SPECIAL WIND REGION MAPS NOW ONLINE

Commissioner Jean-Pierre L. Oriol of the Department of Planning and Natural Resources announces that the USVI Special Wind Region Maps are now live on the Applied Technology Council (ATC) Hazards by Location Tool available through the ATC website at: https://hazards.atcouncil.org/. Users can quickly access the site-specific design wind speed information in USVI by searching by address or coordinates (latitude and longitude) within the tool.

The USVI Special Wind Region design wind speed maps have been developed to evaluate the wind speeds that consider topographic effects for use as a simplified method to determine wind loads and pressures on a building or structure. The revised basic wind speed maps do not change the design wind criteria of ASCE 7-16, Minimum Design Loads and Associated Criteria for Buildings and Other Structures. Rather, these wind speed maps are provided as an additional and alternative method for calculating design wind pressures, which will enable a designer to more quickly and specifically by area to determine wind loads and pressures on a building where topographic effects must be considered without requiring registered design professionals to perform additional, and complex, calculations.
DPNR Division of Building Permits encourages design professionals to use the ATC Hazards By Location Tool and USVI Special Wind Region Maps to ensure that topographical effects will be properly accounted for in design of buildings and other structures in the USVI. DPNR Division of Building Permits staff will begin to use the tool in Plan Review as part of their standard operating procedures. The benefits of this tool include:
- The New Special Wind Region Maps reflect complex topographic effects better than ASCE 7 procedures;
- Special Wind Region Maps are easier to use and to check for proper application;
- A more risk consistent assessment of topographic effects

Integration of this new wind speed data addresses a key finding in the U.S. Virgin Islands Mitigation Assessment Team (MAT) Report, FEMA P-2021, Hurricanes Irma and Maria in the U.S. Virgin Islands, regarding the effects of topography on wind speeds across the islands. Many locations were observed to have experienced higher wind speeds due to the channeling of wind through the mountains. Recommendation USVI-40b from the MAT report concluded that new design guidance for topographic effects in the U.S. Virgin Islands was needed to allow designers to more appropriately address wind speed-up in building design.

For more information, visit https://dpnr.vi.gov/building-permits/ or contact on the Division of Building Permits at (340) 774-3320 on St. Thomas and (340) 773-1082 on St. Croix.

The following images demonstrate how to find site-specific Special Wind Region wind speed information including topographic effects using the ATC Hazards by Location Tool linked above:
Special Wind Region wind speed information including topographic effects.