



DESIGN PUBLIC HEARING

MARCH 18, 2010

AT

CHATHAM COMMUNITY CENTER

702 MAIN STREET

CHATHAM, MASSACHUSETTS 02633

7:00 PM

FOR THE PROPOSED BRIDGE REPLACEMENT OF

BRIDGE STEET
PROJECT FILE NO. 603690
BRIDGE NO. C-07-001
ACCELERATED BRIDGE PROGRAM

CHATHAM, MASSACHUSETTS

COMMONWEALTH OF MASSACHUSETTS
MASSACHUSETTS DEPARTMENT OF TRANSPORTATION

LUISA PAIEWONSKY
ADMINISTRATOR

FRANK A. TRAMONTOZZI, P.E.
CHIEF ENGINEER

THE COMMONWEALTH OF MASSACHUSETTS
MASSACHUSETTS DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

NOTICE OF PUBLIC HEARING

Project File No. 603690

A Design Public Hearing will be held by the Massachusetts Department of Transportation to discuss the proposed Bridge Street bridge replacement project in the Town of Chatham, MA

WHERE: Chatham Community Center; 702 Main Street, Chatham, Ma. 02633

WHEN: March 18, 2010; 7:00 PM

PURPOSE: The purpose of this hearing is to provide the public with the opportunity to become fully acquainted with the proposed Bridge Street over Mitchell River Bridge Replacement Project. All views and comments made at the hearing will be reviewed and considered to the maximum extent possible.

PROPOSAL: The proposed project consists of replacing the 200 foot long timber structure including the timber draw span with a 5 span concrete approach span bridge and a new 33'-9" long bascule draw span. The roadway will be widened from 24 feet to 30 feet. The sidewalks will be widened from 3'-0" to 5'-9". Additional context sensitive features to be included in the new bridge consist of replicating the timber sidewalk and bridge rail, constructing a timber façade on the side of the superstructure, designing concrete substructure elements with a stone façade and providing a safety rail along the curb. The project will also meet all American with Disability Act requirements. Shared accommodations for all users have been provided in accordance with applicable guidelines.

A secure right of way is necessary for this project. Acquisitions in fee and permanent or temporary easements may be required. The Town of Chatham is responsible for acquiring all needed rights on private or public lands.

Written views received by Mass DOT subsequent to the date of this notice and up to five (5) days prior to the date of the hearing shall be displayed for public inspection and copying at the time and date listed above. Plans will be on display one-half hour before the hearing begins, with an engineer in attendance to answer questions regarding this project. A project handout will be made available on the Mass DOT website listed below.

Written statements and other exhibits in place of, or in addition to, oral statements made at the Public Hearing regarding the proposed undertaking are to be submitted to Frank A. Tramontozzi, P.E. Chief Engineer, Massachusetts Department of Transportation, Ten Park Plaza, Boston, MA 02116, ATTN: Managing Unit, Accelerated Bridge Program Project File No. 603690. Such submissions will also be accepted at the hearing. Mailed statements and exhibits intended for inclusion in the public hearing transcript must be postmarked within ten (10) business days of this Public Hearing. Project inquiries may be e-mailed to dot.feedback.highway@state.ma.us.

The community has declared that this facility is accessible to all in compliance with the ADA/Title II. However persons in need of ADA/Title II accommodations should contact Angela Rudikoff by phone at (617) 973-7005 or email angela.rudikoff@state.ma.us. Requests must be made at least 10 days prior to the date of the public hearing.

In case of inclement weather, hearing cancellation announcements will be posted on the Mass DOT website <http://www.Mass.gov/massdot>

**LUISA PAIEWONSKY
HIGHWAY DIVISION ADMINISTRATOR**

Boston, Massachusetts

**FRANK A. TRAMONTOZZI, P.E.
CHIEF ENGINEER**



DEVAL L. PATRICK
GOVERNOR
TIMOTHY P. MURRAY
LT. GOVERNOR
JEFFREY B. MULLAN
SECRETARY & CEO
LUIA PAIEWONSKY
DIVISION ADMINISTRATOR



Dear Concerned Citizen:

The Massachusetts Department of Transportation (MassDOT) is committed to building and maintaining a transportation infrastructure that is both safe and efficient for all who use our roadways, bridges, bicycle facilities and pedestrian paths, while maintaining the integrity of the environment.

As part of the design process for this project, we are conducting this public hearing to explain the proposed improvements, listen to your comments and answer any questions you may have. At the conclusion of the hearing, MassDOT will review all of your comments and, where feasible, incorporate them into the design of the project.

We recognize that road and bridge construction can create inconveniences for the public. MassDOT places a great deal of emphasis on minimizing the temporary disruptive effects of construction.

MassDOT encourages input from local communities and values your opinions. Please be assured that we will undertake no project without addressing the concerns of the community.

Sincerely,

A handwritten signature in blue ink, appearing to read "Luisa Paiewonsky".

Luisa Paiewonsky
Highway Division Administrator

WHAT IS A PUBLIC HEARING?

WHY A PUBLIC HEARING?

To provide an assured method whereby the Commonwealth of Massachusetts can furnish to the public information concerning the State's highway construction proposals, and to afford every interested resident of the area an opportunity to be heard on any proposed project. At the same time, the hearings afford the Commonwealth an additional opportunity to receive information from local sources which would be of value to the State in making its final decisions to what design should be advanced for development.

WHY NOT A VOTE ON HIGHWAY PLANS?

The hearings are not intended to be a popular referendum for the purpose of determining the nature of a proposed improvement by a majority of those present. They do not relieve the duly constituted officials of a State highway department of the necessity for making decisions in State highway matters for which they are charged with full responsibility.

WHAT DOES A PUBLIC HEARING ACCOMPLISH?

It is designed to ensure the opportunity for, or the availability of, a forum to provide factual information which is pertinent to the determination of the final alternative considered by the state to best serve the public interest, and on which improvement projects are proposed to be undertaken.

It is important that the people of the area express their views in regard to the proposal being presented, so that views can be properly recorded in the minutes of the meeting. These minutes will be carefully studied and taken into consideration in the determination of the final design.

RIGHT OF WAY ISSUES

A secure right of way is necessary for this project. Temporary construction easements may be required. Your municipality is responsible for acquiring all necessary rights in private or public lands. If your property is affected, your rights are fully protected under law.

1. REASON FOR PROJECT

The completion of this project will serve local needs. The proposed enhancement will also be in the interest of others in the greater community, and provide for the public good.

2. WHO CONTACTS ME?

Representatives of the municipality have already contacted or will contact you. They will explain the procedures used in acquiring any necessary rights in land.

3. WHAT ABOUT DONATIONS? WHAT IS A RIGHT OF ENTRY?

Town officials will often seek donations, of parcels, where permanent rights are required. This procedure will minimize the acquisition cost for your community.

A Right of Entry is a document that is signed by the owner. It allows the Contractor to perform certain types of work on the owner's land. The work is usually minor in nature and frequently consists of loaming/seeding behind sidewalks, new driveway apron work, grading/sloping, and wetland protection, etc. The rights granted are temporary in nature.

4. WHAT IS A FAIR PRICE FOR THE ACQUIRED PARCELS?

In the event that donations are not considered, or completed, every effort will be made to ensure that an equitable value is awarded. Municipal and/or outside appraisers will complete an appraisal. Consideration is given to the type of rights needed, whether in fee, permanent or temporary easements. The appraisal will be the basis for arriving at a fair price (for damages that result).

5. MUST I ACCEPT THE MUNICIPALITY OFFER?

No, if the owner feels that the offer is not fair the owner may petition the courts. This action does not stop or delay the acquisition. The action must occur within 3 years. The owner(s) may be paid pro tanto (for the time being). The pro tanto payment will not prejudice the court's final decision.

LOCATION MAP



Bridge Street over Mitchell River
Bridge No. C-07-001
Chatham, MA

PROJECT DESCRIPTION

Project Location

The bridge replacement project is located in the Town of Chatham, Massachusetts. The limit of work begins approximately 175 feet west of the existing bridge and extends approximately 425 feet past the eastern end of the bridge. The total project length including the replacement bridge is approximately 800 feet.

Project Purpose

Based on the October 7, 2008 MHD Structures Inspection Field Report (prepared by MassDOT) the condition of the critical bridge elements are as follows:

Deck:	6 (satisfactory)
Superstructure:	6 (satisfactory)
Substructure:	4 (poor)

The January 8, 2009 MHD Underwater Inspection Report recorded the Bridge Channel and Channel Protection as a 4. As stated in the report and observed on the field visit, the fender system is rated as a 3 (serious) with severe deterioration. The abutment rip-rap and scour has been recorded as a 7.

Existing Conditions

Bridge Street is classified as an urban collector and runs between Stage Harbor Road and Main Street running over the Mitchell River. Bridge Street is not part of the National Highway System. The area itself is considered residential to the east of the bridge and recreational/business to the west of the bridge. There is a marina on the southerly side just west of the bridge with a town boat ramp directly across the street on the north side of Bridge Street. The average daily traffic recorded in the 2009 SIA is 2100 with 6% truck traffic

Bridge Number C-07-001 (437) carries Bridge Street over the Mitchell River in the town of Chatham. The bridge is located on Bridge Street, between Stage Harbor Road and the intersection of Main Street and Morris Island Road. The bridge has a curb-to-curb width of 24'-0" and carries one traffic lane in each direction. For spans two through seven and nine through eleven there are 6'-9" wide sidewalks on both sides of the bridge and 14" x 8" timbers separating the sidewalk from the roadway on both sides. The total out-to-out width of the bridge within these spans is 37'-6". For spans one, eight and twelve there are 3'-9" wide sidewalks on both sides of the bridge and 14" x 8" timbers separating the sidewalk from the roadway on both sides. The total out-to-out width of the bridge within these spans is 31'-6". The superstructure consists of a twelve span timber trestle structure including span eight, the bascule type lift span. The decking is composed of 4" timber decking with a 3" timber wearing surface. The overall length of the superstructure is 192', with a bascule span length of 23'-0". The bridge currently provides a navigable channel width of 19'-0" and an unlimited vertical clearance with the lift span in the open position and approximately 7'-4" of vertical clearance with the bascule span in

the closed position. The substructure consists of concrete abutments with timber piles and timber pier caps founded on timber piles.

The bascule span is elevated by lift hoists that are located in the sidewalks on the east end of the span and an electrical control cabinet is located on the northwest side of the bridge. The bridge is equipped with electrically operated wood frame safety gates and traffic signals on both approaches.

Approaching the bridge from the west, the roadway begins with a flat 0.85% slope in the commercial/recreational area before transitioning to a 3.28% slope and then transitioning to a level draw span. Once across the draw span, there is a -1.7% down slope transitioning with a sag curve to a 4.0% upgrade.

The existing horizontal alignment is essentially straight with an 8,315 foot radius curve ending just before the abutment at station 9+48.00. The existing roadway carries one lane of traffic in each direction with a constant 24'-0" curb-to-curb width at both approaches within 100' of the bridge limits. Beyond the bridge opening stop signals and gate there is on street parking in front of the Marina, and on the northerly side of Bridge Street on both sides of the bridge. In front of the marina, boats are sometimes stored in close proximity to the roadway. The existing sidewalks are situated between the curb and a retaining wall and vary in width from 3 to 4 feet. Horizontally the sidewalks were constructed between the stop signals/stop gates and the abutments are approximately 100 long on each side of the bridge. There are no existing sidewalks on the roadway beyond the stop signals in either direction.

Scope of Work

The replacement bridge will consist of a single leaf bascule span with an under deck counterweight. The bascule span will provide a minimum horizontal clearance of 25'-0" between fenders, a minimum vertical clearance of 7'-4" with the leaf in the lowered position and unlimited vertical clearance with the leaf in the fully raised position. The bascule leaf will pivot to a maximum angle of 80 degrees.

The approach spans will consist of two 30'-0" and one 25'-9" approach spans to the west followed by a 15'-6" bascule pier, 33'-9" lift span and two additional 30'-0" approach spans to the east. Centerline of bearings to centerline of bearing the proposed bridge replacement will span 195'-0". Several span arrangements were considered with the chosen arrangement selected as to adhere to the aesthetics of the original bridge

Fender System: The fender system will consist of treated structural timber with horizontal wales supported by vertical timbers attached to the face of the bascule pier and steel pipe piles beyond the ends of the bascule pier and at the rest pier. The fender system will include navigation lighting and clearance gauge signs in accordance with U.S. Coast Guard regulations.

The proposed two lane roadway will carry traffic in each direction and consist of two 11'-0" travel lanes each with 4'-0" shoulders for a total roadway width of 30'-0" curb to curb. The typical Bridge and approach roadway will taper to meet the existing roadway width that averages 24 feet wide. To address aesthetic issues identified by the town, a wooden hand rail will be

proposed along the outside of the bridge and extended wing walls. For protection of pedestrians in the sidewalk and to provide roadside protection, BR-2 rail will be mounted on 12" high concrete curb. The curb to curb distance will be 30 feet with 4 foot shoulders and 11 foot travel lanes. The sidewalk width will be 5'-6".

The controlling element dictating the cross section is the goal to limit impact to land under water and salt marsh. By using extended wing walls, it is anticipated that the toe of slope of proposed rip rap will not extend beyond the existing rip rap.

Utilities

The existing bridge has a 3" diameter electrical conduit mounted to the north side of the superstructure used for bridge operation. At the bascule span, the conduit is submerged in the water and run along the channel bottom. The above ground utilities along Bridge Street consist of electric and telephone. They are supported by utility poles along the north side of the road and are dead ended prior to the bridge.

Mitchell River

The Mitchell River, at the project site is a tidal estuary that flows to the south on an ebbing tide. The existing channel is lined with rip-rap and rock fill in the vicinity of the bridge and surrounded by salt marshes and low rolling hills. The existing channel is approximately 193' wide at the top of the rip-rap slope. The channel is navigable with specified course under the lift span, the existing bridge plans show the square channel opening below the bascule as approximately 19' face-to-face of the existing fender system. Elevation of the channel varies from -2.25± ft at mean low tide and +1.5± ft at mean high tide (NAVD 88).

Traffic Management

Maintenance of traffic during construction for the proposed bridge will consist of constructing the new bridge in one stage by closing the existing bridge entirely, and detouring traffic. The detour length is approximately 3 miles and the bridge has an ADT of 2100. The detour would route traffic onto to Stage Harbor Road then Main Street, and back to Bridge Street. Constructing the bridge in a single stage is the only alternative as the use of multi-stage construction is impractical given the non-redundant framing of the bascule span. See traffic detour diagram for more information.

It is anticipated that there will be short duration periods where the navigation channel will be closed to marine traffic while the existing bridge is demolished and the replacement bridge is constructed.

Right-of-Way Impacts

The existing right of way is based on the Line of the 1890 County Layout. The Right of Way is 50 feet for the majority of the project limits however just east of the river the Right of Way changes to variable width that is maximized at 65 feet. At the east end of the bridge the

centerline of the road is not centered within the right of way such that the roadway is within 5 feet of the layout line.

Permanent acquisition will be required at the south west quadrant of the bridge to accommodate the wider bridge wing wall, and end post. Temporary easements will be required to provide for grading and construction.

Drainage

Two drainage catch basins and an 18" drain pipe are located at the east approach roadway. The outlet was not observed. The drainage system will be modified as required for the widened roadway and maintain at a minimum current Storm water Management Policy procedures to the maximum extent practicable.

Maintenance

For the approach spans, the superstructure is concrete and only minor maintenance will be required during the life of the bridge. The wearing surface will be concrete so it is not anticipated to need re-paving as the age of the structure progresses. The substructure will consist of galvanized steel pipe piles with a reinforced concrete cap. This type of support pier is very durable in a harsh marine environment and should provide a stable foundation for many years.

For the movable span, the deck will have a concrete wearing surface which will protect the steel superstructure below the deck for deicing salts and roadway debris. The steel itself will be galvanized. Periodic maintenances of the movable span in the form of lubricating gears and bearings, and checking the lift mechanism alignment for proper will be required. Aluminum floor hatches with vertical access ladders will be provided for access into the piers. In order to provide for future removal of the larger machinery components (i.e. the components that would not fit through a typical floor hatch such as the speed reducers), the concrete pier deck in the sidewalk areas will be removable. As the bridge is relatively small, the size and weight of the sidewalk deck is manageable

Project Status

Currently the project is at the 25% design stage. Upon completion of this Public Hearing and responding to the subsequent comments the project will proceed to final design. The design of the bridge is anticipated to be completed in January 2011 and the project will be advertised for construction on February 2011.

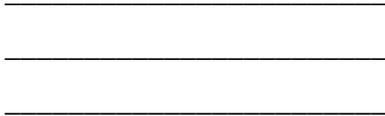
Project Costs

The projected overall cost of this bridge is \$9.125M. This cost estimate includes the cost of the bridge structure and roadway items. The cost estimates have been calculated from the bridge quantities. The unit prices are taken from the web-based MassDOT unit weighted average bid prices. The unit prices were taken from an average of no greater than 3 years and then adjusted to reflect current bid prices.



PROPOSED ELEVATION

Please Fold and Tape



Please Place
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Postage Here

Frank A. Tramontozzi, P.E.
Chief Engineer
MassDOT – Highway Division
10 Park Plaza
Boston, MA 02116-3973

RE: Public Hearing
Bridge Street Over Mitchell River
Chatham
Project File No. 603690
Managing Unit (ABP)

