



**US 12**

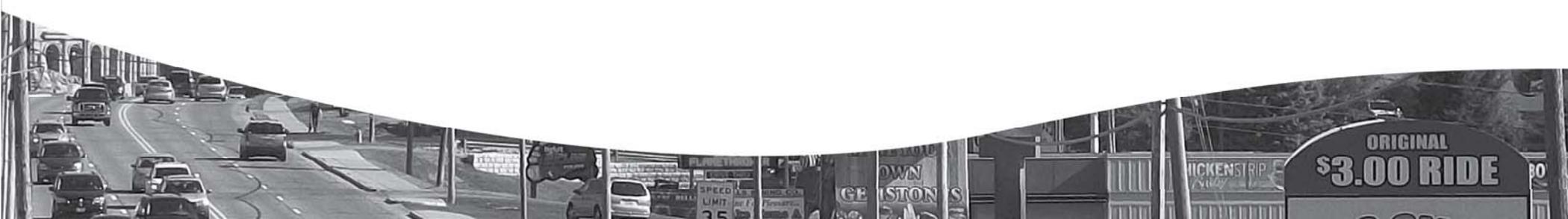
**WISCONSIN DELLS PARKWAY**

**PARTNERING FOR A SAFE SOLUTION**

**PUBLIC ADVISORY GROUP**

**WORKSHOP #2**

**OCTOBER 10, 2012**





# SESSION #1

REVIEW OF NEPA PROCESS

REVIEW OF VALUE EXERCISE RESULTS

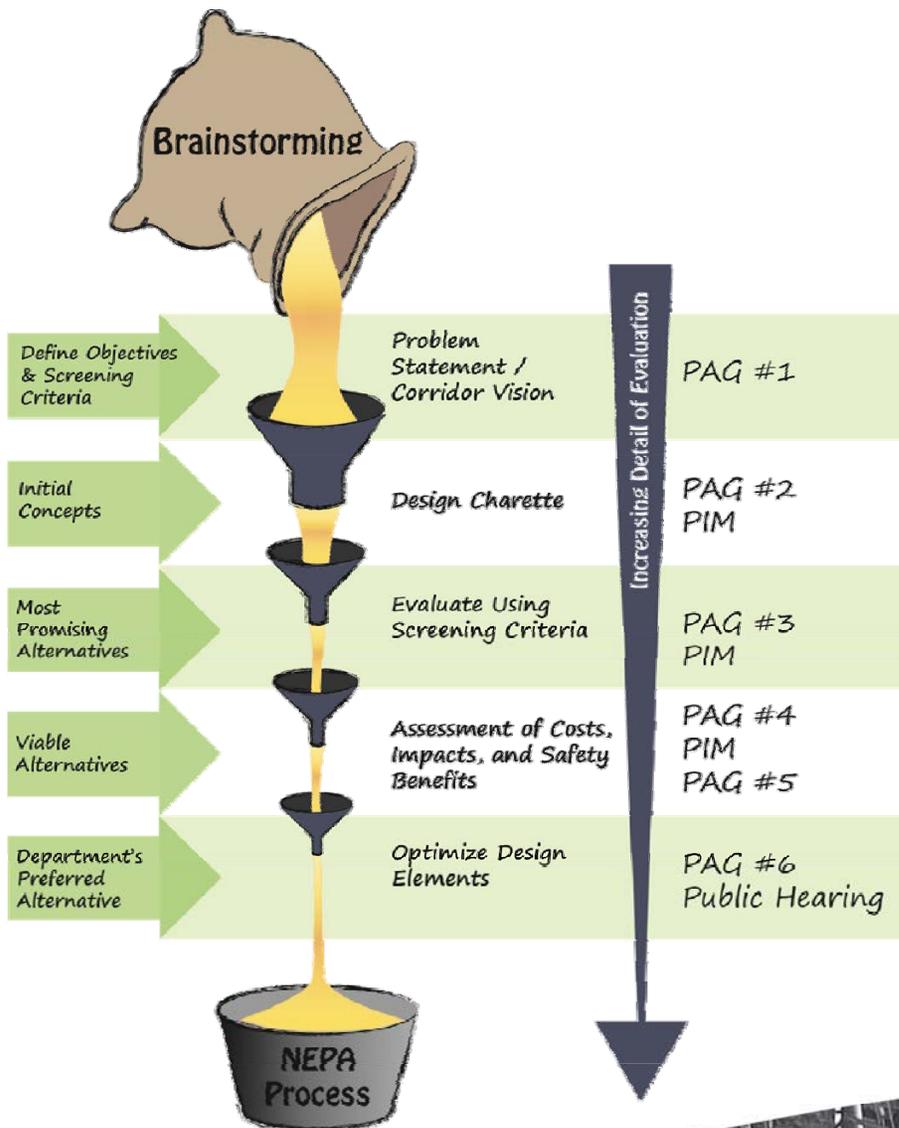
TEMPLATE FOR EVALUATION MATRIX

SMALL GROUP SESSION





# Review of NEPA Process



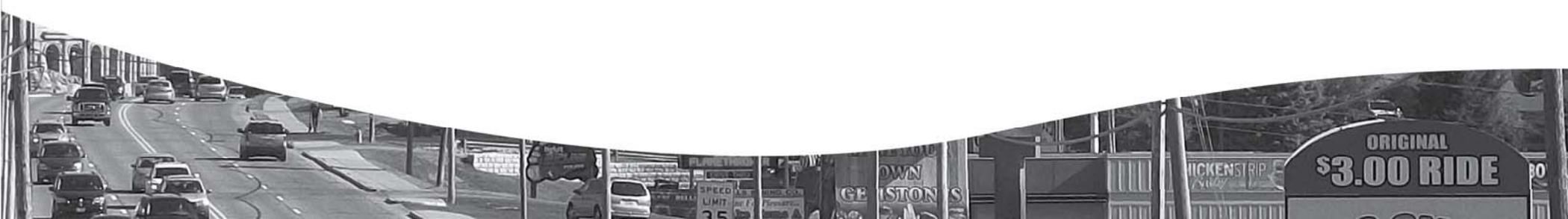
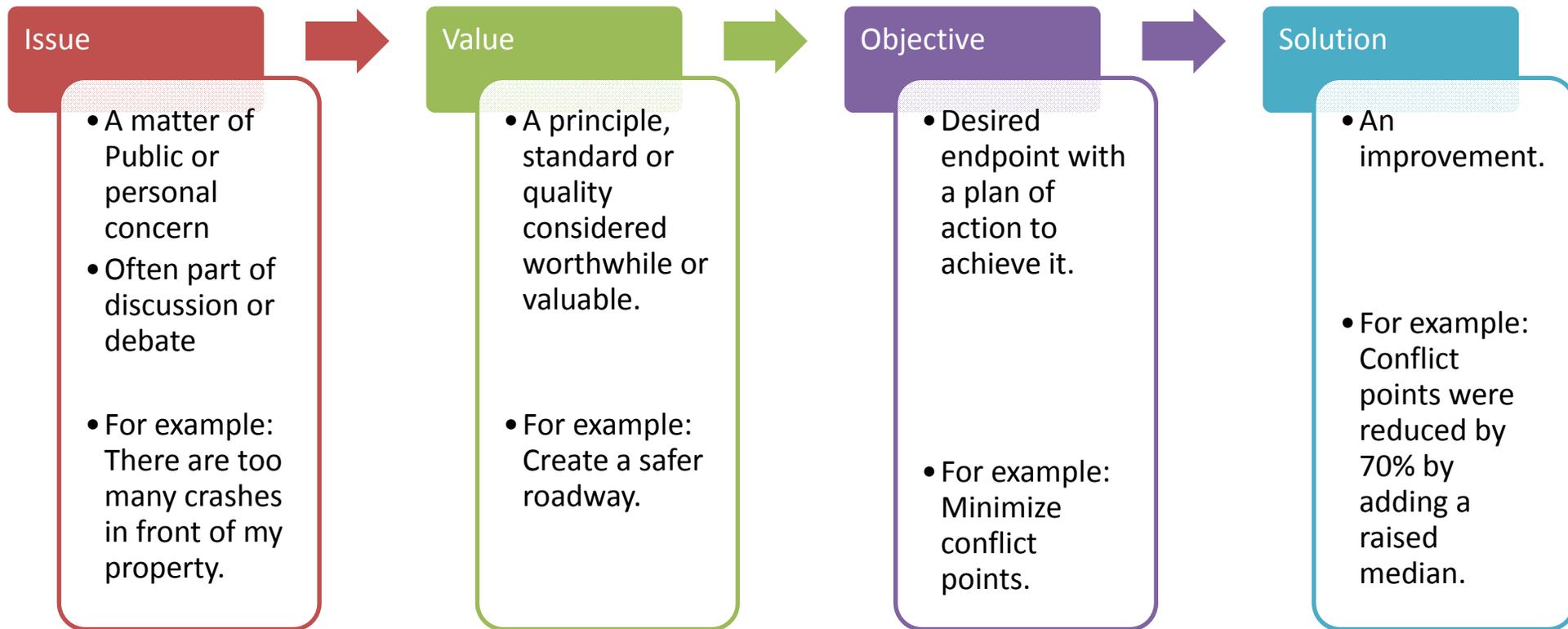


# Where are we going?





# Review of NEPA Process





# Summary of Value Exercise



## PAG #1 / Question #1

### Identification of Existing Problems along the Corridor

	No. of Stickers
Traffic congestion (special event traffic / start and end of workday)	12
Pedestrian crossings/ pedestrian islands/ narrow walks	10
Too many driveways/ spacing concerns	8
Lack of curb appeal (overhead lines, no benches, no waterfront)	8
Lack of designated bike lanes	7
Lack of way finding/ cross street signage/ alternate route signage	4
Narrow existing right of way	2
Foreign population of workers; lack of rules of the road	2
Distracted drivers	2
Lack of lighting	1
Safety of power poles	1
Lots of impervious surface/concern for quality	1
Snow storage/ pedestrian facilities in winter	1
No left turns in median	1
No acc/dec lanes at high traffic generators	0
Speed limit - too low winter/ too high summer	0
Weather (thunderstorm)	0
Profile/ sight distance/ steepness of driveway (geometric deficiencies)	0



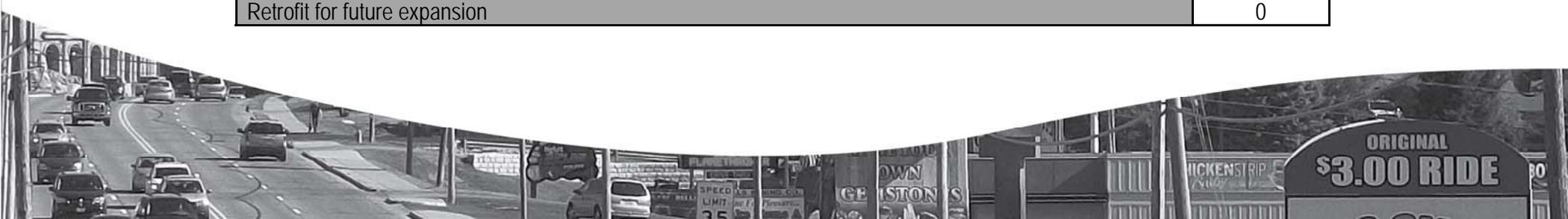


# Summary of Value Exercise



## PAG #1 / Question #2

Objectives\Vision of the Future Corridor	No. of Stickers
One way couplets/ pairs with multiple cross roads	10
Bike lanes	9
Buried utilities	9
Streetscape, greenway, planting, bio-swales, benches, restrooms, public art	8
Promote mass transit between businesses	5
Overhead pedestrian crossings	4
Overhead signage	4
More signals	4
Add acceleration/ deceleration lanes	3
Wayfinding signs/ number stop lights	2
Bypass with connections to the strip	1
No roundabouts	1
Zoning changes	1
Parking lots/ park and rides	1
Alternate access for high traffic areas	1
Alternate bike routes	1
Wider sidewalks	0
Roundabouts	0
Frontage roads/ fewer driveways	0
Lighting (roadway)	0
Retrofit for future expansion	0





# Values & Objectives



Legend	
	Values
	Objectives

Access / Business Impacts
<ul style="list-style-type: none"> <li>• Reduce driveways</li> <li>• Minimize conflict points</li> <li>• Increased controlled intersections (Signals or Roundabouts)</li> <li>• Maintains pass-by traffic</li> <li>• Improve for wayfinding signage</li> <li>• Minimize Right of Way acquisition</li> <li>• Minimize real-estate relocations</li> <li>• Compatibility with local land use plans</li> <li>• </li> <li>• </li> </ul>
Safety
<ul style="list-style-type: none"> <li>• Create safe pedestrian crossing</li> <li>• Create safe on-road bicycle network</li> <li>• Create a more walkable community</li> <li>• Enhanced roadway lighting</li> <li>• Improve roadway deficiencies (horz. &amp; vert. curves and intersections)</li> <li>• Education of diversified/ seasonal workforce</li> <li>• Increase levels of enforcement</li> <li>• </li> <li>• </li> </ul>

Mobility
<ul style="list-style-type: none"> <li>• Minimizes congestion</li> <li>• Integrates multi-modal solutions</li> <li>• Create constant travel speeds</li> <li>• Minimize traffic diversion onto local road network</li> <li>• </li> <li>• </li> </ul>
Environment
<ul style="list-style-type: none"> <li>• Minimize impacts to archeological/ Historical resources</li> <li>• Minimize floodplain impacts</li> <li>• Minimize wetland impacts</li> <li>• Improve stormwater treatment</li> <li>• </li> <li>• </li> </ul>
Aesthetics / Maintenance
<ul style="list-style-type: none"> <li>• Improve roadway aesthetics</li> <li>• Provide area for snow storage</li> <li>• Create low maintenance</li> <li>• </li> <li>• </li> </ul>
Implementation
<ul style="list-style-type: none"> <li>• Implementation in timely fashion</li> <li>• Minimize total project cost</li> <li>• </li> <li>• </li> </ul>

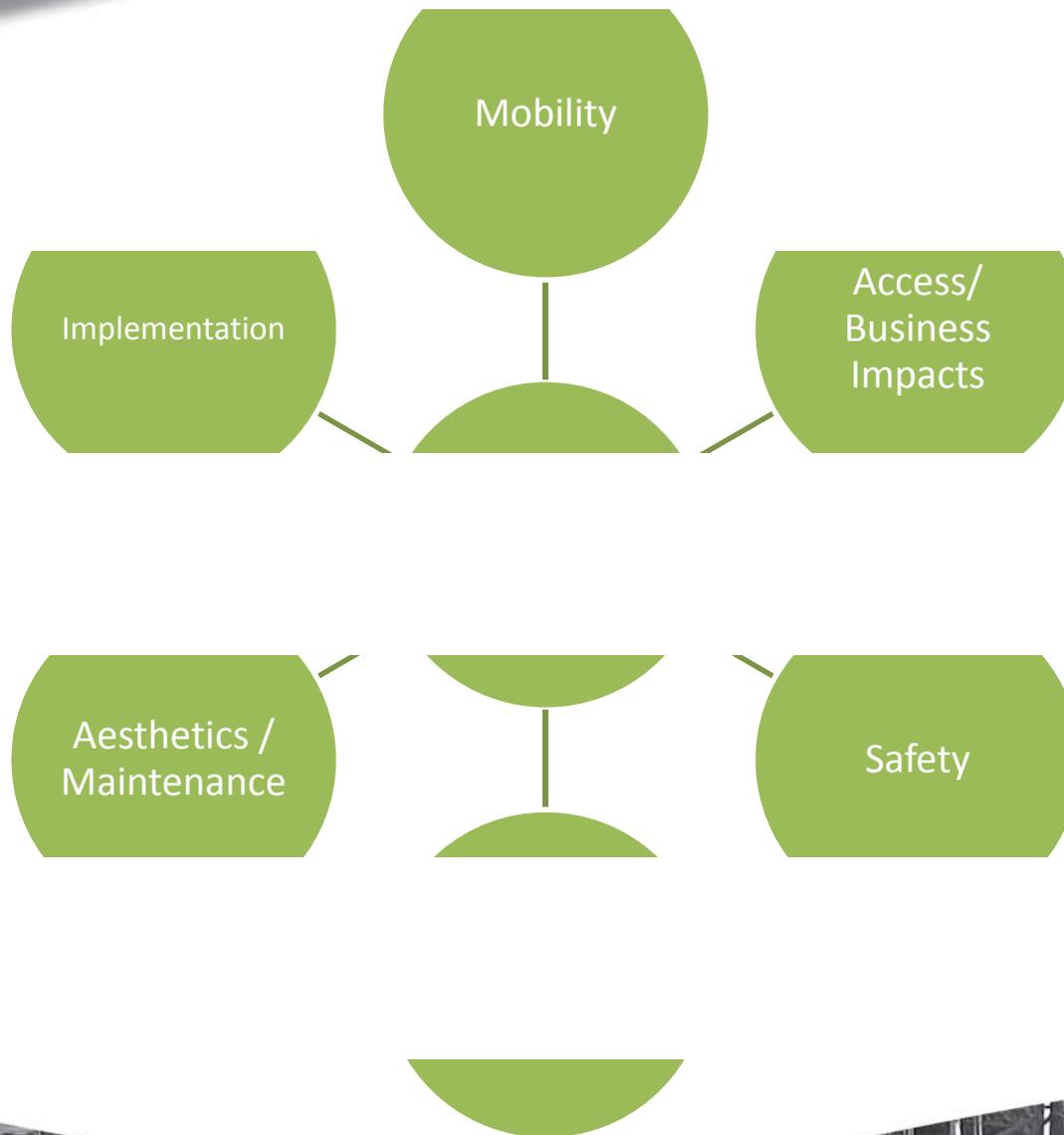




# Value Exercise



## Re-rank the Values





# SESSION #2

TYPICAL SECTION OVERVIEW

DESIGN CHARETTE – “BUILD YOUR OWN TYPICAL SECTION”

INTERSECTION CONTROL





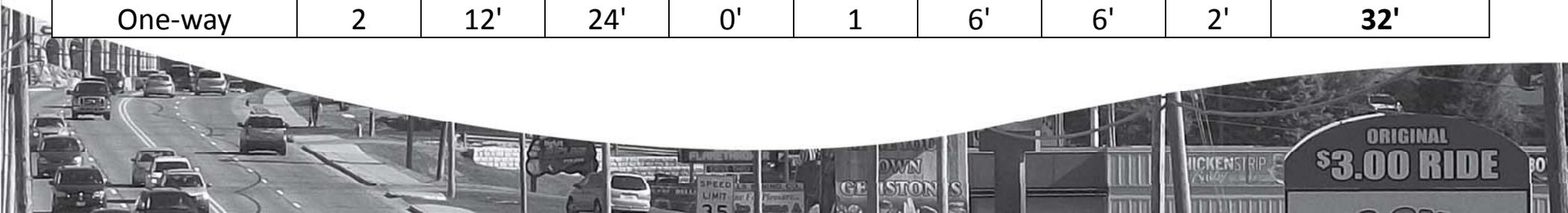
# Typical Section Development



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

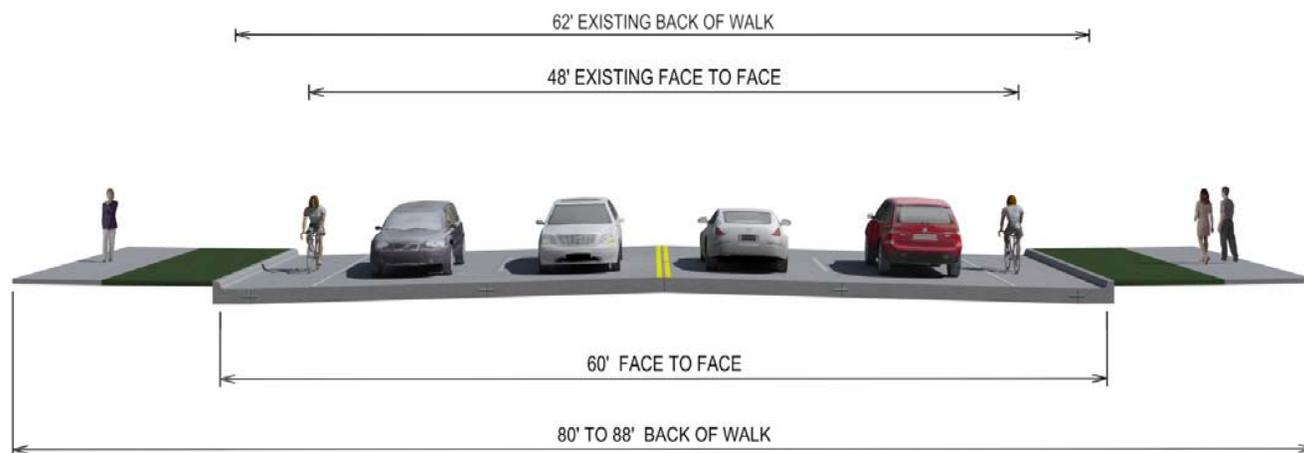
Roadway Widths for Urban Minor Arterial

Roadway	Travel Lanes			Median Width <sup>1</sup>	Bike Lanes			Gutter Width <sup>2</sup>	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'





# Four-Lane Undivided Roadway



- Advantages

- Minimal right of way

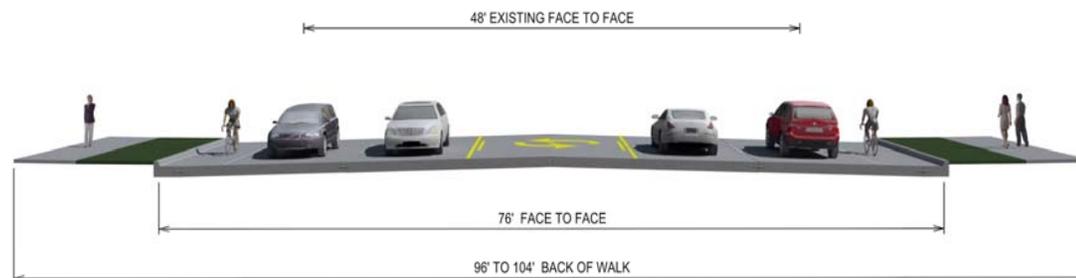
- Disadvantages

- Not recommended on roadways with ADT's exceeding 16,000-22,000 vpd
- No left turn bays at uncontrolled intersections
- No refuge for pedestrian crossing
- No reduction of conflict points
- No reduction in travel times or delay
- Difficult to control access





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

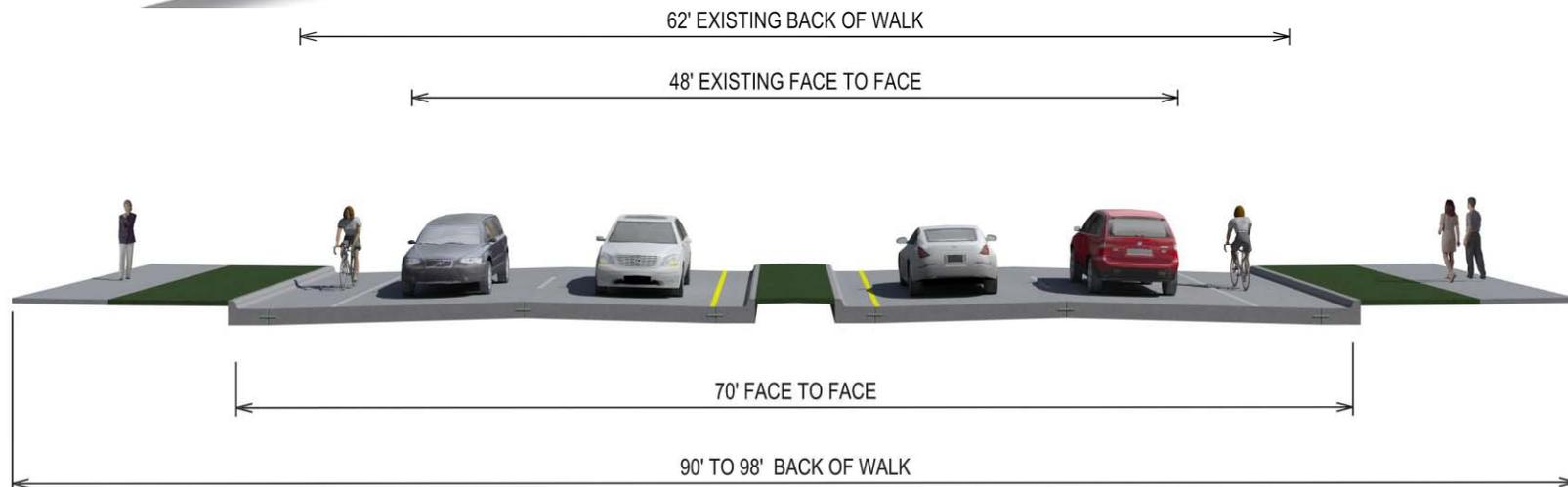


- Advantages
  - Safer than undivided roadways
  - Increase capacity compared with the undivided roadway
  - Reduces delay compared with the undivided roadway
- Disadvantage
  - Not recommended on roadways with ADT's exceeding 24,000-28,000 vpd
  - Less safe than divided roadway
  - TWLTL promotes strip development (difficult to control access)
  - Does not provide a refuge for pedestrians
  - Risk of left turn overlay aka (conflicting left turns)
  - Right-of-way impacts and project cost
  - Relocations

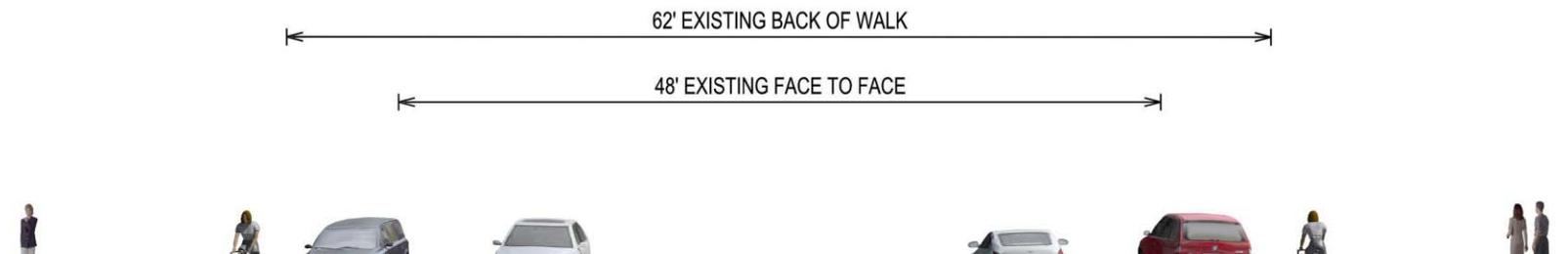




# Four-Lane Divided Roadway



**Narrow Width Median**



92' TO 110' BACK OF WALK

**Desirable Width Median**





# Raised Medians

- Advantages
  - Provides ability for left turn bays
  - Refuge for pedestrian crossing
  - Safer than undivided roadways & TWLTL
  - Increase capacity compared with the undivided roadway
  - Reduces delay compared with the undivided roadway
  - Reduces conflict points at unsignalized locations
  - Provides area for aesthetic improvements and snow storage
- Disadvantages
  - Increased right-of-way compared to undivided roadway
  - Reduces left turn access to driveways
  - Relocations





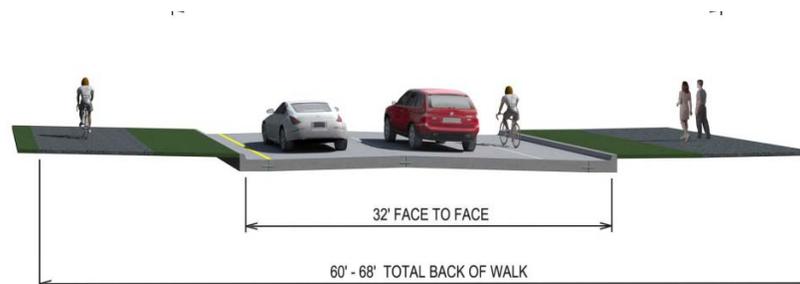
# One-Way Couplets

- Advantages

- Decrease crashes
- Increase capacity
- Reduces conflict points at driveways
- Minimal footprint/ reduced right of way along existing US 12
- Development opportunities

- Disadvantage

- Reduces pass-by trips
- Difficult wayfinding
- Increased speeds
- Reduced connectivity between NB and SB roadways
- Right-of-way impacts and project cost along alternate route





# US 12 Typical Section Matrix



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



Concerning      ●





# SESSION #3

NEXT STEPS: ACCESS MANAGEMENT / DEVELOPMENT OF ALTERNATIVES

TOOLS FOR SCREENING ALTERNATIVES

PIM / PAG SCHEDULE

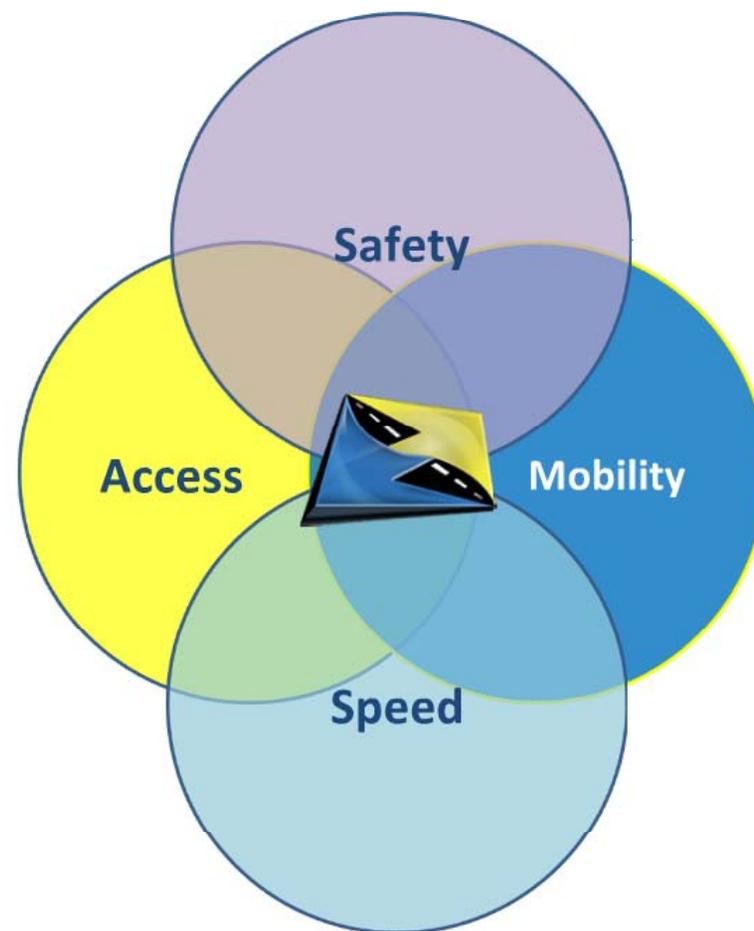




# Next Steps: Access Management



- Included with any Improvement
- Level of Access Management depends on Alternate Selected
- Access Management will result in:
  - Safer Access
  - Safer Operations
  - Increased Business





# Next Steps: Alternatives



- Evaluate Information Received at PAG #1 & PAG #2
- Develop Conceptual Alternatives
  - Typical Sections
  - Access Management Concepts
  - Traffic Operational Analysis
- Access Management Workshop with PAG
- Present Alternatives to PAG / PIM for Comment

