

Monroe Street Reconstruction

Pedestrian, Bicycle and Transit World Café
August 11, 2016



Tonight's Agenda

Thank you to Edgewood College!

1. Orientation – Urban Assets
2. Project Scope – City Engineering
3. Informational Presentations and Small Group Discussions – City staff and YOU!
 - Pedestrian and Bicycle Access: Opportunities and Considerations
 - Transit, Parking and Vehicle Access: Opportunities and Considerations

Introductions

- City Staff
 - Engineering
 - Planning
 - Metro
 - Traffic Engineering
 - Economic Development
- Urban Assets, LLC
- Engagement Resource Team
 - Alder Eskrich
 - DMNA and VNA
 - Madison Bikes
 - Monroe Street Merchants Assoc.
 - UW-Madison
 - Friends of Lake Wingra
 - Wingra School
 - Edgewood College

Meeting Objectives

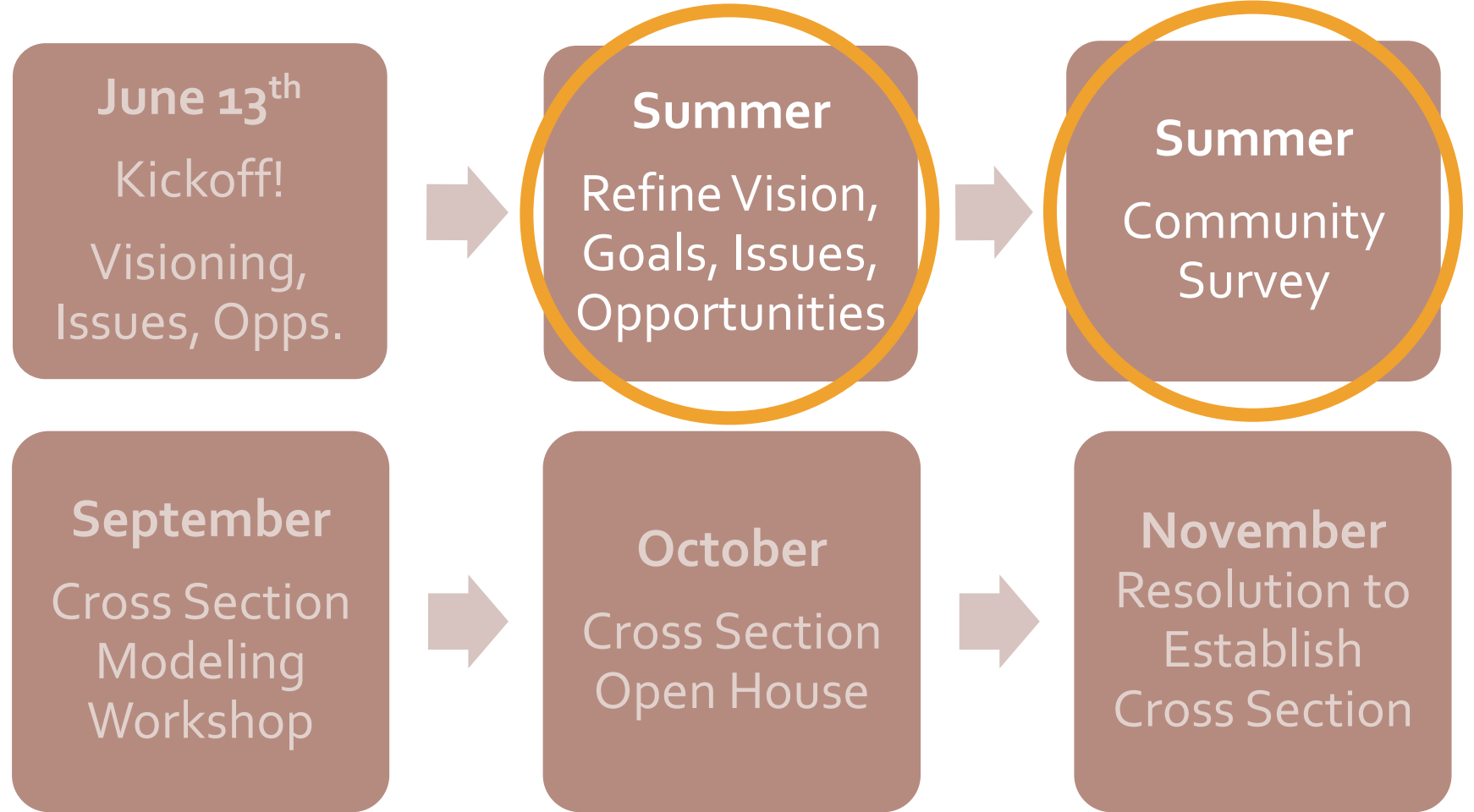
1. Review design concepts and associated impacts.
2. Uncover new ways of thinking about multimodal goals and design opportunities for the Monroe Street reconstruction.
3. Improve the city's understanding of participant preferences and perspectives on opportunities and tradeoffs.



Public Engagement Process & Timeline

Public Engagement Process & Timeline

2016



Public Engagement Process & Timeline

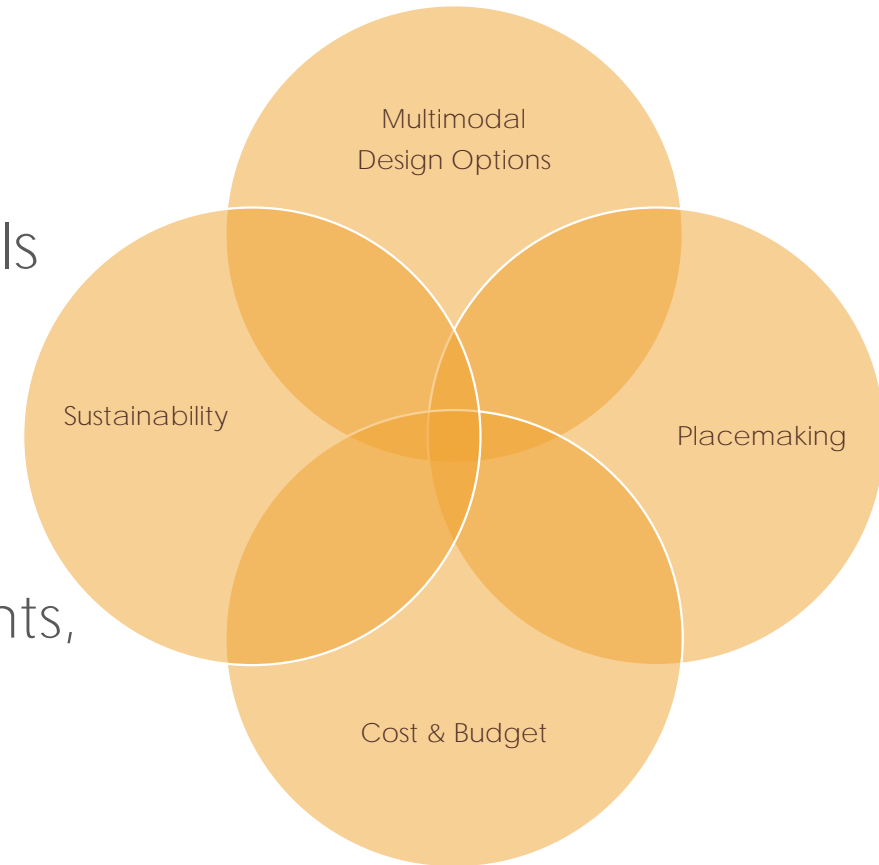
2017



Kickoff Meeting Feedback

What do you want to learn more about?

- Relative effectiveness of different treatments
- Design options with visuals
- Budget factors such as costs and trade-offs
 - Placemaking, undergrounding, pedestrian improvements, etc.
- Balance of multi-modal considerations



Community Survey Results Preview

- 2,779 responses!
- 60% female
- 63% aged 31-60
- 47% live in a neighborhood other than Vilas or Dudgeon-Monroe
- 33% live within three blocks of Monroe Street
- High school students, college students, neighborhood residents, visitors, commuters, business owners, parents



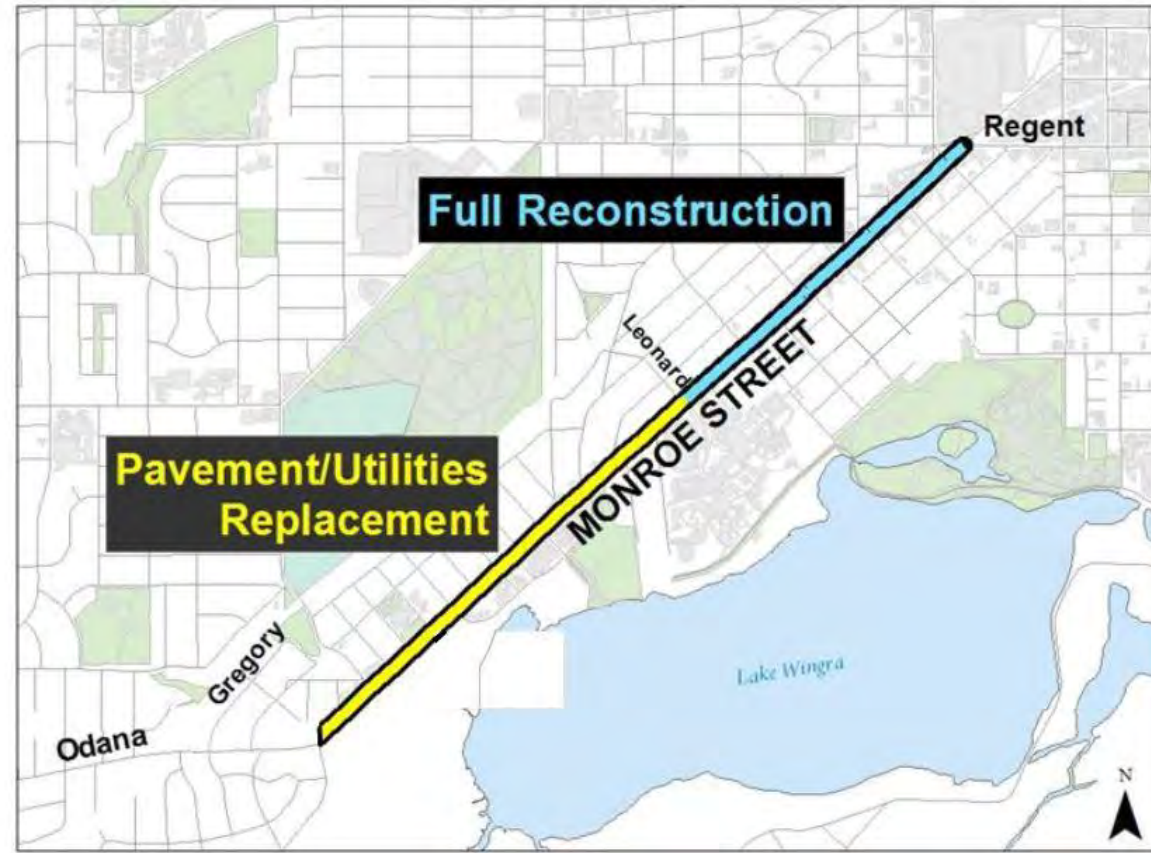
Project Overview

Christy Bachman, P.E
Principal Engineer



Project Scope & Timeline

- Reconstruction will occur within eight months:
 - April – November 2018



- Utilities
- Street

Project Budget for 2018

- Total budget estimate: \$17m
- Street budget: \$9.8m
 - New pavement, curb, sidewalk, lights & signals
 - Pavement markings
 - Additional pedestrian improvements
 - Some storm sewer (inlets & leads)
 - Streetscape and placemaking enhancements
 - Undergrounding in business districts
- Many opportunities for input



What Factors Are We Balancing?

- Improving safety for all users
- Effectiveness as a vibrant urban place for people
- Effectiveness as a city-wide transportation route
 - Jobs, education, entertainment
- Effectiveness as a business district
- Institutional needs and events
 - UW-Madison, Edgewood College
- Neighborhood needs
- Transit accessibility and performance
 - Equity and sustainability
- Sustainable design
- Cost
 - City budget and level of need in other neighborhoods

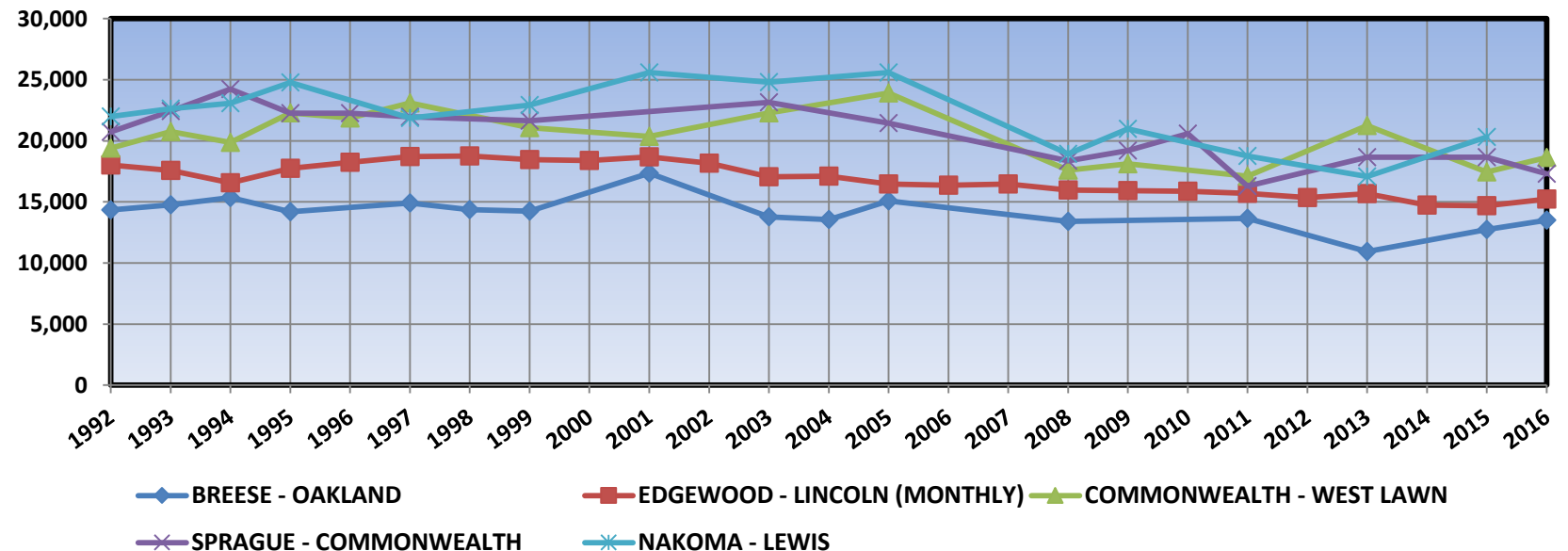
Pedestrian Infrastructure

Jim Wolfe, Project Engineer



What We Know

- Approximately 600 vehicular crashes since 2000
- 20 crashes involving pedestrians since 2000
- Average speeds are highest near Odana (30.4 mph)
- Decrease moving toward Regent (23 mph near Trader Joe's)
- Volumes are highest near Odana, decreasing to the east
 - Generally trending down since late '90s



What We Know

- There are already sidewalks along both sides of Monroe Street
- Highest priority for improving pedestrian infrastructure will be to improve pedestrian crossings of Monroe Street



Considerations for Pedestrian Safety Improvements

- Visibility for both vehicles and pedestrians
- Expectation of pedestrians
- Separation between vehicles & pedestrians
- Length of street crossings
- Vehicle speeds
- Mix of techniques
 - Over-use of one technique will become drowned-out and less effective
- Some techniques depend on final cross section



Interim Pedestrian Crossing Improvements

- Installing interim pedestrian crossing improvements this fall
- Rectangular Rapid Flashing Beacons (RRFBs)
 - Highly visible LED strobe – visible from all lanes
 - Good motorist compliance
 - Solar capable
 - Cost effective
 - 6 intersections now
 - Can consider other locations with final projects



Pedestrian Crossing Improvement Examples

- Colored cross walks and continental cross walks
- Pros
 - Improve visibility of crossing
 - Inexpensive
- Cons
 - Not as effective as RRFB – not as much warning



Pedestrian Crossing Improvement Examples

- Pedestrian countdown timers at signals
- Signals already provide good protection for pedestrians
- Pros
 - Improved notification of safe crossing time for pedestrians
 - Inexpensive



Pedestrian Crossing Improvement Examples

- Overhead signage with or without flasher
- Pros
 - Improve visibility from all lanes of traffic
 - More expectation as signs can be seen from further away
 - Compliance, especially with flasher
- Cons
 - Can be costly, especially with flashers
 - Aesthetics



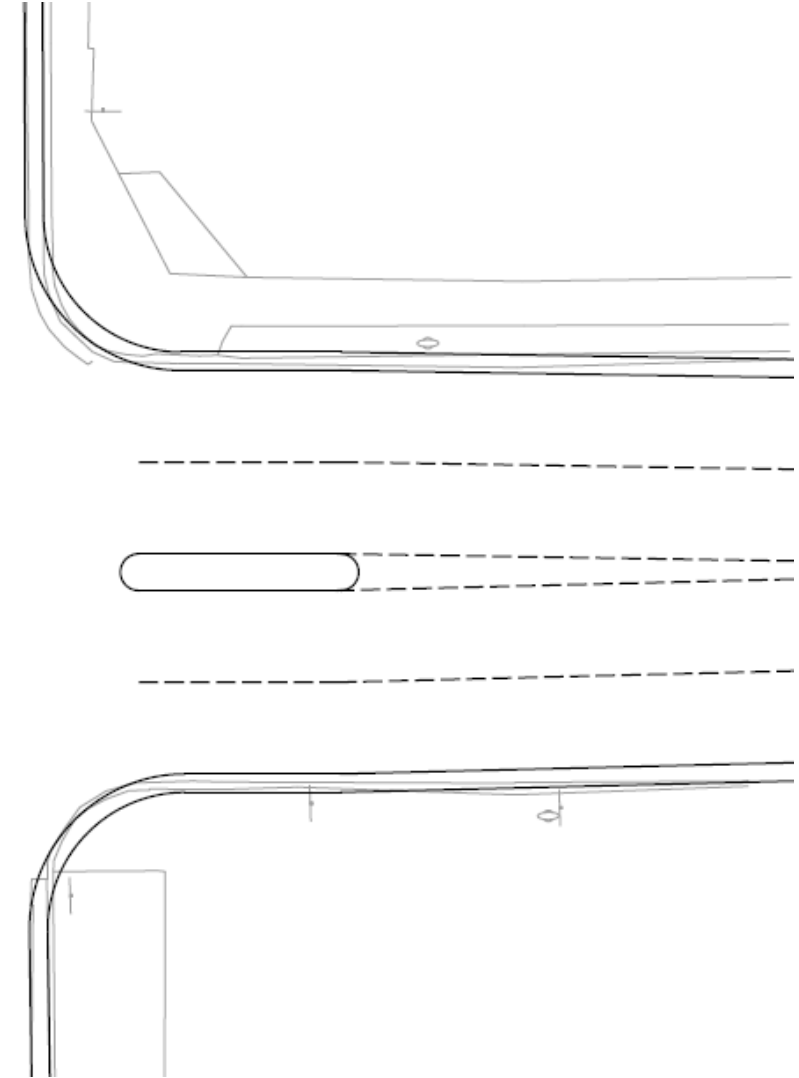
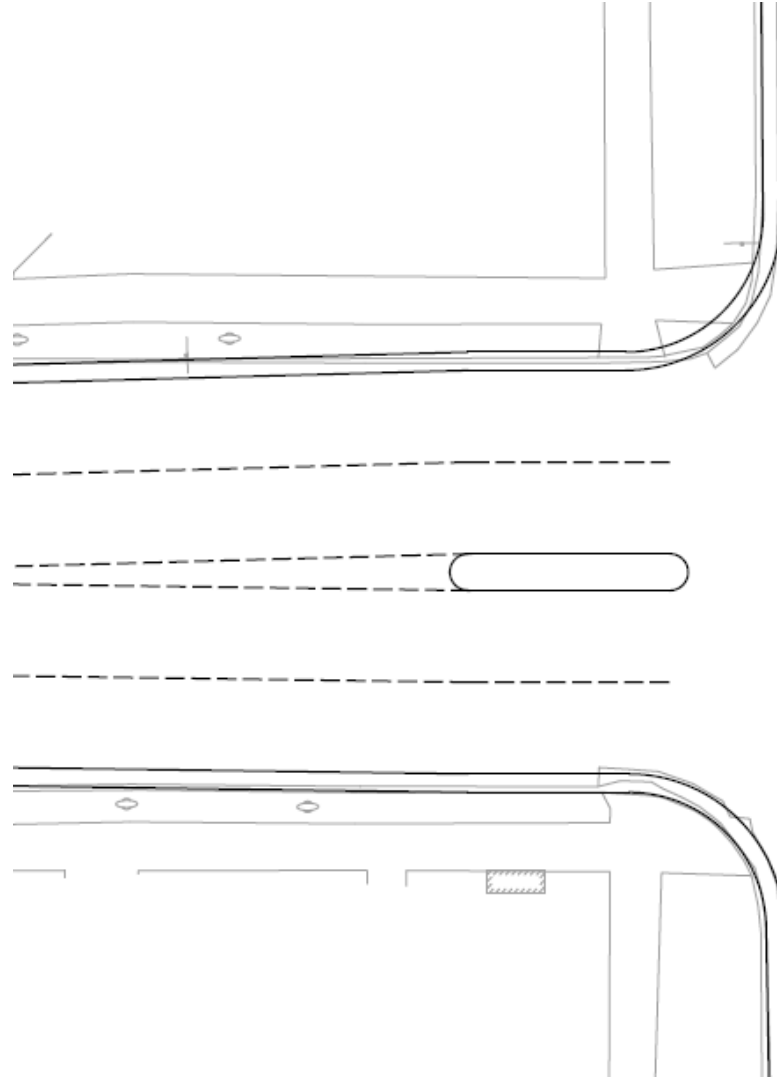
Pedestrian Crossing Improvement Examples

- Refuge islands (existing one at Harrison)
- Pros
 - Improve visibility
 - Shorten length of crossing (2 stages)
 - Minor traffic calming
- Cons
 - Travel lanes closer to sidewalk to make space for the islands
 - Possibly remove some parking
 - Maintenance/plowing
 - Islands would be smaller than desired due to space available



Pedestrian Crossing Improvement Examples

- Example Plan



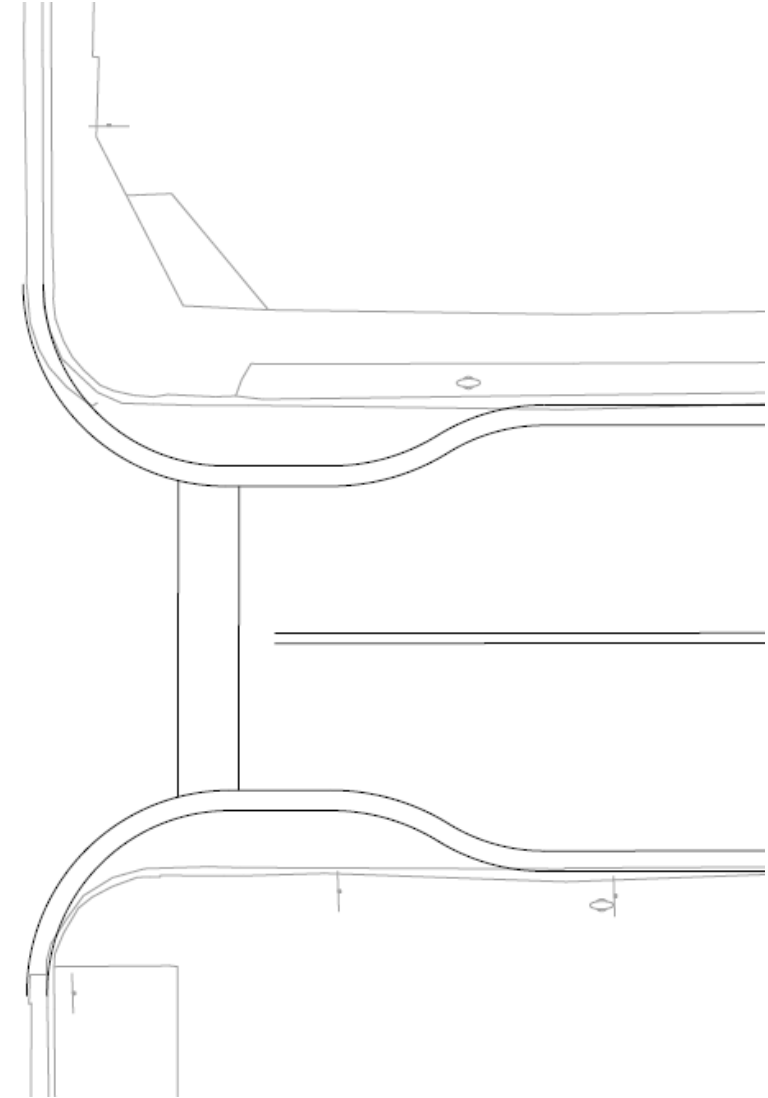
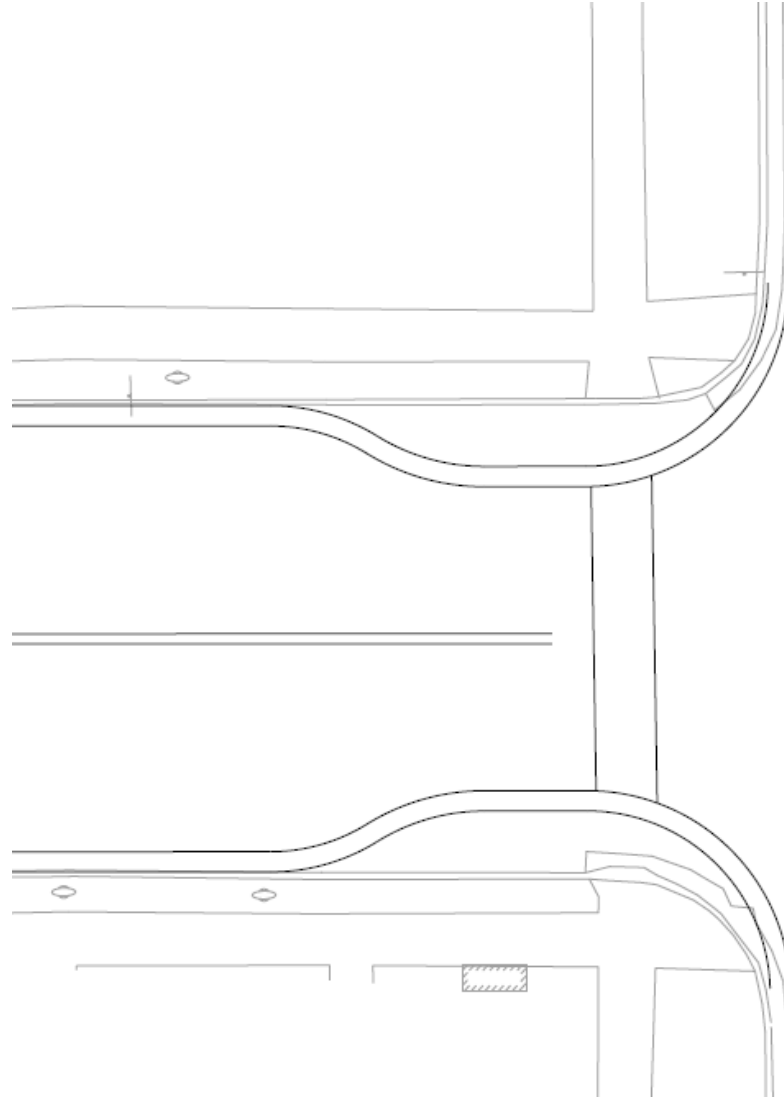
Pedestrian Crossing Improvement Examples

- Bump-outs
 - Dependent on final cross section – only installed if peak hour lanes removed
- Pros
 - Improve visibility
 - Shorten length of crossing
- Cons
 - Costs can increase depending on drainage requirements
 - Remove some parking
 - Maintenance/plowing



Pedestrian Crossing Improvement Examples

- Bump-out Example Plan



Pedestrian Crossing Improvement Examples

- Raised Intersection (aka Table-Top)
 - Would require approval of new policy
- Pros
 - Highly visible
 - Traffic calming effects
- Cons
 - Very costly
 - Must be designed appropriately for buses, emergency vehicles & traffic conditions



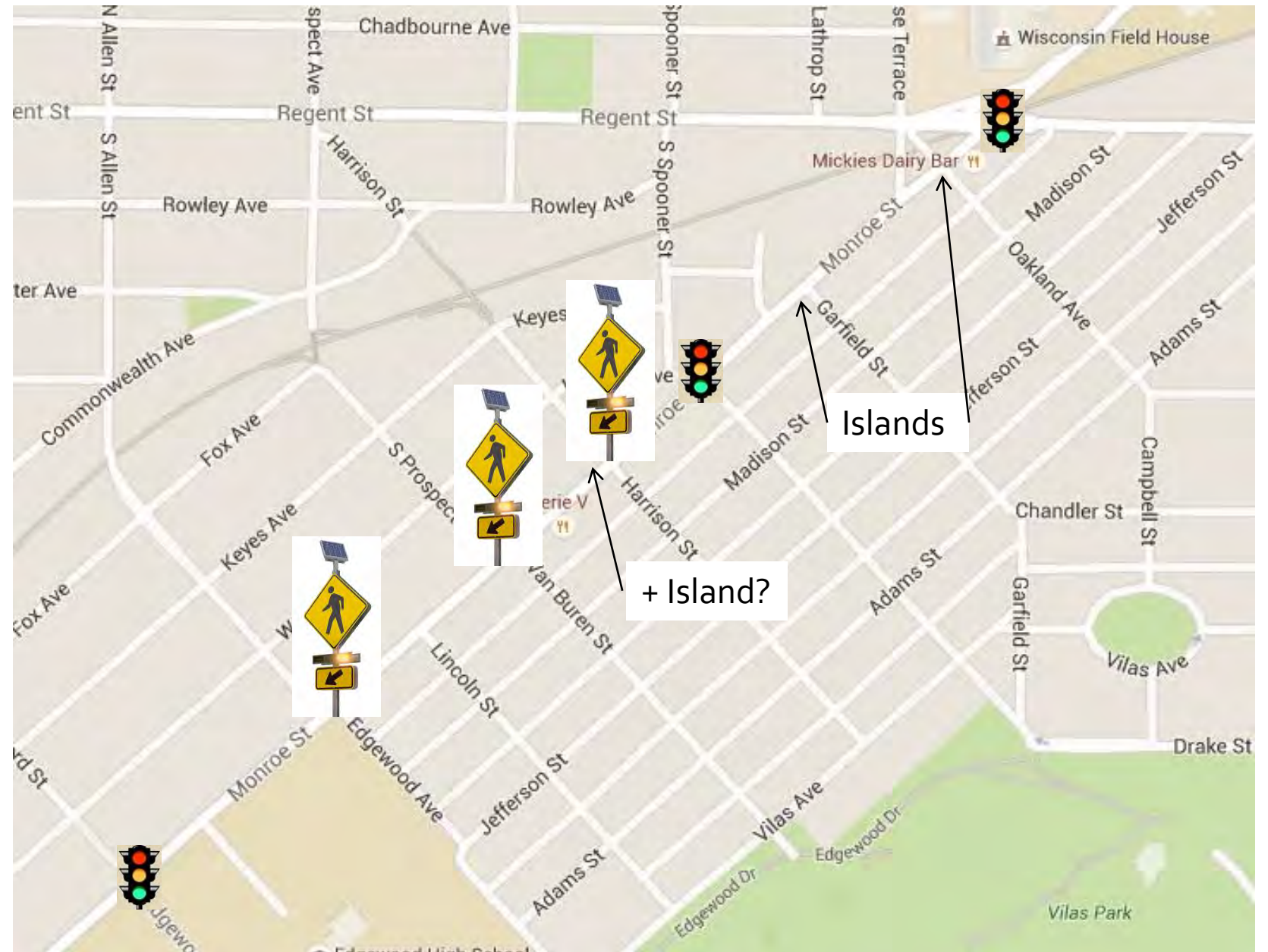
Example of How Pedestrian Crossing Improvements Could be Used

- Mix available pedestrian crossing improvements
- Re-install RRFBs
 - Change locations if necessary after used a while
- Install countdown timers on all signals
- Install islands at intersections where street is wider
 - Easterly end of project & ones without signals
 - Include improved cross walk markings
- Install colored or continental cross walks at other crossing locations
- Potentially install raised intersection at a key location – Knickerbocker, for example
 - High pedestrian crossing area
 - “Gateway” to Lake Wingra & Wingra Park

Example of How Pedestrian Crossing Improvements Could be Used - Map



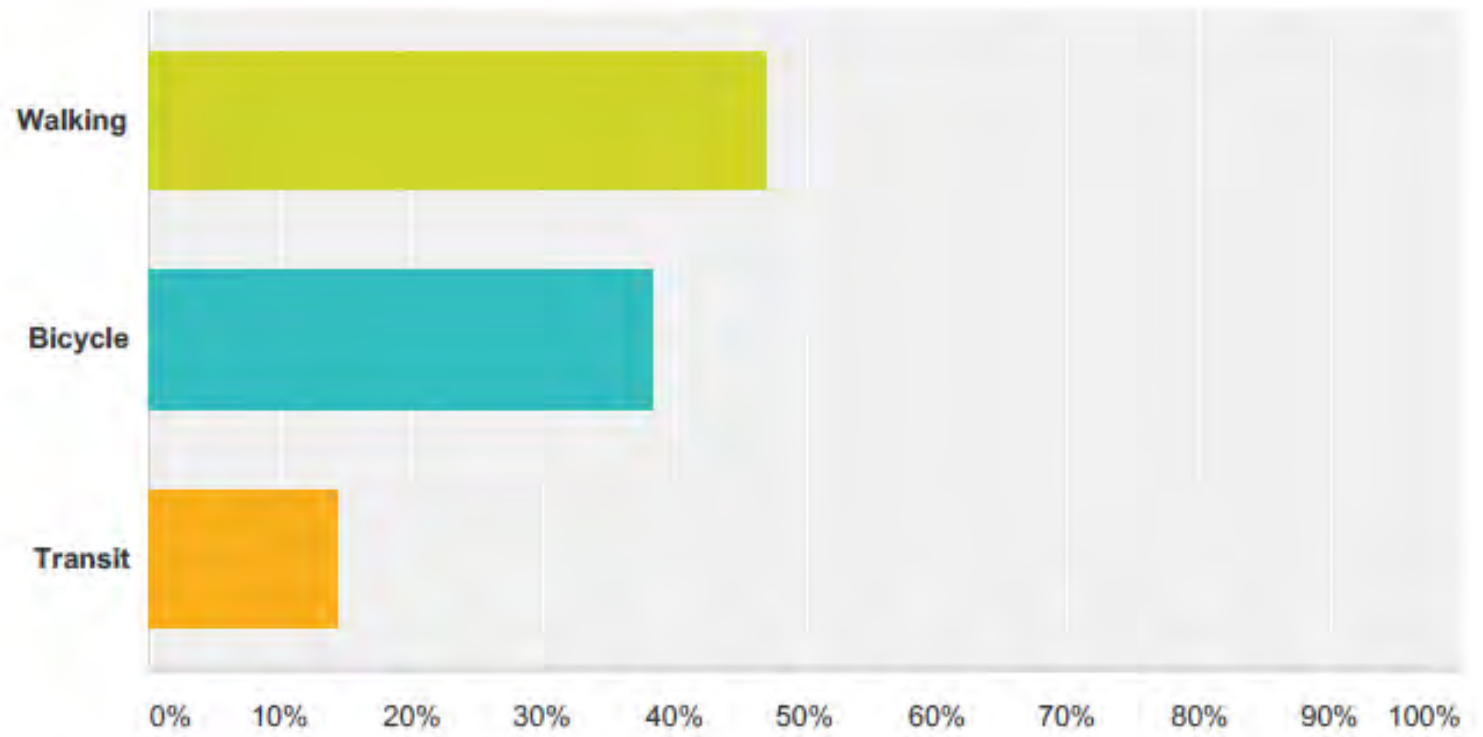
Example of How Pedestrian Crossing Improvements Could be Used - Map



Community Survey Results

Q4 Other than by car, how would you prefer to access destinations on Monroe Streets if conditions were improved? (Please choose one.)

Answered: 2,674 Skipped: 105



Community Survey Results

What strategies would encourage you to access destinations on Monroe Street via walking?

1. More visible crosswalks
2. Slower automobile traffic
3. Less automobile traffic

1,268
responses

Community Survey Results

54%

Walkability is the #1 quality that respondents would like to improve.

What are your top 5 priorities for the reconstruction?

1. 70%: Better pedestrian-friendliness and safety
2. 65%: A reconstructed street, free of cracks and potholes
3. 51%: Better bicycle-friendliness and safety
4. 46%: A “greener” approach to stormwater management
5. 42%: Slower vehicular traffic

Community Survey Results

Top three placemaking projects:

55%

Sidewalk enhancements: Increase the width of the sidewalk from Wingra Park to Edgewood College Drive.

47%

Business District Enhancements: Install seating, planters, banners, decorative lamp posts, etc.

38%

TIE

Wingra Park Orchard Garden: Enhance the orchard garden and pedestrian/bike path entrance.

37%

Crazylegs Triangle: Close Crazylegs Lane and provide additional enhancements such as landscaping, seating and community space.

Monroe St Multimodal Infrastructure – Bicycle Accessibility

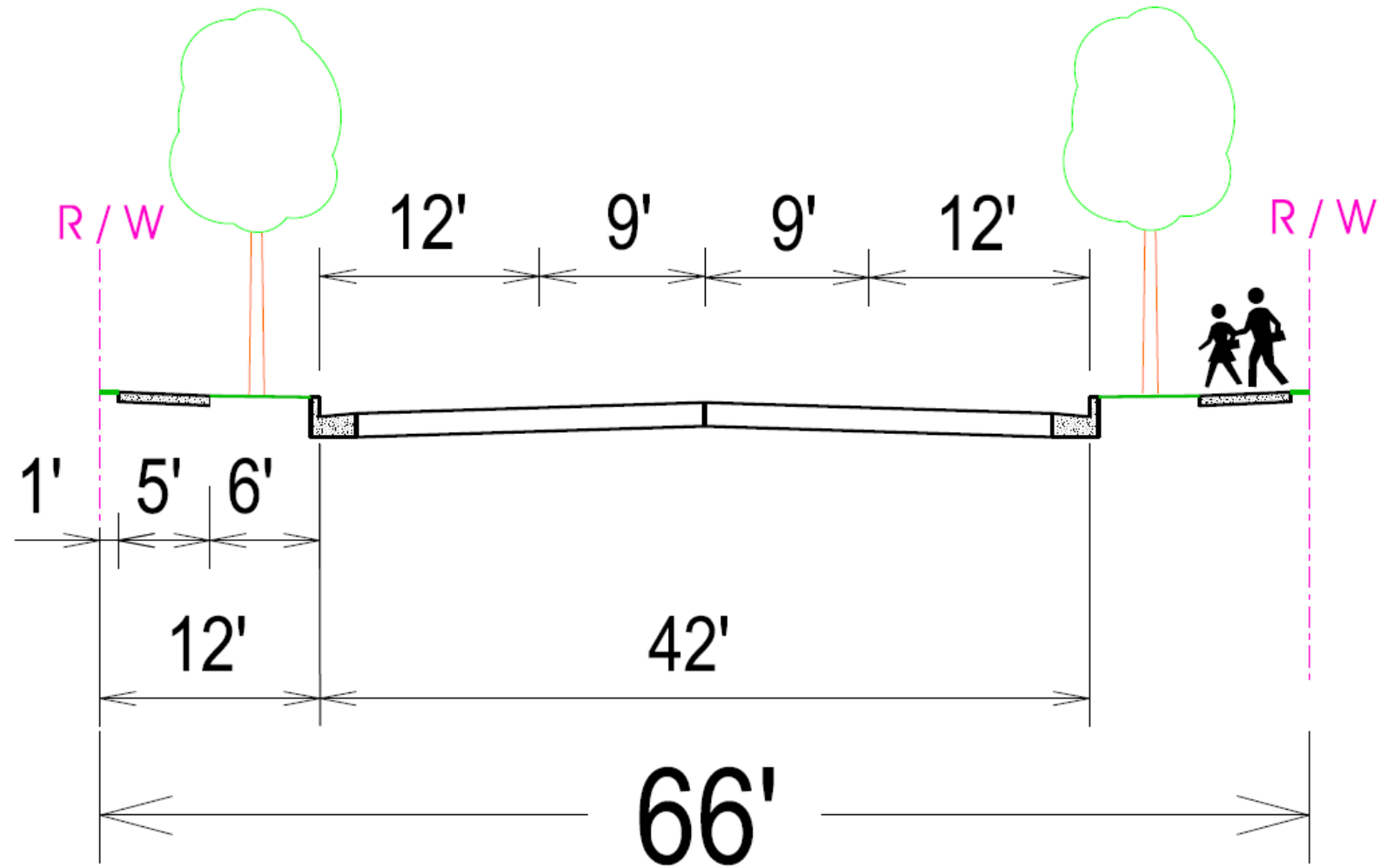
Yang Tao, PhD, P.E.
City Traffic Engineering



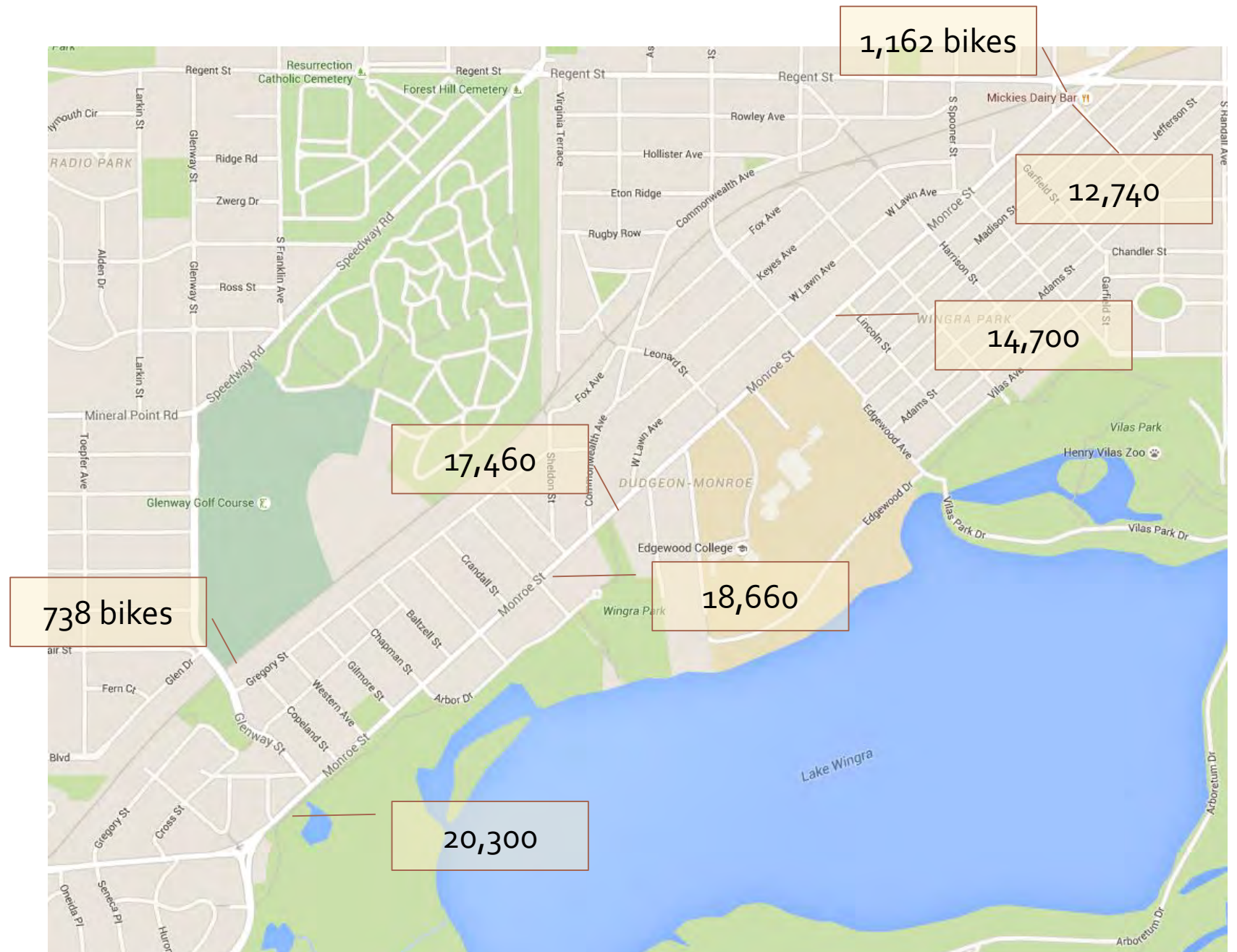
Existing Bike Route Map



Existing Monroe Street Configuration



Existing Traffic Volume (2015) in VPD



Crash History - Bikes

Monroe Street Intersection		Number of Bike Crashes		
		2000-2004	2005-2009	2010-2014
Nakoma Road & Odana Road				
Lewis Court				1
Glenway Street	Signalized	1		
Copeland Street				
Western Avenue				
Gilmore Street				
Arbor Drive & Chapman Street			1	
Baltzell Street				
Pickford Street				
Crandall Street				
Knickerbocker Street		1	1	
Sprague Street				
Commonwealth Avenue	Signalized	1	1	1
West Lawn Avenue				
Terry Place				
Woodrow Street				
Edgewood College Drive	Signalized			1
Edgewood Avenue (W)			1	
Edgewood Avenue (E)				
Lincoln Street				
S Prospect Avenue				
Van Buren Street				
Harrison Street				
Grant Street	Signalized		1	1
Stockton Court				
Garfield Street		1		
S Breese Terrrace				
Crazylegs Lane				1

Total: 14

Intersection Crash History – Motor Vehicles

Monroe Street Intersection		Number of Crashes			Avg. Per Year
		2000-2004	2005-2009	2010-2014	
Nakoma Road & Odana Road		13	22	15	3.3
Lewis Court		1	1	2	0.3
Glenway Street	Signalized	13	3	6	1.5
Copeland Street		0	0	2	0.1
Western Avenue		0	0	0	0.0
Gilmore Street		0	0	2	0.1
Arbor Drive & Chapman Street		1	2	1	0.3
Baltzell Street		0	0	0	0.0
Pickford Street		2	2	1	0.3
Crandall Street		1	0	0	0.1
Knickerbocker Street		7	3	4	0.9
Sprague Street		3	3	3	0.6
Commonwealth Avenue	Signalized	5	4	7	1.1
West Lawn Avenue		2	2	3	0.5
Terry Place		3	0	1	0.3
Woodrow Street		5	2	3	0.7
Edgewood College Drive	Signalized	0	2	1	0.2
Edgewood Avenue (W)		5	6	6	1.1
Edgewood Avenue (E)		3	1	2	0.4
Lincoln Street		3	0	1	0.3
S Prospect Avenue		2	1	6	0.6
Van Buren Street		0	3	1	0.3
Harrison Street		2	3	3	0.5
Grant Street	Signalized	15	11	6	2.1
Stockton Court		0	0	4	0.3
Garfield Street		5	1	1	0.5
S Breese Terrace		1	2	1	0.3
Crazylegs Lane		8	4	9	1.4
Total		100	78	91	

Total:
269

Mid-Block Crash History – Motor Vehicles

Monroe Street Block	Number of Crashes			Avg. Per Year
	2002-2004*	2005-2009	2010-2014	
3600 Monroe St	0	0	2	0.2
3500 Monroe St	4	7	9	1.5
3400 Monroe St	1	2	1	0.3
3300 Monroe St	0	3	1	0.3
3200 Monroe St	1	6	3	0.8
3100 Monroe St	0	1	3	0.3
3000 Monroe St	1	1	6	0.6
2900 Monroe St	3	1	6	0.8
2800 Monroe St	2	1	1	0.3
2700 Monroe St	5	6	7	1.4
2600 Monroe St	6	5	4	1.2
2500 Monroe St	10	8	7	1.9
2400 Monroe St	7	12	7	2.0
2350 Monroe St	6	2	5	1.0
2300 Monroe St	6	6	8	1.5
2200 Monroe St	7	16	13	2.8
2100 Monroe St	3	5	4	0.9
2000 Monroe St	1	6	2	0.7
1900 Monroe St	3	9	9	1.6
1800 Monroe St	5	9	11	1.9
1750 Monroe St	1	4	3	0.6
1700 Monroe St	1	3	1	0.4
1615-1640 Monroe St	1	3	1	0.4
1600-1610 Monroe St	2	2	0	0.3
1500 Monroe St	4	6	6	1.2

Total:
324

Common Ideas: Bike Lanes



- Bikes able to ride on Monroe Street
- Loss of on-street parking spaces
- Loss of peak hour traffic lane

Common Ideas: Cycle Track



- Bikes able to ride along Monroe Street
- Loss of on-street parking spaces
- Loss of peak hour traffic lane

Common Ideas: Better Connectivity

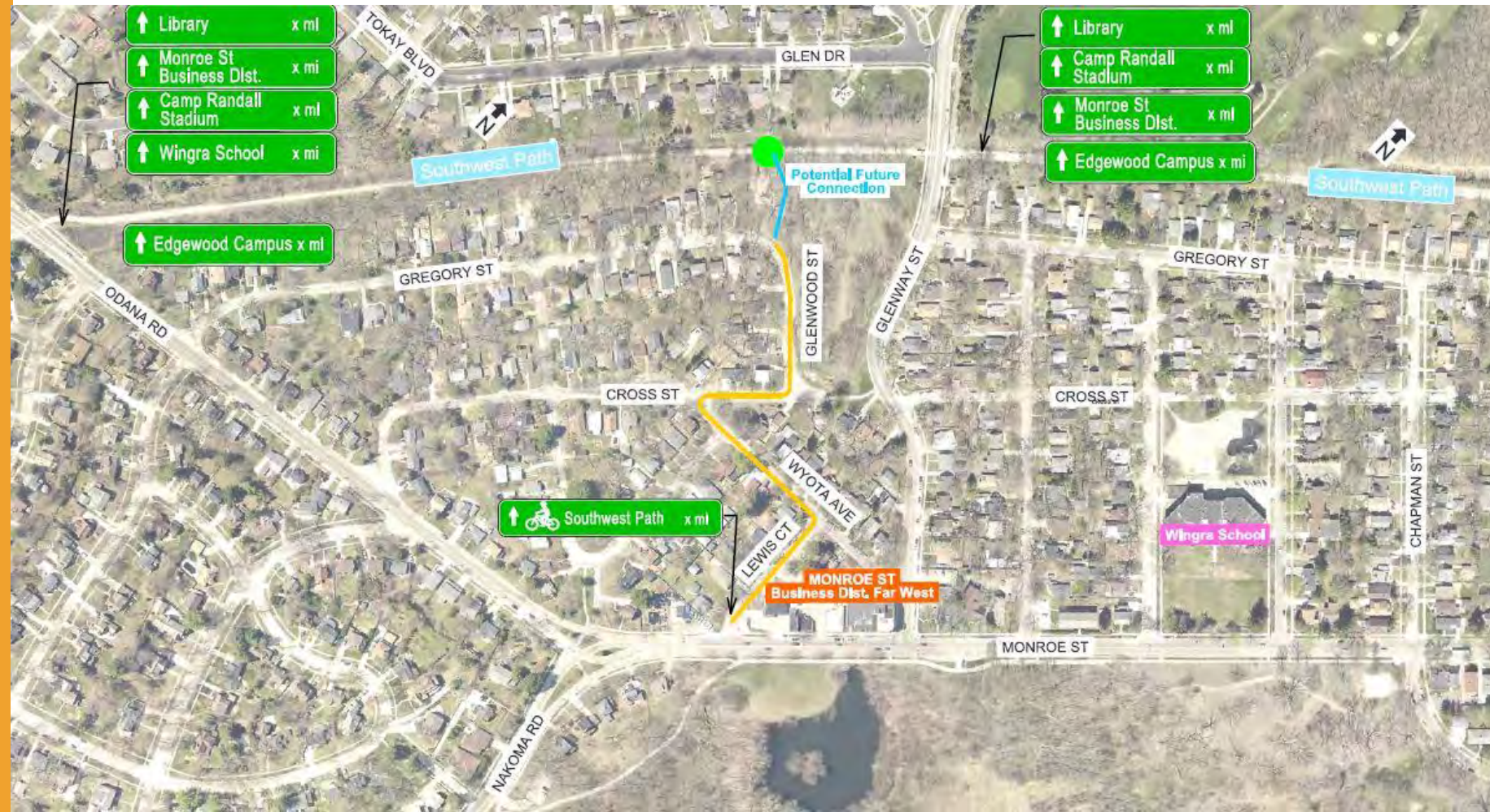


- Priority locations for potential connections:
Schools, library, stadium, business districts

- Way-finding signage
- Pavement markings
- Potential contra-flow bike lanes



Common Ideas: Better Connectivity



Common Ideas: Better Connectivity



Common Ideas: Better Connectivity



Common Ideas: Wingra Park Connection



Common
Ideas:
Sidewalk
Improvements
along
Edgewood



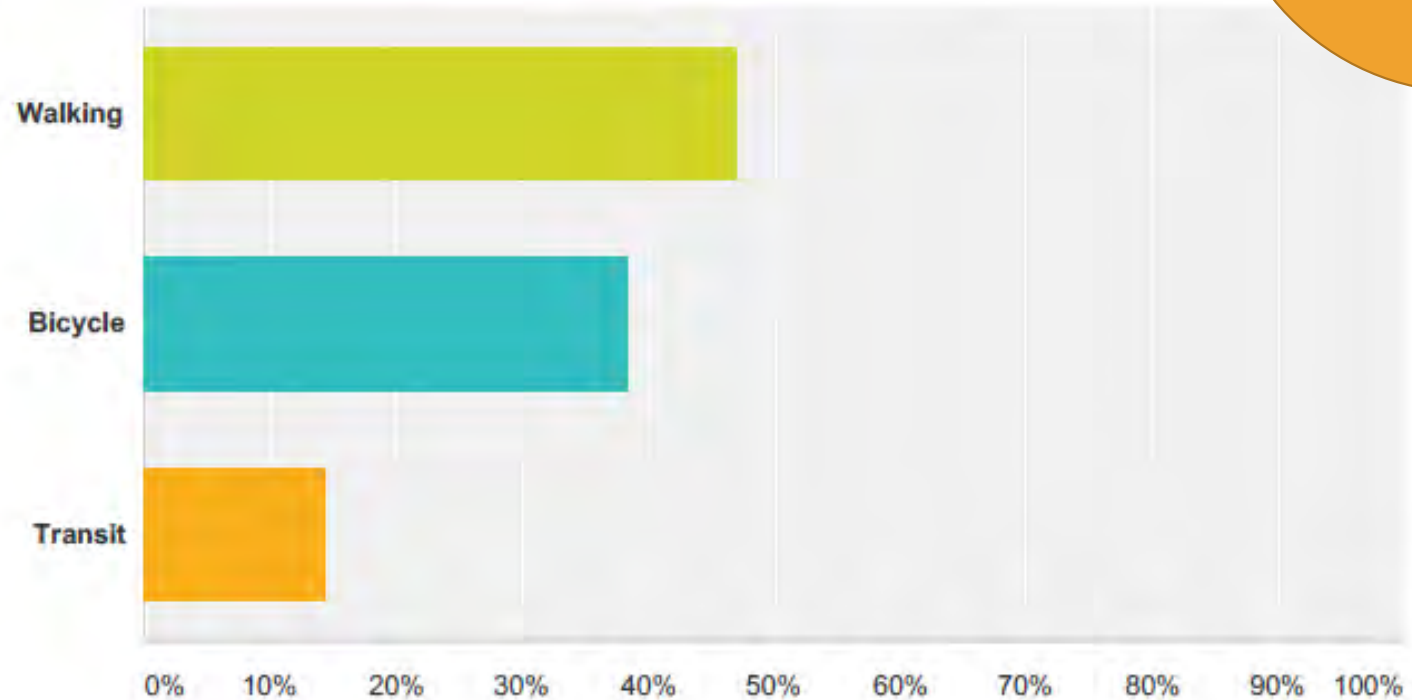
Improved Bike Parking



Community Survey Results

Q4 Other than by car, how would you prefer to access destinations on Monroe Streets if conditions were improved? (Please choose one.)

Answered: 2,674 Skipped: 105



2,674
responses

Community Survey Results

What strategies would encourage you to access destinations on Monroe Street via biking?

1. Protected bike lane
2. Painted bike lanes
3. TIE – Smoother street AND better bike connections from nearby bike paths

988
responses

Community Survey Results

What statement do you most agree with regarding potential bicycle enhancements on Monroe Street?

2,390
responses

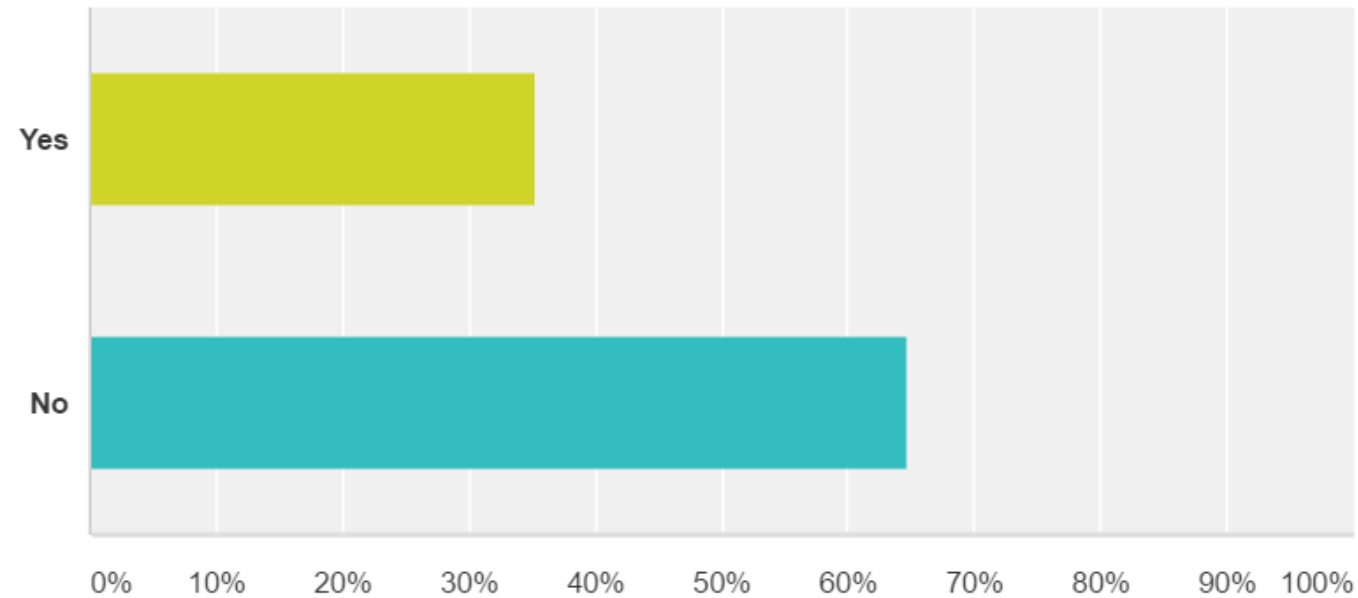
1. 30%: I would most like to see a bike path through Wingra Park, connecting Edgewood Drive to Arbor Drive.
1. 21%: I have no opinion about bicycle enhancements on or adjacent to Monroe Street.
2. 20%: I would most like to see better bicycle connections made from existing adjacent bike paths to destinations on Monroe Street.

Community Survey Results

**Would you support adding bike lanes on
Monroe Street if it involved removing
approximately half of the parking along
Monroe Street and closing the rush hour
travel lanes?**

2,323
responses

Answered: 2,323 Skipped: 441



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Questions?



World Café Conversation #1

Ground Rules & Etiquette

- One volunteer at each table will record notes.
- Passing time will be marked by the cowbell.
- As you discuss each question,
 - CONTRIBUTE your thinking and experience.
 - Give each person an opportunity to share.
 - LISTEN to understand. Do not judge or criticize others' ideas.
 - CONNECT ideas.
 - LISTEN TOGETHER for patterns, insights, and deeper questions.
 - PLAY, DOODLE, DRAW – We will collect everything!

Question 1

What design concepts for pedestrians and bicycles were discussed during these two presentations?

- Is there anything that you believe was missing from these discussions?

Question 2

What does improving access for pedestrians and bicycles mean to you? Does “access” mean something different for each mode?

- What goals are important for us to consider in designing Monroe Street to improve access for pedestrians and bicycles?

Question 3

Considering the ideas discussed, what design options make the most sense to you to enhance pedestrian access along Monroe Street?

Circle the group's top 3-5 options.

Feel free to use the maps to identify priority locations, routes and connections.

Question 4

Considering the ideas discussed, what design options make the most sense to you to enhance bicycle access along Monroe Street?

Circle **the group's top** 3-5 options.

Feel free to use the maps to identify priority locations, routes and connections.

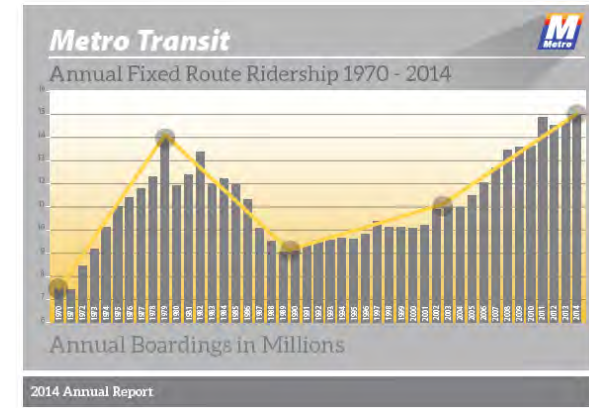
Transit Infrastructure

Tim Sobota, Transit Planner
Madison Metro



Madison Metro

- In 2014, Metro provided over 15.4 million fixed-route and paratransit rides.
- Continued demand has led to overcrowding and an inability to keep buses on time during peak hours.
- We are continually looking for ways to address these challenges.



Metro Service

766 trips/week

2,435 boardings/week

15-minute peak-hour service to downtown (at minimum)

4 Neighborhood Resource Team areas served

Metro Transit bus operations serving the Monroe Street corridor and southwest Madison neighborhood areas



Route 3 (West Tfr Pt - East Tfr Pt): All day on weekdays, both directions, 30-minute service [72 trips per weekday]

Route 19 (Dunn's Marsh - Capitol Square): All day on weekdays, both directions, 30-minute service during peaks & 60-minute service midday and evenings [45 trips per weekday]

Route 58 (Greentree - Capitol Square): Commuter on weekdays, both directions, 30-minute service during peaks [16 trips per weekday]

Route 7 (West Tfr Pt - East Tfr Pt, not shown on map): All day on weekends and holidays, both directions, 60-minute service [34 trips per Saturday, 32 trips per Sunday, 23 trips per Holiday]

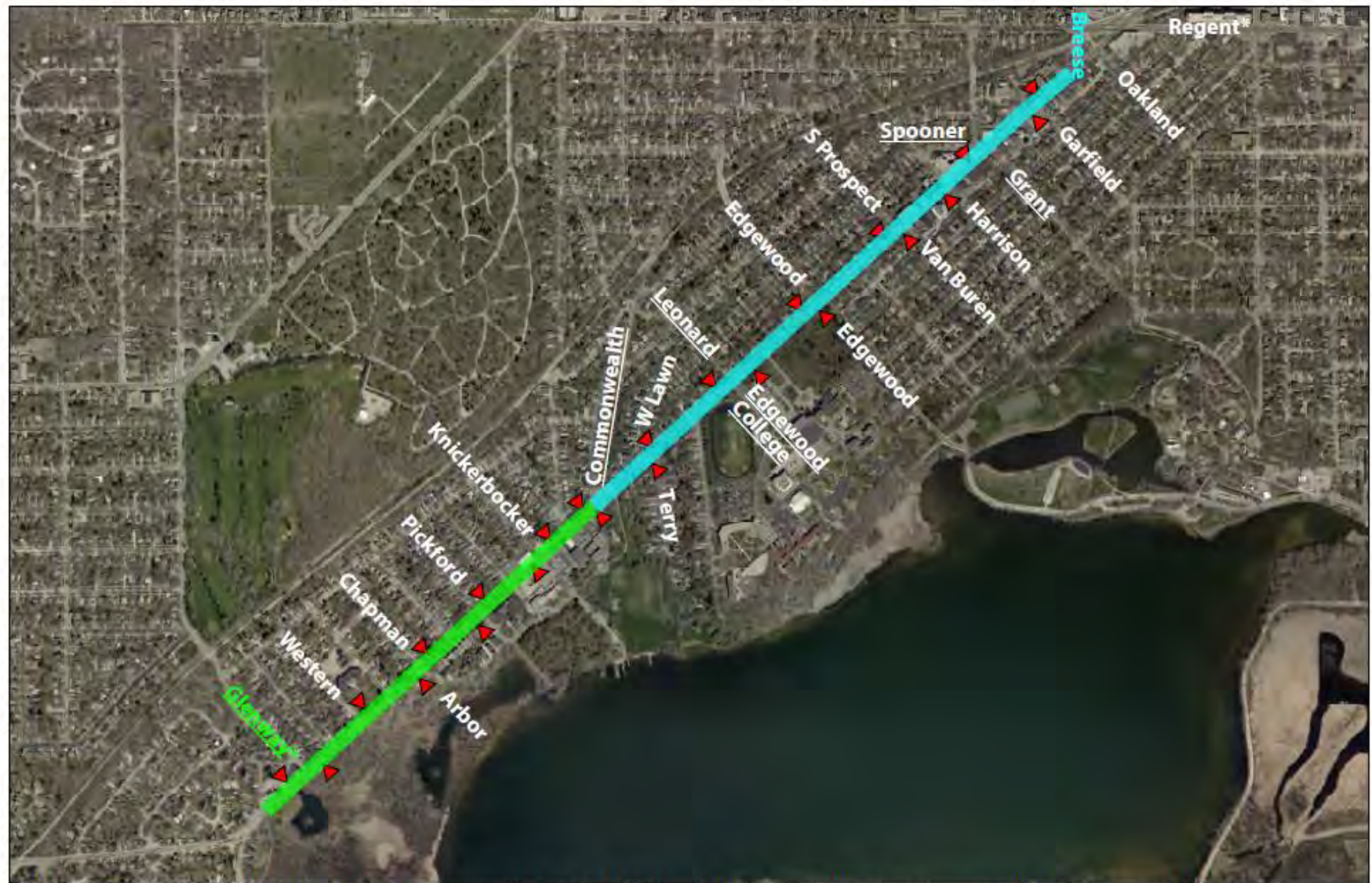
Route W (Hamilton M.S. attendance area, not shown on map): Commuter on weekdays, 3 trips to Hamilton M.S. in AM peak & 4 trips from Hamilton M.S. in PM peak

Summary: 766 trips per week, during the academic year; up to 6 trips per hour in peak commute direction (Eastbound AM, Westbound PM); Estimated weekly boardings of 2225 during week, plus 210 on weekends

Metro Stops

Buses are operating at 8-14mph

Buses are running 1-5 minutes behind



Dudgeon segment of Monroe Street (Lewis/Odana-Nakoma to Commonwealth): Routes 3, 7, 19 & 58
3,295 feet (0.62 mi): 6 WB bus stops (659' average spacing); 5 EB bus stops (823' average spacing)

Monroe segment of Monroe Street (Commonwealth to Breese): Routes 3, 7 & 58
4,844 feet (0.92 mi): 6 WB bus stops (968' average spacing); 6 EB bus stops (968' average spacing)

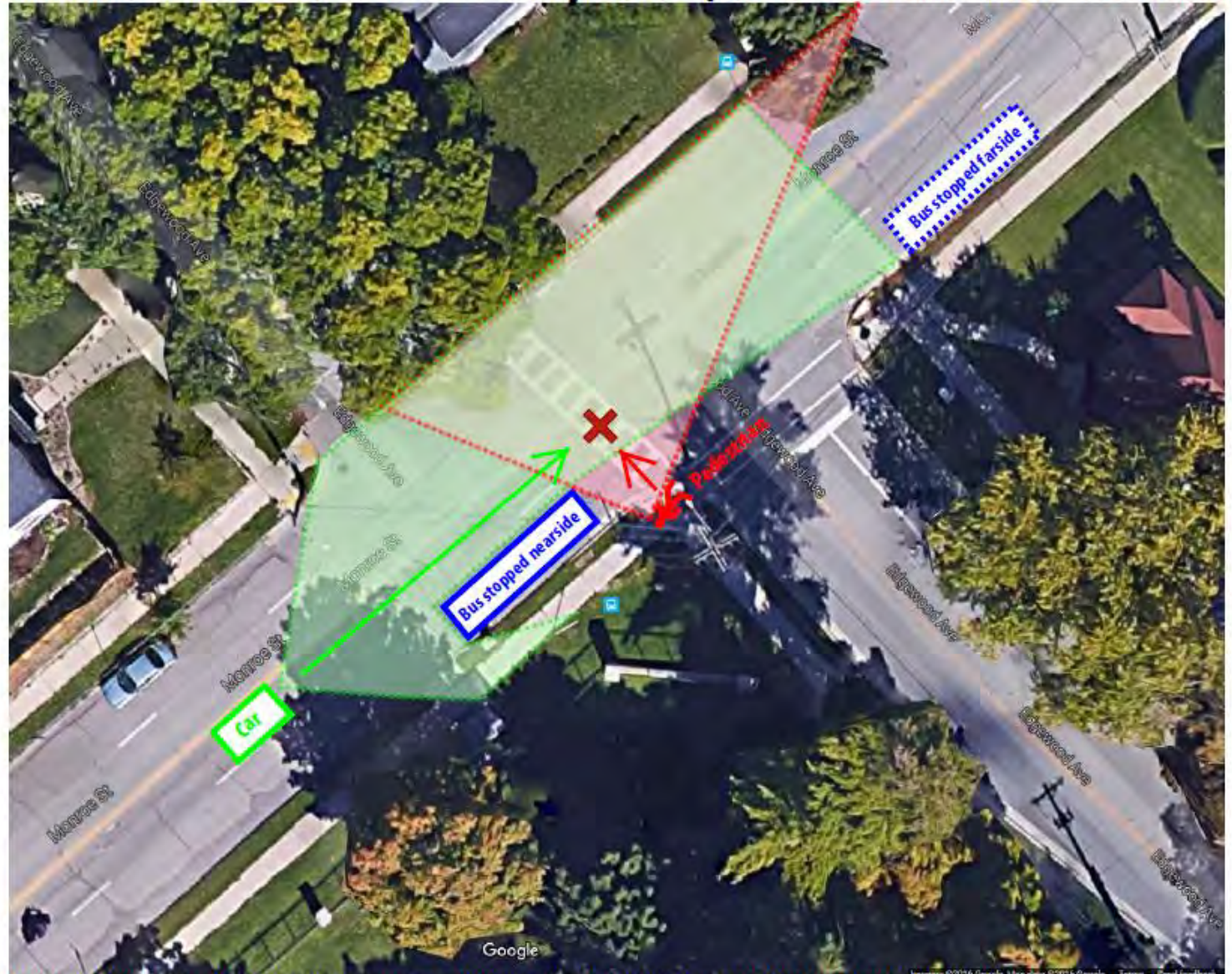
Recommended standard: 990' to 1,320' - "Adopt a bus stop consolidation program to remove or relocate excessive bus stops in central Madison, particularly on the Jenifer Street, Johnson Street, Gorham Street, and Monroe Street corridors.... The stop consolidation program should include substantial public outreach and sufficient data collection and analysis to identify the appropriate bus stops for removal or relocation.

Scheduled speeds and travel times for trips between Monroe at Glenway and UW campus timepoints:
Eastbound during weekday AM peak: 16 mph (7 minutes)
Westbound during weekday PM peak: 10-12 mph (11-12 minutes)
Both directions weekends: 14 mph (10 minutes)

Actual speeds and travel times for trips between Monroe at Glenway and UW campus timepoints:
Eastbound during weekday AM peak: 10-14 mph (8-11 minutes)
Westbound during weekday PM peak: 8-12 mph (12-17 minutes)
Both directions weekends: 10-15 mph (9-13 minutes)

Improving Pedestrian Safety at Bus Stops

Nearside versus farside bus stop zone (before or after intersection)



Existing bus stop zones, nearside of non-signalized intersections, can create gaps in the vision triangles for both drivers and pedestrians. When loading/unloading passengers before the intersection - the bus can prevent a driver approaching the intersection from seeing a pedestrian who has entered the marked crosswalk in front of the stopped bus; and a pedestrian entering the crosswalk in front of the stopped bus can similarly be prevented from seeing if there is an approaching vehicle that is about to pass on the left side of the bus, in the adjacent travel lane. A farside bus stop zone can help eliminate these vision triangle gaps.

Community Survey Results

46%

It is “somewhat or very important” that buses continue to operate at the same level of service along Monroe Street after reconstruction.

45%

It is “somewhat or very important” that buses maintain or improve current travel times and on-time performance after reconstruction.

Community Survey Results

Q20: *What is the relationship between the Monroe Street reconstruction and racial equity and social justice in Madison?*

“Low-income populations disproportionately walk and use transit. This is another reason we need to rebuild Monroe Street to be pedestrian-friendly and transit-friendly.”



Parking and Vehicle Access: The Business Perspective

Matt Mikolajewski, Director, City of Madison Economic Development Division



Monroe Street Commercial District Plan (2007)



Figure A-2: Locations of the Three Commercial Nodes

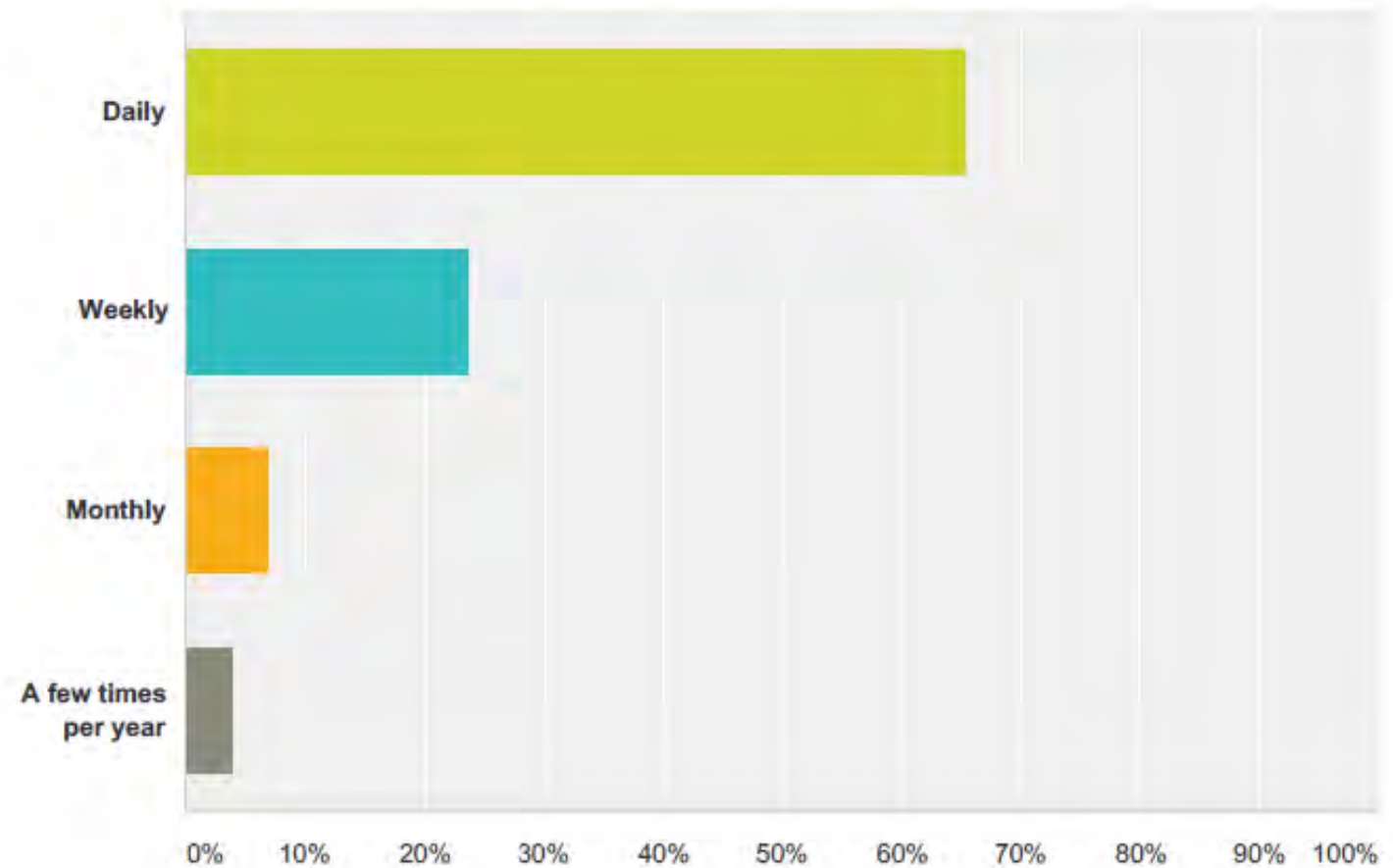
Monroe Street Commercial District Plan (2007)

- The population of the 1/2 mile pedestrian market for Monroe Street is just over 2,500.
 - The additional 1/2 mile pedestrian employee market adds just over 1,000 during the day.
- The population of a typical 1/2- mile urban markets that relies primarily on pedestrian traffic is 15,000-20,000 people.
- Many business on Monroe are specialty and regional destination retailers that depend on patronage from outside the neighborhood.

Community Survey Results

Q1 How often do you use Monroe Street to access destinations on Monroe Street?

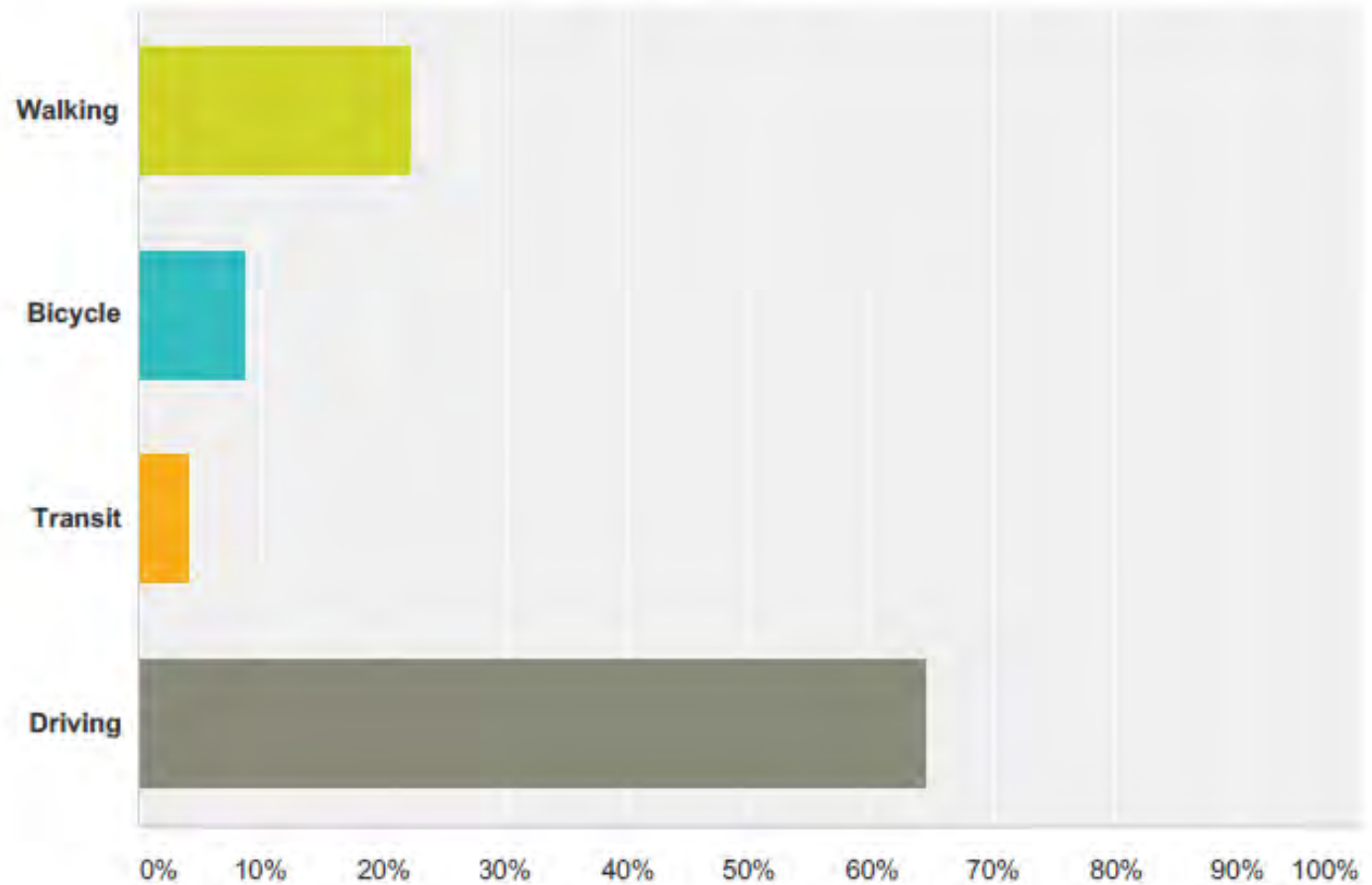
Answered: 2,767 Skipped: 12



Community Survey Results

Q3 I primarily access destinations on Monroe Street by:

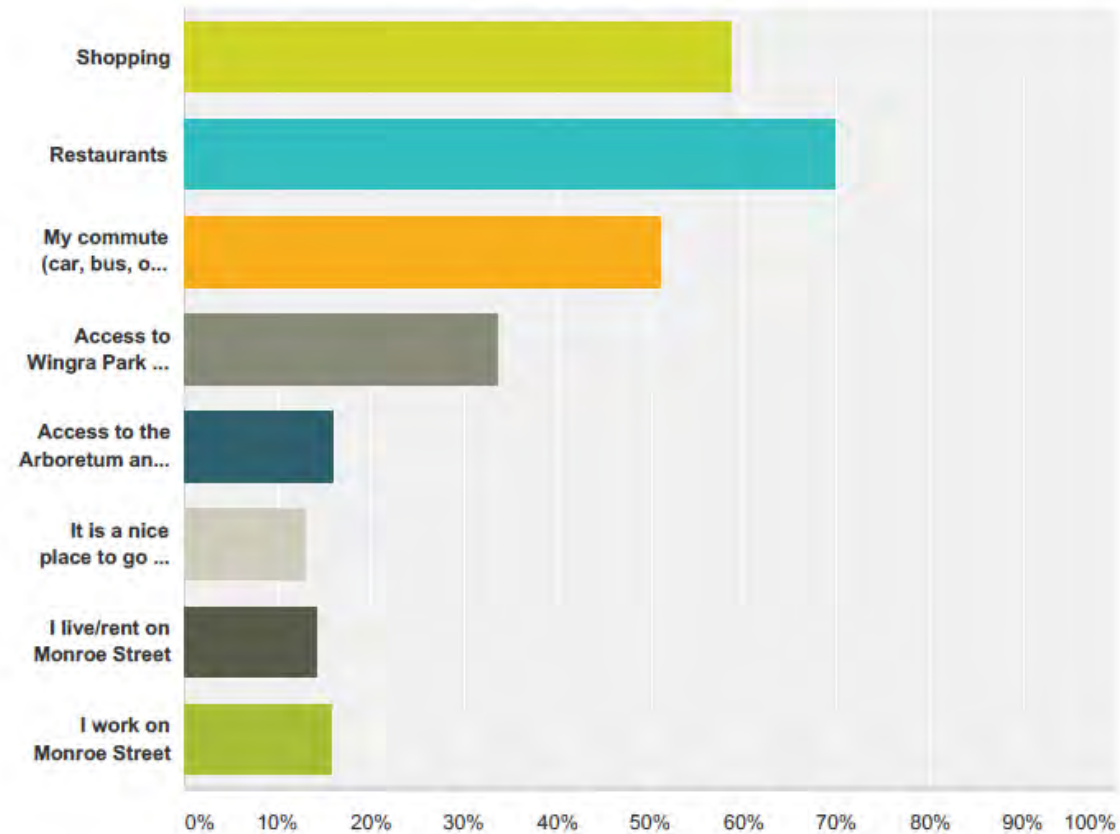
Answered: 2,771 Skipped: 8



Community Survey Results

Q8 What typically brings you to Monroe Street? Please choose up to three (3) options.

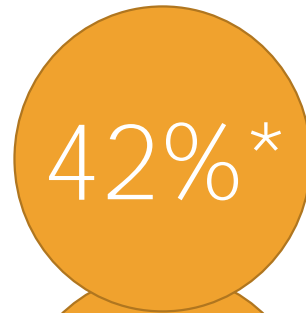
Answered: 2,569 Skipped: 210



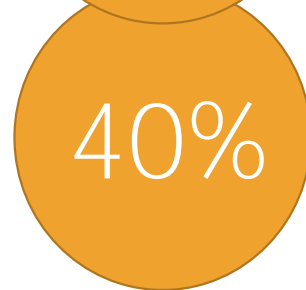
1. Restaurants
2. Shopping
3. Commuting (car, bus or bike)

Community Survey Results

What qualities of Monroe Street would you most like to see improved (choose up to three)?



Comfortable commuting route



Vibrancy of the commercial districts

*Note: for context, priority #1 (“Walkability”), received 54%.

Community Survey Results

Top three placemaking projects:

55%

Sidewalk enhancements: Increase the width of the sidewalk from Wingra Park to Edgewood College Drive.

47%

Business District Enhancements: Install seating, planters, banners, decorative lamp posts, etc.

38%

TIE

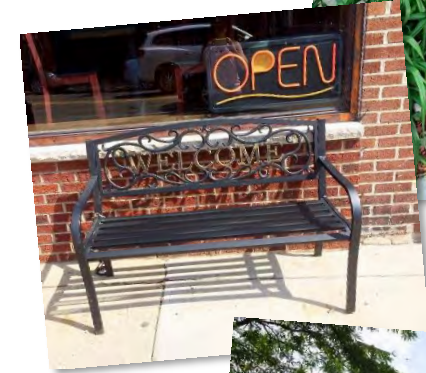
Wingra Park Orchard Garden: Enhance the orchard garden and pedestrian/bike path entrance.

37%

Crazylegs Triangle: Close Crazylegs Lane and provide additional enhancements such as landscaping, seating and community space.

Summary

- Businesses enhance the quality of life on Monroe St.
- Due to the variety of patrons, on-street parking is essential.
- Traffic and pedestrian safety, especially at crossings, are concerns that must be addressed.
- Businesses benefit from multimodal accessibility, so the needs of pedestrians, bicycles, vehicles and buses must be balanced.



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Questions?



World Café Conversation #2

Question 1

What considerations related to planning for buses, parking and vehicle access were discussed during these two presentations?

- Is there anything you believe was missing from these discussions?

Question 2

What does access for buses and vehicles on Monroe Street mean to you? Does “access” mean something different for each mode?

- What goals are important for us to consider in designing Monroe Street with bus and vehicle access in mind?

Question 3

Based on tonight's discussion, what values are most important for City staff to keep in mind regarding multimodal design decisions on Monroe Street?

A solid orange square is positioned on the left side of the slide.

Wrapping Up

A large orange rectangle occupies the left side of the slide, serving as a background for the 'Stay Tuned!' text.

Stay Tuned!

1. September 1: Green Infrastructure World Café
 - HotelRED
2. September 29: Summer Input Summary and Cross Section Workshop
 - Wingra School
3. October 27: Final Cross Section Open House
 - Location TBD

For More Information:

- Survey results will be posted online.
- City of Madison Engineering:
www.cityofmadison.com/engineering/projects/monroe-street
 - Subscribe to email updates
 - View presentations and notes
- Alder Eskrich, District 13:
www.cityofmadison.com/council/district13/
 - Subscribe to email updates.
 - Share additional comments.

Thank
You!



Source: <http://www.monroestreetmadison.com/>