



CMA ENGINEERS, INC.
CIVIL | ENVIRONMENTAL | STRUCTURAL

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November 30, 2023

Liz Evans, Strafford Land Use Planner
Town of Strafford
15 Mountain View Drive
Strafford, NH 03884

Re: Mariner East Stormwater Report Review #4
15 Strafford Road
Strafford Tax Map 11, Lot 83
CMA # 1293

Dear Ms. Evans,

The applicant, Navigator Properties, LLC (Mariner Tower) of Kennebunkport, ME, is proposing construction of a cell tower with base equipment compound on a 111-acre parcel at 15 Strafford Road. CMA Engineers has been tasked by the Town with review of the stormwater report for conformance with Town of Strafford Stormwater Management Regulations. Also included is a cursory review of the site plan package provided with the application. Review of the application itself is not included in this task. After resubmission by the applicant, CMA Engineers has received the following information for review:

1. Plans titled Strafford East, for Mariner Tower, prepared by TEP Northeast, revised November 17, 2023 (18 sheets);
2. Stormwater Report by TEP Northeast, revised November 17, 2023.

Background:

The project includes the construction of a proposed 160-ft lattice tower with base equipment compound. Survey for the project was completed by Northeast Survey Consultants, and wetland delineation was completed by A & D Klumb Environmental, LLC. A 12-ft wide gravel driveway is proposed for tower access. Proposed stormwater infrastructure includes a swale with check dams that conveys stormwater runoff to a detention basin with sediment forebay. Runoff not captured by the detention basin is directed to a level spreader that deposits runoff in the permeable geogrid gravel portion of the driveway.

Site Plans:

1. Detention Basin Details
 - a. Sheet C-8: The rim elevation of the outlet control structure (OCS) should be set lower than the emergency spillway elevation so that flow enters closed drainage before the emergency spillway. Given elevations of the 50 and 100-year storms, it may be prudent to raise the elevation of the spillway.

- b. Sheets C-6 and C-8: The invert out elevation of the 18-inch HDPE outlet pipe from the detention basin is called out as 608.40, but is 608.60 in the drainage calculations. Revise for consistency.
 - c. Sheet C-6: The area around the riprap at the outlet of the detention basin OCS should be graded to be flat.
 - d. Sheets C-6 and C-7: The detention basin grading needs to be revised to reflect the design elevation of the berm. As drawn, the berm is at elevation 613.00, but according to the details and calculations, the berm should be at elevation 614.00.
 - e. Sheet C-6: The proposed level spreader is directing runoff back onto the proposed driveway. The level spreader should be relocated to deposit runoff on undisturbed land.
 - f. Sheet A-3: Include anchoring information on the Permeable Geogrid Gravel Detail.
 - g. Sheet A-3: Indicate underdrain spacing on the Permeable Geogrid Gravel Detail.
 - h. For Sand Filter #1, graphically, the 100-year storm is shown above the crested weir, but the callouts indicate that the weir would be higher than the 100-year storm elevation.
2. Proposed Access Driveway
 - a. Strafford Ordinances and Regulations Section 2.6.1 G (5) states driveways shall be limited to a slope of 8% or less if unpaved. Average slopes of the proposed driveway range from 12% at the lower portion of the driveway to 8% at the upper portion of the driveway. It is suggested that the Applicant request a waiver from this requirement.

Stormwater Report:

1. Stormwater Report Document
 - a. The entire contributing area needs to be shown for each subcatchment. There is a relatively large area of land outside of the project limits that will contribute to the swales and level spreader, and it needs to be accounted for in the drainage calculations.
 - b. Subcatchment P3 should be expanded to account for flow received from the gravel driveway.
 - c. The 12-inch HDPE driveway culvert should be modeled in the drainage calculations to ensure appropriate sizing.

Should you have any questions, please do not hesitate to contact us.

Respectfully,

CMA Engineers, Inc.



Benjamin C. Clark, PE
Project Manager



Josh W. Bouchard, PE
Project Manager