MEMORANDUM

TO:	McDonald Keohane Funeral Home c/o Mr. Dennis Keohane 809 Main Street Weymouth, MA 02190	**FROM:**	Mr. Jeffrey S. Dirk, P.E., PTOE, FITE Managing Partner Vanasse & Associates, Inc. 35 New England Business Center Drive Suite 140 Andover, MA 01810-1066 (978) 269-6830 jdirk@rdva.com *Professional Engineer in CT, MA, ME, NH, RI and VA*
DATE:	January 19, 2022	**RE:**	8135
SUBJECT:	Transportation Impact Assessment Proposed Funeral Home Expansion – 809 Main Street Weymouth, Massachusetts		

Vanasse & Associates, Inc. (VAI) has conducted a Transportation Impact Assessment (TIA) in order to determine the potential impacts on the transportation infrastructure associated with the proposed expansion of the existing McDonald-Keohane Funeral Home, a licensed Funeral Establishment under 239 Code of Massachusetts Regulations (CMR) 3.00, located at 809 Main Street (Route 18) in Weymouth, Massachusetts (hereafter referred to as the "Project"). The proposed expansion is intended to update and modernize the mortuary operation to accommodate the increasing trend toward cremation and more intimate services at a funeral home vs. a traditional church service and burial. The funeral home currently accommodates both options (cremation and burial); however, as more families are requesting services in one day at a single location, the current capacity of the large gathering room (currently 50 persons) is not sufficient to accommodate the number of attendees (typically 60 persons on average), which requires attendees to wait in the hall or elsewhere within the building and not being able to participate in the service.

The Project is not intended to result in an increase in the frequency of services, the number of attendees (which can vary) or the number of clients served. As such, other than a positive benefit derived from eliminating or reducing the frequency of off-site parking, the Project will not result in an increase in traffic to the area. As such, our assessment focuses on the following areas: i) a review of the existing conditions of the transportation infrastructure serving the Project site; and ii) an evaluation of lines of sight at the Project site driveway intersections.

This assessment was conducted in general accordance with the Massachusetts Department of Transportation (MassDOT) *Transportation Impact Assessment (TIA) Guidelines* and the standards of the Traffic Engineering and Transportation Planning professions for the preparation of such reports. Based on this assessment, we have concluded that the Project can be accommodated within the confines of the existing transportation infrastructure in a safe and efficient manner with the implementation of the recommendations defined herein.

The following details our findings with respect to the Project.

PROJECT DESCRIPTION

The Project will entail the modernization and expansion of the McDonald-Keohane Funeral Home located at 809 Main Street (Route 18) in Weymouth, Massachusetts. Specifically, the Project includes the following elements: i) construction of a 4,300± square foot (sf) addition to the existing 3,411± sf funeral home; ii) construction of an enclosed attached garage for regulated removal, preparation and transportation under 239 CMR 3.10; iii) construction of a 2,516± sf detached garage in western portion of the site to accommodate enclosed parking for a hearse and two (2) limousines and that are currently parked at the site; and iv) associated building access, parking, and circulation improvements in the western portion of the Project site. The Project site encompasses approximately 2.81 acres of land bounded by residential and commercial properties to the north and south; Route 18 to the east; and Cypress Street to the west. The western portion of the Project site currently contains a single-family home and associated appurtenances that will be removed to accommodate the Project.

Imagery ©2021 Google

Access to the Project site will continue to be provided by way of the two (2) existing driveways that intersect the west side of Route 18 approximately 375 feet and 160 feet north of Columbian Street, respectively, with the north driveway serving as a one-way entrance and the south driveway serving as a one-way, right-turn only exit. On-site parking will be provided for 117 vehicles, which exceeds the requirements of Section 120-74, *Minimum required spaces*, of the Town of Weymouth Zoning Ordinance.[1]

EXISTING CONDITIONS CONTEXT

In order to establish the existing conditions context of the Project with respect to the transportation infrastructure, a comprehensive field inventory of existing conditions within the study area was conducted in January 2019. The field investigation consisted of an inventory of existing roadway geometrics and

[1]For a funeral home use, the Zoning Ordinance requires that a minimum of one parking space be for each company vehicle (4 vehicles are envisioned), plus one parking space for each three seats in meeting rooms (approximately 120 seats are envisioned, resulting in 40 parking spaces).

pedestrian and bicycle facilities, as well as posted speed limits and land use information along Route 18 and Columbian Street in the vicinity of the Project site. The following provides a description of the transportation infrastructure serving the Project site.

Roadways

Route 18

Route 18 is a four-lane urban principal arterial under MassDOT jurisdiction that traverses the study area in a general north-south alignment providing a full access interchange with Route 3 (Exit 38) to the north of the Project. In the vicinity of the Project site, Route 18 provides four 12-foot wide travel lanes separated by a painted median or a double-yellow centerline, with 4-foot wide marked shoulders and additional turning lanes provided at major intersections. The posted speed limit along Route 18 within the study area is 35 miles per hour (mph). Prevailing travel speeds measured in January 2019 were found to be 30 mph in the northbound direction and 35 mph southbound.[2] Illumination is provided by way of streetlights mounted on wood poles. Land use in the vicinity of the Project site consists of the Project site, residential and commercial properties, the South Shore Hospital and the Dana-Farber/Brigham and Women's Cancer Center.

Columbian Street

Columbian Street is a two-lane urban minor arterial that is under Town jurisdiction and traverses the study area in a general northwest-southeast alignment between Grove Street and Pleasant Street. In the vicinity of the Project site, Columbian Street provides two 10 to 12-foot wide travel lanes separated by a double-yellow centerline with 3 to 4-foot wide marked shoulders and additional turning lanes provided at major intersections. The posted speed limit along Columbian Street is 30 mph in the eastbound direction and 25 mph westbound. Prevailing travel speeds measured in January 2019 were found to be 35 mph in the eastbound direction and 38 mph westbound. Illumination is provided by way of streetlights mounted on wood poles. Land use in the vicinity of the Project site consists of residential and commercial properties, the South Shore Hospital and the Dana-Farber/Brigham and Women's Cancer Center.

Pedestrian and Bicycle Facilities

Sidewalks are provided along both sides of Route 18 and Columbian Street, with marked crosswalks, pedestrian traffic signal equipment and phasing provided as a part of the traffic signal system at the Route 18/Columbian Street intersection. Formal bicycle facilities are not provided within the study area; however, Route 18 and Columbian Street provide sufficient width to accommodate bicycle travel in a shared traveled-way configuration (i.e., bicyclists and motor vehicles sharing the traveled-way).[3]

Motor Vehicle Crash Data

A review of the MassDOT statewide High Crash Location List indicated that the Route 18/Columbian Street intersection is included on MassDOT's Highway Safety Improvement Program (HSIP) listing as a top 200 high crash location for 2015-2017. A Road Safety Audit (RSA) was completed in June 2011 along the Route 18 corridor that included this intersection.[4] The RSA suggested a number of

[2]The prevailing travel speed is also known as the 85th percentile vehicle travel speed, or the speed at which 85 percent of the observed vehicles traveled at or below during the observation period.

[3]A minimum combined travel lane and paved shoulder width of 14-feet is required to support bicycle travel in a shared traveled-way condition.

[4]*Road Safety Audit*, Main Street (Route 18) at Various Locations, Howard/Stein-Hudson Associates, June 2011.

safety-related improvements at the Route 18/Columbian Street intersection that included the retiming of the traffic signal, many of which appear to have been completed.

The Project will include an expansion of the parking lot within the Project site to accommodate up to 132 vehicles. The expanded parking supply is intended to eliminate or reduce the frequency of occurrence of off-site parking for larger events and, as a result, will reduce traffic volumes and pedestrian activity at and in the vicinity of the Route 18/Columbian Street intersection.

PROJECT-GENERATED TRAFFIC

As described herein, the Project will entail the expansion of the existing McDonald-Keohane Funeral Home to update and modernize the mortuary operation to accommodate the increasing trend toward cremation and one day, single location services at a funeral home vs. a traditional church service and burial. The Project is not intended to result in an increase in the frequency of services, the number of attendees (which can vary) or the number of clients served. As such, the Project will not result in an increase in traffic to the area.

In order to provide context with regard to traffic volumes and parking demands associated with the current funeral home operation, traffic volumes have been developed for the following conditions: i) typical operations without a service; ii) operations with a funeral/cremation/service; and iii) operations with two (2) concurrent visitations/wakes. Visitations/wakes are not scheduled to occur when a funeral or cremation service is scheduled.

On a typical day, there are eight (8) full-time employees on a weekday and three (3) full-time employees during the weekend, generally working between 7:00 AM and 5:00 PM. When a funeral or cremation is scheduled, there are four (4) additional part-time employees to assist with the service. Typically, a funeral or cremation service begins at 10:30 AM and has an approximate duration of 60 minutes, with the part-time employees generally arriving approximately 45 minutes prior to the service (typically 9:00 AM). The funeral home can also host two (2) concurrent visitations/wakes which are typically scheduled to begin at 4:00 PM on weekdays and at 2:00 PM on weekends.

A typical funeral or cremation service has approximately 60 guests that arrive in approximately 25 vehicles (or a vehicle occupancy ratio (VOR) of 2.4 persons per vehicle). When two (2) concurrent visitations/wakes are scheduled each event has approximately 30 family and friends that stay for the duration of the event, with up to 98 visitors (per visitation/wake) arriving and departing over the duration of the event, with a similar VOR to that associated with the funeral or cremation service (2.4 persons per vehicle).

Using these parameters, traffic volumes were derived for the three operational scenarios (typical day, funeral/cremation service and two (2) concurrent visitations/wakes) in order to describe the current and future operations at the funeral home with the planned improvements. In all cases, the resulting traffic volumes were increased by 10 percent in order to account for miscellaneous trips, such as deliveries, etc., and normal variations. Table 1 summarizes the resulting trip estimates with the detailed trip-generation calculations attached.

Table 1
TRIP-GENERATION SUMMARY

Time Period	Vehicle Trips: Typical Day	Vehicle Trips: Funeral/ Cremation Service	Vehicle Trips: Two (2) Concurrent Visitations/ Wakes
Average Weekday Daily:			
Entering	20	52	129
Exiting	20	52	129
Total	40	104	258
Weekday Morning Peak Hour:			
Entering	8	8	8
Exiting	1	1	1
Total	9	9	9
Weekday Evening Peak Hour:			
Entering	1	1	71
Exiting	8	8	29
Total	9	9	100
Saturday:			
Entering	7	39	116
Exiting	7	39	116
Total	14	78	232
Saturday Midday Peak Hour:			
Entering	4	4	55
Exiting	3	35	3
Total	7	39	58

Traffic Volume Summary

Typical Day - Under typical daily operations, the funeral home generates approximately 40 vehicle trips on an average weekday and 14 vehicle trips on an average Saturday (both two-way volumes over the operational day of the Project), with 9 vehicle trips (1 vehicle entering and 8 exiting) during the weekday morning peak hour, 9 vehicle trips (8 vehicles entering and 1 exiting) during the weekday evening peak hour and 7 vehicle trips (4 vehicles entering and 3 exiting) during the Saturday midday peak hour.

Funeral/Cremation Service – When a funeral or cremation service is scheduled, the funeral home generates approximately 104 vehicle trips on an average weekday and 78 vehicle trips on an average Saturday (both two-way volumes over the operational day of the Project), with 9 vehicle trips (1 vehicle entering and 8 exiting) during the weekday morning peak hour, 9 vehicle trips (8 vehicles entering and 1 exiting) during the weekday evening peak hour and 39 vehicle trips (4 vehicles entering and 35 exiting) during the Saturday midday peak hour.

Two (2) Concurrent Visitations/Wakes – When two (2) concurrent visitations/wakes are scheduled, the funeral home generates approximately 258 vehicle trips on an average weekday and 232 vehicle trips on an average Saturday (both two-way volumes over the operational day of the Project), with 9 vehicle trips (1 vehicle entering and 8 exiting) during the weekday morning peak hour, 100 vehicle trips (71 vehicles entering and 29 exiting) during the weekday evening peak hour and 58 vehicle trips (55 vehicles entering and 3 exiting) expected during the Saturday midday peak hour.

As stated previously, ***the Project is not intended to result in an increase in the frequency of services, the number of attendees (which can vary) or the number of clients served, and, as such, will not result in an increase in traffic to the area.***

The increased parking that will be provided within the site as a result of the Project will allow for visitors to park on-site and will eliminate or significantly reduce the frequency that off-site parking will occur. This is an improvement over current conditions where visitors park at adjacent properties for larger events.

SIGHT DISTANCE ASSESSMENT

Sight distance measurements were performed at the Project site driveway intersections with Route 18 in accordance with MassDOT and American Association of State Highway and Transportation Officials (AASHTO)[5] requirements. Both stopping sight distance (SSD) and intersection sight distance (ISD) measurements were performed. In brief, SSD is the distance required by a vehicle traveling at the design speed of a roadway, on wet pavement, to stop prior to striking an object in its travel path. ISD or corner sight distance (CSD) is the sight distance required by a driver entering or crossing an intersecting roadway to perceive an on-coming vehicle and safely complete a turning or crossing maneuver with on-coming traffic. In accordance with AASHTO standards, if the measured ISD is at least equal to the required SSD value for the appropriate design speed, the intersection can operate in a safe manner. Table 2 presents the measured SSD and ISD at the subject intersections.

[5] *A Policy on Geometric Design of Highway and Streets,* 7th Edition; American Association of State Highway and Transportation Officials (AASHTO); Washington D.C.; 2018.

Table 2
SIGHT DISTANCE MEASUREMENTS[a]

Intersection/Sight Distance Measurement	Feet		
	Required Minimum (SSD)	Desirable (ISD)[b]	Measured
Route 18 at the North Project Driveway (Entrance)			
Stopping Sight Distance:			
Route 18 approaching from the north	250	--	500+
Route 18 approaching from the south	250	--	500+
Route 18 at the South Project Driveway (Right-Turn Exit)			
Stopping Sight Distance:			
Route 18 approaching from the north	250	--	500+
Route 18 approaching from the south	250	--	500+
Intersection Sight Distance:			
Looking to the north from the Project Site Driveway	250	335	500+

[a]Recommended minimum values obtained from *A Policy on Geometric Design of Highways and Streets,* 7th Edition; American Association of State Highway and Transportation Officials (AASHTO); 2018; and based on a 35 mph approach speed along Route 18.
[b]Values shown are the intersection sight distance for a vehicle turning right or left exiting a roadway under STOP control such that motorists approaching the intersection on the major street should not need to adjust their travel speed to less than 70 percent of their initial approach speed.

As can be seen in Table 2, the available lines of sight to and from the Project site driveway intersections with Route 18 were found to exceed the recommended minimum sight distance to function in a safe (SSD) and efficient (ISD) manner based on a 35 mph approach speed, which is consistent with the posted speed limit along Route 18 (35 mph) and up to 5 mph above the measured 85th percentile vehicle travel speed approaching the driveways (30/35 mph).

SUMMARY

VAI has completed a detailed assessment of the potential impacts on the transportation infrastructure associated with the proposed expansion of the existing McDonald-Keohane Funeral Home located at 809 Main Street (Route 18) in Weymouth, Massachusetts. As described herein, the Project is intended to update and modernize the mortuary operation to accommodate the increasing trend toward cremation and one day, single location services at a funeral home vs. a traditional church service and burial, and is not intended to result in an increase in the frequency of services, the number of attendees (which can vary) or the number of clients served. As such, other than a positive benefit derived from eliminating or reducing the frequency of off-site parking, the Project will not result in an increase in traffic to the area. Accordingly and with consideration that the lines of sight at the Project site driveway intersections exceed the required minimum distances for safe and efficient operation, we have concluded that the Project can be accommodated within the confines of the existing transportation infrastructure in a safe and efficient manner with the implementation of the recommendations that follow.

RECOMMENDATIONS

A detailed transportation improvement program has been developed that is designed to maintain safe and efficient access to the Project site. The following improvements have been recommended as a part of this evaluation and, where applicable, will be completed in conjunction with the Project subject to receipt of all necessary rights, permits, and approvals.

Project Access

Access to the Project site will continue to be provided by way of the two (2) existing driveways that intersect the west side of Route 18 approximately 375 feet and 160 feet north of Columbian Street, respectively, with the north driveway serving as a one-way entrance and the south driveway serving as a one-way, right-turn only exit. The following recommendations are offered with respect to the design and operation of the Project site access and internal circulation, many of which are reflected on the Site Plans:

- The Project site driveways should continue to be a minimum of 20 feet in width and accommodate one-way travel, with the north driveway serving as a one-way entrance and the south driveway serving as a one-way exit this is restricted to right turn exiting movements only.

- Where perpendicular parking is proposed, the drive aisle behind the parking should be a minimum of 23 feet in order to facilitate parking maneuvers.

- Vehicles exiting the Project site should be placed under STOP-sign control with a marked STOP-line provided. "DO NOT ENTER" and "ONE WAY" signs should be installed to regulate the one-way operation of the driveways.

- A "RIGHT TURN ONLY" sign should be installed facing exiting traffic for the south Project site driveway, with a "NO LEFT TURN" sign installed along the east side of Route 18 facing the driveway.

- All signs and pavement markings to be installed within the Project site should conform to the applicable standards of the *Manual on Uniform Traffic Control Devices* (MUTCD).[6]

- A sidewalk should be provided that links the funeral home building to the sidewalk along Route 18, with marked crosswalks and Americans with Disabilities Act (ADA) wheelchair ramps provided at pedestrian crossings within the Project site.

- Signs and landscaping to be installed as a part of the Project within the intersection sight triangle areas of the Project site driveways should be designed and maintained so as not to restrict lines of sight.

- Snow accumulations (windrows) within sight triangle areas of the Project site driveways should be promptly removed where such accumulations would impede sight lines.

With the implementation of the above recommendations, safe and efficient access can be provided to the Project site and the Project can be accommodated within the confines of the existing transportation infrastructure.

cc: File

[6] *Manual on Uniform Traffic Control Devices (MUTCD)*; Federal Highway Administration; Washington, D.C.; 2009.

ATTACHMENTS

PROJECT SITE PLAN
VEHICLE TRAVEL SPEED DATA
MASSDOT HIGH CRASH LOCATION MAPPING AND ROAD SAFETY AUDIT
TRIP GENERATION CALCULATIONS

PROJECT SITE PLAN

ZONING TABLE:

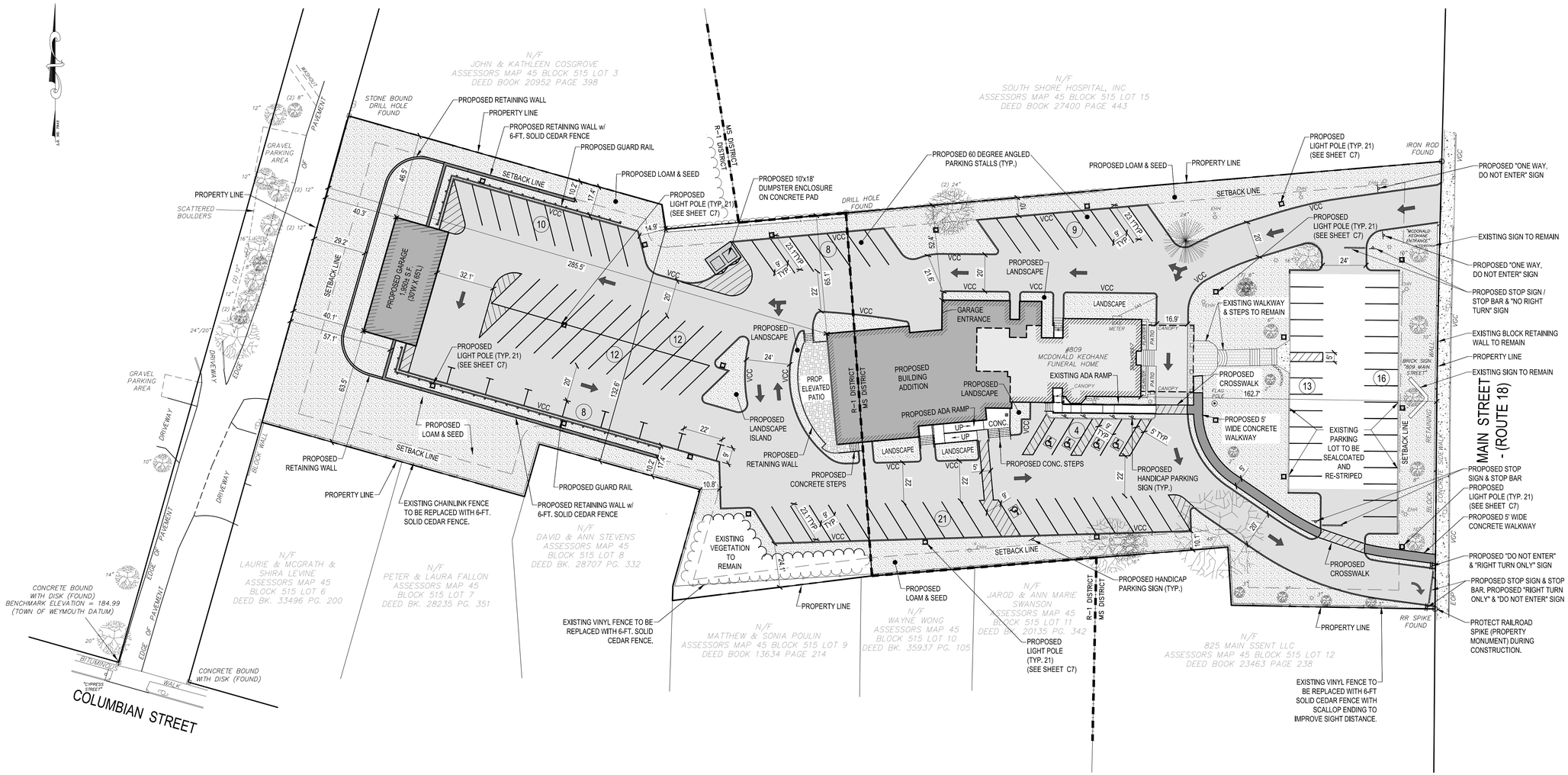
ZONING DISTRICT: MEDICAL DISTRICT AND RESIDENTIAL (R-1)
PROPOSED USE: FUNERAL HOME

REQUIREMENT	REQUIRED RESIDENTIAL (R-1)	REQUIRED MSD	EXISTING RESIDENTIAL (R-1) PARCEL ID: 515-4 & 515-5	EXISTING MEDICAL PARCEL ID: 515-15	PROPOSED COMBINED LOT
MINIMUM LOT SIZE (SF)	25,000 SF	N/A	54,590± SF (0.66± AC)	68,496± SF (1.57± AC)	123,086± SF (2.83± AC)
MINIMUM LOT AREA (SF/DWELLING)	25,000 SF	15,000 SF	54,590± SF (0.66± AC)	68,496± SF (1.57± AC)	123,086± SF (2.83± AC)
MINIMUM LOT WIDTH (FT)	120'/ 40' FRONTAGE	60'/60' FRONTAGE	132.6' / 175.0' (FRONTAGE)	200' / 227.9' (FRONTAGE)	132.6' / 246.0' (FRONTAGE)
MINIMUM FRONT YARD (FT)	18'	20'	42.6'	162.7' / 280.1' (ACCESSORY)	162.7' / 544.7' (ACCESSORY)
MINIMUM SIDE YARD (FT)	10' (20' FROM OTHER DWELLINGS)	10'; 5' OF WHICH TO BE LANDSCAPED	33.6'	68.5' / 8.9' (ACCESSORY)	49.9' / 46.5' (ACCESSORY)
MINIMUM REAR YARD (FT)	24' OR 1/5 DEPTH OF LOT; WHICHEVER IS LESS	10'; 5' OF WHICH TO BE LANDSCAPED	213.4'	65.5' / 2.2' (ACCESSORY)	285.5' / 40.1' (ACCESSORY)
LOT COVERAGE*	MAX 30% FOR BUILDING	MAX 75%*	10% BUILDING	9% BUILDING 53% PAVED	12% BUILDING / 55% PAVED (MS DISTRICT) 5% BUILDING (R1 DISTRICT)
MAXIMUM HEIGHT	2.5 STORIES / 35'	3 STORIES /45'; WHICHEVER IS LESS	1 STORY	2.5 STORIES	TBD

*75% FOR BUILDING AND PAVED AREAS; 25% MINIMUM FOR LANDSCAPING (MSD)
** MEASUREMENT TAKEN FROM OLD LOT LINE

GENERAL NOTES:

1. THIS PLAN REFERENCES AN EXISTING CONDITIONS PLAN PREPARED BY HOYT LAND SURVEYING DATED JANUARY 30, 2019.
2. ACCESSIBLE CURB RAMPS SHALL BE PER THE MASSACHUSETTS ARCHITECTURAL ACCESS BOARD (AAB) AND THE AMERICANS WITH DISABILITIES ACT (ADA) ACCESSIBILITY GUIDELINES.
3. THE FOLLOWING LAYOUT CRITERIA SHALL CONTROL UNLESS OTHERWISE NOTED ON THE PLAN: DIMENSIONS ARE TO FACE OF CURB AT GUTTER LINE. DIMENSIONS ARE TO THE CENTER OF PAVEMENT MARKINGS. ALL TIES TO PROPERTY LINES ARE PERPENDICULAR TO THE PROPERTY LINE UNLESS OTHERWISE NOTED.
4. ALL LINES AND DIMENSIONS ARE PARALLEL OR PERPENDICULAR TO THE LINES FROM WHICH THEY ARE MEASURED UNLESS OTHERWISE INDICATED.
5. CONTRACTOR SHALL REPORT SIGNIFICANT CONFLICTS TO THE OWNER OR HIS REPRESENTATIVE FOR RESOLUTION.
6. THE CONTRACTOR SHALL FURNISH AND SET ALL LINES AND GRADES REQUIRED AND PROTECT ALL PERMANENT BENCHMARKS OR MONUMENTS. DAMAGED MONUMENTS SHALL BE REPLACED BY A LICENSED SURVEYOR AT NO COST TO THE OWNER.
7. ALL CONCRETE WORK SHALL COMPLY WITH ACI301, "SPECIFICATION FOR STRUCTURAL CONCRETE," AND ACI 316R, UNLESS MODIFIED BY THE CONTRACT DOCUMENTS. COMPLY WITH CRSI'S "MANUAL OF STANDARD PRACTICE" FOR FABRICATING, PLACING, AND SUPPORTING REINFORCEMENT. COMPLY WITH ACI 306.1 FOR COLD WEATHER PROTECTION, AND FOLLOW RECOMMENDATIONS IN ACI 350R FOR HOT WEATHER PROTECTION DURING CURING. COMPLY WITH ACI 304 "GUIDE FOR MEASURING, MIXING, TRANSPORTING, AND PLACING CONCRETE."
8. BITUMINOUS CONCRETE PAVEMENT: CLASS I, TYPE I-1 CONFORMING TO THE STANDARD SPECIFICATIONS, SECTIONS 460 THROUGH 460.02 FOR BINDER COURSE AND TOP COURSE JOB MIX FORMULAS. THE GENERAL CONTRACTOR SHALL SUPPLY THE ENGINEER WITH A CERTIFICATE OF COMPLIANCE SUPPLIED BY THE PAVING CONTRACTOR.
9. SAW-CUT EXISTING PAVEMENT WHERE NEW BITUMINOUS CONCRETE PAVEMENT IS TO COME IN CONTACT. PRIME COAT THE CUT EDGE PRIOR TO PLACEMENT.



SCALE: 1" = 30'

30 0 15 30 60

Date	Description	No.
	Revisions	

DRAFT

GABRIEL R. CROCKER
PROFESSIONAL ENGINEER, MA REGISTRATION #47917

Crocker Design Group
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HINGHAM, MA 02043
P: 781-919-0808

Project
MCDONALD-KEOHANE FUNERAL HOME - SOUTH
809 MAIN STREET
WEYMOUTH, MA 02190

Prepared for
MK MAIN STREET LLC
785 HANCOCK STREET
QUINCY, MA 02170

Drawing Title
LOT LAYOUT AND ZONING PLAN

Project No.	100-060
Date	01 / XX /2022
Scale	1"=30'
Drawn By	CM / JM
Approved By	GRC

Drawing No.
C-3

VEHICLE TRAVEL SPEED DATA

Accurate Counts
978-664-2565

Location : Route 18
Location : North of Columbian Street
City/State: Weymouth, MA

8135SPD1

NB

Start Time	1 3	4 6	7 9	10 12	13 15	16 18	19 21	22 24	25 27	28 30	31 33	34 36	37 39	40 999	Total
01/10/19	0	0	0	0	1	5	7	11	10	8	25	17	5	2	91
01:00	0	0	0	0	1	7	2	1	5	5	19	12	9	4	65
02:00	0	0	0	0	0	1	4	1	7	10	24	13	11	6	77
03:00	0	0	0	0	0	0	2	4	1	4	21	30	25	10	97
04:00	0	0	1	3	23	26	30	41	12	25	47	78	59	56	401
05:00	0	0	12	30	99	135	115	100	61	109	109	91	47	16	924
06:00	0	0	12	34	123	165	136	122	82	65	38	27	0	2	806
07:00	0	0	12	56	129	178	168	117	43	25	11	3	0	1	743
08:00	0	0	14	47	127	167	151	125	66	24	18	5	2	0	746
09:00	0	0	8	35	122	148	157	99	57	56	43	18	3	0	746
10:00	0	0	10	36	94	123	95	86	75	45	39	25	6	2	636
11:00	0	0	6	33	100	120	93	77	85	60	34	20	13	2	643
12 PM	0	0	9	25	95	132	87	86	62	70	46	13	2	1	628
13:00	0	0	9	29	110	115	111	58	61	51	36	12	9	2	603
14:00	0	0	10	31	73	130	130	89	56	34	17	4	0	0	574
15:00	0	0	9	33	78	169	135	90	76	29	14	7	0	0	640
16:00	0	0	8	30	98	112	99	96	77	53	37	13	4	0	627
17:00	0	0	9	15	66	94	109	114	98	96	49	8	9	0	667
18:00	0	0	6	18	82	101	95	73	73	43	31	15	2	0	539
19:00	0	0	1	24	71	88	95	72	52	58	59	29	12	5	566
20:00	0	0	2	11	53	66	64	65	43	53	57	28	5	0	447
21:00	0	0	3	14	37	62	59	45	45	53	47	47	11	7	430
22:00	0	0	0	0	12	39	42	27	52	50	80	59	16	2	379
23:00	0	0	0	2	6	20	25	29	22	24	42	39	25	11	245
Total	0	0	141	506	1600	2203	2011	1628	1221	1050	943	613	275	129	12320

Daily

15th Percentile :	14 MPH
50th Percentile :	20 MPH
85th Percentile :	30 MPH
95th Percentile :	34 MPH
Mean Speed(Average) :	22 MPH
10 MPH Pace Speed :	15-24 MPH
Number in Pace :	6375
Percent in Pace :	51.7%
Number of Vehicles > 30 MPH :	1960
Percent of Vehicles > 30 MPH :	15.9%

Location : Route 18
Location : North of Columbian Street
City/State: Weymouth, MA

8135SPD1

NB

Start Time	1 3	4 6	7 9	10 12	13 15	16 18	19 21	22 24	25 27	28 30	31 33	34 36	37 39	40 999	Total
01/11/19	0	0	0	0	1	2	14	13	10	15	21	13	6	4	99
01:00	0	0	0	0	0	4	3	6	10	6	15	25	4	3	76
02:00	0	0	0	0	0	0	3	2	6	9	17	7	6	4	54
03:00	0	0	0	0	0	2	3	2	4	9	19	25	23	10	97
04:00	0	0	0	2	10	32	25	22	19	30	49	86	96	58	429
05:00	0	0	2	27	111	155	102	74	69	84	131	76	52	15	898
06:00	0	0	11	40	107	169	149	97	79	54	47	19	8	5	785
07:00	0	0	7	48	106	155	174	146	70	59	33	5	1	1	805
08:00	0	0	16	35	122	179	163	139	70	41	25	6	1	1	798
09:00	0	0	12	31	99	129	132	110	81	38	25	9	0	4	670
10:00	0	0	14	40	88	129	122	91	59	52	23	6	4	1	629
11:00	0	0	12	41	107	143	129	99	61	47	21	10	3	0	673
12 PM	0	0	10	38	101	113	132	108	56	67	33	21	0	2	681
13:00	0	0	8	34	96	144	108	85	51	55	44	15	8	0	648
14:00	0	0	11	42	102	124	142	92	41	36	9	1	6	0	606
15:00	0	0	3	38	98	155	109	84	57	38	13	4	0	0	599
16:00	0	0	4	38	94	102	101	77	134	57	47	19	2	2	677
17:00	0	0	9	32	116	149	111	78	42	35	23	7	4	2	608
18:00	0	0	10	22	61	128	83	78	95	84	69	22	2	1	655
19:00	0	0	8	34	87	104	82	56	48	49	48	21	11	1	549
20:00	0	0	3	24	48	88	85	62	45	77	70	38	10	5	555
21:00	0	0	1	10	32	73	39	44	41	52	77	39	13	4	425
22:00	0	0	2	14	30	52	51	30	46	61	89	52	16	5	448
23:00	0	0	0	3	27	44	33	20	15	39	36	38	15	4	274
Total	0	0	143	593	1643	2375	2095	1615	1209	1094	984	564	291	132	12738

Daily

15th Percentile :	14 MPH
50th Percentile :	20 MPH
85th Percentile :	29 MPH
95th Percentile :	34 MPH
Mean Speed(Average) :	22 MPH
10 MPH Pace Speed :	13-22 MPH
Number in Pace :	6651
Percent in Pace :	52.2%
Number of Vehicles > 30 MPH :	1971
Percent of Vehicles > 30 MPH :	15.5%

Location : Route 18
Location : North of Columbian Street
City/State: Weymouth, MA

8135SPD1

NB

Start Time	1 3	4 6	7 9	10 12	13 15	16 18	19 21	22 24	25 27	28 30	31 33	34 36	37 39	40 999	Total
01/12/19	0	0	0	1	6	4	13	18	8	20	37	19	16	3	145
01:00	0	0	0	0	1	3	2	3	12	18	21	22	15	7	104
02:00	0	0	0	0	0	2	2	3	4	6	24	16	4	7	68
03:00	0	0	0	0	0	1	0	2	10	11	18	12	16	7	77
04:00	0	0	0	0	2	5	17	3	5	8	19	34	48	24	165
05:00	0	0	1	1	24	53	73	43	34	26	49	59	43	20	426
06:00	0	0	0	13	33	72	71	56	40	51	57	35	26	14	468
07:00	0	0	2	27	53	111	83	55	42	53	70	41	30	6	573
08:00	0	0	8	19	79	101	101	81	52	48	58	36	11	1	595
09:00	0	0	10	33	78	109	101	63	55	85	50	41	15	4	644
10:00	0	0	10	40	101	119	116	127	65	54	38	18	7	2	697
11:00	0	0	17	28	91	144	106	90	66	71	36	15	3	0	667
12 PM	0	0	11	29	84	132	174	125	64	41	24	9	5	1	699
13:00	0	0	15	32	124	140	137	101	88	64	31	28	9	0	769
14:00	0	0	6	41	104	163	121	93	56	42	42	7	5	2	682
15:00	0	0	7	49	91	164	133	128	68	42	26	18	6	0	732
16:00	0	0	10	37	90	130	120	102	68	41	61	11	15	0	685
17:00	0	0	6	27	97	103	84	64	94	79	64	31	19	2	670
18:00	0	0	8	29	102	97	56	70	47	97	94	40	20	0	660
19:00	0	0	6	16	55	80	74	49	49	77	74	50	10	6	546
20:00	0	0	1	14	48	74	65	56	42	53	75	42	12	5	487
21:00	0	0	0	6	32	55	52	36	36	60	62	42	20	9	410
22:00	0	0	0	7	43	59	64	52	38	70	68	36	28	6	471
23:00	0	0	1	1	17	47	49	41	36	38	60	44	26	8	368
Total	0	0	119	450	1355	1968	1814	1461	1079	1155	1158	706	409	134	11808

Daily

15th Percentile :	14 MPH
50th Percentile :	21 MPH
85th Percentile :	31 MPH
95th Percentile :	35 MPH
Mean Speed(Average) :	23 MPH
10 MPH Pace Speed :	15-24 MPH
Number in Pace :	5695
Percent in Pace :	48.2%
Number of Vehicles > 30 MPH :	2407
Percent of Vehicles > 30 MPH :	20.4%

Grand Total	0	0	403	1549	4598	6546	5920	4704	3509	3299	3085	1883	975	395	36866

Overall

15th Percentile :	14 MPH
50th Percentile :	20 MPH
85th Percentile :	30 MPH
95th Percentile :	34 MPH
Mean Speed(Average) :	22 MPH
10 MPH Pace Speed :	15-24 MPH
Number in Pace :	18703
Percent in Pace :	50.7%
Number of Vehicles > 30 MPH :	6338
Percent of Vehicles > 30 MPH :	17.2%

Location : Route 18
Location : North of Columbian Street
City/State: Weymouth, MA

8135SPD1

SB

Start Time	1 3	4 6	7 9	10 12	13 15	16 18	19 21	22 24	25 27	28 30	31 33	34 36	37 39	40 999	Total
01/10/19	0	0	0	0	0	0	0	1	4	8	22	41	28	51	155
01:00	0	0	0	0	0	1	0	2	1	7	14	16	20	20	81
02:00	0	0	0	0	0	0	0	0	1	1	8	18	16	13	57
03:00	0	0	0	0	0	1	1	1	0	2	8	7	8	17	45
04:00	0	0	0	0	0	0	0	1	0	7	5	14	17	18	62
05:00	0	0	0	0	0	0	2	6	13	28	33	61	37	31	211
06:00	0	0	0	4	6	5	21	29	49	91	77	72	52	37	443
07:00	0	0	0	0	2	1	6	26	65	153	159	86	65	41	604
08:00	0	0	0	0	0	3	5	31	68	147	151	125	77	43	650
09:00	0	0	0	0	1	3	9	26	78	169	176	125	62	35	684
10:00	0	0	0	0	0	5	6	21	106	154	162	127	49	39	669
11:00	0	0	0	0	1	1	8	37	79	175	179	129	62	35	706
12 PM	0	0	0	0	0	6	13	48	76	188	196	131	78	44	780
13:00	0	0	0	1	3	6	17	54	106	209	187	121	64	33	801
14:00	0	0	1	8	14	23	53	76	144	164	147	124	49	22	825
15:00	0	0	5	28	29	47	60	104	130	151	118	81	36	13	802
16:00	0	0	1	8	20	50	56	104	167	202	144	66	35	12	865
17:00	0	0	14	39	55	83	76	109	129	161	103	51	14	4	838
18:00	0	0	0	1	2	5	22	60	152	262	231	121	61	22	939
19:00	0	0	0	0	1	5	17	33	81	161	178	129	77	54	736
20:00	0	0	0	0	1	0	0	4	37	130	167	128	103	62	632
21:00	0	0	0	0	0	0	0	3	30	80	115	118	83	37	466
22:00	0	0	0	0	0	1	0	1	12	42	75	89	74	52	346
23:00	0	0	0	0	0	0	0	5	7	43	46	81	78	55	315
Total	0	0	21	89	135	246	372	782	1535	2735	2701	2061	1245	790	12712

Daily

15th Percentile :	24 MPH
50th Percentile :	30 MPH
85th Percentile :	35 MPH
95th Percentile :	37 MPH
Mean Speed(Average) :	30 MPH
10 MPH Pace Speed :	27-36 MPH
Number in Pace :	8009
Percent in Pace :	63.0%
Number of Vehicles > 30 MPH :	6797
Percent of Vehicles > 30 MPH :	53.5%

Location : Route 18
Location : North of Columbian Street
City/State: Weymouth, MA

8135SPD1

SB

Start Time	1 3	4 6	7 9	10 12	13 15	16 18	19 21	22 24	25 27	28 30	31 33	34 36	37 39	40 999	Total
01/11/19	0	0	0	0	0	0	0	1	2	14	24	37	35	63	176
01:00	0	0	0	0	0	0	0	1	2	6	21	18	22	17	87
02:00	0	0	0	0	0	0	0	0	1	1	12	19	12	21	66
03:00	0	0	0	0	0	0	0	0	0	3	4	10	6	20	43
04:00	0	0	0	0	0	1	1	1	4	2	14	17	13	12	65
05:00	0	0	0	0	0	1	6	6	17	28	43	32	28	27	188
06:00	0	0	0	2	2	1	5	35	56	95	84	67	66	35	448
07:00	0	0	0	0	0	4	9	30	64	137	164	110	59	44	621
08:00	0	0	0	0	0	1	4	21	88	137	180	117	66	64	678
09:00	0	0	0	0	4	3	15	39	61	141	173	109	76	33	654
10:00	0	0	0	0	2	5	7	35	44	149	185	129	78	41	675
11:00	0	0	0	0	0	4	5	15	68	183	208	146	74	46	749
12 PM	0	0	0	1	2	7	14	38	133	178	214	127	61	43	818
13:00	0	0	0	0	2	0	18	31	106	212	210	133	75	32	819
14:00	0	0	1	1	3	9	29	94	142	207	203	100	55	13	857
15:00	0	0	4	9	17	25	64	118	142	216	156	88	21	7	867
16:00	0	0	2	14	36	51	79	100	191	179	142	53	33	18	898
17:00	0	0	6	10	18	36	65	111	163	159	133	61	34	16	812
18:00	0	0	0	0	1	2	6	37	73	224	201	140	70	29	783
19:00	0	0	0	0	2	5	13	35	86	156	197	128	56	34	712
20:00	0	0	0	0	0	0	0	11	38	104	155	142	117	64	631
21:00	0	0	0	0	1	0	2	9	39	88	110	123	98	62	532
22:00	0	0	0	0	0	0	1	8	16	72	114	118	68	67	464
23:00	0	0	0	0	0	1	2	5	17	47	88	90	73	43	366
Total	0	0	13	37	90	156	345	781	1553	2738	3035	2114	1296	851	13009

Daily

15th Percentile :	24 MPH
50th Percentile :	30 MPH
85th Percentile :	35 MPH
95th Percentile :	37 MPH
Mean Speed(Average) :	30 MPH
10 MPH Pace Speed :	27-36 MPH
Number in Pace :	8405
Percent in Pace :	64.6%
Number of Vehicles > 30 MPH :	7296
Percent of Vehicles > 30 MPH :	56.1%

Location : Route 18
Location : North of Columbian Street
City/State: Weymouth, MA

8135SPD1

SB

Start Time	1 3	4 6	7 9	10 12	13 15	16 18	19 21	22 24	25 27	28 30	31 33	34 36	37 39	40 999	Total
01/12/19	0	0	0	0	0	0	1	0	8	26	54	54	59	49	251
01:00	0	0	0	0	0	0	0	0	0	5	27	32	51	56	171
02:00	0	0	0	0	0	0	0	1	0	3	19	24	26	30	103
03:00	0	0	0	0	0	0	0	0	0	3	8	18	20	20	69
04:00	0	0	0	0	0	0	0	0	3	3	5	8	16	25	60
05:00	0	0	0	0	1	0	4	3	9	13	29	25	23	21	128
06:00	0	0	0	0	0	0	3	10	22	56	61	74	40	36	302
07:00	0	0	0	0	0	1	1	7	20	54	67	71	63	84	368
08:00	0	0	0	0	0	0	4	20	39	83	117	123	77	82	545
09:00	0	0	0	0	0	0	1	8	48	129	180	158	110	68	702
10:00	0	0	0	0	0	1	5	18	70	125	219	168	111	58	775
11:00	0	0	0	0	0	6	19	30	98	223	226	128	63	35	828
12 PM	0	0	0	0	1	3	9	37	111	188	216	155	70	36	826
13:00	0	0	1	0	3	6	19	51	99	230	210	118	64	41	842
14:00	0	0	0	1	3	6	13	37	129	228	256	152	89	37	951
15:00	0	0	0	0	0	1	10	15	107	189	226	152	92	40	832
16:00	0	0	0	0	0	0	4	22	69	187	238	153	110	55	838
17:00	0	0	0	0	1	1	7	29	81	208	186	179	100	52	844
18:00	0	0	0	0	1	1	6	29	95	180	224	150	85	39	810
19:00	0	0	0	0	0	6	2	13	46	114	173	161	87	62	664
20:00	0	0	0	0	0	0	3	6	23	71	113	124	80	49	469
21:00	0	0	0	0	0	0	1	1	21	75	133	108	76	67	482
22:00	0	0	0	0	0	0	0	8	23	54	119	121	85	70	480
23:00	0	0	0	0	0	0	1	2	13	29	74	113	91	65	388
Total	0	0	1	1	10	32	113	347	1134	2476	3180	2569	1688	1177	12728

Daily

15th Percentile :	27 MPH
50th Percentile :	31 MPH
85th Percentile :	35 MPH
95th Percentile :	37 MPH
Mean Speed(Average) :	32 MPH
10 MPH Pace Speed :	28-37 MPH
Number in Pace :	8788
Percent in Pace :	69.0%
Number of Vehicles > 30 MPH :	8614
Percent of Vehicles > 30 MPH :	67.7%

Grand Total	0	0	35	127	235	434	830	1910	4222	7949	8916	6744	4229	2818	38449

Overall

15th Percentile :	25 MPH
50th Percentile :	30 MPH
85th Percentile :	35 MPH
95th Percentile :	37 MPH
Mean Speed(Average) :	31 MPH
10 MPH Pace Speed :	28-37 MPH
Number in Pace :	25019
Percent in Pace :	65.1%
Number of Vehicles > 30 MPH :	22707
Percent of Vehicles > 30 MPH :	59.1%

Location : Route 18
Location : North of Columbian Street
City/State: Weymouth, MA

8135SPD1

NB, SB

Start Time	1 3	4 6	7 9	10 12	13 15	16 18	19 21	22 24	25 27	28 30	31 33	34 36	37 39	40 999	Total
01/10/19	0	0	0	0	1	5	7	12	14	16	47	58	33	53	246
01:00	0	0	0	0	1	8	2	3	6	12	33	28	29	24	146
02:00	0	0	0	0	0	1	4	1	8	11	32	31	27	19	134
03:00	0	0	0	0	0	1	3	5	1	6	29	37	33	27	142
04:00	0	0	1	3	23	26	30	42	12	32	52	92	76	74	463
05:00	0	0	12	30	99	135	117	106	74	137	142	152	84	47	1135
06:00	0	0	12	38	129	170	157	151	131	156	115	99	52	39	1249
07:00	0	0	12	56	131	179	174	143	108	178	170	89	65	42	1347
08:00	0	0	14	47	127	170	156	156	134	171	169	130	79	43	1396
09:00	0	0	8	35	123	151	166	125	135	225	219	143	65	35	1430
10:00	0	0	10	36	94	128	101	107	181	199	201	152	55	41	1305
11:00	0	0	6	33	101	121	101	114	164	235	213	149	75	37	1349
12 PM	0	0	9	25	95	138	100	134	138	258	242	144	80	45	1408
13:00	0	0	9	30	113	121	128	112	167	260	223	133	73	35	1404
14:00	0	0	11	39	87	153	183	165	200	198	164	128	49	22	1399
15:00	0	0	14	61	107	216	195	194	206	180	132	88	36	13	1442
16:00	0	0	9	38	118	162	155	200	244	255	181	79	39	12	1492
17:00	0	0	23	54	121	177	185	223	227	257	152	59	23	4	1505
18:00	0	0	6	19	84	106	117	133	225	305	262	136	63	22	1478
19:00	0	0	1	24	72	93	112	105	133	219	237	158	89	59	1302
20:00	0	0	2	11	54	66	64	69	80	183	224	156	108	62	1079
21:00	0	0	3	14	37	62	59	48	75	133	162	165	94	44	896
22:00	0	0	0	0	12	40	42	28	64	92	155	148	90	54	725
23:00	0	0	0	2	6	20	25	34	29	67	88	120	103	66	560
Total	0	0	162	595	1735	2449	2383	2410	2756	3785	3644	2674	1520	919	25032

Daily

15th Percentile :	16 MPH
50th Percentile :	26 MPH
85th Percentile :	33 MPH
95th Percentile :	36 MPH
Mean Speed(Average) :	26 MPH
10 MPH Pace Speed :	25-34 MPH
Number in Pace :	11076
Percent in Pace :	44.2%
Number of Vehicles > 30 MPH :	8757
Percent of Vehicles > 30 MPH :	35.0%

Location : Route 18
Location : North of Columbian Street
City/State: Weymouth, MA

8135SPD1

NB, SB

Start Time	1 3	4 6	7 9	10 12	13 15	16 18	19 21	22 24	25 27	28 30	31 33	34 36	37 39	40 999	Total
01/11/19	0	0	0	0	1	2	14	14	12	29	45	50	41	67	275
01:00	0	0	0	0	0	4	3	7	12	12	36	43	26	20	163
02:00	0	0	0	0	0	0	3	2	7	10	29	26	18	25	120
03:00	0	0	0	0	0	2	3	2	4	12	23	35	29	30	140
04:00	0	0	0	2	10	33	26	23	23	32	63	103	109	70	494
05:00	0	0	2	27	111	156	108	80	86	112	174	108	80	42	1086
06:00	0	0	11	42	109	170	154	132	135	149	131	86	74	40	1233
07:00	0	0	7	48	106	159	183	176	134	196	197	115	60	45	1426
08:00	0	0	16	35	122	180	167	160	158	178	205	123	67	65	1476
09:00	0	0	12	31	103	132	147	149	142	179	198	118	76	37	1324
10:00	0	0	14	40	90	134	129	126	103	201	208	135	82	42	1304
11:00	0	0	12	41	107	147	134	114	129	230	229	156	77	46	1422
12 PM	0	0	10	39	103	120	146	146	189	245	247	148	61	45	1499
13:00	0	0	8	34	98	144	126	116	157	267	254	148	83	32	1467
14:00	0	0	12	43	105	133	171	186	183	243	212	101	61	13	1463
15:00	0	0	7	47	115	180	173	202	199	254	169	92	21	7	1466
16:00	0	0	6	52	130	153	180	177	325	236	189	72	35	20	1575
17:00	0	0	15	42	134	185	176	189	205	194	156	68	38	18	1420
18:00	0	0	10	22	62	130	89	115	168	308	270	162	72	30	1438
19:00	0	0	8	34	89	109	95	91	134	205	245	149	67	35	1261
20:00	0	0	3	24	48	88	85	73	83	181	225	180	127	69	1186
21:00	0	0	1	10	33	73	41	53	80	140	187	162	111	66	957
22:00	0	0	2	14	30	52	52	38	62	133	203	170	84	72	912
23:00	0	0	0	3	27	45	35	25	32	86	124	128	88	47	640
Total	0	0	156	630	1733	2531	2440	2396	2762	3832	4019	2678	1587	983	25747

Daily

15th Percentile :	16 MPH
50th Percentile :	26 MPH
85th Percentile :	33 MPH
95th Percentile :	36 MPH
Mean Speed(Average) :	26 MPH
10 MPH Pace Speed :	25-34 MPH
Number in Pace :	11506
Percent in Pace :	44.7%
Number of Vehicles > 30 MPH :	9267
Percent of Vehicles > 30 MPH :	36.0%

Location : Route 18
Location : North of Columbian Street
City/State: Weymouth, MA

8135SPD1

NB, SB

Start Time	1 3	4 6	7 9	10 12	13 15	16 18	19 21	22 24	25 27	28 30	31 33	34 36	37 39	40 999	Total
01/12/19	0	0	0	1	6	4	14	18	16	46	91	73	75	52	396
01:00	0	0	0	0	1	3	2	3	12	23	48	54	66	63	275
02:00	0	0	0	0	0	2	2	4	4	9	43	40	30	37	171
03:00	0	0	0	0	0	1	0	2	10	14	26	30	36	27	146
04:00	0	0	0	0	2	5	17	3	8	11	24	42	64	49	225
05:00	0	0	1	1	25	53	77	46	43	39	78	84	66	41	554
06:00	0	0	0	13	33	72	74	66	62	107	118	109	66	50	770
07:00	0	0	2	27	53	112	84	62	62	107	137	112	93	90	941
08:00	0	0	8	19	79	101	105	101	91	131	175	159	88	83	1140
09:00	0	0	10	33	78	109	102	71	103	214	230	199	125	72	1346
10:00	0	0	10	40	101	120	121	145	135	179	257	186	118	60	1472
11:00	0	0	17	28	91	150	125	120	164	294	262	143	66	35	1495
12 PM	0	0	11	29	85	135	183	162	175	229	240	164	75	37	1525
13:00	0	0	16	32	127	146	156	152	187	294	241	146	73	41	1611
14:00	0	0	6	42	107	169	134	130	185	270	298	159	94	39	1633
15:00	0	0	7	49	91	165	143	143	175	231	252	170	98	40	1564
16:00	0	0	10	37	90	130	124	124	137	228	299	164	125	55	1523
17:00	0	0	6	27	98	104	91	93	175	287	250	210	119	54	1514
18:00	0	0	8	29	103	98	62	99	142	277	318	190	105	39	1470
19:00	0	0	6	16	55	86	76	62	95	191	247	211	97	68	1210
20:00	0	0	1	14	48	74	68	62	65	124	188	166	92	54	956
21:00	0	0	0	6	32	55	53	37	57	135	195	150	96	76	892
22:00	0	0	0	7	43	59	64	60	61	124	187	157	113	76	951
23:00	0	0	1	1	17	47	50	43	49	67	134	157	117	73	756
Total	0	0	120	451	1365	2000	1927	1808	2213	3631	4338	3275	2097	1311	24536

Daily

15th Percentile :	17 MPH
50th Percentile :	28 MPH
85th Percentile :	34 MPH
95th Percentile :	37 MPH
Mean Speed(Average) :	27 MPH
10 MPH Pace Speed :	27-36 MPH
Number in Pace :	11982
Percent in Pace :	48.8%
Number of Vehicles > 30 MPH :	11021
Percent of Vehicles > 30 MPH :	44.9%

Grand Total	0	0	438	1676	4833	6980	6750	6614	7731	11248	12001	8627	5204	3213	75315

Overall

15th Percentile :	16 MPH
50th Percentile :	27 MPH
85th Percentile :	34 MPH
95th Percentile :	36 MPH
Mean Speed(Average) :	26 MPH
10 MPH Pace Speed :	27-36 MPH
Number in Pace :	34453
Percent in Pace :	45.7%
Number of Vehicles > 30 MPH :	29045
Percent of Vehicles > 30 MPH :	38.6%

Accurate Counts
978-664-2565

Location : Columbian Street
Location : East of Cypress Street
City/State: Weymouth, MA

8135SPD2

EB

Start Time	1 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	76 999	Total
01/10/19	0	0	1	1	4	2	0	0	0	0	0	0	0	0	8
01:00	0	0	2	2	5	2	0	0	0	0	0	0	0	0	11
02:00	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
03:00	0	0	1	2	2	1	0	0	0	0	0	0	0	0	6
04:00	0	0	0	1	4	2	0	0	0	0	0	0	0	0	7
05:00	0	1	0	11	8	5	0	0	0	0	0	0	0	0	25
06:00	0	3	4	19	44	21	2	1	0	0	0	0	0	0	94
07:00	0	8	7	36	74	17	3	0	0	0	0	0	0	0	145
08:00	3	12	12	43	64	20	3	1	0	0	0	0	0	0	158
09:00	4	4	17	53	77	35	2	0	0	0	0	0	0	0	192
10:00	0	4	12	46	89	31	4	0	0	0	0	0	0	0	186
11:00	2	11	8	46	104	34	6	0	0	0	0	0	0	0	211
12 PM	1	4	10	60	86	27	3	0	0	0	0	0	0	0	191
13:00	1	4	19	62	88	26	4	0	0	0	0	0	0	0	204
14:00	1	6	16	78	111	27	4	0	0	0	0	0	0	0	243
15:00	1	15	28	115	135	25	1	0	0	0	0	0	0	0	320
16:00	1	9	36	113	137	36	3	0	0	0	0	0	0	0	335
17:00	1	13	43	173	133	14	3	0	0	0	0	0	0	0	380
18:00	0	3	22	144	107	19	1	0	0	0	0	0	0	0	296
19:00	0	6	9	77	82	12	0	0	0	0	0	0	0	0	186
20:00	0	6	2	27	55	13	2	0	0	0	0	0	0	0	105
21:00	0	1	2	20	39	10	1	0	0	0	0	0	0	0	73
22:00	0	1	1	16	18	6	2	0	0	0	0	0	0	0	44
23:00	0	0	2	12	18	6	1	0	0	0	0	0	0	0	39
Total	15	111	254	1159	1484	391	45	2	0	0	0	0	0	0	3461

Daily

15th Percentile :	25 MPH
50th Percentile :	30 MPH
85th Percentile :	34 MPH
95th Percentile :	38 MPH
Mean Speed(Average) :	31 MPH
10 MPH Pace Speed :	26-35 MPH
Number in Pace :	2643
Percent in Pace :	76.4%
Number of Vehicles > 30 MPH :	1922
Percent of Vehicles > 30 MPH :	55.5%

Location : Columbian Street
Location : East of Cypress Street
City/State: Weymouth, MA

8135SPD2

EB

Start Time	1 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	76 999	Total
01/11/19	0	0	0	3	7	5	0	0	0	0	0	0	0	0	15
01:00	0	0	0	1	0	1	0	0	0	0	0	0	0	0	2
02:00	0	0	0	0	2	2	0	0	0	0	0	0	0	0	4
03:00	0	0	0	2	1	2	1	0	0	0	0	0	0	0	6
04:00	0	0	0	1	2	2	0	0	0	0	0	0	0	0	5
05:00	1	0	0	6	5	6	0	0	0	0	0	0	0	0	18
06:00	0	3	5	19	31	16	3	0	0	0	0	0	0	0	77
07:00	0	9	7	27	52	16	2	0	0	0	0	0	0	0	113
08:00	0	15	10	33	77	30	1	0	0	0	0	0	0	0	166
09:00	1	5	4	42	81	39	4	1	0	0	0	0	0	0	177
10:00	1	2	16	47	94	20	1	0	0	0	0	0	0	0	181
11:00	1	9	6	49	88	32	7	0	0	0	0	0	0	0	192
12 PM	0	4	15	44	87	46	1	0	0	0	0	0	0	0	197
13:00	0	5	19	58	114	31	2	0	0	0	0	0	0	0	229
14:00	1	12	26	76	139	35	2	0	0	0	0	0	0	0	291
15:00	2	11	11	109	151	40	4	0	0	0	0	0	0	0	328
16:00	2	10	25	133	145	33	2	1	0	0	0	0	0	0	351
17:00	2	8	29	144	113	21	1	0	0	0	0	0	0	0	318
18:00	1	6	17	105	124	20	1	0	0	0	0	0	0	0	274
19:00	0	1	17	59	79	15	3	0	0	0	0	0	0	0	174
20:00	0	2	7	39	48	20	2	1	0	0	0	0	0	0	119
21:00	1	6	4	28	41	13	3	1	0	0	0	0	0	0	97
22:00	0	1	5	10	39	7	2	0	0	0	0	0	0	0	64
23:00	0	2	0	12	20	8	2	1	0	0	0	0	0	0	45
Total	13	111	223	1047	1540	460	44	5	0	0	0	0	0	0	3443

Daily

15th Percentile :	25 MPH
50th Percentile :	31 MPH
85th Percentile :	34 MPH
95th Percentile :	38 MPH
Mean Speed(Average) :	31 MPH
10 MPH Pace Speed :	26-35 MPH
Number in Pace :	2587
Percent in Pace :	75.1%
Number of Vehicles > 30 MPH :	2049
Percent of Vehicles > 30 MPH :	59.5%

Location : Columbian Street
Location : East of Cypress Street
City/State: Weymouth, MA

8135SPD2

EB

Start Time	1 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	76 999	Total
01/12/19	0	1	1	12	10	7	1	0	0	0	0	0	0	0	32
01:00	0	1	0	0	4	0	1	1	0	0	0	0	0	0	7
02:00	0	0	0	2	6	0	0	0	0	0	0	0	0	0	8
03:00	0	0	1	1	6	0	0	0	0	0	0	0	0	0	8
04:00	0	0	0	2	3	1	0	0	0	0	0	0	0	0	6
05:00	0	1	0	2	6	0	3	0	0	0	0	0	0	0	12
06:00	0	2	0	7	22	15	4	0	0	0	0	0	0	0	50
07:00	0	4	4	17	26	16	1	0	0	0	0	0	0	0	68
08:00	0	1	4	26	56	35	7	1	0	0	0	0	0	0	130
09:00	2	5	8	38	68	36	0	0	0	0	0	0	0	0	157
10:00	0	5	6	21	121	42	8	1	0	0	0	0	0	0	204
11:00	1	21	12	50	119	55	6	0	0	0	0	0	0	0	264
12 PM	5	15	14	51	121	62	3	0	0	0	0	0	0	0	271
13:00	4	4	11	50	110	45	5	0	0	0	0	0	0	0	229
14:00	0	9	11	61	124	44	5	0	0	0	0	0	0	0	254
15:00	2	3	13	78	146	30	4	0	0	0	0	0	0	0	276
16:00	0	2	7	68	118	47	4	0	0	0	0	0	0	0	246
17:00	0	1	8	82	84	19	1	2	0	0	0	0	0	0	197
18:00	1	2	19	67	89	13	1	0	0	0	0	0	0	0	192
19:00	2	2	8	42	66	15	0	0	0	0	0	0	0	0	135
20:00	0	3	3	23	42	12	1	0	0	0	0	0	0	0	84
21:00	1	0	2	20	36	8	0	0	0	0	0	0	0	0	67
22:00	0	1	3	16	27	6	0	0	0	0	0	0	0	0	53
23:00	0	1	0	10	17	7	1	0	0	0	0	0	0	0	36
Total	18	84	135	746	1427	515	56	5	0	0	0	0	0	0	2986

Daily

15th Percentile :	26 MPH
50th Percentile :	31 MPH
85th Percentile :	36 MPH
95th Percentile :	39 MPH
Mean Speed(Average) :	32 MPH
10 MPH Pace Speed :	26-35 MPH
Number in Pace :	2173
Percent in Pace :	72.8%
Number of Vehicles > 30 MPH :	2003
Percent of Vehicles > 30 MPH :	67.1%

Grand Total	46	306	612	2952	4451	1366	145	12	0	0	0	0	0	0	9890

Overall

15th Percentile :	25 MPH
50th Percentile :	31 MPH
85th Percentile :	35 MPH
95th Percentile :	38 MPH
Mean Speed(Average) :	31 MPH
10 MPH Pace Speed :	26-35 MPH
Number in Pace :	7403
Percent in Pace :	74.9%
Number of Vehicles > 30 MPH :	5974
Percent of Vehicles > 30 MPH :	60.4%

Location : Columbian Street
Location : East of Cypress Street
City/State: Weymouth, MA

8135SPD2

WB

Start Time	1 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	76 999	Total
01/10/19	0	0	1	3	7	1	0	1	0	0	0	0	0	0	13
01:00	0	0	0	1	0	1	1	0	0	0	0	0	0	0	3
02:00	0	0	0	1	0	0	2	0	0	0	0	0	0	0	3
03:00	0	0	1	1	1	4	1	0	0	0	0	0	0	0	8
04:00	0	0	0	3	9	12	3	1	0	0	0	0	0	0	28
05:00	0	0	0	4	36	41	12	2	0	0	0	0	0	0	95
06:00	1	2	4	25	89	64	9	0	1	0	0	0	0	0	195
07:00	0	2	10	34	135	92	19	0	1	0	0	0	0	0	293
08:00	3	12	12	41	116	62	16	0	0	0	0	0	0	0	262
09:00	1	4	12	49	71	48	4	0	1	0	0	0	0	0	190
10:00	0	2	4	26	95	40	6	0	0	0	0	0	0	0	173
11:00	0	6	16	34	82	48	11	3	0	0	0	0	0	0	200
12 PM	0	6	7	40	104	51	5	1	0	0	0	0	0	0	214
13:00	1	3	9	37	82	38	8	1	1	0	0	0	0	0	180
14:00	2	11	12	39	85	55	9	1	0	0	0	0	0	0	214
15:00	2	10	14	49	101	58	18	1	0	0	0	0	0	0	253
16:00	0	7	14	58	119	50	2	0	0	0	0	0	0	0	250
17:00	1	8	26	65	90	25	3	0	0	0	0	0	0	0	218
18:00	0	3	7	42	71	45	3	0	1	0	0	0	0	0	172
19:00	0	2	8	22	52	36	4	0	0	0	0	0	0	0	124
20:00	0	6	1	14	44	22	6	1	0	0	0	0	0	0	94
21:00	0	1	2	17	26	13	2	0	0	0	0	0	0	0	61
22:00	0	2	2	8	24	11	2	2	0	0	0	0	0	0	51
23:00	0	0	1	3	16	11	2	1	0	0	0	0	0	0	34
Total	11	87	163	616	1455	828	148	15	5	0	0	0	0	0	3328

Daily

15th Percentile :	26 MPH
50th Percentile :	32 MPH
85th Percentile :	38 MPH
95th Percentile :	40 MPH
Mean Speed(Average) :	33 MPH
10 MPH Pace Speed :	31-40 MPH
Number in Pace :	2283
Percent in Pace :	68.6%
Number of Vehicles > 30 MPH :	2451
Percent of Vehicles > 30 MPH :	73.6%

Location : Columbian Street
Location : East of Cypress Street
City/State: Weymouth, MA

8135SPD2

WB

Start Time	1 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	76 999	Total
01/11/19	0	0	2	3	2	1	0	0	0	0	0	0	0	0	8
01:00	0	0	0	0	4	1	0	0	0	0	0	0	0	0	5
02:00	0	0	1	0	1	0	0	1	0	0	0	0	0	0	3
03:00	0	0	0	2	1	0	1	1	0	0	0	0	0	0	5
04:00	0	0	0	4	3	7	7	1	0	0	0	0	0	0	22
05:00	0	0	0	12	33	35	5	1	0	0	0	0	0	0	86
06:00	2	2	4	19	76	40	14	2	0	0	0	0	0	0	159
07:00	1	6	12	37	106	78	13	0	0	0	0	0	0	0	253
08:00	0	6	16	34	106	49	12	3	0	0	0	0	0	0	226
09:00	0	7	4	21	90	51	11	1	0	0	0	0	0	0	185
10:00	0	2	7	30	99	52	8	3	0	0	0	0	0	0	201
11:00	2	3	17	37	117	50	11	1	0	0	0	0	0	0	238
12 PM	0	4	7	27	103	53	15	1	0	0	0	0	0	0	210
13:00	0	3	6	29	84	61	5	1	1	0	0	0	0	0	190
14:00	2	5	9	30	97	63	11	0	0	0	0	0	0	0	217
15:00	3	5	8	30	100	73	9	0	0	0	0	0	0	0	228
16:00	1	1	12	56	102	65	19	3	0	0	0	0	0	0	259
17:00	2	10	9	41	87	46	6	1	0	0	0	0	0	0	202
18:00	1	4	9	37	78	46	14	0	0	0	0	0	0	0	189
19:00	0	2	6	27	76	39	4	1	0	0	0	0	0	0	155
20:00	2	1	7	23	38	34	3	1	0	0	0	0	0	0	109
21:00	0	3	6	16	29	17	1	0	0	0	0	0	0	0	72
22:00	0	2	2	10	29	25	0	0	0	0	0	0	0	0	68
23:00	0	3	1	9	18	18	0	0	1	0	0	0	0	0	50
Total	16	69	145	534	1479	904	169	22	2	0	0	0	0	0	3340

Daily

15th Percentile :	27 MPH
50th Percentile :	33 MPH
85th Percentile :	38 MPH
95th Percentile :	40 MPH
Mean Speed(Average) :	33 MPH
10 MPH Pace Speed :	31-40 MPH
Number in Pace :	2383
Percent in Pace :	71.3%
Number of Vehicles > 30 MPH :	2576
Percent of Vehicles > 30 MPH :	77.1%

Location : Columbian Street
Location : East of Cypress Street
City/State: Weymouth, MA

8135SPD2

WB

Start Time	1 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	76 999	Total
01/12/19	0	0	2	3	11	8	3	0	0	0	0	0	0	0	27
01:00	0	0	0	6	5	6	0	0	0	0	0	0	0	0	17
02:00	0	0	0	0	5	3	1	0	0	0	0	0	0	0	9
03:00	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2
04:00	0	0	0	1	2	2	0	0	0	0	0	0	0	0	5
05:00	0	0	0	2	10	5	1	1	0	0	0	0	0	0	19
06:00	0	2	3	6	16	12	5	0	0	0	0	0	0	0	44
07:00	0	0	0	4	33	38	11	3	0	0	0	0	0	0	89
08:00	2	6	5	6	46	52	10	1	0	0	0	0	0	0	128
09:00	3	14	24	25	47	48	6	1	0	0	0	0	0	0	168
10:00	0	1	14	19	75	86	15	2	0	0	0	0	0	0	212
11:00	0	0	6	23	104	91	19	1	0	0	0	0	0	0	244
12 PM	0	3	7	26	111	88	20	0	1	0	1	0	0	0	257
13:00	1	3	4	15	98	80	20	1	0	0	0	0	0	0	222
14:00	1	5	8	27	95	78	16	1	0	0	0	0	0	0	231
15:00	1	4	10	31	90	72	10	1	0	0	0	0	0	0	219
16:00	0	5	5	25	74	62	15	1	0	0	0	0	0	0	187
17:00	0	1	1	33	84	45	6	1	0	0	0	0	0	0	171
18:00	0	4	10	32	65	35	3	0	0	0	0	0	0	0	149
19:00	0	1	6	11	43	33	8	0	0	0	0	0	0	0	102
20:00	0	2	3	16	31	18	4	0	0	1	0	0	0	0	75
21:00	0	0	3	6	35	14	8	0	0	0	0	0	0	0	66
22:00	0	3	4	6	24	14	2	1	0	0	0	0	0	0	54
23:00	0	1	6	7	15	15	6	0	0	0	0	0	0	0	50
Total	8	55	121	330	1121	905	189	15	1	1	1	0	0	0	2747

Daily

15th Percentile :	28 MPH
50th Percentile :	33 MPH
85th Percentile :	38 MPH
95th Percentile :	41 MPH
Mean Speed(Average) :	34 MPH
10 MPH Pace Speed :	31-40 MPH
Number in Pace :	2026
Percent in Pace :	73.8%
Number of Vehicles > 30 MPH :	2233
Percent of Vehicles > 30 MPH :	81.3%

Grand Total	35	211	429	1480	4055	2637	506	52	8	1	1	0	0	0	9415

Overall

15th Percentile :	27 MPH
50th Percentile :	33 MPH
85th Percentile :	38 MPH
95th Percentile :	40 MPH
Mean Speed(Average) :	33 MPH
10 MPH Pace Speed :	31-40 MPH
Number in Pace :	6692
Percent in Pace :	71.1%
Number of Vehicles > 30 MPH :	7260
Percent of Vehicles > 30 MPH :	77.1%

Location : Columbian Street
Location : East of Cypress Street
City/State: Weymouth, MA

8135SPD2

EB, WB

Start Time	1 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	76 999	Total
01/10/19	0	0	2	4	11	3	0	1	0	0	0	0	0	0	21
01:00	0	0	2	3	5	3	1	0	0	0	0	0	0	0	14
02:00	0	0	0	3	0	0	2	0	0	0	0	0	0	0	5
03:00	0	0	2	3	3	5	1	0	0	0	0	0	0	0	14
04:00	0	0	0	4	13	14	3	1	0	0	0	0	0	0	35
05:00	0	1	0	15	44	46	12	2	0	0	0	0	0	0	120
06:00	1	5	8	44	133	85	11	1	1	0	0	0	0	0	289
07:00	0	10	17	70	209	109	22	0	1	0	0	0	0	0	438
08:00	6	24	24	84	180	82	19	1	0	0	0	0	0	0	420
09:00	5	8	29	102	148	83	6	0	1	0	0	0	0	0	382
10:00	0	6	16	72	184	71	10	0	0	0	0	0	0	0	359
11:00	2	17	24	80	186	82	17	3	0	0	0	0	0	0	411
12 PM	1	10	17	100	190	78	8	1	0	0	0	0	0	0	405
13:00	2	7	28	99	170	64	12	1	1	0	0	0	0	0	384
14:00	3	17	28	117	196	82	13	1	0	0	0	0	0	0	457
15:00	3	25	42	164	236	83	19	1	0	0	0	0	0	0	573
16:00	1	16	50	171	256	86	5	0	0	0	0	0	0	0	585
17:00	2	21	69	238	223	39	6	0	0	0	0	0	0	0	598
18:00	0	6	29	186	178	64	4	0	1	0	0	0	0	0	468
19:00	0	8	17	99	134	48	4	0	0	0	0	0	0	0	310
20:00	0	12	3	41	99	35	8	1	0	0	0	0	0	0	199
21:00	0	2	4	37	65	23	3	0	0	0	0	0	0	0	134
22:00	0	3	3	24	42	17	4	2	0	0	0	0	0	0	95
23:00	0	0	3	15	34	17	3	1	0	0	0	0	0	0	73
Total	26	198	417	1775	2939	1219	193	17	5	0	0	0	0	0	6789

Daily

15th Percentile :	26 MPH
50th Percentile :	31 MPH
85th Percentile :	36 MPH
95th Percentile :	39 MPH
Mean Speed(Average) :	32 MPH
10 MPH Pace Speed :	26-35 MPH
Number in Pace :	4714
Percent in Pace :	69.4%
Number of Vehicles > 30 MPH :	4373
Percent of Vehicles > 30 MPH :	64.4%

Location : Columbian Street
Location : East of Cypress Street
City/State: Weymouth, MA

8135SPD2

EB, WB

Start Time	1 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	76 999	Total
01/11/19	0	0	2	6	9	6	0	0	0	0	0	0	0	0	23
01:00	0	0	0	1	4	2	0	0	0	0	0	0	0	0	7
02:00	0	0	1	0	3	2	0	1	0	0	0	0	0	0	7
03:00	0	0	0	4	2	2	2	1	0	0	0	0	0	0	11
04:00	0	0	0	5	5	9	7	1	0	0	0	0	0	0	27
05:00	1	0	0	18	38	41	5	1	0	0	0	0	0	0	104
06:00	2	5	9	38	107	56	17	2	0	0	0	0	0	0	236
07:00	1	15	19	64	158	94	15	0	0	0	0	0	0	0	366
08:00	0	21	26	67	183	79	13	3	0	0	0	0	0	0	392
09:00	1	12	8	63	171	90	15	2	0	0	0	0	0	0	362
10:00	1	4	23	77	193	72	9	3	0	0	0	0	0	0	382
11:00	3	12	23	86	205	82	18	1	0	0	0	0	0	0	430
12 PM	0	8	22	71	190	99	16	1	0	0	0	0	0	0	407
13:00	0	8	25	87	198	92	7	1	1	0	0	0	0	0	419
14:00	3	17	35	106	236	98	13	0	0	0	0	0	0	0	508
15:00	5	16	19	139	251	113	13	0	0	0	0	0	0	0	556
16:00	3	11	37	189	247	98	21	4	0	0	0	0	0	0	610
17:00	4	18	38	185	200	67	7	1	0	0	0	0	0	0	520
18:00	2	10	26	142	202	66	15	0	0	0	0	0	0	0	463
19:00	0	3	23	86	155	54	7	1	0	0	0	0	0	0	329
20:00	2	3	14	62	86	54	5	2	0	0	0	0	0	0	228
21:00	1	9	10	44	70	30	4	1	0	0	0	0	0	0	169
22:00	0	3	7	20	68	32	2	0	0	0	0	0	0	0	132
23:00	0	5	1	21	38	26	2	1	1	0	0	0	0	0	95
Total	29	180	368	1581	3019	1364	213	27	2	0	0	0	0	0	6783

Daily

15th Percentile :	26 MPH
50th Percentile :	32 MPH
85th Percentile :	37 MPH
95th Percentile :	39 MPH
Mean Speed(Average) :	32 MPH
10 MPH Pace Speed :	26-35 MPH
Number in Pace :	4600
Percent in Pace :	67.8%
Number of Vehicles > 30 MPH :	4625
Percent of Vehicles > 30 MPH :	68.2%

Location : Columbian Street
Location : East of Cypress Street
City/State: Weymouth, MA

8135SPD2

EB, WB

Start Time	1 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	76 999	Total
01/12/19	0	1	3	15	21	15	4	0	0	0	0	0	0	0	59
01:00	0	1	0	6	9	6	1	1	0	0	0	0	0	0	24
02:00	0	0	0	2	11	3	1	0	0	0	0	0	0	0	17
03:00	0	0	1	1	8	0	0	0	0	0	0	0	0	0	10
04:00	0	0	0	3	5	3	0	0	0	0	0	0	0	0	11
05:00	0	1	0	4	16	5	4	1	0	0	0	0	0	0	31
06:00	0	4	3	13	38	27	9	0	0	0	0	0	0	0	94
07:00	0	4	4	21	59	54	12	3	0	0	0	0	0	0	157
08:00	2	7	9	32	102	87	17	2	0	0	0	0	0	0	258
09:00	5	19	32	63	115	84	6	1	0	0	0	0	0	0	325
10:00	0	6	20	40	196	128	23	3	0	0	0	0	0	0	416
11:00	1	21	18	73	223	146	25	1	0	0	0	0	0	0	508
12 PM	5	18	21	77	232	150	23	0	1	0	1	0	0	0	528
13:00	5	7	15	65	208	125	25	1	0	0	0	0	0	0	451
14:00	1	14	19	88	219	122	21	1	0	0	0	0	0	0	485
15:00	3	7	23	109	236	102	14	1	0	0	0	0	0	0	495
16:00	0	7	12	93	192	109	19	1	0	0	0	0	0	0	433
17:00	0	2	9	115	168	64	7	3	0	0	0	0	0	0	368
18:00	1	6	29	99	154	48	4	0	0	0	0	0	0	0	341
19:00	2	3	14	53	109	48	8	0	0	0	0	0	0	0	237
20:00	0	5	6	39	73	30	5	0	0	1	0	0	0	0	159
21:00	1	0	5	26	71	22	8	0	0	0	0	0	0	0	133
22:00	0	4	7	22	51	20	2	1	0	0	0	0	0	0	107
23:00	0	2	6	17	32	22	7	0	0	0	0	0	0	0	86
Total	26	139	256	1076	2548	1420	245	20	1	1	1	0	0	0	5733

Daily

15th Percentile :	27 MPH
50th Percentile :	32 MPH
85th Percentile :	37 MPH
95th Percentile :	39 MPH
Mean Speed(Average) :	33 MPH
10 MPH Pace Speed :	31-40 MPH
Number in Pace :	3968
Percent in Pace :	69.2%
Number of Vehicles > 30 MPH :	4236
Percent of Vehicles > 30 MPH :	73.9%

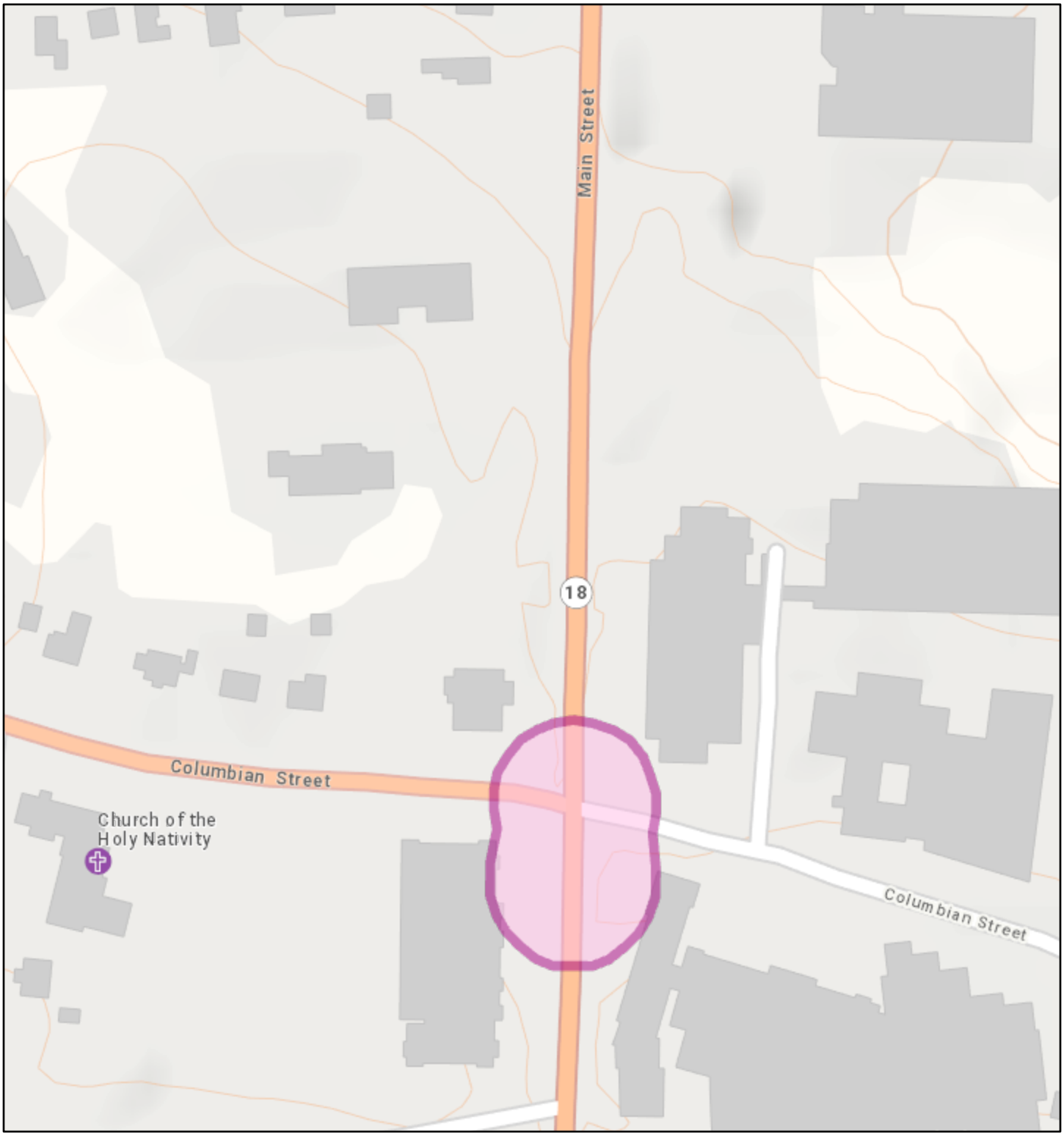
Grand Total	81	517	1041	4432	8506	4003	651	64	8	1	1	0	0	0	19305

Overall

15th Percentile :	26 MPH
50th Percentile :	32 MPH
85th Percentile :	37 MPH
95th Percentile :	39 MPH
Mean Speed(Average) :	32 MPH
10 MPH Pace Speed :	26-35 MPH
Number in Pace :	12938
Percent in Pace :	67.0%
Number of Vehicles > 30 MPH :	13234
Percent of Vehicles > 30 MPH :	68.6%

MASSDOT HIGH CRASH LOCATION MAPPING AND ROAD SAFETY AUDIT

MassDOT Top Crash Locations



1/19/2022, 10:53:23 AM

2017-2019 HSIP Cluster

1:2,257

0 0.01 0.03 0.05 mi

0 0.02 0.04 0.09 km

MassGIS

MassDOT
MassGIS |

ROAD SAFETY AUDIT

Main Street (Route 18) at Various Locations

Town of Weymouth

June 2011

Prepared for:
Massachusetts Department of Transportation

Prepared by:
Howard/Stein-Hudson Associates
38 Chauncy Street
Boston, MA 02111

Table 2. Summary of Potential Safety Enhancements

Location	Safety Enhancement	Safety Payoff	Time Frame	Cost	Responsibility
General Observations	Conduct statistical review of crashes throughout the corridor to identify outliers in trends (e.g., time of day, day of week, etc.).	Medium	Short-term	Low	MassDOT
	Review minimum green times and clearance intervals on a corridor-wide basis taking into account grade and heavy vehicles, per Institute of Transportation Engineers (ITE) standards.	High	Short-term	Low	MassDOT
Intersection #1: Main Street (Route 18)/Middle Street/West Street	Evaluate the appropriateness of providing protected only phasing for left-turns at the intersection. Consider the impacts on capacity versus the resulting safety benefits and the need for additional equipment (i.e., additional left-turn signal head for Route 18 northbound).	High	Short-term	Medium	MassDOT
	Consider the appropriateness of adding supplemental indications on the far-side of the intersection for left turning vehicles.	Medium	Long-term	Medium	MassDOT
	Review, and adjust as necessary, all minimum green times and clearance intervals taking into account grade and heavy vehicles, per Institute of Transportation Engineers (ITE) standards to help reduce the occurrence of rear-end and angle type crashes.	High	Short-term	Low	MassDOT
	Consider the appropriateness of installing a Dilemma-Zone Detection system to help reduce the frequency of red-light violations; crashes associated with the traffic signal phase change (e.g., rear-end and angle crashes), and reduce delay and stop frequency on the major road.	Medium	Long-term	Medium	MassDOT
	Realign traffic signal faces on span wire to improve visibility at each approach, and/or to center over travel lane, as appropriate/feasible.	Low	Short-term	Low	MassDOT
	Consider the appropriateness of tightening the radii at the corners of the intersection to reduce the turning speed of right-turning vehicles and improve safety. Consider heavy vehicle turning requirements and the impact (possible reduction) on clearance interval requirements.	Low	Long-term	High	MassDOT

Table 2. Summary of Potential Safety Enhancements (continued)

Location	Safety Enhancement	Safety Payoff	Time Frame	Cost	Responsibility
Intersection #1: Main Street (Route 18)/Middle Street/West Street (continued)	Re-stripe merge area along the Middle Street eastbound travel lane, to the east of the intersection.	Low	Short-term	Low	MassDOT
Intersection #2: Main Street (Route 18)/Park Avenue/Park Avenue West	Prohibit left-turns into Dunkin Donuts from Route 18 northbound by installing No Left Turn signage (i.e., R3-2) to encourage patrons to use the entrance via the traffic signal on Park Avenue West.	Medium	Short-term	Low	MassDOT
	Consider the appropriateness/feasibility of installing a median along the center of Route 18 to physically prohibit left-turns into driveways. Consider emergency vehicle access.	Medium	Long-term	High	MassDOT
	Reduce slope/grade change at Dunkin Donuts driveway to improve traffic flow into the site. Consider the appropriateness of replacing driveway apron with a curb cut and crosswalk or feasibility of re-grading the existing apron.	Medium	Short-term	Medium	MassDOT/ Dunkin Donuts
	Evaluate the appropriateness of providing protected only phasing for left-turns at the intersection. Consider the impacts on capacity versus the resulting safety benefits.	High	Short-term	Medium	MassDOT
	Consider the appropriateness of adding supplemental indications on the far-side of the intersection for left turning vehicles.	Medium	Long-term	Medium	MassDOT
	Review, and adjust as necessary, all minimum green times and clearance intervals taking into account grade and heavy vehicles, per Institute of Transportation Engineers (ITE) standards to help reduce the occurrence of rear-end and angle type crashes.	High	Short-term	Low	MassDOT

Table 2. Summary of Potential Safety Enhancements (continued)

Location	Safety Enhancement	Safety Payoff	Time Frame	Cost	Responsibility
Intersection #3: Main Street (Route 18)/Columbian Street	Review, and adjust as necessary, all minimum green times and clearance intervals taking into account grade and heavy vehicles, per Institute of Transportation Engineers (ITE) standards to help reduce the occurrence of rear-end and angle type crashes.	High	Short-term	Low	MassDOT
	Evaluate the appropriateness of providing protected only phasing for left-turns at the intersection. Consider the impacts on capacity versus the resulting safety benefits.	High	Short-term	Medium	MassDOT
	Consider the appropriateness of adding supplemental indications on the far-side of the intersection for left turning vehicles.	Medium	Long-term	Medium	MassDOT
Intersection #4: Main Street (Route 18)/Pond Street/Pleasant Street/Pleasant Street Shopping Center Driveway	Rotate Route 18 northbound signal head and No Left Turn sign (R3-2), where feasible, so that they are not/less visible from Pond Street eastbound approach (short-term).	Low	Short-term	Low	MassDOT
	Rotate the Pleasant Street westbound signal head, where feasible, so that it is not/less visible from the Route 18 northbound approach	Low	Short-term	Low	MassDOT
	Consider pavement marking enhancements at the Shopping Center Driveway intersection to make it “look” more like an intersection (short-term). Possible modifications for consideration may include changing the solid lane line to a dotted line, eliminating the solid edge line, changing the solid double yellow center line to a dotted yellow center line, and adding “do not block the box” signage and a box pavement marking, where enforceable.	Medium	Short-term	Low	MassDOT
	Consider reducing the length of the right-turn lane so that the Route 18 northbound approach is only two (through) lanes in the vicinity of the Shopping Center Driveway (long-term).	High	Long-term	High	MassDOT

Table 2. Summary of Potential Safety Enhancements (continued)

Location	Safety Enhancement	Safety Payoff	Time Frame	Cost	Responsibility
Intersection #5: Main Street (Route 18)/Pond Street/Route 58	Pull back median along the southern leg of the intersection that separates Route 18 northbound and southbound traffic to facilitate left turns from Route 58 north-westbound onto Route 18 southbound and maintain Keep Right signage (i.e., R4-7)	Medium	Long-term	Medium	MassDOT
	Remove/relocate signage, where feasible, that obstructs sight lines to the south of the CVS driveway in the short-term and relocate the traffic signal controller and any remaining signage that obstructs sight lines as part of the redesign (long-term).	Low	Short-/long-term	Low/High	MassDOT
	Evaluate the appropriateness of providing protected only phasing for left-turns at the intersection. Consider the impacts on capacity versus the resulting safety benefits.	High	Short-term	Medium	MassDOT
	Consider the appropriateness of adding supplemental indications on the far-side of the intersection for left turning vehicles.	Medium	Long-term	Medium	MassDOT
	Review, and adjust as necessary, all minimum green times and clearance intervals taking into account grade and heavy vehicles, per Institute of Transportation Engineers (ITE) standards to help reduce the occurrence of rear-end and angle type crashes.	High	Short-term	Low	MassDOT
	Review the Route 18 southbound left-turn volumes and consider the appropriateness of adding a dual left-turn and the impacts on adjacent property (e.g., need for land acquisition) or investigate the travel time/conditions of the parallel route (Rout e 18 vs. Route 58) for potential signal timing changes.	Medium	Long-term	High	MassDOT
	Replace existing incandescent traffic signal bulbs with LED indications as part of the reconstruction.	Low	Long-term	Low	MassDOT

TRIP GENERATION CALCULATIONS

Typical Daily Operations - McDonald Keohane Funeral Home, South Weymouth

We are a 7 day per week operation. Monday through Friday, our team begins arriving at the funeral home at 7:30 AM. In a typical workday, our full time staff leaves work at 4:30 PM. On any given day, we have about 8 full time employees in the office.

We have a reduced staff on weekends. On Saturdays, we typically arrive at 8:30 and on Sundays, we typically arrive at 10 AM. Our full time weekend staff is typically 3 people.

On mornings that we have funeral services, our part time support staff arrives about 1.5 hours prior to the time of the funeral. Our part time support teams typically consist of 4 people.

When families decide to have their loved one's funeral in a church, we typically gather in the funeral home prior to leaving in procession for church. Our support team lines up the cars and handles traffic control as we exit the parking lot. The average size of a funeral procession is about 25 cars with about 60 people, but this can vary greatly.

More and more families are choosing to have their loved one's services in the funeral home. Since more of these same families are choosing cremation, we have significantly less funeral processions leaving the parking lot. An average service in the funeral home would have about 60 attendees. Currently, our largest room can comfortably hold about 50 attendees. Often times, people have to stand in the hallway or sit on the other side of the building where they can't see the service. After a funeral home service that is followed by cremation, everybody (other than the immediate family) tends to leave the services at the same time. In these situations, our support staff handles traffic control just as they would if we were leaving in procession.

Our hope with the addition is to better serve the growing number of families that are choosing to have their loved one's service in the funeral home followed by (or preceded by) cremation. There is a real need for people to gather together in the same room for these services. It makes it a significantly more comfortable environment where families can better feel the support of the community around them. These types of services would be in the morning.

Our afternoon services consist of visiting hours. This is a less formal gathering of family and friends to share stories and offer condolences. Guests typically arrive in a 4 hour window. Most families choose the 4-8 PM hour timeframe on weekdays. On Sundays, most families choose 2-6 PM. Although there are rare exceptions, the vast majority of families leave 15 to 20 minutes after the end of the visiting hours. Once the cars leave the lot, our staff turns off the parking lot lights. The number of cars varies greatly for each visitation. Currently, if our lot gets full, people tend to park in the neighboring medical office properties. This is not appreciated by the neighbors. In our new parking plan, we want to have the capacity to fully cover all parking needs for over 99% of all visitations, relieving the need for people to pull back out onto Main Street in search of an offsite parking spot.

We have two limousines, 1 formal hearse and two minivans (that are used to transfer deceased people into our care from homes, hospitals and nursing homes) on property. The formal hearse and limousines would be garaged. They are only used for morning funerals so they would stay

garaged for the rest of the day. In the new addition, one of the mini vans would stay inside the attached garage on the hospital side of the property. The minivans go out 24 hours per day, but since they would be kept on the hospital side of the property, headlights would rarely be seen on the residential side of the property. Currently, our minivans are not under cover and we park them on the residential side of the property (not an ideal situation).

Funeral service is not like other business. The death rate controls how busy we are at any given time. Families are typically very loyal to the funeral home that has served them in the past, so it is exceedingly difficult to serve new families. Because of this, we do not expect a sizable growth in our business. Also, because there is a growing segment that is deciding not have services at all, our facility is not being used for every family like it was in the past. The main goal of this addition is to better serve the growing segment of families that prefer the "one stop shopping" experience. The want to comfort and convenience of a modern building with ample parking. Increasingly, more families are rejecting the traditional, old fashioned funeral home model. There is still a great need for families to gather with friends and family when a loved one dies, but the surroundings need to be more open and filled with natural light with modern conveniences.

Trip Generation Estimates

Operational Characteristics:

$Hours\ of\ Operation = 7{:}00\ AM - 5{:}00\ PM;\ Weekdays$
$8{:}00\ AM - 5{:}00\ PM; Saturday$
$10{:}00\ AM - 5{:}00\ PM;\ Sunday$
$On\ appointment\ outside\ of\ these\ hours$

$Full - Time\ Employees = 8\ (Weekday); 3\ (Weekends)$

Note: Full-Time staff are assumed to make 4 total site trips; 1 entering from residence, 1 exiting to break, 1 entering from break, and 1 exiting to residence.

$Part - Time\ Employees = 4\ to\ support\ events, arriving\ 45\ minutes\ prior\ to\ event$

Note: Part-Time staff are assumed to make 2 total site trips; 1 entering from residence and 1 exiting to residence.

Typical Funeral/Cremation Characteristics:

Note: Funeral and Cremation services are virtually identical from a transportation operations perspective
Note: One Funeral/Cremation service is held at the facility at a time

$Funeral/Cremation\ Services\ typically\ begin\ at\ 10{:}30\ AM\ and\ last\ 1\ hour$
$Funeral/Cremation\ Services\ typically\ have\ 60\ guests, arriving\ in\ 25\ vehicles.$

$$VOR = \frac{60\ guests}{25\ vehicles} = 2.40$$

Typical Visitation/Wake Characteristics:

Note: Two Visitation/Wake services can occur simultaneously
Note: Funeral/Cremation and Visitation/Wake services do not occur on the same day

$Visitation/Wake\ Services\ typically\ begin\ at\ 4{:}00\ PM\ on\ weekdays\ and\ 2{:}00\ PM\ on\ weekends$
$Visitation/Wake\ Services\ typically\ last\ 4\ hours$
$Visitation/Wake\ Services\ were\ assumed\ to\ have\ approxiamtely\ 196\ guests$

- *The family members and/or close personal relations typically attend the entire wake, with the remaining guests rotating throughout.*
- *For the purposes of this estimation the same VOR was assumed.*
- *It was assumed that half of the Funeral/Cremation guests would be family members and/or close personal relations.*
- *Per the funeral director, the proposed parking lot will hold the full balance of the wake/visitation guests; currently parking occurs on neighboring parcels. The site will provide 117 parking spaces, 4 will be used by facility vehicles, 25 by the family/close personal guests, leaving a total of 88 spaces for visitation/wake guests. An 80% parking lot occupancy rate was used*
- $88 \times 0.80 = 70.4 \approx 70\ Spaces\ remianing\ for\ the\ \mathbf{two}\ Visitations/Wakes.$
- $35\ Vehicles\ \times 2.40\ VOR \approx 84\ Guests$ *per* ***single*** *Visitation/Wake*
- *It was assumed the remainder of the wake/visitation guests (not family/close personal) would rotate, with a duration of approximately 1 hour.*

General Assumptions:

$Weekday\ Morning\ Peak\ Period = 7{:}00 - 9{:}00\ AM$
$Weekday\ Evening\ Peak\ Period = 4{:}00 - 6{:}00\ PM$
$Saturday\ Midday\ Peak\ Period = 11{:}00\ AM - 2{:}00\ PM$

Trip Generation Estimates – Daily Operations

Average Weekday Daily Trip Generation:
$8\ Full-Time\ Employees \times 4\ Trips\ (50\%\ In; 50\%\ Out) = \mathbf{36}$
$Assume\ 10\%\ for\ Misc. Trips = 36 \times 1.10 = 39.6 \approx \mathbf{40}\ (20\ Enter; 20\ Exit)$

Average Weekday Morning Peak Hour Trip Generation:
$8\ Full-Time\ Employees \times 1\ Trip\ (\sim 90\%\ In; \sim 10\%\ Out) = \mathbf{8}$
$Assume\ 10\%\ for\ Misc. Trips = 8 \times 1.10 = 8.8 \approx \mathbf{9}\ (8\ Enter; 1\ Exit)$

Average Weekday Evening Peak Hour Trip Generation:
$8\ Full-Time\ Employees \times 1\ Trip\ (\sim 10\%\ In; \sim 90\%\ Out) = \mathbf{8}$
$Assume\ 10\%\ for\ Misc. Trips = 8 \times 1.10 = 8.8 \approx \mathbf{9}\ (1\ Enter; 8\ Exit)$

Average Saturday Trip Generation:
$3\ Full-Time\ Employees \times 4\ Trips\ (50\%\ In; 50\%\ Out) = \mathbf{12}$
$Assume\ 10\%\ for\ Misc. Trips = 12 \times 1.10 = 13.2 \approx \mathbf{14}\ (7\ Enter; 7\ Exit)$

Average Saturday Midday Peak Hour Trip Generation:
Note: Consists of the break switchover of Full-Time staff.
$3\ Full-Time\ Employees \times 2\ Trips\ (50\%\ In; 50\%\ Out) = \mathbf{6}$
$Assume\ 10\%\ for\ Misc. Trips = 6 \times 1.10 = 6.6 \approx \mathbf{7}\ (4\ Enter; 3\ Exit)$

Trip Generation Estimates – Funeral/Cremation Services

Average Weekday Daily Trip Generation:

$8\ Full-Time\ Employees \times 4\ Trips\ (50\%\ In; 50\%\ Out) = \mathbf{36}$

$4\ Part-Time\ Employees \times 2\ Trips\ (50\%\ In; 50\%\ Out) = \mathbf{8}$

$\frac{60\ Guests}{2.40\ VOR} \times 2\ Trips\ (50\%\ In; 50\%\ Out) = \mathbf{50}$

$Assume\ 10\%\ for\ Misc. Trips = (36 + 8 + 50) \times 1.10 = 103.4 \approx \mathbf{104}\ (52\ Enter; 52\ Exit)$

Average Weekday Morning Peak Hour Trip Generation:

Note: Consists of the arrival of Full-Time staff only.

$8\ Full-Time\ Employees \times 1\ Trip\ (\sim 90\%\ In; \sim 10\%\ Out) = \mathbf{8}$

$Assume\ 10\%\ for\ Misc. Trips = 8 \times 1.10 = 8.8 \approx \mathbf{9}\ (8\ Enter; 1\ Exit)$

Average Weekday Evening Peak Hour Trip Generation:

Note: Consists of the departure of Full-Time staff only.

$8\ Full-Time\ Employees \times 1\ Trip\ (\sim 10\%\ In; \sim 90\%\ Out) = \mathbf{8}$

$Assume\ 10\%\ for\ Misc. Trips = 8 \times 1.10 = 8.8 \approx \mathbf{9}\ (1\ Enter; 8\ Exit)$

Average Saturday Trip Generation:

$3\ Full-Time\ Employees \times 4\ Trips\ (50\%\ In; 50\%\ Out) = \mathbf{12}$

$4\ Part-Time\ Employees \times 2\ Trips\ (50\%\ In; 50\%\ Out) = \mathbf{8}$

$\frac{60\ Guests}{2.40\ VOR} \times 2\ Trips\ (50\%\ In; 50\%\ Out) = \mathbf{50}$

$Assume\ 10\%\ for\ Misc. Trips = (12 + 8 + 50) \times 1.10 = 77.0 \approx \mathbf{78}\ (39\ Enter; 39\ Exit)$

Average Saturday Midday Peak Hour Trip Generation:

Note: Consists of the break switchover of Full-Time staff, the departure of the Part-Time staff, and the departure of the Guests.

$3\ Full-Time\ Employees \times 2\ Trips\ (50\%\ In; 50\%\ Out) = \mathbf{6}$

$4\ Part-Time\ Employees \times 1\ Trips\ (0\%\ In; 100\%\ Out) = \mathbf{4}$

$\frac{60\ Guests}{2.40\ VOR} \times 1\ Trips\ (0\%\ In; 100\%\ Out) = \mathbf{25}$

$Assume\ 10\%\ for\ Misc. Trips = (6 + 4 + 25) \times 1.10 = 38.5 \approx \mathbf{39}\ (4\ Enter; 35\ Exit)$

Trip Generation Estimates – Visitation/Wake Services

Average Weekday Daily Trip Generation:

Note: Consists of Full-Time staff, Part-Time staff, and two (2) concurrent Visitation/Wake Services, each consisting of 30 family/close personal guests and 240 visitation/wake guests.

$8\ Full-Time\ Employees \times 4\ Trips\ (50\%\ In; 50\%\ Out) = \mathbf{36}$

$4\ Part-Time\ Employees \times 2\ Trips\ (50\%\ In; 50\%\ Out) = \mathbf{8}$

$\frac{60\ Guests}{2.40\ VOR} \times 2\ Trips\ (50\%\ In; 50\%\ Out) = \mathbf{50}$

$\frac{168\ Guests}{2.40\ VOR} \times 2\ Trips\ (50\%\ In; 50\%\ Out) \approx \mathbf{140}$

$Assume\ 10\%\ for\ Misc.Trips = (36 + 8 + 50 + 140) \times 1.10 = 257.4 \approx \mathbf{258}\ (129\ Enter; 129\ Exit)$

Average Weekday Morning Peak Hour Trip Generation:

Note: Consists of the arrival of Full-Time staff only.

$8\ Full-Time\ Employees \times 1\ Trip\ (\sim 90\%\ In; \sim 10\%\ Out) = \mathbf{8}$

$Assume\ 10\%\ for\ Misc.Trips = 8 \times 1.10 = 8.8 \approx \mathbf{9}\ (8\ Enter; 1\ Exit)$

Average Weekday Evening Peak Hour Trip Generation:

Note: Consists of the departure of Full-Time staff, the arrival of the Part-Time staff, the arrival of the family/close personal guests, the arrival and departure of the first wave of visitation/wake guests and the arrival of the second wave of visitation/wake guests; and the hosting of two concurrent visitation/wake services.

$8\ Full-Time\ Employees \times 1\ Trip\ (\sim 10\%\ In; \sim 90\%\ Out) = \mathbf{8}$

$4\ Part-Time\ Employees \times 1\ Trips\ (100\%\ In; 0\%\ Out) = \mathbf{4}$

$\frac{60\ Guests}{2.40\ VOR} \times 1\ Trips\ (100\%\ In; 0\%\ Out) = \mathbf{25}$

$\frac{1}{4} \times \frac{168\ Guests}{2.40\ VOR} \times 2\ Trips\ (50\%\ In; 50\%\ Out) \approx \mathbf{36}$

$\frac{1}{4} \times \frac{168\ Guests}{2.40\ VOR} \times 1\ Trip\ (100\%\ In; 0\%\ Out) \approx \mathbf{18}$

$Assume\ 10\%\ for\ Misc.Trips = (8 + 4 + 25 + 41 + 20) \times 1.10 = 100.1 \approx \mathbf{100}\ (71\ Enter; 29\ Exit)$

Average Saturday Trip Generation:

Note: Consists of Full-Time staff, Part-Time staff, and two (2) concurrent Visitation/Wake Services, each consisting of 30 family/close personal guests and 240 visitation/wake guests.

$3\ Full-Time\ Employees \times 4\ Trips\ (50\%\ In; 50\%\ Out) = \mathbf{12}$

$4\ Part-Time\ Employees \times 2\ Trips\ (50\%\ In; 50\%\ Out) = \mathbf{8}$

$\frac{60\ Guests}{2.40\ VOR} \times 2\ Trips\ (50\%\ In; 50\%\ Out) = \mathbf{50}$

$\frac{168\ Guests}{2.40\ VOR} \times 2\ Trips\ (50\%\ In; 50\%\ Out) \approx \mathbf{140}$

$Assume\ 10\%\ for\ Misc.Trips = (12 + 8 + 50 + 140) \times 1.10 = 231.0 \approx \mathbf{232}\ (116\ Enter; 116\ Exit)$

Average Saturday Midday Peak Hour Trip Generation:

Note: Consists of the break switchover of Full-Time staff, the arrival of the Part-Time staff, the arrival of the family/close personal guests, the arrival of the first wave of visitation/wake guests; and the hosting of two concurrent visitation/wake services.

$3\ Full-Time\ Employees \times 1\ Trip\ (50\%\ In; 50\%\ Out) = \mathbf{6}$

$4\ Part-Time\ Employees \times 1\ Trips\ (100\%\ In; 0\%\ Out) = \mathbf{4}$

$\frac{60\ Guests}{2.40\ VOR} \times 1\ Trips\ (100\%\ In; 0\%\ Out) = \mathbf{25}$

$\frac{1}{4} \times \frac{168\ Guests}{2.40\ VOR} \times 1\ Trip\ (100\%\ In; 0\%\ Out) \approx \mathbf{18}$

$Assume\ 10\%\ for\ Misc.Trips = (6 + 4 + 25 + 18) \times 1.10 = 58.3 \approx \mathbf{58}\ (55\ Enter; 3\ Exit)$