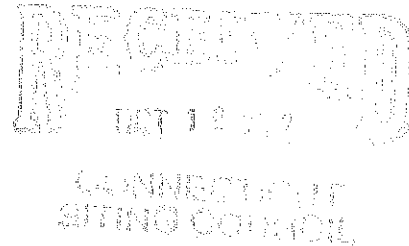


October 10, 2012

Kenneth C. Baldwin, Esq.
Robinson & Cole LLP
280 Trumbull Street
Hartford, CT 06103-3597

Re: *Review of Drainage Design*
Verizon Wireless – Site Ref: Cornwall
(CSC Docket #402)
16 Bell Road Extension,
Cornwall, CT 06754



Centek Project No. 08168.00

Dear Mr. Baldwin,

Centek Engineering, Inc. is in receipt of interrogatories from the Connecticut Siting Council (CSC) with regard to the Development & Management plans dated 8.31.2012 for the referenced wireless communications facility. For presentation of our response, the bulleted CSC questions have been enumerated for ease of reference. Below are our responses:

Q1. Three swales (road elevations 810, 814, 824) are specified on sheet C 1.1. What are the design specifications of these swales?

The referenced swales are existing and design specifications were not warranted. The plans have been revised plans to clearly depict these as existing site features.

Q2. The swale at elevation 814 extends onto abutting property. Does Cellco have permission to construct drainage features on this property?

As indicated above, the referenced swale is an existing swale that crosses the property line.

Q3. How will the swale at elevation 810 affect the existing vernal pool located on the north side of the 24" pipe crossing? What is the function of this swale?

The existing condition at the culvert crossing consists of a short section of 24" diameter corrugated metal pipe (CMP) installed with extreme pitch causing a scouring condition at the pipe outlet. To mitigate the condition, the submitted D&M plan calls for replacement of the existing pipe with a longer section of 24" diameter reinforced concrete pipe (RCP) to be installed at a reduced pitch resulting in a lower velocity at the outlet.

A follow up site visit was conducted on 9/01/12 to further assess the existing conditions at the subject culvert. The existing culvert size and pipe/ swale inverts will remain unchanged, thereby not affecting the vernal pool characteristics. However, in lieu of the originally proposed 28 lineal feet (lf) RCP, 21 lf of ductile iron pipe (DIP) with a T outlet will be utilized to address the preexisting scouring condition to minimize impact on the vernal pool.

To clarify the scope of work within this sensitive area drawing C-1.2 has been added to the drawing set clearly delineating the proposed improvements. It will be necessary to propose and maintain erosion control during the pipe installation to ensure that the vernal pool is protected from sedimentation.

- Q4. Is there any provision for directing the contractor to complete all work within the property boundary? Will an on-site preconstruction meeting be conducted?

Yes to both questions. Refer to drawing C-3.2 "General Construction/Pre-Construction Notes" notes #1 & #2.

- Q5. What does the gray line extending from elevation 933 to WF 1-21 represent?

The indicated line is erroneous and has been deleted from the plans.

- Q6. Note 5/C-3 on Sheet C-1.1 and note 10 on Sheet C-3 reference paving. Is paving proposed for portions of the access road? (Note 5/C-3 is mismarked)

All references regarding construction of the access road have been updated and are correctly reflected on both the site plan and in the details. Details 2/C-5 and 3/C-5 are for reinforced processed stone access drive and gravel surface parking access drive, respectively.

- Q7. Are wing siltation barriers and temporary water bars, consistent with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, specified along the access road during construction? If not, please explain why these measures are not necessary.

Per the sedimentation & erosion (E&S) control notes on drawing C-3.2 the contractor is responsible for E&S control measures and compliance with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control. As such, the contractor will select the appropriate measures to keep the site protected through the duration of construction and until disturbed areas are permanently stabilized with vegetation. Verizon Wireless will be responsible for retaining an independent project erosion control monitor to assure compliance with the Connecticut E&S guidelines.

- Q8. Please explain how runoff from the access road below elevation 930 is controlled and dispersed once road construction is completed.

Runoff from the access drive below elevation 930 will mimic the pre-existing condition flow. The proposed reinforced gravel driveway is designed to receive the storm water flow from upslope areas and with a 2% drive cross slope will shed the storm water across the drive. Runoff will continue to flow overland as it does under the pre-existing condition. The drive in the area of concern is designed to pass the storm water flow across itself, or through its porous surface, without collecting or concentrating into a channelized flow.

- Q9. Please provide drainage calculations consistent with the DOT Drainage Manual (bulk file if necessary).

A drainage report will be provided. Calculations will be performed utilizing the Rational Method, assisted with a computer program distributed by Itelissolve, called Hydroflow, and the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control.

The analysis and design of the storm water management system was based on storm frequencies of 2, 5, 10, 25, 50 and 100-year storm frequencies, consistent with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control and good engineering practice.

- Q10. Can a 100% organic erosion control blanket (NAG SC 150 BN or equivalent) be used in place of the specified NAG SC 150 erosion control blanket?

North American Green C 125 BN is an acceptable organic erosion control blanket alternative to the NAG SC 150. The NAG C 125 BN is preferred because it provides an additional 6 months of longevity over the NAG SC 150 BN product referenced above.

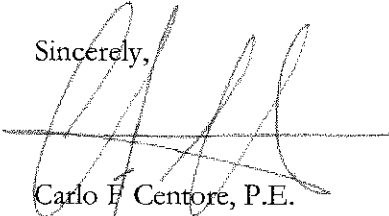
- Q11. For notes 1/C-3 and 7/C-3 on Sheet C-1.1, what factors determine whether erosion control blankets or rip rap will be used?

The plans have been updated to provide clarification as to the appropriateness of erosion control blankets vs. rip rap for stabilization of the drainage swales and cut slopes. Drawing C-3.0 has been set up to only address slope & channel stabilization.

Determination of the appropriate slope stabilization method is based on the subgrade condition at the cut. Rip rap stabilization of swales is recommended where ledge or unstable subgrades with large amounts of rock are prevalent. Erosion control blankets are best suited for stable cut earth slopes.

Twenty sets of revised D&M drawings dated October 5, 2012 reflecting the above responses along with the Martinez & Couch drainage analysis dated October 9, 2012 are provided herein. Feel free to call with any questions or to discuss this matter further.

Sincerely,



Carlo F. Centore, P.E.
Principal
Centek Engineering, Inc.

Cc Alexandria Carter – Verizon Wireless (via email)
Dean Gustafsen – All-Points Technology Corp. (via email)
file