

NHDOT Bridge Strategy - Summary

The New Hampshire Department of Transportation (NHDOT) is focused on managing the state's transportation network as efficiently and effectively as possible. With that goal in mind, the Bridge Strategy is based on the following concepts:

1. Bridge Priorities (Tiers)
2. Making Sustainable Investments
3. Redundant Bridges

Bridge Priorities (Tiers) - Not all bridges are equal

While every bridge is critical to the people and businesses that rely upon it, each bridge also serves a different number of users and provides different levels of connectivity between homes, businesses, and other destinations. The Department has categorized the state managed road system and the bridges along each road into the following priorities (tiers):

- High Investment Bridges (HIB) – Largest & most costly bridges (Memorial, I-95, Amoskeag, etc.)
- Tier 1 – Interstates, Turnpikes & the divided section of Route 101
- Tier 2 – Major corridors (like US 3, US 4, US 202, and Route 16)
- Tier 3 – Collectors (like Route 112, Route 31, and Route 155)
- Tier 4 – Secondary highways and unnumbered routes

In addition to tiers NHDOT focuses on bridge condition to prioritize work. All bridges are regularly inspected (once every two years) and those found to have structural deficiencies or that are weight restricted are added to the NHDOT Red List. Bridges on the Red List are inspected twice each year and evaluated for rehabilitation or reconstruction. NHDOT uses tiers and bridge condition to develop an annual Priority List for bridges. Other factors like traffic volume and detour length are also considered in the development of the Priority List.

Making Sustainable Investments

New Hampshire's inventory of more than 3,800 bridges required a massive initial investment of public funds over many decades. To maximize the return on that investment, bridges require a thorough preservation and maintenance strategy. For recently constructed bridges, our goal is to extend the expected service life up to and beyond 120 years. This strategy relies on recurring investments in preservation and maintenance which reduces the frequency of higher-cost reconstruction and replacement projects.

Maintenance & Preservation – Keeping good bridges good

Bridges are made up of many different parts working together and each of those parts requires upkeep to stay in good working order. Upkeep includes everything from washing to repairing damage to replacing certain parts that wear out over time. This type of upkeep is generally **low-cost**, but can vary based on how large and busy a bridge is. The impact to travelers would normally be between a few hours and several months. Routine maintenance and preservation performed on-schedule will keep bridges operating for as long as possible before more substantial work is required.

Rehabilitation – Restoring poor bridges

Because certain parts of a bridge cannot be maintained or repaired forever, every bridge will require rehabilitation at some point in its lifecycle. The result of rehabilitation is a bridge that can be maintained and preserved for many years to come. These activities are generally **moderate-cost** and usually take several months or up to a year to complete.

Reconstruction – Making a good bridge

Most bridges will need to be reconstructed at some point because certain parts that are difficult to rehabilitate deteriorate over time. The result of reconstruction is a brand new bridge that is very similar in function to the prior bridge. Reconstruction is **high-cost** and requires 1 to 3 years to complete. Because of the high cost, each bridge must be carefully evaluated to determine when or if it should be reconstructed, down-posted, or closed.

Table 1 – Bridge Strategy Investment Priority

Bridge Strategies	HIB	Tier 1	Tier 2	Tier 3	Tier 4
Maintenance	High	High	High	High	High
Preservation	High	High	High	High	High
Rehabilitation	High	High	High	Moderate	Low
Reconstruction	High	High	Moderate	Low	Low

Redundant Bridges – Should all bridges be kept open

Each bridge required a substantial initial investment made by the people of New Hampshire and our goal is to protect that investment for as long as possible. In addition, each bridge also requires a recurring investment for routine maintenance, preservation, rehabilitation, and, ultimately, reconstruction. Over the years, new roads and bridges have been built that may make certain bridges somewhat redundant. With limited resources we must evaluate whether or not continued long-term investment is justified on redundant bridges.

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Bridge Strategy

Approved by:



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