



## **South Avenue Bridge**

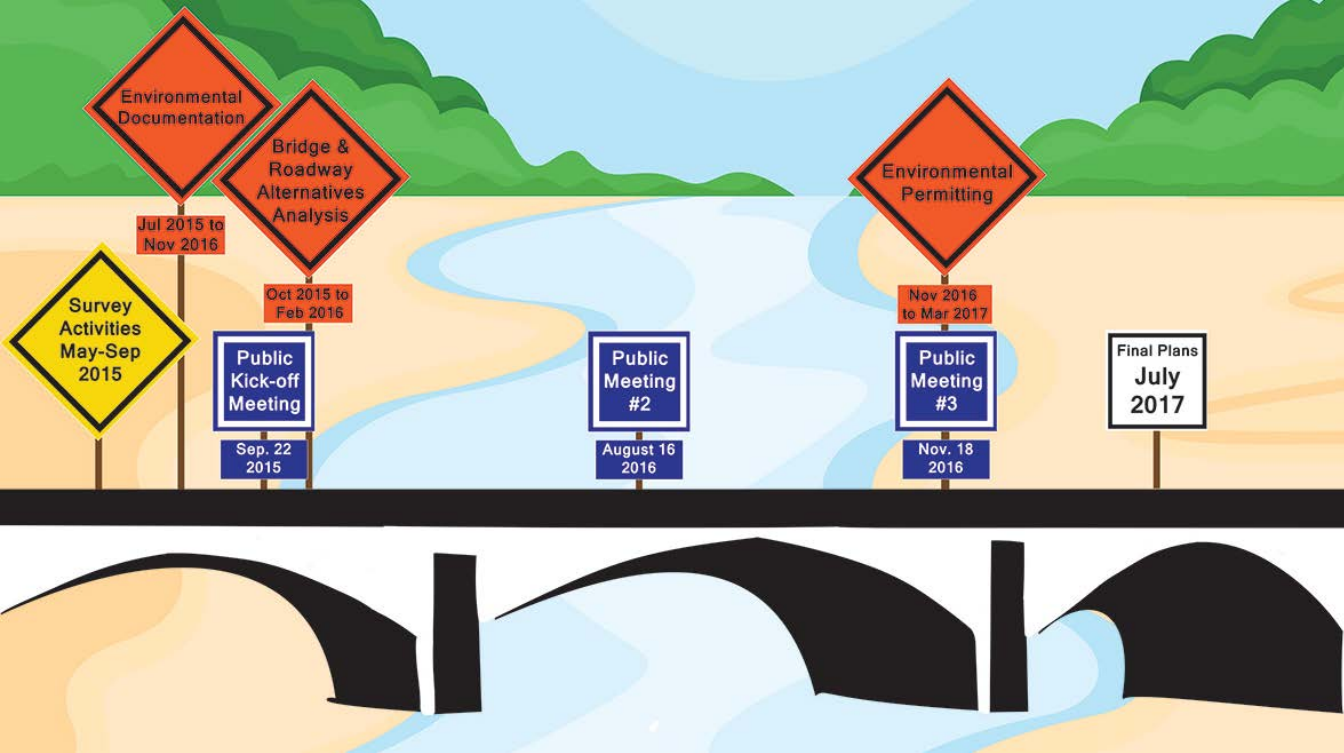
**Public Informational Meeting #2 – Big Sky HS Cafeteria  
August 16, 2016**



# WELCOME!

- Meeting Format
- Agenda
  - Schedule Update
  - Project Updates
  - Next Steps





# Project Schedule

As of August 2016

- Field surveys completed
- Bridge Type, Size, and Location Study drafted and under review
- Preliminary roadway alignment complete and under review
- Hydraulics report drafted and under review
- DFIRM mapping discrepancies discovered during hydraulic analysis (delayed project, back on-schedule)
- Environmental review ongoing



# Field Survey

Activities completed within legal rights-of-way:

- Aerial (helicopter) survey and on-ground cadastral survey
- Cross-sections of river using bathymetric surveying conducted by boat
- Historical resources reconnaissance
- Environmental field investigation
- Ambient noise monitoring



# Geotechnical

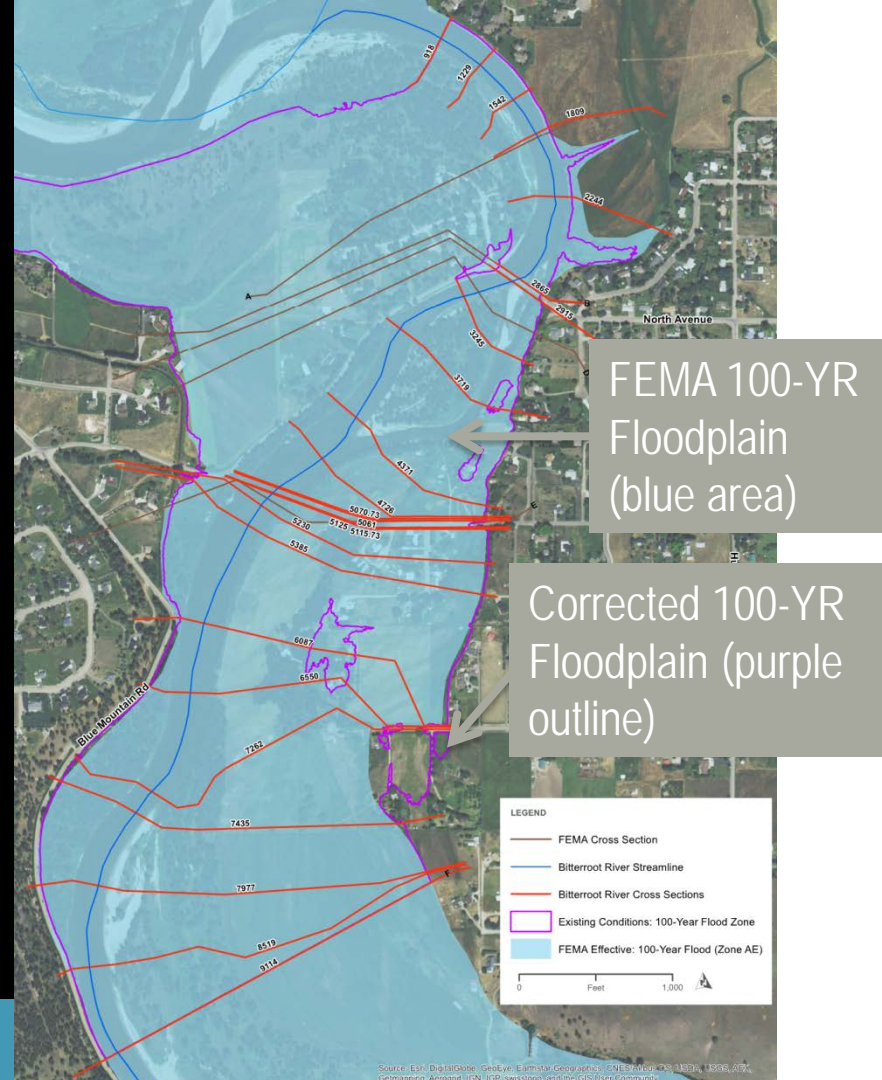
- Tetra Tech drilled two holes within legal rights-of-way
- Preliminary Geotechnical Report is complete
- Additional borings will likely be needed to provide final geotechnical recommendations
- Final report to be posted on website once review is completed





# Hydraulics & Hydrology Evaluation

- Required for sizing new bridge openings
- Analysis identified errors in current FEMA model
- A corrected hydraulic model is being used to analyze the proposed bridge alternatives
- Coordination with DNRC and FEMA ongoing



# Hydraulics & Hydrology Evaluation

- No net rise anticipated on the Bitterroot River due to the proposed bridge
- Minor grading in the overbank and possible need for occasional low maintenance
- Preliminary report to be posted to website once review is completed





# Overbank Excavation

- Developing riparian area with native plantings
- Minor sediment deposition expected
- Provisions for minor maintenance activities



*(photos from completed Grant Creek Environmental Restoration and Flood Control project)*





# Preliminary Bridge Design

- Preferred Bridge Type determined
- Items considered:
  - Design criteria
  - Roadway alignment
  - Hydraulics/Floodplain/  
Environmental impacts
- **Public input requested regarding design:**
  - Bike/pedestrian accommodations
  - Aesthetics: Arched or straight girder profile

# Alignment Development



## Alignments Carried Forward



Alignment 1



Alignment 2

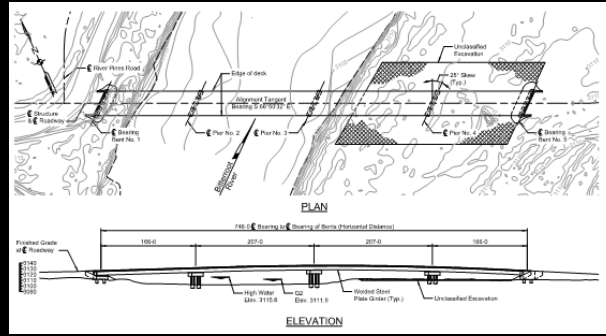
- Multiple potential alignments considered
- Alignments refined/eliminated based on:
  - Design criteria
  - Environmental impacts (avoidance of O'Brien Creek)
  - Right-of-way
  - Overall costs
  - Bridge length
  - Safety
- Alignments B and C carried forward (becoming Alignments 1 and 2, respectively)



# Preferred Alternate: Alignment 1B

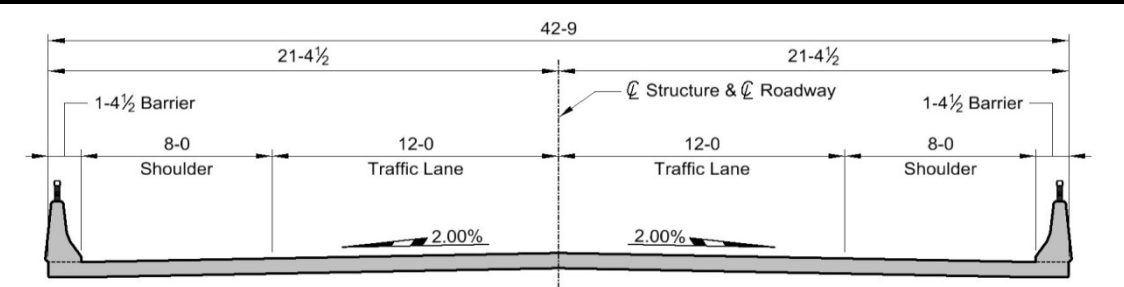
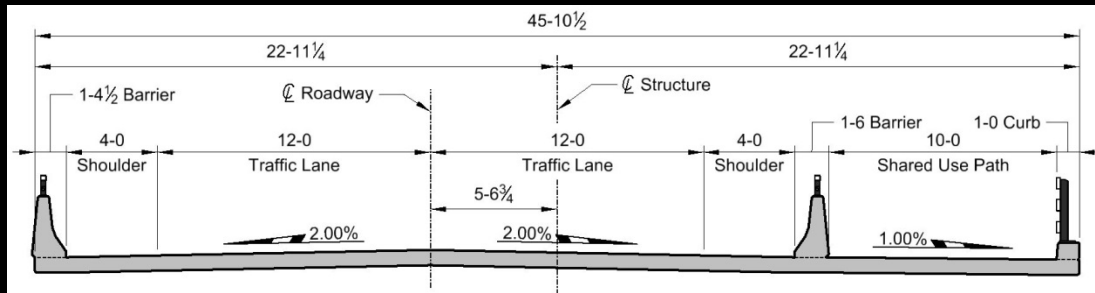
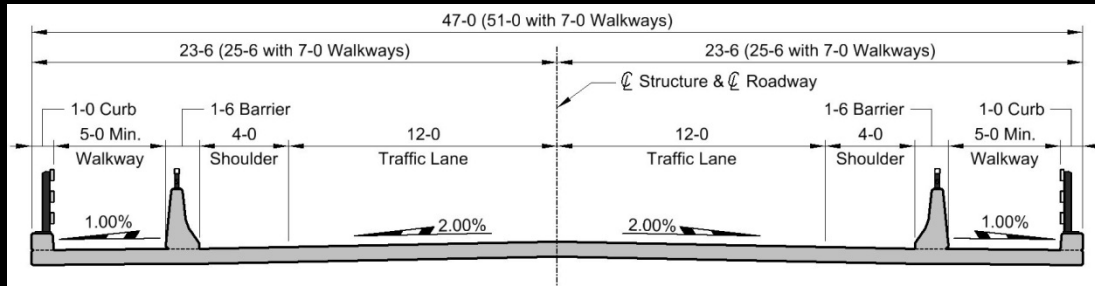


- Earliest availability for construction funding would be in year 2020
- Missoula County to coordinate with City to determine long-term corridor needs on South Avenue
- Future roadway improvements will be phased using County maintenance budget prior to bridge construction





# Possible Bridge Typical Sections & Walkway Options



- Separated walkways on either side. Bikes use the shoulders
- 12-ft lanes, 4-ft shoulders
- Shared-use path for bikes and pedestrians on one side only
- 12-ft lanes and 4-ft shoulders
- No dedicated walkways. Increased shoulder widths
- 12-ft lanes, 8-ft shoulders

# Environmental Documentation and Process

Environmental documentation is underway in tandem with design process.

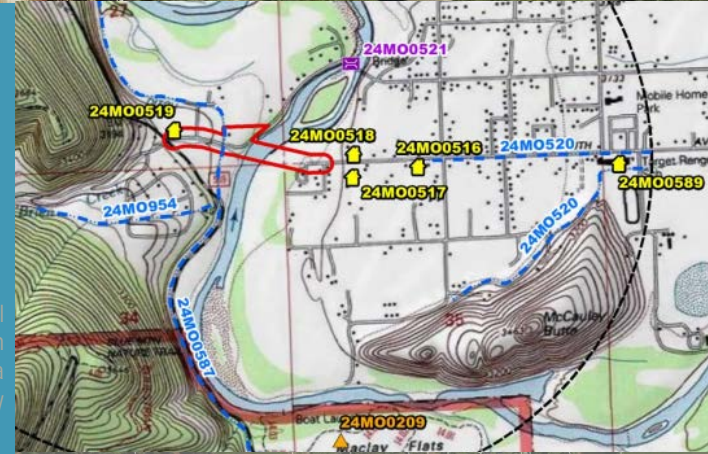
## Major NEPA/MEPA analyses include:

- Cultural Resources
- Hydraulic and Hydrology Evaluation (floodplains)
- Biological Resource Report / Biological Assessment
- Noise Analysis
- Section 4(f) Evaluation
- Environmental Document (Categorical Exclusion, narrative format)



# Cultural Resources

- Reconnaissance-level architectural survey complete that included the existing Maclay Bridge
- Archaeological survey to be completed when legal access is provided prior to construction
- Report is posted on project website



Cultural resources in project area vicinity



Section 4(f) resources in project area

# Recreational/Historic Properties (Section 4(f) Evaluation)

- Protection of historic sites afforded under Section 4(f)
- Two Section 4(f) properties potentially affected:
  - Maclay Bridge (24MO0521)
  - Big Flat Ditch (24MO0587)
- Programmatic Section 4(f) Evaluations anticipated for both resources

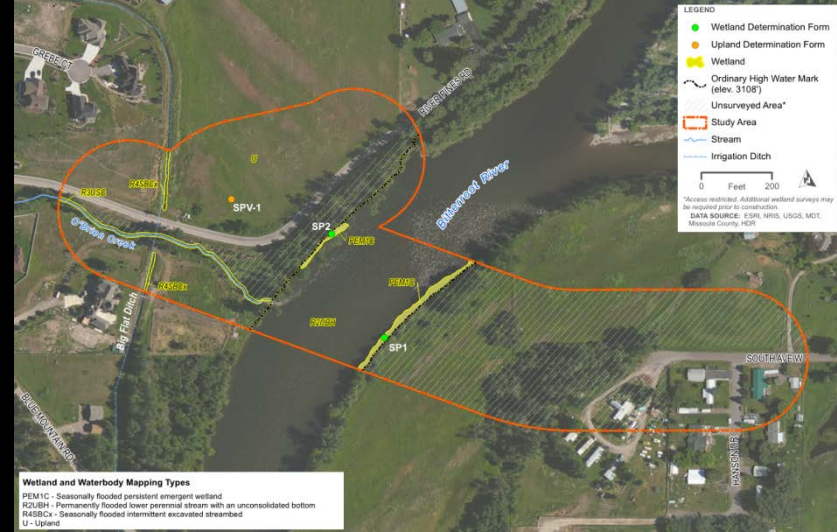


# Biological Resource Report / Biological Assessment

- Biological Resource Report under development
  - Evaluation of potential effects on:
    - General terrestrial and aquatic resources, including wetlands and water bodies
    - Species of Concern and Special Status Species
- Biological Assessment under development
  - Evaluation of potential effects on threatened and endangered species

## Noise Analysis

- Detailed Noise Analysis under development
- Noise monitoring completed at six locations



## Next Steps

- Resource Agency meeting (August 18, 2016)
- Finalize alignment and grade design (30% design)
- Conduct formal Public Hearing Fall 2016 with Missoula County Commission
- Complete environmental documentation
- Public meeting #3 anticipated in November

# Your Comments are Welcome!

- Complete a comment card today (available at the front table)
- Visit court reporter (available tonight)
- Submit comments online at [www.southavenuebridge.com](http://www.southavenuebridge.com)

