

Public Information Meeting

Project 82-312 Arrigoni Bridge Phase 2 Rehabilitation Bridge No. 00524 Middletown & Portland

Connecticut Department of Transportation



Purpose of Tonights Meeting

- **Present the need for the Arrigoni Bridge Phase 2 Rehabilitation.**
- **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 comments from public and stakeholders.**



ConnDOT Role

Bureau of Engineering and Construction

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

Contacts:

**Mr. Timothy Fields, P.E.
(Principal Engineer)**

**Mr. Sowatei K. Lomotey, P.E.
(Project Manager)**

**Mr. Barak Brako Frempong
(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)



Goals of this project

- **To Upgrade the entire Bridge to a “state of good repair”**
- **The design will employ the state-of-the-art technology, safe and cost effective constructability techniques to replace the approach span decks.**
- **To improve the long term safety, reliability, and integrity of the Arrigoni Bridge.**



Traffic Features

- **Bridge is on the National Highway System**
- **Rte. 66 classified: “*Urban Principal Arterial*”**
- **Average Daily Traffic (ADT): 33,700 (2013)**
- **Posted speed limits:**
 - 35 mph Eastbound**
 - 20 mph Westbound**
- **12 accidents reported from 2010 thru 2014**



Past Rehabilitation Projects

- **Project 82-153: Deck and sidewalk repairs, drainage improvements and approach roadway barrier installed (1979)**
- **Project 82-223: Major rehabilitation including suspender cable replacement, steel repairs and floor beam retrofit, replacement of approach roadway barrier and deck repair (1993)**
- **Project 82-252: painting of structural steel (1997)**
- **Project 82-300: Lane use control signals (2009)**
- **Project 82-299: Phase 1 – Priority Deck Replacement of the two center arch spans (2012)**



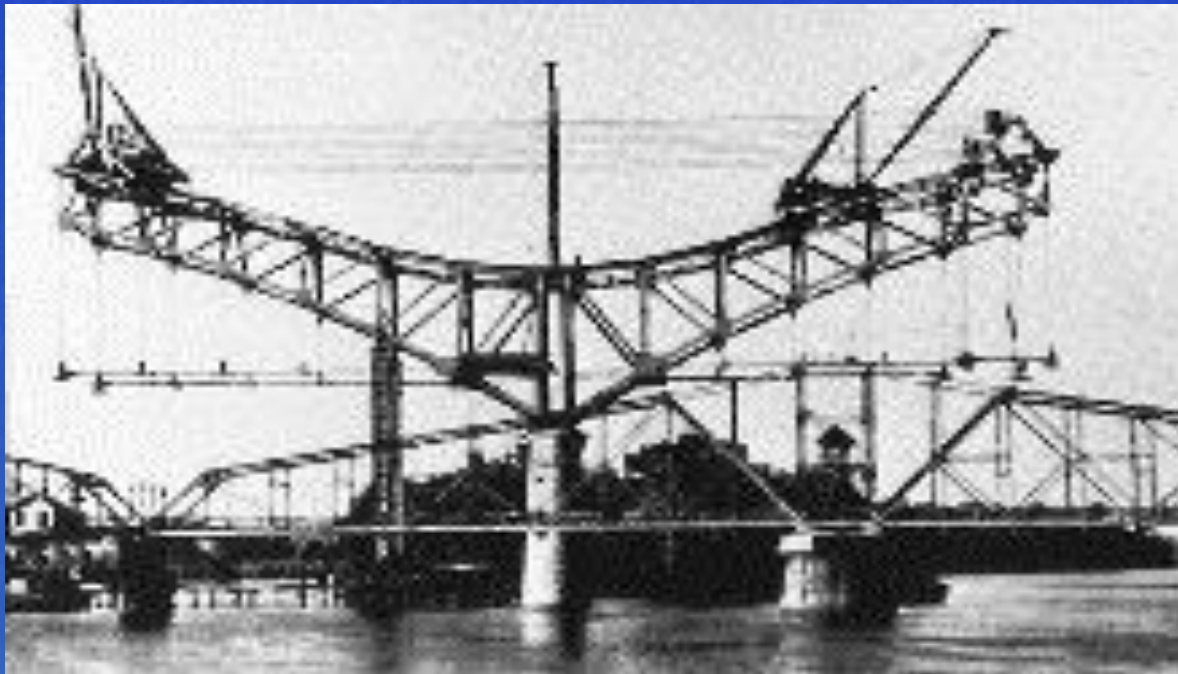
Arrigoni Bridge Facts -1

- **Constructed in 1938 (79 Yrs)**
- **Cost \$3.5 million**
- **Carries Routes 66 & 17 over the P&W RR, Connecticut River, Route 9 & Local Roads**
- **3,428 feet long, 45-foot roadway with sidewalks on both sides**
- **Two 660 feet long 3-Hinge Arch river spans (longest in the state)**
- **Nine spans - Middletown approach viaduct**
- **Nineteen spans - Portland approach viaduct**



Arrigoni Bridge Facts -2

- **Built almost entirely from the center pier outward in each direction**
- **Named after Charles J. Arrigoni, state legislator who promoted the project**
- **American Institute of Steel Construction (AISC) Award: Most Beautiful Steel Bridge in 1938**



Connecticut Department of Transportation



Location Plan

Arrigoni Bridge (Route 66)

Approach Spans

Arch Spans

Approach Spans

Middletown

Portland





Arch Spans

Connecticut Department of Transportation





Portland Approach

Connecticut Department of Transportation





Middletown Approach

Connecticut Department of Transportation



Current Approach Span Conditions

- 79 yr. old concrete deck
- Steel members with section loss
- Reduced load carrying capacity
- Sidewalk and Pedestrian Railing deficiencies

Thus, the approach 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.





Underside of Deck

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Underside of Deck

Connecticut Department of Transportation





Steel Component Section Loss

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Steel Component Section Loss

Connecticut Department of Transportation





Sidewalk and Pedestrian Railing

Connecticut Department of Transportation



Accomplishing the Project Goals

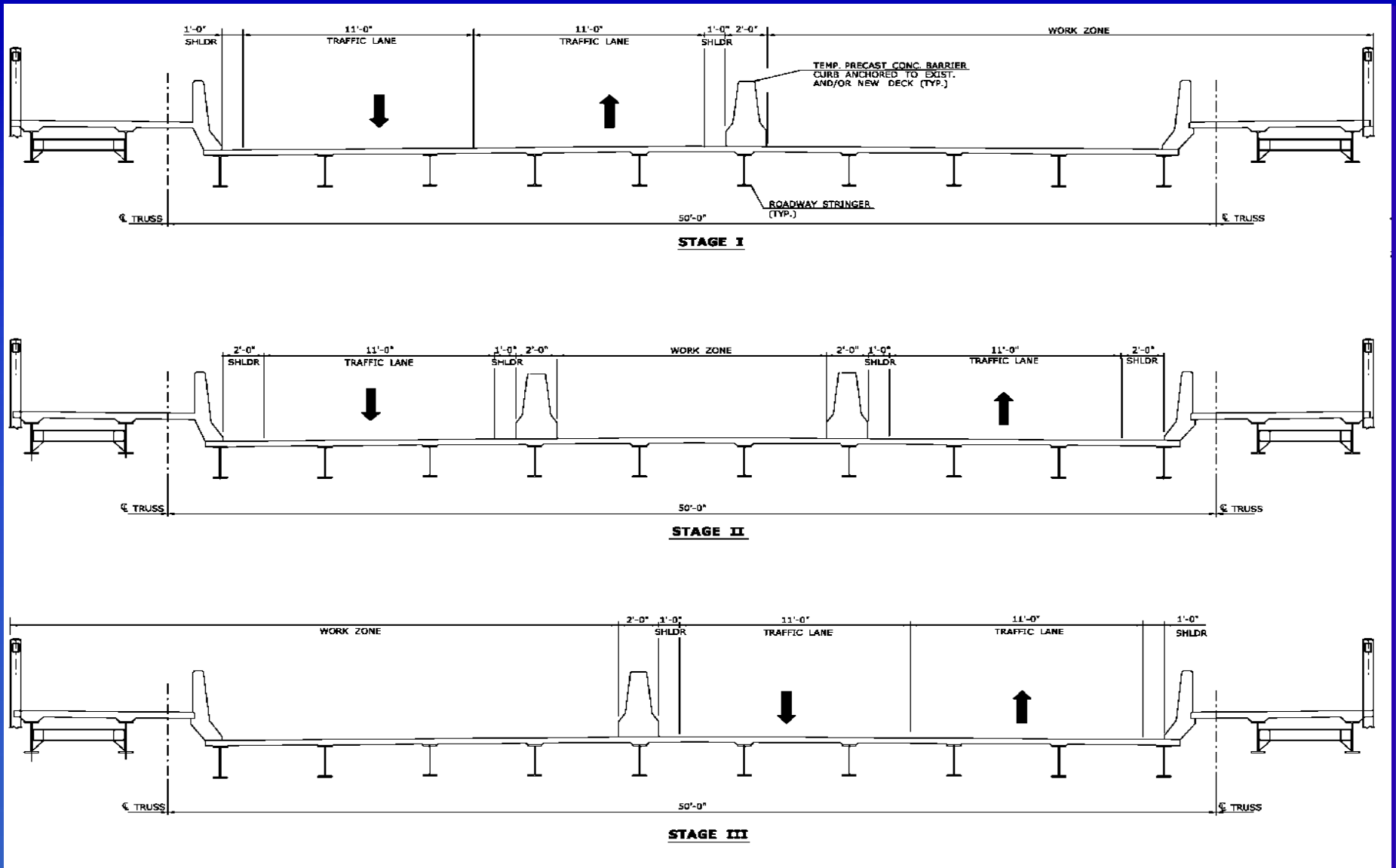
Planned Maintenance of Traffic Details



Maintenance & Protection of Traffic

- **Approach Span Deck Replacement:**
 - **3 Construction stages (similar to 2012 project)**
 - **Maintain one traffic lane in each direction**
 - **Maintain use of 1 sidewalk**
 - **Lane and sidewalk restrictions for approximately 12 months**





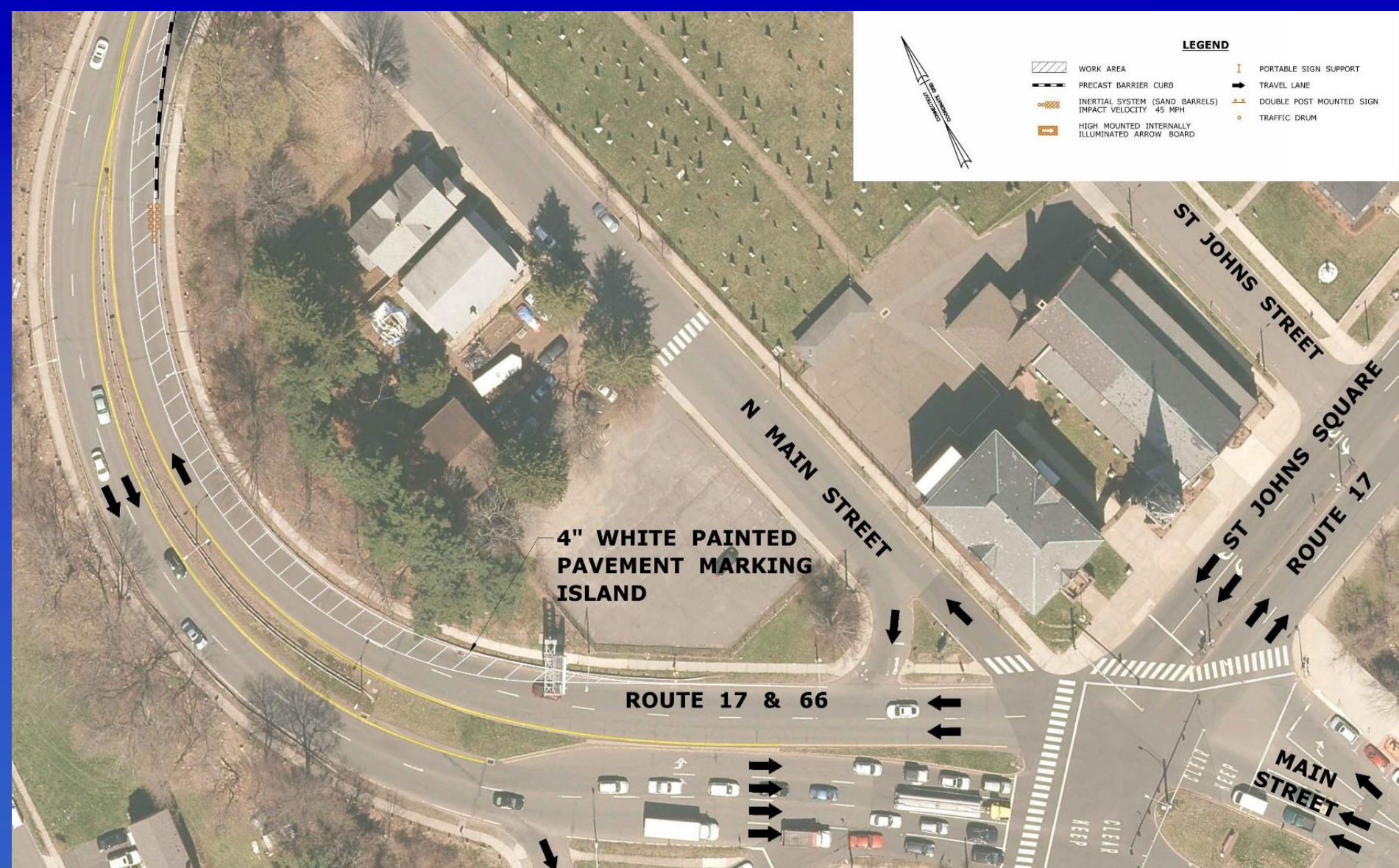
3 Stages of Construction





LEGEND

-  WORK AREA
-  PRECAST BARRIER CURB
-  INERTIAL SYSTEM (SAND BARRELS) IMPACT VELOCITY 45 MPH
-  HIGH MOUNTED INTERNALLY ILLUMINATED ARROW BOARD
-  PORTABLE SIGN SUPPORT
-  TRAVEL LANE
-  DOUBLE POST MOUNTED SIGN
-  TRAFFIC DRUM



4" WHITE PAINTED PAVEMENT MARKING ISLAND

ROUTE 17 & 66

N MAIN STREET

ST JOHNS STREET

ST JOHNS SQUARE

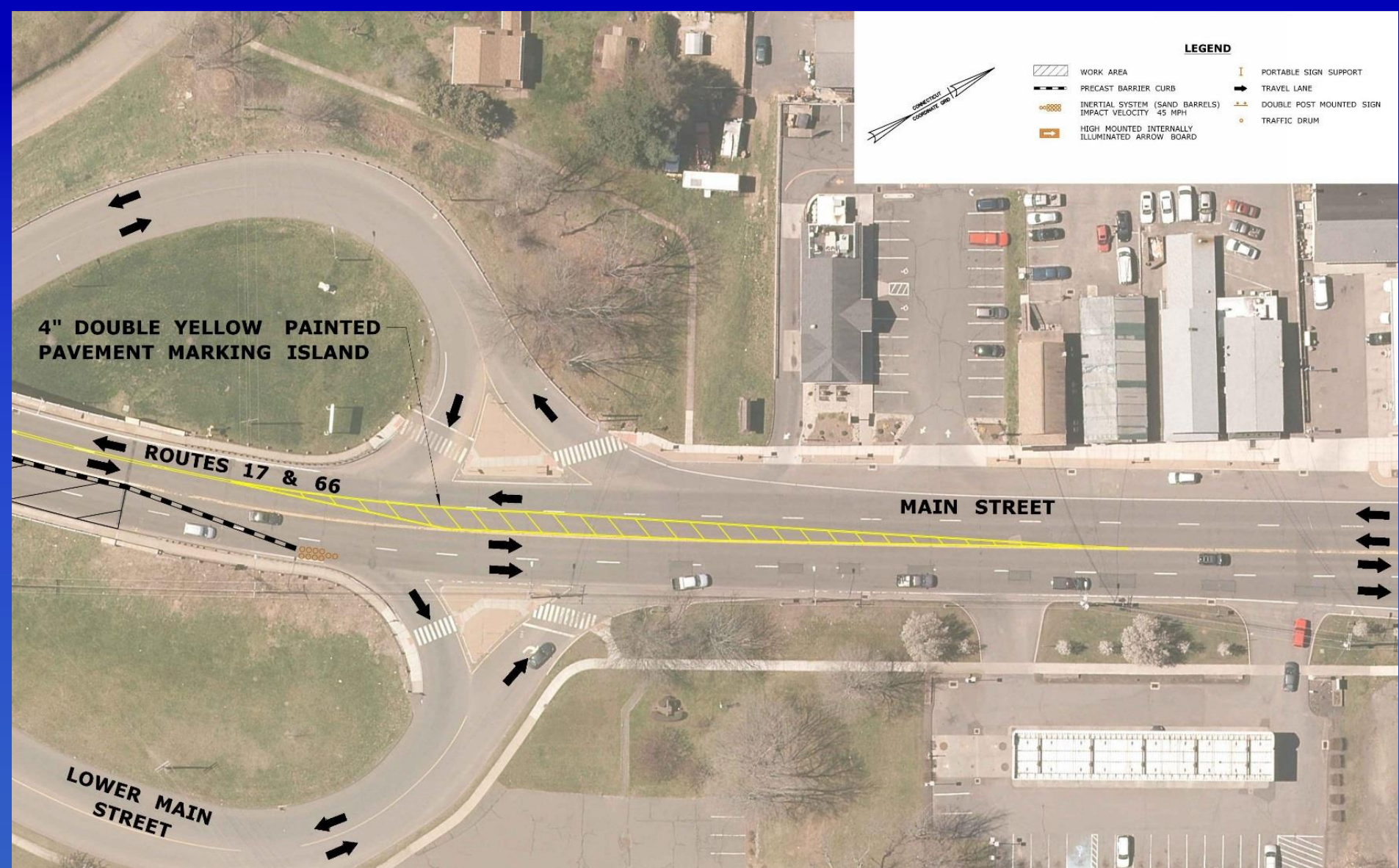
ROUTE 17

MAIN STREET

MPT Stage 1 - Middletown

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MPT Stage 1 - Portland

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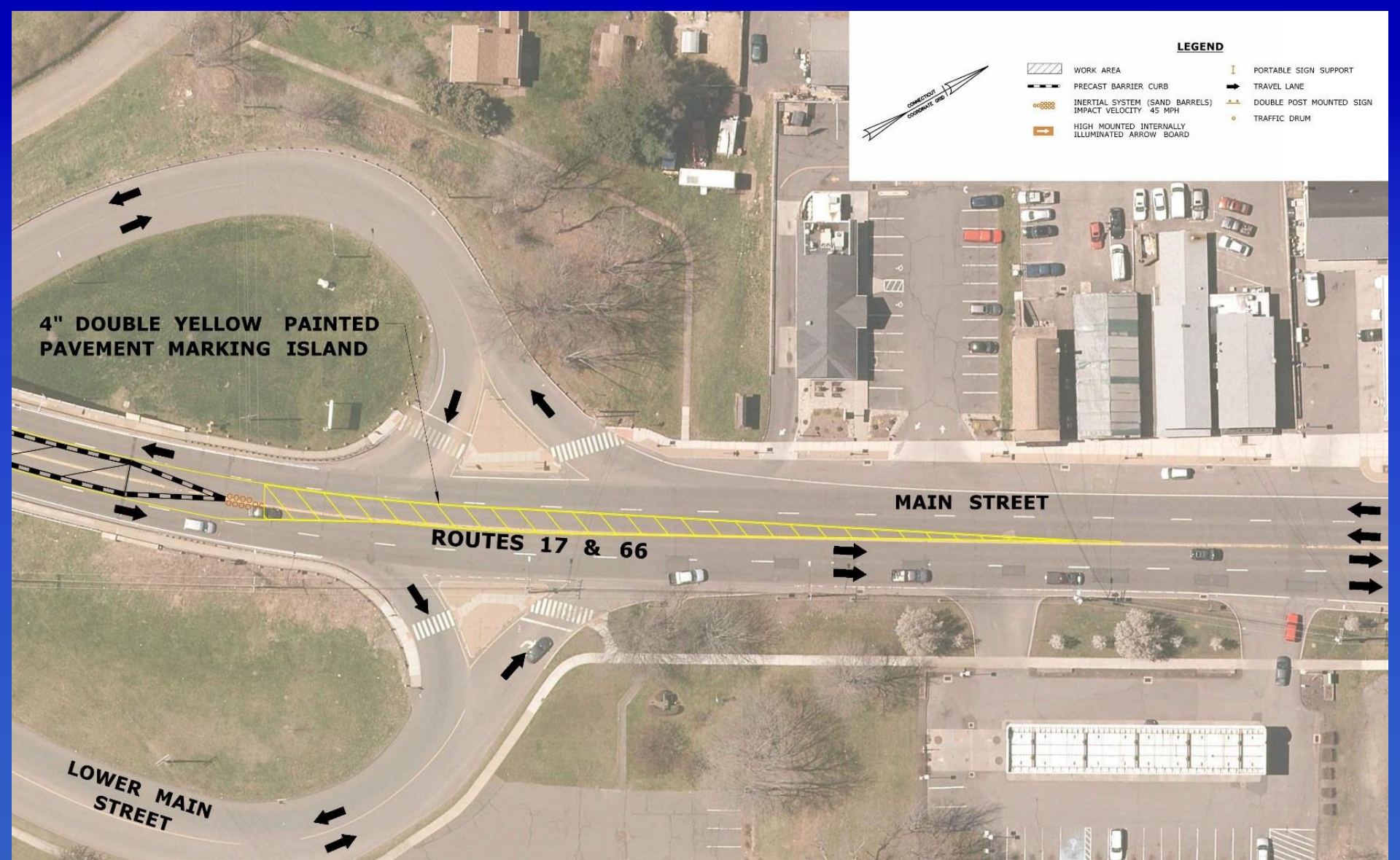




MPT Stage 2 - Middletown

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LEGEND

-  WORK AREA
-  PRECAST BARRIER CURB
-  INERTIAL SYSTEM (SAND BARRELS) IMPACT VELOCITY 45 MPH
-  HIGH MOUNTED INTERNALLY ILLUMINATED ARROW BOARD
-  PORTABLE SIGN SUPPORT
-  TRAVEL LANE
-  DOUBLE POST MOUNTED SIGN
-  TRAFFIC DRUM

4" DOUBLE YELLOW PAINTED PAVEMENT MARKING ISLAND

MAIN STREET

ROUTES 17 & 66

LOWER MAIN STREET

MPT Stage 2 - Portland

Connecticut Department of Transportation





LEGEND

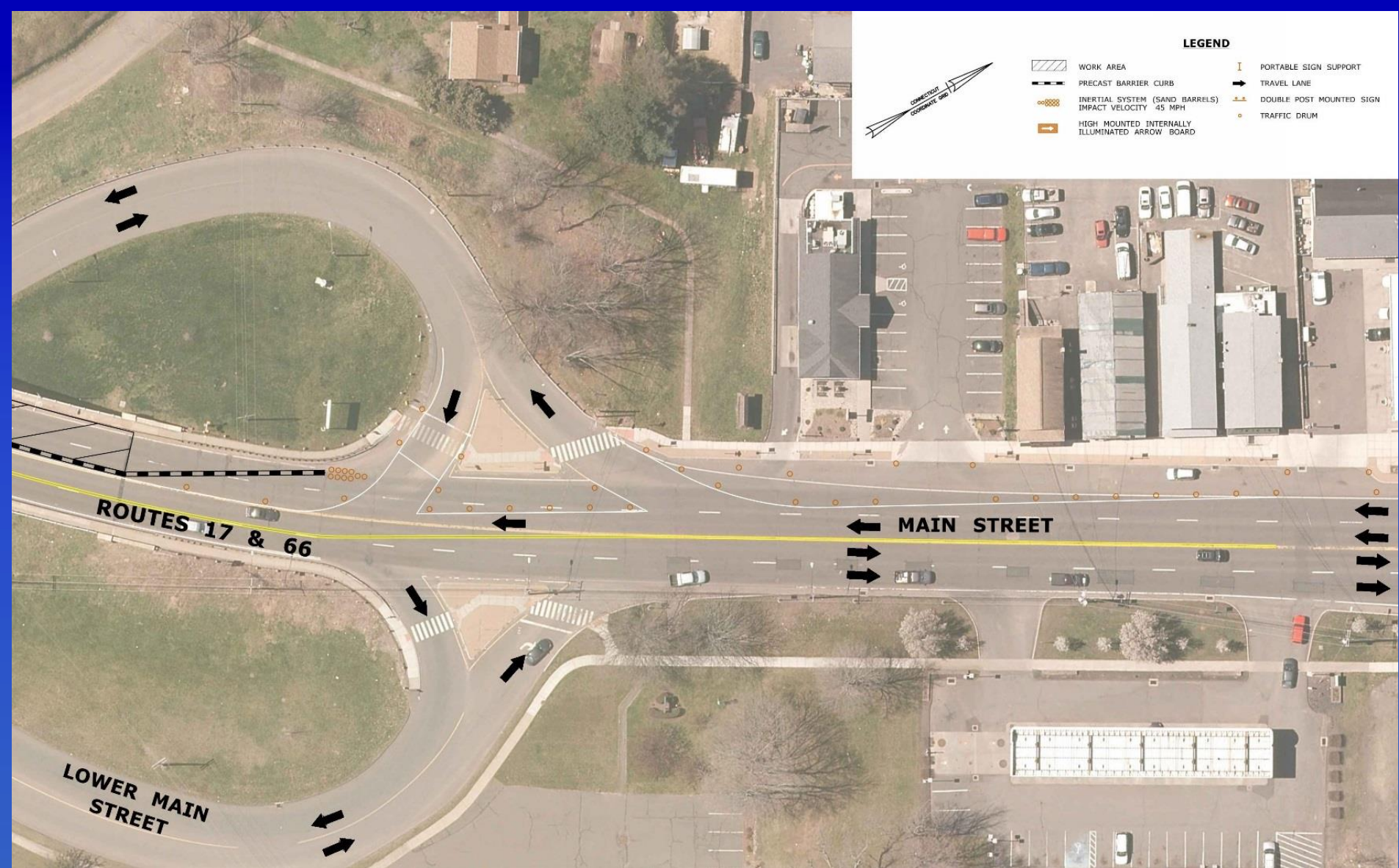
	WORK AREA		PORTABLE SIGN SUPPORT
	PRECAST BARRIER CURB		TRAVEL LANE
	INERTIAL SYSTEM (SAND BARRELS) IMPACT VELOCITY 45 MPH		DOUBLE POST MOUNTED SIGN
	HIGH MOUNTED INTERNALLY ILLUMINATED ARROW BOARD		TRAFFIC DRUM

**4" DOUBLE YELLOW
PAINTED PAVEMENT
MARKING ISLAND**

MPT Stage 3 - Middletown

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MPT Stage 3 - Portland

Connecticut Department of Transportation



Traffic Management Smart Zone

- Real time traffic data
- Warn of delays early so motorists can choose alternate routes
- Dedicated website to view traffic conditions



Equipment

- **7 Portable Variable Message Signs**
- **3 Portable Cameras**
- **8 Sensors**
- **Dedicated Website**
- **Website combines ConnDOT permanent ITS with Project ITS**
- **Motorist e-alerts**





Smart Zone Device Locations

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Portable Camera and Traffic Sensor



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Portable Changeable Message Sign

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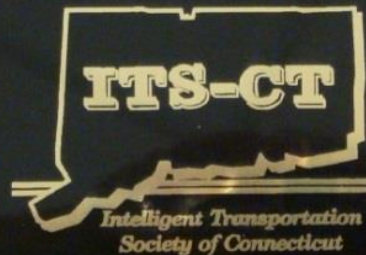


Smart Zone Award

*ITS Outstanding Project
Of The Year Award*

Connecticut Department Of Transportation

For The Use Of Smart Work Zone Technology
For Arrigoni Bridge



September 2011



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
- U.S. Coast Guard Coordination

Rights-of-Way

No impacts to private property



Project Cost

- **The estimated construction cost for the project is approximately \$37,000,000.**
- **This bridge rehabilitation work is anticipated to be undertaken using 80% Federal funds and 20% State bond funds.**



Project Schedule

- **The project is anticipated to be advertised in October 2018**
- **Construction of the project may begin in March 2019**
- **Construction may end in the fall of 2020. Approximately two-year duration**
- **Completion of the deck replacement and disruption of traffic will be restricted for 12 months**



Contact Information

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THANK YOU...

FOR YOUR TIME AND ATTENTION

**Connecticut Department of Transportation
and
STV Incorporated**

Connecticut Department of Transportation



Location Plan

Arrigoni Bridge (Route 66)

Approach Spans

Arch Spans

Approach Spans

Middletown

Portland

