



Niantic Bridge Replacement Project 2010 – 2013

A Stimulus Program Project

AMTRAK®



PUTTING AMERICA TO WORK

**NIANTIC RIVER
BRIDGE REPLACEMENT PROJECT**

Funded By The

AMERICAN RECOVERY AND
REINVESTMENT ACT





Project Summary

- **Construction of a two track, electrified railroad bascule bridge across the Niantic River between East Lyme and Waterford, Conn.**
- **The new bridge will replace an existing, two track, bascule (rolling girder type lift) bridge, 58 feet off-line at the same site**
- **Construction of new approach fills in East Lyme and Waterford, both retained and in embankments, and new electrified railroad**
- **East Lyme's Niantic Bay Overlook Walkway will be replaced and a portion of the beach will be replenished**



History

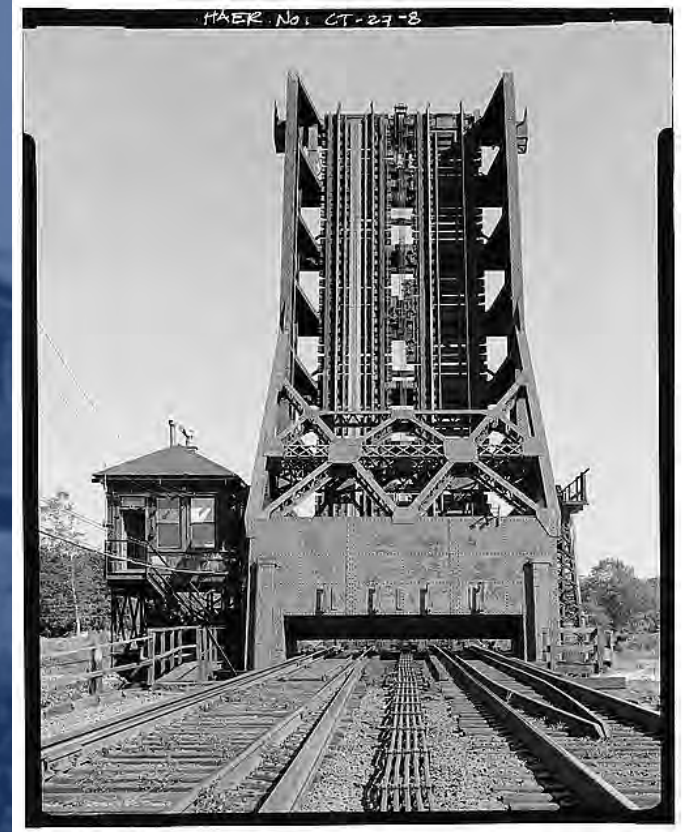
- Existing Bridge built 1907 by New York, New Haven and Hartford RR
- Replaced Older Swing Bridge constructed in the late 1800s





History

- 1976 - Acquired by Amtrak from Penn Central RR
- 1978 - Replacement Recommended under Northeast Corridor Improvement Program
- 1984 - Repairs Made





History

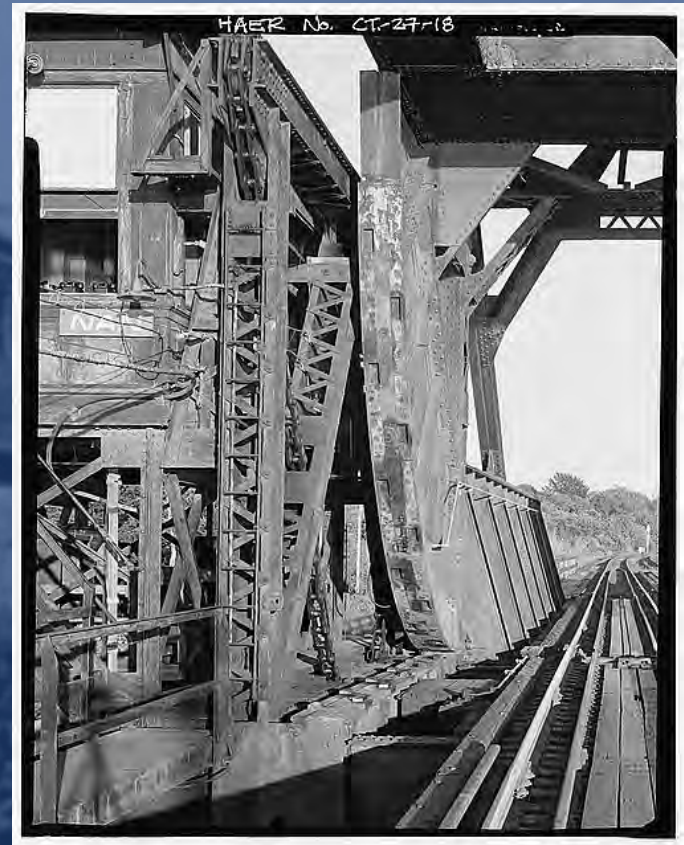
- 1999 - Amtrak Conducted Bridge Type Feasibility Study
- 2000 - Amtrak Completes Electrification Project





History

- 2002 - FRA Sponsored Environmental Assessment
- Portions of the Bridge to be Made Available to Connecticut Eastern Railway Museum in Willimantic, Conn.





History

- **2003 - Amtrak Initiates Final Bridge Design**
- **2003 - East Lyme Constructs Niantic Bay Overlook Walkway**





History

- 2005 - US Coast Guard Issues Public Notice for Bridge Replacement
- 2006 - Amtrak Completes Final Bridge Replacement Design





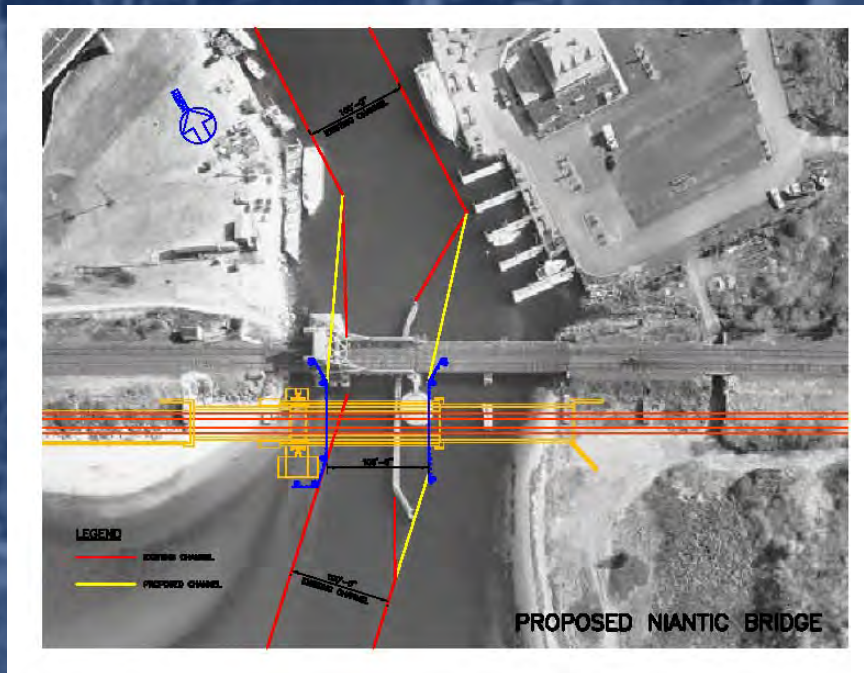
History

- **2006 – 2009**
Project activity
 - East Lyme Niantic Overlook Walkway Disposition
 - CT DEP Permitting
 - Funding by ARRA
- **2009 - Amtrak**
Advertises Project
for Construction



Bridge Navigation

- Increased bridge-closed vertical clearance from 11.5 feet to 16 feet
- Increased horizontal clearance from 45 feet to 100 feet
- Navigation will be minimally impacted during construction and brief winter channel closures





Bridge Approaches

- The West Approach (East Lyme)
 - track and railroad electrification construction
 - retaining wall construction
 - scour protection
 - construction of cast-in-place concrete walkway to replace the existing walkway constructed in 2004
- The East Approach (Waterford)
 - track and railroad electrification construction
 - embankment installation
 - scour protection
 - retaining wall construction



Niantic Bay Overlook Walkway

- Existing Facilities





Niantic Bay Overlook Walkway

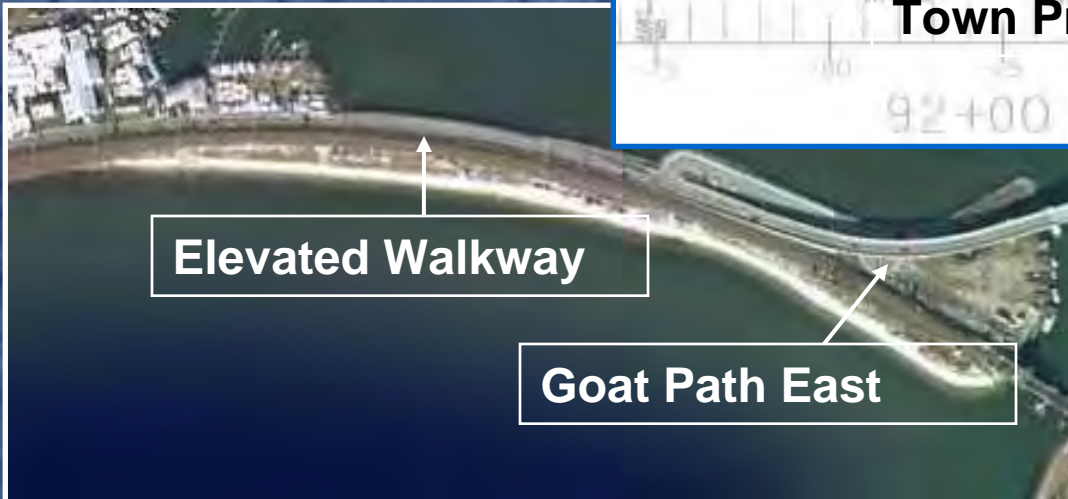
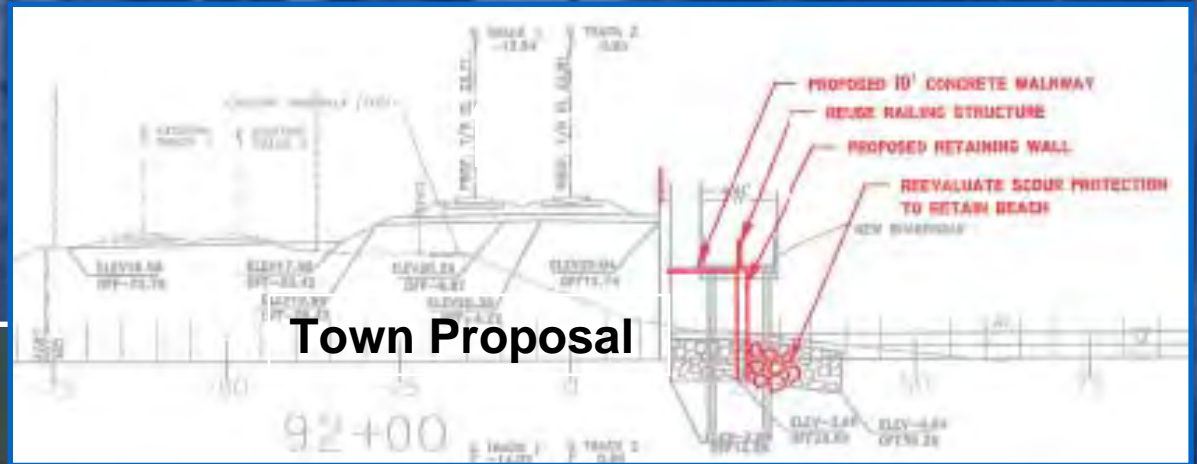
- **During Construction**





Niantic Bay Overlook Walkway

- Description of Town of East Lyme Plan
 - Town requested Amtrak to construct 2500 feet of concrete walkway behind retaining wall in place of elevated boardwalk and Goat Path East





Beach Replenishment

- Amtrak will construct a rock groin in the bay west of the mouth of the Niantic River, and nourish the beach with native and imported materials to widen the beach along where the new railroad will be located in East Lyme



The "Bar"



East Lyme Boardwalk

October 30, 2008

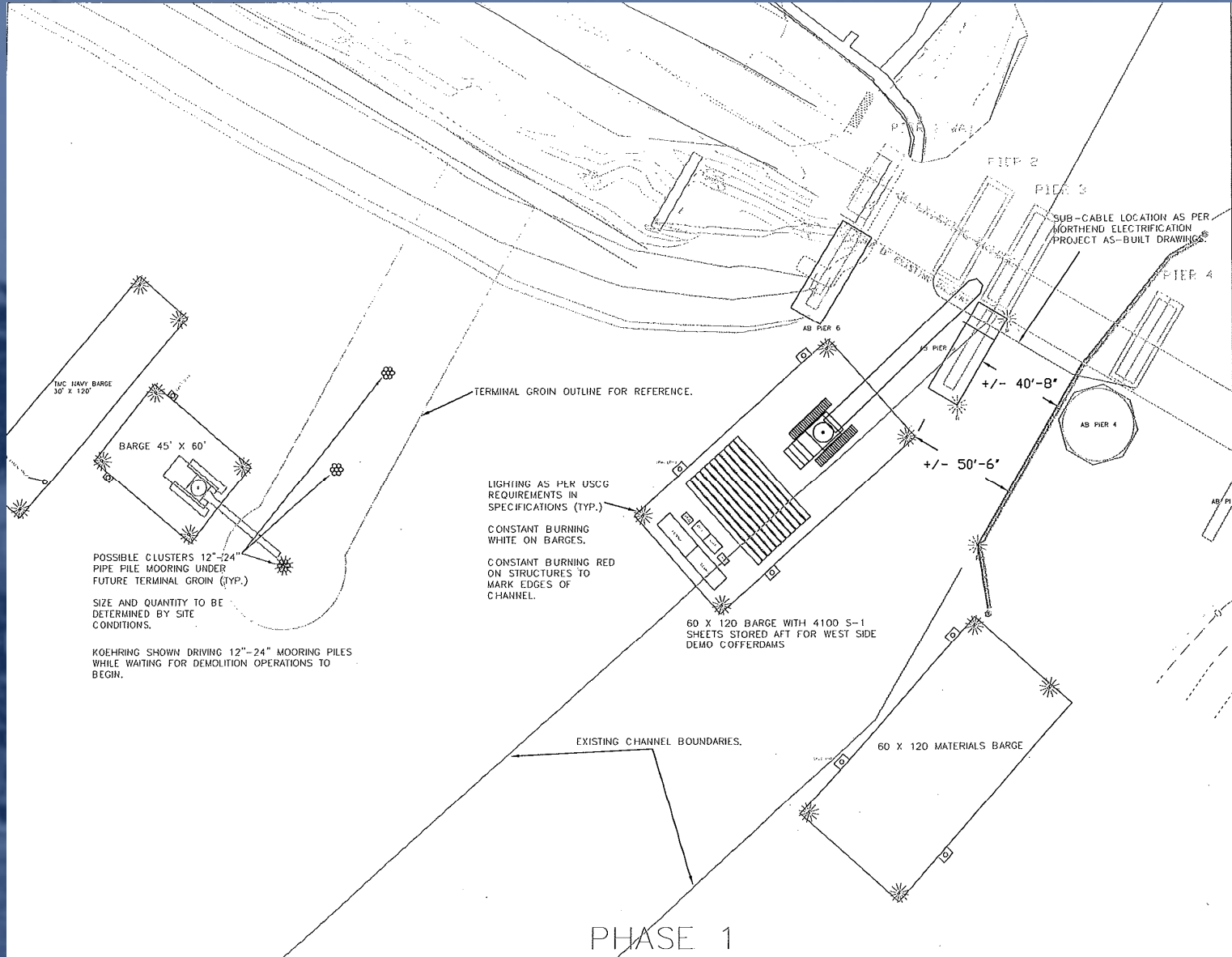


Project Information

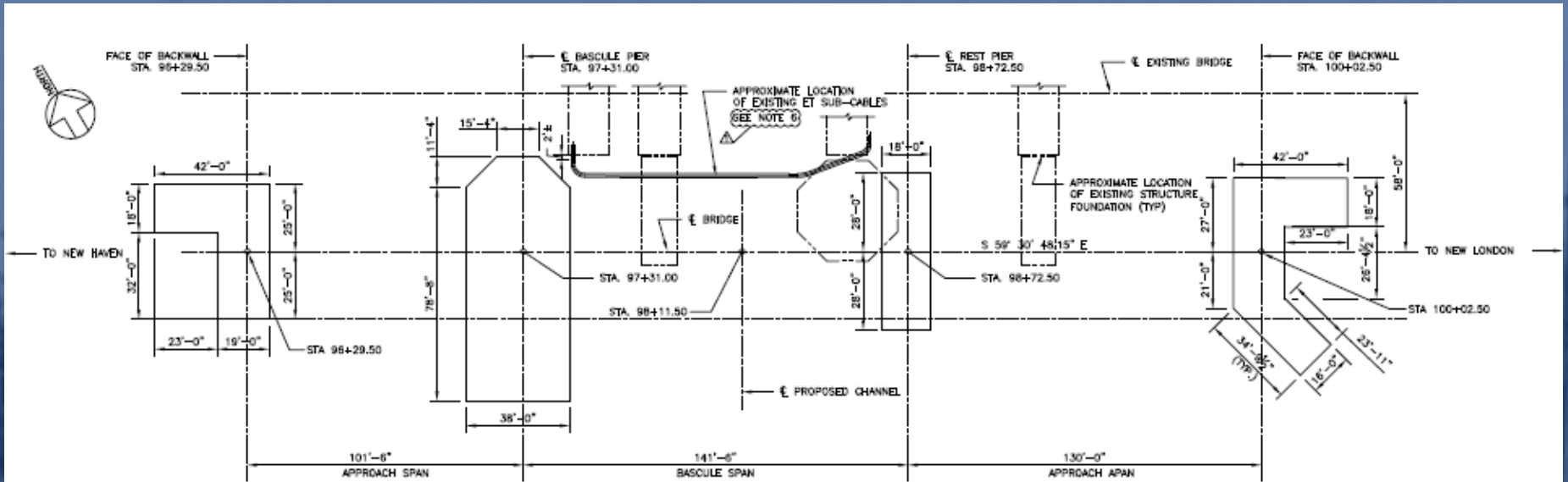
- **Identification:**
 - **Project Location: Bascule Bridge No. 116.74 over the Niantic River, between East Lyme and Waterford, Conn.**
- **Architect/Engineer:**
 - **The project was designed by a team led by Hardesty & Hanover, LLP under the direction of the Amtrak Deputy Chief Engineer Structures, 4th Floor South, 30th Street Station, Philadelphia, Penna. 19104**
- **Construction Manager:**
 - **The URS Corp under the direction of the Amtrak Project Manager, 19 Hope Street, Niantic, Conn. 06357**
- **Construction Contractor:**
 - **Cianbro-Middlesex, a Joint Venture**
 - **Awarded January 2010**



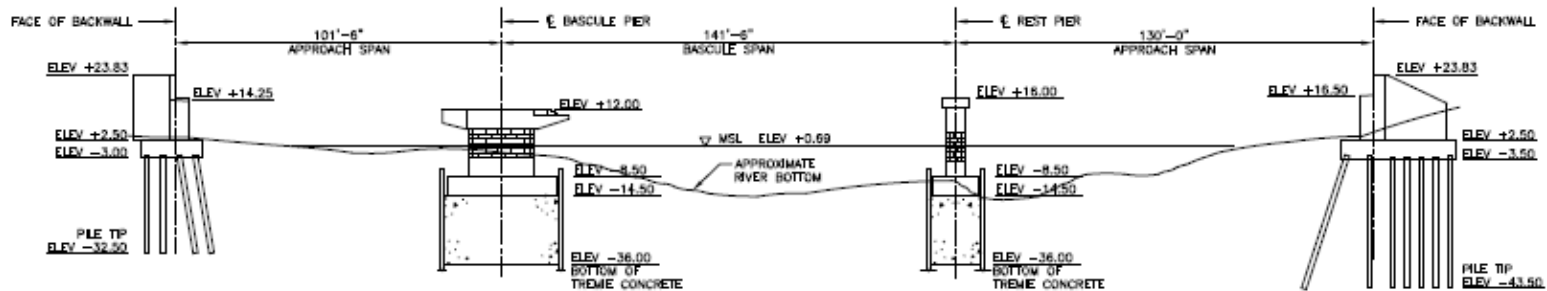
Barge Plan for Summer of 2010



Foundation Plan & Elevation



FOUNDATION PLAN



**FOUNDATION ELEVATION
(LOOKING NORTH)**

NOTES

1. FOR WEST ABUTMENT SEE DWGS. S-211 THRU S-215
2. FOR EAST ABUTMENT SEE DWGS. S-230 THRU S-235



West Seawall Jetting





West Seawall Template Jacking Frame





Rest Pier Cofferdam Excavation



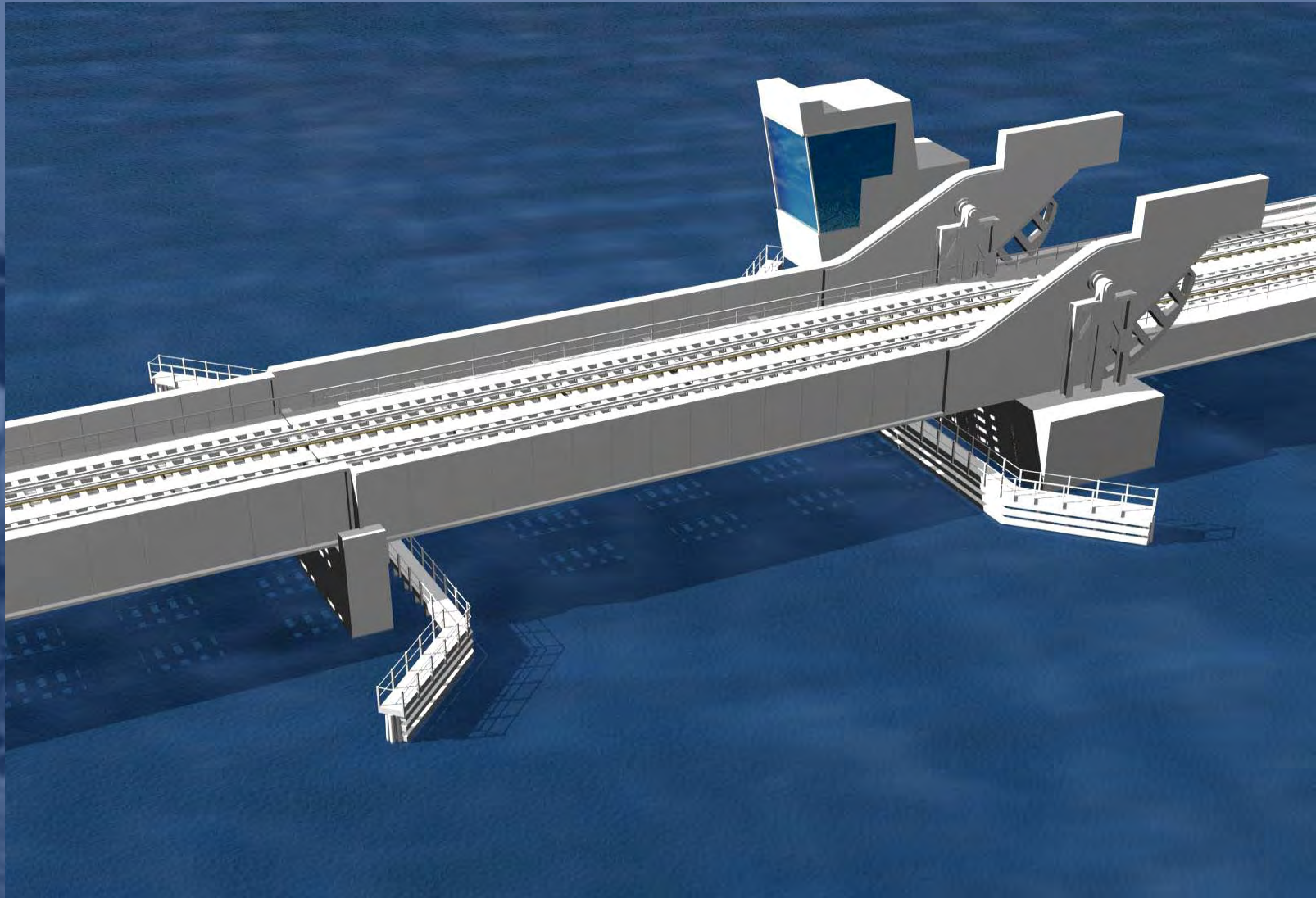


Project as of 28 July 2010



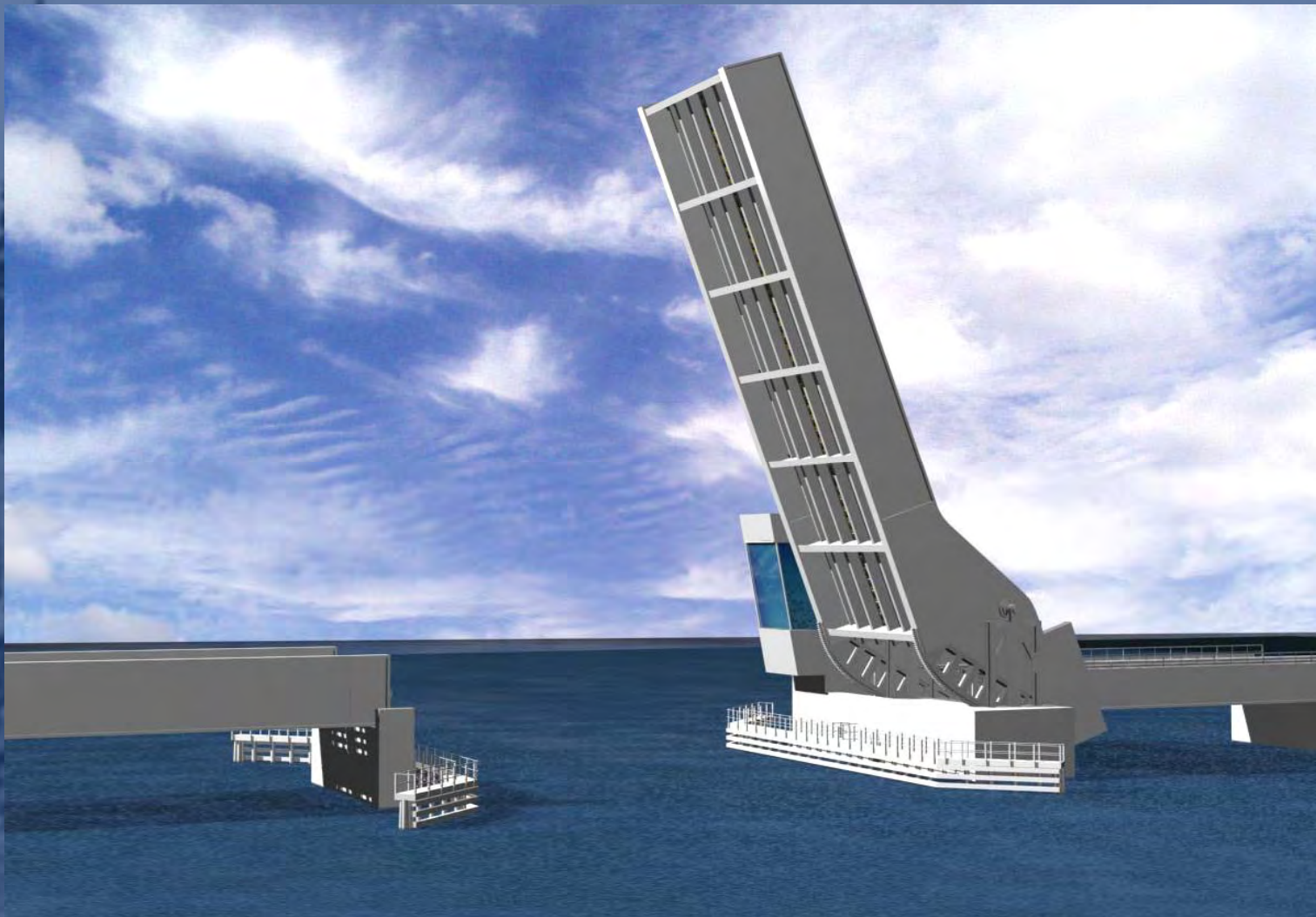


New Bridge Rendering





New Bridge Rendering





Discussion and Comments

