

PROJECT APPLICATION FORM – 2015

Applicant: Natural Resources Department, Town of Acton

Submission Date: 11-17-14

Applicant's Address:

Town Hall, 472 Main Street, Acton, MA 01720

Phone Number: 978-929-6632

E-mail: nr@acton-ma.gov

Purpose: (Please select all that apply)

- Open Space
- Community Housing
- Historic Preservation
- Recreation

Town Committee (if applicable): Conservation Commission

Project Name: Irrigation Wells at Acton Arboretum and Morrison Farm

Project Location/Address: Acton Arboretum, 2 Taylor Road and 116 Concord Rd., Acton MA

Amount Requested: \$52,249.00

Estimated Date for Commencement of Project: August 2015

Estimated Date for Completion of Project: October 2015

Project Summary:

The Acton Water District and the Municipal Properties Department would like Morrison Farm and the Acton Arboretum to each have their own water supply, rather than use Town water. The Acton Arboretum system has been shut down for 2 years due to a leak. Morrison Farm 2014 water bill was \$800; Acton Arboretum 2013 water bill was \$712. The expected life span for the new service is 50 years.

Leveraged funds: The Friends of the Acton Arboretum have committed to contribute **\$1,000**; Recreation Dept. Revolving Fund will contribute **\$3,249.00**. Requests for donations have been sent to the community gardeners and to the Acton Water District.

Costs: **\$23,249 per well. Since there are two well projects, that is a total of \$46,498.00.** Subtracting the donations from the Friends of the Acton Arboretum and the Recreation Revolving Fund lowers that amount to **\$42,249**. We wish to add **\$10,000** for contingencies or overruns due to drilling depth or flow rate. Therefore, total grant request is **\$52,249.00 (chart below)**.

The water supply for Morrison Farm community gardens comes through the Morrison homestead on the property. Municipal Properties Department would prefer to isolate the two systems, as someday the Morrison house may be rented. The Acton Arboretum water comes from a metered town service near the corner of Taylor Road and Main Street. It has a bad leak, which NR has been unable to locate, necessitating Municipal Properties to shut off supply. Volunteers have been lugging and hand-watering all of the Arboretum plantings via a portable water tank, an arduous task to say the least. Separate wells and electrical service will also allow electricity to both the Arboretum and Morrison Farm for future projects.

The Arboretum well installation project will also require a wetlands filing, as the majority of well locations discussed fall within 100' of wetlands.

Item	Cost per well	Funding Leverage Source	Amount
Electrical Service	\$4,300	Friends of the Acton Arboretum	\$1,000
Drilled well and pump	\$9,949	Recreation Dept	\$3,249
Nstar pole and meter	\$5,000	Gardener donations	tbd
Irrigation	\$4,000	Acton Water District	tbd
Over-run contingency	\$5,000	Subtotal	\$4,249
Subtotal	\$28,249		
Summary			
Cost per well	\$28,249		
Number of wells	2		
Subtotal well costs	\$56,498		
Leveraged Funds	-\$4,249		
Total grant request	\$52,249		



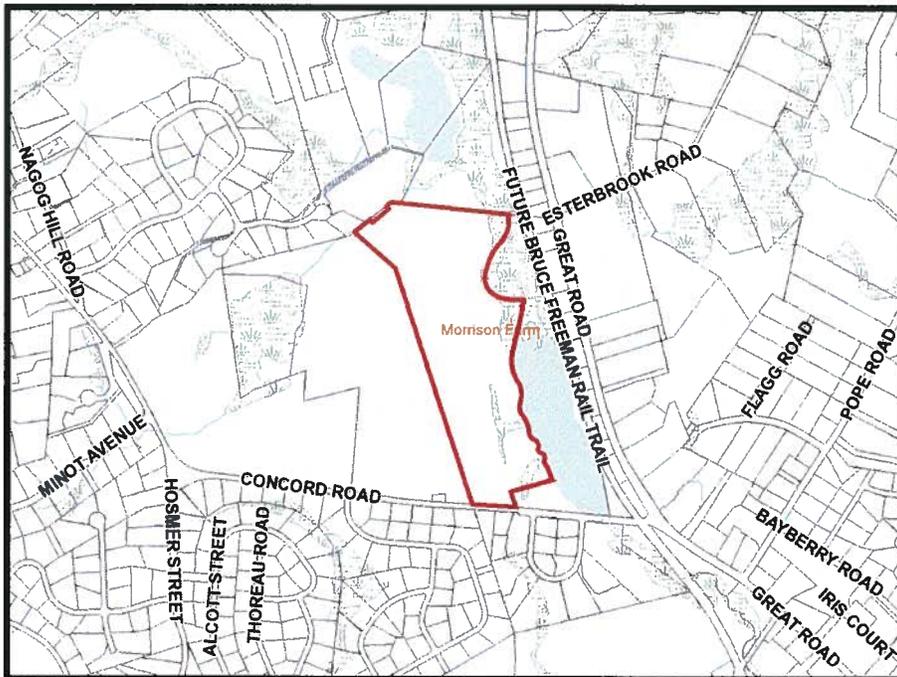
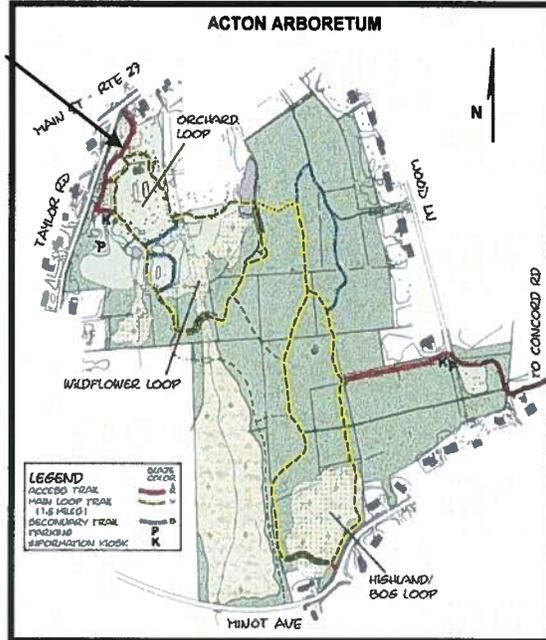
Morrison Farm Community Gardens



Acton Arboretum Upper Lawn

Locations of Projects

Irrigation Well
Approximate location



Thursday, August 29, 2013



Acton Community Garden
116 Concord Road
Acton, Massachusetts

Skillings & Sons, Inc.TM
Bringing water well technology to a whole new level

116 Concord Road, Acton Massachusetts

Dear Ms. Rier,

Skillings & Sons Inc. is pleased to offer you a proposal for a drilled water well, pump system and services for the above referenced site.

Based on an average well depth, casing and services, the following is an estimate only and is not the final cost of your well (Please refer to the last page of this document for local well data). The final cost cannot be calculated until the well is drilled, the proper pump size is selected and services are calculated. Pump size and depth of installation are determined by the well depth and flow rate. A well should produce 5 gallons per minute for 4 hours to pass most town requirements. A wells capability of producing this flow rate depends on both its depth and flow. As the depth increases, the flow rate needed decreases. For example, a 100' well should produce 8GPM, 150'-6GPM, 200'-5GPM, 300'-4GPM, 400'-3GPM, 500'-2GPM.

Well Drilling Permit	\$ 70.00
6" Drilled Well to 540' at \$10.00/Ft.....	\$ 5,400.00
50' of 6" Well Casing at \$15.00/Ft.....	\$ 750.00
6" Drive Shoe.....	\$ 125.00
Pump System: 1HP pump with 35 gallon tank.....	\$ 3,174.00
Pump Test	\$ 325.00
Lab Analysis	\$ 105.00
Estimated Cost	\$ 9,949.00
Deposit Amount.....	\$ 3,300.00

- *Installation and removal of temporary pump: \$450.00
- *Additional labor for hook up: \$128.00/hour plus the cost of materials
- *If drilling exceeds a depth of 1000', the rate will increase to \$14.00 per/ft

Morrison Farm water project Proposal:

Install 8 taps or bibs using key turn vandle prof bibs for garden area mounted on 2x4 pressure treated posts, 420' 1"poly NSF all necessary fittings with gate valve for service.-3351.00

Install 1.5"PVC main line from end of irrigation main to garden area with 2 gate valves for service,all pipe and fittings.-5380.00

My suggestion with irrigation systems ageing valves is to run 1.5"PVC to well head area add master valve for irrigation only when irrigation clock turns on it charges irrigation main line and zones.-1858.00

Change pump controller to a constant pressure system,1 VFD,50 gal fiberglass tank,all piping and pressure sensing equipment and connections.-8675.10

Shed to mount tank and VFD wood construction (price may change with town codes and floor mat.) -975.00

All areas will be seeded after trenching.

Total cost for all = 20239.10

Cost from end of main line = 18381.10

**Larry Flannery
Flannery Irrigation
PO Box 477 Stow,MA
978-562-8616
flanneryirrigation@verison.net**

Rogan Electric LLC
 84 Seminole Road
 Acton, MA 01720

Proposal

Date	Estimate #
9/27/2013	418

Name / Address
Malissa Rier Acton Town Hall 472 Main Street Acton, MA 01720

Terms

Qty	Description	Total
1	Morrison Farm Upgrade existing house electrical service from 100 amp to 200 amp. Run power from house to well pump location (estimate 100 feet from house) in PVC conduit. Trench and back filling by others. Pump and controls by others. Wire and conduit is only sized to power the well pump, no additional loads.	4,300.00
Total		4,300.00

If you have any questions concerning this estimate, please call Tom Rogan at 978-604-2357.