



## FAY, SPOFFORD & THORNDIKE

Engineers - Planners - Scientists

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### MEMORANDUM

**DATE:** DECEMBER 5, 2014

**TO:** JAMES KUPFER AND JODY KABLACK – TOWN OF SUDBURY PLANNING AND COMMUNITY DEVELOPMENT

**FROM:** JOHN MICHALAK, P.E. AND JEN DUCEY, P.E. – FAY, SPOFFORD & THORNDIKE

**SUBJECT:** DESIGN AND CONSTRUCTION OF THE MASS CENTRAL RAIL TRAIL – WAYSIDE BRANCH

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Thank you for the opportunity to meet on November 19, 2014 to discuss potential approaches for advancing the design and construction of a 1.8 mile section of the Wayside Branch of the Mass Central Rail Trail (MCRT) in Sudbury. At our meeting, we discussed the Design/Build approach the Town is currently considering as well as an alternate Design/Bid/Build approach.

#### Current Approach (Design/Build)

Following a Design/Build approach, the Town would hire a Design Engineer to prepare preliminary design documents and then contract separately with an Engineer/Contractor Team for final design and construction. We understand the Town is considering a Design/Build approach to:

- a) expedite the design and construction process
- b) reduce the overall cost to the Town

The draft schedule the Town developed for the design and construction phases of the project included the following major items:

- Wetlands delineation and ANRAD Permitting: complete by March 2015
- Develop Template Documents: February 2015
- Annual Town Meeting: May 2015
- Begin Design/Build Construction: Final design to begin July 2015, Construction to begin October 2015

## Alternate Approach (Design/Bid/Build)

The majority of FST's trail projects have followed a more traditional Design/Bid/Build approach where the Design Engineer develops the bid documents prior to advertising the project for construction. The bid documents typically include design plans, construction details, and technical specifications specific to the project corridor. Many Towns also opt to have the Design Engineer perform construction oversight and respond to contractor's questions and requests for information.

The benefits of this approach include the ability of the Design Engineer to:

- Contract directly with or assist the Town in preparing a scope for wetland delineation and survey to ensure the base mapping includes the necessary relevant information to successfully design and permit the project.
- Work closely with the wetland scientist and Town Conservation Coordinator to: fully evaluate resource area impacts; develop location specific designs to avoid, minimize or mitigate wetland and wildlife impacts; and prepare a Notice of Intent that respects the concerns of the Conservation Commission. The Order of Conditions is included in the contract bid documents.
- Develop estimated construction cost prior to advertisement that can be used to secure the necessary project funding from the Town and other sources.
- Act on behalf of the Town during construction to ensure the trail is built in accordance with the bid documents and to the satisfaction of the Town.

We understand that the Town would like to develop a set of template documents consisting of specifications and typical details that can be used by both Sudbury and neighboring MCRT communities. The bid documents developed as part of a Design/Bid/Build approach can still serve as a template for other Towns seeking to advance their section of the regional MCRT project.

Under a Design/Bid/Build approach, the bid documents could be prepared within the same timeframe outlined in the Town's Design/Build schedule. We estimate about 4 months from the time survey is complete for the preparation of Final Bid Documents. Included in this 4 month timeframe is a Preliminary and Final Submission for review by the Town and DCR.

- Survey and Basemapping: \$30,000-\$50,000 (Ballpark)
- Wetlands Delineation, ANRAD and NOI: \$10,000-\$15,000 (Ballpark)
- Engineering Design/Permitting Support/Bid Document Preparation: \$25,000 (Ballpark)
- Part-Time Engineering Services During Bid Process and Construction: \$20,000 (Ballpark)

We would like to reiterate our interest in assisting the Town on this important section of the Wayside Branch. We enjoyed working on the Bruce Freeman Rail Trail Feasibility Study and would welcome an opportunity to work with the Town again on this exciting project. In addition to our extensive trail experience, we also have a good working relationship with the DCR based on our prior rail trail projects and our current on-call contract for multi-use trail repair and maintenance design services. This combined experience makes us particularly qualified to provide engineering services during both the design and construction phases of this project.

Also, as requested, we will provide you with information on potential funding sources that may be available to the Town for the design and construction of the trail under a separate memorandum.

Please feel free to contact John at (781) 221-1076 ([JMichalak@fstinc.com](mailto:JMichalak@fstinc.com)) or Jen at (781) 221-1031 ([JDucey@fstinc.com](mailto:JDucey@fstinc.com)) if you have any questions or would like additional information.