MEMORANDUM

To: City of Grand Rapids / Mobile GR
From: Nelson\Nygaard Consulting Associates
Date: September 13, 2019
Subject: Parking Existing Conditions Assessment

INTRODUCTION

This memo summarizes key parking conditions relevant to the development of the Grand Rapids Equitable Economic Development and Mobility Strategy. These conditions will provide a basis for identifying key issues, challenges, and improvement opportunities related to the provision and management of public parking in Downtown and other key centers of civic, commercial, economic, and social-connection opportunity. This report is organized into the following primary sections.

- **Planning Context** – A summary of recent, relevant planning efforts and their outcomes.
- **Parking Conditions** – An overview of key parking demand, supply, management, and policy conditions, within Downtown and a select set of study sub-areas.
- **Mobility and Alternative Mode Conditions** – An overview of conditions affecting mobility options for Grand Rapids travel and access, independent of personal-auto ownership/availability.

Appendix A includes the tables of minimum car and bicycle parking requirements per land use zone, as defined in the City’s zoning ordinance.

For background information on the demographics and transportation context within Grand Rapids, please refer to the separate Demographics of Mobility memorandum.

KEY FINDINGS

Parking Management

- Grand Rapids has an awareness and appetite for innovation, and plans to continue **guiding this innovation forward**.
  - Planning efforts since 2015 have expanded Mobile GR from a parking services department to a mobility services department, covering all transportation choices.
  - Mobile GR has several planning playbooks in its toolbox to work from, including the GR Forward: Parking and Mobility Study and the Vital Streets Plan’s Parking Management Plan and Curbside Management Best Practices appendices.
PARKING EXISTING CONDITIONS ASSESSMENT | GRAND RAPIDS EED & MOBILITY STUDY
City of Grand Rapids

- Parking management in the city has seen several technological advances in recent years, including smart pay stations, multiple payment options (i.e., coin, cash, or card), a parking payment mobile app, and Smarking parking management software.

- Mobile GR’s parking system is supported by **significant management resources**, including:
  - A proactive, and proven-effective pricing program for on-street parking.
  - Mobile GR’s Commuter Census inform city staff of local commuter trends, so they can develop services and programs to better meet community needs.
  - The City’s Smarking parking data management system, which provides analytics on the supply, utilization, and management of parking assets.

**Parking Supply**

- **Publicly accessible parking supply is roughly 19,100.**
  - The City manages a robust public parking system, the core of which consists of over 9,600 priced on- and off-street parking spaces located in downtown and established neighborhood commercial districts.
    - The City also manages on-street parking throughout Grand Rapids that is managed without pricing.
  - Commercial parking operators supply roughly 9,500 additional parking spaces open to the public, primarily located in downtown.

**Parking Utilization**

- The value of the City’s significant parking investments and curbside infrastructure are significantly **undermined by not pricing on-street parking at night and on weekends and too-modest oversell rates** for monthly parking at Mobile GR garages.
  - On-street space availability is maintained at desirable levels throughout the hours of meter enforcement -- but is consistently constrained during evenings and weekends when all on-street spaces become free.
    - This suggests a critical opportunity to expand hours of meter enforcement to make downtown more accessible, and downtown parking more user-friendly during evenings and weekends.
  - Almost all off-street facilities are significantly underutilized, even during weekday peak-demand times, even though many locations have wait lists for monthly permits.
    - This suggests a significant opportunity to adjust the current oversell-rate approach to accommodate current user preferences (those on the wait list with a permit for a less preferred location) as well as continued downtown growth.

- **Utilization of on-street parking is consistently higher compared to off-street parking, reflecting a combination of strong market favor for these options and their limited supply.**
- **On-street utilization is highest during Friday and Saturday evenings when availability is particularly constrained.**
- **During meter enforcement hours, most blocks lacking availability are adjacent to blocks offering ample availability.**
This suggests that current pricing and regulation are distributing demand relatively effectively, when they are in effect, ensuring that spaces are available within a short walk of any destination.

- Within Uptown, utilization/availability levels are generally consistent across all option, including between priced on-street parking and free parking options, with the notable exception of Wealthy Street.
- This suggests that pricing is working to good effect, distributing demand by encouraging some drivers to choose less convenient, but free, parking locations.

- **Recent updates to minimum parking requirements** in the Zoning Ordinance significantly reduced the cost and space burden for providing on-site parking:
  - No parking minimum in the Traditional Neighborhood City Center (TN-CC) Zone District.
  - Minimum parking requirements halved in all other zone districts.
  - New developments requiring additional vehicle parking now also have minimum bicycle parking requirements.
  - The annual cost of driving a private vehicle is approximately $8,000 to $10,000, including fuel, maintenance, insurance, licensing and fees, financing, and depreciation in the value of the vehicle.
  - This annual cost has significant equity implications, that carry a heavier weight when public mobility investments favor driving over other more accessible travel options.

**PLANNING CONTEXT**

The following table lists recent planning efforts that defined strategies and recommendations for parking improvements in Grand Rapids.

### Figure 1  Plans Reviewed

<table>
<thead>
<tr>
<th>Plan</th>
<th>Agency</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>GR Forward: Parking and Mobility Study</td>
<td>City of Grand Rapids</td>
<td>2015</td>
</tr>
<tr>
<td>Vital Streets Plan:</td>
<td></td>
<td></td>
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<tr>
<td>- Parking Management Plan</td>
<td>City of Grand Rapids</td>
<td>2016</td>
</tr>
<tr>
<td>- Curbside Management Best Practices</td>
<td></td>
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</tr>
<tr>
<td>Grand Rapids 2017 Commuter Census</td>
<td>PolicyLink, USC PERE</td>
<td>2017</td>
</tr>
<tr>
<td>An Equity Profile of Grand Rapids</td>
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<td></td>
</tr>
</tbody>
</table>

**GR Forward: Parking and Mobility Study**

**Overview**

The 2015 GR Forward plan is a strategic plan for the Downtown neighborhood and Grand River corridor. It outlines several strategies that emphasize the role of parking in reshaping the City’s approach to growth and balanced mobility. The plan included a Parking and Mobility Study as an appendix which provided recommendations and guidance establishing Mobile GR as Grand
Rapids’ municipal multimodal mobility services department – an evolution from the City’s former Parking Services department.

It outlines several strategies that emphasize the role of parking in reshaping the City’s approach to growth and balanced mobility. This begins with the overarching recommendation that the City’s Parking Services department substantially broaden its mission to “cover all transportation choices, not solely driving and parking.” The report outlines a vision for this transformed department, including its rebranding as Mobile GR, as follows.

**Key Recommendations**

After receiving the Mobile GR report, the Parking Services director and staff began working with the Vital Streets team to develop a Strategic Plan to guide the implementation of study recommendations, as well as additional parking management and transportation demand management (TDM) strategies suggested by the Vital Streets team. The resulting Strategic Plan presents a prioritized schedule of policy adoption and strategic implementation, as approved by the Parking Commission.

The following parking-related policies and actions are included in the GR Forward: Parking and Mobility Study:

**Policies**

- Establish a new rate-setting methodology to allow all parking rates to be set, and adjusted to reflect demand/supply conditions
- Secure greater authority to adjust parking rates in response to demand/supply patterns and changes
- Replace the Parking Incentive Plan, which discounted monthly parking rates for employers who located/relocated to Downtown, with incentives that focus on the full range of commute options.

**Year One Actions (completed actions in blue)**

- Align parking rates with documented demand/supply conditions, including:
  - Increasing event rates at overburdened facilities.
  - Adjusting hours/days of enforcement for on-street parking meters, including starting enforcement later in the day, but enforcing later into evenings, where appropriate.
  - Adjust non-metered rates upon approval of new rate-setting methodology.
- Use the new real-time data system to track utilization patterns and peaks among the City’s parking ramps.
- Evaluate impact of all rate adjustments and provide recommendations for following year based on supply/demand measures.
- Develop parking management toolbox for neighborhood commercial centers, including an emphasis on TDM to reduce employee parking demand.¹
- Hire Mobile GR Director.
- Hire additional staff to support expanded functions of Mobile GR.

Identify external partnerships, to support mission of Mobile GR, given limitations of what Mobile GR can achieve on its own.
- Redesign the DASH Circulator as a Park Once shuttle.
- Establish approach, goals, and objectives for employer outreach.
- Promote Mobile GR’s established and added services.
- Establish a Commuter Choice Marketing & Communications Plan.

Year Two Actions
- Engage with at least three neighborhood commercial centers to discuss application of the Mobile GR Management Toolbox.
- Work with TheRapid to evaluate transit pass pilot and determine next steps (maintain, eliminate, expand).
- Conduct the first annual survey of employees and residents.
- Develop wayfinding, signage, branding and an information program to promote Park Once in Downtown and neighborhood commercial centers.
- Build upon Cashout success/momentum, based on results of Spectrum’s program.
- Coordinate with Vital Streets study and implementation follow-up to identify synergies between complete-street designs, parking management, and TDM.
- Update curbside loading regulations and strategies to increase efficient, prioritized access to Downtown’s limited curbside resources.
- Ensure that RPP is ready to be effective when more neighborhoods begin to request it in response to spillover concerns.

Ongoing Actions
- Adjust parking rates based on supply/demand conditions, as measured during previous year.
- Evaluate impact of mobility and TDM investments, and coordination efforts, using Key Performance Indicators (KPI).
- Identify changes to Mobile GR program and strategic actions, based on KPI-based performance assessments of impact and benefits.

Vital Streets Plan

Overview
In May 2014, Grand Rapids voters renewed a 1.5% income tax for Grand Rapids residents and 0.75% income tax for non-residents working in the city and dedicated it to the new Vital Streets Funds. From this, the City developed the 2016 Vital Streets Plan, combining complete streets and green infrastructure principles, to approach streets for their capacity to serve many travel modes and infrastructure systems. The plan put Grand Rapids at the forefront of street network planning, as one of the few cities in the US planning and improving streets through a comprehensive lens, spanning modes and systems. It included two appendices that serve as parking management strategy menus:
- Parking Management Plan
Curbside Management Best Practices

In addition, the Vital Streets Plan links Vital Streets investments to six key values based on City targets:

- **Mode Share:** Reduce single-occupant vehicle travel from a 95% drive-alone commute rate to 45% by 2035 by providing efficient transit corridors, safe walking and bicycle facilities, and smart solutions for ride-sharing to achieve a mode split of 20% transit, 12% walking, 5% biking, and 20% ridesharing.
- **Equity:** Ensure transportation options are available, affordable, and reliable for all people to meet their travel needs regardless of age, ability, race, ethnicity, or economic status.
- **Vision Zero:** Eliminate all traffic related serious injuries and fatalities on Grand Rapids city streets.
- **Health:** Promote and enable walking, bicycling and other forms of active transportation. Vital Streets should, over time, contribute to reductions in childhood and adult obesity and improve public health outcomes.
- **Age-Friendly Community:** Serve and accommodate people through their many phases of life, from an infant to student to active adult to aging senior.
- **Climate Change:** Reduce transportation related emissions by reducing Vehicle Miles Traveled (VMT) through the increased use of transit, shared vehicles, and non-motorized transportation.

A central and necessary component to achieving these targets is prioritizing greater connectivity for non-drive alone travel modes throughout Grand Rapids and increasing the efficiency of existing parking supply, before adding new parking supply. The Parking Management Plan and Curbside Management Best Practices appendices provide Mobile GR with the tools to do this.

Parking Management Plan

The Parking Management Plan is framed as a toolbox for neighborhood commercial centers. In this way the plan offers a menu of strategies that can be used to improve parking management in the City’s Corridor Improvement Authority areas around the city, and the key performance indicators to assess their levels of success.

Figure 2 provides a concise summary of these performance indicators, their definitions, and the strategies that contribute to each. “Consistent Availability” can serve as the user-experience indicator; consistently maintaining available spaces in neighborhood commercial centers allows people to find a space to park when visiting. “More Effective Capacity” maximizes utilization of existing parking spaces, before making costly investments in new parking capacity. “More and Better Mobility” bolsters the other two indicators, by allowing more people to access neighborhood commercial centers without increasing parking demand. Figure 3 lists additional strategies that enhance the effectiveness of strategies in Figure 2.

The Parking Management Plan recommended that local champions, such as local businesses or business associations, implement strategies, with ongoing assistance from Mobile GR staff.

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2 Note: Many transportation demand management strategies are key components of increasing the efficiency of existing parking supply and reducing the need for growth in parking supply. These are covered in this project’s TDM Existing Conditions Assessment memo.
In addition, the Parking Management Plan includes a pointed synopsis of the user experiences linking the parking availability people driving seek, their perceptions of availability, and a common behavior in hunting for parking. A passage from this synopsis is included in Figure 4.

**Figure 2  Performance Indicators and Associated Management Strategies**

<table>
<thead>
<tr>
<th>Key Performance Indicator</th>
<th>Definition</th>
<th>Associated Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Consistent Availability</strong></td>
<td>Create more reliable access to, and get more value from, all parking resources.</td>
<td>Tiered Meter Rates</td>
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<tr>
<td></td>
<td></td>
<td>Incremental Meter Rates</td>
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<tr>
<td></td>
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<td>Rate Adjustments</td>
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<td></td>
<td></td>
<td>Enforcement Schedules</td>
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<tr>
<td><strong>More and Better Mobility</strong></td>
<td>Bring in more customers than parking alone can accommodate, through expanded mobility options.</td>
<td>Pedestrian Infrastructure</td>
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<td></td>
<td></td>
<td>In-Road Bike Facilities</td>
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<td></td>
<td></td>
<td>Bike Parking</td>
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<td></td>
<td></td>
<td>Bike Share</td>
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<td></td>
<td></td>
<td>Bus Stop Amenities</td>
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<tr>
<td></td>
<td></td>
<td>Commuter Benefits</td>
</tr>
<tr>
<td><strong>More Effective Capacity</strong></td>
<td>Accommodate more parking with existing resources, and use strategies to add resources at key times.</td>
<td>Shared Parking</td>
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<td></td>
<td></td>
<td>Public Valet</td>
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<td></td>
<td></td>
<td>Variable Programming</td>
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<tr>
<td></td>
<td></td>
<td>Recaptured Curbside Capacity</td>
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<td></td>
<td></td>
<td>Striping, Especially at Un-Metered On-Street Spaces</td>
</tr>
</tbody>
</table>

Source: Vital Streets Plan, Parking Management Plan

**Figure 3  Strategies Complementary to Key Performance Indicators**

<table>
<thead>
<tr>
<th>Complementary Strategies</th>
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<tbody>
<tr>
<td>Wayfinding and Information</td>
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<tr>
<td>Parking Benefit District</td>
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<tr>
<td>Expanded/Eliminated Time Limits</td>
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<tr>
<td>Addressing Spillover Impacts</td>
</tr>
<tr>
<td>Neighborhood Center Parking Map</td>
</tr>
</tbody>
</table>

Source: Vital Streets Plan, Parking Management Plan

**Figure 4  The Rush to the Center in On-Street Parking**

*Most people’s preference is to park as close to their destination as possible and on-street parking is the best option to achieve that.* – Mobile GR Report
This statement on downtown parking preferences is particularly true in neighborhood commercial centers. These areas tend to have fewer convenient, off-street options, and thus rely even more heavily on parking that customers can see while traveling along the area’s commercial “Main Streets”. If spaces are not consistently available along these blocks, drivers will generally conclude about the whole area that there is “nowhere to park”.

This is a major problem for these districts, which provide neighborhoods with walkable access to goods, services, and opportunities for social connection. But, a lack of supply is rarely the true source of the problem. Most of the time, availability is ample along nearby blocks, just off the Main Street and reasonably convenient to most destinations. But, if drivers do not know about these options, or have no incentive to choose them over more convenient options, there will invariably be an overreliance upon a small subset of the available parking supply.\(^3\)

Source: Vital Streets Plan, Parking Management Plan

**Curbside Management Best Practices**


Figure 5 provides a summary of these best practices, objectives they achieve, associated strategies, and cities that are seeing success through them. Several of these best practices are used in Grand Rapids today.

**Figure 5  Curbside Management Best Practices**

<table>
<thead>
<tr>
<th>Best Practice Group</th>
<th>Objective</th>
<th>Strategy</th>
<th>Practice-Leader Cities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short-Term Parking</td>
<td>Maintain consistent, optimal levels of availability to improve customer convenience and reduce excess search traffic.</td>
<td>Performance-Based Pricing</td>
<td>San Francisco, CA</td>
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<tr>
<td></td>
<td></td>
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<td>Redwood City, CA</td>
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<td></td>
<td></td>
<td></td>
<td>Seattle, WA</td>
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<td></td>
<td></td>
<td>Parking Benefit Districts</td>
<td>Boulder, CO</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Performance-Focused Enforcement</td>
<td>Claremont, CA</td>
</tr>
<tr>
<td>Park Once Management</td>
<td>Reduce the need for drivers to re-park their cars, through promotion of public parking, optimal walking conditions, circulator bus service, and access to bike-share.</td>
<td>The Park Once District</td>
<td>Santa Monica, CA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Availability Information</td>
<td>Santa Monica, CA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wayfinding</td>
<td>Grand Rapids, MI</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Branding</td>
<td>Roanoke, VA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Public Valet</td>
<td>Charleston, SC</td>
</tr>
<tr>
<td>Commercial Loading</td>
<td>Support downtown business and walkable, urban development, by maintaining availability to curbside loading</td>
<td>Pricing Commercial Loading Zones</td>
<td>New York, NY</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Seattle, WA</td>
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<td></td>
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<td>Houston, TX</td>
</tr>
</tbody>
</table>

Grand Rapids 2017 Commuter Census

Overview
Mobile GR and the Grand Rapids Chamber of Commerce collaborated to produce the 2017 Grand Rapids Commuter Census, fulfilling one of the year two action items from the GR Forward: Parking and Mobility Study. The Commuter Census is a voluntary online survey, designed to inform city staff of local commuter trends, so they can develop services and programs to better meet the needs of the community. The survey is intended to be delivered annually and was distributed by email to people working in a range of industries throughout the city. The 2017 report documents the first year of the survey, which garnered 1,951 responses over an approximately two-month period. The report acknowledges that its email distribution method
carries a level of self-selection bias, and notes that this favors people working in “professional, governmental, and non-profit industries.”

**Key Findings**

The following figures document key findings in the 2017 Commuter Census.

Figure 6 displays respondent mode share by commute distance. Commuting by non-drive alone modes, such as carpooling, riding transit, bicycling, or walking, is generally easier the shorter the distance is between one’s home and workplace. These non-drive alone commute modes also come with lower demands for car parking space. The non-drive alone rate is 26.6% for respondents commuting less than 4 miles and drops to 6.6% for respondents commuting to work locations 4 miles or more away from their home. The high percentage of Commuter Census respondents driving alone, especially from within four miles of their workplace, indicates there is “ample opportunity to change commuting patterns” to reduce overall parking demand.

**Figure 6   Commute Mode Share by Commute Distance, 2017**

<table>
<thead>
<tr>
<th>Commute Mode</th>
<th>Commute Distance &lt;4 Miles</th>
<th>Commute Distance &gt;4 Miles</th>
<th>Average Commute Distance (Miles)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drive Alone</td>
<td>71.1%</td>
<td>93.0%</td>
<td>8.3</td>
</tr>
<tr>
<td>Carpool</td>
<td>4.9%</td>
<td>3.4%</td>
<td>9.9</td>
</tr>
<tr>
<td>Transit</td>
<td>4.3%</td>
<td>2.0%</td>
<td>4.2</td>
</tr>
<tr>
<td>Biking</td>
<td>7.5%</td>
<td>1.1%</td>
<td>2.3</td>
</tr>
<tr>
<td>Walking</td>
<td>9.9%</td>
<td>0.1%</td>
<td>1</td>
</tr>
<tr>
<td><strong>Non-Drive Alone</strong></td>
<td><strong>26.6%</strong></td>
<td><strong>6.6%</strong></td>
<td></td>
</tr>
</tbody>
</table>

Source: Grand Rapids 2017 Commuter Census

Figure 7 shows that provided or discounted parking is the most common commute benefit provided by respondents’ employers. As the Commuter Census highlights, “Parking is also the most expensive benefit a company can provide their workers, due to costs of leasing monthly parking, maintenance of parking facilities, and healthcare costs.” Based on drive-alone rates by race and ethnicity shown in Figure 38 and Figure 39, parking benefits also disproportionately benefit white employees who are more likely to drive alone.

**Figure 7   Existing Commute Benefits Provided by Grand Rapids Employers, 2017**

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Estimated Cost per Month</th>
<th>% of Respondents Receiving Benefit from Their Employer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provided or discounted parking</td>
<td>$48 - $154</td>
<td>72%</td>
</tr>
<tr>
<td>On-site bicycle parking</td>
<td>$0 - $20</td>
<td>23%</td>
</tr>
<tr>
<td>Flexible schedule</td>
<td>N/A</td>
<td>19%</td>
</tr>
<tr>
<td>Parking cash out</td>
<td>$48 - $154</td>
<td>9%</td>
</tr>
<tr>
<td>Telework and commuting</td>
<td>N/A</td>
<td>7%</td>
</tr>
</tbody>
</table>

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Provided or discounted bus pass $48 7%

Source: Grand Rapids 2017 Commuter Census

Figure 8 shows the ways employer-provided commute benefits influence employee decisions to travel by one mode or another. The Commuter Census calls out that employees provided discounted or cost-covered transit passes are 19% less likely to drive alone. This indicates that Grand Rapids employers can motivate their employees to drive less by providing free or discounted transit passes and thereby reduce demand for staff parking at their worksite.

<table>
<thead>
<tr>
<th>Employer Commute Benefit Offered</th>
<th>Effect on Driving Alone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provided or discounted parking</td>
<td>7% more likely</td>
</tr>
<tr>
<td>Parking cash out</td>
<td>11% less likely</td>
</tr>
<tr>
<td>Provided or discounted bus pass</td>
<td>19% less likely</td>
</tr>
</tbody>
</table>

Source: Grand Rapids 2017 Commuter Census

This assessment of employer-provided commute benefits is expanded on further in Figure 9. Most respondents (68% of those who drive alone, and 94% of those who do not drive alone) reported that “one or more incentives” would encourage them to use mobility options – travel modes outside of driving alone. Respondents cite benefits that save them money or time as motivating incentives to trying a non-drive alone mobility option. Additionally, more than half of respondents commuting by non-drive alone modes indicate that reducing their carbon footprint is another encouraging incentive.
An Equity Profile of Grand Rapids

Overview

In April 2017, PolicyLink and the University of Southern California's Program for Environmental and Regional Equity (PERE) published An Equity Profile of Grand Rapids, with support from the Kellogg Foundation. PolicyLink and PERE built the profile from a regional equity database compiled for the largest 100 cities and 150 regions in the United States. Their database is comprised of data from public and private sources, including the U.S. Census Bureau, U.S. Bureau of Labor Statistics, Behavioral Risk Factor Surveillance System, and Woods and Poole Economics. The profile documents where Grand Rapids stands in terms of equity and serves as a base point for planning greater equity in Grand Rapids' future.

As context, the profile defines an equitable city, including the role connectivity plays in one as the following:
Cities are equitable when all residents – regardless of their race/ethnicity, and nativity, neighborhood of residence, or other characteristics – are fully able to participate in the city’s economic vitality, contribute to the city’s readiness for the future, and connect to the city’s assets and resources.

Strong equitable cities are places of connection, where residents can access the essential ingredients to live healthy and productive lives in their own neighborhoods, reach opportunities located throughout the city (and beyond) via transportation or technology, participate in political processes, and interact with other diverse residents.6

Key Findings

The Equity Profile documents transportation equity in terms of local connectedness. By cross-tabulating U.S. Census data from the Integrated Public Use Microdata Series (IPUMS), the profile highlights mobility behavior that changes with income levels and race or ethnicity. Key findings from this document are documented in the Demographics of Mobility memorandum.

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PARKING CONDITIONS

With growing development in and around the city’s center, parking supply and utilization analyses are focused on the Downtown neighborhood, the Uptown Corridor Improvement Authority (CIA), and the Westside CIA south of I-196 (Figure 10).

**Figure 10  Parking Focus Areas**

Source Note: Focus area geography reflects the boundaries for the Downtown neighborhood, Uptown corridor improvement authority, and the Westside corridor improvement authority south of I-196, based on Grand Rapids Open Data shapefiles.

**Supply**

The City is the largest owner/operator of parking facilities in Grand Rapids. Following is an overview of the supply of parking that it manages within the above-described focus areas. Throughout this document, this collection of public parking resources will be referred to as the Parking System. The Parking System is managed by Mobile GR, the City’s parking and mobility services department. Mobile GR operates and maintains approximately 9,681 on- and off-street...
parking spaces across the city. This includes approximately 6,500 off-street parking spaces within 22 off-street parking facilities,\(^7\) and over 3,100 on-street parking spaces.\(^8\)

In addition to the City-managed Parking System, there are also many commercial parking facilities offering public parking options for visitors, employees, and residents. Across the study areas, there are 9,473 commercial parking spaces within 20 lots and ramps.\(^9\)

Following is a detailed overview of these parking resources, beginning with the off-street inventory maintained by Mobile GR and that operated by commercial operators.

**Off-Street**

**Mobile GR Facilities**

Mobile GR operates 22 off-street parking facilities, containing 67% of the City’s priced parking spaces. A majority of these ramps and garages are located Downtown, with additional facilities in the Wealthy Street corridor and north of I-196 in the West Grand and Belknap Lookout neighborhoods.

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\(^7\) Smarking, September 6, 2019.

\(^8\) City of Grand Rapids, "Parking Rate and Demand Study with Draft Recommendations 2018," October 23, 2018.


Commercial Facilities

A 2017 parking study of Downtown Grand Rapids quantified the supply of commercial parking facilities in Downtown (Figure 12). Commercial parking facilities are those that are available to the public, but are privately owned and operated as a commercial enterprise. Though not publicly owned, they are considered a key component of the public parking supply, as their spaces are as available to the public as space are space in a Mobile GR facility.

These commercial lots and ramps have a $2.01 average hourly parking rate, $15.34 average daily rate, and $147 average monthly rate.

Figure 12  Commercial Parking Facilities Downtown

<table>
<thead>
<tr>
<th>Location</th>
<th>Lot / Ramp</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arena Pace Ramp</td>
<td>288</td>
<td></td>
</tr>
<tr>
<td>Fifth Third Both</td>
<td>214</td>
<td></td>
</tr>
</tbody>
</table>


11 Average hourly, daily, and monthly rates are calculated per commercial facility, according to data in the 2017 Parking Study by Colliers International.
## Location | Lot / Ramp | Capacity
--- | --- | ---
Bridgewater | Ramp | 199
Frey | Lot | 100
210 Ionia | Lot | 200
GRCC Lyon | Ramp | 737
Midtown | Ramp | 665
GRCC Bostwick | Ramp | 1,799
Sears | Lot | 55
P&O | Lot | 125
Old-town | Lot | 54
9-17 Library | Lot | 105
Library & Ransom | Lot | 120
90 Market | Lot | 180
GR Ford Museum | Ramp | 334
JW Marriott | Ramp | 505
Amway Ramp | Ramp | 513
Amway Lot | Lot | 548
100 Grandville | Lot | 35
Spectrum Hospital | Ramp | 2,697
Total | | 10,158

Source: 2017 Parking Study by Colliers International

Ellis Parking is the largest operator of commercial parking facilities in Grand Rapids. Their 13 facilities hold 4,688 parking spaces Downtown, accounting for 49% of the commercial parking supply, and approximately three in ten off-street spaces in the city.

### On-Street

Mobile GR also manages the City’s on-street parking, most of which is regulated without pricing. Within Downtown and other commercial centers, on-street parking is commonly metered to encourage turnover and maintain availability in these high-demand areas. There are currently 3,170 metered on-street spaces in the city.\(^1^2\), \(^1^3\), \(^1^4\) Most of these are in Downtown, East Hills,  

---

\(^1^2\) Smarking, September 6, 2019.
\(^1^3\) City of Grand Rapids, “Parking Rate and Demand Study with Draft Recommendations 2018,” October 23, 2018.
\(^1^4\) Note: Grand Rapids Open Data records an on-street priced parking supply of 3,859 spaces; 689 spaces more than the supply in Mobile GR’s Smarking database. This memorandum primarily uses the supply data in the City’s Smarking database as its basis for analysis, because this data is directly managed by Mobile GR. Spatial data is the primary input sourced from Grand Rapids Open Data, for map production; exceptions where Grand Rapids Open Data is used for non-spatial analysis are noted directly. Source: (a) Grand Rapids Open Data, May 30, 2019; (b) Smarking, September 6, 2019.
Eastown, and Belknap Lookout neighborhoods, as well as the inner west side blocks between Lexington Avenue and the river (orange and green segments in Figure 13).

Meters are generally enforced on weekdays, from 8am until 5pm or 6pm, with some exceptions being enforced Monday-Saturday. The hourly rate for these spaces ranges from $1.00 to $1.75. Higher-rate spaces are generally concentrated in the Downtown core.

Residents in areas surrounding metered parking are eligible for resident-permit regulations, which are designed to minimize impacts from drivers seeking to avoid metered parking nearby. Residential Parking Permit spaces are primarily located in the Belknap Lookout neighborhood, and between Seward Avenue and the Grand River.

---

Figure 13  On-Street Parking by Regulation
Utilization

Measures of parking utilization provide a means to assess the capacity of the Downtown parking supply to meet parking demand throughout a typical week. To this end, utilization data was collected for analysis, as follows:

- On-street occupancy was measured via field counts across the study area.
  - These counts were conducted at multiple time points on July 16, 17, 18, 19, 20, 23, 24, 26, and 27, and August 1 and 3, 2019.
- Off-street parking occupancy data was collected for Mobile GR’s Downtown area garages and lots from the City’s Smarking data portal, for multiple time points on July 24 and 26, and August 3, 2019.

The maps on the following pages (Figure 14 through Figure 20) provide an overview of the utilization conditions, levels and patterns found during these surveys for a typical weekday, Friday evening, and Saturday. The data across each time point illustrates a picture of how parking utilization behavior plays out through the course of a day, and on different days of the week.
Figure 14  Weekday Morning Parking Utilization

PARKING OCCUPANCY WEEKDAY MORNING

- < 70%
- 70 - 85%
- 85 - 95%
- 95% +
- NO DATA

DATA COLLECTED: JULY/AUGUST 2019
Figure 15  Weekday Midday Parking Utilization

**PARKING OCCUPANCY WEEKDAY MIDDAY**
- < 70%
- 70 - 85%
- 85 - 95%
- 95% +
- NO DATA

DATA COLLECTED: JULY-AUGUST 2019
Figure 16  Weekday Evening Parking Utilization
Figure 17  Friday Evening Parking Utilization

PARKING OCCUPANCY
FRIDAY EVENING

- <70%
- 70-85%
- 85-95%
- 95%
- NO DATA

DATA COLLECTED: JUN-AUG 2019

Nelson\Nygaard Consulting Associates Inc. | 24
Figure 18  Saturday Morning Parking Utilization
Figure 19  Saturday Midday Parking Utilization

PARKING OCCUPANCY  
SATURDAY MIDDAY

- < 70%  
- 70 - 85%  
- 85 - 95%  
- 95%+  
- NO DATA

DATA COLLECTED: JULY–AUGUST, 2019
Figure 20 Saturday Evening Parking Utilization

PARKING OCCUPANCY SATURDAY EVENING

- < 70%
- 70 - 85%
- 85 - 95%
- 95%+
- Metered Street
- Non-Metered Street
- No Data

Data Collected: June/August 2019

Nelson\Nygaard Consulting Associates Inc. | 27
Key Off-Street Utilization Observations

- Off-street supply is significantly underutilized, across almost all facilities.
  - Only two Mobile GR off-street facilities achieve an occupancy over 85% at any time point 
    observed, and both are busiest during the evenings:
    o DASH Area 8, a short walk from the growing restaurant scene on Bridge Street NW
    o DASH Area 3, outside Van Andel Arena
- 14 of the City’s off-street facilities are less than 50% occupied during weekday peak time.
  - These 14 facilities carry 74% of Mobile GR’s off-street supply (4,808 spaces).
- 16 of the City’s off-street facilities are less than 50% occupied during Saturday peak time (evening; 
  8pm).
  - These 16 facilities carry 83% of Mobile GR’s off-street supply (5,410 spaces).

On-Street Utilization Observations

- On-street parking is consistently more utilized than off-street parking, reflecting both the 
  common market favor shown to these options as well as their limited supply.
- Friday and Saturday evenings experience highest levels of on-street parking occupancy.
  - The most occupied on-street parking during these peak times is:
    o Near Westside: Bridge Street, and adjacent blocks between Seward Avenue and the Grand 
      River
    o Downtown: Ionia Avenue, Commerce Avenue, Grandville Avenue (especially near Grand 
      Rapids Central Station and Founder’s), Fulton Street
  - Uptown does not experience as heightened on-street use at peak times as blocks in Downtown 
    or the near Westside. Blocks experiencing occupancies of 85% or greater tend to be isolated, 
    with many less utilized blocks close by.
- Weekday and Saturday morning surveys found conditions of very modest utilization, with 
  isolated, small areas of high demand and diminished availability revealing some patterns of 
  significant activity at these times.
- Weekday midday utilization patterns suggest more widespread activity across the study areas, 
  with more areas of high utilization, and more blocks of diminished availability, recorded during 
  these hours.
  - Nonetheless, most blocks with low availability are adjacent to blocks offering significantly 
    greater parking opportunity, suggesting that current pricing/regulation is distributing 
    demand relatively effectively during this critical time period – which typically represents a 
    consistent period of peak parking demand.
- Weekday evening surveys found greatly diminished parking availability, as with high-utilization 
  noted on several blocks spanning significant swaths of Downtown, and the majority of blocks in 
  the Westside area.
  - Many Downtown areas and commercial centers are beginning to experience a significant 
    increase in parking demand during evenings, as their economies increasingly concentrate on 
    food/beverage, entertainment, and other businesses with strong evening activity peaks.
  - Nonetheless, the most likely catalyst for the significant, widespread uptick in curbside 
    utilization during these surveys is the fact that they are free of charge, and largely free of time 
    limits, during these times.
This combination of cost-free, unlimited parking will predictably intensify demand and utilization of these spaces, which offer unmatched proximity to popular businesses, destinations, and residential properties in these areas.

As more downtowns experience increased commercial activity well into evening hours, it has become common to extend meter enforcement schedules toward 10pm.

- Friday evening surveys documented conditions very similar to those found during weekday evening periods, suggesting comparable levels of evening activity throughout the week and into the weekend.
- Saturday midday surveys found conditions of utilization significantly higher than found during the weekday midday surveys.
  - Much of the Downtown core, in fact, was found to offer highly constrained on-street parking availability.
  - Given that, overall demand during this time period is typically much lower, compared to weekday midday periods, these findings suggest that the enforcement of meters during weekday is highly effective in maintaining availability, and that the lack of enforcement makes finding an available space a significant challenge in much of Downtown, on Saturdays.
  - Saturdays also tend to draw more visitors to Downtown, compared to weekday midday periods, suggesting that the enforcement of meters during weekend demand to include a significant concentration of visitors who maintain a perception of Downtown through intermittent or infrequent visits, such conditions tend to create strong and lasting perceptions of frustrating-to-impossible parking options.
  - While Downtown, Uptown and the West Side do offer several blocks of availability, those who are less familiar with these areas tend to circulate for parking solely along the best-known, and thus most constrained, blocks.

- While several blocks experience occupancy levels of 95% or greater across all time points observed, a block, garage, or ramp with less than 95% occupancy is never observed to be more than a block away.
- Across all time points, the blocks most consistently experiencing high occupancy are on Commerce, Ionia, and Prospect avenues, especially Downtown between Fulton and Wealthy Streets.
- With the exception of Wealthy Street, there is no observable link between priced-parking and lower parking demand within Uptown.
  - Since this area generally offers consistent availability, this suggests that pricing is working to good effect in keeping demand more evenly distributed in this area.

Management

This section describes the City’s management practices for its Parking System, including associated partner organizations, pricing, enforcement, budget, and policies in the zoning ordinance.
Mobile GR

Mobile GR is Grand Rapids’ municipal multimodal mobility services department, which evolved from the City’s former Parking Services department, per the 2015 GR Forward strategic plan. Mobile GR’s mission is to serve Grand Rapids with safe, reliable, and affordable multimodal options for all to support the City’s economic and quality of life goals. The department is charged with the following primary responsibilities:

- Managing parking assets
- Managing DASH
- Building collaborations across the public and private sectors
- Managing new mobility services
- Reviewing new developments’ parking and transportation demand management plans
- Administering an employer outreach/solutions program
- Coordinating with citywide infrastructure projects

Mobile GR generates approximately $20 million in annual parking services revenue. The City’s 2020-2024 Preliminary Fiscal Plan outlines $28 million in capital funding for multimodal projects to be implemented by the department over the next five years (Figure 29). The City operates approximately 9,681 metered spaces both on- and off-street.\(^17\), \(^18\)

Supporting Partners

Mobile GR’s parking and mobility services are supported by several external organizations and city boards active in neighborhoods throughout the city. In this study’s focus areas, the following three partner organizations utilize property tax revenue, especially through tax-increment financing (TIF), to administer improvements to transportation amenities:

- **Downtown Grand Rapids Inc. (DGRI).** DGRI is an external partner-organization, supporting the City as the Downtown Development Authority (DDA), Downtown Improvement District, and Monroe North Tax Increment Finance Authority. These roles are distinguished through three distinct funding streams, based on revenue generated from increasing property values Downtown.\(^19\) As the city’s DDA, DGRI supports the maintenance and development of Downtown infrastructure, amenities, and programming in the public right-of-way. DGRI provides localized mobility information for how to get to and get around Downtown Grand Rapids.\(^20\)

- **Uptown Grand Rapids (Uptown GR).** Uptown GR is an external partner-organization supporting the City as the Uptown Corridor Improvement Authority (CIA) and the Uptown Business Improvement District (BID). It was established in May 2018 through the merger of these two roles under one non-profit organization.\(^21\) As a CIA, Uptown GR is funded in part by tax-increment financing (TIF). Similar to DGRI, Uptown supports the maintenance and development of public infrastructure, amenities, and programming in the public right-of-way for the East Fulton, East Hills, Eastown, and Wealthy Street business districts.

\(^17\) Smarking, August 9, 2019.
\(^18\) City of Grand Rapids, “Parking Rate and Demand Study with Draft Recommendations 2018,” October 23, 2018.
Westside Corridor Improvement Authority (Westside CIA). The Westside CIA supports the maintenance and development of public infrastructure, amenities, and programming in the public right-of-way for the Stockbridge, West Fulton, and West Leonard business districts. Similar to Uptown GR, the Westside CIA is funded through tax-increment financing. However, unlike Uptown GR, it functions through the work of a volunteer board, rather than an independent non-profit organization.  

In addition to Mobile GR’s public parking facilities, public parking is also provided by some private companies in and around the downtown areas. Ellis Parking is the largest private provider of public parking facilities:

Ellis Parking Company. Ellis Parking is a parking operations and management company based in Grand Rapids. They are the largest single operator of commercial parking facilities in Grand Rapids.

**Management Practices**

With the majority of parking in Grand Rapids centrally managed, Downtown and surrounding areas have been able to grow with less parking supply than would have been required if more parking were privately controlled. This contributes to lower costs to build, redevelop, and maintain the economic viability of Downtown buildings. It also provides the City with a powerful set of policy and resource levers for facilitating a balanced, equitable transportation network.

**On-Street Management**

Hourly pricing at on-street metered spaces ranges from $1.00 to $1.75, with a $1.22 average. Of the City’s 3,170 priced on-street spaces, 98% are actively priced weekdays from 8am to 5 or 6pm. The remaining 2%, 58 on-street meters are active at the same times Mondays through Saturdays.

The City uses smart parking meters at 3,170 parking spaces. These meters report transactions to the City’s real-time parking management portal, operated with Smarking parking management software. Non-smart parking meters are still in use, however documentation is unclear on where these fit into the on-street, priced parking supply.

Metered on-street parking spaces in the inner east side of Downtown are generally priced at $1.75 per hour Downtown (Figure 23). On the east side of Downtown and toward the East Hills and Eastown neighborhoods, more metered on-street parking is $1.50 per hour. On-street metered spaces priced at $1 per hour are mostly located north of I-196 and in select outer locations around the Downtown neighborhood.

Most metered on-street spaces in the inner east side of Downtown are enforced on weekdays between 8am and 6pm (Figure 24). Moving out from the city center, metered spaces are enforced weekdays from...
8am to 5pm. Monroe Center Street, running diagonal southeast from Pearl Street and Monroe Avenue, is an exception to this pattern, being the one street monitored Monday through Saturday 8am to 6pm.

The City has two electric vehicle (EV) parking spaces with chargers in front of City Hall, on Ottawa Avenue, priced at $2.25 per hour. These are the only metered spaces enforced 24 hours, daily. The higher price and all-day enforcement is used to discourage non-EV’s from parking at stations and to recover some of the energy costs for the vehicle chargers. These spaces are not currently included in figures recording parking supply, in part due to their function as vehicle charging infrastructure.28

Over 130,000 parking violation tickets are processed annually.29 Mobile GR employs parking violations checkers to circulate 9 routes during parking enforcement hours. Grand Rapids Police Department (GRPD) officers are also able to cite parking violations, however only Mobile GR staff have access to the City’s Automated Issuance Management System (AIMS) ticket management system for meter violations. Currently, GRPD primarily focuses its parking enforcement on winter parking restrictions (odd/even parking). Mobile GR recently expanded the responsibilities of their parking violation checkers to include winter parking restrictions as well. However, due to a recent GRPD organizational assessment, Mobile GR anticipates that police may no longer actively address parking violations, as soon as fall 2019.30

Figure 21  On-Street Parking Fee Structure and Enforcement Times, Effective April 1, 2019

<table>
<thead>
<tr>
<th>Meter Rates / Hour</th>
<th>Spaces</th>
<th>Monday – Friday</th>
<th>Saturday</th>
<th>Sunday</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1.00</td>
<td>1,836</td>
<td>8am – 5/6pm</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>$1.50</td>
<td>1,194</td>
<td>8am – 5/6pm</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>$1.75^A</td>
<td>140</td>
<td>8am – 5/6pm</td>
<td>8am – 6pm</td>
<td>None</td>
</tr>
</tbody>
</table>

Note:  A. Most of the meters in this price tier are located Downtown.

Source: 2018 Grand Rapids Parking Rate and Demand Study with Draft Recommendations, Smarking, and Grand Rapids Open Data

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28 Mobile GR, written comments, August 22, 2019.
30 Mobile GR, written comments, August 22, 2019.
Figure 22  On-Street Parking, Hourly Price Rates

ON-STREET PARKING RATES
- $1.00 per hour
- $1.50 per hour
- $1.75 per hour
- $2.25 per hour

DATA SOURCES: GRAND RAPIDS OPEN DATA
Figure 23  On-Street Parking, Enforcement Times
Off-Street Management

The 2018 Grand Rapids Parking Rate and Demand Study with Draft Recommendations provides the City’s most recent summary of parking pricing at off-street facilities. The following data is based on this study, with the exception of Figure 24, which is sourced its spatial data from Grand Rapids Open Data—a City database contributed to by multiple City departments.

Monthly Access Cards are available at many off-street facilities, as shown in Figure 24. Pricing details are listed in Figure 25. Monthly pass cards prices reported in the 2018 Grand Rapids Parking Rate and Demand Study range from $48 to $154. The average monthly price for a pass card at these public off-street facilities is $102.10. Monthly Access Card customers are guaranteed a parking space between 7am and 6pm Monday-Friday. Additional off-street parking facilities displayed in Figure 24 where no pricing data is reported by Grand Rapids Open Data. These facilities are shaded in black in the map.

In addition, Monthly Non-Residential Reserved Access Cards provide a 24-hour assigned parking spot at one of eight public parking ramps. The 2018 Parking Rate and Demand Study reports the price range for these reserved access cards as $290-$304, with an average cost of $293.78. (Figure 25)

Daily parking passes or daily maximum parking prices are available at all off-street facilities in Figure 25, except Ionia Mason and Ionia North. These prices range from $2 at Areas 7 and 9 to $20 Monroe Center and Ottawa Fulton. The average daily parking price for these public off-street facilities is $10.56.

The 2018 Parking Rate and Demand Study reports 11 off-street parking facilities where short-term/hourly parking is available (Figure 24). Hourly pricing at these facilities is $1.25, with the exception of DeVos Place where hourly parking is $1.50. Mobile GR staff report an additional eight off-street facilities where short-term parking is also available, with hourly rates starting at $1 per hour.

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32 Average rate is calculated based on the Monthly Access Card rate per facility where applicable in Figure 21.
33 Average rate is calculated based on the Monthly Non-Residential Reserved Access Card rate per facility where applicable in Figure 21.
34 Average rate is calculated based on the daily maximum rate per facility where applicable in Figure 21.
35 Mobile GR, written comments, August 22, 2019.
### Table: Mobile GR Off-Street Parking Facilities, and Monthly Access Card Rates

<table>
<thead>
<tr>
<th>Facility</th>
<th>Half-Hour Rate</th>
<th>Daily Rate A</th>
<th>Evening / Event Rate B</th>
<th>Monthly Rate C</th>
<th>Monthly Evening-Only D</th>
<th>Monthly Non-Residential, Reserved E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area 2</td>
<td>$10.00</td>
<td>$10.00</td>
<td>$12.00</td>
<td>$112.00</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Area 3</td>
<td>$10.00</td>
<td>$10.00</td>
<td>$12.00</td>
<td>$112.00</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Area 6A</td>
<td>$8.00</td>
<td>$8.00</td>
<td>$8.00</td>
<td>$86.00</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Area 7</td>
<td>$2.00</td>
<td>$6.00</td>
<td>$48.00</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Area 8</td>
<td>$3.00</td>
<td>$6.00</td>
<td>$48.00</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Area 9 G</td>
<td>$2.00</td>
<td>$6.00</td>
<td>$48.00</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Cherry Commerce</td>
<td>$1.25</td>
<td>$12.00</td>
<td>$10.00</td>
<td>$140.00</td>
<td>$49.00</td>
<td>$290.00</td>
</tr>
<tr>
<td>The Gallery on Fulton</td>
<td>$1.25</td>
<td>$15.00</td>
<td>$10.00</td>
<td>$140.00</td>
<td>-</td>
<td>$290.00</td>
</tr>
<tr>
<td>DeVos Place</td>
<td>$1.50</td>
<td>$15.00</td>
<td>$10.00</td>
<td>$154.00</td>
<td>-</td>
<td>$304.00</td>
</tr>
<tr>
<td>Government Center G</td>
<td>$1.25</td>
<td>$12.00</td>
<td>$9.00</td>
<td>$149.00</td>
<td>-</td>
<td>$299.00</td>
</tr>
<tr>
<td>Ionia Mason</td>
<td>-</td>
<td>-</td>
<td>$6.00</td>
<td>$48.00</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Ionia North</td>
<td>-</td>
<td>-</td>
<td>$6.00</td>
<td>$58.00</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
## Off-Street Parking Access Card Oversell

Mobile GR sells monthly access cards for its off-street lots and ramps, allowing people to pay one monthly fee to access a parking facility as many times as they want during designated hours. A full list of access card rates per Mobile GR off-street facility is in Figure 25.

A common practice in parking management is to sell an amount of passes greater than the number of spaces per parking facility, under the assumption that it is unlikely every single passholder will show up in a separate vehicle at the same time on the same day. The City’s Smarking data portal provides oversell recommendations based on to inform this practice. The ideal is to sell an amount of passes that enables high utilization on most days, and have a contingency plan for high demand events.

The following table shows total spaces, cardholders, and the oversell rate recommended by Smarking for a sample of Mobile GR off-street parking facilities. A policy can be developed to define a formula or conditions for setting pass oversell rates per parking facility.

Six of the 14 lots and ramps have oversell recommendations between 100% and 150%. The oversell rates recommended for other eight facilities range from 150% of the spaces available to 255%.

### Table: Off-Street Parking Access Card Rates

<table>
<thead>
<tr>
<th>Facility</th>
<th>Half-Hour Rate</th>
<th>Daily Rate A</th>
<th>Evening / Event Rate B</th>
<th>Monthly Rate C</th>
<th>Monthly Evening-Only D</th>
<th>Monthly Non-Residential, Reserved E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Louis Campau</td>
<td>$1.25</td>
<td>$12.00</td>
<td>$8.00</td>
<td>$140.00</td>
<td>-</td>
<td>$290.00</td>
</tr>
<tr>
<td>McConnell Ionia</td>
<td>$1.25</td>
<td>$12.00</td>
<td>$8.00</td>
<td>$86.00</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Monroe Center</td>
<td>$1.25</td>
<td>$20.00</td>
<td>$8.00</td>
<td>$140.00</td>
<td>$49.00</td>
<td>$290.00</td>
</tr>
<tr>
<td>Market Street</td>
<td>-</td>
<td>$5.00</td>
<td>$8.00</td>
<td>$54.00</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>GR Public Museum</td>
<td>$1.25</td>
<td>$10.00</td>
<td>$10.00</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Ottawa Fulton</td>
<td>$1.25</td>
<td>$20.00</td>
<td>$12.00</td>
<td>$140.00</td>
<td>-</td>
<td>$290.00</td>
</tr>
<tr>
<td>Pearl Ionia G, H</td>
<td>$1.25</td>
<td>$18.00</td>
<td>$3.00 M-TH; $7.00 F-SUN</td>
<td>$151.00</td>
<td>$49.00</td>
<td>$301.00</td>
</tr>
<tr>
<td>Scribner</td>
<td>-</td>
<td>$4.00</td>
<td>$6.00</td>
<td>$48.00</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Weston Commerce</td>
<td>$1.25</td>
<td>$15.00</td>
<td>$10.00</td>
<td>$140.00</td>
<td>$49.00</td>
<td>$290.00</td>
</tr>
</tbody>
</table>

Note:
A. Ramp and lot daily rates reset at 4:00am.
B. Evening / Event Rates apply to entry after 5:00pm, on weekends and occasionally during major events.
C. Monthly Access Card customers are guaranteed a parking space between 7:00am and 6:00pm Monday - Friday.
D. Evening Access Cards are available for $49.00 at ramps indicated above. Cards are valid for parking between 4:30pm and 8:00am, or any time on weekends. Requires in-person application.
E. Guaranteed assigned 24-hour parking spot. Subject to availability. Not available for lots - ramps only.
F. “60 Minutes of free parking applies to daily visitors entering the Monroe Center Ramp before 6:00pm. Stays surpassing 60 minutes will be charged.
G. Bike Locker rentals available at Government Center, Pearl Ionia & Area 9 for $5 per month.
H. 24/7 Resident Parking is also available for $200 per month

Source: 2018 Grand Rapids Parking Rate and Demand Study with Draft Recommendations
<table>
<thead>
<tr>
<th>Location</th>
<th>Total Spaces</th>
<th>Max Peak (2018)</th>
<th>Cardholders (2018)</th>
<th>Oversell Rate Recommended by Smarking</th>
<th>Count of Passes Applying Recommended Oversell Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area 2</td>
<td>146</td>
<td>117</td>
<td>204</td>
<td>134%</td>
<td>196</td>
</tr>
<tr>
<td>Area 3</td>
<td>65</td>
<td>40</td>
<td>61</td>
<td>158%</td>
<td>103</td>
</tr>
<tr>
<td>Area 6</td>
<td>191</td>
<td>153</td>
<td>282</td>
<td>137%</td>
<td>261</td>
</tr>
<tr>
<td>Area 7</td>
<td>474</td>
<td>378</td>
<td>558</td>
<td>130%</td>
<td>615</td>
</tr>
<tr>
<td>Area 9</td>
<td>485</td>
<td>262</td>
<td>333</td>
<td>159%</td>
<td>770</td>
</tr>
<tr>
<td>Gallery on Fulton (Unreserved)</td>
<td>199</td>
<td>147</td>
<td>244</td>
<td>143%</td>
<td>285</td>
</tr>
<tr>
<td>Ionia Mason</td>
<td>67</td>
<td>29</td>
<td>80</td>
<td>255%</td>
<td>171</td>
</tr>
<tr>
<td>Ionia North Loop Lot</td>
<td>59</td>
<td>52</td>
<td>66</td>
<td>114%</td>
<td>67</td>
</tr>
<tr>
<td>Louis Campau</td>
<td>510</td>
<td>293</td>
<td>430</td>
<td>162%</td>
<td>828</td>
</tr>
<tr>
<td>Market Lot</td>
<td>60</td>
<td>45</td>
<td>90</td>
<td>148%</td>
<td>89</td>
</tr>
<tr>
<td>Monroe Center</td>
<td>513</td>
<td>48</td>
<td>49</td>
<td>192%</td>
<td>987</td>
</tr>
<tr>
<td>Pearl Ionia</td>
<td>539</td>
<td>317</td>
<td>474</td>
<td>161%</td>
<td>870</td>
</tr>
<tr>
<td>Scribner</td>
<td>165</td>
<td>77</td>
<td>170</td>
<td>218%</td>
<td>359</td>
</tr>
<tr>
<td>Weston Commerce</td>
<td>341</td>
<td>166</td>
<td>238</td>
<td>173%</td>
<td>591</td>
</tr>
</tbody>
</table>

Note: The following off-street facilities are not included in the table due to missing data in Smarking or inconsistencies with total parking capacity amounts reported in other Smarking reports.

Source: Smarking

Technology

Smarking

Metered parking supply and revenue are tracked using Smarking parking data management software. The City has been using Smarking’s parking data management software since February 2016.36 Smarking records historical and real-time parking transactions, and off-street entries and exits. The software presents this data to staff in an online analytics dashboard, that also includes predictions of future parking behavior, based on historical trends. The aggregation of historical and real-time data in one data system enables staff to assess conditions and trends for parking facilities quicker and more efficiently than gathering the data manually through in-person counts and surveys.37 Smarking customized the content

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and reports available in Mobile GR’s online dashboard, and staff report that this can be updated if alternate reports or data outputs are needed.  

**Motu**

Beyond metered payments, the City has also provided a mobile device application for paying parking fares since 2009, available on Apple and Android operating systems. The City’s current parking payment application is Motu, which runs on Passport Parking. The Motu app launched in June 2018. It enables people to pay for, track parking session times, and extend parking payments. The mobile app can be used to pay parking fees at any on-street metered space in the city, regardless of whether an on-street space has a smart or non-smart meter. Motu applies a $0.15 service fee per transaction, a rate that dropped from $0.35 per transaction in 2017. From 2009 to June 2018, the City previously contracted with ParkMobile to provide a similar mobile payment app. Grand Rapids has so far experienced continued growth in app payment transactions, increasing from 4,000 monthly transaction in 2010 to more than 35,000 in 2017.

**ParkMobile**

Advance parking space reservations are available through the ParkMobile app in off-street commercial parking facilities operated by Ellis Parking. Ellis charges a reservation fee for this service, ranging from $7 to $23 per reservation, based on the location. This fee does not include the parking fare charged at the parking facility itself. Reservations can also be made through the Ellis Parking website.

**AIMS**

Mobile GR uses Automated Issuance Management System (AIMS) software, provided by EDC Corporation, for parking ticket issuance and management. AIMS produces tickets and enables Mobile GR to track tickets from issuance to payment.

**Recent/Planned Management Changes**

In October 2018, Mobile GR advanced four strategies as next-step priorities via the 2018 Parking Rate and Demand Study with Draft Recommendations (Figure 27). These strategies originate from the 2015 GR Forward: Parking and Mobility Study and have not yet been implemented.

---

38 Kasper, Jennifer, phone meeting, August 7, 2019.


### Off-Street Parking

<table>
<thead>
<tr>
<th>GR Forward Strategy</th>
<th>Context</th>
<th>Implementation Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Maintain current standard monthly parking rates</strong></td>
<td>There were significant rate increases for standard monthly parking customers in 2016. In addition, some increased monthly parking permit availability is expected with new supply planned in 2019. There are currently 4,827 standard monthly customers.</td>
<td>No increases are recommended to standard monthly parking rates.</td>
</tr>
<tr>
<td><strong>Phase out and increase the rate for monthly non-residential reserved parking</strong></td>
<td>Reserved parking allows for parking spaces to be available for permit holders 24 hours/7 days a week with a sign. On average only half of the spaces are utilized and do not allow the spaces to be available for visitor and event parking. There are currently 110 non-residential reserved customers and a usage analysis of these spaces has been provided in the appendix of this packet.</td>
<td>Phase out reserved parking and increase the rate for monthly non-residential reserved parking by $50/space per month, to shift demand to standard monthly permits.</td>
</tr>
<tr>
<td><strong>Phase out and increase the rate for monthly non-residential reserved parking</strong></td>
<td>The VIP parking program was established at a time when there was very low utilization for parking facilities in Downtown. For $17/month cardholders gain access to a handful of facilities in the Arena South area from 4:30pm – 6am each day. There continues to be a growth in demand for evening and weekend parking in City facilities for both residents and event attendees. The night and weekend program offers cardholders access to parking facilities from 4:30pm–8am during weekdays and anytime on weekends until 8am Monday morning. A pilot of this program in the Pearl and Ionia facility was extremely successful and gained positive feedback from residential customers. There are currently 382 VIP customers.</td>
<td>Eliminate the VIP program and expand the $49/month night and weekend program to more facilities.</td>
</tr>
</tbody>
</table>

### On-Street Parking

| **Extend hours of operation for on-street parking to improve parking turnover Downtown** | It is typically possible to find an on-street space within a block or two of a destination when parking meters are in operation. However, there are times, on nights and weekends, when the lack of enforcement of the meters makes it more difficult to find a parking space with often no availability during these hours. The lack of meters during these times makes it much more difficult for drivers to find convenient parking. | Increase the hours of parking operation to Monday – Saturday from 8am – 8pm and Sunday from 12pm – 8pm. |

Note: (A) GR Forward also included a recommendation to increase event parking pricing to $10 to account for growing demand for visitor parking. Event pricing has been increased since 2015, but not to $10 across all event parking facilities. An assessment of Grand Rapids event parking is currently underway, that could yield new next steps for event parking changes.

Source: 2018 Grand Rapids Parking Rate and Demand Study with Draft Recommendations

### Revenue and Finances

Mobile GR’s budget is supported by the City’s Parking Services Fund. Figure 28 shows the revenue and expense levels in this fund for capital and operating, from 2018 through 2024, based on the City’s Preliminary Fiscal Plan FY2020-2024.

Operating revenue is forecast to fall 17% from $24 million in 2018, to $19.7 million in 2020, and then gradually increase to $20.3 million in 2024. The change from 2018 to 2020 operating revenue reflects change from significant one-time revenue increases due to land-sale transactions. Similarly, capital
revenue is forecast to decline 44% from $8.4 million in 2018 to $4.7 million in 2021, and then fluctuate year-to-year, rising to $6.3 million in 2024. Change in properties owned by the DDA going into effect in fiscal year 2020 and beyond will contribute to reductions in parking fund revenue.  

Figure 28 Mobile GR Budget, 2018-2024

Source: Grand Rapids Preliminary Fiscal Plan FY2020-2024

Parking in the Zoning Ordinance

Parking Requirements

Grand Rapids updated its zoning ordinance in 2008. Following the lead of its 2002 Master Plan, with its focus on Smart Growth, the zoning update used the LEED-ND checklist as a starting point for addressing sustainability through neighborhood design and connectivity. This was the first major re-write of the zoning code in four decades.

The update included significant changes to the City’s parking requirements. Those most relevant to efforts to accommodate the City’s growth through more efficient use of existing parking supply and improved multimodal networks, according to the City’s Vital Streets objectives are summarized below. The full tables of minimum car and bicycle parking requirements per land use zone are in Appendix A.

The Grand Rapids Zoning Ordinance requires an average of 512 square feet of space per stall, including the stall itself and its associated driving aisle (Figure 30). Driving alone has a parking demand of one parking stall per person, and in Grand Rapids. With that, the lower parking demand for people who do not drive alone can yield significant space and cost savings as more people choose non-drive alone travel modes.

Minimum Parking Requirements

The following three updates to minimum parking requirements in the current Zoning Ordinance significantly reduced the cost and space burden for providing on-site parking.

- **Traditional Neighborhood City Center (TN-CC) Zone District:**

---

43 Mobile GR, written comments, August 22, 2019.
44 Section 5.10.04.F.
Off-street parking shall not be required.

If provided, the number of spaces required for all uses shall not exceed one space for each one thousand square feet of gross floor area for all non-residential buildings and hotels, and one space per dwelling unit.

- **All other Zone Districts:** Minimum parking requirements were halved for all uses in all other districts.45

- **Minimum Bicycle Parking Requirements:**46
  - Any development or addition to an existing development requiring vehicle parking spaces shall be required to provide bicycle parking.
  - No bicycle parking is required for single-family detached, two-family, attached single-family dwellings, group living, aeronautical, utilities, and manufactured housing communities.

**Shared-Parking Reductions**

The Planning Director can approve reductions in a project’s cumulative parking requirement for up to 50% per use, if it is found that the mix of uses located on site creates opportunities for off-setting-peak efficiencies, the shared-parking facility is within 300 feet of the uses.47

**Mixed-Use Parking Reduction**

Mixed-use developments are eligible to reduce their cumulative minimum parking requirement. The following table and formula calculate the cumulative minimum parking required:48

**Figure 29 Mixed-Use Parking Coefficients**

<table>
<thead>
<tr>
<th></th>
<th>Residential</th>
<th>Lodging</th>
<th>Office</th>
<th>Retail</th>
<th>Other Commercial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>X</td>
<td>1.1</td>
<td>1.4</td>
<td>1.2</td>
<td>1.1</td>
</tr>
<tr>
<td>Lodging</td>
<td>1.1</td>
<td>X</td>
<td>1.7</td>
<td>1.3</td>
<td>1.2</td>
</tr>
<tr>
<td>Office</td>
<td>1.4</td>
<td>1.7</td>
<td>X</td>
<td>1.2</td>
<td>1.1</td>
</tr>
<tr>
<td>Retail</td>
<td>1.2</td>
<td>1.3</td>
<td>1.2</td>
<td>X</td>
<td>1</td>
</tr>
<tr>
<td>Other Commercial</td>
<td>1.1</td>
<td>1.2</td>
<td>1.1</td>
<td>1</td>
<td>X</td>
</tr>
</tbody>
</table>

Source: Grand Rapids Zoning Ordinance, Table 5.10.05.F.

\[
(ParkingUse_1 + ParkingUse_2) - Mixed Use Parking Coefficient = Minimum Mixed Use Parking
\]

---


46 Section 5.10.10.

47 Section 5.10.05.A. and 5.10.05.E.

48 Section 5.10.05.F.
Maximum Parking

The update also established a maximum parking standard, limiting the amount of parking that could be provided, as of right, at any new development project. The following paraphrases Section 10.04.D:

**Maximum Parking.** To minimize excessive areas of pavement no parking lot shall exceed the required number of parking spaces by more than twenty (20) percent, except as approved by the Planning Director. In granting additional spaces, the Planning Director shall determine that the parking is needed, based on documented evidence of actual use and demand provided by the applicant.

Discretionary Reductions

Further reductions to any remaining minimum requirements may be reduced for projects offering proximity to transit, on-site bike facilities, on-site car-sharing, and/or dedicated carpool parking, as described below.

**Transit.** Parking requirements may be reduced for buildings, structures or uses within three hundred (300) feet of a Bus Rapid Transit (BRT) station or one hundred (100) feet of a transit stop. A Transportation Demand Management (TDM) study may be required to demonstrate that a sufficient number of vehicle drivers would immediately opt for transit, and therefore would not result in adverse parking impacts on surrounding properties. The Rapid shall verify in writing that the transit station or transit stop is in a permanent location.

**Alternative Vehicles.** Parking spaces reserved, signed, and enforced for Low-Emitting and Fuel-Efficient Vehicles (vehicles that are either classified as Zero Emission Vehicles (ZEV) by the California Air Resources Board or have achieved a minimum green score of 40 on the American Council for an Energy Efficient Economy (ACEEE) annual vehicle rating guide), or for car-sharing services, may count as four (4) regular parking spaces. Electric car spaces shall include a power outlet for use by the parked car. Such spaces should be closest to the main entrance (exclusive of spaces designated for handicapped). Parking spaces reserved, signed, and enforced for carpooling or vanpooling services may count as two (2) regular parking spaces.

**Bicycle.** Parking requirements may be reduced by one (1) space for every four (4) covered, secure bicycle parking spaces, where lockers, one or more floor pumps, and a work stand are provided on site. Parking requirements may be further reduced by four (4) spaces where free showers are available for employee use within the building.

Credit for On-Street and Public Lot/Structure Proximity

Reductions can also be secured for offering proximity to on-street parking, or parking within district lots or parking structures, if availability among these spaces can be demonstrated.

In Lieu Fee

The ordinance grants the City the authority to establish a “parking program... to develop publicly-owned district parking lots or structures as opposed to individually owned and operated parking areas”. The following paraphrases to Section 10.05.C:

49 Section 5.10.04.  
50 Section 5.10.04.D.  
51 Section 5.10.05.  
52 Section 5.10.05.C.
Parking Facilities Account. Payments in lieu of parking are made to a Parking Facilities Account as set forth in Chapter 31 of the City Code. This account can fund the planning, designing, acquiring, building, financing, and developing, but not maintaining, of public off-street parking facilities designated by the City Commission as serving the TN-CC Zone District. The Parking Facilities Account may also be used for alternatives to parking, including Transportation Demand Management measures.

The City may, as part of any special assessment levied to defray a portion of the cost of a parking facility, determine that the payment or, alternatively the levy of a special assessment, shall constitute provision of a designated number of parking spaces for the building or structure, and any future building or structure, located on the property specially assessed. The determination of the number of parking spaces deemed to be provided, if any, shall be made at the time that the special assessment is levied.

Spatial Requirements for Parking

Section 5.10.04 sets spatial requirements for off-street parking spaces. Requirements vary based on the parking angle relative to the driving path, and whether or not a space is dedicated for compact cars.

The average off-street parking space in Grand Rapids is 161 square feet in area, with 351 square feet of associated aisle space. Combining area required for a parking space and the associated driving aisle, the average Grand Rapids off-street parking space requires 512 square feet of space, with a range of 354 to 725 square feet.

Figure 30  Dimensional Requirements for Off-Street Parking Spaces and Aisles

<table>
<thead>
<tr>
<th>Parking Angle</th>
<th>Space Dimension (ft)</th>
<th>Aisle Width (ft)</th>
<th>Required Parking Space Area</th>
<th>Required Aisle Area Per Parking Space</th>
<th>Total Required Area Per Space</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Width</td>
<td>Depth</td>
<td>Width</td>
<td>Depth</td>
<td></td>
</tr>
<tr>
<td>Parallel</td>
<td>8.0</td>
<td>22.0</td>
<td>12.0</td>
<td>16.0</td>
<td>176.0</td>
</tr>
<tr>
<td>45 Degrees</td>
<td>8.5</td>
<td>19.0</td>
<td>12.0</td>
<td>16.0</td>
<td>161.5</td>
</tr>
<tr>
<td>60 Degrees</td>
<td>8.5</td>
<td>20.0</td>
<td>16.0</td>
<td>20.0</td>
<td>170.0</td>
</tr>
<tr>
<td>90 Degrees</td>
<td>8.5</td>
<td>18.0</td>
<td>22.0</td>
<td>26.0</td>
<td>153.0</td>
</tr>
<tr>
<td>Compact</td>
<td>8.5</td>
<td>17.0</td>
<td>20.0</td>
<td>24.0</td>
<td>144.5</td>
</tr>
<tr>
<td>Average</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>161.0</td>
</tr>
<tr>
<td>Min</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>144.5</td>
</tr>
<tr>
<td>Max</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>176.0</td>
</tr>
</tbody>
</table>

Source: Grand Rapids Zoning Ordinance Sec. 5.10.04
MOBILITY AND ALTERNATIVE MODE CONDITIONS

Parking plays a central role in providing equitable access to goods, services, and social/civic connection. It is, however, but one means of doing so. Ensuring affordable, and comparably expedient means of local and regional transport, without use of a personal automobile, extends equity to those without access to, or the means to operate, such vehicles. Traditionally, this extension of equitable transport opportunities has focused on public transit – fixed-route service in more highly-populated areas, along with request-based paratransit services to cover other areas.

In the last few years, the available options for travelling without a personal vehicle have expanded significantly, though unevenly, and particularly within more densely populated areas. Car-share services provide hourly-rental access to vehicles, for those licensed to drive. Bikeshare complements public transportation services, with modestly priced short-term use of publicly accessible bike fleets. More recently, fleets of electric-powered small-wheel scooters have been placed in and around urbanized activity centers and higher-density residential areas. Transportation network companies, such as Lyft and Uber, have reimagined the service model of taxicabs to offer lower-cost, on-demand, point-to-point travel option, comparable to traditional paratransit operations, but available to all (though difficult to access without a smartphone device).

The overall impact that this expanding array of car-independent travel options has had on urban parking demand has generally been modest, though much more significant during specific times and circumstances (weekends and evenings, large events) and within specific travel markets (out-of-town visitors, non-licensed travelers and those who can reduce their car ownership levels).

Navigating Trade-Offs

This combination of traditional and emerging travel options presents a critical opportunity to reduce Grand Rapidians’ dependence on auto ownership for accessing the region’s vital and desirable goods, services, and opportunities. This is particularly important within more densely urbanized areas, as over-reliance upon auto travel increases the need for parking supplies, which are much more expensive to build and maintain in these areas. Decades in which cities sought to meet demand for ample, free, and convenient parking within regions of increasing dependence on personal-auto travel resulted in the proliferation of surface lots which replaced buildings and expanded the distance between destinations. The result was typically a further increase in the dependence upon personal-auto travel, as city centers became less walkable, and an increasing share of jobs and other economic opportunity migrated toward regional locations difficult to effectively serve by transit.

Figure 31 shows the annual cost of driving for a medium sedan, medium SUV, and pickup truck. According to the American Automobile Association (AAA), the annual cost of driving one of these vehicles is approximately $8,000 to $10,000, including fuel, maintenance, insurance, licensing and fees, financing, and depreciation in the value of the vehicle. This annual cost has significant equity implications, that carry a heavier weight in transportation networks that lack reliable and accessible non-driving travel options. This makes it essential for plans like the Grand Rapids Equitable Economic Development and Mobility Strategy to address parking, mobility, and TDM with a deep understanding of how these elements can either expand or inhibit equitable access, travel, and opportunity – and how this might vary significantly across the study area and its communities.

Key findings on demographic contexts to transportation in Grand Rapids are documented in the Demographics of Mobility memorandum.
Figure 31  Annual Cost of Driving

ANNUAL COST OF DRIVING

Note: Based on 15,000 driven annually (Source: AAA "2017 Your Driving Costs")

Image Source: Nelson\Nygaard
## Appendix A Parking Minimums

The following table reflects Table 5.10.04.C. in the Grand Rapids Zoning Ordinance, defining minimum off-street parking requirements per land use zone.

**Figure 32 Grand Rapids Minimum Off-Street Parking Requirements**

<table>
<thead>
<tr>
<th>Use Category</th>
<th>Use</th>
<th>Minimum Number of Parking Spaces, By Zone</th>
<th>Measurement/ Additional Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>TN- TCC; TN- TOD</td>
<td>TN- MDR; TN-TBA; MCN- TOD; MON- TOD</td>
</tr>
<tr>
<td><strong>RESIDENTIAL</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Household Living</td>
<td>Single-family dwelling Detached</td>
<td>1.5</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Attached</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td></td>
<td>Two-family dwelling</td>
<td>1.5/du</td>
<td>1.5</td>
</tr>
<tr>
<td></td>
<td>Multiple-family dwelling</td>
<td>1</td>
<td>1.25</td>
</tr>
<tr>
<td></td>
<td>Age-restricted housing</td>
<td>2 per 3 dwelling units</td>
<td>80% of units restricted to age 65 or older</td>
</tr>
<tr>
<td></td>
<td>Lodging, extended stay</td>
<td>0.75</td>
<td>1</td>
</tr>
<tr>
<td>Group Living</td>
<td>Nursing/convalescent home</td>
<td>0.5</td>
<td>0.75</td>
</tr>
<tr>
<td></td>
<td>Rooming/boarding houses</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Single room occupancy</td>
<td>0.5</td>
<td>0.75</td>
</tr>
<tr>
<td></td>
<td>All other Group Living</td>
<td>0.25</td>
<td>0.25</td>
</tr>
<tr>
<td>Accessory Uses</td>
<td>Accessory dwelling unit</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>EDUCATIONAL, GOVERNMENT AND INSTITUTIONAL</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government and Institutional</td>
<td>Educational uses</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Assembly areas</td>
<td>0.25</td>
<td>0.25</td>
</tr>
<tr>
<td></td>
<td>Child care center</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Community center</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Hospital</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Outdoor recreation field</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Research institution</td>
<td>0.5</td>
<td>0.75</td>
</tr>
<tr>
<td><strong>COMMERCIAL, OFFICE, AND RETAIL</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Auto-Oriented</td>
<td>Automobile rental, short-term</td>
<td>1.25</td>
<td>1.25</td>
</tr>
<tr>
<td></td>
<td>Car/truck wash</td>
<td>-</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Drive-in or drive-through use</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

''
## Use Category

### Use 1

<table>
<thead>
<tr>
<th>Minimum Number of Parking Spaces, By Zone 2</th>
<th>Measurement/ Additional Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>TN- TCC; TN- TOD</td>
<td>TN- MDR; TN- TBA; MCN- TOD; MON- TOD</td>
</tr>
</tbody>
</table>

### Use Category

#### Vehicle uses

- **Fuel station**: 5 5 5 Per premise
- **Service, repair facility; vehicle towing, storage**: 3 3 3 Per stall plus 1/employee
- **Sales/lease (e.g. auto, boat, RV)**: - - 3.25 Per 1,000 sq. ft. of main building
- **Wrecking, salvage, storage of inoperable vehicles**: 3 2 2 Per stall

#### Entertainment Hospitality and Recreation

- **Arcade, amusement devices, gaming, pool hall**: 3 3 0.75 Per 1,000 sq. ft.
- **Auditorium, cinema, concert hall, theater, banquet hall**: 0.25 0.25 0.33 "Per seat 1 seat=50 sq. ft. of GFA where seats are not used"
- **Bar, tavern**: 0.75 1.0 1.25 Per 3 persons based on occupancy
- **Bowling alley**: 2 2 6 Per lane plus accessory uses
- **Dance club, night club**: 3 4 4 Per 1,000 sq. ft.
- **Health or athletic club, sports complex (e.g. tennis, golf, soccer)**: 2.5 2.5 2.5 Per 1,000 sq. ft. plus accessory uses
- **Social or service club**: 0.75 1 1.25 Per 3 persons based on occupancy
- **Lodging, short-term**: 0.75 0.75 1 Per room plus accessory uses
- **Restaurants (also see Outdoor Seating below)**: 0.5 0.75 1.25 Per 3 persons based on occupancy

#### Office

- **Bank or credit union**: 2 2.5 3 Per 1,000 sq. ft.
- **General or professional uses**: 2 2.5 3
- **Medical or dental uses**: 4 5 6
- **Live-work unit**: 2 2 2 Per unit

#### Personal Services

- **Barber shop, beauty salon, nail salon, tattoo, tanning, therapeutic massage**: 1.5 2 3 Per station
- **Contractor, building (e.g. plumbing, heating, electrical)**: 3 3 3 Per 1,000 sq. ft. plus 1/stall over 3
- **Funeral home, mortuary**: 0.25 0.25 0.33 Per person based on occupancy
- **Personal service uses (not otherwise specified)**: 2 2.5 3.0 Per 1,000 sq. ft. plus 1/stall over 3, as applicable
- **Studio (aerobics, dance, yoga, karate, etc.)**: 0.25 0.25 0.33 Per person based on occupancy
- **Veterinary hospital, kennel**: 1.5 1.5 1.5 Per 1,000 sq. ft.

#### Retail Sales, Outdoor Activities

- **Retail sales, general**: 1.25 2.5 3.25
- **Outdoor retail sales, nursery or garden center**: 0.5 0.75 0.75
- **Outdoor retail sales, booths**: 1 1 1 Per stall plus accessory uses
## Use Category

<table>
<thead>
<tr>
<th>Use Category</th>
<th>Use 1</th>
<th>Minimum Number of Parking Spaces, By Zone ²</th>
<th>Measurement/ Additional Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>TN- TCC; TN- TOD</td>
<td>TN- MDR; TN-TBA; MCN- TOD; MON- TOD</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.25</td>
<td>0.33</td>
</tr>
<tr>
<td>Industrial and Transportation</td>
<td>Assembly, manufacturing, and production</td>
<td>0.25</td>
<td>0.33</td>
</tr>
<tr>
<td></td>
<td>Inter-modal transportation facility or transit center</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Mineral extraction</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Printing, publishing and allied industries</td>
<td>0.25</td>
<td>0.33</td>
</tr>
<tr>
<td></td>
<td>Self-storage facility</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Warehousing, wholesaling</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

### Notes:
1. The listing of various uses under each Zone District grouping is not intended to imply that those uses are permitted in every Zone District. The Use Table for each Zone District must be consulted for allowed uses.
2. No parking minimums are listed for the TN-CC zone. Per Section 5.10.04.F, off-street parking is not required in the TN-CC zone. If provided, the number of spaces required for all uses shall not exceed one space for every 1,000 square feet of gross floor area for all non-residential buildings and hotels, and one space per dwelling unit.

Source: Grand Rapids Zoning Ordinance, Table 5.10.04.C.

The following table reflects Table 5.10.10.A. in the Grand Rapids Zoning Ordinance, defining minimum bicycle parking requirements per land use zone.

### Figure 33  Grand Rapids Minimum Bicycle Parking Requirements

<table>
<thead>
<tr>
<th>Use</th>
<th>Required Spaces ¹</th>
<th>Other Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>1 per dwelling unit</td>
<td>50% of required spaces may be within garages provided the Director determines that the garage size and dedicated bicycle parking facilities are generally adequate to accommodate these spaces.</td>
</tr>
<tr>
<td>Government/institutional, educational</td>
<td>1/5,000 sq. ft.</td>
<td>No fewer than 3 spaces shall be provided.</td>
</tr>
<tr>
<td>Commercial, retail sales, personal service, auto-oriented, regulated uses</td>
<td>1/5,000 sq. ft.</td>
<td></td>
</tr>
<tr>
<td>Offices</td>
<td>1/10,000 sq. ft.</td>
<td></td>
</tr>
<tr>
<td>Entertainment, hospitality and recreation</td>
<td>1/15,000 sq. ft.</td>
<td></td>
</tr>
<tr>
<td>Industrial, transportation</td>
<td>1/20,000 sq. ft.</td>
<td>Office uses shall be calculated separately. No fewer than 3 spaces shall be provided.</td>
</tr>
<tr>
<td>Parking structures</td>
<td>1/20 parking spaces</td>
<td>Parking structures that are integrated with a separate principal use shall use the greater of the separate calculations for the use and the parking structure.</td>
</tr>
</tbody>
</table>
Note: 1. After the first 20 required bicycle spaces, additional spaces shall be calculated at 50% of the table values.
Source: Grand Rapids Zoning Ordinance, Table 5.10.10.A.