RECOMMENDATIONS: MADISON IN MOTION (DRAFT 6: 7-13-16)

The Plan's recommendations are organized within adopted Madison in Motion thematic goals, and are further subcategorized into the following:

- Policy and Best Practice Recommendations;
- Action Items (next 1-5 years); and,
- Action Items (6-10 years and beyond).

Note: Specific transportation projects (recommended to be implemented as part of the near-term and long-term capital budgets and plans) are discussed in a separate section (**see Projects section/page?**). Examples of such projects include street reconstruction projects, traffic calming improvements, pedestrian crossing improvements, public transit facility projects, transit service modifications, etc.

Improving the Public Transit System in Madison and throughout the Region

Policy and Best Practice Recommendations

- Continue to utilize technologies that make using transit easier. Improving vehicular location technologies can provide more precise information to transit riders monitoring their bus via mobile apps.

- Coordinate with Metro Transit to implement payment or pass systems that are readily available and have the potential to interact with other transportation payment systems, such as smart cards that can be used to access parking garages, parking meters, B-cycle (or other bike-sharing services) and/or potential future car sharing services.

- Incorporate transit priority elements like bus lanes, transit signal priority, and in-lane bus stops in street design, consistent with appropriate professional design standards.

- Explore a wide range of transit pass options and expand locations where they can be purchased. Evaluate the potential for pass options beyond a 10-ride or monthly pass (including the use of contactless smart cards). To the extent possible, expand pass programs, and study creating a pass program for residential buildings. Install vending kiosks at transfer points and at other high-use facilities to provide a more convenient point of sale.

Action Items (next 1-5 years)

- The City of Madison, Dane County, the Wisconsin Department of Transportation, Madison Area Transportation Planning Board (MPO), the University of Wisconsin, and other local units of government and agencies (including those communities that currently contract for Metro Transit services, such as Fitchburg, Middleton, Verona, Shorewood Hills and the Town of Madison) should work cooperatively to take all necessary steps toward Bus Rapid Transit (BRT) project development and service implementation, in accordance with all applicable local, state and federal regulations.

- As a component of detailed BRT planning and project development, Metro Transit should undertake a route restructure planning process, to evaluate a variety of ways to provide different transit services, such as improving overall system performance, improving travel times, and/or reducing transfers. Potential improvements could include layered local and express service, feeder routes to support BRT, and park and ride facility expansion.

- Metro Transit should continue to develop and implement its long-range transit service plan - the Transit Development Plan (TDP) - in close collaboration with the Madison Area Transportation Planning Board (MPO), as a means of implementing the City's public transit objectives and policies.

- Through the Transit Development Plan process, identify ways to improve existing transit service performance, including simplifying routes, optimizing stop spacing and staggering timing of buses (to reduce overcrowding).

- Develop a parking/park-and-ride management and financial plan as a means to help improve the viability and effectiveness of public transit services in the City. Study the potential for new park and ride facilities supported by direct service to major employment centers, specifically investigating the donated/leased space model used by several transit agencies. Investigate opportunities to partner with other agencies (Dane County, WisDOT, and/or other Dane County communities) to implement and/or operate park-and-ride facilities.

- Expand the use of vanpools throughout the region, to provide high quality intercity and inter-regional public transportation options for employees.

- Create a process that evaluates opportunities to institute a new regional transportation or transit governance entity - as a mechanism to finance and manage public transit services in the Madison metropolitan area and Dane County.

- Study possible transit funding sources for feasibility and effectiveness including: user fees such as fuel taxes or vehicle miles traveled charges; public financing mechanisms such as sales taxes or bond measures; private sector financing programs such as developer fees or assessment districts; city infrastructure fees, or public-private partnerships.

- Develop a long-range intercity bus service plan to ensure the continued provision of intercity bus services to and from the City of Madison, ensure the proper location of transit stations and bus staging areas, and address the impacts of intercity bus services and their facilities on residential neighborhoods.

- Work with the City of Madison Planning Division, Traffic Engineering Division, Metro Transit, and the University of Wisconsin-Madison, and others to locate a site for a new intercity bus terminal. The new bus terminal should be in a location that is easily serviceable by transit without adding new routes. Evaluate opportunities to integrate Metro Transit connections and mixed-use development into the terminal facility.

Action Items (6-10 years and beyond)

- Create a process that evaluates express bus service between surrounding communities and various regional destinations, with a goal of making transit travel time more competitive with driving.

- Evaluate potential for point-deviation transit systems, similar to the YWCA van system or Transportation Network Companies (TNCs), especially to serve lower income neighborhoods and employment nodes not well-served by current Metro service (where traditional fixed route transit service provides lengthy travel times or requires transfers). Evaluate a range of on-demand transit services for certain areas and last mile connections, including the use of a variety of vehicle sizes and route structures (**see Matrix of service options, page?**).

- Create a process that evaluates the potential use of existing freight railroad corridors for future passenger transit services, including (but not limited to) regional rail service to surrounding communities and high speed intercity passenger rail service.

Building and Maintaining Comfortable and Safe Bicycle Infrastructure

Policy and Best Practice Recommendations

- Ensure Madison in Motion consistency with the recommendations contained in the Bicycle Transportation Plan for the Madison Metropolitan Area and Dane County (2015), and implement the recommendations contained in that Plan.

- Continue to expand bicycle networks throughout the metropolitan area, with priority given to eliminating system gaps and developing additional facilities in areas where anticipated use is high.

- Identify opportunities to improve existing facilities, such as removing bike boulevard stop signs, widening undersized bike lanes on higher volume and speed streets, widening bike paths and giving priority to bicycles at appropriate path/street crossing locations (including raised path crossings) and advanced marking for mid-block crossings.

- Continue to incorporate innovative bike facilities, such as cycle tracks, buffered bike lanes and innovative intersections, where appropriate and opportunities arise (**see Innovative Bicycle Facility Section, page?**).

- Continue to construct off-street paths, with priority placed on those that eliminate existing gaps in the network.

- Remove major barriers to bicycling, whether by adding infrastructure at key spots or improving crossings of large roadways and other transportation infrastructure.

- Continue to improve intersections by adding safety improvements, bike-specific signals, diagonal crossings (where appropriate), and bicycle-sensitive actuation for traffic signals.

- Improve bicycle storage (including on-demand lockers and additional capacity), transit integration, and last-mile connections, for seamless integration with the larger transportation system. For example, examine ways to improve bicycle access on transit vehicles, bicycle storage facilities at major transit hubs, and innovative transportation linkages between major transit hubs and destinations (such as bike sharing, circulator transit services, etc.).

- Identify and apply guidelines for innovative treatments, so Madison's bike infrastructure can benefit from piloting different treatments and evolve based on what is appropriate for local conditions. Examples include emerging facility treatments being refined in other communities and design resources (e.g., protected bike lanes and intersections, new types of signalization, etc.).

- Continue to explore how emerging technologies can help improve bicycle safety. Examples include more reliable bicycle detection and vehicle-to-infrastructure/vehicle-to-vehicle (V2I/V2V) technologies. Promote the use of new technologies related to bicycles and support emerging technology training for City staff.

- Improve winter bicycle maintenance policies, reviewing winter biking routes, facilities plowing, and parking on streets with bike routes and bike lanes. Study winter maintenance practices to ensure the most appropriate facility is developed in new areas, balancing cost, usage characteristics, and winter/summer use patterns. Consider making winter bike facility maintenance a line item in responsible departmental budgets to ensure adequate capital and operational funding is provided to clear facilities, and is sufficient to deliver the desired standard of maintenance.

- Ensure that public and private bike storage facilities are cleared in winter. Improve the reporting process (report a problem) for maintenance of bicycle facilities.

- Evaluate the creation of bicycle centers at key locations throughout the City (bicycle centers may include secure bicycle parking, lock-up facilities, bike maintenance areas, and shower facilities).

- Provide parallel bicycle paths within the highway right-of-way along limited access highways.

- Coordinate with regional partners to ensure further development and refinement of a system of shared use paths, bicycle lanes on arterial and collector streets, and neighborhood street-level connectivity.

- Improve the bike parking component of the zoning ordinance, to ensure adequate bike parking in the isthmus. Require the property owner to manage snow clearing and general maintenance.

- The City's bicycle boulevard program has been in place and continues to evolve. Explore the potential to add additional treatments along current bicycle boulevards, and the creation of new boulevards as appropriate (with an increased level of treatments to encourage bicycle traffic).

- Improve cycling integration with transit. Investigate improved bike parking facilities at transfer points and major transit stops. Explore new options for increased bike capacity on current and future buses.

Action Items (next 1-5 years)

- Expand the bicycle route network, including a primary and secondary network, new off-street multi-use paths, and new on-street facilities including buffered bike lanes and cycle tracks. Create a system that balances needs of people prioritizing comfort and safety and those prioritizing efficiency and speed (**see Bicycle Route Network Map, page?**).

- Implement bike route wayfinding for cyclists by adopting the Bicycle Wayfinding Design Guidelines for Dane County (2016), and provide appropriate funding for its implementation. The City should continue to work with the Madison Area Transportation Planning Board (MPO) and Dane County to implement a bicycle wayfinding system that is consistent on bikeways throughout the county, with special priority given to bikeways that have been identified as primary routes. Improve and/or simplify bicycle signage.

- Continue the policy of providing bicycle accommodations on all collector and arterial streets whenever possible, and encourage adequate funding to be provided in appropriate City agency budgets in order to properly install and maintain these facilities. When these streets are scheduled for reconstruction or resurfacing, bicycle facilities need to be considered at that time (**see Street Typology concepts, page?**); Develop specific roadway cross-sections for rural roads in developing areas of the City that may/will be converted to an urban section, in order to ensure that developers construct the proper cross-section relative to the desired urban context.

- Conduct a bicycle facility capacity evaluation and plan for the isthmus, in order to determine the appropriate bicycle facility design based on usage.

- Study the potential for new park and bike facilities, preferably located along major paths and within three miles of primary employment centers. Like park and rides, investigate donated/leased parking space model. Ensure adequate bicycle parking at various locations along the bike paths.

- Add new bicycle and pedestrian crossings as part of major roadway projects: investigate new bicycle and pedestrian crossings recommended for Interstate 39/90, for the Beltline (including several with new streets), for Stoughton Road (including several with streets), and for USH 151. Continue to work closely with Dane County, Wisconsin Department of Transportation, and the Federal Highway Administration to ensure improvements to existing crossings of highways, as well as the creation of new crossings (**see Roadway Barrier Map, page?**).

- Assist B-Cycle with their expansion plans. Integrate B-Cycle facilities into planning and implementation of existing and planned Activity Centers throughout the City (**see B-Cycle Expansion Map, page?**). Consider the use of tax increment financing to pay for the capital costs of B-Cycle stations in tax increment districts where system expansion is merited.

- Conduct bikeway facility audits in targeted areas of the City, to help improve safety, comfort for cyclists and ease of system navigation. A system audit can identify areas that may be improved with such treatments as improving striping and painting, improved wayfinding and signage, modified roadway intersections, enhanced signalization, protected bike facilities, and vegetation clearance in certain areas.

Building and Maintaining Comfortable and Safe Pedestrian Facilities

Policy and Best Practice Recommendations

- Continue the City's sidewalk installation policy in new development areas and existing neighborhoods. Install sidewalks on both sides of all streets in all new subdivisions. Install retrofit sidewalks on both sides of all existing streets, as they are reconstructed.
    - ◊ *Recommendation for New Developments***:** The City should continue to enforce its ordinance requiring developers to install sidewalks along both sides of the street in all new developments at their own expense.
    - ◊ *Recommendation for Site Redevelopment***:** When sites are redeveloped along existing roadways without sidewalks, require the developer to install sidewalks on the site if they do not currently exist.

- Maintain sidewalks, walkways, transit boarding pads, and connections to and within transit shelters for year-round use, including appropriate snow removal. Continue to enforce sidewalk snow removal and maintenance ordinances.

- Continue to improve intersections and crossings, both controlled and uncontrolled, using innovative treatments such as (**see Innovative Pedestrian Facility Section, page?**):
    - Pavement markings and treatments such as striping, painted crosswalks (possibly using red color), and decorative paving so the change in material, color, and texture signifies pedestrian priority;
    - Raised crosswalks to signify pedestrian priority;
    - Innovative lane channelization, pedestrian refuge areas, and visually enhanced mid-block crossings;
    - Curb extensions to effectively shorten walking distance and put the pedestrian in a more visible position to begin crossing the street;
    - Signal improvements to assist with pedestrian crossings, including: pedestrian countdown signals, flashing pedestrian crossings at uncontrolled or mid-block crossings, and pedestrian -activated crossings;
    - Signage at high pedestrian crossing locations to remind vehicles to yield to pedestrians at unsignalized intersections.

- Improve roadway landscaping, including:
    - Providing adequate trees and terracing to reduce the visual and noise impact of motor vehicles on people traveling on foot adjacent to a roadway, enhance pedestrian comfort, and enhance perceived pedestrian safety;
    - Improved storm water management treatments to improve water quality, help reduce peak volume, and provide a more comfortable and aesthetically pleasing pedestrian experience.

- When streets are reconstructed ensure design supports a pleasant pedestrian experience. Providing wide, planted terraces on residential streets (8'-12' is ideal) creates an attractive buffer from the roadway while creating an optimum root environment for street trees.

- Where terraces are paved on the city's main streets, consider structured soil techniques, such as silva cells, to improve the health and canopy of trees and their associated ecological benefits in urban environments.

- Continue studying how the urban canopy within the public right of way can be improved to increase stormwater management efforts, air quality and neighborhood character.

<u>Action Items (next 1-5 years)</u>

- Maintain, update and implement a Pedestrian System Plan to identify and prioritize sidewalk needs (e.g. pedestrian ramps, crosswalk enhancements, streetscape enhancements, sidewalk expansions, etc.).

- Continue to implement a program for funding pedestrian improvements in existing neighborhoods.

- Work closely with the University of Wisconsin to identify priorities and implement pedestrian enhancements in and around the UW campus area.

- Create a planning process to identify and map existing barriers to pedestrian mobility (such as highways without adequate crossing facilities), identify where key linkages are missing, and prioritize locations where new crossings are most needed.

- Create a planning process to inventory pedestrian facilities in the downtown area. Identify the optimum width of paved sidewalk and terraces, appropriate to the surrounding urban context. Inventory and analyze pedestrian facility capacity needs in the downtown and identify the specific minimum width for paved sidewalk and terraces, for both sides of all streets and blocks in the downtown.

- Prioritize Tier 1 Streets for sidewalk additions without street reconstruction. Compare pavement condition data to identify high-need streets that are unlikely to be reconstructed soon. These pedestrian corridors may be appropriate for sidewalk installation prior to street reconstruction (**insert Tier 1 Sidewalk Facility Map, page?**).

- Identify potential funding to ensure that new and retrofit sidewalks are built. Help to reduce the financial burden of building sidewalks on property owners in already-developed neighborhoods, by reducing the cost share percentage applied to property owners.

- Pilot "shared streets" in locations with narrow roadways, high commercial activity, high pedestrian volume, and low vehicle volumes, to try out the appropriate paving treatment, programming, design features, regulations, and locations; assess the outcome (for possible expansion of a shared streets program) and explore alternative mechanisms to finance the program.

- Investigate how emerging technologies, such as pedestrian-vehicle conflict warning systems for turning vehicles, can help improve pedestrian safety. Promote the use of new technologies related to pedestrians and support training in new technologies for City staff.

- Evaluate modifications to parking garage exit design standards, for public and private garages, to increase pedestrian safety.

Building and Maintaining Streets and Roadways for All Users

Policy and Best Practice Recommendations

- Incorporate Complete Streets design components when constructing new and reconstructing existing streets and roadways (**see Street Typologies, page?**):
    - Add pedestrian refuges, medians, and curb extensions, where needed, to improve the safety and attractiveness of walking.
    - Narrow lanes to calm traffic and create space for additional uses of the right-of-way, reduce the pedestrian crossing distance between curbs, and reduce pedestrian exposure to traffic.
    - Consider "road diets," with two-way left turn lanes (TWLTLs), where appropriate, to improve roadway safety and better accommodate bicyclists and pedestrians.
    - Consider converting one-way streets to two-way operation, where such action would not compromise other City objectives or result in detrimental impacts upon residences and businesses in surrounding neighborhoods.
    - Evaluate and implement (where appropriate) traffic calming tools like traffic circles, speed tables, and speed boards as part of the City's Neighborhood Traffic Management Program (NTMP).
    - Incorporate appropriate bicycle facilities for traffic speed, volume, roadway function and urban context (including shared streets, bike lanes, buffered bike lanes and cycle tracks).

Complete Streets Note: City of Madison Resolution ID 16250 reaffirms the City's commitment to Complete Streets, and further directs staff of various agencies to follow, to the extent possible, Complete Streets concepts for all new developments, redevelopments, new street construction and street reconstruction projects. Complete Streets is a roadway facility design approach that is intended to ensure that streets are designed to enable safe access for all users, pedestrians, bicyclists, motorists and transit riders, of all ages and abilities, to be able to move safely along and across the street. Madison has a long history of following complete streets concepts without naming these as such.

While it is desired to fully accommodate all modes of transportation within the roadway cross-section, there are numerous competing uses for the street right-of-way. Specific facility treatments for each mode as components of reconstructed roadways (particularly in built-up urbanized areas of the City, like Monroe Street and Williamson Street) will need to be determined as part of roadway corridor plans, where competing interests for right-of-way (parking, sidewalk width, terraces and related amenities, bike mobility, vehicular traffic, building placement, etc.) are debated in the context of robust stakeholder involvement, careful consideration of all City objectives (including community equity implications), and a full evaluation of the impacts upon residences and businesses in surrounding neighborhoods.

- Adopt a "Fix-It First" policy for City of Madison streets and roadways, ensuring that pavement quality is maintained at an appropriately high level. A "Fix-It First" policy prioritizes the maintenance of roadway facilities over expansion, although some capacity expansion is warranted to accommodate orderly development (primarily on the periphery of the City). Such maintenance activities include chip seal/crack sealing, resurfacing and reconstruction. Continue to monitor street condition and utilize cost effective maintenance procedures.

- Reconstruct streets when they reach the end of their useful life and incorporate utility repairs or upgrades during reconstruction. Integrate Complete Streets elements into ongoing roadway construction and improvement projects. Continue to monitor street conditions and utilize cost effective maintenance procedures. Continue to implement cost-effective maintenance practices that extend the life of roadways.

- Install street trees along street terraces, within medians and within channelization islands, in order to help improve the aesthetics of the streetscape and potentially encourage slower traffic speeds (by narrowing the driver's visual perspective). Ensure that such facilities allow for safe visibility and that proper maintenance resources are provided for these facilities.

- Construct new arterial and collector streets (in and adjoining new neighborhoods) as growing areas of the City are developed, and utilize official mapping throughout the City as a tool to ensure the proper design and development of such future roadways. Facilitate rural-to-urban roadway cross-section conversions in newly-developing areas and retrofits in older areas of the City where rural cross-sections are still present.

- Private residential streets should generally not be allowed, due to their negative impact on the connectivity of the City's street network and their creation of isolated neighborhood pods that lack integration with the rest of the community. Explore creation of an ordinance to establish specific, narrowly-tailored criteria for the construction of private residential streets (similar to the City's general prohibition of cul-de-sacs unless specific conditions are present).

- To the extent possible, enhance the roadway system capacity by using Transportation Systems Management (TSM) and other innovative techniques, such as improving intersection design, driveway/access modification, lane channelization, signal timing and other strategies.

- On arterial streets in the City, maintain the traffic-carrying capacity of the roadway to the extent possible, especially in areas where capacity reduction would result in detrimental impacts upon residences and businesses in surrounding neighborhoods.

- As opportunities for reconstruction arise identify roadways with excess capacity (i.e., those with unutilized on-street parking lanes). To the extent possible, narrow the street and reallocate space to more productive uses than under-utilized asphalt, such as widening the terrace, installing or expanding boulevards, or expanding bike or pedestrian facilities.

Action Items (next 1-5 years)

- Implement the City of Madison's street/roadway, bicycle and pedestrian facility projects contained in the Madison Area Transportation Planning Board (MPO) Transportation Improvement Program (TIP). A summary of the City's TIP projects is included in the **Projects Section, on page ?**.

- Utilize the City of Madison Traffic Engineering Division Neighborhood Traffic Management Program (NTMP) to evaluate potential traffic calming projects throughout the City. Consider traffic calming tools like traffic circles, speed humps, and speed boards.

Creating and Managing On-Street and Off-Street Parking

Policy and Best Practice Recommendations

- As city parking structures near the end of their useful life, evaluate parking capacity needs and the feasibility of incorporating public parking into larger, mixed-use development projects.

- Manage downtown and central area on-street and off-street parking occupancy, time limits and rate structures to ensure they are facilitating desired usage patterns and sufficient vacancies. Balance the needs of businesses with those of residents.

- Consider the development of a formal park and ride system, as a component of a high-capacity or express regional transit network (with express or limited stop transit service to employment centers) through partnerships with commercial property owners with under-utilized parking capacity during core employment commuting hours. A formal park-and-

ride system is intended to increase transit use and reduce commuter parking in surrounding neighborhoods.

- Evaluate the efficacy of a "Park Once" program to help reduce automobile traffic and parking in the downtown and other areas of the City. Evaluate the use of dedicated shuttles from peripheral parking locations, such as the Alliant Energy Center and other locations, to help manage automobile traffic accessing the downtown.

- Discourage new long-term commuter parking for single-occupant automobiles in the downtown.

- Ensure new parking facilities are designed to minimize or eliminate negative impacts of parking infrastructure on the surrounding area, such as traffic circulation or aesthetic impacts. Build parking facilities that reach high aesthetic standards.

- Promote provision of shared-parking facilities to avoid oversupply of parking.

- Continue to proactively study current and future parking demands and supplies, using innovative techniques such as Park+ software, to help understand parking impacts of future development on existing land uses and ensure that parking policy, supply, demand, and impacts are all adequately weighed when considering projects that have an impact on parking.

- Evaluate a variety of public ownership or management options for structured parking associated with new commercial developments to encourage shared use of parking and maximize the benefit of any City investments in parking (such as is being considered in the Capital East district).

- In central areas where parking demand generated from future development is anticipated to be high, such as in the Capital East District, explore the potential for new public parking facilities as a way to facilitate use of off-street parking at all times.

<u>Action Items (next 1-5 years)</u>

- Continue to review and update parking pricing and management strategies. Evaluate dynamic pricing models for parking, to determine if different pricing methods could improve parking availability in high demand areas (such as near the UW Campus, State Street and the Capitol Square area) and increase parking revenue. Continue to coordinate parking management policies with other transportation strategies, such as transit and travel demand management.

- Permit Tax Increment Financing to be used, on a case-by-case basis, to finance public and private parking facilities, to support new development and to encourage shared parking arrangements.

Ensuring Land Use & Transportation System Coordination

Policy and Best Practice Recommendations

- Encourage the development of high-density, mixed-use Activity Centers, primarily along major existing and future planned transit corridors. Activity Centers should typically include an appropriately dense mix of housing types (including affordable units and larger units for families with children), high levels of transit service, transit supportive commercial uses (such as grocery stores, child care and neighborhood-serving retail), and community facilities (such as libraries, neighborhood centers and/or senior centers).

- Evaluate expanding land banking funds for areas surrounding key transit nodes, transit corridors and existing/future Activity Centers.

- Target infill development to areas and corridors that have, or will have, high levels of transit service.

- Focus new housing for transit dependent populations, including affordable and senior housing, along corridors with high levels of existing and planned transit service.

- Closely coordinate anticipated land use, density and neighborhood/urban character with appropriate street design. Provide appropriate level of on-street parking to meet demand without unnecessarily widening pavement.

Action Items (next 6-10 years and beyond)

- Update and implement the City of Madison Comprehensive Plan Transportation Goals, Objectives and Policies though the implementation of a variety of state, regional and local planning, project development and implementation processes.

- Identify the locations of future Activity Centers, both in the City and in peripheral locations throughout the region (**see Activity Center Map, page?**). Collaborate with neighboring municipalities being served by Metro to maximize transit oriented development outside the City.

- Prepare individual Activity Center Plans, working proactively with neighborhood groups and other area stakeholders (with priority placed on those locations most likely to experience near-term redevelopment).

- Identify spatially mismatched areas of very high transit service and existing lower-density development to determine if higher density redevelopment along these transit corridors or around transfer points would be appropriate (examples include Whitney Way, Mineral Point Road and Sherman Avenue). Consider "up-zoning" specific nodes to encourage higher-density development in these areas, where appropriate.

Managing Transportation System Demand

Policy and Best Practice Recommendations

- Institute employer-based Transportation Demand Management (TDM) measures as part of a comprehensive City-wide TDM program, in order to enhance the desirability of non single-occupancy vehicle (SOV)-based transportation modes – including public transit, ridesharing, bicycle and pedestrian transportation.

- Support ridesharing to relieve traffic congestion, reduce parking demand, reduce energy use and improve air quality. Give priority to facilities and services which encourage ridesharing for work and school trips.

- Incentivize employers to provide employees with Metro commute passes, especially in high frequency transit areas, retail and service sector jobs, and projects receiving city assistance.

- Pursue policies that result in commercial developments separating the cost of parking from leases, and thereby assign the full cost of providing and maintaining parking to those who use it.

- Continue to make periodic pricing adjustments to City-managed parking facilities to make sure prices are in line with the market.

Action Items (next 1-5 years)

- Develop a prototype Transportation Management Association (TMA) in the City of Madison, at an appropriate area of the City (such as downtown Madison, the Capitol East District or UW Research Park), as a mechanism to organize individual employers and administer TDM initiatives.

- Develop and pilot TDM programs with the largest Madison-area employers.

- Evaluate potential further reductions in the zoning ordinance's minimum and maximum parking requirements based on proximity to high-frequency transit service.

Improving Connectivity, Bridging Gaps and Enhancing Choice

Policy and Best Practice Recommendations

- Implement enhanced public transit service to Dane County Regional Airport, serving both passengers and employees.

- Expand availability of 10 ride cards and transit passes to low income riders by installing transit pass vending kiosks at transfer points, public buildings and undeserved areas.

- Identify potential bicycle/pedestrian connections to break up existing superblocks (defined as city blocks that are larger than traditional city blocks, with limited crossing and access points). An example of this type of connectivity improvement would be a potential connection of East Campus Mall to Brittingham Park.

- Continue planning for improved connectivity across major transportation barriers between key destinations (such as the downtown business district and Law Park).

- Evaluate sites for potential improved connectivity when redevelopment of larger parcels occurs. Examples include the Royster Corners development on Cottage Grove Road or the potential redevelopment of the Voit Farm parcel along Milwaukee Street.

- Utilizing data from Metro Transit's recent equity report, ensure transportation improvements equitably benefit low-income households, on both a system and neighborhood level.

- Improve connections across barriers such as the Beltline, Interstate 39/90 and other multilane, higher-speed roadways, in order to better connect surrounding neighborhoods and encourage non-auto modes. Utilize new bridges, new underpasses (public street or bicycle/pedestrian crossings) or improvements to existing street crossings to improve connectivity (**see Roadway Barrier Map, page?**).

- Encourage better integration of transit and bike usage by improving bicycle storage facilities at transfer points and major stops. Consider installing bicycle parking stalls adjacent to bus stop sign poles, where possible.

Action Items (next 1-5 years)

- Create a planning process to evaluate a variety of "First-Mile/Last Mile" transportation facilities and services, as a way to boost transit system use by enhancing convenience and service.

- As an element of the Transit Development Plan process, investigate the feasibility of integrating payment systems for buses, B-cycle (or other bike-sharing services), potential future car sharing services, and city-owned parking garages, and/or other potential transportation modes.

- Promote car sharing by integrating facilities and services into city facilities and private development.

Improving Access to Affordable Housing, Employment and other Opportunities

Policy and Best Practice Recommendations

- Integrate affordable housing planning with transit planning, transit-oriented development planning, and Activity Center planning.

- Explore ways to improve communication regarding vacancy, development, and housing trends to stakeholders (policy makers, developers, neighborhoods).

Action Items (next 1-5 years)

- Implement the recommendations contained in the City of Madison Biennial Housing Report, consistent with the directives of the Madison Common Council.

- Coordinate with the City's Community Development Division and Affordable Housing Initiative to target affordable and senior housing development in areas with high levels of existing and future planned public transit service, such as near transfer points or on major transit corridors, and in close proximity to community services and other neighborhood amenities.

- Target major employers (especially in retail and service sectors), for participation in Metro's employee pass program, describing how it could benefit employees and business operations.

- Expand the availability of the low-income transit pass program to all eligible persons, coordinating closely with existing human service providers.

- Create development district initiatives (consistent with the City's Economic Development Strategy and Housing Strategy recommendations) to encourage affordable rental housing in areas well served by transit and in proximity to desired amenities
    - Utilize financial tools to encourage development (e.g., TIF, affordable housing fund, land banking fund, etc.)
    - Utilize neighborhood planning and urban design districts to achieve affordable housing objectives

Enhancing Racial Equity and Social Justice

Policy and Best Practice Recommendations

- Ensure transportation improvements equitably benefit low-income households, on both a system and neighborhood level. Utilize the Racial Equity/Social Justice (RESJ) evaluation tool on Madison and Motion, as well as individual recommendations and projects contained within the Plan as recommended projects and studies are carried out.

- Focus new housing for transit dependent populations, including affordable and senior housing, along corridors with high levels of existing and planned transit service.

- Integrate affordable housing planning with transit planning, transit-oriented development planning, and Activity Center planning.

- Target affordable housing development in areas with high levels of existing and future planned public transit service, such as near transfer points or on major transit corridors.

Action Items (next 1-5 years)

- Expand the availability of the low-income transit pass program to all eligible persons, coordinating closely with existing human service providers.

- Make it easier to purchase 10 ride cards and transit passes for those who would use them most by installing transit pass vending kiosks at transfer points, at high-use stations, and in areas convenient to low income riders.

Transportation Enhancing Public Health and Safety

Policy and Best Practice Recommendations

- Incorporate Health Impact Assessments (HIAs) into transportation and neighborhood planning processes, to help identify linkages between the built environment and public health.

- Evaluate ways to encourage more use of active transportation modes, such as walking, bicycling and public transit. Identify and address barriers to the use of these modes (**see Transportation Demand Management section, page?**)

Transportation Enhancing Economic Development

Policy and Best Practice Recommendations

- Coordinate transportation investments with desired redevelopment and economic development outcomes. Investments in transportation should create value by fostering development and redevelopment that generates a high return (in terms of property taxes per acre), in relation to the investment of public funds in infrastructure and services.

Action Items (next 1-5 years)

- Implement the recommendations contained in Connect Madison (the City's Economic Development Strategy), consistent with the directives of the Madison Common Council.

- Organize and convene the business community to create a private sector driven coalition to research and advocate for investment in a modern urban transportation system and to help to make the economic case for investing in a modern and efficient transportation system.

- Develop and administer a transportation needs survey for the Madison business community. Work with partners – chambers of commerce, business associations, and other communities served by Metro – to identify specific transportation needs, with a focus on a regional transit system connecting people to jobs.

- Create a City of Madison interdisciplinary staff team to focus on integrating emerging transportation-oriented technologies and services with regional economic development goals. Consider creating private sector partnerships in the evaluation of new transportation technologies.

- Explore opportunities to establish "Innovation Districts", "Development Districts", "Activity Centers" or similarly-termed planned development areas, in conjunction with the objectives and policies of Connect Madison (the City's Economic Development Strategy) and Madison in Motion.

- Explore opportunities to partner with Dane County, the State, and the regional business community on potential long-range airport improvements, including improving public transit access to the airport and working to make the airport a catalyst for commercial development activity.

Using Emerging Technologies to Enhance the Transportation System

Policy and Best Practice Recommendations

- Evaluate the use of enhanced, smart traffic signals that can adjust settings in response to traffic and optimize system operation for all street users. For example, such signals can extend green lights for buses and other vehicles, respond to vehicle- and bike-embedded sensors, mitigate congestion in real-time, and enhance pedestrian crossings.

- Evaluate transit ITS improvements (such as GPS monitoring and real-time bus location information), to improve the transit user experience.

- Continue to integrate technology and information/ITS aspects into the parking system to better direct people to available parking, reduce circling, improve customer satisfaction, and proactively monitor and manage the parking system. Integrate ITS technology related to traveler information and management of transportation systems.

- Adopt a framework for how to respond to and facilitate consumer transportation technologies that improve vehicle safety.

- Establish priority corridors for transportation system management improvements, such as automated traffic systems, in transit planning or for congested corridors.

- Monitor changing demographics and preferences around transportation and location choices to better anticipate upcoming changes in demand.

- Continue to use improved sensors, connectivity, and data management tools to enhance transportation, transit, and parking system performance.

- Continue to monitor the development of ITS initiatives and trials, such as Infrastructure to Vehicle technology, for its potential for real-time management and safety improvements.

Action Items (next 1-5 years, 6-10 years and beyond)

- Implement the recommendations of the Regional Intelligent Transportation Systems (ITS) Plan for the Madison Metropolitan Area (January 2016). Recommendations of the ITS Plan will be incorporated into the Madison in Motion. However, with the rapid evolution of new transportation technologies, especially with the recent advances in autonomous vehicles, connected vehicles and electric vehicles, it is in the City's best interest to indentify and implement pilot projects on these new technologies when possible, to better position the City to make use of next-generation transportation systems and to promote mobility, public health and safety, economic growth, equity, and a clean environment.

- Implement wifi on all Metro buses.

- Establish a framework for incorporating and managing real time information regarding transportation options, such as transit, parking, taxi, rideshare, and traffic data.

- Develop policies and ordinances to obtain data and information from newly developing sources, such as Transportation Network Companies (TNCs), to aid in City evaluation of transit services, traffic flow, and peak demand times.

- Create a City of Madison interdisciplinary staff team to focus on integrating emerging transportation technologies and services with regional economic development goals. Consider creating private sector partnerships in the evaluation of new transportation technologies.

- Work with the MPO and state of Wisconsin to enhance vanpool/carpool technologies to better match riders with rides.

- Review the impact of technology changes, such as autonomous vehicles, on municipal revenue sources - parking fees, garage revenue, tow fees, etc.

- Evaluate necessary changes to City parking infrastructure to better serve electric vehicles.

- Evaluate the impact autonomous vehicles and Transportation Network Companies will have on provision of parking as the technology continues to progress. For example:
  - Should parking garages be designed to allow for conversion to other uses in case autonomous vehicles and TNCs reduce parking demand?
  - Do on-street parking areas need to be redesigned to allow for additional pick-up/drop-off areas for TNCs and autonomous vehicles?

- Develop and adopt a framework to analyze technology-based transportation innovations as new technology continues to develop. The framework should encourage innovation, respect consumer choice, maximize public benefit, and support other policies and best practices established in this plan. For example, framework criteria could include whether or not the technology:
  - Enhances accessibility, especially for people with disabilities and other vulnerable populations (e.g. children, seniors, low-income communities);
  - Improves public safety and personal security;
  - Enhances transit system seamlessness and improves customer experiences;
  - Allows for the City to enhance transportation/transit benefits and manage/mitigate negative impacts;
  - Has a positive impact on active transportation and creating/maintaining a healthy community;
  - Creates additional auto trips and congestion; and,
  - Improves peoples' quality of life.

Work with Regional Partners to Create a Seamless Regional Transportation System

Action Items (next 1-5 years)

- Create a process that evaluates opportunities to institute a new regional transportation or transit governance entity, as a mechanism to finance and manage public transit services in the Madison metropolitan area and Dane County.

- Study possible transit funding sources for feasibility and effectiveness including: user fees such as fuel taxes or vehicle miles traveled charges; public financing mechanisms such as sales taxes or bond measures; private sector financing programs such as developer fees or assessment districts; city infrastructure fees, or public-private partnerships.

Relationships to non-City Plans and Related Planning Activities

Policy and Best Practice Recommendations

- Ensure that City of Madison elected officials, policy makers and agency staff are active participants on policy and technical advisory committees of multi-agency transportation planning and project development processes that affect the City.

Action Items (next 1-5 years, 6-10 years and beyond)

- Update and implement the City of Madison Comprehensive Plan Transportation Goals, Objectives and Policies though the implementation of a variety of state, regional and local planning, project development and implementation processes.

- Implement the transportation system recommendations contained in the Madison Area Transportation Planning Board (MPO) long-range regional land use and transportation plan.

- The City of Madison should remain a strong partner in the planning, design and implementation of all WisDOT arterial roadway facilities in the region, including the Beltline, Interstate 39/90, USH 51 Stoughton Road highway corridors and other state highways.

HOW WILL MADISON IN MOTION RECOMMENDATIONS BE IMPLEMENTED?

Recommendations contained in the Madison in Motion Plan encompass a wide range of recommendation categories.

- *Policy & Mission Statements*
- *System Visions (Maps of Routes and Networks)*
- *Facility Design Best Practices/Innovative Service Delivery*
- *Reference to Standing Planning Processes*
- *Follow-Up Planning and Refinement*
- *Implementation Actions/Specific Projects*

These recommendations are implemented in a variety of ways – through ongoing detailed planning and development processes, established transportation management programs and other transportation implementation mechanisms. As such, many of the Plan's recommendations will require the initiation of more detailed planning and/or project development processes – either stand-alone planning processes or as part of these established programs.

Policies and best practices recommendations contained in Madison in Motion will help guide the implementation of specific transportation projects, and the maps and route networks are intended to help inform where specific facilities and services should be targeted. Madison in Motion's Mission Statement and other Plan objectives and policies can be found in **section ?, page ?**.

Established Planning and Project Development Processes

In terms of the established planning process, many are administered by the City of Madison. However, some planning and project development processes that affect the City are managed by other local, regional or state agencies and entities.

Some examples of how various transportation facilities and services in the City of Madison are implemented, and their respective planning and project development processes include:

- Design and development of local streets in new neighborhoods as part of the City's Neighborhood Development Planning (NDP) processes.

- Implementation of transit system improvements – including a route addition or modification, installation of a new bus shelter or construction of a new park-and-ride facility – through Metro Transit's 5-year plan, the Transit Development Plan (TDP).

- Evaluation, prioritization and implementation of traffic calming measures through the City of Madison Traffic Engineering Division's Neighborhood Traffic Management Program (NTMP).

- The planning and project development of new high-capacity transit service in Madison and other Dane County communities, including new express bus service, Bus Rapid Transit service, and improvements to the local bus system.

The City of Madison recognizes the importance of these established processes as a mechanism for implementing the City's vision. It is critically important that the City's transportation system goals, objectives and policies are integrated into these ongoing planning and project development processes. It is also important that all affected parties and interests, stakeholders, neighborhood representatives, elected officials and other City policy makers are highly involved in these planning and implementation processes. The City of Madison consistently strives to ensure full public and stakeholder participation in its planning/development processes and transportation implementation programs, and the City urges other regional and state entities to ensure appropriate Madison involvement.