

Public Information Meeting

Project 82-299

Priority Repairs to the Arrigoni Bridge

Bridge No. 00524

Middletown

And

Portland

Connecticut Department of Transportation



Location Plan



Route 9

Arrigoni Bridge

Route 66

Middletown

Portland

Connecticut River

Purpose of Tonights Meeting

- **Present the need for Priority Repairs to the Arrigoni Bridge.**
- **Describe the current condition of the bridge.**
- **Discuss the major work items included under this project.**
- **Describe the plan for maintenance and protection of traffic during construction.**
- **Present the construction schedule.**
- **Solicit audience comments.**



ConnDOT Role

Bureau of Engineering and Construction

- **Responsible for engineering design, construction, and inspection of transportation projects**

**Contacts: Ms. Julie Georges, PE
(Principal Engineer)**

**Mr. David Cutler, PE
(Project Manager)**

**Ms. Michelle Lynch, PE
(Project Engineer)**



STV Incorporated **Consultant Engineers**

ConnDOT has retained the firm of STV Incorporated (STV) to provide the design of this bridge project.

Contacts: Mr. Richard Ezyk, P.E.
(Project Engineer)

Mr. James Sherwonit, P.E.
(Project Manager)



Purpose of this project

- **To improve the long term safety, reliability and integrity of the Arrigoni Bridge arch spans.**

Goals and Strategy

Provide a safe, cost effective and constructable solution for replacement of the arch spans deteriorated deck, sidewalk and joints. In so doing the service life will be extended and the annual maintenance will be reduced.



Past Rehabilitation Projects

- **Project 82-153 Deck and sidewalk repairs, drainage improvements and roadway barrier installed (1979)**
- **Project 82-223 Major rehabilitation including suspender replacement, steel repairs and floor beam retrofit, replacement of roadway barrier and deck repair (1993)**
- **Project 82-252 painting of structural steel (1997)**
- **Project 82-300 Lane use control signals (2009)**



Bridge Description

- **Three distinct units to the Arrigoni Bridge**
 - **Middletown Approach Viaduct**
 - **Arch Spans**
 - **Portland Approach Viaduct**
- **92'-6" Min. Vertical Clearance over Connecticut River**
- **Opened to traffic in 1938, 72 Years of continuous service**
- **Four 11'-0" traffic lanes (two in each direction), no shoulders**
- **6'-6" wide sidewalks on approach spans, 9'-6" wide sidewalks on arch spans**
- **Overall structure length of 3,425 ft.**
 - **Middletown viaduct 995 ft.**
 - **Arch spans 1,210 ft.**
 - **Portland viaduct 1,220 ft.**
- **Girder-floorbeam-stringer construction on approach viaducts**
- **Tied arch truss with suspended deck on main spans**



Location Plan



Route 9

Arrigoni Bridge

Route 66

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Main Span Elevation



Main Span Elevation



Current Arch Span Conditions

- **Poor ride quality due to deterioration of the wearing surface**
- **Deficient deck and sidewalk conditions**
- **Deteriorated expansion joints**

Thus, the arch spans are in need of a near term rehabilitation project to ensure that the integrity of the deck can be maintained for a minimum of 20 years.



Scope of Work

- **Replace arch span deck including the deck supporting members**
- **Replace arch span barrier curb**
- **Replace arch span sidewalk**
- **Remove, store and re-assemble arch span handrail**
- **Clean and restore entire bridge drainage system**



Main Span Riding Surface



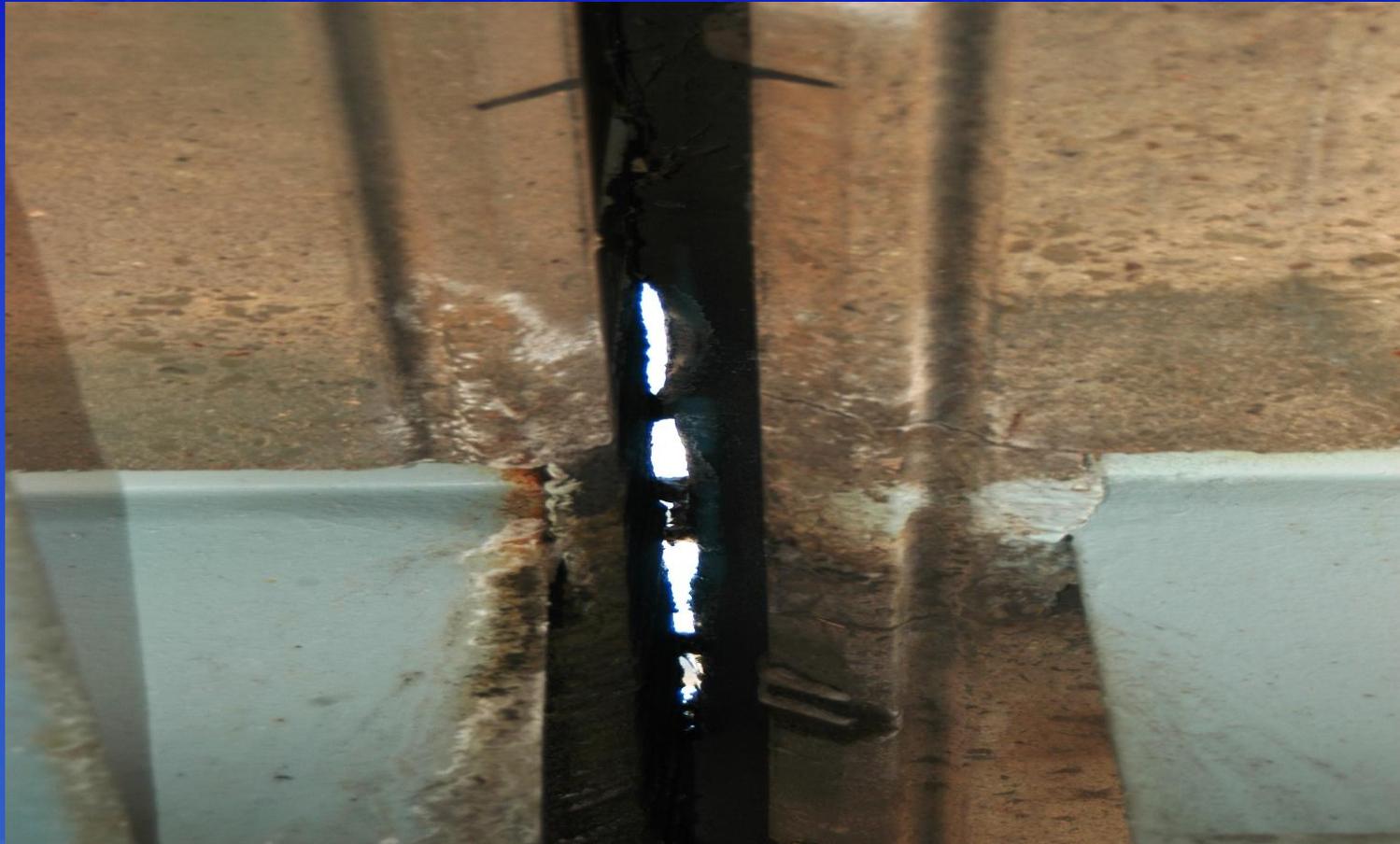
Arch Span Riding Surface



Arch Span Deck Joint



Arch Span Deck Joint



Underside Deck



Underside Deck



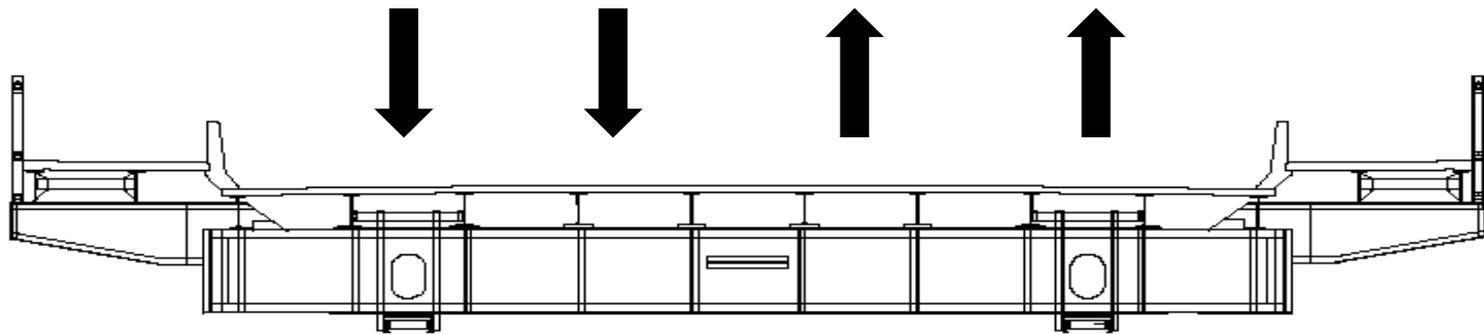
Underside Deck



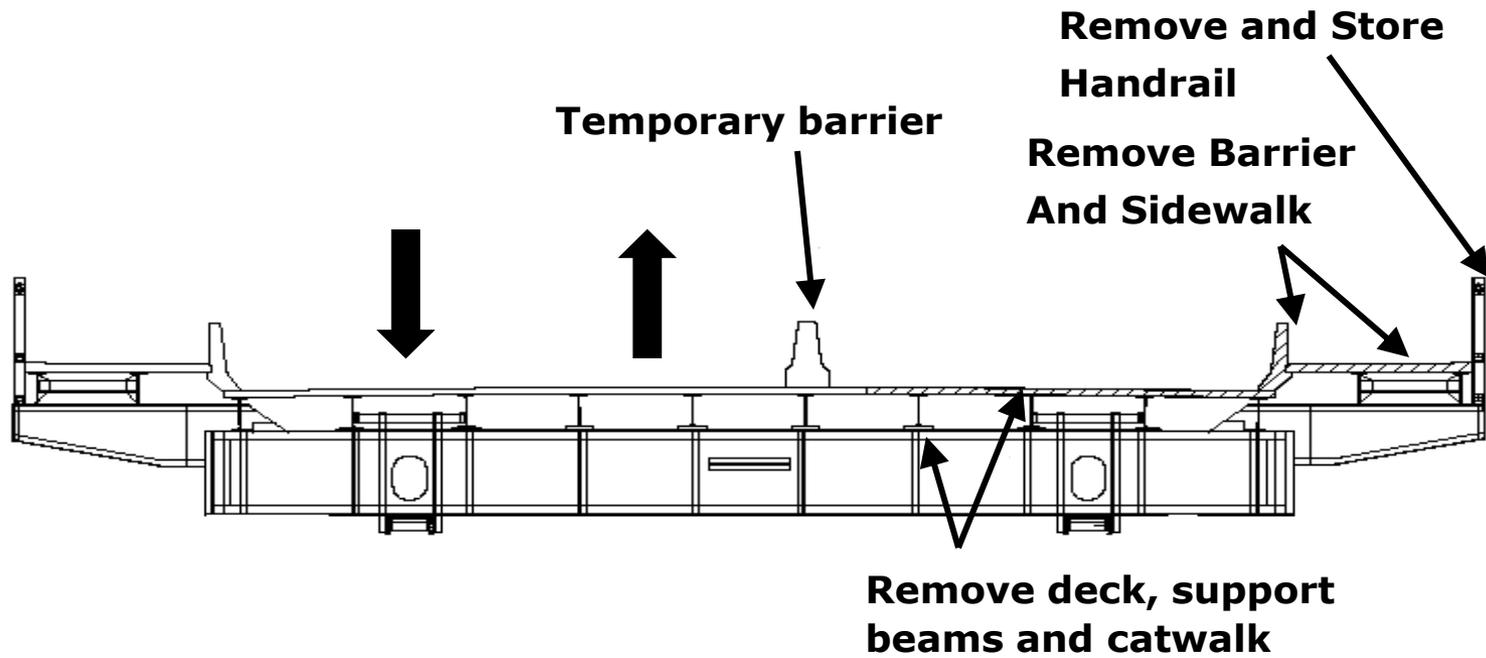
Accomplishing the Project Goals

Planned Maintenance of traffic Details

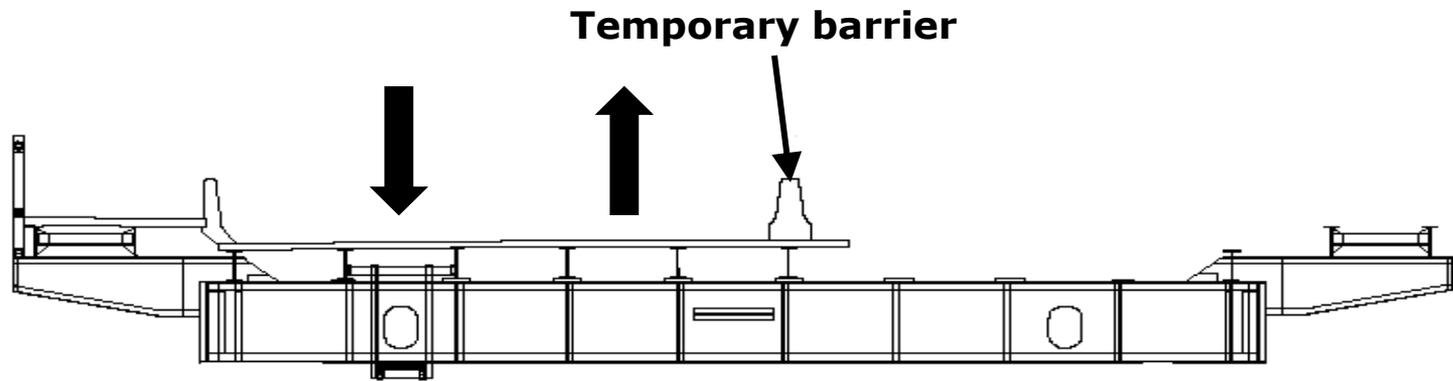




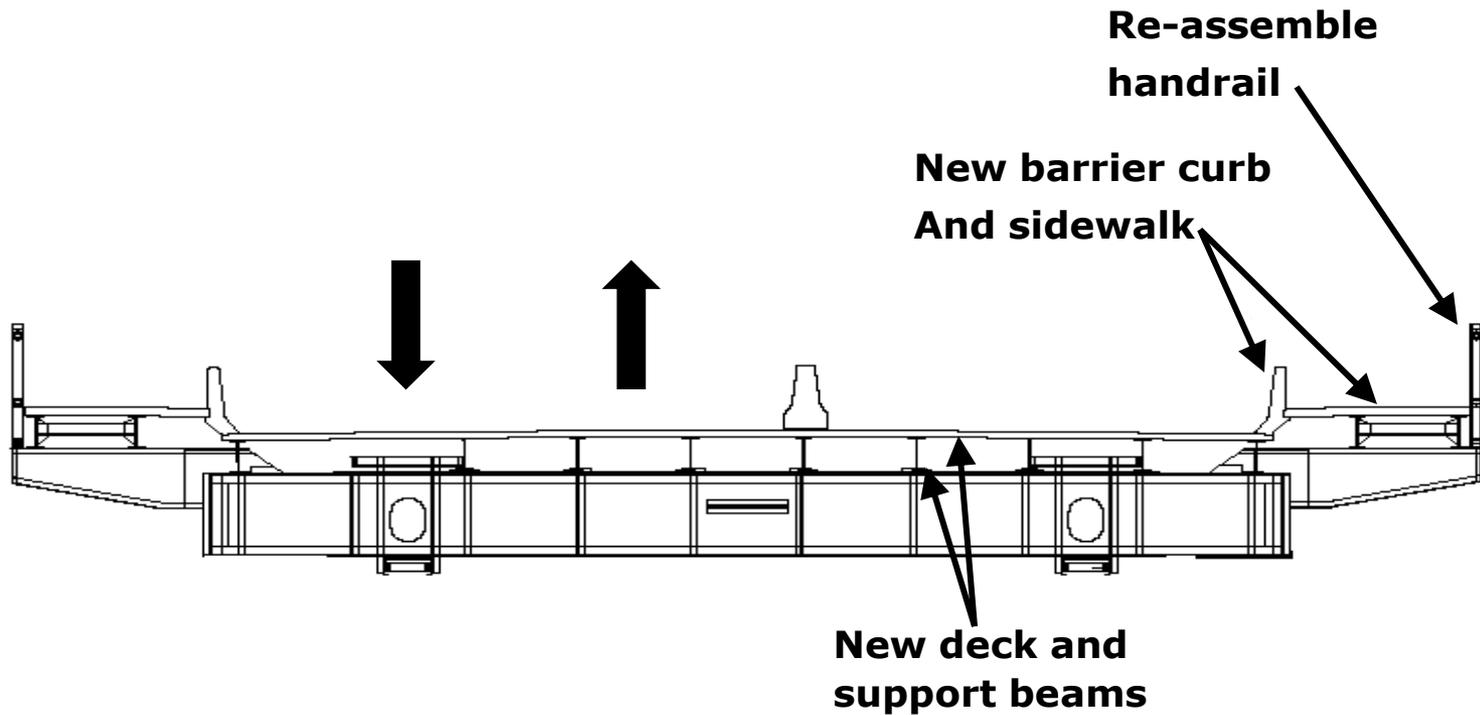
EXISTING CONDITION



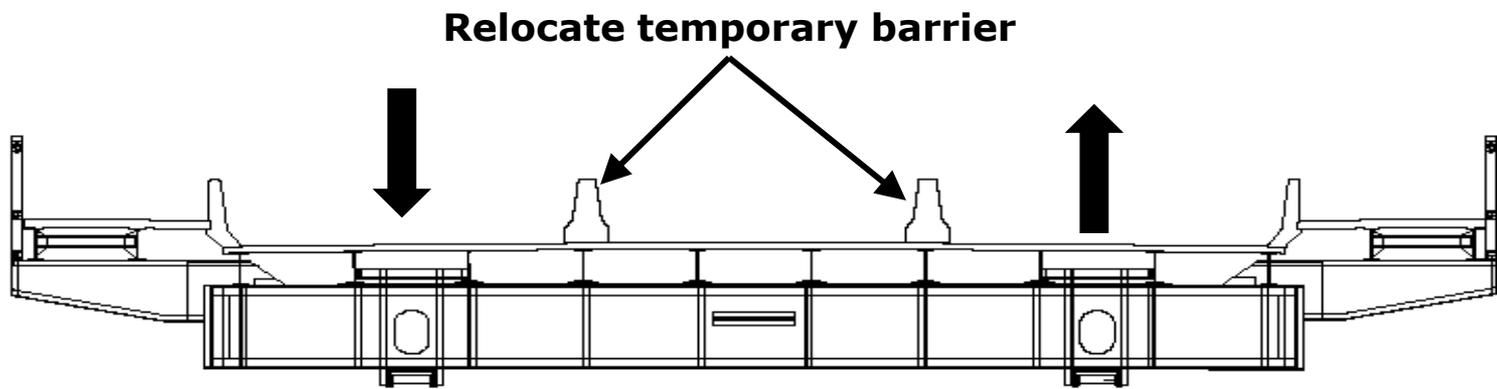
STAGE I DEMOLITION



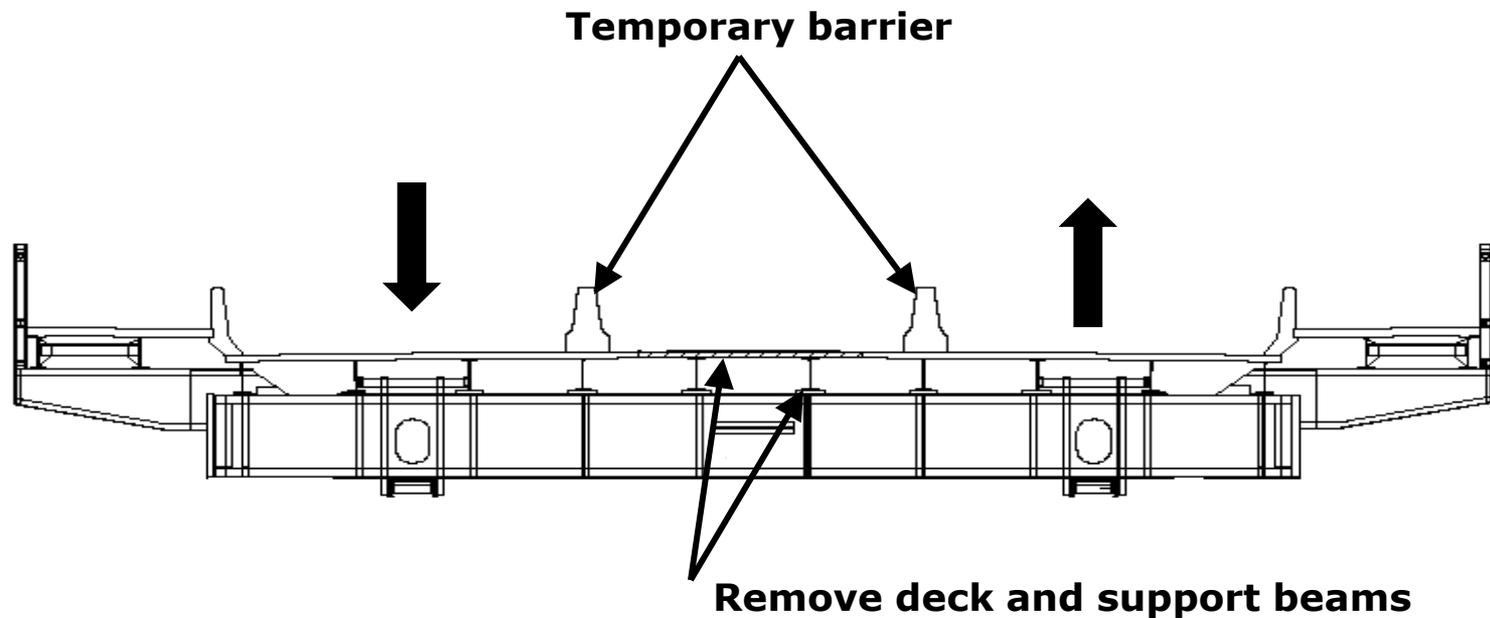
STAGE I DEMOLITION



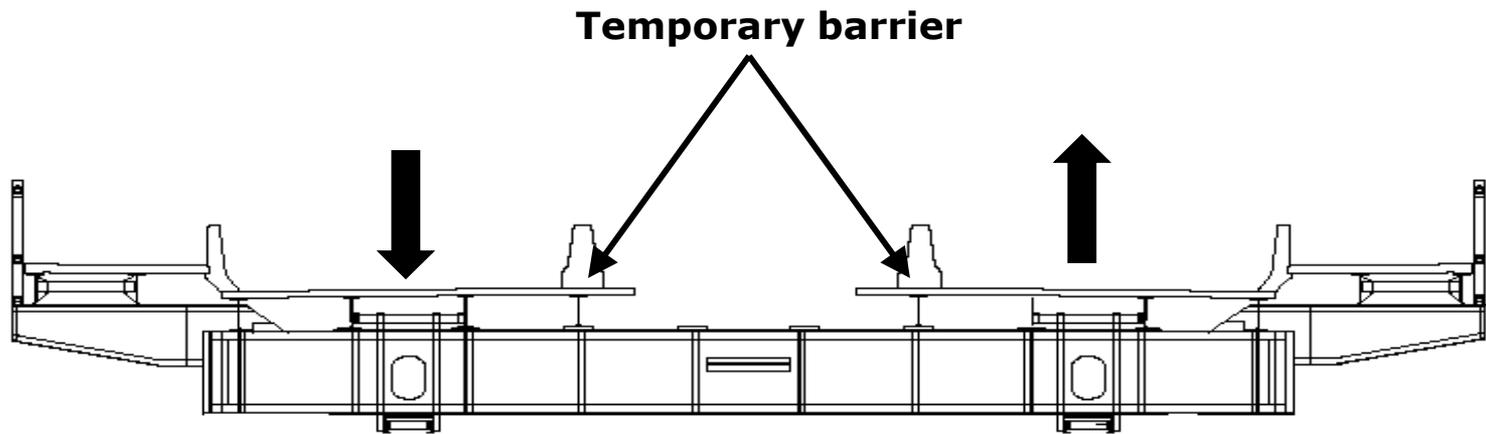
STAGE I CONSTRUCTION



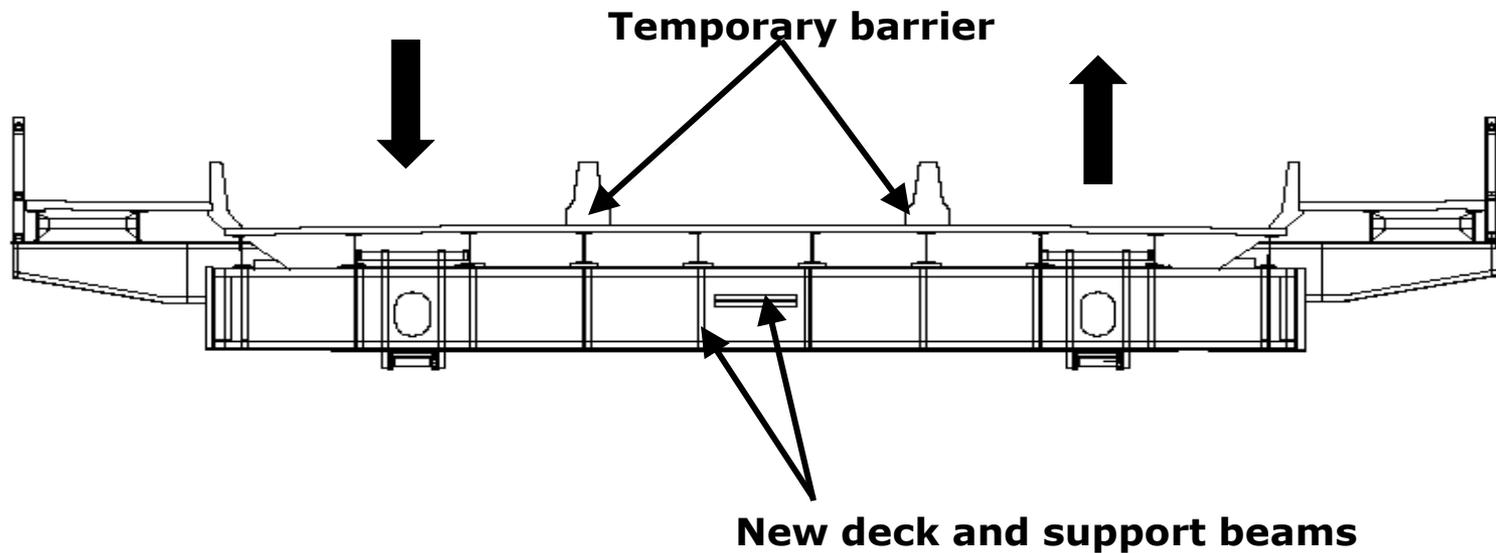
STAGE II CONSTRUCTION



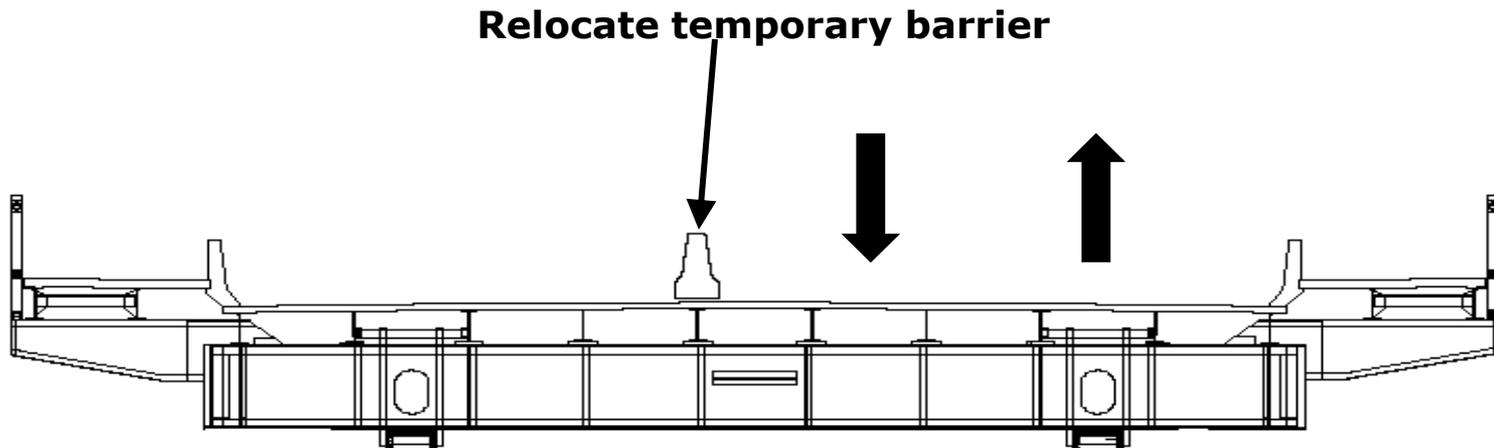
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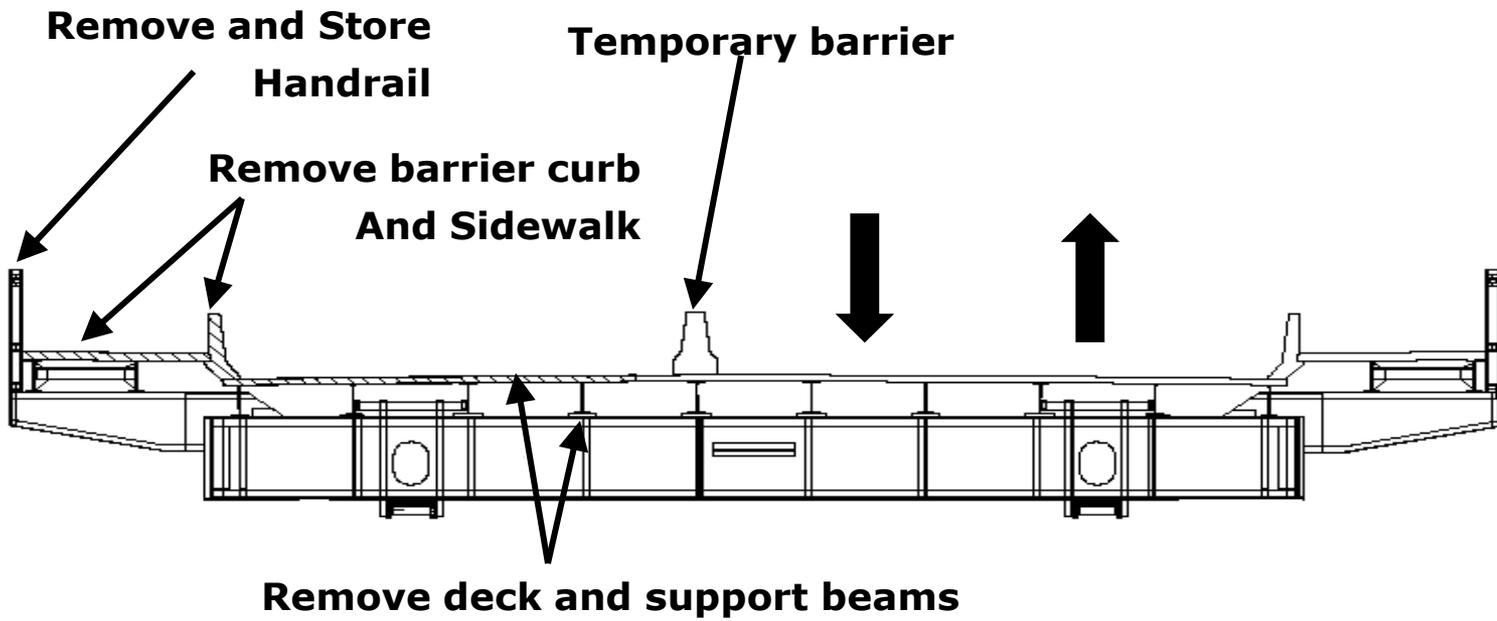
STAGE II DEMOLITION



STAGE II CONSTRUCTION

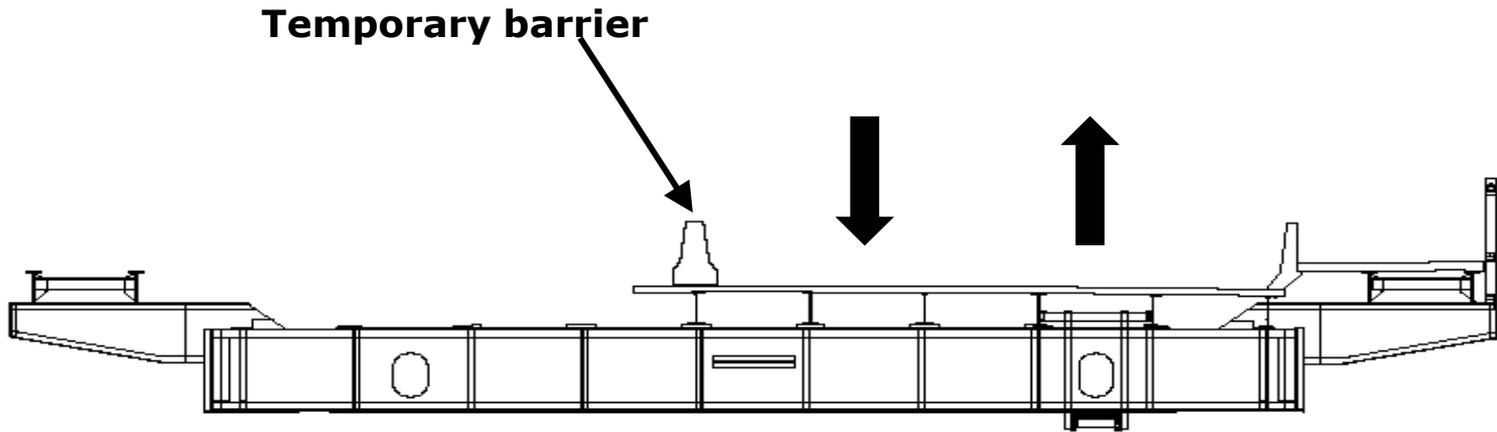


STAGE III CONSTRUCTION

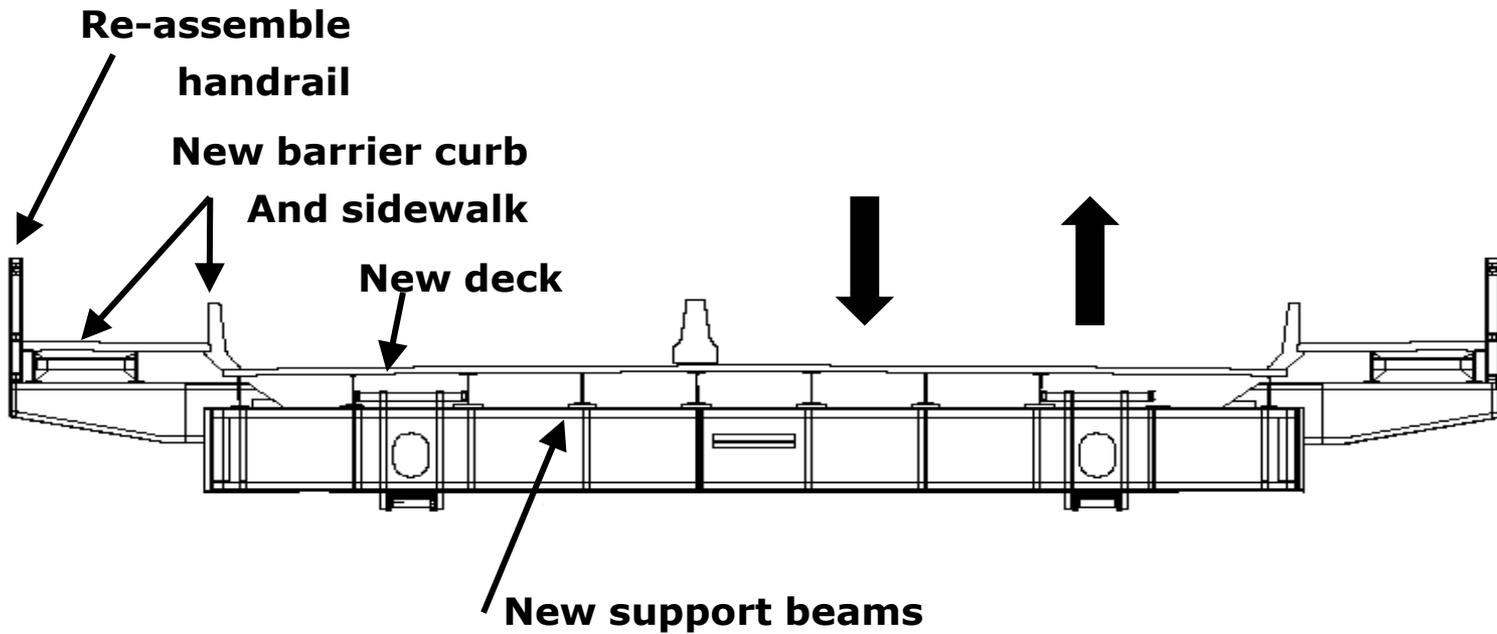


STAGE III DEMOLITION

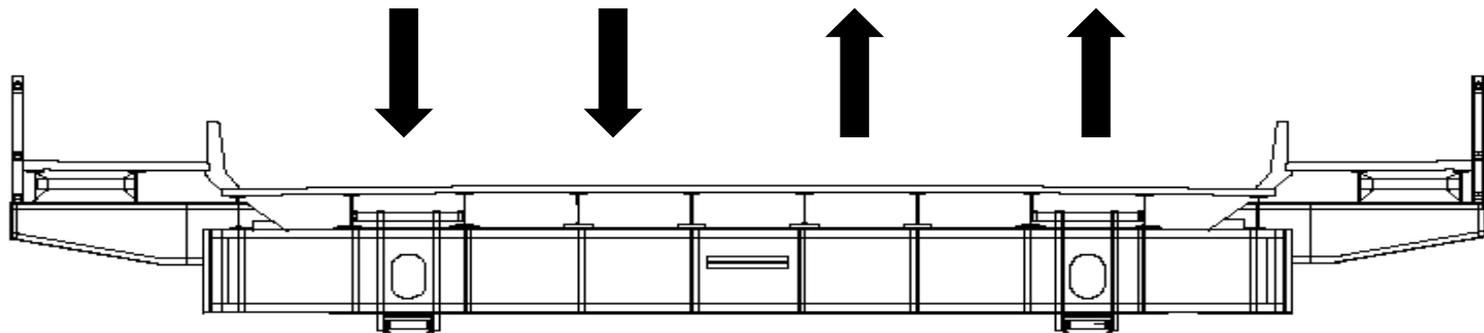




STAGE III DEMOLITION



STAGE III CONSTRUCTION



FINAL CONDITION

Environmental Compliance

Work above or within the Connecticut River Stream Channel Encroachment Boundaries is subject to State and Federal regulations that require permits before any work within these boundaries can be undertaken.

Required Permits

- **Office of Long Island Sound Program (OLISP), Certificate of Permission**
- **Determination of U.S. Coast Guard permit**



Rights-of-Way

No impacts to private property



Project Cost

The estimated construction cost for the entire project is approximately \$15,000,000.

This bridge rehabilitation work is anticipated to be undertaken using 80% Federal funds and 20% State funds.



Project Schedule

The project is anticipated to be constructed starting in Spring 2011.

The project is estimated to be completed within two construction seasons.

The schedule is predicated upon the procurement time for materials, availability of funding and permitting



Contact Information

- **ConnDOT**

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THANK YOU...

FOR YOUR TIME AND ATTENTION

**Connecticut Department of Transportation
and
STV Incorporated**

Connecticut Department of Transportation

