

Arlington Conservation Commission  
DRAFT Minutes  
August 2, 2017

Mr. Stevens called the meeting to order at 7:30 p.m. in the second floor conference room of the Town Hall Annex. Present were Commission Members Nathaniel Stevens, David White, Mike Nonni, Susan Chapnick, Curt Connors and Janine White and Interim Administrator Eileen Coleman. Member Charles Tirone was not present. Also present were Fred Keylor, Bruce Whelple, Greg Ginet, Megan Burns, Fred Heger, Susan Whelple, Robert McConnell, Pat Bailliert, Carol Beggy, Peter Durning (Mackie Shea, PC), Elizabeth Pyle (Hill Law), James Vernon (Nobis Engineering), Matt Hodge, Al Gala, Rich Kirby (LEC Environmental) and Steve Revilak.

7:30pm – Commission Business:

Mr. Stevens reminded Commissioners that Ms. Coleman is on vacation from August 7 August 23, so he might be calling on Commissioners for assistance during that time. Amy Quinn in the Planning Department will assist with some of the workload.

DWhite/Connors moved to approve the July 20, 2017, minutes with edits; motion passed unanimously.

**Administrative:**

Zoning Recodification

Ms. Garnett explained that the meeting on August 4 will be to discuss comments. At the previous meeting, those present discussed hyperlinks to be added among other things. The next meeting will be on September 14 and since Ms. Garnett cannot attend, Mr. Stevens offered to attend in her stead and take notes.

Waterbodies Working Group

Ms. Chapnick updated that Ms. Coleman has been assisting with research and that the Woods Hole Group scientists hope to have a definitive Sampling and Analysis Plan by next week. There might be run-off entering Reeds Pond from the surrounding streets. Ms. Chapnick will ensure that all information is copied to Mr. White and Mr. Tirone.

Open Space

Mr. White updated that the Reservoir Master Plan RFP received 3 responses (Hedlund, Stefan Simpson and Weston & Sampson).

**Certificate of Compliance 17 Mill St. (DEP#91-269)**

Ms. Coleman and Ms. Garnett visited the site earlier this week and observed less than 50% die back on two of the three trees and an apparent Gypsy Moth infestation on one of those. There was no condition requiring two years of monitoring in the Order of Conditions. It was agreed that Ms. Coleman will get more information from the Applicant about what he proposes to do about those issues.

**Certificate of Compliance – Homewood Suites (DEP# 91-254)**

*Documents considered:*

*Letter from James M. White of H.W. Moore Associates, Inc. certifying that the Hotel addition and associated site work was largely in compliance with the Order of Conditions.*

*Letter from Nelson Hammer, RLA, of Hammer + Walsh Design, Inc. confirming acceptability of the installed plants with exceptions.*

*As-Built Planting Plan, Homewood Suites Building Addition, produced by H. W. Moore Associates, Inc., dated July 17, 2017*

*As-Built Plan 1-23 Massachusetts Avenue, Arlington, MASS., produced by Feldman Surveyors, signed and stamped by Karl A McCarthy, PLS, July 20, 2017.*

Mr. Stevens read out the letters referenced above. Fred Keylor (HW Moore) represented the Applicant. He and Mr. Nelson Hammer had conducted a site inspection with Ms. Coleman and Ms. Garnett on July

31, 2017. Ms. Garnett said that they were pretty happy with the plants. Two of the plantings on the DCR land were unhealthy (one wilting, one with die-back), but nearly 100 were planted, and there were many Sumac volunteers. On the Homewood Suites site, the three River Birches were odd sizes and the azaleas were small but healthy. Ms. Garnett is confident the Hotel management will adequately maintain the on-site landscaping.

There was some discussion as to whether the extension of maintenance agreement with DCR had been received.

In response to Ms. Chapnick's question as to why a Certificate of Compliance is necessary now, Mr. Keylor indicated that the Applicant would like to complete obligations to the Contractor. DWhite/JWhite moved to issue a partial Certificate of Compliance minus Conditions 26 and 36 of the Order of Conditions issued on February 27, 2015; the motion passed unanimously.

Ms. Coleman to issue this week.

[note: Ms. Coleman subsequently found a record by Ms. Beckwith, former Conservation Administrator, that the extension of maintenance agreement with DCR had been received?.]

Working Session - 111 Sunnyside

*Documents considered:*

*Certified Plot Plan in Arlington, MA, signed and stamped by Douglas L. Johnston PLS on November 12, 2015, annotated by Mr. Revilak to show current proposed work.*

Steve Revilak owner of 111 Sunnyside Ave. explained that he had received an order of Conditions for substantial alterations to his house in December 2016. He has changed his proposal as reflected in the annotated Plot Plan he distributed. He would like to reduce the size of the existing deck from 15' by 20' to 15' by 10'. Ms. Chapnick pointed out that if he came in with this proposal alone, it likely would not require either a NOI or an RDA. She suggested Mr. Revilak apply for a Certificate of Compliance indicating that no project was undertaken.

It was agreed that Ms. Coleman will email the Building Department, copying Mr. Revilak, indicating that the Conservation Commission has no requirement for a filing for the proposed deck modification.

Notice of Intent - 88 Coolidge Road, continued hearing from 5/18/17 (DEP#91-278)

*Documents considered:*

*Invasive Species Management & Buffer Zone Restoration Planting Plan for 88 Coolidge Road, prepared by LEC Environmental Consultants, Inc., dated October 18, 2016, revised July 24, 2017.*

*Presentation entitled Independent Hydrogeologic Study, 88 Coolidge Road, Arlington, Massachusetts, presented by James Vernon, PhD., Senior Hydrologist with Nobis Engineering, Inc., at the August 2, 2017 Arlington Conservation Commission meeting.*

*Letter from Attorney Elizabeth Pyle making three arguments why the Commission should deny the project, dated August 1, 2017.*

*Letter from Peter Durning of Mackie Shea PC addressing Attorney Pyle's arguments and identifying changes made by the Applicant to address issues described in the Draft Report Hydrogeologic Peer review of NOI, dated August 2, 2017.*

*Plan showing 13 projects involving blasting in the Coolidge road environs provided by Bruce Whettle.*

*Letter from neighbor Pat Baillieul pointing out that the proposed 88 Coolidge Road development cannot be viewed as an isolated engineering problem, dated August 2, 2017.*

Mr. Stevens announced that the proceedings were being tape recorded.

Rich Kirby of LEC Environmental introduced himself and others representing the Applicant, Jonathan Nyberg, these being Peter Durning, Al Gala, Matt Hodge and Alan Simao. Mr. Kirby referred to the Invasive Species Management & Buffer Zone Restoration Planting Plan for 88 Coolidge Road, which has been modified again. The footprint of the house remains the same, but the foundation has been modified to mitigate groundwater effects. Test pits were dug in June in which bedrock and some redox features near the bedrock were observed. The foundation has now been stepped so that it is always above the bedrock and groundwater. This has eliminated the damming effect that was of concern according to the Draft Report prepared by Nobis Engineering, Inc. The retaining wall at the front of the house will be pervious, and sandy soil will be imported, so the behavior will be the same as under current conditions. The Applicant proposes a pervious paver driveway and all downspouts to tie into an infiltration system. There have been some changes to the landscaping plan – the understory has been modified so as to do

better under Norway Maple.

Mr. Kirby said the alternatives have been examined. The Applicant believes the current design meets all requirements.

At Mr. Connors' request, Mr. Kirby pointed out the lines on the plan representing 25, 50 and 100 feet from the wetland.

In response to questions from members of the audience, Mr. Kirby and Mr. Gala addressed the following: Test pits - based on the advice of Jim Vernon, Nobis Engineering, Inc., in his Draft Hydrogeologic Report, they had conducted 4 more in addition to the 2 done before, all close to or within the footprint of the house. He also provided the depths until bedrock was reached. The test pits were performed with an excavator, so it seemed evident when bedrock was reached. It would be burdensome to test the whole site. If, during excavation, they find a knob of bedrock, they will use gravel to maintain the flow under the house and through the site. It is expected that there will be more excavation in the front of the house and more overburden added at the back. The Applicant is amenable to a special condition that a hydrogeologist is present during excavation. Living space has been sacrificed in order to provide room for water flow under the foundation without raising the height of the house, which will meet zoning requirements.

Mr. Stevens reminded those present that the Conservation Commission had requested the Applicant to fund a Peer Review of the hydrogeology of the site. This was conducted by Nobis Engineering, Inc. A draft report was produced in April 2017. After the test pits were dug in early June, the contract was revised and a new report was submitted in July 2017. He introduced Mr. Jim Vernon to explain the results of his review.

Mr. Vernon provided a presentation entitled "Independent Hydrogeologic Study, 88 Coolidge Road, Arlington, Massachusetts". He sought to determine whether the information provided would answer two key questions, viz. 1. What would be the effect of the proposed construction on the wetland and stream? and 2. Would the proposed construction have any effect on neighboring properties, groundwater or flooding?

He described the irregular topography, and acknowledged that the refusal in the test pits probably indicated bedrock. He did not observe the dark mafic rock indicated on public maps. Water could be observed coming out of the dyke in the exposed rock on the lot just to the north of No. 86, and that could be the course of the stream on the site. There could be more of these under other houses. No water was observed on the April 11, 2017 site visit other than the brook at No. 86 and other trickles from outcrops, and no water was noted in the test pits in June, but mottling indicated water had been there. There is anecdotal evidence of water flows and visible water flowing from two other houses on April 11. It could be that those flows were created when the overburden was stripped off to develop those properties. Mr. Vernon suggested that construction at those properties could have contributed to water flows. He did observe water flowing through cracks in the bedrock to the north of the site.

Mr. Vernon rated the likelihood of three scenarios occurring:

1. Whether the construction would have an impact on the wetland and stream. Mr. Vernon determined this was unlikely assuming Best Management Practices are observed.
2. If the house foundation is directly on ledge, whether it could cause damming on the uphill side. The Applicant has made changes that make this unlikely, though there is still uncertainty. There could be a knob or trough in the bedrock. Mr. Vernon suggested that the Commission asks for a plan revision showing the gravel additions.
3. Whether water would be discharged on the downhill side or through groundwater. Mr. Vernon feels that is likely a low risk.

Conclusion: the new information provided reduces uncertainty.

His recommendations: Show where added stone will be and how the water will flow through; exercise caution if the project proceeds; attach conditions re. oversight by knowledgeable and independent consultants especially during construction; pile sediment away from boundaries and cover with plastic; stop work if water is encountered; stop work if bedrock is encountered shallower than predicted, and contact the Conservation Commission.

If a knob of bedrock is observed, it should be kept intact. It is unlikely a large knob will be encountered, but a mechanism for how to deal with one should be established.

Mr. Vernon also acknowledged that additional surface water could also flow on to the site if the curb were to be cut. The porous pavement would alleviate that, however, the site could be swamped. Removal of trees, which is outside his scope, could also affect the water cycle.

In response to a question from Mr. Stevens about fill, Mr. Kirby asserted that the compaction rate will be 85% and that fill will be mostly sandy. The Applicant would be open to specifying that the rest could be sandy and/or friable too.

In response to questions about surrounding houses pumping water, Mr. Vernon suggested that the need to pump water could be related to previous construction but the risk of that being exacerbated by this project can be managed.

Mr. Whelittle provided a plan showing 13 projects involving blasting in the Coolidge road environs and said he had a theory that there is a subterranean Venetian canal of aquifers in the area.

Mr. Vernon told him that in order to find out if this is true, geophysical surveys would be required to map the dykes, and this would be a largely academic exercise and difficult in a built up area.

Mr. Whelittle was also concerned about trenches causing more water flow on site. It was pointed out that channels created by trenching would likely go only on to the property under construction.

Mr. Kirby addressed Mr. Vernon's three impact scenarios.

1. That the construction would likely not have an impact on the wetland and stream. Mr. Kirby agreed.
2. That damming on the uphill side of the house is unlikely. Mr. Kirby explained the construction plan has been modified so that there will always be overburden and gravel between the foundation and bedrock. There will be drainage. Infiltration systems will be shallow and broad so as to mimic the natural flow of water. Also, specs of the sandy fill can be provided.
3. That water could be discharged on the downhill side or through groundwater. Mr. Kirby explained that there will be no perimeter drain. The concentration of flow will be minimized.

Further, Mr. Kirby addressed other concerns raised during the meeting. He explained that excavation will take only 2-3 days, and the Applicant would be open to appointing an Erosion Control Monitor as would be required for sites greater than one acre. He also asserted that much transpiration has been accounted for in the stormwater calculations.

In response to a question from neighbor Megan Burns about whether water would move even faster over her property, Mr. Kirby explained that the water will end up in the soil overburden where it goes now. There will be more soil after the project to provide more porosity.

In response to Ms. Garnet's question about pavers and infiltration, Mr. Kirby explained that permeable pavers can't be placed over infiltration, and the pavers mainly cover the slope.

In response to additional questions from members of the audience and Commission, Attorney Peter Durning, Mr. Vernon, Mr. Kirby, Mr. Hodges and Mr. Gala stated/addressed the following:

Less water will be coming off the site in the future due to stormwater management.

There will be 4 infiltration chambers located on either side of the lot.

Groundwater seepage will be the same.

Once the foundation is excavated, will likely have all the information needed for near certainty of no significant impacts.

The Applicant would likely address minor changes in the field and would come to the Commission to discuss approaches to larger issues should they arise.

Big rainstorms in Winter/Spring are likely to have more impact than similar storms in Summer when the water table is lower.

The northern wall has no footing, only a crushed stone levelling pad. The southern wall will be reinforced concrete. The wall at the back of the site will have columns allowing the water to flow under it. The house can be designed as a cantilevered system; the south corner of the house might be pinned while the rest would be on stone.

The following will be provided by August 8, as will paper copies of the Planting Plan:

- Soil specifications,
- new plans showing the crushed stone and the recommendations Mr. Vernon made on page 15 of his report and the discharge point at both properties on either side of the ledge, and
- a section showing the face of the wall behind the house

Ms. Garnett said she was comfortable with the post-construction condition without trees and was reassured that erosion controls during construction can be beefed up.

Pat Baillieul submitted a letter to the Commission, pointing out that the proposed 88 Coolidge Road development cannot be viewed as an isolated engineering problem.

Attorney Elizabeth Pyle representing the abutters made some concluding remarks:

1. The project is too risky to abutting properties. This is a sensitive and unusual site. Ms. Pyle believes that the Applicant cannot show by a preponderance of evidence that he can protect the surrounding land.
2. The previous owners divided the property without reference to the wetlands regulations. Nothing should be built here at all, and the Applicant has not looked at reasonable alternatives. Ms. Pyle referenced the Blackstone RCC case.

Attorney Peter Durning representing the Applicant responded:

He acknowledged that Attorney Pyle had correctly identified the standard the Applicant must meet. Nobis Engineering, Inc. concluded they would not prove certainty that there would be a cumulative impact. Mr. Durning asserted this is a robust peer-reviewed plan that will not create a significant cumulative impact. He also provided a letter in response to the one provided by Attorney Pyle.

At the Applicant's consent, DWhite/Connors moved to continue the Hearing to 8pm on August 17; motion passed unanimously.

JWhite/Connors moved to continue the Regulations hearing to August 2; motion passed unanimously.

Meeting adjourned at 10:45pm.

Respectfully submitted,

Eileen Coleman,

Temporary Conservation Administrator