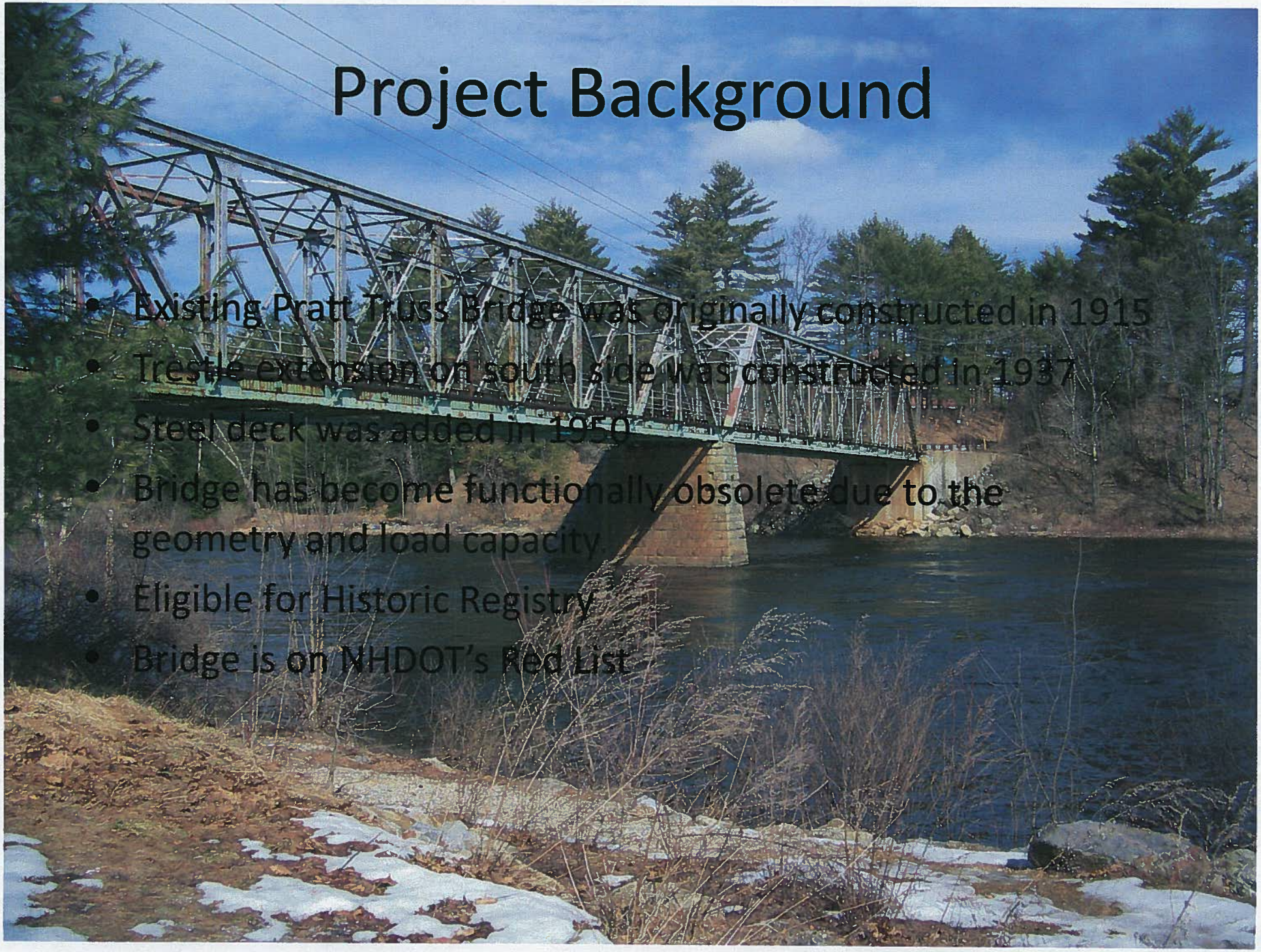
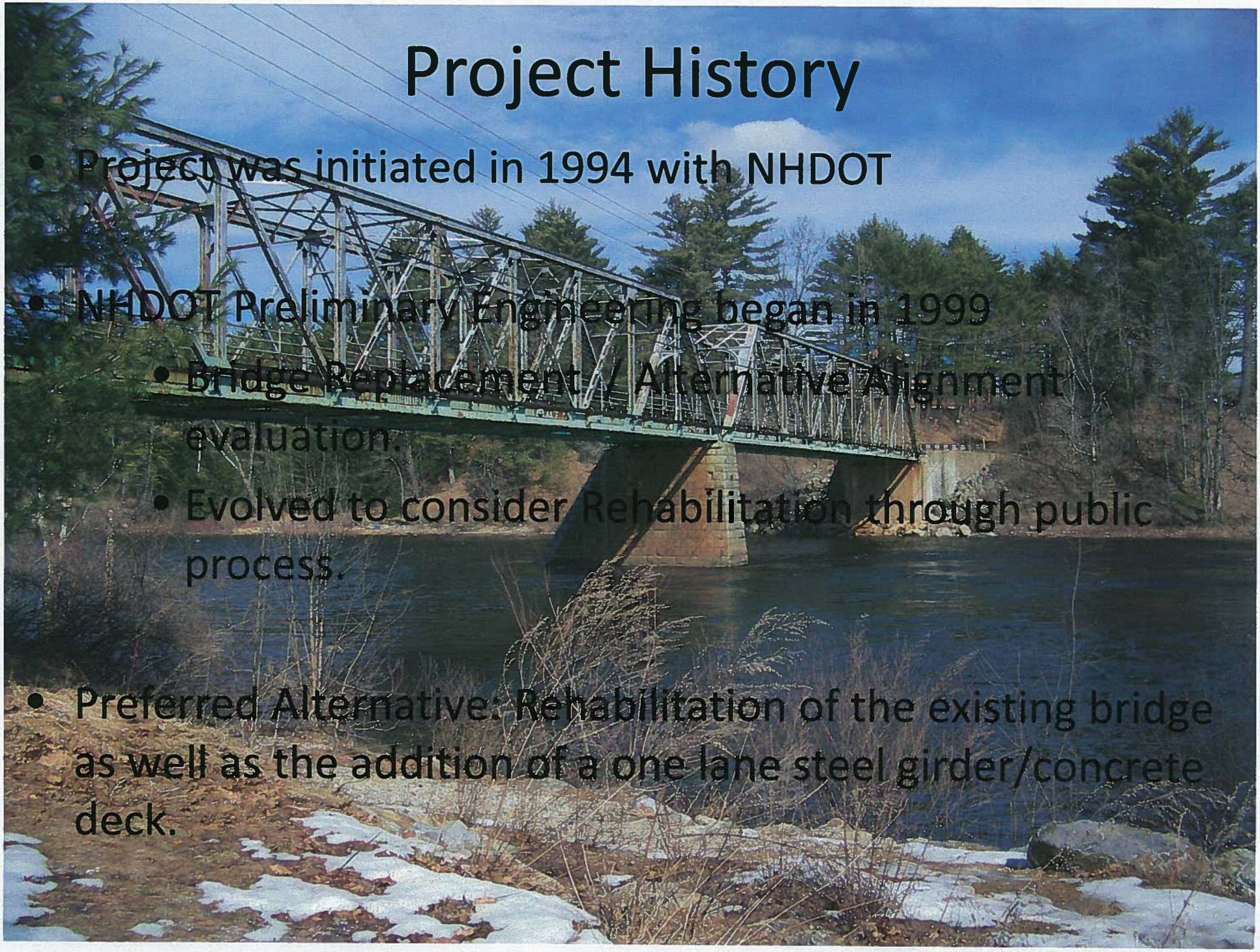
Sewalls Falls Road Bridge
City of Concord
Public Information Meeting
January 23, 2013



Project Background

- Existing Pratt Truss Bridge was originally constructed in 1915
- Trestle extension on south side was constructed in 1937
- Steel deck was added in 1950
- Bridge has become functionally obsolete due to the geometry and load capacity
- Eligible for Historic Registry
- Bridge is on NHDOT's Red List



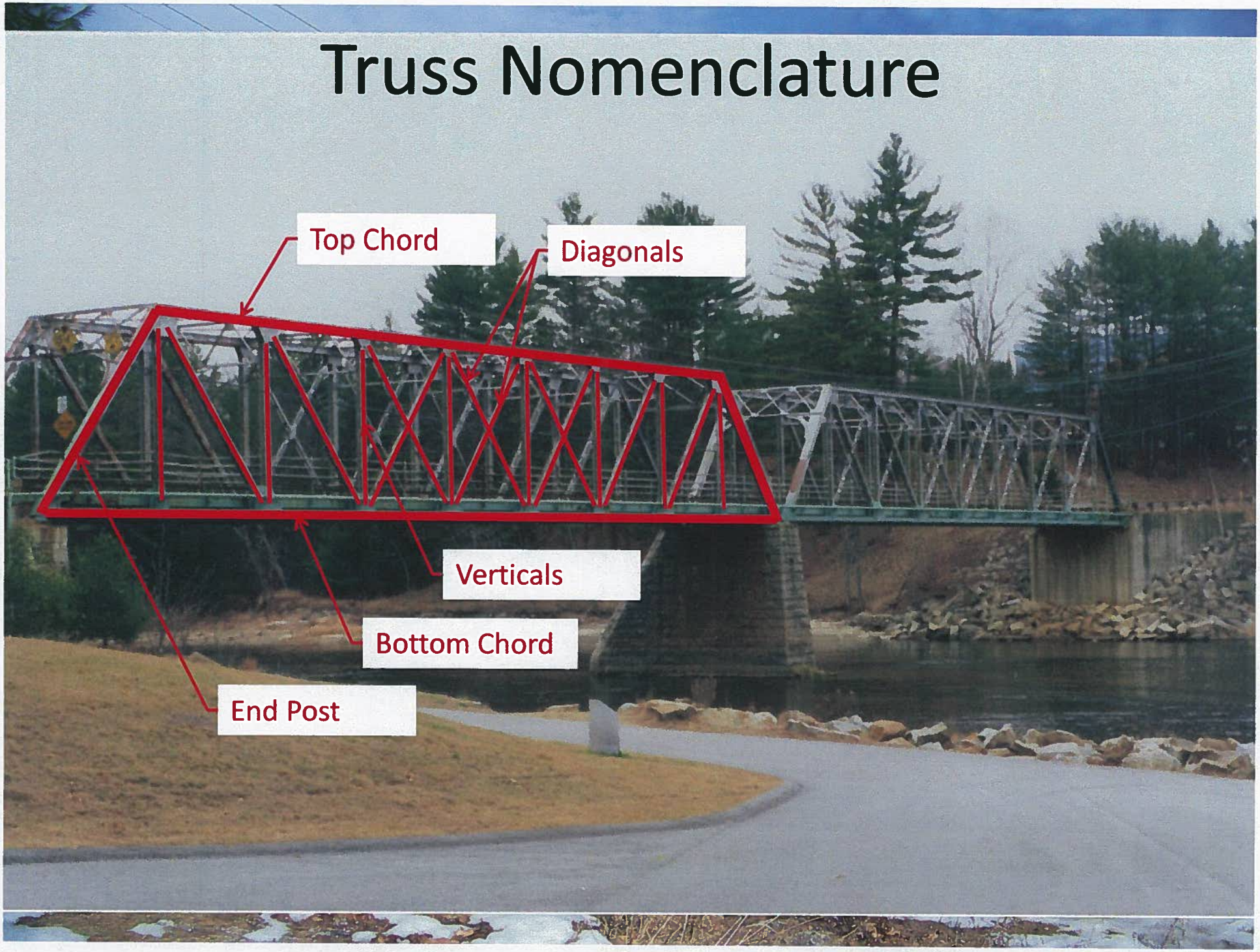
Project History

- Project was initiated in 1994 with NHDOT
- NHDOT Preliminary Engineering began in 1999
  - Bridge Replacement / Alternative Alignment evaluation.
  - Evolved to consider Rehabilitation through public process.
- Preferred Alternative: Rehabilitation of the existing bridge as well as the addition of a one lane steel girder/concrete deck.

City Project Development

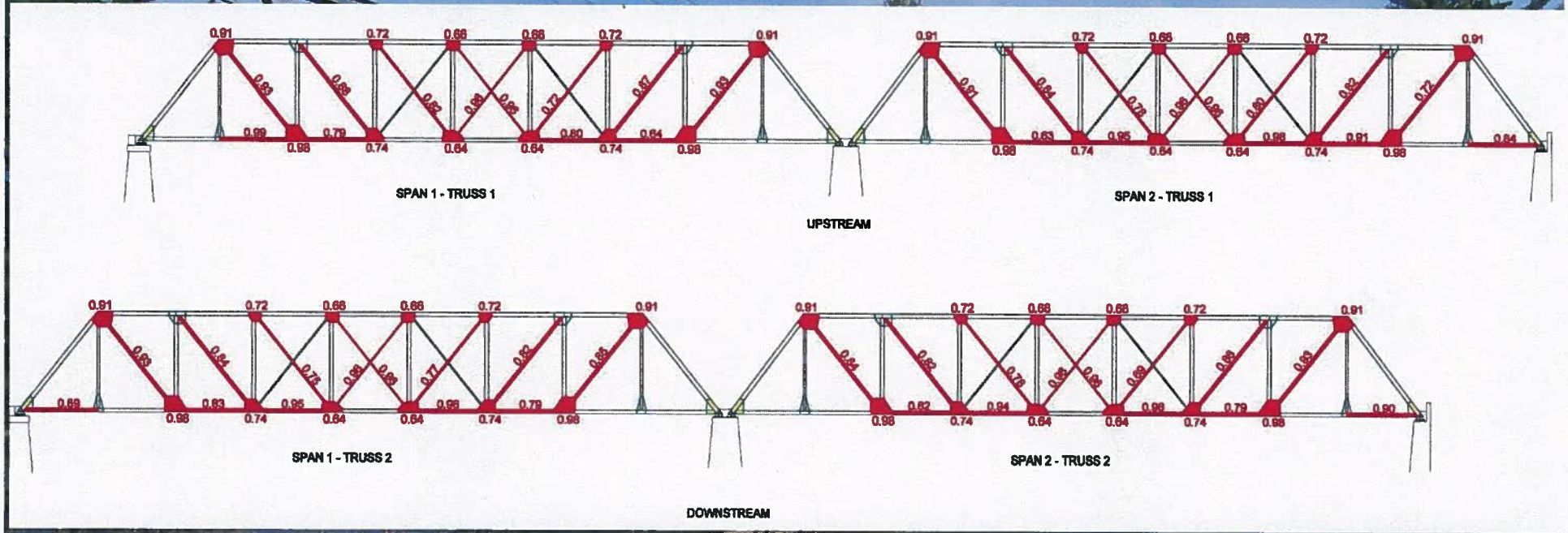
- 2010 - Project was turned over to the City of Concord
  - Municipally Managed Bridge Aid Program.
- 1st Steps
  - Detailed inspection
  - Load rating analysis

Truss Nomenclature



Detailed Inspection and Load Rating Results

- Extent of rehabilitation greater than initially assumed



Description	Number Repaired	Total Number In Bridge	Percent Replaced or Strengthened
1. Replace diagonals bent from vehicular impact	7	40	17.5%
1. Strengthen tension diagonals	25	40	62.3%
1. Strengthen lower chord members	17	36	47.2%
1. Strengthen verticals	7	32	21.9%
1. Strengthen gussets	40	72	55.6%
1. Replace Floorbeams	20	20	100%
1. Replace Stringers	144	144	100%
1. Replace bottom lateral Bracing	36	36	100%

City Project Development

- Retained Historic Documentation Company, Inc.
  - Assess rehabilitation impacts to historic significance of bridge.
  - Concluded adverse effects would not impact significance of bridge.
- City concerns
  - Safety
    - Non-redundant
    - Facture Critical Members
  - Long term needs
    - Future development
    - Potential new interchange
- Re-evaluate previously investigated alternatives

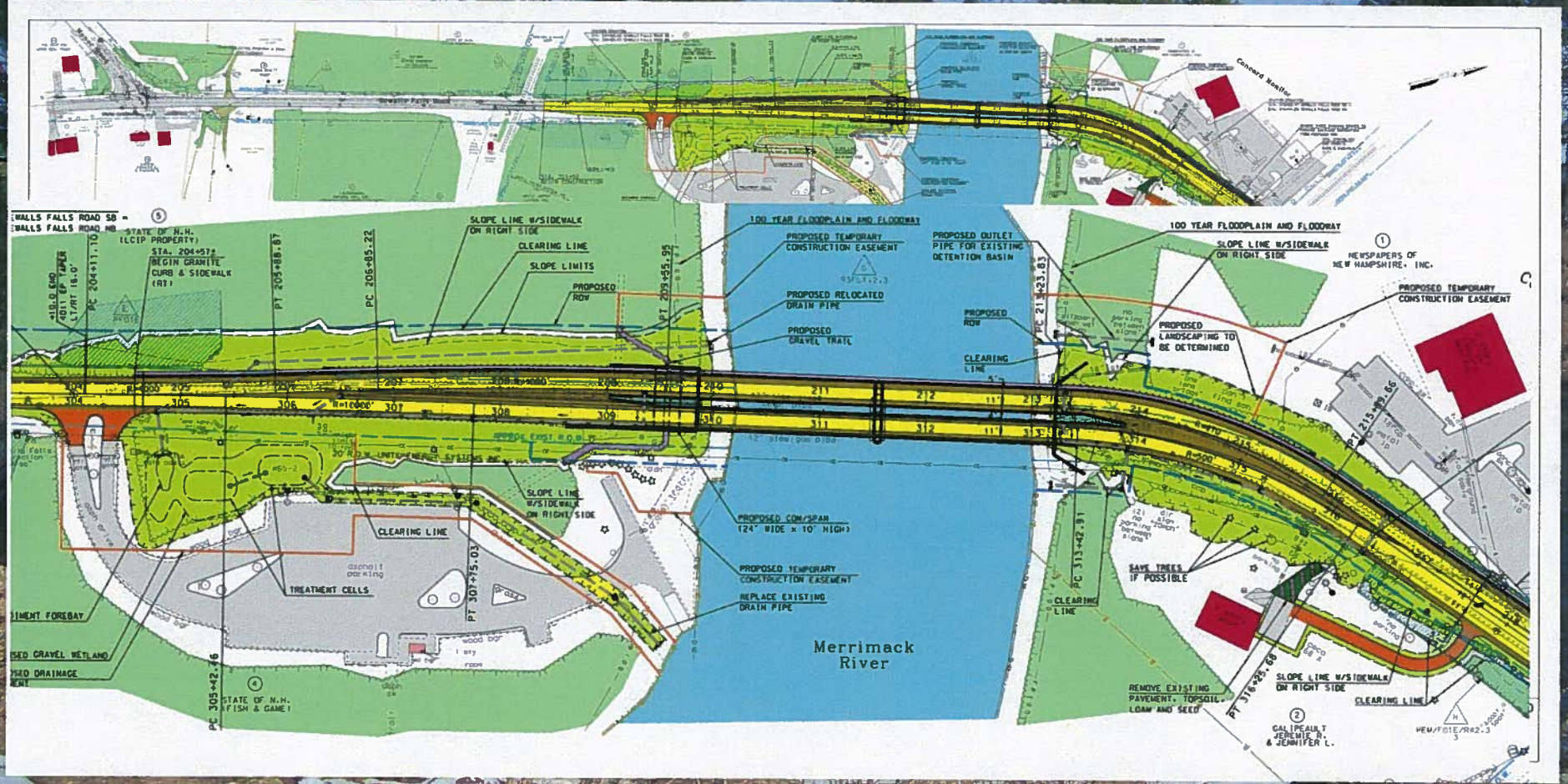
Design Criteria & Approach

All three (3) alternatives are based on a common design criteria and design approach. The proposed roadway geometry includes:

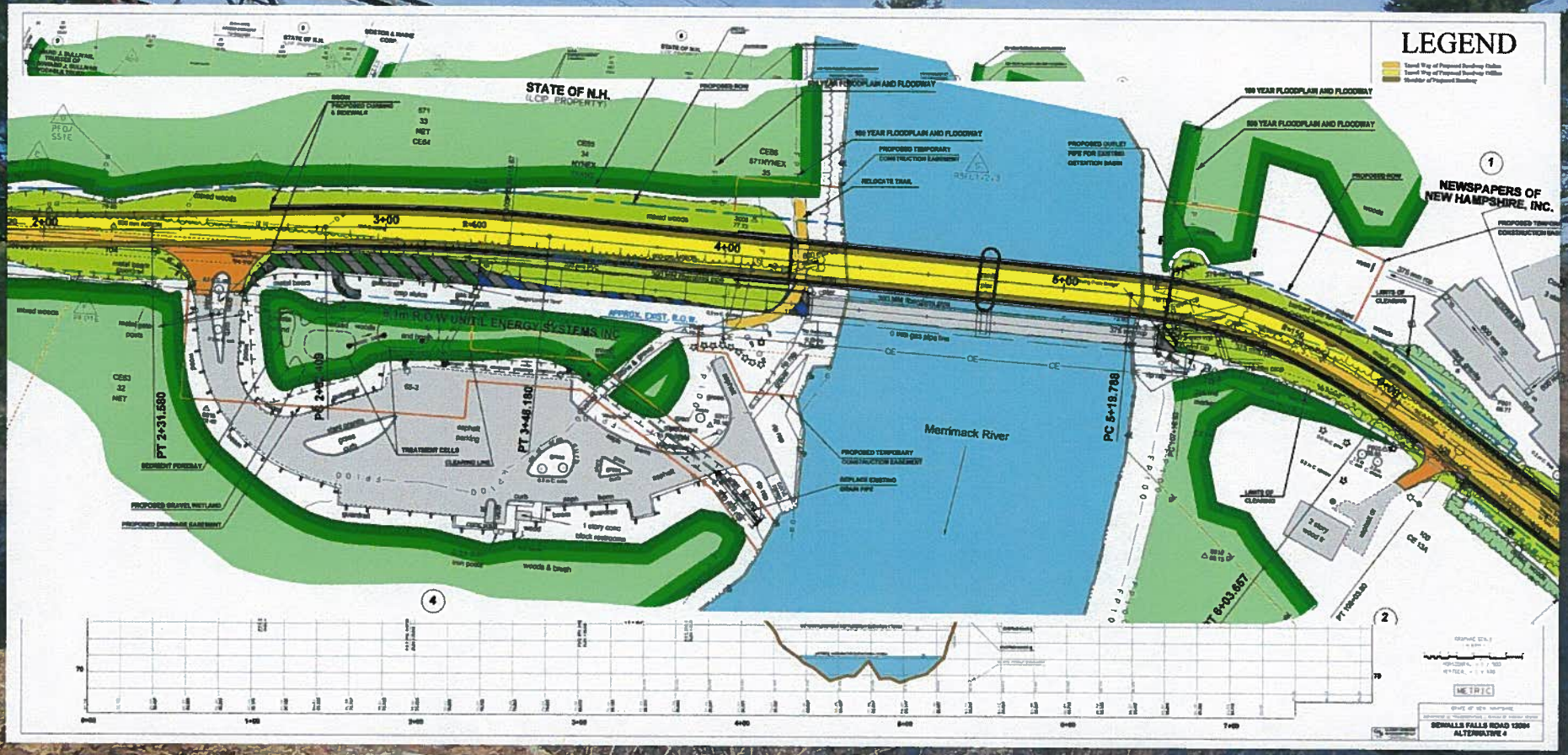
- 2 – 12' (3.6 m) travel lanes
- 5' (1.5 m) shoulders
- 5' (1.5 m) sidewalk(s)

The roadway alignments are based on a 35 MPH (60 KPH) design speed.

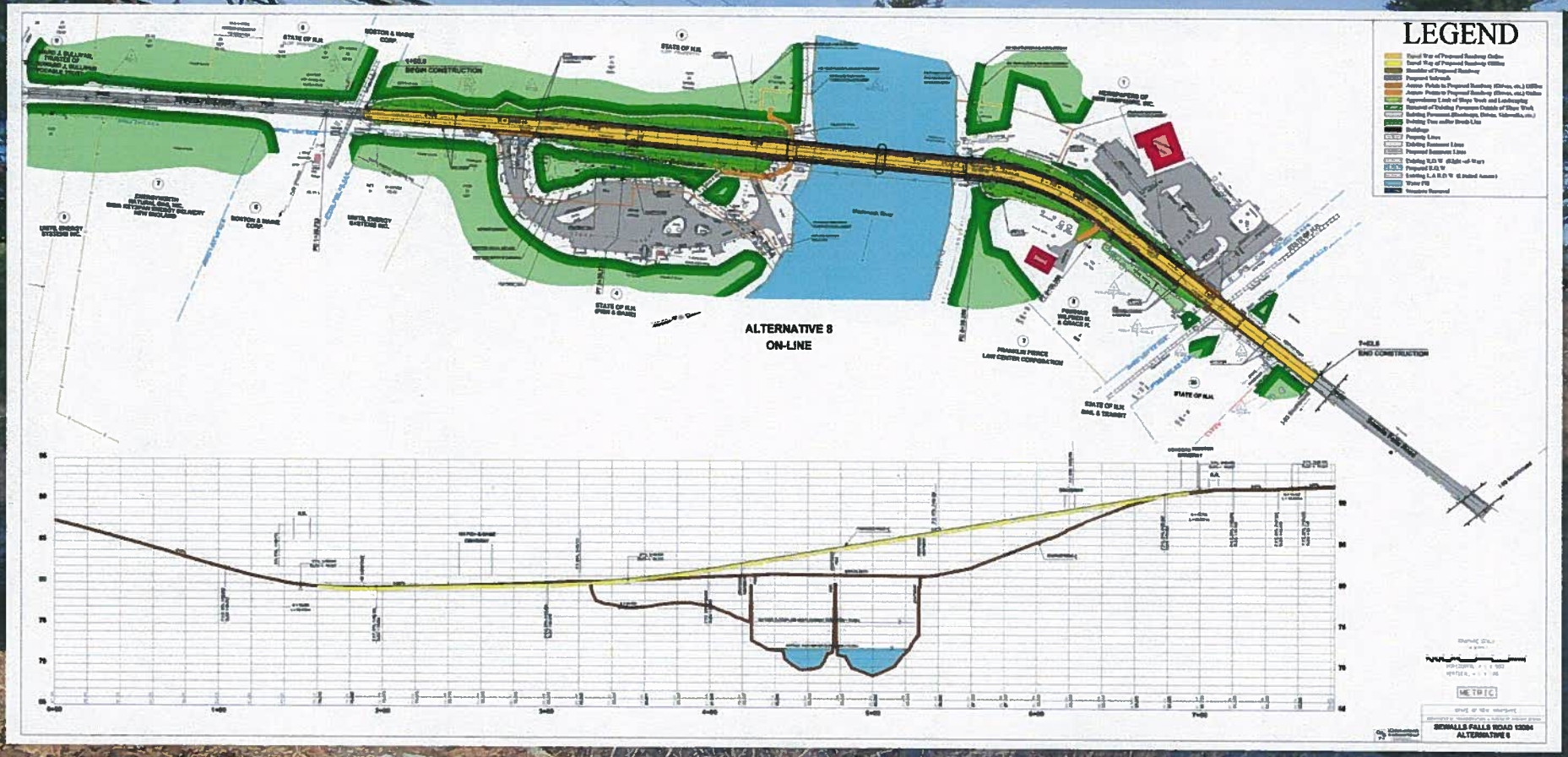
Rehab Existing / Sister Bridge Upstream



Off-Line New Bridge



On-Line Replacement



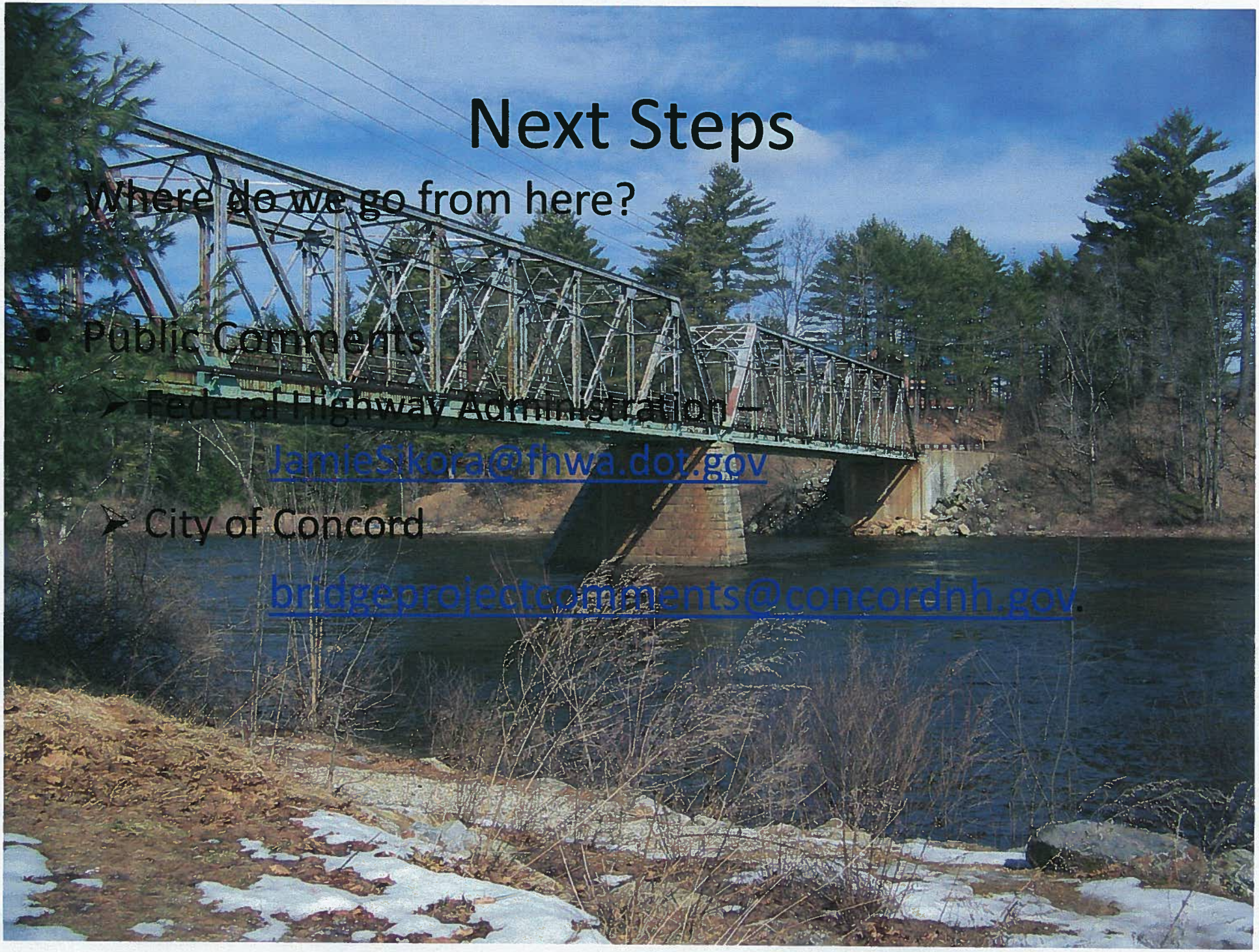
Alternatives Summary Matrix

	Environmental Impacts			Right-of-Way Impacts					Costs		
	Clearing (Parcels 4 & 5)	Wetland Impacts	Cultural Impacts	Parcel 1 Newspapers of New Hampshire, Inc.	Parcel 2	Parcel 4 State of NH (Fish & Game)	Parcel 5 State of NH (LCIP Property)	Total Project ROW Impacts	Project Cost	Approximate Maintenance costs of truss over 25 years	Approximate maintenance of new bridge over 25 years
	(SF)	(SF)		(SF)	(SF)	(SF)	(SF)	(SF)	($)	($)	($)
Alternative 4 Off-Line Upstream	61,566	18,679	Bridge to remain	25,933	5,725	47,231	50,456	129,345	$ 10,611,000.00	$ 81,000.00	$ 534,980.00
Alternative 8 On-Line	36,958	12,625	Bridge to be removed	22,346	5,725	49,706	21,793	99,570	$ 9,833,000.00	$ -	$ 534,980.00
Alternative H Rehab Exist Add 2nd One-Way Steel Girder/Concrete Deck on Upstream Side	53,430	13,541	Bridge to remain and maintaining intended use	25,300	5,725	48,125	40,100	119,250	$ 12,923,100.00	$ 1,903,000.00	$ 534,980.00

- On-line Replacement
  - Removal of existing bridge
  - Minimizing environmental and ROW impacts
  - Lowest initial and long term costs
  - Meets immediate long-term City needs

Next Steps

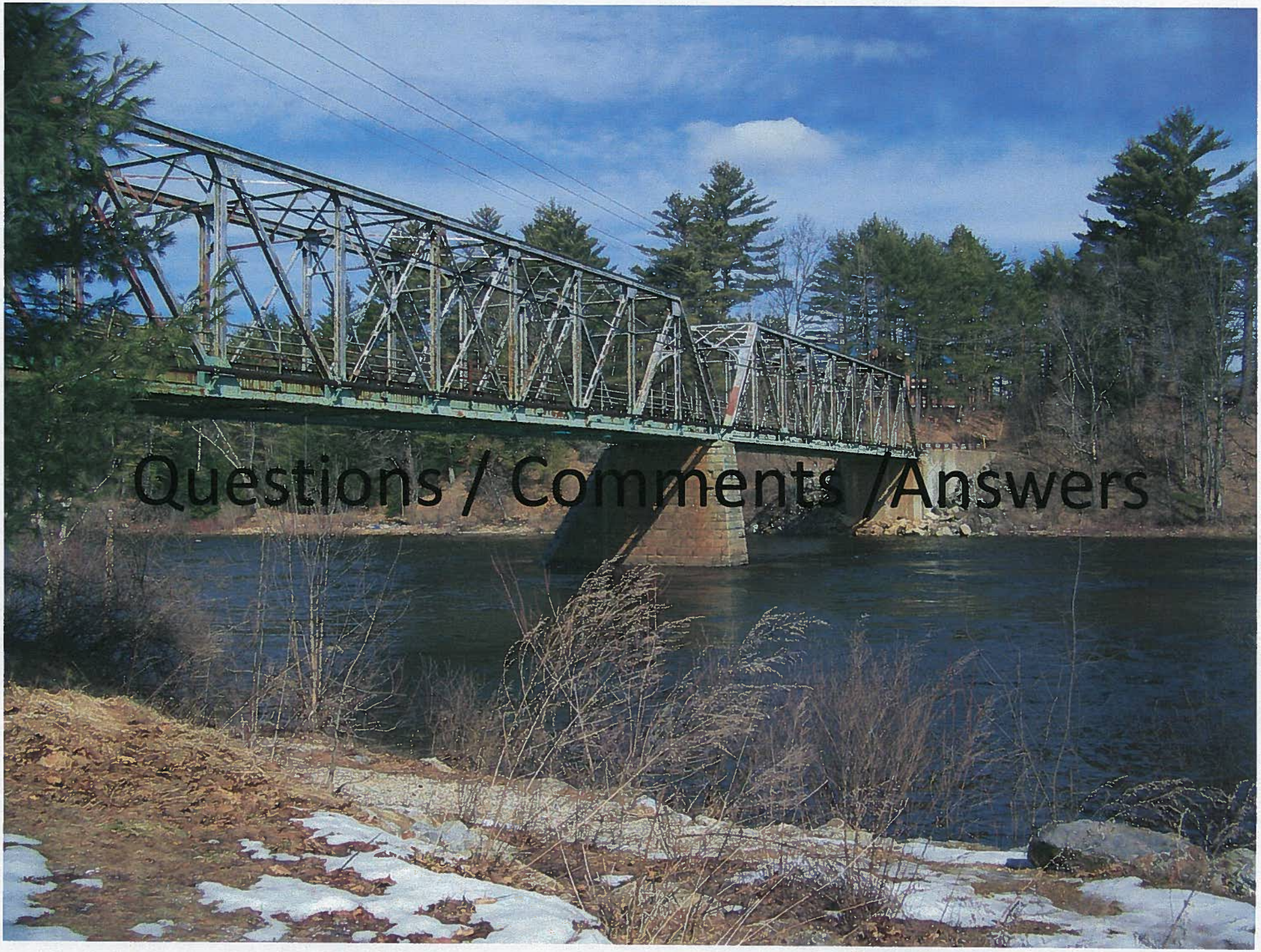
- Conclude NEPA process
  - Respond to public comment
    - Jan. 23, 2013 meeting
    - Feb. 11, 2013 meeting
  - Finalize mitigation package
    - Submission to DHR late Feb. 2013
  - Finalize NEPA documentation and begin Final Design



Next Steps

- Where do we go from here?
- Public Comments
  - Federal Highway Administration – JamieSikora@fhwa.dot.gov
  - City of Concord bridgeprojectcomments@concordnh.gov.

Next Steps
Project Schedule
Begin Final Design Spring 2013
Advertise for Construction Spring / Summer 2014
Construction Completed 2016


Questions / Comments / Answers