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May 4, 2022

Dudley Planning Board
Dudley Municipal Center
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Dudley, MA 01571

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**Subject: Stevens Mill Residential/Retail Building, 8 Mill Street
Site Plan and Special Permit Review**

Dear Planning Board Members:

We received the following documents on October 22, 2021:

- Plans entitled Proposed Site Plan Documents for Stevens Mill Owner LLC, 8 Mill Street, Town of Dudley dated September 27, 2021, prepared by Bohler for Stevens Mill Owner LLC. (19 sheets)
- Plan entitled Existing Conditions Plan of Land, Steven's Mill, Dudley, Mass. dated July 1, 2021, prepared by Feldman Land Surveyors. (1 sheet)
- Architectural plans entitled Stevens Mill, 8 Mill Street, Dudley Massachusetts dated April 9, 2021, prepared by Benoit Design Group for Stevens Mill Manager LLC. (11 sheets)
- Bound document entitled Drainage Report for Stevens Mill Owner LLC, "Mill Redevelopment Project", 8 Mill Street, Dudley, Massachusetts dated October 13, 2021, prepared by Bohler.
- Correspondence from Mirick O'Connell to Dudley Planning Board, dated October 15, 2021, Re: Stevens Mill Redevelopment – Mill Conversion Project, with attachments (renderings).
- Dudley Planning Board – Form M (Application for Approval of a Special Permit for a Mill Conversion Project), dated October 15, 2021, with attachments (Request for Waivers, Narrative Report of Stevens Mill Owner, LLC).
- Dudley Planning Board – Form N (Application for Review of a Site Plan), dated October 15, 2021.

We also received the following documents on April 19, 2022:

- Plans entitled Proposed Site Plan Documents for Stevens Mill Owner LLC, 8 Mill Street, Town of Dudley dated September 27, 2021 and revised April 15, 2022, prepared by Bohler for Stevens Mill Owner LLC. (20 sheets)
- Bound document entitled Drainage Report for Stevens Mill Owner LLC, "Mill Redevelopment Project", 8 Mill Street, Dudley, Massachusetts dated October 13, 2021 and revised April 14, 2022, prepared by Bohler.

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GEI was also provided access to the following documents via electronic drop box:

- Architectural plans entitled Stevens Mill, 8 Mill Street, Dudley Massachusetts dated October 31, 2021, prepared by Benoit Design Group for Stevens Mill Manager LLC. (48 sheets)

Graves Engineering, Inc. has been requested to review the plans and supporting materials for compliance with the Zoning Bylaws of the Town of Dudley, Massachusetts revised through October 19, 2020, MassDEP Stormwater Management Handbook and generally accepted engineering practices. As part of our review, GEI performed a reconnaissance site visit initially on October 28, 2021 (note the project was placed on hold on November 30, 2021).

Our comments follow:

Zoning Bylaw

1. GEI understands that the applicant is proposing 10% of the dwelling units to be affordable. The affordable dwelling units need to be identified on the architectural plans. (§3.10.06.B.1.D)
2. The plans need to show the names of the abutters and street numbers of parcels across the right-of-way of Mill Street. (§5.04.04.A.2)
3. The plans need to show the existing driveway locations within 200 feet of the site. (§5.04.04.A.7)
4. The plans need to include location and type of all existing and proposed on-site lighting. A photometrics plan was not provided in the revised plan set. (§5.04.04.A.17)
5. The plans need to specify the type of proposed screening for the dumpster. (§5.04.04.A.19)
6. The plans need to include on-site snow storage areas. (§5.04.04.A.20)
7. The plans need to include a signature block consisting of five signature lines for Planning Board approval. (§5.04.04.A.22)
8. GEI is not aware if a written review from the Chief of Police and the Fire Chief was submitted with the plan. (§5.04.04.A.23)
9. Pipe sizing calculations (e.g., Rational Method calculations) need to be submitted to substantiate design of the drainage system. (§5.04.04.B.1)

Hydrology and MassDEP Stormwater Management

10. GEI reviewed the hydrology computations and found them to be in order.
11. In the Executive Summary, the total areas noted in the body of the text are not consistent with the areas listed in the corresponding tables. If the Drainage Report is revised for any other reason, then the total areas in the body of the text should be updated.
12. Compliance with the MassDEP Stormwater Handbook and Stormwater Standards is reasonable provided the following comment is addressed.

13. Per the applicant, additional subsurface investigations are expected to be performed during the early stages of construction to confirm soil composition and groundwater presence in the areas of the proposed underground stormwater management systems. The Drainage Report does not currently include soil information directly within the footprint of the proposed systems. For example, the proposed system UG-A anticipates an excavation of approximately 20 feet from the existing surface to the proposed bottom elevation. The closest test pit (TP-1) was approximately 9 feet deep and did not encounter groundwater. The additional subsurface investigation will need to be performed. Considering the required excavation depth, performing the investigation at the early stages of construction is not unreasonable.

General Engineering Comments

14. On Sheet C-402, the text for the existing basin indicates referring to Sheet C-901 about proposed seeding. However, the information was not included on Sheet C-901.
15. On Sheet C-403, the proposed grades for the accessible parking spaces have a slope greater than 2%. Per the Massachusetts AAB, the maximum slope in any direction is 2%. The proposed topography needs to be adjusted. There will be a slope of approximately 3% from the bottom of the curb (elevation 437.60) to the proposed 437 topographic contour.
16. On Sheet C-403, the outflow from FES 200 will be directed across the future accessible river walk connection. The plans currently indicate the river walk location is approximate. The hydrology computations show that water will discharge from FES 200 during all storm events analyzed. The river walk design will have to be coordinated with the stormwater flow path from FES 200. Perhaps the pipe to FES 200 could be extended and the riverwalk configured to pass over the extended pipe.
17. On Sheet C-901, the Pavement Section construction detail proposes a one-inch-thick bituminous concrete top course. For pavement durability, consideration should be given to providing a 1-1/2" thick top course.

General Comments

18. Consideration should be given to providing landscaping and a shade tree or ornamental tree at the new Mill Street entrance between the proposed parking spaces and the Mill Street sidewalk.
19. On Sheet C-301, the Zoning Analysis Table inadvertently indicates the parking spaces are 9 ft. x 18 ft, however, the proposed spaces are 9 ft. x. 20 ft. The Table should be revised.
20. On Sheet C-301, the label of "2" parking spaces off the northeastern corner of the existing building at 10 Mill Street needs to be revised to "1".
21. On Sheet C-403, the dimensions for UG-B do not concur with the dimensions indicated in the Drainage Report.
22. On Sheet C-501, the proposed sanitary sewer piping originating from the proposed building inadvertently indicates an incorrect size of "1".

23. On Sheet C-901, the construction detail "Accessible Stall Markings & Parking Lot Striping Detail" indicates parking stall length and width dimensions that do not concur with the proposed dimensions depicted on Sheet C-303.
24. On Sheet C-902, the construction detail "Catch Basin Double Grate Type C" needs to indicate a 4 ft. deep sump and needs to include a hood over the outlet pipe's opening.
25. On Sheet C-903, the construction detail "Surface Basin Emergency Spillway" inadvertently indicates elevations that do not concur with Sheet C-402 or the Drainage Report.
26. On Sheet C-903, the construction detail "Existing Surface Basin Outlet Control Structure Detail" inadvertently indicates an orifice size that does not concur with Sheet C-402 or the Drainage Report.
27. On Sheet C-903, the construction detail "Subsurface System Outlet Control Structure Detail" inadvertently indicates elevations that do not concur with Sheet C-403 or the Drainage Report. Additionally, the size of the structures needs to be specified.
28. A construction detail for a concrete pad should be included on the plans.
29. A construction detail for a bicycle rack should be included on the plans.
30. The Site Map on Sheet C-101 should be revised to fully show the new project entrance off Mill Street.

We trust this letter addresses your review requirements. Feel free to contact this office if you have any questions or comments.

Very truly yours,
Graves Engineering, Inc.



Jeffrey M. Walsh, P.E.
Principal

cc: Stephen Madaus; Mirick O'Connell
Nathaniel Mahonen, P.E.; Bohler