



CITY OF CONCORD

REPORT TO THE MAYOR AND CITY COUNCIL

FROM: Edward L. Roberge, PE, City Engineer

DATE: March 25, 2016

SUBJECT: Report from the City Engineer on the status on the Exit 16/Mountain Road/Shawmut Street Roundabout Improvement Project (CIP 24).

Recommendation

Accept this report.

Background

City Council will recall the current Exit 16/Mountain Road/Shawmut Street intersection configuration was designed in 1998 and constructed in 2001 by NHDOT, with city participation. NHDOT reconstructed the I-93 Exit 16 interchange and the bridge approach roadway up to but not including Mountain Road. The city funded the reconstruction of the Mountain Road/East Side Drive/Shawmut Street intersection.

In April 2006, city staff presented a report to City Council summarizing our consulting engineer's (VHB) investigations as well as the results of a February 6, 2006 public information meeting on the intersection alternatives. This report noted strong public support for the roundabout option in that it had better operational characteristics than a signalized option, including traffic calming of high speeds, pedestrian safety, intersection delay reduction and desire to maintain the residential character of the neighborhood. Requested was a public hearing to appropriate funding for intersection improvements and to choose between a signalized intersection or a roundabout option.

A final report to City Council was prepared in September 2007 and included: project background and history, VHB evaluation of intersection alternates, construction cost estimates of signal and roundabout alternatives, and result of public outreach. City Council accepted the report and approved the roundabout option as the most appropriate solution for the intersection in its unique location. The project was placed in the City's Capital Improvement Program (CIP) and after several delays; the project was approved for construction in the FY2016 CIP work plan.

Project Summary

In September 2016, CMA Engineers, Inc. and subconsultants RTE (Roundabouts & Traffic Engineering) and Ironwood Design Group (landscape design) were engaged by the city to develop construction documents for the roundabout project. Preliminary design is underway and an engineered roundabout layout has been developed.

Key features of the roundabout design include:

1. Oval-shaped circular roadway with a minimum outside diameter of 120 feet.
2. Accommodation of largest truck vehicle movement between Exit 16 (W. Portsmouth Street) and NH 132 (north or south).
3. Accommodation of fuel delivery trucks to the gas station by the current approach from NH 132 from the south and a site exit via a driveway at the roundabout.
4. Complete-streets design includes multi-use path around the roundabout for shared bicycle-pedestrian use.
5. 2036 design hour operation at Level of Service A or better on all roundabout approaches with average control delays ranging between about 4 and 8 seconds per vehicle.

A public information meeting was hosted by Engineering staff on Thursday, March 24th at the Broken Ground School in East Concord. Over 60 residents of the East Concord neighborhood attended and commented on the roundabout plans presented. Overall the public meeting was positive where details of traffic operations, lighting, and landscaping were discussed. The project team responded to a number of inquiries and gathered information to be considered in the final project design.

Engineering staff outlined a tentative schedule to complete final design by May for June advertising and contract award. Construction is estimated to take about 12-14 weeks and be completed in early Fall 2016. The City Engineer advised the public in attendance at the meeting that a follow-up public meeting would be organized outlining a specific construction schedule once a contractor has been selected for the project.