

City Council Workshop – August 21, 2023



Franklin
NEW HAMPSHIRE
The Three Rivers City



McFarland Johnson

Project Description

- Construct a Pedestrian Connection Between Winnepesaukee River Trail and Mill City Park
- Awarded a Grant from NHDOT in 2019
 - NHDOT Funding \$512,000
 - City Funding \$128,000
 - Total Funding \$640,000
 - (Assumed Replacing Railroad Ties with Solid Timber Deck)
 - Project Must Follow NHDOT Prescribed Process



Description of Bridge

- Built circa 1890's
- 15-Spans, 356' Long, 12' Wide, 20' Above Ground
- 3 Types of Trestle Spans
 1. Standard (Spans 1-6 & 15)
 2. A-Frame (Spans 8-13)
 3. Inverted King Post (Spans 7 & 14)



2019 Inspections Results

Condition Summary Table

Element	Total	Green (Retain)	%	Red (Replace)	%	Yellow (Repair)	%
Bents	70	27	39%	20	29%	23	33%
Stringers	90	10	11%	38	42%	42	47%
A-Frames	30	12	40%	8	27%	10	33%
	190	49	26%	66	35%	75	39%



Structural Inspection Findings

- Portions of the Truss are in Poor Condition
- Truss is Continuing to Deteriorate
- 2019 Inspection Led to Path Relocation



Current Alternatives

- Rehabilitate Existing Railroad Trestle
 - Remove Rail, Ties, & Stringer and Put on New Deck & Historic Style Railing
 - Rehabilitate and Replace Trestle Members In Kind
- New Railroad Trestle
 - Replicate Existing Design
 - All New Timber Members
- New Pedestrian Bridge Upstream
 - Includes Maintenance Work To Existing Trestle



Current Alternatives

- Stabilize Trestle
 - Remove Vegetation
 - Repair or Replace Failed Trestle Members In Kind
 - Will Not Allow Pedestrian Traffic On Trestle
- Remove Trestle
 - Coordinate Stone Pier Removal



Alternative Cost Estimates

	ALTERNATIVE COST ESTIMATES				
	HISTORIC RESTORATION ALTERNATIVES FOR PEDESTRIAN LOADING		NEW PEDESTRIAN BRIDGE & STABILIZE TRESTLE	NO-BUILD & STABILIZE TRESTLE	NO-BUILD & REMOVE TRESTLE
	REHABILITATE TRESTLE	REPLACE TRESTLE IN-KIND			
TIMBER TRESTLE WORK	\$ 2,200,000	\$ 1,925,000	\$ 1,000,000	\$ 1,000,000	\$ 500,000
NEW CONCRETE RIVER PIERS (TBD)	\$ 550,000	\$ 550,000	\$ -	\$ -	\$ -
PEDESTRIAN DESIGN & HISTORIC STYLE RAILING	\$ 625,000	\$ 625,000	\$ -	\$ -	\$ -
CONTINGENCY	\$ 350,000	\$ 300,000	\$ 225,000	\$ 225,000	\$ 100,000
MOBILIZATION	\$ 350,000	\$ 300,000	\$ 225,000	\$ 225,000	\$ 100,000
NEW PEDESTRIAN BRIDGE & FOUNDATIONS	\$ -	\$ -	\$ 1,495,000	\$ -	\$ -
APPROACH WORK	\$ 75,000	\$ 75,000	\$ 60,000	\$ -	\$ -
TOTAL CONSTRUCTION COST ESTIMATE	\$ 4,150,000	\$ 3,775,000	\$ 3,005,000	\$ 1,450,000	\$ 700,000
ENGINEERING, GEOTECHNICAL & PERMITTING	\$ 375,000	\$ 350,000	\$ 240,000	\$ 150,000	\$ 50,000
CONSTRUCTION ENGINEERING (7% CONSTRUCTION)	\$ 290,000	\$ 260,000	\$ 210,000	\$ 100,000	\$ -
TOTAL PROJECT ESTIMATE	\$ 4,815,000	\$ 4,385,000	\$ 3,455,000	\$ 1,700,000	\$ 750,000
CITY SHARE	20%	20%	20%	100%	100%
CITY COST	\$ 963,000	\$ 877,000	\$ 691,000	\$ 1,700,000	\$ 750,000

\$640,000 Already Funded (\$512,000 DOT - \$128,000 City)



New Railroad Trestle Alternatives

- Modern Materials Could Be Used to Build a More Efficient Trestle
 - Fewer Bents
 - Longer Spans
 - Would Change the Look of the Trestle
 - Would Lower Construction Costs
 - Require Additional Coordination with Resource Agencies
 - Wide Range of Options



October 11, 2022 Meeting Summary

- Concerns with Rehab Option
 - Future Maintenance Costs
 - Unknowns During Construction
- Not Much Support for New Bridge Upstream of Trestle
- New Trestle Preferred
 - Explore Options To Reduce Costs and Future Maintenance
 - Use of Modern Materials



NHDOT Grant Requirements

1. Engineering Study
 - Develop A Range of Alternatives
 - Select Locally Preferred Alternative
2. Preliminary Design
 - Refine Locally Preferred Alternative
 - Fully Evaluate Impacts of Proposed Alternative on Resources
3. Final Design
4. Construction



NHDOT Grant Requirements

- NHDOT Reimburses City for 80% of Funds Expended
- NHDOT Grant Summary
 - Total Grant \$640,000
 - NHDOT Funding \$512,000
 - City Funding \$128,000

Engineering Study

Total Cost	~\$88,000
NHDOT Funding	~\$70,400
City Funding	~\$17,600

Remaining Grant Funds

\$552,000
\$441,600
\$110,400



NHDOT Grant Requirements

- Project Must Come to a Finish Point
 1. Engineer Study Concludes No Viable Project – “No-Build”
 2. Preliminary Design Concludes No Viable Project – “No-Build”
 3. Project is Constructed
- If Project Does Not “Finish”, NHDOT Will Take Back Money Reimbursed



Next Steps

If “No-Build” Alternative is Selected

- Complete Engineering Study
- Submit to NHDOT
- Project Finishes
- Total Funds Expended ~\$88,000
- City Funds Expended ~\$17,600



Next Steps

If “New Trestle” Alternative is Selected

- Complete Engineering Study
- Submit to NHDOT
- Prepare Scope of Work for Preliminary Design
- Submit to City and NHDOT
- Establish Budget for Preliminary Design Effort
 - Estimated at \$200,000



Next Steps

If “New Trestle” Alternative is Selected

- Tasks for Preliminary Design
 - Design Charrettes
 - Design Alternatives
 - Historic Consultation
 - Renderings and Preliminary Drawings
 - Updated Costs
 - Public Input
 - Develops Refined Preferred Alternative



Next Steps

If “New Trestle” Alternative is Selected

- Secure Additional Funding
 - Roughly \$4 Million Additional Funds Needed
 - Almost All Potential Grants Require City Matching Funds
 - % of City Funding Varies By Grant (Assume 20%)
 - Should Plan on At Least \$800,000 of Additional City Funds
 - Could Take 1 -2 Years to Secure Funding

Next Steps

If “New Trestle” Alternative is Confirmed At End of Preliminary Design

- Complete Preliminary Design
- Submit to NHDOT
- Prepare Final Construction Documents
- Advertise Project
- Construct Project



Next Steps

If “No-Build” Alternative is Selected at Conclusion of Preliminary Design

- Complete Preliminary Design
 - Submit to NHDOT
 - Project Finishes
-
- | | | |
|------------------------|------------|------------|
| • Total Funds Expended | ~\$200,000 | + \$88,000 |
| • City Funds Expended | ~\$40,000 | + \$17,600 |



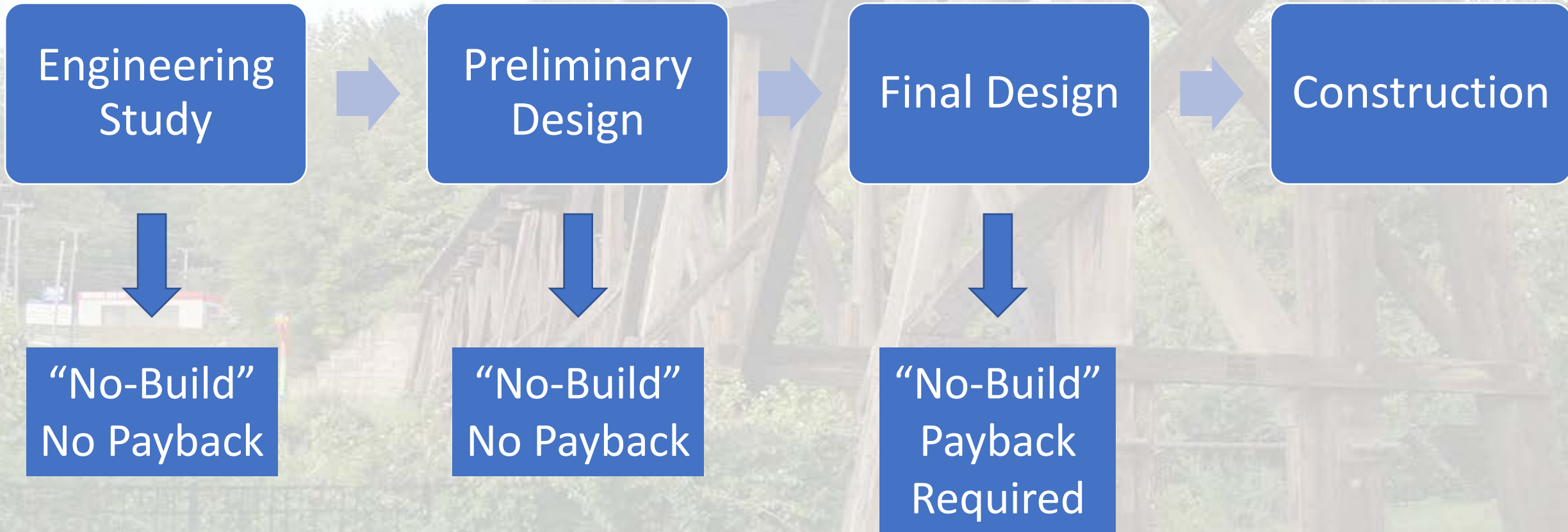
Next Steps

City Needs To Determine If Project Should Continue to Preliminary Design

- Yes
 - MJ will Finalize Engineering Study and Prepare Scope and Fee for Preliminary Design
 - Present to City for Approval
- No
 - MJ Will Finalize Engineering Study
 - Project Ends



Next Steps



NHDOT Letter Dated August 15, 2023

- City Needs to Make a Decision to Move the Project Forward or Cancel the Project by December 2023
- City Needs to Commit to 20% Match of Additional Funding from NHDOT
- City Needs to Commit to 100% of Funds Beyond What NHDOT Can Provide
- Commitments Need to be in Writing



Questions



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