



Diane Nichols Tradd
Assistant City Manager/DPD Director

Kevin E. Coughlin
Deputy Director

MEMORANDUM

TO: Kevin J. Murphy, City Manager 

FROM: Diane N. Tradd, Assistant City Manager/DPD Director

SUBJECT: COUNCIL MOTION OF 1/16/18 BY COUNCILOR CIRILLO
REQUEST CITY MANAGER DIRECT THE DEPARTMENT OF PLANNING AND
DEVELOPMENT TO GIVE THE CITY AN UPDATE REGARDING WHERE WE ARE IN THE
PROCESS OF THE CANAL BRIDGE'S BIDS WHICH ARE DUE TO BE RECEIVED ON
JANUARY 30TH

In 2015, the City of Lowell received a TIGER grant through the Federal Highway Administration (FHWA) in the amount of \$13,389,750 for the replacement and/or rehabilitation of six local canal bridges currently in various states of disrepair or deterioration. The City partnered with ENEL and the University of Massachusetts Lowell (UML) to fund the \$3.97 million design of the six bridges with ENEL providing \$1.4 million and UML providing \$2 million in funding. All construction documents, permitting, and right of way acquisitions for the Lowell Canal Bridges (TIGER) project have been completed on an expedited design schedule of 18 months and the project has been advertised by the Massachusetts Department of Transportation (MassDOT). Construction activities are scheduled to begin in mid-April 2018. The bid opening date for the project is January 30, 2018; however, in a letter to the FHWA dated 1/18/2018 the Construction Industries of Massachusetts, Inc. is seeking approval from FHWA for a two week extension. Should this request be approved, the new bid opening date will be 2/12/2018. The total construction cost estimate for the project is \$20,861,848.69.

Background

The project scope includes complete replacement of two canal bridges: Pawtucket Street over the Pawtucket Canal and Pawtucket Street over the Northern Canal. The remaining three bridges to be rehabilitated and preserved include: Central Street over the Lower Pawtucket Canal, Merrimack Street over the Western Canal and Merrimack Street over the Merrimack Canal. In the course of the project design phase, significant structural deficiencies were discovered in the substructures of at least two of the bridges, greatly expanding the scope of work for rehabilitation and preservation of these bridges than was anticipated at the time of the submission of the TIGER grant. Additionally, the project construction costs were increased by removal and reinstallation of utility infrastructure on and around the bridges. Thus, at 25% design, estimated utility removal and relocation and the construction hard costs for the project were over budget by almost \$7.5 million. Including the soft costs normally associated with a construction project of this size, namely: overall project construction contingencies, allowances for police details, and MassDOT's fee for construction administration and engineering brought the total project funding delta to just under \$11 million.

After consulting with the project partners, ENEL and UML, and after repeated attempts to negotiate utility costs with the respective utilities, in order to close the funding gap and move forward with the project, the City submitted a proposal to FHWA/TIGER on 5/30/2017 asking to remove the Suffolk Street over the Northern Canal Bridge from the scope of work described in the awarded TIGER grant. Removal of the bridge from the scope of work would save the project approximately \$3.5 million in construction costs. FHWA/TIGER approved the change to the scope of work, and on 6/13/17 the City Council voted to fund \$3.6 of the project deficit via the City's existing 5 Year Capital Plan, previously approved by the City Council, by reprogramming \$3.6 million in funding for bridge repairs to support construction of the updated TIGER bridge project scope. The Massachusetts Department of Transportation committed to fund \$4 million of the gap beginning federal fiscal year 2019, fully funding project construction.

Project Schedule

Currently, the project schedule is 887 total construction days with all five bridges under construction simultaneously. Pre-construction activities will begin in April 2018 with site construction beginning in the early summer. Final bridge inspection and close out is scheduled for as early as fall of 2021; however, all construction activities must be completed by 4/1/2022 per the terms of the TIGER grant. At least one travel lane will be maintained over each of the bridges throughout construction. Pedestrian access routes compliant with the Americans with Disabilities Act will be maintained at all bridges; detailed plans are available in the construction plans for each bridge.

Total construction days for each bridge is scheduled as follows:

- **Bridge Replacement Pawtucket Street over Pawtucket Canal** – 537 days, ca. 18 months
- **Bridge Replacement Pawtucket Street over Northern Canal** – 680 days, ca. 22 months
- **Bridge Rehabilitation Merrimack Street over Western Canal** - 415 days, ca. 14 months
- **Bridge Rehabilitation – Merrimack Street over Merrimack Canal** – 210 days, ca. 7 months
- **Bridge Rehabilitation - Central Street over Pawtucket Canal**- 754 total days, ca. 25 months

Project Traffic Management Plan (TMP)

A Traffic Management Plan (TMP) for each bridge is included in the construction bid documents. In summary for each bridge:

- **Pawtucket Street over Pawtucket Canal:** No closures are anticipated; outbound traffic flow will be unrestricted while inbound traffic will be reduced. A detour route including Broadway Street is proposed. This bridge is staged to avoid overlap with closures to Broadway; the City had been assured by ENEL that the bridge would be complete by December 2017, in advance of the TIGER project.
- **Central Street over Pawtucket Canal:** No closures are anticipated, and no formal detour route is proposed. It's expected that informal re-routing may occur as people wish to avoid the delays often associated with reduced capacity, and determine routes that work for their particular trips. Construction activities expected to impact traffic are scheduled to last approximately 18 months.
- **Pawtucket Street over Northern Canal:** Pawtucket Street will be converted to temporary two-way traffic from the bridge to Aiken Street, to allow for local traffic to access sites including the UMass campus. Signage including 'Road Closed, Local Traffic Only' at the corner of Aiken Street, and detour routes utilizing Aiken and Father Morissette Boulevard, are proposed during closure.
- **Merrimack Street over Merrimack Canal:** Work at this bridge is very minimal and will involve no closures to the roadway.
- **Merrimack Street over Western Canal:** No closures are anticipated; traffic will be reduced to one lane in each direction in order to create a work zone. No formal detour is proposed; as with other bridges, the team expects informal re-routing to occur among regular users of the bridge, in order to avoid delays often associated with reduced capacity.

On 10/10/2017, members of the Lowell TIGER Bridges Project, including City and MassDOT staff as well as the engineering and public involvement consultants, met with representatives of emergency and transportation services for the City of Lowell, UML, and the Lowell Regional Transit Authority (LRTA) to discuss the Traffic Management Plans which were vetted by the group.

Once the project has progressed to site construction and implementation of the TMP, the City will submit road access changes to a national database of traffic changes used by Google and other mapping services, to complement posted detour routes and aid users of navigational smartphone apps and GPS units in real time.

Conclusion

As construction of the Lowell Canal Bridges (TIGER) project approaches, it's the City's intent to answer questions regarding the project; to ensure that coordination is ongoing and that necessary impacts associated with construction are understood and minimized, and that lines of communication are opened and understood between all parties. To that end once the project has been awarded and the schedule of construction activities is finalized, the Department of Planning and Development will regularly maintain and update the project website lowellbridges.com with project schedules, details, and updates. While the temporary impacts of the project will be challenging, the resulting "Complete Streets" treatment and safety improvements to the canal bridges; including upgraded sidewalks and bike lanes on the bridges and bridge approaches, will provide value to the City for years to come.

DNT/ns

1/19/18

cc: Claire Ricker, Chief Design Planner