



Route 27 and Route 9 Bridge Replacement and Interchange Improvements Project

Frequently Asked Questions (FAQ)

Updated as of May 29, 2025

QUESTION:

What is a Diverging Diamond Interchange (DDI) and how is it being applied at the Route 27 and Route 9 interchange in Natick, MA?

ANSWER:

A Diverging Diamond Interchange (DDI) is a type of intersection where traffic crosses to the opposite side of the road, allowing for more efficient left turns and reducing conflict points. The Federal Highway Administration (FHWA) has developed an [informational brochure](#) which can be viewed for additional detail. The Route 9 and Route 27 project in Natick features a Modified DDI (MDDI) due to several unique characteristics:

- **Three Bridges:** The project includes three separate bridges, two for each direction of Route 27 traffic, and one dedicated Shared Use Path (SUP) bridge for pedestrians and cyclists.
- **Curvature and Traffic Calming:** The design incorporates roadway curvature at crossover points. The target travel speeds along Route 27 through the interchange will be approximately 20 to 25 miles per hour.
- **Compact Footprint:** Due to the many private property constraints, and to minimize significant property impacts and takings, the Natick MDDI is more compact with a relatively smaller footprint than typical DDIs.
- **Emphasis on Pedestrian and Bicycle Connectivity:** The project includes extensive SUP and sidewalk networks to improve non-motorized transportation options. The project will provide excellent connections to the Cochituate Rail Trail (CRT), local schools, and along Route 9 to the many businesses and MathWorks campuses.
- **Landscaping:** The design incorporates native, and low maintenance landscaping to soften the visual impact and provide shade trees.

This MDDI is a context-sensitive solution designed to balance safety, traffic flow, and connectivity for the Natick community. This [aerial overview](#) shows the general configuration of the proposed interchange to provide a greater understanding of the intended improvements. Please note that the project is a Design-Build project, and while some components are subject to further design development, the contractor must meet a Base Technical Concept (BTC) design.



QUESTION:

What public outreach has occurred on this project to date and what is the planned public outreach moving forward?

ANSWER:

This project has included significant outreach and engagement, and the design incorporates public feedback and input. In June 2017, the original partial cloverleaf with auxiliary lanes concept was presented to the public at the 25% design milestone Design Public Hearing (DPH). This design received significant negative feedback on the proposal at that time. In response to these concerns, MassDOT engaged a new design firm, GPI, to evaluate additional alternatives. Two of those alternatives, a partial cloverleaf with roundabouts and a Modified Diverging Diamond Interchange (MDDI) were presented at a workshop style [Public Information Meeting in June 2019](#). Based on the feedback from that meeting, MassDOT advanced the design of the MDDI. This MDDI design was presented at a [Design Public Hearing in June 2023](#). In 2024, the project was advertised as a Design-Build project and was awarded to a joint venture Design-Build team consisting of McCourt Construction and Jacobs Engineering (McCourt-Jacobs).

The first Public Information Meeting with the Design-Build team took place on [November 21, 2024](#), ahead of the start of construction. During this meeting, the project team provided an overview of the project background, purpose and need, the design, the construction schedule, upcoming construction activities, and the project's public involvement plan during construction. This plan includes regular stakeholder updates, abutter coordination, Public Information Meetings (PIMs), municipal briefings, and dissemination of project material in multiple languages via the project website, flyers, newspaper ads, press advisories, and social media. The project also maintains a dedicated project email (Rt27Rt9Natick@dot.state.ma.us) and project hotline phone number (305-270-4445). The following provides an overview of the project history and public involvement efforts to date.

Date	Description
May 2011	Project Initiation
June 2017	Original 25% Design and Design Public Hearing
June 2019	Public Information Meeting
June 2021	Presentation to Town of Natick Transportation Advisory Committee
May 2022	25% Resubmission Package
June 2023	Design Public Hearing
August 2024	Best Value Design-Build Award
September 2024	Notice to Proceed (NTP) - McCourt-Jacobs
November 2024	Public Information Meeting #1 - Construction Phase



Public Information Meeting in June 2019



Design Public Hearing in June 2023



Public Information Meeting with the Design-Build team on November 21, 2024

QUESTION:

Why were the Modified Diverging Diamond Interchange (MDDI) and Shared Use Path (SUP) designs chosen?

ANSWER:

Through the public process during the design phase, the MDDI design was selected for multiple reasons:

- **Bridge Replacement Staging:** The design allows for traffic to always be maintained on Route 27, without constructing a temporary bridge.
- **Eliminates Left Turn Conflicts with Through Movements at the Interchange:** Improves safety and reduces vehicle conflict points. [Similar DDI designs](#) have been shown to significantly reduce crashes.
- **A Dedicated SUP Network:** Provides a safe and comfortable separated path and bridge for pedestrians and cyclists, connecting to local destinations and existing networks. The SUP network was identified as a priority during the public process of the design phase. A simulation video from the perspective of the SUP is available [here](#).
- **Signalized Bicycle and Pedestrian Crossings:** Enhances safety for pedestrians and cyclists with signalized crossings and pedestrian-activated warning systems.
- **Simplified Signal Design:** Four coordinated signalized intersections will optimize traffic flow and reduce congestion. These locations include the existing Route 27 or North Main Street and Bacon Street intersection and the 9/27 Exchange Plaza entrance, and two new signalized intersections along Route 27 at the “cross-over” locations, where the northbound and southbound travel lanes along Route 27 cross. The two new signals are simple two phase signals, for northbound and southbound vehicles on Route 27, to optimize traffic flow.
- **Improved Landscaping:** Incorporates low-maintenance landscaping with a preference for native species to create a more natural environment.
- **Transit Interconnectivity:** Incorporates two new MetroWest Regional Transit Authority (MWRTA) stops on Route 27, and reconstructs and improves two existing stops on Route 9.



FHWA
informational
brochure



SUP
perspective

QUESTION:

What is a Design-Build project and why is this a Design-Build project?

ANSWER:

Design-Build project delivery combines design and construction into a single phase, streamlining the process and fostering collaboration. This method was chosen to reduce project timelines, promote innovation, and reduce project risk. The project was awarded to the McCourt Construction and Jacobs Engineering Design-Build team in August 2024.

Design-Build (DB)



Design Bid Build (D-B-B)



QUESTION:

What is the anticipated timeline for the project, and what are the potential areas for delays?

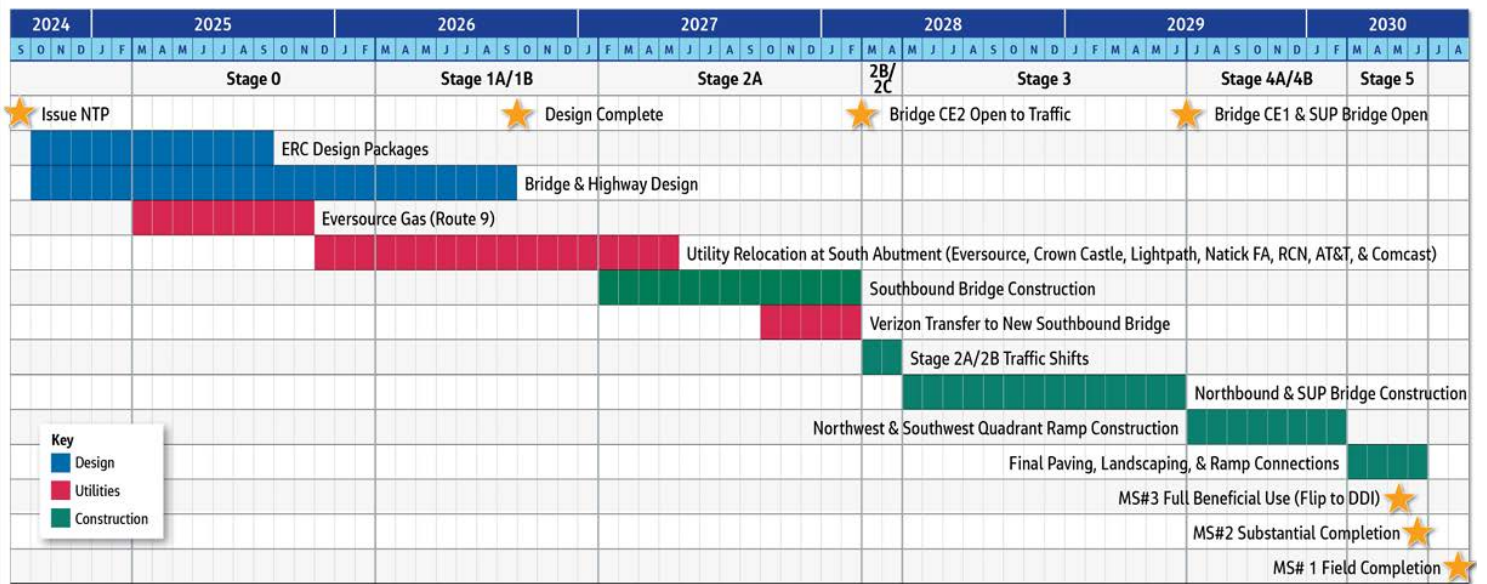
ANSWER:

Construction is anticipated to occur in stages through Summer 2030. Utility relocation is a key early task that is being closely monitored. The project team is coordinating with utility companies to minimize disruptions and maintain the schedule. Contingency plans are in place for weather and unforeseen conditions. MassDOT is committed to transparent communication about the project timeline and any delays. Please find the current, anticipated project schedule below, which was presented during the [November 21, 2024, Public Information Meeting](#).



Public Information Meeting with the Design-Build team on November 21, 2024

Design-Builder Project Schedule



Acronyms	
NTP = Notice to Proceed	MS # 1 = Field Completion
ERC= Early Release Construction	MS # 2 = Substantial Completion
CE 1 = East Bridge	MS # 3 = Beneficial Use
CE 2 = West Bridge	SUP = Shared Use Path

Note: this schedule is subject change.



QUESTION:

Why did the project cost rise from an estimated \$50 million in 2021 to \$99 million in 2024?

ANSWER:

The project scope evolved significantly from a simple bridge replacement to an interchange reconfiguration with enhanced cyclist, pedestrian, and transit accommodations. This expanded scope, along with rising construction costs and inflation¹, contributed to the increased cost. This interchange reconfiguration, including the three new bridges, and an extensive Shared Use Path (SUP) network, is not comparable to a simple super-structure bridge replacement like the Cedar Street Bridge in Wellesley, due to significant differences in scope, complexity, and timeline.

¹ Van Voorhis, S. (2023, November, 6). Rising construction costs vex public projects across New England. Engineering News-Record. <https://www.enr.com/articles/54231-rising-construction-costs-vex-public-projects-across-new-england>

QUESTION:

What are the plans for staging areas during construction, and how will they be managed to minimize impacts on nearby residents?

ANSWER:

Staging areas will be located within the cloverleaf areas of the interchange and along roadway shoulders, and contractor parking will be in designated areas to minimize impacts on residents. Typical staging areas planned for use in 2026 and 2027 are shown below and were presented during the November, 21, 2024, [Public Information Meeting](#).



Public
Information Meeting with
the Design-Build team on
November 21, 2024

Construction Staging Examples – Stage 1A May 2026 – January 2027



QUESTION:

What are the typical construction work hours?

ANSWER:

Construction daytime work hours are 7am-3:30pm and nighttime work hours are 10pm-5am. Project closures are required to occur at night. MassDOT will provide work hours in construction advisories for specific activities during the project.

QUESTION:

What are the anticipated impacts to traffic and local residents during construction?

ANSWER:

MassDOT is working to minimize traffic disruption during construction, particularly during peak hours. The following congestion management measures will be utilized during construction:

- Lane reductions and closures will occur on Route 9 between 10 pm and 5 am. Route 27 will remain open.
- Truck routes will be directed to remain on Route 27 and Route 9.
- Police details will manage local closures and detours.
- Coordination with any adjacent projects will minimize cumulative traffic impacts.
- Accessible pedestrian routes will be maintained.
- Access to side streets and businesses will be preserved.
- Construction advisories will be provided in stakeholder updates and on the website as the project progresses.

QUESTION:

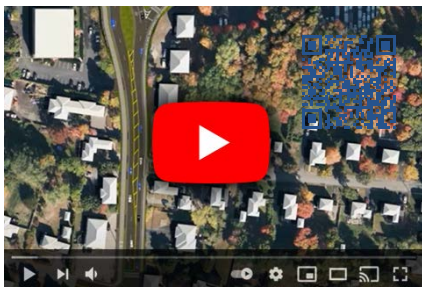
How will this project improve traffic congestion?

ANSWER:

The Modified Diverging Diamond Interchange (MDDI) improves traffic flow by separating heavy traffic movements and reducing conflict points. The design allows left-turning vehicles from Route 27 to Route 9 to avoid conflicts with opposing traffic. This eliminates the need for a dedicated left-turn phase, and enables the signal to operate with two-phases, providing more green time for all movements. This design allows for more efficient merging onto Route 9 and reduces delays caused by stop-controlled ramps and yielding. Two-phase traffic signals and separated bridge structures further enhance traffic flow, especially during peak hours.

Traffic simulation videos for the intersection at Bacon Street are available [here](#) and [here](#).

Additional drivers perspective simulation videos are available [here](#) and [here](#).



Traffic simulation videos for the intersection at Bacon Street



Additional drivers perspective simulation videos

QUESTION:

What are the anticipated travel times by car through the future interchange on Route 27 and Route 9?

ANSWER:

To understand how fast drivers are expected to move through the future interchange, anticipated average travel times through the Modified Diverging Diamond Interchange (MDDI) are as follows:

- Route 27 northbound from Bacon Street to Rutledge Road is anticipated to be 85 seconds.
- Route 27 southbound from Rutledge Road to Bacon Street is anticipated to be 100 seconds.
- Route 9 westbound to Route 27 southbound is anticipated to be 110 seconds.
- Route 9 eastbound to Route 27 northbound is anticipated to be 95 seconds.

To understand expected peak hour traffic, anticipated travel delays during peak hours include:

- The crossover at the Route 9 eastbound ramps has an average delay of 19.7 seconds during the AM peak hour and 23.0 seconds during the PM peak hour.
- The crossover at the Route 9 westbound ramps has an average delay of 14.4 seconds during the AM peak hour and 15.2 seconds during the PM peak hour.

This information is based on a computer simulation model of projected vehicle traffic volumes at the interchange in 2042.

QUESTION:


What are the expected impacts on Lakeshore Road?

ANSWER:

The design has been refined to improve access to Lakeshore Road based on community feedback. Dedicated lanes and improved turning movements at Lakeshore Road are expected to improve safety and traffic flow by allowing Lakeshore Road users to cross one direction of Route 27 traffic at a time.. [This traffic simulation video](#) is available to further illustrate how vehicle access will function at Lakeshore Road. Access to Lakeshore Road will be maintained during construction.

Additionally, the future Shared Use Path (SUP) will connect the Cochituate Rail Trail and Lakeshore Road. Existing vegetation will be replaced, with a focus on removing invasive and/or noxious species, including Japanese Knotweed, Bittersweet, Tree of Heaven, Norway Maple, and Poison Ivy.



 Traffic simulation video

QUESTION:

What are the impacts to private property and how has the project managed these impacts?

ANSWER:

This project has required Right-of-Way acquisitions for the roadway improvements. Right-of-Way is a publicly owned area reserved for transportation purposes.

MassDOT Right-of-Way has completed the acquisitions process for this project. This process included meeting with or attempting to meet with and compensating all impacted property owners. In addition, the Modified Diverging Diamond Design (MDDI), sought to minimize Right-of-Way impacts within the project limits.

Additional coordination and outreach to any impacted property owners will be conducted both in advance of and throughout the duration of the project to ensure ongoing communication and to keep property owner's aware of the work affecting them. To contact the project team, please direct inquiries to:

Email: Rt27Rt9Natick@dot.state.ma.us

Project Hotline: 305-270-4445

To stay connected, [please subscribe for project email alerts.](#)

MassDOT provides uniform and equitable treatment for those whose property is acquired.

MassDOT respects fundamental property rights and is committed to treating all property owners with fairness and respect.

Additional information may be found via the MassDOT [Right of Way](#) guide for property owners.



Subscribe for project email alerts



Right of Way guide

QUESTION:

What environmental impacts have been assessed as part of the project?

ANSWER:

This project was advanced through Base Technical Concept (BTC) design as a Bridge Exemption. Pursuant to the Transportation Bond Bill of 2014, Chapter 79 § 24 of the Acts of 2014, MassDOT is exempt from certain General Laws related to the repair, reconstruction, replacement, or demolition of existing state highway and municipally-owned bridges and their immediate approaches necessary to connect adjacent roadway and rail systems, provided the proposed design is substantially the functional equivalent of, and in a similar alignment to, the existing structure.

The project does not meet or exceed any of the Mandatory Environmental Impact Report (EIR) thresholds at 301 CMR 11.03. Additionally, the project does not exceed any of the Environment Notification Form (ENF) review thresholds at 301 CMR 11.03.

At the Route 27 and Route 9 interchange, the Modified Diverging Diamond Interchange (MDDI), improves safety and traffic flow without increasing the overall traffic capacity beyond what's expected from future traffic projections through 2042 and is the functional equivalent of the existing interchange. The three new bridges for Route 27 northbound, southbound, and the shared-use path (SUP) for cyclists and pedestrians will be constructed in a similar alignment to the existing Route 27 bridge over Route 9. Changes to ramps and intersections are also planned, but the majority of the improvements remain within the current interchange footprint, with only minor right-of-way adjustments, to avoid large-scale roadway widening and land use changes.

While some trees are required to be removed for construction, the project includes planting over 200 new trees as part of the final project landscaping. New trees will be planted where space and safety allow, with a focus on using native and sustainable species.

Although MassDOT is exempt from MEPA review for the project, we are committed to ensuring that the project meets all state and federal environmental regulations, and that the project's public outreach approach is responsive to the Environmental Justice (EJ) designated geographic areas located within and around the project limits. The Design-Build contractor is required to meet specific design standards and adhere to environmental requirements during construction. The project complies with environmental legislation and regulatory agencies including but not limited to:

- National Environmental Policy Act (NEPA)
- Section 106 of the National Historic Preservation Act
- Section 7 of the Endangered Species Act
- Massachusetts Environmental Policy Act (MEPA)
- Massachusetts Endangered Species Act

QUESTION:

Who will be responsible for roadway maintenance of the three bridges when the project is complete?

ANSWER:

MassDOT will own and perform maintenance for the future Route 27 bridges, the Shared Use Path (SUP) bridge, and for the infrastructure improvements and roadway on Route 9 (Worcester Street). MassDOT's ownership and maintenance will extend on Route 27 (North Main Street) on either side of the future bridges between approximately the driveway of 222 North Main Street and the driveway 190 North Main Street, just north and south of the interchange. Roadway maintenance on Route 27 (Main Street) outside of those limits is within the Town of Natick's jurisdiction. Roadway maintenance includes clearing snow, litter, and debris, as well as the general pavement conditions. MassDOT's roadway maintenance limits can be viewed [here](#) and are shown specifically in the project area in green on the below map.



MassDOT Road
Inventory Viewer



QUESTION:

What is the final landscaping that is planned for the project?

ANSWER:

Landscaping will focus on utilizing open space to the extent practicable with low-maintenance plantings with a preference for native species. The project is not intended to create formal park spaces. Opportunities may be available for private entities to “adopt” and maintain specific landscaped areas. For typical landscaping and landscaped areas, please view the latest project renderings [here](#). Parties that are interested in ‘adopting’ a landscape area within the interchange are encouraged to contact MassDOT at Rt27Rt9Natick@dot.state.ma.us or via the project phone hotline, 305-270-4445.



Project
renderings



CONTACT US

Project Email:

Rt27Rt9Natick@dot.state.ma.us

Project Phone Hotline:

(305) 270-4445

Project Website:

Mass.gov/NatickRoutes27and9

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