

August 20, 2014

City of Portland
Code Enforcement
389 Congress Street
Portland, Maine 04101

Dear Code Enforcement Official:

This sealed letter is in reference to the on-going full dormer addition project at the residence located at 22 Caldwell Street in Portland. It is my understanding that the framing has been inspected by the City of Portland and some concerns were noted regarding some notching in the roof framing. I was contacted by the home owner to also inspect the roof framing and assist the builder with remedial measures to bring the notched roof framing into compliance. The builder has performed these corrective actions to a satisfactory condition and I have no further structural concerns regarding the roof framing. In addition, I suggested some other remedial measures where the new roof framing meets the ridge beam and where the ridge beam ties back into the existing walls at the gable ends. These corrective actions were carried out prior to the final framing inspection by the City of Portland.

The notching in the roof rafters was at the end bearing areas over the load bearing walls and not in the middle third of the rafter span. Notching at this location is allowed in Section R802 of the International Residential Code (IRC) provided that the notching does not exceed one-fourth of the member depth. At some locations, prior to the corrective action, this notching exceeded that depth by a small amount due to the rough quality of the notching. I recommended that a full depth section cut clean from full framing stock be sistered in at each roof rafter location for the entire length of the notching in order to secure full load transfer from the roof to the wall (shear transfer). The sistering includes adequate side nailing to ensure this load transfer as well.

Sincerely,



Tim Merritt, P.E.



22 CALDWELL ST

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