



**MARK SANTORA, P.E.**

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**February 4<sup>th</sup> 2025**

Attorney Jeffery Miller Esq.  
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Subject: Response to City of Worcester Concerns  
Site Address: ***17 Montclair Drive, Worcester MA***

Attorney Miller:

I have reviewed the comments of the City of Worcester and offer the following response:

- A revised site plan needs to be submitted showing the following information:
  - Extent of installed erosion control blankets
  - Location of all trees over 6-in in caliper in the sloped area of the lot
  - Location of the driveway and fencing
  - Area of the slope that was seeded. Indicate the specific seed mix that was used.
  - Identify any additional proposed work to stabilize the slope. Proposed work should clearly be identified separately (as proposed) from existing conditions.

**Revised plans have been provided showing the following:**

- 1. Existing topography,**
- 2. The extent of the erosion control blankets,**
- 3. Location of all trees over 6in caliper in the sloped area,**
- 4. Location of driveway and fencing**
- 5. Area that has been seeded. Seed mix was a perennial mixture of creeping red fescue – Scotts Premium**
- 6. No additional work is proposed at this time**
- 7. An additional plan entitled “Certified Plot Plan located at 17 Montclair Drive” by Christopher Charlton PLS #48649, Continental Land Survey, LLC dated 1/30/25 depicting the limits of fill.**

**This plan has been provided to demonstrate the limits of the fill in relation to the property lines. The plan indicates that the fill placed does not encroach on any abutting properties.**

- Recent aerial photography and a site visit by a building inspector shows that at least one tree is dying that was previously healthy. If this tree and others die and the anchoring role that they provide to the slope is lost, we are concerned that the slope may be rendered unstable in the future. New tree plantings should be proposed at the top of the slope and the soil that has accumulated around the base of previously-healthy trees should be pulled back to avoid suffocating the trees – please review this issue and propose specific solutions for specific trees.

**A recent inspection of the property indicates that no trees have died to date. That said the trees are not covering a significant area of the fill that was placed. The fill has been stabilized by the initial installation of erosion control blankets and subsequently permanently stabilized by perennial grass that had taken root and is currently preventing any soil transport from the subject slope.**

**Furthermore, the area in question does not collect runoff from any significant upgradient sub-catchment areas. As a result any rainfall that falls upon the slope will develop sheet flow only. The runoff cannot generate enough velocity to create scouring of the vegetated surface. Runoff would need to transition from sheet flow to shallow concentrated and then to open channel flow to achieve scour velocity. The site characteristics do not allow for this condition to occur. In my professional opinion if the trees did not survive the roots anchoring role would not cause the slope to destabilize. The vegetative grass surface would be adequate in of itself to prevent scour given the existing runoffs velocity.**

- We need more specifics on the source of the fill. Where exactly did it come from? If that information is no longer available, your engineer should conduct soil testing to make sure it is not contaminated in any way. A visual test is not adequate.

**Fill was provided by Luciano Barretto from NES Landscaping Inc. Fill has been imported from a virgin source and is reported to be an S1 type similar soil free of debris and deleterious materials. A statement as to the source of the fill has been provided from NES Landscaping. The applicant is before the Board for a Special permit to allow for placement of fill in accordance with Article IV Section 5 which governs the placement of fill and its subsequent slope and stability. The question of the fills chemical composition is not within the scope of authority of the Special Permit but rather falls under the jurisdiction of the MA DEP Similar Soils Provision Guidance. The applicant has followed the guidance documents requirements. At this time the applicant respectfully submits that the fill meets the standard set forth by the provision and does not wish to perform additional testing on his property at this time.**

- Please describe any anticipated work you might conduct on the neighbor's property as part of your negotiations with them. If the base of the slope (located on their property) is disturbed because the neighbor has requested some kind of remedy to the work that was conducted on their property, it may affect the stability of the slope above (which is the subject of this special permit). We requested that you discuss this with the neighbors in May 2024 – did you reach out to the neighbors?

**As the plan by Continental Land Surveying shows there is no fill encroaching on the abutting property. No additional work is proposed as the slope is currently stable and has vegetative cover. No work is needed to maintain this condition.**

- Provide a narrative/plan for long-term monitoring of invasive species and slope stabilization. Clearly identify parties responsible for monitoring.

**At this time there are no invasive species on the subject slope. The applicant is before the Board for a Special permit to allow for placement of fill in accordance with Article IV Section 5 which governs the placement of fill and its subsequent slope and stability. No where in the zoning ordinance Article IV Section 5 is there any reference to Invasive species management or a requirement for invasive species prevention or maintenance. The applicant respectfully submits that the above request to monitor and maintain is overly burdensome and costly. The applicant will take necessary steps to prevent invasive species in the future as needed.**

- As noted in May 2024, the installed erosion control blankets are not rated for the steepness of this slope. We'd like the engineer to comment specifically on this issue and potentially propose alternatives to ensure long-term slope stabilization.

**The erosion control blankets were installed as a temporary measure to prevent scouring and soil transport prior to the establishment of vegetative cover. The blankets exceeded specification and prevented scouring and soil transport. Now the slope has achieved greater than 95% vegetative cover the erosion control blankets are no longer needed.**

- Any letters/plans from your engineer should include their stamp.

**Both plans submitted have been stamped and signed by Registered Professionals**

Please feel free to contact me with any questions or directions.

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Sincerely,



Mark Santora, PE #40167