



CITY OF CONCORD

REPORT TO MAYOR AND CITY COUNCIL

FROM: Michael Bezanson, P.E. City Engineer

DATE: June 24, 2024

SUBJECT: CIP #588 Loudon Road Bridge Interim Repairs - Resolution appropriating funds from the Bridge Reserve Fund for the evaluation of and interim repair of the bridge deck on Loudon Road Bridge (#163/111)

Recommendation:

1. Accept this report;
2. Set for public hearing, on August 12, 2024, the attached resolution appropriating the sum of \$200,000 in CIP #588 Loudon Road Bridge Improvement Project for the evaluation and interim repair of the bridge deck on Loudon Road Bridge from the Bridge Reserve Fund.

Background:

The Loudon Road Bridge over the Merrimack River (NHDOT Bridge Number 163/111) is one of twenty-two municipally-owned bridges that the City of Concord maintains. The New Hampshire Department of Transportation (NHDOT) conducts periodic inspections of bridges throughout the State. In 2015 the NHDOT added Loudon Road Bridge to its Municipal Red List of Bridges due to observed condition.

Following its “Red List” designation in 2015, a comprehensive repair project for the Bridge was added to the City’s Capital Improvement Program. The project was also added to the State’s 10-Year Transportation Improvement Plan.

In FY2020, funding was appropriated for preliminary design. In FY2023, additional funds were appropriated for final design and permitting.

Repairs are currently programmed in the City’s CIP for FY2026 in the amount of \$23,246,940, of which 80% will be funded by the State of New Hampshire. The repairs and renovations will include widening the bridge by approximately 12’ to accommodate the Merrimack River Greenway Trail.

Red Listed bridges are inspected annually. The most recent inspection of the Loudon Road Bridge occurred on December 1, 2023. Due to concrete bridge deck deterioration, the bridge's condition was downgraded by NHDOT from Poor Condition to Serious Condition.

Discussion:

As a result of the downgraded condition of the bridge deck, NHDOT sent the City a Critical Bridge Deficiency letter. Although NHDOT's Critical Bridge Deficiency letter notes that the Loudon Road Bridge does not currently require a weight limit posting, the letter also states that without action this bridge will continue to deteriorate and likely require a reduced weight limit posting in the near future if repairs are not undertaken now.

The condition of the bridge deck of Loudon Road Bridge has not been extensively evaluated to date due to the fact that the entire bridge deck will be replaced with the pending repair/rehabilitation project already under design. However, because the repair/rehabilitation of Loudon Road Bridge is now projected to take two to three more years to complete, the Engineering Services Division has developed a plan to further evaluate the condition of bridge deck using Ground Penetrating Radar (GPR) to determine the severity of the observed deterioration. Pending the outcome of these further investigations, the options being considered for an interim repair of the bridge deck include milling and repaving, partial depth or full depth spot deck repairs, and under deck cribbing. The estimated cost for the evaluation and interim repair of the Loudon Road Bridge deck is \$200,000.

NHDOT has indicated that the contemplated interim repairs to the bridge deck cannot be considered for state/federal funding as part of the larger repair/rehabilitation project already underway because the interim repairs are considered maintenance work.

In 2023, a Bridge Reserve Fund was established by the City Council for capital repairs or replacement of the City's bridges. Given the immediacy of repairs needed to the Loudon Road Bridge deck and the designated limited use of funds in the Bridge Reserve Fund, City Administration is requesting that \$200,000 in funds from the Bridge Reserve Fund be appropriated for the evaluation and interim repair of the bridge deck. If funded, staff will work toward making repairs as soon as possible.