

BRIDGE ADVISORY COMMITTEE MEETING  
MINUTES  
07/10/17

IN ATTENDANCE:

Bridge Advisory Committee (BAC) Members:

Jim Schatz (Facilitator), Mike Astbury, Deborah Brewster, John Chapman, Lynne Clark, Bill Cousins, Vaughn Leach, Karen Wyatt

Department of Transportation (MDOT): Andrew Lathe, Wayne Frankhauser

Federal Highway Administration (FHWA): Cassie Chase

HNTB: Kevin Brayley, Tim Cote

Public: Johanna Barrett, Hans Carlson, Catharine Guiles, Christine Guinness, Margaret Hannah, Ann Luskey, Dick Marshuetz, Don Mallow, Jennifer Nevin, Madelyn Woods, Robin Wilder

Blue Hill Town Office: Deb Boyd

Old Business

New Business

- Presentation: Bridge Types by Tim Cote, HNTB

Bridge Types:

Steel Girder  
Concrete Girder  
Segmental Concrete  
Conventional Tied Arch (vertical hangers or crisscrossed)  
Network Tied Arch  
Spandrel Arch  
Truss  
Cable Stay  
Suspension

## Applicable Bridge Types

### Steel Beams

- Painted or Galvanized
- Requires more maintenance than concrete
- Best suited for short to intermediate spans

### Concrete Beams

- Precast, prestressed concrete
- Best suited for short to intermediate spans

### Segmental Concrete

- Precast and post-tensioned
- Best suited for intermediate to long spans
- Works well with multi-span and curved structures

### Tied Arch

- Steel or concrete
- Conventional or network tied arch
- Best suited for intermediate to long spans

#### Examples:

- Conventional: Norridgewock Covered Bridge
- Network: Whittier Bridge
- Steel, Network Tied Arch: Blennerhassett Bridge
- Concrete, Network Tied Arch: 7<sup>th</sup> Street Bridge
- Steel, Conventional Tied Arch: North Halsted Bridge
- Concrete, Network Tied Arch: Depot St. Bridge

## Non-Applicable Bridge Types (Not well-suited for Falls Bridge)

### Spandrel Arch

- Best suited for deep ravine crossings

### Truss

- Construction is labor-intensive
- Higher maintenance costs
- Best suited for long spans

### Cable Stay

- Best suited for long spans

### Suspension

- Best suited for very long spans

- Questions/Comments

1. What kind of time are we looking at if using an Applicable Bridge? (*J Schatz*)

The quickest construction would be a Steel or a Concrete Bridge. (*T Cote*)

2. Can you give us some design options to work with? (*Jim Schatz*)

We want you to brainstorm. (*T Cote*)

3. Regarding the superstructure – the understructure - are we tied into dealing with those issues? (*D Brewster*)

The engineering team will evaluate everything; we'll find a solution. (*T Cote*)

Rehab structures are a good place to start. Question if we can widen the existing road, look at the access, or address the site itself, like safety. (*A Lathe*)

4. Do we need to look at current standards? (*K Wyatt*)

Evaluation of current deck and ties are in poor shape – probably need to replace. (*A Lathe*)

Rebuild bridge or rehabilitate - that is all we need to hear. (*T Cote*)

5. Longevity of project is a factor, the duration of construction. (*D Brewster*)

We are jumping to the next step; this is an option to brainstorm possibilities .... (*W Frankhauser*)

We don't have to proceed with that option. (*T Cote*)

6. Does the current deck meet the current standards? (*J Chapman*)

The lane line, yes. (*A Lathe*)

It might be "grandfathered" in. (*J Chapman*)

7. Regarding the Matrix, we are ready to attack that. *(J Schatz)*

Let's focus on options. *(T Cote)*

Get all the options you can; get a broad spectrum. *(A Lathe)*

We should create the design headlines. *(V Leach)*

- Summary of Planning Challenges and Issues

Approaching the Rehab Option, Jim asked the Committee to review the items on the list he distributed and to add additional concerns:

1. Safety for Pedestrians & Vehicles *(J Chapman)*

2. Replacement of Structures Underneath Bridge *(M Astbury)*

We would consult with the engineers *(A Lathe)*

We heard the State would be generous with the funds.  
*(J Schatz)*

3. Utility Lines Location, somewhere away from bridge *(K Wyatt)*

They could be under or attached to the bridge. *(A Lathe)*

External, outside the bridge? *(T Cote)*

4. Can the level of the bridge be raised? Less of a dip for heavy trucks. *(M Astbury)*

5. What is the Construction Time? *(J Schatz)*

Depends on the options. Each option should have a detour.  
*(A Lathe)*

6. On-site detouring – Is it possible to detour heavy vehicles and allow passenger cars through? *(J Chapman)*

We don't differentiate. *(A Lathe)*

There would be a cost savings if an 18-wheeler didn't go through. *(J Chapman)*

Maybe we could do 1-way traffic. *(A Lathe)*

Or use a stop light and alternate. *(J Chapman)*

7. Sidewalks – where do they go? *(T Cote)*

It becomes a parking issues. Pedestrian walkways encourage more traffic. *(J Schatz)*

From the ecological side, we were encouraged not to put in pedestrian walkways. *(D Brewster)*

If we don't put them in, they will walk on the historical sites. *(M Astbury)*

8. Maybe run a parallel bridge. *(J Schatz)*

It's a case by case basis; what are the wants and the urgency – 6 months or 1 ½ years? *(A Lathe)*

It's inconvenient for a temporary bridge. Look at emergency services. *(D Brewster)*

9. Think of the destruction to your roads, like Hales Hill Road (in Brooklin). DOT will not pay to fix your roads. *(J Chapman)*

We can detour on Town roads with the Town's permission. *(A Lathe)*

10. With the rehabilitation option, the "shelf life" would be shorter than the replacement. *(J Schatz)*

Probably 75 to 100 years for a new bridge; 50 years for a rehabilitated one. *(A Lathe)*

What about the ecological impacts – the water, and piers in the bedrock? *(K Wyatt)*

With any option we do, we'll be getting into the water. *(A Lathe)*

11. For a bridge like this one, the options are:

Fix it, with a sidewalk.

Fix it, with no sidewalk

Fix it, with an inside sidewalk and make the bridge one lane

*(J Chapman)*

12. Let's consider our bridge types. *(J Schatz)*

Concrete Tied Arch. *(K Wyatt)*

There may be a substructure concern with the flow of water. *(D Brewster)*

There's an option to fix the abutments - accommodate a wider bridge - may serve same functionality.  
*(A Lathe)*

Keep the same opening and don't disturb the ecological integrity. *(D Brewster)*

Precast *(L Clark)*

Can you make with modular construction?  
*(M Astbury)*

Conventional Tied Arch *(D Brewster)*

Consider the road widths. *(A Lathe)*

Don't lock into the width *(W Frankhauser)*

Concrete Girder. I like the visibility of seeing from one side to the other. *(V Leach)*

The decking would have to be higher if we use Concrete Girder.

13. Committee had discussion re: Public Meeting and how it might be presented. DOT will publish the announcement in the newspaper, contact utility companies and abutters. DOT requires 3-week notice before Public Meeting. The committee will present all the options to the public. Options currently being considered:

Rehabilitation Option  
Concrete Tied Arch Option  
Concrete Girder Option  
Alternate Bridge and Route, redirecting traffic

14. If a temporary bridge is built, what are the costs involved and the timeline? (A Luskey, South side property owner)

Photos will be taken of the abutments and the state of the bridge now. Water flow – ecological – marine life – ducks get shot daily

15. If a new bridge is built, who maintains the Old Bridge? (K Wyatt)

The Town does. (A Lathe)

#### Handouts

Minutes dated 06/17/17  
Summary of Planning Challenges and Issues  
Public Comments from Blue Hill Site Link 06/14 – 07/10  
2016 Highway Inspection Report – emailed to Members 07/12/17

Next Scheduled Meeting: 07/18/17, 6-8pm

Meeting prior to Public Session: Suggested Week of 07/31/17

Public Meeting: Suggested Week of 08/07/17

Adjourned at 7:55pm