Wood Framing Roof Resistant Support for Hurricane

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Abstract : Wood framed construction is the most popular method of construction for residential buildings. The typical roof framing for wood-framed buildings is sloped and consists of several structural members, such as rafters, hips, and valleys that link to the ridge and ceiling joists. The most common type of wood framing used is platform framing, also known as stick framing. Failures of the wood framing structures are among the most common types of wind damage in densely populated regions. Wood-framed buildings are under uplift during tornadoes and hurricanes which cause the failure in the roof. The bracing long structure members such as hip and valley have a large impact on the resilience of wood-framed buildings. As a result, the common failures in wood-framed buildings are reviewed, and the critical support locations for lengthy hips and valleys with various slopes are analyzed and recommended.

Keywords : rafters, hips, valleys, hip, ceiling joist, roof failures, residential and commercial structures, hurricane, tornadoes, building codes

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