



BAY AVENUE, BRIDGE OVER MILL CREEK



STAFFORD, OCEAN COUNTY
PUBLIC INFORMATION CENTER

| August 3, 2026





Presentation Agenda

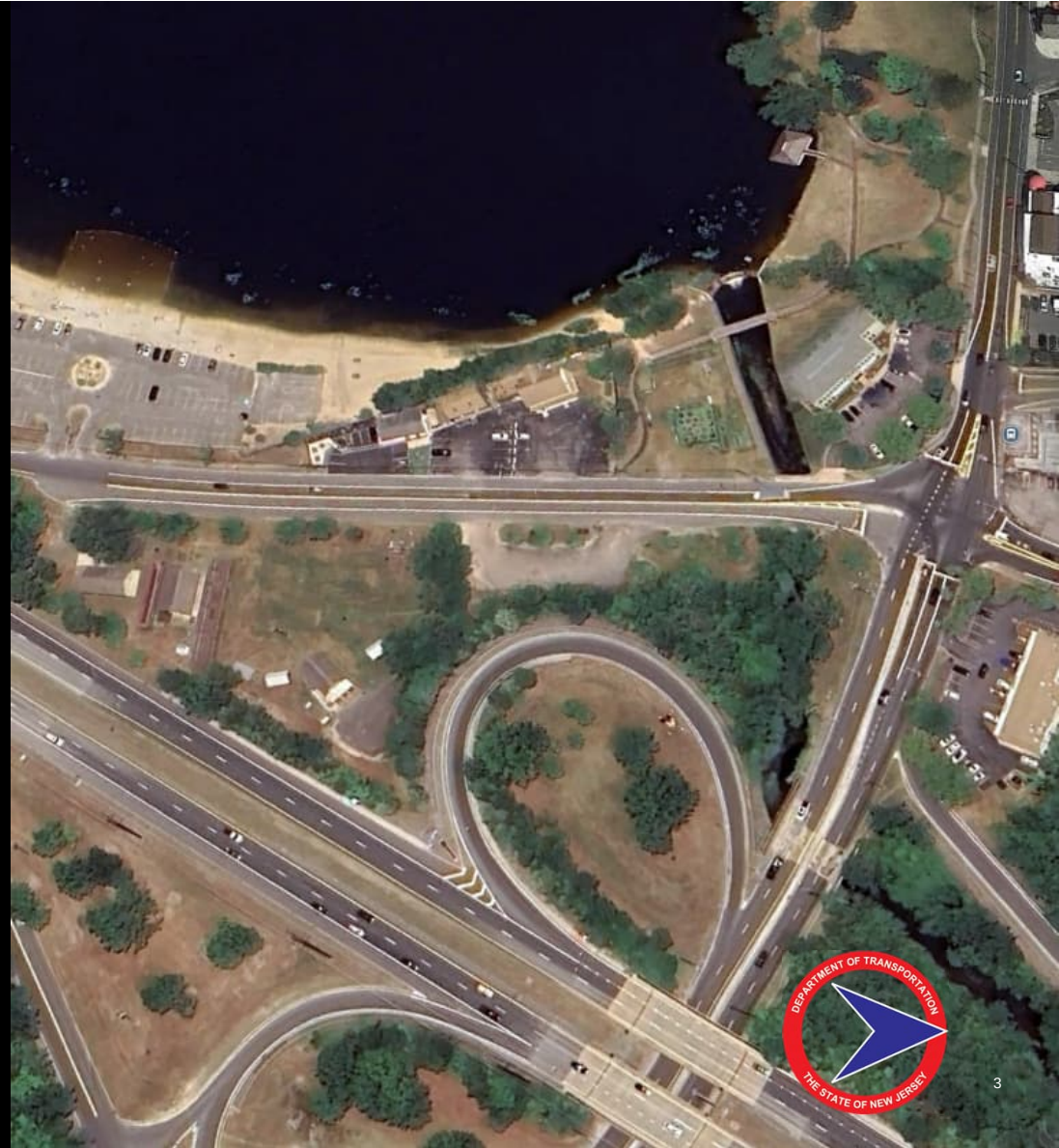
1. Project Overview
2. Key Project Features
3. Project Schedule and Costs
4. Public Feedback





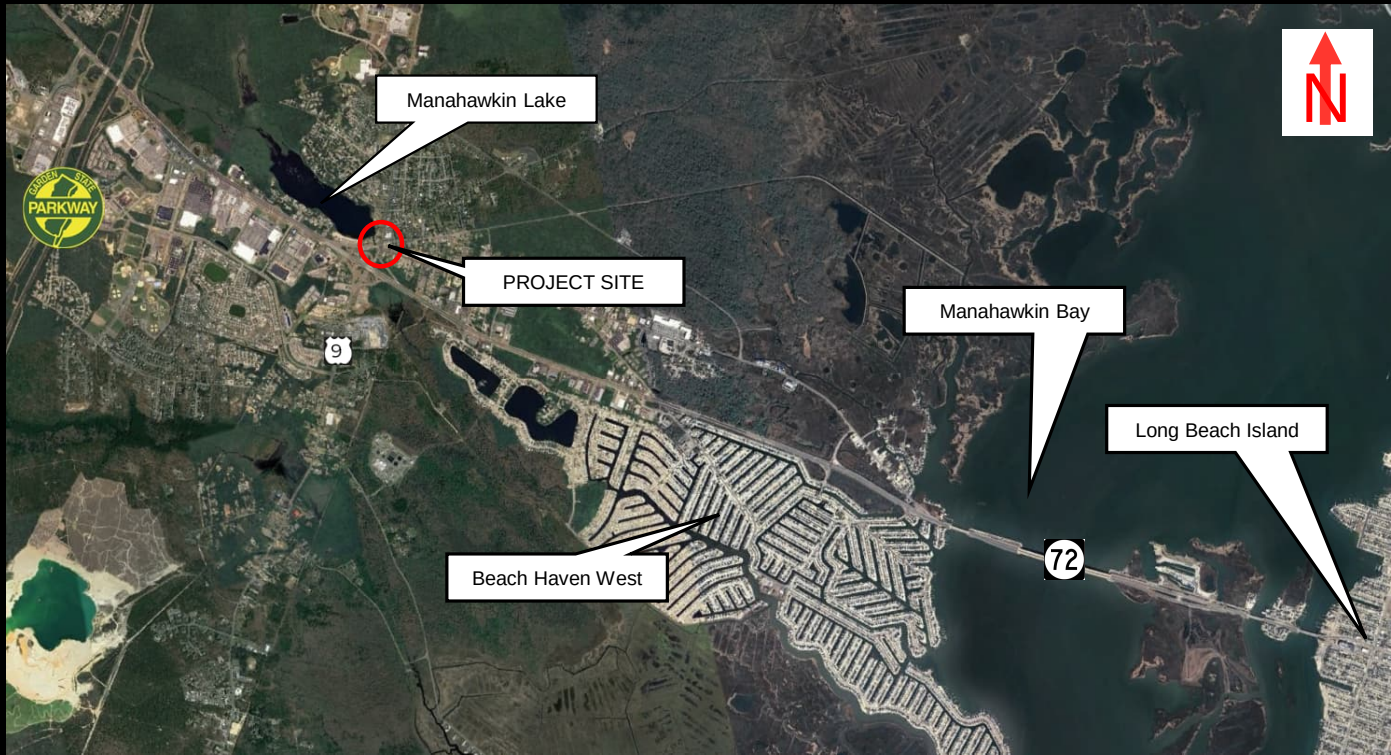
PROJECT OVERVIEW

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Project Overview - Location





Project Overview - Location



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Bay Ave – Looking West



EAST APPROACH LOOKING WEST





Bay Ave – Looking East



WEST APPROACH LOOKING EAST



EAST APPROACH LOOKING EAST



Manahawkin Lake Spillway



SPILLWAY LOOKING NORTHEAST



SPILLWAY LOOKING NORTH



MISC PHOTOS



EXISTING OPEN BALUSTRADE



PEDESTRIAN BRIDGE NORTH OF STRUCTURE



MISC PHOTOS



DRIVEWAY AT NORTHEAST



DRIVEWAY LOOKING SW



DRIVEWAY LOOKING NE





MISC PHOTOS



GIRDER 2S NEAR EAST ABUTMENT



UNDERSIDE OF DECK BAY 2S



MISC PHOTOS



GIRDER 10S



NORTH FACE OF GIRDER 11S



Project Purpose and Need

➤ Purpose

The purpose is to rehabilitate or replace the existing bridge to improve the condition of the structure.

➤ Need

The Bay Avenue Bridge over Mill Creek has been identified as **in need of replacement**. The current conditions requiring replacement are as follows:

1. The **bridge deck is in poor condition** due to several large spalls and fine to medium cracks with light to moderate efflorescence on the underside of the deck.
2. The **superstructure is in satisfactory condition** due to the severe spalling and scaling of the concrete encasement at girder 2S and 11S, also some areas of exposed and heavily corroded bottom flange with remaining 7/8" section at girder 10S.
3. The **substructure is in poor condition** due to the areas of severe spalling and scaling, a few wide vertical and horizontal cracks on both breastwalls, backwalls and bridge seats and random areas of moderate to severe efflorescence.
4. An underwater inspection performed September 1, 2020 found underwater components of the structure to be in poor condition due to the severe spalling and random wide full height vertical and diagonal cracks up to ½" at both abutments. Based upon probing of the channel bottom adjacent to the substructure units, local scour was noted at the north corner of the west abutment and no footing was exposed.
5. Due to the **poor condition of the deck and substructure, the structure is in need of replacement**.
6. Existing sidewalks are not ADA-compliant.





Existing Conditions

▪Roadway

- *Bay Ave is an Urban Local (per Inspection Report)*
- *ADT of 10,657 vpd (12/2024), 4% trucks, 99% WB Traffic*
- *35 MPH Posted Speed Limit*
- *50 feet curb-to-curb width; varying shoulders*
- *5 foot wide sidewalk on North East approach*
- *Signalized Intersection on east side of bridge*

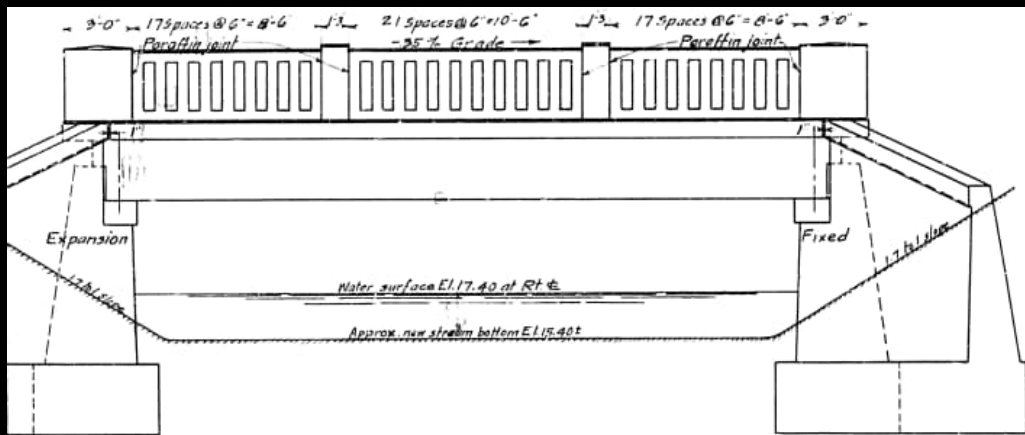
▪Bridge

- *31'-3" single span encased structural steel beam bridge with a concrete cast-in-place deck*
- *Bridge is 64'-2" wide*
- *Spans over Mill Creek*
- *50 feet curb-to-curb width*
- *Varying travel lanes in each direction*
- *6 foot wide sidewalks on each side*
- *Underclearance over Mill Creek is about 2'-11" per Inspection Report*





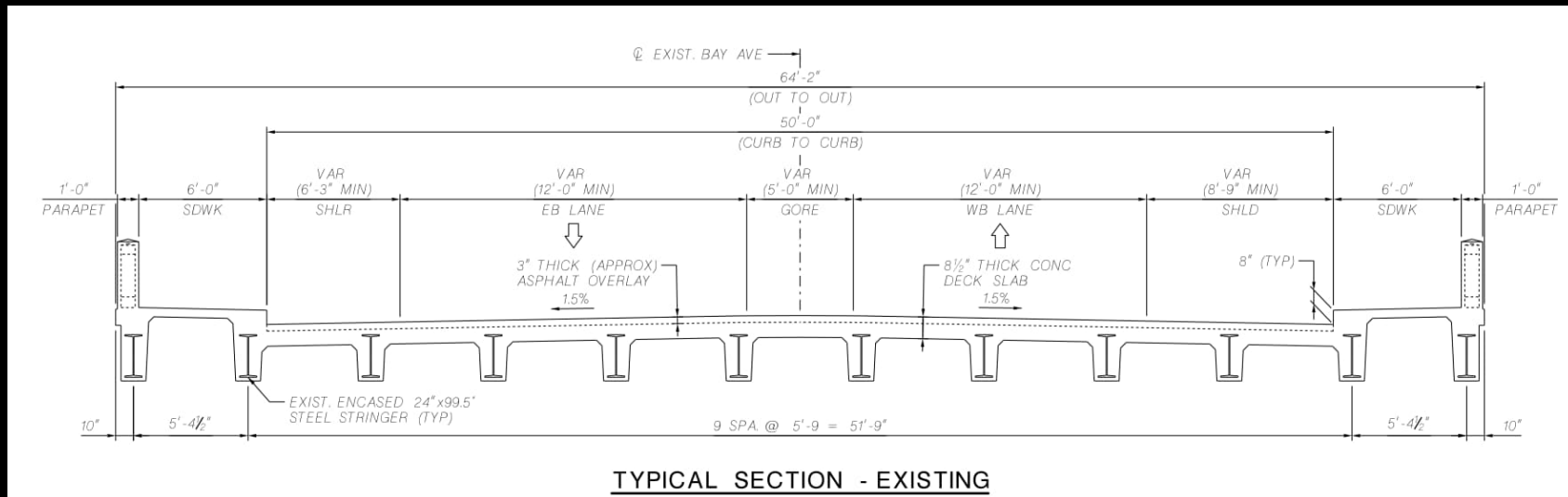
Existing Bridge Elevation



ELEVATION LOOKING SOUTH



Existing Section



TYPICAL SECTION



Project Updates

■ Primary Tasks Performed

- *Traffic Counts*
- *Preliminary Hydraulic & Hydrologic Analysis*
- *Utility Risk Plan*
- *Substandard Elements Identified*

■ Primary Project Constraints

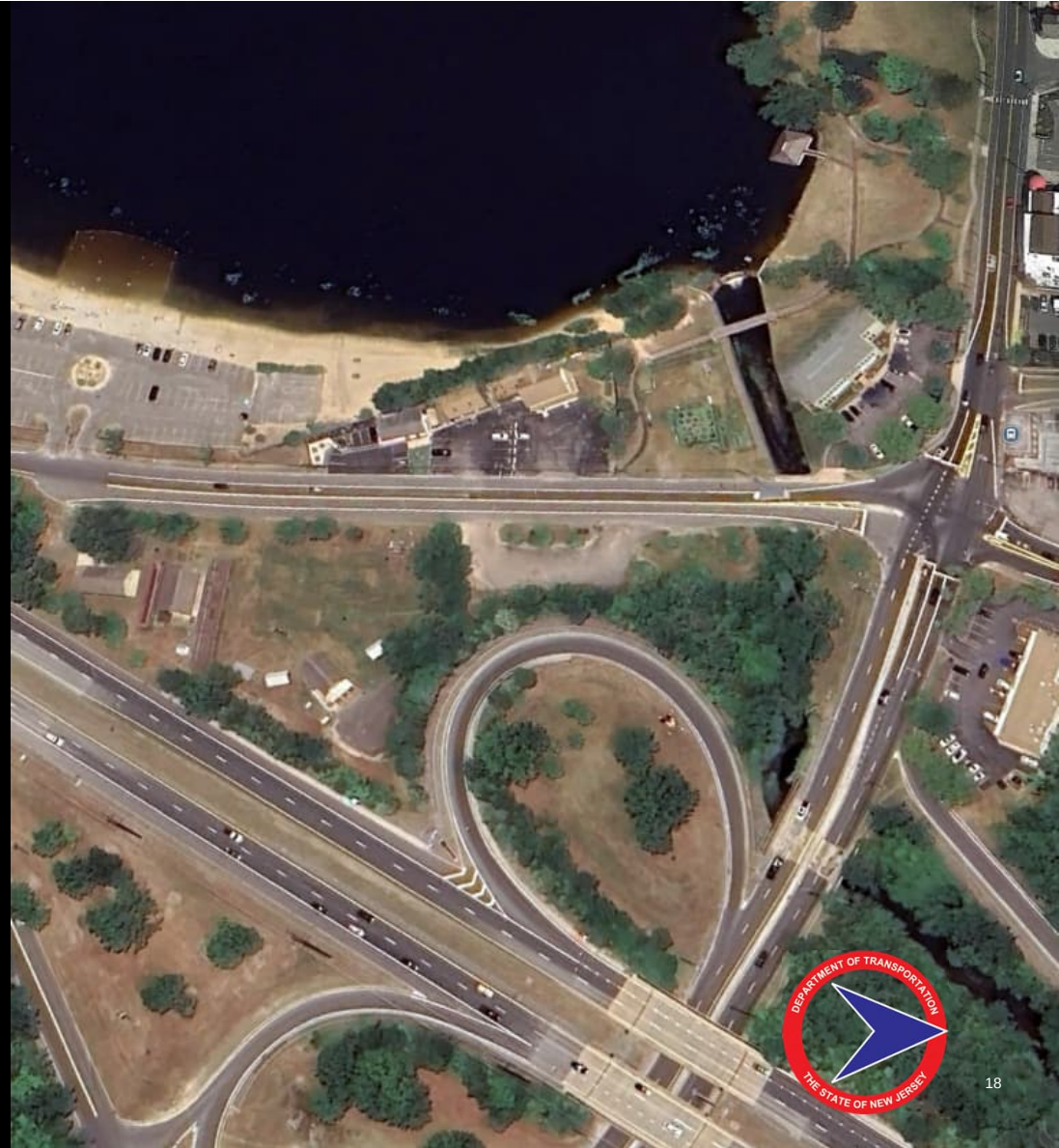
- *Access and Constructability related to the driveway and intersection*
- *Utility Impacts*
- *Hydraulic & Hydrologic Impact and Analysis*





KEY PROJECT FEATURES

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Preliminary Preferred Alternative

➤ Staged Single Span Bridge Replacement

- *Precast Concrete Rigid Frame Structure w/ UHPC Overlay*
- *35' Span Length*
- *37" Structural Depth*
- *Two Stage Construction*
 - *Eastbound Traffic Detoured in both stages*
 - *Westbound Truck Traffic Detoured in Stage 2*
- *Accelerated Bridge Construction*
- *Utilities temporarily relocated*

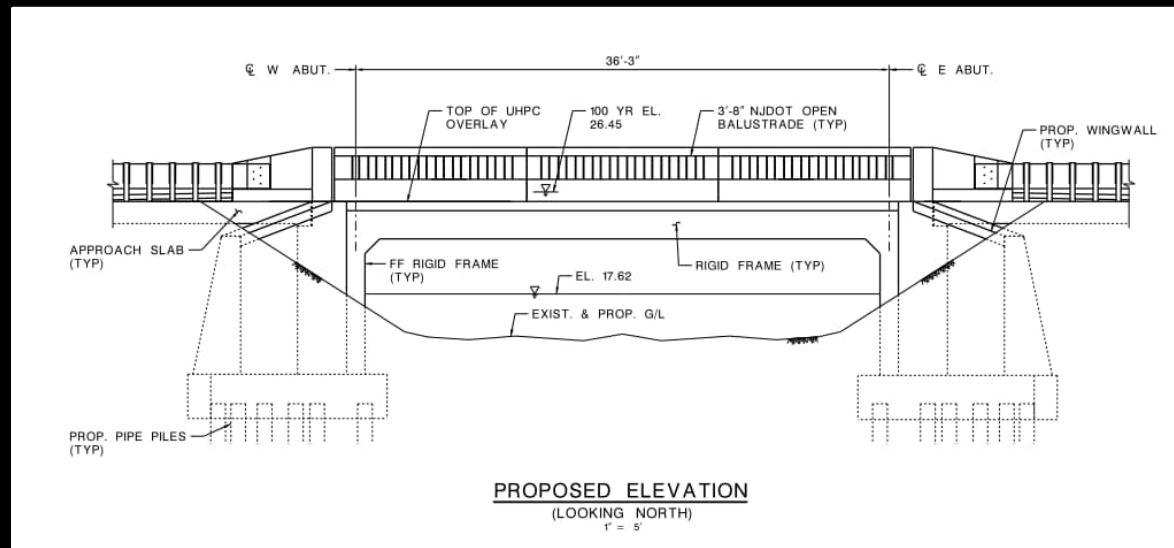




Preliminary Preferred Alternative - Elevation

Precast Concrete Rigid Frame

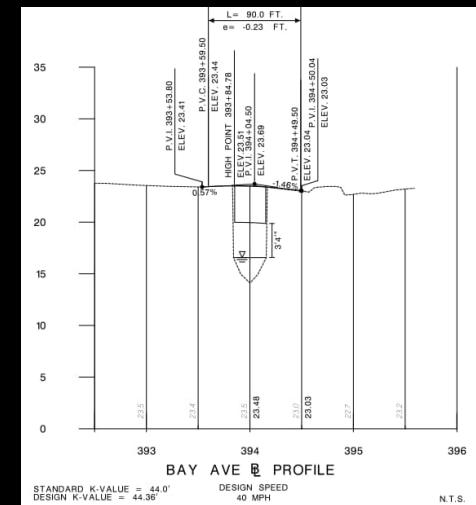
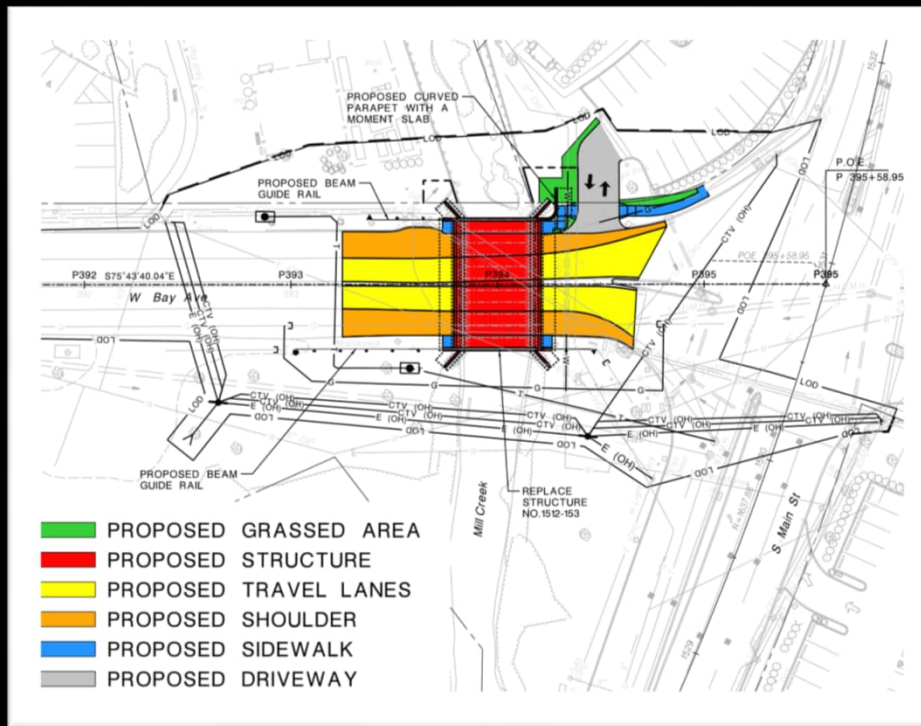
- 35' Hydraulic opening
- 2 Stage Construction







Preliminary Preferred Alternative – Construction Plan

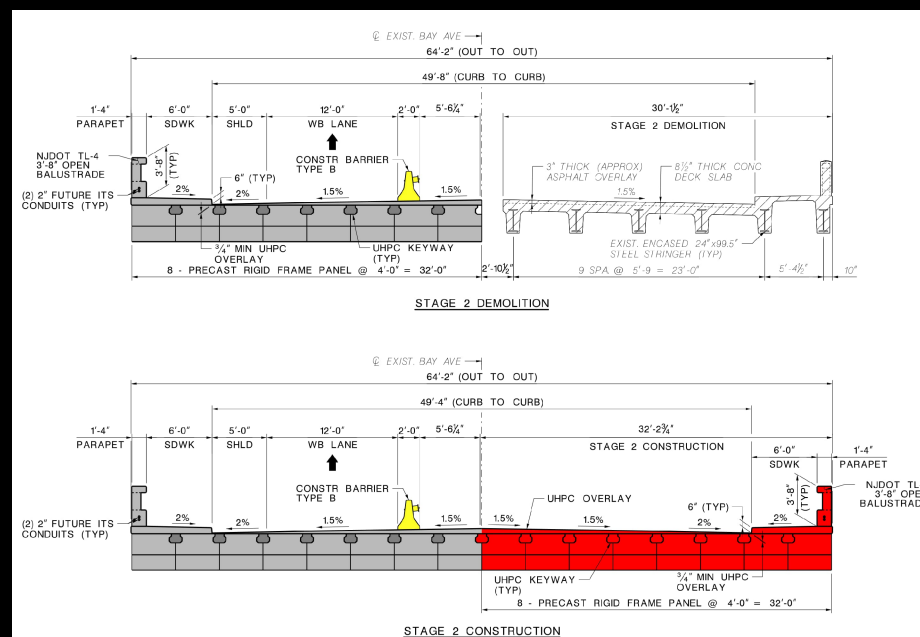
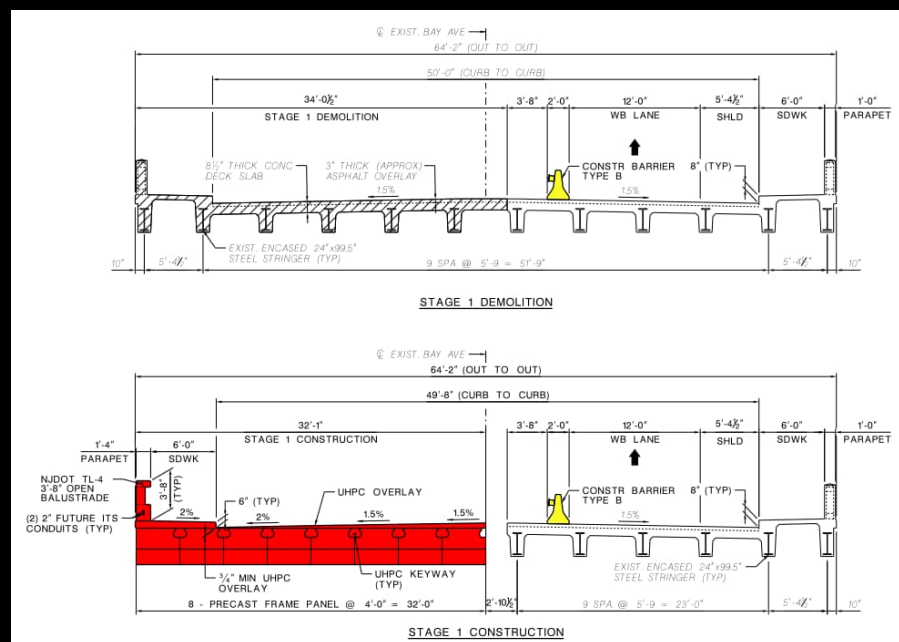




Preliminary Preferred Alternative – Traffic Impacts

- **Westbound traffic will be maintained**
- **2 Stage Construction**
 - *Detour EB traffic (1.4mi – 4 min)*
 - *Pedestrian access via Pedestrian Bridge and one side of structure*
 - *12' lane maintained*
 - *WB Truck Detour in Stage 2*





LEGEND:

	DEMOLITION
	TEMPORARY CONSTRUCTION
	ACTIVE STAGE CONSTRUCTION
	PROPOSED (COMPLETED) CONSTRUCTION



Traffic Detour – Eastbound





Traffic Detour – Truck

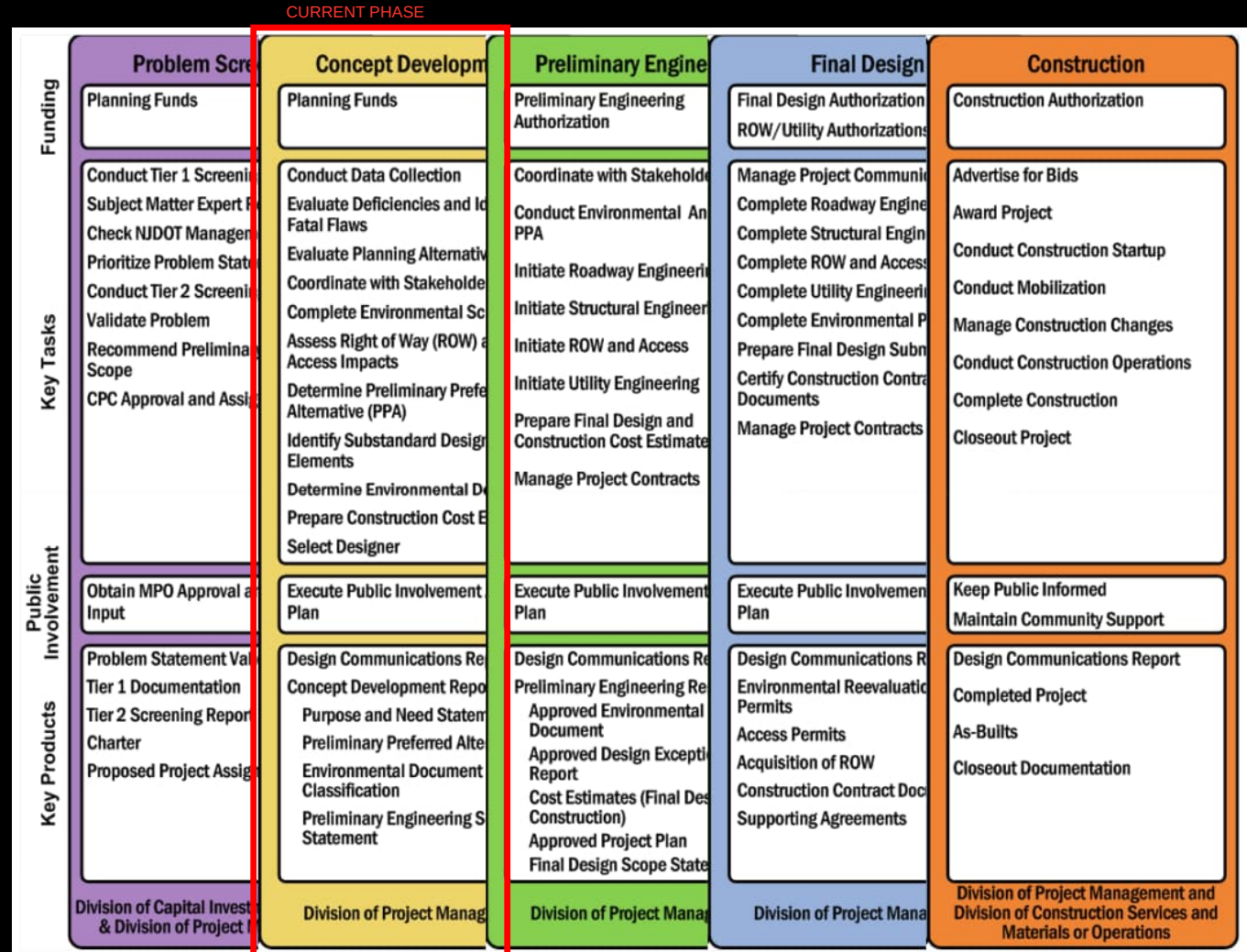




Project Schedule and Cost

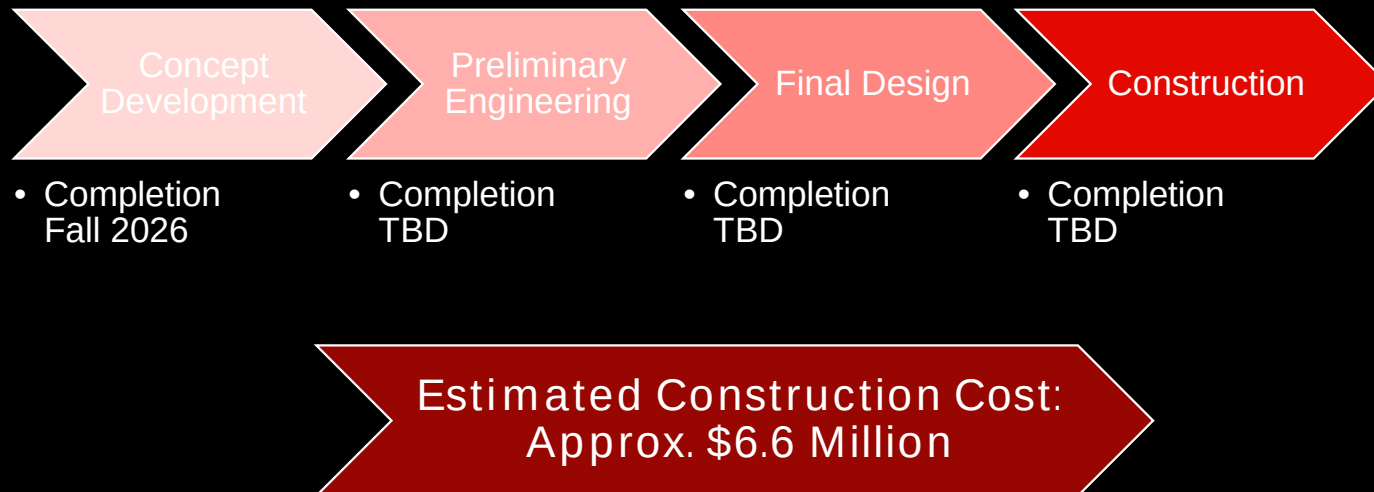


NJDOT Project Delivery Process





Project Schedule and Cost





PUBLIC FEEDBACK

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Public Feedback

- **Submit comments at the link below**

- www.BayAvenueBridgeoverMillCreek.com

- For more information, contact:

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THANK YOU

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