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Near Westside Neighborhoods and University Avenue Corridor Transportation Study

Report

City of Madison, WI,
Village of Shorewood Hills,
WI, and the
University of Wisconsin-
Madison
July 2014





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July 21, 2014

Mr. David Dryer, P.E.
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Madison, WI 53703

Re: Near Westside Neighborhoods and University Avenue Transportation Study

Dear Mr. Dryer

Enclosed are two copies of the final Near Westside Neighborhoods and University Avenue Transportation Study. Thank you for the opportunity to work on this exciting project.

Please call with questions.

Sincerely,

STRAND ASSOCIATES, INC.®

Jeffrey S. Held, P.E., PTOE

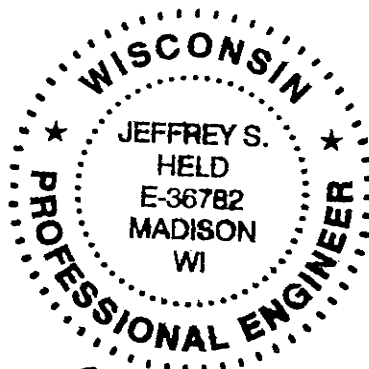
Enclosure: Report

c: Correspondence File

c/enc: Karl Frantz, Village of Shorewood Hills
Rob Kennedy, University of Wisconsin-Madison

Report for
City of Madison, Wisconsin,
Village of Shorewood Hills, Wisconsin,
and the
University of Wisconsin-Madison

Near Westside Neighborhoods and University
Avenue Corridor Transportation Study



July 21, 2014


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1.01 STUDY BACKGROUND, THEME, AND GOALS

The City of Madison (City), the Village of Shorewood Hills (Village), and the University of Wisconsin-Madison (UW) jointly funded this Near Westside Neighborhoods and University Avenue Transportation Study (Study).

The Near Westside neighborhoods, the Village, and the larger Madison area are served by University Avenue, an important primary arterial street carrying in excess of 50,000 vehicles per average weekday. This can result in sometimes severe congestion, crashes, and delay to motorists, public transit riders, pedestrians, and bicyclists. As a result, some drivers elect to use nearby residential streets in both Madison and Shorewood Hills to avoid traffic delays and congestion. The local residential streets serving this cut-through traffic are not intended for this use, and this traffic can have a negative impact on quality of life resulting in increased concerns for pedestrian and bicyclist safety.

The portion of University Avenue considered in this Study is from Segoe Road to Breese Terrace. The Study also includes neighborhood streets and transportation infrastructure nearby bound by the following: Lake Mendota to the north; Mineral Point Road, Speedway Road, and Regent Street to the south; Segoe Road to the west; and Breese Terrace to the east.

The Study approach was broken into three phases. Phase 1 of the Study involved needs identification and review of base and future conditions and took place from January through July 2013. Workshops were held to gather stakeholder input: the first on March 12 at Madison West High School and the second on March 20 at the Shorewood Hills Village Hall. Phase 2 of the Study involved development and review of potential solutions and took place from July through September 2013. Workshops were held to gather additional stakeholder input and feedback on the range of possible corridor modifications: the first on September 12 at the Shorewood Hills Village Hall and the second on September 23 at Covenant Presbyterian Church. Phase 3 of the Study involved development of recommendations, one public information meeting, and study documentation. It included the development of near- and long-term recommendations, a review of funding opportunities, and identification of next steps for implementation.

Based on stakeholder feedback and planning level evaluation of possible modifications, the study team developed a Guiding Theme and three Primary Goals. These were considered when developing the list of recommendations.

A. Theme and Goals

Table 1.01-1 lists the Guiding Theme and Primary Goals developed by the study team.

Guiding Theme	
Considering the high physical and environmental impacts and total project costs associated with significant motor vehicle capacity expansion (an eight-lane corridor or grade separations), primarily seek options to reduce demand for peak-hour single occupant motor vehicle (SOMV) travel and/or improve conditions for alternate modes without a severe detriment to car and bus travel.	
Primary Goals	
Goal TR: (Transit)	Provide exclusive and/or prioritized transit that moves high volumes of people within this portion of the University Avenue transportation corridor.
Goal AC: (Access)	Improve access (options for both ingress and egress) to the west UW campus and VA medical complex areas.
Goal PB: (Pedestrian/Bicycle)	Improve the connectivity and comfort level of bike and pedestrian travel in the study area.

Table 1.01-1 Guiding Theme and Primary Goals

1.02 BASE CONDITIONS

A. Travel Demand Management

Travel Demand Management (TDM) measures seek to achieve more efficient use of transportation infrastructure by reducing the demand for single occupant motor vehicle trips during peak travel times. The Village, City, and UW all engage in various forms of TDM. The result of this concerted and coordinated effort is evident in the most recent US Census data. From 2007 to 2011 in the Madison metropolitan area as a whole, 78.7 percent of work trips were made by car. This 22.3 percent share for alternate modes is fifth highest in the country exceeding Portland, Oregon, and Austin, Texas, and on par with much larger urban areas such as Boston, Massachusetts, and Chicago, Illinois.¹

B. Pedestrian Accommodations

Pedestrian accommodations vary in the general study area. While sidewalks are provided on both sides of the major corridors, most of the Village of Shorewood Hills and portions of the Greater Regent neighborhood lack sidewalks. Portions of the arterial corridors of University Avenue, Campus Drive, and Midvale Boulevard can act as impediments to pedestrian travel. There is a perception that some of the traffic signals along University Avenue do not provide sufficient crossing times; however, upon review of the signal controller settings, pedestrian crossing times consistent with industry practices and requirements are in fact provided at each intersection when a pedestrian button is pressed.

C. Bicycle Accommodations

In general, the study area and the Madison metropolitan area as a whole are well-served by a large network of interconnected bicycle facilities, with some gaps still needing to be completed. On-street dedicated and shared-lane facilities as well as off-street paths are available for bicyclists. The most common issues cited by stakeholders included lack of east-west connectivity from University Bay Drive to Shorewood Boulevard; the campus path crossing of Highland Avenue

¹From *Transportation in Transition*, December 2013, by United States Public Interest Research Group (U.S. PIRG)

north of Campus Drive; and a lack of north-south connectivity between the area bounded by Midvale Boulevard and Allen Street/Edgewood Boulevard.

D. Transit Service

Metro Transit provides the main transit service in the City of Madison metropolitan area via local bus service. The Study corridor is a critical link in Metro Transit's route structure. In 2011, more than 14.9 million rides were recorded on Metro Transit, a 9.5 percent increase over 2010. Currently 8.6 percent of work trips in Madison use transit, which ranks 44th in the nation. University Avenue is an extremely important transit corridor. There are 15 Metro Transit route numbers that serve University Avenue, not including supplemental school service. Almost 490 buses travel on University Avenue during a typical weekday, not including school service.

E. Motor Vehicle Peak-Hour Congestion and Queuing

The study team completed traffic modeling to evaluate current levels of driver delay and queuing during peak traffic conditions. Synchro8/SimTraffic8 software was used for this analysis. For urban streets, conditions at intersections are typically used to evaluate operations. Currently, some intersections in the Study area are near capacity during peak times, and a few intersections or individual movements are over capacity.

F. Crash History

Crash analysis for transportation facilities is often divided into at least two categories: crashes at intersections and crashes along corridors. For motor vehicle crashes, crash rates are typically used (crashes per vehicle or vehicle miles) rather than the gross number of crashes. This is so facilities that carry different volumes of motor vehicle traffic can be compared to one another.

The University Avenue corridor from Midvale Boulevard to Grand Avenue experienced the most bicycle and pedestrian crashes. There were 13 from 2007 through 2011, or about 2.5 per year. This corridor also experiences the highest motor vehicle and some of the highest bicycle and pedestrian traffic of any of the corridors evaluated. It is expected then that the higher number of potential conflicts resulted in the highest number of pedestrian and bicycle crashes.

The study team reviewed crash data at 29 intersections in the Study area; 16 experienced a bicycle or pedestrian crash between 2007 and 2011. Only one location had more than two bicycle or pedestrian crashes in that period. The intersection of University Avenue and Farley Avenue/University Bay Drive experienced three pedestrian and two bicycle crashes.

The Highland Avenue corridor had the highest motor vehicle crash rate from 2007 through 2011 of the corridors evaluated, and the rate was 1.64 times the statewide average for an urban arterial facility. It is important to note, however, that the number of crashes and crash severity were both low. Only one injury was reported from the 21 total crashes in the five-year period (4 percent). Three crashes occurred at the VA Hospital entrance just north of the railroad tracks. Three crashes involved bicyclists, two of which were traveling along Highland Avenue while one was crossing Highland Avenue at the UW

multiuse path north of the railroad tracks. Two crashes involved a vehicle traveling on Highland Avenue sideswiping a legally parked vehicle.

For motor vehicles, intersection crash rates are typically calculated as the number of crashes per one million entering vehicles (MEV). In Wisconsin, an intersection crash above 1.5 MEV is often considered a candidate for a safety study. Intersections with crash rates between 1.0 and 1.5 MEV warrant monitoring.

None of the 20 intersections the study team evaluated experienced a crash rate over 1.5 MEV, and only two locations had crash rates above 1.0 MEV. The intersection of Mineral Point Road and Midvale Boulevard had a crash rate of 1.01 MEV. The City will be making modifications at this location in 2015. The intersection of Mineral Point Road/Speedway Road and Glenway Street had a crash rate of 1.11 MEV.

G. Cut-Through Traffic

This study included a license plate survey to identify how much of the traffic on the most common cut-through routes is in fact cut-through traffic. This type of data collection is very budget-intensive, as field staff must manually collect plate numbers at multiple locations simultaneously. For this reason, only inbound traffic on select routes during a weekday AM peak period was collected.

The study indicates that about 55 percent of the traffic entering the Village of Shorewood Hills during the AM peak period on Lake Mendota Drive ultimately leaves the Village via Lake Mendota Drive, Shorewood Boulevard, or Oxford Road. At least some of this traffic is likely destined to the Eagle Heights housing area and probably should not be categorized as cut-through. About 15 percent of the traffic entering on Shorewood Boulevard ultimately exits the Village via Oxford Road. Some of this is likely student drop-offs at Shorewood Elementary.

For the Greater Regent neighborhood, the study shows inbound cut-through traffic during the AM peak period varies from about 20 to 50 percent on the routes surveyed. Franklin Avenue has the highest percentage of vehicles that enter the area and ultimately exit at one of the locations surveyed. Of the traffic exiting the area at Franklin Avenue and University Avenue, about 25 percent originated from one of the three entry points surveyed.

The study team also collected data on traffic entering the UW/VA Hospital area northbound on University Bay Drive and Highland Avenue. About 5 to 10 percent of the entering traffic was found to have “cut through” the Greater Regent neighborhood, while 92 to 96 percent had not cut through. This equated to about 100 cut-through vehicles total during the AM peak hour on the day the survey was conducted. Some of this traffic was likely coming from points south of Speedway and Mineral Point Road, and was thus taking a reasonable route to the UW/VA Hospital area and other points north.

H. Neighborhood Parking Concerns

A significant amount of feedback was provided to the study team by residents of the Greater Regent Neighborhood regarding on-street parking use by daily commuters. Opinions varied regarding the level of concern caused by the high use parking areas. Some residents liked the fact

that the parked vehicles tend to slow or “calm” traffic on neighborhood streets. Some felt the parking was primarily a concern on streets that do not have sidewalk for pedestrians. Other residents opined that the phenomenon of commuters/employees parking in the neighborhood and walking, bicycling, or taking transit to work was not acceptable and should not be allowed.

1.03 FUTURE CONDITIONS

The general Study area has been and will continue to be an attractive area for redevelopment projects. The relatively recent changes to the Hildale Mall area and proposals for reconfiguration of the Hill Farms State Office Building site are clear indicators of this. In addition, a number of smaller redevelopment projects have recently been or will soon be completed including the Walnut Grove shopping center, properties in the Doctors Park area, the mixed use development in the southeast quadrant of the University Avenue and Farley Avenue intersection, the 2550 University development northwest of University Avenue and Highland Avenue, and more.

Based on the results of scenario testing using the 2035 travel demand model maintained by the Dane County Transportation Planning Board, the study team agreed to use 115 percent of the Base motor vehicle traffic volumes to develop and test potential intersection and corridor modifications. The actual traffic growth that will occur over the next 15, 20, or 25 years will be dependent on many factors. The Study area already produces a high percentage of travel by alternate modes. If the status quo is maintained, 15 percent growth could be reached by about 2025. If the influences of TDM, mixed use redevelopment and densification and/or improved or premium transit service can work together to continue reducing the demand for peak-hour single-occupant motor vehicle trips, 15 percent growth may not be reached until 2040, if ever.

For this study, the quantitative operational evaluation of possible intersection and corridor modifications has been completed using Synchro8 traffic modeling software. The study team agrees it is an appropriate tool to develop and test different scenarios in terms of the impact on motor vehicle operations. These impacts in turn affect conditions for the other modes. Higher levels of motor vehicle congestion and queuing can lead to increased traffic on neighborhood streets, higher crash rates, less comfortable conditions for pedestrians and bicyclists, and less predictable transit service. The intersections expected to experience the most congestion and queuing in the future include University Avenue and Midvale Boulevard, Midvale Boulevard and Mineral Point Road, University Avenue and Shorewood Boulevard, University Avenue and Blackhawk Avenue, and Regent Street and Highland Avenue/Speedway Drive.

1.04 DEVELOPMENT AND REVIEW OF POTENTIAL MODIFICATIONS

The study team discussed the range of potential Study Corridor modifications and considered options from a Do Nothing scenario to a scenario that would extend Campus Drive by creating a grade-separated expressway from Farley Avenue through Segoe Road. Modifications were developed at a schematic planning level only and each was evaluated for its impact on travel in the area. Three key intersections along University Avenue were evaluated in greater detail: at Midvale Boulevard, at Shorewood Boulevard, and at Farley Boulevard/University Bay Drive. Results from these key intersections would help the study team understand the type of corridor University Avenue could or should be over the longer term.

1.05 RECOMMENDATIONS

Based on stakeholder feedback and planning level evaluation of possible modifications, the study team developed the Guiding Theme and the three Primary Goals. These were considered when developing the list of recommendations. The study recommendations on the whole are intended to align with the Guiding Theme. Each recommendation is also anticipated to advance at least one of the Primary Goals.

Based on the planning level evaluation of the proposed modifications, each recommendation was designated as Nearer Term or Longer Term. Nearer-Term improvements are generally those that have lower impacts and/or lower costs. Longer-Term improvements have moderate to high impacts or costs and therefore will likely need to be completed as part of a larger overall initiative or design and construction project.

The full list of recommendations is included in the Section 6, as well as Appendix G; 29 Nearer Term and 19 Longer-Term modifications are recommended. The recommendations include travel demand management, physical modifications for pedestrians and bicycles, motor vehicle capacity expansion, installation of new partial signals similar to the one at University Avenue and Marshall Court/ Ridge Street, investigating adaptive signal control, and more.

1.06 COMMENTS FROM REVIEWING BODIES

The draft study was provided to several local governmental bodies for review. Following is a summary of the comments received for consideration as projects are advanced.

A. Madison Pedestrian, Bicycle, and Motor Vehicle Commission

The following comments were received at the meeting on May 27, 2014.

1. If modifications are made to the University Bay Drive/Farley Avenue intersection, they must improve conditions for pedestrians and not make them worse; refuge areas should be expanded.
2. Regarding north-south bike accommodations, consider making modifications/adding on-street accommodations to Farley Avenue rather than the recommended Franklin Avenue. This issue was also discussed at subsequent meetings and was not resolved.
3. Make additional improvements to the existing east-west Kendall Avenue bike boulevard including removal of the stop signs along Kendall and identifying an extension of the boulevard east to connect with Breese Terrace.
4. Consider performing a survey to help determine the most effective means of demand management for Madison. What stops people from choosing a mode other than driving alone?

B. Madison Long-Range Transportation Planning Committee

The following comments were received at the meeting on May 29, 2014.

1. If modifications are made to the University Bay Drive/Farley Avenue intersection, they must improve conditions for pedestrians and not make them worse; refuge areas should be expanded.
2. If significant modifications are made to the Shorewood Boulevard intersection, consider eliminating the channelizing island for northbound right turns. If redevelopment allows, try to eliminate the skew angle of the south leg.
3. If the Kendall Avenue bike boulevard is extended west, the pavement on Bluff Street should be improved.
4. If there is a major project along University Avenue, try to eliminate the superelevated curve and profile issues near Bagels Forever. These geometric elements seem to encourage higher speeds.
5. Travel demand management must be emphasized moving forward, and the study should have included this as one of the Primary Goals (note: it is included in the Guiding Theme). The City, Village, and University should require Transportation Management Associations among business and property owners. Consider performing a survey to help determine the most effective means of demand management for Madison.
6. Decision makers should continue to consider how land use and transportation are linked as the corridor redevelops and encourage less autocentric and more pedestrian and bicycle friendly urban environments to the extent possible.

C. Shorewood Hills Village Board

The following comments were received at the meeting on June 16, 2014.

1. Future projects must consider that modifications to accommodate one mode, such as transit signal priority, may make conditions for other modes worse. Future changes will require tradeoffs and compromises.
2. The multiuse trail crossing of University Bay Drive is a key challenge, and must be carefully addressed when a project involving significant modifications moves forward.
3. There is a strong desire to find a way to construct a grade-separated pedestrian crossing near Target in the Hilldale Mall area.

D. Madison Board of Public Works

The following comment was received at the meeting on June 18, 2014.

1. A park and ride is needed somewhere between the Metro Transit West Transfer Point and UW Campus.

1.07 CONCLUSIONS AND POSSIBLE NEXT STEPS

The Study Area including the Village of Shorewood Hills, the Greater Regent Neighborhood, and the west campus of the UW is a desirable place to live and work. It is anticipated that development and redevelopment in the Study Area will continue to increase the demand for transportation for the foreseeable future as residences, jobs, and services continue to be added. This growth is part of local plans and is a healthy prospect for the City, Village, and University. Some of the natural amenities that contribute to livability in the area such as Lakes Mendota and Wingra, the UW Arboretum, and the parks and golf courses on the near west side also create transportation challenges.

Mobility along University Avenue is important to the success of area businesses and the UW. Significant motor vehicle capacity expansion (constructing an eight-lane corridor or extending Campus Drive to the west by adding grade separations and interchanges) would have significant impacts and costs both physically and in terms of livability. Therefore, the study team settled on an overall goal for the corridor that focuses on improving conditions for pedestrian, bicycle, and transit travel while minimizing negative impacts on motor vehicle travel.

The study team believes the recommendations are achievable and when taken together will communicate and enhance the multimodal nature of the corridor. The primary next steps in implementing the recommendations include the following:

1. Continue to advocate for a Regional Transportation Authority (RTA) with state lawmakers to advance enhanced (preferably exclusive right of way) transit serving the Study Corridor.
2. Consider investigating the creation of an Intergovernmental Commission if RTA legislation is unlikely in the Nearer Term.
3. Implement a means to incentivize participation in regional Travel Demand Management solutions.
4. Considering the importance of efficient travel in the Study Area, make improvements to east-west and north-south bicycle connections a high priority when selecting which future projects areawide should be implemented.
5. Continue to require improvements that balance bicycle, pedestrian, transit, and motor vehicle needs as part of the development/redevelopment review and approval process.
6. Implement the access modifications proposed in this report (partial signals) and do not allow new full-access signals along the Study Corridor.

2.01 STUDY BACKGROUND

The City of Madison (City), the Village of Shorewood Hills (Village), and the University of Wisconsin-Madison (UW) jointly funded this Near Westside Neighborhoods and University Avenue Transportation Study (Study). Figure 2.01-1 shows a portion of the University Avenue corridor in the study area.

The Near Westside neighborhoods, the Village, and the larger Madison area are served by University Avenue, an important primary arterial street carrying in excess of 50,000 vehicles per average weekday. This can result in sometimes severe congestion, crashes and delay to motorists, public transit riders, pedestrians, and bicyclists. As a result, some drivers elect to use nearby residential streets in both Madison and Shorewood Hills to avoid traffic delays and congestion. The local residential streets serving this cut-through traffic are not intended for this use, and this traffic can have a negative impact on quality of life resulting in increased concerns for pedestrian and bicyclist safety.



Figure 2.01-1 A Portion of the University Avenue Study Corridor

The street pattern and development in this area do not lend themselves to good alternative routes. This results in challenges to accommodating continued growth and maintaining residential neighborhoods while also providing for modes of travel including bike, pedestrian, and transit. Along with regional growth, the City, University, and Village continue to grow and generate additional traffic, including major redevelopment projects pending that require community and intergovernmental review and input. This Study:

1. Evaluates the transportation impacts for currently proposed and future development including development opportunities within existing neighborhoods, using adopted neighborhood plans, where present, as a basis for future redevelopment conditions.
2. Identifies pros and cons of potential solutions and considers feedback from area stakeholders.
3. Develops a set of stakeholder-integrated transportation strategies and projects.
4. Informs decision-making related to further growth and land use applications as well as neighborhood livability interests in the study area, particularly related to UW Hospital projects, Village of Shorewood Hills redevelopment, and City of Madison redevelopment.
5. Discusses next steps of implementation based on the study recommendations.

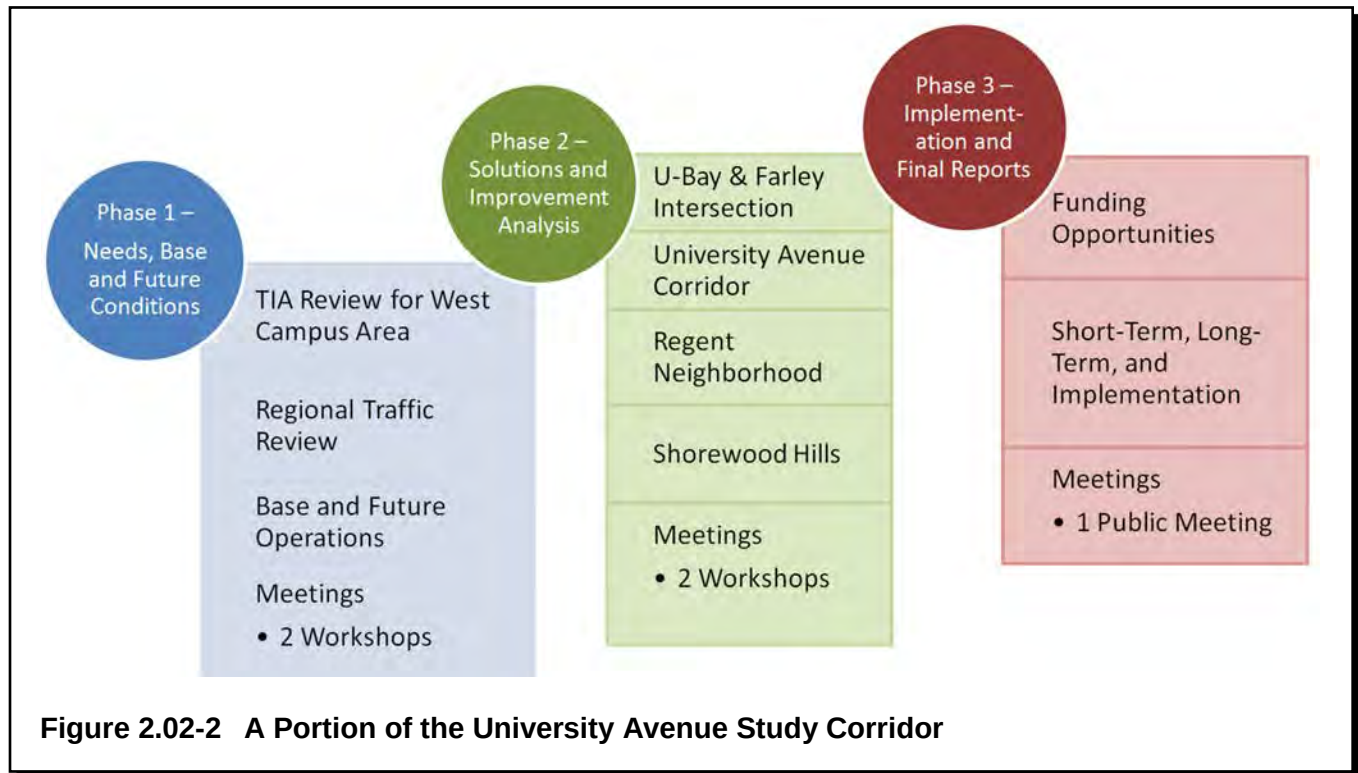
The Study process included standard transportation planning and engineering efforts intended to identify and vet short- and long-term street and transportation recommendations. The Study is intended to develop and incorporate recommendations to reduce the incidence of vehicles using neighborhood streets to avoid University Avenue traffic congestion and improve neighborhood livability by improving conditions for pedestrian, bicycle, transit, and personal motor vehicle travel.

2.02 STUDY LIMITS AND APPROACH

The portion of University Avenue considered in this Study is from Segoe Road to Breese Terrace. The Study also includes neighborhood streets and transportation infrastructure nearby bound by the following: Lake Mendota to the north; Mineral Point Road, Speedway Road and Regent Street to the south; Segoe Road to the west; and Breese Terrace to the east. Figure 2.02-1 shows the Study area.



The Study approach was broken into three phases, as illustrated in Figure 2.02-2.



Phase 1 of the Study involved needs identification and review of base and future conditions and took place from January through July 2013. It included data gathering and field data collection, a review of the Traffic Impact Analysis (TIA) performed by others for the UW Hospital parking garage expansion project and an assessment of traffic operations near the west campus area, and a review of base and projected future travel demand. Workshops were held to gather stakeholder input: the first on March 12 at Madison West High School and the second on March 20 at the Shorewood Hills Village Hall. An online survey was also created and a link to the survey was sent to the City of Madison neighborhood associations' Listserv, provided at the public workshops, and posted on the Shorewood Hills and Madison Web sites.

Phase 2 of the Study involved development and review of potential solutions and took place from July through September 2013. It included additional field data collection, review of stakeholder input from the first set of workshops and the online survey, development of a range of possible modifications to transportation infrastructure, and motor vehicle operations analysis. Workshops were held to gather additional stakeholder input and feedback on the range of possible corridor modifications: the first on September 12 at the Shorewood Hills Village Hall and the second on September 23 at Covenant Presbyterian Church.

Phase 3 of the Study involved development of recommendations, one public information meeting, and study documentation. It included the development of near- and long-term recommendations, a review of funding opportunities, and identification of next steps for implementation.

2.03 STUDY AREA CONTEXT

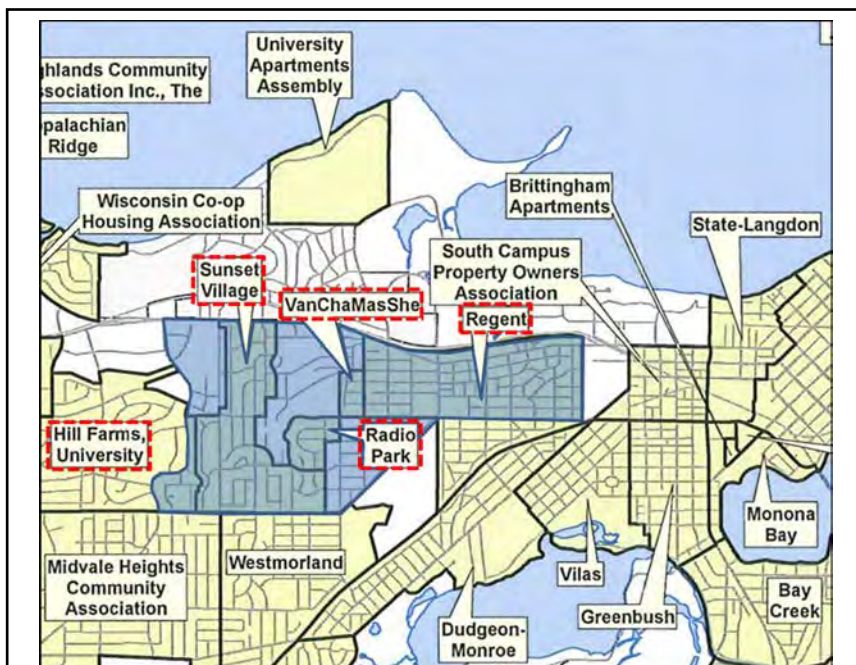
A. Village of Shorewood Hills, Greater Regent Neighborhood, University of Wisconsin-Madison

This Study was jointly funded by the Village of Shorewood Hills, the University of Wisconsin-Madison (UW) and the City. Each entity recognizes the need to work together on transportation solutions along, across, and adjacent to University Avenue and understands that projects undertaken in one area impact the others. Travel choices and the factors that influence them do not start and stop at municipal or governmental boundaries.

The Village was incorporated in 1927 by combining the existing College Hills and Shorewood real estate plats. By the 1950s, the City grew to surround the Village. The streets within the Village are somewhat circuitous, narrow, and with a few exceptions do not have sidewalk on either side. University Avenue is the only east-west arterial corridor serving the Village.

The Greater Regent neighborhood as considered in this Study includes areas represented by several neighborhood associations as shown in Figure 2.03-1. The current land uses developed from east to west, with the oldest neighborhoods dating back to the 1920s on the east end and the areas to the far west dating to the 1950s and 1960s.

The street grid in this area is severed by natural topography, parks, cemeteries, and a municipal golf course. A number of the local streets do not have sidewalks. University Avenue and the Mineral Point Road/ Speedway Road/ Regent Street corridor are the east-west arterials serving these neighborhoods. Midvale Boulevard is the only north-south arterial corridor serving these neighborhoods.



Source: cityofmadison.com

Figure 2.03-1 Greater Regent Neighborhood Area for This Study

The UW was founded in 1848. According to the UW's Long Range Transportation Plan (LRTP), much of the street grid, particularly on the west side of campus adjacent to the Study area, follows paths originally laid out around glacial drumlin hills and other land features by farmers and other first settlers in the area. The UW is one of the largest employment centers in Dane County, yet access to the west

campus is limited. The University Avenue/Campus Drive corridor is the only east-west arterial serving the campus and along with the railroad tracks that run parallel creates a barrier to north-south movement in the area. The nearest north-south arterial corridors are Midvale Boulevard to the west and Park Street to the east.

B. Natural and Physical Barriers

The natural geography of Dane County creates transportation barriers. Figure 2.03-2 shows how the Madison Isthmus impacts travel from the near east side to the near west side. This reinforces the importance of providing a transportation system that is able to efficiently move people through this constrained area.

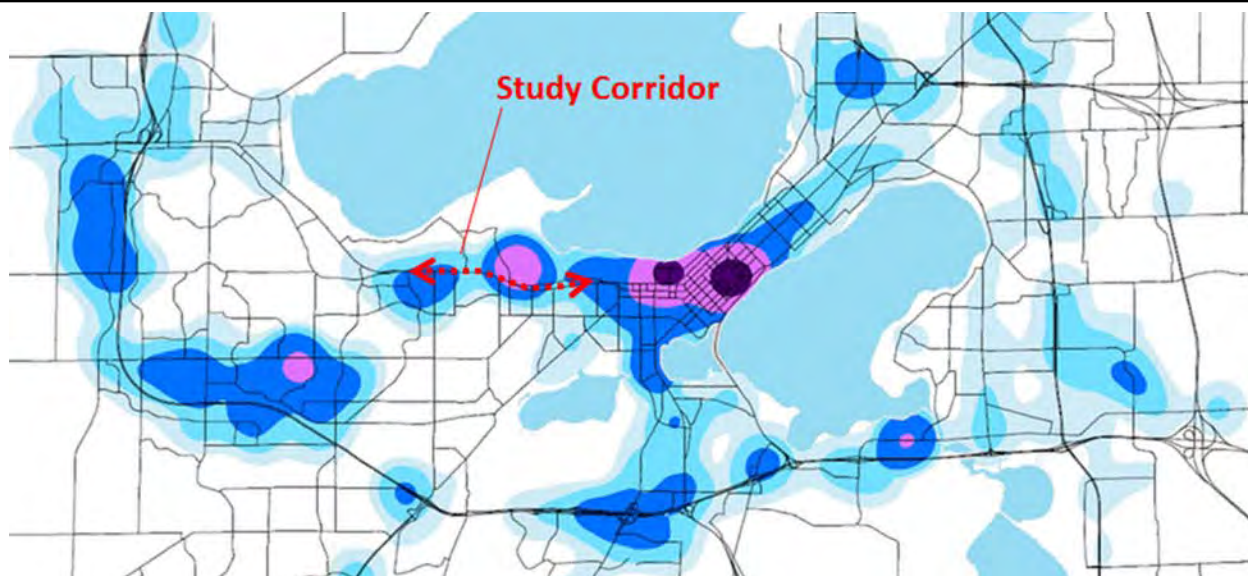
The lakes, wetlands, parks, and other resources that contribute to livability in the area present challenges for mobility by disrupting the street grid system. Topography in the study area also impacts bicycle and pedestrian travel between certain locations.



Figure 2.03-2 Travel Distances Through and Around the Isthmus

C. Employment Density

Figure 2.03-3 shows the employment density in the area.



Source: Madison Area Transportation Planning Board

Figure 2.03-3 A Portion of the University Avenue Study Corridor

The UW campus and downtown Isthmus area represent the highest employment centers in Dane County. UW employs approximately 13,000 staff and faculty, with another 40,000 students making trips to and from campus on typical weekdays during the fall and spring semesters. Employment on the Isthmus is greater still. The University Avenue corridor is a vital artery serving these employment centers, and within the Study area, there is not a comparable parallel route to provide relief to University Avenue/Campus Drive.

D. University Avenue Corridor as a Higher Mobility Route

In the 1960s, the University Avenue corridor was proposed to be part of an urban expressway running from Whitney Way, through the Isthmus between East Gorham and East Johnson Streets, to the intersection of Packers Avenue and Aberg Avenue. Figure 2.03-4 shows the planned route and the portions of the expressway that were constructed.

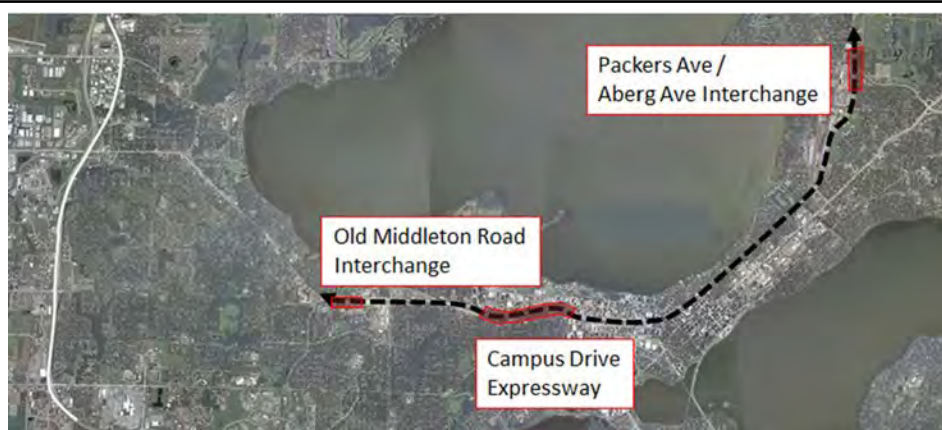
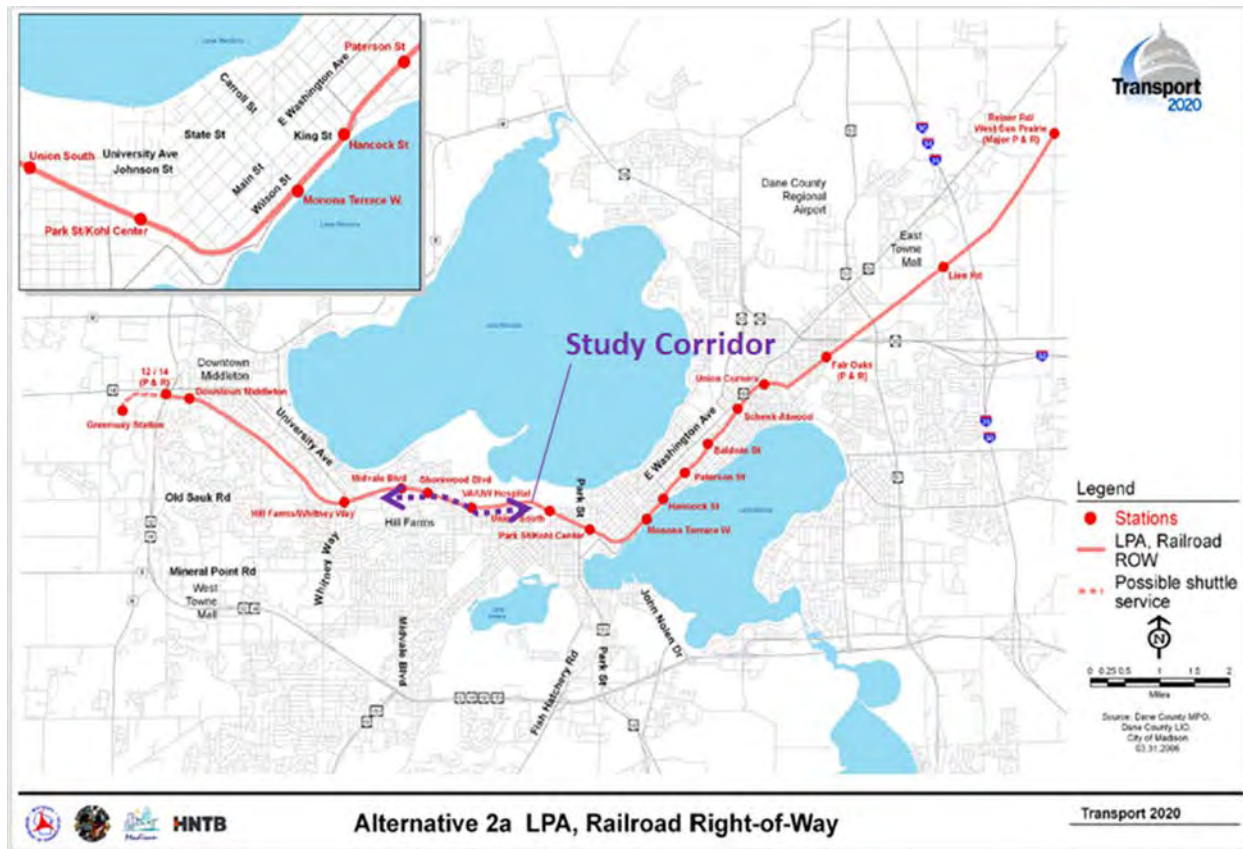


Figure 2.03-4 Portions of a Proposed Continuous Expressway That Were Constructed

In the 1970s, City representatives and area stakeholders agreed not to proceed with additional portions of the parkway. The decision was made with the understanding that by choosing not to increase motor vehicle capacity along this major arterial route, peak period traffic could spill over on to adjacent streets with lower classifications, including to local streets within nearby neighborhoods as drivers seek routes that avoid congestion.

Transport 2020 was a major transportation study completed in 2008 designed to develop a long-term transportation solution for Dane County and the Madison Metropolitan Area. It was sponsored by Dane County, the City, and the WisDOT, with support from UW and the Metropolitan Planning Organization (MPO). The Transport 2020 study proposed a long-term transportation system that included a multimodal system consisting of commuter rail, express bus services, park-and-ride lots, and improvements to local bus service.

In 2008, Transport 2020 submitted a New Starts Application to the Federal Transit Administration (FTA) for financing to begin project engineering on the Locally Preferred Alternative (LPA). This application for federal funds was to begin the first piece of the project: a 16-mile east-west commuter rail line operating within an existing freight rail corridor between the City of Middleton and an area just southwest of the City of Sun Prairie, directly through the Isthmus of the City of Madison. The proposed Transport 2020 LPA is shown in Figure 2.03-5. This improvement was meant to relieve the congestion in the Isthmus area, including within the Study corridor, and provide service to the UW campus and downtown employment centers.



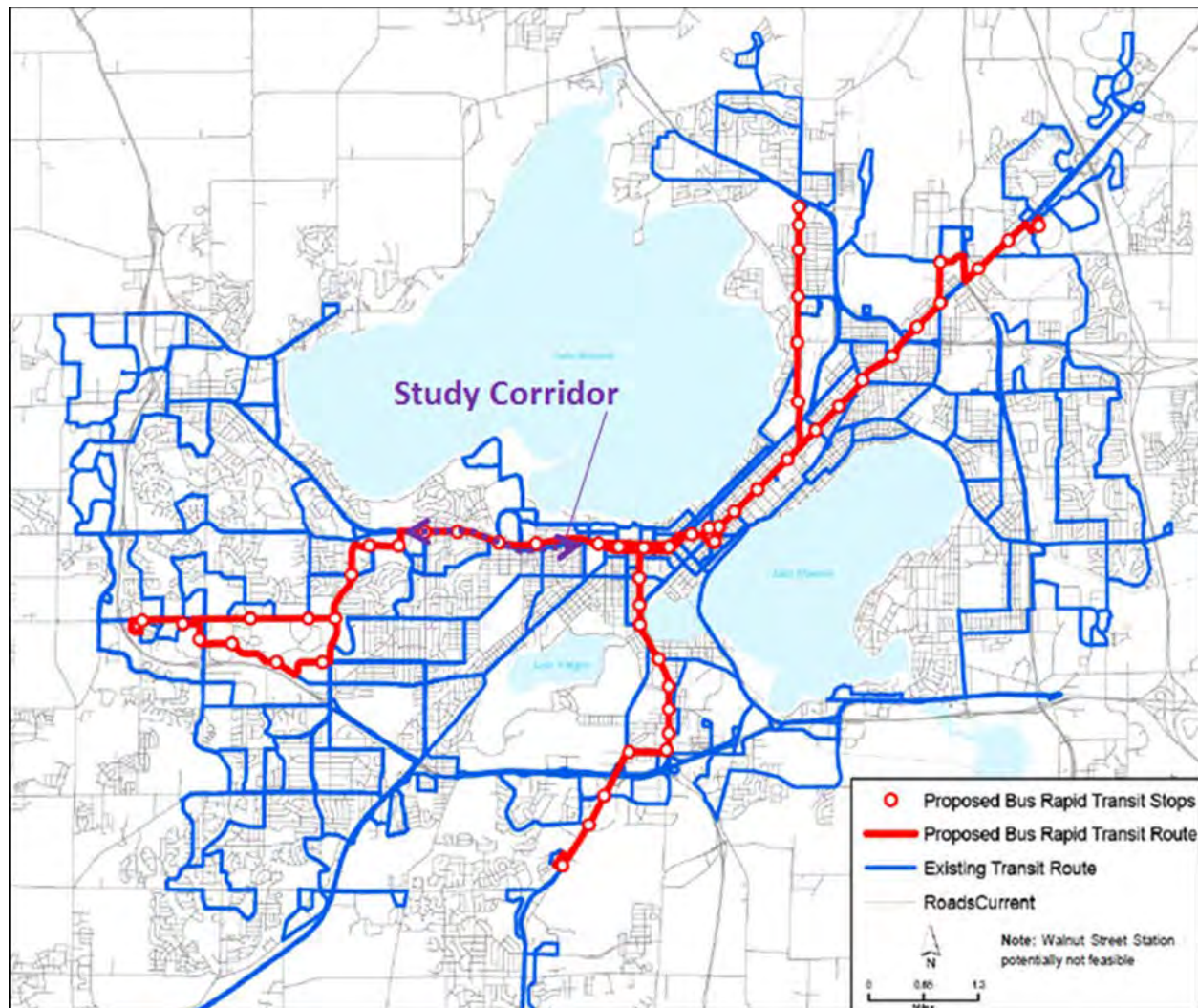
Source: <http://www.transport2020.net/alts.html> accessed 9/2013

Figure 2.03-5 Locally Preferred Alternative from Transport 2020

In 2009, the FTA application was withdrawn because of the lack of both a Regional Transportation Authority (RTA) and a local financial commitment for capital and operating costs. The project is currently on hold pending RTA legislation and consideration of other alternatives such as Bus Rapid Transit (BRT).

The Madison Transit Corridors Study (BRT Study) evaluated BRT in the Madison area. The study, completed in May 2013, was funded by part of a federal Sustainable Communities Regional Planning grant administered by the Capital Area Regional Planning Commission (CARPC), and led by the MPO.

The BRT Study evaluated four corridors: north, south, east, and west out of the downtown area that included a common central segment in the UW Campus area and central Isthmus. Those corridors are the most heavily traveled transit corridors in the city with over 20,000 of about 60,000 total daily boardings. In the west corridor, the study analyzed a Mineral Point Road alignment and an Odana Road alignment. Both west corridors include the University Avenue Study corridor. Figure 2.03-6 shows the BRT corridors that were evaluated.



Source: Madison Transit Corridor Study, May 2013

Figure 2.03-6 Proposed BRT Service Including a Portion of the Study Corridor

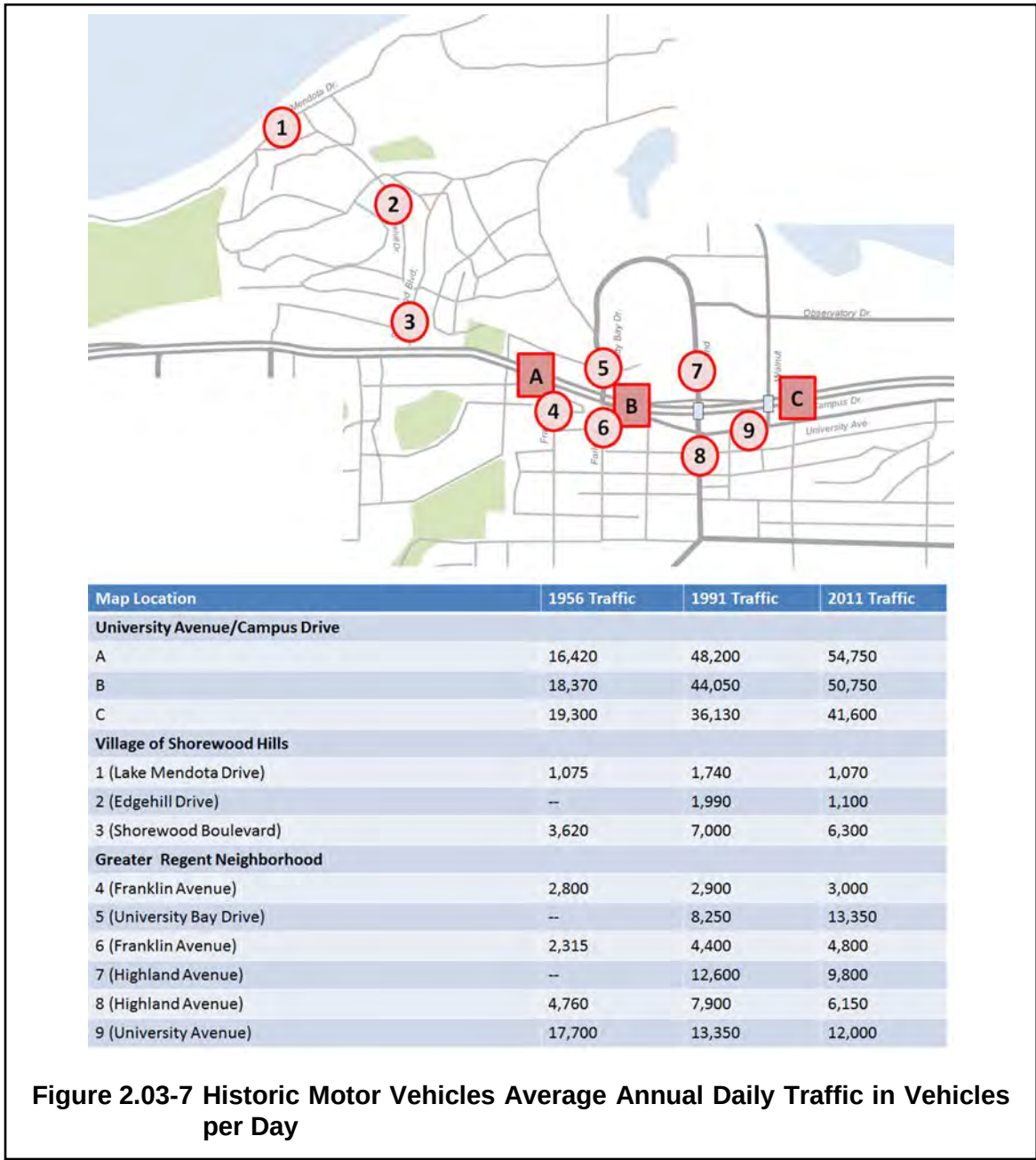
Estimated construction costs range from about \$25 million to \$70 million for each of the four corridors, with a total cost of about \$138 million (2016 dollars). Annual operating and maintenance costs are estimated at almost \$10 million (2012 dollars). Daily ridership is forecasted to range from about 4,000 to 10,000 trips per day on each of the corridors.

E. Historic Traffic Volumes

Figure 2.03-7 shows motor vehicle traffic volumes along University Avenue/Campus Drive and other Study area streets. In general, traffic volumes have grown steadily over the past 20 years or so on University Avenue/Campus Drive. Average annual growth rates have been about 0.7 to 0.8 percent a

year. For comparison, other major arterials in Wisconsin such as Bluemound Road in Brookfield have grown from 0.0 to 4.0 percent a year since the early 1990s.

Interestingly, most of the parallel neighborhood streets have not shown any traffic growth in the past 20 years, and some have not shown significant growth even as far back as the 1950s.



2.04 PUBLIC WORKSHOP NO. 1

The first opportunity for direct public input occurred in spring 2013. Two workshops were held: the first was at West High School on March 12 and the second was at the Shorewood Hills Village Hall on March 20. The materials at each were identical.

A. Format and Workshop No. 1 Materials

The workshops consisted of about a 20-minute presentation covering similar material to that outlined above. This was followed by questions and answers and a goals identification exercise. The goals exercise asked attendees to work together to develop a list of goals for the study area and University Avenue corridor. Each table reported back to the group, and the goals were listed on large sheets of paper. Finally, participants were given three “dot” stickers and asked to place stickers by the goals they felt were most important to help the study team prioritize project efforts.

Appendix A contains the workshop materials and a summary of the input received.

B. Summary of Public Comments

The results of the goals exercise from both workshops are listed in Table 2.04-1.

Goal/Concern	Village of Shorewood Hills		Greater Regent Neighborhood	
	Votes	Rank	Votes	Rank
Reduce cut-through traffic	15 dots	1	14 dots	4
Implement improved transit/encourage mode shift	8 dots	2	32 dots	1
Improve bike and pedestrian crossings	7 dots	3	21 dots	2
Provide park and ride lots/reduce parking on neighborhood streets	5 dots	4	16 dots	3

Table 2.04-1 Results from the Goals Exercise at the First Round of Public Workshops

Two forms were provided for written comments: the first asked for a listing of the top three goals for the corridor; the second was a general comments sheet. The written responses followed a similar theme as the results of the dot exercise, in that concerns of nearby residents centered on ways to reduce peak-hour motor vehicle traffic and impacts on the adjacent neighborhoods such as cut-through traffic and commuter parking. Requests to ease congestion by expanding motor vehicle capacity were made, but these were less common than requests for improvements to alternate modes of travel.

Appendix A contains the workshop materials and a summary of the input received.

3.01 ONLINE SURVEY

The Study included an online survey to gather additional input from the public and local stakeholders. Full results are included in Appendix B. Over 1,000 responses were received. The first question asked respondents to indicate where they lived, and the remainder of the survey could not be completed unless this question was completed. Of the survey respondents, 34 percent live in the Village and 33 percent live in the greater Regent neighborhood; 29 percent of the respondents work on the UW campus while an additional 11 percent work on the Isthmus.

There is excellent mode split with 30 to 40 percent of trips made by respondents occurring by foot, bike, and transit at least a few times per week. Overall however, about 50 to 70 percent of respondents still drive the University Avenue Study corridor to work a few times per week or more, and 80 percent drive a few times per week or more for errands.

The highest ranking issues regarding motor vehicle conditions included:

1. Peak congestion along the corridor.
2. Congestion at major intersections.
3. Crossing or turning left from side streets.
4. Left turns from University Avenue to the side streets.
5. Motor vehicle speeds.

The highest ranking neighborhood transportation issues included:

1. Better east-west bicycle connections.
2. Improvements for bicycles and pedestrians crossing University Avenue.
3. Better north-south bicycle connections.
4. Managing cut-through traffic.
5. Managing on-street commuter parking.

When asked whether corridor modifications were needed, about 90 percent of respondents agreed that either small (60 percent) or major (30 percent) modifications should be considered; 10 percent indicated that no changes were necessary.

3.02 TRAVEL DEMAND MANAGEMENT

Travel Demand Management (TDM) measures seek to achieve more efficient use of transportation infrastructure by reducing the demand for single occupant motor vehicle trips during peak travel times. The Village, City, and University all engage in various forms of TDM. The result of this concerted and coordinated effort is evident in the most recent US Census data. From 2007 to 2011 in the Madison metropolitan area as a whole 78.7 percent of work trips were made by car. This 22.3 percent share for alternate modes is fifth highest in the country exceeding Portland, Oregon, and Austin, Texas, and on par with much larger urban areas such as Boston, Massachusetts, and Chicago, Illinois.¹

¹From *Transportation in Transition*, December 2013, by United States Public Interest Research Group (U.S. PIRG).

Some of the more effective TDM policies and planning efforts currently in use and impacting the Study area are summarized in the following subsections.²

A. Improving Transport Options

The Village, City, and UW all seek to provide transportation options and encourage the use of alternate modes of travel in multiple ways.

1. Alternative Work Schedules

UW-Madison/Hospitals is one of the largest employers in Dane County. The various purposes people have for visiting the west campus area such as working at the hospitals, teaching, attending undergraduate classes, completing graduate level research, and administration services for the University reduces the concentration of trips during typical weekday peak periods, particularly in the morning peak.

2. Transit

The Study corridor is one of the most heavily used transit corridors in Metro Transit's service area. The local bus transit service routes along University Avenue from Segoe Road to Breese Terrace are often near or at capacity during AM and PM peak commuting times. Metro Transit currently operates 15 bus routes along the Study corridor with peak headways as low as 8 minutes. The City of Monona also offers express commuter bus service to downtown Madison and the UW Campus.

Enhanced transit has also been studied for this area. First, Light Rail Transit (LRT) was studied as part of the Transport 2020 project. More recently, BRT was studied as part of the Madison Transit Corridor Study. Either system would use the Study corridor as a key link in the larger system and include multiple stations/stops between Segoe Road and Breese Terrace with enhanced amenities such as sheltered waiting areas, automated ticket purchase, bicycle parking, and more.

3. Bicycling Infrastructure

The City of Madison has had since 1972 a strong commitment to improving bicycle infrastructure and system connectivity and the Village and UW support this effort. Improvements continue to be made as streets are reconstructed and land uses redevelop in the Study area. The online survey results indicate that 40 to 50 percent of people traveling in the Study area do so by bicycle at least a few times per week. Improvements to bicycle connections were routinely cited as one of the highest priority goals for transportation in the Study area. Figure 3.02-1 shows bicyclists traveling along Midvale Boulevard.

²This TDM discussion is organized based on information provided by the Victoria Transport Institute at www.vtpi.org

Existing bicycling infrastructure contributes to the high ridership in the area. Bicycle racks provided on Metro Transit buses integrate transit and bicycle travel. The B-Cycle bike-sharing program operated by Trek continues to expand in participation and station locations. Through the approval process, project owners are continuing to be asked to provide additional infrastructure to encourage bicycling such as locker and shower facilities, abundant and easily accessible bike parking, and more.



Figure 3.02-1 Bicyclists on Midvale Boulevard

4. Carsharing

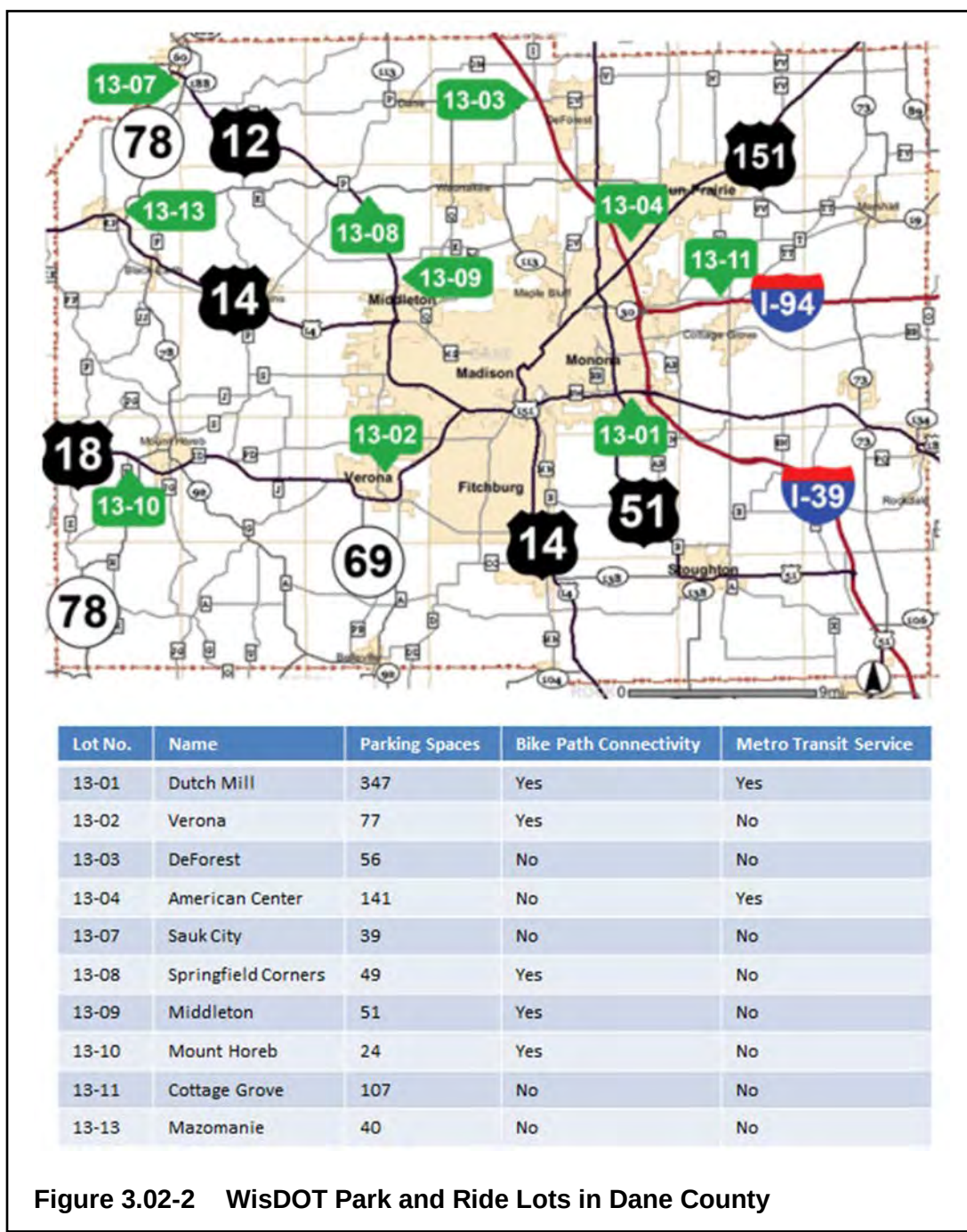
There are two carsharing services serving the Study area. Community Car is a Madison-based car sharing service. Vehicle locations serving the Study area include one at Hilldale, two at Eagle Heights Apartments, and one at 1111 Regent Street east of Camp Randall Stadium. The UW also provides carsharing by Zipcar with five vehicle locations around campus.

5. Ridesharing

There are several types of shared ride services that can be used for travel in the Study area. Local taxi service is provided by Badger Cab, Green Cab, Madison Taxi, and Union Cab. Guaranteed Ride Home is a program that allows registered participants to use vouchers for emergency trips when they are at work without a vehicle. Rideshare Etc. is an online ride matching program that is sponsored by the Madison Area Transportation Planning Board and the Wisconsin Department of Transportation. The Wisconsin Department of Administration also operates the State Vanpool ridesharing program for both state and non-state workers commuting to Madison.

6. Park and Ride Lots

Figure 3.02-2 shows the regional park and ride lots in Dane County that are operated by the Wisconsin Department of Transportation (WisDOT).



More than 930 parking spaces are provided in ten lots. Five of the lots have access to regional bike paths. Two of the lots are currently served by Metro Transit.

Metro Transit serves additional locations for commuters in the metro area including the North Transfer Point on Huxley Street, the Northside Towncenter at Sherman Avenue and Northport Drive, and the American Center on East Park Boulevard. The UW operates Lot 200 located in the University Research Park off Science Drive between Whitney Way and Mineral Point Road.

This lot is served by Metro Transit. UW also recently opened two new park and ride lots that are served by free shuttle service. Lot 202 is located on West Wingra Drive between Park Street and Fish Hatchery Road. Lot 203 is located at the Hill Farms State Office Building on Eau Claire Avenue. Lots 200, 202, and 203 require a parking permit with a lower fee than on campus lots.

B. Incentives

1. Commuter Financial Incentives

Currently, the businesses and residents in the Madison metropolitan area are not subject to carbon taxes, road user fees, road pricing, or other methods of restructured transportation infrastructure and maintenance financing. There are financial incentives and disincentives built into the price and location of parking in the downtown and campus areas and other transportation policies currently in place, such as the bus passes available to UW students. Employers are encouraged to provide financial incentives that encourage less commuting by single-occupant vehicles, but are typically not obligated to do so.

2. Modal Priority and Encouragement

Providing an advantage to alternate modes of transportation can provide incentive for people to use them. Such measures could include dedicated bus lanes, bicycle boxes at intersections, and grade-separated pedestrian crossings. Currently some examples exist in the study area, primarily for improving bicycle and pedestrian priority at specific locations.

In general, encouragement for using alternate modes is high in the study area. This encouragement comes in many forms. There is a proven and ongoing local commitment to improving conditions for bicyclists, pedestrians, and transit riders as part of all major projects. There is significant momentum that occurs as larger and larger shares of commuters choose to walk, bike, and ride transit. There is also increasing public awareness of the benefits of reducing peak-hour single-occupant motor vehicle commuting and of the improvements to the quantity, quality, and accessibility of traveler information that is available to the commuting public.

3. Parking

The amount of available, inexpensive motor vehicle parking has a direct impact on motor vehicle trips. The Village ordinances require about the same amount of parking for new land uses as those of other Dane County communities. Significant redevelopment projects typically require approval through the Planned Unit Development process, and the Village has a history of requiring bicycle parking, typically at a ratio of at least one space per residential unit. The City's recently updated zoning code actually has no minimum requirement for off-street motor vehicle parking and, in many cases, sets maximum motor vehicle parking thresholds, and includes bicycle parking requirements for nearly all land uses. The UW has adhered to a long-standing commitment to maintain approximately 13,000 parking spaces even as projects increase on-campus staff, faculty, students, and visitors. The tradeoff with providing less parking is that some people will choose to continue to drive and park in locations that are not intended for frequent commuter use. This is occurring today in the Greater Regent neighborhood portion

of the Study area. Two-hour parking throughout the Village of Shorewood Hills generally prevents this occurrence.

C. Land Use Management

How the Village, City, and UW choose to grow will impact future travel demand. The current desire to encourage higher density, mixed use development and redevelopment and improve multimodal connections acts as a TDM measure in and of itself. These types of developments are more suitable for successful transit service, they make trip making by walking or bicycling more feasible, and they allow for easy linking of some trip types.

3.03 PEDESTRIAN ACCOMMODATIONS

Pedestrian accommodations vary in the general study area. While sidewalks are provided on both sides of the major corridors, most of the Village of Shorewood Hills and portions of the Greater Regent neighborhood lack sidewalks. Portions of the arterial corridors of University Avenue, Campus Drive, and Midvale Boulevard can act as impediments to pedestrian travel. There is a perception that some of the traffic signals along University Avenue do not provide sufficient crossing times; however, upon review of the signal controller settings, pedestrian crossing times consistent with industry practices and requirements are in fact provided at each intersection when a pedestrian button is pressed.

Pedestrian activity is relatively high in the Study area. The presence of the VA and UW Hospitals and UW campus results in many pedestrian trips to and from the nearby residential areas. A large amount of commercial and office land uses are located on both sides of University Avenue along the length of the Study corridor and also west of Midvale Boulevard. These land uses also generate a significant amount of pedestrian travel. The University Avenue intersections at University Bay Drive/Farley Avenue (Figure 3.02-3) and Highland Avenue have the highest pedestrian volumes in the Study area.

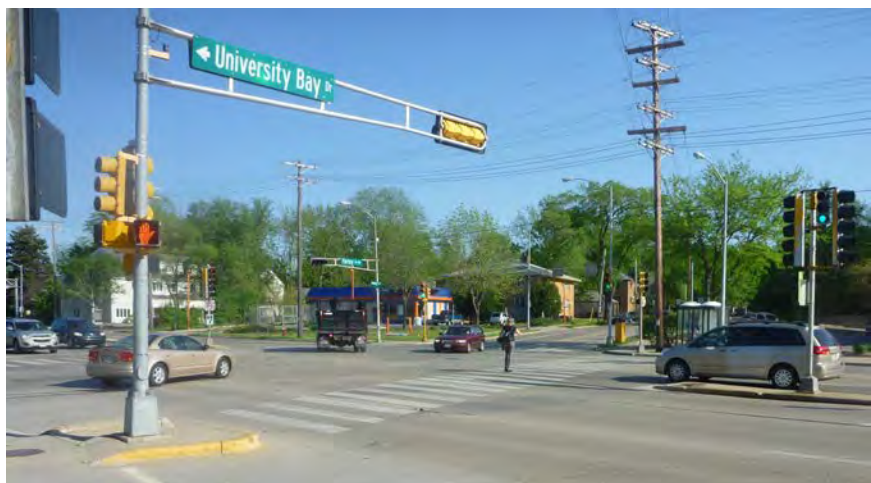


Figure 3.02-3 Pedestrian Accommodations at University Bay Drive/Farley Avenue

The subsections below summarize locations of highest need for pedestrians as identified by project stakeholders and the study team. A full summary of pedestrian issues and opportunities as presented at the second set of Study workshops is included in Appendix C.

A. University Avenue and Shorewood Boulevard

Crossing University Avenue at this signalized intersection was cited by many study participants as a concern and prompted the formation of a citizen advocacy group called Citizens for Safe Corridors. Primary concerns include a lack of compliance by drivers in stopping at the marked stop bars and turning vehicles failing to yield to pedestrians in the crosswalks (primarily southbound right-turning vehicles crossing the west crosswalk and southbound left-turning vehicles crossing the east crosswalk). Shorewood Hills Elementary School is located north of University Avenue and some of the children that attend there live south of University Avenue. Crash data from 2007 through 2011 included 1 pedestrian crash out of a total of 42 intersection crashes reported.

B. University Avenue and Blackhawk Avenue

Crossing University Avenue at this unsignalized intersection was cited by study participants as a concern. Crash data from 2007 through 2011 did not include any reported crashes involving pedestrians. In August of 2013, there was a crash involving pedestrians in which a mother and her infant in a stroller were struck by a vehicle because the driver failed to see them crossing in front of a vehicle in the adjacent lane that had yielded to their crossing.

C. University Avenue and University Bay Drive/Farley Avenue

Crossing University Avenue at this signalized intersection was cited by study participants as a concern. Crash data from 2007 through 2011 included 4 pedestrian crashes out of 83 crashes reported. There was also a comment received regarding northbound vehicles attempting a right turn on red failing to notice pedestrians crossing in the south crosswalk.

D. Midvale Boulevard at Hildale Mall Entrance North of Heather Crest

Crossing Midvale Boulevard at this location was cited as a concern. The primary issue appears to be southbound U-turning motor vehicles that conflict with the marked crosswalk on the north side of the intersection. The U-turn maneuver is somewhat common here because the Mall exit to the north allows only an eastbound right turn. Drivers wishing to exit the Mall here and travel north on Midvale Boulevard make an eastbound right turn followed by a southbound U-turn at the subject median break. Crash data from 2007 through 2011 included three reported crashes, none of which involved pedestrians.

E. Missing Sidewalks

Some residents of the Greater Regent neighborhood south of University Avenue cited missing sidewalks as a concern. This was particularly the case on streets where the combination of a significant amount of daily commuter parking and a lack of sidewalks occurs.

3.04 BICYCLE ACCOMMODATIONS

In general, the study area and the Madison metropolitan area as a whole is well-served by a large network of interconnected bicycle facilities, with some gaps still needing to be completed. On-street dedicated and shared-lane facilities as well as off-street paths are available for bicyclists. Figure 3.04-1 shows the existing bicycle system serving the Study area.



The following subsections summarize locations of highest need for bicyclists as identified by project stakeholders and the study team. A full summary of bicycle issues and opportunities as presented at the second set of Study workshops is included in Appendix C.

A. East-West Connectivity from University Bay Drive to Shorewood Boulevard

The single most common stakeholder issue cited for any of the travel modes was the lack of continuity for east-west bicycle travel between the on-street bicycle lanes on Locust Drive at Shorewood Boulevard and the UW campus path that runs on the north side and parallel to University Avenue/Campus Drive east of University Bay Drive. Bicyclists in this area must choose between riding on the most heavily traveled portion of University Avenue, traveling through the private parking area between University Avenue and Marshall Court, or riding along Marshall Court and using University Bay Drive to make the connection between Marshall Court and the UW path.

B. Campus Path Crossing of Highland Avenue north of Campus Drive

The path crossing at this location was cited as a concern for bicyclists. Part of the issue involves the lack of visibility of the traffic signal heads at the Westbound Campus Drive Ramps intersection, which makes it difficult for path bicyclists to know where conflicting traffic from the south will be originating from. Crash data from 2007 to 2011 included 1 crash involving a bicyclist out of 22 crashes reported.

C. North-South Connectivity between the area bounded by Midvale Boulevard and Allen Street/Edgewood Avenue

Traveling north-south between the bicycle facilities that are parallel to the Study corridor area and the Southwest Path that runs parallel to Monroe Street can be challenging. There is a lack of a dedicated, lower motor vehicle volume north-south route between Spooner Street/Prospect Avenue, particularly north of Speedway Road/Regent Street. Rolling topography and physical barriers including Hoyt Park, Resurrection Cemetery, Forest Hill Cemetery, and Glenway Golf Course also decrease north-south connectivity.

3.05 TRANSIT SERVICE

Metro Transit provides the main transit service in the City of Madison metropolitan area via local bus service. The Study corridor is a critical link in Metro Transit's route structure. Figure 3.05-1 shows the Metro Transit routes in the Study area.

In 2011, more than 14.9 million rides were recorded on Metro Transit, a 9.5 percent increase over 2010. Currently 8.6 percent of work trips in Madison use transit, which ranks 44th in the nation.

University Avenue is an extremely important transit corridor. There are 15 Metro Transit route numbers that serve University Avenue, not including supplemental school service. Almost 490 buses travel on University Avenue during a typical weekday, not including school service.



Figure 3.05-1 Metro Transit Routes in the Study Area

The most common comment provided by project stakeholders regarding transit was the desire for enhanced transit service (commuter rail or express bus service) to reduce the demand for peak-hour single-occupant motor vehicle trips. The Madison Transit Corridors Study (BRT Study) evaluated BRT in the Madison area. The study, completed in May 2013, was funded by part of a federal Sustainable Communities Regional Planning grant administered by the CARPC, and led by the MPO. The BRT Study evaluated four corridors: north, south, east, and west out of the downtown area that included a common central segment in the UW Campus area and central isthmus. Those corridors are the most heavily traveled transit corridors in the city with over 20,000 of about 60,000 total daily boardings.

In the west corridor, the study analyzed a Mineral Point Road alignment that included an option for 4.3 miles of fixed guideway in the median of University Avenue. The total estimated cost of the BRT system is about \$138 Million (2016 dollars). Daily ridership is forecasted to range from about 4,000 to 10,000 trips per day on each of the corridors. The study concluded that the fixed

guideway alternative (BRT-only lanes in the median) along University Avenue would require additional right-of-way to be purchased from adjacent businesses and would have particularly severe impacts east of Shorewood Boulevard.

A summary of transit conditions presented at the second set of Study workshops is included in Appendix C.

3.06 MOTOR VEHICLE PEAK-HOUR CONGESTION AND QUEUING

The study team completed traffic modeling to evaluate current levels of driver delay and queuing during peak traffic conditions. Synchro8/SimTraffic8 software was used for this analysis. For urban streets, conditions at intersections are typically used to evaluate operations. Currently, some intersections in the Study area are near capacity during peak times, and a few intersections or individual movements are over capacity.

Level of Service (LOS) is one metric used to evaluate how a street is functioning for motor vehicles, including passenger cars, freight/deliveries, and bus transit. LOS is based on the average delay experienced by motor vehicles and uses a scale from LOS A (very little delay) to LOS F (the motor vehicle service capacity of the intersection is exceeded). Table 3.06-1 shows the Base conditions along the corridor for the PM peak hour. Listed are the overall LOS, the number of individual movements operating at LOS F, and movements that experience a Volume to Capacity ratio (V/C) greater than 1.0 and 0.9.

Intersection LOS is one performance measure used in transportation planning, but it must be considered in conjunction with other factors impacting how a street serves all modes of traffic. Poor motor vehicle LOS alone does not necessitate modifications. Nor does an acceptable motor vehicle LOS indicate that a street is serving all modes of travel adequately.

Intersection	Control	Level of Service	LOS F Mov's	VC > 1.0	Add'l VC
		LOS (seconds of delay)	No.	No.	No.
		Base	Base	Base	Base
University Ave. & Segoe Road	Signal	B (17.8)	1	0	0
University Ave. & Hilldale Way	2-way Stop	C (21.8)	0	0	0
University Ave. & Midvale Blvd.	Signal	D (66.9)	3	3	0
University Ave. & Blackhawk Ave.	2-way Stop	F (>300)	2	2	0
University Ave. & Shorewood Blvd.	Signal	C (21.4)	1	1	1
University Ave. & Ridge Street	Partial Signal	A (4.4)	0	0	0
University Ave. & University Bay Dr./ Farley Ave.	Signal	C (23.5)	0	0	0
University Ave. & Highland Ave.	Signal	B (16.7)	0	0	0
University Ave. & Walnut St.	Signal	C (29.6)	0	0	1
Midvale Blvd. & Mineral Point Rd.	Signal	D (41.8)	0	1	2
Midvale Blvd. & Regent St.	Signal	B (10.1)	0	0	0
Mineral Point Rd. & Glenway St.	Signal	A (8.9)	0	0	0
Regent St. & Farley Ave.	2-way Stop	B (13.2)	0	0	0
Regent St. & Highland Ave./ Speedway Dr.	All-way Stop	E (46.4)	3	3	0
Highland Ave. & Campus Dr.	Signal	A (10.0)	0	0	0
Highland Ave. & VA Hospital	Signal	B (18.2)	0	0	0
Highland Ave. & Observatory Dr.	Signal	B (13.7)	0	0	0
Lake Mendota Dr. & Edgehill Dr.	1-way Stop	A (8.7)	0	0	0

Source: Synchro8 output

Table 3.06-1 Base Motor Vehicle Operating Conditions During the PM Peak Hour

The intersections experiencing notable operational concerns under current conditions are described in the following subsections.

A. University Avenue and Blackhawk Avenue

This intersection operates under stop-control for the northbound and southbound approaches. The northbound and southbound left turns from the side street on to University Avenue operate at LOS F during heavy traffic periods. There are not suitable gaps for these left-turning maneuvers. In the afternoon, westbound vehicles queuing at the Midvale Boulevard intersection to the west can sometimes reach Blackhawk Avenue, complicating operations and further degrading operations. It should be noted that the traffic operations software used for the analysis sometimes overestimates side-street delay at two-way stop-controlled intersections. A manual delay study would need to be conducted in the field to more accurately assess the LOS at this location.

B. Regent Street and Speedway Drive and Highland Avenue

This intersection is under all-way stop control, and the pavement markings were recently modified and improved to better define the crosswalks and pedestrian refuge areas. During peak traffic conditions, delays can approach one minute for the average vehicle traveling through the intersection. Queuing can also be significant, particularly eastbound during the AM peak hour and westbound and southbound during the PM peak hour. It should be noted that the traffic operations software used for the analysis sometimes overestimates delay at all-way stop intersections. A manual delay study would need to be conducted in the field to more accurately assess the LOS at this location.

C. University Avenue and Midvale Boulevard

This intersection is signal-controlled. During the heaviest traffic periods, queuing on one or more of the approaches can reach lengths that block upstream driveways and/or intersections. This typically occurs for eastbound and northbound traffic during the AM peak and southbound and westbound traffic during the PM peak. Field observation revealed that pedestrians in the west crosswalk that are crossing north-south occasionally do not clear the intersection and must wait a cycle in one of the refuge areas in the median. In addition, the far side bus stops sometimes cause queuing behind a stopped bus that reaches the intersection. This occurred more often for eastbound buses during the AM peak hour and westbound buses during the PM peak hour.

D. University Avenue and Shorewood Boulevard.

This intersection is signal-controlled. The traffic modeling indicates the overall intersection operates at LOS C conditions. The southbound left turn operates at LOS F during the PM peak hour. Southbound queuing can be significant at times, often backing to Locust Drive and occasionally to the railroad tracks just north of Locust Drive.

E. University Avenue and Farley Avenue/University Bay Drive

This intersection is signal-controlled. The traffic modeling indicates the overall intersection operates at LOS C conditions without any movements at LOS F. Observation of the model, however, indicates significant congestion and queuing southbound on University Bay Drive. Field observation confirms these conditions, with queues often backing through the Marshall Court intersection and occasionally reaching the Highland Avenue intersection farther north.

3.07 CRASH HISTORY

Crash analysis for transportation facilities is often divided into at least two categories: crashes at intersections and crashes along corridors. For motor vehicle crashes, crash rates are typically used (crashes per vehicle or vehicle miles) rather than the gross number of crashes. This is so facilities that carry different volumes of motor vehicle traffic can be compared to one another. The following sections summarize the results of the crash analysis. Appendix D contains additional details from the crash analysis.

A. Corridor Crashes

1. Bicycle and Pedestrian Crashes

Table 3.07-1 summarizes the bicycle and pedestrian crashes that occurred along the Study area corridors from 2007 through 2011.

The University Avenue corridor from Midvale Boulevard to Grand Avenue experienced the most bicycle and pedestrian crashes. There were 13 from 2007 through 2011, or about 2.5 per year. This corridor also experiences the highest motor vehicle and some of the highest bicycle and pedestrian traffic of any of the corridors evaluated. It is expected then that the higher number of potential conflicts resulted in the highest number of pedestrian and bicycle crashes.

University Avenue from Grand Avenue to Breese Terrace (“Old University”) had 10 bicycle and pedestrian crashes. This corridor carries significantly less motor vehicle traffic (12,000 vehicles per day) than University Avenue west of Grand Avenue (55,000) vehicles per day. So, on a “per exposure” basis, this corridor could be considered less safe for pedestrians and bicyclists. It is important to note that significant changes were made to the lane designations, on-street parking areas, and on-street bicycle accommodations as part of a reconstruction in 2011.

Segment	Termini	Segment Length (miles)	ADT	Year	Ped	Bike
University - Campus	Midvale to Grand	0.90	55,000	2007	2	1
				2008	0	0
				2009	0	1
				2010	4	3
				2011	1	1
				Total	7	6
University	Grand to Breese Terrace	1.03	12,000	2007	2	2
				2008	1	0
				2009	1	1
				2010	0	0
				2011	3	0
				Total	7	3
Campus	Grand to Breese Terrace	1.00	38,500	2007	0	0
				2008	0	0
				2009	0	0
				2010	0	0
				2011	0	0
				Total	0	0
Midvale	University to Mineral Point	1.01	21,500	2007	2	0
				2008	1	0
				2009	0	0
				2010	0	0
				2011	0	2
				Total	3	2
Mineral Point/Speedway	Midvale to Highland	1.34	17,000	2007	0	1
				2008	1	1
				2009	1	2
				2010	0	0
				2011	0	1
				Total	2	5
Highland	University to Regent	0.28	7,300	2007	0	1
				2008	0	0
				2009	0	0
				2010	0	0
				2011	0	0
				Total	0	1
Total		2.93	105,500	2007	6	5
				2008	3	1
				2009	2	4
				2010	4	3
				2011	4	4
				Totals	19	17

Table 3.07-1 Bicycle and Pedestrian Crashes by Corridor

2. Motor Vehicle Crash Rates

The project team evaluated crash rates along six corridors. Table 3.07-2 shows the overall results for the five-year period from 2007 through 2011.

Corridor	Limits	Total Crashes	Total Crash Rate 2007 - 2011	Statewide Rate for Comparable Facility	Corridor Rate divided by Statewide Rate
University Avenue	Midvale Boulevard to Farley Avenue	354	391	313	1.25
University Avenue	Grand Avenue to Breese Terrace	81	359	343	1.05
Campus Drive	Grand Avenue to Breese Terrace	28	40	78	0.51
Midvale Boulevard	Mineral Point Road to University Avenue	102	259	343	0.76
Mineral Point Road/Speedway Road	Midvale Boulevard to Highland Avenue	137	331	343	0.97
Highland Avenue	Regent Street to University Avenue	21	562	343	1.64

Crash rates are Crashes per 100 Million Vehicle Miles Traveled

Table 3.07-2 Motor Vehicle Corridor Crash Rates

The Highland Avenue corridor had the highest crash rate from 2007 through 2011 of the corridors evaluated, and the rate was 1.64 times the statewide average for an urban arterial facility. It is important to note, however, that the number of crashes and crash severity were both low. Only one injury was reported from the 21 total crashes in the five-year period (4 percent). Two crashes involved bicyclists traveling along Highland Avenue. Two crashes involved a vehicle traveling on Highland Avenue sideswiping a legally parked vehicle.

The University Avenue corridor from Midvale Boulevard to Farley Avenue experienced a crash rate that was 1.25 times the statewide average. Injuries occurred in 9 percent of these crashes. The rate for crashes resulting in A-Level (or incapacitating) injuries was 2.27 times the statewide average. Of the 13 A-level crashes within this section of the Study corridor, seven occurred at the Farley Avenue/University Bay Drive intersection, one of which involved a pedestrian. Four of the seven crashes involved an eastbound left-turning vehicle that failed to yield to oncoming westbound traffic (or selected an insufficient gap in which to make the left turn across University Avenue/Campus Drive).

Two fatal crashes occurred on Midvale Boulevard during the five-year period. This resulted in a fatal crash rate that was 3.62 times the statewide average. Both crashes involved vehicles traveling at exceedingly high speeds (85 mph or higher) northbound through the intersection of Midvale Boulevard and Mineral Point Road. The City will be reconstructing this intersection in 2015 and will be making safety improvements at that time.

B. Intersection Crashes

1. Bicycle and Pedestrian Crashes

The study team reviewed crash data at 29 intersections in the Study area; 16 experienced a bicycle or pedestrian crash between 2007 and 2011. Only one location had more than two bicycle or pedestrian crashes in that period. The intersection of University Avenue and Farley Avenue/University Bay Drive experienced three pedestrian and two bicycle crashes.

In the three crashes involving pedestrians at Farley Avenue/University Bay Drive, one pedestrian suffered an A-level (incapacitating) injury, one suffered a B-level (nonincapacitating) injury, and one suffered a C-level (possible) injury. The A-level injury occurred when a westbound motor vehicle struck a southbound pedestrian in the east crosswalk after a vehicle in the adjacent lane had stopped to yield the right-of-way to the pedestrian (the “double jeopardy” hazard). The B-level injury occurred when a westbound vehicle made a left turn on the green indication to southbound Farley Avenue and failed to identify a pedestrian crossing Farley Avenue in the south crosswalk and struck the pedestrian. The C-level injury occurred when a pedestrian crossing University Bay Drive was struck by an eastbound left-turning vehicle that ricocheted into the north crosswalk after being struck by a westbound through vehicle.

In the two crashes involving bicycles at Farley Avenue/University Bay Drive, the bicyclists both suffered C-level injuries. In the first crash, a northbound right-turning motor vehicle turned on a red signal and struck a bicyclist crossing Farley Avenue westbound in the south crosswalk. In the second crash, a northbound right-turning motor vehicle struck a northbound through bicyclist on a green signal indication.

2. Motor Vehicle Crash Rates

For motor vehicles, intersection crash rates are typically calculated as the number of crashes per one million entering vehicles (MEV). In Wisconsin, an intersection crash above 1.5 MEV is often considered a candidate for a safety study. Intersections with crash rates between 1.0 and 1.5 MEV warrant monitoring.

None of the 20 intersections the study team evaluated experienced a crash rate over 1.5 MEV, and only two locations had crash rates above 1.0 MEV. The intersection of Mineral Point Road and Midvale Boulevard had a crash rate of 1.01 MEV. The City will be making modifications at this location in 2015. The intersection of Mineral Point Road/Speedway Road and Glenway Street had a crash rate of 1.11 MEV.

At Mineral Point Road/Speedway Road and Glenway Street, there were 25 crashes from 2007 through 2011. Eleven of these (44 percent) appear to be related to the vertical profile west of the intersection combined with the skew angle between Mineral Point Road and Speedway Drive. Most of the 11 crashes occurred when an eastbound vehicle on Mineral Point Road lost control approaching or while traveling through the intersection. Fifteen of the crashes (60 percent) occurred when the road was wet, icy, or snow-covered. There was one A-level injury, five B-level injuries, and two C-level injuries, resulting in about one-third of the crashes

involving injuries. There were two crashes involving bicyclists, both of which involved a bicyclist traveling eastbound along Mineral Point Road/Speedway Road. The bike crashes resulted in one A-level and one B-level injury.

3.08 CUT-THROUGH TRAFFIC

The University Avenue corridor and the Mineral Point Road/Speedway Road/Regent Street corridor are the only two east-west arterial systems serving the Near Westside of Madison. The Midvale Boulevard and Whitney Way corridors are the only north-south arterials. For a variety of reasons, drivers sometimes elect to leave these arterial corridors and travel alternate routes to reach their destinations. For the most part, these alternate routes often consist of local or neighborhood streets in Shorewood Hills and the Greater Regent Neighborhood. This traffic is referred to as “cut-through” traffic because it does not start or end within the neighborhoods through which it travels.

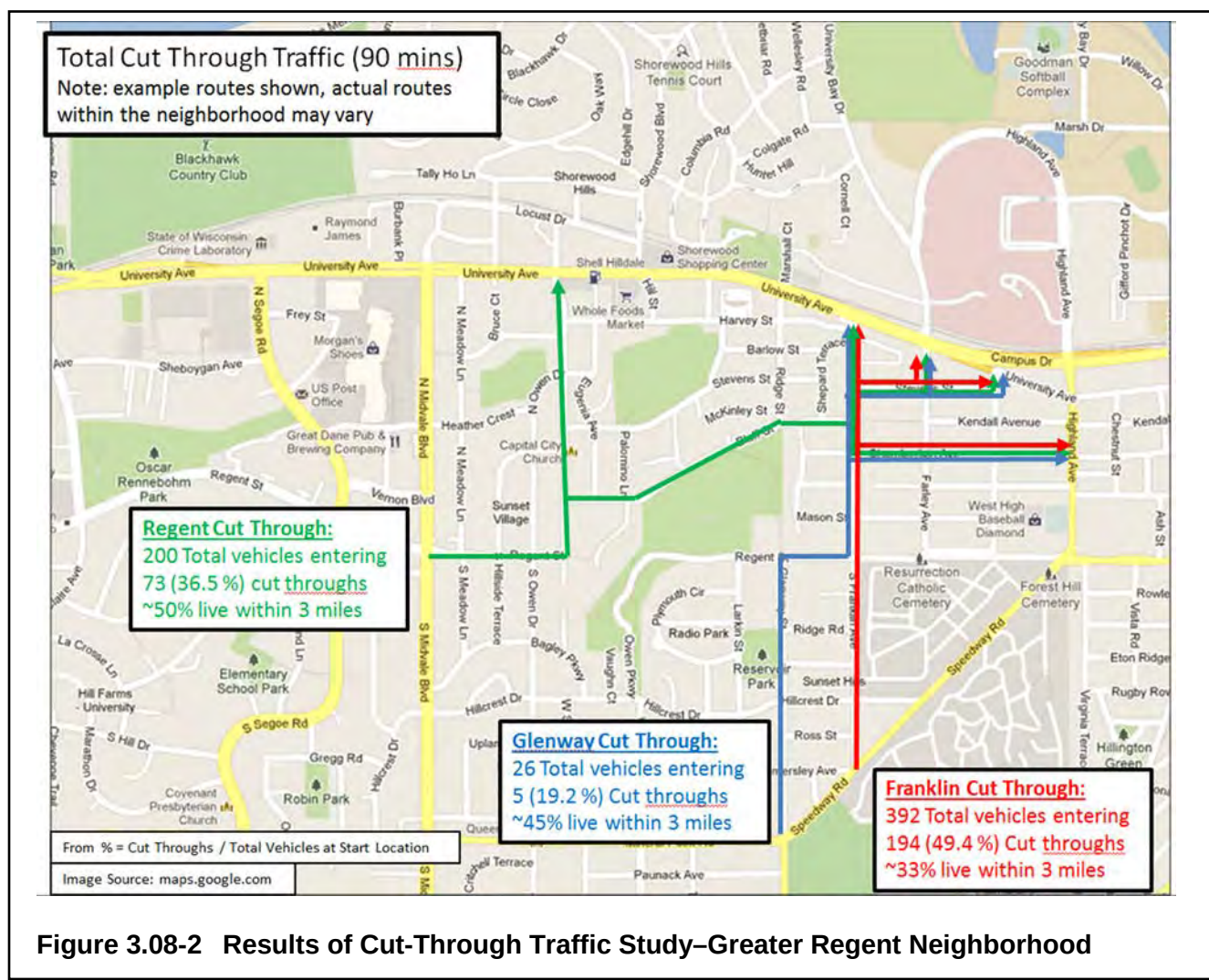
This study included a license plate survey to identify how much of the traffic on the most common cut-through routes is in fact cut-through traffic. This type of data collection is very budget-intensive, as field staff must manually collect plate numbers at multiple locations simultaneously. For this reason, only inbound traffic on select routes during a weekday AM peak period was collected. Figures 3.08-1 and 3.08-2 show the results of the cut-through traffic data collection for Shorewood Hills and the Greater Regent Neighborhood, respectively. Additional information is provided in Appendix E.

A. Shorewood Hills Cut-Through Traffic



The study indicates that about 55 percent of the traffic entering the Village during the AM peak period on Lake Mendota Drive ultimately leaves the Village via Lake Mendota Drive, Shorewood Boulevard, or Oxford Road. At least some of this traffic is likely destined to the Eagle Heights housing area and probably should not be categorized as cut-through. About 15 percent of the traffic entering on Shorewood Boulevard ultimately exits the Village via Oxford Road. Some of this is likely student drop-offs at Shorewood Elementary.

B. City of Madison Cut-Through Traffic



For the Greater Regent neighborhood, the study shows inbound cut-through traffic during the AM peak period varies from about 20 to 50 percent on the routes surveyed. Franklin Avenue has the highest percentage of vehicles that enter the area and ultimately exit at one of the locations shown. Of the traffic exiting the area at Franklin Avenue and University Avenue, about 25 percent originated from one of the three entry points surveyed (not shown on graphic; see Appendix E for additional information on cut-through traffic).

The study team also collected data on traffic entering the UW/VA Hospital area northbound on University Bay Drive and Highland Avenue. About 5 to 10 percent of the entering traffic was found to have “cut through” the Greater Regent neighborhood, while 92 to 96 percent had not cut through. This equated to about 100 cut-through vehicles total during the AM peak hour on the day the survey was conducted. Some of this traffic was likely coming from points south of Speedway and Mineral Point Road, and was thus taking a reasonable route to the UW/VA Hospital area and other points north.

3.09 NEIGHBORHOOD PARKING CONCERNS

A significant amount of feedback was provided to the study team by residents of the Greater Regent Neighborhood regarding on-street parking use by daily commuters. Figure 3.09-1 shows two locations where concerns were voiced.



Image source: maps.google.com

Figure 3.09-1 Examples of High Use Areas for On-Street Parking

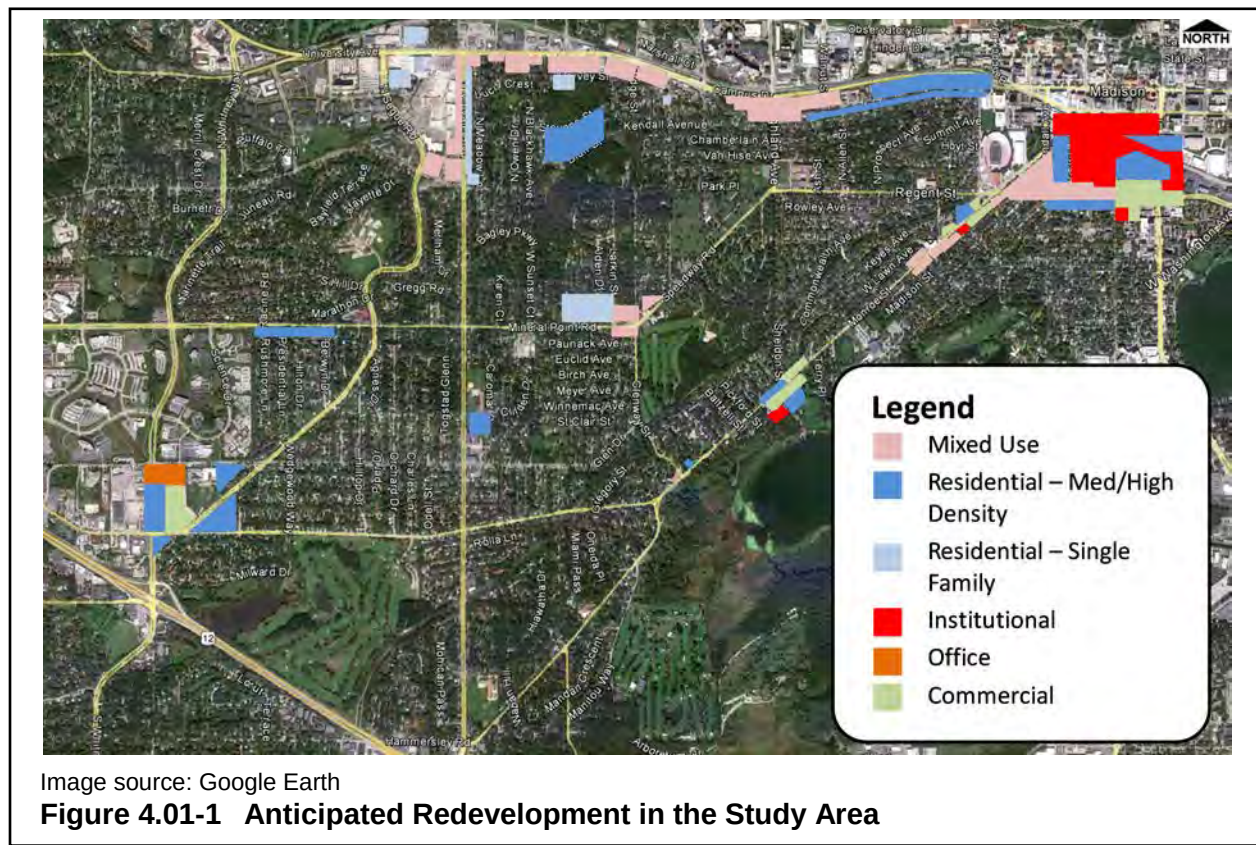
Opinions varied regarding the level of concern caused by the high use parking areas. Some residents liked the fact that the parked vehicles tend to slow or “calm” traffic on neighborhood streets. Some felt the parking was primarily a concern on streets that do not have sidewalk for pedestrians. Other residents opined that the phenomenon of commuters/employees parking in the neighborhood and walking, bicycling, or taking transit to work was not acceptable and should not be allowed.

4.01 RECENT, ONGOING, AND ANTICIPATED STUDY AREA REDEVELOPMENT

As part of this study, the team reviewed a traffic impact study prepared by others and also completed an independent analysis of traffic impacts as a result of the proposed UW parking garage expansion on Highland Avenue at Observatory Drive. While some of the new stalls will replace surface stalls that are being removed, there is a net increase in parking on the west side of campus that results from the project. The incremental increase in traffic volumes and delays for the garage project was found to be negligible south of University Avenue in the Greater Regent Neighborhood. While the impacts of this specific project were modest, the long-term accumulation of small impacts from multiple projects is considered in this study.

The general Study area has been and will continue to be an attractive area for redevelopment projects. The relatively recent changes to the Hilldale Mall area and proposals for reconfiguration of the Hill Farms State Office Building site are clear indicators of this. In addition, a number of smaller redevelopment projects have recently been or will soon be completed including the Walnut Grove shopping center, properties in the Doctors Park area, the mixed use development in the southeast quadrant of the University Avenue and Farley Avenue intersection, the 2550 University development northwest of University Avenue and Highland Avenue, and more.

The study team also reviewed available plans for the neighborhoods in the Study area. Figure 4.01-1 shows a summary graphic across multiple plans of the locations where redevelopment is anticipated.



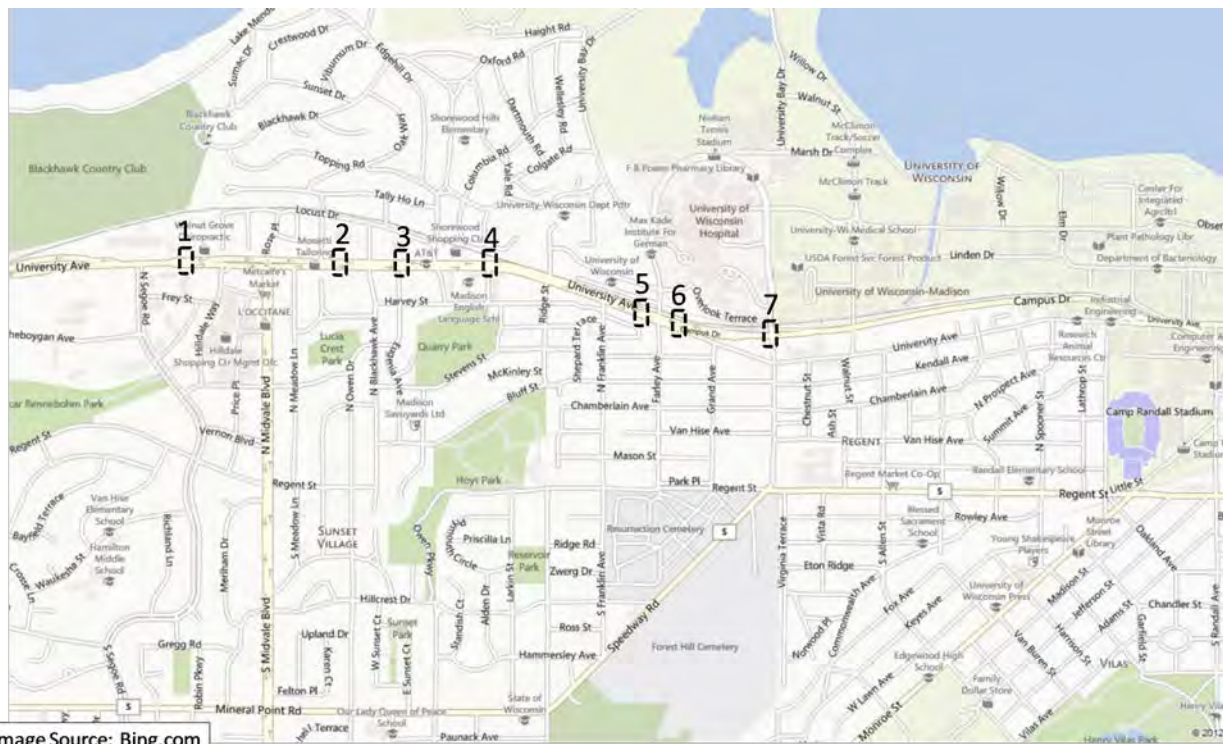
These redevelopment projects will impact travel demand in the area. The number of trips made will increase as the amount of population and employment continues to increase. This pattern of densification and mix of land uses (whether within a single redevelopment or through the additional residences, commercial uses, and employment in proximity) suggests the increase in motor vehicle trips during peak periods will grow more slowly than other types of trips. In other words, the percentage of trips that are taken outside of peak periods and/or via walking, bicycling, or transit will increase as redevelopment continues.

4.02 TRAVEL DEMAND MODELING

The Dane County Transportation Planning Board (TPB) is the Metropolitan Planning Organization for the Madison metropolitan area. The TPB maintains a travel demand model that is used for transportation planning purposes. For this Study, the team used the travel demand model as a tool to develop a future traffic scenario for traffic modeling in the development and evaluation of corridor and intersection modifications. The model used was the Cube 2035 Daily model available in February 2013.

The Dane County Travel Demand model uses socioeconomic data to generate trips to and from the Traffic Analysis Zones (TAZs) within the model. Characteristics such as number of lanes, speed, link class, and link capacity control the traffic volumes on each of the coded streets as the model is run.

The base and future daily demand model was used for calculating a range of growth likely along the University Avenue Study corridor. First a Base run (2006) was completed to generate the base (existing) conditions for the corridor. Next a Future run (2035) was completed to estimate future traffic volumes. To test the effect of capacity expansion, the links along the study corridor were expanded by one lane in each direction. The Future condition was then rerun. The unexpanded future run served as the bottom of the growth range while the expanded future run would serve as the high end of the growth range. The volumes and growth rates were then taken from seven locations along the study corridor shown in Figure 4.03-1



Source: Bing.com

Figure 4.03-1 Demand Model Growth Rate Locations

To calculate an estimated corridor growth rate, each of the seven locations would be ranked based on how much the alternative improved the capacity at each of the locations. The rates were then averaged to determine the corridor growth rate. A zero to ten rating was completed for each location with zero being that the capacity remained similar to existing while ten would represent an additional lane of traffic or a freeway facility with the existing lanes. The growth along the study corridor is likely to range between 0.6 and 0.9 percent per year based on the level of capacity expansion.

4.03 FORECASTED TRAFFIC GROWTH FOR EVALUATION OF POSSIBLE MODIFICATIONS

Based on the results of the scenario testing in the 2035 demand model, the study team agreed to use 115 percent of the Base motor vehicle traffic volumes to develop and test potential intersection and corridor modifications. The actual traffic growth that will occur over the next 15, 20, or 25 years will be dependent on many factors. The Study area already produces a high percentage of travel by alternate modes. If the status quo is maintained, 15 percent growth could be reached by about 2025. If the influences of TDM, mixed use redevelopment and densification and/or improved or premium transit service can work together to continue reducing the demand for peak-hour single-occupant motor vehicle trips, 15 percent growth may not be reached until 2040, if ever.

4.04 FUTURE CONDITIONS WITH EXISTING FACILITIES

Section 3 outlines existing needs for pedestrians, bicyclists, transit riders, and drivers. For this study, the quantitative operational evaluation of possible intersection and corridor modifications has been completed using Synchro8 traffic modeling software. The study team agrees it is an appropriate tool to develop and test different scenarios in terms of the impact on motor vehicle operations. These impacts in turn effect conditions for the other modes. Higher levels of motor vehicle congestion and queuing can lead to increased traffic on neighborhood streets, higher crash rates, less comfortable conditions for pedestrians and bicyclists, and less predictable transit service.

Figure 4.04-1 summarizes motor vehicle traffic operations for Base and Future conditions using the existing transportation infrastructure.

Intersection	Control	Level of Service		LOS F Mov's		VC > 1.0		Add'l VC > 0.90	
		LOS (seconds of delay)		No.		No.		No.	
		Base	Future	Base	Future	Base	Future	Base	Future
University Ave. & Segoe Road	Signal	B (17.8)	B (19.9)	1	0	0	0	0	0
University Ave. & Hilldale Way	2-way Stop	C (21.8)	D (32.4)	0	0	0	0	0	0
University Ave. & Midvale Blvd.	Signal	D (66.9)	F (88.4)	3	4	3	3	0	2
University Ave. & Blackhawk Ave.	2-way Stop	F (>300)	F (>300)	2	2	2	2	0	0
University Ave. & Shorewood Blvd.	Signal	C (21.4)	E (68.4)	1	2	1	2	1	0
University Ave. & Ridge Street	Partial Signal	A (4.4)	B (14.8)	0	0	0	0	0	0
University Ave. & University Bay Dr./ Farley Ave.	Signal	C (23.5)	C (27.6)	0	0	0	0	0	1
University Ave. & Highland Ave.	Signal	B (16.7)	C (24.6)	0	0	0	0	0	1
University Ave. & Walnut St.	Signal	C (29.6)	D (37.1)	0	1	0	1	1	0
Midvale Blvd. & Mineral Point Rd.	Signal	D (41.8)	F (97.5)	0	2	1	3	2	0
Midvale Blvd. & Regent St.	Signal	B (10.1)	B (12.1)	0	0	0	0	0	0
Mineral Point Rd. & Glenway St.	Signal	A (8.9)	B (10.4)	0	0	0	0	0	0
Regent St. & Farley Ave.	2-way Stop	B (13.2)	B (14.8)	0	0	0	0	0	0
Regent St. & Highland Ave./ Speedway Dr.	All-way Stop	E (46.4)	F (84.2)	3	5	3	5	0	0
Highland Ave. & Campus Dr.	Signal	A (10.0)	B (18.1)	0	0	0	0	0	0
Highland Ave. & VA Hospital	Signal	B (18.2)	C (23.6)	0	1	0	0	0	1
Highland Ave. & Observatory Dr.	Signal	B (13.7)	B (13.6)	0	0	0	0	0	0
Lake Mendota Dr. & Edgehill Dr.	1-way Stop	A (8.7)	A (8.8)	0	0	0	0	0	0

Source: Synchro8 output

Figure 4.04-1 Base and Future (115 Percent of Base Volumes) Motor Vehicle Operating Conditions During the PM Peak Hour on Existing Facilities

A. University Avenue and Midvale Boulevard

Traffic modeling indicates this signalized intersection will experience LOS F operations at 115 percent of the Base volumes with no modifications made. During the PM peak hour, the westbound left-turn (WBL) volume is nearly twice the capacity of that movement at the signal, and delays are forecasted to exceed 5 minutes. This severe congestion will impact upstream intersections and SimTraffic8

simulation modeling suggests the queues could reach Shorewood Boulevard or farther. Such congestion may impact safety, travel patterns, and travel demand (both time of day and mode choice).

The southbound through (SBT) and northbound right turn (NBR) also operate well into the LOS F range with delays of greater than two minutes on average. The eastbound left turn (EBL) operates at LOS F as well.

B. Midvale Boulevard and Mineral Point Road

Traffic modeling indicates this signalized intersection will experience LOS F operations at 115 percent of the Base volumes with no modifications made. The eastbound and westbound through movements (EBT and WBT) are over capacity and operate at LOS F with delays exceeding two minutes on average. The City is considering limited modifications at this intersection.

C. University Avenue and Shorewood Boulevard

Traffic modeling indicates this signalized intersection will experience LOS E operations at 115 percent of the Base volumes with no modifications made. The southbound left turn (SBL) operates at LOS F with delays over two minutes on average. The WBT also operates over capacity and experiences LOS F conditions with average delay of 114 seconds per motor vehicle.

D. University Avenue and Blackhawk Avenue

As in the Base condition, traffic modeling indicates significant delays and queuing at this unsignalized intersection at 115 percent of the Base volumes with no modifications made. Left turns and through movements from the side street will not be possible during peak times because of a lack in adequate gaps in University Avenue traffic. The EBL and WBL left-turn volumes from University Avenue may also exceed capacity at times.

E. Regent Street and Highland Avenue/ Speedway Drive

Traffic modeling indicates this all-way stop-controlled intersection will experience LOS F operations at 115 percent of the Base volumes with no modifications made. All three westbound movements operate at LOS F with delays over two minutes on average. The SBT and southbound right turn (SBR) also operate over capacity and experience LOS F conditions.

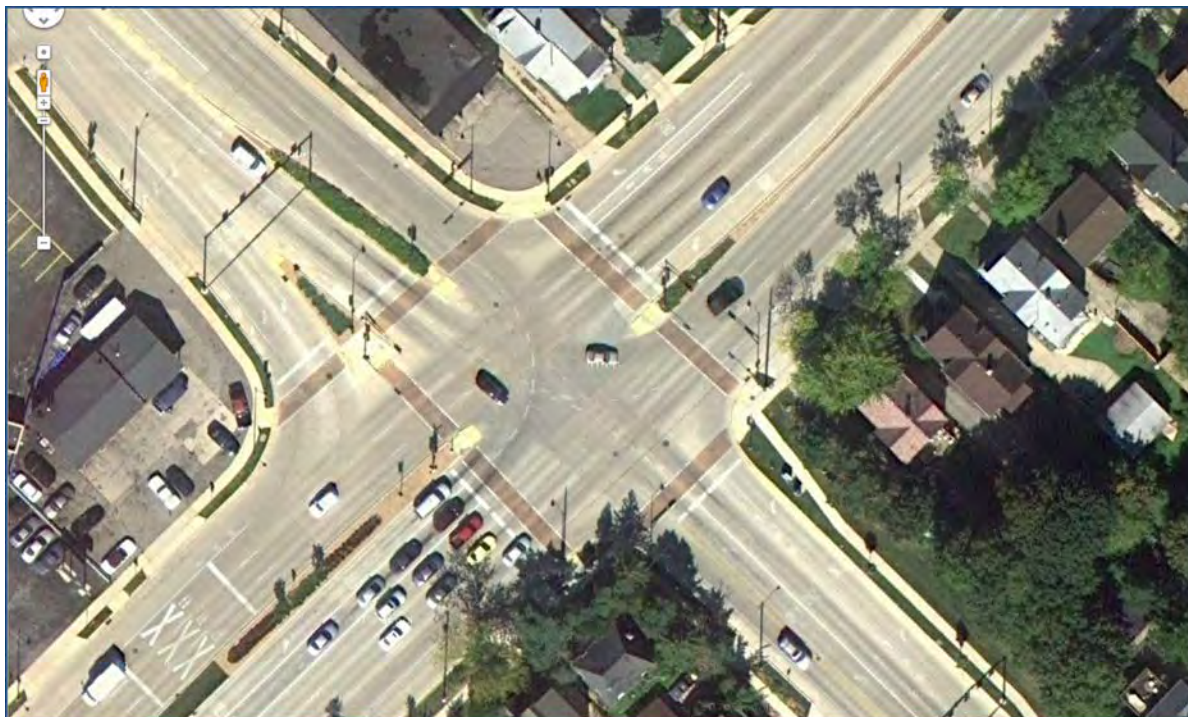
SECTION 5
DEVELOPMENT AND REVIEW OF POTENTIAL MODIFICATIONS
AND PUBLIC WORKSHOP NO. 2

5.01 POTENTIAL MODIFICATIONS OVERVIEW

The study team discussed the range of potential Study Corridor modifications and considered options from a Do Nothing scenario to a scenario that would extend Campus Drive by creating a grade-separated expressway from Farley Avenue through Segoe Road. Modifications were developed at a schematic planning level only and each was evaluated for its impact on travel in the area. Three key intersections along University Avenue were evaluated in greater detail: at Midvale Boulevard, at Shorewood Boulevard, and at Farley Boulevard/University Bay Drive. Results from these key intersections would help the study team understand the type of corridor University Avenue could or should be over the longer term.

5.02 PEDESTRIAN MODIFICATIONS

Appendix F includes the Summary of Pedestrian Issues and Opportunities exhibit that was displayed at the Public Workshop No. 2 events. Potential modifications include new sidewalk, changes to pavement markings, signal timing changes, signal phasing changes including the addition of Flashing Yellow Arrows (FYA), expanded refuge areas (see Figure 5.02-1), new partial signals (similar to Ridge Street/Marshall Court), relocated crosswalks, and new grade separations.



Source: bing.com

Figure 5.02-1 East Washington Avenue and First Street Pedestrian Refuge Areas

There are locations where sidewalk is not currently provided or is provided on one side of the street only. Sidewalk was added along the east side of Highland Avenue completing the previous gap from the westbound Campus Drive ramps to Observatory Drive in the fall 2013 so that it is now continuous on both sides of the street. Sidewalk is also missing along the east side of University Bay Drive and providing it may require additional right-of-way from the VA Hospital and the UW. The opportunity to add sidewalk here will occur during the next reconstruction project for University Avenue from Shorewood Boulevard to Campus Drive, anticipated to occur within the next ten years. In the Greater Regent Neighborhood area south of University Avenue, sidewalk is also missing in some areas. Adding sidewalk to these local streets would require agreement from homeowners and the Alderperson as well as City Council action, with costs typically assessed back to the homeowners.

Along the University Avenue corridor, modifications should be made to convey a more pedestrian-oriented facility. These could include enhanced crosswalk markings (continental-style markings, see Figure 5.02-2), expanded refuge areas, the addition of partial signals with generous central refuge areas to provide additional signal-controlled, two-stage crossings, modifications to crossing times (Hilldale Way/Maple Terrace and Blackhawk Avenue are two candidate locations), signal phasing (protected only left-turn movements) and/or installation of FYAs. Grade-separated pedestrian/bicycle crossings could also be considered; however, the high cost of construction and maintenance, relatively flat topography, and the barrier presented by the railroad corridor north of University Avenue provide significant challenges for this treatment.



Source: bing.com

Figure 5.02-2 Continental-Style Crosswalk Marking Recently Added at Shorewood Boulevard

5.03 BICYCLE MODIFICATIONS

Appendix F includes the Summary of Bicycle Issues and Opportunities exhibit that was displayed at the Public Workshop No. 2 event. Potential modifications include new or extended bicycle boulevards, new on-street bike accommodations, new off-street paths, new or modified pavement markings, signal timing changes, signal phasing changes including the addition of Flashing Yellow Arrows (FYA), expanded refuge areas, new partial signals (similar to Ridge Street/Marshall Court), new bicycle signal heads (see Figure 5.03-1), and new grade separations.

A modified bicycle boulevard was recently created along Kendall Avenue from Lathrop Street to Franklin Avenue and feedback has generally been positive. This boulevard could be extended west along Kendall Avenue and Bluff Street to Blackhawk Avenue, or potentially farther west along Blackhawk Avenue and Regent Street to Midvale Boulevard or beyond, although on-street parking restrictions may be necessary to do so. A north-south bicycle boulevard may also help with the lack of connectivity. While topography and multiple physical barriers make this challenging, one potential corridor may be Franklin Avenue including a marked bike lane in the uphill direction and a shared lane with sharrow marking in the downhill direction. This may require on-street parking restrictions in some locations.

On-street bike accommodations along University Avenue are provided from Segoe Road to Shorewood Boulevard. These could be extended as part of the next University Avenue reconstruction project from Shorewood Boulevard to Campus Drive, anticipated to occur within the next ten years. On-street accommodation may also be able to be improved north-south on Highland Drive through the Campus Drive overpass if the existing slope paving between the sidewalk and bridge abutments can be removed and replaced with a vertical wall (see Figure 5.03-2).





Source: google.com

Figure 5.03-2 Removal of Slope Paving Could Provide Added Width on Highland Avenue Under Campus Drive

The most important off-street path connection to be made is between Locust Drive at Shorewood Boulevard and the east-west path that runs north of Campus Drive beginning at University Bay Drive and continuing to the east. The Village of Shorewood Hills will be constructing a path north of the railroad tracks from Shorewood Boulevard to Marshall Court in 2014. The Village is also working diligently to complete the path between Marshall Court and University Bay Drive as properties in that area redevelop.

Potential modifications to traffic signal-controlled locations may also benefit bicyclists. The installation of FYAs can reinforce that the permissive left-turn phase still requires motorists to yield to conflicting traffic, including bicyclists and pedestrians traveling through the intersection. Partial signals provide a two-stage crossing with a center refuge (Hilldale Way/Maple Terrace and Blackhawk Street are two candidate locations). City and UW staff are also evaluating the addition of bicycle signal heads at the path crossing near the intersection of Highland Avenue and the West Campus Drive ramps. The bike signal heads would be located at the path crossing north of the railroad tracks and would work in conjunction with the existing traffic signal at the intersection south of the tracks.

Grade-separated pedestrian/bicycle crossings could also be considered, however the high cost of construction and maintenance, relatively flat topography, and the barrier presented by the railroad corridor north of University Avenue provide significant challenges.

5.04 TRANSIT MODIFICATIONS

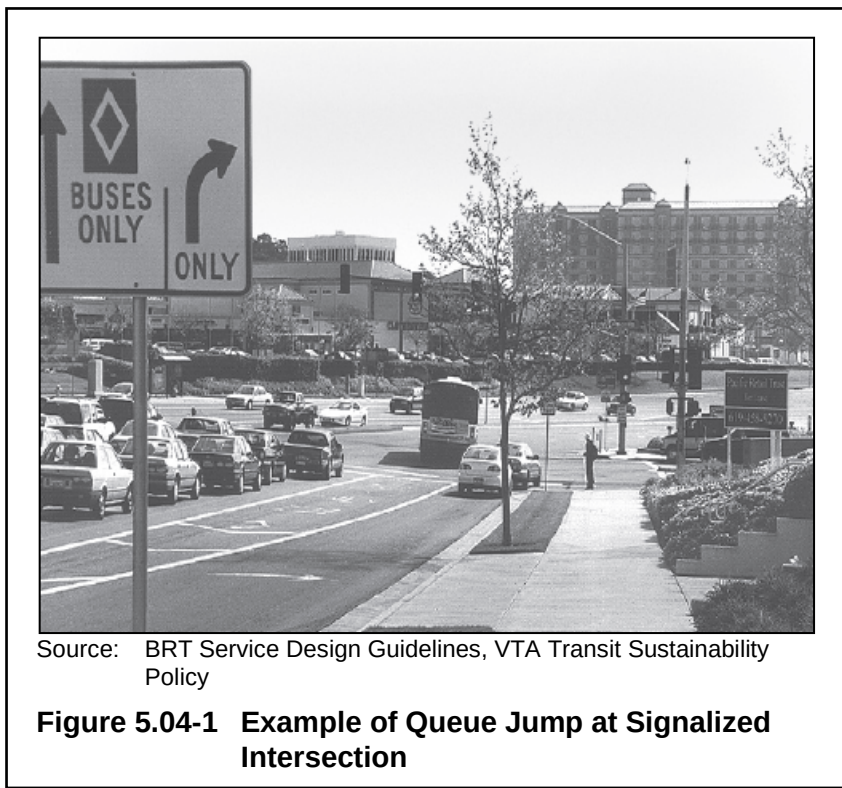
Appendix F includes the Summary of Transit Conditions exhibit and the Summary of Existing Right-of-Way and Potential Transit Priority exhibit that were displayed at the Public Workshop No. 2 event. Potential modifications include transit priority measures, implementation of BRT, and implementation of enhanced transit along the railroad right-of-way.

Transit priority can take many forms. For the University Avenue corridor, it would likely consist of a few specific treatments. First, at intersections consideration could be given to providing transit signal priority from Segoe Road to Farley Avenue/University Bay Drive. This technology can extend the green signal indication on the mainline when a bus is behind schedule and

approaching, or potentially end a side-street phase early, so that the transit vehicle is more likely to receive a green indication when arriving at the intersections. Queue jump accommodations provide a dedicated lane and signal head for transit vehicles and allow them to depart an intersection before the other motor vehicles that are queued up, sometimes for hundreds of feet during peak times (see Figure 5.04-1). Second, along the corridor itself, a dedicated lane could be provided for transit with the goal of reducing delays and improving service reliability. The benefit of all three treatments is less for local service when there are high-use bus stops immediately downstream of the signalized intersections. They are more effective for express service (such as BRT) when stops are limited.

BRT could be implemented along the University Avenue corridor. The Madison Transit Corridors Study recently evaluated BRT service in the Madison area and the Study Corridor was a key component of the west corridor. The study did not recommend providing dedicated lanes in the area because of the high impacts and costs associated with doing so. BRT could be operated within the existing six-lane corridor in the rightmost general purpose lane with mixed traffic. The key barrier to implementing BRT is the high cost of constructing and operating the system.

Enhanced transit using the railroad corridor could also be considered. Transport 2020 studied LRT using the railroad corridor and included a recommended alternative for implementation. Whether LRT or an alternative means of transport, the railroad corridor that runs parallel to University Avenue is a significant opportunity to provide enhanced transit with infrequent stops, relatively fast travel times, and



reliable service. The key barrier to implementing enhanced transit along the rail corridor is the high cost of constructing and operating the system.

5.05 MOTOR VEHICLE MODIFICATIONS

For motor vehicle improvements, modifications were grouped into “Build” categories. Low Build are modifications that likely would not require the purchase of additional right-of-way but may include partial reconstruction of an intersection and/or changes to access (restricted movements). Medium Build alternatives likely require additional right-of-way and partial or full reconstruction and/or may include modifications to access but do not include grade separations and are not expected to require building acquisition(s)/relocation(s). High Build alternatives are likely to require additional right-of-way, full reconstruction, building acquisition(s)/relocation(s), and modifications to access and/or include grade-separated roadways.

Appendix F includes the schematic summaries of the modifications that were displayed at the second round of public workshops in September 2013. Also included are more detailed summary tables of the alternatives evaluation results including level of physical impacts, access impacts, and notes about pedestrian and bicycle impacts. Synchro8 traffic modeling software was used to quantitatively evaluate the alternatives. Typically, the operational goal for this type of congested urban corridor is to achieve LOS D or better operations overall and avoid LOS F movements during typical AM and PM peak-hour conditions. The following text is a brief summary of the alternatives and operations.

A. University Avenue and Midvale Boulevard

Under future conditions (115 percent of Base PM peak-hour traffic volumes) without any modifications, the intersection operates at LOS E overall for motor vehicles, including 5 movements at LOS F. The volume to capacity ratio (v/c) for 5 movements exceeds 1.0, and it was greater than 0.9 for an additional 3 movements.

Low Build modifications considered here include changes in lane assignment, signal phasing, and access restrictions.

- LB1–Eliminate the North-South Split Signal Phasing; LOS D overall; 2 LOS F movements.
- LB2–Prohibit Northbound and Southbound Through Movements (NBT, SBT); LOS C overall; 0 LOS F movements.

Medium Build modifications considered here include creating two Tee intersections and expanding to an eight-lane corridor.

- MB1–Create Offset Tee intersections; LOS C/D overall; 0 LOS F movements (similar to Old Sauk Road and Junction Road shown in Figure 5.05-1).
- MB2–Eight-Lane Corridor; LOS C overall; 0 LOS F movements.
- MB3–Eight-Lane Corridor including one Bus/Bike/Right-Turn Lane in Each Direction; LOS E overall; 5 LOS F movements.



High Build modifications considered here include nontraditional at-grade intersections, partial grade separations, and full interchanges.

- HB2—Grade-Separated Northbound Right (NBR) and Westbound Left (WBL); LOS C overall; 0 LOS F movements.
- HB4—Campus Drive Extension with Tight Diamond Interchange; LOS C/B overall; 0 LOS F movements.
- HB5—Grade-Separated Eastbound Through (EBT), NBR, WBL; LOS B/C overall; 1 LOS F movement.
- HB6—Indirect Left-Turn Corridor (Michigan Lefts); LOS C/B/A overall; 0 LOS F movements.

The following additional alternatives were evaluated but dismissed before the second round of public workshops.

- LBA—Provide a Bus/Bicycle/Right-Turn Lane without Roadway Expansion; dedicating one of the three lanes in each direction to buses, bicycles, and right-turning vehicles resulted in unacceptable operations with a modest improvement for bus travel times; peak traffic volumes would need to fall by about 20 percent for this option to achieve reasonable operations, representing 1987 traffic conditions.
- HB1—Diverging Arterial Intersection (Flowmax); poor motor vehicle operations; intimidating/complex bicycle and pedestrian accommodations.
- HB3—Campus Drive Extension with Single-Point Interchange; higher impacts than HB1—Tight Diamond Interchange with negligible benefits.
- HB7—Continuous Flow Intersection; poor bicycle and pedestrian accommodations; large footprint; no significant benefits over other alternatives.

B. University Avenue and Shorewood Boulevard

Under future conditions (115 percent of Base PM peak-hour traffic volumes) without any modifications, the intersection operates at LOS E overall for motor vehicles, including 2 movements at LOS F. The v/c for 2 movements was greater than 1.0.

Low Build modifications considered here include changes in the storage length and lane configurations for the southbound movements, modifications to bicycle and pedestrian accommodations, and various access restrictions.

- LB1A through 1C—Extend SBL Storage, Bicycle and Pedestrian Modifications (see one option in Figure 5.05-2); LOS E overall; 2 LOS F movements.
- LB1D—Extend SBL Storage, Bicycle and Pedestrian Modifications, Prohibit WBL; LOS E overall; 2 LOS F movements.
- LB2—Prohibit NBT and SBT, Bicycle and Pedestrian Modifications; LOS D overall; 1 LOS F movement.

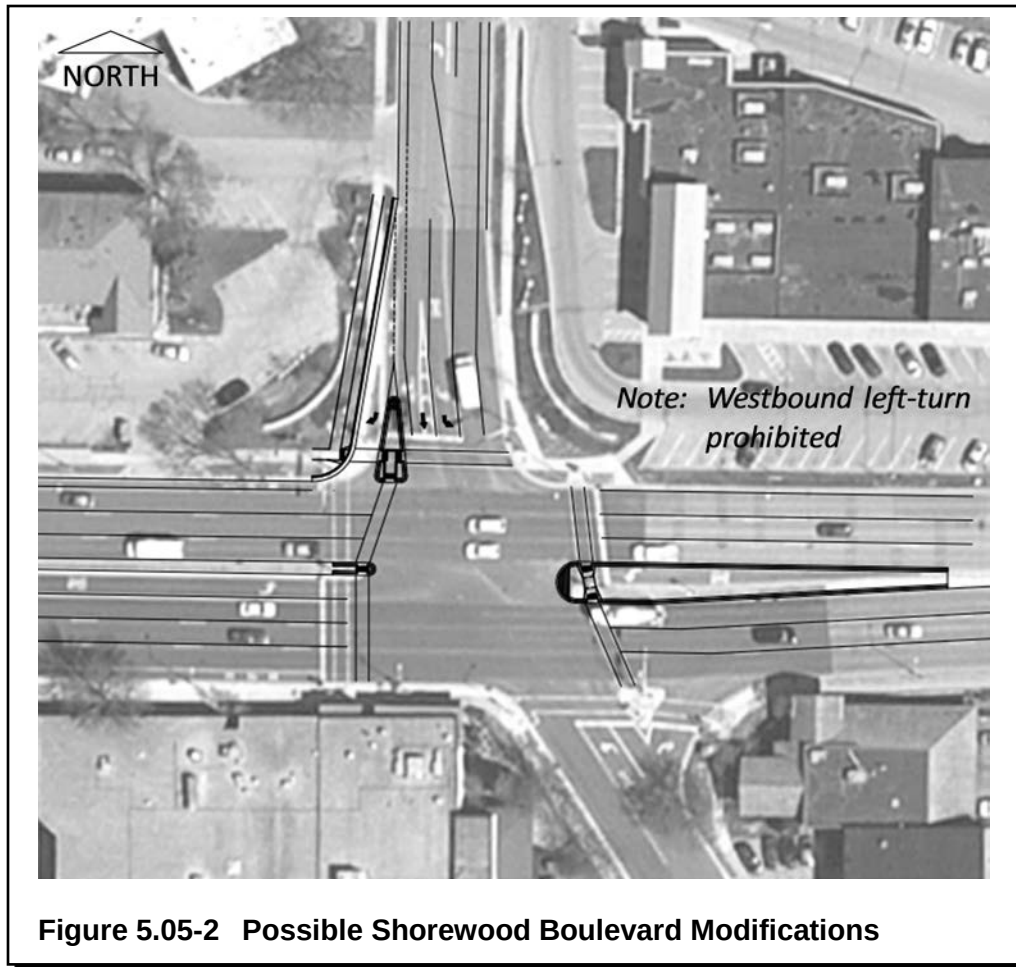


Figure 5.05-2 Possible Shorewood Boulevard Modifications

Medium Build modifications create two Tee intersections.

- MB1—Modify to a Tee Intersection to the North; LOS B/C overall; 0 LOS F movements.

High Build modifications considered here include an eight-lane corridor and a half-diamond interchange.

- HB1—Campus Drive Extension with Half-Diamond Interchange on the North Side (see Figure 5.05-3 for example); LOS A overall; 0 LOS F movements.
- HB2—Eight-Lane Corridor; LOS B overall; 0 LOS F movements.
- HB3—Eight-Lane Corridor including one Bus/Bike/Right-Turn Lane in Each Direction; LOS E overall; 2 LOS F movements.



Figure 5.05-3 Existing Half Diamond Interchange at Highland Avenue and Campus Drive

Additional alternatives were evaluated but dismissed before the second round of public workshops. These are summarized below.

- LBA—Provide a Bus/Bicycle/Right-Turn Lane without Roadway Expansion; dedicating one of the three lanes in each direction to buses, bicycles, and right-turning vehicles resulted in unacceptable operations with a modest improvement for bus travel times; peak traffic volumes would need to fall by about 20 percent for this option to achieve reasonable operations, representing 1987 traffic conditions.
- HB4—Campus Drive Extension with Full Diamond Interchange; may require eight or more business relocations).
- HB5—Indirect Left-Turn Corridor (Michigan Lefts); may require five or more business relocations.
- HB6—Continuous Flow Intersection; may require ten or more business relocations.

C. University Avenue and University Bay Drive/Farley Avenue

Under future conditions (115 percent of Base PM peak-hour traffic volumes) without any modifications, the intersection operates at LOS D overall for motor vehicles, including 1 movement at LOS F. The v/c for 1 movement was greater than 1.0 and it was greater than 0.9 for an additional 1 movement.

The only Low Build modification identified was dismissed before the workshop. This option prohibited the eastbound left turn and instead required this traffic to proceed to Highland Avenue via University Avenue and make a left turn at that intersection. The AM peak-hour traffic volume was too high for the signal at University Avenue and Highland Avenue even if capacity were added, so this option was dismissed.

Medium Build modifications include adding dual left-turn and/or southbound right-turn lanes and creating split Tee intersections.

- MB1–Provide a dual EBL; LOS D overall; 1 LOS F movements.
- MB2–Provide a dual EBL and SBR; LOS C overall; 0 LOS F movements.
- MB3–Modify to a Tee Intersection to the North; LOS C/A; 0 LOS F movements.
- MB4–Eight-Lane Corridor including one Bus/Bike/Right-Turn Lane in Each Direction; LOS D overall; 1 LOS F movement.

High Build modifications considered here include a partial and a full interchange.

- HB1–Campus Drive Extension with Diamond Interchange; LOS C/C overall; 0 LOS F movements.
- HB2–Campus Drive Extension for Westbound Traffic Only; LOS D overall; 2 LOS F movements.

Additional alternatives were evaluated but dismissed before the second round of public workshops. These are summarized below.

- LBA–Provide a Bus/Bicycle/Right-Turn Lane without Roadway Expansion; dedicating one of the three lanes in each direction to buses, bicycles, and right-turning vehicles resulted in unacceptable operations with a modest improvement for bus travel times; peak traffic volumes would need to fall by about 20 percent for this achieve reasonable operations, representing 1987 traffic conditions.
- LB1–Prohibit EBL Movement; causes the downstream intersection at University Avenue and Highland Avenue as well as the Highland Avenue corridor north of University Avenue to operate unacceptably during the AM peak.
- MB4–Modify to a Tee Intersection to the South; causes the downstream intersection at University Avenue and Highland Avenue as well as the Highland Avenue corridor north of University Avenue to operate unacceptably during the AM peak.
- HB3–Expanded at-grade Intersection with Direct Ramp to UW/VA Hospitals; cost prohibitive.

5.06 PUBLIC WORKSHOP NO. 2

The second round of workshops occurred in early fall 2013. Two workshops were held: the first was at the Shorewood Hills Village Hall on September 12; the second was held at Covenant Presbyterian Church on September 23.

A. Format and Workshop No. 2 Materials

The workshops consisted of about a 30-minute presentation including a review of the study scope, background, and current conditions; a summary of the results of the online survey and Workshop No. 1 comments; discussion of the top issues for each workshop location (the Village of Shorewood Hills and the Greater Regent Neighborhood); and a summary of the workshop materials available for review and comment. The presentation was followed by questions and answers. Participants were then given three green dots to apply to the workshop materials where they supported a possible modification, and three red dots to apply to the materials where they did not support a possible modification.

Appendix F includes the materials provided at the second round of public workshops, including the results of the dot exercise.

B. Summary of Public Comments

The public comments received at the workshops favored pedestrian, bicycle, and transit improvements. Table 5.06-1 shows the most common comments received.

Goal/Concern	Greater Regent Neighborhood		Village of Shorewood Hills	
	No. Comments	Rank	No. Comments	Rank
Improve pedestrian and bicycle connections/ crossings.	7	1	2	5
Reduce car usage/improve transit.	5	2	5	1
Eliminate options with grade separations/plan for reasonable improvements.	4	3	2	3
Reduce commuter parking in neighborhoods/provide park and rides.	3	4	2	3
Improve safety	-	-	3	2

Table 5.06-1 Summary of Most Common Comments from the Second Round of Public Workshops

In addition to the written comments, the results of the dot exercise favored bicycle, pedestrian, and lower impact motor vehicle improvements and opposed the higher build motor vehicle improvements such as an eight-lane corridor and alternatives that include grade separations.

6.01 RECOMMENDATIONS

Based on stakeholder feedback and planning level evaluation of possible modifications, the study team developed a Guiding Theme and three Primary Goals. These were considered when developing the list of recommendations.

A. Theme and Goals

Table 6.01-1 lists the Guiding Theme and Primary Goals developed by the study team.

Guiding Theme	
Considering the high physical and environmental impacts and total project costs associated with significant motor vehicle capacity expansion (an eight-lane corridor or grade separations), primarily seek options to reduce demand for peak-hour single occupant motor vehicle (SOMV) travel and/or improve conditions for alternate modes without a severe detriment to car and bus travel.	
Primary Goals	
Goal TR: (Transit)	Provide exclusive and/or prioritized transit that moves high volumes of people within this portion of the University Avenue transportation corridor.
Goal AC: (Access)	Improve access (options for both ingress and egress) to the west UW campus and VA medical complex areas.
Goal PB: (Pedestrian/Bicycle)	Improve the connectivity and comfort level of bike and pedestrian travel in the study area.

Table 6.01-1 Guiding Theme and Primary Goals

The study recommendations on the whole are intended to align with the Guiding Theme. Each recommendation is also anticipated to advance at least one of the Primary Goals.

B. Recommendations

Based on the planning level evaluation of the proposed modifications, each recommendation was designated as Nearer Term or Longer Term. Nearer-Term improvements are generally those that have lower impacts and/or lower costs. Longer-Term improvements have moderate to high impacts or costs and therefore will likely need to be completed as part of a larger overall initiative or design and construction project.

Appendix G includes a matrix of the recommendations including comments about which goals are advanced, the level of physical impacts, implementation costs, and additional notes.

1. Nearer-Term Recommendations

a. Demand Management

- N1–Incentivize employer participation.
- N2–Stagger start and stop times of major employers.
- N3–Develop park and ride facilities at key locations and/or develop a program that creates disbursed park and ride functionality.

- b. University Avenue and Segoe Road
 - N4–Provide enhanced crosswalk markings across the west and east legs of the intersection.
- c. University Avenue and Hilldale Way
 - N5–Add a crosswalk on the west side of the intersection and add a center refuge area for pedestrians and bicycles.
 - N6–Monitor operations and consider restricting access to left-in only for eastbound motor vehicles (eliminate the southbound left (SBL) movement).
- d. University Avenue and Midvale Boulevard
 - N7–Provide enhanced crosswalk markings across all four legs of the intersection.
 - N8–Investigate the feasibility, benefits, and costs of constructing an eastbound transit queue jump in the eastbound right (EBR)-turn lane.
- e. University Avenue and Highbury Road
 - N9–Add a westbound left-turn bay.
- f. University Avenue and Blackhawk Avenue
 - N10–Consider access restrictions to left-in only for eastbound and westbound motor vehicles [eliminate the northbound left (NBL) and SBL movements].
 - N11–Install a partial signal with a center pedestrian and bicycle refuge area, similar to the partial signal at Ridge Street/Marshall Court.
- g. University Avenue and Shorewood Boulevard
 - N12–Install Flashing Yellow Arrow (FYA) signal heads for the permitted NBL, SBL, EBL, and westbound left (WBL) movements.
 - N13–Provide enhanced crosswalk markings across all four legs of the intersection.
 - N14–Investigate opportunities for additional pedestrian signal lead conditions.

- N15–Evaluate addition “Stop Here on Red” signage at the eastbound stop bar if eastbound vehicles continue stopping in the crosswalk on the west side of the intersection after the recent installation of the enhanced markings.
- N16–Reconstruct the southbound approach to provide a median refuge separating the southbound right (SBR) from the southbound through (SBT) and SBL movements. Also, consider prohibiting the WBL movement and replace the small turn bay with a large pedestrian refuge area (see Figure 6.01-1). The Village has indicated some concerns with the impacts associated with the reconfiguration. It may be possible to provide one channelized southbound right-turn and one shared southbound through/left-turn lane since the southbound through motor vehicle traffic volume is low. Additional investigation is recommended during design.



Figure 6.01-1 Possible Modifications at Shorewood Boulevard

- h. University Avenue and University Bay Drive/Farley Avenue
 - N17–Install FYA signal heads for the permitted NBL, SBL, EBL, and WBL movements.
 - N18–Provide enhanced crosswalk markings across all four legs of the intersection.
 - N19–Investigate opportunities for additional pedestrian signal lead conditions.
- i. University Avenue and Highland Avenue
 - No Nearer-Term modifications are recommended.
- j. Highland Avenue and Westbound Campus Drive
 - N20–Install bicycle signal heads at the path crossing north of the railroad tracks.
- k. University Avenue and Walnut Street
 - No Nearer-Term modifications are recommended.
- l. Additional University Avenue Corridor Strategies
 - N21–Investigate the feasibility, benefits, and costs of installing adaptive signal control and/or transit signal priority from Segoe Road to Highland Avenue.
 - N22–Initiate a public outreach campaign to improve driver awareness of bicycles and pedestrians city wide.
 - N23–Investigate the feasibility of removing U-turn restrictions at additional locations along the corridor to supplement left-out delays and/or access prohibitions.
- m. Village of Shorewood Hills
 - N24–Complete the missing portions of the east-west bike path between Shorewood Boulevard and University Bay Drive.
 - N25–Prepare for participation in the upcoming reconstruction of University Avenue Corridor from east of Shorewood Boulevard through and including the University Bay Drive/Farley Avenue intersection and University Bay Drive north of University Avenue.

- n. Greater Regent Neighborhood
 - N26–Add on-street bike accommodations/markings to Franklin Avenue from Speedway Road to University Avenue and consider designating this portion of street as a Bicycle Boulevard.
 - o. University of Wisconsin–Madison
 - N27–Continue aggressive Travel Demand Management (TDM) strategies, and combine them with City, Village, and regional TDM efforts.
 - N28–Prepare for participation in the reconstruction of University Bay Drive north of University Avenue.
 - p. Additional Recommendations
 - N29–City, Village, and UW staff should engage VA Hospital representatives and begin developing mutually beneficial transportation solutions, particularly in anticipation of the upcoming reconstruction of University Bay Drive and the intersection at University Avenue.
2. Longer-Term Recommendations
- a. Travel Demand Management
 - L1–Investigate regional strategies that incentivize choices that make better use of transportation infrastructure such as lane pricing, cordon line pricing, a sales tax to fund transportation infrastructure, and transportation impact fees.
 - L2–Institute a formalized commuter ride sharing program.
 - b. University Avenue and Segoe Road
 - L3–Coordinate long-term plans at this intersection with potential redevelopment of the Hill Farms state office building site.
 - c. University Avenue and Hilldale Way
 - L4–Install a partial signal with a center pedestrian and bicycle refuge area, similar to the partial signal at Ridge Street/Marshall Court.
 - L5–Install a pedestrian overpass when additional redevelopment occurs.
 - d. University Avenue and Midvale Boulevard
 - L6–Reconstruct the intersection with minor additional motor vehicle capacity by adding turn bays for select movements (see Figure 6.01-2).

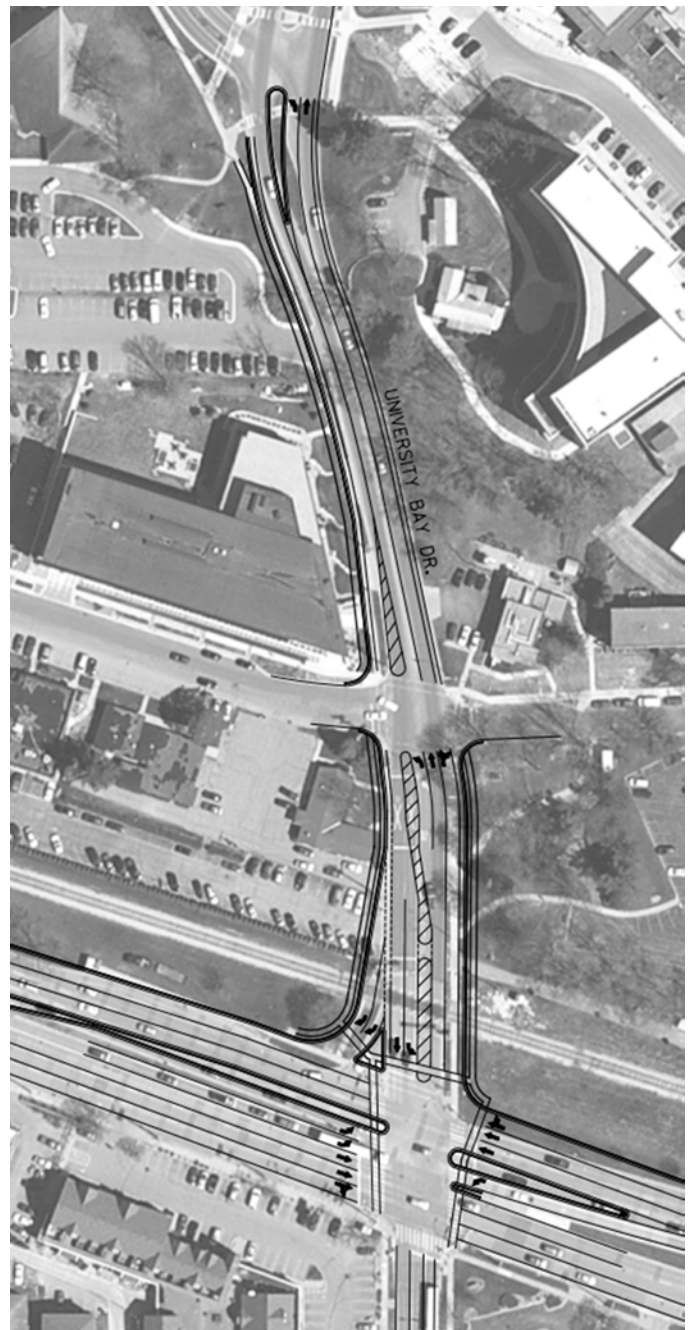


Figure 6.01-2 Possible Modifications at Midvale Boulevard

- e. University Avenue and Blackhawk Avenue
 - No Longer-Term modifications are recommended beyond the Nearer-Term recommendation to install a partial signal.
- f. University Avenue and Shorewood Boulevard
 - No Longer-Term modifications are recommended beyond the Nearer-Term recommendations for improvements to the bicycle and pedestrian crossings.

g. University Avenue and University Bay Drive/Farley Avenue

- L7–Full reconstruction of the intersection in eight to ten years including additional turn lanes, two northbound lanes on University Bay Drive departing the intersection, new sidewalk on the east side, and a generous center refuge at the multiuse path crossing north of the railroad tracks (see Figure 6.01-3). These improvements likely require additional right-of-way on both sides of the street.
- L8–Construct an east-west grade-separated bicycle and pedestrian crossing of University Bay Drive.



**Figure 6.01-3 Possible Modifications at
University Bay Drive/Farley
Avenue**

- h. University Avenue and Highland Avenue
 - L9–If the Walnut Street jug-handle is implemented (L12), conditions at this intersection may change and warrant future modifications to signal timings and lane designations.
- i. Highland Avenue and Westbound Campus Drive
 - L10–Construct an east-west grade-separated bicycle and pedestrian crossing of Highland Avenue in the Longer Term.
 - L11–Provide additional pedestrian, bicycle, and motor vehicle space on Highland Avenue under the Campus Drive structures by replacing the slope paving with vertical retaining walls.
- j. University Avenue and Walnut Street
 - L12–Construct a jug-handle configuration for eastbound traffic by allowing right turns from Campus Drive to travel a new street to University Avenue and allowing right turns from this new street onto eastbound Campus Drive.
 - L13–Modify the cross section of Walnut Street under Campus Drive from the existing (two 18-foot travel lanes and two 4-foot crosswalks off the back of curb) to provide better pedestrian accommodation (two 14-foot lanes and two 8-foot sidewalks off the back of curb).
- k. Additional University Avenue Corridor Strategies
 - L14–At the time of corridor reconstruction, reevaluate median or curb-lane running local bus or BRT lanes.
 - L15–If not implemented in the Nearer Term, investigate the feasibility, benefits, and costs of installing adaptive signal control and/or transit signal priority from Segoe Road to Highland Avenue.
 - L16–Consider additional measures to communicate a more urban/multimodal character for the corridor from Segoe Road to Farley Avenue as opportunities arise such as narrower motor vehicle lane widths; entry features eastbound at Segoe Road and westbound at University Bay Drive; additional median landscaping; specialized lighting and/or other treatments.
- l. Village of Shorewood Hills
 - No Longer-Term modifications are recommended beyond the Nearer-Term recommendations to complete the missing portions of the east-west bike path and prepare for the upcoming reconstruction of University Avenue and University Bay Drive.

m. Greater Regent Neighborhood

- L17–Construct a pedestrian and bicycle overpass of Campus Drive near Chamberlain Avenue.
- L18–Add additional on-street bike accommodations/markings to Kendall Avenue, Bluff Street, Blackhawk Avenue, and Regent Street from Franklin Avenue to Midvale Boulevard.
- L19–Add a crosswalk crossing Midvale Boulevard at the unsignalized Hilldale Mall entrance north of Heather Crest to the south side of the intersection.

6.02 SUMMARY PUBLIC MEETING

The final public meeting was held on February 24, 2014, at the UW Credit Union community room in Shorewood Hills.

A. Format and Public Meeting Materials

The public meeting included a 40-minute presentation, which reviewed the study scope, background, and current conditions; summarized the results of the online survey, Workshop No. 1 and Workshop No. 2; outlined the Guiding Theme and three Primary Goals that had been developed since the previous outreach activities; briefly summarized the draft study recommendations; and summarized the materials available for review and comment. The presentation was followed by questions and answers.

Appendix H includes the materials provided at the public information meeting.

B. Summary of Public Comments

The public comments received at the workshops were generally favorable. Some of the comments resulted in consideration of revisions to the recommendations. These are summarized in the list that follows.

1. Provide additional pedestrian lead signal phasing/timing at Shorewood Boulevard

One stakeholder provided a detailed field review of the existing signal phasing and timing at the Shorewood Boulevard intersection and proposed that some of the green time provided to the northbound and southbound motor vehicle traffic be reallocated as a pedestrian lead phase (where a walk signal is provided for pedestrians while all other signals serving motor vehicles remain red) serving both the east and west crosswalks. Currently, the signal provides a lead pedestrian phase for the east crosswalk only.

The information provided at the meeting included field-measured signal phase lengths and, for the most part, accurately represented current conditions. There were, however, some inaccuracies including the assumption that the length of the north and south phase is dictated

solely by whether or not a pedestrian button is pushed. In reality, loop detectors in the pavement also contribute to determining the total length of the signal phases based on the presence or absence of motor vehicles (i.e., the signal uses actuated-coordinated operation).

The study team reviewed the proposal and, at this time, has not included the addition of pedestrian lead timings for the west crosswalk. First, crash data does not indicate a significant history of vehicle-pedestrian crashes in the west crosswalk at the intersection (zero crashes in the last ten years). Second, adding the pedestrian lead phase for the west crosswalk could increase delays for northbound and southbound drivers potentially leading to riskier driver behavior. Finally, several study recommendations already seek to improve compliance and awareness at this intersection including enhanced markings, adding flashing yellow arrow signal heads, and modifications to the southbound intersection approach. The team feels the current recommendations strike an appropriate balance between all modes using the intersection.

2. Add a westbound left-turn bay at the intersection of Highbury Road.

Crash data indicates that several rear-end crashes have occurred at this location. It is not clear that they are completely attributable to the lack of a westbound left-turn lane. However, considering the long-term vision for the corridor of eliminating left turns to University Avenue from uncontrolled locations and instead encouraging right turns followed by downstream U-turns, adding a westbound left-turn bay at Highbury Road would be consistent. The study team added this as recommendation N-9

3. Reconsider relocating the Midvale Boulevard crosswalk at Hilddale Mall from the north side to the south side since the northbound left-turn volume is likely higher than the southbound u-turn volume.

The recommendation to relocate this crosswalk is in response to concerns about u-turning vehicles failing to yield to pedestrians in the crosswalk. While the southbound motor vehicle u-turn volume is less than the northbound motor vehicle left-turn volume entering the Mall, northbound drivers are more likely to see pedestrians in a crosswalk while southbound u-turning vehicles may be more apt to fail to see a pedestrian. The recommendation has been modified to maintain the north crosswalk while adding a south crosswalk. Because doing so will require installation of curb ramps and relocation of storm sewer inlets, it has been changed from a near-term to a long-term recommendation (L-19).

4. Make sure that any changes to University Bay Drive or Walnut Street do not make things worse for pedestrians.

Based on this comment and the potential for adding eastbound motor vehicle access to/from Campus Drive that would be served by Walnut Street, the study team reevaluated current conditions at the Walnut Street underpass of Campus Drive. Currently, Walnut Street appears to be 36 feet wide from face of curb to face of curb, while the sidewalk is at the back of curb and is only 4 feet wide on each side. We added recommendation L-13 to modify the cross section and provide wider sidewalks on both sides by reducing the lane widths.

6.03 COMMENTS FROM REVIEWING BODIES

The draft study was provided to several local governmental bodies for review. Following is a summary of the comments received for consideration as projects are advanced.

A. Madison Pedestrian, Bicycle, and Motor Vehicle Commission

The following comments were received at the meeting on May 27, 2014.

1. If modifications are made to the University Bay Drive/Farley Avenue intersection, they must improve conditions for pedestrians and not make them worse; refuge areas should be expanded.
2. Regarding north-south bike accommodations, consider making modifications/adding on-street accommodations to Farley Avenue rather than the recommended Franklin Avenue. This issue was also discussed at subsequent meetings and was not resolved.
3. Make additional improvements to the existing east-west Kendall Avenue bike boulevard including removal of the stop signs along Kendall and identifying an extension of the boulevard east to connect with Breese Terrace.
4. Consider performing a survey to help determine the most effective means of demand management for Madison. What stops people from choosing a mode other than driving alone?

B. Madison Long-Range Transportation Planning Committee

The following comments were received at the meeting on May 29, 2014.

1. If modifications are made to the University Bay Drive/Farley Avenue intersection, they must improve conditions for pedestrians and not make them worse; refuge areas should be expanded.
2. If significant modifications are made to the Shorewood Boulevard intersection, consider eliminating the channelizing island for northbound right turns. If redevelopment allows, try to eliminate the skew angle of the south leg.
3. If the Kendall Avenue bike boulevard is extended west, the pavement on Bluff Street should be improved.
4. If there is a major project along University Avenue, try to eliminate the superelevated curve and profile issues near Bagels Forever. These geometric elements seem to encourage higher speeds.

5. Travel demand management must be emphasized moving forward, and the study should have included this as one of the Primary Goals (note: it is included in the Guiding Theme). The City, Village, and University should require Transportation Management Associations among business and property owners. Consider performing a survey to help determine the most effective means of demand management for Madison.
6. Decision makers should continue to consider how land use and transportation are linked as the corridor redevelops and encourage less autocentric and more pedestrian and bicycle friendly urban environments to the extent possible.

C. Shorewood Hills Village Board

The following comments were received at the meeting on June 16, 2014.

1. Future projects must consider that modifications to accommodate one mode, such as transit signal priority, may make conditions for other modes worse. Future changes will require tradeoffs and compromises.
2. The multiuse trail crossing of University Bay Drive is a key challenge and must be carefully addressed when a project involving significant modifications moves forward.
3. There is a strong desire to find a way to construct a grade-separated pedestrian crossing near Target in the Hilldale Mall area.

D. Madison Board of Public Works

The following comment was received at the meeting on June 18, 2014.

1. A park and ride is needed somewhere between the Metro Transit West Transfer Point and UW Campus.

6.04 OVERVIEW OF FUNDING OPPORTUNITIES

The study team reviewed funding opportunities as part of this project. Appendix I includes more detailed information. Significant investments in transportation infrastructure serving the Study Area will require federal and/or state funding assistance.

A. Joint Funding

Investing in an enhanced transit system serving the Study corridor will require a creative and collaborative funding structure. Often this occurs through creation of a Regional Transportation Authority (RTA) with the power to levy fees and/or impose taxes granted by the state legislature. Legislation was enacted for RTAs in Wisconsin about five years ago but was repealed in 2012. In early 2014, a bipartisan bill was introduced in the State Senate calling for creation of an RTA in the Fox Valley. The RTA issue continues to be a politically charged one within the state.

As an alternative to an RTA, state legislation allows for the creation of an Intergovernmental Commission (IC) through the drafting of an Intergovernmental Agreement (IA). The structure of the IC is agreed to in the IA, and such an entity could be created by the City of Madison, Village of Shorewood Hills, and UW. The IC would have no broader powers than the individual powers of the participating entities and does not isolate them from liabilities. An IC can distance the individual parties from politically charged issues.

There are two ways that funds could be raised by an IC. First, fees can be imposed by Madison and Shorewood Hills pursuant to their “police powers.” The fees cannot be in excess of actual costs. UW also has fee powers through tuition and as an employer. Second, Madison and Shorewood Hills can tax real estate.

Another option being used increasingly around the country is the creation of a Public Private Partnership (P3). The specific requirements of the participating entities varies from project to project. Generally speaking, a private entity or partnership funds a significant portion of the planning, design, and construction costs of the public infrastructure, in exchange for revenue and/or tax benefits accrued as a result of the project. Recent examples include the Denver Union Station Transit/Multimodal Development and the Hiawatha Light Rail Transit in Minneapolis/St. Paul, Minnesota.

B. Federal, State, and Local Grants, Loans, and Programs

There are dozens of programs available to assist entities with funding transportation infrastructure. Those that are the more likely candidates to be used for the modifications recommended in this study are summarized in Table 6.04-1.

Entity	Program	Eligibility	Notes
United States Department of Transportation	Surface Transportation Program (STP)	Primary source of flexible funding for transit and roadway improvements.	▪ WisDOT distributes these federal funds via their Local Program. ▪ Major Collector or higher classification.
	Urbanized Area Formula Grant Program	Transit grants for areas with populations greater than 50,000.	▪ WisDOT distributes these federal funds. ▪ Metro Transit already participates.
	Bus and Bus Facilities Program	Grants for buses and bus-related facilities.	▪ WisDOT distributes these federal funds. ▪ Criteria include consistency with plans, age and deferred maintenance, and commitment of local share.
	New Starts/ Small Starts Program	Primary source of funding for locally planned, implemented, and operated major transit investments.	▪ Selection is by the Federal Transit Authority (FTA). ▪ Criteria include mobility improvements, environmental benefits, cost-effectiveness, operating efficiencies, and transit supportive land use and future patterns.
	Alternatives Analysis Program	Used to assist local governments in conducting alternatives analyses.	▪ Eligible projects must include at least one alternative that is a new fixed guide-way transit system.
	Transportation Alternatives Program	New designation for pedestrian, bicycle, safe routes to school, and transportation enhancements projects.	▪ WisDOT distributes these federal funds. ▪ Criteria include commitment of 20 percent local share, detailed cost estimate, proactive consideration of issues that often impact schedule including historic resources, contaminated soils, and impacts to railroad right-of-way.
Wisconsin Department of Transportation	Transportation Economic Assistance (TEA)	Attract and retain Wisconsin employers.	▪ Requires 50 percent match (can be any combination of private, local, federal, or in-kind services).

Table 6.04-1 Candidate Funding Sources for Study Recommendations

6.05 CONCLUSIONS AND POSSIBLE NEXT STEPS

The Study Area including the Village of Shorewood Hills, the Greater Regent Neighborhood, and the west campus of the UW is a desirable place to live and work. It is anticipated that development and redevelopment in the Study Area will continue to increase the demand for transportation for the foreseeable future as residences, jobs, and services continue to be added. This growth is part of local plans and is a healthy prospect for the City, Village, and University. Some of the natural amenities that contribute to livability in the area such as Lakes Mendota and Wingra, the UW Arboretum, and the parks and golf courses on the near west side also create transportation challenges.

Mobility along University Avenue is important to the success of area businesses and UW. Significant motor vehicle capacity expansion (constructing an eight-lane corridor or extending Campus Drive to the west by adding grade separations and interchanges) would have significant impacts and costs both physically and in terms of livability. Therefore, the study team settled on an overall goal for the corridor that focuses on improving conditions for pedestrian, bicycle, and transit travel while minimizing negative impacts on motor vehicle travel.

The study team believes the recommendations are achievable and when taken together will communicate and enhance the multimodal nature of the corridor. The primary next steps in implementing the recommendations include the following:

1. Continue to advocate for a RTA with state lawmakers to advance enhanced (preferably exclusive right of way) transit serving the Study Corridor.
2. Consider investigating the creation of an Intergovernmental Commission if RTA legislation is unlikely in the Nearer Term.
3. Implement a means to incentivize participation in regional Travel Demand Management solutions.
4. Considering the importance of efficient travel in the Study Area, make improvements to east-west and north-south bicycle connections a high priority when selecting which future projects areawide should be implemented.
5. Continue to require improvements that balance bicycle, pedestrian, transit, and motor vehicle needs as part of the development/redevelopment review and approval process.
6. Implement the access modifications proposed in this report (partial signals) and do not allow new full-access signals along the Study Corridor.

APPENDIX A
MATERIALS AND SUMMARY OF INPUT FROM THE FIRST ROUND OF
PUBLIC WORKSHOPS

Near Westside Neighborhood and University Avenue Corridor Transportation Study

Public Workshop #1

March 12, 2013

March 20, 2013

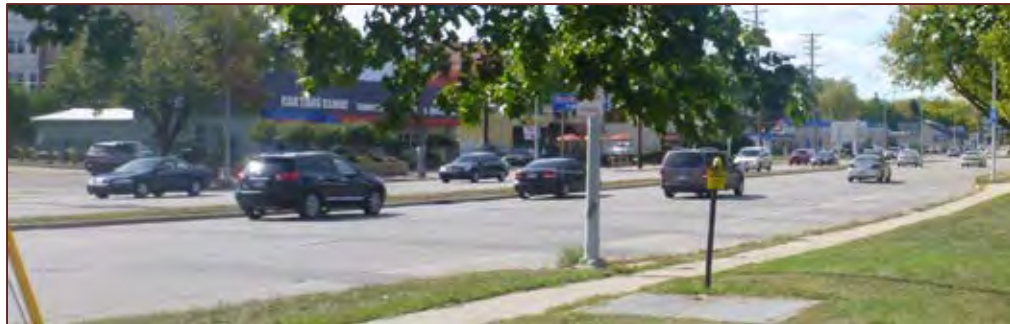
Google earth

Presentation Outline:

- **Reason for Study**
- **Study Limits and Overview**
- **Background and Current Conditions**
- **Questions and Answers and Goals Exercise**

Reason for Study:

- **University Avenue Corridor**
 - Transportation artery carrying about 55,000 vehicles per day
 - Few non-freeways in WI carry volumes over 50,000 vpd
 - Most are in Madison (Natural Geography)
 - Near capacity currently during peak travel periods



Reason for Study:

- **Recent and Continued Redevelopment**
 - Redevelopment in the City, Village, and on UW Campus



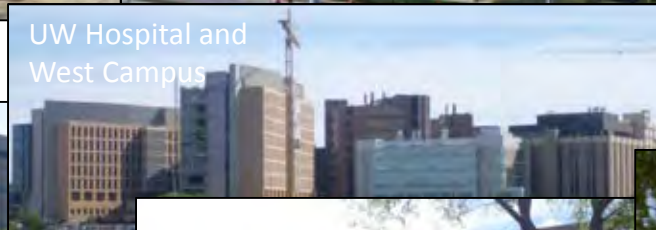
University Avenue
at Princeton



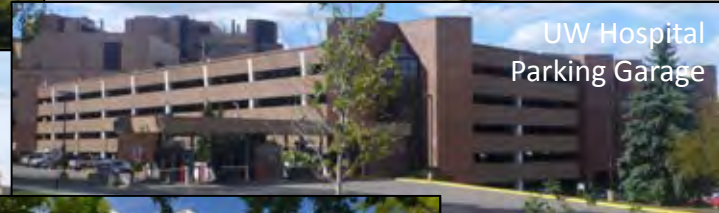
Pyare Square and
Walnut Grove



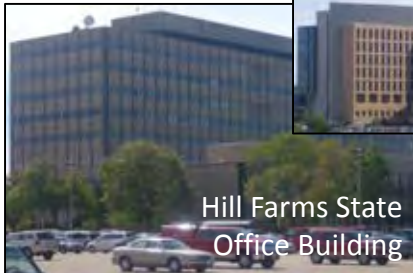
Doctors Park



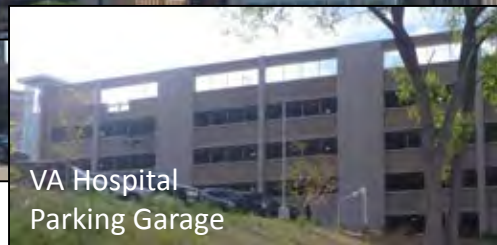
UW Hospital and
West Campus



UW Hospital
Parking Garage



Hill Farms State
Office Building



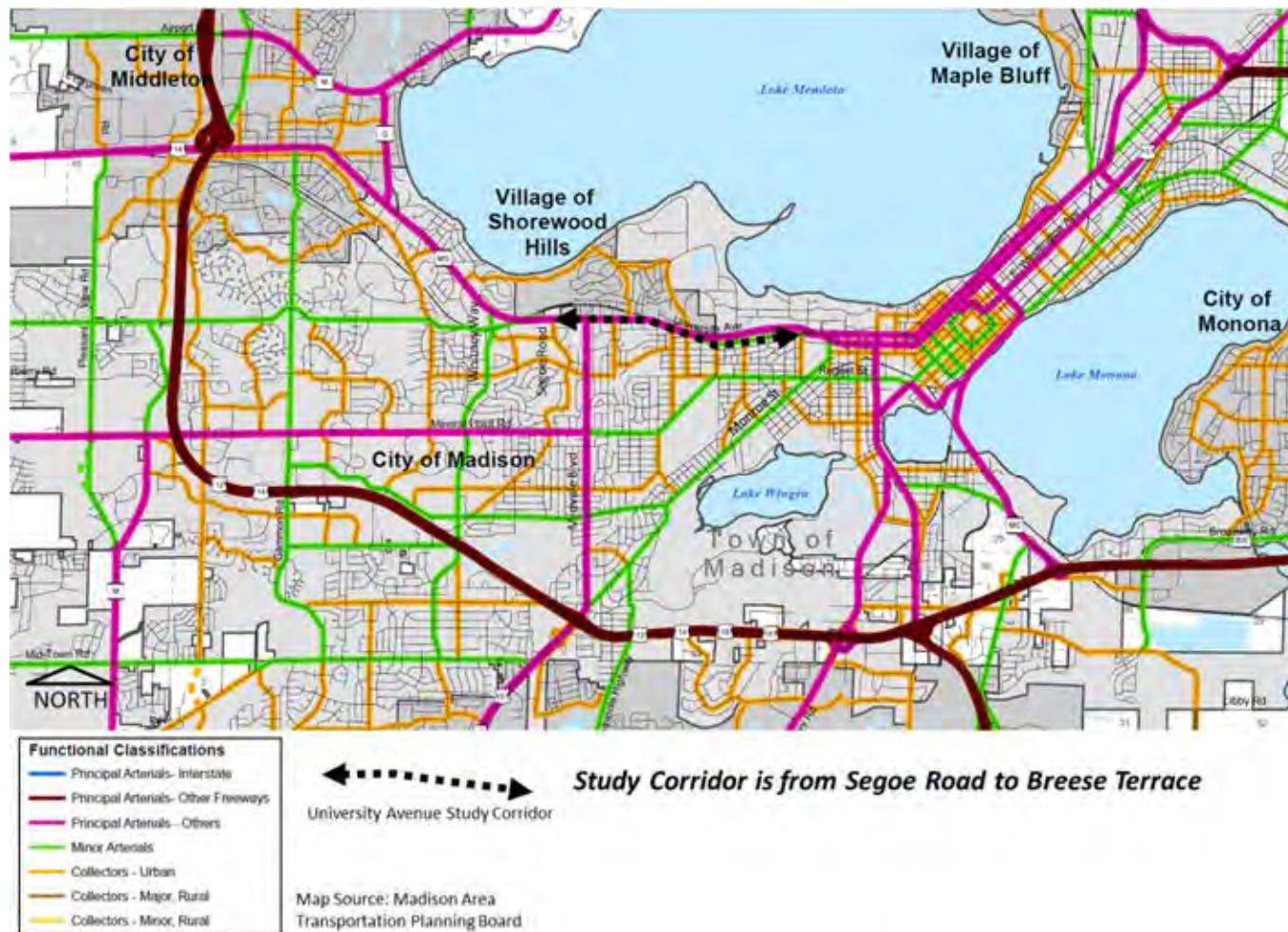
VA Hospital
Parking Garage



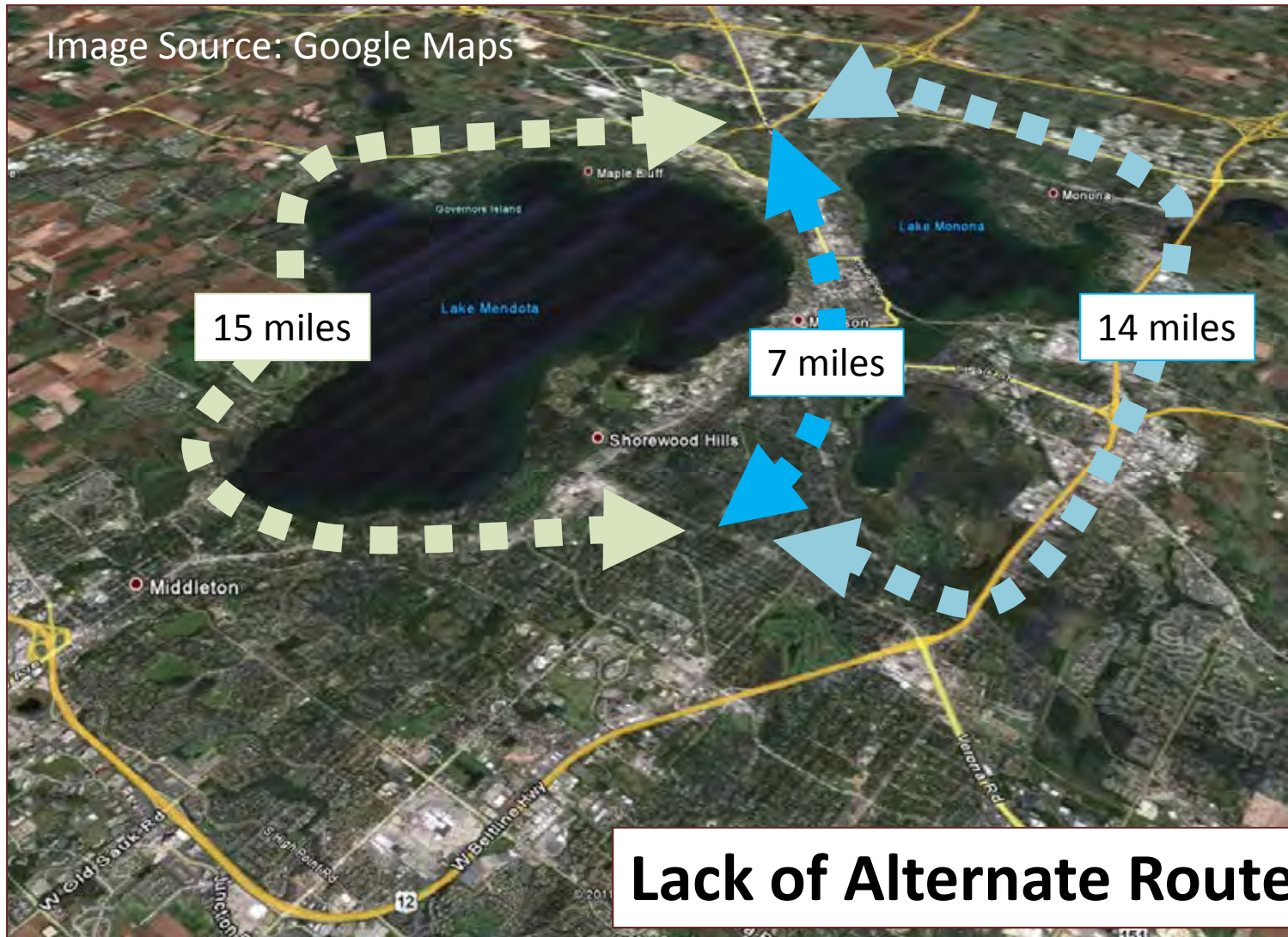
2550 University

Study Limits and Overview:

- Study Corridor

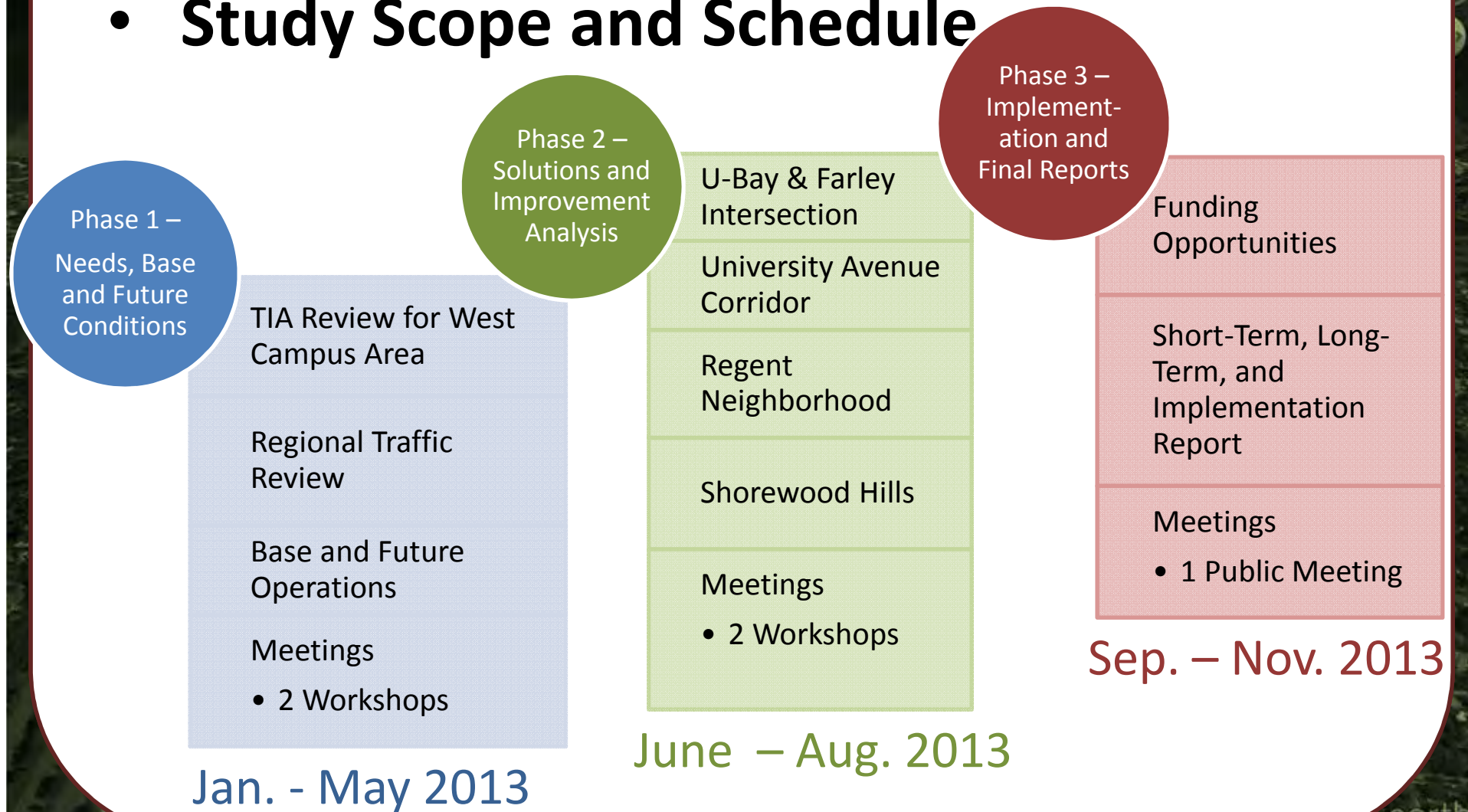


Reason for Study:



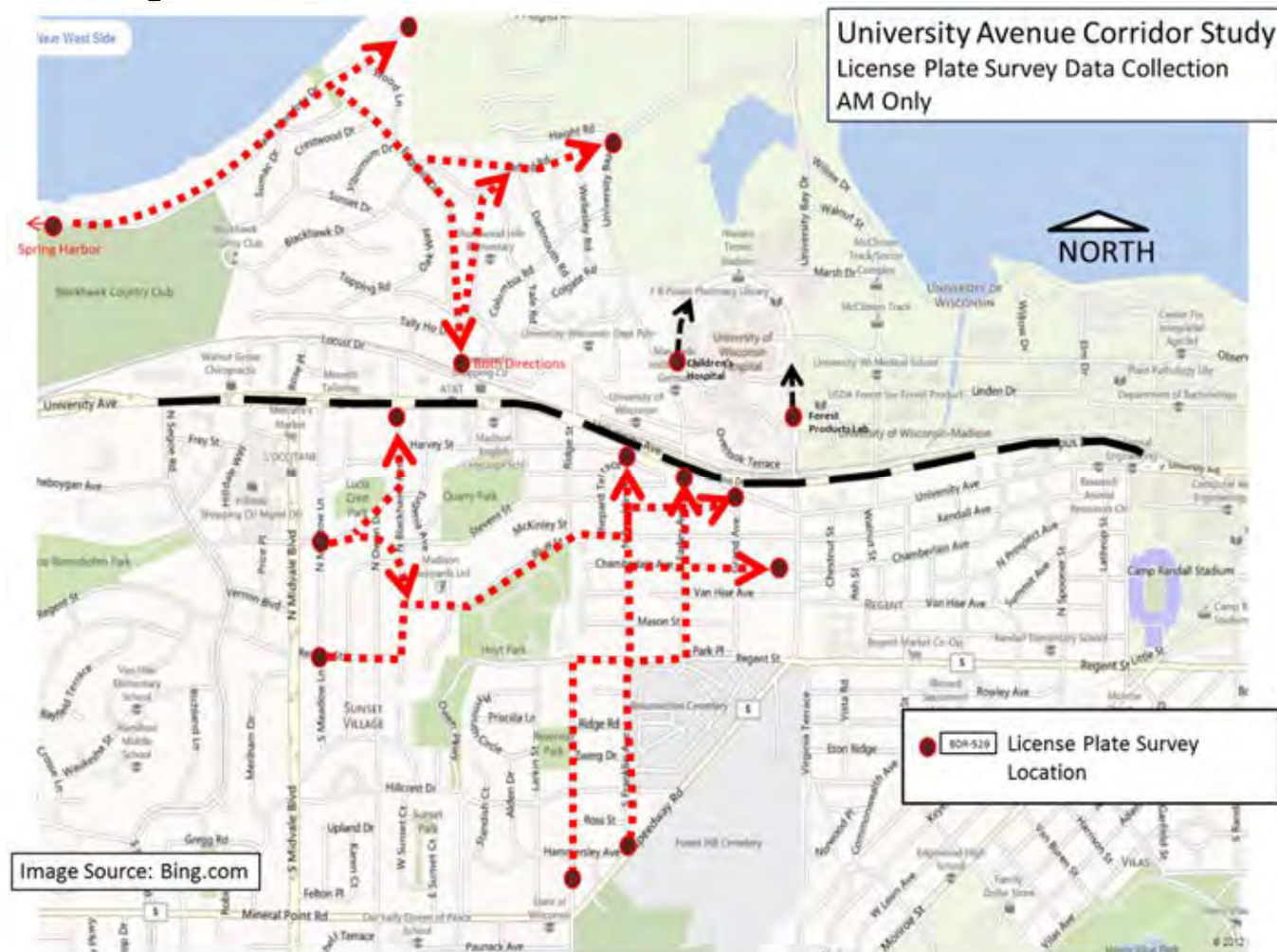
Study Limits and Overview:

- **Study Scope and Schedule**

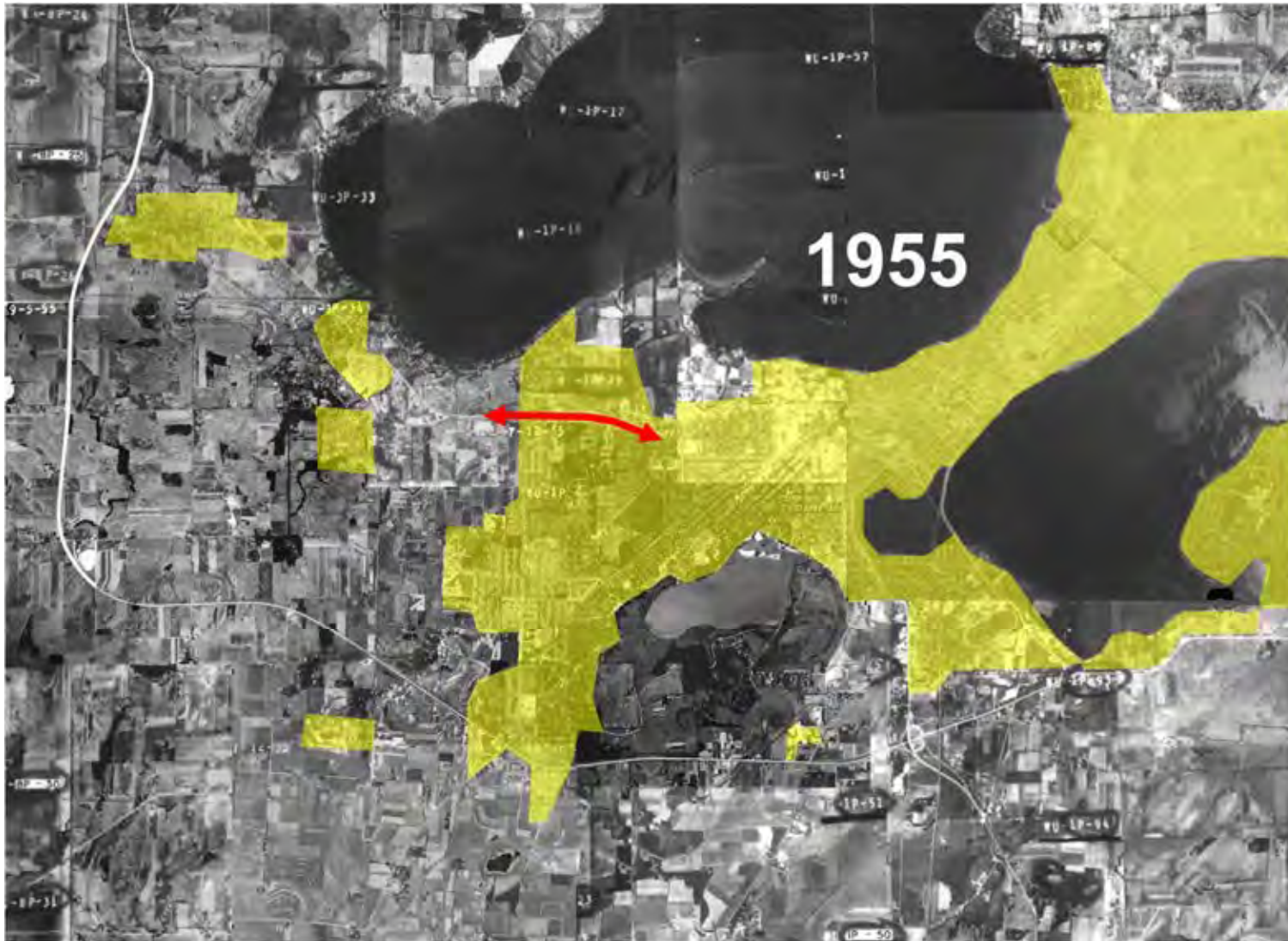


Study Limits and Overview:

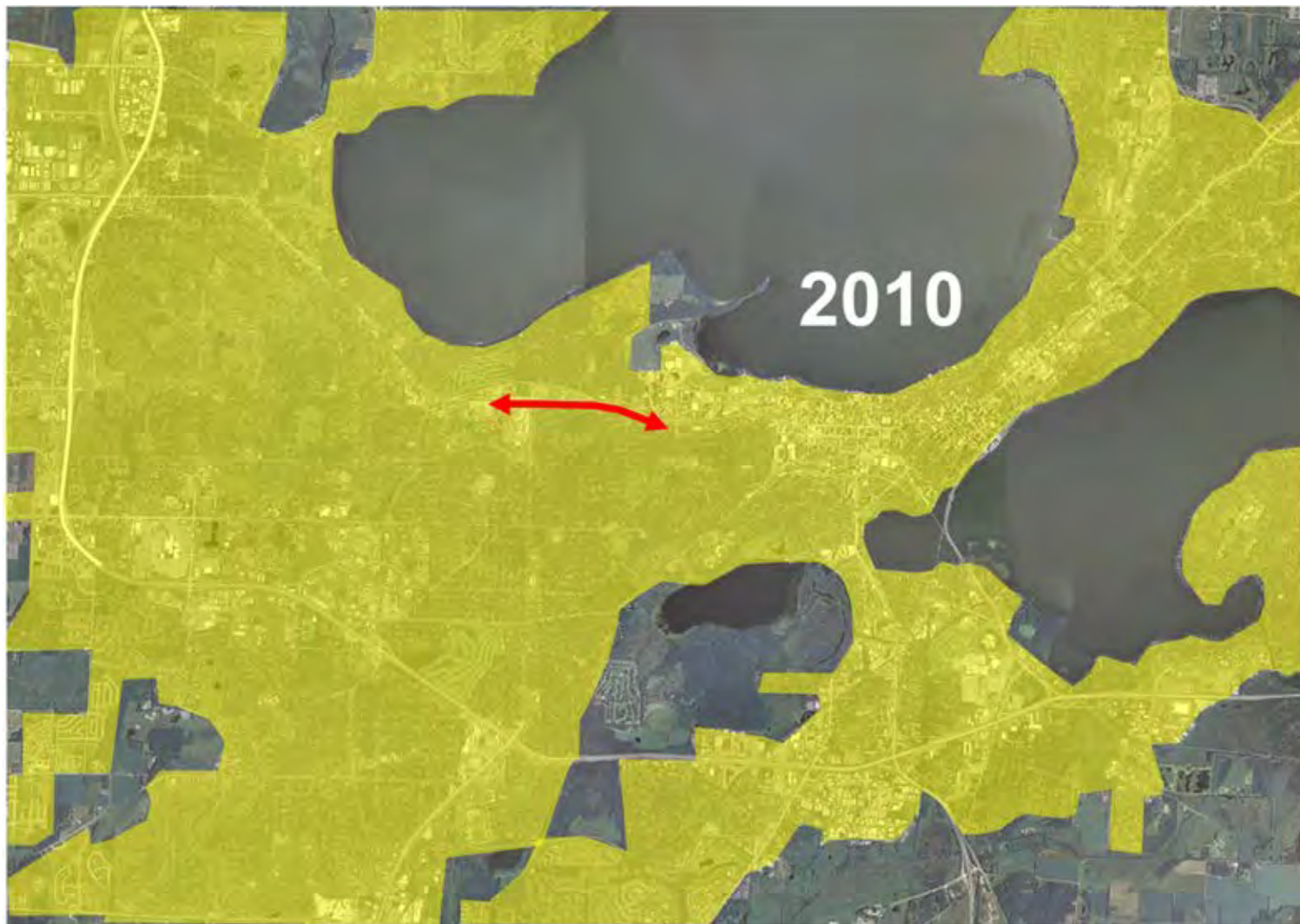
- Study Data Collection



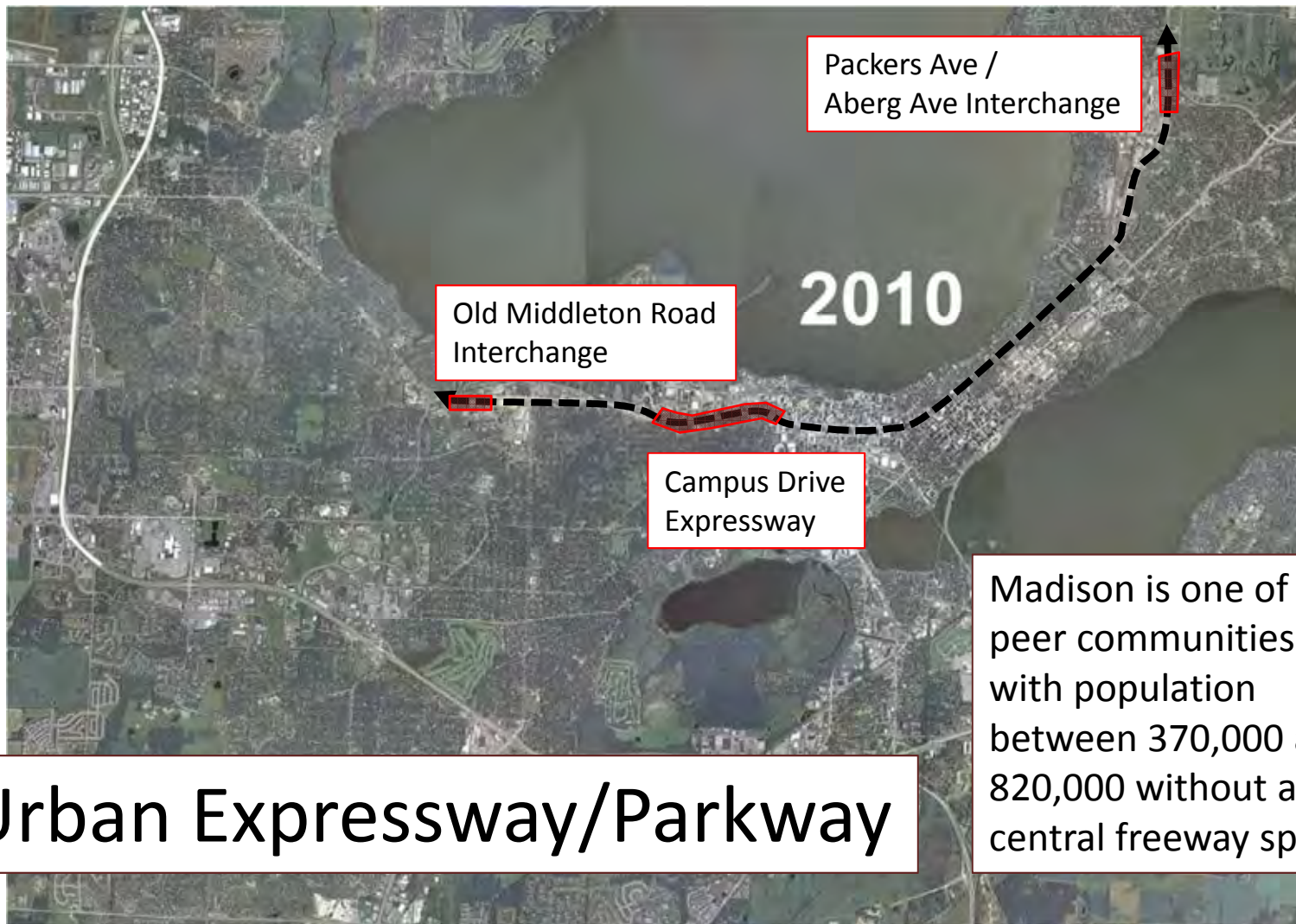
Background and Current Conditions:



Background and Current Conditions:



Background and Current Conditions:



Urban Expressway/Parkway

Madison is one of two peer communities with population between 370,000 and 820,000 without a central freeway spur

Background and Current Conditions:

- Motor Vehicle Operations

AM Congestion and Queuing



Background and Current Conditions:

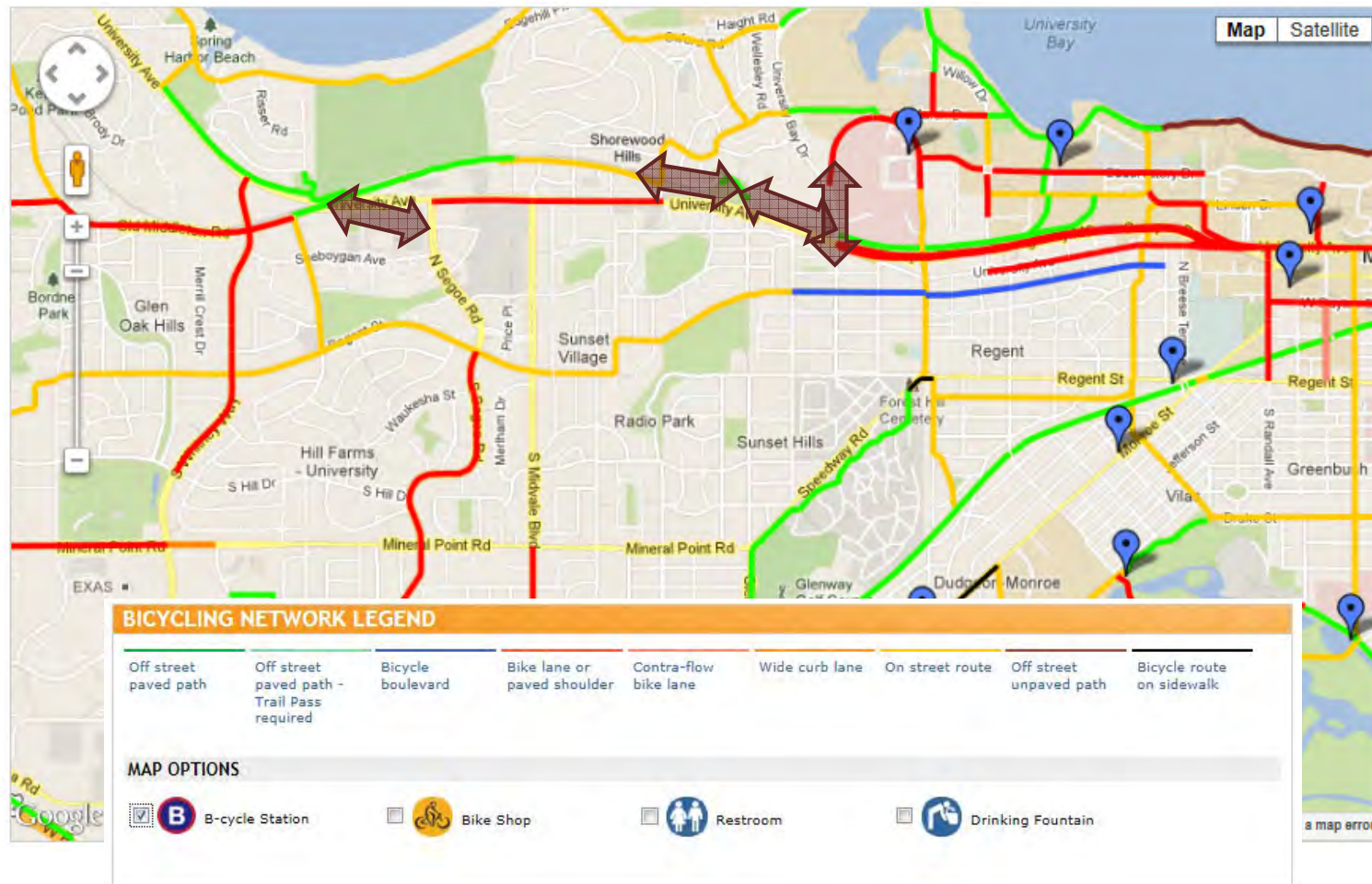
- Motor Vehicle Operations

PM Congestion and Queuing



Background and Current Conditions:

- **Bicycle Conditions**



Background and Current Conditions:

- **Bicycle Conditions**



Solid Existing System...



...yet Challenges Remain

Background and Current Conditions:

- Pedestrian Conditions



Background and Current Conditions:

- **Transit Conditions**

Corridor will be part of any
Future Expansion

- Bus Rapid Transit
- Commuter Rail
- Others...



Near Westside Neighborhood and University Avenue Corridor Transportation Study

*Questions and Answers
and*

Goals Exercise

March 12, 2013

March 20, 2013

Google earth

How to get more info

City of Madison:

stolley@cityofmadison.com

Strand Associates, Inc:

251-4843, jeff.held@strand.com

User Survey:

<http://www.surveymonkey.com/s/DBVCKW5>

Near Westside Neighborhood and University Avenue Corridor Transportation Study Public Workshop #1

March 20, 2013 at Shorewood Hills Village Hall from 5:00 to 7:00 PM



FROM:

Name:
Address:
Representing:

Attn: Jeff Held, P.E., PTOE
Strand Associates, Inc.
910 West Wingra Drive
Madison, WI 53715

Your input is very important to the **Study Partners** (the Village of Shorewood Hills, University of Wisconsin - Madison, and City of Madison). In the space below, please provide your comments regarding the Near Westside Neighborhood and University Avenue Transportation Study. (Please attach another sheet if needed.)

[illegible]

FOLD HERE



Strand Associates, Inc.
910 West Wingra Drive
Madison, WI 53715

Place
Stamp
Here

Attn: **Jeff Held, P.E., PTOE**
Strand Associates, Inc.
910 West Wingra Drive
Madison, WI 53715

FOLD HERE

GOALS AND PRIORITIES

Near Westside Neighborhood and University Avenue Corridor Transportation Study Public Workshop #1

March 12, 2013 at West high School, 6:00 to 8:00 PM

March 20, 2013 at Shorewood Hills Village Hall, 5:00 to 7:00 PM



Please drop form in comment box provided at the meeting

*Your input is very important to the **Study Partners** (the Village of Shorewood Hills, University of Wisconsin - Madison, and City of Madison). In the space below, please list what you feel are your top three Goals for transportation along the University Avenue corridor and/or within the nearby neighborhoods, starting with the most important. You may use the list developed at the meeting or provide others.*

GOAL #1:

GOAL #2:

GOAL #3:

GOALS AND PRIORITIES

Near Westside Neighborhood and University Avenue Corridor Transportation Study Public Workshop #1

March 12, 2013 at West high School, 6:00 to 8:00 PM

March 20, 2013 at Shorewood Hills Village Hall, 5:00 to 7:00 PM



Please drop form in comment box provided at the meeting

*Your input is very important to the **Study Partners** (the Village of Shorewood Hills, University of Wisconsin - Madison, and City of Madison). In the space below, please list what you feel are your top three Goals for transportation along the University Avenue corridor and/or within the nearby neighborhoods, starting with the most important. You may use the list developed at the meeting or provide others.*

GOAL #1:

GOAL #2:

GOAL #3:

Near Westside Neighborhoods and University Avenue Transportation Study

Workshop #1, March 12, 2013 at Madison West High School

Top 5 Comments/Concerns/Priorities

Rank Dot Exercise

- 1 **Pedestrians Crossing University**
- 2 **Commuters Parking in Neighborhoods**
- 3 **Light Rail**
- 4 Cut-Thru Traffic
- 5 Increase Mode Shift (Multiple Crossing University -Peds/Bikes)

Workshop Sheets

- 1 Connection of Bike/Peds across University
- 2 Parking Issues - Commuter Parking in Neighborhoods
- 3 Addition of Light Rail
- 4 Traffic Volumes on Side Street/Reduce Cut-Thru Traffic
- 5 Reduce Congestion (Increase Ride Sharing/Bus Use/Bike Use)

Goals/Priorities Sheets

- 1 Pedestrians/Bike Facilities/Safety (Neighborhoods/Crossings)
- 2 Solve Parking Issues (Commuter Parking/Park and Ride)
- 3 Reduce Congestion (Ride Share/Bus/Bike)
- 4 Reduce Speeds
- 5 Light Rail

Near Westside Neighborhoods and University Avenue Transportation Study

Workshop #2, March 20, 2013 at Shorewood Hills Village Hall

Top 5 Comments/Concerns/Priorities

Rank Dot Exercise

- 1 **Reduce Cut Through Traffic**
- 2 **Ligth Rail/ Improved Transit**
- 3 **Bike/ped crossings of University Ave.**
- 4 Park and Rides
- 5 Reduce Speeds on Local Streets

Workshop Sheets

- 1 Speed on Residential Streets
- 2 Cut Through Traffic
- 3 Light Rail/ Improved Transit
- 4 Park and Ride Lots
- 5 Crossing University Avenue

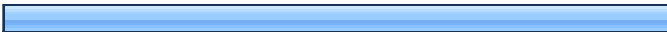
Goals/Priorities Sheets

- 1 Light Rail/ Improve Transit
- 2 Safety
- 3 Reasonable Improvements
- 4 Bike Path Connections
- 5 Park and Rides

Near Westside Neighborhoods and University Avenue Transportation Study



1. Based on the map provided, please indicate where you live:

		Response Percent	Response Count
I live outside these areas		0.0%	0
Area A - Village of Shorewood Hills		0.0%	0
Area B - University of Wisconsin-Madison Campus		0.0%	0
Area C - Greater Regent Neighborhood Area		100.0%	349
Area D - West Madison/Middleton		0.0%	0
Area E - Southwest Madison/Verona		0.0%	0
Area F - South Madison/Fitchburg		0.0%	0
Area G - Madison Isthmus		0.0%	0
Area H - East Madison/Monona		0.0%	0
answered question			349
skipped question			0

2. Based on the map provided, please indicate where you work:

		Response Percent	Response Count
I do not travel for work purposes		20.1%	70
I work outside of these areas		8.6%	30
Area A - Village of Shorewood Hills		3.4%	12
Area B - University of Wisconsin-Madison Campus		29.8%	104
Area C - Greater Regent Neighborhood Area		10.3%	36
Area D - West Madison/Middleton		6.3%	22
Area E - Southwest Madison/Verona		2.6%	9
Area F - South Madison/Fitchburg		3.7%	13
Area G - Madison Isthmus		12.9%	45
Area H - East Madison/Monona		2.3%	8
		answered question	349
		skipped question	0

3. How do you travel the University Avenue/ Campus Drive corridor?

	Daily	A few times per weeks	A few times per month	Rarely / never	Rating Count
Personal motor vehicle to/ from work	22.6% (54)	23.0% (55)	16.3% (39)	38.1% (91)	239
Personal motor vehicle errands/ other travel	19.0% (56)	60.3% (178)	18.0% (53)	2.7% (8)	295
Metro Transit or other shared ride	15.7% (37)	16.9% (40)	21.6% (51)	45.8% (108)	236
Bicycle	18.4% (49)	30.3% (81)	22.8% (61)	28.5% (76)	267
Pedestrian/ Wheelchair	18.3% (45)	23.6% (58)	23.2% (57)	35.0% (86)	246
answered question					349
skipped question					0

4. Please prioritize the MOTOR VEHICLE concerns associated with the University Avenue/ Campus Drive Corridor.

	Major Concern		Agree it is an Issue		Not a Concern	Rating Average	Rating Count
Too much congestion along the corridor during rush hours	18.9% (63)	24.0% (80)	33.9% (113)	14.4% (48)	8.7% (29)	2.70	333
Travel speeds are too fast	18.5% (62)	13.7% (46)	21.8% (73)	24.5% (82)	21.5% (72)	3.17	335
Difficulty crossing or making a left turn on to Univeristy Avenue from an unsignalized intersection	26.2% (88)	20.8% (70)	30.7% (103)	11.0% (37)	11.3% (38)	2.60	336
Difficulty turning left off of University Avenue to a side street or driveway	10.4% (34)	16.5% (54)	31.4% (103)	26.5% (87)	15.2% (50)	3.20	328
Congestion at major intersections (Midvale Boulevard, Shorewood Boulevard, University Bay Drive/ Farley Avenue, etc.)	16.3% (55)	25.5% (86)	29.1% (98)	19.0% (64)	10.1% (34)	2.81	337
answered question							348
skipped question							1

5. Please prioritize the NEIGHBORHOOD TRANSPORTATION concerns associated with the University Avenue/ Campus Drive Corridor and the neighborhoods north and south of it.

	Major Concern		Agree it is an Issue		Not a Concern	Rating Average	Rating Count
Difficulty crossing University Avenue/Campus Drive for bicycles and pedestrians.	45.9% (153)	20.1% (67)	22.5% (75)	7.2% (24)	4.2% (14)	2.04	333
Missing east-west bicycle and pedestrian connections (for example between University Bay Drive and Shorewood Blvd)	37.5% (124)	21.8% (72)	24.2% (80)	9.4% (31)	7.3% (24)	2.27	331
Missing north-south bicycle and pedestrian connections (for example between the Southwest Path and the Blackhawk/West Campus Path)	33.6% (111)	20.0% (66)	26.4% (87)	12.1% (40)	7.9% (26)	2.41	330
Use of neighborhood on-street parking by daily commuters	26.3% (88)	19.1% (64)	25.1% (84)	15.5% (52)	14.0% (47)	2.72	335
Use of neighborhood streets to bypass congested roads or intersections (cut-through traffic)	38.4% (128)	18.6% (62)	21.3% (71)	14.7% (49)	6.9% (23)	2.33	333
answered question							345
skipped question							4

6. If you drive University Avenue/ Campus Drive regularly, please check all that apply:

		Response Percent	Response Count
I avoid University Avenue during rush hour by not driving during that period.		43.1%	129
I avoid University Avenue during rush hour by using local neighborhood streets.		30.4%	91
I choose to travel by foot, bike, or bus to avoid University Avenue traffic during rush hour		40.1%	120
I do not (or can't) avoid University Avenue during rush hour.		28.1%	84
		answered question	299
		skipped question	50

7. Please indicate your opinion regarding improvements to mobility along the University Avenue/Campus Drive corridor.

		Response Percent	Response Count
Modifications are not needed along University Avenue.		8.5%	28
Small modifications are needed along University Avenue to address growing congestion, maintain mobility, and manage impacts on adjacent neighborhoods.		58.9%	195
Major modifications are needed along University Avenue to address growing congestion, improve mobility, and reduce or reverse impacts on adjacent neighborhoods.		32.6%	108
		answered question	331
		skipped question	18

8. You may provide additional comments in the space below. Please limit your comments to about two hundred words or less.

	Response Count
	162
answered question	162
skipped question	187

Q8. You may provide additional comments in the space below. Please limit your comments to about two hundred words or less.

1	Bicycles, pedestrians, transit, and green infrastructure for stormwater management should be the priority when planning this corridor.	May 27, 2013 10:03 AM
2	I'm really angry that it has taken the city so long to finally start doing something about this issue. Many near west side neighbors have been making a stink about this for years. Get it done so that it preserves the quality of life and the value of the near west side neighborhoods.	May 23, 2013 6:38 PM
3	The speed on Farley Ave. between University and Regent is still a major concern. Cars are using this as a through pass and constantly speed, especially during rush hour. The islands recently put in do not seem to slow traffic down, especially since there is also no vegetation planted on the island so that it could obstruct the view for drivers vision - encouraging them to slow down. It has been an unfinished, half-hearted attempt to silence the concerns of the neighborhood. NOTHING has changed - cars speed constantly. A speed board would be perhaps more effective. The islands have solved nothing.	May 23, 2013 4:53 PM
4	As a biker, i was hit by a car that ran a red light, university and hill drive. Everyday cars run red lights there and it is painful to watch.	May 7, 2013 11:12 AM
5	Our street is continuously being used by motorists to bypass the west bound Regent st/Midvale intersection light and drive at top speeds going north/south on S. Meadow Lane.	Apr 28, 2013 4:39 AM
6	University Avenue between shorewood entrance and univ bay drive needs major work. Suggestions include: rapid transit bus; repayment of roads; improved sidewalks and pedestrian scale lighting to promote walk ability; improved intersections for crossing bikes and pedestrian. West end of Regent neighborhood is a grid and rush hour is dangerous with high speed drivers cutting through the neighborhood. Recommendation to install more speed bumps; neighborhood signage; and create cul du sacs and dead end to some neighborhood roads to decrease pass though traffic.	Apr 26, 2013 6:22 AM
7	The recently replaced section starting at Hill St and heading west is wonderful. It would be great if that continued East, especially with respect to the wide bike lanes and sidewalks. Thanks!	Apr 24, 2013 7:18 AM
8	It is very difficult to cross University Ave. most of the time but especially during rush hour, and I especially worry about kids crossing U Ave.	Apr 22, 2013 2:44 PM
9	I live on N.Owen Dr.Car traffic too heavy because it's a shortcut. Speed excessive. Parking on both sides of street at Lucia crest a safety concern for children,etc.City needs to make the parking at the park 2 hour to increase safety and to ease congestion. Our neighborhood is being used as a parking garage by UW and state employees. step up to the plate city of madison before a child is killed or injured near the park.	Apr 21, 2013 5:45 PM
10	Dangerous pedestrian crossing at univ ave & farley. Need to limit the number of entry/exit points in regent neighborhood to help eliminate pass through traffic. Introduction of one-way streets to discourage pass through traffic. Speeding on Chamberlain Ave, during rush hour and failure to stop properly at Chamberlain and Farley caused several accidents over couple years.	Apr 21, 2013 5:00 PM

Q8. You may provide additional comments in the space below. Please limit your comments to about two hundred words or less.

11	Bluff St, N. Blackhawk Ave and Regent St are used to avoid University Ave during rush hour. We live on N.Blackhawk Ave and the disregard for the 4-way Stop is amazing. Vehicle speed and noise from the rush hour traffic is unacceptable-I wish it would change. Speed bumps? One-way traffic? Curved narrower streets? More boulevard in front of the homes with curvey sidewalks?	Apr 18, 2013 4:00 PM
12	I do not like to drive. I live close enough to campus to walk or bus most of the time. That also means higher housing costs for less amenities, but it has been worth it. The new Univ. Ave. improvements have helped as far as traffic and being able to cross the street, but traffic has obviously increased a lot in the 29 years I've lived in the neighborhood. Illegal parking is definitely an issue as I live on a round circle-Birge Terrace.	Apr 18, 2013 12:21 PM
13	Rush hour "cut through" on Regent, Blackhawk and Bluff Streets need to be monitored. East bound traffic on Regent often "cut the corner" onto Blackhawk nearly causing accidents. Many vehicles do not stop for the stop sign (three way stop) at Blackhawk and Bluff. Speeding is incredible on the residential streets.	Apr 17, 2013 12:14 PM
14	Better bike path connections to help bikers not have to ride on or cross major roadways would help traffic flow. Also, better light timing and longer turn arrows on to and off of University Ave would help traffic flow and people wouldn't feel the need to drive into the neighborhoods to bypass Univ. Ave.	Apr 16, 2013 2:14 PM
15	The west ward bike path on University Avenue is not safe. It is an unbelievably bad and unsafe design - can't believe who came up with that. Bicyclists must ride between buses on the right and trucks on the left. This is the single most important issue.	Apr 15, 2013 8:06 PM
16	Thanks for studying this. I live on Lucia Crest and understand University is a major arterial. Would like to see efficient use of University for automobile commuter traffic, and maintain pedestrian/bicycle paths and street crossings with safety in mind (maybe a bridge somewhere near ridge or hill st and university). Also, please consider a park and ride near DOT lot with train route to UW and downtown.	Apr 15, 2013 7:56 AM
17	Reduced lanes on Old University Ave. a major source of congestion. Railroad crossings major safety concerns, and major source of congestion. Speed bumps ineffectual and annoying	Apr 14, 2013 6:17 PM
18	Suggest speed bumps and signage on Harvey and Ridge Streets indicating to slow down and be aware of foot traffic and bikers. People bypassing University drive very fast on these streets, and with two lanes of street parking and no sidewalks this is very dangerous for pedestrians. Heavy food delivery vehicle traffic is a problem also, as well as occasional larger vehicles--even busses going down these streets.	Apr 13, 2013 8:53 PM
19	I used to live off a side street (mckinley) and cars flew by avoiding university Ave. It was often hard to be out walking any time of day ESP with the dog. We moved a few blocks over (renting before, now owning) to avoid such side street traffic. I live near hilldale mall, I suggest more stop signs nearby to slow traffic coming onto university (or from). It's like a speedway - still tough when I am out walking, but better than b McKinley. Also I am new to Madison, impressed by	Apr 13, 2013 4:30 PM

Q8. You may provide additional comments in the space below. Please limit your comments to about two hundred words or less.

most of its bike paths, not by pedestrian life. Just added a baby to the family - so we go on walks a lot...traffic is noticed. Not sure I would like to stay long in Madison with congestion like this.

20	University Ave isn't a highway it is a city street. Slow down traffic on University and on residential streets around it. Make more and better crossings.	Apr 10, 2013 10:31 AM
21	Traffic congestion is not a major problem along University. The biggest problem is the speed cars are driving and the lack of pedestrian and bicycle alternatives. We need better bike lanes along the corridor and better and safer pedestrian crossings with handicapped accessible lights.	Apr 10, 2013 10:23 AM
22	Other than no good north/south bike connection things actually move pretty well for a city this size	Apr 9, 2013 4:43 PM
23	It is of primary importance that any modifications along the University Avenue/Campus Drive corridor FIRST consider the impact on pedestrian and biking routes as well as improving accessibility for bikers and pedestrians. The current situation in which a large number of pedestrians and bikers do not have safe and sufficient infrastructure is not acceptable.	Apr 9, 2013 3:09 PM
24	What we really need is light-rail along the corridor. Also, I should say that I am large unaffected by this because I take the bike path to work every day. It isn't a problem for me to access the bike path from Highland Ave (I live in the 2500 block of Kendall). But improving that access for other bikers from other parts of the corridor should be a major priority.	Apr 9, 2013 1:11 PM
25	Over or under University Bay Drive bike trail crossing is needed for the safety of bikers and drivers.	Apr 8, 2013 9:55 AM
26	Ped/Bike crossing of University Ave. at Hilldale Shopping Center area is still cumbersome and needs a better solution at Midvale Blvd. or just west of there.	Apr 8, 2013 8:42 AM
27	Farley Ave is a major cut through street from the South(ie Regent Street, Speedway, etc). It is a narrow street with a lot of on street parking areas between the PED refuge islands. People fly down the hill having to weave back and forth around parked cars and the PED islands. These motorist only add to the congestion at the Farley/University interesection. The signalization at the intersection needs to be up dated to accomodate these added secondary road additions. Making a Left Hand turn from Farely to University can be difficult sometimes since it seems like the two roads are not in line and people are usually encroaching on the other sides turn area due to many pedestrians crossing the street. There are many PEDs crossing at this lcoation due to many hospital works living in the area, or many parking on side streets for the day to then walk to work. Bike path that comes from the campus area to the East just kinda dies/dead ends at the street across from Farley. Having a bus stop right at the Southwest corner adds to the sight issues for cars trying to make a right hand turn on red. Basically, many issues both larger and smaller that need to be addressed.	Apr 8, 2013 5:32 AM
28	RESIDENTIAL NEIGHBORHOODS MUST BE PROTECTED! Pass through traffic with pollution, noise, and high speeds are greatly affecting the quality of	Apr 7, 2013 2:27 PM

Q8. You may provide additional comments in the space below. Please limit your comments to about two hundred words or less.

life in the Regent Neighborhood. To keep young families in our neighborhood there must be MAJOR MODIFICATIONS to traffic patterns in our area. There are neighbors who are talking about wanting NO right turns into residential Regent Neighborhood during rush hours. Shorewood Hills has limited entry and exits, but Regent neighborhood has multiple entries and exits. Simply limit them! Pedestrian and biking is becoming a hazard during rush hours with high speeds on narrow streets.

29	I noticed yesterday that there is a significant east-west crack in the middle of University at Shorewood Blvd.	Apr 7, 2013 9:07 AM
30	Speed limits are consistently exceeded on the campus Drive portion.	Apr 7, 2013 8:11 AM
31	I'd like to see additional bus service (longer hours) of transit between UWHC area and Regent & Hill Farms areas (specifc, Rte 11 does not run during day, requiring use of car for nonscheduled hours)	Apr 7, 2013 6:57 AM
32	(Small?) modifications that would improve matters include better traffic signals at intersections along the study corridor. At this time no (major) construction work is warranted.	Apr 7, 2013 5:29 AM
33	Left turn signals on U.Ave @ Shorewood and Univ. Bay are too short. Perhaps a turn arrow both before and after green light?	Apr 7, 2013 4:52 AM
34	A bike route is needed to connect from Marshall Court (west of La Brioché) to University Bay Drive. Safer bike crossing is needed at University Bay Drive (this is a dangerous crossing) and at Highland Ave. The rest of the bike route is excellent.	Apr 6, 2013 8:56 PM
35	Need more sidewalks along University Ave.	Apr 6, 2013 7:58 PM
36	I'd like to see more pedestrian/bicycle overpasses and tunnels under and/or over University Ave. Also, build on and off ramps for bicycles to conect to Park St. from the rail corridor bicycle trail.	Apr 6, 2013 7:41 PM
37	turning L onto U Ave is difficult when there's no intersection. I avoid this by travelling a side street until there is a light, which is very easy to do . it's not possible to put a light everywhere. it works fine this way. a short L arrow on Hill street woudl be useful bc ppl like to turn into Whole Foods	Apr 6, 2013 5:29 PM
38	The absolute biggest problem in my area is Harvey Street... A narrow, residential, tightly parked on side street that definitely CANNOT handle the traffic it takes.	Apr 6, 2013 5:24 PM
39	Motorists completely disregard pedestrian rights in crosswalks across all of the City of Madison with little to know meaningful police enforcement.	Apr 6, 2013 4:07 PM
40	Please eliminate or significantly reduce commuter park-and-ride vehicles on streets in the adjacent neighborhood areas east of Midvale Boulevard and south of University Avenue. To reduce free commuter parking on neighborhood streets, install signage on both sides of the streets consistently reading >2-hour parking only, 8am to 6pm<, or, >No parking, 8am to 6pm<. To accommodate the	Apr 6, 2013 3:36 PM

Q8. You may provide additional comments in the space below. Please limit your comments to about two hundred words or less.

resulting and increasing number of park-and-ride vehicles, build landscaped public parking ramps along the University Avenue and/or Midvale Boulevard corridors, featuring underground parking, elevator access to all levels, and seasonal park-and-ride passes at reasonable fees. Thank you for your attention.

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| 41 | Going westward, the traffic signal at the Ridge-University intersection does not turn green for those turning left onto Ridge-- this is a confusing and potentially dangerous situation. Despite the addition of lights, the intersection remains dangerous for pedestrians/bikes crossing University-- for example, cars regularly speed across even as the lights turn red. In general, cars are traveling at speeds too high for pedestrians to feel safe while crossing. This area needs a north-south walk-over for pedestrians, including children and elderly, to feel safe while crossing University Avenue, just like the one going across old University. | Apr 6, 2013 2:24 PM |
| 42 | Car parking by West High students creates extremely limited on street parking options. It would be great if students were required to take public transportation, bike or walk. Between 8 AM & 4 PM it's almost impossible to park on streets south of the school. | Apr 6, 2013 8:09 AM |
| 43 | seperate bike lanes or paths for bikes would be good. | Apr 5, 2013 8:02 PM |
| 44 | Major pedestrian crossings from segoe to Farley as well those on Midvale b/w regent and university need to have greater setbacks for cars to stop, shark teeth paving, and signage at the appropriate places to protect and encourage bike led use and safety while maintaining traffic flow. | Apr 5, 2013 11:59 AM |
| 45 | Major modifications are needed in mode of transportation. Forward thinking, air quality and quality of life would be greatly improved along this corridor and beyond by the introduction of driving disincentives and mass transit incentives (rapid bus, lightrail, ride-share, park-and-ride, etc). Thank you for your work. | Apr 5, 2013 11:44 AM |
| 46 | I commute to work by bike in the spring, summer, and fall. I often take Franklin up and over to Speedway and then down Glenway to the bike path. I've noticed that there is a lot of car traffic taking up the neighborhood street and many folks get aggressive at the 3 way stop and often speed off. I also notice this in my car as well when driving to work. There are many cars that don't stop and wait for pedestrians crossing near the cemetery, which is concerning with the high school being so close by. Trying to cross Speedway by foot or by bike is also very scary as the vehicles coming from the east are driving on an incline and often speeding. Cars from the west often turn onto Franklin, but don't allow space for the cars or pedestrians on Franklin and cut in too close for comfort. I've almost been hit by vehicles while in my car and on my bike because of the carelessness. Another issue is that when waiting to cross Speedway, the buses drive so close to the curb that you get scolded for waiting in the crosswalk as they get so close that they almost hit pedestrians waiting to cross over. Alleviating some of the congestion on University will hopefully fix some of these issues, but also creating a better way for pedestrians to safely travel near Franklin and Speedway will help as well. | Apr 5, 2013 11:39 AM |
| 47 | I would like to see redevelopment and infill along University, from Farley to Midvale, up to 5 or 6 stories. But I am concerned about the impact on University Ave. congestion and neighborhood street function (especially Harvey St.). I'm | Apr 5, 2013 7:28 AM |

Q8. You may provide additional comments in the space below. Please limit your comments to about two hundred words or less.

	hoping this study can identify strategies to manage transportation needs such that higher-density infill can be approved.	
48	Would love to see continuous bike path from downtown to Middleton!	Apr 5, 2013 6:35 AM
49	better coordination of traffic lights would address many problems during peak times.	Apr 5, 2013 6:31 AM
50	#1 priority: Need to provide incentives/disincentives to get people out of their cars and using alternative modes of transit. Light rail, free buses, connected and clear bike routes would help plan for future growth. This plan should NOT have as its #1 priority making auto transit easier. Strongly oppose options that make it easier and more enjoyable for a single-occupied commuter vehicles to enjoy a quick and cheap ride to work. The UW needs to do more to discourage employees from each driving their own cars due to ease of travel and relatively cheap parking. Let's do something innovative, exciting and looks to the future - especially dealing with the negative impacts of climate change. http://en.wikipedia.org/wiki/Hasselt	Apr 5, 2013 5:13 AM
51	Question number 2 does not allow for multiple places of employment. I work in different locations on different days and take the bus to all of them. They are outside of the map area, Area D (West Madison/Middleton), and Area C (Greater Regent Neighborhood) area. I am also a daily pedestrian, and I find it difficult to cross University Ave., even at a traffic light due to the high speeds of cars, lack of attention to pedestrians, and turning vehicles. Walking on the side streets is a problem due to the high volume of traffic seeking to avoid the University Ave. congestion.	Apr 4, 2013 7:46 PM
52	NO ROUNDABOUTS PLEASE but full pull-over areas for buses and turn lanes would be helpful.	Apr 4, 2013 7:41 PM
53	Madison has a very short rush hour compared to other cities I've been in and, although it may grow in the future, at this point I don't think much is needed in the way of modifications	Apr 4, 2013 7:07 PM
54	Create a University Avenue ciclovía modeled after Bogotá, Columbia	Apr 4, 2013 6:42 PM
55	Left turn arrows into Shorewood off of University Avenue are too short and/or sensor driven. They should always be available regardless of cars at turn and average 8 seconds rather 5 or less.	Apr 4, 2013 6:23 PM
56	Univ. Ave was redone but no under/overpass for pedestrians. Better bike access; still too many commuters parking in Neighborhood; need solution to allow for city services on these streets, other than daily parking restrictions and residential permits.	Apr 4, 2013 4:57 PM
57	I do not travel this daily since I use Monroe/Regent corridor to cross the Isthmus either by bike or personal vehicle. When I do have to travel the corridor of study I find it stress-full (both by car and bike).	Apr 4, 2013 2:48 PM
58	About bicycle access on University: the path that a bike takes when they are going west on University and want to get to Old University requires crossing two	Apr 4, 2013 2:32 PM

Q8. You may provide additional comments in the space below. Please limit your comments to about two hundred words or less.

lanes of fast-flowing, through motor traffic, moving in the same direction. I don't know if there is a good way to solve this. The western bike path that goes past the hospitals needs a better trail connection between University Bay and Marshall Ct, hopefully very close to the railroad ROW. It is pretty treacherous trying to bike Marshall Ct. with all the parking and moving cars about.

59	An individual bike path or 2-lane path alongside Campus Drive would be a beautiful thing. Separated by a concrete median, like on University Ave., but with 2-way lanes, and possibly a thicker/taller median.	Apr 4, 2013 2:28 PM
60	Make this a complete street, with BRT and segregated/separated bike lanes (e.g. a curb, rail, or other obstacle between car lanes and bike lanes), slower speed, and pedestrian improvements (e.g. wider sidewalks, safer ways to cross Univ. Ave. etc.). The intersection at Univ & Shorewood Blvd/Ridge St. is EXTREMELY dangerous for pedestrians due to left turning cars driving through the intersection WHILE pedestrians are in the crosswalks.	Apr 4, 2013 2:24 PM
61	The intersection at University Avenue and Hill St/Shorewood Blvd is a nightmare for pedestrians. Vehicles rarely yield to pedestrian right of way, and are often traveling very fast. There are several people in my neighborhood, including my wife, who have nearly been struck by cars here while crossing the street with the walk sign. Please Address this issue!! Thanks!	Apr 4, 2013 2:13 PM
62	Our focus should be on providing real options to travel by motorized vehicle. That means bikes, our own two feet, and motor vehicles. But I feel the first two have been neglected in favor of the third for far too long.	Apr 4, 2013 2:10 PM
63	An underpass for bicycles at the intersection of Monroe and Regent would make sense.	Apr 4, 2013 2:10 PM
64	This survey addresses many relevant concerns related to living in this neighborhood. I want to highlight that my primary concern is related to safely crossing University Ave, even at crosswalks with signals. I gave up crossing at non-signal crosswalks after about a year (this is impossible during heavy traffic times; cars do NOT stop for pedestrians) and spend extra time to walk to a signal - however, even there cars rarely if ever yield and I have been nearly hit many times at the crossing near Blackhawk and University Ave.	Apr 4, 2013 1:58 PM
65	Increase connectivity for bicycling!	Apr 4, 2013 1:44 PM
66	Lights on the Cap trail bike path would be awesome.	Apr 4, 2013 1:40 PM
67	Generally my commute is pretty safe and reliable as a bike commuter. But, my route from Regent & Whitney to downtown has two areas of concern: 1) The intersection at Eau Claire and Sheboygan where the bike path begins is problematic and dangerous. It takes a long time to cross and cars move very quickly there. 2) There is no good connection between the bike path connected from Purdue street to the campus drive path. Currently I bike on Marshall Ct and take a right onto university bay to hit the path, but the traffic at university bay and the number of cars parking and backing out of parking means it is somewhat dangerous. Thank you	Apr 4, 2013 1:37 PM

Q8. You may provide additional comments in the space below. Please limit your comments to about two hundred words or less.

68	Crossing University as a pedestrian at corner of Hill Street and University (by Whole Foods) is treacherous. Cars that are turning onto University from side-streets almost never yield to pedestrians, even with a baby stroller or small kids holding hands when peds. have the right of way. It's a really dangerous intersection for the many school children walking to Shorewood and families walking to and from the Shorewood pool.	Apr 4, 2013 1:35 PM
69	My greatest concern of all is the traffic on Monroe Street. All the drivers exceed the speed limit, they change lanes aggressively and in the intersections if a car in front of them is turning left, and hardly any cars yield for pedestrians crossing the street. Please consider adding traffic lights at Knickerbocker and Harrison Street to slow down the traffic, or consider a center turn lane/one traffic lane each way/bike lane in each direction like what is planned for Sherman Avenue..	Apr 4, 2013 1:34 PM
70	prioritize pedestrian/bicycle safety	Apr 4, 2013 1:06 PM
71	Need to improve bicycle and pedestrian safety at Farley and University.	Apr 4, 2013 11:44 AM
72	Questions 6 and 7 aren't well worded. On 6, I drive it in rush hour just like any other time. It's not that big a deal. On 7, we don't need modifications to move more cars, but we do need to improve safety for for those trying to get through the area on foot or bike.	Apr 4, 2013 11:43 AM
73	University ave is a perfect place for high volumes of car traffic and it should not be diverted to other corridors. Univ. ave and Campus drive do need continued improvements for bicycles and pedestrians to move safely to all stores and destinations on and around this area. A big road like this requires more safety for vulnerable road users.	Apr 4, 2013 11:35 AM
74	The major issues to me are improving alternatives to driving alone during peak times. Trying to reduce congestion is a losing battle. Just give people better choices to walk/bike/bus safer and faster, and let people that chose to drive deal with their choices. Take away a lane of through traffic and give it to BRT. Reduce speed on Univ Ave west of Farley. 35 is too fast.	Apr 4, 2013 11:19 AM
75	Bike lanes on University Ave between Whitney Way and Campus are of dubious use for MOST bikers. Focus should be on providing and MAINTAINING year round East-West corridors on both sides of University (ie improve Campus through Shorewood connection by completing sections and eliminating jogs/bends; Kendal/Bluff need to be maintained, Bluff St is almost unbikeable and unsafe due to surface conditions and cut through traffic.)	Apr 4, 2013 11:17 AM
76	My neighborhood is used frequently by people who are trying to avoid U. Ave. This is causing pressure for pedestrian improvements (sidewalks)which would result in the loss of my 250 year old oak, and others in the neighborhood. I consider this particular solution completely unacceptable, and I support any creative pedestrian improvements that DO NOT involve the installation of sidewalks (1-way streets, "walking zones", restricting access to/from University, etc - anything but destroying the trees which are an important part of our neighborhood).	Apr 4, 2013 10:20 AM
77	I lived in Milwaukee for years. the rush hour congestion is not that bad for autos.	Apr 4, 2013 9:31 AM

Q8. You may provide additional comments in the space below. Please limit your comments to about two hundred words or less.

more problems for bikes and pedestrians

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| 78 | Major changes that require substantial acquisition of property are not needed, and would be detrimental to the area if implemented. Instead, it is better to make a series of smaller improvements that facilitate walking, redevelopment, and use of transit/bikes. | Apr 4, 2013 6:47 AM |
| 79 | #7: depending on what modifications are decided upon--it would be too bad if the whole area were torn up and unusable by almost anybody... | Apr 3, 2013 11:27 PM |
| 80 | I wish there were more choices in the avoid/don't avoid univ ave question. I avoid it unless I am commuting to or from work. For optional activities I try to do errands at other times. I am lucky to have a reverse commute--mostly against traffic. However, Middleton is getting more and more built up. The notion of a reverse commute is going to become quaint some time in the future. | Apr 3, 2013 9:56 PM |
| 81 | I haven't really studied this - by good fortune I do not need to cross University Ave to get to work. However when I need to and when it is crowded, or when I want to bike somewhere then it is troublesome. So modifications would be great - need to see proposals to weigh in on whether small or major (or somewhere in between) modifications would be needed to mitigate. Driving itself isn't too bad except rush hours but for cyclists & pedestrians it's pretty unfriendly. And crossing is a problem for everyone, and most of the time. | Apr 3, 2013 8:23 PM |
| 82 | With increasing population, additions of high density housing and workplace nodes, and chronic air quality impairments, Madison needs to stop stuffing more and more cars and diesel buses through the Campus Drive/Isthmus choke point. It's time for rail transit and a system of neighborhood circulator busses to shuttle commuters to the nearest rail stop. Park-and-Train lots or ramps can be built in Middleton, East Madison and SUn Prairie for rail commuters. Cars and diesel busses are harming children's health and impairing the health of adults. This problem can be greatly reduced with strict reductions and limitations on the number of commuter parking spaces in the study area, with people making use of electronic communications to organize ride sharing on a massive scale. Commuter traffic could be cut by 30% to 50% below current levels with no cost whatsoever. I organized a summer job ride-share group when I was 17, using a rotary phone. Surely Madison's highly educated and connected workforce can match that with smart phones, GPS, GIS and social media. Spending millions to make it possible to cram more cars through intersections is only going to worsen the overall problems of congestion, delay and health damage to air-breathing mammals. | Apr 3, 2013 8:15 PM |
| 83 | Crossing University to west campus from Randall, Breese as cyclist or pedestrian is unsafe. There are many people getting off of the bus at these stops as well. The bus stops and pedestrian crossing at University to Union South and WID at Randall is EXTREMELY poorly designed. There should be a bus stop there at Randall, and it was taken out when WID was built. This doesn't make sense - Union South was supposed to be multi-modal. | Apr 3, 2013 7:30 PM |
| 84 | Buses stopping along University Avenue are a major source of traffic back up and driver frustration during the morning rush hour (going in bound). There is nowhere for the buses to pull off to avoid blocking traffic. | Apr 3, 2013 6:53 PM |

Q8. You may provide additional comments in the space below. Please limit your comments to about two hundred words or less.

85	For the past 10 years I have thought the Campus Drive path from UW campus going West is a PERFECT area to use ART to make this a more enjoyable route. It is an open stretch. It could have beautiful, colorful flags up above; use of GREEN concrete, environmentally friendly colors. It could be a showcase of art and creativity to make drivers feel more patient with traffic and enjoy their trek. It is a stark stretch otherwise. Perfect way to involve community ideas for artistic expression, and beautify our city!	Apr 3, 2013 6:14 PM
86	Question #6 is TOTALLY slanted! No attempt at objectivity. Apparently you already have determined the outcome.	Apr 3, 2013 5:46 PM
87	How about some pedestrian overhead walkways that don't look ugly? One East of US Bank (near Midvale); one near Target, one at Farley and one at the Sarko Building/Shorewood tennis court area. But don't make them if they look bad.	Apr 3, 2013 5:28 PM
88	My concern is not any difficulty driving on University Avenue, but rather commuter parking and cut-throughs in neighborhood streets, as well as ped and bike crossings.	Apr 3, 2013 3:12 PM
89	Thank you for gathering data and ideas!	Apr 3, 2013 11:05 AM
90	If a Westside Park & Ride lot was made in the field next to the West Transfer Point, commuters could park their cars and ride to their jobs and/or schools. This would greatly reduce traffic to and from downtown.	Apr 3, 2013 10:51 AM
91	Cars rule and have plenty of space as it is. University Avenue is a river of metal - loud, intimidating and polluting. Soft traffic, bikers and pedestrians, need our attention now. How to make the corridor less hostile to these two groups is the main issue!	Apr 3, 2013 10:06 AM
92	Pedestrian and bicyclist safety is by far my most high priority concern.	Apr 3, 2013 8:59 AM
93	We need red light cameras at Midvale and University to catch westbound University Ave. drivers who turn southbound on to Midvale Blvd and run the red light. I walk there frequently and it happens all the time.	Apr 3, 2013 8:54 AM
94	It would be wonderful to drastically reduce the Mon-Fri east-west cut through commuter traffic on Stevens Street.	Apr 3, 2013 8:36 AM
95	People go down old University Ave to avoid rush hour. Old University backs up & they then go down side streets, e.g. Kendall Ave. - bad situation.	Apr 3, 2013 4:53 AM
96	I hope that some more traffic calming structures and traffic signs can be utilized on some of the side streets in the area. I see some key bike path connections as an important way of reducing overall congestion and improving safety, some innovative engineering may be needed to construct some of these links. Crossing the railroad tracks with a bike path near Franklin Avenue may be a possible solution for the challenges associated with that bike path link. Finding ways of improving pedestrian safety in the area of Univ. Ave./Franklin Ave./Shepard Terrace seems important to me too. Especially as it pertains to the often blind alleys in this area. These alleys are often made more dangerous by illegal parking here. Franklin Avenue has become a high-speed thoroughfare	Apr 3, 2013 12:44 AM

Q8. You may provide additional comments in the space below. Please limit your comments to about two hundred words or less.

between Univ. Ave. and Regent Street/Speedway. Some more signage, enforcement and perhaps more islands could be helpful.

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| 97 | I cross Old University to get to the hospital/Pharmacy School at least a couple of times a week. Crossing during rush hour is hazardous, as motorists are eager to get home and less courteous. This is even at stop lights with walk signals (ie. Walnut St coming from the Observatory). Perhaps changing the light so pedestrians can cross before motor vehicle traffic is able to turn left from Walnut onto University would alleviate some of the hazard. I hate to suggest a foot bridge, as it might be ugly, but it would help in between lights when cars can accelerate and have no reason to stop. Stop signs periodically through University would be good during rush hour, but a pain the rest of the time when there is little traffic. | Apr 2, 2013 10:05 PM |
| 98 | I would strongly favor any improvements to pedestrian crossings and safety. Installing lights that are activated rather quickly by pedestrians to allow crossing. I have seen these in Victoria Canada and like them alot. | Apr 2, 2013 8:32 PM |
| 99 | Turning left onto Ridge Street from University Ave. (when driving west on Univ.) is a major problem since the recent renovation of that intersection without a green left turn arrow. Drivers become desperate and it is hard then to wait for walkers to cross when it is their only chance to go before another major wave of traffic comes. When oncoming traffic has a red light, so does the left-turn person and when oncoming traffic turns green the left-turn person has a flashing yellow but can almost never get across before it turns red again. | Apr 2, 2013 8:14 PM |
| 100 | With travel to/from UW, state government buildings from local areas, University Avenue is a massive corridor. The light just East of the split between Campus and University (near Engineering building, I think; near railroad crossing on University) could be better managed by a pedestrian over- or underpass - stopping traffic so soon after a light (stoplights within 100 yards both East and West of that) creates more traffic congestion. | Apr 2, 2013 8:14 PM |
| 101 | I am not sure wether they are doing so to avoid the university ave corridor, but people travel Edgewood and Allen at high speed during rush hour times. | Apr 2, 2013 8:03 PM |
| 102 | I am a biker first, pedestrian second, and motorist third. Therefore i think connecting up the bike paths is the primary concern, and improving pedestrian connectivity to businesses along the corridor is my secondary concern. | Apr 2, 2013 7:59 PM |
| 103 | Cut-through traffic -- it's volume during rush hours, and it's recklessness on off hours -- is my biggest concern. If University Ave traffic was not as daunting, commuters would use that route. | Apr 2, 2013 7:38 PM |
| 104 | Bus-Rapid Transit (BRT) should be implemented in the corridor (and other TOD-appropriate corridors in Madison such as Park Street) to reduce vehicle miles traveled and congestion, while providing a more reliable and convenient alternative to the existing Madison Metro Bus service. There is also inadequate evening bus service along (Old) University Avenue and Campus Drive after 6 pm. High Performance ("green street") infrastructure that manages stormwater runoff through infiltration into the aquifer should also be included in the corridor's streetscape redevelopment to reduce runoff into lakes. | Apr 2, 2013 7:11 PM |

Q8. You may provide additional comments in the space below. Please limit your comments to about two hundred words or less.

105	The proposed new building at the S.E. corner of University Av. and Farley- where Scooter U is located- will create a hazard at the intersection. It will be too close to the streets, so will block the view of pedestrians and bicycles travelling north on Farley in the street or on the sidewalk, who won't be able to see bikes and pedestrians travelling west on the sidewalk, toward the intersection. This building should be sited further back from the intersection to allow better visibility.	Apr 2, 2013 7:06 PM
106	Traffic through neighborhood streets is often at high speeds, especially on our street, Chamberlain Ave	Apr 2, 2013 6:36 PM
107	Madison Metro needs to be involved in the transit planning. It is also hoped that planners help make this a walkable/bikeable/mass-transit neighborhood and provide mass transit routes within the neighborhood, not just to-from downtown.	Apr 2, 2013 5:52 PM
108	Increased enforcement actions against bicyclists who ignore traffic rules would help! No islands. No roundabouts.	Apr 2, 2013 3:54 PM
109	I like to see at least 4 busses each hour on Old University. Shut down all left turns on non-signaled intersections.	Apr 2, 2013 3:06 PM
110	There is a need to protect and prioritize neighborhood integrity from increasing traffic. The University Ave intersection with Farley/university bay needs a major overhaul with significant improvements for pedestrian and bike safety. Additionally, many cars make a right turn on red at Farley to avoid stopping for the light. I would highly recommend limiting right turns on red from Univ Ave in order to prevent excessive cut through traffic in the neighborhood going east. Speed bumps on side streets and demarcation of regent neighborhood with signage (esp near Farley and Stevens street) will also increase driver awareness and hopefully decrease speeds.	Apr 2, 2013 2:49 PM
111	Due to Kendall Avenue becoming a bike lane several years ago, the 2700 block of Stevens St. is used from 7-9 AM and 4-6 PM and causes extreme amounts of traffic. Speed is excessive and cars travel at these speeds next to Stevens Street Park. There is also a huge problem with people using this block of Stevens St. and many surrounding streets to park all day and then walk to work at UW Hospital, VA Hospital, etc. Very seldom are these cars ticketed. Something needs to be done to alleviate vehicles using neighborhood streets to commute to and from work.	Apr 2, 2013 2:19 PM
112	I don't believe it is a good use of public funds to invest heavily in accommodating current or increased levels of vehicular traffic through the study area. I would support initiatives that increase public, bike and pedestrian transport modes. I would also support public policies that incentivize individuals to live in close proximity to their work and any others that are deemed effective at reducing traffic volume through the study area.	Apr 2, 2013 2:05 PM
113	I use local streets more since recent modifications have made University Ave. more congested and difficult to drive. Four lanes Highland to Allen would help a lot.	Apr 2, 2013 1:40 PM
114	Other factors besides just the physical corridor need to be considered. Changes	Apr 2, 2013 12:54 PM

Q8. You may provide additional comments in the space below. Please limit your comments to about two hundred words or less.

to who uses the corridor and when need to be addressed such as changing workday start and end times so they are more staggered. What portion of commuters work for large institutions--hospitals, govt and university--that could have it within their power to shift the workday of a large portion of their workforce?

115	I actually choose not to bike from my neighborhood across Univ Ave because of the traffic. It feels too dangerous.	Apr 2, 2013 12:49 PM
116	My main concern is that a sidewalk is needed on the east side of University Bay Drive between Campus Drive and UW Hospital, before some pedestrian gets killed walking on the street.	Apr 2, 2013 12:44 PM
117	Use of side streets as a detour is a major problem because of driver frustration. Even though they have exited U. Ave., they feel they need to make the same time and speed. Violations @ stop signs and of speed limits is VERY hazardous to pedestrians, children playing and bicycles.	Apr 2, 2013 12:42 PM
118	Running red lights and otherwise failing to yield (to other cars, bikes, peds) is a major problem at all of these intersections. Also, Shorewood Hills fails to maintain good signage for SB University Bay traffic turning left onto Campus Dr (perpetually faded street paint only, no overhead sign). Confusion reigns.	Apr 2, 2013 12:41 PM
119	Side street parking by commuters creates problems with residents and their quiet possession of their property.	Apr 2, 2013 12:21 PM
120	Commuter traffic parking in neighborhood is major issue and growing. Also, volume of cut through traffic and their speed and attentiveness is an issue. Finally, UW Hospital employees turn left from Franklin onto University Avenue wait until ALL lanes are clear to turn so they can cross all four lanes of University to turn left onto University Bay Drive, which blocks Franklin. This isn't safe or courteous. Finally, while the employment at the UW medical campus is growing and good, what are they doing to mitigate traffic and parking issues for the surrounding neighborhoods?	Apr 2, 2013 11:46 AM
121	I'd like to see the aesthetics of the University Ave from Campus Dr. to Midvale improved: more trees, vegetation. Anything to improve bike access and commuting is much appreciated.	Apr 2, 2013 10:56 AM
122	#7 --Is adding a bike lane to U Ave 'small' or 'major'? Putting a bike path along U Ave would help remove one big concern I have about potentially fatal conflicts with vehicles. There are still bikes traveling from Hilldale, or even further out, down toward Madison on U Ave. This is really dangerous! The biggest motor vehicle problem is people racing through red lights! I see this DAILY at intersections, and have seen accidents because of it. This is more a policing issue than a road construction issue.	Apr 2, 2013 10:45 AM
123	It's hard to avoid University Ave. Trying to cross lanes from a side street is difficult. I typically use Highland to avoid this issue.	Apr 2, 2013 10:37 AM
124	Does it matter what I think?	Apr 2, 2013 9:24 AM

Q8. You may provide additional comments in the space below. Please limit your comments to about two hundred words or less.

125	I travel only by bus and find the U Ave. corridor extremely difficult to navigate as a pedestrian. There are too few crossings for pedestrians between Highland Ave. and Midvale Blvd. This last winter the street was plowed after the storms but snow wasn't cleared from crossing points, even at lights. There need to be MORE crossing points for walkers.	Apr 2, 2013 9:00 AM
126	Please don't address concerns by adding further impediments to traffic flow (new lights, stops, lane restrictions)--in my experiences this actually increases driver aggression, which is the only danger on this route. Thanks.	Apr 2, 2013 8:46 AM
127	The intersection of University Avenue and University Bay Drive is PARTICULARLY DIFFICULT for pedestrians. I would walk to work more often if this wasn't such a problem. The bike path parallel to University Avenue has an outrageously bad crossing of University Bay Drive, which is especially bad at rush hour. Heading west, the bike path ends at University Bay Drive and bikes are supposed use Marshall Court to continue west. But there's a steady stream of cars heading down University Bay Drive toward University Avenue during the pm rush hour, it's very, very difficult for cars heading east on Marshall Ct to turn left or right onto University Bay Drive since cars on UBD often block the intersection when the light at Univ. Ave. is red, and then bikes have a very difficult time trying to pass through this intersection.	Apr 2, 2013 8:45 AM
128	A major thoroughfare will, by nature, be congested during busy travel times. I would much rather see increased and expanded bus and bus rapid transit offered on the corridor than a bunch of left turn lane and left signal 'fixes' that will not do anything to reduce congestion. We also need to improve the ability of pedestrians to cross safely at intersections. I also think speeding and red light running are major concerns based on the traffic studies we have done at the Farley and university ave intersections. The aesthetics of the corridor -- the poor landscaping (or lack of it), the unsightly jumble of signage, etc. -- lends to the sense that this corridor is not actually part of a neighborhood, but rather just a place to pass through quickly to another destination. This adds to the problems of speeding, unsafe and discourteous driving, etc. The fixes to this corridor need to address and improve the aesthetics that tie it to the adjacent neighborhoods, as well.	Apr 2, 2013 8:36 AM
129	A north south bike way would be helpful	Apr 2, 2013 8:27 AM
130	(a) Shorewood is increasing congestion at U Bay Drive/University intersection as redevelopment occurs at Doctor's Park, without providing for inter-connectivity of streets within the village. By intentional village policies, there are no secondary routes within the village - an issue that begs to be addressed. (b) Farley/UBay Drive intersection has ped-bike-vehicular conflicts that are not helped by the current geometry and signal timing (and left-turn signal onto Farley from Univ westbound rarely works, no space on the median for peds/bikes to safely land as lights change, etc.). Stacking results on the side streets as left- and right-turning vehicles onto University yield (sometimes!) to peds and bikes, especially during commute hours. Original proposals such as grade-separation were dismissed due to cost, land requirements and water table. But what about a ped and bike overpass at Farley (instead of the proposed dentist office), or providing additional north-south access points by turning Campus Drive into a divided blvd, extending existing stub-end streets and reducing the speed limit. (c) Part of the	Apr 2, 2013 8:25 AM

Q8. You may provide additional comments in the space below. Please limit your comments to about two hundred words or less.

	speeding issue is due to the mile-long "freeway" aspect of Campus Drive as drivers choose not to slow down east of Breeze or west of Farley.	
131	Left turning drivers are often turning after the light has turned red which slows down oncoming traffic. Need longer arrows perhaps at the major intersections? I often commute "against" traffic. It seems like there is more incoming (East bound) in the morning and more outgoing in the afternoon and I travel the opposite.	Apr 2, 2013 8:21 AM
132	For safety, I would recommend disallowing left turns onto University where there is no traffic light, at least from 7:00am to 7pm, between Farley Avenue and Segoe.	Apr 2, 2013 8:03 AM
133	Definition of 'small' and 'major' are open to interpretation. Something should be done. I avoid Highland Ave during rush hour. It is difficult to get to Univ Ave from left turn off Highland and then merge during rush hour.	Apr 2, 2013 7:36 AM
134	Pedestrian crossing is difficult at the University Bay Drive intersection. My kindergarten age child has a hard time getting all the way across the street in the time set for the traffic signals. It must be nearly impossible for a person with physical disabilities to get across the intersection in time.	Apr 2, 2013 7:32 AM
135	Perhaps the impact of added cars/bikes/walkers should be taken into account every time a developer or UW want to add housing or lab space. We're headed toward gridlock. Another thought would be to stagger start/end times for workdays at UW Hospitals and other campus businesses.	Apr 2, 2013 7:15 AM
136	Apartments should provide parking for residents and not allow apt dwellers to get street parking stickers	Apr 2, 2013 7:14 AM
137	I'm retired and slightly disabled. For 20 years before that I biked to work within area C and also for errands. Walked in winter. On bike I always avoided University Ave and used stop-lighted crossings (eg Farley ST) and lesser roads to go to bank, post office etc. Biking routes have gotten much worse and the congestion discourages commuter bikers like my son and daughter .	Apr 2, 2013 7:12 AM
138	We need left turn signals at every stop sign. We need,flashing red,stop,sign, on speedway and highland We need park and rides for UW staff who park in the neighborhood to cut down on the traffic on speedway. Stop parking a cars lengh from the corners .	Apr 2, 2013 7:11 AM
139	Pedestrian overpass at University Bay drive seems appropriate to remove dangerous ped crossing	Apr 2, 2013 7:05 AM
140	parking is limited	Apr 2, 2013 7:05 AM
141	Please explore possibilities for commuter rail and improved bike connections through Shorewood and from UW hospital to the SW path.	Apr 2, 2013 7:03 AM
142	My family has paid a premium to live in a walkable neighborhood, a fact that is reinforced annually with our relatively steep property taxes. We'd appreciate the City focusing on pedestrian and cycling improvements rather than catering to	Apr 2, 2013 7:02 AM

Q8. You may provide additional comments in the space below. Please limit your comments to about two hundred words or less.

dangerous and polluting autos. I want to see more connections between bike paths and enforcement of existing traffic laws. We have a great bus system and that should be promoted, as well. Thanks!

143	We chose to live near a vibrant university where I also happen to work. I never planned to bike, too much traffic, because I recognized that it's unrealistic to expect there to be little to no traffic associated with a university and a major route through town. Likewise workers driving through the neighborhood is to be expected, given our location. the neighborhood comes out as smug & pretentious.	Apr 2, 2013 6:59 AM
144	Visibility for pedestrians and cars trying to cross major cross streets (like Highland and Farley) from side streets is also a HUGE problem. Cars parked too close to intersections block sight lines. You can't see a car speeding up or down Highland until it's on top of you. And cars coming up Highland at hospital shift changes DON'T stop for pedestrians. Can't we just make the "no parking" area around these intersections wider -- a no-cost solution.	Apr 2, 2013 6:48 AM
145	I think the answer isn't modifications to the corridor but to develop ways to limit the daily commuting of people to/from Middleton and the University.	Apr 2, 2013 6:37 AM
146	University Avenue is a major arterial. My level of service expectations are based on the higher functional classification of this roadway. I don't expect unimpeded left turn movements, uncongested intersections, etc. along this corridor. The best improvement to University Avenue would be installation of bus bays, so buses can turn out of travel lanes and wouldn't shut down one-third of capacity (the outside lane). This also creates backups at key intersections such as Midvale Blvd. My major infrastructure concern is the pavement - hopefully it will obtain its full useful life and we won't have any more contractor performance issues when the pavement is replaced the next time. The costs, congestion and lost business activity during construction necessitates long-term solutions. My major safety concern is that MPD does not enforce the "no stopping/standing/parking" rules on University Avenue. Semi trucks are parking in the outside travel lane in front of Fuzzzy's Tacos/Star Bucks and also at IHOP, unloading cargo for these establishments. This is a very unsafe situation and should be policed before a tragedy occurs!	Apr 2, 2013 6:24 AM
147	It would be helpful if there were a bus route that went from the Regent neighborhood to UW Hospital. Buses go frequently to campus but not to the Hospital.	Apr 2, 2013 6:15 AM
148	Pedestrian safety and better walkways need to be improved along University Avenue. Congestion is not an issue.	Apr 2, 2013 6:15 AM
149	People regularly run through the red light at the corner of Farley and U Ave -- it scares me.	Apr 2, 2013 6:09 AM
150	Need for shopping areas near University and Midvale to share some of their space. When Hilldale Mall banned parking for commuters, I had to use neighborhood streets. No other option.	Apr 2, 2013 6:03 AM
151	I don't know how to reduce the number of cars on U-Ave. Perhaps it is time to	Apr 2, 2013 6:01 AM

Q8. You may provide additional comments in the space below. Please limit your comments to about two hundred words or less.

resurrect the light rain proposal,

152	Please prioritize bicycle, pedestrian, and transit users for improvements along this corridor. A few ideas: Bicycles: a dedicated cycle track or grade separated bike lanes Peds: Wider sidewalks and better crossing facilities Transit: Dedicated bus lane	Apr 2, 2013 5:58 AM
153	Congestion around west high is excessive , way to much individual car travel both students and parents. Also school parking in neighborhood a huge problem.	Apr 2, 2013 5:45 AM
154	I travel to Whole Foods and at other times to Old Middleton Road 4-5 x per week	Apr 2, 2013 5:43 AM
155	Getting drivers to actually yield to pedestrians in marked crosswalks (like the nice new zebra-stripe crossing at Univ & Blackhawk) would be very useful (to put it mildly!!!)	Apr 2, 2013 5:37 AM
156	The new left turn pedestrian islands are dangerous for traffic and would better serve everyone with a normal light pattern and no flashing yellow . It is fine for those initiated but I see a lot of confusion at these intersections. Thanks	Apr 2, 2013 5:16 AM
157	Light at Ridge & University needs to be changed to include turning west from Ridge. This inability has led to huge increases in traffic from Ridge to Hill Street's light along streets not designed to handle this diverted traffic.	Apr 1, 2013 8:52 PM
158	I have lived in the area for over 20 years and have learned to negotiate the bottle-necks and use lighted intersections to get on and off University Ave.	Apr 1, 2013 7:01 PM
159	If zoning changes go into affect major changes will need to the corridor	Apr 1, 2013 5:51 PM
160	The signal at University and Ridge has always struck me as oddly programmed. This stops traffic sometimes when no pedestrian is trying to cross and no car is attempting to turn. It is also very difficult to turn left from University westbound onto either Ridge or Hill St during busy times, and I end up using Blackhawk or Franklin, where it is easier given the lack of signal.	Apr 1, 2013 3:29 PM
161	My only suggestion relates to the lack of automatic signals for pedestrians at stop lights. We don't make cars stop and press a button to get a working signal, so why do we treat pedestrians and cyclists that way? Walk and Don't Walk should be automatic. I walked all over Tokyo for a week and never encountered a button actuated crossing signal. It was wonderful.	Apr 1, 2013 3:18 PM
162	Park 'n Ride at Segoe/University to encourage single car drivers to not take cars to isthmus. Express bus with discounted fare from Park 'n Ride to make this option favorable. Better bike routes on or near University Ave.	Apr 1, 2013 3:06 PM

Near Westside Neighborhoods and University Avenue Transportation Study



1. Based on the map provided, please indicate where you live:

		Response Percent	Response Count
I live outside these areas		0.0%	0
Area A - Village of Shorewood Hills		100.0%	361
Area B - University of Wisconsin-Madison Campus		0.0%	0
Area C - Greater Regent Neighborhood Area		0.0%	0
Area D - West Madison/Middleton		0.0%	0
Area E - Southwest Madison/Verona		0.0%	0
Area F - South Madison/Fitchburg		0.0%	0
Area G - Madison Isthmus		0.0%	0
Area H - East Madison/Monona		0.0%	0
answered question			361
skipped question			0

2. Based on the map provided, please indicate where you work:

		Response Percent	Response Count
I do not travel for work purposes		25.5%	92
I work outside of these areas		8.6%	31
Area A - Village of Shorewood Hills		7.5%	27
Area B - University of Wisconsin-Madison Campus		30.7%	111
Area C - Greater Regent Neighborhood Area		6.1%	22
Area D - West Madison/Middleton		5.3%	19
Area E - Southwest Madison/Verona		4.2%	15
Area F - South Madison/Fitchburg		1.7%	6
Area G - Madison Isthmus		7.2%	26
Area H - East Madison/Monona		3.3%	12
		answered question	361
		skipped question	0

3. How do you travel the University Avenue/ Campus Drive corridor?

	Daily	A few times per weeks	A few times per month	Rarely / never	Rating Count
Personal motor vehicle to/ from work	45.9% (118)	30.4% (78)	7.8% (20)	16.0% (41)	257
Personal motor vehicle errands/ other travel	46.2% (135)	47.3% (138)	6.5% (19)	0.0% (0)	292
Metro Transit or other shared ride	5.5% (9)	9.8% (16)	14.1% (23)	70.6% (115)	163
Bicycle	12.4% (27)	33.6% (73)	27.2% (59)	26.7% (58)	217
Pedestrian/ Wheelchair	10.7% (20)	27.3% (51)	27.3% (51)	34.8% (65)	187
answered question					361
skipped question					0

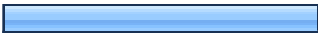
4. Please prioritize the MOTOR VEHICLE concerns associated with the University Avenue/ Campus Drive Corridor.

	Major Concern		Agree it is an Issue		Not a Concern	Rating Average	Rating Count
Too much congestion along the corridor during rush hours	29.1% (102)	16.8% (59)	31.6% (111)	14.0% (49)	8.5% (30)	2.56	351
Travel speeds are too fast	13.9% (47)	8.3% (28)	19.0% (64)	23.7% (80)	35.0% (118)	3.58	337
Difficulty crossing or making a left turn on to Univeristy Avenue from an unsignalized intersection	23.0% (79)	20.1% (69)	31.1% (107)	13.1% (45)	12.8% (44)	2.73	344
Difficulty turning left off of University Avenue to a side street or driveway	13.9% (47)	16.6% (56)	29.3% (99)	22.8% (77)	17.5% (59)	3.13	338
Congestion at major intersections (Midvale Boulevard, Shorewood Boulevard, University Bay Drive/ Farley Avenue, etc.)	26.3% (92)	22.3% (78)	24.9% (87)	16.0% (56)	10.6% (37)	2.62	350
answered question							360
skipped question							1

5. Please prioritize the NEIGHBORHOOD TRANSPORTATION concerns associated with the University Avenue/ Campus Drive Corridor and the neighborhoods north and south of it.

	Major Concern		Agree it is an Issue		Not a Concern	Rating Average	Rating Count
Difficulty crossing University Avenue/Campus Drive for bicycles and pedestrians.	30.6% (104)	18.2% (62)	23.8% (81)	13.8% (47)	13.5% (46)	2.61	340
Missing east-west bicycle and pedestrian connections (for example between University Bay Drive and Shorewood Blvd)	40.5% (136)	18.8% (63)	20.8% (70)	8.0% (27)	11.9% (40)	2.32	336
Missing north-south bicycle and pedestrian connections (for example between the Southwest Path and the Blackhawk/West Campus Path)	24.8% (80)	14.9% (48)	27.9% (90)	14.6% (47)	18.0% (58)	2.86	323
Use of neighborhood on-street parking by daily commuters	19.9% (66)	15.1% (50)	25.6% (85)	17.8% (59)	21.7% (72)	3.06	332
Use of neighborhood streets to bypass congested roads or intersections (cut-through traffic)	37.4% (130)	17.8% (62)	20.4% (71)	13.2% (46)	11.2% (39)	2.43	348
answered question							356
skipped question							5

6. If you drive University Avenue/ Campus Drive regularly, please check all that apply:

		Response Percent	Response Count
I avoid University Avenue during rush hour by not driving during that period.		37.9%	121
I avoid University Avenue during rush hour by using local neighborhood streets.		28.2%	90
I choose to travel by foot, bike, or bus to avoid University Avenue traffic during rush hour		21.9%	70
I do not (or can't) avoid University Avenue during rush hour.		47.0%	150
		answered question	319
		skipped question	42

7. Please indicate your opinion regarding improvements to mobility along the University Avenue/Campus Drive corridor.

		Response Percent	Response Count
Modifications are not needed along University Avenue.		10.5%	37
Small modifications are needed along University Avenue to address growing congestion, maintain mobility, and manage impacts on adjacent neighborhoods.		55.0%	193
Major modifications are needed along University Avenue to address growing congestion, improve mobility, and reduce or reverse impacts on adjacent neighborhoods.		34.5%	121
		answered question	351
		skipped question	10

8. You may provide additional comments in the space below. Please limit your comments to about two hundred words or less.

	Response Count
	140
answered question	140
skipped question	221

Q8. You may provide additional comments in the space below. Please limit your comments to about two hundred words or less.

1	Traffic on Campus Drive has been awful this summer; far worse than in the past. University Avenue seems to be busier than in previous summers; seems to be no diminution in traffic this year, though has been in previous summers.	Jul 2, 2013 8:10 AM
2	I travel on University Ave daily about 7:30 am. I do not have a problem with congestion which is much less than other cities I have experienced.	Apr 23, 2013 3:12 PM
3	Difficulty exiting U-Bay Drive at Highland Ave. during afternoon rush hours. Also difficulty turning left onto U-Bay Drive at same intersection at those times.	Apr 22, 2013 7:50 AM
4	rush hour congestion at major intersections is a big problem, especially UBay-Farley & University. Would be good to complete sections of the east-west bike path all along University. But UBay-Farley intersection needs a lot of attention to minimize car-bike conflicts there.	Apr 22, 2013 6:34 AM
5	remote parking, shuttles, toll into town center	Apr 21, 2013 12:56 PM
6	I wish the bike path connected through to Shorewood.	Apr 19, 2013 3:07 PM
7	I think Campus Dr. needs to be 3 lanes because it goes from 3 lanes on university Ave. down to 2 lanes on Campus Dr. and then back to 3 lanes on Johnson St. so there is a clustering effect on campus Dr.	Apr 16, 2013 5:54 AM
8	University & midvale intersection is dangerous for pedestrians, bikes, and cars.	Apr 12, 2013 5:50 PM
9	UBay leg of Univ/Farley/UBay intersection at PM rush hr is very bad...more stacking for rt-turns up hill?	Apr 12, 2013 3:34 PM
10	My particular concern is regarding pedestrian (and bike) traffic across University Avenue. The crossings are very dangerous, with short crossing times and cars turning when pedestrians are in the crosswalk. Cars do not understand they need to give way to pedestrians. I am surprised no one has been injured or killed. It is simply a matter of time. I do not think subways or bridges are the answer. The road is very wide. It takes a long time to walk across so children, disabled & the elderly are especially vulnerable. Traffic on U. Avenue is busy & fast, the median is very narrow with 0 protection. Traffic turning right on red or left out of side streets speed up across cross walks while pedestrians are crossing. THIS IS JUST TOO DANGEROUS! Traffic is never so busy it's stopped or backed up to risk lives in this way.	Apr 12, 2013 2:34 PM
11	Cut through traffic is a major problem in Shorewood. Drivers regularly exceed the speed limit and are rude and inconsiderate to residents. They would never permit me to drive that way in their neighborhood. We need to eliminate cut through traffic before someone is injured or killed. I'm especially concerned for our schoolchildren, who walk or bike each morning in the middle of what has become a rush hour free-for-all.	Apr 11, 2013 12:27 PM
12	I live in the garden house area of Shorewood and one of my main concern is the increase in traffic along Locust Dr. once the new apartment complex is completed. Right now, there is already issues between the bicycles (coming off the bike path) and the cars driving on Locust Dr. Most bikers and some drivers do not pay any attention to the STOP signs along the road and where the bike	Apr 11, 2013 7:53 AM

Q8. You may provide additional comments in the space below. Please limit your comments to about two hundred words or less.

path connects to the road. Once an apartment complex is put up the traffic will dramatically increase causing additional problems in this area. My other main traffic concern is the way the university bike path crosses University Bay Dr. and continues past the congested pool area/neighborhood. The only exit off the bike path is into busy traffic along University Bay Dr. thus I think it would be better if there was a way go over or under University Bay Dr. or incorporate the bike/car traffic by the stop light in that insection. Also, it would great if there was a way to extend this bike path to connect with the bike path along Rose Rd. and Locust Rd. Maybe continue the bike path besides the railroad behind the shopping center so it will avoid the swimming pool area. Thanks for letting us express our views.

13	most major concern: Missing east-west bicycle connection between University Bay Drive and Shorewood Blvd	Apr 10, 2013 12:15 AM
14	My biggest concern as a resident of Burbank Place (Shorewood Hills) is cut-through car traffic on Locust Drive to bypass the Midvale intersection (via the parking lot behind McDonalds and Laredo's on Univ. Ave.)	Apr 9, 2013 4:26 PM
15	I strongly feel that improvements to streets only lead to more traffic. I would much rather see priority given to mass transit solutions, bike paths and safe sidewalks and crossings for pedestrians.	Apr 9, 2013 2:25 PM
16	Survey format has pre-determined public input.City (MSN) engineers decided Univ Ave corridor use re: turn lanes Midvale-UnivAve & UnivAve-UBayDr, timing of signals. Peds & bikers are screwed.	Apr 9, 2013 1:57 PM
17	drivers frequently speeding through yellow/red lights at intersections	Apr 9, 2013 1:31 PM
18	Everything is a compromise. The corridor is not too bad now, given the number of vehicles. I hope moderation will be used in making changes.	Apr 9, 2013 9:10 AM
19	Public transportation from Shorewood Hills to the isthmus would be incredibly beneficial in reducing traffic.	Apr 8, 2013 12:29 PM
20	Bike lanes would be appreciated	Apr 8, 2013 8:08 AM
21	Traffic needs to be restricted through the university, State St and Capital areas. Commuters ought to make better use of diversifying traffic choices, carpooling. I think this entire area would benefit significantly to improve bicycle safety and motorcycle safety. Also, where is there parking for motorcycles?	Apr 7, 2013 4:46 PM
22	Rose Place needs to have one lane going north from Univ Ave and 3 lanes going south, 1 right turn, 1 straight and 1 left turn. All 3 lanes need to be long enough to accomodate rush hour so several cars can get through the light going all three directions - instead of a single line of waiting cars that get backed up while only a few cars make the green light.	Apr 7, 2013 1:53 PM
23	Enhance bike route connectivity, safety and convenience, and traffic will lessen.	Apr 6, 2013 7:12 PM
24	Please, please, please make a full quality, safe and consistent bike corridor along the entire Shorewood Hills and into campus. It is now largely a hodge	Apr 6, 2013 7:05 PM

Q8. You may provide additional comments in the space below. Please limit your comments to about two hundred words or less.

podge.

25	Mostly, I am satisfied	Apr 6, 2013 9:14 AM
26	One small modification that would help my route is to add a left-turn arrow from Univ Bay Drive to Univ Ave to turn east-and to route all pedestrians to cross on the west side of the crossing. This intersection is a regular bottleneck at most times of the week. I think it is critical to maintain the idea of Univ Ave/ E Wash/etc as thoroughfares to avoid neighborhood cut through. Maintaining easy access for vehicles to turn and join the commuting stream helps, and reduces pedestrian/motor/neighborhood conflict. Another dangerous area is the Midvale/Univ crossing as cars are not at all aware of pedestrians-this is a hazard for middle-schoolers to get to school. The whole routing of bikes on Campus Drive is ridiculous and dangerous given the plentiful bike paths and routes that run parallel to Univ Ave.	Apr 5, 2013 7:51 PM
27	Traffic has increased greatly in recent years but I am not sure there is a solution, except to make left turns more feasible and ditto for pedestrian crossings.	Apr 5, 2013 4:10 PM
28	Don't permit further large-scale commercial development (such as Target), because of increased traffic problems.	Apr 5, 2013 3:22 PM
29	Cross traffic turns should not be allowed at intersections except for those with stop lights/turn arrows. A pedestrian bridge is a must for safe passage across University Ave. between Midvale and Segoe. There should not be a bus stop on the corner of University and Midvale (on the south side of University Ave.--it is a huge hazard at that location. Thanks	Apr 5, 2013 2:40 PM
30	Here's another serious problem you don't seem to have mentioned above: Sometimes I walk home from downtown/campus along University Ave. There's no sidewalk! So for a bunch of the trip I essentially have to walk on the train tracks or something like that, which is a huge pain and sometimes even dangerous. Am I supposed to walk on the bike path or something?	Apr 5, 2013 1:06 PM
31	Longer turn signal to get into and out of Shorewood Hills neighborhood!	Apr 5, 2013 12:54 PM
32	Stop expanding UW Hospitals and related facilities.	Apr 5, 2013 11:53 AM
33	Cut-through traffic (volume & speed) is a HUGE concern in VOSH.	Apr 5, 2013 11:24 AM
34	NEED EAST WEST BIKE PATH ALONG THE CORRIDOR, AND NORTH SOUTH BIKE PATH CONNECTION TO SW COMMUTER PATH!	Apr 5, 2013 10:53 AM
35	Most annoying for me is the traffic light at Midvale. If going east and wanting to turn north, the signal is green for only 3 seconds. The first car goes through on green the second on yellow, and the third on red. Often I wait for 2 or 3 light changes. At Ridge Rd. I often get a red light long after the car or pedestrian that prompted it is out of sight, and the red is much longer than 3 seconds.	Apr 5, 2013 10:17 AM
36	Traffic signals are not timed so one can safely cross University Ave. at many locations. (Midvale, Shorewood Blvd., UB Dr., Park St., etc.) Many more drivers are ignoring red lights and Ped/ bike signals. When driver is turning south from	Apr 5, 2013 8:48 AM

Q8. You may provide additional comments in the space below. Please limit your comments to about two hundred words or less.

	University Ave., on a red light, they are not stopping and checking that someone (Ped/Bike) is crossing into their lane. There are times of the day that it is difficult and dangerous to cross University ave.	
37	I used to commute daily by bicycle from Vilas Park to Middleton. The lack of connectivity between major bike paths is a serious limitation to the ability to commute by bike. The sidewalk improvements from Whitney Way to Middleton help greatly, but there is still a need for the bike connections mentioned in the survey. More bike commuters means less traffic congestion	Apr 5, 2013 8:45 AM
38	Much of my driving on University Ave has to do with transporting children and errands. I do avoid rush hour when possible. When I cannot avoid it I just deal with it.	Apr 5, 2013 8:09 AM
39	The intersection at University Bay Drive and University Ave. requires a thoughtful overhaul. A pedestrian bridge may alleviate some of the issues- and it appears that the commercial lot (Scooter U) south of University may be available for that??	Apr 5, 2013 8:05 AM
40	The intersection that is of concern to me is Shorewood Blvd and University Ave.	Apr 5, 2013 8:04 AM
41	the offset at Univ. Ave at Shorewood Blvd is a problem for bicyclists and pedestrians crossing to Whole Foods (from the north). Drivers coming from the west don't realize they have to stop at the line, especially if they want to turn right. I've been close to getting hit there.	Apr 5, 2013 7:58 AM
42	My Family does not believe the rush hour is a problem - yet. People from bigger cities know what a rush hour really is.	Apr 5, 2013 7:42 AM
43	Pedestrian crossing at University Ave. and Midvale intersection is dangerous. Wish there could be a pedestrian bridge.	Apr 5, 2013 7:37 AM
44	There are too many MVC and motor vs pedestrian accidents and near accidents near intersection of University and Midvale. This is felt to be a combo of high volume traffic, confusing traffic signals (right turners from Midvale to University go same time as left turners from other side) and short traffic signals (only 15-20 sec to get across University on Midvale leading to innumerable people running yellow and red lights to avoid extra wait time).	Apr 5, 2013 7:00 AM
45	Modifications of neighborhood streets to make them less hospitable to cut through traffic are desirable. Also, turn outs for buses along the route like the one by Highland so they don't impede traffic in the right lane.	Apr 5, 2013 6:54 AM
46	Cut through traffic is having a strong negative impact on my neighborhood. It is not safe for my children to bike or walk to school because of commuters treating Lake Mendota Dr like a highway. The cut-through commuters would not tolerate such speeds in their residential neighborhoods. We need to expand University Avenue so that it meets the needs of our growing city and limit access to local streets. I support having Lake Mendota Dr. dead-end for cars at Blackhawk Country Club and become an additional bicycle boulevard.	Apr 5, 2013 5:18 AM
47	Commuters using side streets to avoid University Avenue during rush hours	Apr 5, 2013 4:33 AM

Q8. You may provide additional comments in the space below. Please limit your comments to about two hundred words or less.

speed and slide through stop signs in the Village. Of great concern is the worsening of air quality in the village. We need public (rail) transportation for commuters to work - a modern, rapid train from Black Earth to Sun Prairie (with stops at Hilldale, U. and Vet Hospitals, etc.)!

48	More stop lites at intersections --may also slow down traffic speeds in addition to making turns easier.	Apr 5, 2013 3:56 AM
49	Think major intersections (at Midvale and at Univ. Bay) there should be cameras for those who run red lights - a serious problem.	Apr 4, 2013 9:45 PM
50	As of today, small modifications are needed. However, with the addition of 7 new buildings at Univ. Ave. and Whitney Way & 2 new traffic lights slowing things down around Spring Harbor, major modifications may well be in order moving forward. Keep the development in check along this "neighborhood" corridor!!	Apr 4, 2013 9:20 PM
51	The pedestrian crossing across University at Shorewood Blvd is very dangerous, especially for children. The left turn signal should be available always, not just when pedestrians are absent.	Apr 4, 2013 9:18 PM
52	University Bay Drive and Campus Dr corridor during rush hours are my major concern so I try to avoid these. Widening of these corridors might help or overpasses at Univ/Univ Bay or somehow traffic signal changes might help. A bike path across Univ Bay for east-west traffic is needed but this might need to be overpass or tunnel.	Apr 4, 2013 9:05 PM
53	Getting out of Shorewood via Univ Bay Drive to Univ Ave is slow because of the extra traffic as the hospital area has expanded. I was surprised that this was not anticipated when all the building there was planned.	Apr 4, 2013 8:34 PM
54	Let's hasten to get the bike path finished!	Apr 4, 2013 7:43 PM
55	Lots of cars are not yielding for pedestrians, in the University avenue and Shorewood Blvd.	Apr 4, 2013 7:35 PM
56	A continuous bike path is badly needed between University Bay Drive and Shorewood Blvd. Safety should be improved at the intersection between the bike path and Walnut Street. This crossing is very dangerous for bikers.	Apr 4, 2013 7:18 PM
57	It is dangerous for pedestrians to cross University Avenue from the SW corner to the NW corner of the University Avenue/Hill Street/Shorewood Boulevard intersection (using the designated crosswalk). They are very likely to go unseen by drivers turning left out of Hill Street, and if no one has been killed or injured yet, I would be surprised. I also believe that the intersection on University Avenue opposite Maple Terrace will prove a source of damage and injury unless some turning movement options are eliminated.	Apr 4, 2013 7:02 PM
58	Traffic is not too bad on the main University/Campus Drive given the volume of people moving. I am a firm believer that traffic within Shorewood should be kept at 25 - 20 MPH....I ALSO feel very STRONGLY that people on bikes should be given some rules of the road and ticketed/fined for not obeying them. They don't	Apr 4, 2013 6:59 PM

Q8. You may provide additional comments in the space below. Please limit your comments to about two hundred words or less.

use lights, they don't give signals, they act like pedestrians when they feel like it and they act like cars when they feel like it. I am intimidated by the speed when I'm walking my dog and feel endangered at times by cyclists.

59	Cut through of traffic into residential neighborhoods like Shorewood Hills is a major quality of life problem.	Apr 4, 2013 6:48 PM
60	speed and running red lights at all times of the day and evening	Apr 4, 2013 6:43 PM
61	I'm not the best person to provide an opinion. I am retired, and my main (almost daily) use of the corridor involves west/east travel between Shorewood Blvd and Segoe, at non-rush hour times.	Apr 4, 2013 6:40 PM
62	There needs to be a left turn arrow at light at UBd/university intersection in am due to hospital traffic. Hard to cross univ at shorewood blvd as ped due to cars not yielding to ped during walk signal.	Apr 4, 2013 6:39 PM
63	Early in the morning when the lights are flashing red, it can be difficult to make a left turn from University Bay Dr on to University avenue. It would be preferable if there were a green light, even if only rarely.	Apr 4, 2013 6:35 PM
64	University ave. corridor generates much noise as do the cars cutting through the village. These growth issues have dramatically changed the quality of life for many in the village	Apr 4, 2013 6:13 PM
65	Cut-through traffic related to the UW campus and UW hospital and clinic destinations seems to be increasing in numbers and duration for morning and afternoon commuters. Many of the cut-through travelers seem to be in a hurry and disregard the 20 mph speed limit on neighborhood streets (as well as the 25 mph limit along Locust Drive). As I approach full-time retirement I notice more and more vehicular disregard for the safety of pedestrians and bicyclists along the commuter street routes. I've also noticed this disregard for pedestrians taken by commuting bicyclists along the shared bicycle/pedestrian path through the Post Farm Park and the contiguous path at the west terminus of Locust Drive. And for a final consideration, I'm concerned about the traffic conflicts created by the drive-through banking area on the north side of the Credit Union as well as the driveway openings to parking lots along Rose Place. Let's hope too, that some thoughtful and intelligent planning takes place related to any north side vehicular access to the new developments replacing the Walnut Grove (FLAD) and Payare Square sites.	Apr 4, 2013 6:11 PM
66	I have lived for many years on a residential street used for commuting and cut through. I cannot say strongly enough how dangerous it has been for us, and in particular for our children, over the years, because drivers routinely speed. There have been countless times when cars have come too close, too fast, when we've been near the street especially when shoveling,, gardening, walking. These neighborhood streets were not designed for commuting. These are dense residential areas where people routinely walk, bike, shovel snow, etc....and should do so. I often wish that city transportation planners could be there while I'm shoveling or weeding...you would be amazed by how carelessly most people drive by. And pretty much everyone is speeding. And the stream of cars is heavy...some days I have long waits before I can back out of my driveway	Apr 4, 2013 5:57 PM

Q8. You may provide additional comments in the space below. Please limit your comments to about two hundred words or less.

	onto my street because of the volume of traffic in the morning. There have to be ways to make it harder and more inconvenient to use streets like ours.	
67	It is important to protect the Village of Shorewood Hills by limiting traffic to residents and friends to protect our children, elderly, walkers and runners.	Apr 4, 2013 5:56 PM
68	Traffic is really heavy only during rush hour times. We need to remember that the solution is not necessary for the entire 24 hour period.	Apr 4, 2013 5:37 PM
69	I do not find traffic to be a significant problem in this area. Only exception might be a small window of time in late afternoon.	Apr 4, 2013 5:33 PM
70	I avoid congestion on U-Ave daily using U-Ave after rush hour or travel U-ave after nine PM. I also use free bus service ;Bus 80 on campus daily and leave the car/bike in the garage. I also drive in Shorewood to avoid tailgating which is a major risk problem on all streets in Madison. Off lanes on U-Ave helps, timing street lights also helps. Go slow and live. Finally there should be more web cams to help drivers slow down. Start issuing digital speeding tickets on U-ave/Shorewood to make people slow down and protect our children & avoid accidents.What justification is there to go 30-MPH in Shorewood and 60-MPH on U-Ave? Put up digital read out signs and let the drivers know they are speeding.	Apr 4, 2013 5:32 PM
71	My biggest concern is residents of University Houses and Eagle Heights using Oxford Blvd and Shorewood Blvd as a go-between, which results in increased car traffic on those streets.	Apr 4, 2013 5:20 PM
72	To decrease cut-through traffic in VOSH, limit ingress to the Village in the AM by installing a traffic control signal which admits no more than 3 vehicles per minute into VOSH (or a timed gate, etc)	Apr 4, 2013 5:19 PM
73	The traffic light at Shorewood Blvd lets three cars through frequently (more if they run the light), especially at morning commute. The walk light is totally frustrating and is backward for the east side pedestrians. The traffic light is red (for Shorewood) for people crossing N-S and turns just as they get to the lane cars are turning into. What gives there? Also, very frustrating, left turners are stopped at the light at Klinke's EVERY day, NO EXCEPTIONS. I agree that there needs to be a light at that intersection, but it is clear that nothing triggers it, it is automatic. At off hours, when I am a pedestrian at the same light, it takes virtually forever to turn!	Apr 4, 2013 5:11 PM
74	As far as Shorewood Hills goes, I am sick of the commuters that use all of the streets to cut over to Lake Mendota- this should be impossible for commuters, especially on smaller streets like Sumac.	Apr 4, 2013 4:57 PM
75	We need a left turn arrow from Shorewood Blvd. onto Univ. Ave. It is very hard to get out at all different kinds of times. Also a consistent arrow from Univ. Ave into Shorewood blvd. would help, as would police enforcement of the RED light at that intersection. It is run routinely and that is quite dangerous. Actually the running of red lights along this corridor is one of my major concerns.	Apr 4, 2013 4:31 PM
76	Pedestrian crossing is too dangerous. I have observed people in wheelchairs	Apr 4, 2013 4:28 PM

Q8. You may provide additional comments in the space below. Please limit your comments to about two hundred words or less.

stranded mid light change, as well as parents with strollers. I do not allow my older children to cross at the light unaccompanied, because I have observed so many dangerous traffic, pedestrian interactions. My older parents consider this intersection to be a reason not to live in this neighborhood, as crossing the road to get public transportation is difficult I hope this can be remedied.

77	Build a bridge for bikes and pedestrians over University ave. near Hilldale. Finish the bike corridor through Shorewood Hills to the UW bike path. Lower University ave speed limit till people decide buses are preferable. Build a commuter lot in back of the old pieRSquared (sp) /McDonalds building . Engineer traffic in the village to slow down even more (so it won't be worth cutting through) Too much coffee bonus idea: Drop University Avenue from University bay drive to Midvale below street level. You get a great a world class walkable corridor/bike lane/green space neighborhood above, and fast traffic in and out of town. You connect neighborhoods and businesses on either side of University Ave. Property values go up. You get fast traffic in and out of town	Apr 4, 2013 4:25 PM
78	1.Eastbound on University Ave., it is often very difficult to make a left turn at Shorewood Blvd., because the green arrow doesn't operate at some of the high traffic times. This means one has to turn left after the light has changed. (See #2 below) 2. At both University Bay Drive and Shorewood Blvd., the incidence of cars on University Ave, going through the intersection after the light is red has increased greatly in the past few years. This is dangerous for pedestrians, bikes, and cars starting to cross the intersection or turning left off Univ. Ave. A major, publicized, visible crackdown on this needs to be initiated..	Apr 4, 2013 4:23 PM
79	I think that the recent change to the Hill St./Shorewood Blvd./University Ave. intersection has been a big improvement. I find that some green lights could be longer (e.g., North/South at Midvale; left turns from Eastbound University to Walgreens/Copps and to Shorewood Blvd.). I try to avoid the nonsignaled intersections at rush hour.	Apr 4, 2013 4:20 PM
80	I think the university has to address access issues to new buildings and parking facilities. Thus far the university has relied upon existing village and city infrastructure which is inadequate for it's new development. I think they need to expand Walnut and Highland access to avoid cut through traffic.	Apr 4, 2013 4:18 PM
81	Regarding question 6, I have 3 or 4 routes that I can take to drive to work. At times I avoid the corridor during rush hour, at other times I do not.	Apr 4, 2013 3:56 PM
82	There are some great bike lanes / bike paths in some areas, but they lack continuity along University Avenue. It would be great to fix this issue.	Apr 4, 2013 3:49 PM
83	Improved timing of lights may help the issues significantly. The new light by U. Station seems completely irrational in it's operation and unnecessarily backs up traffic during busy time. Also, having a bus lane would reduce congestion - often the worst moments are when buses are stopping frequently to let people off, and then those people try to cross during very busy times when traffic has backed up.	Apr 4, 2013 3:38 PM
84	Longer turning arrow time needed from EB Univ Ave onto Midvale (by Walgreens) and Shorewood Blvd. Longer pedestrian walk time across Univ Ave	Apr 4, 2013 3:33 PM

Q8. You may provide additional comments in the space below. Please limit your comments to about two hundred words or less.

at Midvale and Whole Foods corner. People turning at Shorewood/Hill St often disregard pedestrians and have witnessed several near-miss hits of walkers.

85	We need BRT or light rail in this corridor.	Apr 4, 2013 3:30 PM
86	We need better more expansive rail transport that is convenient and hooked to bus routes	Apr 4, 2013 3:19 PM
87	Would like to see increased access to UW and hospitals that does not require travel on University Bay Drive. E.g., possible to add additional accesses to/from UW off Campus Dr?	Apr 4, 2013 3:13 PM
88	Speeders and drivers running red lights area a major concern; also more than one car in intersections making left turns as light changes red.	Apr 4, 2013 3:11 PM
89	I don't know the difference between small modifications and major modifications. Traffic at the University Ave and University Bay Dr intersection can be awful. Would that required a small change or a major change?	Apr 4, 2013 3:09 PM
90	completion of east-west and south-north bike paths would help safety of cyclists	Apr 4, 2013 3:06 PM
91	Regarding an "already" congested corridor, first you allow developers to build high density buildings, then you allow them to add a few more stories, then you allow them to build again, and again, and again. Along the way, you widen the roads, straighten out some of the curves (even build a by-pass) so the commuters can drive 10-15 mph faster along the way. Twenty-five years later (today) you ask us, the pedestrians, our children, the elderly the handicapped, cyclists, joggers and resident drivers for input in help solve the problem you created in the first place. This all should have been addressed "and" resolved long before the very first hole was dug into the ground along along this narrow corridor. I say, put all developers (including the UW) on notice that no more construction permits will be granted until "after" this "safety" issue is resolved. They will hollar and scream 'til kingdom come but, if you stay firm, they will come to the table with real dollars to make this fix happen, and a whole lot sooner than you think. Absent this approach, whatever solution you finally come up with will take years to be resolved "and" be short lived. Figure 12 to 18 months following the granting of another high density permit.	Apr 4, 2013 3:03 PM
92	A major problem has been the growth of businesses along the corridor that then require stop lights and wider intersections to allow traffic to enter or leave the corridor. The wider intersections and lights just make things worse, encouraging further strip development AND cut through traffic that can make use of the improved access to the corridor. Keep access to the corridor very limited. this should reduce cut-through traffic in neighborhoods and make it more attractive for traffic to take the main corridor.	Apr 4, 2013 2:59 PM
93	Turning left onto Shorewood Hills streets at Midvale and Shorewood Blvd is inconsistent. Drivers also seem to be running VERY STALE yellow lights! (Practically red) This may be due to speeding, but worth a study. I have seen someone almost hit by a car turning left from Hill St onto Univ. Ave. As a driver, there is a big improvement getting into Shorewood Blvd. from Hill St. (Coming home from Whole Foods)	Apr 4, 2013 2:44 PM

Q8. You may provide additional comments in the space below. Please limit your comments to about two hundred words or less.

94	I NEVER use corridor during rush hour and cannot comment on those needs. Off rush hour it is not too back and new left turns are great!	Apr 4, 2013 2:43 PM
95	The west pedestrian walkway at the intersection at U. Ave. and Shorewood Blvd is extremely hazardous with cars coming from Hill St and turning left onto U. Ave without due regard for pedestrians or people walking their bikes.	Apr 4, 2013 2:38 PM
96	Restrict truck traffic to those that must use University to access local destinations. Institute a charge system for using University during rush hours (a la Singapore). Please ask or require the railroad not to park train cars on the tracks between University Ave and the campus (bad visual pollution).	Apr 4, 2013 2:36 PM
97	Noise pollution of the major road University ave. is also much worse especially in the summer with open windows.	Apr 4, 2013 2:31 PM
98	Improve public transportation	Apr 4, 2013 2:30 PM
99	To quote an old Texas phrase, you can't put ten pounds of shit in a five pound sack. Or turn a sow's ear into a silk purse. There is simply too much traffic, and increasing sprawl will increase traffic. Reducing development is the only chance of reducing some of the traffic problems on University Avenue	Apr 4, 2013 2:27 PM
100	We've made good progress in sidewalks around the school and on Columbia and Oxford, but there are still school routes without them. Also, Columbia's sidewalk doesn't connect with U. Bay. Thanks for asking us.	Apr 4, 2013 2:27 PM
101	light sequences for weekday also seem to operate on weekend when traffic flow is different. Traveling from west to east it can be a long wait to turn onto Shorewood Blvd or into Copps shopping area.	Apr 4, 2013 2:26 PM
102	1. I would like to see an air quality study made in this area due to motor vehicle exhaust and bacterial/virus content due to air exchange by the hospitals. 2. I observed that cars drop off hospital workers on University Bay Dr. Then the cars make a circle by traveling to Colgate, turning left onto Colgate, then left onto Yale, then left to Harvard and right to University Bay Dr. Or, a right from Yale to Harvard, left to Shorewood Blvd and right onto University. 3. Most cars ignore the STOP sign at Yale and Harvard. 4. On occasions drivers also ignore the NO PARKING sign on Yale, between Colgate and Harvard.	Apr 4, 2013 2:23 PM
103	A major source of congestion at rush hour stems from UW Hospital staff, etc. Improving U-Ave traffic flow for accessing vehicles, including rush hour turning lane times, constructing a pedestrian/biking bridge for north-south crossing at University Bay Drive, would promote bike commuting, improve safety and decrease congestion.	Apr 4, 2013 2:22 PM
104	Few options to traffic volume - speed limit should be reduced from VA Hospital exit to Allen Blvd.	Apr 4, 2013 2:22 PM
105	Madison is an easy city to get around in. Not every street can be a cul-de-sac.	Apr 4, 2013 2:17 PM
106	Don't be driven by NIMBY attitudes. Every car that gets directed away from somebody's street is going to end up on somebody else's street. Point two: if	Apr 4, 2013 2:12 PM

Q8. You may provide additional comments in the space below. Please limit your comments to about two hundred words or less.

you make bigger roads, you'll get more cars, not less congestion. We know this from experience.

107	I would use a rail system instead of a car to commute most days if one were built and to travel to campus or downtown if one were built.	Apr 4, 2013 2:11 PM
108	We need more public parking on Maershall Crt.	Apr 4, 2013 2:09 PM
109	Cars turning on red lights and running through intersections after the light has changed is a BIG problem. It is hard to turn from the farther lane without arrows.	Apr 4, 2013 2:05 PM
110	More connections of the bike path on the N side of university to Segoe are needed...a better way for bikers and peds to connect to westmoreland/monroe/research park from shorewood without dealing with traffic on midvale.	Apr 4, 2013 2:05 PM
111	Enforcing the posted speed limits and ticketing the running of red lights should be a priority. Auto driver behavior can be reckless, particularly during rush hour. Shorewood Blvd and University Avenue intersection is a good example of a dangerous major intersection, and I rarely see the police.	Apr 4, 2013 2:05 PM
112	Biggest problem are Midvale/University intersection lights. Horrible to right turn east onto U from Midvale at times; ditto for left turn into Shorewood (Copp's & Walgreens) from E bound U; Really bad to get across U N/S on Midvale either way. Light is WAY TOO SHORT! Usually only 1 or 2 cars can go through it. If you ignore the yellow & the cars ahead of you quit texting & get moving a third car can get through maybe without getting honked at. Thank you for asking & the oppty for input!	Apr 4, 2013 2:04 PM
113	We desperately need a means to slow or halt commuter traffic through the village (mainly Oxford Rd). Perhaps make Oxford one way (against commuters)? They regularly ignore traffic rules (especially speed). I live on Oxford/4 corners and watch them each day. Also, a bicycle path that avoids the pool (along RR tracks?) and that connects from the pool to the U Bay Drive/VA Hospital bike path is needed. Walking or biking down Marshall Ct can be suicidal. Also, an isolated bike path west paralleling Locust Dr and connecting to other bike paths west is needed. Thanks for the opportunity to make our comments heard.	Apr 4, 2013 2:03 PM
114	Everything is compared to what? Compared to Milwaukee/Chicago driving U. Ave. presents minor challenges. Possibly increased law enforcement would be a good first place to start. Also, a part of the rush hour congestion is due to several buses operating in tandem, at several places along the Avenue. Thorough training of the bus drivers about not contributing to congestion might be a good use of resources. Possibly the bus schedules could be studied by a traffic-control-expert with an eye to stopping bumper to bumper buses.	Apr 4, 2013 2:02 PM
115	I have to make a left run on Univ Av at the Midvale intersection (by Walgreen's) every day to return home and the stop lights are too short to allow more than 1 or 2 cars to make a left turn, and even so the green light for a left turn is only every other cycle. Need it for a few seconds longer and at every cycle to allow more cars to make a left turn. I don't want to cut thorough residential areas to get	Apr 4, 2013 2:00 PM

Q8. You may provide additional comments in the space below. Please limit your comments to about two hundred words or less.

into Shorewood Hills.

116	The bike corridor is almost complete. Shorewood Hills is moving in the right direction, but it needs to connect the great trail that extends to the East and West. More bikes, means less cars.	Apr 4, 2013 1:59 PM
117	Very frustrating to try to turn left, also to be a pedestrian. Maybe add ped./bike bridges? More stop lights? Slower speed limits?	Apr 4, 2013 1:58 PM
118	Regarding Question #4, I recently, until I retired, traveled the corridor twice a day every day. Things like left hand turns are difficult, but common sense says don't attempt these things during busy times. Approach from the other direction or use a signalized intersection. I live on Lake Mendota Drive and feel traffic there is not a problem now but more should not be encouraged by discouraging traffic on University Ave.	Apr 4, 2013 1:54 PM
119	I dislike how much traffic seems to cut through behind the UW credit union to access University ave E and W bound. Cars often drive too fast along that corridor and roll through the stop sign. There is a great deal of pedestrian and bike traffic as that is where the bike path joins the road and there are also a lot of children on my block of Burbank. There should be no through-way possible there to avoid the non-neighborhood traffic and keep it a dead end, particularly if/when the apartment building is built in that area.	Apr 4, 2013 1:53 PM
120	A better center turn lane and better coordinated lights would help with left turns onto Univ. Ave from the neighborhoods. I generally opt to use the intersections with traffic lights to make left turns onto Univ Ave. If the bike lanes were connected better, I would use them.	Apr 4, 2013 1:52 PM
121	The walk light from University Bay Drive across University Ave. is extremely short--barely enough time for a pedestrian or bike to cross. There is also too much traffic coming up highland towards University Ave. so it is difficult for Shorewood residents to leave or enter Shorewood there (by the First University Society).	Apr 4, 2013 1:49 PM
122	I cannot answer question 2 because my work takes me to different spots in the city, and sometimes I work at home, in Shorewood. But given the shape of Madison, and its growth, some congestion on U. Ave. at rush hours is inevitable and part of the urban experience. I avoid it when I can, and deal with it when I must. My concern, as a resident of LMD, is how many people use my street as a thoroughfare between campus and the west side. Because everyone is always in a hurry we suffer with not only increased traffic volume, but also increased speeds. The electronic speed signs almost NEVER show 20 or even 25 MPH, despite what Village officials say. 27-35 mph is the usual speed. This is dangerous because residents walk and bicycle; I've been nearly run down walking my dog countless times. People who do not live and pay taxes in Shorewood should learn to deal with conditions on U. Ave. instead of using LMD as their alternative route; LMD should have more stop signs, speed humps and bump-outs to discourage this kind of thoroughfare use inside the neighborhood.	Apr 4, 2013 1:47 PM
123	we need public transportation for the University Ave. problem nancy heiden	Apr 4, 2013 1:45 PM

Q8. You may provide additional comments in the space below. Please limit your comments to about two hundred words or less.

124	My major concern is the use of Shorewood Village neighborhood street to avoid congestion on University Avenue. This is a major problem for people--like me--who live on Lake Mendota Dr. Speed bumps on Lake Mendota Dr. seem appropriate and economic to me.	Apr 4, 2013 1:45 PM
125	You did not mention safety concerns that Pedestrians have when walking along University Avenue. I walk to work frequently and am worried that cars turning onto or off of University Avenue will hit me.	Apr 4, 2013 1:44 PM
126	After work I'm happy to turn into the neighborhood and not have to continue the crawl westward. Crossing University as a pedestrian is very chancy during heavy traffic times.	Apr 4, 2013 1:44 PM
127	It is sometimes difficult to turn right from Campus Drive onto University Bay.	Apr 4, 2013 1:44 PM
128	With respect to #7, I don't think modifications will assist except in the form of pedestrian relief which can only be done safely and effectively with pedestrian overpasses	Apr 4, 2013 1:43 PM
129	An East-West bike corridor along the railroad between University Bay Drive Ave. and the north-south section of Marshall Ct. is urgently needed. Currently bike traffic must take the east-west section of Marshall Ct. and turn onto U. Bay Dr., dangerously invisible to the fast-moving traffic coming over the crest of the hill just to the north. My wife, our kids and I have had several near-misses at this intersection. Most cyclists prefer to stay alive and instead travel via the Doctor's Park parking lot which provides a direct, safe connection to the bike path, where vehicles are already slowing or stopping for the intersection and are much more aware of bike traffic.	Apr 4, 2013 1:42 PM
130	I live in Edgehill drive, which already has traffic from Eagle heights. The traffic has increased and cars are speeding up in a continuous basis. It is a danger for kids! We need to either put bumps or something else to slow down the traffic!! Plus we are paying for the traffic that comes from Madison, not from the Village.	Apr 4, 2013 1:39 PM
131	speed of traffic in proximity of walkers, bikers, bus takers and children. Seems high risk.	Apr 4, 2013 1:39 PM
132	Need to work to keep traffic ON University Ave and out of adjacent neighborhoods--the bus side lanes have helped tremendously (please put some on east bound roads) as have the left turn lanes. UW has grown to big for the surrounding roads--they need to be responsible for part of the solution..	Apr 4, 2013 1:39 PM
133	Please do something to connect bike paths leading into Shorewood Hills. Their system is a mess and I hate riding with cars. Why can't we continue the path along the tracks (thru Shorewood) similar to south campus? Put a pedestrain/bike bridges west of Midvale and east of Farley	Apr 4, 2013 1:38 PM
134	As a resident the commuter traffic thru the village is becoming a major issue because of volume and there is little regard for the speed or stop signs.	Apr 4, 2013 1:37 PM
135	Bike Path Connector between U-Bay and Shorewood would be my highest priority.	Apr 4, 2013 1:36 PM

Q8. You may provide additional comments in the space below. Please limit your comments to about two hundred words or less.

136	It is dangerous to cross north to south on the western crosswalk at the university ave/hill/shorewood blvd intersection. The pedestrian needs the traffic held longer so they can enter the intersection before cars turning west from hill approach. Have almost been hit many times there!!!!	Apr 4, 2013 1:16 PM
137	BIKE LANES!!!	Apr 4, 2013 1:10 PM
138	Surface has to be improved on Lake Mendota Dr. block 5000 Merrill Springs Rd (intersction with Risser)	Apr 3, 2013 10:39 PM
139	All bike traffic should use provided bike paths and not ride on University Ave. It's hazardous to both biker and car when bikes ride where no path is provided.	Apr 3, 2013 3:56 PM
140	The objective during rush hour is to maximize safe, efficient vehicle throughput; create more bus pull-off areas for passenger loading/unloading to help accomplish this.	Apr 2, 2013 9:35 AM

Near Westside Neighborhoods and University Avenue Transportation Study



1. Based on the map provided, please indicate where you live:

		Response Percent	Response Count
I live outside these areas		7.5%	27
Area A - Village of Shorewood Hills		0.0%	0
Area B - University of Wisconsin-Madison Campus		3.3%	12
Area C - Greater Regent Neighborhood Area		0.0%	0
Area D - West Madison/Middleton		70.2%	254
Area E - Southwest Madison/Verona		7.2%	26
Area F - South Madison/Fitchburg		2.5%	9
Area G - Madison Isthmus		4.7%	17
Area H - East Madison/Monona		4.7%	17
answered question			362
skipped question			0

2. Based on the map provided, please indicate where you work:

		Response Percent	Response Count
I do not travel for work purposes		14.6%	53
I work outside of these areas		6.9%	25
Area A - Village of Shorewood Hills		9.7%	35
Area B - University of Wisconsin-Madison Campus		27.1%	98
Area C - Greater Regent Neighborhood Area		6.6%	24
Area D - West Madison/Middleton		11.3%	41
Area E - Southwest Madison/Verona		4.4%	16
Area F - South Madison/Fitchburg		3.3%	12
Area G - Madison Isthmus		13.0%	47
Area H - East Madison/Monona		3.0%	11
		answered question	362
		skipped question	0

3. How do you travel the University Avenue/ Campus Drive corridor?

	Daily	A few times per weeks	A few times per month	Rarely / never	Rating Count
Personal motor vehicle to/ from work	40.5% (111)	16.8% (46)	15.0% (41)	27.7% (76)	274
Personal motor vehicle errands/ other travel	19.1% (56)	49.5% (145)	27.6% (81)	3.8% (11)	293
Metro Transit or other shared ride	13.7% (32)	15.5% (36)	19.7% (46)	51.1% (119)	233
Bicycle	14.0% (37)	18.5% (49)	27.9% (74)	39.6% (105)	265
Pedestrian/ Wheelchair	7.6% (16)	8.1% (17)	15.2% (32)	69.0% (145)	210
answered question					361
skipped question					1

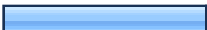
4. Please prioritize the MOTOR VEHICLE concerns associated with the University Avenue/ Campus Drive Corridor.

	Major Concern		Agree it is an Issue		Not a Concern	Rating Average	Rating Count
Too much congestion along the corridor during rush hours	23.6% (81)	16.6% (57)	34.7% (119)	14.3% (49)	10.8% (37)	2.72	343
Travel speeds are too fast	10.4% (35)	9.2% (31)	16.6% (56)	26.3% (89)	37.6% (127)	3.72	338
Difficulty crossing or making a left turn on to Univeristy Avenue from an unsignalized intersection	21.4% (73)	17.9% (61)	29.6% (101)	16.7% (57)	14.4% (49)	2.85	341
Difficulty turning left off of University Avenue to a side street or driveway	11.2% (38)	15.6% (53)	29.1% (99)	23.2% (79)	20.9% (71)	3.27	340
Congestion at major intersections (Midvale Boulevard, Shorewood Boulevard, University Bay Drive/ Farley Avenue, etc.)	21.2% (73)	21.5% (74)	29.7% (102)	18.0% (62)	9.6% (33)	2.73	344
answered question							358
skipped question							4

5. Please prioritize the NEIGHBORHOOD TRANSPORTATION concerns associated with the University Avenue/ Campus Drive Corridor and the neighborhoods north and south of it.

	Major Concern		Agree it is an Issue		Not a Concern	Rating Average	Rating Count
Difficulty crossing University Avenue/Campus Drive for bicycles and pedestrians.	29.3% (96)	20.4% (67)	24.4% (80)	11.0% (36)	14.9% (49)	2.62	328
Missing east-west bicycle and pedestrian connections (for example between University Bay Drive and Shorewood Blvd)	33.8% (111)	20.4% (67)	20.4% (67)	8.5% (28)	16.8% (55)	2.54	328
Missing north-south bicycle and pedestrian connections (for example between the Southwest Path and the Blackhawk/West Campus Path)	29.6% (96)	19.8% (64)	21.6% (70)	11.4% (37)	17.6% (57)	2.68	324
Use of neighborhood on-street parking by daily commuters	6.8% (22)	12.3% (40)	23.1% (75)	22.8% (74)	35.1% (114)	3.67	325
Use of neighborhood streets to bypass congested roads or intersections (cut-through traffic)	11.0% (36)	14.6% (48)	28.4% (93)	22.0% (72)	24.1% (79)	3.34	328
answered question							339
skipped question							23

6. If you drive University Avenue/ Campus Drive regularly, please check all that apply:

		Response Percent	Response Count
I avoid University Avenue during rush hour by not driving during that period.		33.4%	105
I avoid University Avenue during rush hour by using local neighborhood streets.		24.2%	76
I choose to travel by foot, bike, or bus to avoid University Avenue traffic during rush hour		30.3%	95
I do not (or can't) avoid University Avenue during rush hour.		43.6%	137
		answered question	314
		skipped question	48

7. Please indicate your opinion regarding improvements to mobility along the University Avenue/Campus Drive corridor.

		Response Percent	Response Count
Modifications are not needed along University Avenue.		11.5%	40
Small modifications are needed along University Avenue to address growing congestion, maintain mobility, and manage impacts on adjacent neighborhoods.		66.4%	231
Major modifications are needed along University Avenue to address growing congestion, improve mobility, and reduce or reverse impacts on adjacent neighborhoods.		22.1%	77
answered question			348
skipped question			14

8. You may provide additional comments in the space below. Please limit your comments to about two hundred words or less.

	Response Count
	142
answered question	142
skipped question	220

Q8. You may provide additional comments in the space below. Please limit your comments to about two hundred words or less.

1	How can we increase the % of infrastructure investments in bicycle infrastructure to reflect the disproportionate % of citizens that are commuting by bicycle? Separated bike lanes, updates on trails, etc can make this city a world wide leader in transportation options and climate change adaptations!	Jul 2, 2013 12:12 PM
2	Modifications are needed in DISCOURAGING traffic and motor commuting through Univ Ave/ campus drive, not to facilitate it! Free parking for commuters should be made available on side streets 1-2 miles away from campus, e.g. west side around DOT, around Hilldale, Sheboygan, people could then take the bus downtown (have a cheaper commuter fare or card, or shuttle, between say Midvale and downtown). Currently, lots of univ people sneak in these parking lots and take advantage of the frequent buses on sheboygan or univ ave to go to work.	May 6, 2013 9:57 PM
3	I love the bike path. However, I would like the bike path to go straight rather than curve up into Doctors Park. I don't mind going past the Shorewood pool. There is a hill, danger of cars on Univ. Bay Dr.	Apr 30, 2013 7:26 AM
4	Crossing University at Deming is a death-wish. I live South of University and need to get North of University to the Middleton business park for work. Using the Pheasant Branch Trail is way out of my way, and still requires me to cross at Parmenter St, which does not have a bike lane. Please work with Middleton to make this area more bike friendly.	Apr 22, 2013 12:52 PM
5	The following would be extremely helpful: 1. Increase pedestrian signal time at the intersection of University/Midvale. One can barely make it across at a steady pace. A serious issue for those with mobility problems and kids. 2. Move bus stops 1/2 block - 1 block in either direction. They are too close to the intersections and block traffic, especially left turn traffic. Applies mainly to University/Midvale. 3. Increase traffic patrols. Speeding has become a serious issue. 4. Investigate the need for stop signs in residential neighborhoods. On a personal note, I have requested stop signs at the intersection of North Meadow Ln and Lucia Crest. It is at the top of a hill and drivers seeking shortcuts often speed with reckless disregard. That intersection is a school bus stop and can be very dangerous, especially in the a.m. hours. 5. Move street parking 1/4 block away from street corners. I see cars parked on the corner during peak hours. 6. Open up a few more streets for unlimited parking. For instance, there is no need for a 2 hr time limit on Meadow Lane. 7. Open up the back lot of city documents building/crime laboratory (4800 block of University) to park&ride. This lot is often vacant and a bit of new asphalt could accommodate many drivers. In general, find additional park&ride lots on either end of University. Thanks Joe Peters North Meadow Ln.	Apr 22, 2013 7:20 AM
6	There needs to be a shift in attitude about University. People drive way too fast and cut off bikers and pedestrians. Lights for cross streets should be longer. Traffic on University is not that bad.	Apr 17, 2013 9:48 PM
7	Connecting the multi-use path from Univ Bay Drive to Shorewood Blvd would be a much safer and used option for both peds and bikes than adding a skinny bike lane on Univ Av.	Apr 17, 2013 6:03 AM
8	Please do not continue to make traffic lanes narrower and unsafe for cars to add	Apr 13, 2013 2:24 PM

Q8. You may provide additional comments in the space below. Please limit your comments to about two hundred words or less.

bike lanes for a few bike commuters. I think most bikers are happy with the bike path, (I am) just complete the sections missing and maybe a path on Campus Drive. Please do not make lanes so narrow that trucks and city buses can't maintain their lane, like at the end of Campus Drive by the engineering school as you transition to Johnson St. People that are unfamiliar with this road never stay in their lanes. Do not continue to put manhole covers in the tire lane, the last section of University just completed is terrible. I know pedestrian safety is important but lets not forget this road is needed by a lot of cars. Also let's limit the number of these new turn lane arrows, I think everyone would be better served by moving the traffic through at busy times which may correct alot of issues.

9	I am retired and do most of my errands by bike. So anything you can do to provide convenient routes for bicyclists will keep me safe.	Apr 11, 2013 9:21 AM
10	University Avenue needs modern access management. Most driveways should be closed, access should be from side streets and rear if feasible. Intersections should be right-in, right-out with dedicated u-turns at signals for drivers wanting to head the opposite direction. Throughput on the roadway would be greatly enhanced by proper access management without a need for highway expansion. Pedestrians and bikers would be safer, too, because traffic flow would be more predictable. Rear end accident rates would drop considerably. Consideration should also be given to restricting University Avenue at Allen Boulevard. Let traffic backups caused by non-city residents occur outside the city, and pace access into the city. Finally, the city should consider issuing parking permits for on-street parking. Permits should be free for residents but should cost non-residents a fair sum per month to discourage commuting from distant communities into the city by car and parking in urban neighborhoods.	Apr 10, 2013 9:07 PM
11	Why is there a bicycle lane on both sides of University Avenue when there is a very nice, safe, paved bike path adjacent to the street? Bikers should avoid the street and use the bike path, it is especially dangerous for bikers on the bridge between Whitney Way and Segoe. (I am a biker myself)	Apr 10, 2013 11:02 AM
12	Two spots when I bike that are difficult on bike path. 1. Crossing at University Bay Drive 2. Crossing at Highland Ave	Apr 10, 2013 7:21 AM
13	Stronger law enforcement is needed because it can be dangerous for blind persons to cross University Avenue and feeder streets, even with a service dog.	Apr 9, 2013 6:41 PM
14	I would love to use bike and bus if bike safety is improved and Madison Metro schedule is increased in frequency.	Apr 9, 2013 6:27 PM
15	Although the traffic is heavy on University Ave. and Campus Dr., for the most part, it moves pretty well. The most frustrating thing for me is when cars are lined up on University, waiting to turn into Starbucks.	Apr 9, 2013 4:47 PM
16	University Ave should be 3 lanes both directions from Allen Blvd East including bridge	Apr 9, 2013 2:01 PM
17	A north Beltline would have reduced University Avenue traffic. But no that road was redone, but not made efficient as they lowered the speed limits.	Apr 9, 2013 11:26 AM

Q8. You may provide additional comments in the space below. Please limit your comments to about two hundred words or less.

18	I care about the environment and would love to drive less, but at present neither biking nor busing are very viable alternatives. I would love to see a more extensive bike path network, and better bus service to the west end of town, as well!	Apr 9, 2013 11:11 AM
19	I am retired but did travel U Ave. daily when I worked on the Square for many years. The traffic IS faster during rush hour, but slowing it down at those times would be a mistake. It should be slower during the mid-day periods. My major beef was the bike route into Middleton. At the time Old Middleton Road was too dangerous, and I enjoyed the route through Shorewood and by the Lake. The big problem was getting INTO Middleton. At the time, there was "right on red" which meant drivers DID NOT slow down or stop at the top of Allen BLvd. They would whip around without seeing that someone was at the crosswalk, and trying to WALK their bike across on the Walk sign. The last time I did it, the car that almost creamed me stopped a mere few inches before me. I did protest to Middleton PD, but they were not in charge of that area, Madison was (and they were never visible that far from the center of the city.) MiPD did track the man down by his vanity plate I noted, and gave him a stern lecture. But after that I gave up biking to work. The large round sign for the Chinese restaurant may have obstructed his vision somewhat, so that might be one thing to look at, but this is far outside the zone you're looking at.	Apr 9, 2013 10:16 AM
20	Commuter express buses, e.g. from Greenway Station in Middleton to the UW Campus & downtown might reduce the number of cars on University Ave & Campus Drive.	Apr 9, 2013 9:44 AM
21	expanding the left turn lane from eastbound University on to University Bay dr would reduce a lot of congestion and dangerous traffic situations from bypassing traffic.	Apr 9, 2013 8:59 AM
22	If I'm not mistaken, wasn't this portion of University Ave. already under construction last year? If so, why weren't these concerns dealt with at that time? And, if not, WHY wasn't this portion dealt with at that time? Very frustrating.	Apr 9, 2013 8:26 AM
23	Better public transportation, light rail for instance, could improve the congestion and speed issues without adding more lanes to University Avenue and changing the character of the Segoe Road to Breeze Terrace neighborhoods.	Apr 9, 2013 8:10 AM
24	Any improvements to bicycle and pedestrian paths will help Madison become a safer and more appealing city to live in and work in.	Apr 9, 2013 7:37 AM
25	I see pedestrians running and getting stranded in the median quite frequently. I see car drivers getting desperate to make left hand turns onto and from University Ave when they really shouldn't. Bicycling between Shorewood Blvd and University Bay Drive can be circuitous.	Apr 9, 2013 7:23 AM
26	Excellent work making University Avenue much easier to drive on these days.	Apr 9, 2013 6:56 AM
27	Greater non-motorized vehicle environment needed.	Apr 9, 2013 6:54 AM
28	#6-If I have to travel down University Ave during rush hour I do. It's not really avoidable.	Apr 9, 2013 6:54 AM

Q8. You may provide additional comments in the space below. Please limit your comments to about two hundred words or less.

29	People riding bicycles off the designated paths create dangerous conditions for themselves, and for drivers.	Apr 8, 2013 4:28 PM
30	I don't use this section of University Ave. often, and only very rarely during peak times, but I don't encounter any significant problems when I do drive there.	Apr 8, 2013 1:39 PM
31	The flashing yellow turn left signals should have a green option.	Apr 8, 2013 11:59 AM
32	I recognize the improvements from the West University Ave construction this last year. Thanks. I fully support expanded bicycle infrastructure. My primary concern is the "incomplete" trails along University that goes along Marshall Court and on campus after the pedestrian bridge parallel to Campus Drive. Thank you!	Apr 8, 2013 10:19 AM
33	The lack of green arrows at capital ave makes the intersection unsafe for left turners. Occasional green arrows are needed at rush hour to improve safety. The city plan to use green arrows only when three cars are waiting sacrifices safety for expediency - this is shameful and unacceptable.	Apr 8, 2013 9:45 AM
34	I thought most of the improvements were done a few years ago when we experienced staggered and restricted lanes. There's more to come? What a nightmare that will be.	Apr 8, 2013 9:20 AM
35	Please find a way to eliminate the bicycle traffic through the parking lot behind Marshall Court. Many bicyclists actually think it is the bike path.	Apr 8, 2013 6:58 AM
36	I dread my daily commute to work. Traffic backups at the University Bay Drive light often delay me by 10 minutes. Then, once I turn off on Univ Bay Dr, the turn to Marshall Ct is a scary one. With traffic back ups it is impossible to be sure that it is safe to turn. Likewise at the end of the day, turning left takes a lot of time and feels unsafe.	Apr 8, 2013 6:53 AM
37	Some sort of ped/bike crossing over University would encourage more bike and less car traffic.	Apr 7, 2013 3:33 PM
38	I think the City needs to consider a limited access (possibly overhead) lane to get folks between Segoe/Midvale and University Bay. Campus Drive has been very effective, and something similar is needed further west.	Apr 7, 2013 2:32 PM
39	Major concern - ped/bike crossing at Highland Ave trail crossing. University Ave(parallel to Campus Dr) should have only two lanes auto(one each way) and bike lanes all the way from ramp(heading East) Bike lanes should continue heading East on University Ave from Hill St to exit ramp. Thank you.	Apr 7, 2013 1:14 PM
40	Congestion is our most effective transportation demand management tool. Reducing congestion should be a non-goal. Land use around corridor should be redesigned to encourage "park once" travel instead of "drive everywhere". Re-imagine University Ave/Campus Drive as a multiway boulevard instead of an urban freeway, stitching campus and Old Univ. Ave back together into a neighborhood. What this corridor needs is commuter rail!	Apr 7, 2013 9:01 AM
41	My biggest concerns: Difficulty of crossing University Ave at Flambeau pedestrian crosswalks due to high speeds, aggressive driving, lack of signage.	Apr 7, 2013 8:54 AM

Q8. You may provide additional comments in the space below. Please limit your comments to about two hundred words or less.

Dangerous bike/ped areas: missing bike path connection between University Bay and Marshall, dangerous and difficult bike path crossing of Highland Ave at rush hour.

- | | | |
|----|---|---------------------|
| 42 | I think that, for cars, the area moves pretty well during rush hour. It is more crowded, for sure, and it takes a little extra time, but we live in a city; sometimes there is a minor inconvenience because of the rush hour. I do, however, agree that a bike path that connects the Blackhawk path to the path near Neilsen would be nice, and certainly one from the SW bike path to Blackhawk would be nice. I have to ride on the sidewalk along Midvale to get through. | Apr 7, 2013 5:05 AM |
| 43 | lake mendota drive is rapidly becoming an alternative shortcut, and it's not a question of if there will be a tragic auto/pedestrian accident, but when there will be one. | Apr 6, 2013 9:07 PM |
| 44 | University avenue becomes so crowded because the beltline, the only other route to my work, is MUCH WORSE and more dangerous at that hour of the day. Please focus on that instead of fixing University further. | Apr 6, 2013 7:42 PM |
| 45 | As a motorist, I have greatest concerns about the problems with left turnings and U turns on Univ. Ave. | Apr 6, 2013 6:35 PM |
| 46 | additional streetlights in my neighborhood (Craig Ave/Norman Way) have increased safety for pedestrians crossing street and turning L or R onto Univ Ave during peak traffic times. The bike path now gives a place for family to ride and stay out of traffic and off sidewalks. I wish the bus stops had more seating, new bus shelters have less and what was replaced is less comfortable material. | Apr 6, 2013 5:49 PM |
| 47 | Most of the time traffic flows well, we travel downtown and back quickly. I would really prefer a more continuous bike path toward downtown/campus. | Apr 6, 2013 5:37 PM |
| 48 | Respect of pedestrians and bikers by drivers of motor vehicles is always an issue. Especially in my neighborhood, where there are no sidewalks, roads are not only for motorized traffic, but primarily for pedestrians, dog-walkers, and other vehicles. | Apr 6, 2013 5:15 PM |
| 49 | It can be very difficult to cross University by foot/bike. Pedestrian right of way is not recognized by many drivers. Turns on to University Bay Drive from University can be difficult. The lights are timed well during the 7:00 - 8:30 hour, but then it seems the timing for turns is shortened shortly after. The street congestion on University Bay Drive leads to back-ups on University. Bus stops at the railroad tracks, pedestrian traffic and general congestion can lead to inability to make the turn while the green arrow is showing. Too many people rush through the intersection on the red light. There has been an increase in pedestrians in at this intersection. Focus should be placed in this region. Thanks | Apr 6, 2013 4:32 PM |
| 50 | The small modification that would be appreciated (per my answer to number 7) would be the turn going to the UW Hospital (on University going toward the capitol). In the morning rush hour, the massive amount of cars trying to make a left there actually create a line that blocks one of the center lanes of traffic because the turn lane is too small. If the turn lane were larger this wouldn't | Apr 6, 2013 4:01 PM |

Q8. You may provide additional comments in the space below. Please limit your comments to about two hundred words or less.

happen. It's frustrating to see all the cars making a left turn roll back in a line that curves out of the turn lane blocking the left center lane--because after you bypass this area, the left center lane is completely empty up the road for several blocks (it's just no one can use it because of all the cars overflowing from the left turn lane blocking it).

51	traffic congestion needs to be considered in perspective of other more major concerns. How long does congestion last? How much \$\$ should be spent on a couple of hours. Many times/days Uni Ave is pretty empty.	Apr 6, 2013 9:56 AM
52	No good alternates to University Ave, so it needs to work as efficiently as possible.	Apr 6, 2013 7:18 AM
53	I want a green left turn arrow from University to Capitol Ave. Many neighbors are unhappy and it is a danger to turn left. It is in essence a safety issue that the DOT chose not to deal with	Apr 6, 2013 5:25 AM
54	Love the improvements in Spring Harbor where I live. Safe left turns and safety islands for pedestrians. Sidewalks too! 50 mph is too fast for in town driving and I wish there would be a crackdown on that. A sign explaining how sensor lights work would also be helpful---still see people making illegal left turns from Spring Harbor Dr through long red lights.	Apr 6, 2013 5:10 AM
55	More, better, cheaper mass transit	Apr 6, 2013 4:19 AM
56	There needs to be a single, continuous bike path along the university corridor that works effectively in both directions.	Apr 5, 2013 9:46 PM
57	Congestion at peak times is bad enough that bus schedules are being delayed as much as 30 minutes some nights. Especially down Charter St into University. But as a regular biker, I feel the Regent St intersection with Monroe is more in need of reconfiguration so that a biker/pedestrian doesn't have to cross four different roads coming from the bike path to get to campus.	Apr 5, 2013 8:40 PM
58	Crossing university Bay Drive on the current bicycle route is inconvenient and dangerous. Automobiles are often courteous and will let you cross but the recent widening now forces bicyclists and pedestrians to cross an extra lane and I have witnessed many near accidents.	Apr 5, 2013 6:40 PM
59	Provide more overhead signs to position traffic well in advance for (west to east): UW Clinic (left lane), UW Emergency Room (left lane), UW Hospital (right lane) and a THTOUGH LANE to Campus. Advance signage should minimize last minute lane changes and increase the traffic flow.	Apr 5, 2013 3:28 PM
60	I checked the "major" modifications box above, but not all modifications need to be major. Many small modifications, as a group, may represent major modifications. Stop signs/children-at-play signs on side streets...green arrow-only left turn lights...a few crossing guards... Altogether, these things are not cheap, but will increase safety for pedestrians/bicyclists while not slowing traffic excessively.	Apr 5, 2013 1:58 PM
61	Speed remains a big issue. Not safe for pedestrians or bikes	Apr 5, 2013 10:46 AM

Q8. You may provide additional comments in the space below. Please limit your comments to about two hundred words or less.

62	For those who commute by bike, it is especially difficult to cross Old Middleton Road near EauClaire Ave to get on to the bike path. I would take my bike more often if that could be corrected.	Apr 5, 2013 10:36 AM
63	5. The use of side street parking for daily commuters is particularly bad on Harvey St behind Whole Foods.	Apr 5, 2013 8:34 AM
64	A month ago, I nearly struck a bicyclist who crossed Highland Avenue on the bike path, traveling west, while I was in my car, traveling south towards the Univ. Ave. westbound on-ramp. I was in the right lane and couldn't see him because a bus next to me, in the left lane, obscured my vision of the bike path. I started to move when the light turned green, but was able to brake in time. Can a traffic light for the bike path be installed?	Apr 5, 2013 8:15 AM
65	Don't turn University Ave into a freeway. It's wide and fast enough already.	Apr 5, 2013 8:05 AM
66	My concern? 1) Pedestrians & bicycles that do not cross at controlled intersections. 2) Drivers that stubbornly insist on making left turns at uncontrolled intersections.	Apr 5, 2013 7:05 AM
67	There should be a bike/ped pathway between University Bay Dr. through Shorewood Blvd. via the train tracks/pool area. I see many people trying to walk on University Ave. between the Shorewood Shopping Center and Marshall Ct. Very dangerous in my opinion.	Apr 5, 2013 6:44 AM
68	Connecting the bike path near the VA to Shorewood Blvd should be a priority. The current route onto Marshall Ct. is problematic. With all the parking along the court, I as a bicyclist routinely get backed-into by cars pulling out of parking spots.	Apr 5, 2013 4:44 AM
69	The recently installed islands on Old University are misplaced; right at bus stops. The bike lanes and parking on Old University, with all the markings on the road, make things very confusing and potentially dangerous. Everything seems to be geared toward bikes.	Apr 4, 2013 10:21 PM
70	More safe bike lanes on the west side please	Apr 4, 2013 9:45 PM
71	Keep up the good work. Appreciate the thoughtful multi-modal transit options available in Madison.	Apr 4, 2013 8:43 PM
72	Seriously worried about impact on commuter bikers once the apartment building behind the Xmas trees is completed!!! (Immediately west of VA). That is the only way to bike from the West and it will be insane!!!	Apr 4, 2013 7:44 PM
73	I don't get off the bus and shop because it's too hard to cross certain intersections as a pedestrian. I don't do bike/bus to work because of a few intersections. I "fly over" daily because it's too dangerous for non-cars to get through the few bottlenecks.	Apr 4, 2013 7:30 PM
74	More needs to be done to make cycling safer along University Ave. In particular, the west-bound painted bicycle lanes along University are tremendously dangerous. It is just a matter of time before a cyclist is killed by a car or bus.	Apr 4, 2013 7:24 PM

Q8. You may provide additional comments in the space below. Please limit your comments to about two hundred words or less.

	Recommend expanding the east bound separated cycling lane and making it 2-directions -- both east and west bound. Further, the intersection of Campus Drive / University Ave / Babcock Dr is just a nightmare for cyclists.	
75	Please reduce the need/ability of single occupant cars traveling on university instead of increasing the number of single user vehicles able to travel.	Apr 4, 2013 6:56 PM
76	It is difficult to walk along University Avenue in the highlighted area. No through sidewalk on north side of street. I sometimes want to walk to and from campus or downtown by that route.	Apr 4, 2013 6:41 PM
77	My Univ Av travel is mostly non-peak. I drive a bus for a retirement facility & travel from Target to Walgreens without significant difficulty.	Apr 4, 2013 5:54 PM
78	The new section of University was never plowed to allow bikes in the bike lane this winter--completely useless if not plowed! Cars go way too fast down Old Middleton to be safe.	Apr 4, 2013 5:29 PM
79	As I stated in an earlier question, I work in the Village of Shorewood Hills. I generally try to leave home much earlier than I need to in order to avoid a portion of the miserable congestion coming from downtown heading west on U Ave. on my way to work. That is the majority of my concern. I hate it. Thank you for hearing my rant. Alex Roznik Fire Inspector Village Of Shorewood Hills	Apr 4, 2013 4:14 PM
80	The infrastructure is fine, it's the aggressive driving that is a concern. Police enforcement during peak times may modify this behavior	Apr 4, 2013 3:33 PM
81	The traffic lights seem to be poorly coordinated. Often you might stop at every light between U Bay Dr and Segoe. I think this prompts drivers to run red lights.	Apr 4, 2013 3:33 PM
82	Marshall court has become a cut through . We need parallel parking, otherwise too dangerous to back out on Marshall ct.	Apr 4, 2013 3:25 PM
83	Please add a full, continuous bike path!	Apr 4, 2013 3:14 PM
84	Sidewalks needed next to Univ. Ave. on north side (from Shorewood Shopping Center all the way to U.Bay Dr.). Bus stop on north side of U.Ave (in front of Janet's Antiques) needs to be moved farther west so traffic doesn't block the intersection. Pedestrians crossing U.Ave at Shorewood Blvd. (on western-most cross walk) are in danger of being hit by cars turning west off of High St. I think a couple of pedestrian/bike overpasses along the corridor are needed. Bikers should be fined for "speeding"---they too often race through stop signs and past pedestrians, even on icy roads. U.Ave. and intersecting roads need to be totally plowed of snow to increase traffic flow. UW Hospital should have parking lot somewhere that employees can afford, and then use frequent shuttles to get the people to the hospital. QUIT BUILDING MORE BUSINESSES, EXPANDING THE HOSPITAL AND THE UNIVERSITY!!! THAT WILL CUT DOWN ON TRAFFIC! MADISON AND THE U. ARE BIG ENOUGH NOW! BIGGER IS NOT ALWAYS BETTER.	Apr 4, 2013 3:12 PM
85	It would be nice if the bike path that starts at Linden Dr on Campus by the Vet school was continuous all the way to the end of the path at Old Middleton Rd.	Apr 4, 2013 2:48 PM

Q8. You may provide additional comments in the space below. Please limit your comments to about two hundred words or less.

As it is now you have to do a bit of maneuvering to connect from one to the other. The Shorewood Hills swimming pool path is ok but very small. Transitioning from the Campus Drive path to Marshall Court to get onto the swimming pool path is can be tricky going either way in heavy traffic. I also hate hate (two hates added for emphasis) the intersection of the Campus drive path and Highland Ave. There is no indication when you have a right of way, which I think in actuality you never do. Something needs to be done about that spot. One other path I use and like is the connection from Highland Ave at Parking lot 66 to University Bay drive but it is in a sorry state and needs some work. It would be great if it was stripped and also had room on the side so walkers and others would be out of the way of cyclists.

86	Major modifications are grossly needed for Marshall Ct. There are too many people who use it daily to ignore the problems. Difficulty turning both directions from Marshall Ct. to University Bay Dr. Parking/congestion. There is more pedestrian/bicycle traffic here than in many other places in the city. The railroad is functional, meaning it has a great effect on pedestrian and car traffic. The retail affects parking and car congestion. There is only 1.5 ways out of Marshall Ct. (L or R on UBD, right on University). The speed limit is 20 MPH, and most people push that. The stop sign facing south coming in from University Ave. is often times ignored. There is no continuous sidewalk, meaning pedestrians must walk in street. The current construction limits traffic mobility even further. Thanks.	Apr 4, 2013 2:41 PM
87	Building for more cars just means more cars will come. I am not sure about the new residence on Marshall Court: so many cars there already. We need to make this safe for bikers and walkers, rather than making it easier for cars to go faster and faster.	Apr 4, 2013 2:16 PM
88	University Avenue handles a tremendous amount of traffic fairly well.	Apr 4, 2013 2:07 PM
89	I moved to Middleton from Chicago in June 2012. Based on what I'm used to, the current traffic levels do not seem like a major issue to me, but I could see it becoming a issue later down the line. I was a little shocked two large business were allowed to be built adjacent to each other just west of Whitney Way on University. That should be a train-wreck at rush hour.	Apr 4, 2013 2:07 PM
90	Thanks for doing this survey	Apr 4, 2013 2:05 PM
91	I recently retired, so work commute is not an issue. I mainly use the University corridor for errands and events such as Overture Center. I think bike path modification needs might be fairly modest. Dealing with the auto congestion would probably require major changes.	Apr 4, 2013 2:05 PM
92	I am routinely surprised at how well auto traffic moves on University Avenue during rush hour traffic, and (now that construction is done!) I do not try to avoid it. As a driver, I find the most difficult issue is around campus, given the number of pedestrians in that area. As a pedestrian, I find the area to be quite pedestrian friendly. I have the most difficulties as a biker, specifically when turning left.	Apr 4, 2013 2:05 PM
93	Please complete the commuter bike path where there is a gap (between Shorewood and Bay Drive) so that cyclists don't have to cycle on University Ave. Motorists speed and don't give cyclists the room they need for a safe commute.	Apr 4, 2013 2:03 PM

Q8. You may provide additional comments in the space below. Please limit your comments to about two hundred words or less.

94	I would ride my bike more often if there was a bike path along the major commuter route of County M and Allen Boulevard in Middleton.	Apr 4, 2013 1:43 PM
95	A continuous bike path, whether just in signage or in routing, would make the corridor easier to travel than the piecemeal setup that exists today.	Apr 4, 2013 1:38 PM
96	Congestion at the intersection of Campus Drive, University Bay Drive, University Avenue and Farley Street must be dealt with in some way by intersection modifications. People stopping on the railroad tracks at Marshall Ct/University Avenue is a major safety issue!	Apr 4, 2013 1:37 PM
97	A perfect corridor for a light rail system. Need safe crossings for peds and bikes. Traveling south across Univ Ave onto Midvale, light is not long enough for a bike to get through.	Apr 4, 2013 1:23 PM
98	Its frustrating that there is no good/quick way to get through the isthmus by bike. Especially if travelling from the northside.	Apr 4, 2013 1:01 PM
99	All I care about is bicycles.	Apr 4, 2013 12:49 PM
100	I do not know why there are so many pedestrian crossings. If we want people to take them seriously, they need to be: A) Reasonably spaced. B) WELL PAINTED!! and C) With clear signage as to what they are, and what the fines are. Pedestrians as well as drivers need to be reasonable about how much in a hurry they are in, and sometimes people are just trying to "make a point" that they are in the right. Politeness goes a long way, and I believe people need to allow more time to travel by any method they use.	Apr 4, 2013 12:37 PM
101	I avoid this area when possible due to the limited (ie, NO) bike access. The fact that there is no easy bike-access between the University and Hilldale Mall or Whole Foods means that I often just avoid those places unless I'm meeting friends there. It's sad that one of 2 out of Madison's 3 shopping malls aren't accessible by bike (West Towne being the other).	Apr 4, 2013 12:36 PM
102	Weekdays around 5pm, University Avenue and Campus drive are 1) very congested with car and bus traffic, 2) when not backed-up, traffic speeds are very dangerous for bicyclists and 3) neither have good bike lanes. When I ride my bike, I work to avoid these roads by taking neighborhood streets through Shorewood and around UBay fields to the lakeshore bike path. Improved bike lanes on Old Middleton Road would be a wonderful improvement, as lanes are very narrow (particularly near Konoche's and the Oakcrest Tavern) -- this area is very narrow and congested and can be dangerous.	Apr 4, 2013 11:57 AM
103	1. There must be a better way for bikes between Shorewood Hills & the Campus Dr path. 2. Dangerous crossing for bikes at Highland/Campus Dr path 3. Poor condition of Campus Dr path near WVDL	Apr 4, 2013 11:50 AM
104	Concentration should be on improving paths for bicycles with encouragement for others to get out of their cars	Apr 4, 2013 11:20 AM
105	I work on Old University Ave and can be a pain to cross the street almost any time of day. When there is traffic there is rarely a break. This is probably good for	Apr 4, 2013 11:16 AM

Q8. You may provide additional comments in the space below. Please limit your comments to about two hundred words or less.

motor vehicle flow though, and at least there's a light at Breeze Terrace where I can cross. Maybe Madison Metro can add more frequent buses or another route through this area to alleviate congestion; whenever I've taken the bus through this corridor it's packed (commuter hours and mid-day). My impression is that a lot of this traffic is from the UW hospital--if so, maybe need to work with hospital staff to encourage/set up more carpooling.

106	Sometimes I go to hilldale on the way home and it's a pain to figure out how to get back downtown on a bike.. too many winding streets or risk traffic.	Apr 4, 2013 11:06 AM
107	The modifications needed in #7 are mostly a need to provide real north-south pedestrian safety between Shorewood Blvd and Midvale. Also, the inclination on the part of Shorewood Hills to periodically harass bicyclists on the road behind the Credit Union just adds to the factors weighing against bike travel. And, as in any of our faster intersections, we need to start ticketing red light runners at Shorewood and University.	Apr 4, 2013 11:04 AM
108	First, the repaving done the last two years is wonderful and badly needed. Second, it would be great if the students actually waiting to cross the street with the cross lights vs. darting across all the time, when they shouldn't!!! My biggest issue is that.	Apr 4, 2013 10:31 AM
109	The congestion is really only during rush hours so people just need to be patient. It would be nice to have the bike connections more clearly marked. There definitely is a disconnect issues in the two areas listed above.	Apr 4, 2013 8:29 AM
110	As development increases the traffic in/out from Old Sauk Road will continue to increase. It is not cost effective to modify except for bikes and pads.	Apr 4, 2013 8:26 AM
111	The Midvale intersection is the worst part. Long waits in every direction; that stretch is made worse by too many people constantly lane jumping.	Apr 4, 2013 8:26 AM
112	I live in Midvale Heights. North-South bus route to UW Hospital campus. I have access to free bus rides, but would have to back track to West Transfer Point to get bus to University Ave or U Bay Drive. So I bike half the year, drive in the winter.	Apr 4, 2013 7:25 AM
113	The "modifications" I would advocate are those that would reduce auto traffic and increase bicycle traffic and public transportation. Dedicated bus lanes, more buses, more bicycle path connectivity. In the future, perhaps commuter rail, street cars, etc.	Apr 4, 2013 7:11 AM
114	Because I retired last June, I am not as affected by the corridor as I used to be, and I used to try to time my departure from work to be ahead of or after the greatest congestion. My concerns now revolve around missing bicycle connections.	Apr 4, 2013 6:41 AM
115	Four-lane (2-lanes each way) was great! Kept traffic moving a lot better. Lane shifting is nuts! Eliminate the zig-zagging from inside to outside lanes, etc.-- and narrow the bike lanes to about 1/4 or the width it now is on campus drive-- very confusing -- people don't know if they should be driving in that lane at all, so all get into the one-traffic lane and it takes forever to get down to Breeze Terrace	Apr 4, 2013 6:40 AM

Q8. You may provide additional comments in the space below. Please limit your comments to about two hundred words or less.

	area, or heading back out to Campus Drive/Univ Ave.	
116	Please finish the bike paths , concentrate traffic on Univ Av-Campus Dr. Get more drivers into buses...	Apr 4, 2013 5:56 AM
117	The intersection of Old Middleton Avenue and Countryside Lane is dangerous for those of us on Countryside Lane. We need a caution sign and the brush needs to be cut back on a regular basis!	Apr 4, 2013 5:19 AM
118	A commuter rail would certainly help ALL of the issues.	Apr 4, 2013 3:57 AM
119	The eastern intersection of Campus Dr. & Univ.Ave. was made worse by the recent reconstruction. The curve is too sharp, the lanes too narrow and the traffic too fast. Drivers do not, and some trucks and busses cannot, stay in their lanes and it is frequently a frightening experience to go thru there.	Apr 3, 2013 10:10 PM
120	Off street bike paths, especially the missing part identified in the survey (question 5), would be most important to me. Thank you for asking.	Apr 3, 2013 8:41 PM
121	My wife and I also bike in along Lake Mendota Drive, when weather permits.	Apr 3, 2013 8:10 PM
122	The new UA corridor has some really stupid features! The U-turn lane E-bnd near Laurel Crest should be AT LC! At its present location, it is worse than useless; IT IS A HAZARD! It is just far enough below the crest of the hill that it is BLIND, especially in the winter with snow banked up in the median. It is an invitation to a T-bone. It needs to be moved east to LC! Having only one fully functional, unsloped entry to eastbound onto UA (Spring Harbor Dr.) is totally inadequate for this neighborhood. Capitol Ave. and Blackhawk Dr. are difficult to use on slippery winter mornings and SHD goes right by a school during class rush. Who thought this was a good idea? The smaller roads like Laurel Crest can be very useful getting onto UA when other entries are distressed. Please reopen LC to UA access! The flashing yellow arrow at Capitol Ave turning left off of UA is useless. There needs to be a GREEN turn arrow sequence. Flashing yellow arrows are a flawed concept; it teaches drivers to ignore yellow lights in general and to take chances crossing oncoming traffic. Boneheaded. Many of the man-hole covers on the new UA are not smooth enough. They cause drivers to swerve to avoid unreasonable bumps. A new road should be better. In general, I deplore the restriction of the traffic grid into arterial only flow. This reduces the flexibility of the matrix and makes it much more vulnerable to disruption by accidents/catastrophes, etc.	Apr 3, 2013 7:45 PM
123	Sidewalks on Ridge MUST accompany ped crossing to the north, University Station. Bike Path east of Shorewood Blvd is also a must have.	Apr 3, 2013 7:41 PM
124	It's nice to see a neighborhood survey done for this unlike what was done in the recent past for the Old Middleton Road project	Apr 3, 2013 7:27 PM
125	On a bike, there needs to be a way to cross University Bay Drive (from/to Shorewood going east/west) on the bike paths. There is too much traffic there to cross safely. There needs to be more over-2-hour street parking for people who have to drive. Turning left from Hill St. on to Univ. Ave. is quite dicey.	Apr 3, 2013 7:12 PM

Q8. You may provide additional comments in the space below. Please limit your comments to about two hundred words or less.

126	1. Major danger to bicyclists crossing Highland Ave on Campus Drive bike path 2. Inexplicable lack of connecting bike path between Shorewood Hills & Ubay Dr (there seems to be plenty of railroad ROW)	Apr 3, 2013 6:58 PM
127	Please complete the bike path!!!	Apr 3, 2013 6:53 PM
128	Please improve bike path/ reduce its presence on Old Middleton Road, cut over to new Digestive Center and then get it into Shorewood ASAP This would offer a much safer way than trying to bike on Old Middleton Road. I refuse to use Old Middleton Road although I would like to be able to connect to lake short bike path. Similarly, it is not possible to walk on a sidewalk along Old Middleton Road to Cops or Whole Foods or the Square without constant switchbacks and taking weird turns. The grass/ground at the old DOR building/Pyare Square is a nightmare. I have friends who moved from Madison because they could not walk from westside to Downtown.	Apr 3, 2013 6:50 PM
129	bus transfers should be available at university ave and major north south streets	Apr 3, 2013 6:48 PM
130	Only concern is the missing east-west bicycle/ped path thru Shorewood, not a major problem but would be nice if it was more designated. Traffic is traffic it will always be there and it isn't like it is terrible right now.	Apr 3, 2013 6:36 PM
131	Time the traffic signals to the current speed limit. I.e if you go the speed limit you should never get a red light as on Johnson/Gorham. Time for W-E before noon and E-W after noon	Apr 3, 2013 5:54 PM
132	I'm not typical, since I am retired from the University and don't go down there every day and not at all during some seasons of the year.	Apr 3, 2013 5:48 PM
133	Nothing needs to be done. Don't waste the resources.	Apr 3, 2013 5:46 PM
134	Last year ADA compliant pedestrian ramps were built on the south side of University Ave across from Spring Harbor school. Those ramps were snow covered for several days after each snow storm and may be hazardous for pedestrians or people in a wheelchair or with a walker.	Apr 3, 2013 5:33 PM
135	if it costs money or adds another bike lane or a damn useless roundabout or speed thing in the road... stop --they don't work, cost too much of my tax \$\$ that can be put somewhere else and only look good on paper. some engineers dream.	Apr 3, 2013 5:08 PM
136	Just completed work west of Segoe made University Ave worse, not better. It makes sense not to allow left turns from small streets such as Baker Ave. onto University Ave., but the new U-turn is a hazard as well as an annoyance. The size of the traffic gap needed to make the U-turn is much larger than the gap needed for a simple left. Also, the timing of the signals on University Ave. is poor, so that drivers frequently get reds at every intersection. A minor adjustment would be capable of fixing this.	Apr 3, 2013 4:52 PM
137	Some manholes are quite recessed causing jarring bumps that some traffic somewhat dangerously try to avoid. This is especially noticeable in westbound far right lane in front of UW Credit Union.	Apr 3, 2013 4:42 PM

Q8. You may provide additional comments in the space below. Please limit your comments to about two hundred words or less.

138	Hazard(ped/car)-rt turn on red out of Rose Pl (by copps) onto Univ. - Should be no turn on red. Also bike hazard (univ bike trail& highland)	Apr 3, 2013 4:07 PM
139	The bike path leading up to the bridge at whitney way but not being connected across it is awful. I've seen multiple bicyclists get caught there because they weren't aware the path didn't cross the bridge. This is dangerous and very difficult for the bicyclist to remedy once caught there.	Apr 3, 2013 4:02 PM
140	Have lived on Kendall and Farley for 33 years. Have ALWAYS had concerns regarding University and Farley/UBay Drive. Concerns include-dangerous for peds crossing street, dangerous for autos making left turn especially going south, inconsistent left arrow turn signal,cars running yellow/red lights-esp east/west.This intersection needs attention for all involved-walkers,bikers and autos.	Apr 2, 2013 5:34 PM
141	Incentives (carrot or stick) to encourage more use of buses would help relieve congestion and be better for air quality.	Apr 2, 2013 2:01 PM
142	I now live Downtown, but we lived on Regent St. for 30+ years. I still use the library, a dentist in Doctors Park, have appointments at the UW Health @ Doctors Park, shop @ Sentry, Brennans & on Monroe St.	Apr 2, 2013 1:49 PM

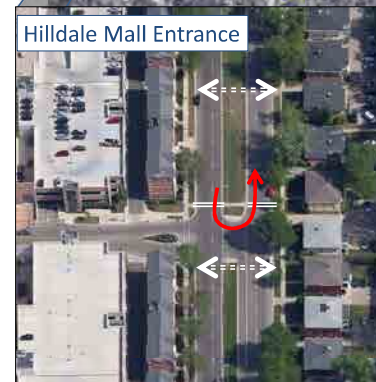
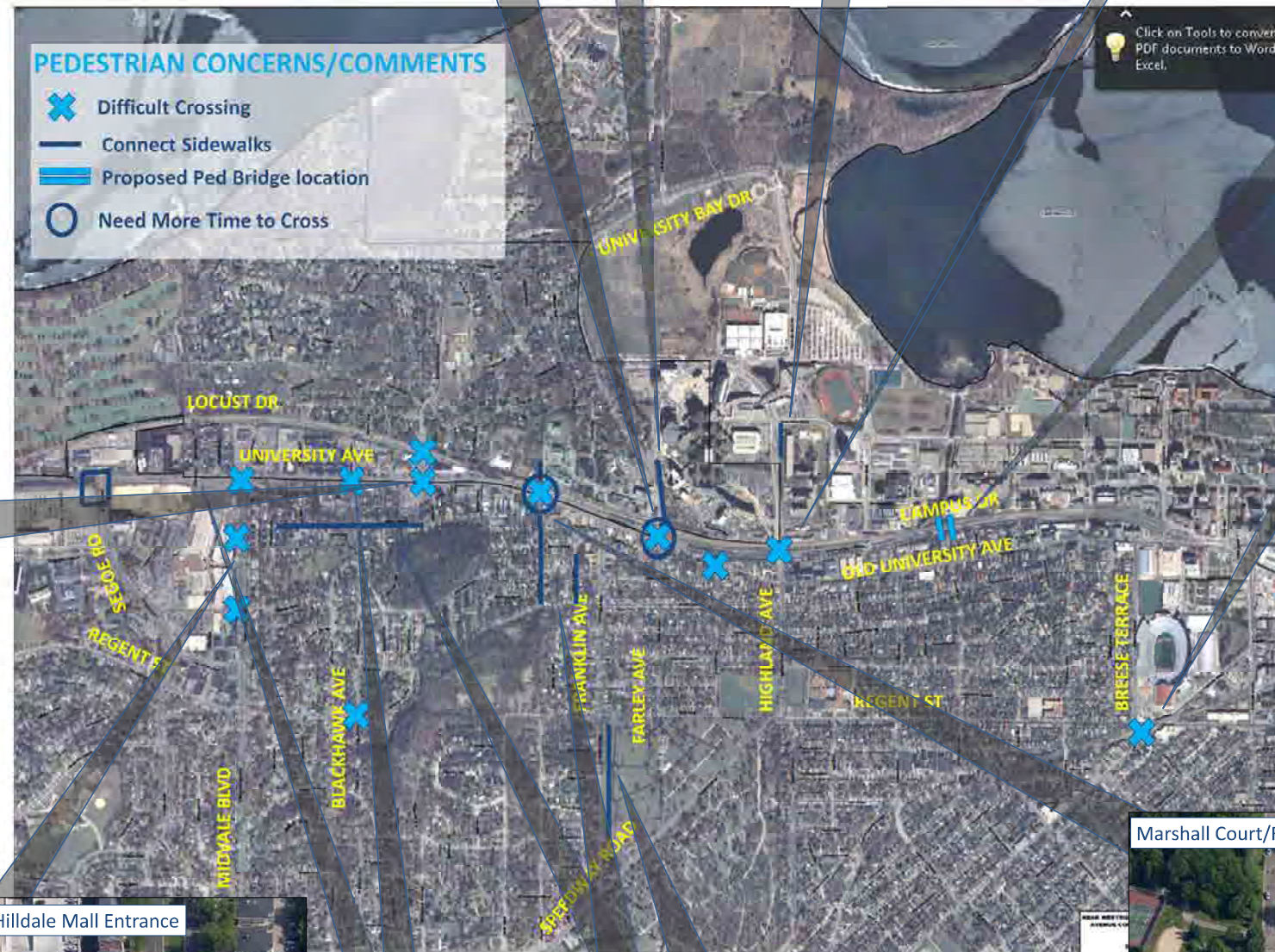
Summary of Pedestrian Issues and Opportunities



- Refresh continental markings
- Potential signal adjustments to provide longer crossing times
- Potential protected-only northbound and southbound left-turns
- Potential expanded refuge areas and extended median noses (similar to East Washington Avenue and First Street)
- Potential east-west grade separation of bike/ped path as long-term solution
- North-south grade separation unlikely due to railroad tracks



- Continental markings recently added on west side of intersection
- Potential flashing yellow arrows to improve driver compliance
- Potential protected only left-turn phasing
- Potential additional pedestrian lead signal phasing
- Potential geometric modifications including additional refuge areas



- Southbound U-turns conflict with existing crosswalk
- Consider relocating to or adding crosswalk at location of existing east-west sidewalk to north, and/or to south side of the intersection

University Bay Drive

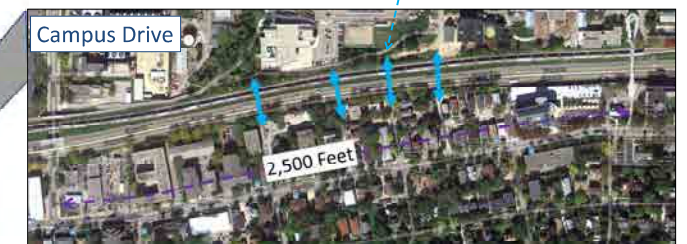
- Sidewalk on east side unlikely in the short-term

Highland Avenue

- Sidewalks will be added on east side this Fall



- Center refuge for path crossing north of the railroad tracks will be expanded this Fall
- Additional path crossing improvements are being investigated



- Potential bike/ped bridge locations
- Chamberlain appears to be most feasible



- Recently reconstructed with enhanced crossings



- Recently constructed partial signal at Ridge/Marshall Court
- Complete sidewalk on east side north of parking lot
- Potential signal adjustments to provide longer crossing times

Summary of Bicycle Issues and Opportunities



- Center refuge for path crossing north of the railroad tracks will be expanded this Fall
- Additional path crossing improvements are being investigated



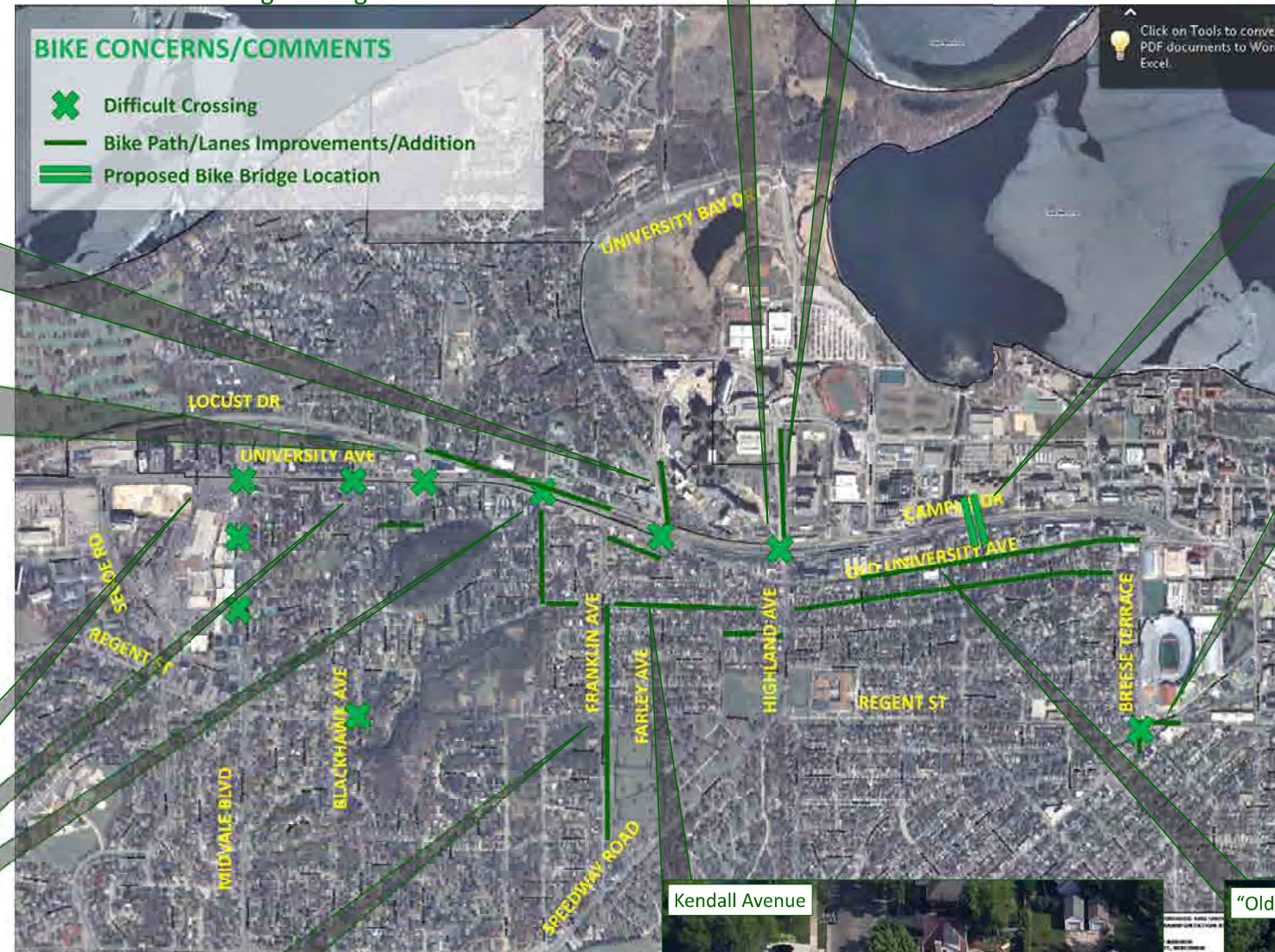
- Sharrow recently added to northbound and southbound lanes under Campus Drive
- Northbound lane configuration modified at University Ave.
- Longer-term, potential additional width gained under bridge by removal of existing slope paving

University Bay Drive

- Northbound on-street bike lane recently added
- Southbound sharrow recently added

East-West Path Connection

- Village working to complete missing bike/ped east-west linkage
- Path will be constructed south of the pool along the railroad tracks between Marshall Court and Purdue Street next Spring
- As Marshall Court redevelops, Village plans to require construction of additional portions of east-west path



- Potential bike/ped bridge locations
- Chamberlain appears to be most feasible



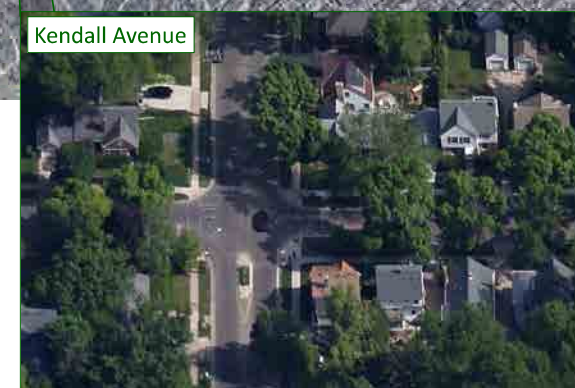
- Recently reconstructed with enhanced crossings

North-South Crossings of University Avenue

- Partial signal recently added at Marshall Court/Ridge Street
- Potential partial signal at Blackhawk Avenue
- Potential partial signal at Hilldale Way (Target)

North-South Connection on Franklin Ave.

- Potential marked bike lanes in uphill direction along Franklin Avenue
- Potential sharrow markings in downhill direction
- May require parking restrictions on one side of the street in some locations



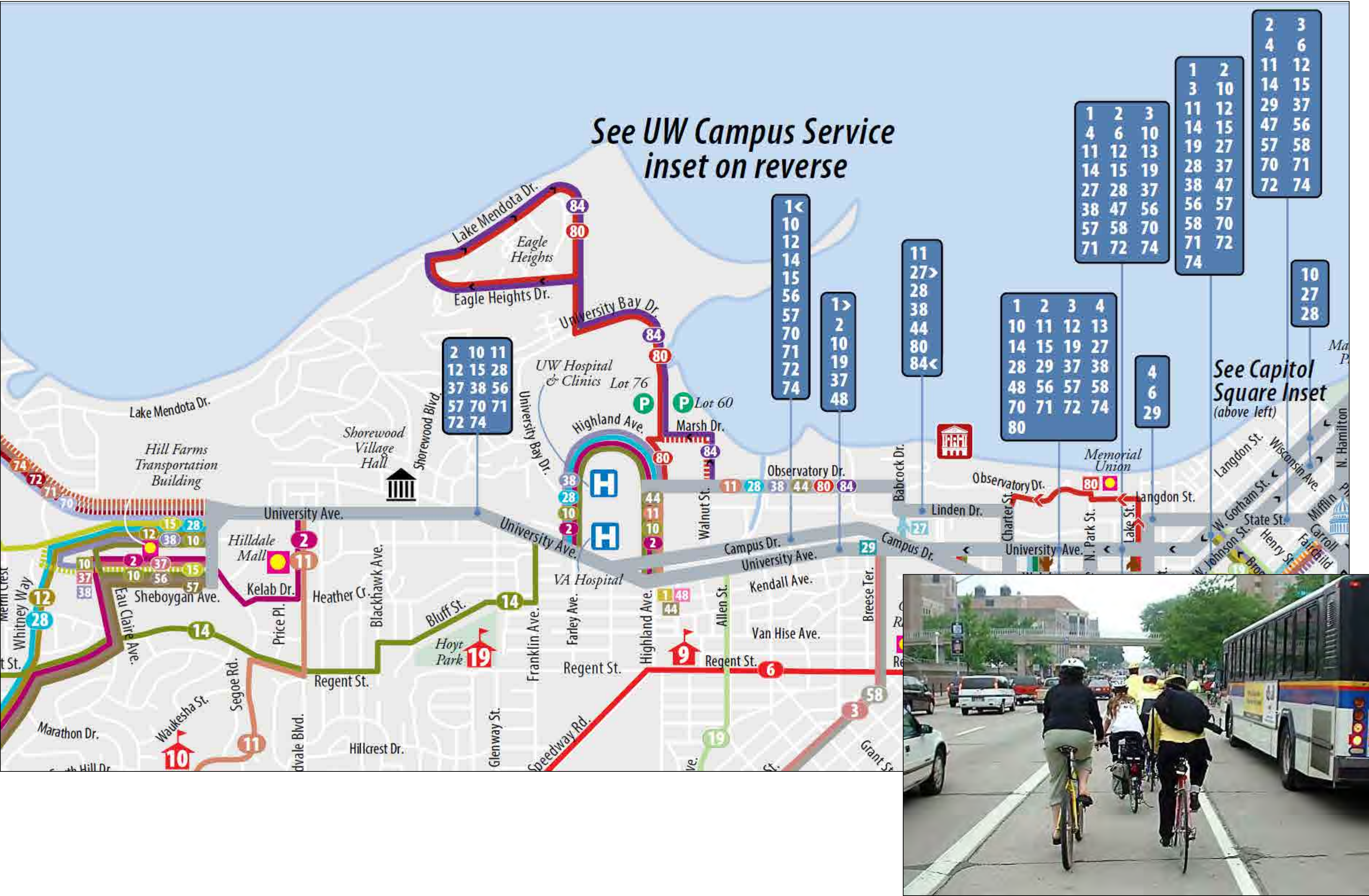
- Bicycle boulevard recently completed to Franklin Avenue
- Potential extension farther west along Bluff Street



- Recently reconstructed with on-street bike accommodations throughout

Summary of Transit Conditions

Metro Transit

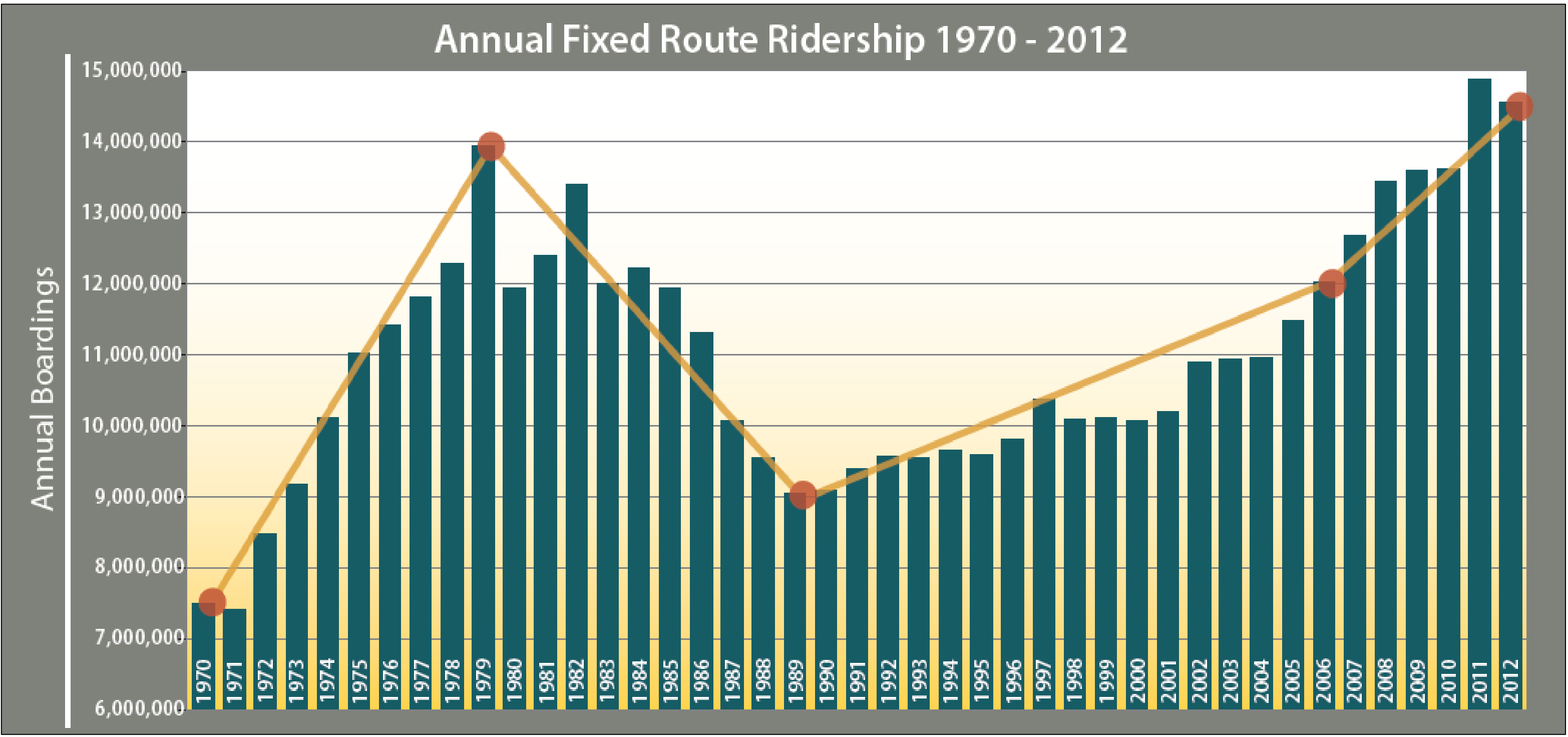


Source: www.transport2020.net

In 2011, more than 14.9 million rides were recorded on Metro Transit, a 9.5 percent increase over 2010. Currently 8.6 percent of work trips in Madison use transit, which ranks 44th in the nation.

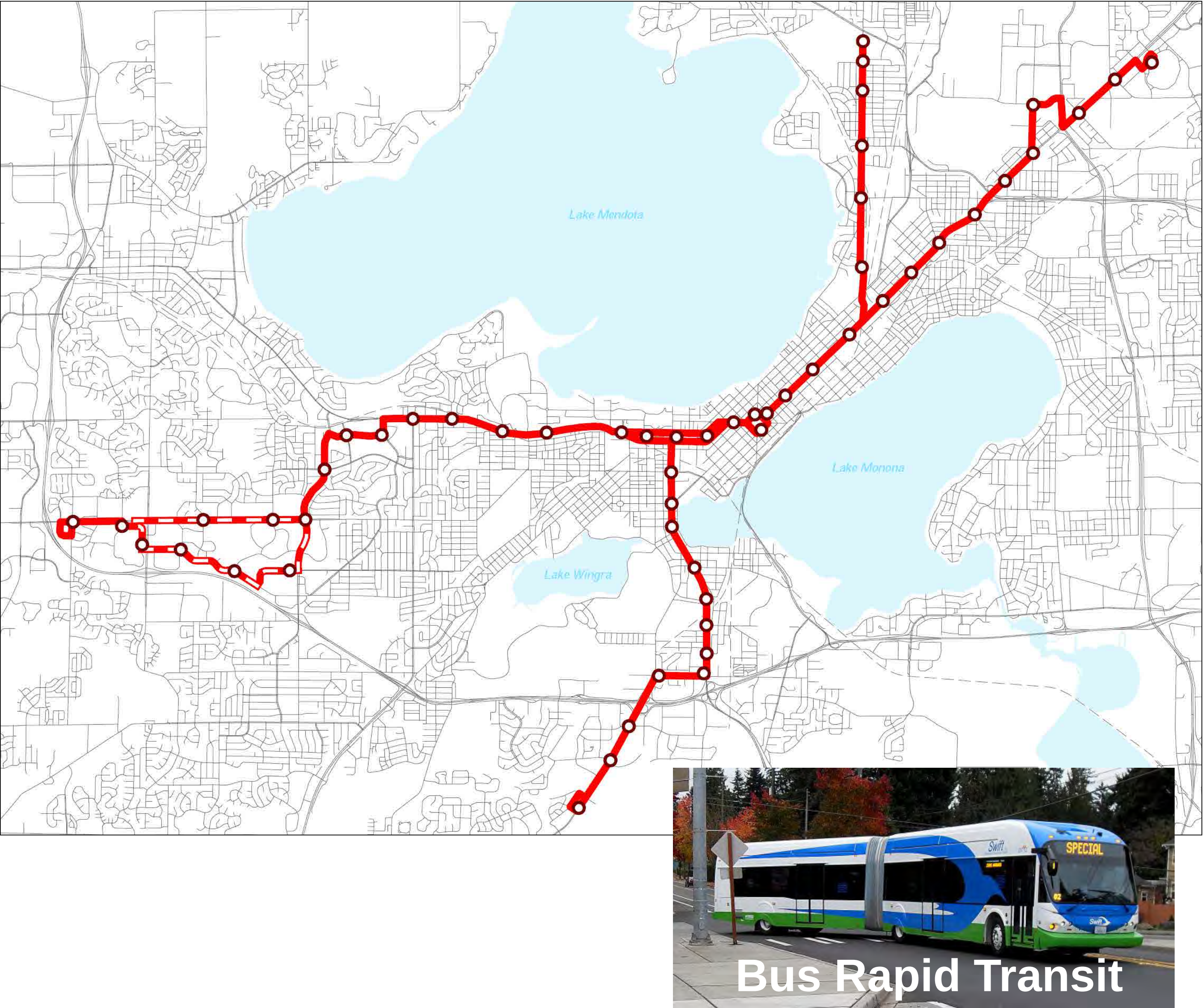
University Avenue is an extremely important transit corridor. There are 16 Madison Metro route numbers that serve University Avenue, not including supplemental school service. Almost 490 buses travel on University Avenue during a typical weekday, not including school service.

Increasing Metro Ridership



Source: Metro Transit 2012 Annual Report

Bus Rapid Transit



Bus Rapid Transit

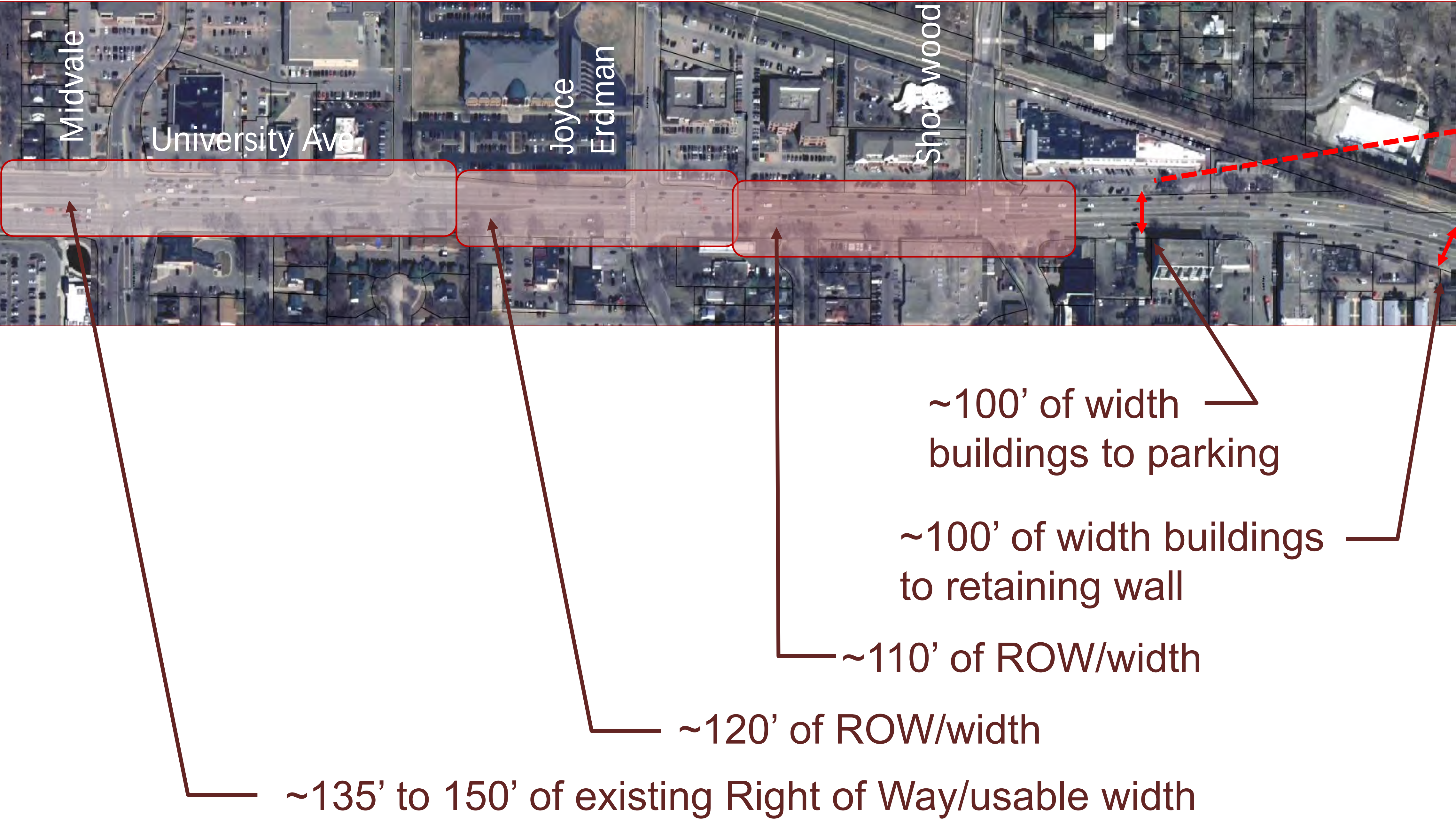
The Madison Transit Corridors Study (BRT Study) evaluated Bus Rapid Transit (BRT) in the Madison area. The study, completed in May 2013, was funded by part of a federal Sustainable Communities Regional Planning grant administered by the Capital Area Regional Planning Commission (CARPC), and led by the MPO. The BRT Study evaluated four corridors: north, south, east and west out of the downtown area that included a common central segment in the UW Campus area and central isthmus. Those corridors are the most heavily traveled transit corridors in the city with over 20,000 of about 60,000 total daily boardings. In the West corridor, the study analyzed a Mineral Point Road alignment that included an option for 4.3 miles of fixed guideway in the median of University Avenue.

The total estimated cost of the BRT system is about \$138 Million (2016 dollars). Daily ridership is forecasted to range from about 4,000 to 10,000 trips per day on each of the corridors.

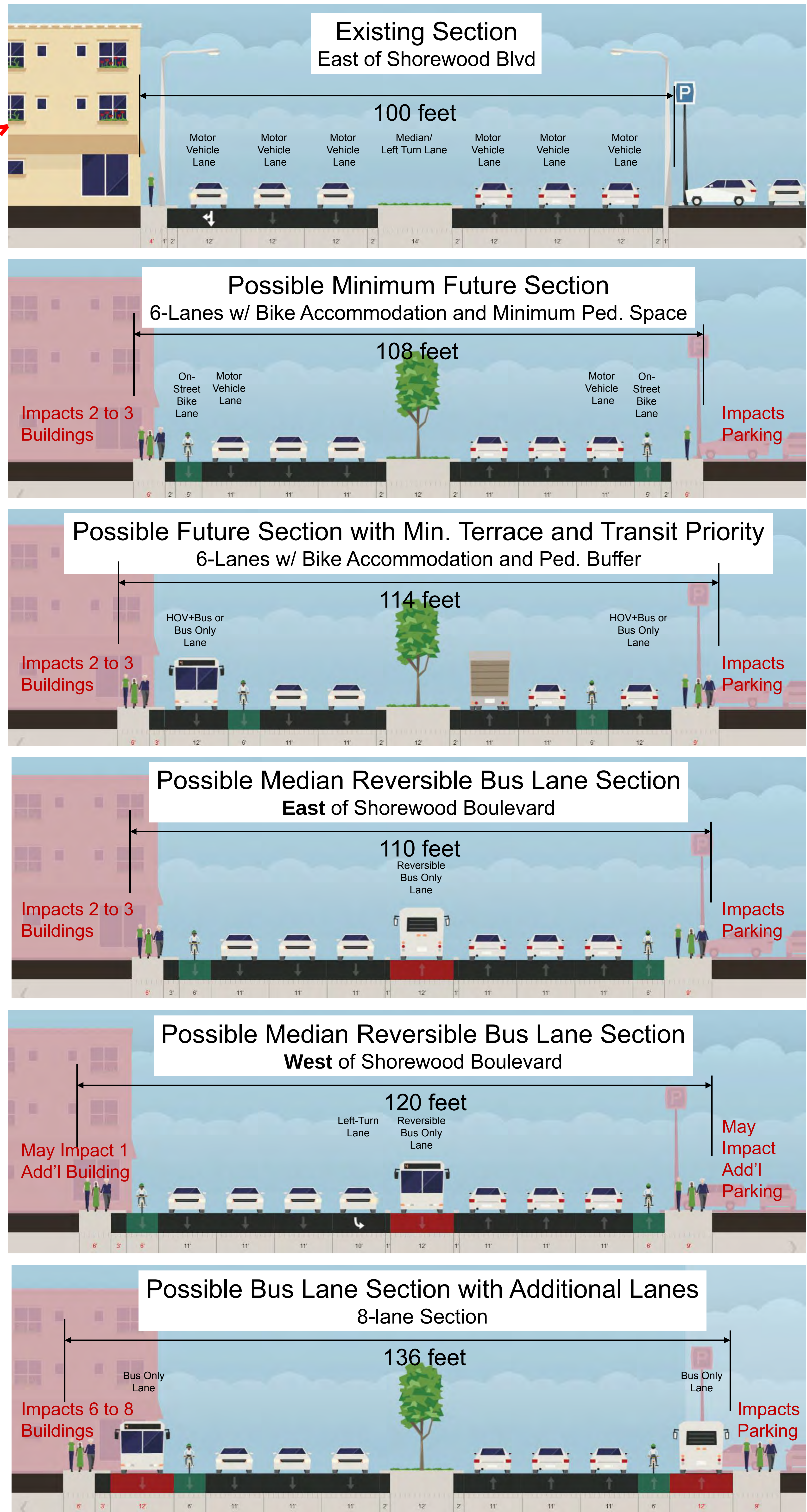
The study concluded that the fixed guideway alternative (BRT-only lanes in the median) along University Avenue would require additional right-of-way to be purchased from adjacent businesses, and would have particularly severe impacts east of Shorewood Boulevard.

Summary of Existing Right-of-Way and Potential Transit Priority

University Avenue Width Constraints make Providing Dedicated Lanes Difficult



Existing and Potential Typical Sections (Looking West)



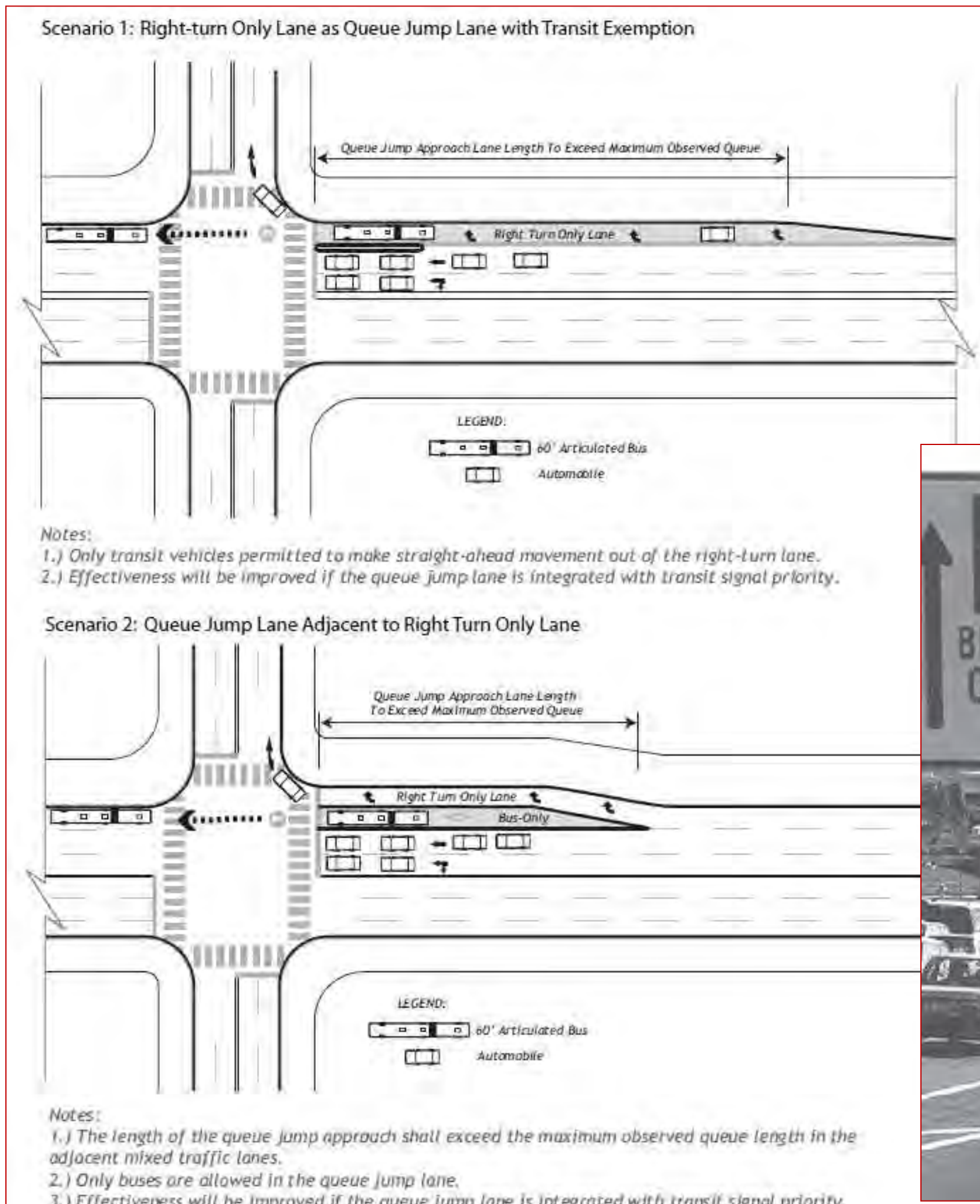
Potential Transit Priority along University Avenue at Intersections

Transit priority measures are roadway treatments that allow transit (buses) to achieve quicker travel times. Improving travel times for transit provides an incentive for transit use and can increase the people carrying capacity of the corridor.

Potential treatments include:

- Queue jump for transit vehicles
- Transit signal priority

Most feasible at Midvale Boulevard and Farley Avenue/ University Bay Drive intersections



June 2013: Draft Crash Analysis Results for Near Westside Neighborhood and University Avenue Transportation Study

Intersection	2007							2008							2009							2010							2011							TOTALS							Entering Vehicle Volume / AADT	Crash Rate (crashes per MEV)	
	K	A	B	C	INJ	PDO		K	A	B	C	INJ	PDO		K	A	B	C	INJ	PDO		K	A	B	C	INJ	PDO		K	A	B	C	INJ	PDO		K	A	B	C	INJ	PDO				
	Fatal	A Injury	B Injury	C Injury	All Injury	PDO	Total	Fatal	A Injury	B Injury	C Injury	All Injury	PDO	Total	Fatal	A Injury	B Injury	C Injury	All Injury	PDO	Total	Fatal	A Injury	B Injury	C Injury	All Injury	PDO	Total	Fatal	A Injury	B Injury	C Injury	All Injury	PDO	Total	Fatal	A Injury	B Injury	C Injury	All Injury	PDO	Total			
University/Midvale	0	0	0	7	7	14	21	0	0	1	2	3	6	9	0	1	0	3	4	12	16	0	2	3	4	9	17	26	0	0	0	5	5	10	15	0	3	4	21	28	59	87	67,652	0.70	
University/Meadow	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	1	0	1	55,536	0.01			
University/Highbury	0	0	0	0	0	4	4	0	0	1	0	1	2	3	0	0	0	0	2	2	4	0	0	0	0	0	2	2	0	0	0	1	1	2	5	7	0	0	2	3	5	15	20	56,038	0.20
University/Blackhawk	0	0	0	0	0	3	3	0	0	0	2	2	3	5	0	0	0	0	0	2	2	0	0	0	0	0	2	2	0	0	0	0	0	3	3	0	0	0	2	2	13	15	58,697	0.14	
University/Shorewood	0	0	0	1	1	6	7	0	0	1	7	8	7	15	0	0	0	1	1	3	4	0	0	1	3	4	9	13	0	0	0	1	1	4	5	0	0	2	13	15	29	44	60,352	0.40	
University/Schmitt	0	0	0	1	1	0	1	0	0	0	0	0	1	1	0	0	0	1	1	1	2	0	1	1	0	2	1	3	0	0	0	0	0	1	1	0	1	1	2	4	4	8	55,135	0.08	
University/Ridge	0	0	1	2	3	8	11	0	0	0	1	1	2	3	0	0	1	2	3	3	6	0	0	2	5	7	5	12	0	0	0	1	1	4	5	0	0	4	11	15	22	37	55,637	0.36	
University/Franklin	0	1	0	0	1	2	3	0	0	1	0	1	4	5	0	0	1	0	1	1	2	0	0	1	2	3	4	7	0	0	0	2	2	2	4	0	1	3	4	8	13	21	56,289	0.20	
University/Farley	0	4	0	5	9	12	21	0	2	2	2	6	9	15	0	0	2	4	6	14	20	0	1	1	4	6	8	14	0	0	2	3	5	8	13	0	7	7	18	32	51	83	62,033	0.73	
University/Campus	0	0	0	1	1	2	3	0	0	1	0	1	2	3	0	1	0	0	1	1	2	0	0	0	0	0	1	1	0	1	0	0	1	1	2	0	2	1	1	4	7	11	50,670	0.12	
Campus/Highland	0	0	0	1	1	1	2	0	0	0	2	2	3	5	0	0	0	1	1	2	3	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	4	4	7	11	15,653	0.39	
University/Grand	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9,983	0.00	
University/Highland	0	0	1	0	1	4	5	0	0	0	1	1	2	3	0	0	0	0	0	1	1	0	0	0	0	0	1	1	0	0	0	1	1	3	4	0	0	1	2	3	11	14	20,895	0.37	
University/Chestnut	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11,224	0.00	
University/Walnut	0	0	1	1	2	2	4	0	0	1	1	2	2	4	0	0	1	0	1	2	3	0	0	1	0	1	3	4	0	0	1	0	1	1	2	0	0	5	2	7	10	17	14,133	0.66	
University/Allen	0	0	0	0	0	2	2	0	0	0	0	0	3	3	0	0	0	0	0	1	1	0	0	0	0	0	5	5	0	0	0	0	0	1	1	0	0	0	0	0	12	12	12,255	0.54	
University/Forest	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	1	1	2	3	10,835	0.15	
University/Paunack	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10,651	0.00	
University/Chamberlain	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	1	1	2	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	2	0	2	2	4	11,064	0.20	
University/Birge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10,651	0.00	
University/Princeton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	2	10,880	0.10	
University/Prospect	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	10,835	0.15	
University/Lathrop	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	1	0	0	1	0	1	0	1	0	0	0	1	1	0	1	0	0	1	1	2	2	4	10,835	0.20	
University/Breese Terrace	0	1	0	1	2	1	3	0	0	0	0	0	3	3	0	0	0	1	1	2	3	0	0	0	1	1	2	3	0	0	0	0	0	0	0	0	1	0	3	4	8	12	10,789	0.61	
Midvale/Heather Crest	0	0	0	2	2	0	2	0	0	1	0	1	3	4	0	1	1	0	2	3	5	0	0	0	1	1	1	2	0	0	0	0	0	3	3	0	1	2	3	6	10	16	22,640	0.39	
Midvale/Regent	0	0	0	0	0	1	1	0	0	0	1	1	2	3	0	0	0	1	1	3	4	0	0	0	0	0	2	2	0	0	1	0	1	1	2	0	0	1	2	3	9	12	27,713	0.24	
Mineral Point/Midvale	0	0	3	2	5	8	13	0	1	1	2	4	11	15	0	1	0	2	3	15	18	0	0	1	3	4	10	14	0	1	1	4	6	11	17	0	3	6	13	22	55	77	41,761	1.01	
Mineral Point/Owen	0	0	0	0	0	1	1	0	0	1	1	2	1	3	0	0	0	1	1	2	3	0	0	0	1	1	2	3	0	0	0	0	0	1	1	0	0	1	3	4	7	11	19,304	0.31	
Mineral Point/Glenway/Spec	0	0	2	1	3	4	7	0	1	0	2	3	7	10	0	0	0	1	1	6	7	0	0	0	2	2	14	16	0	0	2	0	2	4	6	0	1	4	6	11	35	46	22,717	1.11	

K: Fatal Crash

A: Incapacitating Injury Crash

B: Non -Incapacitating Injury Crash

C: Possible Injury Crash

PDO: Property Damage Only Crash

11%

NOTE: 1.5 Crashes per Million Entering Vehicles (MEV) is a typical threshold used to identify intersections that may warrant additional investigation of safety improvements.

June 2013: Draft Crash Analysis Results for Near Westside Neighborhood and University Avenue Transportation Study

1		Severity	2007	2008	2009	2010	2011	Total	Annual Crash Rate (HMTVMT)	Statewide Average (2007-2011)	Rate / Statewide Average
University/Campus		Fatal	0	0	0	0	0	0	0.0	0.7	0.00
Midvale to Farley		A-Level Injury	5	2	2	4	1	14	15.5	6.8	2.27
0.90		B-Level Injury	1	7	4	10	7	29	32.0	29.4	1.09
55,110		C-Level Injury	18	15	13	18	17	81	89.5	71.5	1.25
Large Urban Divided		All Injury	24	24	19	32	25	124	137.0	107.7	1.27
Highway		Property Damage Only	53	38	38	54	47	230	254.1	205.1	1.24
		Total	77	62	57	86	72	354	391	314	1.25
								9%			

2		Severity	2007	2008	2009	2010	2011	Total	Annual Crash Rate (HMTVMT)	Statewide Average (2007-2011)	Rate / Statewide Average
University		Fatal	0	0	0	0	0	0	0.0	1.4	0.00
Grand to Breese Terrace		A-Level Injury	1	0	0	0	0	1	4.4	9.8	0.45
1.03		B-Level Injury	3	1	4	1	2	11	48.7	37.1	1.31
12,010		C-Level Injury	2	3	3	1	2	11	48.7	71.3	0.68
Large Urban Undivided		All Injury	6	4	7	2	4	23	101.9	118.2	0.86
Highway		Property Damage Only	10	14	14	12	8	58	256.9	222.8	1.15
		Total	16	18	21	14	12	81	359	342	1.05
								12%			

3		Severity	2007	2008	2009	2010	2011	Total	Annual Crash Rate (HMTVMT)	Statewide Average (2007-2011)	Rate / Statewide Average
Campus		Fatal	0	0	0	0	0	0	0.0	0.3	0.00
Grand to Breese Terrace		A-Level Injury	0	0	1	0	0	1	1.4	1.6	0.89
1.00		B-Level Injury	1	1	0	0	0	2	2.9	6.3	0.45
38,450		C-Level Injury	2	3	0	2	1	8	11.4	13.6	0.84
Large Urban Freeway		All Injury	3	4	1	2	1	11	15.7	21.5	0.73
		Property Damage Only	3	5	4	4	1	17	24.2	56.4	0.43
		Total	6	9	5	6	2	28	40	78	0.51
								8%			

NOTE: Crash rates are calculated based on the number of crashes per 100 Million Vehicle Miles Traveled (HMTVMT)

4		Severity	2007	2008	2009	2010	2011	Total	Annual Crash Rate (HMTVMT)	Statewide Average (2007-2011)	Rate / Statewide Average
Midvale		Fatal	1	0	0	0	1	2	5.1	1.4	3.62
University to Mineral Point		A-Level Injury	0	1	1	1	0	3	7.6	9.8	0.78
1.01		B-Level Injury	1	2	0	1	1	5	12.7	37.1	0.34
21,390		C-Level Injury	5	5	2	4	5	21	53.3	71.3	0.75
Large Urban Undivided		All Injury	6	8	3	6	6	29	73.6	118.2	0.62
Highway		Property Damage Only	7	14	20	18	12	71	180.1	222.8	0.81
		Total	14	22	23	24	19	102	259	342	0.76
								8%			

5		Severity	2007	2008	2009	2010	2011	Total	Annual Crash Rate (HMTVMT)	Statewide Average (2007-2011)	Rate / Statewide Average
Mineral Point/Speedway		Fatal	0	0	0	0	0	0	0.0	1.4	0.00
Midvale to Highland		A-Level Injury	0	1	3	0	2	6	14.5	9.8	1.48
1.34		B-Level Injury	5	2	7	0	3	17	41.1	37.1	1.11
16,900		C-Level Injury	6	3	4	6	2	21	50.8	71.3	0.71
Large Urban Undivided		All Injury	11	6	14	6	7	44	106.5	118.2	0.90
Highway		Property Damage Only	11	22	19	25	16	93	225.0	222.8	1.01
		Total	22	28	33	31	23	137	331	342	0.97
								13%			

6		Severity	2007	2008	2009	2010	2011	Total	Annual Crash Rate (HMTVMT)	Statewide Average (2007-2011)	Rate / Statewide Average
Highland		Fatal	0	0	0	0	0	0	0.0	1.4	0.00
University to Regent		A-Level Injury	0	0	0	0	0	0	0.0	9.8	0.00
0.28		B-Level Injury	1	0	0	0	0	1	26.8	37.1	0.72
7,310		C-Level Injury	2	1	2	0	0	5	133.9	71.3	1.88
Large Urban Undivided		All Injury	3	1	2	0	0	6	160.6	118.2	1.36
Highway		Property Damage Only	3	3	2	4	3	15	401.6	222.8	1.80
		Total	6	4	4	4	3	21	562	342	1.64
								4%			

**June 2013: Draft Crash Analysis Results for Near Westside Neighborhood and University
Avenue Transportation Study**

Segment	Termini	Segment Length (miles)	ADT	Year	Ped	Bike
University - Campus	Midvale to Grand	0.90	55,110	2007	2	1
				2008	0	0
				2009	0	1
				2010	4	3
				2011	1	1
				Total	7	6
University	Grand to Breese Terrace	1.03	12,010	2007	2	2
				2008	1	0
				2009	1	1
				2010	0	0
				2011	3	0
				Total	7	3
Campus	Grand to Breese Terrace	1.00	38,450	2007	0	0
				2008	0	0
				2009	0	0
				2010	0	0
				2011	0	0
				Total	0	0
Midvale	University to Mineral Point	1.01	21,390	2007	2	0
				2008	1	0
				2009	0	0
				2010	0	0
				2011	0	2
				Total	3	2
Mineral Point/Speedway	Midvale to Highland	1.34	16,900	2007	0	1
				2008	1	1
				2009	1	2
				2010	0	0
				2011	0	1
				Total	2	5
Highland	University to Regent	0.28	7,310	2007	0	1
				2008	0	0
				2009	0	0
				2010	0	0
				2011	0	0
				Total	0	1
Total		2.93	105,570	2007	6	5
				2008	3	1
				2009	2	4
				2010	4	3
				2011	4	4
Totals				19	17	

June 2013: Draft Crash Analysis Results for Near Westside Neighborhood and University Avenue Transportation Study

Intersection	2007		2008		2009		2010		2011		TOTALS	
	Ped	Bike	Ped	Bike	Ped	Bike	Ped	Bike	Ped	Bike	Ped	Bike
University/Midvale	1	0	0	0	0	0	0	0	0	0	1	0
University/Shorewood	0	0	0	0	0	0	1	0	0	0	1	0
University/Schmitt	0	0	0	0	0	0	2	0	0	0	2	0
University/Ridge	0	0	0	0	0	1	0	0	0	0	0	1
University/Franklin	0	0	0	0	0	0	0	2	0	0	0	2
University/Farley	1	1	0	0	0	0	1	0	2	0	4	1
University/Highland	0	1	1	0	0	0	0	0	0	0	1	1
University/Walnut	1	0	0	0	0	0	0	0	1	0	2	0
University/Chamberlain	0	0	0	0	0	0	0	0	1	0	1	0
University/Lathrop	0	0	0	0	0	0	0	1	1	0	1	1
University/Breese Terrace	1	0	0	0	0	1	0	0	0	0	1	1
Midvale/Heather Crest	1	0	0	0	1	0	0	0	0	0	2	0
Midvale/Regent	0	0	1	0	0	0	0	0	0	1	1	1
Mineral Point/Midvale	0	0	0	0	0	0	0	0	0	1	0	1
Mineral Point/Owen	0	0	1	0	0	0	0	0	0	0	1	0
Mineral Point/Glenway/Speedway	0	0	0	1	0	0	0	0	0	1	0	2

University Avenue Crashes

Additional Crash Report Factors

University Avenue Corridor: Midvale to Farley

A-Level Injury Crashes

Record	Ped	Bike	Right Turn	Left Turn	Following Too Close	Speed	Double Jeopardy	Diregarded Traffic Control	Failure to yield right of way	Inattentive driving	Driver condition	Speed too fast for conditions	Farley Flag
8443243			1		1							Tried to go around right-turning vehicle into Qdoba	
8936140	1							1	1			Crossed against don't walk SB at Midvale	
7872789									1			NB Farley Ave. veh ran red light	x
8146623	1							1		1		U-Bay ped crossing Univ Ave in east crosswalk	x
8146664				1						1		EBL at U-bay struck WB vehicle	x
8146655				1						1		EBL at U-bay struck WB motorcycle	x
8146568				1							1	EBL at U-bay struck WB vehicle	x
8124610				1						1		EBL at U-bay struck WB motorcycle	x
A293256												Not Applicable	
7297775												Not Applicable	
A230507											1	EB single car east of Farley struck fire hydrant and utility pole, possible seizure	x
7247900									1			WB veh ran red light and struck NB veh at Midvale	
9BBVPMJ												Not Applicable	
C7W43TJ												Not Applicable	
9BDZNHH												Not Applicable	
9BGLK6T												Not Applicable	
9BSKSVD												Not Applicable	
9BG8622									1			EB veh ran red light and struc NB veh at Farley	x
9BHSTZF												NB single car sideswiped parked veh and flipped 1 over	
9BCF0F4												Not applicable	
Totals	2	0	1	4	1	0	2	4	4	1	1	1	

13 total crashes

7 at U-Bay/Farley

8 involved disregarded traffic control or failure to yield

University Avenue Crashes

Additional Crash Report Factors

Ped and Bike Crashes at University Avenue and University Bay Drive/Farley Avenue Intersection

Ped and Bike

Record	Ped	Bike	Right Turn	Left Turn	Double Jeopardy	A-level	B-level	C-level	No Injury	Failure to yield right of way	Inattentive driving	Diregarded traffic control	Speed too fast for conditions	
8442055		1	1					1			1			NB RTOR from Farley struck WB bike in crosswalk on Walk signal
8146623	1					1	1				1			U-Bay ped crossing Univ Ave in east crosswalk - double jeopardy
9BFPW3X	1				1			1			1			WBL made permitted turn and struck ped in the south crosswalk on Walk signal
9BBWFV1								1						Not Applicable
G0VC4VB	1				1			2	1				2	EBL vehicle struck by WBT during yellow signal, WBT veh ricocheted into ped in north crosswalk
G0VCW2V		1	1					1						NBR veh struck NBT bicycle on green signal, no citation given
Totals	3	2	2				1	4	3	0	3	0	2	0

5 total crashes
8 injuries
3 pedestrians
2 bicyclists

University Avenue Crashes
Additional Crash Report Factors

Mineral Point Road and Glenway Street Intersection

Record	Ped	Bike	Right Turn	Left Turn	A-level	B-level	C-level	Improper Turn	Speed	Double Jeopardy	Diregarded Traffic Control	Failure to yield right of way	Inattentive driving	Driver condition	Speed too fast for conditions	Comments	Geometry
7938515																Snow , Single veh - EB slide off, struck barrier	1
8443017							1									Wet , EB Min Pt veh spun 180-deg, was struck by 1 WB Speedway veh	1
8658155																Tow truck rolled out of Moore's towing lot in NW quad.	
8699614									1							Single veh - EB slide off, struck barrier	1
A377418									1							WB Speedway illegal U-turn veh sideswiped EB Min Pt veh	
A246283																EB rear end crash, no citation	
9B9FQP5		1		1		1							1			WBL veh struck EB Min Pt Bicycle, Bicyclist hit two veh and landed in street	
A251989																Snow , rear end crash	
8734788				1					1							EB veh turning left into Stop and Go struck a WB Speedway veh	
9B9FQR6																Snow , EB vehicle slid off road and hit a sign	1
9BB5731																Ice , SB veh slid into barrier	1
8899815							1									Ice , EB Min Pt veh slid off road and struck a utility pole	1
8899814																Ice , WB Min Pt veh struck by EB Min Pt veh traveling wrong way to avoid another crash	
9BCVBFV		1					1						1			Veh left Stop and Go SB to Glenway Golf Course and pulled in front of an EB bicyclist on Speedway that struck the veh	
9BCWSXB																1 Wet , EB Min Pt veh spun 180-deg, struck a sign	1
9BCWT0D																1 Snow , EB vehicle slid off road and hit the curb	1
9BV1J07														1		WBL veh rear ended	
9BGG3S2														1		One WB veh changed lanes and sideswiped another WB veh	
9BBR0F9																Wet , EB veh slid off the road and struck the 1 guardrail	1
9BGLK79																Wet , EB veh slid off the road and struck the guardrail	1
9BHF0G0																Snow , EB veh slid of the road and stuck a signal pole	1
9BDCW66							1									Veh backing out of Hair Studio accidentally hit the accelerator and hit utility pole	

9BFSVBS																	Truck rolled out of Moore's towing lot in NW quad and struck a signal.
9BL01JC																	Wet , EB veh on Speedway lost control, crossed 1 center, struck WB veh at an angle
9BGXX96			1														Angle crash, WBR turning truck struck WB veh at an angle
9BCZ9K2																	Wet , WB L veh turned in front of EBT veh, right-angle collision
9BB579B																	Snow , SBR from Glenway lost control and struck a sign in the median on the west side of the 1 intersection

Totals	0	2	2	1	1	5	2	2	2	0	0	3	2	0	7
	Ped	Bike	Right Turn	Left Turn	A-level	B-level	C-level	Improper Turn	Speed	Double Jeopardy	Diregarded Traffic Control	Failure to yield right of way	Inattentive driving	Driver condition	Speed too fast for conditions

25 total crashes

11 horizontal/vertical geometry related 44%

15 snow/ice/rain 60%

8 injuries 33%

5 injuries during wet, snow, ice 63%

University Avenue Report

Highland Avenue Crashes

- 1 NB Veh struck sign in calming island
- 2 SB Veh rear ended at WB Campus Drive ramps by Veh exiting **S VA driveway**
- 3 NB Veh sideswiped NBL veh at **S VA driveway**
- 4 SB Veh made illegal u-turn from left lane, struck by another SB Veh near UW Parking Garag
- 5 SB Veh sideswiped **legally parked Veh**
- 6 SB **Bike** turning left on to Van Hise struck by WBL Veh
- 7 NB veh struck signal pole at N VA entrance
- 8 NBL Motorcycle at Chamberlain rear ended by NB veh
- 9 NB veh reaer ended queued veh in snow
- 10 NB veh sideswiped another NB veh avoiding a NBL veh into **S VA driveway**
- 11 EBL University Ave Veh struck by SB Highland veh in intersection
- 12 WBR from Campus Drive ramp veh skidded in snow, struck by veh behind it
- 13 NB veh rear ended a queued veh near the WB Campus Drive ramps in snow/ice
- 14 SB veh reaer ended queued SB veh south of University Ave
- 15 SB **bike** nearly struck by WBL veh from Van Hise
- 16 SB veh struck by WBR from Chamberlain
- 17 SB Veh sideswiped **legally parked Veh**
- 18 NB veh struck by WBR from Chamberlain
- 19 NB veh struck a terrace tree
- 20 Veh backing out of driveway struck NB veh
- 21 WBL from Van Hise struck SBL from Highland
- 22 NB veh stuck WB **bike** in trail crossing north of RR tracks
- 23 EBT at Kendall struck by NB veh

No Cut Throughs Found

Note: example routes shown, actual routes within the neighborhood may vary



Paths:

- From Heather Crest – To Blackhawk
- From Heather Crest – To Franklin
- From Heather Crest – To Farley
- From Heather Crest – To Grand
- From Heather Crest – To Chamberlain

Total Cut Through Traffic

Note: example routes shown, actual routes within the neighborhood may vary

To Franklin:

From Regent – 16 (14.5 %)
From Glenway – 1 (0.9 %)
From Franklin – 11 (10.0 %)
Not Cut Through – 82 (74.5 %)

To Blackhawk:

From Regent – 8 (12.3 %)
Not Cut Through – 57 (87.7 %)

To Farley:

From Regent – 17 (3.7 %)
From Glenway – 2 (0.4 %)
From Franklin – 145 (31.5 %)
Not Cut Through – 297 (64.4 %)

To Grand:

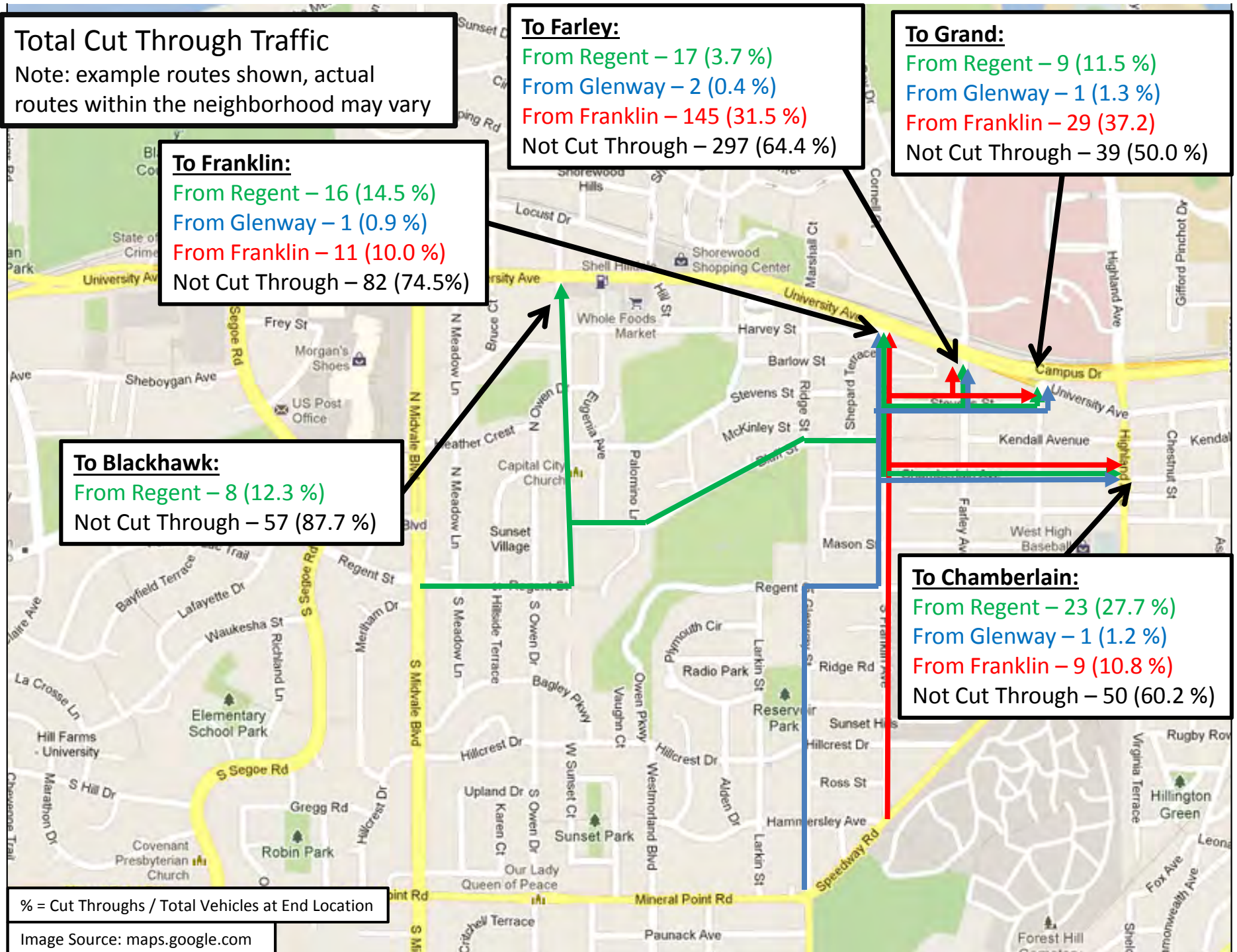
From Regent – 9 (11.5 %)
From Glenway – 1 (1.3 %)
From Franklin – 29 (37.2 %)
Not Cut Through – 39 (50.0 %)

To Chamberlain:

From Regent – 23 (27.7 %)
From Glenway – 1 (1.2 %)
From Franklin – 9 (10.8 %)
Not Cut Through – 50 (60.2 %)

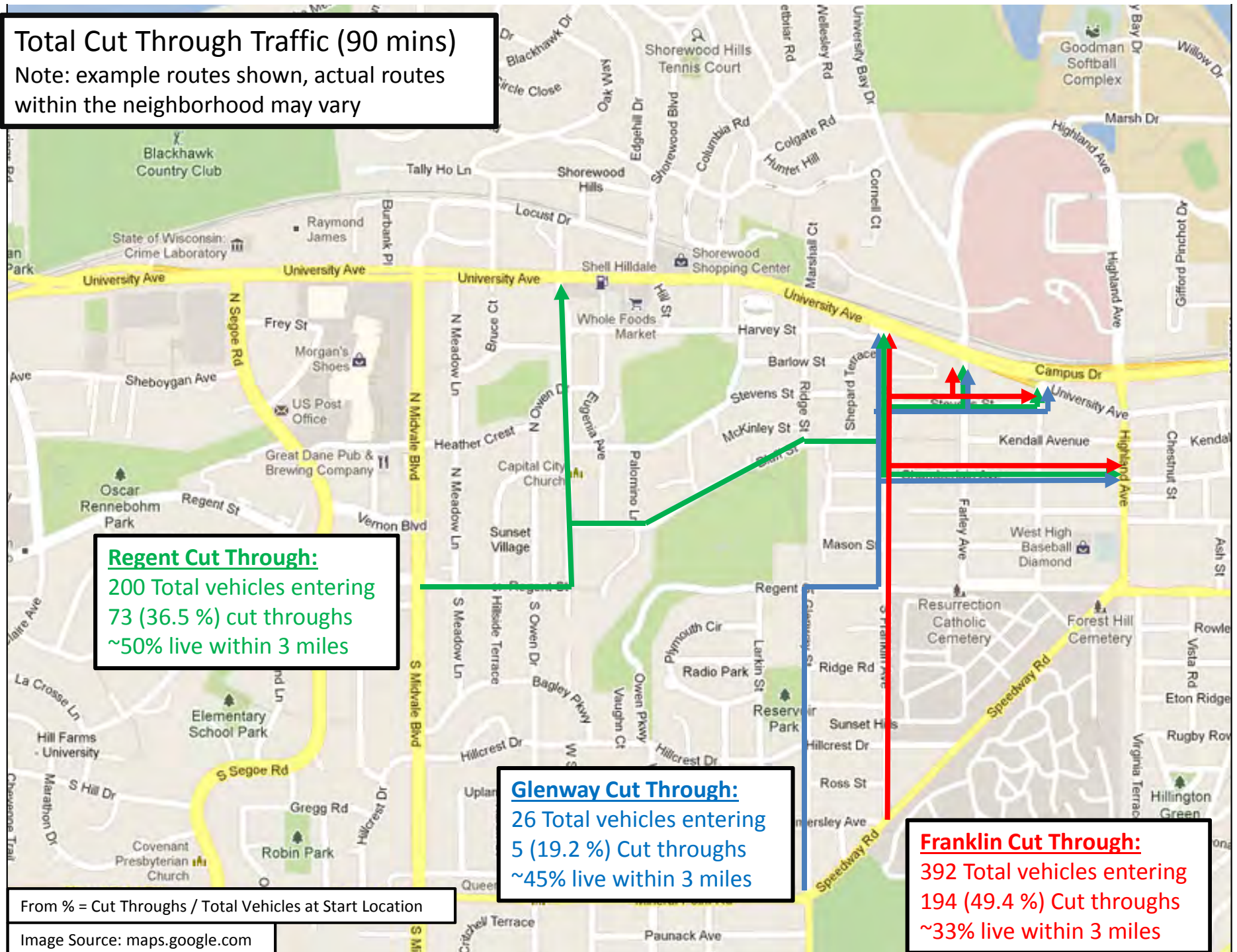
% = Cut Throughs / Total Vehicles at End Location

Image Source: maps.google.com



Total Cut Through Traffic (90 mins)

Note: example routes shown, actual routes within the neighborhood may vary



Regent Cut Through:

200 Total vehicles entering
73 (36.5 %) cut throughs
~50% live within 3 miles

Glenway Cut Through:

26 Total vehicles entering
5 (19.2 %) Cut throughs
~45% live within 3 miles

Franklin Cut Through:

392 Total vehicles entering
194 (49.4 %) Cut throughs
~33% live within 3 miles

From % = Cut Throughs / Total Vehicles at Start Location

Image Source: maps.google.com

UW Cut Through Traffic (90 mins)
Note: example routes shown, actual routes within the neighborhood may vary

UW Cut Through Traffic (90 mins)
Note: example routes shown, actual routes within the neighborhood may vary

To Highland:

- From Regent – 18 (1.7 %)
- From Glenway – 2 (0.2 %)
- From Franklin – 25 (2.4 %)
- Not Cut Through – 1011 (95.7 %)

To Highland:

- From Regent – 18 (1.7 %)
- From Glenway – 2 (0.2 %)
- From Franklin – 25 (2.4 %)
- Not Cut Through – 1011 (95.7 %)

To Highland:

- From Regent – 18 (1.7 %)
- From Glenway – 2 (0.2 %)
- From Franklin – 25 (2.4 %)
- Not Cut Through – 1011 (95.7 %)

To Highland:

- From Regent – 18 (1.7 %)
- From Glenway – 2 (0.2 %)
- From Franklin – 25 (2.4 %)
- Not Cut Through – 1011 (95.7 %)

To Highland:

- From Regent – 18 (1.7 %)
- From Glenway – 2 (0.2 %)
- From Franklin – 25 (2.4 %)
- Not Cut Through – 1011 (95.7 %)

To University Bay:

- From Regent – 7 (0.8 %)
- From Glenway – 1 (0.1%)
- From Franklin – 68 (7.5 %)
- Not Cut Through – 831 (91.6 %)

To University Bay:

- From Regent – 7 (0.8 %)
- From Glenway – 1 (0.1%)
- From Franklin – 68 (7.5 %)
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- From Regent – 7 (0.8 %)
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To University Bay:

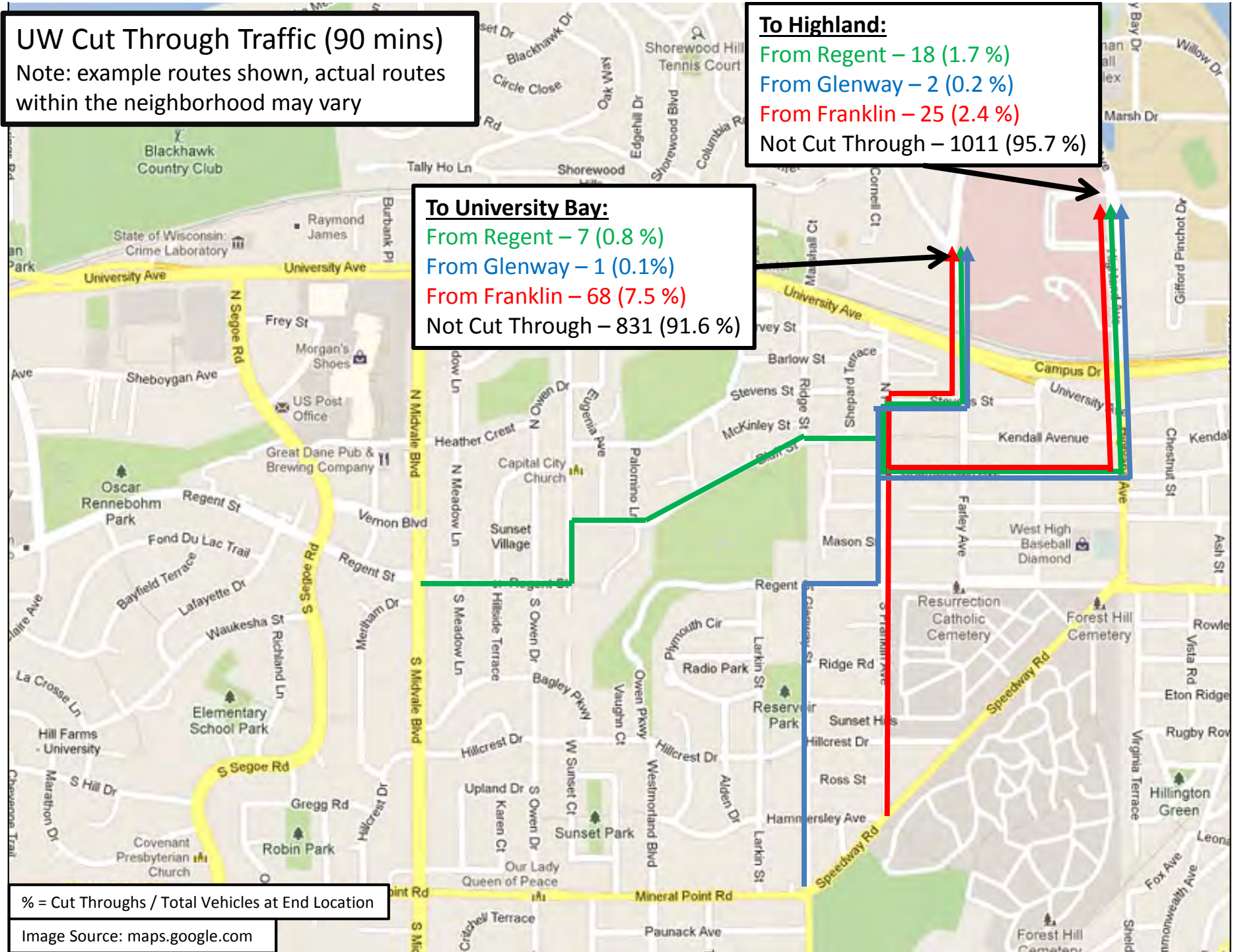
- From Regent – 7 (0.8 %)
- From Glenway – 1 (0.1%)
- From Franklin – 68 (7.5 %)
- Not Cut Through – 831 (91.6 %)

To University Bay:

- From Regent – 7 (0.8 %)
- From Glenway – 1 (0.1%)
- From Franklin – 68 (7.5 %)
- Not Cut Through – 831 (91.6 %)

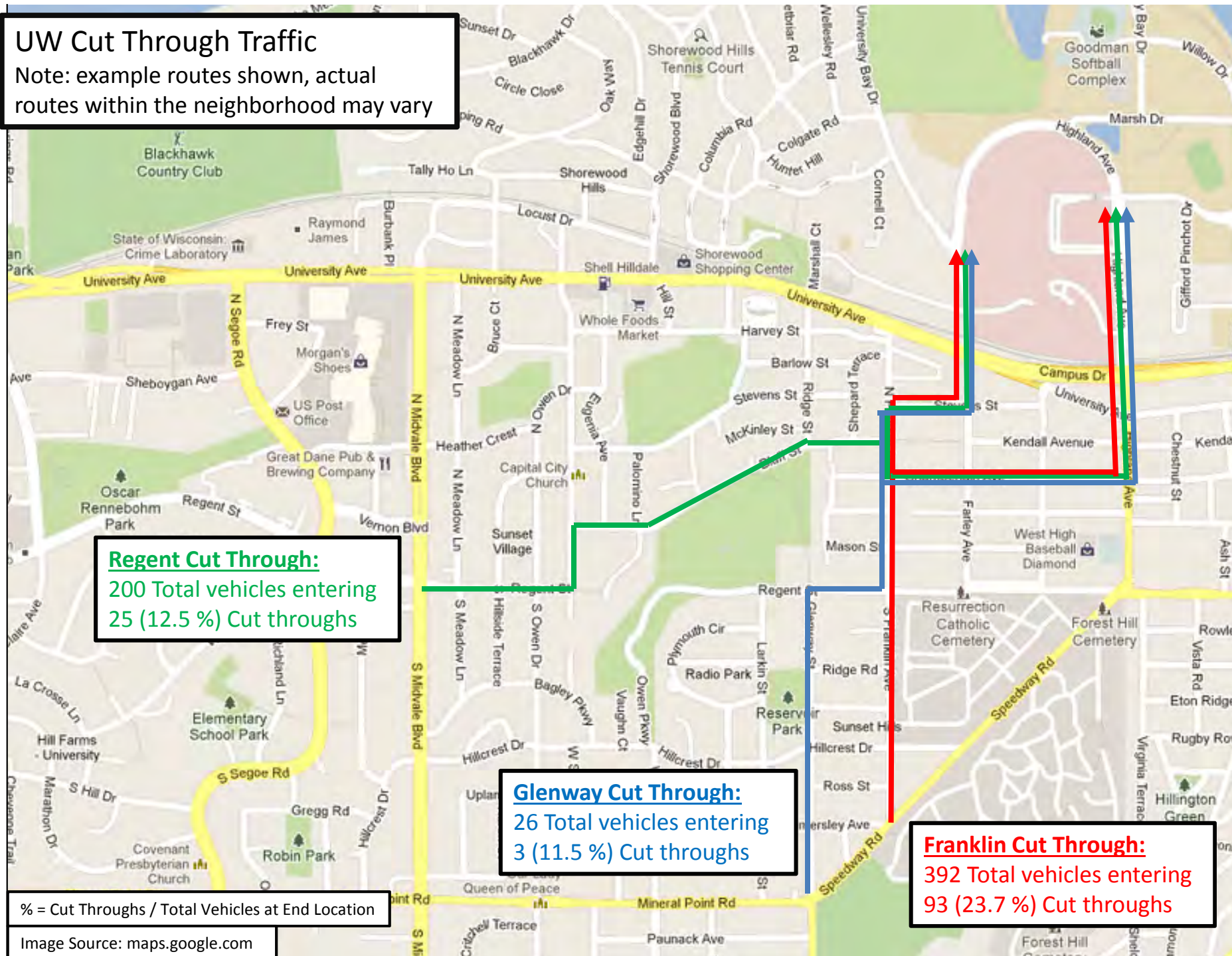
% = Cut Throughs / Total Vehicles at End Location

Image Source: maps.google.com



UW Cut Through Traffic

Note: example routes shown, actual routes within the neighborhood may vary



Total Cut Through Traffic

Note: example routes shown, actual routes within the neighborhood may vary

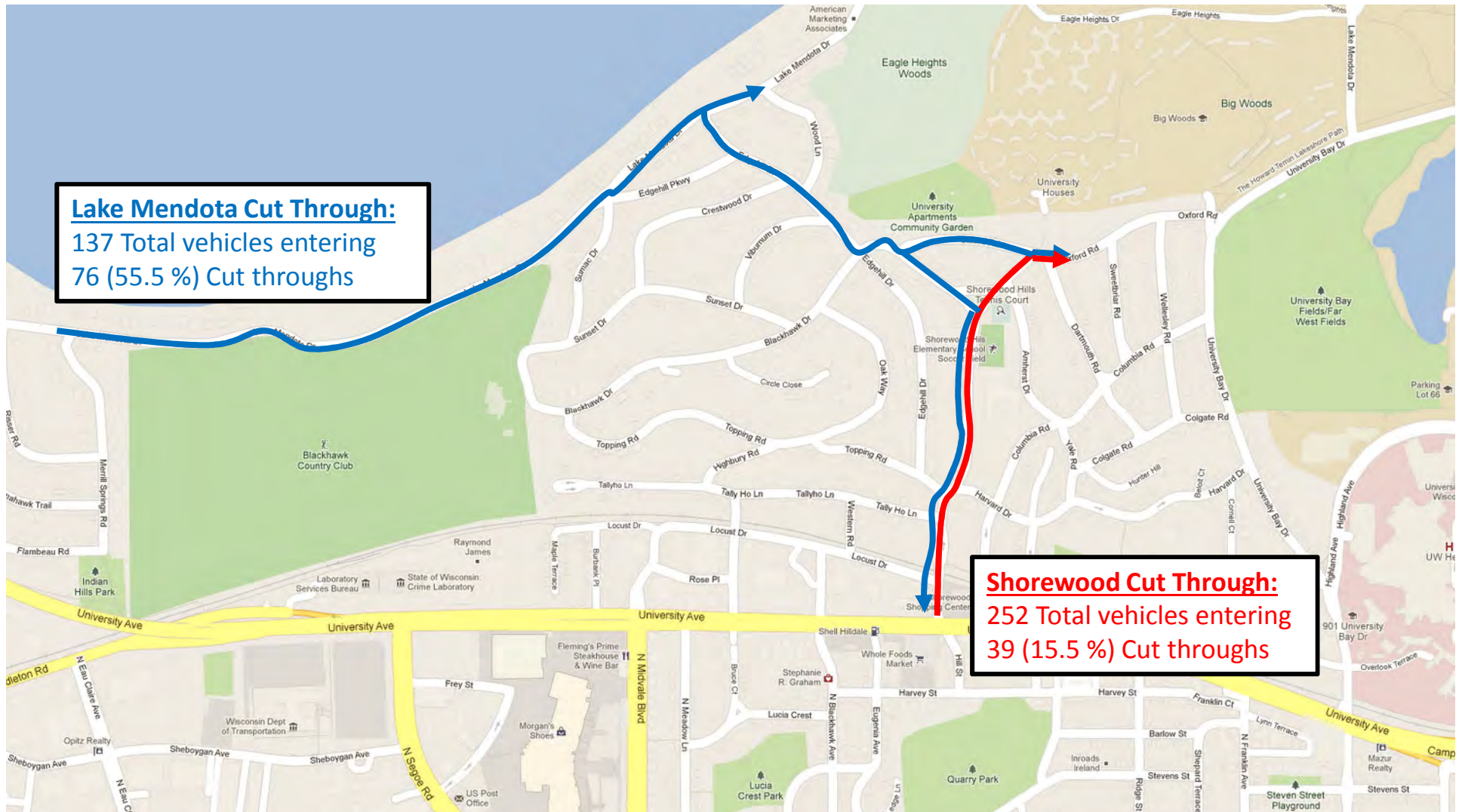


% = Cut Throughs / Total Vehicles at End Location

Image Source: maps.google.com

Total Cut Through Traffic (90 minutes)

Note: example routes shown, actual routes within the neighborhood may vary



% = Cut Throughs / Total Vehicles at End Location

Image Source: maps.google.com

Near Westside Neighborhood and University Avenue Corridor Transportation Study

Public Workshop #2

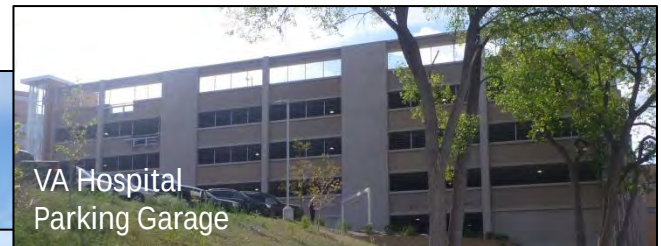
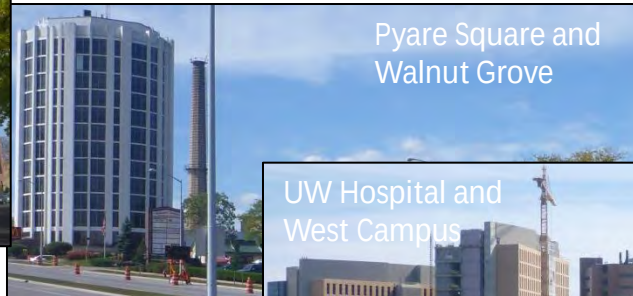
September 12 and 23, 2013

Presentation Outline:

- Brief Review of Study Scope, Background, and Current Conditions
- Results of Online Survey and Workshop #1
- Top 4 Issues
 - Enhanced transit/mode shift
 - Pedestrian/bike crossings of University Avenue
 - Commuter parking
 - Cut through traffic
- Display materials for review and comment

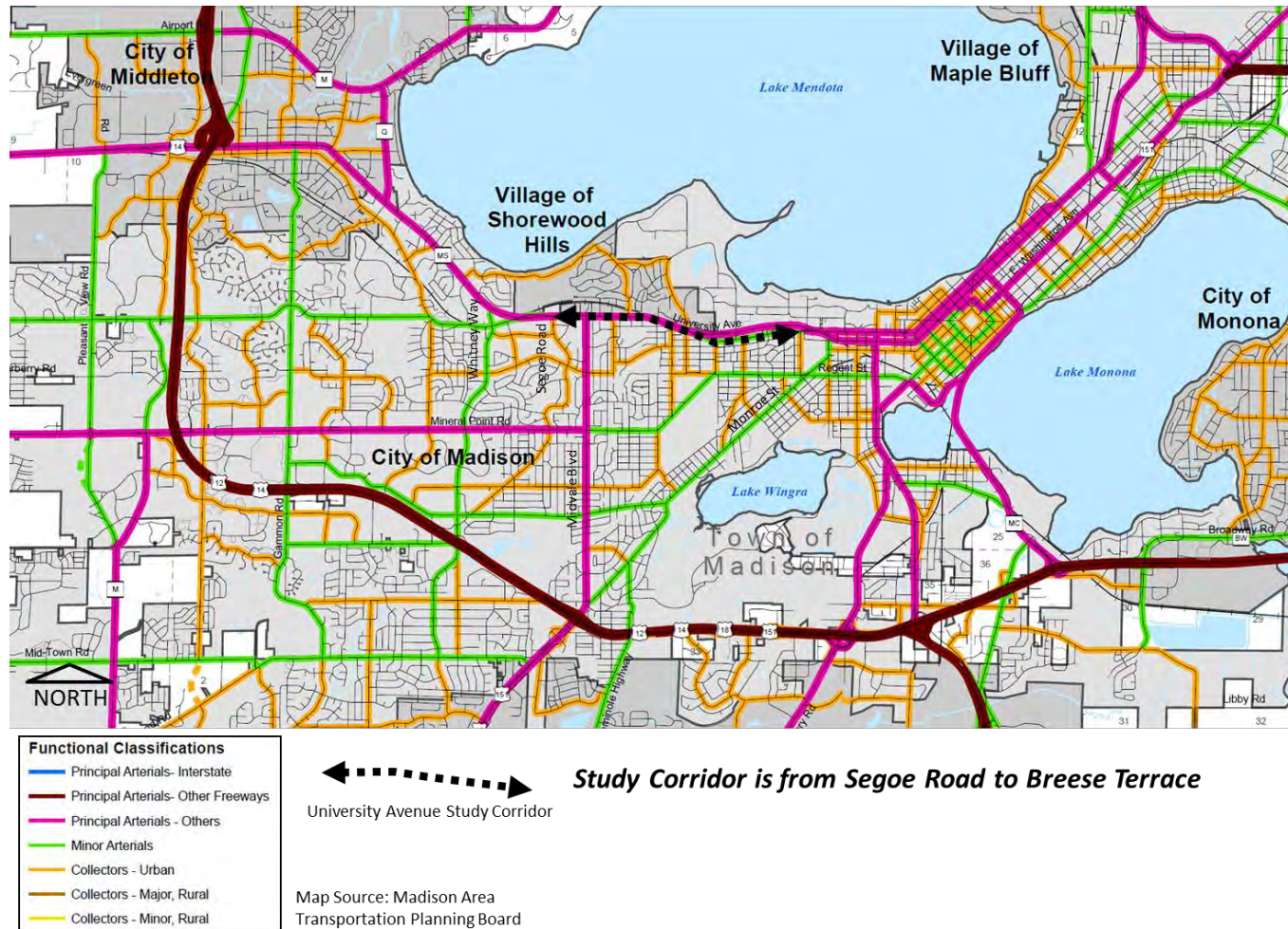
Reason for Study:

- University Avenue Corridor
 - Transportation artery carrying about 55,000 vehicles per day
 - Few non-freeways in WI carry volumes over 50,000 vpd
 - Most are in Madison (Natural Geography)
 - Near capacity currently during peak travel periods
 - Redevelopment in the City, Village, and on UW Campus



Study Limits and Overview:

- Study Corridor



Study Limits and Overview:

- Study Scope and Schedule

Phase 1 –
Needs, Base
and Future
Conditions

TIA Review for West
Campus Area

Regional Traffic
Review

Base and Future
Operations

Meetings

- 2 Workshops

Jan. - May 2013

Phase 2 –
Solutions and
Improvement
Analysis

U-Bay & Farley
Intersection

University Avenue
Corridor

Regent
Neighborhood

Shorewood Hills

Meetings

- 2 Workshops

June – Sep. 2013

Phase 3 –
Implement-
ation and
Final Reports

Funding
Opportunities

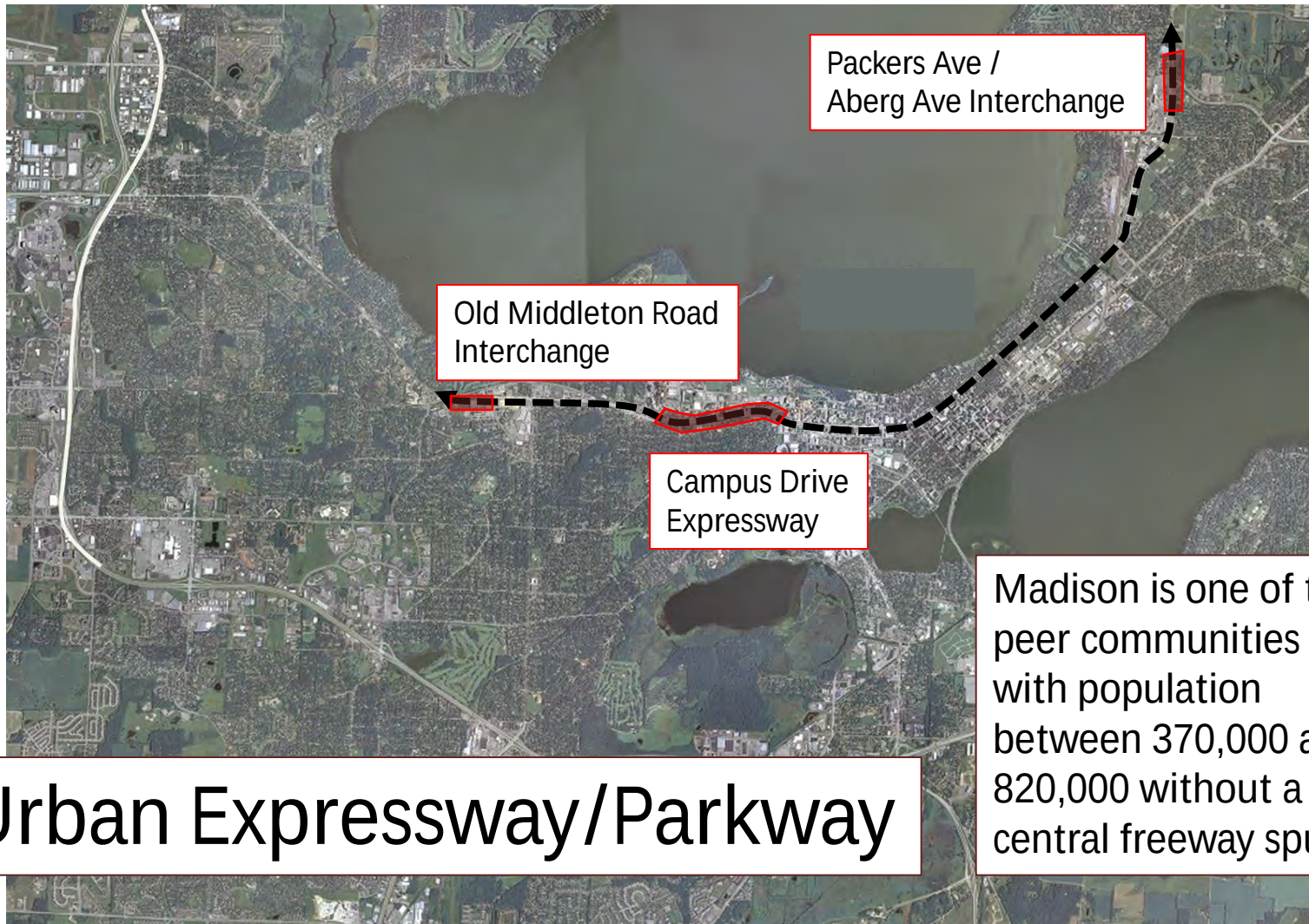
Short-Term, Long-
Term, and
Implementation
Report

Meetings

- 1 Public Meeting

Sep. – Dec. 2013

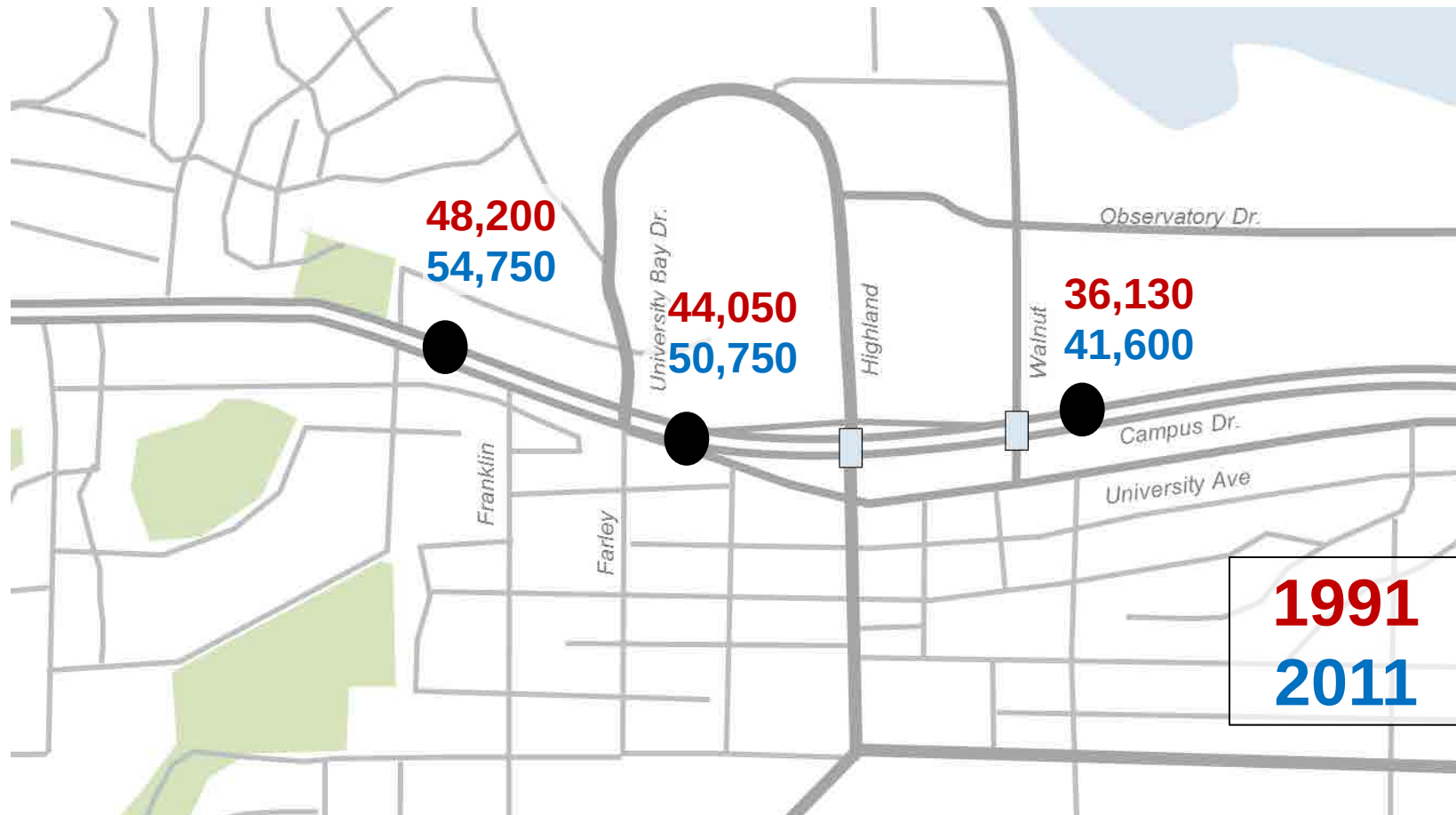
Background and Current Conditions:



Urban Expressway/Parkway

Traffic Volumes

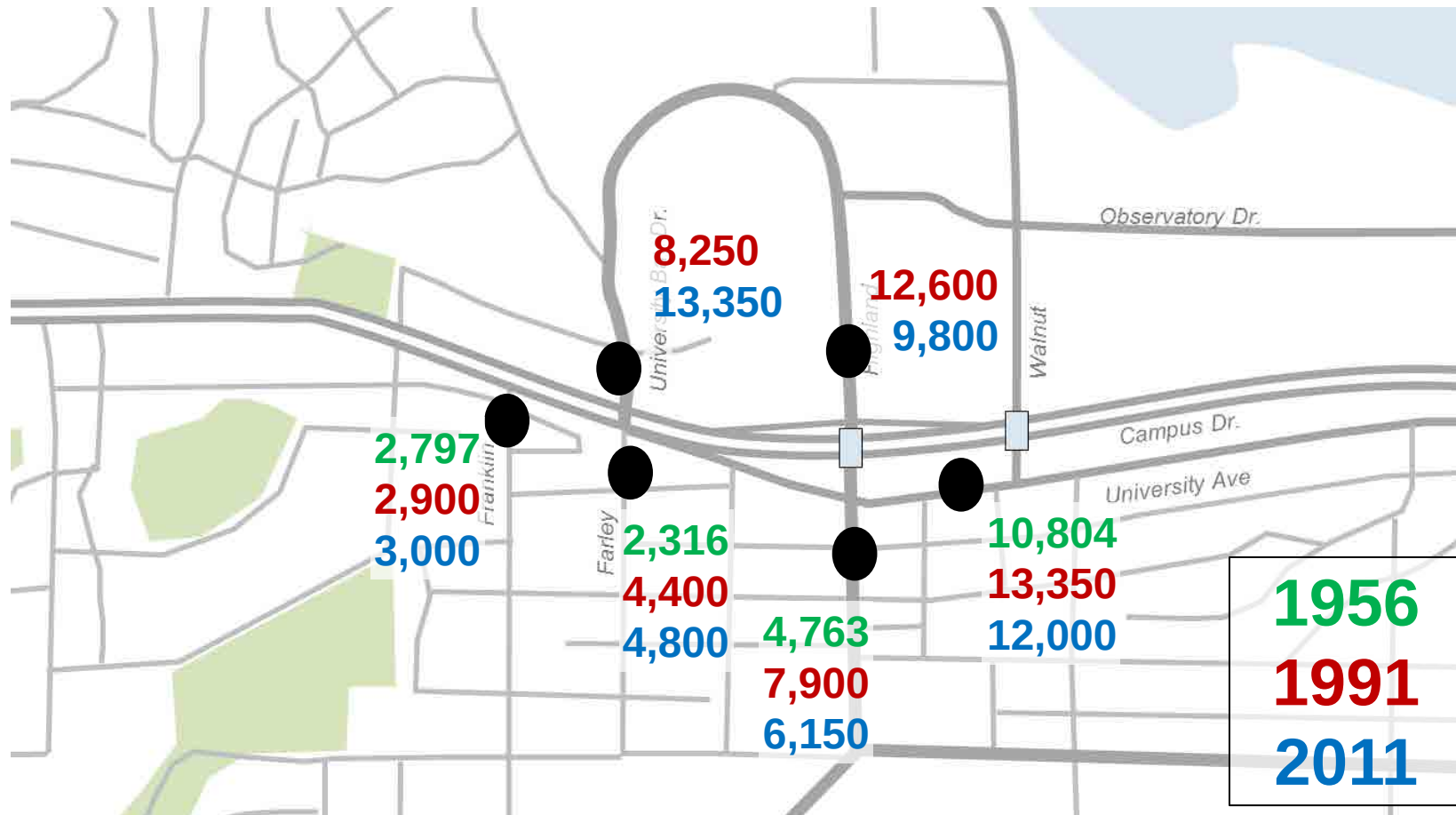
- Generally have increased on University Ave/Campus Dr.



1991
2011

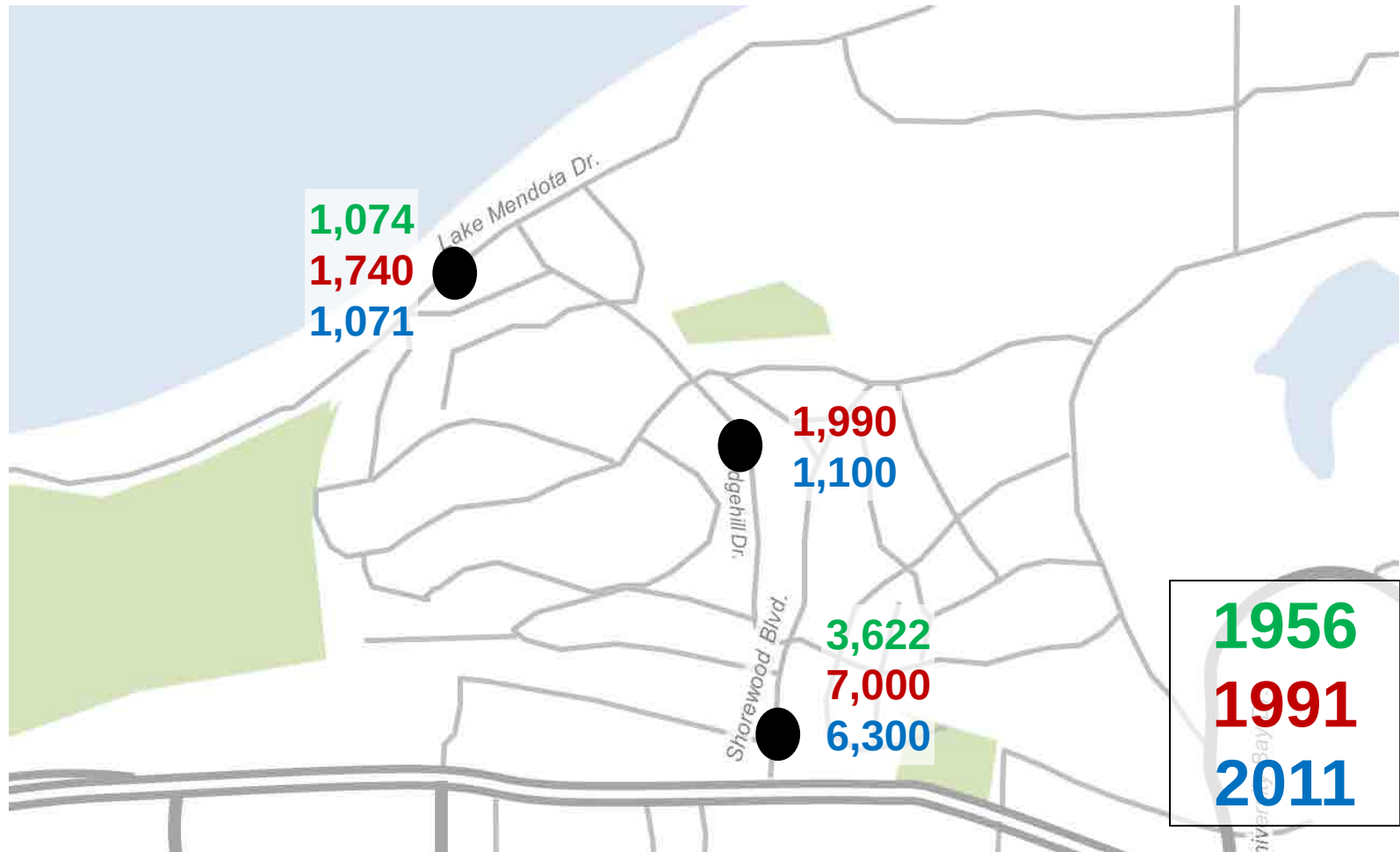
Traffic Volumes

- Generally have maintained or decreased on sidestreets between 1991 and 2011



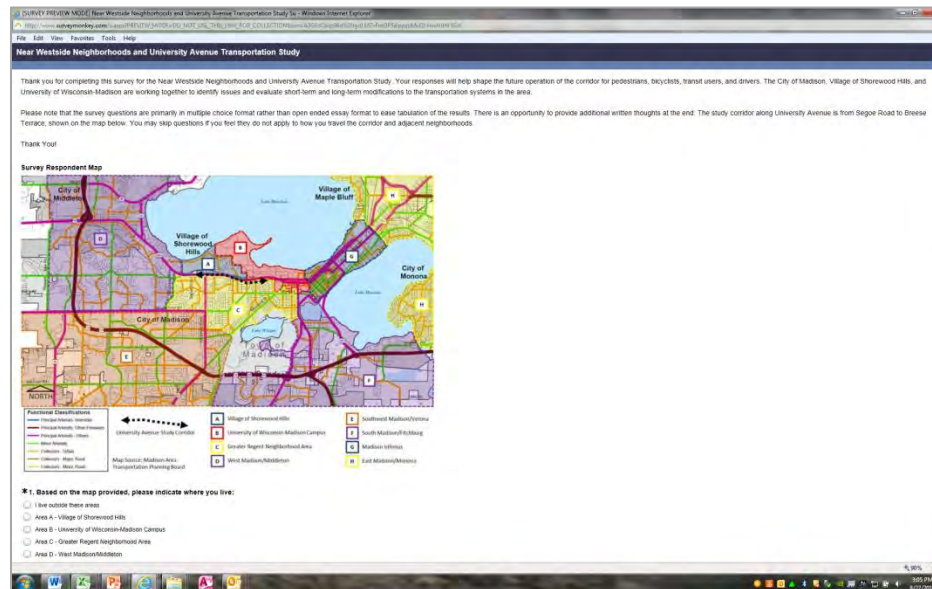
Traffic Volumes

- Generally have maintained or decreased on sidestreets between 1991 and 2011



Results of Online Survey:

- Over 1,000 Responses
- 34% live in the Village
- 33% live in the greater Regent neighborhood
- 29% work at UW, 11% on the Isthmus



Results of Online Survey:

- Traveling the corridor – at least a few times per week:

	Village	Regent Neighborhood	Overall Survey
Drive to work	76%	46%	60%
Drive for errands	94%	79%	81%
Metro Transit	15%	33%	27%
Bicycle	46%	48%	42%
Walk	38%	42%	32%

Results of Online Survey:

- Motor vehicle issues - ranking:

	Village	Regent Neighborhood	Overall Survey
Peak congestion along corridor	1 st	2 nd	1 st
Crossing or left-turns out	2 nd	5 th	2 nd
Congestion at major intersections	3 rd	1 st	3 rd
Left-turns from University	4 th	4 th	4 th
Speeds	5 th	3 rd	5 th

Results of Online Survey:

- Neighborhood transportation issues - ranking:

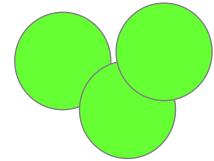
	Village	Regent Neighborhood	Overall Survey
East-west bike connections	1 st	1 st	1 st
Bike/ped crossings	3 rd	2 nd	2 nd
North-south bike connections	4 th	3 rd	3 rd
Cut-through traffic	2 nd	5 th	4 th
On-street commuter parking	5 th	4 th	5 th

Results of Online Survey:

- Level of corridor modifications:

	Village	Regent Neighborhood	Overall Survey
Small to manage impacts	55%	59%	60%
Major to prevent and/or reverse impacts	35%	32%	30%
None	10%	9%	10%

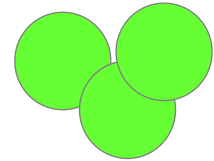
Results of *Shorewood Hills* Workshop #1



- Dot Exercise and Written Comments

- ★ • Reduce cut through traffic (15 dots)
- ★ • Implement light rail/improved transit (8 dots)
- ★ • Improve bike/ped crossings (7 dots)
 - Provide park and ride lots (5 dots)
 - Reduce speeds on local streets (3 dots)
 - Improve bike system connections (3 dots)
- ★ • *Continue to encourage mode shift* (16 dots)

Results of *Greater Regent Neighborhood* Workshop #1



- Dot Exercise and Written Comments

- ★ • Enhanced transit/mode shift (32 dots)
- ★ • Pedestrian and bike crossings of University Ave. (21 dots)
- ★ • Parking issues on neighborhood streets (16 dots)
- ★ • Cut through traffic (14 dots)
 - Bike system connectivity (9 dots)
 - Reduce speeds on neighborhood streets (5 dots)

Enhanced Transit

- Enhanced Transit
 - Giving lane to buses without expansion:
 - Concern regarding violations and speed differentials due to significant congestion upon opening
 - Requires about 20% reduction in MV traffic = 1987 traffic levels <or>
 - Requires 50% to 60% increase in transit ridership
 - BRT study did not propose dedicated lanes in this area due to ROW constraints
 - Transport 2020, Bus Rapid Transit, Other...?
- Pending creation of Regional Transit Authority

Enhanced Transit

- Transit Priority
 - Measures that allow transit (buses) to achieve quicker travel times, improve service reliability, and increase incentives for travel by transit
 - For this corridor potential measures could include:
 - Queue jump lanes at major intersections
 - Transit signal priority



Accommodate Modal Shift

- All Roadway Modifications will Consider Impacts to:
 - Pedestrians
 - Bicyclists
 - Transit Users
 - Motor Vehicles
- Identify the Most Effective Means to Reduce SOMV Demand during Peak Hours
 - Limit Parking
 - Park and Ride Opportunities
 - Incentives for Telecommuting and Staggered Shifts



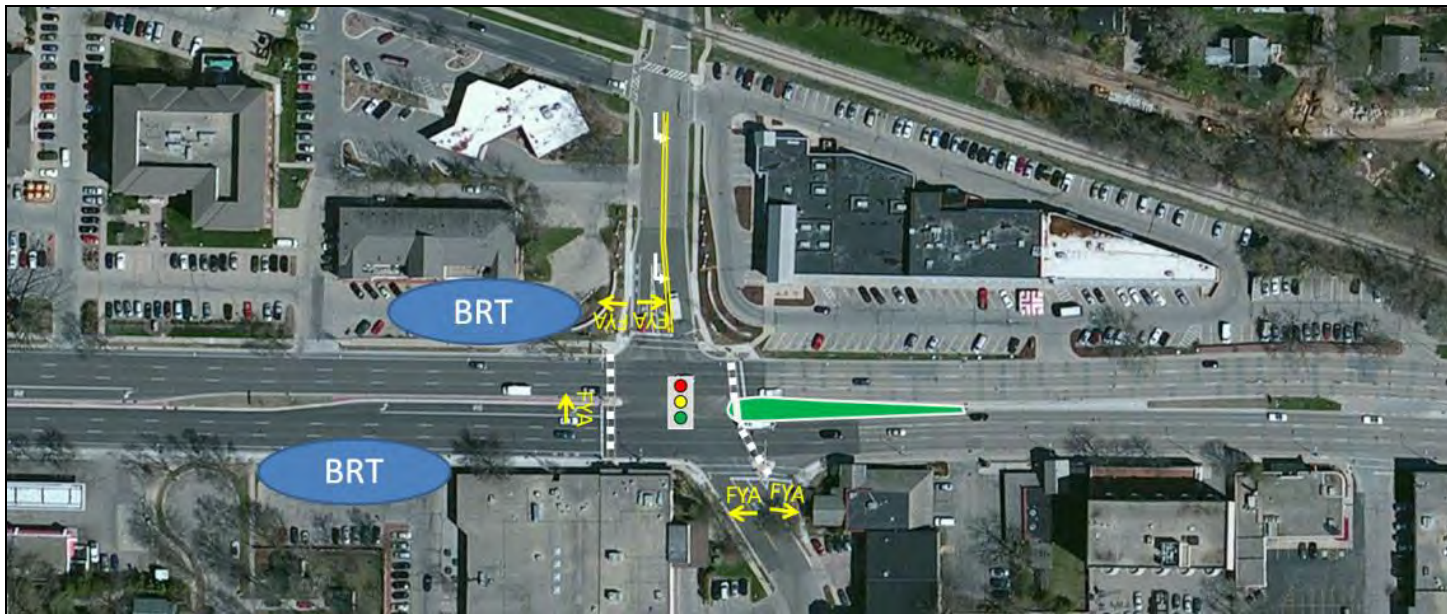
Bike and Pedestrian Crossings

- Clearly Voiced Concerns and Proposals

Citizens for Safe Corridors “Asks”	Current Status
Enhance corridor crosswalks	Investigating costs
“Vehicles Stop Here” signage at all stop bars	Investigating MUTCD usage, concern about over usage
Half signal at Blackhawk Avenue	May be possible, dependent on overall corridor modifications
Ped activated blankout signs “No Right-Turn When Pedestrians are Present”	Static signs more feasible, would be on a case by case basis
Advanced ped timings	Some exist, investigating others
Reduce speed limit to 30 mph	Speed data does not support this
Broad public education effort	Project team supports this

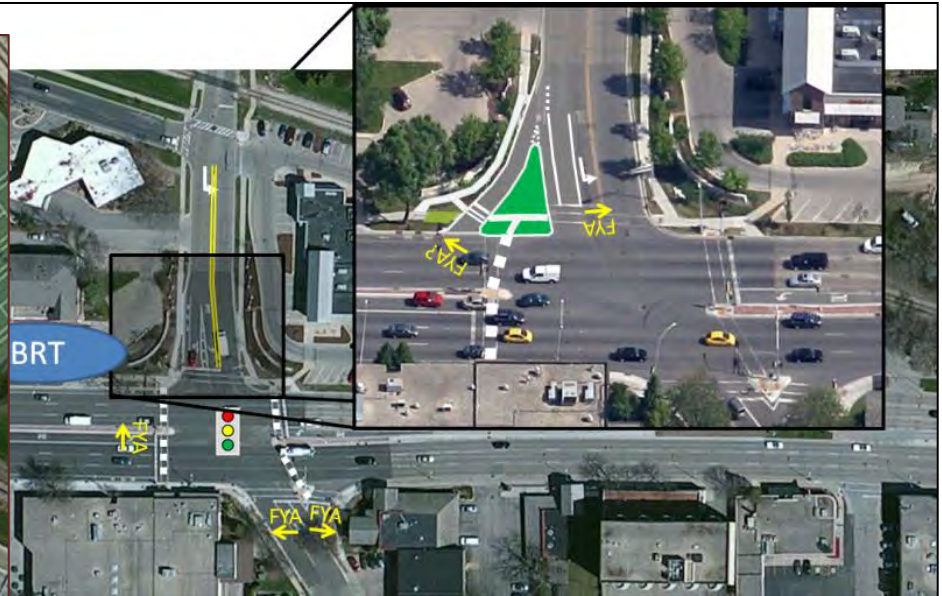
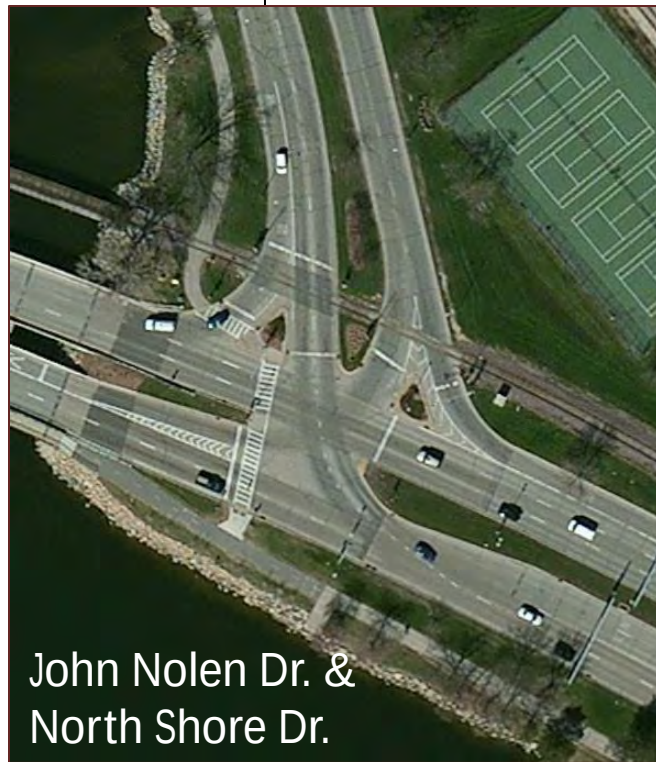
Bike and Pedestrian Crossings

- Multiple modifications being considered at Shorewood Boulevard



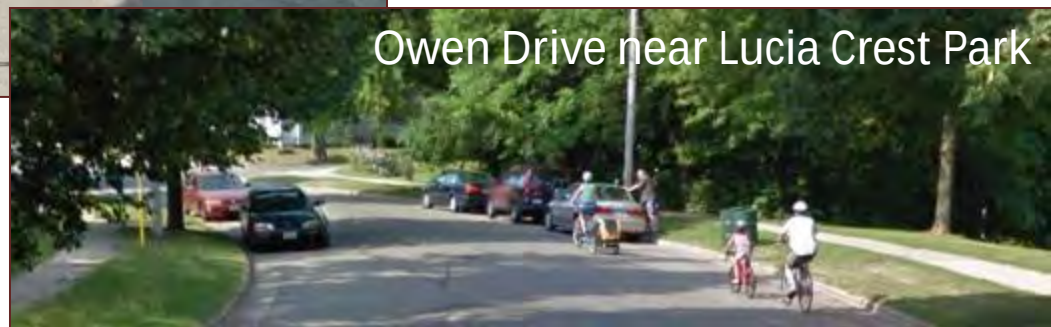
Bike and Pedestrian Crossings

- Multiple modifications being considered at Shorewood Boulevard



Neighborhood Parking

- Streets are used by varying degrees by commuters who complete their trip by foot, bike, or bus



Neighborhood Parking

- Consider participating in the RP3 program:
 - Block by block program
 - Petition among neighbors showing >50% support and willingness to pay for permit parking program
 - At least one side or 50% must be zoned residential
 - A majority of the on street spaces must be occupied by commuter vehicles a majority of the time from 8:00 am to 6:00 pm.

PHONE NUMBERS RELATED TO PARKING ISSUES

Parking questions:	
If your vehicle was towed:	236-4170
The Snow Emergency Hotline:	381-9111

To report:

- an abandoned vehicle on a public street: 236-4024
- an abandoned vehicle on private property: 236-4278
- a private parking violation: 236-4278
- an on-street parking violation: 236-4278
- a malfunctioning meter: 236-4951

Target related questions:

To schedule a court to contest a parking ticket 5 days after ticket was issued call: 236-4170

If you have a ticket issued to enter:

- recorded information line: 791-9604
- outstanding parking tickets: 236-4170

Questions about:

- Residential Parking Permits: 237-1164
- Parks and Public Lots: 231-6265
- Parking restrictions at bus stops: 231-6265
- Street signs or meter signs: 236-4951
- A vehicle purchased used: 236-4170

For all other parking-related questions: 236-4022

Brochure Courtesy of City Of Madison Traffic and Parking Division revised 10/2013

Parking in Madison's Residential Neighborhoods

Including:

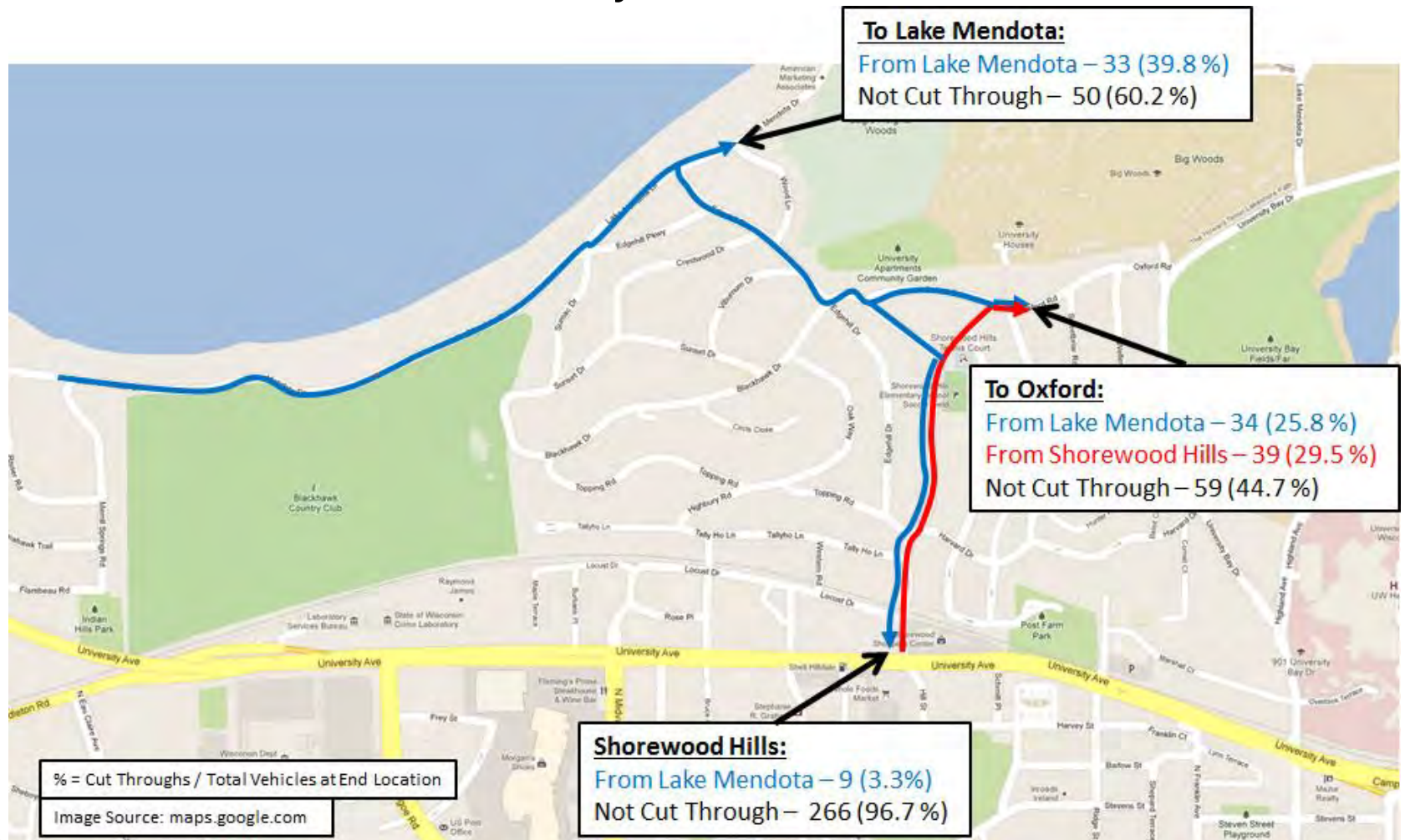
- Neighborhood Parking Permit Program regulations
- FADS about parking in residential areas
- Winter Parking Information
 - Alternate Side Parking
 - Snow Emergency Rules
- FADS about Winter Parking
- Overview of the City of Madison Resources
- Parking Enforcement Contact Numbers

Website Links:

- Winter Parking: www.cityofmadison.com/transportation/parking
- Everything you need to know about winter parking
- City of Madison Home Page: www.cityofmadison.com
- Information about City Agencies, local activities, neighborhood associations, homeowner and voter information, cultural resources and a variety of links to other Madison resources.
- City of Madison Services: www.cityofmadison.com/cityservices
- Division of Transportation: www.cityofmadison.com/transportation
- Report a problem: www.cityofmadison.com/reportaproblem.do
- Neighborhood Traffic Management: www.cityofmadison.com/transportation/neighborhoodtraffic.do
- Building Inspection: www.cityofmadison.com/building
- Information back to homeowners including Street Occupancy Permits, Righting Permits and zoning information.

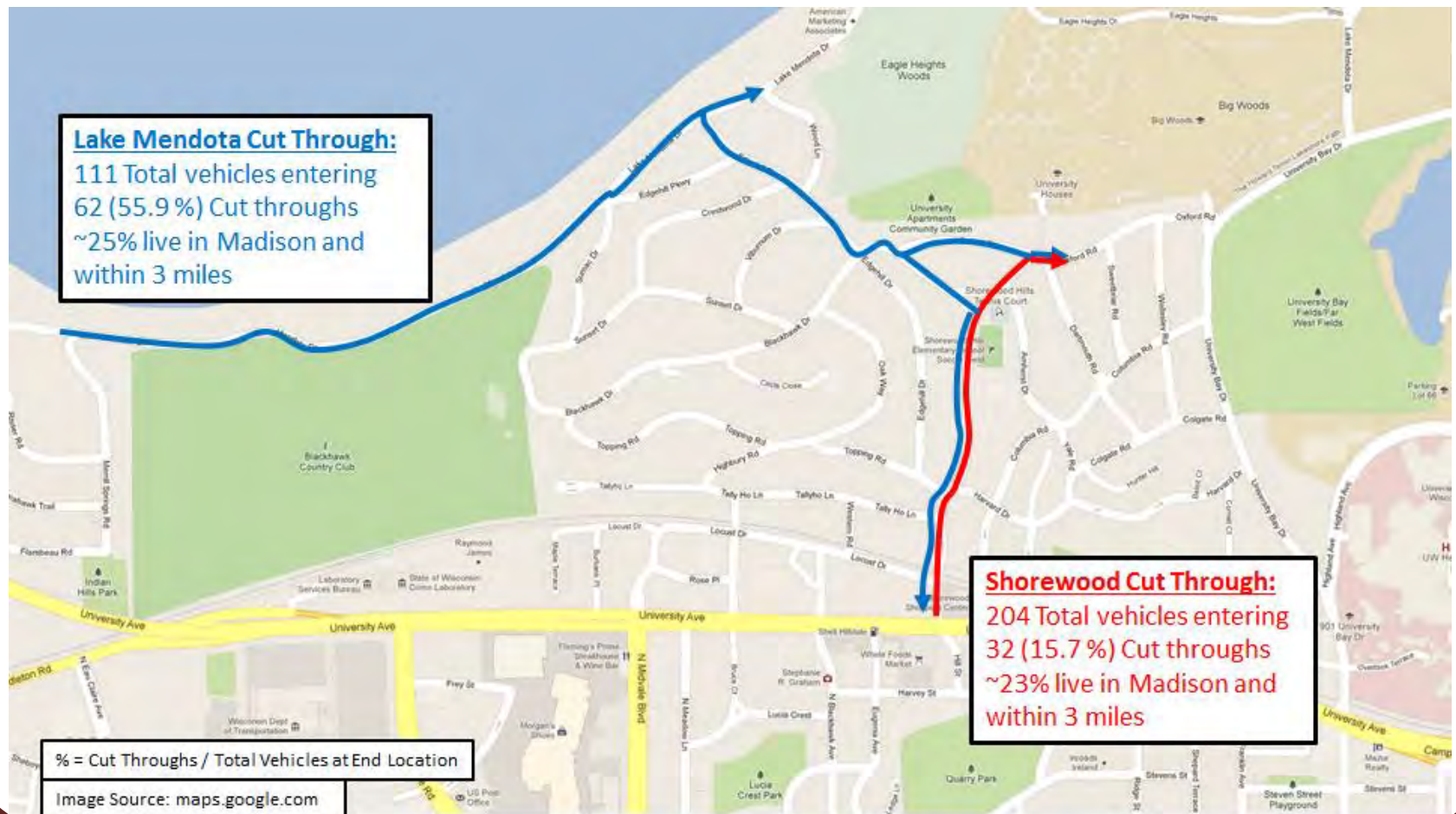
Cut Through Traffic

- Field License Plate Survey – AM Inbound 7:30 to 8:30 AM



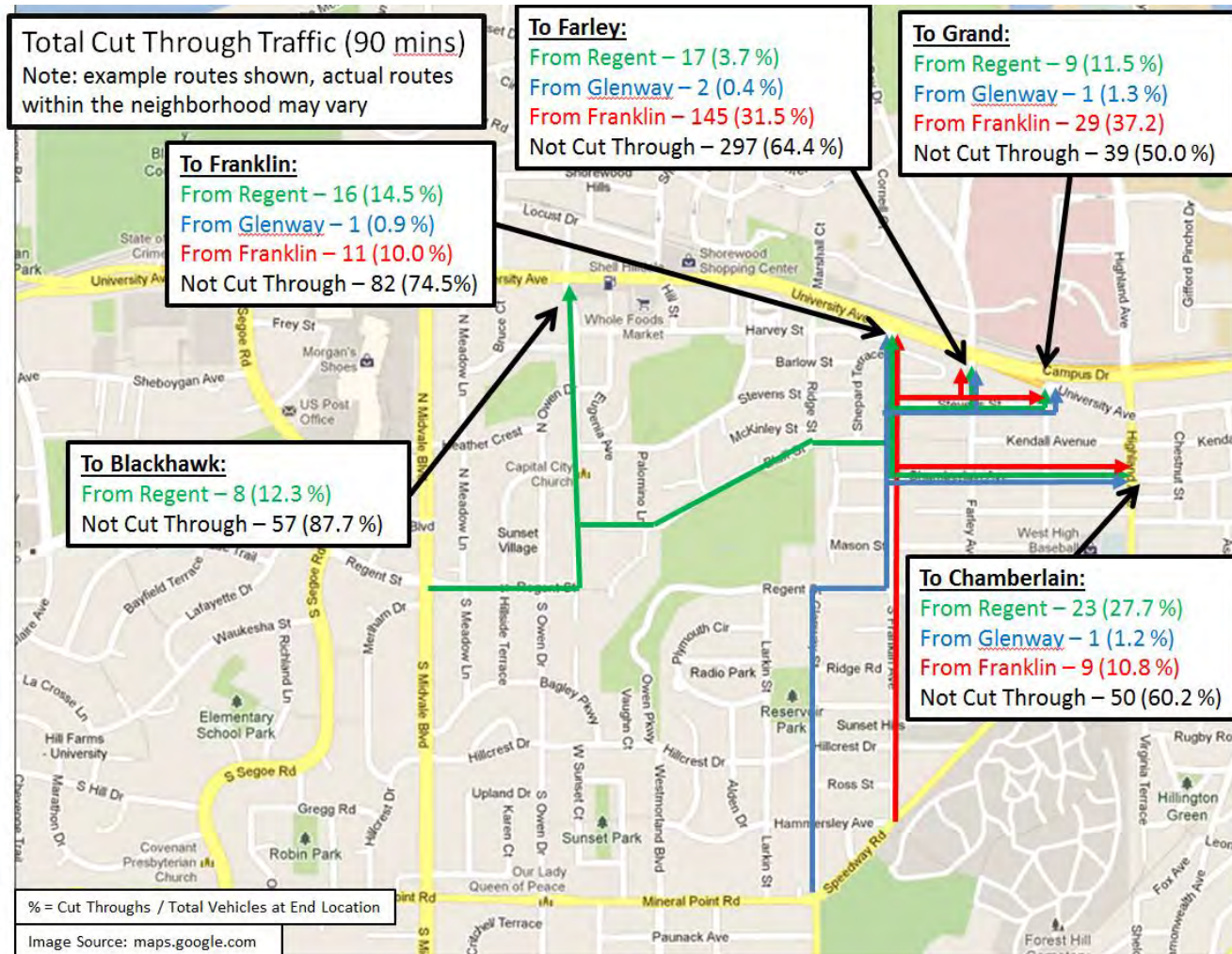
Cut Through Traffic

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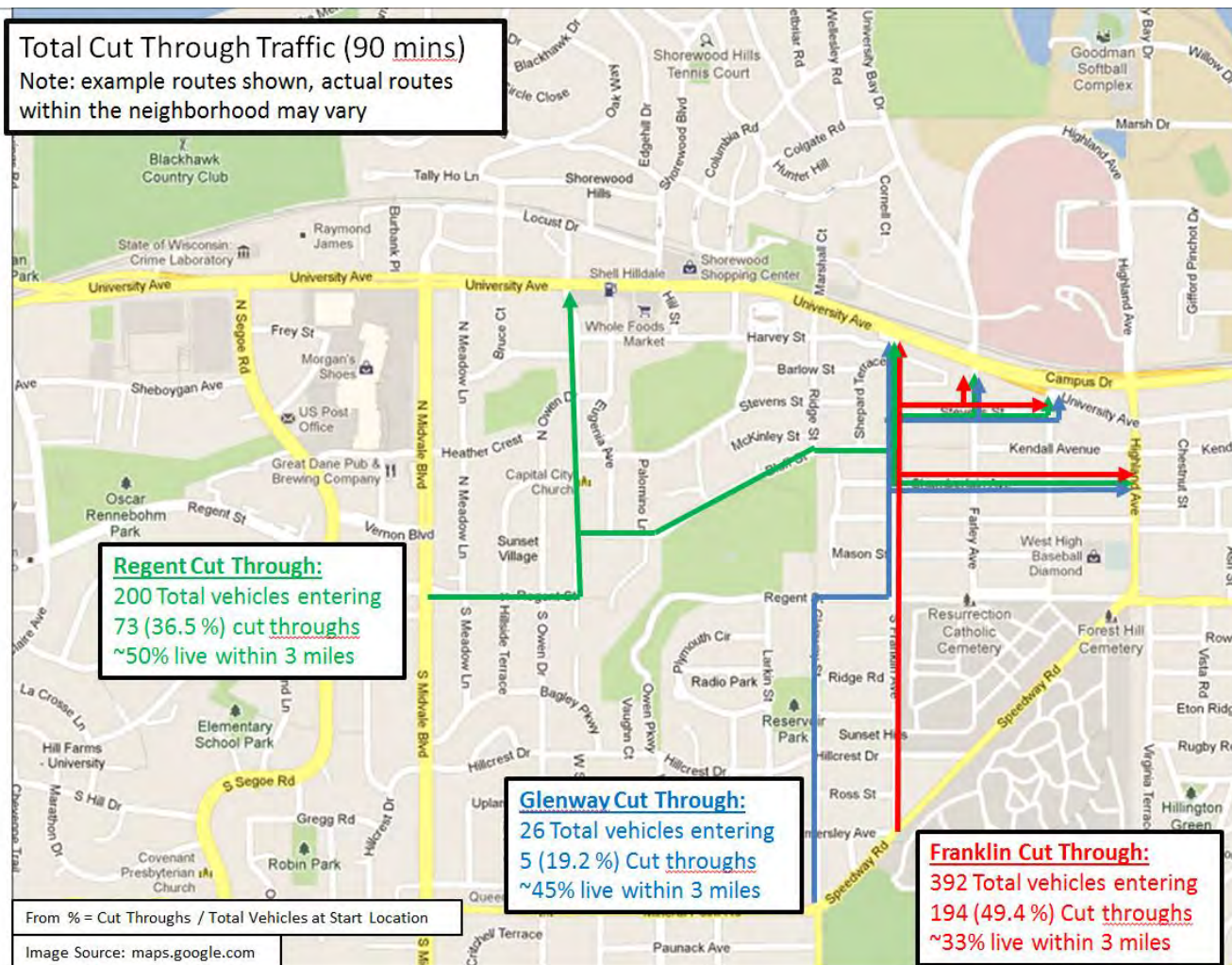
Cut Through Traffic

- Field License Plate Survey – AM Inbound 7:00 to 8:30 AM



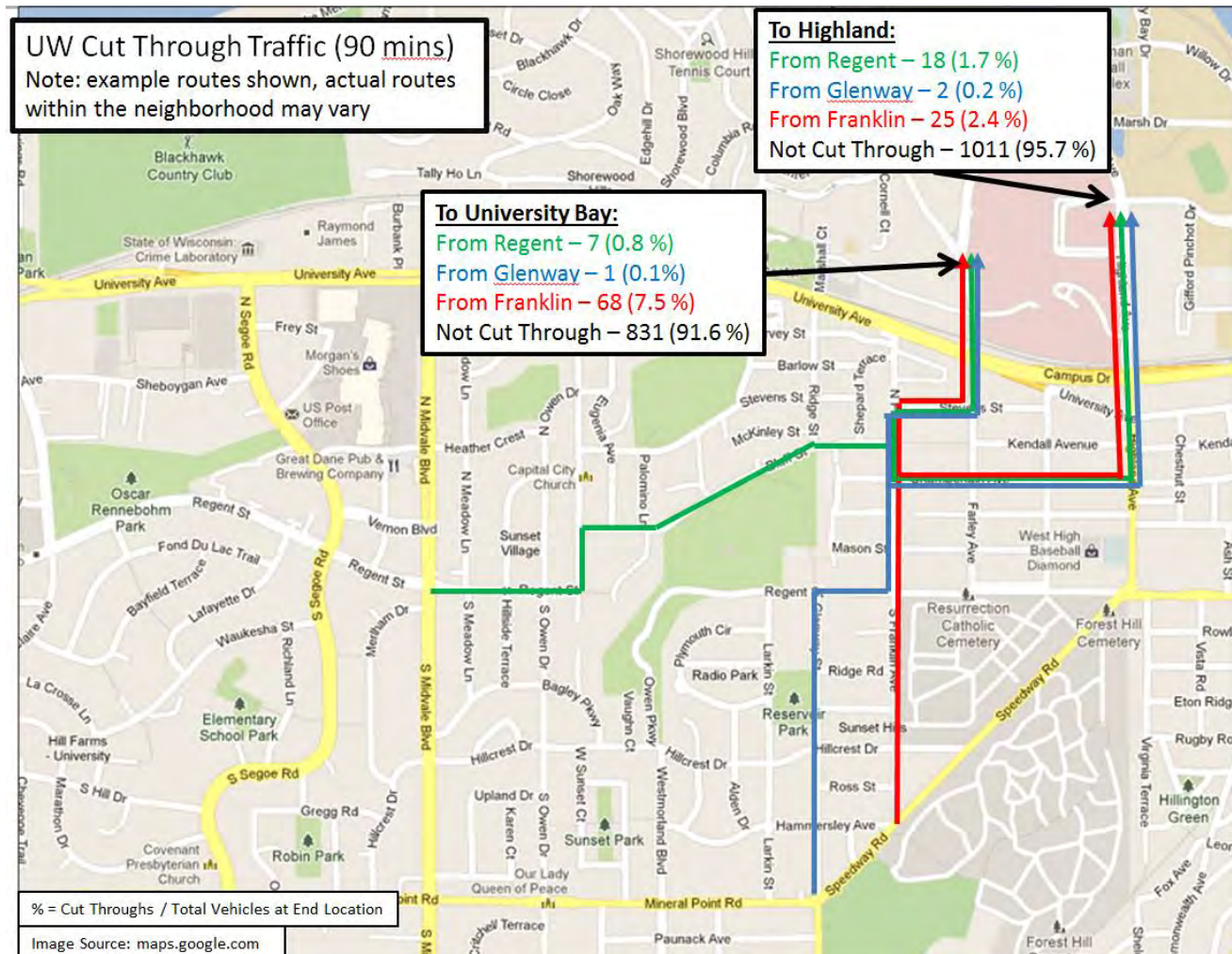
Cut Through Traffic

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Cut Through Traffic

- Field License Plate Survey – AM Inbound 7:00 to 8:30 AM



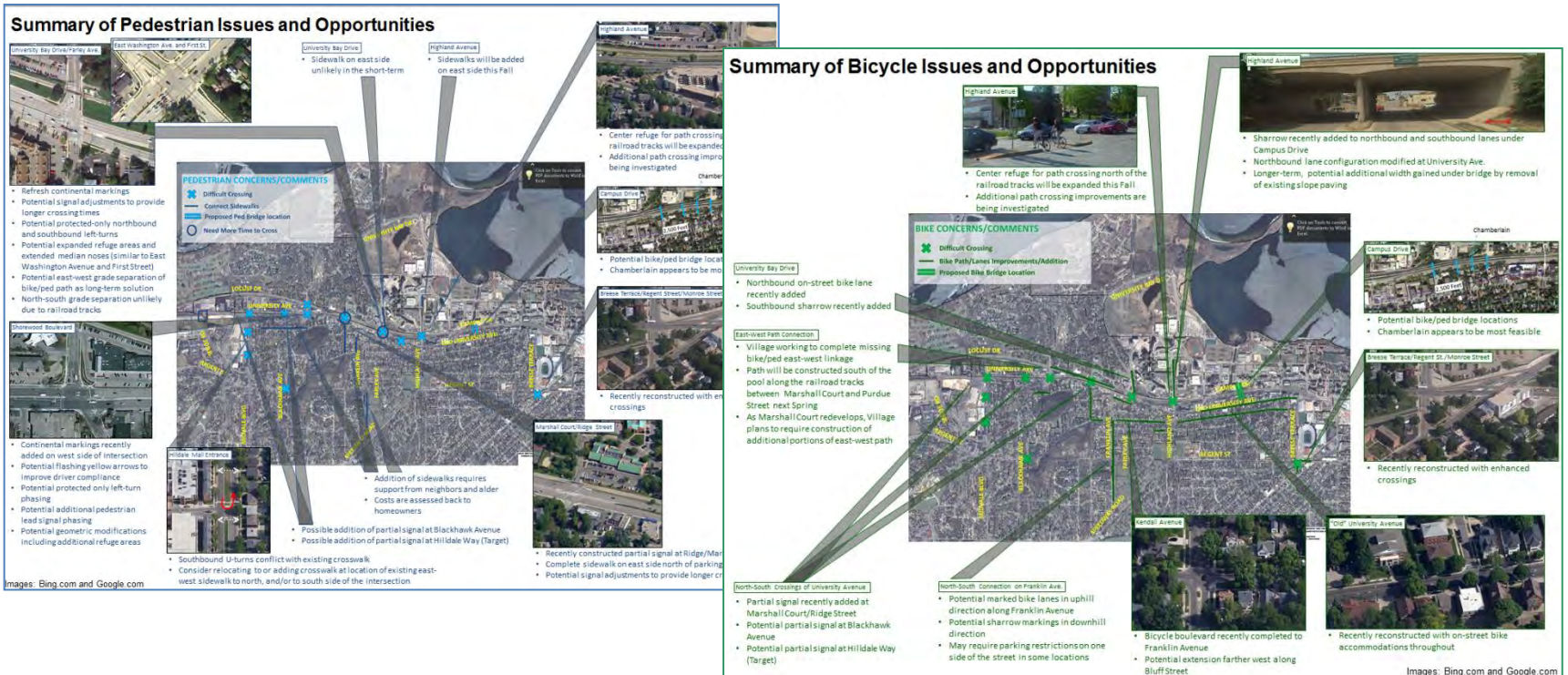
Cut Through Traffic

- Mitigation Strategies
 - Education
 - Yard signs encouraging slower speeds
 - Permanent speed display signs
 - First day of school/periodic roadside gatherings of neighbors
 - Enforcement (speed limit)
 - Engineering
 - Additional calming measures
 - Permanent changes in circulation (one-way streets or removal of access)



Workshop Exhibits:

1. Pedestrian Issues and Opportunities
2. Bike Issues and Opportunities



Workshop Exhibits:

3. Summary of Transit Conditions

4. Existing ROW and Potential Transit Priority

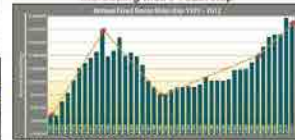
Summary of Transit Conditions

Metro Transit



In 2011, more than 14.9 million rides were recorded on Metro Transit. Currently 8.6 percent of work trips in Madison use transit, which is significantly higher than other cities.

Increasing Metro Ridership



Source: www.transpor020.net

Bus Rapid Transit



The Madison Transit Corridor Study (BRT Study) evaluated the Rapid Transit (BRT) system. The study, completed in May 2013, was funded by a federal Sustainable Communities Planning grant administered by the Capital Area Regional Planning Commission (CARPC). The BRT Study evaluated four corridors: north, south, east and west out of which a common central segment in the UW Campus area and central business district most heavily traveled transit corridors in the city with over 20,000 of about 80,000 West corridor, the study analyzed a Mineral Point Road alignment that included a guideway in the median of University Avenue.

The study concluded that the fixed guideway alternative (BRT-only lanes in the median of University Avenue) would require additional right-of-way to be purchased from adjacent businesses, particularly severe impacts east of Shorewood Boulevard.

Summary of Existing Right-of-Way and Potential Transit Priority

University Avenue Width Constraints make Providing Dedicated Lanes Difficult



~100' of width buildings to parking

~100' of width buildings to retaining wall

~110' of ROW/width

~120' of ROW/width

~135' to 150' of existing Right of Way/usable width

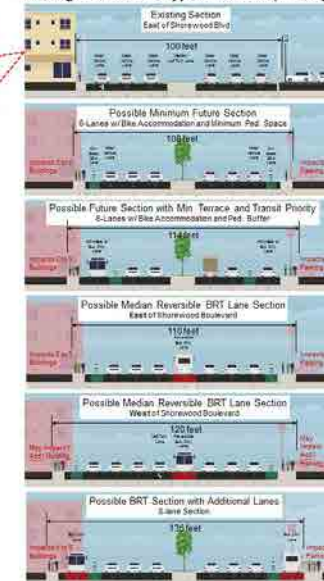
Potential Transit Priority along University Avenue at Intersections

Transit priority measures are roadway treatments that allow transit (buses) to achieve quicker travel times. Improving travel times for transit provides an incentive for transit use and can increase the people carrying capacity of the corridor.



Source: BRT Service Design Guidelines, VTA Transit Sustainability Policy

Existing and Potential Typical Sections (Looking West)

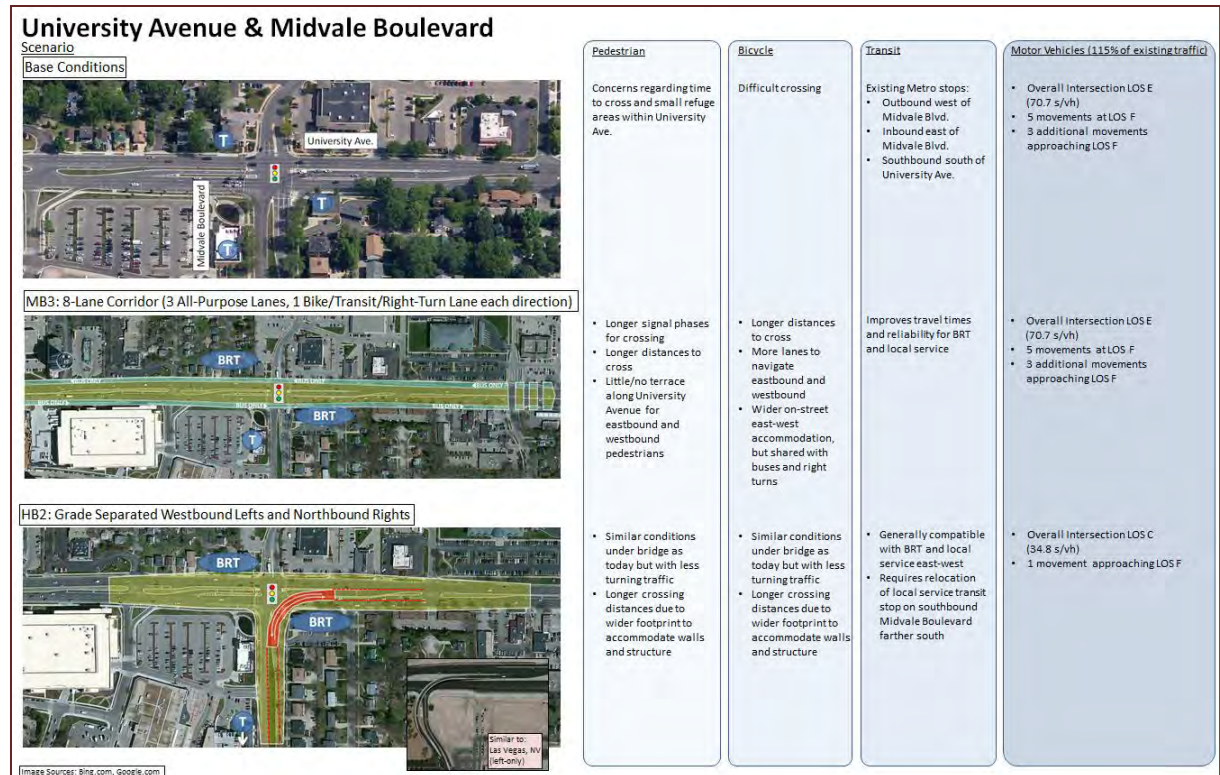


Workshop Exhibits:

5. Corridor Modification Options

Base conditions
shown on top row
of each set of
exhibits

Options generally
proceed from
lower build to
higher build



LB = Lower build, options that likely do not require property

MB = Medium build, likely require property but no relocations or grade separations

HB = Higher build, likely require property, relocations, and/or grade separations

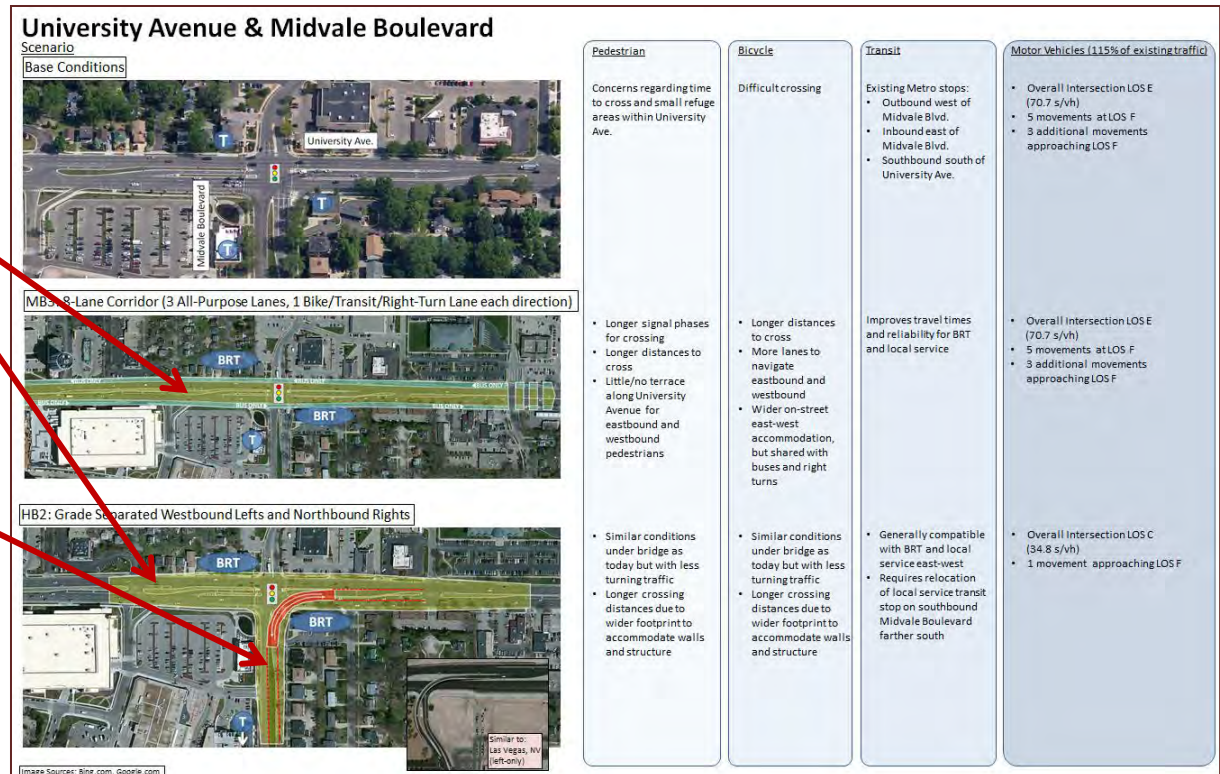
Workshop Exhibits:

5. Corridor Modification Options

Yellow areas show approximate footprint

Orange/red areas show bridges/walls

Medium and Higher build Alternatives would include on-street bike accommodations



Workshop Exhibits:

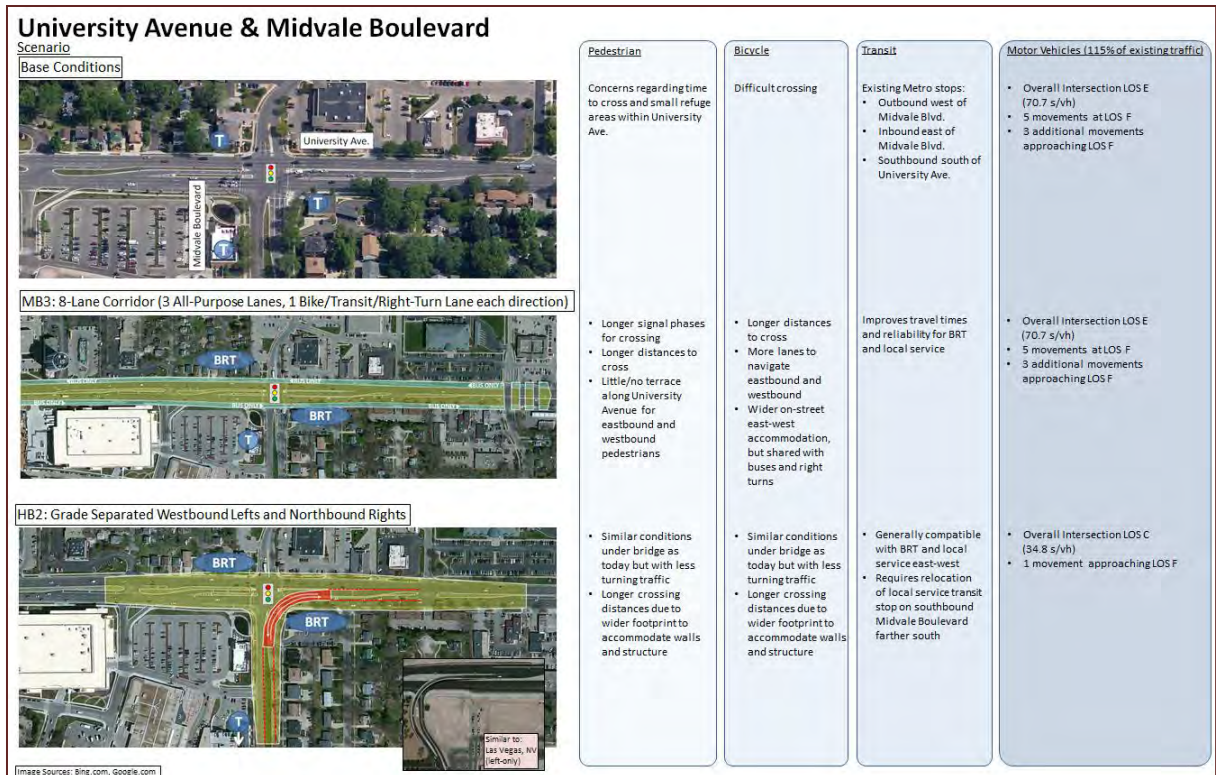
5. Corridor Modification Options

BRT = Bus Rapid Transit

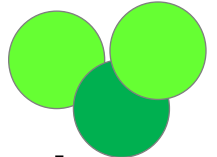
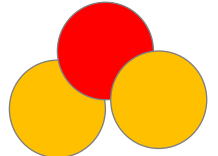
LOS = Level of Service for Cars and Buses

- A through D generally acceptable
- E indicates high congestion
- F indicates volume exceeds capacity

FYA = Flashing Yellow Arrow



Prioritization Exercise:

1. Add notes directly to the maps if you wish.
2. **Place green “dot” stickers near**  modifications you feel are the highest priority or most desirable.
3. **Place orange/red “dot” stickers near** modifications you feel are low priority, or are not reasonable/desirable 

Near Westside Neighborhood and University Avenue Corridor Transportation Study Public Workshop #2

Village
of
Shorewood
Hills



FROM:

Name:
Address:
Representing:

Attn: Jeff Held, P.E., PTOE
Strand Associates, Inc.
910 West Wingra Drive
Madison, WI 53715

Your input is very important to the **Study Partners** (the Village of Shorewood Hills, University of Wisconsin - Madison, and City of Madison). In the space below, please provide your comments regarding the Near Westside Neighborhood and University Avenue Transportation Study. (Please attach another sheet if needed.)

[illegible]

FOLD HERE



Strand Associates, Inc.
910 West Wingra Drive
Madison, WI 53715

Place
Stamp
Here

Attn: **Jeff Held, P.E., PTOE**
Strand Associates, Inc.
910 West Wingra Drive
Madison, WI 53715

FOLD HERE

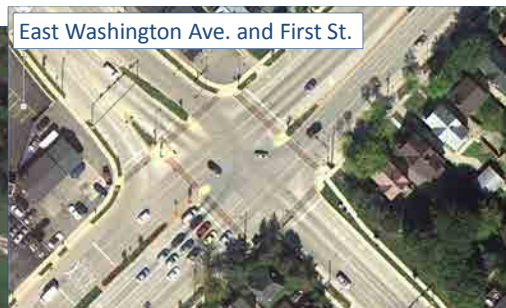
Summary of Ped. Issues and Opportunities (with Village WS Comments)



Summary of Ped. Issues and Opportunities (with Madison WS comments)



- Refresh continental markings
- Potential signal adjustments to provide longer crossing times
- Potential protected-only northbound and southbound left-turns
- Potential expanded refuge areas and extended median noses (similar to East Washington Avenue and First Street)
- Potential east-west grade separation of bike/ped path as long-term solution
- North-south grade separation unlikely due to railroad tracks



University Bay Drive

- Sidewalk on east side unlikely in the short-term

Highland Avenue

- Sidewalks will be added on east side this Fall



- Center refuge for path crossing north of the railroad tracks will be expanded this Fall
- Additional path crossing improvements are being investigated



- Potential bike/ped bridge locations
- Chamberlain appears to be most feasible



- Recently reconstructed with enhanced crossings



- Continental markings recently added on west side of intersection
- Potential flashing yellow arrows to improve driver compliance
- Potential protected only left-turn phasing
- Potential additional pedestrian lead signal phasing
- Potential geometric modifications including additional refuge areas



- Southbound U-turns conflict with existing crosswalk
- Consider relocating to or adding crosswalk at location of existing east-west sidewalk to north, and/or to south side of the intersection

**Need all-way stop:
Blackhawk & Regent**

- Addition of sidewalks requires support from neighbors and alder
- Costs are assessed back to homeowners

- Possible addition of partial signal at Blackhawk Avenue
- Possible addition of partial signal at Hilldale Way (Target)



- Recently constructed partial signal at Ridge/Marshall Court
- Complete sidewalk on east side north of parking lot
- Potential signal adjustments to provide longer crossing times

Summary of Bicycle Issues and Opportunities (with Village WS Comments)

No RTOR from Farley to University Ave./ Campus Drive

1. Peds/bikes crossing south leg, westbound get hit
2. Bikes riding NB on east sidewalk wait near/in the street because of insufficient storage at SE corner.



- Center refuge for path crossing north of the railroad tracks will be expanded this Fall
- Additional path crossing improvements are being investigated



- Sharrow recently added to northbound and southbound lanes under Campus Drive
- Northbound lane configuration modified at University Ave.
- Longer-term, potential additional width gained under bridge by removal of existing slope paving

University Bay Drive

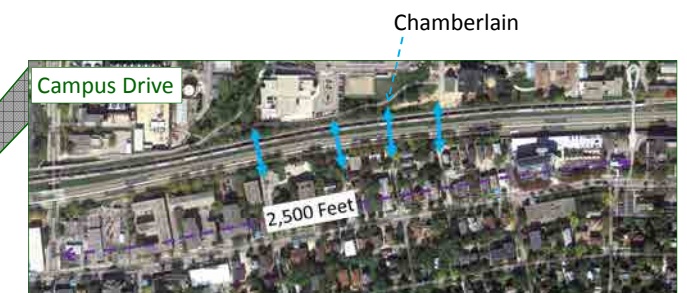
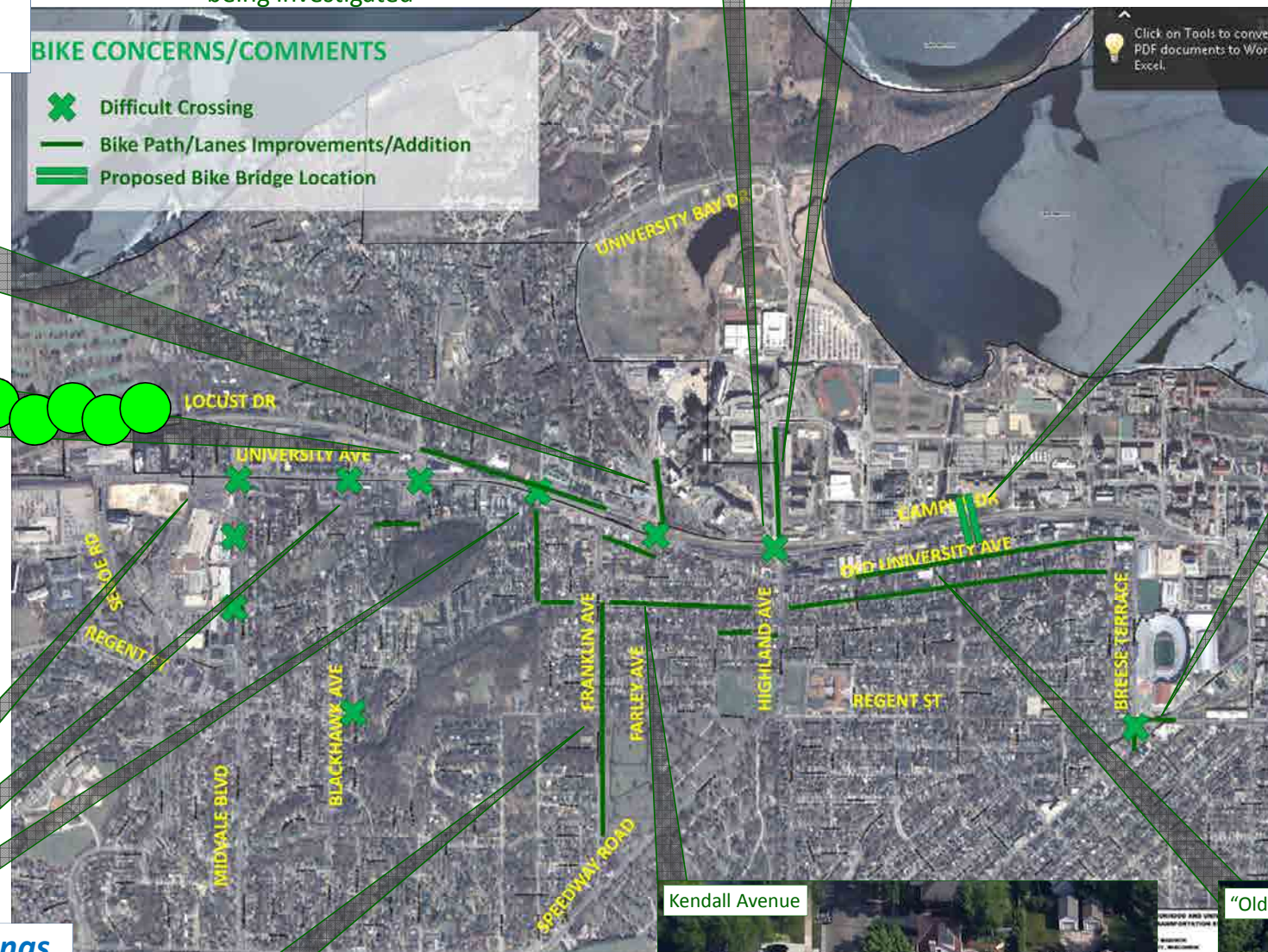
- Northbound on-street bike lane recently added
- Southbound sharrow recently added

East-West Path Connection

- Village working to complete missing bike/ped east-west linkage
- Path will be constructed south of the pool along the railroad tracks between Marshall Court and Purdue Street next Spring
- As Marshall Court redevelops, Village plans to require construction of additional portions of east-west path

BIKE CONCERNS/COMMENTS

- ✗ Difficult Crossing
- Bike Path/Lanes Improvements/Addition
- Proposed Bike Bridge Location



- Potential bike/ped bridge locations
- Chamberlain appears to be most feasible



- Recently reconstructed with enhanced crossings

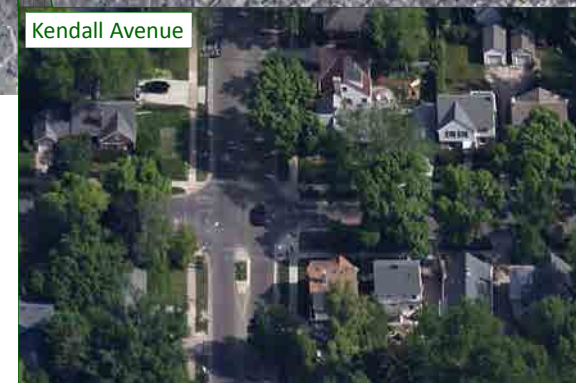
Better signage, improved markings, and increased refuge areas at University Ave. & Blackhawk

North-South Crossings of University Avenue

- Partial signal recently added at Marshall Court/Ridge Street
- Potential partial signal at Blackhawk Avenue
- Potential partial signal at Hilldale Way (Target)

North-South Connection on Franklin Ave.

- Potential marked bike lanes in uphill direction along Franklin Avenue
- Potential sharrow markings in downhill direction
- May require parking restrictions on one side of the street in some locations



- Bicycle boulevard recently completed to Franklin Avenue
- Potential extension farther west along Bluff Street



- Recently reconstructed with on-street bike accommodations throughout

Summary of Bicycle Issues and Opportunities (with Madison WS comments)



- Center refuge for path crossing north of the railroad tracks will be expanded this Fall
- Additional path crossing improvements are being investigated



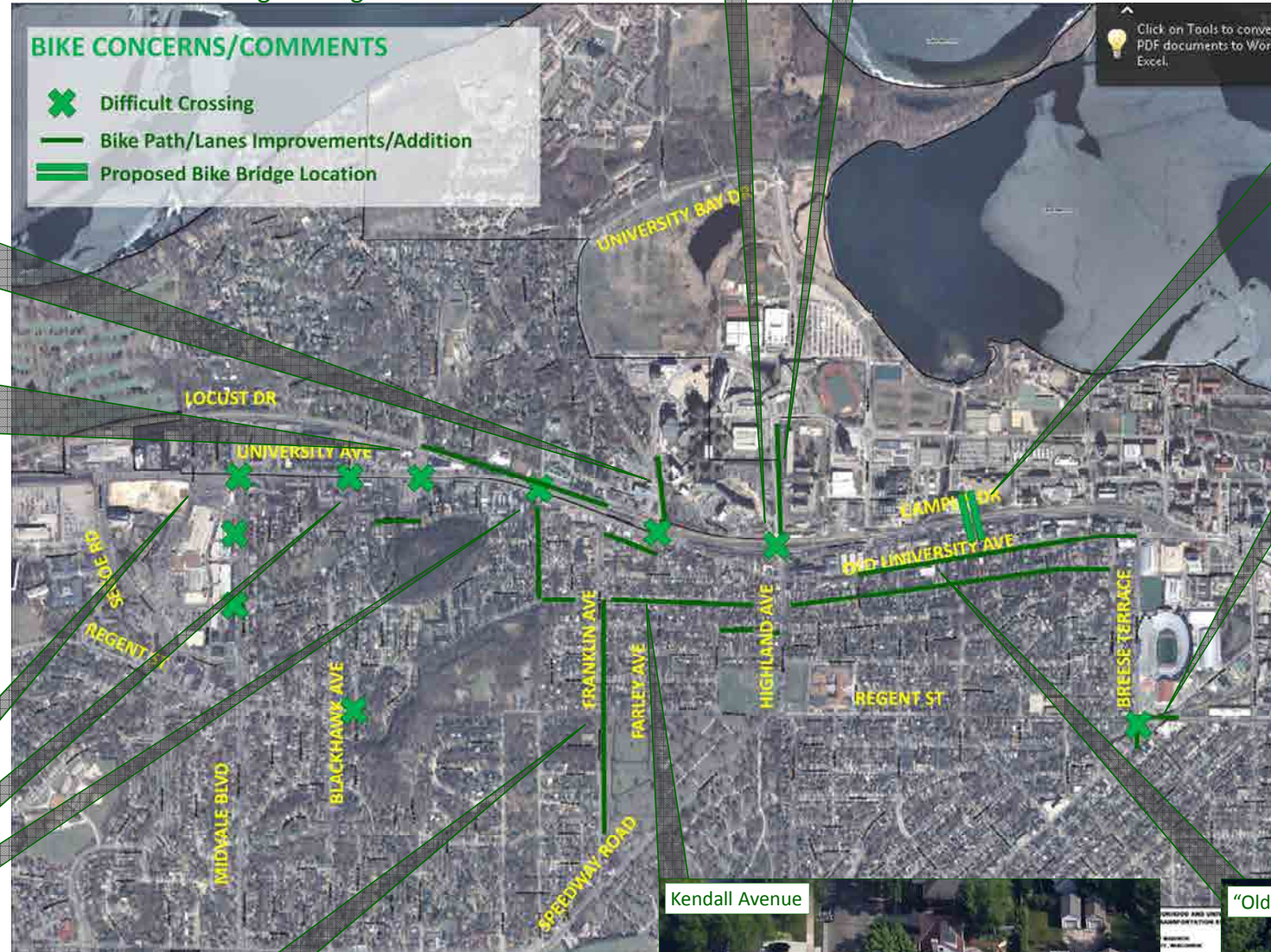
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University Bay Drive

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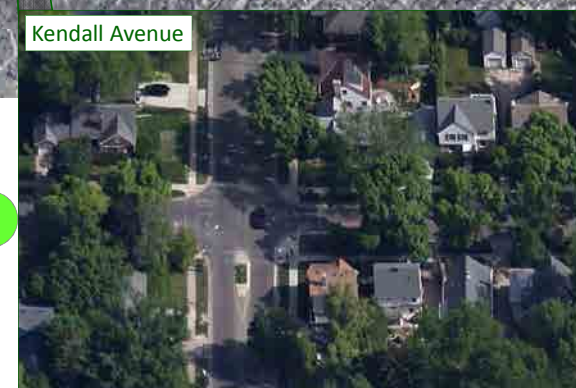
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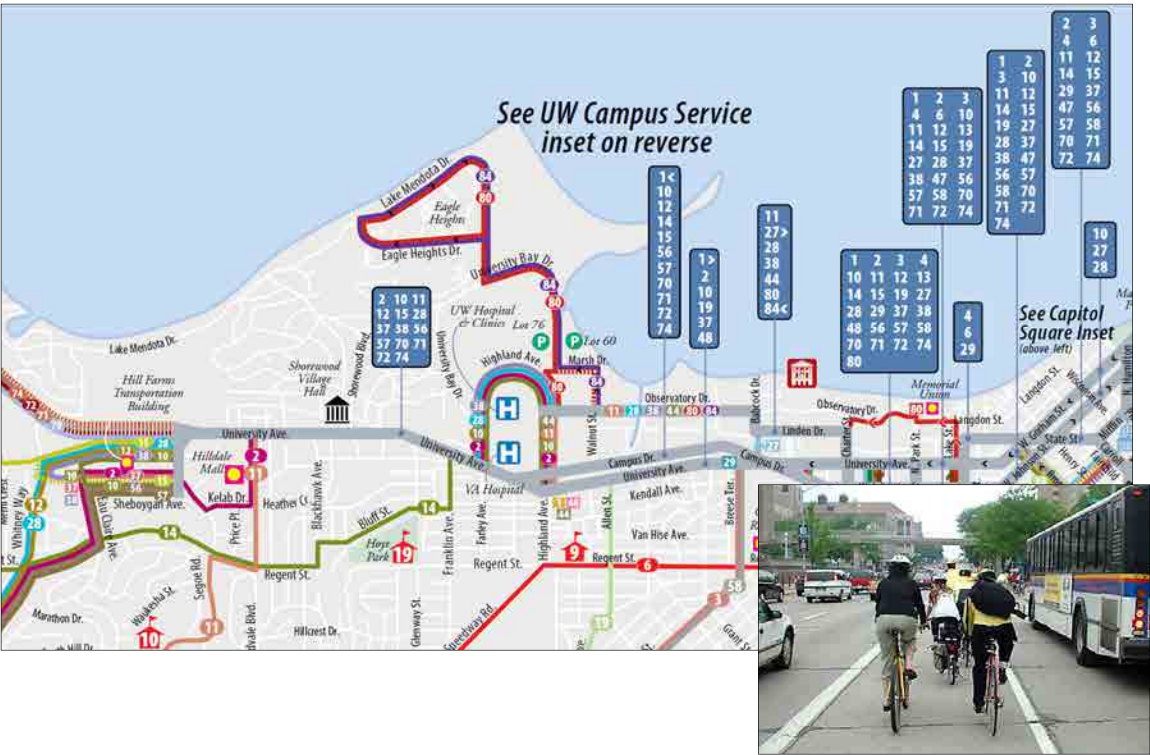
- Bicycle boulevard recently completed to Franklin Avenue
- Potential extension farther west along Bluff Street



- Recently reconstructed with on-street bike accommodations throughout

Summary of Transit Conditions (with comments from Madison Workshop)

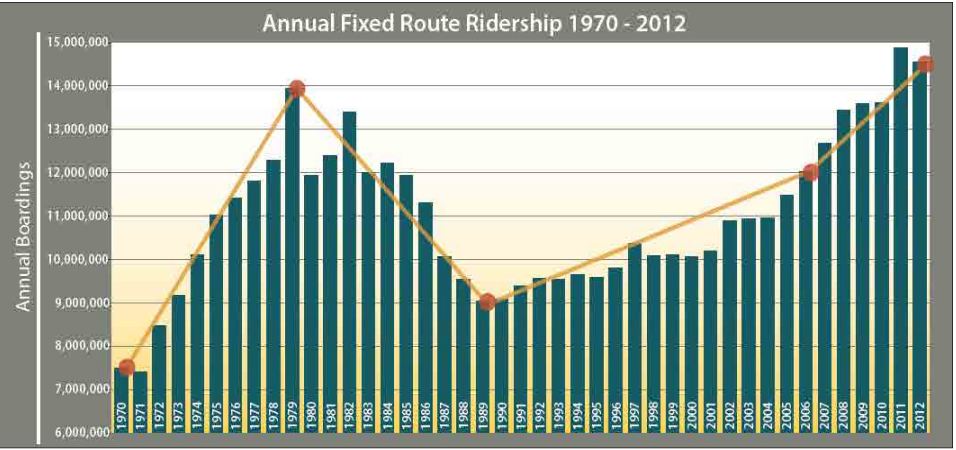
Metro Transit



In 2011, more than 14.9 million rides were recorded on Metro Transit, a 9.5 percent increase over 2010. Currently 8.6 percent of work trips in Madison use transit, which ranks 44th in the nation.

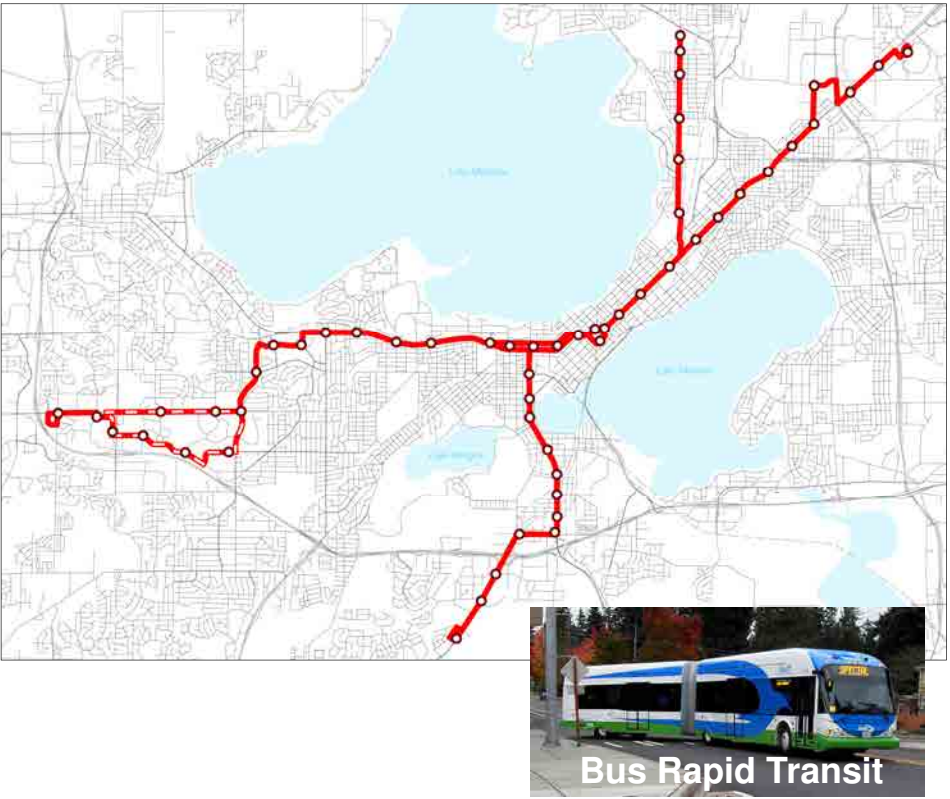
University Avenue is an extremely important transit corridor. There are 16 Madison Metro route numbers that serve University Avenue, not including supplemental school service. Almost 490 buses travel on University Avenue during a typical weekday, not including school service.

Increasing Metro Ridership



Increase bus frequency.

Bus Rapid Transit



The Madison Transit Corridors Study (BRT Study) evaluated Bus Rapid Transit (BRT) in the Madison area. The study, completed in May 2013, was funded by part of a federal Sustainable Communities Regional Planning grant administered by the Capital Area Regional Planning Commission (CARPC), and led by the MPO. The BRT Study evaluated four corridors: north, south, east and west out of the downtown area that included a common central segment in the UW Campus area and central isthmus. Those corridors are the most heavily traveled transit corridors in the city with over 20,000 of about 60,000 total daily boardings. In the West corridor, the study analyzed a Mineral Point Road alignment that included an option for 4.3 miles of fixed guideway in the median of University Avenue.

The total estimated cost of the BRT system is about \$138 Million (2016 dollars). Daily ridership is forecasted to range from about 4,000 to 10,000 trips per day on each of the corridors.

The study concluded that the fixed guideway alternative (BRT-only lanes in the median) along University Avenue would require additional right-of-way to be purchased from adjacent businesses, and would have particularly severe impacts east of Shorewood Boulevard.

Summary of Existing Right-of-Way and Potential Transit Priority

University Avenue Width Constraints make Providing Dedicated Lanes Difficult



~100' of width
buildings to parking

~100' of width buildings
to retaining wall

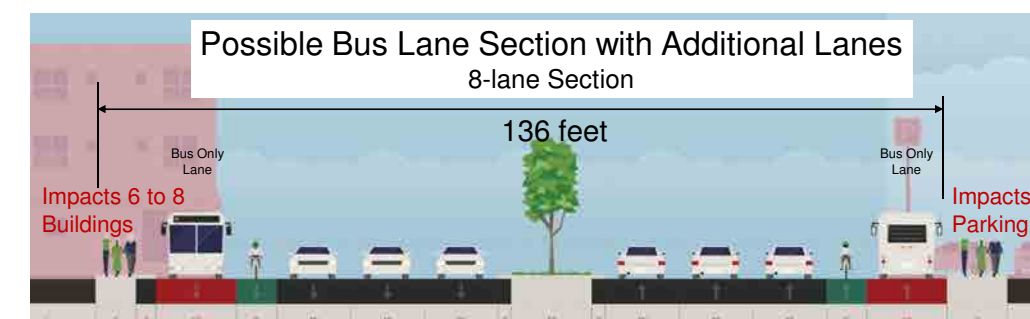
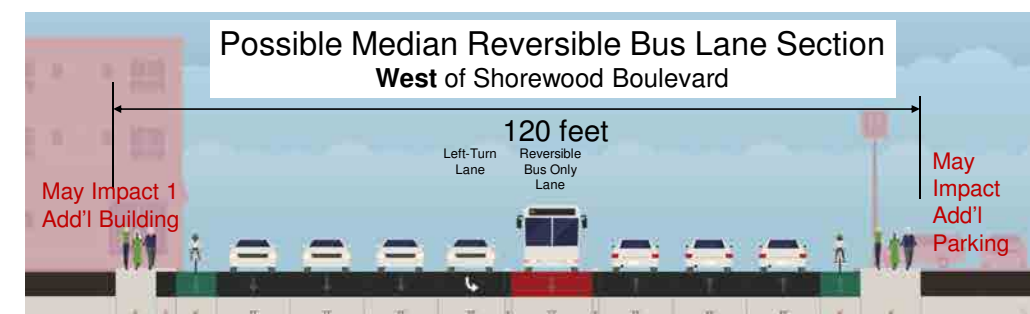
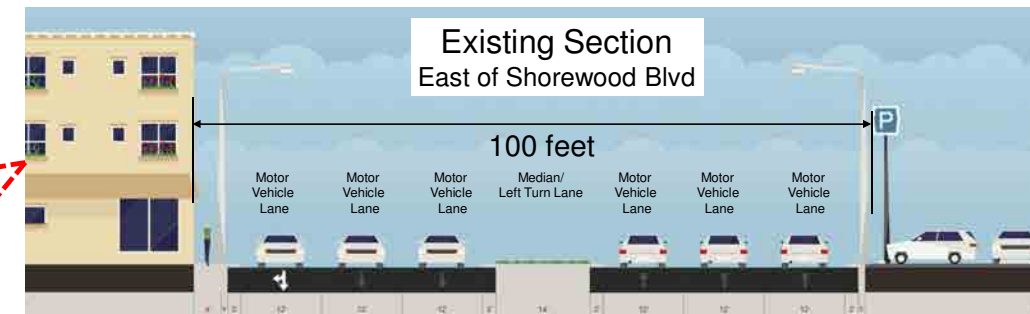
~110' of ROW/width

~120' of ROW/width

~135' to 150' of existing Right of Way/usable width

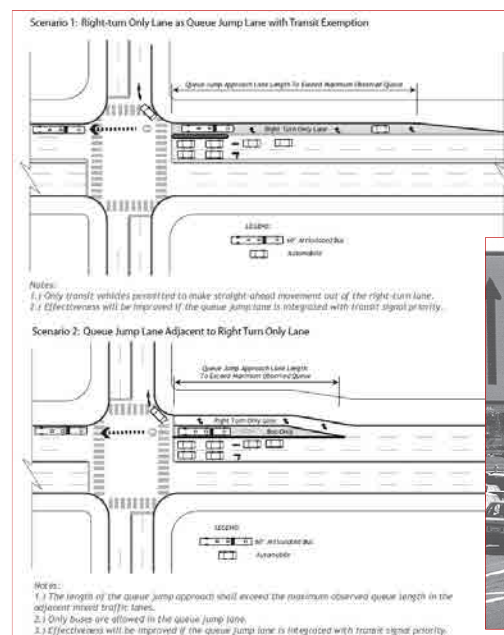
*If this is our
goal, how do
we get there?*

Existing and Potential Typical Sections (Looking West)



Potential Transit Priority along University Avenue at Intersections

Transit priority measures are roadway treatments that allow transit (buses) to achieve quicker travel times. Improving travel times for transit provides an incentive for transit use and can increase the people carrying capacity of the corridor.



Potential treatments include:

- Queue jump for transit vehicles
- Transit signal priority

Most feasible at Midvale Boulevard and Farley Avenue/ University Bay Drive intersections



University Avenue & Midvale Boulevard (with comments from Village workshop)

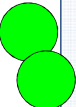
Scenario

Base Conditions



Pedestrian

Concerns regarding time to cross and small refuge areas within University Ave.



Bicycle

Difficult crossing

Transit

Existing Metro stops:

- Outbound west of Midvale Blvd.
- Inbound east of Midvale Blvd.
- Southbound south of University Ave.

Motor Vehicles (115% of existing traffic)

- Overall Intersection LOS E (70.7 s/vh)
- 5 movements at LOS F
- 3 additional movements approaching LOS F

LB1: Eliminate North-South Split Signal Phasing



Longer signal phases for crossing, potential to expand refuge areas



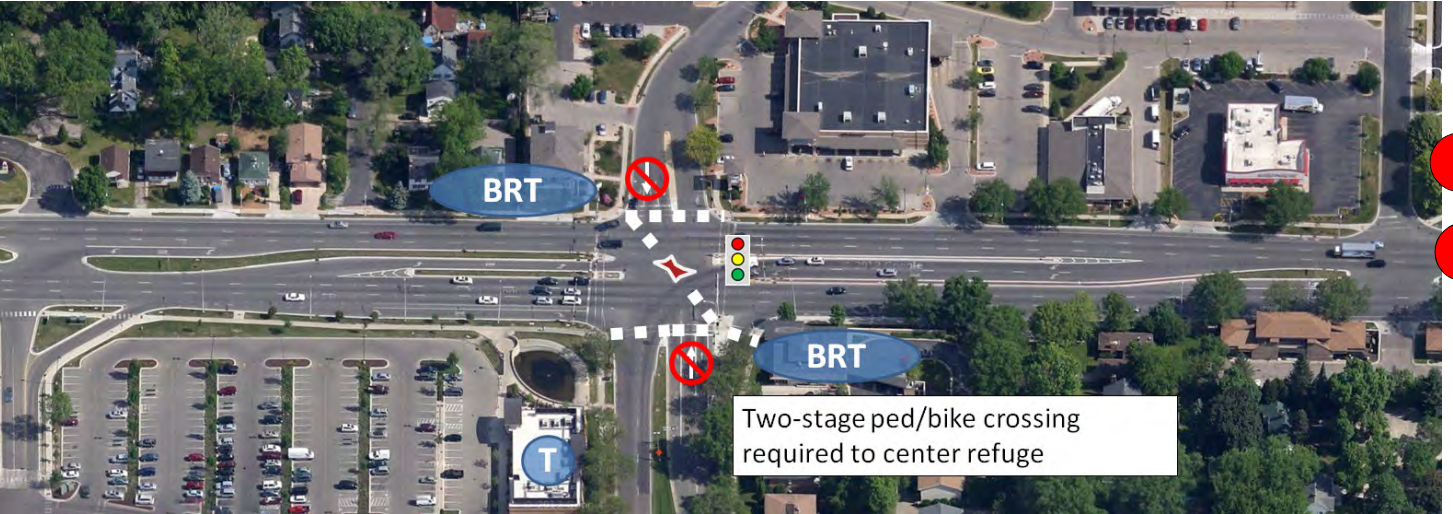
Longer signal phases for crossing

Generally compatible with BRT and local service

- Overall Intersection LOS D (41.0 s/vh)
- 2 movements at LOS F
- 3 additional movements approaching LOS F

Need dedicated bus lane in each direction. Move people not cars.

LB2: Eliminate Northbound and Southbound Through



Two-stage crossing only to a center refuge between NB and SB left-turning vehicle paths



Two-stage crossing only to a center refuge between NB and SB left-turning vehicles

Generally compatible with BRT and local service

- Overall Intersection LOS C (25.6 s/vh)
- 3 movements approaching LOS F
- Restricts some access

Center refuge is scary. Who keeps it clear of snow? Peds are vulnerable in this situation.

University Avenue & Midvale Boulevard (with comments from Village workshop)

Scenario

Base Conditions



Pedestrian

Concerns regarding time to cross and small refuge areas within University Ave.

Bicycle

Difficult crossing

Transit

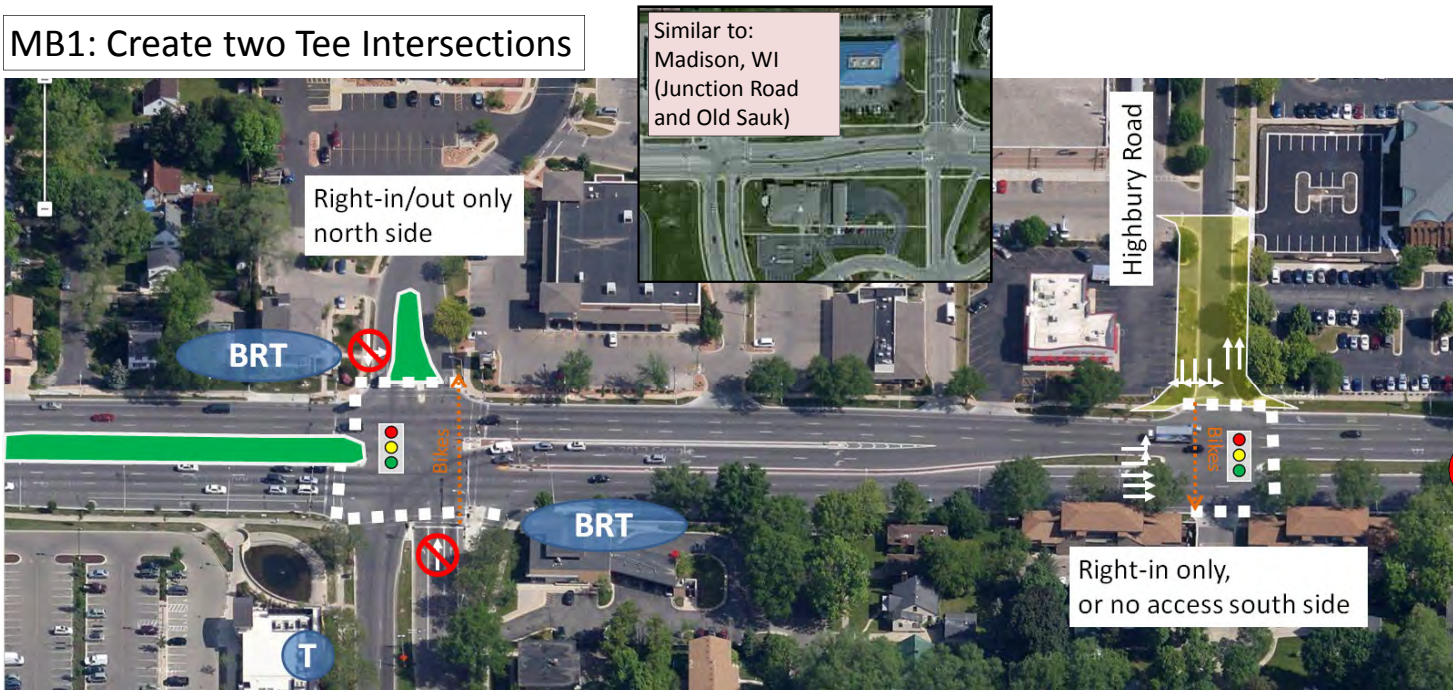
Existing Metro stops:

- Outbound west of Midvale Blvd.
- Inbound east of Midvale Blvd.
- Southbound south of University Ave.

Motor Vehicles (115% of existing traffic)

- Overall Intersection LOS E (70.7 s/vh)
- 5 movements at LOS F
- 3 additional movements approaching LOS F

MB1: Create two Tee Intersections



Two-stage ped crossing on one side only (west at Midvale, east at Highbury)

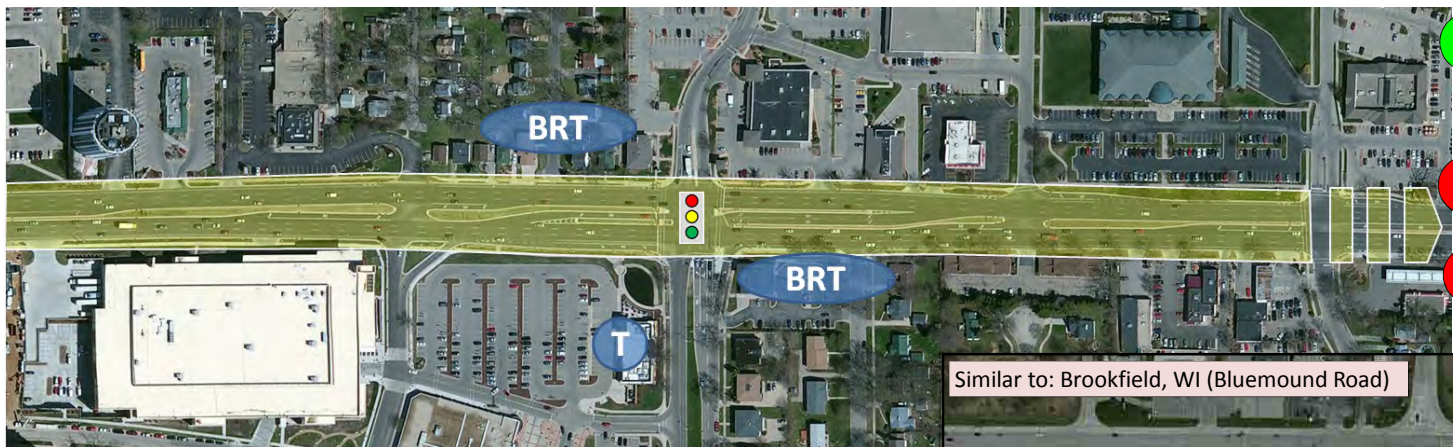
North-south crossing in one direction only at each intersection: (northbound at Midvale, southbound at Highbury)

Generally compatible with BRT and local service

- Midvale
 - Overall Intersection LOS C (26.2 s/vh)
 - 2 movements approaching LOS F
 - Restricts some access
- Highbury
 - Overall Intersection LOS D (47.1 s/vh)
 - 0 movements approaching LOS F
 - Restricts some access

MB2: 8-Lane Corridor (4 All-Purpose Lanes each direction)

Really?



- Longer signal phases for crossing
- Longer distances to cross
- Little/no terrace along University Avenue for eastbound and westbound pedestrians

- Longer distances to cross
- More lanes to navigate eastbound and westbound

Generally compatible with BRT and local service

- Overall Intersection LOS C (31.3 s/vh)
- 2 movements at LOS F
- 3 add'l movements approaching LOS F

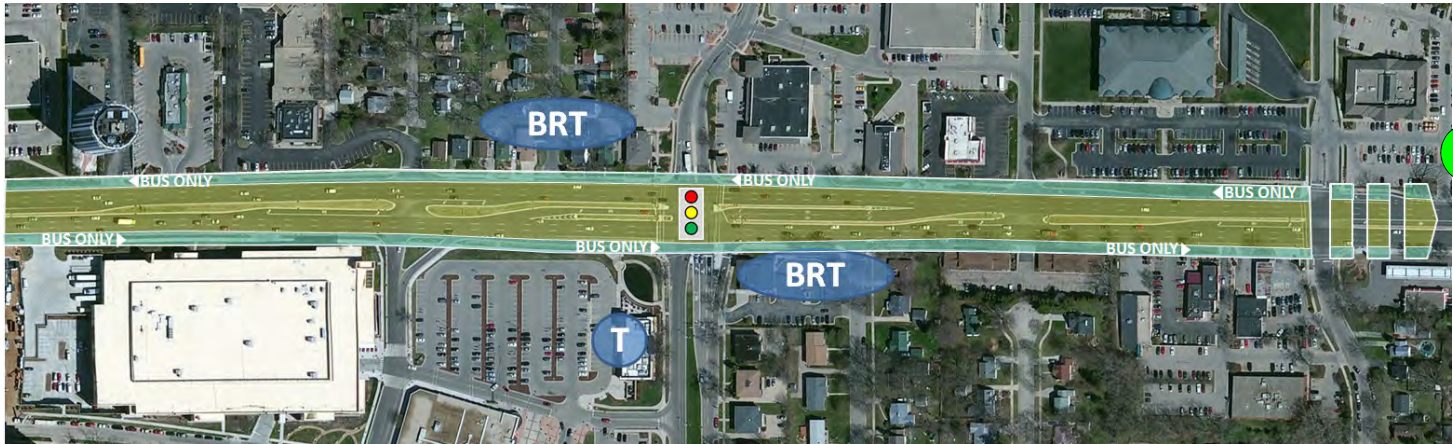
University Avenue & Midvale Boulevard (with comments from Village workshop)

Scenario

Base Conditions



MB3: 8-Lane Corridor (3 All-Purpose Lanes, 1 Bike/Transit/Right-Turn Lane each direction)



HB2: Grade Separated Westbound Lefts and Northbound Rights



Image Sources: Bing.com, Google.com

Pedestrian

Concerns regarding time to cross and small refuge areas within University Ave.

This but with 6-lanes

- Longer signal phases for crossing
- Longer distances to cross
- Little/no terrace along University Avenue for eastbound and westbound pedestrians

- Similar conditions under bridge as today but with less turning traffic
- Longer crossing distances due to wider footprint to accommodate walls and structure

Bicycle

Difficult crossing

- Longer distances to cross
- More lanes to navigate eastbound and westbound
- Wider on-street east-west accommodation, but shared with buses and right turns

- Similar conditions under bridge as today but with less turning traffic
- Longer crossing distances due to wider footprint to accommodate walls and structure

Transit

Existing Metro stops:

- Outbound west of Midvale Blvd.
- Inbound east of Midvale Blvd.
- Southbound south of University Ave.

Improves travel times and reliability for BRT and local service

- Generally compatible with BRT and local service east-west
- Requires relocation of local service transit stop on southbound Midvale Boulevard farther south

Motor Vehicles (115% of existing traffic)

- Overall Intersection LOS E (70.7 s/vh)
- 5 movements at LOS F
- 3 additional movements approaching LOS F

- Overall Intersection LOS E (70.7 s/vh)
- 5 movements at LOS F
- 3 additional movements approaching LOS F

- Overall Intersection LOS C (34.8 s/vh)
- 1 movement approaching LOS F

University Avenue & Midvale Boulevard (with comments from Village workshop)

Scenario

Base Conditions



Pedestrian

Concerns regarding time to cross and small refuge areas within University Ave.

Bicycle

Difficult crossing

Transit

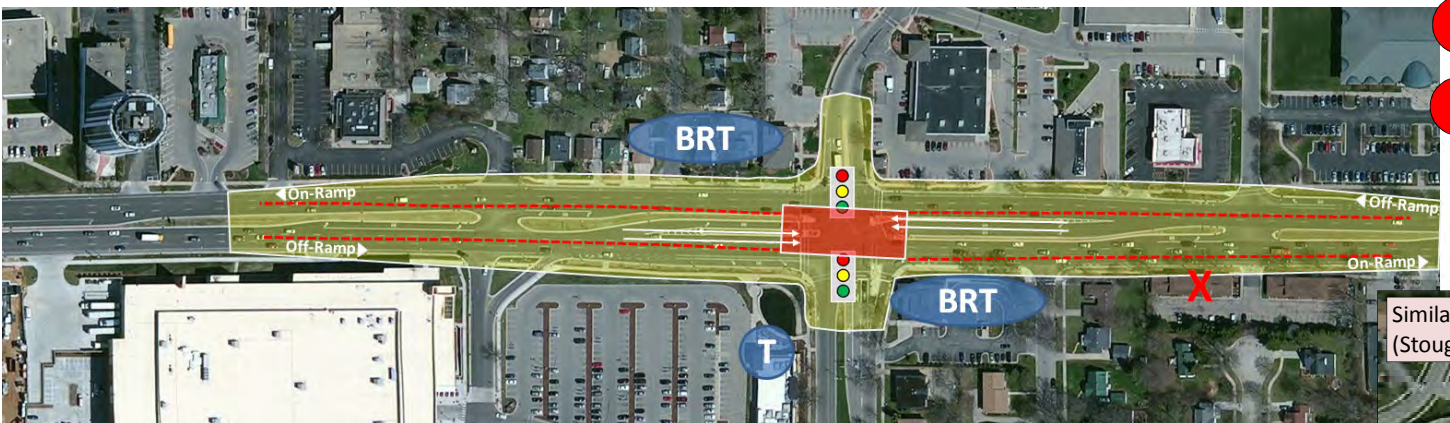
Existing Metro stops:

- Outbound west of Midvale Blvd.
- Inbound east of Midvale Blvd.
- Southbound south of University Ave.

Motor Vehicles (115% of existing traffic)

- Overall Intersection LOS E (70.7 s/vh)
- 5 movements at LOS F
- 3 additional movements approaching LOS F

HB4: Tight Urban Diamond Interchange (possible Campus Drive extension)



Similar to: Madison, WI
(Stoughton Road over Milwaukee St.)

- Short crossing lengths and reduced traffic through signals
- Two intersections to cross north-south, rather than one

- Short crossing lengths and reduced traffic through signals
- Two signals to cross north-south

Generally compatible with BRT and local service, but would require frequent entering and exiting along the corridor

- Westbound Ramps
 - Overall Intersection LOS C (29.2 s/vh)
- Eastbound Ramps
 - Overall Intersection LOS B (12.7 s/vh)

HB5: Grade Separate Eastbound Through, Westbound Left, and Northbound Right



Similar to: Aventura, FL
(Echelon Interchange: two signals, grade separated)

- Similar conditions under bridge as today but with less traffic
- Longer crossing distances due to wider footprint to accommodate walls and structure

- Similar conditions under bridge as today but with less traffic
- Longer crossing distances due to wider footprint to accommodate walls and structure

- Generally compatible with BRT and local service east-west
- Requires relocation of local service transit stop on southbound Midvale Boulevard farther south

- Midvale Signal
 - Overall Intersection LOS B (19.2 s/vh)
 - 1 movement at LOS F
- Elevated EBT, WBL, NBL Signal
 - Overall Intersection LOS C (24.7 s/vh)

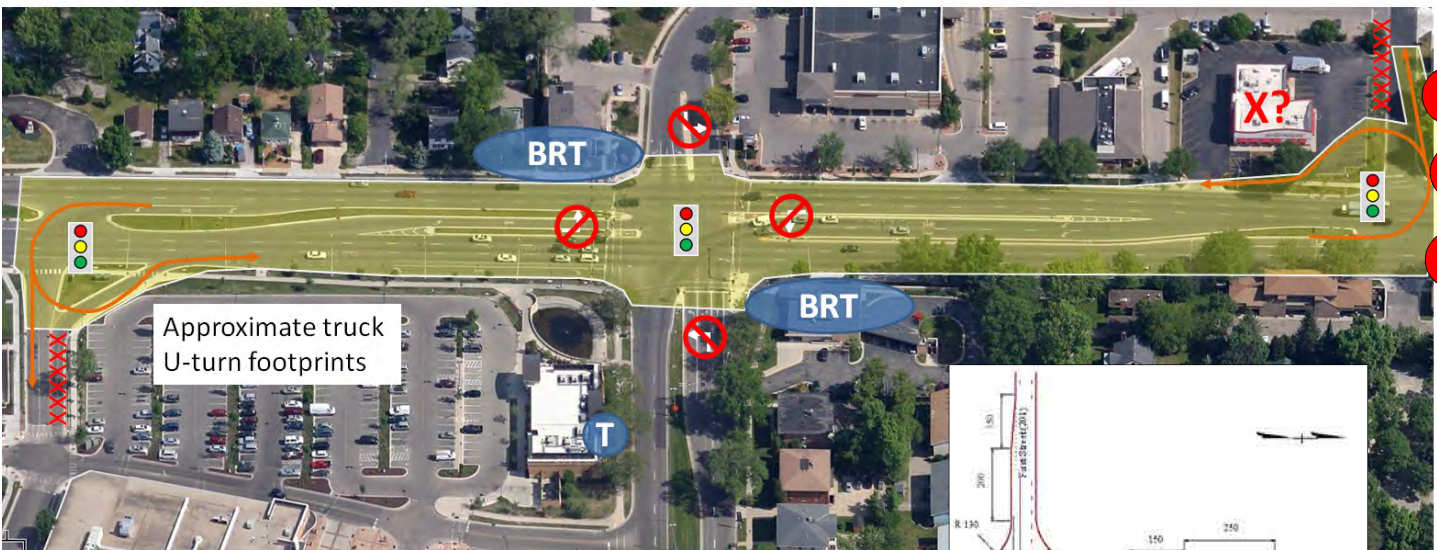
University Avenue & Midvale Boulevard (with comments from Village workshop)

Scenario

Base Conditions



HB6: Indirect Left-Turn Corridor



Pedestrian

Concerns regarding time to cross and small refuge areas within University Ave.

- Significantly longer signal phases for crossing (two-phase signal)
- Eliminates left-turning vehicle conflicts
- Could also add two-stage signalized crossings at east and west u-turn locations

Bicycle

Difficult crossing

- Significantly longer signal phases for crossing (two-phase signal)
- Eliminates left-turning vehicle conflicts
- Could also add two-stage signalized crossings at east and west u-turn locations

Transit

Existing Metro stops:

- Outbound west of Midvale Blvd.
- Inbound east of Midvale Blvd.
- Southbound south of University Ave.

- Generally compatible with BRT
- Local outbound service to southbound Midvale Boulevard requires buses to make a U-turn

Motor Vehicles (115% of existing traffic)

- Overall Intersection LOS E (70.7 s/vh)
- 5 movements at LOS F
- 3 additional movements approaching LOS F

- Midvale Signal
 - Overall Intersection LOS C (21.5 s/vh)
 - 1 movement approaching LOS F
- West U-Turn Signal
 - Overall Intersection LOS B (11.3 s/vh)
 - Restricts some access
- East U-Turn Signal
 - Overall Intersection LOS A (7.4 s/vh)
 - 1 movement approaching LOS F
 - Restricts some access

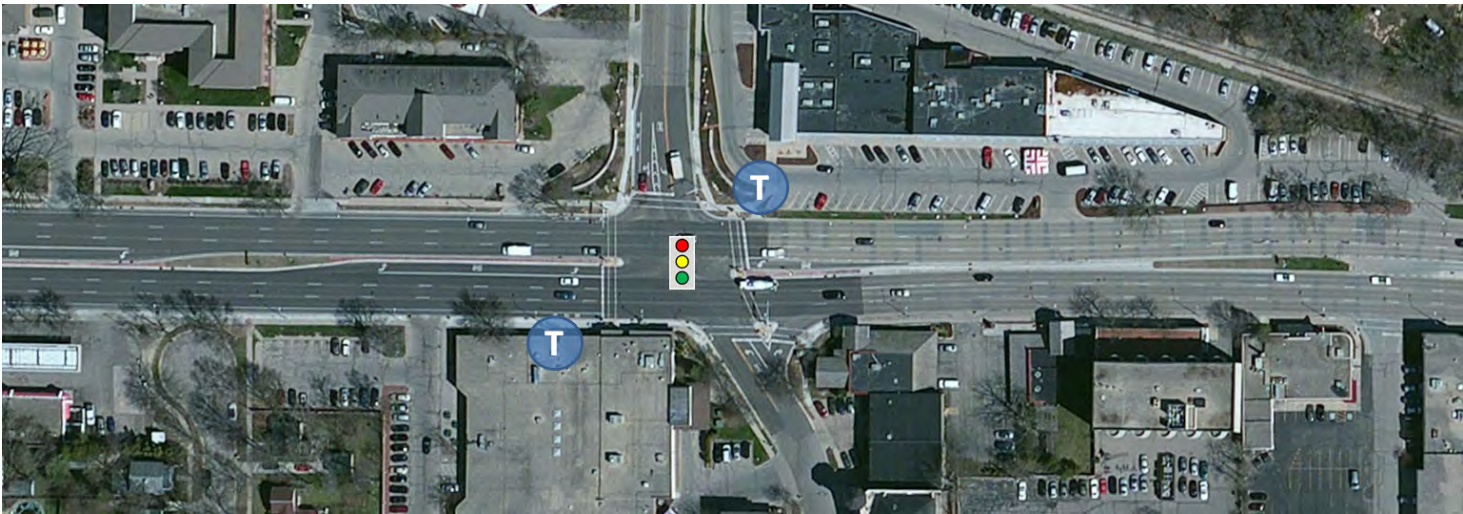
Dismissed Alternatives:

- Providing Bus/Bike/Right-Turn Lane without Expansion (Poor operations without significant MV demand reduction)
- Flomax Intersection / Diverging Arterial (Poor operations and intimidating/unconventional bike/ped)
- Single Point Urban Interchange (higher impacts than HB1 – Tight Diamond Urban Interchange)
- Continuous Flow Intersection (poor bike/ped accommodations, large footprint, and no significant benefits over other alts)

University Avenue & Shorewood Boulevard (with comments from Village WS)

Scenario

Base Conditions



Pedestrian

Multiple concerns regarding turning vehicles and failure to yield to peds in crosswalks

Bicycle

Difficult crossing

Transit

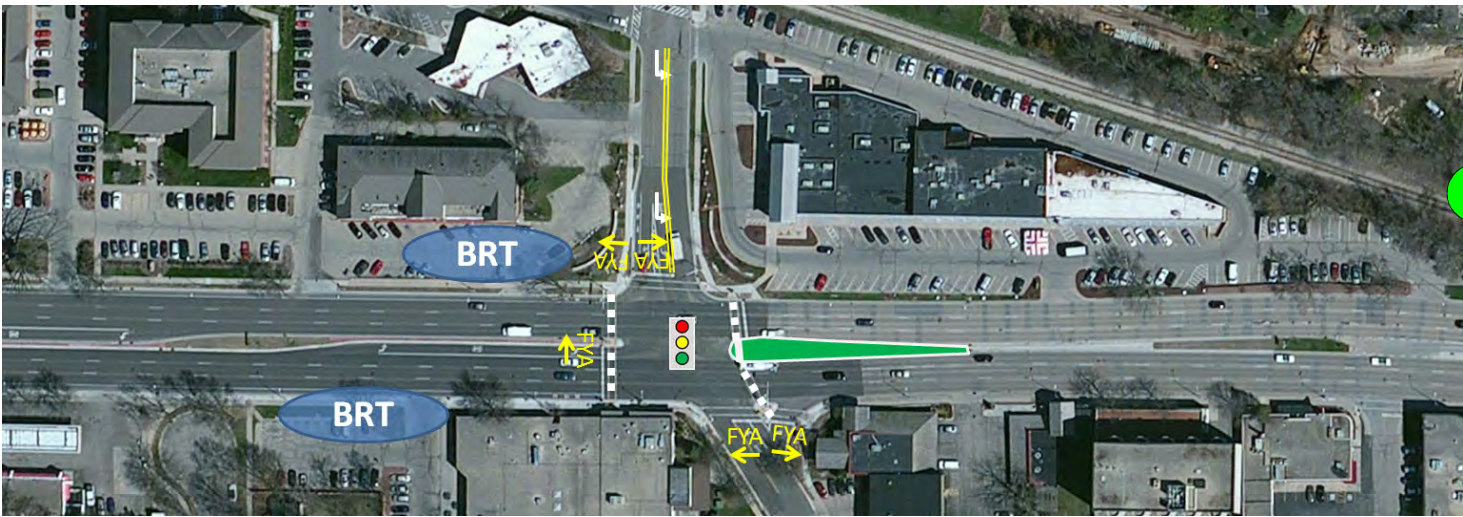
Existing Metro stops:

- Westbound east of Shorewood Blvd.
- Eastbound west of Shorewood Blvd.

Motor Vehicles (115% of existing traffic)

- Overall Intersection LOS E (68.9 s/vh)
- 2 movements at LOS F

LB1D: Same as LB1B plus Eliminate Westbound Left-Turn and Add Ped Refuge



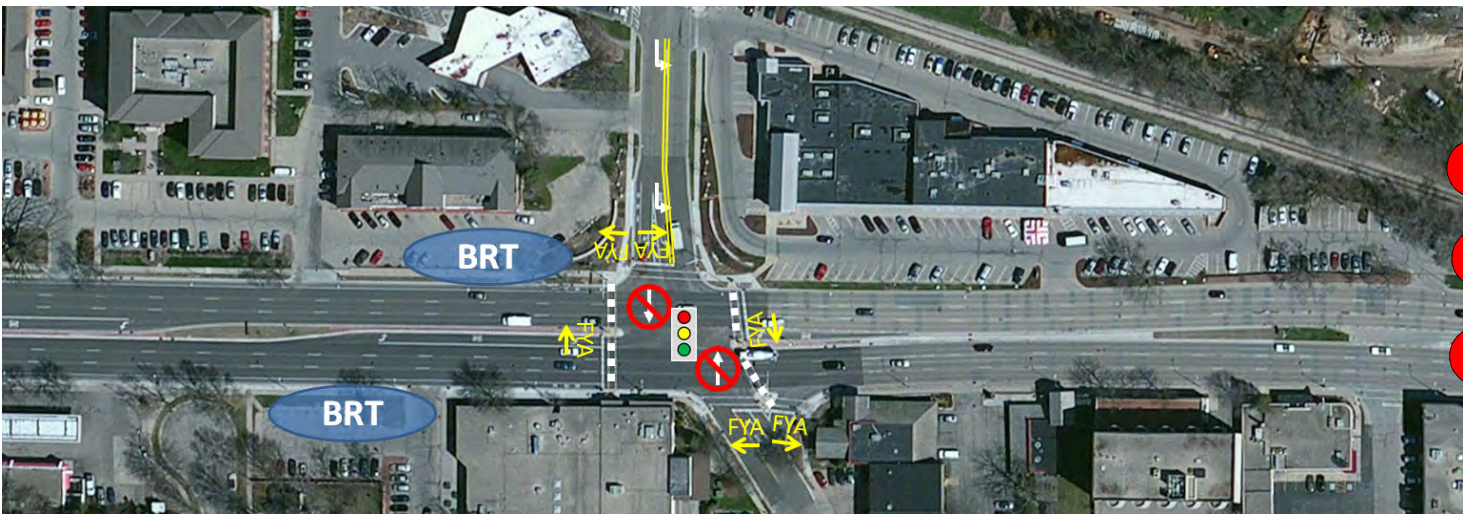
- Potential improved driver compliance and large refuge added for crossing on the east side
- Potential for partial signal at Blackhawk to provide an additional two-stage signalized crossing

Potential improved driver awareness

Generally compatible with BRT

- Overall Intersection LOS E (68.9 s/vh)
- 2 movements at LOS F

LB2: Extend Southbound Left Storage, Enhance Crosswalks, Install Flashing Yellow Arrow Signal Heads, Eliminate North-South Vehicular Movements



Potential improved driver compliance

Potential for improved driver awareness

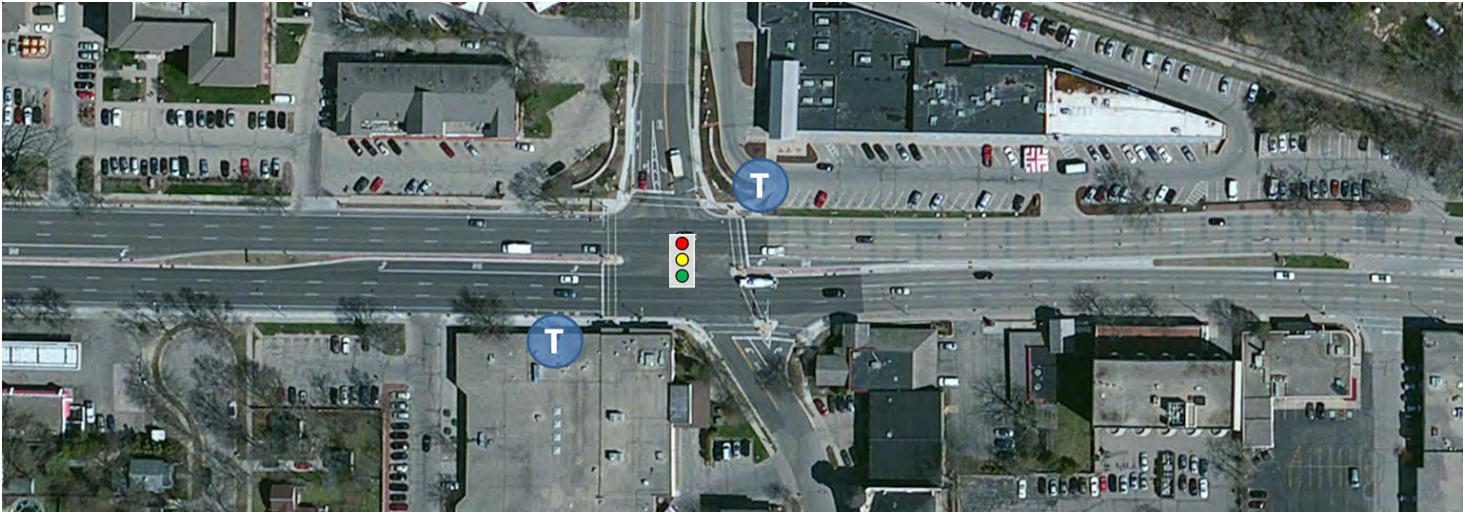
Generally compatible with BRT

- Overall Intersection LOS D (41.4 s/vh)
- 2 movements at LOS F
- Restricts some access

University Avenue & Shorewood Boulevard (with comments from Village WS)

Scenario

Base Conditions



Pedestrian

Multiple concerns regarding turning vehicles and failure to yield to peds in crosswalks

Bicycle

Difficult crossing

Transit

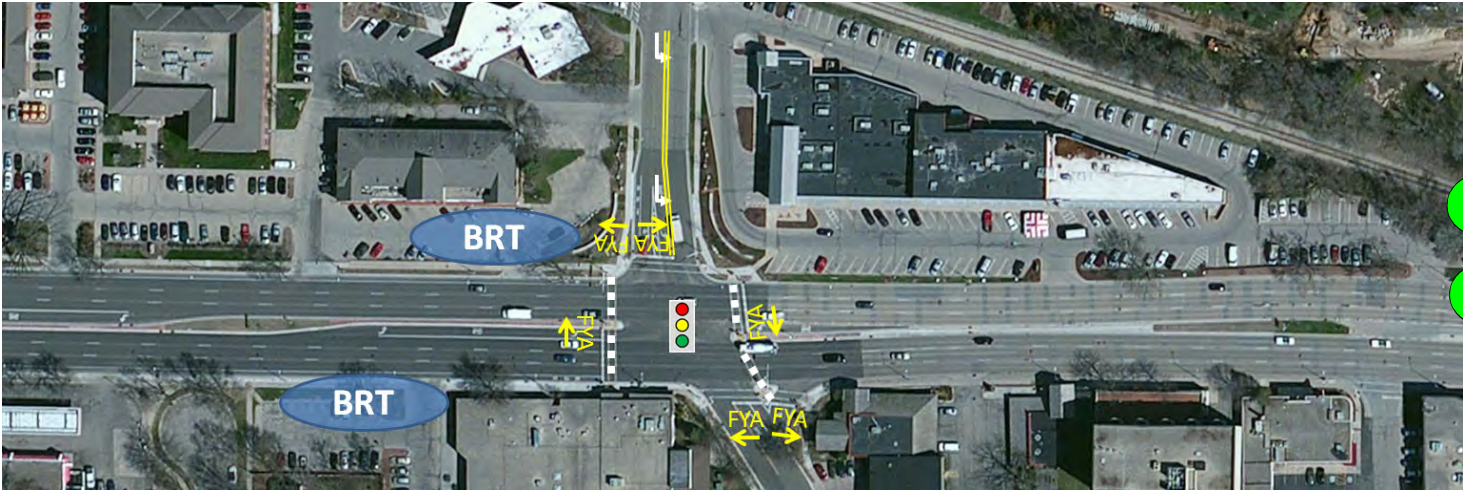
Existing Metro stops:

- Westbound east of Shorewood Blvd.
- Eastbound west of Shorewood Blvd.

Motor Vehicles (115% of existing traffic)

- Overall Intersection LOS E (68.9 s/vh)
- 2 movements at LOS F

LB1B: Extend Southbound Left Storage, Enhance Crosswalks, Install Flashing Yellow Arrow Signal Heads



Enhanced crosswalks and flashing yellow arrow signal heads to improve driver compliance

Potential for improved driver awareness

Generally compatible with BRT

- Overall Intersection LOS E (68.9 s/vh)
- 2 movements at LOS F

LB1C: Same as LB1B plus Reconfigure Southbound Right Turn



Northbound left should be red or FYA only.

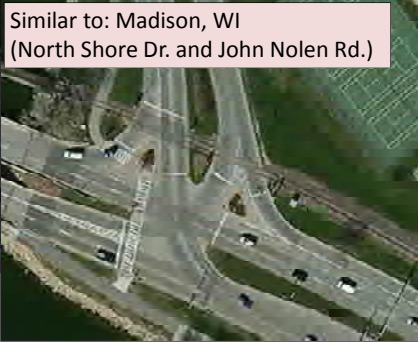
Improved driver compliance and large pedestrian refuge added

- Southbound bikes separated from right-turning motor vehicles
- Potential improved driver awareness

Generally compatible with BRT

- Overall Intersection LOS E (68.9 s/vh)
- 2 movements at LOS F

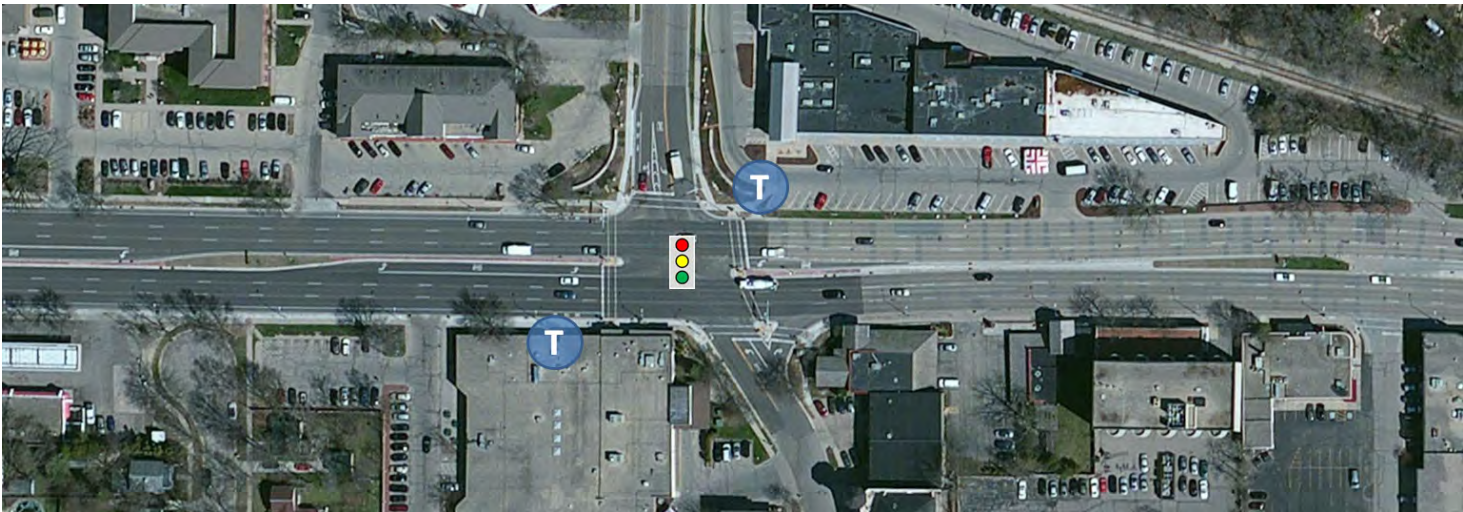
Similar to: Madison, WI
(North Shore Dr. and John Nolen Rd.)



University Avenue & Shorewood Boulevard (with comments from Village WS)

Scenario

Base Conditions



MB1: Offset Tee Intersections



HB1: Tight Half Diamond Interchange (possible Campus Drive extension, westbound access only)

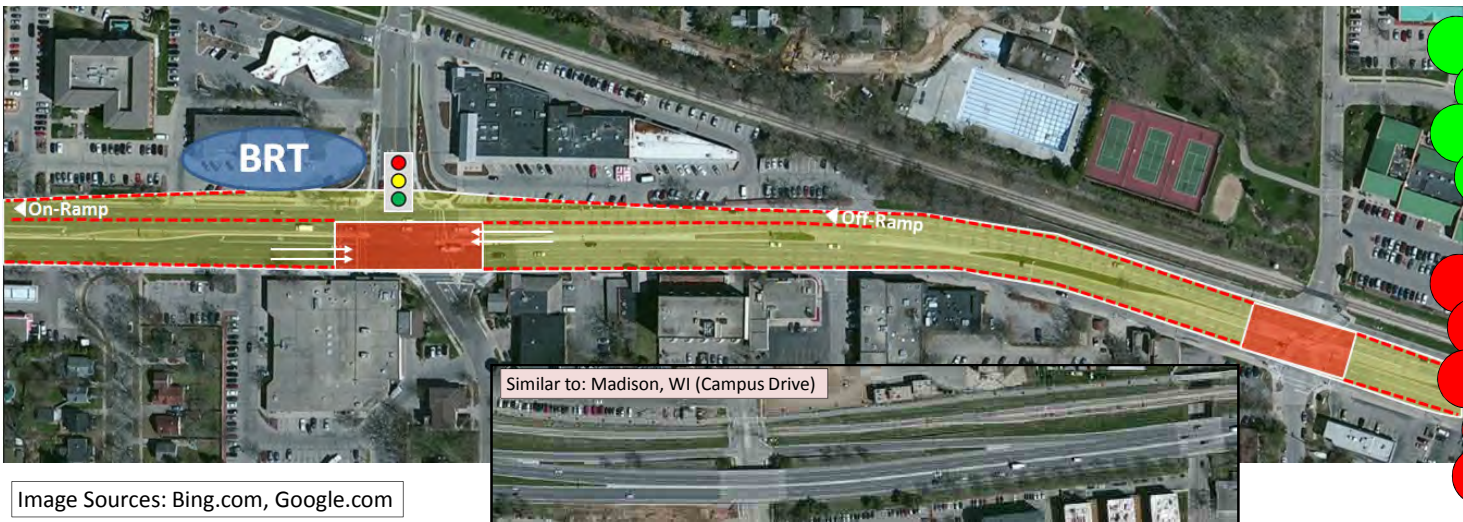


Image Sources: Bing.com, Google.com

Pedestrian

Multiple concerns regarding turning vehicles and failure to yield to peds in crosswalks

Bicycle

Difficult crossing

Transit

Existing Metro stops:

- Westbound east of Shorewood Blvd.
- Eastbound west of Shorewood Blvd.

Motor Vehicles (115% of existing traffic)

- Overall Intersection LOS E (68.9 s/vh)
- 2 movements at LOS F

Blackhawk Intersection Needs Control

- Signalized crossing added at Blackhawk Ave.
- Single crossing only at Shorewood Blvd. (east side, opposite eastbound left-turn).

- Single direction only crossing allowed at each signal (northbound at Blackhawk Ave., southbound ad Shorewood Blvd.)

Generally compatible
with BRT

- Shorewood Boulevard:
 - Overall Intersection LOS B (15.5 s/vh)
 - 1 movement approaching LOS F
 - Restricts some access
- Blackhawk Avenue:
 - Overall Intersection LOS C (27.1 s/vh)
 - Restricts some access

- Short crossing lengths through signal
- Significantly less traffic through signal

Less traffic through
signal

Less compatible with BRT due to impacts of locating outbound station and loss of location for inbound station at Shorewood Boulevard

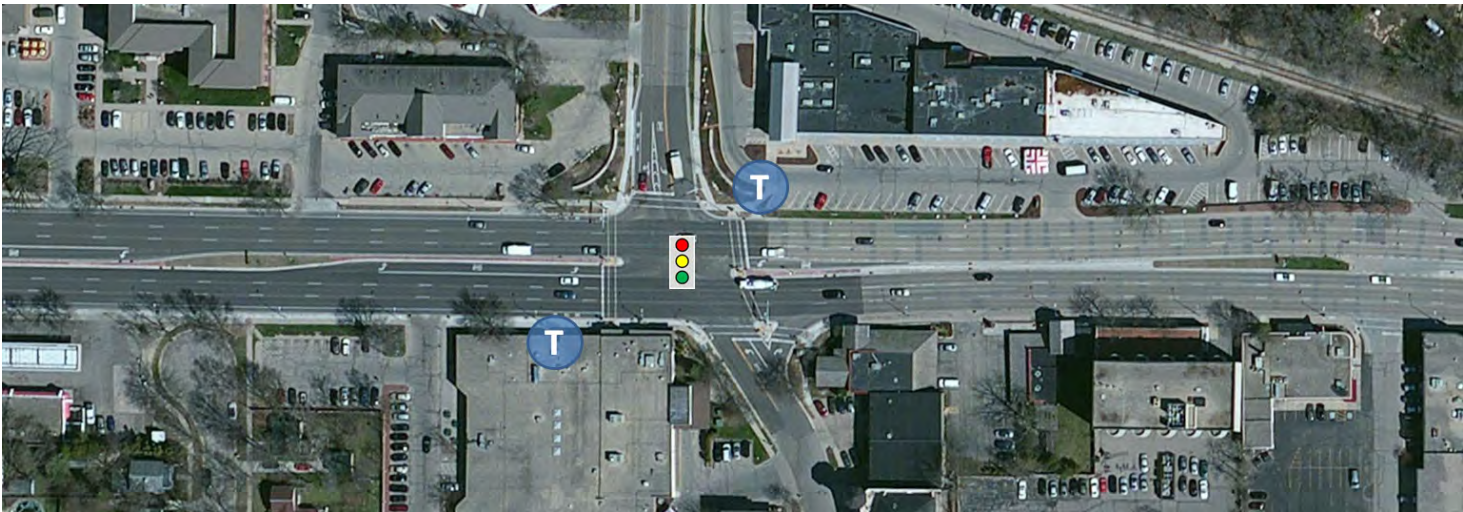
- Overall Intersection LOS A (5.5 s/vh)
- Significant access restrictions
 - Eliminates entry to Village from the west (all traffic must use Midvale Blvd/ Rose Pl.)
 - Eliminates exit from Village to the east (all traffic must use Midvale Blvd./ Rose Place or University Bay Dr.)

Moves eastbound access to Harvey St. – no sidewalks there, and used by a lot of long term parkers

University Avenue & Shorewood Boulevard (with comments from Village WS)

Scenario

Base Conditions



Pedestrian

Multiple concerns regarding turning vehicles and failure to yield to peds in crosswalks

Bicycle

Difficult crossing

Transit

Existing Metro stops:

- Westbound east of Shorewood Blvd.
- Eastbound west of Shorewood Blvd.

Motor Vehicles (115% of existing traffic)

- Overall Intersection LOS E (68.9 s/vh)
- 2 movements at LOS F

HB2: 8-Lane Corridor (4 All-Purpose Lanes each direction)



- Longer signal phases for crossing
- Longer distances to cross
- Little/no terrace along University Avenue for eastbound and westbound pedestrians

- Longer distances to cross
- More lanes to navigate eastbound and westbound

Generally compatible with BRT and local service

- Overall Intersection LOS B (15.8 s/vh)
- 1 movement approaching LOS F

HB3: 8-Lane Corridor (3 All-Purpose Lanes, 1 Bike/Bus/Right-Turn Lane each direction)



- Longer signal phases for crossing
- Longer distances to cross
- Little/no terrace along University Avenue for eastbound and westbound pedestrians

- Longer distances to cross
- More lanes to navigate eastbound and westbound
- Wider on-street east-west accommodation, but shared with buses and right turns

Generally compatible with BRT and local service

- Overall Intersection LOS E (68.9 s/vh)
- 2 movements at LOS F

Dismissed Alternatives: Providing Bus/Bike/Right-Turn Lane without Expansion (poor ops without significant MV demand reduction)

- Bus lanes without expansion needs to be reconsidered*
- Full Tight Diamond Interchange (8 or more business relocations)
 - Indirect Left-Turn Corridor (5 or more business relocations)
 - Continuous Flow Intersection (10 or more business relocations)

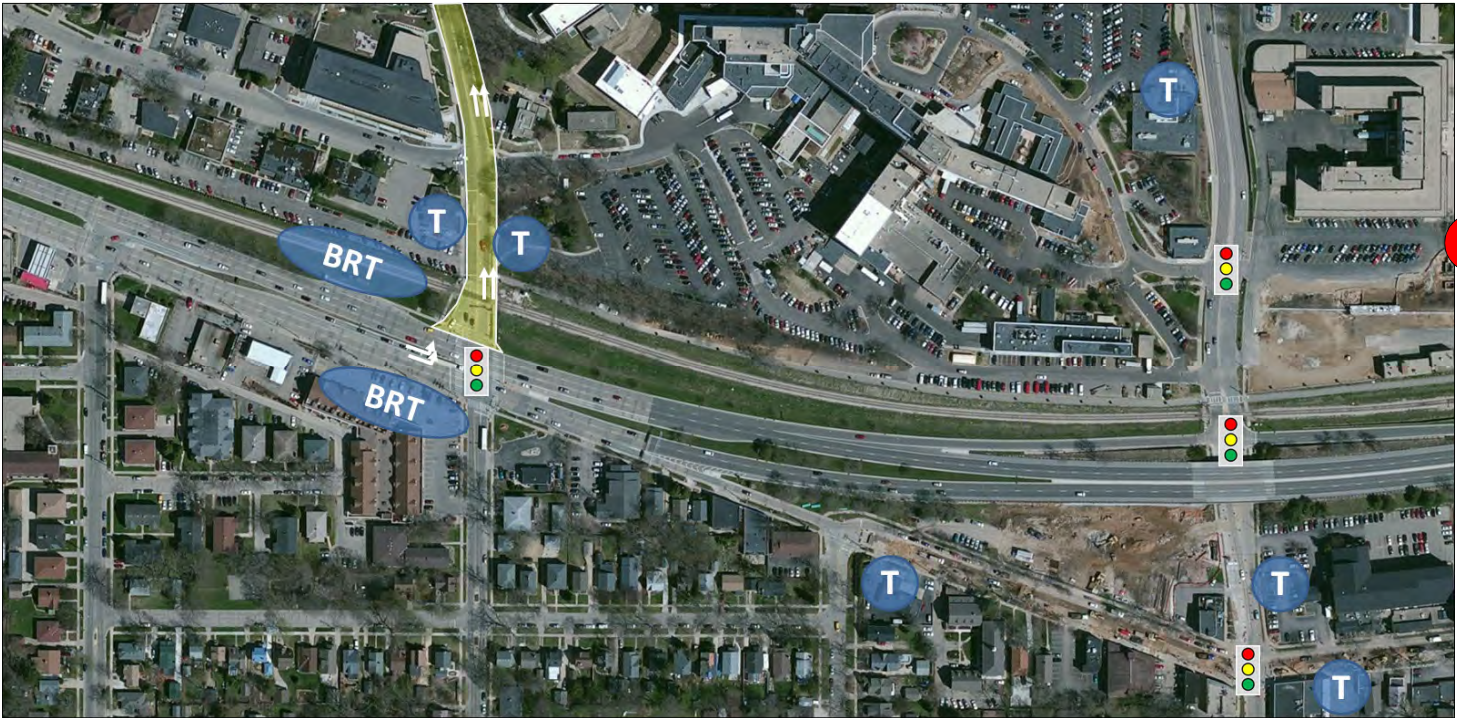
University Avenue & Farley Avenue/University Bay Drive Area (with comments from Village workshop)

Scenario

Base Conditions



MB1: Dual Eastbound Left-Turn Lanes



Stagger shifts at hospital.

Pedestrian

Multiple concerns including ped crossings at signalized intersections, lack of sidewalk on Highland Ave., and east-west campus path crossings

Longer crossing distances on west and north legs

Larger islands.

Add ped priority signal control like proposed at Shorewood Boulevard.

Bicycle

Multiple concerns including northbound/inbound bike access to hospital complexes, east-west campus path crossings, and conditions along University Ave.

Longer crossing distances on west and north legs

Transit

- Existing Metro stops:
- Inbound
 - West of Farley Ave./ U-Bay Dr.
 - East of Grand Ave.
 - East of Highland Ave.
 - Outbound west of Farley Ave./ U-Bay Dr.
 - Northbound
 - North of Campus Dr. on Farley Ave./ U-Bay Dr.
 - North of University Ave. on Highland Ave.
 - Southbound
 - North of Campus Drive on Farley Ave./ U-Bay Dr.
 - Near VA on Highland Ave.

Generally compatible with BRT and local service

Motor Vehicles (115% of existing traffic)

- University Ave. & Farley Ave./ U-Bay Dr.
 - Overall Intersection LOS D (40.6 s/vh)
 - 1 movement at LOS F
 - 1 add'l movement approaching LOS F
- University Ave. & Highland Ave.
 - Overall Intersection LOS B (16.4 s/vh)
- Highland Ave. & Westbound Campus Dr.
 - Overall Intersection LOS C (24.0 s/vh)
- Highland Ave. & VA Hospital
 - Overall Intersection LOS B (17.4 s/vh)

- University Ave. & Farley Ave./ U-Bay Dr.
 - Overall Intersection LOS D (38.8 s/vh)
 - 1 movement at LOS F
 - 3 add'l movements approaching LOS F
 - Requires expansion of U-Bay Dr.
- No changes at remaining signals

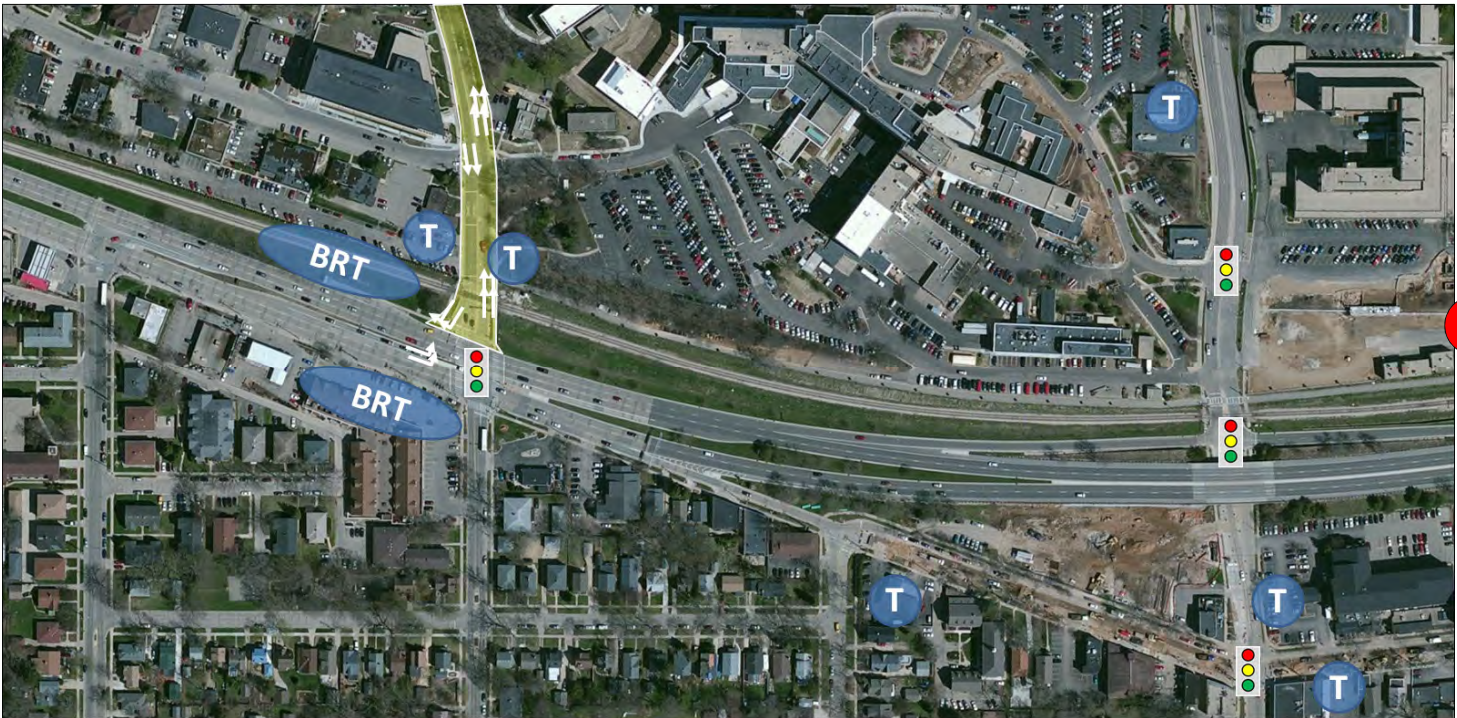
University Avenue & Farley Avenue/University Bay Drive Area (with comments from Village workshop)

Scenario

Base Conditions



MB2: Dual Eastbound Left-Turn Lanes and Southbound Right-Turn Lanes



Pedestrian

Multiple concerns including ped crossings at signalized intersections, lack of sidewalk on Highland Ave., and east-west campus path crossings

Longer crossing distances on west and north legs.

Bicycle

Multiple concerns including northbound/inbound bike access to hospital complexes, east-west campus path crossings, and conditions along University Ave.

Longer crossing distances on west and north legs.

Transit

Existing Metro stops:

- Inbound
 - West of Farley Ave./ U-Bay Dr.
 - East of Grand Ave.
 - East of Highland Ave.
- Outbound west of Farley Ave./ U-Bay Dr.
- Northbound
 - North of Campus Dr. on Farley Ave./ U-Bay Dr.
 - North of University Ave. on Highland Ave.
- Southbound
 - North of Campus Drive on Farley Ave./ U-Bay Dr.
 - Near VA on Highland Ave.

Generally compatible with BRT and local service

Motor Vehicles (115% of existing traffic)

- University Ave. & Farley Ave./ U-Bay Dr.
 - Overall Intersection LOS D (40.6 s/vh)
 - 1 movement at LOS F
 - 1 add'l movement approaching LOS F
- University Ave. & Highland Ave.
 - Overall Intersection LOS B (16.4 s/vh)
- Highland Ave. & Westbound Campus Dr.
 - Overall Intersection LOS C (24.0 s/vh)
- Highland Ave. & VA Hospital
 - Overall Intersection LOS B (17.4 s/vh)

- University Ave. & Farley Ave./ U-Bay Dr.
 - Overall Intersection LOS C (29.9 s/vh)
 - Requires expansion of U-Bay Dr.
- No changes at remaining signals

University Avenue & Farley Avenue/University Bay Drive Area (with comments from Village workshop)

Scenario

Base Conditions



MB3: Split Tee Intersections with full access to University Bay Drive



Pedestrian

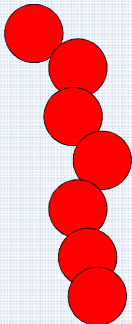
Multiple concerns including ped crossings at signalized intersections, lack of sidewalk on Highland Ave., and east-west campus path crossings

- Crossing only on east side of Farley Ave./ U-Bay Dr.
- Two-stage crossing with large refuge possible
- Adds signalized crossing at Franklin Ave. tee intersection pending completion of sidewalk on north side

Bicycle

Multiple concerns including northbound/ inbound bike access to hospital complexes, east-west campus path crossings, and conditions along University Ave.

- Two stage north-south crossing on east side only



Transit

Existing Metro stops:

- Inbound
 - West of Farley Ave./ U-Bay Dr.
 - East of Grand Ave.
 - East of Highland Ave.
- Outbound west of Farley Ave./ U-Bay Dr.
- Northbound
 - North of Campus Dr. on Farley Ave./ U-Bay Dr.
 - North of University Ave. on Highland Ave.
- Southbound
 - North of Campus Drive on Farley Ave./ U-Bay Dr.
 - Near VA on Highland Ave.

Generally compatible with BRT and local service

Motor Vehicles (115% of existing traffic)

- University Ave. & Farley Ave./ U-Bay Dr.
 - Overall Intersection LOS D (40.6 s/vh)
 - 1 movement at LOS F
 - 1 add'l movement approaching LOS F
- University Ave. & Highland Ave.
 - Overall Intersection LOS B (16.4 s/vh)
- Highland Ave. & Westbound Campus Dr.
 - Overall Intersection LOS C (24.0 s/vh)
- Highland Ave. & VA Hospital
 - Overall Intersection LOS B (17.4 s/vh)

- University Ave. & Farley Ave./ U-Bay Dr.
 - Overall Intersection LOS C (24.0 s/vh)
 - Requires expansion of U-Bay Dr.
- University Ave. & Franklin Ave. (south Tee)
 - Overall Intersection LOS A (7.1 s/vh)
- No changes at remaining signals

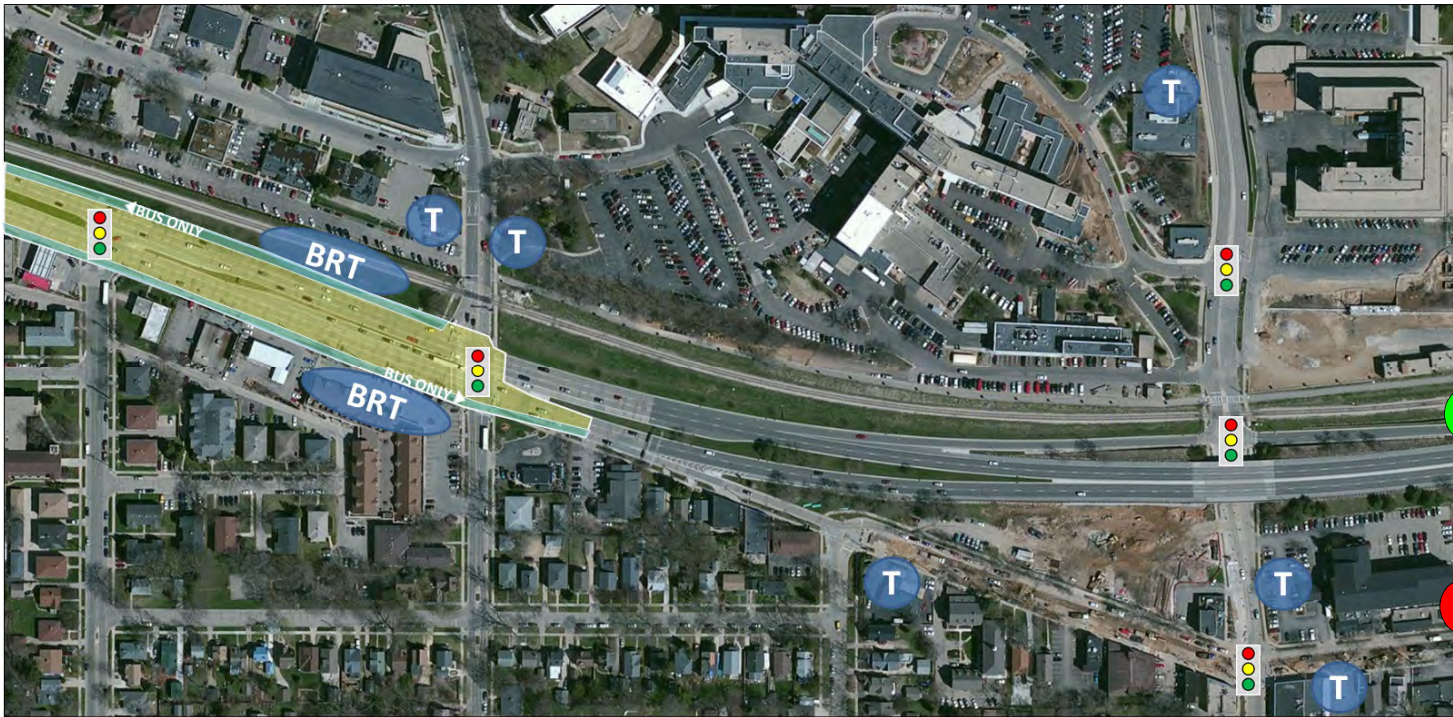
University Avenue & Farley Avenue/University Bay Drive Area (with comments from Village workshop)

Scenario

Base Conditions



MB4: 8-Lane Corridor (3 All-Purpose Lanes, 1 Bike/Transit/Right-Turn Lane each direction)



Pedestrian

Multiple concerns including ped crossings at signalized intersections, lack of sidewalk on Highland Ave., and east-west campus path crossings

- Longer distances to cross
- Little/no terrace along University Avenue for eastbound and westbound pedestrians west of Farley Avenue

Bicycle

Multiple concerns including northbound/inbound bike access to hospital complexes, east-west campus path crossings, and conditions along University Ave.

- Longer distances to cross
- More lanes to navigate eastbound and westbound west of Farley Avenue
- Wider on-street east-west accommodation, but shared with buses and right turns

Transit

Existing Metro stops:

- Inbound
 - West of Farley Ave./ U-Bay Dr.
 - East of Grand Ave.
 - East of Highland Ave.
- Outbound west of Farley Ave./ U-Bay Dr.
- Northbound
 - North of Campus Dr. on Farley Ave./ U-Bay Dr.
 - North of University Ave. on Highland Ave.
- Southbound
 - North of Campus Drive on Farley Ave./ U-Bay Dr.
 - Near VA on Highland Ave.

Improves travel time and reliability for BRT and local service

Motor Vehicles (115% of existing traffic)

- University Ave. & Farley Ave./ U-Bay Dr.
 - Overall Intersection LOS D (40.6 s/vh)
 - 1 movement at LOS F
 - 1 add'l movement approaching LOS F
- University Ave. & Highland Ave.
 - Overall Intersection LOS B (16.4 s/vh)
- Highland Ave. & Westbound Campus Dr.
 - Overall Intersection LOS C (24.0 s/vh)
- Highland Ave. & VA Hospital
 - Overall Intersection LOS B (17.4 s/vh)

- University Ave. & Farley Ave./ U-Bay Dr.
 - Overall Intersection LOS D (40.6 s/vh)
 - 1 movement at LOS F
 - 1 add'l movement approaching LOS F
- No changes at remaining signals

Should be 6 lanes, not 8.

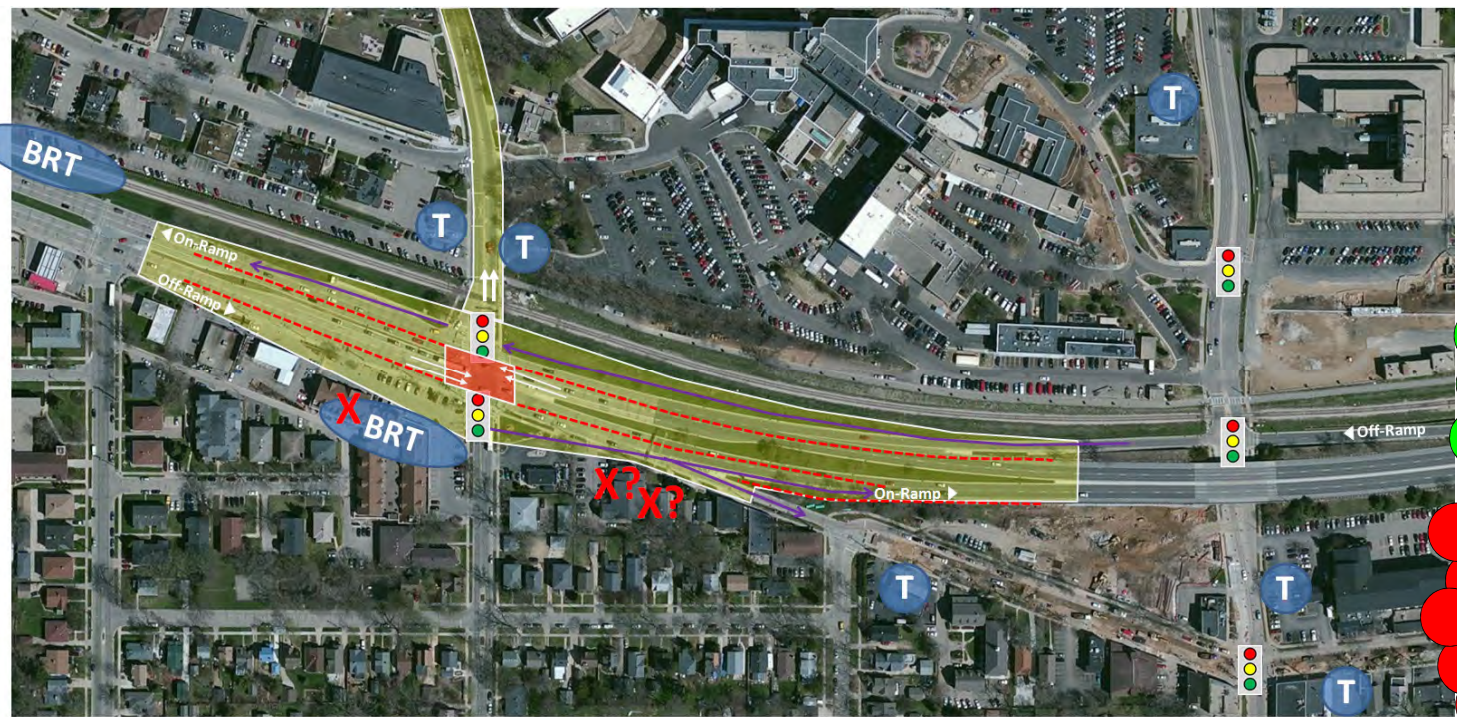
University Avenue & Farley Avenue/University Bay Drive Area (with comments from Village workshop)

Scenario

Base Conditions



HB1: Modified Diamond Interchange (possible Campus Drive extension)



Pedestrian

Multiple concerns including ped crossings at signalized intersections, lack of sidewalk on Highland Ave., and east-west campus path crossings

- Short crossing lengths and reduced traffic through signals
- Two signalized intersections to cross rather than one

Bicycle

Multiple concerns including northbound/inbound bike access to hospital complexes, east-west campus path crossings, and conditions along University Ave.

- Less traffic through signals
- Two signalized intersections to cross rather than one

Transit

Existing Metro stops:

- Inbound
 - West of Farley Ave./ U-Bay Dr.
 - East of Grand Ave.
 - East of Highland Ave.
- Outbound west of Farley Ave./ U-Bay Dr.
- Northbound
 - North of Campus Dr. on Farley Ave./ U-Bay Dr.
 - North of University Ave. on Highland Ave.
- Southbound
 - North of Campus Drive on Farley Ave./ U-Bay Dr.
 - Near VA on Highland Ave.

- Less compatible with BRT due to relocation of outbound stop west of on-ramp and potential for weaving traffic
- Frequent entering and exiting along the corridor to make stops

Motor Vehicles (115% of existing traffic)

- University Ave. & Farley Ave./ U-Bay Dr.
 - Overall Intersection LOS D (40.6 s/vh)
 - 1 movement at LOS F
 - 1 add'l movement approaching LOS F
- University Ave. & Highland Ave.
 - Overall Intersection LOS B (16.4 s/vh)
- Highland Ave. & Westbound Campus Dr.
 - Overall Intersection LOS C (24.0 s/vh)
- Highland Ave. & VA Hospital
 - Overall Intersection LOS B (17.4 s/vh)

- University Ave. & Westbound Campus Drive Ramps
 - Overall Intersection LOS C (29.4 s/vh)
- University Ave. & Eastbound Campus Drive Ramps
 - Overall Intersection LOS C (26.9 s/vh)
- No changes at remaining signals.

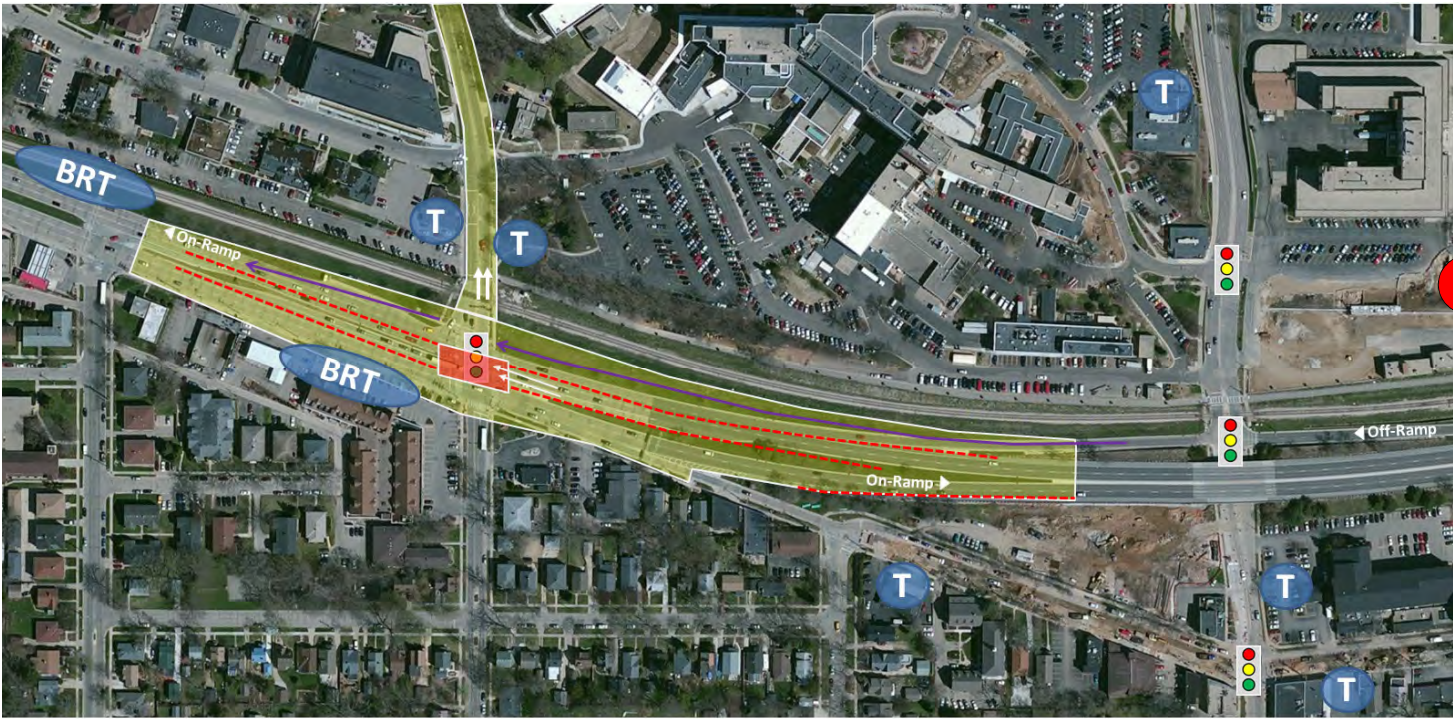
University Avenue & Farley Avenue/University Bay Drive Area (with comments from Village workshop)

Scenario

Base Conditions



HB2: Westbound Campus Drive extension only



Pedestrian

Multiple concerns including ped crossings at signalized intersections, lack of sidewalk on Highland Ave., and east-west campus path crossings

- Longer crossing distances to accommodate structure and walls
- Less traffic through signal

Bicycle

Multiple concerns including northbound/inbound bike access to hospital complexes, east-west campus path crossings, and conditions along University Ave.

- Longer crossing distances to accommodate structure and walls
- Less traffic through signal

Transit

Existing Metro stops:

- Inbound
 - West of Farley Ave./ U-Bay Dr.
 - East of Grand Ave.
 - East of Highland Ave.
- Outbound west of Farley Ave./ U-Bay Dr.
- Northbound
 - North of Campus Dr. on Farley Ave./ U-Bay Dr.
 - North of University Ave. on Highland Ave.
- Southbound
 - North of Campus Drive on Farley Ave./ U-Bay Dr.
 - Near VA on Highland Ave.

- Less compatible with BRT due to relocation of outbound stop west of on-ramp and potential for weaving traffic
- Frequent entering and exiting along the corridor to make stops

Motor Vehicles (115% of existing traffic)

- University Ave. & Farley Ave./ U-Bay Dr.
 - Overall Intersection LOS D (40.6 s/vh)
 - 1 movement at LOS F
 - 1 add'l movement approaching LOS F
- University Ave. & Highland Ave.
 - Overall Intersection LOS B (16.4 s/vh)
- Highland Ave. & Westbound Campus Dr.
 - Overall Intersection LOS C (24.0 s/vh)
- Highland Ave. & VA Hospital
 - Overall Intersection LOS B (17.4 s/vh)

- University Ave. & Westbound Campus Drive Ramps
 - Overall Intersection LOS C (37.3 s/vh)
 - 2 movements at LOS F
- No changes at remaining signals.

WB BRT stop is too far away from hospitals.

University Avenue & Farley Avenue/University Bay Drive Area (with comments from Village workshop)

Scenario

Base Conditions



Pedestrian

Multiple concerns including ped crossings at signalized intersections, lack of sidewalk on Highland Ave., and east-west campus path crossings

Bicycle

Multiple concerns including northbound/inbound bike access to hospital complexes, east-west campus path crossings, and conditions along University Ave.

Transit

Existing Metro stops:

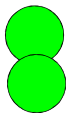
- Inbound
 - West of Farley Ave./ U-Bay Dr.
 - East of Grand Ave.
 - East of Highland Ave.
- Outbound west of Farley Ave./ U-Bay Dr.
- Northbound
 - North of Campus Dr. on Farley Ave./ U-Bay Dr.
 - North of University Ave. on Highland Ave.
- Southbound
 - North of Campus Drive on Farley Ave./ U-Bay Dr.
 - Near VA on Highland Ave.

Motor Vehicles (115% of existing traffic)

- University Ave. & Farley Ave./ U-Bay Dr.
 - Overall Intersection LOS D (40.6 s/vh)
 - 1 movement at LOS F
 - 1 add'l movement approaching LOS F
- University Ave. & Highland Ave.
 - Overall Intersection LOS B (16.4 s/vh)
- Highland Ave. & Westbound Campus Dr.
 - Overall Intersection LOS C (24.0 s/vh)
- Highland Ave. & VA Hospital
 - Overall Intersection LOS B (17.4 s/vh)

Dismissed Alternatives:

- Providing Bus/Bike/Right-Turn Lane without Expansion (Poor operations without significant MV demand reduction)
 - Prohibit Eastbound Left at University Bay Drive and reroute traffic to Highland Ave. (eastbound traffic fails in the AM peak along Highland)
 - Tee Intersection with Full Access to Farley Ave. (eastbound traffic fails in the AM peak along Highland)
 - Expanded At-Grade Farley Ave./ U-Bay Dr. Intersection with Direct Ramp to UW/VA (Cost prohibitive)



Add Eastbound on-ramp to Campus Drive at Highland Avenue

University Avenue & Midvale Boulevard (with Madison workshop comments)

Scenario

Base Conditions



Pedestrian

Concerns regarding time to cross and small refuge areas within University Ave.

Bicycle

Difficult crossing

Transit

Existing Metro stops:

- Outbound west of Midvale Blvd.
- Inbound east of Midvale Blvd.
- Southbound south of University Ave.

Motor Vehicles (115% of existing traffic)

- Overall Intersection LOS E (70.7 s/vh)
- 5 movements at LOS F
- 3 additional movements approaching LOS F

LB1: Eliminate North-South Split Signal Phasing



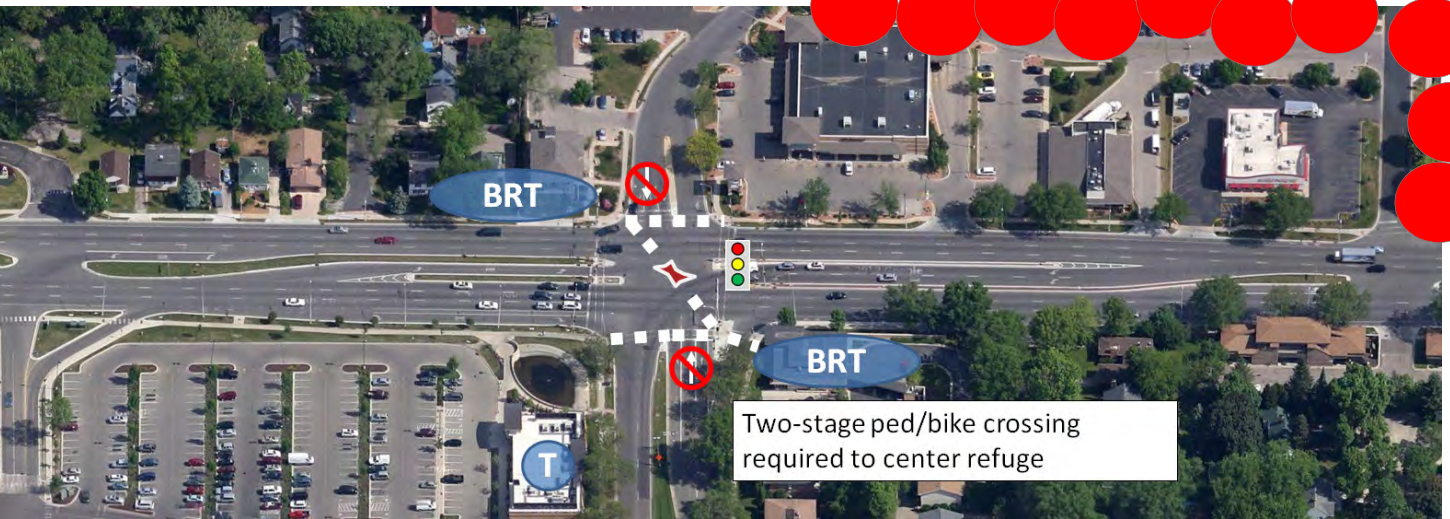
Longer signal phases for crossing, potential to expand refuge areas

Longer signal phases for crossing

Generally compatible with BRT and local service

- Overall Intersection LOS D (41.0 s/vh)
- 2 movements at LOS F
- 3 additional movements approaching LOS F

LB2: Eliminate Northbound and Southbound Through



Two-stage crossing only to a center refuge between NB and SB left-turning vehicle paths

Two-stage crossing only to a center refuge between NB and SB left-turning vehicles

Generally compatible with BRT and local service

- Overall Intersection LOS C (25.6 s/vh)
- 3 movements approaching LOS F
- Restricts some access

University Avenue & Midvale Boulevard (with Madison workshop comments)

Scenario

Base Conditions



Pedestrian

Concerns regarding time to cross and small refuge areas within University Ave.

Bicycle

Difficult crossing

Transit

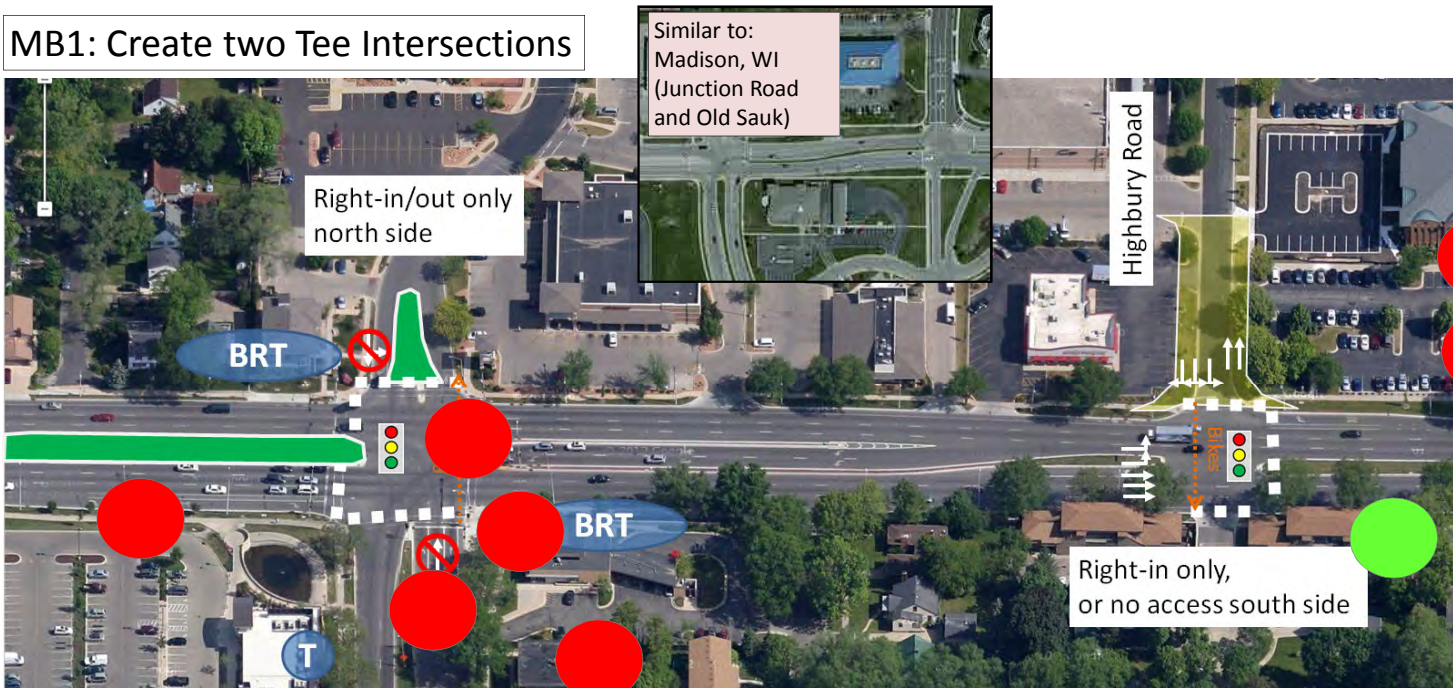
Existing Metro stops:

- Outbound west of Midvale Blvd.
- Inbound east of Midvale Blvd.
- Southbound south of University Ave.

Motor Vehicles (115% of existing traffic)

- Overall Intersection LOS E (70.7 s/vh)
- 5 movements at LOS F
- 3 additional movements approaching LOS F

MB1: Create two Tee Intersections



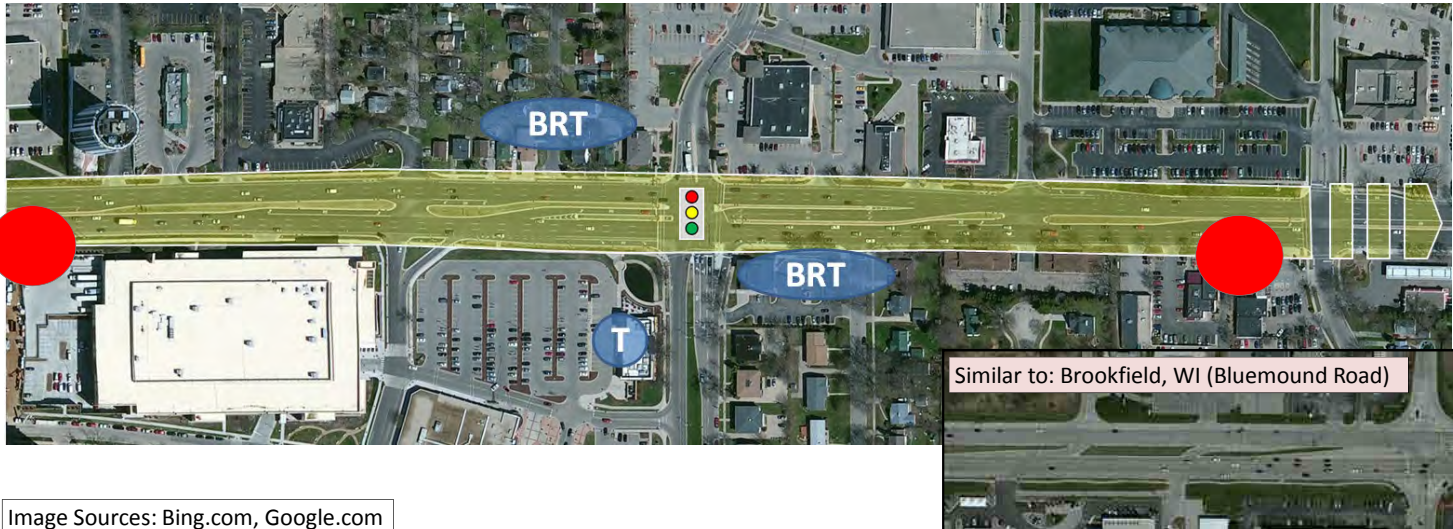
Two-stage ped crossing on one side only (west at Midvale, east at Highbury)

North-south crossing in one direction only at each intersection: (northbound at Midvale, southbound at Highbury)

Generally compatible with BRT and local service

- Midvale
 - Overall Intersection LOS C (26.2 s/vh)
 - 2 movements approaching LOS F
 - Restricts some access
- Highbury
 - Overall Intersection LOS D (47.1 s/vh)
 - 0 movements approaching LOS F
 - Restricts some access

MB2: 8-Lane Corridor (4 All-Purpose Lanes each direction)



- Longer signal phases for crossing
- Longer distances to cross
- Little/no terrace along University Avenue for eastbound and westbound pedestrians

- Longer distances to cross
- More lanes to navigate eastbound and westbound

Generally compatible with BRT and local service

- Overall Intersection LOS C (31.3 s/vh)
- 2 movements at LOS F
- 3 add'l movements approaching LOS F

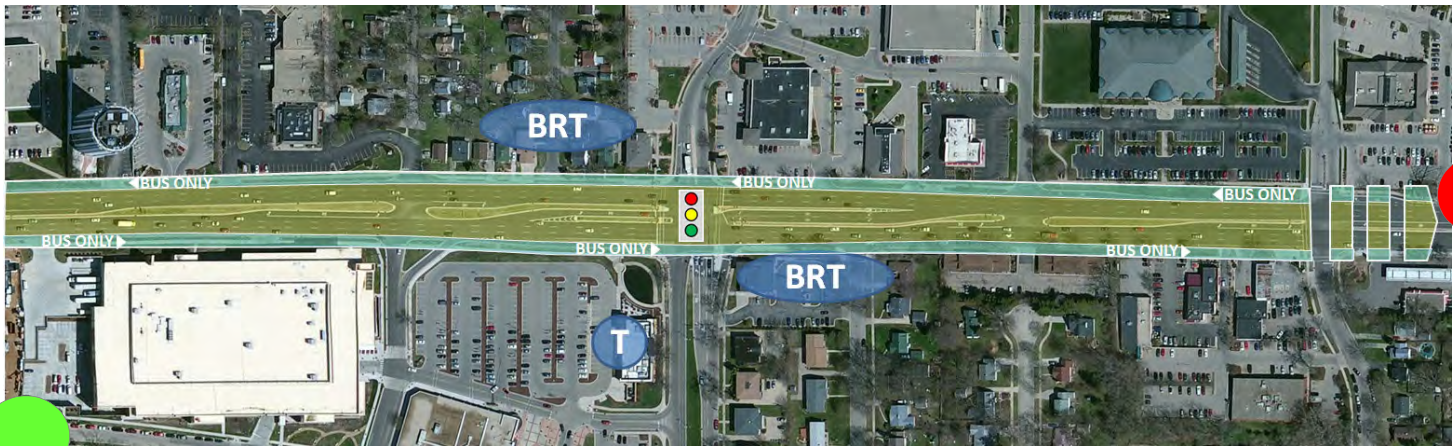
University Avenue & Midvale Boulevard (with Madison workshop comments)

Scenario

Base Conditions



MB3: 8-Lane Corridor (3 All-Purpose Lanes, 1 Bike/Transit/Right-Turn Lane each direction)



HB2: Grade Separated Westbound Lefts and Northbound Rights

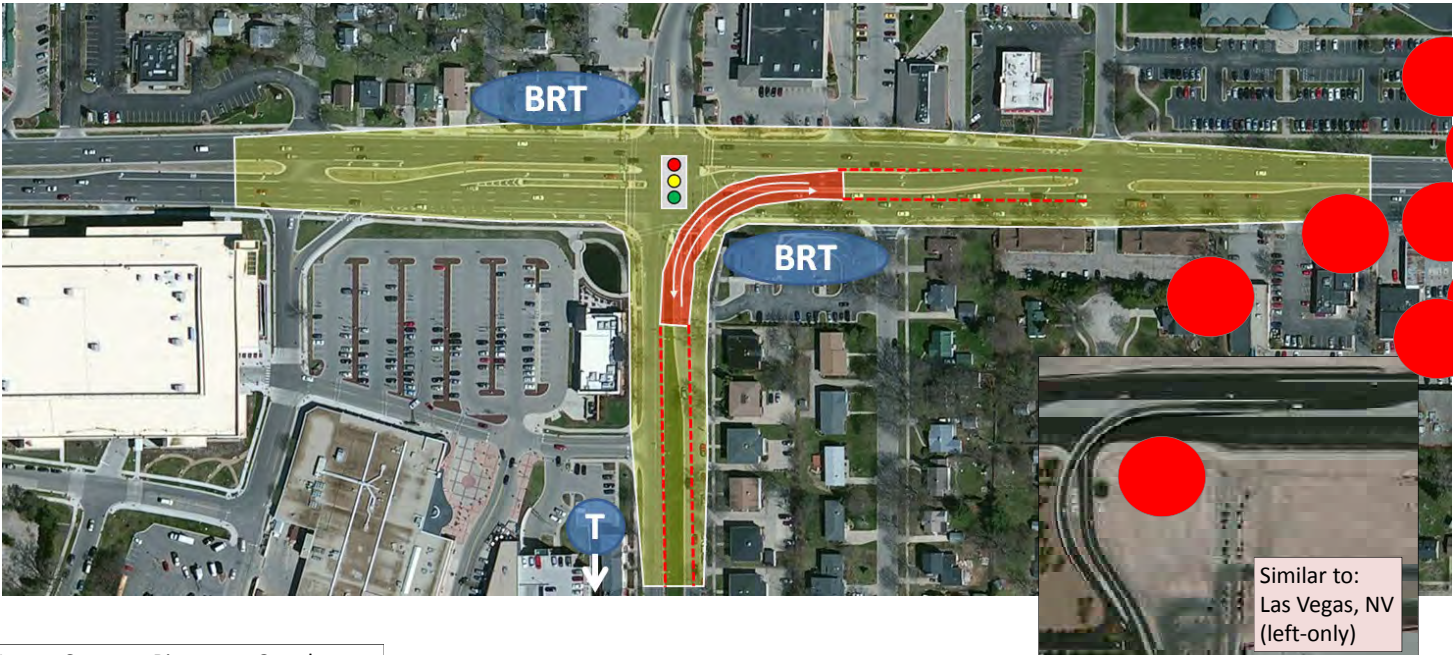


Image Sources: Bing.com, Google.com

Pedestrian

Concerns regarding time to cross and small refuge areas within University Ave.

- Longer signal phases for crossing
- Longer distances to cross
- Little/no terrace along University Avenue for eastbound and westbound pedestrians

- Similar conditions under bridge as today but with less turning traffic
- Longer crossing distances due to wider footprint to accommodate walls and structure

Bicycle

Difficult crossing

- Longer distances to cross
- More lanes to navigate eastbound and westbound
- Wider on-street east-west accommodation, but shared with buses and right turns

- Similar conditions under bridge as today but with less turning traffic
- Longer crossing distances due to wider footprint to accommodate walls and structure

Transit

Existing Metro stops:

- Outbound west of Midvale Blvd.
- Inbound east of Midvale Blvd.
- Southbound south of University Ave.

Improves travel times and reliability for BRT and local service

- Generally compatible with BRT and local service east-west
- Requires relocation of local service transit stop on southbound Midvale Boulevard farther south

Motor Vehicles (115% of existing traffic)

- Overall Intersection LOS E (70.7 s/vh)
- 5 movements at LOS F
- 3 additional movements approaching LOS F

- Overall Intersection LOS E (70.7 s/vh)
- 5 movements at LOS F
- 3 additional movements approaching LOS F

- Overall Intersection LOS C (34.8 s/vh)
- 1 movement approaching LOS F

University Avenue & Midvale Boulevard (with Madison workshop comments)

Scenario

Base Conditions



Pedestrian

Concerns regarding time to cross and small refuge areas within University Ave.

Bicycle

Difficult crossing

Transit

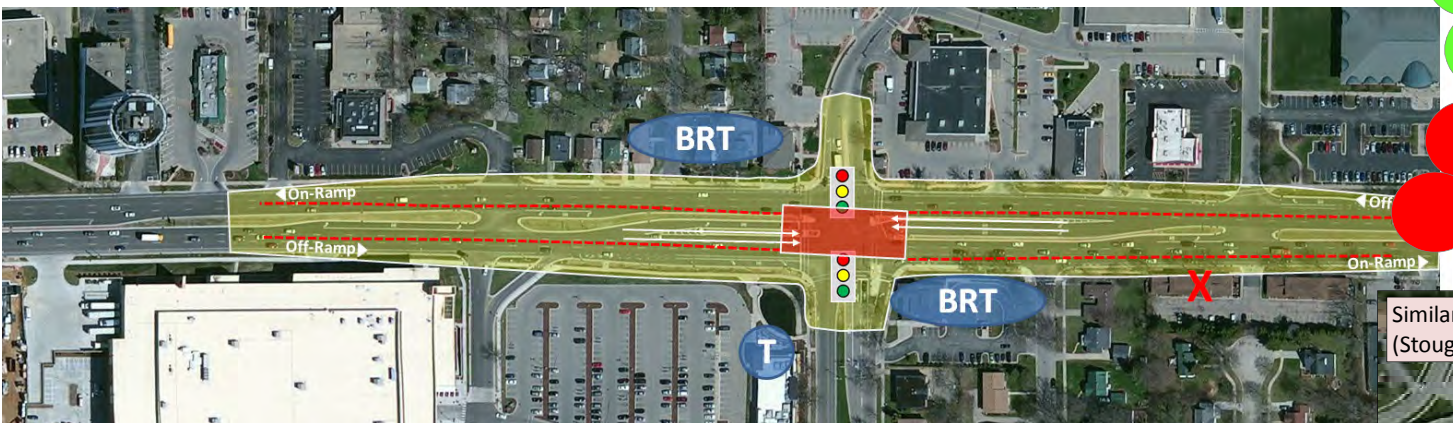
Existing Metro stops:

- Outbound west of Midvale Blvd.
- Inbound east of Midvale Blvd.
- Southbound south of University Ave.

Motor Vehicles (115% of existing traffic)

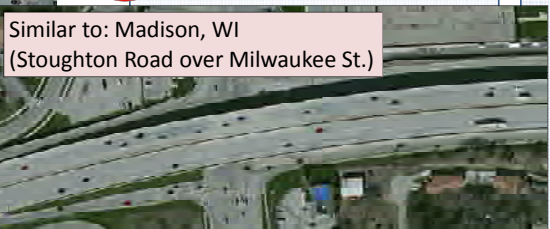
- Overall Intersection LOS E (70.7 s/vh)
- 5 movements at LOS F
- 3 additional movements approaching LOS F

HB4: Tight Urban Diamond Interchange (possible Campus Drive extension)



- Short crossing lengths and reduced traffic through signals
- Two intersections to cross north-south, rather than one

Similar to: Madison, WI
(Stoughton Road over Milwaukee St.)

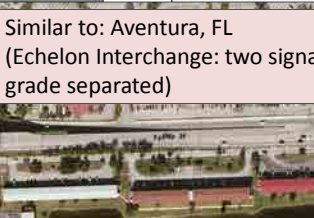


HB5: Grade Separate Eastbound Through, Westbound Left, and Northbound Right



- Similar conditions under bridge as today but with less traffic
- Longer crossing distances due to wider footprint to accommodate walls and structure

Similar to: Aventura, FL
(Echelon Interchange: two signals, grade separated)



- Similar conditions under bridge as today but with less traffic
- Longer crossing distances due to wider footprint to accommodate walls and structure

- Generally compatible with BRT and local service east-west
- Requires relocation of local service transit stop on southbound Midvale Boulevard farther south

- Midvale Signal
 - Overall Intersection LOS B (19.2 s/vh)
 - 1 movement at LOS F
- Elevated EBT, WBL, NBL Signal
 - Overall Intersection LOS C (24.7 s/vh)

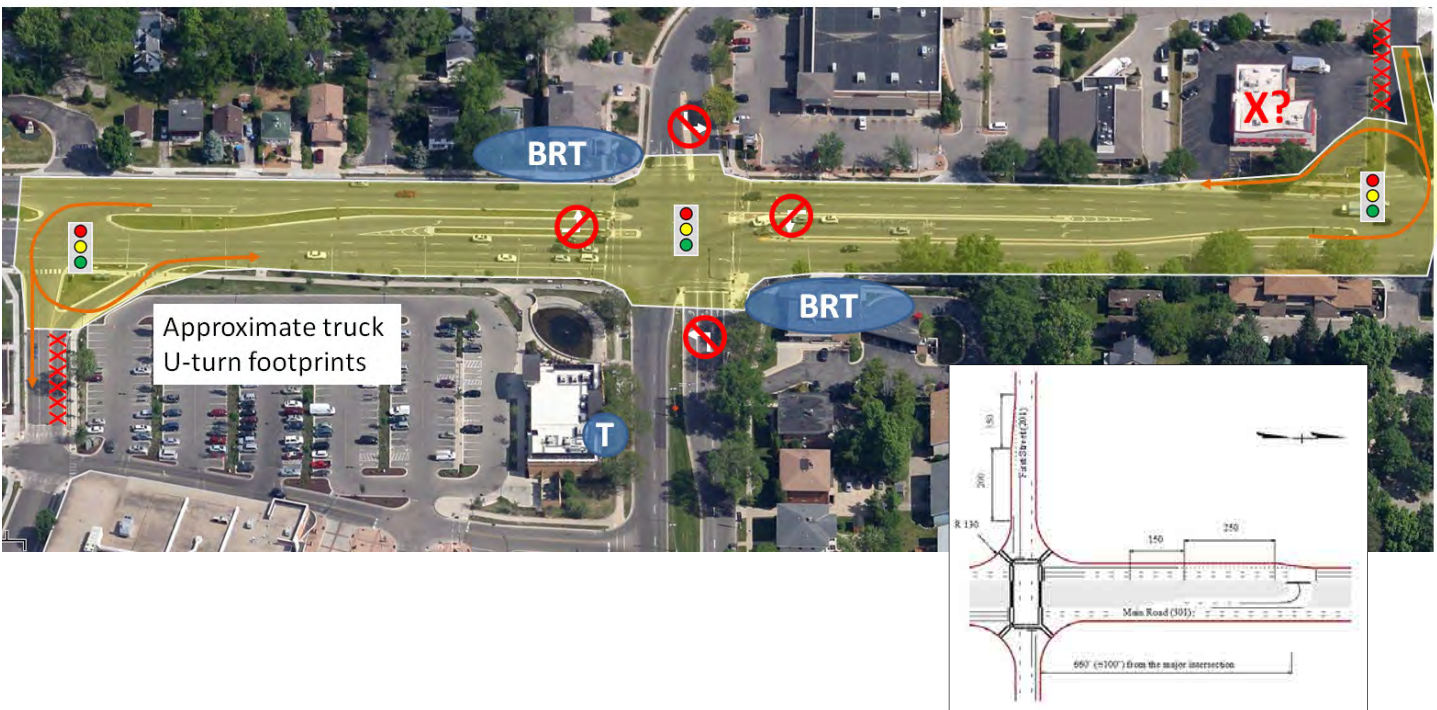
University Avenue & Midvale Boulevard (with Madison workshop comments)

Scenario

Base Conditions



HB6: Indirect Left-Turn Corridor



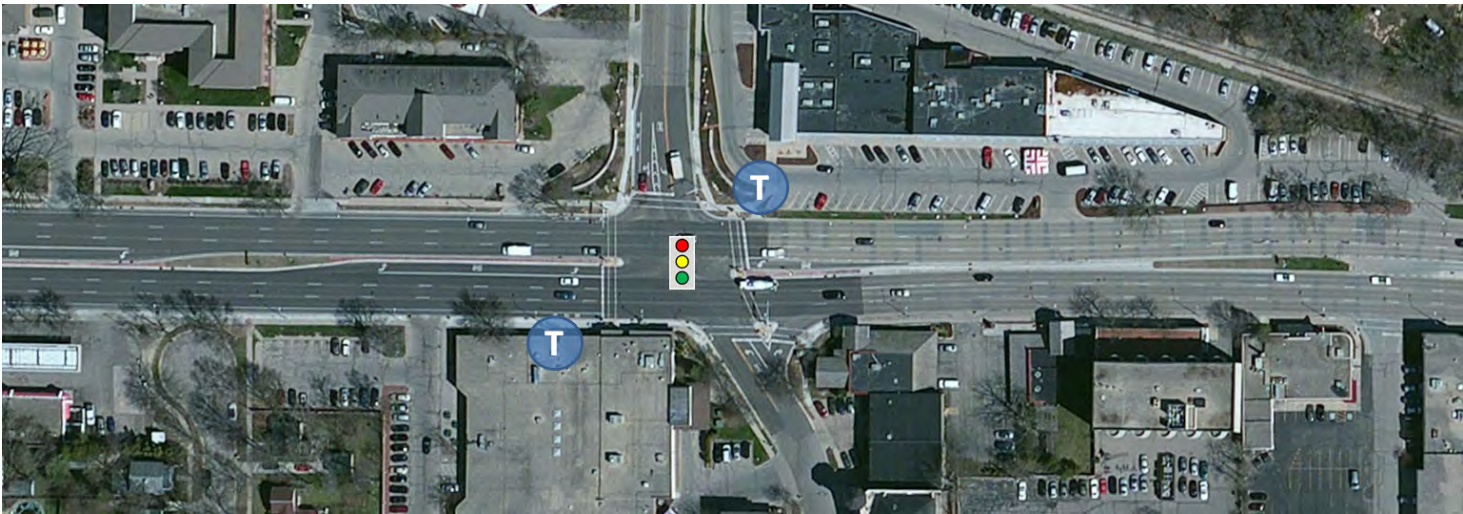
<u>Pedestrian</u>	<u>Bicycle</u>	<u>Transit</u>	<u>Motor Vehicles (115% of existing traffic)</u>
Concerns regarding time to cross and small refuge areas within University Ave.	Difficult crossing	Existing Metro stops: • Outbound west of Midvale Blvd. • Inbound east of Midvale Blvd. • Southbound south of University Ave.	• Overall Intersection LOS E (70.7 s/vh) • 5 movements at LOS F • 3 additional movements approaching LOS F
• Significantly longer signal phases for crossing (two-phase signal) • Eliminates left-turning vehicle conflicts • Could also add two-stage signalized crossings at east and west u-turn locations	• Significantly longer signal phases for crossing (two-phase signal) • Eliminates left-turning vehicle conflicts • Could also add two-stage signalized crossings at east and west u-turn locations	• Generally compatible with BRT • Local outbound service to southbound Midvale Boulevard requires buses to make a U-turn	• Midvale Signal • Overall Intersection LOS C (21.5 s/vh) • 1 movement approaching LOS F • West U-Turn Signal • Overall Intersection LOS B (11.3 s/vh) • Restricts some access • East U-Turn Signal • Overall Intersection LOS A (7.4 s/vh) • 1 movement approaching LOS F • Restricts some access

- Dismissed Alternatives:**
- Providing Bus/Bike/Right-Turn Lane without Expansion (Poor operations without significant MV demand reduction)
 - Flomax Intersection / Diverging Arterial (Poor operations and intimidating/unconventional bike/ped)
 - Single Point Urban Interchange (higher impacts than HB1 – Tight Diamond Urban Interchange)
 - Continuous Flow Intersection (poor bike/ped accommodations, large footprint, and no significant benefits over other alts)

University Avenue & Shorewood Boulevard (with comments from Madison workshop)

Scenario

Base Conditions



Pedestrian

Multiple concerns regarding turning vehicles and failure to yield to peds in crosswalks

Bicycle

Difficult crossing

Transit

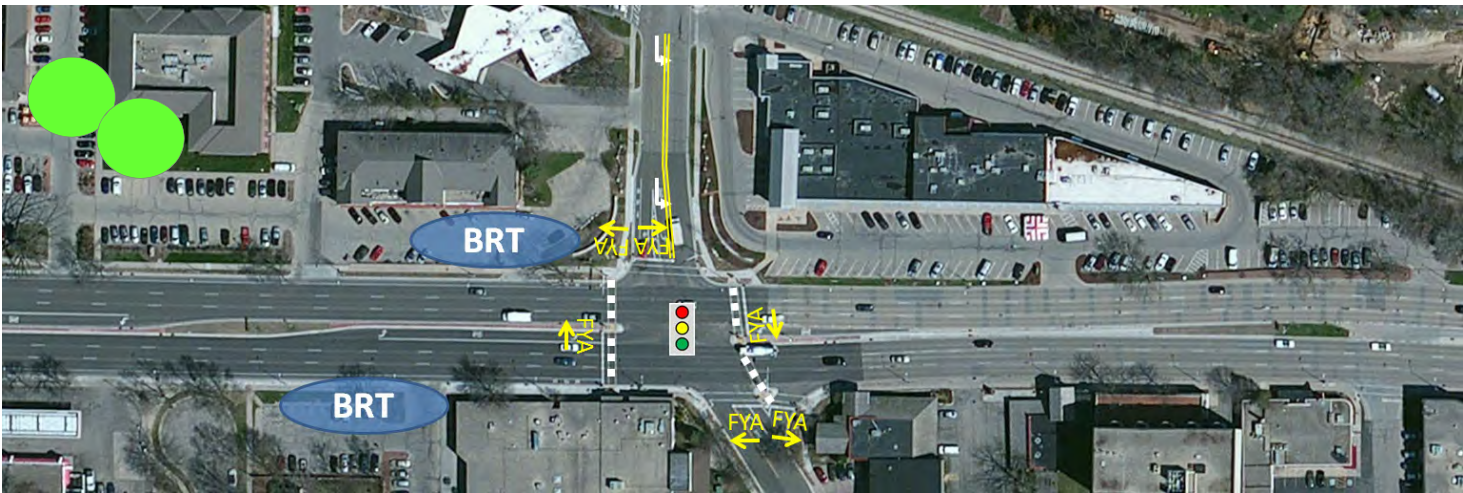
Existing Metro stops:

- Westbound east of Shorewood Blvd.
- Eastbound west of Shorewood Blvd.

Motor Vehicles (115% of existing traffic)

- Overall Intersection LOS E (68.9 s/vh)
- 2 movements at LOS F

LB1B: Extend Southbound Left Storage, Enhance Crosswalks, Install Flashing Yellow Arrow Signal Heads



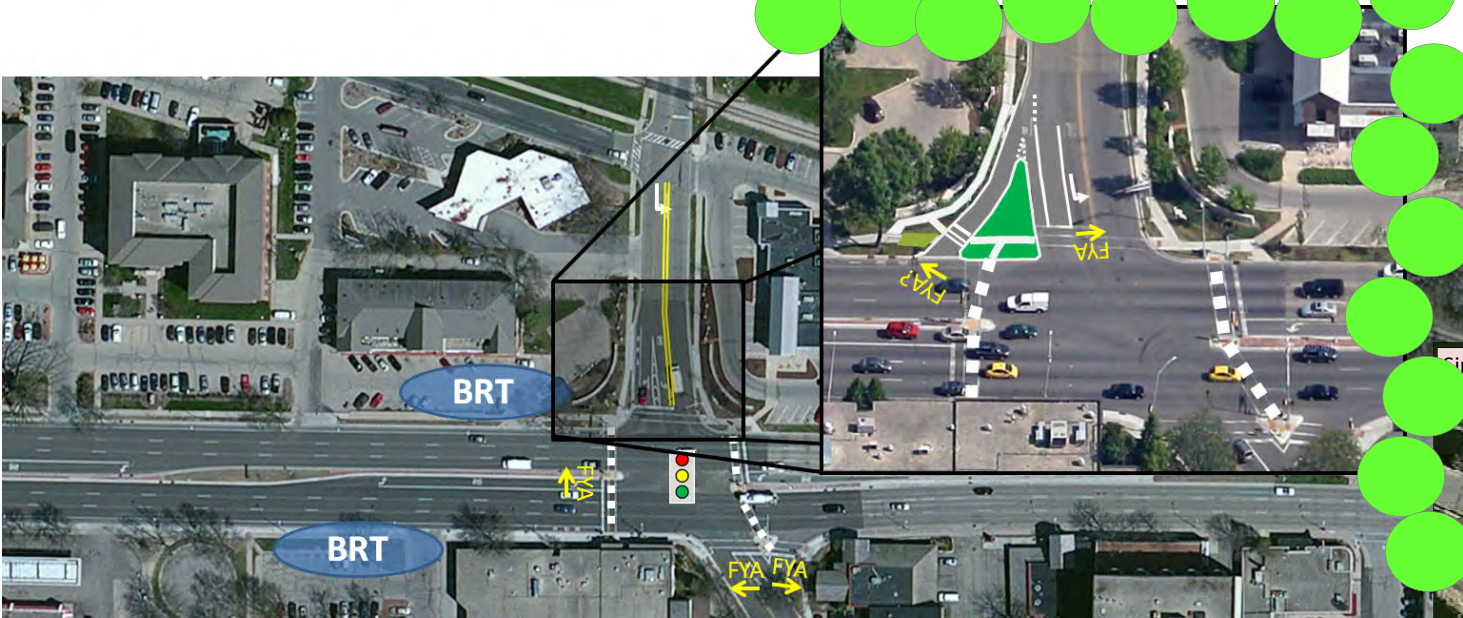
Enhanced crosswalks and flashing yellow arrow signal heads to improve driver compliance

Potential for improved driver awareness

Generally compatible with BRT

- Overall Intersection LOS E (68.9 s/vh)
- 2 movements at LOS F

LB1C: Same as LB1B plus Reconfigure Southbound Right Turn

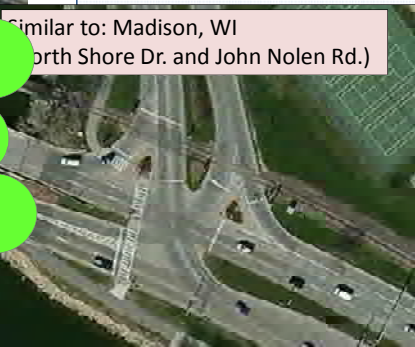


Improved driver compliance and large pedestrian refuge added

- Southbound bikes separated from right-turning motor vehicles
- Potential improved driver awareness

Generally compatible with BRT

- Overall Intersection LOS E (68.9 s/vh)
- 2 movements at LOS F



Scenario

An aerial photograph of a city intersection. A horizontal road runs across the middle of the image, and a vertical road runs through it. At the intersection, there is a traffic light pole with a red, yellow, and green light. Two blue circular markers with a white 'T' are placed on the image: one on the horizontal road to the left of the intersection, and another on the vertical road above the intersection. The surrounding area includes various buildings, parking lots with many cars, and some greenery.

Multiple concerns regarding turning vehicles and failure to yield to peds in crosswalks

- Potential improved driver compliance and large refuge added for crossing on the east side
- Potential for partial signal at Blackhawk to provide an additional two-stage signalized crossing

Difficult crossing

Potential improved driver awareness

Existing Metro stops:

- Westbound east of Shorewood Blvd.
- Eastbound west of Shorewood Blvd.

Generally compatible
with BRT

- Overall Intersection LOS E (68.9 s/vh)
- 2 movements at LOS F

- Overall Intersection LOS E (68.9 s/vh)
- 2 movements at LOS F

Potential improved driver compliance

Potential for improved driver awareness

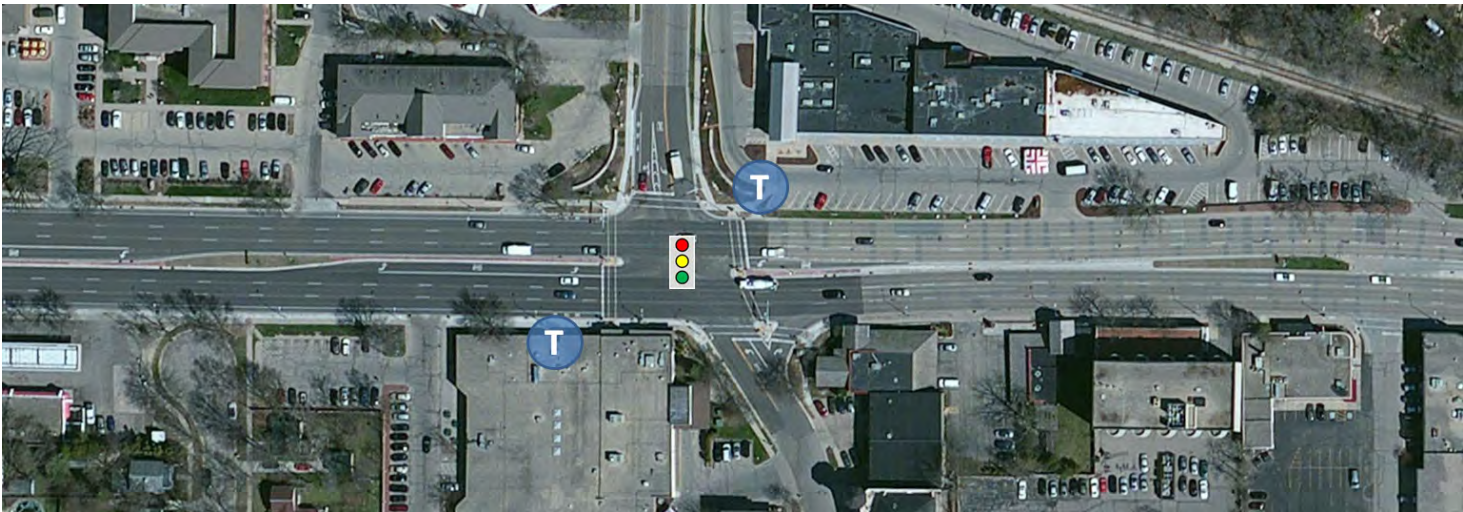
Generally compatible
with BRT

- Overall Intersection LOS D (41.4 s/vh)
- 2 movements at LOS F
- Restricts some access

University Avenue & Shorewood Boulevard (with comments from Madison workshop)

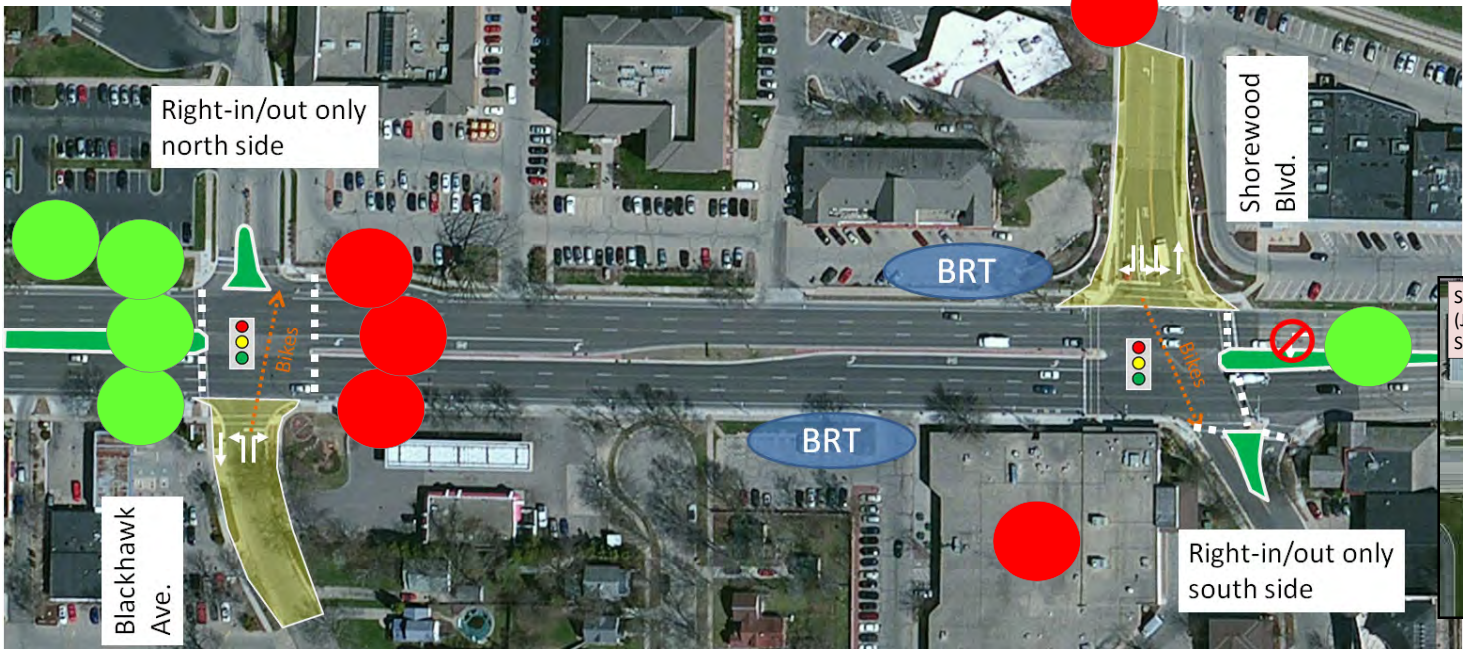
Scenario

Base Conditions



MB1: Offset Tee Intersections

This is confusing since the Base image does not show Blackhawk – some people are confusing Shorewood Blvd. for Blackhawk



Pedestrian

Multiple concerns regarding turning vehicles and failure to yield to peds in crosswalks

Bicycle

Difficult crossing

Transit

Existing Metro stops:

- Westbound east of Shorewood Blvd.
- Eastbound west of Shorewood Blvd.

Motor Vehicles (115% of existing traffic)

- Overall Intersection LOS E (68.9 s/vh)
- 2 movements at LOS F

- Signalized crossing added at Blackhawk Ave.
- Single crossing only at Shorewood Blvd. (east side, opposite eastbound left-turn).

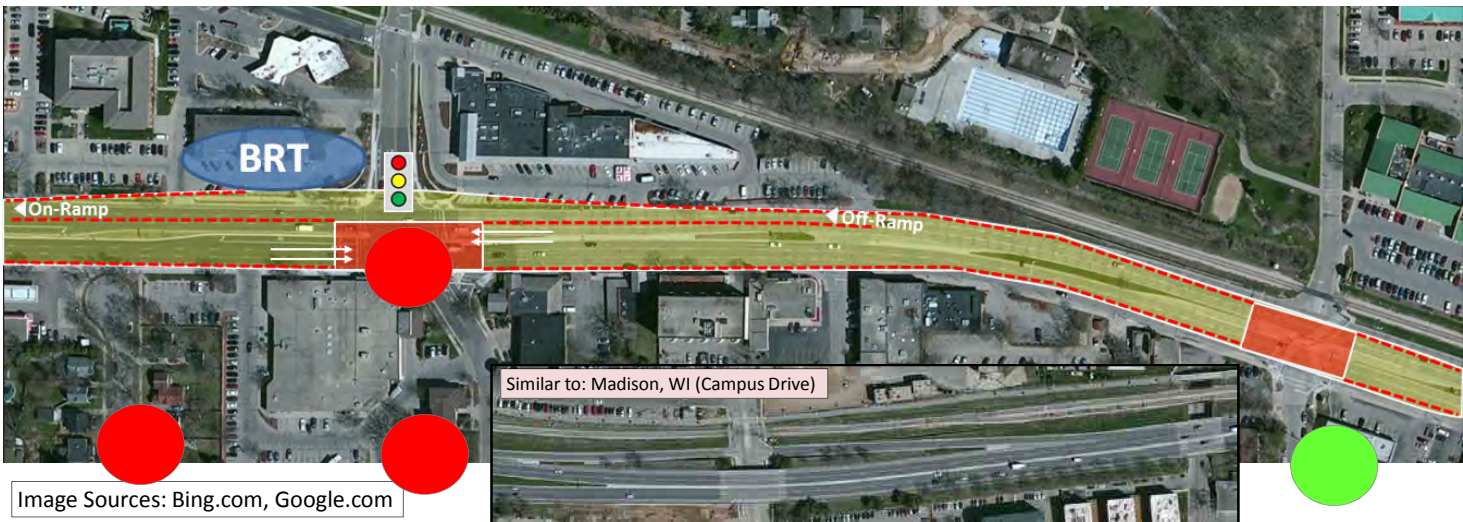
- Single direction only crossing allowed at each signal (northbound at Blackhawk Ave., southbound ad Shorewood Blvd.)

Generally compatible
with BRT

- Shorewood Boulevard:
 - Overall Intersection LOS B (15.5 s/vh)
 - 1 movement approaching LOS F
 - Restricts some access
- Blackhawk Avenue:
 - Overall Intersection LOS C (27.1 s/vh)
 - Restricts some access

Similar to: Madison, WI
(Junction Road and Old Sauk)

HB1: Tight Half Diamond Interchange (possible Campus Drive extension, westbound access only)



- Short crossing lengths through signal
- Significantly less traffic through signal

Less traffic through
signal

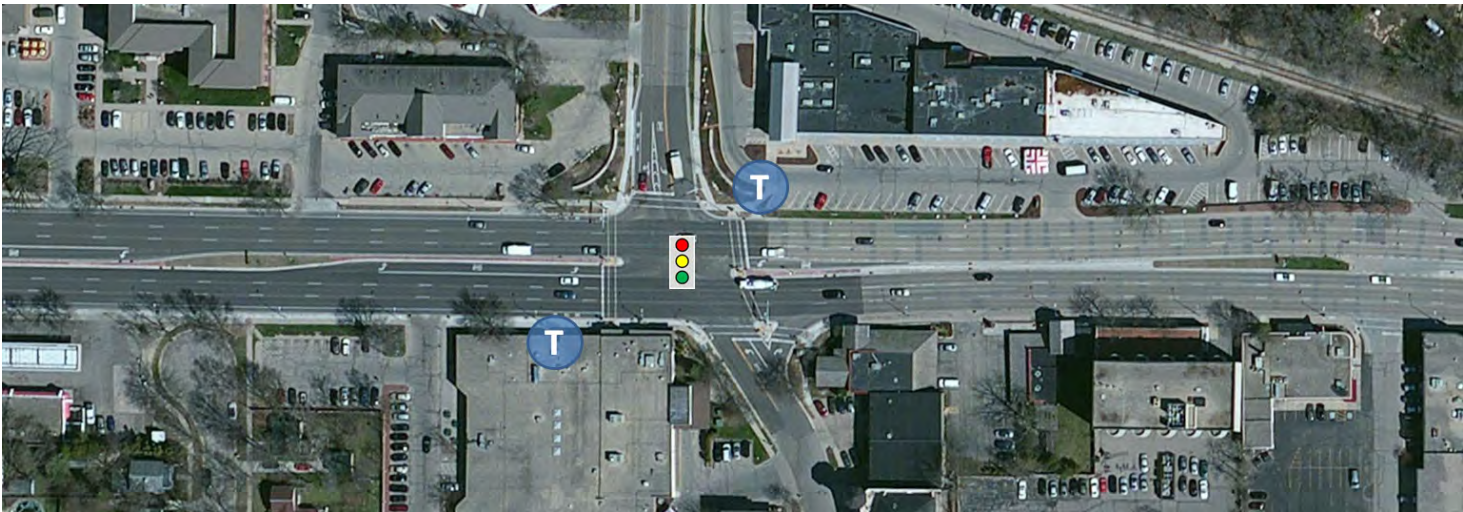
Less compatible with BRT due to impacts of locating outbound station and loss of location for inbound station at Shorewood Boulevard

- Overall Intersection LOS A (5.5 s/vh)
- Significant access restrictions
 - Eliminates entry to Village from the west (all traffic must use Midvale Blvd/ Rose Pl.)
 - Eliminates exit from Village to the east (all traffic must use Midvale Blvd./ Rose Place or University Bay Dr.)

University Avenue & Shorewood Boulevard (with comments from Madison workshop)

Scenario

Base Conditions



Pedestrian

Multiple concerns regarding turning vehicles and failure to yield to peds in crosswalks

Bicycle

Difficult crossing

Transit

Existing Metro stops:

- Westbound east of Shorewood Blvd.
- Eastbound west of Shorewood Blvd.

Motor Vehicles (115% of existing traffic)

- Overall Intersection LOS E (68.9 s/vh)
- 2 movements at LOS F

HB2: 8-Lane Corridor (4 All-Purpose Lanes each direction)



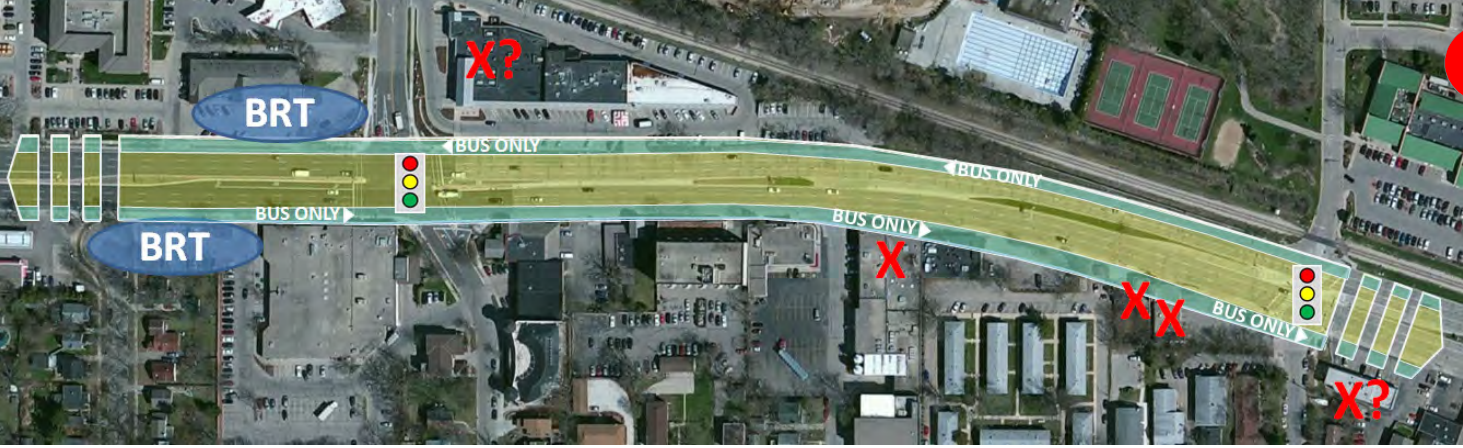
- Longer signal phases for crossing
- Longer distances to cross
- Little/no terrace along University Avenue for eastbound and westbound pedestrians

- Longer distances to cross
- More lanes to navigate eastbound and westbound

Generally compatible with BRT and local service

- Overall Intersection LOS B (15.8 s/vh)
- 1 movement approaching LOS F

HB3: 8-Lane Corridor (3 All-Purpose Lanes, 1 Bike/Bus/Right-Turn Lane each direction)



- Longer signal phases for crossing
- Longer distances to cross
- Little/no terrace along University Avenue for eastbound and westbound pedestrians

- Longer distances to cross
- More lanes to navigate eastbound and westbound
- Wider on-street east-west accommodation, but shared with buses and right turns

Generally compatible with BRT and local service

- Overall Intersection LOS E (68.9 s/vh)
- 2 movements at LOS F

Dismissed Alternatives:

- Providing Bus/Bike/Right-Turn Lane without Expansion (poor ops without significant MV demand reduction)
- Full Tight Diamond Interchange (8 or more business relocations)
- Indirect Left-Turn Corridor (5 or more business relocations)
- Continuous Flow Intersection (10 or more business relocations)

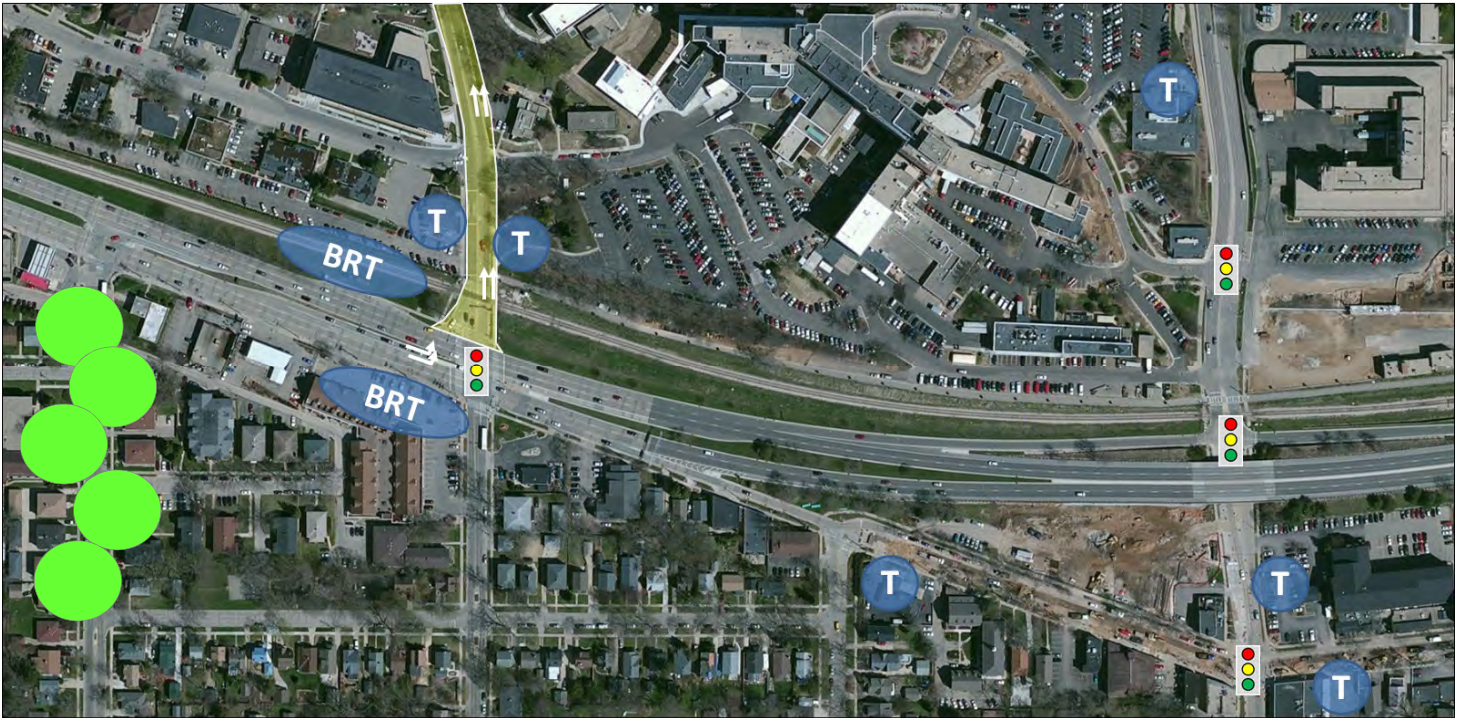
University Avenue & Farley Avenue/University Bay Drive Area (with comments from Madison workshop)

Scenario

Base Conditions



MB1: Dual Eastbound Left-Turn Lanes



 **Two lanes inbound in the AM.**
Two lanes outbound in the PM.

Pedestrian

Multiple concerns including ped crossings at signalized intersections, lack of sidewalk on Highland Ave., and east-west campus path crossings

Longer crossing distances on west and north legs

Bicycle

Multiple concerns including northbound/inbound bike access to hospital complexes, east-west campus path crossings, and conditions along University Ave.

Longer crossing distances on west and north legs

Transit

Existing Metro stops:

- Inbound
 - West of Farley Ave./ U-Bay Dr.
 - East of Grand Ave.
 - East of Highland Ave.
- Outbound west of Farley Ave./ U-Bay Dr.
- Northbound
 - North of Campus Dr. on Farley Ave./ U-Bay Dr.
 - North of University Ave. on Highland Ave.
- Southbound
 - North of Campus Drive on Farley Ave./ U-Bay Dr.
 - Near VA on Highland Ave.

Generally compatible with BRT and local service

Motor Vehicles (115% of existing traffic)

- University Ave. & Farley Ave./ U-Bay Dr.
 - Overall Intersection LOS D (40.6 s/vh)
 - 1 movement at LOS F
 - 1 add'l movement approaching LOS F
- University Ave. & Highland Ave.
 - Overall Intersection LOS B (16.4 s/vh)
- Highland Ave. & Westbound Campus Dr.
 - Overall Intersection LOS C (24.0 s/vh)
- Highland Ave. & VA Hospital
 - Overall Intersection LOS B (17.4 s/vh)

- University Ave. & Farley Ave./ U-Bay Dr.
 - Overall Intersection LOS D (38.8 s/vh)
 - 1 movement at LOS F
 - 3 add'l movements approaching LOS F
 - Requires expansion of U-Bay Dr.
- No changes at remaining signals

University Avenue & Farley Avenue/University Bay Drive Area (with comments from Madison workshop)

Scenario

Base Conditions



MB2: Dual Eastbound Left-Turn Lanes and Southbound Right-Turn Lanes



Prohibit “right on red” and create a larger pedestrian island.

Add dedicated pedestrian signal phases for north-south crossings

Pedestrian

Multiple concerns including ped crossings at signalized intersections, lack of sidewalk on Highland Ave., and east-west campus path crossings

Longer crossing distances on west and north legs.

Bicycle

Multiple concerns including northbound/inbound bike access to hospital complexes, east-west campus path crossings, and conditions along University Ave.

Longer crossing distances on west and north legs.

Transit

Existing Metro stops:

- Inbound
 - West of Farley Ave./ U-Bay Dr.
 - East of Grand Ave.
 - East of Highland Ave.
- Outbound west of Farley Ave./ U-Bay Dr.
- Northbound
 - North of Campus Dr. on Farley Ave./ U-Bay Dr.
 - North of University Ave. on Highland Ave.
- Southbound
 - North of Campus Drive on Farley Ave./ U-Bay Dr.
 - Near VA on Highland Ave.

Generally compatible with BRT and local service

Motor Vehicles (115% of existing traffic)

- University Ave. & Farley Ave./ U-Bay Dr.
 - Overall Intersection LOS D (40.6 s/vh)
 - 1 movement at LOS F
 - 1 add'l movement approaching LOS F
- University Ave. & Highland Ave.
 - Overall Intersection LOS B (16.4 s/vh)
- Highland Ave. & Westbound Campus Dr.
 - Overall Intersection LOS C (24.0 s/vh)
- Highland Ave. & VA Hospital
 - Overall Intersection LOS B (17.4 s/vh)

- University Ave. & Farley Ave./ U-Bay Dr.
 - Overall Intersection LOS C (29.9 s/vh)
 - Requires expansion of U-Bay Dr.
- No changes at remaining signals

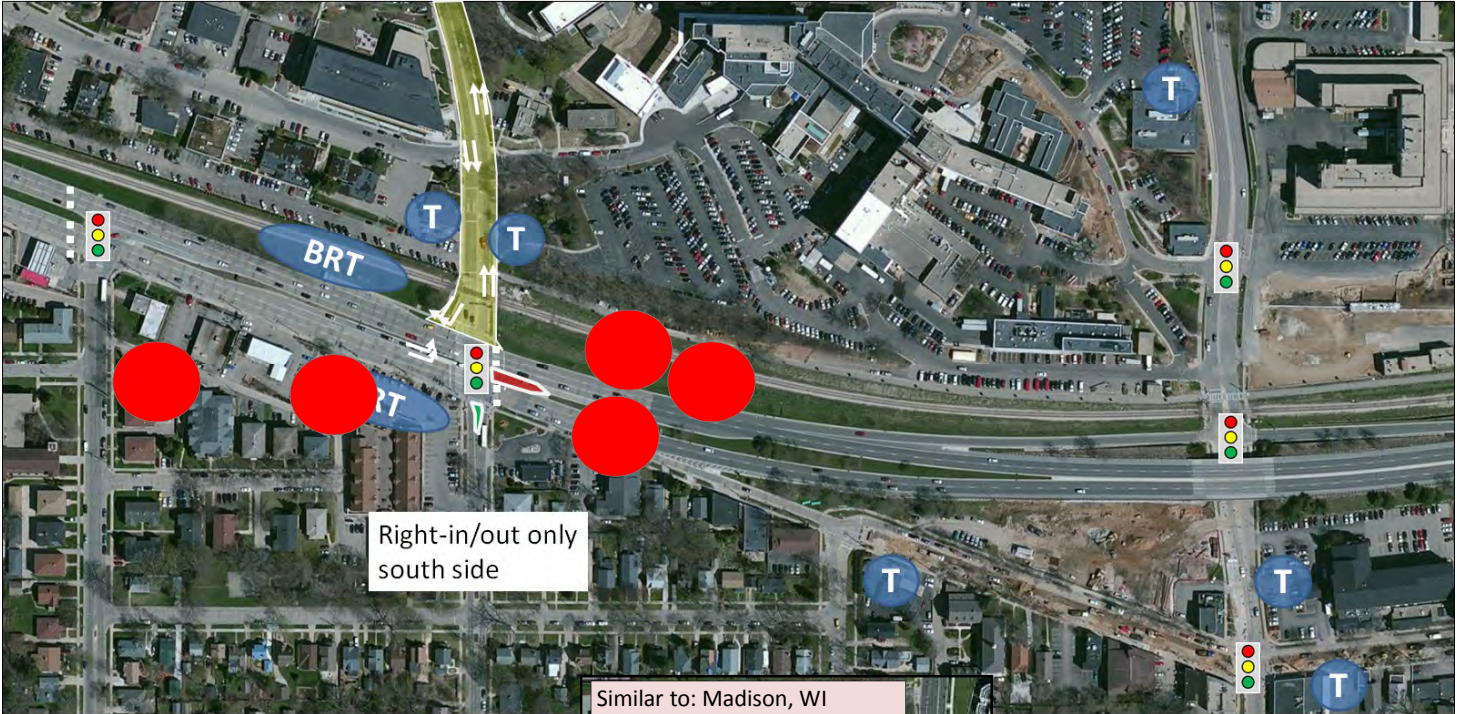
University Avenue & Farley Avenue/University Bay Drive Area (with comments from Madison workshop)

Scenario

Base Conditions



MB3: Split Tee Intersections with full access to University Bay Drive



Pedestrian

Multiple concerns including ped crossings at signalized intersections, lack of sidewalk on Highland Ave., and east-west campus path crossings

Bicycle

Multiple concerns including northbound/inbound bike access to hospital complexes, east-west campus path crossings, and conditions along University Ave.

Transit

Existing Metro stops:

- Inbound
 - West of Farley Ave./ U-Bay Dr.
 - East of Grand Ave.
 - East of Highland Ave.
- Outbound west of Farley Ave./ U-Bay Dr.
- Northbound
 - North of Campus Dr. on Farley Ave./ U-Bay Dr.
 - North of University Ave. on Highland Ave.
- Southbound
 - North of Campus Drive on Farley Ave./ U-Bay Dr.
 - Near VA on Highland Ave.

Motor Vehicles (115% of existing traffic)

- University Ave. & Farley Ave./ U-Bay Dr.
 - Overall Intersection LOS D (40.6 s/vh)
 - 1 movement at LOS F
 - 1 add'l movement approaching LOS F
- University Ave. & Highland Ave.
 - Overall Intersection LOS B (16.4 s/vh)
- Highland Ave. & Westbound Campus Dr.
 - Overall Intersection LOS C (24.0 s/vh)
- Highland Ave. & VA Hospital
 - Overall Intersection LOS B (17.4 s/vh)



If only crossing is on east side, must cross twice to get to bus stop in NW quadrant

- Crossing only on east side of Farley Ave./ U-Bay Dr.
- Two-stage crossing with large refuge possible
- Adds signalized crossing at Franklin Ave. tee intersection pending completion of sidewalk on north side

- Two stage north-south crossing on east side only



Generally compatible with BRT and local service

- University Ave. & Farley Ave./ U-Bay Dr.
 - Overall Intersection LOS C (24.0 s/vh)
 - Requires expansion of U-Bay Dr.
- University Ave. & Franklin Ave. (south Tee)
 - Overall Intersection LOS A (7.1 s/vh)
- No changes at remaining signals

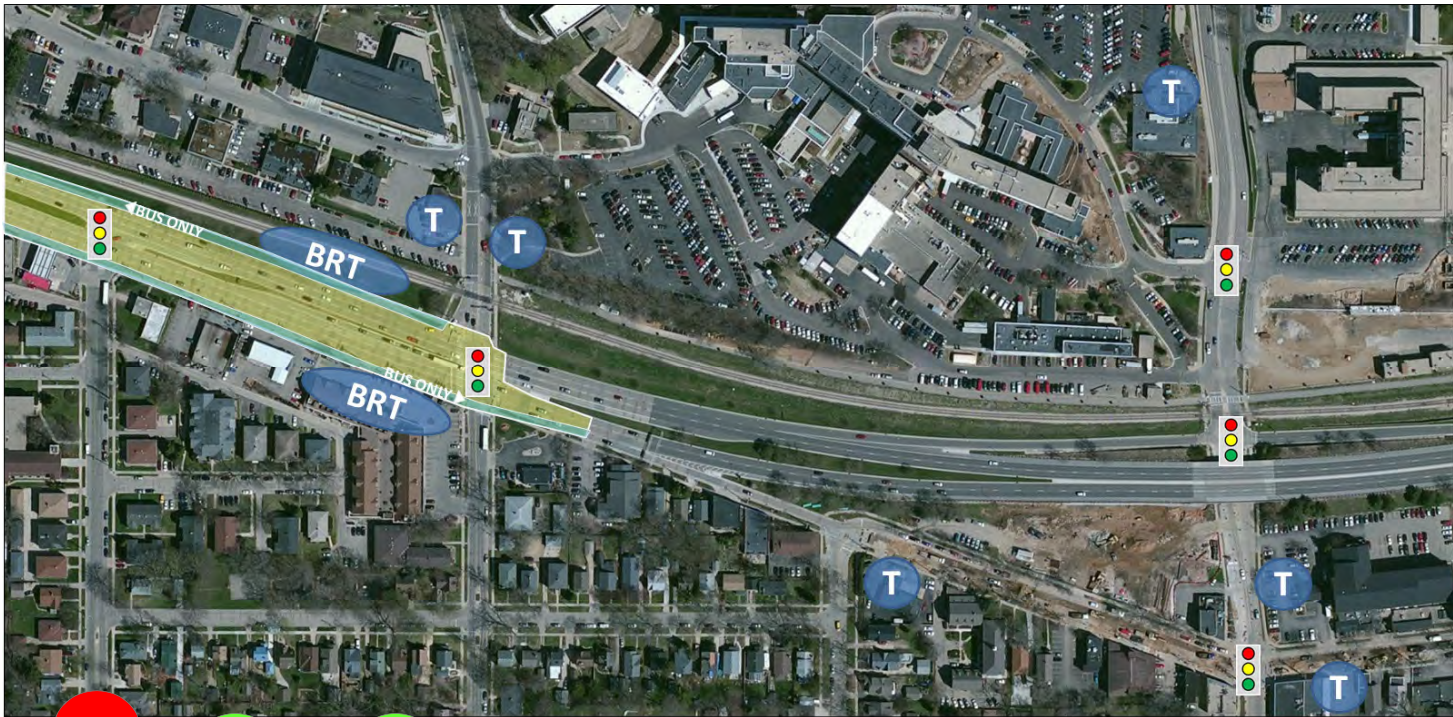
University Avenue & Farley Avenue/University Bay Drive Area (with comments from Madison workshop)

Scenario

Base Conditions



MB4: 8-Lane Corridor (3 All-Purpose Lanes, 1 Bike/Transit/Right-Turn Lane each direction)



*Does this prevent EB cars from entering Old University?
(No, that's not the intent)*

Pedestrian

Multiple concerns including ped crossings at signalized intersections, lack of sidewalk on Highland Ave., and east-west campus path crossings

- Longer distances to cross
- Little/no terrace along University Avenue for eastbound and westbound pedestrians west of Farley Avenue

Bicycle

Multiple concerns including northbound/inbound bike access to hospital complexes, east-west campus path crossings, and conditions along University Ave.

- Longer distances to cross
- More lanes to navigate eastbound and westbound west of Farley Avenue
- Wider on-street east-west accommodation, but shared with buses and right turns

Transit

Existing Metro stops:

- Inbound
 - West of Farley Ave./ U-Bay Dr.
 - East of Grand Ave.
 - East of Highland Ave.
- Outbound west of Farley Ave./ U-Bay Dr.
- Northbound
 - North of Campus Dr. on Farley Ave./ U-Bay Dr.
 - North of University Ave. on Highland Ave.
- Southbound
 - North of Campus Drive on Farley Ave./ U-Bay Dr.
 - Near VA on Highland Ave.

Improves travel time and reliability for BRT and local service

Motor Vehicles (115% of existing traffic)

- University Ave. & Farley Ave./ U-Bay Dr.
 - Overall Intersection LOS D (40.6 s/vh)
 - 1 movement at LOS F
 - 1 add'l movement approaching LOS F
- University Ave. & Highland Ave.
 - Overall Intersection LOS B (16.4 s/vh)
- Highland Ave. & Westbound Campus Dr.
 - Overall Intersection LOS C (24.0 s/vh)
- Highland Ave. & VA Hospital
 - Overall Intersection LOS B (17.4 s/vh)

- University Ave. & Farley Ave./ U-Bay Dr.
 - Overall Intersection LOS D (40.6 s/vh)
 - 1 movement at LOS F
 - 1 add'l movement approaching LOS F
- No changes at remaining signals

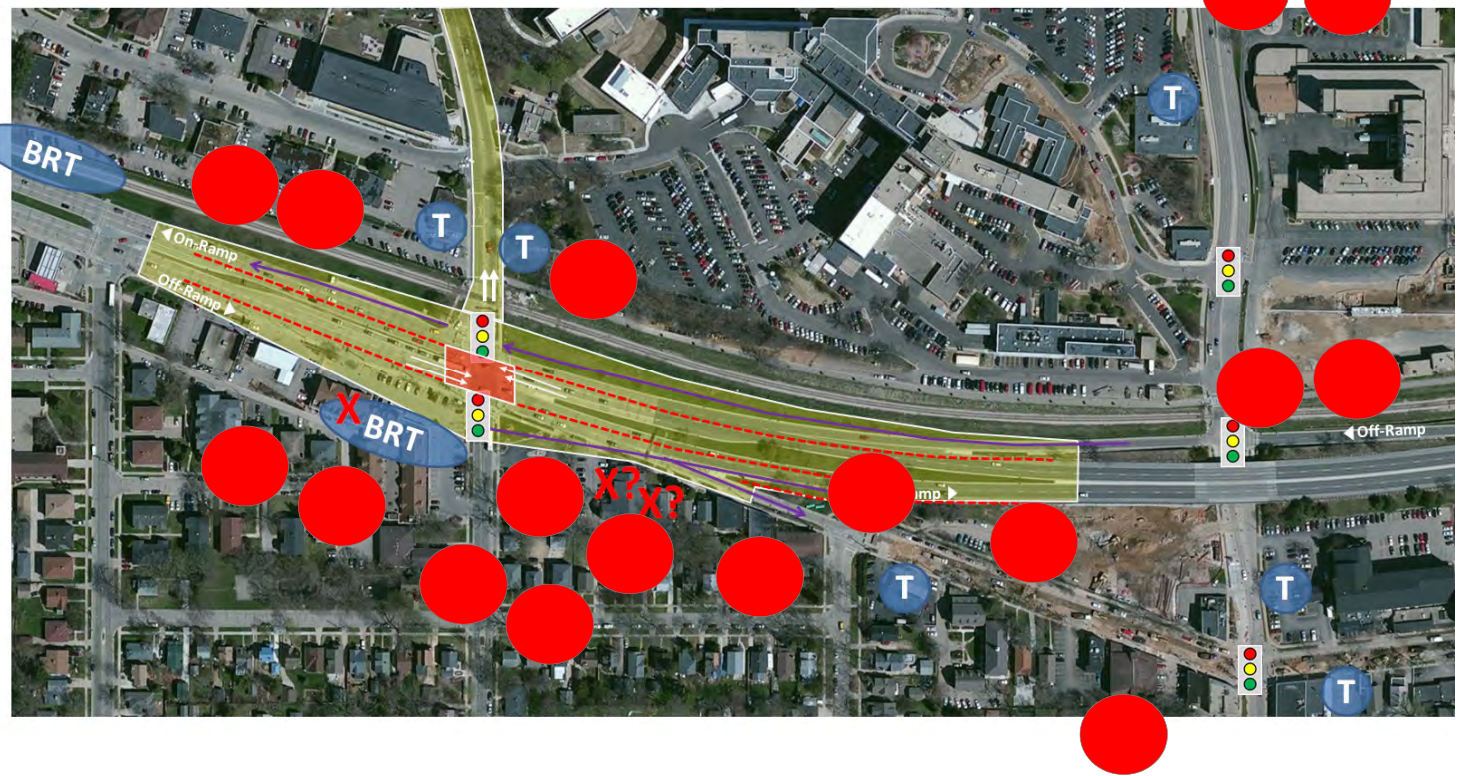
University Avenue & Farley Avenue/University Bay Drive Area (with comments from Madison workshop)

Scenario

Base Conditions



HB1: Modified Diamond Interchange (possible Campus Drive extension)



Pedestrian

Multiple concerns including ped crossings at signalized intersections, lack of sidewalk on Highland Ave., and east-west campus path crossings

- Short crossing lengths and reduced traffic through signals
- Two signalized intersections to cross rather than one

Bicycle

Multiple concerns including northbound/inbound bike access to hospital complexes, east-west campus path crossings, and conditions along University Ave.

- Less traffic through signals
- Two signalized intersections to cross rather than one

Transit

Existing Metro stops:

- Inbound
 - West of Farley Ave./ U-Bay Dr.
 - East of Grand Ave.
 - East of Highland Ave.
- Outbound west of Farley Ave./ U-Bay Dr.
- Northbound
 - North of Campus Dr. on Farley Ave./ U-Bay Dr.
 - North of University Ave. on Highland Ave.
- Southbound
 - North of Campus Drive on Farley Ave./ U-Bay Dr.
 - Near VA on Highland Ave.

- Less compatible with BRT due to relocation of outbound stop west of on-ramp and potential for weaving traffic
- Frequent entering and exiting along the corridor to make stops

Motor Vehicles (115% of existing traffic)

- University Ave. & Farley Ave./ U-Bay Dr.
 - Overall Intersection LOS D (40.6 s/vh)
 - 1 movement at LOS F
 - 1 add'l movement approaching LOS F
- University Ave. & Highland Ave.
 - Overall Intersection LOS B (16.4 s/vh)
- Highland Ave. & Westbound Campus Dr.
 - Overall Intersection LOS C (24.0 s/vh)
- Highland Ave. & VA Hospital
 - Overall Intersection LOS B (17.4 s/vh)

- University Ave. & Westbound Campus Drive Ramps
 - Overall Intersection LOS C (29.4 s/vh)
- University Ave. & Eastbound Campus Drive Ramps
 - Overall Intersection LOS C (26.9 s/vh)
- No changes at remaining signals.

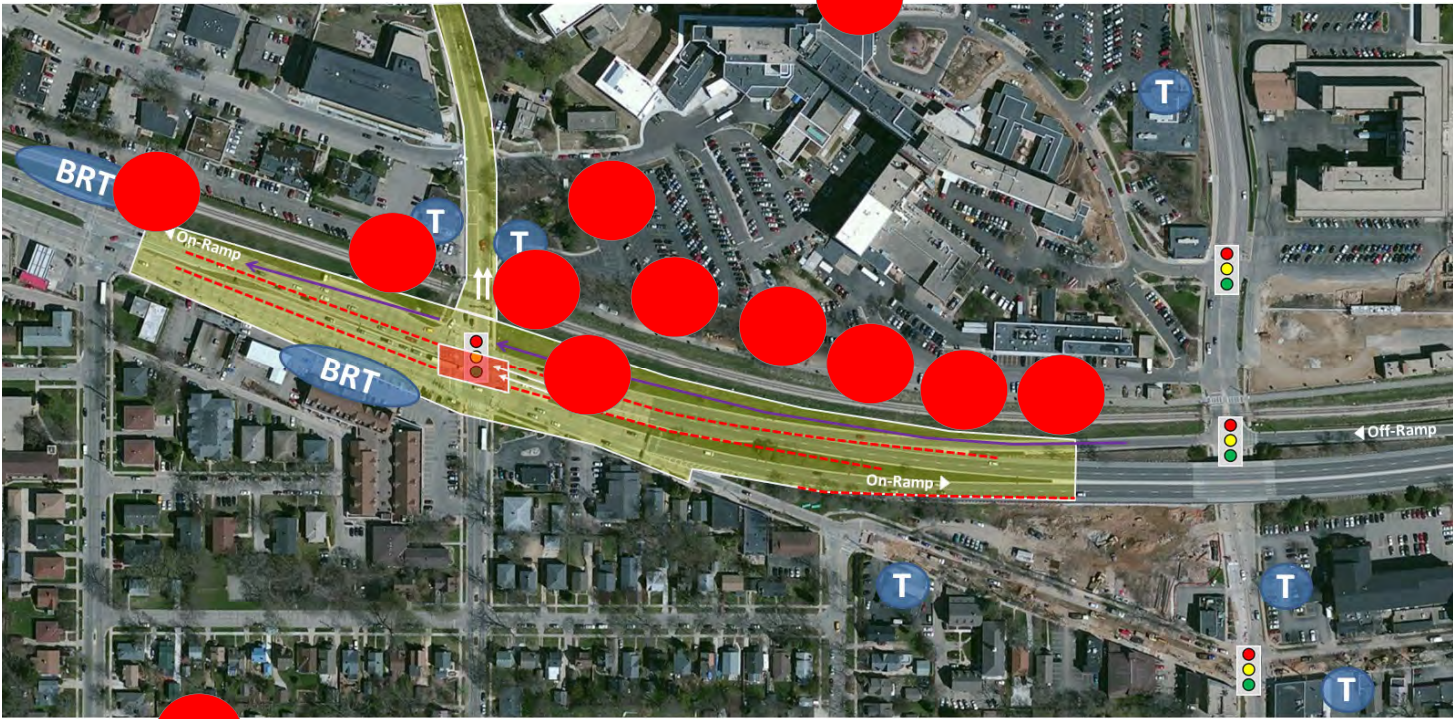
University Avenue & Farley Avenue/University Bay Drive Area (with comments from Madison workshop)

Scenario

Base Conditions



HB2: Westbound Campus Drive extension only



Pedestrian

Multiple concerns including ped crossings at signalized intersections, lack of sidewalk on Highland Ave., and east-west campus path crossings

- Longer crossing distances to accommodate structure and walls
- Less traffic through signal

Bicycle

Multiple concerns including northbound/inbound bike access to hospital complexes, east-west campus path crossings, and conditions along University Ave.

- Longer crossing distances to accommodate structure and walls
- Less traffic through signal

Transit

Existing Metro stops:

- Inbound
 - West of Farley Ave./ U-Bay Dr.
 - East of Grand Ave.
 - East of Highland Ave.
- Outbound west of Farley Ave./ U-Bay Dr.
- Northbound
 - North of Campus Dr. on Farley Ave./ U-Bay Dr.
 - North of University Ave. on Highland Ave.
- Southbound
 - North of Campus Drive on Farley Ave./ U-Bay Dr.
 - Near VA on Highland Ave.

- Less compatible with BRT due to relocation of outbound stop west of on-ramp and potential for weaving traffic
- Frequent entering and exiting along the corridor to make stops

Motor Vehicles (115% of existing traffic)

- University Ave. & Farley Ave./ U-Bay Dr.
 - Overall Intersection LOS D (40.6 s/vh)
 - 1 movement at LOS F
 - 1 add'l movement approaching LOS F
- University Ave. & Highland Ave.
 - Overall Intersection LOS B (16.4 s/vh)
- Highland Ave. & Westbound Campus Dr.
 - Overall Intersection LOS C (24.0 s/vh)
- Highland Ave. & VA Hospital
 - Overall Intersection LOS B (17.4 s/vh)

- University Ave. & Westbound Campus Drive Ramps
 - Overall Intersection LOS C (37.3 s/vh)
 - 2 movements at LOS F
- No changes at remaining signals.

University Avenue & Farley Avenue/University Bay Drive Area (with comments from Madison workshop)

Scenario

Base Conditions



Pedestrian

Multiple concerns including ped crossings at signalized intersections, lack of sidewalk on Highland Ave., and east-west campus path crossings

Bicycle

Multiple concerns including northbound/inbound bike access to hospital complexes, east-west campus path crossings, and conditions along University Ave.

Transit

Existing Metro stops:

- Inbound
 - West of Farley Ave./ U-Bay Dr.
 - East of Grand Ave.
 - East of Highland Ave.
- Outbound west of Farley Ave./ U-Bay Dr.
- Northbound
 - North of Campus Dr. on Farley Ave./ U-Bay Dr.
 - North of University Ave. on Highland Ave.
- Southbound
 - North of Campus Drive on Farley Ave./ U-Bay Dr.
 - Near VA on Highland Ave.

Motor Vehicles (115% of existing traffic)

- University Ave. & Farley Ave./ U-Bay Dr.
 - Overall Intersection LOS D (40.6 s/vh)
 - 1 movement at LOS F
 - 1 add'l movement approaching LOS F
- University Ave. & Highland Ave.
 - Overall Intersection LOS B (16.4 s/vh)
- Highland Ave. & Westbound Campus Dr.
 - Overall Intersection LOS C (24.0 s/vh)
- Highland Ave. & VA Hospital
 - Overall Intersection LOS B (17.4 s/vh)

Dismissed Alternatives:

- Providing Bus/Bike/Right-Turn Lane without Expansion (Poor operations without significant MV demand reduction)
- Prohibit Eastbound Left at University Bay Drive and reroute traffic to Highland Ave. (eastbound traffic fails in the AM peak along Highland)
- Tee Intersection with Full Access to Farley Ave. (eastbound traffic fails in the AM peak along Highland)
- Expanded At-Grade Farley Ave./ U-Bay Dr. Intersection with Direct Ramp to UW/VA (Cost prohibitive)

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- Goal TR (Transit)
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- Goal PB (Ped/Bike)
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Near Term and/or Lower Impact Package of Recommendations

Projects	Goal TR Advanced?	Goal AC Advanced?	Goal PB Advanced?	Physical Impacts	Cost	Notes
Demand Management						
N1 Incentivize employer participation	Yes	Yes	No	None	Low	Publicize/reward employers that do the most, institute impact fees but provide exemptions for TDM strategies, etc.
N2 Stagger start/stop times	No	Yes	No	None	Low	Compliance by largest employers provides largest benefit
N3 Park and ride facilities at key locations <or> a program to create disbursed park and ride functionality	Yes	Yes	No	Low	Moderate	Requires joint efforts and funding, most effective if connected to bike and transit systems. Most effective larger location may be Hill Farms (expand UW lot with assistance from City, Village and/or County, State) <or> disbursed park and ride - churches, businesses, other organizations with excess weekday parking near bus or bike corridors could join an online community to lease spaces for commuters...? 2-hour on-street parking with two or three leased exceptions per block?
University Ave. & Segoe Rd.						
N4 Provide enhanced crosswalk markings across the west and east legs of the intersection	No	No	Yes	None	Moderate	Part of overall strategy to communicate ped needs to drivers
University Ave. & Hilldale Way						
N5 Provide striped uncontrolled crossing on west side, add center refuge area for peds and bikes	No	No	Yes	Low	Low	Possible pre-cursor to partial signal
N6 Monitor operations and consider access restrictions to left-in only	No	No	Yes	Low	Moderate	Left-out from Maple Grove may need to be restricted at some point

Near Westside Neighborhoods and University Avenue Transportation Study

Study Recommendations
May 2014

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Near Term and/or Lower Impact Package of Recommendations

Projects	Goal TR Advanced?	Goal AC Advanced?	Goal PB Advanced?	Physical Impacts	Cost	Notes
University Ave. & Midvale Blvd. N7 Investigate modifying NB and SB lane configuration to eliminate need for split phasing, provide longer ped timings when actuated	No	No	Yes	Low	Low	DISMISSED - benefit of slightly longer crossing times are offset by more frequent conflicts between crossing pedestrians and permissive left-turning vehicles (similar to existing conflicts at Shorewood Boulevard and Farley/U-Bay)
N7 Provide enhanced crosswalk markings across all four legs and FYA signal heads for the NBL, SBL, and EBL movements.	No	No	Yes	None	Moderate	Part of overall strategy to communicate ped needs to drivers
N8 Investigate feasibility, benefits, and costs of an eastbound transit queue jump in EBR turn lane.	Yes	No	No	Low	Moderate	Could serve as a test case for further implementation
University Avenue and Highbury Road N9 Add a westbound left-turn bay	Yes	No	No	Low	Moderate	Comment from PIM, crash data includes rear-ends at this location
University Ave. & Blackhawk Ave. N10 Consider access restrictions to left-in only	No	No	Yes	Low	Moderate	Lefts-out may need to be restricted at some point, possible precursor to half-signal, modest improvement for peds crossing Univ. Ave. on west side
N11 Install partial signal similar to Ridge Street/ Marshall Court	No	No	Yes	Moderate	Moderate	Impacts and costs are a higher than some of the other Near Term recommendations, but improving conditions at this location should be a high priority.
University Ave. & Shorewood Boulevard N12 Install FYA for permitted NB, SB, EB, and WB left-turns	No	No	Yes	Low	Moderate	May require installation of monotube signal poles for some approaches.
N13 Provide enhanced crosswalk markings across all four legs	No	No	Yes	None	Moderate	Part of overall strategy to communicate ped needs to drivers
N14 Investigate ped lead opportunities	No	No	Yes	None	Low	Team reviewed, additional leads not recommended at this time.
N15 If eastbound vehicles stopping in crosswalk continues to be an issue after the recent installation of the continental marking, "Stop Here on Red" signage could be added for eastbound traffic	No	No	Yes	Low	Low	MUTCD indicates "A STOP HERE ON RED sign may be used at locations where highway vehicles frequently violate the stop line or where it is not obvious to road users where to stop." - which probably occurs here since the stop bar is about 70-feet west of the south curb radius.
N16 Reconstruct the southbound approach to provide a median refuge separating the SBR from the SBT and SBL. OPTIONAL: Prohibit WBL and replace small turn bay with large ped refuge. WBL access provided via WBU at a potential downstream Blackhawk partial signal.	No	No	Yes	Moderate to High	Moderate to High	Impacts and costs are a higher than some of the other Near Term recommendations, but improving conditions at this location should be a high priority.

Near Westside Neighborhoods and University Avenue Transportation Study

Study Recommendations
May 2014

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Near Term and/or Lower Impact Package of Recommendations

Projects	Goal TR Advanced?	Goal AC Advanced?	Goal PB Advanced?	Physical Impacts	Cost	Notes
University Ave. & Farley Ave. N17 Install FYA for permitted NB, SB, EB, and WB left-turns	No	No	Yes	None	Low	May want to consider WBL also.
N18 Provide enhanced crosswalk markings across all four legs	No	No	Yes	Low	Moderate	Part of overall strategy to communicate ped needs to drivers
N19 Confirm ped crossing times and ped lead opportunities	No	No	Yes	None	Low	Need to check current timings
N20 Restrict NB and SB RTOR	No	No	Yes	None	Low	DISMISSED - only 1 of 78 crashes from 2007-2011 was due to a RTOR.
University Ave. & Highland Ave. - No short term recommendations identified						
Highland Ave. & Westbound Campus Drive N20 Bike signal for EW path crossing	No	Yes	Yes	Low	Moderate	Includes exclusive crossing phase, clarifies SB stop bar location north of path
University Ave. & Walnut St. - No short term recommendations identified						
Additional University Ave. Corridor Strategies N21 Adaptive signal control and/or transit signal priority from Segoe Road to University/Highland	Yes	Yes	No	Low	Moderate	Additional investigation needed
N22 Public outreach campaign for improved driver awareness of bikes and peds	No	No	Yes	None	Moderate	Consider partnering with County and/or State. Consider lower cost digital outreach strategies?
N23 Evaluate feasibility of removing u-turn restrictions at additional locations along the corridor to supplement left-out difficulties/ prohibitions	No	Yes	No	Low	Moderate	

Near Westside Neighborhoods and University Avenue Transportation Study

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Near Term and/or Lower Impact Package of Recommendations

Projects	Goal TR Advanced?	Goal AC Advanced?	Goal PB Advanced?	Physical Impacts	Cost	Notes
Shorewood Hills						
N24 Complete east-west bike path gaps between Shorewood Boulevard and University Bay Drive	No	Yes	Yes	Moderate	Moderate	Portion near Village Pool will be constructed in 2014
N25 Plan for participation in reconstruction of University Avenue corridor and University Bay Drive (8 to 10 years out)	Yes	Yes	Yes	None	Moderate to High	Planning for reconstruction will ultimately advance Goals 1, 2, and 3
Greater Regent Neighborhood						
N26 Ped crossing of Midvale Boulevard at unsignalized Hilldale Mall entrance north of Heather Crest—relocate to south side of intersection and/or add crossing north at location of existing sidewalk access east to/from neighborhood.	No	No	Yes	Low	Moderate	Moved to a long-term solution because it requires a fair amount of curb and gutter, curb ramp, and storm sewer construction.
N26 North-South bike enhancements along Franklin Avenue	No	Yes	Yes	Low	Moderate	At Franklin and Speedway provide improved connection to the multiuse path on the south side of Speedway. South of Regent provide Sharrow marking in each direction in the near term. North of Regent provide Sharrow marking in each direction and maintain parking <or> consider eliminating parking in uphill direction (SB) and providing a marked bike lane instead.
N27 All-way stop at Blackhawk & Regent	No	No	Yes	Low	Low	Some residents advocating for this. DISMISSED - Location does not meet all-way stop control criteria from the MUTCD. Do not recommend proceeding.
N27 Add additional on-street bike accommodations between Franklin Avenue and Midvale Boulevard along Kendall Avenue, Bluff Street, Blackhawk Ave., and Regent Street	No	No	Yes	Low	Low	Pending compatibility with these streets' designation as Collector... Additional on-street accommodations included as a long-term goal due to possible impacts to on-street parking.

Near Westside Neighborhoods and University Avenue Transportation Study
Study Recommendations
May 2014

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Primary Goals based on Guiding Theme, Public and Stakeholder Feedback, and Public Safety, Health, and Welfare:

- Goal TR (Transit)
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Near Term and/or Lower Impact Package of Recommendations

Projects	Goal TR Advanced?	Goal AC Advanced?	Goal PB Advanced?	Physical Impacts	Cost	Notes
University of Wisconsin - Madison						
N27 Continue aggressive TDM, combine with City, Village, and regional efforts	Yes	Yes	Yes	Low	Moderate	
N28 Plan for participation in reconstruction of University Bay Drive (8 to 10 years out)	Yes	Yes	Yes	None	Moderate to High	
Additional Recommendations						
N29 City, Village, and UW to coordinate engagement with VA Hospital in developing mutually beneficial solutions, particularly in anticipation of Farley/U-Bay intersection reconstruction	No	Yes	Yes	None	Low	

Near Westside Neighborhoods and University Avenue Transportation Study

Development of Study Recommendations
May 2014

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Considering the high physical and environmental impacts and total project costs associated with significant motor vehicle capacity expansion (8-lanes or grade separations), primarily seek options to reduce demand for peak-hour SOMV travel and/or improve conditions for alternate modes without a severe detriment to car and bus travel

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Long Term and/or higher Impact Package of Recommendations

Projects	Goal TR Advanced?	Goal AC Advanced?	Goal PB Advanced?	Physical Impacts	Cost	Notes
Demand Management						
L1 Regional strategies that incentivize choices that make better use of transportation infrastructure - lane pricing, cordon line pricing, sales tax to fund transportation system, transportation impact fees, etc.	Yes	Yes	No	Moderate to High	Moderate to High	RTA or other joint spending authority to prioritize transportation investments among all modes
L2 Formalized ride sharing	No	Yes	No	Low	Moderate	May be viable to supplement park and rides, or may need to operate independently
University Ave. & Segoe Rd.						
L3 Coordinate long-term plans with potential redevelopment of Hill Farms site	Yes	Yes	Yes	Moderate to High	Moderate to High	Hill Farms site could be a key element in larger strategies for the corridor including park and ride, enhanced transit service, etc.
University Ave. & Hilldale Way						
L4 Partial signal similar to Ridge Street/Marshall Court	No	No	Yes	Moderate	Moderate	
L5 Potential ped overpass pending redevelopment and/or funding opportunities	No	No	Yes	High	High	
University Ave. & Midvale Blvd.						
L6 Reconstruct intersection with minor additional capacity (dual lefts and/or exclusive right-turn bays, but no additional through lanes), provide larger ped refuges, possibly eliminate split phasing, possibly provide queue jump for buses EB and WB, design not to preclude future bike/bus lane in each direction	Yes	Yes	Yes	High	High	Should be able to accomplish within existing ROW
University Ave. & Blackhawk Ave.						
- No additional improvements beyond partial signal recommended in near term.	-	-	-			
University Ave. & Shorewood Boulevard						
- No additional improvements beyond southbound approach reconstruction recommended in near term.						
University Ave. & Farley Ave.						
L7 Full reconstruct in 8 to 10 years including dual eastbound lefts, dual southbound rights, reconstruct/expand north leg to four-lanes plus a median to Marshall Court. Provide two northbound lanes to University Bay Drive/Highland to receive dual eastbound left.	Yes	Yes	Yes	High	High	Requires participation from VA

Near Westside Neighborhoods and University Avenue Transportation Study
Development of Study Recommendations
May 2014

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Primary Goals based on Guiding Theme, Public and Stakeholder Feedback, and Public Safety, Health, and Welfare:

- Goal TR (Transit)
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- Goal PB (Ped/Bike)
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Long Term and/or higher Impact Package of Recommendations

Projects	Goal TR Advanced?	Goal AC Advanced?	Goal PB Advanced?	Physical Impacts	Cost	Notes
L8 East-west grade separated bike/ped crossing	No	Yes	Yes	High	High	Recommend a grade separated crossing be installed to mitigate bike/ped impacts of wider northern leg associated with full intersection reconstruction
University Ave. & Highland Ave. L9 If Walnut Street jug-handle is implemented, conditions at this intersection may change and warrant future modifications (signal timings, lane usage, etc.)						
Highland Ave. & Westbound Campus Drive L10 East-west grade separated bike/ped crossing L11 Provide additional bike/ped/MV space on Highland under Campus Drive by replacing slope paving with a vertical walls	No No	Yes Yes	Yes Yes	High High	High High	
University Ave. & Walnut St. L12 Add jug-handle connection to Univ. Ave (EB Campus Drive on/off)	No	Yes	No	High	High	Would require at least one relocation, significant improvement for eastbound access to/from west campus
L13 Modify the cross section of Walnut under Campus Drive to provide narrower travel lanes and wider sidewalk.	No	Yes	Yes	Moderate	Moderate	It appears that sufficient width is available to provide two 14-foot shared travel lanes and 8-foot sidewalk off the back of curb on both sides.

Near Westside Neighborhoods and University Avenue Transportation Study

Development of Study Recommendations
May 2014

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Long Term and/or higher Impact Package of Recommendations

Projects	Goal TR Advanced?	Goal AC Advanced?	Goal PB Advanced?	Physical Impacts	Cost	Notes
Additional University Ave. Corridor Strategies						
L14 Exclusive travel way transit on Railroad ROW	Yes	Yes	No	High	High	Removed because this recommendation became Study Goal TR.
L15 Corridor to allow future conversion of outside lanes to bus/bike	Yes	Yes	No	High	High	Achievable with successful demand management and/or exclusive travel way transit on rail ROW
L14 If corridor is reconstructed, reevaluate median or shoulder running BRT lanes	Yes	Yes	No	High	High	Recommended if exclusive travel way transit on rail ROW cannot be achieved
L15 Adaptive signal control and/or transit signal priority from Segoe Road to University Ave. & Highland Ave. if not implemented in near term, or possible expansion/extension of adaptive/TSP system	Yes	Yes	No	Moderate	Moderate	
L16 Consider additional measures to communicate a more urban/multi-modal character for the corridor from Segoe Road to Farley Avenue as opportunities arise. These could include narrower motor vehicle lane widths, entry features eastbound at Segoe Road and westbound at Farley Avenue, additional median landscaping and/or lighting, etc.	No	No	Yes	Moderate	Moderate	These measures may ultimately reduce 85th percentile speeds and improve conditions for bicycles and pedestrians.
Shorewood Hills						
- No additional improvements beyond those recommended in near term.	-	-	-			
Greater Regent Neighborhood						
L17 Add ped-bike overpass of Campus Drive at Chamberlain	No	Yes	Yes	High	High	Demand confirmed by area residents and observation of pedestrians crossing Campus Drive at-grade between Walnut Avenue and the Alicia Ashman overpass.
L18 Add additional on-street bike accommodations/markings to Kendall Avenue, Bluff Street, Blackhawk Avenue, and Regent Street from Franklin Avenue to Midvale Boulevard.	No	Yes	Yes	Low	Low	May require on-street parking restrictions
L19 Add a crosswalk crossing Midvale Boulevard at the unsignalized Hilldale Mall entrance north of Heather Crest to the south side of the intersection.	No	No	Yes	Moderate	Moderate	Requires relocation of storm sewer inlets and other reconstruction.

Near Westside Neighborhood and University Avenue Corridor Transportation Study

Public Information Meeting

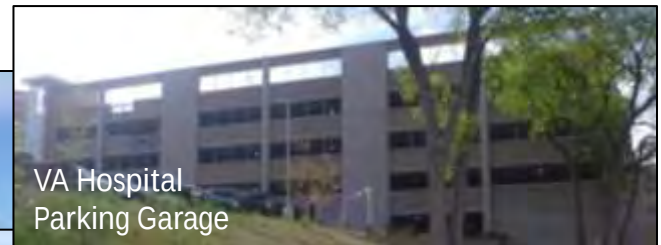
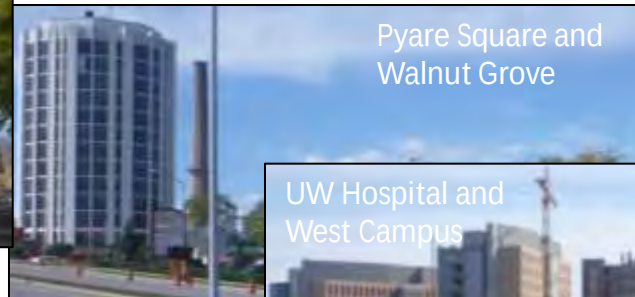
February 24, 2014

Presentation Outline:

- Brief Review of Study Scope, Background, and Current Conditions
- Results of Public Outreach
- Study Theme and Goals
- Overview of Recommendations
- Display materials for review and comment

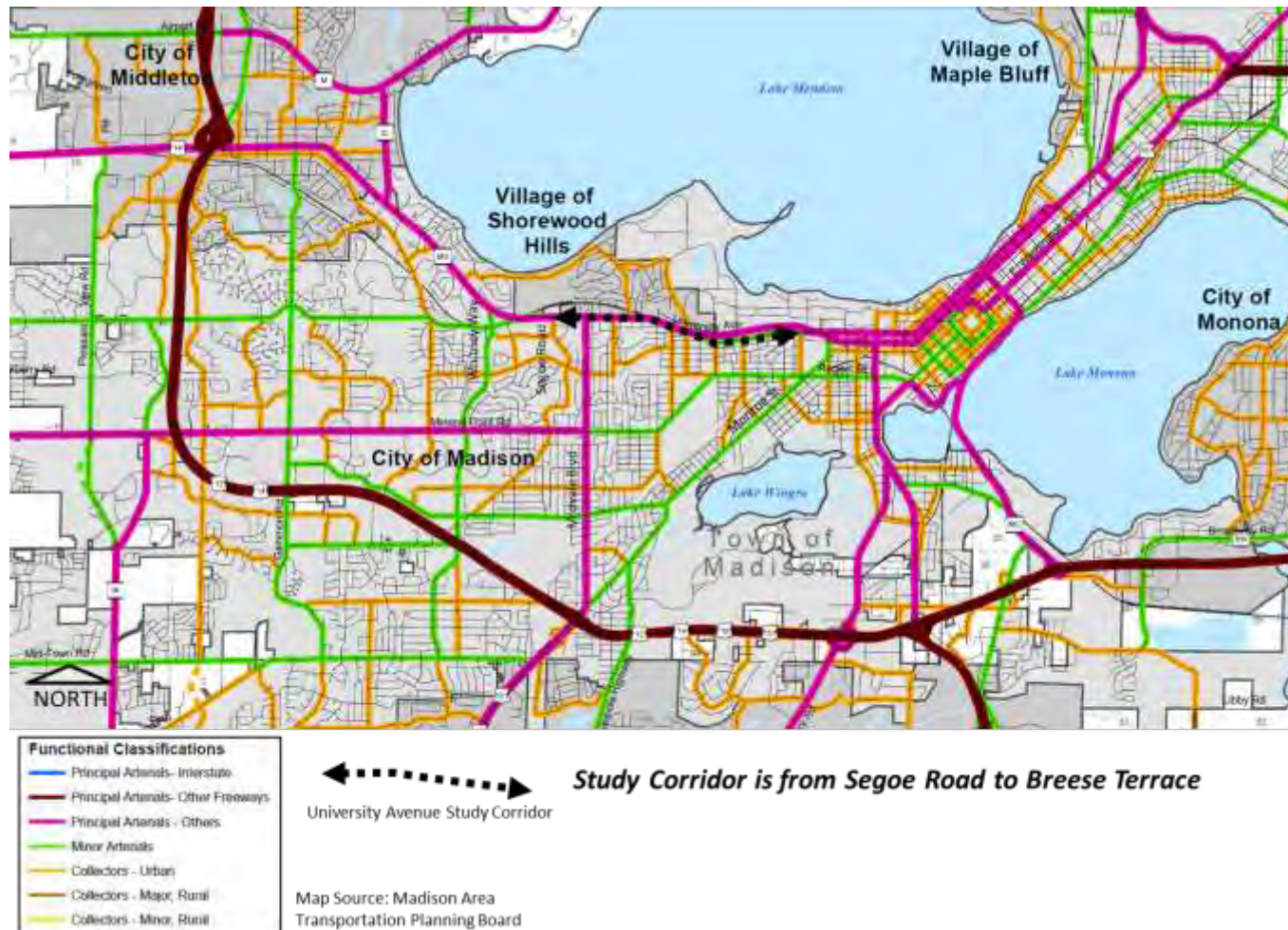
Reason for Study:

- University Avenue Corridor
 - Transportation artery carrying about 55,000 vehicles per day
 - Few non-freeways in WI carry volumes over 50,000 vpd
 - Most are in Madison (Natural Geography)
 - Near capacity currently during peak travel periods
 - Redevelopment in the City, Village, and on UW Campus



Study Limits and Overview:

- Study Corridor



Study Limits and Overview:

- Study Scope and Schedule

Phase 1 – Needs, Base and Future Conditions

TIA Review for West
Campus Area

Regional Traffic
Review

Base and Future
Operations

Meetings

- 2 Workshops

Jan. - May 2013

Phase 2 – Solutions and Improvement Analysis

U-Bay & Farley
Intersection

University Avenue
Corridor

Regent
Neighborhood

Shorewood Hills

Meetings

- 2 Workshops

June – Oct. 2013

Phase 3 – Implement- ation and Final Reports

Funding
Opportunities

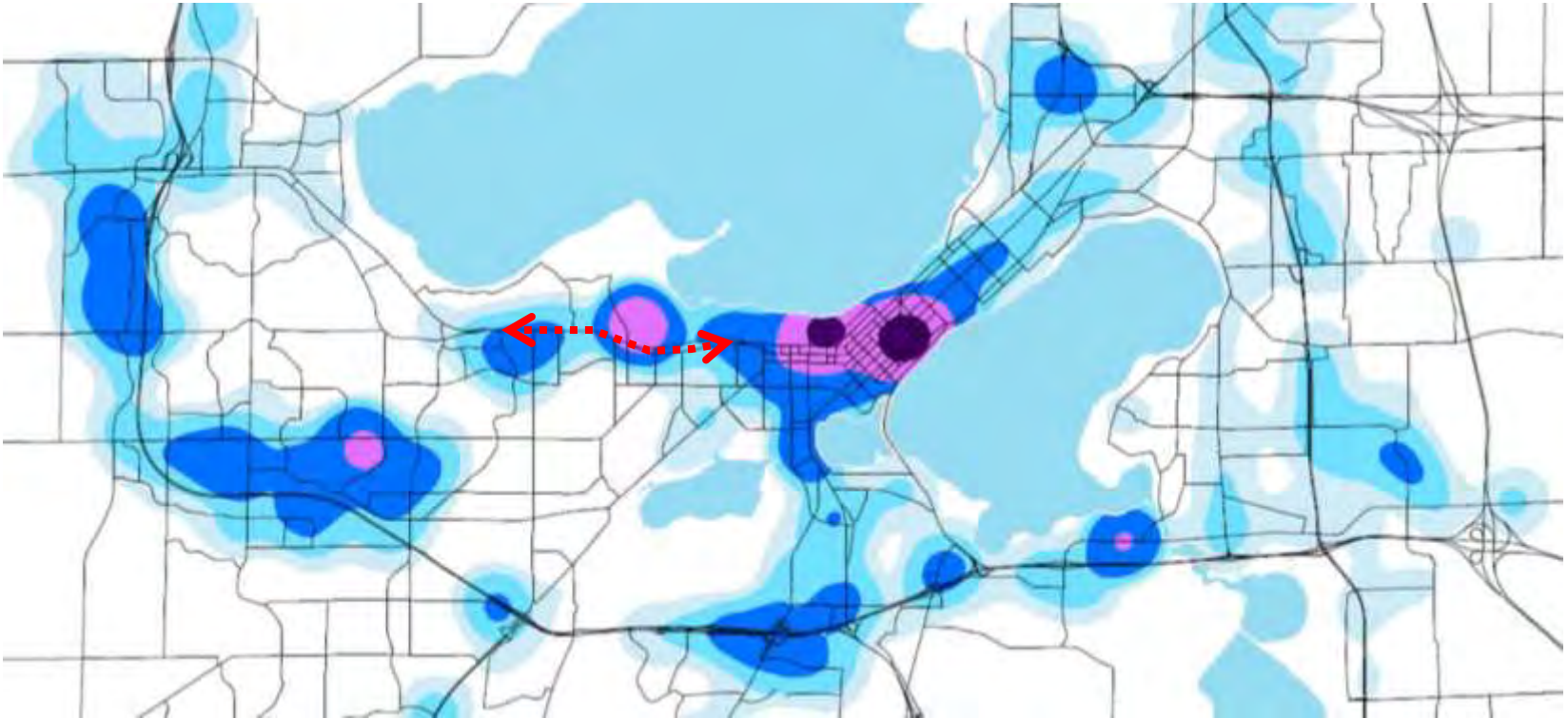
Short-Term, Long-
Term, and
Implementation
Report

Meetings

- 1 Public Meeting

Oct. 2013 –
Feb. 2014

Reason for Study:



Employment Density in Madison

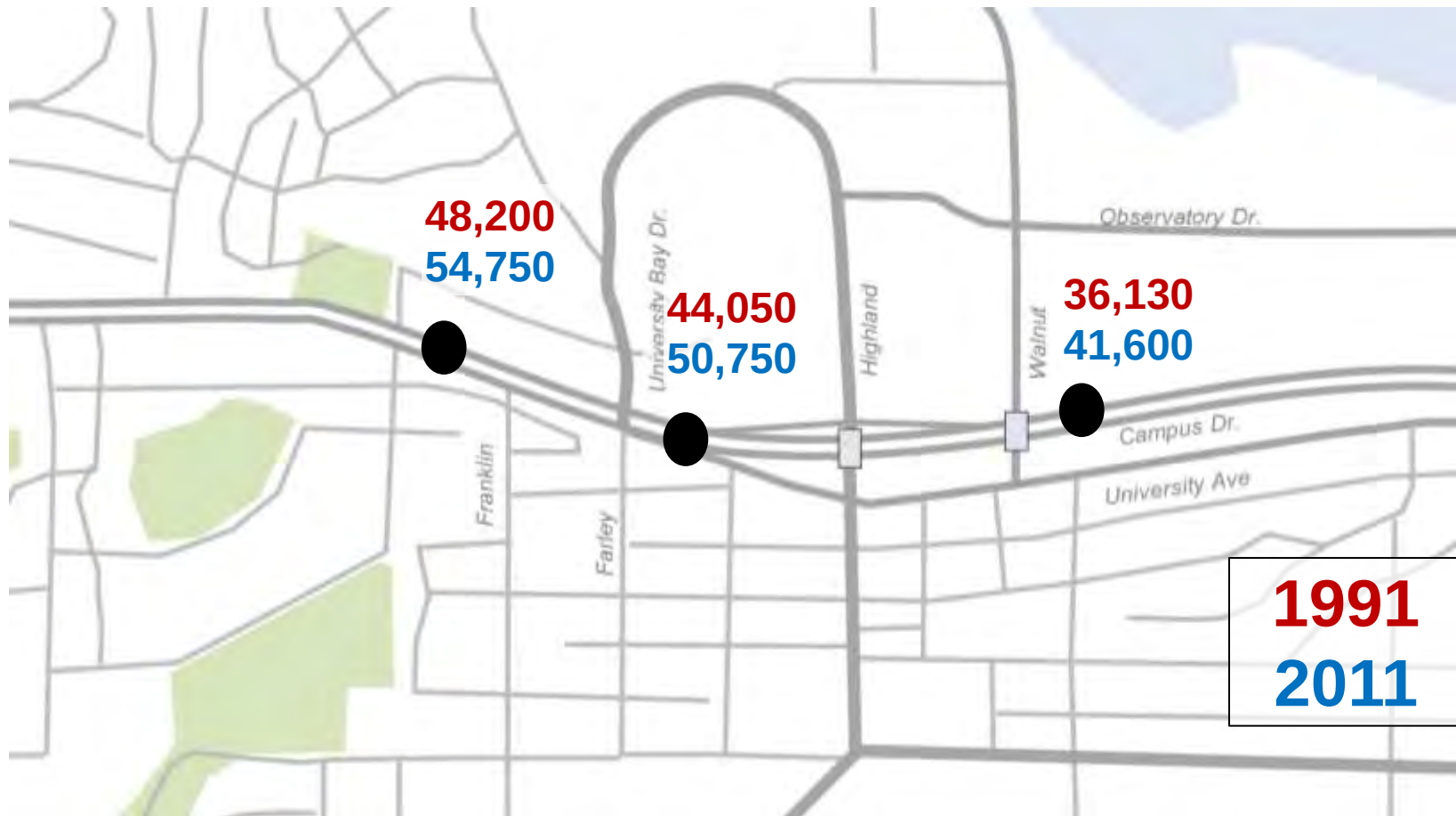
Reason for Study:

Image Source: Google Maps



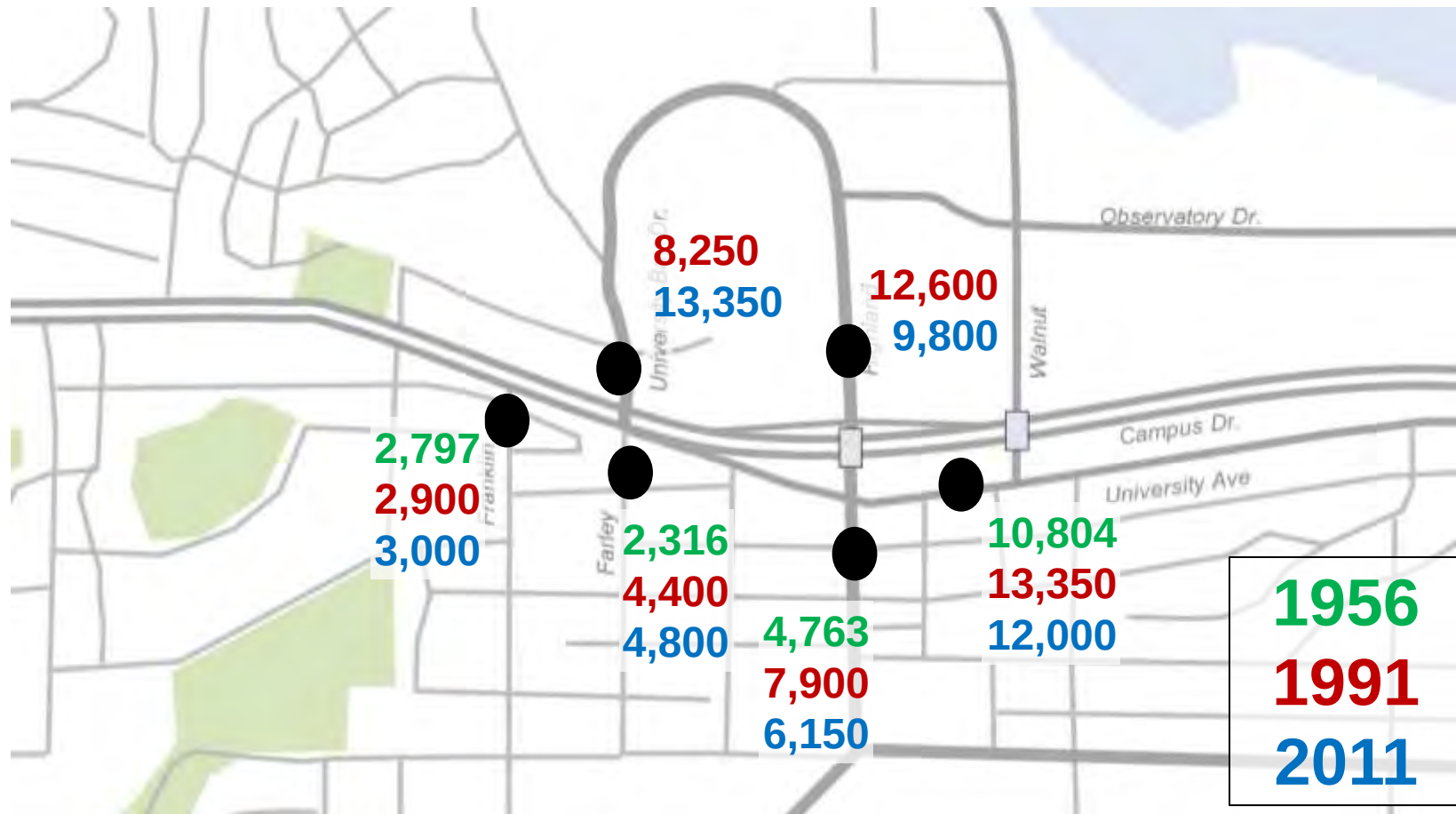
Traffic Volumes

- Generally have increased on University Ave/Campus Dr.



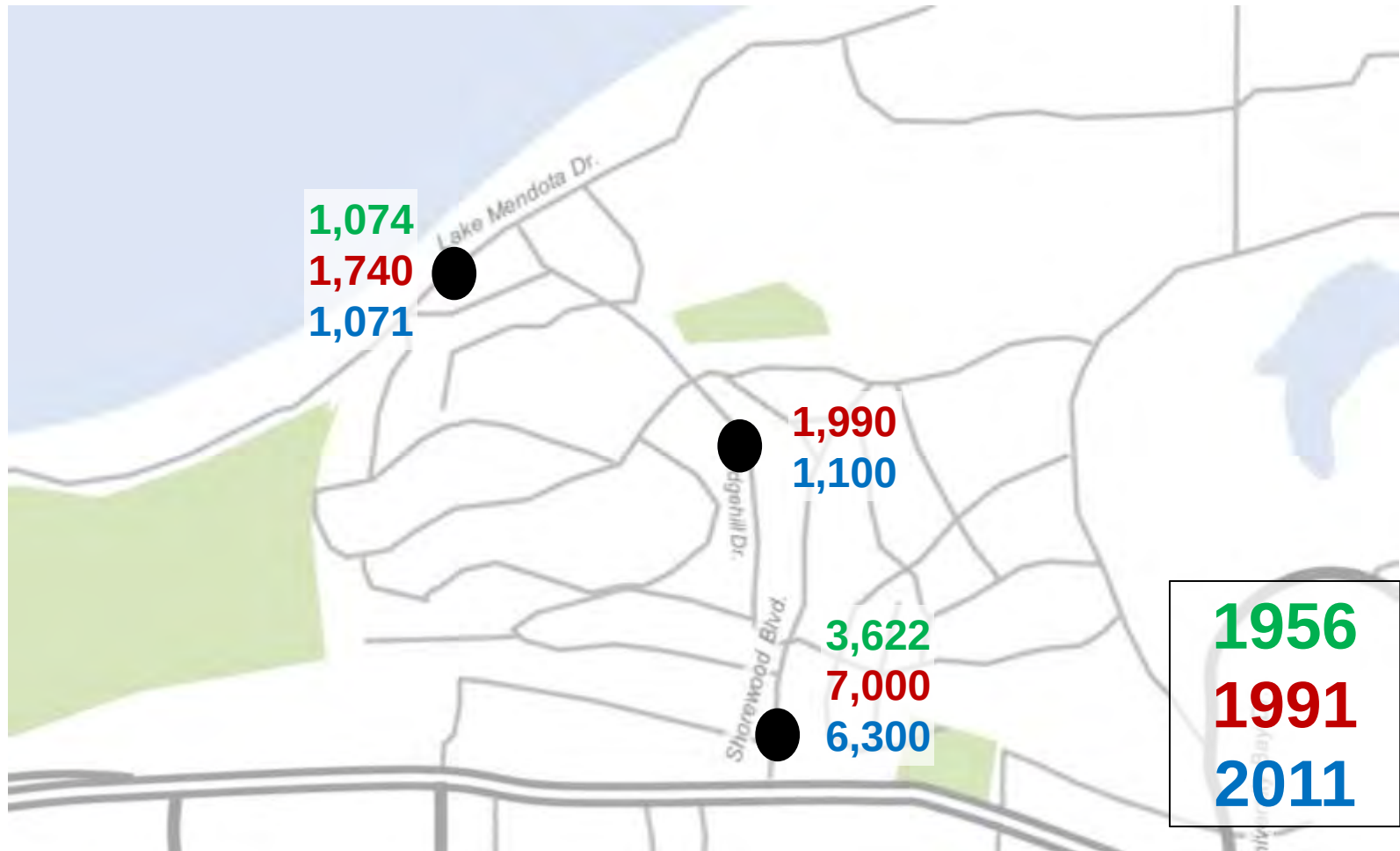
Traffic Volumes

- Generally have maintained or decreased on sidestreets between 1991 and 2011



Traffic Volumes

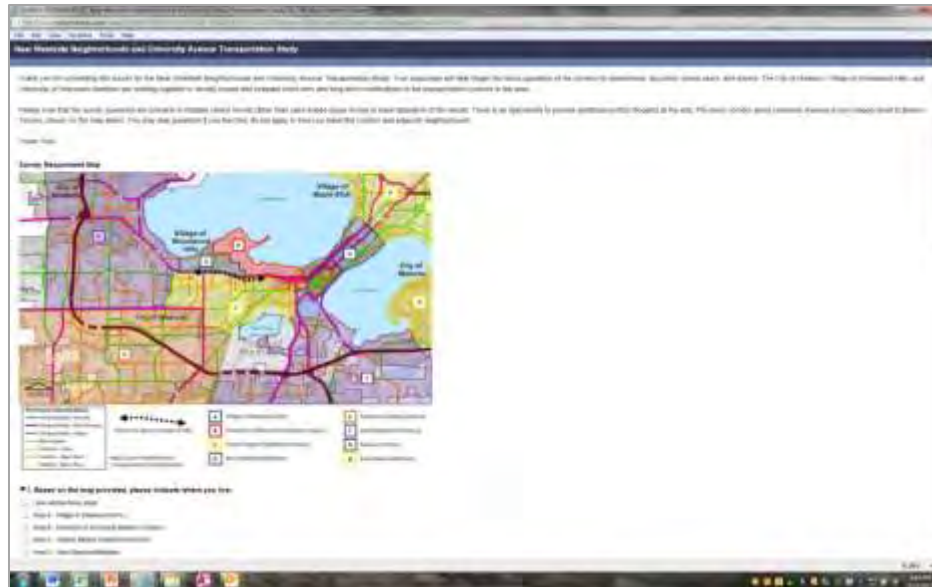
- Generally have maintained or decreased on sidestreets between 1991 and 2011



Results of Public Outreach:

Online Survey

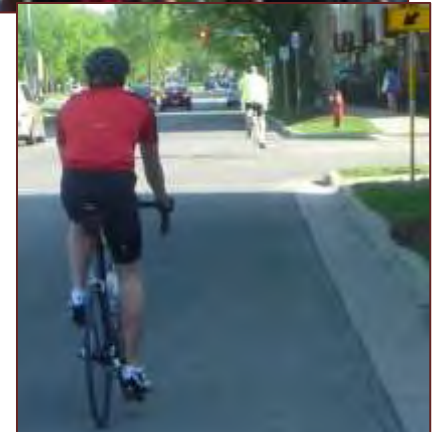
- Over 1,000 Responses
- 34% live in the Village
- 33% live in the greater Regent neighborhood
- 29% work at UW, 11% on the Isthmus



Results of Public Outreach:

Online Survey

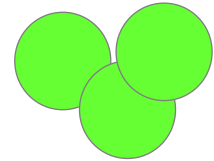
- Excellent mode split: ~20% to 40%
- Peak congestion #1 motor vehicle concern
- East-West bike connections #1 neighborhood transportation concern
- 60% feel modifications are needed, but they should be modest to manage impacts



Results of Public Outreach:

March 2013 Workshops

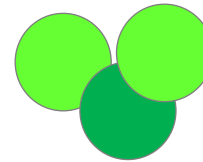
1. Provide enhanced transit service
2. Manage cut through traffic
3. Improve bicycle and pedestrian crossings of University Avenue



Results of Public Outreach:

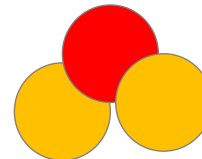
September 2013 Workshops

1. Most popular:



- a. Pedestrian and bike enhancements at Shorewood Boulevard
- b. Dedicate one lane each way to buses/bikes without expansion
- c. Pedestrian and bike enhancements at University Bay Drive/Farley Avenue

2. Least popular:



- a. Access restrictions
- b. Grade separations

Study Theme and Goals:

Overall Theme

Considering the high physical and environmental impacts and total project costs associated with significant motor vehicle capacity expansion (an eight-lane corridor or grade separations), primarily seek options to reduce demand for peak-hour Single Occupant Motor Vehicle (SOMV) travel and/or improve conditions for alternate modes without a severe detriment to car and bus travel

Study Theme and Goals:

Study Goals

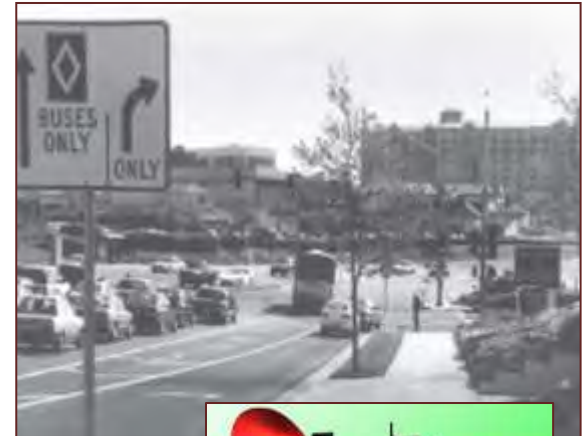
- Provide **exclusive and/or prioritized transit** that moves high volumes of people within this portion of the University Avenue transportation corridor
- Improve **access to the west UW-Madison campus and VA** medical complex areas (options for both ingress and egress)
- Improve the connectivity and comfort level of **bike and pedestrian travel** in the study area

Exclusive Transit

- Bus/Bike Lane Without Expansion not Recommended
 - Concern regarding violations and speed differentials due to significant congestion upon opening
 - Requires about 20% reduction in MV traffic = 1987 traffic levels <or>
 - Requires 50% to 60% increase in transit ridership
- Transport 2020, Bus Rapid Transit, or Other
 - Pending creation of Regional Transit Authority or other Intergovernmental Commission

Prioritized Transit

- Measures that allow transit (buses) to achieve quicker and more reliable travel times and increase incentives for travel by transit
- Recommended for further study:
 - Queue jump lanes at Midvale Boulevard and University Bay Drive/ Farley Avenue intersections
 - Transit signal priority along corridor



Improve Access to West Campus/VA

- Recommend continuing and expanding demand management:
 - Limit Parking
 - Additional Park and Ride Opportunities
 - Further Staggering of Shifts
- Recommended bike and ped access:
 - Complete east-west off-street connection west of University Bay Drive, add grade separation over U-Bay and Highland Ave. long-term
 - Add bike signal at path crossing of Highland Ave.
 - Modify Campus Dr. bridge over Highland Ave. to add width
 - Add grade separated crossing of Campus Dr. between Walnut St. and Alicia Ashman Structure



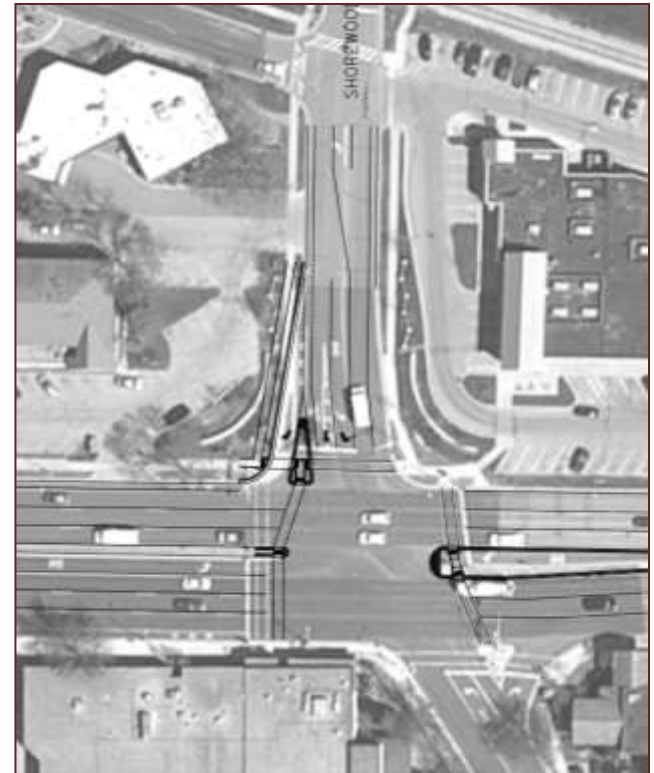
Improve Access to West Campus/VA

- Recommendations for motor vehicle access:
 - Reconstruct University Bay Drive/Farley Avenue intersection including a dual eastbound left-turn lane
 - Add eastbound Campus Drive access near Walnut Street



Pedestrian and Bicycle Travel

- Additional recommendations for pedestrians:
 - Consistent, enhanced crosswalks across University Avenue from Segoe Road to Farley Avenue
 - Add partial signals at Hilldale Way and Blackhawk Avenue
 - Modify Shorewood Boulevard intersection including enhanced crosswalks, Flashing Yellow Arrow signals, separation of the southbound right-turn lane, elimination of the westbound left-turn lane



Pedestrian and Bicycle Travel

- Clearly Voiced Concerns and Proposals

Citizens for a Safe Corridor “Asks”	Current Status
Enhance corridor crosswalks	Recommended
“Vehicles Stop Here” signage at all stop bars	Per MUTCD, possible for EB traffic at Shorewood Blvd., pending continued evidence of need
Half signal at Blackhawk Avenue	Recommended
Ped activated blankout signs “No Right-Turn When Pedestrians are Present”	Static signs added at Shorewood Boulevard, others pending evidence of need
Advanced ped timings	In place where feasible
Reduce speed limit to 30 mph	Speed data does not support this
Broad public education effort	Recommended

Pedestrian and Bicycle Travel

- Additional recommendations for bicycles:
 - Provide north-south accommodations along Franklin Ave.
 - Extend Kendall Avenue Bicycle Boulevard or add on-street markings to the west from Franklin Avenue to Midvale Boulevard
 - Public outreach campaign



Near Westside Neighborhood and University Avenue Corridor Transportation Study

Questions and Answers

February 24, 2014

Google earth

FOLD HERE



Strand Associates, Inc.
910 West Wingra Drive
Madison, WI 53715

Place
Stamp
Here

Attn: **Jeff Held, P.E., PTOE**
Strand Associates, Inc.
910 West Wingra Drive
Madison, WI 53715

FOLD HERE

Near Term Pedestrian, Bicycle and Transit Recommendations



- Enhanced crosswalk markings



- Add marked crosswalk and center refuge area on west side



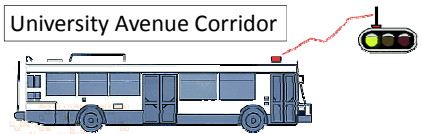
- Enhanced crosswalk markings
- Flashing yellow arrow signals for left turns to improve driver compliance
- Potential eastbound transit queue jump



- Add partial signal



- Enhanced crosswalk markings
- Flashing yellow arrow signals for left turns to improve driver compliance
- Add refuge between southbound right turn and through lane
- Potential elimination of westbound left-turn and addition of large center island on east side



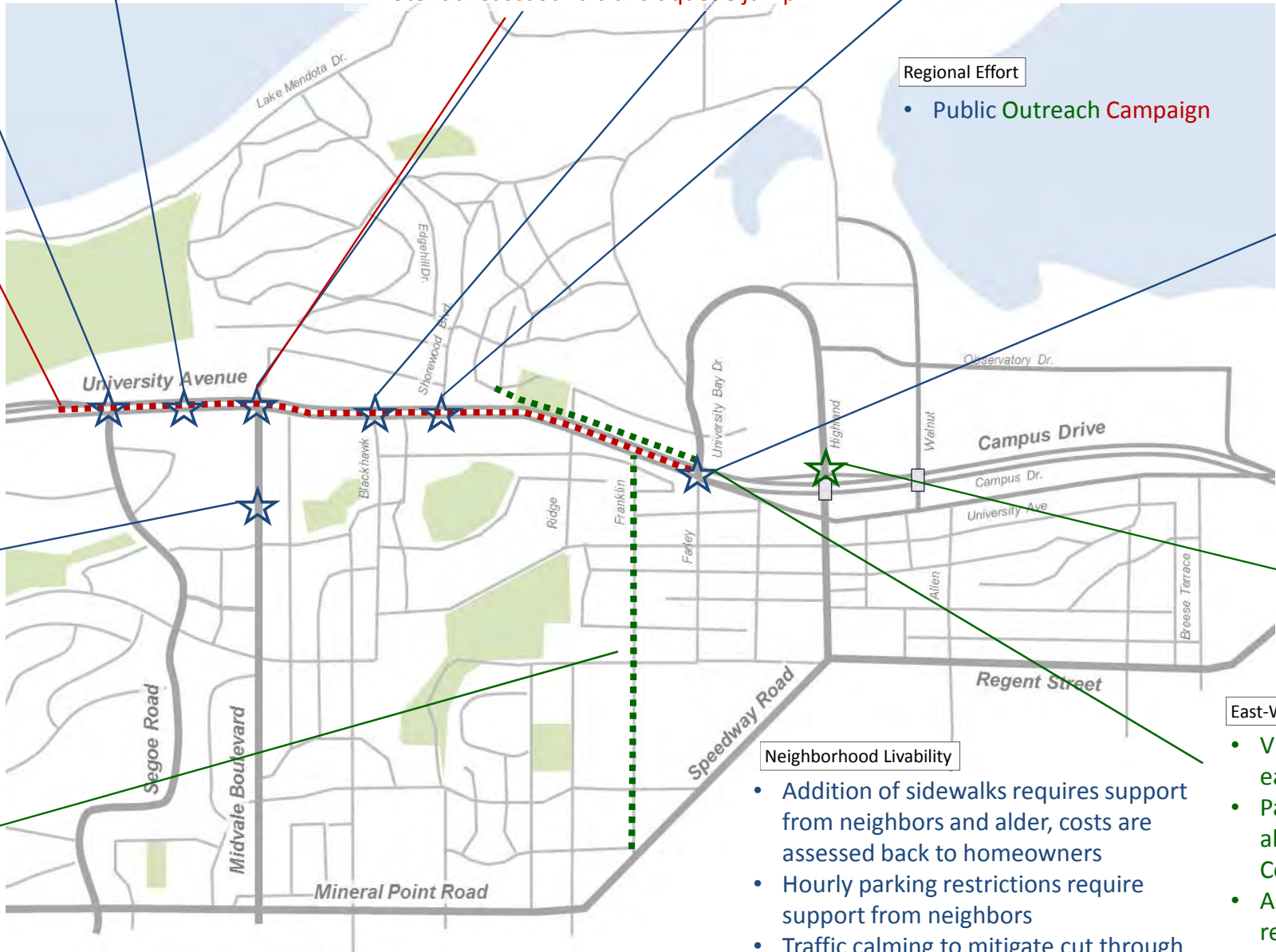
- Potential Transit Signal Priority
Image Source: floridaapts.lctr.org



- Southbound U-turns conflict with existing crosswalk
- Relocate crosswalk to south side of the intersection

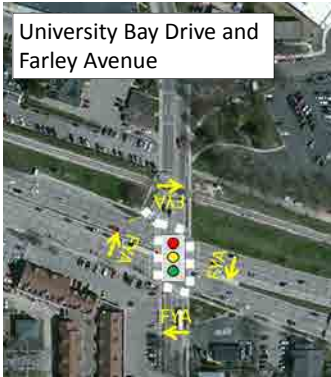
North-South Bike Connection on Franklin Ave.

- Potential marked bike lanes in uphill direction along Franklin Avenue
- Potential sharrow markings in downhill direction
- May require parking restrictions on one side of the street in some locations



Regional Effort

- Public Outreach Campaign



- Enhanced crosswalk markings
- Flashing yellow arrow signals for left turns to improve driver compliance



- Bike signal at path crossing

East-West Bike Path Connection

- Village working to complete missing bike/ped east-west linkage
- Path will be constructed south of the pool along the railroad tracks between Marshall Court and Purdue Street next Spring
- As Marshall Court redevelops, Village plans to require construction of additional portions of east-west path

Neighborhood Livability

- Addition of sidewalks requires support from neighbors and alder, costs are assessed back to homeowners
- Hourly parking restrictions require support from neighbors
- Traffic calming to mitigate cut through traffic requires support from neighbors

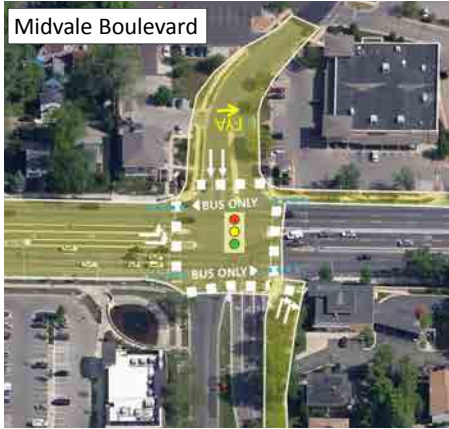
Long Term Pedestrian, Bicycle and Transit Recommendations



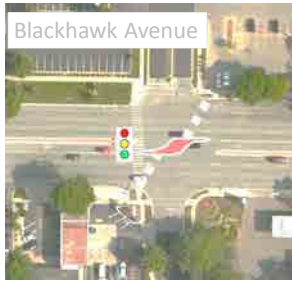
- Enhanced crosswalk markings



- Add partial signal
- Potential bike/ped overpass



- Reconstruct intersection including enhanced crosswalk markings
- Flashing yellow arrow signals for left turns to improve driver compliance
- Potential eastbound and westbound transit queue jump



- Add partial signal



- Enhanced crosswalk markings
- Flashing yellow arrow signals for left turns to improve driver compliance
- Add refuge between southbound right turn and through lane
- Potential elimination of westbound left-turn and addition of large center island on east side



- Exclusive ROW Transit
Image source: cityofatlantic.wordpress.com
- Potential Transit Signal Priority
Image Source: floridaapts.lctr.org

East-West Bike Accommodations

- Additional on-street bike accommodations between Franklin Ave. and Midvale Blvd. Along Kendall Ave., Bluff St. Blackhawk Ave. and Regent Street

North-South Bike Connection on Franklin Ave.

- Potential marked bike lanes in uphill direction along Franklin Avenue
- Potential sharrow markings in downhill direction
- May require parking restrictions on one side of the street in some locations



- Reconstruct intersection including enhanced crosswalk markings
- Flashing yellow arrow signals for left turns to improve driver compliance
- Potential east-west bike/ped overpass



- Potential north-south bike/ped overpass



- Potential east-west bike/ped overpass
- Add width under Campus Drive bridge



East-West Bike Path Connection

- Village working to complete missing bike/ped east-west linkage

University Avenue & Midvale Boulevard

Scenario

Base Conditions



Near Term Recommendations



Long Term Recommendations

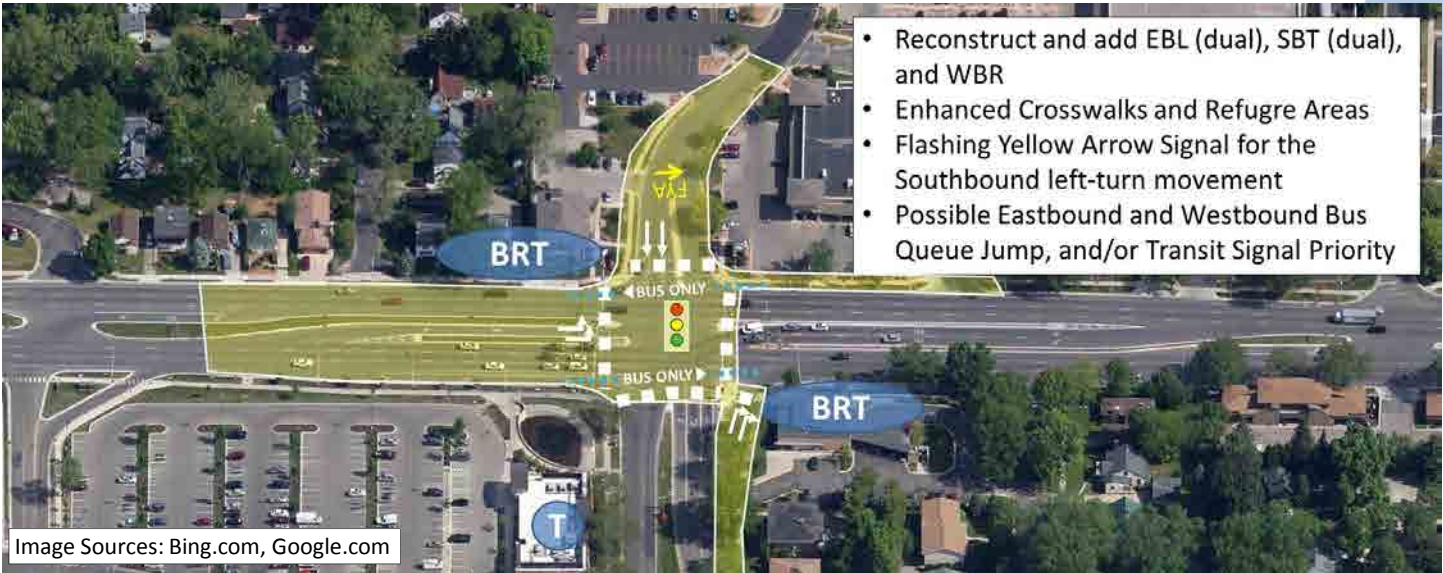
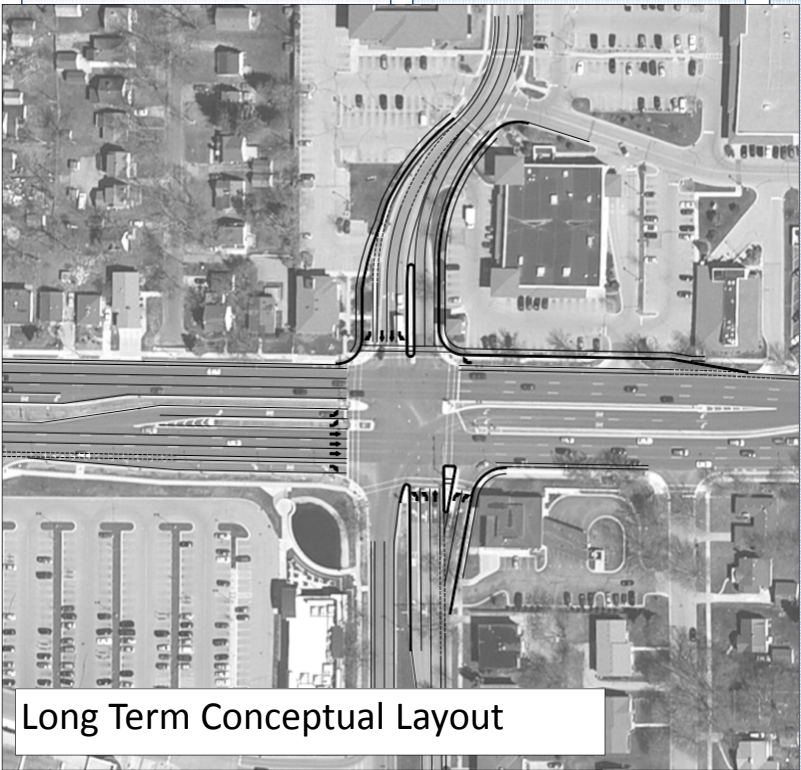


Image Sources: Bing.com, Google.com

Pedestrian

Concerns regarding time to cross and small refuge areas within University Ave.

Enhanced driver awareness of crosswalks and yield condition for permitted left-turns



Long Term Conceptual Layout

- Enhanced driver awareness of crosswalks
- Enhanced refuge areas
- Slightly longer crossings

Bicycle

Difficult crossing

Enhanced driver awareness of yield condition for permitted left-turns

- Slightly Longer Crossings

Transit

Existing Metro stops:

- Outbound west of Midvale Blvd.
- Inbound east of Midvale Blvd.
- Southbound south of University Ave.

- Generally compatible with BRT and local service
- Possible queue jump provides modest transit advantage

- Generally compatible with BRT and local service
- Possible queue jump provides modest transit advantage
- Possible Transit Signal Priority

Motor Vehicles

(115% of existing traffic)

- Overall Intersection LOS E (70.7 s/vh)
- 5 movements at LOS F
- 3 additional movements approaching LOS F

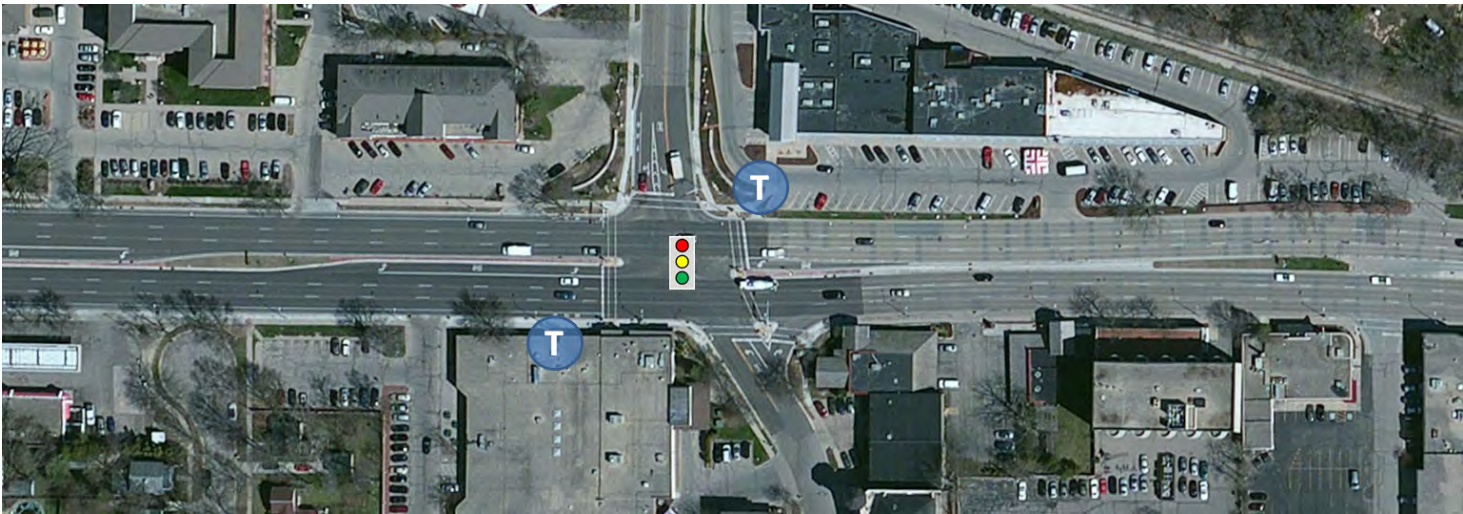
- Overall Intersection LOS E (70.7 s/vh)
- 5 movements at LOS F
- 3 additional movements approaching LOS F

- Overall Intersection LOS D (37.4 s/vh)
- 0 movements at LOS F
- 1 movement approaching LOS F

University Avenue & Shorewood Boulevard

Scenario

Base Conditions



Pedestrian

Multiple concerns regarding turning vehicles and failure to yield to peds in crosswalks

Bicycle

Difficult crossing

Transit

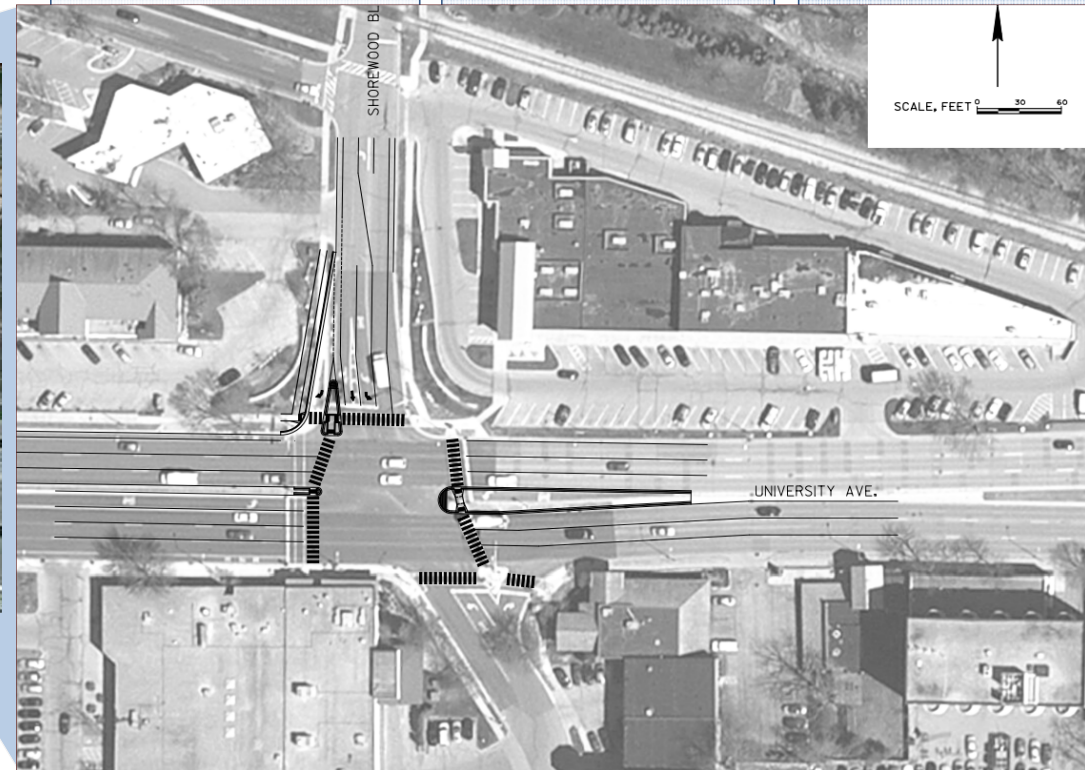
Existing Metro stops:

- Westbound east of Shorewood Blvd.
- Eastbound west of Shorewood Blvd.

Motor Vehicles (115% of existing traffic)

- Overall Intersection LOS E (68.9 s/vh)
- 2 movements at LOS F

Near Term Recommendations



Long Term Recommendations – Same as Near Term plus possible Transit Signal Priority

- Enhanced driver awareness of crosswalks and yield condition for permitted left-turns
- Enhanced refuge/two stage crossing option on west side
- Optional enhanced refuge/two stage crossing option on east side

Enhanced driver awareness of yield condition for permitted left-turns

Generally compatible with local service and BRT

- Overall Intersection LOS D (40.6 s/vh)
- 0 movements at LOS F
- 1 movement approaching LOS F

University Avenue & Farley Avenue/University Bay Drive Area

Scenario

Base Conditions



Near Term Recommendations



Long Term Recommendations

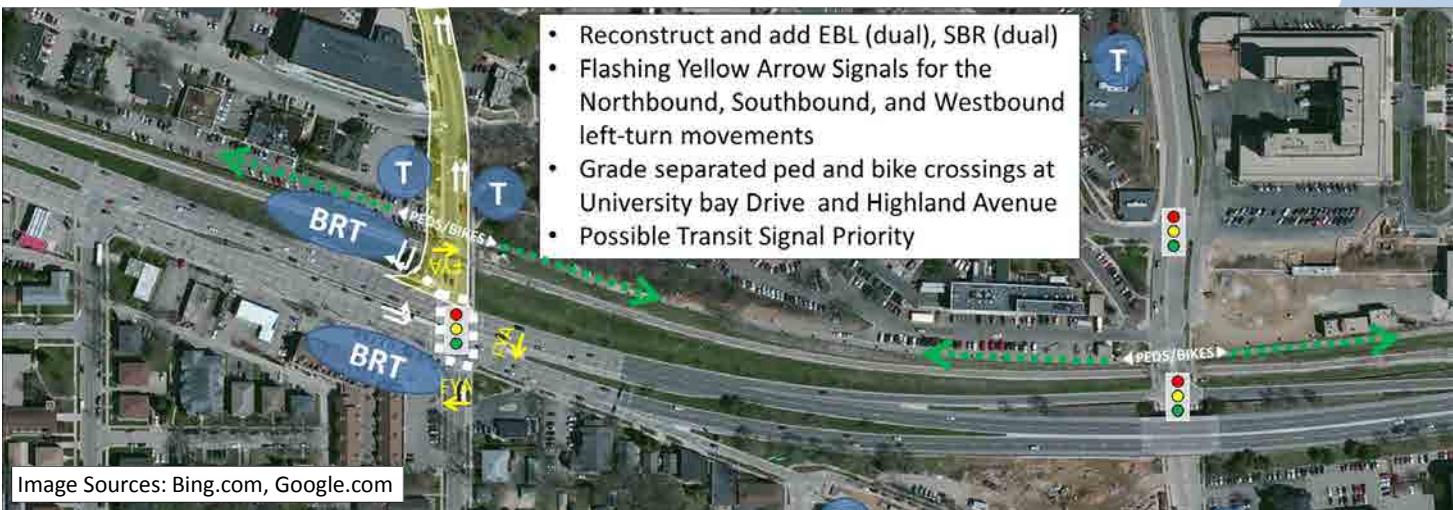
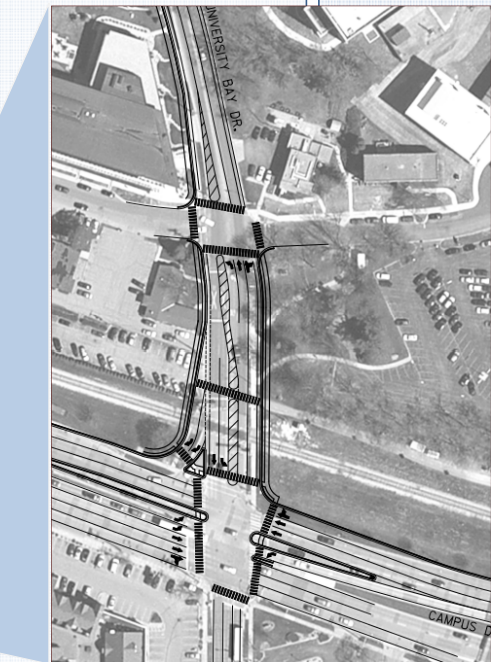


Image Sources: Bing.com, Google.com

Pedestrian

Multiple concerns including ped crossings at signalized intersections, lack of sidewalk on Highland Ave., and east-west campus path crossings

Enhanced driver awareness of crosswalks and yield condition for permitted left-turns



Enhanced driver awareness of crosswalks and yield condition for permitted left-turns

- East-west grade separations

Bicycle

Multiple concerns including northbound/ inbound bike access to hospital complexes, east-west campus path crossings, and conditions along University Ave.

- Enhanced driver awareness of yield condition for permitted left-turns
- Bike signal at Highland Ave.

- Enhanced driver awareness of yield condition for permitted left-turns
- East-west grade separations

Transit

Existing Metro stops:

- Inbound
 - West of Farley Ave./ U-Bay Dr.
 - East of Grand Ave.
 - East of Highland Ave.
- Outbound west of Farley Ave./ U-Bay Dr.
- Northbound
 - North of Campus Dr. on Farley Ave./ U-Bay Dr.
 - North of University Ave. on Highland Ave.
- Southbound
 - North of Campus Drive on Farley Ave./ U-Bay Dr.
 - Near VA on Highland Ave.

Generally compatible with BRT and local service

- Generally compatible with BRT and local service
- Possible Transit Signal Priority

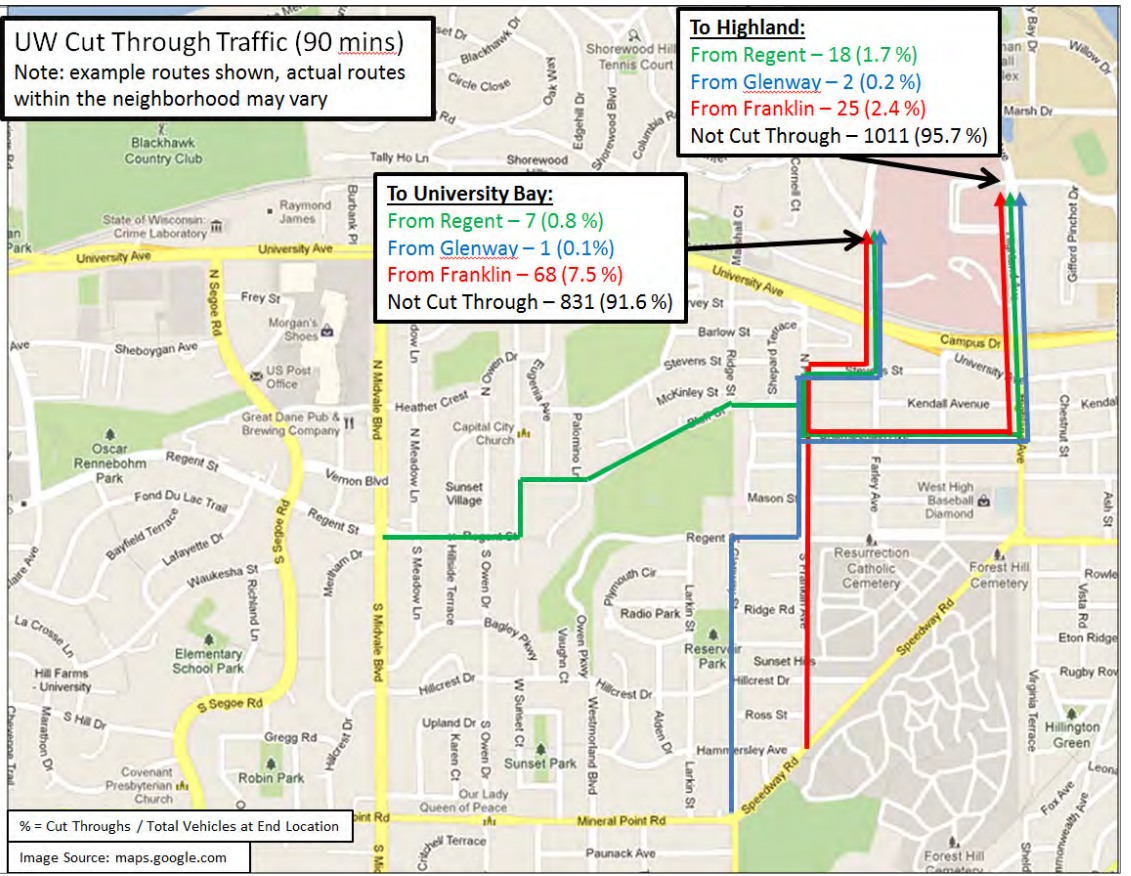
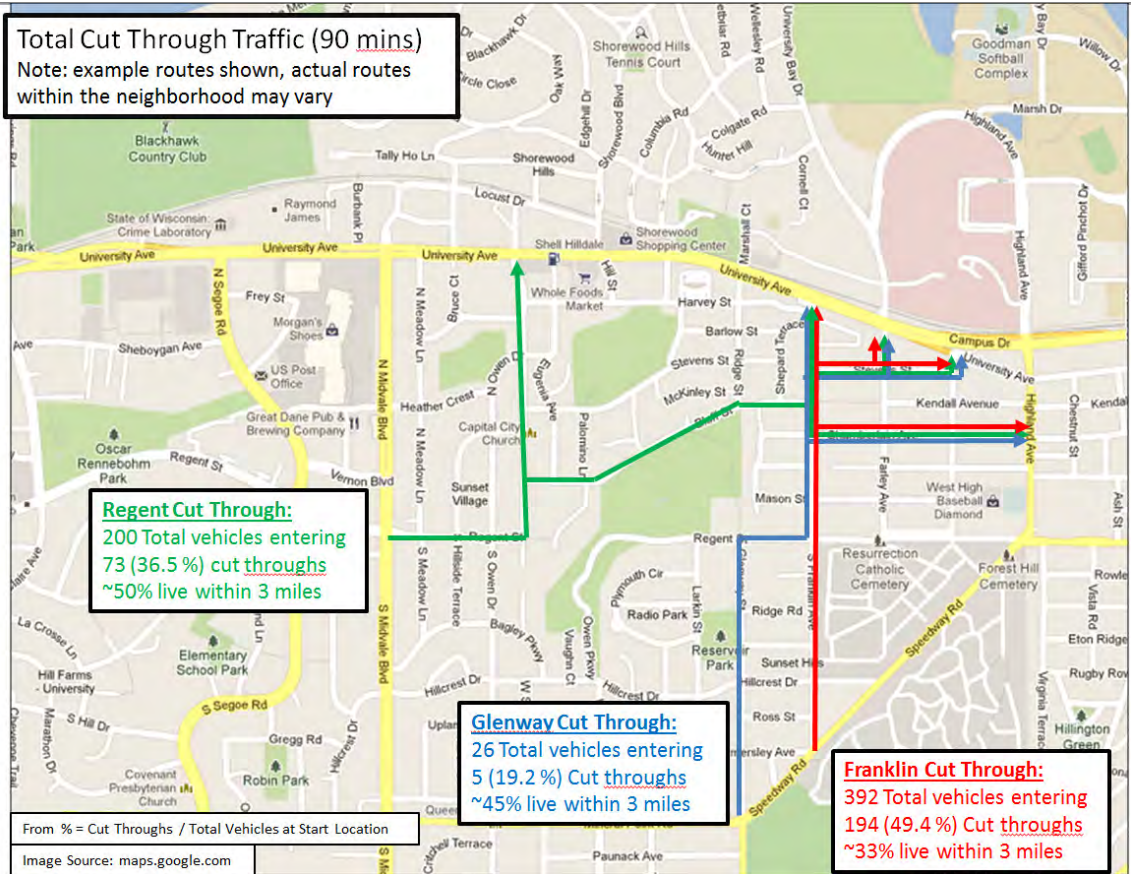
Motor Vehicles

(115% of existing traffic)

- University Ave. & Farley Ave./ U-Bay Dr.
 - Overall Intersection LOS D (40.6 s/vh)
 - 1 movement at LOS F
 - 1 add'l movement approaching LOS F
- University Ave. & Highland Ave.
 - Overall Intersection LOS B (16.4 s/vh)
- Highland Ave. & Westbound Campus Dr.
 - Overall Intersection LOS C (24.0 s/vh)
- Highland Ave. & VA Hospital
 - Overall Intersection LOS B (17.4 s/vh)
- University Ave. & Farley Ave./ U-Bay Dr.
 - Overall Intersection LOS D (40.6 s/vh)
 - 1 movement at LOS F
 - 1 add'l movement approaching LOS F

- University Ave. & Farley Ave./ U-Bay Dr.
 - Overall Intersection LOS C (29.2 s/vh)
 - 0 movements at LOS F
 - 0 movements approaching LOS F

Cut Through Traffic



- Cost & "Severity"
- Mitigation Strategies
 - Education:
 - Yard signs encouraging slower speeds
 - Permanent speed display signs
 - First day of school/periodic roadside gatherings of neighbors
 - Enforcement (speed limit):
 - Engineering:
 - Additional calming measures
 - Permanent changes in circulation (one-way streets or partial/complete closures)
 - Neighbors, Local Officials, and Staff need to agree upon if/how to mitigate impacts of cut through traffic

Neighborhood Parking



Q: I only have on-street parking. Why do you always place snow against my car?

A: Even though there are cars parked on the street, the snow must clear the lanes. Unfortunately for those people who park on the street, the snow is placed up against their cars. That is why we ask drivers to find off-street parking whenever there is an accumulation of 3 inches or more and until streets are plowed.

Q: Is parking in the city camps free when it snows?

A: During a declared Snow Emergency free parking is available between 9 p.m. and 7 a.m. in the designated sections of City-owned parking garages.

Vehicles parked before or after this period will be charged the hourly rate for that location for the additional time. When parking in the garages overnight, do not park in the top level so this area can be plowed for snow that vehicles stored in City garages longer than 48 hours are subject to being ticketed and towed. Snow in lots and garages are enforced 24 hours per day, 7 days a week.

ADDITIONAL RESOURCES:
The City of Madison website offers valuable information about the services available to you.

Winter Parking
www.cityofmadison.com/roadsandtransportation/parking/
Everything you need to know about winter parking.

City of Madison Home Page
www.cityofmadison.com/
Information about City Agencies, local activities, neighborhood associations, homeowner and voter information, cultural resources and a variety of links to other Madison resources.

City of Madison Services
www.cityofmadison.com/cityservices/
Overview of topics from A to Z.

Report a problem
www.cityofmadison.com/reportaproblem/index.cfm

Neighborhood Traffic Management
www.cityofmadison.com/trafficmanagement/traffic.htm

Building Inspection
www.cityofmadison.com/building/
Information helpful to homeowners including Street Occupancy Permits, Building Permits and zoning information.

PHONE NUMBERS RELATED TO PARKING ISSUES

Parking questions:
If your vehicle was towed... 266-4170
The Snow Emergency Hotline... 261-9111

To report:
• an abandoned vehicle on a public street... 266-4624
• an abandoned vehicle on private property... 266-4275
• a private parking violation... 266-4275
• an on-street parking violation... 266-4275
• a malfunctioning meter... 266-4761

Ticket related questions:
To schedule court to contest a parking ticket 5 days after ticket was issued call... 266-4170

If you think a ticket was issued in error:
• recorded information line... 261-9664
• outstanding parking tickets... 266-4170

Questions about:
• Residential Parking Permits... 267-1154
• Park and Ride Lots... 261-4289
• Parking restrictions at bus stops... 261-4289
• Street signs or meter location... 266-4170
• A vehicle you have sold... 266-4170

For all other parking-related questions... 266-4622

Parking in Madison's Residential Neighborhoods

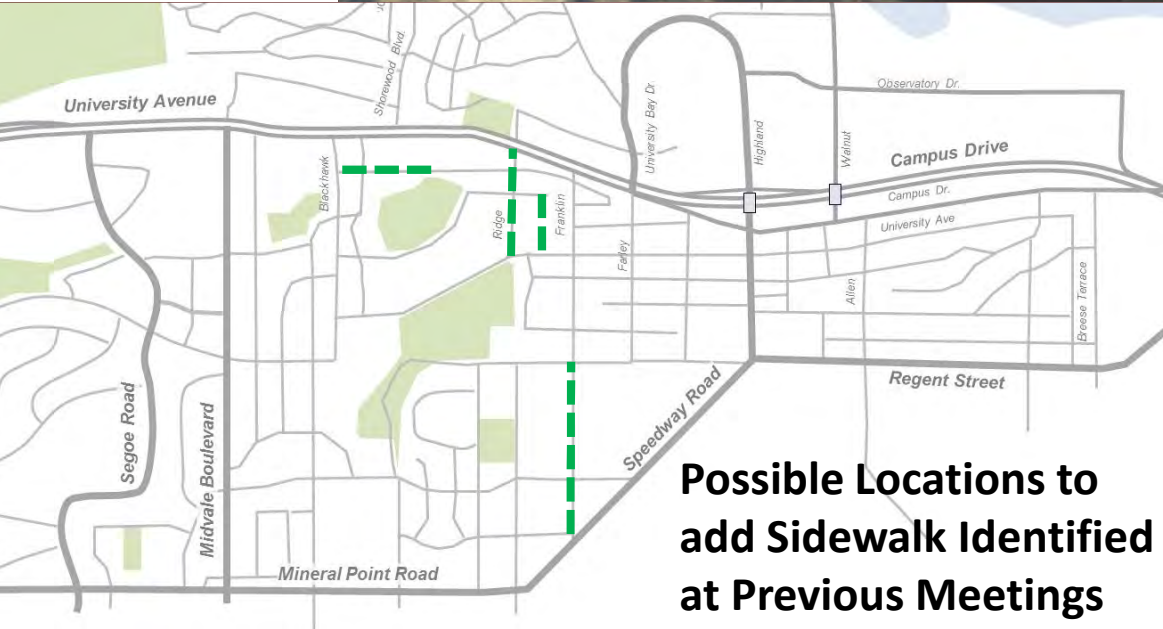
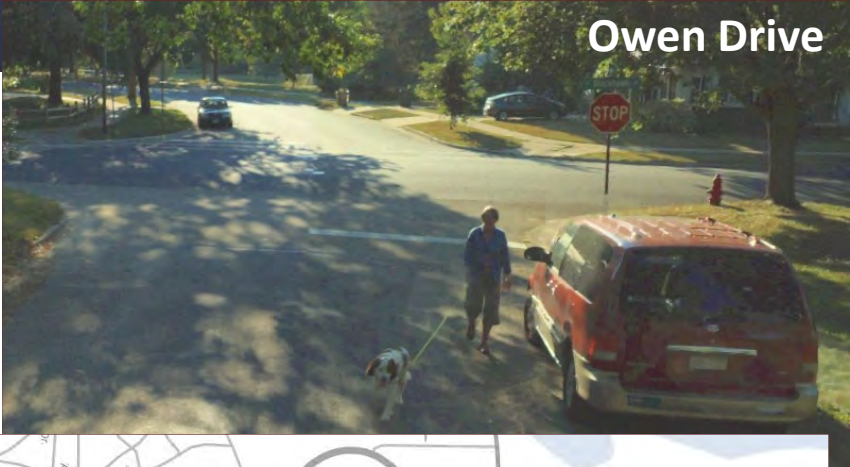
Including:
• Residential Parking Permit Program regulations
• FAQs about parking in residential areas
• Winter Parking Information
• Alternate Side Parking
• Snow Emergency Rules
• FAQs about Winter Parking
• Overview of the City of Madison Resources
• Parking Enforcement Contact Numbers

Sticker here with address contact information

Brochure Courtesy of City Of Madison Traffic and Parking Division
Issued 10/2012

- **Consider participating in the RP3 program:**
 - Block by block program
 - Petition among neighbors showing >50% support and willingness to pay for permit parking program
 - At least one side or 50% must be zoned residential
 - A majority of the on street spaces must be occupied by commuter vehicles a majority of the time from 8:00 am to 6:00 pm.

Missing Sidewalk



- **Adding Sidewalk on Local Streets Requires:**
 - Agreement among neighbors
 - Agreement from your Alder/Board
 - Costs typically assessed back to homeowners

Near Westside Neighborhoods and University Avenue Corridor Transportation Study

February 25, 2014 Public Meeting

Stakeholder Questions and Comments

1. Are ped/bike grade separations near Segoe Road possible?
Long term as part of major redevelopment they may be.
2. Can park and rides be provided?
Yes, they are part of the recommendations, however, identifying funding and locations for them are always a challenge. UW recently opened two new park and rides - one at Hill Farms and one on Wingra Drive between Park Street and Fish Hatchery Road.
 - a. What about overflow parking into neighborhoods near park and rides?
Yes, this is a possible result of siting park and rides within residential neighborhoods.
3. The on-street parking on Segoe Road between Sheboygan and Sawyer Terrace causes visibility concerns.
4. The on-street parking along Frey Street is used by a lot of Hill Farms employees and by the work force housing tenants who don't want to pay for parking.
5. Need to review University Avenue Corridor (Old University) study recommendations for compatibility.
6. Request for adding pedestrian lead time at Shorewood Boulevard by taking green time away from the sidestreets.
7. What is the difference between Near Term and Long Term?
That varies from place to place, but in general the Near Term projects are lower in costs and impacts and should be able to be implemented in the next 5 to 7 years. Long Term projects are more complex and may need to be part of a larger intersection or roadway project.
8. Did you look at the drainage/flooding issues along the corridor?
The City has been and will continue to address drainage/flooding issues in the study area. This past year a major upgrade to the stormsewer serving the Old University area was completed. Future projects will continue to upgrade the system to reduce flooding.
9. When/how will an actual project occur at Hilldale Way?
Most likely through significant neighborhood support or at the time of a major redevelopment project.
10. Team should revisit neighborhood plan recommendations and consider how they relate to the study recommendations.
11. Concern regarding Franklin Avenue traffic volumes and the recommendation to add on-street bike accommodations.
The on-street accommodations are in part recommended because of the existing traffic volumes - to provide a more comfortable north-south connection.

12. Will the east-west gap in the bike route north of University Avenue be addressed?
Yes, the Village will construct a path along the railroad tracks between Marshall Court and the Village Pool in Spring 2014. The Village is also working hard to complete the gap between Marshall Court and University Bay Drive. As properties redevelop there is space being preserved for a future path.
13. Can you elaborate on Bus Rapid Transit (BRT)?
A study of BRT service was recently completed. It would include larger vehicles, pre-pay capability, fewer stops for faster service, and in some areas dedicated running lanes. The study did not recommend dedicated lanes within this study's corridor limits.
14. Bluff Street is a challenging corridor combining buses, bikes, and on-street parking, particularly in the winter.
Additional bike accommodations recommended long term that could include parking restrictions.
15. Parking is an issue near Birge Terrace.
In the review of future projects, the City will need to continue balancing on-site parking requirements with spillover on to public streets and encouragement of auto travel.
16. Maps and report should reference North Blackhawk Avenue.
17. Walnut Street is the only grade separated crossing into campus that minimizes conflicts between peds/bikes and turning vehicles because there is no access to campus drive. Any jug-handle option considered here must be sure to provide very good bike and pedestrian connections/accommodations.
18. Even if the pedestrian crossing times are "to standards" across University Avenue, they are still too short.

Near Westside Neighborhoods and University Avenue Transportation Study

Summary of Public Comments from PIM held February 24, 2014

1. Proposal for Signals at Shorewood Boulevard
 - a. Provide a 10 second pedestrian phase lead (all motor vehicle movements on red indication) for north-south crossings when push buttons on the east or west crosswalks are actuated. Field observation indicates that the north-south green time is 14 seconds with no ped actuation, and 28 seconds with ped actuation:

Reviewed, not recommended. See report.

2. Richard R.
 - a. WBL bays should be provided at Joyce Erdman Place and Highbury Road: Joyce Erdman Place is opposite N Blackhawk Avenue, so a WBL bay is provided there. The south leg at Highbury Road serves two commercial buildings that include several businesses, one of which may be a day care. It looks as though a WBL bay would fit within the existing median here.

Reviewed, WBL bay recommended.

- b. It should be possible to ride a bike from Middleton to the Capitol on off-street facilities:
Municipalities are working on completing gaps in bike routes that are off University Avenue.
 - c. Passionate argument for sidewalk on the east side of University Bay Drive: Agreed, recommendation is to add this as part of the upcoming intersection reconstruction.
3. Ben Z.
 - a. Good sidewalk recommendations in Blackhawk area:
The recommendation is for neighbors to coordinate possible future additions of sidewalk going through the City's standard process.
 - b. Before relocating the crosswalk across Midvale Boulevard at the Macy's entrance from the north side to the south side, consider that there are likely more potential conflicts for peds with northbound left-turns into the Mall, than the southbound u-turns at this location:
While the NBL volume is higher than the SBU, the left-turners can clearly see pedestrians crossing Midvale whereas u-turners may be less likely to see them.

Reviewed, recommendation moved from short-term to long-term and proposing to keep the existing crosswalk so pedestrians can choose which to use.

4. Barb A.
 - a. Concern about Franklin Avenue as a bike route considering existing MV traffic and parking restrictions:
There are tradeoffs with any proposed changes, but Franklin appears to be the best north-south corridor to choose as a dedicated bike route. Improvements

would seek to convey a shared corridor with the intent of communicating the shared nature of the street.

5. Liz V.

- a. The WBL at Shorewood Boulevard/Hill Street should remain so Whole Foods traffic doesn't have to travel through the neighborhood:
Elimination of this left-turn is an considered an optional improvement. It represents a tradeoff that benefits pedestrians crossing University Avenue at this location while resulting in impacts to motor vehicle access and circulation.

6. Robbie W.

- a. Make sure any changes to University Bay Drive or Walnut Street don't make things worse for pedestrians:
Agreed - improvements to U-Bay should include the addition of sidewalk on the east side. At Walnut, the flag to flag street width appears to be 36-feet, while the sidewalk under the bridge is at the back of curb and is only 4-feet wide on each side.

Reviewed, added recommendation to reduce the MV lanes on Walnut under Campus Drive to 14-feet (28 feet total flag to flag) with a sharrow marking while increasing sidewalks to 8-feet wide off the back of curb.

- b. The jug-handle at Walnut may make one of the very few bike/ped friendly crossings of Campus Drive worse with a lot additional MV's and turning movements:
The recommendation to add EB Campus Drive ingress and egress at Walnut is intended to better proportion the MV traffic between University Bay Drive, Highland, and Walnut Street. This is another tradeoff that should provide some improvement at U-Bay and Highland, but may result in additional congestion on Walnut. Any change as significant as a jug-handle MV connection at Walnut will require an appropriate investment in maintaining/improving bike and ped connections at this location as well.

Reviewed, added recommendation to reduce the MV lanes on Walnut under Campus Drive to 14-feet (28 feet total flag to flag) with a sharrow marking while increasing sidewalks to 8-feet wide off the back of curb.

- c. At University Bay Drive/Highland, concern that it is already difficult for WB transit riders to disembark and walk south into the Regent Neighborhood - and the proposed dual SBR will only make things worse:
The goal of the recommendations on balance is to spread the MV volume more evenly among University Bay Drive, Highland, and Walnut by providing additional access and also targeted MV capacity expansion - while including improved bike/ped connections and facilities.

7. Virginia W.

- a. Concern about parking on Ridge Street at Hill Street - too close to corners and in between driveways on south side.
- b. Report notes that these are neighborhood issues that need to be discussed with neighbors on a block by block basis.

8. Liz G.
 - a. Agree with parking concerns in neighborhoods and the need to add sidewalks: Report notes that these are neighborhood issues that need to be discussed with neighbors on a block by block basis.
9. Tom M.
 - a. Agree that NBL from Blackhawk to WB University Ave is a problem and may need to be prohibited:
Recommendation here is to restrict this movement and add a partial signal.
10. Mary G.
 - a. Agree with need for bike/ped connection on north side of University Ave. between University Bay Drive and Shorewood Blvd.
 - b. Refuge islands at partial signals need to be large enough for peds to feel safe even in the winter with snow accumulation.
11. Verbally noted at the meeting - the need to review recommendations in the Hoyt Park Area Joint Neighborhood Plan and the University Avenue Corridor Plan (Farley Avenue to Breese Terrace) to see how compatible the study recommendations are with them.

Several of the study recommendations are similar to recommendations in the neighborhood plans, but our current study does not reflect every recommendation in the plans. There do not appear to be any of our recommendations that are in direct conflict with these plans.

APPENDIX I
SUMMARY OF AVAILABLE FUNDING OPPORTUNITIES

Near Westside Neighborhoods and University Avenue Corridor Transportation Study

Notes on Funding for Exclusive Right-of-way Transit (such as commuter rail)

1. There is nothing exactly like “joint power authority” in Wisconsin
 - * There is legislation that allows multiple local governments to create a separate entity (generous power for governments to work together) -- there is clear statutory authority and practice to set up commission
 - * Intergovernmental Agreement -- Intergovernmental Commission
 - * Local governments and state agencies can enter into these arrangements
 - * Madison -- City of Second Class
Village
University -- State agency
 - * Entity has structure they agree to
 - * Commission has no broader powers than the individual powers of the participating entities
 - * No case law that says commission isolates entities from liabilities
 - * May shield entities from criticism. Tends to isolate or distance each local government and the University from reactions, how things are reported, etc.
 - * Completed at the initiative of the local entities -- i.e. does not need to go to the state legislature
 - * There exists a statewide inter-governmental commission that can also be a bond issuer -- Public Finance Authority (PFA)
 - * Has a modern bond statute
 - * May add additional cost without additional value, but could be useful
 - * Again, the PFA cannot do anything beyond what the entities could do individually
- Funds -- Two theories under which funds can be raised
- A. Fees -- fee imposed pursuant to entity’s “police power”. Fees may be imposed, but not in excess of actual costs
 - * Madison and Shorewood have adequate police powers
 - B. Taxes -- imposed pursuant to taxing power (the concept of “taking property”)
 - * Both Madison and Shorewood can tax real estate

Other fund raising activities authorized in Wisconsin

- * Counties are allowed at their option to impose a 0.5% sales tax
 - * Cities and Villages can impose a room tax (hotels). However, tax receipts must be related to tourism
 - * “Special districts” can have taxing power, e.g., stadiums
 - * No authority at City and Village level for other taxes not described above
 - * University has no power to impose a tax, but it does have fee power
2. There is no general authority for creation by a local government of a not-for-profit entity. There is legal murkiness here. General law would authorize creation of a trust or a not-for-profit. There are “occurrences” in Wisconsin, but not practice.
3. Regional Transit Authority (RTA)--
- * Legislation was enacted for regional transit authorities. It was repealed recently.
 - * RTAs are politically sensitive
4. Public Private Partnerships (P3) --
- * Commuter rail has been funded in other states by P3 agreements.
 - * Specific requirements of entities vary
 - * Generally, a private entity or partnership fund a significant portion of the planning, design, and construction costs of the public infrastructure, in exchange for revenue and/or tax benefits accrued as a result of the project
5. Other thoughts and ideas
- * Because of the high visibility of transportation on the corridor to state legislators, students, and citizens, maybe an effort to create special legislation for the Corridor would make sense
 - * Create legislation that allows the very specific “regional transportation authority” some taxing power
 - * At this time, the most logical revenue source would be a revenue bond issue supported by fees. The City and the Village have direct power to issue revenue bonds, but the University does not.
 - * One option -- the State could issue general obligations bonds, payments for which would be abated from fees (possibly ridership fees or other) imposed by the three entities

Near Westside Neighborhoods and University Avenue Transportation Study

Summary of Potential Funding Opportunities

Joint Commission (Intergovernmental Agreement)

Overview

- Agreed to Structure
- No broader powers than those of individual entities
- Does not need to go to Legislature

Near Westside Neighborhoods and University Avenue Transportation Study

Summary of Potential Funding Opportunities

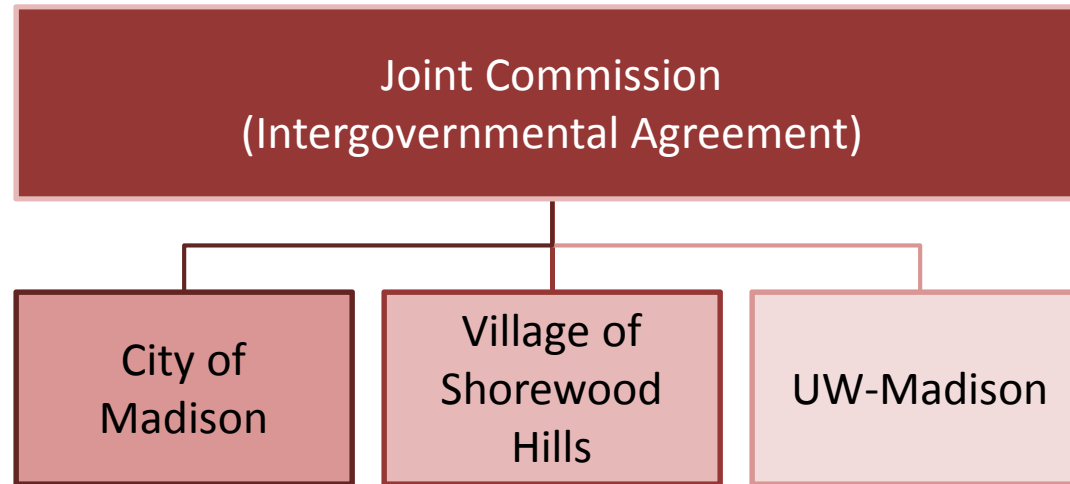
Joint Commission (Intergovernmental Agreement)

Funds

- Fees: Police powers (Madison, Shorewood Hills, UW)
- Taxes:
 - Property Tax: Madison, Shorewood Hills
 - Hotel Room Tax: Madison, Shorewood Hills (must go toward “tourism”...)
 - 0.5% Sales Tax: Dane County...?
 - “Special Districts” can have taxing power (stadiums)

Near Westside Neighborhoods and University Avenue Transportation Study

Summary of Potential Funding Opportunities

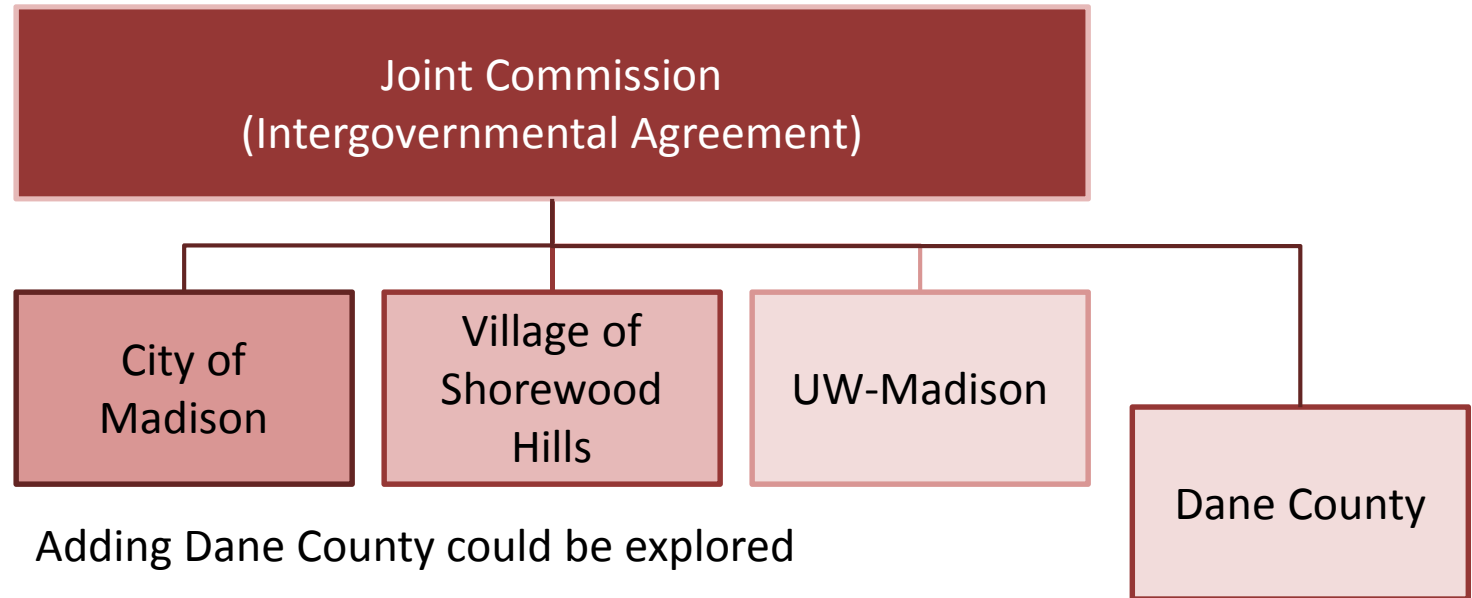


Each entity can raise revenue, but working together may have advantages:

- Distancing individual entities from political issues
- Potentially improves chances for grants/loans (facilitates revenue generation)

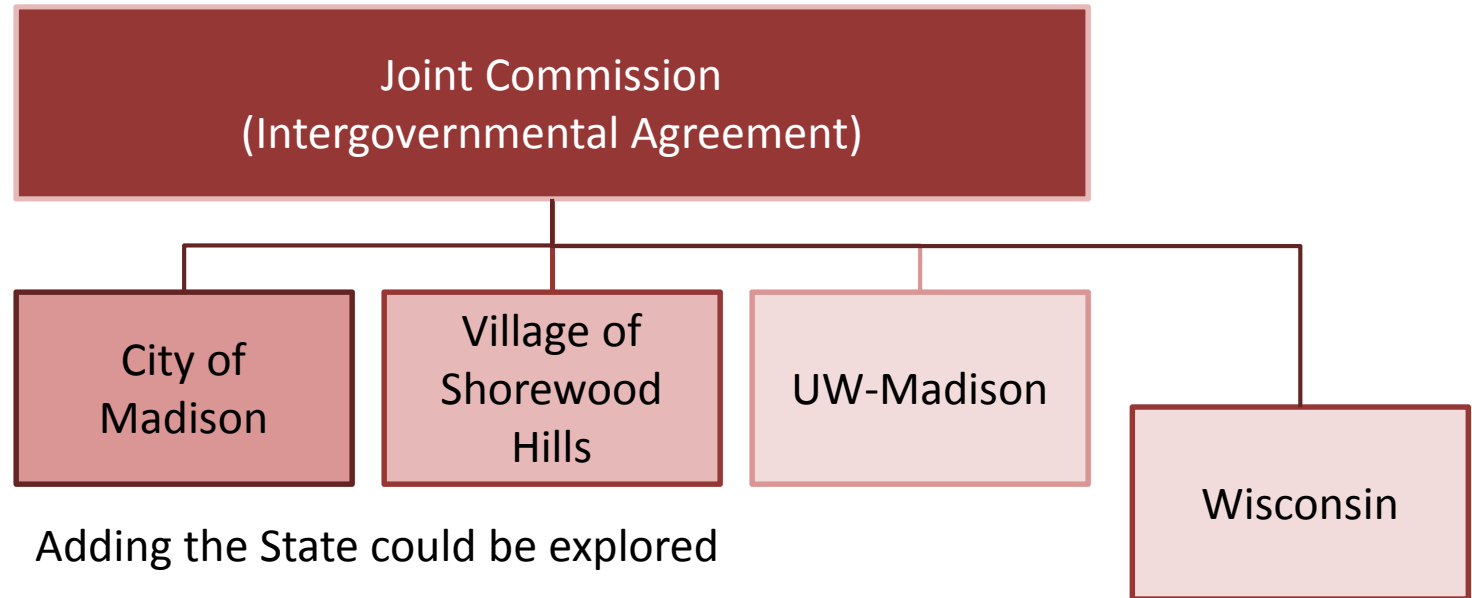
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Summary of Potential Funding Opportunities



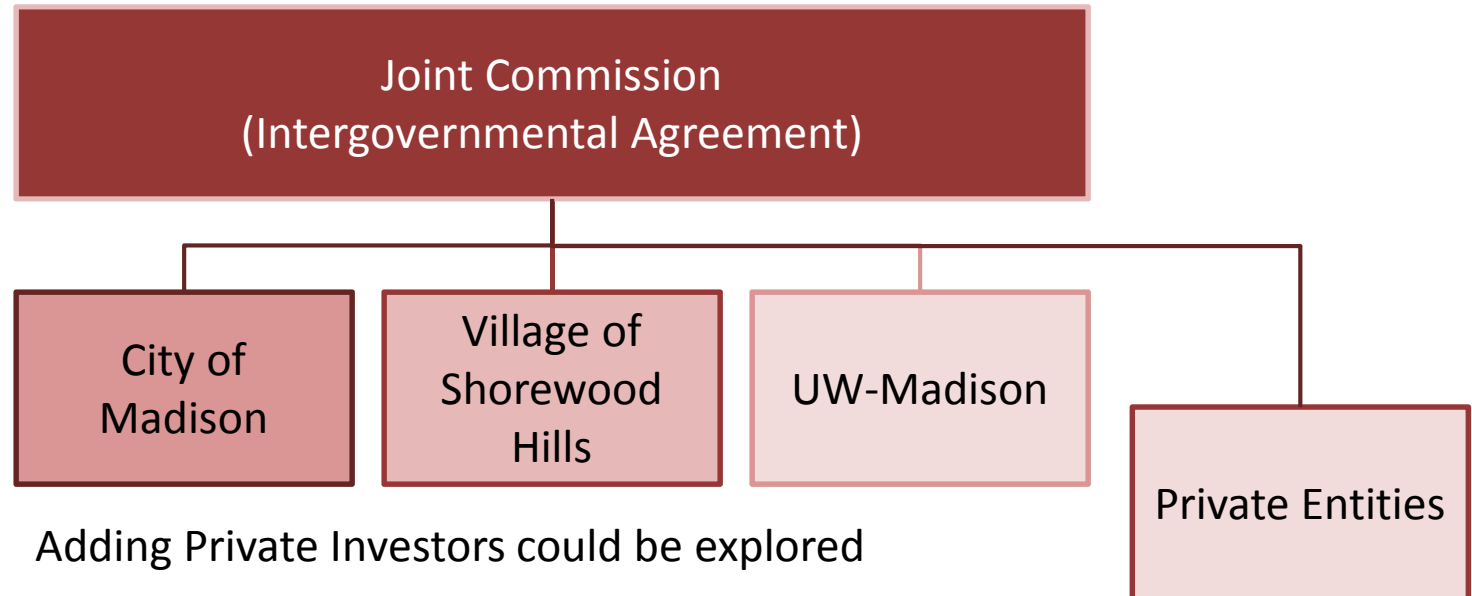
Near Westside Neighborhoods and University Avenue Transportation Study

Summary of Potential Funding Opportunities



Near Westside Neighborhoods and University Avenue Transportation Study

Summary of Potential Funding Opportunities



Near Westside Neighborhoods and University Avenue Corridor Transportation Study

Notes on Federal, State and Local Grants, Loans And Programs

1. WisDOT

- * Transportation Economic Assistance (TEA)
- * Provides 50% state grants to governing bodies, private businesses and consortiums for road, rail, harbor and airport projects *that help attract employers to Wisconsin or encourage business and industry to remain and expand in the state.*
 - * Attract and retain jobs is the goal
 - * Grants of up to \$1 million are available for transportation improvements that are essential for an economic development project
 - * 50% local match can come from any combination of local, federal or private funds or in-kind services
 - * First come first served
- * Public Transportation
 - * Bus and Bus Facilities Program
 - * Federally funded
 - * Replace, rehabilitate and purchase buses and related equipment and to construct bus-related facilities
 - * Federal Formula Grant Program for Urbanized Areas
 - * Federally funded grant program that assists transit systems in communities with a population over 200,000
 - * State Urban Mass Transit Operating Assistance
 - * Assists transit systems with operating costs
 - * Eligible public transportation services include bus, shared-ride taxicab, rail or other conveyance method either publicly or privately owned
 - * Eligible entities include counties, municipalities, and towns along with transit or transportation commissions or authorities
 - * Wisconsin Employment Transportation Assistance Program (WETAP)
 - * An effort to connect low-income workers with jobs through enhanced local transportation services
 - * Integrates local, state and federal funding into a single program and award process administered jointly by WisDOT and the state Department of Workforce Development

2. Grants and Programs -- Federal Department of Transportation

- * Surface Transportation Program (STP)
 - * STP is one of the main sources of flexible funding available for transit or highway purposes
 - * Funds may be used (as capital funding) for public transportation capital improvements, car and vanpool projects, fringe and corridor parking facilities, bicycle and pedestrian facilities, and intercity or intra-city bus terminals and bus facilities
 - * Other eligible projects include transit safety improvements and most transportation control measures
 - * State and local governments are eligible
 - * WisDOT is the local sponsor and distributor of the funds

- * Congestion Mitigation and Air Quality Improvement (CMAQ) Program
 - * CMAQ is the second main source of flexible funding
 - * Objective is to improve air quality and manage congestion by providing support for transportation projects that contribute to emissions reductions of carbon monoxide, particular matter and ozone and its precursors
 - * Eligible activities include transit system capital expansion and improvements that are projected to realize an increase in ridership; travel demand management strategies and shared ride services; pedestrian and bicycle facilities and promotional activities that encourage bicycle commuting.
 - * state and local governments and private sector elements through a public sponsor
 - * administered by WisDOT

- * Urbanized Area Formula Grant Program
(Transit Grants for Mid- and Large Urban Areas)
 - * Makes federal resources available to urbanized areas and to governors for transit capital and operating assistance in urbanized areas and for transportation related planning
 - * Population of 50,000 or more
 - * Eligible purposes include planning, engineering design, and evaluation of transit projects and other technical transportation related studies; capital investments in bus and bus related activities such as replacement of buses, overhaul of buses, rebuilding of buses; crime prevention and security equipment and construction of maintenance and passenger facilities; and capital investments in new and existing fixed guide-way systems including rolling stock, overhaul and rebuilding of vehicles, track, signals, communications and computer hardware and software. *For urbanized areas with populations of 200,000 or more, operating assistance is not an eligible expense.* In these areas, at least one percent of the funding apportioned to each area must be used for transit enhancement activities such as historic preservation, landscaping, public art, pedestrian access, bicycle access and enhanced access for persons with disabilities

- * For areas with population of 200,000 and over, funds are apportioned and flow directly to a designated recipient selected locally to apply for and receive federal funds
- * Funding is apportioned to each urbanized area and state based upon a formula

* Bus and Bus Facilities Program

- * Provides capital assistance for new and replacement buses, related equipment and facilities. Eligible capital projects include the purchasing of buses for fleet and service expansion, bus maintenance and administrative facilities, transfer facilities, bus malls, transportation centers, intermodal terminals, park-and-ride stations, acquisition of replacement vehicles, bus rebuilds, bus preventive maintenance, passenger amenities such as passenger shelters and bus stop signs, accessory and miscellaneous equipment such as mobile radio units, supervisory vehicles, fare boxes, computers and shop and garage equipment
- * Private companies engaged in public transportation and private non-profit organizations are eligible sub-recipients of FTA grants

* Transportation, Community, and System Preservation Program (TCSP)

- * TCSP is a comprehensive initiative of research and grant money to integrate transportation, community and system preservation plans, and practices that improve the efficiency of the transportation system of the United States; reduce environmental impacts of transportation; reduce the need for costly future public infrastructure investments, ensure efficient access to jobs, services and centers of trade, and examine community development patterns and identify strategies to encourage private sector development patterns and investments that support these goals
- * States, metropolitan organizations, local governments are eligible

* Elderly and Persons with Disabilities

- * Federally funded program that provides formula capital funding to states for the purpose of assisting private nonprofit groups and certain public agencies in meeting the transportation needs of the elderly and persons with disabilities
- * Funds are apportioned based on each state's share of population for these groups of people
- * Funds are obligated based on the annual program of projects included in a statewide grant application
- * Projects must be derived from a locally developed and coordinated public transit-human services transportation plan
- * Matching funds may be derived from other non-DOT programs or the Federal Lands Highway Program
- * Funding apportioned to states through a formula; states apply

* New Freedom Program

- * Program aims to provide additional tools to overcome existing barriers facing persons with disabilities seeking integration into the work force and full participation in society
- * States and public bodies are eligible designated recipients
- * Eligible sub-recipients are private non-profit organizations, state and local governments, and operators of public transportation services including private operators of public transportation services
- * States apply; funding is apportioned to each state through a formula

3. Fixed Guide Systems

* New Starts - Small Starts Program

- * Provides funds for construction of new fixed guide-way systems or extensions to existing fixed guide-way systems
- * Eligible purposes are light rail, rapid rail (heavy rail), commuter rail, monorail, automated fixed guide-way system (such as “people mover”), or a bus-way/high-occupancy-vehicle (HOV) facility
- * Typically receive funds through a full funding grant agreement that defines the scope of the project and specifies the total multi-year federal commitment to the project. Projects requesting less than \$75 million (“Small Starts”) go through a streamlined project development process
- * Eligible entities include public bodies and agencies (transit authorities and other state and local public bodies and agencies thereof) including states, municipalities, other political subdivisions of states; public agencies and instrumentalities of one or more states and certain public corporations, boards and commissions established under state law

* Fixed Guide-way Modernization Formula Program

- * provides funds to transit agencies to modernize or improve existing fixed guide-way systems, including purchase and rehabilitation of rolling stock, track, line equipment, structures, signals and communications, power equipment and substations, passenger stations and terminals, security equipment and systems, maintenance facilities and equipment. operational support equipment including computer hardware and software, system extensions and preventive maintenance
- * public agencies including states; public agencies and instrumentalities; municipalities and other subdivisions of states, public agencies and instrumentalities of one or more states, and public corporations, boards and commissions established under state law
- * funds are allocated by a formula to urbanized areas *with rail systems that have been in operation for at least seven years*

* Alternatives Analysis Program

- * Assist in financing the evaluation of all reasonable modal and multimodal alternatives and general alignment options for identified transportation needs in a particular, broadly defined travel corridor
- * Funds may be used to assist state and local governmental authorities in conducting alternative analyses when at least one of the alternatives is a

new fixed guide-way or an extension to an existing fixed guide-way system

- * Eligible applicants include public agencies, including states; municipalities and other subdivisions of states public agencies and instrumentalities of one or more states, and public corporations, boards and commissions established under state law

- * High Speed Rail

- * Must address long-term passenger transport needs in a heavily populated corridor; promote economic expansion (including new manufacturing jobs), create new choices for travelers in addition to driving, reduce national dependence on oil, and foster urban and rural community development
- * Eligible entities include states, regions, partnerships, groups, public agencies, organizations -- but mostly based on types of projects according to criteria of four different track styles (1-4)

4. Surface Transportation Planning

- * Metropolitan Planning Program and State Planning and Research Program

- * Jointly administered by the FTA and FHWA
- * Provides funding to support cooperative, continuous and comprehensive planning for making surface transportation investment decisions in metropolitan areas
- * Can use funds for planning activities that (i) support the economic vitality of the metropolitan area, especially by enabling global competitiveness , productivity and efficiency; (ii) increase the safety of the transportation system for motorized and non-motorized users; (iii) increase the security of the transportation system for motorized and non-motorized users; (iv) increase the accessibility and mobility of people and freight; (v) protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvement and state and local planned growth and economic development patterns; (vi) enhance the integration and connectivity of the transportation system, across and between modes, for people and freight; (vii) promote efficient system management and operation and (viii) emphasize the preservation of the existing transportation system
- * Eligible entities are state Departments of Transportation and Metropolitan Planning Organizations
- * Federal planning funds are first apportioned to the state DOT, then state DOTs allocate planning funding to MPOs

- * Surface Transportation Environment and Planning Cooperative Research Program (STEP)

- * Objective is to improve understanding of the complex relationship between surface transportation, planning and the environment
- * All local, MPO and states agencies are eligible

- * Transportation Planning Capacity Building Peer program
 - * Free technical assistance and training resources for agencies in need of transportation planning information and support
 - * Eligible entities include MPOs, transit agencies, DOTs, and other transportation decision-making organizations

5. Bike and Pedestrian

- * Bicycle and Pedestrian Program
 - * FHWA Program to promote bicycle and pedestrian transportation use, safety and accessibility.
 - * program responsible for implementing federal transportation legislation and policy related to bicycling and walking
 - * not a funding program
 - * pedestrian and bicycle projects and programs are eligible for almost all federal-aid highway funding categories
 - * each state has a bicycle and pedestrian coordinator in its DOT whose job is to promote and facilitate non-motorized transportation, including developing pedestrian and bicycle facilities and public educational, promotional and safety programs
- * Transportation Enhancement Activities (TE)
 - * TE activities offer funding opportunities to expand transportation choices and enhance the transportation experience through 12 eligible TE activities related to surface transportation (including pedestrian and bicycle infrastructure and safety programs, scenic and historic highway programs, landscaping and scenic beautification, historic preservation and environmental mitigation)
 - * TE projects must relate to surface transportation
 - * Each state develops its own procedures to solicit and select programs for funding
 - * Funds can be made available to federal, tribal, state and local government agencies
- * The Safe Routes to School Program (SRST)
 - * Program makes funding available for a wide variety of programs and projects from building safer street crossings to establishing programs that encourage children and their parents to walk and bicycle to school
 - * Federally funded and formula driven
 - * Infrastructure and non-infrastructure
 - * Benefit students in elementary and middle school
- * Pedestrian Safety Program State Assessment

- * Team of experts make recommendations for improvement to public safety based on the NHTSA *Highway Safety Program Guide No. 14, Pedestrian and Bicycle Safety*
- * Non-funding.
- * Federal-aid Highway Program
 - * Bicycle and pedestrian projects are broadly eligible for funding from almost all the major federal transit, safety and other programs. Bicycle projects must be “principally for transportation, rather than recreation purposes”. and must be designed and located pursuant to the transportation plans required of states and the metropolitan highway planning organizations.
 - * Funds may be used to construct bicycle transportation facilities and pedestrian walkways on land adjacent to any highway on the national highway system, including interstate highways
 - * STP funds may be used for either the construction of bicycle transportation facilities and pedestrian walkways or non-construction projects (e.g., maps, brochures and public service announcements) related to safe bicycle use and walking
- * Transportation Enhancement Activities (TEAs)
 - * Federal statute states that the modification of public sidewalks to comply with the American with Disabilities Act is an activity that is specifically eligible for the use of funds
 - * 10% of each states STP funds are set-aside for the Hazard Elimination and Railway-Highway Crossing Program. The law includes funding for the provision of facilities for pedestrians and bicycles, provision of safety and educational activities for pedestrians and bicyclists and the preservation of abandoned railway corridors (including the conversion and use thereof for pedestrian and bicycle trails)
- * Congestion Mitigation and Air Quality Improvement Program
 - * Funds may be used for either the construction of bicycle transportation facilities and pedestrian walkways or non-construction projects (maps, brochures, public service announcements)
- * Recreational Trails Program
 - * Funds are available for a broad range of trail projects
- * Job Access and Reverse Commute Grants
 - * Supports projects, including bicycle, designed to transport welfare recipients and eligible low-income individuals to and from work
- * High Priority Projects and Designated Transportation Enhancement Activities

- * Funds various bicycle, pedestrian, trail and traffic calming projects in communities
 - * Federal Transit Program
 - * Urbanized Area Formula Grants, Capital Investment Grants and Loans and Formula Program for Other Than Urbanized Area transit funds can be used for improving bicycle and pedestrian access to transit facilities and vehicles.
 - * Eligible activities include pedestrian and walkways and bicycle access, including bicycle storage facilities and installing equipment for transporting bicycles on mass transit vehicles
 - * Highway Safety Programs
 - * Pedestrian and bicyclist safety remain priority areas for State and Community Highway Safety Grant from the federal government. a state is eligible for these grants by submitting a Performance Plan (establishing goals and performance measures for improving highway safety) and a Highway Safety Plan (describing activities to achieve those goals).
 - * The Highway Safety Research and Development program funds research, development , demonstrations and training to improve highway safety (including pedestrian and bicycle safety).
6. Transportation Investment Generating Economic Recovery Grants (TIGER)
- The TIGER Discretionary Program enables DOT to use a rigorous process to select projects with exceptional benefits, explore ways to deliver projects faster and save on construction costs, and make investments in infrastructure that make communities more livable and sustainable. In FY 2012, a total of \$526.9 million (47 capital projects) was awarded.
7. Wisconsin Board of Commissioners of Public Lands
- * State trust funds
 - * Among other things, public work projects, including roads
 - * Loan over ten years
8. Economic Development Administration (EDA)
- * Beneficiary -- among others, local government engaged in economic or infrastructure activities
 - * Prefer projects over \$1 million
9. Other
- Depending on the project for the Corridor, it may also be prudent to apply to the Wisconsin Department of Natural Resources for flood control, drainage, etc.
10. Federal/State Matching Requirements

Federal share of the costs of transportation projects is 80 percent with a 20 percent state or local match. There are exceptions to the rule, some of which are listed below:

- * Bicycle-related TEAs are 95 percent federally funded
- * Hazard elimination projects are 90 percent federally funded. Bicycle related transit projects (other than TEAs) may be up to 90 percent federally funded

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