STALL BRIDGE

Pleasantvale Road over Roeliff Jansen Kill

BIN #3222300

August 2023

AGENDA

- Presentation of the Project
- Address questions or comments

- Written comments to be submitted to the County:

Mr. Raymond Jurkowski
Columbia County DPW
P.O. Box 324, 178 NYS Rte 23B
Hudson, New York 12534

Please provide all comments by August 25, 2023

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PURPOSE OF THIS MEETING

- Project Objectives
- Bridge History and Existing Conditions
- Preliminary Design of Alternatives
- Future Project Action
- Project Schedule
- Obtain Public Input

PROJECT LOCATION

PRIMARY OBJECTIVES

- Reopen Pleasantvale Road to vehicular use.
- Reuse the existing abutments to minimize cost.
- Retain a single lane bridge (<16 ft) status while increasing clear width to accommodate agricultural equipment.
- Provide a structure that meets NYSDOT Standard HL-93 Design Loading
- Replacement of the Structurally deficient bridge with a new structure that will provide a minimum service life of 75 years.
- Address localized erosion and scour concerns.

Bridge History

- Stall Bridge is a County owned 92’-6’ single span steel warren truss bridge with an open steel grid deck on a town-maintained road.
- The bridge was built in 1909 and rehabilitated in 1989.
- Current out-to-out width is 16’-7” and clear roadway width over the bridge is 12’-0”.
- The bridge was closed to all traffic in 2022.
- The Stall Bridge is one of many Post-Standardization Warren Trusses in the state listed as “Eligible” in the NYSDOT Evaluation of National Register Eligibility study conducted in 2002.
- The bridge has a classification of C-5 defined as; “demonstrates pattern of features common to a particular bridge type”.
- Built in 1909, it is considered to represent the early period of bridge standardization between Post-1908 and Pre-1926 Warren Trusses, and are considered eligible unless they have a significant integrity problem.

SHPO/ACOE Review

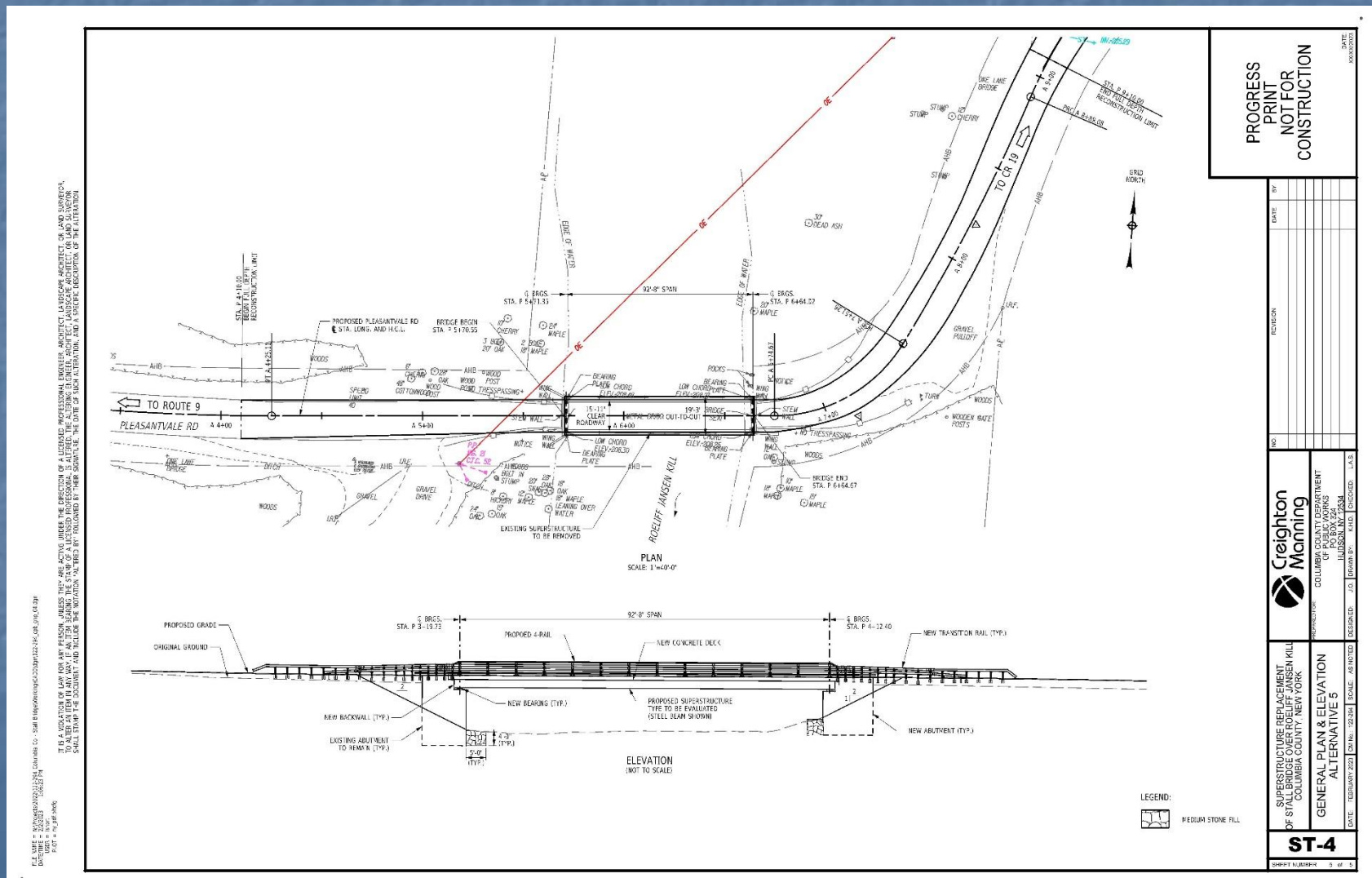
- Upon the start of the project, a submission was made to NYSHPO regarding the replacement of the bridge. NYSHPO responded in December 2022, that the Stall Bridge was “eligible for listing”.
- This required alternatives to be considered and evaluated and a resubmission to SHPO.
- A total of five (5) alternative were evaluated.
- March 2023 SHPO response: “The preferred alternative presented in the Memorandum (alternative 5) would remove the existing bridge and install a new standard design bridge in its place. Based on our review of the conditions report, supporting photographs, and alternatives presented, it appears that demolition/ replacement of the bridge may not be avoidable.”
- This resulted in the preparation of a Memorandum of Agreement (MOA) requiring that the County prepare “Recordation” of the existing structure prior to demolition.

Alternatives

Alternative Analysis and Comparison Table

Alternative	Description	Proposed Span Length	Bridge Roadway Width	Maintenance of Traffic	Profile Raise (Max.)	Design Load Rating	ROW Impacts	Reconstruction Length Based On Roadway Grades & Profile Adjustments	SHPO Considerations	Utility Impacts	Structure Type Options	Cost	Pros	Cons
1	Rehabilitate Existing Superstructure on Existing Alignment	92'-6"	Maintain Existing (12'-0")	Offsite Detour	4" +/- (Minimal)	HL-93	None	West Appr. = 100' East Appr. = 100'	• Retains NRHP eligible truss with significant modifications to structural integrity	None	• Existing truss to remain • Existing substructures to remain • Exodermic concrete deck	$ 1,970,000.00	• Retains NRHP eligible truss • Maintains hydraulic capacity • Maintains single lane bridge status • Meets HL-93 and current design standards	• Non-standard 12'-0" clear width • Non-standard bridge/transition rail • 25-yr Design Life • Requires significant maintenance • Cost prohibitive • Requires substantial modifications to structural integrity of NRHP eligible truss
2	Truss Superstructure Replacement on Existing Alignment	92'-6"	Maintain Existing (12'-0")	Offsite Detour	4" +/- (Minimal)	HL-93	None	West Appr. = 100' East Appr. = 100'	• Removes NRHP eligible truss, and replace with new similar truss	None	• New similar truss • Existing substructures to remain • Exodermic concrete deck	$ 1,890,000.00	• 75-yr design life • Maintains hydraulic capacity • Meets HL-93 and current design standards • Maintains single lane bridge status	• Non-standard 12'-0" clear width • Non-standard bridge/transition rail • Requires significant maintenance • Cost prohibitive • Removes NRHP eligible truss
3	Full Structure Replacement on Existing Alignment	112'-0"	15'-11"	Offsite Detour	1'-0" to 2'-0"	HL-93	TE's/Grading Release	West Appr. = 175' East Appr. = 230'	• Removes NRHP eligible truss, and replace with new similar truss • New/increased ground disturbance	Utility relocation required for new structure	• New similar truss • New substructures • Reinforced concrete deck	$ 2,440,000.00	• 75-yr design life • Maintains hydraulic capacity • Meets HL-93 and current design standards • Maintains single lane bridge status and increases width to accommodate agricultural equipment	• Utility Conflicts • Requires significant maintenance • Cost prohibitive • Removes NRHP eligible truss
4	Full Structure Replacement Off Alignment and Retain/Rehabilitate Existing Truss	92'-6"	15'-11"	Offsite Detour	Existing Truss Rehab (0'-0") New structure (1'-6" to 2'-0")	HL-93	TE's, PE's, and FEE Takings	West Appr. = 200' East Appr. = 230'	• Retains NRHP eligible truss with significant modifications to structural integrity • New/increased ground disturbance	Utility relocation required for new structure	• Existing truss to remain • Existing substructures to remain • New steel multi-girder superstructure • New substructures • Reinforced concrete deck	$ 2,470,000.00	• Retains NRHP eligible truss • 75-yr design life • Maintains hydraulic capacity • Meets HL-93 and current standards • Maintains single lane bridge status and increases width to accommodate agricultural equipment	• Requires significant maintenance • Cost prohibitive • Requires substantial modifications to structural integrity of NRHP eligible truss
5	Superstructure Replacement on Existing Alignment	92'-6"	15'-11"	Offsite Detour	1'-6" to 2'-0"	HL-93	TE's/Grading Releases	West Appr. = 150' East Appr. = 230'	• Removes NRHP eligible truss, replaces with new superstructure	None	• New steel multi-girder superstructure • Existing substructures to remain • Reinforced concrete deck	$ 1,270,000.00	• Requires minimal maintenance •75-yr design life • Maintains hydraulic capacity • Cost effective • Meets HL-93 and current standards • Maintains single lane bridge status and increases width to accommodate agricultural equipment	• Removes NRHP eligible truss

Preferred Option (#5)



FUTURE PROJECT ACTION

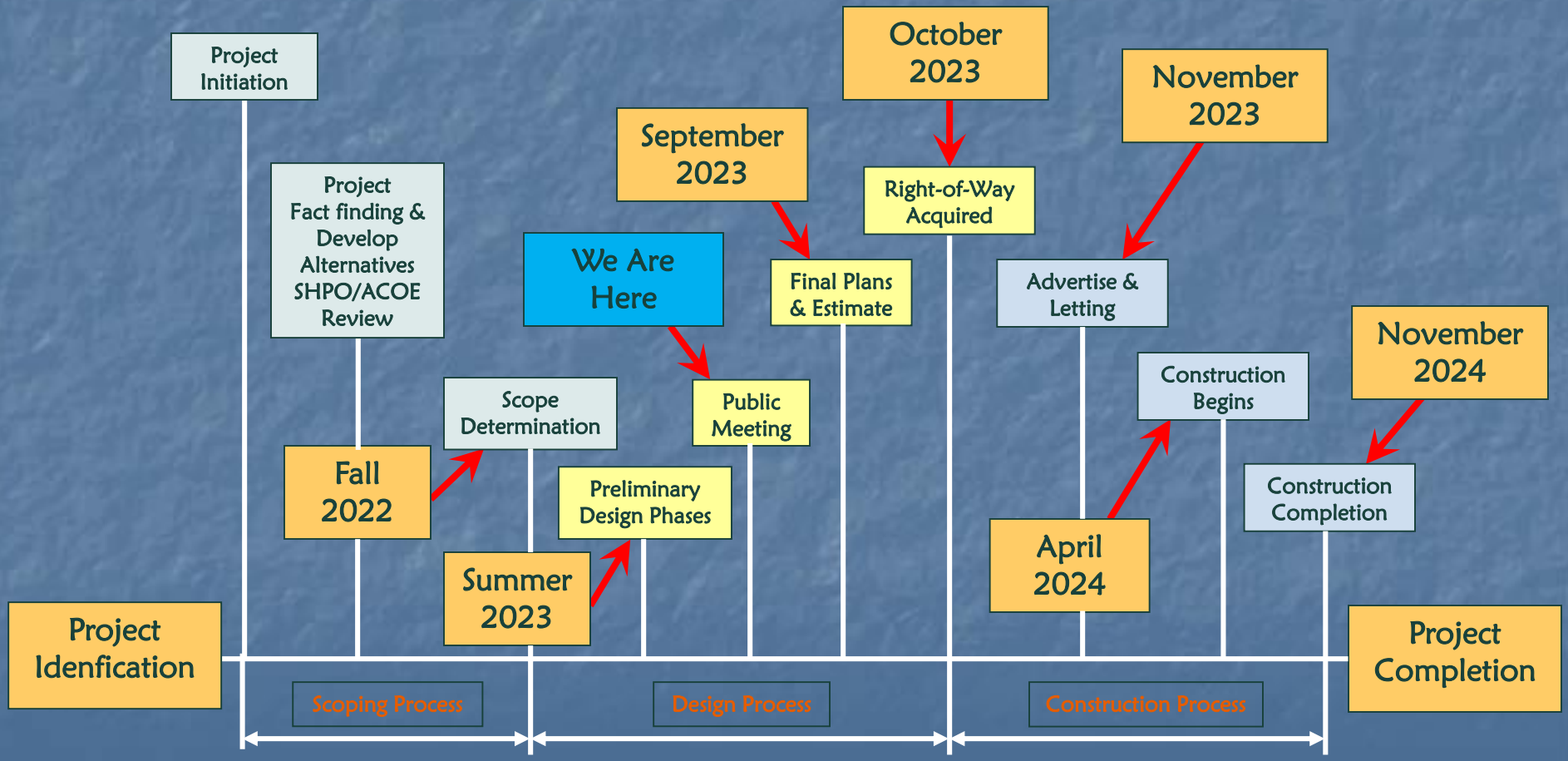
- Incorporate public input into the design
- Continue obtaining input from State/Federal and other involved agencies
- Finalize environmental review
- Prepare and submit Design Approval Documentation.
- Finalize design plans
- Finalize easements / R.O.W. needs, as necessary

PROJECT FUNDING

- Total Project Cost = $1,370,000 100% County Funded

- Project Costs:
  - $1,134,000 Construction Cost
  - $ 136,000 Contingencies and Mobilization
  - $ 100,000 Engineering Design and CA/CI

PROJECT TIMELINE




QUESTIONS?
COMMENTS?
CONCERNS?