STRATEGIES AND ALTERNATIVES

TRANSPORTATION DEMAND MANAGEMENT FOR GRAND RAPIDS' MICHIGAN STREET CORRIDOR

DRAFT Working Paper #2

Completed in collaboration with the Michigan Department of Transportation, Michigan Economic Development Corporation and Michigan State Housing Development Authority.

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Table of Contents

Page
Strategies and Alternatives .......................................................................................................................... i
Transportation Demand Management for Grand Rapid’s Michigan Street Corridor .................................................. i
1 Assets to Build on ......................................................................................................................................... 1-1
2 Overview ..................................................................................................................................................... 2-1
3 Tools and Strategies ...................................................................................................................................... 3-2
   Transportation Management Association ................................................................................................. 3-2
   Non-Motorized Transportation improvements ............................................................................................ 3-6
   Transit Solutions ........................................................................................................................................ 3-11
   Parking Management .................................................................................................................................. 3-14
   Live Near Work .......................................................................................................................................... 3-17
4 Next Steps ................................................................................................................................................ 4-19

Table of Figures

Page
Figure 3-1 Existing or Exploring Bike Share Systems .................................................................................. 3-6
Figure 3-1 Existing and Planned Bicycle Network ....................................................................................... 3-8
Figure 3-3 WalkScore© ratings in vicinity of Michigan Street corridor ............................................................ 3-9
1 ASSETS TO BUILD ON

Grand Rapids enjoys many assets that provide a strong foundation on which to build a very successful transportation demand management program. Foremost among them is the sense of partnership and shared commitment evident in the city. While this certainly does not mean that universal harmony prevails at all times and in all places, the openness to work together to explore viable strategies to ensure the transportation mobility necessary for sustained economic success in the city is a vital cornerstone of any wide ranging and successful strategy.

The city further enjoys a strong and creative foundation community and expanding major institutions who have demonstrated a vested interest in not only the Michigan Street corridor, but the whole of the Grand Valley region. These institutions not only have the ability to make profound change based on their sheer size, but also based on the values and missions that drive them.

Change of any form, however, requires energetic leadership and an engaged populace. In this arena too, the city is well positioned to chart and seize a holistic vision of mobility that sustains residents, workers, visitors and students regardless of economic or physical ability. Grand Rapids leaders at the citizen, city, and civic levels have shown the willingness to be bold in vision and committed in action. These leaders will be essential in sustaining the momentum and energy needed for what is often slow or sporadic advances.

Transit authorities, like so many public servants, often work tirelessly with too little praise or recognition, but in Grand Rapids the appreciation of the transit agency has been open and authentic. The system is well regarded and - vitally important - trusted! This too is an amazing foundation on which to build a highly successful transportation demand management program for the Michigan Street corridor and beyond.

2 OVERVIEW

This working paper is designed to provide stakeholders and partners with a range of viable approaches to explore in pursuing transportation demand management for the Michigan Street Corridor to support the goal of a vibrant, sustainable and livable community, city and region. These strategies are broadly outlined approaches which will be further fleshed out in Working Paper #3 as to their mechanics, specific models to build from, and resources and roles for implementation.

The working paper focuses on five broad and effective tools for TDM. Within each, several strategies are provided. These generally range from the most ambitious approach to
approaches that are more modest changes, but good first steps. Each section concludes with an assessment of the champions needed, a rough measure of effectiveness, and the time and resources required for implementation. The tools represent a menu of viable approaches, several of which may and should be used in concert with one another.

3 TOOLS AND STRATEGIES

TRANSPORTATION MANAGEMENT ASSOCIATION

A Transportation Management Association (TMA) is a group that applies “carefully selected approaches to facilitating the movement of people and goods within an area.”1 Most TMAs are led by the private sector in partnership with public sector agencies, and their primary goal is to address transportation problems through information and coordination.

Of the approximately 150 TMAs across the country, several different organizational structures exist. Some are formal bodies, created by legislation, with assessment powers for included properties. Some are more of a strong leader model, with a single large institution that champions causes for the local community. Others function more as committees and are staffed by a designated transportation management coordinator at either a government agency or a private employer.

TMAs vary in the programs they choose to address transportation demand management, but typically they include, at minimum, a strong marketing component of alternative modes and commuting information assistance. Some manage and subsidize vanpools or transit pass programs; some organize rideshare matching and guaranteed ride home programs; handful even directly operate employer shuttles.

As summarized in Working Paper 1, institutions along Michigan Street in Grand Rapids have a number of alternative transportation programs in place and are poised to take the next step in working together to implement programs to manage transportation demand along the corridor. A TMA would be an ideal mechanism through which to implement these programs. Several viable alternative approaches exist for the creation of a local TMA.

Legislation

Establishing a TMA through legislation requires the most upfront legwork, but often provides the biggest payoff for the community. Legislation designates roles and responsibilities, and, critically, formalizes a permanent funding stream to support the TMA’s efforts.

Funding comes from a local assessment taken from properties within a set boundary, similar to a Business Improvement District (BID). Typically, the assessment is simply an additional percentage on a property owners’ tax bill, and most often, these special districts do not assess residential properties, though some do, especially if residential properties comprise a large

1 NCTR, 2001
portion of the area. For BIDs, assessments are often based on linear feet of streeetwall or square footage of commercial property. For a TMA, a more appropriate assessment would be based on number of employees.

Nonprofit entities, such as hospitals and universities, are often not assessed; however, many choose to contribute a set amount annually. In Grand Rapids, this traditional practice would poise a unique, and potentially problematic, condition. Exempting these institutions would leave out several large employers and traffic generators – including GVSU, Spectrum Health, MSU and GRCC – and potentially limit the effectiveness of the TMA and generate some ill-will as they would reap the benefits of transportation demand management without the proportionate cost borne by private sector employers. If the legislative/assessment route is chosen, an alternative “assessment” or method of contribution would need to be institutted for these educational facilities.

Different cities have utilized legislation assessments slightly differently for TMAs:

- The Lloyd District in Portland, Oregon receives funding from a number of sources: the business improvement district assessments provide $100,000; parking meter district $90,000; regional government (Metro) grants $47,000; and a 3% commission from transit passes and ticket sales, $44,000.
- The corridor-based 36 Commuting Solutions in Denver, Colorado, is focused on US 36 and provides primarily information and marketing services. Dues are based on employer size.

**Not For Profit Public Private Partnership**

Many TMAs are established without legislation through a contracting mechanism of the city transportation agencies or regional planning bodies whereby a non-profit entity is charged with providing commute assistance to employers of a designated area. Funding may be provided through federal Congestion Mitigation and Air Quality (CMAQ) programs or through state or local funds. Some areas have contributed economic development funds to TMAs recognizing the benefits of such entities and programs in attracting workers and industry.

Partnership TMAs may be housed within and partially staffed by the government (as is the case with Arlington County’s Commuter Services), within a Business Improvement District office, or may be a quasi-independent entity as is the case just across the river in Washington DC with the GoDCGo program which was co-founded by the city and the Downtown Business Improvement District. In the Washington region, both programs use the same marketing and commuter services contractor to increase the economy of scale and effectiveness of the programs while maintaining distinct identities and programs tailored to their unique stakeholders. These TMA arrangements typically work in close coordination with other local entities including bicycle or transit advocates, convention and visitors bureaus, BIDs, developer associations, and chambers of commerce.

Such TMAs may provide a range of services from simple commute option marketing to transit pass brokerage to consultant services to employers to set up and monitor campus or company TDM programs. Public private partnership TMAs can play important roles in managing transportation around significant events such as ArtPrize.

Grand Rapids has some existing structures, practices and entities that may be able to be expanded to serve a TDM purpose. Among these are the Downtown Development Authority (DDA), the multiple activities and services of The Rapid, and the existing CMAQ investments made by the Grand Valley Metropolitan Council.
Strong Leader Model

In some cities, one major institution takes on the goals of the larger community as part of its mission to serve its employees and affiliates more effectively. A salient example is in Rochester, Minnesota, where the Mayo Clinic has taken the leadership role in developing TDM for the city’s downtown employers and funds a number of initiatives, including planning efforts as well as more typical commuting alternatives. This is often a “lead by example” model as the strong leader may coordinate – in particular – marketing and education programs and collective efforts toward ride sharing or shuttles, but each individual employer remains ultimately responsible for funding their own TDM implementation efforts.

In Grand Rapids, Spectrum Health is the largest employer and the one with the most extensive internal commuting options, due in part to its shuttle system. On the public/nonprofit side, GVSU has been a leader in developing innovative programs to promote commuting by alternative modes.

Spectrum Health has expressed interest in greater collaboration with other institutions along Michigan Street, though the extent of its willingness to serve a principal coordinating role remains unexplored. If committed to creating a TDM program with a more corridor-wide scope, Spectrum could be in a position to offer several benefits typical of the private sector – more flexibility and resources with less red tape. There are drawbacks as well, however, although coordinating the “strong leader” must still be willing to cede some degree of control over decision-making to a group of stakeholders.

GVSU is committed to working with other institutions along the corridor and could also provide flexibility and the expertise of several of its staff who have been working on TDM for a number of years. It could be an ideal lead institution if willing to commit staff resources.

• Commute Solutions in San Diego is structured through the University of California, San Diego, and TMA services are designated for area hospitals, serving approximately 20,000 employees in San Diego. Commute Solutions subsidizes transit passes, vanpools, and carsharing.

Ad Hoc with Coordinator

Another model is to continue meeting as an ad hoc committee, but hire a transportation demand management coordinator to focus on TDM issues along the corridor and staff the committee meetings. This structure is likely to be the model for the first year, at minimum, while the corridor group decides how to formalize coordinated management approaches. However, there are several advantages to keeping this model permanently, the most prominent being the flexibility it allows for its members and for the city. This flexibility also presents a drawback since nothing binds any institution or agency to an agreement to work together or participate. TDM staff typically reside within the transportation agency, the transit authority, or the Metropolitan Planning Organization (MPO) for the region. Although more rare, TDM coordinators may be housed by a foundation or private employer, however in order to be effective the group must trust that the coordinator and their employer are working in the best interest of the entire corridor.

Even as an informal body, the group would be most successful with staff support to bring focus to meetings, conduct research and make progress between meetings, and champion programs chosen by the group. A staff member would be most successful if placed with a supervisor who is actively involved in transportation demand management and within an organization that is committed to the collective goals of the corridor. Most TDM staff are pulled in many directions...
given the sheer number of employers to touch and the breadth of education and outreach required to make an impact. Given these demands, it is advisable that TDM coordination not be a “side business” responsibility, but be the primary role of the assigned or hired staff member.

- Raleigh, North Carolina, has a TDM coordinator on staff who works with individual employers to tailor commuting programs to fit their employees’ needs. Among the programs the coordinator facilitates are a GoPass program for the city and regional bus systems, car and vanpooling, flexible scheduling and teleworking, and improved bicycle and pedestrian access. The coordinator works with the Downtown Raleigh Association, an organization with a scope larger than just transportation, but is an employee of the City of Raleigh.

Marketing

One of the most important duties of a TMA is to disseminate information about existing TDM programs. All institutions along the corridor have some type of advertisement for their internal commute programs, and most advertise other alternative transportation options to their employees or students. Still, most travelers along the corridor are not aware of their options. Distributing information once each year or only during the orientation or hiring process is not enough marketing to truly plant the seeds of change on an individual level. More frequent and more creative marketing strategies are necessary to create buzz around different commuting initiatives.

Regardless of the TMA structure, or even in the absence of a formal TMA, a cooperative marketing package can be developed that lays out all commuting options for Michigan Street users and provides resources for accessing further information. This can be an immediate step to raise awareness among both employers and employees or students.

Elements of the marketing package can include:

- Detailed route and schedule information about The Rapid, as well as information on purchasing passes and accessing new technologies, such as Next Bus information available on The Rapid website.
- Detailed route and schedule information about The DASH
- Information about rideshare programs, both internal and with other institutions along Michigan Street
- Information about MichiVan
- Contact and information for the Grand Rapids Bicycle Coalition

Successfully marketing transportation alternatives also requires a human element. Some institutions in other cities invite representatives from the transit authority to conduct travel training with new students and/or employees. This hands-on approach has much more of an impact than a piece of paper within a much larger orientation package. A TDM coordinator identified from among the participating institutions, whether or not a formal TMA exists, can embody the cause of using alternative modes for commuting and can fulfill this necessary human element.

Implementation

Cost estimates and approximate timeframes for implementation are listed in the table below.
**NON-MOTORIZED TRANSPORTATION IMPROVEMENTS**

Nationwide there is burgeoning interest in increasing the attractiveness and viability of walking and bicycling as an efficient and affordable transportation management solution. While the geographic “capture-area” for walking and bicycling is somewhat limited – generally assumed to be no more than one-mile for walk radius and three miles for bicycling – both modes are essential in extending the reach and effectiveness of alternative commuting modes such as transit or ride-sharing.

**Bike share**

A number of cities are exploring or implementing bike share programs. These programs range in size from Washington, DC and Arlington County, VA’s Capital Bikeshare (1,500 bikes at 187 stations) or the coming systems in Chicago and New York City; to modest operations like Madison, WI’s (300 bikes at 30 stations) or Boulder, CO’s (200 bikes at 20 stations) B-Cycle programs; to smaller programs in cities like Des Moines, IA, Kansas City, MO and Omaha, NE (ranging from 90 to 14 bikes). Scores more communities are exploring such systems.

Bike share in many communities supplements both the transit and walk networks by extending the reach of these systems and providing some redundancy.
Bike share business models are equally varied. Some programs, are capitalized, owned and managed by the jurisdictions; others just capitalized by it. Some run by nonprofits while at least one (Miami Beach’s DecoBike) has developed a profitable business model. Some involve public private partnerships (e.g. CitiBikes in New York City) while others receive donations from local foundations or institutions who have found that bike share advances their missions while enhancing their “brand” (e.g. Minneapolis/St. Paul Nice Ride in partnership with Blue Cross/Blue Shield).

Bike share systems operations and equipment continue to evolve with technology. Early bike share systems were free bike programs that simply deployed identical bikes throughout a city for use without security or payment. So called “second generation” systems soon evolved. These require a coin deposit but lack any technology for tracking or securing. Newer “third generation” systems use technology to track and enforce bike usage – many through a “smart dock” system where bikes are rented and returned to stations. Emerging systems are exploring a “smart lock” system independent of or used in conjunction with a smart dock system which allows even more flexibility in the system in both distribution and equipment options.

Bike share can be implemented as a small localized system as is commonly done on college campuses, or as a region-wide system as is the case in the Washington and Twin Cities regions. Systems can operate seasonally or year-round and can be capitalized by public or private funds or a combination of both. Unit costs also can vary widely depending on the equipment and operating vendor selected. Such decisions make a big difference in the cost of launching a system. The Federal Highway Administration has assembled a helpful synthesis report on bike sharing in the United States.2

Enhancing the Bicycle Network

_Bicycling Magazine_ has listed Grand Rapids among the top 50 best bike cities in the nation and the League of American Cyclists as given the city a Bronze rating as a bicycle friendly community. Bicycling in the city has really risen in both visibility and viability in recent years, thanks in part to strong advocacy organizations and willing and enthusiastic city leadership. The state and region has an extensive network of off street multi-use trails that are the backbone of a budding bicycle tourism industry. However quality on-street facilities that extend this network into the city grid and to employment centers remains somewhat sparse.

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A separated bikeway is planned on Lyon Street as an element of the overall Michigan Street corridor. However utility of bicycling as a TDM strategy for the corridor will rely on a capillary system as well to support this biking artery and make the core employment areas safely accessible for a range of bicycling abilities.

Bike lanes and sharrows are a good first step to build the cycling constituency and warm the travel market to bicycling as a viable mode. However, many cities have seen bicycle trips skyrocket – exceeding 300% growth rates – on corridors where separated bicycle facilities are provided as these are more inviting to cyclists of all ages and abilities and help to attract and accommodate the “interested, but skeptical” bike traveler. Therefore long range plans should continue to explore a network of such facilities to expand the Lyon Street investment. A good goal is for a bicycle facility (connected to a larger network) to be accessible within one mile of every household and within a half-mile (or less!) of major community destinations including retail corridors, schools and libraries, and other significant amenities.

Generally speaking, the public sector must lead and implement enhancement of the bicycle network as the owner of the rights of way and chief planner for their design and allocation. The advocacy community has an important role to play, as it is playing in Grand Rapids, in representing the “consumer” perspective and the demand for such facilities. The private sector – employers and institutions – can accelerate the process, if legal structures allow, by sponsoring certain corridors and providing the political support necessary to prioritize space for bicyclists and resources for physical improvements. The private sector has a further, and vital, role to play in providing bicycle accommodations within private commercial, institutional and multifamily residential buildings including bike parking, shower facilities and safe and logical access points.

Bicycle improvements are a cheap date compared to improvements for motorized modes – estimated at $5,000 to $50,000 per mile for bike lanes.\(^3\) Even at $100,000 - $250,000 or so for

\(^3\) Pedestrian Bicycle Information Center, extracted 2/22/2013 [http://www.walkinginfo.org/engineering/roadway-bicycle.cfm](http://www.walkinginfo.org/engineering/roadway-bicycle.cfm)
cycle tracks or multiuse trails, these investments are vastly less expensive per potential traveler accommodated than roadway expansions which exceed $3.5 million per mile.4

Enhancing the Walk and Roll Network

WalkScore© is a convenient, if blunt, tool for assessing the walkability of an area. The WalkScore algorithm measures the presence and accessibility of neighborhood amenities such as parks, schools, grocery stores, and diverse retail offerings as well as the connectivity of the transportation network that serves them. WalkScore is not able yet, however, to assess the quality of the walk connection to get to such amenities – factors such as public safety; presence, absence or quality of sidewalks; or urban design interest.

While the core of Grand Rapids measures up fairly well in the WalkScore system (87 out of 100 for the Heartside neighborhood south of Lyon Street), the Medical Mile ranks slightly lower at 82 out of 100 and the average for the Belknap community lower still at 69 out of 100.

Figure 3-3 WalkScore© ratings in vicinity of Michigan Street corridor

Improving the walk environment and convenient access to amenities can have a profound impact on other transportation demand management strategies since nearly everyone is a pedestrian at some point in their trip.

In some locations, redesign and reconstruction of the sidewalk network is desired in order to widen the pedestrian way and allow a landscaped buffer between moving traffic on the roadway and pedestrians on the sidewalk. During reconstruction projects every effort should be made to close and/or consolidate driveways and curbcuts. These not only compromise vehicular operations of the street (often referred to as access management) but also introduce conflicts into the pedestrian environment that degrade its quality. Where curbcuts must be provided, they should be designed so that the pedestrians retain a level pathway and vehicles change grade via an apron transition area. Segments for reconstruction should be prioritized based on condition, safety and access issues, and revitalization objectives.

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4 Florida Department of Transportation, Generic Cost Models, Updated as of: 02/20/13 (ftp://ftp.dot.state.fl.us/LTS/CO/Estimates/CPM/summary.pdf)
Quality maintenance can also dramatically improve walkability by leveling surfaces and improving the visual environment of the corridor. In some locations it may be possible to do modest retrofits – introducing tree boxes, closing curb cuts, or improving lighting – in the course of a modest maintenance project.

A wide range of intersection improvements can also dramatically improve both safety and the attractiveness of walking. Challenges crossing Michigan Street have repeatedly been raised as a hindrance to alternative mobility on the corridor. Curb extensions, raised crossings or raised intersections, pavement textures or patterns, and/or pedestrian islands can both alert drivers to the presence of pedestrians and provide safe refuges for pedestrians and make walk trips more inviting. Intersections and their treatments should be assessed separately, but ensure that they work together as a network.

Curb ramp installation has been mandated in many cities in response to lawsuits over accessibility. While curb ramps are essential for those utilizing wheelchairs, they provide significant benefit to the able bodied as well making it easier to stride across streets, push children or grocery carts, or provide alternative routes for cyclists. Likewise audible pedestrian signals assist not only those with low vision, but also youth and the elderly.

Operational changes are often the least costly, but most effective measures. Operational changes may include extending the allotted walk time for pedestrians and/or slowing traffic speeds to increase driver’s attentiveness to curbside activities (including the retail offerings and amenities). Similar to geometric intersection improvements, signal operational changes can address some of the pedestrian challenges on the corridor for travelers of all purposes and abilities.

### Implementation

Cost estimates and approximate timeframes for implementation are listed in the table below.

<table>
<thead>
<tr>
<th>Program</th>
<th>Lead Entity</th>
<th>TDM Impact</th>
<th>Estimated Timeline</th>
<th>Estimated Cost and Funding Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bike Share</td>
<td>Committee (or other)</td>
<td>High</td>
<td>24 months+</td>
<td>Feasibility study; business plan development; cost dependant on system size and sponsorship, approx $50,000 - $75,000 per station^{5}</td>
</tr>
<tr>
<td>Separated bikeway network</td>
<td>City of Grand Rapids</td>
<td>High</td>
<td>18 –24 months</td>
<td>Planning, design, construction and performance monitoring; $100,000 - $1 million</td>
</tr>
<tr>
<td>Bike lane and route network</td>
<td>City of Grand Rapids</td>
<td>High</td>
<td>2 – 24 months</td>
<td>Planning, design and milling/striping; $50,000 - $500,000</td>
</tr>
<tr>
<td>Bike racks and showers</td>
<td>City and/or private entities</td>
<td>Low</td>
<td>0 months (continuous)</td>
<td>Staff for development review; $150 - $300 per rack</td>
</tr>
<tr>
<td>Sidewalk (re) construction</td>
<td>City of Grand Rapids</td>
<td>Moderate</td>
<td>6 – 24 months</td>
<td>Depending on design, $35,000 - $50,000 per block face</td>
</tr>
</tbody>
</table>

### TRANSPORTATION SOLUTIONS

A number of transit resources exist along Michigan Street:

- The Rapid operates one primary route – Route 19 – between Monroe Avenue and Fuller Avenue. Three additional Rapid route segments operate along the corridor for a few blocks at a time.
- The City owns and manages the DASH system which contracts with The Rapid to operate two routes along Michigan Street:
  - DASH operates a number of shuttles from commuter lots to downtown destinations including the DASH to the Hill and Monroe North DASH.
  - A new DASH service operates to the Monroe North neighborhood and serves Michigan Street between Bostwick and Monroe Avenue.
- The Rapid contract shuttles include
  - Route 60 GRCC route serves GRCC but does not operate along Michigan Street
  - Route 51 GVSU Health Sciences/West DASH Lot (aka Dash to the Hill) between Lafayette and the river, and points further west.
- Spectrum Health operates three shuttle routes between its parking lots and Butterworth Hospital, with shuttles traveling between Bostwick Avenue and as far east as Plymouth Avenue.
- Additionally significant transit improvements are planned including the Silver Line BRT and plans for the Laker Line BRT and contemplation of the North Monroe Streetcar.

Layers of transit service are necessary to serve different markets, maximize frequency, and provide choices for riders. However, resources spent on transit operations and programs along the corridor could be more streamlined and focused on corridor-wide programs.

The Rapid is a fantastic transit partner for the City of Grand Rapids. As an agency, it has shown flexibility, openness, and innovation in its programming and planning. If Michigan Street corridor stakeholders maximize this unique resource, the corridor could realize true change in commuting patterns and overall downtown vibrancy.

<table>
<thead>
<tr>
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<th>Estimated Cost and Funding Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sidewalk maintenance</td>
<td>City of Grand Rapids</td>
<td>Low</td>
<td>0 months (continuous)</td>
<td>$15,000 - $50,000 per block face depending on work</td>
</tr>
<tr>
<td>Intersection improvements</td>
<td>City of Grand Rapids and/or development</td>
<td>Moderate</td>
<td>4 – 12 months</td>
<td>$10,000 - $120,000 per intersection depending on treatment</td>
</tr>
<tr>
<td>Curb ramp installation</td>
<td>City of Grand Rapids</td>
<td>Low</td>
<td>0 months (continuous)</td>
<td>$400 - $2,000 per corner</td>
</tr>
<tr>
<td>Operational changes</td>
<td>City of Grand Rapids or MDOT</td>
<td>Low</td>
<td>2 – 12 months</td>
<td>Nominal cost (staff time) to up to $200,000 per intersection for new signals</td>
</tr>
</tbody>
</table>
Create Downtown Transit Pass

The Rapid manages several individual contracts with employers and schools along Michigan Street to provide special services or a pass program. Creating a unified brand of transit pass or a transit program specific to downtown would streamline the contracting process within The Rapid and provide a simple entry point for more employers to join. For instance, the Rhode Island Public Transit Authority (RIPTA) instituted the EcoPass program for downtown employers in which employers sign up for annual passes and pay only for the rides their employees use. Very small and very large employers can access this pass program so that RIPTA saves on costs of developing an individualized program for small employers. The Rapid already has several similar contracts with larger downtown employers; creating a branded pass enhances the alternative commute marketing campaign and expands these in-place programs to more employers.

Enhance Vanpool Programs

Many employers and educational institutions along Michigan Street draw residents from a large catchment area, some even several counties away. The Rapid already manages a vanpool program for individuals and employers. Like the downtown pass program, enhancing the vanpool program would be a two-pronged effort – treating downtown employers as one, collective group in order to mix and match vanpool riders, and, branding the vanpools as “downtown” vanpools. Most employers and employees would need a guaranteed ride home program to supplement the vanpool program as security for emergencies and unanticipated changes in work schedules.

Vanpool users would also benefit from transit, bicycle, and pedestrian enhancements downtown. In order to run errands around downtown or go to lunch, vanpoolers need another layer in their transportation network; marketing efforts should target the gamut of needs to answer these questions at the outset.

Consolidate Private Shuttles

As discussed, a number of transportation services operate along Michigan Street. Consolidating private shuttles into a single downtown brand could serve more employees and save resources currently being expended by individual employers.

Spectrum Health operates shuttles exclusively for its employees. In theory, this is a great service – employees like exclusive shuttle services that travel directly between their origin and destinations, with no additional stops. However, several stakeholders cited the Spectrum shuttles as contributing to congestion along Michigan Street, and Spectrum acknowledges that the schedule is not optimized and that shuttles do not run at capacity. Other employers may be operating shuttles from parking lots, as well. In light of the frequent and extensive Rapid/DASH service along the corridor, private shuttles are duplicative, and those resources could likely be redeployed to access the same level of service for employees, but in a more streamlined manner.

Spectrum currently spends approximately $75,000 on operating its private shuttles and an additional $4,000 per month on a contract with The Rapid for its employees to ride for free. Spectrum and other private employers spending money on internal shuttles should work with The Rapid to receive DASH service, much like GVSU, GRCC, and the Monroe North neighborhood. Often, private employers feel they have to be “in the transportation business” but would rather cede that responsibility to an outside expert, provided that their employees/clients receive a high quality of service. A transit agency like The Rapid is more suited to optimizing
transit service than a private institution, can benefit from economies of scale, and ensure that investments in transportation services are maximized.

**Create Downtown Employee Shuttle**

Finally, creating an exclusive, branded downtown employee shuttle, operated by The Rapid/DASH and funded through a TMA, could provide the best service per dollar spent and would enhance the cache of alternative commute modes more than a transit pass program or other marketing campaigns. A free downtown circulator providing transit service at five-minute headways during peak hours would be simple to understand, easy to use, and convenient for commuters and students. A well-executed marketing campaign, clever branding, and attractive vehicles could help Grand Rapids achieve its transit mode share targets.

Even current institutions utilizing commuter parking and DASH service would benefit from a branded downtown shuttle. GRCC’s shuttle contract has been successful, but students still wait in long lines to park at campus, creating major congestion along Michigan Street. Even when told of the option to park at the DASH lot and use the shuttle, many choose to wait. Creating a branded shuttle and/or a targeted marketing campaign could increase ridership from existing partners.

Building on the existing DASH service offers several advantages:

- The DASH is already a separate brand from regular Rapid bus service and is fare-free. These two factors make it a more user-friendly service for individuals who are not accustomed to using typical transit buses.
- DASH vehicles are smaller than the regular 40-foot buses and can access building entrances, overhangs, and smaller turn-arounds than the larger transit buses.

The DASH is currently only used to serve DASH parking lots, however, and the fare-free structure is based on the passenger paying a parking fee. A TMA-sponsored downtown circulator would not serve parking lots exclusively, but instead would circulate among major institutions and other destinations as prioritized by the TMA or stakeholder committee. A new brand is ideal to fill this role. The service could utilize completely new vehicles, especially hybrid or electric vehicles that showcase Grand Rapids’ commitment to mitigating the effects of greenhouse gas emissions. If a new vehicle type would be too burdensome for The Rapid’s maintenance facilities/budgets, DASH vehicles could be utilized, but vehicle wraps are recommended to brand the shuttle as distinct from other DASH services.

The City recently contracted with The Rapid to implement a new service for a coalition of stakeholders in the Monroe North neighborhood, combining funds ($75,000 each) from the Monroe North Tax Increment Financing Authority, the Grand Rapids Parking Services, and the Grand Rapids Downtown Development Authority to sponsor a fare-free route to the DASH North lot from downtown. A similar structure could be used for a downtown circulator; this method would ideally be implemented in conjunction with a TMA.
Implementation

Cost estimates and approximate timeframes for implementation are listed in the table below.

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<th>TDM Impact</th>
<th>Estimated Timeline</th>
<th>Estimated Cost and Funding Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Downtown Pass</td>
<td>The Rapid</td>
<td>Moderate</td>
<td>6-9 months</td>
<td>The Rapid staff time to create branded pass program</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Scaled to employer participation</td>
</tr>
<tr>
<td>Vanpool</td>
<td>The Rapid</td>
<td>Moderate</td>
<td>3-6 months</td>
<td>The Rapid staff time</td>
</tr>
<tr>
<td>Consolidate</td>
<td>The Rapid</td>
<td>High</td>
<td>6-12 months</td>
<td>Private employers save from current shuttle costs</td>
</tr>
<tr>
<td>Private Shuttles</td>
<td>Spectrum and</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other private</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>shuttle providers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Create Downtown</td>
<td>The Rapid</td>
<td>Highest</td>
<td>18-24 months</td>
<td>$450,000-$700,000 for 5-minute headways</td>
</tr>
<tr>
<td>Shuttle</td>
<td>Stakeholders</td>
<td></td>
<td></td>
<td>$300,000-$600,000 per new vehicle</td>
</tr>
</tbody>
</table>

PARKING MANAGEMENT

As reported in the TDM State of the Practice report, parking management can be the single most effective tool for managing transportation demand as it forces travelers to make informed decisions about the internal and external cost of driving as a mode choice. The intent of parking management is not to be hostile to those who choose to or must drive and park, but rather to apply economic principles to that choice.

Parking Management Districts

Parking Management Districts (PMDs) can be established in concert with Transportation Management Associations (TMAs) or independently. PMDs are established by the local government to address a designated area – typically an area of high traffic generation (such as the Medical Mile). The key tools of a parking management district are control (or influence) over both pricing and supply in the area in order to manage traffic demand and encourage (and in some cases cross-subsidize) the use of alternate modes. Parking management districts also coordinate parking management to minimize spill-over effects into adjacent areas, particularly residential zones.

Beyond simply managing demand, parking management districts also typically have a core mission to support economic development in the district. Parking management districts are not solely focused on parking, but also include broader mobility options and are the result of an overall parking and mobility study.

Parking management districts are a relatively new phenomenon and still an emerging best practice. Examples around the country include:

- Downtown Pensacola Parking Management District (DPMD) in Pensacola, FL
Demand-responsive and/or Cost-based Pricing

Parking is never free, whether the commuter pays for it or not. There is a cost for initial construction, everyday operation, and routine maintenance. The simple existence of a parking facility represents an opportunity cost as it precludes the use of that land for other purposes whether green space or high density employment.

Demand and cost-based parking pricing employs a simple rule of thumb – on-street parking should be priced responsive to demand (to maintain a roughly 85% occupancy) and off-street parking should be priced to recover the costs outlined above. Charging less than the cost-recovery rate amounts to a subsidy for driving – a subsidy that should then be equally allocated to commuters who chose an alternate mode.

Cost-based pricing for off-street facilities is relatively easy to calculate, but often politically difficult to implement. Few facilities actually charge the full amount for parking as the rate would be prohibitively high for many users. Nonetheless, it is a good exercise to calculate the true cost and assess the benefit gap between the subsidy provided to drivers and non-drivers.

Conversely, the right price for on-street parking is often elusive and varies widely from block to block and time of day. Setting the right price for on-street parking often requires extensive data collection before implementation and constant monitoring thereafter. While demand-responsive pricing is feasible with classic coin meters (as evidenced by the city of Old Pasadena, CA), traditionally cities have deployed modern meter technologies that enable real time information and dynamic pricing through a networked system.

Leading examples of demand-based pricing (a.k.a. performance parking) include:

- **SF Park** in San Francisco – a pilot project funded through the U.S. Department of Transportation
- **Old Pasadena, CA** – the quintessential case study of Professor Donald Shoup

Parking Maximums and/or Reform of Minimums

Some have called parking a “fertility drug for cars”\(^6\) and indeed the more of it we create, the more traffic we invite. Because parking is so expensive to provide and operate, smart developers and institutions prefer to provide no more than is absolutely required; however what is “required” is distorted by the artificial protection from market realities. Further, once built and the capital expended, there is a perverse incentive to ensure that parking is utilized to the maximum extent possible. Each unmanaged parking space is a good indicator, in a vibrant economy, of the potential traffic to be generated.

Lacking holistic, coordinated, and uniform parking pricing policies (and even some with pricing policies), many municipalities have instituted parking maximums in their zoning code as a demand management tool. Theoretically, if parking is priced according to cost and demand, there would be little need to establish parking maximums as parking would respond to the market instead. However as many facilities fall well short of true cost-based pricing, parking maximums provide an additional control to traffic generation.

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Parking maximums have been adopted into the Grand Rapids Zoning Ordinance for parking lots, but waivers are typically granted.\(^7\)

While establishing parking maximums is the surest way to control supply and affect demand, it is often highly contentious in communities and a dramatic departure from their normal understanding of successful projects and places. Some places have found greater traction by instead reducing or eliminating parking minimums instead. This allows the real estate market to determine independently the minimum amount necessary for the success of their building from both a lease-up standpoint as well as financing.

**Shared Parking and Park-once**

In many zoning codes, each land use is required to provide their own supply of parking. However, parking demands peak at different times of day for different users. Office demand is highest between 9am and 4pm while entertainment and hospitality demands are just beginning to rise after 4pm. Allowing shared use of parking not only reduces land consumption and capital costs, it can also reduce traffic demand.

Shared parking too has been explicitly permitted in the local zoning ordinance. Its successful use, however, requires strategies for review, approval, monitoring, enforcement, and penalties for violation. This requires both structure and staff.

Shared parking is often complimented by park-once designs and strategies. Whether or not regulations allow parking to be shared, it can be designed to make it convenient for one patron to visit numerous facilities without moving a vehicle. This can be accomplished through thoughtful parking location or co-location, facility design, and the quality of the surrounding pedestrian network.

**Residential Parking Permits**

In January 2013, the City of Grand Rapids and the Belknap neighborhood, one of the neighborhoods affected by downtown employees parking on neighborhood streets, instituted a pilot project for residential parking permits in a four-block area. The pilot requires proof of residency and proof of car ownership and is free to residents. Parking on neighborhood streets between 8:00 AM and 4:00 PM on weekdays is limited to neighborhood residents with parking permits. The pilot lasts until April 30, 2013.

Other neighborhoods bordering downtown, such as Heritage Hill, may be interested in establishing a residential permit program to mitigate any parking spillover from commuters driving downtown. If the Belknap neighborhood pilot is considered successful, the City could consider making the pilot a permanent policy and expanding to other neighborhoods.

**Wayfinding and Information**

Knowing the price and availability of parking before beginning a trip can strongly influence travel mode decisions. If prices nearest the destination are higher than farther away, it may make sense to park further from congested areas and utilize shuttle services. Technology is available now not only to locate and cost-compare parking, but also to reserve parking spaces in advance to guarantee availability and reduce cruising or unintended travel patterns.

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Wayfinding further assists travelers in quickly locating available parking and reducing redundant trips as drivers circle in search of parking access or “the best spot.” Dynamic wayfinding signage can provide further information as to price and availability.

<table>
<thead>
<tr>
<th>Program</th>
<th>Lead Entity</th>
<th>TDM Impact</th>
<th>Estimated Timeline</th>
<th>Estimated Cost and Funding Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parking Management District</td>
<td>Committee and Grand Rapids Parking Authority</td>
<td>Highest</td>
<td>24 months+</td>
<td>Staff time to research and authorize/create</td>
</tr>
<tr>
<td>Demand-responsive pricing</td>
<td>City of Grand Rapids Parking Authority</td>
<td>Very High</td>
<td>12 –18 months</td>
<td>Comprehensive parking study ($250,000+); potential hard or software upgrades ($ varies)</td>
</tr>
<tr>
<td>Cost recovery pricing</td>
<td>City of Grand Rapids Parking Authority &amp; Private operators</td>
<td>Very High</td>
<td>6-12 months</td>
<td>Staff time to educate and coordinate efforts; may require garage equipment modernization</td>
</tr>
<tr>
<td>Parking Maximums (minimums reform)</td>
<td>City of Grand Rapids Planning</td>
<td>High</td>
<td>24 months+</td>
<td>Study to determine appropriate locations and strategies; staff time to pursue zoning changes</td>
</tr>
<tr>
<td>Shared-parking and park once</td>
<td>City of Grand Rapids Planning and Committee</td>
<td>High</td>
<td>24 months+</td>
<td>Likely requires changes to zoning and/or building codes; staff time for design review</td>
</tr>
<tr>
<td>Residential Parking Permits</td>
<td>City of Grand Rapids and neighborhood associations</td>
<td>Modest</td>
<td>6 months</td>
<td>Staff time to authorize, create, and implement</td>
</tr>
<tr>
<td>Information and Wayfinding</td>
<td>City of Grand Rapids and private operators</td>
<td>Modest</td>
<td>6 months</td>
<td>$100,000 - $500,000 depending on system, number of locations, etc.</td>
</tr>
</tbody>
</table>

**LIVE NEAR WORK OR EMPLOYER ASSISTED HOUSING**

The Michigan Street Corridor has a unique opportunity for a “two-fer” – expanding employment opportunities in the region at large while improving the immediate local community and preserving workforce housing accessible to employees of the major institutions. The Belknap neighborhood, in particular, offers a tremendous opportunity to assist the institutions, their employees, and local community residents by increasing ties between the institution and neighborhood, reducing traffic volumes, and preserving housing opportunities for nurses, teachers, and young researchers. TDM strategies often focus on commuters to an area of employment to mitigate the effects of single-occupancy vehicles. By encouraging employees to live close to work, making them more likely to commute using an alternate mode such as walking, employer housing programs and housing policies in general have the potential to drastically transform commuting patterns at a magnitude higher than that of many other TDM
policies. Homes for Working Families and the Metropolitan Planning Council of Chicago have put together a valuable guidebook on the various forms of employer assisted housing and multiple case studies.

**Employer Provided or Constructed Housing**

In extremely high demand housing and employment areas, such as Silicon Valley, companies in tight national competition for high-demand workers have turned to employer-provided or employer-constructed housing. This is very reminiscent of the old “company towns” of the turn of the last century. Employers who own or construct housing then sell or rent the housing to their workforce at a much reduced price compared to the dominant market rates.

**Homebuyer Assistance**

Home purchase assistance is the most common and familiar form of employer assisted housing. Such assistance is commonly, but not exclusively, offered to first time home-buyers that have been with the sponsoring employer for a demonstrated period of time and may (or may not) be linked to household income. Benefits offered may include mortgage guarantees or discounts, closing cost reductions, and/or down-payment assistance. Some programs allow funds to be used for home improvements. Some employers designate eligible areas for home purchase such as areas within walking distance or served by high frequency transit lines as these reduce the demands for employer-provided parking and thus reduce employer costs.

Assistance may take the form of either grants (no repayment necessary), or low- or no-interest loans to employees.

Benefits of homebuyer assistance include increased neighborhood stability and revitalization, greater longevity with the employer, greater job satisfaction, and higher performance. It can be an important tool for employee recruitment and retention especially in high competition industries. Homebuyer assistance guarantees affordable workforce housing for that generation of workers even while housing values in the area increase.

The amount of and eligibility for assistance varies widely from employer to employer and housing market to housing market.

**Rental Assistance**

Increasingly the younger members of the incoming workforce are not interested in homeownership. The instability and distrust introduced by the recent home mortgage crisis scared off some, while a desire to remain relatively footloose is a major factor for others. With a significant portion of multi-family and higher density housing in rental stock, rental assistance also may open up more housing opportunities closer to employment centers and high frequency transit services than ownership options would permit.

Rental assistance ranges from monthly subsidies for housing costs, to employers covering required security deposits, to simply matching employees with accessible and affordable housing opportunities.

Benefits of rental assistance are similar to those of homebuyer assistance in increasing employee commitment and productivity, revitalization of the immediate community, and lower

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costs to employers via the savings from reduced parking construction, maintenance and operation.

**Real Estate Services and/or Homeowner Education**

Some employers simply partner with local real estate professionals to work with existing or prospective employees to find housing options accessible to the employment site via walking, bike or transit. These advisors may help the employee calculate transportation cost savings due to reduced driving costs and match them to mortgage providers who offer location-efficient loan products or other assistance to leverage this savings.

Likewise, many employers offer credit counseling or homeowner education to employees to help them learn how to save for a home purchase of their own.

<table>
<thead>
<tr>
<th>Program</th>
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<th>TDM Impact</th>
<th>Estimated Timeline</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Employer-Provided Housing</td>
<td>Employers</td>
<td>High</td>
<td>24 months+</td>
<td>Can be substantial for employers, but savings accrued from lower parking demands and construction</td>
</tr>
<tr>
<td>Homebuyer assistance</td>
<td>Employers</td>
<td>High</td>
<td>6 months</td>
<td>Wide range of costs from $500 - $5,000/employee with 20-200 employees participating is common</td>
</tr>
<tr>
<td>Rental assistance</td>
<td>Employers</td>
<td>High</td>
<td>6 months</td>
<td>Cost ranges widely. Security deposit is common at ~$1,000/employee (returned at completion of employment)</td>
</tr>
<tr>
<td>Real Estate Services and Education</td>
<td>Employers or partners</td>
<td>Modest</td>
<td>1 month</td>
<td>Can be free of cost to employers or minimal</td>
</tr>
</tbody>
</table>

**4 NEXT STEPS**

It would be imprudent and likely impossible to pursue all these strategies at once, therefore it is necessary to choose among them. To choose which path to take, the following steps are recommended:

- Know where you want to go – identifying targets and outcomes is a good first step to assessing which tool and strategy is right for the corridor.
Assess your capabilities - We must be reasonable about available resources and staff capacities and choose strategies that are the “right size” for now, with the understanding that many of these strategies can continue to expand and progress.

Find the champions – few of these strategies can be implemented overnight. Many will take months and years to implement, therefore it is vital to identify the vested champions who will be persistent in pursuing change.