

Reconstruction of Bridge MA-14 County Route 6 (Amboy Avenue/West Front Street) over the Matawan Creek

Public Information Center - Keyport, NJ

December 3, 2014



GPI Greenman-Pedersen, Inc.

Engineering and Construction Services

Project Purpose & Need

Improve the structural integrity of Monmouth County Bridge MA-14 over Matawan Creek

- ***Structurally Deficient*** - requires significant maintenance, rehabilitation or replacement.
- ***Functionally Obsolete*** – geometric design does not meet current engineering design standards.
- ***Navigational clearance*** – increase vertical clearance to match Route 35 over Matawan Creek located immediately upstream.



Existing Conditions - Bridge

- Original Bridge Nearing 100 years
- 5 Ton Load Posting
- Continuing Corrosion and Section Loss on Structural Members
- Rehabilitation not feasible; replacement required



Weight Limit 5 Tons



Corrosion

Existing Conditions - Geometrics

- 26' Wide Roadway Section
- No Shoulders
- 5' Sidewalks on Bridge – No Approach Sidewalks
- 8' Navigational Vertical Clearance



County Route 6 – Looking East



Looking Upstream

Existing Conditions - Utilities

- Aerial
 - JCP&L Electric
 - Cablevision (Aberdeen Only)
 - Verizon
- Underground/Bridge Mounted
 - Verizon
 - NJ Natural Gas
 - Water
 - Sewer
 - Cablevision



Verizon Conduits



Water / Sewer

Design Parameters

- AASHTO – American Association of State Highway and Transportation Officials
- NJDOT
- Roadway Classification / Traffic Volumes determine design speed and bridge width.



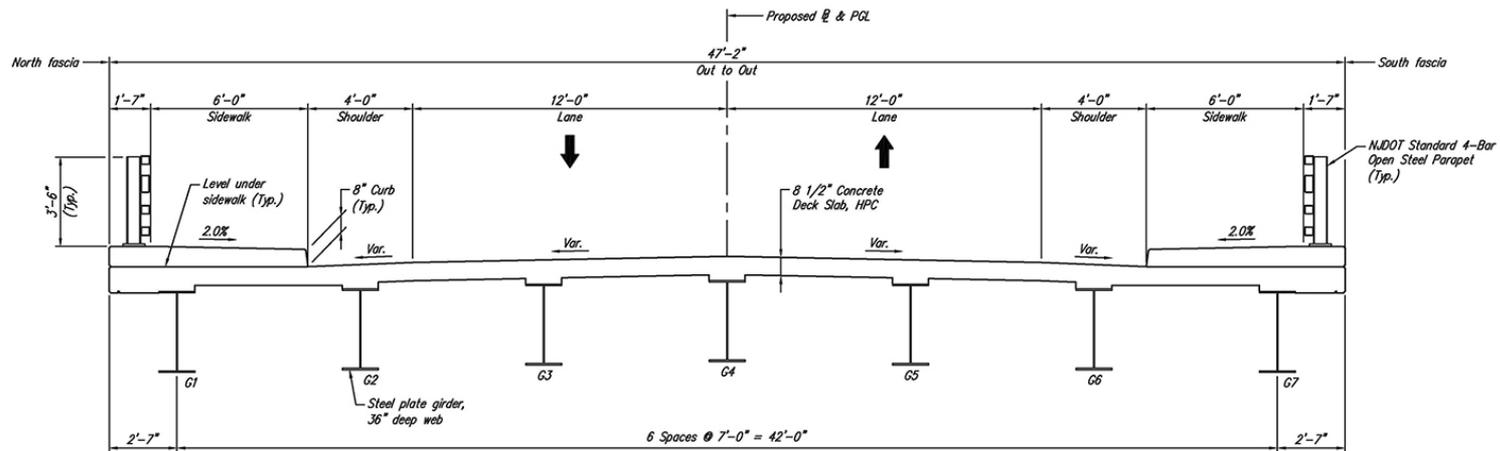
Aerial



County Route 6 – Looking West

Proposed Bridge -Geometrics

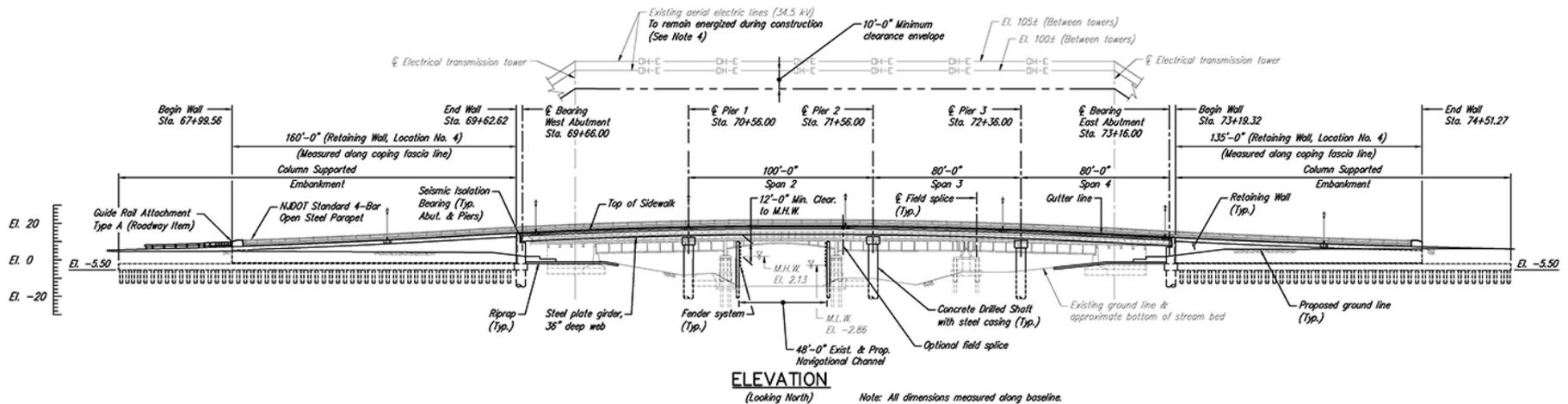
- Replace Bridge MA-14 on a similar alignment
- Provide 12' Vertical clearance at Mean High Water



Bridge Cross Section

Proposed Bridge – Span Length and Type

- Four Spans
- 350' in Length
- Painted Steel Girders
- Drilled Shaft Piers



Proposed Bridge Superstructure Design

- Steel Girders (painted)
- Reinforced Concrete Deck
- Steel Open Railings
- Architectural Pedestrian Lighting

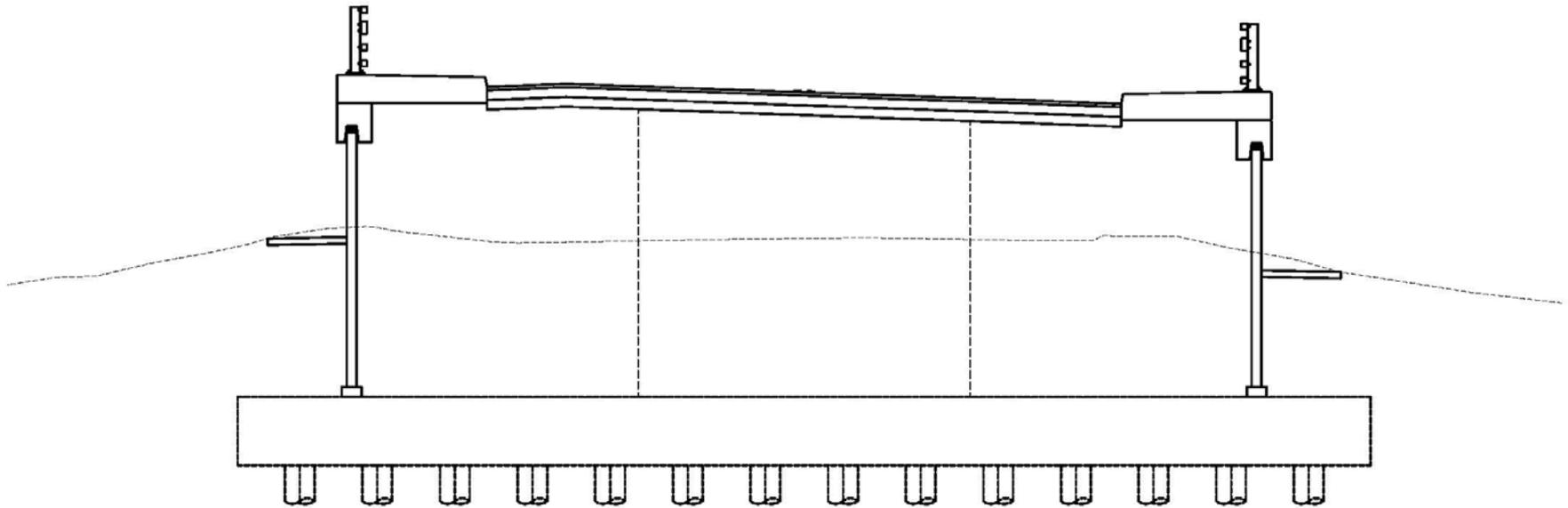


Proposed Bridge Substructure Design

- Drilled Shafts
- Reinforced Concrete Pier Caps
- Reinforced Concrete Abutments



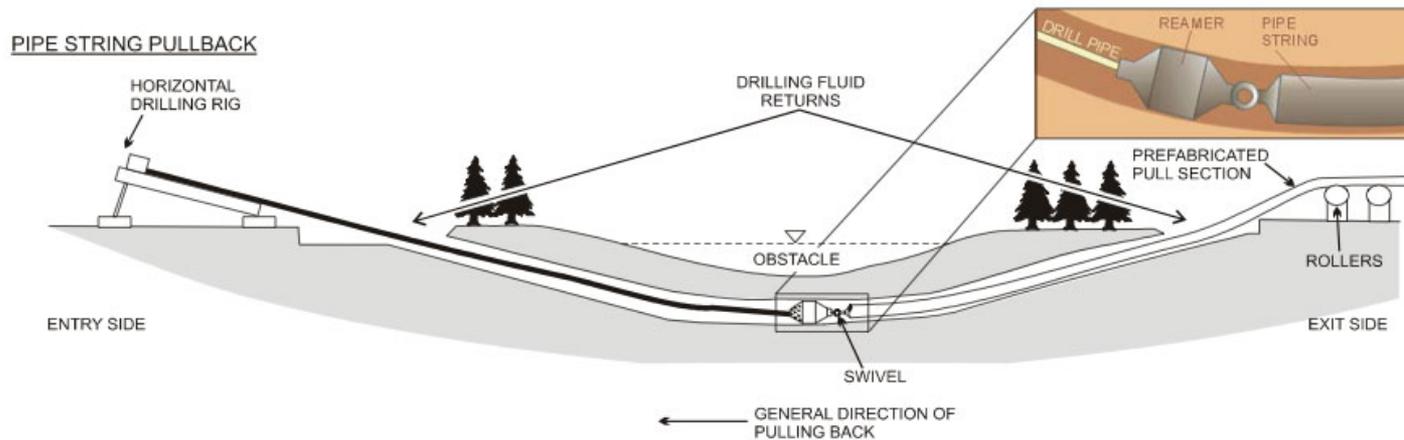
Proposed Bridge – Retaining Walls / Approach Roadway



- Column Supported Embankment
- Reinforced Concrete Abutments
- Precast Concrete Retaining Walls

Proposed Utility Relocations

- Directionally Drilled under Matawan Creek
 - Verizon / NJNG / Water & Sewer



- Bridge Mounted Electrical Conduits
- Aerial Relocations

Environmental Permits

- NJDEP Combined Coastal
- US Army Corps of Engineers
- United States Coast Guard Bridge Permit
- Freehold Conservation District SESC
- NJDEP Tidelands
- National Marine Fisheries



Wetlands



Winter Flounder



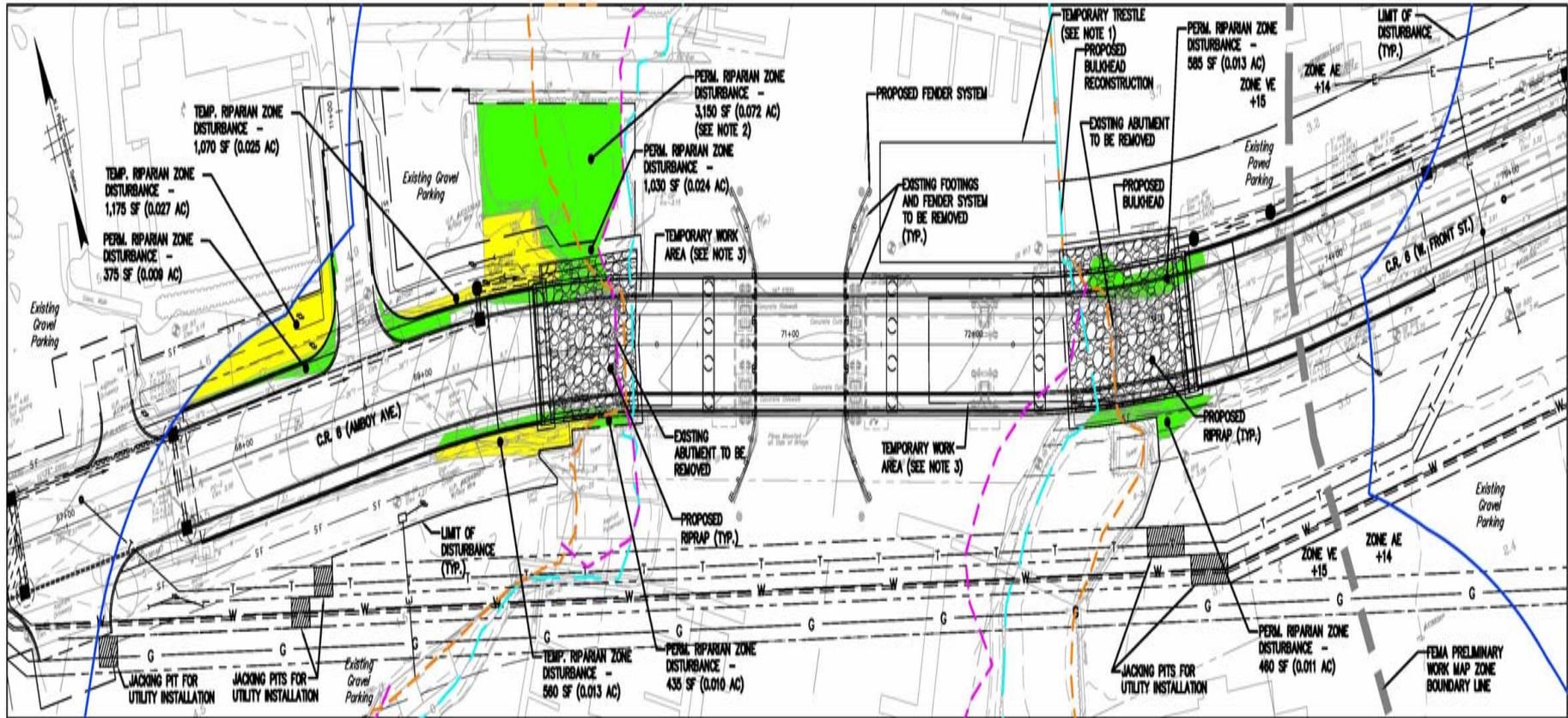
Permit / Environmental Conditions

- Timing Restrictions for In-Water Work
 - Winter Flounder (Jan 1 through May 31)
 - Anadromous Fisheries Resources (March 1 through June 30)
- Coastal Wetlands Mitigation
- Disposal of Contaminated Material



Construction – Access Areas

- Construction Easements
- Contractor Work Areas



Construction – Drilled Shafts



Construction – Approach Roadway



T-Wall Construction

Column Supported Embankment



Project Schedule

- **Bid Date:** Summer 2015
- **Construction Start:** Fall 2015
- **Anticipated Bridge Closure (Vehicular Traffic):** May 2016 – July 2017
- **Estimated Construction Completion:** Summer 2017



Thank you. Questions?



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