



Hinsdale-Brattleboro Existing Bridges Subcommittee

MEETING #2

BROOKS MEMORIAL LIBRARY, BRATTLEBORO, VT

JUNE 18, 2018



Review of Purpose and Proposed Process/Deliverables

- ▶ The Purpose of the Existing Bridges Subcommittee is to develop a vision for the Charles Dana and Anna Hunt Marsh Bridges and Hinsdale Island, including the envisioned activities and uses of the bridges and island, physical changes, management and maintenance considerations, and expected impacts on economic development, tourism, transportation/access, and recreational opportunities.
- ▶ Process:
 - ▶ Evaluate Existing Conditions
 - ▶ Conduct Public Outreach and Engagement Activities
 - ▶ Develop a Vision for the Existing Bridges and Island

Purpose and Proposed Process/Deliverables

- ▶ The Purpose of the Existing Bridges Subcommittee is to develop a **vision** for the Charles Dana and Anna Hunt Marsh Bridges and Hinsdale Island, including the **envisioned activities and uses** of the bridges and island, **physical changes, management and maintenance considerations**, and expected **impacts** on economic development, tourism, transportation/access, and recreational opportunities.
- ▶ Quite likely there will be various alternative:
 - ▶ visions
 - ▶ activities and uses
 - ▶ physical changes
 - ▶ management and maintenance considerations
 - ▶ impacts (including management and maintenance impacts)

What is Scenario Planning?

- Scenario Planning is a decision making process
- A useful tool for visioning
- Involves diverse professionals, the public and other stakeholders
- Identifies and evaluates "alternative futures"
- A "desired future" can be selected, which then sets a specific end goal for direction setting



What can it do?

- ▶ A way of thinking and structuring decision-making among a group of people
- ▶ Provides a framework for understanding complexity of “alternative futures”
- ▶ Anticipates benefits, drawbacks, opportunities and threats
- ▶ Can help educate the public on tradeoffs

FRAMING ISSUES WITH SCENARIOS WORKSHEET



IF WE DO _____

THEN _____

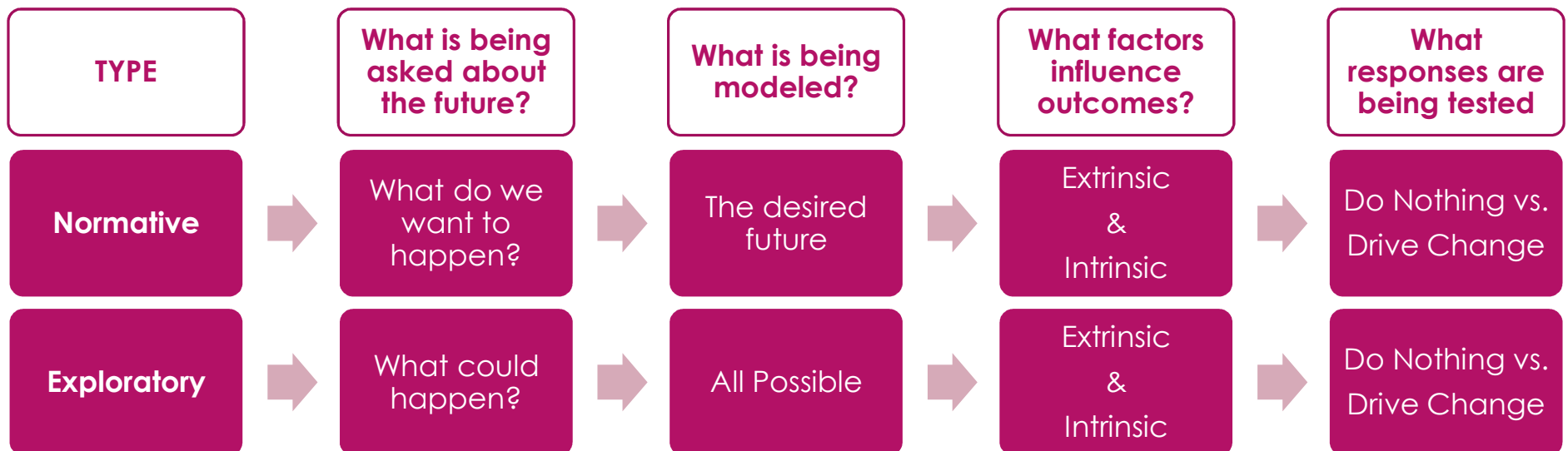


IF WE DON'T DO _____

THEN _____

Types of Scenario Planning

- ▶ Includes “normative” scenarios which describe a preferred and achievable end state
- ▶ Can also include “exploratory” scenarios which describe an unknowable, but comprehensible end state



Potential Outcomes of Scenario Planning

- ▶ It can guide an awareness of interconnectivity, unintended consequences, and silo reduction.
- ▶ If used to illustrate tradeoffs related to a complex issue, it can help produce public feedback with more realistic expectations.
- ▶ Can be helpful in evaluating feasibility and public support if scenarios are well illustrated and if scenarios are looked at from a variety of angles.
- ▶ Promotes creativity and “outside of the box” thinking coupled with serious evaluation.



A meaningful vision that is based upon multiple scenarios and comparative impact analysis protects politicians when they seek to defend the community vision.

Source Placemakers.com

Environmental Assessment Alternative Evaluation was form of Scenario Planning

Alternative Evaluation Table ES-1

		ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D	ALTERNATIVE E	ALTERNATIVE E-Modified	ALTERNATIVE F	ALTERNATIVE G	ALTERNATIVE H
	No-Action	Rehabilitation	Replace on Existing	Alignment Improvement	Improvement and Grade Separated	Parallel Structure	Parallel Tangent Structure	Blue Seal (Preferred)	Georgia Pacific	Route 9/Main Street
PURPOSE AND NEED CRITERIA										
Maintain Transportation Corridor	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Correct Safety Deficiencies	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Correct Structural Deficiencies	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Correct Functional Deficiencies	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Maintain Social Relationships	No	Yes	Yes	Yes	No	Yes	Yes	Yes	No	No
Maintain Economic Relationships	No	Yes	Yes	Yes	No	Yes	Yes	Yes	No	No
Preserve Area Resources ⁽¹¹⁾	Yes	Yes	No	No	No	No	No	Yes	No	No
DESIGN CRITERIA										
Design Speed	N/A	25 mph ⁽¹⁾	35 mph ⁽¹⁾	35 mph	35 mph	35 mph	35 mph ⁽¹⁾	35 mph	35 mph	35 mph
Disposition of Existing Bridges	N/A	Used For Traffic	Removed	Removed	Removed	Options ⁽²⁾	Options ⁽²⁾	Options ⁽²⁾	Options ⁽²⁾	Options ⁽²⁾
Bridge Typical Section ⁽³⁾	N/A	10'-2"-10'-2"	10'-12'-12'-10'	10'-12'-12'-10'	10'-12'-12'-10'	10'-12'-12'-10'	10'-12'-12'-10'	10'-12'-12'-10'	10'-12'-12'-10'	10'-12'-12'-10'
Truss Bridge Feasibility ⁽⁴⁾	N/A	Yes	Yes	Yes ⁽⁵⁾	Yes ^(5, 6)	Yes ⁽⁵⁾	Yes	Yes ⁽⁶⁾	Yes ⁽⁶⁾	Yes ⁽⁵⁾
Grade-Separated Railroad Crossing	N/A	No	No	No	Yes	No ⁽⁷⁾	No ⁽⁷⁾	Yes	Yes	Yes
Cost for Coal Tar Remediation	N/A	\$0	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$0 ⁽⁸⁾	\$0 ⁽⁸⁾	\$0 ⁽⁸⁾
Cost for Truss Bridge	N/A	\$0	\$1,848,035	\$833,700	\$833,700	\$1,903,615	\$2,153,725	N/A ⁽⁴⁾	\$3,147,218	\$2,153,725
Estimated ROW Costs	N/A	\$0	Low	Low	High	Low	Low	High	Moderate	Moderate
Construction Costs ⁽⁹⁾	N/A	\$2,528,890	\$12,977,930	\$14,839,860	\$28,526,435	\$10,706,098	\$10,706,098	\$31,500,000	\$31,444,385	\$28,157,970
Traffic Maintenance During Construction	N/A	Staged Construction	Temporary Bridges	Temporary Bridges	Temporary Bridges	Existing Bridges	Existing Bridges	Existing Bridges	Existing Bridges	Existing (10) & Temporary

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B.) PURPOSE AND NEED

1.) PROJECT PURPOSE

The purpose of this project is to provide a safe, functionally efficient, and cost-effective Route 119 transportation corridor across the Connecticut River in the vicinity of downtown Brattleboro, Vermont and Hinsdale, New Hampshire, and to preserve the socio-economic and environmental resources associated with the transportation corridor.

2.) PROJECT NEED

There exists a need for the project to:

- a). MAINTAIN A TRANSPORTATION CORRIDOR BETWEEN HINSDALE, NEW HAMPSHIRE AND DOWNTOWN BRATTLEBORO, VERMONT.

This transportation corridor has been in existence for more than 160 years and is the only transportation connection between New Hampshire and Vermont for a distance of approximately 15 miles to the south and 2 miles to the north. Route 119 is the southernmost transportation crossing of the Connecticut River between Vermont and New Hampshire.

Environmental Assessment Alternative Evaluation was form of Scenario Planning

b). CORRECT THE SAFETY, STRUCTURAL, AND FUNCTIONAL DEFICIENCIES OF THE EXISTING TRANSPORTATION CORRIDOR

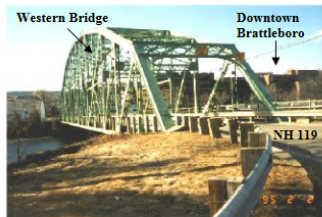


Photo PS-1 Western Bridge: View from the mid-channel island towards downtown Brattleboro.

Both bridges have seriously deteriorated since their original construction in the 1920's. The concrete in the abutments, piers and backwalls is spalled and reinforcing steel is exposed. The truss members have areas of severe corrosion with section loss. The strength of floor beams and stringers is substantially reduced.

Both bridges are classified by the National Bridge Inventory (NBI) Appraisal Rating as having a status of "Structurally Deficient".



Photo PS-2 Eastern Bridge: View from New Hampshire, west towards the Mid-channel Island and Brattleboro

The traffic functionality problems associated with this transportation corridor are compounded by the at-grade railroad crossing of Route 119 between the western bridge and the Route 5/119/142 intersection. This railroad crossing results in vehicles getting backed up eastward across the western bridge, and westward through the same intersection. The blocking of route 119 by the at-grade railroad crossing significantly degrades the ability of Hinsdale and Brattleboro to share emergency services.



Photo PS-3 VT 119 At-Grade Rail Crossing: View from the western bridge, west towards downtown Brattleboro.

The sub-standard geometry and lane widths of the existing bridges and Route 119 approach roadways result in limited sight distances and also contribute to congested traffic conditions. Additionally, when crossing between Brattleboro and Hinsdale during winter months, pedestrians must use the Route 119 shoulders when traveling between the bridges on the mid-channel island since existing asphalt sidewalk behind the guard rail is not maintained during the winter. These conditions combine

to create safety concerns for both vehicular traffic at the at-grade RR crossing and pedestrians on the current VT119/VT142/VT 5 intersection.

c). MAINTAIN AREA SOCIAL AND ECONOMIC RELATIONSHIPS

A functional transportation corridor between Brattleboro and Hinsdale facilitates area commerce and social activities, affects area land uses, and allows the communities to share emergency services.

d). PRESERVE THE INTEGRITY OF AREA RESOURCES TO THE EXTENT POSSIBLE

The Brattleboro/Hinsdale transportation corridor has numerous natural and cultural resources that contribute to the social, economic, environmental, and aesthetic qualities of the area.

e). CONSERVE FISCAL RESOURCES

The development and construction of the transportation corridor should, to the greatest extent practicable, conserve fiscal resources.

C.) ALTERNATIVES

1.) ALTERNATIVES IDENTIFICATION

To facilitate local and regional input, the Windham Regional Commission (WRC) organized the Brattleboro/Hinsdale Bridge Committee. The Bridge Committee members included representatives from the Brattleboro Selectboard (VT), Hinsdale Office of Selectmen (NH), Windham Regional Commission (VT), Southwest Regional Planning Commission (NH), the Town of Chesterfield (NH), local citizens, and representatives

Environmental Assessment Continued

Resource Summary Table

RESOURCE		ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D	ALTERNATIVE E	ALTERNATIVE E Modified	ALTERNATIVE F	ALTERNATIVE G	ALTERNATIVE H
	No-Action	Rehabilitation	Replace on Existing	Alignment Improvement	Grade-Separated	Parallel Structure	Parallel Tangent Structure	Blue Seal (Preferred)	Georgia Pacific	Route 9/Main Street
Land Use/Induced Growth	None/Minimal	Minimal/Minimal	Minimal/Minimal	Minimal/Minimal	Substantial/Minimal	Minimal/Minimal	Minimal/Minimal	Minimal/Minimal	Minimal/Minimal	Moderate/Minimal
Agricultural	None	None	None	None	None	None	None	None	None	None
Socio-economic/Enviro Justice	Substantial/None	Limited/None	Limited/None	Limited/None	Substantial/None	Limited/None	Limited/None	Limited/None	Substantial/None	Substantial/None
Acquisitions-Residential/ Commercial	0 / 0	0 / 0	0 / 2	0 / 2	0 / 13	0 / 1	0 / 1	1 / 1	0 / 0	0 / 4
Acquisition Area (acres)	0	0	0.35	0.49	2.05	1.46	1.4	3.21	4.23	0.94
Pedestrian/Bicycle	None	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Recreational/Section 4(f) <small>(Alternatives A, B, C, E, and E-Modified would have no 4(f) impacts if the existing bridges are rehabilitated and maintained)</small>	None/None	Minimal/Minimal	Minimal/Substantial	Minimal/Moderate	Minimal/Substantial	Minimal/Moderate	Minimal/Moderate	Minimal/None	Minimal/None	Minimal/Substantial
Air Quality	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Noise	Limited	Limited	Limited	Limited	Moderate	Limited	Limited	Limited	Limited	Moderate
Water Quality	None	Minimal	Limited	Limited	Limited	Substantial	Substantial	Limited	Limited	Limited
Wetlands (acres)	None	Minimal	1.68	1.85	2.53	1.60	1.91	0.11	0.66	2.74
Waterbody Modifications	None	None	Limited	Limited	Limited	Limited	Limited	Limited	Limited	Limited
Floodplains (acres)	None	Minimal	1.94	2.08	3.07	1.71	2.07	0.12	3.42	2.92
Fish & Wildlife/Threatened & Endangered Species <small>(Potential impacts to two NH-listed aquatic plants)</small>	None / None	Minimal / None	Minimal / Minimal	Limited / Minimal	Limited / Minimal	Limited / Minimal	Limited / Minimal	Limited / Minimal	Limited / None	Limited / Minimal
Historic District Impacts	None	None	Substantial	Substantial	Substantial	Moderate	Moderate	Minimal	Minimal	Substantial
Archaeological	None	None	Limited	Limited	Limited	Limited	Limited	None	Minimal	Limited
Hazardous Materials	None	None	Minimal (Substantial)	Minimal (Substantial)	Minimal (Substantial)	Substantial	Substantial	Minimal	Minimal	Minimal
Visual	None	None	Minimal	Minimal	Substantial	Moderate	Moderate	Limited	Limited	Substantial
Construction	None	Minimal	Limited	Limited	Substantial	Limited	Limited	Limited	Limited	Substantial

QUALITATIVE DESCRIPTORS (As Determined by the Bridge Committee):

• None • Minimal • Limited • Moderate • Substantial **Note:** Permanent impacts only; temporary impacts are discussed in report text.

Connecting Alternative Visions with Subcommittee Purpose

- ▶ Recommend **visions** (scenarios) that capture the general functionality of the bridges and island
- ▶ May need to mix and match different bridge and island visions



Connecting Alternative Visions with Subcommittee Purpose

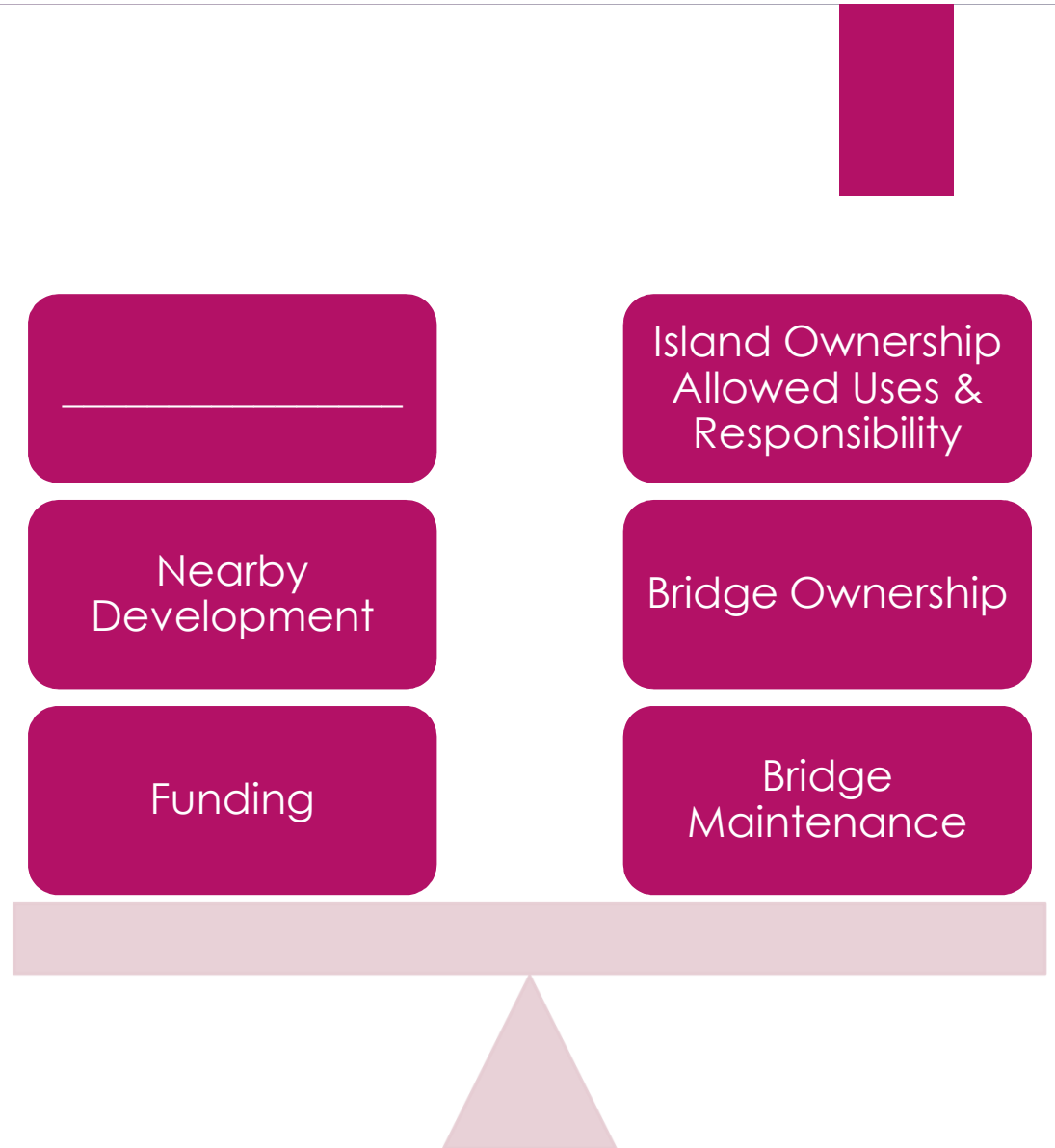
- ▶ Alternative visions will be helped with examples of **activities and uses** that can be expected to occur for each alternative as well as stakeholder groups (users) expected to be connected with activities
 - ▶ Examples of activities: walking, biking, running, fishing, camping, littering, substance abuse, etc.
 - ▶ Examples of stakeholders: local public, tourists, state government, local government, etc.
- ▶ Physical changes
- ▶ Management and maintenance considerations
- ▶ Impacts (positive and negative)

Scenario Matrix

Evaluation Themes	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Activities and uses				
Physical changes				
Management considerations				
Maintenance considerations				
Impacts				
Stakeholder input needed				
Data and information needed				

Need to consider driving forces

What are the big trends in society, economics, technology and politics, and how will it affect your scenario





Homework

- ▶ What scenarios should be considered (in broad terms)?
- ▶ What driving forces should be considered?



Alternatives will point to information that needs to be collected

- ▶ What stakeholders can we assume need to be contacted even if we haven't defined alternatives (scenarios) yet?
- ▶ What information can we assume needs to be collected even if we haven't defined alternatives (scenarios) yet?
- ▶ Staff will begin collecting this information this summer.