

June 3, 2022

Mr. Donald Ritchie, Chair
Harvard Conservation Commission
c/o Liz Allard, Land Use Administrator/Conservation Agent
Harvard Town Hall
13 Ayer Road
Harvard, MA 01451

Via: Email to llallard@harvard.ma.us

Reference: Notice of Intent Review
MassDEP File No. 177-0711
Ayer Road Village
203 Ayer Road
Harvard, Massachusetts
B+T Project No. 3241.02

Dear Commissioners:

Beals and Thomas, Inc. (B+T) is pleased to assist the Harvard Conservation Commission (the Commission) with the review of the Notice of Intent (NOI) application filed by Goldsmith, Prest and Ringwall, Inc. (GPR) on behalf of Yvonne Chern and Wheeler Realty Trust (the Applicant). The Applicant is seeking an Order of Conditions to construct a three building (approximate total building footprint of approximately 42,615 square feet) commercial development at the property, including the filling of an isolated wetland (jurisdictional under the Harvard Wetlands Protection Bylaw; 'the Bylaw') and associated wetland replication (the Project).

B+T understands that a previous Order of Conditions was issued with respect to the wetland delineation and proposed alteration effort under MassDEP File No. 177-0707 on September 10, 2021. **Based on our conversations in the field with Chairman Ritchie and the Applicant, B+T has not performed a review of the wetland delineation and defers to the Commission as to whether this task is to be undertaken as part of B+T's peer review.**

B+T received the following documentation from the Town, which served as the basis for our review:

- NOI Application Package entitled 203 Ayer Road Harvard, MA dated March 2022, including WPA Forms and Town of Harvard NOI Forms
- Order of Conditions for MassDEP File No. 177-0707

Civil Engineering ▪ Land Surveying ▪ Landscape Architecture ▪ Land Use Permitting ▪ Environmental Planning ▪ Wetland Science

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- Document entitled *NARRATIVE to accompany NOTICE OF INTENT 203 Ayer Road Harvard, MA*
- Plan (single sheet) entitled *Commercial Development Notice of Intent Wetland Replication Plan* dated March 2022 and stamped by Nicholas M. Pauling, PE on March 11, 2022.
- Plan set entitled *Commercial Development Special Permit 203 Ayer Road Harvard, MA* dated March 2022 and stamped by Nicholas M. Pauling, PE on March 11, 2022.

We also reviewed MassDEP CERO's commentary on the NOI.

Please note that we also reviewed the proposed Stormwater Management system and our related comments are included in our separate comment letter relating to the Special Permit and Site Plan Applications.

The NOI materials were reviewed in the context of the MA Wetlands Protection Act and implementing regulations, as well as the Bylaw and associated regulations.

Existing Conditions

The subject parcel spans approximately 11.03 acres based on the Harvard Assessor's Database and exhibits a range of vegetative conditions (the Property). The Property is irregularly shaped and maintains frontage on Ayer Road to the east. Portions of the Property which are outside of the proposed limit of disturbance include a spur which extends to the northwest into existing residential development and a panhandle shape to the west which is partially forested.



MassGIS Parcel Data and 2021 Aerial Image

The vegetative conditions of the Property within the proposed limit of work are predominantly comprised of meadow habitat with sparse tree cover. Clusters of early successional shrub growth are also present throughout the margins Property. Where trees are present, these species generally consist of white pine (*Pinus strobus*) and black cherry (*Prunus serotina*).



*Both Photographs: Sample of Field Conditions within Property
Photographs Dated May 19, 2022*

Much of the proposed Limit of Disturbance (LOD) consists of the aforementioned open field habitat abutting Ayer Road. As is common for this habitat type exposed to anthropogenic factors (e.g., busy roadway), a portion of the vegetative cover of the Property is comprised of non-native invasive species. Invasive plants observed during the site walk include Japanese knotweed (*Fallopia japonica*), multiflora rose (*Rosa multiflora*), common reed (*Phragmites australis*), autumn olive (*Elaeagnus umbellata*), bush honeysuckle (*Lonicera* sp.), whorled bedstraw (*Galium mollugo*), and Asiatic bittersweet (*Celastrus orbiculatus*), among other species.



*Left Photograph: Japanese knotweed cover near Ayer Road.
Right Photograph: Asiatic bittersweet constricting white pine growth.
Photographs Dated May 19, 2022*



*Knotweed growth out of catch basin along Ayer Road.
Photograph dated May 19, 2022*

Multiple wetland resource areas constrain the Property. The easternmost portion of the Property contains a Bordering Vegetated Wetland (BVW) which appears to have a hydrologic connection to Bowers Brook by way of a culvert beneath Gebo Lane. This BVW is generally vegetated with common reed (*Phragmites australis*), cattails (*Typha* sp.), common rush (*Juncus effusus*), silky dogwood (*Cornus amomum*), and sensitive fern (*Onoclea sensibilis*), among other species.

An isolated vegetated wetland (IVW) occupies a portion of the open field and early successional habitat within the proposed limit of disturbance. This IVW is jurisdictional as a 'Freshwater Wetland' pursuant to the definitions of the Bylaw (Chapter 147-4). We further understand that this resource area was determined to be jurisdictional under the Bylaw during the recent permitting interaction (MassDEP File No. 177-0707); however, please note that we have not performed a detailed field review of the delineated IVW as described in the preceding section of this report. Generally, this IVW is vegetated with cattails (*Typha* sp.), silky dogwood (*Cornus amomum*), sensitive fern (*Onoclea sensibilis*), and horsetail (*Equisetum* sp.), among other species.



Left Photograph: View facing east towards BVW.

Right Photograph: View facing west towards IVW.

Photographs dated May 19, 2022.

Additional BVWs are present in the western panhandle portion of the Property. Based on our field reconnaissance and review of the site plans, these BVWs appear to be over 100 feet from the proposed LOD.

Project Description

The Project includes the construction of a commercial development entitled Ayer Road Village in the northeasterly portion of the site (the Project). According to the site plans and Project Narrative, the proposed commercial development seeks to construct three commercial use buildings with parking, pedestrian access, and a driveway connection on Ayer Road. The Applicant is also seeking a waiver from Section 147-12 of the Harvard Wetlands Protection Bylaw, the standard which establishes a 50-foot No Disturb Zone to wetland resource areas.

The Project proposes to fill the isolated wetland. This impact is proposed to be mitigated through the creation of an approximately 23,800 square feet replication area. Wetland replication in the form of expanding the footprint of the existing BVW is proposed. Based on our site visit, we find that the soils and indicators of hydrology appear to be supportive of wetland replication in this area as shown. However, please refer to our comments below regarding the management/monitoring of invasive plants throughout.

Site Visit Comments:

1. Without careful monitoring, invasive plant communities may easily establish within the footprint of the wetland replication area and other areas within the LOD.

Given the large presence of invasive plant communities on-site, B+T recommends that the plan and associated narrative be revised to include a focus on invasive species management throughout the duration of the wetland replication and monitoring work (including potential management methodologies should they be warranted). Please refer to Plan Comment No. 17 with respect to potential opportunities for invasive plants to spread on-site.

2. There is a channelized feature which appears to drain from the IVW to the easternmost BVW. In some areas, this feature is lined with stone, whereas in others areas it appears to hold water and contain hydrophytic vegetation. Was this channelized feature reviewed by the Applicant or Commission to determine if there is a hydrologic connection between the IVW and BVW, which would qualify the IVW instead as BVW? We recommend that the Applicant provide documentation as to why this channelized area is non-jurisdictional to support the isolated wetland's designation as being solely jurisdictional under the Bylaw.



*Left Photograph: Stone lined portion of the channel between IVW and BVW.
Right Photograph: Inundated portion of the channel with sensitive fern within an area delineated as upland. Photographs dated May 19, 2022.*

3. Some of the wetland delineation flags appeared to be missing or had fallen at the time of the site visit. We recommend that these flags be re-established in their approved locations prior to any construction or replication activities. If a peer review of the wetland delineation is requested by the Commission, then flagging locations would have to be re-established prior to evaluating the wetland line.



*Sample fallen wetland flagging at the time of the site visit.
Photograph dated May 19, 2022.*

MassDEP Technical Review Comments:

The Massachusetts Department of Environmental Protection, Central Regional Office has provided the following comments for the Commission's consideration. We have listed these comments for reference along with our written commentary.

4. *401 Water Quality Certification is required unless the applicant provides a determination from the Army Corps of Engineers that the isolated vegetated wetland is not jurisdictional under Federal definitions.*

Although not subject to the Commission's purview, B+T recommends that the requested US Army Corps of Engineers (US ACE) documentation be provided to discern whether a Water Quality Certificate is required, as doing so may provide information as to isolated vs. bordering status of the wetland. If MassDEP wetland delineation transect forms were not provided during the initial permitting interaction (see Comment No. 7), the US ACE delineation transect forms may provide the Commission with the requisite information for a resource area boundary determination.

5. *Infiltration Basin 1 and Infiltration Chamber 1 do not appear to have adequate separation (2') to mean annual high groundwater. Basin bottom elevations shown on site plans vary from those shown in the detail drawings. Mounding and drawdown calculations do not appear to take annual high groundwater levels into consideration, and may not be accurate. Groundwater and/or mounding intrusion into the stormwater basins or chambers can reduce the capacity of these features to control peak flows.*

We recommend that the Applicant revise the stormwater management system to address MassDEP's technical review comments.

6. *Basin 2 does not have an adequate setback (50') from the planned wetland replication area.*

We recommend that the Applicant provide an adequate setback from the planned wetland replication area to Basin 2 pursuant to MassDEP's comments.

Application Comments:

7. Sparse information has been provided with respect to the wetland delineation outside of the plan notes referencing a recent permitting interaction. Although we understand that the Applicant has sought confirmation of the wetland line as part of a recent filing (MassDEP File No 177-0707), we recommend that the Applicant provide the Conservation Commission with documentation on methodology for establishing the resource areas boundaries. We note that some of the soil test pits proximate to the IVW (Test Pits Nos. 122-6 and 122-7) report either gleyed or reduced conditions with redoximorphic features close to the soil surface in areas delineated as upland, which could be indicative of wetland conditions.
8. The relationship between the previous OOC (MassDEP File No. 177-0707) and the current NOI should be carefully explained in the Application materials. Although we understand that the Applicant sought approval of the wetland line during this previous permitting interaction, the Bylaw outlines that an Abbreviated Notice of Resource Area Delineation (ANRAD) filing is the regulatory mechanism for that task (Chapter 119-4).
9. Although the square footage of the replicated BVW is provided in the narrative, the Applicant should provide the Commission with the area takeoff for the impacted wetland to ensure that the appropriate 1:1.5 ratio is provided (Chapter 147, Article VIII(C)).
10. The Bylaw's implementing regulations require that a bond be posted that will enable the Commission to complete the replication should the Applicant fail to fulfill obligations set forth in the Order of Conditions (Chapter 147, Article VIII(M) and Article XI). We understand that information pertaining to surety has not been provided with the NOI at this time and recommend that it be provided.
11. Although the Bylaw and its implementing regulations do not have a threshold for maximum resource area impacts that the Commission may permit for Freshwater Wetlands as defined therein (Chapter 147, Article II), we note that the proposed wetland alteration appears to be either close to or over (exact area impacts not provided) four times the amount permissible for BVW impacts.

We recommend that the Applicant provide written documentation as to what wetland resource area avoidance and mitigation strategies were explored prior to selecting the plan for wetland alteration.

12. Was the IVW determined by the Applicant to not qualify as Isolated Land Subject to Flooding (ILSF) pursuant to the standards of 310 CMR 10.57 *et seq.* during the previous permitting interaction? If not, B+T recommends that the Applicant provide an engineering calculation to demonstrate that the isolated wetland is not a state jurisdictional resource area. Additionally, please note that the Bylaw's implementing regulations for a locally jurisdictional ILSF differs from that of the Act (i.e., does not have the minimum ¼-acre foot requirement if part of the groundwater system; Chapter 147, Article II).

Plan Comments:

13. We note for the record that the plan entitled 'Commercial Development - Notice of Intent Wetland - Replication Plan— 203 Ayer Road, Harvard, MA' consists of a single sheet. However, the WPA Form and Attachments reference the plan entitled 'Commercial Development – Ayer Road Special Permit – 203 Ayer Road, Harvard, MA'. We request that the Applicant confirm that the intent is that the Commission review both sets under this NOI filing. Our evaluation was based on reviewing both plan sets.
14. Wetland buffer zones on the existing conditions plan reflect the post-project conditions. We recommend that the Existing Conditions plan be revised to include the current buffer zones for comparison of the existing and proposed conditions.
15. We understand from the site visit and depiction on the aforementioned plan set that the existing drain line discharging to the west of wetland flags WF-B11 – WF-B13 is to be cut back further upgradient as part of the proposed drainage. Will the riprap apron be removed from the Buffer Zone as part of this work? We recommend that disturbed areas within the Buffer Zone and local setbacks be loamed and seeded with an appropriate seed mix.
16. Sediment control barriers should be installed along the wetland replication boundary to mitigate impacts from sedimentation to the down-gradient wetland in accordance with the Bylaw's regulations (Chapter 147, Article VIII(E)).
17. In most circumstances, it is advantageous to re-use soils and native wetland plants from the subject locus in wetland replication efforts. However, in this unique circumstance we recommend that the Applicant consider not re-using the on-site soils given the possibility of them functioning as a seedbank for invasive species.

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We recommend that the Applicant consider removing and/or amending the following plan comments where re-use of material is considered:

- a. Part 4 (G)
- b. Part 4 (H)
- c. Part 4 (K.1)

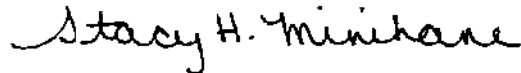
We thank you for the opportunity to assist the Town of Harvard Conservation Commission with the review of this Project. Should you have any questions, please do not hesitate to contact our office.

Very truly yours,

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