

July 13, 2015

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DEPARTMENT OF
PLANNING & ZONING
Dear Planning and Zoning, Design Advisory Board, and Historic Preservation Review
Committee,

In Re: Zoning permit request for 6 & 8 Proctor Place.

I am writing you today to encourage you to grant my request to use fiberglass windows to replace existing window in the project I have submitted for your review. I understand that you have a very complicated job to do in regards to the thankless task of historic preservation in our community. I appreciate your efforts that are so clearly evidenced in how beautiful the City of Burlington is.

I believe that there are many good reasons to consider high quality fiberglass windows as a replacement option.

I understand and commend the desire to preserve the historic character of a building and that the windows are an important part of the façade of the building. I have found that fiberglass windows have wonderful aesthetic options that are in line with the historic sizes and dimensions of older windows. I also observe that a great part of the beauty of a window is often determined by the trim details around the window. In fact I find the trim around a window to be the most compelling feature on the exterior of a house.

If historic aesthetics are the goal that drives our decision-making, the allowance of materials other than wood and wood/aluminum should be allowed. There are other materials that are not detrimental to the environment should be allowed to be specified in historic renovations. You currently allow for that with the replacement of wood claddings with fiber cement siding. It is allowed because it is visually in keeping with the historic design and leads to a more durable building over time that doesn't need to be painted as often (this also conserves resources). Fiberglass is a great option for windows for this same reason. Wood and wood clad windows are not as durable without regular maintenance. When a window is neglected it leads to more frequent replacement and use of resources.

I also argue that wood and wood clad windows do not perform in modern high performance homes. The wood and wood clad window options available are not what is required to build a robust energy efficient high performance home. It is true that windows are usually only 10% of a building envelope and could be considered to not be a location of major heat loss. However, as the building becomes more and more insulated and air tight the windows become the weakest link in the home and contribute to a greater part of the heat loss. A lower performing wood window (u factor .30 to .28) will be the coldest surface in the house and thus a common and constant surface for condensation in the winter. This will lead to early window failure and a need for replacement much sooner. This was not the case in older

homes that had lots of passive ventilation and lots of heating energy input to keep the house dry and the windows from rotting. This is not the case with modern high performance homes that have much, *much* lower rates of controlled air exchange and very low energy input into the house.

We are now in an environmental crisis of our own making. The use of fossil fuel energy is causing global climate change. Buildings consume a large portion of this energy. In 2014, 41% of total U.S. energy consumption was consumed in residential and commercial buildings. Old houses as well as new ones need to have the option of the most efficient window available at a reasonable cost. The most efficient windows (u factor .27 to .10) are predominately made from fiberglass. These windows are leaps and bounds ahead of other wood and wood clad windows. These windows allow for the best performance that is possible and the lowest energy use possible.

Materials that were used 50 or more years ago are not necessarily the best choice for our model building standards. As we can see from the wide spread use of asbestos in the past. We now acknowledge that that material is harmful to our health and safety and do not use it any longer. In this vein we need to be able to conserve as much energy as possible for the future health and safety of everyone on this planet.

Our building codes are evolving to recognize the need for greater performance and efficiency for homes. The guidelines of historic preservation also need to evolve to acknowledge the pressure of a changing climate and allow for the technological advances in building materials.

We must all be a part of the solution in every way we can. This responsibility also rests with you as the Historic Preservation Review Committee and Design Advisory Board.

I would urge you to hold a hard line on the aesthetic integrity of historic buildings. But at the same time I would ask that you consider the advent of superior technologies and materials to achieve those goals.

Thank you so much for taking the time to consider my request. I am more than willing to discuss my request with you further at your convenience. Please do not hesitate to contact me.

Kindest Regards,

Rebecca Grannis