



Northern Avenue Bridge
Mayoral Advisory Task Force
Meeting #4 – August 23, 2018

Boston City Hall
Room 900

***Draft* SUMMARY**

WELCOME

Chairman Rick Dimino opened the meeting and welcomed the Task Force and members of the public in attendance. The Task Force members introduced themselves, along with the City of Boston staff (see the list of participants beginning on page 11). Chairman Dimino asked if the Task Force members have reviewed the minutes from meeting 2 (June) and meeting 3 (July). There was a motion, which was seconded, and approval of the notes. Chairman Dimino asked Nancy Farrell, Regina Villa Associates, to post them as soon as possible.

The Chairman provided an overview of the agenda: updates from community meetings and on the traffic work, and time for a lengthier discussion by members of the Task Force of the four project objectives: resiliency, history, place making and mobility. He asked Chris Osgood for comments. Chief Osgood thought the meeting in July was productive and noted the need for additional transportation analysis that is underway and will be shared with the members. The July meeting also included great feedback about the process for decision making from the public and Task Force members about the future of the Northern Avenue Bridge (NAB). The meeting agenda has been redesigned to provide more time for discussion. Stacy Thompson suggested hearing more from resident voices, so Nancy Farrell, RVA, will provide an overview of issues that have arisen at the briefings. He said there was also interest in when and what kind of analysis will be done; he is looking for member feedback on existing and future analysis. The City's team wants to move forward but also take the time to finish the process and decision making appropriately.

Chairman Dimino said that Ms. Farrell will be recording the session. Ms. Farrell said it will be used to ensure the consultant team is capturing ideas from the Task Force members and public correctly (recording started).

PUBLIC OUTREACH OVERVIEW

Ms. Farrell listed the recent project briefings since the last meeting, then summarized the leading issues the team heard at each briefing (see slides 3 and 4):

- *SPARK Boston on August 6 – This is a group of younger Bostonians from different neighborhoods. They expressed interested in making the bridge a place of respite. They like the notion of restoring the bridge and suggested the*

destination uses should grow organically. They support a lane accommodating bicycles, pedestrians and high occupancy vehicles (HOV).

- *Preservation Alliance on July 31 – The Alliance said it will get back to the City with a position. Membership has an interest in reusable bridge segments and structural analysis, and concerns about permitting complexity and resilience. Greg Galer, Task Force member, confirmed that a position will be shared with the Task Force, and he is waiting to hear more about the structural condition of the bridge.*
- *Seaport TMA on August 14 – There was a question about the status of the bridge, and the team clarified that when reopened, it will be a public way. There were questions about the historic status and condition.*
- *Wharf District Council on July 17 – The Mayor attended this event and heard concerns about traffic gridlock on Atlantic Avenue and use of the bridge as for pedestrians and bicyclists only. Susanne Lavoie, Council Executive Director, added that many members would like to see the bridge used as a destination with structures or kiosks.*
- *Fort Point Channel Neighborhood Association on July 18 – There was strong support for use by ped/bikes only and interest as bridge as an icon. The participants expressed concerns about traffic impacts on Seaport Blvd.*

Mr. Osgood said it would be helpful to hear suggestions for other groups. Para Jayasinghe said Commissioner Kristen McCosh would like a presentation for the City's Disability Commission. Chairman Dimino said the Seaport Leadership Group will invite the team for a briefing in early October. Mr. Galer suggested a presentation to the Boston Society of Architects Historic Resources Committee. Kathy Abbott suggested the Harbor Use Forum (second to last Thursday every month). Ms. Thompson suggested scheduling a walk to the bridge near the Courthouse with staff.

Traffic Study – Status Update

Ray Hayhurst, AECOM, presented a preliminary analysis of four operating mobility concepts at the July 26 meeting. Mr. Hayhurst summarized the team's ongoing work to provide more data (see slide 6) and respond to the Task Force members' requests for more context and data, including updated bicycle and pedestrian counts and levels of service; additional field sampling and validation; recent shuttle ridership numbers; and potential impacts of each alternative on the Atlantic Ave. and Atlantic and Seaport Blvd. intersections. In September, Mr. Hayhurst noted the Task Force wants a better understanding of the Fort Point Channel Crossing bottlenecks and potential impacts and vehicle impacts on potential placemaking.

At the September meeting, AECOM will present an updated analysis to address key questions about emergency vehicles, mobility, pedestrian and bicycle safety, and placemaking (slide 7). He asked if there are other key questions missing from the list

that the Task Force would like to have answered. Richard Martini said it's important for the conclusions to be supported by the data. Ms. Thompson asked a clarifying question about impact on intersection operations; Mr. Hayhurst said the analysis is considering impacts to all users, not just vehicles. She asked if there are discussions with the MBTA to improve or change bus service based on any of the scenarios. Mr. Hayhurst said they have not taken place to date but could be considered. Ms. Abbott said that perpendicular connections should be considered from the pedestrian point of view, such as to the Harborwalk. Chairman Dimino referenced a pending BRT analysis as part of the BPDA Downtown Planning study and suggested a wider transit context would be useful. Ms. Lavoie asked how the updated traffic analysis will inform the Task Force. Chairman Dimino said the analysis is intended to provide a sense of potential impacts to transit, vehicles, pedestrians, bicyclists in all directions, and hopefully it points to some design characteristics the Task Force can develop consensus on. Mr. Galer asked if the analysis will include Moakley Bridge, which could be impacted by design changes; Mr. Hayhurst said it will. Chief Osgood asked Kathy Abbott about Boston Harbor Now's water transportation study; Ms. Abbott said data is not available yet, but could be added. Ms. Lavoie asked if the updated traffic analysis will consider future planned development, such as at Sleeper St. and Northern Ave., the Hook site, and the proposed development adjacent to Harbor Towers. Mr. Hayhurst said the analysis is considering the impacts of future planned development, including additional traffic growth and site access.

Schedule Review

Frank DePaola, AECOM, provided an update on the schedule (slide 9). Based on the July meeting discussion, the City and team determined that more time is needed to reach consensus on the design and uses of the bridge. The proposed dates for a public meeting and 25% design public hearing have been pushed out to October/November. The changes include Task Force meetings in October and November 2018 and January, March, May and July of 2019. The team will begin to work on standard elements of the permitting process as soon as possible. The Coast Guard permit is estimated to take at least nine months. The outreach plan is to schedule two meetings to introduce the recommended alternative: first, an open house with charrette to outline the work of the Task Force and proposal to the public; then a 25% design public hearing (followed by other design and permitting opportunities).

Chairman Dimino asked Mr. DePaola about the civil/structural pieces and permitting. He said the permit will consider the dimensions of bridge and proportion that impact the bank. But the programming and destination elements will be the subject of continued discussion. In September, the Task Force can prioritize elements that require consensus. Chairman Dimino asked Mr. DePaola to identify the "fixed canvas" versus elements (engineering) that warrant further discussion (sense and feel, programming, etc.).

Ms. Thompson suggested talking about financing partners and mechanisms. Chief Osgood said he recommends first developing a concept of what the bridge is, which will help inform the potential partners. Ms. Thompson cautioned that by accelerating the final decision, there isn't as much time to find partners; she suggested doing those activities in tandem. Chairman Dimino said the city has committed that the conceptual design from this group will lead the design conversation, not the financing partners. Ms. Thompson said there have been public questions and confusion about financing and community benefits agreements that may exist or be formed. Chairman Dimino said there are many opportunities for funding but they will not influence the decision.

Chairman Dimino initiated a five-minute break to allow Task Force members to review the posters from the Ideas competition.

Open Discussion of the Objectives – Task Force Members

Ms. Farrell facilitated a discussion of the Task Force members. She referred to a discussion matrix handed out to the members and the public (and posted around the meeting room). The matrix includes the four key issues: resiliency, history, place making and mobility (the last is more likely to be discussed in the September meeting). The team's goal is to move some of the discussion items from the *Discussion* to the *Determined* column. The team understands that members may have to check with the groups they represent before making a final commitment. She asked that feedback be shared with the team **by September 12**.

Ms. Farrell said there have been robust Task Force discussions, but the team would like to gather detailed comments to move toward a recommendation.

Strengthen Resiliency Discussion

The concept of Strengthening Resiliency includes two discussion items: *Raise the Bridge at Each End* and *Raise the Bridge over the Navigation Channel*. The discussion question is whether each can move to the Determined category. The architects and engineers believe the bridge must be raised at each end to achieve resiliency goals and to assure that Fort Point Channel remains navigable. Architect Ety Padmodipoetro, Urban Idea Lab, and structural engineer Christie Baker, AECOM, were available as technical sources.

Comments

- Ms. Thompson supports raising the bridge and expressed concerns about the feasibility of maintaining an appropriate slope for transitioning from the roadway to the bridge. Ms. Padmodipoetro said she is working on this issue and will have results to show in September.
- Ms. Lavoie agreed with the concern about raising the bridge on the western side – she is worried about a steep slope. Ms. Padmodipoetro explained that to avoid flooding, the bridge must be raised on each end. The middle must be raised above the navigational channel, so it will ramp up at each approach to clear the

navigation channel. Sara McCammond clarified that both discussion items are “and” not “or.”

- Ms. Abbott supports the raisings based on sea level rise but expressed concerns about accessibility for people of all abilities. Ms. Padmodipoetro said the design will be accessible, with the goal of a slope of less than 1:20 (raise 1 foot every 20 feet), which is more like a universal sidewalk than a ramp. Para Jayasinghe said that walking along a street represents a 5% grade, not the cross slope. He acknowledged there are hilly areas in Beacon Hill where the sidewalks are steeper.
- Handy Dorceus agreed with the proposals to raise the bridge at each end and over the channel.
- Brian Kane supports increasing the bridge height over channel, possibly for additional ferry traffic.
- Richard Martini agreed, and he noted that it is key not to sacrifice accessibility for resilience when the City is working on resilience of the entire Fort Point Channel.
- Chairman Dimino referenced images that showed the bottom of the bridge being covered by water this past winter. He supports raising the bridge and accessibility, and he wants to be sure of the relationship between surface of bridge and elements of design that may be available to access the watershed.
- Ms. McCammond recognizes the importance of raising the bridge for resiliency and navigation (she asked if the bridge could be raised and open). Ms. Padmodipoetro said one reason to keep the bridge as a fixed structure is to offer more flexibility for programming. If the bridge were movable, programming would need to be removed each time it was turned to the open position. Ms. McCammond said there’s a study on the water’s edge from the Office of Energy, Environment and Open Space, and suggested being in line with that and the municipal harbor and climate ready plans.
- Mr. Galer said the Preservation Alliance has long been an advocate of not elevating the bridge; he has been fielding phone calls on the topic. The Alliance is reluctantly coming to the conclusion that raising is needed due to flooding. He said, however, that Walk Boston and the Alliance would prefer not to raise the bridge and make it like the Moakley Bridge. They particularly don’t want people on adjacent roadways and in buildings to feel like they’re in a canyon. He would like more justification on how the raised elements will work and needs to better understand how a raised structure relates to historic resources.
- Stephen Harvey, representing Councilor Flaherty, said he doesn’t think the councilor would be opposed to raising the bridge.
- Kelly McQuillan, representing the US Courts, said the Court shares concerns about climate change but also does not want to leave the Federal courthouse in a canyon.

SUMMARY OF STRENGTHENING RESILIENCY DISCUSSION

The Task Force members expressed general comfort with the principle of raising the bridge and a fixed bridge, but also need to:

1. Understand the resulting slope, including comparable streets
2. Understand the impact on adjacent properties

3. Explore if there are ways to further integrate the bridge into the South Boston Waterfront resiliency plan

Northern Avenue Bridge – Existing Condition

Ms. Farrell reminded the members of the presentation on the bridge's existing condition from the July 26 meeting, one of the reasons for the open discussion taking place in this meeting. Given some of the challenges of the conditions, the City and team felt that Task Force members would want to talk together about the options. She asked Christie Baker, AECOM, to review and update everyone on the existing condition data compiled to date.

Ms. Baker reminded everyone of the elements of the bridge (slides 11-13). The structural analysis summary for the center span and approach spans depicts both condition and structural capacity. The diagram is based on an inspection of the bridge, with the members depicted either in green, which equals good condition, or red, which defines poor condition. Ms. Baker said diagonal members are tension-only; the team does not believe splicing is a good solution and recommends replacing them. Some vertical members are in decent condition above the bridge deck and could be spliced, but this involves removing latticework. The engineers performed a 3-D structural analysis to determine the capacity. Green represents that the existing member section meets the loading requirements of the bridge (not taking into account condition); red represents members that do not meet the loading requirements; and orange represents members that do not meet the loading requirements (however, the capacity of the member is within 10% of the loading condition, so it may be possible to modify those members without replacing them). The third graphic is the combination of the condition and capacity graphs. Ms. Baker said the approach spans are in worse shape than the center span. If splicing vertical members, some of the members would require splicing and repairing the existing portion that remains to meet capacity concerns. This might not be better than a new member. AECOM's opinion is that splicing is not the way to go for the most part. Splicing also changes the profile of the member, making it appear to be more bulky. Due to its condition, the floor system (everything beneath the deck) will have to be replaced. In summary, for the exterior truss, the team recommends a full or partial replacement of approximately 80% of the primary truss members; for the interior truss, the recommendation is to partially or fully replace 75% of the primary truss members across the entire bridge.

Mr. Martini asked if capacity is structural load based on 2018 codes for all different modes; Ms. Baker said it is.

Chairman Dimino asked about the turntable structure and its status. Mr. DePaola said there's an opportunity to expose the mechanism if the bridge is raised by 10 feet. The team has engaged a firm (Modvic) that specializes in Steampunk art. The turntable could be preserved in some form to honor the history of the bridge, view the islands and mechanism. It would not be part of the structural system. Mr. Galer asked if it would still carry load. Ms. Baker said this analysis considers the piers remaining as-is, in that location, repaired if necessary. Mr. Galer observed that the vertical members are the most interesting; the diagonals are less so and likely less expensive. He said their repair would have less of an impact on the look and feel of the bridge. He sees the

report as very positive – it would be a positive to keep the verticals. Additional analysis still needs to happen.

Honoring History Discussion

Ms. Farrell listed the next set of discussion items:

- Fixed bridge,
- 75 year design life,
- Preserve the bridge (repair existing where possible)
- Replicate the bridge (all new steel)
- Reinterpret the bridge (maintain profile/look)
- Or consider a new bridge.

75-year Design Life

Ms. Farrell asked if anyone does not favor the proposed 75 year design life. Most comments supported a minimum of 75 years. Greg acknowledged that there are tradeoffs: sometimes occasional maintenance and a shorter lifespan make sense and he referred to Fenway Park: it needs a lot of maintenance but we would not consider replacing it. Mr. Martini referred to first costs and maintenance cost. He said if it's reasonable, redo it. Ms. Farrell acknowledged that there are no costs associated with the options at this point and suggested that members prioritize the options in written comments.

Chairman Dimino said there are pieces – such as the portion in or near the water – that should absolutely have a 75-year life. He said some elements that Greg referenced could require more regular maintenance. Ms. Thompson suggested separating the historic character from the structural issues.

Fixed Bridge

- Ms. McQuillan said the Court prefers a fixed bridge from a security perspective (reliable way to get in or out in an emergency).
- Mr. Harvey passed.
- Mr. Galer said the bridge's motion is one of its most interesting characteristics, but if it has to be raised, *moving* doesn't make sense. It is a huge loss, and placemaking discussed previously was about a movable bridge. He would like the bridge's historic type and function captured in a robust way--something beyond just a plaque.
- Ms. McCammond echoed Mr. Galer's comments about the importance of a movable bridge. If it will be fixed, she would like it to be honored beyond what was done on Congress Street.
- Chairman Dimino recalled how hard it was to keep the bridge open over the years. The nature of the bridge and its history and mechanics are fascinating, but he believes it should be fixed. He said the full apron presents more creative opportunity and destination characteristics. He noted there are reliability benefits. Mr. Martini and Mr. Kane agreed. Mr. Dorceus also agreed, and said he assumed all parts of bridge are built at the same time. If all the bottom parts are replaced – would top parts also be reconstructed; the answer was affirmative.

- Speaking for Kathy Abbott, Alice Brown said they support a fixed bridge – the issue is about preserving connections.
- Susanne Lavoie suggested the community feels a strong emotional attachment to the bridge and it will be sad when it comes down. She said she understands the alternative must be practical for the 21st century.
- Ms. Thompson said it would be helpful to understand maintenance and preservation issues, but she agrees the bridge should be fixed.

Preservation/Replication/Reinterpretation/New Bridge

Ms. Farrell asked Ms. Padmodipoetro to define the options. She said that preserving the bridge requires repairing everything that can be repaired and replacing what cannot be repaired piece by piece. The team does have concerns about discovering further deterioration once a contractor begins to take the bridge apart. There is potential to save some members, but the percentage won't be known until construction begins. Ms. Padmodipoetro reviewed the six options for restoration and reinterpretation (see slide 15).

Chief Osgood suggested trying to collect general feedback about whether a future bridge should be similar to the current bridge, an interpretation, or completely different.

- Mr. Galer said the Preservation Alliance came initially from a position of preferring to preserve as much of the bridge as possible, within reason. He said a diagonal replacement is better than a vertical replacement. A replication option might be attractive, but sometimes new versions don't really look like the original bridge, and he wouldn't want people to think a bridge is old when it isn't. He said if the preserve and replicate options don't make sense, his Board sees an opportunity to capture elements they like (enclosed room, shape), and create a new bridge. He said the evidence for this decision has not been presented yet, and any new bridge would need to pass the Section 106 preservation process, which he would have to consider. He appreciates that most of the plans try to preserve the bridge.
- Ms. McCammond agrees with Mr. Galer and will offer more comments in the future.
- Mr. Martini also agrees with Mr. Galer but worries about satisfying all the priorities. He thinks it's important to preserve the bridge the right way and is concerned that is not possible. He said what became the Zakim Bridge went through a similar process and the result was not just a highway bridge but an icon. If the current bridge won't be preserved, can it be larger or more robust.
- Mr. Kane agreed with Mr. Martini and noted the time it took to advance the historic Longfellow Bridge. It might not be worth saving every individual piece of steel or iron. He said if we can't, then let's be bold and very Boston.
- Ms. Brown noted Ms. Abbott's double vote for replicate and single vote for reinterpret.
- Ms. Lavoie agreed. If it's not fixable, do something grand. But not something like the drinking bird – it needs to fit into the neighborhood (a reference to a previous proposal to position a large bird in Fort Point Channel).
- Ms. Thompson emphasized the need to get it right and suggested that this position should be decided by the community.

- Chairman Dimino said the membrane of the outside structure and its relationship to history are important to him. He will yield to the consultant's idea for being more creative.

Chief Osgood said he heard *preserve the bridge*, if possible, but if not, *reinterpret*. If preservation is not possible, he asked everyone to consider what is most important to include in a new or reinterpreted bridge, including the sense of enclosure the bridge provides.

SUMMARY OF HISTORY DISCUSSION

The Task Force members developed a general consensus on (1) preserving, if possible/affordable, and, if not, (2) reinterpreting the bridge, with elements that recall the most beloved features of the current bridge including:

1. Dynamism of a moveable bridge
2. Industrial past
3. Feeling of enclosure

Placemaking

Ms. Farrell said Ms. Padmodipoetro would like preliminary feedback on the concept of placemaking (the Task Force will address mobility in September). Ms. Padmodipoetro said the team has heard a wide variety of opinions on placemaking in briefings and discussions. She listed four (see slide 16):

Area of respite – quiet, antithesis of each end (Seaport and Downtown)
Active area
Connection to the water
Let it evolve over time – preserve as much as possible, similar to what was done with middle section of Greenway

Mr. Martini said it is very difficult to comment at this point because of the need to know what form the bridge will be taking, will there be islands and how they will be connected and made accessible.

Alice Brown mentioned critiques people have of the Harborwalk and how to measure placemaking success: what are the questions to ask? Is it photographed a lot? Does it have name recognition? Are people there all the time?

Ms. Lavoie suggested the community views the bridge as a place where people go because something is happening or is there. She said the Greenway was planned to evolve and become what it is today. She suggested including placeholders so that destinations can be created. She said tourists are looking to stop along the Harborwalk and do things (Tea Party museum, Christopher Columbus Park).

Mr. Galer said the placemaking must work because it feels right, the proportions are right. It is important not to lose this feeling, which feels essential to the Northern Avenue Bridge.

Mr. Kane endorsed the connection to the water.

Ms. Farrell quickly reviewed agenda items for the next meeting. Mr. Jayasinghe noted that **the next Task Force meeting will be on September 27 at 3 pm**, with an agenda and location to follow.

CONCLUSIONS/Q&A

Chairman Dimino welcomed brief public comments.

Steve Hollinger, resident. If the islands are seen as a real part of the project, they must also have a 75-year life span, structurally same specs as deck, and not be submerged with sea level rise (how does that happen)? If floating docks, not sure how that happens. He believes an HOV+ lane will inevitably be open to general traffic based on what's happening with the Haul road. He listed other issues:

- Study should consider Atlantic Avenue – why is there a stop sign if there is so much congestion?
- Funding should be outlined in advance. He has heard that private property owners are making funding contingent on outcomes – if so, he would like to know that.
- He is not clear why or if a fixed span is considered as concrete only. Could it be installed in something else?
- He supports Mr. Galer's comments completely.

Mr. Dimino said the design and planning for the bridge are what's leading to the conversation. Funding issues are only related to what comes out of this public process.

Todd Lee, architect and resident. Mr. Lee thinks there's a hidden or background agenda that any new bridge would be able to accommodate three lanes of traffic including trucks, if that is the same standard Moakley was built to. That would mean the bridge would lose the gossamer quality that makes it so appealing. If a new bridge must conform to federal loading standards, it will become a bypass road. He would like to know what is being used for loading capacity – vehicles or bicycles. He complimented the Task Force on its open mindedness.

Ms. Baker said that for a bridge of this type, the loading for an assembly space is a 100 lb/square foot for a pedestrian load. For a truck load, it's 64 lb/square foot. Mr. Jayasinghe said it is a 664 foot long structure, that cannot be changed. Whatever is programmed on the bridge, one must think about emergency vehicles to service it. Mr. Dimino thanked him for his points.

Paul Swartz, resident of South Boston. Mr. Swartz rides his bike through the underground at the Ink Block under Route 93. The area is designed as a destination, but no one is there because it's surrounded by cars. He thinks if cars are on the bridge,

it will be devoid of people and full of cars. He thinks it should be a destination for people and active mobility.

Ms. Farrell reminded the Task Force member that written comments on the matrix are due September 12. She will send a reminder and the form.

TASK FORCE MEMBERS

Representative Stephen Lynch (not present)
Senator Nick Collins (not present)
Councilor Michael Flaherty (represented by Stephen Harvey)
Councilor Ed Flynn (represented by Charlie Levin)

Rick Dimino, Chair, A Better City
Sara McCammond, Vice Chair, Fort Point Neighborhood Association

Carol Chirico, General Services Administration (not present)
Susan Goldberg, U.S. Court House (represented by Kelly McQuillan)
Susanne Lavoie, Wharf Neighborhood Council
Richard Martini, The Fallon Company
Handy Dorceus, Tufts University
Patrick Sullivan, Seaport TMA (represented by Patricia Puszko)
Gregory Galer, Boston Preservation Alliance
Bud Ris, Green Ribbon Commission (not present)
Kathy Abbott, Boston Harbor Now (also represented by Alice Brown)
Stacy Thompson, Livable Streets
Fred Peterson, MA Convention Center Authority (represented by Brian Kane)

City of Boston

Chris Osgood, Chief of Streets
Para Jayasinghe, City Engineer
Benjamin Sun, Chief Structural Engineer
Vineet Gupta, Boston Transportation Department
Jim Gillooly, Boston Transportation Department
Patrick Hoey, Boston Transportation Department
Daniel Lesser, Boston Transportation Department
John Read, Boston Planning and Development Agency
Erikk Hokenson, Boston Planning and Development Agency
Kristen McCosh, Boston Disabilities Commission
Patricia Mendez, Boston Disabilities Commission
Sarah Leung, Boston Disabilities Commission
Erin Talevi, Boston Public Works

AECOM Team

Frank DePaola, AECOM
Christie Baker, AECOM
Raymond Hayhurst, AECOM
Etty Padmodipoetro, Urban Idea Lab
Don Kindsvatter, Urban Idea Lab

Leng Woo, Urban Idea Lab
Michael Tyrrell, TVA Studio
Nancy Farrell, Regina Villa Associates

OTHER ATTENDEES

Amy Gaylord, Trustees of Reservations
Steve Hollinger, Fort Point resident
Todd Lee, Planner/Architect/Resident
Doug Lemle
Scott Lindberg
Michaela Wilson