

(insert cover page)

DRAFT

**DRAFT – NOT ADOPTED POLICY**

## Table of Contents

	<b>Page</b>
<b>Executive Summary .....</b>	<b>1-1</b>
<b>Chapter 1. Introduction .....</b>	<b>1-1</b>
Report Structure .....	1-1
Comments Welcome .....	1-1
Project Goals .....	1-1
<b>Chapter 2. Civic Engagement .....</b>	<b>2-1</b>
Public Open House.....	2-1
Final Public Workshop.....	2-3
<b>Chapter 3. Current Parking Conditions .....</b>	<b>3-4</b>
Study Area and Key Findings .....	3-4
Parking Supply & Demand.....	3-5
Enforcement .....	3-14
User Perception and Experience .....	3-15
Summary of Current Parking Conditions .....	3-17
<b>Chapter 4. Initial Parking Management Program .....</b>	<b>4-1</b>
Recommendation 1: Revise Employee Parking Permits .....	4-2
Recommendation 2: Establish More Convenient Customer Parking .....	4-3
Recommendation 3: Introduce Commuter Parking.....	4-4
Recommendation 4: Improve Pedestrian Connections.....	4-5
Recommendation 5: Create a Signing Program .....	4-8
Recommendation 6: Use Modern Payment Technology .....	4-9
Other Strategies .....	4-10
<b>Chapter 5. Parking Management Implementation.....</b>	<b>5-13</b>
 Appendix A – Survey Form	
Appendix B – Open-Ended Comments from Survey	
Appendix C – Parking Utilization Maps - Weekday and Weekend	

**Table of Figures**

	<b>Page</b>
Figure 1	Priority Voting Results ..... 2-2
Figure 2	Needs & Opportunities Map..... 2-3
Figure 3	Study Area for Belmont Center Parking Plan ..... 3-5
Figure 4	Parking Inventory..... 3-5
Figure 5	Parking Regulatory Map ..... 3-6
Figure 6	Public vs. Private Parking ..... 3-7
Figure 7	Weekday Utilization Profile – All Spaces ..... 3-8
Figure 8	Weekday Utilization Profile – Public Spaces ..... 3-8
Figure 9	Weekday On-street Inventory ..... 3-9
Figure 10	Origins of Vehicle Registration Parked on Royal Road ..... 3-9
Figure 11	Weekend Utilization Profile – All Spaces ..... 3-10
Figure 12	Weekend Utilization Profile – Public Spaces ..... 3-11
Figure 13	Leonard Street Utilization ..... 3-11
Figure 14	Claflin Lot Two-Hour Free Parking Utilization ..... 3-12
Figure 15	Claflin Lot Paid Parking Utilization ..... 3-12
Figure 16	Public Parking Peak Weekday Utilization – 12PM ..... 3-13
Figure 17	Public Parking Peak Weekend Utilization – 12PM ..... 3-14
Figure 18	Survey Respondents by User Group ..... 3-16
Figure 19	Parking Choice ..... 3-16
Figure 20	Proximity to Destination ..... 3-17
Figure 21	Summary of Initial Parking Management Program ..... 4-2
Figure 22	Starbucks as a Gateway between Leonard Street and the Claflin Lot..... 4-5
Figure 23	Sidewalk Access to the Claflin Lot ..... 4-6
Figure 24	Example of Sidewalk Access with No Crosswalk ..... 4-7
Figure 25	Current and Recommended Improved Streetscape Plan ..... 4-7
Figure 26	Entrance to Claflin Lot ..... 4-9
Figure 27	Parking Signs in Framingham..... 4-9
Figure 28	In-Car Meter Sample ..... 4-10
Figure 29	Re-Striping Configuration of the Claflin Lot ..... 4-11
Figure 30	Evaluation of Initial Parking Management Program..... 4-12

# Executive Summary

## Parking is a Part of Belmont Center

Belmont Center has great existing resources in its existing transportation network, and if efficiently managed in a coordinated and multi-modal fashion, these previously untapped resources can become the key to improving mobility and convenience in the Center. Belmont Center is directly connected to Boston through commuter rail, to Cambridge through bus service, and to Route 60 and Route 2. Belmont Center has hundreds of on- and off-street parking spaces. While the lack of signage and modern technology pose a challenge, new approaches to coordinating assets and improving the management system can bring much greater efficiencies while benefiting all parties.

## Key Questions

The consultant's approach focused on collecting as much existing use information as possible to come up with a profile of existing parking activity in Belmont. Key questions the data was intended to answer included:

- How much parking is available for different user-groups, including residents, employees, commuters, and shoppers?
- How much parking is short-term vs. long-term?
- How are motorists directed to parking?
- To what extent is the existing parking being utilized?
- Who utilizes the most convenient parking spaces?
- How much spillover is occurring in surrounding residential neighborhoods?



Belmont Center, looking north on Leonard Street

## Public Workshop and Surveys

The Town and consultant led a public parking workshop, met with business owners, and aggregated Town input using an online survey.

### Key Findings:

- Identified parking problem areas on Leonard Street, around Town Hall, and in free public parking lots.
- Plenty of availability on Cross Street, Channing Road, and Concord Avenue.
- A pathway is needed to connect between the Claflin Lot and Leonard Street.
- There is off-street availability in middle of Claflin Lot and in the pay-for-parking section of the Claflin Lot.
- Participants prefer to "park once": they are willing to park a little further away and walk to multiple destinations without moving their car.
- Participants agreed that they would like it to be easier to walk, bike, or take transit to the Center.

- Participants are open to ideas about on-street pricing to encourage turnover, as long as there is some easily-accessible free parking available. Almost half of participants would be willing to pay to park to ensure better availability.

## Parking Inventory and Utilization

The consultant and Town staff completed a parking inventory and conducted parking utilization in Belmont Center on a representative weekday and weekend from 8am - 8pm.

Key Findings:

- Of the 1,000 spaces in the study area, no more than 700 are utilized at the busiest time of a normal week (a utilization rate of 67%). This includes private spaces. For the publically-available supply of nearly 700 spaces, peak utilization reaches 68% on the weekdays and 75% on the weekends.
- Utilization of prime curbside spaces on Leonard Street often approach capacity.
- The spaces on Royal Road at the commuter rail station are heavily utilized all day on weekdays.
- Spaces in the front of the Claflin Lot (closest to the stores) are well-utilized; spaces in the middle are not as well used; and the permit and paid spaces in the back of the lot are not well-utilized.
- Parking on residential streets is not well-utilized.

## Recommendations

Improved management of the parking supply will help ensure that even at peak demand, there is availability for both short and long-term parking. Strategies to encourage the use of underutilized spaces will help to improve availability of core spaces, reducing the perception that parking is undersupplied.

Parking management strategies include:

- **Revise parking permits**, including availability and rate structure.
- **Establish more convenient customer parking**, including pricing in prime spaces to maintain 15-percent vacancy. Invest revenue back into the business group for Center improvements.
- **Introduce commuter parking** with modest pricing and permits.
- Create a **residential parking area** to control spillover and generate revenue from commuter/employee permits.
- **Improve walking connections** from Leonard Street to the Claflin Lot, plus improved crosswalks, sidewalks, and lighting
- Create a **signing program** with wayfinding signs for motorists and pedestrians
- Use **modern payment technology** such as pay stations that take debit/credit cards, pay-by-cellphone, and in-car meters

# Chapter 1. Introduction

The Town of Belmont Comprehensive Plan 2010-2020 presented by the Belmont Planning Board and Belmont Office of Community Development provided guidance for future redevelopment of Belmont Center. The Report recommended that the Town develop a parking management plan to better serve the needs of Center shoppers, employees, Belmont residents, and out-of-town visitors.

Recognizing the growing pressure on the Center parking supply, the Town of Belmont has sought to develop a comprehensive strategy for addressing parking needs. In addition to addressing the physical requirements for parking, the Town's Comprehensive Plan calls for creation of a vibrant, urban, pedestrian-friendly environment that can only exist in an area with sufficient parking.

## Report Structure

The following report documents the existing parking conditions in Belmont and presents recommendations that will both assure an appropriate level of parking development/capacity as well as encourage Belmont's residents, visitors and commuters to use alternatives to the single-occupant-vehicle to the maximum extent possible. The recommendations also include demand management strategies to help the Town accommodate new economic development without being overwhelmed by new traffic.

The report is divided into five sections:

**Chapter 2, Civic Engagement**, presents the outreach efforts and level of involvement the public and key stakeholders have had throughout the parking planning process.

**Chapter 3, Current Parking Conditions**, documents existing parking conditions, management practices, and regulatory controls.

**Chapter 4, Parking Management Plan**, documents a group of strategies that are intended to be implemented to address current parking problems. Some are short-term recommendations, and others are longer-term or more capital-intensive strategies that can be pursued.

**Chapter 5, Parking Management Implementation**, presents more detailed and specific steps for implementation of a comprehensive parking strategy in Belmont Center.

**Technical Appendix**, includes survey data and full utilization maps from the data collection effort.

## Comments Welcome

The Town and Nelson\Nygaard welcome input and comment from the public – especially those who utilize the Center as a place to visit, work or live. The recommendations presented in this report are by no means the final set of actions the Town will take. Good planning is a community process, and continued public input helps refine a vision into reality. Comments on this report can be addressed to the Jay Szklut, [jszklut@belmont-ma.gov](mailto:jszklut@belmont-ma.gov), Town of Belmont, Planning & Economic Development Manager, Town Hall, 455 Concord Avenue, Belmont, MA 02478.

## Project Goals

Previous studies in Belmont identified the overall goals for parking:

- Retain neighborhood character
- Sustain vibrant businesses

- Attract business customers from outside Belmont
- Promote the use of public transit

This study works to achieve these goals and considers recommendations from previous parking studies in Belmont. This parking study uses original data collection and multiple public input methods to identify issues and trends in Belmont and makes recommendations to improve parking availability and access while promoting Belmont Center as a distinct local and regional destination.

DRAFT



## Chapter 2. Civic Engagement

The development of a Belmont Center parking strategy needs the input of various stakeholders to arrive at a mutually agreeable solution. A critical component of this effort was community involvement. In addition to discussions with key stakeholders, including the Belmont Center Business Association, and an online survey, the City hosted two public workshops that were facilitated by the consulting team. The first workshop was oriented at gaining a better understanding of the public's issues and ideas as they relate to parking and circulation in downtown. The final workshop was to present the study findings and to gather input on the preliminary recommendations.

### Public Open House

On the evening of June 16, 2011, local residents, business owners, and employees were invited to participate in a hands-on "Parking Open House" designed to gather as much qualitative input as possible through several interactive components:

- Parking priorities voting exercise
- Parking needs & opportunities map mark-ups
- Background information presentation and discussion

More than a dozen concerned stakeholders participated in response to flyers and email invites distributed by the Town and articles in local papers.

### Parking Priorities Voting Exercise

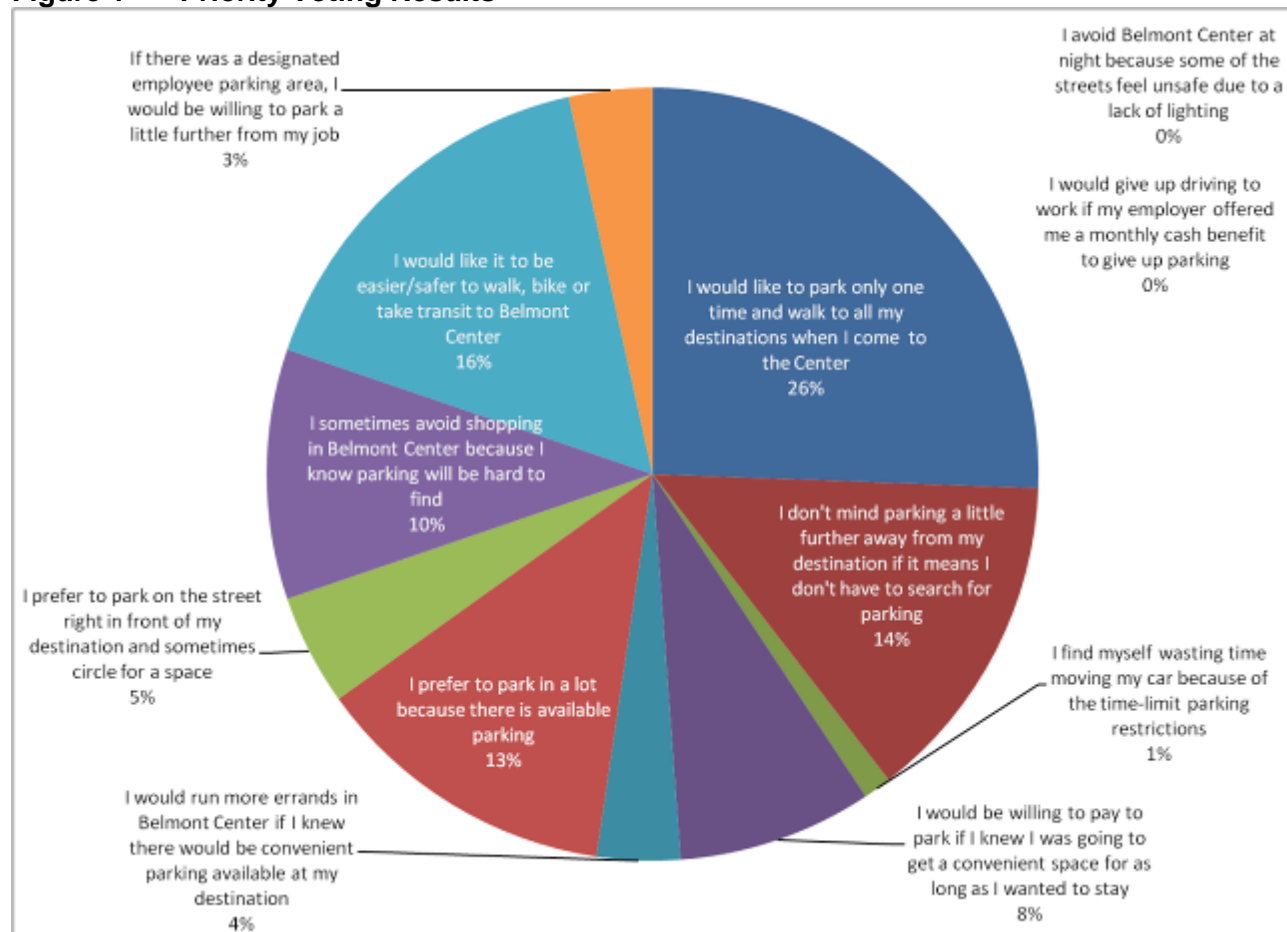
Open house participants were invited to "vote" for the parking-related priorities that were of greatest concern to them. Faced with over a dozen typical parking issues, participants were allotted six "votes" that could be used to prioritize one or more issues (see results in Figure 1).



## Key Findings from the Public Open House

- Participants prefer to "park once": they are willing to park a little further away and walk to multiple destinations without moving their car.
- Participants agreed that they would like it to be easier to walk, bike, or take transit to the Center.
- Participants are open to ideas about on-street pricing to encourage turnover, as long as there is some easily-accessible free parking available.

**Figure 1** Priority Voting Results



## Needs & Opportunities Map Exercise

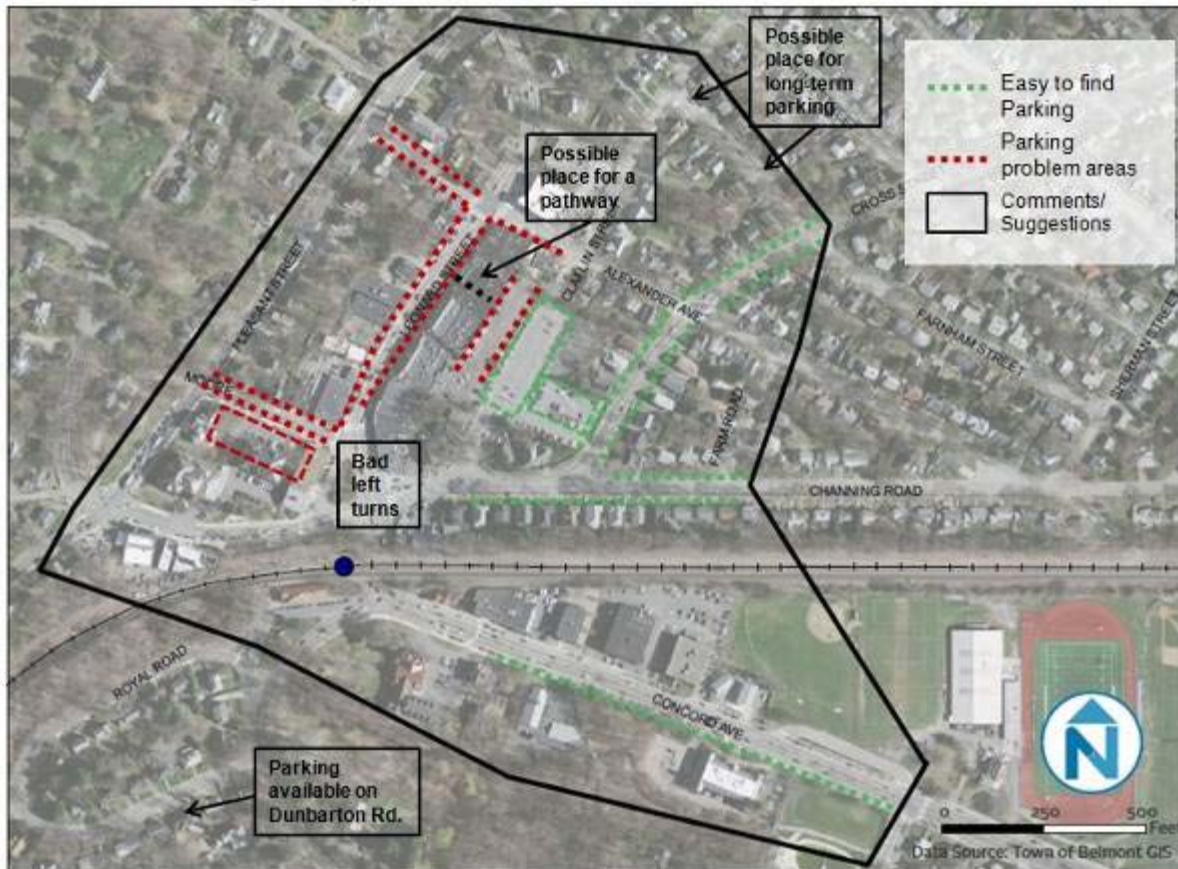
Open House Participants also were welcomed to share specific comments about what works and does not work in Belmont Center around any one of several identical maps. Participants and facilitators marked up maps (shown in Figure 2) directly to indicate parking problem areas, where parking is easy to find, and also add additional comments and suggestion for change.

### General issues

- Parking problem areas on the core on-street spots and free public parking lots
- On-street availability on Cross Street, Channing Road, and Concord Avenue

- Off-street availability in middle of Claflin Lot and in the pay-for-parking section of the Claflin Lot
- Dangerous left turns at the intersection of Leonard Street and Channing Road
- Farnham Street and Dunbarton Road identified as a possible places for long-term parking
- Pathway identified from the Claflin Lot to Leonard Street

**Figure 2 Needs & Opportunities Map**



## Final Public Workshop

*results of the September/October meeting here*

## Chapter 3. Current Parking Conditions

This chapter documents the current conditions of Belmont Center's parking facilities. This includes identifying the existing parking assets, how they are used today, and how parking is perceived by those in the Center.

### Study Area and Key Findings

The study area (shown in Figure 3) covers a majority of parking spaces within a 60 acre area in Belmont Center, bounded by:

- Pleasant Street from Concord Avenue to Leonard Street to the west
- Residential streets east of Belmont Center, including Farnham Street and Channing Road to Farm Road
- Royal Road at the commuter rail station
- Concord Avenue south of the commuter rail station to Cottage Street

#### **Parking Supply**

- 1,000 spaces in the Belmont Center study area
- 689 spaces are publically available (357 are off-street, 332 are on-street)
- Almost 270 off-street spaces are dedicated to employee/customer parking; more than 145 are paid/permit parking
- Six distinct on-street regulatory categories (i.e. 15-minutes, 2-hours, permit-only, etc.), plus unregulated spaces
- More than one-third of the parking is for two hours or less
  - 117 (12% of all spaces) are for short term parking (one hour or less)
  - 256 spaces (26% of all spaces) are for two hours
- There are 44 unregulated spaces (4% of all spaces)

#### **Parking Demand**

- Overall, Belmont Center's parking supply is under-utilized, with peak utilization at 67%
- Peak utilization occurs mid-day on weekdays (between 10AM – 4PM)
- Public customer spaces (on- and off-street) reach 68% peak demand during the week (lunchtime) and 75% peak on the weekends (late morning)
- Leonard Street reaches 94% and 96% full at peak on the weekdays and weekends
- Two-hour spaces in the Claflin Lot are fully-booked during weekend (95% peak utilization) but have availability during the weekdays (78% peak during the day)
- Paid-parking in the Claflin Lot averages 61% utilization on the weekdays and 30% on the weekends
- However, two-hour on-street parking adjacent to the Claflin Lot is under-utilized, never reaching even 50% full



- Unregulated on-street spaces directly in front of the commuter rail station (Royal Street) are full on weekdays; however, unregulated on-street parking on Concord Avenue to the east of the station only reach 65% full at peak.

**Figure 3 Study Area for Belmont Center Parking Plan**



## Parking Supply & Demand

The parking inventory (see Figure 4) includes all on-street spaces and any off-street spaces in lots, garages, or driveways that contained more than three spaces. Single-family residential driveways were excluded. This inventory included a total of 1,000 spaces, of which about 689 are public and 311 spaces are private.

**Figure 4 Parking Inventory**

	Public	Private	Total
<b>Off-Street</b>	357	301	658
<b>On-Street</b>	332	10	342
<b>Total</b>	689	311	1000

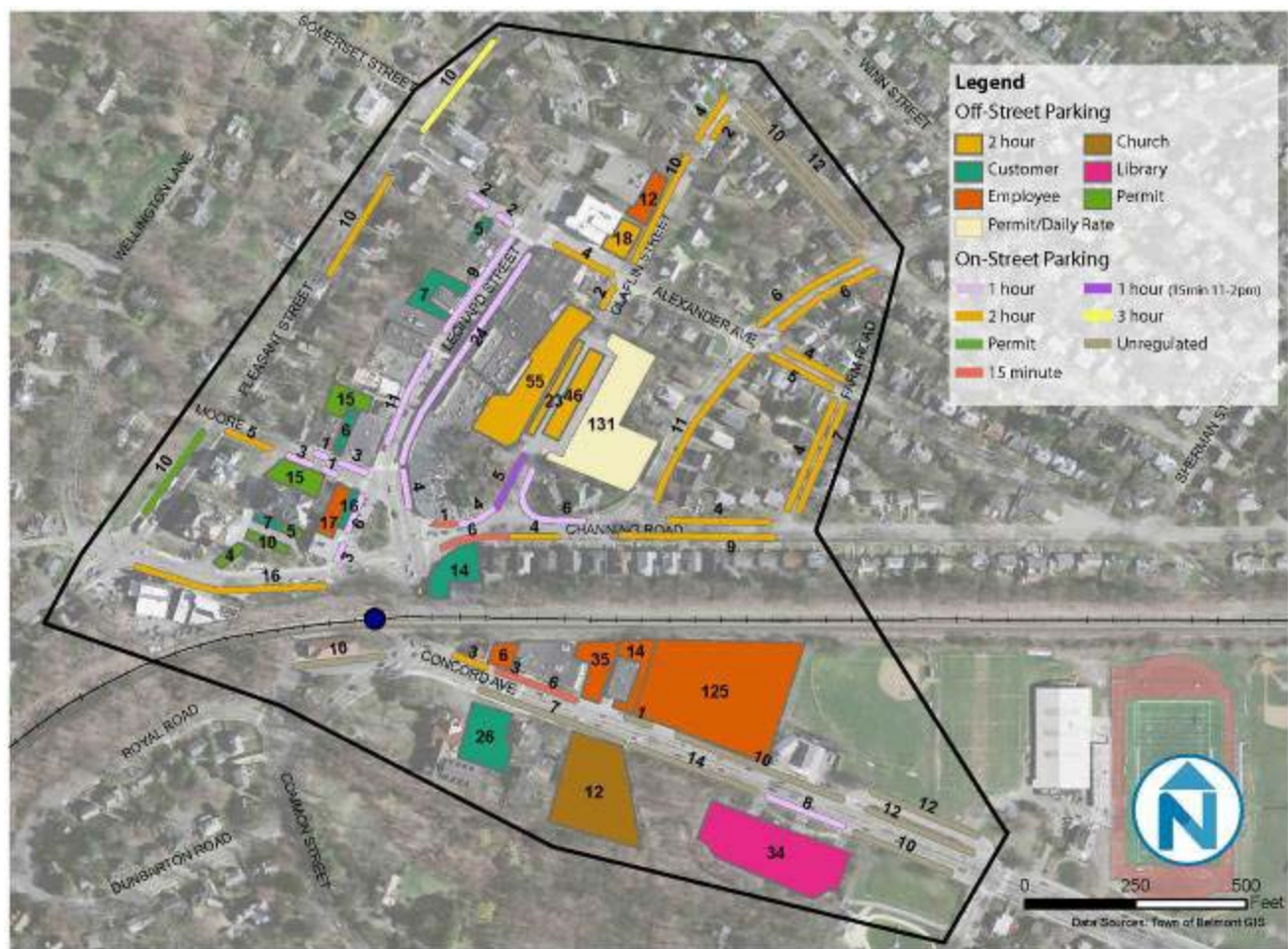
## Regulations

The ownership, use category, and regulation were recorded for all spaces. Six on-street regulations (plus unregulated spaces) were noted, as well as several off-street regulations, including customer-only, employee-only, two-hour parking, paid daily parking, permit only, and

parking for other specific uses (i.e. church, library). More than one-third of all parking spaces in the study area are two-hours or less. There are also 37 handicap spaces available in the study area, 30 of which are off-street.

The full parking inventory is depicted in the parking regulatory map below (Figure 5). The black numbers on each lot and on-street segment represent the total number of spaces in each on-street segment, lot, and garage.

**Figure 5 Parking Regulatory Map**

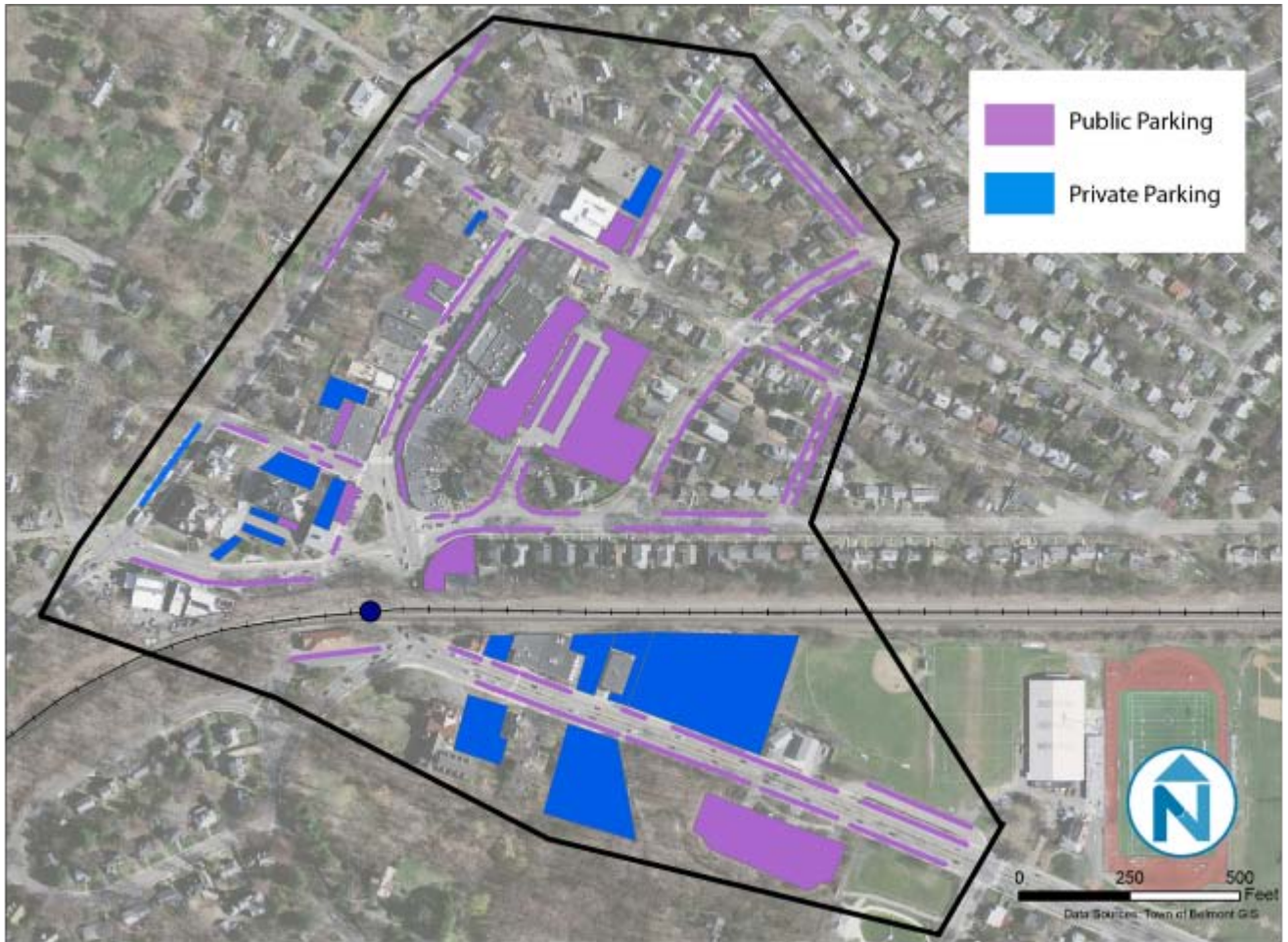


## Public vs. Private Parking

As noted in Figure 4, a majority of the on-street and off-street spaces are available for public use, meaning that they are not restricted by use; for example, employee-only parking. Figure 6 depicts the location of both public and private parking. There is a substantial amount of public parking supply both on- and off-street in the core of Belmont Center.



**Figure 6 Public vs. Private Parking**



## Parking Utilization Patterns

In order to eliminate the perception that parking is not available, it is ideal to have at least one empty space per block face in a downtown, ensuring easy customer access to businesses. This typically equates to about 1 out of 8 on-street spaces free, or a target of 15-percent vacant per block face. Similarly, a goal of at least 10-percent vacancy in off-street lots should be adopted. If any facility has less availability, it is effectively at its functional capacity.

To determine average availability of parking in Belmont, consultants conducted parking utilization counts in May 2011. On a weekday (Thursday) and weekend (Saturday), all parked cars were counted in the study area every two hours between 8AM and 8PM.

Results from the parking utilization counts are shown graphically below.

### Weekday Utilization Profiles

As shown in Figure 7, of all 1,000 spaces in the Belmont Center study area, the maximum utilization is 67-percent (672 spaces) – which occurs around 2PM. This includes all inventoried spaces – both public and private. Compared to the ideal 85-percent ideal occupancy (shown by the red dotted line), these results indicate that Belmont has more than adequate parking supply to satisfy its demand.

**Figure 7 Weekday Utilization Profile – All Spaces**

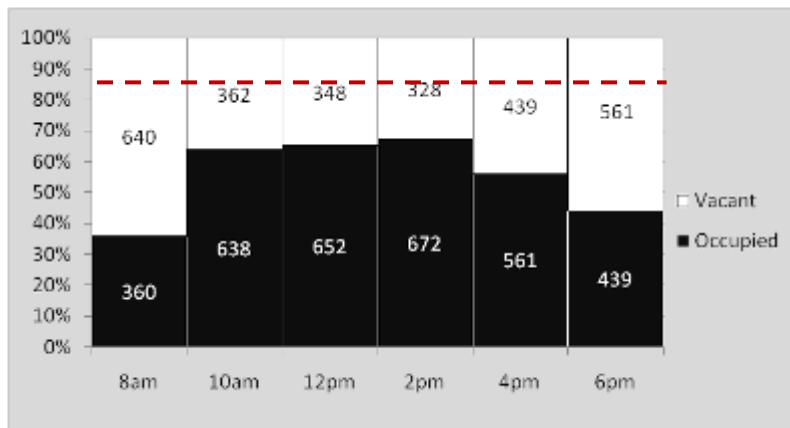
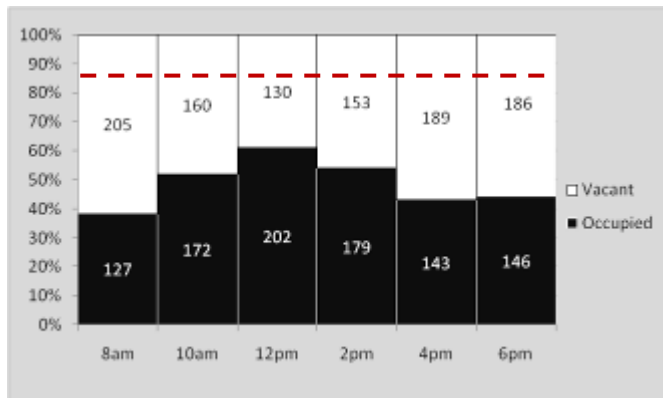


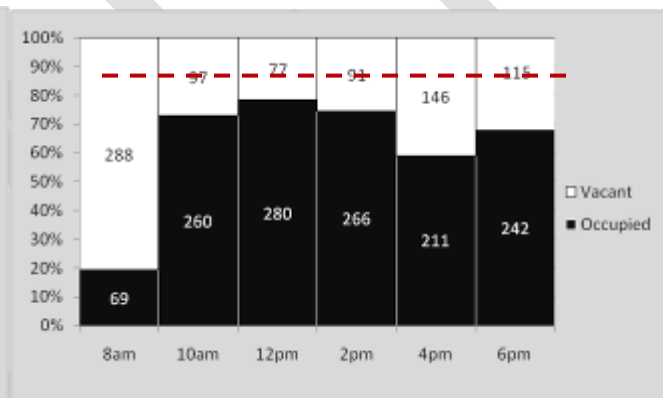
Figure 8 shows the weekday utilization profile for public on-street and off-street spaces. For the on-street time-limited and unregulated spaces, the peak utilization of 60-percent (202 spaces) occurs around 12PM, well-below an ideal utilization rate of 85-percent. Meanwhile, 75-percent (280 spaces) of spaces in off-street lots are utilized during the same peak period. Even at peak utilization, there are still over 150 empty publically-available spaces.

**Figure 8 Weekday Utilization Profile – Public Spaces**

*Public On-Street Parking Space Utilization*



*Public Off-Street Parking Lot Space Utilization*



On-street spaces are regulated by time-limits, by Town permits, or unregulated. Figure 9 is a breakdown of the on-street regulations by supply and peak weekday demand. This data indicates that very short term spaces (under an hour) and longer-term spaces (three hour and permit) have the highest demand.



**Figure 9 Weekday On-street Inventory**

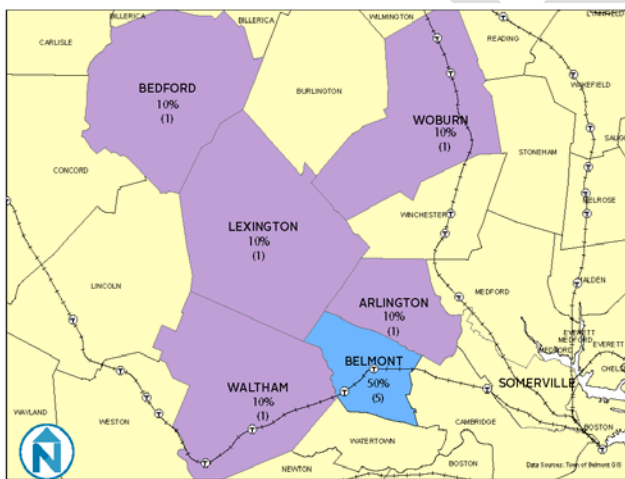
Regulation	# of Spaces	Peak Demand
1 hour	87	98%
1 hour + 15 minute (11AM – 2PM)	5	80%
15 minute	16	87%
2 hour	258	43%
3 hour	10	80%
Permit	55	88%
Unregulated	98	62%

### Royal Road Utilization

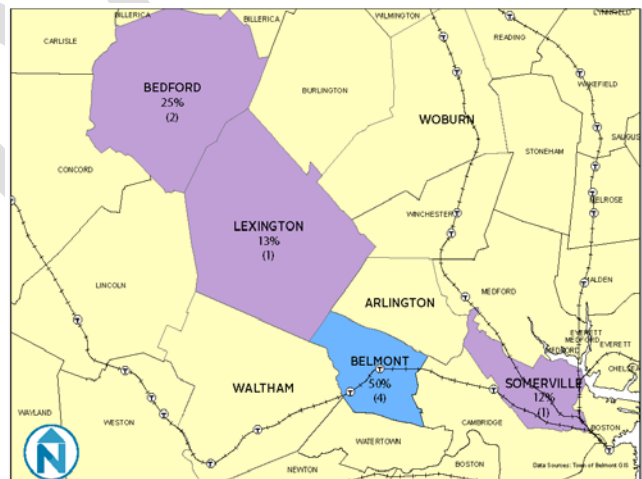
The spaces directly in front of the inbound platform of the commuter rail station (10 spaces) are unregulated. As expected, these spaces fill up in the morning and remain full all day. A random license-plate check revealed that on most days, about 50% of the spaces are used by Belmont residents, and the others come in from out of town to park and take the train. Figure 10 shows a origins of vehicles parked on Royal Road on a typical Monday, Tuesday, and Wednesday.

**Figure 10 Origins of Vehicle Registration Parked on Royal Road**

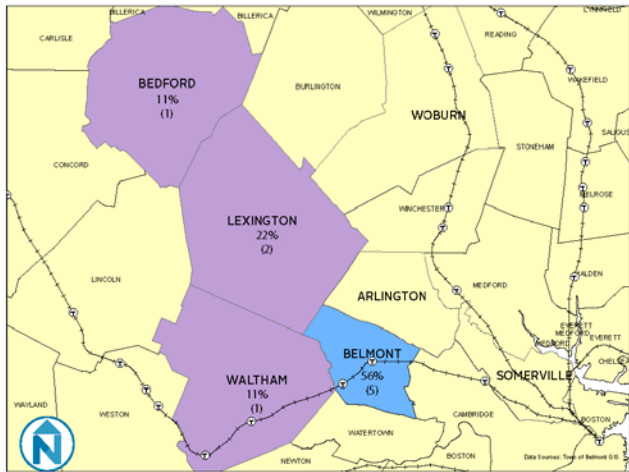
*Monday*



*Tuesday*



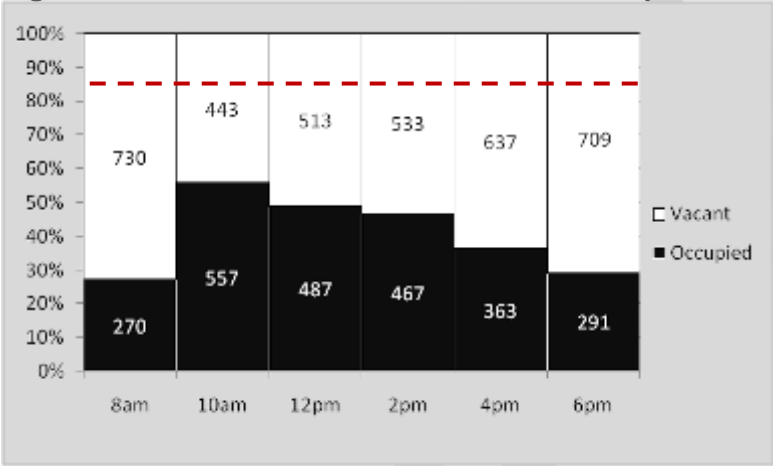
*Wednesday*



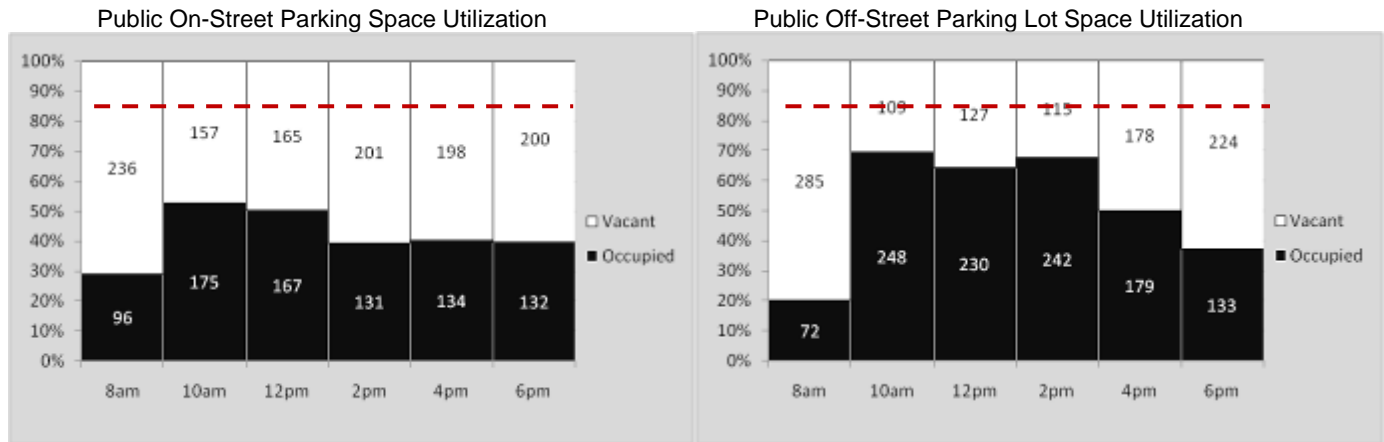
**Weekend Utilization Profiles**

As shown in Figure 11, the peak utilization of 55-percent (557 spaces) occurs around 10AM. Of the public time-limited and unregulated spaces in the core of the Center (Figure 12), on-street utilization peaks at 53-percent around 10AM (175 spaces). Meanwhile, the Center's public lots peak at 68-percent (248 spaces) at 10AM. Even on the weekends, plenty of publically-available parking remains available to customers.

**Figure 11 Weekend Utilization Profile – All Spaces**



**Figure 12 Weekend Utilization Profile – Public Spaces**



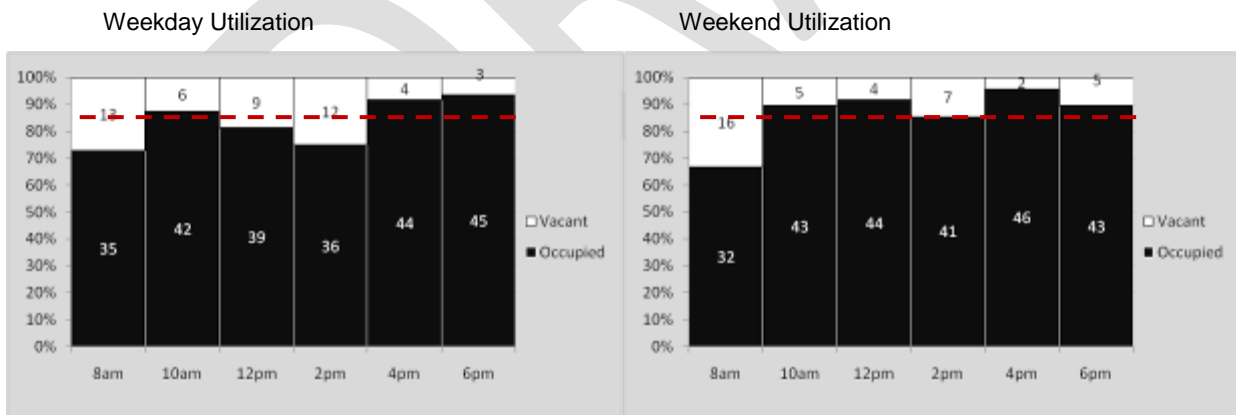
Weekday and weekend time-series utilization profiles are relatively similar: weekdays experience the most parked cars around lunchtime (12PM - 2PM), and the weekend peak is slightly earlier, around 10AM. Late afternoons and evenings are also substantially busier during the weekdays rather than the weekends. However, both weekday and weekend traffic are both more inclined to park in lots rather than on-street.

### Core Utilization Profiles

Although utilization across all of Belmont Center demonstrates that there is plenty of parking available, a snapshot of the entire study area does not accurately represent a visitor's actual parking experience. Most customers come to Belmont Center to patronize the shops along Leonard Street, so they are likely to park on Leonard Street or in the Claflin Lot.

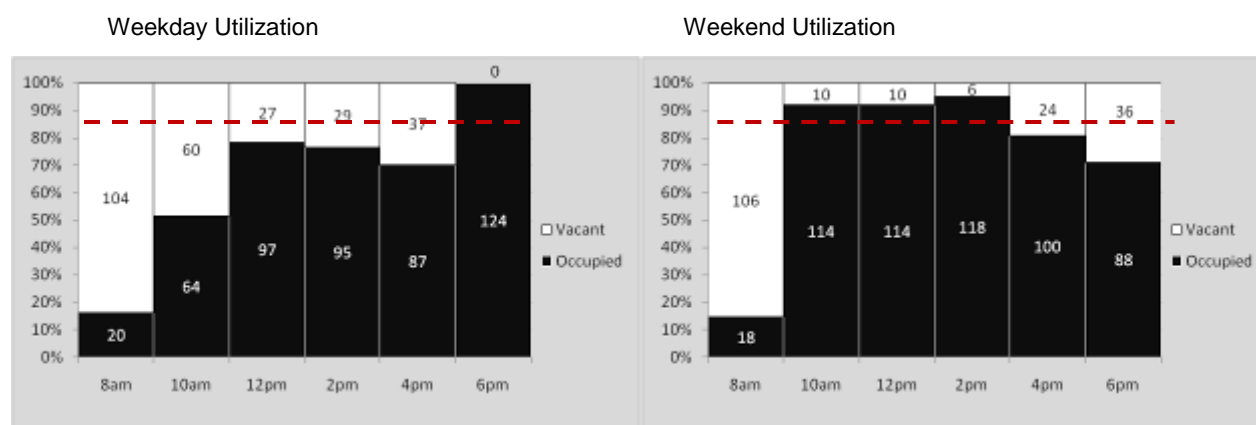
Figure 13 shows the utilization of Leonard Street on the weekdays and weekends, which reaches more than 85% occupied. This indicates that as a customer coming to shop in Belmont Center, trying to park on Leonard is difficult, and some customers may get discouraged. In addition, the one-hour time restriction limits the duration of a customer experience - this is not enough time to have a meal or go in and out of several shops.

**Figure 13 Leonard Street Utilization**



Customers that know about the free two-hour parking in the Claflin Lot may decide to circle around back to park after they find that the spaces on Leonard Street are full. On the weekdays, customers are able to find a free two-hour parking space quite easily (with the exception of the evenings after 6pm). On the weekends, the free spaces are in effect full (Figure 14).

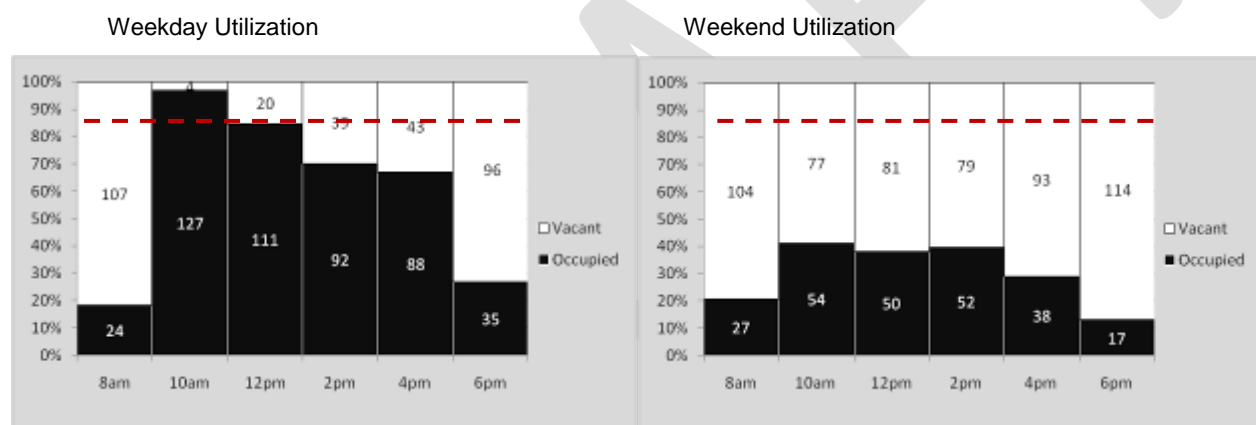
**Figure 14 Claflin Lot Two-Hour Free Parking Utilization**



For longer-term parking for employees and those that wish to be in Belmont Center for more than two-hours, the back of the Claflin Lot is available for all-day parking. Monthly permits are available for purchase (\$60 per month) or visitors may pay either \$0.60 per hour or \$3 per day to park. On average, about 60 permits are sold per month (almost half of the lot). Utilization of the paid parking spaces is the opposite of the free two-hour spaces in the lot: on the weekdays, the paid lot is full during the day and empty at night (the opposite of the free spaces) and on the weekends, the paid spaces have plenty of availability (not even 50% full) and the free spaces are effectively full all day.

The utilization of the paid parking in the Claflin Lot is shown in Figure 15.

**Figure 15 Claflin Lot Paid Parking Utilization**



The entire Claflin Lot's peak utilization is 78% on the weekdays and 63% on the weekends. When analyzing the Claflin Lot's utilization as a whole, rather than piecemeal, indicates that there is substantial vacancy and more than enough spaces to satisfy demand.

## Spatial Analysis of Parking Utilization

An important part of understanding how parking is managed in any downtown is being able to describe how various parking facilities and segments of on-street parking interact with each other throughout the course of a day. A chart of hourly utilization rates for one specific location is valuable, but seeing how that location behaves among others located nearby can reveal patterns and trends not evident in numbers alone. The lot which is completely full may be right around the corner from another lot that has plenty of availability at that same time.

Using the utilization data, a series of maps was developed based on the parking inventory map above. Colors have been assigned for the percentage of spaces utilized at each location based on notable breaks used to evaluate the adequacy of a parking facility:

“Cool” light blue/blue refers to 0-80% utilization, a point at which parking is considered underutilized

“Ideal” green refers to 81-90% utilization

“Warning” pink refers to over 91% utilization

“Critical” red denotes parking beyond the marked capacity

### Weekday Utilization Mapping

The following map shows the demand for parking midday (12PM), the period of highest demand for public parking on a typical weekday. As can be seen in Figure 16, while demand for parking is high on a few core streets and parking lots, there is ample opportunity for public parking within a 60-second walk of the heavily utilized spaces. For example, the two hour customer spaces in the Claflin Lot directly behind the stores is effectively full; however, more two hour spaces directly behind the full spaces have a number of available spaces. Similarly, street parking on Leonard Street, Moore Street and segments of Concord Avenue and Channing Street closest to Leonard Street are full; however, many spaces a block further down Concord Avenue and Channing Road, and Pleasant Street are available.

In addition, the unregulated spaces on Royal Road in front of the MBTA commuter rail station remain full all day.

**Figure 16 Public Parking Peak Weekday Utilization – 12PM**





### Weekend Utilization Mapping

On the weekends, public parking demand peaks around 12PM (Figure 17). Overall, weekend utilization of parking is lower than on a typical weekday. The only consistent exceptions are the core public on-street spaces on Leonard Street, Alexander Avenue, Moore Street and segments of Channing Road, and the privately owned lots on Concord Avenue. The Claflin Street lot, both paid and free sections, has high availability.

**Figure 17 Public Parking Peak Weekend Utilization – 12PM**



## Enforcement

Belmont Police Department manages parking enforcement in Belmont Center. One parking control officer patrols Belmont Center on weekdays, walking on foot around the Center and surrounding residential streets. Officers use handheld devices to issue violations, which topped more than 1,800 from January to June 2011. Belmont's violation fees range from \$15 (meter expiration) to \$100 (parking in a bus stop, blocking a handicap ramp, or in a handicap space). Officers also ticket cars if they "shuffle" from one spot to another on the same street. Townwide, Belmont collected over \$130,000 in parking violations in 2010 (Belmont Center likely comprises at least one-third of these revenues). In addition, townwide, there is about \$400,000 worth of outstanding parking fines (as of June 30, 2010), which is substantial in terms of absent parking revenue for the town.

Enforcement in Belmont is visible and active. Officers are not patrolling to generate as much revenue as possible, but as ambassadors in Belmont. Officers will explain the parking regulations and assist those that are unfamiliar on where to park. However, enforcing time limited parking is tedious: a license plate and time of day must be documented and compared to a new list

generated one hour later. With different types of regulations and/or enforcement technology, officers would be able to cover a larger area and be more effective.

## User Perception and Experience

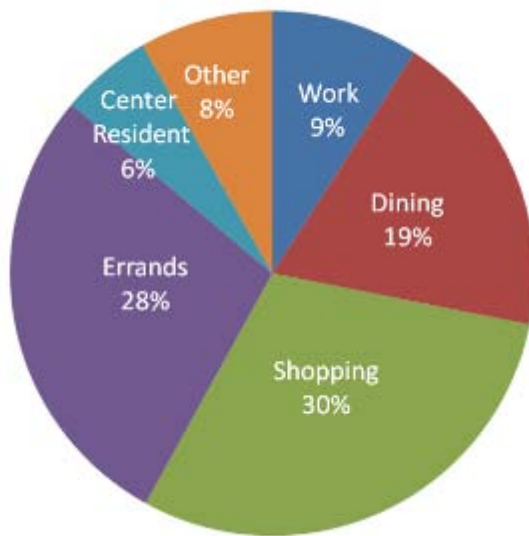
The parking utilization data is important to quantitatively document the parking trends in Belmont. However, utilization data does not tell the story of the experiences of users of the system - the customer that continues to circle for a spot, the employee that shuffles his car every couple of hours, and the commuter that gets to Belmont early to ensure a spot at the station.

This section documents input from parkers in Belmont Center regarding their parking activities, experiences, perceptions, and preferences. To collect this data, the Town posted a sixteen-question electronic survey on its website, generating nearly 250 responses. Survey respondents included Belmont Center residents, employees, customers (shoppers, diners and those running errands/going to appointments) and others (Figure 18).

### **Parking Surveys**

- Most respondents come to Belmont Center to run an errand, shop, or dine
- Customers park for an average of 57 minutes; employees stay between 4 and 5 hours
- 95-percent do not have a permit to park
- 85-percent search to find a place to park, rather than park in the same space
- 89-percent walk four-minutes or less from their car to their destination
- 49-percent report to have failed to find parking in the Town Center at least once (and have left)
- 65-percent responded that ease of finding a space is the most important priority when finding a place to park, while only 20% report that location is a top priority
- 68-percent of respondents park in free parking spaces
  - Almost half of respondents said that they would be willing to pay to park in order to ensure they would have a convenient space to park. The average amount they were willing to pay is as follows:
    - Commuter rail: \$3
    - Work day: \$3
    - 2-hour meal: \$2
    - 1-hour errand: \$1.25
    - 15-minute coffee run: \$0.50

**Figure 18 Survey Respondents by User Group**



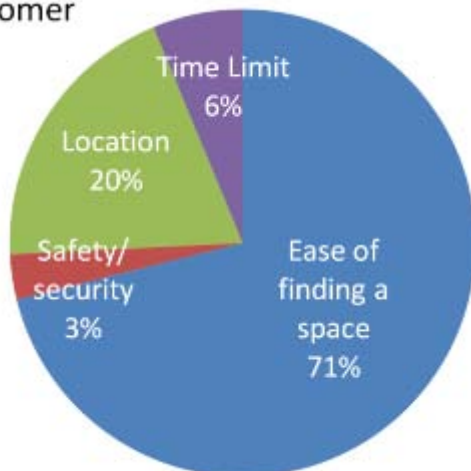
Most survey respondents are customers that come to Belmont Center to shop, run errands, or dine.

## Reasons for Choosing a Parking Space

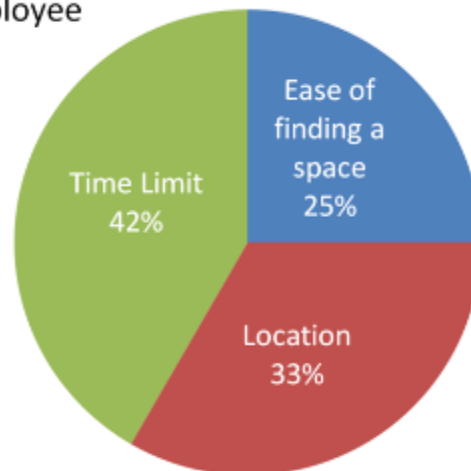
Belmont Center customers consider ease of finding a space to be by far the most important factor in where they choose to park. For employees the most important factor is time limit, and the second most important factor is location.

**Figure 19 Parking Choice**

Customer



Employee



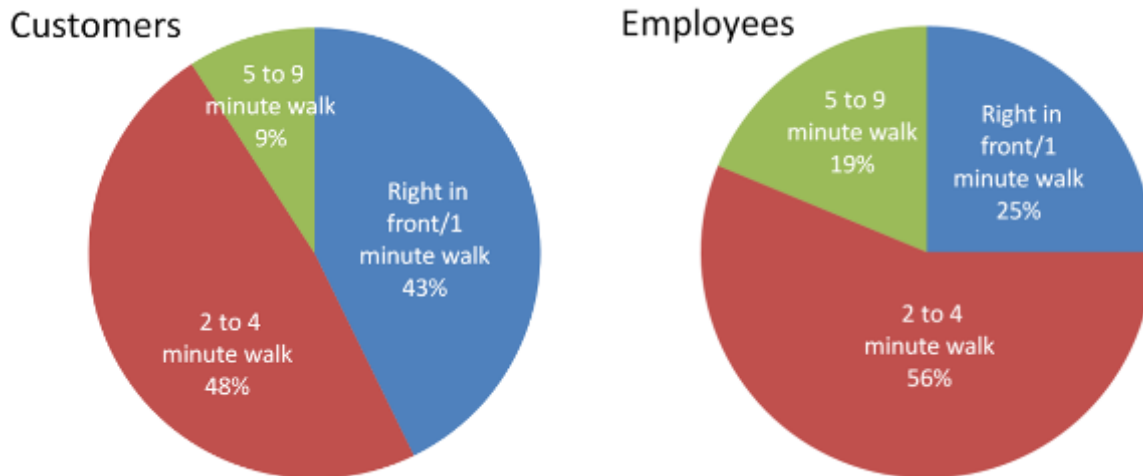
Customers want to find a space easily, while employees are most concerned with finding a space with an appropriate time limit.



## Proximity and Length of Stay

Almost all (91-percent) of all Belmont Center customers – shoppers, diners and errand runners - are able to find “convenient” parking (within four minutes of their destination) – and almost half of the customers park right in front or within a one minute walk. Having a short walk to a destination is key in Belmont Center, as most customers stay for a short time (around 1 hour). 80-percent of all employees find parking within four minutes.

**Figure 20 Proximity to Destination**



Customers generally park closer to their destination than employees, which should be the case: parking adjacent to stores should not be taken up by employees, but rather left open for customers. In addition, many customers only stay for a short time, while employees are parking for longer periods.

## Summary of Current Parking Conditions

On a typical day in Belmont Center, there are over 300 empty parking spaces at the busiest time of the day, all within a 5-7 minute walk of the shops of Leonard Street. This indicates that there is ample supply to meet parking demand. However, the core of Belmont Center - particularly Leonard Street and the Claflin Lot - the parking areas in highest demand - have peaks throughout the day when they are at capacity.

Improved management of the parking supply will help ensure that even at peak demand, there is availability for both short and long-term parking. Strategies to encourage the use of underutilized spaces will help to improve availability of core spaces, reducing the perception that parking is undersupplied.

### ***Parking Challenges in Belmont Center***

- Heavy daytime utilization of core streets is inconsistent with the amount of daytime retail activity, suggesting that employees are occupying spaces on prime streets. This is a natural inclination of wanting front-door convenience that will not change with passive signing and encouragement to use more remote spaces. Aggressive enforcement measures will likely change some behavior; however, there are some employees that will still try to trick the system by "shuffling" (plus, aggressive parking enforcement is not necessarily the type of activity and sentiment that is appropriate for Belmont Center). In

addition, there is feedback from employees that cite the lack of convenient and affordable long-term parking.

- Prime customer spaces are more difficult to find. This lack of available front-door spaces for customers may be hurting Belmont's businesses. Although there are spaces available, there appears to be little desire by customers to use downtown parking lots.
- Belmont does not have designated commuter parking. With more than a dozen inbound trains running through Belmont Center per day, the average boarding is only about 150 people, which almost the least number of people to board at any stop on the Fitchburg/South Acton line. Dedicated commuter parking would help to increase the number of people that take the commuter rail. While there is not the parking supply to accommodate hundreds of new commuters, there are under-utilized parking areas that would serve commuter needs well.

A recommended parking program to best manage existing supply is outlined in the next chapter. Rather than addressing individual block faces or user groups, the strategies are designed to work in tandem to maximize their benefits and aggregate as a comprehensive strategy for the Center.

DRAFT

## Chapter 4. Initial Parking Management Program

This section addresses the identified challenges and issues identified in the previous chapter: how can Belmont maximize its under-utilized parking supply and improve the availability of core spaces? The strategies recommended focus on changes that can be made in both the short and long-term timeframes. They also address the needs of various user groups: employees, customers, commuters, and residents.

Strategies for managing parking in the Center go beyond just parking. Policies and approaches that help maintain Belmont Center's small town feel, promote the thriving retail corridor, and capitalize on the Belmont Center commuter rail station are all important in building a successful downtown. Empowered by data collected in the spring of 2011, the consultant attempted to identify clear parking patterns in the Center that could be extracted reliably.

Based on input from downtown customers and business association members, a key objective of this effort was to improve customer parking availability and convenience in the Center. This was closely followed by the objective of ensuring a clear supply of parking for downtown employees and commuters that discouraged long-term parking in key customer locations, such as on-street and close to the front door of businesses. Finally, it was clear that a strategy to protect surrounding residential neighborhoods from spillover should be reinforced.

The following principals were adhered to when developing strategies for Belmont:

- Provide convenient parking for **customers / clients**
- Establish clear **employee parking** areas
- Accommodate **commuter parking** appropriately
- Manage **residential neighborhoods** from spillover
- **Make it easier** to get from lots to destinations

The initial recommended parking management strategies are summarized in Figure 21. Although listed separately, the strategies are not independent of one another; in fact, success of one is directly linked to the success of another. The management strategies comprehensively address parking issues in town, and a piecemeal approach will not be as effective as a complete package.

**Figure 21 Summary of Initial Parking Management Program**

Program	Description
<b>Revise parking permits</b>	<ul style="list-style-type: none"> <li>• Provide a business permit available to Town residents and non-residents employed in the Town Center. Permit holders would be able to park in designated on-street areas and some pay lots.</li> <li>• Offer monthly rate discounts.</li> <li>• Offer more convenient technology, including pay stations, pay-by-cell phone, and in-car meters.</li> </ul>
<b>Establish more convenient customer parking</b>	<ul style="list-style-type: none"> <li>• Institute pricing in prime spaces.</li> <li>• Have first 15 minutes free for short stops.</li> <li>• Manage prices to maintain 15-percent vacancy rates (the ideal target).</li> <li>• Invest revenue back into the business group for Center improvements.</li> <li>• Institute an ongoing utilization monitoring program to inform price adjustment.</li> </ul>
<b>Introduce commuter parking</b>	<ul style="list-style-type: none"> <li>• Initiate modest pricing (on Royal Road and Concord Avenue).</li> <li>• Sell commuter permits to use in residential areas.</li> <li>• Reduce barriers to walking from more remote spaces to the station.</li> </ul>
<b>Residential parking area</b>	<ul style="list-style-type: none"> <li>• Consider isolating spillover and generating revenue from commuter/employee permits.</li> <li>• Invest revenue generated into neighborhood improvements.</li> </ul>
<b>Improve walking connections</b>	<ul style="list-style-type: none"> <li>• Explore a more permanent easement to the Claflin Lot, paid for by parking revenues.</li> <li>• Install improved crosswalks and narrow wide roadways and intersections with curb extensions.</li> <li>• Improve lot lighting and sidewalks.</li> </ul>
<b>Create a signing program</b>	<ul style="list-style-type: none"> <li>• Install pedestrian wayfinding signs.</li> <li>• Help reveal existing connections to drivers on how to get to Claflin Lot and other available parking.</li> </ul>
<b>Use modern payment technology</b>	<ul style="list-style-type: none"> <li>• Install pay stations that accept credit card payment and pay-by-cellphone.</li> <li>• Offer in-vehicle meters to employees and residents.</li> </ul>

## Recommendation 1: Revise Employee Parking Permits

A significant amount of employee parking occurs today in the "public parking" downtown core. Many employees will move their cars amongst time-restricted spaces throughout the day to avoid getting a ticket. Currently, employees are encouraged to park in the back of the Claflin Lot for \$3/day (exact change needed) or pay \$60/month for a permit. With an average month having 20 work days, there is little incentive for an employee to purchase a monthly permit. To incentivize the use of permits and the underutilized parking assets, pricing adjustments to the existing permit program are needed.

Keeping the current practice of reserving the back of the Claflin Lot for permit parking is ideal. Long-term parkers - employees - should not be parking directly behind retail entrances. Making it easier for employees to obtain permits - and display them - can be through the use of modern pay-stations, pay-by-cell phone, and in-car meters.

## Recommendation 2: Establish More Convenient Customer Parking

Within the core public parking area, strategies to ensure availability for short-term visitors should be instituted, including introducing on-street pricing to maintain vacancy and extending time limits.

### Implement Demand-Responsive Peak Pricing On-Street

Demand-responsive pricing helps to put customers first in the "public parking" area by creating vacancies and turnover of the most convenient "front door" curb parking spaces to ensure availability for customers and visitors. Existing parking rates should be revised to rates that will create a 15% vacancy rate on each block - or roughly one space free for every 7 parked cars - rather than relying on arbitrary time-limits. Rates in some places may be zero. Rates in other areas may be subsequently raised or lowered based on future occupancy counts.

After an initial trial period, occupancy rates for each block should be reviewed and then adjusted down or up to achieve the 85% occupancy goal, as described earlier. To ensure that this happens on a regular schedule, promptly, and with clear assurance to policymakers, citizens and the downtown community that the goal of parking prices is to achieve the desired vacancy rate, the following procedure for adjusting parking meter rates and hours is recommended:

1. **Set Policy:** By ordinance, the Board of Selectmen should establish that the primary goal in setting parking meter rates and hours for each block and each lot is to achieve an 85% occupancy rate. Additionally, the ordinance should both require and authorize Town staff to raise or lower parking prices to meet this goal, without requiring further action by the Board of Selectmen. The Planning and Economic Development Manager should be charged with the responsibility of running the district, including monitoring occupancy rates and adjusting rates.
2. **Monitor occupancy:** Utilization should be evaluated at least quarterly with a full-day sweep of prime parking areas. The goal is to ensure that there is about one free parking space on each block face. If installed, wirelessly-networked multi-space parking meters are capable of instantly transmitting current information on the number of spaces in use on each block where the meters are installed, giving the Planning and Economic Development Manager the ability to constantly monitor parking usage in the system. Reports can also be generated to track occupancy by the hour over the course of a day, weeks, or months.
3. **Adjust rates:** Armed with good information on recent parking occupancy rates, the Planning and Economic Development Manager should adjust the rates (and hours of operation) up or down on each block, to achieve the policy goal (an 85% occupancy rate) set by the Board of Selectmen. Typically, rates should be adjusted quarterly (four times per year), but in the case of major changes in the Center, such as the opening of a new development, it may be advisable to adjust rates in response to particular events. To provide additional input to the process, an advisory board should review the proposed rate changes and provide feedback to the Planning and Economic Development Manager.

Revenues collected by on-street pricing should be directly invested into Belmont Center through the Town and Business Association. When people feed the meters, they should be aware that their payment is being invested into Center improvements, such as benches, street trees, crossings, sidewalks, and more.

### Adjust Existing Time-Limits to Discourage Longer-Term Parking in Customer Areas

Once a policy of market rate pricing is adopted with the goal of achieving an 85% occupancy rate,

then time-limits need not be instituted. With no time limits, much of the worry and "ticket anxiety" for downtown customers disappears. In Redwood City California, where this policy was recently adopted, Dan Zack describes the thinking behind the City's decision in this way:

*Market-rate prices are the only known way to consistently create available parking spaces in popular areas. If we institute market-rate prices, and adequate spaces are made available, then what purpose do time limits serve? None, other than to inconvenience customers. If there is a space or two available on all blocks, then who cares how long each individual car is there? The reality is that it doesn't matter.*

Given the concerns about some employees and commuters being capable of paying for a full day at prime spots, an interim time-limit of at least 4-hours can be implemented, though the Town should experiment with complete removal of time-limits in some areas to help demonstrate the turnover effect of pricing alone. The only place in the Center that should retain time-limits and not implement pricing would be the streets surrounding Leonard Street where open community access has always been available regardless of utilization.

## Recommendation 3: Introduce Commuter Parking

Today, Belmont Center has no designated commuter parking at or around its commuter rail station. There are ten on-street spaces on Royal Road that are directly adjacent to the inbound tracks that have no regulations. As expected, these ten spaces are used to capacity at weekdays, filling up before 8am by residents and out-of-towners. The other nearby unregulated on-street parking spaces on Concord Avenue are not fully utilized; however, if there was designated commuter parking, it is believed that there would be an increased demand for parking.

### Initiate Modest Pricing on Royal Road and Concord Avenue

Commuter permit parking on Royal Road and Concord Avenue would designate specific areas (Monday - Friday) as commuter permit parking only. Modest pricing would be enough to cover administrative time but low enough to attract commuters to park near the station. Belmont's relatively low number of boardings (154 on an average weekday)<sup>1</sup> could be increased by adding more dedicated parking nearby the station. Royal Road can accommodate 10 cars, and Concord Avenue (south of the tracks) can accommodate anywhere from 12-50 cars. Spaces could also be made available for commuters on Dumbarton Road.

### Commuter Permits in Residential Areas

As documented in the utilization data, on-street parking in the residential areas around the commuter rail station do not experience spillover parking - in fact, besides a few on-street parkers and repair vehicles (contractors, painters, etc.), the streets are empty. Since general patterns indicate that residences do not need parking during the weekdays, since they are at work, and commuters only need parking during the weekdays - this would logically indicate that the on-street spaces in residential neighborhoods could, pending block-by-block agreement of neighbors, be used for commuter parking. Commuters would pay for a permit to park on a particular block, and less administrative fees, the neighbors would reap the benefits of the permit fees to invest in the neighborhood. Sidewalk cleanup, street trees, pavement improvements, block parties - the neighbors decide.

---

<sup>1</sup> MBTA Ridership and Service Statistics, 12th edition. 2009.

## Recommendation 4: Improve Pedestrian Connections

Belmont has long sought to make key improvements to walking connections throughout the Center. However, the southern row of commercial properties acts as a barrier to the Claflin Lot and key large intersections limit pedestrian connections - especially to under-utilized remote spaces. Several possible strategies include:

- **Better connectivity between Leonard Street and the Claflin Lot.** In the short term, better wayfinding signage should be provided to better direct customers where they are able to cut-through (explored in more detail in the Recommendation 5). In the longer term, other businesses may provide access, such as Starbucks (Figure 22). Another option would be to investigate the potential of a more permanent easement to the Claflin Lot, paid for by parking revenues, would provide a permanent, clear pathway. For example, access through Citizen's Bank, which likely has high security for offices and other areas of the bank, may sell an easement to the Town for 24-hour access through the building.

**Figure 22 Starbucks as a Gateway between Leonard Street and the Claflin Lot**

**Rear Exit of Starbucks**



**Patio Fence that Blocks Exit to Lot**



**View from Lot of Possible Starbucks Rear Exit**



Possible area for expanded access from the Claflin Lot to Leonard Street (Starbucks)

- **Improve lighting and sidewalks in the Claflin Lot.** Improving the lighting would increase the utilization of the back of the lot in the evenings. The front of the lot fills up at night, but the back remains empty. The sidewalk conditions leading to the lot from Concord Avenue are not adequate. They are too narrow, uneven, and not ADA compliant.



Widening the sidewalks would provide for easier and safer access to Leonard Street (Figure 23).

**Figure 23 Sidewalk Access to the Claflin Lot**



Uneven pavement and narrow sidewalks do not provide a good environment for pedestrians accessing the Claflin Lot. The back of the Claflin Lot is likely to be better utilized if

- **Install improved crosswalks and narrow wide roadways and intersections.** Belmont Center's streetscape plan recommends many improved intersections, curb extensions, and added crosswalks. There are other areas that can still be improved to aid in pedestrian safety and access:
  - **Intersection of Leonard St, Royal Rd, Common St, and Concord Ave (south of the bridge):** Current layout and streetscape plans are not sufficient for pedestrians to cross the street. Currently, with no stop signs, yield signs, or traffic lights, it is difficult for a pedestrian to navigate the intersection. This is particularly important for those trying to access the inbound train station platform. The proposed configuration extends the median and adds a crosswalk, but the plan does not accommodate pedestrians trying to get to the station. A roundabout, extended curbs, and added median refuges would substantially aid a pedestrian in navigating this intersection, and would slow car speeds down without making them come to a complete stop.
  - **Add curb extensions:** Curb extensions shorten the crossing distance for pedestrians, better define parking areas, and slow down traffic. Adding curb extensions at major intersections and crossing areas in Belmont Center will substantially improve the conditions for pedestrians.
  - **Add crosswalks:** There are several sidewalks in town that just drop off a pedestrian to fend for himself (Figure 24).



**Figure 24** Example of Sidewalk Access with No Crosswalk



The sidewalk ends and leaves the pedestrian with no crosswalk or connecting sidewalk.

**Figure 25** Current and Recommended Improved Streetscape Plan



*Current Plan*



### *Recommended Improvements*

Source: BSC Streetscape Plan and Nelson\Nygaard

## Recommendation 5: Create a Signing Program

While regulatory signing for parking regulations is prominent and plentiful in Belmont Center, signing that helps direct parkers to available parking areas is very limited. With very few signs leading to the Claflin Lot, there is no indication to visitors - or welcoming reminder to regulars - that convenient off-street parking exists. As Belmont seeks to attract businesses and customers, greater ease of finding parking spaces is important.

**Figure 26 Entrance to Claflin Lot**



A lack of signage at the entrance to the Claflin Lot makes it difficult to navigate.

Many communities employ a clear and consistent signing system that helps direct visitors to off-street parking easily (see examples in Figure 27). Given Belmont's desire to resolve utilization issues in on-street spaces during high demand times in the evening and on Saturday mornings, clear signing to the existing municipal lots is an important component of understanding where to park.

There is also a lack of signing for pedestrians. Once a motorists exists their car in the Claflin Lot, it is not obvious to a visitor how to get to Leonard Street. Many may walk around the block of retail shops, unclear on whether or not it is permitted to cut through. Hanging signage in front of and in back of the shops that provide cut-throughs would be incredibly useful for pedestrians.

**Figure 27 Parking Signs in Framingham**



Distinguishable signage makes it easier for motorists to notice.  
Source: City of Framingham

## Recommendation 6: Use Modern Payment Technology

The only paid parking area in Belmont Center is in the Claflin Lot. There is one pay and display station for the 131 spaces. The station is old, only takes bills and coins, and does not give change. A newer, more modern machine that takes credit cards, provides more information to customers, and is better able to track parking lot utilization would be an upgrade to both users and the Town.

The Town may also consider providing in-car meters to permit holders, Town residents, and commuters. In-car parking meters (also known as in-vehicle parking meters or IVPM) allow individual motorists to pay for parking by utilizing a personal metering device displayed in their



vehicle (either set on the dashboard or hung from the rear view mirror). The palm size unit is usually provided to motorists who pay a refundable deposit and possibly also a nominal monthly fee. It provides the motorist with convenience by eliminating the need to carry coins and pay for parking at curbside meters or pay stations in lots/garages.

In-car meters would be beneficial to those that park regularly on-street, in the Claflin Lot, or in

**Figure 28 In-Car Meter Sample**

designated commuter parking areas because of the greater convenience, reduced costs, and pricing flexibility. For example:

- Users only pay for actual time parked. Park for 5 minutes, pay for 5 minutes.
- No walking to the pay station - just park your car, turn on your in-car meter, and go.
- No coins or exact change needed.
- Similar to an EZPass, users can log-into their account on-line, download their usage, and print receipts.
- In-car meters are at no cost to the Town; users pay for or lease the units.
- Town can easily give discounts to Town residents, monthly permit holders, and/or senior citizens.



In-Car meters allow users to pay for their actual time parked - plus, they are very convenient in cold winter months because you just turn on your meter and go.

## Other Strategies

Complementary strategies to the parking management plan can also help to encourage more efficient utilization of parking resources in the Center. These include:

- Increasing parking supply
- Bringing Zipcar to Belmont
- Changing parking regulations in select areas
- Installing bicycle racks

## Increasing the Parking Supply

The parking utilization study shows that Belmont has an abundance of available parking spaces in the Center at all times of day. Therefore, a central priority should not be to increase on-street parking supply as a tool to increase availability; however, increasing the supply in the core would be beneficial during the peaks.

Additional supply can be added on-street on Alexander Avenue between Claflin Street and Cross Street and on Dunbarton Road near the commuter rail station. Also, if pay and display machines are installed on-street, striping of spaces is not necessary. It has been found that without striping, more cars fit on-street, adding a few more spaces to the supply.

Off-street, there is little opportunity to expand lots. However, the Claflin Lot can be restriped to maximize the number of spaces. However, even at its best configuration, less than 10 new spaces can be added (Figure 29).

**Figure 29 Re-Striping Configuration of the Claflin Lot**



Re-striping the Claflin Lot would not substantially change the number of parking spaces. It is only a slight increase from 195 to 202.

## Bringing Zipcar to Belmont

With Belmont's accessibility to MBTA buses and commuter rail station, access to Zipcar car-sharing would benefit residents and visitors. Designated, visible Zipcars could be parked and made available near the commuter rail station to help seamlessly connect trips from transit to car.

## Changing Parking Regulations in Select Areas

Prime spaces should be regulated to provide maximum benefit for those that need them. The loading zone spaces on Leonard Street should be evaluated to determine whether or not they are in the correct locations. Observations on Leonard Street indicate that most vehicles that are loading double-park, particularly larger trucks that would not be able to fit into a small loading zone space anyways.

One option for loading would be to restrict trucks to only load/unload during designated time periods. For example, there could be no parking in some areas of Leonard Street from 6am - 9pm, and those spaces could be for loading purposes only.

## Installing Bicycle Racks

Bicycle parking is an essential part of encouraging bicycling and typically serves two important markets. Long-term parking is needed for bicycle storage for residents and employees. This parking is located in secure, weather-protected, restricted access facilities. Short-term parking serves shoppers, recreational users and other. As well as security, convenient locations are a priority – otherwise, bicyclists will tend to lock their bicycles to poles or fences close to their final destination. Bicycle improvements increase mobility, reduce auto dependency, congestion and air pollution, and can be a very important mode of transportation for families with low income.

The Town of Belmont should invest in and install ABPB-compliant bicycle racks in the Center. Incorporating minimum bike parking facilities for new developments and encourage existing developments to consider making such improvements would help in making bicycle parking a routine part of all projects.

## Application to Belmont Center

An assessment of the parking management strategies recommended above in terms of how they might impact parking in the Center follows in Figure 30.

**Figure 30 Evaluation of Initial Parking Management Program**

Program	Purpose	Benefits	Limitations
<b>Revise parking permits</b>	<ul style="list-style-type: none"> <li>• Provide a designated area for employees to park</li> <li>• Use a simple fee structure</li> <li>• Price most desirable locations the highest</li> <li>• Price least convenient parking the lowest</li> </ul>	<ul style="list-style-type: none"> <li>• Efficiently separates long-term parking from short-term parking</li> <li>• Establishes clear area for employees according to their intended length of stay</li> <li>• Discounts for monthly rates</li> </ul>	<ul style="list-style-type: none"> <li>• Relies on business owners</li> <li>• Requires highly visible signage designating permit parking</li> </ul>
<b>Establish more convenient customer parking</b>	<ul style="list-style-type: none"> <li>• Manage turnover</li> <li>• Encourage long-term parking away from most desirable spaces</li> <li>• Increase availability of parking for customers</li> <li>• Have first 15 minutes free</li> </ul>	<ul style="list-style-type: none"> <li>• Maintain consistent availability in most desirable locations</li> <li>• Visitors balance willingness to pay &amp; desire for convenience</li> <li>• Visitors determine length of stay</li> <li>• Market price in many zones is free</li> </ul>	<ul style="list-style-type: none"> <li>• Pricing is a hot button issue</li> <li>• Relies on education &amp; outreach</li> <li>• Requires capital investment</li> <li>• Need to periodically re-evaluate demand to adjust prices, hours, &amp; zones</li> </ul>
<b>Introduce commuter parking</b>	<ul style="list-style-type: none"> <li>• Commuters can park in designated areas</li> <li>• Can benefit residential neighborhoods</li> </ul>	<ul style="list-style-type: none"> <li>• Allows commuters to park during the day</li> <li>• Increases ridership on the commuter rail</li> <li>• Eliminates ticket anxiety</li> </ul>	<ul style="list-style-type: none"> <li>• Need to reduce barriers to walking from more remote spaces to the station</li> <li>• Requires coordination with residential blocks</li> <li>• Constrains overall supply for other non-permit users</li> </ul>
<b>Residential parking area</b>	<ul style="list-style-type: none"> <li>• Isolates spillover and generates revenue from permits</li> <li>• Invest revenue into neighborhoods</li> </ul>	<ul style="list-style-type: none"> <li>• Invests revenue into neighborhoods</li> <li>• Provides parking for commuters</li> </ul>	<ul style="list-style-type: none"> <li>• Coordination among residences on blocks</li> </ul>
<b>Improve walking conditions</b>	<ul style="list-style-type: none"> <li>• Connect the Claflin Lot with Leonard Street</li> <li>• Improve sidewalks and intersections</li> <li>• Improve lighting</li> </ul>	<ul style="list-style-type: none"> <li>• Improves convenience for pedestrians quick trips</li> <li>• Allows for better access of Claflin Lot</li> <li>• Better pedestrian environment</li> </ul>	<ul style="list-style-type: none"> <li>• May require substantial investment</li> <li>• Need to coordinate improvements with other streetscape initiatives</li> </ul>
<b>Create a signing program</b>	<ul style="list-style-type: none"> <li>• Install wayfinding signs for pedestrian access</li> <li>• Install signs for vehicular Claflin Lot access and others</li> </ul>	<ul style="list-style-type: none"> <li>• Improves pedestrian circulation</li> <li>• Better utilization of Claflin Lot</li> <li>• Identifies other available parking</li> </ul>	<ul style="list-style-type: none"> <li>• Must invest in brand, look and feel</li> <li>• May need assistance from store owners</li> </ul>
<b>Use modern payment technology</b>	<ul style="list-style-type: none"> <li>• Efficiently and conveniently collect parking fees</li> </ul>	<ul style="list-style-type: none"> <li>• Provides visitors with a variety of payment options</li> <li>• Efficient revenue collection &amp; monitoring</li> <li>• Simplified enforcement</li> <li>• Easily adjustable fee structure</li> <li>• Easily adjustable hours of operations</li> </ul>	<ul style="list-style-type: none"> <li>• Requires retrieving a receipt &amp; returning to place in vehicle</li> <li>• Increases sidewalk obstructions</li> <li>• Potential increased litter</li> <li>• Requires capital investment</li> </ul>

## Chapter 5. Parking Management Implementation

*Forthcoming*

DRAFT