



N NELSON
NYGAARD

Downtown Beverly Parking Strategy Final Report

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Introduction

This report was prepared on behalf of the City of Beverly in through City funding and a “Massachusetts Downtown Initiative Technical Assistance Program” competitive grant from the State’s Department of Housing and Community Development (DHCD). The City of Beverly’s Planning Department and other City staff provided oversight and review of the parking management plan, final report and final presentation. In addition, City residents, visitors, and employees provided insight and input throughout this study through a series of stakeholder interviews and a public Open House in June 2016. On behalf of the City of Beverly and DHCD, the study team would like to thank all stakeholders and public participants for their constructive input to this process.



Background and Understanding

The City of Beverly is located in the North Shore of Massachusetts, approximately 16 miles north of downtown Boston. Beverly is well-connected to the Boston Metropolitan Area. Route 128 crosses Beverly from east to west, connecting the city to Interstate 95 and U.S. Route 1 in Danvers. Route 1A passes through Beverly from south to north, along Rantoul Street in downtown Beverly. Beverly is also well-served by the Newburyport/Rockport Line of the MBTA Commuter Rail, which provides service to Boston's North Station. The commuter rail station is located on the west border of downtown, with a recently built 500-space MBTA garage nearby. Other transit connections include the MBTA Bus Route 451, which provides service to downtown Beverly and Salem from the North Beverly station. Additionally, the Beverly Shoppers Shuttle serves downtown and western Beverly, and is contracted through the Cape Ann Transportation Authority.

Downtown Beverly features a livable mixed use environment, with local walking destinations, retail, and housing. Over the last several years, the City has made great efforts to further support mixed use development and multi-modal improvements in the downtown. In particular, the Cabot Street commercial corridor has benefited from a large amount of reinvestment from businesses, developers, and cultural institutions. Recent downtown projects include new restaurants, retail stores, art studios and the reopening of the 925-seat historic Cabot Theater. Over 17,000 square feet of vacant commercial space has been replaced with new businesses in recent years. Beverly continues to attract businesses that will make Cabot Street corridor a vibrant commercial and cultural district.

As local growth and development efforts advance within Downtown Beverly, the City has recognized the need for a comprehensive management plan for parking to support continued investment downtown. An effective parking management plan helps to strategically maximize existing parking assets, and to make smarter parking policies to work in tandem with the broader and long-term goals of downtown development.



Existing Conditions

This section documents the current conditions of downtown Beverly parking facilities based on extensive data collection efforts conducted in the spring/summer of 2016. This includes identifying the existing parking assets, how they are used today, and current parking management strategies.

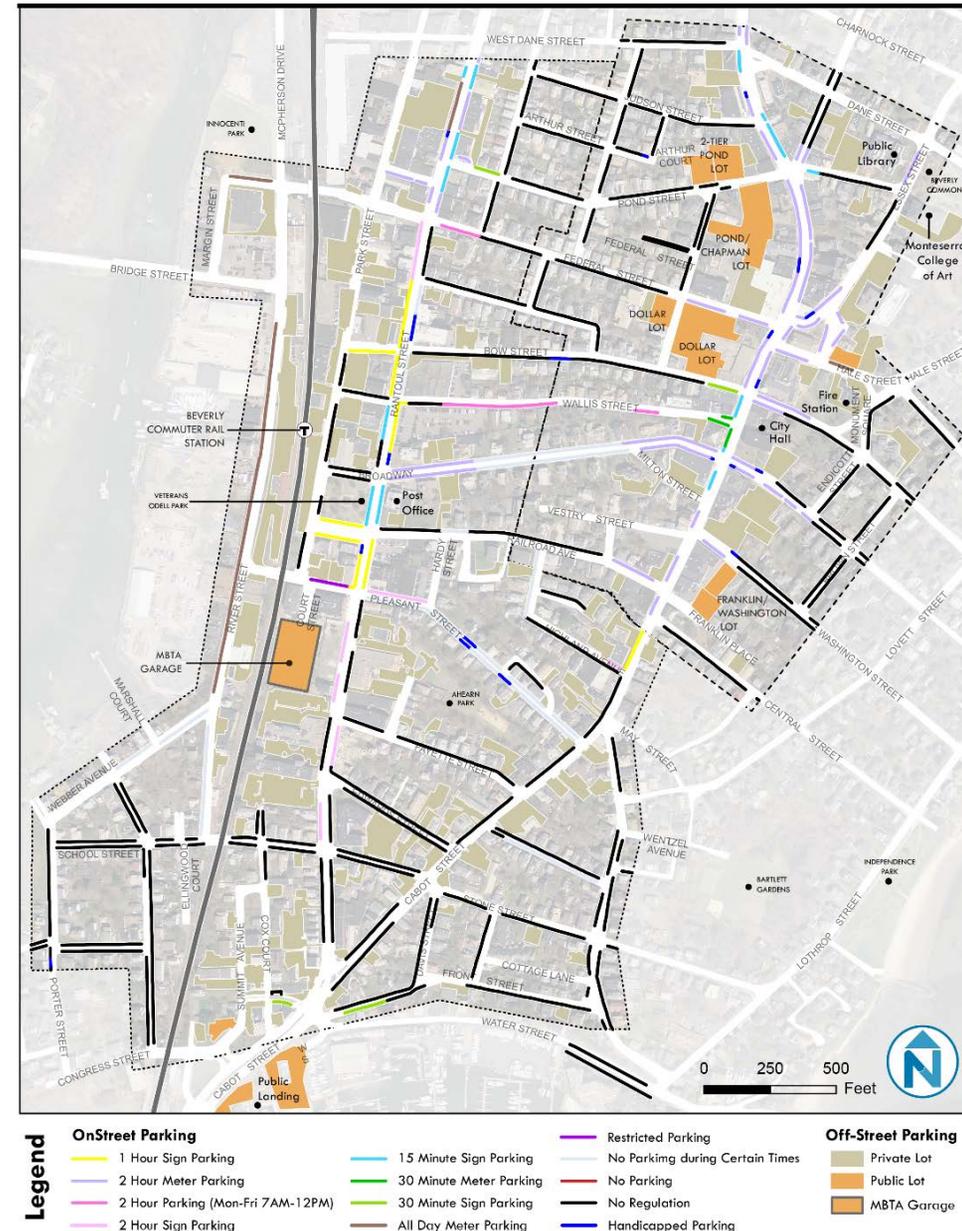
STUDY AREA

The study area identified for the parking management study encompasses Beverly's major commercial and mixed-use corridor, Cabot Street, as well as along the industrial and commercial areas along Rantoul Street, and covers a majority of the downtown parking between these areas. As shown in Figure 1, the study includes the area between Cabot and Rantoul streets from Water Street north to Dane Street.

Within the boundaries of the study area, there are a handful of off-street parking lots, including several municipal lots. The majority of lots contain private off-street accessory parking for customers and employees of downtown businesses. Regulated on-street parking is primarily located along Cabot Street, Rantoul Street, Broadway, Essex Street, Wallis Street and Federal Street. Unregulated on-street parking exists on most of the remaining residential streets within the study area.

In order to comprehensively understand how parking is used today through downtown Beverly, the City and study team conducted data collection of the study area in May and June 2016, identifying the existing regulations and parking patterns in the area.

Figure 1: Downtown Beverly Study Area & Parking Inventory



PARKING INVENTORY

Based on inventory data collection conducted in May and June 2016, there are 5,160 public and private parking spaces in the study area. The parking inventory includes all on- and off-street spaces. As noted in Figure 2, 50% of the total supply is accessible by the public, meaning that they are not restricted to particular users and available to anyone parking. A majority of private spaces are restricted to designated specific users, such as customers or employees of particular businesses. Parking is enforced from 9:00 a.m. to 5:00 p.m., Monday through Saturday. Meanwhile, as shown in Figure 3, nearly 60% of all on-street parking in the area is unregulated.

The full parking inventory is depicted in the parking regulations map in Figure 1. Other key findings from the inventory are shown below.

Parking inventory key findings

- There are 5,160 existing parking spaces in the study area, nearly a third of which are on-street.
- On-street parking regulations vary throughout the study area (Figure 3):
 - 20% are metered parking with 30-minute, 2-hour or 12-hour time limits.
 - Two-hour time metered parking apply to a majority of the regulated on-street parking.
 - 57% of all on-street parking is unregulated.
- 26% of all off-street parking is public parking, located in six municipal parking lots, plus the MBTA garage.
- A majority (74%) of the off-street parking supply is private and restricted to specific user groups.

Figure 2: Parking Inventory in Downtown Beverly Study Area

Parking Location	# of Spaces	Percentage	% Publicly Accessible	% Restricted Access
On-Street	1,666	32%	100%	0%
Off-Street	3,494	68%	26%	74%
TOTAL	5,160	100%	50%	50%

Figure 3: On-street Parking Regulation in the Study Area

On-Street Parking Regulation	# of Spaces	Percentage
15 Min Free Parking	47	3%
30 Min Free Parking	18	1%
30 Min Metered Parking	8	0%
1 Hour Free Parking	76	5%
2 Hour Free Parking	32	2%
2 Hour Free Parking (Mon-Fri 7AM-12PM)	18	1%
2 Hour Metered Parking	255	15%
All Day Metered Parking	70	4%
Handicap Parking	22	1%
No Parking 6AM-10AM	23	1%
No Parking 6PM-6AM	140	8%
Restricted Parking	3	0%
Unregulated	954	57%
TOTAL	1,666	100%

Existing Conditions

PARKING UTILIZATION

Parking occupancy counts provide a time series of typical parking demand at different times of day in an area. To gather this data, the team counted parked cars in each on-street segment and off-street facility at pre-determined time intervals. By compiling parking utilization spatially, one can begin to clearly identify patterns of high or low usage, the impact of regulations, and assess how much of the parking supply is actually utilized throughout a typical day. Land usage, regulation, pricing, and signage can drastically impact how even adjoining parking assets are utilized.

In order to ensure that parking management systems are operating efficiently, a certain level of vacancy and utilization is preferred both on-and off-street. It is ideal to have at least one empty on-street space per block face in a downtown, ensuring easy customer access to businesses. This typically equates to about 1 out of 8 spaces free, or a target of 15% vacant per block face. Similarly a goal of at least 10% vacancy is considered ideal in off-street lots. If any facility has less availability, it is effectively at its functional capacity and drivers perceive parking problems. Facilities with lower utilization have excess capacity.

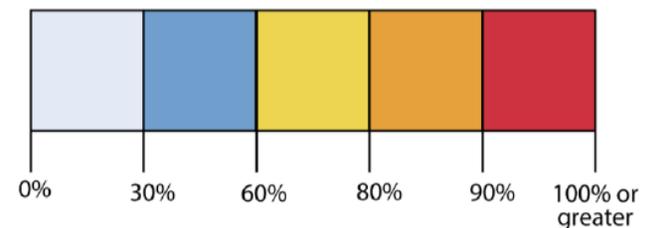
With help from Beverly City staff, the study team conducted parking occupancy counts on a typical weekday and a typical weekend in May 2016 during the school year to capture the typical parking demand throughout a day. Additional parking counts were conducted in June 2016. Surveyors counted occupied parking spaces in each facility block by block for **three hours intervals on a Thursday from 8am until 8pm and on a Saturday from 11am to 8pm.**

Spatial Analysis of Parking Utilization: General Analysis

A map of parking occupancy for one specific location is valuable, but seeing how that location relates among others nearby parking assets can reveal patterns and trends not evident in numbers alone. A parking lot which is completely full may be right around the corner from another lot that has plenty of availability at the same time.

Using the occupancy data, the study team developed a series of maps showing the utilization of each facility over time. Color represents the percentage of spaces utilized at each location based on notable breaks used to evaluate the adequacy of a parking facility:

- **Light Blue, Blue, and Yellow** represent 0-80% utilization, a point at which street faces and off-street facilities are viewed as underutilized. Any resource that consistently performs at this level, especially during peak-demand periods, can be viewed as having excess capacity.
- **Orange** signifies blocks and facilities with 81% to 90% utilization, and represents actively used resources. Particularly for off-street facilities, the nearer utilization levels approach the high end of this range, the more efficiently they are being utilized.
- **Red** denotes utilization above 90% and is considered to be functionally full. These blocks and facilities appear full to motorists, and consequently give the impression of overall lack of parking.



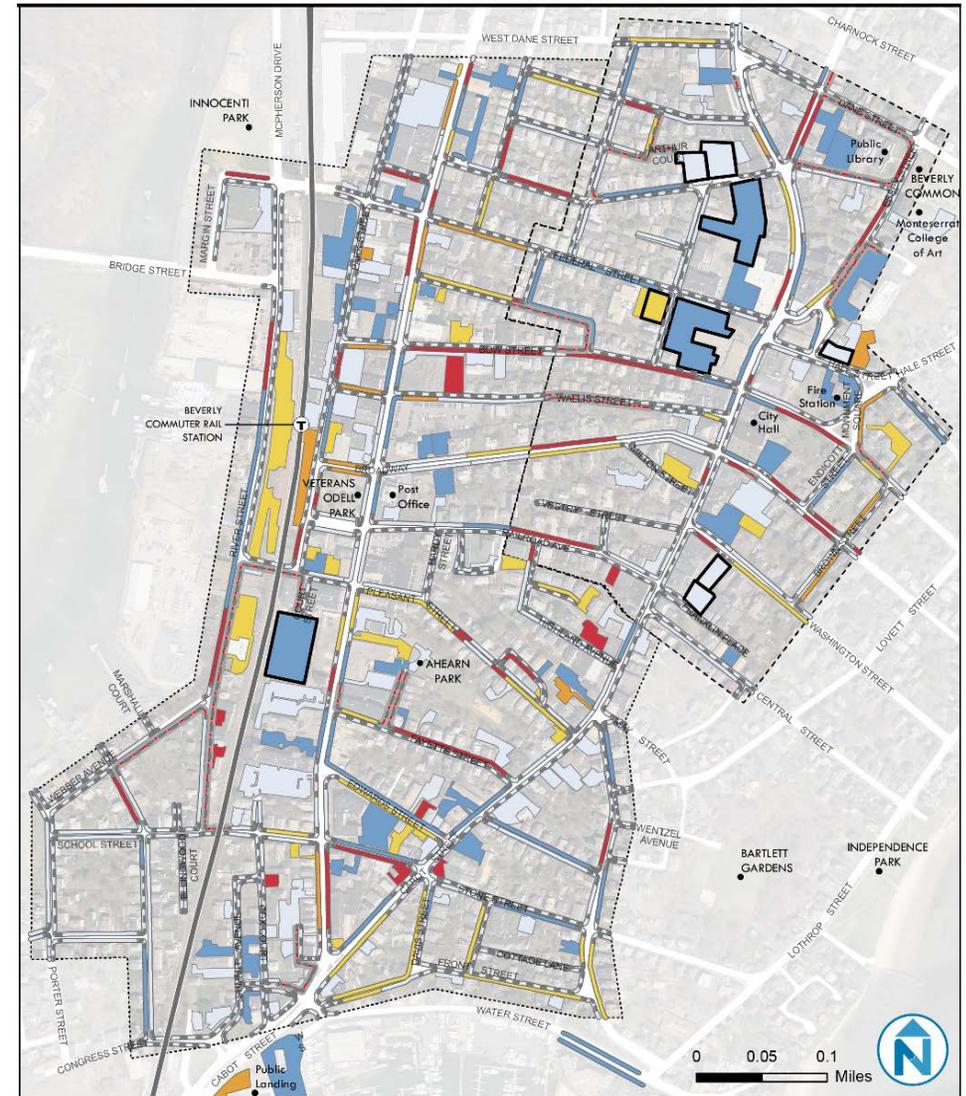
PARKING UTILIZATION

Below are the key findings for weekday and weekend utilization, followed by the spatial analysis maps which show the spatial patterns of parking utilization in three-hour increments, from 8:00 a.m. to 8:00 p.m. on a Thursday and from 11:00 a.m. to 8:00 p.m. on a Saturday.

Parking utilization key findings

- On weekdays, the study area has a peak overall parking utilization of 46% which occurs from 2:00 to 5:00 p.m.
 - The highest demand concentrates along Cabot Street and at the Pond/Chapman lot in the evening, near many restaurants and evening activity centers.
 - For the rest of the day, overall parking remains below 45% full.
- Public parking (on- and off-street) demand is higher than private parking, with a peak utilization of 51% during the afternoon versus 42% occupied.
- On-street parking is more heavily used than off-street parking; metered parking has a higher demand than free parking throughout the day, except for weekday mornings.
- On weekends, overall parking demand is consistent with what is shown on weekdays throughout the day.
- On-street free parking is over 55% full after 5:00 p.m.
- Compared to public lots, private parking lots have more availability throughout the day both on weekdays and on weekends, with a peak utilization of 42% during weekday afternoon.

Figure 4: Downtown Beverly Parking Utilization – Thursday 8am-11am



Legend	Parking Utilization	Less than 30%	Less than 30%	No parking
		31-60%	31-60%	Public parking
		61-80%	61-80%	Illegal parking
	81-90%	81-90%		
	More than 90%	More than 90%		
	Thursday			
	8:00 a.m. - 11:00 a.m.			
	<i>(data collected in May, 2016)</i>			

Existing Conditions

Figure 5: Downtown Beverly Parking Utilization – Thursday 11am-2pm

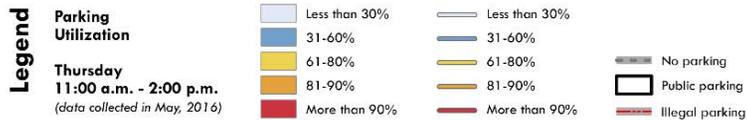
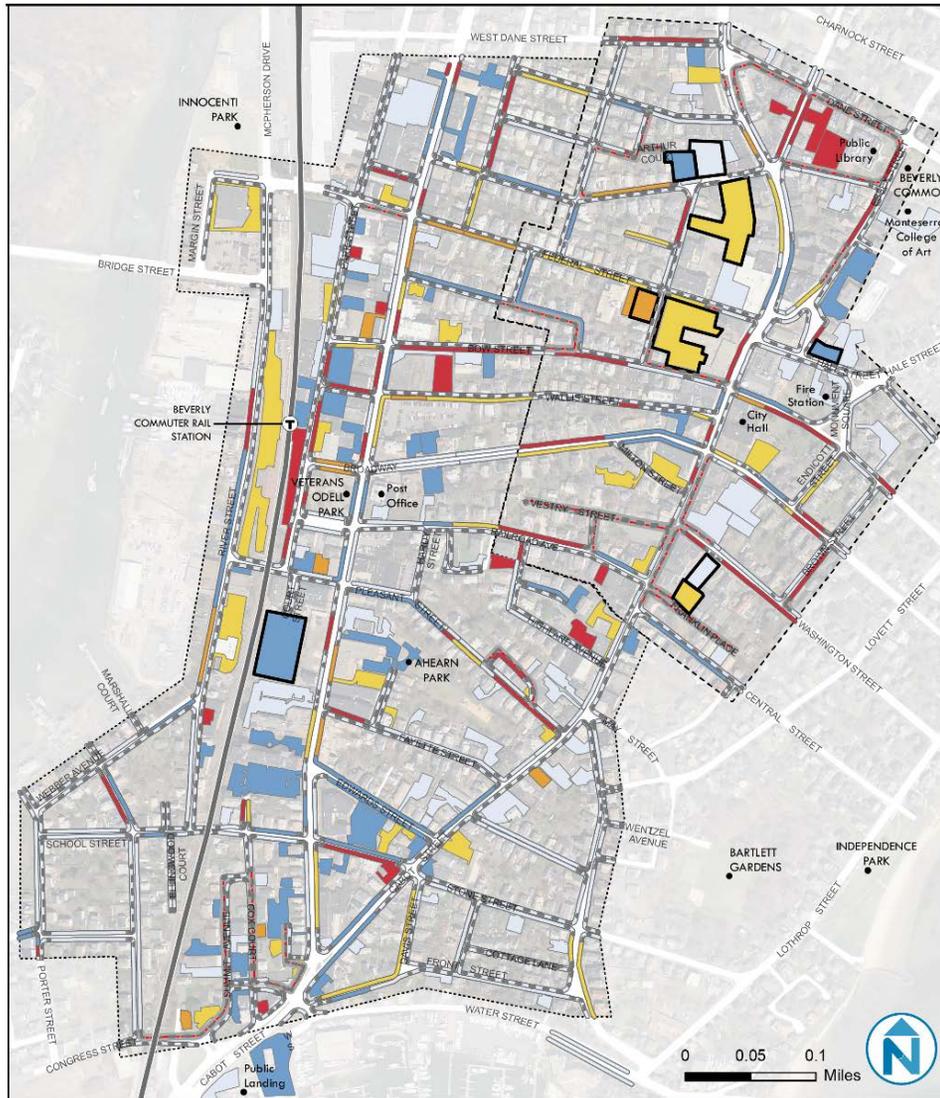
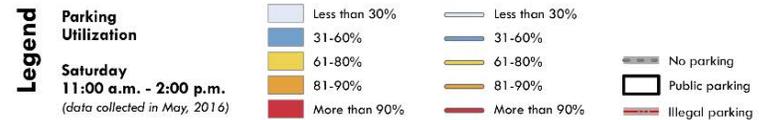
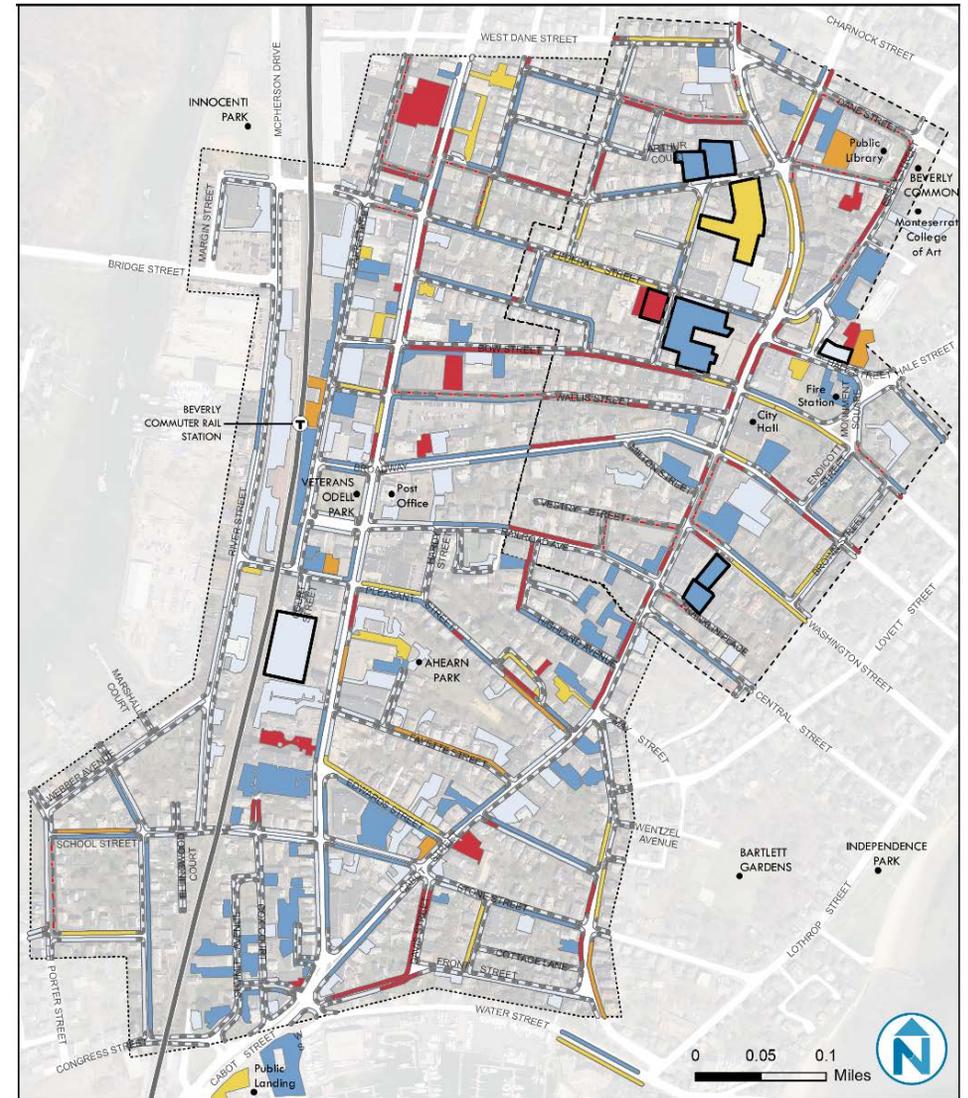
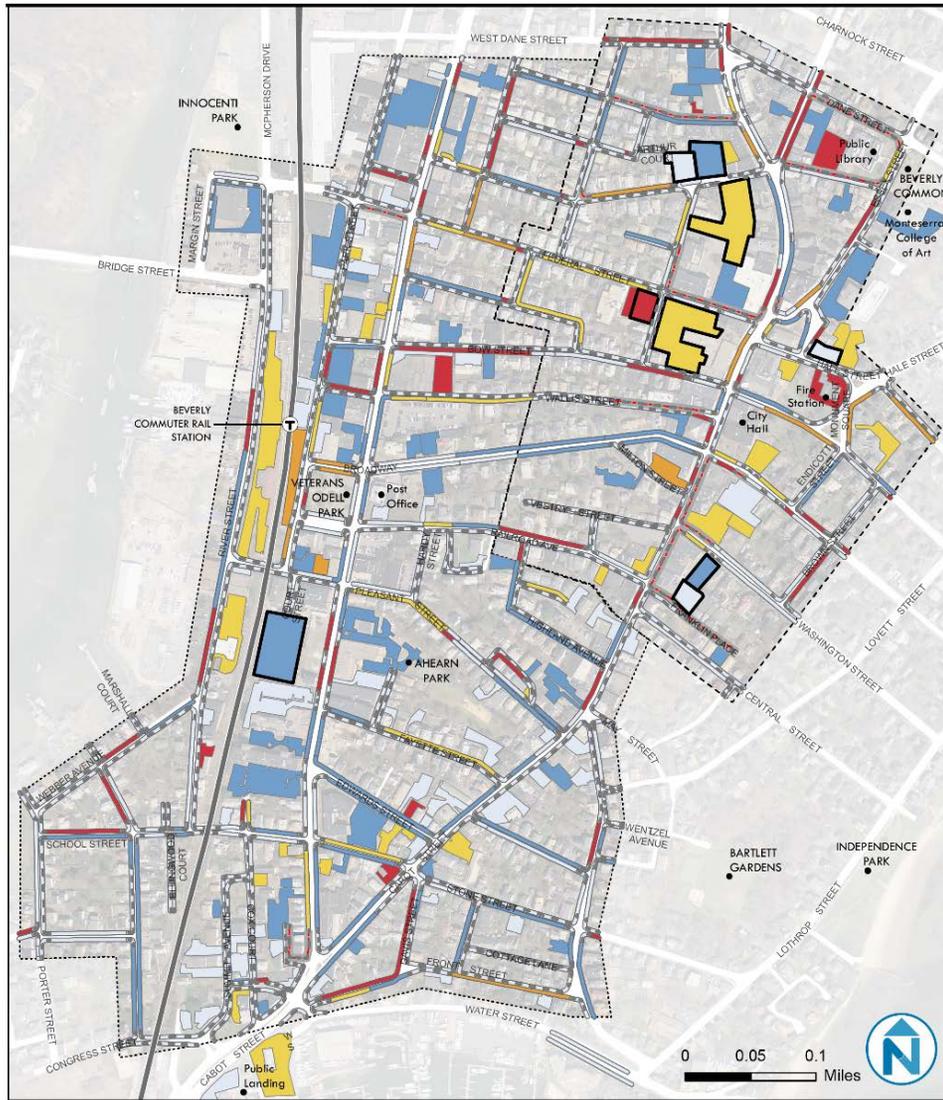


Figure 6: Downtown Beverly Parking Utilization – Saturday 11am-2pm



Note: "Illegal parking" indicates cars parked on-street in areas where parking is not allowed by sign, or street marking.

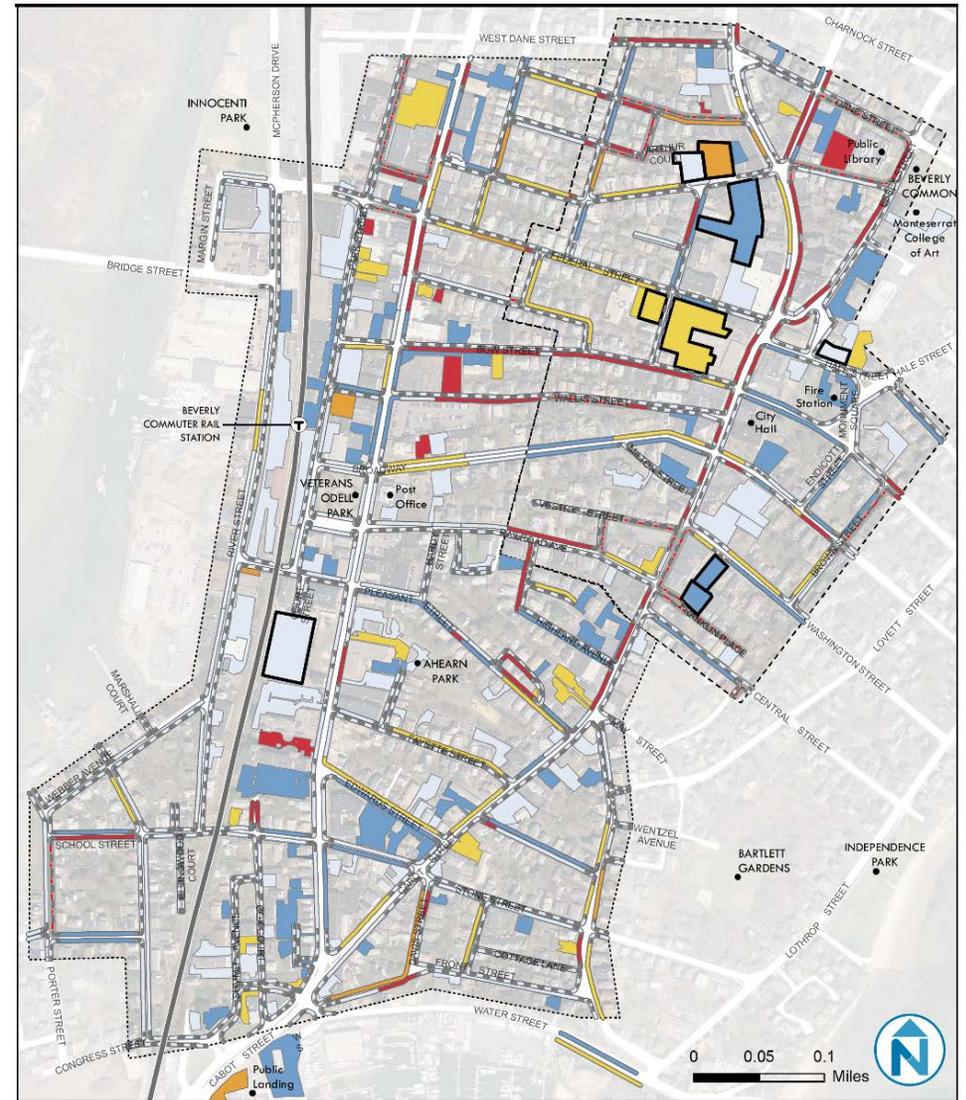
Figure 7: Downtown Beverly Parking Utilization – Thursday 2pm-5pm



Legend

Parking Utilization	Less than 30%	Less than 30%	Public parking
	31-60%	31-60%	Illegal parking
	61-80%	61-80%	
	81-90%	81-90%	
	More than 90%	More than 90%	
Thursday 2:00 p.m. - 5:00 p.m. <i>(data collected in May, 2016)</i>			

Figure 8: Downtown Beverly Parking Utilization – Saturday 2pm-5pm



Legend

Parking Utilization	Less than 30%	Less than 30%	Public parking
	31-60%	31-60%	Illegal parking
	61-80%	61-80%	
	81-90%	81-90%	
	More than 90%	More than 90%	
Saturday 2:00 p.m. - 5:00 p.m. <i>(data collected in May, 2016)</i>			

Existing Conditions

Figure 9: Downtown Beverly Parking Utilization – Thursday 5pm-8pm

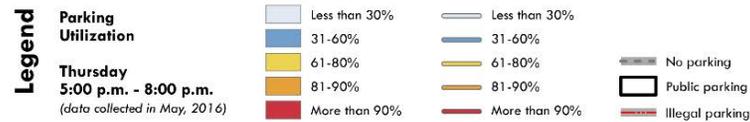
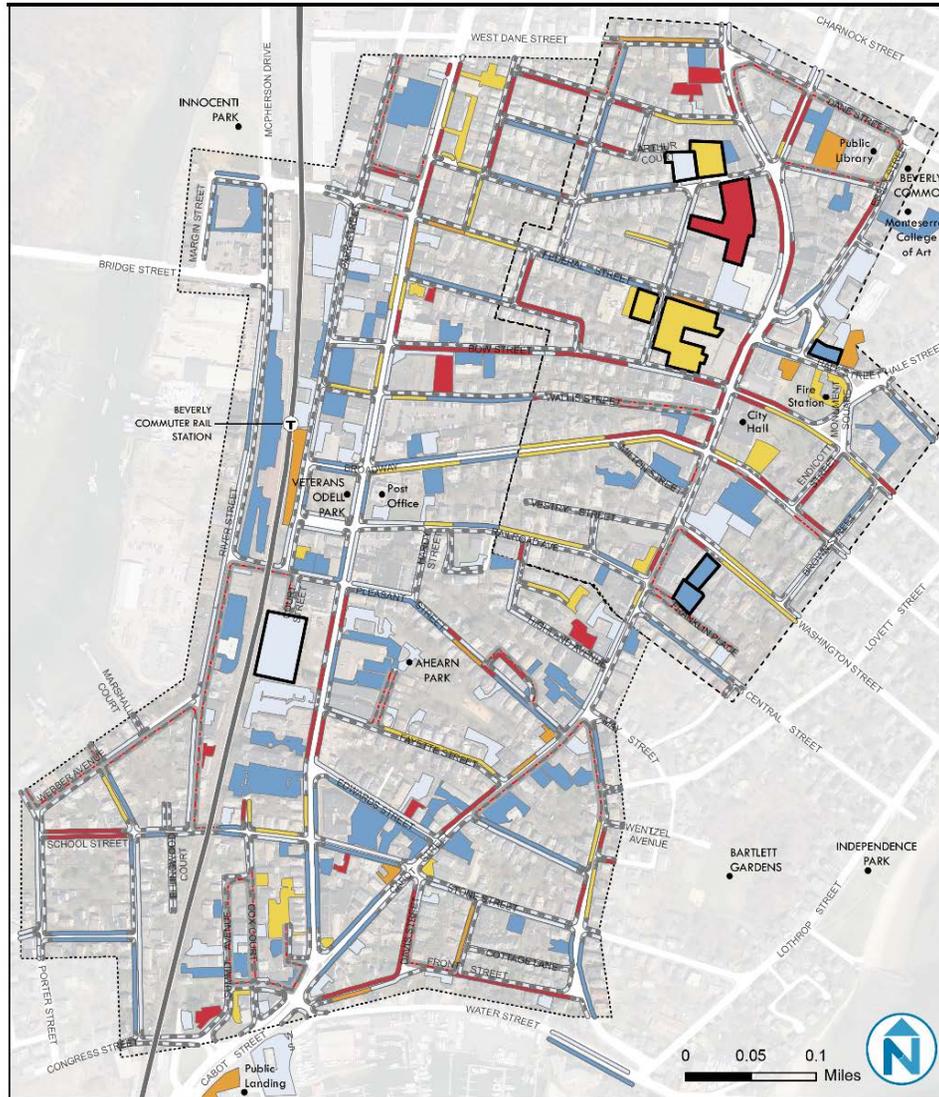
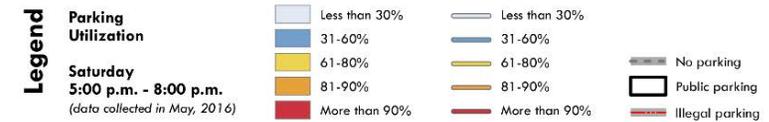
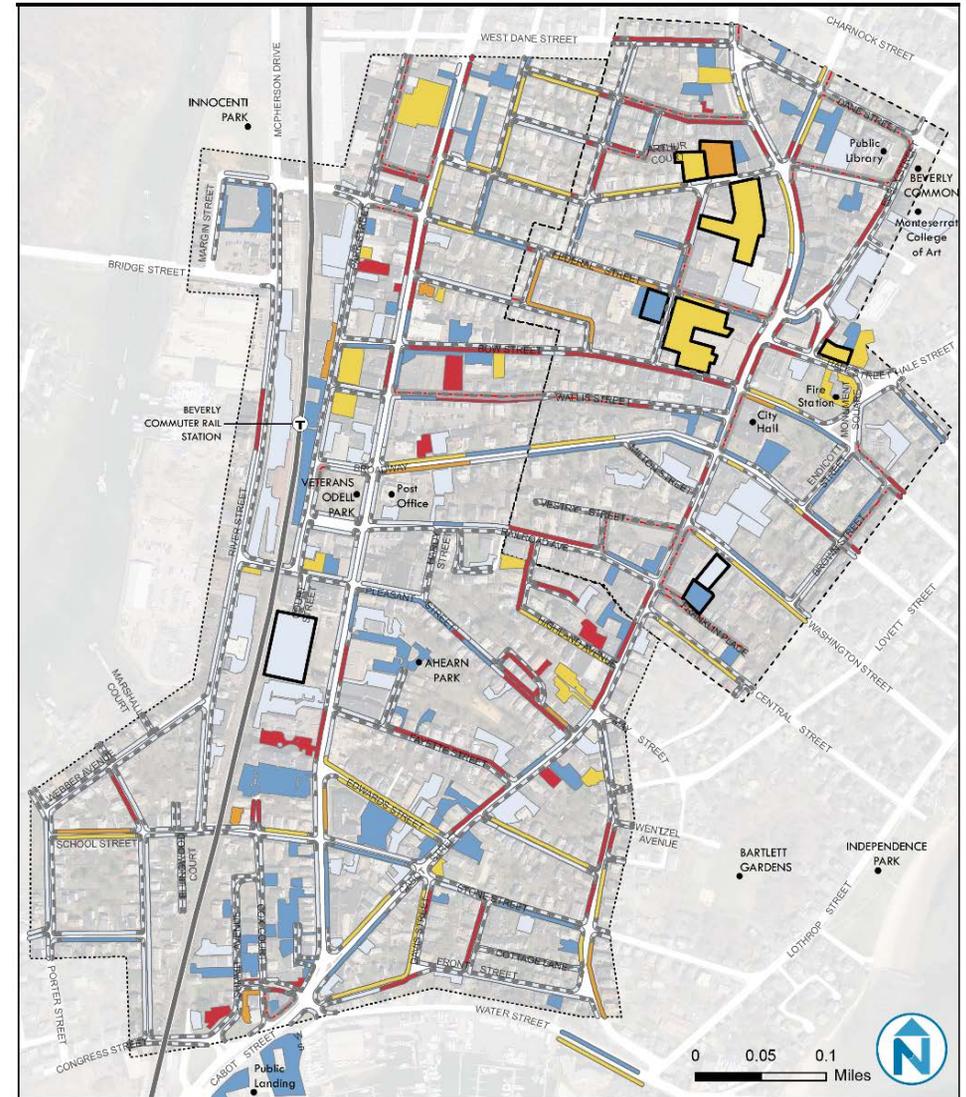


Figure 10: Downtown Beverly Parking Utilization – Saturday 5pm-8pm



PARKING UTILIZATION

The utilization charts show a detailed picture of how full parking gets on-street and off-street. The **green** bars indicate how many cars are parked each hour; the **grey** areas indicate the number of available parking spaces. Based on the detailed data collection effort, the utilization data can be analyzed in multiple ways, including regulations, location, and type of parking. This helps to reveal that parking demand is not uniform throughout the study area.

Overall, downtown Beverly parking supply is under 50% utilized as shown in Figure 11, indicating excess availability throughout the day both on weekdays and on weekends. Most demand is concentrated on-street in the area near Cabot Street, while overall on-street demand nears 60% utilization on weekends (Figure 12). Metered on-street parking actually shows a higher overall demand than free on-street parking.

Figure 11: Utilization Profile: All Parking Within Study Area

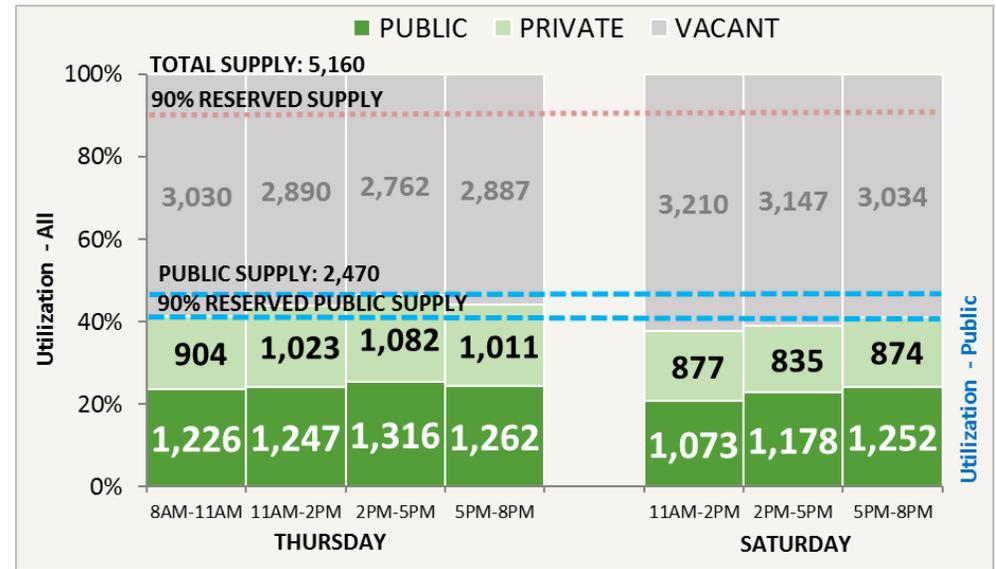
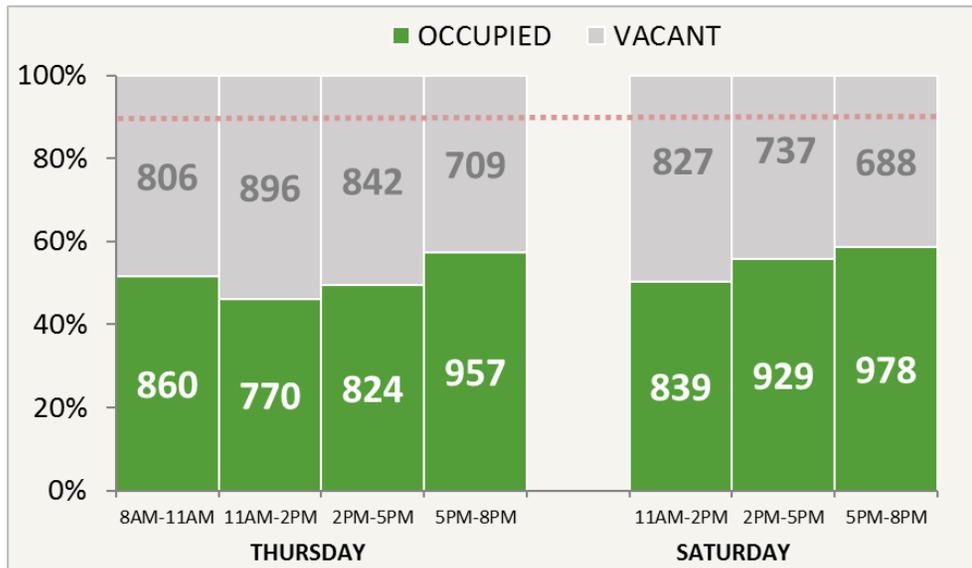
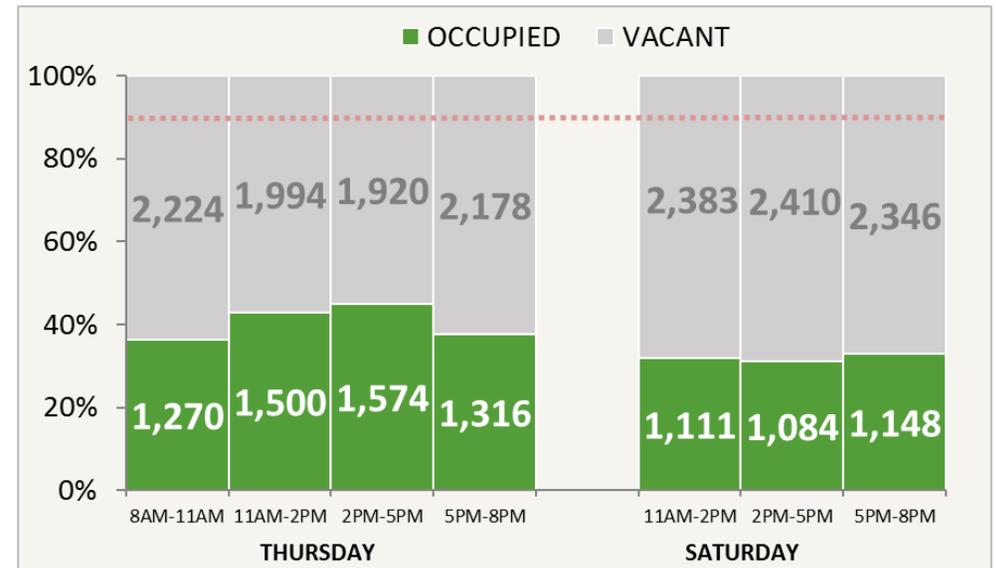


Figure 12: Utilization Profile: On-Street Parking Within Study Area



Note: The red dotted line indicates the 90% optimal occupancy

Figure 13: Utilization Profile: Off-Street Parking Within Study Area



Existing Conditions

Figure 14: Utilization Profile: On-Street Metered Parking Within Total Study Area

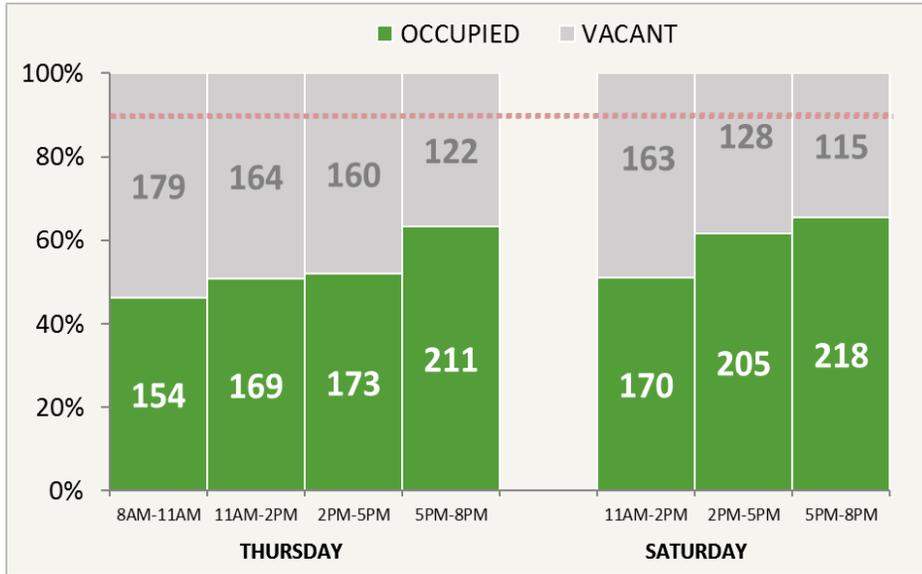


Figure 15: Utilization Profile: On-Street Free Parking Within Total Study Area

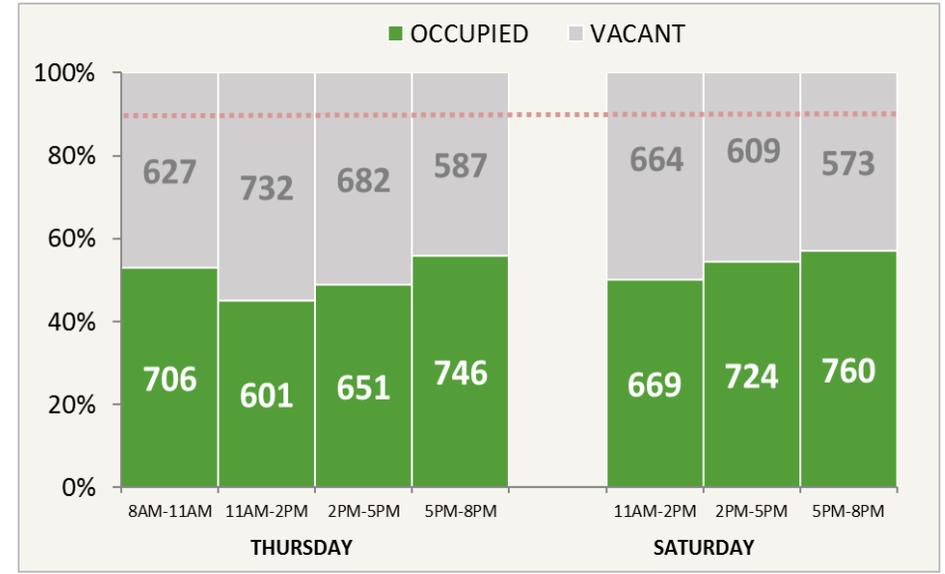


Figure 16: Utilization Profile: Off-Street Public Parking Within Total Study Area

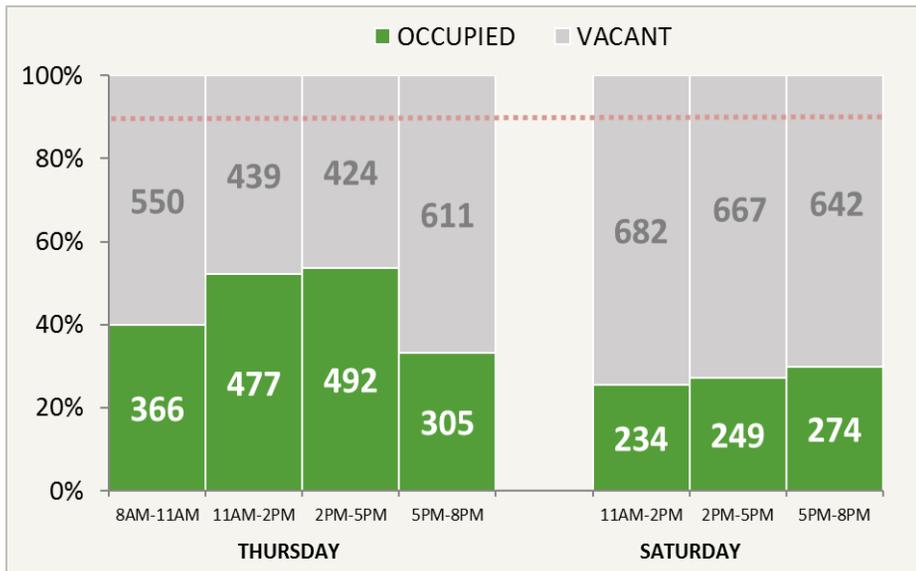
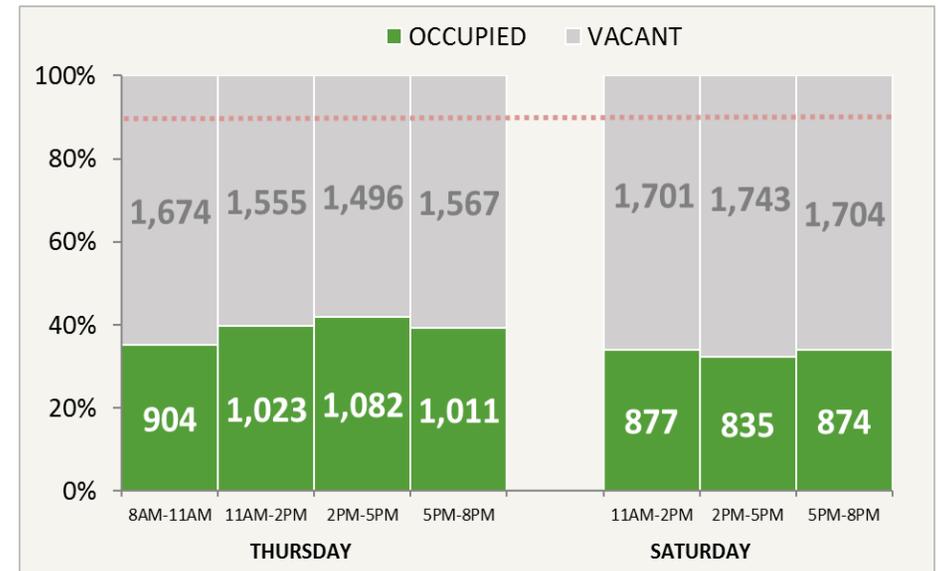


Figure 17: Utilization Profile: Off-Street Private Parking Within Total Study Area



Note: The red dotted line indicates the 90% optimal occupancy

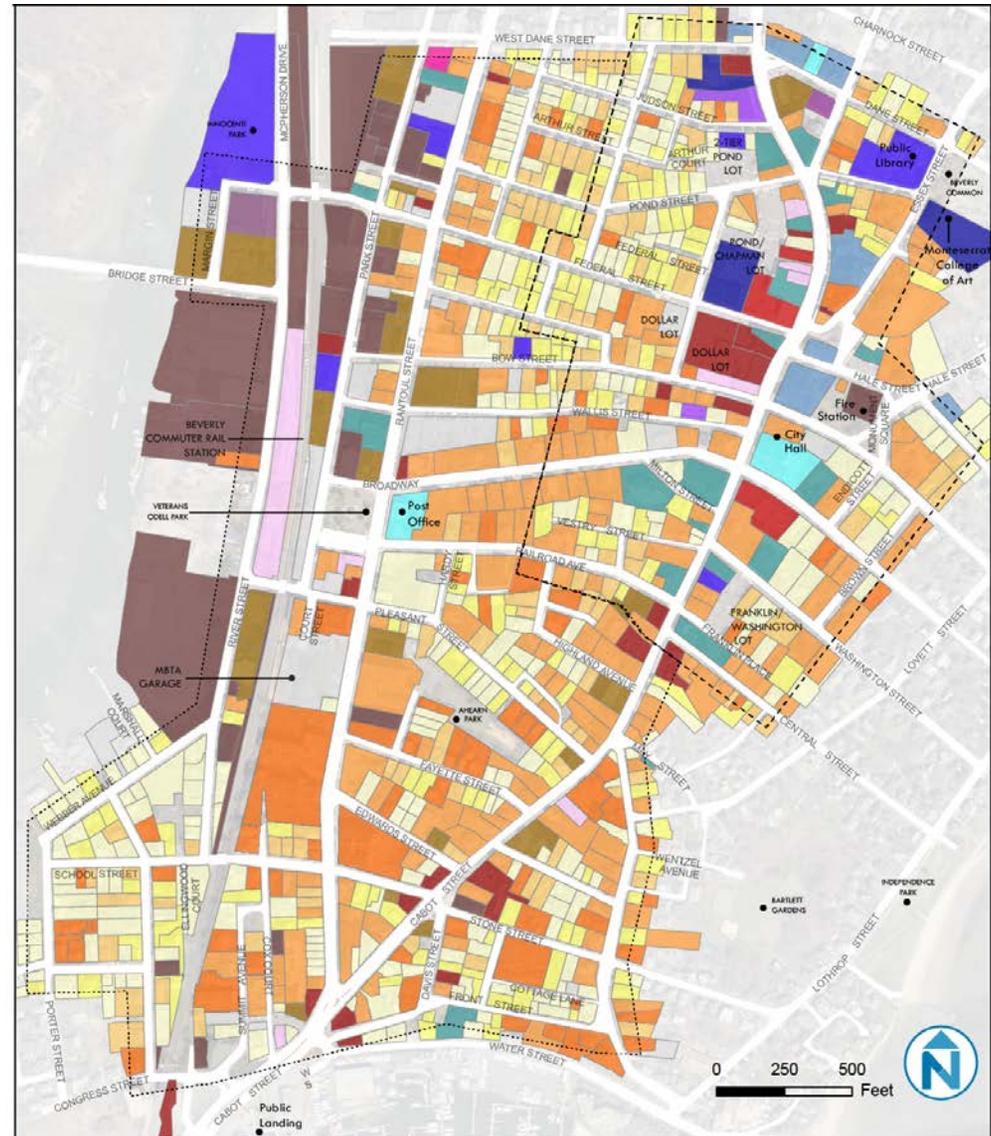
Land Use and Zoning

EXISTING LAND USE

Parking is intricately intertwined with the overall mix of land uses and activities it serves. Downtown Beverly has the variety of land uses typical of a traditional downtown environment. As shown in Figure 18, the mix and proximity of land uses and small-scale retail has the bones of a highly-walkable environment in the downtown core, with a large amount of residential uses nearby. As downtown Beverly continues to evolve and attract a variety of land uses, the balance and relationship between land use and parking is critical. Careful consideration of what the land is dedicated to (built environment, roadways, open space, parking) has a significant impact on the vitality of the downtown.

This following land use and parking analysis helps to illustrate the existing ratio of land use and parking supply to expected demand in downtown Beverly. The combined results of these analyses are then compared to the actual observed parking demand. The model determines how much parking would be needed assuming that parking is often shared between land uses and people (customers, employees, visitors) visiting multiple destinations.

Figure 18: Downtown Beverly Land Use



Legend

Single Family	Condo	Restaurant	Govt. Office	Funeral Home
Two-Family	Retail	Theater	Church	Industrial & Warehouse
Three-Family	Bank	Bowling Alley	Community Center	Auto Repair & Gas Stations
Apartments	Health Club	Office	School	Other

Land Use and Zoning

PARKING REQUIREMENTS

A review of the most up-to-date Zoning Ordinance (July 2013) indicates that Beverly’s parking requirements are often higher than industry standard peak parking demand rates proposed by the Institute of Transportation Engineers (ITE). ITE produces a periodic report titled *Parking Generation*, which is the prevailing national standard in determining parking demand for a development. ITE standards are based on parking demand studies submitted to ITE by a variety of parties, including public agencies, developers and consulting firms.

Although widely considered an industry standard, the peak parking demand rates found in the ITE guide are primarily derived from studies conducted in auto-dependent suburban settings. When applied as minimum requirements in a more dense setting –such as downtown Beverly - these tend to reproduce a similar auto-dependent parking ratio that is incongruous with downtown Beverly’s mixed-use development.

Many of Beverly’s parking requirements exceed most current ITE rates (*Parking Generation, 4th Edition, 2010*) for the described land use (Figure 19); though some are in-line with or even below the ITE rates. These parking requirements in the code are particularly important, as they guide the required parking - and therefore land - needed to develop an existing or new property in the town.

Figure 19: Sample of General Parking Requirements under Beverly Zoning Ordinance

Use	Beverly Regulation		ITE Peak Parking Demand Rates	Beverly vs. ITE
Residential in Central Business District	1 bedroom or smaller	1 per unit	1.2 per unit	Below
	2 bedrooms in Depot Overlay District	1 per unit	1.2 per unit	Below
	2 bedrooms or more	2 per unit	1.2 per unit	Above
Residential in all other districts	2 per unit		1.83 per unit	Above
Rooming house, hotel, motel	1 per rental unit		0.89 per room	Above
Bed-and-breakfast	1 per rental unit, plus 2		0.89 per room	Above
Hospital	0.5 for every bed		4.49 per bed	Below
Clubs, lodges, etc.	1 per 400 SF		3.2 per 1,000 SF	Below
Auditorium, theater, etc.	0.25 for each seat		0.25 per seat	Same
Office	4 per 1,000 SF		5 per 1,000 SF	Below
Retail Business	10,000 SF or fewer	3.63 per 1,000 SF	Varies by specific use	-
	Over 10,000 SF	5 per 1,000 SF	Varies by specific use	-
Clinic or Medical Office	6.67 per 1,000 SF		3.2 per 1,000 SF	Above
Restaurant	0.25 for each seat		0.47 per seat	Below
Schools	2 per 1,000 SF		0.17-0.33 per student	-
Wholesale/Storage	1 per 1,000 SF for first 20,000 SF		0.14 per 1,000 SF	Above
	0.5 per 1,000 SF for second 20,000 SF		0.14 per 1,000 SF	Above
	0.25 per 1,000 SF after first 40,000 SF		0.14 per 1,000 SF	Above
Open Storage	1 per 1,000 SF		0.14 per 1,000 SF	Above
Manufacturing or printing	2.5 per 1,000 SF		0.1 per 1,000 SF	Above
Nursing Home	0.75 per unit		0.41 per unit	Above
Marina	0.5 per boat		0.27 per berth	Above
Brewery	2 per 1,000 SF		N/A	-
Tasting Room	3.63 per 1,000 SF		N/A	-
Maker Space	2 spaces per 1,000 SF		N/A	-

ITE EXPECTED DEMAND

Within the study area, there is approximately 1.2 million square feet of space dedicated to a variety of uses in the downtown, and as shown in Figure 20, there are 2,200 residential units (single-family houses not included). The individual land uses are grouped as accurately as possible into categories created by ITE's *Parking Generation, 4th Edition* in order to calculate the expected amount of parking needed to support the level of development and activity within the study area. The various uses found in downtown Beverly have been summarized and grouped to most accurately reflect the conditions of the area.

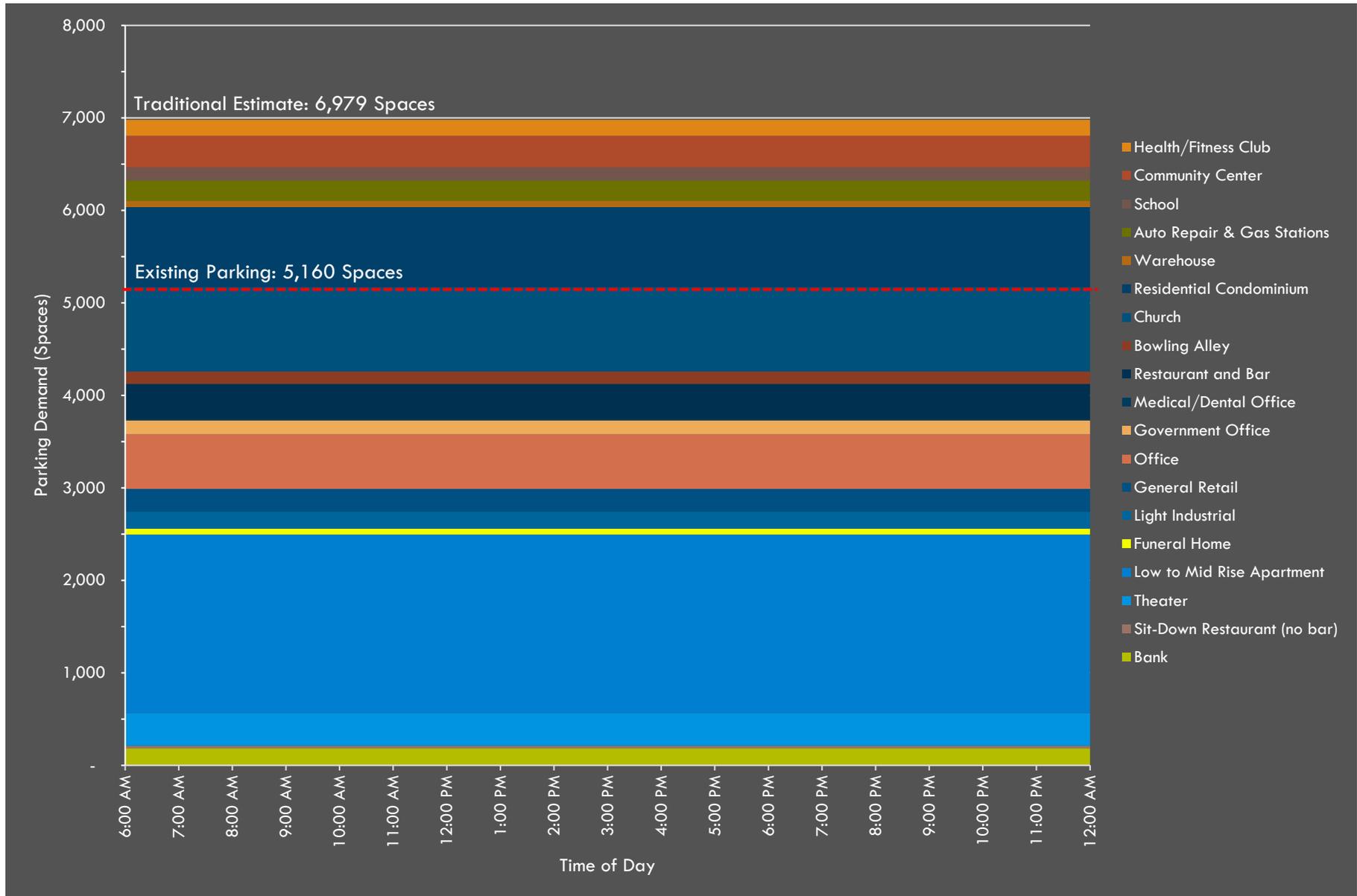
Based on national suburban standards, ITE shows an expected demand of approximately 7,000 spaces to meet the study area's existing land uses. This assumes that every land use would have their own dedicated parking supply which would not be shared between other uses throughout all hours of the day, as displayed in Figure 21. The existing inventory within the downtown study area is almost 5,200 spaces, approximately 1,800 spaces below what ITE would recommend.

Figure 20: Downtown Beverly Study Area Existing Land Use

Land Use	SF/ Units
Auto Repair & Gas Stations	101,419 SF
Bank	46,005 SF
Bowling Alley	24 Lanes
Church	108,541 SF
Community Center	106,901 SF
Funeral Home	7,595 SF
General Retail	96,682 SF
Government Office	35,672 SF
Health/Fitness Club	32,632 SF
Light Industrial	244,256 SF
Low to Mid Rise Apartment	1,609 Units
Medical/Dental Office	3,360 SF
Office	239,255 SF
Residential Condominium	630 Units
School	620 Students
Sit-Down Restaurant (Bar)	28,986 SF
Sit-Down Restaurant (no bar)	5,010 SF
Theater	1,410 Seats
Warehouse	134,408 SF
TOTAL	1,190,722 SF 2,239 Units

Land Use and Zoning

Figure 21: Downtown Beverly Traditional Parking Estimate



SHARED PARKING DEMAND

National experience indicates that projections using standard ITE parking rates tend to overestimate demand for downtown areas like Beverly. Mixed-use areas offer the opportunity to use one parking space for multiple land uses. This reduces the total number of spaces which would be required by the same land-uses in stand-alone developments.

To demonstrate the efficiency of a park-once environment, Nelson\Nygaard used an adapted shared parking model using inputs from the Urban Land Institute's (ULI) *Shared Parking Manual (2nd Edition, 2005)* and *ITE's Parking Generation (4th Edition, 2010)*.

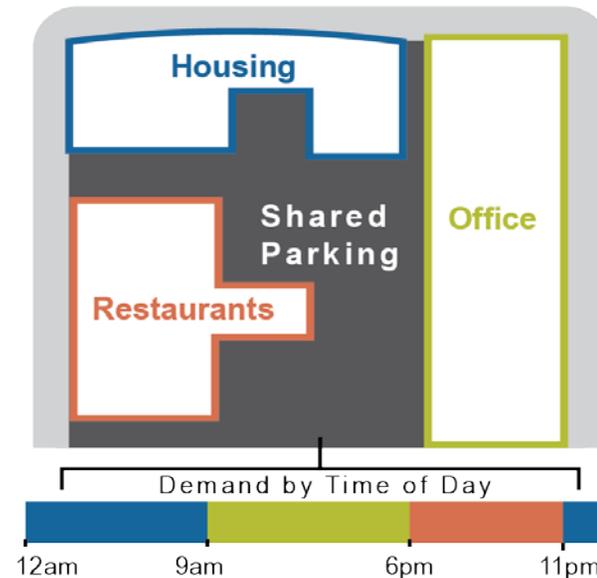
Demand for parking varies by use throughout the day. Using Figure 22 as an example, Offices create parking demand during business hours; Parking for residential housing is often most full overnight as residents take their cars during the day; and Restaurant uses peak at lunch and dinner. The shared parking model aggregates parking demand by time of day across all land uses to derive an overall parking expectation within the study area.

Besides demand by time of day, the model is calibrated for downtown Beverly with a reduction for internal capture. Mixed-use downtowns allow for parking efficiencies through "internal capture" or "captive market" trips. Such trips are made by patrons who, having already parked, walk between uses without accessing their vehicle. The model includes a conservative percent reduction to account for the mix of Beverly's development patterns.

MODELED SHARED PARKING ANALYSIS

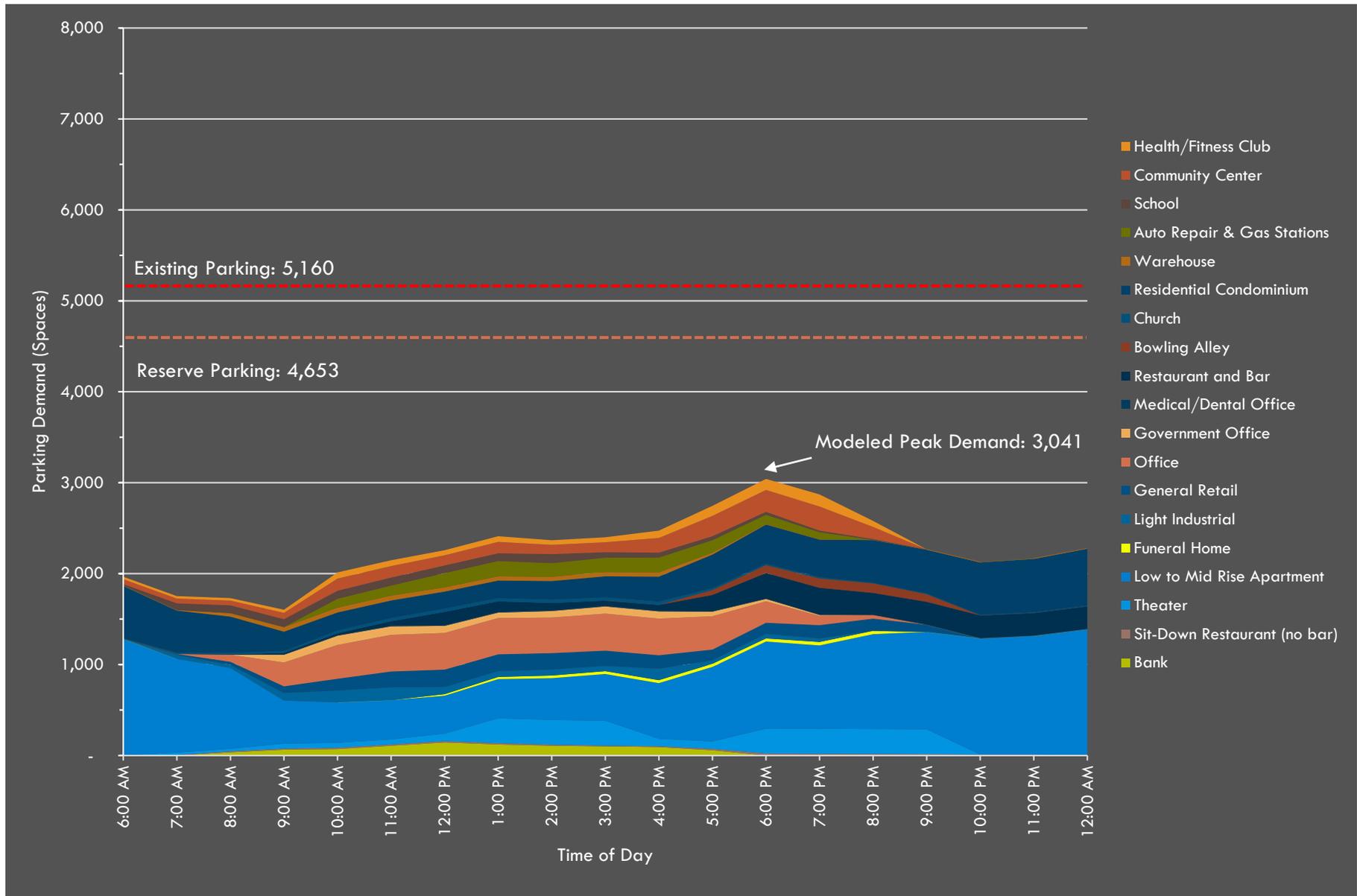
The same land use figures were used in the modified ULI Shared Parking Model to show the number of parking spaces needed after factoring in time of day demands by land use and Beverly's mixed-use environment. These estimates can be viewed in Figure 23. The estimates show that the peak demand at 6pm is only 3,041 spaces, indicating that there is adequate supply to meet demand, with a surplus of over 2,000 spaces during the peak demand period. This assumes full use of downtown's land uses, which today may not be fully occupied. Today there are only 2,400 spaces used at peak, suggesting an even higher surplus is already available.

Figure 22: Shared Parking Model Example



Land Use and Zoning

Figure 23: Downtown Beverly Modeled "Shared" Demand



Public Process

Beverly has a robust downtown, with many uses competing for a finite supply of parking. Business owners search convenient customer access, residents hope to retain on-street residential parking, and transit riders look for affordable and convenient access to park and ride the commuter rail. A more effective management plan for downtown Beverly's parking must consider all these users. In order to hear from City residents, employers/employees and visitors, the study team facilitated a public meeting hosted by the City in June 2016. The meeting shed light on the various competing uses confronting downtown Beverly's parking supply.

STAKEHOLDER INTERVIEWS

A series of targeted stakeholder interviews were conducted at the early stage of the public outreach process to gather input from those most familiar with parking issues and challenges in downtown Beverly. City planning staff identified and invited stakeholders including business owners, developers, institutions, parking administration staff and key institutions. The primary goal of these small-group meetings was a free flowing exchange about parking and an understanding of specific parking experience and perspectives in downtown Beverly. Several common themes emerged, which are summarized at right.

Interviewed stakeholders

- Chamber of Commerce
- Beverly Main Streets
- Property owners/developers
- Downtown businesses/merchants
- Engineering Department staff, City of Beverly
- Police Department, City of Beverly
- Mayor's Office
- City planner
- Key institutions in Downtown Beverly

Stakeholder interview summary

- General public perception is we do not have enough parking in downtown Beverly.
- Parking after 6 pm for downtown gets busy because of the traffic flows to retail, restaurant or performance shows.
- Conflict exists between employee and customer parking, especially over limited on-street parking.
- Concerns of commuter parking on residential streets – how to incentivize commuters to park in the garage.
- Directional and parking signage is generally needed.
- Shared parking opportunity among private owners exists and should be encouraged.
- MBTA garage is not well utilized but also not easy to get a monthly permit for general public or downtown businesses.
- Parking enforcement should be easier and friendlier.
- A more walkable and bikeable downtown is desired. Crossing Cabot Street can be quite challenging with speeding through-traffic, poor visibility at turning corners, and improperly-placed crosswalks. Bicycle parking and infrastructure is needed.

Public Process

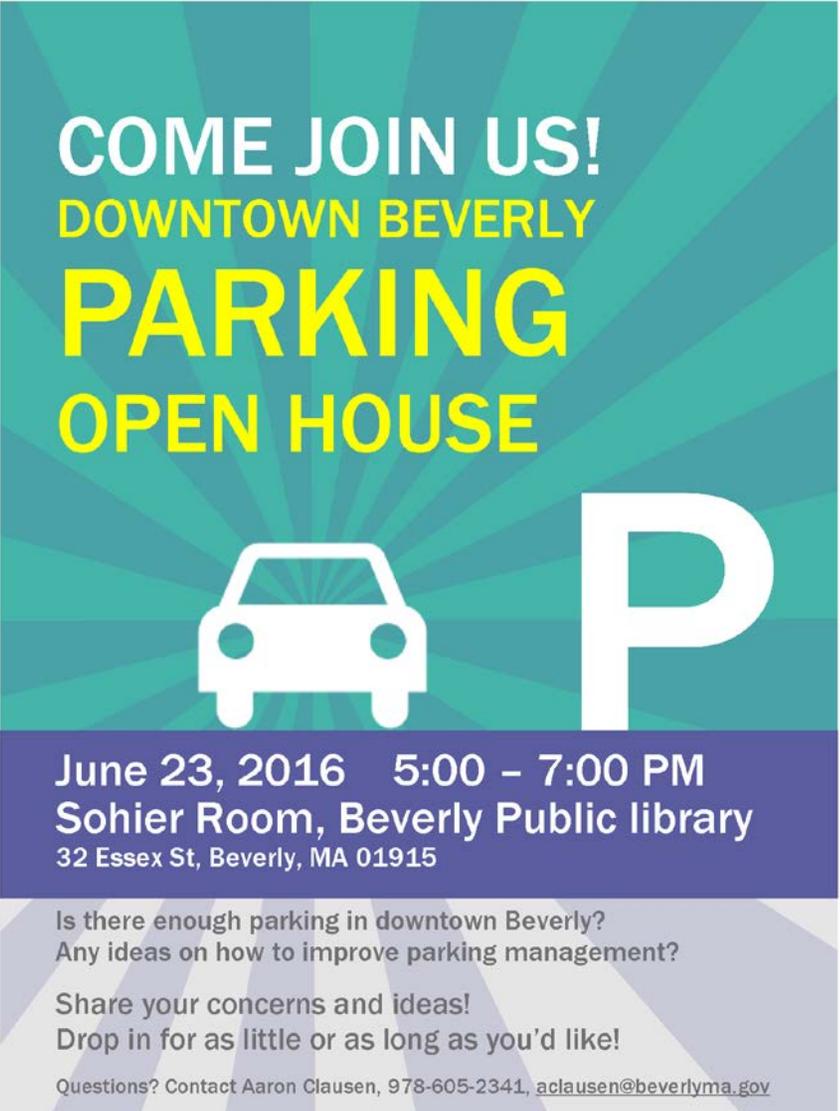
OPEN HOUSE

Over 20 members of the public, ranging from downtown residents, to business owners and City Council members participated in an open-house style public meeting hosted at Beverly Public Library on June 23, 2016. The Open House included a brief presentation of the Study, and a number of engagement and interactive activities. The engagement exercises included a hands-on priority voting dot exercise, a parking confessional mapping exercise, a map identification exercise, an open comment “sticky wall” where general comments about transportation and parking experience are posted on, and a question and answer period.

Open House Key Findings

- Participants also expressed a desire to have a more multi-modal downtown, with better walking, biking environment and public transit services.
- Participants surveyed prefer to park only once and walk to all their destinations when coming to downtown Beverly and are willing to pay for convenient parking for as long as needed.
- Better lighting is needed in public lots and on side streets.
- There are concerns over commuter parking spillover onto residential streets, mainly because:
 - Parking is free with no time limits along some of the streets
 - MBTA garage is not well used and needs incentives
- Safer bicycle facilities and long-term bike parking are desired.
- Wayfinding and parking signage is largely missing.
- GoParkit is a good system that should expand.

Figure 24: Open House Flyer (June 2016)



The flyer features a teal and green sunburst background. At the top, the text reads "COME JOIN US! DOWNTOWN BEVERLY PARKING OPEN HOUSE" in white and yellow. Below this is a white silhouette of a car and a large white "P" for parking. The event details are listed in a dark blue box: "June 23, 2016 5:00 – 7:00 PM, Sohier Room, Beverly Public library, 32 Essex St, Beverly, MA 01915". At the bottom, it asks for input on parking management and provides contact information for Aaron Clausen.

COME JOIN US!
DOWNTOWN BEVERLY
PARKING
OPEN HOUSE

June 23, 2016 5:00 – 7:00 PM
Sohier Room, Beverly Public library
32 Essex St, Beverly, MA 01915

Is there enough parking in downtown Beverly?
Any ideas on how to improve parking management?

Share your concerns and ideas!
Drop in for as little or as long as you'd like!

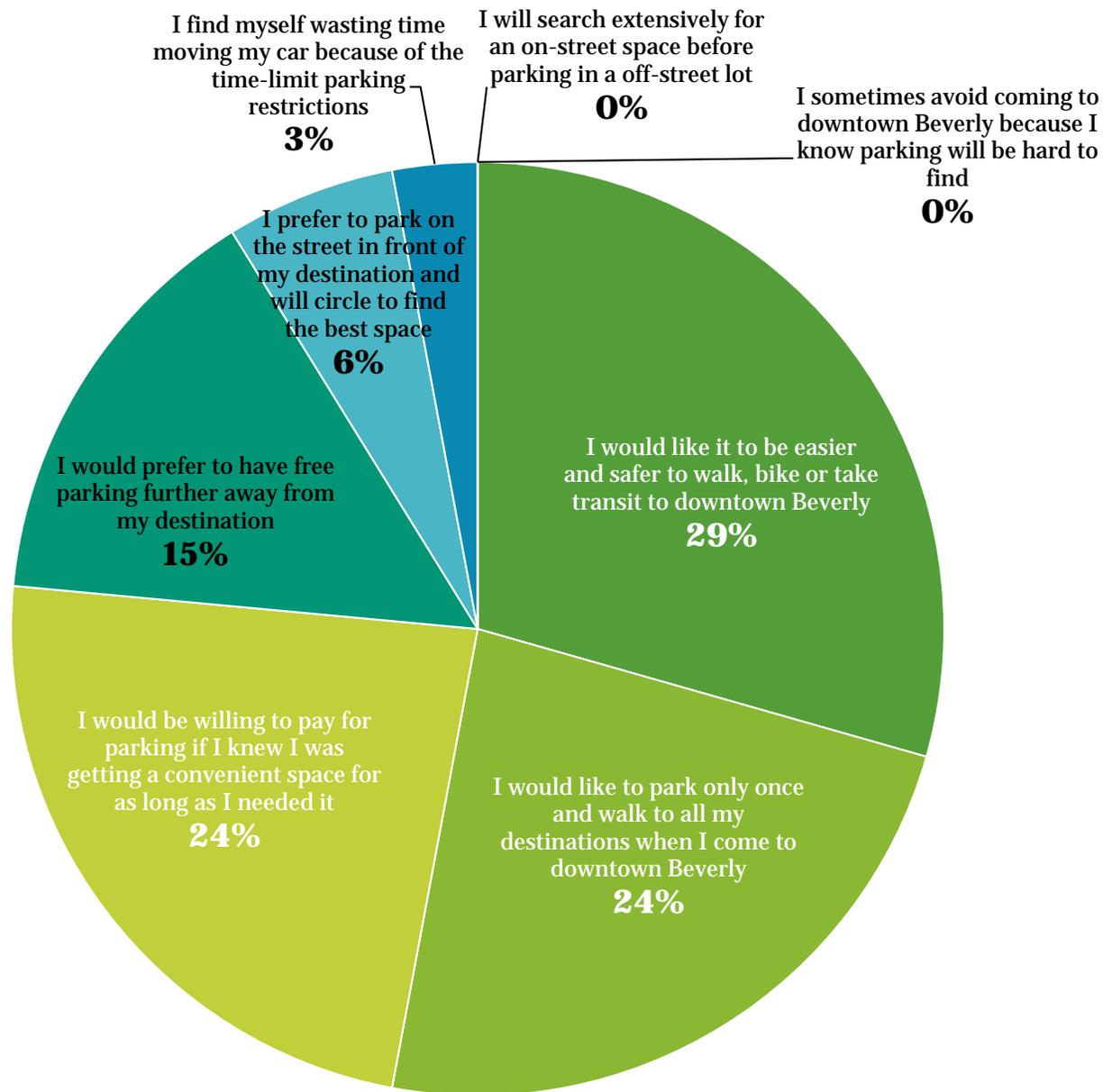
Questions? Contact Aaron Clausen, 978-605-2341, aclausen@beverlyma.gov

Parking Priorities Voting Exercise

Open house participants were invited to “vote” for the parking-related priorities that were of greatest concern to them. With eight potential priorities and only six possible votes, the participants were encouraged to strongly consider their priorities. All six votes could be used on a single statement, one vote each on six statements, or any mix in between. Voting results are shown in Figure 25.

The exercise revealed a local desire for a multimodal downtown in a “park-once” zone. The most votes (29%) were received for a statement that people “would like it to be easier and safer to walk, bike, or take transit to downtown Beverly”. The two statements that received the second most votes (24%) were “park only once and walk to all destinations” and “willing to pay for parking” for as long as needed. All top choices indicate opportunities for infrastructure and parking management improvement to encourage multimodal access to downtown Beverly.

Figure 25: “Dot Voting” Parking Priority Exercise Results



Public Process

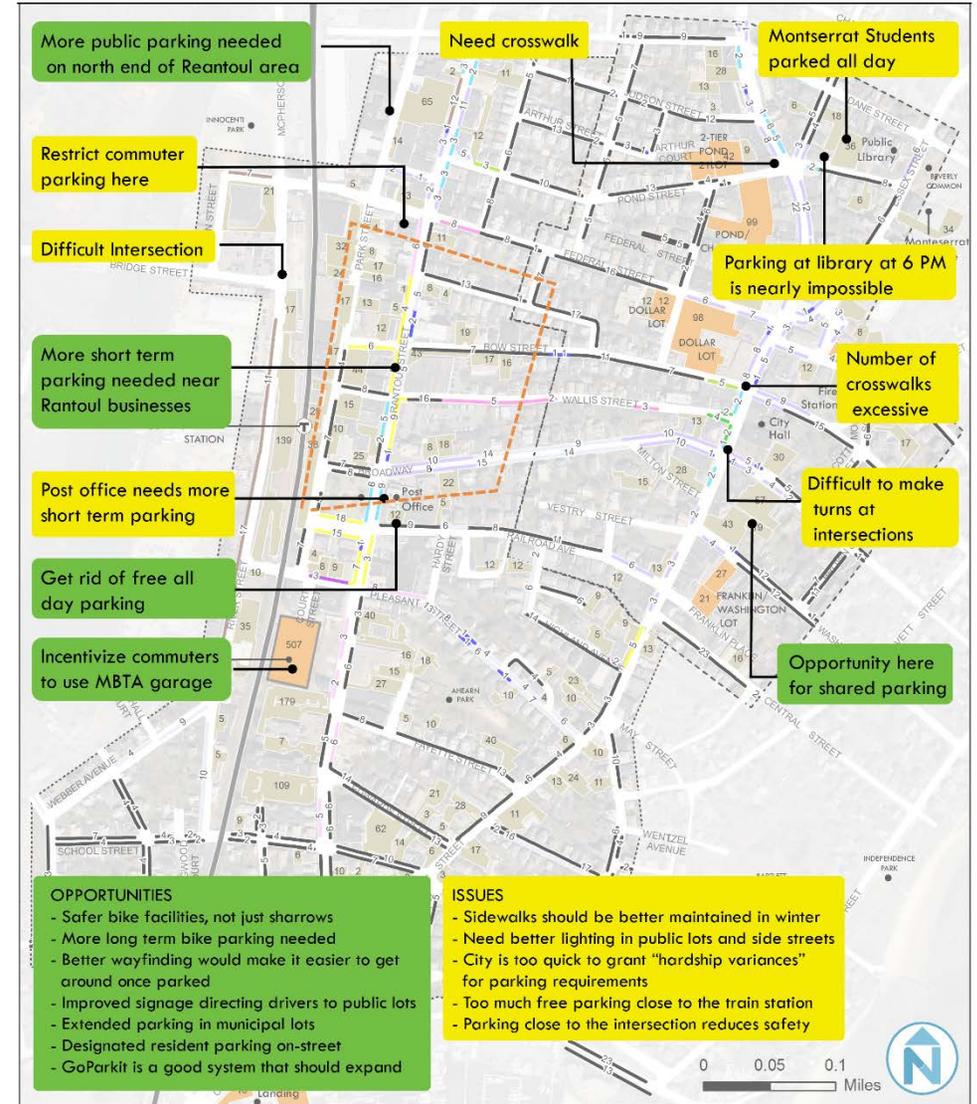
OPEN HOUSE

Mapping Exercise

Participants were invited to share comments regarding their transportation and parking experience in Downtown Beverly. Participants and facilitators marked up maps directly to indicate opportunities, specific places of concern or where good ideas for possible changes could occur. All comments were compiled into the electronic version in Figure 26 which summarizes the notations on the maps, and additional non-location specific comments.



Figure 26: Mapping Exercise Comments

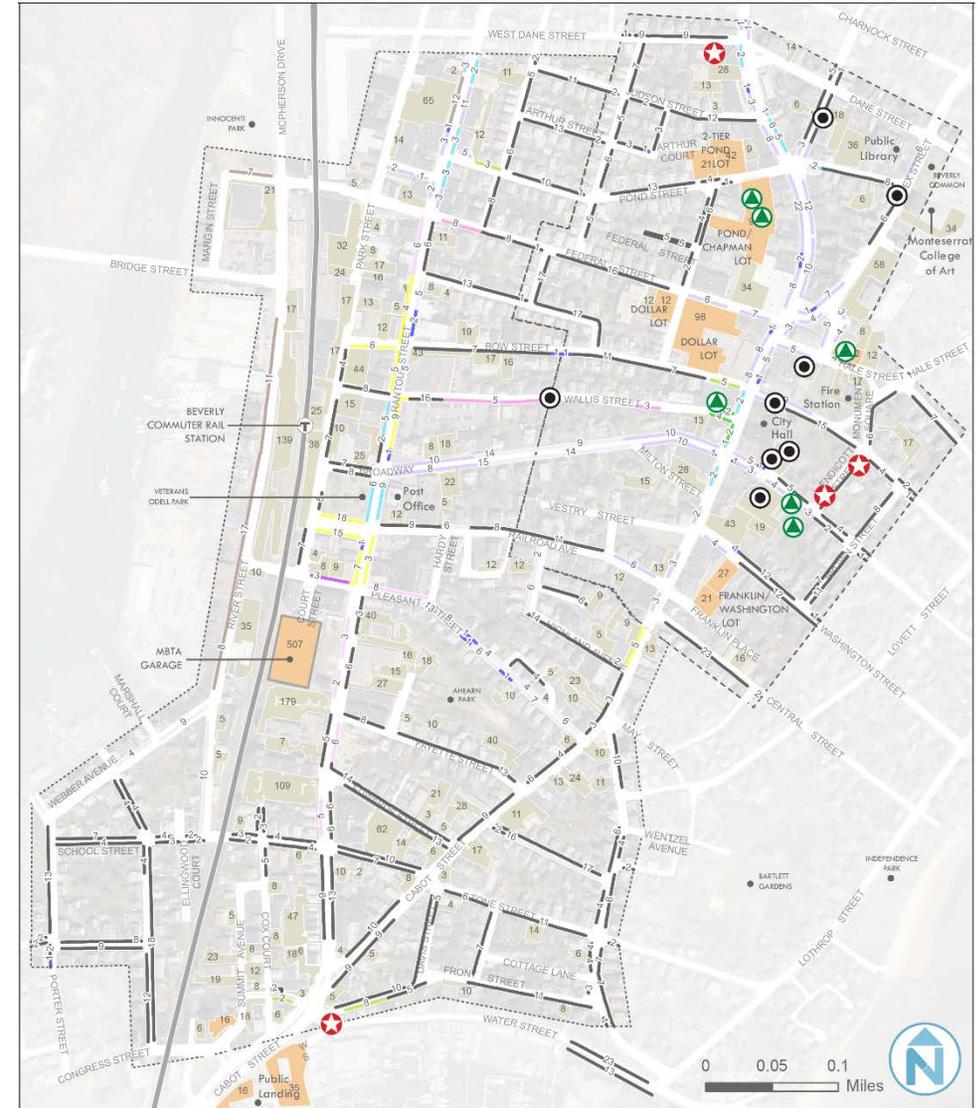


Note: To collect public comments comprehensively, the extended study area along Rantoul Street corridor was included in the public open house discussion

OPEN HOUSE

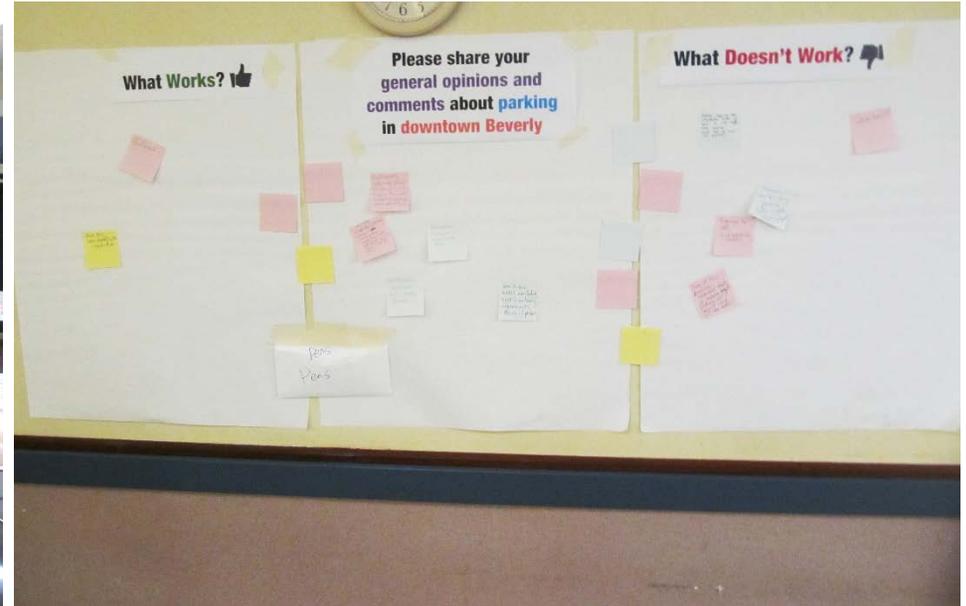


Figure 27: Parking Confessional Exercise



- Legend**
-  My Favorite Place to Park
 -  My "Secret" Place to Park
 -  I wish I could park here

Note: To collect public comments comprehensively, the extended study area along Rantoul Street corridor was included in the public open house discussion





Recommendations



Recommendations

In Downtown Beverly, parking should be managed in a manner that ensures there is both perceived and actual parking availability. The downtown's highest parking demand is primarily concentrated during dinnertime peak hours along Cabot Street where many restaurants locate and evening activities take place. During this evening peak, finding a parking space on or close to Cabot Street appears to be difficult, and finding available parking in nearby public lots is not incentivized and just as hard with little wayfinding information. As most of the downtown business district has time limits for on-street parking, customers, employees and visitors have difficulty finding long-term parking nearby and are constantly fighting for the most convenient curbside spaces.

Parking is never just about parking itself, it also relates to local economic vitality, business health, resident and visitor friendliness, development potential, and the walking and biking environment.

The following recommendations are intended to guide the City's parking management system and resolve the current challenges. These recommendations reflect the conclusions of the study team, observations of the downtown, review and analysis of various City data, and most importantly, input from the participants of the public open house. These suggestions are also informed by parking management best practice as evidenced in a number of similar communities across America that recognize one important point: poorly managed parking spaces constrain economic opportunity for local merchants and business owners, while good parking management supports thriving downtowns. Full implementation of these recommendations will not be possible without continued City and private business/landowner coordination and conversations and a common interest and commitment to improving parking in downtown Beverly.



Recommendations

Create Availability Through Pricing

- Eliminate time limits for metered parking
- Implement demand-based pricing
- Incentivize off-street employee parking
- Protect residential streets

Explore Smarter Parking Management

- Upgrade parking payment technology
- Encourage shared parking between businesses
- Improve event parking management

Enhance Downtown Multimodal Experience

- Provide better parking information and signage
- Create a Parking Benefit District
- Improve walking and bicycling environment

1. Create Availability through Pricing

1A. Eliminate Time Limits for Metered Parking

Today, a large portion of downtown’s on-street parking is managed by various time limits, which limit the length of customer and visitor stays from as short as 15 minutes to 2 hours. With recent reinvestment in downtown and the cultural district, new restaurants, a more attractive retail setting, shows and increasing night activities will increase parking demand and the length of visitor stays. Good economic development policy suggests that inviting patrons to stay for a longer time period will have a positive impact on the local economy.

Eliminating time limits gives visitors and customers parking options to stay as long as they want, while managing demand through pricing can ensure just the right amount of parking availability. It is suggested that all time limits of metered spaces throughout downtown should be removed and regulated only as metered parking, while the adjacent streets in the residential neighborhood will keep the time limits to protect resident parking from commuters.

Availability Goal

A codified availability goal allows the city to change prices in response to actual demand, ensuring that parking is more reliable for users. An availability goal such as 85% occupancy per block (or one to two open spaces per block) would clearly show that the city is working to improve parking availability instead of seeking revenue. This goal could be incorporated in an ordinance or formally adopted by a board.

1B. Implement Demand-Based Pricing

Existing parking utilization patterns indicate clear boundaries of high and low demand for on-street spaces in downtown Beverly. Parking along Cabot Street, from Dane Street to Bow Street - where there are many restaurants, retail outlets and the recently reopened Cabot Theatre - has the highest demand during the evening peak and throughout the day, while many of the metered spaces on the side streets have a lower utilization rate. The regulations and pricing should be changed to be reflective of the demand of these areas, driving utilization up on some of the side streets with a lower price while creating availability on Cabot Street with a higher price.

On-street parking in downtown Beverly (including the core area along Cabot Street and the Commuter Rail station area along Rantoul Street) should be managed using tiered pricing: the highest priced parking should be on blocks with the greatest demand, lower pricing on blocks with modest demand, and free in the areas of little to no demand to maximize the efficient utilization of existing parking supply. Below is recommended initial pricing for on-street parking. The hourly parking price is subject to change upon regular utilization monitoring to achieve the **Availability Goal** for curbside parking.

On-Street Parking Location	Today	Future	Enforcement Span
Core Zone	\$0.25/hr	\$1.00/hr	Mon – Sat 10am-8pm
Secondary Zone	\$0.25/hr	\$0.75/hr	Mon – Fri 10am-6pm

1C. Incentivize Off-street Employee Parking

Commuters are particularly sensitive to the cost of parking, and within a comfortable distance, will look for the least expensive parking available for a full day. Beverly can take a proactive role in managing and accommodating employee parking while ensuring availability of high-demand on-street spaces by incentivizing off-street parking for commuters.

- Price public lots at \$0.50 per hour (lower than on-street parking), Monday-Saturday, 10:00 am-8:00 pm, with no time limits.
- Offer monthly parking permits for commuters, priced at \$25 per month. (Limited quantity available)

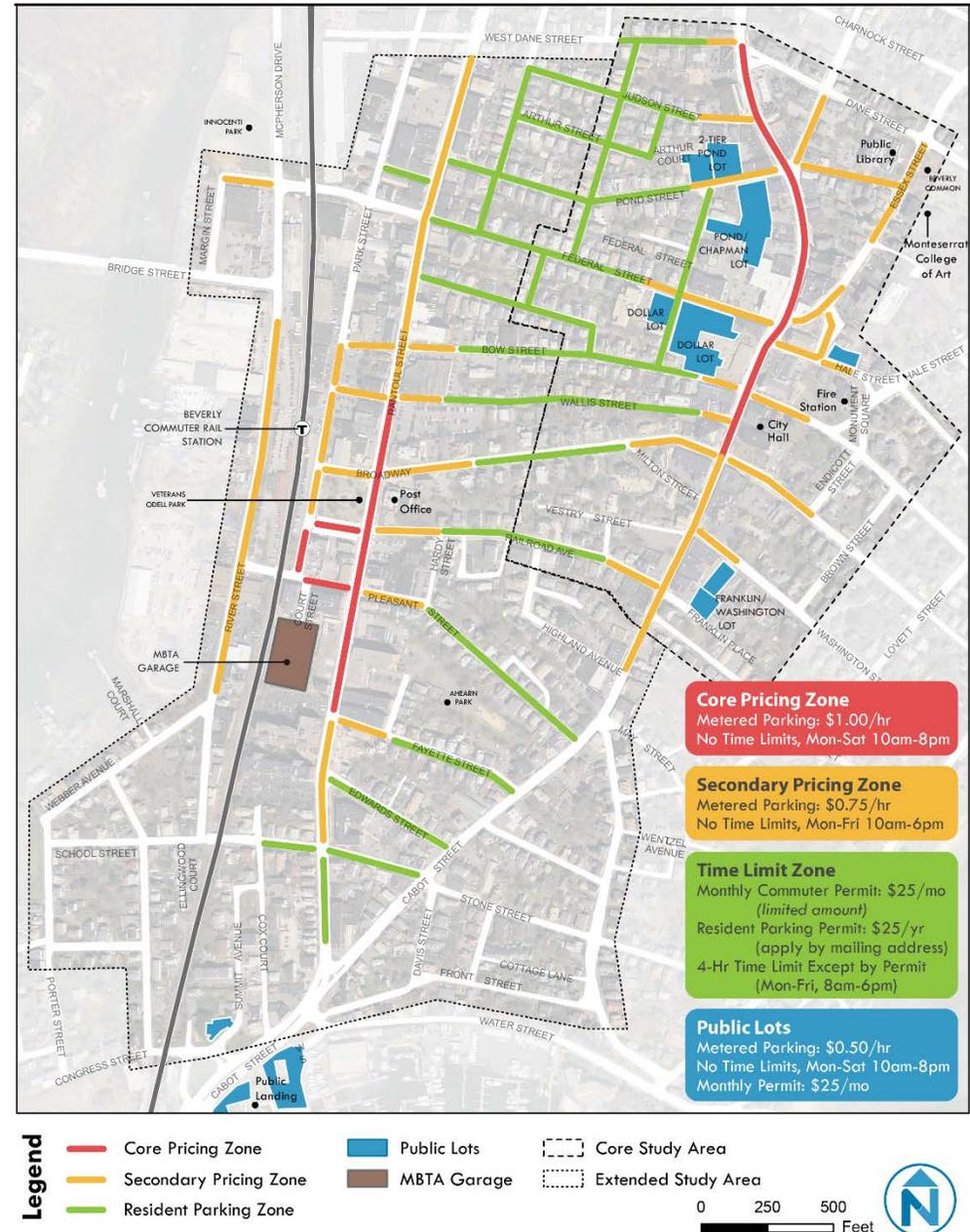
1D. Protect Residential Streets

Demand for parking during peak periods causes spillover into residential neighborhoods, which leaves residents without a place to park. Residential parking permits, price incentives for visitors, and time limits can be employed to protect parking for residents while making efficient use of the city’s parking supply.

It is recommended that the following strategies be implemented on residential streets between the commuter rail station and the core area around Cabot Street:

- Provide residential parking permits at \$25 per year, which residents can apply for based on their mailing address.
- Offer monthly commuter parking permit at \$25 per month, with a limited quantity available for commuters.
- Four-hour time limit except by permit, Monday-Saturday, 8:00 am-6:00 pm.

Figure 28: Parking Pricing Recommendations Overview



2. Explore Smarter Parking Management

2A. Upgrade Parking Payment Technology

Parking management technology has advanced to create a more user-friendly customer and visitor parking experience, allowing use of credit cards and payment by mobile phone. Upgraded parking technologies can also make operations easier by providing capacity to monitor and evaluate parking demand and by streamlining the efficiency of parking enforcement personnel.

Technology can include Smart Meters, parking kiosks, or pay-by-phone smartphone apps. Smart Meters are single-head meters that accept credit and debit cards as well as coins, and can collect real-time and historical utilization information. Kiosks serve multiple on-street spaces, accept all forms of payment, and provide real-time occupancy information. They can operate as pay-by-zone, pay-by-plate, or pay-by-space.

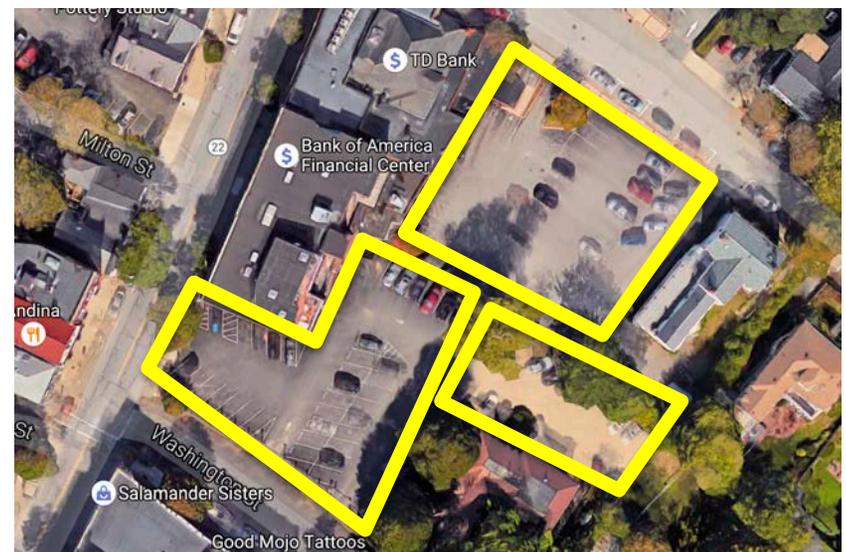
Beverly's GoParkit program is a location-based, pay-by-phone parking app. Users can sign up for an account and quickly pay for parking on through the GoParkit smartphone app. The app also allows users to add extra time remotely. The app should be further advertised, including on the Beverly Main Streets website and on special event websites, as a convenient option for residents and visitors.



2B. Encourage Shared Parking Between Businesses

Shared parking agreements provide an opportunity to make more efficient use of existing parking supply, by addressing the fact that most spaces are only used during certain times of day by particular groups. A shared parking district provides separate set of parking standards, and would also allow and encourage organizations and businesses to cooperate to provide sufficient parking at peak hours for the relevant group. Opportunities for shared parking in Beverly include the following:

- Create a shared parking district (e.g. Beverly Arts District)
- Implement zoning changes to support shared parking and shared parking models for development in downtown
- Directly facilitate shared parking agreements, i.e. the City could lease private parking for public use or act as an agent between two private entities. There are several other arrangements that could work as well, including offering maintenance services in exchange for access to privately owned parking



2C. Improve Event Parking Management

Special events place unique demands on the parking system, while attracting visitors from out of town who know least how to use the system. Each event has a different dynamic, mix of users, and localized impact on parking and transportation.

The City can work with stakeholders to develop targeted Event Management Plans, with specific actions and strategies that can be implemented during events to make parking more efficient and convenient. These strategies may include:

- Provide parking information online in advance of the event, including websites for the city, the Cabot Theatre, and Beverly Main Streets
- Temporary on-street directional signs
- Designate parking facilities for use during event times, and signage during the event that indicates when lots are full
- Provide parking off-site and providing a shuttle, or consider the use of valet parking
- Access for disabled/special permit parking



3. Enhance Downtown Multimodal Experience

3A. Provide Better Parking Information and Signage

Parking and wayfinding signage that is easy-to-read and understand is a critical component to deciphering a parking system. Signage that guides motorists to on and off-street parking deters drivers from excessive cruising and frustration.

A wayfinding program should encourage a “park once” or “park and walk” environment, focusing not just on getting cars into the parking facilities, but getting people to visit multiple destinations on foot without moving their cars. In addition to parking facilities, signage should identify key sites of interest and their approximate walking distance (in minutes), such as area businesses, social activity centers, municipal buildings, and other points of interest. Using street names to rename and brand the municipal parking lots based on their locations also can go a long way to making the system more accommodating.

- **Before You Arrive:** Making parking information available for visitors and customers before arriving to downtown Beverly will allow parkers to plan their trips ahead of time and find parking with ease. Having a single, simple map posted on the City’s website, downtown merchants’ websites, and posted at other activity centers will provide a consistent informational guide
- **At Your Arrival:** Signage should be clearly visible, designed consistently, placed in strategic locations, and should provide clear guidance to and from parking locations. Garages should have easy-to-read entrance signs and exit signs, including rate information
- **During Your Stay:** Providing clear pedestrian signage helps to create and promote a “park once” district, allowing customers to feel comfortable walking to multiple locations on foot



Parking signage should be integrated with the citywide wayfinding system for people both walking and driving.

3B. Create a Parking Benefit District

Many improvements to the parking system, such as upgrading the payment technology or installing parking and wayfinding signage as recommended in previous sections, will require additional funding from the City that may not be readily available.

A best practice is to use net revenue from parking citations, and parking meter fees as contributions to a fund for a Parking Benefit District that is designed to re-invest proceeds back into the downtown district where they were collected. This program would be transparent to the public, so when a patron drops a quarter into a meter, that person knows that their payment first pays for the parking infrastructure but then goes directly towards downtown improvements. When Downtown Beverly's merchants, customers, and residents can clearly see that the monies collected are invested in physical downtown improvements – alleyways, planting, lighting, façade improvements, safety and security, signage, bicycle infrastructure, sidewalks and more – many are willing to support parking policies that generate tangible benefits for downtown Beverly.

Such funds are allowed under State law and recent legislation spells this out more clearly for Massachusetts municipalities. In all examples of benefit districts from around the country, communities have developed support for parking management changes by not only giving local stakeholders input into developing new parking policies but also by letting them decide how a portion of municipal parking revenues should be spent.

Figure 29: Transparency of Parking Benefit Fund - Old Pasadena



3C. Improve Walking and Bicycling Environment

Parking is not just about parking: it is about getting from the car to your destination or destinations, and then back to the car. The City should explore improvements to the walking environment to encourage a more connected network and more pedestrians on the street, which in turns helps others feel safer. Another important benefit of a more connected pedestrian network is that parking facilities are in closer proximity to the driver's destination.

Encouraging walking, cycling, and transit can help to create a “park once” environment where people park their car and visit multiple destinations on foot, effectively reducing the number of parking spaces required to support activity downtown. Relatively small infrastructure investments such as secure bicycle racks encourage and welcome people to travel by bicycle, while improved crosswalks can extend the reach of transit as riders feel safe walking to and from stops.

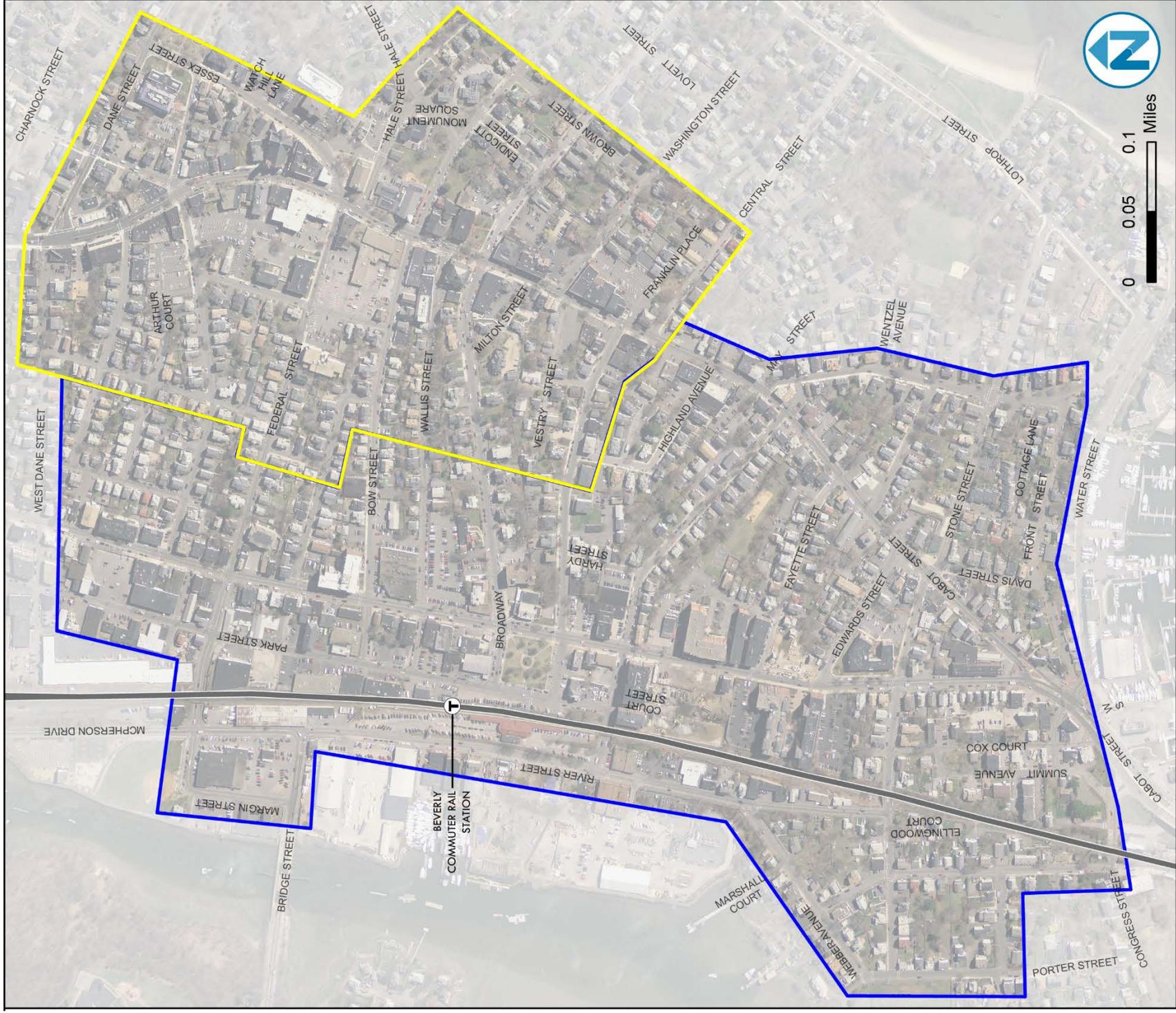
Figure 29: Complete Street Design Example - Neighborhood Main Street





TECHNICAL APPENDICES

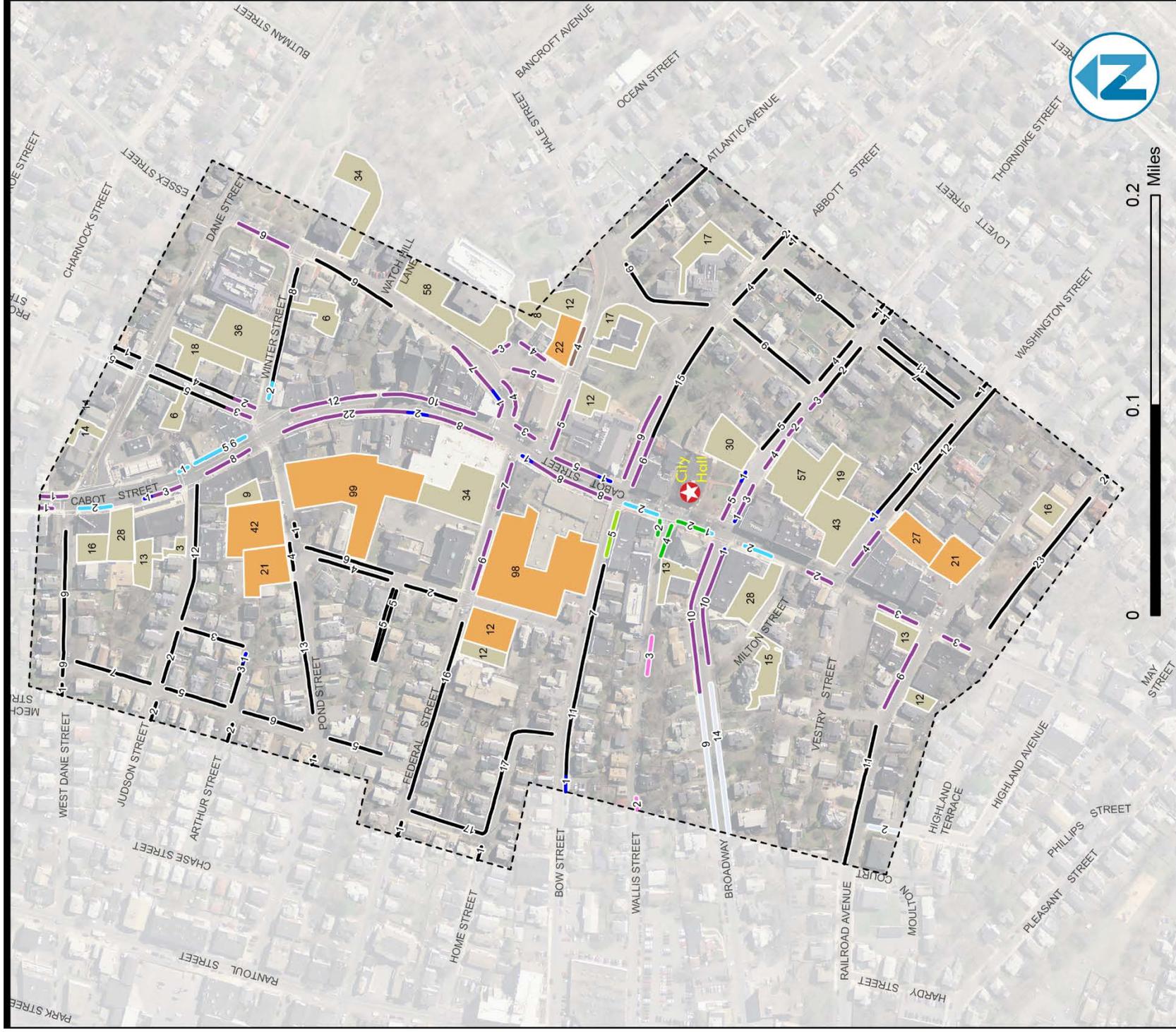
Appendix Figure 1: Study Area Boundary



Legend

- Core Study Area
- Extended Study Area

Appendix Figure 2: Downtown Beverly Core Study Area & Parking Inventory

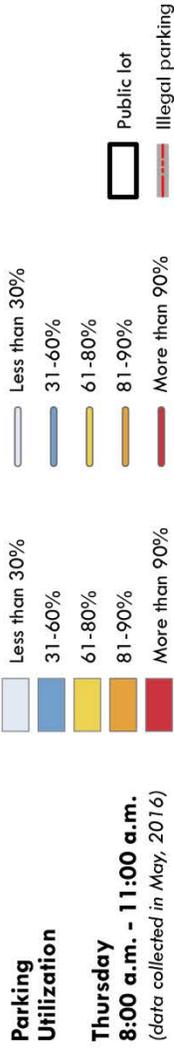
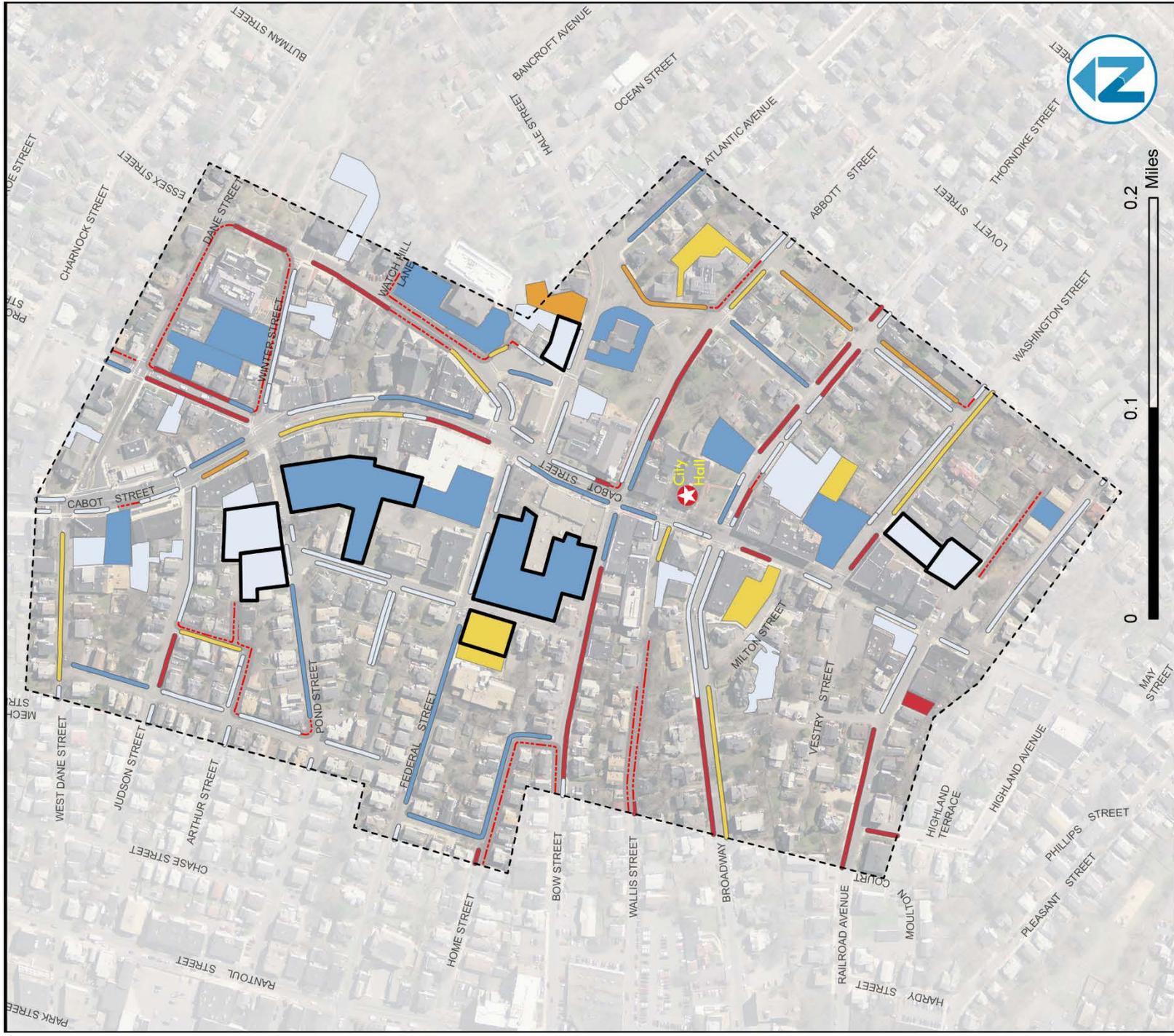


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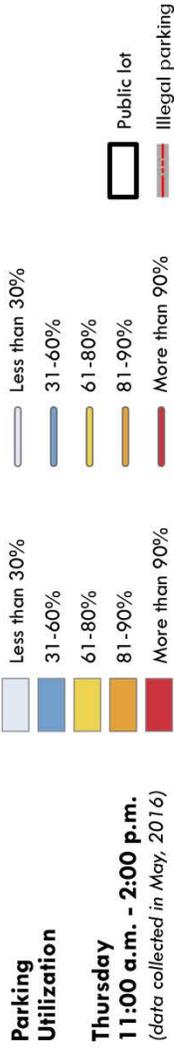
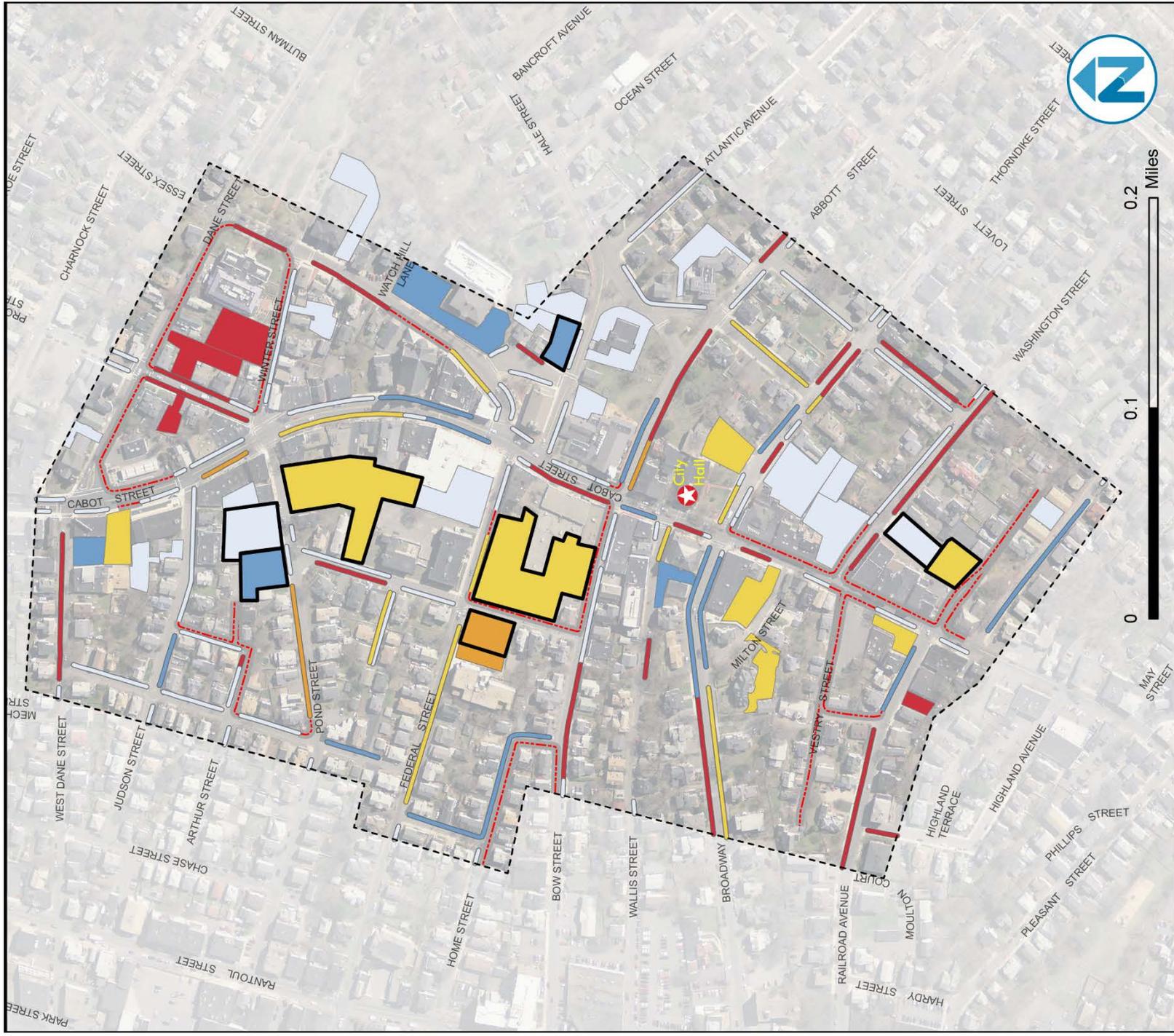
- OnStreet Parking**
- 15 Minute Sign Parking
 - 30 Minute Meter Parking
 - 30 Minute Sign Parking
 - 2 Hour Meter Parking
 - 2 Hour Parking (Mon-Fri 7AM-12PM)
 - All Day Meter Parking
 - Handicap Parking
 - No Parking during Certain Times
 - No Regulation

- Off-Street Parking**
- Private
 - Public

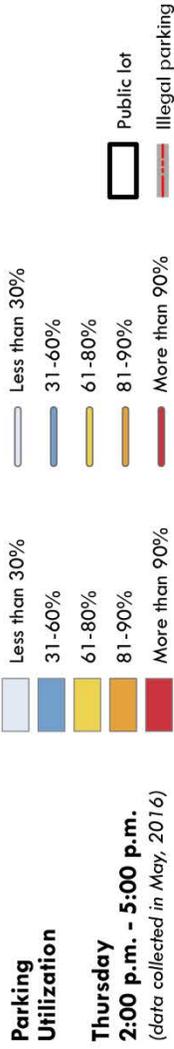
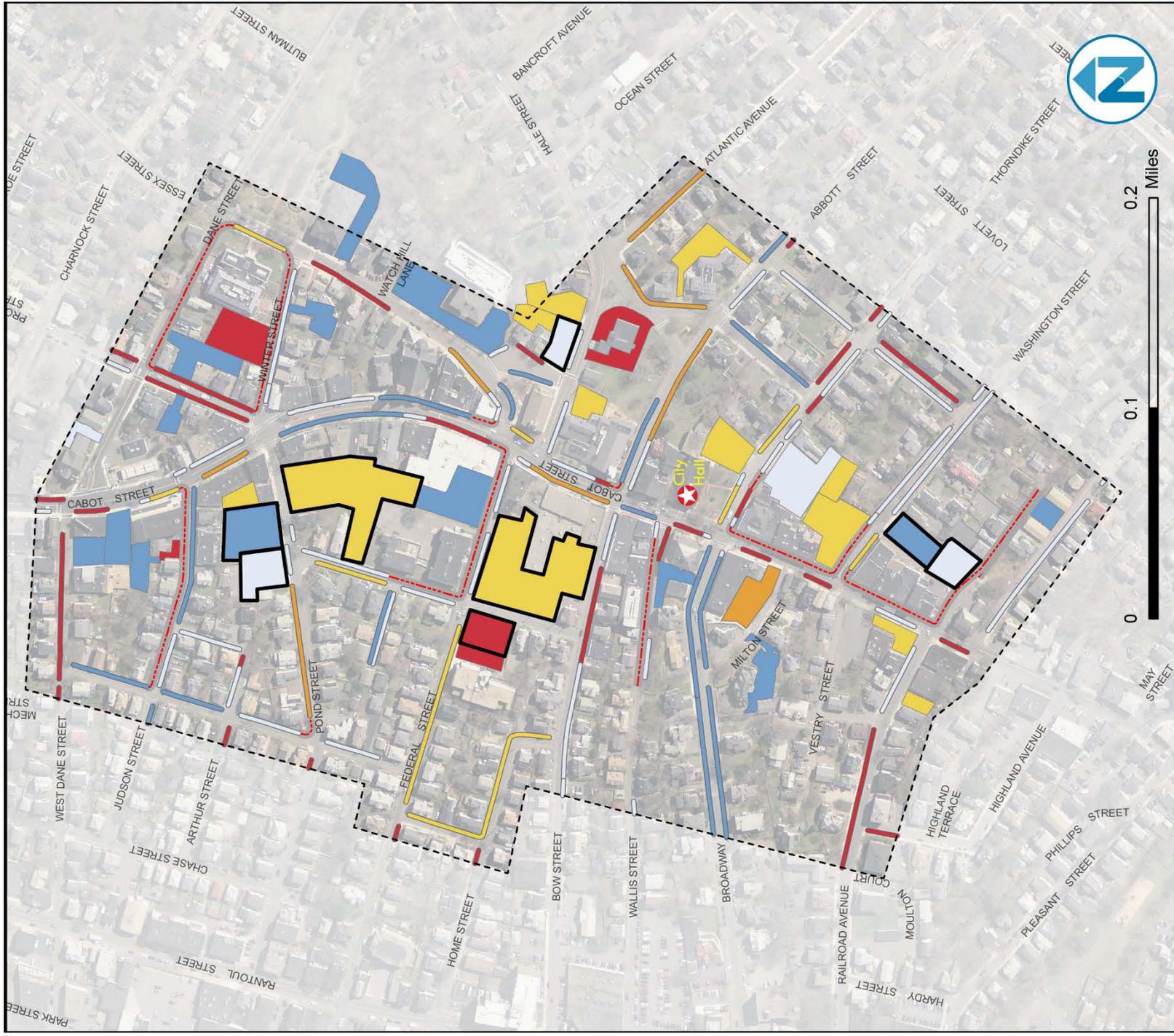
Appendix Figure 3: Downtown Beverly Parking Utilization – Thursday 8am-11am



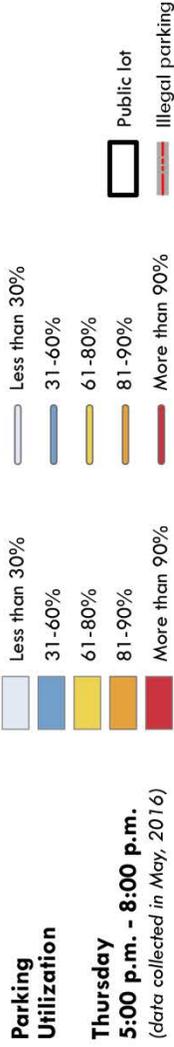
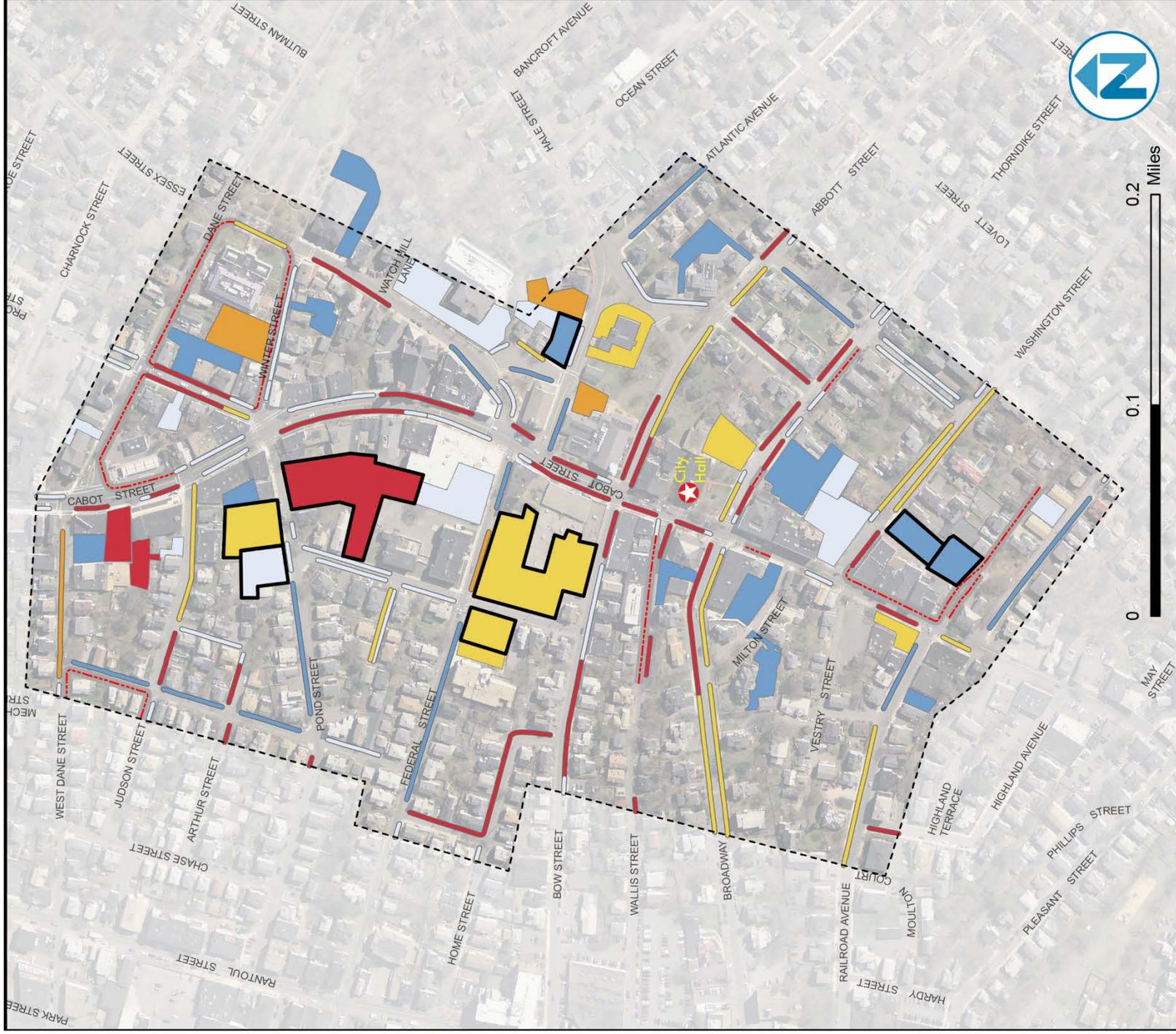
Appendix Figure 4: Downtown Beverly Parking Utilization – Thursday 11am-2pm



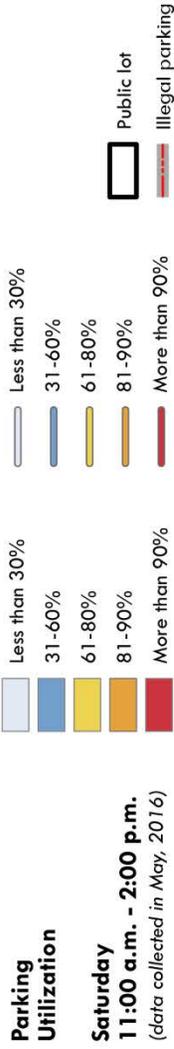
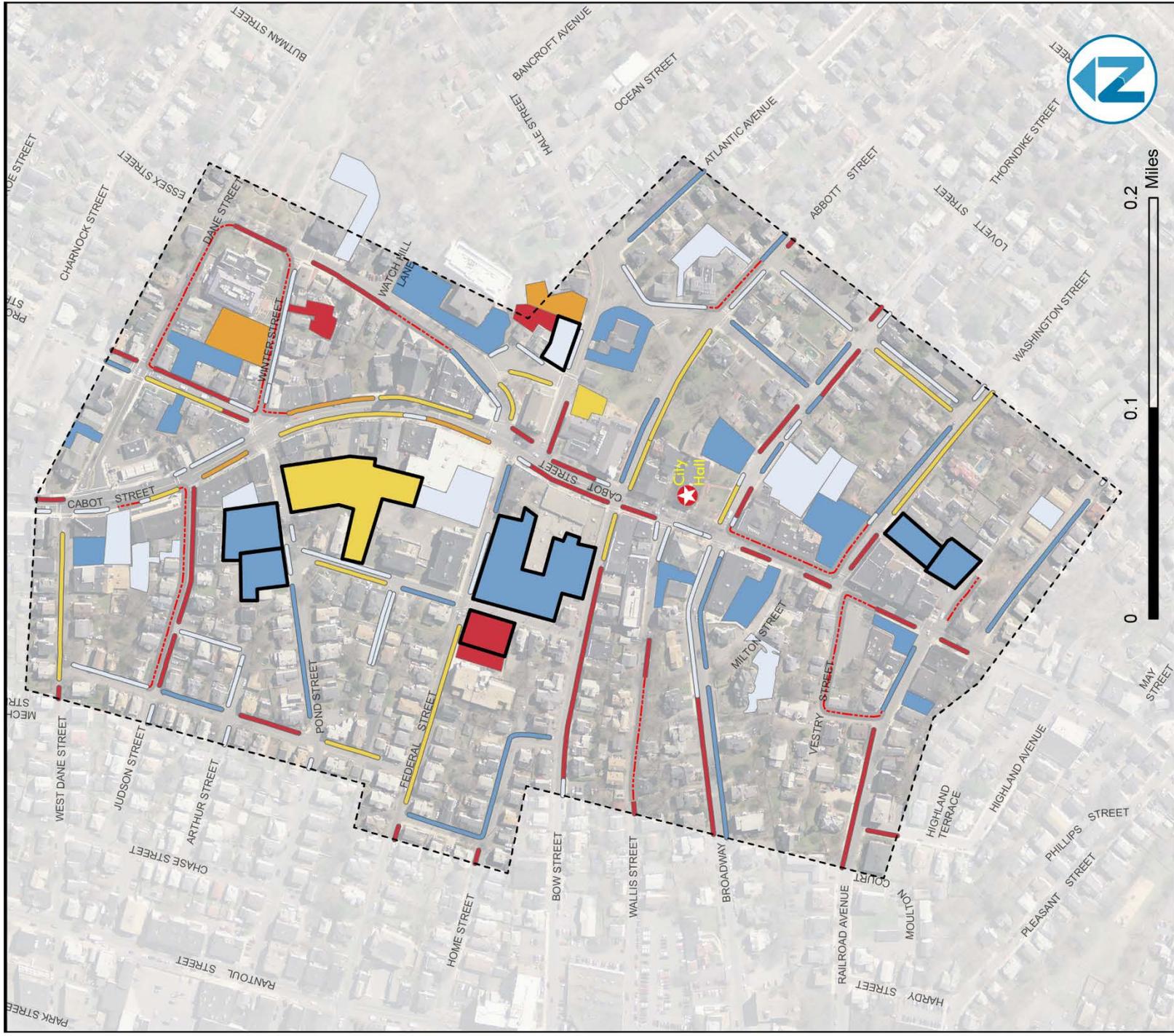
Appendix Figure 5: Downtown Beverly Parking Utilization – Thursday 2pm-5pm



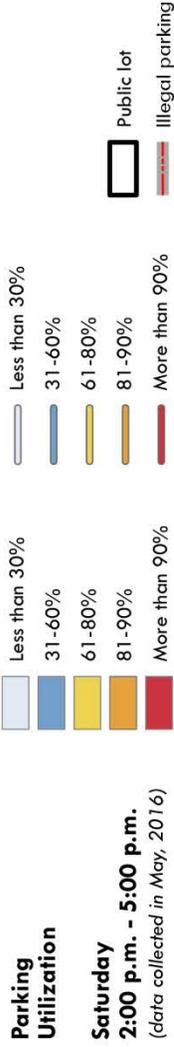
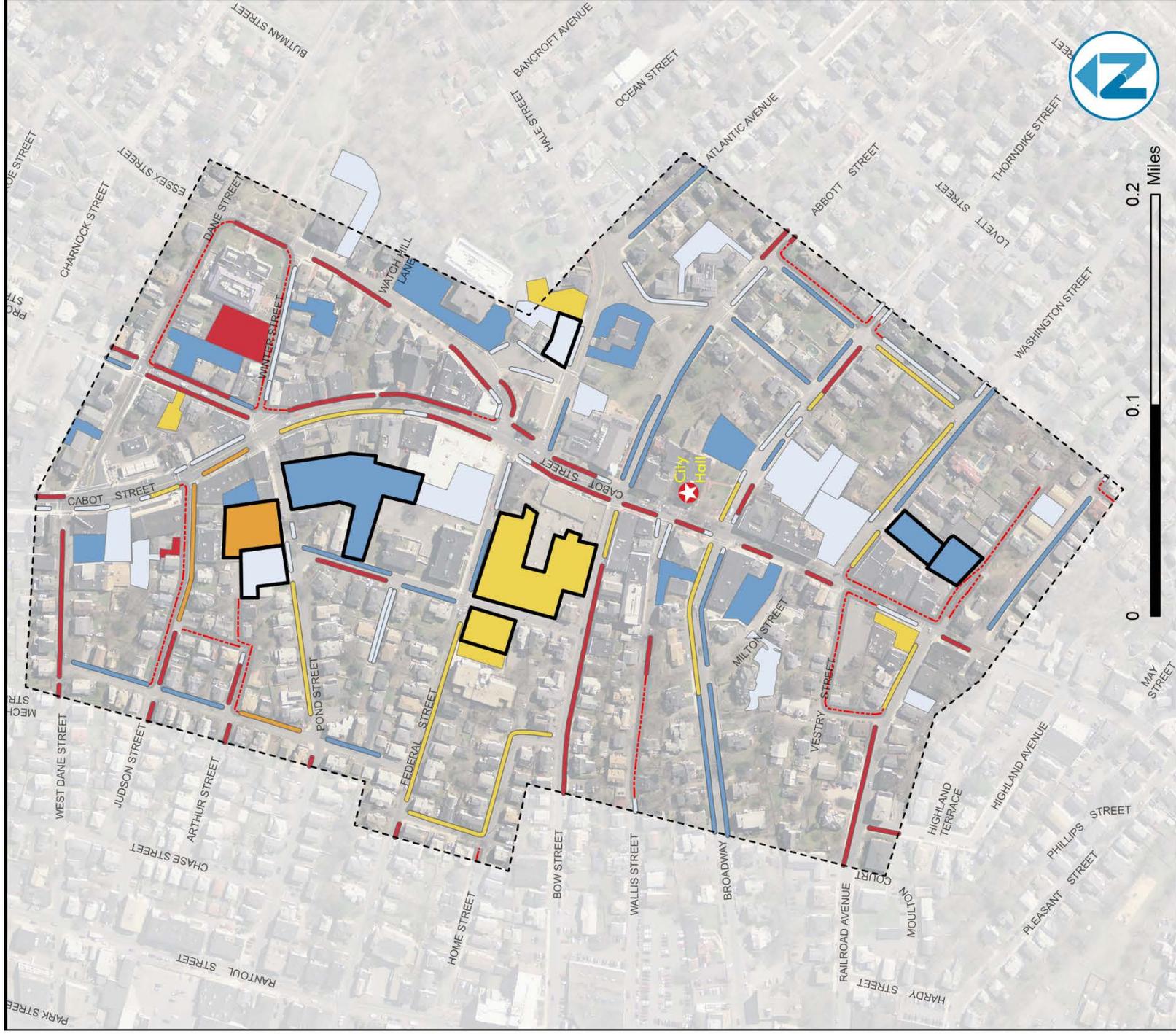
Appendix Figure 6: Downtown Beverly Parking Utilization – Thursday 5pm-8pm



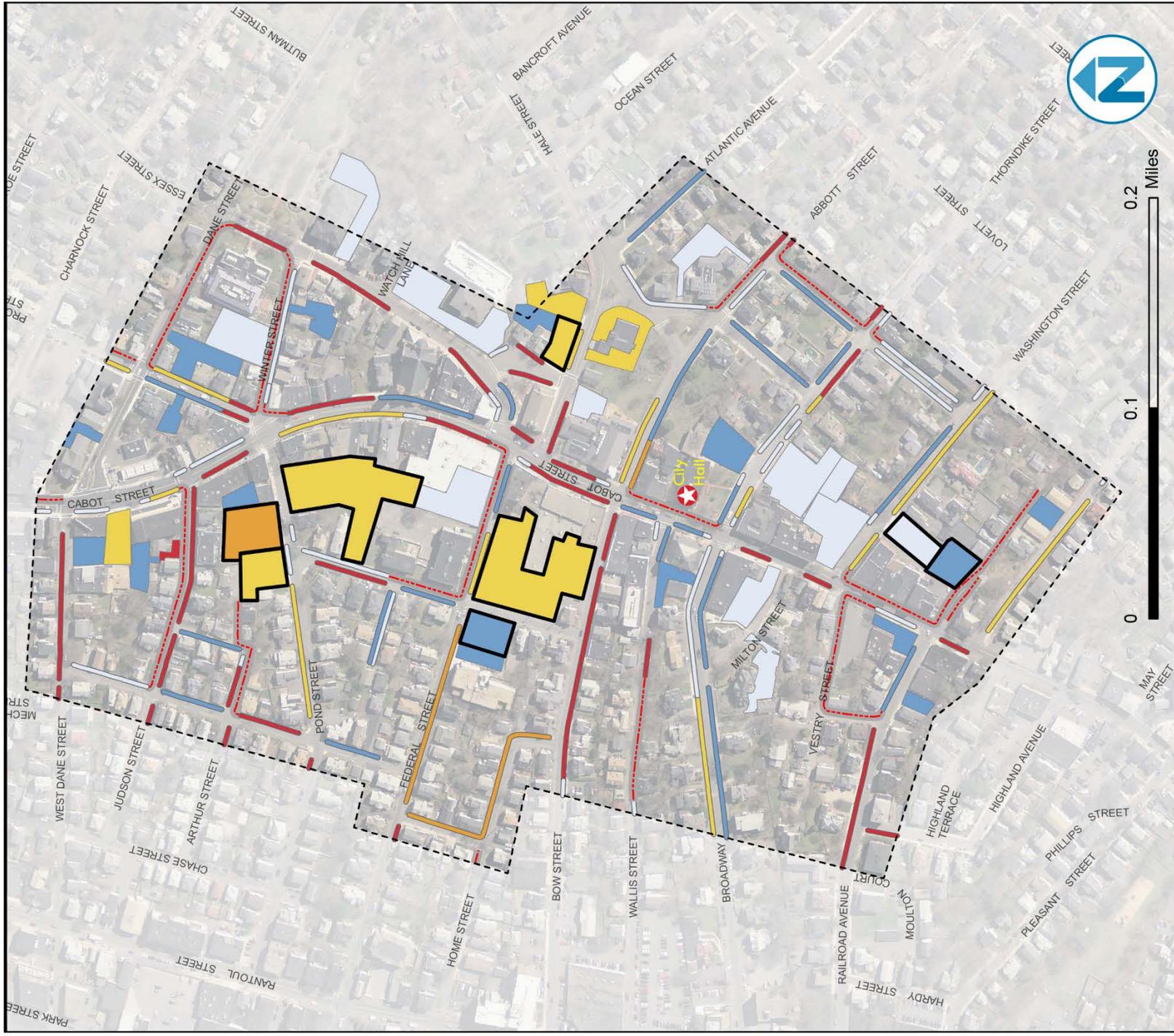
Appendix Figure 7: Downtown Beverly Parking Utilization – Saturday 11am-2pm



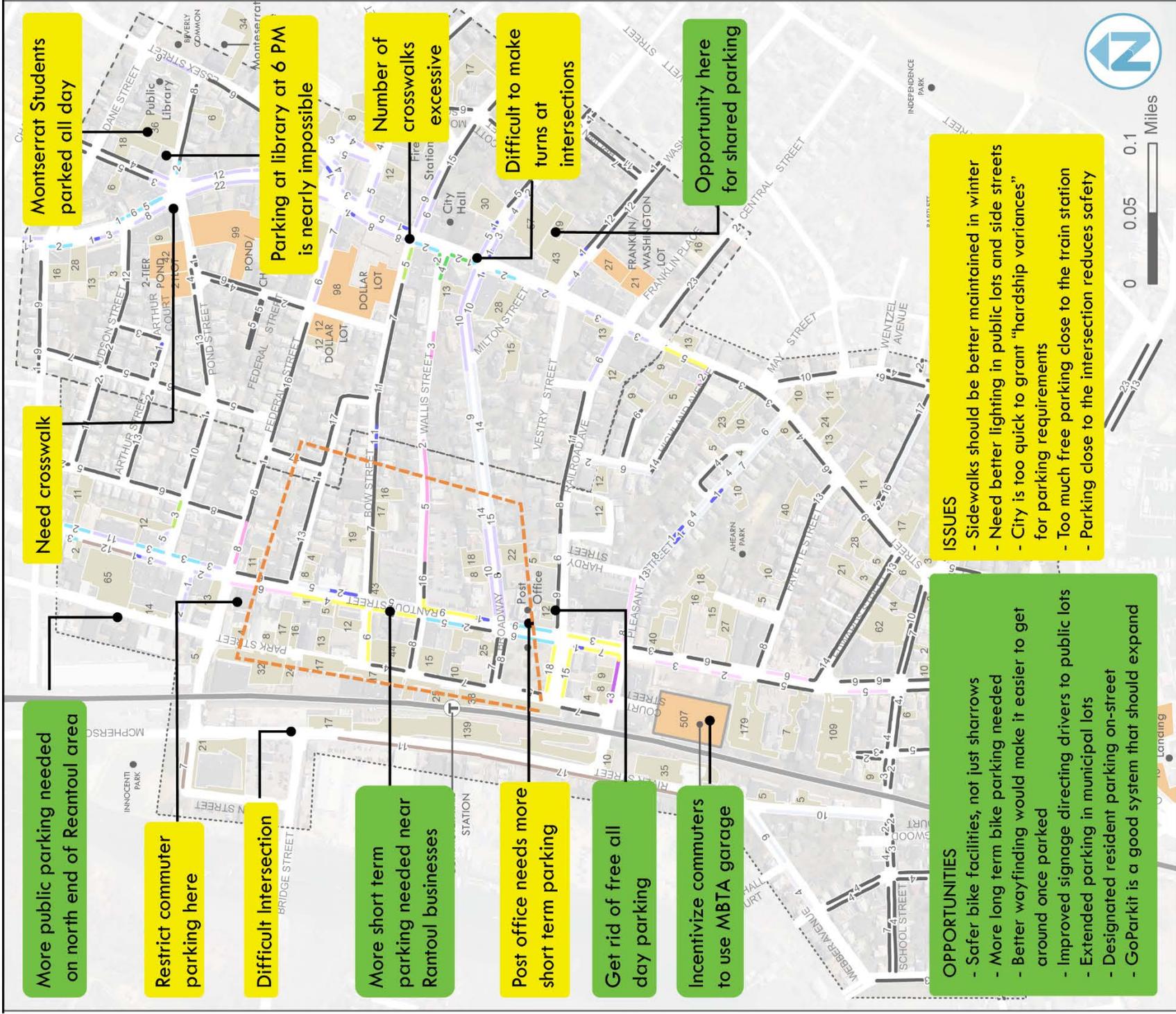
Appendix Figure 8: Downtown Beverly Parking Utilization – Saturday 2pm-5pm



Appendix Figure 9: Downtown Beverly Parking Utilization – Saturday 5pm-8pm



Appendix Figure 10: Downtown Beverly Parking Strategy Open House Mapping Exercise Comments

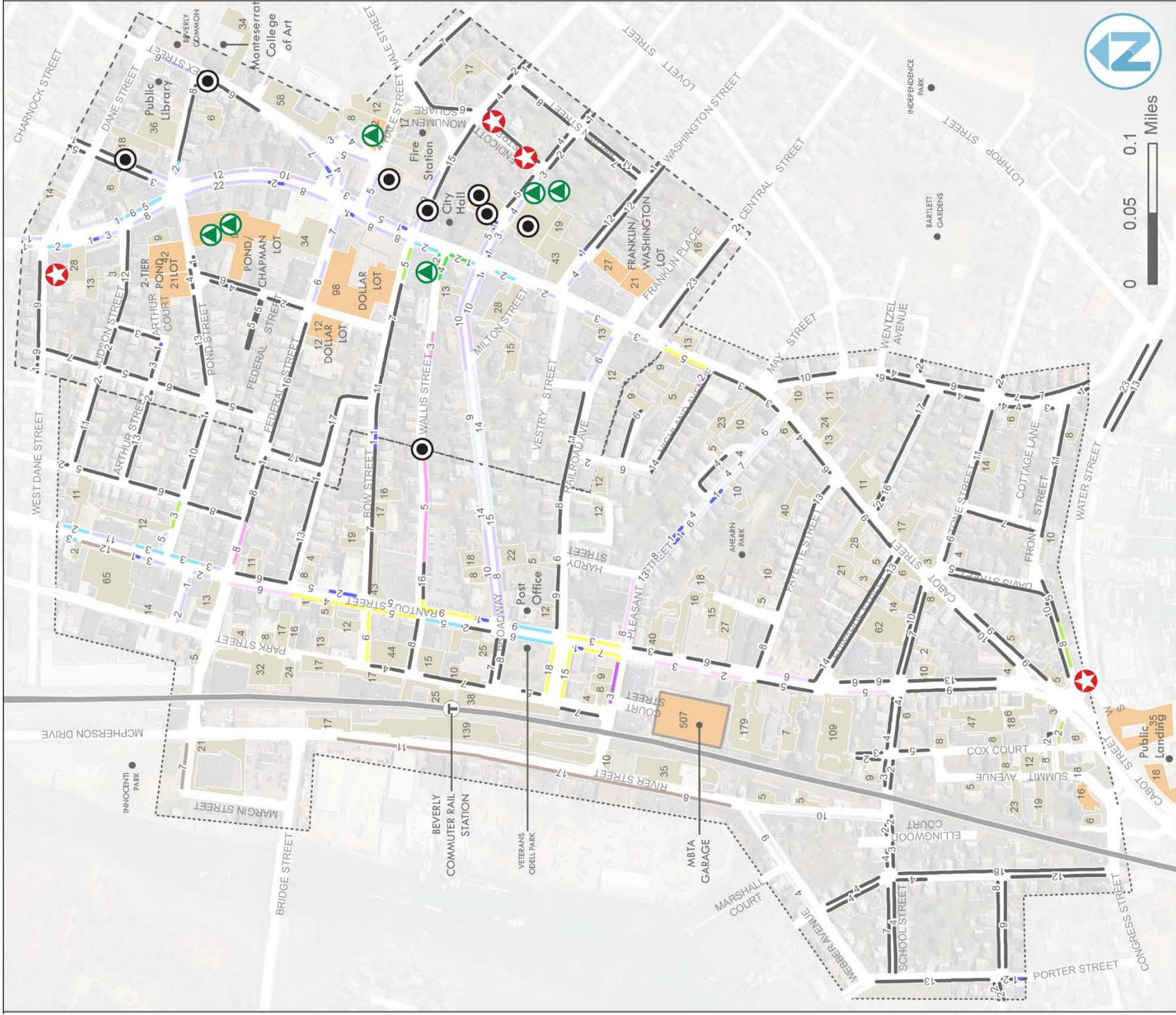


Legend

- Issues
- Opportunities

Note: To collect public comments comprehensively, the extended study area along Rantoul Street corridor was included in the public open house discussion

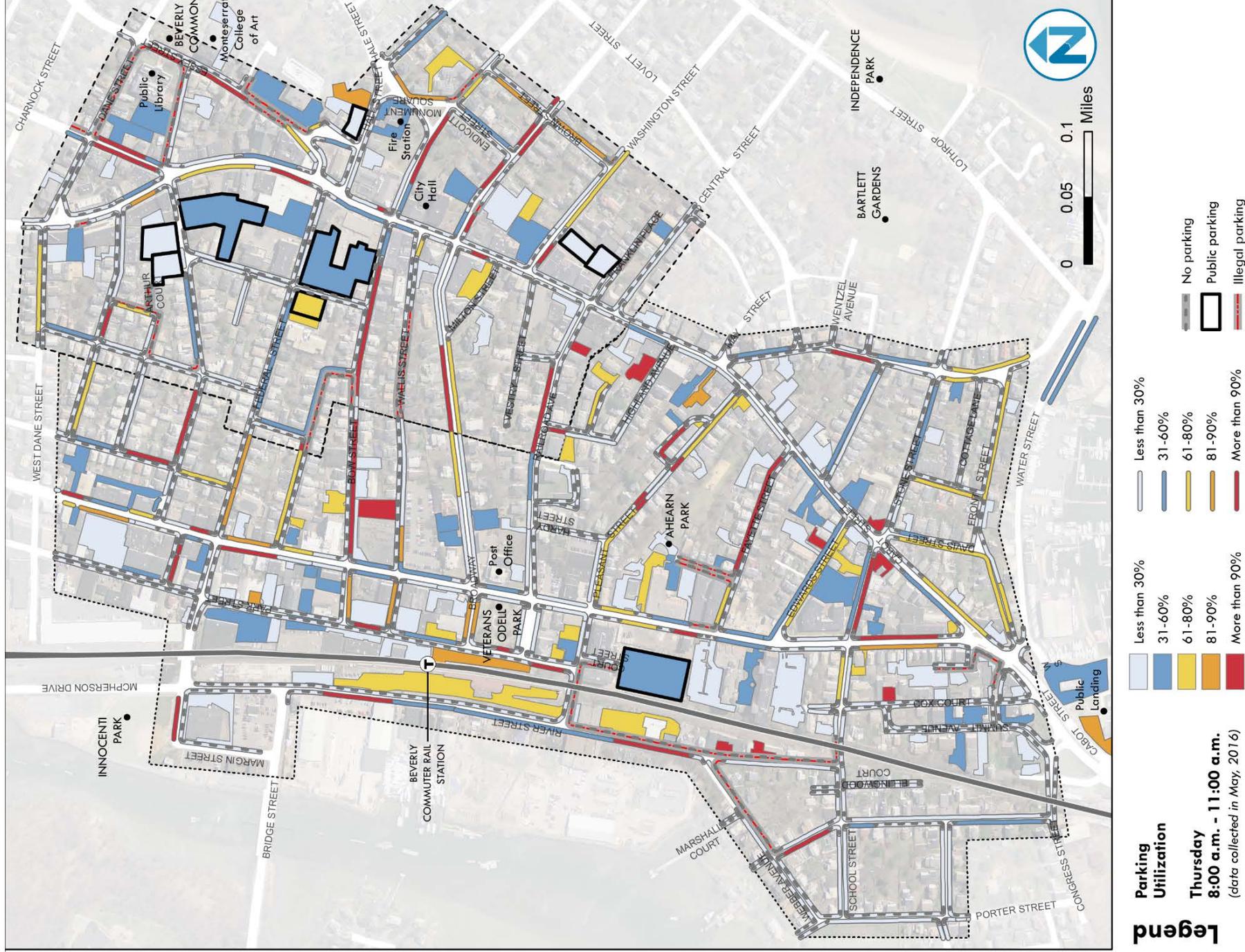
Appendix Figure 11: Downtown Beverly Parking Strategy Open House Parking Confessional Exercise



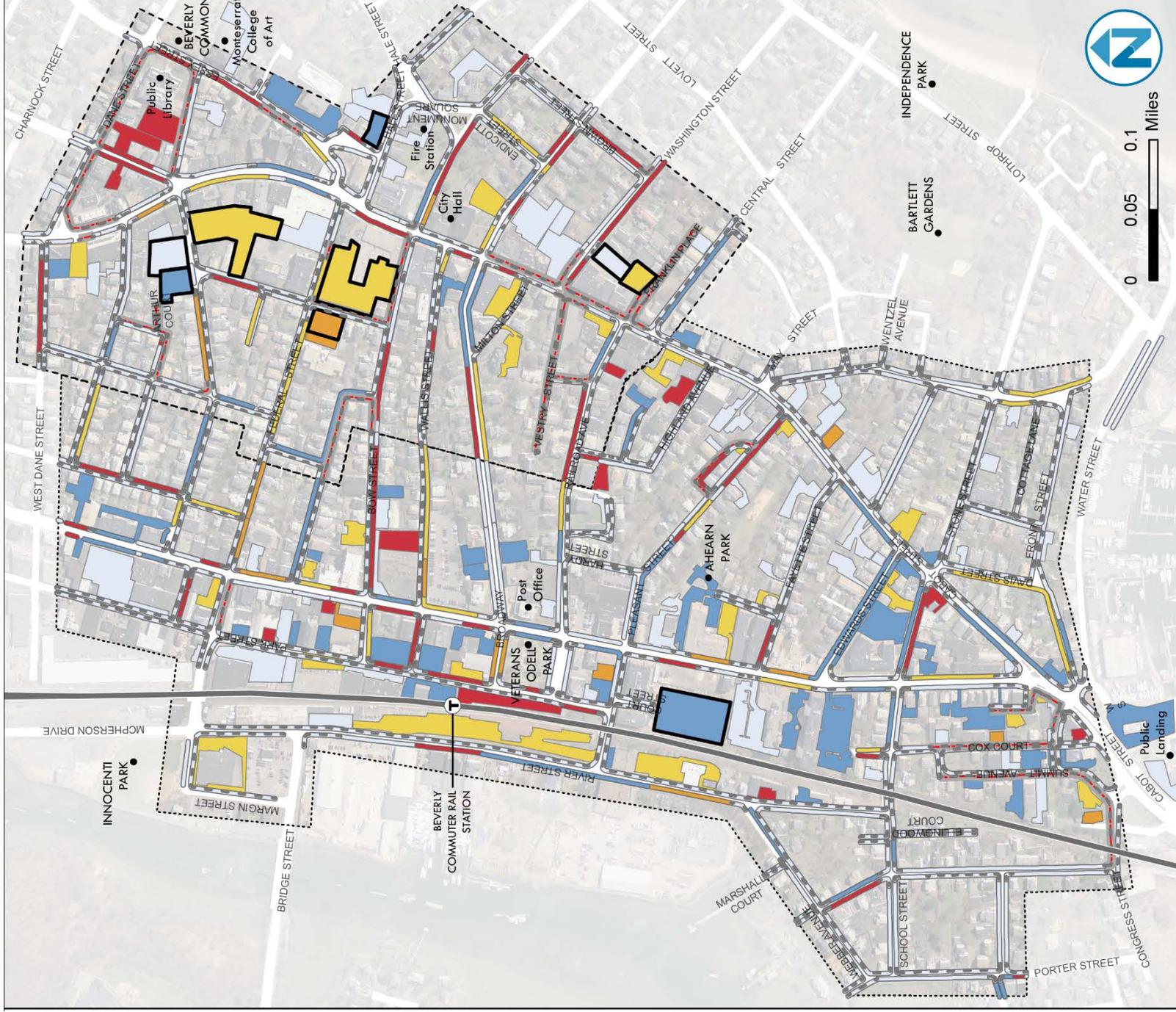
- Legend**
-  My Favorite Place to Park
 -  My "Secret" Place to Park
 -  I wish I could park here

Note: To collect public comments comprehensively, the extended study area along Rantoul Street corridor was included in the public open house discussion

Appendix Figure 12: Downtown Beverly Parking Utilization – Thursday 8am-11am



Appendix Figure 13: Downtown Beverly Parking Utilization – Thursday 11am-2pm

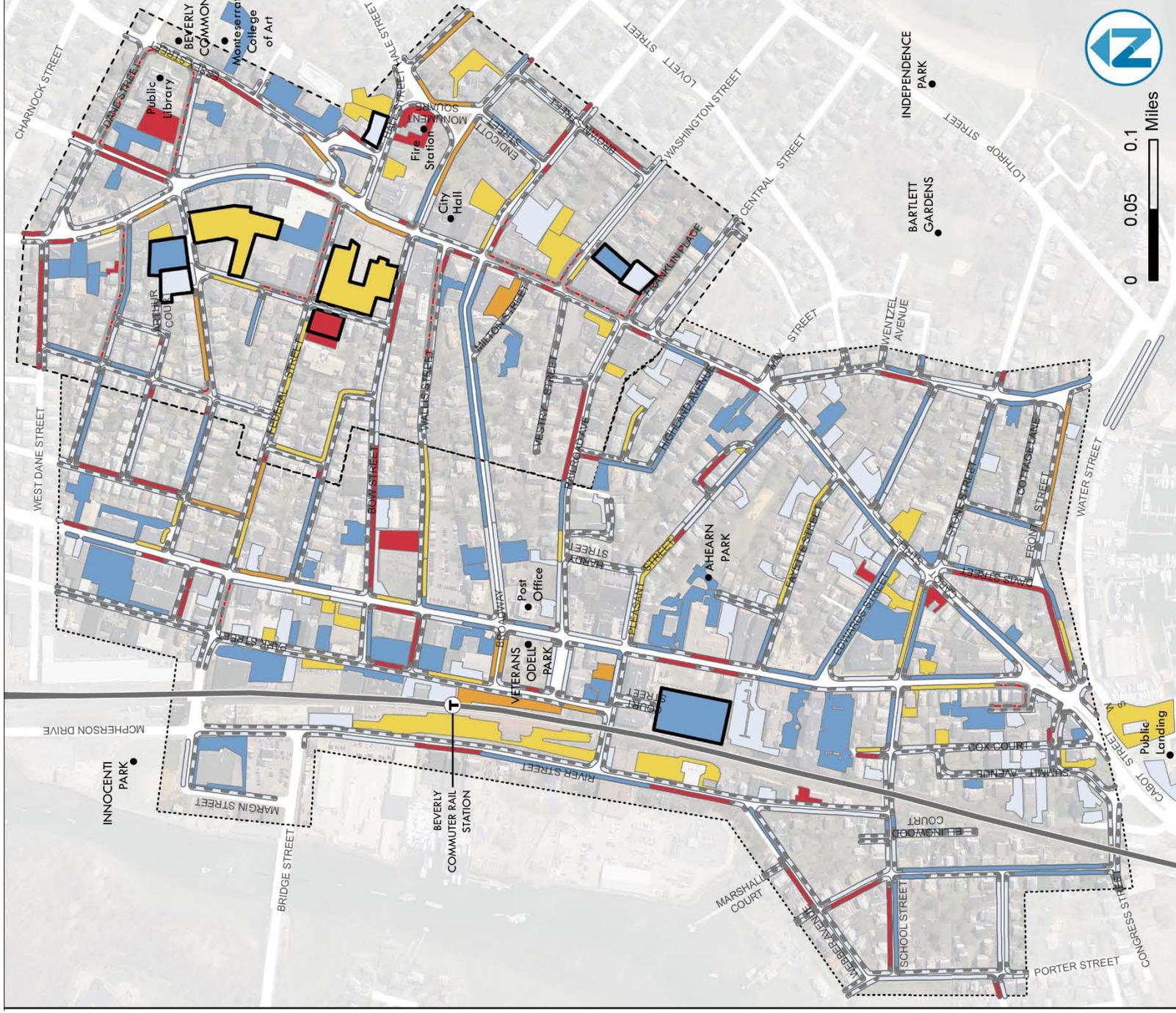


Legend

Parking Utilization
 Thursday
 11:00 a.m. - 2:00 p.m.
 (data collected in May, 2016)

- | | | | |
|--|---------------|--|---------------|
| | Less than 30% | | Less than 30% |
| | 31-60% | | 31-60% |
| | 61-80% | | 61-80% |
| | 81-90% | | 81-90% |
| | More than 90% | | More than 90% |
-
- | | | | |
|--|-----------------|--|-----------------|
| | No parking | | No parking |
| | Public parking | | Public parking |
| | Illegal parking | | Illegal parking |

Appendix Figure 14: Downtown Beverly Parking Utilization – Thursday 2pm-5pm



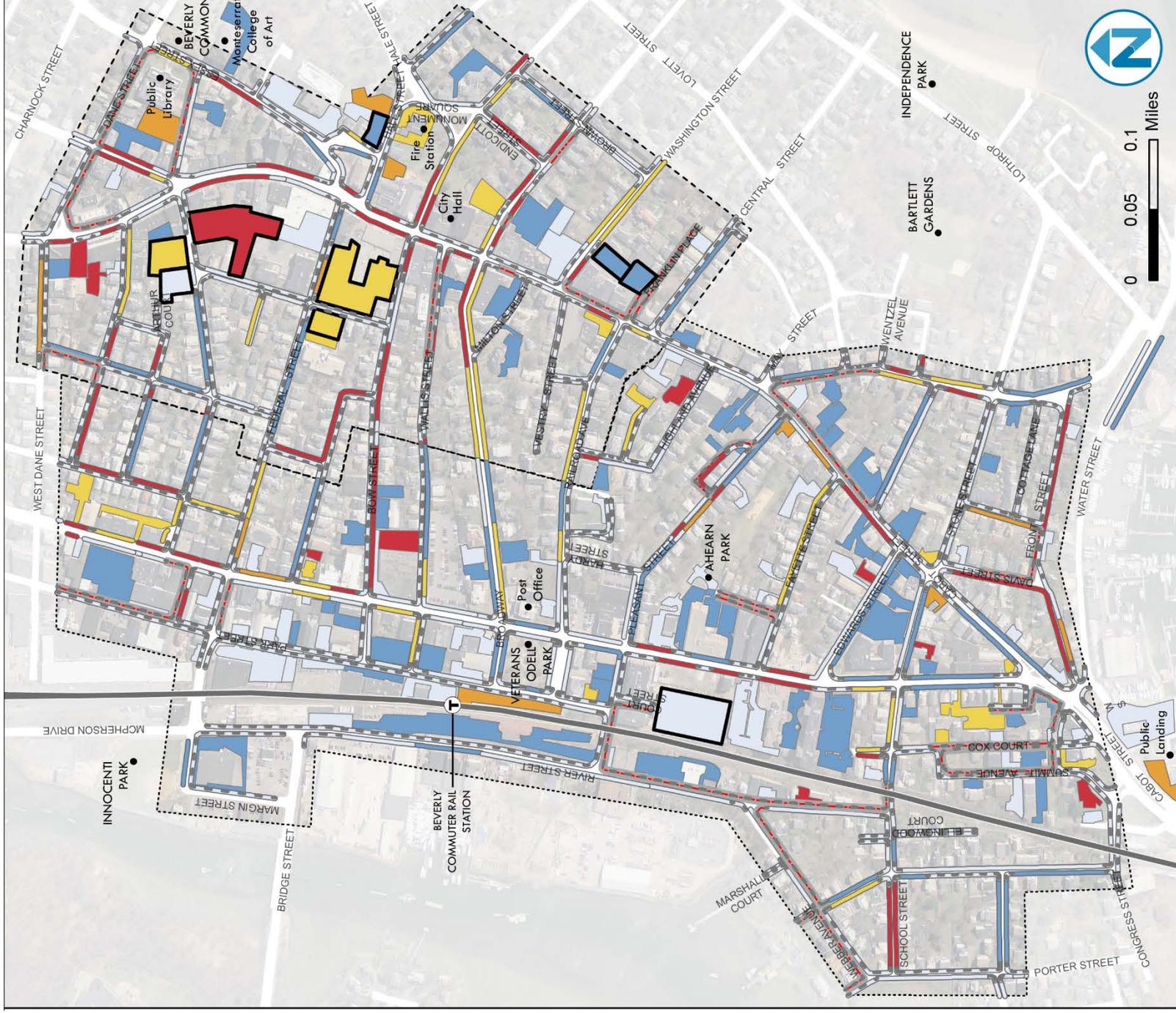
Legend

Parking Utilization
 Thursday
 2:00 p.m. - 5:00 p.m.
 (data collected in May, 2016)

- Less than 30%
- 31-60%
- 61-80%
- 81-90%
- More than 90%

- No parking
- Public parking
- Illegal parking

Appendix Figure 15: Downtown Beverly Parking Utilization – Thursday 5pm-8pm



Legend

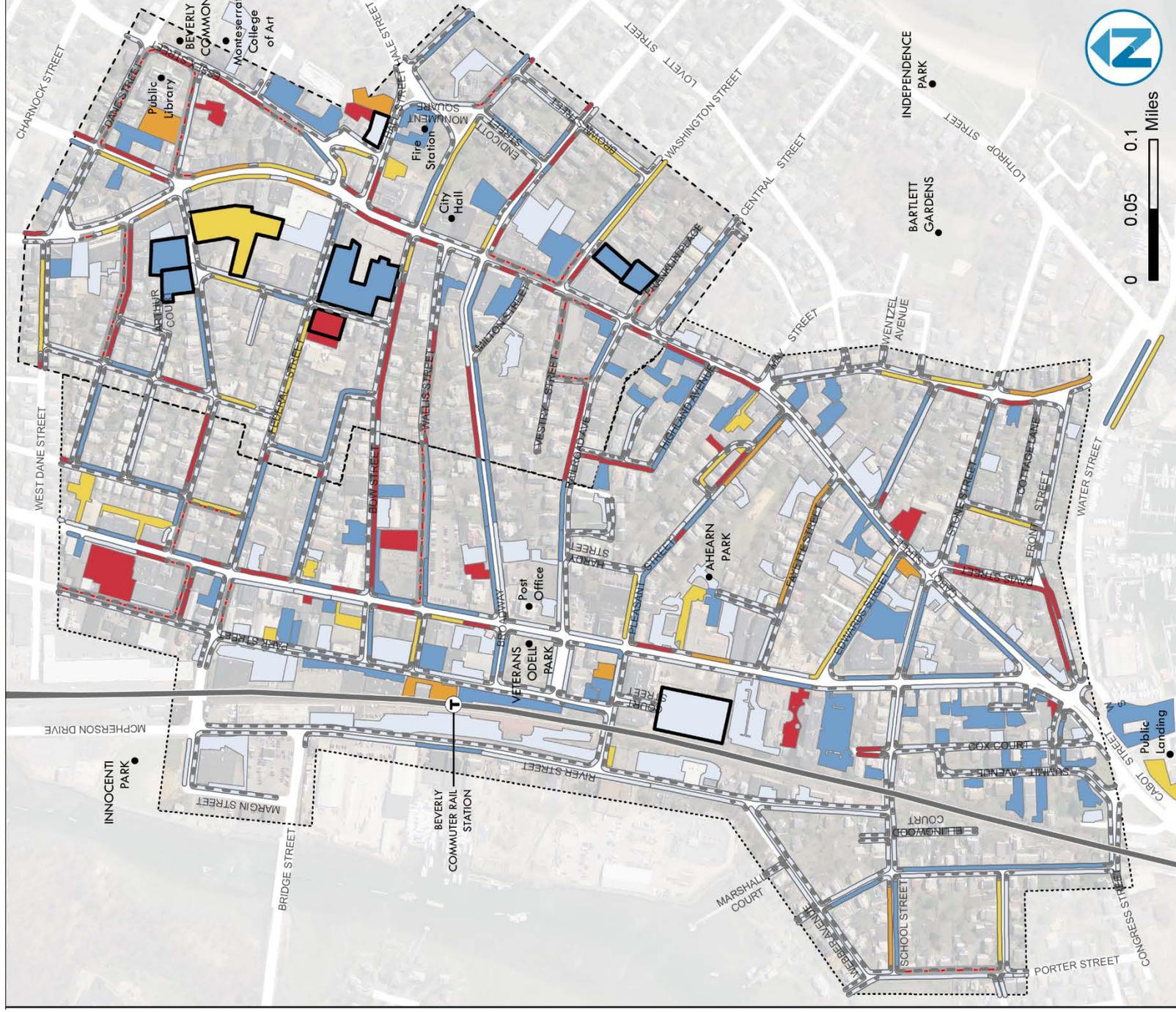
Parking Utilization
 Thursday
 5:00 p.m. - 8:00 p.m.
 (data collected in May, 2016)

- Less than 30%
- 31-60%
- 61-80%
- 81-90%
- More than 90%

- No parking
- Public parking
- Illegal parking



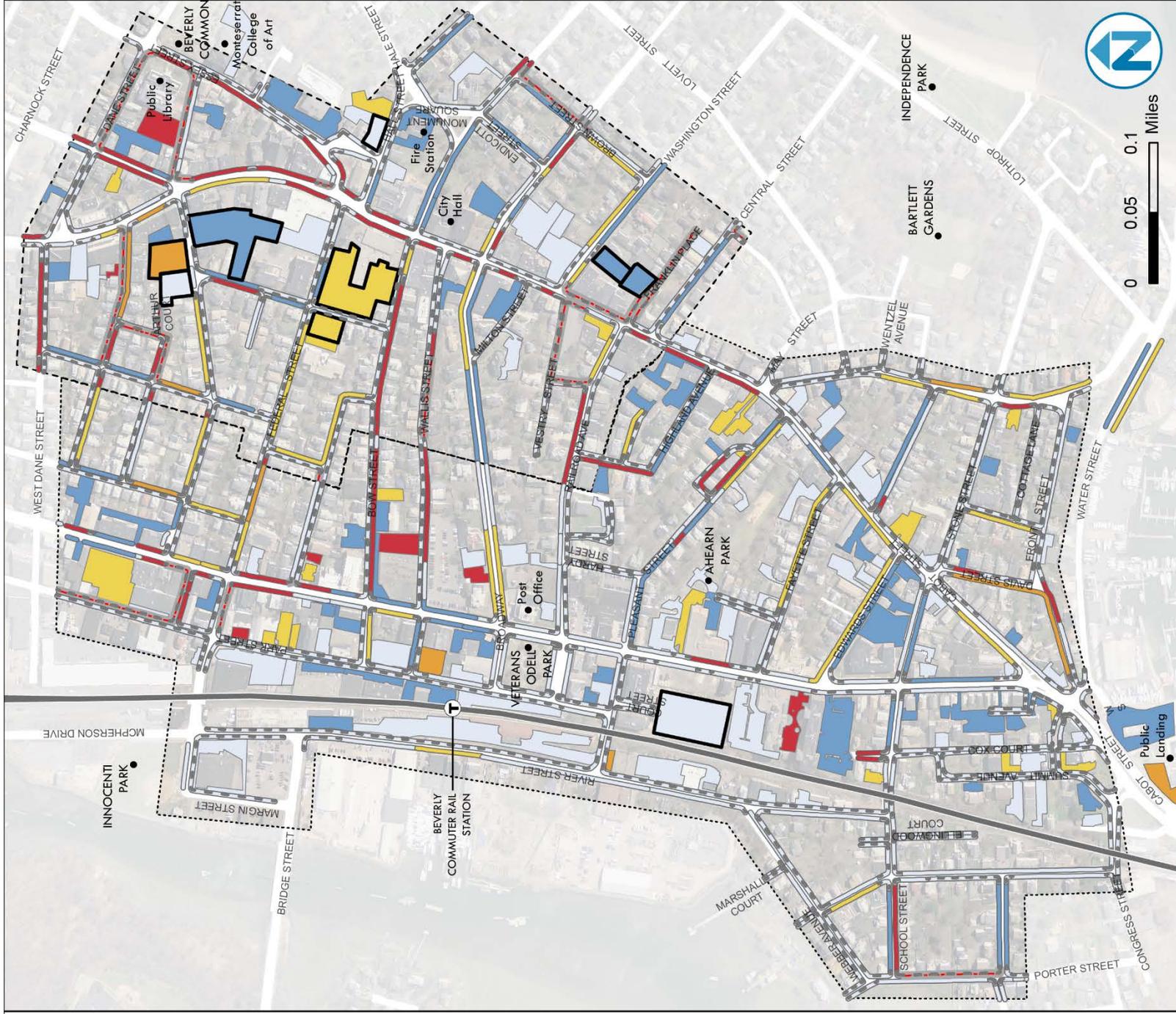
Appendix Figure 16: Downtown Beverly Parking Utilization – Saturday 11am-2pm



Legend

- Parking Utilization**
- Less than 30%
 - 31-60%
 - 61-80%
 - 81-90%
 - More than 90%
- Saturday 11:00 a.m. - 2:00 p.m.**
(data collected in May, 2016)
- No parking
 - Public parking
 - Illegal parking

Appendix Figure 17: Downtown Beverly Parking Utilization – Saturday 2pm-5pm

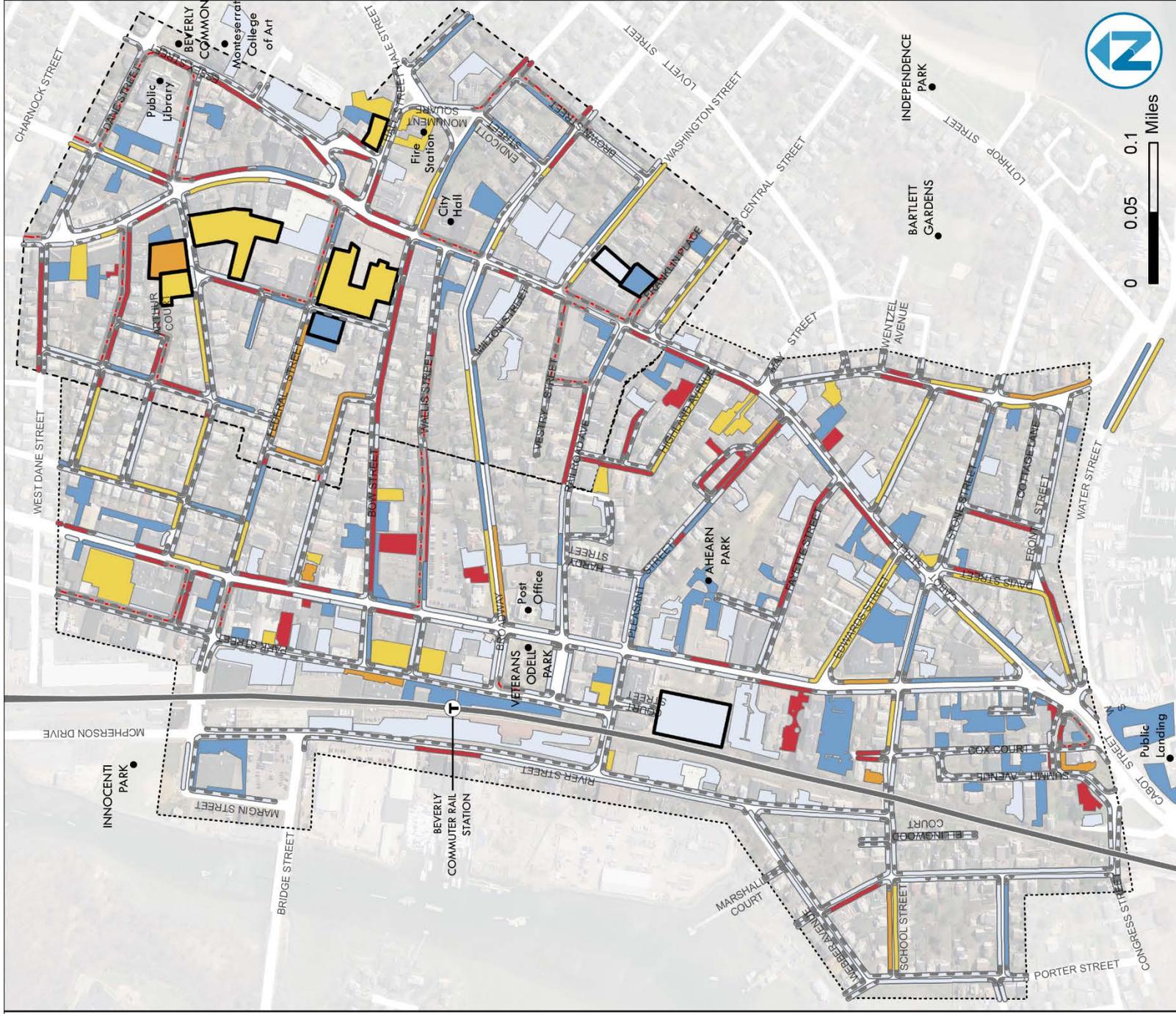


Legend

Parking Utilization
Saturday
2:00 p.m. - 5:00 p.m.
(data collected in May, 2016)

- Less than 30%
 - 31-60%
 - 61-80%
 - 81-90%
 - More than 90%
- Less than 30%
 - 31-60%
 - 61-80%
 - 81-90%
 - More than 90%
- No parking
 - Public parking
 - Illegal parking

Appendix Figure 18: Downtown Beverly Parking Utilization – Saturday 5pm-8pm



Legend

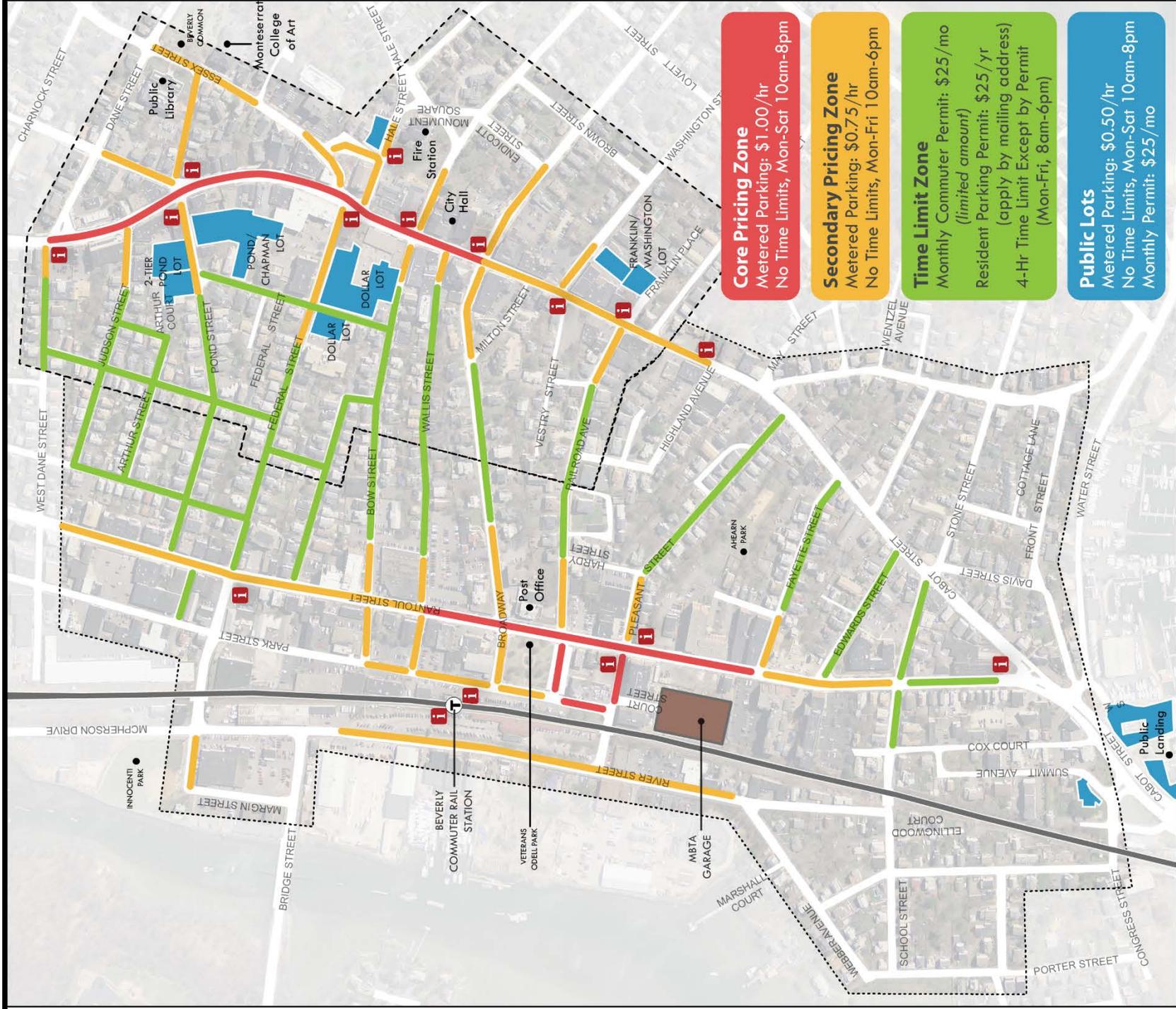
Parking Utilization
 Saturday
 5:00 p.m. - 8:00 p.m.
 (data collected in May, 2016)

- Less than 30%
- 31-60%
- 61-80%
- 81-90%
- More than 90%

- Less than 30%
- 31-60%
- 61-80%
- 81-90%
- More than 90%

- No parking
- Public parking
- Illegal parking

Appendix Figure 19: Downtown Beverly Parking Strategy – Recommendation Summary



Core Pricing Zone
 Metered Parking: \$1.00/hr
 No Time Limits, Mon-Sat 10am-8pm

Secondary Pricing Zone
 Metered Parking: \$0.75/hr
 No Time Limits, Mon-Fri 10am-6pm

Time Limit Zone
 Monthly Commuter Permit: \$25/mo (limited amount)
 Resident Parking Permit: \$25/yr (apply by mailing address)
 4-Hr Time Limit Except by Permit (Mon-Fri, 8am-6pm)

Public Lots
 Metered Parking: \$0.50/hr
 No Time Limits, Mon-Sat 10am-8pm
 Monthly Permit: \$25/mo

Legend

- █ Core Pricing Zone
- █ Secondary Pricing Zone
- █ Resident Parking Zone
- █ Public Lots
- █ MBTA Garage
- i Parking & Wayfinding Signage
- Core Study Area
- Extended Study Area

0 250 500 Feet



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SPACE
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SOUTH

CABOT
SMOKE SHOP

CABOT SMOKE SHOP

ADD BURGERS

EST. 1955

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ARTS DISTRICT
LIVE & LOVE
ST. JOHN
THE EVANGELIST
SCHOOL

EST. 1955
NO PARKING
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