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March 21, 2023

Edward Adams, Pres.
Lake Bunggee Tax District
46 Lake View Drive
Woodstock, CT 06281

Re: Drainage Issue in the Area of 16 – 32 Lake View Drive
Lake Bunggee District

Dear Ed:

On February 17, 2022 I inspected the drainage issue in the vicinity of 16 to 32 Lake View Drive, made certain observations with respect to drainage problems and embankment stability issues, and subsequently made a recommendation for alleviating these issues. On March 16, 2023 I once again inspected the same area with you and found that conditions had not only remained unchanged, but appeared to have worsened.

As noted in the previous communication, the area in question along Lake View Drive lay just downstream of a steep slope with a small pond on top of the adjacent embankment. The slope and embankment essentially act as a dam, holding back the water impounded by the pond. The embankment represents a sheer drop (1H:1V or less in some cases), is covered with brush and large trees, has an unstable and exposed soil berm along its crest, and is saturated, leaking and seeping throughout the slope area adjacent to the pond and the road.

There is one small outlet pipe that was visible at the time of inspection, near the top of the slope, discharging a small amount of water. However, the majority of flow at the gutter line of the road was emanating from and through the approximate center of the embankment in an area covered by dense brush, cut tree trunk sections and varied pieces of cut wood and bark. This is an unstable situation which, during a strong or severe storm situation could easily result in slope failure (e.g., a landslide) through erosion and sloughing, with the resultant blockage of the roadway and potential movement of earth materials onto adjacent properties and / or flooding due to a sudden release of the impoundment. You also informed me that during a heavy rain period during the beginning of the week, flow emanated through the embankment not only in the area seen this day, but through a longer portion of the roadside slope.

Edward Adams
Page 2
March 21, 2023

Potentially affected residential properties include those along the south side of Lake View Drive running from No. 16 through No. 32. In addition to infrastructure and property damage, I would expect additional impact to the lake environment due to significant erosion and transport of sediment to the shoreline of the lake.

Note that when compared to issues with regard to dam embankments, slopes with improper zoning of soils and without underdrainage that become saturated during a storm, can not only slough and erode the embankment, but can also result in the toppling of the many trees in the area. When overturned, these trees will take out a significant root base, resulting in an opening of the embankment with a resultant dynamic wave moving downstream. In this case, any trees that drop toward the road will fall across utility wires running along the road.

If the pond atop the embankment is to remain, I would highly recommend that it be properly designed and passed through a thorough permitting process, subsequently supervised by qualified consultants or experts knowledgeable in the required disciplines involved. In any case, this will require a proper drainage system from the pond and its incoming stream, as well as along the current gutter line on the north side of Lake View Drive. I would make reference to my correspondence of February 17, 2022 for further evaluations and insights.

Should you have any questions, please feel free to contact me at your convenience.

Respectfully yours,

A handwritten signature in black ink that reads "Karl F. Acimovic". The signature is written in a cursive style with a large, sweeping initial 'K'.

Karl F. Acimovic, P.E. & L.S.

Attachments: Photos



Photo 1 – The pond as seen from Bungay Hill Road, looking south toward Lake Bungee.



Photo 2 – Looking westerly along Lake View Drive. The pond is atop the embankment in the right of the photo. The circled area points out the location of the sole outlet pipe and the seepage area noted in the following photo.



Photo 3 – The outlet seepage area pointed out in the previous photo. The seepage extends over an approximate 6-foot width emanating from under the pile of logs.



Photo 4 – The location of a small outlet pipe within the exposed soil berm atop the embankment.



Photo 5 – The same viewpoint as noted in Photo 2, showing the tall trees noted in the previous narrative and the utility lines along the road. The circle area once again represents the seepage outflow area shown in the previous photos.