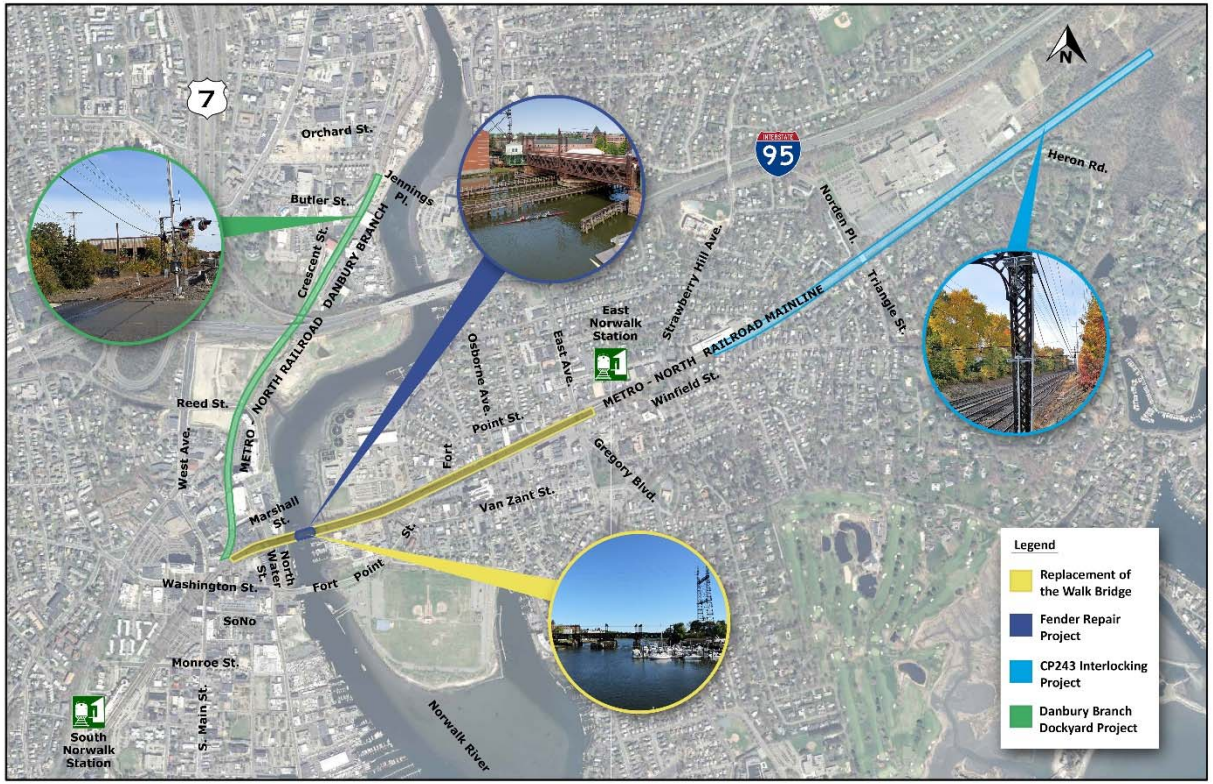
The Walk Bridge Program

The Connecticut Department of Transportation (CTDOT) is undertaking the Walk Bridge Program to replace the deteriorating railroad bridge over the Norwalk River in Norwalk, CT. One of the oldest movable bridges in the country, the Walk Bridge is a critical transportation link on the Northeast Corridor between Washington, D.C., New York City and Boston carrying four tracks of Metro-North Railroad, Amtrak and freight service.



- Improves operational efficiency, flexibility and ease of maintenance
- Increases bridge reliability, incorporates bridge redundancy and provides a sustainable bridge for significant weather events
- Contributes to Metro-North and Amtrak ridership and performance goals
- Provides safe and reliable rail service
- Improves navigation on the Norwalk River
- Encourages the use of public transportation to reduce environmental impacts
- Removes weight restrictions on freight service
- Expands existing bicycle/pedestrian trails

The replacement of the Walk Bridge requires operating the railroad on two tracks during construction. To facilitate railroad operations, ensure safety and minimize impacts to commuter and other passenger service, the Program also includes the CP243 Interlocking, Danbury Branch Dockyard, and Fender Repair projects to be completed in advance of the bridge replacement.

www.walkbridgect.com

How to Stay Involved

Visit the Program website, and sign up for email announcements and notifications at www.walkbridgect.com

Follow the Walk Bridge Program on Social Media

@WalkBridgeCT

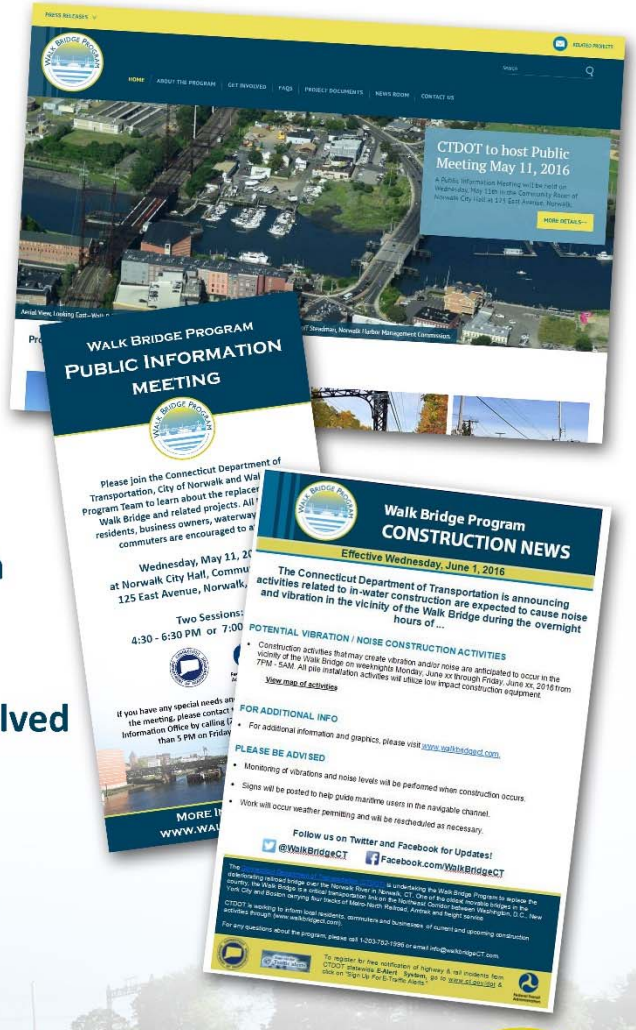
Facebook.com/WalkBridgeCT

Email us with questions or comments: info@walkbridgect.com

Submit a comment online at www.walkbridgect.com/get_involved

Send a letter by mail to:

Walk Bridge Program, Public Info
CTDOT District 3A
424 Chapel Street,
New Haven, CT 06511



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Replacement of the Walk Bridge

The Walk Bridge currently carries approximately 200 trains and 125,000 passengers daily, and ridership is projected to double by 2065. The Walk Bridge is part of the busiest rail corridor in the nation, the Northeast Corridor, and is one of the oldest movable bridges on the Northeast Corridor.

- Installation and commissioning of two new movable spans, carrying two tracks each
- Replacement of bridge piers
- Track relocations
- High tower removal and transmission line installation
- Installation of new catenary system and modifications to existing catenary
- Retaining wall and civil-related construction
- Utility relocations
- Construction will be phased to limit rail, waterway user and community impacts

Anticipated Start of Construction: Mid-2018

Anticipated Construction Duration: 4 - 5 Years

Estimated Construction Cost: $450-600M

The new bridge, currently under design, will be a redundant structure that provides safe and reliable rail service and efficiencies of rail transportation while improving navigational capacity and dependability for marine traffic.

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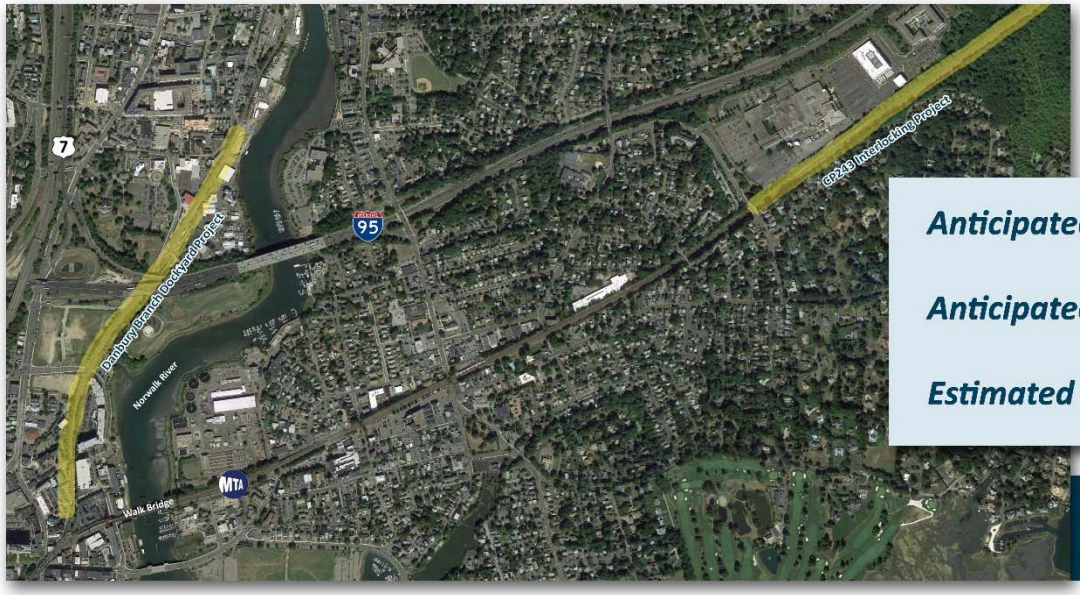
CP243 Interlocking & Danbury Branch Dockyard Projects

The **Danbury Branch Dockyard Project** will facilitate rail operations and allow trains to stage for service between South Norwalk and New York City during the Walk Bridge construction. The project includes adding track sidings, signal work and electrification to the southern end of the Danbury Branch. The bridge over Ann Street will be fully replaced during this project.

The **CP243 Interlocking Project**, in the vicinity of Norden Place, will allow for two-track operations during construction of the Walk Bridge. CP243 refers to the control point, 2 is in reference to the New Haven Line and 43 refers to nearest mile post on the line, marked from Grand Central Station. The project includes track realignment, installation of switches and turnouts with crossover tracks, new signals and signal houses.



Anticipated Start of Construction: Early 2017

Anticipated Construction Duration: 2 Years

Estimated Construction Cost: $100-150M

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WALK BRIDGE PROGRAM

Fender Repair Project

The U.S. Coast Guard has determined that the condition of the existing fender system at the center (pivot) pier of the Walk Bridge is a public safety issue, due to the condition at the east channel, and has mandated that repairs be completed. The fender system protects both the bridge and maritime traffic from damage in the event of a collision.

Anticipated Start of Construction: June 2016

Anticipated Construction Duration: 4 - 5 Months

- Replace deteriorated portions of the existing fender system
- New vertical timber support piles on the east side
- New horizontal timber walers
- All work will occur during nighttime hours
- Work barges and work floats will be moved in and out of the channel each day
- Mitigation procedures used to reduce construction noise

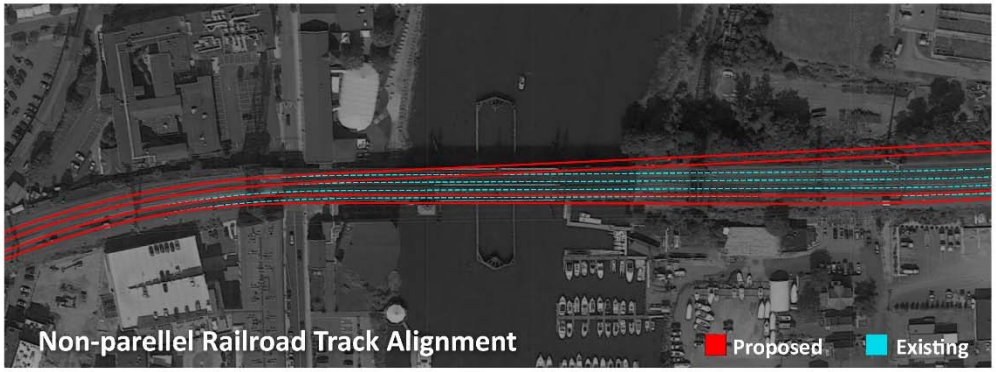
1. Install Batter and Vertical Piles on the East Side of the Channel
2. Remove and Replace Walers and Walkway on the East Fender
3. Remove and Replace Walers and Walkway on the West Fender

170’ Through Truss Rolling Bascule Bridge

Two- 170 ft rolling bascule trusses carrying 4 tracks total
Span opens at a 50 degree angle
New retaining walls on the east approaches
West approach rebuild with new bridge structure

Estimated Construction Cost: $330 - $365M

Height Range: 70 ft (span closed) - 140 ft (span open)
Vertical Clearance: 60 ft min. clearance (span open)
27 ft clearance (span closed)
Horizontal Clearance: 120 ft clearance



WALK BRIDGE PROGRAM

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170’ Vertical Lift Span Option

- *Two- 170 ft Vertical Lift Spans carrying 4 tracks total*
- *New retaining walls on the southeast*
- *West approach rebuild with new bridge structure*
- *Aesthetic flexibility with main span and tower configurations*

Estimated Construction Cost: $380 - $415M

Tower Height Range: 105 ft to 140 ft

Vertical Clearance: 60 ft clearance (span open)
27 ft clearance (span closed)

Horizontal Clearance: 120 ft clearance

WALK BRIDGE PROGRAM

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240’ Vertical Lift Span Option

- *Two- 240 ft Vertical Lift Spans carrying 4 tracks total*
- *New retaining walls on the southeast*
- *West approach rebuild with new bridge structure*
- *Aesthetic flexibility with main span and tower configurations*

Estimated Construction Cost: $425 - $460M

Tower Height Range: 105 ft to 140 ft

Vertical Clearance: 60 ft clearance (span open)
27 ft clearance (span closed)

Horizontal Clearance: 200 ft clearance

WALK BRIDGE PROGRAM

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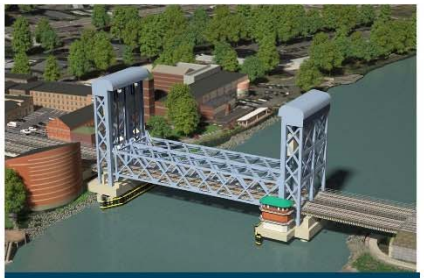
Comparative Analysis of Design Alternatives

Key:

- Advantages
- Neutral
- Disadvantages

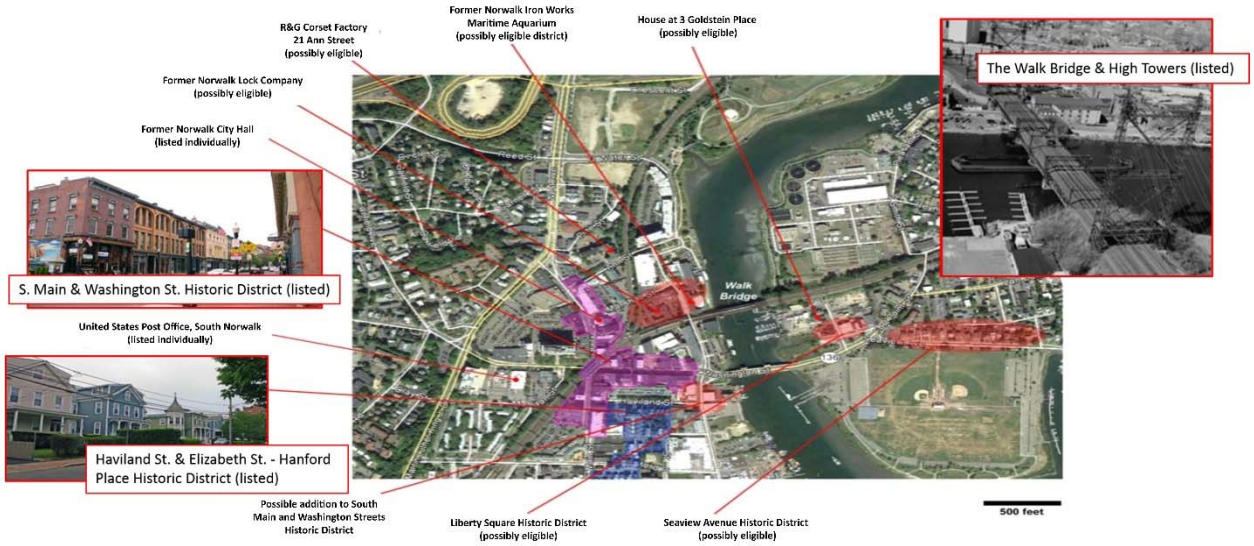


Factors for Success	170’ Bascule Span	170’ Vertical Lift Span	240’ Vertical Lift Span
Construction Duration	Disadvantages	Neutral	Advantages
Construction Risk	Neutral	Neutral	Advantages
Two-track Outage Duration	Disadvantages	Neutral	Advantages
Navigation Impacts	Neutral	Neutral	Advantages
Local Impacts	Neutral	Neutral	Neutral
Environmental Footprint	Neutral	Neutral	Advantages
Long-term Performances	Disadvantages	Neutral	Neutral
Aesthetic Flexibility	Neutral	Advantages	Advantages
Cost	Advantages	Neutral	Disadvantages
Overall Project Requirements	Neutral	Neutral	Advantages

Historical / Archaeological Impacts

Section 106 Process:

- **Initiate Section 106**
  - Federal government involvement
  - Potential to impact historic resources
- **Identify Historic Properties**
  - Identify elements and properties
  - Identify consulting parties
- **Assess Impact of Undertaking on Historic Properties**
- **Adverse Effect to Historic Properties**
- **Develop Memorandum of Agreement (MOA)**
- **Involve Consulting Parties**
- **Involve Public**
- **Develop Mitigation Measures**



Possible Mitigations:

- Booklets/Articles
- Website Content
- Exhibits
- Interpretive Panels
- Public Education Programs/Materials
- Documentation of Historic Structures
- Adaptive Reuse
- Archaeological Excavation

Environmental Impacts

Identify/Catalog Resources

↓

Quantify Potential Impacts to Resources

↓

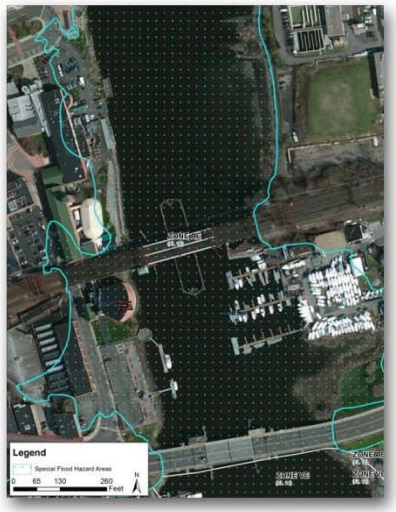
Consultation With Stakeholders

↓

Identify Measures to Avoid/Minimize Impacts

↓

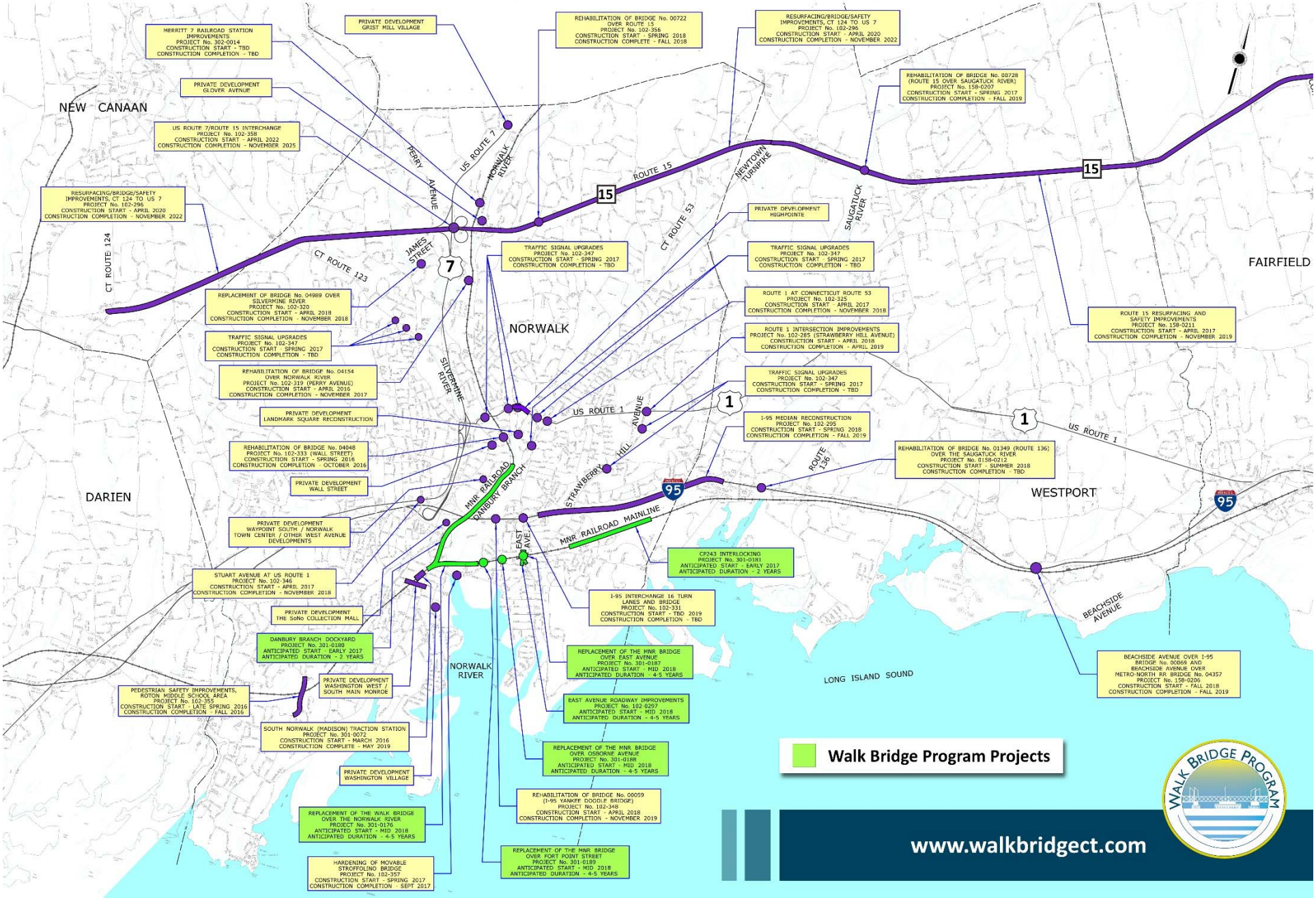
Propose Mitigation for Impacts



Environmental Resources Evaluated:

- Traffic
- Air and Noise
- Water Resources
- Wetlands
- Water Quality
- Coastal Resources
- T&E Species
- Fish and Widlife
- Historic/Archaeological Sites
- Hazardous Materials
- Energy
- Health and Safety
- Environmental Justice
- Municipal & Regional Plans
- State Plan of Conservation and Development

Norwalk/Westport Area Projects



Norwalk Area Projects

www.walkbridgect.com

West Approach Span Over N. Water Street

Steel or Concrete Girder

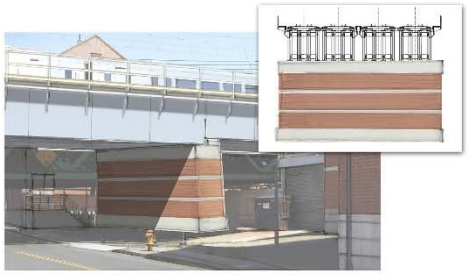
Steel Girder With Lattice Rustication

Steel Haunched Girder

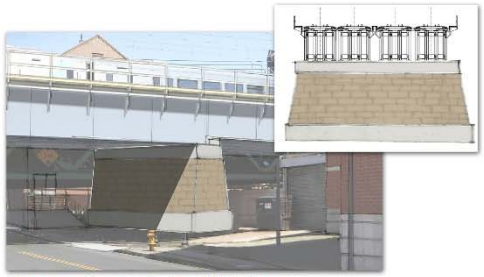
Steel Girder With Lattice Fascia

The above images depict conceptual design options for the new bridge spans over North Water Street. Community and stakeholder input will influence the final design.

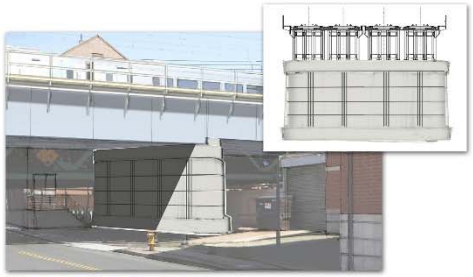
West Approach Pier on N. Water Street



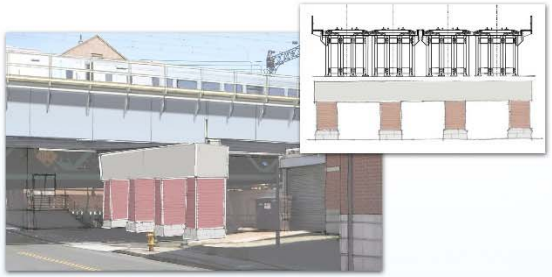
Brick-faced, Solid Pier



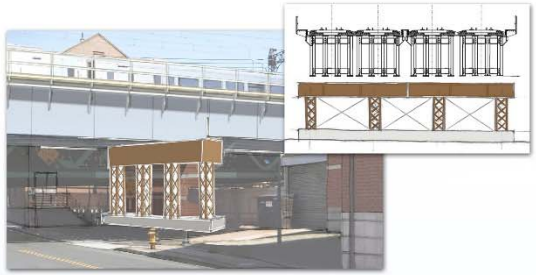
Stone-faced, Solid Pier



Concrete, Solid Pier



Brick-faced, Multi-column



Steel Bent, Multi-column

The above images depict conceptual design options for the new bridge piers along North Water Street. Community and stakeholder input will influence the final design

Main Span Control House

Updated Traditional Style #1

Updated Traditional Style #2

Vernacular Style

Contemporary Style #1

Contemporary Style #2

The above images depict conceptual design options for the new movable span control house. Community and stakeholder input will influence the final design.