How Does Construction Grade Relate to Storm Damage?

After storms Irene and Sandy, FEMA required that homes in hard hit areas receive a Substantial Damage Estimator. Milford employs the Building Inspections and Planning and Zoning departments, trained and certified with FEMA, software, inspected over 2,000 buildings and quantified damages to 2,600 structures in terms of dollars as well as a percentage of the value of the house or garage that was damaged. These assessments are used to determine whether homes require elevation and play an important role in assessing grades and insurance premiums.

When working on the City of Milford’s Eased Mitigation Plan it was required that city conduct a flood risk analysis to determine the effects of another storm on our residents. Our method was to analyze what happened during the last two major storms. By looking at the results of the Substantial Damage Estimator and applying data from the Assessor’s database, it was found that almost every single house that exceeded more than 25% damage had under construction grade.

Grade assignment is attempted by the means to recognize differences in grade of construction. Construction grade is determined by taking a composite view of the type and quality of building materials used, the level of engineering, and the reliability of the design in the house. While improvements over time introduce varying construction standards, it is a general practice for builders to use consistent materials to complement existing elements in the home. The higher the quality rating is for a structure, the higher the construction grade becomes. To provide a visual aid on construction grade, images of homes in Milford and their construction grades are provided below.

What Can We Do With What We Learned?

Shown here are all the homes in Category 1 and 2 SLOSH zones that have a construction grade of 6 or less. This type of analytical result can guide the City of Milford when taking actions for planning and zoning, property assessments, flood and sea level rise risk and most importantly, where to look to mitigate hazards and concentrate emergency preparedness activities.

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