Union Hill Road, Bridge over Route 9
Preliminary Engineering Phase

Virtual Public Information Center ▪ April 2025
Marlboro, Monmouth County, New Jersey

PRESENTATION TRANSCRIPT

Slide #	Transcript
1	Hello, and welcome to the Public Information Center for the Preliminary Engineering phase of the New Jersey Department of Transportation, Union Hill Road, Bridge over Route 9 replacement project located in Marlboro, Monmouth County, New Jersey. This virtual Public Information Center is open from April 23, 2025, through May 05, 2025, to learn about the project at any time. It is open to all members of the public. The video presentation will be available to view at www.UnionHillBridgeoverRoute9.com through the public comment period which ends June 05, 2025. We will explain how to submit questions and comments at the end of the presentation. Responses to Frequently Asked Questions will be posted on this website after June 05, 2025.
2	This presentation will provide the purpose and need for the project as well as a project overview. We will discuss the original bridge replacement alternative that was detailed in the Concept Development phase and the updates that were made throughout the Preliminary Engineering Phase. We will also discuss the revisions to the traffic management scheme. Finally, we will review the project schedule and offer an opportunity for public comment and feedback.
3	The main point of contact for this project will be Sandra O. Opoku from NJDOT's Office of Government and Community Relations (OCR). The design team includes Brian Strizki, PE, Jorge Patiño Velásquez, PE, PMP, and Nicole Brown, PE.
4	Following is a project overview.
5	The purpose of this project is to replace the existing bridge carrying Union Hill Road over Route 9 in Marlboro, Monmouth County, New Jersey. The existing bridge is in poor condition. This project will improve the inadequate deck geometry, widening it from 36 feet to 44 feet curb-to-curb, provide the required 16 and a half feet of vertical underclearance over Route 9, and improve the condition of the existing deck and superstructure.
6	This project is located in Marlboro Township, Monmouth County, New Jersey.
7	The photo on the left shows the south fascia of Union Hill Road from the northbound lanes of Route 9. There is missing concrete encasement on the fascia girder of the west span of Union Hill Road over Route 9 Southbound. The existing minimum clearance over Route 9 traveling northbound is 14'-3". The photo on the right shows the north fascia of Union Hill Road from the southbound lanes of Route 9. The clearance over the southbound lanes varies between 13'-8" and 14'-1".
8	The photo on the left shows the underside of the west span, carrying Union Hill Road over the southbound lanes of Route 9. There is missing concrete encasement, and evidence of vehicular impacts to the girders due to the low clearance. There are existing utility conduits between the two southernmost girders. On the pier, there is a steel plate that is showing signs of water infiltration. The photo on the right shows the extents of missing concrete encasement on the fascia girder, with spalling and exposed rebar from the deck slab.

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9	These photos show the east span, which is composed of prestressed concrete girders. This side of the pier also has a steel plate in need of repair. The utility conduits between the two southernmost girders are visible in the photo on the right.
10	The photo on the left is the signalized intersection of Union Hill Road and Clayton Road and Ramp E, looking northeast. This intersection is directly west of the structure. The aerial utilities are visible through the intersection and extending down Ramp E. The photo on the right is of Union Hill Road, looking northeast, with Route 9 visible in the background. Aerial utilities run both parallel to Union Hill Road, and across the east approach.
11	The photo on the left shows the large number of aerial utilities that will require relocation. Utilities run both parallel to Route 9 and parallel to Union Hill Road. Extensive coordination with the utility companies in this area will be necessary throughout design to minimize impacts to residents and businesses. The photo on the right shows Union Hill Road looking west. This photo was taken from the location of the Top Plaza shopping center. Ramp B is approaching from the left of the photo, and the left turn onto Ramp D is visible on the right.
12	We will now review the bridge replacement and traffic control alternatives that were proposed in Concept Development.
13	In the Concept Development Phase, this structure was proposed to be replaced by another two-span structure, using built up plate girders. This structure would provide the required 16'-6" minimum underclearance and would be constructed using staged bridge construction techniques. This structure would include the construction of a new concrete pier in the median of Route 9, in the same location as the existing pier. The structure was proposed to be supported on full height reinforced concrete abutments, founded on piles.
14	The proposed traffic control for this alternative would include maintaining eastbound traffic over the structure during construction and detouring westbound traffic away from the interchange, using either a 2-mile or 3.5-mile-long detour route.
15	In the following slides, we will review the design changes that have been made in the Preliminary Engineering Phase.
16	During Preliminary Engineering, JMT reevaluated the structure type and traffic control for this bridge replacement. The proposed structure type that was approved in Preliminary Engineering is a single span bridge that will be constructed under a full road closure, detouring Union Hill Road in both directions through the duration of construction. The proposed structure can be constructed in less time and with fewer impacts to residents and businesses.
17	The new proposed structure is a 135-foot long single-span steel plate girder bridge with an integral abutment founded on steel H-piles. The structure will be comprised of 8 steel girders and will carry one 11-foot lane and 5-foot shoulder in each direction, a 12-foot left turn lane, and a 6-foot sidewalk on the south side of the structure, which will tie into the existing sidewalk on the south side of Union Hill Road. This structure will provide the required 16'-6" minimum vertical underclearance over Route 9, which is a 2'-7" improvement over the current minimum clearance.
18	The new single span structure will provide significant advantages over the original two-span structure. The foundation costs will be lower, as fewer piles will be required. No pier will need to be constructed, thus eliminating the cost for pier concrete, piles, and sheeting, and a line of bearing will be eliminated. There is an existing ITS line located in the median of Route 9, which will no longer be impacted with the elimination of a new pier. The traffic impacts in the project area will be minimized, and the overall construction duration will be reduced.
19	The duration of construction operations will also be drastically reduced by using Accelerated Bridge Construction (ABC) methods. The ABC methods that are expected to be implemented in this project include an Integral Abutment with a Precast Concrete abutment cap and precast concrete approaches. The use of precast concrete deck panels is also being investigated. The use of ABC methods and precast elements will reduce the construction duration and will therefore reduce the impacts to residents and businesses.

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20	Due to the increased structure length, a deeper beam will be required, increasing the roadway profile over the bridge. Union Hill Road will be raised approximately 3'-11" over Route 9 to provide the required 16'-6" clearance. The profile will be tied down to the existing profile as quickly as possible. Ramp E and Clayton Road will be modified as necessary to meet the increase in roadway profile. Special attention will be given to the residents along Clayton Road to maintain access to their properties during construction. Similarly, access to the NJ Transit Park & Ride facility east of the structure will be maintained. JMT will coordinate regularly with NJ Transit throughout Construction operations.
21	We will now review Traffic Management.
22	JMT developed a revised traffic control scheme to eliminate the 2-mile and 3.5-mile detour of westbound traffic. The new proposed detour will be contained within the interchange using two temporary traffic signals. Traffic moving Eastbound will be detoured using Clayton Road to a temporary traffic signal. Vehicles can then turn left onto Route 9 Northbound or cross Route 9, travel back up Ramp B, and continue westbound along Union Hill Road. Westbound traffic well be detoured using Ramp D to another temporary traffic signal. Vehicles can either turn left onto Route 9 Southbound, or cross route 9, travel back up Ramp E, and continue to Union Hill Road Westbound. This alternative reduces the detour length and road user costs
23	A comprehensive Traffic Analysis was conducted for five locations within the interchange during the full bridge closure, with the temporary ramps and signals in operation with a six-lane configuration on Route 9.
24	The analysis conducted using Synchro demonstrated that the six lanes distributed through the intersection can handle the heavy Northbound and Southbound traffic much more effectively. This necessitates reconfiguring the temporary intersections, utilizing shoulders as lanes, and adding temporary pavement in some small areas.
25	To ensure pedestrian safety and convenience during the bridge replacement project, pedestrians will be directed to travel down Clayton Road. They will then utilize a temporary crosswalk and signal to safely cross Route 9. After crossing, pedestrians will continue along the existing sidewalk on Ramp B, which will guide them to either Union Hill Road or the bus stop. Clear signage and additional safety measures will be in place to assist pedestrians throughout this temporary route.
26	Next we will review the anticipated project schedule.
27	This project is currently in the Preliminary Engineering Phase, where the designer is responsible for coordinating with stakeholders, conducting environmental analyses for the preliminary preferred alternative, initiating roadway, structural, and utility engineering, initiating right of way and access, preparing final design and construction cost estimates, and managing project contracts. Once Preliminary Engineering is complete, the project will advance into the Final Design Phase where construction contract documents shall be completed. After Final Design, the project will move into the Construction Phase .The Preliminary Engineering phase of this project is expected to be completed in Fall of 2025. Final Design will extend from 2025 through Fall of 2028. Construction is expected to begin in Fall of 2028.
28	We will now provide information on how to submit comments and feedback.
29	Thank you for taking the time to view this presentation on the Preliminary Engineering phase of the New Jersey Department of Transportation, Union Hill Road, Bridge over Route 9 project located in Marlboro, Monmouth County, New Jersey. Next steps include the 30-day public comment period where NJDOT welcomes input from the public. The frequently asked questions will be posted to this web page after June 5, 2025. Please submit questions or comments through June 5, 2025, by mail to Sandra O. Opoku, Regional Coordinator at New Jersey Department of Transportation's Office of Government and Community Relations. The mailing address is P.O. Box 600, Trenton, NJ 08625-0600. You can contact Sandra O. Opoku by email at SandraO.Opoku@dot.nj.gov or by phone at (609)-963-1982. Your participation and comments are appreciated by the New Jersey Department of Transportation.