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Project No. 11097  
November 28, 2012

Carroll Planning Board  
PO Box 146  
Twin Mountain, NH 03595

**Subject: Site Visit to Review Implementation of Revised Major Subdivision Plans  
Hunt, LLC – 2-Family Residential Subdivision aka Ruby Way  
Carroll Tax Map 207, Lot 36, off Paquette Drive**

Dear Planning Board Members:

We received your November 13, 2012 letter informing us that Horizons Engineering was selected as the Third Party Reviewer for the Hunt, LLC Ruby Way subdivision project mentioned above. The scope of our current review consists of a site visit to observe the status of construction and determine whether the project has been constructed in general conformance with the design plans (Plans) "Hunt, LLC 2-Family Residential Development Plans", Carroll, NH, prepared by Headwaters Hydrology, LLC, Littleton, NH, dated February 2011, Sheets 2, 4, 5, & 8 revised March 2011 "as per Town comments", and sealed by Philip L. Beaulieu, P.E. The review does not include buried infrastructure or surveying of grades etc.

In summary, approximately 10% of the road base has been constructed and a portion of the site has been cleared and grubbed. No stormwater devices or utilities have been constructed. Erosion and sediment control needs to be modified to be effective, and the site should be stabilized (as necessary) to conform to the construction sequence and Winter Construction notes.

A listing of conditions encountered during a November 27, 2012 site visit is below. Observations are keyed to plan sheets, and several photos are included as an attachment to this letter. Equipment from DS Contractors Inc. of Whitefield was parked onsite but no work was being done at the time of the visit.

**Sheet 4 – Grading, Drainage, and Utilities Site Plan and Road Profile**

- The road base consisting of bank run gravel and crushed gravel has been placed approximately 28 feet wide from Paquette Drive approximately 150 feet to station 1+50. This appears to be in conformance to the plans.
- The width of gravel at Paquette Drive is 50 feet which appears to be less than adequate to provide 30 foot radii as specified.
- Clearing and grubbing has been completed to approximately station 4+50.
- Some grubbed materials are piled at station 2+50, and several small piles of concrete demolition debris are present including at station 2+75.
- Some topsoil has been stripped in the location of the vegetated swale station ~3+50.
- Infiltration basin and associated drainage structures have not been started.
- No utilities have been constructed.
- Tennis court paving has been removed.
- The old motel building has been partially demolished and part is being renovated (this is not part of the subdivision project).

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- Silt fence has been set up adjacent to Paquette Drive, but not embedded into the ground, therefore it is not functional as a sediment control measure. Furthermore, due to the proximity to Paquette Drive it appears that the silt fence has been set up either in the right of way or on lot 38 and not on the project site where indicated. It is recommended that this silt fence be removed and reinstalled as shown on the plan, or if this is not possible due to frozen ground that the project Engineer be contacted to specify an alternative sediment control which does not need to be embedded into the ground, if further work is to take place over the winter. A pervious berm of wood chips or stump grindings may be appropriate as a sediment control.
- Silt fence has been set up north of the former tennis courts near where indicated on the plan, but not backfilled, thus rendering the silt fence ineffective as a sediment control measure. It is recommended that the silt fence be backfilled per the detail on Sheet 8, or that the project Engineer be contacted to specify an alternative sediment control which does not need to be embedded into the ground if the ground is frozen. It is recommended that an effective sediment control be established in this location where the possibility of runoff exists, before spring runoff occurs.

Sheet 8 – Erosion Control Notes, Details & Construction Sequence

- Site Work Construction Sequence - A stabilized construction entrance has not been constructed per the Site Work Construction Sequence on Sheet 8. The purpose of the stabilized construction entrance made of crushed stone (with no fines) is to prevent tracking of dirt onto public roads. It appears that construction traffic enters the site from Paquette Drive as well as from behind the old motel building. Excessive tracking of dirt onto Paquette Drive was not apparent.
- Winter Stabilization Notes – These apply between October 15<sup>th</sup> and May 15<sup>th</sup> and thus should be followed at this time. It is unclear when exposed soil (i.e. grubbing and topsoil stripping, and beneath former tennis courts) was last worked, however Note 2 specifies that stabilization with anchored mulch or erosion control blankets shall occur if an area will remain unstabilized for more than 5 days, or within 24 hours of achieving final grades.

An estimate of project value to date has been made based on the Conceptual Cost Estimate for Project Construction prepared by Headwaters Hydrology, PLLC dated February 21, 2011. The estimated value based on the November 27 site visit is \$7,788 which is approximately 2% of the total estimated value of \$397,000. The calculation sheet is attached.

Please contact me at 444-4111 if you have any questions regarding the current review.

Sincerely,



Matt HERNICK, P.E.  
Project Engineer II

Enc: Photos  
Estimation of Project Value



Photo 1: Looking east at beginning of road from Paquette Drive. Crushed gravel has been placed to approximately station 1+45 (145' from the edge of Paquette Drive).



Photo 2: Looking along roadway at end of built roadbed. Bank run gravel has been placed slightly beyond station 1+50 (grade stake in foreground is 1+50).



Photo 3: Looking south along roadway centerline from near station 3+00. Some topsoil has been stripped. No work is apparent beyond station 4+50 (at treeline in this photo).



Photo 4: Looking northwest (toward Paquette Drive) from near station 3+00. Concrete debris piled on left and grubbed materials piled on right.