

**SEWAGE, WASTEWATER, AND SANITATION HEARING BOARD
MEETING MINUTES**

Members

Ronald J. Anderson, P.E., Chair
Matthew Buehler
Vonnie Fundin
Nick Vestbie, P.E.
Matt Smith – Alternate
Ray Pezonella, P.E - Alternate

Monday, May 7, 2018

6:00 p.m.

**Washoe County Administration Complex
Health District South Conference Room
1001 East Ninth Street
Reno, NV**

6:00 p.m.

1. *Roll Call and Determination of Quorum

Chair Anderson called the meeting to order at 6:04 p.m.
The following members and staff were present:

Members present: Ronald J. Anderson, P.E., Chair
Matthew Buehler
Vonnie Fundin
Nick Vestbie, P.E.

Members absent: Matt Smith - Alternate
Ray Pezonella, P.E - Alternate

Ms. Rogers verified a quorum was present.

2. *Pledge of Allegiance

Those present pledged allegiance to the flag.

3. *Public Comment

Chair Anderson thanked the newly appointed members of the Sewage, Wastewater and Sanitation (SWS) Board for offering to serve the community and welcomed those present at the meeting.

Chair Anderson requested a letter of thanks be sent to the two previous SWS Board Members for their service to the community. Mr. English agreed to do so.

Chair Anderson closed the public comment period.

4. Approval of Agenda

May 7, 2018

Mr. Buehler moved to accept the agenda for the May 7, 2018, Sewage, Wastewater and Sanitation Hearing Board meeting. Mr. Vestbie seconded the motion which was approved four in favor and none against.

5. Approval of Draft Minutes

June 5, 2017

Mr. Buehler moved to accept the minutes of the June 5, 2017 Sewage, Wastewater, & Sanitation Board meeting as written. Mr. Fundin seconded the motion which was approved four in favor and none against.

6. Public Hearing to determine whether or not to recommend approval to the District Board of Health for a variance for APN 017-123-05 owned by Mike Fritz for Section 040.080 and Table 2 "Watercourses" including Sub-Script (4) of the Regulations of the Washoe County District Board of Health Governing Sewage, Wastewater, and Sanitation.

Staff Representative: James English

Mr. Mike Fritz
15425 Pinion Drive
Reno, NV 89521
Assessor's Parcel Number 017-123-05

Chair Anderson opened the Public Hearing.

Mr. English stated that they were present regarding a variance application for Mr. Mike Fritz at 15425 Pinion Dr., explaining the variance is requested due to set-back issues on the parcel. He informed that Bailey Creek runs through the property and is the source of the set-back issues, specifically that the only suitable location for the septic system would potentially require a creek crossing. Also, he informed that Environmental Health Services (EHS) has always considered the one hundred foot set-back to be measured from the break in the bank of a watercourse when it is a named water source.

Mr. English informed that the applicant worked with an engineer to develop what they believe to be the best design possible to allow both a septic system and future repair field on the lot. He stated that the plan was included in their packets.

Mr. English informed that an EHS team had gone through the regulations to prepare a list of questions that the Board would need to address concerning this variance request, and that the team had answers prepared for those questions.

Mr. English stated that a test trench had been dug on the property and no ground water was present at a depth of thirteen feet which would allow for standard trenches if set-backs could easily be met. He informed EHS recommended the option of an engineered system or sand filter bed to be more protective of ground water.

Mr. English stated that the application was presented with plans for an at-grade sand filter bed which allows for an additional five feet more of protection between the system and ground water.

Mr. English stated that EHS staff believes that this is the most conservative and protective design for public health for the parcel, with the only possible issue in staff's opinion being the location of the sewer line crossing Bailey Creek and the potential for water contamination should the line fail in a flood situation.

Mr. English informed that EHS staff sees no other reasonable alternatives to this plan, other than to make this a raised filter bed, but noted that ground water is not the issue on this lot.

Information on the flood zone at the site was discussed.

Mr. Carnes informed that in their site visits they had not seen evidence of overbanking, and that photos of last year's flood event showed the creek to be running no more than a foot above normal flow.

Mr. Carnes stated there were two options on the plan, informing their original option would be to have the line encased in concrete.

Mr. Carnes informed that the creek bottom had not been eroded much by this last storm event and opined there isn't a risk with the concrete encased or sleeved design, noting the reinforcement would extend twenty-five feet past the bank line.

Mr. Vestbie asked if the conduit would be supported all the way across or in the middle. Mr. Carnes confirmed that it would.

Mr. Carnes informed that the flow grinder will be sized by the owner's mechanical designer and noted that it had not been purchased yet. He stated that the pressure line will be designed to drain back to the grinder pump and the size of the effluent grinder line will be based on the head loss for the unit he purchases. He informed that he would work with the owner and the mechanical designer on those decisions.

Chair Anderson opined that the design looked good, but needed clarification on the crossing detail and stated that a profile view of that section would have helped. He opined that there should be electrical conduit going across the creek in the same trench with the ejector line and have also it encased in concrete.

Mr. Carnes informed his design concept had the electrical in a sleeve encased in concrete in the event the electrical line had to be pulled in case of failure, and the sleeve with a protrusion plug at either end. He opined this design would have the safety of concrete encasement in a combined trench, but allow electrical repair if needed.

Mr. Buehler inquired if this design has been used before and how well do they work. Mr. Carnes stated that he had installed this design before and that others have as well, and he knows of no problems with them. Mr. Carnes stated that they do require annual maintenance which is included in the packet when the unit is purchased, and that this information will be covered with the owners.

Mr. Buehler inquired how the owner would know if the sewer line is compromised if it is encased in concrete, and would the concrete encasement hold the pressure of the line.

Mr. Carnes confirmed with Mr. Buehler that his inquiry was concerning the ejector line from the flow grinder to the septic line, and if it were to break, would there be an alarm to notify the owner. Mr. Carnes stated that the encasement would handle the pressure, and the encasement would be self-supported preventing movement of the line.

Mr. Fundin stated the system would be low pressure and Mr. Carnes agreed, and informed that it would be encased in HDPE pipe. He indicated that he would research if any sort of alarm is available for this application. Mr. Carnes informed that he had never seen a system fail of this design.

Mr. Carnes reiterated that the mechanical designer is directly involved in the specs for the ejector line so it functions with their unit with a high factor of safety, and informed that they have used this design in sensitive areas such as Lake Tahoe with the effluent station being installed on the beach and explained those projects.

Chair Anderson informed that this design is common practice.

Mr. Carnes informed that he has used Liberty pumps in similar designs and was impressed with their support and warranties.

Mr. Vestbie opined there would have to be some sort of strain criteria because of insufficient pressure, and that it could require a strain gauge. Mr. Carnes stated that he would research this request.

Mr. Buehler requested Mr. Carnes to detail the type of maintenance required on this system. Mr. Carnes informed that there would be an annual impedance check on the pumps and to assure the pit is cleaning itself, as well as the property owner will also perform a

simple telemetry check. Mr. Carnes informed that there is a warranty period and recommended replacement of the pumps, and informed that the new pumps have a relatively long life due to improved seal assemblies which preserves the bearings.

Mr. Buehler inquired if the life span on the pumps would be decades and Mr. Carnes confirmed that to be correct, stating that the key element to the pump lasting is for the head loss of the effluent line to be designed for the pumps to avoid strain on the pumps. He informed that they suggested a duplex pump as opposed to a singular and that will be what is purchased for the system.

The appropriate size of the tank in relation to the size of the dwelling was discussed. Mr. Vestbie stated that the design should be for a 1,500 gallon septic tank. Mr. Carnes directed attention to the portion of the plans that shows a 1,500 gallon tank is the size calculated in the plans.

Mr. Vestbie stated there has to be an individual tank for each structure on the plans. Mr. Kelley informed that the secondary structure is not intended to be a dwelling, but a structure with potentially one room and informed that their regulations allow for that system to be tied into the septic system providing the total number of bedrooms does not exceed six. Mr. Kelley explained that Planning designates whether it will be a structure or a dwelling according to their guidelines, and explained the parameters to the Board.

Mr. Vestbie inquired if the separate structure would require a new application and permit before it is built. Mr. Kelley confirmed that was correct, and informed that he had suggested the owner have it designed with the additional structure on the plan to assure it is done correctly. It was confirmed that the plans included the calculation for the number of bedrooms shown on the plan.

Chair Anderson inquired if Mr. Carnes had a contract for doing the inspection and testing of this system. Mr. Carnes confirmed that he would inspect the system that is included in the plans.

Mr. Carnes informed that they will be taking accurate field measurements to confirm correct placement of tanks in respect to the field and their orientation, grade, etc., to provide the finished bid, excavation, scarification, filter sand, testing of the filter sand, rock, flow test, etc., and that he would be doing these tests himself.

Chair Anderson requested there to be an as-built plan showing the profile as built. Mr. Carnes stated that there will be, and confirmed that Chair Anderson was referring to the ejector line, which was confirmed to be correct. Chair Anderson stated he wanted the as-built plan to show the electrical conduit in with the ejector line.

Chair Anderson requested the opinion of the Board for there to be geogrid fabric over the top of the bed to prevent the structure from scouring out in a flood event. He opined that it would be a nominal additional cost to the project. Mr. Vestbie agreed it to be a good suggestion, and Mr. Carnes agreed to add that to the design.

Chair Anderson informed those were his only design comments.

Mr. Vestbie moved to approve to the District Board of Health for a variance for APN 017-123-05 owned by Mike Fritz for Section 040.080 and Table 2 “Watercourses” including Sub-Script (4) of the Regulations of the Washoe County District Board of Health Governing Sewage, Wastewater, and Sanitation as designed with the following conditions:

- 1. Addition of the geogrid fabric over the filter bed,**
- 2. The electrical line sleeved in conduit, and**
- 3. Show/provide a cross section profile view of creek crossing to WCHD.**

Mr. Fundin seconded the motion which was approved four in favor and none against.

6. *Public Comment

As there was no one wishing to speak, Chair Anderson closed the public comment period.

7. Adjournment

At 6:37 p.m., Chair Anderson adjourned the meeting.

Respectfully submitted,

James English, Environmental Health Specialist Supervisor
Secretary to the Sewage, Wastewater and Sanitation Board

Laura Rogers, Administrative Secretary
Recording Secretary