
Scituate Harbor Parking Analysis

Funding provided by the Town of Scituate and the
Unified Planning Work Program

March, 2015



Prepared for:
Town of Scituate
600 Chief Justice Cushing Highway
Scituate, MA 02066

www.scituatema.gov

Patricia A. Vinchesi, Town Administrator



Prepared by
Metropolitan Area Planning Council
60 Temple Place, 6th Floor
Boston, Massachusetts 02111
www.mapc.org

Acknowledgements

This parking study was developed by the Metropolitan Area Planning Council (MAPC) in partnership with the Town of Scituate. MAPC's mission as Greater Boston's regional planning agency is to promote smart growth and regional collaboration.

This document was produced with input from the Scituate Town Administrator, Planning Department staff, the Scituate Police, the Scituate Economic Development Commission, and local business owners and employees. MAPC would like to particularly thank Town Administrator Patricia A. Vinchesi for her guidance, input, and support throughout this process.

Professional technical assistance provided by the Metropolitan Area Planning Council was led by Jessica Robertson, Transportation Planning and Policy Specialist; with assistance from Eric Halvorsen, Assistant Director of Transportation; and Sarah Kurpiel Lee, Transportation Engineer and Planner.

The Town of Scituate and the Unified Planning Work Program (UPWP) program jointly funded this study.

Metropolitan Area Planning Council

Officers

Lynn Duncan, President

Keith Bergman, Vice President

Shirronda Almeida, Secretary

Taber Keally, Treasurer

Town of Scituate

Town Administrator

Patricia A. Vinchesi

Board of Selectmen

John F. Danehey, Chairman

Shawn Harris, Vice Chairman

Martin J. O'Toole, Clerk

Anthony V. Vegnani, Member

TABLE OF CONTENTS

Executive Summary.....	4
Introduction.....	5
Stakeholder Input	6
Study Area.....	7
Existing Parking Analysis.....	9
Parking Capacity and Regulations	9
Parking Occupancy.....	11
Potential Satellite Parking Observations.....	17
Additional Private Parking Observations within Study Area	18
Parking Duration	19
Parking Violations	21
Parking Recommendations	24
Short-Term Recommendations.....	24
Medium-Term Recommendations.....	33
Long-Term Recommendations.....	38
Summary and Next Steps	41
Summary of Findings	41
Summary of Recommendations.....	41
Next Steps.....	43
Appendix A: Study Area Parking Capacity and Regulations by Location.....	44
Appendix B: Scituate Police Overnight Parking Survey.....	46

Executive Summary

The Metropolitan Area Planning Council (MAPC), a regional planning agency serving the 101 cities and towns of Metro Boston, collaborated with the Town of Scituate to complete a parking study for the Scituate Harbor area. This study included documenting existing parking regulations and capacity; gathering input on parking issues from businesses, the Scituate Economic Development Industrial Corporation (EDIC), and the Board of Selectmen; and collecting and analyzing data on parking occupancy and duration. The purpose of the study was to develop recommendations for improving parking availability and efficiency through updated parking policies and/or physical improvements.

Field observations were conducted on both a weekday and a Saturday in August 2014, and a weekday in October 2014. Overall, the parking analysis showed that there is adequate parking in Scituate Harbor during certain times of the year, but that on summer weekends the parking supply is significantly constrained by a large number of vehicles parked for very long durations.

MAPC's field observations revealed:

- Parking occupancy was highest in the northern end of the study area, including the private Mill Wharf lot, while available spaces were concentrated on the southern end of the study area, including the southern side of the public Cole Parkway lot.
- Within the study area, the private Mill Wharf parking lot experienced the highest parking demand during all three observations, with a daily average occupancy ranging from 55% on the fall weekday to an extremely high 91% on the summer Saturday.
- Peak hour occupancy for the study area as a whole was 53% during the fall weekday (1pm), 75% during the summer weekday (1pm), and 88% during the summer Saturday (2pm).
- Vehicles parked for long durations (4+ hours) had an enormous impact on parking availability. During the summer Saturday observation, when overall demand was highest, long-term parkers occupied 73% of Mill Wharf spaces and 53% of Cole Parkway spaces.

In this report, MAPC outlines several recommendations that can improve parking availability in Scituate Harbor. The most important conclusion of this report is that while the Mill Wharf parking lot is privately owned, there is little distinction to the user, and therefore **new regulations and other efforts to maximize parking availability will be unsuccessful unless they are consistent across both public parking areas and the private Mill Wharf lot.** MAPC's immediate recommendations include:

- Implement a consistent 1 Hour limit for all on-street parking, and introduce some 2 Hour spaces in Cole Parkway.
- Implement a 4 hour limit for all other spaces in both Cole Parkway and Mill Wharf.
- Create an employee parking permit to allow employees to park off-street longer than 4 hours.
- Sell all-day parking passes valid only in Cole Parkway, not Mill Wharf, for recreational boaters and others wishing to park longer than 4 hours.
- Replace parking signage and add new wayfinding signage.
- Improve lighting in Cole Parkway and improve paving and striping in several locations.
- Add parking spaces for bicycles and motorcycles.

Medium- and long-term recommendations include several strategies to increase parking capacity, such as reconfiguring the Cole Parkway lot, designating satellite parking at the community center on Jericho Road, and exploring the feasibility of adding new public parking on the northern end of Front Street, where parking supply is most constrained. MAPC strongly recommends that new regulations, permits, and other low-cost strategies be implemented prior to the Town moving forward with any capital-intensive projects to increase the parking supply.

Introduction

The Scituate Harbor business district is a mixed-use area in between residential neighborhoods and the busy harbor, which is used by both commercial fishermen and recreational boaters. Scituate Harbor sees a dramatic seasonal swing in visitors, with its summer peak starting July 4th and lasting through Labor Day.

The purpose of this parking study is to determine how the parking supply in Scituate Harbor is currently being utilized, in order to develop data-driven strategies to maximize the existing parking supply, improve the user experience, and support the vibrancy of the local businesses and the harbor.

In general, all public parking should be as easy as possible for local business patrons to locate, access, and utilize. To that end, there are several **parking management best practices** that apply to Scituate Harbor:

- Parking regulations should be visible, clear and consistent
- Parking policies and regulations should encourage people to park once and visit multiple destinations in one trip
- Short-term parking should be prioritized close to businesses, with long-term parking at the periphery of the business district
- Parking policies should aim for 85% parking occupancy¹ for on-street parking, meaning parking is generally close to being fully utilized but there are always a few spaces available. Occupancy greater than 85% may be appropriate for off-street parking, depending on the size and configuration of the lot. The goal is for arriving drivers to be able to easily find a space without circling the lot.

MAPC studied parking capacity, occupancy, and duration in Scituate Harbor. Data collection included a summer weekday, a summer Saturday, and a fall weekday. The **scope for this parking study** included identification and analysis of the following:

1. Existing parking regulations within the study area
2. On-street and off-street parking capacity and utilization within the study area
3. Occupancy observations in private lots serving the Village Market, TKO Malley's, and St. Mary's church, as well as the public lots at 44 Jericho Road and the Jericho Road Boat Launch
4. Average duration, and patterns of short- and long-term parking
5. Times and locations of peak parking demand

Throughout this process, MAPC solicited input from the Town and local stakeholders to determine existing issues and potential solutions.

¹ Target parking occupancy level identified in *The High Cost of Free Parking*, by Donald Shoup. An 85% parking occupancy is generally considered the sign of a "healthy" parking district - one with strong demand but enough available supply to avoid the negative consequences of drivers circling around looking for parking.

Stakeholder Input

As a part of this parking study, MAPC staff presented at a meeting of the Scituate Economic Development Commission (EDC) in September, and then a joint meeting of the Board of Selectmen and the EDC in January. Common concerns and themes include:

- Scituate Harbor has many out-of-town visitors, so there is a need for well-placed parking signage and easy-to-understand regulations.
- Parking may be beyond capacity on summer weekends and during special events.
- Residents of the immediate Scituate Harbor area may be utilizing public parking spaces in Cole Parkway for long-term and overnight residential parking.
- Lack of enforcement in Cole Parkway results in commercial trucks parking overnight.
- Cole Parkway experiences tidal flooding, affecting the parking capacity.
- Off-site parking for long-term parkers (such as boaters and fisherman that park for an entire day or longer) may be necessary to reduce the demand at Cole Parkway.
- A vacant lot behind the gas station has been discussed for some time as a possible location for a two-level parking structure.

Overall, stakeholders noted the importance of balancing the needs of the variety of users in Scituate Harbor: business patrons, employees, seasonal visitors, residents, pleasure boaters, and fishermen. Several members of the Scituate Board of Selectmen expressed eagerness to address parking issues in Scituate Harbor, and requested recommendations broken into short-, medium- and long-term categories. The Board Chair proposed that upon review of this report, the Town should form a committee to develop a list of immediate action steps to begin implementing recommendations in 2015.

MAPC staff also spoke to representatives of seventeen Scituate Harbor businesses to discuss parking issues in August 2014. Several additional themes were raised:

- Customers want to park nearby and not have to walk. In particular, the southern end of the Cole Parkway lot feels very far away, especially in bad weather.
- Lack of available parking is more of an issue for the north end vs. the south end of the business district, especially for the restaurants.
- Delivery vehicles park on Front Street, blocking traffic and/or the sidewalk.
- Available parking has to serve both employees and customers.

In addition, some business people offered suggestions for how to deal with parking issues:

- Some professional offices with daytime business hours allow their private parking to be used by other businesses on the north end of Front Street that are open in the evenings.
- Parking is permitted on-street near St. Mary's church on Sundays only, but that could be a potential solution for special events.
- Reduce demand for parking by installing more bike racks and running a shuttle from commuter rail (for weekend visitors and for use as satellite parking).

MAPC incorporated input from officials and stakeholders as the study was conducted and the recommendations were developed.

Study Area

Scituate Harbor is walkable and compact, and centers around a commercial area located on Front Street. The study area is generally one-quarter of a mile in distance, or approximately a five minute walk from end to end. The study area includes the following on- and off-street parking areas in Scituate Harbor:

- On-street parking on Front Street (between Beaver Dam Road and Cole Parkway), and Brook Street (between the Village Market Driveway and Front Street)
- Public off-street parking in the Cole Parkway lot
- Private off-street parking in the Mill Wharf lot

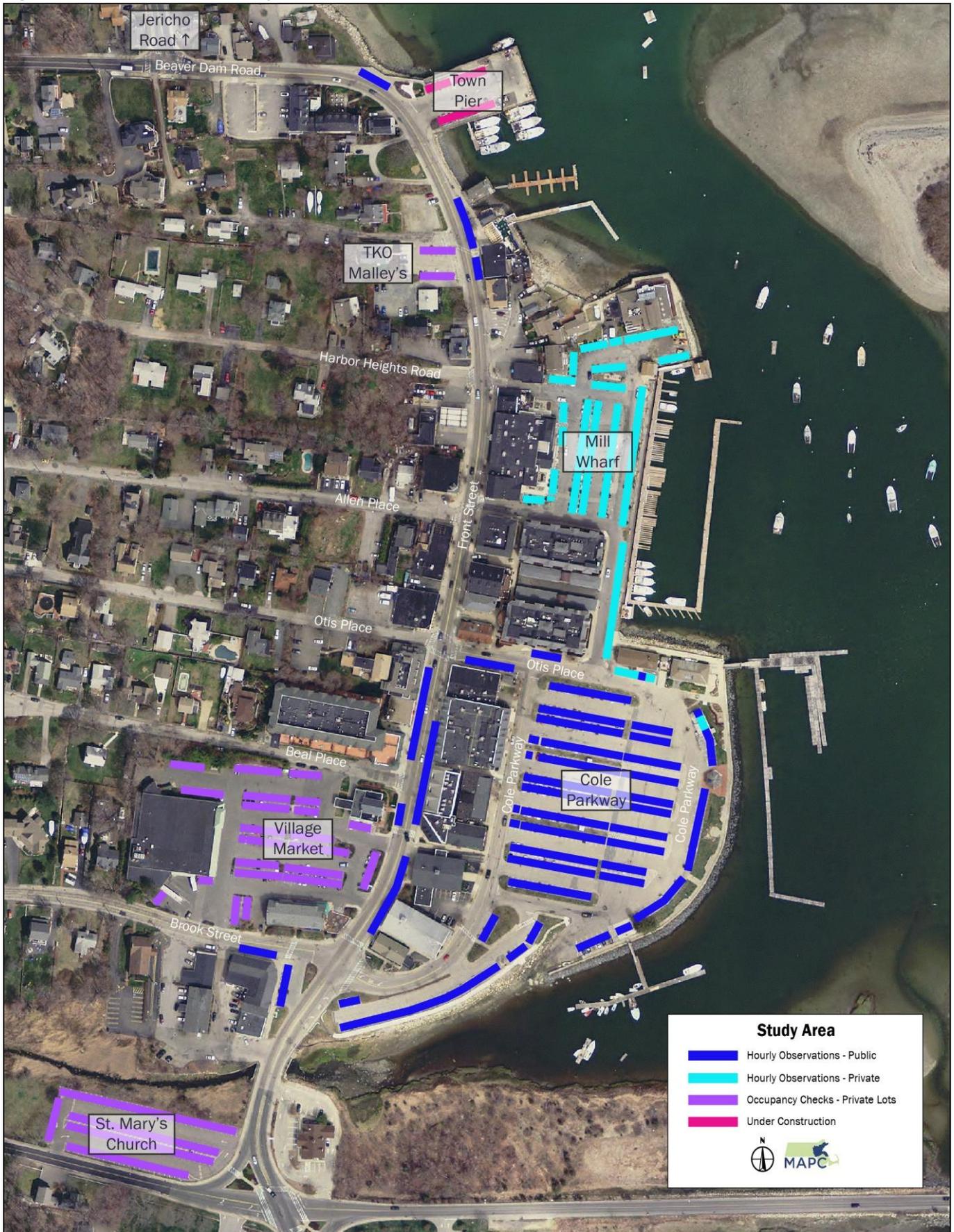
The study area is shown in **Figure 2** on the following page. In addition, several other parking areas, including public and private lots on Jericho Road, and private lots serving TKO Malley's, the Village Market, and St. Mary's of the Nativity were observed during data collection to determine general occupancy levels. The Town Pier parking lot was under construction on all MAPC observation days, so it was not included in the data analysis. Private lots were included in the study area because while they are not controlled by the Town, they play an important role in the overall parking ecosystem in Scituate Harbor.

Cole Parkway has been Scituate's largest public parking area for decades, although it has evolved and has been reconfigured over time, as shown in historical aerials in **Figure 1**.

Figure 1 Cole Parkway Over Time



Figure 2 Scituate Harbor Study Area



Existing Parking Analysis

In order to determine the existing parking conditions in Scituate Harbor, MAPC conducted observations on Saturday, Aug. 9, 2014 from 8:00 a.m. – 7:00 p.m., Tuesday, Aug. 12, 2014 from 7:00 a.m. - 8:00 p.m., and Tuesday, Oct. 28, 2014 from 7:00 a.m. - 8:00 p.m. Prior to the data collection effort, the number, type, and location of all study area parking spaces were documented.

Parking Capacity and Regulations

There are a total of 657 parking spaces in the study area, 92% of which are located off-street, either in the public Cole Parkway lot or the private Mill Wharf lot. Approximately one quarter of the parking spaces in the study area are located in the private Mill Wharf lot, which provides 172 spaces for visitors to the nearby shops, restaurants, and residential units. Although it is a private lot, Mill Wharf was included in the study in order to understand the role it plays as a key piece of the overall parking system. The parking capacity of the study area is summarized in **Table 1**.

Table 1. Study Area Parking Capacity

Location and Type of Parking	Capacity	Percent
On-Street (Public)	54	8%
Cole Parkway (Public)	431	66%
Mill Wharf (Private)	172	26%
Total	657	100%

The vast majority of parking spaces in Cole Parkway are unrestricted, meaning there are no posted time limits on parking, except for a prohibition of overnight parking for commercial vehicles. Signs in the Mill Wharf lot indicate that parking is for customers only, but most spaces have no time limits or other restrictions. The on-street spaces on Front Street include a variety of parking regulations, including 1 hour, handicap parking, drop-off spaces, and unrestricted/unsigned parking. A summary of the on-street parking regulations is summarized in **Table 2**. **Figure 3** on the following page shows the number and location of each type of parking.

Table 2. On-Street Parking Regulations

Regulations	Capacity	Percent
1 Hour	35	65%
Unrestricted/Unsigned	13	24%
Other (Handicap/Drop-off)	6	11%
Total	54	100%

Occupancy spot checks were also conducted at a number of public and private parking lots on Jericho Road and within Scituate Harbor, including the Village Market, St. Mary's of the Nativity Church, TKO Malley's. The Town Pier parking area, located at the north end of Front Street, was under construction during data collection and thus is not included in the data analysis. The lot usually provides 24 parking spaces for public use, 11 of which require a Town Pier sticker. Study area capacity and parking regulations and illustrated in **Figure 3**. A detailed breakdown of parking capacity and regulations by location is included in **Appendix A**.

Figure 3 Study Area Parking Space Capacity and Regulations



Parking Occupancy

During the parking observation hours, MAPC collected data on parking occupancy and duration in order gain an in-depth understanding of how parking is utilized in Scituate Harbor. This parking data helps to identify peak demand times, average parking durations, and locations with the highest parking demand. A summary of the occupancy in on-street spaces, Cole Parkway, and Mill Wharf is shown below in **Error! Reference source not found.**, and in chart form in **Figures 4-6** on the following pages.

Eighty-five percent occupancy is generally considered the goal for on-street parking, meaning that there is usually one open space per block. Above that level it becomes very difficult for drivers to find a parking space, which can lead to unnecessary traffic congestion and general frustration. If occupancy is far below 85%, on the other hand, it indicates that perhaps more space is being devoted to parking than needed, and/or that more development and density is possible without constructing additional parking.

The summer is clearly the busy season in Scituate Harbor, with the highest parking demand recorded during the summer Saturday observation. During the summer Saturday observations, public parking occupancy levels peaked at 80-85%, and Mill Wharf was consistently at or near 100% occupancy. During the summer weekday observations, public parking occupancy levels peaked at 64% in Cole Parkway and 87% on-street, and Mill Wharf peaked at 99% occupancy. During the fall weekday observations, public parking occupancy levels peaked at 44% in Cole Parkway and 72% on-street, and Mill Wharf peaked at 76% occupancy. Peak parking occupancy occurred for most locations at noon, 1pm, or 2pm.

Table 3. Percent Occupancy by Time of Day

Time of Day	Summer Saturday			Summer Weekday			Fall Weekday		
	Cole Parkway	On-Street	Mill Wharf	Cole Parkway	On-Street	Mill Wharf	Cole Parkway	On-Street	Mill Wharf
7:00 a.m.	-	-	-	20%	30%	17%	14%	31%	21%
8:00 a.m.	29%	44%	65%	28%	41%	40%	21%	35%	28%
9:00 a.m.	38%	37%	74%	38%	46%	52%	35%	41%	40%
10:00 a.m.	54%	54%	84%	46%	57%	65%	44%	59%	67%
11:00 a.m.	64%	65%	92%	49%	76%	73%	39%	65%	68%
12:00 p.m.	75%	78%	95%	60%	87%	94%	40%	72%	76%
1:00 p.m.	83%	80%	100%	64%	78%	99%	41%	70%	76%
2:00 p.m.	85%	80%	97%	59%	69%	94%	40%	65%	69%
3:00 p.m.	84%	69%	99%	53%	80%	85%	39%	56%	63%
4:00 p.m.	81%	63%	97%	51%	69%	69%	39%	61%	57%
5:00 p.m.	78%	78%	94%	45%	59%	66%	31%	59%	51%
6:00 p.m.	84%	72%	100%	40%	70%	67%	23%	59%	47%
7:00 p.m.	-	-	-	42%	69%	67%	26%	61%	49%
Average Occupancy	69%	65%	91%	46%	64%	68%	33%	57%	55%

Parking analysis performed on Saturday August 9, 2014 (Summer Saturday data), Tuesday August 12, 2014 (Summer Weekday data), and Tuesday, October 28, 2014 (Fall Weekday data).

Capacity Information: Cole Parkway (Public) – 431 Spaces, On-Street (Public) – 54 Spaces, Mill Wharf (Private) – 172 Spaces

Shading indicates the peak times during the day.

Figure 4 Scituate Harbor Summer Saturday Occupancy vs. Capacity (Data collected 8/9/14)

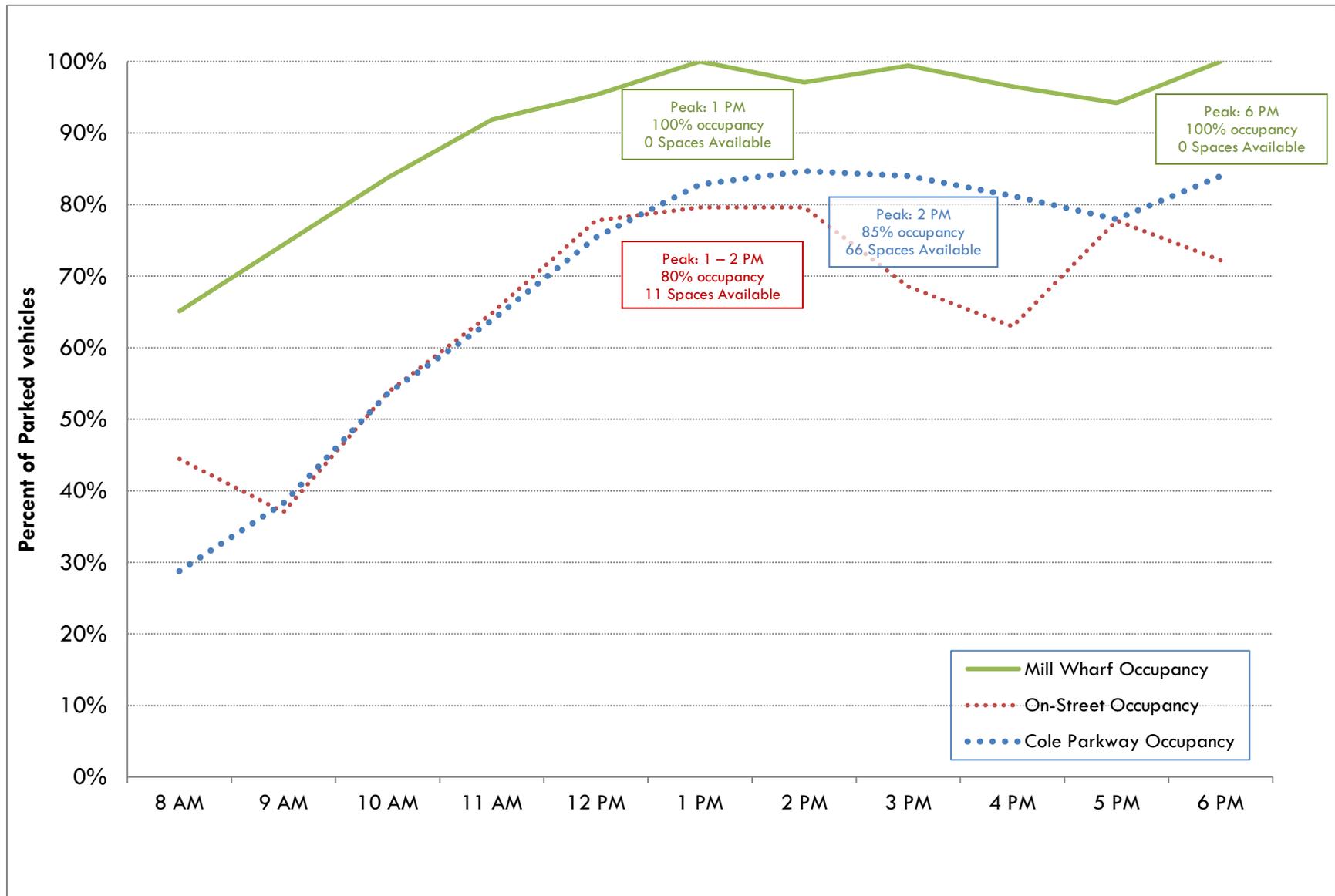


Figure 5 Scituate Harbor Summer Weekday Occupancy vs. Capacity (Data collected 8/12/14)

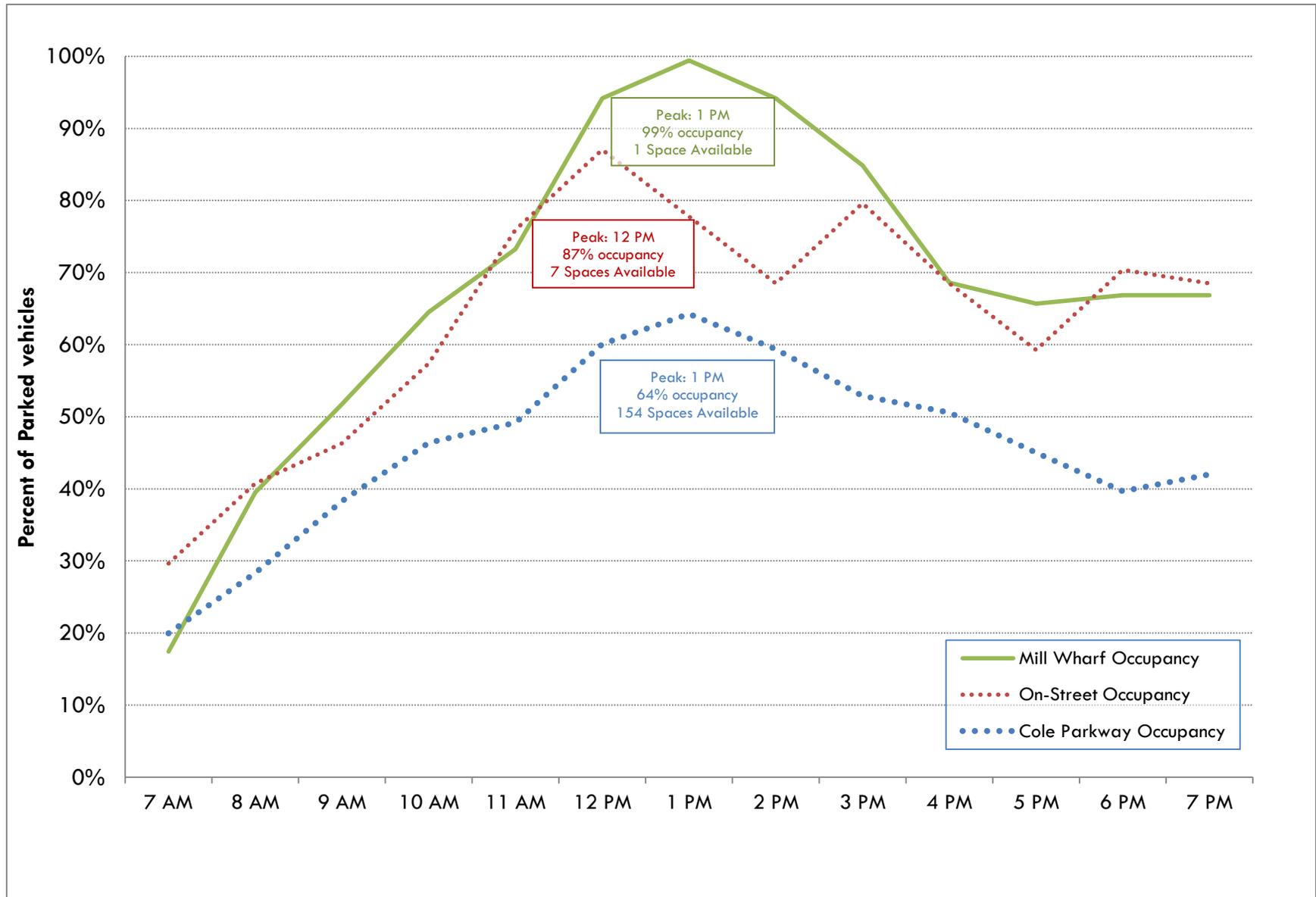
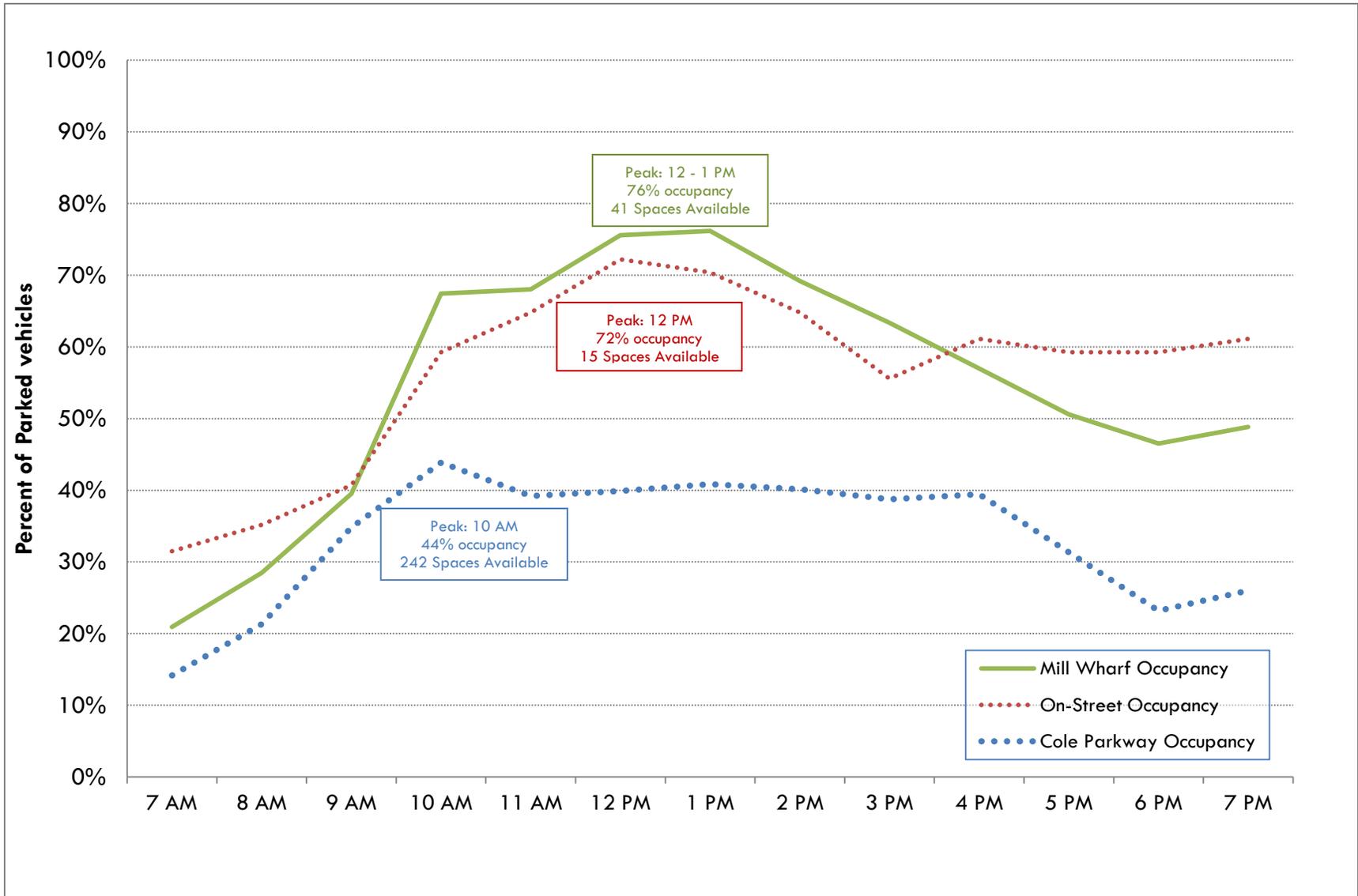


Figure 6 Scituate Harbor Fall Weekday Occupancy vs. Capacity (Data collected 10/28/14)



Total parking occupancy for on-street spaces was high, but only exceeded the 85% target occupancy level during one hourly observation on the summer weekday, when total on-street occupancy was 87%. Occupancy was highest for the 10 on-street parking spaces at the north end of Front Street. These spaces, in front of TKO Malley’s and near the driveway for the Town Pier, experienced very high occupancy starting at 11am – 12pm, and lasting through the evening. Average occupancy for these spaces was 96% between noon and 7pm on the summer Saturday, 89% between noon and 8pm on the summer weekday, and 83% between noon and 8pm on the fall weekday. However, parking supply in this area was unusually constrained during the study due to the closure of the Town Pier for construction, which removed 12 unrestricted public spaces from use.

Parking occupancy in Cole Parkway was highest in the northwest corner of the lot, near the Dunkin Donuts and the CVS, and lowest in the southern end of the lot, especially the row of spaces facing Satuit Brook. Parking spaces on the harbor side of the lot experienced high occupancy during the summer Saturday observations, and moderate to low occupancy during the weekday observations.

The Mill Wharf parking lot experienced very high occupancy in both summer observations, with occupancy above 85% from 10am all the way through the evening on the summer Saturday observation, as well as a four hour period on the summer weekday observation. During these times of peak demand, many creative parking behaviors were observed, as people parked on the ends of rows, in loading zones, and anywhere else where they could squeeze in, as shown in **Figure 7**. Total occupancy in the Mill Wharf lot (excluding handicap spaces) actually exceeded 100% during the peak hour on the summer weekday (1pm), and at 1pm, 3pm and 6pm on the summer Saturday.

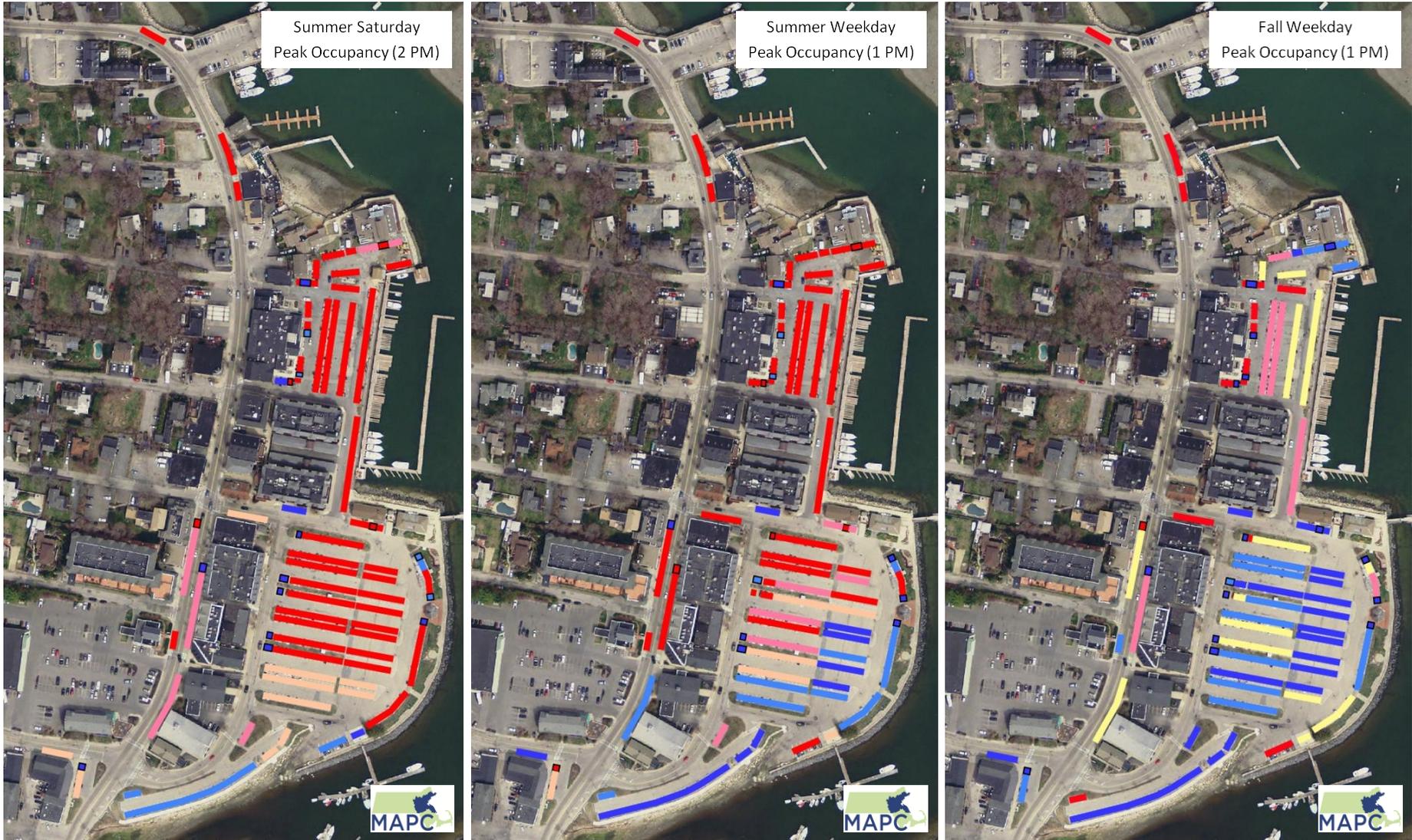
Figure 7 “Creative” Parking in Mill Wharf Lot



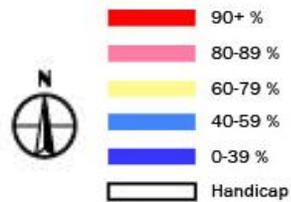
Taken together, the on-street and off-street parking occupancies show a higher parking demand on the northern side of the business district. The Mill Wharf lot and the on-street spaces on the north end of Front Street experienced consistently high demand, while empty parking spaces were concentrated at the southern end of the Cole Parkway lot.

Figure 8 illustrates parking utilization across Scituate Harbor during the peak hour on each of the three observation days. Dark red indicates areas that were above 80% occupancy during the busiest hour of the observation day and dark blue indicates areas that were below 40% occupancy.

Figure 8 Summer Saturday and Weekday Peak On-Street Occupancy by Location



Data collected Sat. Aug. 8, Tue. Aug. 12, and Tue. Oct. 28, 2014.



Potential Satellite Parking Observations

MAPC conducted parking occupancy spot checks in several private and public lots surrounding the Scituate Harbor business district in order to evaluate potential options for satellite parking. Satellite parking refers to areas slightly removed from a destination that can be used for overflow parking during times of especially high demand, which occurs in Scituate on summer weekends and during special events. Satellite parking spot checks were conducted at the following locations:

- Jericho Road Community Center lot (public)
- Scituate Harbor Yacht Club on Jericho Road (private)
- Jericho Road Boat Launch (public)
- St. Mary's of the Nativity lot at First Parish Road and Front Street (private)

The three parking areas on Jericho Road are shown in **Figure 9**; St. Mary's of the Nativity is shown in Figure 3 on page 10. Parking occupancy during summer observations for these locations is shown in **Table 4**.

Figure 9 Jericho Road Study Area for Satellite Parking Observations



Table 4. Percent of Occupied Spaces by Time of Day – Potential Satellite Parking Locations

Time of Day	Summer Saturday				Summer Weekday			
	Jericho Rd Community Center	Scituate Harbor Yacht Club	Jericho Rd Boat Launch	St Mary's Church	Jericho Rd Community Center	Scituate Harbor Yacht Club	Jericho Rd Boat Launch	St Mary's Church
8:00 a.m.	3%	51%	56%	0%	1%	10%	16%	6%
11:00 a.m.	18%	90%	75%	2%	4%	10%	35%	19%
2:00 p.m.	43%	98%	105%	0%	13%	16%	35%	0%
5:00 p.m.	24%	80%	65%	9%	24%	2%	26%	0%
Average Occupancy	22%	81%	77%	3%	11%	10%	29%	6%

Parking analysis performed on Saturday August 9, and Tuesday August 12, 2014

Capacity: Jericho Road Community Center (Public) – 67 Spaces, Scituate Harbor Yacht Club (Private) – 49 Spaces. Jericho Road Boat Launch (Public) – 57 Spaces, St. Mary's Church (Private) – 121 Spaces

Shading indicates the peak times during the day.

The Jericho Road Community Center and St. Mary's of the Nativity are good potential areas for satellite parking, since they had available capacity during times of peak parking demand. The Scituate Harbor Yacht Club and the Jericho Road Boat Launch are not viable as satellite parking locations, because both experienced extremely high demand during the summer Saturday observation, when satellite parking is most needed.

The parking lot across from St. Mary's of the Nativity experienced very low occupancy during all observations. However, there are several drawbacks to the potential for use of this lot as satellite parking. First, if this lot were to be used to alleviate parking needs during peak demand (summer weekends), it would likely only be available on Saturdays, not Sundays, when the church has services. MAPC did not conduct parking observations on Sundays so we do not have information on how much parking is used by churchgoers. Second, other events such as weddings and funerals occur at irregular dates and times, and therefore it would be difficult to implement consistent regulations for use of this lot by the general public. Finally, the St. Mary's lot is just beyond the southern end of the business district, while parking needs are most acute on the northern end of Front Street. Indeed, during the busiest peak hour there were still numerous spaces available on the end of Cole Parkway closest to the St. Mary's lot. Therefore this lot has the most potential for use during special events, when parking capacity in Cole Parkway is reduced, and when conflicts with church events can be identified ahead of time.

The Town-owned lot at 44 Jericho Road, which serves a community center, had an average occupancy of 11-22% over the three observation days. Peak occupancy occurred at 2pm on the summer Saturday, when it reached 43% with 38 spaces available. This area represents the best opportunity for satellite parking.

Additional Private Parking Observations within Study Area

MAPC also conducted occupancy spot checks of two additional private parking lots in the core of the Scituate Harbor business district, in order to fully understand the role that private parking plays in the Scituate Harbor parking ecosystem. These counts were conducted at the TKO Malley's lot on the north end of Front Street, and the Village Market lot on the south end of Front Street. These areas are shown in Figure 3 on page 10, and a summary of the occupancy in these two locations is shown below in **Error! Reference source not found..**

Table 5. Percent of Occupied Spaces by Time of Day – Additional Private Parking Observations

Time of Day	Summer Saturday		Summer Weekday		Fall Weekday	
	TKO Malley's	Village Market	TKO Malley's	Village Market	TKO Malley's	Village Market
8:00 a.m.	36%	21%	7%	12%	21%	18%
11:00 a.m.	43%	55%	36%	51%	79%	45%
2:00 p.m.	93%	35%	93%	45%	107%	44%
5:00 p.m.	93%	38%	86%	41%	107%	35%
Average Occupancy	66%	37%	55%	37%	79%	35%

Parking analysis performed on Saturday August 9, Tuesday August 12, 2014, and Tuesday, October 28, 2014
 Capacity: TKO Malley's (Private) – 14 Spaces, Village Market (Private) – 165 Spaces
 Shading indicates the peak times during the day.

The Village Market had an average occupancy of 37% during both summer observations, and 35% during the fall weekday observation. At the highest observed occupancy, 11 AM on the summer Saturday, there were 74 spaces available. The Village Market lot, although privately owned, presents an opportunity for a shared parking arrangement between the owner and the Town. The agreement could be de facto public use as currently exists, or a more formal arrangement where employees of other businesses are allowed to use this lot.

The TKO Malley's lot had low occupancy in the morning and very high occupancy in the afternoon on all three observations. This is consistent with the high occupancy observed in other parking areas on the northern end of Front Street, in particular the Mill Wharf lot. However, the observed occupancy at TKO Malley's was actually highest during the fall weekday observation, even exceeding 100% occupancy at 2pm and 5pm, in contrast to many other parts of the study area which saw peak demand on the summer Saturday and lower demand in the fall.

Parking Duration

An understanding of parking duration in different locations is essential to developing effective parking policies and regulations. Good parking policy will encourage turnover in the on-street and off-street spaces that are most convenient for customers of local businesses, and funnel long-term parkers, such as residents and employees, to off-street spaces that are bit further away.

During all three observation days the average parking duration was around 1 hour for on-street parking spaces, which includes 13 unregulated spaces and 31 spaces with a 1 hour limit. Average parking duration for off-street spaces in the Cole Parkway and Mill Wharf was higher at 2.4 hours for the summer Saturday, and just over 2 hours for the two weekday observations. Average parking duration by location is shown in **Table 6**.

Table 6. Average Parking Duration by Location

Location	Number of Spaces	Summer Saturday (hours)	Summer Weekday (hours)	Fall Weekday (hours)
Cole Parkway (Public)	431	2.3	2.1	2.2
On-Street (Public)	54	0.9	1.0	0.9
Mill Wharf (Private)	172	2.5	2.1	2.3

Parking analysis performed on Saturday August 9, Tuesday August 12, and Tuesday October 28, 2014.
 Red denotes average parking durations that exceed the posted regulations.

In addition to the average duration, it is important to understand what proportion of the vehicles that park in any location remain parked for extended periods of time. A relatively small number of vehicles, if parked for long periods of time, can have a big impact on how much parking capacity is available. **Table 7** shows what percentage of vehicles parked in each location were parked for short durations (less than an hour), medium durations (1-3 hours), and long durations (3 or more hours).

Table 7. Parking Duration by Location/Type of Parking

Location/ Type of Parking	Summer Saturday			Summer Weekday			Fall Weekday		
	<1 hour	1-3 hours	3+ hours	<1 hour	1-3 hours	3+ hours	<1 hour	1-3 hours	3+ hours
On-Street	78%	18%	4%	76%	19%	5%	78%	18%	4%
1 Hour	79%	17%	4%	75%	20%	5%	75%	19%	6%
Unrestricted	74%	23%	3%	77%	16%	7%	86%	13%	1%
Cole Parkway (Public - Unrestricted)	51%	20%	29%	56%	22%	22%	59%	18%	23%
Mill Wharf (Private - Unrestricted)	47%	29%	24%	44%	37%	19%	51%	26%	23%

Parking analysis performed on Saturday August 9, Tuesday August 12, and Tuesday October 28, 2014.

Red denotes parking durations that exceed the posted regulations

In the Mill Wharf and Cole Parkway lots, an enormous amount of the available parking capacity throughout the day is taken up by vehicles parked for extended durations. While **Table 7** above shows long-term parkers as a percentage of all vehicles that parked in a given location, **Table 8** below shows what percentage of all available parking spaces were occupied by long-term parkers.

Table 8. Spaces Utilized by Long-Term Parkers

Location	Summer Saturday Duration			Summer Weekday Duration			Fall Weekday Duration		
	4+ hours	6+ hours	8+ hours	4+ hours	6+ hours	8+ hours	4+ hours	6+ hours	8+ hours
Cole Parkway	53%	30%	17%	37%	26%	15%	30%	22%	13%
Mill Wharf	73%	49%	30%	51%	34%	16%	51%	28%	17%

Parking analysis performed on Saturday August 9, Tuesday August 12, and Tuesday October 28, 2014.

It is clear from the data in **Table 8** that long-term parking is having an enormous impact on overall parking availability. During the summer observation, a staggering 73% of Mill Wharf spaces were occupied by vehicles parked over 4 hours, including 30% of spaces occupied by the same vehicle for the entire day (8 hours or more). During the summer and fall weekday observations, over half of the spaces in Mill Wharf were utilized by long-term parkers. The situation in Cole Parkway was not as extreme, but the impact of long-term parkers was still considerable, with 30-37% of weekday parking availability and 53% of summer Saturday parking availability occupied by long-term parkers.

Many of the vehicles observed parking for 4 or more hours during the weekday observations likely belong to owners and employees of businesses in Scituate Harbor, as well as commercial fishermen. On the summer Saturday, the long-term parkers are likely a mix of employees, boaters accessing the many fishing and sailing boats docked in Scituate Harbor, and possibly residents of Scituate Harbor.

It is hard to overstate the impact that long-term parkers are having on availability during times of peak parking demand. These users are important, but their needs must be balanced with the need

to increase parking availability for customers of Scituate Harbor businesses. Shoppers, diners, and other visitors to Scituate Harbor are more sensitive to parking convenience, and if they cannot find a parking space within a short walk of their destination they may choose to do their business elsewhere. Employees and other all-day parkers also prefer to park close to their destination, but having to walk a little further will not impact their decision to come to Scituate Harbor. *Strategies to improve parking availability for customers should therefore focus on shifting the location of long-term parking, so that the most convenient spaces are available for shoppers and diners.*

Parking Violations

MAPC observed three main types of illegal parking in Scituate Harbor: passenger vehicles parking in areas where parking is prohibited, commercial vehicles parking in Cole Parkway for long periods of time, and vehicles parked across multiple spaces in Cole Parkway.

Parking in “No Parking” Areas

As previously mentioned, extremely high parking demand in the Mill Wharf lot led many people to park in areas not marked as parking spaces, such as loading areas and circulation aisles. This type of “anything goes” parking was also present in other areas besides Mill Wharf. **Figure 10** shows vehicles parked in areas where either signs or pavement markings indicate that no parking is allowed, or in areas where parking is never allowed, such as sidewalks and landscaped areas. Clockwise from top left, these photos were taken in the Jericho Road Boat Launch; Old Dock Street between Cole Parkway and the Mill Wharf lot; in front of the small row of shops at the corner of Brook Street and Front Street; near the parking area for Scituate Package Store; at the end of a row in Cole Parkway; and near the Cole Parkway boat launch.

Figure 10 Parking in “No Parking” Areas



This type of illegal parking is usually a symptom of parking demand that is pushing the limits of available parking supply. Most people will park in a legal space when there is one available, but if none are available within a reasonable distance, many people will get creative. In some situations, parking in “no parking” areas is harmless, and may even indicate where an additional space or two could have been safely accommodated. For example, in the two photos at the bottom of Figure 9, the parked cars are fully within the striped areas, and are not blocking any sidewalks or driveways. However, other examples shown in Figure 9, such as parking on sidewalks, are never acceptable as disabled pedestrians may be prevented from reaching their destination. While added enforcement could help deter these behaviors, addressing overall parking availability will likely be more effective.

One area where illegal parking was especially common was on Cole Parkway, along the curb that fronts the CVS, Dunkin Donuts and other businesses. Cole Parkway is approximately 27 feet from the curb to the edge of the landscaping. This is not quite wide enough to accommodate two travel lanes and a parking lane, and therefore parking along the curb is currently prohibited. However, vehicles were observed parking along the curb at many different times of day, as shown in **Figure 11**. This included both passenger and commercial vehicles.

Figure 11 Vehicles Parked on Cole Parkway near the CVS



Commercial Vehicle Long-Term Parking

Long term storage of commercial vehicles in the Cole Parkway lot is another important issue that MAPC observed during all of our visits to Scituate Harbor. Numerous large trucks were observed parking all day long or for multiple days, despite signs posted at the entrance to the lot stating that overnight parking of commercial vehicles is prohibited. **Figure 12** below shows typical examples of commercial vehicles parked in Cole Parkway. Counts of vehicles parked overnight in Cole Parkway conducted by the Scituate Police in July 2014 indicated that commercial vehicles belonging to both local and out of town businesses are parking overnight, sometimes for many nights in a row. The results of the Scituate Police study are included in **Appendix B**.

Figure 12 Long-Term Commercial Vehicle Parking in Cole Parkway



These commercial vehicles often occupy multiple parking spaces each. Furthermore, the presence of these commercial vehicles degrades the experience for other users of the lot. Very unpleasant seafood odors were observed emanating from several of the trucks; during hot weather the smell was noticeable from quite a distance away. This contributes to customers and visitors' reluctance to park in the southern portion of Cole Parkway where the commercial vehicles are concentrated.

Parking Across Multiple Spaces

Another observed drain on parking capacity was a pattern of both passenger and commercial vehicles parking across multiple spaces, as illustrated in **Figure 13** below.

Figure 13 Parking in Across Multiple Spaces



Parking Recommendations

Parking demand in Scituate Harbor experiences wide seasonal variation. The existing parking supply is more than adequate to meet demand in the fall, winter and spring, while parking demand is very high during the peak summer season, even exceeding supply in certain locations. Based on our observations and input from stakeholders, MAPC has developed a number of recommendations aimed at improving the parking experience in Scituate Harbor and maximizing parking availability within the existing parking supply. A few options for modestly expanding parking supply are suggested, however the recommendations dealing with regulation and management of the existing supply will also increase effective capacity, and will be much faster and less expensive to implement.

As mentioned in the Introduction, there are several **parking management best practices** that provide a framework for MAPC's parking recommendations for Scituate Harbor:

- Parking regulations should be visible, clear and consistent
- Parking should encourage people to park once and visit multiple destinations in one trip
- Short-term parking should be prioritized in front of businesses, with long-term parking at the periphery of the business district
- Parking policies should aim for 85% on-street parking occupancy (higher occupancy for off-street parking may be appropriate), meaning parking is generally close to being fully utilized at all times but there are always spaces available

The recommendations below are divided into sections: Short-Term Recommendations, which require minimal capital investment and can be implemented quickly; Medium-Term Recommendations, which may require moderate capital investment or engineering designs in order to implement; and Long-Term Recommendations, which are more capital-intensive or are steps recommended for future implementation.

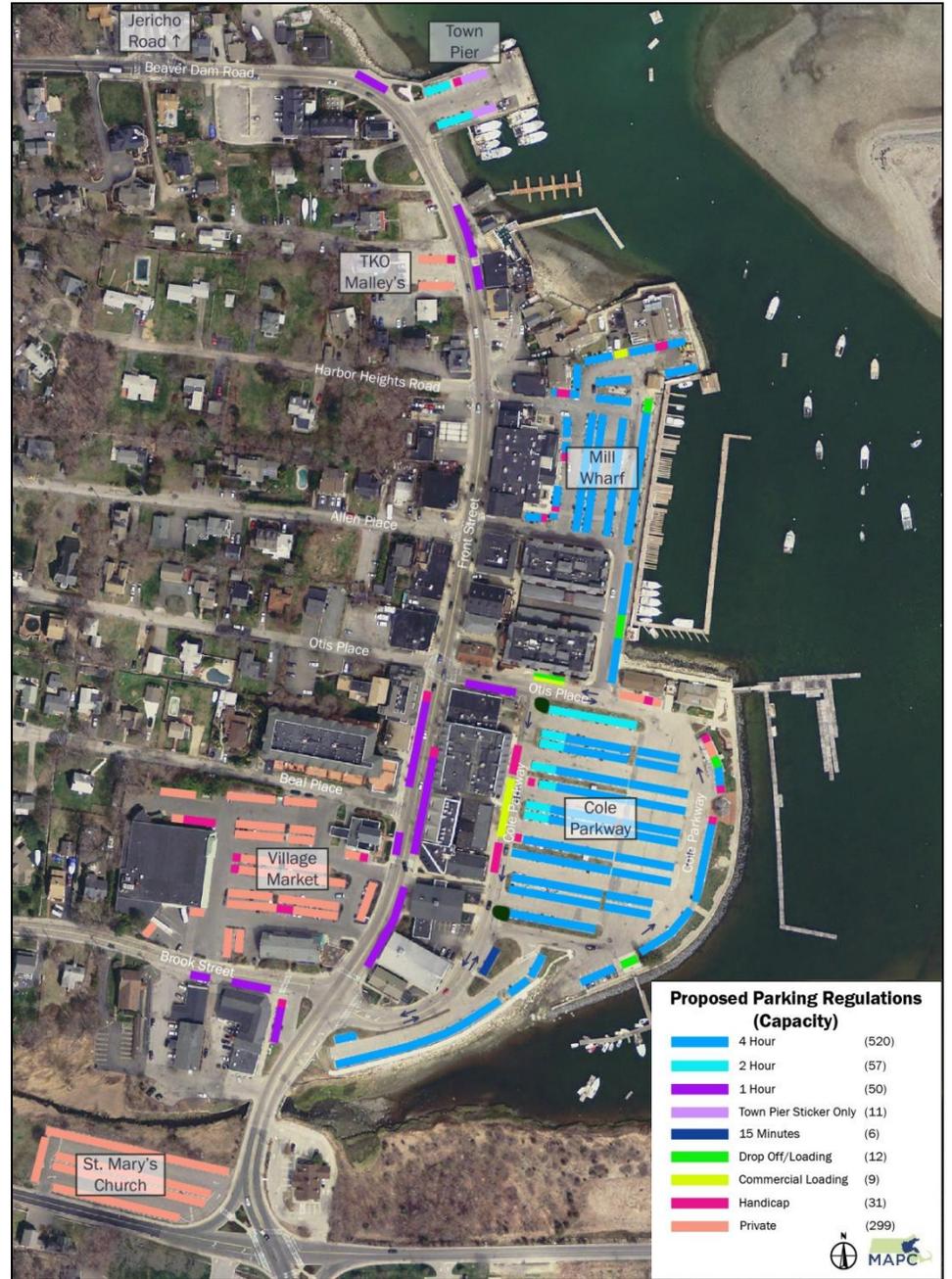
An issue central to many of the specific recommendations that follow is the role that private parking lots play in the Scituate Harbor parking ecosystem. To the average person, there's little distinction between Cole Parkway and Mill Wharf; most simply park in the most convenient space that they can find. For this reason, it is absolutely essential that the Town work closely with the owners of the Mill Wharf lot to implement *and enforce* the recommendations detailed below. Indeed, the Mill Wharf lot is where many of these recommendations are needed the most, to alleviate the issues caused by high peak parking demand and an extremely high level of occupancy by vehicles parked for long periods of time. Any time limits or pricing that are implemented in Cole Parkway without consistent regulations and consistent levels of enforcement in Mill Wharf will encourage even more people to park in the Mill Wharf lot, thereby exacerbating, rather than solving, the problem.

Short-Term Recommendations

Recommendation: Establish consistent 1 Hour time limit for on-street parking.

On-street parking in Scituate Harbor is currently a mix of 1 hour and unrestricted spaces. MAPC recommends a consistent 1 hour regulation for all on-street parking. On-street parking is most appropriate for short-term use, especially in Scituate where there are so few on-street spaces. Consistent regulations will make it easier for people to comply, and will deter business owners or employees from parking directly in front of their business, occupying a space that would be better used by customers. Comprehensive maps of existing and proposed parking regulations are provided in **Figure 14**, and a detailed capacity breakdown of proposed regulations is provided in **Appendix A**.

Figure 14 Existing and Proposed Parking Regulations



Recommendation: Establish a 2 hour limit for the busiest areas of Cole Parkway.

Due to the limited supply of on-street parking spaces in Scituate Harbor, the demand for convenient short-term parking close to businesses cannot be fully satisfied by on-street parking. MAPC therefore recommends that the parking spaces along the northern and eastern edges of the Cole Parkway lot be designated as 2 hour parking. The northern and eastern areas of this lot experienced the highest demand, while available spaces were concentrated in the southern side of Cole Parkway. Long-term parkers are willing to walk a little further to their destination, so parking spaces closest to businesses should be set aside for short-term parkers, who are very sensitive to convenience. The recommended location of 45 new 2 Hour spaces is shown in context in **Figure 14**, and highlighted below in **Figure 15**.

Figure 15 Location of Proposed 2 Hour Spaces in Cole Parkway



Recommendation: Establish a 4 hour limit for the rest of Cole Parkway.

As discussed in the Parking Duration section above, Scituate Harbor sees an enormous number of vehicles parking for very long durations. Some of these vehicles, such as employees and boaters, need to be accommodated, while other vehicles, such as commercial vehicles being stored in Cole Parkway for long durations, are occupying parking capacity that could be used by customers and other people who contribute directly to the success of the business district.

MAPC recommends the implementation of a four hour limit for all spaces in Cole Parkway not otherwise regulated, as shown in **Figure 14 - 15**. This will enable the Town to prevent inappropriate long-term parking, while better managing the appropriate short- and long-term parking needs. See separate recommendations below for managing appropriate long-term parking demand by employees and boaters.

Recommendation: Coordinate with Mill Wharf to enforce 4 hour limit in the private lot as well.

As noted in the Parking Duration section, an enormous amount of parking availability in the Mill Wharf lot is being occupied by vehicles parked for longer than four hours. These vehicles are almost

certainly employees and boaters (and perhaps residents), not customers of the Mill Wharf restaurant and other adjacent businesses. While this is a private lot that the Town does not have jurisdiction over, the Town must demonstrate to the property owners how it is in their interest to enforce a four hour time limit in the Mill Wharf lot, in order to ensure that parking is available for customers.

The Cole Parkway and Mill Wharf lots are inextricably linked, as the public seems to make little distinction between the public and private lots, instead simply parking wherever is most convenient. Demand in Mill Wharf is already in higher demand than Cole Parkway; any time limits or pricing implemented in Cole Parkway alone will push even more people to try to park in Mill Wharf, especially those who are parking for longer than four hours. It is therefore absolutely essential that Mill Wharf be included in any new regulations implemented in Scituate Harbor.

MAPC therefore recommends a four hour limit for the private Mill Wharf lot. Larger, more visible signage should be installed with the new regulations, and the Town and the property owners should work out a plan for enforcement. There are a range of methods for accomplishing this:

- The Town could lease the parking lot from the property owners, which would give the Town the ability to regulate and enforce the use of the lot.
- The Town could sign an agreement with the property owners that would allow the Scituate Police to conduct parking enforcement in the private lot, without leasing the property.
- The property owners could agree to implement the Town's recommended regulations and enforce them on their own.

Many towns within the MAPC region work with property owners to make private parking lots available for public use, and the nature of these relationships varies. In some cases, municipalities lease the parking area and compensate the property owner by conducting maintenance or moderate capital improvements, such as paving.

Recommendation: Establish an employee parking permit program.

Employees and business owners should be able to park in public parking areas in Scituate Harbor for extended periods of time, however they should be encouraged to avoid parking in the areas that see the highest demand for customer parking. MAPC recommends that the Town establish an employee parking permit program. Vehicles displaying the employee permit would be exempt from the four hour limit in Cole Parkway, but would be required to adhere to all other regulations, *including* the four hour limit in the Mill Wharf lot. Owners of the Mill Wharf lot could create their own permit to allow their own employees to park in the lot for longer than 4 hours, if desired.

The Town can charge a monthly or annual fee for employee permits in order to cover the cost of administering the program, however the fee should not be so high as to discourage participation. When issuing the permits the Town can educate employees on the importance of reserving the most convenient parking for customer use, and encourage employees to park in the southern end of Cole Parkway and in the row of spaces that front Satuit Brook. Due to the lower parking capacity in the northern end of the study area, employees of businesses in the northern end in particular should be encouraged to park in Cole Parkway, even if it means a longer walk.

Recommendation: Sell all-day passes for visitors who wish to park longer than four hours.

Fishermen and recreational users accessing the harbor also have legitimate long-term parking needs. However, like employees, these parkers should not use spaces that are in high demand for short-term parking. MAPC recommends that the Town sell all-day parking passes to these users, to

be displayed in the rear window of the vehicle for ease of enforcement. These permits can be sold by the Harbormaster or at other nearby businesses. In addition, the Town can contract with a mobile payment services company to allow drivers to purchase an all-day pass by calling a number or using a smartphone app. MAPC has conducted a collective procurement for these services, allowing the Town to contract directly with one of the two vendors selected. More information is available at www.mapc.org/parkingmeters.

All-day parking passes would be valid only in Cole Parkway, and only in spaces designated as 4 hour limit (that is, permits would not allow parking in 2 hour spaces). Boaters should be encouraged to park in the southern side of Cole Parkway, where short-term parking demand is the lowest. Free satellite parking can be provided as an alternative (see separate recommendation below).

Recommendation: Designate dropoff locations near the dock entrances.

In order to make it easier for boaters and others who purchase an all-day parking pass to comply with the restrictions on where they can park, MAPC recommends that dropoff areas be designated near each dock entrance. Boaters often have a lot of gear to unload, as shown in **Figure 16**. Providing convenient space for dropoff and pickup will reduce the incentive to park in the Mill Wharf and other areas that are close to the docks but also in demand for short-term parking by customers.

Figure 16 Boaters Need Dropoff Locations



Recommendation: Improve lighting in Cole Parkway.

MAPC observed that the lighting in Cole Parkway is inadequate, both because the type of lighting used is very dim, and because there are a large number of non-functional lights in the parking area. Better lighting is needed for public safety, and to ease parking enforcement. In addition, the poor lighting may be contributing to the strong preference among drivers to park in other areas of Scituate Harbor, rather than taking advantage of the available parking supply in Cole Parkway.

MAPC's Clean Energy Division helps municipalities convert outdoor lighting to brighter, more energy-efficient LEDs. More information is available at www.mapc.org/led-street-lighting. The easiest way for Scituate to replace the lights in Cole Parkway with LEDs is to purchase from one of three pre-approved vendors using the State Contract FAC-76. The Town can simply select a vendor and place an order, or request quotes from more than one of the vendors, all of whom offer discounts off of list price. The vendors will often include some design and consulting services, but installation is not included. For more information, visit <http://www.mass.gov/anf/docs/osd/uguide/fac76.pdf>.

If the Town is interested in a larger streetlight retrofit, there are other options including “turn key” contracts wherein one contractor will do an audit of all of the lights, calculate the Town’s savings, cost and payback, do the design, procure the product, and install it. These contracts are typically paid for out of the energy savings, meaning that there is zero upfront cost for the Town. For more information on this option, contact Patrick Roche in MAPC’s Clean Energy Division, at (617) 933-0790 or proche@mapc.org.

Recommendation: Replace worn out and hard-to-see signs, and add new wayfinding signage.

MAPC observed several issues with parking-related signage in Scituate Harbor, including signs that are faded, too small, covered by trees, or otherwise difficult to see, as shown in **Figure 17**. This can lead to noncompliance with parking regulations, if drivers cannot read the signs or don’t notice that they’re even there.

Figure 17 Worn or Poorly Visible Parking Signage



Highly visible wayfinding signs are important in Scituate Harbor, because there are many out-of-town visitors, and the vast majority of the public parking supply—Cole Parkway—is not visible from Front Street. Wayfinding signage refers to signs that direct drivers entering the business district toward public off-street parking. In addition, signs should also indicate the location of walkways connecting Cole Parkway to Front Street, both for pedestrians on Front Street and for drivers exiting their cars in Cole Parkway. Good wayfinding signage is important to make parking as easy as possible, and minimize traffic from drivers circling around looking for parking. Wayfinding signage also presents an opportunity for Scituate to enhance the business district’s brand, with custom designed signs that enhance the streetscape in addition to serving a functional purpose. **Figure 18** shows examples of parking signs that have distinctive design elements, but are still very clear and recognizable.

Figure 18 Enhanced Parking Signage

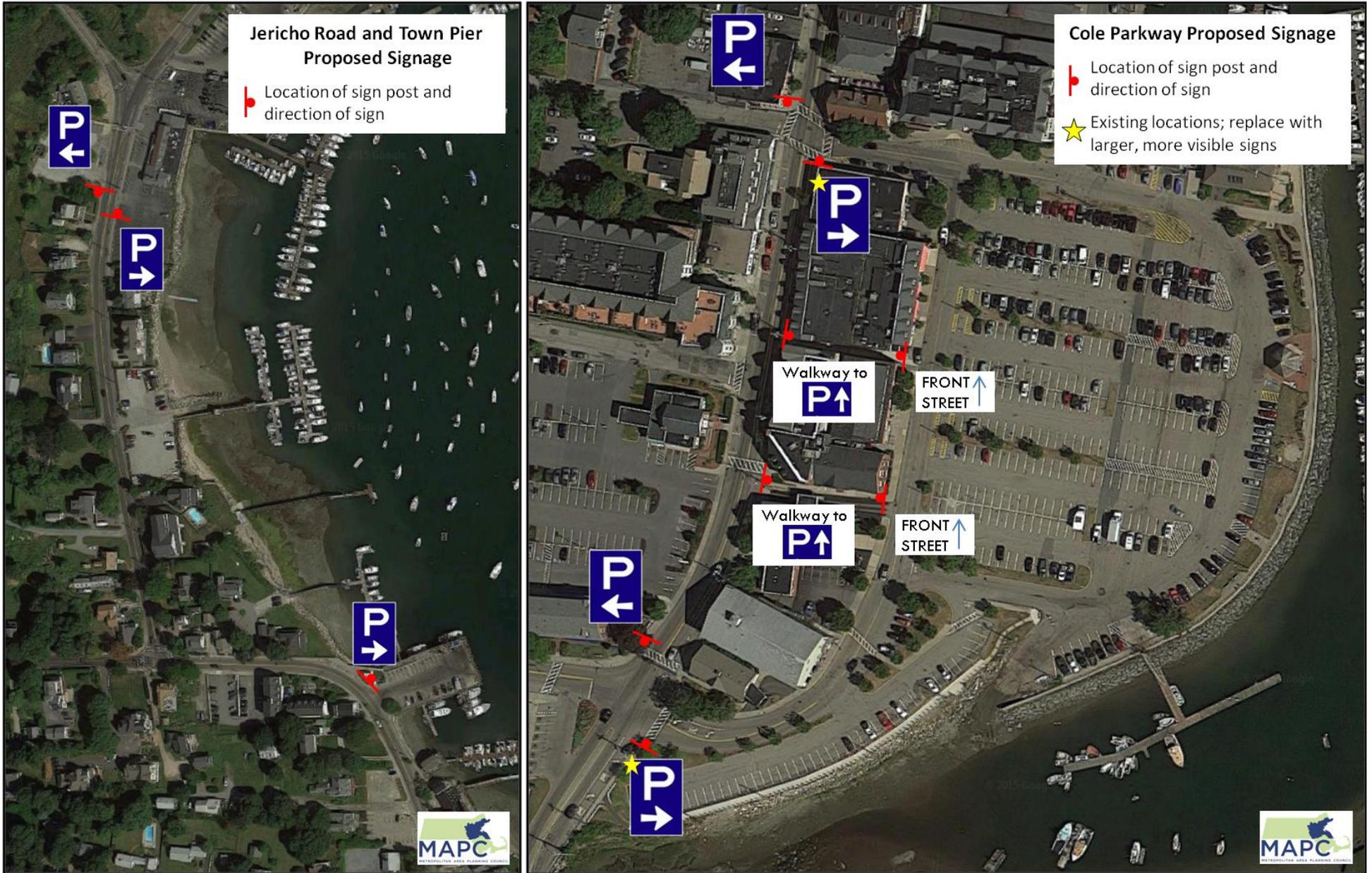


MAPC recommends the following upgrades to parking signage in Scituate Harbor:

- New signs to reflect new parking regulations
- Replace all faded parking signage
- Larger, more visible wayfinding signs at both entrances to Cole Parkway
- New wayfinding signs at both ends of the two walkways between Cole Parkway and Front St.
- New signs indicating public parking at the Town Pier on Front Street, and the Community Center on Jericho Road
- Temporary signage during events to direct visitors to available parking

Proposed locations for new or improved wayfinding signage are shown in **Figure 20** on page 31.

Figure 19 Proposed Locations for New/Improved Wayfinding Signage



Recommendation: Stripe spaces across from Coffee Corner.

There is currently a row of 15 minute parking spaces across from Coffee Corner, along the southern entrance to Cole Parkway. These spaces have no visible striping demarcating the parking spaces, which leads to inefficient parking with large spaces between each vehicle, as pictured below in **Figure 19**. Restriping this area can have the effect of adding several spaces of parking capacity.

Figure 20 Inefficient parking due to worn out striping across from Coffee Corner.



Recommendation: Stripe motorcycle spaces on Front Street in locations where excess curb space is available.

MAPC observed motorcycles parking in several locations along Front Street where extra space is available at the end of designated car parking spaces. **Figure 21** shows two locations—in front of TKO Malley’s, and at the north end of Front Street near the Town Pier—where the curved curb line creates some extra space that’s too small for a car, but big enough for one or two motorcycles. MAPC recommends that motorcycle parking in these locations along the roadway be officially sanctioned and striped. In addition, other locations on Front Street can be evaluated to see if there is extra space along the curb that could be safely striped for motorcycle parking, such as between existing striped parking spaces and a crosswalk or intersection. Encouraging visitors to Scituate Harbor to come by motorcycle can reduce the amount of space needed for car parking.

Figure 21 Existing Unofficial Motorcycle Parking Locations



Medium-Term Recommendations

Recommendation: Reconfigure the circulation in Cole Parkway.

Cole Parkway is slightly less than 27.5 feet wide from the sidewalk along the west side to the tree planters at the end of each row of parking. This is not quite wide enough to safely accommodate two-way traffic along with a row of parking along the curb that fronts the CVS and Dunkin Donuts, however this area is frequently used for short-term parking by both commercial and passenger vehicles, as shown in **Figure 22**.

Figure 22 Illegal Curbside Parking in Cole Parkway

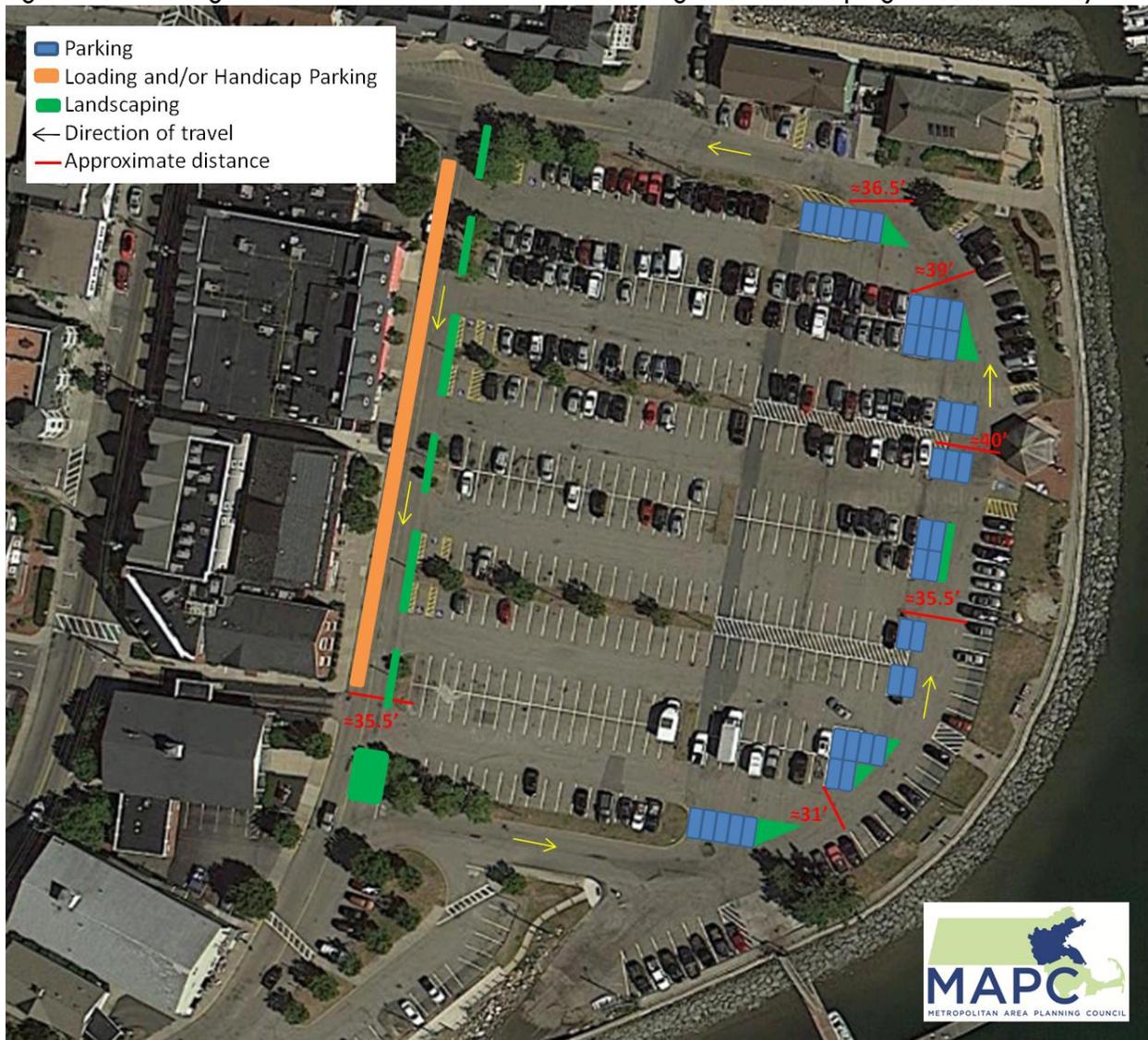


Increased enforcement is unrealistic, due to the very short duration that most vehicles remain in this area. Instead, MAPC recommends that the circulation be reconfigured in order to add a loading zone and handicap spaces along the curb. There are several components necessary to make this successful:

- Reconfigure the circulation so that traffic follows a one-way loop, with southbound travel between the CVS and the parking area, and northbound travel along the harbor side.
- Add a row of parking on Cole Parkway along the curb fronting CVS, restricted to handicap and commercial loading uses, with additional curb cuts in appropriate locations.
- Relocate standard handicap spaces from current position to curb spaces for added convenience, but retain handicap van spaces in current location.
- Extend the parking rows and add landscaping, to narrow the travel lanes and calm traffic.

All of these proposed changes are illustrated in **Figure 23** on the following page. Please note that Figure 23 is a conceptual drawing, not an engineering design.

Figure 23 Reconfigured Circulation and Additional Parking and Landscaping in Cole Parkway



Recommendation: Designate satellite parking areas and run a shuttle on the busiest summer weekends and other special events as needed.

As demonstrated in the Parking Occupancy section above, MAPC observed very high parking demand during the summer Saturday observation, but peak parking occupancy was more manageable during the summer and fall weekday observations. In a context where parking demand spikes during specific times—in the case of Scituate, special events and weekends between July 4th and Labor Day—it is not appropriate to build parking supply to accommodate the peak demand, because there would be excess supply sitting empty during the majority of the year. In this context, it is more appropriate to provide satellite parking for the times when demand spikes.

Satellite parking refers to areas that are slightly further away from a destination, and may require a shuttle or other transportation to reach. Satellite parking is most appropriate for long-term parking, and for special events. MAPC recommends that the Town use the Community Center lot on Jericho

Road as satellite parking for boaters—especially those staying on the water overnight—and for special events where parking supply in Cole Parkway is constrained. The Community Center has 57 parking spaces, and had a peak occupancy of only 43% on the summer Saturday observation.

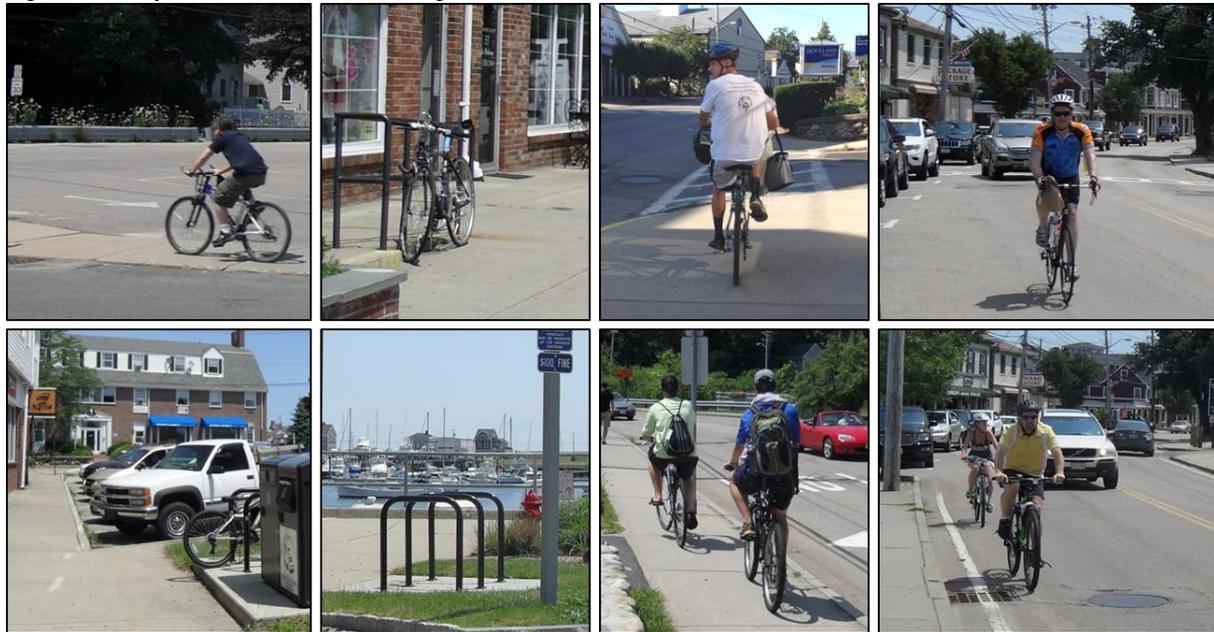
In order to incentivize use of satellite parking, parking at the Community Center should be free, and a free shuttle van could be provided to transport people to and from the satellite parking lot. If the Town implements a paid all-day parking pass for Cole Parkway, as recommended above, the revenue from those passes could potentially fund the shuttle to and from the Jericho Road lot. However, 44 Jericho Road is only a half mile, or an approximately 10 minute walk, from the heart of Scituate Harbor, so it is certainly feasible for people to walk.

The Jenkins Elementary School on Vinal Ave was also raised during MAPC’s presentation to the Board of Selectmen as a potential location for satellite parking. This location was not part of MAPC’s study area, however it appears to be a suitable location for satellite parking during non-school hours. There are 84 spaces at the school, which is also about a half mile or 10 minute walk from the heart of Scituate Harbor.

Recommendation: Install additional bicycle parking and bike lanes.

MAPC observed numerous people visiting Scituate Harbor by bicycle, especially in the summer. **Figure 24** shows cyclists and bike parking observed in Scituate Harbor. Efforts to encourage more people to visit Scituate Harbor by bicycle can reduce the demand for vehicle parking, and numerous studies have found that increasing the level of cycling has an economic benefit for local business districts.

Figure 24 Cyclists and Bike Parking in Scituate Harbor



A significant portion of the bicyclists observed by MAPC were riding on the sidewalk. Massachusetts law states that bicyclists are permitted to ride in the street in any location other than limited access highways, but bicyclists should not ride on the sidewalk in business districts, due to the negative impact on pedestrians. The Town of Scituate should evaluate what type of bicycle facilities could be installed to make cyclists feel safer riding in the street. If Front Street is too narrow for dedicated

bike lanes, shared lane markings (also called “sharrows”, example in **Figure 25**) can remind drivers to drive safely around bikes, and can encourage cyclists to ride in the street. Installing bike lanes in areas surrounding Scituate Harbor is also important, so cyclists have a safe and comfortable way to get to the business district, in particular to link the Driftway Trail to Scituate Harbor. MAPC and the Boston MPO can provide technical assistance to help towns evaluate what kind of bicycle facilities can be installed. More information is available at http://www.ctps.org/Drupal/tech_assist.

Figure 25 Example of a “Priority Sharrow” Bicycle Lane



A few bike racks are currently located in the vicinity of the Scituate Harbor business district, however there are none on Front Street or near the row of businesses that front Cole Parkway. Cyclists, like drivers, prefer to park as close as possible to their destination, so without any racks available bicycles get locked to whatever is available, which contributes to an untidy streetscape and can sometimes block pedestrian access. In addition to providing orderly parking for those already biking, additional bike racks can also serve as invitation and encouragement for more people to visit Scituate Harbor by bike and further reduce demand for parking spaces.

MAPC recommends that the Town install bike racks on Front Street in front of the CVS and other popular restaurants and businesses. MAPC has conducted a regional collective procurement for bike racks that Scituate can use to purchase racks directly from pre-selected vendors, at discounts of up to 40%. More information on this program is available at <http://www.mapc.org/resources/regional-bike-parking>.

Recommendation: Work with the owners of the Mill Wharf lot to repave and clearly mark parking spaces.

As mentioned above, a lack of visible striping demarcating parking spaces makes it difficult for drivers to know exactly where to park when there are few vehicles. Later, when the lot fills up, the cars are often spaced inefficiently, effectively reducing the parking capacity in the lot. The Mill Wharf Lot has very poor pavement condition, especially on the side nearest the harbor. There are extensive

potholes and no visible striping in some rows, as shown in **Figure 26**. While this is a privately-owned parking lot, it effectively functions as part of the public parking supply, and therefore it is in the Town's interest to make sure that it is being used efficiently. The Town should encourage the property owners to repave the Mill Wharf lot, and to clearly stripe each row of parking spaces. As mentioned above, maintenance in the Mill Wharf lot could be part of a larger agreement between the Town and the property owners to bring consistency to regulations and enforcement in both Mill Wharf and Cole Parkway lots.

Figure 26 Poor Condition of Mill Wharf Parking Lot



Recommendation: Improve the sidewalk and add on-street parking in front of Hennessey News.

There are currently three on-street parking spaces on Brook Street near the intersection with Front Street. Just west of these spaces, in front of Hennessey News, the sidewalk effectively ends, with large driveway entrances on both sides of Hennessey News, and no curb to delineate the sidewalk in front of the store. Hennessey News customers frequently park right in front of the store, blocking what should be the sidewalk, as shown in **Figure 27**.

Figure 27 Sidewalk Parking in front of Hennessey News



MAPC recommends that the sidewalk in front of Hennessey News be improved by installing a curb and narrowing the driveways on either side of Hennessey News. In addition, Brook Street is approximately 34 feet wide at this location, which is more than sufficient width for two travel lanes and one parking lane. On-street parking spaces can be striped once a proper sidewalk and curb are installed along this section of the south side of Brook Street. These improvements will increase pedestrian safety and improve the visual character of the area, while creating a net increase of formal parking spaces for Hennessey News customers.

Long-Term Recommendations

Recommendation: Work with the current landowner to explore opening up the roped-off lot across from TKO Malley’s for public use.

As noted above, parking occupancy is highest on the northern side of Scituate Harbor, even exceeding 100% in certain areas at the busiest times. The short- and medium-term recommendations detailed above are aimed at maximizing the efficient use of the existing parking supply, and guiding long-term parkers toward the southern end of the business district in order to free up capacity on the northern end for short-term parkers. However, the Town may also want to explore options for increasing parking supply on the northern side of Scituate Harbor. One potential option is the private lot on the corner of Front Street and Morton Place, adjacent to the TKO Malley’s parking lot (see **Figure 28**). This area is currently roped off to prevent public use, but the driveway is frequently used for parking for up to three vehicles, as shown in **Figure 28**.

Figure 28 Private Lot Adjacent to TKO Malley’s Parking Lot

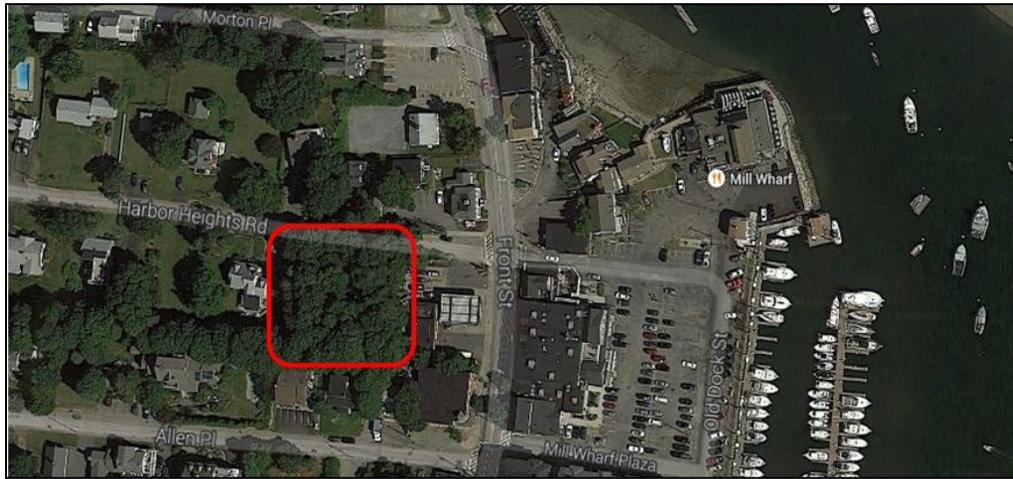


MAPC recommends that the Town approach the landowner of this site to explore the possibility of opening it up for public use. Many towns in the MAPC region have agreements with property owners to use private lots for public parking; in some cases, the town leases the property, while in others there is a less formal agreement. Often, the town compensates the property owner by performing maintenance on the property, such as plowing, striping, or periodic repaving. This lot currently appears to serve no private or public purpose, yet it is situated in a prime location for additional parking supply, either for use by the general public, or by certain permitted users, such as employees of adjacent businesses. The Town could also explore purchasing the land outright.

Recommendation: If other recommendations fail to improve parking availability, explore purchasing an undeveloped lot behind the Front Street Shell station and constructing 1-2 levels of parking.

A more capital-intensive option for increasing parking supply on the northern end of Scituate Harbor is a lot located off Harbor Heights Road, behind the Front Street Shell station, as shown in **Figure 29**. This site is currently a wooded slope, so significant site work would be necessary to construct parking. However, the slope could potentially allow for a two-level parking structure to be built at a comparatively low cost.

Figure 29 Potential Site for Development of New Parking



If the current owner is willing to sell the land, the Town must identify both capital funding to purchase the land and construct a parking structure, as well as ongoing funding for maintenance. MAPC recommends the Town explore this option only after all other efforts to maximize the existing parking supply have been exhausted.

Recommendation: Resurface Cole Parkway with permeable pavers.

MAPC observed tidal flooding in the Cole Parkway lot, as shown in **Figure 30**. At the MAPC presentation to the Scituate Board of Selectmen it was confirmed that this is a recurring problem. Flooding of this severity can impact parking availability, if drivers are (understandably) reluctant to park in flooded areas, and can prove hazardous in colder weather, if flooded areas freeze over.

Figure 30 Tidal Flooding in Cole Parkway



MAPC recommends that the Town explore options for reconstructing parts of the Cole Parkway lot with a permeable surface for better stormwater and tidal flood management. There are many different options for permeable paving, including porous concrete and asphalt (which look the same as regular concrete and asphalt), paving stones (impervious bricks with permeable spaces between them), and grass pavers (open-cell pavers planted with vegetation). Various types of permeable paving materials are designed for the use and maintenance levels associated with a busy parking lot. Examples of paving stones and grass pavers are shown in **Figure 31**, and more information is available at <http://www.mapc.org/low-impact-dev-toolkit>. Grass pavers in particular have the added benefit of making the area feel more park-like, which can improve the experience for those who come to walk or picnic near the harbor. The first step is for the Town to work with an expert in permeable paving techniques to evaluate what types of materials would be appropriate for the conditions in Cole Parkway, and develop a cost estimate.

Figure 31 Examples of Permeable Paving Materials



Summary and Next Steps

This report is intended to provide data-driven recommendations for the Town of Scituate to improve parking availability in Scituate Harbor. The study area included on-street parking spaces, public off-street lots, and private off-street lots. However, to the average user, there is little or no distinction between public and private parking; the only important distinction is convenience. Therefore, it is crucial that the Town approach parking in Scituate Harbor as one system. New regulations or stricter enforcement in only the public parking areas will simply push more people to use the private parking lots, which already suffer from the highest demand. Improving the parking system in Scituate Harbor depends completely upon cooperation between the Town and private parking lot owners.

Summary of Findings

MAPC's observations show that parking occupancy in Scituate Harbor is well within available capacity during the fall weekday, and the summer weekday saw an overall average occupancy of 53% but peak parking demand as high as 99% in some areas. However, the summer Saturday observation documented high peak hour parking demand in all areas, and an overall average occupancy of 74%.

Parking occupancy was highest on the northern side of the study area, including the private Mill Wharf parking lot and the ten on-street spaces on the north end of Front Street, as well as the north and west edges of the Cole Parkway lot. Empty parking spaces were concentrated on the southern end of the Cole Parkway lot during all observations.

Despite the relatively small number of on-street spaces, MAPC's observations showed on-street parking occupancy near or below the target of 85% occupancy even during peak hours. During the summer Saturday observation, when overall parking occupancy was highest, on-street parking occupancy was 80% during the peak hour (1 – 2pm). At this level of occupancy, on-street parking is being well-utilized, but there are always a few spaces available.

The most striking finding in this study relates to parking duration. At least 50% of spaces in the private Mill Wharf lot were occupied by vehicles parked for more than four hours during all observations. During the summer Saturday observation, *73% of spaces in the Mill Wharf lot were occupied by long-term parkers*, along with 53% of spaces in Cole Parkway. While employees, recreational boaters, and other long-term parkers are valued visitors to Scituate Harbor, parking policies must be crafted to ensure that these long-term parkers do not monopolize the most convenient spaces, and create a frustrating parking experience for shoppers, diners and other short-term visitors.

Summary of Recommendations

This report outlines a number of steps the Town of Scituate can take to make the existing parking supply better serve the needs of residents, visitors, recreational boaters, fishermen, and local businesses. Changes to existing parking policies, as well as some physical improvements, can make the parking experience easier, improve availability, and help ensure that Scituate Harbor remains a vibrant business district.

Short-Term, Low-Cost Recommendations:

- Establish a consistent 1 Hour time limit for on-street parking.
- Designate 45 spaces in Cole Parkway as 2 hour parking.
- Establish a 4 hour time limit for the remainder of the spaces in Cole Parkway, and for all spaces in the Mill Wharf lot.
- Create an employee parking permit to enable employees of Scituate Harbor businesses to park for longer than 4 hours.
- Create a paid all-day parking pass for boaters and other visitors who wish to park for longer than four hours.
- Designate dropoff locations near all dock entrances.
- Improve the lighting in Cole Parkway.
- Replace worn out signage and install new wayfinding signage.
- Restripe the row of parking spaces across from Coffee Corner.
- Stripe motorcycle parking spaces on Front Street in locations where there is excess space along the curb that is too small for a car parking space.

Medium-Term Recommendations:

- Reconfigure Cole Parkway to create a one-way loop with loading and handicap parking along the curb on the western edge of the parking lot.
- Designate the Community Center on Jericho Road as satellite parking, and run a shuttle between the parking area and Scituate Harbor on summer weekends and special events.
- Install bicycle facilities in and around Scituate Harbor, and install bike racks on Front Street.
- Work with the property owners to repave and restripe the Mill Wharf lot.
- Improve the sidewalk and stripe on-street parking spaces in front of Hennessey News on Brook Street.

Long-Term Recommendations:

- Explore opening up for public use the private lot adjacent to the TKO Malley's parking lot.
- Explore purchasing the undeveloped lot on Harbor Heights Road, behind Shell station, to construct a one- or two-level parking area.
- Reconstruct Cole Parkway using permeable paving materials.

One policy that is not included among the recommendations is pricing for parking for less than 4 hours. Typically pricing is introduced to increase turnover in high-demand on-street spaces. However, on-street parking in Scituate Harbor is already functioning well, with good turnover and occupancy near or below the target of 85%. The main issue causing parking headaches in Scituate Harbor is the large number of vehicles parking for extremely long durations, especially in the private Mill Wharf lot. Therefore MAPC has recommended a four hour limit and pricing for parking longer than four hours in order to help shift these long-term parkers away from the spaces desired by short-term parkers. Pricing parking for short durations will not address the source of the parking availability issues, and would instead likely make it worse by further incentivizing people to park in private off-street lots where parking is free.

At all stages of implementation, enforcement should be focused on the issues that impact safety, parking availability, and user experience. Safety issues, such as parking on sidewalks, should receive the highest priority for enforcement. Identified issues such as long-term storage of commercial vehicles in Cole Parkway have a negative impact on both parking availability and user experience, and business owners should be pushed to find a more appropriate solution for storing their vehicles. Alternatively, the Town could sell permits for long-term commercial vehicle parking in Cole Parkway, however these vehicles should be restricted to the southernmost end of the lot, and storage of seafood or other sources of unpleasant odors should be prohibited.

Next Steps

Many of the above recommendations are low-cost, and can be implemented fairly quickly. Recommendations relating to time limits and other regulations should be implemented as a unified package, while recommendations relating to physical improvements can proceed independently. Recommendations involving large capital outlays should proceed only after other strategies have been implemented, and it has been objectively determined that a further increase in the parking supply is needed.

The most important first steps for the Town to take are as follows:

1. Designate a Town staff person responsible for ongoing parking management.
2. Form a committee to oversee implementation of recommendations.
3. Meet with the owners of the Mill Wharf parking lot to agree on a plan for coordinated management of the public and private parking supply.

MAPC has found that cities and towns that implement parking reforms have varying levels of success over time, and one of the most important factors is whether there is a designated point person for parking among the municipal staff. Having a designated point person is crucial to make sure that parking reforms are fully implemented, and that advancements are not chipped away over time due to political considerations.

Parking can cause headaches, but when properly managed it can be an important asset for a local business district. This study provides the Town of Scituate with the tools and information needed to make the most of the existing parking supply, and help Scituate Harbor to thrive.

Appendix A

Study Area Parking Capacity and Regulations by Location

Appendix A. Study Area Parking Capacity and Regulations by Location

Existing Regulations								
	On-Street	Cole Pkwy	<i>Mill Wharf</i>	Town Pier	<i>Church</i>	<i>Village Market</i>	<i>TKO Malley</i>	Total
Unrestricted	13	396	-	-	-	-	-	409
4 Hour	-	-	-	-	-	-	-	0
2 Hour	-	-	-	12	-	-	-	12
1 Hour	35	7	-	-	-	-	-	42
Town Pier Sticker	-	-	-	11	-	-	-	11
15 Minutes	-	5	-	-	-	-	-	5
Drop Off/Loading	-	6	2	-	-	-	-	8
Commercial Loading*	-	-	-	-	-	-	-	0
Handicap	3	11	7	1	-	9	1	32
Private	-	9	163	-	121	156	13	462
Total	51	434	172	24	121	165	14	981
Proposed Regulations								
	On-Street	Cole Pkwy	<i>Mill Wharf</i>	Town Pier	<i>Church</i>	<i>Village Market</i>	<i>TKO Malley</i>	Total
Unrestricted	-	-	-	-	-	-	-	0
4 Hour	-	361	159	-	-	-	-	520
2 Hour	-	45	-	12	-	-	-	57
1 Hour	50	-	-	-	-	-	-	50
Town Pier Sticker	-	-	-	11	-	-	-	11
15 Minutes	-	6	-	-	-	-	-	6
Drop Off/Loading	-	8	4	-	-	-	-	12
Commercial Loading*	-	7	2	-	-	-	-	9
Handicap	3	10	7	1	-	9	1	31
Private	-	9	-	-	121	156	13	299
Total	53	446	172	24	121	165	14	995

Private parking areas are noted with italics.

Appendix B

Scituate Police Overnight Parking Survey

REG PLATE NUMBER	STATE	TYPE	JULY 11	JULY 12	JULY 13	JULY 14						JULY 20	JULY 21	JULY 22	JULY 23	JULY 24	JULY 25	JULY 26	JULY 27	JULY 28	JULY 29	JULY 30	VEH. CODE
1056561	IN	APP/PWR			X	X																	AT1
2192517	IN	APP/PWR			X	X																	AT2
P371684	IN	APP/PORT.			X																		AT1
CI714M	MA				X																		OOTV1
D98346	MA	CO													X							X	CLF2
E69437	MA	CO	X	X								X	X	X	X		X	X	X	X	X		CLB10
F98926	MA	CO	X	X								X	X		X	X	X	X	X	X	X	X	CLB11
HAFAS	MA	CO								X													CLF1
J58701	MA	CO	X										X	X	X	X					X	X	CLB7
J75724	MA	CO			X																		CLF1
L32744	MA	CO	X	X	X	X						X	X	X	X	X	X	X		X	X	X	CLR13
M37818	MA	CO	X										X	X	X	X							CLF5
M60044	MA	CO			X																		CB1
M87470	MA	CO	X	X	X	X						X					X	X	X				COOTV8
M91955	MA	CO								X								X	X	X			CLB1
N42275	MA	CO	X	X	X							X	X	X	X	X	X	X	X	X	X	X	CLB13
N44890	MA	CO		X	X																		COOTV2
P57750	MA	CO		X	X													X		X			CLF4
P84304	MA	CO	X																				COOTV1
P85304	MA	CO		X	X								X	X	X	X	X			X	X	X	CLF10
R51191	MA	CO																					COOTV1
263c	MA	DLR	X	X	X	X	X	X	X														NO LIST
LV56003	MA	LIVERY		X																			LL1
LV61338	MA	LIVERY			X	X	X	X	X														LL5
644477	RI	PAN												X									OOTV1
119GG3	MA	PAN																X					OOTV1
11BA74	MA	PAN	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	HR17
1207VY	MA	PAN		X	X													X	X	X	X	X	OOTV7
121GL7	MA	PAN	X				X	X									X						OOTV4
122MW5	MA	PAN	X				X			X	X						X						
134SW8	MA	PAN																X	X	X			
13LC75	MA	PAN																		X	X		OOTV2
13TR39	MA	PAN			X													X					
149RXO	MA	PAN		X	X					X								X	X				

REG PLATE NUMBER	STATE	TYPE	JULY 11	JULY 12	JULY 13	JULY 14						JULY 20	JULY 21	JULY 22	JULY 23	JULY 24	JULY 25	JULY 26	JULY 27	JULY 28	JULY 29	JULY 30	VEH. CODE
1152SC3	MA	PAN			X																		OOTV1
16WC39	MA	PAN																				X	OOTV1
172MG4	MA	PAN																X					OOTV1
173MW3	MA	PAN	X	X																			HR2
175GK1	MA	PAN															X						OOTV1
1805HH	MA	PAN	X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	HR17
1AL354	MA	PAN																				X	OOTV1
1BN995	MA	PAN									X												LR1
1EK140	MA	PAN				X																	OOTV1
1ES385	MA	PAN				X											X						OOTV2
1LD413	MA	PAN														X		X					
1LL90	MA	PAN		X													X	X					NO LIST
1PB665	MA	PAN			X																		LR1
1TY645	MA	PAN								X													OOTV1
1WV225	MA	PAN		X	X												X		X		X		HR5
1YD863	MA	PAN				X			X								X		X				OOTV2
21MT12	MA	PAN										X	X									X	LR3
238XL4	MA	PAN																				X	OOTV1
239YY4	MA	PAN		X																			OOTV1
264NN2	MA	PAN									X												OOTV1
27KS81	MA	PAN		X																			OOTV1
299WCW	MA	PAN	X	X	X					X	X	X	X	X	X	X	X	X	X	X	X	X	LR15
2HZS40	MA	PAN		X	X																X	X	OOTV4
2YJZ70	MA	PAN		X	X													X					OOTV3
318RD4	MA	PAN										X											OOTV1
326GG3	MA	PAN																			X		LR1
342NV7	MA	PAN	X	X	X																		
3508DE	MA	PAN			X													X	X				OOTV1
376YK9	MA	PAN								X													LR1
37HA15	MA	PAN																			X		LR1
37JL61	MA	PAN				X										X							OOTV2
385KHG	MA	PAN	X	X	X	X																	
38HA15	MA	PAN			X																	X	LR2
39EJ70	MA	PAN		X												X				X			OOTV3

No. 0545 P. 6

Dec. 30. 2014 3:04PM scituate town

REG PLATE NUMBER	STATE	TYPE	JULY 11	JULY 12	JULY 13	JULY 14						JULY 20	JULY 21	JULY 22	JULY 23	JULY 24	JULY 25	JULY 26	JULY 27	JULY 28	JULY 29	JULY 30	VEH. CODE
413TC8	MA	PAN		X									X										OOTV2
41ZM90	MA	PAN			X																		OOTV1
43KB53	MA	PAN																X					OOTV1
44KA55	MA	PAN																X	X				
499IYF	MA	PAN				X												X					LR2
4DB350	MA	PAN			X	X	X	X	X	X	X							X					OOTV7
4RMV20	MA	PAN	X	X	X	X			X	X	X	X	X	X	X	X	X	X		X	X	X	OOTV17
511RDF	MA	PAN	X	X																			
513ZST	MA	PAN									X												OOTV1
517YH4	MA	PAN																	X				OOTV1
5375NC	MA	PAN			X																		HR1
54CB89	MA	PAN	X	X	X					X	X	X	X	X	X	X	X	X	X	X	X	X	LR15
56AX87	MA	PAN										X											OOTV1
5709ZR	MA	PAN		X	X							X						X	X				
578VX9	MA	PAN	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X		X	HR18
584TN6	MA	PAN	X													X	X	X	X	X			OOTV1
5H773	NH	PAN		X																			OOTV1
5KLT40	MA	PAN									X												LR1
5MG190	MA	PAN	X								X												
60CS13	MA	PAN		X	X																X		OOTV3
614WYY	MA	PAN	X																				OOTV1
636MK3	MA	PAN		X																			OOTV1
640SCH	MA	PAN	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X	X	X		HR16
642RLF	MA	PAN																	X				OOTV1
647WS9	MA	PAN	X																				OOTV1
64XM44	MA	PAN		X																			LR2
661YN8	MA	PAN		X	X																		
662ZA3	MA	PAN	X																				OOTV1
6667JM	MA	PAN																					OOTV1
667LR4	MA	PAN			X																	X	OOTV1
678FK2	MA	PAN																					NO DATA
67CN87	MA	PAN										X											OOTV1
681WN7	MA	PAN										X											OOTV1
68XS31	MA	PAN									X												OOTV1

No. 0545 P. 7

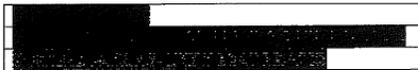
Dec. 30. 2014 3:04PM scituate town

REG PLATE NUMBER	STATE	TYPE	JULY 11	JULY 12	JULY 13	JULY 14						JULY 20	JULY 21	JULY 22	JULY 23	JULY 24	JULY 25	JULY 26	JULY 27	JULY 28	JULY 29	JULY 30	VEH. CODE
693DT3	MA	PAN				X	X																OOTV2
6SF880	MA	PAN						X															LR1
7085MF	MA	PAN																X					LR1
719HG0	MA	PAN									X												OOTV1
722FT1	MA	PAN			X			X	X						X	X	X	X					OOTV7
724DL3	MA	PAN		X																			OOTV1
736WK9	MA	PAN															X						OOTV1
737MS8	MA	PAN				X																	OOTV1
747KL8	MA	PAN									X												OOTV1
747MK7	MA	PAN													X								OOTV1
751SG5	MA	PAN																X					OOV1
761WJN	MA	PAN			X	X	X	X	X	X	X	X	X	X	X	X	X	X				X	HR12
766WVR	MA	PAN		X									X										HR2
781VA3	MA	PAN									X	X	X									X	LR5
785FEF	MA	PAN		X																			LR1
78CM73	MA	PAN																	X				OOTV1
7P8	MA	PAN			X																		OOTV1
807ZOJ	MA	PAN		X																			LR1
841HX8	MA	PAN																X	X				
845DC1	MA	PAN		X	X	X	X		X		X			X		X	X	X	X	X	X		HR12
8462DT	MA	PAN									X							X	X				
866AK9	MA	PAN	X	X											X		X	X					
878TL8	MA	PAN			X						X	X						X					
8799LG	MA	PAN															X	X	X				
885GP7	MA	PAN			X					X		X	X	X	X	X	X			X	X	X	OOTV10
891JL6	MA	PAN									X										X		OOTV2
894TF1	MA	PAN				X																	OOTV1
905XXJ	MA	PAN									X												OOTV1
927WE7	MA	PAN	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X		HR17
9493RW	MA	PAN						X		X													OOTV2
94RJ59	MA	PAN			X																		OOTV1
958VSP	MA	PAN									X							X	X				OOTV1
963KJ9	MA	PAN		X							X							X	X				
9858FE	MA	PAN		X																			LR1

REG PLATE NUMBER	STATE	TYPE	JULY 11	JULY 12	JULY 13	JULY 14						JULY 20	JULY 21	JULY 22	JULY 23	JULY 24	JULY 25	JULY 26	JULY 27	JULY 28	JULY 29	JULY 30	VEH. CODE	
985GZ8	MA	PAN			X					X	X													
9862YD	MA	PAN	X	X	X	X	X		X				X	X							X	X	X	OOTV14
999DR9	MA	PAN																			X	X	X	NO LIST
9EZ800	MA	PAN					X																	OOTV1
9KZ520	MA	PAN			X																			LR1
BDQB60	FL	PAN									X													OOTV1
BPJX19	FL	PAN																		X				OOTV1
CI50FS	MA	PAN																				X		OOTV1
CHL132	FL	PAN				X																		NO LIST
CLIV23	FL	PAN										X												OOTV1
DWBldr	MA	PAN			X						X								X	X				
F89	MA	PAN										X							X					
FPS8840	NY	PAN																		X				OOTV1
FRP167	VT	PAN	X	X	X	X	X	X	X	X														OOTV8
FW770L	MA	PAN		X																				LR1
HPZ2528	PA	PAN									X													OOTV1
IC50FS	MA	PAN		X	X														X		X	X		OOTV5
IC95MM	MA	PAN			X							X												
JF4568	MA	PAN										X												OOTV1
JPN	MA	PAN		X		X		X		X			X		X									LR5
KRSLYN	MA	PAN			X						X													
NI717	MA	PAN	X																					OOTV1
N98668	MA	PAN		X	X																			
NE21KC	MA	PAN																				X		LR1
Q177	MA	PAN		X	X																			
RT77XC	MA	PAN		X	X																			
RT98BV	MA	PAN																	X		X			LR2
RW47GP	MA	PAN				X							X					X		X				NO LIST
RZDAK	AZ	PAN	X																					NO LIST
US79CZ	MA	PAN	X																					LR1
VT13599	MA	PAN										X												LR1
5503	MA	PAR		X	X																			
14145	MA	PAR							X															OOTV1

REG PLATE NUMBER	STATE	TYPE	JULY 11	JULY 12	JULY 13	JULY 14						JULY 20	JULY 21	JULY 22	JULY 23	JULY 24	JULY 25	JULY 26	JULY 27	JULY 28	JULY 29	JULY 30	VEH. CODE	
14146	MA	PAR				X	X				X													NO LIST
21946	MA	PAR			X							X								X				LR3
54666	MA	PAR																						NO DATA
68356	MA	PAR			X																			LR1
8636A	MA	REPAIR			X																			NO LIST
B85074	MA	TRAILER												X	X	X	X	X	X	X	X	X		LR8
T1316	MA	TRAILER			X																			OOTV1
T7423	MA	TRAILER		X	X	X																		AT3
T7424	MA	TRAILER		X	X	X																		AT3
SK2	MA	VETERAN			X																			OOTV1

COLOR CODES



VEHICLE CODES -- (ALL CODES ARE FOLLOWED BY THE NUMBER OF NIGHTS VEHICLE WAS PARKED IN COLE PARKWAY DURING DATA COLLECTION PERIOD)

OOTV	OUT OF TOWN VISITOR
HR	HARBOR RESIDENT
LR	LOCAL RESIDENT
AT	ASPLUNDH TREE
CLF	COMMERCIAL LOCAL FISHERMAN
CLB	COMMERCIAL LOCAL BUSINESS
CLR	COMMERCIAL LOCAL RESIDENT
LL	LOCAL LIVERY