The new International Residential Code 2006 (2006 IRC) recently published by International Code Council (ICC) requires changes in seismic design category (SDC) determination given in IRC 2003. In the new determination the design category D1 (0.50 < SDS ≤ 0.83) is subdivided into categories D0 (0.50 < SDS ≤ 0.67) and D1 (0.67 < SDS ≤ 0.83). It is anticipated that the category change in D1 will be more pronounced in western Washington where population and housing developments are larger.


After determining the Fa values from Table above, SDS values calculated using SS values (Frankel et al., 2002) and assumption of siteclass D in the State of Washington are used to calculate SDS values. Finally, the IRC 2006 new categories given below are assigned to generate a prototype 2007 Seismic Design Category Map (bottom) for residential construction in Washington.

References

Disclaimer
The maps presented in Plates 1 and 2 are not a substitute for site-specific investigation to assess the actual ground conditions and potential for amplification or attenuation of ground shaking. The maps are products produced to provide a general, simplified means of understanding the seismic hazard at a state or more quantitative analysis. These products are produced on an "as is" without warranty of any kind, either expressed or implied, including, but not limited to, the implied warranties of merchantability and fitness for a particular use. The Washington State Department of Natural Resources will not be liable to the user of these products for any activity involving the products with respect to the following: (a) loss or injury to persons or property; or (b) violation of any other rights in connection with the use of the products or results obtained from the use of the product for a particular purpose, or (c) use of the products or results obtained from the use of the products.

Plate 1 - IRC 2007 Category Map by using the NEHRP Site Class Map
Plate 2 - IRC 2007 Category Map by Assigning Site Class Map D for the State of Washington

A PROTOTYPE 2007 SEISMIC DESIGN CATEGORY MAP FOR RESIDENTIAL CONSTRUCTION IN THE STATE OF WASHINGTON
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