

Beades Bridge Reconstruction

Dorchester, Massachusetts

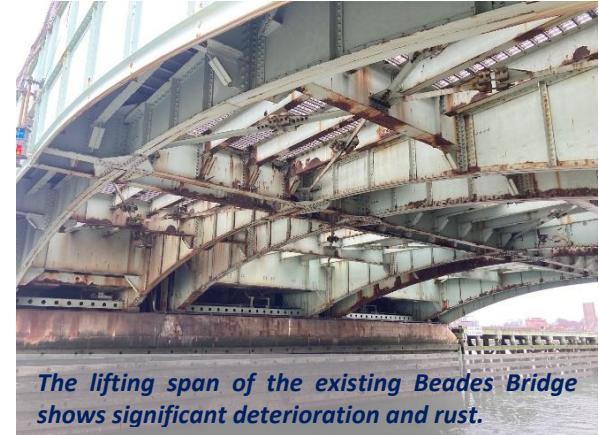


Project Overview

John J. Beades Bridge has served the Morrissey Boulevard corridor since 1927. Although the Metropolitan District Commission (MDC) identified full reconstruction as the ideal approach in 1998, the bridge received a \$9.1 million rehabilitation in 2002 from the MDC's successor, the Department of Conservation & Recreation (DCR). In 2023, MassDOT initiated a full reconstruction effort to deliver a reliable crossing that improves safety for cyclists, motorists, and pedestrians while maintaining access for recreational boaters. Morrissey Boulevard is owned by DCR, but Beades Bridge itself is owned and operated by the MassDOT Highway Division. Goals for the new bridge include providing modern safety features, capturing roadway stormwater, and raising the crossing above future flood levels to reduce disruptions for neighbors and regional travelers while meeting climate resiliency targets set out in the Morrissey Boulevard Commission's findings.

Key Facts

- **Location:** Morrissey Boulevard over Dorchester Bay Basin, near Malibu Beach
- **Length of Existing Bridge:** 454 feet
- **Traffic:** About 53,000 vehicles per weekday in 2024, balanced north and south split
- **Marine Use:** 535 openings in 2024, peak activity June through August
- **Project Limits:** North to Malibu Beach restrooms, south to just before I-93



The lifting span of the existing Beades Bridge shows significant deterioration and rust.

Why Reconstruction is Needed

Beades Bridge shows its age. The superstructure is in poor condition and the lifting span, which opens and closes to allow the passage of boats, is heavily deteriorated. The operating machinery, which moves the lifting span dates to 1927 and 1953 expansion. It shows widespread corrosion and includes nonstandard components that are difficult to maintain. Recent incidents, including the span stuck open in December 2023 and unable to lock closed in April 2024, caused significant delays and congestion in Dorchester. The bridge has no backup power so it cannot function during electrical outages and the tender's house no longer meets modern requirements. While the structure remains safe today, these deficiencies point to escalating maintenance demands and unreliable operations if the crossing is not fully reconstructed.

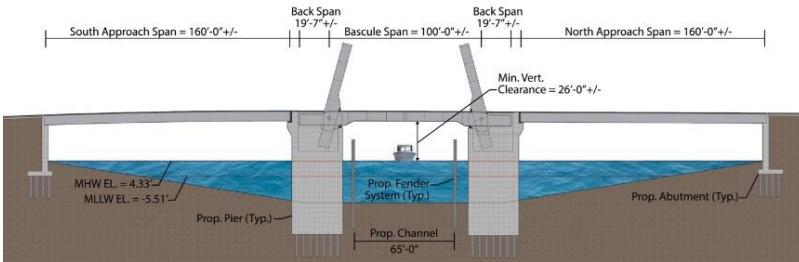
Design Options

MassDOT evaluated bascule, vertical lift, and swing bridges during early planning. The vertical lift and swing options were set aside due to higher costs and maintenance challenges, leaving two designs for detailed

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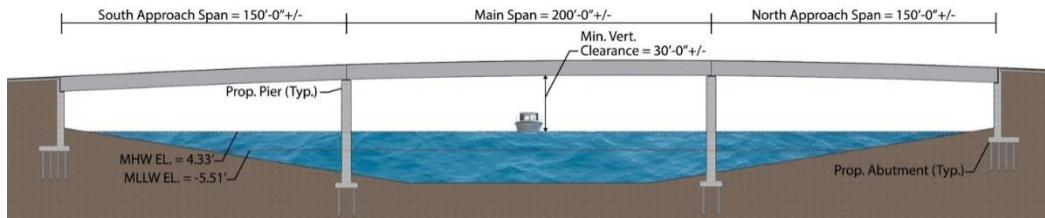
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development: a movable bascule bridge and a fixed-span bridge. Both designs include three lanes in each direction, a median barrier, and upgraded accommodations for cyclists and pedestrians.



The **movable bascule bridge** would maintain full opening capability for marine traffic and provide a 65-foot navigational channel. This option preserves flexibility for boaters and maintains traditional operations, but it comes with higher long-term maintenance needs, greater mechanical complexity, and a longer construction timeline.

The **fixed-span bridge** would eliminate the need for movable components and offer a 200-foot main span with 30 feet of vertical clearance above mean high water, improving reliability and climate resilience. It reduces maintenance costs, but it limits the height of vessels which can pass below. Future sea level rise may reduce the available clearance for vessels over the 100-year anticipated service life of the structure.



Construction Approach

Both options require a temporary fixed bridge to maintain traffic during construction. The temporary structure would provide two lanes in each direction and may necessitate short-term closures of the I-93 northbound off-ramp. Estimated construction duration is about three and a half years for the fixed-span option and about five years for the movable bascule bridge. Preliminary cost analysis indicates a savings of roughly seventy million dollars for the fixed bridge compared to the movable span.

We Want to Hear from You

Send email comments via BeadesBridge@dot.state.ma.us or provide written feedback to:

Carrie Lavallee, P.E., Chief Engineer
 MassDOT
 10 Park Plaza
 Boston, MA 02116
 Attention: MAJOR PROJECTS, Project File No. 613130

Learn more and sign up for updates: www.mass.gov/beades-bridge-reconstruction

Winter 2025-2026:
 Advance design of bridge concepts

Spring-Summer 2026:
 Public Meeting #2

Fall 2026:
 Preliminary Design Development

Winter 2026:
 Pre-25% Design Level Submissions and Approvals

2027:
 25% Design Development