

BOARD OF HEALTH MINUTES
TOWN BUILDING- 41 COCHITUATE ROAD
BOARD OF HEALTH OFFICE
FEBRUARY 13, 2017

The meeting was called to order at 7:05 p.m., present were Thomas Klem (TK) chair, Michael Wegerbauer (MW) and John G. Schuler, M. D. (JS) . Also present were Julia Junghanns (JJ) Director of Public Health and Patti White Department Assistant

7:05 p.m. Public Comment

7:05 p.m. **Update and discussion regarding High School Wastewater Treatment Facility (WWTP) repair**

Ben Keefe, (BK) Public Buildings Director- In early December the operators of the WWTP noticed high pressures across the first set of membranes. After an investigation, it was discovered that the newly replaced (in Nov.) ultra-filtration membranes were plugged. There was sludge in the 3rd tank before the first membrane (1. pre anoxic, 2. aeration and 3. post anoxic) these tanks are above ground with a circulation feature; the sludge got into the new membranes when the system was started up. They have an above ground tanks with an external pump to do the mixing (no mixer). They tried to flush and clean the membranes, unfortunately those methods were not effective and there were high readings again in 3 days. It is possible that these newly replaced membranes may need to be replaced again. The operations company is presently working with vendor for preventive maintenance procedure to prevent the sludge buildup, going forward. The ultra-filtration unit could not be repaired in place, so it was packed and returned to the manufacturer (bioprocess H2O in Rhode Island) for assessment/repair or replacement, it is hoped the repair will be successful, if not they will have to be replaced. In the meantime, the waste from the high school is being collected, stored and transported offsite/tanks are being pumped regularly.

JS: Is there a history of this above ground system being used anywhere before? Is there an issue with the design? A flaw would be the manufacturer's responsibility. BK: the manufacturer said the expected life span of the membrane would be 6 to 8 yrs., the system is only 4 years old. BK: I believe there was product (floor stripper and floor wax) that got put into the system in the past few years that caused the system to be clogged the first time. The second time (short number of days after repair) that the system went off, they are not sure why there was a problem, however, the tank that had sludge in it (the post anoxic tank) could have gotten into the system and plugged the membranes. Usually that tank is not pumped, but they plan to have it pumped going forward once it is determined how often it should be pumped. JS: as a tax payer, I feel we need to know why the system has failed and who is responsible to pay for the repairs and is there a manufacturer warrantee. BK: we think there should be a regular maintenance to clean out the sludge in the 3rd tank. JS: can you pull the information regarding the system that was approved, to be reviewed.

JS: What are the fees and expected fees to date? BK: The membranes 20K per set, the treatment tanks are being pumped every other day, the cost for the month of January was approximately 14K, February is expected to be about the same cost. BK: It is hoped the repaired/replaced parts will be installed in about 2 weeks. JS: It sounds like the total could be somewhere in the vicinity of \$75K? Will the Town be responsible to pay all this money? Can you look at the plans for original manufacturer's warranty? MW: have Ben check with Town counsel to see if there is any manufacturer's responsibility for cost.

JJ: Are there any access issue? BK: To do any repair, they have to take off the roof of the building that houses the Wastewater treatment equipment to remove and repair. JS: Why was this constructed/installed above ground and not in the ground? JJ: it is a good question; this was how the system was designed by the engineer. We can look at the original plans, however, I am not an expert with Wastewater treatment facility design. We had a peer review done on this design by a consultant. MW: it might be the water table issue? TK: yes, get town counsel to review contract and see if there is any relief?

BK: I was planning to look into that, but my present concern is getting the work done and get the system up and running. We have an O & M Company that runs the treatment plant. BK: The floor stripper emulsifies the wax and should not have been put down the drain (each summer) last summer we rented 55 gal drums and disposed of it properly, we are not certain of the prior 2-3 years. JS: please come back and update the Board regarding the repair of the system and final resolution.

7:20 p.m. **3 Riverview Circle- Septic system variance for new construction on an undersized lot in a Zone II and construction of a new dwelling; due to demolition of a residential dwelling without approval Professional engineer Bob Drake, Builder Nash Quadir**

Nash Quadir is here because the demolition of the house triggered new construction requirements (we did not approve a full demo). A stop order on the construction of the new house was placed, until this can be resolved. Owner Surit Prakash- This project included an addition of a second floor, there were structural issues with the house. Was the structural report completed at the time of the sale of the house? NQ- yes TK: this approved as an addition of under 60% JJ: we approved a renovation in July see sheet A-3 for the existing house showing the addition of under 60% (not full demo). MW: Existing house was how many bedrooms? JJ: the existing house was 2 bedrooms and new septic system and the house will remain at 2 bedrooms. The previous owner designed and installed a septic system for a 2 bedroom repair. Now that there will be a full new house, the septic system is undersized (repair vs new construction design criteria), and there is no reserve area. BD: The septic system has been installed and it was a replacement system for 2 bedrooms. Under Wayland new construction requirements the leach field needs to be 600 sq.ft., and this existing system is undersized. They are proposing to extend the system to add additional square footage to meet the 600 sq. ft.. As this property is located in a septic zone II and the lot does not have the required 20K sq.ft. of land area, they will be adding a Nitrogen Reduction Fast system (general use) and will also designate a reserve area. Mr. Drake previously worked on the project for the seller and the buyer wanted to add garage, a reserve area was located. A 40 mill barrier will be added to one area for breakout. BD: the nitrogen reduction is added to enhance the system to meet Wayland new construction requirements on an undersized lot (not 20K). This is an active I&A system and an O & M contract will be required. BD: I believe the O & M requirements for the Fast System start off as quarterly inspections for the first year and then annual after that. JS: what do they maintain? BD: there is an insert in the tank with a blower unit that introduces air venting in the system. JS: is this house being sold? SP: yes: JJ: there will be a document attached to the deed to notify future owners of the need for ongoing maintenance.

There will be and O & M account and a maintenance agreement. BD: there is language on the plan requiring the documents and there will be a deed restriction for 2 bedrooms filed at the Registry of Deeds. TK: now that the house is being rebuilt, with the fast I/A system why it is before the board? MW: We look at this as a new construction project on an undersized lot in a Zone II, they had presented their project as a repair not as new construction. JS: Did you not know that you were not able to demolish the entire house without our approval? NQ: The condition of the foundation was bad (photos were presented of the foundation), being the early part of January, . . . The building department required that the floors support to be replaced, we were to keep the exterior walls intact and replace the floors, when that was being done, the walls collapsed. MW: what collapsed? NQ: The exterior walls were not supported, when the exterior walls coverings were removed there was nothing to hold it and it collapsed. After it collapsed, I started to rebuild in order to protect the foundation. JS: well it is not in good shape. MW: JJ what are your thoughts? JJ: I think the incorporation of Fast System to reduce nitrogen, would be most helpful.

BD: I have discussed this situation with JJ and Darren MacCaughey (Health Agent) and rather than request the variance from 20k lot, we are asking for a variance for local repair and expansion of a 2 bedroom with nitrogen reduction. Not for DEP variance but local for new construction. Due to the collapse, it is now greater than 60% expansion project. BD: A substantial amount of houses that were constructed in Wayland were not built as year round houses and now they need to be torn down, but there will be restrictions. Zone II is a more environmental sensitive area, this project is located downstream from the nearest well. Allow a substantial repair of the house in a zone II. JS: Staff understands that these houses need to be demolished and rebuilt, as

long as the septic system is replaced. MW: yes, but this house will be larger. I see the issue with the undersized lot. We need to know that this needs to be monitored and maintained. NQ: the o & M contract, they come out yearly and inspect. They require the annual fee 30 days before expiration. JJ: we do receive notification from the maintenance co. that the contract has expired and we then have to contract the owner to get them to get the contract renewed. Often there is a new owner and we have to educate them about the system and that the contract is required.

Jj: 2br required 600 sq. ft. of leaching now the repair system is 480 sq. ft. without a reserve area. This is the difference between new construction and a repair. MW: what is the maintenance fee? After first year about 250 per year. MW? Escrow? JS: \$1000 escrow account. BD: the top of the tank will be removed, the fast system will be installed into the tank and the system is designed to be retrofitted.

MW; Motion to approve the variance request, for 3 Riverview circle per the septic plans dated Jan 30 , 2017, with extension of the leaching area to total of 600 sq. ft. fast system, 2-300 sq. ft. reserve areas and \$1000.00 escrow account to be established with the BOH by owner, subject to final approval by staff. Second TK: vote 3-0 all in favor.

8:20 p.m. 188 Commonwealth Road- Royal Wayland Nursing Home- update on use of " Soil Air" innovative and Alternative Technology to rejuvenate a septic system leaching field, Engineer Timothy Santos of Holmes and McGrath

JJ: I have an update on the project, we just received plans today. They designed the aeration system that will be installed to provide additional treatment for the existing system. We have seen the contract for the pumping of the system. The Sanitarian did a detailed review of the soil air system and they have responded to his questions regarding the need of a pressure distribution system for the leaching area. The manufacturing Co says it is ok, however, we need approval from the State and we are awaiting information from the State. Does the Board want a presentation of the plans? They are hoping to move quickly once state approval is received. The November deadline was extended by the BoH to April 28, 2017 for the repair of the failing septic system. We know it is being pumped and it is being switched over from one field to another, which was not occurring before. This is making a big difference in how the leaching areas are performing and taking flows. JJ:I prefer the repair to be done as soon as possible . TK: due to the history of their non-compliance and issues, we should have them come and present to the board. JJ: I will let the engineer know to prepare for our next meeting.

8:30 p.m. Discuss moving \$4000.00 from BoH fy17 non salary budget to be consistent with the FY18 transfer

JJ reviewed the history of the FY18 transfer of \$4,000 and the reason for the money being transferred. Some of the money is being used to pay for administrative coverage in the office during administrative assistant paid time off (sick time or vacation time) we had been asked to move the money into salary. MW: how is this to be earmarked? We had calculated this out, with an estimated salary based on admin time off expected during the course of the year. This is the money approved in our budget (both for FY18 and FY17) and was added to Contractual services in the amount of \$8,000.00. \$4,000 of this money to be transferred to the BOH salary line item.

TK: motion to move \$4k from BOH fy17 non salary operating budget (Contractual Services)to the BOH salary line item for coverage situations such as sick leave or vacations and leave remaining \$4k in Contractual Services Second MW. Vote 3-0 all in favor.

8:20 pm. General Business

The bills have been paid

Minutes of January 30, 2017

MW: motion to approve minutes of January 30, 2017 as presented. second TK: vote 3-0 all in favor.

Meeting date- March 6- send out notes and confirm.

TK: motion adjourn second MW. vote 3-0 all in favor

Respectfully submitted
Patti White
Department Assistant
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APPROVED 032017