



July 23, 2025

Bellingham Conservation Commission
c/o Hannah Chace, Conservation Agent
10 Mechanic Street
Bellingham, MA 02019

Via: Email to hchace@bellinghamma.org

Reference: Peer Review – Notice of Intent (NOI)
MassDEP File No. 105-0986
Blackstone Street Improvements
Bellingham, Massachusetts
B+T Project No. 3608.00

Dear Commissioners:

Beals and Thomas, Inc. (B+T) is pleased to assist the Town of Bellingham (the Commission) with its review of a Notice of Intent for the proposed Blackstone Street Improvements (the Project) located on Blackstone Street (the Site or Property) filed by Wall Street Development Corp (the Applicant).

We have reviewed the documentation submitted by the Applicant with respect to the requirements of the Massachusetts Wetlands Protection Act and implementing Regulations as well as the Bellingham Wetlands Protection Bylaw and its implementing Regulations. While these Regulations include Stormwater Compliance, a comprehensive stormwater review has not been conducted (nor has B+T received/reviewed the Project Stormwater Management Report).

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

- Plan entitled *Blackstone Street Improvements*, dated February 14, 2025, revised June 20, 2025, prepared by Allen Engineering & Associates, Inc. (12 sheets)
- *Performance Standards Analysis*, dated April 14, 2025, prepared by Goddard Consulting LLC (12 pages)
- *Wetland Replication Planting Plan*, dated April 14, 2025, prepared by Goddard Consulting LLC (13 pages)
- *Wetland Border Report*, dated February 12, 2025, prepared by Goddard Consulting LLC (31 sheets)
- *WPA Form 3 - Notice of Intent*, dated March 10, 2025
- *Blackstone Street Improvements Exhibit*, dated March 10, 2025

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Project Summary

The Project involves the upgrade of an existing unimproved road into a subdivision road, along with proposed stormwater infrastructure. Per the NOI, approximately 2,302 square feet of Bordering Vegetated Wetland (BVW) impact is proposed, and approximately 4,620 square feet of wetland replication is included along the eastern side of the WF-C Series BVW. Please refer to the MassDEP Comments for request for clarification as to whether Bank impacts are also required.



Aerial photograph of the Site and vicinity with MassMapper Parcel Layers

Site Visit and Delineation Review

B+T conducted a site visit on July 16, 2025, to familiarize ourselves with the Site and adjacent area, to evaluate the existing conditions relative to the proposed development, and to review the wetland resource area delineations. Present on-site for this field review was Andrew Gorman of B+T on behalf of the Town and Ryan Roseen of Goddard Consulting (GC) on behalf of the Applicant. Photographs are included herein to illustrate conditions at the Site and to provide context for our comments.

During the site visit, special attention was given to low-lying areas, such as those along Lots 8 and 10, along with other depressions and concave slopes for the presence or absence of wetland resource areas. No additional wetland resource areas were identified within areas mapped as upland on the NOI plans.

B+T did observe water-stained soil conditions in the lowest point of the roadway between the WF-A and B Series BVWs. This appears to be overtopping from what appears to be an obstructed culvert beneath the roadway. This area was investigated to determine if it should be included as part of the BVW delineation. However, the shallow (less than three inches) saturated soil material appears to be resting upon a compacted gravel base based on our field augering. While we do not request that this area be included as part of the delineation, the hydrologic connectivity between these two resource areas should be carefully considered.

Please refer to Comment No. 3 regarding our recommended flagging changes.



*Left Photograph: View of saturated area likely from WF-A Series BVW overtopping
Right Photograph: Close up of auger pull within saturated area where shallow resistance (compacted gravel) was encountered within the first few inches*

Given the field indicators of hydrology, B+T concurs with using the boundary of the WF-A Series as a conservative representation of the vernal pool boundary. One area where the BVW does not appear to contain a portion of the vernal pool is the triangle wedge formed by WF-A7 through WF-A9, though we concur it is part of the surrounding BVW.

MassDEP Technical Review Comments

The Massachusetts Department of Environmental Protection (MassDEP) has provided the following comments for the Commission's consideration. We have listed these comments for reference along with our written commentary.

- 1. Project plans indicate direct impact to Bordering Vegetated Wetland and supplemental documents provided with the application detail the construction of a wetland replication area as mitigation for these impacts. Additionally, existing mapping layers and the accompanying wetland border report indicate that an undelineated intermittent stream exists within the delineated BVW. While the wetland system appears to be bisected by the existing gravel roadway, the applicant should confirm whether Bank impacts will be associated with the project and if so provide documentation demonstrating compliance with the performance standards at 310 CMR 10.54(4) and the MA Stream Crossing Standards.*

B+T Comment: With respect to the intermittent stream, during the time of the site visit, the up-stream portion of this stream was indistinguishable given the ponded condition of the WF-A Series BVW. However, we concur with MassDEP's recommendations for the portion of the stream within the WF-B Series, and recommend the Applicant provide commentary on how the Project conforms to the above-cited standards. We recognize that the situation is nuanced in that the replaced culvert is intended to preserve vernal pool hydrology within the WF-A Series, which may factor into how Bankfull width conformance is proposed.

- 2. The applicant should provide a revised WPA Form 3 which identifies all resource area impacts and replacement values and MassDEP recommends that project plans be revised to include the siting location of the proposed wetland replication area which have been provided in "draft" form.*

B+T Comment: We request that the Applicant provide a revised WPA Form3 itemizing resource area impacts with the revised plans as indicated by MassDEP above.

Site Visit and Application Comments

- 3. B+T concurs with the wetland delineation as presented on the plan, except for the following revisions discussed during the July 16, 2025 site visit. Specifically, we recommend:*
 - a. Connect WF-A1 to the new WF-A1A, then connect WF-A1A to WF-AA1*
 - b. Connect WF-A5 to the new WF-A5A, then connect WF-A5A to WF-A6*
 - c. Connect WF-A8 to the new WF-A8A, then connect WF-A8A to the new WF-A8B to WF-A9*



Left Photograph: Revised WF-A1B pin flag

Right Photograph: Revised WF-A5A flag

4. As per Section 247-25(E) of the Bylaw's Regulations, roadway construction is not permissible within the No-Disturbance Zone to a vernal pool. We request that the Applicant consider and prepare the appropriate documentation for a waiver request under Sections 247-10 and 11 of the Bylaw's regulations.

Plan Comments

5. The current site plans propose a box culvert at approximately Station 3+50 connecting the hydrology of the WF-A and WF-B Series. We understand from conversations during the site visit that the Applicant may be considering a weir structure to be able to control and preserve vernal pool hydrology within the up-gradient wetland. We request that the Applicant clarify this design intent and provide appropriate engineering details.
6. The Buffer Zone nomenclature on the plan does not appear to match the requirements of the Bylaw. We request that the Applicant update to reflect the No Disturbance Zones detailed therein.
7. The Existing Conditions Plan (Sheet C-3) is stamped by a professional engineer, even though professional land surveyor is referenced in the title block. We request that the Applicant provide an existing conditions plan stamped in accordance with 250 CMR 6.00.
8. Where will materials be staged during the expansion and upgrade of the roadway? We request that the Applicant identify where stockpiles and staging will be performed, and that consideration be given to the areas west of Station 6+50 to keep them outside of resource areas and Buffer Zones to the extent practicable.

9. Given the site topography and that the WF-A, B, and C Series wetland are situated in a low point near the Site entrance, it appears that there is an increased risk for sediment to settle in this low point, either from overland flow or construction track out. The Commission may wish to consider erosion and sediment control monitoring. We further request that the Applicant consider temporary sediment traps in the upland areas down-gradient and east of Lot 12 to the extent feasible.
10. We request that the t plan indicate the horizontal survey coordinate system (i.e. NAD83 State Plane).
11. Two existing culverts were observed below Blackstone Street connecting the WF-A and B Series wetlands but are not indicated on the plan. We request that the Applicant revise the plans to depict these features.
12. Sediment control barriers should be provided/extended to areas downgradient of proposed earthwork/trenching. For example, along the eastern perimeter of the drainage easement to Infiltration Basin 1, south of the roadway off-grading west of STA 7+00±, and around Infiltration Basin 2 and associated easement.
13. There does not appear to be adequate space to install the retaining wall in the vicinity of the wetland/vernal pool, especially along the southern wall. There appears to be approximately two feet between the face of the wall and sediment control barrier and there appears to be a one-foot toe per the wall detail.
14. The proposed 2-foot high box culvert (at STA 3+45) appears as if it will have one foot of substrate placed within (per the roadway profile and invert elevation). Please provide a construction detail specific to the culvert and confirm this is the intent. If so, this will leave a relatively shallow one-foot-high opening. Please provide an operation and maintenance plan outlining measures to keep the culvert clear and functional in the wooded environment. It is also unclear how the substrate will be placed within the 37± foot culvert length, if that is the intent.
15. The proposed 10-foot-wide box culvert appears as if it may have as little as 10 square feet of open area. Comparatively, the existing low point along the roadway extends at least 100 feet and excess runoff could theoretically crest over this length. Please confirm how the proposed culvert was sized and that it has adequate hydraulic capacity to convey any overflow from the vernal pool and wetland. Hydraulic analyses and water budgets may be warranted to demonstrate there are no adverse effects on the vernal pool or the wetlands.
16. There are multiple existing culverts crossing beneath the unimproved way providing hydraulic connections between the wetland systems proximate to the vernal pool. Please evaluate and provide documentation demonstrating the proposed design (consisting of the single box culvert) is consistent with the existing wetland hydrology.

17. We recommend the proposed water main be insulated where it crosses beneath proposed culverts, as there is less than 5-feet of separation to the open-air.
18. Several stormwater drain pipes are proposed at slopes of 10%, including the 12" HDPE outlet pipe from DMH 3 and the 15" HDPE outlet pipe from DMH 5. This results in maximum flowing full velocities of 14.4 and 16.7 feet per second, respectively. Standard engineering practice is for maximum velocities to not exceed 12 feet per second.
19. There do not appear to be soil test pit locations indicated on the plan in the vicinity of Infiltration Basin 3. Please perform a minimum 3 soil test pits at Infiltration Basin 3 in accordance with the Bellingham Wetlands Regulations Section 247-33.B(2).
20. We request that the Applicant extend the ends of the gabion at Infiltration Basin 3 to the 291± contour elevation.
21. We request the Applicant provide maximum 100-year storm water surface elevations within the Basin Elevation Schedule on the Stormwater Collection and Infiltration Basin detail on C-11. In accordance with the Bellingham Wetlands Regulations Section 247-33.B(3), basins shall be designed with a minimum one foot of freeboard from the 100-year ponding elevation to the emergency spillway. Standard engineering practice dictates an additional one foot of freeboard above the emergency overflow spillway to the top of berm. Also, please revise this detail to delete what appears to be an erroneous top of berm elevation of 216.60.
22. Please confirm the emergency spillways are designed to pass the 100-year inflow rate with 6" of freeboard to the top of berm (i.e. basin in failure) in accordance with Bellingham Wetlands Regulation Section 247-33.B(4).
23. We request the Applicant consider proposing outlet control structures at each of the infiltration basins, in accordance with the MassDEP Stormwater Handbook. The design is dependent upon the infiltrative capacity of the soils. Under frozen/frost conditions, the basins may not dewater within 72 hours as required by the MassDEP Stormwater Management Policy.
24. We recommend the Applicant propose a free-draining loam for the bottom of the infiltration basins. The loam shall not impede infiltrative capacity.
25. We recommend drawdown devices be proposed to dewater each of the basins for maintenance, in accordance with the MassDEP Stormwater Handbook.

26. The paved widths on the roadway details on sheet C-11 are inconsistent with the notes. Assuming binder is paved 1.5 feet beyond traveled way, the binder width would be 25 feet (not 23 feet) to support the bituminous berm. Revise the roadway cross-sectional details to depict accurate pavement widths including pavement below the berm.

B+T is available to attend the public hearing, upon request, to present the results of our review and be available for discussion regarding the comments listed herein.

Thank you for the opportunity to assist the Town of Bellingham with the review of this Notice of Intent (NOI). Should you have any questions, please do not hesitate to contact our office.

Sincerely,

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