

AMORY ENGINEERS, P.C.

WATER WORKS • WATER RESOURCES • CIVIL WORKS

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November 22, 2022

Hingham Planning Board
210 Central Street
Hingham, MA 02043

Subject: 222 South Pleasant Street, Site Plan

Dear Planning Board Members:

This is to advise that we have reviewed the following documents pertaining to the proposed raze and rebuild of the dwelling at the subject site:

- Plan set (34 sheets), revised November 21, 2022, prepared by GMT Home Designs, Inc.
- Stormwater Management Report, revised October 31, 2022, prepared by Site Engineering Consultants, Inc. (SEC)
- Stormwater Management Analysis, dated September 20, 2022, prepared by SEC
- Emails between Michael Silveira and Kathleen Heffernan, dated November 8 & 21, 2022
- Emails between Loni Fournier and Anthony Stella, dated November 1, 2022

The purpose of our review has been to evaluate conformance with Hingham Zoning By-Laws (ZBL), MassDEP Stormwater Management Standards (SMS) and good engineering practice.

Background

The project site is a ±129,258 square foot (s.f.) parcel at 222 South Pleasant Street. Approximately 48,799 s.f. (37.8%) of the parcel is wetland. The parcel is located within the Residence C zoning district and the majority of the parcel, mainly the upland portion, is within Zone II to a public well. The property is currently developed with a single-family dwelling, outbuildings, paved driveway, lawn and wooded areas.

The proposal calls for demolition of the existing dwelling and outbuildings, construction of a new dwelling with attached garage, a detached garage/office structure, in-ground pool, pool house, sports court, paved driveway with an auto court, hardscaping and landscaping. Runoff from the roof of the dwelling and some of the impervious surfaces would be directed into a subsurface infiltration system consisting of plastic chambers surrounded by crushed stone. The proposed sports court would be constructed with porous pavement which will infiltrate stormwater that falls on the court. A new septic system is proposed to serve the dwelling, office and pool house. Water service would be provided by a connection to the existing water main in South Pleasant Street. No other utilities are shown. According to the Landscape Master Plan (Sheet L2), two or three dead pine trees and two live pine trees, located within the Tree Yard are

to be removed and about forty trees, outside the Tree Yard are to be removed. A compost filter tube is proposed as a perimeter erosion control barrier around the limits of work.

Comments

1. A post-development watershed plan should be provided.
2. The Stormwater Management Analysis should include the full, unedited HydroCAD report for each storm event and not just edited excerpts from the report for the 100-year event.
3. The design of the proposed subsurface infiltration system and the porous pavement for the sports court are based on an assumed groundwater elevation and soil texture. Test pits should be excavated in the footprint of each of the facilities to verify adequate depth to seasonal high groundwater and soil texture. This is important because the soil maps¹ indicate that the soils in the front of the lot where the test pits were excavated for the septic system are a different soil type (Hinckley) than the soils where the proposed drainage facilities are located (Canton).
4. Recharge and water quality volume calculations should be provided.
5. In the NPDES Summary (Stormwater Checklist), under Standard 6, it is stated that the project is not located within a critical area. However, since the site is within Zone II to a public well it is located within a critical area and the required water quality volume is equal to one inch of runoff from paved surfaces.
6. There is a proposed 4-inch PVC roof drain lateral that is shown under the proposed attached garage. This appears to only be connected to one downspout near the front entrance to the dwelling. We recommend that this lateral connect to the lateral on the other side of the entrance so that a pipe is not needed under the garage.
7. The location of the inspection port(s) on the subsurface infiltration system should be shown in plan. We recommend a minimum of one inspection port on each row of chambers.
8. A stabilized construction entrance should be shown on the plans and a detail provided.
9. There is a proposed catch basin within the auto court. This should be specified to have a hood and four foot sump and a detail should be provided.
10. There are bathrooms proposed in the garage/office building and the pool house. The connections of these buildings to the proposed septic system should be shown on the Utilities Plan (Sheet CIV3). Water service and other utility services to these structures should also be shown.

¹ See attached map.

11. As noted above, aside from water and septic, there are no other utilities shown on the plans. All proposed utilities should be shown on the Utilities Plan (Sheet CIV3).
12. Some of the proposed retaining walls are over four feet high, which will require building permits and design by a professional engineer.
13. The Construction Management / Operation & Maintenance Plan has a section entitled "After Construction" which describes inspection and maintenance of some of the components of the proposed stormwater system. It should include more detailed information on the inspection and maintenance of the subsurface infiltration system and also information on inspection and maintenance of the catch basin and drain manholes that have sumps.
14. Proposed exterior lighting is shown on the Hardscape Plan (Sheet L1). A photometric plan should be provided to verify that there will not be light spillover onto adjacent properties.

Please give us a call should you have any question.

Very truly yours,

AMORY ENGINEERS, P.C.

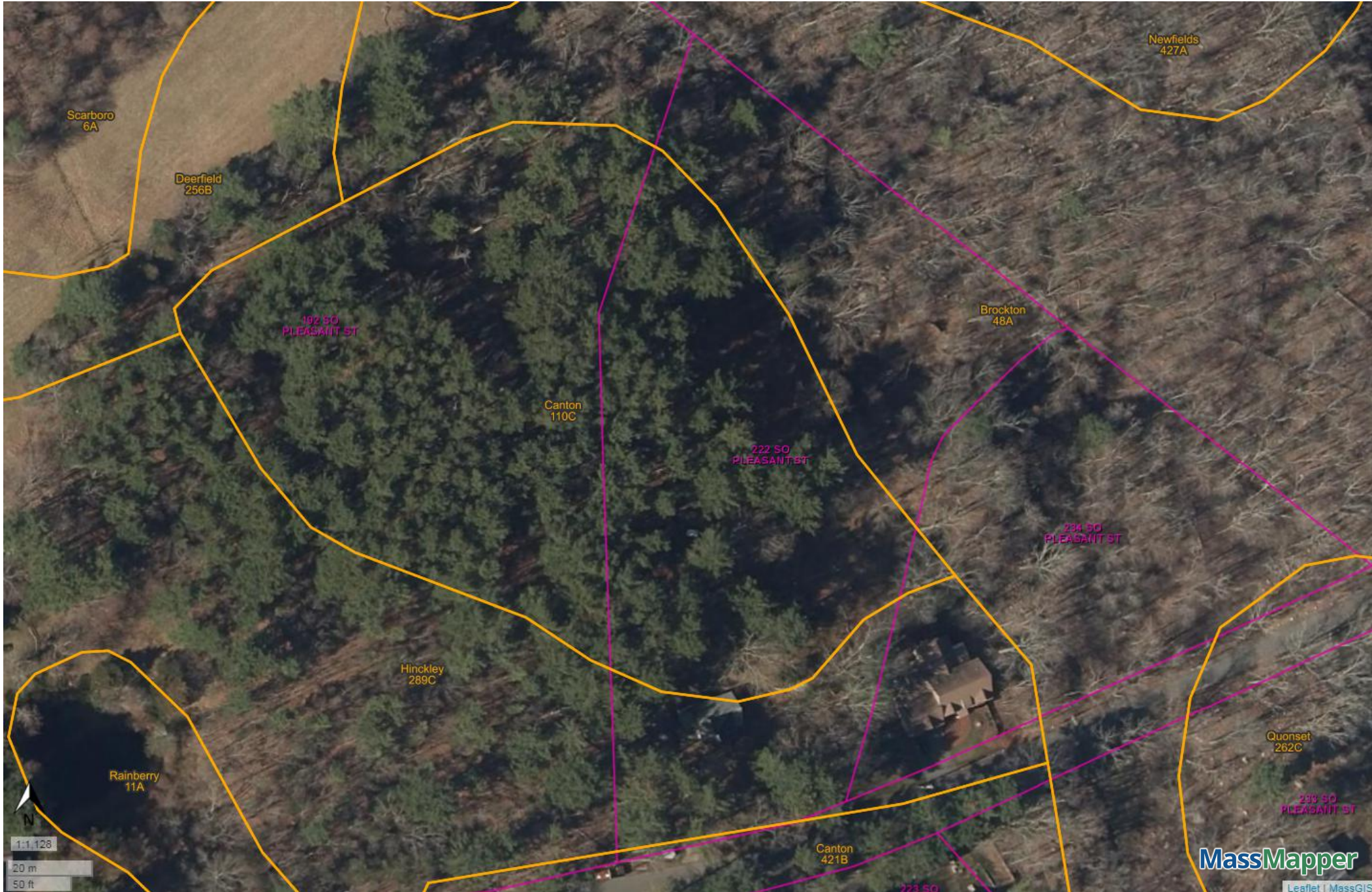
By:



Patrick G. Brennan, P.E.



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Soils Outlines



Areas of Critical Environmental Concern
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