CLA Engineers, Inc.

Civil • Structural • Survey

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March 24, 2025

Meredith Badalucca, Assistant Planner Town of Montville 310 Norwich-New London Tpke., Uncasville, CT 06382 Via Email: mbadalucca@montville-ct.org

RE: Site Plan Application 25SITE2 Review

145 Route 32 & 18 Powerhouse Road ("Madison Place")

CLA-7873G

Dear Meredith:

CLA Engineers, Inc. (CLA) has received the application materials for the above referenced project located on the Town Form Repository:

https://www.townofmontville.org/form-repository/25-site-2-145-route-32-multi-family-development/

CLA has performed a review of the application documents and offer the following comments:

Plans

- 1. The site grading overall doesn't appear to account for curbing and may need to be adjusted.
- 2. The 104 and 103 contour east of Unit 8 and the 102 contour at the Powerhouse Road driveway don't connect to existing contours. The 102 contour ends off the property. The grading should be reviewed.
- Call-outs for the subsurface stormwater retention systems sizing and inverts don't correspond to what is depicted on the plans or in the calculations and should be coordinated.
- 4. Clean-outs are recommended at each end of each row of the subsurface stormwater retention systems.
- 5. The grading and drainage plan should note that all roof leaders shall be piped to the subsurface drainage system (similar to note 15 on the utility plan).
- 6. A photometric plan showing that light from the development won't impact neighboring properties should be provided.

Engineering Report

1. The watershed mapping provided does not appear to be accurate. The existing condition mapping depicts one watershed; there appear to be at least two watersheds for the properties

- (one flowing west toward Route 32 and one flowing east toward neighboring properties). The watershed mapping should be revised to accurately reflect the existing conditions.
- 2. The post development calculations are split into two phases, watershed mapping for the two phases should be provided.
- 3. The existing condition watershed area used in the calculations does not correspond to the watershed mapping.
- 4. The existing condition (pre-development) stormwater flow rates and volumes leaving each watershed should be the basis for comparison for the post development stormwater flow rates and volumes. These existing condition baseline rates and volumes should not change with each phase of the development.
- 5. A comparison between the existing and post development runoff volume should be provided. A comparison of rates has been included, but not the volume. The Engineer should address if there is an increase in runoff volume from the development and potential impacts to downstream properties.
- 6. The post development Phase 2 & 3 calculations don't appear to include or account for Phase 1 of the development.
- 7. A direct comparison between the pre-development and post-development (full buildout) peak flow rates and runoff volumes should be provided for each watershed.
- 8. The Engineer should demonstrate that the CTDEEP Water Quality Volume requirements are met with the reduced subsurface stormwater retention systems.
- 9. Pipe capacities were stated for the drainage piping, but it didn't indicate for what storm event or include velocities. Phase 1 does have piping at less than the 1% slope in the calculations. The 8" and 10" diameter piping may be prone to clogging; larger diameter piping should be considered if feasible.

The bond estimate provided is adequate.

Thank you for the opportunity to provide this review. Please feel free to call me at our office or email khaubert@claengineers.com with any questions.

Very truly yours,

CLA Engineers, Inc.

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Kyle Haubert, P.E.