



Illinois Department  
of Transportation

*September 1, 2010*



**ILLINOIS 47**

*US Route 14 to Charles Road*

**Illinois Route 47  
Citizen Advisory Group Meeting #3**



# *Meeting Agenda*

- Project Summary and Update
- Final Problem Statement Consensus
- Purpose and Need Discussion
- Alternatives Workshop
- Next Steps

# Study Team

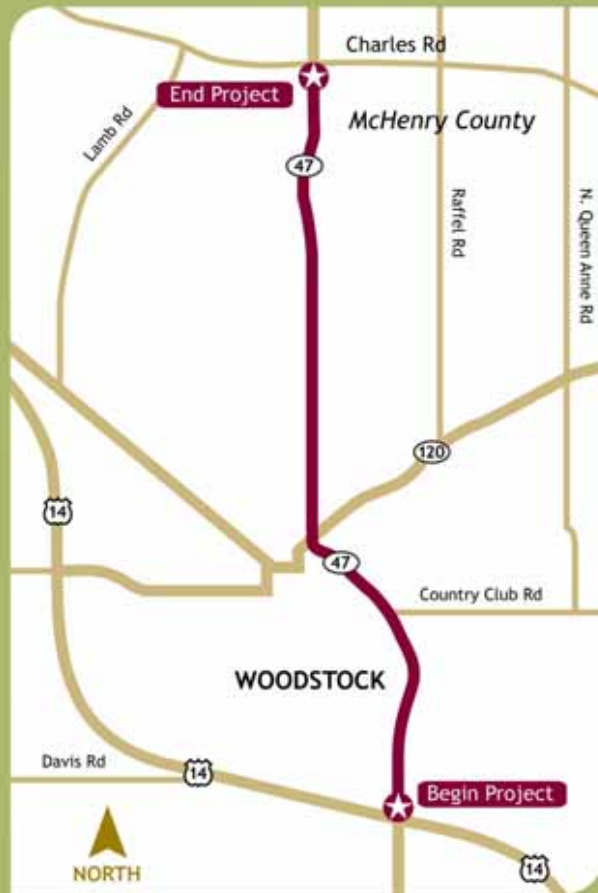
**PROJECT STUDY GROUP**  
IDOT • FHWA • Consultant

## **CITIZEN ADVISORY GROUP**

*COMMUNITY LEADERS*  
(Mayor / Manager and County Chairman  
or designees) with authority to speak  
on behalf of their organization

*STAKEHOLDERS* with expertise  
or technical interest in areas  
of transportation, land use,  
environment and economic  
development in the study area

# Project Overview



- Prepare as Environmental Assessment (EA)
- Facilitate open study process
- Solicit, develop, and evaluate alternatives
- Reach consensus on a preferred alternative
- Obtain Record of Decision and Design Approval

# CAG #1 Workshop Summary

Held on January 21, 2010

## Issues and Concerns

1. Congestion
2. Safety
3. Environmental/Aesthetics
4. Access/Business Impacts
5. Land Acquisition
6. Alternative Modes of Transportation
7. Funding
8. Utilities



# *CAG #1 Workshop Summary*

## Identified Goals & Objectives

- Reduce congestion
- Increase mobility
- Improve safety
- Economic development impacts
- Sense of urgency
- Quality of life

# CAG #2 Workshop Summary

**Held on January 21, 2010**

- Draft Problem Statement - Discussion/Consensus
- Presentation of Existing Conditions and Corridor Deficiencies



## *Problem Statement*

*The Illinois Route 47 (US 14 to Charles Road) corridor is a transportation network of roadway, freight and commuter rail, and non-motorized facilities and services. Increasing travel demands on Illinois Route 47 are creating safety and operational deficiencies along the roadway and its intersections. The insufficient capacity of the roadway to manage travel demands creates congestion, limits mobility, hinders safe access of adjacent properties and businesses, and leads to safety issues for motorists, bicyclists, and pedestrians. Both pedestrian access to adjacent land uses, and bicycle accessibility through and across the corridor are limited.*

## *Problem Statement (cont.'d)*

*The existing built environment along Illinois Route 47, including the constriction at the Union Pacific Railroad bridge, presents challenges in improving the corridor's transportation elements. Solutions to the transportation deficiencies need to be developed while avoiding and/or minimizing impacts to the surrounding environment. The solutions should consider quality of life and the community character of Woodstock, while supporting economic development, and coordinating with current community land use plans. Stakeholder involvement in arriving at practical, effective, and expedient solutions is an essential part of the project process.*

# *Existing Conditions & Deficiencies Highlights*

## Geometric Deficiencies

- 7 of 11 major intersections skewed; 3 exceed 30 degrees
- Union Pacific Railroad constriction
- Lack of exclusive turn lanes or insufficient length at intersection
- No managed access of driveways

## Bridges

- Existing vertical clearance of 14'2" vs. 14'9" standard
- **Condition:** No major structural issues; ordinary repair and maintenance expected

## *Existing Conditions & Deficiencies Highlights*

### **Operation and Capacity Deficiencies**

- 4 intersections - LOS D
- 2 unsignalized intersections warrant signals (Charles Rd. and St. John's Rd.)
- Lack of traffic signal coordination
- Existing and projected traffic volumes exceed design capacity of road

# *Existing Conditions & Deficiencies Highlights*

## **Safety**

- **635 crashes from 2006-2008**
  - Majority rear-end
  - 108 injury crashes
- **Intersection crashes**
  - Lake Ave. and Country Club Rd. highest occurrence
  - Most injuries at US 14, Lake and Judd

## *Existing Conditions & Deficiencies Highlights*

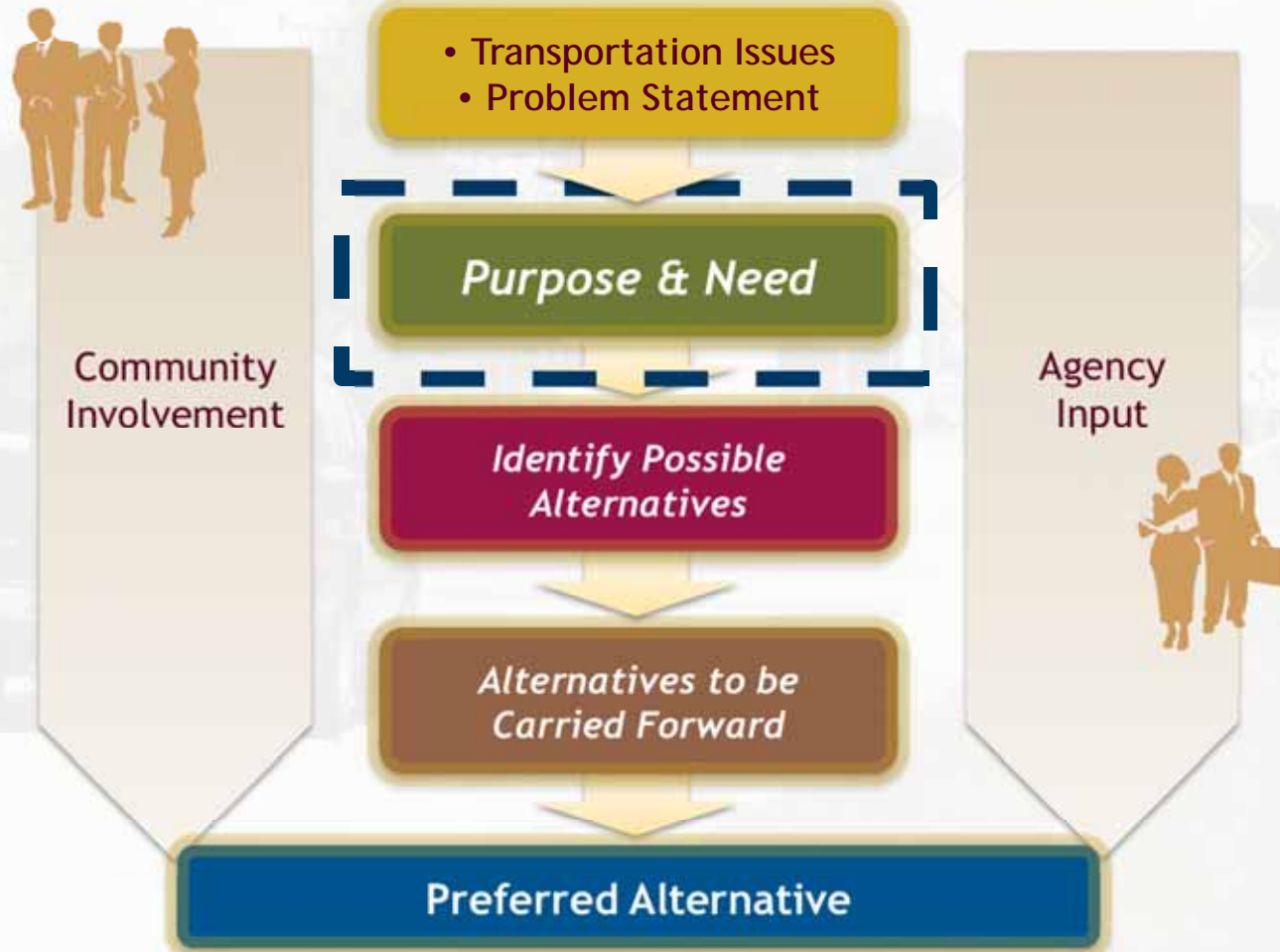
### **Non-Motorized Transportation**

- Sidewalks are intermittent
- No bike paths in corridor
- Limited pedestrian crossings

### **Public Transportation**

- 2 Pace bus routes serving corridor, but no regular coverage from US 14 to IL 120
- 12 Metra trains daily from Woodstock station

# Project Process – Purpose and Need





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# Purpose and Need



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## *Purpose & Need – What Is It?*

- The foundation for the identification and evaluation of Project Alternatives
  - How does a proposed solution address the **PURPOSE** of the project?
  - How does a proposed solution address the **NEED** for improvements?
- Incorporates technical analysis and public involvement findings

## *Development of the Purpose & Need*

- Problem Statement
- Stakeholder input
  - CAG meetings
  - Public meetings
  - Submitted comments
- Technical analysis and gathered data
  - \* *Environmental and economic development elements will be analyzed and included during the evaluation of alternatives.*

## *IL 47 Study – Purpose*

### To Address Transportation:

- Safety
- Capacity
- Access Management
- Geometric Deficiencies
- Pedestrian and Bicycle Needs



# IL 47 – Needs

- Safety
- Capacity/Operations
- Access Management
- Geometric Deficiencies
- Bicycle/Pedestrian Accommodation



## *IL 47 – Need: Safety*

- **Motorists:** Reduce number of crashes
- **Bikes/Pedestrians:** Provide suitable separate facilities
- **Property/Business Owners:** Ability to access property safely



## *IL 47 – Need: Capacity/Operations*

- Reduce congestion
- Increase mobility
- Reduce conflict points
- Address bridge constriction
- Address intersection operation levels



## *IL 47 – Need: Access Management*

- Maintain access to properties while minimizing impact to roadway operations
- Utilize access management in order to improve travel flow throughout the corridor



## *IL 47 – Need: Geometric Deficiencies*

- Correct poor roadway and intersection geometry
- Update roadway to meet current geometric standards
- Increase roadway safety



## IL 47 – Need: *Bicycle/Pedestrian Accommodation*

- Increase alternate forms of transportation for all roadway users
- Create a safe environment for bicyclists and pedestrians



## *Purpose & Need – Alternatives*

- **Alternatives development combines:**
  - Stakeholder input to date
  - Project elements
  - Project purpose and needs
  - Analysis of existing environment
  - Technical analysis of design requirements and constraints

# Next Steps

- Public Meeting #2 - September 15, 2010
- Purpose and Need Discussion
- Develop Alternatives
  - Input from CAG #3 Workshop and PM #2
  - Evaluation and screening criteria
  - Technical analysis



# *Alternatives Workshop*

## Group Exercise

- Conduct at tables with aerials
- Use as reference:
  - Problem Statement
  - Existing Conditions/Deficiencies
  - Purpose and Need

# *Alternatives Workshop*

## Primer of Tools:

- Intersection improvements
- Signalization
- Turning lanes
- Access management
- Roundabouts

# *Primer of Tools*

## Intersection Improvements

- Improve radius returns
- Improve intersection sight distance
- Improve signal sequence/timing

## Signalization

- Signalize intersections that meet warrants (spaced at ¼ mile minimum)

# Primer of Tools

## Turning Lanes

- Add left and/or right turn lanes to increase intersection capacity

## Access Management

- Consolidate access where possible
- Relocate entrances further away from intersections
- Barrier median

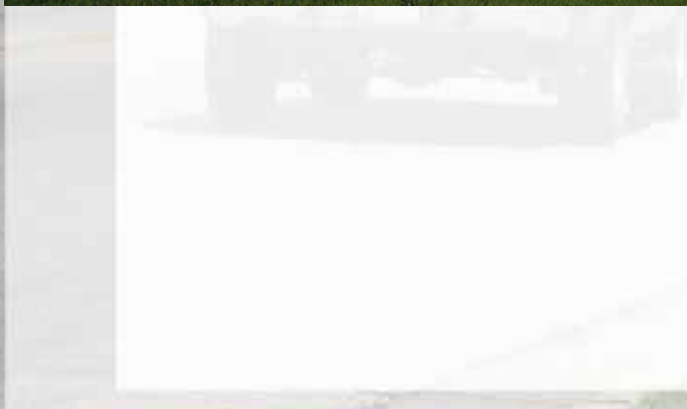
# Primer of Tools

## Roundabouts

- Circular intersection with yield control of entering traffic
- Fewer conflict points for vehicles, cyclists and pedestrians
- Low Vehicle Speeds
- Efficient traffic flow



# Roundabout Example – Mount Horeb, WI



# *Alternatives Workshop*

## Group Exercise

- Conduct at tables with aerials
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Thank you! *Questions?*



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