



Meeting Summary

CAT-252 Esopus Creek and Rte. 28A Bridge Public Information Meeting #2

October 27, 2015 at 5:00 PM
Town Meeting Hall, Town of Olive, NY

Attendance:

| Public | | |
|---------------------|----------------------------------|--|
| Name | Affiliation | Email |
| Ron Aja | | ronaja@ngp@gmail.com |
| Drew Baggus | Town of Olive | bogeyalb@yahoo.com |
| Aaron Bennet | Ulster County | aben@co.ulster.ny.us |
| Brian Burns | Olive Highway Department | |
| Tony Cocozza | Resident and Trout Unlimited | flyfish@hvc.rr.com |
| Peter Friedel | | pfriedeltownofolive@gmail.com |
| Jack Giudiffa | Resident | bobbanred3@aol.com |
| Dawn Giuditta | Town of Olive | olivetownclerk@hvc.rr.com |
| Purdy Halstead | Resident | |
| Ruth Halstead | Resident | |
| Jody Hoyt | TU & Flood Commission | |
| Ed Kahil | Resident | ekahil@hvc.rr.com |
| Scott Kolden | Town of Olive | skolden@gmail.com |
| Bill Meluin | Town of Olive | billmeluin1@gmail.com |
| El Ostapetun | APW Trout Unlimited | trailwaters@hvc.rr.com |
| John Pree | Ulster Legal | |
| Sylvia Rozzelle | Town of Olive | olivesupervisor@hvc.rr.com |
| Jim Sofranko | Town of Olive | jimsofrankotownofolive@gmail.com |
| Carl Swerson | Olive Emergency Management | cjes62@gmail.com |
| Chriss Winne | Town of Olive | cwinne44@gmail.com |
| Ternice Winne | Resident | ternice@gmail.com |
| Amanda Winne | Resident | awinne76@gmail.com |
| Project Team | | |
| Anne Marie Corbalis | ASC | amcorbalis@asc-pr.com |
| Paul Costa | NYCDEP | pcosta@dep.nyc.gov |
| Carl Davis | NYCDEP | |
| George Fowler | Woidt Engineering & Construction | gfwler@woidtengineering.com |
| Ray G. Girgis | NYCDEP | rgirgis@dep.nyc.gov |
| Jeff Graf | NYCDEP | jgraf@dep.nyc.gov |
| Ed Sprague | NYCDEP | esprague@dep.nyc.gov |
| David Weiss | WSP | david.weiss@wspgroup.com |
| Allie Zamow | ASC | azamow@asc-pr.com |

Project Introduction

Presenter: Ray G. Girgis, PE

The purpose of this meeting was to inform Town of Olive residents of the proposed plan and design for the replacement of the Esopus Creek and Route 28A Railroad Bridges. This is the second Public Information Meeting held to discuss program status, address questions and solicit input.

Project Overview

Presenter: Ray G. Girgis, PE and George Fowler

Town of Olive Supervisor Sylvia B. Rozzelle welcomed everyone to the town meeting and introduced all attendees.

Ray G. Girgis, PE, New York City Department of Environmental Protection, opened the presentation by thanking everyone for taking personal time to attend this important meeting. He began by providing a brief history of the project and describing the existing conditions of the bridges and roadway. The focus of the project includes:

- Replacement of the Esopus Creek and Rte. 28A Railroad Bridges
- 28A S-Curve: Nonstandard horizontal S-curve
- 28A Railroad Bridge: Nonstandard vertical sight distance
- Route 28A/Route 28 Intersection: Nonstandard Y-type intersection
- Esopus Creek Bridge: Nonstandard bridge and shoulder width

To date, the project team has completed a topographic and boundary survey, hydraulic analysis, traffic study, and environmental screening. In coordination with Woidt Engineering, the project team is conducting alternatives analysis, public outreach, and agency coordination. Upcoming design work includes subsurface investigations (soil borings).

The CAT-252 Esopus Creek and Rte. 28A Bridge project identifies four primary objectives:

- Provide a new structure based on current NYSDOT standards with a service life of 75-years
- Improve bridge, approach roadway and intersection geometry
- Address/improve hydraulic performance in coordination with Town of Olive's Flood Mitigation Study
- Provide for future bicycle/pedestrian accommodation per the Ulster County Inter-governmental Agreement

In addition to addressing project objectives, the project also will strive to achieve a gold sustainability rating. Sustainable design areas include natural resource management, sustainable land use, waste reduction/resource conservation, and energy conservation/reduction in greenhouse gas emissions.

Currently under consideration and evaluation are three project alternatives:

- No build option: Retain existing structure in its current condition. Receive additional structural flags. Leads to reduced load-carrying capacity and eventual closure
- Bridge rehabilitation option: Work includes repair of all deteriorated concrete bridge elements, structural deck repair or replacement, and railing and transition rail replacement. Repair not cost-

effective option due to extent of deterioration—does not improve safety or hydraulic performance, permit for bicycles accommodation or allow for roadway geometric improvements

- Bridge replacement option: Complete removal of existing structures and replace with new bridges on a parallel alignment. Option satisfies all project objectives

Alternatives are under analysis and a preferred alternative will be determined based on ability to address project objectives. George Fowler, Woidt Engineering, discussed how design options are being evaluated in conjunction with on-going flood study to identify strategy that will maximize flood reduction.

Project Schedule & Next Steps

Presenter: Ray G. Girgis, PE

Schedule:

- Project Kickoff – July 2014
- Final Basis of Design Report (BODR) – August 2016
- 30% Design – October 2017
- 60% Design – July 2018
- 90% Design – January 2019
- 100% Design – July 2019
- Begin Construction – December 2020
- Complete Construction – November 2023
- Closeout – 2025

Next Steps:

- Finalize Facility Plan
- Perform soil borings
- Prepare Basis of Design Report
- Initiate coordination with NYC Public Design Commission (PDC)
- Continue coordination with NYSDOT
- Continue State Environmental Quality Review (SEQR)
- Initiate 30% design

Public Comments & Questions

- Will the height of the crest [curve] be changed?
 - Yes potentially, this is currently under evaluation.
- Will the old crest curve be removed?
 - Yes, the roadway will be improved to address the limited sight distance.
- Did the project team consider including an acceleration lane southbound to avoid accidents? Can be dangerous for trucks and larger vehicles.
 - The traffic studies don't indicate the need for an acceleration lane. However, we will discuss with NYSDOT as they are the approving authority.
- Line of sight may be obstructed at the end of the T-intersection by a vehicle making a left turn.
 - Will investigate location of stop bar to improve visibility.

- How much of the creek will get widened?
 - Still under evaluation at this point. Hydraulic modeling will determine benefit of longer bridge/changes to channel.
- After the old bridge is removed, what happens to the piers?
 - Piers will be cut down below stream bed elevation and covered. You will not be able to see remaining piers.
- During construction of the new bridge, will there ever be full road closures?
 - No, the old roadway will be used when new structure is being constructed parallel to the existing. When completed, traffic will move to new structure and old roadway/bridge will be removed. At no point in construction will there be a full road closure requiring a detour.
- Has the design of the new bridge rails been thought about/determined?
 - Not yet, but the intent will be to incorporate a NYSDOT approved system while considering aesthetics.
- How firm is the project schedule?
 - Will try to keep to schedule to the best of ability but there are many different factors at play that can disrupt.

PUBLIC INFORMATION MEETING #2

*NYCDEP CAT-252 – Replacement of
Esopus Creek and Rte. 28A Railroad
Bridges*

October 27, 2015



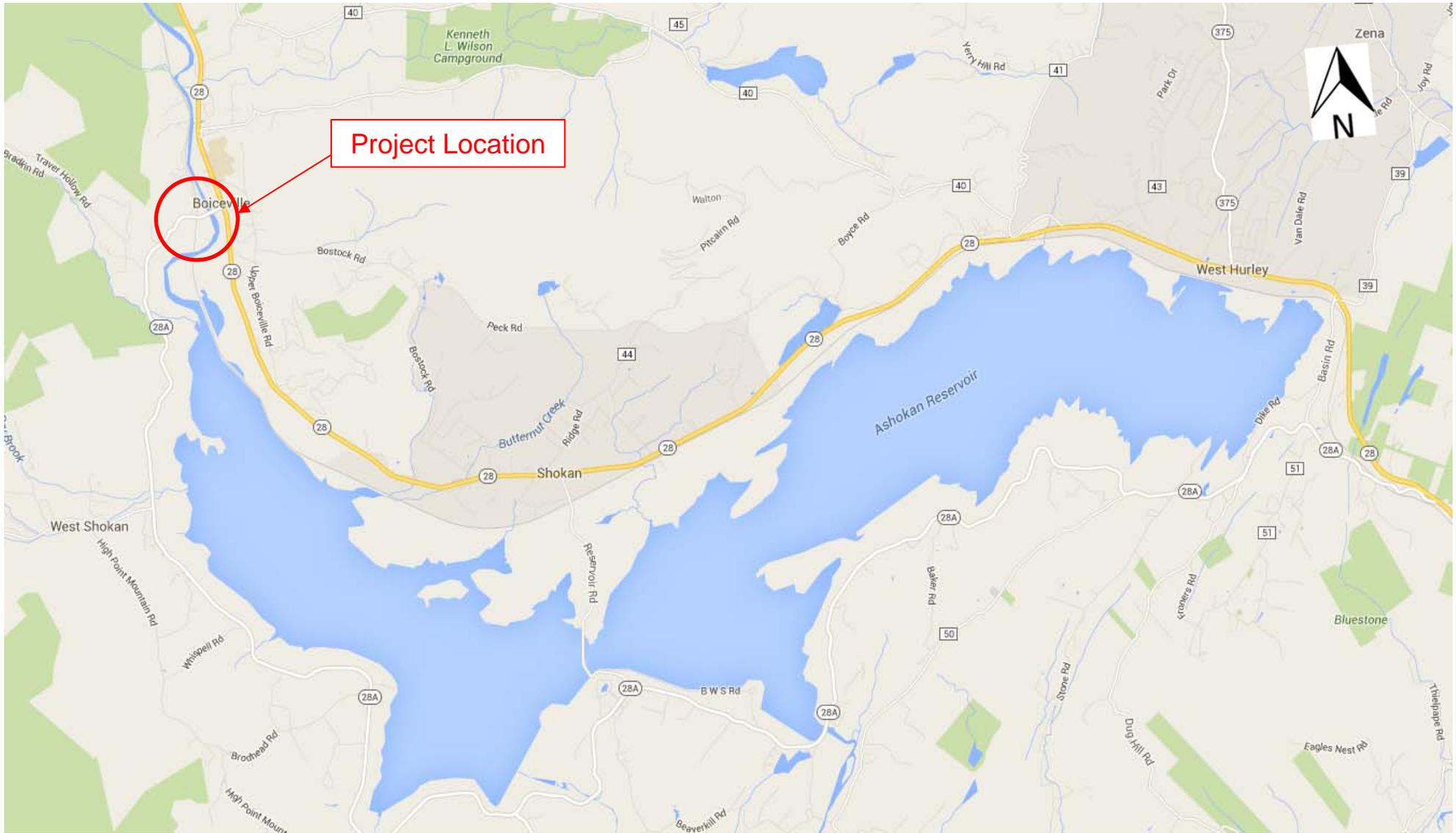
QUESTIONS?



PRESENTATION OUTLINE

- Introductions
- Project History
- Existing Conditions
- Work Completed to Date
- Project Objectives
- Alternatives Analysis
- Project Schedule
- Next Steps
- Questions

PROJECT LOCATION



PROJECT HISTORY

- Bridges were constructed in the early 1900's
- Bridges are inspected every two years by NYSDOT
- Bridges are considered at the end of their useful life
- NYCDEP addressed Yellow Flag condition on the Esopus Creek Bridge in 2013
 - Repair to spalled concrete at Span 5 floorbeam
- NYCDEP initiated design of replacement project in July 2014

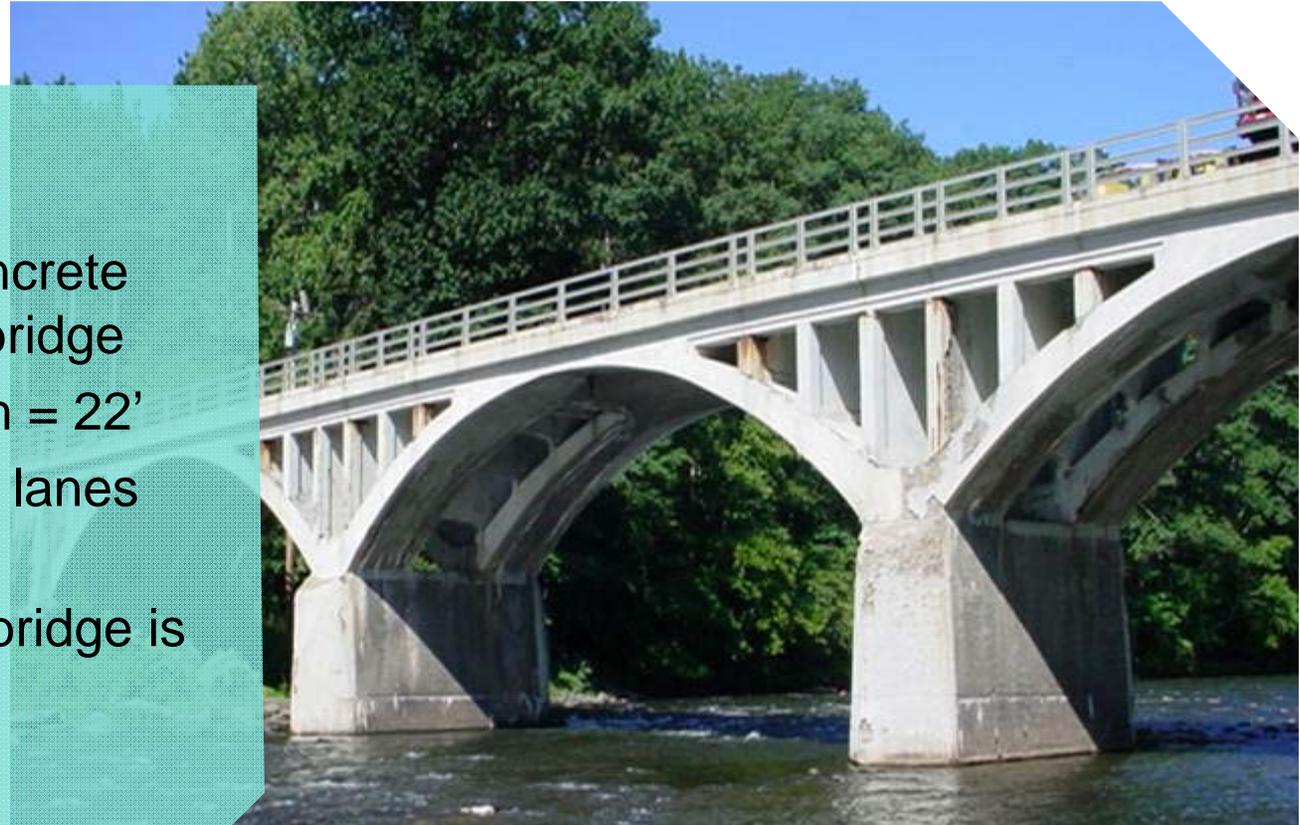


EXISTING CONDITIONS



EXISTING CONDITIONS

- Built in 1913
- 454' long, 5-span concrete open-spandrel arch bridge
- Bridge roadway width = 22'
- Carries two 11' travel lanes and no shoulders
- The condition of the bridge is beyond its useful life



Esopus Creek Bridge

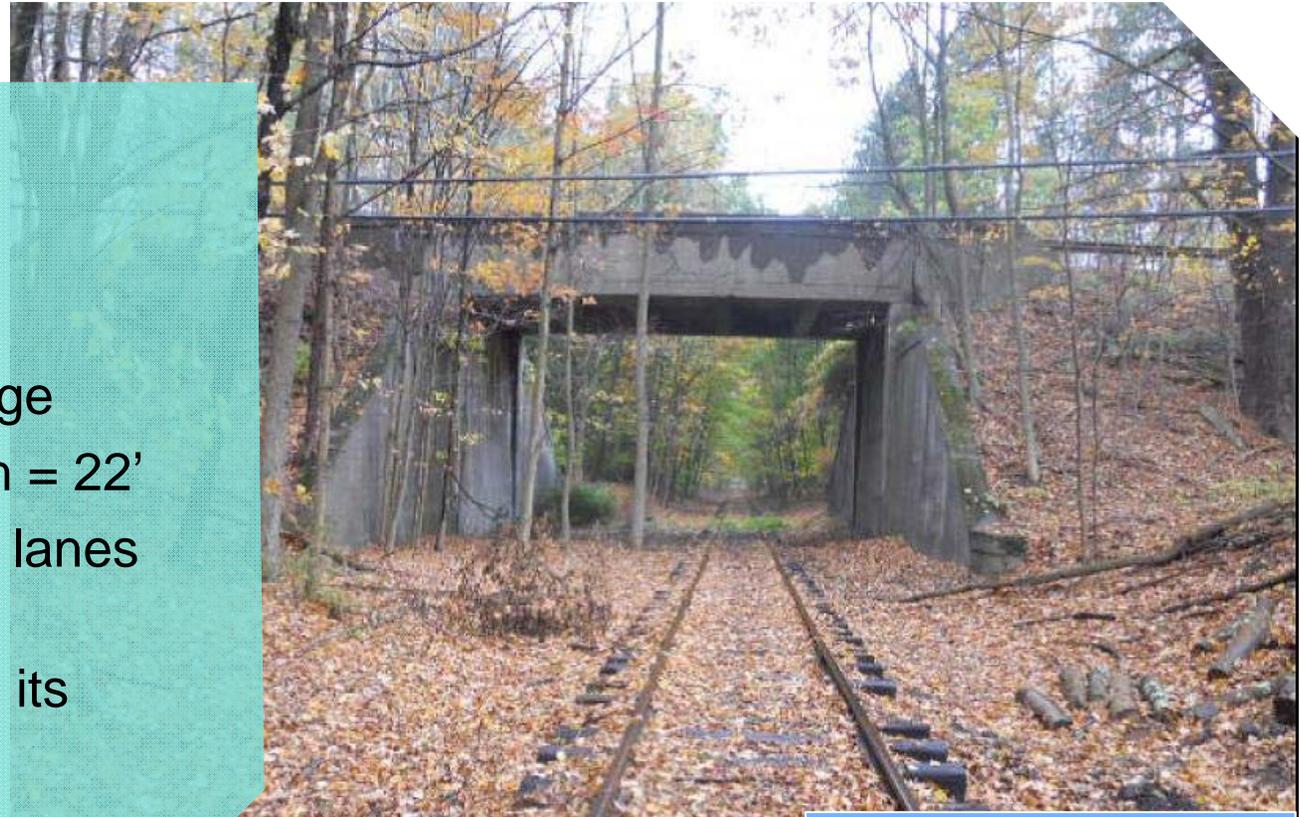
EXISTING CONDITIONS



- Spalling with exposed rebar throughout
- Cracking with efflorescence
- City performed repairs including joint replacement and Class A concrete repairs
- Posted no 'R' Permit Vehicles (no vehicles above legal weights permitted)

EXISTING CONDITIONS

- Built in 1913
- 39' long, single span concrete thru-girder/floorbeam bridge
- Bridge roadway width = 22'
- Carries two 11' travel lanes and no shoulders
- The bridge is beyond its useful life



Rte. 28A Railroad Bridge

EXISTING CONDITIONS



- Spalling with exposed rebar on primary members
- Underside of deck and abutments exhibit spalled and loose concrete
- No flag conditions

NON-STANDARD ROADWAY GEOMETRY



Non-standard vertical sight distance



Non-standard bridge and shoulder width



NON-STANDARD ROADWAY GEOMETRY



Non-standard horizontal S-curve



Non-standard Y-type intersection

DESIGN WORK COMPLETED TO DATE

- Topographic and Boundary Survey
- Hydraulic Analysis
- Coordination with Woitd Engineering for Flood Study
- Traffic Study
- Environmental Screenings
- Subsurface Investigation (soil borings) - permitting
- Alternatives Analysis
- Public Outreach
- Agency Coordination



PROJECT OBJECTIVES

- **Project Objective #1** – *Provide a new structure based on current NYSDOT standards with a service life of 75-years*
- **Project Objective #2** - *Improve bridge, approach roadway and intersection geometry*
- **Project Objective #3** – *Address / improve hydraulic performance in coordination with Town of Olive’s Flood Mitigation Study*
- **Project Objective #4** – *Provide for future bicycle / pedestrian accommodation per the Ulster County Inter-governmental Agreement*

SUSTAINABLE DESIGN

Goal to achieve a gold or higher sustainability rating

→ **Natural Resource Management**

- Preservation of wetlands and surface waters
- Sediment and erosion control

→ **Sustainable Land Use**

- Provision of bicycling/pedestrian amenities
- Landscaping for restoration of native vegetation
- On-site stormwater management
- Climate change adaptation/ improved bridge hydraulics

→ **Waste Reduction/ Resource Conservation**

- Salvage/ recycling of existing structures and materials
- Use of recycled materials in bridge construction

→ **Energy conservation/ Reduction in Greenhouse Gas Emissions**

- Provide durable, low-maintenance structures
- Accelerated construction technology

ALTERNATIVES ANALYSIS

→ No Build Option

- Retain existing structure in its current condition
- Bridge will receive additional structural flags
- Lead to reduced load-carrying capacity and eventual closure

→ Bridge Rehabilitation Option

- Work includes:
 - Repair of all deteriorated concrete bridge elements
 - Structural deck replacement
 - Bridge railing and transition rail replacement
- Repair not cost-effective option due to extent of deterioration
- Does not improve safety or hydraulic performance
- Does not permit for bicycles accommodation
- Does not allow for roadway geometric improvements

→ Bridge Replacement Option

- Complete removal of existing structures and replace with new bridges on a parallel alignment
- Satisfies all Project Objectives
- Estimated Construction Cost = \$60 - 70 million

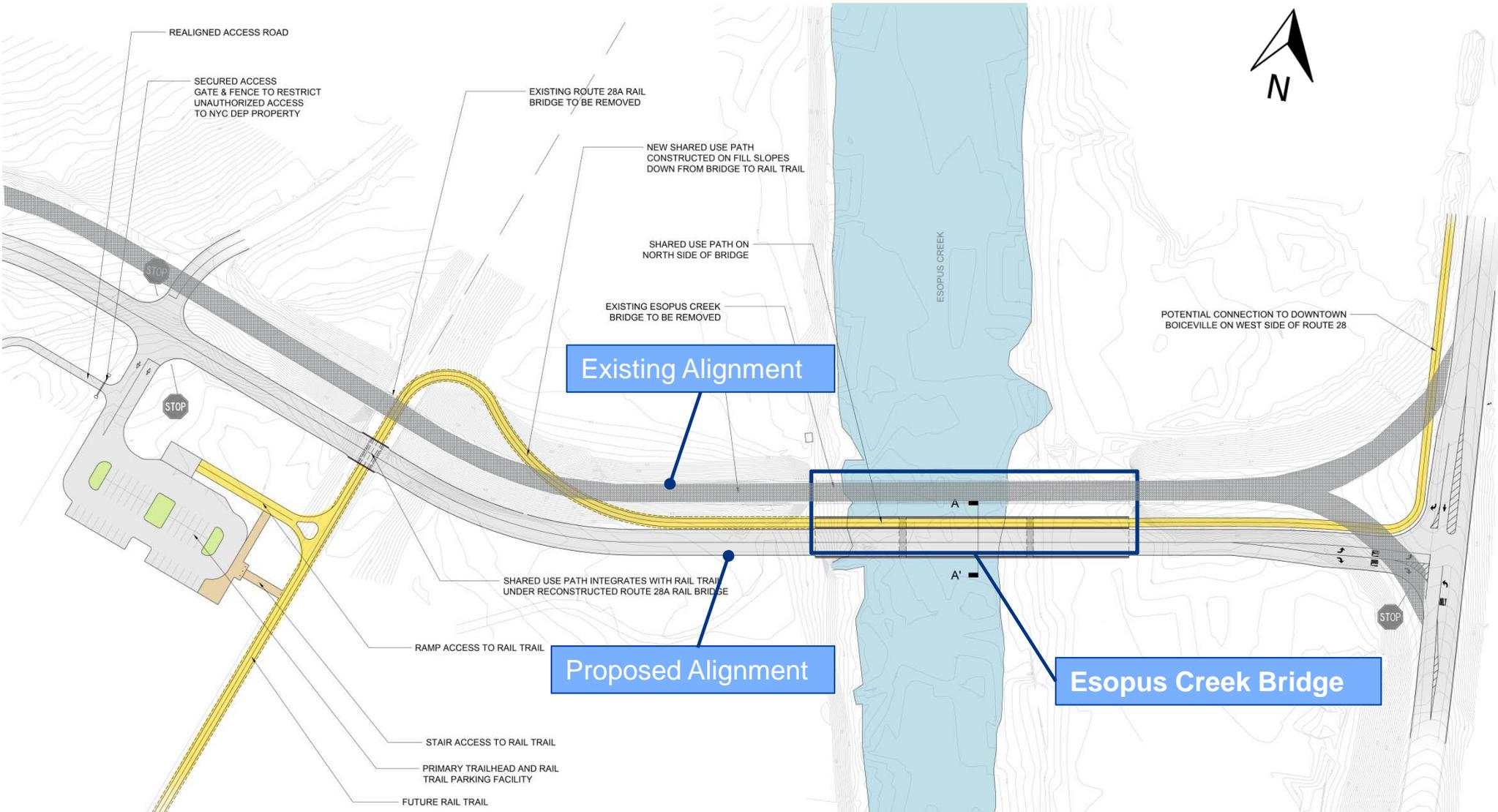
ALTERNATIVES ANALYSIS

Project Objective #1 - Provide a new structure based on current NYSDOT standards with a service life of 75-years

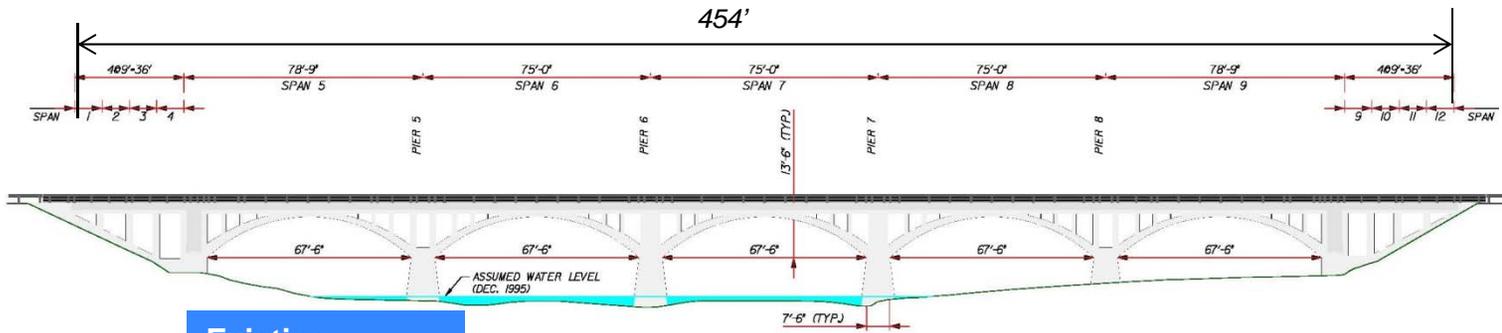
ESOPUS CREEK BRIDGE:

- Complete removal and replacement of the existing structure
- Construct a new bridge on an off-line, parallel alignment to the south of the existing bridge to avoid lengthy detour route
- New bridge will consist of a multi-girder precast concrete bridge on precast concrete piers and abutments
 - Designed to meet current NYSDOT design standards
 - High-durability, high-quality, prefabricated bridge units (> 75-year service life)
 - Prefabricated bridge components to allow for accelerated construction
 - Reduced number of piers in the creek to reduce impact on waterway

ALTERNATIVES ANALYSIS

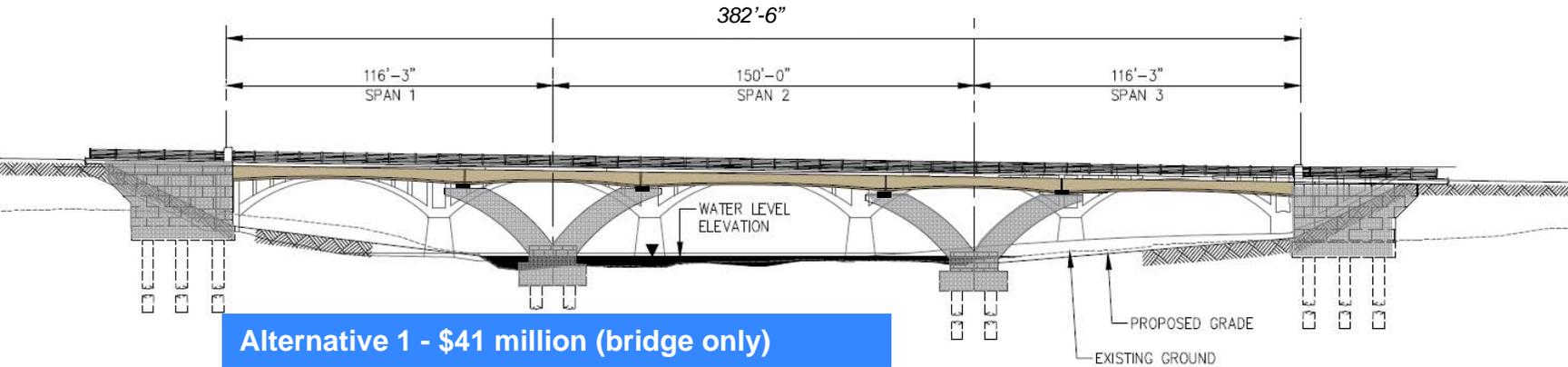


ALTERNATIVES ANALYSIS

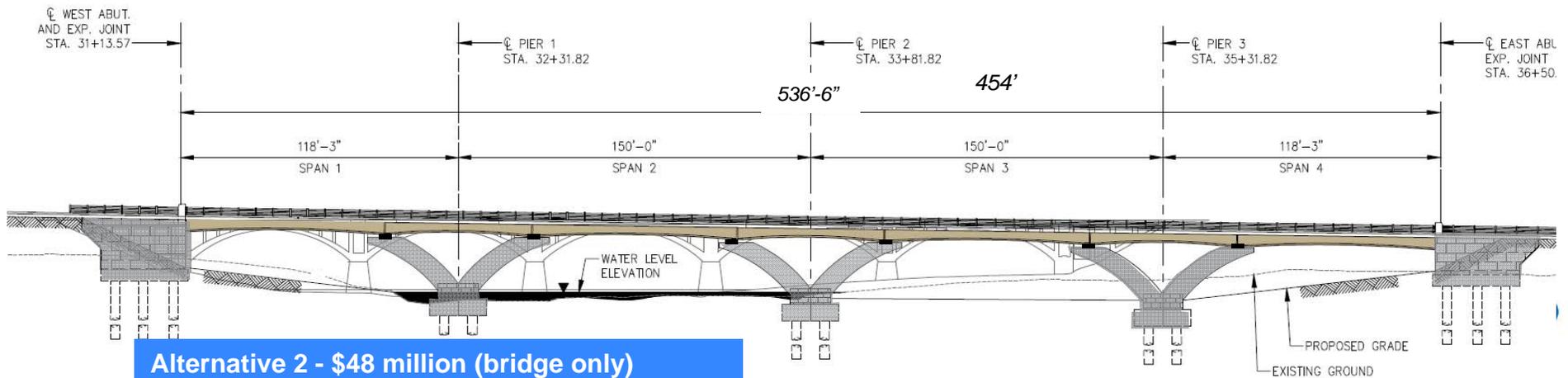


Existing

ESOPUS BRIDGE EXISTING ELEVATION
SCALE: 1" = 40'



Alternative 1 - \$41 million (bridge only)



Alternative 2 - \$48 million (bridge only)

ALTERNATIVES ANALYSIS

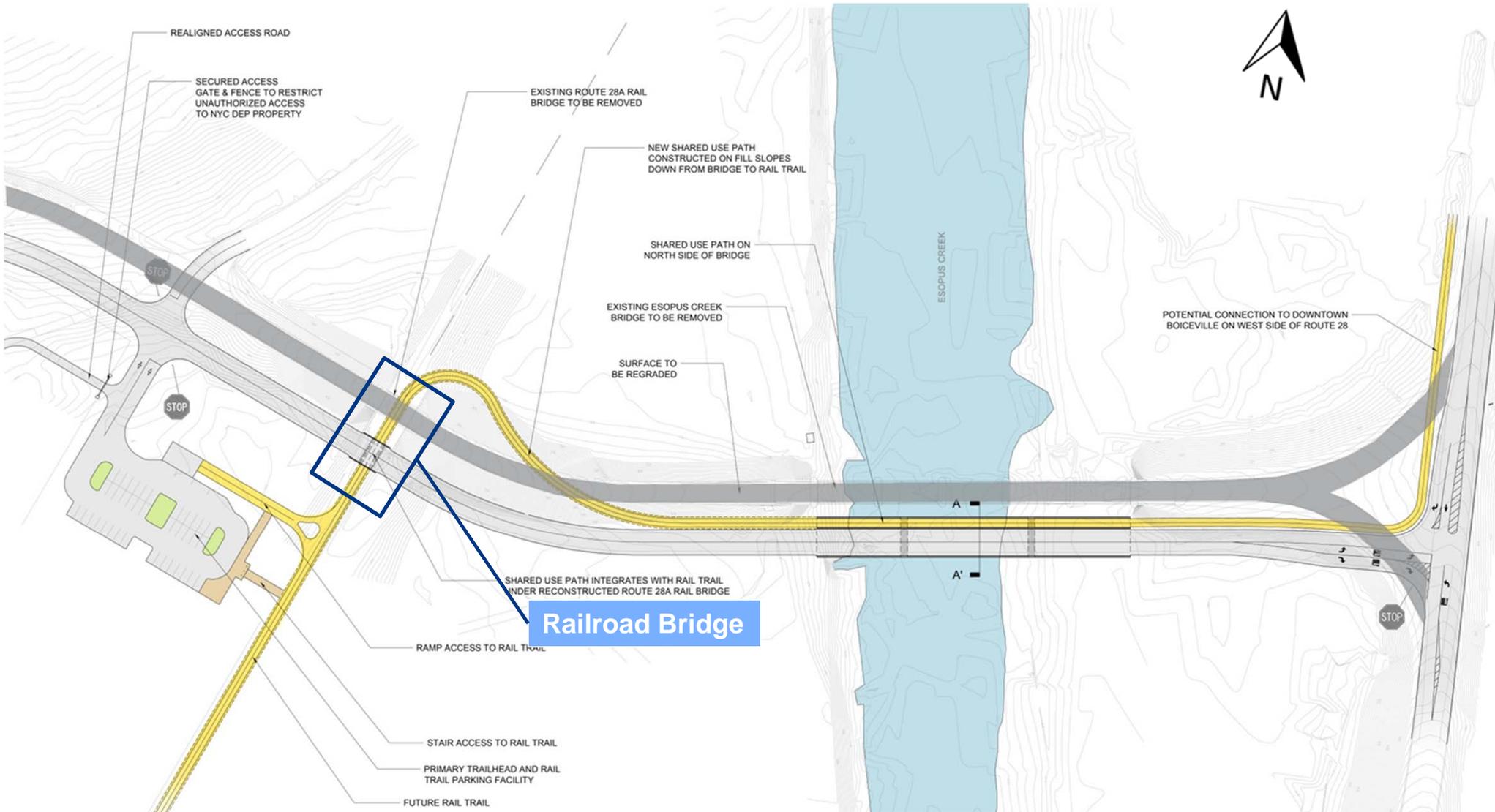


ALTERNATIVES ANALYSIS

RAILROAD BRIDGE:

- Complete removal and replacement of the existing structure
- Construct a new bridge on an off-line, parallel alignment to the south of the existing bridge
- New bridge will consist of a precast concrete components precast or cast-in-place concrete abutments
 - Designed to meet current NYSDOT design standards
 - High-durability, high-quality, prefabricated bridge units (> 75-year service life)
 - Prefabricated bridge components to allow for accelerated construction schedule
 - Vertical and horizontal clearances to accommodate future rail-trail

ALTERNATIVES ANALYSIS



ALTERNATIVES ANALYSIS



ALTERNATIVES ANALYSIS

Project Objective #2 - Improve bridge, approach roadway and intersection geometry

- Provide standard width travel lanes and shoulders within project limits
- Correct non-standard sight distances caused by crest vertical curve
- Improve horizontal alignment at 'S-curve'
- Provide new intersection with Rte. 28/28A based on current design standards
- Install NYSDOT standard approach guide rail transitions and end assemblies

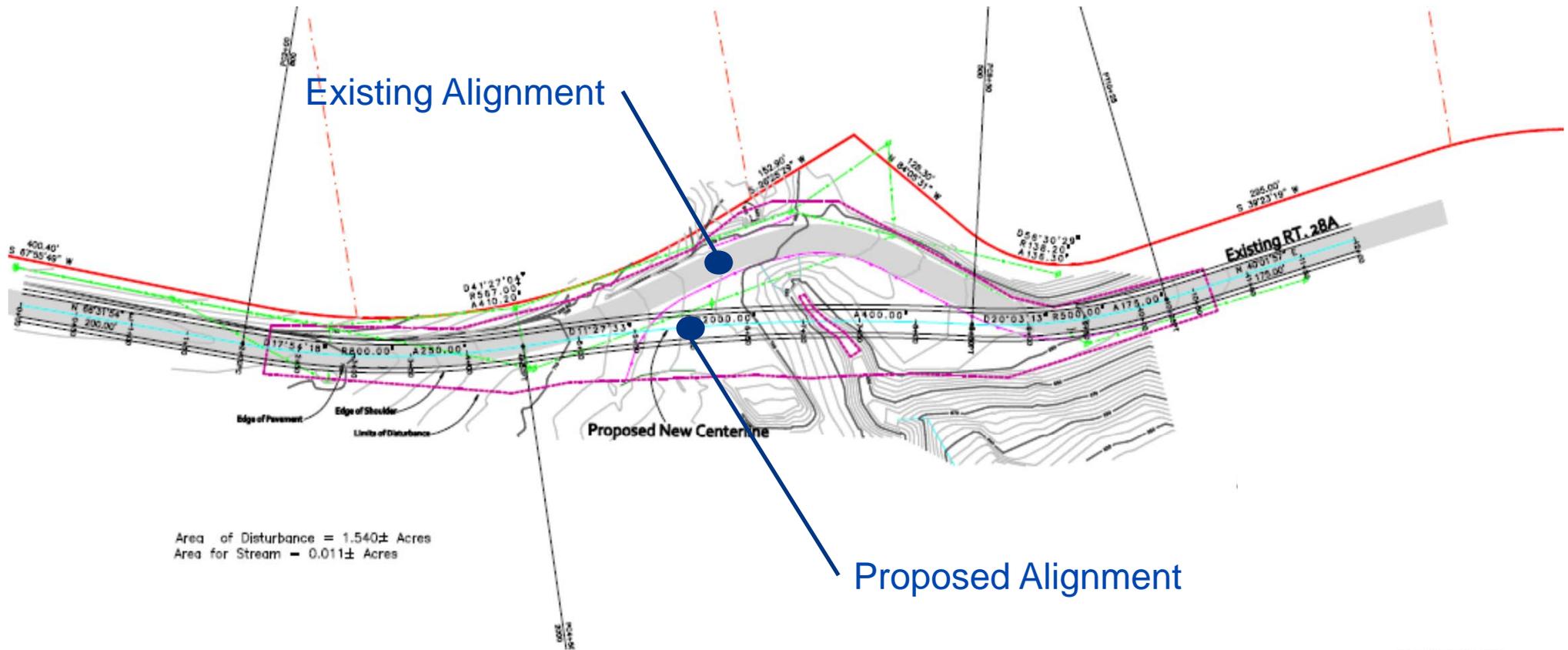
ALTERNATIVES ANALYSIS

- S-Curve
- Vertical Curve
- Y-type Intersection



ALTERNATIVES ANALYSIS

S-Curve Correction



Area of Disturbance = 1.540± Acres
Area for Stream = 0.011± Acres

ALTERNATIVES ANALYSIS

Route 28A / 28 Intersection

- Non-conforming NYSDOT intersection geometry for the existing roadway
- Safety deficiencies
 - Acute angle inhibits line of sight
 - Lack of turn lanes
- Accidents are higher than statewide average
- NYSDOT conventional T-type intersection with dedicated turn lanes
- Stop sign control, signal not warranted



ALTERNATIVES ANALYSIS

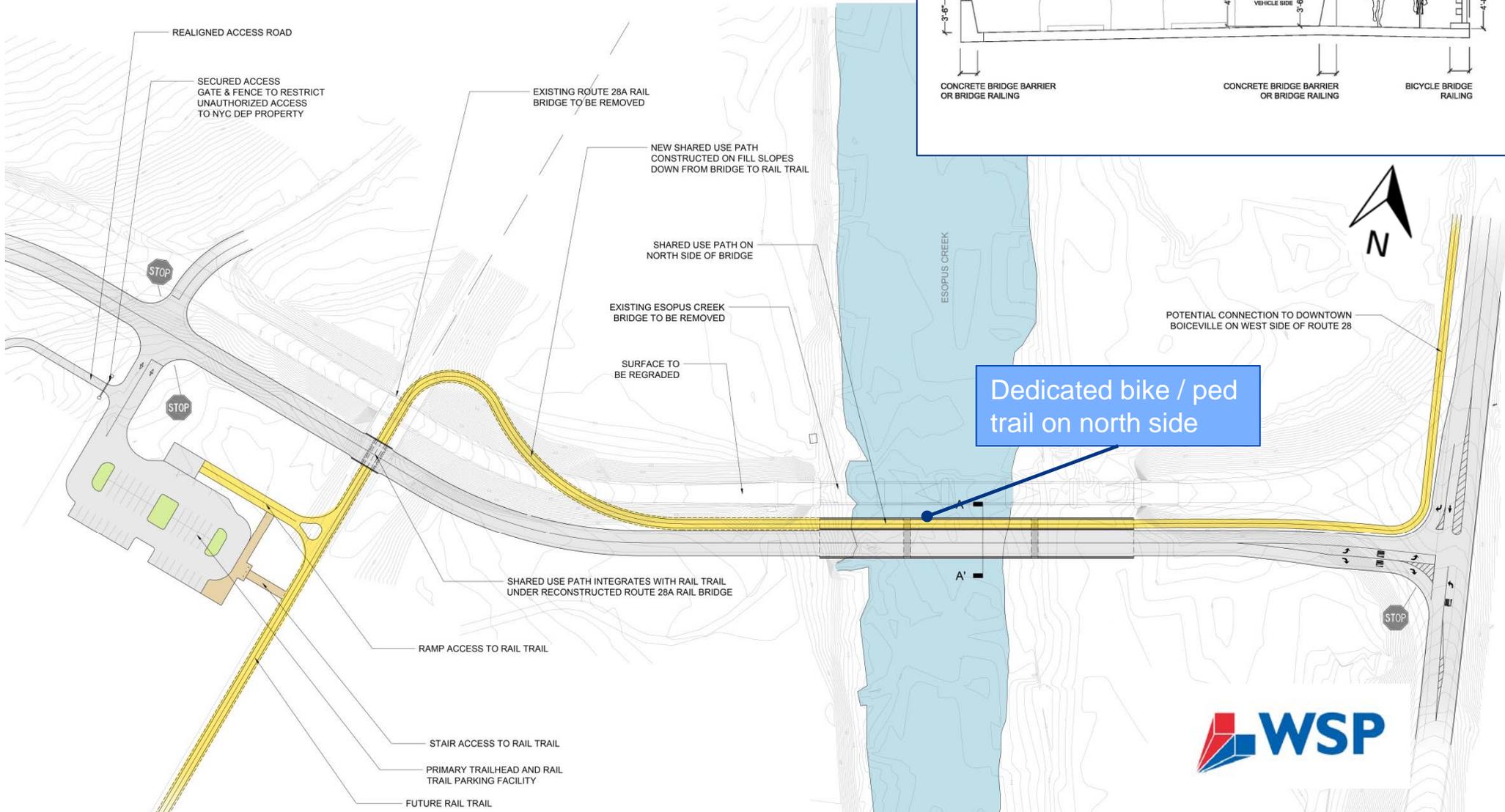
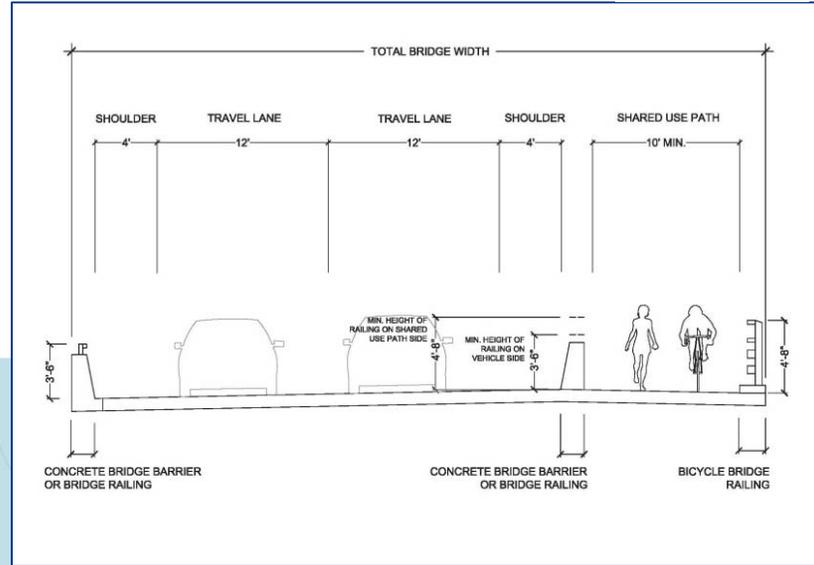


Project Objective #3 - Address / improve hydraulic performance in coordination with Town of Olive's Flood Mitigation Study

- Coordination on-going with flood study
- Improvements to hydraulic performance at Esopus Creek Bridge includes:
 - Reduce number of piers in the waterway
 - Potential increase in bridge length (facilitate future floodplain improvement on east side)

ALTERNATIVES ANALYSIS

Project Objective #4 - Provide for future bicycle / pedestrian accommodation per the Ulster County Inter-governmental Agreement

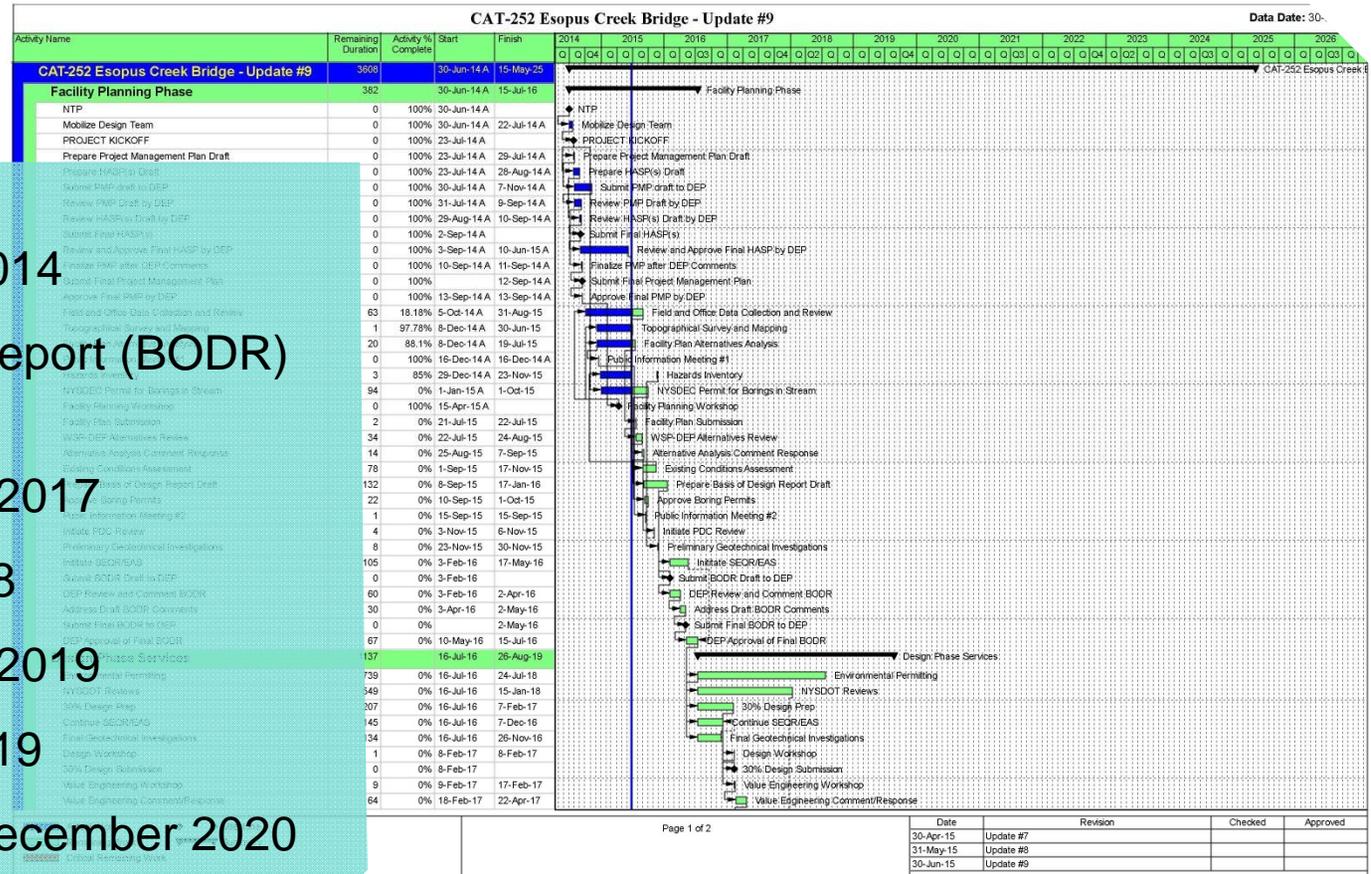


ALTERNATIVES ANALYSIS



Drive thru Video

PROJECT SCHEDULE



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QUESTIONS?

