Parking Action Plan

City of McKinney, Texas

Final Draft
March 3, 2021

City of McKinney

Parking Action Plan

Prepared by Dixon Resources Unlimited and Wood Solutions Group
on behalf of the City of McKinney, TX

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McKinney, TX

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Executive Summary

This Parking Action Plan (PAP) was developed to outline the recommended implementation steps and strategies to optimize parking management in downtown McKinney.

A successful parking operation will ultimately be dependent on the City's ability to adapt. Steps should be taken incrementally with ongoing evaluation and community feedback to shape future steps. Therefore, this PAP is meant to be used as a helpful guide to highlight important considerations, measures, and best practices to optimize operations, regardless of the approach chosen. The City is encouraged to adjust the implementation approach as needed to design a program that best fits the unique and ever-changing needs of the community.

What were the study's goals?

- **Adaptable:** Develop a parking program that can grow and adapt over time while maintaining the Historic Downtown McKinney charm.
- **Balanced:** Achieve a balance between parking options to support diverse needs of business owners, employees, customers, residents, and visitors.
- **Sustainable:** Develop sustainable parking solutions that support downtown businesses while providing a customer-friendly parking experience.
- **Accessible:** Support downtown vitality through parking policies that improve access and safety.
- **Data-driven:** Provide ongoing management and oversight to track performance and optimize the operation.

Importance of Data

It is beneficial that the City has conducted parking studies every five years since 2004, and there will be additional opportunities for ongoing data collection with the implementation of new parking technology. Past studies show an imbalanced distribution of parking occupancy rates with demand clustering in core areas and other nearby areas consistently underutilized. Rather than reacting to perceptions, parking demand management strategies are most effective when changes are made incrementally based on data. The ongoing growth and expansion of Historic Downtown McKinney and surrounding areas will continue to impact parking supply and demand.

Stakeholder Involvement

A Parking Steering Committee met various times throughout the project and supported the development of PAP recommendations. Representatives from the following City departments and organizations were involved throughout this project:

- Chamber of Commerce
- City Manager's Office
- Communications & Marketing
- Development Services
- Engineering
- Finance
- Information Technology
- Main Street / McKinney Performing Arts Center (MPAC)
- Municipal Court Marshal
- Planning
- Public Works
- Visit McKinney

The consultant team also facilitated a variety of in-person and virtual stakeholder meetings throughout the duration of the project. This included attendance and presentations at two Main Street business meetings. The project also included an online survey which received 1,029 responses.

Getting Started

Here are some initial steps that the City can take to optimize parking management:

Wayfinding

It is important to increase public awareness of parking options to both optimize parking asset utilization and enhance the visitor experience. Navigating to certain parking options can be challenging, especially for newcomers, due to signage clutter, lack of uniformity, and the absence of a consistent and memorable parking branding. There is copious existing parking signage throughout downtown which makes it challenging to discern key information, especially since the styles vary.

- **Install temporary low-cost signage to test guidance solutions to public facilities.**
- **Design a public parking brand and wayfinding signage plan.**
- **Update pedestrian wayfinding signage and improve walkability.**

Management & Oversight

The success of parking management strategies depends upon effective management and oversight. Currently, parking related tasks are spread out across a few City departments and there is no centralized parking management entity. The staffing and resources required for parking management will evolve over time as new policies and programs are implemented, and the utilization of technology may help automate certain processes. Therefore, incremental steps should be taken so that the management approach can be adapted as needed.

- **Consider designating a staff member as a Parking Coordinator to start.**
- **Prioritize compliance and expand enforcement staffing and coverage.**
- **Evaluate management entity options and work towards an approach over time that best fits the City priorities, staff availability, and budget.**

Convenience & Availability

Ideally, on-street parking should be prioritized for shorter-term customer and visitor parking access. There will still be plenty of long-term parking options for those wanting to park beyond 3 hours. The main intent is to encourage a "Park Once" approach where drivers utilize parking supply that best fits their needs. Shorter-term parking should occur in the most convenient on-street spaces, which are currently time limited for a reason – to encourage turnover and provide easy access to downtown businesses. Meanwhile, longer-term parking sessions are better suited for off-street locations since the walk time to/from the final destination has less of an overall impact on trip time.

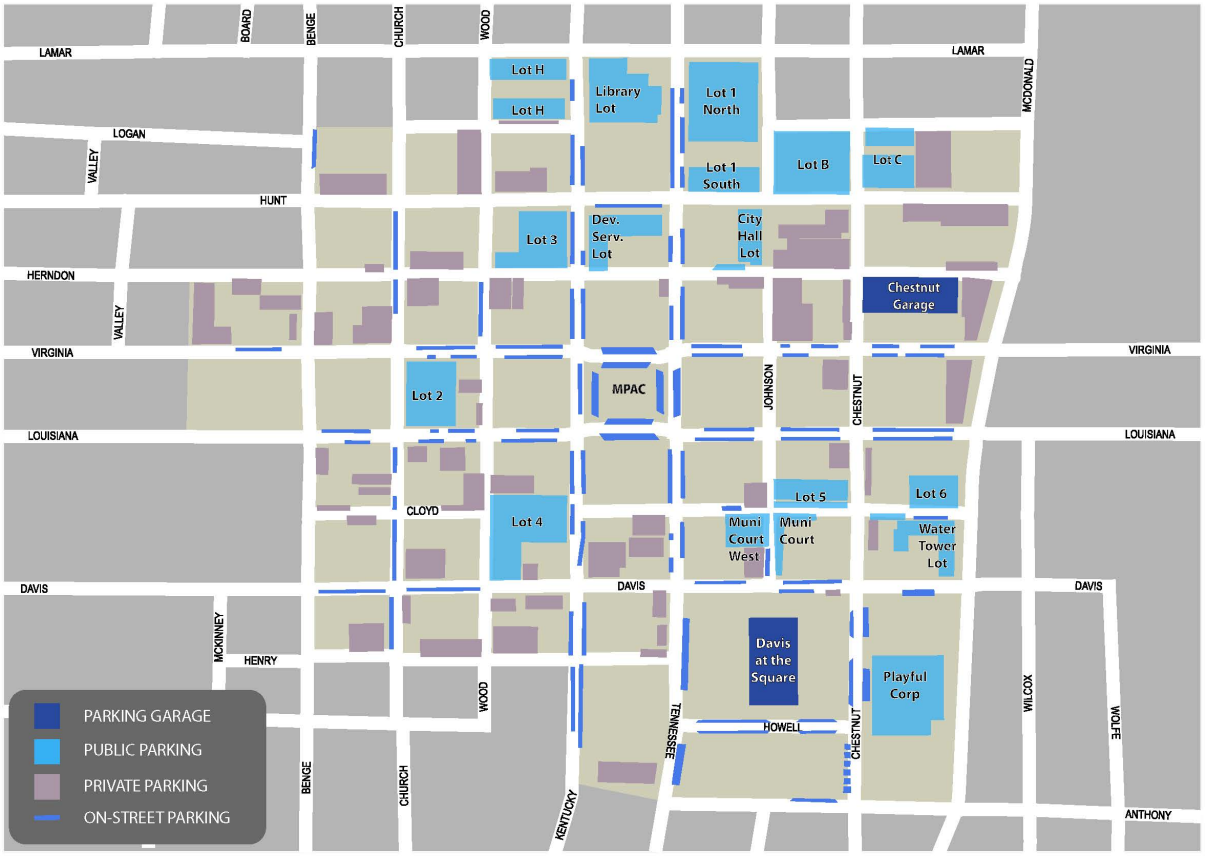
- **Strengthen the effectiveness of existing time limits by aligning operating times with high demand periods and introducing a no re-parking rule.**
- **Implement time limits in highest demand parking lots.**
- **Develop an Employee Parking Permit Program to guarantee long-term off-street parking options for employees, while collecting ongoing data to evaluate next steps.**
- **Pursue shared parking agreements to leverage underutilized supply.**

Ongoing Data Collection

Strategic investments in parking technology are recommended throughout this PAP that can also be leveraged for ongoing data collection without spending extra funds on traditional parking studies. The utilization of data is beneficial to optimize the parking operation since it enables data-driven decisions based on reality rather than perception.

- **Adopt a policy framework that enables adjustments based on data over time.**
- **Ongoing monitoring of occupancy and utilization to guide next steps.**
- **Monitor operations and system performance.**

Figure 1. Parking in Historic Downtown McKinney



Parking Option	Total Spaces	2019 Peak Occupancy Rate	Available Spaces at Peak
Chestnut Garage	312 spaces	29%	222
City Hall Lot	29 spaces	100%	0
Davis at the Square	196 spaces	72%	55
Development Services Lot	44 spaces	100%	0
Library Lot	65 spaces	81%	12
Lot 1 North	124 spaces	29%	88
Lot 1 South	48 spaces	96%	2
Lot 2	75 spaces	100%	0
Lot 3	83 spaces	98%	2
Lot 4	112 spaces	100%	0
Lot 5	56 spaces	100%	0
Lot 6	32 spaces	100%	0
Lot B	103 spaces	84%	17
Lot C	28 spaces	89%	3
Lot H	83 spaces	23%	64
Municipal Court	10 spaces	100%	0
Municipal Court West	27 spaces	100%	0
Playful Corporation	125 spaces	93%	9
Water Tower Lot	21 spaces	86%	3
Totals	**1,573 spaces**	**70% total system occupancy**	**476 available spaces**

1 Introduction

This Parking Action Plan (PAP) was developed by parking consultant team, Dixon Resources Unlimited (DIXON) and Wood Solutions Group on behalf of the City of McKinney (City) to outline the recommended implementation steps and strategies to optimize parking management. This PAP identifies policies, procedures, and management strategies necessary to address the City's current and future parking needs.

Project Overview

The Parking Management Study began in August 2020 with an initial staff kickoff meeting, followed by a review of background documentation, prior parking studies, and existing parking municipal codes.

A Parking Steering Committee met various times throughout the project and supported the development of PAP recommendations. Representatives from the following departments and organizations were involved throughout this project:

- Chamber of Commerce
- City Manager's Office
- Communications & Marketing
- Development Services
- Engineering
- Finance
- Information Technology
- Main Street / McKinney Performing Arts Center (MPAC)
- Municipal Court Marshal
- Planning
- Public Works
- Visit McKinney

The consultant team also facilitated a variety of in-person and virtual stakeholder meetings throughout the duration of the project. This included attendance and presentations at two Main Street business meetings. The project also included an online survey for additional feedback (see Appendix A for results).

The PAP recommendations are mindful of various impacts to the City's parking supply including construction projects, recent and upcoming development projects, and the COVID-19 pandemic.

Previous Parking Studies

Results from prior parking studies were evaluated at the onset of this project to understand historical trends. The City has conducted parking studies every five years since 2004. Results from the most recent study in 2019 indicate a parking management challenge, rather than a parking supply challenge. It was found that on-street parking surrounding the square frequently reached capacity, however, even at the busiest times, there was underutilized public parking nearby. Prior recommendations included improving utilization of existing supply and wayfinding signage improvements.

Goals

The following parking management goals are established by this PAP:

1. **Adaptable:** Develop a parking program that can grow and adapt over time while maintaining the Historic Downtown McKinney charm.
2. **Balanced:** Achieve a balance between parking options to support diverse needs of business owners, employees, customers, residents, and visitors.
3. **Sustainable:** Develop sustainable parking solutions that support downtown businesses while providing a customer-friendly parking experience.
4. **Accessible:** Support downtown vitality through parking policies that improve access and safety.
5. **Data-driven:** Provide ongoing management and oversight to track performance and optimize the operation.

2 Parking Action Plan Structure

This Parking Action Plan (PAP) includes a set of 31 recommendations, but a successful parking operation will ultimately be dependent on the City's ability to adapt. Steps should be taken incrementally with ongoing evaluation and community feedback to shape future steps. Therefore, this PAP is meant to be used as a helpful guide to highlight important considerations, measures, and best practices to optimize operations, regardless of the approach chosen. The City is encouraged to adjust the implementation approach as needed to design a program that best fits the unique and ever-changing needs of the community.

The PAP is organized based on the following three focus areas:

Focus Area	
A	Wayfinding and Parking Guidance
B	Parking Demand Management
C	Operations and Enforcement

A checklist is provided at the beginning of each focus area chapter to indicate which project goals are supported by various recommendations. A discussion of background information is provided next for context, followed by the individual recommendations.

Recommendations are organized within estimated near-term (1-2 years), mid-term (3-5 years), and long-term (6+ years) timeframes. However, actual timing will be dependent on City Council prioritization, stakeholder feedback, funding availability, and the ongoing evaluation of initial implementation steps.

The report concludes with a Comprehensive Implementation Guide that may be used by staff as an implementation checklist.

A Wayfinding and Parking Guidance

Figure 2. Focus Area A: Goals Supported

Recommendations		Adaptable	Balanced	Sustainable	Accessible	Data-driven
A-1	Increase public awareness of parking options.	✓	✓	✓	✓	✓
A-2	Design a public parking brand and wayfinding plan.	✓	✓	✓	✓	
A-3	Update the pedestrian wayfinding signage.	✓	✓	✓	✓	
A-4	Procure a digital parking guidance system.	✓	✓	✓	✓	✓
A-5	Integrate real-time availability data with other applications.	✓	✓	✓	✓	✓

Context

It is important to increase public awareness of parking options to both optimize parking asset utilization and enhance the visitor experience. Parking availability information is valuable, not only for ongoing utilization data, but also to assist with trip planning and to direct drivers to available parking.

McKinney parking studies show that certain parking options are consistently underutilized, including the Chestnut Commons and Davis at the Square parking garages (Figure 3). Navigating to certain parking options can be challenging, especially for newcomers, due to signage clutter, lack of uniformity, and the absence of a consistent and memorable parking facility naming system. There is copious existing parking signage throughout downtown which makes it challenging to discern key information, especially since the style varies. Some locations are also not well marked or advertised. Existing signage at the Chestnut Commons Garage is well-designed, but the placement along Chestnut Street is not noticeable to drivers until they've reached the garage, so without additional "bread-crumbing" signage along the main thoroughfares it is unclear

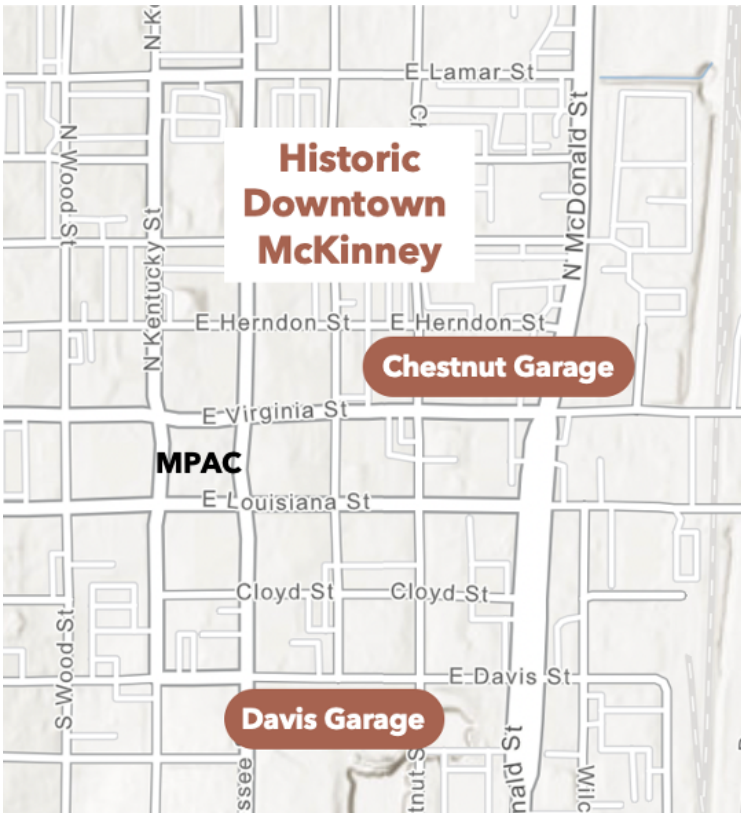


Figure 3. Chestnut Commons & Davis at the Square Garages

how to navigate to this location. Pedestrian signage also exists throughout downtown, but it can be hard to notice and it has not been consistently updated.

The City should better advertise the garages in order to maximize the use of these assets and alleviate on-street demand and congestion. According to the Online Parking Survey (see Appendix A for full results):

- 37 percent of respondents were unaware of the free parking available at the Davis at the Square Garage and 59 percent had not used the Chestnut Commons Garage.
- Business owners, employees, and Downtown residents were much more likely to know about the Davis Garage than visitors from outside of the downtown area.
- The less frequently a non-resident visitor came to Historic Downtown, the less likely they were to know about the Davis Garage.
- Business owners and employers were much more likely to use the Chestnut Commons Garage, with 100% of employees indicating that they had used it.
- Resident visitors were split evenly on whether they use the Chestnut Commons Garage.
- Non-resident visitors overwhelmingly did not use the Chestnut Commons Garage.

The 2019 Parking Study revealed that building additional parking supply did not solve the downtown parking challenges. Even with the additional parking supply, the perception that there is not enough parking downtown remains common among stakeholders. Additional signage is a key element in optimizing the use of these locations. Other recommendations related to time limits and employee parking will also contribute to the optimization of existing parking facilities (see Recommendations B-3 and B-5). 2018 traffic counts indicate that the West Louisiana entrance is the most popular access point to downtown (Figure 4). When this route is taken, Lot 2 is the first nearby parking option, which could explain the consistently high occupancy rates observed in this location. Wayfinding and parking guidance signage provides an opportunity to both encourage other routes to access downtown and encourage use of underutilized parking locations beyond Lot 2.

Figure 4. West Louisiana Entrance to Historic Downtown McKinney

The City is conducting a phased pilot with CityFront Innovations for a 311 mobile application that may include a parking feature. Phase 1 focuses on the 311 application and a proof of concept. In the later phases of the project, using video cameras, CityFront anticipates being able to detect real-time parking occupancy data at the 2 parking garages and eleven surface parking lots. This is an opportunity to test the ability to count cars and broadcast parking availability through an application. The pilot may include 4 vehicle-detection (not license plate-based) cameras around the Square proper and in additional cameras at the garage ingress/egress points. Parking availability data would be incorporated into the application and there is an opportunity to interface with digital signage or other applications.

The City also intends to conduct a separate Wayfinding Study, which is estimated to begin in early 2021. This project may eventually incorporate parking signage, but this PAP suggests some interim solutions to improve parking guidance in the meantime.

Near-term

Recommendation A-1: Increase public awareness of parking options.

Increasing awareness of parking options will both mitigate congestion from drivers searching for parking and improve utilization of parking assets.

It is recommended that the City utilize temporary signage to have an immediate impact on parking behavior. Depending on if the City proceeds with the Wayfinding Study, this could also be an interim solution to evaluate signage placement and impacts. In particular, signage could be used to advertise free parking options in the Chestnut Commons and Davis at the Square Garages. The City could request public feedback about the placement of temporary signage to determine if adjustments would be beneficial if and when new permanent signage is installed (see Recommendation A-2).

Low-cost options include banners or A-frame signs that can be placed at strategic locations throughout the downtown. This is an opportunity to have an immediate impact while also evaluating the effectiveness of signage locations to inform the Wayfinding Study before investing in more permanent solutions.

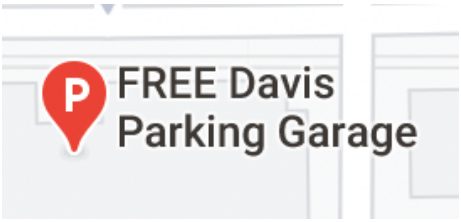


Figure 5. Google Maps Label

Due to the popularity of Google Maps and Waze, the City should also proactively reach out to Google as needed to ensure that parking options and information are up to date on their navigation platforms. Google Maps already clearly promotes free parking options at locations such as the Davis Garage (Figure 5).

In addition to signage and navigation platforms, an education and outreach campaign can further increase awareness. The City should proactively educate downtown business owners, employees, and visitors about parking options. By working with business owners, the City can develop consistent messaging for customers about where and how to park. Another consideration is the promotion of walk times from each parking option to major destinations to remind the public about the potential convenience of walking and promote the use of off-street parking options.

Recommendation A-2: Design a public parking brand and wayfinding plan.

The City is moving forward with a citywide Wayfinding Study; parking guidance signage should be included as part of that effort, due to the importance of wayfinding for parking management. The scope of the City's potential project includes the design phase for various types of wayfinding signage including directional and monument signage, as well as recommended placement locations.

Prior to finalization of the upcoming Wayfinding study, the City can make improvements using the recommendations within this PAP. Developing a public parking brand is one of the first steps, so it is recommended that this be undertaken early on (in roughly 4–6 months).

The City should select a public parking brand that can be incorporated on all parking signage and related marketing materials. The brand should be easily recognizable and visually contrast with other non-parking related directional signage details. A public parking brand will clarify and promote public parking options.

Figure 6. Existing Wayfinding Signage

A parking brand is successful when it evokes a memorable and positive parking experience to users, drawing them back time and time again. A successful parking brand usually includes several key elements.

1. **Be Memorable.** The brand should consist of imagery and elements that allow patrons to quickly identify parking options each time they visit Downtown McKinney.
2. **Be Consistent.** Consistent messaging makes navigating and using the parking system easier for users to understand. Furthermore, communicating through common signage that is both well-lit and strategically located tremendously improves the customer experience.
3. **Promote Convenience and Ease.** The parking program, through its branding, operations, and management, should promote an easy and convenient experience for customers from beginning to end, which is primarily rooted in effective communication.

A parking brand is not only portrayed in signage and marketing materials, but also in the experience that the customer has. The program needs to be structured in a way that supports an accessible and easy experience and does not leave the patron confused or frustrated. To that end, communications, pricing, policies, and operations are all a part of the brand and should be handled with a consistent approach that nurtures a positive experience.

Figure 7. Chestnut Garage Blade Sign

The public parking brand should ideally be incorporated on signage, marketing materials, any future mobile application, the City website, and on parking enforcement staff uniforms. Consistency in branding and messaging is important to increase awareness and communicate holistic program elements. The goal is for patrons to associate the brand with a positive parking experience so they know what to expect at any branded location. Branded marketing materials can continue to remind the public about overall program goals.

Sample Branding Elements

The project team developed several branding examples for the City to consider as they embark on the development of a program branding strategy. The examples utilize design elements from the community with the intent to create a memorable and consistent signage and communication system. The color schemes used in these examples build off the existing color scheme used on the Chestnut garage and in other downtown design elements to help tie the programs brand to other recognizable aspects of the Downtown McKinney experience.

Within each example, there are two elements provided, including an arrival sign and a trailblazer sign, which would direct drivers to surface lots and garages. The arrival sign would be found at the public parking facility entrance to mark the patron's arrival at the parking destination. The trailblazer signs would be located in strategic places throughout the downtown to help drivers easily navigate to available public parking.

Figure 8. Branding Elements Example 1

The full concept for the arrival sign would include lighted signs that would provide a clear and distinct message that the parking is both public and part of the City's parking system.

The trailblazer signage would use the same color-scheme as the arrival signs, with a slimmed down version of the full neon-signage as the identifier for public parking. In this version of the example, the arrow configuration is non-traditional helping to distinguish this signage from other traffic-related signage. This version also provides the distance to the public parking facility for further clarity for customers.

The second example branding element uses a more retro look to capture some of the character of the Downtown McKinney experience and create a memorable and easily identifiable look and feel for the program.

Figure 9. Branding Elements Example 2

The arrival sign has a distinct and unique look that would set it apart from other signage found in Downtown McKinney. The large arrow would continue the bread crumbing arrows from the trailblazer signs and clearly identify the patron has arrived at the parking facility.

The trailblazer sign simplifies the arrival sign into a simple P with the same color scheme to connect the two. In this example, the P does not appear on the arrival sign, so the connection relies on the look and feel to maintain consistency.

Other Considerations

Strategically placed signage provides opportunities to direct motorists to downtown public parking facilities, reducing the potential for cruising and possible patron frustration related to finding available parking. Approaches to implementing signage include traditional destination-based wayfinding signage, parking-specific trailblazer signage, exterior facility signage, or parking guidance systems.

- **Destination-based wayfinding signage** – destination-based signage helps orient motorists to key locations throughout the community. Examples of this can be found on Highway 5 and other routes entering the downtown area. The City is about to undertake a larger effort throughout the community to update and improve destination-based wayfinding signage.
- **Parking-specific trailblazer signage** - Parking-specific trailblazer signs act as a system of "breadcrumbs," directing motorists as they enter downtown, navigate the downtown street network, and arrive at public parking facilities. The design of the signs should be representative of the new parking brand, including associated color and font schemes, helping the signage and message stand out to drivers among the sea of other wayfinding and traffic control signs. Trailblazer signs should be consistently designed in terms of design, height, and placement in relation to the street and the driver, offering a consistent vantage point for motorists to identify directions to public parking.
- **Arrival signage** - The arrival sign is the exterior facility signage. This signage serves as the final indication for motorists that they have arrived at their destination by using the branding and

marketing elements to provide the motorist with assurance that they have reached an identified public parking facility. The brand signage is usually installed above the entrance, or in a prominent location that can be easily identified by motorists on the adjacent street network. Ideally, this signage is large enough to be seen from approaching blocks, is illuminated to be seen in evening hours, and has a unique design that sets it apart from other parking signage.

- **Parking guidance systems** - Parking Guidance Systems (PGS) employ dynamic messaging to direct drivers to available spaces. These can be implemented in the community to expand vehicle navigation through the provision of a higher level of data communicated through electronic signage. PGS include dynamic messaging signs connected to either space detection systems or revenue control systems for each individual parking facility supported by the PGS. These connections relay real-time parking space availability in those facilities, helping motorists decide where to park based on availability. PGS provide an excellent opportunity to reduce the perception of a lack of parking in an area by communicating real-time parking space availability and directing traffic to those available parking spaces. These can be placed at parking lot and garage entrances to indicate to drivers whether to enter, and they can also be placed along driving routes to redirect drivers based on where parking is available.

Thorough communication strategies allow users to easily understand and navigate the parking system, making locating and utilizing the most optimum parking option convenient for drivers. This begins with developing clear and standardized wayfinding signage, such as trailblazer signs, that indicates where available parking is located. Dynamic messaging signage communicates parking location and space availability. Web-based communication and social media provide an opportunity to communicate parking regulations, locations, and rates before motorists begin their trip.

Directional signage should provide enough advanced notice to drivers to navigate the suggested route with ease. This means signage text should be large enough to read from partway down the street, and any upcoming turns should be clearly identified. Simplified content with fewer arrows can improve the ability for a driver to quickly interpret information. For example, some signage along Tennessee Street has arrows in every direction, which may be confusing or overwhelming to drivers.

It is also recommended that pedestrian wayfinding signage be included as a component in the Wayfinding Study plan to enhance the walking experience downtown (see Recommendation A-3).

Navigational Signage Improvements

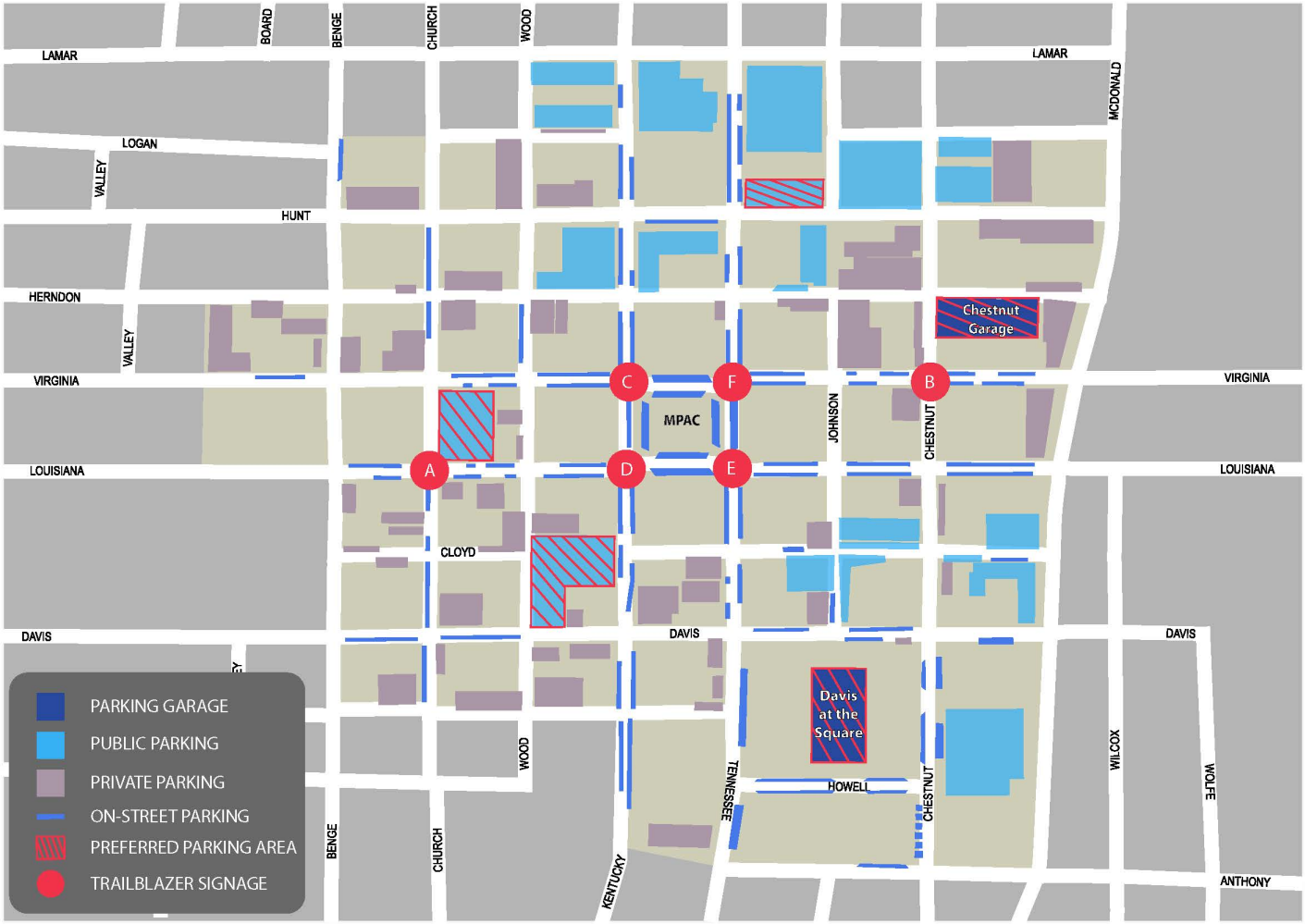
Updates to the City's trailblazer and wayfinding signage in initial phases should focus on routing motorists from primary arrival routes to a select number of public parking facilities. Focusing on the primary arrival routes and traffic patterns should reach the target audience for improved navigation. Limiting the number of facilities that are being navigated to reduces the signage clutter and decision points for the motorist. For this exercise, City lots 1, 2, and 4 as well as the public spaces in Davis at the Square and the Chestnut garage would be the ideal locations to navigate to. Depending on the locations selected for initial phases of the employee parking program (described in Recommendation B-3), these locations may need to be modified.

A review of traffic volume data provided by the City that was collected in 2019 offers a glimpse of how motorists predominately navigate into and around the Downtown. The primary access points were from the east and west directions, using Virginia Street and Louisiana Street to access the commercial core. The volumes arriving on Tennessee Street and Kentucky Street were roughly half the volume of those arriving from the east and west directions.

The highest observed volumes in the dataset within the community were on the four streets comprising the square around the MPAC. The analysis of the volumes indicated that the primary movement when entering the community was to circle the square, most likely looking for an available on-street parking space. If this is the case, then the best way to communicate to motorists is after they have made an initial pass around the square. Most motorists likely won't notice the wayfinding signage until after their initial attempt to park. For example, if someone is planning to visit Landon Winery on the corner of Louisiana and Kentucky, they will likely drive near the destination to look for a space. A well-placed trailblazer sign pointing the motorist to parking south of the square should direct them to available public parking spaces in either Lot 4 or the Davis at the Square garage.

The following map provides a depiction of where the initial signs could be placed to navigate drivers to the preferred public parking areas. Each circle represents the general area for the signage and are described in the bulleted list after the map. When choosing signage installation locations, the City should be mindful of potential visual obstructions to ensure that signage is clearly visible. Signage locations may change based on the recommendations of the citywide wayfinding study.

Figure 10. Signage Placement Map



- **A** – a primary trailblazer sign for motorists arriving from the west along Louisiana announcing the brand and indicating that there is parking ahead (straight arrow) with the intent to keep patrons moving past Lot 2

- **B** – a primary trailblazer sign for motorists arriving from the east along Virginia announcing the brand and indicating that there is parking to the right in the Chestnut garage
- **C** – a trailblazer sign located at the intersection of Virginia and Kentucky indicating that there is parking to the left, leading motorists to the parking south of the square or back around the square to the Chestnut garage
- **D** - a trailblazer sign located at the intersection of Louisiana and Kentucky indicating that there is parking ahead, leading motorists to the parking south of the square
- **E** - a trailblazer sign located at the intersection of Louisiana and Tennessee indicating that there is parking ahead, leading motorists to the Chestnut garage
- **F** - a trailblazer sign located at the intersection of Virginia and Tennessee indicating that there is parking ahead, leading motorists to the parking north of the square including Lot 1

These six locations represent the initial pilot the City could test. Outcomes of the pilot could evaluate parking occupancy at the preferred public parking areas, customer and business-owner feedback, and changes in parking citations. Based on the results of the initial pilot, the City could expand the signage to include more areas as demand in the downtown dictates. The City should avoid over-placement of signs because it only leads to more choice and confusion for motorists.

Recommendation A-3: Update the pedestrian wayfinding signage.

Figure 11. Existing Sign

Downtown McKinney is a walkable destination, and it's important to promote the convenience of walking between destinations and to and from parking. There may be an opportunity to enhance certain streets and alleyways with lighting and murals to improve the pedestrian experience. See Recommendation B-13 for more information on how to promote and enhance walkability.

The Wayfinding Study (see Recommendation A-2) should ideally address pedestrian wayfinding signage updates as well. The City should also plan to periodically update signage as needed so that destinations remain relevant. Before the Wayfinding Study concludes, there are temporary low-cost signage solutions that could be utilized to encourage walking. One example was deployed in Wailuku, pictured to the left. Pedestrian signage could include estimated walk times to major destinations. It would also be helpful to update the City website, such as the Main Street parking webpage, to include walk times and information to encourage walking alongside existing information about how to access and park downtown. There may also be opportunities to use flyers with maps or other promotional materials for those not using a mobile device or computer for trip planning, but a web-based solution provides more flexibility and minimizes potential clutter or litter. Sometimes visitors might be unaware of the convenience of walking and opt for driving to a destination that could be reached on foot in a similar amount of time. Walk times help put this tradeoff into perspective.

Mid-term

Recommendation A-4: Procure a digital parking guidance system.

Vehicle counting systems coupled with automated wayfinding systems are helping to revolutionize how the public utilizes parking resources. Dynamic signage allows patrons to be redirected toward alternative, underutilized parking locations. Integrating these systems with everyday phone and mapping applications has provided drivers with the ability to plan their parking experiences before leaving their homes, enabling

them to make more informed decisions about how to get to their destinations and evaluate alternative modes of transit. At a minimum, the City should consider digital signage for the two garages, but the system could be expanded to include surface parking lots as well.

The CityFront pilot could be an opportunity to evaluate digital parking guidance signage capabilities. If implemented, the City should closely evaluate the vendor system and the ability to promote available parking options. In the meantime, the City should also evaluate other parking guidance system vendor options. Regardless, the parking guidance system should incorporate real-time parking occupancy data. This can be achieved through various sensor options including vehicle detection loops and cameras.

Some agencies opt to install a sensor for each parking space, and in some cases an LED light can be mounted above each space to signal availability, but this approach is both expensive and superfluous for McKinney. This is because existing parking lots and garages are small to medium-sized and do not have complex internal routes to navigate. Therefore, simple facility-wide occupancy counts are recommended.

Similar to what already exists in the Davis at the Square Garage, areas where certain portions of a parking facility are designated for permit or reserved parking, additional "nesting" may be required for sensors to track occupancy separately from the overall facility count. This helps provide more accurate information about public parking availability.

It is not recommended that on-street parking be considered for sensor technology. There is a high cost associated with on-street sensors, often a lower accuracy rate, and the priority is directing drivers to off-street parking options. It should also be considered that potential technology investments recommended for on-street parking and parking enforcement would also provide the option for ongoing data collection using predictive analytics (see Recommendation C-2).

Parking guidance signage should state either the number of available parking spaces or whether a facility is open/full. In most cases, the simplicity of the open/full message is preferable since it effectively communicates whether a driver should pull into a facility or not. The number of available spaces is not always helpful since it doesn't reflect how challenging it might be to find available parking (for example, looking for 1 space in a 3,000 space garage will be more challenging compared to a 300 space garage). Additionally, providing individual level counts is often too much information for a driver to absorb when taking a quick glance at a sign.

When a facility nears capacity, the signage can be configured to automatically promote nearby alternatives. This can ease congestion and prevent drivers from pulling into a facility that is otherwise full.

The overall parking guidance system should also be designed for adaptability. Dynamic messaging capabilities will allow the system to redirect drivers to available parking options in real-time so once a facility nears capacity the system will automatically update. The City could also leverage the signage for other messaging as needed, such as information during special events or safety alerts.

Long-term

Recommendation A-5: Integrate real-time availability data with other applications.

Depending on the results of the CityFront pilot, the City may have ongoing real-time parking availability data for the two garages and eleven surface lots. The City's potential 311 application with CityFront could become a one-stop-shop for parking information. The system would have the ability to guide drivers to areas that are likely to have available parking.

Other parking guidance systems could also be considered. Whether the City proceeds with CityFront or another vendor system, this data should be leveraged for trip planning purposes. This data can be transmitted to existing phone and web applications, such as Google and Waze, using an application programming interface (API).

Developing a standalone parking phone application is likely to be cost prohibitive, and it can be challenging to promote the application to users to download in advance, especially those newcomers who are least familiar with McKinney. The potential 311 application would likely be able to incorporate the desired parking availability information, which would be more convenient to users compared to downloading a separate application.

Instead, the City should evaluate opportunities to incorporate this data into existing mapping applications which already have a significant user base. Static information about parking policies and operating times can be shared in the near-term, but in the future there may be an option to incorporate real-time data. The City can also provide the information on the City website, ideally on a map.

B Parking Demand Management

Figure 12. Focus Area B: Goals Supported

Recommendations		Adaptable	Balanced	Sustainable	Accessible	Data-driven
B-1	Adopt a data-driven policy framework.	✓	✓	✓	✓	✓
B-2	Determine a parking program management approach.	✓	✓	✓	✓	✓
B-3	Develop an Employee Parking Permit Program (Phase 1)	✓	✓	✓	✓	✓
B-4	Establish a No Re-Parking rule.	✓	✓	✓	✓	✓
B-5	Implement time limits in high-demand surface lots.	✓	✓	✓	✓	✓
B-6	Adjust operating hours to address peak demand periods.	✓	✓	✓	✓	✓
B-7	Pursue shared parking agreements.	✓	✓	✓	✓	✓
B-8	Prioritize core curb-space for active uses.	✓	✓		✓	✓
B-10	Evaluate the Parklet Program.	✓	✓	✓		✓
B-11	Consider implementing tiered time limits or a Pay-to-Stay model.	✓	✓	✓	✓	✓
B-12	Implement Employee Parking Permit Program Phase 2.	✓	✓	✓	✓	✓
B-13	Promote and expand transportation mode alternatives.	✓	✓	✓	✓	✓
B-14	Promote and enhance walkability.	✓	✓	✓	✓	
B-15	Modernize parking development requirements.	✓	✓	✓		✓
B-16	Establish a Residential Parking Permit Program.	✓	✓	✓	✓	✓
B-17	Offer valet parking during special events.	✓	✓	✓	✓	✓
B-18	Adapt or increase parking supply as needed.	✓	✓	✓	✓	✓

Context

The parking industry standard target parking occupancy rate is 85 percent. At this rate, there are enough vacant parking spaces to: 1) Minimize congestion from drivers searching for spaces; and 2) Reduce oversupply, which is an inefficient and costly use of valuable land.

Turnover is also an important aspect of parking availability since a high turnover rate means that drivers are not occupying a space for long, therefore turning the space over for use of another visitor. It is an industry best practice to designate convenient parking for shorter visits and loading since the close proximity minimizes the impact of walk time between a parking space and a destination. For longer visits, walking for extra time between destinations has less of an overall impact on the total trip time. It is also less impactful for someone visiting McKinney for the entire day to spend five minutes looking for parking, compared to someone who is just trying to run inside a business for a quick food or merchandise pick-up.

Figure 13. Louisiana Street Parking

McKinney parking studies show an imbalanced distribution of occupancy rates with demand clustering in core areas and other nearby areas consistently underutilized. Key findings from the 2019 study include:

- Parking demand is typically higher in summer than in the fall.
- Off-street private lots had the lowest peak occupancy.
- On-street parking supply had the highest occupancy rate, and the spaces around the Historic Downtown Square (the Square) frequently reached capacity.
- Even at busiest times, the occupancy rate for all public parking was 59 percent.

- Available parking was mostly clustered in the east and northern areas, and primarily in the Chestnut Commons Garage.
- There was a high turnover rate around the Square.

According to the 2020 Cultural District Mobile Data Survey, visitation characteristics include:

- There are an estimated 1 million customers and 4.5 million visits annually to the McKinney Cultural District.
- The majority of visits occur mid-day around 12:00 and 1:00 p.m.
- Saturday is the most popular day.
- The average length of stay is estimated to be around 3 hours.

The ongoing growth and expansion of Historic Downtown McKinney and surrounding areas will continue to impact parking supply and demand. For example, the new City Hall location will shift City employee parking demand and impact parking dynamics. It is estimated that between 160 – 200 City employee vehicles would be parked east of Highway 5, rather than in the Historic Downtown area, after this shift. City employees currently park in a number of locations throughout the downtown area, including Development Services, Lot 1, Municipal Court lots, Water Tower lots, and Lot H. From these locations alone, there are 357 parking spaces within a proximate distance of City buildings.

In general, one of the primary parking conflicts in Downtown McKinney is between employees of local businesses and patrons of those same businesses. Because a majority of employees – close to 70% according to the projects online survey – don't have dedicated parking, most tend to park in public parking options, whether that's on-street or off-street. The project team evaluated the scale of the employee parking demand in Downtown McKinney and defined options for creating an employee parking program with dedicated facilities assigned to employees.

Using industry standard parking demand metrics (Urban Land Institute and Institute of Transportation Engineers), the project team estimated the volume of employee parking demands present in Downtown McKinney at various times during typical weekdays and weekends (see Figure 14). This analysis was calibrated to local conditions using parking occupancy data collected by the City of McKinney in 2019. Online survey responses were also used to approximate how many downtown employees had access to available parking provided by their employer. The result was an estimate of overall parking demand for employees who use public parking, as well the breakdown of those volumes by downtown zone and ring (as defined in the recent Downtown McKinney parking study conducted by the City in 2019, see Figure 15).

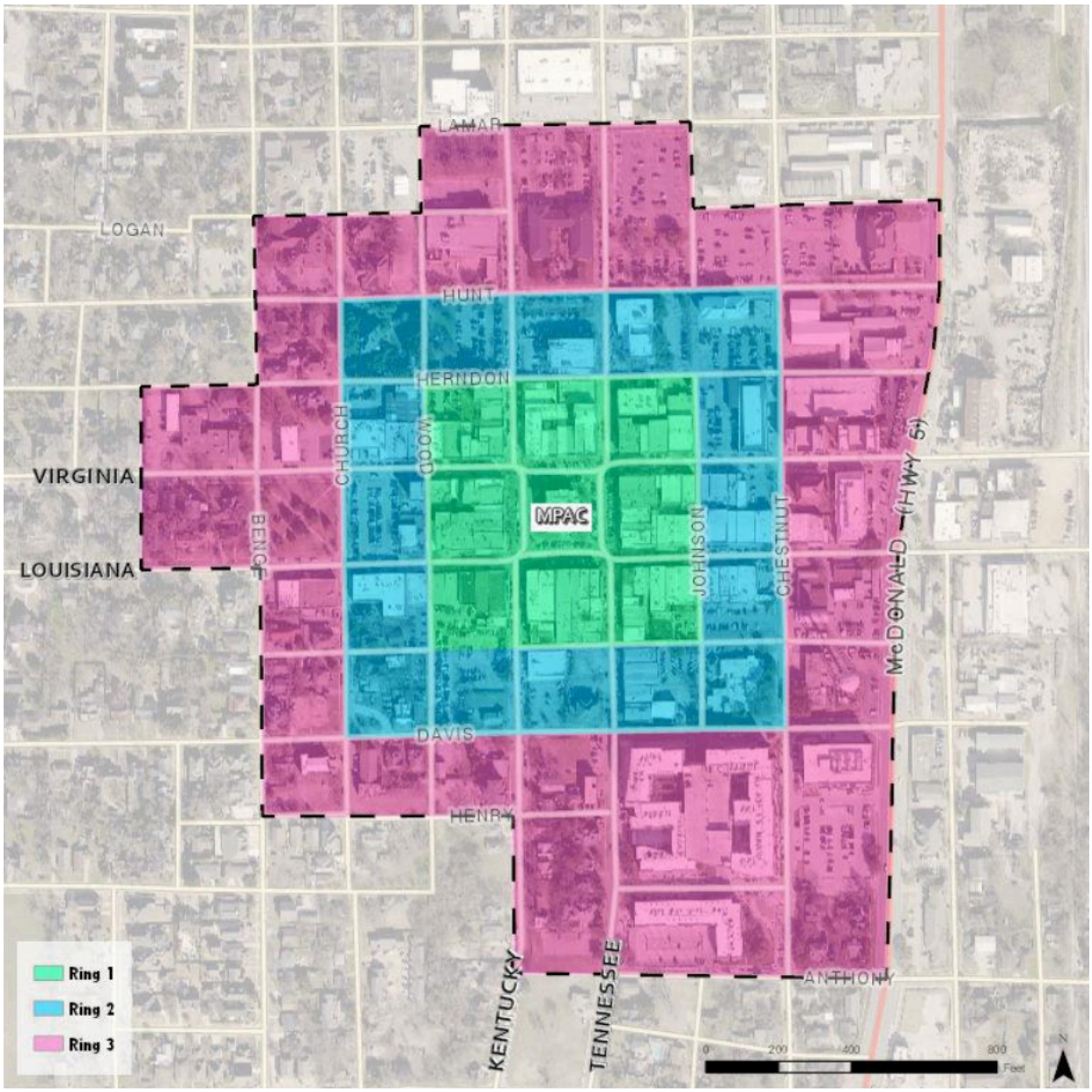
Figure 14. Estimated Employee Parking Demand

Total Employee Parking Demands[1]	940 spaces
Total Public Employee Parking Demands[2]	390 spaces
Zone A Public Employee Parking Demand	125 spaces
Zone B Public Employee Parking Demand	75 spaces
Zone C Public Employee Parking Demand	115 spaces
Zone D Public Employee Parking Demand	75 spaces
Ring 1 Public Employee Parking Demand	150 spaces
Ring 2 Public Employee Parking Demand	75 spaces
Ring 3 Public Employee Parking Demand	165 spaces

[1] inclusive of all employee parking demands including city employees, private office, retail, restaurant, etc.

[2] removes city employee and ~30% of demand based on online survey results

Figure 15. Downtown McKinney 2019 Parking Study Area Rings



Near-term

Recommendation B-1: Adopt a data-driven policy framework.

An important aspect of parking management is adaptability. Rather than reacting to perceptions, parking demand management strategies are most effective when changes are made incrementally based on data. It is beneficial that the City has conducted parking studies every five years since 2004, and there will be additional opportunities for ongoing data collection with the implementation of new parking technology.

Municipal codes should be updated to enable dynamic policy changes based on data including time limit adjustments and the potential implementation of paid hourly parking. Adjustments to parking policies should be made based upon the 85 percent occupancy target.

Strategic investments in parking technology are recommended throughout this PAP that can also be leveraged for ongoing data collection. While agencies traditionally have collected data through formal parking studies, the use of modern parking technology means there is not necessarily a need to spend extra funds on data collection.

Parking occupancy and utilization data can be monitored over time to understand trends and tailor parking policies. If certain areas are underutilized, policies can influence driver behavior and encourage use of certain locations. Operating hours should be adjusted as needed to adequately address the days and times when parking management is most needed.

Recommendation B-2: Determine a parking program management approach.

The success of parking management strategies depends upon effective management and oversight. Currently, parking related tasks are spread out across a few City departments and there is no centralized parking management entity. The staffing and resources required for parking management will evolve over time as new policies and programs are implemented, and the utilization of technology may help automate certain processes. Therefore, incremental steps should be taken so that the management approach can be adapted as needed.

Getting Started

As a starting point, the City should consider designating a staff member as a Parking Coordinator. This could either become a subset of duties for an existing role, or it could become a new standalone position. There is an opportunity to locate this Parking Coordinator within a City department after evaluating existing roles and responsibilities to determine the best fit with the understanding that the parking program is likely to require additional resources over time. Because parking management impacts a variety of City departments it will be helpful to have a dedicated position to oversee and coordinate the implementation and ongoing management of the operation.

Parking Coordinator duties would include facilitating program implementation steps which may comprise of parking technology procurements, permit program management, ongoing data collection and analysis, stakeholder outreach, special event parking management coordination, and other related duties. Additionally, the Parking Coordinator should be prepared to work collaboratively with the City's Parking Enforcement Officer (PEO), and any future PEOs, to optimize operations and compliance.

The City should be mindful of upcoming program changes or expansions to anticipate potential staffing needs. It is possible that the Parking Coordinator role could eventually become a Parking Supervisor or Manager position that oversees support staff. This position could have escalated responsibilities that may include program management, budgeting, and staff scheduling.

Potential Expansion

As new programs are implemented, the parking operation may require additional support personnel. For example, if paid parking is implemented, additional staff might be needed to support ongoing equipment maintenance and revenue collections (see Recommendation C-6). Paid parking would also present an opportunity to design a self-sustaining parking operation based upon paid parking revenue, which could allow for a parking enterprise fund or similar. Another opportunity is a Parking Benefit District (see Figure 16), which would allow any revenue generated by paid parking, beyond what is needed to sustain operating costs, to be reinvested into the downtown.

Parking Enforcement

Another consideration is the management of the parking enforcement operation. The City currently has only one PEO, but especially as enforcement coverage is expanded, additional personnel will be needed

(see Recommendations C-1 and C-2). Parking enforcement could potentially remain within the Marshal's Office, but the City should evaluate whether PEOs can be legally authorized to enforce the state vehicle code. Currently, PEOs only enforce local municipal codes. Additionally, PEO staffing should be expanded to enhance coverage, and the hours should be extended beyond existing Marshal office hours if time limits are extended into the evening or weekend. There could also be other benefits to relocating PEOs to the same division as the Parking Coordinator or Manager. For example, this could help ensure that PEO coverage is allocated and evaluated consistent with achieving parking program goals. Depending on the size of the operation, the City may consider converting the existing PEO into a Supervisor role to oversee potential future part time PEO staff (see Recommendation C-1 for more information).

Management Options

The City should evaluate various management options and work towards an approach over time that best fits the City priorities, staff availability, and budget. At the onset, parking management should remain a City function while other options are evaluated. Figure 16 below summarizes a range of options for consideration. These are just examples, and the best approach will ultimately be dependent on the impact of initial implementation steps and the evolution of the parking operation. We recommend that McKinney begin with the City Management option and evaluate the viability of Parking Benefit District and independent parking entity over time as this plan is implemented.

Figure 16. Parking Management Options

	City Management	Parking Benefit District	Parking Entity
Description	- Parking management duties could be vertically integrated within a designated City department. - A dedicated Parking Coordinator or Parking Manager position could be established along with any necessary supporting staff.	- Geographic boundaries could be defined and all parking monies would be retained within the district for program support and improvements. - A commission or stakeholder body (e.g. Main Street) could make decisions related to discretionary funding set-asides.	- This is a long-term consideration after the City evaluates incremental parking management steps. - An independent parking entity could include members appointed by the City Council. - A parking entity may employ staff necessary to manage and deliver parking services.
Pros	- Emphasizes the importance of parking by dedicating staff and decision-making - Allows for more cohesive decision-making across all parking functions - Separates layers of bureaucracy that limit effective decision-making	- Revenue is retained within the district and can be used for improvements. - Provides some autonomy while offering accountability of a City department - Better integration with local business and community groups	- Provides more independence than a City department - Provides some separation in decision-making from entity to City officials
Cons	- Could create unintended changes in staffing or responsibilities	- Could require additional assessments on business	- Decision-making may not align with the City's goals and objectives

City Management	Parking Benefit District	Parking Entity
- Relocation of responsibilities/budgeting between departments - Decision to staff in-house vs. out-source	- Defining district boundaries can be subjective - A commission or stakeholder body (e.g. Main Street) may not have the bandwidth or expertise to take on parking management - If managed by Main Street, their objectives are closely tied with business objectives, which could mean a conflict of interest for appointed members - Must define how much revenue is maintained for City versus reinvested	- Financial income and decisions are independent of City priorities

Whichever option the City ultimately decides to use in the long-term, there may also be a need to define whether the resources related to parking management remain as internal City staff or outsourced resources through a parking management company. Initially, the Parking Coordinator will be tasked with coordinating parking activities and implementing initial phases of this plan. As the function of the parking management entity gets more robust and as further steps are taken to implement parking management, the team may need to grow to include additional staff. The City should evaluate whether it is more efficient and financially sustainable to outsource these functions to a parking management company who would require a management fee or to hire additional City staff to perform these functions. Whatever direction the City decides on, the overall management of the system would remain an internal position that evolves from the initial Parking Coordinator.

Recommendation B-3: Develop an Employee Parking Permit Program (Phase 1).

Both stakeholder input and online survey data analysis (see Appendix A) reveal that some downtown employees park on-street in front of businesses throughout the day. In the three-hour time limit spaces, this means that some employees are re-parking to evade the time limit. Some business owners are proactive about educating their employees and recommend certain off-street parking locations. However, others, including second story office workers in particular, might be unaware of their impact on customer parking for ground-level businesses. Some employees also park in the highest demand areas such as convenient Lots 2 and 4 in the southwest quadrant of downtown.

The most convenient parking spaces are often already at or near capacity in the morning from employee utilization, so by the lunch and dinner rush it can be challenging for customers and visitors to find available parking. This also means it can be challenging for employees to find parking if their shift starts later in the day.

It is important that convenient parking options be available for customer parking. This improves the parking experience and improves accessibility to downtown businesses.

Incremental Implementation
Along with a no re-parking rule, and the potential implementation of time limits in some parking lots (see Recommendations B-4 and B-5), it is recommended that the City introduce a preliminary Employee Parking Permit Program to designate permit parking areas for all downtown employees who do not have access to parking from the employer. This program would be available for employees of downtown businesses including City employees. It is expected that the no re-parking rule will discourage employees from parking on-street, so this policy change would be complemented by providing guaranteed long-term parking options to employees. Alternatively, employees could choose to park in existing off-street locations, such as the garages, that are free and without time limits, but availability could fluctuate. Whether employees participate in the permit program or park elsewhere off-street, these shifts should provide an improvement to on-street availability for customers, which is the ultimate goal. Regardless, the City should make sure that employees are accounted for when making parking policy decisions to ensure that enough affordable and accessible parking options are provided to employees, especially as demand could increase over time. This is an opportunity to begin shifting behavior and educating downtown employees.

In order build a successful program, collaboration with the business community will be critical. The City should proactively engage downtown business owners throughout the planning process and make a commitment to share ongoing data results once launching the program.

A phased approach is recommended so that incremental steps can be measured and modified as needed. It is important that the program be closely monitored so policies, locations, and prices can be optimized. Consistent enforcement and ongoing education and outreach will be critical for the success of this program in order to encourage compliance and measure the true impact of policies.

While the first phase will be a helpful starting point, it will likely not solve the employee parking challenge alone. However, it is important to start small to avoid a significant impact to the downtown while the program is further evaluated and monitored. Without paid parking elsewhere, and while free all-day parking remains in certain off-street locations, initial participation could be low since there is minimal incentive for employees. This highlights the importance of employee education, and the program needs to make parking convenient and affordable for employees. In conjunction with the Employee Parking Permit Program, a no re-parking rule is recommended to discourage abuse of time limit parking areas (see Recommendation B-4).

Permit Policies
The City should start by determining the permit parking policies and pricing for Phase 1. Permits should ideally be provided on a monthly basis at an affordable rate (e.g. $5.00 per month) because it is important for permit holders to understand the value of parking, especially if a permit will guarantee an easy parking experience. If given away for free, the City will have less flexibility for using rates to influence behavior, such as pricing lower demand locations at a more affordable rate, and free parking does little to encourage carpooling or other alternative modes of transportation. Ideally, the rate would eventually sustain the cost of associated signage and ongoing enforcement, but the program is likely to operate at a loss at the onset since low rates or free permits will be needed to encourage participation, especially while other public parking options remain free in McKinney. Starting with a free program would potentially increase participation, but it also may set the expectation that permits will remain free in the long run. However, this approach may be selected as an interim solution while other parking options are free. Regardless, consistent enforcement will be critical for changing behavior.

Applicants should be required to provide proof of employment to qualify for a permit such as a payment stub or letter from their employer. Employers should also have the option to purchase permits in bulk for all of their employees in order to streamline the process.

A permit should be required to park in permit areas during designated hours such as 8:00 a.m. until 5:00 p.m. This could be extended into the evening to accommodate evening shift employees, or shared parking locations could be pursued to offer separate evening permit parking locations (see Recommendation B-7). If possible, separate daytime and evening permit parking areas can be more effective because the operating hours for each permit type may overlap. For example, a portion of evening shift employees may arrive downtown at 4:00 p.m. before most daytime employees depart. Separate locations for daytime and evening employee parking will provide the most flexibility to adjust operating times as needed based on demand.

Employee permit holders that choose to shop, dine, or otherwise experience downtown amenities outside of their regular working hours would still have the ability to park in permit areas during the designated operating times. Due to irregularities that may occur with working hours, there is not an easy to way to prevent parking permit usage outside of working hours. However, this should not be of concern to the City because when downtown employees park off-street, whether on or off the clock, it is still an improvement to on-street parking availability for other visitors.

Anticipating Demand

The City could launch a preliminary sign-up list to estimate the number of employees interested in a daytime or evening parking permit. To encourage participation, the City could offer a discounted rate or other incentive (such as a raffle) to those who sign up early and meet the qualifications upon application. Based upon the number of employees that sign up, the City should plan to designate permit parking areas within surface lots and/or garages to accommodate the anticipated level of demand. Ideally there should be options convenient to various locations throughout the downtown. If certain options are less convenient, they could be priced lower to encourage utilization.

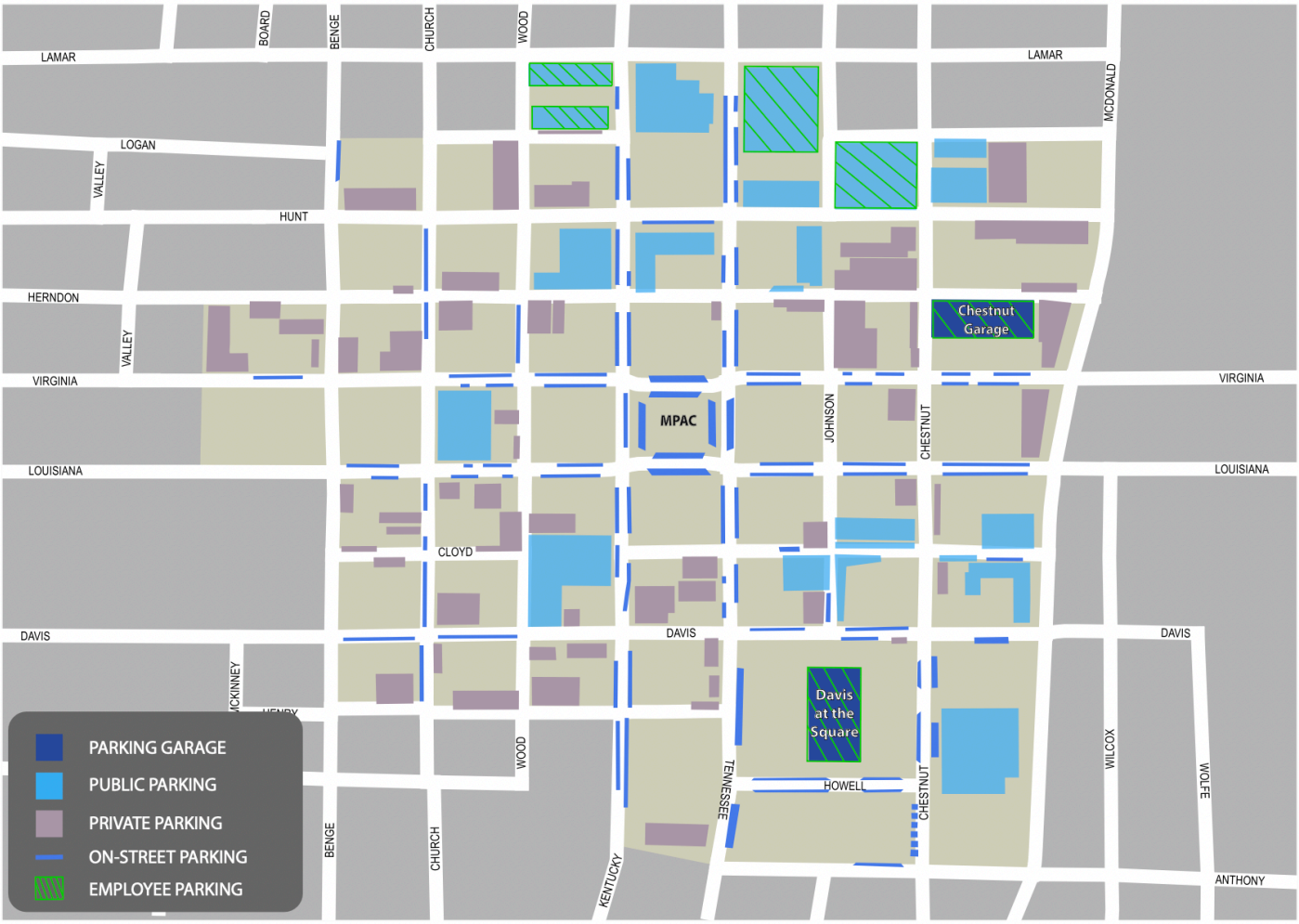
Potential Locations

It is assumed that the initial phases of the employee parking program will likely be small and grow as more employees adapt and enroll in the program. With that said, there are a number of options for available parking in the Downtown McKinney area for employees. The following table and map identify those locations and defines their suitability for housing employee parking demands.

Figure 17. Employee Parking Permit Location Options; Available Spaces

Parking Option	Total Spaces	Available Spaces at Peak	2019 Peak Occupancy Rate
Chestnut Garage	312 spaces	222	29%
Davis at the Square	196 spaces	55	72%
City Lot 3	83 spaces	2	98%
City Lot H	83 spaces	64	23%
City Lot 1	172 spaces	88	48%
City Lot B	103 spaces	17	84%
Totals	**949 spaces**	**447 available spaces**	

Figure 18. Potential Employee Parking Permit Locations



All of these spaces won't be needed in the initial phases of the program, but if the ultimate goal is to provide space for all downtown employees who do not have a dedicated parking space, then these spaces would provide more than enough parking. Between the City employee (estimated 160-200 spaces) and the private employee (estimated 390 spaces), there is a need for roughly 550 to 590 spaces. The 447 available spaces in these lots will likely provide enough capacity in initial phases of the employee parking program. Future shifts from the City employees moving east of Highway 5 should allow the program to grow over time.

Enforcement and Data Collection

Parking permits could either be issued as a physical hangtag or sticker, but ideally the City would offer digital permits along with the implementation of license plate-based enforcement technology (see Recommendation C-2). Digital parking permits are tied to the license plate number which becomes the unique permit identifier. Essentially, the license plate is the parking permit. The City should collect ongoing data upon implementation of the Phase 1 program. This includes tracking permit purchases, but tracking utilization is also important.

Automated Permit Management

For efficiency and convenience, the City should implement an automated permit management system that can link every permit to a license plate number. There are various vendor system options that are designed specifically for parking permits. An online portal should be provided with self-managed accounts to login,

create an account, apply for a permit, upload supporting documentation, purchase, and make edits. The system can also automate waitlist management. Administratively, the City (or the vendor, if desired) can review pending applications, review supporting documentation, approve/deny applications, send notifications and alerts, and run reports. The same permit management system can also be leveraged for a Residential Parking Permit Program (see Recommendation B-15).

City Fleet

The City should also consider opportunities to consolidate where City fleet vehicles are stored in order to optimize ease of access for public parking. For example, fleet vehicles are currently stored all throughout Lot B, which may result in the misconception that this lot is for City vehicles only. Some stakeholders reported a lack of clarity regarding whether this was a public lot. Ideally, City fleet vehicles would be stored in lowest demand parking locations and/or consolidated to a specific portion of a lot. Combined with the wayfinding signage updates (see Recommendations A-1 and A-4), this may improve clarity for drivers. In the long-term the City must also consider how the new City Hall location will shift fleet parking needs (see Recommendation B-17).

Recommendation B-4: Establish a No Re-Parking rule.

In conjunction with the Employee Parking Permit Program (see Recommendation B-3), a No Re-Parking rule is recommended to discourage use of existing three-hour time limit parking spaces by employees and customers visiting beyond three hours.

There will still be plenty of long-term parking options for those wanting to park beyond 3 hours. The main goal is to encourage a "Park Once" approach where drivers utilize parking supply that best fits their needs. Shorter-term parking should occur in the most convenient on-street spaces, which are time limited for a reason – to encourage turnover and provide easy access to downtown businesses. Meanwhile, longer-term parking is better suited for off-street locations since the walk time to/from the final destination and the parking facility has less of an overall impact on trip time.

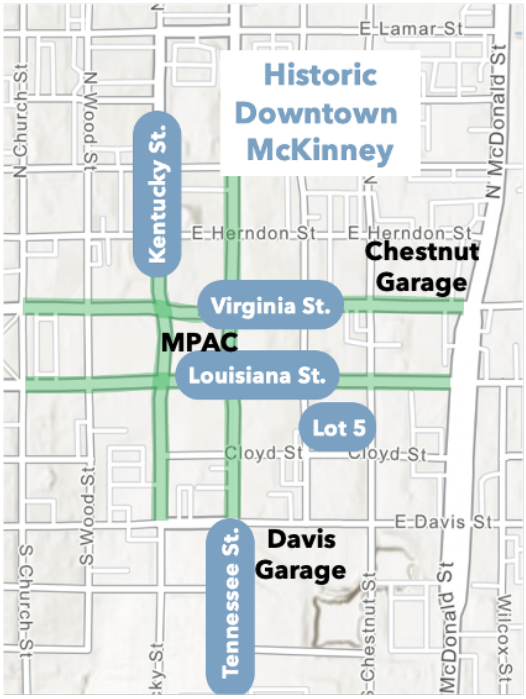


Figure 19. Existing 3-hour Time Limit Areas

A no re-parking rule works by requiring drivers to move their vehicle a defined distance away to be allotted a new time limit period. For example, if a vehicle is re-parked in another space nearby this does not actually create more availability for other visitors since it is just shifting the same vehicle to another space. Ideally, if the driver needs more than 3 hours of parking they'd park elsewhere intended for longer-term parking (e.g. a parking garage) so that the convenient time-limited on-street parking can be available to those staying for 3 hours or less. A no re-parking rule essentially makes time limits more effective by encouraging drivers to just park once in a location that best fits their needs instead of re-parking to evade the time limit.

Enforcement

Time limit enforcement can be optimized through the use of license plate recognition (LPR) technology (see Recommendation C-2). When implementing this policy, the City's PEO should be equipped with LPR to efficiently monitor for violations based on GPS location rather than relying on physical chalk or similar. LPR systems can be configured to automatically notify the PEO when a vehicle has not been moved a certain distance or outside of a designated zone.

While a no re-parking policy is somewhat uncommon today, modern parking technology is increasingly becoming license plate-based, which makes this type of policy more realistic to monitor and enforce. These advancements in LPR technology present an exciting opportunity to enhance time limit effectiveness while also streamlining enforcement.

However, since the public is likely unfamiliar with this type of policy in and around McKinney, education and outreach will be key for a successful implementation. An initial warning notice campaign can be a helpful way of educating drivers about the new policy as it is rolled out.

Recommendation B-5: Implement time limits in high-demand surface lots.

Certain parking lots such as Lot 2 and Lot 4 typically are near or reach capacity early in the day. These high-demand parking locations could benefit from a 3-hour time limit in order to encourage turnover. This would also help minimize the number of employees parking in these premium locations and encourage participation in the Employee Parking Permit Program (see Recommendation B-3).

In order to encourage utilization of less convenient parking options, the City should continue to promote the Downtown Area Shuttle (DASH) and increase public awareness of the program. Some stakeholders reported being unaware of the program or confused about how it operates or where to find it. The City should increase marketing of the program substantially with additional signage and online or social media promotions.

Recommendation B-6: Adjust operating hours to address peak demand periods.

The purpose of parking policies is to manage and influence parking demand. This is most important during periods of high demand because that is when parking is most impacted.

Time limits should be expanded to evenings and on weekends (particularly Saturdays) now that many Downtown McKinney businesses have an evening and weekend draw. Rather than ending time limits at 5:00 p.m., they could extend until 8:00 p.m. This would also help prevent evening shift employees from utilizing on-street time limit parking and displacing customer access at night.

Recommendation B-7: Pursue shared parking agreements.

A shared parking agreement between the City and a private property owner would provide additional public parking options by leveraging existing parking supply. Benefits include:

- Sharing parking is more cost effective than building additional supply,
- Can provide convenient parking options for evening employee parking,
- Optimizes the use of existing supply, and
- Avoids overabundance of parking or land space that could otherwise be optimized for higher and better uses.

Typically, a shared parking agreement is meant to be mutually beneficial by leveraging the parking supply during times when it is typically underutilized. This can provide another revenue stream for the property owner. Successful shared parking agreements usually rely on the municipality helping to provide insurance coverage for the property owner.

Since shared parking agreements are usually only favorable to property owners when cost-neutral or profitable, the shared parking approach should be considered in conjunction with an Employee Parking

Permit Program (see Recommendation B-3), or in the future along with the potential implementation of paid parking (see Recommendation B-10). For example, shared parking agreements could provide a convenient parking option for evening employee parking permits. The City should proactively reach out to Downtown property owners about opportunities to leverage any existing parking supply during any underutilized days or times.

At a minimum, a shared parking agreement typically considers the following:

- **Term and extension:** Evaluates the return on investment and ensures that the contract terms allow for potential redevelopment in the future if needed.
- **Use of Facilities:** Establishes available hours, number of spaces, time limitations and ensures that the base user will retain use at the end of the sharing period.
- **Maintenance:** Evaluates and incorporates the added maintenance and operation costs.
- **Lease costs:** Cost of the lease and any negotiated revenue shares.
- **Operations:** Considers revenue collection operations (if applicable) and enforcement/management strategies.
- **Utilities and Taxes:** Determines the responsible parties and any cost sharing agreements.
- **Signage:** Considers opportunities for consistency with signage and branding.
- **Enforcement and Security:** Determines who will handle enforcement and towing.
- **Insurance and Indemnification:** Considers litigation with any cost sharing.
- **Termination:** Identifies the grounds for termination or cancellation.

Signage and Branding

Once a public parking brand is established (see Recommendation A-2), there is an opportunity to utilize the brand at future shared parking sites if they become available for public parking. The use of the City's parking brand should be dependent on predetermined eligibility criteria to ensure a certain level of service associated with the brand. Additionally, shared parking sites could be incorporated into future wayfinding signage programs to direct drivers to available parking options.

Operations and Enforcement

The City should also consider the ability to provide operational support to future shared parking sites. For example, if paid parking equipment is installed, City maintenance and collections staff could be leveraged to provide support at a negotiated rate or revenue split. Another important consideration is enforcement, so the City should anticipate potential support needs and the ability to leverage PEOs for expanded coverage. Rather than the private lot owner hiring, training, and managing their own personnel, the ability to leverage existing City resources could be more cost effective, and the negotiated agreement can ensure that City costs are sustained. The ability to legally authorize the City's PEOs to enforce parking on private lots should be evaluated for feasibility. This could alleviate the need for private lot owners to rely on towing, which is a negative customer experience, by enabling the use of parking citations.

Recommendation B-8: Prioritize core curb-space for active uses.

Traditionally, curb space has primarily been allocated for the purpose of on-street public parking. However, as mobility trends have shifted, many agencies are converting valuable curb space for other uses. This transformation is evident in urban areas across the country as on-street parking is converted into additional loading zones, bike lanes, and wider sidewalks.

Ideally, the most convenient on-street spaces should be kept available for short-term parking, loading, and ADA access, while longer-term parking should be encouraged in off-street or fringe locations. By creating more on-street curb space availability for short-term parking and loading, this will reduce congestion and improve access.

Curbside pick-up options for restaurants became a primary need during the 2020 pandemic. Trends indicate that those options will remain for the foreseeable future. The rise in popularity of services like Uber Eats and Postmates mean that there is an increased demand for short-term parking options. To facilitate quick parking sessions for food and merchandise pick-up, as well as passenger loading, there should be one or two short-term (20 to 30-minute) spaces on each block within the downtown. The restaurants who opt to use curbside pick-up would need to share these spaces with adjacent restaurants rather than the current ad-hoc method of reserving spaces in front of their storefront.

Agencies that do not offer enough convenient parking typically experience challenges with double-parking, which impacts roadway congestion and safety. These could also be convenient options for families with young children who need to unload their gear, or for dropping off elderly visitors who may otherwise have trouble walking a longer distance.

Figure 20. Double-parked Commercial Loading

Commercial loading is another consideration. Sometimes space is limited on-street for large delivery vehicles which can impact traffic flow and visibility. It can be challenging to estimate utilization rates of existing loading zones, but the use of LPR (see Recommendation C-2) will enable ongoing data collection to evaluate whether additional loading zones may be needed. The consistent enforcement of loading zones will also mitigate instances of abuse and help keep loading zones free and clear for commercial use. There are also several software companies in the industry who are developing options for commercial loading zone management, including reservation systems, real-time availability, and the opportunity to monetize and manage transactions at these spaces. The City should follow the results of these efforts and consider implementing systems like this if needed.

One idea is to locate the short-term loading and pick-up spaces at the beginning of each block face for ease of access. Compared to a mid-block configuration, locating them at the beginning of the block (as approached from the direction of traffic) makes them easier to notice and easier to pull in into, which can improve traffic flow. The City should also designate these as flexible loading spaces, with prioritization for the adjacent need. For example, a loading space near restaurants who offer curbside pickup could be for food delivery during peak restaurant hours (lunchtime and dinnertime) and for commercial loading or

goods movement during non-peak times. In reality, designating this as a short-term loading space without time of day regulations will likely be the easiest to implement and manage.

It is always important that commercial and passenger loading spaces be clearly marked by signage so they are enforceable. Loading zones could be restricted to "active" loading only by updating both the municipal codes and signage. While this section primarily focuses on permanent loading zones, any temporary signage (e.g. for special events or construction) must be posted at least 24 hours in advance.

Recommendation B-9: Evaluate the Parklet Program.

Parklets or pedestrian-only streets are an opportunity to rethink how curb space is utilized in the downtown. These types of uses can help activate and liven the downtown and improve the visitor experience. Some stakeholders suggested closing streets surrounding the downtown square. Opportunities for pedestrian zones can be a tremendous benefit and draw for the community, but it is important to consider parking and commercial loading impacts.

In December 2020 the City approved a Temporary Parklet Program to allow parklets for outdoor dining in certain areas of the downtown. According to the ordinance, businesses within the Central Business District may apply for a permit to close off and convert on-street parking spaces directly adjacent to the business into a parklet to allow for additional space for customers to dine outside. Additionally, parking spaces located on those block-faces directly across from the Historic Collin County Courthouse are not eligible for conversion into parklets. Prior to submitting an application for a parklet permit, applicants must receive written approval from all immediately adjacent businesses.

Figure 21. McKinney Parklet

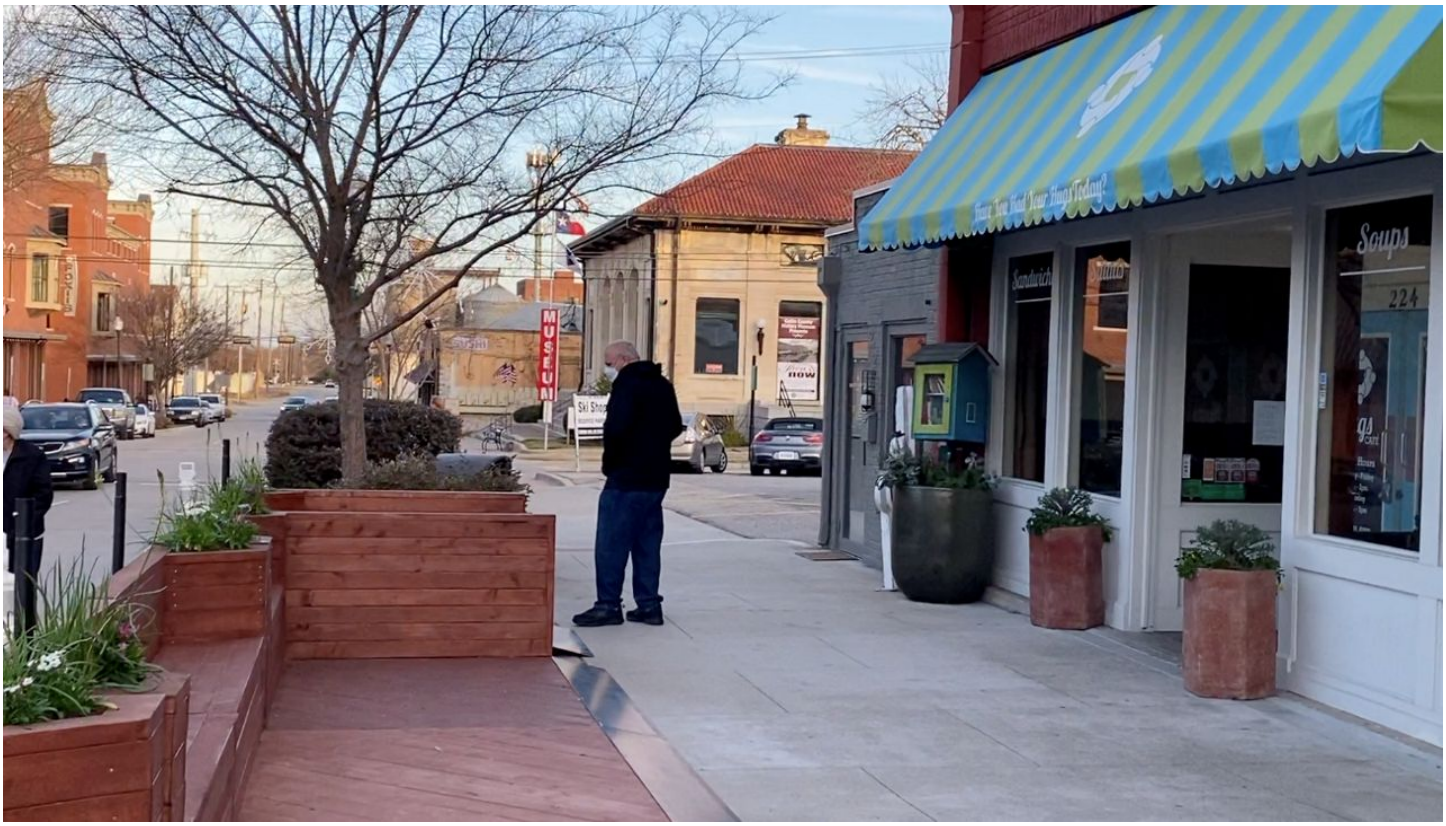


Image from Spectrum Local News.

The program was established in response to the COVID-19 pandemic to expand open-air dining options. Therefore, unless otherwise decided by the City Council, the parklets established through this program must be removed by July 31, 2021 or upon the recission of the state's indoor occupancy limits relating to the COVID-19 pandemic.

The City should continue to monitor the impacts of the Temporary Parklet Program to determine whether to convert this into a permanent option. Even after the pandemic, parklets can be an opportunity to improve downtown vibrancy by activating outdoor spaces. While they do displace on-street parking supply, this trade-off may be a worthwhile consideration depending on community feedback and the success of other parking management strategies.

Mid-term

Recommendation B-10: Consider implementing tiered time limits or a Pay-to-Stay model.

Upon implementation of the Phase 1 Employee Parking Permit Program (see Recommendation B-3), the City should collect ongoing data to evaluate program impacts and determine next steps. Consistent enforcement is critical for understanding the true impact of the new program and no re-parking policy. Without high compliance rates, the actual impact is unknown and challenging to measure.

If permit holders continue to park outside of permit areas, or if participation is low, this could justify adjustments to time limits and/or the implementation of paid parking. Paid parking could also be needed simply if parking occupancy rates consistently reach or exceed 85 percent. The City could consider a tiered approach to time limits where the core on-street parking spaces are restricted to one or two hours and the surrounding areas are restricted to three hours. On-street parking should be prioritized for short-term parking since it is the most convenient to businesses, and the free all-day off-street parking can be promoted to visitors seeking longer-term parking options. Depending on the level of demand, additional time limits and/or paid parking may be beneficial for off-street locations as well. The City should be mindful when determining on-street versus off-street policies to ensure that they're complementary. Typically, off-street facilities should be priced lower than on-street since they are best suited for longer-term parking sessions.

Customer-Friendly Approach
If the City decides to move forward with paid parking, smart parking technology can modernize the parking operation and enhance customer service. While program sustainability is helpful, the goal of paid parking should not be about revenue generation. Instead paid parking should be used as a parking management tool, combined with customer-centric tools such as mobile payment, promotional codes, and merchant validation, that will improve the overall parking experience. Advancements in parking technology will allow the City to offer a unique customer-centric rate model that provides more flexibility.

Instead of restricting parking to two or three-hour time limits, the City could replace time limits (and therefore no re-parking policy) with a Pay-to-Stay rate model that allows the customer to decide how much time they would like to purchase. One option to consider is called a "Customer Value" model because it still provides an option for free parking, similar to what is provided in the form of time limits currently, but it also gives customers the flexibility to park for longer if they desire. This is achieved by offering the first hour or two for free, followed by an hourly rate. Unlike with the time limit approach, the introduction of paid parking would provide additional flexibility for customers while still encouraging employees to participate in the Employee Parking Permit Program (see Recommendation B-11).

Paid Parking Areas

As a starting point, the City could implement paid parking in all core on-street locations within the downtown (see Figure 22). Rather than starting with just one block or surface lot, a larger paid parking area will:

- streamline the outreach process,
- improve consistency,
- minimize high parking occupancy clusters, and
- provide the greatest level of flexibility with rate structures.

While the City could take an incremental approach by starting with a smaller portion of the downtown, this would likely result in spillover parking to nearby free parking locations and could increase congestion from drivers searching for free parking opportunities as an alternative.

Spillover into surrounding residential areas is possible. To safeguard these areas, the City could provide an option for a Residential Parking Permit Program (see Recommendation B-15).

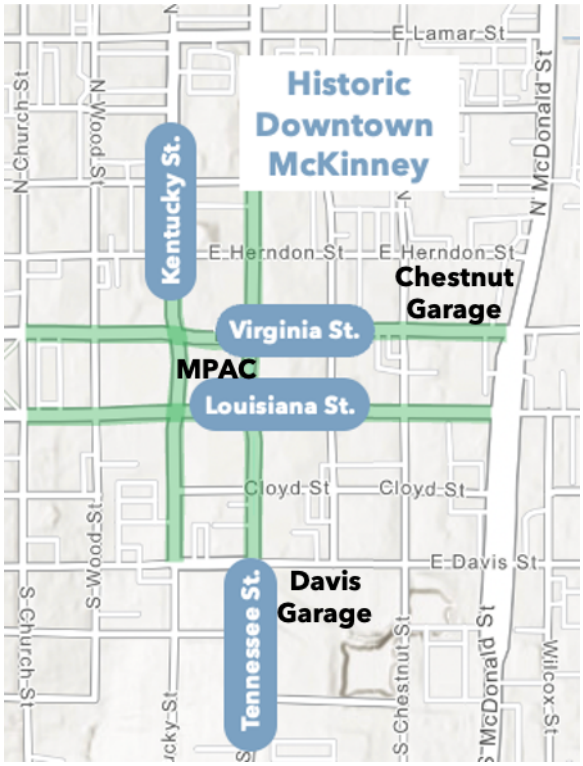


Figure 22. Potential On-Street Paid Parking Areas

Pay Stations

For a paid parking implementation, the use of multi-space meters (pay stations) is strongly encouraged. Compared to single-space meters, pay stations have a number of advantages. Pay stations:

- minimize the amount of infrastructure required for ongoing maintenance and collections,
- improve the community aesthetic by minimizing the amount of street furniture,
- have larger screens which can promote additional customized information and features, and
- offer the ability for license plate-based enforcement.

Pay station vendors typically offer robust backend systems with reporting features with usage and maintenance data. Pay stations should wirelessly communicate usage, payment status, meter access and maintenance alert data in real-time and should be managed through a web-based meter maintenance system that provides robust monitoring and reporting features.

Pay stations normally support 7 to 12 on-street parking spaces, but when offered alongside a mobile payment option fewer pay stations are needed. At a minimum, pay stations should be installed in key locations along pedestrian pathways, and the use of mobile payment can be promoted for convenience. However, it is important in this case to install additional signage so that drivers are aware when they've parked in a paid parking zone and understand how to use the mobile payment system. A typical off-street surface lot requires 1 to 4 pay stations, depending upon the configuration, number of access points, and whether mobile payment is an option. The City should ensure that signage is easily visible throughout paid parking areas to ensure that drivers are aware that they need to pay at the pay station.

While not required, if the City decides to charge for parking in short-term spaces or loading zones, a small number of single-space meters can be a helpful option to track payment for these spaces separately from the pay stations. This would simplify the pay station interface so that users are not required to self-select the appropriate rate model or zone.

Configuration
There are three main operational configurations for multi-space pay stations:

- **Pay and Display:** The driver parks, purchases parking session time at the pay station, and then returns to the vehicle to display the dashboard receipt.
- **Pay by Space:** The driver parks in a numbered space, and then pays at the pay station using the parking space number. The driver is not required to return to the vehicle because payment is electronically tied to the space number. Parking enforcement is able to use a web application to verify payment status by parking space number.
- **Pay by Plate:** Similar to pay by space, but the driver enters the license plate number at the pay station to record payment.

With pay stations, the City should utilize the Pay by Plate configuration. This enables parking session initiation and length of stay tracking, which will allow for the aforementioned Customer Value rate model. Drivers should be required to initiate their parking session so that the length of stay is tracked by license plate. This will prevent abuse of the free time since the system will automatically recognize if a license plate number has already received free time each day. The use of LPR for parking enforcement will automatically notify the PEO when a vehicle is not tied to an active parking session. Additionally, if the City introduces a mobile payment option, the sessions will also be tracked by license plate which will streamline enforcement.

The Pay by Space and Pay and Display configurations are also options, but are less ideal for a few reasons. Pay by Space requires painting or marking space numbers throughout the downtown, which requires ongoing upkeep and re-painting. Pay and Display requires physical receipts, which are less convenient for drivers since they have to return to their vehicle, and they can be onerous to visually verify. Both of these options also do not link payment to a license plate number, so the use of LPR for enforcement would be limited and the opportunity to introduce mobile payment would require a second look-up for PEOs to verify payment status by plate.

It is also recommended that the majority of pay stations be limited to credit card (and therefore debit card) payment only. A smaller number of pay stations, in convenient core locations, could accept coin and/or cash in case a visitor is unbanked or does not have a credit card. Limiting the amount of cash payments will be beneficial in order to minimize maintenance and collections requirements. For example, the bill note acceptor (BNA) is typically the part that most frequently jams or breaks on a pay station. Encouraging credit card payments will also reduce the amount of coins that need to be collected and extend the amount of time between collections. It is also more secure to have pay stations that do not have physical monies stored inside because there is less opportunity for theft. For the machines that do accept cash, it is recommended that this be limited to quarters only so that machines do not have to be collected as frequently as if pennies, nickels, and dimes were allowed.

Mobile Payment
If the City implements paid parking, it is also recommended that the City offer at least one mobile payment option. Mobile payment improves customer convenience and provides the option to extend a parking session remotely. A mobile payment solution will allow drivers to pay for parking sessions using their cellphone.

Some pay station vendors offer their own mobile payment platform, but there are also other popular mobile payment providers that can be integrated for enforcement purposes. While still uncommon in the United States, many European cities offer multiple mobile payment platforms so that customers can choose whichever application they prefer. This promotes competition amongst providers which can lower rates and reduce the number of standalone mobile applications that users are required to download in each city they visit.

Similar to the Pay by Plate configuration recommended for pay stations, mobile payments would also be tracked and verifiable by license plate number. This will streamline enforcement with the use of LPR (see Recommendation C-2).

A mobile payment solution can be provided to the City by a vendor at no cost upfront. Instead, the vendor is typically fully funded by the convenience fees charged to the users and transaction fees. Utilization of mobile payment typically falls between 3% and 10% in most agencies, and users pay a small transaction fee, usually between $0.10 and $0.35. Mobile payment vendors often also provide free decals and outreach materials in order to encourage utilization of the application. Mobile payment is expected to increase in popularity, especially in response to the COVID-19 pandemic, because it is a "contactless" payment option that doesn't require drivers to interact with a pay station.

Mobile payment users should be able to either call a number or create an account on a mobile application to pay. Users should also be able to complete one-time uses or establish accounts with the mobile payment provider that allow them to pay for parking and extend their stays without returning to their vehicles. Mobile payment users can also be provided with the option to be notified via text, email, or app prior to the expiration of their parking session.

Mobile payment vendors also typically offer robust merchant validation and incentive programs including resident discount programs and discount codes. Discount and validation programs are all tracked and verified by license plate number. Most vendors can create one-time or multi-use codes that can be applied through the mobile application to a parking session to receive free parking time. Many mobile payment vendors can also provide vendors the ability to validate parking for their customers within their store using a web application on a tablet or computer. The City should also evaluate whether parking validation codes can be shared across vendor systems in order for users to choose whether they enter the code at the pay station or in the mobile application. Upon launching the paid parking program, the City could establish a discounted rate for merchants for the first six months that allow merchants to purchase parking time in bulk with a 25% or 50% discount. This can encourage participation in the program which will provide visitors and customers with more opportunities to validate parking.

The City should work with the selected vendor(s) to determine a zone numbering system that can be expanded to new paid parking zones as needed in the future. Zone numbers should be assigned to each paid parking area for enforcement purposes so that active paid parking sessions can be tracked and verified appropriately. Different zone numbers are required because rate structures, operating hours, and policies can vary by location. Signage should be designed to clearly state the mobile payment zone number. Most mobile payment applications will also indicate the current zone for the user based upon the GPS location, however the zone number should be posted for verification purposes.

It is important to thoroughly evaluate the mobile payment vendors for their capability to integrate with the selected pay station vendor. With the recommended Customer Value model, it is important that the payment systems communicate to ensure that drivers cannot receive their free hours at the pay station and another set of free time using the mobile application.

Rates

On-street parking should generally be priced higher than off-street parking, but the City should adjust paid parking rates based upon demand. Areas with high demand should be priced higher, and low demand areas should offer a reduced rate to incentivize utilization.

Paid parking rates can also be adjusted during special events such as Oktoberfest. Typically, agencies charge a flat rate during special events, but the Customer Value model provides the opportunity to still allow short-term parking and apply the special event rate after the first or second hour.

Paid parking equipment provides ongoing payment data that can be leveraged, using predictive analytics, to estimate occupancy and turnover.

Revenue
Revenue from paid parking can support a sustainable and effective parking operation, including the ability to fund the required management, enforcement, and staffing resources. A paid parking operation should ideally be self-sustaining, and a successful program will allow the City to invest in the development of parking and transportation resources that directly benefit the community. If the City implements paid parking, monies should be reallocated according to predefined standards to ensure that there is enough set-aside to sustain the operation and ongoing maintenance needs. Any surplus revenue could be invested in downtown improvements and enhancements to alterative mode options like walking, biking, and public transit. One option to consider is a Parking Benefit District, which is described in Recommendation B-2.

Recommendation B-11: Implement Employee Parking Permit Program Phase 2.

If the City expands time limits or introduces paid parking, it is anticipated that demand for the Employee Parking Permit Program could increase. This is an opportunity for the City to reshape parking dynamics and influence where employees are parking to encourage more convenient customer parking availability. Additional permit parking areas should be identified in preparation in order to accommodate employee parking demand so that employees continue to have guaranteed long-term parking availability.

Dynamic Program
It will be important for the City to closely monitor permit parking occupancy to determine whether adjustments to permit parking supply are needed. For example, the relocation of City staff to the new City Hall location will impact employee parking demand within the downtown core. The City should also be aware of potential spillover parking impacts into nearby non-regulated areas. The permit parking program must be dynamic and adaptable to permit parking needs. Examples of potential permit parking program adjustments are described below:

- If one permit parking area is underutilized compared with the others, the rate structure should be adjusted to price the highest demand locations as more expensive and the lowest demand locations as less expensive.
- Implement additional permit parking locations if the demand for permit parking exceeds what is available, or eliminate permit parking locations if demand is low.
- Increase the oversell rate as needed to optimize permit parking supply utilization.

Price
Employee Permits should be priced lower than the cost of public parking in order to provide an affordable option. While free permits are not the recommended approach, if the City decided to offer Phase 1 permits for free, the City will then need to focus outreach efforts on educating employees and business owners about the value of the program. When there is a cost associated with the permits, in addition to program sustainability, there will be more opportunities to influence behavior. For example, certain locations could be priced lower to incentivize employees to park in lower-demand locations. Additionally, when employees pay for parking it means that alternatives like carpooling, walking, biking, and transit could become more appealing.

Low-income Permit
It is critical for the success of McKinney businesses that low-income employees have an affordable option for parking. The City should establish an income threshold for qualification, and with proof, employees could qualify for a reduced permit rate.

Carpool Permit
The City could also incentivize employees working downtown to carpool to work in order to reduce the overall parking demand and level of congestion. One idea is to designate carpool permit parking spaces in the most convenient locations. The City could also offer a reduced permit rate to carpools. In order to qualify, those within a proposed carpool should be required to submit proof of employment within downtown McKinney and provide a license plate number for each vehicle that may be driven as part of the carpool via the permit management portal. The City's LPR system, as described in Recommendation C-3, can be configured to notify the PEO if more than one of the license plates is observed within permit parking areas on the same day. The City should have a strict policy against abuse that will remove permit parking eligibility if caught utilizing the carpool permit rate on a day when not carpooling.

Recommendation B-12: Promote and expand transportation mode alternatives.

While parking is the primary focus of this report, it is also important to acknowledge how utilization of alternative modes of transportation such as biking and transit influence parking demand. Mitigating parking demand by encouraging the use of alternative modes is not only better for the environment, but it also reduces roadway congestion and can minimize the amount of parking supply needed. The encouragement and expansion of alternative modes of transportation will ultimately ease the pressure on parking resources. Alternative modes of transportation can also be leveraged to improve convenience of fringe or remote parking options.

Figure 23. Downtown Area Shuttle (DASH)

Downtown Area Shuttle
The City has an existing Downtown Area Shuttle (DASH) service that is a tremendous resource. Based on stakeholder feedback, there are a few considerations that may improve utilization of the service. One idea is to enhance visibility and public awareness of the program. This could mean adding one or two additional shuttles so that visitors are more likely to see them while they're downtown. If funding is limited, the City could consolidate service to just Friday through Sunday only (current schedule includes Wednesday and Thursday). The reduction in service days could enable the City to reallocate funds towards additional shuttles to enhance program visibility. Regardless, the schedule should be predictable and pick-up locations must be easily identifiable in order to encourage ridership.

Other stakeholders suggested restructuring the DASH service into a downtown circulator system with fixed routes. While the current on-demand program is more flexible, a fixed route can be easier to communicate to new riders, and it can be more predictable for trip planning purposes. Often times a fixed-route program can be more expensive, but the City may have an existing trolley or shuttle that can be leveraged for cost savings.

The City should consider potential revenue sources to expand funding for the DASH service. For example, if the City decides to implement paid parking in the future, a portion of revenue could be allocated to DASH.

Regional Connectivity
The City should also consider opportunities to enhance connectivity between the Historic Downtown and the area east of Highway 5. Especially in preparation for the new City Hall location, and the ongoing development of the City, increased transit options could reduce congestion and increase accessibility. There may also be future opportunities to improve access to surrounding areas including nearby communities and the Dallas Metro area.

Figure 24. Existing Bike Parking

Bike Parking
The importance of bike infrastructure should also not be overlooked. The City should offer secure bike storage areas in order to encourage more biking. City staff could observe where the most biking activity occurs or survey bike riders about key bike parking locations.

Recommendation B-13: Promote and enhance walkability.

McKinney residents and visitors are fortunate to have access to a vibrant, walkable downtown. For those that are capable, walking should be encouraged. It is a healthy, convenient option that can be further enhanced with some improvements.

Lighting and Security
The City should identify opportunities to increase string lighting along major routes to and from parking garages and throughout downtown. Additional string lighting along the walking paths to and from the garages would enhance the feeling of safety beyond standard street lights. The string lights on Louisiana are a great model that could be expanded to other preferred walking paths. Locations could include Virginia Street, such as


Figure 25. West Louisiana String Lights

along Chestnut, or areas south of the square like Tennessee and Kentucky Streets. The City should consider the cost of extending the pole height in surrounding locations to accommodate string lights or options to mount lights on nearby buildings.

A sense of safety and security is important within parking facilities, especially at night. The City should consider opportunities to expand the use of security cameras and consider adding safety call boxes within parking facilities. One call box on each level of the garage would improve safety and security. Additionally, the recommendations within this PAP are meant to improve utilization of the garage. This increased utilization may naturally increase the feeling of safety since there will be more "eye and ears" in the facility.

Pedestrian Zones
The City should also evaluate opportunities to dedicate more of the public right of way to pedestrians. This could mean converting a street or alley to a pedestrian-only zone, such as one of the key streets adjacent to the square. A traffic engineering analysis is recommended to evaluate the feasibility of closing certain streets or alleys. There are immediate opportunities to improve lighting and expand public art in alleys which can improve walkability by making alleys feel more inviting and safe.

Signage
As described in Recommendation A-3, the City should continue to promote walkability through signage that includes information like key destinations and estimated walk times.

Public Art
Another way to improve the pedestrian experience is through public art. This can provide an incentive for walking and offer a more enjoyable experience on foot. Downtown McKinney already has numerous art installations that contribute to the community aesthetic and charm. For instance, there are various butterfly themed art installations throughout the downtown (Figure 26). One idea is to enhance connectivity between downtown destinations by formalizing a "butterfly art walk" experience that would make walking more fun and enjoyable. One consideration is installing medallions or plaques in the ground to indicate key destination points or attractions. The City could also expand the use of murals especially in alleyways to help activate the spaces and generate interest.

Figure 26. Butterfly Art in McKinney

Recommendation B-14: Modernize parking development requirements.

Within the McKinney Town Center (MTC) zoning district, public off-street parking spaces and striped public on-street parking spaces may be used to satisfy up to 100 percent of the use's parking requirements so long as these public parking spaces are located within 200 feet of the use's property. In these cases, no shared parking agreement is required.

The City should consider expanding the 200-foot rule to 500 feet. This would enable the use of parking that isn't perfectly contiguous to the business, but still nearby, and would support the ability to share parking amongst multiple uses. Downtown blocks are approximately 250 feet long, which means that this change would enable use of parking two blocks away.

For new residential developments, the City should consider opportunities to encourage the inclusion of car share vehicles. Car sharing programs can help reduce car ownership by providing residents with access to a vehicle on as as-needed basis for instances when a vehicle may be required. This can reduce the need for households to own one or multiple vehicles by providing the peace of mind that a car is available nearby. Car sharing can be more affordable than owning a car when supplemented with other modes of transportation. McKinney could waive or reduce minimum parking requirements for residential developments if car share vehicles are provided onsite for residents.

Recommendation B-15: Establish a Residential Parking Permit Program.

With the implementation and enforcement of parking management strategies downtown comes the potential for additional spillover parking impacts in nearby residential areas. While residential permit parking (RPP) programs may not be needed right away, it is beneficial to prepare for potential impacts by updating municipal codes and defining the process for establishing an RPP zone. This will then provide residents the option of applying for an RPP program if at any point parking management becomes needed or desired.

This is typically managed through a petitioning process that requires the majority of residents within a contiguous area to sign the petition in order for an area to be considered. Additionally, most agencies will conduct a parking occupancy study to verify the need for an RPP program. The boundaries of an RPP zone would be established through this process and indicated by posted signage.

RPP program policies are meant to safeguard residential access through the use of permit parking policies. Typically, proof of residency is required to be eligible for a residential permit, so this means that only residents within the defined program boundaries may apply for a permit. However, often times agencies will implement a blended approach with time limits so that others can still park on-street without a permit within the designated time limit; for example, a residential neighborhood might have a time limit similar to that of the adjacent commercial areas to allow for parking for short time periods without a permit. Using a blended approach provides more flexibility and can minimize the need for guest and service worker permits which can sometimes be challenging to manage. For guests that need to park beyond the time limit, guest permits should be available for temporary short-term visits either by service workers or residential guests.

Additionally, there may be some downtown residents that do not have on-site parking that would be impacted by a paid parking implementation. In this case, a separate Downtown Resident Permit could be offered.

Permit Management
The City should consider utilizing an automated permit management system to offer residential permits. This could be the same system utilized for the recommended Employee Parking Permit Program (see Recommendation B-3). Ideally, permits should be purchased online through a permit management portal or through a mobile payment provider. Permits should be tied to a specific license plate number for the purposes of enforcement and to reduce opportunities for abuse.

Enforcement
The City should be mindful when implementing RPP program policies to ensure that the operating times are manageable. Parking enforcement resources should be identified to provide enough coverage. Enforcement coverage in residential areas is often allocated based on complaints. In most cases, agencies will charge a nominal fee for parking permits in order to help sustain the ongoing operating and enforcement costs associated with the program.

Fees
Ideally the program would include a nominal fee for permits to help sustain ongoing operating costs. Tiered rates where the rate per permit increases depending on the number of vehicles can help encourage residents to store vehicles off-street (if possible) or reduce car ownership.

Recommendation B-16: Offer valet parking during special events.

While valet is expensive to operate, it does provide a customer convenience. Valet is also a strategy for increasing capacity since vehicles can be double-parked within a parking facility. However, based on the 2019 parking data, there is not currently a critical need for valet in terms of increasing capacity. Even during peak times there was parking supply available within one or two blocks. However, one exception may be during special events when there is an increased demand for parking. To better manage event parking, the City could choose to introduce a municipal valet parking program during special events only. This service would likely only be offered for smaller or medium events, as the larger events generally utilize most of the parking capacity that would be available for valet vehicle storage. For the larger events (e.g. 4th of July or Octoberfest), the City would likely need to continue to use shuttling and further out parking options.

Municipal Valet
The City already piloted valet over the summer in 2019 and had positive feedback from most participants and business owners. The pilot had 3,800 customers between June 7 – Aug 31 and operated Friday and Saturday from 11:00 a.m. until 11:30 p.m. The cost was just $5.00 per vehicle since it was subsidized by a sponsor. The valet station was located by the McKinney Performing Arts Center (MPAC), utilizing 11 on-street spaces along Louisiana Street. Vehicles were stored in Lot H (which has 91 spaces), and after 5:00 p.m. and all day Saturday vehicles could be stored in the IT and City Hall Lots. It was found that approximately 80% of users spent more than $50.00 downtown, indicating the value of a valet parking operation for economic vitality.

For special events, the City could contract with a valet operator to provide a municipal valet service. The City should consider where to locate valet stand(s) to mitigate potential traffic congestion while still providing convenient access. Since streets are sometimes closed, the location for each event may need to be determined on a case by case basis. Depending on the event size, multiple drop-off and pick-up points could be considered.

Valet Permits
The City also has an existing valet permit program that offers Regular and Temporary (less than 2 days) valet parking permits. The permit application requires the applicant to indicate operating details including where

vehicles will be stored. Unless otherwise approved, the permit does not allow valet operators to store vehicles in the public right of way.

The City's PEOs should be empowered to enforce the existing valet regulations. If vehicles are found to be stored improperly by a valet operator (e.g. on a public street), this is a permit violation and should result in disciplinary action for the valet permit holder or revocation of the permit. Ideally, PEOs should be involved in the adjudication process so that if a driver that receives a citation claims that their vehicle was parked illegally by the valet operator that the appropriate follow up actions are taken.

Long-term

Recommendation B-17: Adapt or increase parking supply as needed.

Historical data suggests that there is a parking management challenge in McKinney, not a parking supply challenge. Therefore, the near-term and mid-term recommendations focus on optimizing the use of existing parking supply.

It should also be considered that an estimated 160 - 200 City employee vehicles will no longer be parked within the downtown once the new City Hall opens east of Highway 5. In addition, the City Fleet vehicles would likely be moved as well. This means that in three to five years there could be parking options downtown that are utilized less.

Figure 27. McKinney City Fleet Vehicles

Considerations for the Development Area East of Highway 5

While the focus of this study and these recommendations is primarily for the Downtown McKinney area, there is a need to consider how the area east of Highway 5 and the parking needs associated with the area evolve. There are two components to this consideration: Parking Supply and Parking Management. The following sections will explore each of these topics and strategies for the City to consider over time as the development plans for the area become more established.

It is difficult to predict at the current time the true need for parking east of Highway 5 because of the lack of established development plans. Most of the expected growth for the area is defined in the Town Center Vision and includes plans for mixed use development, neighborhood commercial centers, and open space. The plans do not specifically define expected development, so there is no basis for evaluating parking demands.

The only two known developments in the area are the relocation of City services to a new consolidated City Hall and the opening of Tupps Brewery at the Mill at East McKinney. The Tupps Brewery relocation is already in the planning phase and likely includes requirements for some on-site parking from either the City or the financier of the development. Regarding the City Hall parking demand, the previously discussed employee parking analysis indicates that some 160 to 200 parking spaces will be needed to support City staff parking for the new City Hall.

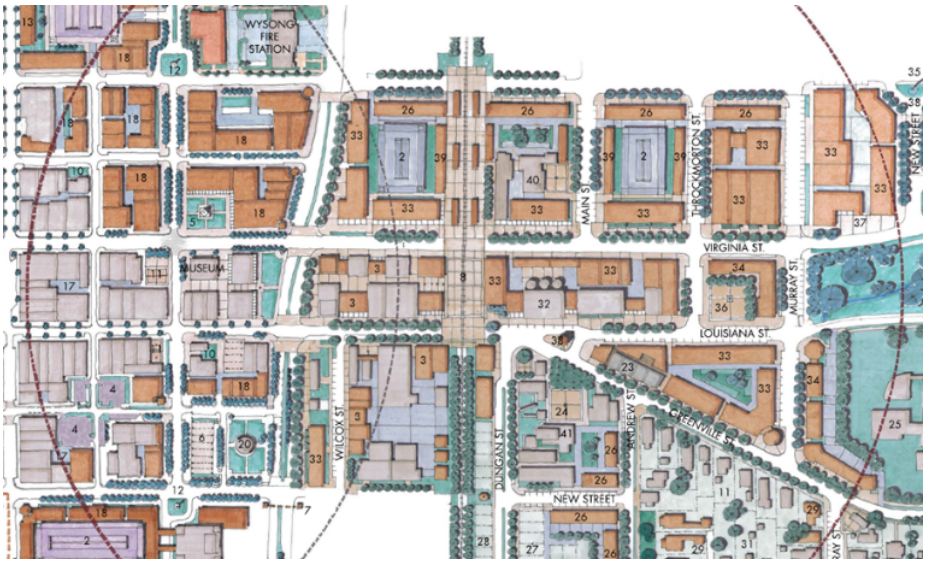


Figure 28. Excerpt from McKinney Town Center plan

If there is an assumption that the area east of Highway 5 will one day resemble the demands created by the commercial center in Downtown McKinney, that could create a need for some 650 to 800 public parking spaces to support visitor demands and business needs. Much of this parking can be created through the implementation of street parking in the realigned road network. The City is currently studying alignments in the *East McKinney Mobility & Transportation Alignment Study* which is defining roadway design criteria for the primary road network in the area. That plan should provide recommendations that maximize the amount of public parking in the area and provide a walkable urban experience that mimics that found in Downtown McKinney.

Constructing New Supply

In addition to on-street parking, the City will likely need to consider constructing new parking to support both the City Hall needs and additional public parking options. It is not possible to define the size of that facility at this time, and the City should commission a parking demand analysis once enough information is compiled about the development vision for the area. The City should absolutely consider a public-private partnership for the new parking, similar to the arrangement for the Davis at the Square garage. The intent would be to provide City employee parking, development-related parking, and public parking. The public-private venture could also serve to help expedite development and create opportunities to entice businesses to locate in the new development area.

When evaluating the design of a facility, the City should consider some of the following key elements:

- **Location:** The parking facility should be within an ideal proximity of high-intensity destinations that require parking. While a parking facility may be located to serve the development around it, it should also be able to provide demand mitigation for other community destinations.
- **Ability to mitigate demand:** The parking facility should be designed and managed to support community parking demand, rather than simply supporting the development associated with its construction.
- **Ability to serve multiple users:** The parking facility should be managed to support the peak demands of multiple user types (e.g., commuters and visitors during the day and those going to restaurants and nightlife in the evening and on weekends), preferably over multiple demand periods. Ideal parking garages operate 24/7, generating revenue and mitigating demand issues throughout the entire day.

- **Ability to leverage community and economic growth:** New parking facilities should serve more than a single user type, such that their introduction into the community creates new opportunities for development/redevelopment around them that are supported by centralized shared parking.
- **Ability to balance mobility and access away from core:** For those parking facilities that are not located in high-demand areas, they should still serve a purpose by incentivizing fringe area parking with transit access into the core. Alternatively, the parking facility should serve as a "mobility hub" with rideshare, transit, and other mobility elements integrated within the facility.
- **Access to Public-Private Partnership:** Some parking facilities are collaborative efforts between the City and private entities. These arrangements often have the mutual benefit of shared costs, reducing the burden on both parties and creating successful opportunities to promote a more mixed-use of parking facilities.

These are initial thoughts on investment factors. The City should certainly add to this list and further evaluate as it encounters parking investment opportunities.

Parking Management

Contrary to common perception, building a parking garage will not alone solve the parking challenges in McKinney. Before making a significant long-term financial investment in a parking garage, it is strongly recommended that City optimize the efficiency and improve the management of existing parking supply first. If a parking garage is constructed without the other behavioral shifts and management tactics recommended in this report, a number of challenges may remain:

- Parking demand could continue to cluster in certain areas,
- Employees may continue to park in convenient on-street spaces, and
- Roadway congestion could increase from increased parking capacity.

However, if after implementing the near-term and mid-term recommendations the City consistently experiences high occupancy rates in excess of 85 percent throughout the downtown, the City could justify investing in additional parking supply.

Constructing another parking garage would come along with ongoing maintenance and upkeep costs that cannot be overlooked. The City should also be cognizant of the size and scale of any parking structure to ensure that it fits the character of the City and does not significantly impact roadway congestion from vehicle ingress/egress.

Alternatively, the City could leverage remote parking options, such as First McKinney Church, along with a circulating shuttle to provide access into the downtown core. This could become an option for the Employee Parking Permit Program in the future, but would be reliant on consistent and frequent transit access so that employees can reliably get to work on time.

C Operations and Enforcement

Figure 29. Focus Area C: Goals Supported

Recommendations		Adaptable	Balanced	Sustainable	Accessible	Data-driven
C-1	Align parking enforcement coverage with proposed policies.	✓	✓	✓	✓	✓
C-2	Procure license plate recognition technology.	✓	✓	✓	✓	✓
C-3	Utilize a customer-service model for compliance.		✓		✓	✓
C-4	Streamline citation management and convert to civil process.	✓	✓	✓	✓	✓
C-5	Adopt vehicle immobilization and towing procedures.	✓		✓	✓	✓
C-6	Establish a maintenance and collections plan for parking equipment.	✓	✓	✓		✓
C-7	Update the Temporary Parking Space Use Permit Program.	✓	✓	✓	✓	✓
C-8	Establish a facility maintenance and upkeep plan.	✓	✓	✓	✓	✓
C-9	Ongoing operational adjustments based on data.	✓	✓	✓	✓	✓

Context

Effective parking enforcement should always be one of the City's highest parking management priorities. Compliance is critical for the success of the City's parking operation since it will improve the effectiveness of posted policies and will allow the City to measure their true impact. Without proper enforcement, the City will not be able to reach its overall parking management goals, and investments in parking assets and technology are unlikely to be effective.

Over the past three years, the majority (67%) of parking citations were issued for three-hour time limit violations. Time limits are time-consuming to enforce since they are currently tracked with chalk marks on tires. PEOs are also not currently empowered to boot or tow any vehicles that have several unpaid citations. For these reasons, there is a challenge with repeat offenders who consistently violate parking regulations and have outstanding parking citations. In 2018, 70 of those issued citations within downtown had more than three outstanding citations, and there are a handful of violators with more than ten.

Near-term

Recommendation C-1: Align parking enforcement coverage with proposed policies.

Compliance is a priority for the MMD, so the PEO is empowered to issue warning notices at their discretion. However, even without changes to parking policies, additional PEO staffing is recommended. This is because consistent enforcement coverage results in higher rates of compliance with parking policies. For example, the consistent enforcement of on-street time limits downtown has resulted in higher compliance rates. However, providing coverage for additional hours and an expanded enforcement area, including high-priority surface lots in downtown, as proposed in Recommendations B-5 and B-6 will be challenging for just one officer. It is also important to enforce loading zones to ensure commercial vehicle access and minimize congestion. Recommended updates to the City's municipal code should strengthen the ability to enforce and manage loading zones and curbside activities.

Parking enforcement is currently provided by just one Parking Enforcement Officer (PEO) who is a non-sworn employee supervised by the City Marshal. Current downtown time limits are in effect Monday thru Friday 8:00 a.m. to 5:00 p.m. excluding weekends and holidays. PEOs work during the McKinney Marshals Division (MMD) office hours however, which means that additional staffing or expanded hours would be necessary if enforcement hours are changed, as described in Recommendation B-6. Office hours are:

- Monday through Wednesday and Friday: 8:00 a.m. to 5:00 p.m.
- Thursday: 8:00 a.m. to 7:00 p.m.
- Closed on weekends

At a minimum, the City should hire at least one additional part-time PEO to support the existing PEO during peak demand periods. The recommendation to extend operating hours to evenings and Saturdays (see Recommendation B-6) further accentuates this need. Therefore, the City should consider hiring two additional part-time employees that could report to the existing PEO.

These estimates assume that the City will procure license plate recognition (LPR) technology, which improves enforcement efficiency (see Recommendation C-2). Without LPR, at least two additional part-time PEOs will be necessary.

The additional PEOs will also allow the City to expand coverage into the surrounding neighborhoods on an as-needed basis to address complaints and support any future residential parking permit policies (see Recommendation B-15). There are also opportunities to cross-train staff to support pay station maintenance and collections if paid parking is implemented (see Recommendation C-6).

Recommendation C-2: Procure license plate recognition technology.

The parking industry is becoming increasingly license plate-based since plate-based systems can provide customer service enhancements and can streamline operations. Since each license plate number is unique, parking systems can treat the license plate number like a permit or payment identifier to track payment status, length of stay, and verify compliance.

One important opportunity to streamline plate-based parking enforcement is through the use of license plate recognition (LPR) cameras. LPR technology is a key component of this PAP in order for PEOs to efficiently and effectively enforce parking in McKinney. While current enforcement procedures and systems may be sufficient for downtown enforcement today, the ability to provide city-wide coverage and to support future parking management strategies will be most effective with LPR.

LPR technology is an important parking management tool that improves enforcement efficiency and coverage. Using LPR as a parking management tool means that manual enforcement processes will be automated. Examples include:

- **Time limit tracking:** Instead of manually entering each license plate number, tire valve stem position, and location into a handheld, or using chalk to mark tires, the LPR system can automate the process by logging the same information and notifying the PEO of any violations.
- **Re-parking:** The LPR system can also be configured to detect whether a vehicle has re-parked far enough away in compliance with the recommended no re-parking rule (see Recommendation B-4). This is automated through the use of GPS data that is tied to each license plate read, and in some cases a separate valve-stem camera which can improve accuracy.
- **Verifying permits:** Instead of verifying that each vehicle has a physical permit displayed, that the permit number is tied to the correct license plate number, and that the date is valid, the LPR system can automate the process by using the license plate number as the permit number and verifying permit status using a database with real-time information.

Types of LPR

There are three main types of LPR for consideration:

- **Fixed-mount:** LPR cameras are mounted in a fixed location, typically at parking facility ingress/egress points.
- **Mobile:** LPR cameras are mounted on a vehicle to detect parked vehicles while driving by.
- **Handheld:** LPR capabilities are included within a smartphone application to capture photos or a video feed and record license plate numbers.

For McKinney, a combination of handheld LPR and mobile LPR is recommended. Knowing that the current PEO covers the downtown on foot, the use of handheld LPR would allow for ongoing monitoring of time limit violations by license plate. This could be a feature of the selected citation management system (see Recommendation C-4) or provided through a separate LPR vendor application. The City should also consider equipping at least one fleet vehicle with mobile LPR to start to support citywide enforcement efforts and ongoing data collection. Mobile LPR can enhance enforcement coverage since license plates can be automatically tracked for compliance while driving. The system will alert the PEO when a potential violation is detected through a combination of audible and visual alerts.

Integrations

The LPR system(s) should be integrated with the City's citation management system, permit management system, and future paid parking systems (e.g. pay stations and mobile payment) in order to verify compliance in real-time and send relevant information to the PEO's handheld to issue the citation.

While not required, LPR systems can also be configured to check against crime databases or hotlists and notify Police Department dispatch as needed.

Data Collection

Another significant benefit of using LPR is that the system will provide a wealth of ongoing information and data that can be leveraged for parking management decisions. Each license plate that is read is recorded in the system with an associated GPS location and time and date stamp which can be used for ongoing occupancy and utilization analysis.

The City should adopt a data privacy policy related to the use of LPR that stipulates how long data is retained, who may access the data, and what the data may be used for. License plate numbers are not considered personally identifiable and the LPR system will not collect or store any information about registered owners. However, to enhance security the City can also encrypt license plate numbers when used for data analysis purposes.

LPR data will be helpful for evaluating participation in the Employee Parking Permit Program (see Recommendation B-3) since the LPR system will record where permit holders are parking and if any permit holders are parking outside of designated permit areas. While permit holders cannot be legally prevented from parking outside of permit areas in public parking supply, the information will be helpful for informing staff whether additional public parking policies (e.g. paid parking) may be needed to influence employee parking behavior.

Ongoing occupancy and utilization data will also be helpful for measuring the impact of parking policies such as time limits, the no re-parking rule, and paid parking to measure where spillover parking may be occurring and which areas could benefit from policy adjustments.

Eventually, the use of LPR for data collection could supplement or replace the manual parking studies conducted every five years. This could provide significant cost-savings and provide the opportunity for ongoing analysis, rather than just samplings or snapshots.

Recommendation C-3: Utilize a customer-service model for compliance.

The priority for parking enforcement is, and should be, compliance. An effective parking enforcement operation prioritizes education and compliance. Parking enforcement staff may be the only interaction that visitors have with City employees, so it is helpful that they are positive representation for the community.

The City's enforcement function should adopt the Parking Ambassador approach to enforcement and customer interaction to better reflect a customer-service approach to parking enforcement. This could include a name change or simply be a rebranding effort. Regardless, the legal authority to issue parking citations would remain. The Parking Ambassador approach aligns with the City's emphasis on high quality customer service at all levels of government, as well as putting a positive spin on the parking enforcement/public interaction.

PEO productivity is not, and should never be, based upon a quota or the number of citations issued. Consistent enforcement in some cases will reduce the frequency of citations issued over time due to an increase in compliance. Instead, PEO productivity should be measured and monitored using Gap Management strategies. Gap Management is the process of analyzing citation issuance trends, identifying gaps in issuance, and accounting for all time spent in the field. LPR and citation issuance handheld devices also provide GPS location data which should be monitored to confirm that PEOs are covering their assigned routes and zones.

Recommendation C-4: Streamline citation management and convert to civil process.

Automated Citation Management

The City should evaluate various automated parking citation management vendor systems and consider procuring a new system that is designed specifically for parking enforcement to replace the Brazos system for PEOs. The current Brazos system presents a few inefficiencies for parking enforcement. For instance, in order for the PEO to verify whether a vehicle has received citations or warnings in the past, this requires a separate look-up meaning they must carry a second device. Ideally, the PEOs would carry a single smartphone device to access the citation issuance application, among other mobile phone applications needed (e.g. email). Most parking citation management systems will automatically notify PEOs if a vehicle has already received a warning and the citation history is easily accessible within the system.

Currently, the PEO also carries a separate camera to capture photos of violations, which means they must spend extra time in the office matching photos to the corresponding citations within the Brazos system.

Ideally the PEO would carry just a smartphone with a citation issuance application that can capture photos using an integrated camera within the citation issuance application. This will allow images to be automatically tied to the correct citation and will streamline the process. Most systems provide the option of either printing the image(s) on the actual citation or, more commonly, simply includes them in an online portal when a user looks up their citation information online. The ability to capture multiple images of each violation can be helpful for the adjudication process so that PEOs can clearly demonstrate the evidence.

Civil Process

In the near-term, the City should begin to evaluate the feasibility of converting to a civil process, similar to other Texas municipalities, but this transition would take time and will not happen overnight.

Currently, parking citations issued in McKinney are supported through the Municipal Court. Violators are provided 20 working days for the date of issuance to either pay the fine or schedule a court date. The McKinney Municipal Court adjudicates Class C misdemeanor violations of local, state and federal laws punishable by fine only. Citations are filed with the court clerk who sets the case upon the court docket. All cases are heard at 130 South Chestnut Street in the Municipal Court building, and there is an option to appear in person or by mail. The City should also determine whether and how the Court is currently handling delinquent collections and determine if vehicle registration holds are processed for unpaid parking citations.

Most agencies throughout the country have removed parking citations from the court system, thereby alleviating the administrative burden imposed upon traditionally overloaded systems. Typically, the court would only become engaged in rare cases that are escalated beyond the initial review phases. Rather than treating parking citations as a misdemeanor, parking citations can be converted to a civil process. To do so, this means that rather than making payments and submitting appeals to the Municipal Court, the process can be handled using a City-managed parking citation management system.

There are numerous benefits to this process both for the City and the public. This simplifies the process, making it easier for people to pay their citations, and it gives staff more control over the adjudication process. This also would increase flexibility for record-keeping which can support the ability to tow or immobilize scofflaws (see Recommendation C-5). Additionally, there are benefits to working with an experienced parking citation management vendor that can ease the impact on the DMV and optimize the collections process.

Title 7 of the Texas Transportation Code (Sec. 682.002) states "A municipality may declare the violation of a municipal ordinance relating to parking or stopping a vehicle to be a civil offense." For example, the City of Austin, TX adjudicates parking citations through an administrative process. In Austin, the municipal court clerk appoints hearing officers to administratively adjudicate parking violations that are issued under the Austin City Code. An appearance date is provided with the citation and a person issued a citation must either admit liability and pay the civil fine and other penalties, or appear before a hearing officer. The hearing officer's order is filed with the municipal court clerk separately. However, some court systems may not be able to accept certain electronic file types, so there could be some manual processes that cannot be automated in the near-term.

Recommendation C-5: Adopt vehicle immobilization and towing procedures.

Currently the Marshal's office staff do not utilize vehicle immobilization or towing as an enforcement tool. Towing is important for encouraging compliance and providing a reason for someone to pay their parking citations. Towing is also an important tool in instances such as when a vehicle is:

- abandoned,
- blocking access, or

- impacting safety.

The recommended LPR system (see Recommendation C-2) should be configured to automatically check against a scofflaw database and notify PEOs upon identification.

In the parking industry, traditional booting and towing methods are being replaced with more innovative, automated, and customer-convenient options. For egregious cases, there are two types of immobilization devices to consider, a smart self-release boot or a windshield immobilizing device (also known as Barnacles). Each of these immobilization devices provide a self-release service feature that allows the customer to manage delinquent citation payments and do not require PEO field presence to complete a transaction. This minimizes wait time and mitigates the contentious exchange that can occur when the traditional boot is removed from the offending vehicle.

Self-release boots look just like a traditional boot, however, with embedded electronics that allow for programmed release. Prior to the payment process, the violator must acknowledge the financial responsibility to return the device to a designated location. A credit hold is placed and if the equipment is not returned within the specified timeframe (typically 24 hours), the specified value is processed to the violator. The values ranges from $500 to $750 and equipment return compliance is high.

While also equipped with a violator release feature, a windshield immobilization device is attached to the windshield rather than the tire. Industrial suction cups adhere the device to the windshield thereby obstructing the driver's view. The device is GPS-enabled and includes an anti-tamper alarm. Same as the boot, a violator must acknowledge financial responsibility for the device and, if not returned, they will be charged for the device at a price similar to the boot.

Each of these solutions provide a management system that can automatically send a notification if an immobilization time limit is defined in the system identifying when a vehicle should be towed. The City can determine if this notification should be sent directly to the tow company or if an officer should solicit the service.

Mid-term

Recommendation C-6: Establish a maintenance and collections plan for parking equipment.

With the potential implementation of pay stations, it will be important to ensure that the pay stations are properly maintained and that revenue is consistently collected. Ongoing preventive maintenance will optimize equipment lifespan and maximize system uptime. Ongoing coin collections are needed in order to prevent pay stations from reaching capacity.

The City should identify existing resources within Public Works and/or budget for staff that can assist with part-time maintenance, collections, and coin counting. The recommended pay station configuration will minimize maintenance and collections needs, so it is anticipated that all duties can be handled by a part-time position or a full time position. However, for added security and safety it is recommended that coin collections be conducted in pairs if possible. There may also be an opportunity to cross-train PEOs to support both enforcement, maintenance, and collections.

Establishing a paid parking program will require many internal policies and procedures, including ensuring audit trails on cash collections, identifying staff roles and responsibilities, and accounting for equipment maintenance.

Recommendation C-7: Update the Temporary Parking Space Use Permit Program.

The City Marshal's Office has an existing Temporary Construction Parking Permit Program. Construction companies must complete an application form with basic information about the company and project to receive a hangtag permit (Figure 30).

There should be a nominal fee to purchase a permit due to the administrative cost to managing the program. Additionally, if paid parking is implemented (see Recommendation B-10), the City should consider updating the program to incorporate a permit fee schedule that is consistent with or inclusive of daily parking rates. This way the City will be collecting the appropriate amount of paid parking revenue that would otherwise have been captured by each parking space.

There may also be on-street parking reservation requests for other purposes such as special event vendor parking or moving pods. The City could expand the construction program into a more general Temporary Parking Space Use Permit Program that accommodates a variety of reservation needs. Regardless, there should be an associated fee schedule that sustains operating costs. The program rules should also align with any Special Event Permit rules for consistency.

If the City implements LPR for parking enforcement, there may also be an opportunity to tie temporary permits to a license plate number for ease of enforcement. When the City evaluates permit management systems this could be a consideration.

Figure 30. Temporary Construction Permit

Recommendation C-8: Establish a facility maintenance and upkeep plan.

The City should identify a plan and budget for ongoing parking lot and facility maintenance and upkeep. A deferred maintenance budget is recommended for parking garages and lots. Parking lot and facility maintenance including periodic restriping, signage updates, resurfacing, sweeping, trash pick-up, and replacing burnt out lighting should be budgeted for and scheduled to ensure that parking assets are properly maintained by the appropriate departments. A benefit of implementing paid parking is that the City may have additional revenue to support parking asset maintenance and upkeep which may otherwise be underfunded. The City should also begin to plan for longer-term facility maintenance needs and consider hiring an engineer for a facility assessment to maintain the structural integrity of the facilities over time.

Long-term

Recommendation C-9: Ongoing operational adjustments based on data.

The ongoing utilization of data is beneficial to optimize the parking operation since it enables data-driven decisions based on reality rather than perception. There are various sources and types of parking data that can be considered:

Figure 31. Parking Data Sources and Uses

Type	Sources	Uses
Occupancy	• Parking occupancy sensors • LPR • Payment data • Manual studies	• Understand how parking demand varies over time to appropriately tailor parking policies based on behavior. • It is recommended that any paid parking adjustments be made consistent with achieving the 85% occupancy target. • Monitor the impact of policy adjustments. • Understand peak and non-peak times and the level of availability during special events. • Understand whether additional parking supply is needed or if there is an excess of parking supply that could be converted to other uses.
Turnover	• Cameras • LPR • Payment data • Manual studies	• Understand how parking assets are being utilized. • Evaluate the need for time limits or other policies to encourage turnover. • Monitor for re-parking to consider a need for longer term parking options or a no re-parking rule.
Compliance	• Citation management system	• Track the number of parking citation and warning notices issued to evaluate how to allocate resources. • Understand whether to invest in additional signage or outreach efforts to clarify policies. • Estimate the number of unpaid parking sessions to evaluate whether additional parking enforcement resources are needed.
Enforcement	• Citation management system • LPR	• Parking enforcement productivity is not, and should never be, based upon a quota or the number of citations issued. Consistent enforcement and proactive education in most cases will reduce the frequency of citations issued over time due to an increase in compliance. "Gap Management" is the process of analyzing citation issuance trends, identifying gaps in issuance, and accounting for all time spent in the field. Adjustments to staffing levels, operating hours, and routes can be made based upon data analysis results.
Revenue	• Parking meter management systems • Mobile payment providers • Permit management systems • Bank statements	• Monitor and project revenue based on time of year for planning purposes. • Evaluate program cost sustainability. • Track revenue received versus revenue collected and counted for ongoing revenue reconciliation. • Understand utilization of various payment methods. • Track validation and incentive utilization.
Expenses	• Parking vendor contract terms • Invoices	• Forecast ongoing expenses compared with estimated revenue to evaluate program sustainability and consider adjustments to rates or operations based on cost.
Feedback	• Surveys • Online reviews	• Evaluate opportunities to enhance customer service or improve the parking experience using survey and customer feedback data.

3 Comprehensive Implementation Guide

This section provides an overview of recommendations and implementation steps for the estimated near-term (1-2 years), mid-term (3-5 years), and long-term (6+ years) timeframes. Actual timing will be dependent on City Council prioritization, funding availability, and the ongoing evaluation of initial implementation steps.

Certain recommendations have dependencies or important considerations that will impact the approach or timing. These are indicated with footnotes to provide a summary, and additional explanation can be found in the individual recommendation sections.

The following symbols are used as applicable throughout the implementation guide:

- ***MC*** : May require a municipal code update.
- ***$, $$,*** or ***$$$*** : May require a budget allocation, investment, or purchase. Estimated budget amounts are indicated based upon the following ranges.

Symbol	Estimated Range
$	Less than $100,000
$$	Between $100,000 - $500,000
$$$	Greater than $500,000

Near-term

Figure 32. Near-term Recommendations Overview

Wayfinding & Parking Guidance	Parking Demand Management	Operations and Enforcement
A-1. Increase public awareness of public parking options. A-2. Design a public parking brand and wayfinding plan. A-3. Update pedestrian wayfinding signage.	B-1. Adopt a data-driven policy framework. B-2. Determine a parking program management approach.[1] B-3. Develop an Employee Parking Permit Program (Phase 1)[2] B-4. Establish a no re-parking rule.[2] B-5. Implement time limits in high-demand surface lots.[2] B-6. Adjust operating hours to address peak demand periods.[3]	C-1. Restructure the parking enforcement operation. C-2. Improve parking enforcement consistency and coverage. C-3. Procure license plate recognition technology. C-4. Utilize a customer-service model for compliance. C-5. Streamline citation management and convert to a civil process. C-6. Adopt vehicle immobilization and towing procedures.

Wayfinding & Parking Guidance	Parking Demand Management	Operations and Enforcement
	B-7. Pursue shared parking agreements. B-8. Prioritize core curb-space for active uses. B-9. Evaluate the Parklet Program.	

[1] The parking management approach may vary significantly depending on which policies and programs are implemented and when. For example, paid parking would require a robust maintenance and collections plan that may require additional staffing compared to the current time limit environment.

[2] The Employee Parking Permit Program should be implemented alongside the introduction of time limits in high-demand lots as well as the no re-parking rule.

[3] To effectively manage expanded operating hours, the City must expand parking enforcement coverage in order to encourage compliance.

Figure 33. Near-term Implementation Checklist

✓		Implementation Steps
☐	1	Update the municipal codes to enable a data-driven policy framework, establish a no re-parking rule, establish time limits in highest demand parking lots, and extend time limit operating times to include evenings and Saturdays. These updates are meant to "future proof" the code and don't necessarily mean that they will be implemented right away. ***MC***
☐	2	At the onset, parking management should remain a City function while other options are evaluated over time as the program evolves.
☐	3	Determine an initial program management approach and identify a staff position (e.g. Parking Coordinator) to oversee initial parking management implementation steps, develop the job description, assign or hire staff member. This position could become a Parking Manager in the future depending on how the operation grows. ***$$***
☐	4	Identify additional enforcement staffing needs based on expanded operating times and upcoming program needs, and begin the recruitment process. Update parking enforcement job title and/or descriptions as needed to accommodate a "Parking Ambassador" model of enforcement. ***$$***
☐	5	Leverage a public parking brand for use of temporary signage and outreach materials. This can be a simple "P" and color combination and may be developed internally (examples provided in this PAP). Ideally, the brand would be incorporated on future outreach materials, the City website, and wayfinding signage.
☐	6	Identify potential temporary wayfinding signage locations, using the new parking brand. In particular, signage should direct drivers to underutilization locations such as the parking garages.
☐	7	Design and order temporary signage solutions for parking guidance and pedestrian walkability signage. ***$***
☐	8	Evaluate whether PEOs can be legally authorized to enforce the state vehicle code and consider options to enhance enforcement operations, staffing, coverage, and management including the feasibility of converting to a civil process.
☐	9	Install temporary wayfinding signage in desired locations and evaluate effectiveness over time.

✓		Implementation Steps
☐	10	Evaluate options and procure an automated citation management system with associated handheld citation issuance devices. Ideally, the system should be designed specifically for parking enforcement rather than using a generalized law enforcement system. **$**
☐	11	Evaluate options and procure license plate recognition (LPR) technology. Options include mobile (vehicle mounted) and handheld. If mobile LPR will be used, the City may need to acquire or repurpose a vehicle. Mobile LPR is recommended for at least one vehicle to enable ongoing data collection. The LPR system must integrate with the future permit and citation management systems. **$$**
☐	12	Establish LPR data privacy policies and ability to use LPR for ongoing data collection.
☐	13	Identify core on-street parking areas to implement additional active curb-uses such as short-term parking and loading zones. ***MC***
☐	14	Design and order decals to adjust time limit operating times per the municipal code update. **$**
☐	15	Design and order time limit signage for high-demand surface lots where time limits are established through the prior municipal code update. **$**
☐	16	Design and order "No Re-parking" signage for time limit parking areas. This can be a small "rider" sign that is mounted just below existing time limit signs. **$**
☐	17	Develop a template shared parking agreement for use in upcoming negotiations.
☐	18	Evaluate and determine Employee Parking Permit Program (Phase 1) parking locations, which may include potential shared parking locations.
☐	19	Negotiate potential shared parking opportunities as needed to support the Employee Parking Permit Program or other parking management needs. **$**
☐	20	Evaluate automated permit management system vendor options through vendor demonstrations and reference checks in nearby municipalities.
☐	21	Define the Employee Parking Permit Program (Phase 1) policies including eligibility requirements, rates, locations, operating times, and an initial cap on the number of permits that may be acquired during Phase 1. ***MC***
☐	22	Design and order signage to designate areas for "Permit Parking Only" to support the Employee Parking Permit Program. **$**
☐	23	Procure an automated permit management system for the Employee Parking Permit Program. The City should determine the level of vendor support desired to support permit program administrative tasks and customer service. The system should ideally be optimized for parking permits and offer features including an online self-service customer portal and a backend management system with reporting tools. **$**
☐	24	Train Parking Ambassadors to prepare for upcoming no re-parking rule and permit enforcement with new LPR technology.
☐	25	Develop and launch an education and outreach campaign to support upcoming program changes including: the expansion of time limit operating times, implementation of certain surface lot time limits, the Employee Parking Permit Program, and the no re-parking rule.
☐	26	Launch a sign-up list for the Employee Parking Permit Program (Phase 1), which may provide an incentive such as discounted parking.
☐	27	Install time limit decals to launch expansion of operating times.
☐	28	Install time limit signage in select surface lots.
☐	29	Work with the selected automated permit management system vendor to configure the system based upon desired business rules.
☐	30	If desired, proceed with a Wayfinding Study to develop wayfinding signage designs throughout McKinney and the downtown. The study should consider opportunities to enhance parking guidance signage, including digital signage options.

✓		Implementation Steps
		As part of the Wayfinding Study, ensure that digital signage can accommodate integration with future parking occupancy sensor technology (e.g. CityFront cameras). The Wayfinding Study should also evaluate options for enhancing pedestrian walkability signage to include information such as estimated walk times. ***$$***
☐	31	Begin allowing employees and employers to acquire parking permits through the online permit management system.
☐	32	Review permit program applications and fulfill permits. Ideally, permits should be fully digital, meaning that the license plate number is the permit number. This means that no physical permit fulfillment is required.
☐	33	Install "Permit Parking Only" signage in desired Employee Parking Permit Program locations.
☐	34	Install "No Re-parking" signs throughout time limit areas.
☐	35	Launch the Employee Parking Permit Program.
☐	36	Start with a warning notice campaign for newly implemented parking policies so that first-time offenders are issued a warning notice instead of a citation.
☐	37	Utilize LPR for ongoing data collection. In particular, the City should monitor occupancy rates throughout Historic Downtown McKinney including permit parking areas.
☐	38	Provide periodic updates to stakeholders and Council with parking data results to support future program decision-making based on data.
☐	39	Establish vehicle immobilization and towing procedures. ***MC***
☐	40	Evaluate the results of the Parklet Pilot Program and develop a formalized program for the long-term with associated policies and business rules. ***MC***
☐	41	Procure vehicle immobilization equipment and begin enforcement. ***$***
☐	42	Ongoing gap management evaluation of Parking Ambassador coverage and effectiveness to optimize program compliance.
☐	43	If further analysis reveals feasibility, proceed with converting citations to a civil process by decriminalizing parking citations and converting them to a civil offense. ***MC***
☐	44	Proceed with the CityFront pilot, or similar, to introduce parking availability data. The City should consider the ability to integrate the information with future digital signage and mapping applications. ***$$***
☐	45	Consider options to consolidate City fleet vehicle storage.

Mid-term

Figure 34. Mid-term Recommendations Overview

Wayfinding & Parking Guidance	Parking Demand Management	Operations and Enforcement
A-4. Procure a digital parking guidance system[1]	B-10. Consider implementing tiered time limits or a Pay-to-Stay model.[2] B-11. Implement Phase 2 of the Employee Parking Permit Program.[2] B-12. Promote and expand transportation mode alternatives.	C-7. Establish a maintenance and collections plan for paid parking.[3] C-8. Formalize a Temporary Street Use Permit Program. C-9. Establish a facility maintenance and upkeep plan.

Wayfinding & Parking Guidance	Parking Demand Management	Operations and Enforcement
	B-13. Promote and enhance walkability. B-14. Modernize parking development requirements. B-15. Establish a Residential Parking Permit Program.[4] B-16. Offer valet parking during special events.	

[1] Before investing in a parking guidance system, the City should ideally have an established public parking brand and confirmation that appropriate data streams are available to support guidance.

[2] Ongoing data collection (preferably with LPR enforcement equipment) will be critical for evaluating the impact of initial steps such as the Employee Parking Permit Program, the no re-parking rule, and the time limit adjustments. Occupancy and turnover data should be leveraged to determine whether policy adjustments are needed, identify problem areas, and tailor solutions.

[3] This step can be taken if and when the City decides to implement paid parking.

[4] The residential parking permit program should be established in code form and only implemented in the community as neighborhoods request AND data dictates.

Figure 35. Mid-term Implementation Checklist

✓		Implementation Steps
☐	1	Evaluate ongoing data related to the Employee Parking Permit Program (Phase 1) and consider next steps for parking management including time limits and/or paid parking.
☐	2	Facilitate community stakeholder meetings to provide updates on ongoing parking data and discuss potential next steps.
☐	3	Evaluate parking management entity options and begin to consolidate parking management duties as appropriate. ***MC***
☐	4	Evaluate options for restructuring the parking enforcement operation and identify the appropriate City department. Ideally, parking enforcement should be housed within the designated parking management entity. ***MC***
☐	5	Develop updated Employee Parking Permit Program policies and locations and begin an outreach campaign for Phase 2 implementation. ***MC***
☐	6	Establish residential permit parking policies within the municipal code with a petitioning process so that neighborhoods may apply for a permit program if desired in the future. ***MC***
☐	7	Update and formalize the Temporary Street Use Permit program, including the capability and cost of reserving any paid parking spaces (if applicable). ***MC***
☐	8	Evaluate options for enhancing walkability and proceed with implementation of desired approach. ***$$***
☐	9	Order additional "Permit Parking Only" signage as needed to support next steps for the Employee Parking Permit Program. ***$***
☐	10	Convert the City's valet parking program to be offered during special events only and proceed with program implementation and outreach. ***$***
☐	11	Evaluate options for expanding transportation mode alternatives and determine next steps.
☐	12	Consider the results of the CityFront pilot and Wayfinding Study to determine next steps.

✓		Implementation Steps
☐	13	Determine whether to implement time limits and/or paid parking, update the municipal codes, and design or procure and necessary equipment and signage to support next steps. If paid parking is desired, the City should also include the option for a mobile payment application. ***MC $$***
☐	14	If paid parking is going to be implemented, determine the appropriate City department(s) to handle paid parking equipment maintenance, revenue collections, and revenue reconciliation. ***MC $$***
☐	15	Install wayfinding and parking guidance signage in designated locations.
☐	16	Integrate any digital signage with parking availability data and configure signage to direct drivers to available parking.
☐	17	Install new time limit decals and/or paid parking equipment and launch the new program along with an education and outreach campaign including warning notices.
☐	18	If paid parking is implemented, proceed with the paid parking maintenance and collections plan. Closely monitor data to optimize operations.
☐	19	Install new "Permit Parking Only" signage and launch Phase 2 of the Employee Parking Permit Program.
☐	20	Establish a facility maintenance and upkeep plan and deferred maintenance budget. ***$$$***
☐	21	Modernize parking development requirements to prepare for future developments. ***MC***
☐	22	Review resident petitions (as needed) and evaluate the need for a residential parking permit zone. Implement new zone(s) when applicable. ***MC $***
☐	23	Work with the selected permit management system vendor to expand capabilities for residential permit management. ***$***
☐	24	Ongoing evaluation of development and parking demand in area East of Highway 5 to anticipate parking needs and begin planning for additional supply, if needed.

Long-term

Figure 36. Long-term Recommendations Overview

Wayfinding & Parking Guidance	Parking Demand Management	Operations and Enforcement
A-5. Integrate real-time availability data with other applications.[1]	B-17. Consider options to increase parking supply as needed. [2]	C-10. Ongoing operational adjustments based on data.

[1] Data sharing can be considered if the City implements parking technology that collects ongoing occupancy data.

[2] Ideally, the City should not invest in building additional parking supply until other demand management strategies have been tried and the true need or demand is realized. Additional study for parking needs East of Highway 5 should also be conducted as the vision for that area is realized.

Figure 37. Long-term Implementation Checklist

✓		Implementation Steps
☐	1	Work with the selected parking occupancy sensor vendor to integrate real-time availability data with publicly available mapping applications.
☐	2	Provide a parking map on the City website with real-time parking availability data for trip planning purposes.
☐	3	Evaluate ongoing data collection results to determine need for additional parking supply.
☐	4	Continue to seek out shared parking agreements with private property owners as needed.

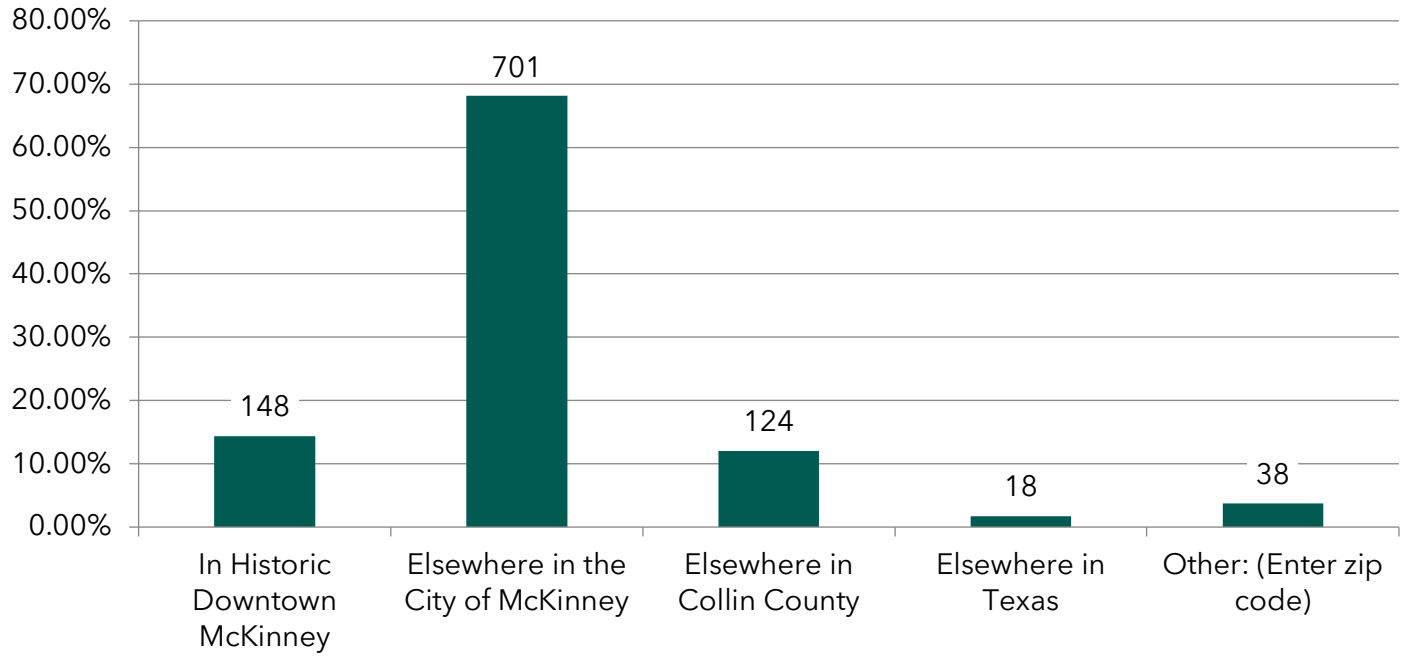
✓		Implementation Steps
☐	5	Ongoing operational data review to make adjustments to enforcement, maintenance, and collections procedures as needed.
☐	6	Ongoing evaluation of parking occupancy and turnover to make data-driven decisions about permits, time limits, rate, and/or supply adjustments.

Appendix A. Online Survey Results

The City conducted an online parking survey to understand parking habits and priorities. The survey was live on the City's website between November 5 through 19, 2020, and there were 1,029 total responses. This report summarizes the results and evaluates responses.

Demographics

Which location best describes where you live?

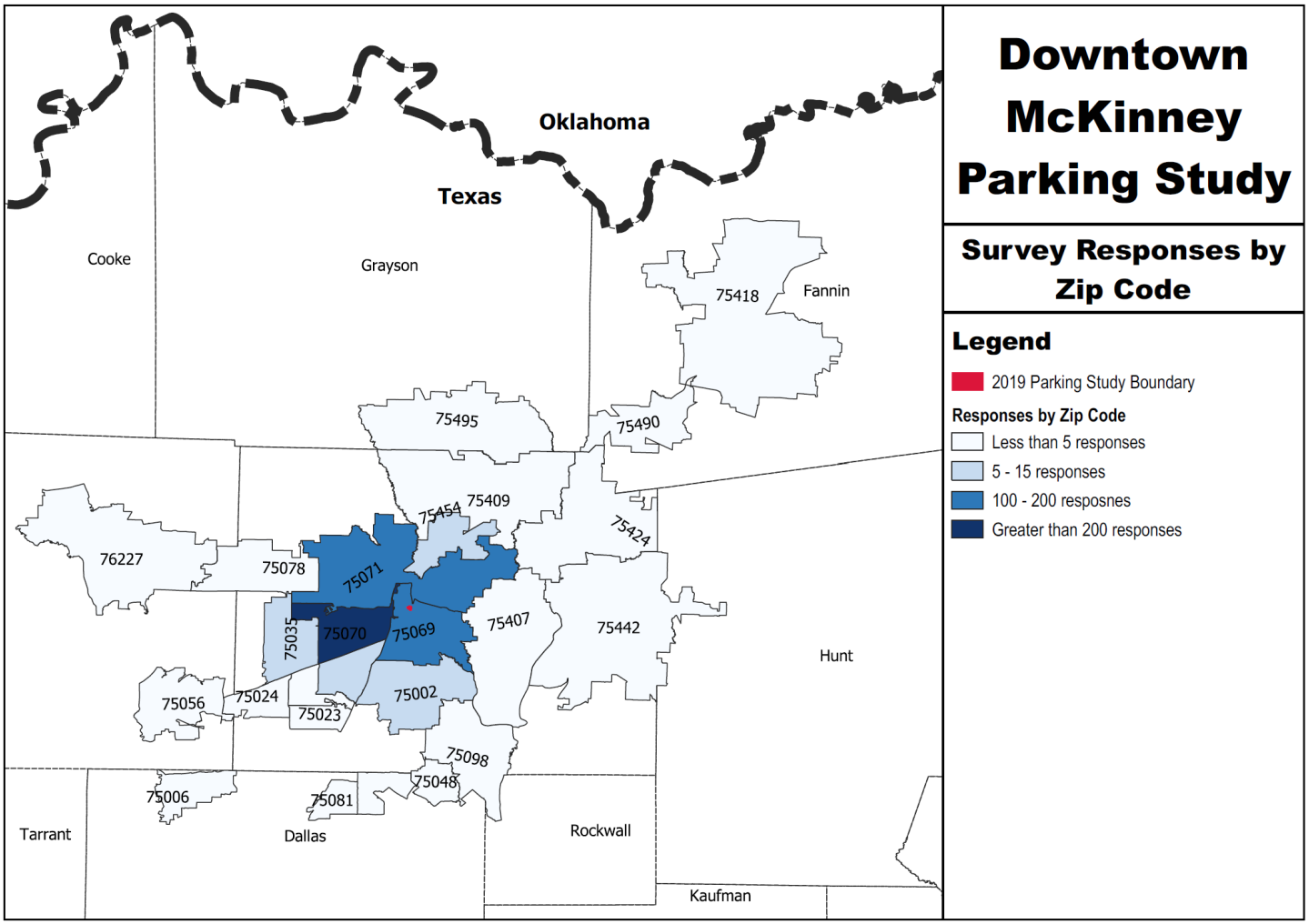


As shown above, 180 respondents (17.5%) were from outside the City. Based upon zip code data, 700 responses were from within the four contiguous zip codes around Historic Downtown McKinney.

There are four main users from the survey: Downtown Residents, Downtown Business Owners, Downtown Employees, and Visitors. This summary report uses those designations to compare how each user group uses and experiences parking in Historic Downtown McKinney.

Responses by Zip Code

Out of the 1,029 total respondents, 758 provided a zip code to identify where they begin their journey to visit Historic Downtown McKinney. The map and table below show the frequency and location of responses from the zip code responses.



Zip code	Responses
75072	208
75071	198
75069	173
75070	124
75002	13
75454	8
75013	6
75035	6
75024	3
75078	3
75098	3
75407	3
75409	3

Zip code	Responses
75442	3
75006	2
75033	2
75036	2
75048	2
75056	2
75424	2
74071	1
74104	1
75023	1
75025	1
75044	1
75081	1

Zip code	Responses
75418	1
75490	1
75495	1
75609	1
76227	1
75408	1
72072	1
75229	1
75038	1
76267	1
75254	1
75206	1
75034	1

Historic Downtown McKinney Residents

There were a total of 148 (14% of total) survey responses from those that identified themselves as Downtown Residents.

On average, Downtown Residents reported that their household has 1.87 cars. This is similar to the reported average of 2 on-site parking spaces available per household. There were 7 respondents that live at a household with no on-site parking spaces.

The survey asked residents where their guests and themselves typically park. The table below shows the reported breakdown of utilization by space type:

Parking Type	Homeowner	Guest
On my property or private parking	126 (81%)	48 (34%)
On the street	24 (15%)	85 (59%)
In a public lot or garage	5 (3%)	10 (7%)

Historic Downtown McKinney Residents vs. Visitors

This section compares responses by Downtown Residents and Visitors to understand how parking behavior and needs differ. Key takeaways are outlined below, followed by a set of tables that provide a side-by-side comparison for each group.

Key Takeaways:

- Residents are more likely to be frequent visitors than those outside of the Historic Downtown.
- The more frequently they visit, the more likely they are to take a non-vehicular mode to access Historic Downtown.
- More frequent visitors tend to utilize on-street parking, while those who only visit multiple times per month or less typically look for off-street parking.
- Most visitors prefer to park within two blocks of their destination, with less frequent visitors expecting to park further away.
- Majority of respondents, independent of where they are coming from, feel the 3-hour time limit is adequate.
- Downtown residents were more likely to use the DASH, but the majority of respondents (independent of where they come from) had not uses the free mobility service.

How often do you typically visit Historic Downtown McKinney?

Response	Downtown Resident Visitors	Non-Downtown Resident Visitors
Daily	13	4
Multiple times per week	47	113
Multiple times per month	29	359
Multiple times per year	6	220
Rarely	2	40
I have never been to Historic Downtown McKinney	0	0

How do you typically access Historic Downtown McKinney?

Response	Downtown Resident Visitors					Non-Downtown Resident Visitors				
	Car	Ride-share	Public transit	Bike	Walk	Car	Ride-share	Public transit	Bike	Walk
Daily	31%	0%	0%	0%	62%	75%	0%	0%	0%	0%
Multiple times per week	36%	0%	0%	2%	62%	97%	1%	0%	0%	2%
Multiple times per month	72%	0%	0%	0%	28%	99%	0%	0%	0%	0%
Multiple times per year	83%	0%	0%	0%	0%	99%	1%	0%	0%	0%
Rarely	50%	0%	0%	0%	50%	95%	3%	0%	0%	0%
Never been to Downtown	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Where do you typically park in Historic Downtown McKinney?

Response	Downtown Resident Visitors				Non-Downtown Resident Visitors			
	On-street	Off-street public parking lot	Off-street public parking garage	Private parking area	On-street	Off-street public parking lot	Off-street public parking garage	Private parking area
Daily	23%	0%	0%	0%	75%	0%	0%	0%
Multiple times per week	26%	6%	0%	0%	52%	21%	7%	0%
Multiple times per month	34%	21%	7%	0%	40%	43%	7%	1%
Multiple times per year	33%	33%	0%	0%	31%	51%	5%	0%
Rarely	0%	50%	0%	0%	35%	38%	3%	3%
Never been to Downtown	0%	0%	0%	0%	0%	0%	0%	0%

How long does it typically take you to find available parking?

Response	Downtown Resident Visitors				Non-Downtown Resident Visitors			
	Right away	5 minutes or less	10 minutes or less	More than 10 minutes	Right away	5 minutes or less	10 minutes or less	More than 10 minutes
Daily	0%	15%	8%	0%	25%	50%	0%	0%
Multiple times per week	2%	23%	9%	0%	10%	38%	24%	10%
Multiple times per month	3%	34%	10%	14%	7%	43%	27%	14%
Multiple times per year	0%	0%	33%	33%	3%	36%	33%	16%
Rarely	0%	0%	0%	50%	8%	18%	28%	25%
Never been to Downtown	0%	0%	0%	0%	0%	0%	0%	0%

What is a reasonable walking distance?

Response	Downtown Resident Visitors				Non-Downtown Resident Visitors			
	1 block	2 blocks	3 blocks	4 blocks	1 block	2 blocks	3 blocks	4 blocks
Daily	15%	8%	0%	0%	0%	25%	25%	25%
Multiple times per week	4%	11%	13%	6%	12%	41%	19%	10%
Multiple times per month	3%	28%	21%	10%	12%	45%	26%	9%
Multiple times per year	17%	50%	0%	0%	11%	41%	25%	10%
Rarely	0%	50%	0%	0%	23%	40%	8%	8%
Never been to Downtown	0%	0%	0%	0%	0%	0%	0%	0%

Does the current 3-hour on-street time limit typically provide enough time for you?

Response	Downtown Resident Visitors				Non-Downtown Resident Visitors			
	Yes	Some-times	No	I only visit when there is no time limit	Yes	Some-times	No	I only visit when there is no time limit
Daily	15%	8%	0%	0%	75%	0%	0%	0%
Multiple times per week	26%	4%	4%	0%	42%	25%	9%	6%
Multiple times per month	41%	10%	7%	3%	52%	27%	8%	5%
Multiple times per year	17%	17%	0%	33%	48%	26%	6%	9%
Rarely	0%	0%	0%	50%	45%	10%	8%	15%
Never been to Downtown	0%	0%	0%	0%	0%	0%	0%	0%

How long is your typical visit to Historic Downtown McKinney?

Response	Downtown Resident Visitors				Non-Downtown Resident Visitors			
	1 hour or less	2 hours or less	3 hours or less	More than 3 hours	1 hour or less	2 hours or less	3 hours or less	More than 3 hours
Daily	25%	25%	0%	25%	8%	8%	0%	8%
Multiple times per week	4%	23%	36%	19%	0%	15%	13%	6%
Multiple times per month	3%	31%	44%	13%	0%	31%	21%	10%
Multiple times per year	1%	31%	43%	13%	0%	0%	67%	0%
Rarely	10%	40%	15%	13%	0%	0%	50%	0%
Never been to Downtown	0%	0%	0%	0%	0%	0%	0%	0%

Have you used the Downtown Area Shuttle (DASH)? If so, do you have feedback?

Response	Downtown Resident Visitors			Non-Downtown Resident Visitors		
	Yes	No	Had not heard of it until now	Yes	No	Had not heard of it until now
Daily	31%	46%	8%	0%	100%	0%
Multiple times per week	21%	62%	11%	11%	53%	20%
Multiple times per month	10%	55%	21%	5%	60%	27%
Multiple times per year	17%	33%	33%	0%	50%	39%
Rarely	0%	50%	50%	0%	40%	40%
Never been to Downtown	0%	0%	0%	0%	0%	0%

Historic Downtown McKinney Business Owners & Employees

This section compares responses by Downtown Business Owners and Downtown Employees to understand how parking behavior and needs differ. Key takeaways are outlined below, followed by a set of tables that provide a side-by-side comparison for each group.

Key Takeaways:

- Predominant respondents were retail, restaurant, and office owners and employees; most do not provide parking for their employees, drive alone to work, and park in some form of public parking.
- Most employees tend to park 1-2 blocks from their business, with office workers overwhelmingly parking within one block; most employees find parking within 5 minutes of arriving to work.
    - Office workers also indicated that they were likely to use the 3-hour parking spaces frequently.
- Most businesses felt the 3-hour time limit was working appropriately for their needs, with the exception of:
    - Retail business owners, who likely depend on trip-chaining between restaurants and retail.
    - Office employees, who are likely answering from a personal perspective because of their use of the 3-hour parking system.
- Most businesses felt that there was enough parking in the Historic Downtown, with the exception of:
    - Retail business owners and employees, who likely depend on the on-street system in front of their businesses.
    - Restaurant business owners, who also depend on close-in parking for patrons.
    - Office employees, specifically those who's employer does not provide on-site parking (roughly 30% of respondents).

What type of business do you own and/or work at?

Type of Business	Business Owner	Employee
Retail	41 (49%)	14 (18%)
Restaurant	13 (16%)	11 (14%)
Office	20 (24%)	32 (40%)
Salon	1 (1%)	1 (1%)
Hotel	2 (2%)	0 (0%)
Entertainment, events, and venues	6 (7%)	4 (5%)
Health and fitness	0 (0%)	3 (4%)
Government	0 (0%)	15 (19%)

What type of business do you own and/or work at?

Type of Business	Business Owner	Employee
Drive alone	80 (85%)	79 (94%)
Carpool	4 (4%)	1 (1%)
Uber, Lyft, rideshare company	0 (0%)	0 (0%)
Public transit	1 (1%)	0 (0%)
Bike	1 (1%)	0 (0%)
Walk	3 (3%)	2 (2%)
I work from home	5 (5%)	2 (2%)

What is the maximum number of employees you have at work at any given time? (Employer Response)

Response	1-5	6-10	11-20	21-30	31-40	More than 40
Retail	32	9	0	0	0	0
Restaurant	4	4	4	0	0	1
Office	14	3	0	1	0	2
Salon	0	0	1	0	0	0
Hotel	1	0	0	0	0	1
Entertainment, events, and venues	5	1	0	0	0	0
Health and fitness	0	0	0	0	0	0
Government	0	0	0	0	0	0
Other	8	2	0	1	0	0

How many private parking spaces does your business provide for employees? (Employer Response)

Response	0	1-5	6-10	11-20	21-30	31-40	More than 40
Retail	33	4	4	0	0	0	0
Restaurant	12	1	0	0	0	0	0
Office	8	5	1	4	2	0	0
Salon	1	0	0	0	0	0	0
Hotel	1	0	0	0	0	1	0
Entertainment, events, and venues	5	0	1	0	0	0	0
Health and fitness	0	0	0	0	0	0	0
Government	0	0	0	0	0	0	0
Other	4	6	0	1	0	0	0

Where do you typically park while you are at work? (Employee Response)

Response	In a private parking area provided by my employer	On the street	In a public parking lot or garage
Retail	1	4	9
Restaurant	2	0	8
Office	9	4	18
Salon	0	0	1
Hotel	0	0	0
Entertainment, events, and venues	0	1	3
Health and fitness	0	2	0
Government	9	1	5
Other	1	1	1

How far away do you typically park from work? (Employee Response)

Response	1 block	2 blocks	3 blocks	4 or more blocks
Retail	5	8	0	0
Restaurant	4	1	1	2
Office	15	5	1	1
Salon	0	0	1	0
Hotel	0	0	0	0
Entertainment, events, and venues	1	0	1	0
Health and fitness	1	1	0	0
Government	5	0	1	0
Other	0	1	1	0

How long does it typically take you to find an available parking space before work? (Employee Response)

Response	Right away	5 minutes or less	10 minutes or less	More than 10 minutes
Retail	3	5	2	3
Restaurant	1	4	1	2
Office	9	6	6	1
Salon	0	0	0	1
Hotel	0	0	0	0
Entertainment, events, and venues	2	0	0	0
Health and fitness	0	1	1	0
Government	3	2	1	0
Other	0	1	0	1

What is a reasonable walking distance for you to be able to walk from parking to work? (Employee Response)

Response	1 block	2 blocks	3 blocks	4 blocks
Retail	3	8	1	1
Restaurant	5	2	0	1
Office	8	11	1	2
Salon	0	1	0	0
Hotel	0	0	0	0
Entertainment, events, and venues	0	1	0	1
Health and fitness	0	2	0	0
Government	3	1	1	1
Other	0	0	2	0

How frequently do you park in the 3-hour time limit spaces on-street while at work? (Employee Response)

Response	Never	Sometimes	Once per day	Twice per day	More than twice per day
Retail	7	6	0	0	0
Restaurant	5	2	0	0	1
Office	8	9	1	3	1
Salon	0	1	0	0	0
Hotel	0	0	0	0	0
Entertainment, events, and venues	0	2	0	0	0
Health and fitness	0	1	1	0	0
Government	4	2	0	0	0
Other	0	2	0	0	0

Do you think the 3-hour time limit is typically enough time for your customers to park in Historic Downtown McKinney? (Employer and Employee Responses)

Response	Employer			Employee		
	Yes	No	Not sure	Yes	No	Not sure
Retail	10	26	5	7	7	0
Restaurant	7	4	2	4	6	1
Office	14	3	3	14	13	5
Salon	1	0	0	0	1	0
Hotel	2	0	0	0	0	0
Entertainment, events, and venues	4	2	0	1	0	1
Health and fitness	0	0	0	3	0	0
Government	0	0	0	8	2	3
Other	8	2	1	2	1	0

On a typical day, do you think there is enough parking available downtown for your customers? (Employer and Employee Responses)

Response	Employer			Employee		
	Yes	No	Not sure	Yes	No	Not sure
Retail	16	19	6	5	8	1
Restaurant	6	7	0	5	4	2
Office	6	8	6	12	13	7
Salon	0	1	0	0	1	0
Hotel	1	1	0	0	0	0
Entertainment, events, and venues	4	1	1	2	0	0
Health and fitness	0	0	0	1	1	1
Government	0	0	0	8	5	1
Other	4	4	3	2	1	0

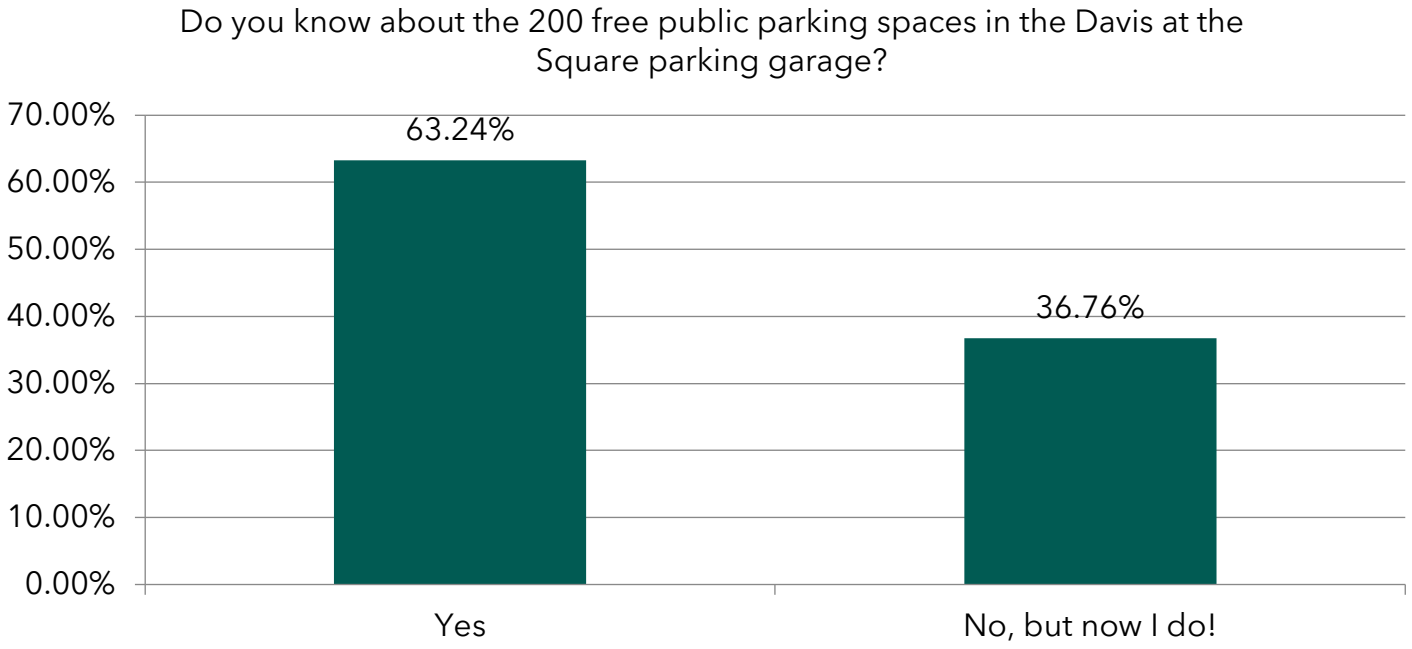
Parking Garages

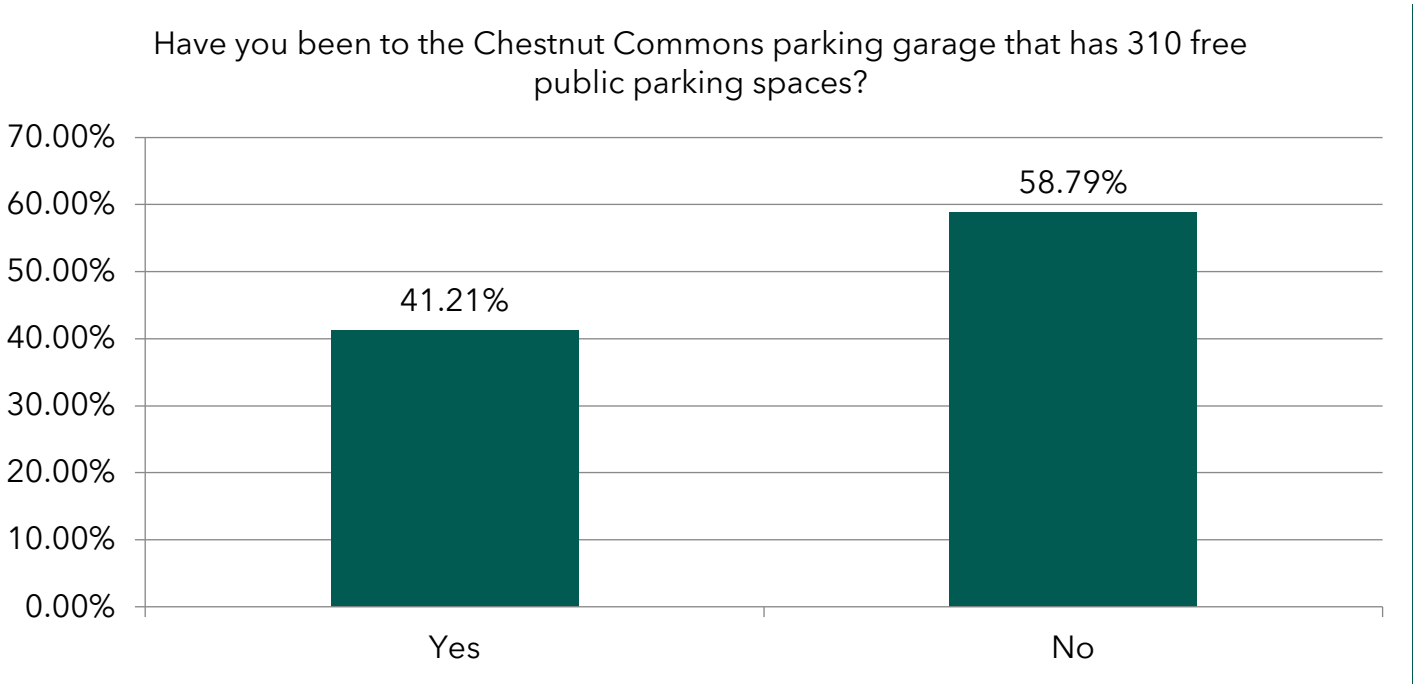
The survey included two questions related to awareness about public parking garage options.

Key Takeaways:

- Business owners, employees, and Downtown residents were much more likely to know about the Davis Garage than visitors from outside of the downtown area.
    - The less frequently a non-resident visitor came to Historic Downtown, the less likely they were to know about the Davis Garage.
- Business owners and employers were much more likely to use the Chestnut Commons Garage, with 100% of employees indicating that they had used it.
- Resident visitors were split evenly on whether they use the Chestnut Commons Garage.
- Non-resident visitors overwhelmingly did not use the Chestnut Commons Garage.

Are you aware/do you use the public parking garages?





Business Awareness of Parking Garages – Employers and Employees

Do you know about the Davis Garage?	Employer		Employee	
	Yes	No, but now I do!	Yes	No, but now I do!
Retail	35	3	6	4
Restaurant	13	0	9	0
Office	16	1	22	6
Salon	1	0	0	1
Hotel	1	1	0	0
Entertainment, events, and venues	4	0	2	0
Health and fitness	0	0	2	0
Government	0	0	9	3
Other	9	0	2	0

Do you use the Chestnut Garage?	Employer		Employee	
	Yes	No	Yes	No
Retail	29	9	3	0
Restaurant	10	3	4	0
Office	13	4	13	0
Salon	0	1	0	0
Hotel	2	0	0	0
Entertainment, events, and venues	1	3	2	0
Health and fitness	0	0	2	0
Government	0	0	10	0
Other	8	1	2	0

Visitor Awareness of Parking Garages – Residents and Non-Residents

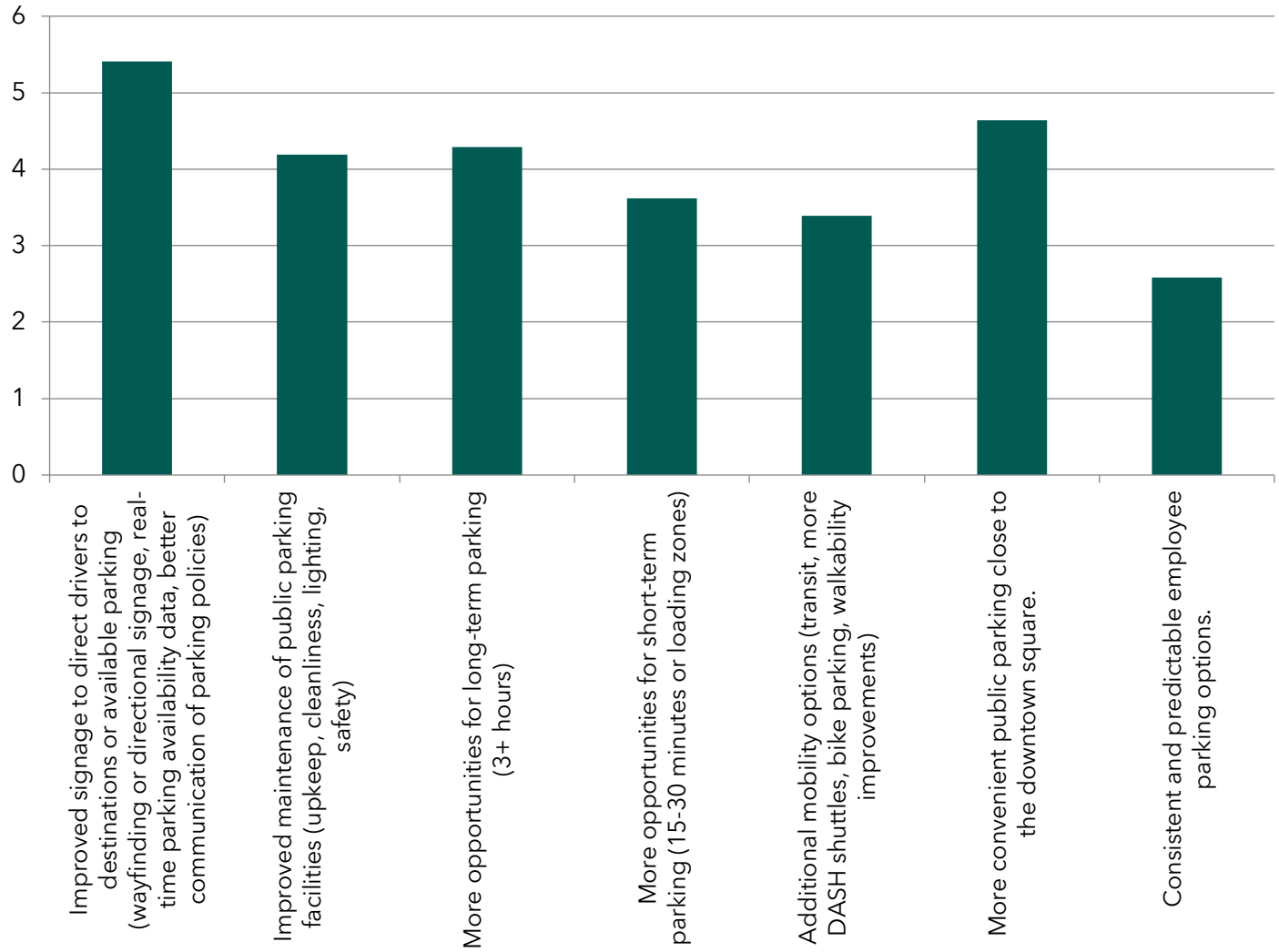
Do you know about the Davis Garage?	Residents		Non-Residents	
	Yes	No, but now I do!	Yes	No, but now I do!
Daily	10	1	4	0
Multiple times per week	34	10	71	24
Multiple times per month	18	7	196	135
Multiple times per year	3	2	88	109
Rarely	2	0	10	22
I have never been to Downtown	0	0	0	0

Do you use the Chestnut Garage?	Residents		Non-Residents	
	Yes	No	Yes	No
Daily	8	3	3	1
Multiple times per week	29	15	35	60
Multiple times per month	11	14	130	200
Multiple times per year	1	4	52	145
Rarely	0	2	1	31
I have never been to Downtown	0	0	0	0

Parking Management Priorities

Survey participants were asked to prioritize a variety of parking management strategies. This section provides an overview of responses by user group.

Rank the following from most important (1) to least important (7) for Historic Downtown McKinney



Key Takeaways:

- Improved signage was the most prioritized – the key user groups who prefer this are business owners, commercial and office employees, visitors, and residents who don't visit daily.
- More convenient parking was the second most prioritized – including business owners and employees and visitors who don't come Downtown often.
- More long-term parking was the third most prioritized – including employees, retail business owners, downtown residents, and visitors who don't come Downtown often.
- Improved maintenance (e.g. lighting and safety) was fourth most prioritized – including restaurant/office business owners, most employees, downtown residents, and visitors.
- Residents preferred more on-street short-term parking, which is consistent with their preference for parking adjacent to businesses.
- Business owners preferred more convenient public parking, which is consistent with a lack of private parking reported for most businesses.
- Employee parking programs were least prioritized.

General responses by user type

User	Improved signage	Improved maintenance	More long term parking	More short term parking	Additional mobility options	More convenient public parking	Consistent/ predictable employee parking
Business owner	2.42	4.22	3.82	5.05	4.72	3.13	4.55
Employee	2.55	4.75	3.68	4.92	3.64	3.58	4.69
Visitor	2.35	3.71	4.07	4.51	4.27	3.64	5.33
Resident	3.44	3.97	3.42	4.18	3.99	4.23	4.79

Business Owner responses

Business Type	Improved signage	Improved maintenance	More long term parking	More short term parking	Additional mobility options	More convenient public parking	Consistent/ predictable employee parking
Retail	2.49	4.58	3.31	4.83	4.72	3.57	4.29
Restaurant	2.31	2.75	4.92	4.33	4.58	3.25	5.46
Office	2.24	3.50	4.00	4.31	5.56	2.76	5.82
Salon	4.00	7.00	3.00	6.00	5.00	1.00	2.00
Hotel	1.50	4.50	4.50	4.50	4.50	4.50	4.00
Entertainment	2.60	3.60	4.00	6.00	3.80	2.80	5.00
Health/fitness	NA	NA	NA	NA	NA	NA	NA
Government	NA	NA	NA	NA	NA	NA	NA
Other	1.80	3.60	3.00	5.40	4.90	4.00	5.30

Employee responses

Business Type	Improved signage	Improved maintenance	More long term parking	More short term parking	Additional mobility options	More convenient public parking	Consistent/ predictable employee parking
Retail	2.00	4.20	3.22	4.20	5.00	3.78	4.80
Restaurant	4.25	3.78	3.50	3.89	4.33	4.33	3.33
Office	3.33	4.44	3.11	5.37	4.93	3.33	3.48
Salon	2.00	6.00	3.00	7.00	5.00	1.00	4.00
Hotel	NA	NA	NA	NA	NA	NA	NA
Entertainment	2.50	5.50	3.50	2.00	2.00	5.50	7.00
Health/fitness	2.50	6.00	4.50	6.00	2.50	2.00	4.50
Government	2.33	4.58	3.64	4.42	3.83	5.17	3.92
Other	1.50	3.50	5.00	6.50	1.50	3.50	6.50

Downtown Resident responses

Frequency	Improved signage	Improved maintenance	More long term parking	More short term parking	Additional mobility options	More convenient public parking	Consistent/ predictable employee parking
Daily	4.00	4.36	3.18	4.64	2.55	4.45	4.82
Multiple times per week	2.72	4.05	4.05	3.86	3.84	4.23	5.20
Multiple times per month	2.96	3.95	3.70	3.91	4.25	4.16	5.21
Multiple times per year	2.00	4.00	4.20	5.00	4.80	2.80	5.20
Rarely	5.50	3.50	2.00	3.50	4.50	5.50	3.50
Never been to Downtown	NA	NA	NA	NA	NA	NA	NA

Visitor responses

Frequency	Improved signage	Improved maintenance	More long term parking	More short term parking	Additional mobility options	More convenient public parking	Consistent/ predictable employee parking
Daily	2.00	3.75	5.25	5.50	2.25	5.50	3.75
Multiple times per week	2.68	3.78	3.74	3.94	4.63	3.52	5.51
Multiple times per month	2.57	3.53	3.82	4.35	4.74	3.22	5.75
Multiple times per year	2.34	3.68	3.62	4.50	4.76	3.02	5.92
Rarely	2.14	3.82	3.89	4.24	4.96	2.97	5.73
Never been to Downtown	NA	NA	NA	NA	NA	NA	NA

Magic Wand

Survey participants were asked the following question:

If you had a magic wand and could change, fix, or improve anything about parking in Historic Downtown McKinney what would you do?

The summary below used the general commentary from the open-ended magic wand question to define themes and the general frequency with which they occurred.

Strategy	Percent of Comments
More parking (closer in)	21.15%
Improve wayfinding, signage, and information	15.38%
Everything is great!	7.37%
No paid parking	5.77%
Make the square pedestrian friendly (remove cars)	5.13%
Further out employee parking	3.85%
Implement better transit/shuttling	3.53%
Improve walking/biking amenities	3.53%
More ADA parking	3.21%
Add more valet	2.56%
Fix the time limits	2.24%
Replace parallel with perpendicular (make wider)	2.24%
More short-term/street parking	1.92%
More loading zones	1.92%

Strategy (cont'd)	Percent of Comments
Improved enforcement	1.92%
Close in employee designated parking	1.28%
Add paid parking	0.96%
Promote more long-term parking options	0.96%
Better public/private shared parking	0.96%
Improve elevators in the parking garages	0.96%
Parking management entity	0.96%
Remove valet	0.96%
More on-street spaces	0.64%
Less parking needed	0.32%
Better walking routes/paths	0.32%
Electric vehicle charging	0.32%
City employees should park elsewhere	0.32%