



# East Post Road Bridge Over Indian Creek Replacement

Public Information Meeting  
September 29, 2005

**Please:**

- Fill Out Sign-in Sheet
- Take a Comment Form
- Take an Evaluation Form

# Information Meeting Agenda

- Discussion With Staff/Consultant (At Drawings)
- Welcome/Introductions
- Meeting Purpose
- Summary of the Project
  - Design Process
  - Preliminary Recommendation
- Project Schedule
- Discussion With Staff/Consultant (At Drawings)

# Meeting Purpose

- Provide Information About the Preliminary Design Concept
  - Concepts Reviewed
  - Criteria Used in the Review
  - Recommendation
- Obtain Input From Public
- Answer Questions

# Project Team

City Project  
Manager  
Ken Dekeyser

Iowa DOT/ Linn  
County

Consultant Project  
Manager  
Bob Bang, PE



# Project Overview

- Current Bridge:
  - 45 Years Old
  - Nearing End of Service Life
  - Bridge Geometry is Obsolete
- Current Bridge is in Need of Replacement



# Concept Preparation Considerations

- Traffic Volume and Safety
  - Number of Through Lanes (Current/Future Traffic)
  - Turn Lanes
- Bridge/Road Location and Elevation
  - Adjacent Residential Impacts
  - Creek Flood Event Impacts
- Enhancements
  - Sidewalks
  - Trail Connections
- Construction Staging
  - Utility Relocation
  - Roadway/Bridge Construction

# Developing the Recommendations

- Alternatives
  - East of Current Alignment
  - West of Current Alignment
  - On Current Alignment
- Worked with City Staff to Review
- Criteria:
  - Adjacent Impacts
  - Feasibility to Construct
  - Cost
  - Maintaining Cross Route Connections
  - Construction Period
  - Indian Creek Hydraulics

# General Concepts

## General Alignment Alternatives



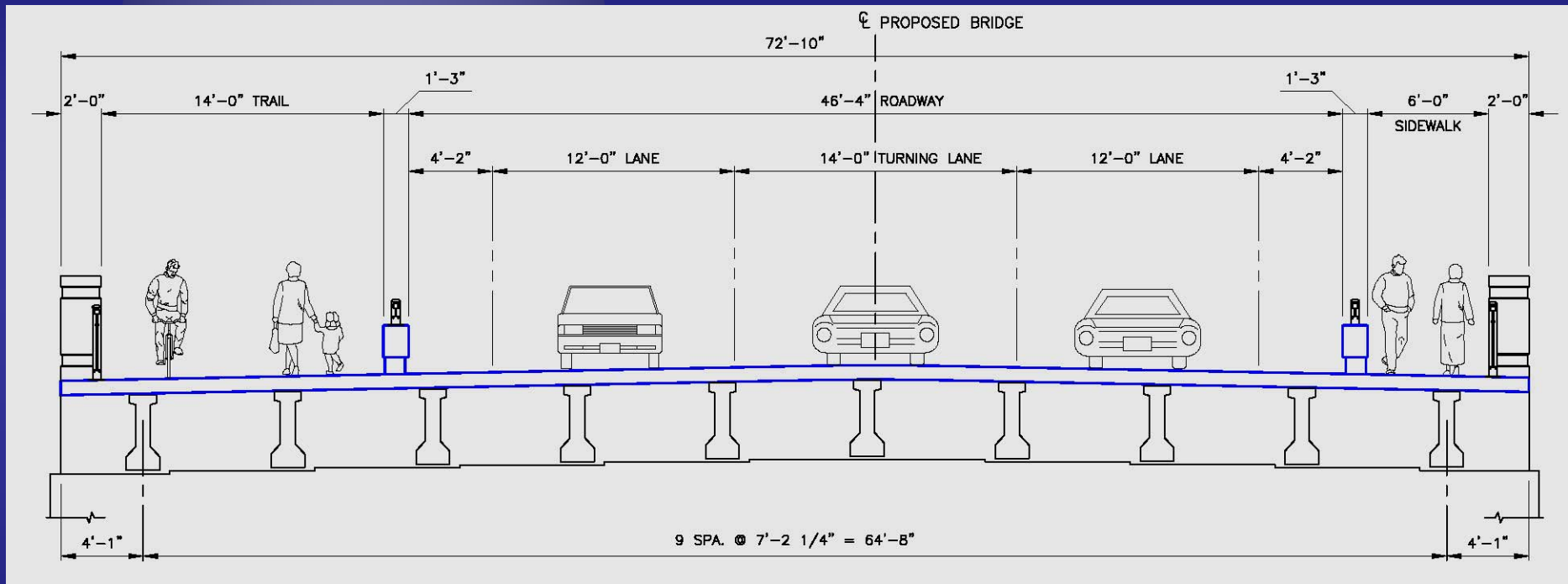
# Summary of Alternatives Review

Results by Criteria	Alternative		
	Re-align to the West	Maintain Current Alignment	Re-align to the East
<b>Residential Properties Impacted</b>	9	8	9
<b>Residences Acquired</b>	2 to 3	0 to 1	2 to 3
<b>Park Acres Impacted</b>	1.5	1.5	1.5
<b>Cross Street Connections</b>	2	2	2
<b>Constructibility</b>			
- Open Route During Constuction	Yes	No	Yes
- Construction Period (Estimate)	10 to 14 months	7 to 10 months	10 to 14 months
<b>Cost Estimate</b>			
- Construction (Bridge/Roadway/Utilities)	\$2,372,000	\$2,372,000	\$2,372,000
- Right-of-Way	\$440,000	\$175,000	\$440,000
- Maintaining Traffic Flow During Construction	\$700,000	NA (Closed)	\$700,000
<b>Total Cost:</b>	<b>\$3,512,000</b>	<b>\$2,547,000</b>	<b>\$3,512,000</b>

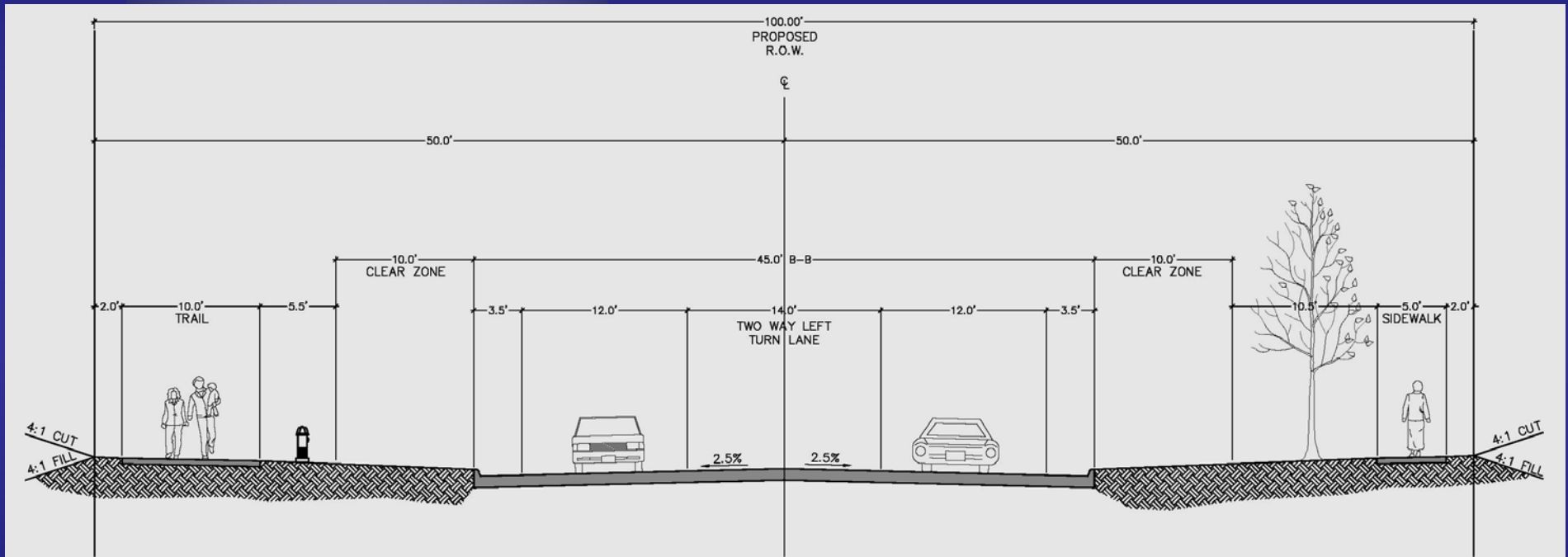
# Recommended Concept

- On Current Alignment
- Little Additional Right-of-Way
- Recommend Closing East Post Road During Construction
- Three Lanes
  - One Through Per Direction
  - Center Left Turn for Kenilworth Court and Cottage Grove Parkway
- Posted Speed – 35 MPH
- Pedestrian Elements
  - Sidewalk (6 Feet)
  - Trail (14 Feet)
- Similar Road/Bridge Elevation and Profile
- Curb and Gutter
- Maintain Driveways
- Will Need Construction Easements

# Concept Bridge Cross Section



# Concept Roadway Cross Section



# Indian Creek Hydraulics Analysis

- Industry Modeling Methods/Applications
- Four “Events”
  - 100 Year Flood (DOT Design Event)
  - 500 Year Flood
  - Flood of 2002 (Record Event)
  - 1964 Study Event (COE Report – Not a Recorded Event)
- Key Measures Reviewed:
  - “Backwater” – Rise in Upstream Water Level Due to Bridge Structure (Must be Less Than 1 Foot for 100 Year Event)
  - “Freeboard” – Distance Between the Bridge Bottom and the Expected High Water Elevation (Must be More Than 3 Feet for 100 Year Event)

# Bridge Hydraulics Results

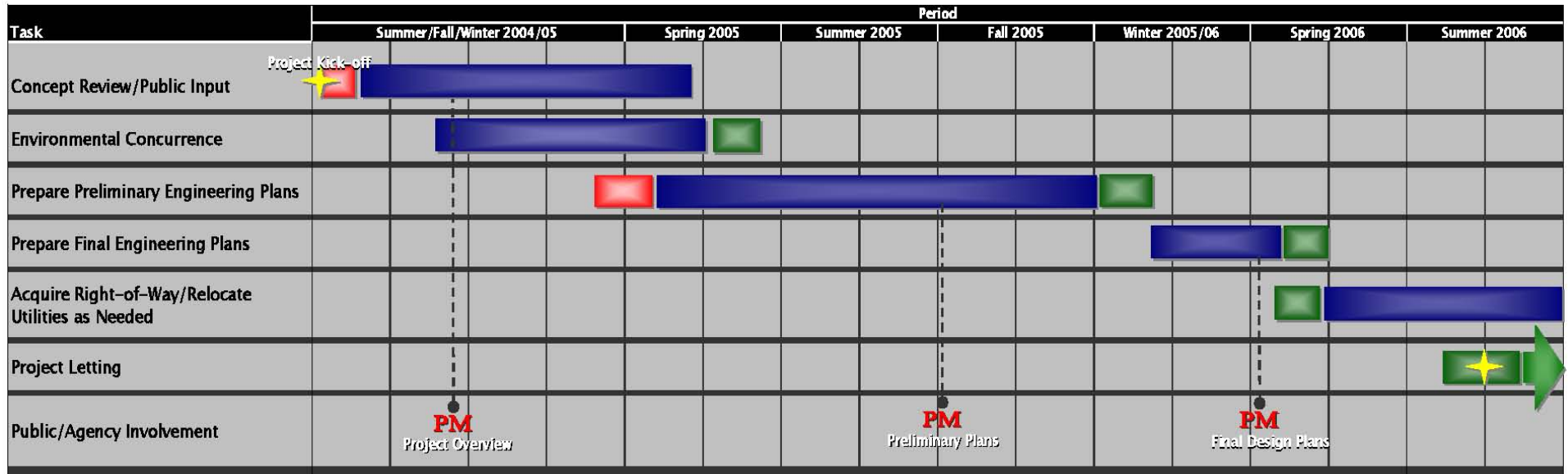
- Freeboard Greater Than 3 Feet – All Events
- Backwater 1 Foot or Less:
  - 100 Year Event
  - 500 Year Event
  - 2002 Flood Level
- Current Proposal Meets Iowa DOT Requirements and Design Standards



# Next Steps

- Review Recommendation with Residents/ Stakeholders (Tonight)
- Revise Preliminary Engineering Plans for the Recommended Alternative
- Final Engineering Plans
- Individual Property Owner Meetings Regarding Right-of-Way
- Acquire Easements/Properties Needed

# Project Schedule/Milestones



-  - Data Collection
-  - Engineering Analysis
-  - Documentation
-  - Public Meeting(s)

Thanks for Coming Out

Questions???????

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