



Ruthanne Fuller  
Mayor

**City of Newton, Massachusetts**  
Department of Planning and Development  
1000 Commonwealth Avenue Newton, Massachusetts 02459

Telephone  
(617) 796-1120  
Telefax  
(617) 796-1142  
TDD/TTY  
(617) 796-1089  
[www.newtonma.gov](http://www.newtonma.gov)

Barney Heath  
Director

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**MEMORANDUM**

**DATE:** May 17, 2024

**TO:** Marc Laredo, City Council President  
City Council

**FROM:** Barney Heath, Director, Department of Planning and Development  
Jennifer Caira, Deputy Director, Department of Planning and Development  
Jenn Martin, Director of Transportation Planning

**RE:** **#189-24 Approval of the 75% design of the Washington Street Pilot**  
HER HONOR THE MAYOR requesting approval of the 75% design of the Washington Street.

**MEETING:** May 20, 2024

**CC:** City Council  
Jonathan Yeo, Chief Operating Officer  
James McGonagle, Commissioner of Public Works  
Ned Codd, Director of Transportation Operations

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At the May 15, 2024, Public Facilities meeting, Councilors requested additional information regarding the Washington Street Pilot project including budget details, queuing analysis, more information regarding when and how often data will be collected, and how changes will be made to the pilot, if necessary. The cost estimate and technical analysis (including intersection queuing) provided by consultant Howard Stein Hudson can be found on the Washington Street website here: [www.newtonma.gov/washingtonstreet](http://www.newtonma.gov/washingtonstreet).

**Budget and Cost Estimate**

There are two funding sources for the Washington Street Pilot. The Pilot Design/Engineering Services contract with Howard Stein Hudson (HSH) has covered and will cover existing condition documentation and analysis, development of concept options, public and City Council engagement, development of 100% engineering plans and associated permitting, bid documents, pilot evaluation, on-call pilot revisions (as needed), and MassDOT Transportation Improvement Program (TIP) project

initiation technical assistance. The full design contract with HSH is \$490,540 and is funded through previously collected cannabis community impact fees.

The budget for the actual construction for the Pilot is currently set at \$2.7 million and will be funded with American Rescue Plan Act (ARPA) funds. And while the current working 75% construction budget estimate is approximately \$1.5 million, the final construction costs will be determined when bids are accepted later this year. In addition to constructing the pilot as designed, we are planning to include a contingency amount into the construction contract that would allow for approved changes to be made post-implementation.

At the Public Facilities meeting, several City Councilors requested that pre-pilot baseline data as well as more frequent post- implementation data be gathered as part of the Pilot evaluation check-ins to be provided to the full City Council at regular intervals. Planning and Public Works are working with the consultant on a scope for these additional services which, if approved, would be also funded out of the \$2.7 million ARPA funds set-aside for the Pilot project.

### **Intersection Queuing**

Howard Stein Hudson collected data at every intersection in the project boundaries, both signalized and unsignalized. This analysis includes the level of service, intersection delay, the volume to capacity ratio (a measurement of demand to intersection capacity – less than 0.92 is ideal), and the 50<sup>th</sup> and 95<sup>th</sup> percentile queuing lengths. The 50<sup>th</sup> percentile queuing length represents the average queue length during peak hours and the 95<sup>th</sup> percentile represents the queue length during the peak of the peak hours (only occurring a couple cycles during the peak hours).

The existing conditions intersection analysis can be found on page 18 of HSH's April 8, 2024 technical memoranda, found [here](#). Intersection queues will be measured and monitored at 1-, 2-, and 3-years post-implementation and compared to the existing data.

### **Pilot Modifications/Duration/Long-Term Plan**

Questions have been raised by City Councilors about whether modifications to the Pilot design can be made and how the City Council will be made aware of changes. The short answer to the question of whether changes can be made is yes. The construction of the Pilot is deliberately structured to accommodate modifications to aspects of the Pilot shown through post-implementation data to be warranted. Proposed changes to the pilot design will be communicated in advance to the City Council and major changes, such as adding or removing turn lanes, will come to the City Council for review and approval.

The pilot is anticipated to be in place until the permanent improvements are made to Washington Street. Monitoring and data collection are anticipated to be done for three years post-implementation. Monitoring can also be extended beyond the three-year period as necessary.

The stated goal of the pilot is to improve this stretch of Washington Street from how it functions today. The pilot is designed to test and monitor before major investment is made. The current model is structured such that the City Council will review data and results from the pilot at the 1-, 2- and 3-year post-implementation dates. It is anticipated that the pilot experiment will provide demonstrable

evidence to pursue and gain State Transportation Improvement Program funding to make permanent long-term changes to the roadway.