

MEMORANDUM

TO: Ms. Mary Savage Dunham, AICP, CFM
Director of Community Planning
Town of Hingham
210 Central Street
Hingham, MA 02043

FROM: Mr. Jeffrey S. Dirk, P.E., PTOE, FITE
Principal
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35 New England Business Center Drive
Suite 140
Andover, MA 01810
(978) 269-9830
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DATE: February 9, 2018

RE: 7744

SUBJECT: Merchant's Parking Lot
Parking Demand Observations
Hingham, Massachusetts

Vanasse & Associates, Inc. (VAI) has completed an assessment of parking demands within the Merchant's parking lot located behind Loring Hall and between Main Street and Central Street in Hingham, Massachusetts. The purpose of this assessment is to: i) determine the peak parking demand within the Merchant's parking lot; and ii) evaluate the available parking supply as it relates to the identified peak demand period.

Based on this analysis, we have determined the following with respect to parking demands within the Merchant's parking lot:

1. The Merchant's Street parking lot provides a total available parking supply of 143 spaces including two (2) handicapped accessible spaces and 117 parking spaces that are regulated (by signs) as 3-hour parking between 8 AM and 6 PM (regulated by parking stickers thereafter), of which 137 spaces (96 percent) were found to be occupied during the peak parking demand period (10:30 AM) on a weekday, 113 spaces (79 percent) were found to be occupied during the peak parking demand period (1:00 PM) on a Saturday, and 38 spaces (27 percent) were found to be occupied during the peak parking demand period (12:00 PM) on a Sunday;
2. Parking demands within the lot were found to drop significantly after 4:30 PM on a weekday and after 3:00 PM on Saturday, with less than 50 percent of the available parking spaces occupied;
3. On a Sunday parking utilization was found to be less than 30 percent; and
4. The parking spaces in the northern and central portion of the parking lot were occupied on a regular basis, with those spaces along the southern perimeter of the lot used less frequently; the parking field closest to Central Street was observed to be the most heavily utilized.

The following details the methodology and findings of the parking demand study for the Merchant's parking lot.

PARKING DEMAND STUDY

A detailed parking demand study was conducted for the Merchant's parking lot in order to identify parking demands and utilization within the parking field. The Merchant's parking lot is located behind Loring Hall and between Main Street and Central Street. Figure 1 depicts the Merchant's parking lot location and layout.

Parking Inventory

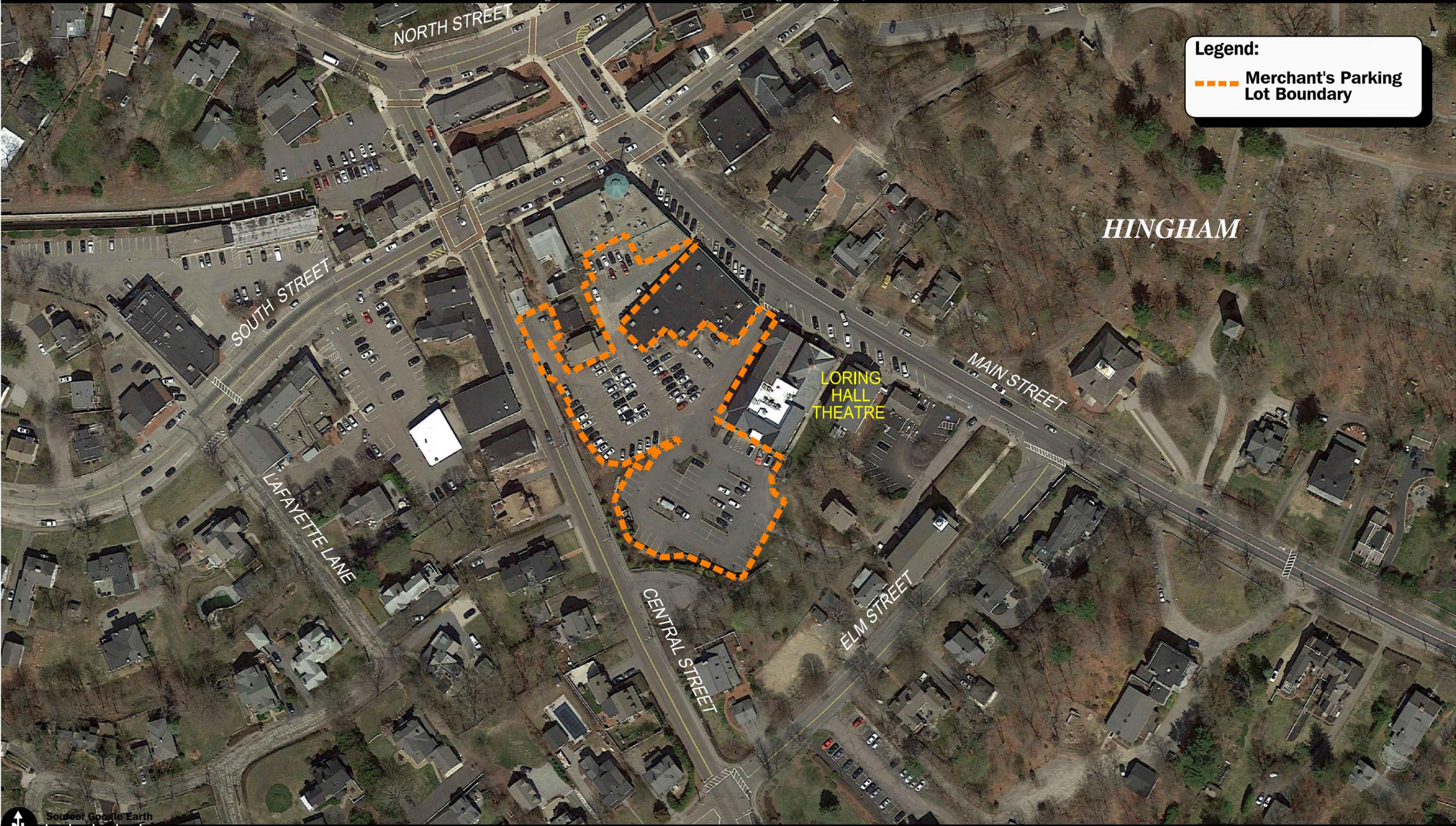
A detailed inventory of the existing parking supply within the Merchant's parking lot was conducted in November 2017. Based on this inventory, it was determined that the Merchant's parking lot currently contains a total of 143 marked parking spaces, including two (2) handicapped accessible spaces and 117 parking spaces that are regulated (by signs) as 3-hour parking between 8 AM and 6 PM, and then regulated by parking stickers thereafter.

Parking Demand Observations

In order to determine the parking demands and space utilization within the Merchant's parking lot, parking demand observations were conducted on Wednesday, November 15, 2017; Saturday, December 2, 2017; and Sunday, December 3, 2017; under favorable (sunny) weather conditions between 10:00 AM and 10:00 PM. The parking observations were completed in 30 minute intervals during the observation period and included both the number of vehicles parked and their location within the parking field. Table 1 summarizes the observed parking demands for each of the observation days, with the peak parking demand period shaded for identification.

As can be seen in Table 1, the observed peak parking demand within the Merchant's parking lot during the weekday observation period was identified to occur at 10:30 AM with 137 spaces occupied, or approximately 96 percent occupancy of the available spaces within the lot (143 spaces). During the Saturday observation period, the peak parking demand was identified to occur at 1:00 PM with 113 spaces occupied, or approximately 79 percent occupancy. During the Sunday observation period, the peak parking demand was identified to occur at 12:00 PM (noon) with 38 spaces occupied, or approximately 27 percent occupancy.

A review of parking utilization within the parking field indicated that parking spaces in the northern and central portion of the parking lot were occupied on a regular basis, with those spaces along the southern perimeter of the lot used less frequently. The parking field closest to Central Street was observed to be the most heavily utilized during the observation periods.



Legend:
 --- Merchant's Parking Lot Boundary

Figure 1
 Merchant's Parking Lot

Table 1
MERCHANT'S PARKING LOT
PARKING DEMAND OBSERVATIONS

| Time | Wednesday, November 15, 2017 | | Saturday, December 2, 2017 | | Sunday, December 3, 2017 | |
|------------|-----------------------------------|------------------------------------|-----------------------------------|------------------------------------|-----------------------------------|------------------------------------|
| | Number of Occupied Parking Spaces | Parking Occupancy (%) ^a | Number of Occupied Parking Spaces | Parking Occupancy (%) ^a | Number of Occupied Parking Spaces | Parking Occupancy (%) ^a |
| 10:00 AM | 133 | 93 | 82 | 57 | 30 | 21 |
| 10:30 | 137 | 96 | 90 | 63 | 34 | 24 |
| 11:00 | 117 | 82 | 91 | 64 | 31 | 22 |
| 11:30 | 105 | 73 | 92 | 64 | 33 | 23 |
| 12:00 Noon | 111 | 78 | 104 | 73 | 38 | 27 |
| 12:30 PM | 111 | 78 | 97 | 68 | 36 | 25 |
| 1:00 | 119 | 83 | 113 | 79 | 38 | 27 |
| 1:30 | 115 | 80 | 104 | 73 | 32 | 22 |
| 2:00 | 109 | 76 | 98 | 69 | 32 | 22 |
| 2:30 | 107 | 75 | 92 | 64 | 30 | 21 |
| 3:00 | 115 | 80 | 75 | 52 | 31 | 22 |
| 3:30 | 109 | 76 | 63 | 44 | 31 | 22 |
| 4:00 | 107 | 75 | 63 | 44 | 23 | 16 |
| 4:30 | 97 | 68 | 54 | 38 | 24 | 17 |
| 5:00 | 75 | 52 | 42 | 29 | 21 | 15 |
| 5:30 | 51 | 36 | 39 | 27 | 16 | 11 |
| 6:00 | 38 | 27 | 33 | 23 | 14 | 10 |
| 6:30 | 32 | 22 | 29 | 20 | 12 | 8 |
| 7:00 | 32 | 22 | 32 | 22 | 10 | 7 |
| 7:30 | 26 | 18 | 21 | 15 | 10 | 7 |
| 8:00 | 23 | 16 | 17 | 12 | 10 | 7 |
| 8:30 | 22 | 15 | 18 | 13 | 8 | 6 |
| 9:00 | 11 | 8 | 17 | 12 | 8 | 6 |
| 9:30 | 7 | 5 | 14 | 10 | 8 | 6 |
| 10:00 | 5 | 3 | 8 | 6 | 8 | 6 |

^aBased on 143 available parking spaces including (2) handicapped accessible spaces.



SUMMARY AND CONCLUSIONS

VAI has completed an assessment of parking demands within the Merchant's parking lot located behind Loring Hall and between Main Street and Central Street in Hingham, Massachusetts. The purpose of this assessment was to: i) determine the peak parking demand within the Merchant's parking lot; and ii) evaluate the available parking supply as it relates to the identified peak demand period.

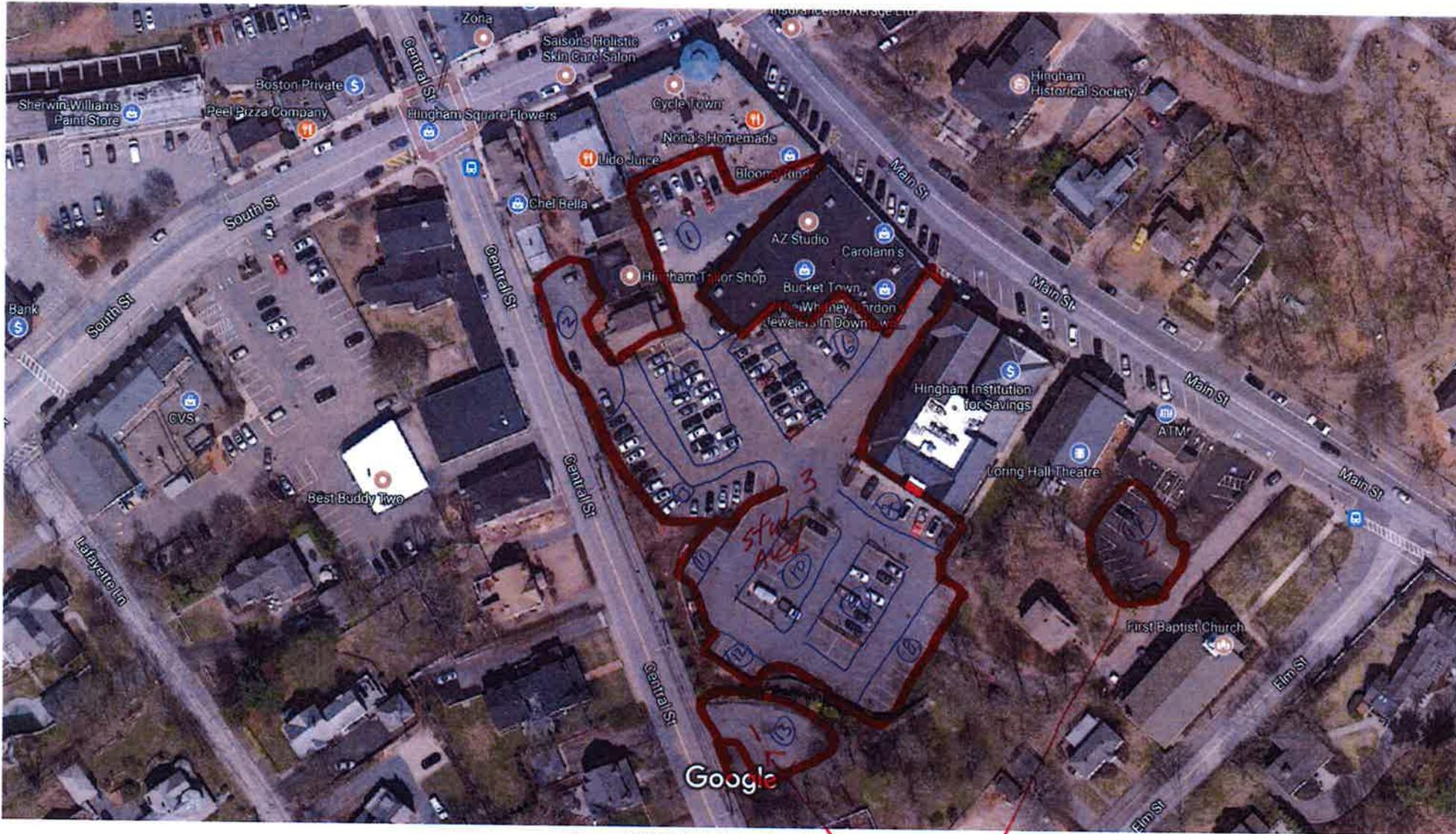
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3. On a Sunday parking utilization was found to be less than 30 percent; and
4. The parking spaces in the northern and central portion of the parking lot were occupied on a regular basis, with those spaces along the southern perimeter of the lot used less frequently; the parking field closest to Central Street was observed to be the most heavily utilized.

cc: File

PARKING DEMAND OBSERVATIONS





Imagery ©2017 DigitalGlobe, MassGIS, Commonwealth of Massachusetts EOE, Map data ©2017 Google 50 ft

study Area

Mainstreet, Hingham, MA
VAI job # 7744

TDC

Transportation Data Corporation

P.O. Box 486 Norwood, MA 02062

tel (781) 587-0086 cell (781) 439-4999

Merchant's Lot Parking Lot Accumulation Study

25-39 Main Street

Hingham, MA

Wednesday, November 15, 2017

10:00 AM-10:00 PM

Client: VAI/B. Guen

TDC #04973

| Parking Area # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | Total |
|----------------|----|---|----|----|----|---|---|----|----|----|----|----|-------|
| Capacity: | 18 | 8 | 16 | 20 | 15 | 5 | 8 | 10 | 18 | 15 | 5 | 5 | 143 |

| Time: | Parking Area/No. of Vehicles Parked | | | | | | | | | | | | Total |
|----------|-------------------------------------|---|----|----|----|---|---|----|----|----|----|----|-------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| 10:00 AM | 13 | 5 | 16 | 21 | 15 | 4 | 6 | 10 | 16 | 15 | 6 | 6 | 133 |
| 10:30 AM | 16 | 7 | 17 | 21 | 15 | 4 | 5 | 10 | 16 | 15 | 5 | 6 | 137 |
| 11:00 AM | 11 | 5 | 13 | 17 | 13 | 5 | 5 | 10 | 16 | 14 | 3 | 5 | 117 |
| 11:30 AM | 13 | 4 | 13 | 18 | 12 | 4 | 2 | 9 | 13 | 12 | 2 | 3 | 105 |
| 12:00 PM | 16 | 4 | 14 | 19 | 12 | 4 | 2 | 7 | 14 | 12 | 4 | 3 | 111 |
| 12:30 PM | 15 | 4 | 17 | 21 | 12 | 4 | 2 | 7 | 12 | 11 | 4 | 2 | 111 |
| 1:00 PM | 17 | 6 | 16 | 22 | 14 | 4 | 2 | 7 | 13 | 12 | 4 | 2 | 119 |
| 1:30 PM | 15 | 5 | 16 | 21 | 15 | 4 | 2 | 8 | 12 | 10 | 4 | 3 | 115 |
| 2:00 PM | 15 | 5 | 16 | 20 | 13 | 4 | 2 | 8 | 12 | 8 | 4 | 2 | 109 |
| 2:30 PM | 14 | 5 | 12 | 21 | 13 | 4 | 2 | 8 | 11 | 10 | 4 | 3 | 107 |
| 3:00 PM | 14 | 6 | 14 | 20 | 14 | 4 | 4 | 6 | 15 | 10 | 4 | 4 | 115 |
| 3:30 PM | 12 | 4 | 16 | 17 | 14 | 4 | 2 | 8 | 14 | 11 | 3 | 4 | 109 |
| 4:00 PM | 10 | 4 | 13 | 19 | 15 | 4 | 2 | 8 | 15 | 11 | 3 | 3 | 107 |
| 4:30 PM | 9 | 4 | 12 | 18 | 11 | 4 | 2 | 8 | 12 | 11 | 3 | 3 | 97 |
| 5:00 PM | 6 | 4 | 11 | 16 | 10 | 4 | 1 | 5 | 5 | 7 | 3 | 3 | 75 |
| 5:30 PM | 5 | 4 | 8 | 12 | 7 | 2 | 1 | 2 | 4 | 3 | 2 | 1 | 51 |
| 6:00 PM | 6 | 4 | 6 | 9 | 6 | 1 | 2 | 1 | 1 | 0 | 1 | 1 | 38 |
| 6:30 PM | 5 | 4 | 5 | 8 | 5 | 1 | 2 | 0 | 0 | 0 | 1 | 1 | 32 |
| 7:00 PM | 5 | 4 | 5 | 8 | 5 | 1 | 2 | 0 | 0 | 0 | 1 | 1 | 32 |
| 7:30 PM | 5 | 2 | 4 | 9 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 26 |
| 8:00 PM | 5 | 2 | 4 | 8 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 23 |
| 8:30 PM | 5 | 2 | 5 | 7 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 22 |
| 9:00 PM | 1 | 2 | 1 | 3 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 |
| 9:30 PM | 1 | 2 | 0 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| 10:00 PM | 0 | 2 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |

Notes:

Parking Area #7 incl. (2) HP Spaces

Areas #3 through #12 are marked "3-Hr. Parking 8 AM-6 PM", Sticker Parking thereafter.

(No enforcement was observed however).

TDC

Transportation Data Corporation

P.O. Box 486 Norwood, MA 02062

tel (781) 587-0086 cell (781) 439-4999

Merchant's Lot Parking Lot Accumulation Study

25-39 Main Street

Hingham, MA

Saturday, December 2, 2017

10:00 AM-10:00 PM

Client: VAI/B. Guen

TDC #04973

| Parking Area # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | Total |
|----------------|----|---|----|----|----|---|---|----|----|----|----|----|-------|
| Capacity: | 18 | 8 | 16 | 20 | 15 | 5 | 8 | 10 | 18 | 15 | 5 | 5 | 143 |

| Time: | Parking Area/No. of Vehicles Parked | | | | | | | | | | | | Total |
|----------|-------------------------------------|---|----|----|----|---|---|---|----|----|----|----|-------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| 10:00 AM | 9 | 4 | 17 | 20 | 14 | 3 | 3 | 0 | 3 | 5 | 3 | 1 | 82 |
| 10:30 AM | 12 | 5 | 16 | 17 | 15 | 4 | 3 | 1 | 5 | 6 | 4 | 2 | 90 |
| 11:00 AM | 12 | 5 | 16 | 19 | 17 | 4 | 3 | 2 | 4 | 5 | 2 | 2 | 91 |
| 11:30 AM | 12 | 4 | 18 | 20 | 17 | 3 | 3 | 0 | 3 | 7 | 3 | 2 | 92 |
| 12:00 PM | 13 | 5 | 19 | 19 | 17 | 3 | 4 | 0 | 5 | 10 | 5 | 4 | 104 |
| 12:30 PM | 10 | 6 | 17 | 17 | 17 | 3 | 4 | 0 | 7 | 9 | 3 | 4 | 97 |
| 1:00 PM | 11 | 6 | 17 | 20 | 16 | 3 | 4 | 6 | 11 | 11 | 4 | 4 | 113 |
| 1:30 PM | 10 | 5 | 17 | 20 | 17 | 3 | 4 | 4 | 8 | 8 | 4 | 4 | 104 |
| 2:00 PM | 13 | 3 | 16 | 17 | 14 | 3 | 4 | 4 | 8 | 8 | 4 | 4 | 98 |
| 2:30 PM | 10 | 2 | 15 | 16 | 14 | 3 | 4 | 4 | 10 | 6 | 4 | 4 | 92 |
| 3:00 PM | 9 | 2 | 11 | 16 | 13 | 3 | 4 | 1 | 6 | 4 | 2 | 4 | 75 |
| 3:30 PM | 6 | 2 | 9 | 13 | 13 | 3 | 4 | 0 | 5 | 3 | 3 | 2 | 63 |
| 4:00 PM | 6 | 2 | 9 | 13 | 13 | 3 | 4 | 0 | 5 | 3 | 3 | 2 | 63 |
| 4:30 PM | 5 | 0 | 9 | 12 | 9 | 3 | 4 | 0 | 4 | 3 | 3 | 2 | 54 |
| 5:00 PM | 3 | 1 | 8 | 9 | 7 | 3 | 4 | 0 | 2 | 1 | 2 | 2 | 42 |
| 5:30 PM | 2 | 1 | 7 | 8 | 11 | 0 | 3 | 0 | 2 | 1 | 2 | 2 | 39 |
| 6:00 PM | 2 | 1 | 6 | 7 | 10 | 0 | 1 | 0 | 2 | 1 | 1 | 2 | 33 |
| 6:30 PM | 2 | 1 | 3 | 7 | 10 | 0 | 1 | 0 | 2 | 0 | 1 | 2 | 29 |
| 7:00 PM | 3 | 1 | 2 | 8 | 11 | 0 | 1 | 0 | 3 | 0 | 1 | 2 | 32 |
| 7:30 PM | 2 | 2 | 2 | 6 | 5 | 0 | 1 | 0 | 3 | 0 | 0 | 0 | 21 |
| 8:00 PM | 0 | 1 | 3 | 5 | 5 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 17 |
| 8:30 PM | 0 | 0 | 3 | 5 | 7 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 18 |
| 9:00 PM | 1 | 0 | 3 | 6 | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 17 |
| 9:30 PM | 0 | 0 | 3 | 5 | 5 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 14 |
| 10:00 PM | 0 | 0 | 3 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |

Notes:

Parking Area #7 incl. (2) HP Spaces

Areas #3 through #12 are marked "3-Hr. Parking 8 AM-6 PM", Sticker Parking thereafter.

(No enforcement was observed however).

TDC

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tel (781) 587-0086 cell (781) 439-4999

Merchant's Lot Parking Lot Accumulation Study

25-39 Main Street
Hingham, MA

Sunday, December 3, 2017

10:00 AM-10:00 PM (12/3/2017)

Client: VA/B. Guen

TDC #04973

| Parking Area # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | Total |
|----------------|----|---|----|----|----|---|---|----|----|----|----|----|-------|
| Capacity: | 18 | 8 | 16 | 20 | 15 | 5 | 8 | 10 | 18 | 15 | 5 | 5 | 143 |

| Time: | Parking Area/No. of Vehicles Parked | | | | | | | | | | | | Total |
|----------|-------------------------------------|---|---|---|----|---|---|---|---|----|----|----|-------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| 10:00 AM | 8 | 4 | 5 | 6 | 4 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 30 |
| 10:30 AM | 8 | 4 | 5 | 7 | 6 | 0 | 1 | 2 | 1 | 0 | 0 | 0 | 34 |
| 11:00 AM | 10 | 2 | 1 | 9 | 4 | 0 | 2 | 2 | 1 | 0 | 0 | 0 | 31 |
| 11:30 AM | 10 | 3 | 2 | 9 | 4 | 0 | 2 | 2 | 1 | 0 | 0 | 0 | 33 |
| 12:00 PM | 9 | 3 | 3 | 8 | 7 | 2 | 2 | 2 | 1 | 0 | 0 | 1 | 38 |
| 12:30 PM | 8 | 4 | 2 | 7 | 8 | 3 | 2 | 0 | 2 | 0 | 0 | 0 | 36 |
| 1:00 PM | 11 | 3 | 2 | 5 | 12 | 3 | 1 | 0 | 1 | 0 | 0 | 0 | 38 |
| 1:30 PM | 8 | 2 | 2 | 5 | 10 | 3 | 1 | 0 | 1 | 0 | 0 | 0 | 32 |
| 2:00 PM | 10 | 2 | 2 | 4 | 10 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 32 |
| 2:30 PM | 8 | 3 | 2 | 4 | 9 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 30 |
| 3:00 PM | 11 | 4 | 2 | 4 | 6 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 31 |
| 3:30 PM | 9 | 4 | 2 | 3 | 7 | 3 | 1 | 2 | 0 | 0 | 0 | 0 | 31 |
| 4:00 PM | 7 | 2 | 2 | 3 | 6 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 23 |
| 4:30 PM | 7 | 3 | 2 | 4 | 6 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 24 |
| 5:00 PM | 6 | 2 | 2 | 4 | 5 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 21 |
| 5:30 PM | 5 | 2 | 1 | 1 | 5 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 16 |
| 6:00 PM | 4 | 2 | 1 | 2 | 3 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 14 |
| 6:30 PM | 5 | 2 | 1 | 2 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 12 |
| 7:00 PM | 4 | 3 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 |
| 7:30 PM | 4 | 3 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 |
| 8:00 PM | 4 | 3 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 |
| 8:30 PM | 2 | 3 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| 9:00 PM | 2 | 3 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| 9:30 PM | 2 | 3 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| 10:00 PM | 2 | 3 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |

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