Brookline Conservation Commission Meeting
Tuesday, February 2, 2016 7:00 PM
Town Hall, School Committee Room

Commissioners Present: Marcus Quigley (Chair), Matthew Garvey, Gail Fenton, Roberta Schnoor, Pallavi Kalia Mande, Deborah Myers , Pamela Harvey, Marian Lazar, Werner Lohe (present but had to excuse himself to attend separate meeting at approximately 7:30pm)

Commissioners Absent:

Staff Present: Tom Brady, Conservation Administrator, Brittany Bonney, Conservation Assistant

Guests Present: See attached.

AGENDA REVIEW/MINUTES

G. Fenton moved to approve the minutes from 1/19/16. W. Lohe seconded. All in favor.

CONTINUED PUBLIC HEARING FOR THE NOTICE OF INTENT UNDER THE BROOKLINE WETLANDS BY-LAW FOR 25 SEARS ROAD, LOT 17, TO CONSTRUCT A STORM WATER INFILTRATION BASIN, SUBMITTED BY APPLIED ECOLOGICAL SCIENCES ON BEHALF OF THEIR CLIENT ENGLISH ROSE REALTY TRUST C/O MICHAEL J. BURKIN

M. Quigley opened the continued public hearing. Brian Weiner and Ken McKenzie of Dunn McKenzie, Inc. introduced themselves. Michael Burkin explained how they were notified by the Building Dept. that special permit conditions have not been fulfilled. He met with them on Monday and submitted a number of document requests and was told that work could continue on site. M. Quigley asked what specifically was not fulfilled; M. Burkin said a construction management plan was not submitted, but they should be in the clear by the end of the week.

M. Quigley said at the last hearing, the Commission requested more information regarding the Engineering aspect of the basin and more details regarding the details of the drainage system.

B. Weiner presented and explained the basic site plan, showing the extent of the common driveway and undeveloped lots. The driveway is 500' long, 18' wide, which the site has already been cleared to create.

B. Weiner explained how the drainage system works. He showed the Predevelopment Plan and highlighted the 4 design points, which represent the locations where existing drainage flow goes today. Design point 3 has a significantly larger watershed and takes up the majority of the site, which drains to the wetland system at the southwest portion of the site. He discussed the current rate and volume of runoff for each point and explained how he looked at the 2, 10, 25, and 100 year storms to create a new drainage design, so the driveway and lots would have less runoff and volume for the Post Development Plan.

B. Weiner said there will still be runoff to Sears Rd. it is just slowed down by a drywell within a depression, there will also be swales on either side of the driveway (will blend into the landscape), if rain gets a half foot high in elevation, goes through the catch basin grate and into the drywell (this is at the entrance to the project).

M. Quigley said that it appears the total volume increases but runoff and intensity (rate) to the road decreases as a result of the drywell, B. Weiner said yes.

M. Quigley asked if they did test pits for seasonal high water, B. Weiner said yes and found that they are above it and not cutting into the groundwater table, a lot of the area is ledge, so an area will be blasted in order to install the drywell.

B. Weiner said currently, the constant grade is causing a sheet that goes into the street, so by creating a gradual depression, most water will infiltrate the grass, but if it can't keep up in terms of rate, it will pool up and enter the catch basin grate and eventually into the drywell.

M. Quigley asked that we focus on design point 3, where drainage flows into the wetland. T. Brady said that after lots are built, this project will be over 1 acre of disturbance thus be a major project under the Engineering Division's Erosion and Sedimentation Control Bylaw.

B. Weiner said that design point 3 is where the detention basin is located; swales along the driveway are directed into the detention basin. The driveway also has culverts at low points. He said a test pit was done at the location of the detention basin, went down 20" and found no ledge.

B. Weiner said there is a combination of a few outlets to the detention basin, some of it is infiltration, and there is an embankment with rip rap, and sheet flow which goes to the wetland system. Overall it combines overland flow going into the detention basin with the exception of one catch basin at a low point on the side of the road, which directs flow to the detention basin. It takes about 2.8 feet of stormwater until you have overflow in the basin. Most of the time, the system will infiltrate with the exception of 25 and 100 year storms, where overland runoff is relatively low.

M. Quigley asked what the total change in drainage area from the existing conditions to post development conditions will be, for design point 3. They looked at the drainage calculations and B. Weiner explained that there is a significant area in the middle of the site which used to discharge into the wetland, but he has designed it to become a depression, so it will no longer create discharge, lowering the overall volume of water entering the wetland.

P. Kalia Mande asked how the water is treated before it gets to the wetland. B. Weiner said that all of the water in the basin infiltrates, until you get up to a 25 year storm event, in which case the hope is that overland flow will eliminate any pollutants before it enters the wetland.

G. Fenton asked how they will address the addition of fertilizers, deicing materials, oil from vehicles, and other pollutants that will flow off of the roadway and into the wetland. B. Weiner said that there are no provisions other than the water flowing over the grass. He said that the Homeowners Association will maintain and clean out the basin.

M. Quigley asked if this is a temporary drainage facility for the road, or is this part of a larger plan to address stormwater management for the 5 or 6 developed lots. He asked how this system will be able to address the addition of roofs, patios, etc. B. Weiner said that they have assumed each lot will have 20,000 sf of impervious cover, which has been included in the calculations.

M. Quigley confirmed that this is a drainage plan for a full build out of all lots, B. Weiner said yes, and pointed out sheet 4/10 in the plan set, note #9 is the key to lot development and assumptions set up within the drainage design.

T. Brady expressed concern that the swales off of the driveway could be filled in over time. T. Brady asked where there is a drywell. B. Weiner said it is intended to be a level of treatment and to take some of the stormwater out of the system. T. Brady said he is concerned whether this system is sustainable in the long run. He also doesn't believe that overland flow will work for taking out pollutants and suggested putting in a catch basin with a deep sump in order to get the sediments and pollutants out before water gets to the wetland. He also recommended building the berm up higher.

D. Myers said it would be helpful to have the grading of the abutting lots represented on the plans.

T. Brady explained that the Commission will be able to offer advisory opinion through the Engineering Division's Stormwater Management Bylaw, when it comes to plantings on the developed lots.

M. Quigley said that his biggest concern is water balance, in particular ending up with similar hydraulic conditions pre and post construction. He explained that the wetland provides very important habitat, especially with the likelihood of vernal pools. He said that if overland flow to the wetland reduces by .8 acre that could have a significant effect on the resource. He said this system seems to create fundamental changes to the water balance on the discharge side.

G. Fenton said that she is extremely concerned about a decrease in water to the wetland because of the fragile vernal pool habitat. She said we don't have information on when the vernal pool fills and empties in this particular wetland. B. Weiner said that the entire water flow to the wetland is not only coming off of this property, and also most wetlands develop from groundwater, not overland flow.

M. Quigley confirmed by looking at the drainage calculations that in a 2 year storm, the water that flows into the wetland would decrease by 50% with this new drainage system.

M. Quigley asked if any members of the public had comments.

- Joseph Freeman, abutter, said that he is concerned because his property is at a lower grade. He would like to see a more detailed site plan with locations and sq. ft. of houses. He believes specific information is lacking from the entire development plan and that there is a greater alteration to the environment than what is being presented here today.
- Steve Silverman, abutter, said that he is concerned by the consultant's comments regarding Design Point 2, which were that, post construction, more water will flow into the abutting property (which is his). He believes that the driveway should actually be considered a road, and should have an adequate drainage system meant for a road, not a driveway. He explained that abutting properties already have water issues and sump pumps in their basements. He also wants to see more specific information on the plans because features

such as swimming pools could be installed at every property, which could affect the wetland.

- Lisa Ruben Johnson, abutter, asked how the removal of trees, installation of lawn or increase in fertilizers on the land in the development will affect the wetland resource. She also asked if the vernal pool(s) in the wetland were Certified, would that have an effect on the protection of the wetland, T. Brady said no, it would not change the Commission's jurisdiction.

M. Quigley reminded the public of the advisory opinion process for the Stormwater Management Bylaw and explained that the Commission will communicate to the Engineering Division that they will want to be involved in order to discuss larger drainage issues outside of the 150 ft. buffer. He said the Commission will clearly indicate to Engineering that anything over 20,000 sf of impervious surface on a single lot would require a complete redesign of the drainage system.

S. Silverman went back to his question regarding Design Point 2 and asked the applicant for an answer. B. Weiner explained the drainage pattern, curve matter and surface of the ground.

P. Harvey asked for more specific information from the applicant regarding the impact that this drainage design will have on the wetland itself. B. Weiner said he has not looked at the watershed itself, as a whole, he is not sure if this design will have a significant impact.

M. Quigley said at this point, the Commission has not been provided with enough information and asked the applicant if they would like to request a continuance or close the hearing today.

M. Burkin said that in order to study the watershed, it would have to be across multiple properties.

T. Brady asked if the meeting on February 16th would be enough time to gather further information. K. McKenzie said that he will consult with the wetland scientist for the project, Russ Waldron and report back to the Commission regarding effects to the wetland at the next meeting on 2/16.

M. Garvey moved to continue the public hearing to 2/16/16 at 7:05pm. D. Myers seconded. All in favor.

OPEN SPACE PLAN UPDATE

- February 8th will be the final Open Space Plan Public Meeting/Information Session and will be held at the Senior Center.

MUDDY RIVER UPDATE

- T. Brady gave a brief update on the Muddy River Project.

STAFF UPDATE

- T. Brady said there is potential for adding another Conservation Restriction in the Walnut Street area.
- T. Brady gave a brief update on 88 Cottage Street.
- T. Brady gave a brief update on Putterham Meadows Golf Course.

M. Quigley moved to adjourn the meeting. R. Schnoor seconded. All in favor.

Documents/Exhibits used at this meeting:

- Meeting Agenda
- Draft Minutes from 1/19/16
- NOI for 25 Sears Road, Lot 17, BWB 15-08

Submitted by B. Bonney.