Public Information Meeting I-40, Fourth St. Bridge Replacement & Butler Ave. Bridge Rehabilitation







H8815 01D







October 3, 2019

Project Team

- ADOT Northcentral District Engineer
 - Audra Merrick
- ADOT Project Manager
 - Rashidul Haque
- City of Flagstaff Project Manager
 - Jeremy DeGeyter
- ADOT Northcentral District
 - Brenden Foley
- Design Manager (AECOM)
 - Robert Ringwald

Project Overview



Project Purpose

- Rehabilitate the Butler Avenue bridges
- Replace the Fourth Street bridges over I-40
 - Provide additional capacity for vehicles, bicycles, and pedestrians on Fourth Street

Butler Avenue Bridge Funding

I-40 Butler Avenue Bridges – Bridge Retrofit
 100% ADOT and FHWA Funding: \$900,000

Butler Avenue Bridges

- Improvements to bridges:
 - Patch and epoxy overlay the bridge decks
 - Repair the slope pavement
 - Bridge deck joint replacement
 - Concrete barrier repair

Traffic Control Goals

- Two lanes of traffic on I-40 in each direction throughout the majority of construction
- Limited night and weekend restrictions of one lane on I-40 (eastbound or westbound)

Fourth Street Bridge Replacements Funding

- I-40 Fourth Street Underpasses Bridge Replacements
 - Base Project: \$12,300,000
 - 50% ADOT and FHWA funding
 - 50% City of Flagstaff funding
 - City Requested Project Enhancements: \$360,000
 - 100% City of Flagstaff funding

Project Background

- ADOT planned a rehabilitation project for the existing Fourth Street bridges over I-40
- An Intergovernmental Agreement (IGA) was signed in 2017 to conduct a project assessment addendum
- Additional IGAs were signed between ADOT and the City of Flagstaff to design and construct/replacements of the existing bridges and to share costs between two agencies

City-funded Project Enhancements

- Two-tube railing creates protected bicycle lane
- Retaining wall supports the FUTS trail
- Additional aesthetics



Fourth Street Bridge

- Project Improvements:
 - Widen bridges and approach roadways
 - Additional multi-use FUTS trail
 - Additional vehicle lane in each direction
 - Additional bicycle lane in southbound direction
 - Additional multi-use (bicycle and pedestrian) path in northbound direction
 - Enhanced bridge aesthetics

Fourth Street Bridge Replacements

Existing Bridge Section



• New Bridge Section



Traffic Control Goals

- Two lanes of traffic on I-40 in each direction throughout the majority of construction
- Limited night and weekend restrictions of one lane on I-40 (eastbound or westbound)
- Maintain one lane of traffic in each direction throughout the majority of construction
- Close Fourth Street to vehicle access for two weeks plus weekend for bridge slide and approach construction (emergency, pedestrian and bicycle traffic maintained)

Maintenance of Traffic on I-40

• During limited night and weekend restrictions



Maintenance of Traffic on I-40

- Two lanes in each direction through the entire duration of bridge replacement.
 - (One lane in one direction during night or weekend closures.)



Sequence of Construction, Fourth Street Bridge



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Sequence of Construction, Fourth Street Bridge



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Final Bridge Section



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Maintenance of Fourth Street Traffic During Bridge Removal and Slide

- Innovative Bridge Slide Construction
 - Maintains pedestrian, bicycle, and emergency access on Fourth Street (no vehicular access)
 - Short-duration closure (two weeks + weekend closure)
 - A detour is required
 - Pedestrian and emergency access will be maintained during closure



Bridge Slide

- Part of FHWA Every Day Counts (EDC)
- Accelerated Bridge Construction
- Additional Federal Funding through the FHWA Technology and Innovation Deployment Program (TIDP)





Benefits of the Slide Method of Construction

- Reduces overall construction duration on I-40 by an estimated 65 calendar days
- Reduces vehicular closure of Fourth Street (total traffic volume of 25,420 vpd) by an estimated 100 calendar days
- Reduces contractor risk of completion of construction in single season •
- The total user delay savings to the public is estimated to be \$6,815,157, compared to other alternatives, and has the lowest estimated combined total construction and user cost
- Reduces duration of construction management •
- The site conditions with shallow bed rock make the location conducive to slide construction
- Reduces limited emergency access through the construction zone •
- Slide can be timed to avoid impacted traffic during the first week of school and other events

Project Schedule

Milestones	Dates
Design	March 2019 to October 2019
Project Advertisement, Bid, and Selection of Contractor	Fall 2019 to early 2020*
Closure of Fourth Street for demolition of existing bridges and slide of new bridges (approximately two weeks + weekend)	Late Summer 2020*
Construction	Spring to Fall 2020*
	* Anticipated

Slide Construction Video

Questions can be answered one-on-one by staff at the exhibits

Project Contacts

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