



Developing Long Island for Wildfire Resiliency - by Kevin Paul

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Wildfires are not commonly thought of as a major problem on Long Island. Communities in states like California are regularly subject to wildfires, but Long Island was hardly developed with the specter of wildfires in mind. Warming temperatures resulting from climate change, however, have significantly increased the risk of wildfires on Long Island and, more broadly, across the nation.

According to the National Oceanic and Atmospheric Administration's Interagency Fire Center, in 2024, the United States encountered nearly 62,000 wildfires across roughly 8.85 million acres of burned land, averaging out to approximately 143 acres burned per fire. Long Island was the site of several of these fires, having experienced a record-dry fall season from August through November. The risk of fire was so high, in fact, that the National Weather Service issued a Red Flag Warning, New York State issued a statewide ban on outdoor burning, and Suffolk County banned open flames in county parks.

Last year's string of brush fires across Long Island provided a strong indication that wildfires are poised to ramp up in frequency and intensity, no longer reserved to rare tragedies such as the Sunrise Fire of 1995 that burned for days, injuring over two dozen firefighters and charring 4,500 acres of land. Therefore, in continuing to develop Long Island real estate, builders and property owners should be mindful of wildfire hazards and begin to understand how to implement techniques and technologies designed to bolster resiliency.

Use Fire-Resistant Building Materials

There is a wide range of fire-resistant building materials available, each with their own benefits and drawbacks. Generally-speaking, wood frame structures are most susceptible to fire damage and should be avoided unless the wood materials have been treated with a fire-resistant coating. One major exception to this rule is cross-laminated timber, an engineered wood product created by affixing together pieces of lumber in a manner similar to plywood, which offers exceptional fire resistance and structural integrity.

Builders looking to avoid wooden structures all together should opt for alternative building materials such as steel frame, concrete, stucco, or brick. Not only are these types of structures more resilient to wildfires, their resistance to long-term wear and tear means that concrete and brick structures tend to last longer than their standard wood frame counterparts. Metal roofs and cementitious siding are other important components of wildfire-resilient structures.

Buildings should also incorporate windows that delay the spread of fire through window openings via fire-resistant glass. Different types of glass provide different benefits: tempered glass can withstand temperatures of up to 500 degrees, fire-rated glass can withstand up to 1,600 degrees, and wired glass will break without fully shattering. Depending on the size of the window, the type and thickness of the glass, and the glazing applied to it, fire-resistant windows can withstand fire from anywhere

between 45 minutes and two hours. In the event of a blaze, that amount of time can make a world of difference.

Create Defensible Space

The closer that flammable objects are to one another, the faster the potential spread of wildfire. Therefore, it is beneficial to surround your structure with defensible space, a buffer zone with minimal to no flammable material. This not only includes trees, bushes, and other plantings, but also items like lawn/patio furniture, playground equipment, and any other structures on the property. Where the presence of plantings is unavoidable, property owners should have them maintained and treated.

Roofs should also be clear of flammable materials, as embers carried by the wind can ignite items that are seemingly out of the way. For the same reason, builders should cover soffit vents with metal wire mesh and replace any missing exterior roof or side shingles to prevent the entry of embers into the building.

Property owners should ensure that these potential hazards are no less than 30 ft. away from the building in question. Not only does this create a barrier between the property and any surrounding wildlands, but, should a fire occur, the defensible space also provides ample room for firefighters to suppress the fire.

Work with a Professional

Whether building for residential, commercial, or industrial uses, it is vital that developers anticipate the heightened risk of wildfires facing Long Island and respond in kind with resilient structures that are protected from damage. Experienced architects and fire protection engineers can provide unique solutions that take into account everything from geography and topography to local climate trends, ensuring that Long Island is developed with buildings that will stand the test of time.

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