



HARVARD WATER - SEWER COMMISSION

MINUTES

Wednesday, January 15, 2020
Harvard Town Hall

Cindy Russo, Chair

Kyle Hedrick

Richard Maiore

Present

Cindy Russo, Chair; Kyle Hedrick, Commissioner; Rick Maiore, Commissioner; Tim Bragan, Town Administrator; Tim Kilhart, DPW Director.

1. The meeting was called to order by Ms. Russo at 9 a.m.
2. There was no Public Comment.
3. The Minutes of December 4, 2019 were approved as corrected.
4. Tim Kilhart reported that water testing results in January have been absent for coliform. This is good news.
5. Tighe and Bond meeting minutes were reviewed (attached). The proposal from Tighe and Bond is for system design only. Tim Kilhart hopes to have cost estimates and scope of work to the Commission by March. Tighe and Bond will consider if chlorination would result in additional treatment might be needed and whether the required equipment will fit into the existing vault.
6. The application from Scott Hayward to connect his house to the town center sewer was considered. The original septic approval for the property was for a 4 bedroom house and a doctor's office. The application is for a total of six bedrooms. The existing approved Title 5 system is sufficient for the use so no growth neutrality issue is raised by this application. On motion made and seconded, the Commission voted unanimously to approve the connection permit.
7. The School has refiled its application for the public bathrooms but did not address the growth neutrality provision as discussed in our meeting. Tim Bragan will write a letter on behalf of the Commission stating that the addition of two public bathrooms is a change of use which needs to be reflected in the application. Tim will also get information from Ira regarding the Title 5 flow rate for a public bathroom.
8. Tim Bragan will inquire of Tighe and Bond to make sure an external grease trap is being required for elementary school.

9. Tim Bragan addressed the problem of infiltration into the septic system. Although there has only been a slight increase in water use, septic flow increased to 23,000 gallons, on two recent occasions. Each event occurred with a significant rainfall. The operator suspects that someone has connected a sump pump either to a sink or directly into the line. We will monitor usage with the plant operator.

A letter will be sent to all homeowners regarding the prohibition on sump pumps plus a copy of the rules. Additionally, any new user of the system will be sent a copy of our rules.

10. There are two accounts with significant outstanding water bills. The Sullivans refused to accept the certified letter. Hillside Garage hasn't paid. Tim will have the constable deliver the letter and we will address possible shut-offs at the next meeting.

Meeting adjourned 9:52.

Pond Road Wells Chlorination System Kick-off Meeting Minutes

To: Tim Kilhart, Town of Harvard Ron Gilbert, Town of Harvard

ATTENDEES: Tim Kilhart, Town of Harvard Ron Gilbert, Town of Harvard
Tom Mahanna, Tighe & Bond April Locke, Tighe & Bond
Dan Roop, Tighe & Bond

FROM: Dan Roop, Tighe & Bond

DATE: December 31, 2019

On December 23, 2019, a project kickoff meeting was held at the Harvard Department of Public Works, 47 Depot Road, Harvard, at 9:00 am to discuss the Pond Road Wells Chlorination System Project. The following are discussion items from this meeting.

1. Introductions/Project Contacts
 - a. Town of Harvard
 - i. Primary Contact: Tim Kilhart, DPW Director
 - ii. Foreman/Operator: Ron Gilbert, Water Department
 - b. Tighe & Bond:
 - i. Project Director: Tom Mahanna
 - ii. Project Manager: Dan Roop
 - iii. Staff Engineer: April Locke
2. Review Project Scope
 - a. Chlorination System Design (Phase 1)
 - i. Tighe & Bond will prepare a design of a new chlorination system suitable for continuous chlorination of the Pond Road wells.
 - ii. The proposed chlorination system will be installed within the existing vault. Tighe & Bond will evaluate the space requirements for a water softening system to determine whether this equipment can also be installed within the vault.
 - iii. Town has authorized Tighe & Bond to complete only the design and permitting of the chlorination system at this time.
 - b. Survey (Phase 1)
 - i. Town's preference is for survey work to be completed by David E. Ross Associates. Tighe & Bond will contract with Ross to complete the field survey.
 - ii. Tighe & Bond will notify Town with Ross' confirmed field dates.
 - c. Chlorination System Permitting Services (Phase 2 – Not Yet Authorized)
 - i. Tighe & Bond will prepare the BRP WS-34 Water Treatment: Chemical Addition Retrofits of Water systems permit application for submission to MassDEP for review and approval.

- ii. Tighe & Bond will prepare the MassDEP Sodium Hypochlorite chemical feed checklist that will be required as part of the BRP WS-34 submission for continuous addition of chlorine.
- d. Underground Injection Control (UIC) Permitting Services (Phase II – Not yet Authorized)
 - i. Tighe & Bond will prepare the UIC permit application and registration for MassDEP to review.
- e. Bidding Services (Phase 2 – Not Yet Authorized)
 - i. Tighe & Bond will assist the Town with the advertisement and public bidding of the project. Our bidding services will include the following:
 - 1. Bid documents will be made available for distribution online through Tighe & Bond's website for the electronic distribution of bidding documents.
 - 2. Advertise the project in the Central Register.
 - 3. Prepare advertisement for bids for placement in local newspaper. The Town will place advertisement and pay advertising costs.
 - 4. Respond to questions and requests for information comments during the bidding period and issue addenda as may be deemed necessary.
 - 5. Attend bid opening to be held at Town offices.
 - 6. Prepare a tabulation of bids received, review bid packages, check contractor references, and provide the Town with a letter recommending award to the lowest qualified bidder.
 - 7. Prepare Notice of Award and distribute to selected Contractor.
 - 8. Review required insurance certificates and performance bonds and assemble five (5) copies of construction contracts to be executed by all parties.
- f. Construction Administration Services (Phase 2 – Not Yet Authorized)
 - i. Tighe & Bond will provide the following services during construction:
 - 1. Pre-Construction Meeting – Prepare an agenda and attend a pre-construction meeting with the Town and the Contractor. A meeting summary will be prepared and will be distributed electronically to all attendees.
 - 2. Shop Drawing Review – Review materials and equipment submittals and provide comments on compliance with design specifications. We have included ten (10) submittal reviews.
 - 3. Requests for Information – Review and respond to Contractor requests for information.
 - 4. Payment Requests – Review and prepare recommendations for payment to the Contractor based on the progress of work. We have included three (3) payment requests.
 - 5. Construction Progress Meeting – Prepare an agenda and attend one interim progress meeting with the Town and the Contractor. A meeting summary will be prepared and will be distributed electronically to all attendees.

6. Periodic Observation – Tighe & Bond will conduct up to four (4) periodic inspections to observe general progress of the work and conformance with the contract documents.
3. Town Preferences
 - a. The Town's preferred the chlorination treatment system is the Accu-Tab System. It is intended for the chlorination system to be operated full-time.
 - b. The Town prefers a reagent free chlorine analyzer.
 - c. Tighe & Bond will evaluate alternatives for a water softening system, which may be needed for iron and manganese mitigation. Brine waste management siting will be included in the evaluation. We will provide the Town with an estimated budget for this equipment.
 4. Project Schedule
 - a. Tighe & Bond will target a March 2020 completion of the design and permit applications. This is dependent on completing the field survey this winter.
 5. Questions / Open Conversation
 - a. Temporary Chlorination
 - i. A discussion regarding how the Town has chlorinated the drinking water in the past was conducted. Ten years ago, MassDEP requested that the Town add a sodium hypochlorite system to the vault. The Town has never used this chlorination system.
 - b. Water System Discussion
 - i. The only complaints the Town receives are during hydrant flushing, otherwise the Town does not receive complaints about the water quality.
 - ii. The Town wells were recently tested by MassDEP for PFAS, and the results came back as nondetectable.
 - iii. The last water tank inspection was two years ago. Six inches of silt had accumulated and was removed.
 - iv. The existing finish water main on Pond Road is a new 4-inch ductile iron water main from the vault to the hydrant, 8-inch water main after the hydrant, and then 12-inch water main on Mass Ave. There is a 1.5" water main to the bathhouse from the vault. There are two homes before the hydrant near the well. One of the homes is abandoned and its water service has been turned off.
 - v. The Town will be installing a Grid-Bee mixing unit in the storage tank under a separate contract. The schedule for this work is September 2020.
 - vi. The Town would like the SCADA system to provide information on the chlorine levels as read by the proposed chlorine analyzer.
 6. Site Visit
 - a. Tighe & Bond accompanied the Town on a visit to the well site on Pond Road. Tighe & Bond walked the site surrounding the vault, and along Pond Road to the homes that are serviced by the wells.

- b. Tighe & Bond took several photos and measurements of the vault interior. Measurements of the vault exterior were also taken to develop existing conditions plans.

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