



Wrentham Conservation Commission
79 South Street
Wrentham Massachusetts 02093



August 18, 2020

Claire Hoogeboom
LEC Environmental Consultants, Inc.

Subject: West Hills Estates, Wrentham

Dear Ms. Hoogeboom:

I reviewed the Notice of Intent (NOI) and Sheets 1-11, submitted as a 24" x 36" paper copy, dated July 15, 2020. I have supplied comments for Sheets 1, 6, 9, 10 and 11 as well as supplied general comments that will require additional sheets for the plan set. After reviewing the wetland line I may also have additional comments. My comments:

APPLICATION

Page 1: List phone numbers for all, and supply street addresses, no P.O. boxes.

HEARING

During the public hearing on August 13, Mr. Clow said to expect an excess of stormwater at the constructed pond. This will not happen. Mr. Clow went on to state, I believe, that this type of flow currently enters the wetlands. Perhaps I misunderstood what Mr. Clow said, but natural, wooded areas do not experience much, if any, direct overland flow of stormwater. Flow generally occurs beneath the ground surface. This delays the arrival of the overflow by weeks if not months and allows that water to be filtered. Stormwater basins receive untreated stormwater within hours if not minutes of any storm. The Commission's goal for stormwater is that what water leaves the property does so at the same rate, quantity and quality.

PLAN SHEETS

General Comments

1. A new, complete set of plans will be required with the changes, listed below, addressed. Submit a cover letter that describes how these comments were addressed.
2. New plans are required to convey the information the Conservation Commission believes is needed to protect the Interests in the Act and Wrentham Wetland Bylaw. The plans must be concise so that contractors may have a solid base to bid the work. Allowing too much discretion such as the current set of plans will only net the lowest bidder with little interest in protecting Wrentham's resources and the abutters. Such work may increase the potential for fines and enforcement action.
3. In the comments that follow, there is a request for narrative boxes on the plan sheets that will describe exactly how the work is to be performed. These boxes must be legible, with type large enough to read, and be orderly and clear in their descriptions.

Sheet 1, Title Sheet:

1. The locus map is difficult to read. The purpose of a locus map for the Commission is to show the surrounding conditions, abutters homes and other structures, roadways that the project may affect (or be affected by), and especially other occurrences of water. Since this submission is for the Conservation Commission, revise this sheet such that the locus map is a USGS topo map that outlines the Site and includes the surrounding area within 300-feet of the site bounds. Include on the Locus Map resource areas that typically are not shown on USGS maps such as limits of flooding and potential vernal pools, etc. These maps are available on the State OLIVER website. The purpose is to show any nearby resource areas that may be affected by the work. A 200-foot buffer would be required to include any potential perennial streams, but a 300-foot buffer is requested to allow a more general view.

Sheet 6 of 11, Grading, Drainage & Planting Plan:

1. Reading the title one has to ask: where are the plantings? None are noted anywhere. It is suggested that the word "Planting" be removed from the title of this sheet. This sheet instead should be about the construction phase when no plantings are occurring.

2. In the revised Grading & Drainage Plan describe both temporary and final stormwater management. Temporary management should be described as in comment #4 below. For the stormwater basin the plan sheet must describe when the drainage system will be closed and when it will become active and receive stormwater. Ideally, this should be once vegetation is established as described in the comments to what is now the Erosion Control and Sedimentation Plan (sheet 11 of 11) as revised below.

3. The Grading and Drainage Plan must show the limit of work (LOW) on both the lot side and the Open Space side of the new road. The Plan should show that a LOW fence (either snow fence or high visibility fence) will be placed on both sides of the road to prevent alteration of the lots or the Open Space. The LOW should be placed as close as possible to the road. If grading is to occur outside of the 45-foot layout, there must be a justification and a detail to show how the area will be restored. It is suggested that areas that lie outside of the 45-foot layout that must be altered on either side of the road be designated with a pattern, numbered, and then have a text box. The number would correspond to a narrative box on the Plan that describes why it is needed to go outside that area and reference a detail on the Construction Detail sheet regarding how the altered area will be restored to a natural state.

4. Construct the roadway and grading in phases that are described on a new sheet. This is a must once the grade begins to increase at Station 5+00. There is more than 500 feet of roadway to be graded south (uphill) of this point. If the applicant does not present a phased plan as described here, it will affect the amount of bond and the level of oversight (paid through 53G) the Commission will require. Additional recommendations in phasing:

- a. There should be a detailed narrative on the phasing sheet that describes what happens for each phase to include clearing, grading, temporary stabilization, and erosion control measures to be installed. This need not be repeated for each phase area as shown on the plan, but the same detailed narrative could be used for each phase. The plan must be

explicit in how phasing is performed including the performance measures noted in b., c. and d., below.

b. The narrative in the NOI states that stumps will be removed from the Site. Do not allow that to happen. Get a stump grinder and use stump grindings and wood chips to stabilize each of the phases. When a new phase begins clearing, there *must* be no bare soil downhill of that area. Because this will be a bid item for the contractor, this requirement must be included on the plan sheet.

c. It is highly suggested that each phased area be no larger than 150 feet in length (along the axis of the road) and 45-feet in width except where justified to meet the grade (and so noted as discussed above). The limit of each phase will be defined on the ground by the LOW fence described above with no alteration – including parking vehicles, allowed outside of the working phase. The working phase will have the LOW fence both on the flanks and at the southern working edge (where the next phase area will be).

d. The requirements to move to the next phased area must be well defined. That is: No work will be allowed in the next phase until *ALL* surfaces within the work area are stabilized with vegetation or stump grindings/woodchips. “Stabilized” means mulch of at least 6-inches in depth sufficient to halt erosion and that water-containment areas be installed at 50-foot intervals to intercept overland flow. The water-containment areas must be designed to hold *ALL* runoff from that phase area and should include interception trenches and stilling basins. “Accidents” or erosion that enters the buffer zone or open spaces will be fined and may be subject to other enforcement actions.

5. The first phase to be performed must be designated on this sheet. The first phase must consist of the following:

a. The Grading and Drainage plan must show the location of the compost sock erosion control and LOW fence that protects the Open Space (as amended by the comments for *Construction Notes and Details 2*). In large letters, on the open space side of the LOW the plan will note in large letters: “NO ALTERATION OR TEMPORARY USE OF THIS AREA IS ALLOWED.”

b. Once the erosion control and LOW fence are installed, construct the stormwater basin to include plantings as described in further comments.

6. The Lots should be noted (on the plans) as having requirements that no water be discharged from the lot onto the road layout, either during or after construction. To eliminate the potential for fines and enforcement actions it will be advantageous to include that requirement on the purchase and sale of all the lots.

Sheet 9 of 11, Construction Notes and Details 1:

The Commission is pleased that the roof drainage is captured. However, the construction of each lot needs to be regulated due to the steep grades. During construction, poor site practices on the building lots will shed materials onto the working roadway potentially impacting construction and the stormwater devices. This is one of the reasons the Commission will require specific circumstances to open the Stormwater basin. Typical construction has a driveway and smooth lawn that places runoff directly onto the street which will affect the Stormwater basin. It will also create a safety hazard when it freezes at night – especially on a 12% slope roadway.

Sheet 10 of 11, Construction Notes and Details 2:

1. The Commission has specs for a Compost Sock on its website. Add those specifications to the Filtermitt description. Those specs must be met. Add a LOW fence as described above, to be placed on the wetland side of the Filtermitt. Also, there must be a 3-foot area on the upland side of the Filtermitt that is not a work area (as listed on the plan) but instead an area that must be kept clear of sediment. Note in the detail that any silt greater than 2-inches in depth will be removed by hand.
2. The “Catch Basin Grate Haybale Silt Barrier” is not allowed. Until the Stormwater basin is open, all catch basins will be covered by sheet steel or 3/4-inch plywood and either welded or covered with 2-3 cubic yards of clean gravel.
3. It is likely that a third *Details* sheet will be needed but add a detail that describes how altered areas on the Open Space side of the street will be restored. This will be needed at least in areas such as the Stormwater basin and the block wall for the roadway. It is suggested that the narrative be along these lines: 1) The top 6-inches of soil from each altered area will be removed and stockpiled nearby. 2) Once final grades are attained, the stockpiled soil will be spread in the altered area and mulched with straw or a thin covering of woodchips. 3) This area will be monitored for a period of 3-years to ensure the success of native plants and eliminate any invasive plants that appear.

Sheet 11 of 11, Erosion & Sedimentation Control Plan:

1. Much of the information for an Erosion & Sedimentation Control Plan should be included in the Grading and Drainage Plan. This sheet, 11 of 11, should be re-titled *Final Grades and Planting Plan*. As such this should show the final plantings for altered areas such as the Stormwater Basin and will need narrative boxes that describe the construction and management of these areas.
2. It is recommended that the sidewalk be moved to the lot (east) side of the street. This will help control runoff into the street.
3. The phasing for the Grading and Drainage sheet will eliminate the need for the runoff interceptor and temporary sediment trap as shown on this plan. Remove it from the sheet.
4. Any work within the 100-foot buffer zone must be detailed on separate, detailed plans or detail sheets that show the methods that will be used to minimize disruption of the buffer zone and restore it to a natural state. Ideally, in areas such as the Stormwater Basin and the roadway wall, native vegetation will be collected, stored, and replaced. Alternatively, new plantings may be proposed.
5. Plantings and soil: Include on this plan sheet the following: Within the Open Space, including the Stormwater Basin, no soil from outside sources is allowed. The basin and any altered areas for which the native soils were not saved, shall be covered with compost mulch and planted and seeded with switchgrass *Panicum virgatum* and little bluestem *Schizachyrium scoparium*. A mix of plantings and seedings is needed to ensure success with one planting per 10-square feet and

the intervening area seeded. This will require monitoring over a five-year period to ensure that no invasive plants become established and that the plantings succeed.

There will be additional comments following the site walk. The Commission's goal is that your subdivision not negatively impact the environment or abutters. Please call or write with any questions.

Sincerely,

Darryl Luce

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