CITY OF MUSKEGON PARKING STRATEG TOOLS TO SUPPORT A LIVABLE COMMUNITY



DRAFT JULY 6, 2015

The Muskegon Parking Strategy was a collaborative effort between the City of Muskegon, the Muskegon Community Foundation, Downtown Muskegon Now, the Downtown Muskegon Development Corporation, and the Muskegon Lakeshore Chamber of Commerce.

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"Minimum parking standards are the fertility drugs for cars."

-Donald Shoup, author of The High Cost of Free Parking and Professor of Urban Planning, UCLA

INTRODUCTION

A FUTURE VISION: LIVABLE MUSKEGON

The Downtown Muskegon Parking Strategy is about more than just parking. It is a strategy to enhance livability and vibrancy in downtown Muskegon.

It is a Strategy to generate economic development and increase downtown's tax base.

It is a Strategy that seeks to increase mobility and accessibility by providing a range of modal choices and opportunities that include walking, biking, transit, and automobile.

This Strategy is provided to help downtown Muskegon address its parking with the end goal of making the community more livable. While opinions vary on what exactly makes a community livable, cities that lead in livability measures share some common traits. These communities are healthy, safe, prosperous, and walkable. They offer choices for efficient transportation to jobs, shopping, recreation, and education.

The City of Muskegon has completed a variety of Master Plans that have reinforced this vision of enhanced livability and vibrancy. While these plans continue to be implemented, downtown parking must now be seriously reevaluated in order to fully build the prosperous city that has been envisioned.





THE ROLE OF PARKING

As the largest single land use in downtown Muskegon, parking deserves more attention than it is typically given. Besides encouraging auto use, having such a large supply of parking influences the character, form, function and motion of the city. For example:

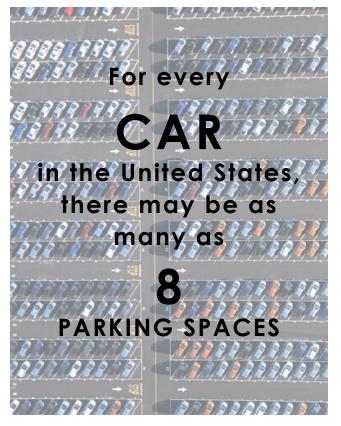
- Providing a supply of parking to meet peak demand for every use keeps buildings widely spaced apart, rendering walking and bicycling unpleasant and unsafe.
- Minimum parking requirements, while satisfying peak demand requirements, lead to large amounts of private land that is devoted to the storage of cars and oftentimes only partially filled. This is typically not the highest and best use of valuable downtown real estate, makes infill redevelopment difficult, and minimizes the taxable value of the land.
- Excessive amounts of pavement increases runoff and therefore burden the city's stormwater systems.
- Requiring large amounts of parking in housing developments makes the housing more expensive, irrespective of resident demand, as the cost of parking is built into the cost of each unit.

Parking within downtown should be **SUPPORTIVE OF COMMERCE, ACCESSIBILITY, VIBRANCY, WALKABILITY, and LIVABILITY.** This Strategy will seek to recast parking into a supportive role, rather than as the primary land use that it is today.











FREE PARKING

The amount of parking supplied influences the demand for parking, and it is impossible to determine the optimal parking supply without consideration of the costs and benefits of providing the supply. In the United States, there are more cars than licensed drivers, and the gap has been widening since the 1980s.

Communities and habits have adapted to the idea of ubiquitous, free parking. As cities continue to grow and redevelop, parking needs and demands also need to transform. This physical transformation also requires parking management to change – especially if the desire is to encourage livable communities.

Muskegon has an over abundance of free parking downtown.

The pressure to provide more parking continues and new parking is added to the supply, driven primarily through the construction of private off-street lots that are associated with redevelopment. This increased supply is fueled by perceptions of "not enough parking" and policies that mandate out-of-date parking minimums.

This over abundance of free parking will need to be examined, particularly as Muskegon continues to redevelop, demand for parking grows, and the cost to construct parking increases. There are some parking policies that can aid in alleviating this stress, but ultimately the community will need to consider the unpopular decision to charge for parking in high-demand areas.

Parking pricing has been done successfully in places like Grand Rapids, Ann Arbor, Traverse City, Petoskey, and many other communities who continue to test pricing mechanisms. If done right, parking pricing can be helpful to businesses and painless to shoppers and visitors. The goal of pricing is to free up just one or two spaces per block, and shift the longterm parkers away from high-demand spaces.

WHY DOES PARKING MATTER?

The design and availability of parking has the potential to shape the look and feel of a city, the quality of life of its citizens and visitors, and the potential for new growth and development. The need to accommodate parking must be balanced with other competing goals for the built environment such as livability and economic development. It is important to acknowledge that it is impossible to accommodate the land consumption that would be required to park every vehicle since it would prevent Muskegon from achieving its goal of being a livable community.

PARKING:

- Impacts the look and feel of Muskegon.
- Is a critical part of the overall land use and transportation system.
- Can impact traffic congestion or the perception of congestion.
- Has a cost and value associated with every space (even if it is free)
- Varies based on the surrounding land use and time of day.
- Is part of city building and placemaking, with many stakeholders.
- May require trade-offs in behavior, expectations, and choices.
- Demand is most intense where there are centers of activity, mixes of land uses, and where land is valuable.
- Takes up valuable urban land (one off-street space = 300 square feet of physical space).
- Impacts housing affordability.
- Can contribute to urban sprawl and pollution.





Parking

Parking has been sized to meet, but not exceed local zoning requirements. This maximizes the space and creates a pedestrian friendly environment.



THE MANAGEMENT OF URBAN PARKING

Parking problems (or the perception of not enough parking) are not unique to Muskegon. Similar patterns are found in cities across the United States, and certain strategies have consistently emerged to deal with them – this has been called the Evolution of Parking Management.

This evolution follows a typical progression:

Most communities will start without parking management strategies until free and abundant parking:

- Becomes congested and negatively impacts the area's ability to attract shoppers or other pedestrians.
- Becomes the primary land use pattern and inhibits future development, city building, placemaking, and ultimately livability.

When this happens, local governments put parking regulations and controls in place, such as prohibiting parking in some locations and marking spaces more clearly. If parking availability continues to decline, governments introduce time restrictions on the free parking, attracting long-term parkers to spaces farther from the city center, where space turnover is encouraged. As parking congestion increases, some parkers may resort to the "two-hour shuffle" in which long-term parkers occupy high-demand spaces but move their cars every few hours to avoid citations.

Eventually, if parking demand outpaces supply, and construction costs for new parking remain prohibitive, cities turn to pricing to shift demand and influence mode choice. Parking pricing, in turn, can lead to residential "spillover," as neighborhoods close to high demand areas are targeted by long-term parkers looking to avoid paying for parking. Local governments solve this with residential parking schemes (like parking permits) designed to give priority to residents who can purchase parking permits. Continued growth in car ownership and driving habits, combined with limited land in city centers has led to the use of Park & Ride lots, often with shuttles to move people between the lot and the city center. This can work for commuters and also for visitors and shoppers.

More recently, the concept of "Mobility Management" has found a place in cities trying to reduce congestion and promote a variety of travel modes. This tactic aims to enhance the accessibility of towns and cities for all people, regardless of their mode of transport. Providing connections between modes becomes very important when trying to create a "seamless journey," where driving or taking a taxi is not necessary. Some large cities are also looking at "Performance – based Parking Pricing," a strategy popularized by an urban planning professor from UCLA, Donald Shoup, and currently being tested in San Francisco. This tactic takes a market-based approach, varying the price of parking based on supply and demand.

The Downtown Muskegon Parking Strategy utilizes solutions and tools that are proven national practices in parking management. These tools, when applied strategically and sequentially during the redevelopment of the city's core will make the downtown more healthy, safe, prosperous, and walkable.

The graphic to the right shows the sequence or evolution of parking management

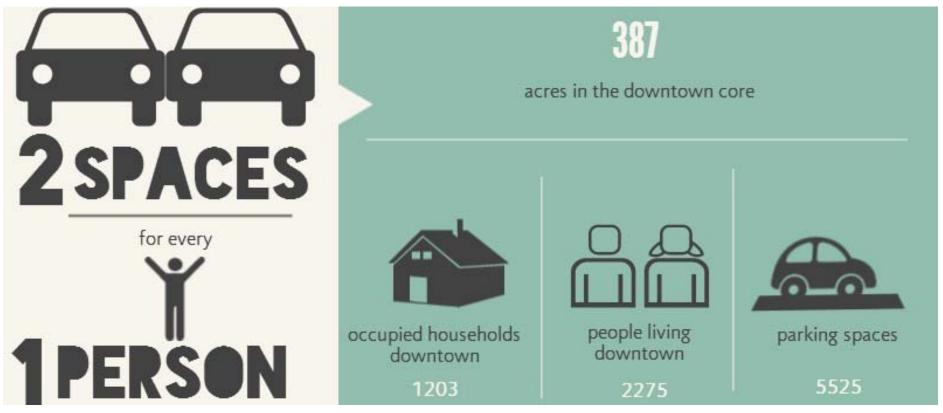
PERFORMANCE-BASED PARKING PRICING	
MOBILITY MANAGEMENT	
PARK AND RIDE	
RESIDENTIAL PERMITS	
PAID PARKING	
SHARED PARKING	
FREE WITH TIME LIMITS	
INTRODUCTION OF REGULATIONS	
NO PARKING MEASURES TAKEN	

MUSKEGON PARKING TODAY

EXISTING PARKING IN DOWNTOWN MUSKEGON

This section of the Parking Strategy conveys the existing parking in downtown Muskegon in context, quantity, and scale. It also includes a summary of the public workshop that was conducted on March 26, 2014 From this inventory, analysis, and public outreach it can be determined that Muskegon has an abundance of parking in its core. While the percentage of land coverage devoted to parking is consistent with many other cities, the proportion as it relates to land coverage by buildings is very high.

Additionally, the total number of spaces within walking distance of the city center is **5,525**. This represents a huge quantity of mostly free parking that directly impacts the livability, vibrancy, opportunity, and character of the City. This quantity tells us that the only parking problem in Muskegon is that there is too much free parking.



PUBLIC OUTREACH

In March 2014, the consultant team met with community leaders, business and property owners, residents and other stakeholders to listen and learn about their priorities for their downtown. What we heard was no surprise. Increasing residential densities and economic development (or a thriving and vibrant downtown) were top priorities. And, providing abundant, affordable parking was lowest on their list, revealing that participants understand the connection between the economic generating potential of buildings, people and business within the downtown and the detriment of too much land area devoted to single uses such as vacant lots or surface parking.

Essential to any downtown environment are people; especially people who are able to work, dine, shop and live in a walkable community.

To better understand the characteristics of a walkable community, stakeholders were asked to describe the environment where they walk by comparing the qualities of downtown sidewalks and streets to walking in and around The Lakes Mall. Quickly, the participants identified that their sense of safety was essential for walkability.

In the Downtown, they felt safest walking where they could see their destination, where buildings were active and clustered, and where spaces where dedicated to the pedestrian. Vacant lots and empty buildings inhibited their sense of safety. At the mall, walking through the parking lot was also a safety hazard because of vehicle speeds, the abundance of vehicles, and the lack of clearly marked spaces for pedestrians.

The results of these activities are informative. Clearly, parking is necessary in downtown Muskegon; however, participants desire economic vibrancy, walkability, and livability. The parking strategies outlined will influence mode choice and have direct and immediate positive results enhancing the public realm, integrating transportation and land use decisions, and supporting walkability and economic vitality.

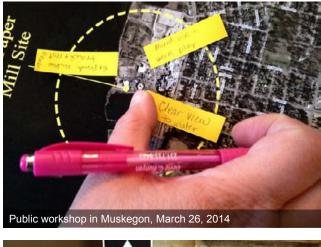
A full report of the March Open House is available at the Planning Department.



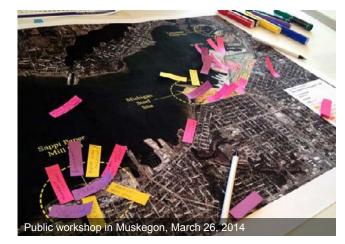
Public workshop in Muskegon, March 26, 2014











PUBLIC OUTREACH

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Participants were asked to rank their priorities for downtown Muskegon. Below are the results:

Facilitating higher density development/adding new residents to the downtown

Fostering economic development/building the tax base for the city

Balancing transportation modes/enhancing choices (ie. walk, bike, transit, vehicle)

Providing access to businesses, community attractions, and schools

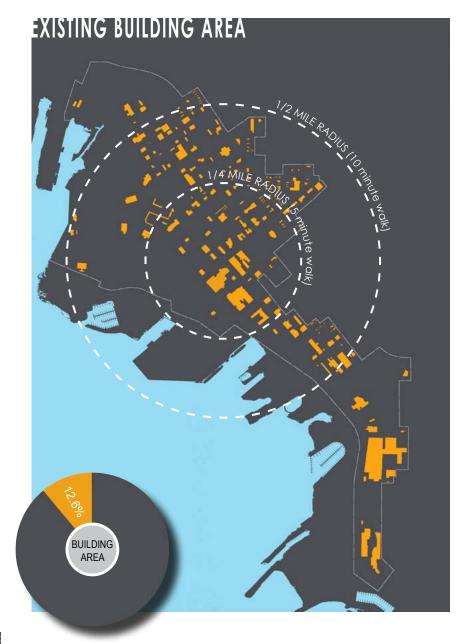
Supporting transit ridership through available parking (park n' ride)

Providing ample and affordable parking

EXISTING DOWNTOWN PARKING AND LAND USE

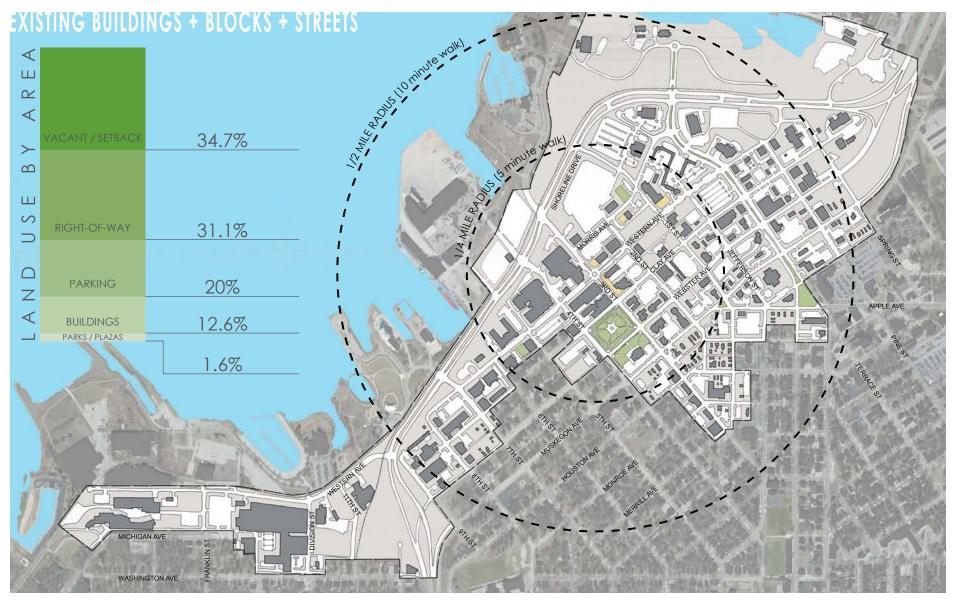
The graphics below depict the existing land area utilized in Downtown Muskegon for parking and buildings and their relative walking distance from the downtown center (corner of Western Avenue and Third Street). Currently parking consumes more land than buildings, leading to compromised livability, significant gaps in the urban fabric, a degraded public realm, and loss of tax base.





EXISTING DOWNTOWN PARKING AND LAND USE

The graphic below depicts the existing land area utilization in Downtown Muskegon for parking, buildings, right-of-way, and parks / plazas; and their relative walking distance from the downtown center (intersection of Western Avenue and Third Street). It also includes the amount of land area that is vacant or part of a setback. Currently only 12.6% of the land has buildings on it - which would be considered highest and best use and a primary source of tax base. More alarming is the amount of empty space (much of which is non-tax generating).

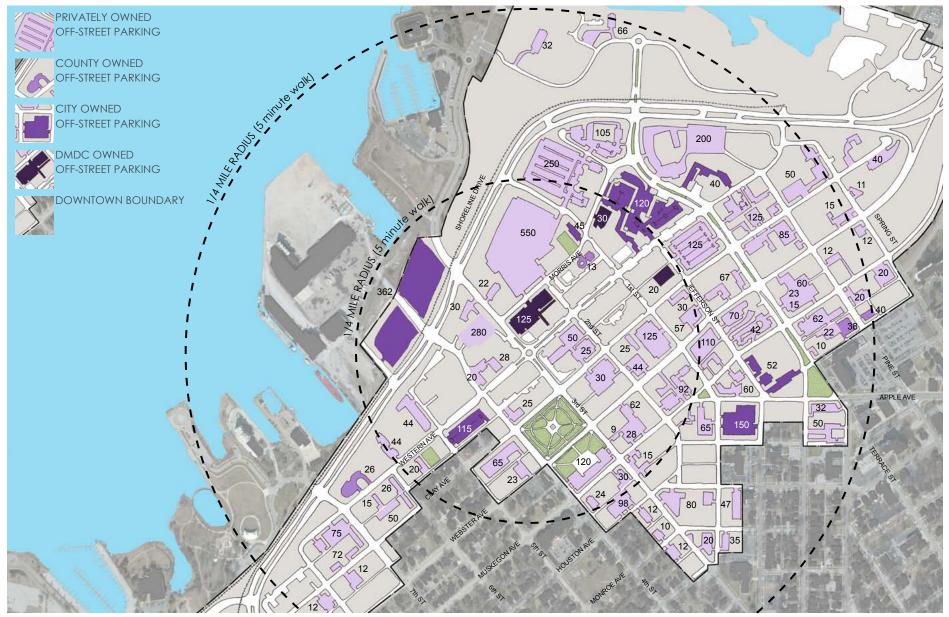




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EXISTING DOWNTOWN PARKING INVENTORY

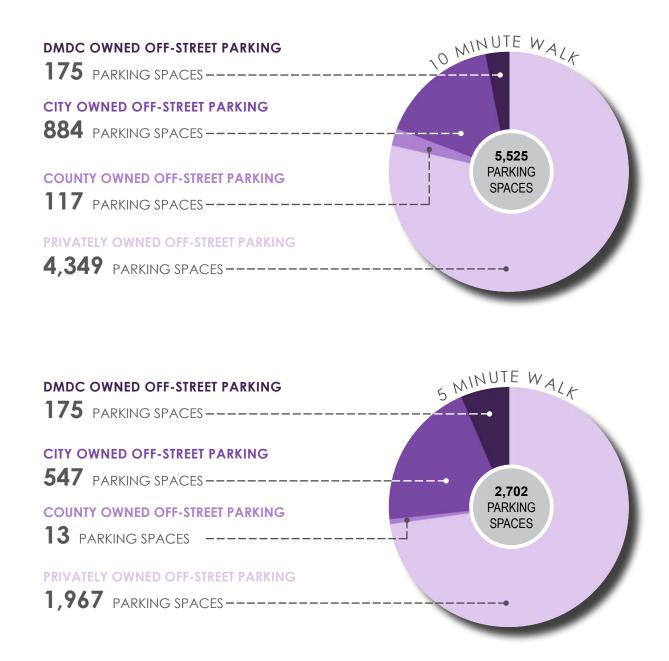
The graphic below depicts the quantity of parking in downtown Muskegon and the parking's distance from the downtown center (intersection of Western Avenue and Third Street). Ownership of parking lots and the quantity of spaces in each lot are indicated. For reference DMDC owned lots represent those lots owned by the Downtown Muskegon Development Corporation.





EXISTING DOWNTOWN PARKING INVENTORY

The graphics below depict the total amount of parking per each of the ownership groups depicted on the map on the facing page. These are categorized by both parking within a 10 minute and 5 minute walk of the downtown center (intersection of Western Avenue and Third Street).



EXISTING DOWNTOWN PARKING POLICIES

The following information is an analysis of current City policy and zoning regulations regarding parking:

SECTION 2326

Downtown Parking Overlay District.

- a. On-street spaces may be counted for up to 30% of required parking. This is related to the SUPPLY based tools recommended by solutions in Section 3, specifically REDUCE PARKING REQUIREMENTS (3.1). It is a policy that should be kept in place.
- b. Shared parking agreements are encouraged. This is related to the SUPPLY based tools recommended by solutions in Section 3, specifically SHARE PARKING (3.3). It is a policy that should be kept in place and possibly expanded upon to promote mixed-use buildings in an urban context.
- c. Uses other than one and two-family can locate parking up to 1,000 feet from the building and this parking can be provided in any zoning district except R-1. This is related to the SUPPLY based tools recommended by solutions in Section 3, specifically SHARE PARKING (3.3). It is a policy that should be kept in place with the possible addition of a dimension requirement for non-CBD parking areas (typically 300 feet).
- d. Residential parking requirements are 1.5 (reduction from 2 in other districts). This is related to the SUPPLY based tools recommended by solutions in Section 3, specifically REDUCE PARKING REQUIREMENTS (3.1). It is a policy that should be kept in place and possibly expanded based on building types, uses, and context areas when the form based code is created.
- e. New businesses required to provide 15 or fewer spaces may forgo parking requirements if they are locating in a pre-existing building. On street parking and city owned lots will accommodate the parking requirements in these instances. However, any previously existing parking spaces included with the building space must remain in place and be used by that business. This is related to the SUPPLY based tools recommended by solutions in Section 3, specifically REDUCE PARKING REQUIREMENTS (3.1). It is a policy that should be kept in place, and potentially amended to allow previously existing parking spaces to be redeveloped under certain conditions.



you can never have more than two





PARKING COEFFICIENTS AND CALCULATIONS.

The Shared Parking Coefficients shall be used for all single buildings that contain two or more different functions (uses) and/or for multiple buildings that share parking and contain different uses.

The Shared Parking Coefficient shall be divided into the sum of the combined required parking determined in Table 9.01 to determine the amount of parking required on each site.

Conversely, if the Shared Parking Coefficient is used as a multiplier, it will indicate the amount of square feet of building allowed on each site given the parking available.

		USE / FUNCTION				
		COMMERCIAL / RETAIL	SERVICES	OFFICE	RESIDENTIAL	LODGING
-	COMMERCIAL / RETAIL	1.0	1.2	1.2	1.2	1.3
ê	SERVICES	1.2	1.0	1.4	1.1	1.1
USE / FUNCTION	OFFICE	1.2	1.4	1.0	1.4	1.7
E F	RESIDENTIAL	1.2	1.1	1.4	1.0	1.1
S	LODGING	1.3	1.1	1.7	1.1	1.0

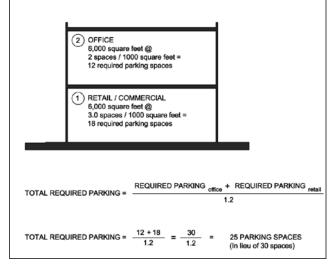
Shared Parking Coefficient Calculator and example of how to apply it to a specific location where shared parking is present



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EQUATION:
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A mixed-use building in Context Zone 6 with professional offices on the second floor and retail space on the lower floor is required to have 27 parking spaces per the minimum parking space requirement tables in this Article.



EXISTING DOWNTOWN PARKING POLICIES

The following information is an analysis of current City policy and zoning regulations regarding parking:

Other provisions that apply to all parking:

- Joint Use (or shared parking), requires the sum of both uses. The Planning Commission may approve a reduction if the peak hours vary. A shared parking agreement is required to specify use, maintenance, and successor rights. This is related to the SUPPLY based tools recommended by solutions in Section 3, specifically SHARE PARKING (3.3). It is a policy that should be kept in place and possibly expanded upon to include a coefficient for mixed-use projects that reduced the amount of parking required based on shared use agreements.
- 2. Maximum amount of parking shall not exceed 33% of the minimum. This is related to the SUPPLY based tools recommended by solutions in Section 3, specifically SET PARKING MAXIMUMS (3.2). It is a policy that should be modified. Permitting a project to exceed a minimum quantity typically creates more parking than is necessary, a better solution is to set a maximum quanity and permit the developer to build what they need, as long as it is under the maximum quantity.



"Automobiles need quantity and pedestrians need quality."

-Dan Burden, Executive Director of the Walkable and Livable Communities Institute

THE STRATEGY

Strategies for parking in downtown Muskegon should be aligned with the city's vision for the future.

Downtown Muskegon, like most downtowns, is where businesses and attractions are clustered. Balancing the needs of local businesses, educational institutions, restaurants, commuters, residents, and visitors is no easy task. When everyone is trying to go to the same destination, it can become a challenge to find a parking spot for each automobile; people often are forced to drive in circles searching for a convenient space. The resulting "parking congestion" indicates that people want to be downtown.

Downtown parking and this Parking Strategy present an opportunity. An opportunity to proactively shape the future of downtown Muskegon by:

- 1. Supporting commerce and economic development.
- 2. Creating and providing mobility choice.
- 3. Building quality of life and business vitality.
- 4. Reinforcing a wide range of lifestyle choices.
- 5. Optimizing access and opportunities to businesses, residents, and activities.
- 6. Promoting convenience, turnover, and predictability; while being responsive to customers.

These six opportunities constitute the goals of the Downtown Muskegon Parking Strategy. This Strategy contains solutions that achieve these goals. These solutions are organized by category:

- MANAGEMENT BASED SOLUTIONS
- DEMAND BASED SOLUTIONS
- SUPPLY BASED SOLUTIONS
- PLACE BASED SOLUTIONS
- **TIME BASED SOLUTIONS**
- PRICE BASED SOLUTIONS

Each set of solutions includes tools that can be implemented in order to foster a more livable and vibrant downtown. Each of these tools is explained in detail on the pages that follow. It is important to remember that these tools are not intended to be accomplished or implemented all at once, but rather over time as the city's downtown continues to evolve.



This Strategy is a **PROCESS**, not a one time task.

This Strategy should become part of daily decision making for parkingrelated programs and policies in the coming years. As new parking conditions and opportunities arise, non-governmental organizations, city staff, policymakers, and the public can refer to this document for direction so that parking decisions benefit the city as a whole.

In order for outcomes to be successful, it is imperative that all stakeholders understand and commit to the vision and goals. Parking needs will change over time and this Strategy serves as a dynamic roadmap as Muskegon navigates through new circumstances.

The tools provided in the Strategy will need to be validated again and again as the City grows and changes so that each step in the process considers the needs of individual stakeholders and the health of the overall city.

Use this Strategy to understand the vision and new implementation tools, but also let it serve as a call to action to be involved and informed as parking, and the city as a whole, continue to evolve.





MANAGEMENT BASED SOLUTIONS

MANAGEMENT based tools provide effective means to gather and analyze downtown parking and mobility conditions as they evolve, allowing the system to proactively respond to both short- and long-term trends.

GOAL OF MANAGEMENT BASED SOLUTIONS:

TO BETTER UNDERSTAND DOWNTOWN PARKING AND MOBILITY SO THAT THEY CAN BE UTILIZED AS A SUPPORTIVE TOOLS TO PROMOTE COMMERCE AND ECONOMIC DEVELOPMENT, WHILE ALSO BE RESPONSIVE TO THE EVER-CHANGING NEEDS OF THE URBAN USER.

Management of downtown Muskegon's parking and mobility should reduce congestion and promote a variety of travel modes. This in turn will foster more dense and walkable development patterns, which will enhance the livability of the city's core.

MANAGEMENT BASED TOOLS:

The list below highlights the MANAGEMENT based tools that are included in this section, along with a snapshot of the implementation time-frame.

Management based tools will also ultimately make it easier for users to find and pay for parking.





For more detailed information on implementation time-frames refer to the implementation section at the end of this Strategy.

1.1 ESTABLISH MOBILITY MANAGEMENT GROUP

Free and abundant downtown parking in Muskegon is the primary land use pattern and is poised to inhibit future development and livability of the city's core. Additionally, parking, while abundant, is perceived by many to be congested, hard to find, and in fact, lacking.

The first step to implementation of parking management will be to create a group that will oversee this paradigm shift and provide leadership in the decisions that will impact the mobility in the future downtown.

- A. Create a group that draws from the existing strong city leadership and includes voices from the business community, non-profit sector, citizens, and city staff.
- B. Empower group to make decisions related to parking that consider the longterm benefit to the city's livability.
- C. Conduct training and education within the group on national best practices in parking management, mode shift, and the role of parking in cities.













1.2 CONDUCT OUTREACH WITH STAKEHOLDERS

As the Parking Management Group (identified in tool 1.1) begins to coalesce around ideas that will help to shape the future of parking in downtown Muskegon, it will become increasingly important to engage the community to refine these ideas, build wide-spread understanding of parking's role in the downtown, and find champions within the community to help implement the ideas.

This will likely require a series of meetings that are both educational and informative.

- A. Use this Parking Strategy as an educational tool within the community to provide insight into best practices and the role of parking in city building.
- B. Conduct educational workshops with the community that may include walking tours and best national practices to convey how parking can shape a city.
- C. Conduct information workshops that provide citizens the opportunity to voice their concerns about parking and seek their solutions.

1.3 HIRE STAFF PERSON TO MANAGE MOBILITY

After community outreach and education has been conducted and ideas refined, the implementation of this Parking Strategy should commence. Prior to implementation, a staff person should be hired to manage parking.

It is recommended that this staff person has a background in **Transportation Demand Management (TDM)** because of the inherit links between transportation choices and the demand (and supply) of parking.

HERE'S HOW:

- A. Determine what City department hires this person and where this position is housed within the City. Also consider the option of partially funding this position in organizations outside of the City, including the Community Foundation or Muskegon Area First.
- B. In an effort to off-set costs of this position, consider the various roles for this staff person and how the job may be shared within other City departments. These shared roles may include site plan review, bike infrastructure planning and implementation, community outreach, and mobility management.



TRANSPORTATION DEMAND MANAGEMENT (TDM)

Transportation Demand Management (sometimes referred to as mobility management) is the application of strategies and policies to reduce travel demand (specifically that of single-occupancy private vehicles) that results in more efficient use of transportation resources and promotes mode shift to other forms.

In transportation, as in any network, managing demand can be a cost-effective alternative to increasing capacity. A demand management approach to transportation also has the potential to deliver better environmental outcomes, improved public health, stronger communities, and more prosperous and livable cities.



Pay by Phone Technology, Philadelphia Pennsylvania





1.4 UTILIZE PARKING PAYMENT TECHNOLOGY

Better information systems can support more user friendly options and improve management. New developments in pay station technology are providing options for variable pricing and multiple payment methods. This new technology allows for the development of pay stations with advance pricing capabilities. The pay stations create financial and operational databases that provide an audit trail, real-time data and increased revenue opportunities. Pay stations accept credit cards and create the ability to use on-street variable rate parking systems that allow for higher rates for longer stays or special events. Additionally, many pay stations now come equipped with a smart phone interface that provides quick payment options and advance messaging prior to meter expiring.

- A. Carefully consider new developments in technology when purchasing parking payment systems. Install meters that will:
 - Provide the most long-term flexibility.
 - Create usable databases that can gather, analyze, and provide real-time parking information.
 - Enhance the user experience by providing payment options, advance messaging, and access to real-time parking availability.
- B. Determine downtown locations to utilize parking payment technology.
- C. Consider conducting a pricing study to determine how to best utilize parking payment technology and where to strategically price parking in the downtown.
- D. Continue outreach and education with community stakeholders in regards to parking pricing.

1.5 CREATE A MOBILITY DATABASE

Intelligent Transportation Systems (ITS) technology provides great opportunities to develop comprehensive on-street and off-street parking databases that can give cities more accurate assessments of parking use upon which they can develop programs to best address local conditions and issues. These databases could also be used to provide the public with real-time information on parking availability at employment sites and other attractor / generators. Cities are now beginning to examine the feasibility of creating these types of databases through ITS technology to gather, analyze and provide real-time parking information.

- A. As indicated in tool 1.4, carefully consider new developments in technology when purchasing parking payment systems. Install meters that will:
 - Provide the most long-term flexibility.
 - Create usable databases that can gather, analyze, and provide real-time parking information.
 - Enhance the user experience by providing payment options, advance messaging, and access to real-time parking availability.
- B. Utilize TDM staff (refer to tool 1.3) and parking managment group (refer to tool 1.1) to create, update, and manage the parking database as it becomes available through the use of new technology and information systems that have been addressed as other tools in this strategy.
- C. Continue to refine database and analyze parking information to best serve the parking customers and business community.













1.6 UTILIZE REAL-TIME PARKING INFORMATION

Districts may have a sufficient total supply of parking, but use portions of the inventory inefficiently. Real-time parking information, guidance and wayfinding systems make it more convenient to find parking. These systems range from guidance given in the garage itself as to the location of available spaces, to guidance systems that provide directions to the appropriate parking facilities within the city. Some cities have electronic wayfinding guidance systems as they enter a district. Both improve traffic circulation and the efficiency of the parking system.

- A. As indicated in tools 1.4 and 1.5, carefully consider new developments in technology when purchasing parking payment systems. Install meters that will:
 - Provide the most long-term flexibility.
 - Create usable databases that can gather, analyze, and provide real-time parking information.
 - Enhance the user experience by providing payment options, advance messaging, and access to real-time parking availability.
- B. Coordinate the real-time parking information with the wayfinding and information tool in section 4.1 of this Strategy, so that it can be best utilized to make a user-friendly experience.

"A good sustainability and quality of life indicator: The average amount of time spent in a car."

-Paul Bedford, Adjunct professor, Urban & Regional Planning, University of Toronto/Ryerson University Toronto, ON

DEMAND BASED SOLUTIONS

DEMAND based tools work to diminish the demand for parking by reducing the number of total vehicle trips downtown, which in turn reduces the parking required for those vehicles.

A significant part of the implementation of successful demand based solutions is education and outreach in order to increase understanding and participation in the programs.

GOAL OF DEMAND BASED SOLUTIONS:

CREATE AND PROVIDE MOBILITY CHOICE.

Decisions made regarding parking should be made through the lens of a mobility choice. Driving and parking make up just one part of downtown's transportation infrastructure. While cars will continue to be the primary mode of transportation for many, other modes - like walking, bicycling, and transit - should be increased to make up a greater share of trips in the future.



DEMAND BASED TOOLS:

The list below highlights the DEMAND based tools that are included in this section, along with a snapshot of the implementation time-frame.

Demand based tools are less intensive than other tools in this Strategy; however, their potential positive impact should be considered when taking the first steps in planning for a future parking system in Muskegon.

Demand tools that are coupled with the proper education and evaluation can result in lasting institutional shifts in the travel behavior of visitors, employees, students, customers, and residents.



For more detailed information on implementation time-frames refer to the implementation section at the end of this Strategy.

2.1 PROVIDE TRANSIT INCENTIVES

Transit incentives provide reason to try alternative modes of transportation. They alleviate parking demand by encouraging commuters and residents to shift away from single occupancy vehicles as a primary mode of travel. These types of programs may include subsidized transit passes, fare free transit zones, or other fare discount programs. They are often administered or managed through individual employers, schools, businesses or neighborhood organizations in conjunction with the local transit provider.

- A. Collaborate with the Muskegon Area Transit System (MATS), downtown employers, institutions, and large residential complexes to provide free or reduced transit passes.
- B. Establish the use types and/or districts for which free or reduced-price transit passes shall be provided (mixed use nodes, along key transit routes, corridors, and station areas, large residential projects, etc).
- C. Specify the duration of time that the passes should be provided and evaluate the program as it moves forward.







WALKABILITY AND THE PEDESTRIAN SHED

The 1/4 mile radius represents the distance that an average person can walk in approximately 5-minutes. It is one of the measures of the walkability of a place. It is often referred to as a pedestrian shed. Additionally, when transit is present the pedestrian shed can be increased to a 1/2 mile radius (10 minute walk) because of the additional connectivity that transit can provide.

Nodes and districts that are within a 5 to 10 minute walk of transit stops are prime locations for more intensive mixed-use development because of their potential for connectivity to other amenities, including parking facilities in more remote locations.

It is important to remember that this is a single measure of walkability and that the quality of the walk also needs to be considered (for example, are there things to enjoy and be engaged with during the walk).

2.2 IMPLEMENT TRANSIT SUPPORTIVE ZONING / CODING

Transit can also be supported by the use of transit supportive zoning and overlay zones. In a transit overlay zone, cities modify the underlying zoning / coding regulations to ensure that development encourages greater transit use and supports efficient transit service.

- A. Create form based code standards that encourage a mix of uses (small scale retail and residential) within a compact, walkable urban form.
- B. Create form based code standards that encourage all new development to attain transit supportive densities. These include small lot detached single family that attains a minimum of 7-10 units per acre, rowhouses that attain a minimum of 12-15 units per acre, and multi-family that attains 15+ units per acre.
- C. Target office, service, or residential uses that place more people closer to existing and future transit stops.
- D. Seek land uses that generate pedestrian foot traffic, including storefront retail that is within 1/4 mile to 1/2 mile radius (the pedestrian shed) of transit stops.
- E. Pursue a mix of land uses that generate activity at various times of the day to promote a "16/7" downtown (a downtown that is active for 16 hours a day, every day of the week).

2.3 ENHANCE BICYCLE PARKING AND FACILITIES

Commuters often shy away from bicycle travel because changing from cycling clothing into work clothing is perceived to be inconvenient. Inadequate facilities or fear of theft can also deter individuals from choosing bicycle transportation. Bicycle parking, storage and shower/changing rooms provide convenience and security for cyclists, making it easier for individuals to choose this mode.

There are many types of bicycle parking and facilities to choose from - design and placement can vary depending on the context of the building or streetscape. Bicycle parking is typically sorted into two categories; short and long-term parking. Short-term parking is needed where bicycles will only be parked for a short amount of time. Short-term parking should be very convenient and accessible. Long-term parking is needed adjacent to uses where bicycles will be left for several hours. It should offer both security and protection from the weather. Areas where individuals will be staying for hours at a time may also be appropriate for additional facilities such as lockers, storage rooms, washrooms, clothes changing facilities, and service areas (bike pump and work stand). Showers can also be provided to incentivize bicycling as a commuter mode.

- A. Create incentives in city zoning ordinance that provide a reduction in required off-street parking when bike facilities are included as part of a development project. An example of this is to allow required parking spaces to be removed when new development includes bike racks, service areas, and / or showers.
- B. Determine locations for potential facilities so that they are easily accessible and balanced throughout downtown. Additionally, locate facilities near existing bike infrastructure (like near the existing Lakeshore Trail).
- C. Ensure that wayfinding is coordinated with bike facility locations so that they are easily found by users.
- D. Replace selected on-street parking spaces with bike corrals. When selecting locations for the addition of bike corrals carefully consider the adjacent businesses, parking demand along the block face, proximity to other bike racks, and winter snow removal and maintenance prior to making the decision.











2.4 INCENTIVIZE FLEXIBLE WORK SCHEDULES

Flexible work schedules are an option to stagger employee trips and make better use of existing parking inventory. Targeted towards commuters, this program allows employers and employees to develop suitable schedules that meet the organization's needs without generating the typical morning or afternoon peak demands.

HERE'S HOW:

- A. Collaborate with employers to stagger trips and make better use of existing parking inventory. This collaboration includes outreach and education regarding the reasons why mode shift and mobility choice are important.
- B. Create form based code standards that permit building types (i.e. live / work buildings and mixed use buildings) that allow people to work near where they live.



LIVING NEAR WHERE YOU WORK

Mixed-Use and Live / Work Building Types provide opportunities for people to choose to live close to where they work.

Mixed-Use Buildings provide a similar arrangement although typically the lower level commercial space is leased or owned separately from the upper floor residential space.

Live / Work Buildings accommodate an integrated residence and commercial space in a single ownership arrangement. This allows the owner to have their business on the first floor and their residence on the upper level.

2.5 BIKE-SHARE

Bike-share programs provide access to bicycles at a variety of locations across a city or within a given area. These programs complement existing transit or other alternative transportation programs by allowing participating individuals to switch back and forth between modes. Similar to the car-sharing program, users are able to check out bicycles for a certain duration of time and pay a marginal fee either through a membership or per use. The programs offer affordable access to bicycles to reduce the number of vehicles trips made for short distance outings.

- A. Explore the potential of a bike-sharing pilot program that determines size of fleet and management of fleet.
- B. Partner with a private bike-share provider or start pilot program as a community sponsored system.
- C. Determine strategic locations of bike-share parking that may include privatesector redevelopment projects and municipal parking facilities (both existing and future).
- D. Collaborate with developers and community based organizations to implement pilot program.
- E. Market bike-sharing program so that it is widely understood within the community.













2.6 CAR-SHARE

Car-sharing programs provide participants with access to a fleet of centrally owned and maintained vehicles located near residences, workplaces, or transit hubs. Members typically reserve shared vehicles for a specific time-frame and pay for use through some combination of hourly, overhead, and mileage based rates. Implementation of carsharing offers compelling parking management benefits. First, by distributing the fixed costs of car ownership into the marginal cost of every trip made, car-sharing reduces the total number of trips made by participants. Second, by offering an alternative to individual car ownership, car-sharing programs have helped participants eliminate one or more existing household vehicles, contributing to lower auto ownership rates. By increasing the number of users per vehicle and encouraging more frequent use throughout the day, car-sharing programs directly reduce parking demand while preserving the convenience and flexibility of automobile use for participants. Car-sharing is being used by universities in Michigan to reduce parking demand.

- A. Explore the potential of a car-sharing pilot program that determines size of fleet and management of fleet.
- B. Determine strategic locations of car-share parking that may include privatesector redevelopment projects and municipal parking facilities (both existing and future). Car-sharing parking should use existing parking supply whenever possible.
- C. Collaborate with developers and community based organizations to implement pilot program.
- D. Market car-sharing program so that it is widely understood within the community.

"Parking is a narcotic and ought to be a controlled substance. It is addictive, and one can never have enough."

-Victor Dover, Planner and Architect

SUPPLY BASED SOLUTIONS

SUPPLY based tools adjust the amount of new parking supplied by establishing a "marketbased" approach to setting parking standards that is consistent with desired urban densities and character while also supporting alternative modes of transportation.

These supply based tools evaluate the availability of the existing parking supply and work to optimize its use to the maximum extent possible PRIOR to building parking lots or decks.

GOAL OF SUPPLY BASED SOLUTIONS:

PROMOTE QUALITY OF LIFE AND BUSINESS VITALITY BY MAINTAINING AN ADEQUATE, MARKET-BASED SUPPLY OF PARKING THAT SERVES GROWING NEEDS, WHILE AVOIDING EXCESSIVE SUPPLIES THAT DISRUPT THE URBAN CHARACTER OF DOWNTOWN.

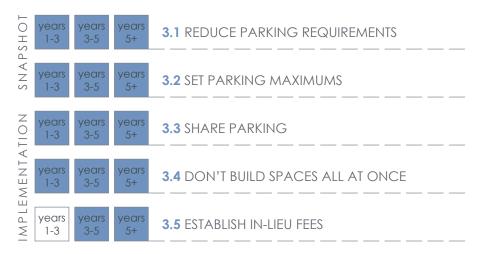
Managing the amount of supplied parking associated with development can increase density downtown, promote redevelopment and investment, reduce the amount of pavement downtown, support other modes of transportation, and ultimately increase the city's tax base.

SUPPLY BASED TOOLS:

The list below highlights the SUPPLY based tools that are included in this section, along with a snapshot of the implementation time-frame.

Many of these supply based tools require changes to the parking regulations within the City's zoning ordinance or form based code in order to balance parking that supports, but does not define, downtown Muskegon.





For more detailed information on implementation time-frames refer to the implementation section at the end of this Strategy.

3.1 REDUCE PARKING REQUIREMENTS

In deciding how much to reduce the requirements or whether to eliminate them entirely, communities should consider the effect of providing parking on development feasibility. This is especially important in locations with high land costs or community preservation issues (protection of historical buildings, community character, aesthetics and environmental concerns). The reduction or elimination of off-street parking requirements is most effective in areas with high-quality transit service, parking pricing and a walkable environment. These characteristics reduce the demand for parking and impact of spillover parking into neighborhoods.

To reduce, develop demand based, or eliminate parking requirements, a community will need to examine economic issues, site and neighborhood characteristics, location features, and market issues. In addition, the community will also need to examine existing parking occupancy to determine the feasibility of reducing parking requirements in the downtown. One key component to effectively implementing reduced parking requirements is to consider these policies within the context of **Transit Oriented Development**. As such, each community must identify its individual process and select the most appropriate tools and standards. Notably, if reduced parking requirements are approached in this way, they can be linked to a development's proximity to transit and good pedestrian and bicycle infrastructure.

HERE'S HOW:

- A. Evaluate and amend out of date parking requirements within the city zoning ordinance or form based code.
- B. Determine TOD locations (current and future) within the downtown that may be eligible for reduced parking requirements.

TRANSIT ORIENTED DEVELOPMENT

(as defined by Reconnect America) Transit-oriented development, or TOD, is a type of community development that includes a mixture of housing, office, retail and/or other amenities integrated into a walkable neighborhood and located within a half-mile of quality public transportation. At Reconnecting America, we believe it is essential that TOD creates better access to jobs, housing and opportunity for people of all ages and incomes. Successful TOD provides people from all walks of life with convenient, affordable and active lifestyles and create places where our children can play and our parents can grow old comfortably. - from Reconnect America

Some of the benefits of TOD include:

- Reduced household driving and thus lowered regional congestion, air pollution and greenhouse gas emissions
- Walkable communities that accommodate more healthy and active lifestyles
- Increased transit ridership and fare revenue
- Potential for added value created through increased and/or sustained property values where transit investments have occurred
- Improved access to jobs and economic opportunity for low-income people and working families
- Expanded mobility choices that reduce dependence on the automobile, reduce transportation costs and free up household income for other purposes







3.2 SET PARKING MAXIMUMS

Alternative methods of tailoring parking requirements involve establishing limits or "caps" on the quantity of parking that can be provided for a given development. Establishing the parking maximum limits the number of spaces, promotes more efficient use of land, enhances urban form, encourages the use of alternative modes, provides for better pedestrian movement and protects air and water quality. Parking maximums can be linked with the availability of alternative modes and on-street parking spaces to enhance the accessibility of the existing infrastructure.

- A. In lieu of existing parking minimums within the current zoning ordinance, consider establishing parking maximums that can not be exceeded. Allow the private sector to determine the number of off-street spaces that are needed for a particular development.
- B. Determine locations within the downtown that are appropriate to replace minimum requirements with maximum requirements.
- C. Consider certain zones within the downtown that require no off-street space requirements.
- D. Modify regulations within the zoning ordinance to permit existing parking spaces to be reduced if approved through a staff approval process with findings that the parking reduction is consistent with the purposes of the new zone.

3.3 SHARE PARKING

Much of downtown Muskegon's existing parking supply exists in private off-street facilities that are dedicated to specific uses and therefore inaccessible to the general public. Shared parking allows property owners to share a common parking facility so that two or more distinct uses can share the same parking supply rather than maintaining two separate facilities. Shared parking makes better use of the aggregate spaces that are available. Since uses may have peak parking demands that differ by time of day, different uses may be able to share fewer total parking spaces than the total they would need if each were providing its own spaces. Shared parking encourages a holistic view of parking supply. It reduces the need for smaller parking lots located in different areas, pools resources during peak demand times, improves development feasibility, helps increase densities, and promotes mixed-use and pedestrian activity.

While the City of Muskegon currently permits some levels of shared parking, further revisions to the local zoning ordinance to enhance the use shared parking should be considered.

Shared parking arrangements can be implemented through shared parking agreements between individual developers or the construction of public parking facilities. In some cases, shared parking can be a formal or informal agreement among different peak users on different days. It is also possible to incorporate language to permit and even encourage shared parking. In these instances, shared parking can be allowed to meet minimum parking requirements for uses located within the same lot or building and also permit off-site shared parking arrangements to meet on-site parking requirements for complementary uses within a defined area. These location requirements are typically based on acceptable walking distances.

HERE'S HOW:

- A. Create zoning language that requires a shared parking co-efficient for all existing and proposed uses that considers staggered peak periods. A parking co-efficient can provide a measurable reduction in the amount of new parking constructed.
- B. Require that shared parking for the multiple uses be provided for the life of the building or uses. An agreement for shared use of parking spaces must be acceptable to the city attorney and publicly recorded.
- C. Require maintenance agreements between shared parking providers.

ACCEPTABLE WALKING DISTANCES

When determining acceptable walking distances it is important to consider both the distance and the context.

As explained in section 1.2 of this Strategy, the 1/4 mile radius represents the distance that an average person can walk in approximately 5-minutes. Typically this is considered to be a comfortable walk for most people. However, there are significantly more factors that can influence an acceptable (and comfortable) walk - factors that can make people WANT to walk and increase the 1/4 mile radius.

These include:

- Uses and activities: when there are active uses along the sidewalk (like storefronts to look into) and things to see and experience (including other people) the route that a person is walking becomes much more interesting and inviting to continue to walk in.
- Access and Linkages: when an adjacent building provides doors and windows to allow people to access the inside of the building (and be seen by people inside the building) the route feels safer and more enjoyable. Physical linkages (connections to the waterfront or access to a transit route) provide options to expand the length and experience of the walk. Visual linkages (terminated vistas) provide a compelling destination and aid in navigation within the urban context.
- Sociability: when a street has people walking (or sitting) near the sidewalk, it will attract more people to do the same. Nothing attracts a crowd, like a crowd.



3.4 DON'T BUILD SPACES ALL AT ONCE (RESERVE PARKING)

Allow developers to build less than the minimum amount of parking at the outset, provided open space is reserved which, if needed, can be converted to parking at a later date. This tool has the advantage of restricting the supply of parking, lessening the amount of impervious surface created by a development, and adding to the greenspace within the development.

HERE'S HOW:

A. Allow developers to construct 75% of the required space, with the understanding that the remaining 25% will be added if the existing parking is determined to be inadequate by the City of Muskegon Planning and Zoning Department.





3.5 ESTABLISH IN-LIEU FEES

In some cities, developers are allowed to buy out of minimum parking requirements. The in-lieu fee is set at a level below the cost of constructing parking spaces and can be used to fund future parking facilities.

More creative approaches use this fund to pay for other transportation improvements in the project area. It can often be a favorable solution for the redevelopment of older and historic properties and can be used to develop shared parking facilities.

- A. Allow developers to pay a fee in-lieu of each required parking space not provided. By making a payment to the city, new developments can waive some or all of their parking requirements.
- B. Establish a business improvement district (all of downtown or part of downtown) that will allow these in-lieu fees to be used to build other transportation improvements that may include bike or pedestrian infrastructure. These fees may also be accrued over time to take on larger projects, like strategically located parking decks as part of a public-private partnership.
- C. Fees may also be structured to repay the city for building public parking facilities and be linked to actual construction costs for public parking, not set arbitrarily.
- D. Establish a price per space and reevaluate this periodically.





PLACE BASED SOLUTIONS

PLACE based tools provide holistic solutions to transform the public realm from a singlemode system to a multi-mode system that can improve the walkability of the downtown and create more mobility options and choice. These tools also attempt to make it easier for users to find parking opportunities, which improve access to existing parking and ease perceived congestion of parking facilities in the city.

GOAL OF PLACE BASED SOLUTIONS:

BUILD A PUBLIC REALM THAT CREATES TRANSPORTATION AND LIFESTYLE CHOICES, PROMOTES AUTHENTIC URBANISM, AND IS EASY TO NAVIGATE.

Decisions made regarding parking should be influenced by how parking can SUPPORT business, livability, and accessibility. Parking should be supportive of the urbanism, but NOT the most important factor.

PLACE BASED TOOLS:

The list below highlights the PLACE based tools that are included in this section, along with a snapshot of the implementation time-frame.

Many of these place based tools require physical changes to the City's transportation infrastructure, parking facilities, and wayfinding system. Initial ground work for these tools should begin in the early phases of the city's parking strategy, although a majority of the real changes will occur over a longer term time line.





For more detailed information on implementation time-frames refer to the implementation section at the end of this Strategy.

4.1 PROVIDE WAYFINDING AND INFORMATION

Drivers can spend significant amounts of time searching for on-street parking rather than quickly entering an off-street lot where spaces are available but perhaps less visible. This behavior often occurs because drivers have difficulty locating available, public off-street facilities. Improved directional and facility signage can increase the efficiency of the parking system and reduce motorist uncertainty by assuring them that spaces are available near their destination.

Implementing both wayfinding and informational signage programs can increase the use of off -street facilities by providing drivers with information about facility location, parking availability, and parking pricing. Wayfinding and signage can also shift users to satellite lots that might otherwise be unknown or be considered off-limits. Signage that communicates pertinent information can greatly reduce cruising and driver stress during peak occupancy periods.

Different types of wayfinding strategies include signs at gateway locations, directional signage to parking facilities, and informational signage. Gateway and directional signs indicate the direction of travel (ahead, left, or right) to nearby parking facilities. Facility signs should display parking rates, time limits, and other pertinent information. Parking wayfinding signs can be either static or dynamic. Dynamic electronic signage offers the greatest flexibility for wayfinding programs as these signs have the ability to display parking availability and other transportation related information in real time. Wireless networking and real time message signs can provide users with information on availability and direct motorists to parking locations. Custom text messages can also provide up-to-date information regarding availability.

- A. Begin small by clearly denoting where visitors to downtown can park (both bikes and cars) with clearly marked and visible signs.
- B. Implement a complete wayfinding program within downtown that includes electronic signage and parking apps that can display real time parking availability. This should be tied to Management Based Solutions discussed in section 6.
- C. When creating a wayfinding system consider all modes (pedestrians, bikes, and transit users) so that it is easier for everyone to navigate the downtown.









4.2 ADD BIKE LANES

Transforming single-mode (auto-oriented) roadways into multi-modal streets with bike lanes, sharrows, and protected bike lanes is a relatively simple way to increase mobility choice and options. Providing these mode options and fostering mode shift can directly reduce the need for off-street parking facilities.

Adding bike infrastructure allows the street to balance the needs of multi-modal transportation by providing lanes in the thoroughfare for bicycles. Care should be taken to consider maintaining on-street parking while adding bike lanes, as it is not recommended to remove valuable on-street parking.

A sharrow is a shared lane marking in a street. This marking is placed in the center of a travel lane to indicate that a bicyclists may use the full lane. Sharrows force bicyclists and automobiles into the same spaces within the street and create a shared environment. Sharrows provide the easiest way to quickly build a bike network.

A bike lane (sometimes referred to as a cycletrack) is a portion of the street that has been designated for the exclusive use of bicyclists by striping, signing, and pavement markings. Typically four to six feet wide, bike lanes are traditionally adjacent to the vehicle travel lanes. Adding bike lanes to streets will likely reduce the size of the vehicular travel lanes, which also makes traffic move slower and more safely.

A protected bike lane is the safest type of bike infrastructure, because they are buffered from the vehicle travel lanes by parked cars or other fixed barriers. Protected bike lanes are the most costly and intensive bike infrastructure to build, however they have proven to substantially increase bike ridership because they feel safer to bicyclists of all ages.

- A. Continue to connect existing non-motorized paths and bike infrastructure with new bike lanes.
- B. Continue to connect Muskegon bike infrastructure to regional networks.
- C. Seek contextual solutions for installation of bike lanes and sharrows. In some instances (like on streets with slower moving traffic) sharrows may be appropriate. On wider streets with faster moving traffic, bike lanes or protected bike lanes are preferred.
- D. Provide more and better connections from downtown to the lake shore.

4.3 IMPLEMENT ROAD AND STREET DIETS

Part of the intermediate physical changes to the city's streets (in addition to adding bike lanes), is the implementation of road and street diets. Road diets are typically associated with making streets safer because they decrease the number of travel lanes, slow down traffic speeds, and make the roadway more friendly to the other modes of travel (walking and biking). In addition to improved safety, the reallocated extra roadway space improves comfort, and convenience - both important factors in improving the use of other modes and diminishing the need to increase the quantities of parking downtown.

The most common road diet involves converting a four lane road to three lanes, with one travel lane in each direction and a center two-way left-turn lane, often supplemented with painted, textured, or raised center islands. Other opportunities to perform road diets include:

- Narrowing one-way streets (which may have excess capacity).
- Converting one-way streets into two-way streets.
- On roadways where traffic volumes are low, a three lane road (one lane in each direction with a center turn lane) can be converted to two.

HERE'S HOW:

- A. Identify and evaluate locations for road diets and perform necessary traffic studies to determine viability.
- B. Design modified street cross-sections that provide a safe and efficient transportation corridor for vehicles, buses, bicycles and pedestrians, while balancing the needs of the transportation system with the interests of the surrounding community and environment.





Road diet with added on-street parking and enhanced crossing









4.4 BUILD COMPLETE STREETS

The design of Muskegon's streets and the management of parking can encourage multimodal use and improve safety; a method of accomplishing this is called Complete Streets. Complete Streets are designed with all potential users in mind – old and young; people using wheelchairs, walkers, or canes; pedestrians, bicyclists, bus riders, and drivers.

Complete Streets make it easier to walk from one destination to the next, to cross the street, and to ride a bike; they can reduce accidents at dangerous intersections.

Additionally, accommodating multiple modes of transportation can move more people within the same amount of road space. Sustainable prosperity depends on the city's success in reducing congestion by promoting transportation options other than driving.

Common elements of a complete street include sidewalks, bike lanes, dedicated bus lanes, comfortable and accessible transit stops, frequent and safe crossing opportunities, median islands, curb extensions, limited curb cuts, and narrowed travel lanes.

While Complete Streets are not the only solution to a more comprehensive and sustainable parking system, improving the walkability of an area and the quality of the environment expands mobility options that help to relieve the pressure on parking facilities by encouraging walking and bicycling to substitute for some automobile trips.

- A. Conduct education and outreach activities that build relationships between agencies and stakeholders such as public health, law enforcement, and businesses, so that the benefits of Complete Streets are widely-understood.
- B. Develop contextual street types for the downtown that promote accessibility for all users (pedestrians, bicyclists, bus riders, and drivers). Keep in mind that a single street type may not be practical and that each location and condition will need to be flexible in its design and implementation.
- C. Establish Complete Streets policy for Muskegon.

4.5 CONSIDER PARKING STRUCTURES

If parking strategies to reduce demand are insufficient and downtown Muskegon is at a point where land costs have appreciated and there is robust redevelopment pressure, construction of additional parking may be considered. When considering adding new parking, cost recovery should be an important decision-factor. The choice between surface and structured parking is generally driven by land costs. Where land costs are higher – usually in denser, more urban environments – it becomes more economical to build up than to build out. Similarly, building up versus out allows less land area to be dedicated to parking and eliminates the "missing teeth" or gaps in the urban fabric that so often degrade the public realm and hinder walkablity.

HERE'S HOW:

When the time comes to make the decision regarding adding more parking, the City of Muskegon and Downtown Muskegon Development Corporation (DMDC) should consider two very important factors.

- A. New parking decks should be strategically located within the city (as depicted by the illustrations on page 61 and 62) in order to disperse the parking decks to locations that can serve different zones within the downtown and make the supply of parking more accessible to users.
- B. All new parking decks should include liner buildings (as depicted in the photos to the right) at the street frontage in order to minimize their impact on the city's urban fabric and to activate the street edge.
- C. Deck entries should be restricted to side streets or "B streets" in order to minimize pedestrian / vehicular conflict at the sidewalk.









TIME BASED SOLUTIONS

TIME based tools introduce or modify time restrictions to encourage turnover in higher demand areas and shift users with longer term parking needs into off-street facilities or more remote locations. Factors that can influence time based tools include the surrounding land uses, time of day, and availability of supply.

GOAL OF TIME BASED SOLUTIONS:

TO MAKE DESIRABLE PARKING SPACES AVAILABLE TO A LARGE NUMBER OF USERS, WHICH OPTIMIZES ACCESS AND OPPORTUNITIES TO BUSINESSES, RESIDENTS, AND ACTIVITIES.

Parking needs vary based on the purpose of the trip. Time restrictions can be set to promote accessibility of spaces for certain trip purposes while discouraging them to be used for others.

TIME BASED TOOLS:

The list below highlights the TIME based tools that are included in this section, along with a snapshot of the implementation time-frame.

Time based tools create a high rate of turnover, which is an effective way to make desirable parking spaces available over the course of the day. These tools are also a mechanism to prioritize different types of parking activities.





For more detailed information on implementation time-frames refer to the implementation section at the end of this Strategy.

5.1 SET TIME LIMITS

Ideally, both on and off-street parking should be managed to accommodate a range of different stay durations based on the demand profiles of anticipated users. Time limits that do not consider different user needs can frustrate customers with trip purposes that do not fit the restrictions. Inefficient time limit restrictions can also enable employees to work the system. For example, employees may hope to avoid a parking citation by moving their cars every two-hours.

Parking time limits are very common throughout the U.S. and are typically one of the first kinds of on-street restrictions to be used in downtowns and commercial areas. In mixeduse areas, time limits may encourage longer term parkers to move into residential areas to avoid parking restrictions. The competition between residential parkers, visitors, and employees can be mitigated by providing information for on and off-street parking opportunities, recalibrating time limits or by implementing a permit program. Regardless, effective implementation of time limits requires regular enforcement.

- A. Collaborate with stakeholders to determine time restrictions that support parking and access needs.
- B. Institute time restrictions that are calibrated with the activities and stakeholders in a specific area. If a block is primarily occupied by restaurants and entertainment uses, on-street parking may need to accommodate stays of two to three hours.
- C. Start in a small area within downtown that has high demand for on-street spaces and grow the time limit requirement from there.
- D. Enforce time restrictions with dedicated monitoring and ticketing.













5.2 ESTABLISH ENFORCEMENT HOURS

Most on-street enforcement regulations are not in effect 24 hours a day.

Adjusting the specific hours and days of the week when restrictions are enforced is a way to address parking demand generated by specific uses. Enforcement hours are typically aligned with standard business hours. As a city grows with activities that run later into the evening, enforcement hours may expand to include night time activities.

As a general rule, enforcement tools should be active when parking demands are high. Similarly, enforcement rules should be relaxed at times when parking demand is not sufficient to require enforcement. Enforcement hours should be tailored to the needs of specific areas. An entertainment district might require active parking enforcement in the evenings while a neighborhood school area might be served by enforcement from the early morning to late afternoon.

Extensions into the evenings or on Sundays may be required in order to help the parking system function more smoothly. Particular care should be taken when extending restrictions in residential areas to ensure that residents have access to street parking if necessary. The advantages of tailored enforcement hours should be weighed against enforcement resource implications as well because of the potential for public confusion due to multiple rules. Community education and outreach for any significant enforcement change is advised.

- A. Establish a city administered program to monitor and enforce established time restrictions.
- B. Institute enforcement hours that are associated with the activities and stakeholders in a specific area.

5.3 USE PERMIT PARKING

Permit parking programs are an important tool used to reserve street parking in specific areas for certain users. While these programs promote a balance of parking availability for different user groups, they also have associated administration costs. If not designed correctly, these programs can fail to achieve their objective.

While on-street spaces should typically be available for public use, there are areas where additional restrictions may be necessary to balance the competing needs of customers, employees, and residents. These areas may include residential neighborhoods that are adjacent to downtown or institutional uses. Although several user groups have a legitimate need for parking supply at any given time, a parking permit program can make it hard for all stakeholders to achieve parking compliance when it is biased to one particular group.

- A. Establish policy for permit parking as required by increased development downtown. Permit parking should address residential stakeholders in the near neighborhoods and be used as a later implementation step as the city core develops.
 - As parking pricing and time limits are introduced and parking supply is reduced by redevelopment of downtown's surface lots, a parking "spillover" into adjacent residential neighborhoods can occur (refer to "The Management of Urban Parking on page 5 of the Parking Strategy). This is the time to begin to consider permit parking in locations that are impacted by this spillover.







PRICE BASED SOLUTIONS

PRICE based tools provide a wide range of flexibility. When appropriately utilized, these tools can reduce occupancy in high demand areas and create a market for off-street parking.

GOAL OF PRICE BASED SOLUTIONS:

TO PROMOTE CONVENIENCE, TURNOVER, CHOICE, AND PREDICTABILITY FOR DOWNTOWN PARKING WHILE SUPPORTING VITALITY IN HIGH DEMAND AREAS.

Pricing parking often improves the customer experience since it increases the likelihood of finding a parking space near a destination. Pricing also allows people to choose to walk several blocks if they value cheaper parking OR pay more for parking if it is convenient to their location.

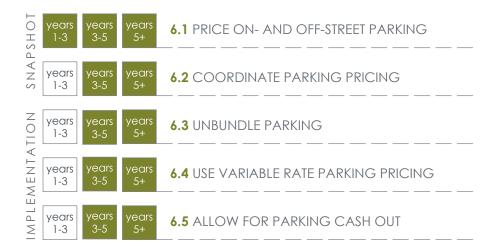
	DAILY RATES					
P	0-1 HOURS \$2.00 1-2 HOURS \$3.00 2-3 HOURS \$4.00 3-4 HOURS \$5.00 4-5 HOURS \$6.00 5-6 HOURS \$7.00 6-8 HOURS \$12.00 8-10 HOURS \$16.00 MAXIMUM \$18.00 LOST TICKET \$18.00					

PRICE BASED TOOLS:

The list below highlights the PRICE based tools that are included in this section, along with a snapshot of the implementation time-frame.

The introduction of price based tools (or the increase in parking fees) often encourages users to consider all the on- and off-street parking options available before defaulting to an on-street space.

Price based tools also will help to ultimately change the perception that parking is free. Free parking increases vehicle trips and downtown congestion; it also wastes valuable resources and time (as drivers cruise around looking for free parking). Imposing higher fees for parking may make further changes more palatable by helping to promote higher residential density and support for mass transit.



For more detailed information on implementation time-frames refer to the implementation section at the end of this Strategy.

6.1 PRICE ON- AND OFF-STREET PARKING

On-street parking pricing should be considered an integral part of parking pricing, since on-street parking conditions often drive off-street policy. Notably, if the on-street price is too low, demand for these spaces will exceed supply, resulting in a shortage of parking spaces, which feeds the perception of a lack of downtown spaces. Therefore, the development of a successful on-street parking management system relies upon the development of a coordinated and comprehensive parking pricing system that prioritizes parking spaces for specific users.

HERE'S HOW:

- A. Establish on-street parking prices that achieve an **85% occupancy target**. This is sometimes referred to performance-based or responsive pricing.
- B. Implement on-street parking pricing with good user information (signs and maps) so that motorists can choose between more convenient, but also more costly, parking or cheaper parking a short distance away.
- C. Install on-street parking meters that allow pricing adjustability and that are easy to enforce. (Refer also to 5.4 Use Variable Rate Parking Pricing)
- D. Charge for parking. This is the most direct way to both reduce parking demand and ensure that end users carry more of the cost of providing on- and offstreet accommodations. Pricing can be used to ensure availability and turnover of on-street parking. A popular approach is as follows:
 - Permit free or reduced-price short-term parking;
 - Allow residents and others, as appropriate, to obtain frequent parker permits with an annual fee based on expected usage;
 - Price parking to reflect parking desirability, i.e. spaces closest to activity hubs and on-street are priced higher than spaces at the downtown fringe and parking garages.





85% OCCUPANCY TARGET

Pricing on-street parking at a level that results in an 85% occupancy rate at all times is essential. This percentage corresponds to roughly one empty parking space per block face, which is just the right amount to ensure that a potential shopper a spot near a potential merchant.







6.2 COORDINATE PARKING PRICING

On-street management efforts function more smoothly if they are coordinated with offstreet facilities. Users typically prefer on-street parking over off-street options since the per hour cost of on-street parking is often lower and may be considered more convenient. Where possible, on-street and off-street prices should be set to encourage long term parking to occur off-street, reserving the more convenient on-street spaces for short term parkers.

This encourages commuters or employees to use alternative modes while still providing shortterm parking for customers. Coordinating on and off-street parking prices is challenging for several reasons. While the city can adjust prices on-street, it is unable to directly set rates in private off-street facilities that make up the majority of Muskegon's parking supply. An on-street parking pricing system that encourages better use of off-street public parking facilities is recommended.

- A. Once pricing of on- and off-street parking pricing is established (as outlined in tool 6.1), strategically coordinate (and continually refine) the price of both onand off-street prices. This may be aided by the Management tools outlined in Section 1.
- B. Conduct outreach and education with the owners of off-street parking facilities in order to create a wide-spread understanding of the importance of pricing parking in high demand areas.
- C. Coordinate and collaborate with owners regarding parking pricing in these high demand areas at certain times of the day or seasonally in order to begin to balance convenience and predictability of downtown parking.

6.3 UNBUNDLE PARKING

Typically, parking is bundled or absorbed into tenant leases, hiding the true cost of parking. For example, the price for an apartment with two parking spaces may be rented for \$1,000 per month. However, if the price for those parking spaces were unbundled, the price for rent for the apartment would be \$800 per month, plus \$100 per month for each parking space. Alternatively, renters could be offered a discount if they use fewer than the average parking spaces provided. For example, an apartment or office might rent for \$1,000 per month but renters using only one space receive a \$100 monthly discount. Unbundling parking is an essential first step towards getting people to understand the economic cost of parking and providing users with the opportunity to opt out of parking and make alternative travel decisions. Without unbundled parking, tenants experience parking as free, while transit costs them money. Unbundled parking provides a foundation for additional parking pricing policies.

- A. Determine areas in the core downtown to begin to unbundle parking. These are areas with high walkability, proximity to transit, or proximity to existing parking.
- B. Encourage new multi-family residential development to "unbundle" payments for parking spaces from rent payments and condominium purchases, and require that renters and buyers can choose whether to pay for parking spaces.









Smart meter shifts rates based on demand, San Francisco



6.4 USE VARIABLE RATE PARKING PRICING (for on-street parking)

Many existing off-street lots in Muskegon are under-utilized, in part due to the current inexpensive rate of on-street parking. Variable pricing offers additional flexibility with the ability to fluctuate rates according to demand. With this system, no explicit time limit is set but hourly parking prices increase with longer parking durations, making long-term parking more expensive with each successive hour. For example, pricing in a high demand area may be set at \$1.00 for the first hour, \$1.25 for the second hour, and \$1.50 for the third hour. Variable rate pricing structures prioritize on-street parking for short term uses while shifting longer-term parkers to off-street facilities. On-street parking in the downtown is the most convenient and can command higher or variable prices.

Parking located away from the core can be priced slightly lower or at a flat rate to favor long-term parkers. Event pricing recognizes the market value of a special event and assigns a rate to on or off-street spaces accordingly. New technology allows for advanced meter capabilities that make variable parking easier to implement. New pay stations and "smart" meters make it easy to change rates if adjustments are necessary.

- A. Install on-street parking meters that allow pricing adjustability, are easy to enforce, and have the capability to provide data about parking patterns.
- B. In zones where areas of high and low parking demand can be geographically delineated, tailor rates and time limits to address the pattern.
- C. In zones with varying occupancy patterns over the course of the day create different parking rates for each of these time band periods.
- D. Implement higher parking rates during the peak season for areas where the demands are drastically different based on the time of year.

6.5 ALLOW FOR PARKING CASH OUT

Parking cash-out allows employees to choose between a parking subsidy (free parking), or the out-of pocket equivalent cost of the parking space. Employees may choose to apply the money towards their parking space or make arrangements to use a lower cost alternative mode and keep the cash.

The key elements to promote cash-out include excellent transit service, limited parking supply, high parking prices, and land prices.

HERE'S HOW:

A. Educate major employers about the benefits of "parking cash out", whereby employees who choose not to drive are offered the cash value of any employee parking subsidy, to be used towards commuting to work by other means.







STRATEGY IMPLEMENTATION

This Strategy Implementation Section provides a time frame and responsibilities for implementation of the six strategy solutions.

Additional information in this section includes illustrations that depict redevelopment opportunities in downtown Muskegon (including existing surface parking lots). Taking advantage of these redevelopment opportunities is essential to managing parking, creating parking solutions, and building a more livable and vibrant city.

Finally, this section provides an illustrated vision for the future downtown, along with performance indicators that can aid during the implementation process.



The time line below depicts the schedule of implementation for each of the solutions outlined in the previous sections of the Muskegon Parking Strategy. In most cases, these solutions will be ongoing as the City and its parking system evolve. As parking transforms from being the primary land use to a supportive system for economic development, city building, and livability, many of these solutions will need to be reviewed and adjusted to address the ever-changing needs of the user.

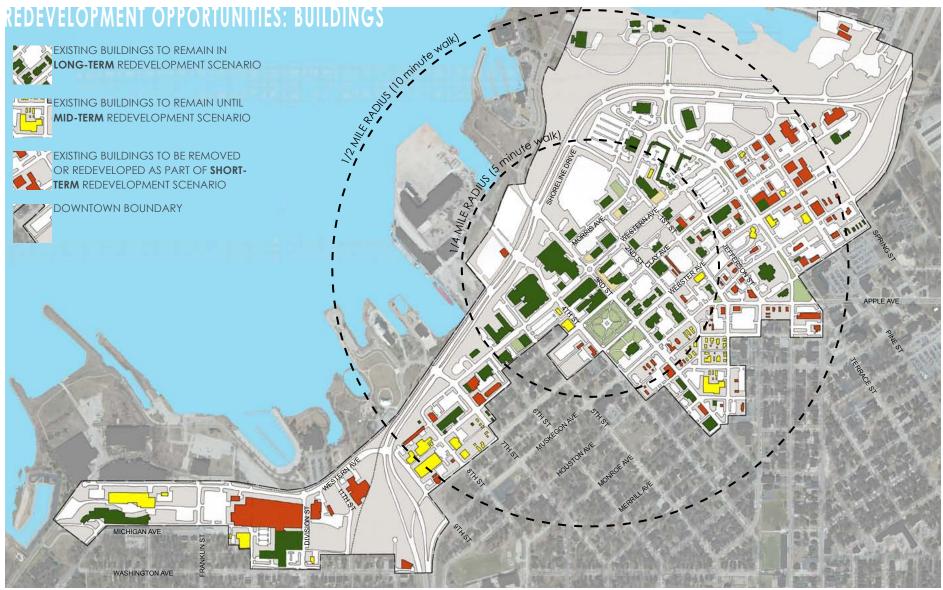
			YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10+
MANAGEMENT SOLUTIONS	1.1	ESTABLISH MOBILITY MANAGEMENT GROUP										
	1.2	CONDUCT OUTREACH WITH STAKEHOLDERS										
	1.3	HIRE STAFF PERSON TO MANAGE MOBILITY										
	1.4	UTILIZE PARKING PAYMENT TECHNOLOGY										
	1.5	CREATE A MOBILITY DATABASE										
	1.6	UTILIZE REAL-TIME PARKING INFORMATION										
<u> </u>	2.1	PROVIDE TRANSIT INCENTIVES										
	2.2	IMPLEMENT TRANSIT SUPPORTIVE ZONING										
IO AN	2.3	ENHANCE BICYCLE PARKING AND FACILITIES										
DEMAND BASED SOLUTIONS	2.4	INCENTIVIZE FLEXIBLE WORK SCHEDULES										
	2.5	BIKE-SHARE										
	2.6	CAR-SHARE	 !									
SUPPLY BASED SOLUTIONS	3.1	REDUCE PARKING REQUIREMENTS								ĺ		
	3.2	SET PARKING MAXIMUMS										
	3.3	SHARE PARKING										
	3.4	Don't build spaces all at once										
	3.5	ESTABLISH IN-LIEU FEES	 									
	4.1	PROVIDE WAYFINDING AND INFORMATION										
PLACE BASED SOLUTIONS	4.2	add bike lanes										
PLACE BASED DLUTION	4.3	IMPLEMENT ROAD AND STREET DIETS		 								
SOL B P	4.4	BUILD COMPLETE STREETS			i i							
	4.5	CONSIDER PARKING STRUCTURES	 								 	
TIME BASED SOLUTIONS	5.1	SET TIME LIMITS										
	5.2	ESTABLISH ENFORCEMENT HOURS										
	5.3	USE PERMIT PARKING										
	6.1	PRICE ON- AND OFF-STREET PARKING										
PRICE BASED SOLUTIONS	6.2	COORDINATE PARKING PRICING										
PRICE BASED DLUTION	6.3	UNBUNDLE PARKING		 								
SOI B	6.4	USE VARIABLE RATE PARKING PRICING										
	6.5	ALLOW FOR PARKING CASH OUT										

The matrix below depicts responsibilities and partners for each of the solutions outlined in the previous sections of the Muskegon Parking Strategy. Since many of these solutions will be ongoing, it is important to build partners and champions to help implementation. Equally important will be education and outreach in regards to the implications of parking on the placemaking and livability of downtown Muskegon.

			PRIMARY RESPONSIBILITY	KEY PARTNERS
MANAGEMENT SOLUTIONS	1.1	establish mobility management group	D	ACE
	1.2	Conduct outreach with stakeholders	A	CDE
	1.3	HIRE STAFF PERSON TO MANAGE MOBILITY	A	CDE
	1.4	UTILIZE PARKING PAYMENT TECHNOLOGY	A	С
	1.5	CREATE A MOBILITY DATABASE	A	С
	1.6	UTILIZE REAL-TIME PARKING INFORMATION	A	С
	2.1	PROVIDE TRANSIT INCENTIVES	D	ACE
<u>s</u>	2.2	IMPLEMENT TRANSIT SUPPORTIVE ZONING	A	DF
BASED SOLUTIONS	2.3	ENHANCE BICYCLE PARKING AND FACILITIES	A	
DEMAND BASED OLUTION	2.4	INCENTIVIZE FLEXIBLE WORK SCHEDULES	AD	ACDF
S	2.5	BIKE-SHARE	AD	ACD
	2.6	CAR-SHARE	AD	ACD
	3.1	REDUCE PARKING REQUIREMENTS	A	
NS NS	3.2	SET PARKING MAXIMUMS	A	
SUPPLY BASED SOLUTIONS	3.3	SHARE PARKING	F	A
	3.4	DON'T BUILD SPACES ALL AT ONCE	AF	B D
	3.5	ESTABLISH IN-LIEU FEES	A	E
PLACE BASED SOLUTIONS	4.1	PROVIDE WAYFINDING AND INFORMATION	D	ACEF
	4.2	ADD BIKE LANES	A	E
	4.3	IMPLEMENT ROAD AND STREET DIETS	A	DEF
SOL B	4.4	BUILD COMPLETE STREETS	A	DF
	4.5	CONSIDER PARKING STRUCTURES	AB	CD
NS	5.1	SET TIME LIMITS	A	DEF
	5.2	ESTABLISH ENFORCEMENT HOURS	A	DEF
TIME BASED SOLUTIONS	5.3	USE PERMIT PARKING	A	DEF
PRICE BASED SOLUTIONS S	6.1	PRICE ON- AND OFF-STREET PARKING	A	DEF
	6.2	COORDINATE PARKING PRICING	A	
	6.3	UNBUNDLE PARKING	A	F
	6.4	USE VARIABLE RATE PARKING PRICING	A	D
	6.5	ALLOW FOR PARKING CASH OUT	A	D

BUILDING A LIVABLE CITY

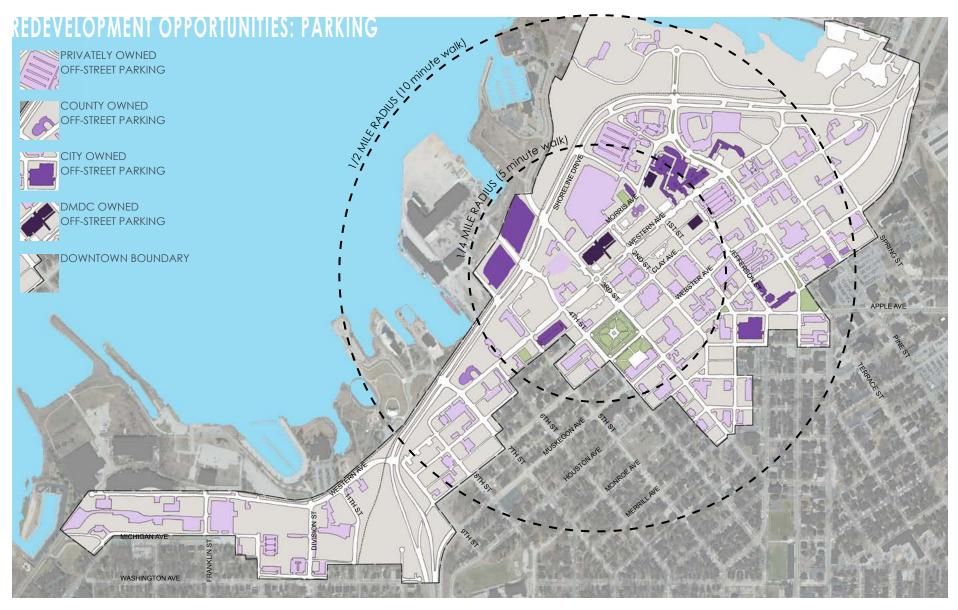
The graphic below illustrates existing buildings that are POTENTIAL candidates for short-, mid-, and long-term redevelopment as the downtown develops and grows. This illustration is intended to highlight these potential opportunities and is not a mandate for building removal. Removal of existing buildings should be carefully considered through the lenses of livability and city building. Buildings shall not be considered for removal unless a new project that meets the criteria of the City's existing Master Plan is proposed. **Buildings shall not be considered for removal for creation of more surface parking**.





BUILDING A LIVABLE CITY

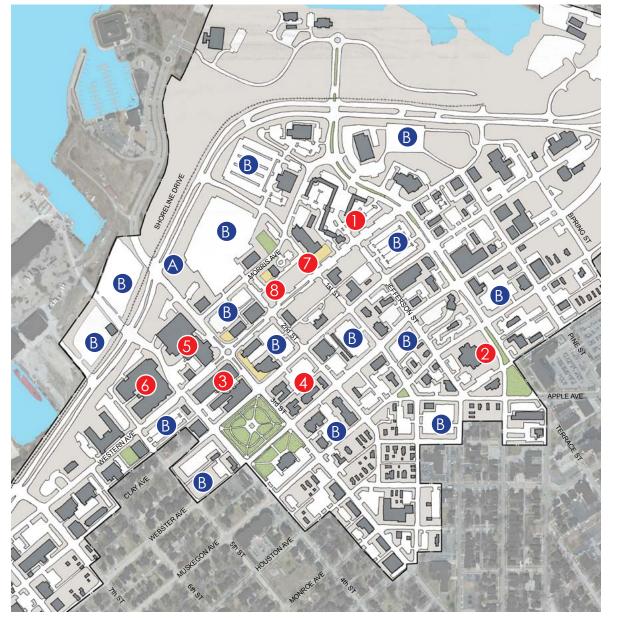
The graphic below illustrates existing off-street parking lots that are candidates for short-, mid-, and long-term removal as the downtown redevelops. The supply of parking is one part of this Strategy. Supply tools will work with the other five solutions to effectively transform Muskegon's downtown parking from a primary land use to a supportive role. **All off-street surface parking lots should be considered future development sites.**





EXISTING DOWNTOWN MUSKEGON

The graphic below depicts the current physical conditions in downtown Muskegon, existing reference points, and commentary regarding opportunities for change.





COMMENTS

Barrier to Lake Shore

Shoreline Drive acts as a physical barrier to connectivity of the lake shore. Efforts should be made to create a pedestrian and bicycle connection between downtown and the lake shore.

B

Parking Lots and Empty Space

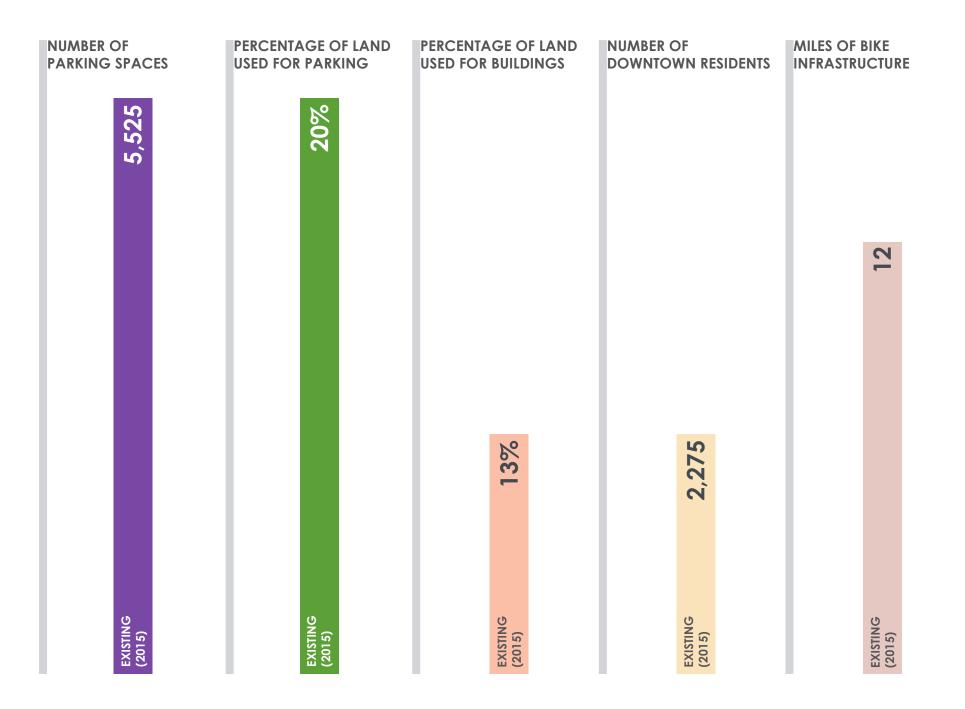
The downtown has a disproportion amount of parking spaces relative to buildings - this creates barriers to walkability, a lower tax base, and an inability to generate density and critical mass. Efforts should be made to fill these spaces with infill buildings through redevelopment. Refer to graphic on page 10 for the ratios of parking to building coverage in downtown Muskegon.

Surface Parking vs. Ramped Parking

Downtown parking is primarily solved with surface parking lots. Very few parking decks are used to solve parking supply. As surface parking lots are removed, parking decks should be considered - if parking demand warrants them. If used, decks should be lined with buildings so that the active street edge is maintained.

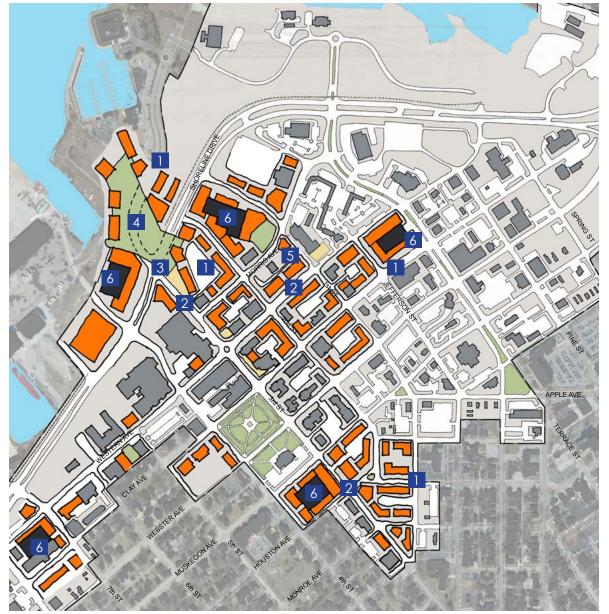


EXISTING DOWNTOWN MUSKEGON PERFORMANCE INDICATORS



FUTURE DOWNTOWN MUSKEGON

The graphic below depicts an illustrated future vision for downtown Muskegon and key priorities related to livability (Orange buildings represent new infill, light gray buildings represent existing buildings). These priorities were developed during public outreach and citizen engagement. The map depicts only a single possible future scenario shown for reference purposes and to convey the vision of a more livable city, it is possible that the redevelopment will take place in a different way.



PRIORITIES

Create higher density development and add new residents to downtown.

Promote mixed use buildings in the downtown and a variety of other housing types (rowhouse and apartment buildings) in and around downtown, and at the water front.

Foster economic development and build tax base for City of Muskegon.

Consolidate mixed use buildings along Western Avenue and 3rd Street, with a priority on retail storefronts at the street level.

3 Balance transportation modes and create mode choice (bike, walk, transit, vehicle).

Redevelopment should promote multi-modal activity through a mix of uses, activated building frontages at streets and sidewalks, compact development, and nonauto oriented facilities.

Create and maintain access to business, community attractions, and schools.

Implement meaningful pedestrian & bike connection to the waterfront. Graphic depicts an elevated park over Shoreline Drive that connects downtown to the lake and is framed by mixed-use buildings.

Develop more bike facilities, including bike lanes, protected bike lanes, and bike parking.

Support transit ridership through available parking (park and ride facilities).

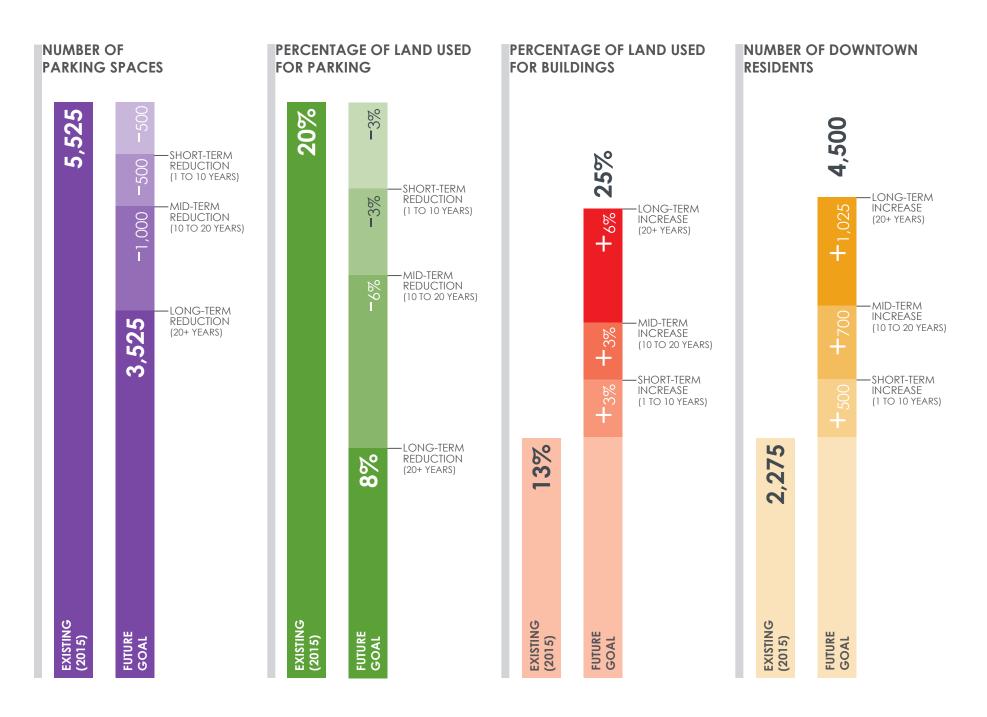
Accentuate transit station with surrounding infill buildings and connections to the broader community.

6 Provide ample and affordable parking and strategically locate parking facilities.

When demand requires more parking supply, build strategically located parking structures that include liner buildings to maintain street level vitality. Graphic depicts new structures (in dark gray) located in the four quadrants of downtown.



FUTURE DOWNTOWN MUSKEGON PERFORMANCE INDICATORS



FUTURE DOWNTOWN MUSKEGON: BIKE INFRASTRUCTURE

The graphic below depicts an illustrated future vision for a bike network in downtown Muskegon. This network represents implementation of both demand-based (item 2.3) and place-based (item 4.2) solutions from this Strategy.



BIKE NETWORK MAP LEGEND

PROTECTED BIKE LANE Protected bike lanes have a physical barrier or vertical separation between moving motor vehicle traffic and bicyclists. Examples of a physical barrier or vertical separation include plastic posts, bollards, curbs, planters, raised bumps or parked cars.





DEDICATED BIKE LANE A bicycle lane is a portion of the roadway that has been designated by striping, signing, and pavement markings for the preferential and exclusive use of bicyclists.





 SHARROW (SHARED LANE) A shared lane marking within a vehicular travel lane of a street's

lane.

surface that indicates that bicyclists may use any portion of the full width of the travel



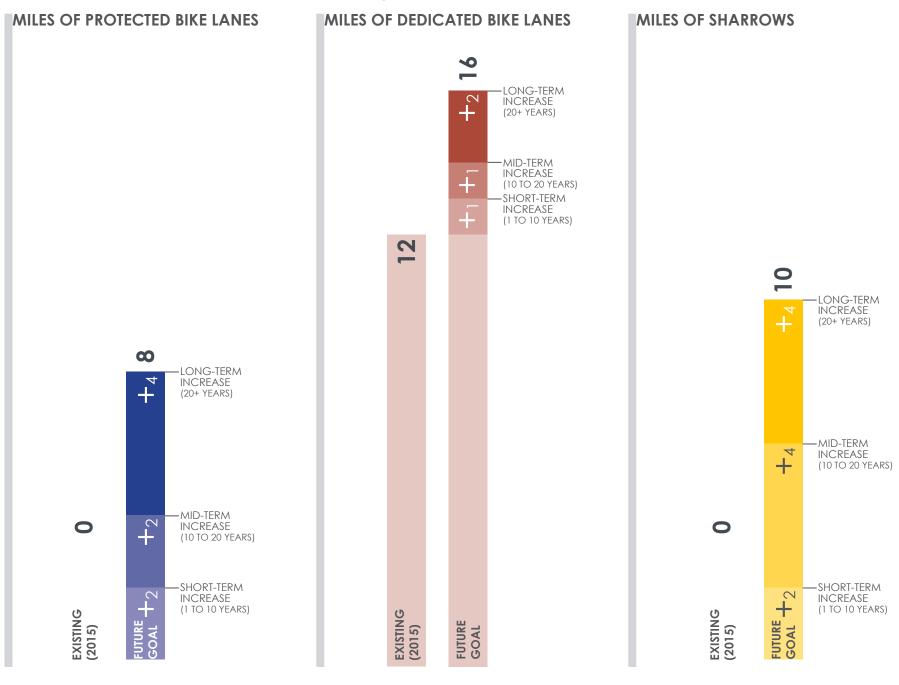






FUTURE CITY OF MUSKEGON PERFORMANCE INDICATORS: BIKE INFRASTRUCTURE

Number of miles indicated include the entire city of Muskegon



"The more parking space, the less sense of place."

– Jane Holtz Kay

SOURCES & IMAGE LIST

The information contained in this section provides additional resources that are important to Muskegon's parking strategy. These resources were used to help inform this Strategy and are important companions to this document.

Additionally, each photo and illustration in this Strategy is referenced.



SOURCES

Active Transportation Alliance

http://www.activetrans.org/

The Active Transportation Alliance is a local non-profit advocacy organization that encourages and promotes safety, physical activity, health, recreation, social interaction, equity, environmental stewardship and resource conservation. They have assisted many municipalities in the Chicago region with the development of bicycle and pedestrian plans.

Chicago Metropolitan Agency for Planning, Parking Strategies to Support Livable Communities, April 2012

http://pipta.org/wp-content/uploads/2014/04/Parking-Strategies-to-Support-Livable-Communities-CMAP.pdf

"This brochure covers basic strategies to balance the supply and demand for parking. Although parking is often dealt with separately from transportation and development issues, it can be an important part of planning for growth within a community and region."

Delaware Valley Regional Planning Commission, Parking Management Strategies, May 2004

http://www.dvrpc.org/reports/MIT006.pdf

"This brochure covers basic strategies to balance the supply and demand for parking. Although parking is often dealt with separately from transportation and development issues, it can be an important part of planning for growth within a community and region."

Edwards, John D. The Parking Handbook for Small Communities, 2004

http://www.downtowndevelopment.com/parking_handbook.php

This document focuses on small communities, providing parking solutions for cities with populations under 50,000. It is a step-by-step review of how to plan, develop, and manage parking in a small downtown. Currently out of print.

Environmental Protection Agency, Parking Spaces / Community Places: Finding the Balance through Smart Growth Solutions

www.epa.gov/smartgrowth/pdf/EPAParkingSpaces06.pdf

The approaches described in this report can help communities explore new, flexible parking policies that can encourage growth and balance parking needs with their other goals. The EPA developed this guide for local government officials, planners, and developers in order to:

- Demonstrate the significance of parking decisions in development patterns;
- Illustrate the environmental, financial, and social impact of parking policies;
- Describe strategies for balancing parking with other community goals; and
- Provide case studies of places that are successfully using these strategies

Litman, Todd Parking Management Best Practices, 2004

http://www.downtowndevelopment.com/parking_management_best_practices.php

Describes an integrated approach to parking management, which will help you maximize your current parking to better meet the needs of downtown residents, workers, shoppers, and other visitors.

Metropolitan Planning Commission, Reforming Parking Policies To Support Smart Growth: Parking Best Practices & Strategies For Supporting Transit Oriented Development In the San Francisco Bay Area, June 2007

http://www.mtc.ca.gov/planning/smart_growth/parking/parking_seminar/Toolbox-Handbook.pdf

"This report is intended to serve as a guide or a handbook for communities interested in planning and implementing parking policies and programs that are supportive of Smart Growth and Transit Oriented Development (TOD). The focus is on downtowns, neighborhoods, and transit station areas in which a major investment has been made to provide regional and local transit accessibility. In order to maximize the value of that investment and to discourage the solo use of the automobile for travel, this report will assist communities in identifying the TOD supportive parking policies and improvements that are best suited to their individual characteristics." **Metropolitan Transportation Commission**, Smart Growth Technical Assistance Parking Reform, Parking Code Guidance: Case Studies and Model Provisions, 2012 http://www.mtc.ca.gov/planning/smart_growth/parking/6-12/Parking_Code_Guidance_June_2012.pdf

"The best practices reflect and support transit-oriented and pedestrian friendly areas; they also will help make infill development viable and create more walkable, livable communities. They are based on the principle that parking should be managed as a resource that has critical impacts on visitor and commuter access, retail health, traffic safety, economic development, and streetscape quality, and that parking should be managed to achieve both transportation objectives and other community goals. These ideas also respond to trends showing growing interest in living in transit-served areas, with less dependence on the automobile."

National Complete Streets Coalition

http://www.completestreets.org/

This web page offers clear descriptions of the basics of complete streets, sample policy documents, advocacy materials, and fact sheets.

Nelson**Nygaard Consulting Associates**, Car-Sharing: Where and How it Succeeds. Transit Cooperative Research Program, Transportation Research Board. 2005 *http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_rpt_108.pdf*

Shoup, Donald, The High Cost of Free Parking, Chicago: Planners Press, 2005 and 2011

http://shoup.bol.ucla.edu/

This ground breaking book looks at parking as an economist would. In many circles, this book is considered the parking professional's bible.

Speck, Jeff, Walkable City, How Downtown Can Save America, One Step at a Time, Norton Point Press, 2012

A 10-step plan for changing the way we build and think about our public spaces, including dealing with urban parking issues.

Victoria Transport Policy Institute, Parking Pricing Implementation Guidelines, March 1, 2011

http://www.vtpi.org/parkpricing.pdf

"This report provides guidance on parking pricing implementation. It describes parking pricing benefits and costs, ways to overcome common obstacles and objections, and examples of successful parking pricing programs. Parking pricing is best implemented as part of an integrated parking management program. Current trends are increasing the benefits of efficient parking pricing. Legitimate objections to parking pricing can be addressed with appropriate policies and strategies."

Victoria Transport Policy Institute, Online TDM Encyclopedia

http://www.vtpi.org/tdm/index.php

This website has a vast amount of literature on Transportation Demand Management strategies that "result in more efficient use of transportation resources." In addition to the TDM Encyclopedia, there are many important documents on transportation and livability.

IMAGE LIST

Front Cover & back of front cover: Aerial photograph of Downtown Muskegon Photo courtesy REGIS

Table of Contents, upper:Parking signPhoto courtesy Dave Askins, Ann Arbor Chronicle

 Table of Contents, lower: Muskegon parking analysis graphic

 Image courtesy Mark F. Miller, Nederveld

Page 1: Imagine Muskegon Rendering Image courtesy Hooker Dejong and City of Muskegon

Page 1: Muskegon Downtown and Lakeshore Redevelopment Plan Image courtesy Williams & Works and City of Muskegon

Page 2, top: On-street parking. Lansing, Michigan Photo courtesy Omicron Photography

Page 2, middle: On-street parking, San Francisco, California Photo courtesy San Francisco County Transportation Authority

Page 2, bottom: On-street parking, Grand Rapids, Michigan Photo courtesy 616 Development

Page 3, top: Parking lot, Richmond, Virginia Photo courtesy Andrew Spiering, Land 8

Page 3, bottom: Free on-street parking, Colorado Springs, Colorado Photo courtesy Ron Stauffer, Blog

Page 4, top: Parking lot, Muskegon, Michigan Photo courtesy Mark F. Miller, Nederveld

Page 4, middle: Parking lot, Muskegon, Michigan Photo courtesy Mark F. Miller, Nederveld

Page 4, bottom: Parking lot sign, Muskegon, Michigan Photo courtesy Mark F. Miller, Nederveld

Page 7: Parking info graphic from project's public outreach Image courtesy Lynée Wells, Williams & Works Page 8, top: Public workshop in Muskegon, March 26, 2014 Photo courtesy Lynée Wells, Williams & Works

Page 8, middle: Public workshop in Muskegon, March 26, 2014 Photo courtesy Lisha Arino, MLive

Page 8, bottom: Public workshop in Muskegon, March 26, 2014 Photo courtesy Lisha Arino, MLive

Page 9, top: Public workshop in Muskegon, March 26, 2014 Photo courtesy Lisha Arino, MLive

Page 9, middle: Public workshop in Muskegon, March 26, 2014 Photo courtesy Lisha Arino, MLive

Page 9, bottom: Public workshop in Muskegon, March 26, 2014 Photo courtesy Lisha Arino, MLive

Page 10: Muskegon parking analysis graphics Image courtesy Mark F. Miller, Nederveld

Page 11: Muskegon parking analysis graphics Image courtesy Mark F. Miller, Nederveld

Page 12: Muskegon parking analysis graphics Image courtesy Mark F. Miller, Nederveld

 Page 13: Muskegon parking analysis graphics

 Image courtesy Mark F. Miller, Nederveld

Page 14, top: Surface parking lot Image courtesy Stephen Markley

Page 14, middle: Parking info graphic from project's public outreach Image courtesy Lynée Wells, Williams & Works

Page 14, bottom: Cincinnati parking meter Image courtesy Randy Simes, UrbanCincy

Page 15, left side : Example shared parking coefficient Image courtesy Mark F. Miller, Nederveld

Page 15, right bottom: Do the Right Mix Graphic Image courtesy Eurotowns Network Page 17: Downtown Muskegon Photo courtesy Ken Stevens, Muskegon Chronicle

Page 18, top: Downtown Muskegon Photo courtesy Mark F. Miller, Nederveld

Page 18, bottom: Downtown Muskegon Lakeshore Arts Festival Photo courtesy WZZM13

MANAGEMENT BASED SOLUTIONS

Page 19, top left: Mobile Parking System, Philadelphia, Pennsylvania Photo courtesy Zach Seward

Page 19, top right: Parking sign Photo courtesy Denison Parking

Page 19, bottom left: Public outreach Photo courtesy Mark F. Miller, Nederveld

Page 19, bottom right: Mobile pay technology in Louisville, Kentucky Photo courtesy Louisville-Jefferson County Metro Government

Page 20, top: On-street parking, San Francisco, California Photo courtesy San Francisco County Transportation Authority

Page 20, middle: Public workshop in Muskegon, March 26, 2014 Photo courtesy Lisha Arino, MLive

Page 20, bottom: Smart parking meter, San Francisco, California Photo courtesy SF Streetsblog

Page 21, top: Public outreach Photo courtesy Mark F. Miller, Nederveld

Page 21, middle:Public workshopPhoto courtesy Community Design Collaborative, Philadelphia

Page 21, bottom: Public workshop in Muskegon, March 26, 2014 Photo courtesy Lisha Arino, MLive

Page 22: IKEA bicycle and trailer, Denmark Photo courtesy Flickr photo from a Denmark-based Ikea store, by hugh1936uk. **Page 23, top:** Mobile Parking System, Philadelphia, Pennsylvania Photo courtesy Zach Seward

Page 23, middle: The Parkeon 'Varioflex' pay-on-foot paystation Photo courtesy Road-traffic technology.com

Page 23, bottom: On-street parking technology Photo courtesy Southern Time Parking Control Solutions

Page 24, top: On-street parking, Albany, New York Photo courtesy John Carl D'Annibale / Times Union

Page 24, middle: Parking guidance system, Singapore Photo courtesy Transportation Singapore blog

Page 24, bottom: ParkPal smartphone app, NYC Photo courtesy New York City Department of Transportation

Page 25, top: Real time parking information, San Francisco, California Photo courtesy San Francisco Municipal Authority

Page 25, middle: Real-time parking information, San Jose, California Photo courtesy Richard Layman, Rebuilding Place in the Urban Space blog

Page 25, bottom: Real-time parking information, Seattle, Washington Photo courtesy Seattle Department of Transportation

DEMAND BASED SOLUTIONS

Page 27, top left: Muskegon Area Transit System Photo courtesy Muskegon Chronicle

Page 27, top right: Muskegon bike racks Photo courtesy Dave Alexander, MLive

Page 27, bottom left: Muskegon Lakeshore Trail Photo courtesy Muskegon Chronicle

Page 27, bottom right: Muskegon Bike Time, 2007 Photo courtesy Muskegon Chronicle

Page 28, top: Muskegon Area Transit bus stop sign Photo courtesy Kendra Stanley-Mills, Muskegon Chronicle Page 28, middle: Muskegon Area Transit bus Photo courtesy Muskegon Chronicle

Page 28, bottom: Muskegon Area Transit route map Photo courtesy Muskegon Area Transit

Page 30, top: Bike lockers, Phoenix, Arizona Photo courtesy One Speed: Go! by John Romeo Alpha

Page 30, middle: Bike corral, New York City Image courtesy Mark F. Miller, Nederveld

Page 30, bottom: Bike racks, Muskegon, Michigan Photo courtesy Mark F. Miller, Nederveld

Page 31, top: Mixed use building, Georgetown Photo courtesy Mark F. Miller, Nederveld

Page 31, middle: Live / Work building Photo courtesy Duany Plater-Zyberk (DPZ)

Page 31, bottom: Live / Work building Photo courtesy Mark F. Miller, Nederveld

Page 32, top: Bike share, Lansing, Michigan Photo courtesy Lansingdowntown.com

Page 32, middle: Bike share marketing, Buffalo, New York Photo courtesy Mark F. Miller, Nederveld

Page 32, bottom: Bike share, Denver, Colorado Photo courtesy Adam Frucci

Page 33, top: Car share, Zip Cars Photo courtesy Lincoln Adams/Flickr

Page 33, middle: Car share, Oslo, Norway Photo courtesy Brit Liggett,

Page 33, bottom: Car share, San Francisco, California Photo courtesy SF Streetsblog

SUPPLY BASED SOLUTIONS

Page 35, top left: Downtown Muskegon Western Avenue Photo courtesy Mark F. Miller, Nederveld

Page 35, top right: Downtown Muskegon Photo courtesy Mark F. Miller, Nederveld

Page 35, bottom left: Downtown Muskegon parking lot Photo courtesy Mark F. Miller, Nederveld

Page 35, bottom right: Downtown Muskegon parking lot Photo courtesy Mark F. Miller, Nederveld

Page 37, top: Parking lot Photo courtesy greencarreports.com

Page 37, middle: Downtown Muskegon Western Avenue Photo courtesy Mark F. Miller, Nederveld

Page 37, bottom: Downtown Muskegon parking lot Photo courtesy Mark F. Miller, Nederveld

Page 39, top: Parking lot, Frankfort, Kentucky Photo courtesy Perkins Landscape Architecture, LLC

Page 39, middle: Parking lot, Elk Grove, California Photo courtesy Garth Ruffner Landscape Architects

Page 39, bottom: Parking lot Photo courtesy REIS Asphalt Company

Page 40, top: Parked cars Image courtesy Mark F. Miller, Nederveld

Page 40, bottom: Parking deck sign Photo courtesy EWM Realty International

PLACE BASED SOLUTIONS

Page 41, top left: Complete Street, New York City Photo courtesy New York City Department of Transportation

Page 41, top right: Bike lane Photo courtesy bikenopa

Page 41, bottom left: Parking wayfinding sign Photo courtesy signaletique.de

Page 41, bottom right: Parking deck with liner buildings, New Haven, Connecticut Photo courtesy Appicella + Bunton Architects

Page 42, top left: Mission Meridian, Pasadena, California Photo courtesy Moule+Polyzoides Architects and Urbanists

Page 42, top right: Parking wayfinding sign, Singapore Photo courtesy Vandra Png

Page 42, bottom: Integrated real-time parking wayfinding sign Photo courtesy Richard Layman, Rebuilding Place in the Urban Space blog

Page 43, top: Sharrow, Boston, Massachusetts Image courtesy Mark F. Miller, Nederveld

Page 43, middle: Bike lane, Philadelphia, Pennsylvania Photo courtesy Mark F. Miller, Nederveld

Page 43, bottom: Protected bike lane, Chicago, Illinois Photo courtesy PR Newswire

Page 44, top: Road diet Photo courtesy City of Carlisle, Iowa

Page 44, middle: Street diet and crosswalk Photo courtesy The Greenchangemakers blogspot

Page 44, bottom: Bulb out Photo courtesy The Greenchangemakers blogspot

Page 45, top: Complete street illustration Photo courtesy Smart Growth America Page 45, middle: Complete street, Bellingham, Washington Photo courtesy Bellevue, NWPT, pz-33 / Fickr

Page 45, bottom: Complete street, Pittsburgh, Pennsylvania Photo courtesy The Design Center, Pittsburgh, Pennsylvania

Page 46, top: 38 Commerce liner building, Grand Rapids, Michigan Photo courtesy Rex Larson, Grand Rapids Press

Page 46, middle: Parking deck with liner buildings, Washington, DC Photo courtesy Ben Schumin

Page 46, bottom: Parking deck with liner buildings, New Haven, Connecticut Photo courtesy Appicella + Bunton Architects

TIME BASED SOLUTIONS

Page 47, top left: Parking sign, San Francisco, California Photo courtesy KTVU

Page 47, top right: Parking meter Image courtesy Mark F. Miller, Nederveld

Page 47, bottom left: Parking meter Photo courtesy ABC7 Chicago news

Page 47, bottom right: Parking sign, Berkeley, California Photo courtesy Everyday UX Blog

Page 48, top: Expired parking meter Image courtesy Mark F. Miller, Nederveld

Page 48, middle: Parking sign Photo courtesy Dave Askins, Ann Arbor Chronicle

Page 48, bottom: Parking limit sign, Port Dover, Ontario Photo courtesy Port Dover Maple Leaf

Page 49, top: Parking ticket Image courtesy Mark F. Miller, Nederveld

Page 49, middle: Parking enforcement officer, City of La Palma, California Photo courtesy City of La Palma, California **Page 49, bottom:** Parking enforcement car, Toronto, Ontario Photo courtesy City of Toronto, Ontario

Page 50, top: Parking permit sign, Albany, New York Photo courtesy Cindy Schultz / Times Union

Page 50, middle: Resident parking permit, Philadelphia, Pennsylvania Photo courtesy Philadelphia Parking Authority

Page 50, bottom: Parking permit sign, Ireland Photo courtesy Alliance for Everyone, Andrew Muir

PRICE BASED SOLUTIONS

Page 51, top left: Parking meter, Chicago, Illinois Photo courtesy Rich Hein, Chicago Sun Times Media

Page 51, top right: Parking rates, Arlington, Virginia Photo courtesy ParkMe

Page 51, bottom left: Parking meter Photo courtesy Fisher Parking and Security

Page 51, bottom right: Parking lot Photo courtesy JSmith Photo via flikr

Page 52, top: Pay to park sign, Richmond, Virginia Photo courtesy City of Richmond, Virginia

Page 52, middle: On-street metered parking Image courtesy Mark F. Miller, Nederveld

Page 53, top: Pay parking station, Salt Lake City, Utah Photo courtesy utahstories.com

Page 53, middle: Downtown parking map, Mt. Vernon, Washington Photo courtesy City of Mount Vernon, Washington

Page 53, bottom: On-street parking Photo courtesy streetsblog.org

Page 54, top: Parallel parking, New York City Photo courtesy streetsblog.org

Page 54, middle: Parking deck Photo courtesy Burg + Schuh

Page 54, bottom: On-street parking, Portland, Oregon Photo courtesy 21st Century Urban Solutions blog

Page 55, top: Smart meter, San Francisco, California Photo courtesy Walter Parenteau / Flickr

Page 55, bottom: Smart meter, San Francisco, California Photo courtesy Camden Avery/Hoodline

Page 56, top: Parking lot Photo courtesy Eric Betz

Page 56, middle: Free parking square, Monopoly Photo courtesy monopoly.wikia.com/wiki/Free_Parking

Page 56, bottom: Parking lot Photo courtesy greencarreports.com

Page 57: Imagine Muskegon Rendering Image courtesy Hooker Dejong and City of Muskegon

Page 66: Bike Infrastructure Images courtesy Mark F. Miller, Nederveld

Page 69: Downtown Muskegon Photo courtesy Ken Stevens, Muskegon Chronicle

Inside back cover: Parking lot, Richmond, Virginia Photo courtesy Andrew Spiering, Land 8

Back cover: Aerial photograph of Downtown Muskegon Photo courtesy REGIS

