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Project # 12195

April 24, 2014

Mr. Sonny Couture A.R. Couture Construction Corporation 155 Sweden Street Berlin NH 03570

# Subject: Green Hill Road Property- April 22, 2014 Site Walk

### Dear Sonny,

On the morning of Tuesday, April 22<sup>nd,</sup> I met with you at your property off of Green Hill Road in Jackson, NH. The weather was mostly cloudy and in the upper 50s with limited snow cover (some ditches are still covered in snow). Where ditches were not covered by snow, meltwater was visible and flowing moderately.

### Purpose

Both you and I had spoken with Mr. Ridge Mauck, P.E. of the NH Department of Environmental Services Alteration of Terrain Bureau about the weather challenges last fall, the significant storm event<sup>1</sup> on April 15<sup>th</sup>, the limitations of getting certain roadway and erosion control materials to the site due to the present town road ban (seasonal weight restrictions), and the recent actions you have taken with respect to erosion control in spite of these challenges. As a result of this coordination, you suggested that I come to the site and observe some of the work that is occurring and offer suggestions where warranted.

# **Existing Conditions**

We walked the lower 2/3rds roadway during the site visit (see **Figure 1**.) and met with your crew that was onsite maintaining silt fence, and seeding and blowing hay mulch for temporary stabilization. I saw that many of the short term actions identified in my previous (April 9, 2014) site walk report had been addressed. Recall that I have referred to certain suggestions as those that should occur in the short term as they are erosion prevention or sediment controls that can be implemented in the near term without requiring the import of substantial rock or other heavy materials currently unavailable due to the road bans. Since the road bans and associated constraints are still in effect and may persist for a couple more weeks, I have continued to use the

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<sup>&</sup>lt;sup>1</sup> The rainfall and snowmelt that occurred on this site and within the Saco River basin resulted in the Saco River experiencing flooding with a reoccurrence interval of almost ten years (i.e. ten year flood).

same approach to categorize suggestions so that you may prioritize your efforts and continue to make progress with erosion and sediment controls until such time as roadway materials can be brought to the site for roadway completion.

While on site I observed the following erosion prevention measures:

- a stone stabilized entrance onto Green Hill Road;
- straw mulch matting along the road's fill slope that lies to the east of the stream;
- a temporary bridge over the small stream near the entrance;
- numerous culverts that intercept ditch flow and disperse it onto the adjacent forest floor;
- a number of temporary roadway waterbars; and,
- seed and mulch/matting (ongoing).

The following existing sediment *controls* were also observed while on site:

- silt fence;
- haybales;
- sediment logs; and,
- sediment traps.

# Recommendations:

Streams were flowing clear at the time of the visit; however, the current thawing conditions can present increased opportunities for turbidity. Detailed short term and longer term recommendations can be seen on **Figure 1**.

# **Conclusions**

It is apparent to me that you have taken a detailed interest in managing runoff from your project; you have implemented many of the controls that have been previously suggested and are working towards completion of the project, but have been delayed several times due to the onset of unfavorable weather conditions. I believe that your thoughtful implementation of the erosion prevention and sediment controls (see **Figure 1**) will minimize chances for turbidity leaving your site and will allow you to focus your efforts on working towards completion and final stabilization of the project, thereby lessening the period of time in which your site is vulnerable to the type of storms that can cause erosion and turbidity at a site that is under construction.

This project has been professionally designed by a civil engineer and reviewed by two other engineers (one in-house and one at the NH Department of Environmental Services) for conformance with the NH Alteration of Terrain (AoT) permit program. One of the fundamental purposes of the AoT permit is to ensure that development of a property incorporates drainage features that minimize the development's effects on downgradient properties. While almost all gravel driveways and roadways can be subject to some erosion during intense storms, the issuance of an AoT permit for this project should provide a certain level of assurance that this access drive has been designed to an equal or higher standard than many roads in town that have not been subject to such standards.

I apologize for not being able to attend your ZBA meeting next week to convey to the Board and the public some of the previous and existing challenges that you have faced; that these

challenges are temporary in nature, and how you have, and will, continue to work to overcome them.

Should you have any questions please feel free to contact me at 444-4111.

Sincerely, 2.5 Kp

Tyler Phillips, CPESC Senior Project Manager Horizons Engineering, Inc.

Enclosure: Figure 1

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