



TETRATECH

RECEIVED DEC 07 2012

December 3, 2012

Mark Noonan, Conservation Officer
West Springfield Conservation Commission
26 Central Street, Suite 12
West Springfield, MA 01089

**Re: Memorial Avenue Rotary
SR 147 (Memorial Ave.) EB & WB over US 5 (Riverdale St.)
Bridge Nos. W-21-025 (15C) and W-21-025 (15D)
West Springfield, Massachusetts**

Dear Mr. Noonan:

Tetra Tech is under contract with the Massachusetts Department of Transportation (MassDOT) - Highway Division to prepare bridge replacement and roadway improvements for the Memorial Avenue Rotary, State Route (SR) 147 (Memorial Ave.) eastbound (EB) and westbound (WB) over United States (US) Route 5 (Riverdale St.), Bridge Nos. W-21-025 (15C) and W-21-025 (15D), in West Springfield, Massachusetts. As part of MassDOT's Accelerated Bridge Program, the two existing bridge structures carrying SR 147 EB and WB over US Route 5 (Memorial Avenue rotary interchange) are slated for repair/replacement.

Attached is a brief description of the project and a locus map. We are requesting your assistance for information regarding any other work that may be underway or planned over the next few years that should be coordinated with this project. Please also identify any specific issues that may be of concern to the City regarding the project study area that should be brought to our attention.

If you have any questions or comments please call me at (508) 903-2078 to discuss or send an email to ed.hutchinson@tetratech.com.

Very truly yours,

Edward T. Hutchinson, P.W.S.
Sr. Project Environmental Scientist

Attachments: project description, locus map

P:\4522\127-4522-11001\ASSIGN #7 - WEST SPRINGFIELD\DOCS\REPORTS\EARLY ENVIRONMENTAL COORDINATION\LTR TT CONSERVATION.DOC

Engineering and Architecture Services
One Grant Street
Framingham, MA 01701
Tel 508.903.2000 Fax 508.903.2001

**MEMORIAL AVENUE ROTARY
SR 147 (MEMORIAL AVE.) EB & WB over US 5 (RIVERDALE ST.)
BRIDGE Nos. W-21-025 (15C) and W-21-025 (15D)
WEST SPRINGFIELD, MASSACHUSETTS**

PROJECT DESCRIPTION

The Route 5 Northbound and Southbound on- and off-ramps, Memorial Avenue and the Memorial Bridge (State Route 147) intersect to form an oval shaped rotary on the west side of the Connecticut River in West Springfield, Massachusetts. This rotary and the Route 5/Route 20 rotary, located approximately 1.25 miles to the north, are the primary access points to the Merrick-Memorial Neighborhood and Industrial Area. Route 5 and Memorial Avenue in the vicinity of the rotary are Urban Principal Arterials under MassDOT jurisdiction.

The Route 5/Memorial Avenue rotary interior dimensions are 340 feet along its north/south axis (parallel to Route 5), and 270 feet along its east/west axis. It has a pavement width of approximately 50 feet accommodating two travel lanes. Concrete sidewalks are located along the exterior perimeter, however crosswalks and handicap ramps are not provided at approach and departure points. The sidewalks are generally in poor condition with numerous cracks and overgrown vegetation. However, sidewalks over the bridges appear newer and are in good condition. The Route 5 on-and off-ramps are 24 feet wide providing one travel lane. The approaches from the west and east, Memorial Avenue and Memorial Bridge respectively, provide four lanes and are divided by a concrete median or rumble strip. All approaches to the rotary are under YIELD sign control. The posted speed limit on Memorial Avenue and on Memorial Bridge is 25 miles per hour.

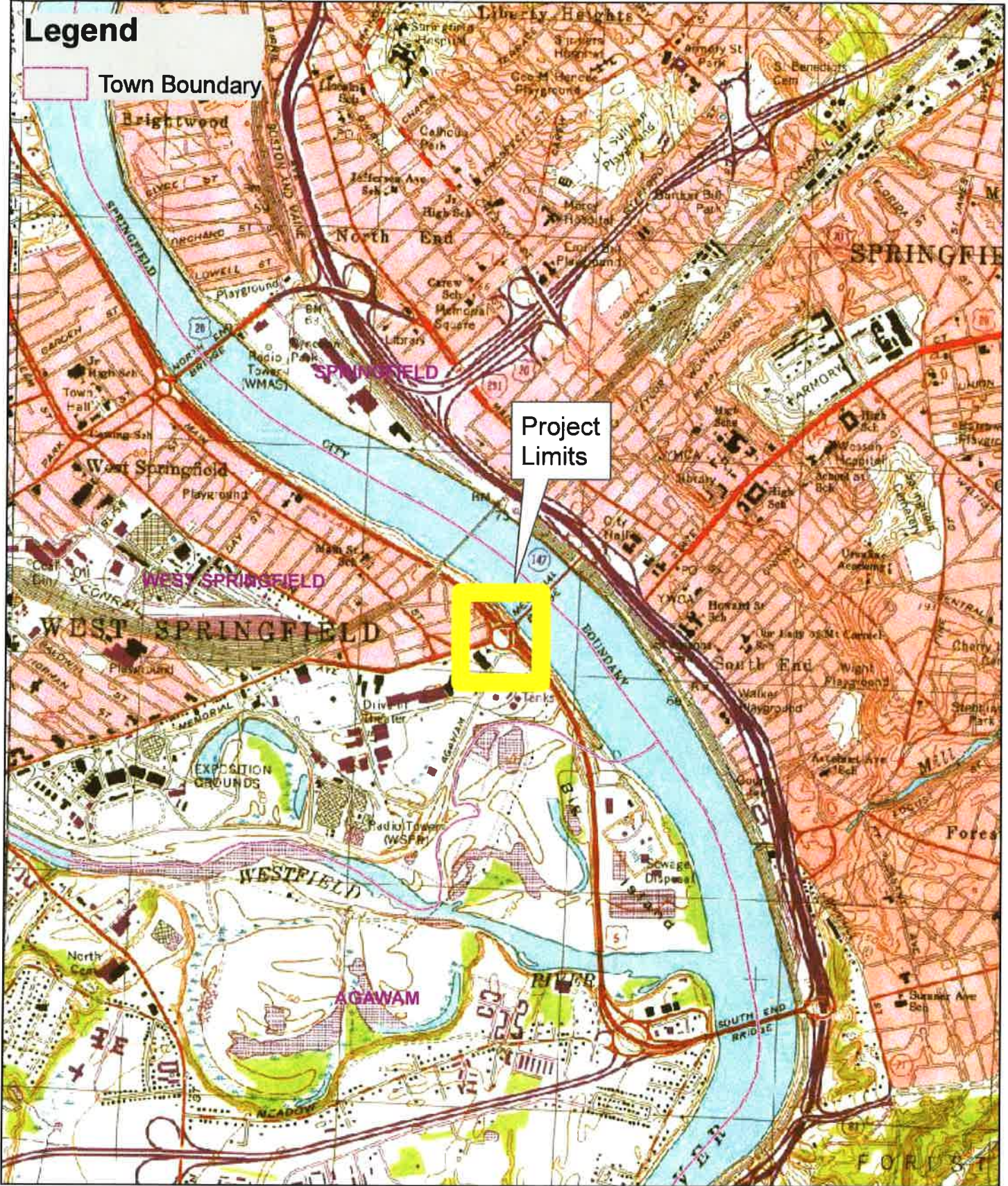
Agawam Street merges with the Route 5 southbound on-ramp approximately 150 feet south of the rotary. Agawam Street has a 20 foot pavement width. Driveways providing access/egress to/from the Bridge Street Pumping Stations are located on both the Route 5 northbound on-and off-ramps. Within the interior of the rotary, there is a pump station structure between the two bridges, along the eastern retaining wall.

The rotary crosses over Route 5 in two locations via existing steel bridges, supported on concrete abutments. A concrete retaining wall is located along the easterly State Highway Layout Line on the east side of the Route 5 northbound on-ramp. This retaining wall extends between the bridges, as well as north and south of the bridges.

The State Route 147 / Route 5 rotary interchange has been prioritized for replacement as part of MassDOT's Accelerated Bridge Program. The goal of the project is to replace the superstructure of the two bridges and reuse the existing substructure to the extent possible. The existing superstructure consists of straight steel girders and a curved concrete deck. The existing substructure consists of cast-in-place abutments and retaining walls, supported on piles. Accelerated Bridge Construction techniques will be used to minimize impacts to the community.

Specific improvements included in this project are:

- Temporary relocation of existing utilities to facilitate construction
- Construction of new superstructures for both bridges
- Modifications to existing abutments as required to receive the new bridge superstructures
- Surface patching of deteriorated portions of the existing retaining walls and abutments
- Modifications to the existing rotary configuration to improve functionality and safety for all modes
 - Striping of the rotary
 - Widening the sidewalks to meet standard widths
 - Adding wheelchair ramps and pedestrian crossing accommodations
- Certain aesthetic components of the adjacent Memorial Bridge will be introduced to the SR 147/US 5 rotary.
 - Incorporating ornamental lighting
 - Incorporating a dual railing system into the bridge with an ornamental railing at the back of the sidewalk and a “bumper” vehicular railing at the edge of roadway



One Grant Street
Framingham, MA 01701-9005
508.903.2000
www.tetrattech.com

1 inch = 2,000 feet
0 1,000 2,000
Feet

1

Base Map:
USGS Topographic Map
MassGIS

Notes:

West Springfield, MA

USGS
Locus Map

Figure 1

BTC Key Component #4 Highway Improvements

- Improved traffic channelization
- ADA compliant sidewalks & pedestrian crossings
- Reduced pavement width at ramp approaches
- Lower entry and circulating speeds
- Ornamental lighting
- Dual railing with crash rail and ornamental rail
- Landscape and gateway signing opportunities

