# Table of Contents
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List of Figures
Executive Summary

As the City of Worcester’s economy grows and transforms, its parking and transit needs are also evolving. Accordingly, the City must continually monitor and plan for parking and transit as part of its broader revitalization strategy. This Parking and Transit Study (“Study”) provides the City with essential baseline data and potential goals for making the most of the City’s current and projected economic development activities. It also is intended to guide the City with long-term monitoring and planning for incremental parking and transit improvements that will help Worcester avoid the pitfalls of relying upon existing conditions or recommendations made in a single study. In sum, CMRPC’s intent in preparing this Study is that it will create a baseline from which it (and the City) can implement dynamic parking and transit policies/actions.

Central Massachusetts Regional Planning Commission (CMRPC) staff conducted a Phase I Parking and Transit Inventory/Utilization Analysis for the City in 2016, utilizing state District Local Technical Assistance (DLTA) funds. The Phase I Analysis was prepared to establish baseline data and recommendations for the City’s Theatre, Canal, and Shrewsbury Street Districts that comprise the Study Area. The City’s economic growth over the past several years is noteworthy and the well documented “renaissance” of Downtown Worcester is occurring with the construction of hundreds of new dwelling units and thousands of square feet of new commercial, retail, and other new uses.

A total of 9,293 parking spaces were identified within the Study Area. Of those, 3,077 (or 33%) of the spaces were public on-street spaces or surface lots. The following is a breakdown of the parking spaces in each District:

- The Theatre District contains 915 public parking spaces (224 on-street and 691 off-street parking lots) and 762 private spaces. Of the 691 off-street public parking lot spaces, 511 of those are located in the Federal Plaza Garage.
- The Canal District contains 1,187 public parking spaces (567 on-street and 620 off-street) and 1,003 private parking spaces. Of the 620 off-street public parking lot spaces, 500 of those are located in the Union Station Garage.
- The Shrewsbury Street District contains 864 public parking spaces (839 on-street and 25 off-street) and 1,374 private parking spaces. There are no garage facilities in this District.

The overall public parking supply in each District appears adequate for present demand. The characteristics of peak demand varies by District according to its unique physical characteristics, mix of uses, and available public parking. However, there are locations in each District where public parking supply is limited during peak times.
In addition, each District is experiencing significant property revitalization and/or new development, which is changing supply and demand. On the supply side, the current trend is the development of additional private parking spaces for residents but no new public parking for patrons of new commercial/retail uses.

Phase I parking – related recommendations for City staff:

- Monitor utilization as new uses become occupied.
- Explore opportunities to create shared parking agreements.
- Evaluate the use and effect of valet use upon actual demand.
- Improve parking-related wayfinding for visitors.
- Develop a forecast for if, or when, additional public parking supply may be needed.

The public’s use of transit and other mobility options in the Study Area are equally important. The Worcester Regional Transit Authority (WRTA) Hub at 60 Foster Street is centrally located, and its fixed routes directly serve each District. In addition, WRTA paratransit service covers the entire Study Area. Union Station, also centrally located to each District, provides commuter rail, intercity bus, and taxi connections. In August 2017, after careful review of existing transit service downtown and the need to balance mobility needs of the City’s transit dependent populations, the WRTA began operating a new Route 40 to replace the “Hub Loop” which was operated since 2013. The new route makes better connections to some of the City’s key hotel and restaurant areas.

Phase I transit-related recommendations for City staff:

- Continue working with area employers and developers to encourage WRTA use and reduce uncoordinated institutional operation of private shuttles. This includes marketing of the WRTA’s Employee Pass program and implementing other transit-supportive development incentives;
- Support future WRTA fixed-route enhancements in each District, particularly to/from destinations such as Shrewsbury Street;
- Plan for comprehensive streetscape – related transit amenities, and
- Accelerate Transit Signal Priority (TSP) implementation in each District to benefit WRTA fixed route service.
Introduction

The City’s recent economic growth is noteworthy and its well documented renaissance is built upon the construction of hundreds of new dwelling units and thousands of square feet of new commercial, cultural, educational and retail space. In addition to substantial private investment and development, each of the three Study subareas are hosting events that attract larger crowds on a regular or seasonal basis. These events are a significant component of the sense of excitement, energy, and which contribute to the movement of Worcester becoming an ‘18-hour destination’.

The Central Massachusetts Regional Planning Commission (CMRPC) conducted a parking and transit inventory and utilization study during the fall of 2016. An inventory of all existing public and private parking spaces was completed and usage studied over the course of two days in October. A third day of data collection occurred in the Theatre District in June 2017. After each data collection day, the results were mapped and analyzed to show intensity of parking use. During the project work, City officials were provided a preliminary review of data in February 2017 and a draft report in May 2017. Upon review of the draft report in May, City officials requested that CMRPC revise the report to make stronger distinctions between public parking spaces and private parking areas in the Theatre District. The need for additional focus on public parking was especially important in this area which contains the majority of visitor and tourist based attractions, and, which is undergoing the most dramatic new growth and change. To accommodate this request, CMRPC coordinated an additional data collection day for the Theatre District study area and to capture an event at the Hanover Theatre.

The City is experiencing an exciting growth period. To meet changing transportation demands, the City should monitor parking utilization as new property uses occur; explore opportunities for shared parking agreements, improve parking-related wayfinding for visitors, and enhance and expand transit options within and around the city for all users. The City should also ensure that its land-use controls promote compact development, transit use, and minimize parking requirements. Finally, the City should make a strong commitment to implementing citywide parking coordination and management, as was recommended by its own consultant in 2013.
Methodology

CMRPC staff inventoried parking (and its utilization) in specific City–defined Districts during Fall 2016. The City defined these Districts based upon increased civic and economic activity in the: 1) Theatre District; 1) Canal District, and Shrewsbury Street. Staff utilized aerial photography, MassGIS data, and compared this information with data collection and verification in the field.

Public lots were defined as those that were open and available to the public including metered on-street, pay surface lots, paid structured parking, and free spaces. Private spaces were identified via the City’s inventory and MassGIS and were separated based on the general inability for the general public to access the spaces. Regulations for public lots were obtained and reviewed, while regulations for private lots were not.

At the City’s request in May 2017, staff revised the Phase 1 report and maps to better distinguish and separated out lots that were reserved solely for private parking. In doing so, several private lots were identified in each District as they contribute to available parking in some cases (such as where the lots are made available for pay-to-park arrangements for guests and visitors for certain special events. The distinction is important because some of the larger private parking areas do not contribute to the supply used by visitors.

After the staff completed the parking facility inventory, they prepared a separate set of maps to document the collection of lot occupancy data. The utilization study’s purpose was to log the number of vehicles parked in each identified parking area every hour or two over the course of an entire day.
Parking utilization data was collected on Wednesday, October 26, 2016 and Saturday, October 29, 2016 beginning at 9 a.m. and concluding during the hour between 8:00 p.m. and 9:00 p.m. Both data collection days were sunny with temperatures around 50 degrees. Staff collected additional parking data in the Theatre District on a third day in June 2017. After each data collection day, staff mapped and analyzed the results to show the intensity of parking use. It is best practice for data collection to occur on days with normal levels of activities. For Shrewsbury Street and the Theatre District, the data was collected every other hour to allow enough time to complete a circuit. In the Canal District, data was collected every hour but was only mapped every two hours to provide consistency with the other Districts.

Data collection in each study area was organized to occur all on the same day and involved a training session prior to initiation of data collection. CMRPC hired students from Clark University and Worcester Polytechnic Institute to perform data collection activities.

It should be noted that this Study was able to capture parking utilization at very specific time points on a few days. CMRPC recommends that subsequent sampling be performed – especially when special events are scheduled. The City can subsequently evaluate this broader set of observations to develop formal event parking management plans.

Staff compared the number of cars parked in each lot with its total capacity to generate a utilization percentage. Based on accepted best practices from parking studies and industry standards, 80-85% utilization was judged as ideal. Parking industry information suggests that consumers perceive that parking is unavailable when facility utilization is above this range. For planning purposes, lot utilization below that range can indicate underutilization as well as an opportunity to absorb parking demand from other lots. In both cases, data collection from two days shows only a snapshot. Where significant conflicts appear between the data results and antidotal or otherwise identified trends, additional study is recommended.
Theatre District – Methodology
During this Study’s initial phase, the City was completing a substantial road and streetscape project that impacted the availability of most on-street spaces in this District. Just prior to the October 2016 data collection, roadway reconstruction was completed on Federal, Franklin, Portland and Salem Streets. CMRPC conducted utilization observations in this area in late October (parking spaces were not striped, nor meters installed until late December). However, staff was able to get a better sample in this District during June 2017, at which time all construction was complete and local schools were not in session. Parking demand during a special event at the Hanover Theatre was observed on this day.
Canal District – Methodology

Construction of the Worcester Ice Center complex was active during almost the entire duration of this Study. In addition, the City was engaged in replacing meters in various District locations, and installing meters where they previously were not. Note that preexisting meters on Harding Street were inoperable during this Study.

The Center opened in September 2017. Its location at the approximate center of the Canal District and the mix of activities within it are expected to affect parking demand in the entire District. This is not to suggest a negative effect; indeed, the synergy between the Center and other District attractions brings with it some additional parking supply and heightens the public’s awareness of nearby existing, albeit underutilized, parking facilities. The Center is also an opportunity for patrons to park once and visit multiple businesses.

Figure 11: Worcester Ice Center site view from Harding Street

Figure 12: Water Street, view North from Canal Lofts

Figure 13: Crompton Collective parking
Shrewsbury Street District - Methodology

As was the case with streets in the Theatre District, Shrewsbury Street underwent significant construction activity during much of the Study period. Subsurface work, utility installations, resurfacing, and restriping work was performed throughout Summer and Fall 2016. Final paving was completed in September 2017; however, final road striping, parking space delineation and installation of parking-related signs were not completed until within one week of the first data collection day in October 2017. As the City was unable to provide final road layout plans, striping/marking/signing or parking information at that time, CMRPC staff conducted field work to measure the newly created on street parking areas to form the inventory. Final review and inventory of the regulations for the on-street portions of Shrewsbury Street was completed in March 2017. Because of the new parking options and patterns, utilization data should be considered to be a baseline from which future use can be compared. Patrons, customers, and visitors encountering the new parking layout for the first time, or parking in areas that were not yet signed, likely caused some confusion.
Figure 17

Downtown Worcester Parking Inventory: Overall Study Area

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Source: Data provided by the City of Worcester, Central Massachusetts Regional Planning Commission (CMRPC), MassDOT, and the Office of Geographic Information (MassGIS), Commonwealth of Massachusetts, Information Technology Division.

Information depicted on this map is for planning purposes only. This information is not adequate for legal boundary definition, regulatory interpretation, or police-level analysis. Use caution interpreting positional accuracy.

Produced by the

Downtown Worcester Parking and Transit Study December 2017
Central Massachusetts Regional Planning Commission
Figure 18

Overall Study Area Transit System

Legend:
- WRTA Routes (all lines)
- WRTA Bus Stops
- Points of Interest
- Libraries
- Off-Street Parking
- Municipal Parking

1 inch = 0.12 miles

Section 1

Section 2

Section 3

Source: Data provided by the City of Worcester, Central Massachusetts Regional Planning Commission (CMRPC), MassGIS, and the Office of Geographic Information (OOGIS), Commonwealth of Massachusetts, Information Technology Division.

Information depicted on this map is for planning purposes only. This information is not adequate for legal, survey, technical, regulatory, interpretation, or parcel-level analysis. Use caution interpreting positional accuracy.

Produced by the

2 Washington Square, Union Station
Worcester, MA 01604

Downtown Worcester Parking and Transit Study December 2017
Central Massachusetts Regional Planning Commission
Theatre District
Inventory and Utilization
Theatre District

Introduction
Worcester’s Theatre District is a diverse, thriving, and growing destination. It hosts numerous larger institutions, offices, restaurants, and apartments. Substantial growth is occurring at the District’s perimeter and along adjacent streets. Indeed, the City advises that several key parcels currently used for parking are identified for development. The redevelopment of these parcels for uses other than parking, combined with continued growth in retail and customer-based uses could warrant the development of replacement parking.

Some of the current growth and development occurring within the Theatre District includes:

![Figure 19: Franklin, The Grid](image)

![Figure 20: Portland Apartments, The Grid](image)

![Figure 21: QCC - Carberry Center](image)
A substantial amount of other developments have occurred or are continuing to occur just outside of the Theatre District and the study area, particularly along Front Street (branded as Mercantile Place):

![Images of Downtown Worcester](image)

**Figure 22: 145 Front Street, view northwest**

**Figure 23: 115-125 Front Street, view northwest**

**Figure 24: 120 Front Street/1 Mercantile Street,**

### Inventory

Public parking areas in the Theatre District consist of:

- On-street parking (224 spaces, mostly metered)
- One larger surface lot (the McGrath Lot containing 180 parking spaces)
- The Federal Plaza Garage, which contains 511 parking spaces
- Total spaces dedicated to public use: 915

Because of the lack of parking related signs, many visitors may not be aware of the existence or location of the Federal Plaza Garage. Accordingly, the public may perceive that public parking in this area is inadequate (or inconvenient).

Private parking lots in the Theatre District serve a variety of consumers and are managed accordingly. Some lots are reserved solely for residents, business employees or customers. Other private lots accommodate a mix of private interests, or may be made available to customers or visitors who are utilizing a public facility or a facility of public accommodation (such as the YWCA or the Hanover Theatre). These lots are identified and referenced in CMRPC’s inventory, but are not being counted in the overall public parking inventory.

While there are other parking facilities outside of the core Theatre District, they generally are more than a five-minute walk away (which could deter visitors and tourists from using them). However, those same facilities are positioned to serve other uses outside of the District, such as Saint Vincent’s Hospital or a variety of office uses located just to the east.
Theatre District (S1) Parking Inventory

Public = 915 spaces
Onstreet = 224 spaces
Offstreet = 691 spaces
Private = 519 spaces

Figure 25

Downtown Worcester Parking and Transit Study December 2017
Central Massachusetts Regional Planning Commission
Theatre District – Parking Utilization

Parking utilization in the Theatre District was initially sampled on Wednesday, October 26 and Saturday, October 29, 2016. The initial study area included many of the private parking areas designated and/or reserved only for residents or specific users. The owners/managers of the private lots on the west side of Myrtle Street and on the west side end of Salem Street manage their parking solely for private use. Staff has observed that these private lots are empty after the end of normal business hours and on weekends. Accordingly, when computing the total number of spaces in the District, utilization fluctuated greatly – and inclusion of the private spaces yielded a very low occupancy rate.

Figure 30: Theatre District Parking Utilization, 10/26/16, 9:00 a.m.

Figure 31: Theatre District Parking Utilization, 10/26/16, 11:00 a.m.
In contrast with private parking observations, public parking space supply and demand was consistently higher. Utilization of the 224 on-street spaces exceeded 85% for most hours on all three study days. Utilization of the McGrath lot varied, but there were times when the lot was operating at or above the ideal occupancy of 85%. While the metered on-street spaces were in high demand, the Federal Plaza Garage operates well below capacity (except during the observed event at the Hanover Theatre).

City officials reviewed the draft Study findings for the Theatre District and requested that CMRPC provide additional detail for public parking spaces and private parking areas. It was identified that each subarea contains a significant number of private parking spaces that are dedicated to specific uses, such as residents or offices. Because those spaces are not open to or used by the public or visitors, the City determined that narrowing the analysis to the availability and use of public parking spaces would be more useful to its assessment of parking needs for an (extended) ‘18-hour’ economy. The need for additional focus on public parking was especially important in the Theatre District which contains the majority of visitor and tourist based attractions, and, which is undergoing the most dramatic new growth and change. To accommodate this request, CMRPC coordinated an additional data collection day for the Theatre District to capture parking dynamics during an event at the Hanover Theatre.
CMRPC staff subsequently collected parking data for the Theatre District only on June 28, 2017. Field conditions were favorable - a typical weekday, sunny, with temperatures around 75 degrees. In addition, to better reflect the utilization and demand on public parking in the other districts, the data collected in October was re-charted to focus on the public parking utilization in both the Canal District and Shrewsbury Street areas.

The City’s policy is to promote use of the Federal Plaza Garage during certain events at the Hanover Theatre. Theatre patrons are offered the option of pre-purchasing parking in the Garage, or can pay upon entering the garage. The City’s parking management company staff monitors vehicles entering the facility and tracks payment methods.

During a Theatre event on June 28, 2017, a total of ____ vehicles were parked in the Federal Plaza Garage inclusive of those who pre-paid and those who paid upon entry – yielding an approximate ___% utilization rate. Staff also observed that valet service targeted to Theatre patrons was in operation on that same evening. While the specific number of cars parked in the valet lot was not counted, the lot contained 51 marked parking spaces.
Anecdotally, the existence of valet service has the effect of reducing the perceived demand on public facilities; namely the Federal Plaza garage. It is presumed that if the valet service was not operating, those patrons would have parked in the Garage.

**Theatre District Parking: Consistency with Plans**

The City has articulated its parking goals in two City-sponsored plans:

- Theatre District Master Plan (2012)
- Urban Revitalization Plan, or ‘URP’ (Worcester Redevelopment Authority, 2016)

This Study establishes slightly different Theatre District boundaries than those used to study parking and transit in the 2012 Theatre District Master Plan and the 2016 Urban Revitalization Plan. However, both the 2012 and 2016 plans recommend construction of a new parking structure as a desirable action item. Both plans identify the Hanover Theatre lot combined with the WBDC parcel as the primary location for such a facility. The URP proposes a four- to six-level parking structure containing 450 to 675 parking spaces. While the existing parking spaces would be eliminated during construction, the new structure would restore after completion the new structure would provide a net increase.

The URP identified several Theatre District properties (currently used for parking) that it considers desirable for redevelopment, as shown in Figure 34 below. As part of the City’s request to better differentiate between private and public parking spaces, the CMRPC staff removed these properties from the parking inventory and produced a revised parking scenario.

*Figure 34: Urban Renewal Plan Priority Development Parcels*
Parcel 19 (shown above) is the YWCA property which currently provides 105 parking spaces. Parcels 13 and 15 are associated with the Hanover Theatre and would together become part of a larger parcel which the City has identified for a potential garage. The URP describes these and other sites such that “the WRA strongly supports the redevelopment or rehabilitation of a number of key properties within the URA, although direct acquisition or investment is not under consideration at this time”.

Section 2.8.3 of the URP identifies “obsolete, inappropriate or faulty existing development” patterns. Specifically, it states that “parcels with obsolete, inappropriate or faulty development create a challenging environment for stimulating economic development.” This finding is then applied to specific properties as follows:

“North of the P&W (Providence and Worcester Railroad) ROW, the McGrath Parking Lot may also be considered an inappropriate or faulty existing development. The lot was once part of a neighborhood which included the former location of St. Spyridon Church and Orange Street. The area was cleared as part of the New Salem Urban Renewal Plan in the 1960’s. While the lot provides important parking for the Worcester Public Library and the YWCA, it was identified in the Theatre District Master Plan as an important redevelopment opportunity. The Master Plan noted that the 1.5-acre lot is a “sea of surface parking, with limited landscaping and pedestrian amenities” and that the area “can be improved to offer parking, provide an additional anchor to bring activity to the District and clarify pedestrian connectivity for the area.” The WRA recognizes the importance of parking behind the public library, and any future development would prioritize replacing existing parking spots.”
Accordingly, the URP recommends the assembly of three contiguous parcels to form a new lot (Parcel A-1) on Myrtle Street (behind the Hanover Theatre) and the construction of a new parking facility. Specific Garage details include:

- Vehicle access/egress on Myrtle Street;
- Pedestrian access to Burnside Court, a new pedestrian plaza to Federal Street and Myrtle/Portland Streets;
- Facility would be operated to accommodate shared demand generated by area residents, offices, visitors and Theatre events using a combination of hourly and monthly parking payment methods, and
- The facility’s design would employ strategic screening and signage to minimize visual impact.

Certain lots listed in the URP as desirable for development or redevelopment which are currently utilized as parking are:

- Hanover Theatre = 237 parking spaces
- WBDC = 65 parking spaces
- YWCA = 105 parking spaces
- McGrath (public) = 180 parking spaces
- McGrath (leased) = 98 parking spaces

Figure 36 (see next page) illustrates the potential reduction in current District parking supplies if all parcels identified in the URP were developed.
Theatre District (S1) Parking Inventory

Theatre District Parking Inventory (per Urban Revitalization Plan)

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Theatre District Parking Inventory

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Source: Data provided by the City of Worcester, Central Massachusetts Regional Planning Commission (CMRPC), MassDOT, and the Office of Geographic Information (MDOT), Commonwealth of Massachusetts, Information Technology Division. Information depicted on this map is for planning purposes only. This information is not adequate for legal boundary definition, regulatory interpretation, or parcel-level analysis. Use caution interpreting positional accuracy.

LEGEND
- On-Street Parking
- Off-Street Parking
- Municipal Parking
- Priority Development Lots (per URP)

1 in = 0.04 miles
Theatre District – Parking Findings & Recommendations

The increased number and popularity of visitor-based businesses emerging in The Grid, an increase in downtown residents, college students, professional office workers, and existing popular destinations (such as the Hanover Theatre), create a dynamic parking demand that requires additional monitoring.

In general, the availability of public (metered) on-street parking in the core Theatre District is limited and occupancy regularly exceeds an ideal 80-85% percentage. These utilization rates, combined with a lack of signs directing visitors to other available off-street parking areas (McGrath and Federal Plaza Garage) creates a strong perception of a lack of parking in the core Theatre District.

The implementation of certain actions listed in the URP [many of them are currently underway], such as the development of lots currently containing parking resources, would likely have a substantial impact on, and reduce, the overall all supply while the revitalization of the city is increasing the demand for parking. This shift could create the need for additional parking supply in order to provide safe and predictable parking for the core Theatre District area.

**Recommendations:**

1. **Encourage the public’s use of the Federal Plaza Garage during periods when prime on-street spaces are at or over capacity.** The City should consider ways to divert excess on-street demand to this facility. In the short-term, these efforts can help ensure that visitors and guests find parking within in close proximity to core of the district. The ability for a guest to “find parking” is a key component of creating a positive experience in the City and is an essential component to market Worcester as a destination. In the long term, if monitored, the City could find that this facility is full and excess demand continues to exist. This could support the creation of additional supply. The need for additional supply could happen rapidly given the current high demand on-street combined with the new visitation expected when the new residential, commercial, and office uses become occupied.

   * Consider creation of a specific parking “banner” sign program for the Theatre District. Specific attention should be given to promoting use of the Federal Plaza Garage and the McGrath Lot.
   * Consider the potential for creation of a demand based pricing program, or a pilot program, in the core Theatre district area. **The primary objective is to increase the turnover rate of key on street spaces by pricing them higher than the hourly rate of the Federal Plaza or McGrath lots.** With lower rates in the Federal Plaza Garage, for example, price conscious visitors will more likely utilize the garage over on-street meters.
• Expedite plans and priority for façade improvements to the Federal Plaza Garage as listed in the URP. Such efforts should be coordinated, to the extent possible, with the completion of any Main Street improvement projects and/or improvements to Federal Plaza Park.
• If a banner program is implemented, the City should periodically monitor the utilization rates of the Federal Plaza Garage to determine if and when it reaches 80-85% occupancy.

2. **Examine and consider potential changes or adjustments to some of the recently completed striping arrangements around Portland, Franklin, and Federal Streets.** The City should consider making adjustments to the pavement markings and/or meter locations along Federal Street. Based on the inventory and utilization study, these areas are prone to illegal parking. A lack of clear pavement markings and variability amongst two hour meters, 15 minute free zones, commercial loading and emergency access zones makes finding appropriate parking more challenging. While fire lane and other safety zones are required, the on-the-ground markings and signs could be improved to provide clearer delineation. The short term and free parking along Portland Street should be monitored for effectiveness. Anecdotally, it is observed that longer term parking in these locations is occurring.

3. **Explore opportunities to create shared parking agreements for certain private lots.** The City should initiate discussions with private property owners to determine if they willing to make some parking available after normal business hours. Some options appear to include Myrtle Street and the WBDC lot on Portland Street. Based on the inventory, these lots are underutilized after normal business hours. On all three study days, these lots dropped in occupancy to 0-20% as early as 4:00 p.m.

4. **If parcels identified in the Urban Revitalization Plan (those currently used for parking) are slated for development, additional supply may be necessary.** The City should continue to monitor and explore the feasibility and likelihood of redevelopment of the parcels listed in the URP and continues to take steps to determine if future supply may be necessary.

5. **Consider funding sources to plan for, evaluate, or construct new parking supply.** Based on the 2012 Theatre Master Plan and the URP, the combination of parcels behind the Hanover Theatre would be a suitable location for a potential new parking structure to serve the core of the Theatre District. The prime on-street parking spaces in the core are frequently above 85% occupancy, which when combined with the absence of real-time parking information, conveys a message that parking is unavailable.
It is observed that the Federal Plaza Garage is underutilized during times of high demand for on-street spaces. The City should consider implementation of short-term options such as additional signs or changes to pricing to shift excess demand from on-street to both the McGrath lot and Federal Plaza garage; such and effort should be coupled with continued monitoring to document any shifts and/or continued high demand.

6. **Continue to study how parking utilization in the Theatre District may change or evolve as new buildings and uses become occupied.** The City should fund additional data collection to compare to the baseline data gathered in this study. Parking demand is highly variable and the Theatre District is completing a significant period of growth and change. A monitoring program over or during the next 1-2 years could provide the City with important information needed to make future policy decisions and to evaluate any strategies implemented related to parking signs, pricing, or enhancing visitor experiences with parking.

7. **Create a Special Events Parking Management Plan.** The Theatre District frequently hosts events and activities that attract large numbers of “visitors”. Such events are critical in supporting and enhancing the City’s diversity and revitalization and the nature and extent of the events extends well beyond popular evening shows or performances at the Hanover Theatre. Daytime and weekend festivals, lunch activities, parades, and other celebrations will create parking demand well above normal and will create challenges with supplying parking for guests as well as to the many other larger entities and institutions in the core of the Theatre District. These parking needs can often overlap during special events. A coordinated Special Events Management Plan would allow the City to direct visitors to other parking areas more effectively and efficiently. Such a plan should include simple and low-cost event signs (see Figures 38 and 39 at right) to direct visitors to existing and nearby parking facilities. It should also encourage planning and coordination prior to larger events to ensure that visitors able to easily find available parking even if it is slightly further from the destination.
8. **Evaluate the potential effect or disaggregation of parking demand created by the use of private valet services.** The City should investigate the number, frequency, and pricing of existing valet services operating in the Theatre District. During the June data collection, valet service was observed operating in a private lot for a flat rate of $10. The availability of this surface parking likely contributed to lower occupancy counts in the Federal Plaza Garage. Additional study regarding the prevalence and potential benefits and impacts of valet and private pay for parking areas should be conducted.
Figure 41

Preliminary Parking Utility Analysis: Lot #2860, Theatre District

- Occupied
- Vacant

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Canal District

Inventory and Utilization
Canal District

Introduction
The Canal District is a unique, popular and dynamic City neighborhood. Its most active thoroughfares are Green, Harding, Madison and Water Streets which lead to Kelley Square as a focal point. Prominently located at the Square is a concentration of visitor and customer based businesses, and a hub of activity generated by various businesses in the Crompton Collective building.

Most of the district’s restaurant, bar, and entertainment venues are located on Water and Green Streets. Their locations are effective in creating a public identity and coherent destination for the District.

Some of the current growth and development occurring within the Canal District includes:

**Worcester Ice Center** - At the center of the district is the recently completed Worcester Ice Center complex. This 110,000 sq. ft. facility includes approximately 30,000 sq. ft. of retail, restaurant and services space and is expected to generate significant activity every day.

Parking for this new facility is provided through the creation of approximately three surface lots. One of the lots is situated on the property and provides approximately 110 parking spaces. Over the course of the study, secondary parking areas have been constructed on adjacent properties (one via demolition of an existing structure, and the other on an adjacent vacant parcel.)
A substantial amount of other developments have occurred or are continuing to occur within the Canal District. For example, during the course of the Study, a private development proposal for the construction of a new four story mixed use building containing 20,000 square feet of commercial/retail and 48 market rate units was proposed for the lots on the west side of the Crompton Collective property. This property is comprised of parcels at two addresses: 145 Green Street, and 222 Harding Street. Together, this new development is branded as Harding Green.
Canal District - Inventory

The public parking areas in the Canal District consist of:

- A total of 556 on-street parking spaces

- Three relatively small surface lots:
  - General Picket which contains 58 spaces
  - Green Street which contains 28 spaces
  - Water Street which contains 34 spaces

- The Union Station Parking Garage, which contains 500 parking spaces.

The Canal District contains several larger private parking lots that may in some cases be “quasi-public”, such as the Crompton Collective lot and the lot adjacent to Wings Over Worcester. Other private lots are located in the District but are generally unavailable for public use. For the purposes of utilization mapping and calculations, only public lots were shown in the graphs.

Both Water Street and Green Street contain metered on-street spaces. Approximately ___ of those are marked and metered spaces. The other identified spaces are often located on side streets. These unregulated side street spaces appear to be utilized only during peak times, special events, or for valet parking*, and may generally be perceived as inconvenient relative to the District’s common destinations.

The Worcester Ice Center complex was under construction during the course of this Study. As part of its approval and construction a total of approximately ___ private parking spaces were created. The inventory and utilization maps do reflect this recent change. The impact on parking behavior, supply, and demand as a result of this substantial new use should be monitored.
Figure 47

Public = 1,176 spaces
On-street = 556 spaces
Off-street = 620 spaces
Private = 849 spaces
Canal District (S2) Parking Regulations

LEGEND
- Metered Parking
- On-Street Parking
- Off-Street Parking
- Municipal Lot/Parking Garage
- Resident Permit Parking
- Handicapped-Reserved Parking

Source: Data provided by the City of Worcester, Central Massachusetts Regional Planning Commission (CMRPC), MassDOT, and the Office of Geographic Information (MassGIS), Commonwealth of Massachusetts, Information Technology Division.

Note that the metered parking is available at varying durations. The information depicted on this map is for planning purposes only. This information is not adequate for legal boundary definition, regulatory interpretation, or parcel-level analysis. Use caution interpreting positional accuracy.

Figure 48
Canal District – Parking Utilization

On-street parking demand in the District is highest along Green and Water Streets, followed by Harding Street. Demand for parking along Temple Street peaks noticeably, but less frequently, during special events at St. John’s Catholic Church or the Hibernian Cultural Center. Demand shifts between Green and Water Streets occurred throughout the weekend, especially in the morning with Water Street parking being the most active. By late afternoon on the Saturday study day, higher levels of demand and occupancy shifted to Green Street; most likely attributed to the concentration of bar/restaurant uses in that vicinity. Peak parking demands on Saturday occurred at 11:00 a.m. and 7:00 p.m.

The Saturday 11:00 a.m. peak shows a significant concentration of demand on the west side of the study area, centered generally around the Crompton Collective area. This demand is at the 61-80% range (in orange) which represents the industry preference for parking supply and demand. On-street demand on Green Street occurs at this time, but the remainder of the District is largely empty.

Figure 49: Canal District Parking Utilization, 10/29/16, 11:00 a.m.
The data from Saturday at 7:00 p.m. illustrates how parking demand disaggregated onto Harding, Temple and Winter Streets. The staff’s observation is that valet service and the influx of patrons destined for the Compass Restaurant created this change.
The Union Station Parking Garage in the Canal District is one of the largest public parking sources in the Canal District at this time. It is the CMRPC staff’s observation that the Union Street garage is underutilized most of the time, excepting special events at Union Station. This could be attributed to a lack of proper parking signs to inform visitors of its existence or location; especially for those entering the Canal District from the west end of Water Street or Green Street. The Canal District contains a good geographic distribution of public surface lots. However, the small number of spaces in each public surface lot results in rapid occupancy during peak times.
Canal District - Harding Street

Harding Street’s industrial history and functional appearance is in transition. A segment between Franklin and Winter Streets was reconstructed several years ago consistent with similar upgrades along Green and Water Streets. That project better defined on-street parking, improved pedestrian safety, and introduced bicycling and streetscape amenities not previously present. The segment south of Winter Street is more commercial/industrial in nature, and awaits similar improvements. Staff inventoried parking on Harding Street that excluded common-practice parking within driveway aprons and property entrances, and accounted for the general lack of striping and parking controls (meters) as is visible in Figure 59 below. Based upon field conditions, staff estimated a total of 101 existing parking spaces.

Construction plans and funding are in place for improving the approximate 1,400’ segment of Harding Street south of Water Street. This project will add new metered spaces Key improvements include:

- Pavement resurfacing and reconstructed concrete sidewalks;
- Resetting of existing granite curbing;
- New signing and striping;
- Minor utility adjustments;
- Streetscape amenities including new street lights, street trees and landscaping, benches and enhanced crosswalks, and
- Bicycle accommodations consisting of a bicycle lane on either side of the roadway.

These improvements have been designed to complement improvements previously constructed on adjoining streets within the District.

The proposed Harding Street improvement plan reduces the number of spaces to 47 spaces, all of which will be metered.
Figure 57 - Harding Street Improvements, Winter Street to Ford Street
Figure 58 - Harding Street Improvements, Ford to Harrison Streets
Figure 59 - Harding Street Improvements, Harrison Street to Kelley Square
Canal District - Findings & Recommendations
The Canal District, in terms of parking resources, is comprised of a series of sub-districts; each with unique characteristics and opportunities for visitors to park once and visit multiple locations.

Canal District - Findings

- Water Street provides on-street metered spaces and one public surface lot at 85 Water Street, (corner of Harrison Street), approximately midway between Kelley Square and Grafton Street. This provides a good balance of parking options and locations. However, during most hours of the Saturday field work, parking utilization was at or above 85%.

- Green Street provides on-street metered spaces and two public surface lots (96 Green Street, and General Pickett, 45 Green Street). At the northern end of Green Street, on-street space utilization was consistently above 85%. However, the nearby Pickett Lot was underutilized during these same times. The southern end of Green Street does not contain any public surface lots; on-street parking utilization frequently exceeded 85% in this segment, excepting the midday Wednesday field observation.

- The area around the Crompton Collective (consisting of those portions of Green, Harding, and Water Street closest to Kelley Square) is a hub of activity and creates higher parking demand.

- Completion of the Worcester Ice Center is expected to change parking dynamics in the Canal District’s core. Center visitors will be directed to ample parking spaces already dedicated to that facility. Ideally, some of those same visitors may walk to and patronize adjacent businesses (i.e. Compass Tavern, Lock 50, Queens Cupcakes, and Crompton Collective). However, visitors to other District destinations may find it difficult to find parking when the Center is in active use and/or perplexed when unused spaces are plentiful. Visitors coming to the Center for special events who cannot park in the Center’s dedicated spaces should be directed to park at the Union Station Parking Garage. This will help avoid conflicts with adjacent businesses’ parking needs.
Canal District Parking Recommendations

1. **Initiate and implement a parking banner program.** The creation of a parking banner program would ensure that first time visitors can more readily find and use existing public parking spaces. The City must identify key locations for signs to direct visitors from main points of entry into the Canal District from each direction. For first time visitors, the District’s boundaries may not be apparent. In most cases, visitors will seek out one of the unique destinations using smart phone technology. However, determining the location of available parking close to the destination is challenging due to the lack of parking signs. In most cases, visitors are not familiar with the road network in a new location and a lack of a sign system can be a significant deterrent and cause for confusion. Such a system should start at Interstate 290 Exit 13, where at present only a small non-directional sign says, “Canal District”.

![Figure 60 – Canal District parking banner concept](image-url)
2. **Complete a District-Wide Meter Labeling Program.** On-street parking time limits and fees are difficult to determine from a moving and/or parking vehicle, as shown in Figure 66 below. The City should complete labeling of meters in the District with stickers indicating time limits for all meters as shown in Figure 67 below. Labels displaying this information would aid drivers’ decision-making when finding parking. The City should also consider setting different time limits in certain meter areas based on concentrations of certain business activities (i.e. areas with a high concentration of restaurant uses). A longer time limit such as three hours should be considered in some areas with higher concentrations of these uses.

Private business owners actively seek to enhance the parking experience for visitors and guests. Staff observed the use of valet services in the Canal District during the course of this Study. There are potential benefits to valet services; such as maximizing the use of limited parking capacity and/or using more distant unoccupied spaces.

3. **Consider Demand-Based Parking Pricing in the District on either a pilot, or permanent, basis.** The goal of demand based pricing is to:
   - Preserve the supply of on-street parking in the Canal District for high-turnover parking activity, and
   - Encourage longer-term parking in surface lots and structures.

As previously noted, public surface lots on Green and Water Streets were underutilized at times when metered on-street space utilization was 85% or greater.
If the hourly parking rates in those lots was less expensive, some users might opt to use a surface lot instead. Also, with proper signs and education, visitors seeking to stay longer than two hours use these lots rather than the limited on-street spaces.

Demand-based pricing is intended to encourage greater turnover of on-street spaces. If successful, over time the public surface lots would be better utilized. These areas may provide a manageable, relatively confined area making education, branding, and signage easier to initiate as a pilot program.

4. **Promote District visitors’ use of the Union Station Garage as a safe, affordable and dependable parking source.** A sustained City effort to combine lower hourly rates than meters, options for longer term parking, and increased signs could shift excess demand for on-street parking to this facility. It will be critical for the City to monitor, understand, and potentially look at the usefulness and/or suitability of the Union Station Garage to provide visitor parking for Special Events or events associated with the new Worcester Ice Center. These efforts to further activate Union Station could be accompanied by an Event Management Plan to allow the City to properly plan for and provide resources prior to an event, and, to provide a clear and well-organized sign system and program to ensure that visitors have a favorable parking experience in the City.

5. **Consider the creation of a Parking Benefit District** – The City, working in concert with property and business owners, should consider the feasibility of establishing a Parking Benefit District in some or all of the Canal District. The range of projects that can be funded include sidewalk improvements, lighting, benches, parking banners, and other improvements designed to improve the visitor experience. Such a concept should only be pursued after public outreach to educate and gain an understanding and support amongst property and business owners in the area.

6. **Consider the creation of an employee permit parking system** – The growth of restaurant-related land uses in the Canal District may result in an increase in parking demand by employees. Restaurants and bars typically require large number of employees and those employees utilize parking prior to and during the same periods as customers, patrons, and visitors. When employees use prime parking for multiple hours they are removing those spaces from the supply for patrons and customers. If employee parking can be effectively directed to perimeter spaces, it can provide for more availability of predictable parking spaces in close proximity to the desired visitor destination. It is understood that this type of initiative may be challenging. However, it is a low-cost opportunity that could potentially also result in the creation of some new revenues if implemented.
7. **Additional public outreach, education, and information should be considered regarding Harding Street improvements.** The City should ensure that business owners, their employees, and visitors begin to understand the changes and anticipated timeline; especially the plan to install new meters, and changes to the existing parking arrangements and supply. Anecdotally, much of Harding Street is currently not metered and there is a general lack of knowledge amongst some of the pending changes.

8. **Continue to monitor and evaluate the potential impact of proposed or newly completed developments on the District’s overall parking performance.** For example, the City should monitor and analyze how the Worcester Ice Center facility affects parking patterns in the District’s core. The City can use the additional data collected to evaluate potential shared parking opportunities or to direct any increased demand for on-street spaces to public surface lots and the Union Station garage.

9. **Evaluate private valet services’ potential effect or disaggregation of parking demand.** The City should investigate the number, frequency, and pricing of existing valet services operating in the Canal District. During the October data collection, valet service was observed operating in the vicinity of Bocado and the Compass Tavern Restaurant. Anecdotally, the utilization data from 8:00 p.m. is presumed to show the disaggregation of parking demand to streets distant from this area. However, during this time ample parking supply was available within the nearby Union Station garage. Further research on the impact of valet service availability and pricing and use of public parking options may be necessary.
10. **Consider the creation of a Special Event Parking Management Plan** – while no special events occurred in the Canal District during this Study’s time period, it is well understood that the second year of the Canal District Music Series (held on Wednesdays in the summer) attracted many visitors. When these events were held, the undeveloped land adjacent to the Crompton Collective was used for the event itself, creating new parking demand and a shift of existing demand to the District’s perimeter. The growing frequency and popularity of these events has and will change parking patterns, particularly as the events may migrate to a different location once this land is redeveloped. The City should develop a Special Event Parking Management Plan to aid visitors in locating and securing parking during these events to ensure they have a positive parking experience. New developments which remove frequently used parking should be considered carefully as to the potential, not only to increase parking demand but in dispersing existing users. The City should also create such a Plan to assure that public safety vehicles and personnel can fulfill their duties, and that the public is incentivized to use alternatives such as walking, bicycling, transit, and remote parking/shuttle services if they are provided.

![Figure 65: Summer Music Series, Green and Harding Streets](image)

11. **Consider options to create shared parking agreements to increase the supply of public surface parking** – The City should continue to consider, evaluate, and seek agreements with one or more private property owners to create shared parking agreements to increase available public parking. Such areas should be considered based on proximity to popular destinations or patterns of use. This may be especially beneficial in a range of locations, but primarily in some of the new parking areas created as part of the Worcester Ice Center. Such options should be a tool when zoning regulations are revised in the District, and/or when various property owners are seeking special permits, zoning relief, or other approvals.
Shrewsbury Street Inventory and Utilization
Shrewsbury Street District

Introduction
The Shrewsbury Street District has become well known as a restaurant and nightlife destination. The mix of multifamily, commercial, and, industrial streets at its edges gives it a distinct identity – while creating a variety of opportunities and challenges. The District’s primary asset is its compact concentration of uses, which creates excellent walkability. Accordingly, visitors can park once and patronize multiple businesses. The primary challenges presented by the linear nature of the street is difficulty in defining it as a district (how to help first time visitors understand where they are), how to effectively sign and regulate use of long stretches of on-street parking, and how to ensure that drivers, bicyclists, and pedestrians use Shrewsbury Street safely – as a connector rather than a divider.

Generally, this District is comprised of three relatively distinct activity areas. The western end bordering Interstate 290 is the most concentrated – and generates the highest parking demand. The central area, which contains a variety of well-known restaurants, is bordered on the north by Columbus Park (a large municipally owned park) and on the south by industrial properties and CSX/MBTA railroad operations. The eastern area contains the widest variety of uses while still remaining a popular food and drink destination. For the purposes of this Study, the eastern boundary was Adams Street. Beyond that, land uses become automobile-oriented common to most commercial/highway business corridors.
Shrewsbury Street District – Parking Inventory

Public parking areas in this District consist of:

- one small, quasi-public*, surface lot on Fantasia Drive consisting of approximately 25 parking spaces, and
- approximately 787 on-street parking spaces.

Many side streets, especially those on the south side of Shrewsbury Street, may offer options for on-street parking but are underutilized.

The District contains a large number of private parking lots and spaces. Also, staff observed that a significant number of valet parking services operate here. Both factors present potential opportunities and several challenges. The opportunities created by the existence of numerous private parking lots, some of them rather large, would be the potential for the City to create shared parking agreements with private property owners. The existence of the private lots also satisfies a certain parking demand, especially during peak times. Some of the challenges created by the increased private parking areas and valet is that visitors must pay for parking, sometimes incurring significant costs. This disparity is made greater by the fact that on-street parking is not metered and is therefore free.

*Technically this is not a public lot per City officials.

Figure 72
Figure 73

Shrewsbury Street District (S3) Parking Inventory

Public = 812 spaces
On-street = 707 spaces
Off-street = 25 spaces
Private = 1,374 spaces

Source: Data provided by the City of Worcester, Central Massachusetts Regional Planning Commission (CMRPC), MassDOT, and the Office of Geographic Information (MAGIC), Commonwealth of Massachusetts, Information Technology Division.

Produced by CMRPC

LEGEND
On-Street Parking # On-Street Spaces
Off-Street Parking # Off-Street Spaces
Municipal Parking

1 in = 0.06 miles

Downtown Worcester Parking and Transit Study December 2017
Central Massachusetts Regional Planning Commission
Figure 7-4

Shrewsbury Street District (S3) Parking Regulations

LEGEND
- 15 min. Resident Permit
- 30 min. DPW only
- 1 hour Unregulated
- 2 hour No Parking

No Parking, 7-4, M-F
Off-Street Parking
Municipal Parking

Handicapped-Reserved Parking

Source: Data provided by the City of Worcester, Central Massachusetts Regional Planning Commission (CMRPC), MassGEO, and the Office of Geographic Information (MassGIS), Commonwealth of Massachusetts. Information depicted on this map is for planning purposes only. This information is not adequate for legal boundary definition, regulatory interpretation, or parcel-level analysis. Use caution interpreting positional accuracy.

Produced by the Central Massachusetts Regional Planning Commission (CMRPC)
2 Washington Square, Suite 300
Worcester, MA 01608

1 in = 0.06 miles

Page 56

Downtown Worcester Parking and Transit Study December 2017
Central Massachusetts Regional Planning Commission
Shrewsbury Street District - Parking Utilization and Space Occupancy

This District’s land use mix generates a wide variety of parking needs – and significant parking demand time sensitivity. In the early hours of both days of field observations, demand ‘spikes’ tied to specific destinations occurred. Most of this demand was channeled to private lots.

In contrast, midday parking utilization indicated more dispersed activity with some elevated demand proximate to certain businesses, i.e. lunch customers at nearby restaurants.

On both days of field observations, peak parking demand occurred at 7:00 p.m., particularly in pockets closest to popular restaurants and bars. The largest concentration of these uses (and parking demand) was centered on Hill, East Central, and East Worcester Streets.
**Shrewsbury Street District Findings & Recommendations**

The uniqueness of the Shrewsbury Street District is its concentration of popular visitor-based destinations (especially restaurants and bars); the length of Shrewsbury Street and the District’s ‘formidable’ physical boundaries, and its distinct activity nodes.

**Findings**

- Shrewsbury Street’s layout and crosswalk locations make pedestrian movement from one side of the street to the other challenging. In addition, visitors driving in the District often must reverse direction on Shrewsbury Street at least once to find a parking space and/or their destination. This creates added congestion and can perpetuate the sense that there is not enough parking.
- The significant use of valet service and/or pay-to-park options in private lots alters the supply and demand observations for public on-street spaces.
- The lack of appropriate parking signs directed at visitors may contribute to complaints or confusion around a perceived lack of parking near destinations.
- The existence of free (non-metered) on-street spaces and the lack of an official off-street parking lot is an anomaly in the City.
- Any significant loss of private parking (especially parking used by visitors) should be reviewed carefully for its potential impact upon demand for limited public parking.

**Shrewsbury Street – Recommendations**

1. **Activate and enhance parking opportunities on side streets** – The City should consider actions that orient visitors to the Shrewsbury Street District. Visitors must be able to more easily identify their desired locations and find suitable parking in close proximity. The City could consider relatively minor enhancements to certain side streets to provide additional visitor parking in high demand areas. This would be particularly useful for the first several hundred feet of the side streets whereby the parking remains in close proximity to known destinations. Improvements should include additional parking banners and signs clearly identifying and directing visitors to parking. Where applicable, additional street lighting or upgraded fixtures would provide a better sense of security.
2. **Initiate and implement a Parking Banner Program.** For first time visitors to the District, on-street parking regulations are difficult to determine from a moving vehicle. This problem is exacerbated during evening hours. The only visible on-street parking regulations are small signs delineating one or two-hour parking. These signs are positioned at intervals along Shrewsbury Street and are interspersed with a variety of other spaces at which parking is limited to 15 and 30 minutes, without consistency.

Based on the inventory and utilization study, additional on-street parking resources are available on many side streets. If parking was clearly marked and regulated at these locations, the District’s overall parking supply proximate to key areas/destinations could be expanded and/or better utilized.

![Figure 80 - Parking banner concept, Shrewsbury Street Eastbound @ I-290 NB off-ramp](image)

**Figure 81 - Current parking signage, Shrewsbury Street Eastbound @ I-290 off-ramp**

**Figure 82 - Parking banner concept, Shrewsbury Street Eastbound @ I-290 NB off-ramp**
3. **Modify the Fantasia Drive parking lot for general public use.** The City’s Department of Public Works & Parks (DPW&P) uses this property, which is located on the west side of Fantasia Drive behind Mac’s Diner, as overflow parking during daytime hours. The lot is not posted or recognizable to visitors as a public parking facility, even though the only public parking sign in the entire District indicates that public parking is available on Fantasia Drive. While some upgrades are necessary, the costs of those improvements would be relatively low compared to creating a new surface lot. A sidewalk and associated pedestrian oriented lighting would be required in the long term. In the short-term, the lot could be redefined as a public facility by replacing the existing chain link fence with a wooden barrier; restriped spaces, and new signs.

![Figure 83 - Fantasia Street Lot, current conditions](image1)

![Figure 84 - Parking banner concept, Shrewsbury Street (directing public to Fantasia Street Lot)](image2)
4. **Consider the creation of a Parking Benefit District.** The City, working in concert with property and business owners, should assess the feasibility of establishing a Parking Benefit District (PBD) in some or all of the Shrewsbury Street District. This type of parking tool is enabled under the Massachusetts General Laws, and has been promoted in other Massachusetts planning regions as illustrated in Figure 91 below. While this could occur in other areas of downtown as well, the Shrewsbury Street District’s character is unique and close to ideal for this type of management tool because of:

- Its overall size;
- Sharply defined neighborhood boundaries and use types, and
- Easy walkability to/from multiple destinations.

While conversion of any free parking to fee parking is almost always a challenge, visitor willingness to pay for valet parking suggests some potential.

A PBD could be a ‘win-win’ for both the City and private property/business. For the City, the “win” is no loss of revenue because there is no revenue currently generated by parking (other than potential enforcement). This must be noted with a comparison to other areas which may contain meters whereby the City could lose income (although even this premise can be challenged when considering the cost of maintenance, enforcement etc. of meters).

For the private property and/or business owner, the “win” is that all money generated by the installation of meters is placed into a designated fund controlled by a third party and is devoted to improvement to the specific area.

The range of projects that can be funded include sidewalk improvements, lighting, benches, parking banners, and other improvements designed to improve the visitor experience. The City could pursue establishment of a PBD, but should do so only after conducting public outreach with District property and business owners to educate them about this tool, and working to ensure that they support it. 

![Figure 85- Parking Benefit Districts Information](source: Metropolitan Area Planning Council)
6. **Consider options to create shared parking agreements to increase the supply of public surface parking.** The City should consider, evaluate, and seek agreements with one or more private property owners to create shared parking agreements to increase available public parking. The Shrewsbury Street District contains some larger private parking lots. While a more thorough review or inventory of these lots would better target and prioritize opportunities, these lots may be critical opportunities based on number of spaces and general locations:

   a. **DPW&P employee parking lot (East Worcester Street):** Explore opportunities to share this large parking area in evenings or during special events.

   b. **Our Lady of St. Carmel/St. Ann Parish (24 Mulberry Street) –** with access from Mulberry, East Central Street (and potentially also from Leo Turo Way): the Parish’s property contains significant paved parking areas in close proximity to Shrewsbury Street. A shared agreement could create additional public surface parking for the short term or during special events. This possibility may change depending upon the future of the church on this site (now closed) and future property rehabilitation or redevelopment (whichever occurs).

   c. **Oleum Court (private lot on corner of Oleum Court and Shrewsbury):** This parking area could provide additional parking for larger events at other nearby locations. If associated with the creation of safer pedestrian access to the south side of Shrewsbury Street, this lot could provide additional parking supply in the central portion of the corridor.

   ![Figure 86: Private parking lot, Shrewsbury Street and Oleum Court](image1)

   ![Figure 87 - off-street parking at Our Lady of Mt. Carmel/St. Ann Parish](image2)
7. **Identify and evaluate potential pedestrian crossing improvements for Shrewsbury Street.** For pedestrians, traversing Shrewsbury Street can be difficult, intimidating, or potentially inconvenient depending on proximity to an existing signalized crosswalk. Depending on a visitor’s familiarity with the area or the location of their destination, the linear nature of the street and limited crosswalks will directly impact parking decisions. The City should consider Complete Street elements, such as enhanced crosswalks and other measures to create a more connected network between both sides of the road. A longer-term goal may be to evaluate options for increasing the number of crosswalks in certain locations.

8. **Continue monitoring parking utilization in the Hill, East Worcester, and East Central Streets area.** The City should continue to study and monitor parking use and demand in this area of concentrated activity and limited parking supply. Such future study should include:
   a. Assessment of shared parking opportunities;
   b. Additional study of the impact on demand of valet services and/or pay-to-park options in the area, and
   c. Exploration of options for shared parking arrangements and areas suitable for longer parking options.

9. **Consider creation of an employee permit parking system** - The current prominence of restaurant-related land uses in the Shrewsbury Street corridor generates significant employee parking demand. Restaurants and bars typically employ large number of employees and those employees utilize parking prior to and during the same periods as customers, patrons, and visitors are seeking parking. That employees typically park in key spaces (as opposed to the spaces being available for patrons) is not a unique problem. However, if employee parking can be effectively directed to perimeter spaces it can provide for more predictable parking spaces in close proximity to the desired visitor destination. It is understood that this type of initiative may be challenging. However, it is a low-cost opportunity that could potentially also result in the creation of some new revenues if implemented.
General Parking Recommendations

1. *Continue to study parking utilization in key areas as new development and streetscape improvements are completed.* This utilization study provides important baseline data on utilization during the City’s extensive growth and transition towards an 18-hour economy. Over the next one to two years, additional investment in additional inventory and utilization study will provide the City with valuable information necessary to form the foundation for future policy decisions.

2. *Explore options to create and implement demand based pricing in certain areas with high on-street meter utilization.* This is one part of a set of strategies intended to relieve some demand on the most highly utilized and prominent on-street parking spaces. This should be considered to push demand to outlying areas; a component of showing the existence of demand beyond existing capacity.

3. *Review, consider, and implement smart technologies/app’s, including but not limited to the following:*  
   a. Parking space “re-setting” technology that clears remaining time when a vehicle leaves the space with time remaining. This is considered a revenue generating technology.
   
   b. A City parking application (‘app’) that could be installed and/or used by guests or visitors. This technology may allow visitors to identify vacant spots, or access enhanced location maps.
   
   c. Increase the ability to provide tailored information about parking availability in different locations through online capabilities of existing businesses, social media, and private and City websites.
   
   d. Upgrade meter technology to include credit/debit card payment and remote payment options.

4. *Evaluate and consider changes to the City’s Zoning Ordinance related to parking.* The highest priority should be given to updating the requirements in areas of significant growth, especially within the Central Business District, Theatre District, Canal District and Shrewsbury Street. Revisions to the Zoning Ordinance should enhance and/or require shared parking arrangements, promote the reduction in overall parking requirements, and be consider other factors such as proximity to public parking and transit.

5. *Create a comprehensive event parking management plan.* The purpose is to allow City officials to properly plan for and provide resources prior to an event, and, to provide a clear and well-organized sign system and program to ensure that visitors have a favorable parking experience in the City.
6. **Establish a Parking Commission, Task Force, or similar group.** Such a group should be comprised of at least one member/representative from each of the distinct areas of the City to ensure that the unique issues and opportunities in each are represented. One of the goals of the group would be to refine the recommendations identified in this report, amongst others.

7. **Update City parking maps to better reflect and/or mimic the types of maps that mobile technology provides.** The City should consider an interim step of creating non-interactive maps that mimic those found using technology and/or apps (i.e. maps that most people are more accustomed to seeing and navigating). While a longer-term goal of creating a mobile app is recommended, the creation of updated and more a more “modern” user friendly map could provide new resources to visitors in the meantime; at a low cost. Several businesses have created parking information, but it is mostly available only upon entering the establishment; after most of the frustration around finding parking has already occurred.
Transit
Inventory & Recommendations
Transit

Introduction
The majority of all WRTA fixed routes operate in the Study Area. Some route schedules run at closer to each other, while others do not. Accordingly, service frequencies vary; lower on Shrewsbury Street (which is served by one route) and higher in the Theatre District and around City Hall. Many of these routes follow City arterial roads, such as Main Street, Chandler Street, and Pleasant Street and are considered “trunk” routes which connect these areas with the Downtown. The fixed routes are “hub-and-spoke” with most routes radiating from the WRTA’s Hub at 60 Foster Street, adjacent to Union Station.

Within each district, the WRTA picks up and drops off passengers at designated bus stops marked with the WRTA logo. In addition, the WRTA Bus Tracker tool enables any Smartphone user to access real-time information (i.e. time that the next bus will arrive at a specific stop) using a QR code embedded on a specific stop sign. Outside of the Study Area, the WRTA fixed-route system is a ‘flag’ system and does not utilize specific stops; buses can be waived down, but only if it is safe to stop in that location. The WRTA’s fixed route bus services provide excellent geographic coverage within the study areas, and all residents, businesses and civic activities are within a five-minute walk of a route. Further, the entire Study Area is served by WRTA paratransit.

As part of the Transit inventory and assessment, CMRPC staff utilized the WRTA 2015 Regional Transit Plan and the City’s 2016 Urban Revitalization Plan to establish baseline existing conditions and future goals.
Worcester Regional Transit Authority – 2015 Regional Transit Plan

The WRTA Regional Transit Plan (RTP) was developed with WRTA’s principal goal in mind: to “provide timely, quality, clean and convenient public transportation service within the limits of its financial resources”.

The WRTA’s primary objectives are to:

- design and operate service to attract passengers;
- provide service to the transit dependent;
- alleviate congestion, and
- minimize travel time.

The WRTA has proactively transformed its system. Today, it is more user-friendly, efficient, and responsive to customer needs. Among Massachusetts regional transit authorities, it has led the way in providing real-time travel information which customers can access using Smartphone technology. In addition, the WRTA has opened new maintenance, operation and passenger facilities, and introduced electric buses to Worcester.

During the development of this Study, several changes were made to WRTA services in and around the study area:

1. In August 2017, after careful review of existing transit service downtown and the need to balance mobility needs of the City’s transit dependent populations, the WRTA approved and implemented a new Route 40 to replace the former ‘Hub Loop’. The new route will allow for a better connection to some of the City’s key hotel and restaurant areas.
2. The WRTA reduced late night service hours from midnight to 10:00 p.m. as a result of low ridership during those later hours and transit funding constraints.
Downtown Urban Revitalization Plan - 2016

The Worcester Redevelopment Authority (WRA) describes its Urban Revitalization Plan (URP) as a “reflection of current conditions in the City and the WRA’s development priorities”. The URP contains transit related information and assesses current services, while recommending three goals that relate to parking and transit:

- Improve access to modern and efficient public transportation options;
- Manage and increase the parking supply to encourage shared usage and proximity to high demand areas, and
- Improve roadways and sidewalks, as well as traffic circulation, as appropriate.

The URP also evaluates how effectively the URP goals promote the Commonwealth’s Sustainable Development Principle of providing transportation choice.

The URP applies to the City’s Urban Revitalization Area, or URA – which covers the Theatre District, and a portion of the Canal District. It does not include the Shrewsbury Street District. The URA is adjacent to the city’s multi-modal transportation center, which includes Amtrak and MBTA Commuter Rail service, intercity bus service (e.g. Greyhound/Peter Pan) at Union Station and the WRTA Hub at 60 Foster Street.

The URP cites the following transportation goal identified in the 2012 Central Massachusetts Grows! Greater Worcester Area Comprehensive Economic Development Strategy (CEDS):

1. To play a part in establishing an expanded, integrated, coordinated, truly multi-modal regional transportation network

Finally, a key objective identified in the URP is related to streetscape improvements in the public realm which interact with several of the long-term transit goals of the WRTA and the City. These include:

- Enhanced sidewalks and pedestrian amenities
- Bicycle accommodation
- Bus shelters
- Landscaping, lighting, wayfinding and other elements that make the roadway a circulation corridor for all modes of transportation.
Other ongoing efforts related to transportation:
The City continues to take steps to support and fund various street and sidewalk improvements:

- It allocated approximately $63 million in its FY2018 budget for infrastructure projects aimed at improving pedestrian safety signals and improved signage, including improvements and repairs to municipal parking garages.
- In September 2017, the City announced that it was the second U.S. city in the United States to initiate the “Ofo” bike-sharing program. This program gives the public access to approximately 400 bikes throughout Worcester, providing an additional local mobility option.
- In October 2017, the City announced the creation of a comprehensive policy and series of initiatives aimed at improving traffic, pedestrian and bicycle safety in the City. Included in this plan is the development of a Complete Streets Policy to inform future planning, design, and operation of its streets and transportation infrastructure and services.

The WRTA continues to take steps to ensure that its system is user-friendly, efficient, and responsive to customers’ needs including:

- Creation of a web presence through the www.bustracker.therta.com website and mobile signage which offers a menu of information available from a smartphone to assist the public with the use of the WRTA system.
- The deployment of six zero emission, all electric transit buses. These FTA-funded vehicles were paid for in part by a $4.4 million Clean Fuels Grant Program and have eliminated approximately 780 tons of CO2 emissions in Worcester as of July 2017.
- Increased frequencies: Route 15 O/B Saturdays (August 2017)
- Service adds: Route 25 Sundays, Route 42 weekdays outbound (August 2017)
Transit – Inventory

Figure 99 - Map of WRTA routes in Canal District

Figure 100 - Map of WRTA routes in Theatre District

Figure 101 - Map of WRTA routes in Shrewsbury Street District
Transit Recommendations

1. **Continue working with City-based institutions, employers, and developers to support the WRTA system and reduce these stakeholders’ desire/need to operate private shuttles.** Support means finance, and also means ridership, both of which are essential to maintain or enhance transit. This recommendation is also the most effective one for improving air quality and reducing traffic congestion.

2. **Monitor performance of existing municipal policies and regulations to ensure that they are transit supportive.** For example, the City and the WRTA should jointly assess the effect of parking supply, parking utilization, and bus passenger boardings at specific locations within each District. City and WRTA should work together to manage existing parking supply to transit’s benefit, and the City should work with property owners and developers to reduce or eliminate minimum parking requirements in the Districts.

3. **Continue to evaluate and (if warranted) modify and/or expand WRTA service to/from the Districts.** Ridership evaluations can inform future decisions on enhancement or expansion of this service to other areas.

4. **Work with the CMMPO and WRTA to advance Traffic Signal Priority Control (TSP) and improve connections between transportation modes.** TSP allows transit vehicles to bypass traffic queues at intersections, which improves route schedule adherence and can provide transit with a time savings advantage in mixed traffic. TSP can be instrumental in generating mode shift and growing transit ridership.

5. **Determine best methods for implementing a comprehensive transit amenity program.** Bus stops, shelters, signage and bicycle racks are integral to City streetscapes. While most such amenities have been publicly funded, the private sector could make important contributions. This Program would take inventory, evaluate, and prioritize transit amenity improvements for all users. It would also investigate the feasibility of public/private partnerships to construct and maintain these amenities.

6. **Consider Bus Rapid Transit (BRT) Implementation.** Recommended in the WRTA’s 2014 Comprehensive Service Analysis (CSA), BRT combines bus flexibility with the efficiency of light rail or trolley systems which operate in a dedicated right-of-way. It is most suited to densely developed corridors in which transit can operate at high frequencies. If funding became available and sufficient demand existed, BRT could operate within the WRTA’s existing hub-and-spoke fixed route network or as crosstown transit service to increase intra-City mobility.
7. **Continue to monitor ridesharing and other emerging mobility options (i.e. microtransit) and consider potential partnerships.** Transportation professionals and advocates are observing how ridesharing is changing travel behavior. While detailed ridesharing information is unavailable, The City and the WRTA should continue to collect tripmaking data, identify travel behavior changes, and follow ridesharing/microtransit projects underway in other RTA service areas.

8. **Actively promote WRTA Employee Transit Pass Program.** The WRTA Employee Pass Program can be provided by employers, and if a company is currently paying for employee parking, a bus pass program could save money (and there are tax benefits as well). Instituting the Employee Bus Pass Program satisfies MDEP’s Rideshare Regulation 310 CMG 7.16. The City should require developers of projects of a certain size to participate in this Program as a condition of planning approval – under MEPA, or at the municipal level.
Appendices