

Minutes of the Carlisle Board of Health
October 23, 2007
Approved 11/13/07

Present: Board Members Jeffrey Brem (Chairman), Michael Holland, Bill Risso, Chris Deignan; Leslie Cahill; also present: Linda Fantasia (Agent), Rob Frado (TCG), David Ives Carlisle Mosquito

The meeting was called to order at 7:35 p.m. at the town hall.

MINUTES – next meeting

BILLS – It was moved (Risso) and seconded (Cahill) to approve the bills as presented. Motion passed 4-0 (Holland had not arrived).

ADMINISTRATIVE REPORTS

Public Water Supplies – The Board received Notices of Non-Compliance on the water supplies for the Library, Wee Folk and the School. The laboratory for the school and library did not submit the testing results for nitrates and coliform, although they were done and did not exceed the standards. Reports have been submitted to DEP and the public was notified. Wee Folk exceeded the standard for lead and copper and the public has been notified. The Board asked Fantasia to get copies of the Wee Folk results for the next meeting.

Ferns Country Store – Ken Rich, Carlisle Plumbing Inspector, copied the Board on his letter to Larry Bearfield relative to requiring a public restroom. According to the letter, the Board of Health disputed his decision that a restroom was not required. Brem said this was not the case. The Board had not disputed the decision but only asked for clarification. A letter will be sent correcting this point. The Board also received a copy of Bearfield's response to Rich's letter which the Board took under advisement.

84 South Street - Assurance Technology is converting the two apartments damaged by fire into office space. The question before the Board was whether this is a change in use requiring a Title 5 Inspection. Although the existing design flows are multi-use and will actually decrease with the proposed renovation, Frado and Fantasia recommend doing an inspection based on the age of the system (1967, flows added in 1981), its original use for a hospital, and size (7500 GPD). The Board reviewed the septic design which Brem noted as adequate. The system is not pressure dosed, but includes a siphon chamber. Risso asked whether it was pumped regularly. There were no pump outs in the file. The Board agreed that it would like to have the system inspected, but does not want to hold up the building permit. The Board agreed that the applicant could proceed with the renovations. A separate letter will be sent asking that the system be inspected within the next twelve months. It is not a compliance issue.

208 Baldwin Road – replacement of a failed soil absorption system using an Infiltrator chamber leaching area. Brem had given an emergency approval so the system which is having problems could be installed this fall. The design is in full compliance with local and state regulations and does not include any of the optional waivers allowed for the I/A system.

It was moved (Cahill) and seconded (Risso) to ratify the emergency approval of plan entitled "Sewage Disposal System Plan, 208 Baldwin Road, Map 9, Block 57, Lot 2, prepared for Critchlow, designed by Civil Solutions, Inc. dated revised 10/11/07". Motion passed 4:0 (Holland had not arrived).

PH 26 WESTFORD STREET – replacement of a failed soil absorption system.

Present for the hearing was David Schofield, design engineer. Schofield explained that he was late in filing the plan which has not been reviewed. The filing fee and application have not been filed. Abutters' notices were sent out and Schofield will bring in the green cards. He asked that the hearing be continued to the next meeting.

It was moved (Risso) and seconded (Cahill) to continue the public hearing until 11/13/07. Motion passed unanimously 4:0 (Holland had not arrived).

613 SCHOOL STREET – voluntary upgrade of a soil absorption system with an Eljen In-Drain Leaching Field. David Schofield, engineer, was present.

Schofield described the I/A design which allows a 40% reduction in treatment area. A three bedroom SAS was installed in 1988 for the existing house. In 1997 the deteriorated house was razed and replaced with a four bedroom dwelling based on engineering calculations that the SAS had a four bedroom capacity. The SAS is no longer working properly and needs to be replaced. The proposed design is for a four bedroom capacity. The area for the new system is landscaped. Impacts will be minimized with the I/A system. (Holland arrives). The plan calls for abandoning the septic tank and replacing it with a dual compartment 1500 gallon tank. The Board asked about keeping the original tank and adding a second. Schofield feels it is better to add a new tank than try to work with the old one. TCG's review noted a few items that need to be addressed. Schofield agreed to make the changes. Brem asked whether the geo-textile fabric needs to be spelled out for the installer or whether it is part of the I/A package. Schofield said he would check this. Frado prefers having it called out on the plan for the installer. Frado had also questioned the dosing calculations. Schofield had a different interpretation of minimum requirements but agreed to change to the higher dosing. Schofield said he had verified adjacent well locations which are all more than 100'. He will add the geo-textile specifications to the plan. The Board asked whether the system had failed. Schofield thought it had but agreed to check.

To summarize, the Board requires a revised plan addressing the five items noted in the 10/17/07 TCG technical review, a sieve analysis showing that the sand meets the ASTM-33 requirements, specifications for the geo-textile fabric spelled out on the plan and recording of a disclosure statement on the property deed for the I/A system.

It was moved (Cahill) and seconded (Risso) to approve the proposed septic system design for 613 School Street conditional upon satisfying the eight conditions set as described above. Motion passed 5:0

267 EAST RIDING DRIVE – addition. Present for the discussion was Frank Sargent, builder, and Phil Conti, owner.

Sargent submitted a letter of request and photographs dated 10/18/07 of the proposed renovation. An existing family room and deck need to be rebuilt. Currently the room is located on four footings which have settled causing the room to pull away from the house. The footings are approximately 11.5' from the leaching area. Under the current building code, an additional footing would be required to support the family room. Sargent explained that new footings would require the same amount of excavation as a full foundation. The owners would like to add a full foundation to accommodate a workroom below the family room and to help insulate the family room. The deck will also be replaced but constructed on sonotubes to provide access to the septic tank below. Because of the tight work area, the foundation work will be done by hand.

The Board agreed that the proposal was appropriate given the condition of the existing structure as long as the work was done by hand near the system. The Board has authority to waive the setback under local upgrade approval.

It was moved (Cahill) and seconded (Risso) to waive the required 20' offset between the new foundation wall and the leaching area at 267 East Riding Drive, Carlisle MA according to plan presented to the Board on 10/23/07.

ADMINISTRATIVE REPORTS continued

Ethics Commission Training – the monthly staff meeting consisted of a training by the Asst. Commissioner of the State Ethics Commission. There is a form to be filed with the Town Clerk depending on whether a

Board member is disclosing a close personal relationship or a financial interest. Training is available to boards and commissions if there is interest.

I/A APPROVALS – The Board agreed that it does not need to review applications using Infiltrator, Presby or Cultec chambers which have been approved for General Use Approval, as long as they have been reviewed by Frado for technical compliance and do not involve local dispensations.

MRSA (Methicillin Resistant Staphylococcus Aureus) – Cahill referred to two recent news articles on the antibiotic resistant infections. She suggested having the Board’s PH Intern prepare an article for the Mosquito. She suggested researching a recent JAMA article on the subject. Fantasia will check with the school nurse to see how the school is addressing it. It can be a problem among athletes.

MHOA Conference 10/24 and 10/25. Fantasia and deAlderete will attend both days.

LOT 3 GREY STONE CROSSING – accessory apartment and plan redesign using a Cultec leaching chamber system. The applicant (William Costello) was not present.

According to Frado’s review, the redesign is in compliance with local and state regulations for the system design and for the accessory apartment requirements. The capacity has been increased from five to six bedrooms. The I/A system reduces the footprint of the leaching area and grading. The Board was concerned about the proximity of the pool to the system installation since there is no room for error. The engineer must stake both locations and Frado will verify the staking. Risso asked whether the sewer line should be sleeved where it runs through the retaining wall. The Board agreed to this.

It was moved (Deignan) and seconded (Risso) to approve the sewage disposal redesign for Lot 3 Grey Stone Crossing conditional upon the design engineer staking the propose pool location prior to construction of the system and sleeving or boxing of the sewer line where it intersects the retaining wall. Motion passed 5:0.

The Board then considered the request for the accessory apartment. A letter from the Board approving the apartment is required for the Planning Board’s application. The house and apartment can only have a maximum of thirteen rooms (six bedroom system).

It was moved (Deignan) and seconded to approve the construction of an accessory apartment for Lot 3 Grey Stone Crossing with a maximum limit of six bedrooms or thirteen rooms as the combined total for the main house and apartment. Motion passed 5:0.

HANOVER HILL DEFINITIVE SUBDIVISION PLAN - Present for the discussion was Rob West, on behalf of the applicant Wilkins Hill Realty LLC.

The Board has 45 days to act on a definitive subdivision plan and submit its comments to the Planning Board. At the last meeting the Board took under consideration Frado’s comments dated 10/8/07 and the response from Stamski & McNary dated 10/9/07. The Board had received copies of the plans in pdf as requested.

According to Frado’s technical review the lots proposed are able to support soil absorption systems. Additional testing has been done on Lot 24. All lots now have at least the minimal testing for compliance. In most cases there is sufficient testing for final designs. Development of the subdivision is an ongoing process so additional testing may occur. Brem mentioned again the proximity of the leaching areas to infiltration basins. Since these basins are designed to collect and discharge runoff into the ground, they could raise the level of groundwater in the area. All of the infiltration basins meet the minimum setback requirements but Brem would like to see an increase in the offsets, particularly for lots 11 and 12. West said he is willing to look into this with the design engineer. He does not feel it will be a problem. The Board noted that this does not mean the lots are unbuildable, only that they would prefer larger offsets. It was agreed to recommend this to the Planning Board.

Brem recused himself as chairman to make the following motion:

It was moved (Brem) and seconded (Risso) to make a positive recommendation to the Planning Board for the Hanover Hill Definitive Subdivision Plan, dated 8/24/07 with the recommendation that the Board of Health would like to see an additional offset between the infiltration basins and leaching areas, particularly for Lots 11 and 12, and that the Board of Health expects to see alternative locations for these two leaching areas with the required testing prior to submittal of final sewage disposal designs. Motion passed 5:0. Brem resumed the chairmanship.

Meeting Schedule – 11/13/07, 12/11/07, 1/3/08.

Conservation Commission Coffee – Brem will talk about what the Board is considering changing in the local septic regulations.

CARLISLE SUPPLEMENTARY REGULATIONS – continued discussion of revisions under consideration.

The Board began with a discussion on setbacks. Brem referred to Ch. 9 Setbacks in the Technical Evaluation of Title 5 study prepared by DeFeo, Wait & Associates for the state in 1991. This study states that “Most of the contaminant removal is accomplished in the biomat clogging layer and the unsaturated zone of the soil absorption system” and “Therefore increasing lateral separation distances is an ineffective method of improving the quality of aquifers or surface waters.” Brem said this report incorporated a number of other technical studies and scientific data in its findings. Title 5 requires a four foot separation from groundwater beneath the system. Brem feels that this vertical separation provides more than adequate treatment and is far more significant than any lateral offset. Title 5 has a 50’ separation to wetlands. Brem sees no valid reason to double that offset to 100’. Cahill said Title 5 provides minimum requirements and questioned why it would be better for the town to only require minimum setbacks? Brem said this concern could be addressed if the Board encourages the use of nitrogen reducing I/A systems. Risso said many towns with septic systems have the 100’ or greater setbacks. He questioned why Carlisle would require less when protection of groundwater is so important to the town. Holland questioned whether communities requiring larger offsets have valid reasons. The state is using scientific data. Brem suggested that systems closer than 100’ to wetlands provide I/A treatment. Holland said this could be a restriction even for failed systems. A wetland does not recognize a repair from new construction, but the Board allows waivers for repairs even when the systems are later used to support a new house. A system is only considered new construction if there is an increase in flow. As long as the flows are the same, the owner can build a new house and still benefit from the waivers granted to repairs. Holland sees an inconsistency in this permitting. Brem agreed that with an I/A all systems, new and repair, would be treated the same. Holland said I/A systems would have a smaller mound and less breakout grading. This reduces environmental impacts near a wetland. If an I/A system is not proposed, the Board could require a 100’ offset even for repairs. Brem said he felt there was now agreement on the setback which includes requiring an I/A system. The tank and pump chamber would need to be in full compliance with Title. Holland is not worried about these components which are water tight.

Cahill said she is still concerned that a reduced setback may not provide enough drainage control. Holland said that surface drainage within the buffer zone is a Conservation Commission issue. They address ponding and runoff near wetlands. A large clustered subdivision may cause an elevation in groundwater but a two acre lot with one house should not be a problem. Cahill does not want to reduce the offset by so much that the Board has no options in difficult sites. Brem said he is mainly concerned with large systems and agrees these need to be treated differently. He would require additional offsets for systems over 2000 GPD. Risso asked whether this should be lower? Holland does not have a problem with using a 2000 GPD cut off. Title 5 already addresses a number of issues in systems over 2000 GPD. He suggested the following wording: “Any system greater than 2000 GPD must meet the requirements of a Title 5 system in a nitrogen sensitive area.” According to Holland this will include a groundwater mounding analysis. Risso asked what will happen if a large system close to the property line causes impacts beyond the property line. Holland said the state would not allow this so neither should the Board. Requiring a three dimensional model in the mounding analysis should identify offsite impacts. Risso is concerned about virus transport. Holland said the purpose

of a mounding analysis is to demonstrate the adequacy of the proposed design. Mounding analysis and four feet of separation should take care of virus transport. Brem referred to the lack of geo-technical analysis for Coventry Woods and failure to demonstrate that the nearby Epstein property would not be impacted as a problem. He suggests that the Board have a standard that such information must be provided in order for the Board to make a decision. Risso would like to ban retaining walls as a means of placing systems closer to property lines. Each lot should have sufficient land area to provide natural breakout grading. Brem agreed that retaining walls can be a problem. In a typical structural wall holes are installed to relieve hydro-static pressure. This defeats the purpose of a septic system retaining wall which is intended to hold back hydraulic flows. A mounding analysis would show whether a retaining wall will be compromised by groundwater.

The Board agreed to consider requiring a groundwater mounding analysis for systems 2000GPD or larger to demonstrate that there will be no groundwater impacts on or at the property line and that the design does not include any structures intended to intercept mounded groundwater.

Brem will work on a narrative to present at the Conservation Coffee. He said that he is no longer in favor of a compromise on gallons per day and sees no reason to differ from Title 5. Title 5 systems are already oversized so there is no valid reason for Carlisle to require more. Risso said that he had only agreed to the 25% reduction in GPD as a compromise. He will not support using only Title 5.

There was no further business. Meeting voted to adjourn at 9:50 pm.

Respectfully submitted,

Linda Fantasia
Recorder