

To: Damien Chaviano
 Mark Development, LLC
 File: 1314 Washington Parking Counts Memo







From: Jason Schrieber, AICP
 Stantec, Inc.
 Date: August 16, 2018

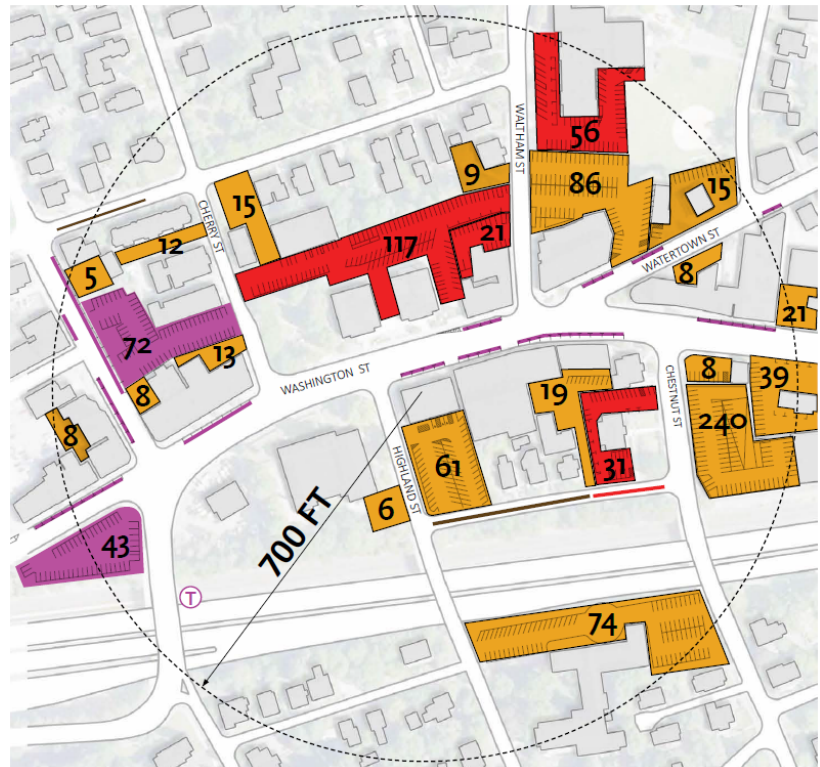
Reference: 1314 Washington Street Parking Counts

In response to requests by City of Newton planning staff, Stantec has conducted a parking occupancy study in West Newton square. The study determines the use of parking within a short walk of 1314 Washington Street throughout an average workday. In addition, this study now includes Saturday data, shown in Attachment B. The remainder of this memo is identical to our July 31st submission.

Parking Inventory

An inventory of all public and private, on and off-street parking spaces within a 700-foot radius of the front door of 1314 Washington Street. This distance corresponds to about a 3-minute walk at an average of 3-feet per second, which is an average for most elderly and small children. There are nearly 1,100 spaces within this radius of which over 400 are publicly-controlled and mostly available to the general public. Many of the 600+ private spaces can be used by customers of businesses in the square, similar to the 61 spaces at 1314 Washington itself. A breakdown of spaces by on and off-street categories can be seen in the table and map below.

LEGEND	TOTAL SPACES
 Metered Lot	115
 Municipal	225
 Private	647
 Metered Street Parking	70
 Police Street Parking	8
 Street Parking	26
GRAND TOTAL	1,091



Parking Utilization

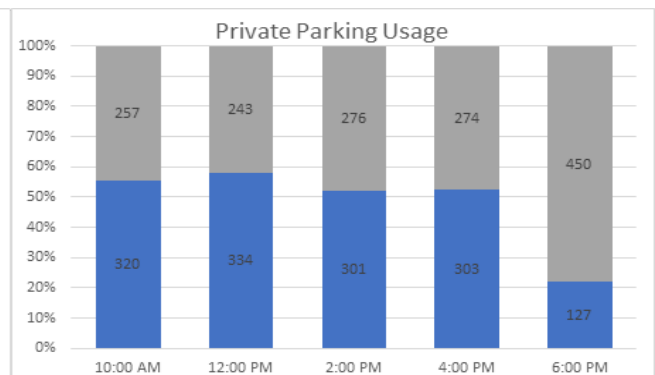
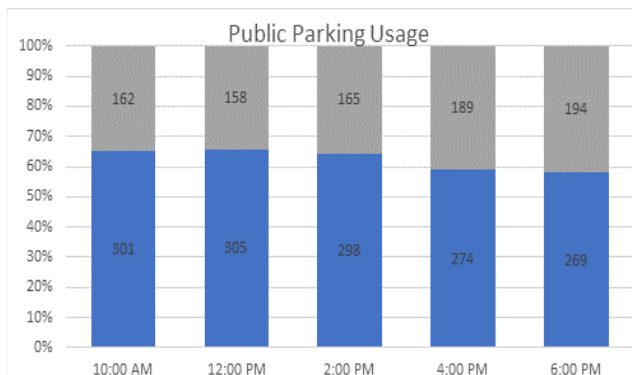
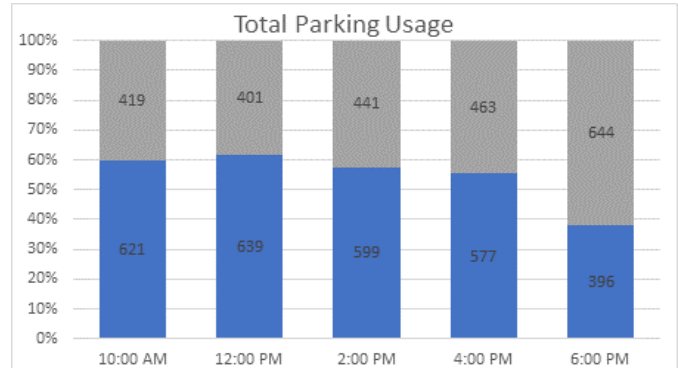
In order to determine the peak parking utilization in the square during an average weekday, parking occupancy counts were conducted on June 21, 2018, a Thursday (generally considered to be the busiest weekday for both office and retail/restaurant uses) when the weather was clear and public schools were still in session.

A data collector counted every space in the inventory once every two hours between 10am and 8pm, which includes the intervals of 10am-12pm, 12pm-2pm, 2pm-4pm, 4pm-6pm, and 6pm-8pm. This methodology enables a full profile of parking use on every available parking space, helping to identify the point of peak demand and available parking at that time. As can be seen in the bar charts below, peak utilization of all spaces is 62% between 12pm and 2pm, with 639 spaces occupied and 401 vacant (this is also the peak period of anticipated demand for the proposed redevelopment of

Reference: 1314 Washington Street Updated Shared Parking Analysis

1314 Washington Street.) Of these 401 vacant spaces, 158 are publicly-controlled parking (65% utilized) and 243 are private spaces (58% utilized), which include customer parking.

The number of vacant spaces remains relatively constant between the hours of 10am and 6pm, with utilization rising from 59% at 10am to 62% at peak, then declining to 55% by 6pm. Vacancy increases significantly between 6pm and 8pm to 644 spaces. This appears to be due mostly to daytime employees heading home, since private parking utilization drops by nearly 200 cars to 22%. Public parking vacancy increases during this dinnertime period only to 194 spaces, or 58% utilized.

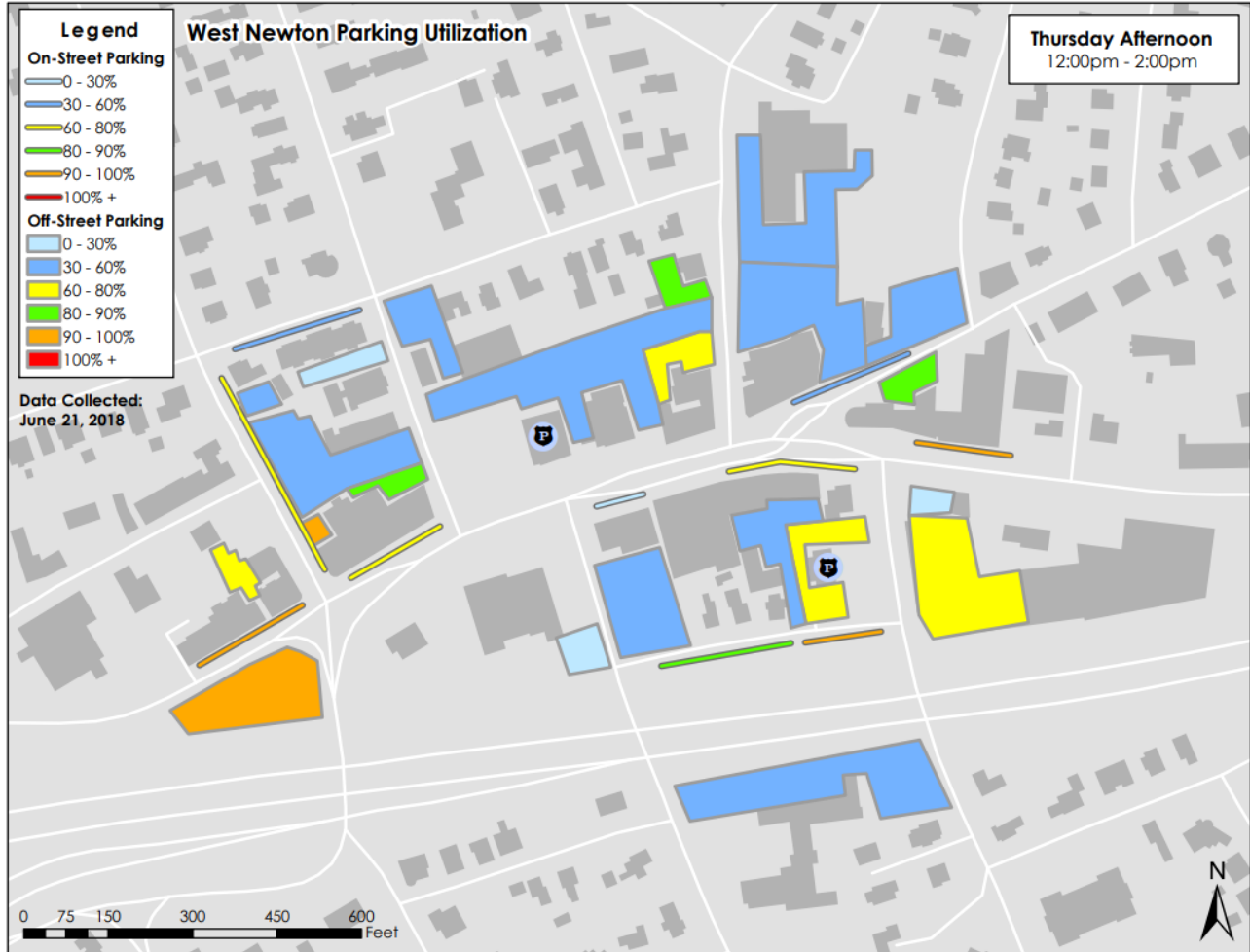


Parking Utilization by Geography

In order to understand where peak parking demand is located within the square, the parking occupancy results were mapped onto the inventory map for the square. The map below shows the result during the peak 12pm-2pm utilization period (see Attachment A for all time periods). Colors represent percent utilization. Parking assets at or above 90% utilized are colored orange or red, since facilities above this threshold are typically considered to be functionally full due to the difficulty of finding an empty space. Green is considered optimal utilization (80-90%), with yellow and blues less utilized. The map series indicates some valuable key findings:

- The 1314 Washington Street lot is under 60% utilized all-day with the exception of 4-6pm when utilization increases to 80-90%. After 6pm it is under 30% utilized.
- On-street parking is moderately utilized overall, not collectively reaching ideal 80-90% occupancy rates at any point, but certain segments do reach and occasionally exceed this threshold at certain times: Elm Street meters are mostly 80-90% utilized, except after 6pm when the meters shut off, and occupancy reaches/exceeds capacity; and Davis Street unregulated spaces exceed 90% utilization in the morning, then slowly decline all day, eventually dropping below 60% after 6pm.
- Off-street parking is less-moderately utilized overall, not collectively exceeding 60% utilization at any point. With the exception of the MBTA and metered lot, other lots occasionally increase into the 60-80% range but decline to 30-60% by 6pm. The MBTA lot is at capacity all day until 6pm. The Elm St. metered lot rises above 80% beginning at 2pm and approaches capacity after 6pm when the meters shut off.

Reference: 1314 Washington Street Updated Shared Parking Analysis



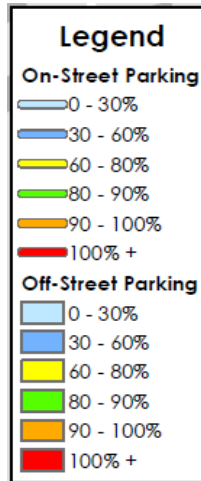
STANTEC CONSULTING SERVICES INC.


Jason Schrieber, AICP
Senior Principal

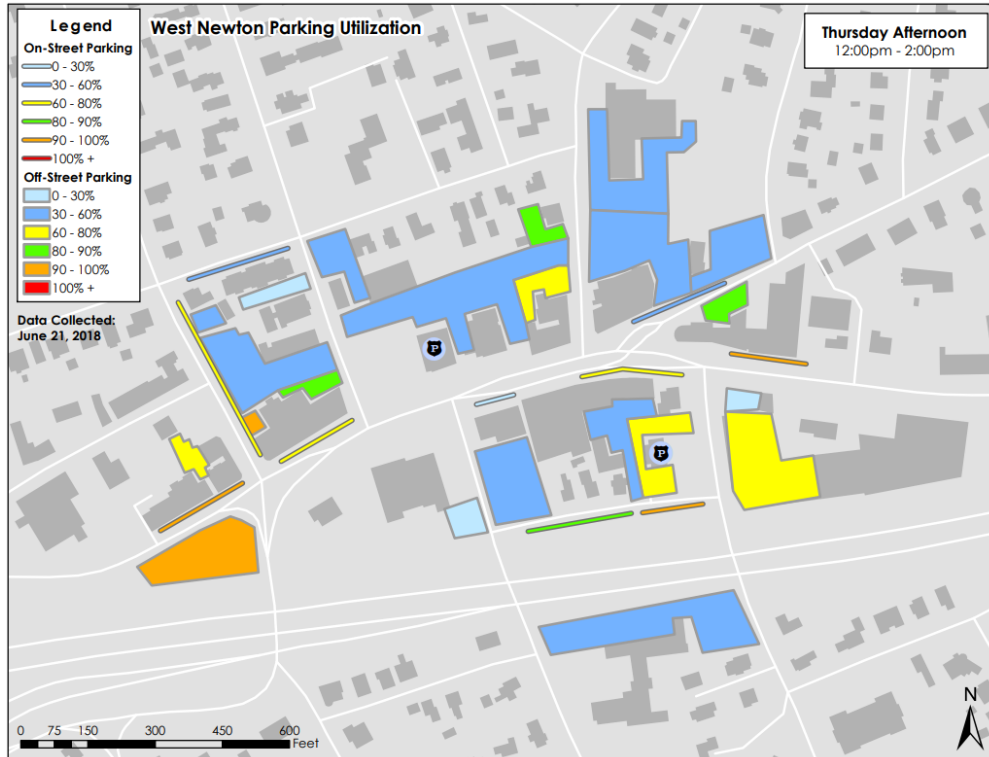
Phone: 617-654-6093
jason.schrieber@stantec.com

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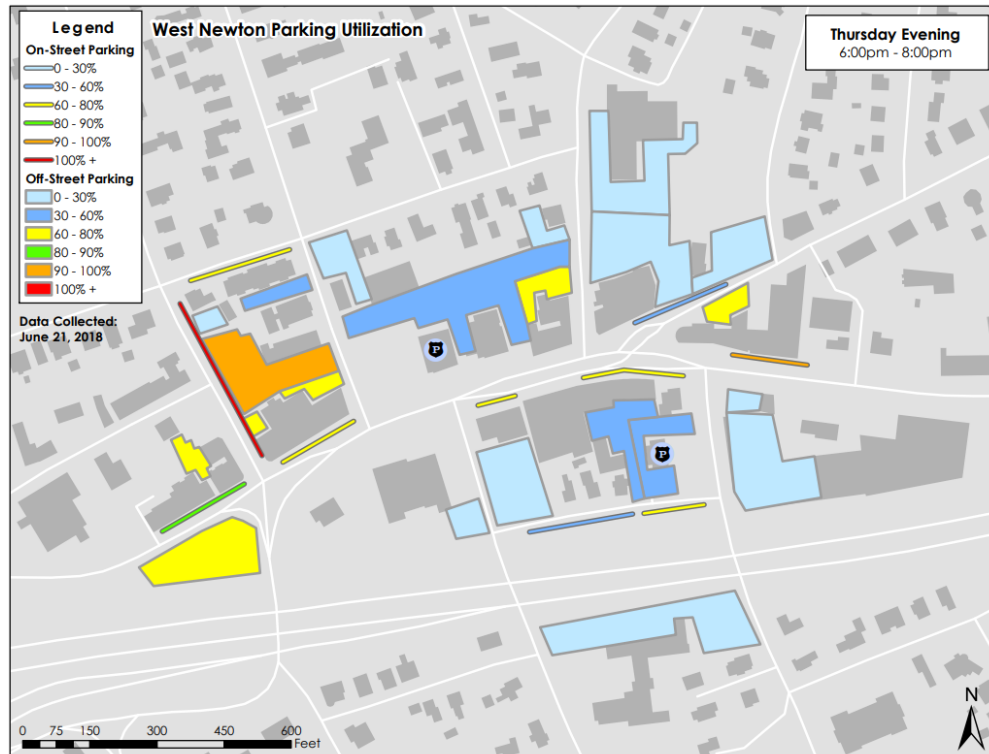
Attachment A: Parking utilization time-series maps



Reference: 1314 Washington Street Updated Shared Parking Analysis



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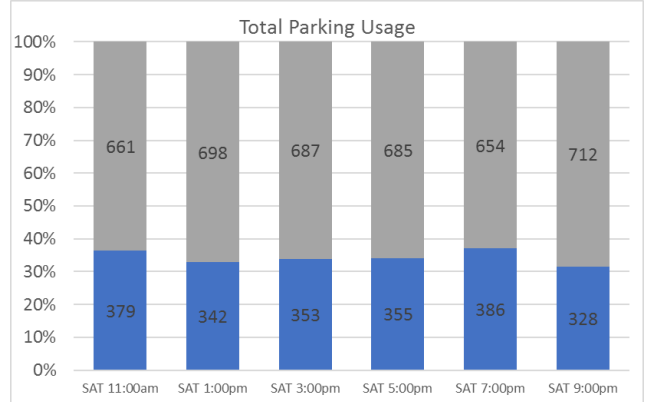


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Attachment B: Saturday Data Collection

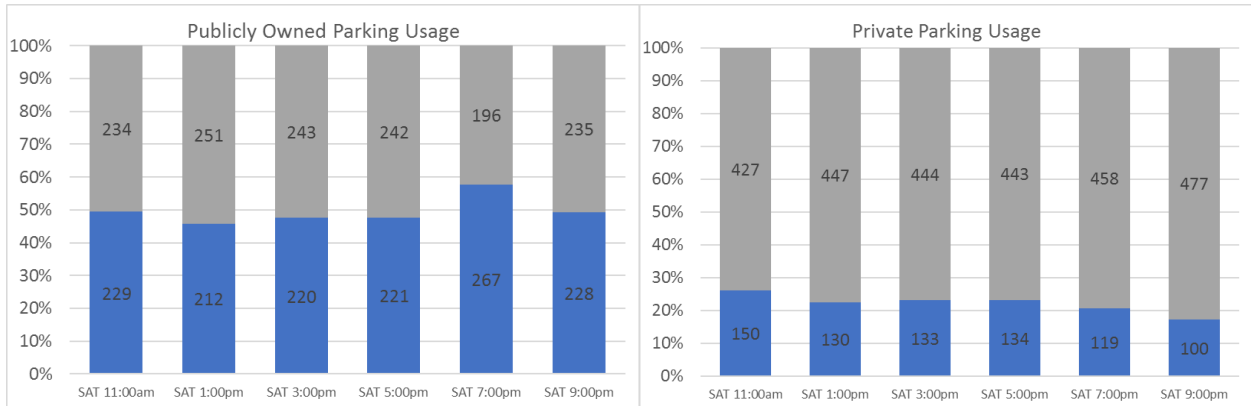
To respond to the City’s request for parking utilization information on a weekend, the development team collected and analyzed data for Saturday, August 11. A data collector counted every space in the inventory once every two hours between 11am and 11pm, including intervals of 11am-1pm, 1pm-3pm, 3pm-5pm, 5pm-7pm, 7pm-9pm, and 9pm – 11pm.

The bar charts show that parking is overall less busy on a weekend than a weekday, with peak utilization of all spaces at 37% between 7pm and 9pm when there are 386 spaces occupied and 654 vacant (by comparison during the weekday count, parking peaked at 62% at 12pm and was still utilized at 38% by 7pm). Between 7pm and 9pm, overall utilization of public parking was almost identical to a weekday, with 196 vacant (58% utilized).

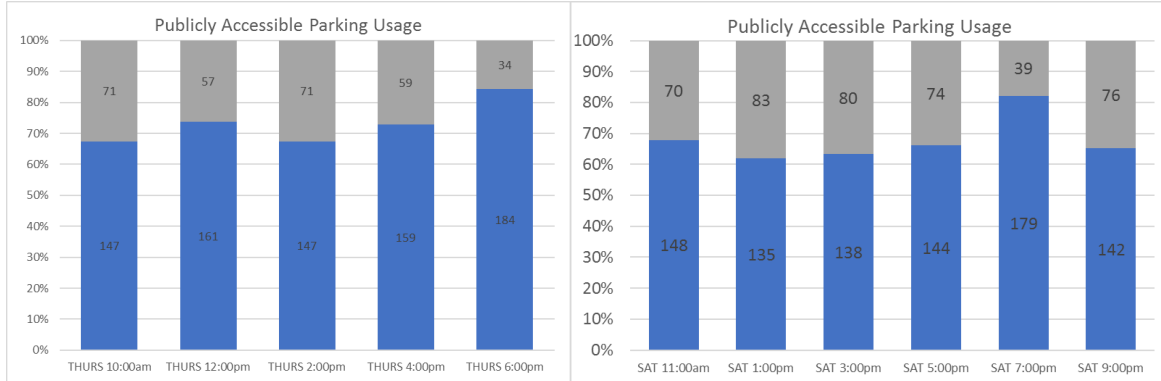


To help understand parking availability during evening dining hours, an additional chart of “publicly-accessible” spaces was made (next page). These are open to any member of the public, versus other public spaces which are restricted to employees, police vehicles, etc. Between 7pm and 9pm, there are only 39 vacant (82% utilized) publicly-accessible spaces (during the weekday count this was even lower at 34 vacant spaces). Meanwhile, there are 458 vacant private spaces (25% utilized) during this same weekend evening period (450 vacant during the weekday evening).

As can be seen in the following map series, mapping utilization of all spaces in West Newton across the hours of the day on Saturday reinforces where parking demand is highest. Public on-street spaces and the Elm Street lot show utilization mostly above 60% or 80% all day long, while private and restricted public lots stay below 60% or 30% all day. At 7pm, the Elm Street municipal lot, the 1314 Washington Street lot, and most on-street spaces are almost entirely full, while hundreds of restricted off-street spaces are nearly empty.

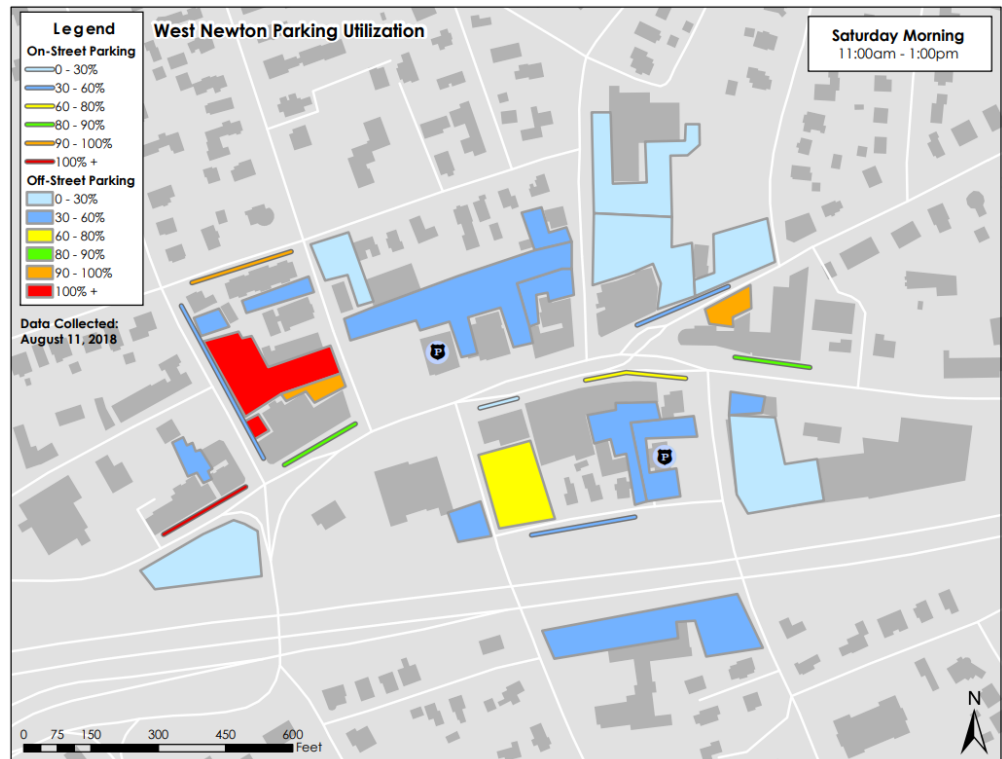
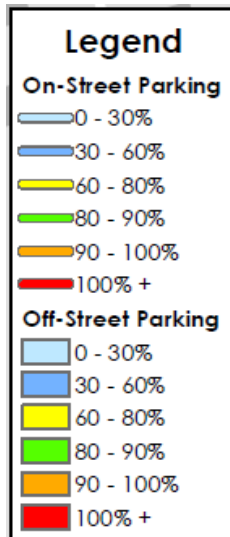


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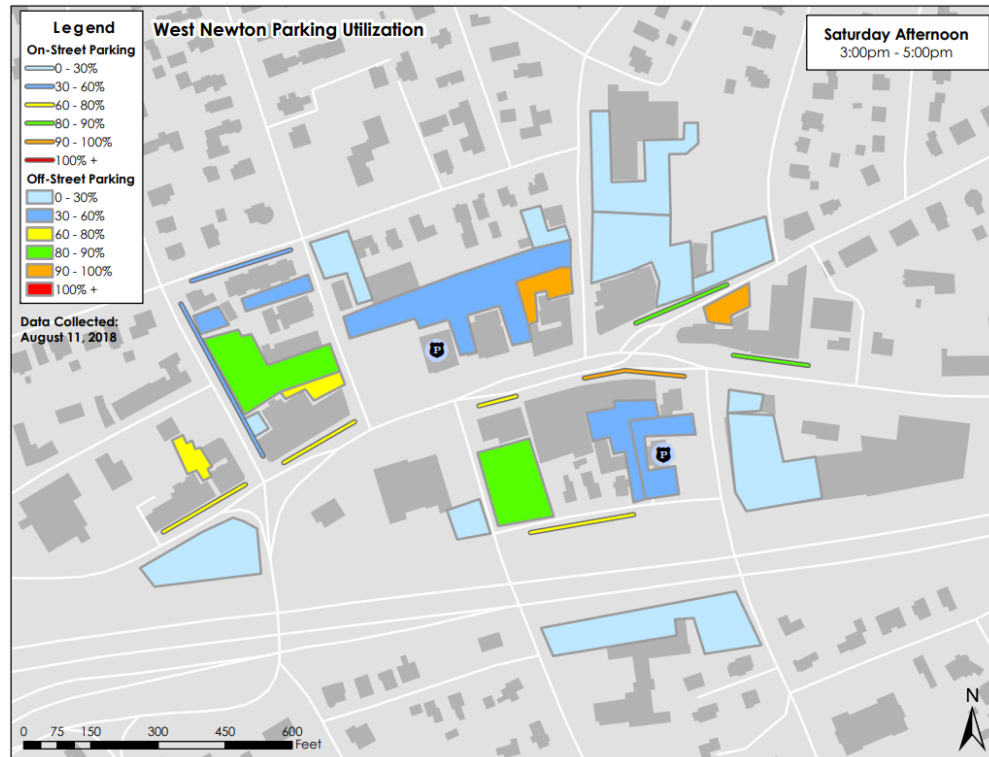
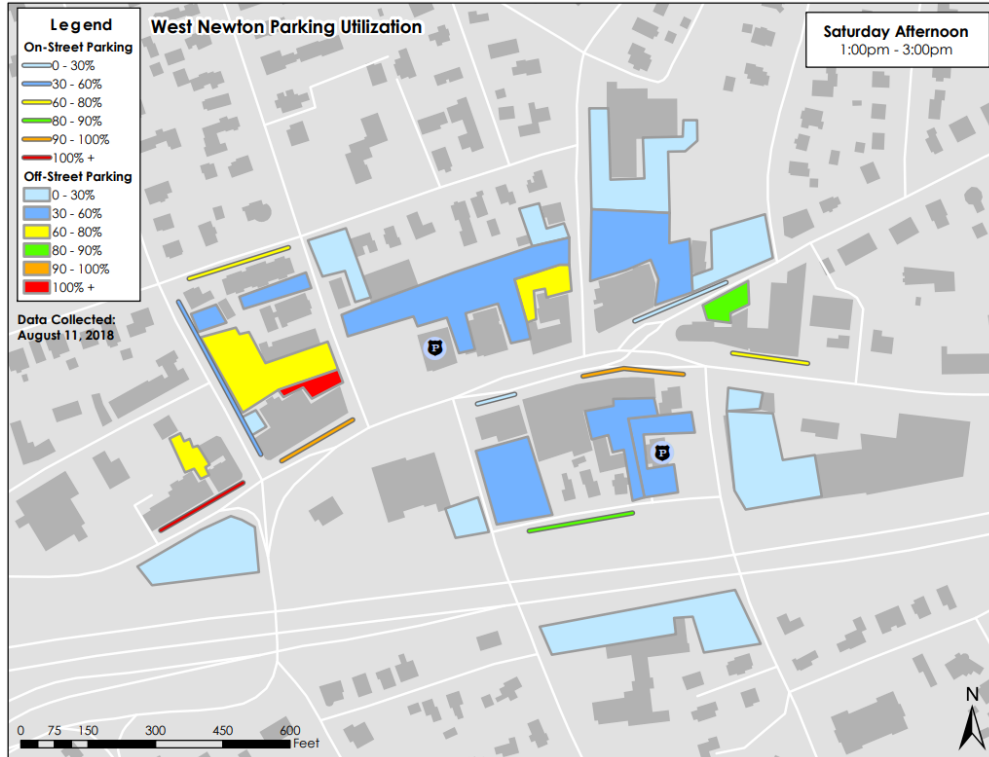


Thursday

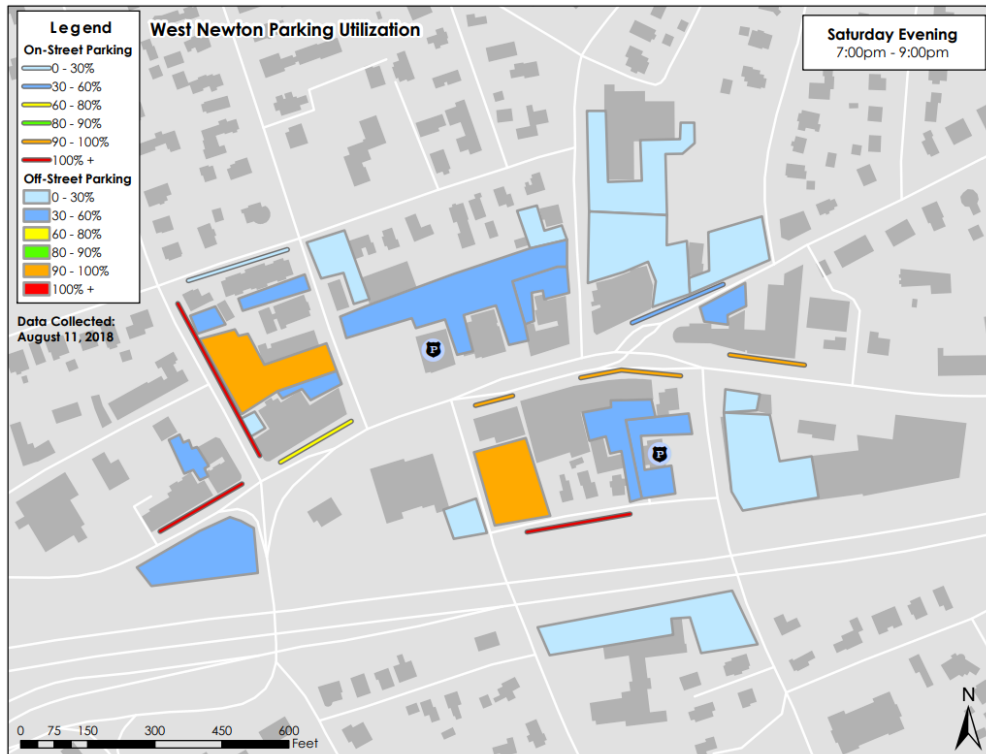
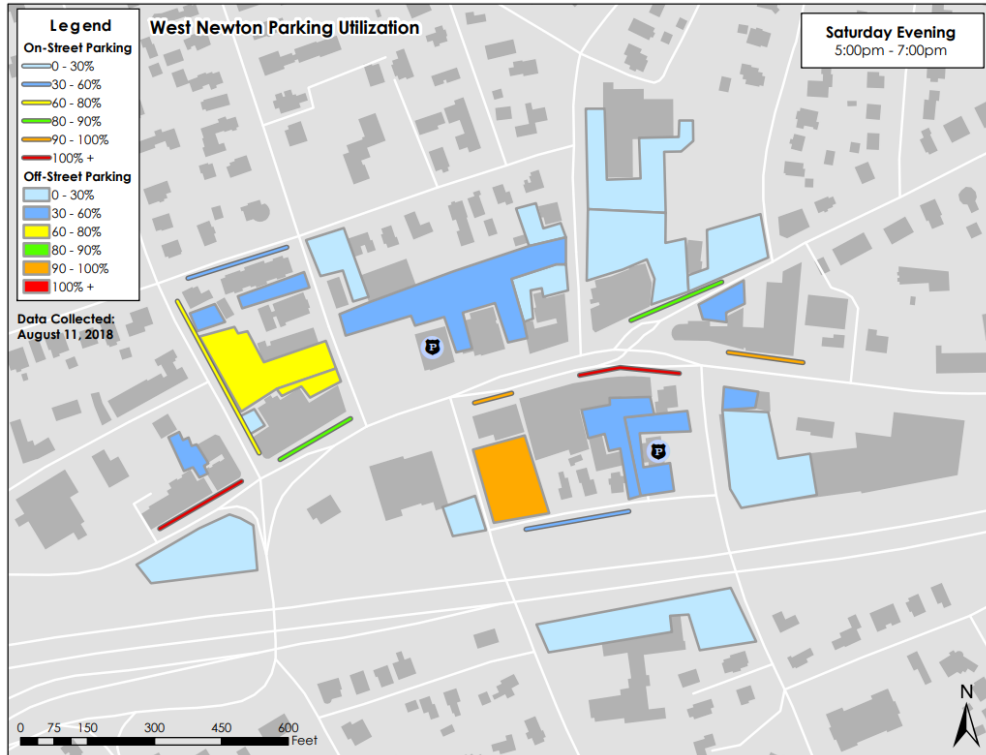
Saturday



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