



621418P  
September 2, 2011

Ms. Valerie Capels  
Town Administrator  
Town of Waitsfield  
9 Bridge Street  
Waitsfield, VT 05673

**SUBJECT: Storm Damage Assessment  
Summary Letter**

Dear Valerie:

On August 31, 2011, I conducted a field review of several structures in Waitsfield to assess the general extent of damage that occurred as a result of the remnants of Hurricane Irene. I stopped at the structures that you had concerns about, and made observations of the condition of each structure. Bob Durfee, P.E. and Ryan Barnes, P.E. also reviewed conditions at the Village Covered Bridge on September 1, 2011. A summary of our observations follows:

**B24 – Meadow Road over the Mad River**

This bridge appears to be undamaged by the storm however, it was not possible to observe the foundation conditions at the east abutment because of the high water condition. The bridge should be rechecked to verify no substructure damage once the high water recedes. This bridge can remain open to traffic in accordance with the posted limits.

**B25 – Tremblay over the Mad River**

This bridge appears to be undamaged by the storm; however, it was not possible to observe the foundation conditions because of the high water condition. The bridge should be rechecked to verify no substructure damage once the high water recedes. This bridge can remain open to traffic in accordance with the posted limits.

**CB20 – Pine Brook Covered Bridge over Pine Brook –**

This bridge was undamaged by the storm. This bridge can remain open to traffic in accordance with the posted limits.

**B22 – Butternut Hill Road over the Mad River –**

This bridge was undamaged by the storm. This bridge can remain open to traffic in accordance with the posted limits.

**B21 – Floodwoods Road over a tributary to the Mad River**

This bridge was partially destroyed by the storm. The south abutment was destroyed, and the bridge deck collapsed although it appears to be intact. The north abutment is still standing. I understand the Town would like to rebuild the structure using the existing deck and north abutment, with a newly constructed south abutment comprised of concrete waste blocks. I also understand the Town may want to have a load rating done on the structure once it is reconstructed to determine if fuel delivery trucks can cross it safely. DuBois & King can conduct a load rating analysis on the bridge if desired once it is reconstructed.

**CB4 – Village Covered Bridge over the Mad River**

The Village Covered Bridge was moderately damaged by the storm. One section of the upstream arch was broken; several diagonal support members were damaged; numerous siding boards on both the upstream and downstream sides were broken and dislodged; the downstream wingwall at the south abutment collapsed and the south sidewalk approach collapsed with it; the north sidewalk approach and wingwall on the downstream side were undermined with abutment stones and sidewalk subbase washing away; the roadway approach on the Village side was undermined and portions of the subbase washed away; the north abutment was damaged with some sections of concrete washing away. It is evident that the gravel/sand bar in the River that used to be upstream of the bridge was washed away and reformed downstream of the bridge. This is causing elevated water levels at the south abutment. Until the water level goes back down, we cannot make a full evaluation of the condition of this abutment. We recommend that the Town, if possible, push some of the gravel aside so the water elevation comes down to a point where the south abutment is above the water line. **DuBois & King recommends that this structure remain closed to vehicular traffic until repairs to the bridge and approaches can be made. The bridge can remain open to pedestrian and bicycle traffic.**

Please note that our observations were made from available points of access. Not all bridge components were able to be observed at some locations. Also, there is woody debris lodged in many of the bridge superstructures – this material should be removed so that it does not cause further damage to the bridges.

Once you have reviewed the above information, please do not hesitate to contact me if there are any questions. I would be happy to meet with you or other representatives of the Town to elaborate on any aspect of our assessment.

Very truly yours,  
DuBOIS & KING, INC.



Evan P. Detrick, P.E.  
Transportation Department Manager

