

US 45 Improvements
Illinois State Line to WIS 50
Kenosha County

Public Information Meeting
September 7, 2011



Meeting Purpose

- Introduce Team
- Update the projects progress
- Gather more feedback from locals
- Please hold questions until the end



Presentation Outline

- Project Purpose and Need
- Proposed Alternatives
- Roundabout Analysis
- Drainage
- Right of Way
- Utilities
- Construction Staging
- Detour Route
- Tentative Schedule
- Cost Share/Funding



Project Purpose and Need

- Old Pavement
- Drainage Concerns
- Safety Issues



Old Pavement

- Original Construction – 1946
- Resurfacing – 1995
- Pavement Deteriorating/Cracking



Drainage Concerns

- Cracking culvert pipes
- Loose joints
- Shallow ditches



Safety Issues

- Crash history
- Sight distance
- Improve Intersections
- Bicycle & Pedestrian Accommodations
- Access Control



Crash History

- Average of 39 crashes per year
- Crash rate of 265
 - 2.2 times the state average crash rate of 118
- 2 fatalities in 6 years



Crash History

US 45 - Areas of Concern

State-Wide Crash Rate = 118

Segment	Crashes	Crash Rate	% AVG.
County WG to County CJ	30	406	344%
County V to County Q	13	216	183%
County JS to 106 th St.	9	731	619%
Bristol Rd. (South) to Bristol Rd. (North)	12	175	149%
Bristol Rd. (North) to 98 th St.	8	417	354%
County C to 86 th St.	35	290	246%
86 th St. to County AH	5	551	467%
County AH to 84 th Pl.	6	1158	981%
83 rd St. to 82 nd St.	8	617	523%
82 nd St. to 80 th St.	6	386	327%
80 th St. to 79 th St.	5	214	182%

5 Year Crash Rate = 2005 to 2009

Sight Distance

- Stopping sight distance
- Intersection sight distance
- Substandard vertical curves



Improve Intersections

- Add and lengthen turn lanes
- Add bypass lanes
- Replace traffic signal equipment (dependent on preferred alternative)
- Signing and pavement marking



Improve Intersections

- Realignment of 196th Street & County JS



Bicycle & Pedestrian Accommodations

- Evaluated for all highway projects

The Budget Bill (Act 28 or SS 84.01 35) approved in June 2009 states "...the department shall ensure that bikeways and pedestrian ways are established in all new highway construction and reconstruction projects funded in whole or in part from state funds or federal funds"



Bicycle & Pedestrian Accommodations

- Rural Sections
 - Paved shoulder
 - Shared use path
- Urban Sections
 - Sidewalk
 - Bike accommodations



Access Control

- Evaluate property access points.

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Proposed Alternatives

- South Segment
 - County WG to 86th Street
 - 2 alternatives
- North Segment
 - 86th Street to 600' South of WIS 50
 - 3 alternatives



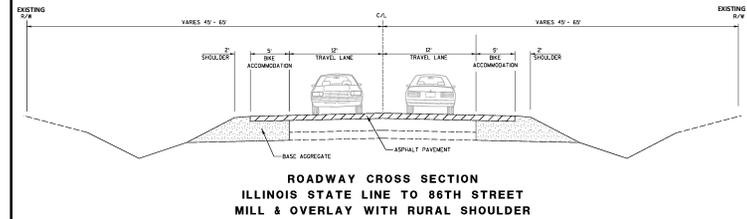
Proposed Alternatives

- South Segment
 - Rural
 - Rural with shared use path on one side
 - Snow removal of the path is not required by the Village of Bristol.
- Mill asphalt, rubblize concrete, and resurface



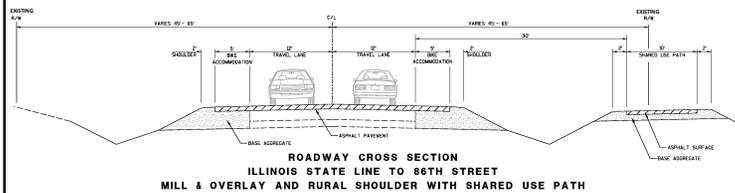
Proposed Alternatives

Rural



Proposed Alternatives

Rural with shared use path



Proposed Alternatives

Rural with shared use path



Proposed Alternatives

What are the potential impacts?

South Segment	Right-of-Way Acquisition (AC)	Permanent Limited Easements (AC)	Temporary Limited Easements (AC)	Potential Relocations (Each)	Wetland Impacts (AC)	Wolly Mammoth Site Impacts (AC)
Rural - right side	1.5	0	1	--	1	--
Rural - left side	1	0	1.5	--	1	--
Rural with shared use path - right side	14	0.1	1.5	--	4	--
Rural with shared use path - left side	10.5	0.1	3.5	1	4	0.1

Notes:

- * Potential relocation at Station 30+00 LT.
- * Wolly mammoth site located between 119th Street and CTH V, from Station 69+45 to Station 71+75 left.



Cost Sharing/Funding

Conceptual Costs

- South segment
 - Rural - \$4.4 million
 - Rural with shared use path - \$4.9 million
 - Cost of shared use path - \$450,000



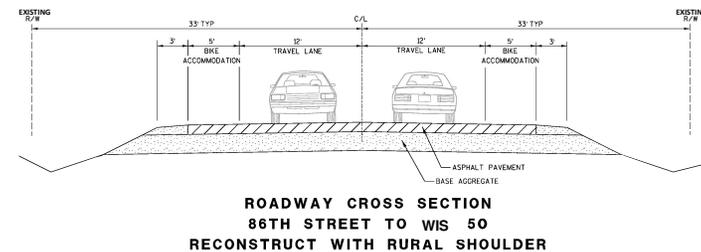
Proposed Alternatives

- North Segment
 - Rural
 - Urban with curb and gutter
 - Urban with curb and gutter & sidewalk
 - Property owners would be responsible for snow removal.
- Full Reconstruction
 - Pavement replacement
 - Profile improvement



Proposed Alternatives

Rural



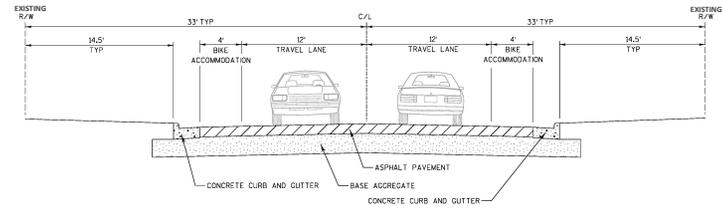
Proposed Alternatives

Rural



Proposed Alternatives

Urban with curb and gutter

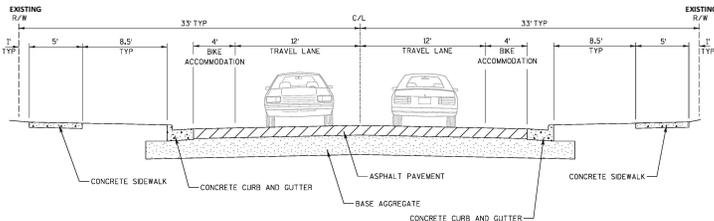


**ROADWAY CROSS SECTION
86TH STREET TO WIS 50
RECONSTRUCT WITH CURB & GUTTER**



Proposed Alternatives

Urban with curb and gutter & sidewalk



**ROADWAY CROSS SECTION
86TH STREET TO WIS 50
RECONSTRUCT WITH CURB & GUTTER AND SIDEWALK**



Proposed Alternatives

Urban with curb and gutter & sidewalk



Proposed Alternatives

What are the potential impacts?

North Segment	Right-of-Way Acquisition (AC)	Permanent Limited Easements (AC)	Temporary Limited Easements (AC)	Potential Relocations (Each)	Wetland Impacts (AC)
Rural	2	0.0	2.5	1*	0.1
Urban with curb & gutter	1.5	0.1	3.5	1*	0.4
Urban with curb & gutter and sidewalk	1.5	0.1	3.5	1*	0.4

*Note: Potential relocation at Station 264+50 RT.



Cost Sharing/Funding

Conceptual Costs

- North Segment
 - Rural - \$1.7 million
 - Urban with curb and gutter - \$2.5 million
 - Urban with curb and gutter and sidewalk - \$2.75 million
 - Cost of sidewalk - \$250,000



Proposed Alternatives

- South Segment (County WG to 86th Street)
 - Rural
 - Rural with shared use path
- North Segment (86th Street to 600' South of WIS 50)
 - Rural
 - Urban with curb and gutter
 - Urban with curb and gutter & sidewalk
- **Selection of preferred alternative will be made by WisDOT in conjunction with input from the Village of Bristol officials and PIM comments.**



Roundabout Analysis

- US 45 Intersections evaluated for Roundabouts
 - County WG
 - County C
 - WIS 50
- Roundabouts may not be the preferred alternative at these intersections but they need to be evaluated.



Roundabout Analysis

Why Roundabouts?

- Insurance Institute for Highway Safety: Evaluation of 24 Intersections Converted to Roundabouts
 - 30 to 40% Reduction in Total Crashes
 - 75% Reduction in Injury Crashes
 - 90% Reduction in Fatalities



Before



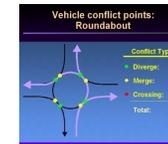
After



Roundabout Analysis

Why are roundabouts safer?

- Fewer Conflict Points than a Standard Intersection



- Much Lower Crash Severity & Property Damage than a Standard Intersection



High speed and right angle crashes rarely occur at roundabout intersections



Roundabout Analysis

Roundabout Features

- Safety benefits
- Less wait time
- Vehicles have to stop at a traffic signals
- Lower emissions
- Less noise
- Accommodates semi-trucks and oversize loads
- Access thru splitter islands
- U-turns allow for closer access
- Comparable costs to signalized intersections
- Lighting needed for both signals and roundabouts



Roundabout Proposed Alternatives

US 45 & County WG



Roundabout Proposed Alternatives

US 45 & County C



Roundabout Proposed Alternatives

US 45 & WIS 50



Roundabout Proposed Alternatives

Conceptual Costs

	Roundabout Cost (million)	Signal Cost (million)
County WG	\$1.2	\$0.3
County C	\$1.0	\$0.5
WIS 50	\$1.9	\$0.2

Drainage

- Protect water quality
- Replace cross culverts
- Rural Typical Sections
 - Improve ditch drainage
- Urban Typical Sections
 - Curb and gutter
 - Storm sewer
 - Potential need for a detention pond

Right of Way

- Right of Way acquisitions
- Permanent easements
- Temporary grading easements
- Negotiations will occur 1 to 2 years prior to construction
- The Village of Bristol will be responsible for real estate acquisition costs for the shared use path needs. (WisDOT may do the acquisition on behalf of Bristol.)



Utilities

- Cutting profile north of 84th Place
- Shallow water main / frost zone
- Utility adjustments
 - Village of Bristol
 - Utility companies



Construction Staging

- Closing US 45 vs. Staging Construction
 - US 45 constructed with staged closures
- Local access will be maintained during construction
- Police, garbage collection and emergency vehicles



Construction Staging

- Open to Local Businesses
 - Bristol School District #1
 - Business signing during construction
- Open to Local Events
 - Bristol Progress Days
 - Kenosha County Fair (CTH C)



Construction Staging - conceptual

- **Stage 1**
 - US 45 closed from County WG to County C
 - Mill and Overlay
 - May to Mid-July
- **Stage 1A**
 - County WG & County C intersections open to traffic
 - May to Mid-June
- **Stage 1B**
 - US 45 remains closed from County WG to County C
 - Close County WG & County C intersections
 - Mid-June to Mid-July



Detour Route

- **Stage 1**
 - Detour route utilizes WIS 50, I-94, and IL 173

Stage 1A: US 45 open to County C
Stage 1B: US 45 closed at County C

Stage 1A: US 45 open to County WG
Stage 1B: US 45 closed at County WG



Detour Route

- **Stage 2**
 - US 45 closed north of County C to WIS 50
 - Reconstruction
 - Mid-July to November 1
 - Begin construction after Bristol Progress Days.



Detour Route

- **Stage 2 – Alternative 1**
 - Detour route utilizes WIS 50, WIS 83, and County C

Stage 2: US 45 open to WIS 50

Stage 2: US 45 open to County C



Detour Route

• Stage 2 – Alternative 2

- Detour route utilizes WIS 50, I-94, and County C



Tentative Schedule

- Appraisal Plat (by WisDOT) – November 2012
- Real Estate Negotiations – Early 2013 to late 2014
- Final Plans to WisDOT – November 2014
- Begin Construction – Spring 2015
- End Construction – Fall 2015



Cost Sharing/Funding

- Roadway – 100% Federal/State
- Curb and gutter – 100% Federal/State
- Sidewalk – 80% Federal/State & 20% Bristol
 - Property owners will not be assessed
- Shared use path – 80% Federal/State & 20% Bristol, R/W 100% Bristol
- Landscaping – 80% Federal/State & 20% Bristol
- Lighting – At signalized intersections/roundabouts 100% Federal/State



Thank You!

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Handouts and sign-in sheet are in the back of the room.
 Please see any of the team for comments or questions.

