



**TOWN OF WESTFORD
ENGINEERING DEPARTMENT**

28 North Street
Westford, Massachusetts 01886
TEL (978) 692-5520 FAX (978) 399-2739

**REQUEST FOR PROPOSALS
FOR PROFESSIONAL ENGINEERING DESIGN SERVICES**

INTERSECTION IMPROVEMENT PROJECT

**ROUTE 40 at OAK HILL ROAD &
ROUTE 40 at DUNSTABLE ROAD**

November 15, 2013

PROJECT OVERVIEW

The town of Westford, through its Engineering Department, is seeking proposals from qualified professionals with expertise in traffic and transportation engineering to provide design and construction administration services at two intersections located along the Route 40 corridor, also known as Groton Road, in Westford, Massachusetts. The two intersections are located at Route 40 at Oak Hill Road and Route 40 at Dunstable Road. A locus map and aerial photos illustrating approximate project limits for each intersection are provided as attachments.

It is the intention of the town to bundle the design work of both intersections under one engineering services contract but to have each intersection designed as separate stand-alone project. It is the goal of the town to have both intersection designs and schedules run concurrently under the same design process, to the maximum extent possible, in an effort to minimize duplication of work and costs. Our goal is to allow both intersections to be best positioned to individually access and obtain public funding for construction when it becomes available. The project is intended for Federal or State aid for construction therefore all work performed must be in accordance with the MassDOT and FHWA design process.

The Engineering Department would like the design work to begin as soon as possible and requests that a detailed schedule for completion of the requested services be provided in the proposal submission.

PROJECT DESCRIPTION

Route 40 is an urban principal arterial, two-lane roadway located in the northern part of Westford. It is a state numbered route that is owned and maintained by the town. The roadway runs in the east and west directions and provides a connection between Route 3 in Chelmsford and Route 225/119 in Groton. The Route 40 roadway is identified as an evacuation route by Northeast Homeland Security Regional Advisory Council (NERAC) for both Westford and Groton. Past traffic counts performed by Northern Middlesex Council of Governments (NMCOG) show the average daily traffic volumes to be approximately 8,000 to 10,000 vehicles

per day in the vicinity of the two intersections. Below is a brief description of each individual intersection:

Route 40 @ Oak Hill Road

The intersection at Route 40 and Oak Hill Road is a dangerous, un-signalized intersection that has been identified by NMCOG to be one of the top 100 high crash intersection in the region based on 2006-2008 data.

A Road Safety Audit (RSA) was performed in March of 2013 at the intersection for the MassDOT Highway Division. The RSA included a review of Westford Police Department crash data which showed fourteen crashes within the intersection area between 2010 and 2012. Six of those crashes involved injuries with one fatality. The types of crashes being experienced at the intersection consist of angled, rear end and head on collisions. The RSA identified safety concerns at this intersection that included: vehicle speed, visibility, site drive operations, traffic violations and intersection awareness.

Route 40 @ Dunstable Road

The intersection at Route 40 and Dunstable Road is also considered a dangerous intersection and has been identified as a high crash location within the town. The intersection was identified in a NMCOG 2004-2006 report as a top 100 high crash intersection in the region. Motor vehicle crash reports obtained from the Westford Police Department show that approximately 35 crashes have occurred within this intersection between 2009 and 2012 eight of which involved injuries. The types of crashes being experienced at the intersection consist of angled, rear end and head on collisions.

A flashing beacon was installed at this intersection in 2008 to help mitigate impacts associated with a large seasonal vacation home development located just north of the intersection. Since the installation of the flashing beacon safety concerns at the intersection continue to include: vehicle speed, visibility, site drive operations, roadway geometry and intersection awareness. The successful consultant will be expected to participate in a RSA for this intersection.

PROJECT OBJECTIVE

The town seeks to design intersection improvements to these two intersections in order to competitively position the project for public construction funding in as timely a manner as practical. The ultimate goal is to reconstruct both intersections in order to improve vehicle and pedestrian safety as well as to improve the capacity and overall operating conditions of each intersection.

It is anticipated that full traffic signals may be required at each intersection along with potential roadway widening, dedicated turning lanes, stormwater management improvements and pedestrian accommodations. The town will select the appropriate design solution at each intersection based on the recommendations of the selected consultant.

PROPOSAL PROCEDURE

Six (6) bound copies and one (1) unbound copy of the proposal must be submitted in a sealed envelope clearly labeled "ROUTE 40 INTERSECTIONS - PROPOSAL" to the Westford Engineering Department located at 28 North Street, Westford, MA on or before 1:30 PM on Thursday, December 19th, 2013. One (1) copy of a cost summary by task, including proposed hours and expenses for each, shall be provided in a separate sealed envelope clearly labeled "ROUTE 40 INTERSECTIONS - FEE". Separate cost summaries shall be prepared for each intersection. In addition, direct labor rates and single multiplier shall be provided including: indirect labor, overhead, and profit. Payment will be made for actual time and expenses for each task, not to exceed the upset limit for each task. Fee proposals shall include proposed costs for sub-consultant work. The Fee Proposal shall acknowledge the number of any Addenda that may be issued by the town pursuant to this RFP. Proposals may be hand delivered or mailed to the Engineering Department at 28 North Street, Westford, MA 01886 with attention to the Town Engineer.

No proposal received after the time established for receiving said proposals will be considered regardless of the cause for delay in the receipt of any such proposal(s).

Questions pertaining to this Request for Proposals must be submitted in writing and sent to Paul Starratt, P.E., Town Engineer. Questions may be hand-delivered, mailed, emailed (pstarratt@westfordma.gov) or faxed by the close of business on Friday, December 13th, 2013. Written responses will be emailed or faxed to all registered proposers on record by the close of business on Tuesday, December 17th, 2013. Only answers provided by the town in writing may be relied upon by the proposers.

The town of Westford is an Equal Opportunity Employer and encourages submittals from registered MBEs and WBEs.

PERTINENT INFORMATION

The town of Westford Engineering Department has made available the following pertinent information for review at www.westfordma.gov/Route40 :

- Project Notification Forms (PNF) dated November 6, 2013
- Draft Project Initiation Forms (PIF)
- Road Safety Audit – Route 40 at Oak Hill Road dated March 20, 2013
- Town of Westford Standard General Contract for Professional Services

Westford's Geographic Information System (GIS) online viewer is another resource that may provide useful information. The viewer provides access to various GIS layers that include: planimetric data, parcel information, topography, conservation related information and aerial photos. The online viewer can be accessed through the town's website at www.westfordma.gov or directly at www.westfordma.gov/GIS.

ANTICIPATED SCOPE OF SERVICES

Below is the anticipated scope of services that are believed to be required for both intersections. Proposals shall also include other work or services that may be required to complete the project but may not be detailed below.

Survey Requirements - The project survey limits at each intersection shall encompass an area that extends a minimum of 500' in each direction from the intersection along Route 40 and a minimum of 300' in each direction from the intersection along the approaching roadways (i.e. Oak Hill Road & Dunstable Road). The survey shall also extend a minimum of 25' beyond the right-of-way. All wetland resource areas in the vicinity of the project area shall be demarcated by a qualified wetland scientist and located during the field survey. GIS plans illustrating approximate wetland resource area locations are included in the attachments.

An existing conditions plan shall be prepared from the information collected during the field survey and project research and serve as the base plan for the project design. The base plan shall include all surface and subsurface features that will be necessary to complete the design, including adjacent areas that may be considered for receiving stormwater runoff. The base plan will also establish the existing right-of-way. The existing condition plan shall be signed and stamped by a Professional Land Surveyor registered in the state of Massachusetts.

Additional survey beyond the limits and requirements described above shall be performed as necessary to complete the project. All survey and existing conditions plan preparation shall be performed in accordance with MassDOT standards.

Project Design - The consultant will be responsible for completing the design in accordance with the process established in MassDOT's Project Development and Design Guide. This shall include all work necessary to meet the requirements of MassDOT's 25% Design, 75% Design, 100% Design and PS&E project phases. It is anticipated that the project design phase may require: Functional Design Report, Design Exception Report, pedestrian & bike accommodations, pavement cores, pavement design, traffic counts, soil borings and structural design for signals, Road Safety Audit participation (Dunstable Road intersection only), documents for a unit price bid project, Highway Access Permit, utility design and coordination, drainage & stormwater design, intersection signalization, itemized cost estimate, calculation book, specifications, bid documents and detail sheets per MassDOT standards, and all other work and efforts necessary to comply with FHWA and MassDOT requirements.

Environmental Permitting – It is anticipated that preparation of a Notice of Intent (NOI), Categorical Exclusion Checklist, Stormwater & Drainage Report demonstrating compliance with the MADEP Stormwater Standards & MassDOT environmental requirements, including addressing impaired waterbodies if necessary, and an Environmental Notification Form (ENF) may be required to complete the project. The

consultant shall be required to comply with Chapter 2 of the MassDOT *Project Development & Design Guide* including the Early Environmental Coordination Checklist, and will be responsible to ensure that environmental permitting is coordinated throughout the design process, to the maximum degree feasible. The project will also be subject to the requirements of Westford’s Non-Zoning Wetland Bylaw and supporting regulations.

Right-of-Way & Land Acquisition - It is estimated that permanent highway takings or easements and temporary easements (rights-of-entry) will be required as part of the project. The acquisition of property necessary to implement the project will be determined by MassDOT. Preparation of Preliminary Right-of-Way Plans, Final Right-of-Way Plans, Written Order of Taking and Highway Alteration Plans will be prepared by the selected consultant in accordance with MassDOT Right-of-Way Bureau requirements. The selected consultant will also provide guidance to the town throughout the right-of-way process.

Construction Administration - The consultant shall include services necessary for construction administration. Specifically, for review and approval of the shop drawings related to traffic signal equipment, final inspection of signals, signs and pavement markings, for fine tuning and adjustments to traffic signal system programming and operation, for preparation of as-built layout plans for each traffic signal location, and for attendance at a preconstruction meeting at MassDOT with the selected contractor.

Reimbursable Expenses - Reimbursable expenses for the project, such as printing and reprographics, plotting, travel, subsistence, telephone charges, shipping, postage, courier service charges, purchase of maps and similar documents, etc. will be reimbursed at cost plus 15%. Reimbursable expenses shall be in addition to labor costs necessary to complete the project. A separate budget for reimbursable expenses shall be identified in the proposal and based on 10% of the total project cost for labor.

Meetings – It is anticipated that approximately 23 total meetings will be required to complete both intersections. The estimated meetings anticipated are outlined in the table below and shall be included in the proposal:

Anticipated Meetings	Dunstable Road Intersection	Oak Hill Road Intersection
Project Progress Meetings	2	2
25% Design Public Hearing	1	1
Conservation Commission Meetings	3	3
Stakeholder & Abutter Meetings	2	2
MassDOT Meetings	2	2
Utility Coordination Meetings	1	1
Road Safety Audit	1	0
TOTAL	12	11

Additional meetings as authorized by the town shall be compensated on an hourly basis. It is the intention of the town to combine meetings for both intersections when feasible in order to avoid duplicating efforts and to minimize the overall number of meetings required to complete the project.

FORMAT AND CONTENT REQUIREMENTS FOR PROPOSALS

Consultant shall provide the following in the proposal in as concise a manner as possible:

1. A narrative including a statement of project understanding, goals and objectives.
2. A statement of clearly defined tasks and scope for managing and performing the required services, formatted based on the MassDOT Standard Scope of Services.
3. Project Manager and qualifications.
4. Proof of MassDOT pre-qualification in Basic Roadway Design, Traffic Operation Studies and Design, and Transportation Planning.
5. Key personnel to be assigned to the project and their qualifications. This shall include sub-consultants as well.
6. Proposed schedules.
7. Experience with similar projects. This shall specifically list at least three (3) other MassDOT projects of similar magnitude as well as design services provided for other municipalities.
8. Office location(s) where services are to be performed.
9. Financial stability.
10. Ability to meet town of Westford insurance requirements as outlined in the Standard General Contract for Professional Services provided under the Pertinent Information section of this RFP.
11. References, including description and dates of referenced project(s).
12. Identify items that the consultant assumes the town will pay for.

COMPARATIVE EVALUATION CRITERIA

The final selection of the consultant will be based on the comparative evaluation criteria provided below. Each criterion will be deemed either “highly advantageous”, “advantageous” or “not advantageous”.

1. Firm’s ability to clearly define, within their written proposal, the tasks and scope required to complete the project in a timely and cost-effective way.
2. Firm’s history and resource capability to perform required services.
3. Related experience.
4. Project Manager’s experience.
5. Qualifications of assigned personnel and subconsultants.
6. Demonstrated ability to have defined and met schedules on similar type projects.
7. Reference checks.
8. Price proposal formatted based on MassDOT Standard Scope of Services and Work Estimate Form.

METHOD OF SELECTION

Complete proposals submitted prior to the deadline will be reviewed and evaluated by a selection committee appointed by the Town Manager. Each member of the selection committee will review and rank all proposals received based on the Comparative Evaluation Criteria. A composite ranking of individual rankings will be summarized.

After the composite ranking is established, two or more consultants will be invited to give an oral presentation of up to 20 minutes in length and answer questions. The presentation shall be given by key staff who have been identified in the staffing plan and who will contribute substantially to the project. The selection committee will re-rank the proposals of the interviewed consultants and open the cost proposals. After the cost proposals are opened, the level of effort for each task of the highest ranked consultant will be compared to the lower ranked consultants. A second interview may be required to resolve substantial differences, at the discretion of the selection committee. If negotiations with the highest ranked consultant are unsuccessful, the next highest ranked consultant will be selected to continue the process until a final recommendation is made to the Town Manager. The Town Manager, acting in its capacity as the town's Chief Procurement Officer, will work to execute a contract with the recommended consultant.

It is anticipated that a contract will be executed with a consultant within sixty (60) days of the deadline for proposals, and that work will begin within fourteen (14) days thereafter.

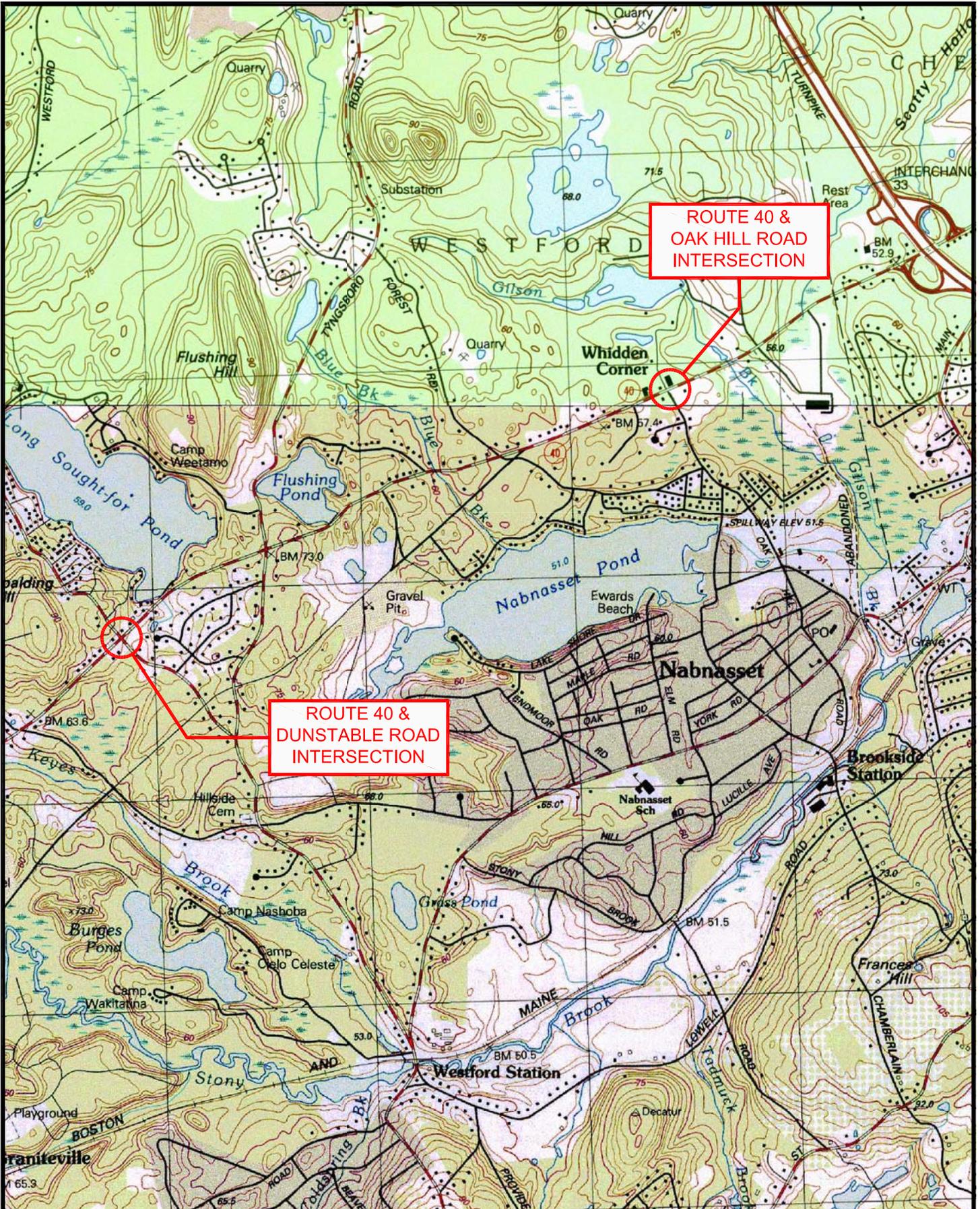
TERMS & CONDITIONS

The town of Westford reserves the right to accept or reject any or all proposals and parts of any and all proposals for any reason, and to waive any or all conditions, terms or requirements of this Request for Proposals.

One contract will be awarded to the most advantageous proposal from a responsive and responsible proposer taking into consideration overall price and evaluation criteria. Price shall not be the sole consideration for consultant selection.

All survey and design work and supporting analyses completed as part of this project shall become property of the town of Westford and shall be delivered to the town in hard copy and in the software format that it was developed (i.e. AutoCAD, WORD, EXCEL, pdf, etc.) at the town's request.

ATTACHMENTS



ROUTE 40 &
OAK HILL ROAD
INTERSECTION

ROUTE 40 &
DUNSTABLE ROAD
INTERSECTION

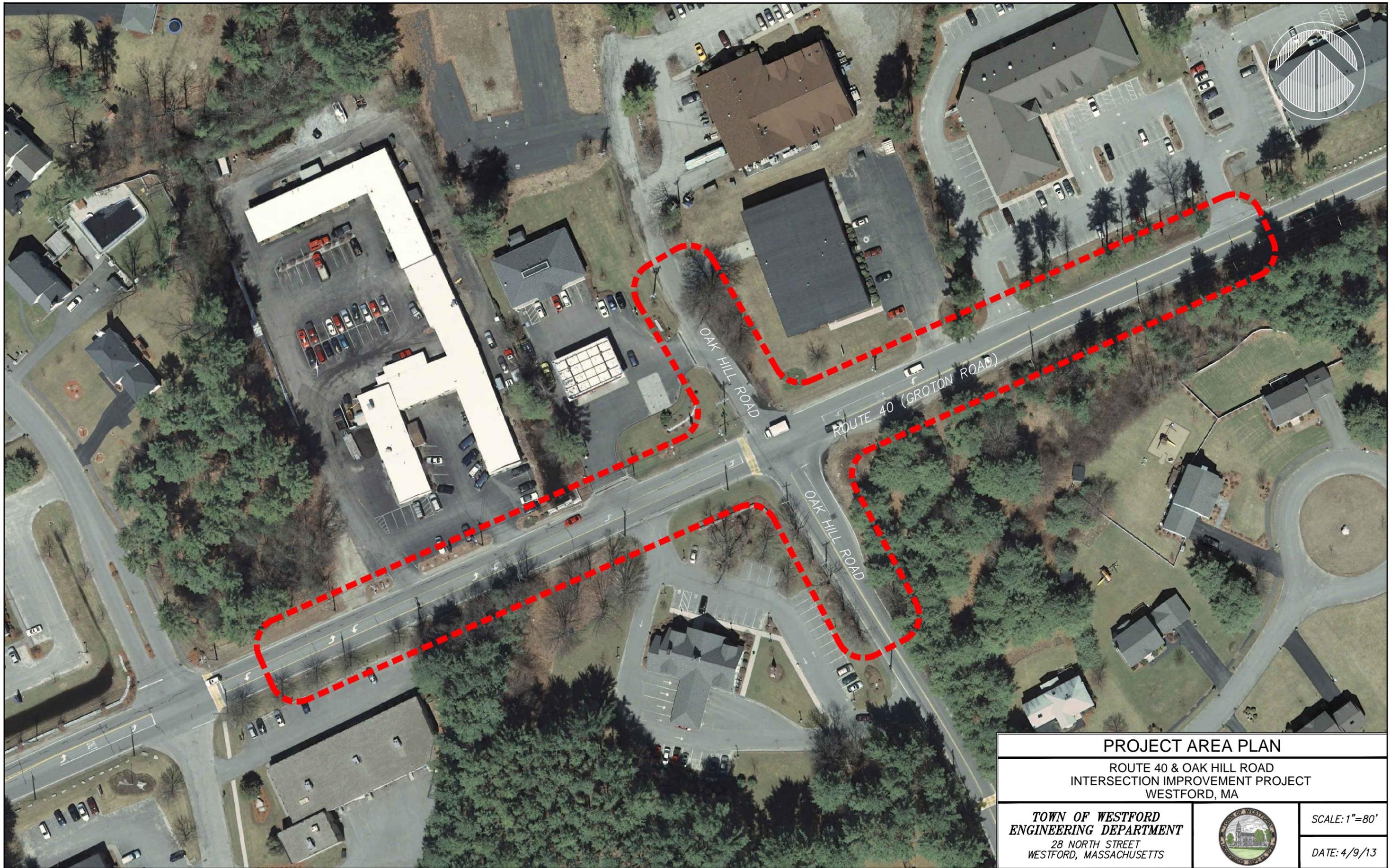
**TOWN OF WESTFORD
ENGINEERING DEPARTMENT**
28 NORTH STREET
WESTFORD, MASSACHUSETTS

USGS LOCUS MAP
INTERSECTION IMPROVEMENT PROJECT
ROUTE 40 (GROTON RD)
WESTFORD, MA

SCALE: 1"=2,000'
DATE: 7/10/13



**ROUTE 40 & OAK HILL ROAD
INTERSECTION**



PROJECT AREA PLAN

ROUTE 40 & OAK HILL ROAD
INTERSECTION IMPROVEMENT PROJECT
WESTFORD, MA

TOWN OF WESTFORD
ENGINEERING DEPARTMENT
28 NORTH STREET
WESTFORD, MASSACHUSETTS



SCALE: 1"=80'

DATE: 4/9/13



Town of Westford, MA

Route 40 - Oak Hill Road

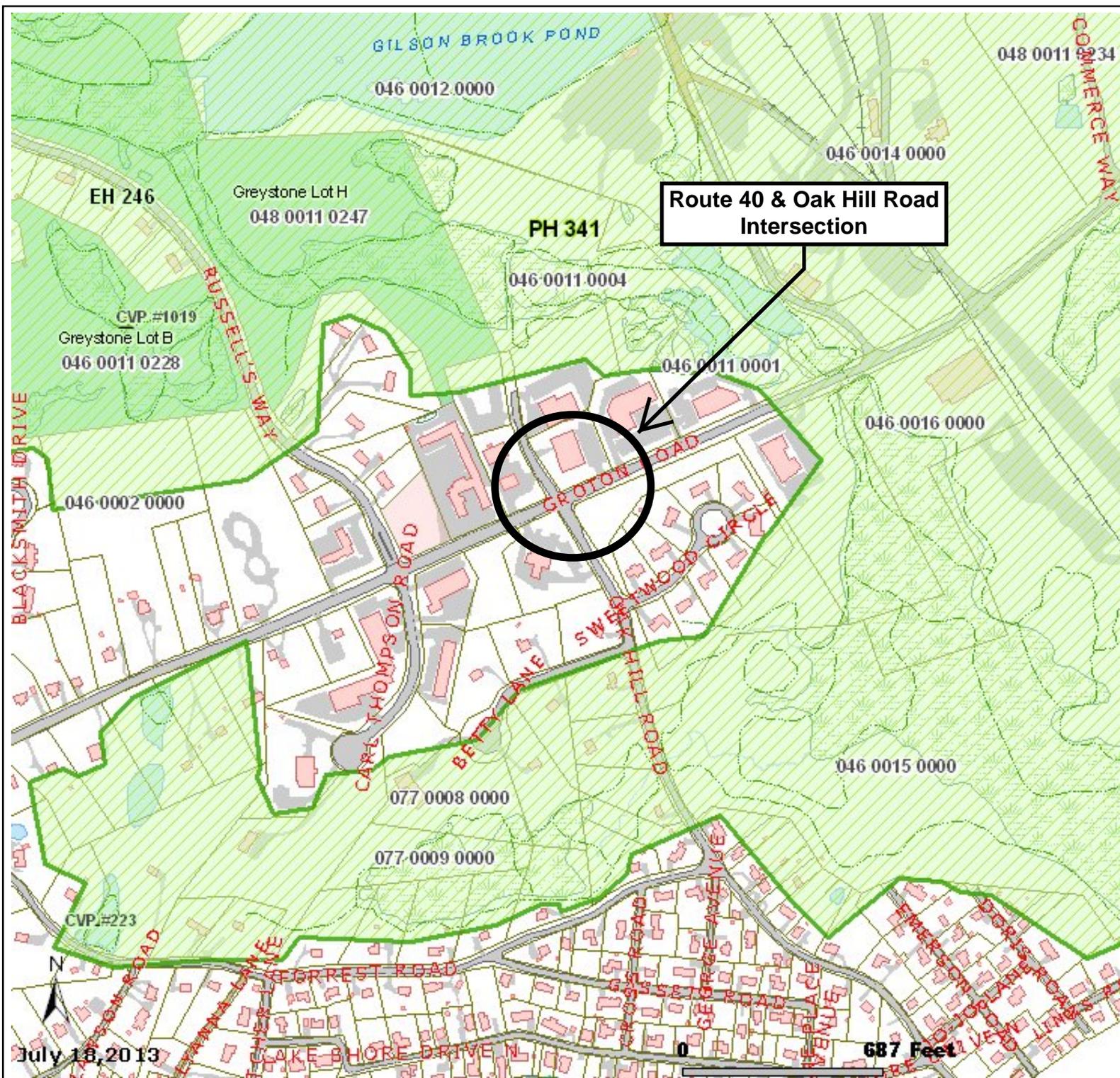
Conservation Map

Legend

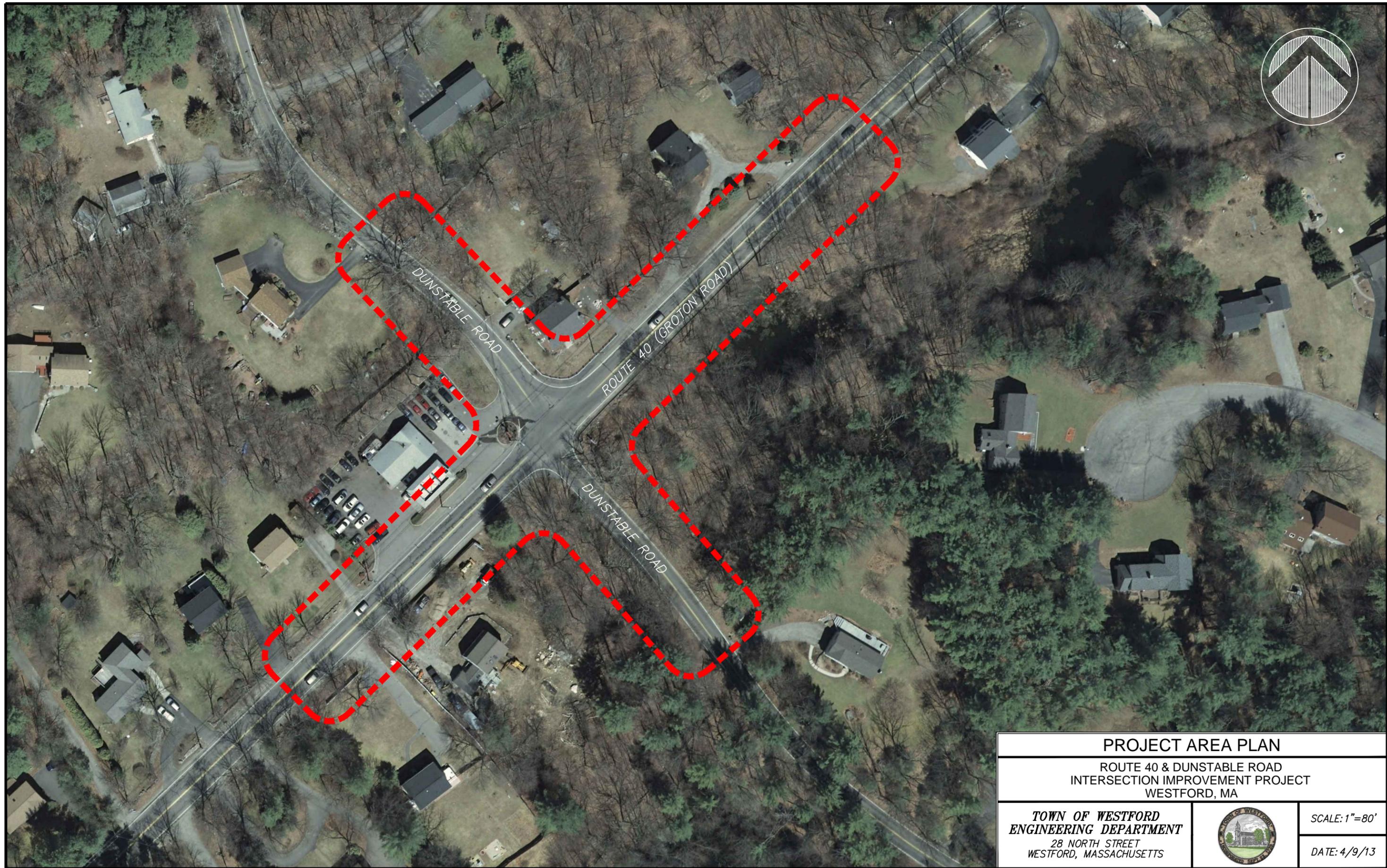
- StreetNames
- Street Search
- Map Parcel Lot #
- ▲ Town Features
- ▲ CertifiedVernalPools
- Wetlands DEP
- Priority Habitats DEP
- Established Habitats DEP

Disclaimer

Town of Westford, MA makes no warranty or representation as to the accuracy, timeliness or completeness of any of the data. The Town of Westford, MA, shall have no liability for the data or lack thereof, or any decision made or action taken or not



**ROUTE 40 & DUNSTABLE ROAD
INTERSECTION**



PROJECT AREA PLAN

ROUTE 40 & DUNSTABLE ROAD
INTERSECTION IMPROVEMENT PROJECT
WESTFORD, MA

TOWN OF WESTFORD
ENGINEERING DEPARTMENT
28 NORTH STREET
WESTFORD, MASSACHUSETTS



SCALE: 1"=80'

DATE: 4/9/13



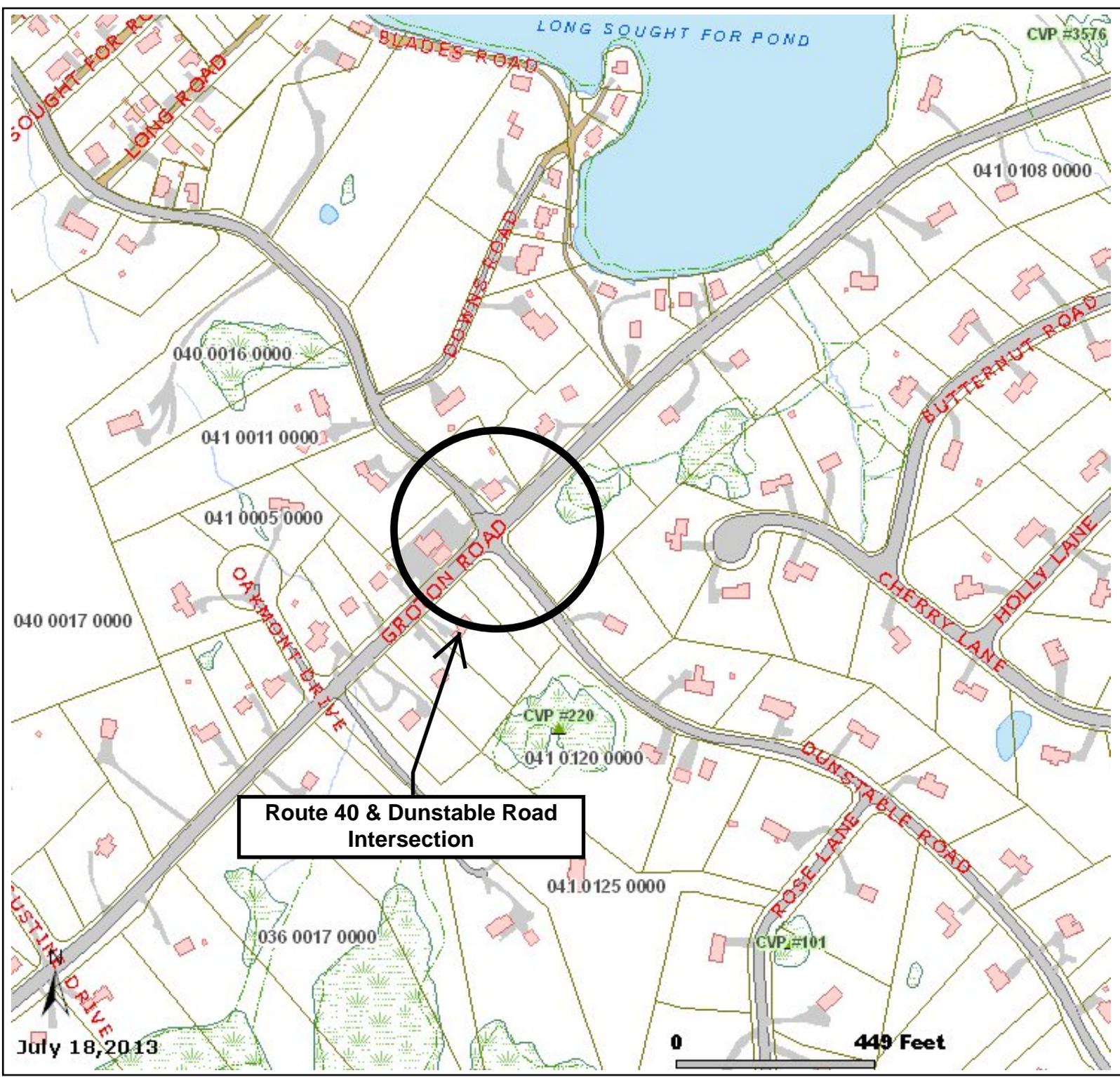
Town of Westford, MA

Route 40 - Dunstable Road

Conservation Map

Legend

- StreetNames
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- ▲ Town Features
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Route 40 & Dunstable Road Intersection

July 18, 2013

0 449 Feet

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