



December 5, 2025

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

Via: Email to hchace@bellinghamma.org

Reference: Supplemental 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 continue assisting the Town of Bellingham (the Commission) with its review of a Notice of Intent (NOI) for the proposed Blackstone Street Improvements (the Project) located on Blackstone Street (the Site or Property) filed by Wall Street Development Corp (the Applicant).

B+T Issued an initial review letter to the Conservation Commission, dated July 23, 2025, that presented the results of our site visit and evaluation of the documentation submitted by the Applicant. Please refer to our July 23, 2025 letter for the project overview as well as the results of our site visit conducted on July 16, 2025. As a result of our initial comments the Applicant submitted the supplemental documentation as listed herein.

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

- Letter in reference to Comment Responses, Notice of Intent DEP File #105-0986, Blackstone Street Improvements, AEA Project - 00527, dated October 31, 2025, prepared by Allen Engineering & Associates.
- Plan entitled Blackstone Street Improvements, dated February 14, 2025, revised October 31, 2025, prepared by Allen Engineering & Associates, Inc. (14 sheets)
- Document entitled drainage Analysis for Blackston Street Improvements, dated February 14, 2025, revised October 31, 2025, prepared by Allen Engineering & Associates, Inc.

Document entitled Long Term Operation & Maintenance Plan, dated October 31, 2025, prepared by Allen Engineering & Associates, Inc.

- Revised WPA Form 3 - Notice of Intent, Section B. Buffer Zone & Resource Area Impacts, revised March 10, 2025 (one page)

Corporate Office

144 Turnpike Road
Southborough, MA 01772

bealsandthomas.com T 508.366.0560 F 508.366.4391

Regional Office

32 Court Street
Plymouth, MA 02360

Review Format

To establish clarity for the Administrative Record, we have included the comments from our initial letter, dated July 23, 2025, followed by a summary of the Applicant's responses in *italicized* font, followed by our current responses in **bold** font to document the status of our original comment.

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.

Allen Engineering Response: No defined stream channel exists on the up-stream side of the road. The intermittent stream located down-stream of the road has been delineated in the field and survey located. See flags labeled SB-1 thru SB-4 and SA-1 thru SA-4. The stream channel originates at flags SB-1 and SA-1. No work is proposed within the stream channel and therefore The Stream Crossing Standards are not applicable.

B+T Comment: As indicated in our original comment, we agree with the Applicant regarding the lack of a distinguishable stream up-gradient of the road within the WF-A Series BVW given the ponded condition. Similarly, we agree that Bank and stream crossing performance standards are irrelevant if no work is proposed within the Bank/stream as is represented on the plans.

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 Form 3 itemizing resource area impacts with the revised plans as indicated by MassDEP above.

Allen Engineering Response: A Revised WPA Form 3 is provided. (The wetland impact is now 2,525 sf was 2,302 sf. Replication areas is now 5,095 sf) The plans also reflect the wetland replication area and associated details. Refer to Sheet C-12.

B+T Comment: This comment has been largely addressed by the Applicant.

However, we recommend that wetland soil parameters, pit and mound topography, and inclusion of non-living features (snags, woody debris, rock piles etc.) be considered for addition to the wetland replication plan.

The Applicant should also confirm that the wetland replication is sited outside of the intermittent stream channel (the full length of the stream is not depicted along the extent of the wetland replication area).

The seed mix noted in the Wetland Replication Planting Plan (dated April 14, 2025 by Goddard Consulting LLC) should be indicated on the planting plan Sheet C-12. Similarly, the instructional information in the Wetland Replication Planting Plan document should be incorporated as notes on the planting plan Sheet C-12.

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

Allen Engineering Response: The revisions have been made to the plans including four (4) new flags.

B+T Comment: This comment has been addressed by the Applicant.

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.

Allen Engineering Response: A waiver request is respectfully submitted along with these responses and revised plans.

B+T Comment: We have not received the waiver request to review. It is our understanding that the waiver request was not submitted to the Conservation Commission.

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.

Allen Engineering Response: A weir structure is not proposed. The plans reflect a box culvert with the invert established at the spill-over elevation of the gravel road. This will ensure that the vernal pool hydrology will function as it currently does.

B+T Comment: This comment has been addressed by the Applicant. However, please note Comment 15 relating to the culvert elevations.

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.

Allen Engineering Response: The nomenclature has been revised for consistency with the Bylaw where applicable.

B+T Comment: This comment has been addressed by the Applicant.

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.

Allen Engineering Response: The professional is both a P.E. and a P.L.S. The incorrect stamp was inadvertently placed on the plans. Sheets C-3 and C-4 which now bear the correct P.L.S. stamp.

B+T Comment: B+T Response: This comment has been addressed by the Applicant.

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.

Allen Engineering Response: Two construction staging areas have been added to the plans. One at station 11+00 where grades are flattest. The second is within the cul-de-sac at the end of the proposed roadway.

B+T Comment: This comment has been addressed by the Applicant.

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.

Allen Engineering Response: The Applicant is not opposed to typical erosion control monitoring. Erosion control measures are proposed and will be regularly inspected and maintained. It is not possible to utilize the area suggested for temporary sediment traps as the Applicant does not own or control that property.

B+T Comment: No further comment necessary, though we note to the Commission it may consider including a potential condition relating to erosion and sediment control monitoring.

10. We request that the plan indicate the horizontal survey coordinate system (i.e. NAD83 State Plane).

Allen Engineering Response: Note no. 4 on Sheet C-2 has been updated accordingly.

B+T Comment: This comment has been addressed by the Applicant.

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.

Allen Engineering Response: After an extensive search, only a single 12" RCP culvert was found. It has been survey located and depicted on the plans.

B+T Comment: Subsequent to our comment letter, we clarified via email that reference to a second culvert was based on information from the Applicant. This comment has been addressed by the Applicant.

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.

Allen Engineering Response: The sediment control barrier has been extended at Basin 1. All other recommended areas are far removed from any wetland resource areas and therefore do not warrant erosion controls.

B+T Comment: Although it is generally good practice to provide sediment control barriers along the down-gradient limit of work to minimize the potential transport of sediment to undisturbed woodland, we acknowledge that it cannot be required by the Commission in areas outside of jurisdiction.

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.

Allen Engineering Response: The Applicant's goal is to minimize the wetland impact to the extent possible. We do however, concur that the construction corridor is narrow. For this reason, we have adjusted the work limits on both sides to allow additional room for construction. As noted previously, this has resulted in a slight increase in BWV impact from 2,302 sf. to 2,525 sf. The Applicant will also explore the possibility of reducing the width of the traveled way from 22-feet to 20-feet with the Planning Board in the vicinity of the culvert.

B+T Comment: This comment has been addressed by the Applicant. We recommend that the Commission consider a condition requiring staking and field review by the Commission or its representative of the limit of work prior to commencement of the work, in order to avoid additional wetland impacts.

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 $37\pm$ foot culvert length, if that is the intent.

Allen Engineering Response: There is no substrate proposed within the culvert. The profile view was simplified for clarity, which shows the left and right side of the culvert. A detail of the culvert has been added (see Sheet C-11).

B+T Comment: The original comment has been addressed by the Applicant. However, we note the longitudinal slope of the box culvert is 4.41%, though the detail indicates 4%.

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.

Allen Engineering Response: The proposed box culvert has an open area of 20 square feet. The culvert has been designed to convey the 50-year storm. Please refer to the drainage report. The inlet invert has been established at the same elevation as the gravel road where flow currently overtops the road in larger storm events. This will ensure that the vernal pool hydrology will function as it currently does.

B+T Comment: Existing culvert information has been added to the plan. It is unknown to what extent the culvert is blocked vs. allowing some amount of water flow through, and accordingly, to what extent the current state of the culvert contributes to the vernal pool hydrology. This existing culvert appears to have an inlet invert elevation of 291.31. The new box culvert is proposed with an invert of 294.00, which could alter the hydrology, as the vernal pool could pond an additional 2.5+ feet in the post-development condition, since the existing culvert is being abandoned and its entire length will lie beneath the new road with no outlet.

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.

Allen Engineering Response: After an extensive search, only a single 12" RCP culvert was found. It has been survey located and depicted on the plans. The culvert was found to be blocked on the upstream side for an unknown period of time and has not been functioning. The Applicant has elected not to pursue the restoration of this culvert to avoid any adverse impact to the recently certified vernal pool. See responses to comment no. 15 above regarding the hydrology function.

B+T Comment: The original comment has been addressed by the Applicant. However, we recommend that the Applicant specify how the existing culvert will be abandoned to avoid routing water underneath the road with no outlet.

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.

Allen Engineering Response: A notation has been added to the profile accordingly (see Sheet C-5).

B+T Comment: This comment has been addressed by the Applicant.

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.

Allen Engineering Response: The outlet pipe from DMH-3 has been lowered to mitigate the excessive velocity. The outlet pipe from DMH-5 is sloped at 1%, not 10%.

B+T Comment: This comment has been addressed by the Applicant.

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).

Allen Engineering Response: Basin 3 was added after the initial soil testing. Test pits were recently performed within Basin 3. Test pit logs have been added to Sheet C-8.

B+T Comment: This comment has been addressed by the Applicant.

20. We request that the Applicant extend the ends of the gabion at Infiltration Basin 3 to the 291± contour elevation.

Allen Engineering Response: The gabion has been extended as requested.

B+T Comment: While the western end of the gabion was extended to the noted elevation, the eastern end has not.

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.

Allen Engineering Response: A row of maximum ponding elevation has been added to the table on Sheet C-11. A foot of freeboard has been called for above the spillway for each of the three basins. Also, 216.6 has been removed.

B+T Comment: This comment has been addressed by the Applicant.

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).

Allen Engineering Response: The basins have been designed such that the 100-year storm event will not reach the overflow spillway. In addition, AEA has provided analysis of the three basins "in failure" or only the spillway as an outlet and the results show that the peak ponding elevations still do not rise to the level of the spillways.

B+T Comment: Our interpretation of the regulation is that spillways are to be hydraulically designed to pass flows tributary to the basin (ignoring detention; flow-in is equal to flow-out) with a minimum of 6" of freeboard between maximum flow elevation and the top of the berm. For a basin in failure, the assumption is that retained runoff will not draw-down within a reasonable period of time and the water surface elevation could reach the spillway after consecutive storms. Accordingly, we reiterate the intent of our original comment.

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.

Allen Engineering Response: The basins have been designed with exfiltration and emergency spillways as their outlets. The result is a larger basin than if additional outlets were added. This conservative approach will allow for future outlet control structures to be inserted after the final development of the property has been designed.

B+T Comment: Generally, infiltration basins are designed with outlets at lower stages (below the emergency spillway) to efficiently mitigate peak rates and retain the necessary recharge volume. The current design is wholly dependent on exfiltration, and the Applicant acknowledges the basins are accordingly oversized. We recommend there be a condition of approval for seasonal monitoring for a period of time after project completion to confirm the basins effectively dewater as designed. We acknowledge future development could warrant modifications to these basins.

24. We recommend the Applicant propose a free-draining loam for the bottom of the infiltration basins. The loam shall not impede infiltrative capacity.

Allen Engineering Response: The detail on Sheet C-11 has been revised accordingly.

B+T Comment: This comment has been addressed by the Applicant.

25. We recommend drawdown devices be proposed to dewater each of the basins for maintenance, in accordance with the MassDEP Stormwater Handbook.

Allen Engineering Response: As stated in response no. 23, there are no low flow structural outlet control devices designed. In the unlikely event that the basins do not drain, dewatering can be performed by using a temporary pump.

B+T Comment: As noted in Comment 23, we recommend there be a condition of approval for seasonal monitoring for a period of time upon project completion to confirm the basins effectively dewater as designed.

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.

Allen Engineering Response: The cross sections have been revised accordingly.

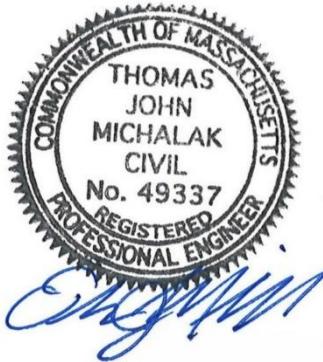
B+T Comment: This comment has been addressed by the Applicant.

Bellingham Conservation Commission
c/o Hannah Chace, Conservation Agent
December 5, 2025
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Thank you for the opportunity to assist the Town of Bellingham with the review of this NOI.
Should you have any questions, please do not hesitate to contact our office.

Sincerely,

BEALS AND THOMAS, INC.



Thomas Michalak PE
Senior Civil Engineer

Stacy H. Minihane

Stacy H. Minihane, PWS
Principal

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