The responses to the review comments are shown in Bold:

## **General Comments**

- Please address the following septic system design elements:
  - Please review the elevations of the proposed septic tank and leaching field, the septic tank is lower than the distribution box.
    - Sheet 4 was revised and resubmitted to Uncas Health Department.
  - Please review the slope of the building sewer, it does not appear to comply with minimum slope requirements for a 4-inch pipe.
    - Sheet 4 was revised and resubmitted to Uncas Health Department.
  - The building sewer exceeds 75-feet in length and should be provided with a cleanout.
     Sheet 4 was revised and resubmitted to Uncas Health Department.
- Please review the quantities for topsoil and grass seed mix included in the bond estimate. The
  documents report an area of disturbance of 4.08 acres. However, the bond estimate includes
  topsoil and seed mix for restoration of approximately 0.4 to 0.5 acres
  - The majority of the disturbed area will not be seeded, it will be a gravel surface. The bond estimate has been revised to show a larger area with loam and seed.
- The Landscape Schedule added to Sheet 3 does not match the callout for the landscape buffer. Please verify the correct information.
  - The landscape schedule has been revised on sheet 3.
- Please include the Invasive Species Management Plan referred to in the Operation and Maintenance of Drainage System notes.
  - Sheet 5 has been revised to remove the reference to invasive species management. This is not required for this project.
- Please update the numbering and the maintenance and inspection schedule in the Pollution Prevention Plan for consistency with the Operation and Maintenance of Drainage System section.
   Sheet 5 has been revised.
- Please provide additional information regarding the intended operation of the proposed oil water separator:
  - There is no available discharge location for an oil water separator at this site and the catch basin grates would potentially allow spills to enter the last chamber in the separator and not receive treatment from the previous chambers in the tank.
  - The tank is called out for 5,000 gallons of storage however the dimensions in the detail are for a 2,500-gallon storage tank.
  - Please provide additional information regarding proposed grading around the tank to ensure that spills are directed to the structure instead of flowing towards the stormwater basin.
  - Please provide information on how clean stormwater runoff will be prevented from entering the tank to ensure that storage capacity is available during all fueling operations.
     As the double walled tank meets DEEP requirements for containment, the oil separator has been removed from the plan.

## Site Plans

Please include the abutting property owners across the state highway per Section 4.11.11.3.2.b.1.
 The property owner across the highway has been added to sheet 1, there is only 1 across from the property.

- Please verify that the entirety of the proposed driveway apron is contained within the easement.
   It appears that a small portion of the curb cut may extend outside of the easement. Adding the easement limits to the proposed site plan may be helpful.
  - The easement limit has been added to sheet 3 and the curb cut modified.
- Please verify that the existing easement identified as being "for ingress and egress, access to the
  detention pond, for drainage rights, fire protection and well protection" allows for the installation
  of utility service connections as shown.
  - I researched the original easement and the latest deed. They say the same thing as sheet 1, which does not include utilities. Therefore, the plans have been revised to show utilities coming from Route 85.
- Please verify the water surface elevation in the sediment forebay. It appears to be near to the
  invert of the existing flared end section which would place the outlet of the curtain drain four feet
  below the water surface. If that is the case the curtain drain would not function as intended.
  - The curtain drain outlet has been relocated to the water quality basin on-site.
- Please review the level spreader detail versus the elevations and notes called for on the site plan, they appear to be inconsistent. The rip rap is called out as both modified rip rap and intermediate rip rap in different locations on sheets 2, 3 and 5. Please verify the intended rip rap sizing and corresponding rip rap thickness
  - The riprap is called out on sheets 2,3,3A, and 5 as Modified Riprap. The bottom of riprap elevation is called out as elevation 205.5 for the forebay and 207.5 for the water quality basin on sheets 2,3,,3A and 5.

## Stormwater Management Report

- Please verify that the storage volume below the low-level outlets exceeds the calculated water quality volume as reported. The reported volume was not able to be duplicated using the proposed grading plans and the low-level outlet elevations (206.0 for the sediment forebay and 205.5 for the stormwater basin outlet control structure). The estimated volume of the permanent pools based on the PDF grading plans is approximately 10,100 cubic feet versus the 23,439 cubic feet included in the report.
  - The volumes have been checked using the contour areas in CADD, and the report has been modified.
- 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 without some form of turf
  reinforcement. It appears that the Manning's coefficient used in the provided calculations is
  resulting in a lower-than-expected velocity.
  - Revised calculations have been included in the drainage report.
- Please verify that the hydrograph routing in the stormwater management model is being completed as intended. It appears that the storage volume of the stormwater basin is being counted twice, once as part of the interconnected reservoir in Hydrograph 3, and then again as a separate reservoir in Hydrograph 4. This results in lower-than-expected peak discharge rates.
  - The model has been revised to eliminate the double run thru the stormwater basin. The emergency spill way has been raised to prevent it being active during smaller storm events. The outlet structure had a low flow opening of 205.5, the model has also been revised to account for this lower outlet.
- Based on the Max Elevation reported for the "Lower Pond" in Hydrograph 3 it appears that the
  emergency spillway will be active during all modeled storm events. Please verify that the
  emergency spillway will only be active during the modeled 100-year storm event.

- The emergency spill way has been raised to prevent it being active during smaller storm events. The outlet structure had a low flow opening of 205.5, the model has also been revised to account for this lower outlet.
- Comment 3 from the Assistant Town Planner's review letter requests that the 2024 Stormwater Quality Manual be used as the basis for the stormwater management design. The hydrographs currently included in the stormwater management modeling are based on the Modified Rational Method. The 2024 Stormwater Quality Manual recommends using the Natural Resources Conservation Service (NRCS) Type D (NOAA Type D) rainfall distribution for the generation of hydrographs. Please confirm that the Modified Rational Method is an acceptable alternative under the 2024 Stormwater Quality Manual recommendations.

The drainage calculations have been revised utilizing SCS and NOAA Type D rainfall distribution. As a result, the water quality basin has been enlarged.