

**TOWN OF PLYMOUTH CAPITAL IMPROVEMENT PLAN REQUEST
FY27 SPRING ANNUAL TOWN MEETING**

Department: Engineering Div. DPW	Priority #: 3
Project Title and Description: Proposed Wicking Wells & Drainage Improvements on Manomet Avenue	Total Project Cost: \$595,000.00

Department/Division Head: Richard Bosse, P.E. - Acting Town Engineer

Check if project is: New Resubmitted Cost estimate was developed: Internally Externally

For project re-submittals, list prior year(s): FY23 ATM

List any funding sources and amounts already granted: _____

Basis of Estimated Costs (attach additional information if available)			If project has impact on 5 Year Plan and future operating budgets, insert estimated amounts.		
Capital:	Cost	Comments	Fiscal Year:	Capital	Operations & Maintenance
<i>Planning and Design</i>		Design will be done by in-house Engineering Division staff.	<i>FY28</i>		
<i>Labor and Materials</i>	\$515,000.00	Includes Construction and Police Details	<i>FY29</i>		
<i>Administration</i>			<i>FY30</i>		
<i>Land Acquisition</i>			<i>FY31</i>		
<i>Equipment</i>			<i>FY32</i>		
<i>Other</i>					
<i>Contingency</i>	\$80,000.00	15% Construction Contingency			
Total Capital	\$595,000.00				

Project Justification and Objective: See Attachment: _____

For Capital Project Requests:

Will this project be phased over more than one fiscal year? If yes, enter it on the 5 Year Plan
Can this project be phased over more than one fiscal year?

Yes No
Yes No

For Capital Equipment Requests:

Check if equipment requested is replacement and enter the year, make & model, VIN and present condition of existing equipment

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What is the expected lifespan of this new/replacement equipment: _____

Attach backup information, estimates, or justification to support this request.

Wicking Wells & Drainage Improvements on Manomet Avenue

Project Justification and Objective:

In order to address the poor roadway surface/asphalt conditions of Manomet Avenue, DPW anticipates pushing forward to reclaim and pave binder (base course of asphalt) this fall.

To address the on-going drainage issues, erosion issues and preserve the new roadway surface, we are requesting funding for the construction and installation of 3 new wicks wells.

Ex. Stormwater discharges along Manomet Avenue has been exacerbating erosion issues along the bluff that runs parallel to the street. There is a confining clay layer located approximately 30 to 40 feet below the surface of the road. This clay layer intercepts subsurface stormwater infiltration and redirects it toward the adjacent cliff face, which contributes to erosion of the cliff. The proposed wicking wells are intended to direct stormwater below the clay layer, which will allow the stormwater to infiltrate into the deeper, permeable subsurface materials. The design and construction of a wicking well is very similar to a traditional groundwater well. But instead of pumping water out of the ground, the wicking well directs water deep into the ground. The proposed project will involve the installation of three of wicking wells, each approximately 80 to 90 feet deep.

Once the new wells and associated drainage conveyance systems are installed, DPW would place the final top course of asphalt.



PROPOSED WICK WELL LOCUS PLAN

TOWN OF PLYMOUTH

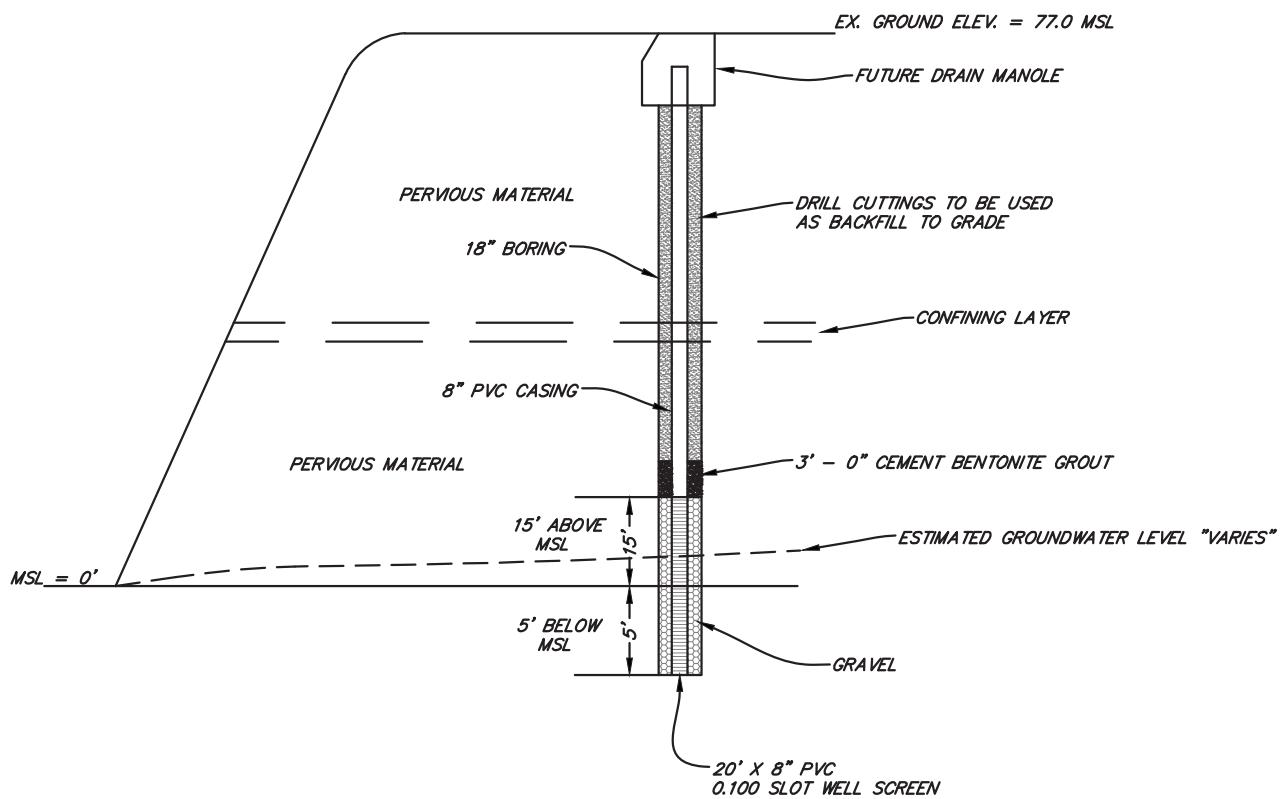
DEPARTMENT OF PUBLIC WORKS - ENGINEERING DIVISION

DATE: SEPTEMBER 14, 2025

NOT TO SCALE

SHEET 1 OF 4

**PROPOSED WICK WELL #1
LOCATED AT THE INTERSECTION OF
MANOMET AVENUE & BREWSTER AVENUE**



**PROPOSED WICK WELL #1
LOCATION PLAN**

TOWN OF PLYMOUTH

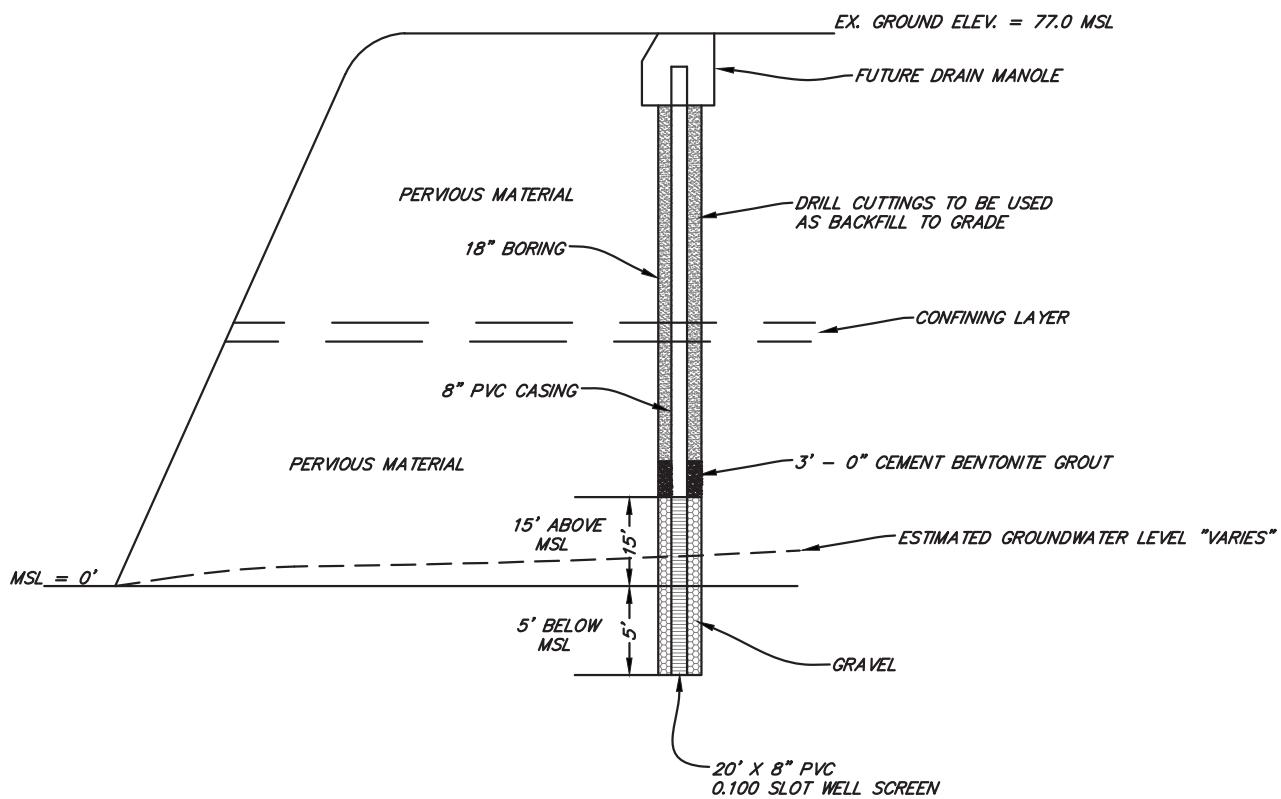
DEPARTMENT OF PUBLIC WORKS - ENGINEERING DIVISION

DATE: SEPTEMBER 14, 2025

NOT TO SCALE

SHEET 2 OF 4

**PROPOSED WICK WELL #2
LOCATED AT THE INTERSECTION OF
MANOMET AVENUE & BRADFORD AVENUE**



**PROPOSED WICK WELL #2
LOCATION PLAN**

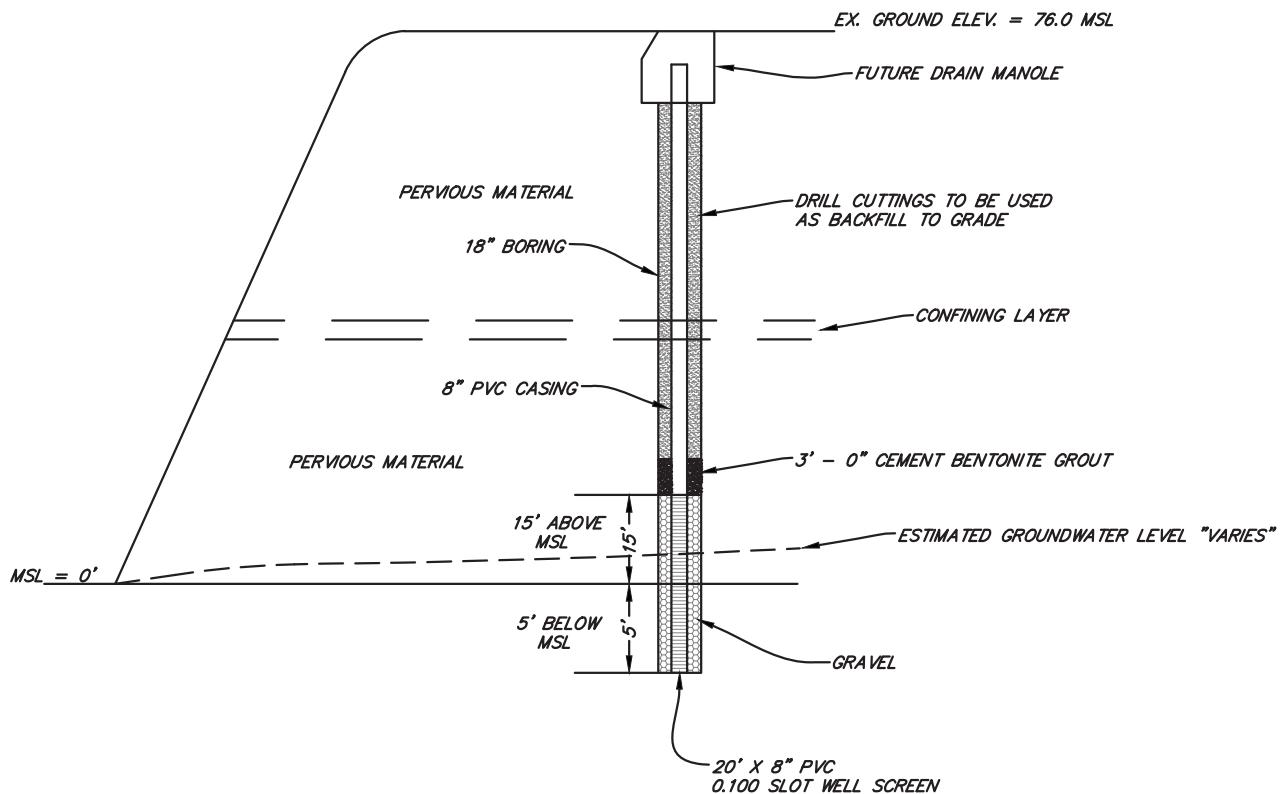
TOWN OF PLYMOUTH

**DEPARTMENT OF PUBLIC WORKS - ENGINEERING DIVISION
DATE: SEPTEMBER 14, 2025**

NOT TO SCALE

SHEET 3 OF 4

*PROPOSED WICK WELL #3
LOCATED AT #91 MANOMET AVENUE*



PROPOSED WICK WELL #3 LOCATION PLAN

TOWN OF PLYMOUTH

DEPARTMENT OF PUBLIC WORKS - ENGINEERING DIVISION

DATE: SEPTEMBER 14, 2025

NOT TO SCALE

SHEET 4 OF 4

COST ESTIMATE WICK WELL INSTALLATION AND ASSOCIATED WORK		SEPTEMBER 2025									
ITEM #	DESCRIPTION	EST. QUANTITY	UNIT	UNIT COST	COST	POLICE DETAIL	(20%)	POLICE DETAIL	(15%)	CONTINGENCY	TOTAL EST. COST
1	DOUBLE CATCH BASIN 5' DIA.	6	EACH	\$5,300.00	\$31,800.00						
2	CATCH BASIN 4' DIA.	4	EACH	\$5,000.00	\$20,000.00						
3	4' DIA DRAIN MANHOLE W/ SUMP	4	EACH	\$4,800.00	\$19,200.00						
4	12" HDPE PIPE	300	L.F.	\$60.00	\$18,000.00						
5	6" DIA DRAIN MANHOLE	3	EACH	\$10,000.00	\$30,000.00						
6	RECLAIMED ASPHALT BASE - DRAINAGE INSTALL	300	TON	\$30.00	\$9,000.00						
7	ASPHALT FOR TRENCH PATCHES	120	TON	\$245.00	\$29,400.00						
8	CRUSHED STONE - PIPE BEDDING	75	TON	\$35.00	\$2,625.00						
9	SAWCUTTING	200	L.F.	\$5.00	\$1,000.00						
10	12" SILT SOCK	200	L.F.	\$10.00	\$2,000.00						
11	SILT SACK	10	EACH	\$75.00	\$750.00						
12	LOAM	60	CY	\$50.00	\$3,000.00						
13	CLEAN FILL	150	CY	\$25.00	\$3,750.00						
14	UNCLASSIFIED EXCAVATION	150	C.Y.	\$21.00	\$3,150.00						
15	HYDRO SEEDING	500	S.Y.	\$6.00	\$3,000.00						
16	WATER GATE ADJUST	3	EACH	\$200.00	\$600.00						
17	WELL CAPS	3	EACH	\$1,200.00	\$3,600.00						
18	WELL CLEANING	1	LS	\$28,000.00	\$28,000.00						
19	TEST BORINGS	1	LS	\$25,000.00	\$25,000.00						
20	WICK WELLS	3	EACH	\$65,000.00	\$195,000.00						
				Total	\$428,875.00	\$88,575.00	\$77,197.50		\$591,847.50		

TOTAL ESTIMATE: \$ 595,000.00

WELL SERVICING INVOICE



LBR GEOTHERMAL SERVICES LLC
d/b/a DRAGIN Geothermal Services
134 NH Route 25, Meredith, NH 03253
Phone 603/279-5080, Fax 603/279-0436



CLIENT:	Town Of Plymouth DPW SKashi@townhall.plymouth.ma.us	INVOICE NO.:	18MTP0818
BILLING ADDRESS:	Town Offices, 11 Lincoln St Plymouth, MA 02360	P.O. NO.:	
PHONE/FAX NOS.:	508/830-4082	DATE OF INVOICE:	8/18/2018
WELL LOCATION:	Wick Drain Cleaning, Plymouth	DATE OF WORK:	8/13-17/18

	Total Units	Price Per Unit	Total Price
WICK WELL INSTALLATION			
Furnish and Install Three (3) Wick Drains on Manomet Avenue Per Bid 1 21817 Specifications	1	lump sum	\$119,000.00

INVOICE TOTAL	119,000.00
LESS DEPOSIT	\$0.00
TOTAL DUE	\$119,000.00

NOTES

Three wells were installed to 95 feet in accordance with specifications.

TERMS

Payment terms are Net Due Upon Receipt.

Thank you. We appreciate your business!

April 21, 2025

Richard Bosse, P.E.
 Plymouth DPW
 Engineering Division
 26 Court Street, Town Hall
 Plymouth, MA 02360

Re: Manomet Ave Test Boring Drilling

Attn: Mr. Bosse

Below is our quote to provide field services required for the drilling and sampling of three test borings for the Manomet Ave project.

Scope of Services

- Mobilization of Test Boring Rig.
- Drill and sample three 100-foot test borings with split-spoon soil samples collected at 5-ft intervals starting at 30 feet.
- Cuttings will be stockpiled onsite for removal by others.
- Prepare and provide borehole logs.

- Pricing is based on work being performed under Prevailing Wage Rates Report No. 20230518-002

Fee

<u>DESCRIPTION</u>	<u>ESTIMATE</u>	<u>UNIT</u>	<u>UNIT COST</u>	<u>EXTENSION</u>
Mobilization	1	/lump sum	\$1,250.00	\$1,250.00
Test Boring Drilling & Sampling	4	/day	\$4,350.00	\$17,400.00
Project Management/Oversight	36	/hour	\$145.00	\$5,220.00
Per Diem	4	/day	\$250.00	\$1,000.00
			Estimated Total	\$24,870.00

Terms

- Due to the use of heavy equipment, the W&S field crew will consist of two (2) men for all on-site activities.
- No additional out-of-scope work will be completed without prior written approval from Town of Plymouth
- Pricing is valid for 45-days and excludes payment of taxes. Payment terms are net 30-days.
- Pricing is based on Prevailing Wage Rates as provided in report no. 20230518-002.
- Field work will be scheduled only upon return of a signed copy of both this proposal and the attached Terms & Conditions.
- If this work is tax exempt, please provide a Tax Exempt Certificate along with the signed proposal for our records.

We trust that you will find this quote complete, however, if you have any questions or require additional information please contact me at 603/279-5080 or via email at quagliaroli.carrie@wseinc.com.

Thank you for the opportunity to provide this quotation.

Weston & Sampson CMR, Inc.

Scope, Pricing and Terms & Conditions Accepted by:

Carrie Quagliaroli
 Assistant General Manager

_____ signature _____ printed name

Date: _____ P.O. #: _____

Total Amount Approved: \$ _____

Tax ID No: 20-5684540

INVOICE

PLEASE MAKE CHECKS PAYABLE TO:

Weston & Sampson CMR, Inc.



55 Walkers Brook Drive, Suite 100, Reading MA 01867
westonandsampson.com Tel: 978.532.1900

October 4, 2024

Project No: CMR24-0640
Invoice No: 674015

RICHARD BOSSE
CIVIL ENGINEER
PLYMOUTH MA, TOWN OF
26 Court Street
Plymouth, MA 02360

Project CMR24-0640 PLYMOUTH, MA - WICK WELL CLEANING - DRAGIN

Professional Services through September 27, 2024

Phase	100	100 - LABORER
Task	1	ST
Fee		

Description	Contract % Work Amount	Amount To Date	Previously Billed To Date	This Inv. Billed
WICK WELL CLEANING	9,925.00	100.00	9,925.00	0.00
Total Fee	9,925.00		9,925.00	0.00
		Total Fee		9,925.00
			Total this Task	\$9,925.00
			Total this Phase	\$9,925.00
			TOTAL THIS INVOICE	\$9,925.00



55 Walkers Brook Drive, Suite 100, Reading, MA 01867

tel: 978-532-1900

www.westonandsampson.com

TO:

Date: 10/4/24

Plymouth DPW
Engineering Division
26 Court Street, Town Hall
Plymouth, MA 02360
Atten: Richard Bosse, P.E.
rbose@plymouth-ma.gov

W&S Job Numbers CMR24-0640

Customer PO Number signed proposal
Weston & Sampson CMR, Inc.
Invoice Number 674015
Job Name Wick Well Cleaning
Dates of Work 9/11-12/24

INVOICE SUMMARY

**DRAGIN Geothermal
Wick Well Cleaning
Plymouth, MA**

<u>DESCRIPTION</u>	<u>TOTAL UNITS</u>	<u>UNIT</u>	<u>UNIT COST</u>	<u>EXTENSION</u>
Mobilization	1	/lump sum	\$500.00	\$500.00
Rig & Crew to Perform Well Cleaning	3	/well	\$3,000.00	\$9,000.00
Per Diem	1	/night	\$425.00	\$425.00
Replacement Parts	0	/lump sum	cost + 20%	\$0.00
				Invoice Total <u>\$9,925.00</u>