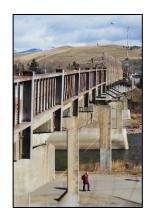


## **Informational Meeting #2**

#### Tuesday, October 8, 2013

Holiday Inn – Missoula Downtown 200 South Pattee Street 6:00 p.m. to 8:00 p.m.



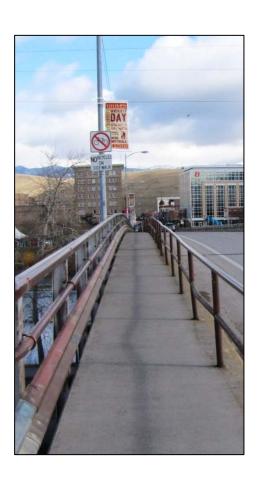












# Welcome & Introductions







#### Non-Discrimination

at the Montana Department of Transportation



Title VI
of the Civil Rights Act
of 1964 states:

"... no person in the United States shall be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal assistance based on race, color, or national origin."

> Revised August 2013 Montana Dept. of Transportation



#### Title VI Considerations

This meeting is held pursuant to Title VI of the 1964 Civil Rights Act which ensures *no person shall be excluded* from participation in, denied the benefits of, or be subjected to discrimination on the basis of a protected status during any MDT project. Additional information is provided in Title VI pamphlets available at the sign-in table.







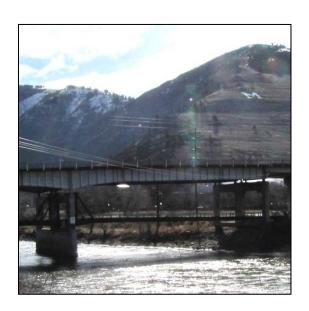
## **Meeting Format**

#### **Presentation**

- Overview of Planning Study Process
- Existing and Projected Conditions
- Needs and Objectives
- Improvement Options
- Screening Considerations

#### **Discussion Period**

Public Comments/Questions









### The Missoula Bridges Planning Study IS:

 A planning-level evaluation of the Higgins Avenue and Madison Street Bridges

# The Missoula Bridges Planning Study IS NOT:

- A design, right-of-way acquisition, or construction project
- An environmental compliance document
- A lane configuration study for Higgins Avenue







## What are the Steps?

- Existing and Projected Conditions
- Informational Meeting # 1
- Resource Agency Meeting
- Needs and Objectives
- Improvement Options
- Informational Meeting # 2

We Are Here

- Improvement Option Screening
- O Draft Study Report
- Public/Agency Review Period
- Final Study Report







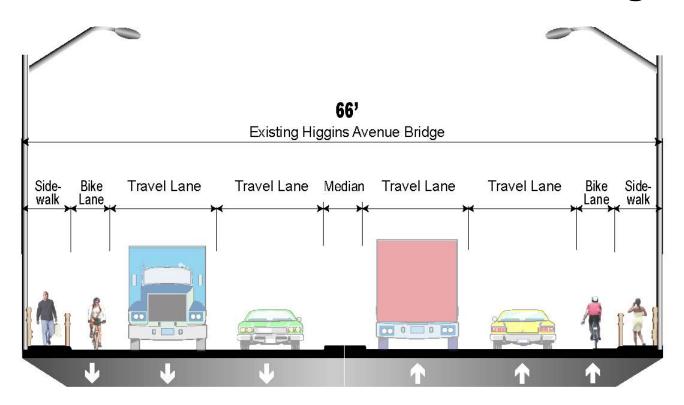
# **Existing and Projected**Conditions







# **Existing Higgins Avenue Bridge**Lane Configuration

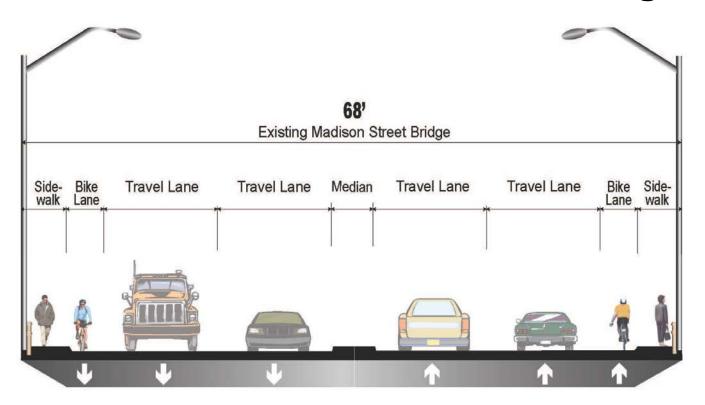








# **Existing Madison Street Bridge**Lane Configuration









## **Existing Bridge Condition**

Element	Higgins	Madison
Structure Condition	Poor	Poor
Deck Condition	Poor	Poor
Eligibility Status	Eligible for Repair or Replacement	Eligible for Repair or Replacement



- Concrete deterioration
- Corroding steel
- Leaking joints







#### **Existing Bicycle/Pedestrian Elements**







- Concrete deterioration
- Ramp discontinuities (i.e., trip hazards)
- Railing type and height
  - Crashworthy barrier required
  - Minimum height of 43 inches
- Usable width
  - Higgins: 4-foot bicycle lanes;5-foot sidewalks
  - Madison: 4-foot bicycle lanes;4-foot sidewalks





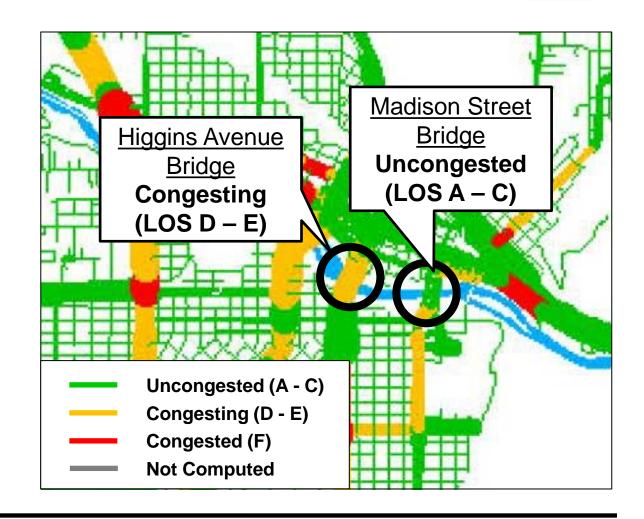


## **Bridge Segments**

2010

AM Peak Hour (Missoula LRTP)

Design target for urban arterials is LOS C







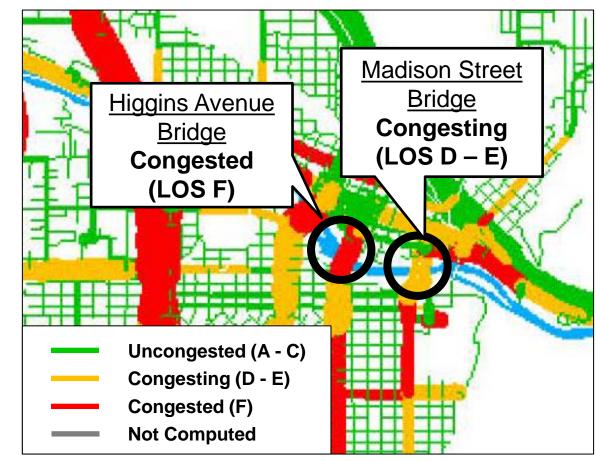


#### Bridge Segments

2040

AM Peak Hour (Missoula LRTP)

Design target for urban arterials is LOS C



Note: 2040 volumes reflect existing, committed, and recommended infrastructure listed in 2012 LRTP.







## **Needs and Objectives**







## Need 1: Maintain equivalent connectivity at the two river crossings.

#### **Objectives**

To the extent practicable:

- Provide structurally-adequate bridges that will deliver long-term performance.
- 1.b. Preserve existing **bridge capacity** for all users, at a minimum.
- 1.c. Accommodate **non-motorized connectivity.**









#### Need 2: Improve bridge safety and accessibility.

#### **Objectives**

To the extent practicable:

- 2.a. Provide **pedestrian and bicycle facilities** that meet current MDT guidelines/standards, at a minimum.
- 2.b. Provide **safety features** consistent with current MDT design standards.









- Impacts to environmental, social, cultural/ historic, scenic, and recreational resources and characteristics.
- Construction duration and temporary impacts to traffic operations.
- Structural limitations and remaining service life of existing bridges.
- Funding availability.
- Future growth.
- Locally-adopted plans.

# Other Issues









## **Improvement Options**

#### Options <u>DO NOT</u> reflect design-level decisions

- Exact lane/sidewalk widths
- Type or location of railings/barriers
- Lighting features
- Medians and curbing
- Other amenities

To be determined at project stage







## 1) Minor Rehabilitation

#### **Address:**

- Railings
- Expansion Joints
- Deck Patching
- Medians

- Paint
- Drainage
- Striping



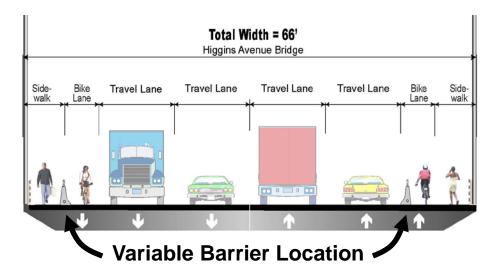
Only viable as a short-term option pending major rehabilitation/replacement.

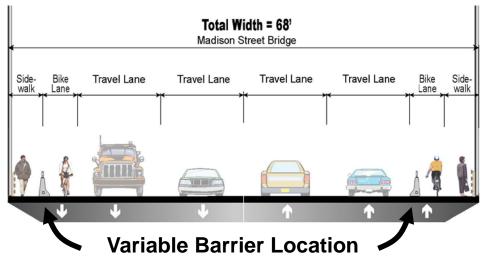




## 2) Major Rehabilitation

Figures illustrate conceptual layout. Exact lane/sidewalk widths and barrier/railing/lighting types and locations would be determined at the project stage.





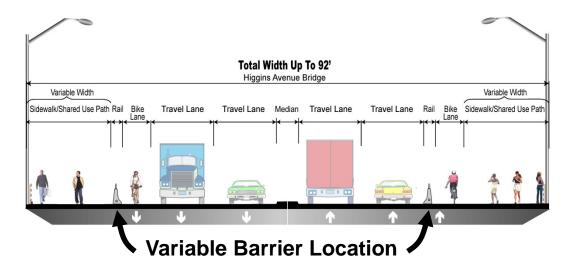
Deck
 Overlay or
 Replacement
 (existing width)

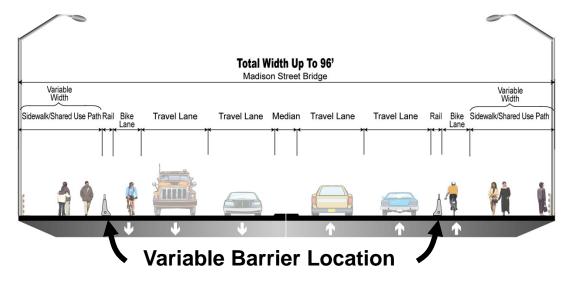
Substructure Repairs

(concrete piers/bents, steel girders)

#### 3A) Bridge Replacement (Four Lanes)

Figures illustrate conceptual layout. Exact lane/sidewalk widths and barrier/railing/lighting types and locations would be determined at the project stage.





## Higgins Avenue

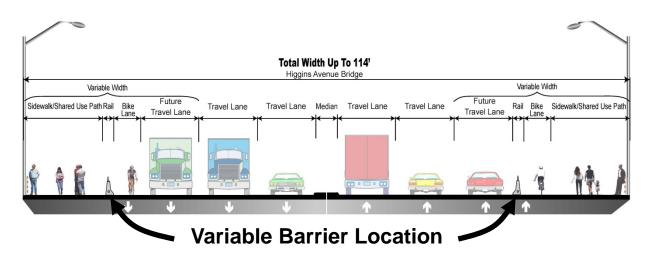
Up to 92 ft in width

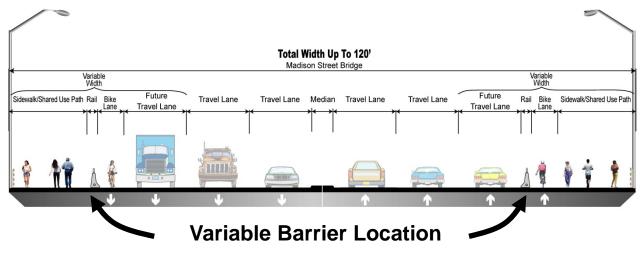
#### Madison Street

- Up to 96 ft in width
- Non-motorized function and connectivity

### 3B) Bridge Replacement (Six Lanes)

Figures illustrate conceptual layout. Exact lane/sidewalk widths and barrier/railing/lighting types and locations would be determined at the project stage.





## Higgins Avenue

Up to 114 ft in width

#### Madison Street

- Up to 120 ft in width
- Non-motorized function and connectivity



# Screening Considerations







## **Cost Estimate Summary**

Option –		Cost Estimate Ranges (2013)	
		Higgins	Madison
1	Minor Rehabilitation	\$0.5M to \$1.8M	\$0.3M to \$1.1M
2	Major Rehabilitation	\$4M to \$8M	\$2M to \$5M
3A	Bridge Replacement (Four Lanes)	\$18M to \$28M	\$15M to \$18M
3B	Bridge Replacement (Six Lanes)	\$23M to \$34M	\$18M to \$23M







## **Service Life Extension**

Option		Service Life Extension	
1	Minor Rehabilitation	5 to 10 years	
2	Major Rehabilitation	25 to 50 years	
3A	Bridge Replacement (Four Lanes)	75 to 100 years	
3B	Bridge Replacement (Six Lanes)	75 to 100 years	







#### **Environmental Resources**

- Clark Fork River/Floodplain/Wetlands
- T&E Species/Migratory Birds



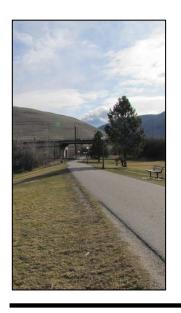




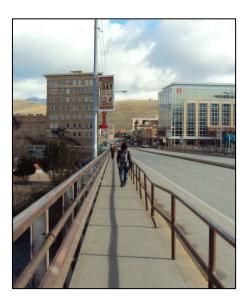


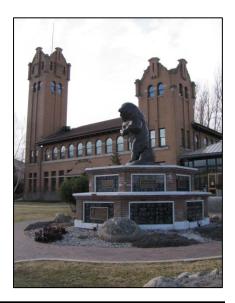
#### **Social Resources**

- Historic Buildings/Sites
- Parks/Recreational Areas/Trails









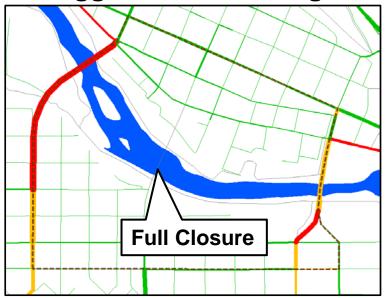




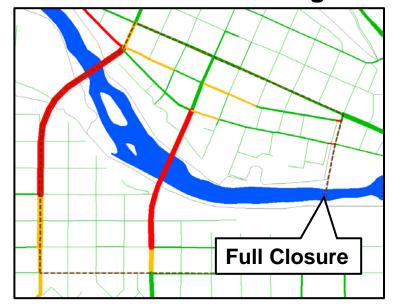


## **Traffic Impacts During Construction**

Full Closure of Higgins Avenue Bridge



Full Closure of Madison Street Bridge









## **Traffic Impacts During Construction**

#### **Consider:**

- O Detours
- Media Campaign
- Signage
- Signal Timings
- Pedestrian/Bicycle Accommodations









### **Screening Process**

- 1. Do the options address bridge needs and objectives?
- 2. How do the options address other considerations?
  - Environmental/Social/Traffic Impacts
  - Cost/Available Funding
  - Service Life
  - Long-term Demands
  - Consistency with Local Plans

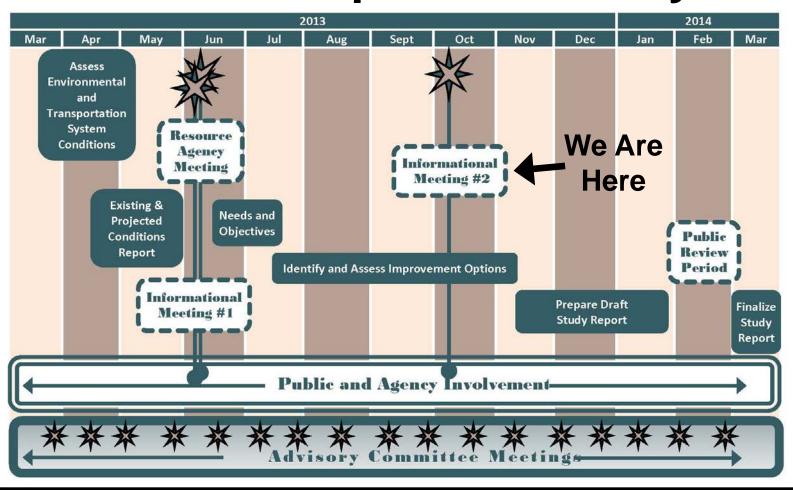






#### **Next Steps in the Study**

31









## **After Study Completion**

- Potential project nomination based on:
  - Study recommendations
  - Funding availability









#### **Discussion Period**

#### **Submit Comments:**

- Leave a comment sheet with us tonight
- Website (http://www.mdt.mt.gov/pubinvolve/missoulabridges)
- Mail/e-mail comments to:

Sarah Nicolai DOWL HKM PO Box 1009 Helena, MT 59624

snicolai@dowlhkm.com



