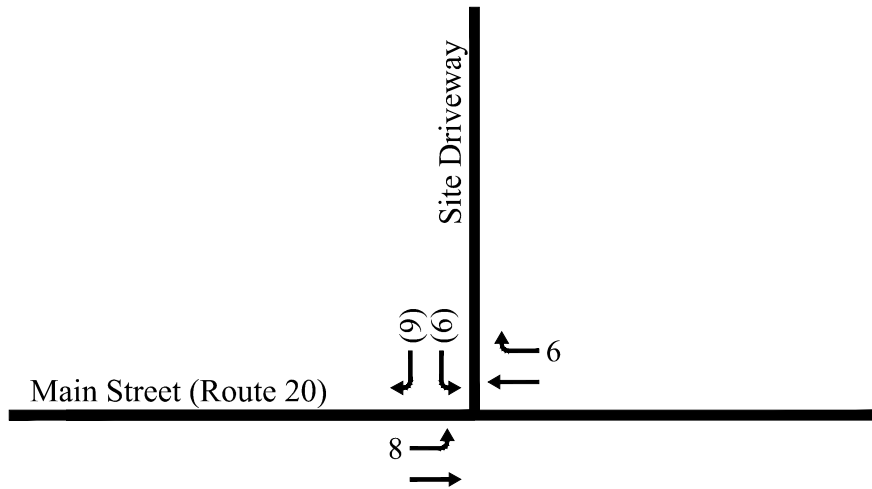


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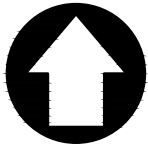
WEEKDAY AM



WEEKDAY PM

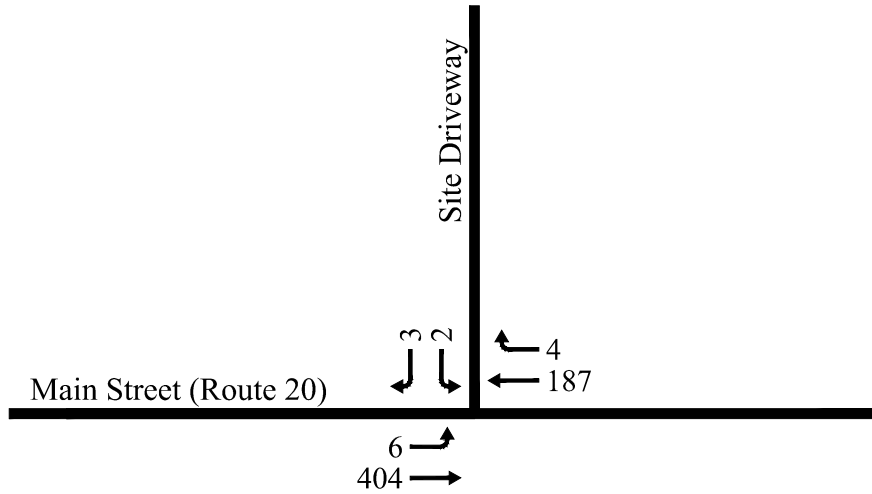


Legend
Entering (Exiting)

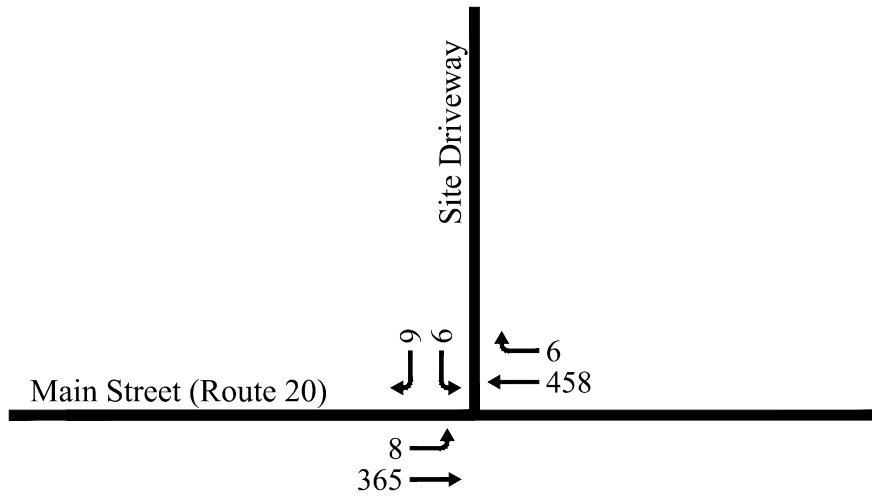


SCHEMATIC-
NOT TO SCALE

WEEKDAY AM



WEEKDAY PM



Capacity Analysis Results

Intersection capacity analysis was conducted using Synchro capacity analysis software for the study area intersection to evaluate the 2022 Existing and 2022 Build traffic conditions (with the vehicle trips associated with the proposed towing facility) during the weekday morning and weekday afternoon peak hours. The peak hour traffic volumes utilized as part of this analysis are provided in Figure 6, attached.

The Synchro capacity analysis results for the 2022 Existing and 2022 Build traffic conditions are attached. The capacity analysis results for the critical stop-controlled movements at the intersection of Main Street (Route 20) and the project site driveway are presented in Table 4.

Table 4: Unsignalized Intersection Capacity Analysis

| Intersection | Movement | Peak Period | 2022 Build | | | |
|---|----------|-------------|--------------------|----------------------|--------------------|---------------------------|
| | | | LOS ⁽¹⁾ | Delay ⁽²⁾ | V/C ⁽³⁾ | 95th Queue ⁽⁴⁾ |
| Main Street (Route 20) at Site Driveway | SB LR | AM | B | 13.7 | 0.01 | 0 |
| | | PM | C | 18.5 | 0.06 | 5 |

(1) Level-of-Service

(2) Average vehicle delay, in seconds

(3) Volume to capacity ratio

(4) 95th Percentile Queue Length, in feet

As shown in Table 4 above, under 2022 Build conditions the southbound exiting movements at the site driveway onto Main Street (Route 20) are shown to operate at LOS B during the weekday morning peak hour and LOS C during the weekday afternoon peak hour, as vehicles must wait for a gap in traffic along Main Street.

Under 2022 Build conditions, the 95th percentile queue lengths are not shown to exceed one vehicle. All queues/delay at the Project site driveway resulting from the proposed Project would be internal to the site and is not anticipated to impact operations along Main Street (Route 20). All exiting movements from the site driveway are shown to operate under capacity (volume-to-capacity ratio under 1.0) which indicates that exiting vehicles are able to be processed and the delay experienced is a function of the volumes on Main Street. In addition, the Synchro software is shown to be conservative, and the actual delay experienced at the site driveway may be lower than the values reported.

Site Access and Circulation

Access to the project site would be provided via one unsignalized full-access driveway on Main Street (Route 20). Thirteen parking spaces, including one accessible space are provided on site for patrons.

Based on our review of the most recent site plan, the proposed site driveway and on-site access roadway are expected to provide safe and efficient access to the Project site.

Sight Distance

A field review of the available sight distance was conducted at the location of the proposed full-access site driveway on Main Street (Route 20). 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.

The minimum sight distance is based on the required stopping sight distance (SSD) for vehicles traveling along the main road. SSD is the minimum distance required for a vehicle traveling at a certain speed to safely stop before reaching a stationary object in the road. The values are based on a driver perception and reaction time of 2.5 seconds and a braking distance calculated for wet, level pavements. Stopping sight distance is measured from an eye height of 3.5 feet to an object height of 2.0 feet above street level.

Intersection sight distance (ISD) is the minimum distance required for a motorist exiting a minor street to turn onto the major street, without being overtaken by an approaching vehicle reducing its speed from the design speed to 70 percent of the design speed. Intersection sight distance is measured from an eye height of 3.5 feet to an object height of 3.5 feet above street level.

SSD is generally more important as it represents the minimum distance required for safe stopping while ISD is based upon acceptable speed reductions to the approaching traffic stream. However, the ISD must be equal to or greater than the minimum required SSD in order to provide safe operations at the intersection.

Table 5 summarizes the AASHTO sight distance standards for the 85th percentile speed on Main Street (Route 20) and the available sight distance measured at the project site driveway. For the purpose of this assessment, a “combination truck” was utilized as the design vehicle due to the nature of the proposed towing facility.

Table 5: Sight Distance Summary

| Site Driveway Location | Looking | Speed Limit (mph) | 85th % Speed (mph) | SSD ¹ Recommended (feet) | Available SSD Travelling | | ISD ² Recommended | Available ISD | Meets Required SSD? |
|------------------------|--------------|-------------------|--------------------|-------------------------------------|---|-------------|------------------------------|---------------|---------------------|
| | | | | | EB | WB | | | |
| | | | | | Main Street (Route 20) at Site Driveway | Left (East) | | | |
| | Right (West) | 50 | 55 | 495 | 1,044 | - | 930 | >1,400 | Yes |

1 Stopping sight distance (see AASHTO equations 3-2 and 3-3) for the 85th percentile speed, measured in feet.

2 Intersection sight distance (see AASHTO equations 9-1 and 9-2) for the 85th percentile speed, measured in feet.

As shown in Table 5, the available sight distances for vehicles exiting the site from the proposed full-access driveway exceed AASHTO required SSD for the 85th percentile speed on Main Street (Route 20).

As shown in Figure 7 below, existing vegetation along the northern side of Main Street reduces the available sight distance for left-turning vehicles exiting the proposed site driveway.

Figure 7: Available ISD from proposed site driveway (looking



CONCLUSION

The proposed Project involves the construction of an approximately 7,000 square foot (SF) towing facility. Access to the site would be provided via one driveway on Main Street (Route 20). The driveway would be under stop control for exiting site patrons and would provide full access to the project site.

The proposed Project is estimated to generate approximately 15 new trips (10 entering vehicles and 5 exiting vehicles) during the weekday morning peak hour, approximately 29 new trips (14 entering vehicles and 15 exiting vehicles) during the weekday afternoon peak hour.

With the proposed Project in place under 2022 Build conditions, operations at the Project site driveway during the weekday morning and weekday afternoon peak hours are projected to operate under capacity, with 95th percentile queue lengths not to exceed one vehicle. All queues/delay at the Project site driveway resulting from the proposed Project would be internal to the site and is not anticipated to impact operations along Main Street (Route 20).

The available sight distances at the proposed site driveway would not be impacted as part of the proposed development. The sight lines at the proposed site driveway were measured to exceed the AASHTO required SSD for the 85th percentile speeds on Main Street (Route 20). The available ISD for left-turning vehicles exiting the proposed site driveway is obstructed by existing vegetation. As designed, the site provides for efficient operations and circulation of the driveway and internal roadway.

Based on a review of the analysis contained within this traffic impact assessment, the proposed development is not shown to have a significant impact on the overall traffic operations of the study area intersection and roadway.



We are prepared to review the results of this assessment with you at your convenience. Please do not hesitate to contact me with any questions.

Very truly yours,

A handwritten signature in black ink that reads "Maureen Chlebek". The signature is written in a cursive style.

Maureen Chlebek, P.E., PTOE
Regional Manager – New England

Attachments:

- Traffic Count Data
- Traffic Projection Model
- Roadway Crash Rate Calculation
- Highway Capacity Manual Methodologies
- 2022 Existing Capacity/Level-of-Service Analysis
- 2022 Proposed Capacity/Level-of-Service Analysis

ATTACHMENTS

Traffic Count Data

Transportation Data Corporation

Mario Perone, mperone1@verizon.net
tel (781) 587-0086 cell (781) 439-4999

Main Street (Route 20)
west of Riverview Avenue
City, State: Sturbridge, MA
Client: McM/M. McHugh

05592Aclass
Site Code: Y-22782.11

Eastbound

| Start Time | Bikes | Cars & Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axl Double | 5 Axle Double | >6 Axl Double | <6 Axl Multi | 6 Axle Multi | >6 Axl Multi | Total |
|------------|----------|-----------------|-------------|----------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|--------------|--------------|------------|
| 07/26/22 | 0 | 9 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 |
| 01:00 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 02:00 | 0 | 8 | 3 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 |
| 03:00 | 0 | 10 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 |
| 04:00 | 1 | 43 | 20 | 0 | 14 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 79 |
| 05:00 | 0 | 124 | 45 | 3 | 32 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 205 |
| 06:00 | 3 | 174 | 80 | 1 | 52 | 1 | 0 | 6 | 2 | 0 | 0 | 0 | 0 | 319 |
| 07:00 | 4 | 242 | 74 | 3 | 42 | 0 | 0 | 4 | 2 | 0 | 0 | 0 | 0 | 371 |
| 08:00 | 1 | 224 | 65 | 4 | 29 | 1 | 1 | 3 | 2 | 0 | 0 | 0 | 0 | 330 |
| 09:00 | 0 | 190 | 53 | 5 | 21 | 1 | 0 | 4 | 2 | 0 | 0 | 0 | 0 | 276 |
| 10:00 | 1 | 190 | 43 | 3 | 27 | 2 | 1 | 3 | 3 | 0 | 0 | 0 | 0 | 273 |
| 11:00 | 7 | 184 | 56 | 2 | 29 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 281 |
| 12 PM | 8 | 218 | 64 | 5 | 23 | 1 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 325 |
| 13:00 | 5 | 197 | 50 | 5 | 24 | 3 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 287 |
| 14:00 | 5 | 193 | 54 | 5 | 28 | 2 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 290 |
| 15:00 | 6 | 178 | 50 | 1 | 36 | 3 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 278 |
| 16:00 | 8 | 198 | 71 | 3 | 32 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 315 |
| 17:00 | 4 | 223 | 58 | 1 | 20 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 308 |
| 18:00 | 6 | 157 | 36 | 1 | 12 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 213 |
| 19:00 | 4 | 85 | 26 | 0 | 10 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 128 |
| 20:00 | 4 | 84 | 23 | 0 | 10 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 122 |
| 21:00 | 0 | 39 | 10 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 55 |
| 22:00 | 0 | 35 | 8 | 1 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 48 |
| 23:00 | 0 | 24 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 28 |
| Day Total | 67 | 3034 | 891 | 44 | 459 | 16 | 2 | 42 | 19 | 0 | 0 | 0 | 0 | 4574 |
| Percent | 1.5% | 66.3% | 19.5% | 1.0% | 10.0% | 0.3% | 0.0% | 0.9% | 0.4% | 0.0% | 0.0% | 0.0% | 0.0% | |
| AM Peak | 11:00 | 07:00 | 06:00 | 09:00 | 06:00 | 10:00 | 08:00 | 06:00 | 10:00 | | | | | 07:00 |
| Vol. | 7 | 242 | 80 | 5 | 52 | 2 | 1 | 6 | 3 | | | | | 371 |
| PM Peak | 12:00 | 17:00 | 16:00 | 12:00 | 15:00 | 13:00 | | 12:00 | 15:00 | | | | | 12:00 |
| Vol. | 8 | 223 | 71 | 5 | 36 | 3 | | 6 | 3 | | | | | 325 |

Transportation Data Corporation

Mario Perone, mperone1@verizon.net
tel (781) 587-0086 cell (781) 439-4999

Main Street (Route 20)
west of Riverview Avenue
City, State: Sturbridge, MA
Client: McM/M. McHugh
Eastbound

05592Aclass
Site Code: Y-22782.11

| Start Time | Bikes | Cars & Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axl Double | 5 Axle Double | >6 Axl Double | <6 Axl Multi | 6 Axle Multi | >6 Axl Multi | Total |
|-------------|-----------|-----------------|-------------|----------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|--------------|--------------|------------|
| 07/27/22 | 0 | 8 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 10 |
| 01:00 | 0 | 5 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| 02:00 | 0 | 8 | 4 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 |
| 03:00 | 0 | 11 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 |
| 04:00 | 1 | 45 | 20 | 0 | 12 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 79 |
| 05:00 | 3 | 122 | 37 | 1 | 34 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 198 |
| 06:00 | 2 | 178 | 69 | 1 | 53 | 0 | 0 | 5 | 2 | 0 | 0 | 0 | 0 | 310 |
| 07:00 | 3 | 281 | 78 | 2 | 41 | 3 | 1 | 5 | 2 | 0 | 0 | 0 | 0 | 416 |
| 08:00 | 4 | 203 | 74 | 2 | 34 | 1 | 0 | 4 | 2 | 0 | 0 | 0 | 0 | 324 |
| 09:00 | 2 | 211 | 67 | 5 | 26 | 2 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 316 |
| 10:00 | 1 | 170 | 61 | 6 | 37 | 0 | 1 | 8 | 1 | 0 | 0 | 0 | 0 | 285 |
| 11:00 | 5 | 164 | 51 | 3 | 23 | 0 | 2 | 3 | 3 | 0 | 0 | 0 | 0 | 254 |
| 12 PM | 5 | 194 | 67 | 2 | 22 | 1 | 1 | 6 | 1 | 0 | 0 | 0 | 0 | 299 |
| 13:00 | 8 | 178 | 53 | 6 | 34 | 2 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 283 |
| 14:00 | 10 | 210 | 74 | 1 | 26 | 1 | 1 | 4 | 5 | 0 | 0 | 0 | 0 | 332 |
| 15:00 | 2 | 186 | 52 | 2 | 28 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 271 |
| 16:00 | 6 | 212 | 69 | 1 | 37 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 327 |
| 17:00 | 10 | 226 | 61 | 0 | 27 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 327 |
| 18:00 | 6 | 147 | 38 | 1 | 25 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 221 |
| 19:00 | 2 | 108 | 28 | 2 | 16 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 159 |
| 20:00 | 0 | 83 | 22 | 0 | 12 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 124 |
| 21:00 | 0 | 37 | 9 | 0 | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 51 |
| 22:00 | 3 | 37 | 4 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 47 |
| 23:00 | 0 | 27 | 5 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 34 |
| Day Total | 73 | 3051 | 945 | 36 | 500 | 12 | 6 | 58 | 21 | 1 | 0 | 0 | 0 | 4703 |
| Percent | 1.6% | 64.9% | 20.1% | 0.8% | 10.6% | 0.3% | 0.1% | 1.2% | 0.4% | 0.0% | 0.0% | 0.0% | 0.0% | |
| AM Peak | 11:00 | 07:00 | 07:00 | 10:00 | 06:00 | 07:00 | 11:00 | 10:00 | 11:00 | | | | | 07:00 |
| Vol. | 5 | 281 | 78 | 6 | 53 | 3 | 2 | 8 | 3 | | | | | 416 |
| PM Peak | 14:00 | 17:00 | 14:00 | 13:00 | 16:00 | 13:00 | 12:00 | 20:00 | 14:00 | 13:00 | | | | 14:00 |
| Vol. | 10 | 226 | 74 | 6 | 37 | 2 | 1 | 7 | 5 | 1 | | | | 332 |
| Grand Total | 140 | 6085 | 1836 | 80 | 959 | 28 | 8 | 100 | 40 | 1 | 0 | 0 | 0 | 9277 |
| Percent | 1.5% | 65.6% | 19.8% | 0.9% | 10.3% | 0.3% | 0.1% | 1.1% | 0.4% | 0.0% | 0.0% | 0.0% | 0.0% | |

Transportation Data Corporation

Mario Perone, mperone1@verizon.net
tel (781) 587-0086 cell (781) 439-4999

Main Street (Route 20)
west of Riverview Avenue
City, State: Sturbridge, MA
Client: McM/M. McHugh
Westbound

05592Aclass
Site Code: Y-22782.11

| Start Time | Bikes | Cars & Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axl Double | 5 Axle Double | >6 Axl Double | <6 Axl Multi | 6 Axle Multi | >6 Axl Multi | Total |
|------------|-------|-----------------|-------------|-------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|--------------|--------------|-------|
| 07/26/22 | 0 | 36 | 5 | 0 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 45 |
| 01:00 | 0 | 13 | 4 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 |
| 02:00 | 0 | 5 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| 03:00 | 1 | 7 | 2 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 12 |
| 04:00 | 0 | 15 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 |
| 05:00 | 1 | 31 | 10 | 1 | 1 | 1 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 49 |
| 06:00 | 2 | 104 | 25 | 2 | 22 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 159 |
| 07:00 | 2 | 82 | 31 | 6 | 15 | 1 | 1 | 2 | 2 | 0 | 0 | 0 | 0 | 142 |
| 08:00 | 1 | 111 | 42 | 4 | 31 | 4 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 197 |
| 09:00 | 1 | 100 | 44 | 1 | 24 | 3 | 1 | 3 | 2 | 0 | 0 | 0 | 0 | 179 |
| 10:00 | 3 | 161 | 44 | 5 | 24 | 4 | 0 | 3 | 2 | 0 | 0 | 0 | 0 | 246 |
| 11:00 | 5 | 154 | 50 | 5 | 19 | 4 | 0 | 3 | 2 | 0 | 0 | 0 | 0 | 242 |
| 12 PM | 10 | 188 | 57 | 4 | 27 | 2 | 0 | 2 | 3 | 0 | 0 | 0 | 0 | 293 |
| 13:00 | 11 | 208 | 50 | 3 | 33 | 2 | 0 | 3 | 3 | 0 | 0 | 0 | 0 | 313 |
| 14:00 | 5 | 252 | 58 | 5 | 26 | 1 | 0 | 3 | 1 | 0 | 0 | 0 | 0 | 351 |
| 15:00 | 4 | 253 | 88 | 2 | 65 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 415 |
| 16:00 | 8 | 359 | 113 | 1 | 65 | 2 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 552 |
| 17:00 | 6 | 295 | 87 | 2 | 43 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 434 |
| 18:00 | 3 | 224 | 56 | 1 | 22 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 308 |
| 19:00 | 1 | 173 | 42 | 0 | 16 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 234 |
| 20:00 | 0 | 157 | 41 | 0 | 12 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 211 |
| 21:00 | 3 | 84 | 17 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 110 |
| 22:00 | 0 | 57 | 14 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 74 |
| 23:00 | 1 | 30 | 5 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 39 |
| Day Total | 68 | 3099 | 885 | 42 | 470 | 28 | 4 | 35 | 21 | 0 | 0 | 0 | 0 | 4652 |
| Percent | 1.5% | 66.6% | 19.0% | 0.9% | 10.1% | 0.6% | 0.1% | 0.8% | 0.5% | 0.0% | 0.0% | 0.0% | 0.0% | |
| AM Peak | 11:00 | 10:00 | 11:00 | 07:00 | 08:00 | 06:00 | 03:00 | 09:00 | 05:00 | | | | | 10:00 |
| Vol. | 5 | 161 | 50 | 6 | 31 | 4 | 1 | 3 | 3 | | | | | 246 |
| PM Peak | 13:00 | 16:00 | 16:00 | 14:00 | 15:00 | 12:00 | 16:00 | 13:00 | 12:00 | | | | | 16:00 |
| Vol. | 11 | 359 | 113 | 5 | 65 | 2 | 1 | 3 | 3 | | | | | 552 |

Transportation Data Corporation

Mario Perone, mperone1@verizon.net
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Main Street (Route 20)
west of Riverview Avenue
City, State: Sturbridge, MA
Client: McM/M. McHugh
Westbound

05592Aclass
Site Code: Y-22782.11

| Start Time | Bikes | Cars & Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axl Double | 5 Axle Double | >6 Axl Double | <6 Axl Multi | 6 Axle Multi | >6 Axl Multi | Total |
|-------------|-------|-----------------|-------------|-------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|--------------|--------------|-------|
| 07/27/22 | 0 | 17 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 22 |
| 01:00 | 0 | 8 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 |
| 02:00 | 1 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| 03:00 | 0 | 7 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 |
| 04:00 | 1 | 9 | 3 | 0 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17 |
| 05:00 | 0 | 38 | 12 | 1 | 4 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 57 |
| 06:00 | 3 | 98 | 29 | 2 | 25 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 161 |
| 07:00 | 1 | 96 | 37 | 5 | 27 | 3 | 0 | 3 | 2 | 0 | 0 | 0 | 0 | 174 |
| 08:00 | 6 | 124 | 50 | 3 | 26 | 3 | 0 | 1 | 5 | 0 | 0 | 0 | 0 | 218 |
| 09:00 | 6 | 95 | 49 | 2 | 19 | 4 | 0 | 3 | 3 | 0 | 0 | 0 | 0 | 181 |
| 10:00 | 3 | 139 | 49 | 5 | 33 | 4 | 0 | 4 | 2 | 0 | 0 | 0 | 0 | 239 |
| 11:00 | 9 | 163 | 59 | 5 | 29 | 4 | 0 | 5 | 2 | 0 | 0 | 0 | 0 | 276 |
| 12 PM | 9 | 200 | 53 | 2 | 30 | 3 | 0 | 4 | 5 | 0 | 0 | 0 | 0 | 306 |
| 13:00 | 7 | 195 | 63 | 3 | 24 | 2 | 0 | 7 | 3 | 0 | 0 | 0 | 0 | 304 |
| 14:00 | 7 | 234 | 71 | 1 | 31 | 2 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 352 |
| 15:00 | 6 | 258 | 93 | 3 | 57 | 2 | 0 | 8 | 2 | 0 | 0 | 0 | 0 | 429 |
| 16:00 | 10 | 332 | 87 | 1 | 61 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 494 |
| 17:00 | 7 | 294 | 84 | 1 | 35 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 423 |
| 18:00 | 4 | 229 | 53 | 2 | 29 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 319 |
| 19:00 | 9 | 161 | 46 | 1 | 28 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 247 |
| 20:00 | 1 | 163 | 43 | 0 | 16 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 227 |
| 21:00 | 4 | 101 | 15 | 0 | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 126 |
| 22:00 | 0 | 63 | 7 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 75 |
| 23:00 | 0 | 27 | 8 | 0 | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 42 |
| Day Total | 94 | 3057 | 921 | 37 | 493 | 32 | 0 | 53 | 29 | 0 | 0 | 0 | 0 | 4716 |
| Percent | 2.0% | 64.8% | 19.5% | 0.8% | 10.5% | 0.7% | 0.0% | 1.1% | 0.6% | 0.0% | 0.0% | 0.0% | 0.0% | |
| AM Peak | 11:00 | 11:00 | 11:00 | 07:00 | 10:00 | 09:00 | | 11:00 | 08:00 | | | | | 11:00 |
| Vol. | 9 | 163 | 59 | 5 | 33 | 4 | | 5 | 5 | | | | | 276 |
| PM Peak | 16:00 | 16:00 | 15:00 | 13:00 | 16:00 | 12:00 | | 15:00 | 12:00 | | | | | 16:00 |
| Vol. | 10 | 332 | 93 | 3 | 61 | 3 | | 8 | 5 | | | | | 494 |
| Grand Total | 162 | 6156 | 1806 | 79 | 963 | 60 | 4 | 88 | 50 | 0 | 0 | 0 | 0 | 9368 |
| Percent | 1.7% | 65.7% | 19.3% | 0.8% | 10.3% | 0.6% | 0.0% | 0.9% | 0.5% | 0.0% | 0.0% | 0.0% | 0.0% | |

Transportation Data Corporation

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Main Street (Route 20)
west of Riverview Avenue
City, State: Sturbridge, MA
Client: McM/M. McHugh

05592Aspeed
Site Code: Y-22782.11

| Start Time | 15 | 16 | 21 | 26 | 31 | 36 | 41 | 46 | 51 | 56 | 61 | 66 | 71 | Total | 85th Percent | 95th Percent |
|--------------|-----------|-----------|----------|----------|-----------|------------|------------|-------------|-------------|------------|------------|-----------|----------|-------------|--------------|--------------|
| 07/26/22 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 5 | 3 | 1 | 0 | 0 | 0 | 12 | 53 | 56 |
| 01:00 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 5 | 61 | 63 |
| 02:00 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 4 | 3 | 2 | 1 | 0 | 0 | 13 | 57 | 61 |
| 03:00 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 4 | 3 | 1 | 1 | 0 | 13 | 60 | 66 |
| 04:00 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 26 | 29 | 15 | 3 | 0 | 0 | 79 | 57 | 59 |
| 05:00 | 0 | 0 | 0 | 0 | 1 | 0 | 12 | 69 | 82 | 35 | 5 | 1 | 0 | 205 | 56 | 59 |
| 06:00 | 1 | 0 | 0 | 1 | 1 | 1 | 17 | 96 | 127 | 62 | 11 | 1 | 1 | 319 | 57 | 59 |
| 07:00 | 2 | 2 | 0 | 0 | 3 | 3 | 45 | 134 | 144 | 37 | 1 | 0 | 0 | 371 | 54 | 57 |
| 08:00 | 3 | 0 | 0 | 0 | 0 | 2 | 26 | 119 | 138 | 35 | 7 | 0 | 0 | 330 | 54 | 58 |
| 09:00 | 1 | 0 | 0 | 0 | 1 | 3 | 27 | 86 | 107 | 48 | 3 | 0 | 0 | 276 | 56 | 58 |
| 10:00 | 2 | 0 | 0 | 0 | 2 | 2 | 31 | 90 | 97 | 45 | 4 | 0 | 0 | 273 | 55 | 58 |
| 11:00 | 4 | 1 | 0 | 2 | 3 | 8 | 32 | 74 | 103 | 42 | 12 | 0 | 0 | 281 | 56 | 59 |
| 12 PM | 4 | 3 | 0 | 1 | 2 | 18 | 42 | 113 | 106 | 28 | 6 | 2 | 0 | 325 | 54 | 58 |
| 13:00 | 6 | 0 | 0 | 0 | 3 | 2 | 27 | 98 | 114 | 28 | 7 | 2 | 0 | 287 | 54 | 59 |
| 14:00 | 1 | 1 | 0 | 0 | 4 | 11 | 32 | 87 | 115 | 31 | 6 | 2 | 0 | 290 | 54 | 58 |
| 15:00 | 2 | 1 | 0 | 2 | 4 | 13 | 30 | 86 | 96 | 33 | 10 | 0 | 1 | 278 | 55 | 59 |
| 16:00 | 8 | 1 | 1 | 0 | 5 | 9 | 34 | 93 | 104 | 54 | 4 | 1 | 1 | 315 | 56 | 59 |
| 17:00 | 4 | 2 | 1 | 0 | 1 | 10 | 31 | 87 | 99 | 56 | 15 | 2 | 0 | 308 | 57 | 60 |
| 18:00 | 1 | 2 | 0 | 0 | 0 | 1 | 22 | 62 | 81 | 38 | 6 | 0 | 0 | 213 | 56 | 59 |
| 19:00 | 2 | 0 | 0 | 1 | 1 | 4 | 5 | 29 | 50 | 29 | 6 | 1 | 0 | 128 | 57 | 60 |
| 20:00 | 2 | 0 | 0 | 0 | 0 | 3 | 17 | 42 | 34 | 21 | 2 | 1 | 0 | 122 | 56 | 59 |
| 21:00 | 0 | 0 | 0 | 1 | 0 | 3 | 13 | 10 | 18 | 9 | 1 | 0 | 0 | 55 | 55 | 59 |
| 22:00 | 0 | 0 | 1 | 1 | 5 | 3 | 6 | 11 | 14 | 5 | 1 | 1 | 0 | 48 | 54 | 59 |
| 23:00 | 0 | 0 | 0 | 0 | 5 | 8 | 3 | 4 | 4 | 3 | 1 | 0 | 0 | 28 | 54 | 59 |
| Total | 43 | 13 | 3 | 9 | 42 | 107 | 465 | 1427 | 1673 | 660 | 114 | 15 | 3 | 4574 | | |
| Percent | 0.9% | 0.3% | 0.1% | 0.2% | 0.9% | 2.3% | 10.2% | 31.2% | 36.6% | 14.4% | 2.5% | 0.3% | 0.1% | | | |
| AM Peak | 11:00 | 07:00 | | 11:00 | 07:00 | 11:00 | 07:00 | 07:00 | 07:00 | 06:00 | 11:00 | 03:00 | 06:00 | 07:00 | | |
| Vol. | 4 | 2 | | 2 | 3 | 8 | 45 | 134 | 144 | 62 | 12 | 1 | 1 | 371 | | |
| PM Peak | 16:00 | 12:00 | 16:00 | 15:00 | 16:00 | 12:00 | 12:00 | 12:00 | 14:00 | 17:00 | 17:00 | 12:00 | 15:00 | 12:00 | | |
| Vol. | 8 | 3 | 1 | 2 | 5 | 18 | 42 | 113 | 115 | 56 | 15 | 2 | 1 | 325 | | |

Transportation Data Corporation

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Main Street (Route 20)
west of Riverview Avenue
City, State: Sturbridge, MA
Client: McM/M. McHugh

05592Aspeed
Site Code: Y-22782.11

| Start Time | 15 | 16 | 21 | 26 | 31 | 36 | 41 | 46 | 51 | 56 | 61 | 66 | 71 | Total | 85th Percent | 95th Percent |
|--------------------|-----------|-----------|----------|-----------|------------|------------|------------|-------------|-------------|-------------|------------|-----------|----------|-------------|--------------|--------------|
| 07/27/22 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 4 | 2 | 1 | 0 | 0 | 0 | 10 | 53 | 57 |
| 01:00 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 1 | 1 | 1 | 0 | 0 | 7 | 59 | 63 |
| 02:00 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 5 | 4 | 2 | 0 | 0 | 0 | 14 | 54 | 58 |
| 03:00 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 5 | 7 | 1 | 1 | 0 | 0 | 15 | 54 | 61 |
| 04:00 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 19 | 38 | 11 | 4 | 1 | 0 | 79 | 56 | 61 |
| 05:00 | 0 | 0 | 0 | 0 | 1 | 0 | 16 | 67 | 72 | 36 | 5 | 0 | 1 | 198 | 56 | 59 |
| 06:00 | 1 | 0 | 0 | 0 | 2 | 2 | 14 | 76 | 145 | 58 | 11 | 1 | 0 | 310 | 57 | 59 |
| 07:00 | 4 | 0 | 0 | 0 | 3 | 10 | 29 | 124 | 175 | 67 | 4 | 0 | 0 | 416 | 55 | 58 |
| 08:00 | 3 | 0 | 0 | 1 | 0 | 2 | 22 | 109 | 129 | 51 | 7 | 0 | 0 | 324 | 55 | 59 |
| 09:00 | 3 | 0 | 0 | 0 | 0 | 1 | 33 | 112 | 118 | 40 | 8 | 1 | 0 | 316 | 55 | 59 |
| 10:00 | 1 | 0 | 0 | 0 | 1 | 3 | 31 | 81 | 125 | 34 | 8 | 1 | 0 | 285 | 55 | 59 |
| 11:00 | 1 | 0 | 0 | 2 | 0 | 10 | 24 | 74 | 100 | 36 | 7 | 0 | 0 | 254 | 55 | 59 |
| 12 PM | 5 | 0 | 0 | 3 | 9 | 5 | 30 | 94 | 104 | 41 | 8 | 0 | 0 | 299 | 55 | 59 |
| 13:00 | 2 | 0 | 0 | 1 | 2 | 10 | 58 | 102 | 77 | 26 | 5 | 0 | 0 | 283 | 54 | 58 |
| 14:00 | 7 | 0 | 0 | 0 | 7 | 25 | 63 | 120 | 94 | 14 | 2 | 0 | 0 | 332 | 53 | 54 |
| 15:00 | 6 | 0 | 0 | 1 | 6 | 9 | 30 | 72 | 101 | 39 | 6 | 0 | 1 | 271 | 55 | 59 |
| 16:00 | 2 | 0 | 1 | 0 | 6 | 8 | 40 | 96 | 115 | 44 | 13 | 2 | 0 | 327 | 56 | 59 |
| 17:00 | 5 | 1 | 0 | 2 | 6 | 6 | 16 | 82 | 140 | 56 | 12 | 1 | 0 | 327 | 56 | 59 |
| 18:00 | 2 | 1 | 1 | 0 | 2 | 2 | 20 | 64 | 84 | 32 | 12 | 1 | 0 | 221 | 56 | 60 |
| 19:00 | 1 | 0 | 0 | 0 | 3 | 7 | 20 | 43 | 58 | 21 | 5 | 1 | 0 | 159 | 55 | 59 |
| 20:00 | 0 | 0 | 0 | 0 | 5 | 5 | 17 | 44 | 40 | 11 | 1 | 0 | 1 | 124 | 54 | 57 |
| 21:00 | 0 | 0 | 0 | 0 | 2 | 0 | 3 | 15 | 17 | 13 | 1 | 0 | 0 | 51 | 57 | 59 |
| 22:00 | 0 | 0 | 0 | 0 | 4 | 5 | 5 | 15 | 12 | 5 | 1 | 0 | 0 | 47 | 54 | 58 |
| 23:00 | 0 | 0 | 0 | 0 | 3 | 5 | 5 | 14 | 4 | 0 | 3 | 0 | 0 | 34 | 52 | 62 |
| Total | 43 | 2 | 2 | 10 | 63 | 117 | 489 | 1438 | 1762 | 640 | 125 | 9 | 3 | 4703 | | |
| Percent | 0.9% | 0.0% | 0.0% | 0.2% | 1.3% | 2.5% | 10.4% | 30.6% | 37.5% | 13.6% | 2.7% | 0.2% | 0.1% | | | |
| AM Peak | 07:00 | | | 11:00 | 07:00 | 07:00 | 09:00 | 07:00 | 07:00 | 07:00 | 06:00 | 04:00 | 05:00 | 07:00 | | |
| Vol. | 4 | | | 2 | 3 | 10 | 33 | 124 | 175 | 67 | 11 | 1 | 1 | 416 | | |
| PM Peak | 14:00 | 17:00 | 16:00 | 12:00 | 12:00 | 14:00 | 14:00 | 14:00 | 17:00 | 17:00 | 16:00 | 16:00 | 15:00 | 14:00 | | |
| Vol. | 7 | 1 | 1 | 3 | 9 | 25 | 63 | 120 | 140 | 56 | 13 | 2 | 1 | 332 | | |
| Grand Total | 86 | 15 | 5 | 19 | 105 | 224 | 954 | 2865 | 3435 | 1300 | 239 | 24 | 6 | 9277 | | |
| Percent | 0.9% | 0.2% | 0.1% | 0.2% | 1.1% | 2.4% | 10.3% | 30.9% | 37.0% | 14.0% | 2.6% | 0.3% | 0.1% | | | |

15th Percentile : 44 MPH
 50th Percentile : 50 MPH
 85th Percentile : 55 MPH
 95th Percentile : 59 MPH

Stats 10 MPH Pace Speed : 46-55 MPH
 Number of Vehicles > 45 MPH : 7869
 Percent of Vehicles > 45 MPH : 84.8%
 Mean Speed(Average) : 50 MPH

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Main Street (Route 20)
west of Riverview Avenue
City, State: Sturbridge, MA
Client: McM/M. McHugh
Westbound

05592Aspeed
Site Code: Y-22782.11

| Start Time | 15 | 16:20 | 21:25 | 26:30 | 31:35 | 36:40 | 41:45 | 46:50 | 51:55 | 56:60 | 61:65 | 66:70 | 71:75 | Total | 85th Percent | 95th Percent |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------|--------------|
| 07/26/22 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 17 | 16 | 7 | 1 | 0 | 0 | 45 | 55 | 59 |
| 01:00 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 4 | 6 | 5 | 0 | 0 | 0 | 20 | 57 | 59 |
| 02:00 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 3 | 1 | 0 | 0 | 0 | 7 | 54 | 58 |
| 03:00 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 4 | 2 | 1 | 0 | 0 | 0 | 12 | 52 | 56 |
| 04:00 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 5 | 9 | 4 | 0 | 0 | 0 | 20 | 56 | 58 |
| 05:00 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 11 | 22 | 8 | 2 | 1 | 0 | 49 | 57 | 61 |
| 06:00 | 2 | 0 | 0 | 0 | 0 | 10 | 20 | 56 | 50 | 17 | 4 | 0 | 0 | 159 | 54 | 58 |
| 07:00 | 2 | 0 | 0 | 0 | 1 | 7 | 15 | 33 | 57 | 23 | 4 | 0 | 0 | 142 | 56 | 59 |
| 08:00 | 3 | 0 | 0 | 0 | 0 | 2 | 14 | 62 | 76 | 32 | 6 | 2 | 0 | 197 | 56 | 59 |
| 09:00 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 69 | 66 | 22 | 6 | 0 | 0 | 179 | 55 | 59 |
| 10:00 | 8 | 0 | 1 | 0 | 1 | 2 | 18 | 83 | 103 | 26 | 4 | 0 | 0 | 246 | 54 | 58 |
| 11:00 | 8 | 0 | 3 | 4 | 1 | 6 | 17 | 72 | 81 | 42 | 7 | 1 | 0 | 242 | 56 | 59 |
| 12 PM | 5 | 0 | 2 | 1 | 3 | 10 | 34 | 116 | 90 | 28 | 3 | 1 | 0 | 293 | 54 | 58 |
| 13:00 | 7 | 0 | 1 | 0 | 0 | 5 | 48 | 88 | 126 | 34 | 4 | 0 | 0 | 313 | 54 | 58 |
| 14:00 | 4 | 0 | 0 | 4 | 3 | 12 | 35 | 111 | 147 | 31 | 3 | 1 | 0 | 351 | 54 | 57 |
| 15:00 | 9 | 0 | 0 | 0 | 1 | 5 | 32 | 113 | 181 | 66 | 7 | 1 | 0 | 415 | 55 | 59 |
| 16:00 | 6 | 1 | 0 | 1 | 1 | 8 | 23 | 129 | 259 | 114 | 7 | 1 | 2 | 552 | 56 | 59 |
| 17:00 | 7 | 0 | 1 | 0 | 4 | 4 | 14 | 92 | 196 | 100 | 14 | 2 | 0 | 434 | 57 | 59 |
| 18:00 | 1 | 0 | 0 | 0 | 0 | 3 | 11 | 66 | 148 | 70 | 9 | 0 | 0 | 308 | 57 | 59 |
| 19:00 | 1 | 0 | 0 | 0 | 0 | 2 | 12 | 72 | 100 | 40 | 7 | 0 | 0 | 234 | 56 | 59 |
| 20:00 | 0 | 0 | 0 | 0 | 0 | 5 | 17 | 75 | 93 | 18 | 2 | 1 | 0 | 211 | 54 | 57 |
| 21:00 | 0 | 0 | 0 | 0 | 0 | 3 | 15 | 39 | 45 | 8 | 0 | 0 | 0 | 110 | 54 | 56 |
| 22:00 | 0 | 0 | 0 | 2 | 1 | 6 | 9 | 29 | 19 | 8 | 0 | 0 | 0 | 74 | 54 | 57 |
| 23:00 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 14 | 15 | 7 | 1 | 0 | 0 | 39 | 56 | 59 |
| Total | 63 | 1 | 8 | 12 | 17 | 97 | 367 | 1361 | 1910 | 712 | 91 | 11 | 2 | 4652 | | |
| Percent | 1.4% | 0.0% | 0.2% | 0.3% | 0.4% | 2.1% | 7.9% | 29.3% | 41.1% | 15.3% | 2.0% | 0.2% | 0.0% | | | |
| AM Peak | 10:00 | | 11:00 | 11:00 | 00:00 | 06:00 | 06:00 | 10:00 | 10:00 | 11:00 | 11:00 | 08:00 | | 10:00 | | |
| Vol. | 8 | | 3 | 4 | 1 | 10 | 20 | 83 | 103 | 42 | 7 | 2 | | 246 | | |
| PM Peak | 15:00 | 16:00 | 12:00 | 14:00 | 17:00 | 14:00 | 13:00 | 16:00 | 16:00 | 16:00 | 17:00 | 17:00 | 16:00 | 16:00 | | |
| Vol. | 9 | 1 | 2 | 4 | 4 | 12 | 48 | 129 | 259 | 114 | 14 | 2 | 2 | 552 | | |

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Main Street (Route 20)
west of Riverview Avenue
City, State: Sturbridge, MA
Client: McM/M. McHugh
Westbound

05592Aspeed
Site Code: Y-22782.11

| Start Time | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | 65 | 70 | 75 | Total | 85th Percent | 95th Percent |
|--------------------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------|--------------|
| 07/27/22 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 4 | 14 | 1 | 1 | 0 | 0 | 22 | 54 | 59 |
| 01:00 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 5 | 3 | 1 | 0 | 0 | 0 | 11 | 53 | 57 |
| 02:00 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 7 | 52 | 54 |
| 03:00 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 1 | 3 | 0 | 0 | 0 | 0 | 9 | 52 | 54 |
| 04:00 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 4 | 9 | 1 | 1 | 0 | 0 | 17 | 54 | 60 |
| 05:00 | 0 | 0 | 0 | 0 | 0 | 4 | 8 | 13 | 24 | 6 | 2 | 0 | 0 | 57 | 54 | 59 |
| 06:00 | 2 | 0 | 0 | 0 | 0 | 11 | 20 | 52 | 48 | 21 | 6 | 1 | 0 | 161 | 55 | 59 |
| 07:00 | 3 | 0 | 0 | 0 | 1 | 3 | 16 | 55 | 61 | 30 | 5 | 0 | 0 | 174 | 56 | 59 |
| 08:00 | 4 | 0 | 1 | 0 | 0 | 2 | 23 | 60 | 93 | 29 | 5 | 1 | 0 | 218 | 55 | 59 |
| 09:00 | 4 | 0 | 0 | 0 | 0 | 0 | 9 | 54 | 84 | 28 | 2 | 0 | 0 | 181 | 55 | 58 |
| 10:00 | 5 | 0 | 0 | 0 | 1 | 8 | 32 | 58 | 102 | 30 | 3 | 0 | 0 | 239 | 54 | 58 |
| 11:00 | 5 | 0 | 0 | 9 | 17 | 10 | 20 | 88 | 94 | 26 | 7 | 0 | 0 | 276 | 54 | 58 |
| 12 PM | 6 | 0 | 0 | 0 | 8 | 6 | 22 | 86 | 115 | 53 | 10 | 0 | 0 | 306 | 56 | 59 |
| 13:00 | 5 | 0 | 1 | 0 | 2 | 5 | 19 | 95 | 141 | 33 | 2 | 1 | 0 | 304 | 54 | 58 |
| 14:00 | 6 | 0 | 0 | 0 | 7 | 12 | 51 | 121 | 121 | 29 | 5 | 0 | 0 | 352 | 54 | 57 |
| 15:00 | 7 | 0 | 0 | 0 | 0 | 9 | 25 | 106 | 203 | 67 | 12 | 0 | 0 | 429 | 56 | 59 |
| 16:00 | 5 | 0 | 0 | 0 | 2 | 5 | 30 | 102 | 228 | 104 | 16 | 1 | 1 | 494 | 57 | 59 |
| 17:00 | 7 | 0 | 0 | 1 | 2 | 5 | 16 | 97 | 184 | 87 | 19 | 3 | 2 | 423 | 57 | 60 |
| 18:00 | 2 | 0 | 0 | 0 | 1 | 4 | 30 | 73 | 129 | 70 | 10 | 0 | 0 | 319 | 57 | 59 |
| 19:00 | 1 | 0 | 0 | 1 | 0 | 1 | 8 | 55 | 124 | 49 | 7 | 1 | 0 | 247 | 57 | 59 |
| 20:00 | 0 | 0 | 0 | 0 | 0 | 0 | 21 | 82 | 102 | 18 | 3 | 1 | 0 | 227 | 54 | 57 |
| 21:00 | 0 | 0 | 0 | 0 | 0 | 2 | 22 | 42 | 41 | 14 | 3 | 1 | 1 | 126 | 54 | 59 |
| 22:00 | 0 | 0 | 0 | 0 | 0 | 4 | 14 | 24 | 24 | 7 | 2 | 0 | 0 | 75 | 54 | 58 |
| 23:00 | 0 | 0 | 0 | 0 | 0 | 1 | 8 | 13 | 14 | 6 | 0 | 0 | 0 | 42 | 54 | 58 |
| Total | 62 | 0 | 2 | 11 | 43 | 96 | 402 | 1292 | 1963 | 710 | 121 | 10 | 4 | 4716 | | |
| Percent | 1.3% | 0.0% | 0.0% | 0.2% | 0.9% | 2.0% | 8.5% | 27.4% | 41.6% | 15.1% | 2.6% | 0.2% | 0.1% | | | |
| AM Peak | 10:00 | | 08:00 | 11:00 | 11:00 | 06:00 | 10:00 | 11:00 | 10:00 | 07:00 | 11:00 | 06:00 | | 11:00 | | |
| Vol. | 5 | | 1 | 9 | 17 | 11 | 32 | 88 | 102 | 30 | 7 | 1 | | 276 | | |
| PM Peak | 15:00 | | 13:00 | 17:00 | 12:00 | 14:00 | 14:00 | 14:00 | 16:00 | 16:00 | 17:00 | 17:00 | 17:00 | 16:00 | | |
| Vol. | 7 | | 1 | 1 | 8 | 12 | 51 | 121 | 228 | 104 | 19 | 3 | 2 | 494 | | |
| Grand Total | 125 | 1 | 10 | 23 | 60 | 193 | 769 | 2653 | 3873 | 1422 | 212 | 21 | 6 | 9368 | | |
| Percent | 1.3% | 0.0% | 0.1% | 0.2% | 0.6% | 2.1% | 8.2% | 28.3% | 41.3% | 15.2% | 2.3% | 0.2% | 0.1% | | | |

15th Percentile : 45 MPH
50th Percentile : 51 MPH
85th Percentile : 55 MPH
95th Percentile : 59 MPH

Stats 10 MPH Pace Speed : 46-55 MPH

Number of Vehicles > 45 MPH : 8187
Percent of Vehicles > 45 MPH : 87.4%
Mean Speed(Average) : 51 MPH

Transportation Data Corporation

Main Street (Route 20)
west of Riverview Avenue
City, State: Sturbridge, MA
Client: McM/M. McHugh

Mario Perone, mperone1@verizon.net
tel (781) 587-0086 cell (781) 439-4999

05592Avolume
Site Code: Y-22782.11

| Start Time | 26-Jul-22 Tue | | EB | | WB | | Combined | | 27-Jul-Wed | | EB | | WB | | Combined | |
|------------------|---------------|-------|------------|-------|-------|-------|----------|-------|------------|-------|-------|-------|-------|-------|----------|------|
| | A.M. | P.M. | A.M. | P.M. | A.M. | P.M. | A.M. | P.M. | A.M. | P.M. | A.M. | P.M. | A.M. | P.M. | A.M. | P.M. |
| 12:00 | 4 | 91 | 8 | 84 | 12 | 175 | 4 | 87 | 9 | 76 | 13 | 163 | | | | |
| 12:15 | 3 | 80 | 17 | 78 | 20 | 158 | 2 | 75 | 8 | 67 | 10 | 142 | | | | |
| 12:30 | 2 | 84 | 11 | 53 | 13 | 137 | 1 | 61 | 3 | 74 | 4 | 135 | | | | |
| 12:45 | 3 | 70 | 9 | 78 | 12 | 148 | 3 | 76 | 2 | 89 | 5 | 165 | | | | |
| 01:00 | 0 | 66 | 6 | 79 | 6 | 145 | 2 | 76 | 5 | 66 | 7 | 142 | | | | |
| 01:15 | 3 | 60 | 7 | 70 | 10 | 130 | 2 | 70 | 2 | 67 | 4 | 137 | | | | |
| 01:30 | 2 | 81 | 5 | 74 | 7 | 155 | 2 | 67 | 1 | 93 | 3 | 160 | | | | |
| 01:45 | 0 | 80 | 2 | 90 | 2 | 170 | 1 | 70 | 3 | 78 | 4 | 148 | | | | |
| 02:00 | 4 | 72 | 2 | 93 | 6 | 165 | 4 | 79 | 2 | 86 | 6 | 165 | | | | |
| 02:15 | 3 | 71 | 2 | 76 | 5 | 147 | 4 | 68 | 0 | 94 | 4 | 162 | | | | |
| 02:30 | 2 | 73 | 1 | 92 | 3 | 165 | 2 | 86 | 2 | 88 | 4 | 174 | | | | |
| 02:45 | 4 | 74 | 2 | 90 | 6 | 164 | 4 | 99 | 3 | 84 | 7 | 183 | | | | |
| 03:00 | 4 | 75 | 4 | 98 | 8 | 173 | 2 | 66 | 1 | 94 | 3 | 160 | | | | |
| 03:15 | 3 | 64 | 2 | 95 | 5 | 159 | 2 | 73 | 2 | 116 | 4 | 189 | | | | |
| 03:30 | 4 | 65 | 1 | 107 | 5 | 172 | 8 | 60 | 3 | 107 | 11 | 167 | | | | |
| 03:45 | 2 | 74 | 5 | 115 | 7 | 189 | 3 | 72 | 3 | 112 | 6 | 184 | | | | |
| 04:00 | 12 | 71 | 3 | 139 | 15 | 210 | 6 | 66 | 3 | 133 | 9 | 199 | | | | |
| 04:15 | 15 | 87 | 5 | 137 | 20 | 224 | 17 | 102 | 4 | 127 | 21 | 229 | | | | |
| 04:30 | 12 | 80 | 5 | 145 | 17 | 225 | 22 | 80 | 5 | 127 | 27 | 207 | | | | |
| 04:45 | 40 | 77 | 7 | 131 | 47 | 208 | 34 | 79 | 5 | 107 | 39 | 186 | | | | |
| 05:00 | 34 | 88 | 8 | 104 | 42 | 192 | 34 | 104 | 13 | 97 | 47 | 201 | | | | |
| 05:15 | 44 | 80 | 9 | 107 | 53 | 187 | 55 | 70 | 11 | 141 | 66 | 211 | | | | |
| 05:30 | 59 | 57 | 6 | 128 | 65 | 185 | 52 | 72 | 10 | 112 | 62 | 184 | | | | |
| 05:45 | 68 | 83 | 26 | 95 | 94 | 178 | 57 | 81 | 23 | 73 | 80 | 154 | | | | |
| 06:00 | 68 | 67 | 28 | 89 | 96 | 156 | 67 | 68 | 29 | 97 | 96 | 165 | | | | |
| 06:15 | 72 | 64 | 38 | 68 | 110 | 132 | 83 | 50 | 37 | 74 | 120 | 124 | | | | |
| 06:30 | 81 | 41 | 40 | 95 | 121 | 136 | 84 | 56 | 49 | 81 | 133 | 137 | | | | |
| 06:45 | 98 | 41 | 53 | 56 | 151 | 97 | 76 | 47 | 46 | 67 | 122 | 114 | | | | |
| 07:00 | 94 | 26 | 33 | 58 | 127 | 84 | 96 | 47 | 44 | 66 | 140 | 113 | | | | |
| 07:15 | 80 | 29 | 30 | 64 | 110 | 93 | 98 | 45 | 34 | 62 | 132 | 107 | | | | |
| 07:30 | 93 | 39 | 40 | 58 | 133 | 97 | 108 | 32 | 53 | 64 | 161 | 96 | | | | |
| 07:45 | 104 | 34 | 39 | 54 | 143 | 88 | 114 | 35 | 43 | 55 | 157 | 90 | | | | |
| 08:00 | 84 | 38 | 53 | 61 | 137 | 99 | 84 | 35 | 57 | 63 | 141 | 98 | | | | |
| 08:15 | 91 | 29 | 43 | 56 | 134 | 85 | 81 | 39 | 39 | 69 | 120 | 108 | | | | |
| 08:30 | 83 | 37 | 57 | 53 | 140 | 90 | 80 | 30 | 64 | 45 | 144 | 75 | | | | |
| 08:45 | 72 | 18 | 44 | 41 | 116 | 59 | 79 | 20 | 58 | 50 | 137 | 70 | | | | |
| 09:00 | 64 | 14 | 42 | 24 | 106 | 38 | 73 | 11 | 45 | 37 | 118 | 48 | | | | |
| 09:15 | 60 | 16 | 40 | 34 | 100 | 50 | 64 | 13 | 40 | 39 | 104 | 52 | | | | |
| 09:30 | 66 | 14 | 43 | 31 | 109 | 45 | 79 | 17 | 42 | 24 | 121 | 41 | | | | |
| 09:45 | 86 | 11 | 54 | 21 | 140 | 32 | 100 | 10 | 54 | 26 | 154 | 36 | | | | |
| 10:00 | 69 | 6 | 62 | 27 | 131 | 33 | 68 | 7 | 52 | 19 | 120 | 26 | | | | |
| 10:15 | 60 | 12 | 70 | 11 | 130 | 23 | 81 | 10 | 55 | 14 | 136 | 24 | | | | |
| 10:30 | 83 | 12 | 62 | 17 | 145 | 29 | 64 | 14 | 74 | 14 | 138 | 28 | | | | |
| 10:45 | 61 | 18 | 52 | 19 | 113 | 37 | 72 | 16 | 58 | 28 | 130 | 44 | | | | |
| 11:00 | 73 | 16 | 50 | 6 | 123 | 22 | 43 | 20 | 58 | 8 | 101 | 28 | | | | |
| 11:15 | 67 | 8 | 51 | 7 | 118 | 15 | 80 | 4 | 82 | 17 | 162 | 21 | | | | |
| 11:30 | 69 | 0 | 67 | 19 | 136 | 19 | 67 | 6 | 59 | 7 | 126 | 13 | | | | |
| 11:45 | 72 | 4 | 74 | 7 | 146 | 11 | 64 | 4 | 77 | 10 | 141 | 14 | | | | |
| Total | 2177 | 2397 | 1318 | 3334 | 3495 | 5731 | 2228 | 2475 | 1372 | 3344 | 3600 | 5819 | | | | |
| Day Total | 4574 | | 4652 | | 9226 | | 4703 | | 4716 | | 9419 | | | | | |
| % Total | 23.6% | 26.0% | 14.3% | 36.1% | | | 23.7% | 26.3% | 14.6% | 35.5% | | | | | | |
| Peak | - | 07:30 | 04:15 | 09:45 | 04:00 | 07:45 | 04:00 | - | 07:00 | 04:15 | 11:00 | 03:45 | 07:15 | 04:15 | | |
| Vol. | - | 372 | 332 | 248 | 552 | 554 | 867 | - | 416 | 365 | 276 | 499 | 591 | 823 | | |
| P.H.F. | | 0.894 | 0.943 | 0.886 | 0.952 | 0.969 | 0.963 | | 0.912 | 0.877 | 0.841 | 0.938 | 0.918 | 0.898 | | |
| ADT | ADT 9,322 | | AADT 9,322 | | | | | | | | | | | | | |

Transportation Data Corporation

Main Street (Route 20)
west of Riverview Avenue
City, State: Sturbridge, MA
Client: McM/M. McHugh

Mario Perone, mperone1@verizon.net
tel (781) 587-0086 cell (781) 439-4999

05592Avolume
Site Code: Y-22782.11

| Start Time | 26-Jul-22 Tue | EB | | Hour Totals | | WB | | Hour Totals | | Combined Totals | |
|----------------|------------------|---------|-----------|-------------|-----------|---------|-----------|-------------|-----------|-----------------|-----------|
| | | Morning | Afternoon | Morning | Afternoon | Morning | Afternoon | Morning | Afternoon | Morning | Afternoon |
| 12:00 | | 4 | 91 | | | 8 | 84 | | | | |
| 12:15 | | 3 | 80 | | | 17 | 78 | | | | |
| 12:30 | | 2 | 84 | | | 11 | 53 | | | | |
| 12:45 | | 3 | 70 | 12 | 325 | 9 | 78 | 45 | 293 | 57 | 618 |
| 01:00 | | 0 | 66 | | | 6 | 79 | | | | |
| 01:15 | | 3 | 60 | | | 7 | 70 | | | | |
| 01:30 | | 2 | 81 | | | 5 | 74 | | | | |
| 01:45 | | 0 | 80 | 5 | 287 | 2 | 90 | 20 | 313 | 25 | 600 |
| 02:00 | | 4 | 72 | | | 2 | 93 | | | | |
| 02:15 | | 3 | 71 | | | 2 | 76 | | | | |
| 02:30 | | 2 | 73 | | | 1 | 92 | | | | |
| 02:45 | | 4 | 74 | 13 | 290 | 2 | 90 | 7 | 351 | 20 | 641 |
| 03:00 | | 4 | 75 | | | 4 | 98 | | | | |
| 03:15 | | 3 | 64 | | | 2 | 95 | | | | |
| 03:30 | | 4 | 65 | | | 1 | 107 | | | | |
| 03:45 | | 2 | 74 | 13 | 278 | 5 | 115 | 12 | 415 | 25 | 693 |
| 04:00 | | 12 | 71 | | | 3 | 139 | | | | |
| 04:15 | | 15 | 87 | | | 5 | 137 | | | | |
| 04:30 | | 12 | 80 | | | 5 | 145 | | | | |
| 04:45 | | 40 | 77 | 79 | 315 | 7 | 131 | 20 | 552 | 99 | 867 |
| 05:00 | | 34 | 88 | | | 8 | 104 | | | | |
| 05:15 | | 44 | 80 | | | 9 | 107 | | | | |
| 05:30 | | 59 | 57 | | | 6 | 128 | | | | |
| 05:45 | | 68 | 83 | 205 | 308 | 26 | 95 | 49 | 434 | 254 | 742 |
| 06:00 | | 68 | 67 | | | 28 | 89 | | | | |
| 06:15 | | 72 | 64 | | | 38 | 68 | | | | |
| 06:30 | | 81 | 41 | | | 40 | 95 | | | | |
| 06:45 | | 98 | 41 | 319 | 213 | 53 | 56 | 159 | 308 | 478 | 521 |
| 07:00 | | 94 | 26 | | | 33 | 58 | | | | |
| 07:15 | | 80 | 29 | | | 30 | 64 | | | | |
| 07:30 | | 93 | 39 | | | 40 | 58 | | | | |
| 07:45 | | 104 | 34 | 371 | 128 | 39 | 54 | 142 | 234 | 513 | 362 |
| 08:00 | | 84 | 38 | | | 53 | 61 | | | | |
| 08:15 | | 91 | 29 | | | 43 | 56 | | | | |
| 08:30 | | 83 | 37 | | | 57 | 53 | | | | |
| 08:45 | | 72 | 18 | 330 | 122 | 44 | 41 | 197 | 211 | 527 | 333 |
| 09:00 | | 64 | 14 | | | 42 | 24 | | | | |
| 09:15 | | 60 | 16 | | | 40 | 34 | | | | |
| 09:30 | | 66 | 14 | | | 43 | 31 | | | | |
| 09:45 | | 86 | 11 | 276 | 55 | 54 | 21 | 179 | 110 | 455 | 165 |
| 10:00 | | 69 | 6 | | | 62 | 27 | | | | |
| 10:15 | | 60 | 12 | | | 70 | 11 | | | | |
| 10:30 | | 83 | 12 | | | 62 | 17 | | | | |
| 10:45 | | 61 | 18 | 273 | 48 | 52 | 19 | 246 | 74 | 519 | 122 |
| 11:00 | | 73 | 16 | | | 50 | 6 | | | | |
| 11:15 | | 67 | 8 | | | 51 | 7 | | | | |
| 11:30 | | 69 | 0 | | | 67 | 19 | | | | |
| 11:45 | | 72 | 4 | 281 | 28 | 74 | 7 | 242 | 39 | 523 | 67 |
| Total | | 2177 | 2397 | | | 1318 | 3334 | | | 3495 | 5731 |
| Combined Total | | 4574 | | | | 4652 | | | | 9226 | |
| Percentage | 0.0% | | | | | | | | | | |

Transportation Data Corporation

Mario Perone, mperone1@verizon.net
tel (781) 587-0086 cell (781) 439-4999

Main Street (Route 20)
west of Riverview Avenue
City, State: Sturbridge, MA
Client: McM/M. McHugh

05592A volume
Site Code: Y-22782.11

| Start Time | 27-Jul-22 Wed | EB | | Hour Totals | | WB | | Hour Totals | | Combined Totals | |
|----------------|------------------|-----------|-----------|-------------|-----------|---------|-----------|-------------|-----------|-----------------|-----------|
| | | Morning | Afternoon | Morning | Afternoon | Morning | Afternoon | Morning | Afternoon | Morning | Afternoon |
| 12:00 | | 4 | 87 | | | 9 | 76 | | | | |
| 12:15 | | 2 | 75 | | | 8 | 67 | | | | |
| 12:30 | | 1 | 61 | | | 3 | 74 | | | | |
| 12:45 | | 3 | 76 | 10 | 299 | 2 | 89 | 22 | 306 | 32 | 605 |
| 01:00 | | 2 | 76 | | | 5 | 66 | | | | |
| 01:15 | | 2 | 70 | | | 2 | 67 | | | | |
| 01:30 | | 2 | 67 | | | 1 | 93 | | | | |
| 01:45 | | 1 | 70 | 7 | 283 | 3 | 78 | 11 | 304 | 18 | 587 |
| 02:00 | | 4 | 79 | | | 2 | 86 | | | | |
| 02:15 | | 4 | 68 | | | 0 | 94 | | | | |
| 02:30 | | 2 | 86 | | | 2 | 88 | | | | |
| 02:45 | | 4 | 99 | 14 | 332 | 3 | 84 | 7 | 352 | 21 | 684 |
| 03:00 | | 2 | 66 | | | 1 | 94 | | | | |
| 03:15 | | 2 | 73 | | | 2 | 116 | | | | |
| 03:30 | | 8 | 60 | | | 3 | 107 | | | | |
| 03:45 | | 3 | 72 | 15 | 271 | 3 | 112 | 9 | 429 | 24 | 700 |
| 04:00 | | 6 | 66 | | | 3 | 133 | | | | |
| 04:15 | | 17 | 102 | | | 4 | 127 | | | | |
| 04:30 | | 22 | 80 | | | 5 | 127 | | | | |
| 04:45 | | 34 | 79 | 79 | 327 | 5 | 107 | 17 | 494 | 96 | 821 |
| 05:00 | | 34 | 104 | | | 13 | 97 | | | | |
| 05:15 | | 55 | 70 | | | 11 | 141 | | | | |
| 05:30 | | 52 | 72 | | | 10 | 112 | | | | |
| 05:45 | | 57 | 81 | 198 | 327 | 23 | 73 | 57 | 423 | 255 | 750 |
| 06:00 | | 67 | 68 | | | 29 | 97 | | | | |
| 06:15 | | 83 | 50 | | | 37 | 74 | | | | |
| 06:30 | | 84 | 56 | | | 49 | 81 | | | | |
| 06:45 | | 76 | 47 | 310 | 221 | 46 | 67 | 161 | 319 | 471 | 540 |
| 07:00 | | 96 | 47 | | | 44 | 66 | | | | |
| 07:15 | | 98 | 45 | | | 34 | 62 | | | | |
| 07:30 | | 108 | 32 | | | 53 | 64 | | | | |
| 07:45 | | 114 | 35 | 416 | 159 | 43 | 55 | 174 | 247 | 590 | 406 |
| 08:00 | | 84 | 35 | | | 57 | 63 | | | | |
| 08:15 | | 81 | 39 | | | 39 | 69 | | | | |
| 08:30 | | 80 | 30 | | | 64 | 45 | | | | |
| 08:45 | | 79 | 20 | 324 | 124 | 58 | 50 | 218 | 227 | 542 | 351 |
| 09:00 | | 73 | 11 | | | 45 | 37 | | | | |
| 09:15 | | 64 | 13 | | | 40 | 39 | | | | |
| 09:30 | | 79 | 17 | | | 42 | 24 | | | | |
| 09:45 | | 100 | 10 | 316 | 51 | 54 | 26 | 181 | 126 | 497 | 177 |
| 10:00 | | 68 | 7 | | | 52 | 19 | | | | |
| 10:15 | | 81 | 10 | | | 55 | 14 | | | | |
| 10:30 | | 64 | 14 | | | 74 | 14 | | | | |
| 10:45 | | 72 | 16 | 285 | 47 | 58 | 28 | 239 | 75 | 524 | 122 |
| 11:00 | | 43 | 20 | | | 58 | 8 | | | | |
| 11:15 | | 80 | 4 | | | 82 | 17 | | | | |
| 11:30 | | 67 | 6 | | | 59 | 7 | | | | |
| 11:45 | | 64 | 4 | 254 | 34 | 77 | 10 | 276 | 42 | 530 | 76 |
| Total | | 2228 | 2475 | | | 1372 | 3344 | | | 3600 | 5819 |
| Combined Total | | 4703 | | | | 4716 | | | | 9419 | |
| Percentage | 0.0% | | | | | | | | | | |
| Total Percent | | 4405 | 4872 | | | 2690 | 6678 | | | 7095 | 11550 |
| | | 47.5% | 52.5% | | | 28.7% | 71.3% | | | 38.1% | 61.9% |
| ADT | | ADT 9,322 | | AADT 9,322 | | | | | | | |

Traffic Projection Model

TRAFFIC PROJECTION MODEL

**Weekday Morning Peak Hour
Proposed Towing Facility
Sturbridge, MA**

| Intersection | Dir. | Turn | 2022 Existing Volumes | New Project PERCENT ENTER | New Project TRIP ENTER | New Project PERCENT EXIT | New Project TRIP EXIT | New Project Trips TOTAL | 2022 Proposed Volumes |
|---|------|------|-----------------------|---------------------------|------------------------|--------------------------|-----------------------|-------------------------|-----------------------|
| Main Street (Route 20) at Site Driveway | EB | L | 404 | 54% | 6 | | | 6 | 6 |
| | | T | | | | | | 0 | 404 |
| | WB | T | 187 | | | | | 0 | 187 |
| | | R | | 46% | 4 | | | 4 | 4 |
| | SB | L | | | | 46% | 2 | 2 | 2 |
| | R | | | | 54% | 3 | 3 | 3 | |

Peak Hour: 7:15 AM - 8:15 AM

TRAFFIC PROJECTION MODEL

Weekday Afternoon Peak Hour

Proposed Towing Facility

Sturbridge, MA

| Intersection | Dir. | Turn | 2022 Existing Volumes | New Project PERCENT ENTER | New Project TRIP ENTER | New Project PERCENT EXIT | New Project TRIP EXIT | New Project Trips TOTAL | 2022 Proposed Volumes |
|---|------|------|-----------------------|---------------------------|------------------------|--------------------------|-----------------------|-------------------------|-----------------------|
| Main Street (Route 20) at Site Driveway | EB | L | 365 | 54% | 8 | | | 8 | 8 |
| | | T | | | | | | 0 | 365 |
| | WB | T | 458 | | | | | 0 | 458 |
| | | R | | 46% | 6 | | | 6 | 6 |
| | SB | L | | | | 46% | 6 | 6 | 6 |
| | R | | | | 54% | 9 | 9 | 9 | |

Peak Hour: 4:15 PM - 5:15 PM

Roadway Crash Rate Calculation

SEGMENT CRASH RATE WORKSHEET

CITY/TOWN : Sturbridge COUNT DATE : July 2022

DISTRICT : 3

~ SEGMENT DATA ~

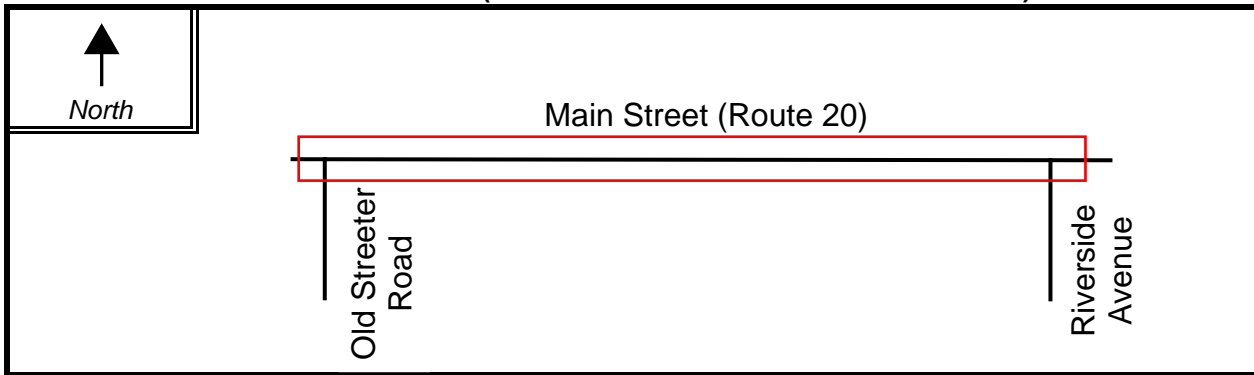
ROADWAY NAME: Main Street (Route 20)

START POINT: Old Streeter Road

END POINT: Riverside Avenue

FUNCTIONAL CLASSIFICATION OF ROADWAY: urban principal arterial

ROADWAY DIAGRAM (LABEL ROADWAY AND CROSS STREETS)



AVERAGE DAILY TRAFFIC

SEGMENT LENGTH IN MILES (L): 0.15

AVERAGE DAILY TRAFFIC VOLUME (V): 9,430

TOTAL # OF CRASHES: 4

OF YEARS: 5

AVERAGE # OF CRASHES PER YEAR (A): 0.80

CRASH RATE CALCULATION : 1.55

$$\text{RATE} = \frac{(A * 1,000,000)}{(L * V * 365)}$$

Comments : _____

Project Title & Date: _____

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 2010, published by the Transportation Research Board, Washington, DC, 2010.*

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 |

2022 Existing Capacity/Level-of-Service Analysis

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↶ | ↷ | | ↶ | |
| Traffic Vol, veh/h | 0 | 404 | 187 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 404 | 187 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| 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 | 89 | 89 | 82 | 82 | 92 | 92 |
| Heavy Vehicles, % | 2 | 13 | 21 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 454 | 228 | 0 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 228 | 0 | - | 0 | 682 228 |
| Stage 1 | - | - | - | - | 228 - |
| Stage 2 | - | - | - | - | 454 - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | 1340 | - | - | - | 415 811 |
| Stage 1 | - | - | - | - | 810 - |
| Stage 2 | - | - | - | - | 640 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1340 | - | - | - | 415 811 |
| Mov Cap-2 Maneuver | - | - | - | - | 415 - |
| Stage 1 | - | - | - | - | 810 - |
| Stage 2 | - | - | - | - | 640 - |

| Approach | EB | WB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h) | 1340 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - | 0 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↶ | ↷ | | ↶ | |
| Traffic Vol, veh/h | 0 | 365 | 468 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 365 | 468 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| 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 | 88 | 88 | 90 | 90 | 92 | 92 |
| Heavy Vehicles, % | 2 | 10 | 9 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 415 | 520 | 0 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 520 | 0 | - | 0 | 935 |
| Stage 1 | - | - | - | - | 520 |
| Stage 2 | - | - | - | - | 415 |
| Critical Hdwy | 4.12 | - | - | - | 6.42 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 |
| Pot Cap-1 Maneuver | 1046 | - | - | - | 295 |
| Stage 1 | - | - | - | - | 597 |
| Stage 2 | - | - | - | - | 666 |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1046 | - | - | - | 295 |
| Mov Cap-2 Maneuver | - | - | - | - | 295 |
| Stage 1 | - | - | - | - | 597 |
| Stage 2 | - | - | - | - | 666 |

| Approach | EB | WB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h) | 1046 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - | 0 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |

2022 Build Capacity/Level-of-Service Analysis

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.2 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↶ | ↷ | | ↶ | |
| Traffic Vol, veh/h | 6 | 404 | 187 | 4 | 2 | 3 |
| Future Vol, veh/h | 6 | 404 | 187 | 4 | 2 | 3 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| 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 | 89 | 89 | 82 | 82 | 92 | 92 |
| Heavy Vehicles, % | 100 | 13 | 21 | 100 | 100 | 100 |
| Mvmt Flow | 7 | 454 | 228 | 5 | 2 | 3 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|---------|
| Conflicting Flow All | 233 | 0 | - | 0 | 699 231 |
| Stage 1 | - | - | - | - | 231 - |
| Stage 2 | - | - | - | - | 468 - |
| Critical Hdwy | 5.1 | - | - | - | 7.4 7.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 6.4 - |
| Critical Hdwy Stg 2 | - | - | - | - | 6.4 - |
| Follow-up Hdwy | 3.1 | - | - | - | 4.4 4.2 |
| Pot Cap-1 Maneuver | 921 | - | - | - | 289 616 |
| Stage 1 | - | - | - | - | 623 - |
| Stage 2 | - | - | - | - | 468 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 921 | - | - | - | 286 616 |
| Mov Cap-2 Maneuver | - | - | - | - | 286 - |
| Stage 1 | - | - | - | - | 617 - |
| Stage 2 | - | - | - | - | 468 - |

| Approach | EB | WB | SB |
|----------------------|-----|----|------|
| HCM Control Delay, s | 0.1 | 0 | 13.7 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h) | 921 | - | - | - | 421 |
| HCM Lane V/C Ratio | 0.007 | - | - | - | 0.013 |
| HCM Control Delay (s) | 8.9 | 0 | - | - | 13.7 |
| HCM Lane LOS | A | A | - | - | B |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.4 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↶ | ↷ | | ↶ | ↷ |
| Traffic Vol, veh/h | 8 | 365 | 458 | 6 | 6 | 9 |
| Future Vol, veh/h | 8 | 365 | 458 | 6 | 6 | 9 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| 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 | 88 | 88 | 90 | 90 | 92 | 92 |
| Heavy Vehicles, % | 100 | 10 | 9 | 100 | 100 | 100 |
| Mvmt Flow | 9 | 415 | 509 | 7 | 7 | 10 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-----|
| Conflicting Flow All | 516 | 0 | - | 0 | 946 |
| Stage 1 | - | - | - | - | 513 |
| Stage 2 | - | - | - | - | 433 |
| Critical Hdwy | 5.1 | - | - | - | 7.4 |
| Critical Hdwy Stg 1 | - | - | - | - | 6.4 |
| Critical Hdwy Stg 2 | - | - | - | - | 6.4 |
| Follow-up Hdwy | 3.1 | - | - | - | 4.4 |
| Pot Cap-1 Maneuver | 692 | - | - | - | 197 |
| Stage 1 | - | - | - | - | 442 |
| Stage 2 | - | - | - | - | 488 |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 692 | - | - | - | 194 |
| Mov Cap-2 Maneuver | - | - | - | - | 194 |
| Stage 1 | - | - | - | - | 434 |
| Stage 2 | - | - | - | - | 488 |

| Approach | EB | WB | SB |
|----------------------|-----|----|------|
| HCM Control Delay, s | 0.2 | 0 | 18.5 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h) | 692 | - | - | - | 283 |
| HCM Lane V/C Ratio | 0.013 | - | - | - | 0.058 |
| HCM Control Delay (s) | 10.3 | 0 | - | - | 18.5 |
| HCM Lane LOS | B | A | - | - | C |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.2 |