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April 16, 2024

Ms. Meredith Badalucca, CZEO
Assistant Planner
Town of Montville
310 Norwich-New London Turnpike
Uncasville, CT 06382

**Re: 24SITE3 – Jeff Daniels
1492 Hartford-New London Turnpike
Montville, CT
Site Development Plan and Stormwater Management Report Review**

Dear Ms. Badalucca,

Per your request Boundaries LLC has completed a review of the application materials for the proposed industrial development located at 1492 Hartford-New London Turnpike (Map 005, Lot 027-000) prepared by Green Site Design, LLC.

The following documents were received as part of the application package:

- Site Plan Application.
- Project Narrative Letter.
- Drainage Calculations, Hydraulics & Hydrology Report.
- Existing and Proposed Drainage Plans.
- Site Plan Prepared for Daniels & Sons Construction, LLC, 1492 Hartford-New London Turnpike, Montville, CT, April 2024, Revision 1, 4/3/24 Uncas HD Comments.

The following comments and questions are based on review of the above documents:

General Comments

- 1502 Hartford-New London Turnpike appears to be the proposed access point during construction given the location of the anti-tracking pad. This property should be included in the application materials and the access route identified if that is intended to be the case. Proposed grading is also shown on 1502 Hartford-New London Turnpike and appears to be the emergency overflow location for the proposed stormwater basin. Drainage rights should be identified on the site plan since the properties may not always remain in common ownership if stormwater runoff is intended to be directed to the adjacent property.



- Please provide documentation for the project file that New London Public Utilities has reviewed and approved the site plan due to its location in the public drinking water supply watershed.
- Please provide the Uncas Health District approval letter for the proposed subsurface disposal system for the project file.
 - Please review the elevations of the proposed septic tank and leaching field, the septic tank is lower than the distribution box.
 - Please review the slope of the building sewer, it does not appear to comply with minimum slope requirements for a 4-inch pipe.
- Please provide a bond estimate for erosion controls and site restoration for evaluation per ZR Section 15.1.3.

Site Plans

- Please include the narrative and other applicable required elements for the proposed processing operation in the site plans as stated in ZR Section 4.11.11.3.2.a and 4.11.11.3.2.b. including certification of the topographic survey to T-2 or T-3 accuracy standards, spill control plan, hours of operation, etc.
- Please verify that the approximate location of off-site structures within 100 feet of the subject property lines are included on the site plans (ZR Section 17.4.8).
- Please confirm if any business signs are desired and add the locations to the site plan (ZR Section 17.4.13).
- Please verify the abutting property owners are identified correctly. Some of the owners appear to have changed since the date of the original survey.
- Please provide an estimate of the number of employees and parking spaces required and designate an employee parking area (ZR Section 18.2.1).
- Please provide additional information for the need or purpose of the driveway connection through the easement over Lot 13. It appears that the proposed access point could be problematic for the following reasons:
 - The proposed driveway crosses a swale that appears to be intended to direct runoff from Lot 13 to the stormwater basin. If the swale is still an active component of the stormwater management infrastructure for Lot 13 filling the swale would negatively impact the operation of the system and divert excess runoff into the subject property.
 - The angle of intersection between the proposed driveway and existing driveway is approximately 25-degrees and may negatively impact the sight line of exiting vehicles since there is no stop control on the existing driveway at the proposed intersection.
 - Given the public nature of the use of Lot 13 (Supercharged Racing) it seems that inadvertent access to the subject property, especially after normal operating hours, could be a risk given the shared driveway entrance.
 - The 226 contour and some of the proposed pavement extends outside the limits of the easement.
- Please show the location of the proposed or feasible electrical connection.
- Please provide information on proposed site lighting and a photometrics plan if lighting is proposed.
- The proposed curtain drain discharges directly to the Town of Montville's drainage easement. Please confirm with the Department of Public Works that a direct stormwater discharge to the Town's stormwater basin is acceptable.

- The proposed perimeter diversion swale directs runoff over the proposed gravel driveway prior to entering the stormwater basin. The concentrated flow across the gravel driveway surface may lead to erosion problems and could result in stormwater running down the driveway instead of across the driveway and into the stormwater basin. Please evaluate an alternate method for directing runoff to the stormwater basin.
- The Water Quality Basin is proposed to be used as a temporary sediment trap during construction. The Stormwater Quality Manual recommends not using infiltration basins as temporary sediment traps due to the negative impact of construction equipment and sedimentation on the long-term infiltration rate. Since there is no low-level outlet from the basin and the stormwater model indicates that the basin will drain between storm events, the basin appears to be intended to operate as an infiltration basin. Please identify an alternate location for the sediment trap or incorporate procedures that will protect the long-term infiltration rate of the Water Quality Basin in accordance with the recommendations of the Stormwater Quality Manual.
- Pre-treatment of stormwater runoff is recommended for all primary treatment practices in the Stormwater Quality Manual. Please incorporate a sediment forebay or other pre-treatment practice to comply with this recommendation.
- Please review the level spreader detail versus the elevations and notes called for on the site plan, they appear to be inconsistent.
- Based on the proposed grading it appears that the level spreader is intended to operate as an emergency overflow and direct excess runoff to the retention pond on 1502 Hartford-New London Turnpike. Please provide information to evaluate the excess capacity of the retention pond and the sizing of the outlet to control the flow of excess runoff to the DOT right-of-way in an emergency situation.
- The Water Quality Basin embankment should have a top width of 8 feet to comply with the Connecticut Guidelines for Soil Erosion and Sediment Control.

Stormwater Management Report

- The proposed bottom of the Water Quality Basin (elevation 204) is below the elevation of the wetland system on site and below the elevation of the retention pond on the adjacent property which is noted on the site plan as having a water level that obscures topography below elevation 208. The nearest test holes to the Water Quality Basin indicate a restrictive layer between 21 inches and 24 inches below former existing grades with groundwater encountered in each hole at a depth of between 67 inches and 84 inches below former existing grades. Based on the above factors it appears that the Water Quality Basin may not drain (infiltrate) between storm events. The stormwater modeling results indicate that there will be no discharge of stormwater from the stormwater basin because the basin is modeled as empty at the beginning of each storm event. Please provide additional information regarding how the Water Quality Basin will drain between storm events.
- The runoff coefficients for both pre-development and post-development conditions are identified as 0.2. This does not appear to reflect the post-development conditions since the majority of the property will be a compacted gravel surface. Please review and update the stormwater modeling to reflect the proposed surface conditions.
- The time of concentration for Drainage Area 2 increases from 9 minutes under pre-development conditions to 22 minutes under post-development conditions even though the size of Drainage Area 2 is reduced as a result of the proposed grading. Time of concentration flow paths are not

shown on the drainage plans. Please add the time of concentration flow paths to the Drainage Area Plans and confirm the length of time for each scenario.

- The Water Quality Volume calculation is based on an impervious area of 2,133 square feet. Section 7.4 of the Connecticut Stormwater Quality Manual includes gravel roads in its definition of impervious cover. Since the site is intended to be a material processing facility and no areas of proposed vegetative cover are indicated on the site plan it could be assumed that the operating area of the processing facility will consist of a compacted gravel surface and should be included in the Water Quality Volume calculation. Please update as appropriate.
- Please evaluate the velocity and freeboard in the perimeter swale to confirm that the discharge does not exceed the allowable velocity for a vegetated surface and that adequate freeboard is maintained during the design storm.

Please do not hesitate to contact me with any questions.

Sincerely,



David C. McKay, P.E.