

WISCONSIN DELLS PARKWAY



US 12 WISCONSIN DELLS PARKWAY PARTNERING FOR A SAFE SOLUTION

Public Advisory Group

Workshop #1

September 6, 2012



WISCONSIN DELLS PARKWAY



SESSION #1

STUDY INTRODUCTION





Study Need

The roadway has deteriorated pavement, suffers significant congestion during the vacation season, accommodates multimodal traffic in a limited manner, and experiences a crash rate that is at least twice the statewide average.

A successful Wisconsin Dells Parkway project will address these roadway issues in harmony with existing and future land use along the corridor.





What does this study include?



- Problem Identification/Data Gathering
- Alternatives Analysis
- Engineering
- Environmental Studies
- Environmental Assessment
- Agency Coordination
- Community Involvement





Overview of NEPA Process



- **Develop Purpose and Need**
- **Coordinate with Agencies**
 - Local, State, Federal
- **Refine Purpose and Need**
- **Document Alternative and Impacts**
 - Input from regulatory agencies, public, local governments, and available data
 - Evaluate impacts vs. cost
 - Discuss / evaluate potential indirect and cumulative effects
- **Public Input**
 - Meetings, Stakeholders, Business Groups, Advisory Committees





Public Advisory Group (PAG)



- **Formation**
 - Comment Forms from December '11 PIM
 - Advertisement in WDVCB
 - Outreach
- **Mix**
 - Diverse geographically
 - Wide Range of Business Interests
 - Environmental Representation
 - Emergency Respondents
 - Regional Planning





PAG – Ground Rules



- **Help each other be right rather than wrong**
- **Look for ways to make new ideas work, rather than looking for reasons why they won't work.**
- **If in doubt, check it out, rather than making negative assumptions.**
- **Help each other win and take pride in each other's victories.**
- **Speak positively about each other and about your fellow advisory group members at every opportunity.**
- **Maintain a positive mental attitude no matter what the circumstances.**
- **Act with initiative and courage as if it all depends on you.**
- **Do everything with enthusiasm—it's contagious.**
- **Believe in what you are doing – never give up.**
- **Invest in the outcome or common goal — contribute as your talents and resources allow.**
- **Have fun!**





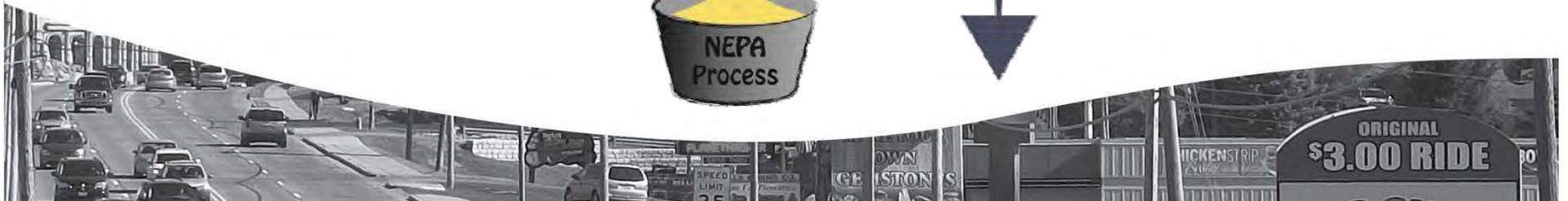
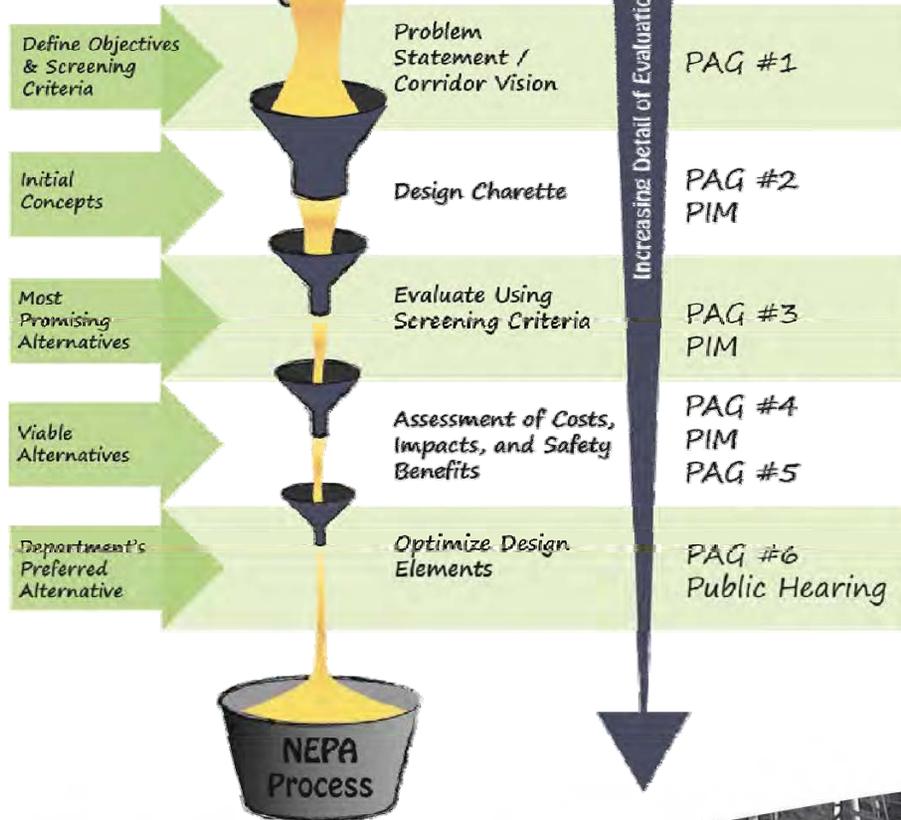
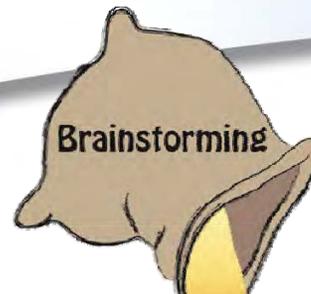
PAG Workshop Schedule

Workshop	Date	Definition of Meeting
Workshop #1	September 6, 2012	Existing Corridor Context Vision Exercise Transportation Planning 101
Workshop #2	<i>Early October</i>	Definition of Study Goals & Evaluation Criteria Transportation Planning Concepts Design Charet
Workshop #3	Jan/Feb 2013	Evaluate Alternatives
Workshop #4	May 2013	Refine Alternatives
Workshop #5	Fall 2013	Preferred Alternative
Workshop #6	Summer 2014	Revisions to the Preferred Alternative
Workshop #7	Fall 2014	Brainstorming on Construction Concerns





PAG Study Process





Workshop #1 Purpose



- Introduce the study team
- Describe the study purpose
- Provide background information on the study area
- Obtain your input on transportation deficiencies in the study area





What are your study goals?



- It is important for WisDOT to understand your needs in the study before we begin to develop preliminary alternatives
- This advisory group is made up of local residents, business owners, community groups and local, state and federal agency representatives to help identify project goals





Roadway History



**1929- Initial 2 Lane
Roadway Construction**

1957- Widened to 4 Lanes

1982 – Rehabilitation #1

1995 – Rehabilitation #2

2012 – Rehabilitation #3

12-15 Years = Life of a rehabilitation project

50 Years = Typical roadway life





Existing Roadway Stats

- **US 12 & WIS 23**
- **2.7 Miles in length**
- **Classification = Urban minor arterial**
- **Posted Speed = 35 Mph**
- **2 Signalized intersection**
- **10 Unsignalized intersections**
- **122 Driveways**
- **2 Stream crossings (Hulbert & Springbrook)**





Existing Roadway WIS 23 to Cty A

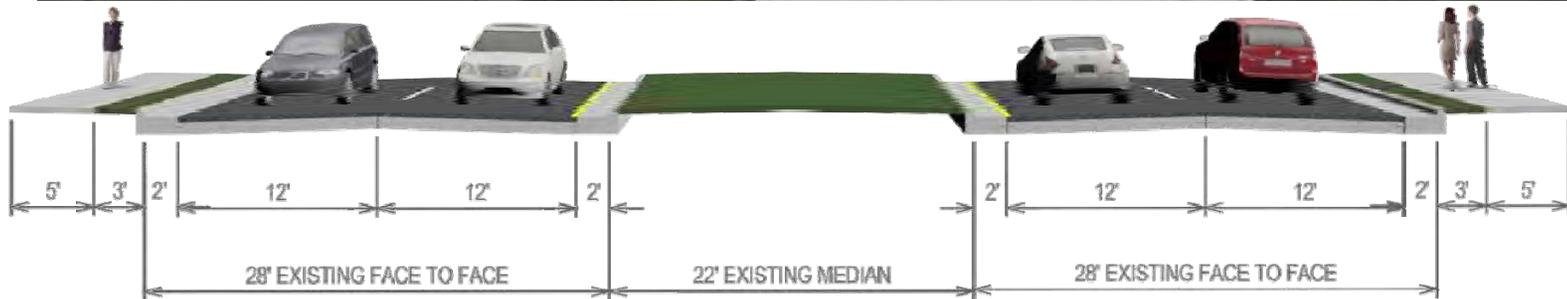


- Right-of-way = 66'-100'
- 113 Driveways (52 per mile avg.)





Existing Roadway Cty A to WIS 13



CTH A - STH 13

- Right-of-way = 150'-200'
- 9 Driveways (18 per mile avg.)





Resurfacing Project

- **Location: Adams St. to WIS 13**
- **Time: Labor Day – November 1, 2012**
- **Maintenance project to extend the pavement life to provide a reasonable driving surface to meet the short term needs of the corridor**
- **Pedestrian beacons will be added at three locations and monitored during the corridor project.**





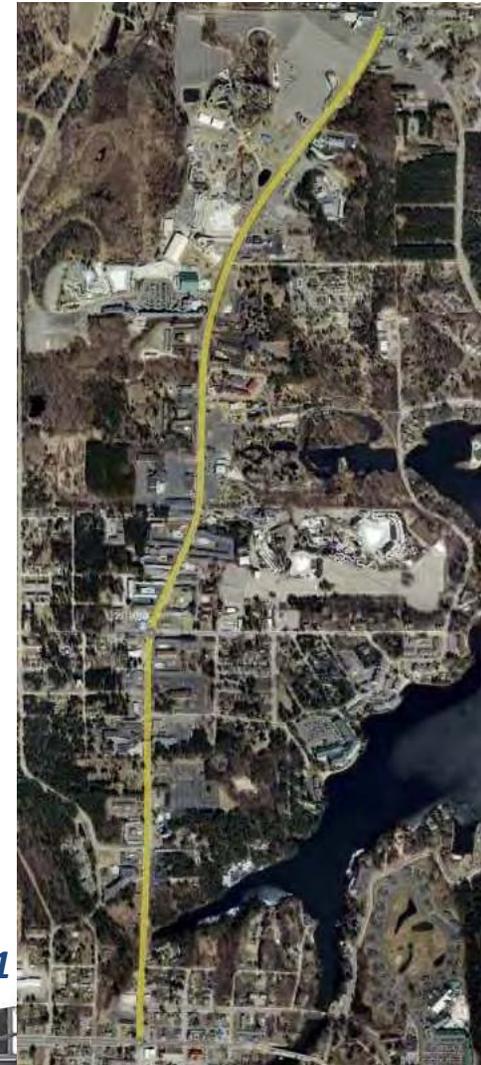
Crash Assessment

North of WIS 23 to County A (undivided section):

- Year 2005 to 2009 Total Crashes: 388
- Crash rate:
 - 506 crashes per 100 million vehicle miles (HMVM)
 - *Statewide average : 244 crashes per HMVM*
- Injury crash rate:
 - 199 injury crashes per 100 million vehicle miles (HMVM)
 - *Statewide average : 81 injury crashes per HMVM*
- Types of crashes:

○ Angle: 56	○ Pedestrian: 5
○ Rear End: 236	○ Bicycle: 18
○ Head On: 3	○ Fixed Object: 10
○ Sideswipe: 51	○ Other: 9
- Severity:
 - Property Damage Only: 235
 - Injury: 153

Note: Bicyclist fatality in 2010 & pedestrian fatality in 2011

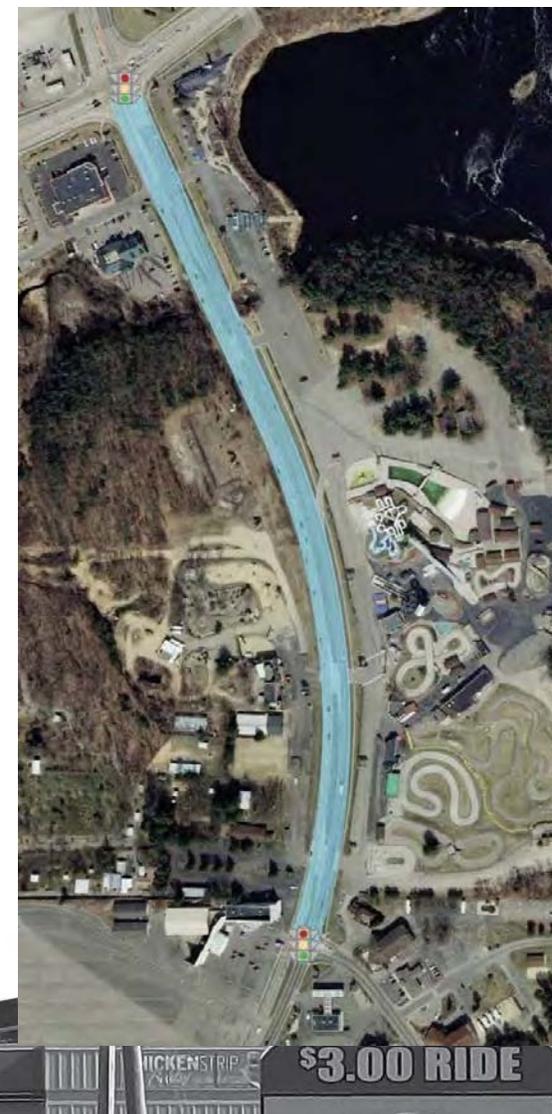




Crash Assessment

North of County A to South of WIS 13 (median divided section):

- Year 2005 to 2009 Total Crashes: 13
- Crash rate:
 - 73 crashes per 100 million vehicle miles (HMVM)
 - *Statewide average: 244 crashes per HMVM*
- Injury crash rate:
 - 17 crashes per 100 million vehicle miles (HMVM)
 - *Statewide average : 81 injury crashes per HMVM*
- Types of crashes:
 - Angle: 5
 - Rear End: 4
 - Sideswipe: 3
 - Other: 1
- Severity:
 - Property Damage Only: 10
 - Injury: 3





Crash Assessment



Priority Crash Spot Locations

- Lake Avenue Intersection
- Pizza Pub/Former Marley's
- Mt. Olympus Hotel Rome
- Original WI Dells Ducks South Entrance
- Original WI Dells Ducks North Entrance/Skyline Motel Entrance
- County A Intersection





Crash Assessment



Overall Corridor Trends

- 68% of crashes occurred in June, July & August
- 83% of crashes occurred between May and September
- 4 of the 5 crashes involving a pedestrian resulted in incapacitating injuries
- 78% of the reported bicycle crashes involved a bicycle crossing a driveway or minor street





Road Safety Audit

Existing Corridor Concerns

- Lack of exclusive turn lanes
- Pedestrians crossing US 12 at various midblock locations
- Lack of dedicated bicycle facilities resulting in bidirectional bicycle traffic on sidewalks
- Sidewalk is inconsistent and often does not exist in driveways
- Sidewalks are unusually close to the roadway and too narrow for shared use
- Drivers are not yielding to pedestrians and bicycles on sidewalks
- Wide driveways
- Multiple driveways for one property
- Sight distance concerns at Pilgrim Drive





Road Safety Audit

Potential Countermeasures

- Access management
- Intersection improvements
- Exclusive turn lanes
- Consistent sidewalk network
- Pedestrian crossings
- Bicycle facility
- Sign ordinance
- Establish setback policy
- Implement wayfinding strategies





Pedestrian Hybrid Beacon



How does a HAWK Signal operate?

INSTRUCTIONS

Drivers		Pedestrians	
...will see this	...will do this	...will see this	...will do this
	Proceed with Caution		Push the Button to Cross
	Slow Down (Pedestrian has activated the push button)		Wait
	Prepare to Stop		Continue to Wait
	STOP! (Pedestrian in Crosswalk)		Start Crossing
	STOP! Proceed with Caution If Clear		Continue Crossing (Countdown Signal)
	Proceed If Clear		Push the Button to Cross





Pedestrian Hybrid Beacons



North of Newsome Road



North of Pilgrim Drive



South of Mt. Olympus Hotel
Rome Entrance

Pedestrian Study will be conducted in the summer of 2013 to evaluate the pedestrian usage and compliance of drivers.





Traffic Data

- **Traffic counts:**
 - Conducted in July/August 2011 & June 2012
 - Roadway Hourly Traffic Counts: US 12, Hiawatha Drive, Lake Avenue, Pilgrim Drive & Clara Avenue
 - Intersection Traffic Counts (Peak Periods): Hiawatha Drive, Lake Avenue, Pilgrim Drive & County A
 - Driveway Traffic Counts (Peak Periods): Tommy Bartlett's, Noah's Ark, Mt. Olympus Hotel Rome, Original WI Dells Ducks & Mt. Olympus Water/Theme Park

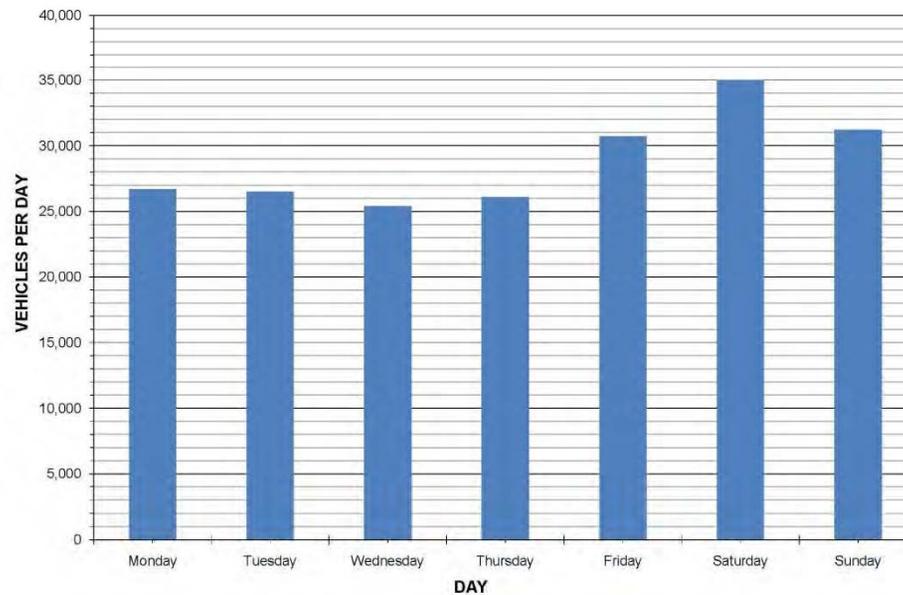




Traffic Volumes

- Monthly Variations
- Summer Daily Traffic Volumes
- Peaking Characteristics

SUMMER DAILY TRAFFIC VOLUMES





Travel Time Runs

- Time to travel the US 12 corridor during peak periods
- Conducted on Friday, August 3 & Wednesday August 15, 2012
- Northbound
 - Average trip time: 6 min 26 sec
 - Longest trip time: 8 min 8 sec
 - Average travel speed: 25.2 mph
- Southbound
 - Average trip time: 5 min 32 sec
 - Longest trip time: 6 min 15 sec
 - Average travel speed: 29.3 mph





Speed Study

- Speed studies are used to determine the appropriate speed limit for a roadway.
- Collect speed for free flowing vehicles
- Conducted on Tuesday August 14, 2012 at 3 locations.

- Location 1 (0.46 miles north of WIS 23):

- 85th percentile speed: NB – 37 mph / SB – 36.8 mph
- Average speed: NB – 33.3 mph / SB – 34.1 mph

- Location 2 (0.02 miles north of Pilgrim Drive):

- 85th percentile speed: NB – 36.9 mph / SB – 36.3 mph
- Average speed: NB – 33.5 mph / SB – 33.3 mph

- Location 3 (0.38 miles north of County A):

- 85th percentile speed: NB – 38.3 mph / SB – 39.8 mph
- Average speed: NB – 34.9 mph / SB – 35.8 mph

- 85th percentile speeds were not greater than 5 mph above the posted speed limit.





Environmental Constraints

- **Natural**
 - Wetlands, water, species
- **Physical**
 - Cemetery
 - Archaeological and Historical Surveys
- **Social**
 - Socio-economic
 - Cultural / environmental justice



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SESSION #2

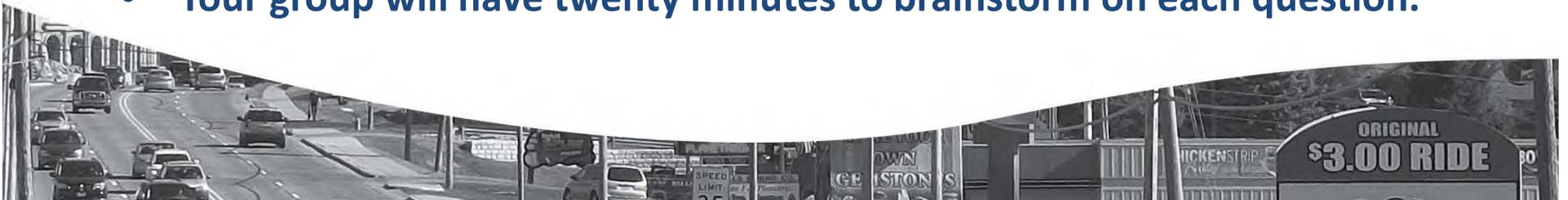
VALUE EXERCISE





Session Format

- Break into four groups
- Elect a spokesperson
- Brainstorm on the transportation issues in the corridor
 - What are the problems along the existing corridor (list at least 5)?
 - What are the priorities for a long term solution (list at least 3)?
- Have your spokesperson present it
- The meeting facilitator will clarify and assist with questions
- After all groups have reported, everyone will be given 5 dots to vote for their preferred issues for question #1 and 3 dots for their preferred issues related to question #2
- Your group will have twenty minutes to brainstorm on each question.





Question #1

What are the problems along the existing corridor?

List at least 5





Question #2

What are the priorities for a long term solution?

List at least 3





SESSION #3

TRANSPORTATION PLANNING 101





Corridor Studies

- **Why study a corridor in more detail?**
 - Recognized relationships between land use and transportation
 - Goal to harmonize transportation and land use
 - Benefits are uniform, predictable operations meeting the expectations of road users and roadside occupants
- **When are studies like this needed?**
 - A holistic review of transportation and land use when needs arise
 - major changes in land use
 - traffic flow changes
 - pavement conditions
 - safety needs





Corridor Planning Objectives

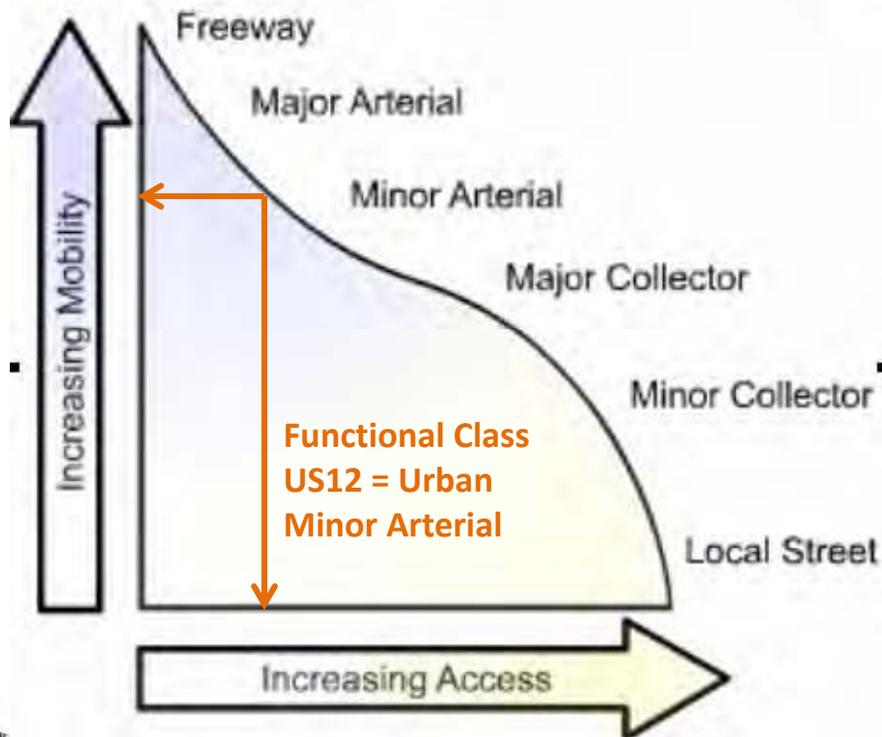


- Preserve integrity of the roadway system
- Improve safety and capacity
- Extend functional life of the roadways
- Preserve public investment in infrastructure
- Preserve private investment in properties
- Provide a more efficient (and predictable) motorist experience
- Improve “thru” times through a corridor
- Improve aesthetics





Roadway Classification



The appropriate degree of access control should be based on:

- The functional role of the roadway in the overall transportation system

The nature of the abutting land uses

- The traffic characteristics of the roadway
- The roadway's long-term planning objectives





Corridor Planning Objectives



- Limit the number of conflict points
- Separate the conflict points
- Remove turning vehicles and queues from through movements
- Maintain progression speeds along Arterials
- Encourage access to streets with the lowest functional classification, where this option exists





Measures of Performance

- 1. Mobility and Access (All Users)**
- 2. Safety**
- 3. Connectivity**
- 4. Environment**
- 5. Economic Feasibility**
- 6. Business impacts**
- 7. Public Acceptance**





Corridor Planning



- **Typical Section Development**
 - Lane Width
 - Transit, Bicycle, & Pedestrian Accommodations
- **Access Management**
 - Driveway Spacing
 - Medians
- **Intersection Control**
 - Traffic Signals
 - Roundabouts





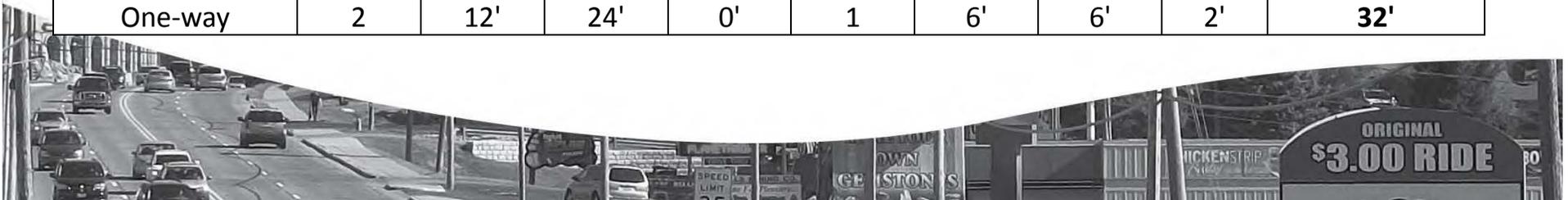
Typical Section Development



- Lane widths
- Medians
- Bike\Pedestrian
- Design Standards
- Transit

Roadway Widths for Urban Minor Arterial

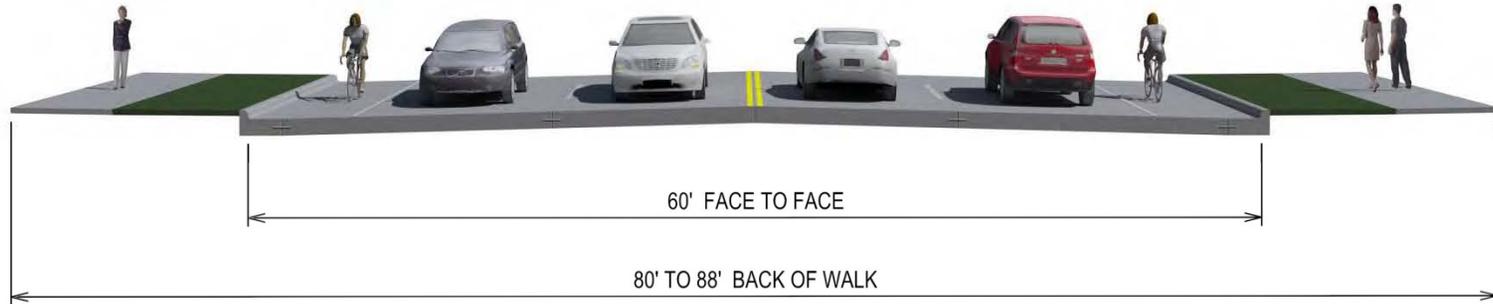
Roadway	Travel Lanes			Median Width ¹	Bike Lanes			Gutter Width ²	Roadway Width (Face of Curb to Face of Curb)
	No. Lanes	Lane Width	Total		No. Lanes	Width	Total		
Undivided	4	12'	48'	0'	2	6'	12'	0'	60'
Divided	4	12'	48'	18'	2	6'	12'	4'	82'
TWLTL	4	12'	48'	16'	2	6'	12'	0'	76'
One-way	2	12'	24'	0'	1	6'	6'	2'	32'



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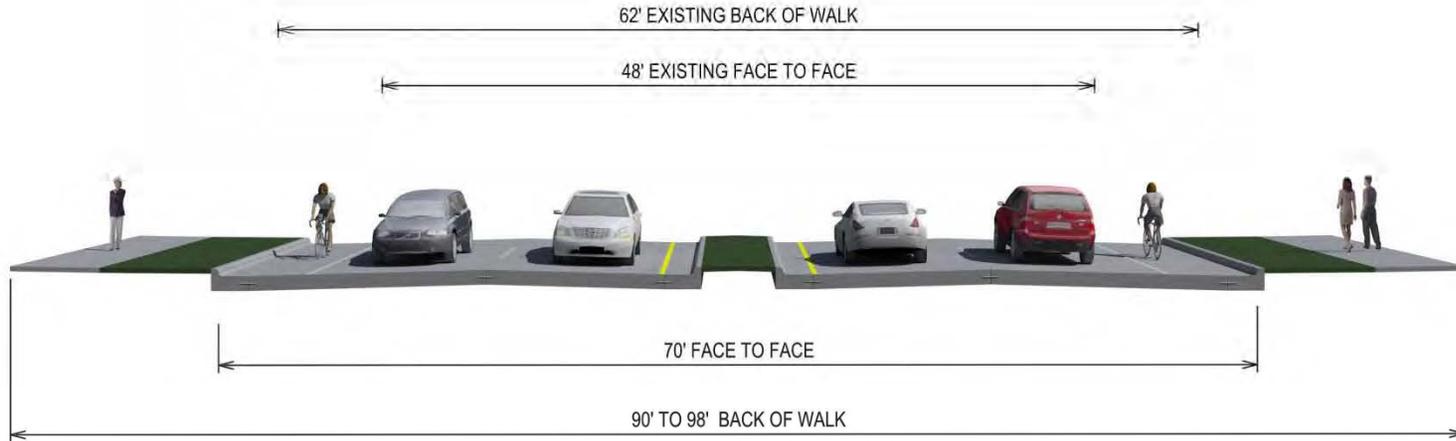


Four-Lane Undivided Roadway

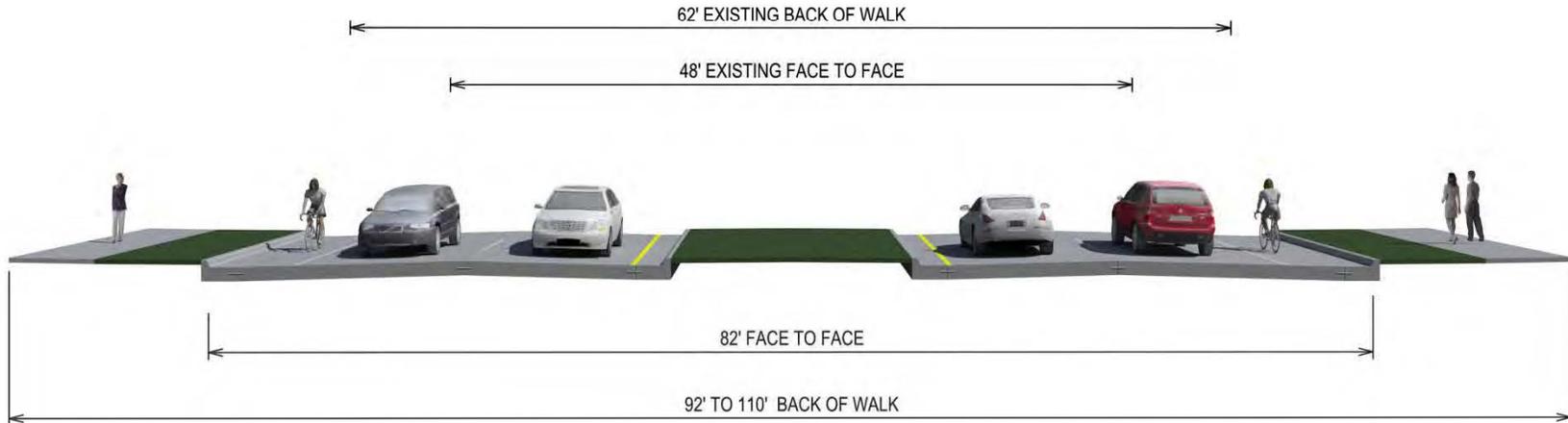




Four-Lane Divided Roadway



Narrow Width Median

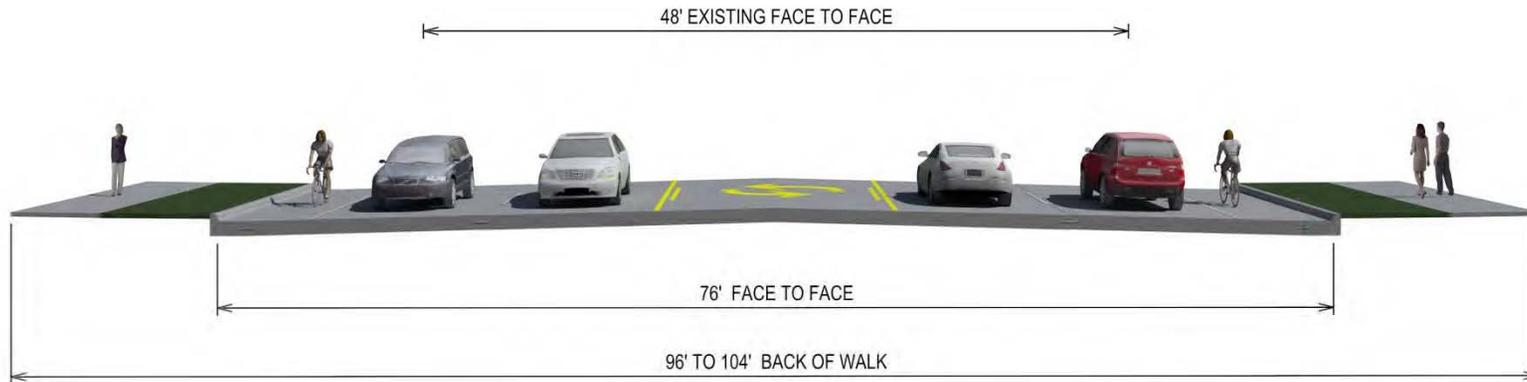


Desirable Width Median



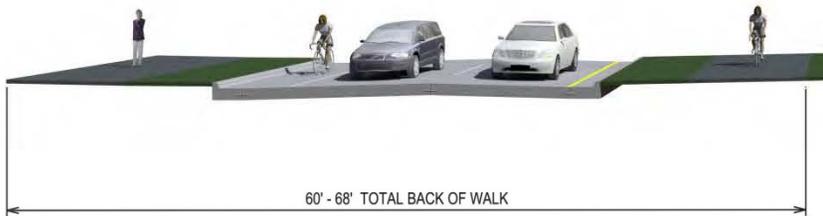


Four-Lane Roadway Two-Way-Left-Turn-Lane (TWLTL)

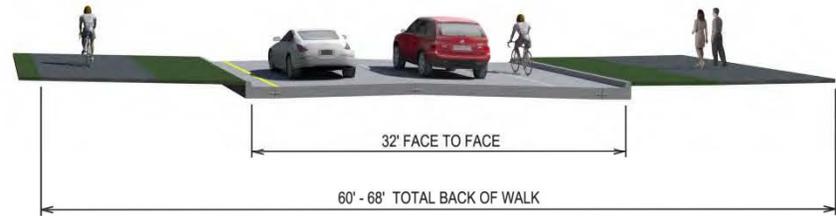




One-Way Couplets



Clara Avenue or Alternate Route



US 12





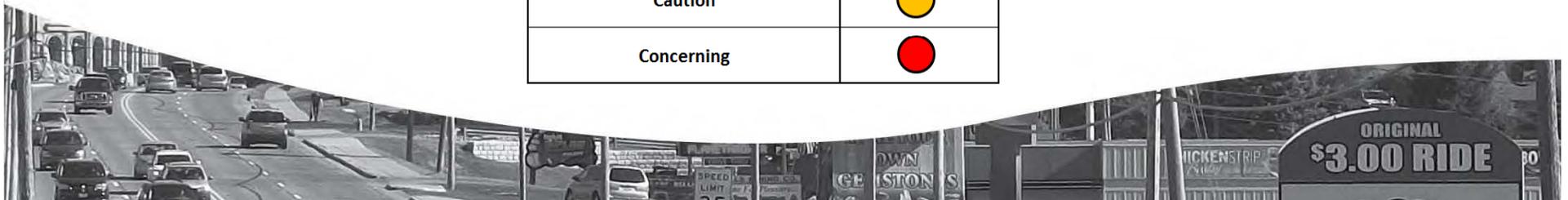
US 12 Typical Section Matrix



	ACCESS		MOBILITY	SAFETY			R/W
	Direct Access to Buisnesses	Access Point Reduction Required	Mobility / Capacity	Vehicular Crash Reduction	Pedestrian Safety	Bicycle Safety	Right-of-Way Required Along US12
4 Lane Undivided (Existing)	Yellow	N/A	Red	Red	Yellow	Red	Green
4 Lane Undivided with Turn Lanes at Intersections	Yellow	Red	Yellow	Red	Red	Yellow	Yellow
5- Lanes with Two-way Left Turn Lane (TWLTL)	Green	Red	Yellow	Yellow	Red	Yellow	Red
4 Lane Divided with Turn Lanes at Intersections	Red	Yellow	Green	Green	Green	Green	Red
One-way cuplets	Red	Yellow	Green	Green	Green	Yellow	Green



Favorable	Green
Caution	Yellow
Concerning	Red





Bicycle \ Pedestrian Facilities



On-Road (Wider Travel Lane)



On Road Bike Lanes



Multi Use Paths

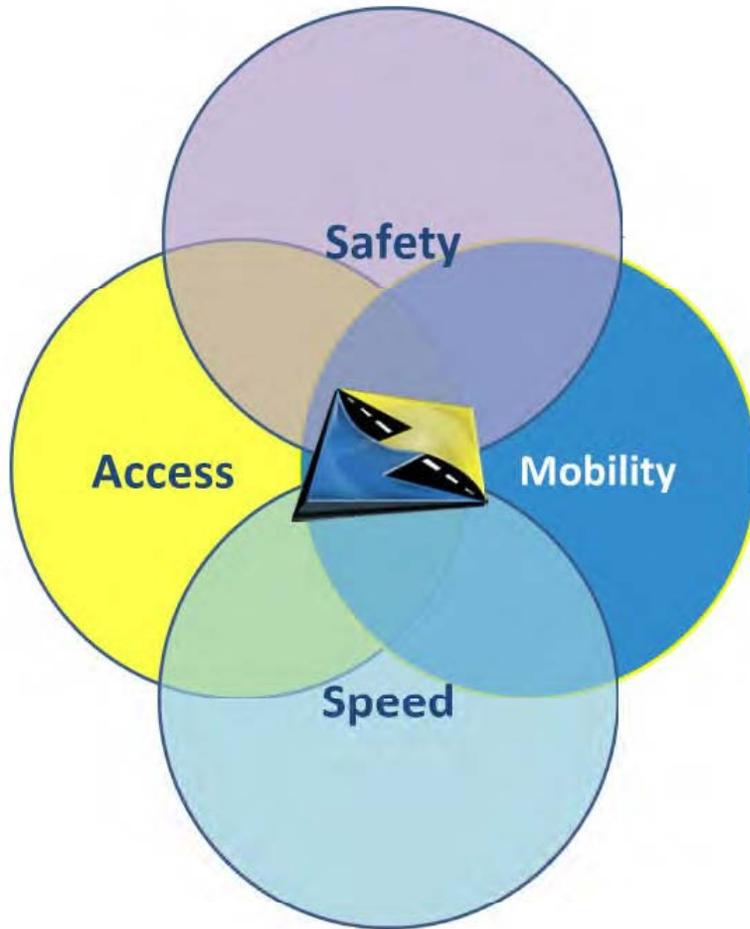


Sidewalks





Corridor Planning



What is Access Management?





Access Management



Restricted Median



Two-Way-Left-Turn-Lane (TWLTL)



Roundabouts in Series



Backage\Frontage Roads \ Cross Access Easements





Intersection Control

- **Design Considerations**
 - Pedestrian Safety
 - Traffic Operations
 - Safety
 - Traffic Signal Warrants
 - Comfort
 - Transit





Intersection Control



Traffic Signal



Roundabout



Stop Sign



Roundabouts in Series





Planning Toolbox

- **Typical Section Development**
 - Complete Streets (WisDOT)
 - Medians and Pedestrian Crossing Islands in Urban and Suburban Areas (FHWA)
 - Walkability Checklist (FHWA)
 - US 12 Sample Typical Sections
- **Access Management**
 - Corridor Access Management – Proven Safety Countermeasures (FHWA)
 - Access Management Issue Brief (FHWA)
 - Benefits of Access Management (FHWA)
 - Safe Access is Good for Business (FHWA)
 - Access Management (FDOT)

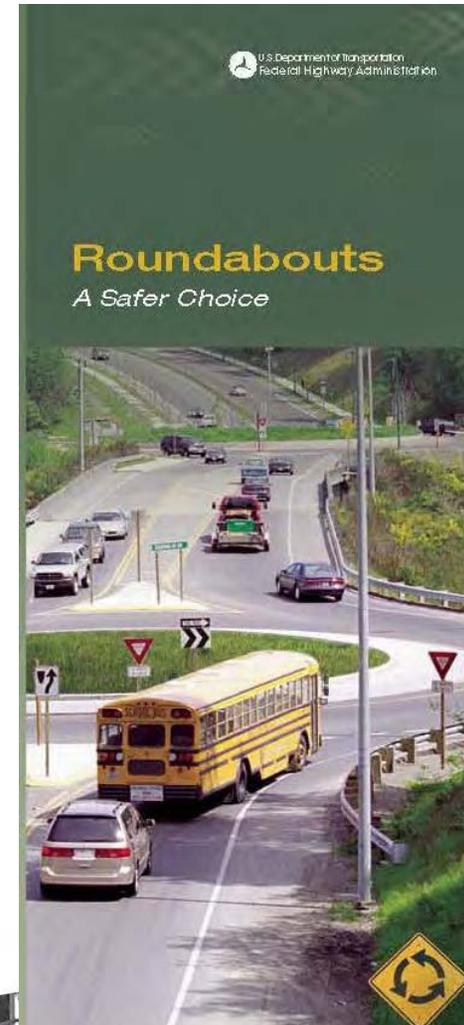
Benefits of Access Management





Planning Toolbox

- **Intersection Control**
 - Objectives and Strategies for Improving Safety at Unsignalized and Signalized Intersections (FHWA)
 - Roundabouts A Safer Choice (FHWA)
 - Roundabouts – Proven Safety Countermeasures (FHWA)
 - How to Drive a Roundabout (WisDOT)
- **Project References**
 - US 12 Roadway Safety Audit – Executive Summary
 - US 12 – PI Plan





Next Steps



- **Workshop #2**

- **Content**

- Definition of Study Goals & Evaluation Criteria
- Transportation Planning Concepts
- Establish Alternatives through Design Charet

- **1 or 2 Day Planning Session (Estimated 6 Hours of Material)**

- **Optional Dates**

- Wednesday, October 3
- Wednesday, October 10

- **Field Observation by PAG Members**

- **Review of Tool Box Material**



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THANK YOU FOR YOUR TIME!

