### FALLS BRIDGE ADVISORY COMMITTEE MEETING MINUTES 02/28/18

## In Attendance:

- Bridge Advisory Committee (BAC) Members: Facilitator Jim Schatz, Mike Astbury, Deborah Brewster, John Chapman, Lynne Clark, Bill Cousins, Stephen Rappaport, Karen Wyatt
- Department of Transportation (MDOT): Andy Lathe, Wayne Frankhauser, Michael Wight

Federal Highway Administration (FHWA): Cheryl Martin

HNTB: Kevin Brayley, Tim Cote

Public: Sean & Chris Guinness, Roxanne Jansen, Thom McLaughlin, Scott Miller, Martin Savalchak, Dolores Seymour, Butler Smythe, Chris Sockalexis

# **Replacement of Existing Bridge**

- Replacement Options
  - > Superstructure Options
    - 1. Precast Concrete Girders
      - Prefabricated Arch
    - 2. Tied Arch
      - Steel Arch and Concrete Tie-Girder
- Replacement Bridge Constructability Approach
  - Conventional Construction
    - 1. Traffic is re-routed

- 2. Existing bridge is removed
- 3. Forms are constructed on site using wood; then concrete is poured
- > ABC Prefabricated Bridge Elements
  - **1.** Prefabrication done off-site; cranes used later to set into place
  - 2. Crews work night and day shifts; additional noise and lights
  - 3. Road closed for short duration
- ➢ ABC Lateral Slide
  - 1. New bridge constructed to west of existing bridge; leaves existing bridge open to traffic
  - 2. Labor intensive; may require crews to work 24/7.
  - 3. Short duration for road closure; no need for temporary bridge
- Replacement Bridge Construction Schedule
  - Conventional Construction (6 phases) 18 to 24 months
    - 1. Clear trees & relocate overhead utilities
    - 2. Construct temporary embankments, temporary bridge & trestles
    - 3. Close bridge to traffic and demolish existing bridge
    - 4. Stabilize substructure
    - 5. Superstructure replacement
    - 6. Open bridge to traffic and do final clean-up and site restoration

Summer, 2018 to Summer, 2022. Duration subject to change. Schedule does not account for possibly required archeological remediation. Assumes November to March in-water work with no winter shutdown.

> ABC – Prefabricated Bridge Elements (5 phases) – 12 to 18 months

- 1. Clear trees & relocate overhead utilities
- 2. Construct temporary embankments & trestles
- 3. Complete portions of substructure rehabilitation
- 4. Close bridge to traffic (50-60 days) and accelerate bridge construction: demolish existing bridge, complete substructure rehabilitation (precast abutment cap) and replace superstructure (precast girders & deck)
- 5. Open bridge to traffic and do final clean-up and site restoration

Summer, 2018 to Fall,2021. Duration subject to change. Schedule does not account for possibly required archeological remediation. Assumes November to March in-water work with no winter shutdown.

ABC- Lateral Slide (5 phases) – 18 to 24 months

- 1. Clear trees & relocate overhead utilities
- 2. Construct temporary embankments & trestles
- 3. Construct new bridge west of existing; begin substructure rehabilitation
- 4. Close bridge to traffic (50-60 days), demolish existing bridge, complete substructure rehabilitation, and do lateral slide of new superstructure
- 5. Open bridge to traffic and do final clean-up and site restoration

Summer, 2018 to Spring, 2021. Duration subject to change. Schedule does not account for possibly required archeological remediation. Assumes November to March in-water work with no winter shutdown.

- Approximate Replacement Bridge Cost
  - Conventional Construction

Prefabricated Standard Girder	\$5,300,000 to \$5,800,000
Prefabricated Arched Girder	\$5,600,000 to \$6,500,000
Tied Arch	\$6,200,000 to \$6,800,000

Accelerated Bridge Construction
Prefabricated Standard Girder
Prefabricated Arched Girder
\$5,400,000 to \$7,000,000
\$5,700,000 to \$7,900,000

Tied Arch

### Alternate Route Concept Update

- > Horizontal and vertical geometry for 45 mph roadway
  - Updated t-intersection on east side.
  - 8% grade slope on east side
- Minor excavation expected on east side at bridge approaches. Unknown depth to bedrock
- Additional survey needed
- Unknown wetland limits
  - Locate bridge piers outside of primary channel
  - Move fill slopes away from Salt Pond to minimize environmental impacts
- > Unknown archeological considerations

#### **Questions / Comments**

- 1. Request for a consensus from BAC for contractors doing multiple shifts. (Andy)
- 2. If doing the accelerated construction plan, are there inspectors? (Lynne)

Yes. Inspections along the way. (Wayne)

3. If doing the accelerated construction plan, how much during the 50-60 days is time for demolition compared to construction? *(Scott)* 

4-6 weeks (Tim)

4. In Meeting #9, you didn't do a time line. Would like to compare. (John)

Yes. We can do that. (Tim)

- 5. Time penalties to contractors based on total project costs and liquidated damages. Link incentives to closure time.
- 6. Department of Transportation has a yearly budget. DOT has \$5,000,000 allocated for project.

- 7. Design and local issues to be discussed at next meeting.
- 8. How confident is DOT on 50-60 days bridge closure time? (Scott)
- 9. If the Town acquires the bridge, special consideration must be given to the bridge condition at the time of the transfer (repairs required? Cost? Liability?)
- 10. Anecdotal information on emergency response services south of the bridge is difficult to obtain (Chapman/Wyatt)
- 11. Can aerial utilities be attached to the bridge? Lighting? Power at the site? (Wyatt)
  - a. Utility relocation could be considered, however, the cost to relocate would not be the State's burden. (Lathe)
  - b. The bridge is not currently lit or supplied power. Is there a desire to illuminate the site? A meter would need to be installed to measure power consumption; power usage and long-term maintenance would be a cost to the town. (Lathe)
- 12. The alternate alignment option tie-in on the west side may have very poor line of site issues due to presence of a hill and near intersection with Sedgwick Ridge Road.

### From Blue Hill Site Link & Email (01/24-02/26) – emailed to BAC members

Andy spoke with Elsa Niehoff and encouraged her to comment on the Blue Hill site link. http://www.maine.gov/mdot/projects/bluehill/fallsbridge/

Next Meeting:03/22/18 at 6pmStraw Poll re: Temporary Bridge

Adjourned at 8:12pm