

To: Zoning Board of Appeals  
From: Conservation Commission  
Date: January 9, 2017  
Re: Coolidge II 40b

The applicant had not made any attempt to work with or discuss plan revisions with the Conservation Commission. The Commission contacted the applicant and requested they attend the Jan. 3, 2017 meeting to present current plans. The purpose of this meeting was for the Commission to understand the project and provide comments to ZBA. Unfortunately, the applicant did not bring the project's civil engineer so numerous questions remain.

The project is in very close proximity to a bordering vegetated wetland with extensive alteration within 100' of the edge of the wetland. This 100' is a designated upland resource area under the Sudbury Wetlands Administration Bylaw. ZBA has review of the project under this bylaw. This upland area performs the important functions of pollution attenuation, wildlife habitat, and flood storage. The development is located up gradient from the wetland sloping directly down to this resource area. As such, the Commission is very concerned with overall runoff from the developed areas entering the wetland. We understand a peer review of stormwater is underway by Horsley Witten for the ZBA. The latest correspondence indicates a number of major issues remain and revised plans will be forthcoming.

The applicant has stated that they will not be providing a Notice of Intent to the Conservation Commission until after a final plan is agreed to with ZBA. Specific questions and issues we have at this time include:

The original lot with Coolidge I is being subdivided to form the Coolidge II lot. It appears this is being done to circumvent the DEP sewage cap of 10,000 gpd discharge per lot. Over 10,000 gpd requires additional treatment and a groundwater discharge permit. It appears that Coolidge I and Coolidge II combined produce 13,200 gpd septic effluent (110 gpd per bedroom with a total of 120 bedrooms) (State Title V septic regulations (310 CMR 15.00)). Furthermore, under 310 CMR 15.202, definition of "facility", if the lots are under the same ownership they are considered one lot for Title V purposes. In addition section 15.011 (aggregation) makes it clear that subdivision for the intent of circumventing the requirements for systems over 10,000 gpd is prohibited.

It is difficult for the applicants to look at Coolidge I and Coolidge II as two distinct projects while sharing access, drainage and driveways. Adequate cross easements should be provided to ensure proper operation and maintenance. The Town should reserve the right, at the owner's expense, to perform necessary neglected maintenance to keep the stormwater system functioning as designed and conditioned by permitting.

Has there been a hydrology study? Septic systems in excess of 2000 gpd require this study to prove that groundwater mounding will not occur.

The proposed contours at the eastern property line show the flow of runoff downgradient to a retaining wall and then off site. This runoff should not be permitted to flow onto the abutting land.

The project utilizes retaining walls to contain grading. The wall around the southeastern end of the building is 8' high. It must be reviewed and approved by a structural engineer.

The plans show a foundation drain along the front of the building. This drain appears to be located only 12' off the septic leaching facility. What will prevent this drain from picking up leachate and conveying it to the stormwater basin? Where does the drain discharge and what design details will prevent scouring and erosion?

Will dewatering need to occur? If so, a dewatering plan needs to be provided.

The stormwater system collects roof runoff as well as runoff from other impervious surfaces. It is customary to separate roof runoff and to recharge it as close as possible to where it naturally falls. This part of Limited Impact Development design required to be investigated by the state. The Commission would like to see more recharge throughout the site. This would better approximate existing conditions and reduce the size of the stormwater basin and alteration within 100' of the wetland.

We see on the plan that waivers are being requested to reduce the required number of parking spaces. Where this is an age-restricted, not assisted living development and very limited public transportation exists, it is not unreasonable to assume that properly-screened tenants will have cars. The Commission is concerned that without enough parking, cars will be parked off of areas where runoff is not collected and treated. This can result in untreated runoff entering the wetland. Other site plan approvals in town with less than required parking have been required to set aside an area for reserve parking should it need to be developed in the future. We do not see a designated reserve parking area or an area where this might even be a potential. It is our experience that older developments on sites with less than the required amount of parking, or parking is too far from the building, result in parking on grassed areas where runoff and drips from cars are not treated (25 Union Avenue in Chiswick Park, Sudbury Farms, Lynch Landscaping on Union Ave., etc.). If the site cannot provide the required number of parking spaces or reserved spaces for the future, we believe it is justification for a reduction in the number of units.

There appears to be an approximate 10% grade for 100' of the access road to the garage following a sharp turn to gain entrance to the parking garage from the access drive. We can expect this area to be heavily sanded and salted in the winter. This design will require frequent cleaning of deep sumps to remove sand. This should be reflected in the Stormwater Operation & Maintenance Plan.

We did not see any details on the garage drainage. Will there be oil and gas separators? A tight tank? Details on how drainage in the garage is handled is required.

Sequencing of construction is critical. A current stormwater basin will be eliminated. What is the plan for temporary collection and treatment of runoff during construction? What will be the condition under which the new new system is activated?

What is the plan for parking for both construction-related vehicles, residents and staff during construction?

Salt tolerant plant species should be required along the Route 20 frontage. Invasive forsythia should be eliminated. Native species should be incorporated into the planting plan. Stormwater basin should be all native species with a mix of woody shrubs on the side to replace lost wildlife habitat functions.

The local irrigation bylaw does not permit irrigation wells within 100' of wetlands. The irrigation well appears to be approximately 70' from the wetland. At a minimum, the applicant should perform a drawdown test to ensure that the well will not draw water down from the surface wetland. A limit of lawn/ landscaping line should be added to the plans.

The applicant and owner should be added to the Title Sheet.

We do not see a designated area for trash collection.

Erosion control was not shown on the plan.

We do not see a designated area for snow storage. Snow removal guidelines should be developed for the site. Snow may need to be trucked off site to an approved disposal facility in some storm events.

The wetland scientist from LEC advised the Commission that wetland enhancement will be limited to removal of invasive vines that are choking the trees. No broad invasive species removal is proposed. With the elimination of much of the 100' upland resource area, at a minimum the remaining land within 100' of the wetland should be enhanced to perform at its maximum capability to protect the public interest of wetlands. Opportunities exist for this to occur.

The Commission finds it unacceptable that many of the details necessary to assess compliance are not being provided until the commencement of work. These details, the stormwater best management practices for example, are necessary during the review process to ensure a properly designed and functioning site and allow review and discussion during the public hearing process. All MA Stormwater Handbook recommendations should be followed; i.e. There should be the recommended amount of freeboard provided in the stormwater basin.

In summary and from the limited information provided, the Commission has concerns that the development may be too ambitious for the site and the size of the building should be scaled back to allow some level of stormwater recharge outside of the stormwater basin, disconnect the roof runoff from the piped system, and provide a larger buffer with maximum enhancement of wetland values and functions. We believe that the location of the development is appropriate for this type of project and are pleased to see at least partial reuse of previously disturbed areas. However, the project appears to push all limits and rely on a questionable creation of two lots to allow an excessive amount of sewage effluent to be discharged into a small area.