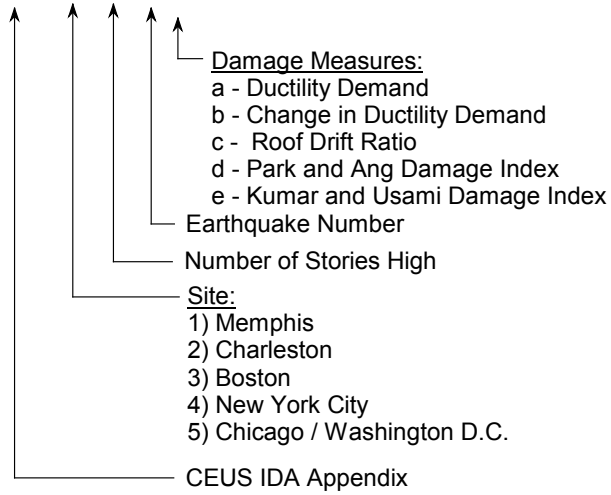
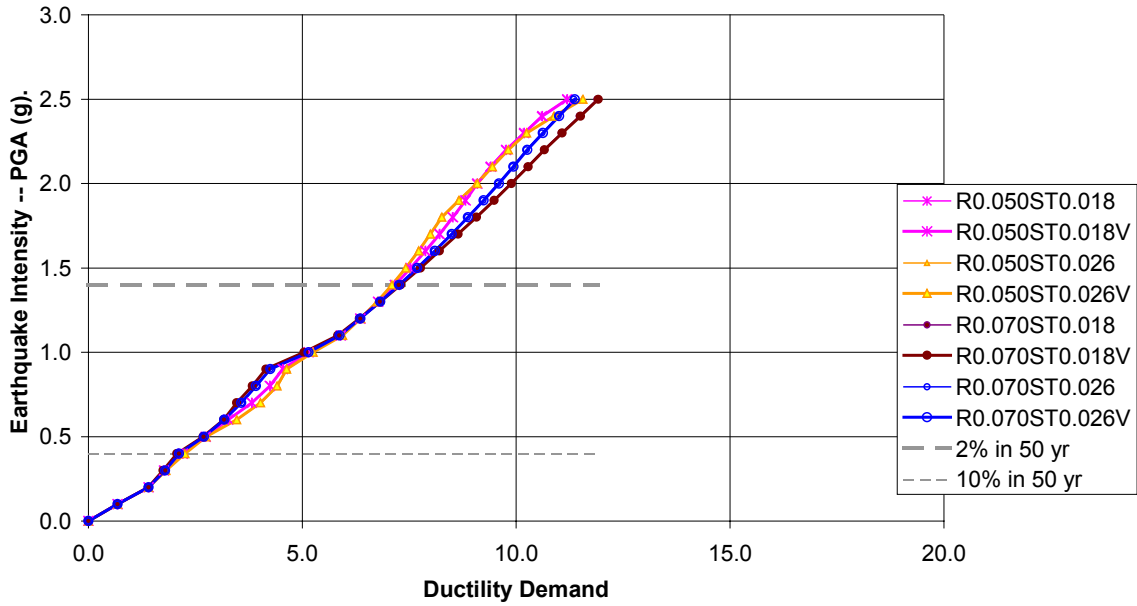


# Appendix D1 – Central and Eastern United States IDA Figures

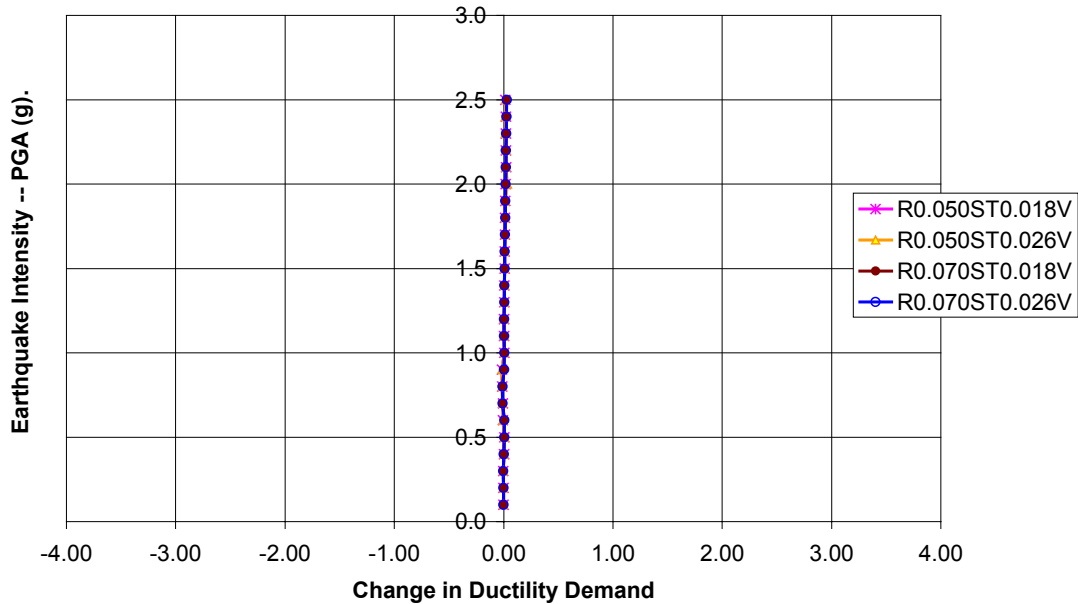
Figure Number Designations:

## Figure D1.1.3.4a

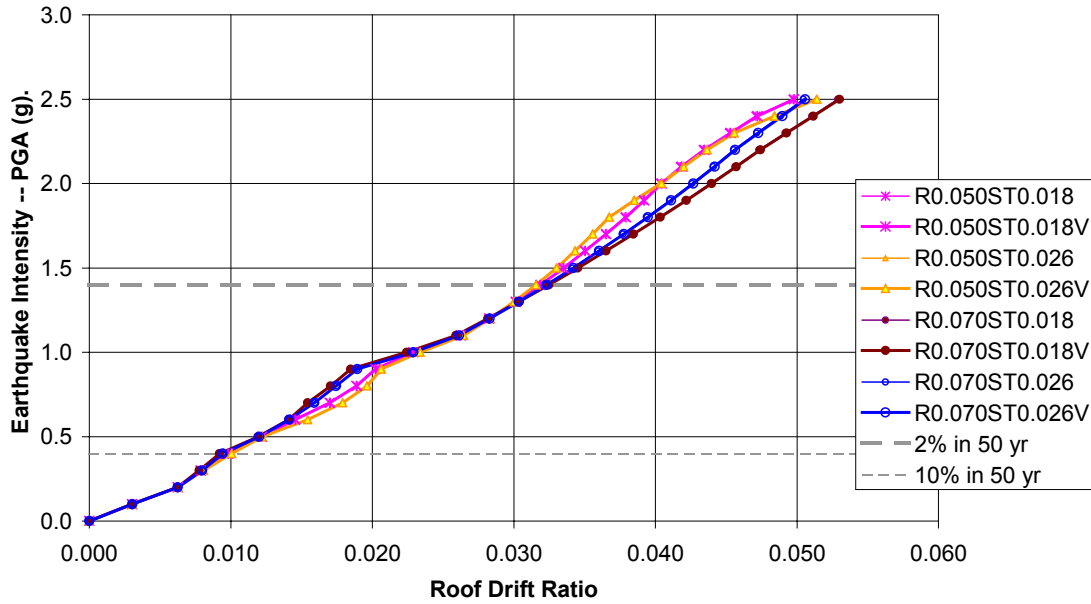




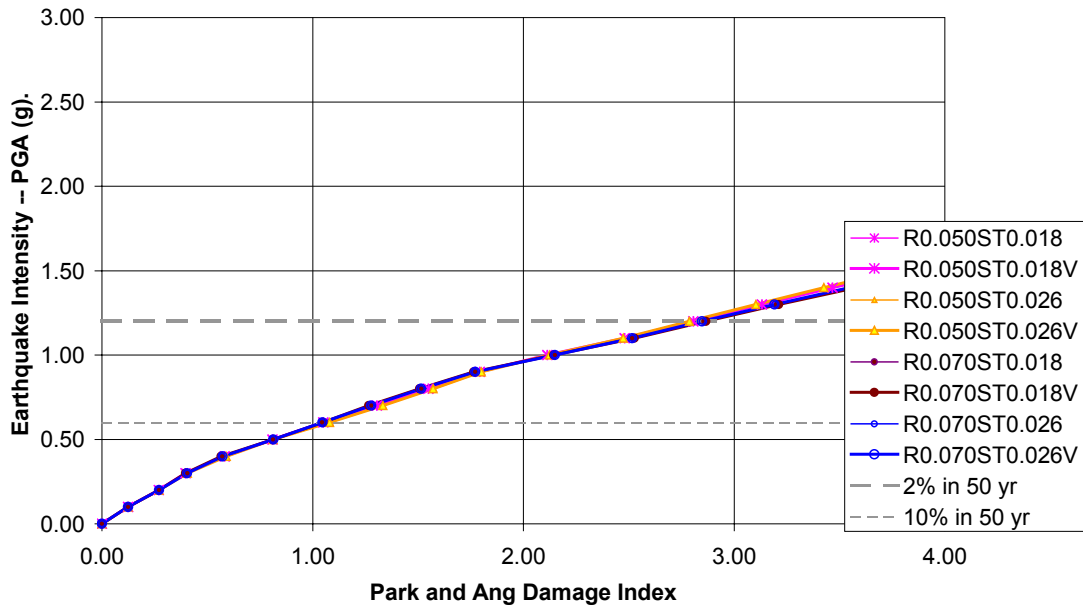
**Figure D1.1.3.4a – Ductility Demands of the Memphis 3 Story Models Subjected to the Taft Earthquake (EQ 4).**



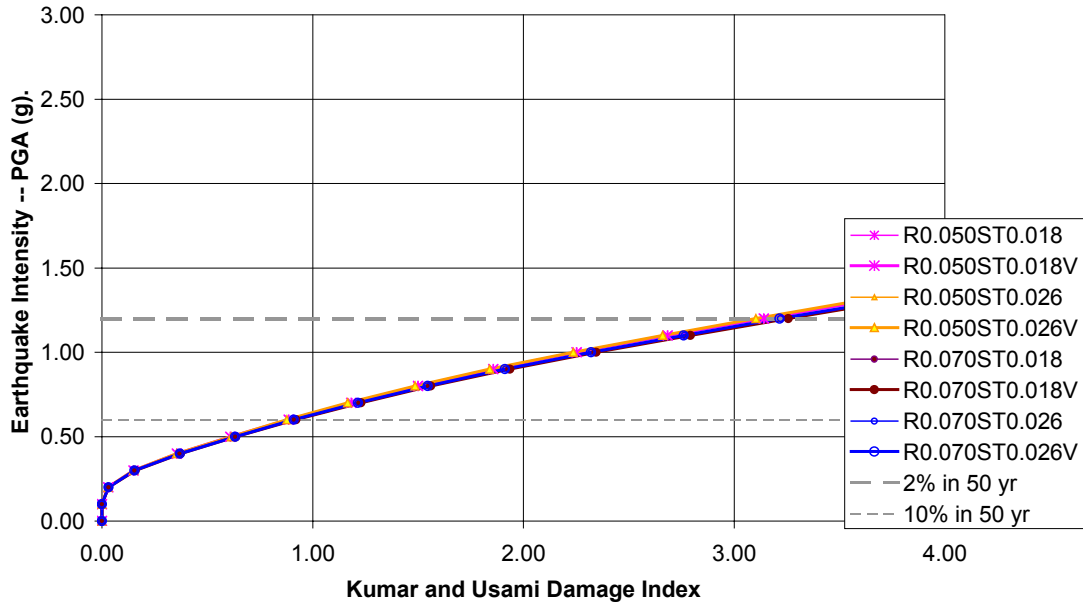
**Figure D1.1.3.4b – Change in Ductility Demands Due to Vertical Accelerations for the Memphis 3 Story Models Subjected to the Taft Earthquake (EQ 4).**



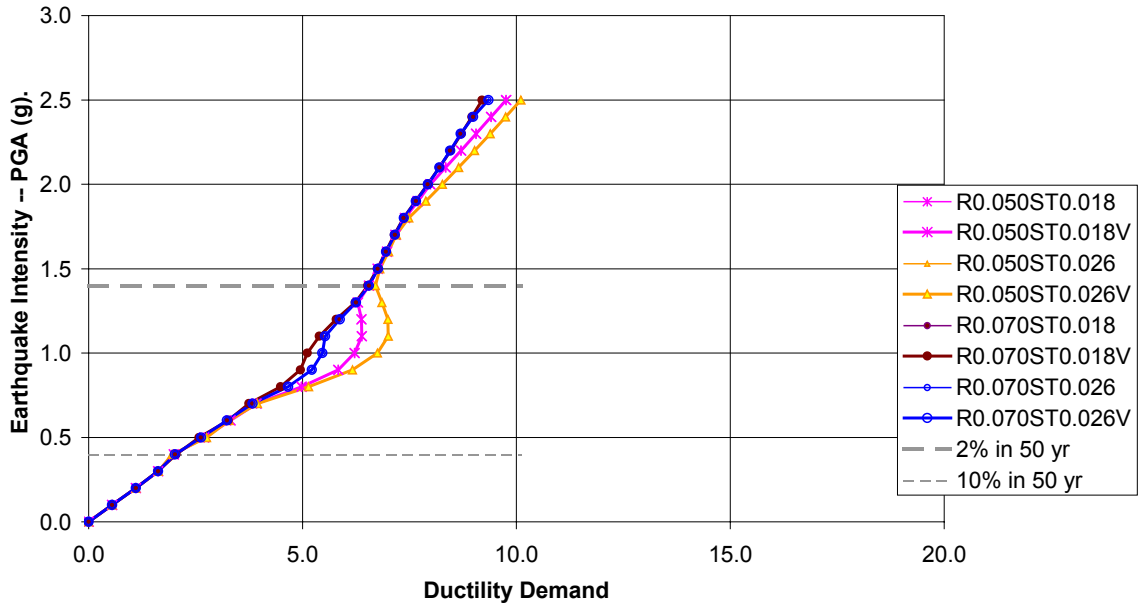
**Figure D1.1.3.4c – Roof Drift Ratio of the Memphis 3 Story Models Subjected to the Taft Earthquake (EQ 4).**



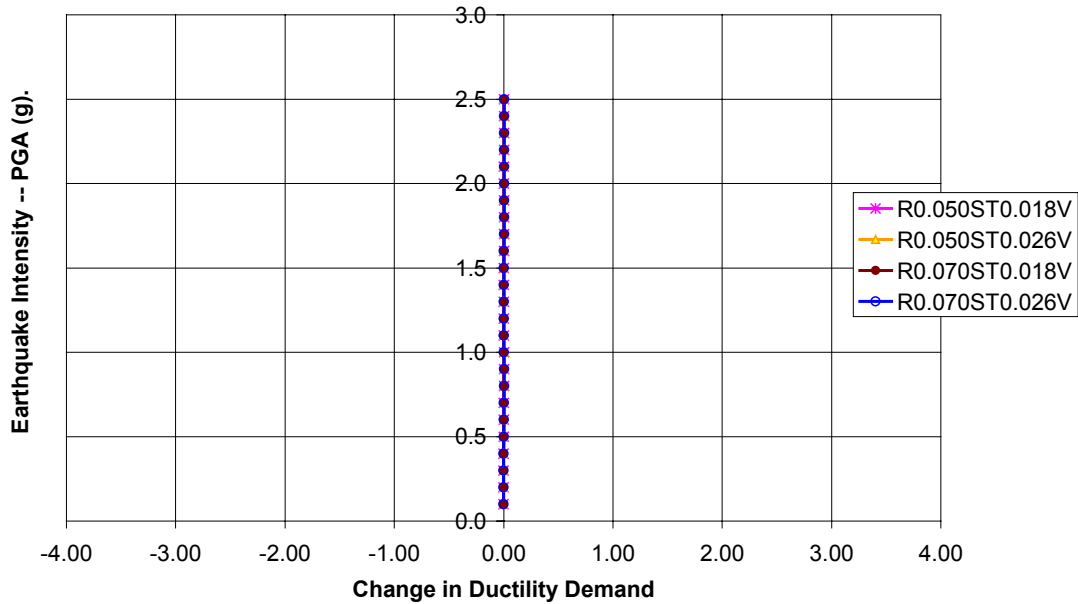
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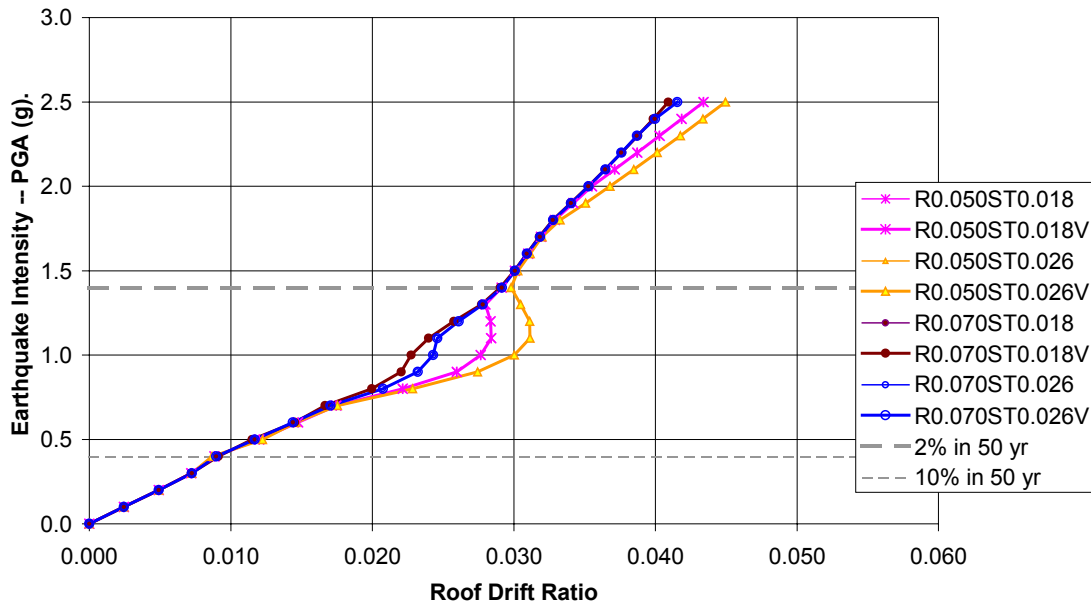
**Figure D1.1.3.4e – Kumar and Usami Damage Indices of the Memphis 3 Story Models Subjected to the Taft Earthquake (EQ 4).**



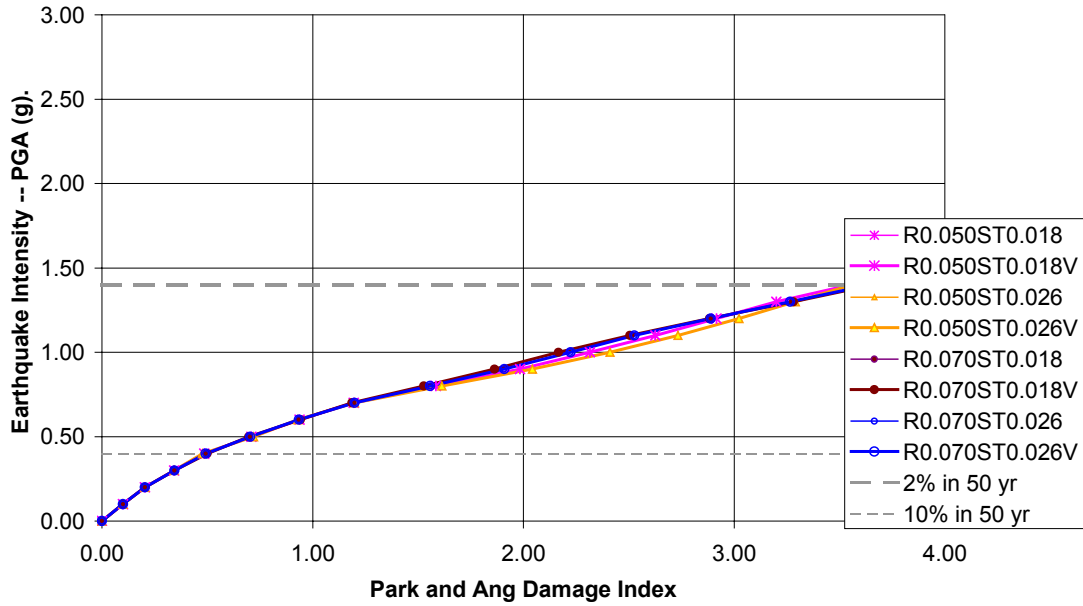
**Figure D1.1.3.5a – Ductility Demands of the Memphis 3 Story Models Subjected to the Hollister Earthquake (EQ 5).**



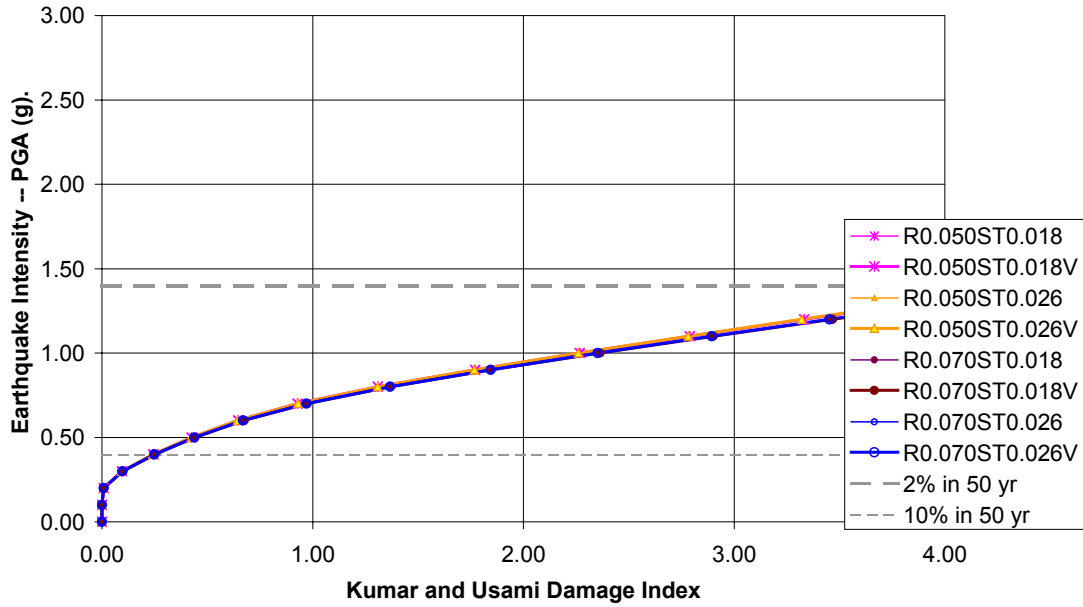
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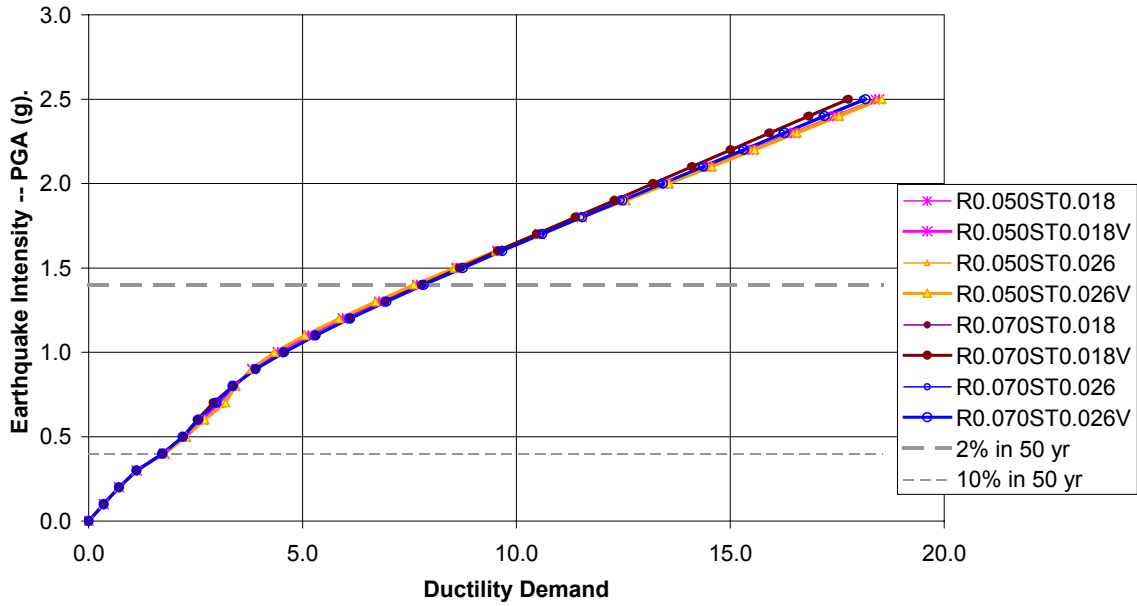
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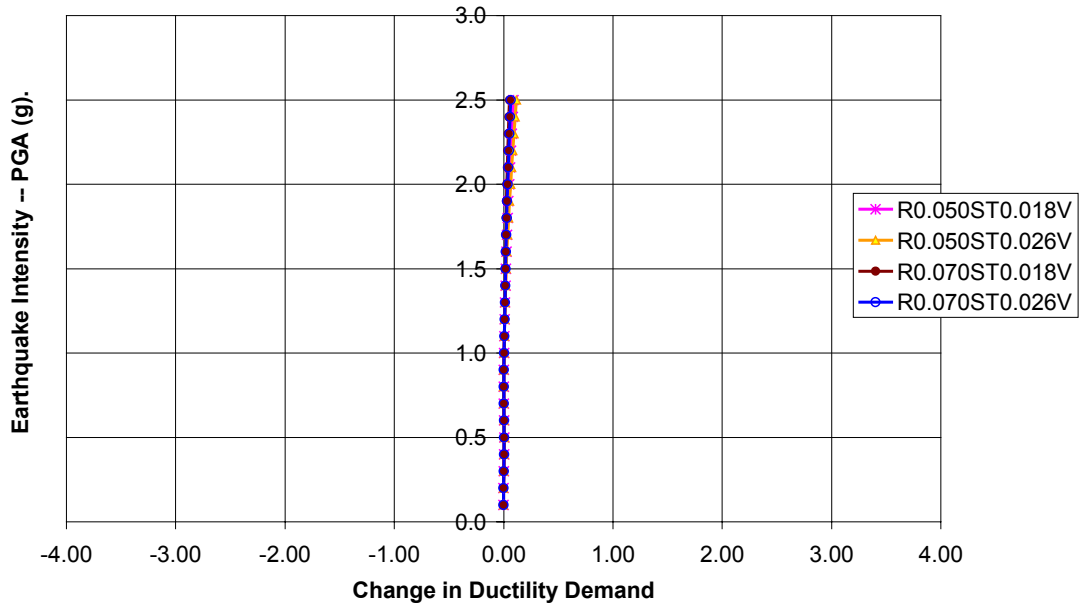
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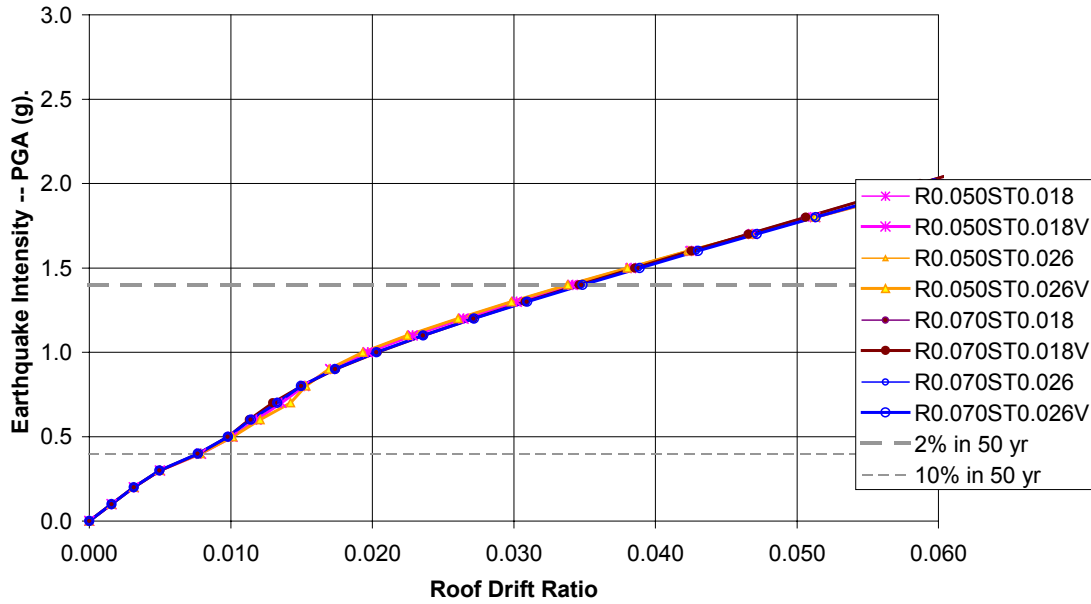
**Figure D1.1.3.5e – Kumar and Usami Damage Indices of the Memphis 3 Story Models Subjected to the Hollister Earthquake (EQ 5).**



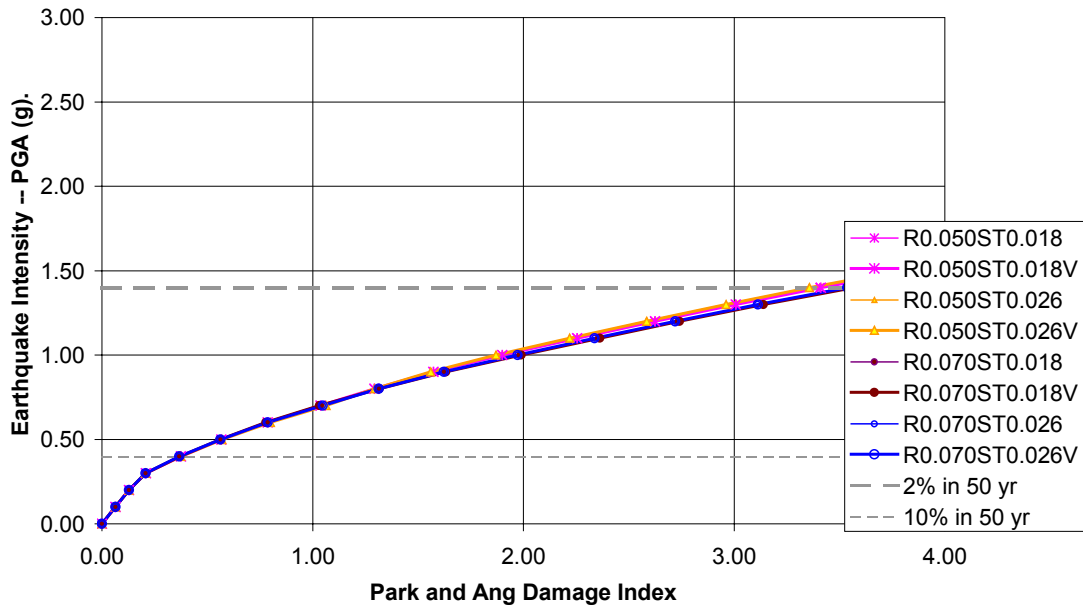
**Figure D1.1.3.9a – Ductility Demands of the Memphis 3 Story Models Subjected to the Hollister Earthquake (EQ 9).**



**Figure D1.1.3.9b – Change in Ductility Demands Due to Vertical Accelerations for the Memphis 3 Story Models Subjected to the Northridge Earthquake (EQ 9).**

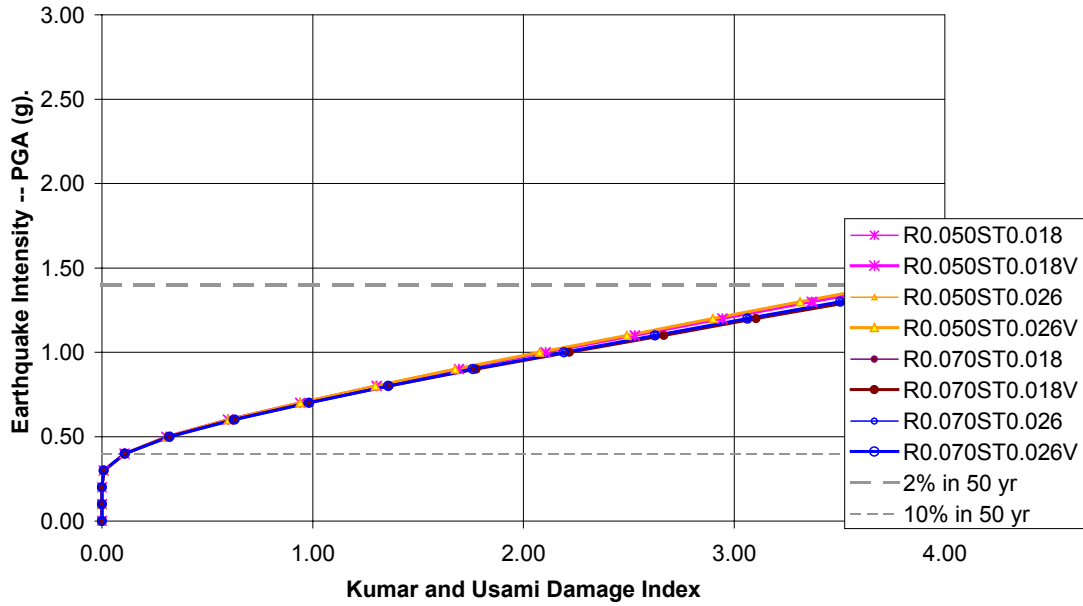


**Figure D1.1.3.9c – Roof Drift Ratio of the Memphis 3 Story Models Subjected to the Northridge Earthquake (EQ 9).**

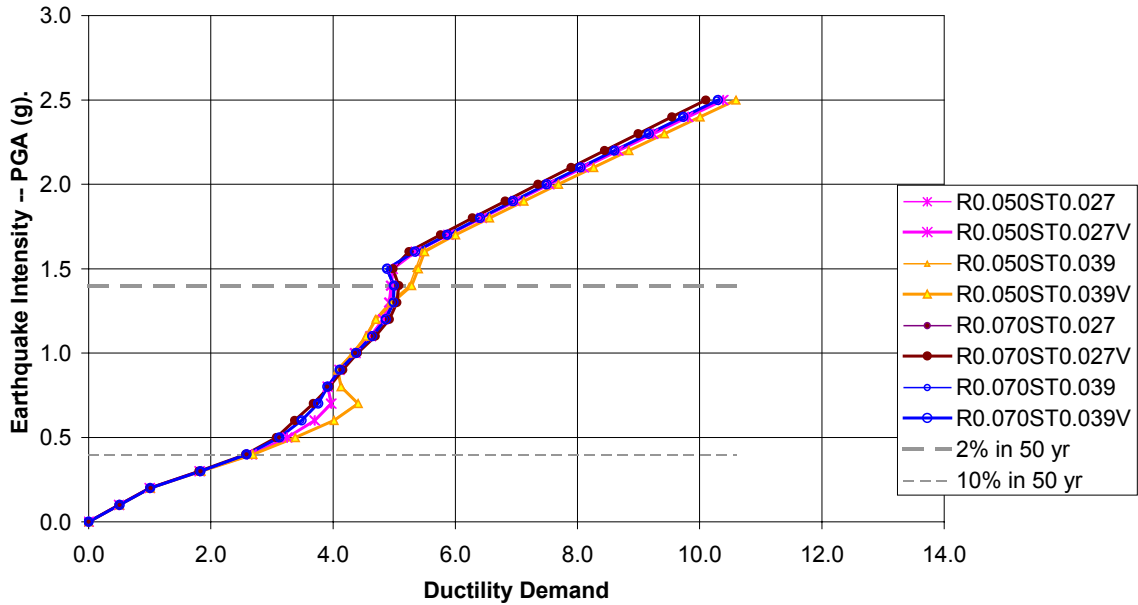


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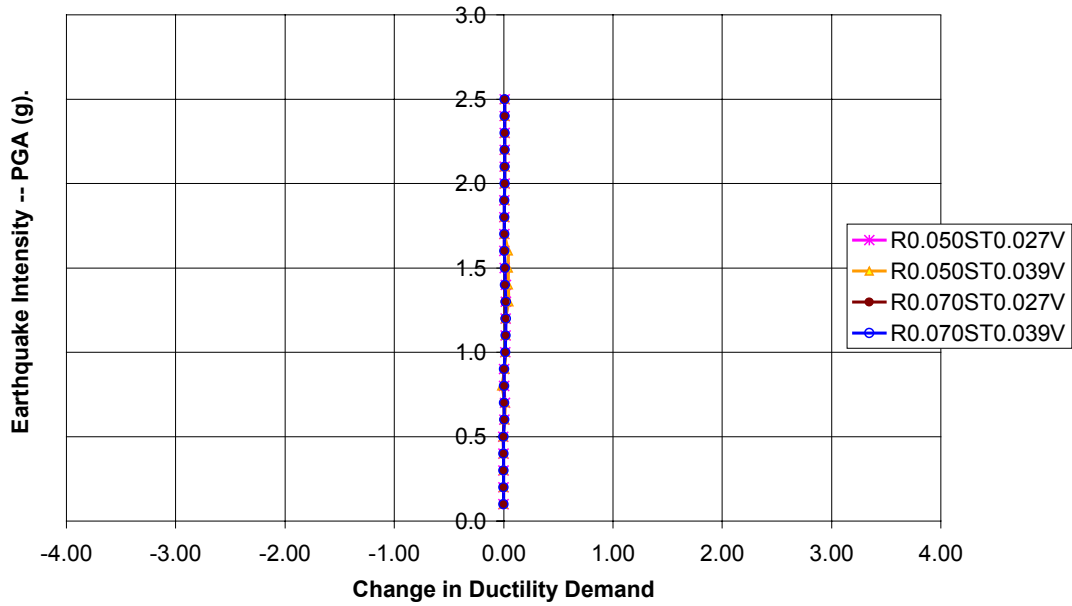




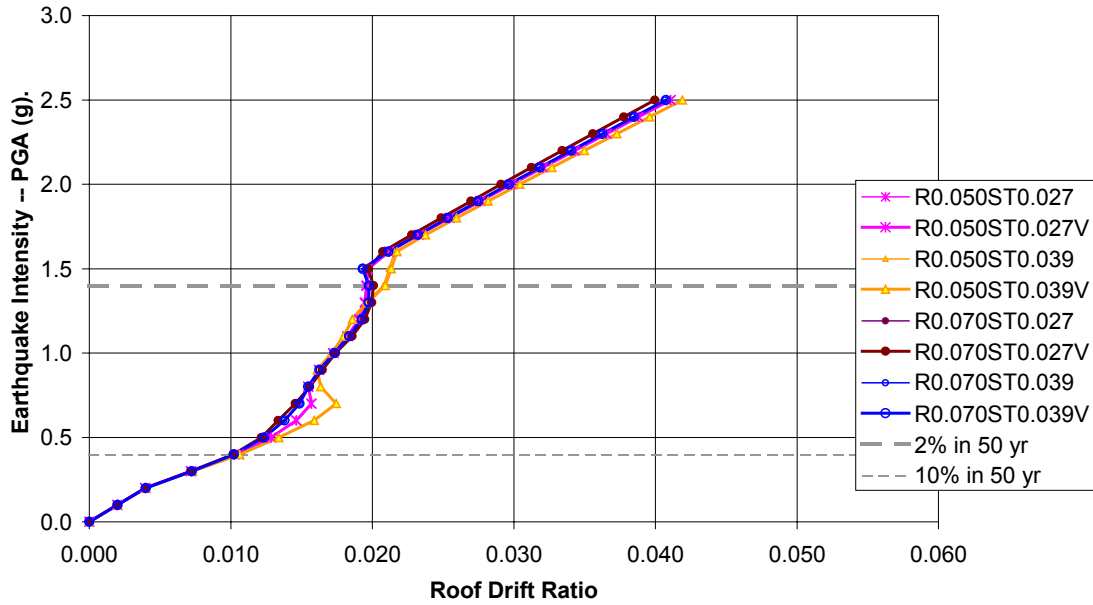
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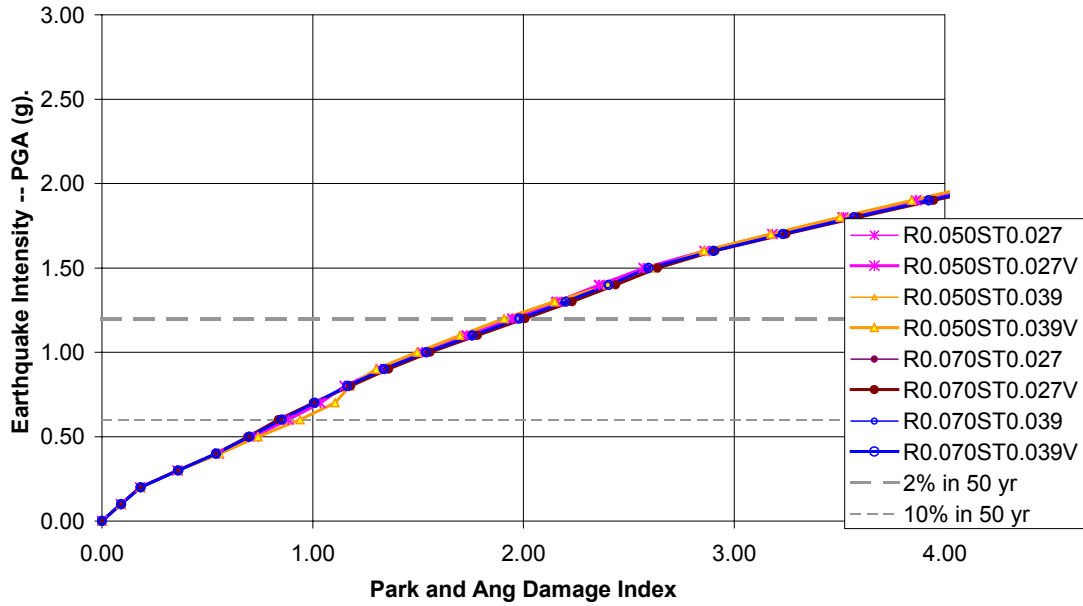
**Figure D1.1.5.4a – Ductility Demands of the Memphis 5 Story Models Subjected to the Taft Earthquake (EQ 4).**



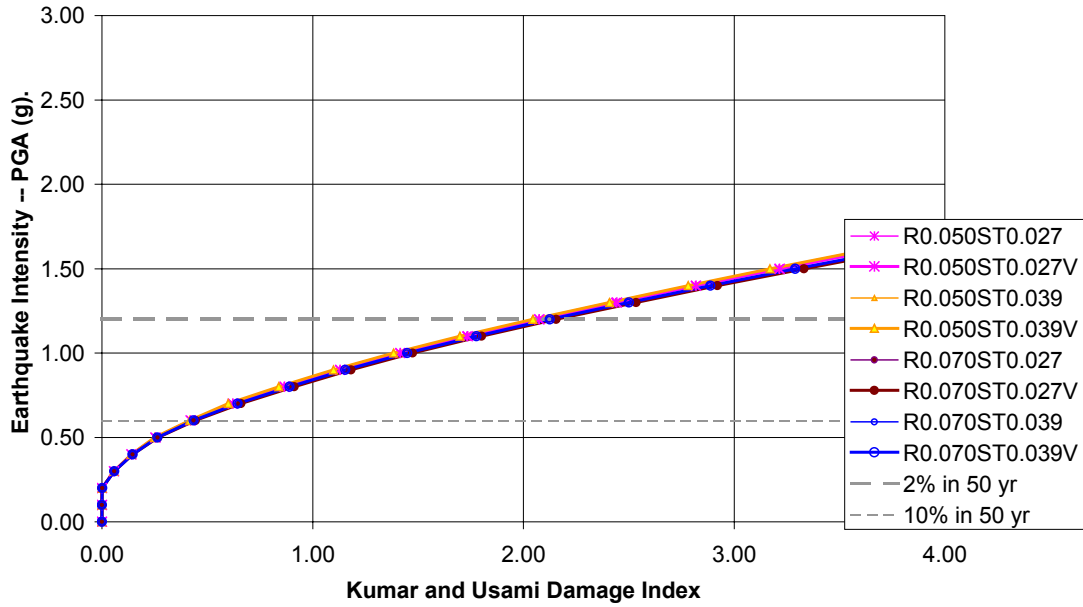
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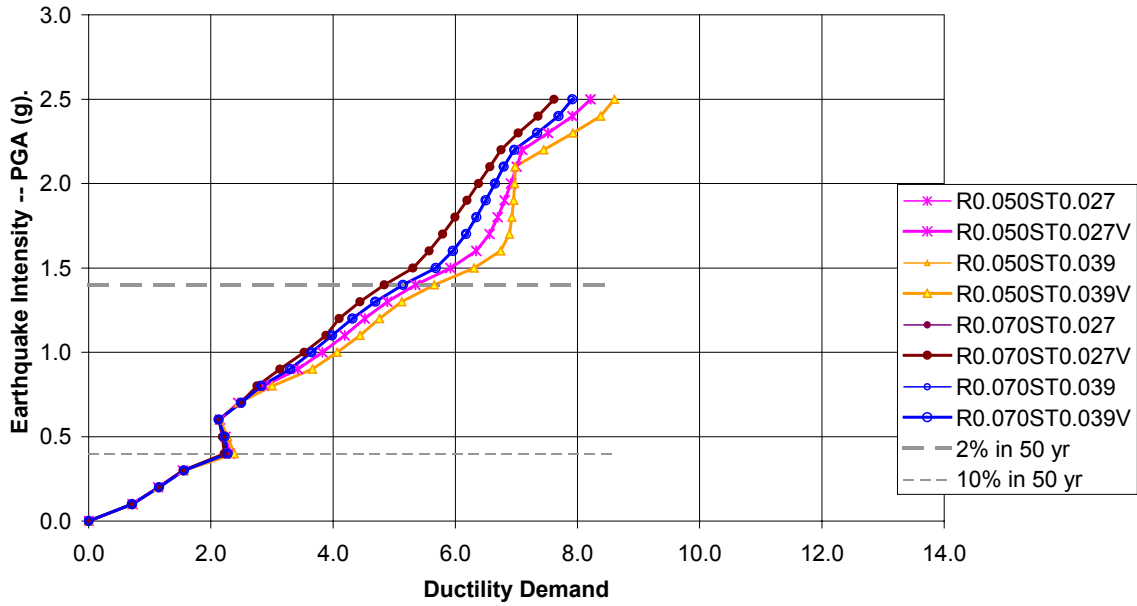
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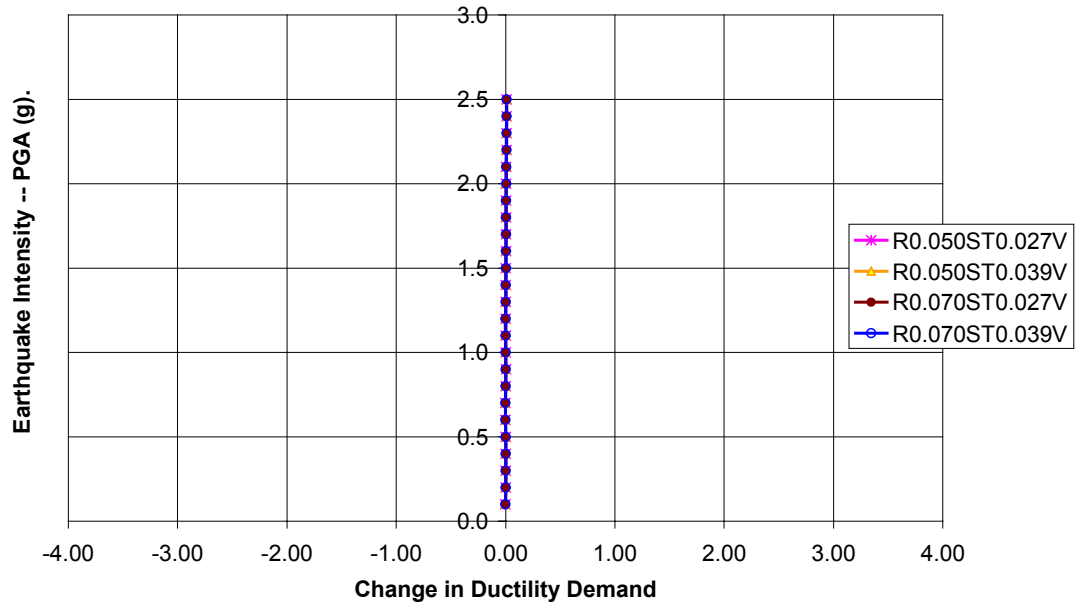
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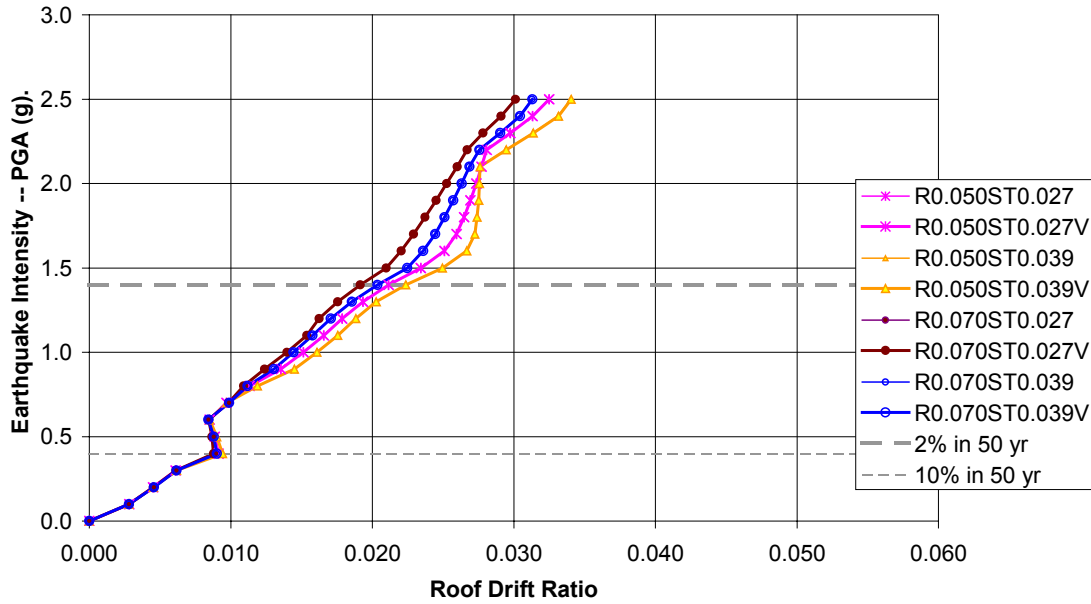
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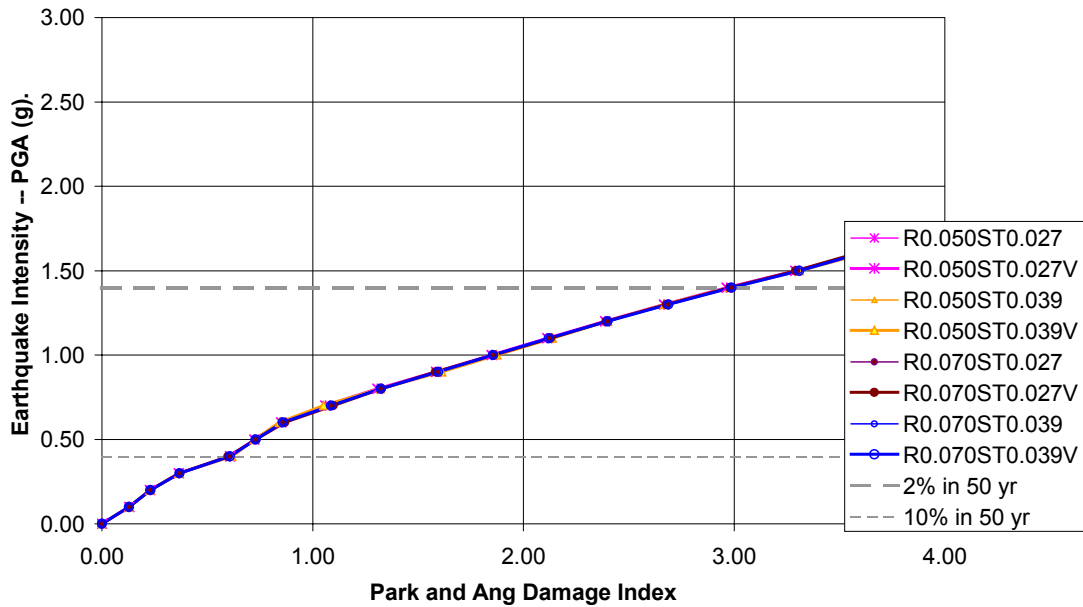
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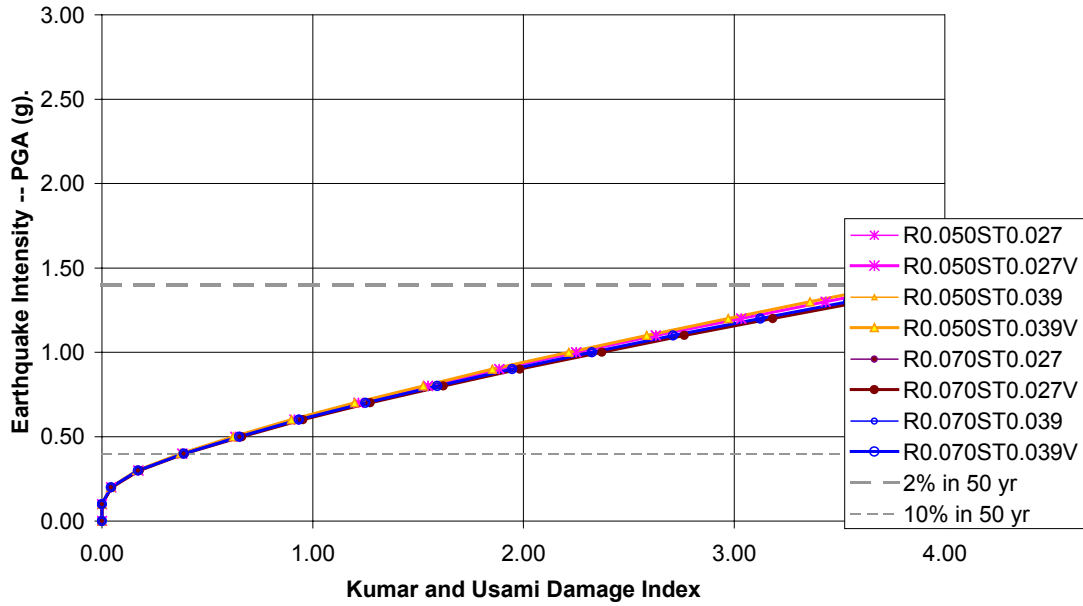
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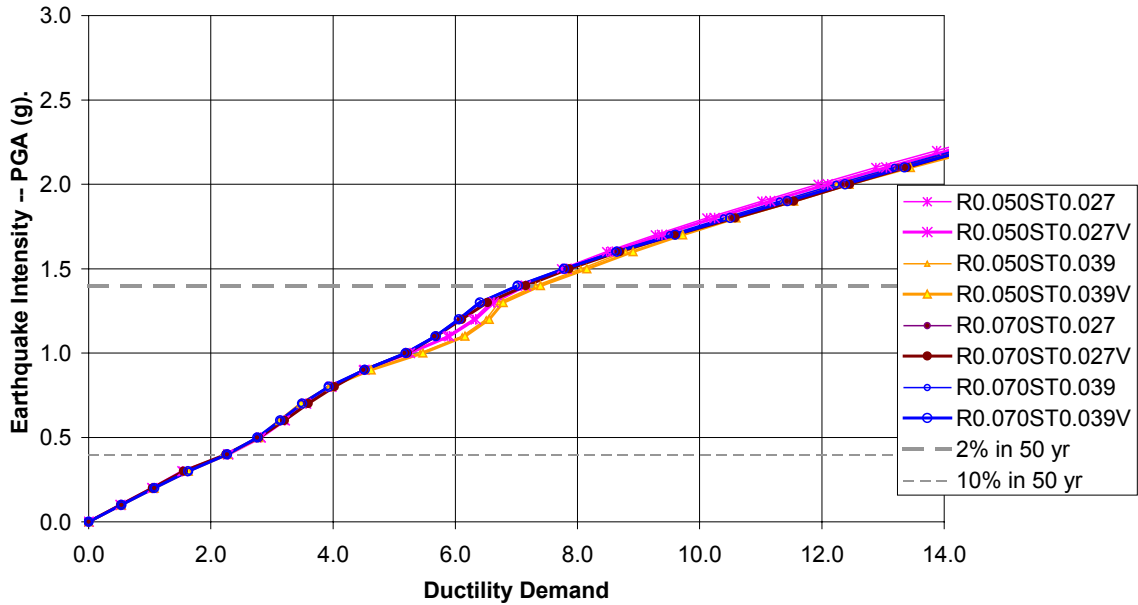
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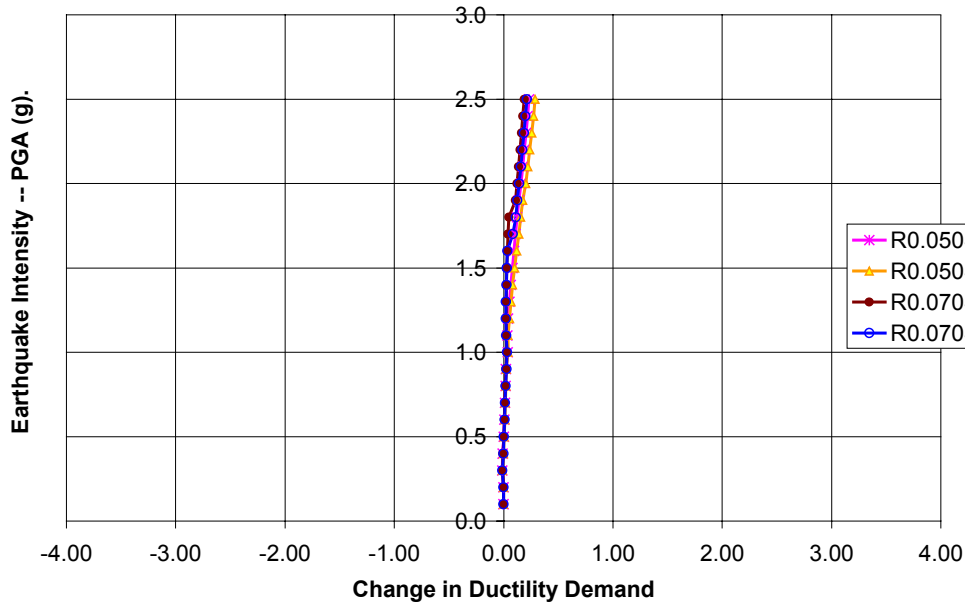
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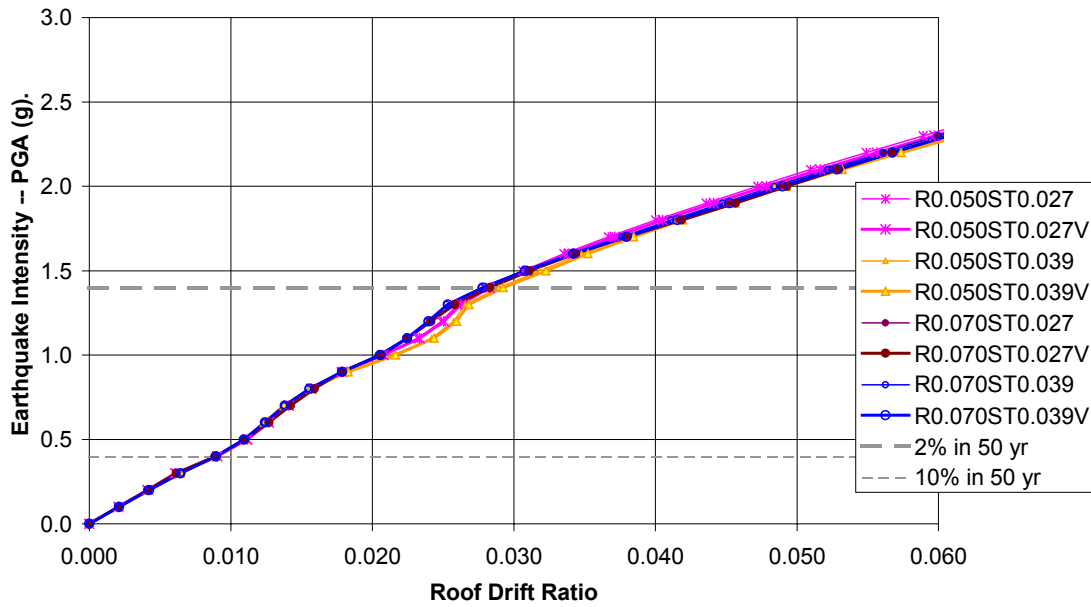
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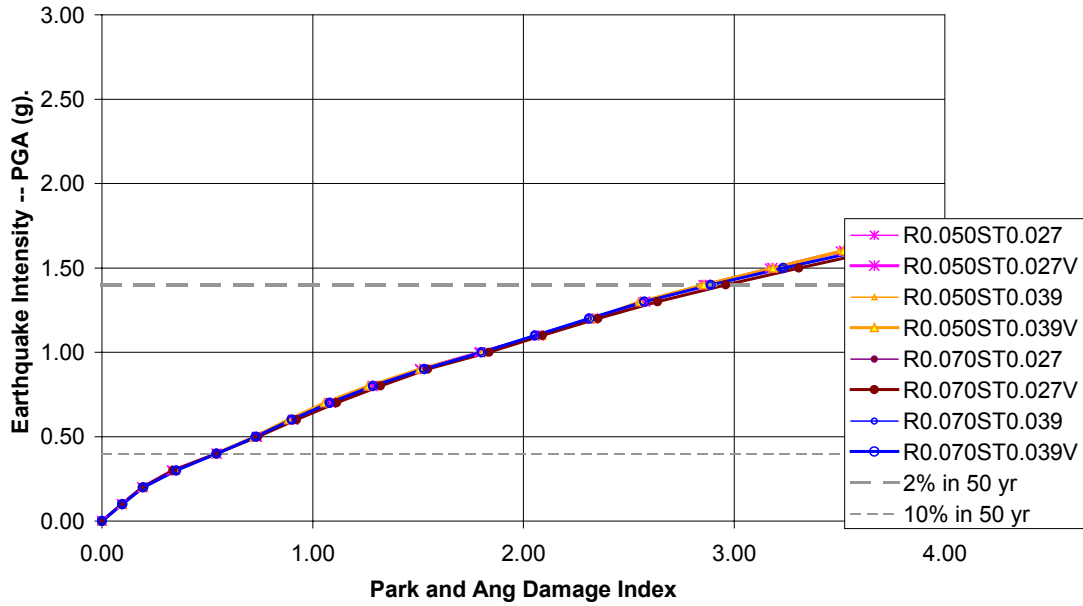
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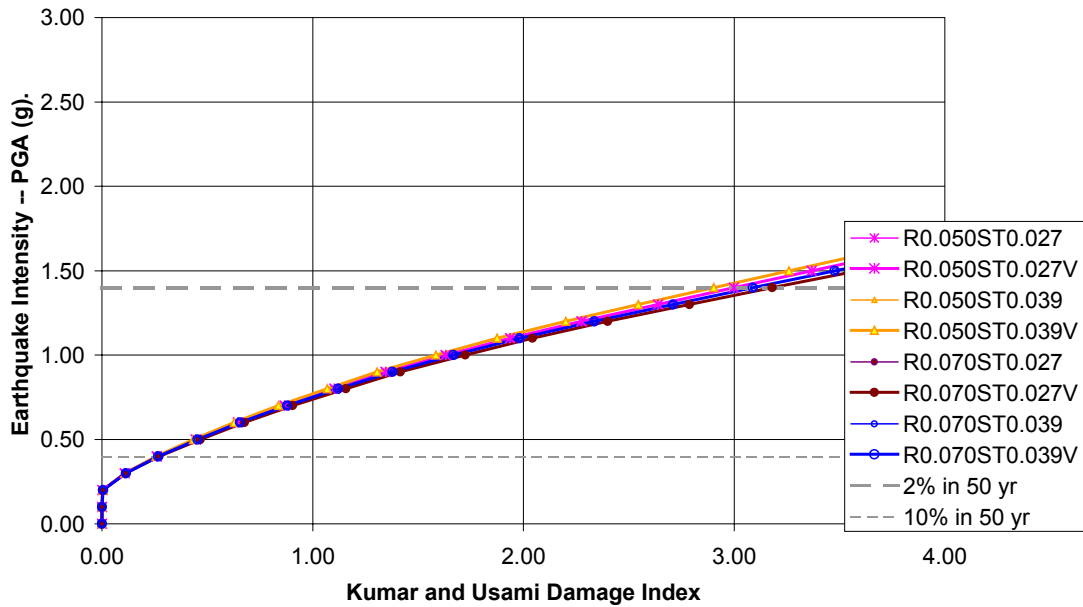
**Figure D1.1.5.9b – Change in Ductility Demands Due to Vertical Accelerations for the Memphis 5 Story Models Subjected to the Northridge Earthquake (EQ 9).**



**Figure D1.1.5.9c – Roof Drift Ratio of the Memphis 5 Story Models Subjected to the Northridge Earthquake (EQ 9).**

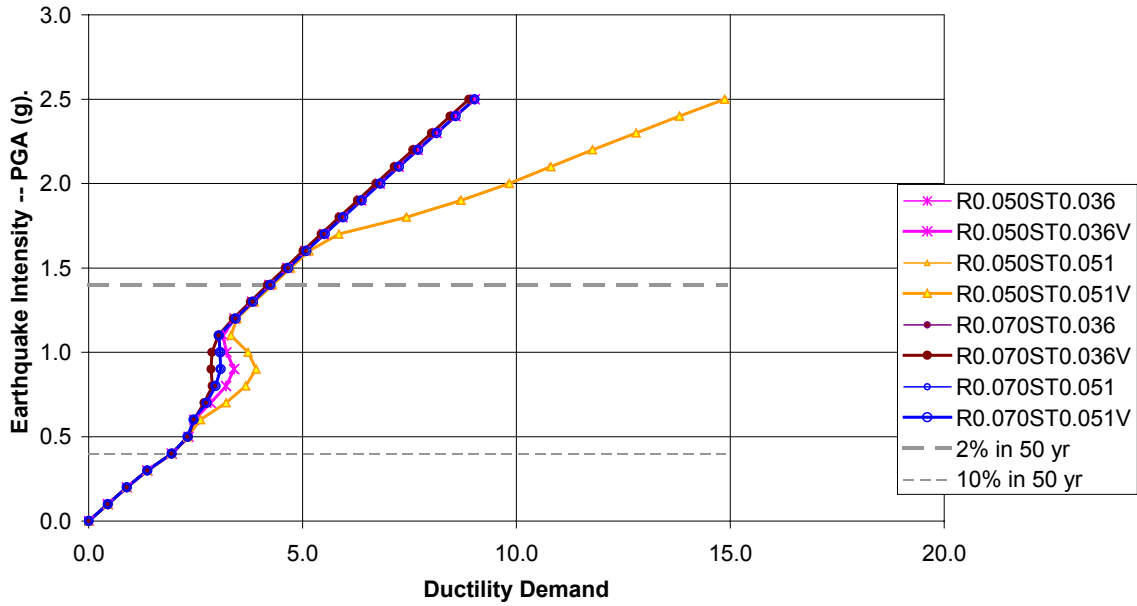


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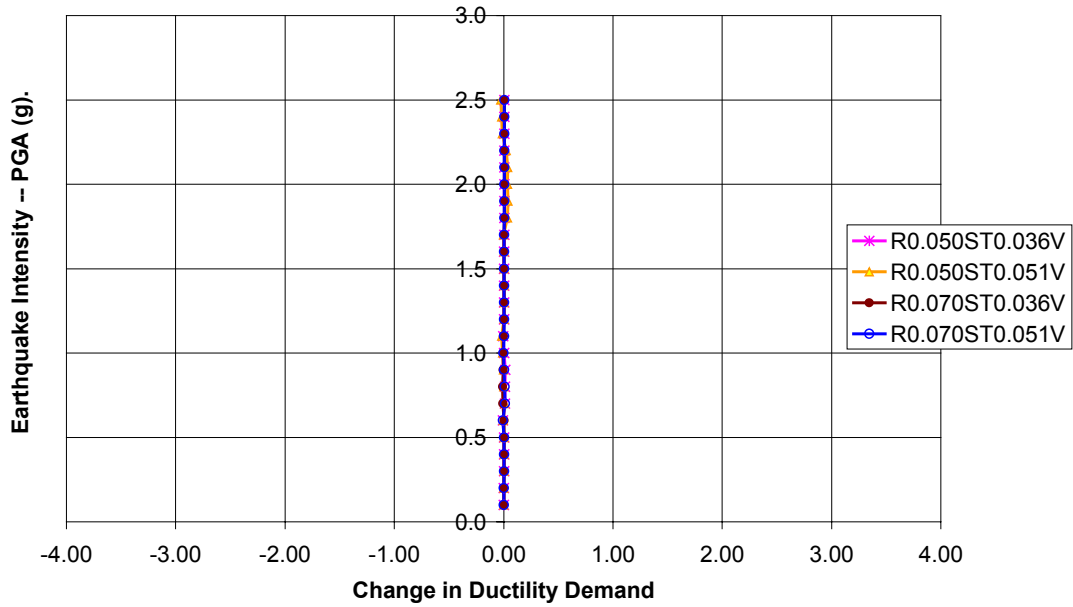


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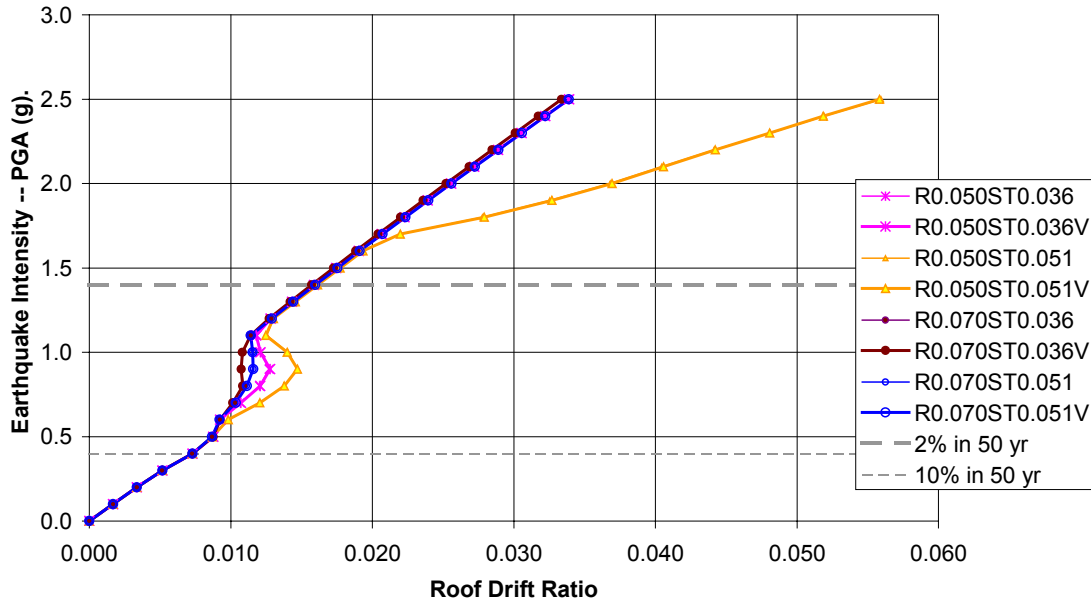




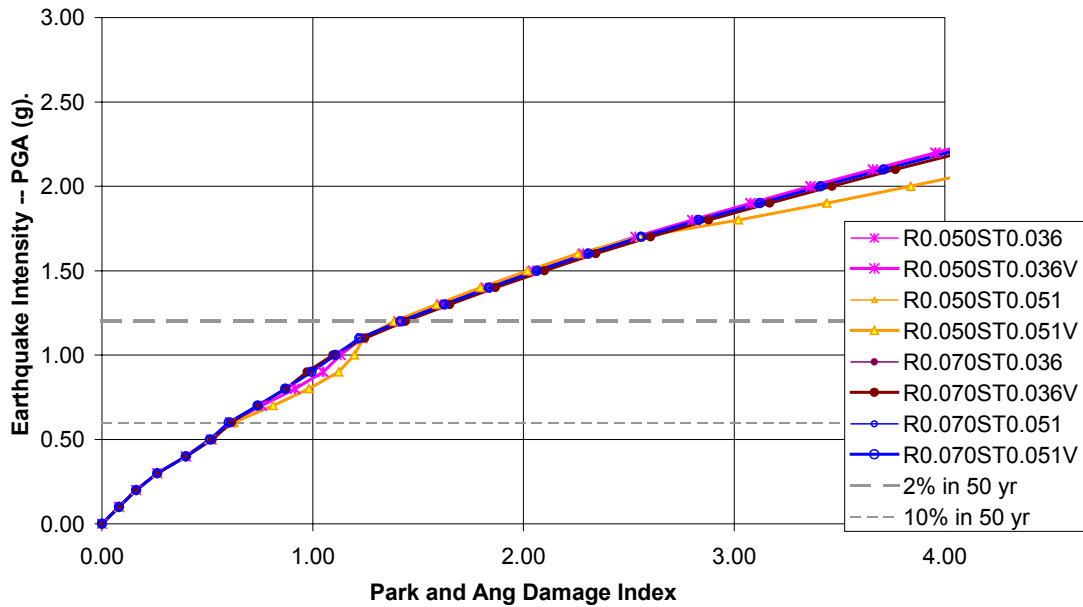
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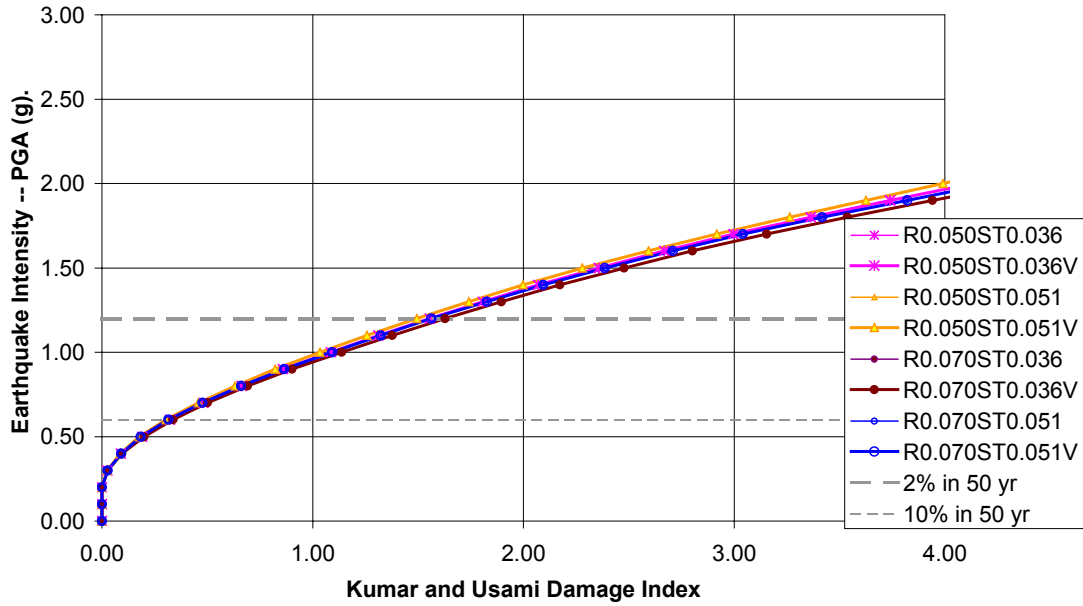
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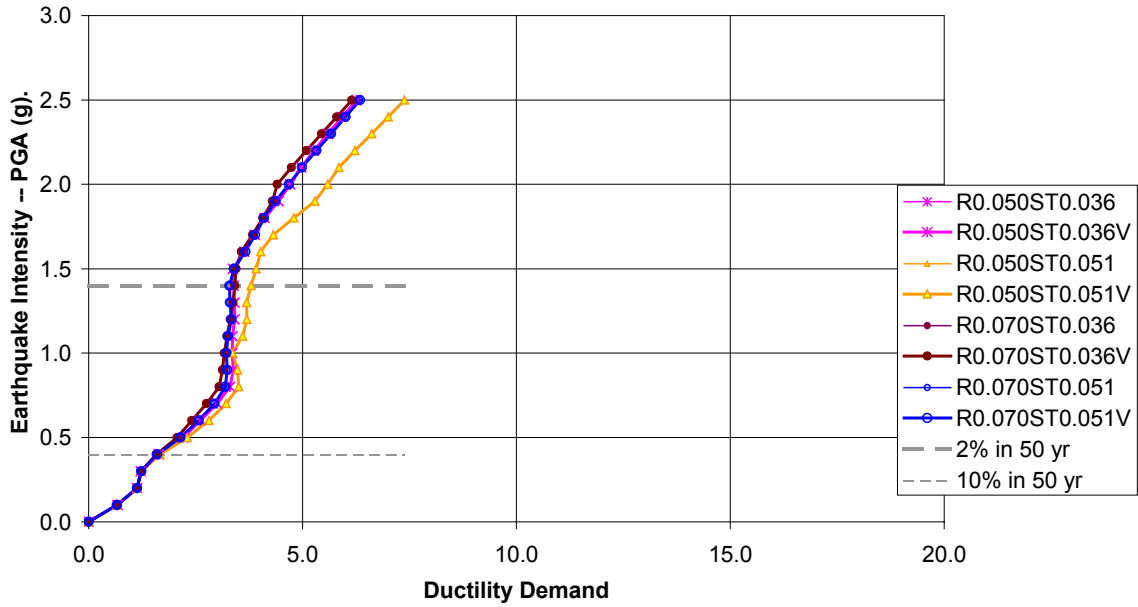
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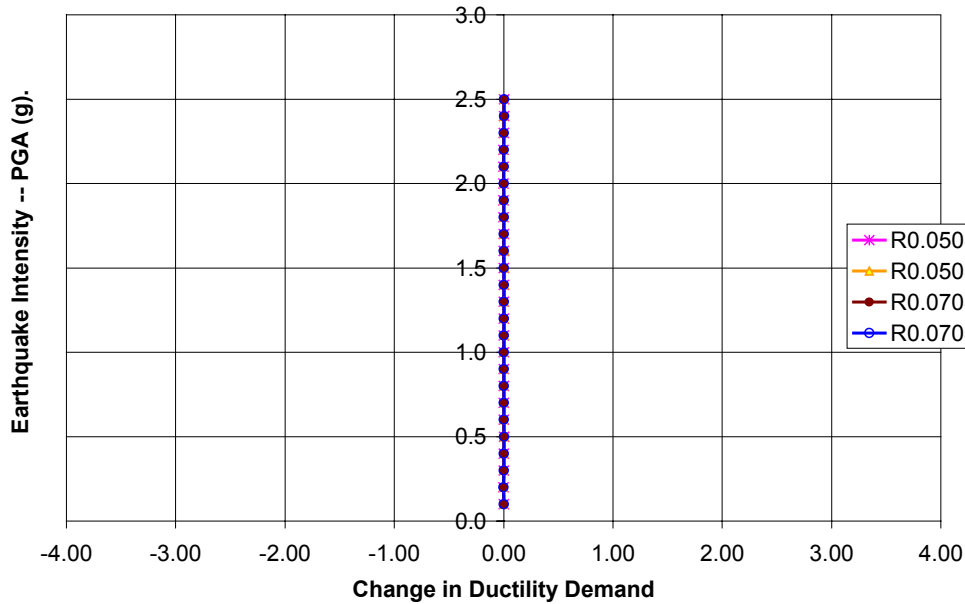
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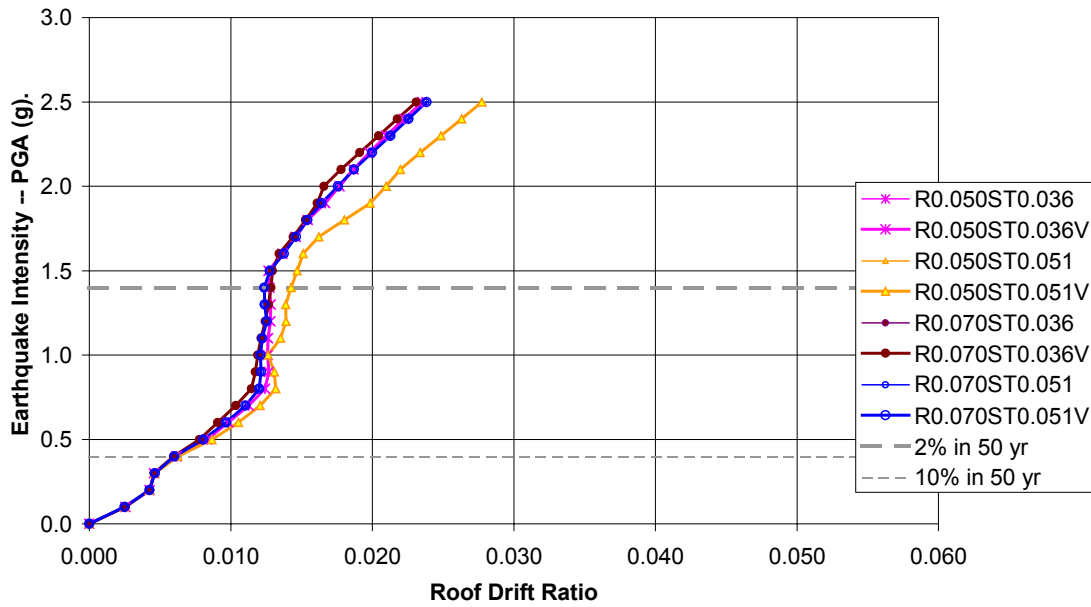
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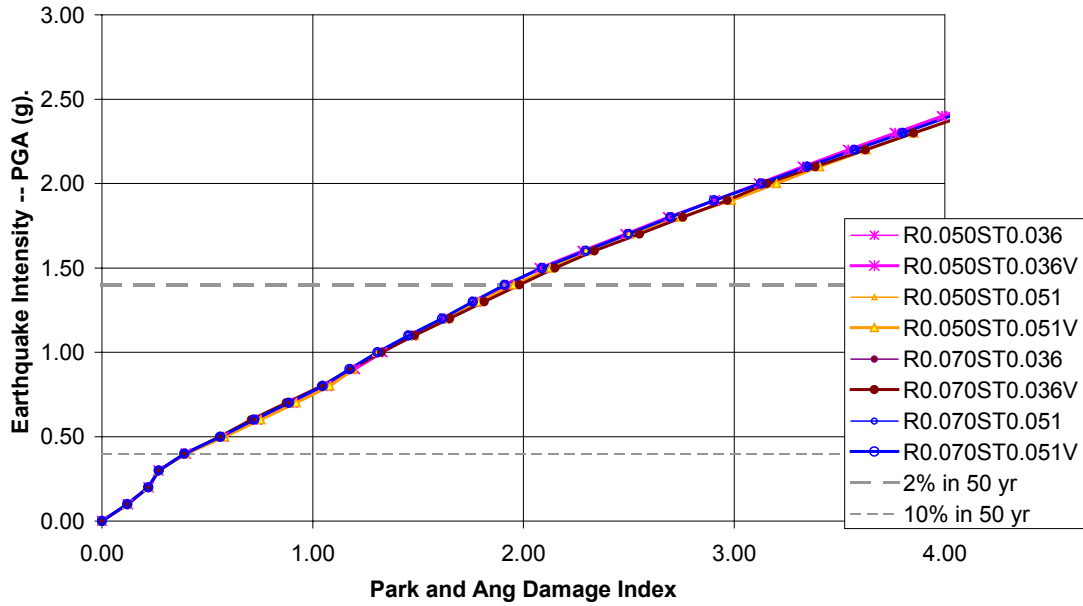
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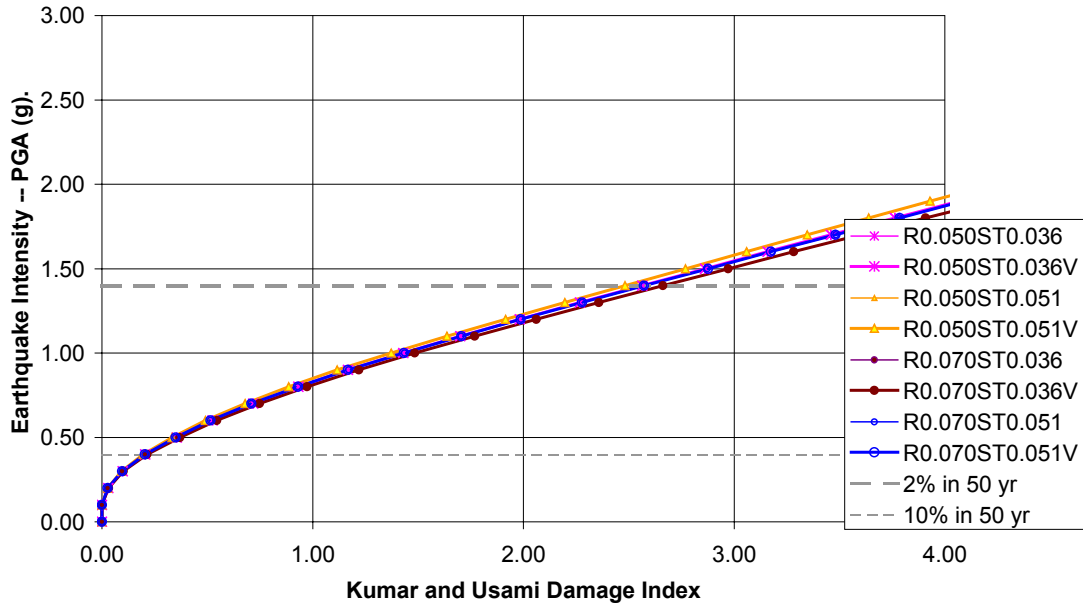
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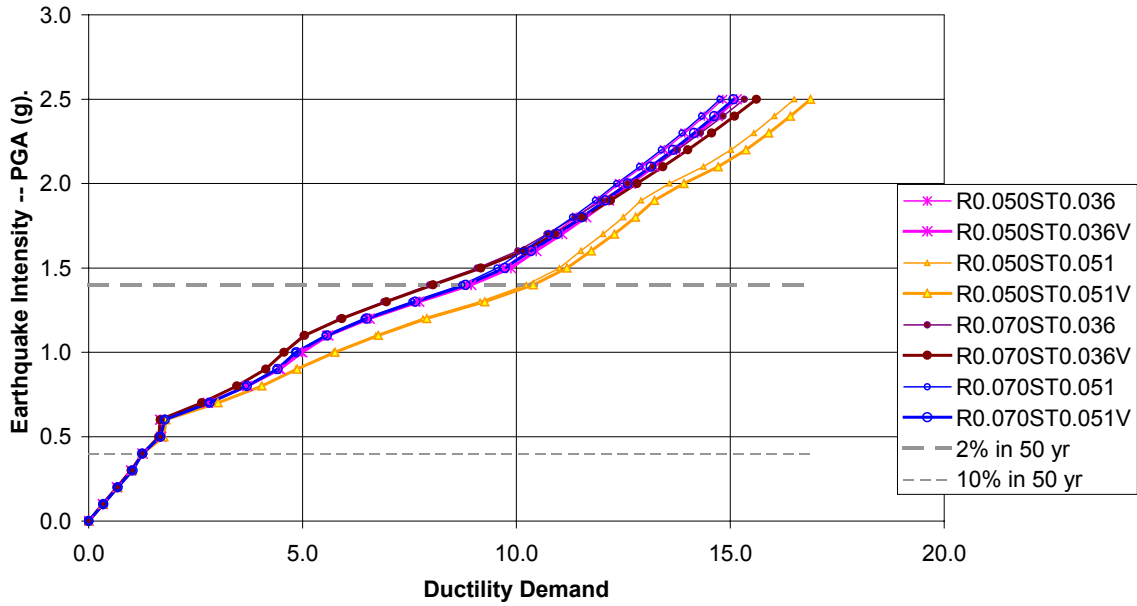
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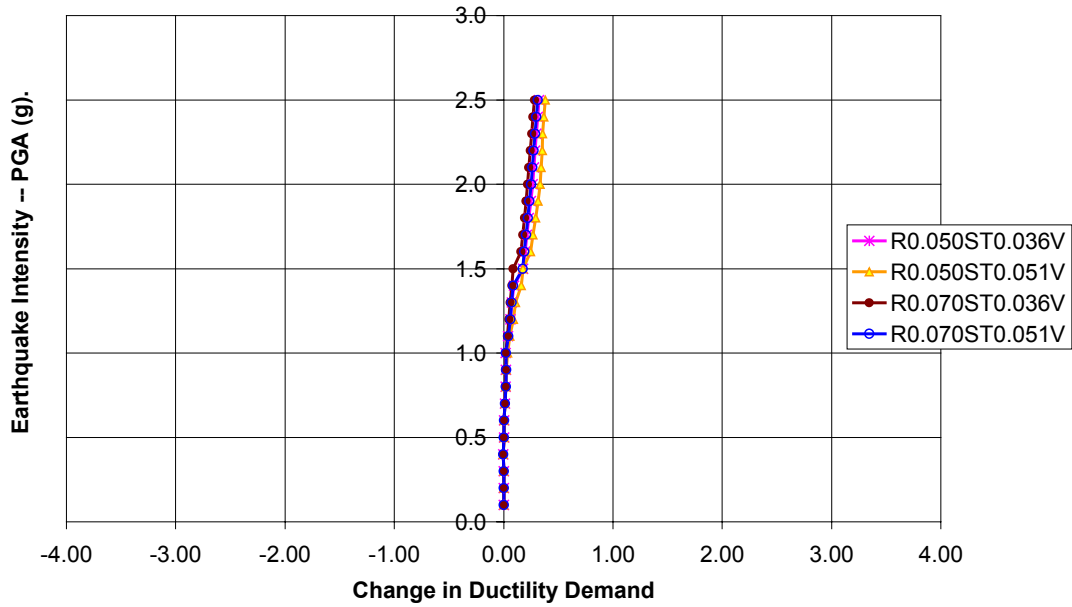
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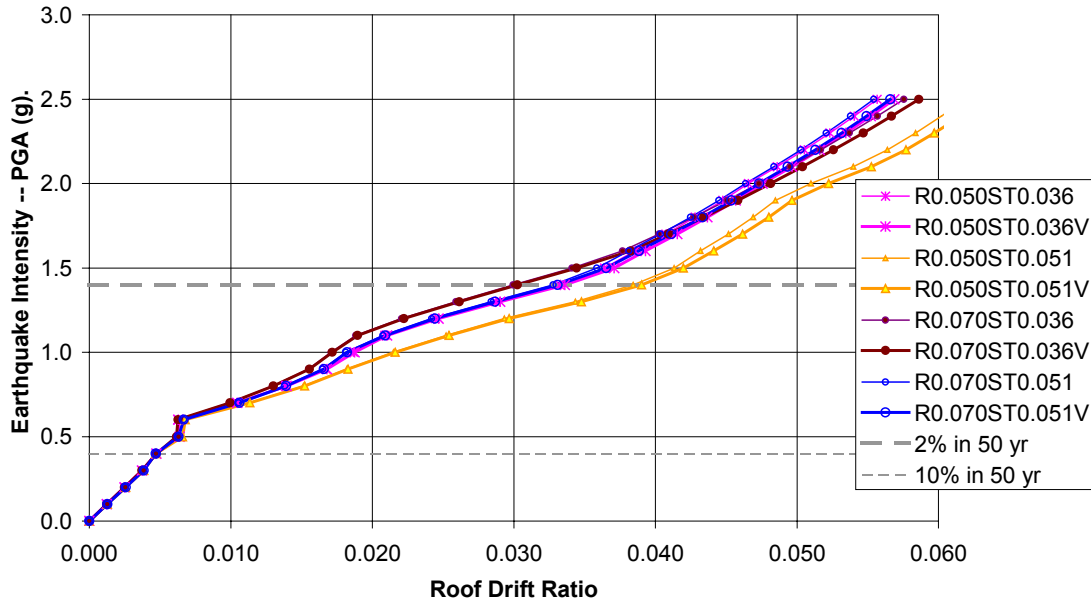
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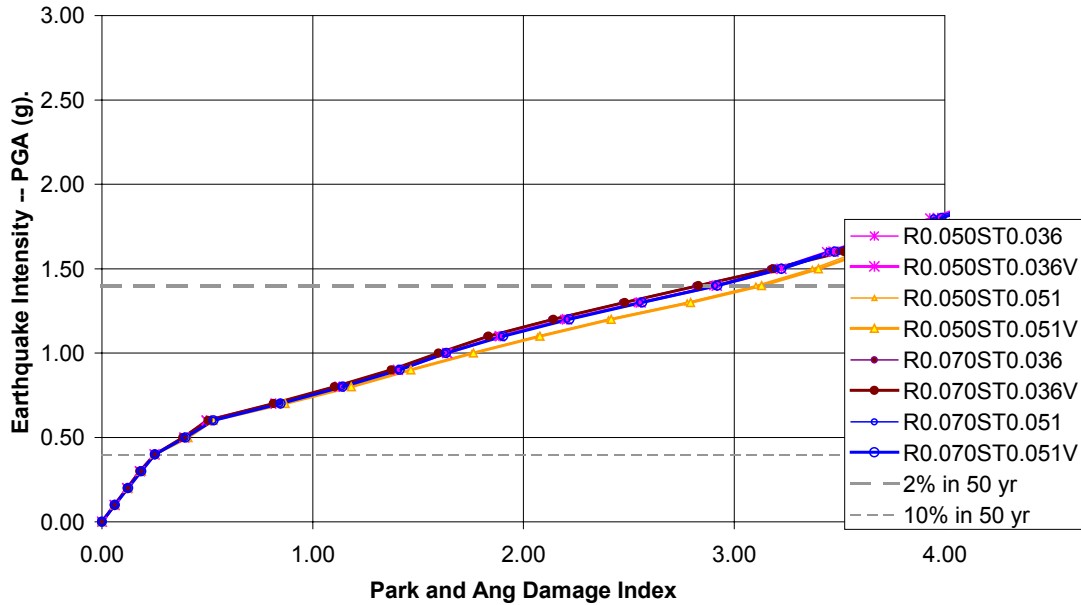
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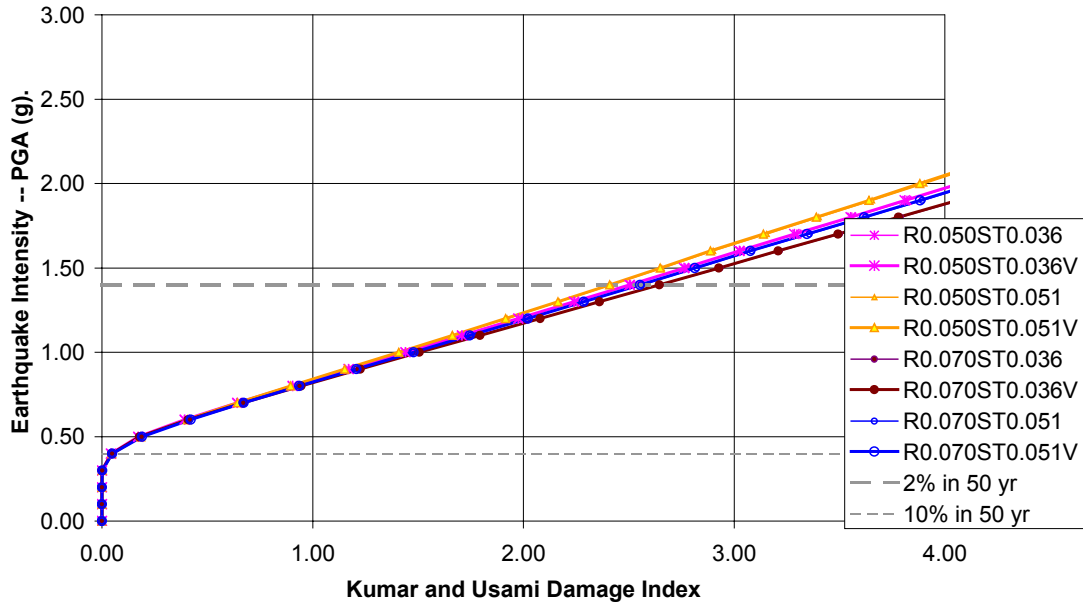
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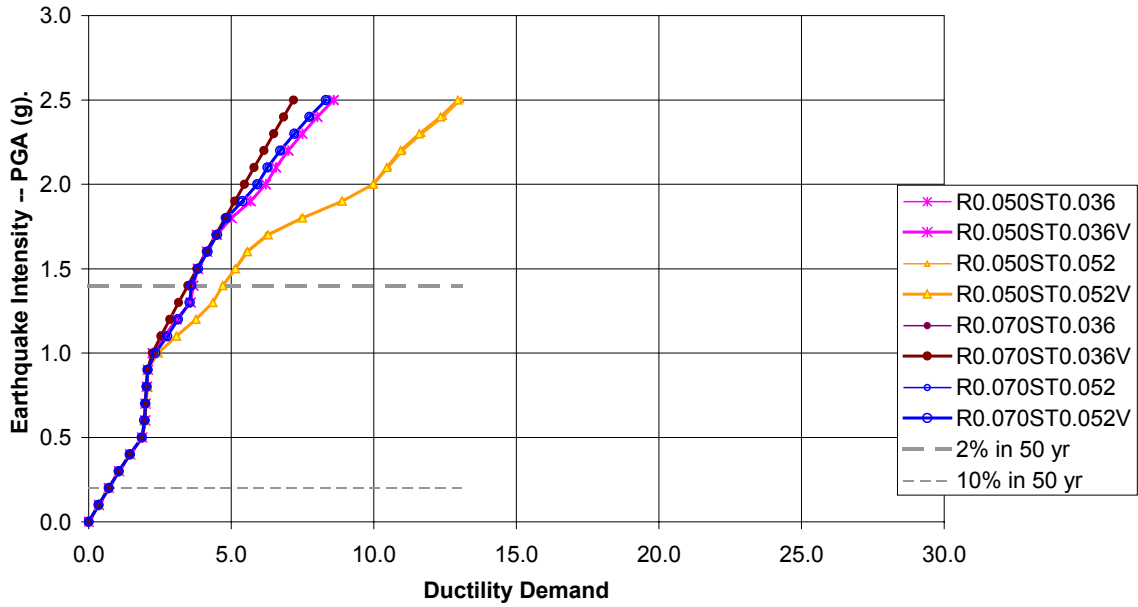
**Figure D1.1.7.9c – Roof Drift Ratio of the Memphis 7 Story Models Subjected to the Northridge Earthquake (EQ 9).**



**Figure D1.1.7.9d – Park and Ang Damage Indices of the Memphis 7 Story Models Subjected to the Northridge Earthquake (EQ 9).**

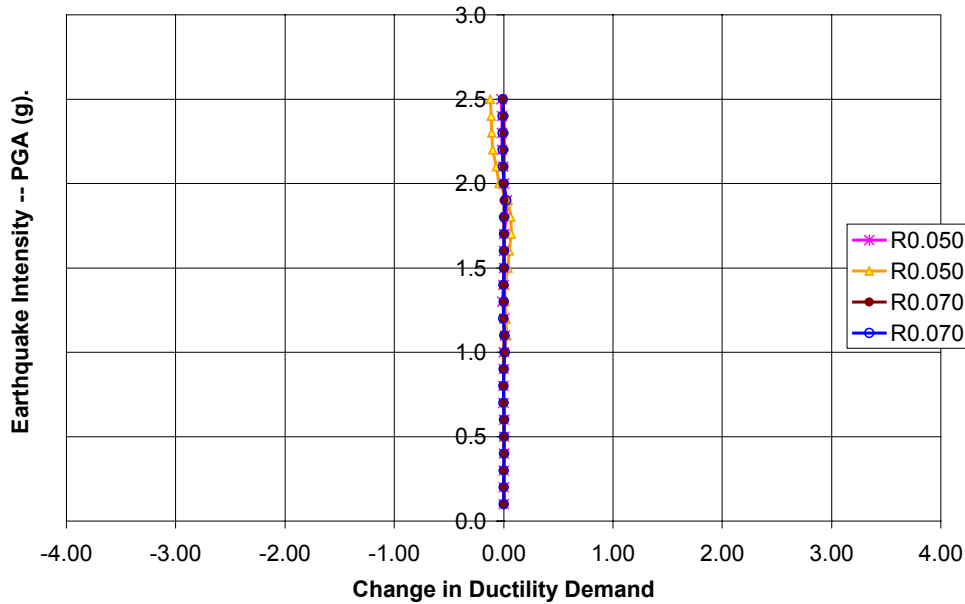


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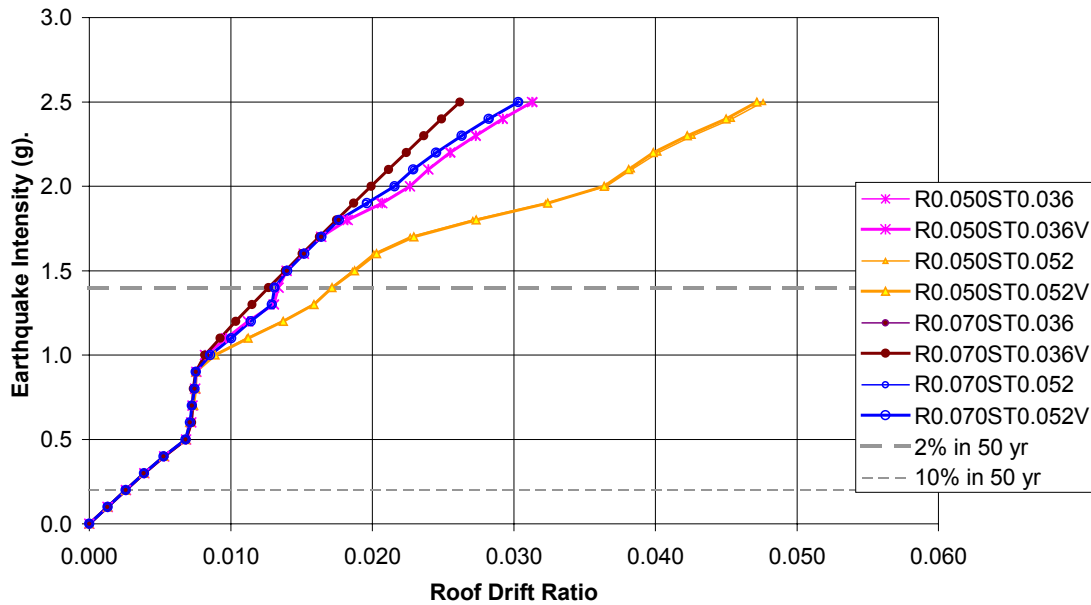


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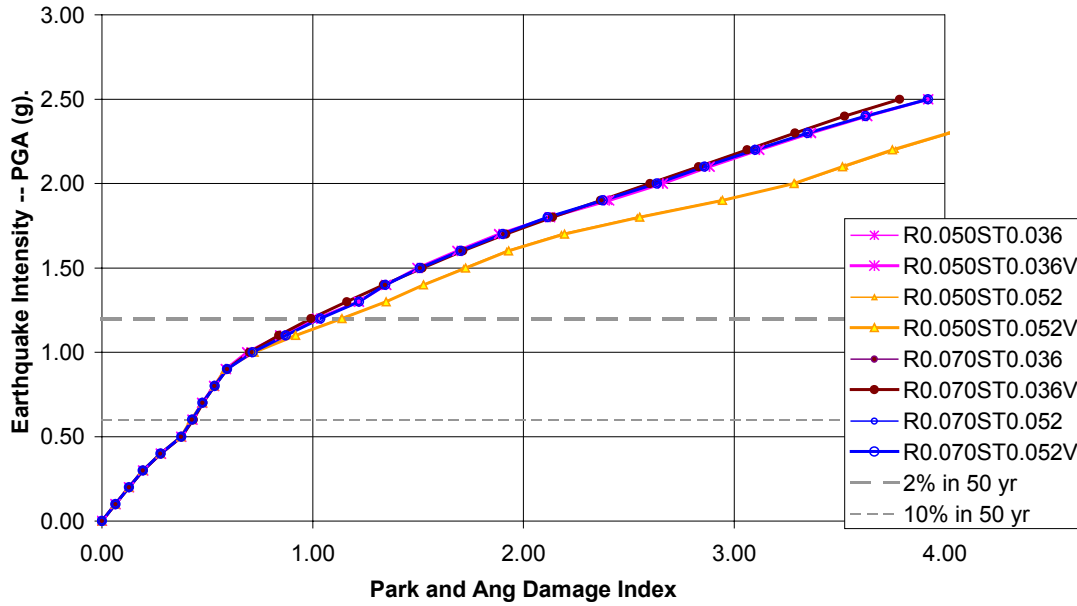




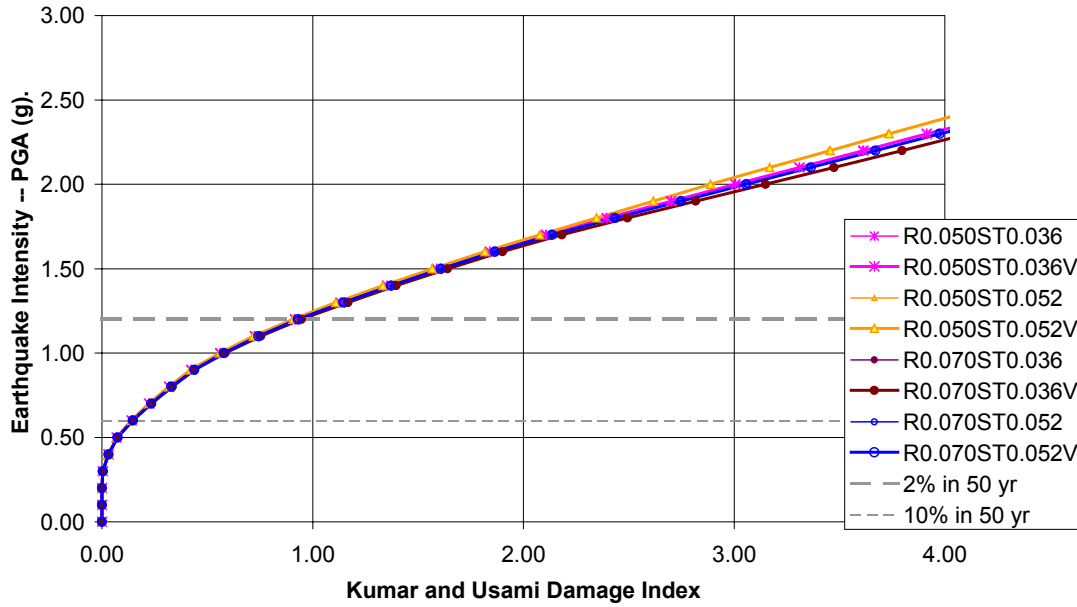
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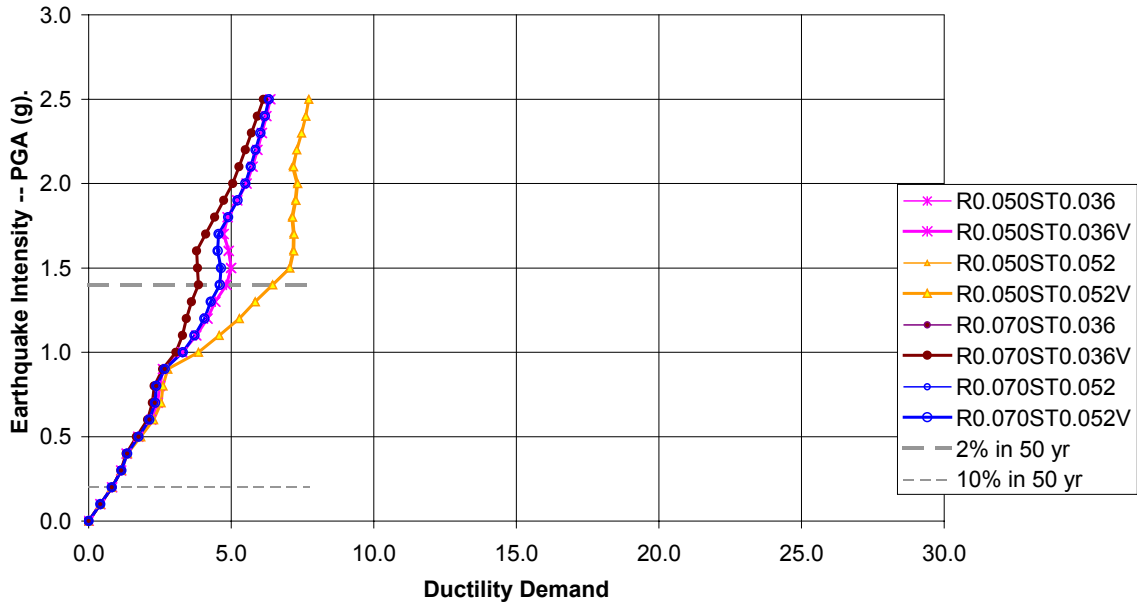
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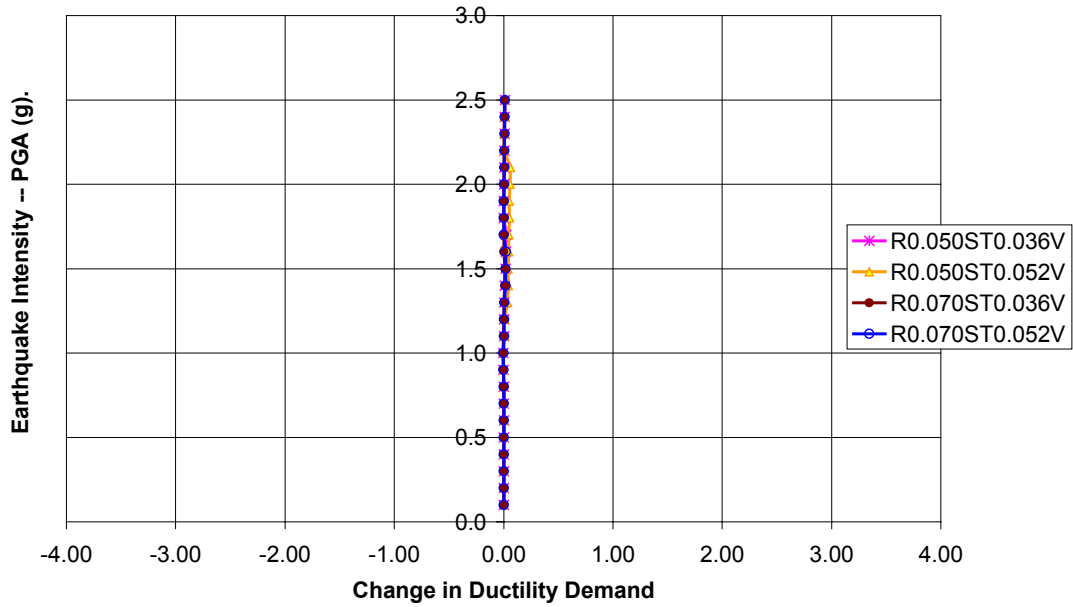
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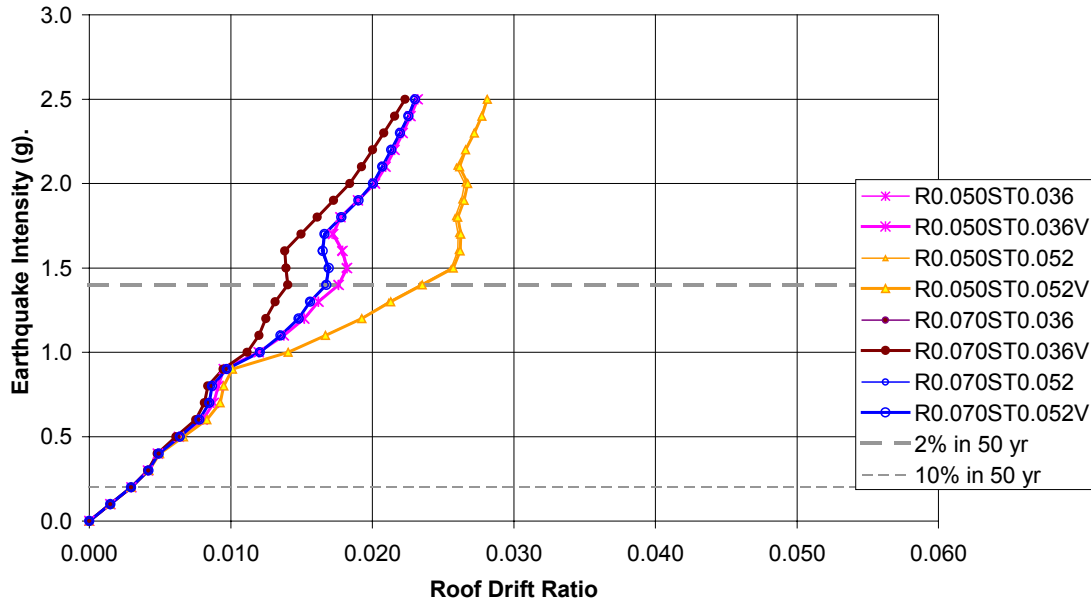
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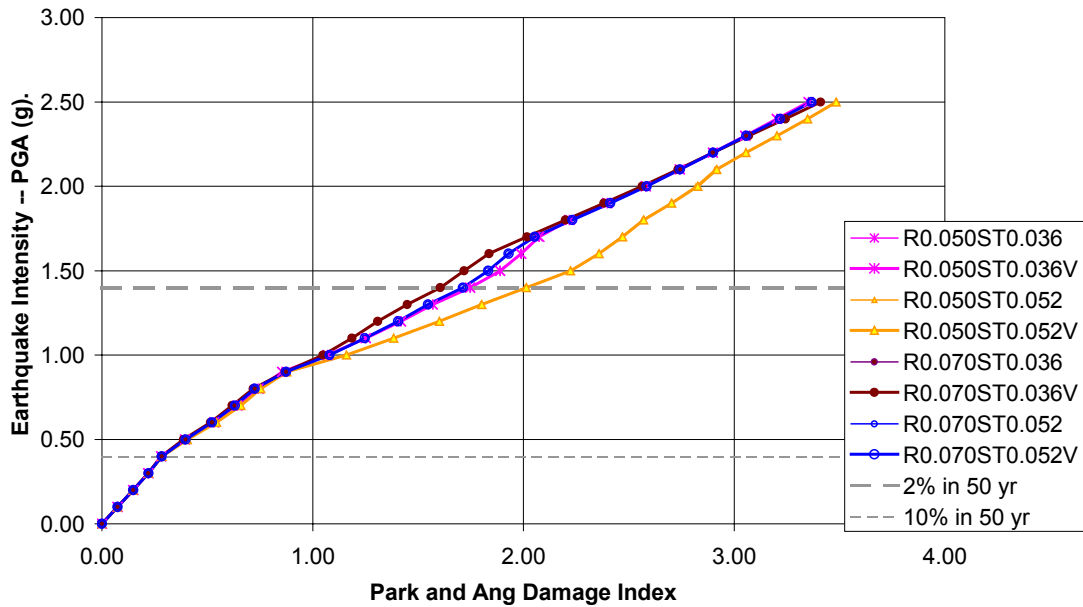
**Figure D1.1.9.5a – Ductility Demands of the Memphis 9 Story Models Subjected to the Hollister Earthquake (EQ 5).**



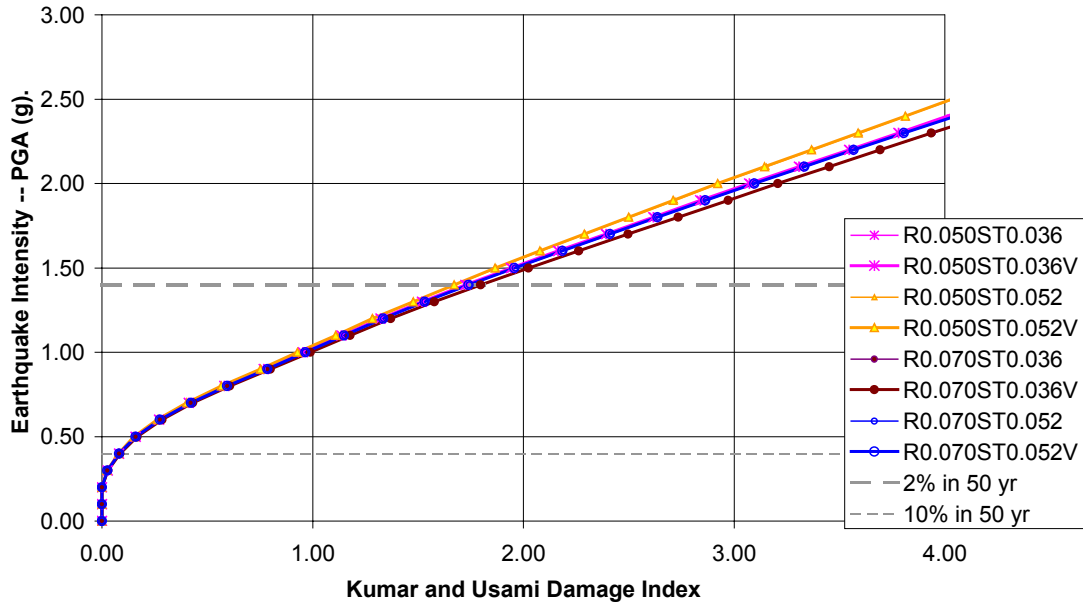
**Figure D1.1.9.5b – Change in Ductility Demands Due to Vertical Accelerations for the Memphis 9 Story Models Subjected to the Hollister Earthquake (EQ 5).**



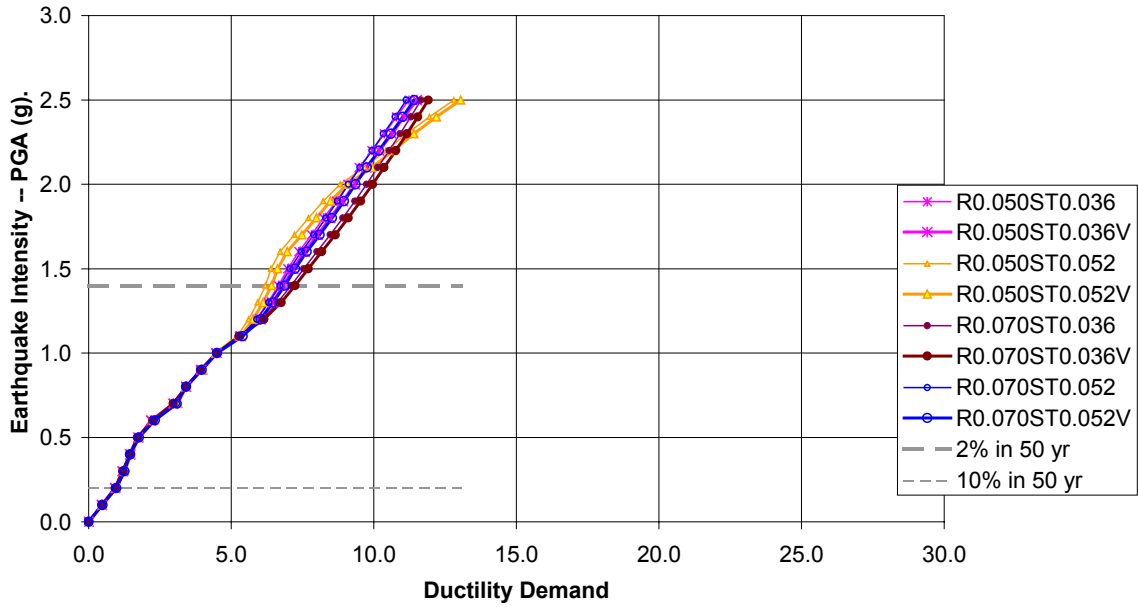
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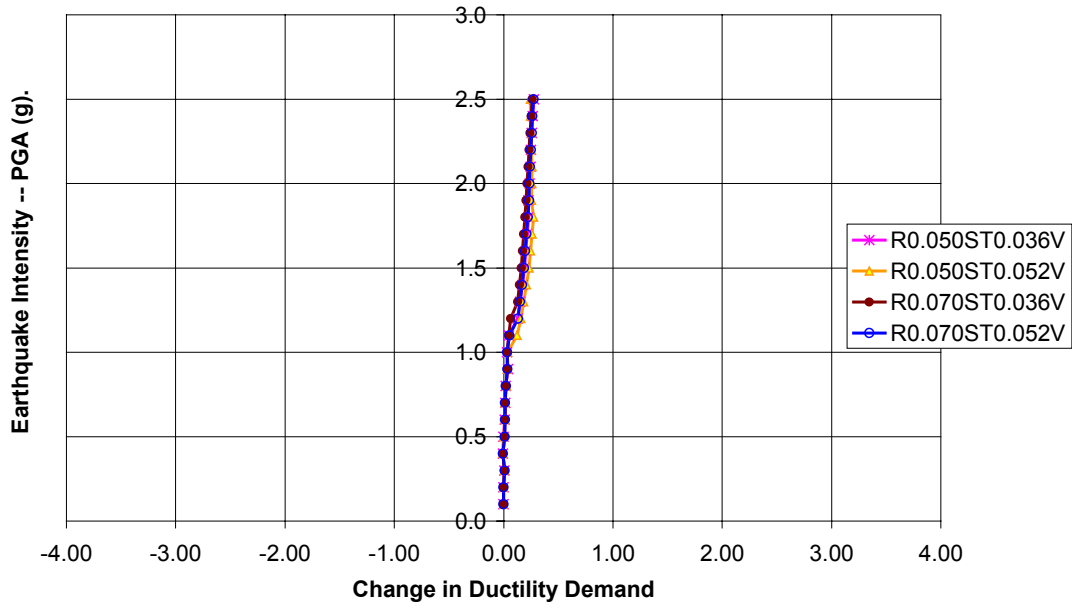
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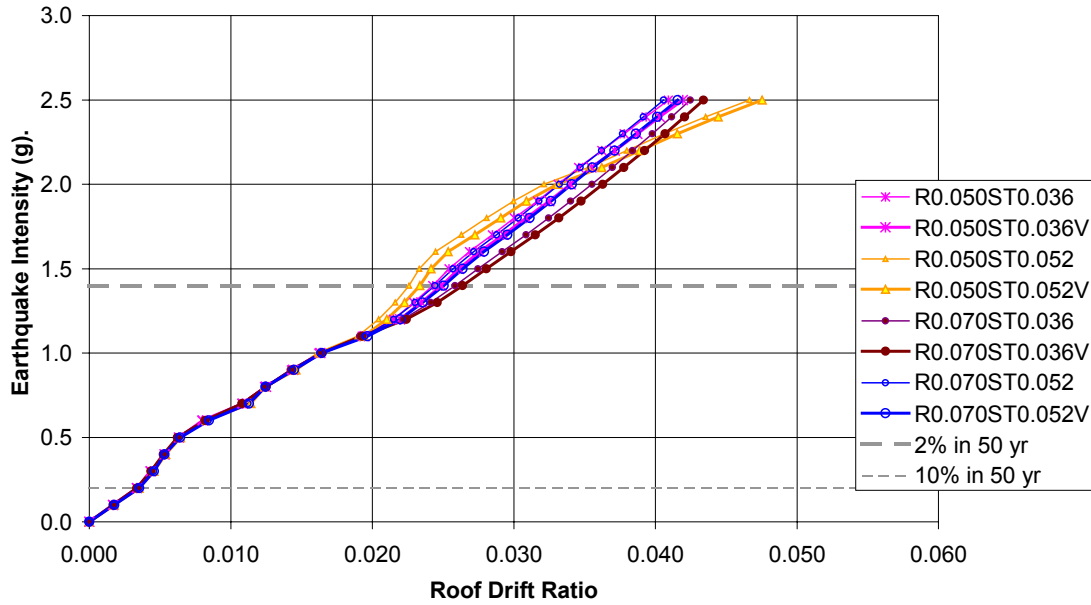
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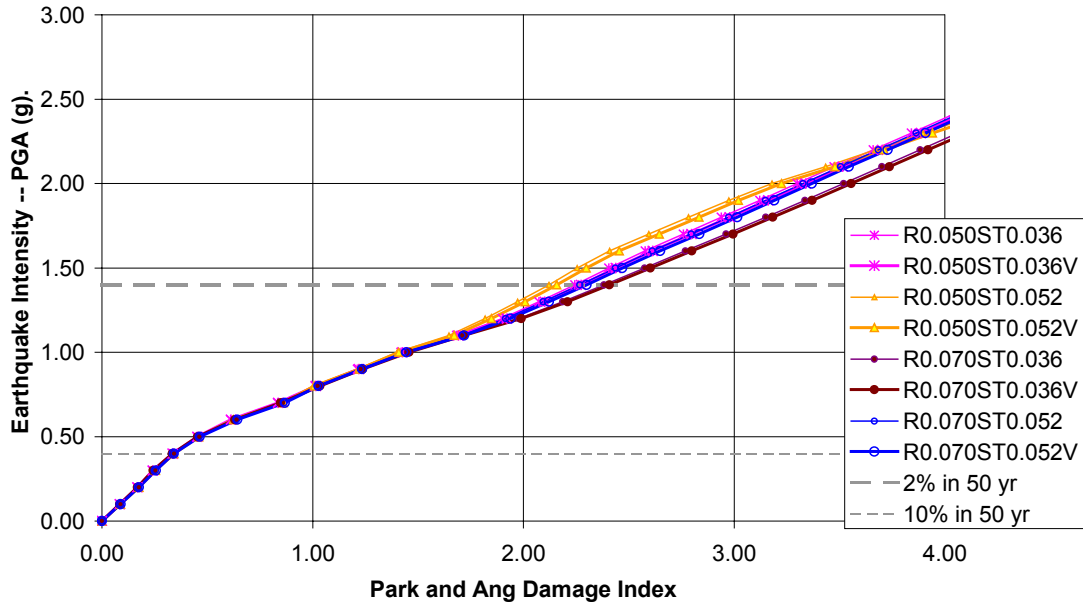
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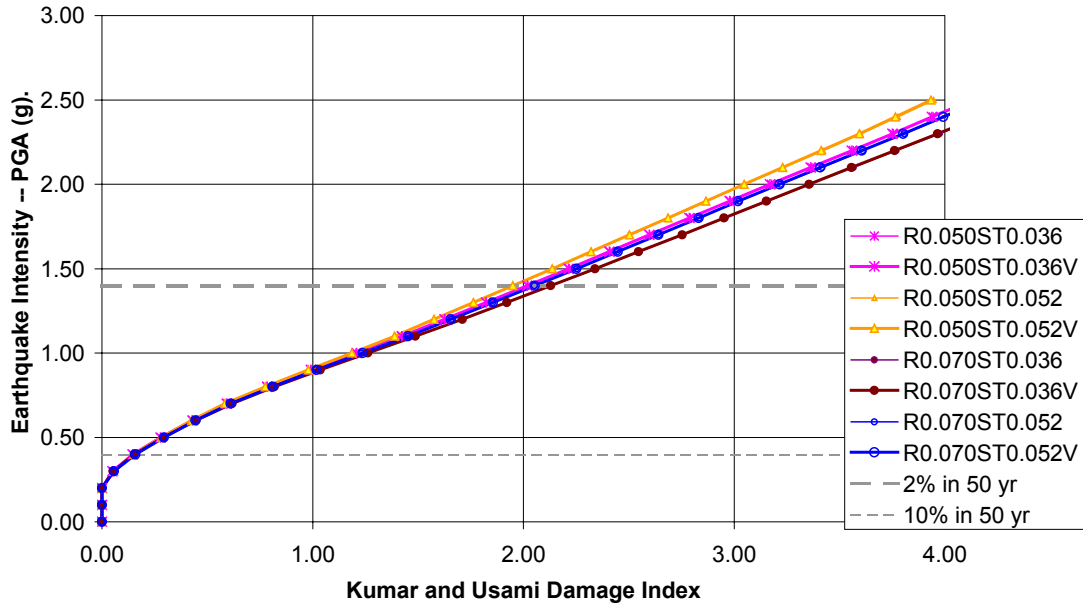
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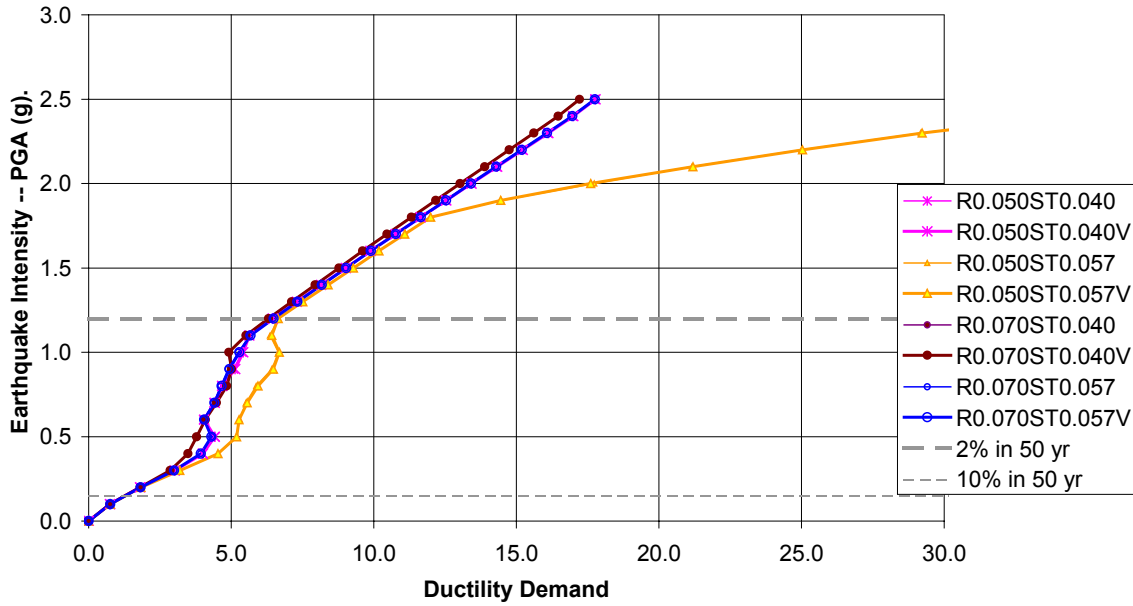
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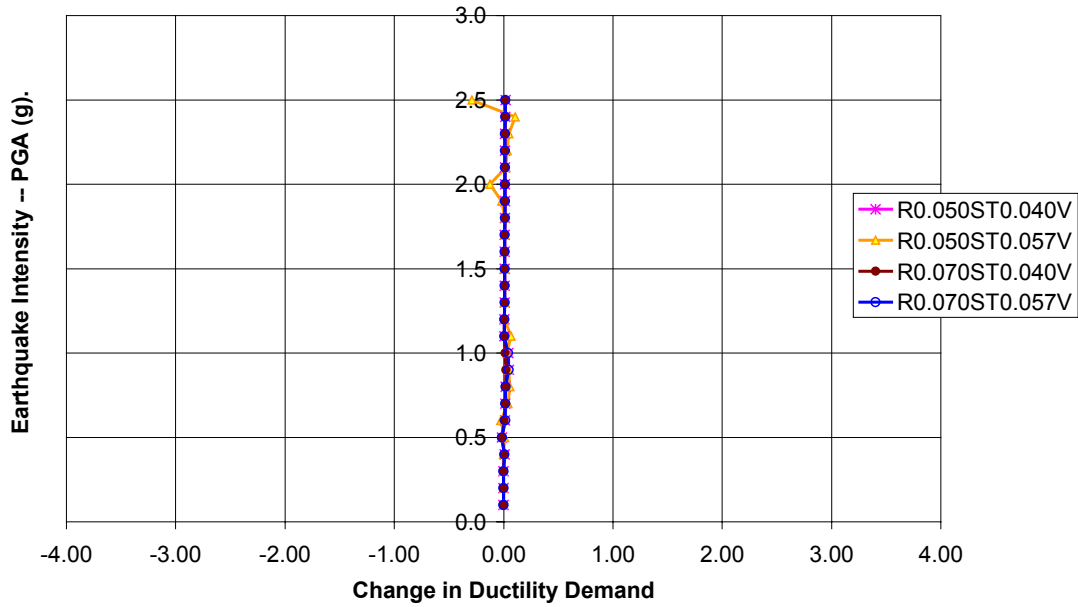
**Figure D1.1.9.9d – Park and Ang Damage Indices of the Memphis 9 Story Models Subjected to the Northridge Earthquake (EQ 9).**



**Figure D1.1.9.9e – Kumar and Usami Damage Indices of the Memphis 9 Story Models Subjected to the Northridge Earthquake (EQ 9).**

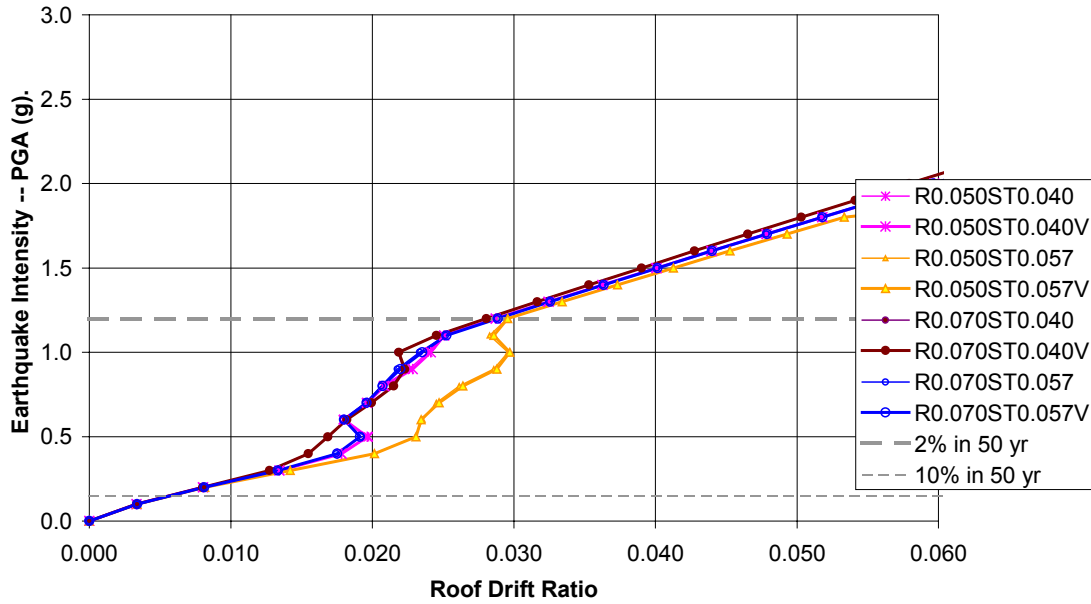


**Figure D1.2.3.4a – Ductility Demands of the Charleston 3 Story Models Subjected to the Taft Earthquake (EQ 4).**

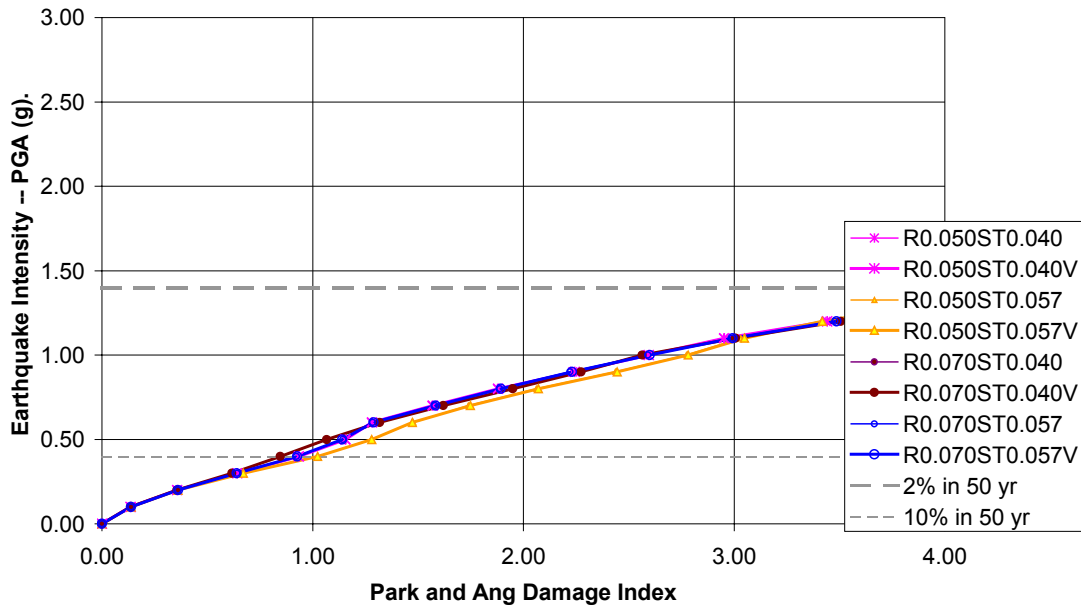


**Figure D1.2.3.4b – Change in Ductility Demands Due to Vertical Accelerations for the Charleston 3 Story Models Subjected to the Taft Earthquake (EQ 4).**

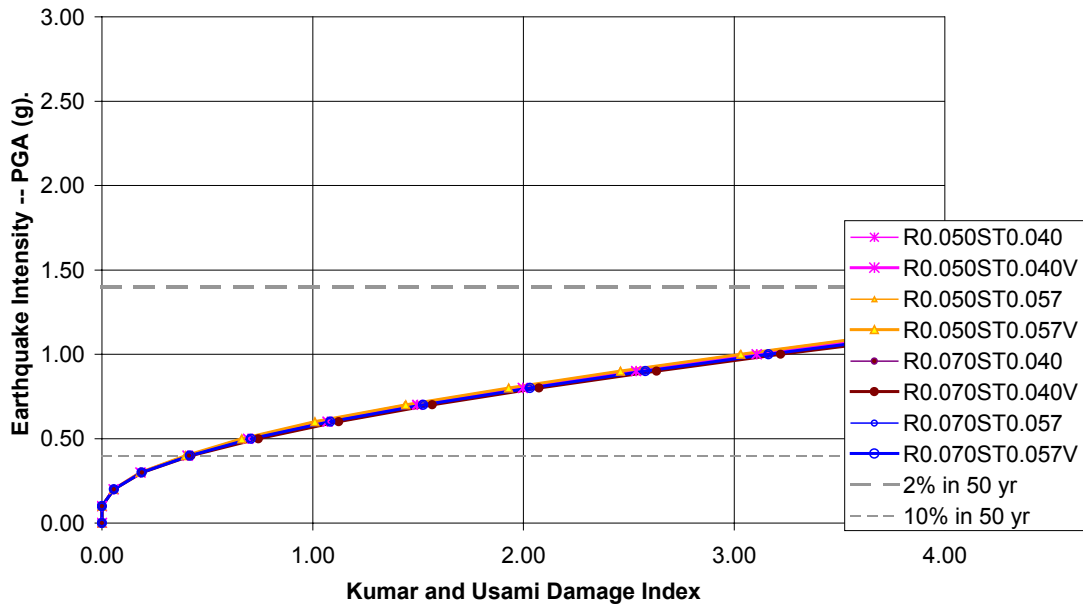




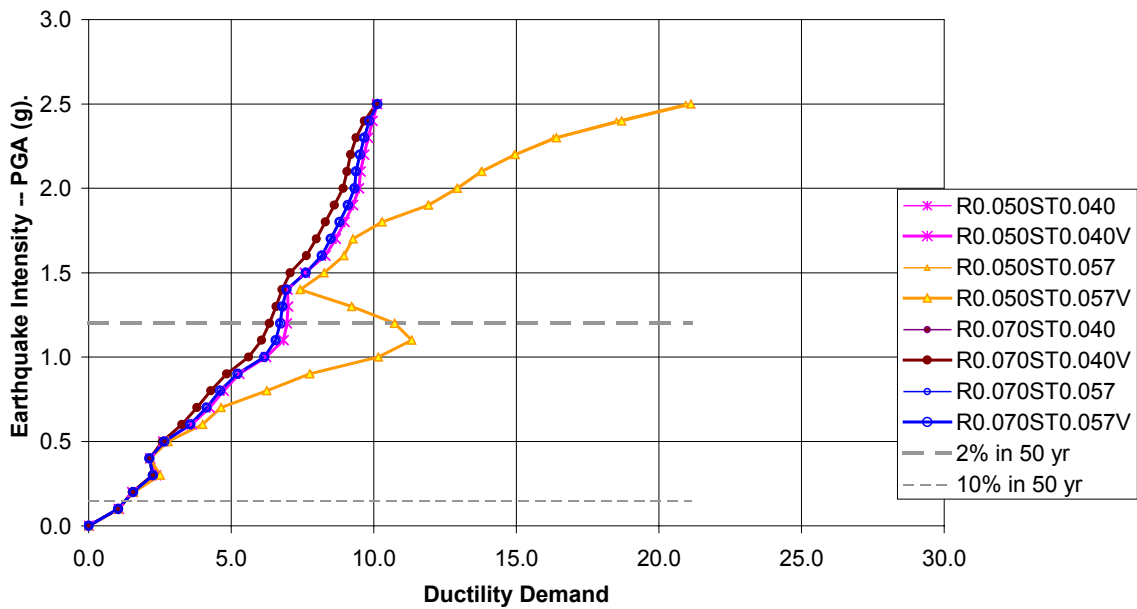
**Figure D1.2.3.4c – Roof Drift Ratio of the Charleston 3 Story Models Subjected to the Taft Earthquake (EQ 4).**



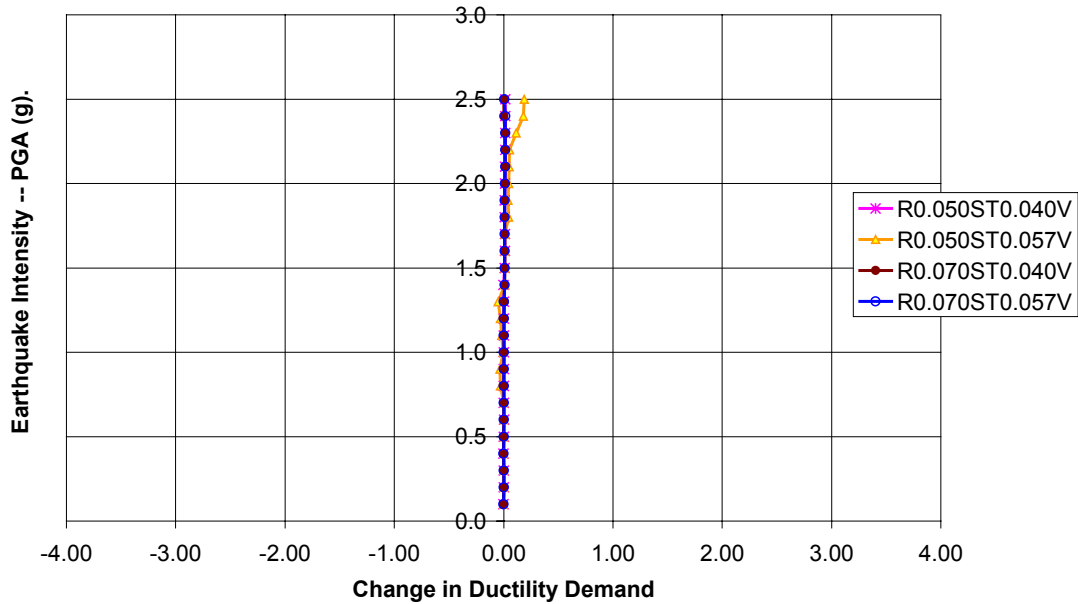
**Figure D1.2.3.4d – Park and Ang Damage Indices of the Charleston 3 Story Models Subjected to the Taft Earthquake (EQ 4).**



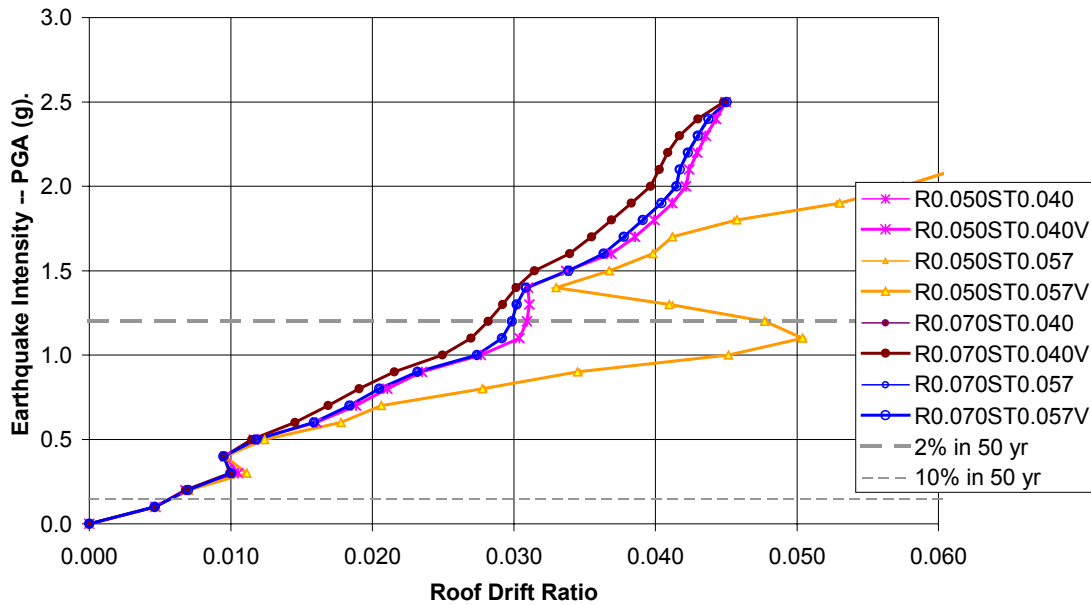
**Figure D1.2.3.4e – Kumar and Usami Damage Indices of the Charleston 3 Story Models Subjected to the Taft Earthquake (EQ 4).**



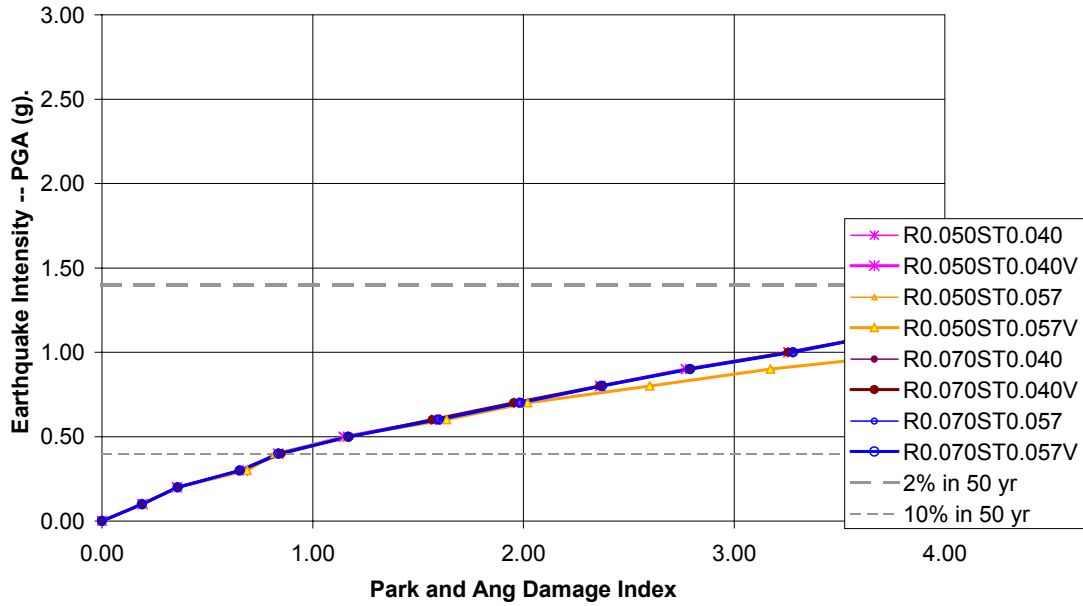
**Figure D1.2.3.5a – Ductility Demands of the Charleston 3 Story Models Subjected to the Hollister Earthquake (EQ 5).**



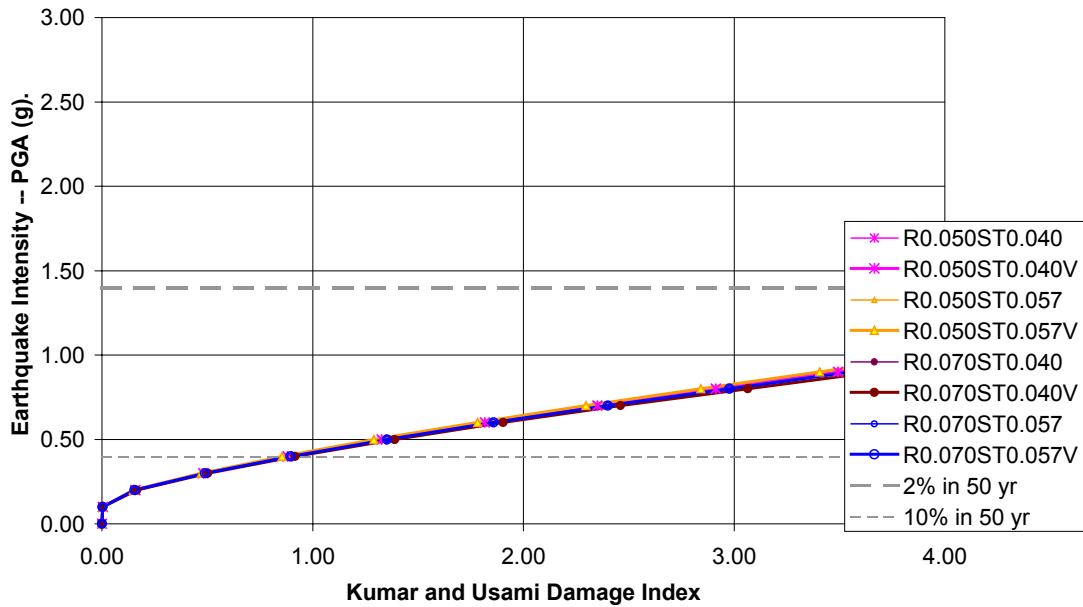
**Figure D1.2.3.5b – Change in Ductility Demands Due to Vertical Accelerations for the Charleston 3 Story Models Subjected to the Hollister Earthquake (EQ 5).**



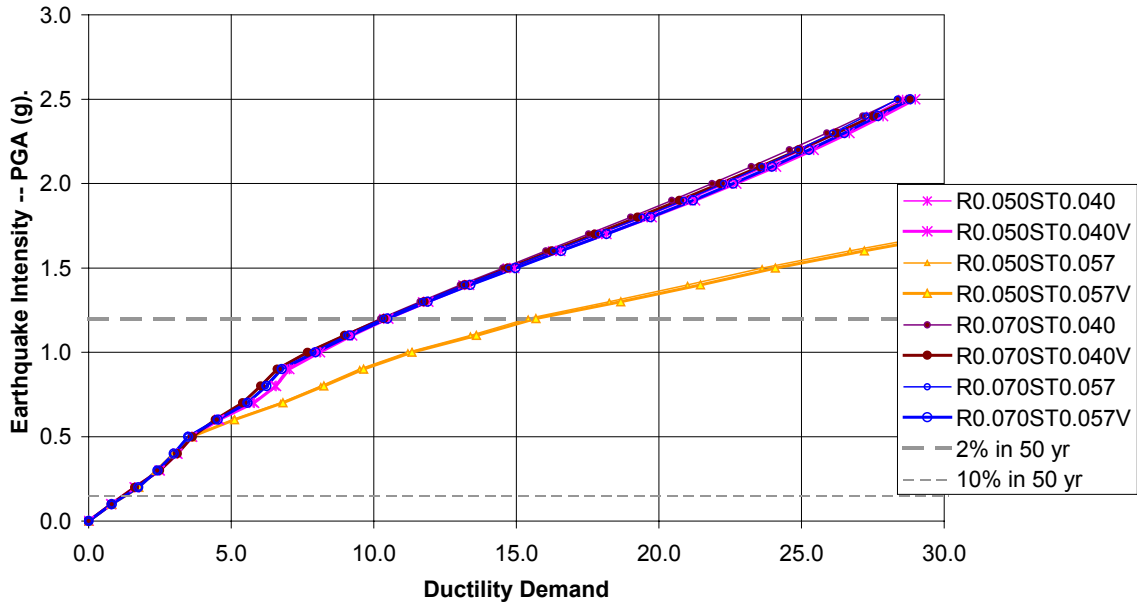
**Figure D1.2.3.5c – Roof Drift Ratio of the Charleston 3 Story Models Subjected to the Hollister Earthquake (EQ 5).**



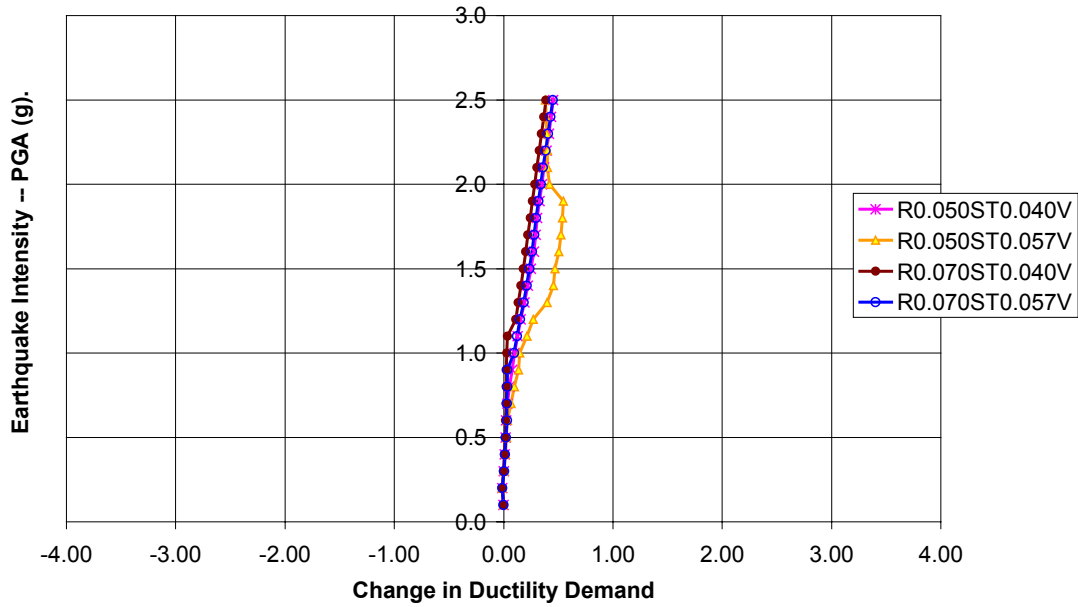
**Figure D1.2.3.5d – Park and Ang Damage Indices of the Charleston 3 Story Models Subjected to the Hollister Earthquake (EQ 5).**



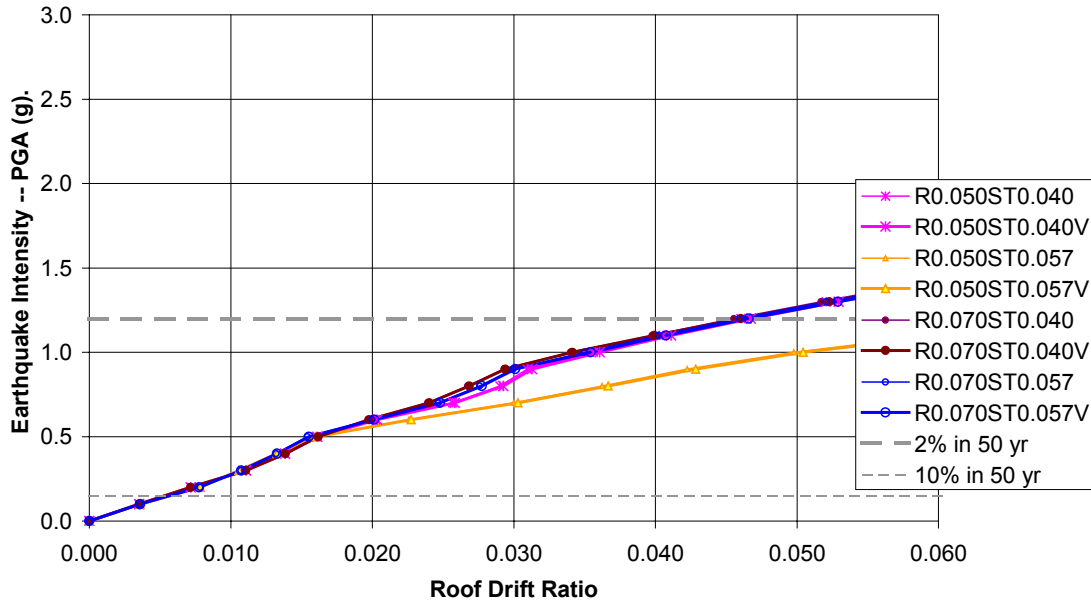
**Figure D1.2.3.5e – Kumar and Usami Damage Indices of the Charleston 3 Story Models Subjected to the Hollister Earthquake (EQ 5).**



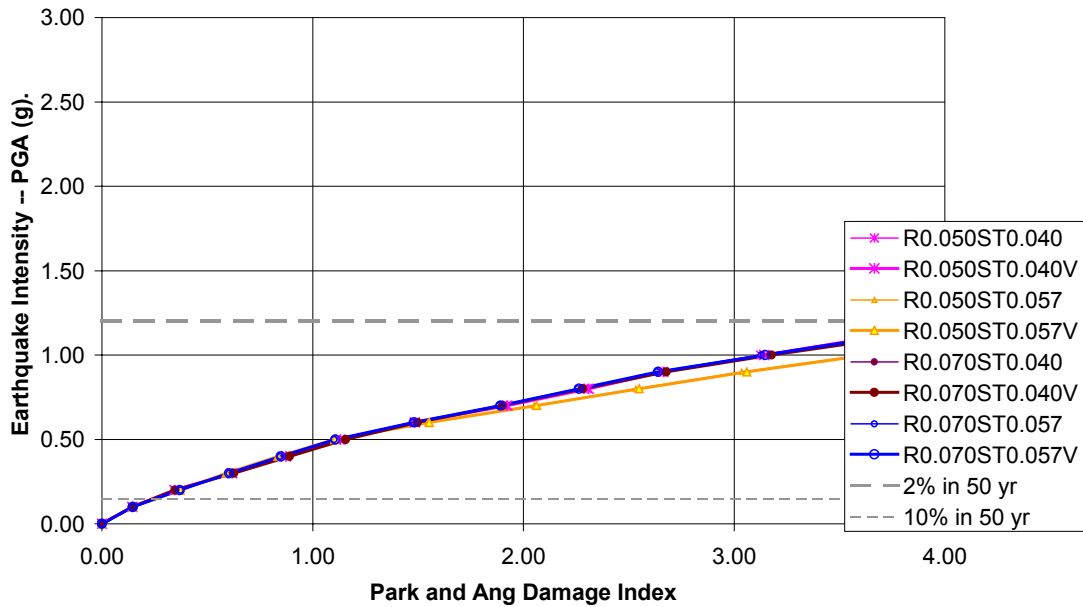
**Figure D1.2.3.9a – Ductility Demands of the Charleston 3 Story Models Subjected to the Hollister Earthquake (EQ 9).**



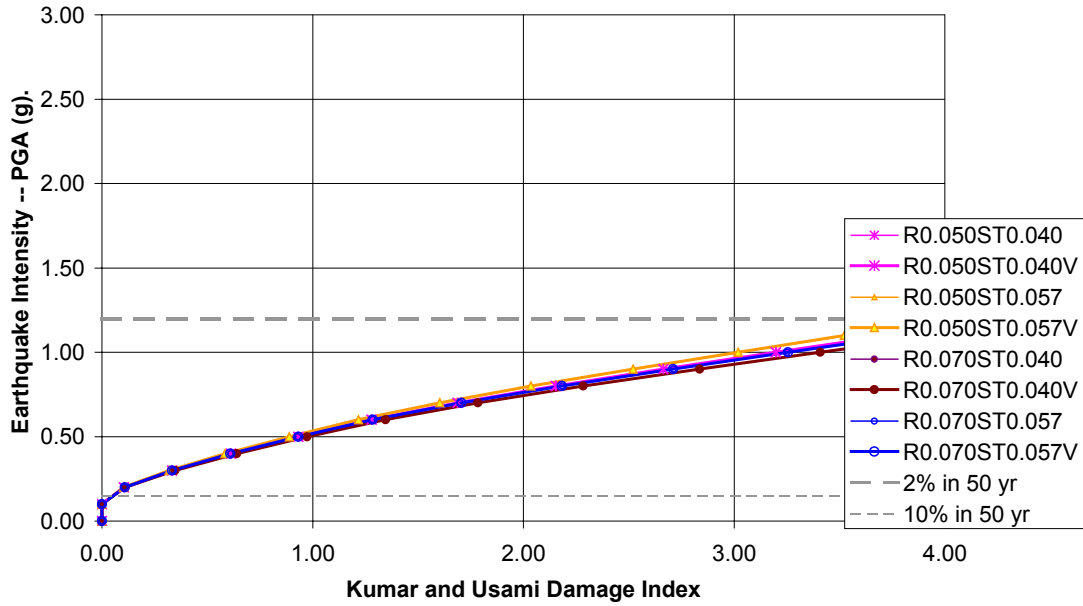
**Figure D1.2.3.9b – Change in Ductility Demands Due to Vertical Accelerations for the Charleston 3 Story Models Subjected to the Northridge Earthquake (EQ 9).**



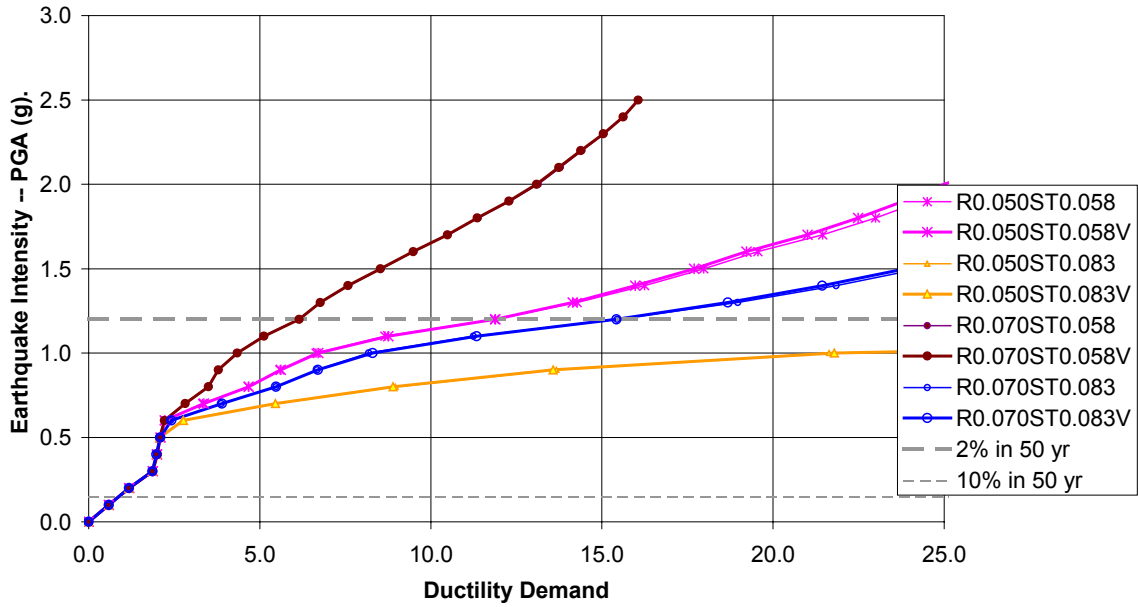
**Figure D1.2.3.9c – Roof Drift Ratio of the Charleston 3 Story Models Subjected to the Northridge Earthquake (EQ 9).**



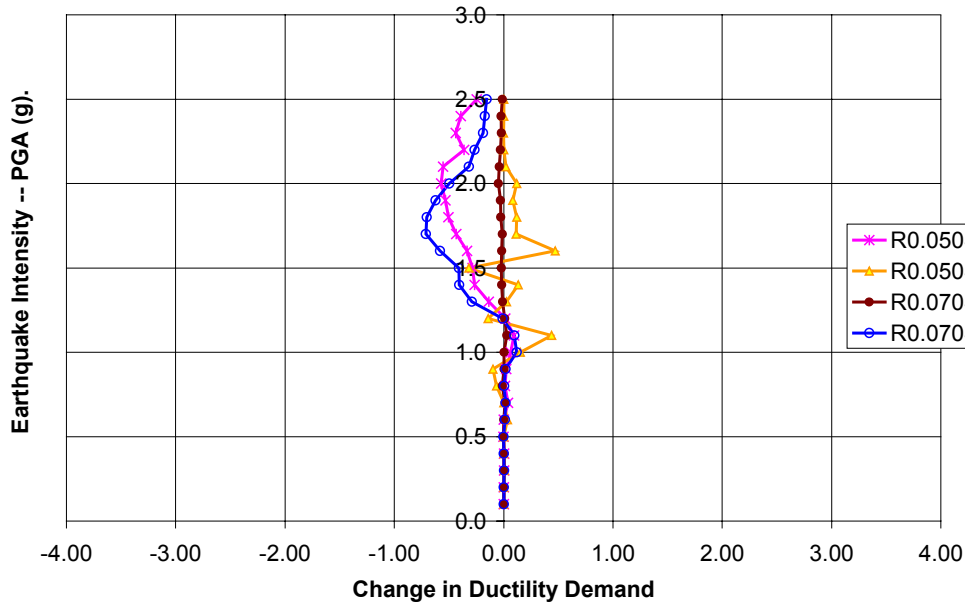
**Figure D1.2.3.9d – Park and Ang Damage Indices of the Charleston 3 Story Models Subjected to the Northridge Earthquake (EQ 9).**



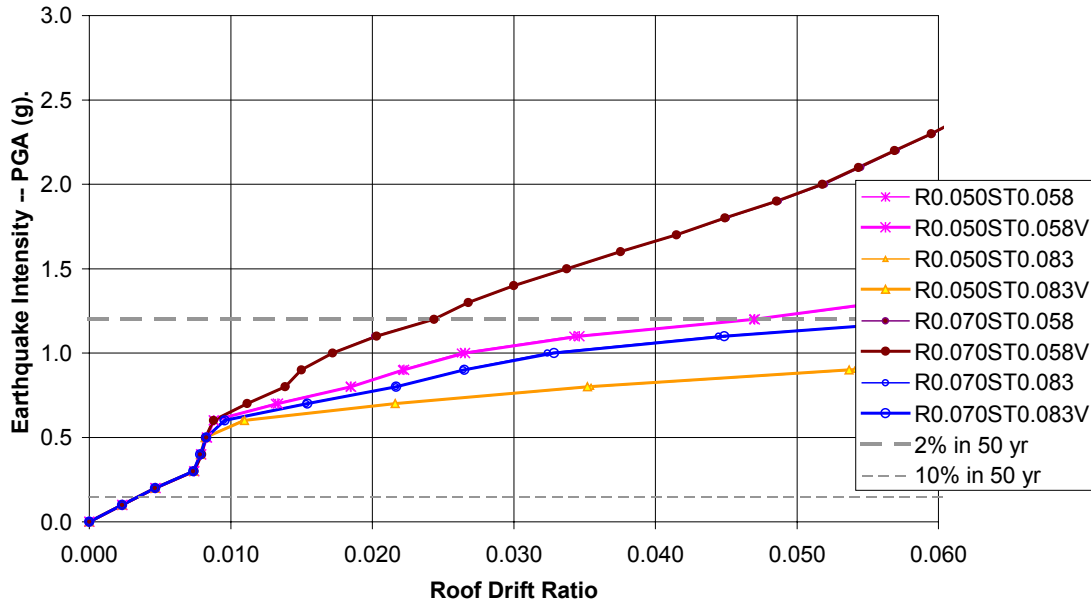
**Figure D1.2.3.9e – Kumar and Usami Damage Indices of the Charleston 3 Story Models Subjected to the Northridge Earthquake (EQ 9).**



**Figure D1.2.5.4a – Ductility Demands of the Charleston 5 Story Models Subjected to the Taft Earthquake (EQ 4).**

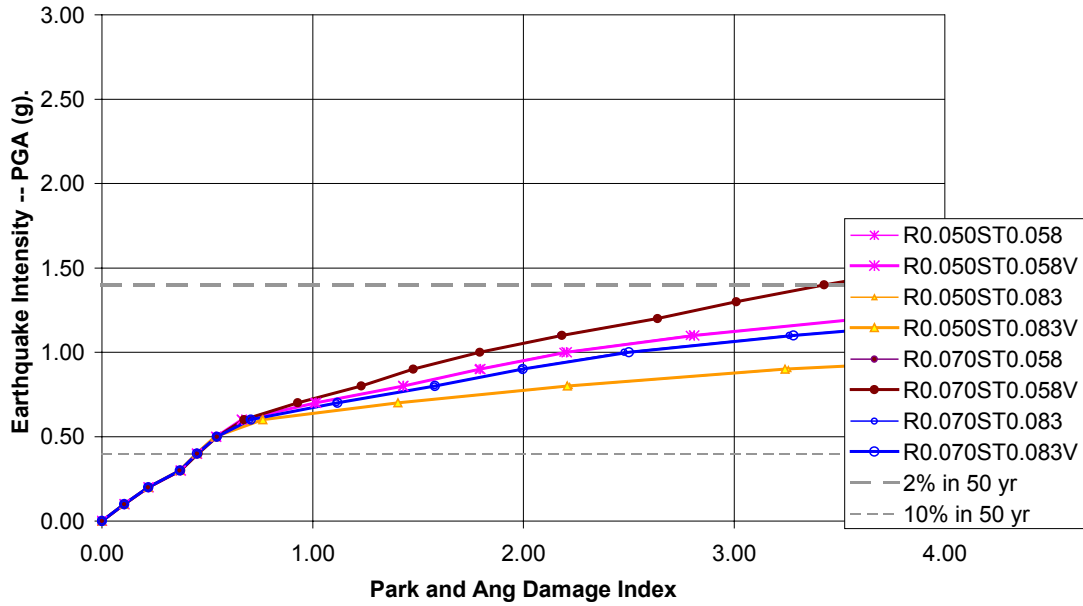


**Figure D1.2.5.4b – Change in Ductility Demands Due to Vertical Accelerations for the Charleston 5 Story Models Subjected to the Taft Earthquake (EQ 4).**

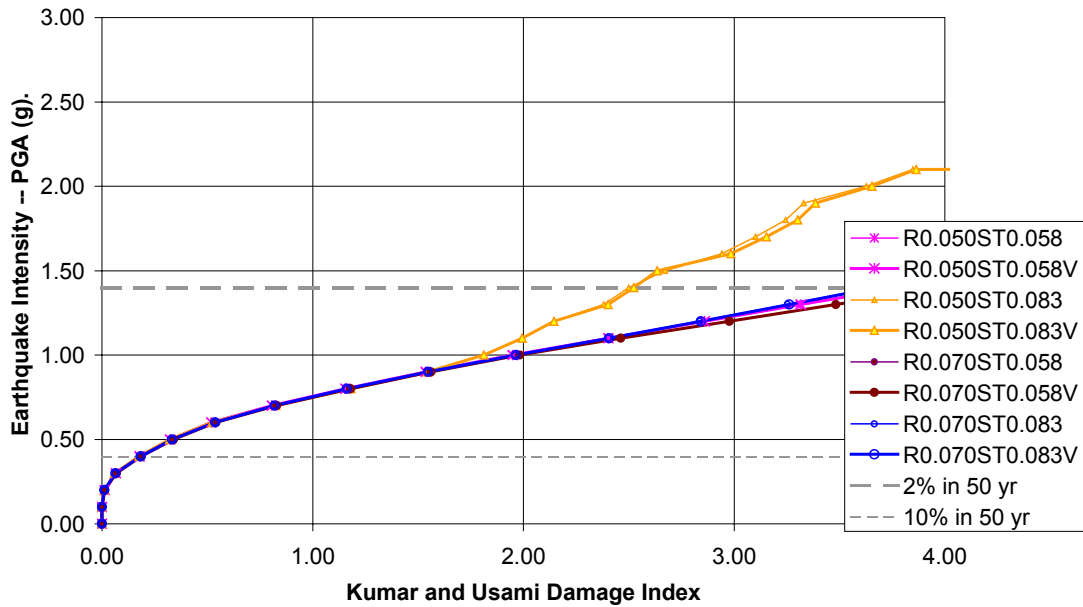


**Figure D1.2.5.4c – Roof Drift Ratio of the Charleston 5 Story Models Subjected to the Taft Earthquake (EQ 4).**

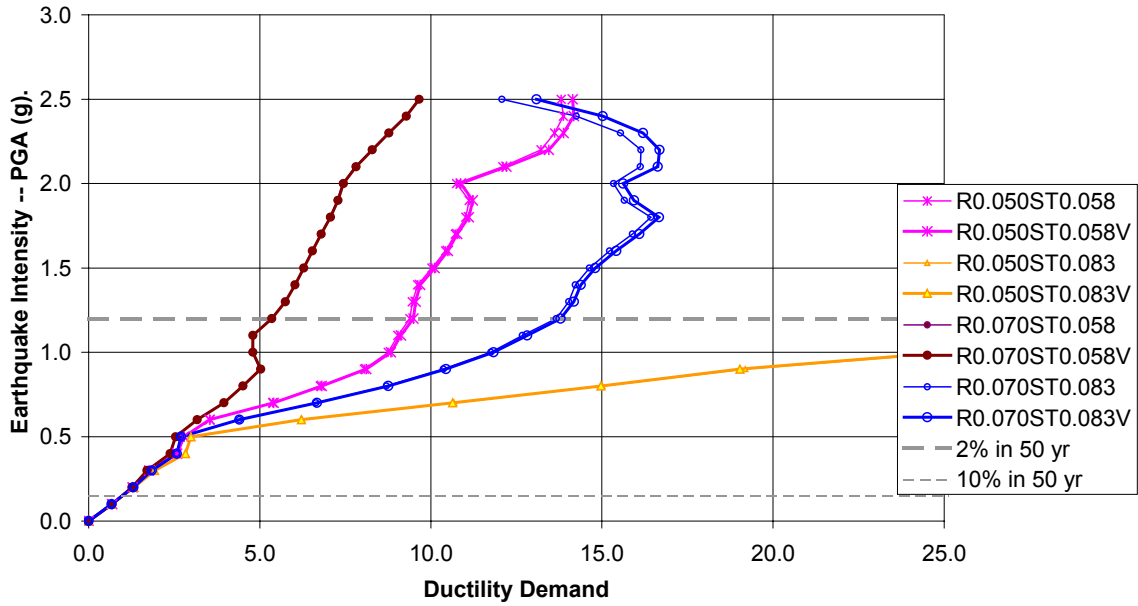




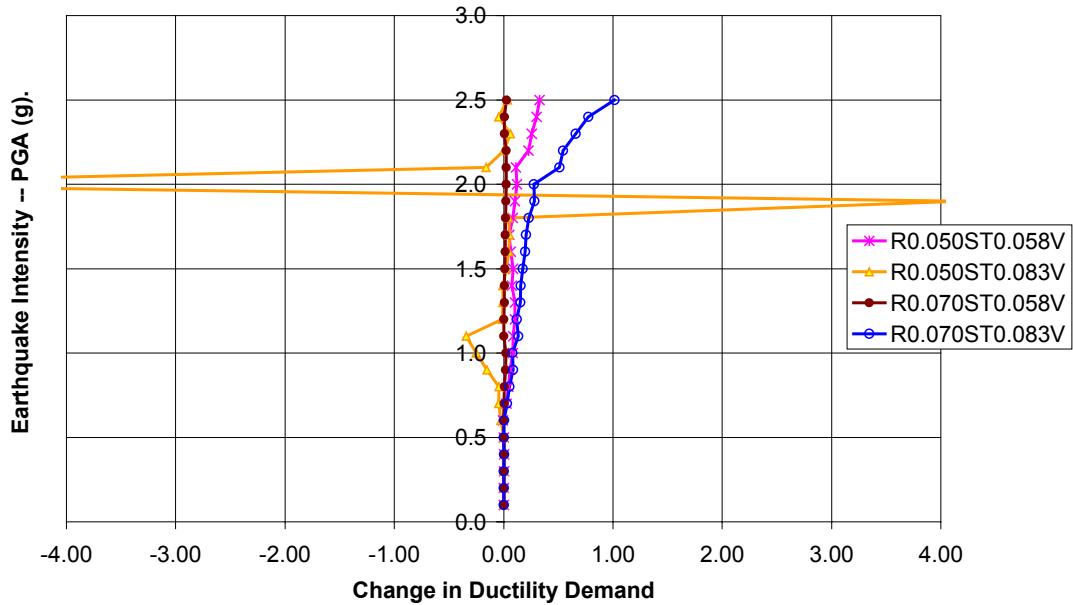
**Figure D1.2.5.4d – Park and Ang Damage Indices of the Charleston 5 Story Models Subjected to the Taft Earthquake (EQ 4).**



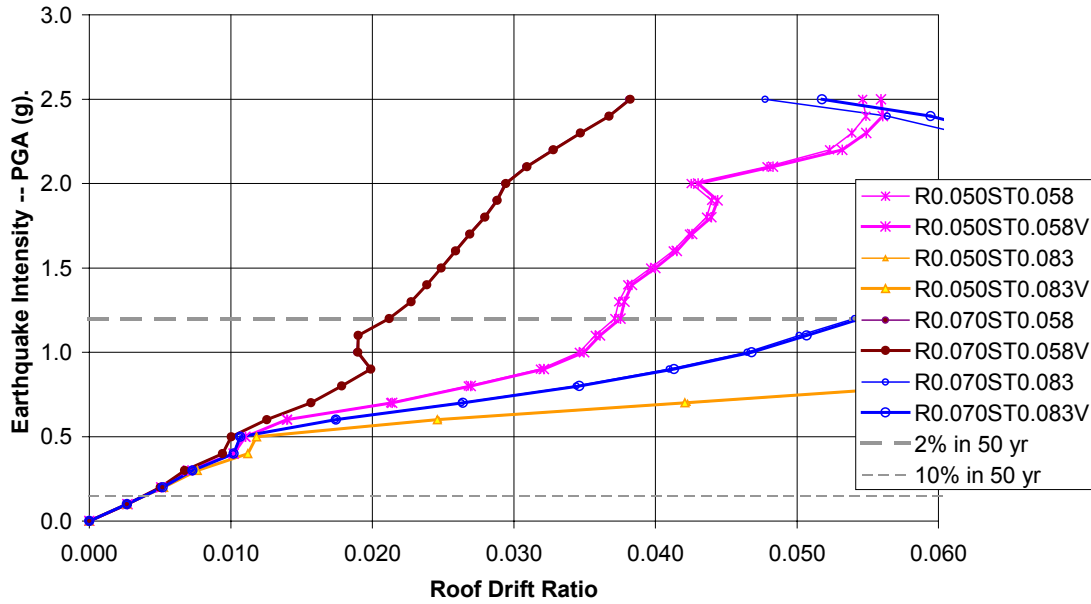
**Figure D1.2.5.4e – Kumar and Usami Damage Indices of the Charleston 5 Story Models Subjected to the Taft Earthquake (EQ 4).**



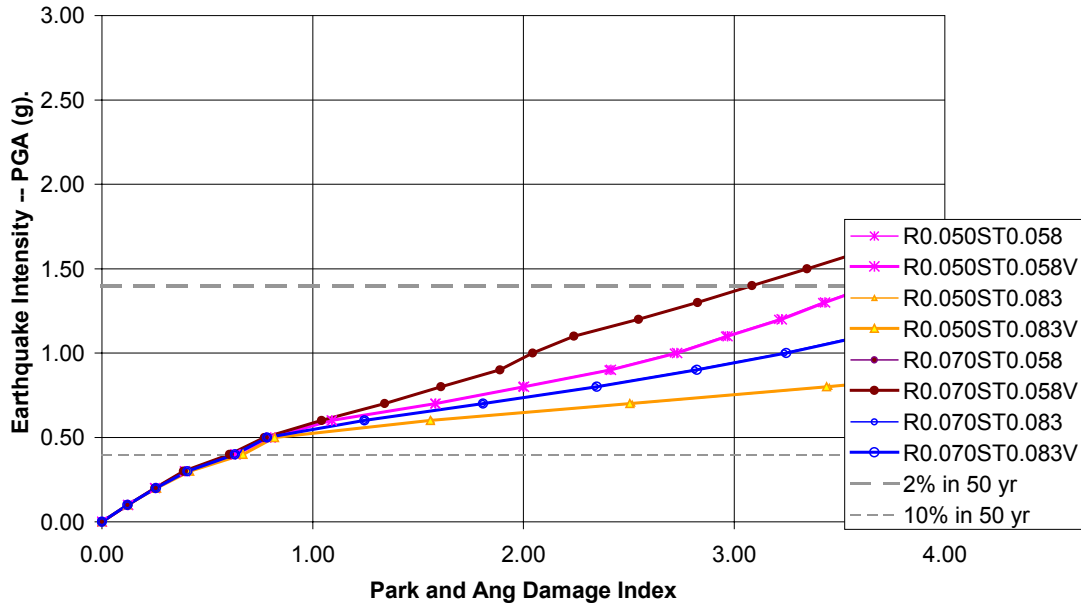
**Figure D1.2.5.5a – Ductility Demands of the Charleston 5 Story Models Subjected to the Hollister Earthquake (EQ 5).**



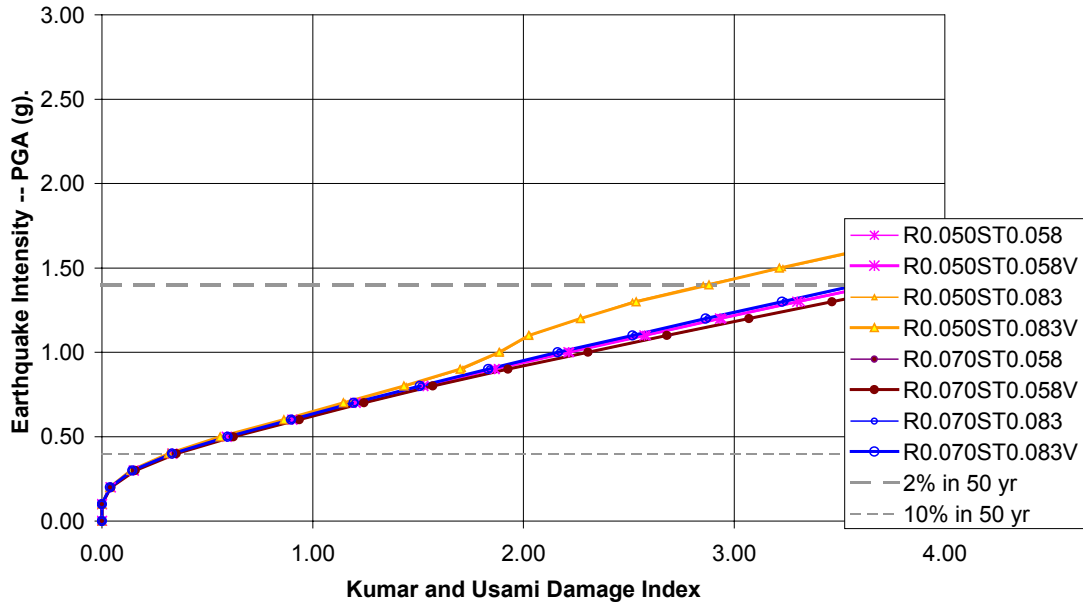
**Figure D1.2.5.5b – Change in Ductility Demands Due to Vertical Accelerations for the Charleston 5 Story Models Subjected to the Hollister Earthquake (EQ 5).**



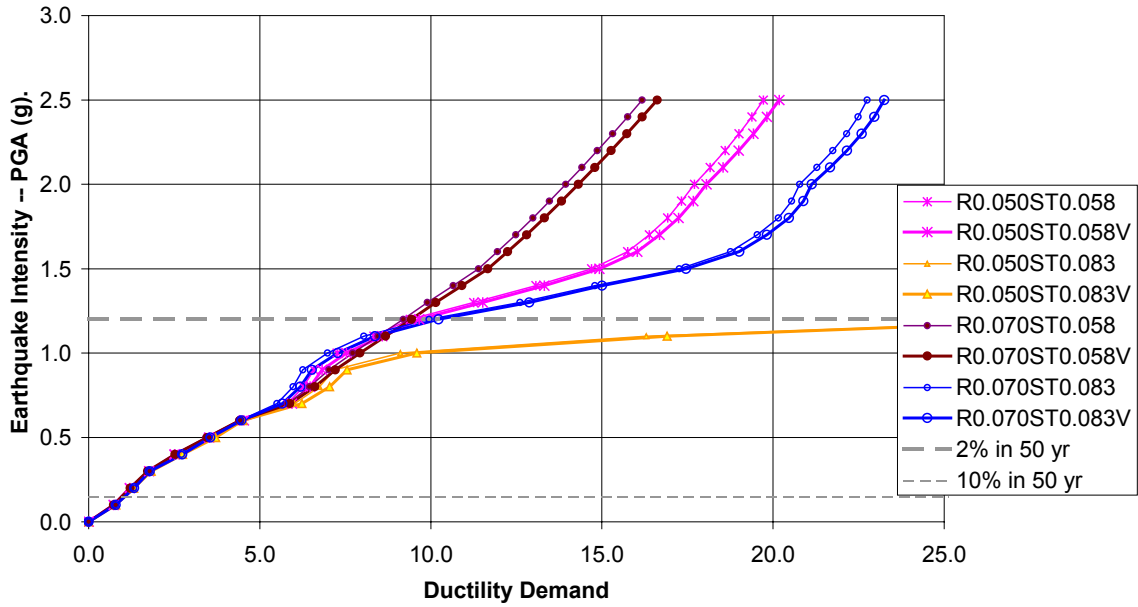
**Figure D1.2.5.5c – Roof Drift Ratio of the Charleston 5 Story Models Subjected to the Hollister Earthquake (EQ 5).**



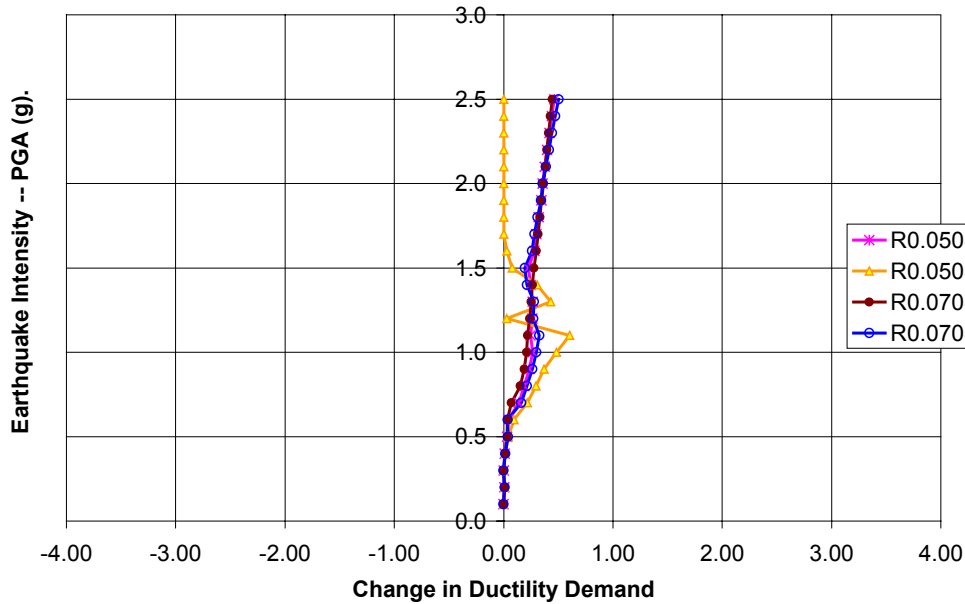
**Figure D1.2.5.5d – Park and Ang Damage Indices of the Charleston 5 Story Models Subjected to the Hollister Earthquake (EQ 5).**



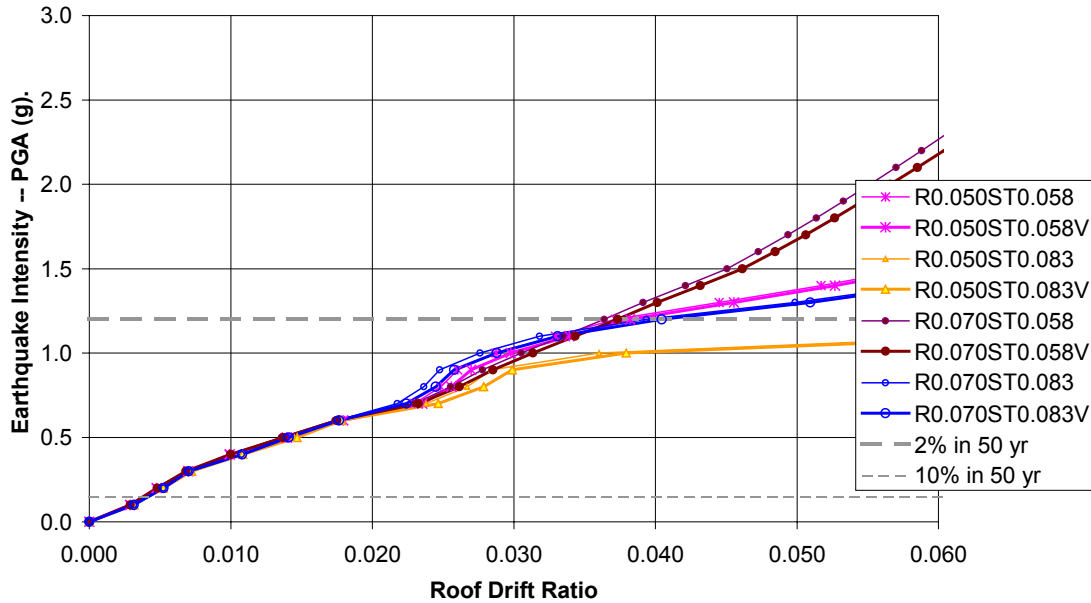
**Figure D1.2.5.5e – Kumar and Usami Damage Indices of the Charleston 5 Story Models Subjected to the Hollister Earthquake (EQ 5).**



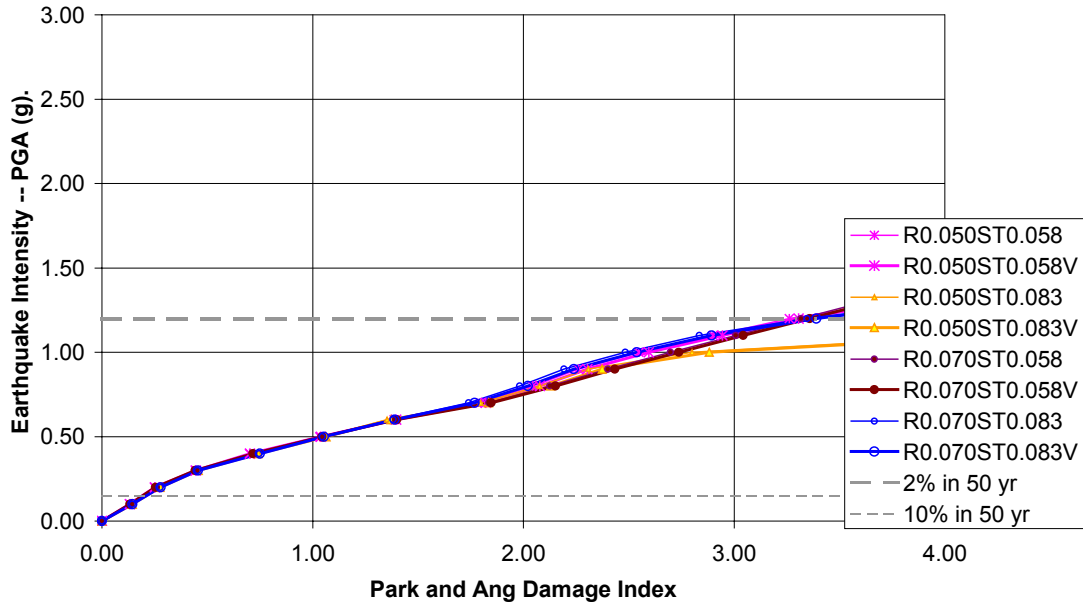
**Figure D1.2.5.9a – Ductility Demands of the Charleston 5 Story Models Subjected to the Hollister Earthquake (EQ 9).**



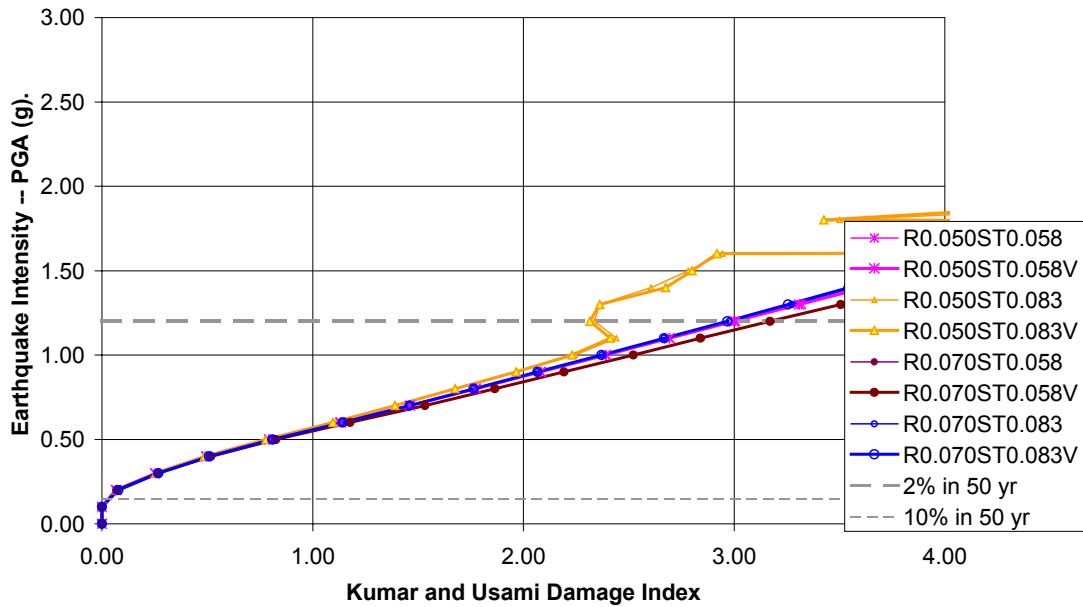
**Figure D1.2.5.9b – Change in Ductility Demands Due to Vertical Accelerations for the Charleston 5 Story Models Subjected to the Northridge Earthquake (EQ 9).**



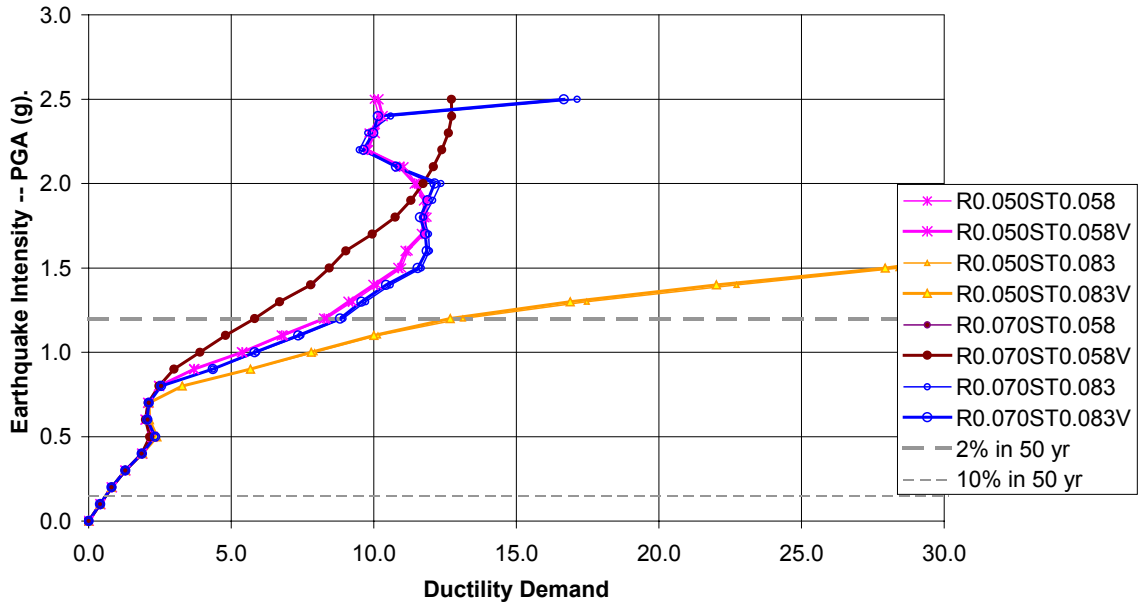
**Figure D1.2.5.9c – Roof Drift Ratio of the Charleston 5 Story Models Subjected to the Northridge Earthquake (EQ 9).**



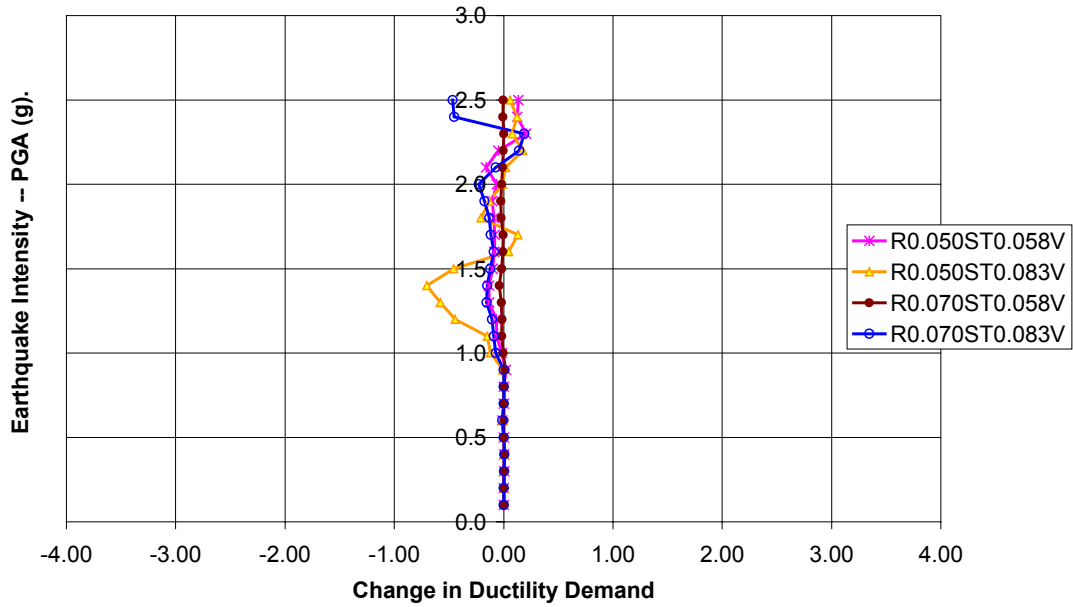
**Figure D1.2.5.9d – Park and Ang Damage Indices of the Charleston 5 Story Models Subjected to the Northridge Earthquake (EQ 9).**



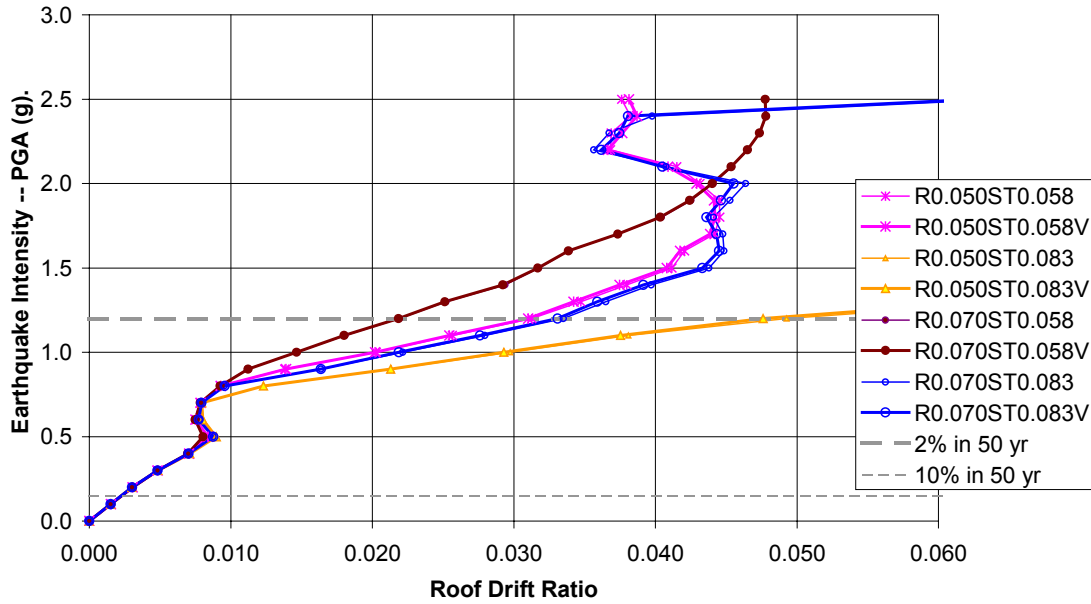
**Figure D1.2.5.9e – Kumar and Usami Damage Indices of the Charleston 5 Story Models Subjected to the Northridge Earthquake (EQ 9).**



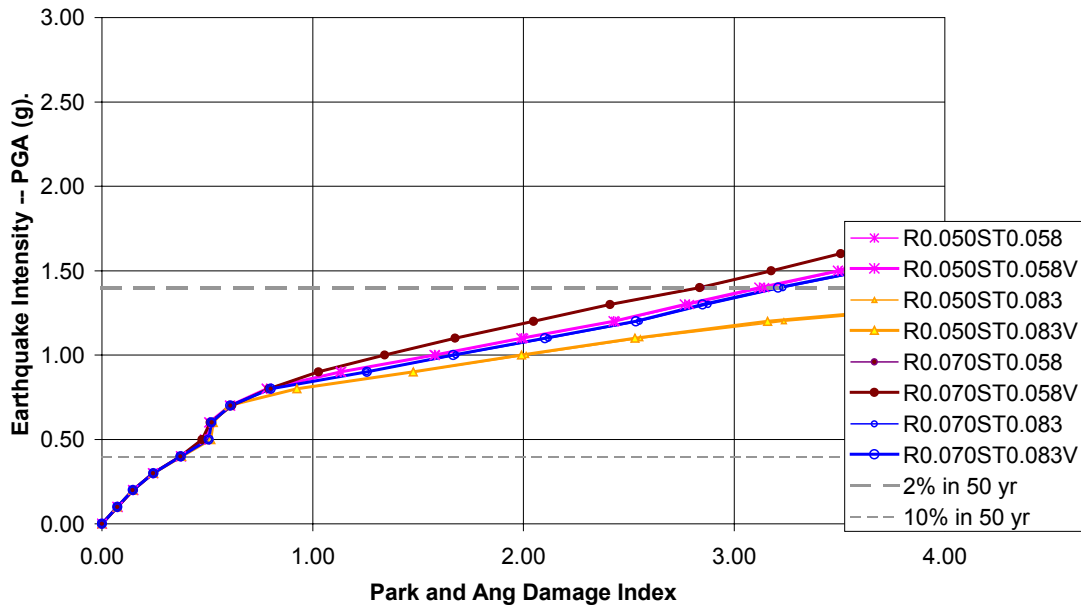
**Figure D1.2.7.4a – Ductility Demands of the Charleston 7 Story Models Subjected to the Taft Earthquake (EQ 4).**



**Figure D1.2.7.4b – Change in Ductility Demands Due to Vertical Accelerations for the Charleston 7 Story Models Subjected to the Taft Earthquake (EQ 4).**

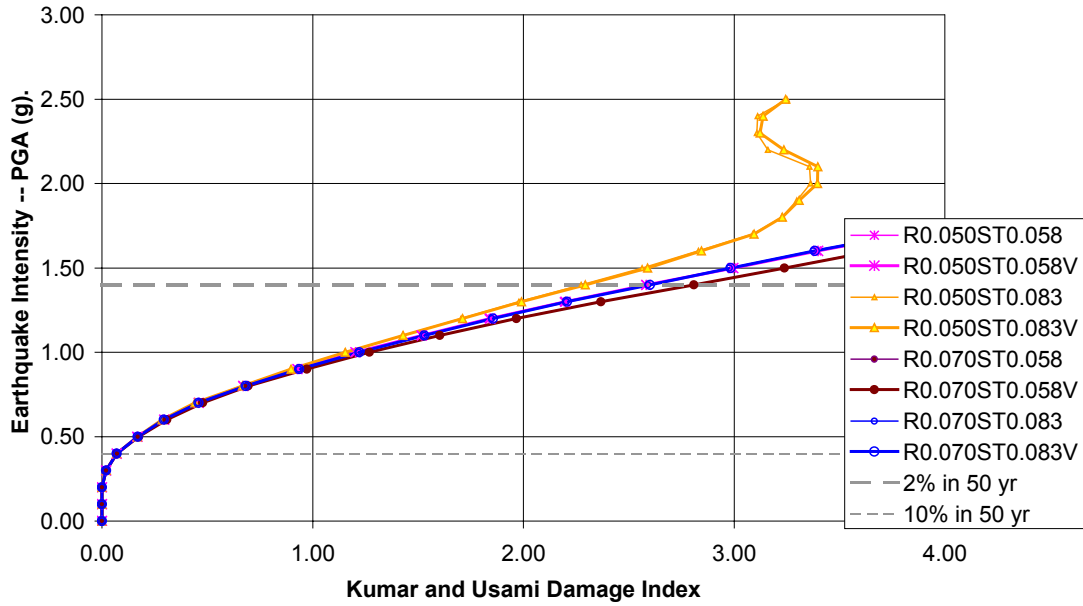


**Figure D1.2.7.4c – Roof Drift Ratio of the Charleston 7 Story Models Subjected to the Taft Earthquake (EQ 4).**

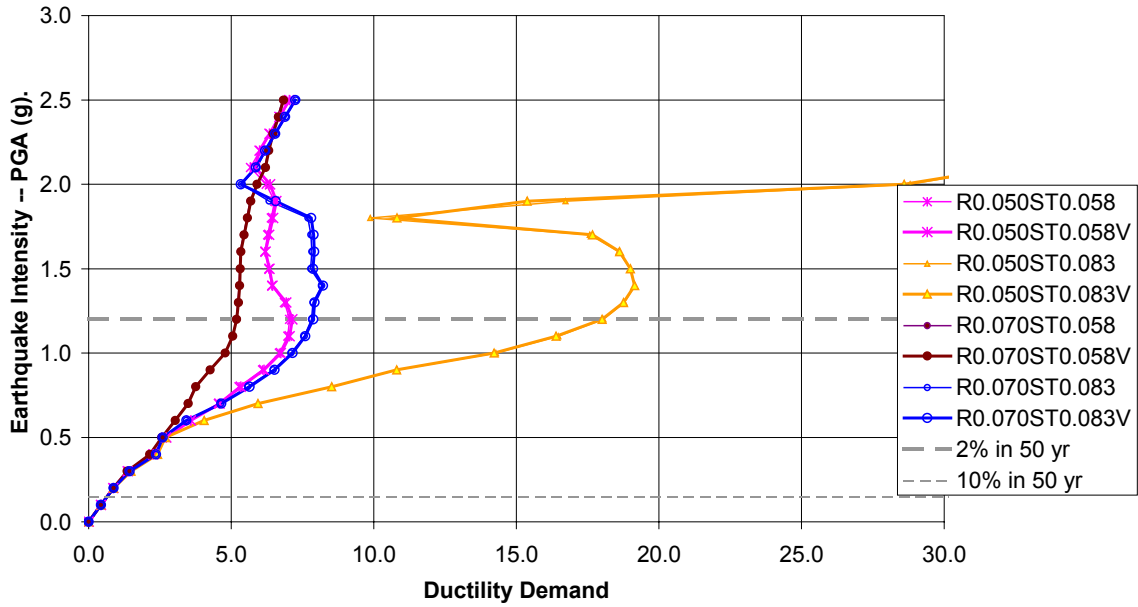


**Figure D1.2.7.4d – Park and Ang Damage Indices of the Charleston 7 Story Models Subjected to the Taft Earthquake (EQ 4).**

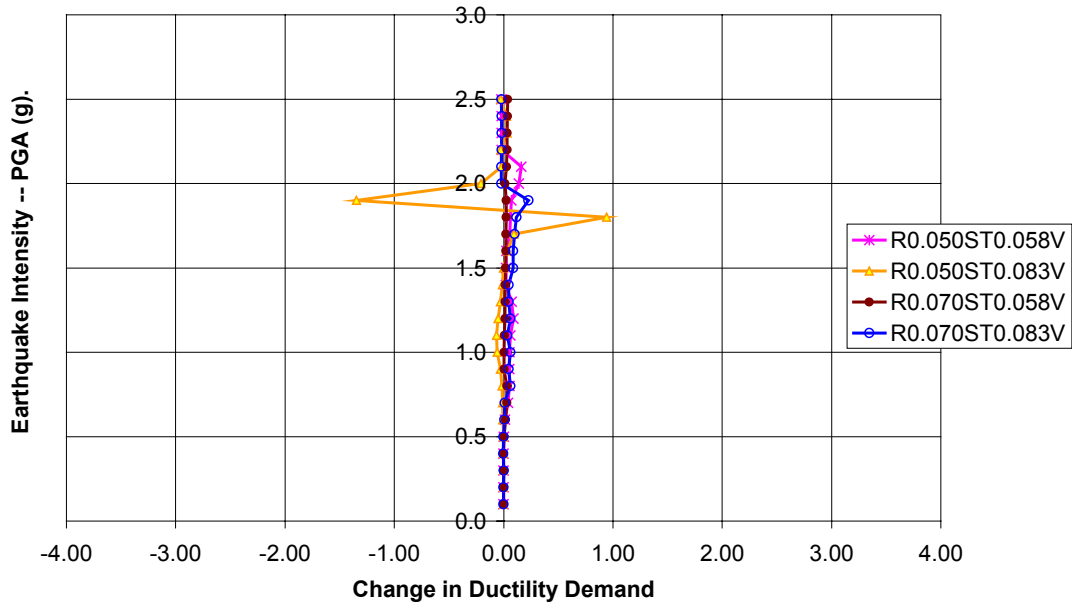




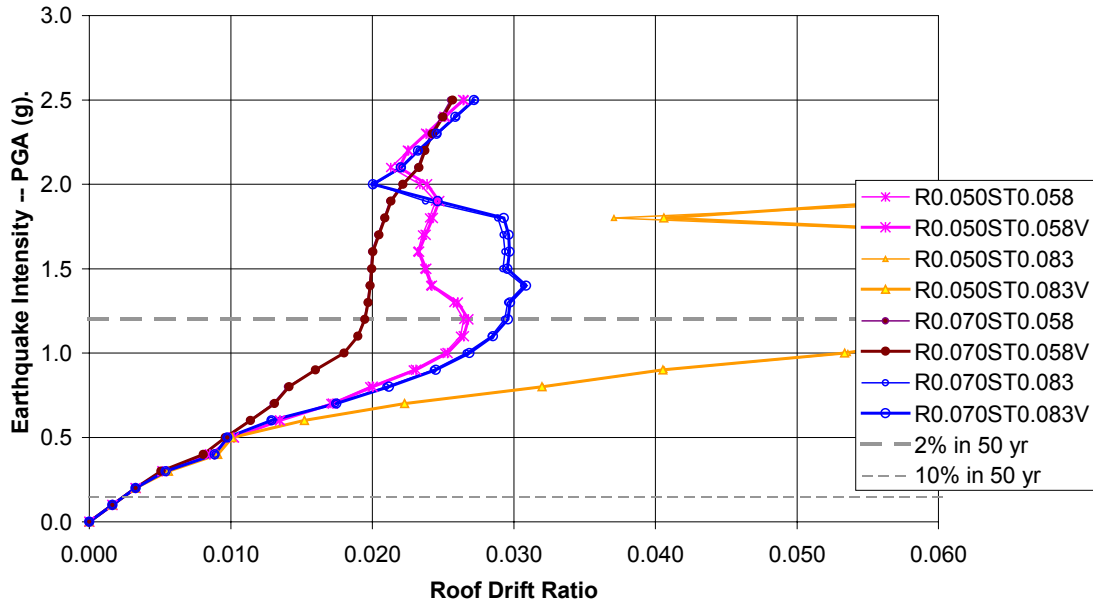
**Figure D1.2.7.4e – Kumar and Usami Damage Indices of the Charleston 7 Story Models Subjected to the Taft Earthquake (EQ 4).**



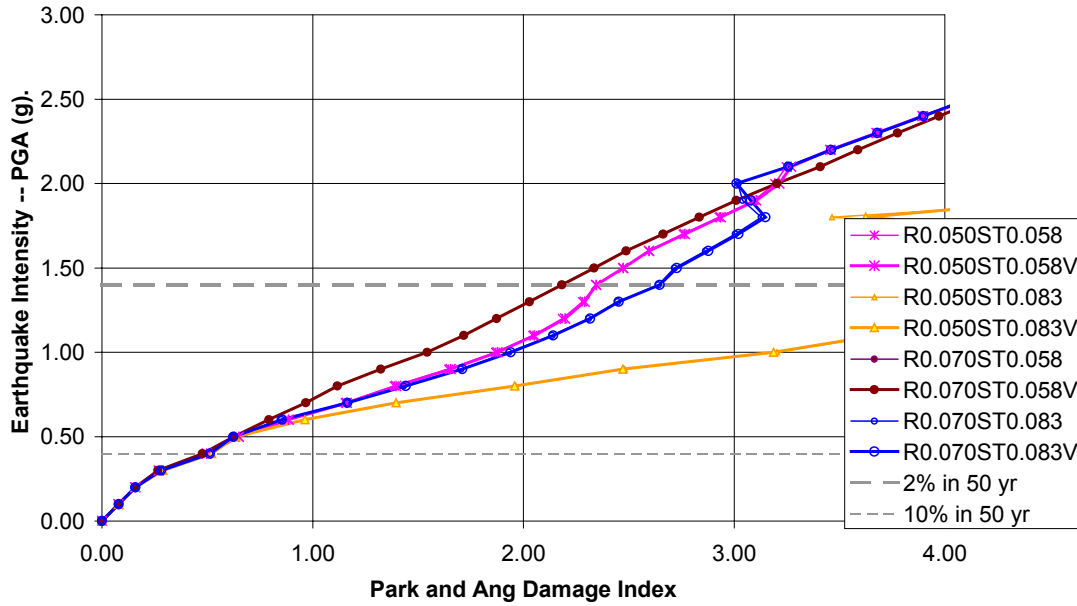
**Figure D1.2.7.5a – Ductility Demands of the Charleston 7 Story Models Subjected to the Hollister Earthquake (EQ 5).**



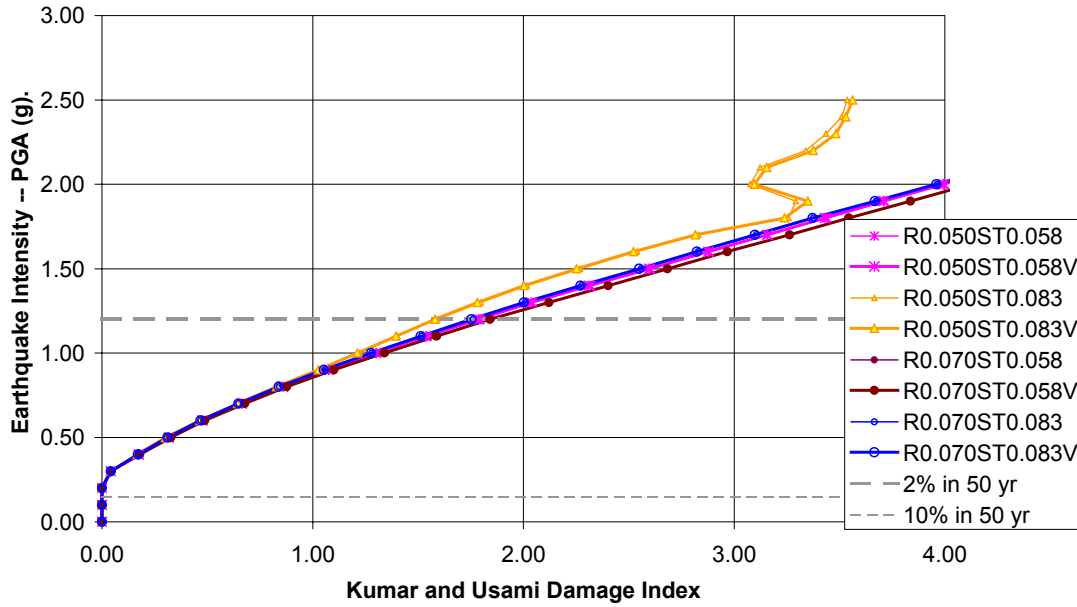
**Figure D1.2.7.5b – Change in Ductility Demands Due to Vertical Accelerations for the Charleston 7 Story Models Subjected to the Hollister Earthquake (EQ 5).**



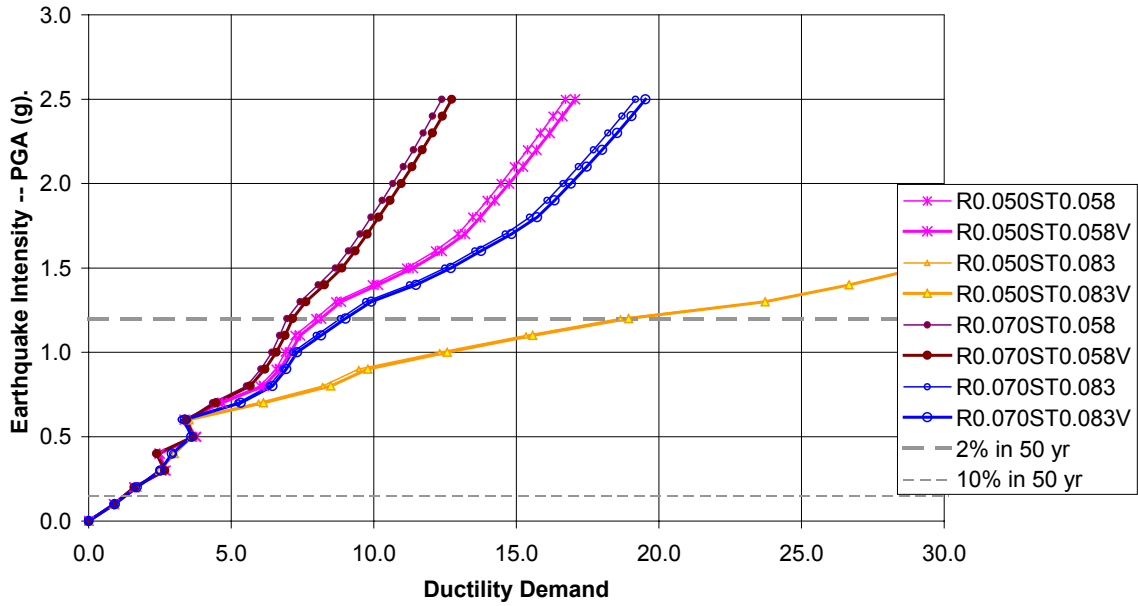
**Figure D1.2.7.5c – Roof Drift Ratio of the Charleston 7 Story Models Subjected to the Hollister Earthquake (EQ 5).**



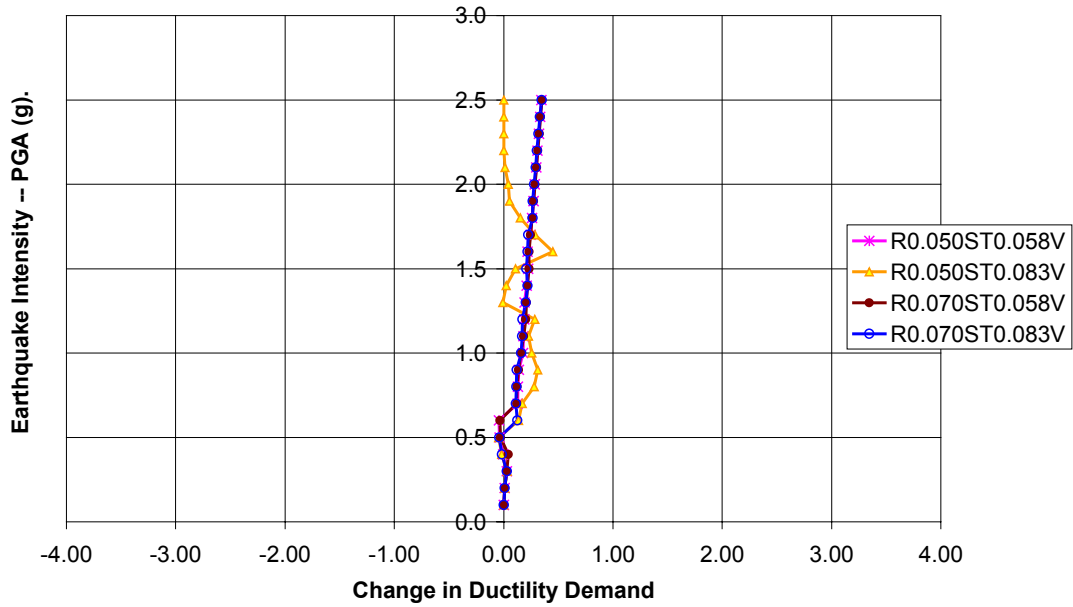
**Figure D1.2.7.5d – Park and Ang Damage Indices of the Charleston 7 Story Models Subjected to the Hollister Earthquake (EQ 5).**



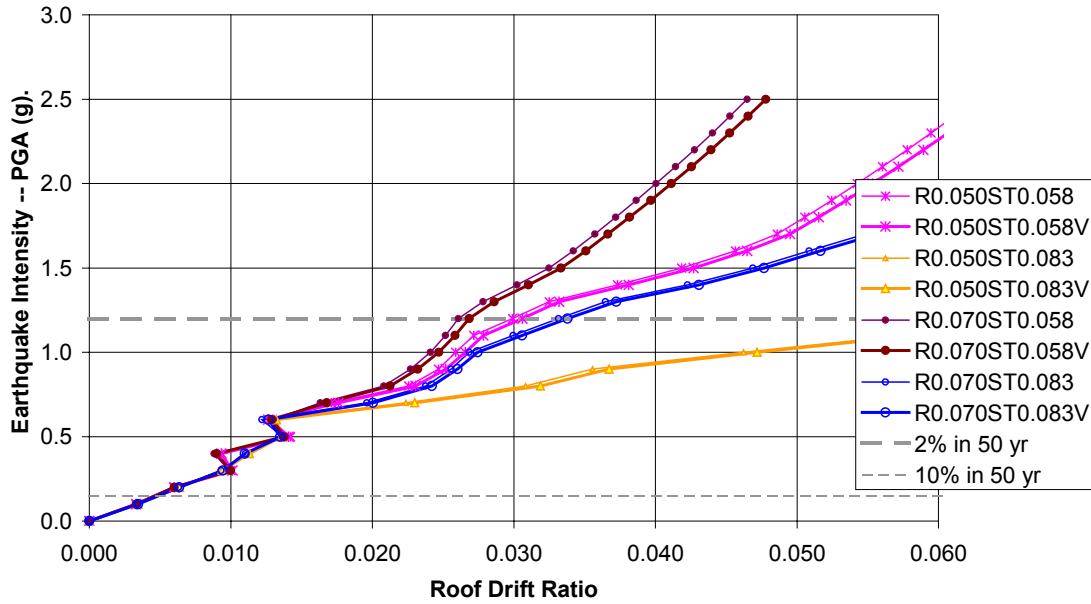
**Figure D1.2.7.5e – Kumar and Usami Damage Indices of the Charleston 7 Story Models Subjected to the Hollister Earthquake (EQ 5).**



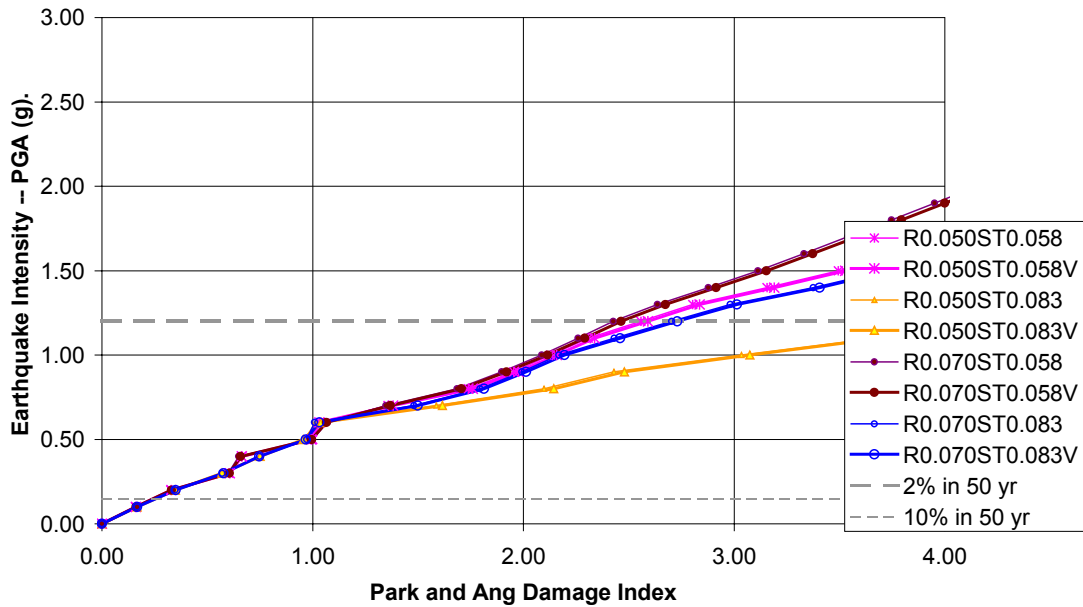
**Figure D1.2.7.9a – Ductility Demands of the Charleston 7 Story Models Subjected to the Hollister Earthquake (EQ 9).**



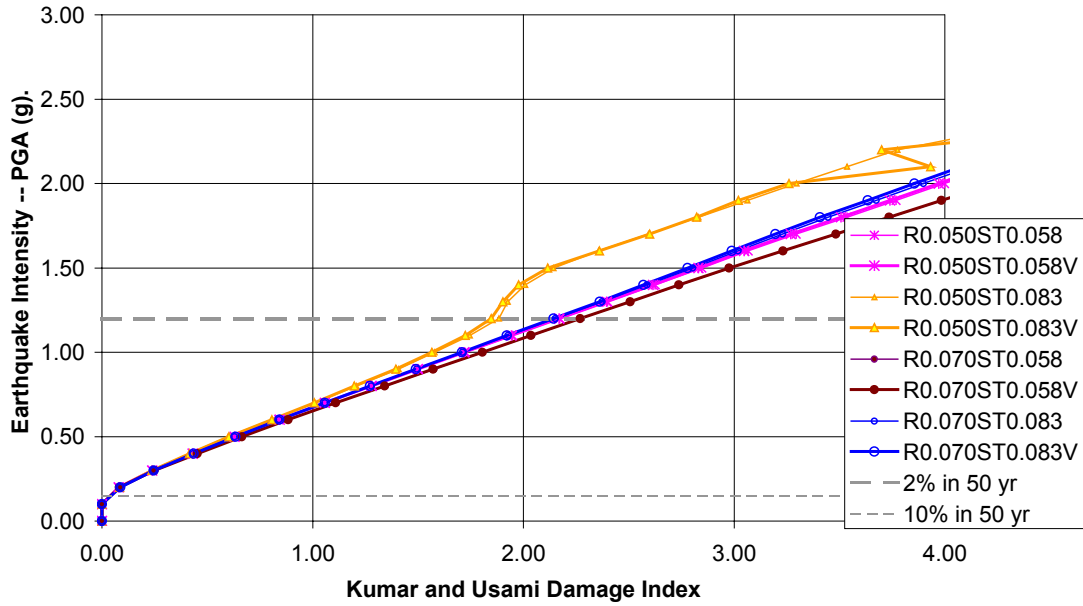
**Figure D1.2.7.9b – Change in Ductility Demands Due to Vertical Accelerations for the Charleston 7 Story Models Subjected to the Northridge Earthquake (EQ 9).**



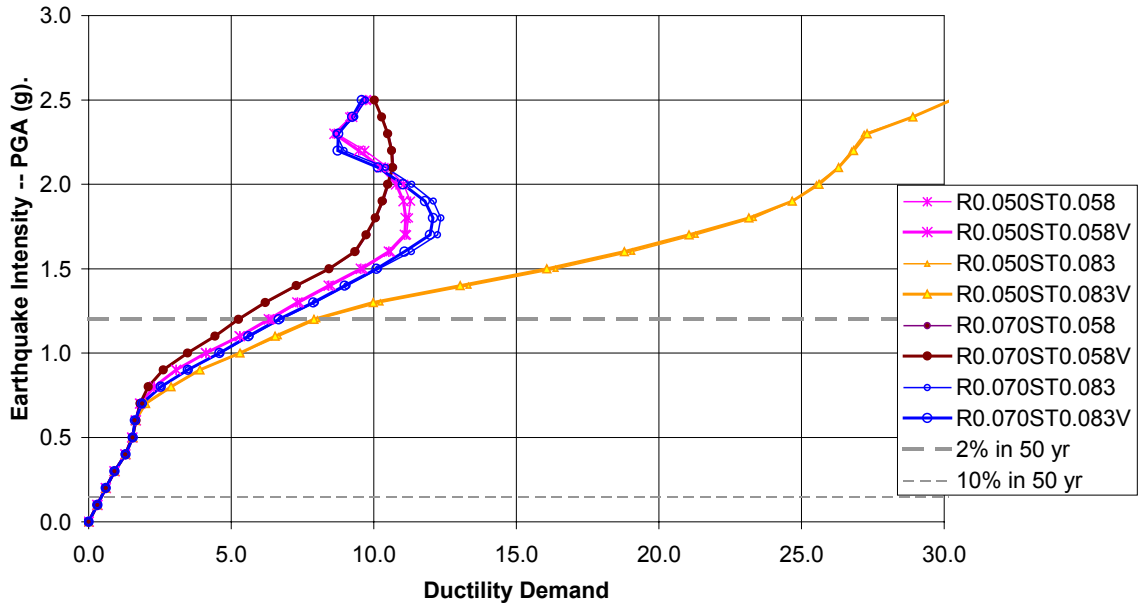
**Figure D1.2.7.9c – Roof Drift Ratio of the Charleston 7 Story Models Subjected to the Northridge Earthquake (EQ 9).**



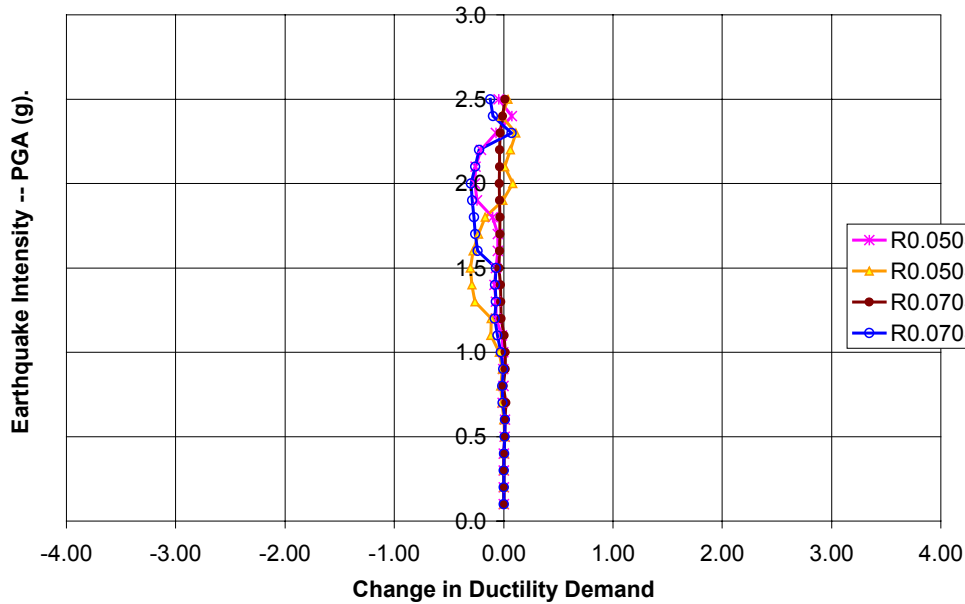
**Figure D1.2.7.9d – Park and Ang Damage Indices of the Charleston 7 Story Models Subjected to the Northridge Earthquake (EQ 9).**



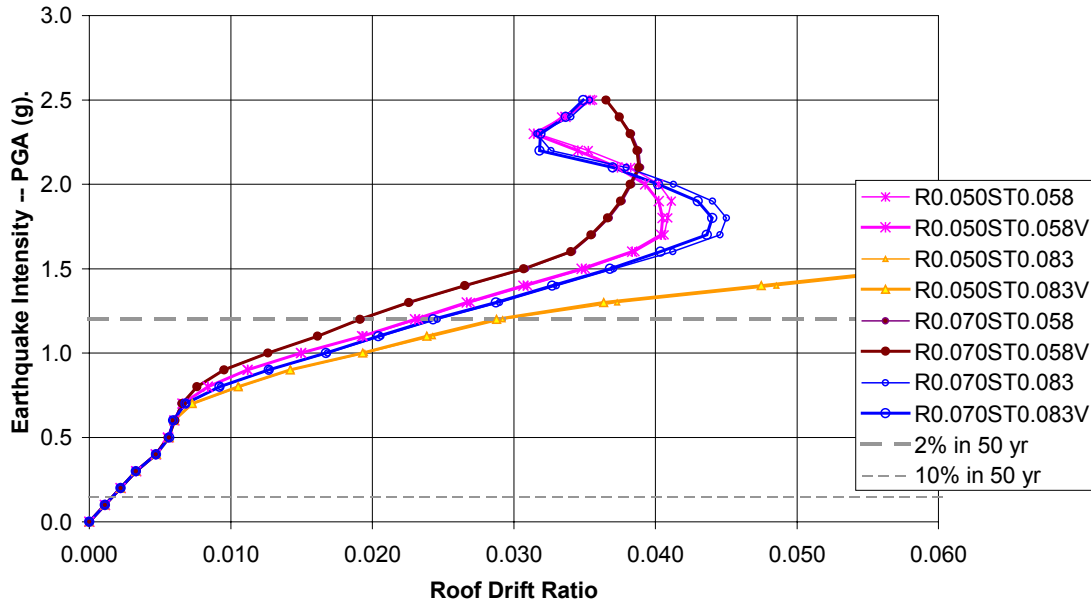
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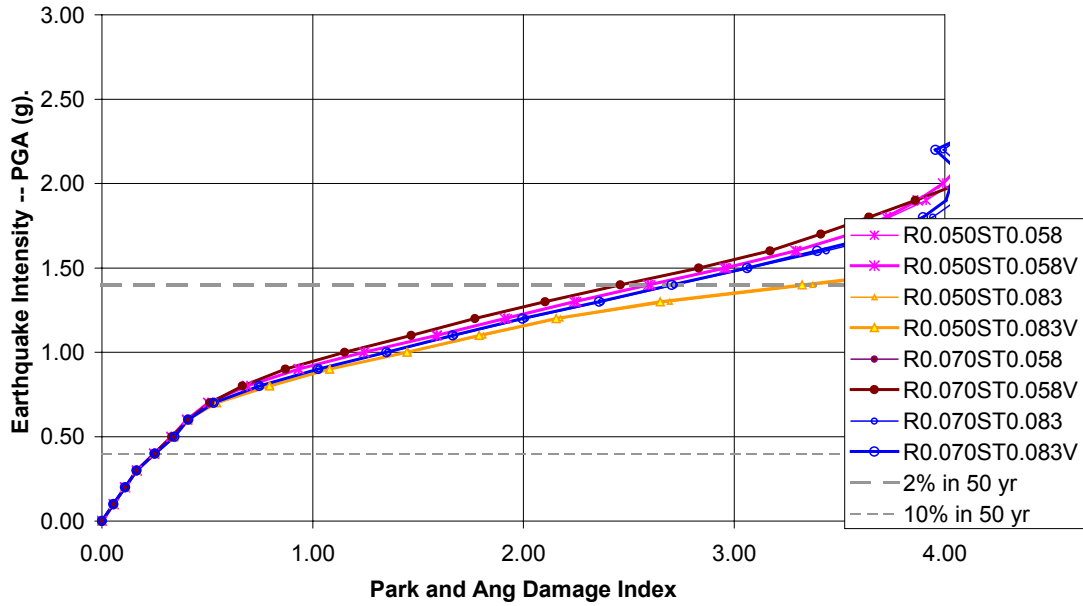
**Figure D1.2.9.4a – Ductility Demands of the Charleston 9 Story Models Subjected to the Taft Earthquake (EQ 4).**



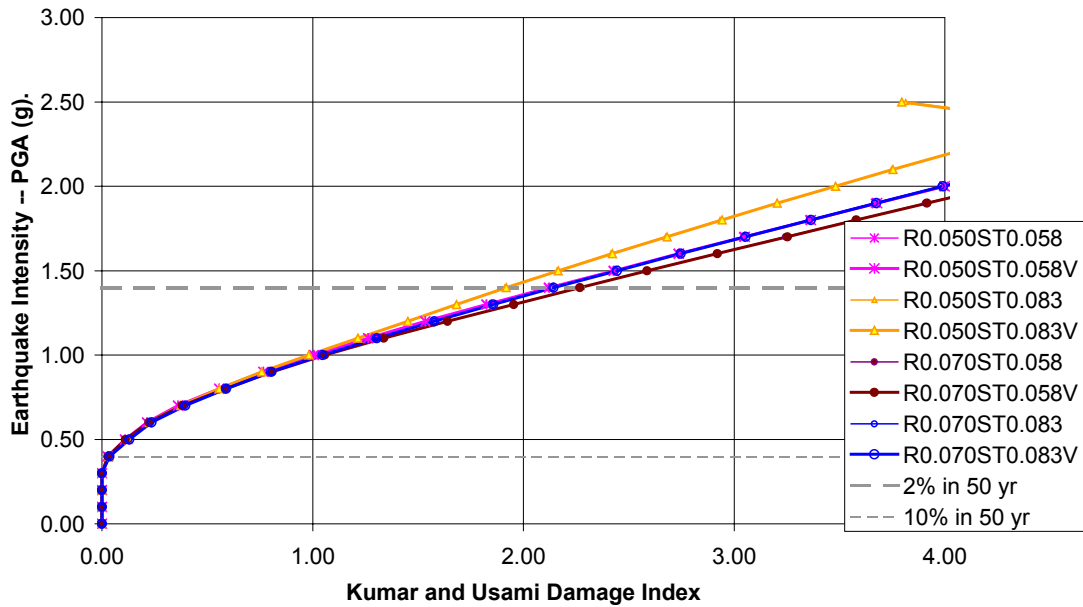
**Figure D1.2.9.4b – Change in Ductility Demands Due to Vertical Accelerations for the Charleston 9 Story Models Subjected to the Taft Earthquake (EQ 4).**



**Figure D1.2.9.4c – Roof Drift Ratio of the Charleston 9 Story Models Subjected to the Taft Earthquake (EQ 4).**

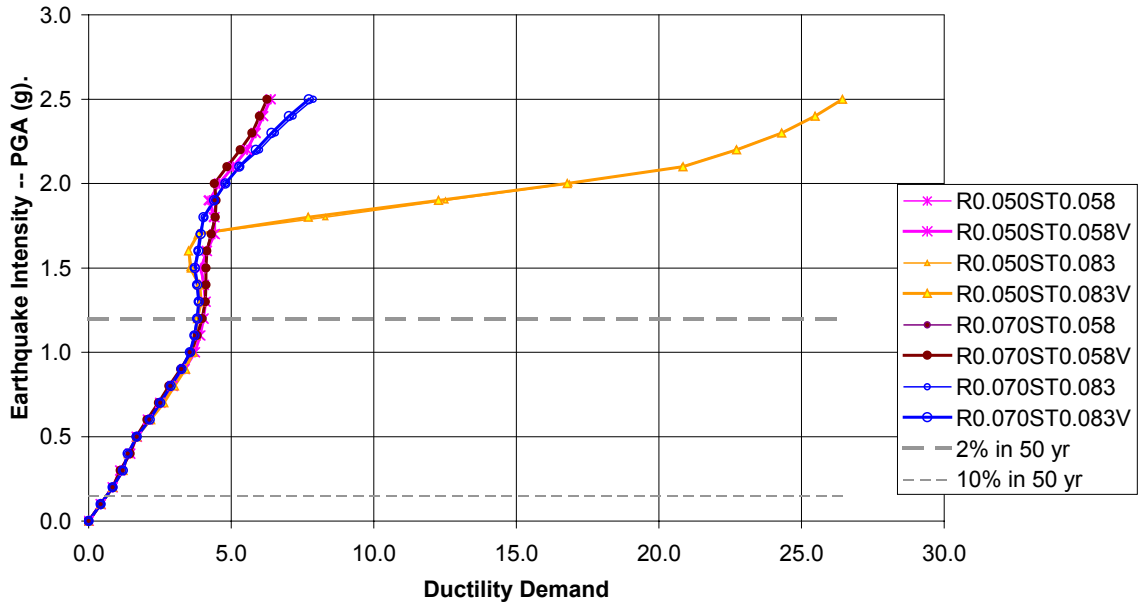


**Figure D1.2.9.4d – Park and Ang Damage Indices of the Charleston 9 Story Models Subjected to the Taft Earthquake (EQ 4).**

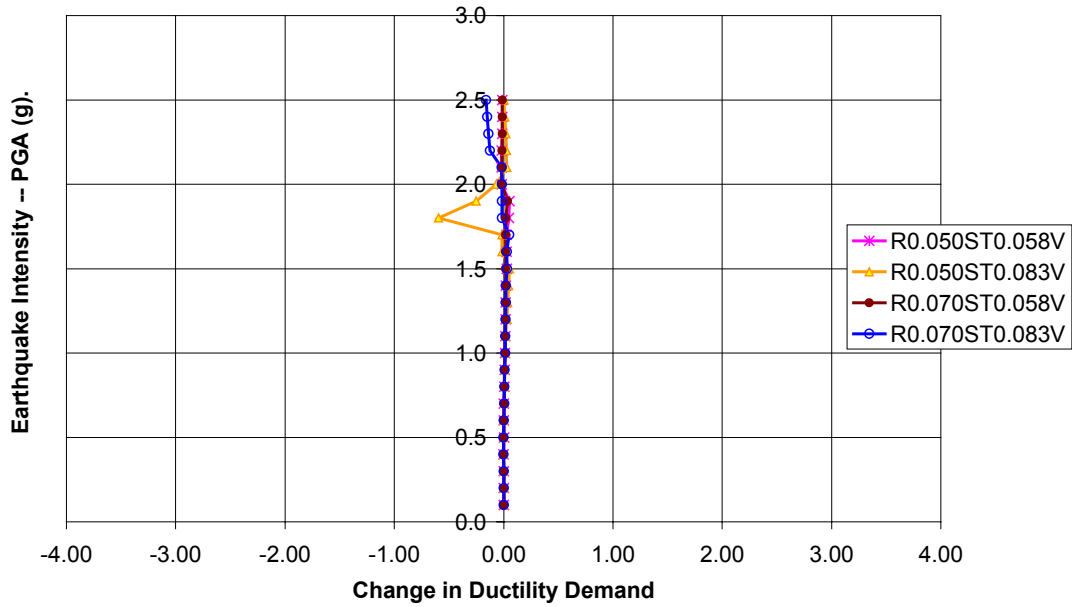


**Figure D1.2.9.4e – Kumar and Usami Damage Indices of the Charleston 9 Story Models Subjected to the Taft Earthquake (EQ 4).**

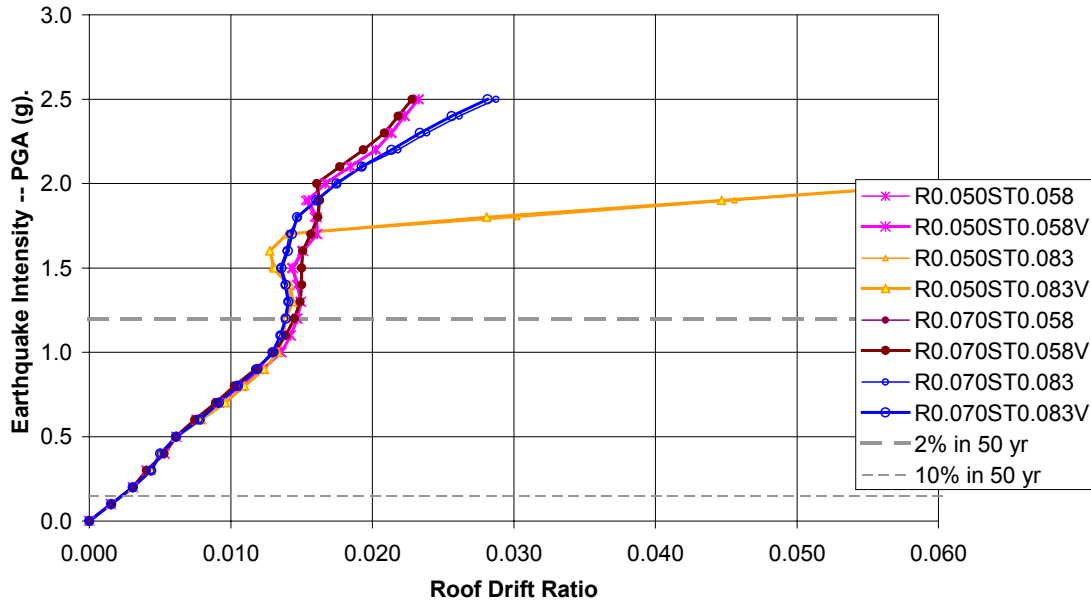




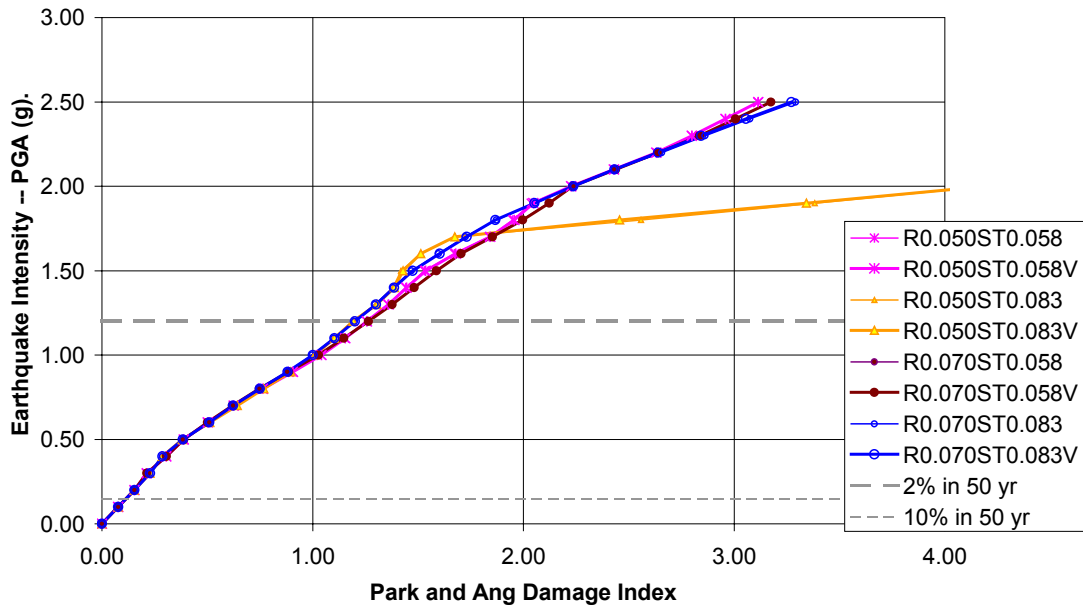
**Figure D1.2.9.5a – Ductility Demands of the Charleston 9 Story Models Subjected to the Hollister Earthquake (EQ 5).**



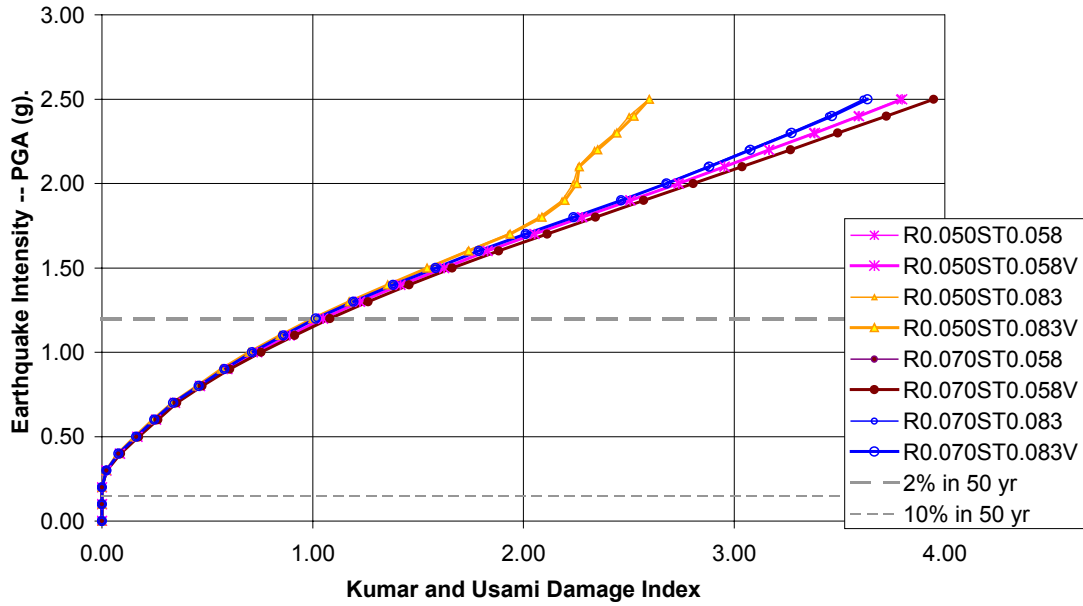
**Figure D1.2.9.5b – Change in Ductility Demands Due to Vertical Accelerations for the Charleston 9 Story Models Subjected to the Hollister Earthquake (EQ 5).**



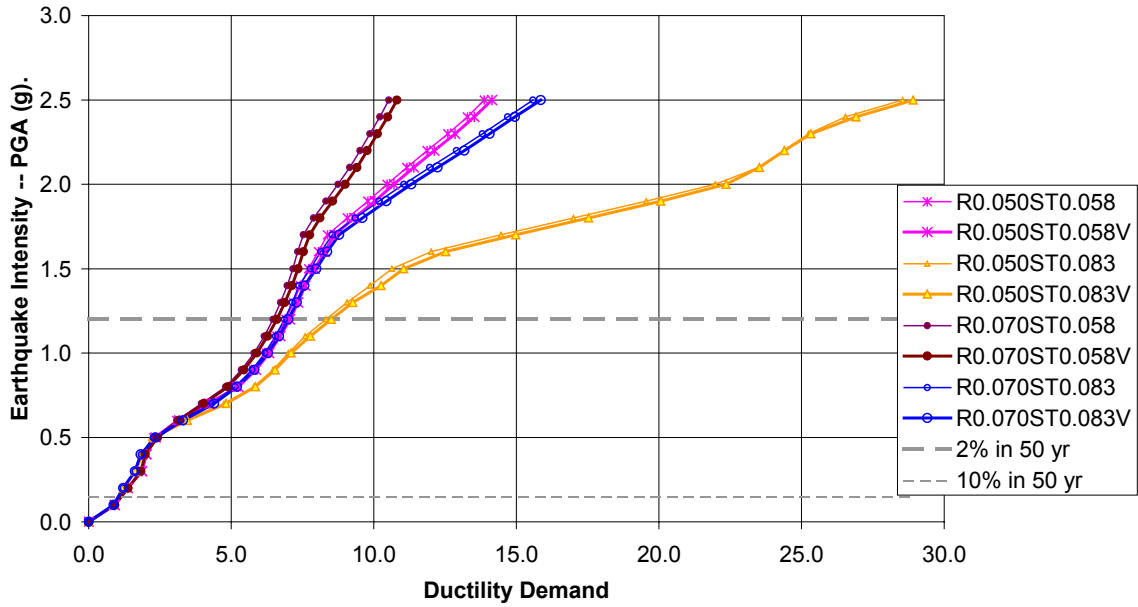
**Figure D1.2.9.5c – Roof Drift Ratio of the Charleston 9 Story Models Subjected to the Hollister Earthquake (EQ 5).**



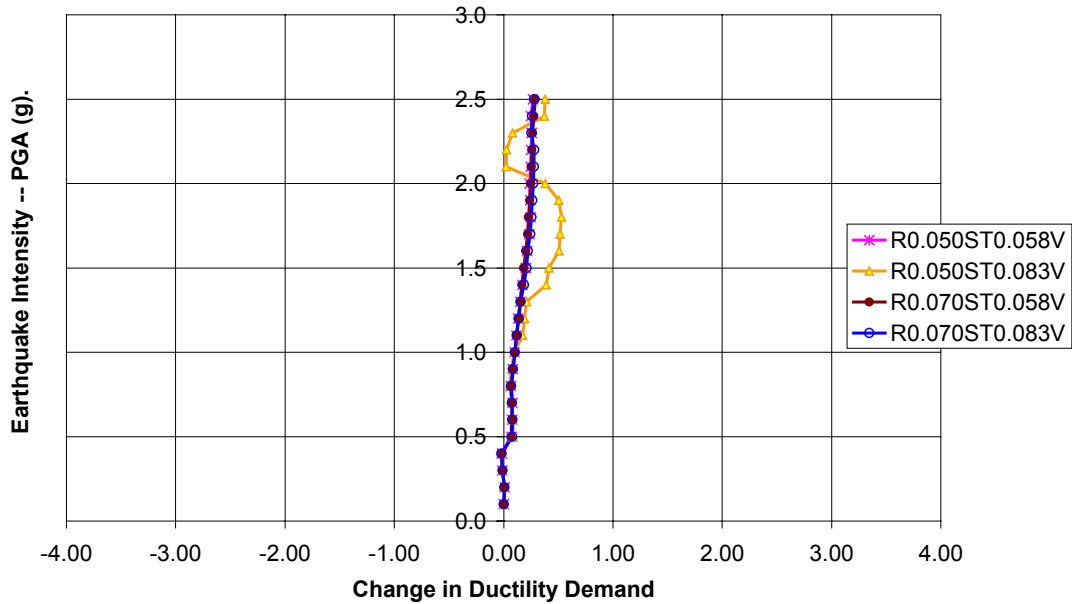
**Figure D1.2.9.5d – Park and Ang Damage Indices of the Charleston 9 Story Models Subjected to the Hollister Earthquake (EQ 5).**



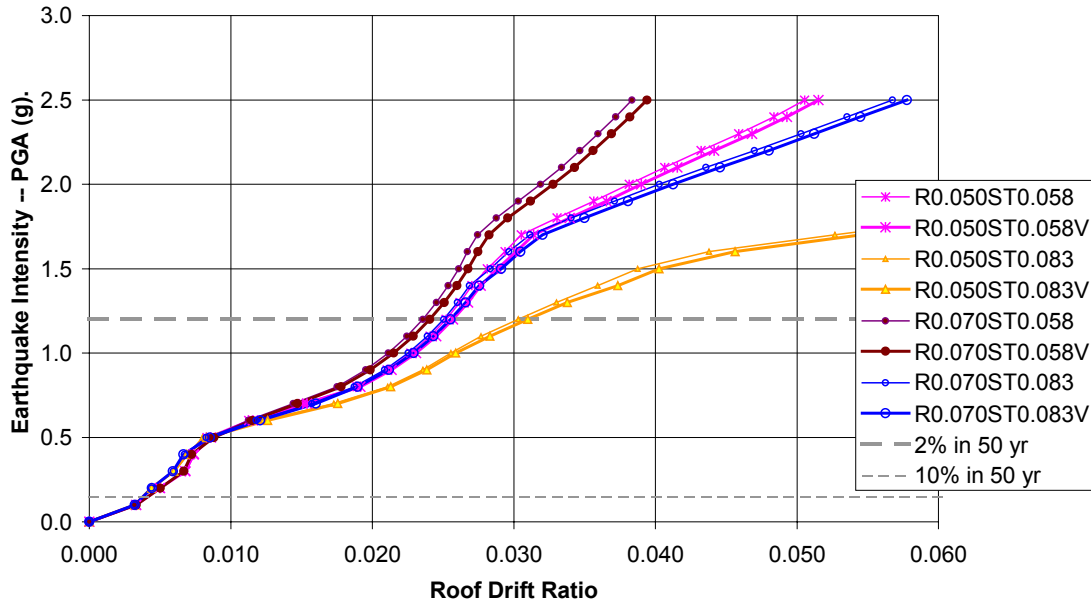
**Figure D1.2.9.5e – Kumar and Usami Damage Indices of the Charleston 9 Story Models Subjected to the Hollister Earthquake (EQ 5).**



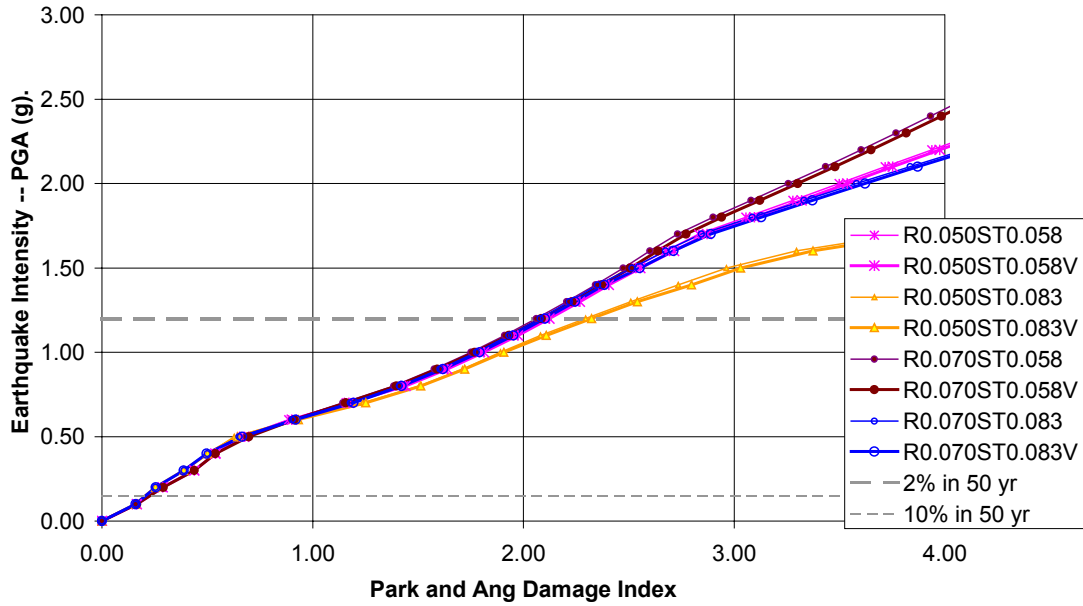
**Figure D1.2.9.9a – Ductility Demands of the Charleston 9 Story Models Subjected to the Hollister Earthquake (EQ 9).**



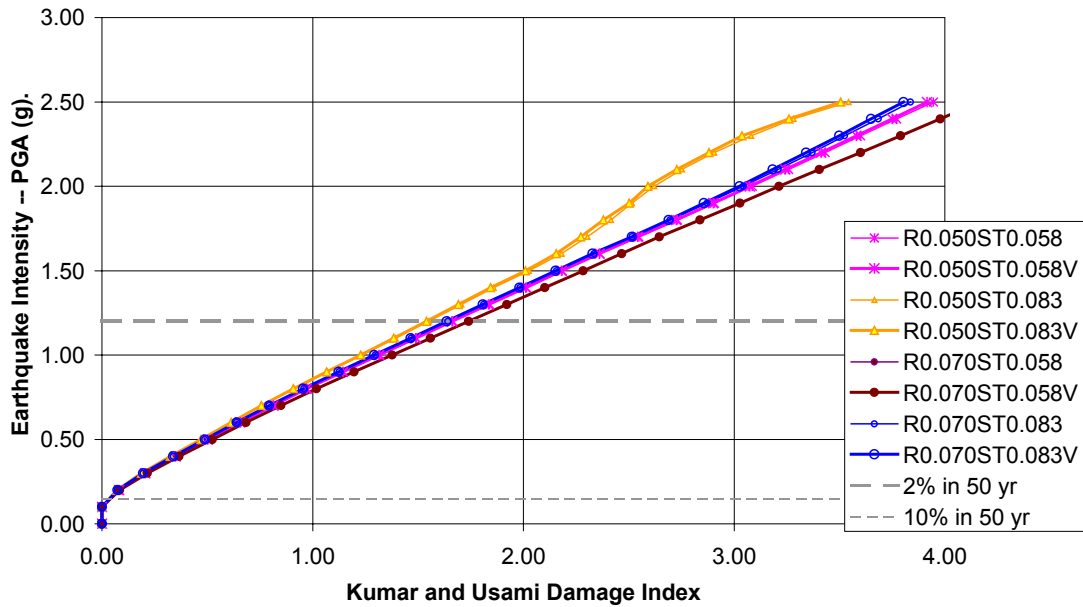
**Figure D1.2.9.9b – Change in Ductility Demands Due to Vertical Accelerations for the Charleston 9 Story Models Subjected to the Northridge Earthquake (EQ 9).**



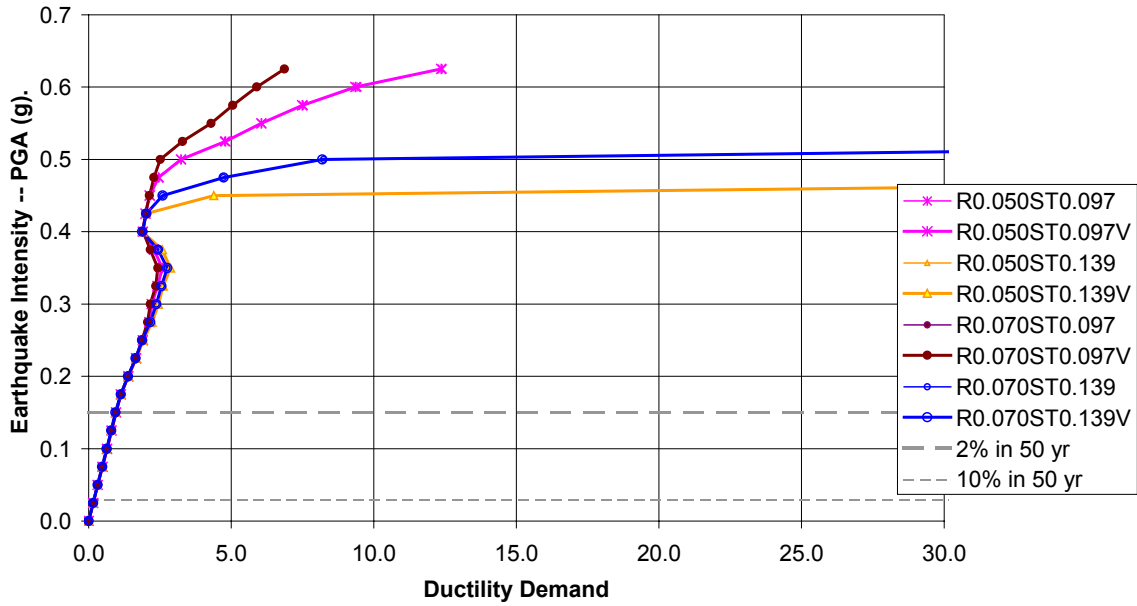
**Figure D1.2.9.9c – Roof Drift Ratio of the Charleston 9 Story Models Subjected to the Northridge Earthquake (EQ 9).**



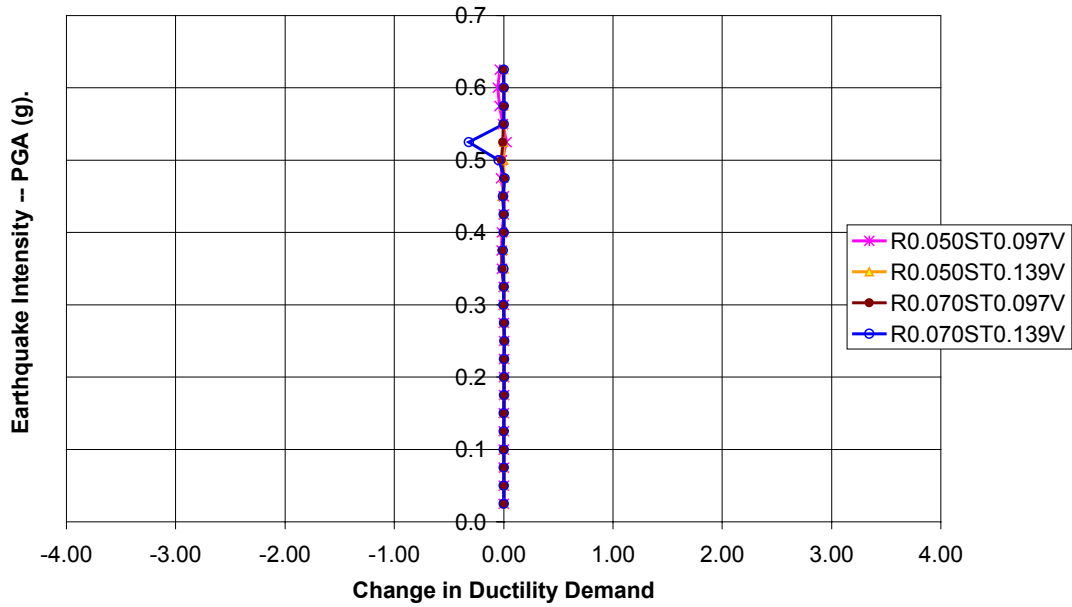
**Figure D1.2.9.9d – Park and Ang Damage Indices of the Charleston 9 Story Models Subjected to the Northridge Earthquake (EQ 9).**



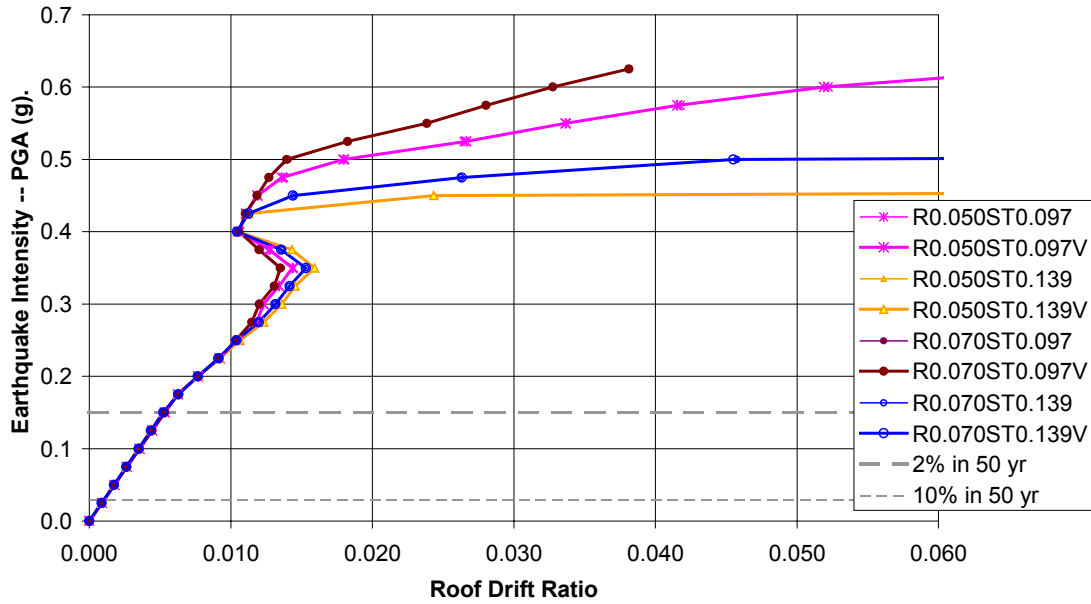
**Figure D1.2.9.9e – Kumar and Usami Damage Indices of the Charleston 9 Story Models Subjected to the Northridge Earthquake (EQ 9).**



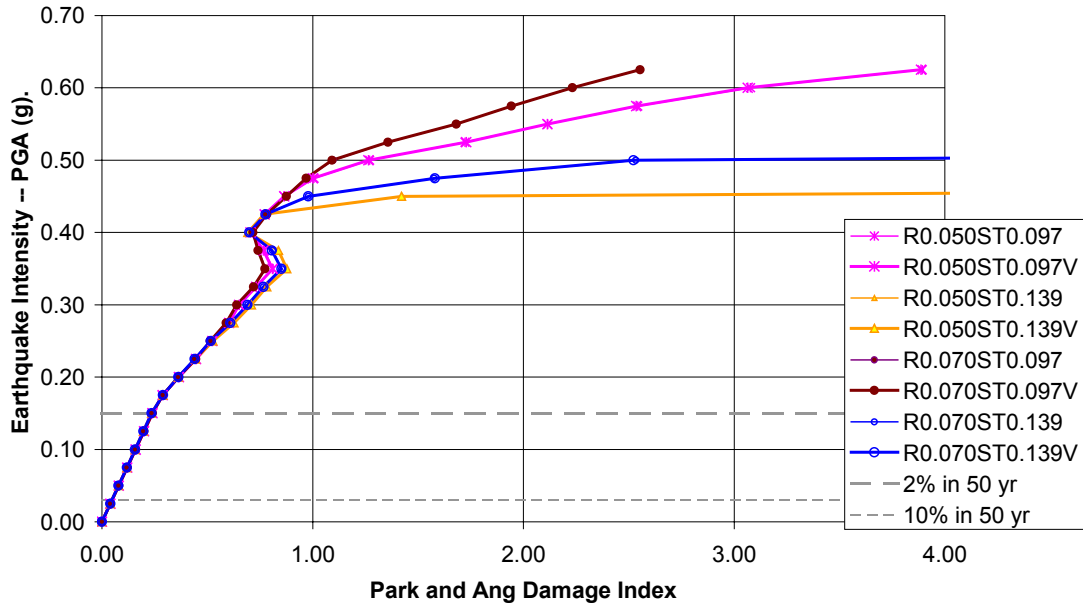
**Figure D1.3.3.4a – Ductility Demands of the Boston 3 Story Models Subjected to the Taft Earthquake (EQ 4).**



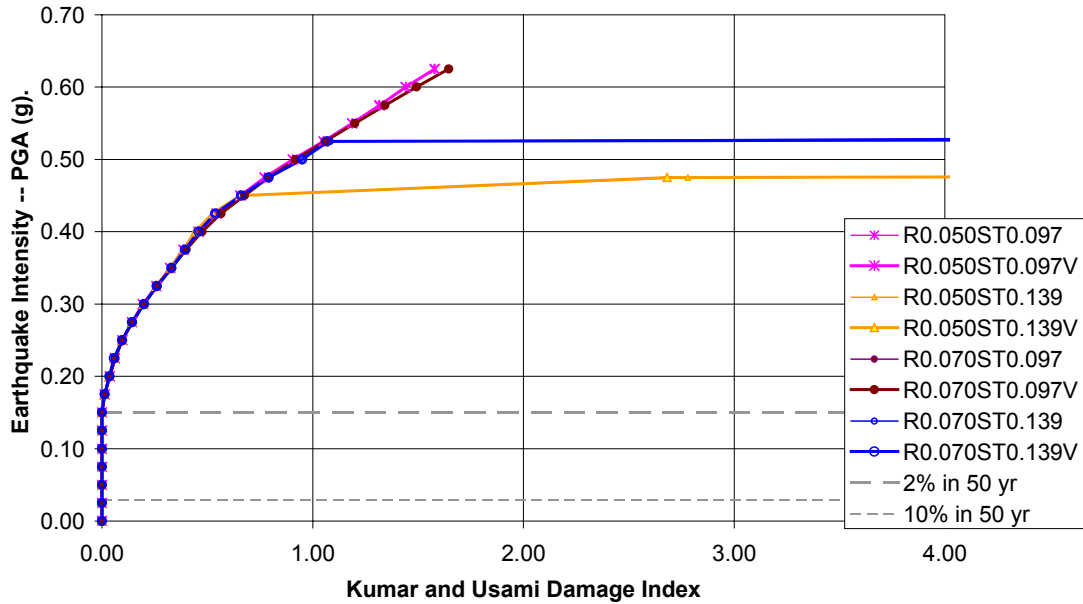
**Figure D1.3.3.4b – Change in Ductility Demands Due to Vertical Accelerations for the Boston 3 Story Models Subjected to the Taft Earthquake (EQ 4).**



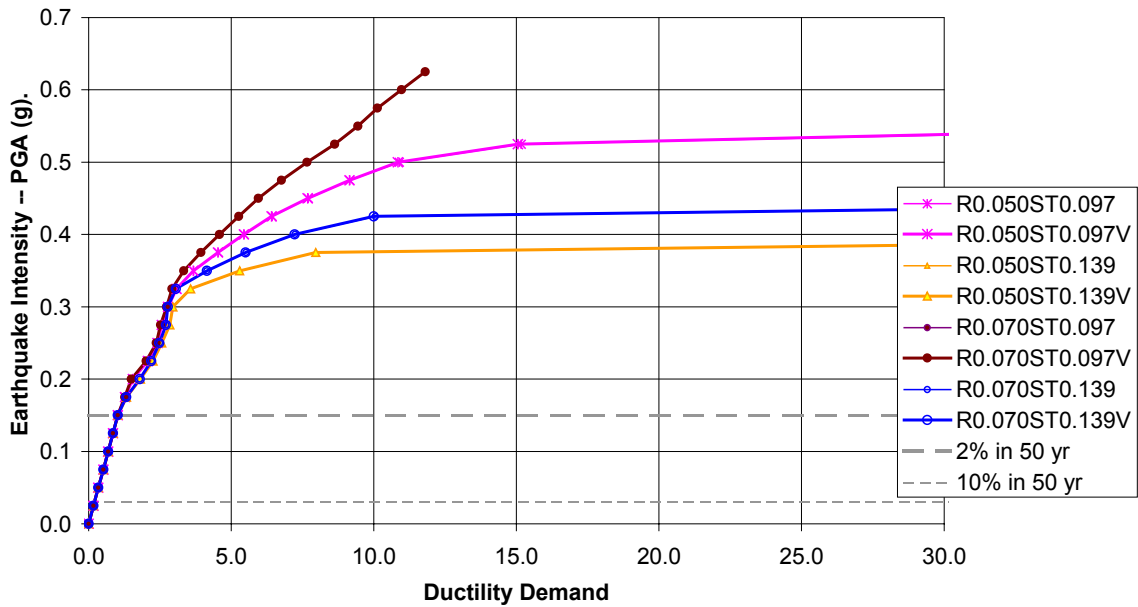
**Figure D1.3.3.4c – Roof Drift Ratio of the Boston 3 Story Models Subjected to the Taft Earthquake (EQ 4).**



**Figure D1.3.3.4d – Park and Ang Damage Indices of the Boston 3 Story Models Subjected to the Taft Earthquake (EQ 4).**



**Figure D1.3.3.4e – Kumar and Usami Damage Indices of the Boston 3 Story Models Subjected to the Taft Earthquake (EQ 4).**



**Figure D1.3.3.5a – Ductility Demands of the Boston 3 Story Models Subjected to the Hollister Earthquake (EQ 5).**



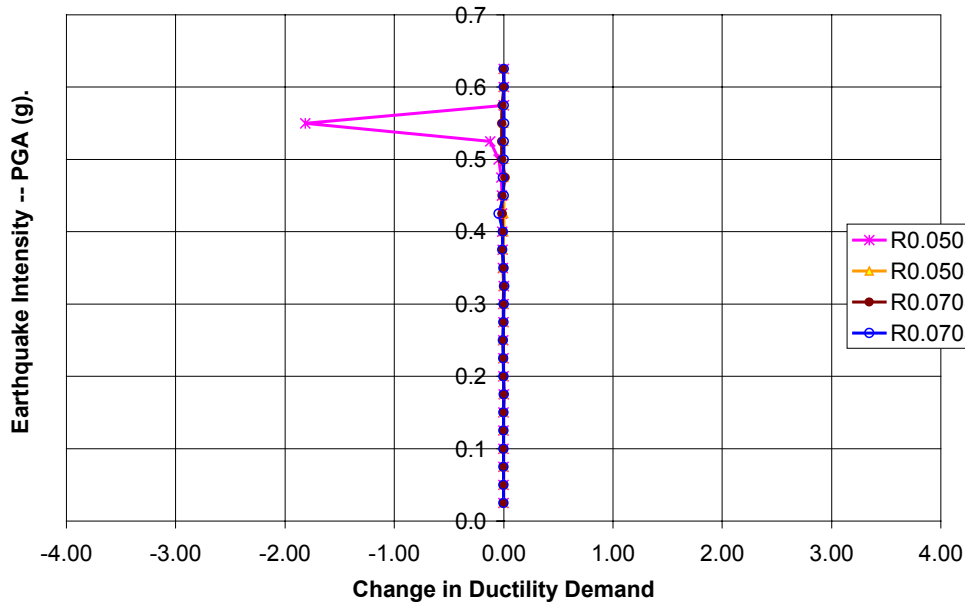


Figure D1.3.3.5b – Change in Ductility Demands Due to Vertical Accelerations for the Boston 3 Story Models Subjected to the Hollister Earthquake (EQ 5).

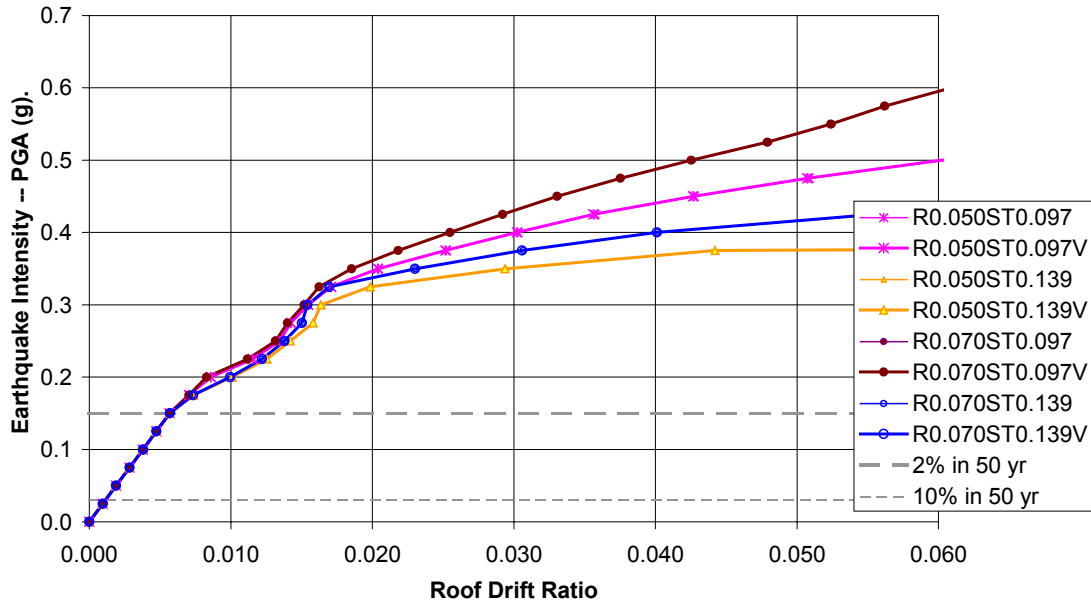
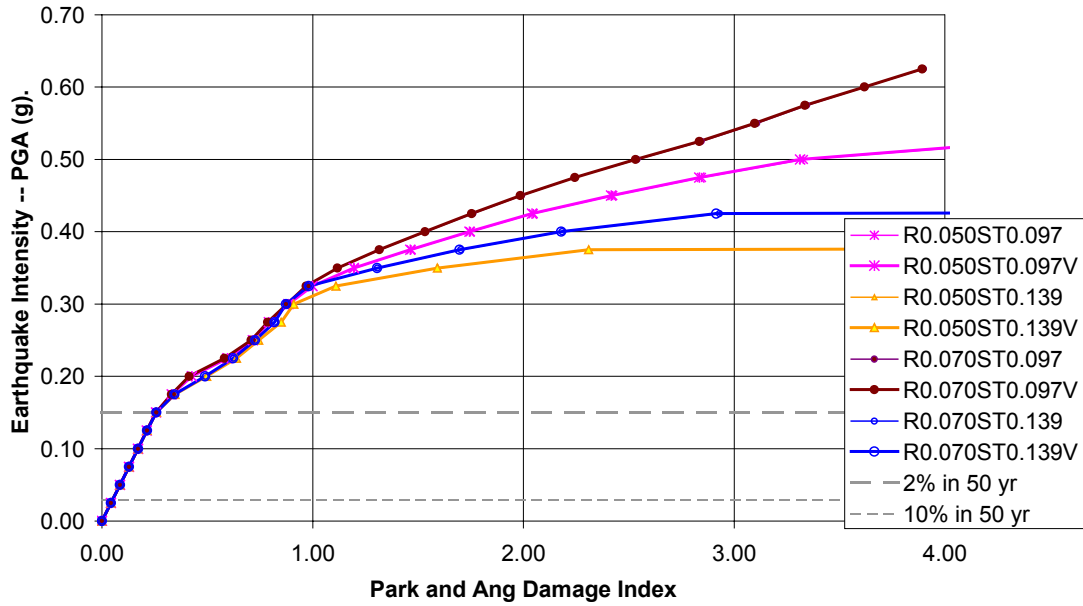
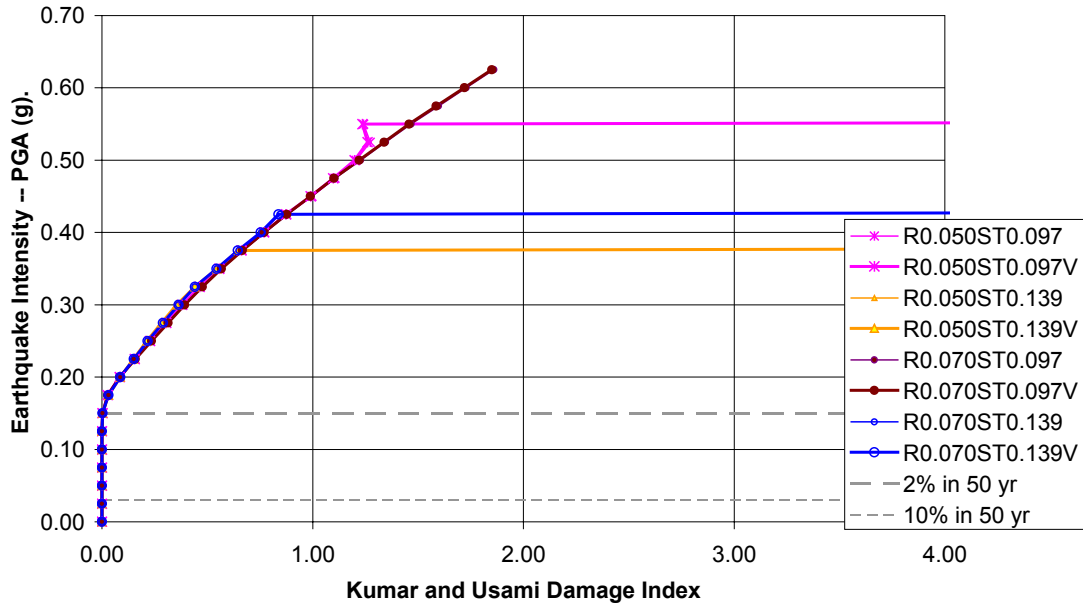


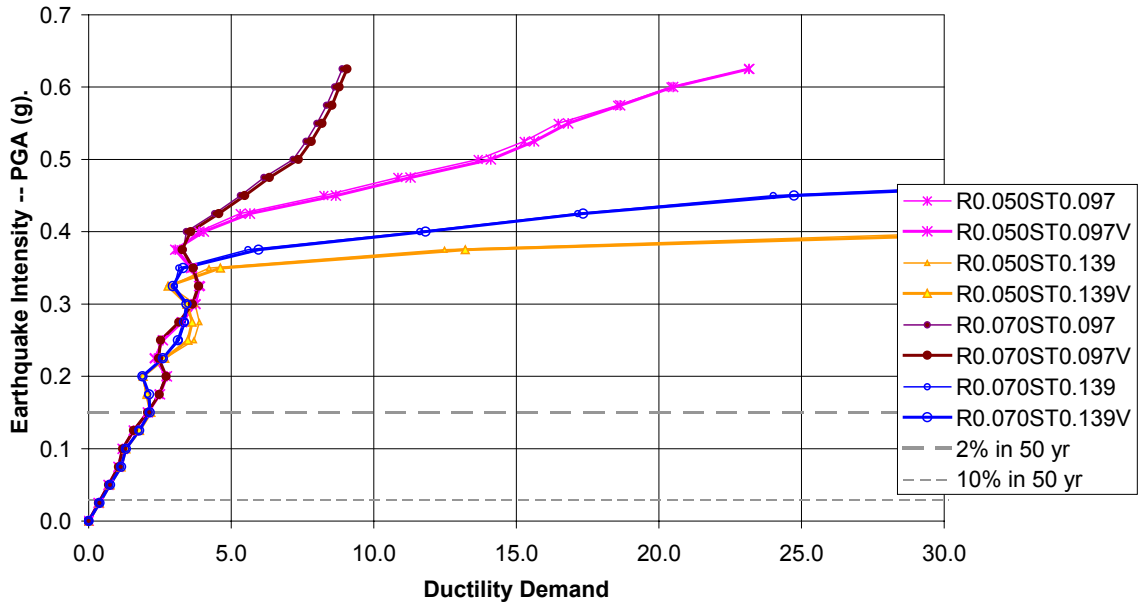
Figure D1.3.3.5c – Roof Drift Ratio of the Boston 3 Story Models Subjected to the Hollister Earthquake (EQ 5).



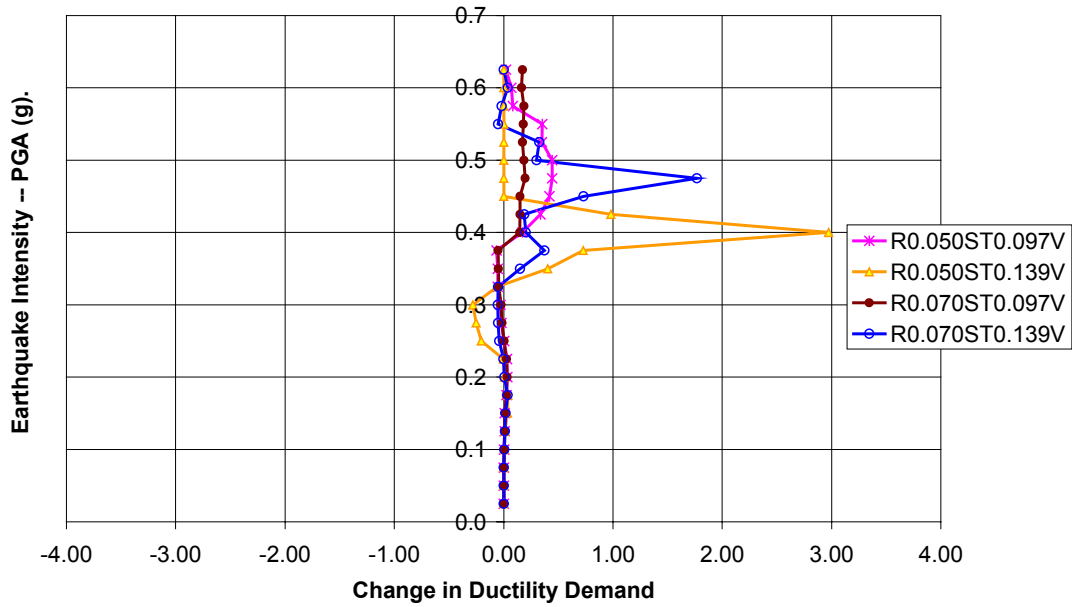
**Figure D1.3.3.5d – Park and Ang Damage Indices of the Boston 3 Story Models Subjected to the Hollister Earthquake (EQ 5).**



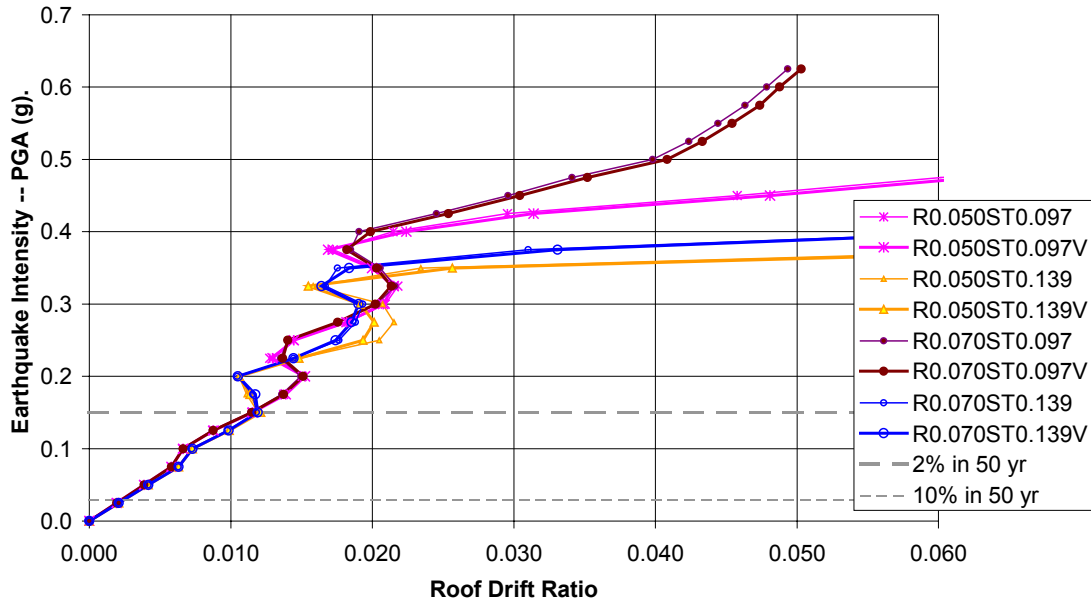
**Figure D1.3.3.5e – Kumar and Usami Damage Indices of the Boston 3 Story Models Subjected to the Hollister Earthquake (EQ 5).**



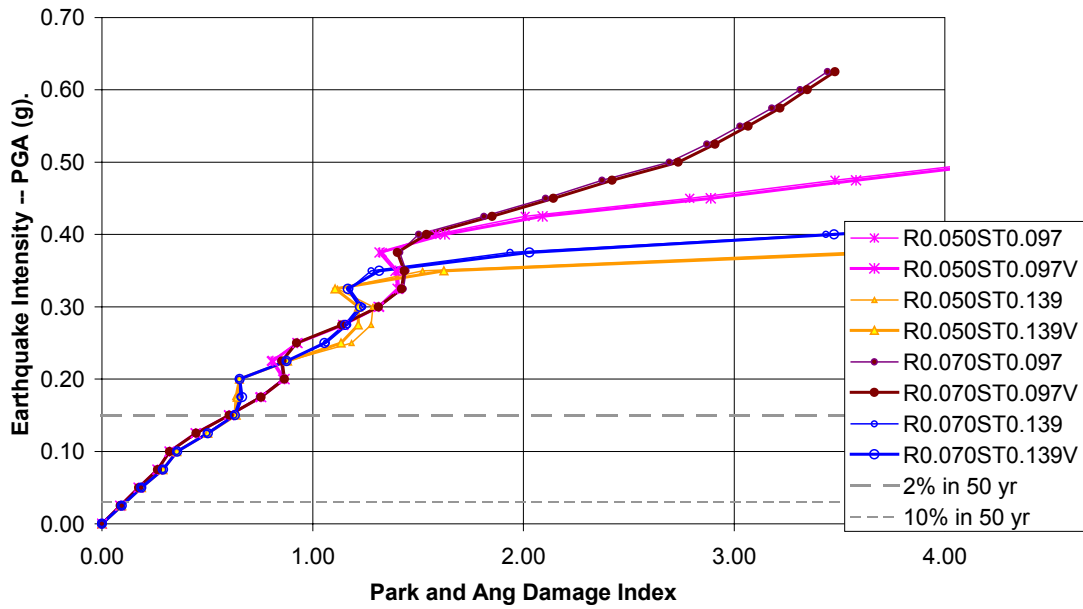
**Figure D1.3.3.9a – Ductility Demands of the Boston 3 Story Models Subjected to the Hollister Earthquake (EQ 9).**



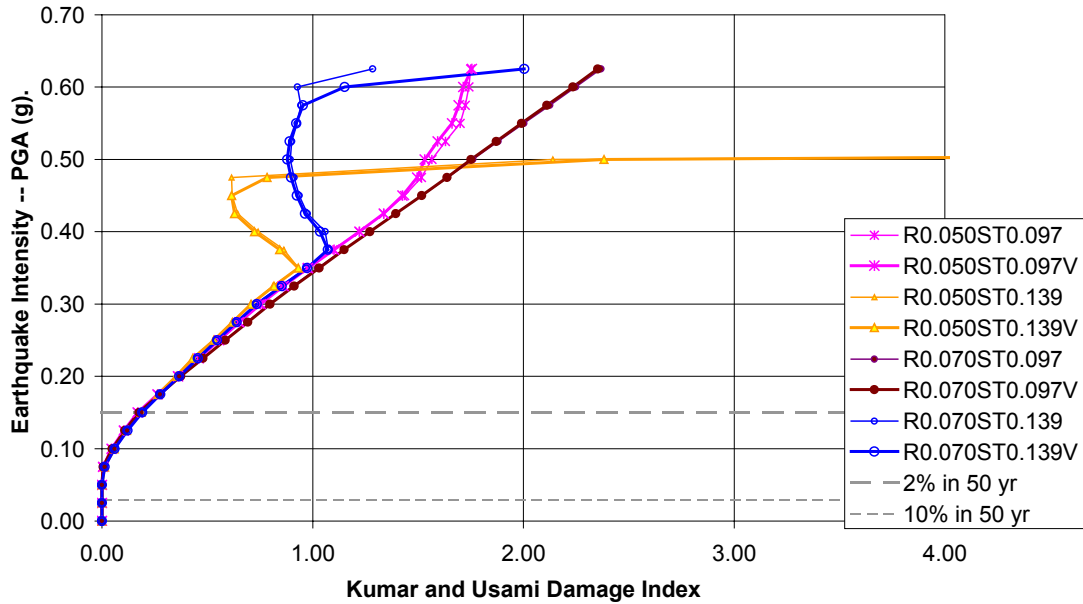
**Figure D1.3.3.9b – Change in Ductility Demands Due to Vertical Accelerations for the Boston 3 Story Models Subjected to the Northridge Earthquake (EQ 9).**



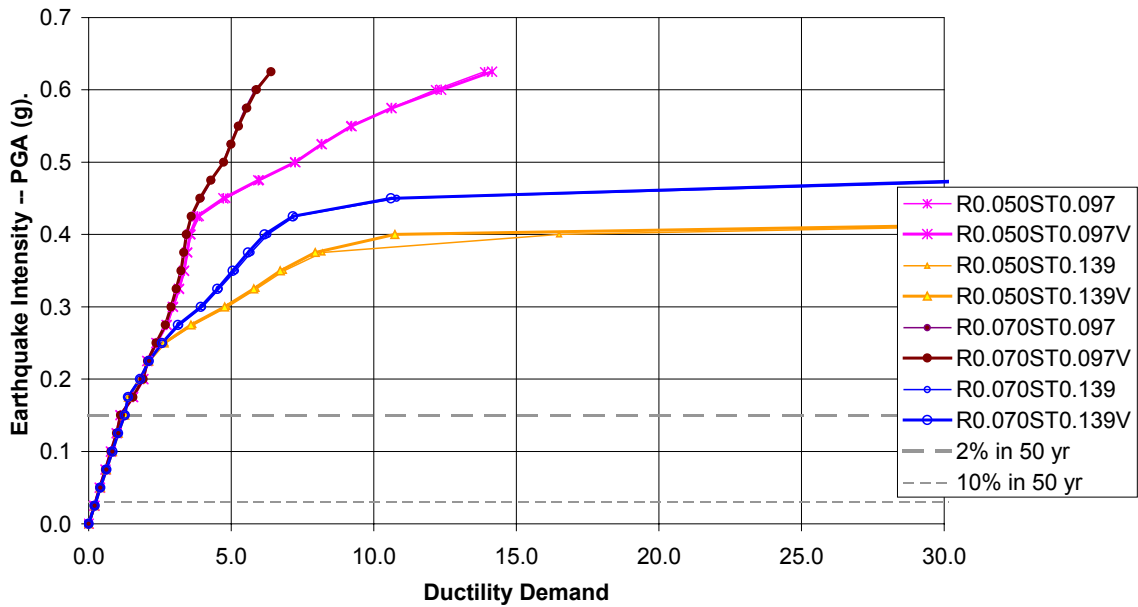
**Figure D1.3.3.9c – Roof Drift Ratio of the Boston 3 Story Models Subjected to the Northridge Earthquake (EQ 9).**



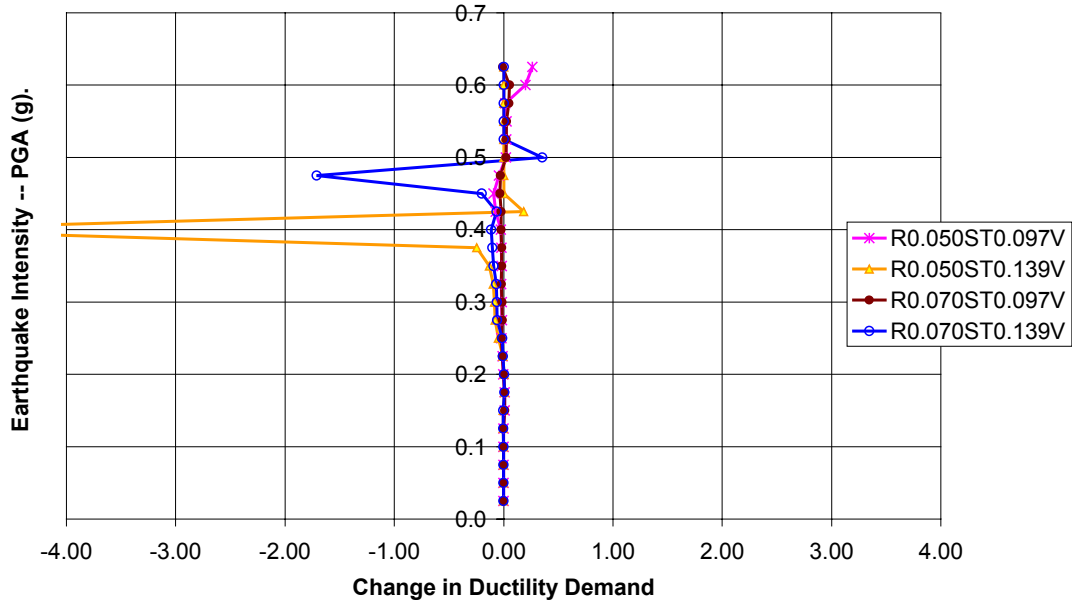
**Figure D1.3.3.9d – Park and Ang Damage Indices of the Boston 3 Story Models Subjected to the Northridge Earthquake (EQ 9).**



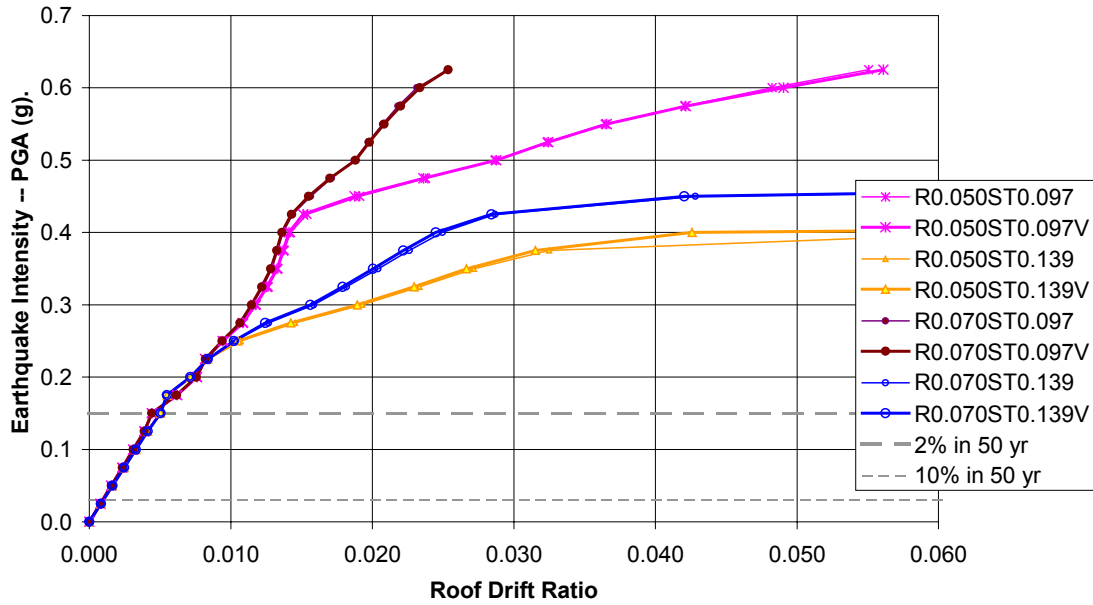
**Figure D1.3.3.9e – Kumar and Usami Damage Indices of the Boston 3 Story Models Subjected to the Northridge Earthquake (EQ 9).**



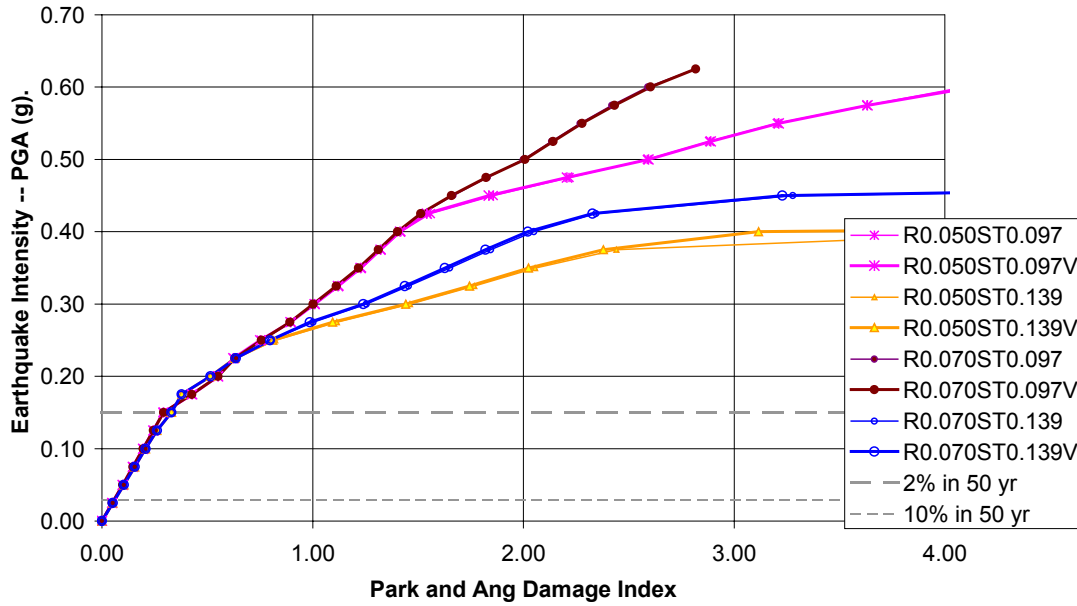
**Figure D1.3.5.4a – Ductility Demands of the Boston 5 Story Models Subjected to the Taft Earthquake (EQ 4).**



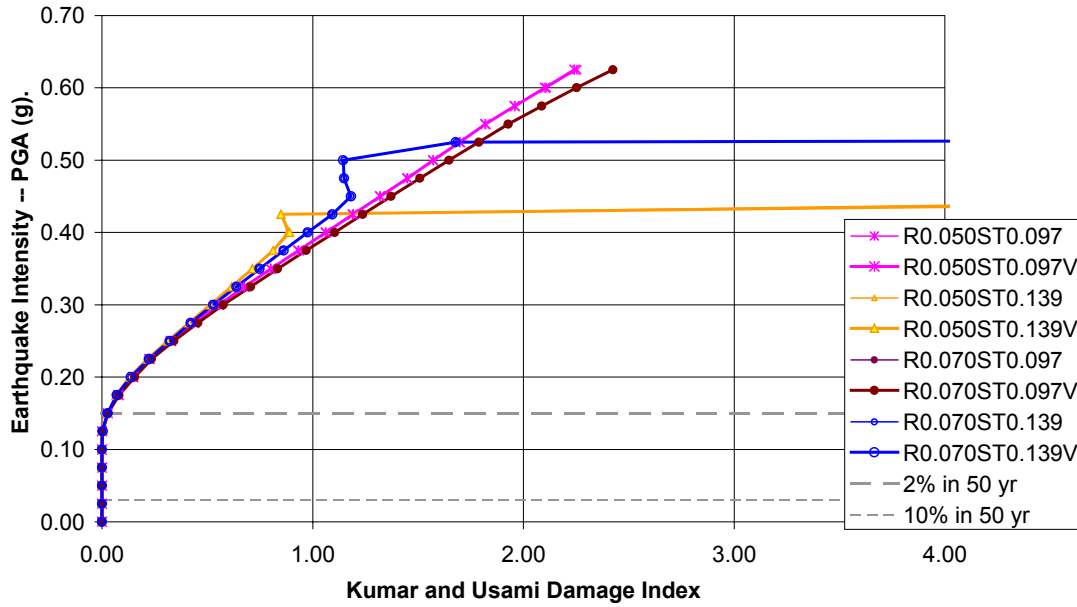
**Figure D1.3.5.4b – Change in Ductility Demands Due to Vertical Accelerations for the Boston 5 Story Models Subjected to the Taft Earthquake (EQ 4).**



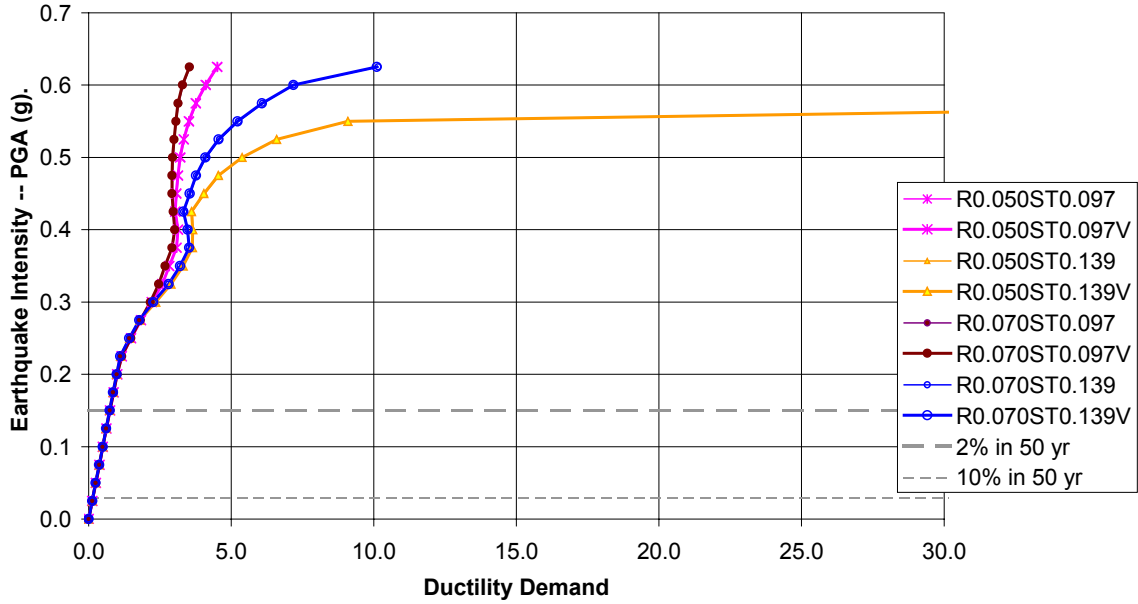
**Figure D1.3.5.4c – Roof Drift Ratio of the Boston 5 Story Models Subjected to the Taft Earthquake (EQ 4).**



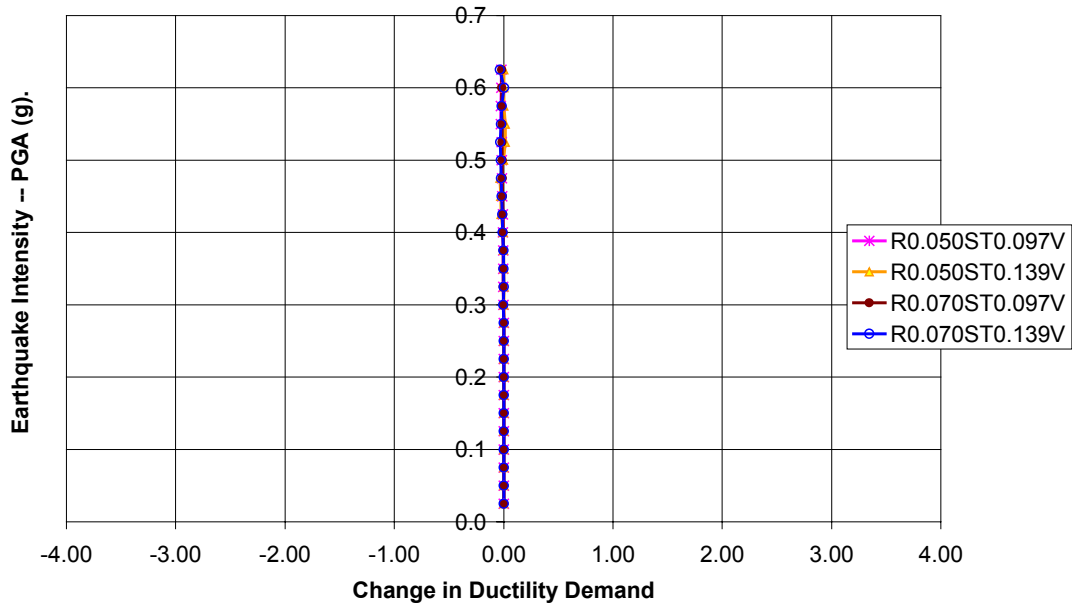
**Figure D1.3.5.4d – Park and Ang Damage Indices of the Boston 5 Story Models Subjected to the Taft Earthquake (EQ 4).**



**Figure D1.3.5.4e – Kumar and Usami Damage Indices of the Boston 5 Story Models Subjected to the Taft Earthquake (EQ 4).**

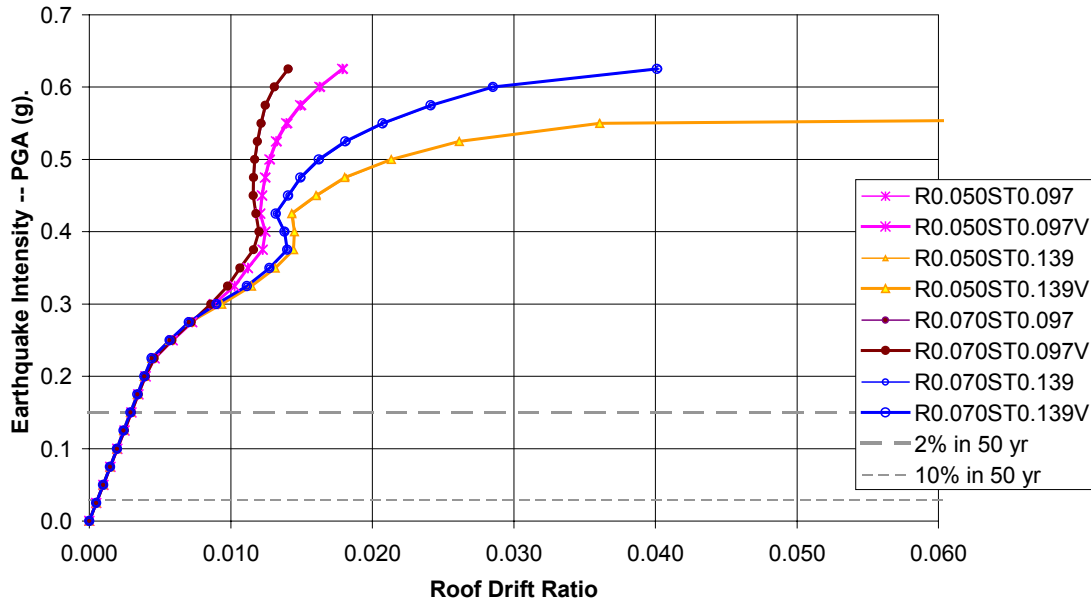


**Figure D1.3.5.5a – Ductility Demands of the Boston 5 Story Models Subjected to the Hollister Earthquake (EQ 5).**

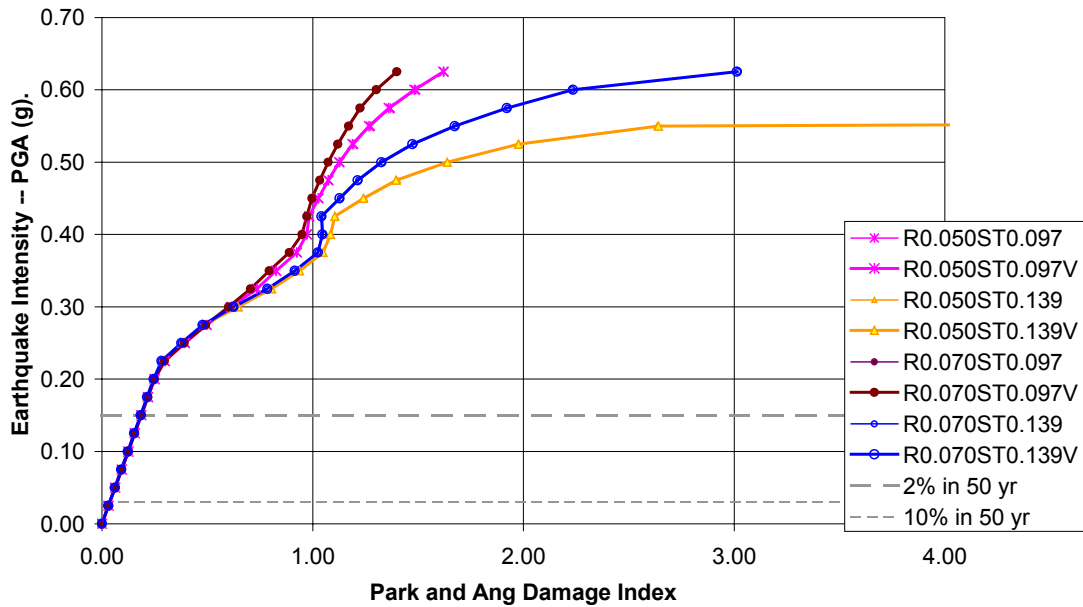


**Figure D1.3.5.5b – Change in Ductility Demands Due to Vertical Accelerations for the Boston 5 Story Models Subjected to the Hollister Earthquake (EQ 5).**

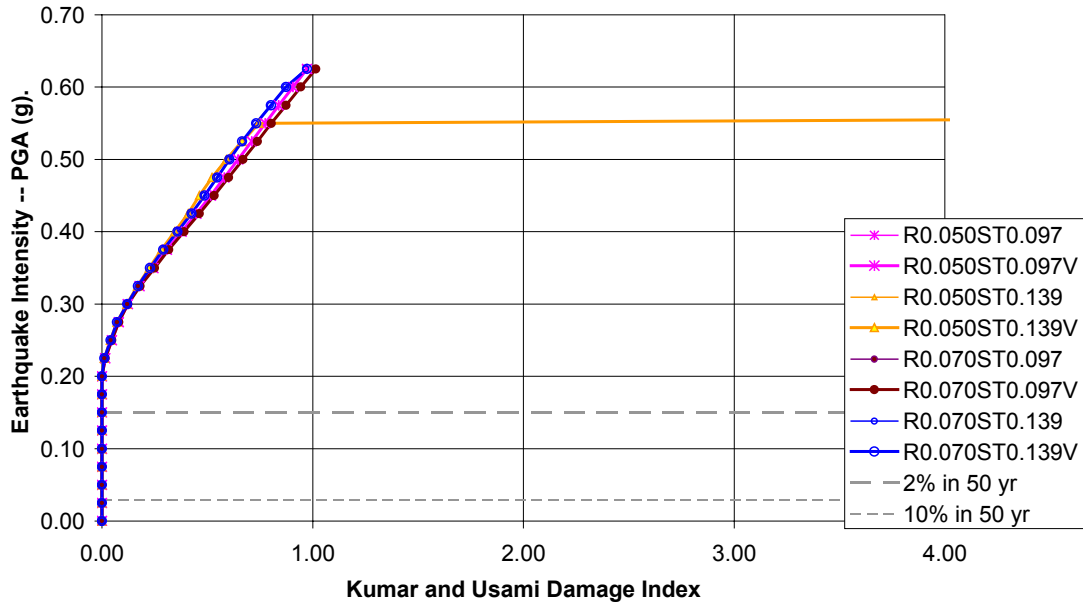




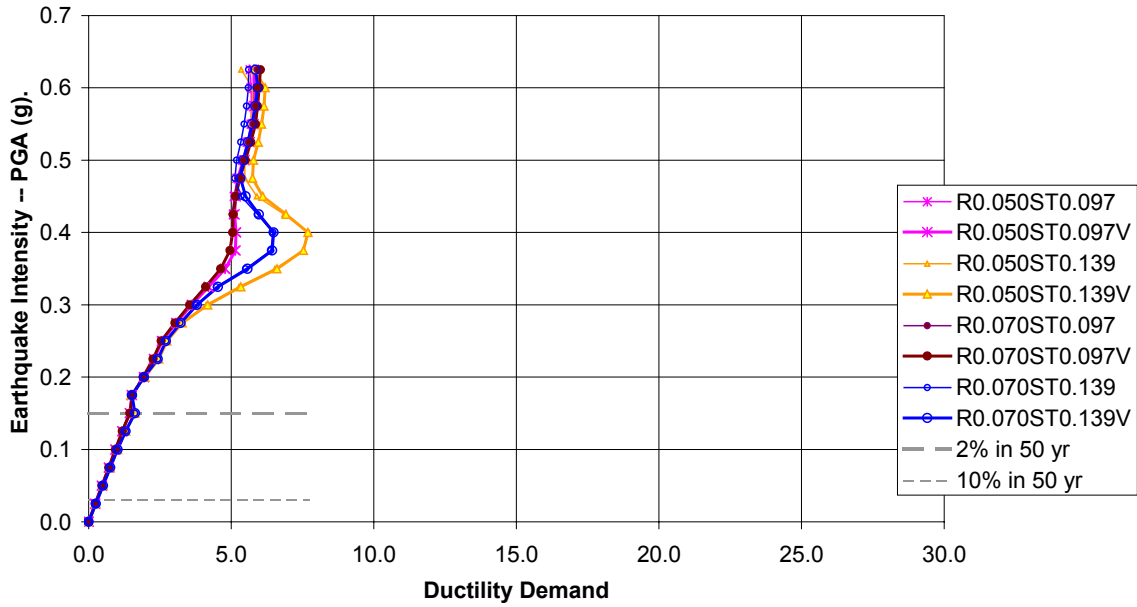
**Figure D1.3.5.5c – Roof Drift Ratio of the Boston 5 Story Models Subjected to the Hollister Earthquake (EQ 5).**



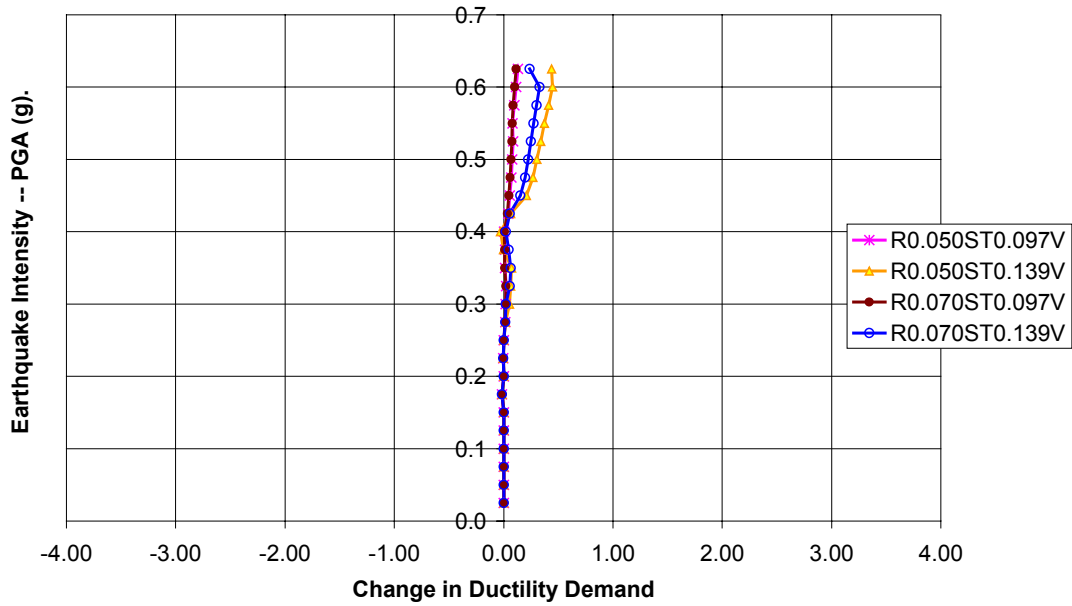
**Figure D1.3.5.5d – Park and Ang Damage Indices of the Boston 5 Story Models Subjected to the Hollister Earthquake (EQ 5).**



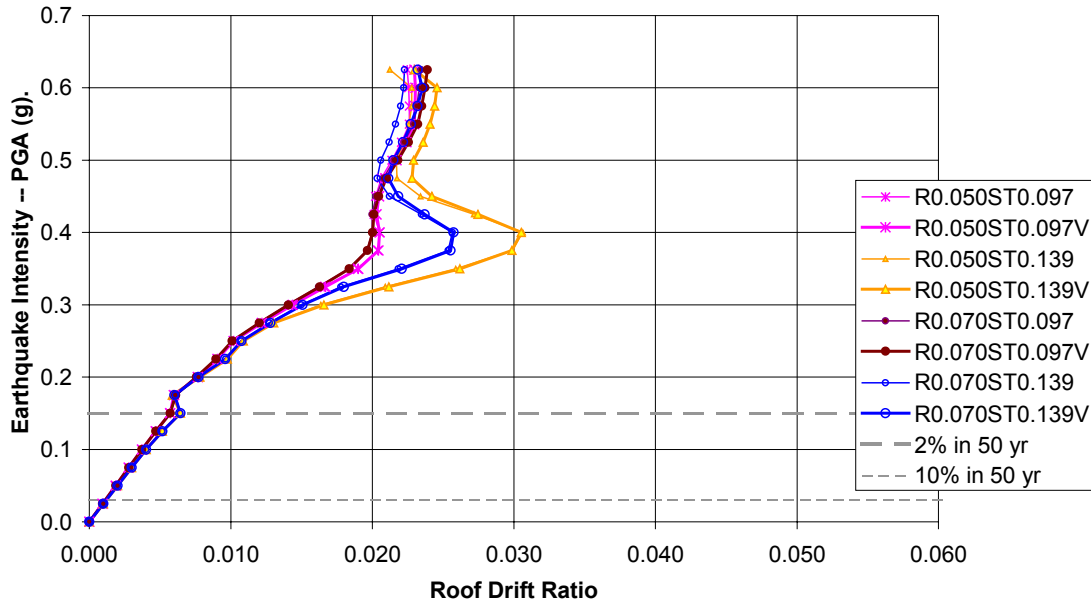
**Figure D1.3.5.5e – Kumar and Usami Damage Indices of the Boston 5 Story Models Subjected to the Hollister Earthquake (EQ 5).**



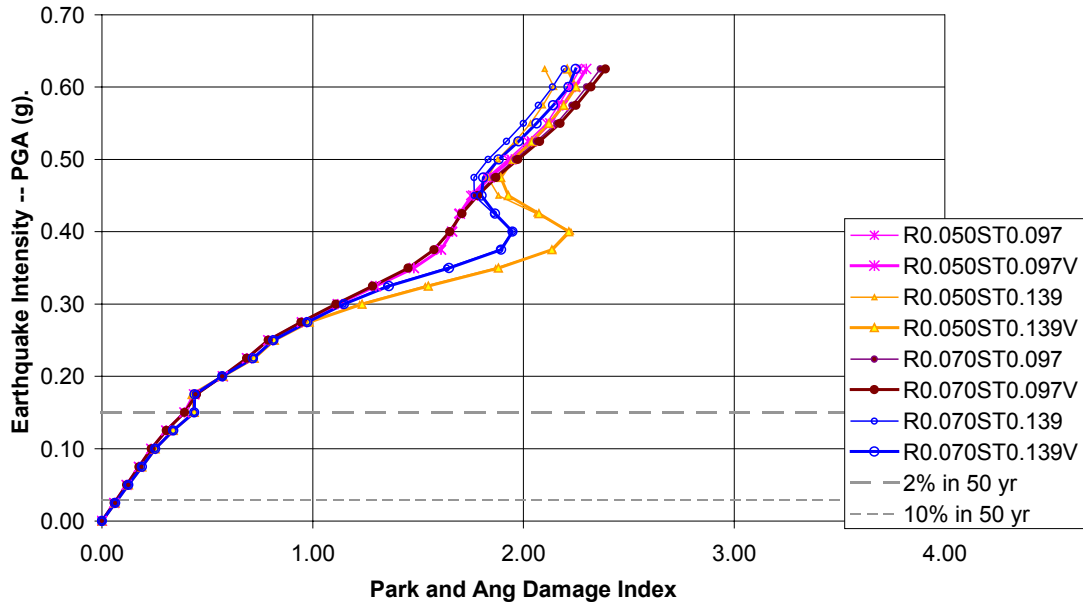
**Figure D1.3.5.9a – Ductility Demands of the Boston 5 Story Models Subjected to the Hollister Earthquake (EQ 9).**



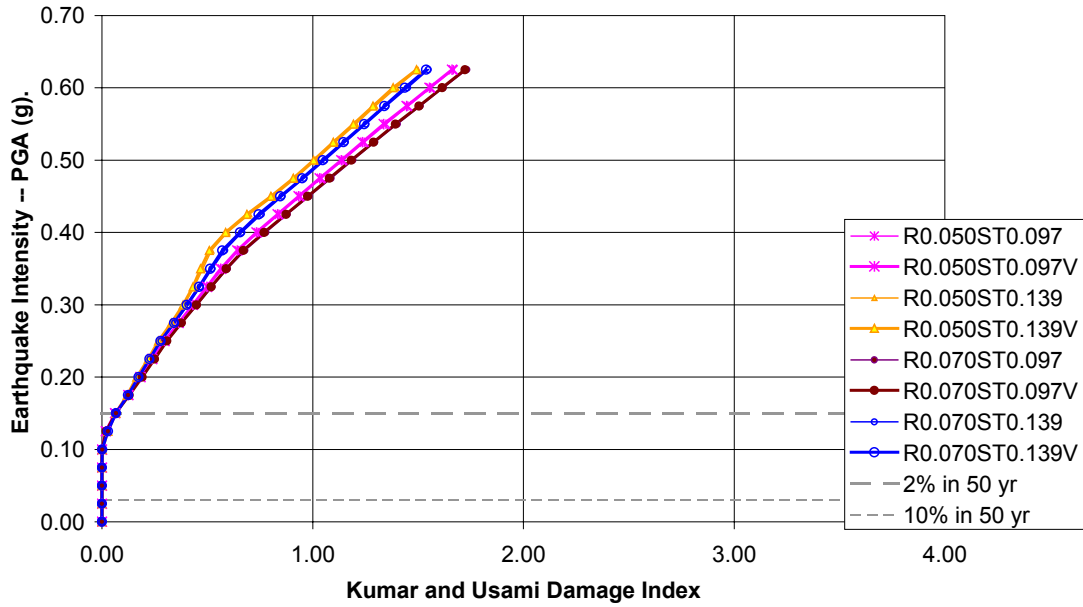
**Figure D1.3.5.9b – Change in Ductility Demands Due to Vertical Accelerations for the Boston 5 Story Models Subjected to the Northridge Earthquake (EQ 9).**



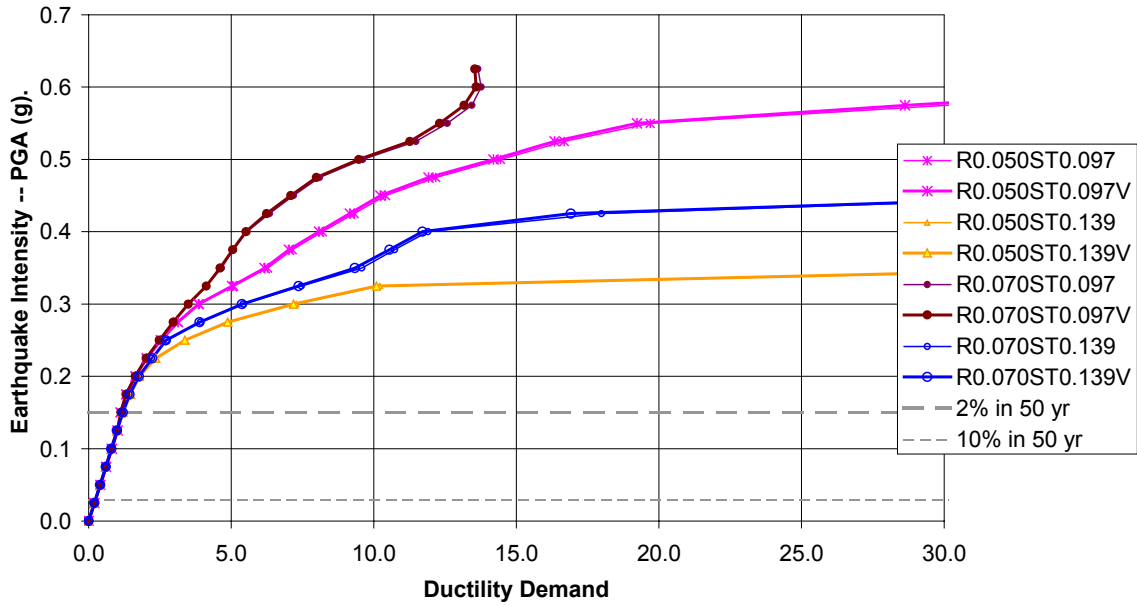
**Figure D1.3.5.9c – Roof Drift Ratio of the Boston 5 Story Models Subjected to the Northridge Earthquake (EQ 9).**



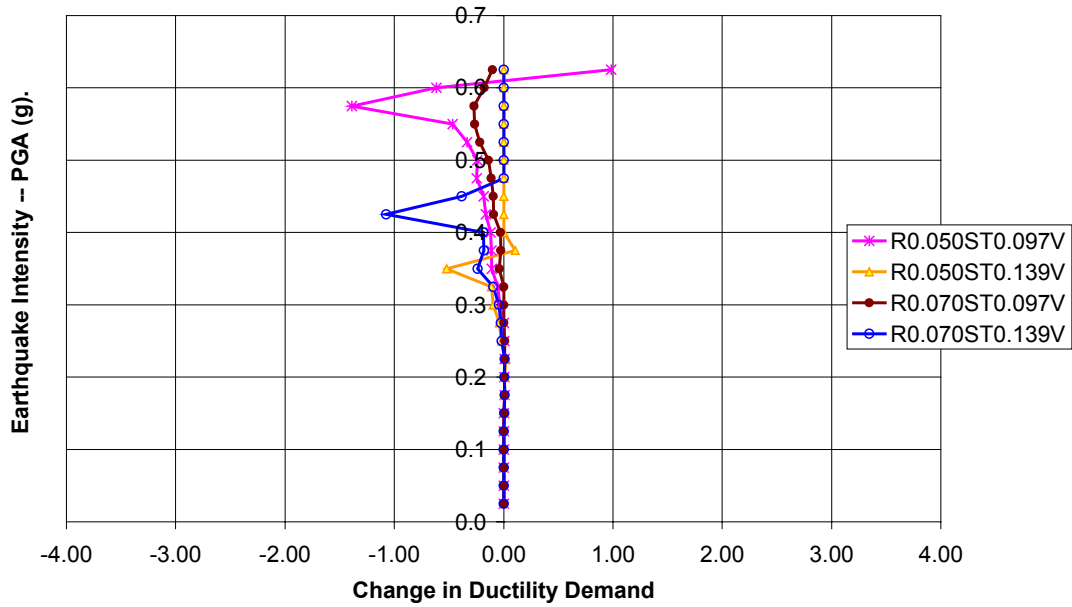
**Figure D1.3.5.9d – Park and Ang Damage Indices of the Boston 5 Story Models Subjected to the Northridge Earthquake (EQ 9).**



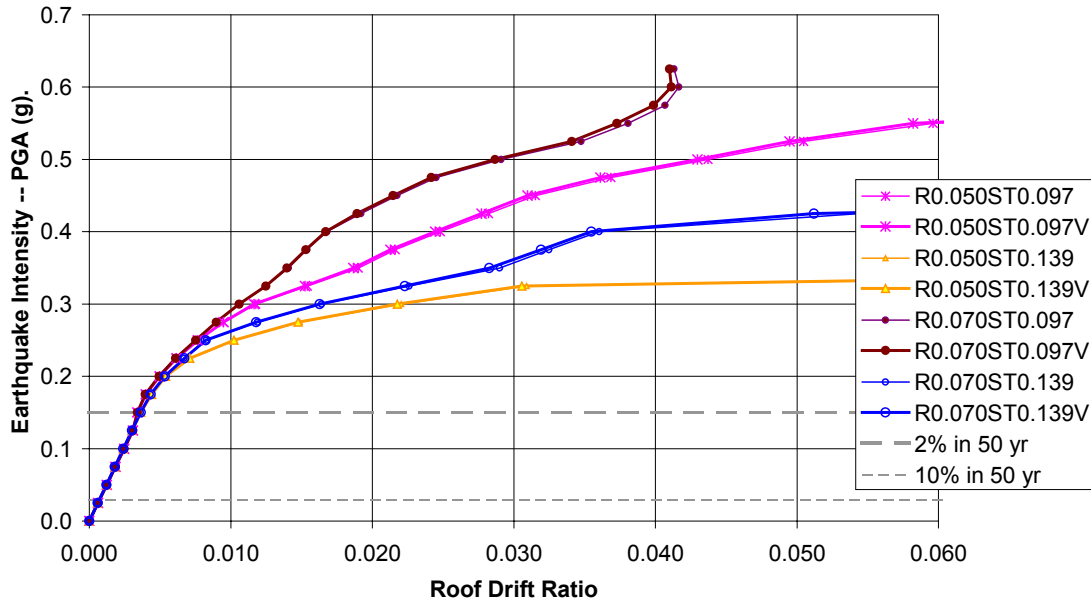
**Figure D1.3.5.9e – Kumar and Usami Damage Indices of the Boston 5 Story Models Subjected to the Northridge Earthquake (EQ 9).**



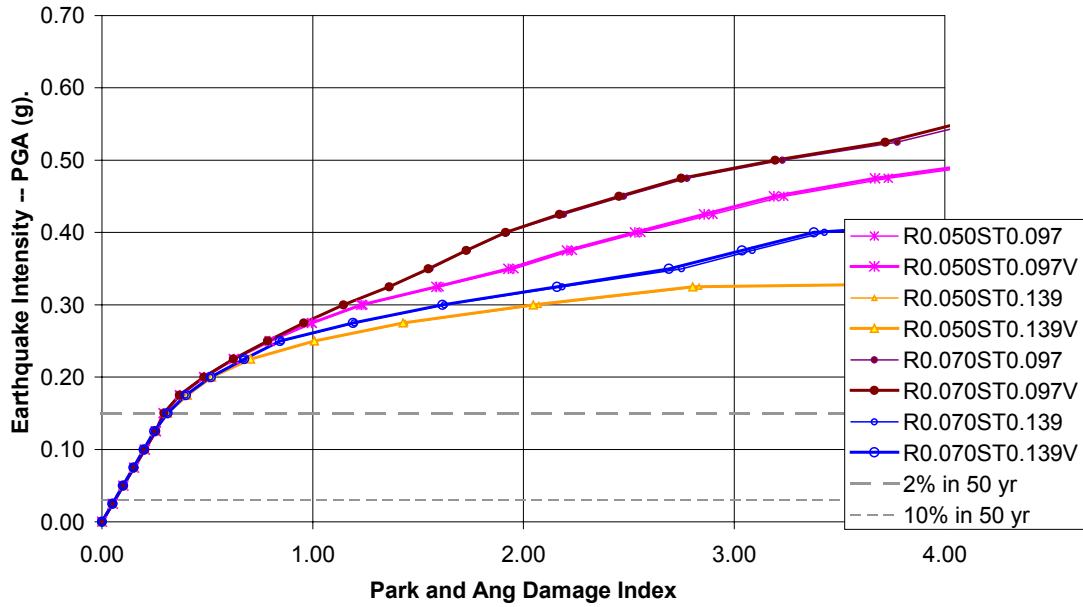
**Figure D1.3.7.4a – Ductility Demands of the Boston 7 Story Models Subjected to the Taft Earthquake (EQ 4).**



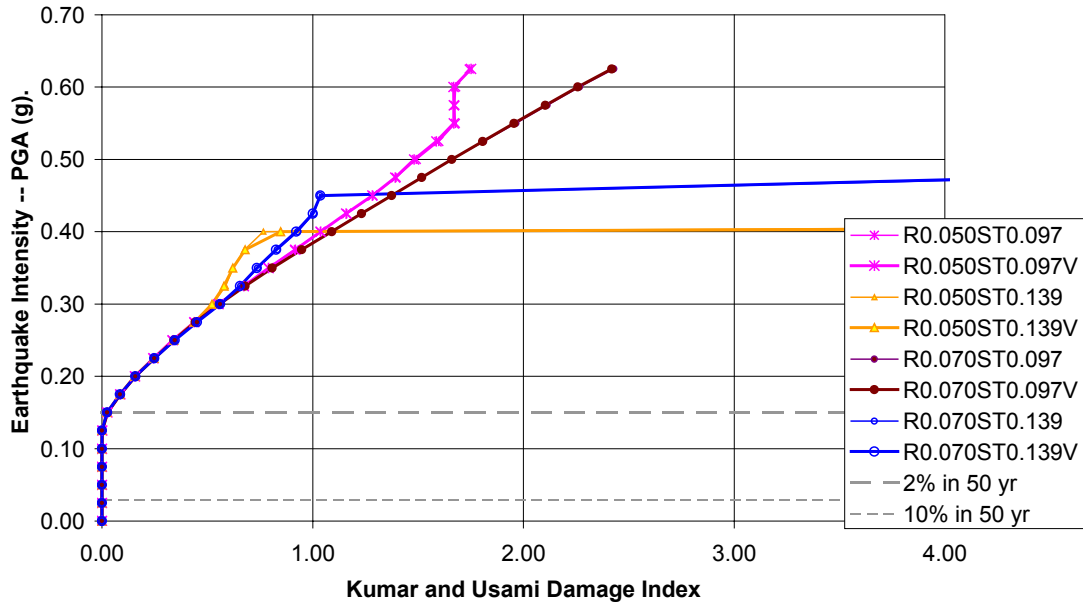
**Figure D1.3.7.4b – Change in Ductility Demands Due to Vertical Accelerations for the Boston 7 Story Models Subjected to the Taft Earthquake (EQ 4).**



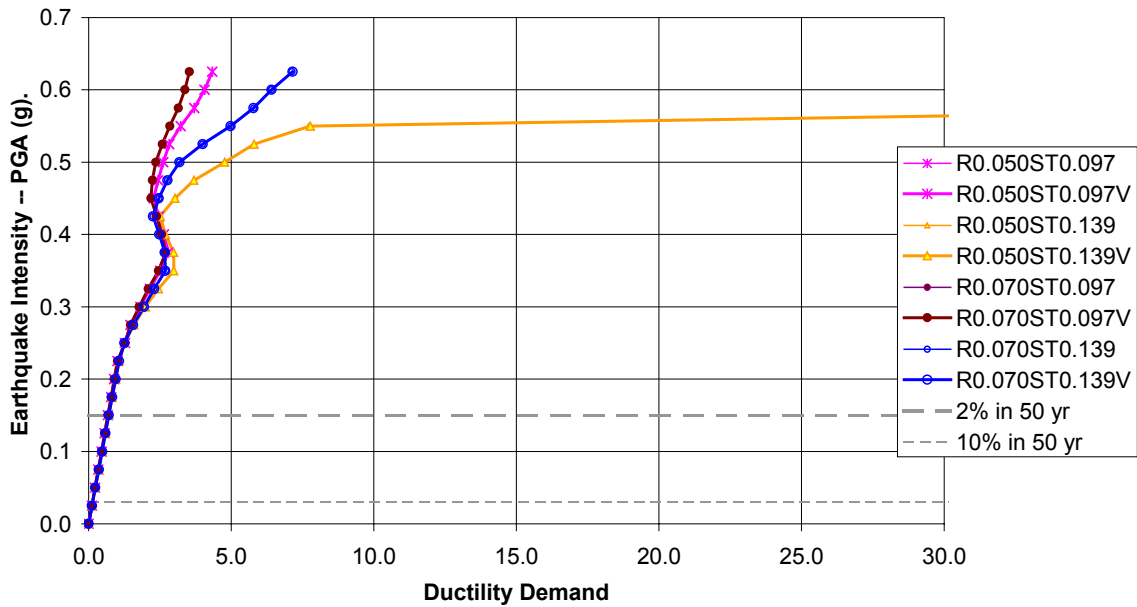
**Figure D1.3.7.4c – Roof Drift Ratio of the Boston 7 Story Models Subjected to the Taft Earthquake (EQ 4).**



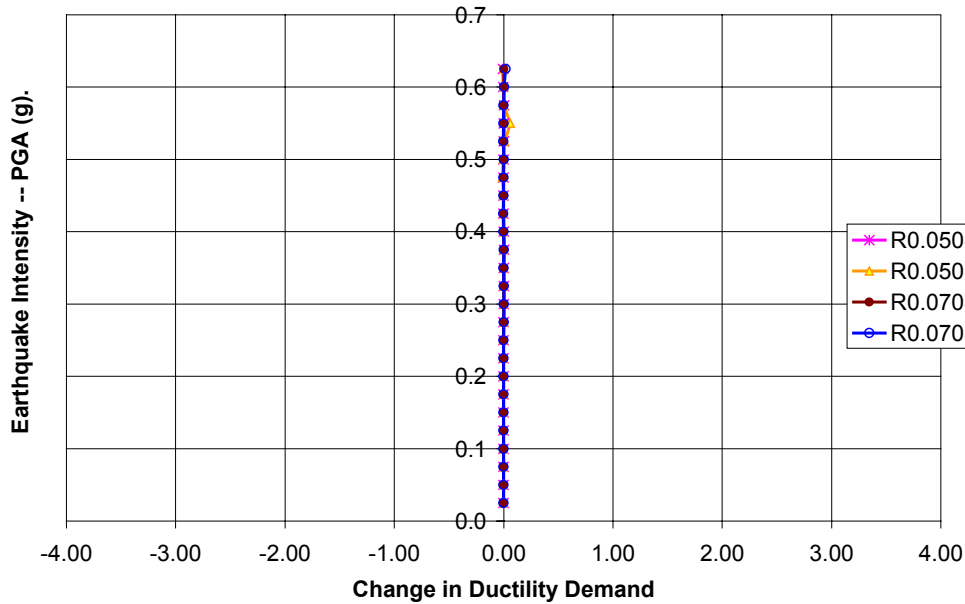
**Figure D1.3.7.4d – Park and Ang Damage Indices of the Boston 7 Story Models Subjected to the Taft Earthquake (EQ 4).**



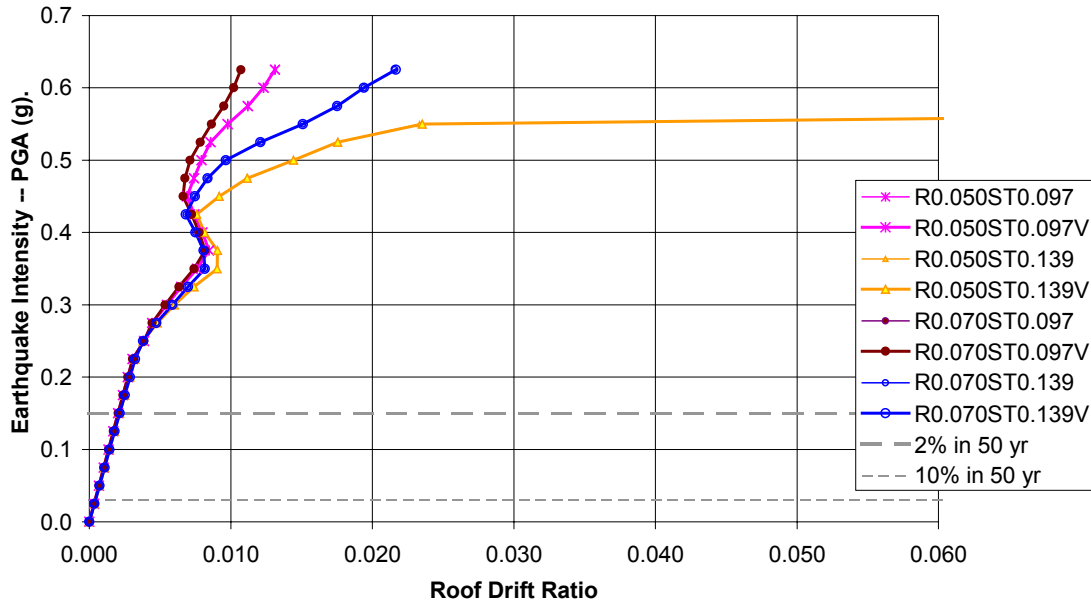
**Figure D1.3.7.4e – Kumar and Usami Damage Indices of the Boston 7 Story Models Subjected to the Taft Earthquake (EQ 4).**



**Figure D1.3.7.5a – Ductility Demands of the Boston 7 Story Models Subjected to the Hollister Earthquake (EQ 5).**

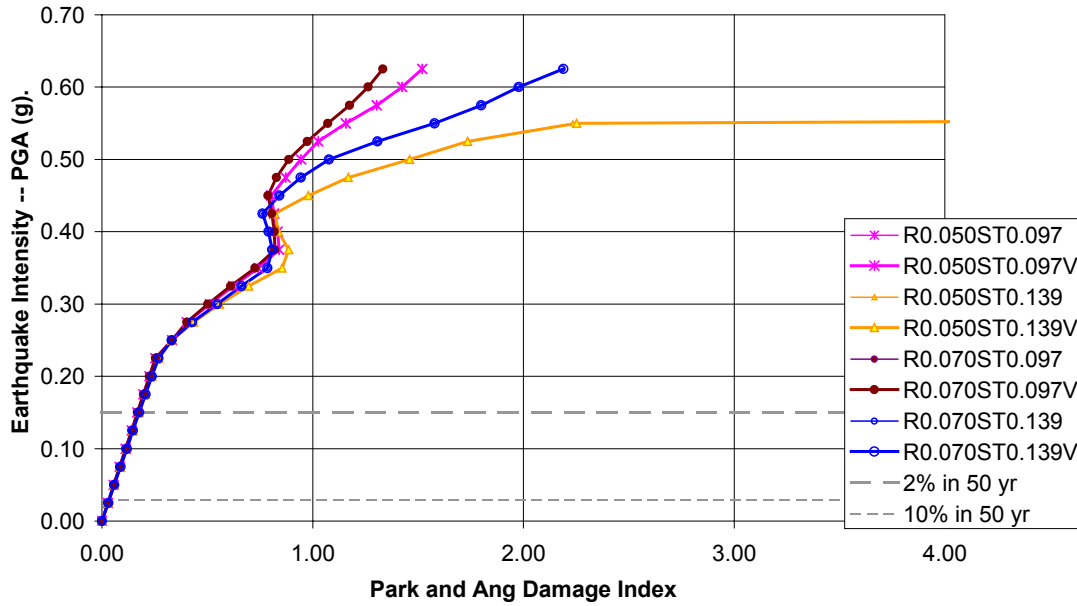


**Figure D1.3.7.5b – Change in Ductility Demands Due to Vertical Accelerations for the Boston 7 Story Models Subjected to the Hollister Earthquake (EQ 5).**

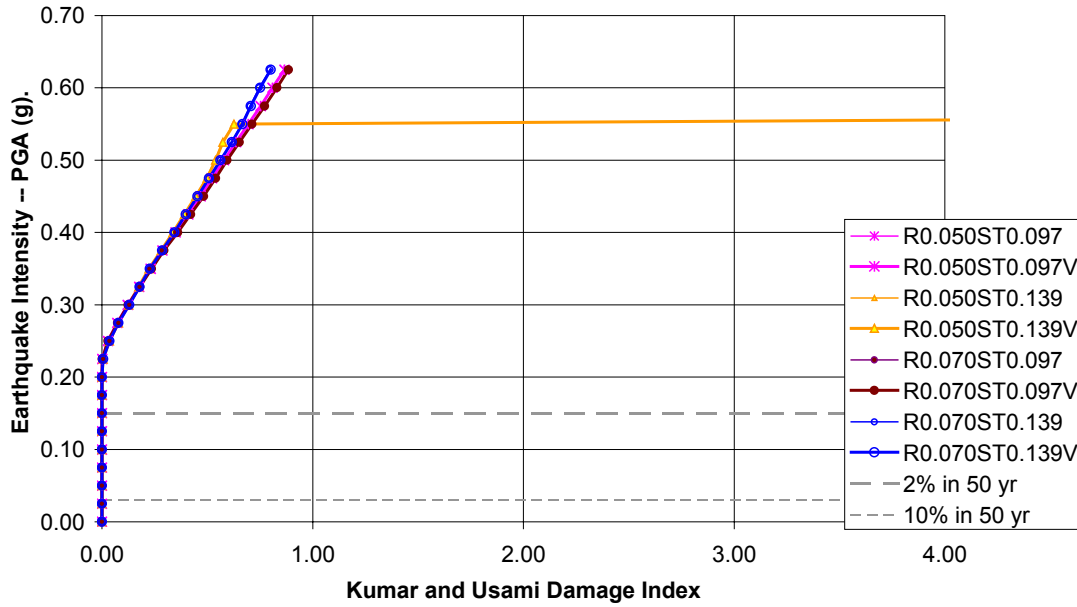


**Figure D1.3.7.5c – Roof Drift Ratio of the Boston 7 Story Models Subjected to the Hollister Earthquake (EQ 5).**

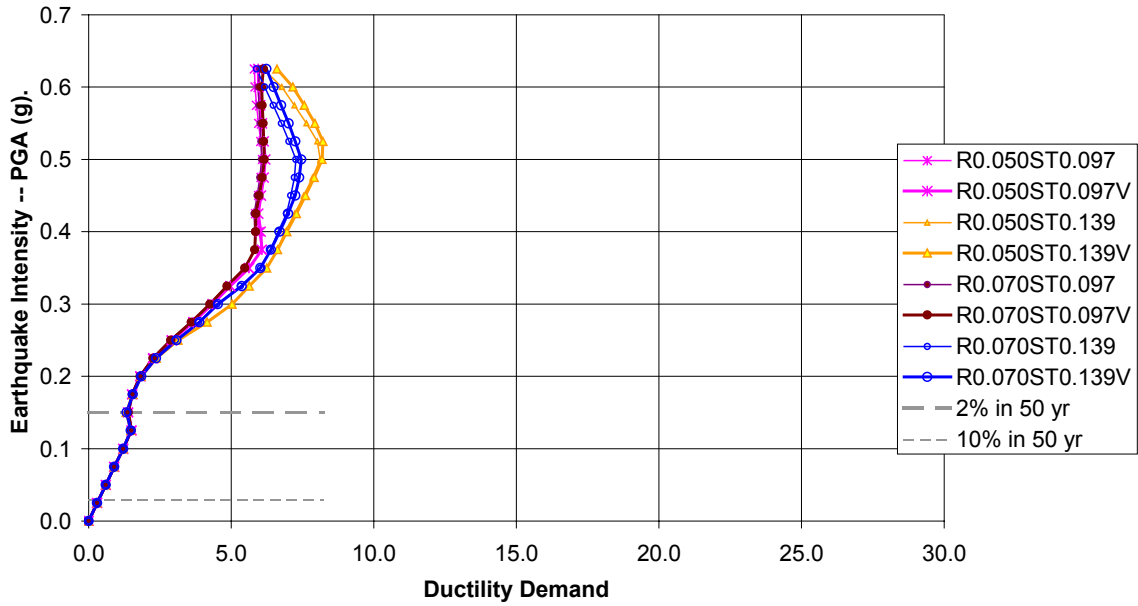




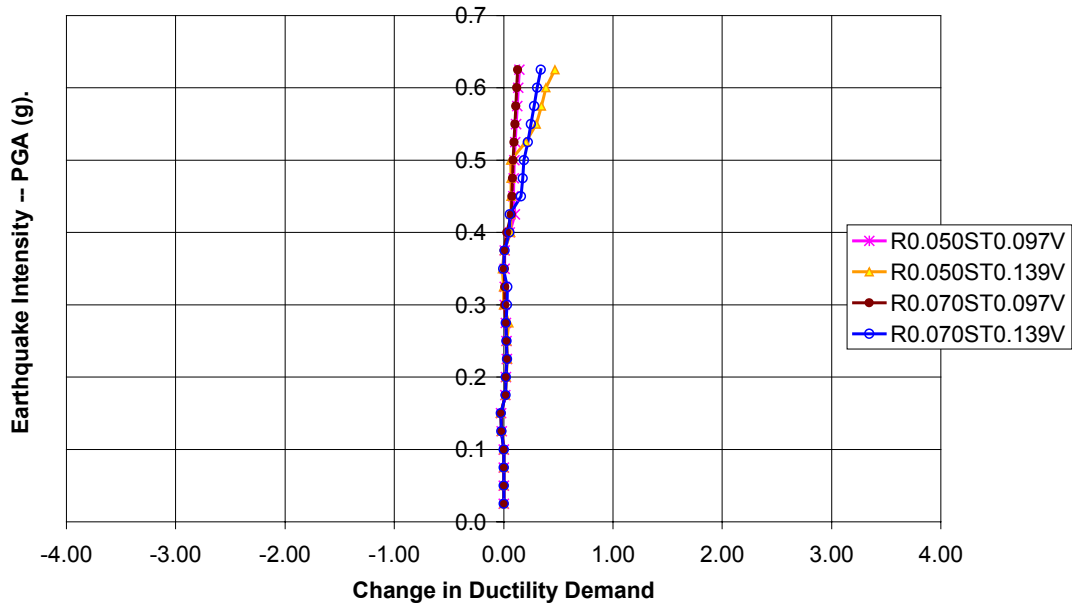
**Figure D1.3.7.5d – Park and Ang Damage Indices of the Boston 7 Story Models Subjected to the Hollister Earthquake (EQ 5).**



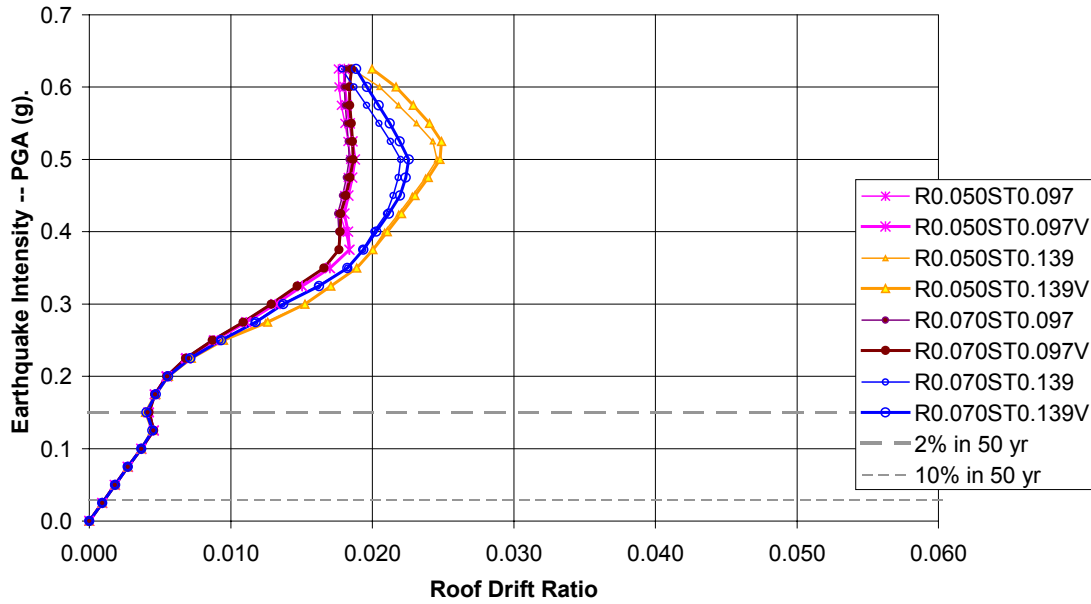
**Figure D1.3.7.5e – Kumar and Usami Damage Indices of the Boston 7 Story Models Subjected to the Hollister Earthquake (EQ 5).**



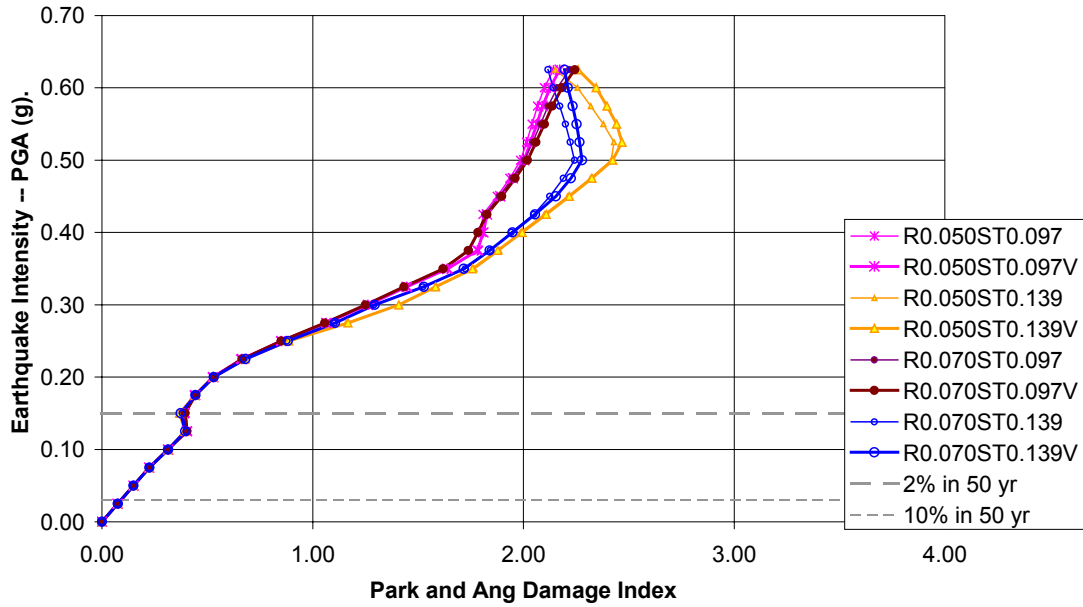
**Figure D1.3.7.9a – Ductility Demands of the Boston 7 Story Models Subjected to the Hollister Earthquake (EQ 9).**



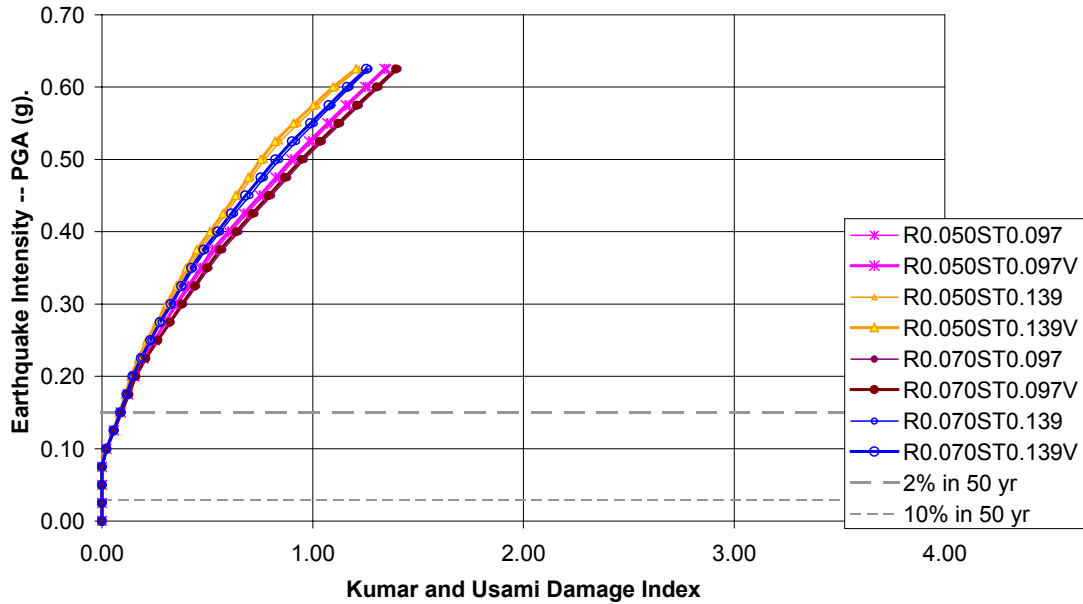
**Figure D1.3.7.9b – Change in Ductility Demands Due to Vertical Accelerations for the Boston 7 Story Models Subjected to the Northridge Earthquake (EQ 9).**



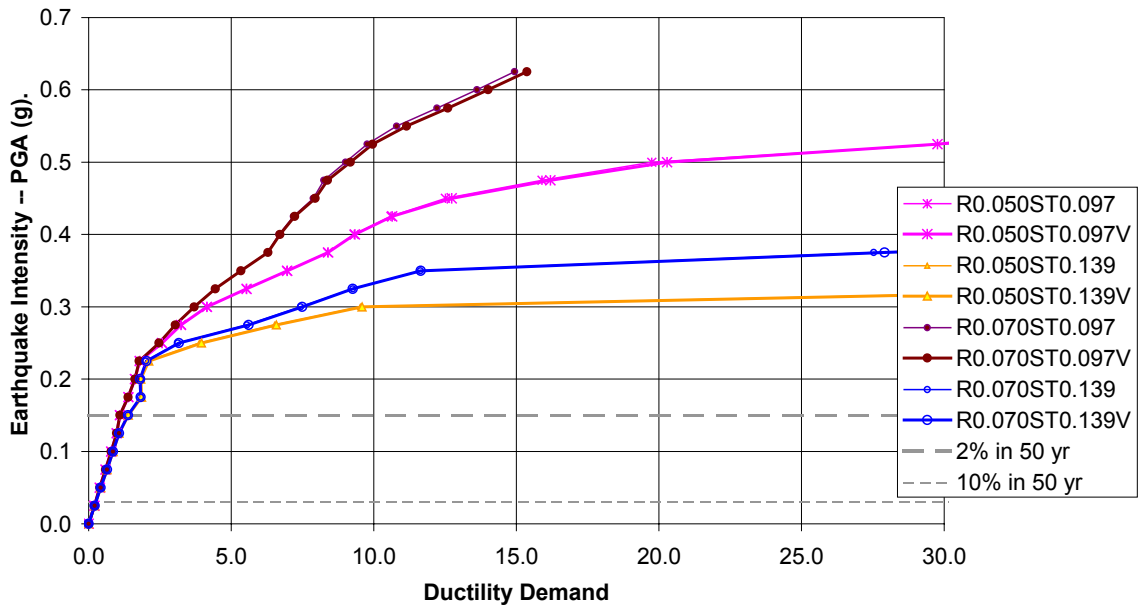
**Figure D1.3.7.9c – Roof Drift Ratio of the Boston 7 Story Models Subjected to the Northridge Earthquake (EQ 9).**



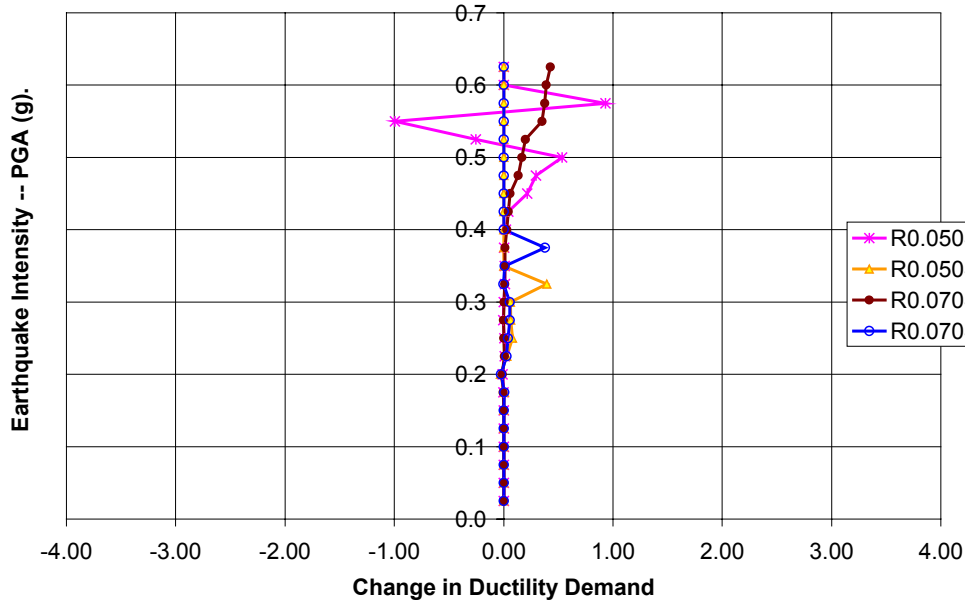
**Figure D1.3.7.9d – Park and Ang Damage Indices of the Boston 7 Story Models Subjected to the Northridge Earthquake (EQ 9).**



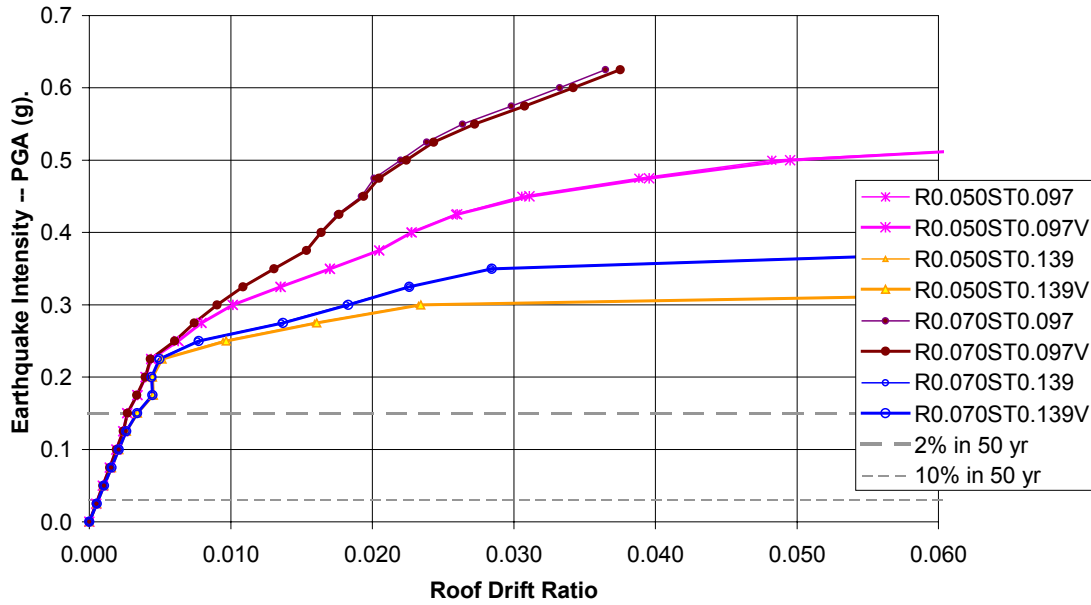
**Figure D1.3.7.9e – Kumar and Usami Damage Indices of the Boston 7 Story Models Subjected to the Northridge Earthquake (EQ 9).**



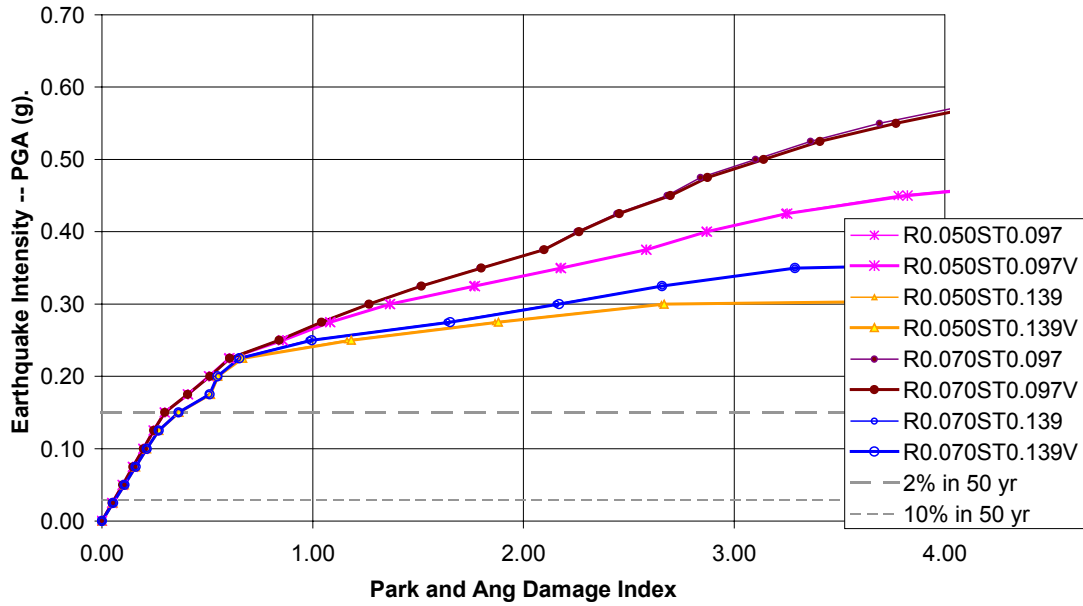
**Figure D1.3.9.4a – Ductility Demands of the Boston 9 Story Models Subjected to the Taft Earthquake (EQ 4).**



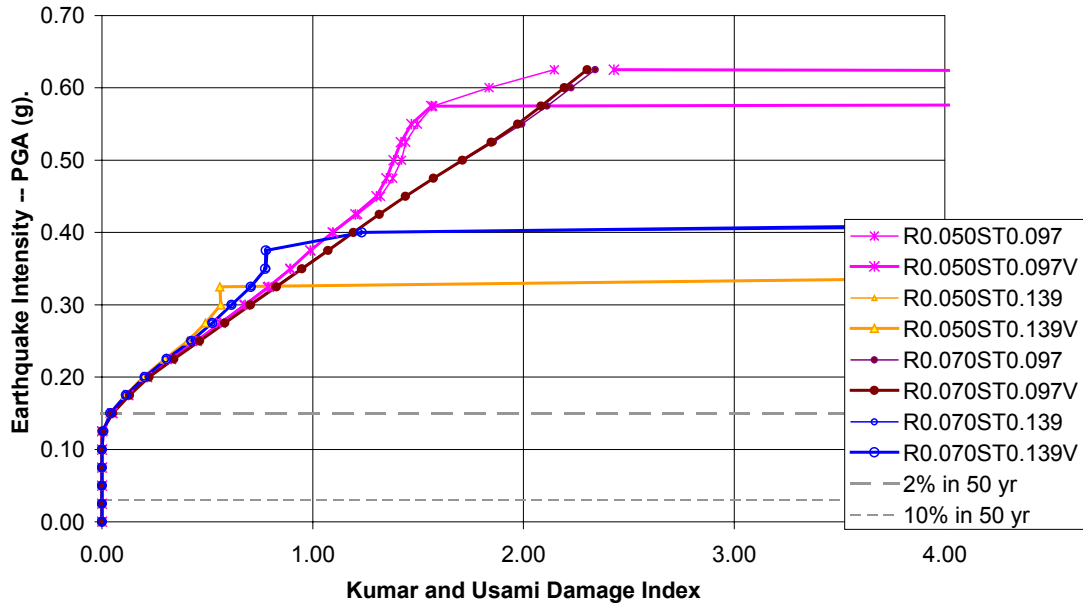
**Figure D1.3.9.4b – Change in Ductility Demands Due to Vertical Accelerations for the Boston 9 Story Models Subjected to the Taft Earthquake (EQ 4).**



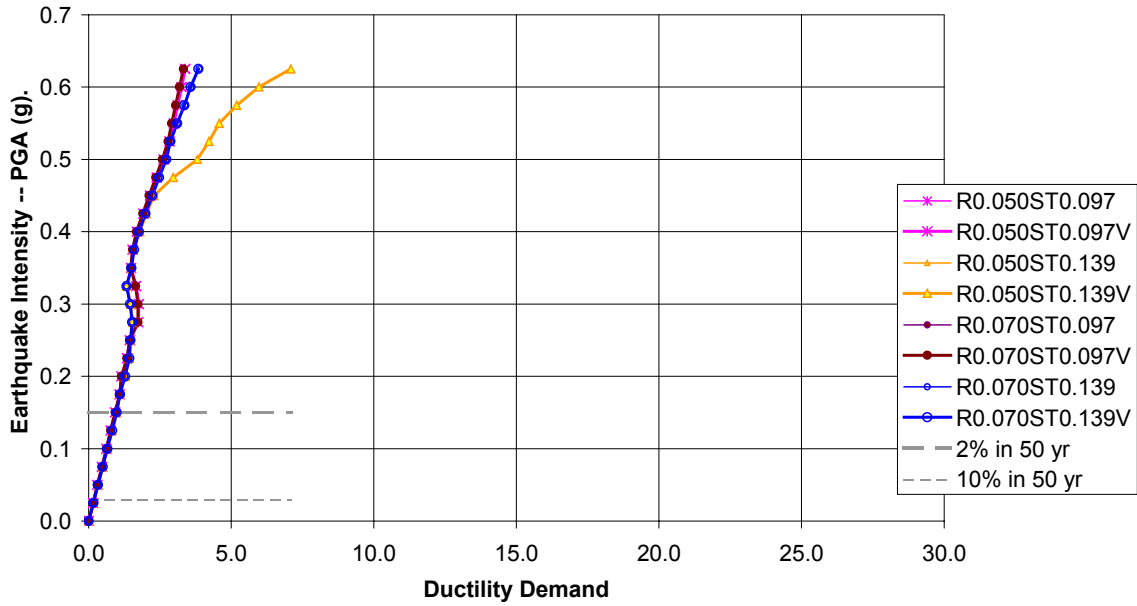
**Figure D1.3.9.4c – Roof Drift Ratio of the Boston 9 Story Models Subjected to the Taft Earthquake (EQ 4).**



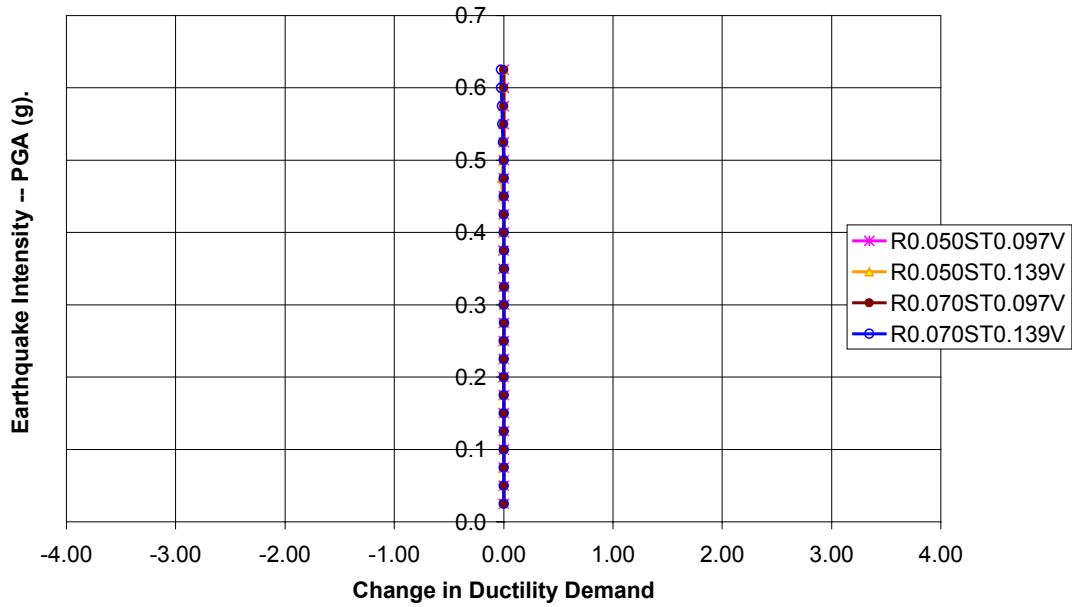
**Figure D1.3.9.4d – Park and Ang Damage Indices of the Boston 9 Story Models Subjected to the Taft Earthquake (EQ 4).**



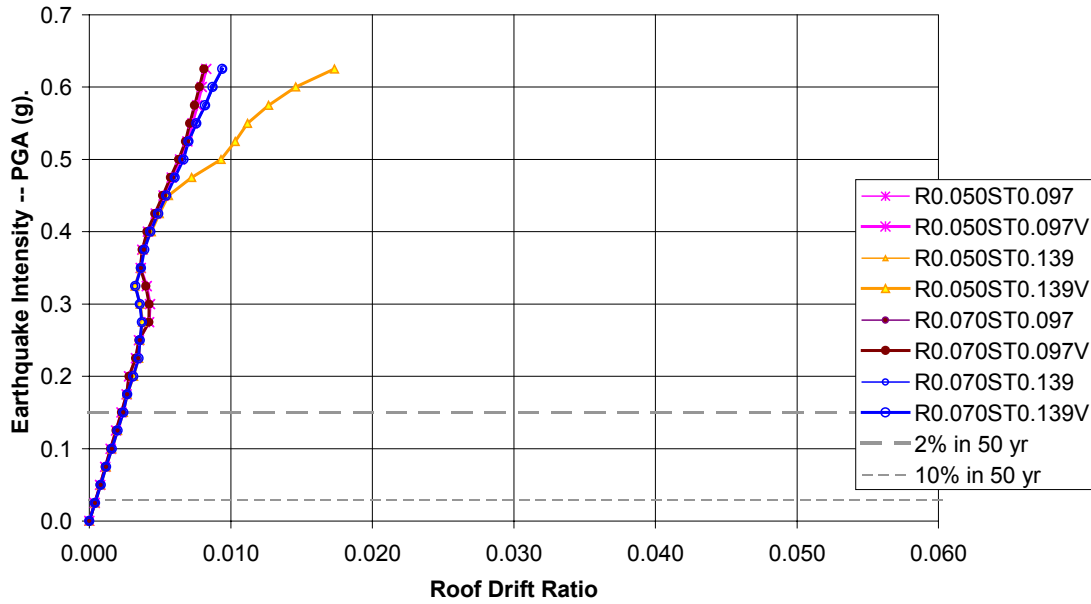
**Figure D1.3.9.4e – Kumar and Usami Damage Indices of the Boston 9 Story Models Subjected to the Taft Earthquake (EQ 4).**



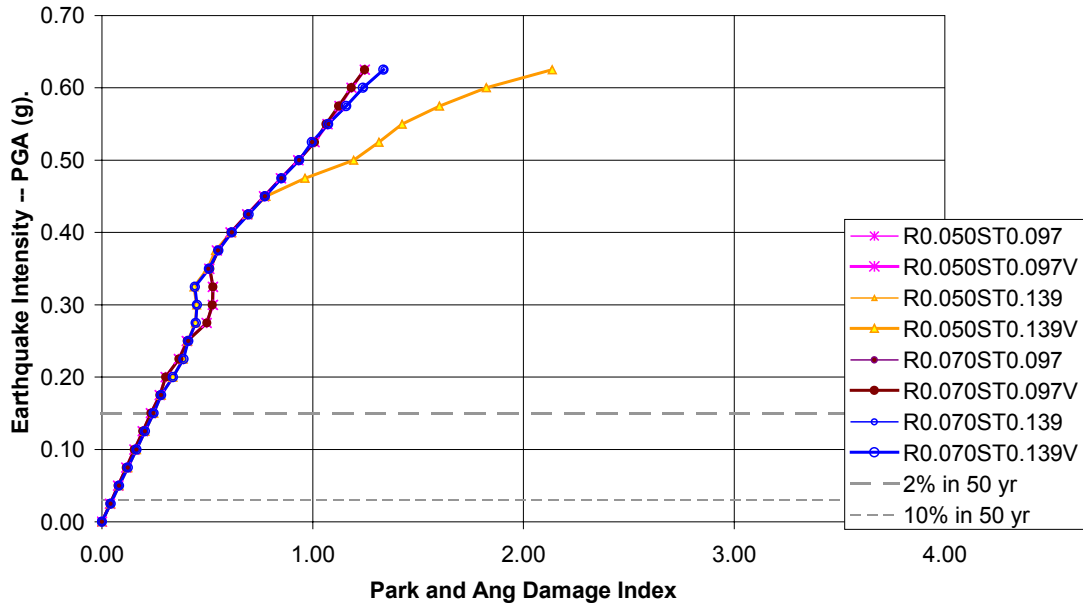
**Figure D1.3.9.5a – Ductility Demands of the Boston 9 Story Models Subjected to the Hollister Earthquake (EQ 5).**



**Figure D1.3.9.5b – Change in Ductility Demands Due to Vertical Accelerations for the Boston 9 Story Models Subjected to the Hollister Earthquake (EQ 5).**

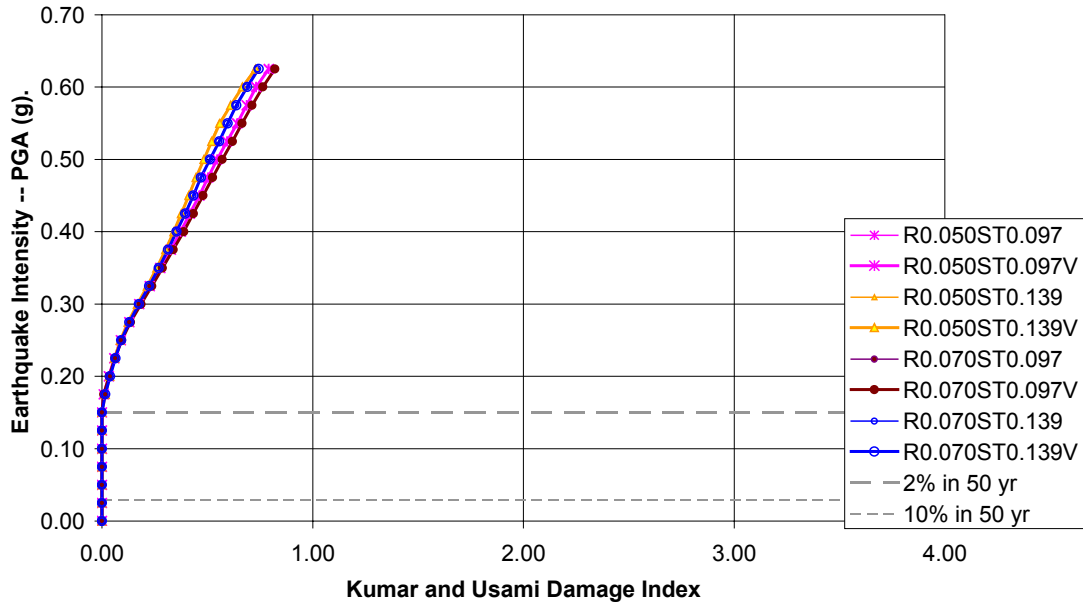


**Figure D1.3.9.5c – Roof Drift Ratio of the Boston 9 Story Models Subjected to the Hollister Earthquake (EQ 5).**

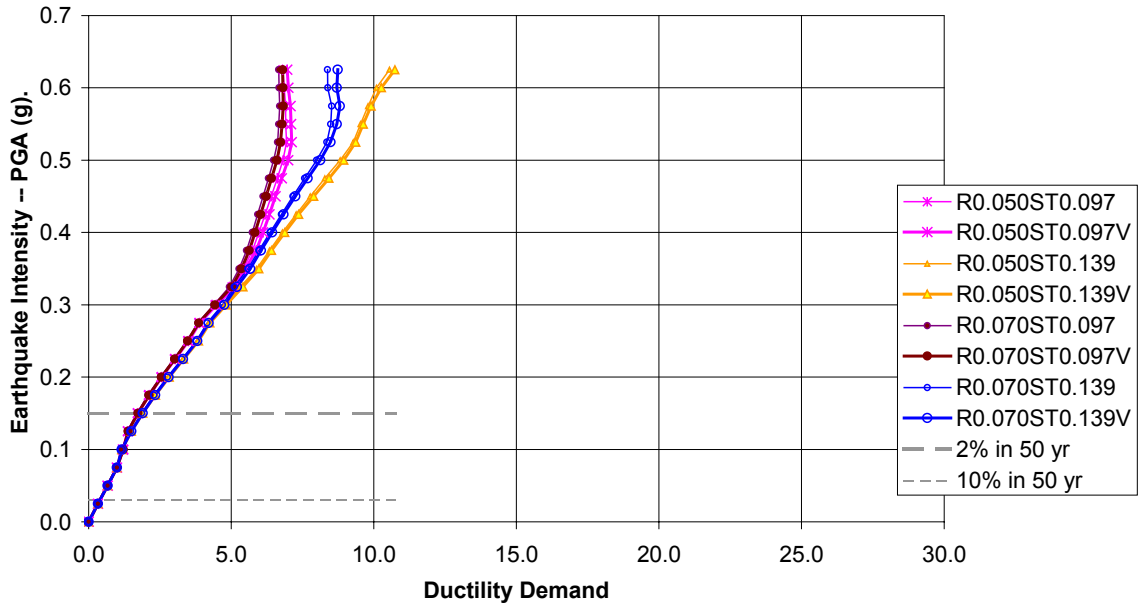


**Figure D1.3.9.5d – Park and Ang Damage Indices of the Boston 9 Story Models Subjected to the Hollister Earthquake (EQ 5).**

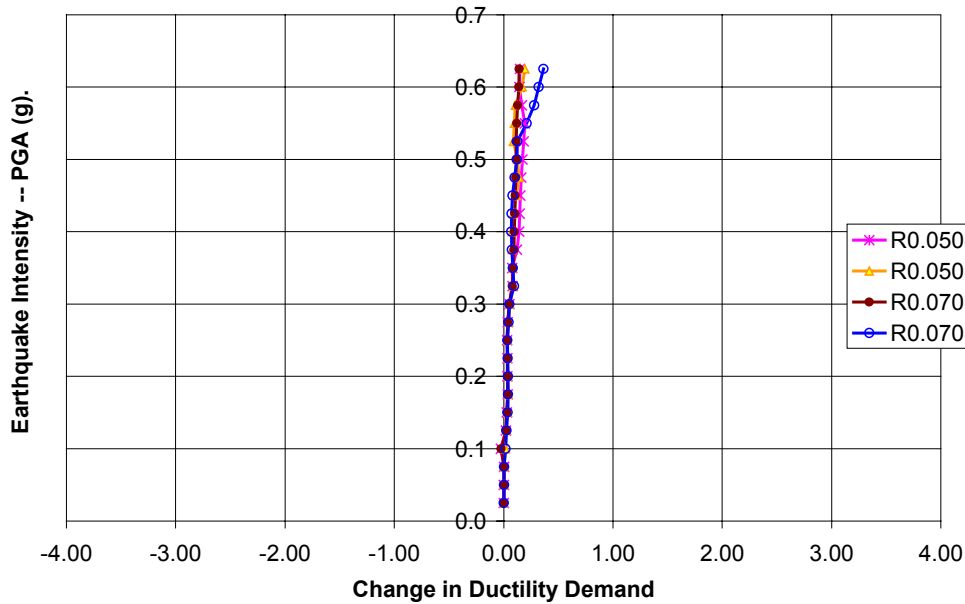




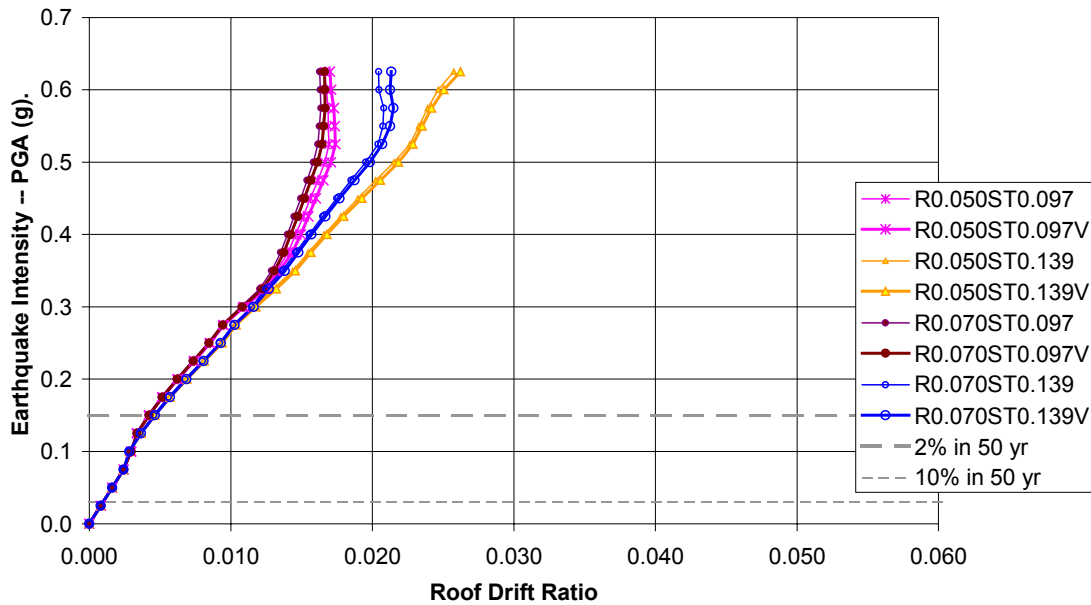
**Figure D1.3.9.5e – Kumar and Usami Damage Indices of the Boston 9 Story Models Subjected to the Hollister Earthquake (EQ 5).**



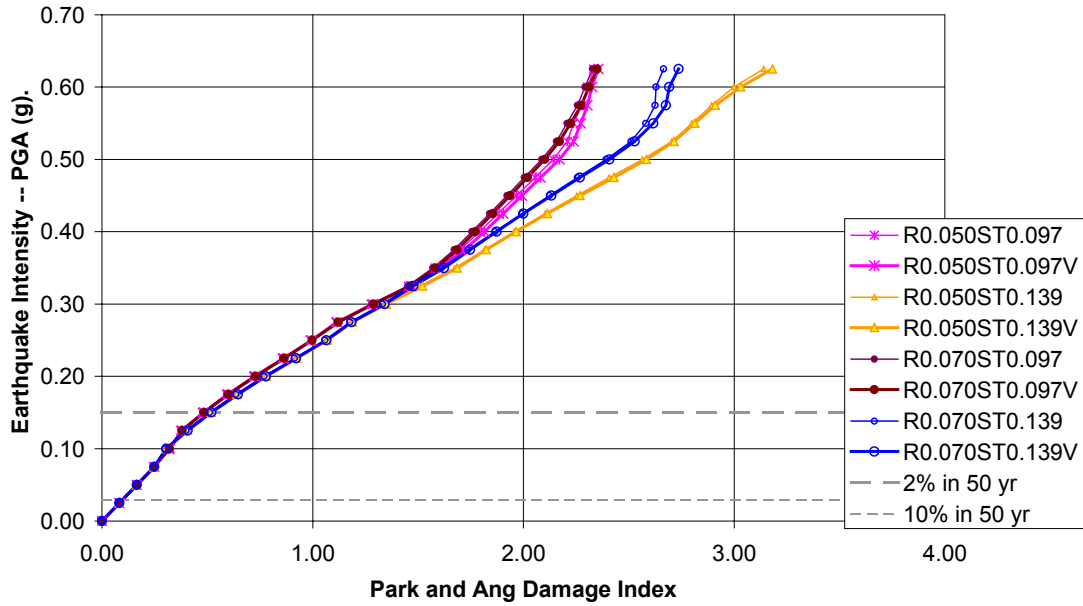
**Figure D1.3.9.9a – Ductility Demands of the Boston 9 Story Models Subjected to the Hollister Earthquake (EQ 9).**



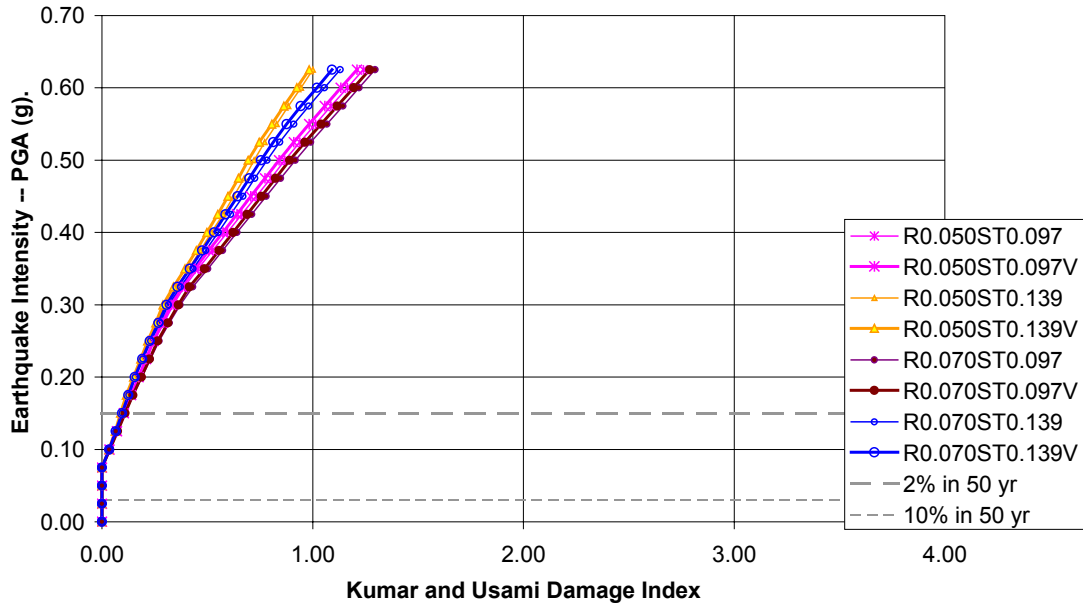
**Figure D1.3.9.9b – Change in Ductility Demands Due to Vertical Accelerations for the Boston 9 Story Models Subjected to the Northridge Earthquake (EQ 9).**



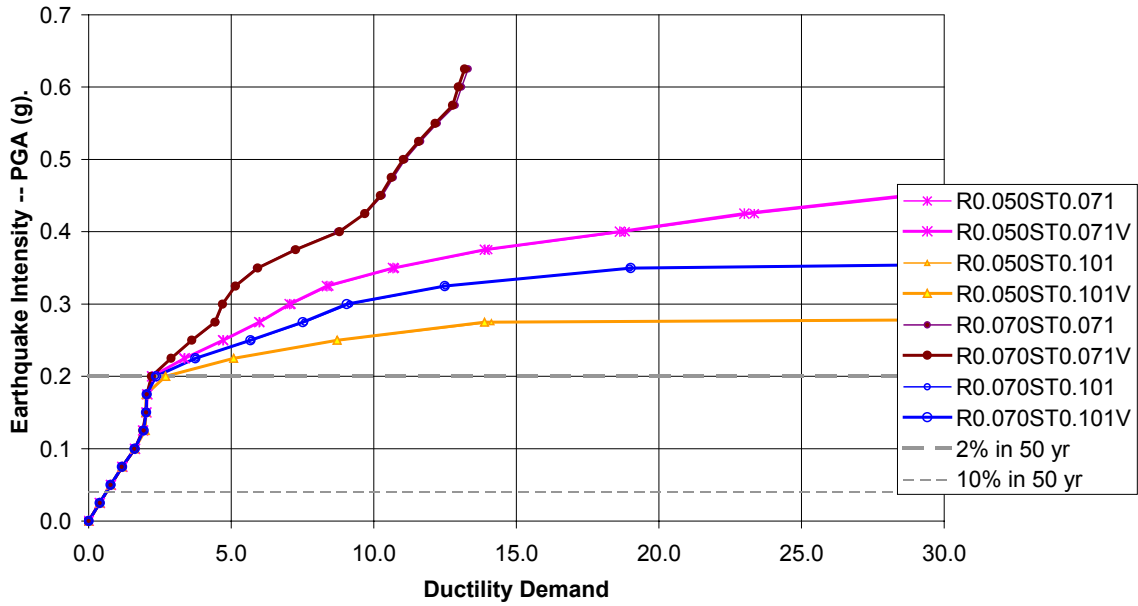
**Figure D1.3.9.9c – Roof Drift Ratio of the Boston 9 Story Models Subjected to the Northridge Earthquake (EQ 9).**



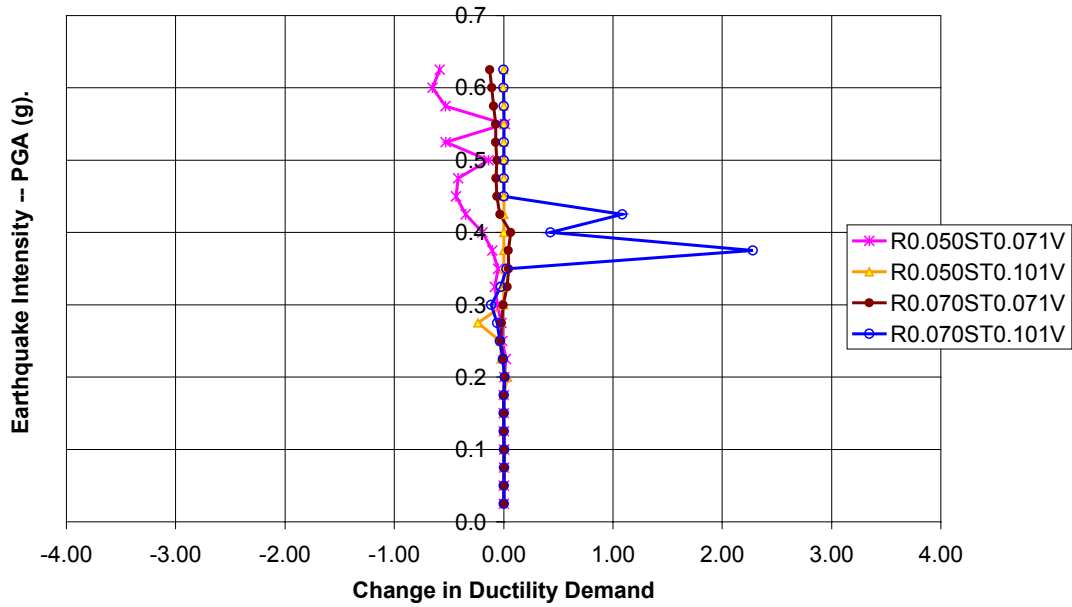
**Figure D1.3.9.9d – Park and Ang Damage Indices of the Boston 9 Story Models Subjected to the Northridge Earthquake (EQ 9).**



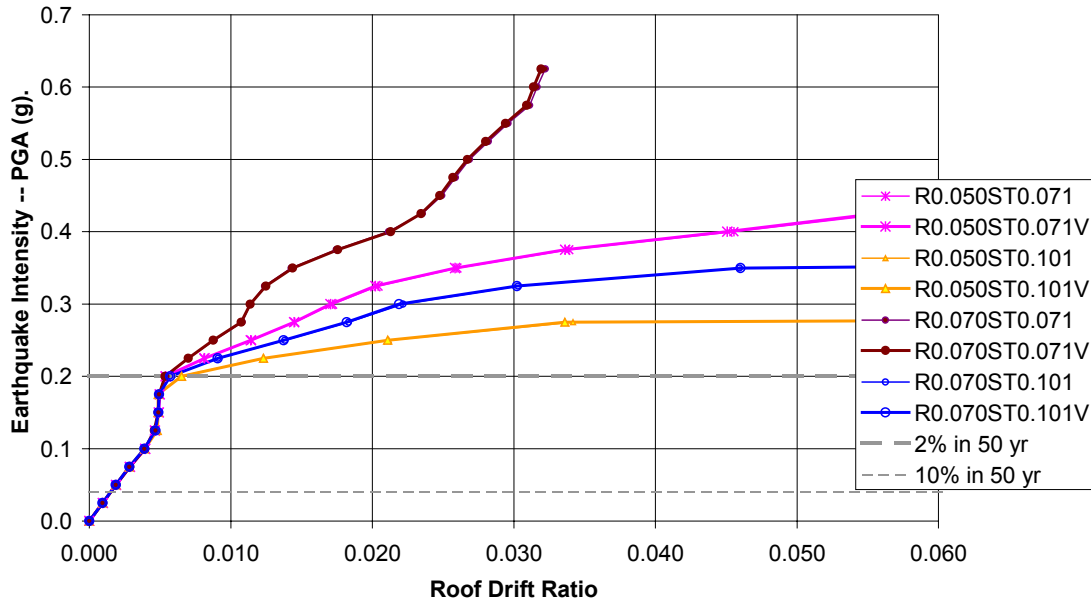
**Figure D1.3.9.9e – Kumar and Usami Damage Indices of the Boston 9 Story Models Subjected to the Northridge Earthquake (EQ 9).**



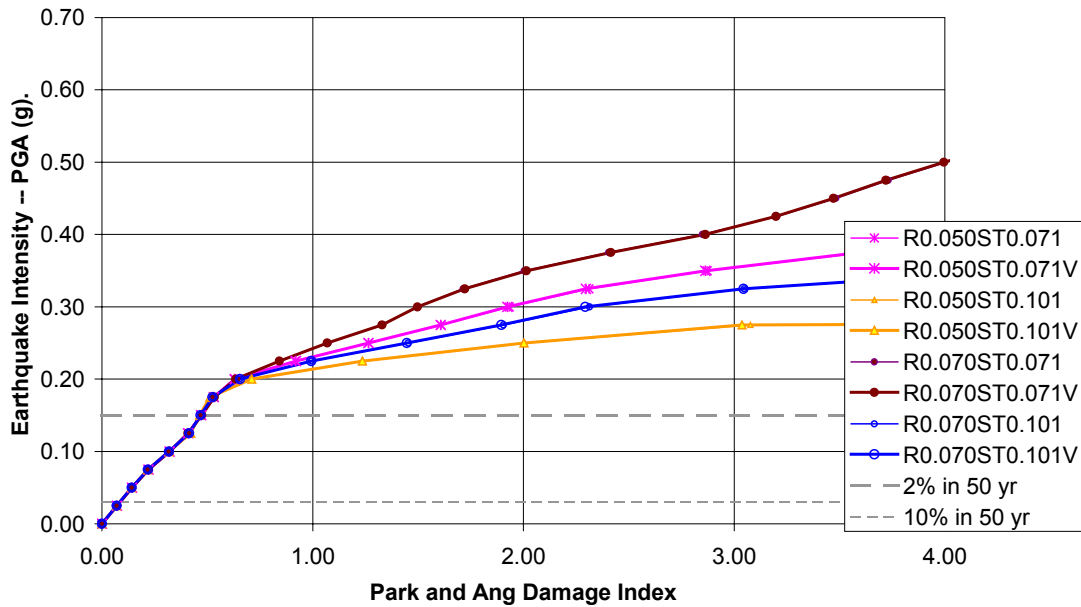
**Figure D1.4.3.4a – Ductility Demands of the New York City 3 Story Models Subjected to the Taft Earthquake (EQ 4).**



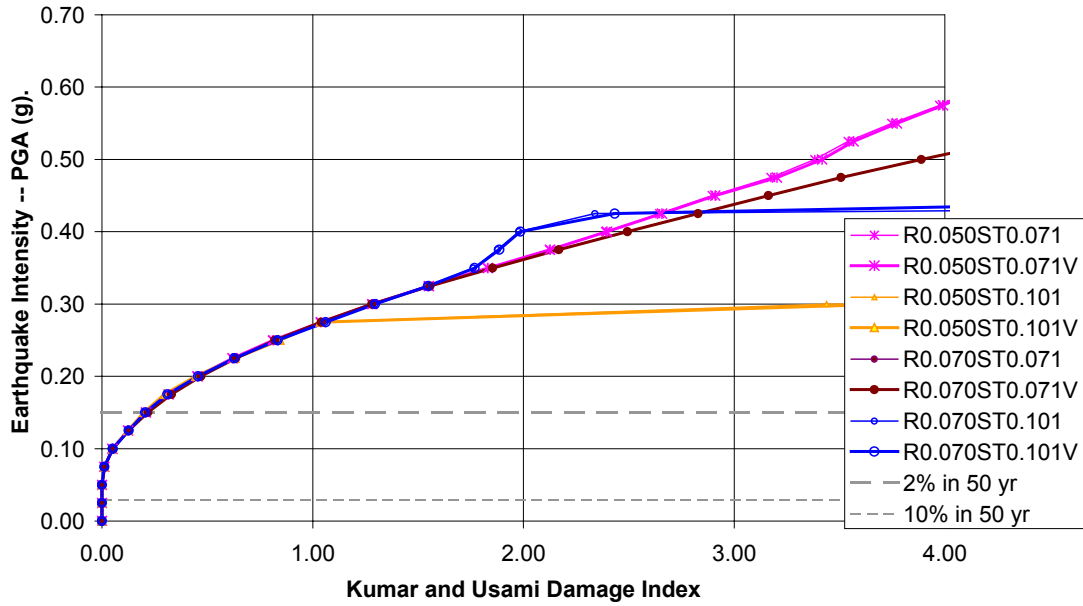
**Figure D1.4.3.4b – Change in Ductility Demands Due to Vertical Accelerations for the New York City 3 Story Models Subjected to the Taft Earthquake (EQ 4).**



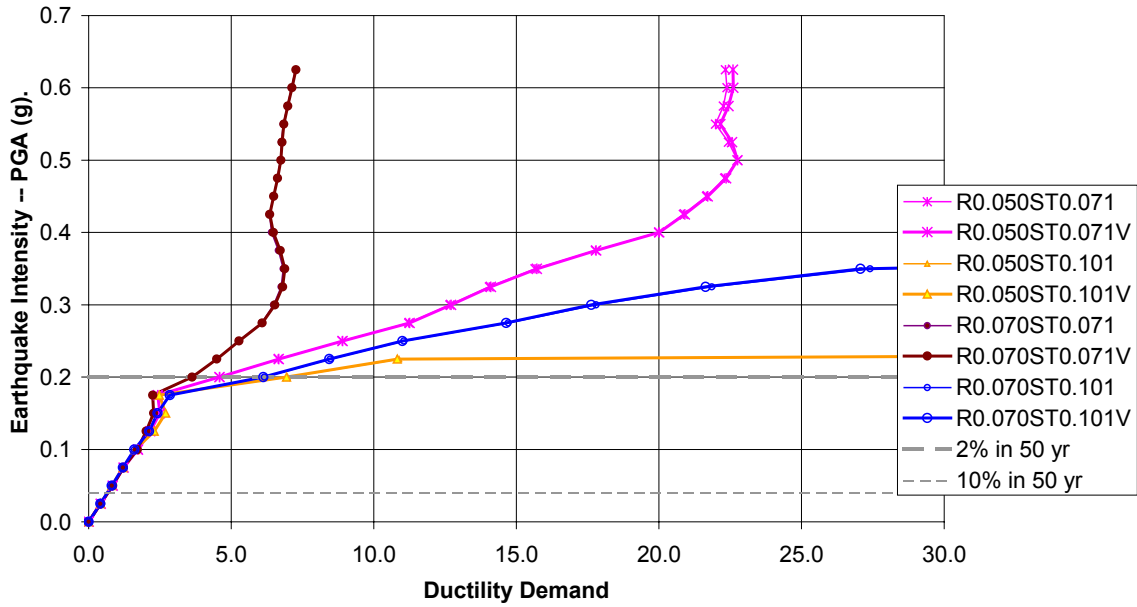
**Figure D1.4.3.4c – Roof Drift Ratio of the New York City 3 Story Models Subjected to the Taft Earthquake (EQ 4).**



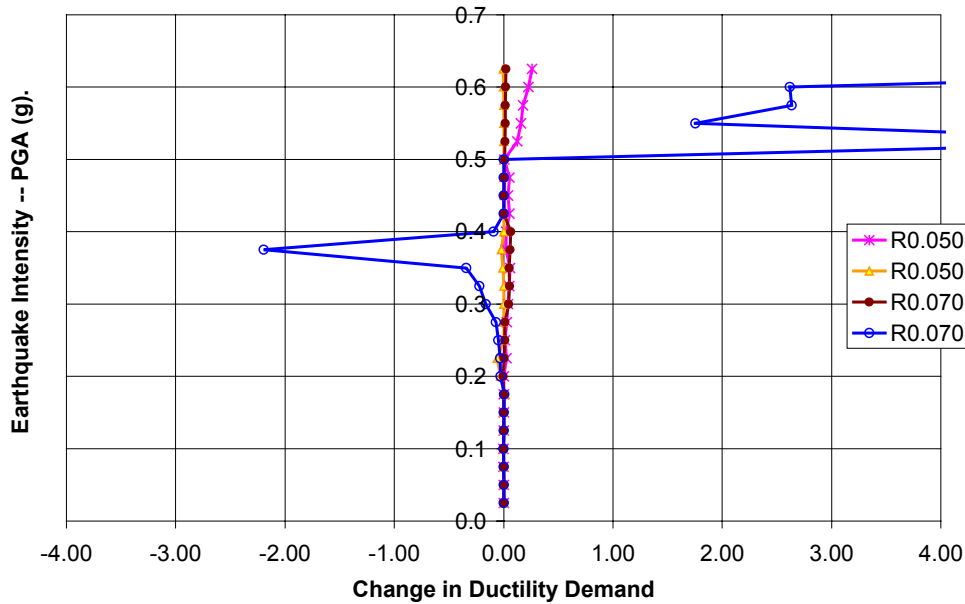
**Figure D1.4.3.4d – Park and Ang Damage Indices of the New York City 3 Story Models Subjected to the Taft Earthquake (EQ 4).**



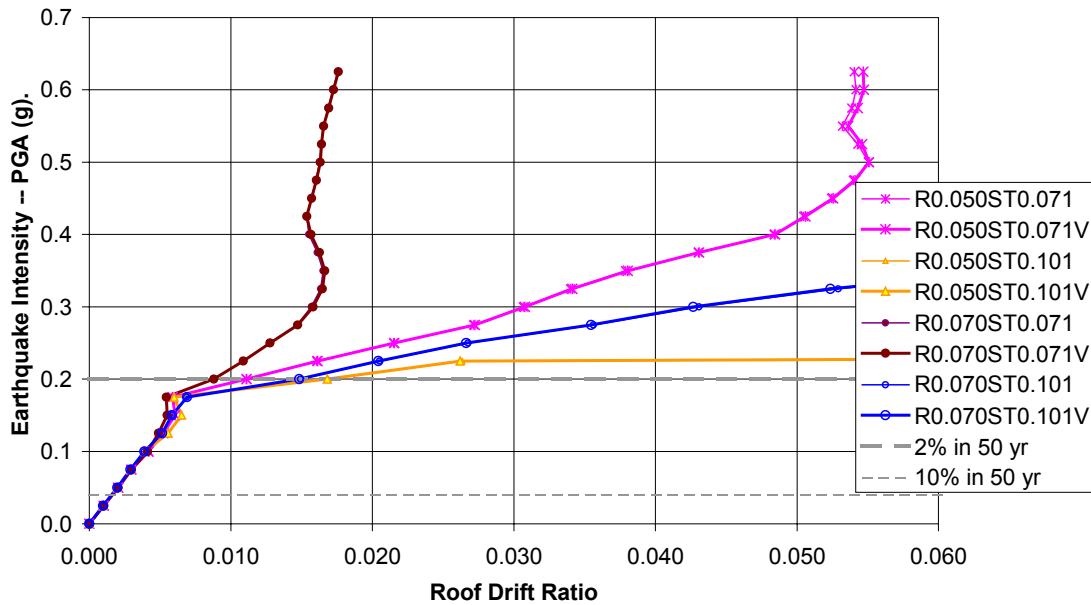
**Figure D1.4.3.4e – Kumar and Usami Damage Indices of the New York City 3 Story Models Subjected to the Taft Earthquake (EQ 4).**



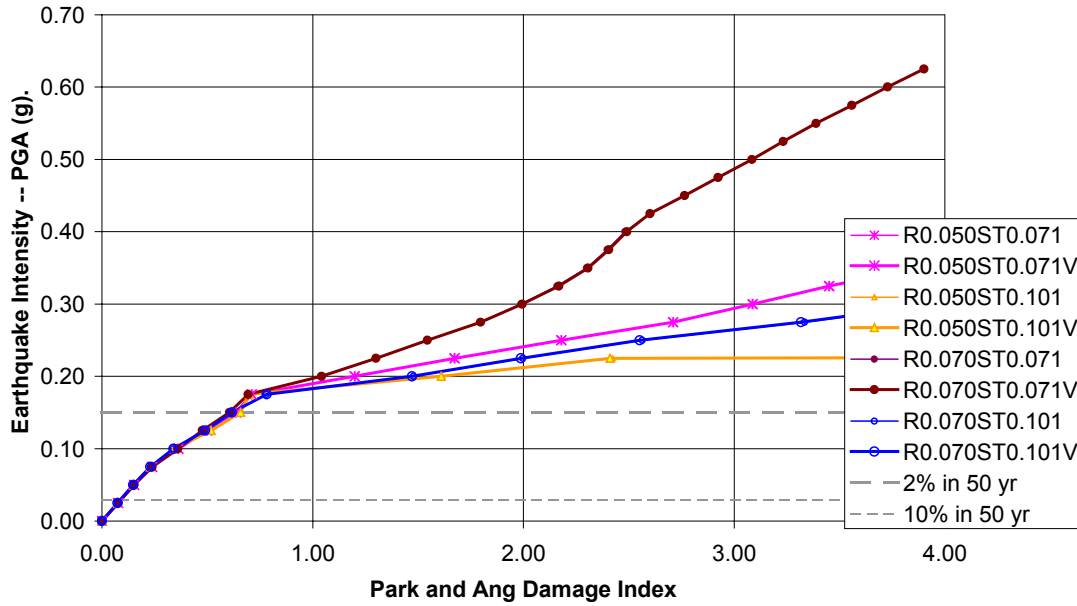
**Figure D1.4.3.5a – Ductility Demands of the New York City 3 Story Models Subjected to the Hollister Earthquake (EQ 5).**



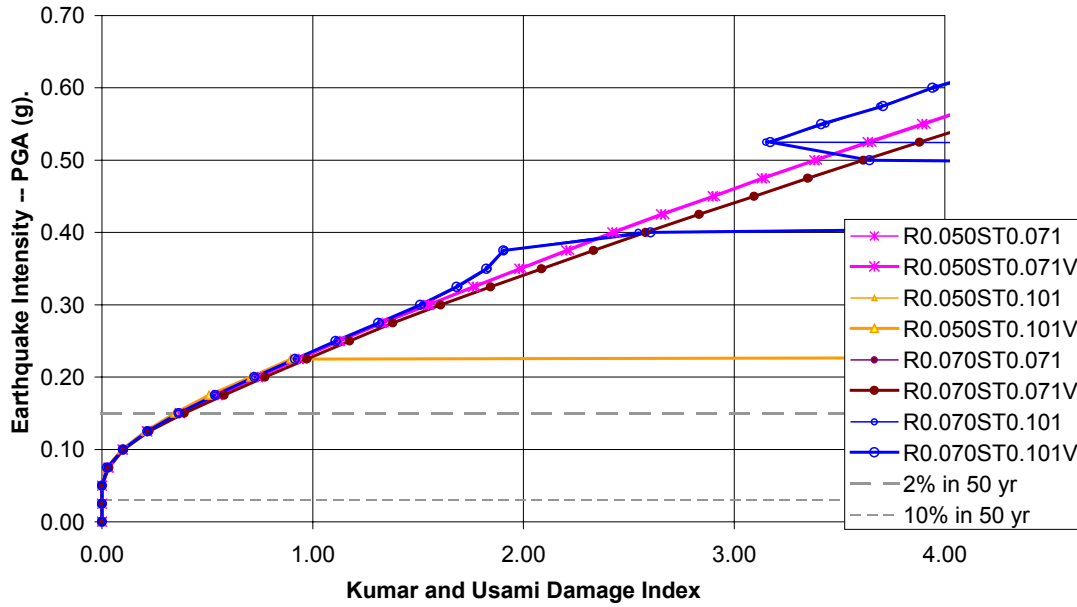
**Figure D1.4.3.5b – Change in Ductility Demands Due to Vertical Accelerations for the New York City 3 Story Models Subjected to the Hollister Earthquake (EQ 5).**



**Figure D1.4.3.5c – Roof Drift Ratio of the New York City 3 Story Models Subjected to the Hollister Earthquake (EQ 5).**

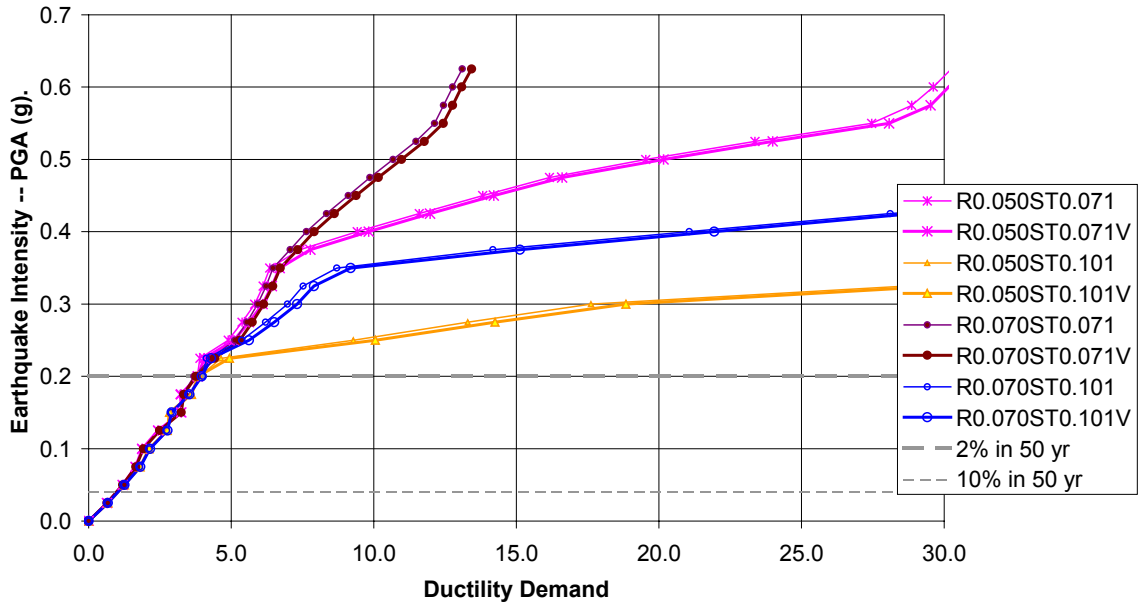


**Figure D1.4.3.5d – Park and Ang Damage Indices of the New York City 3 Story Models Subjected to the Hollister Earthquake (EQ 5).**

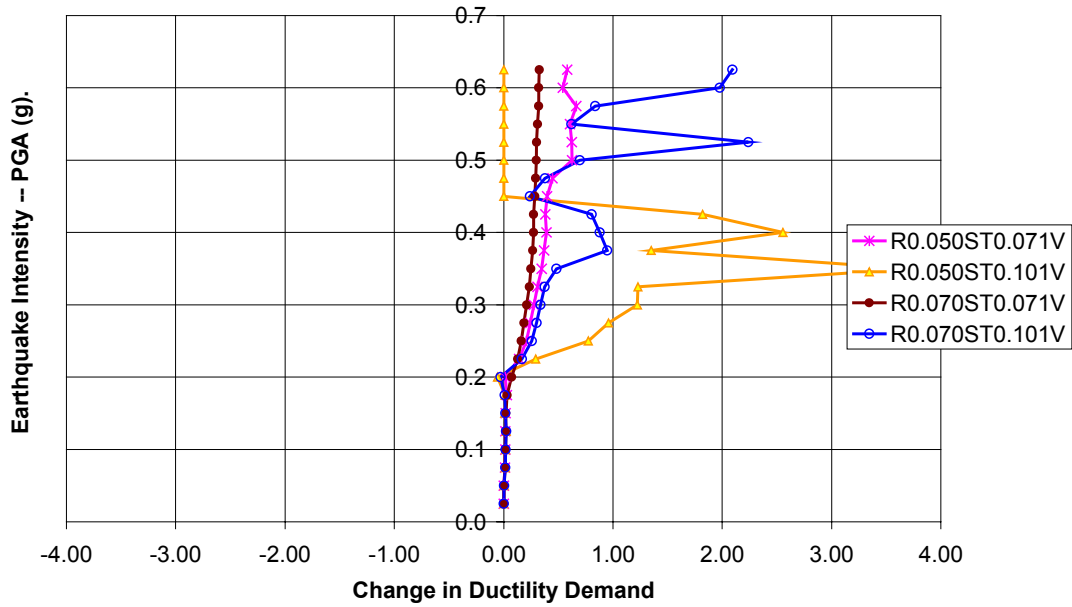


**Figure D1.4.3.5e – Kumar and Usami Damage Indices of the New York City 3 Story Models Subjected to the Hollister Earthquake (EQ 5).**

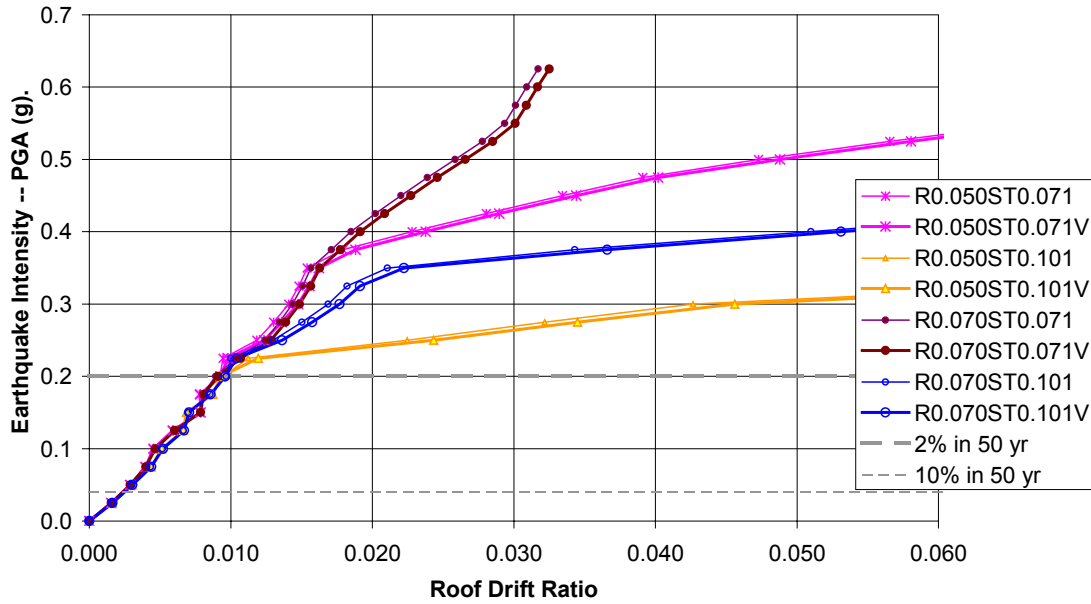




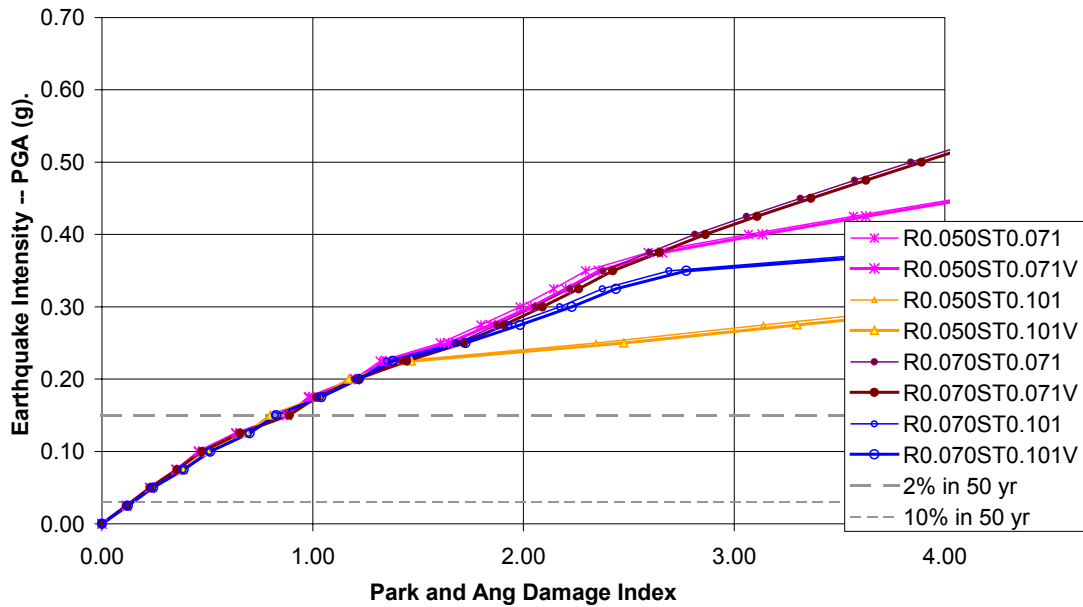
**Figure D1.4.3.9a – Ductility Demands of the New York City 3 Story Models Subjected to the Hollister Earthquake (EQ 9).**



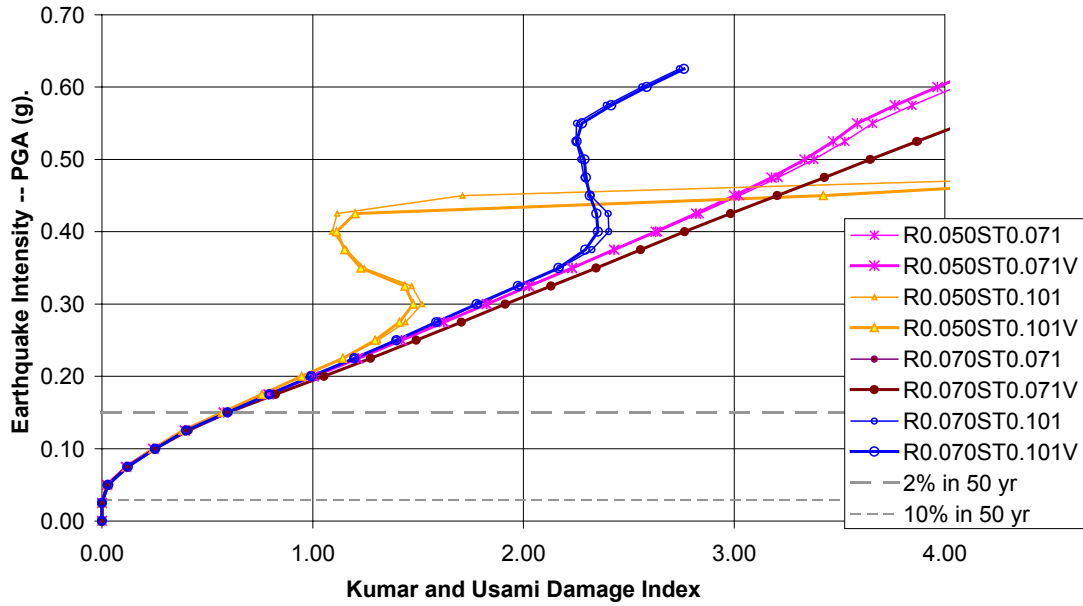
**Figure D1.4.3.9b – Change in Ductility Demands Due to Vertical Accelerations for the New York City 3 Story Models Subjected to the Northridge Earthquake (EQ 9).**



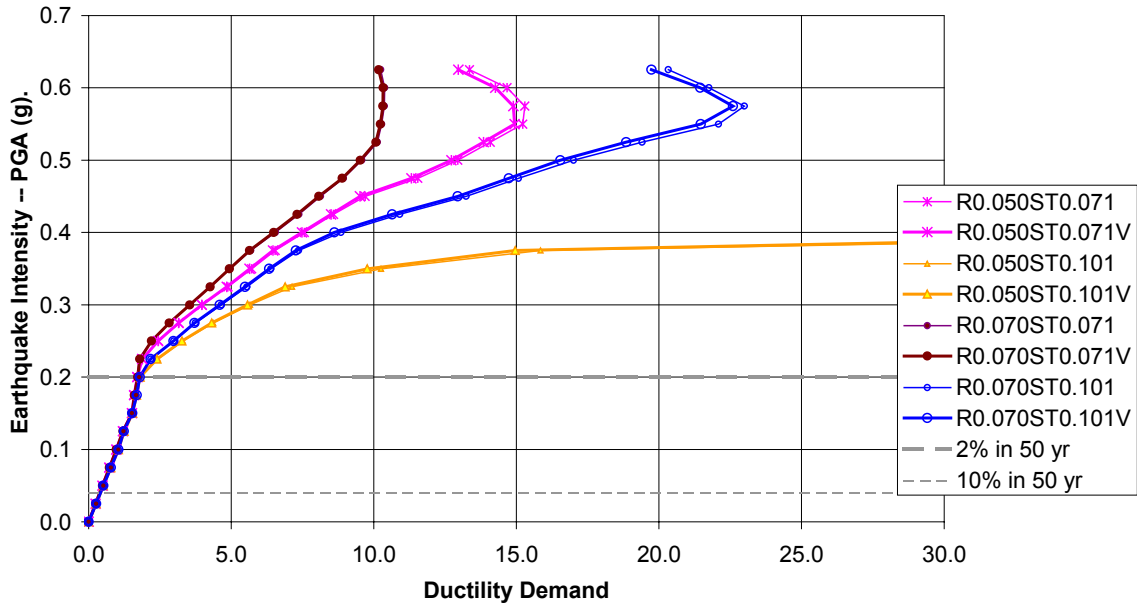
**Figure D1.4.3.9c – Roof Drift Ratio of the New York City 3 Story Models Subjected to the Northridge Earthquake (EQ 9).**



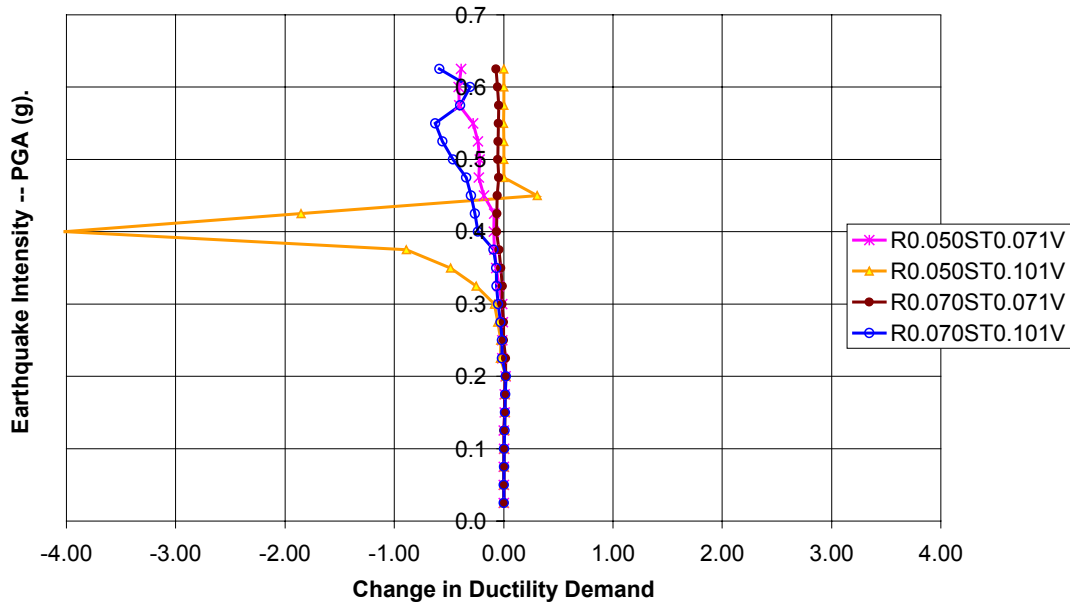
**Figure D1.4.3.9d – Park and Ang Damage Indices of the New York City 3 Story Models Subjected to the Northridge Earthquake (EQ 9).**



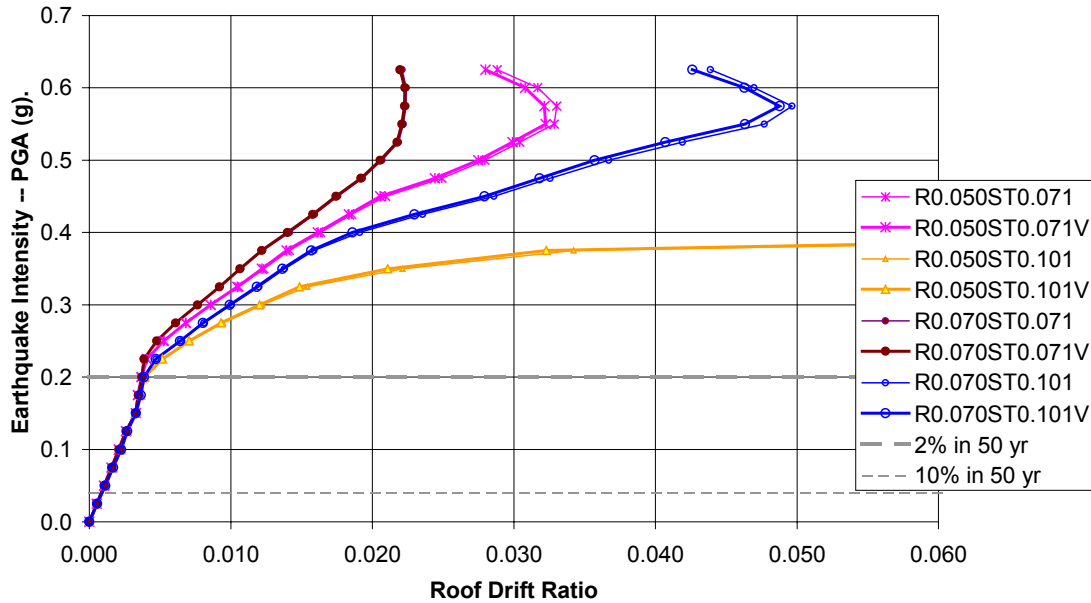
**Figure D1.4.3.9e – Kumar and Usami Damage Indices of the New York City 3 Story Models Subjected to the Northridge Earthquake (EQ 9).**



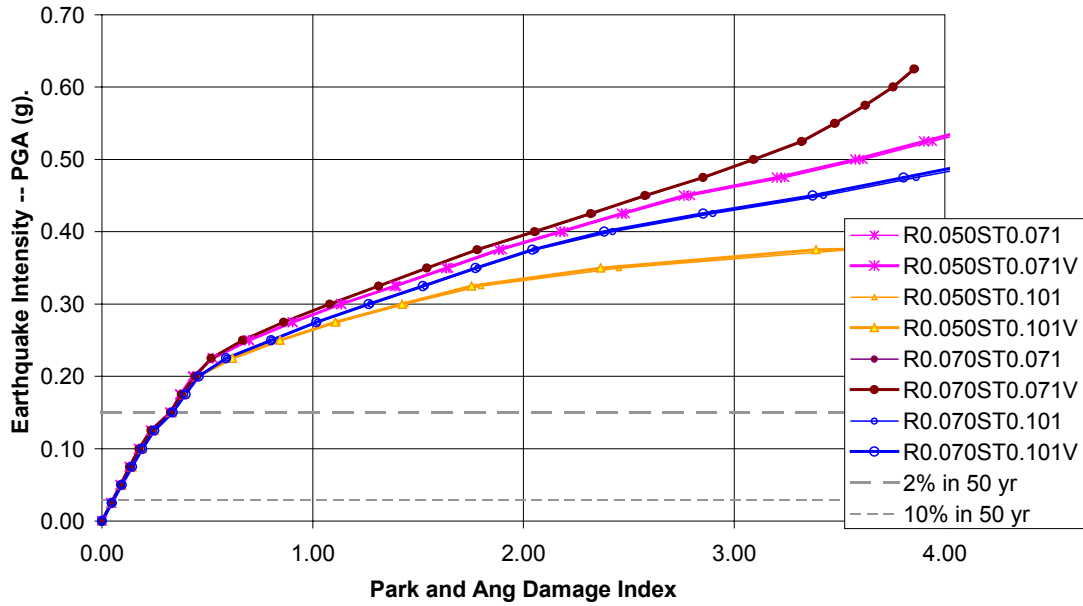
**Figure D1.4.5.4a – Ductility Demands of the New York City 5 Story Models Subjected to the Taft Earthquake (EQ 4).**



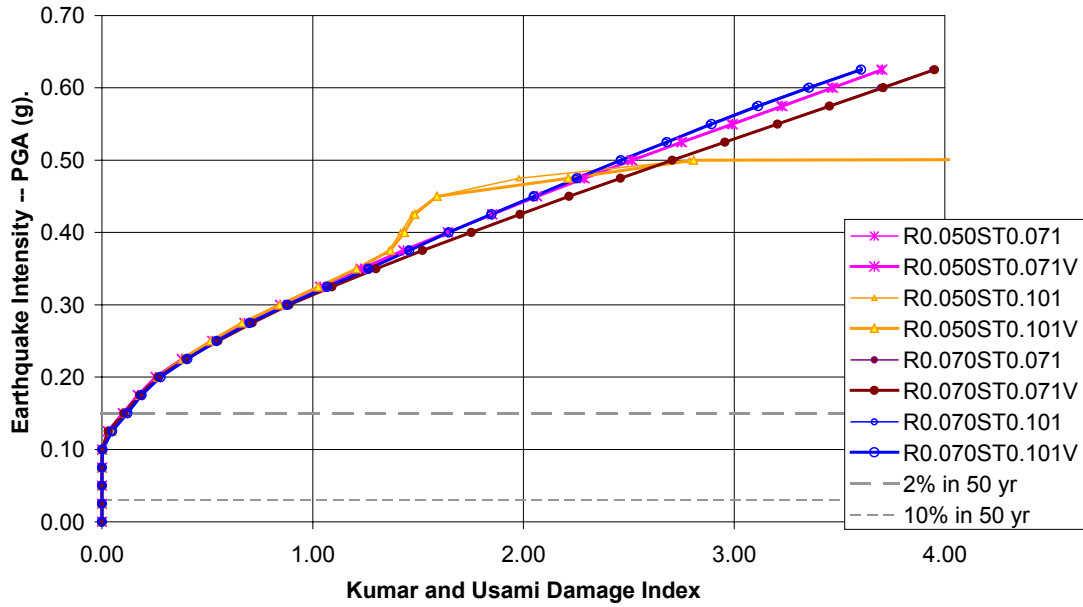
**Figure D1.4.5.4b – Change in Ductility Demands Due to Vertical Accelerations for the New York City 5 Story Models Subjected to the Taft Earthquake (EQ 4).**



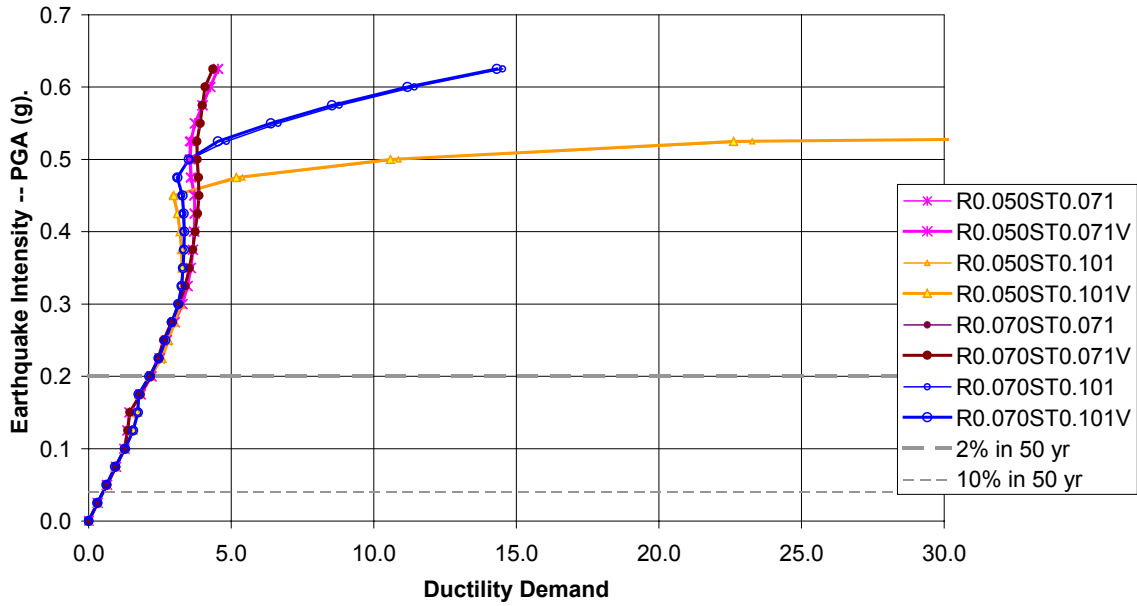
**Figure D1.4.5.4c – Roof Drift Ratio of the New York City 5 Story Models Subjected to the Taft Earthquake (EQ 4).**



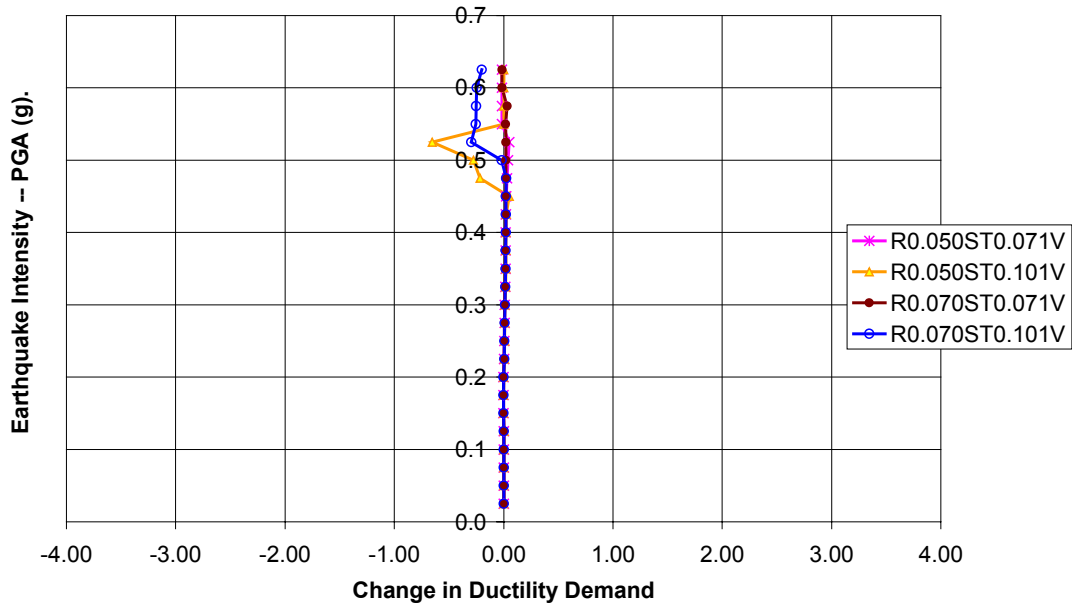
**Figure D1.4.5.4d – Park and Ang Damage Indices of the New York City 5 Story Models Subjected to the Taft Earthquake (EQ 4).**



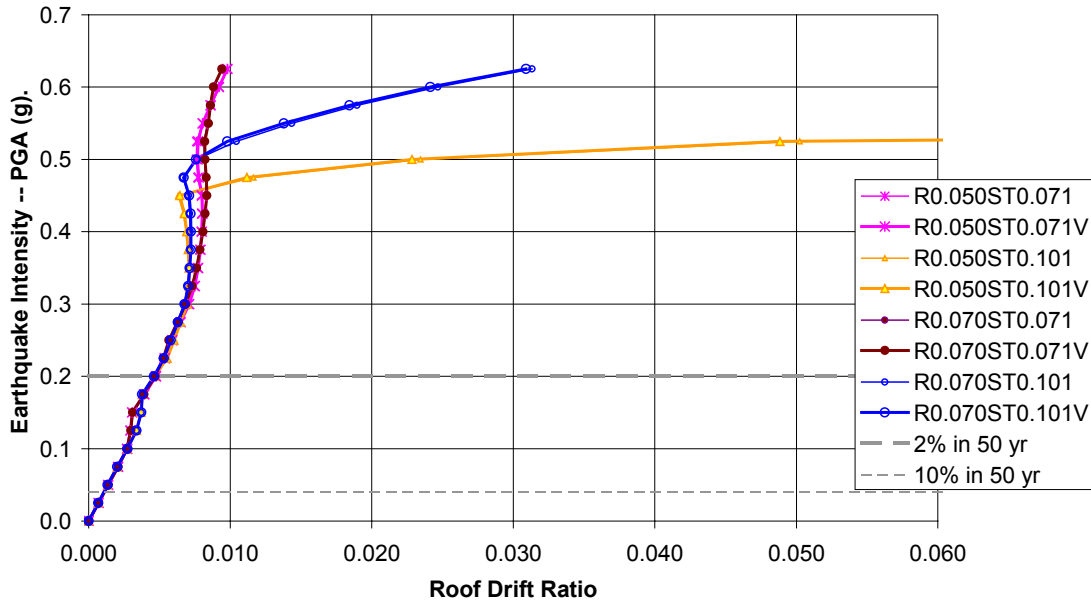
**Figure D1.4.5.4e – Kumar and Usami Damage Indices of the New York City 5 Story Models Subjected to the Taft Earthquake (EQ 4).**



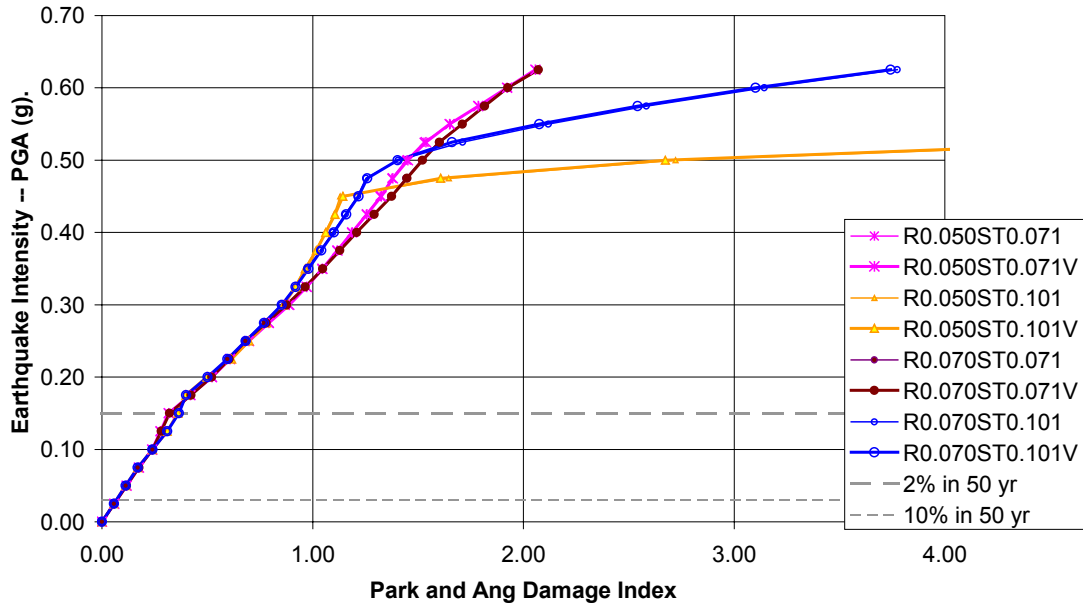
**Figure D1.4.5.5a – Ductility Demands of the New York City 5 Story Models Subjected to the Hollister Earthquake (EQ 5).**



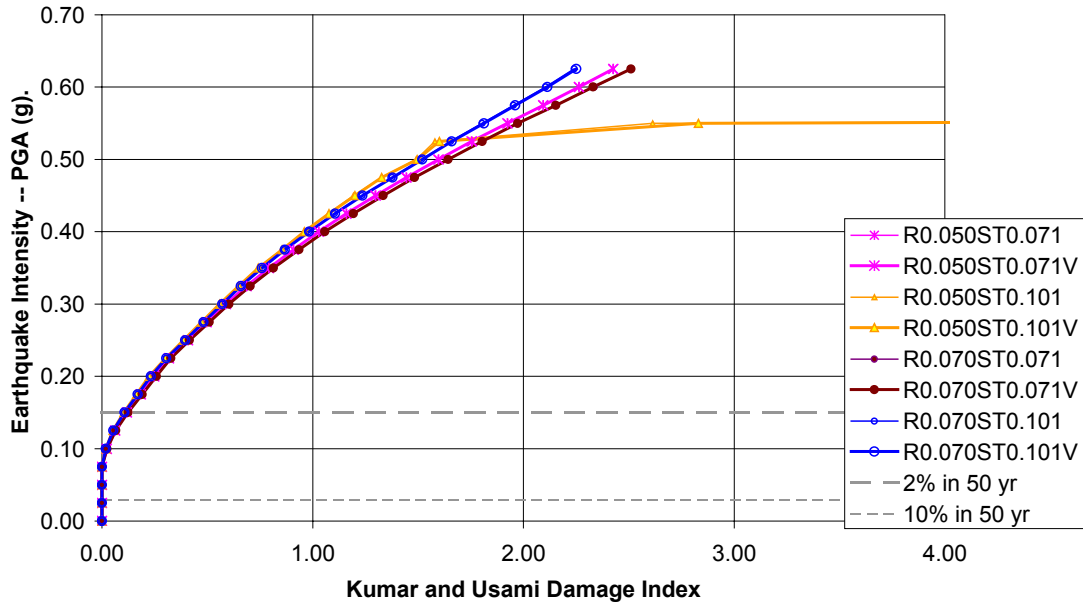
**Figure D1.4.5.5b – Change in Ductility Demands Due to Vertical Accelerations for the New York City 5 Story Models Subjected to the Hollister Earthquake (EQ 5).**



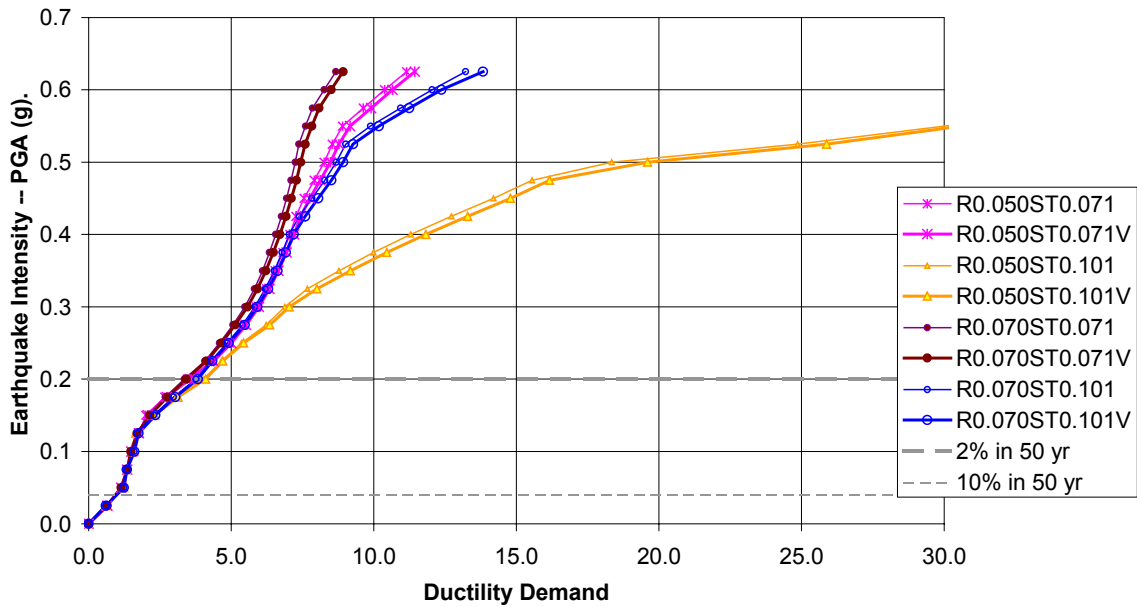
**Figure D1.4.5.c – Roof Drift Ratio of the New York City 5 Story Models Subjected to the Hollister Earthquake (EQ 5).**



**Figure D1.4.5.d – Park and Ang Damage Indices of the New York City 5 Story Models Subjected to the Hollister Earthquake (EQ 5).**

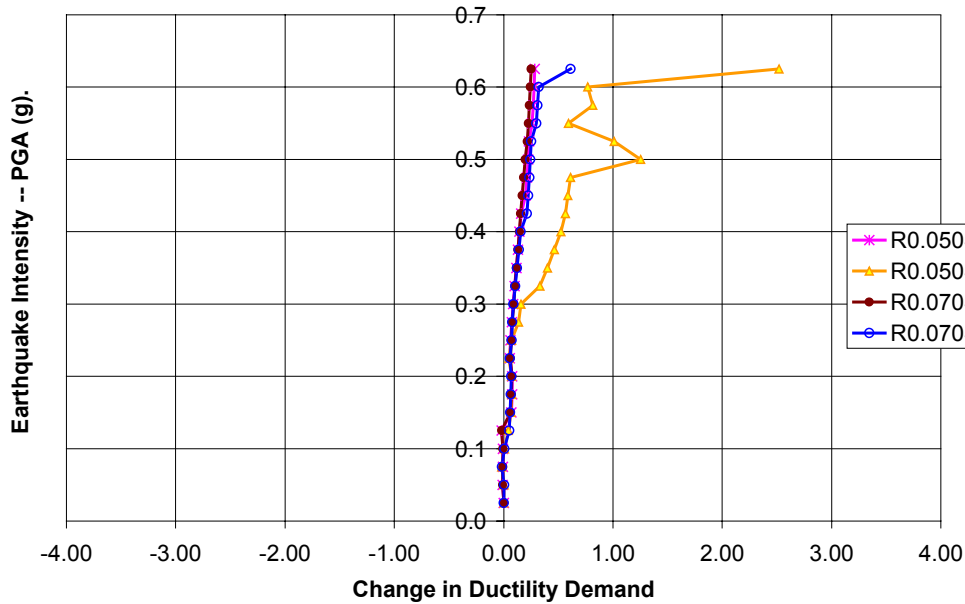


**Figure D1.4.5.5e – Kumar and Usami Damage Indices of the New York City 5 Story Models Subjected to the Hollister Earthquake (EQ 5).**

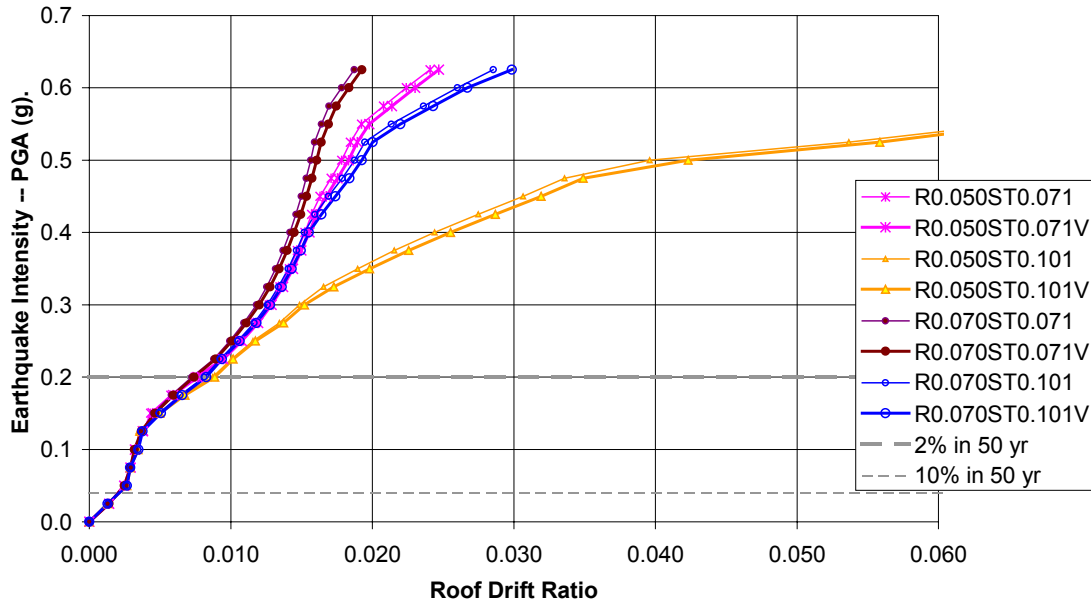


**Figure D1.4.5.9a – Ductility Demands of the New York City 5 Story Models Subjected to the Hollister Earthquake (EQ 9).**

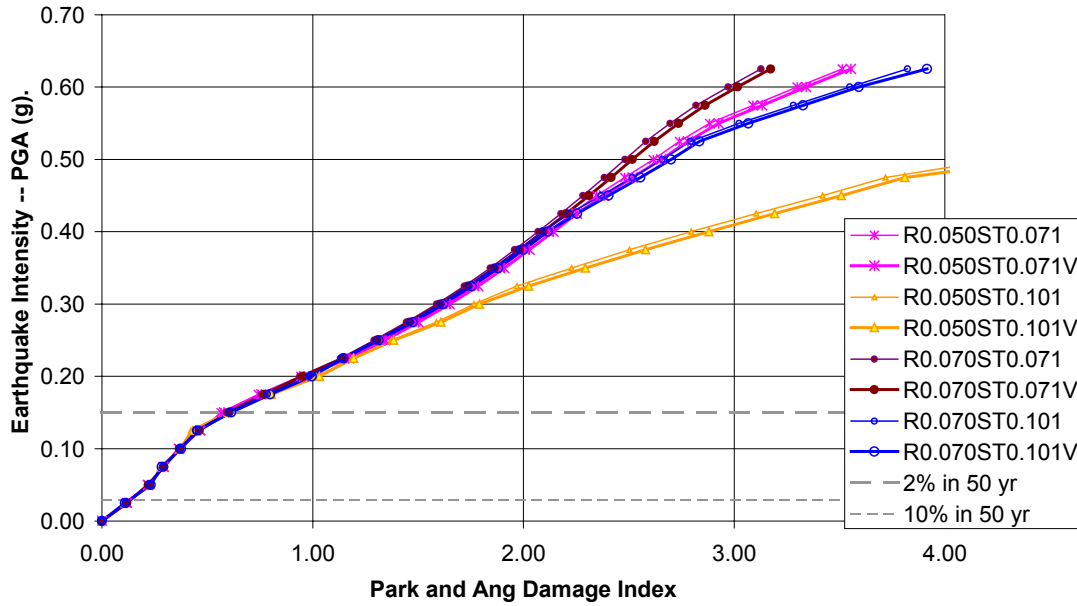




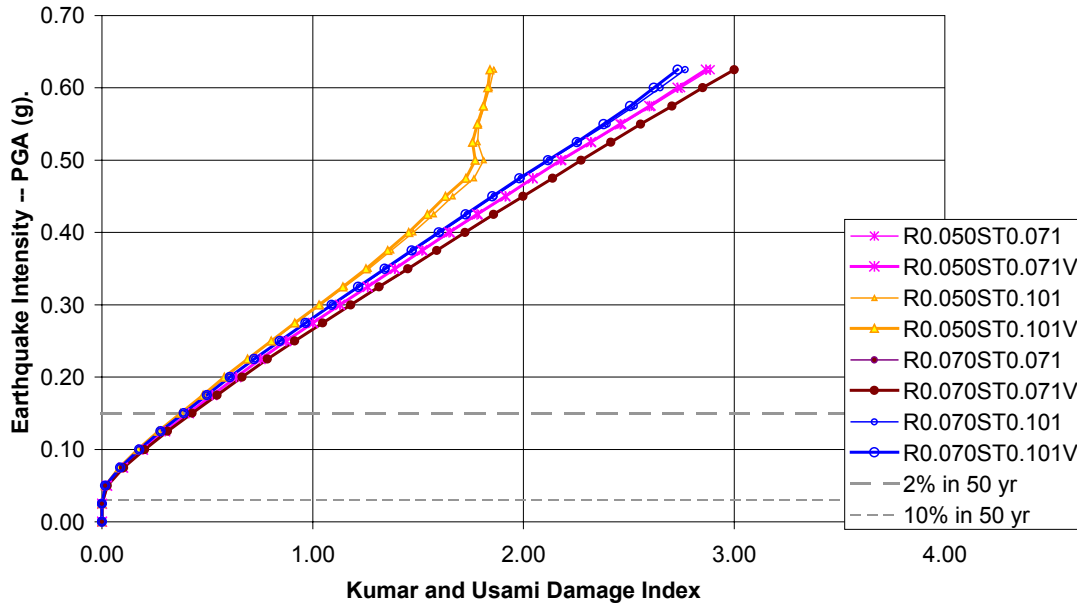
**Figure D1.4.5.9b – Change in Ductility Demands Due to Vertical Accelerations for the New York City 5 Story Models Subjected to the Northridge Earthquake (EQ 9).**



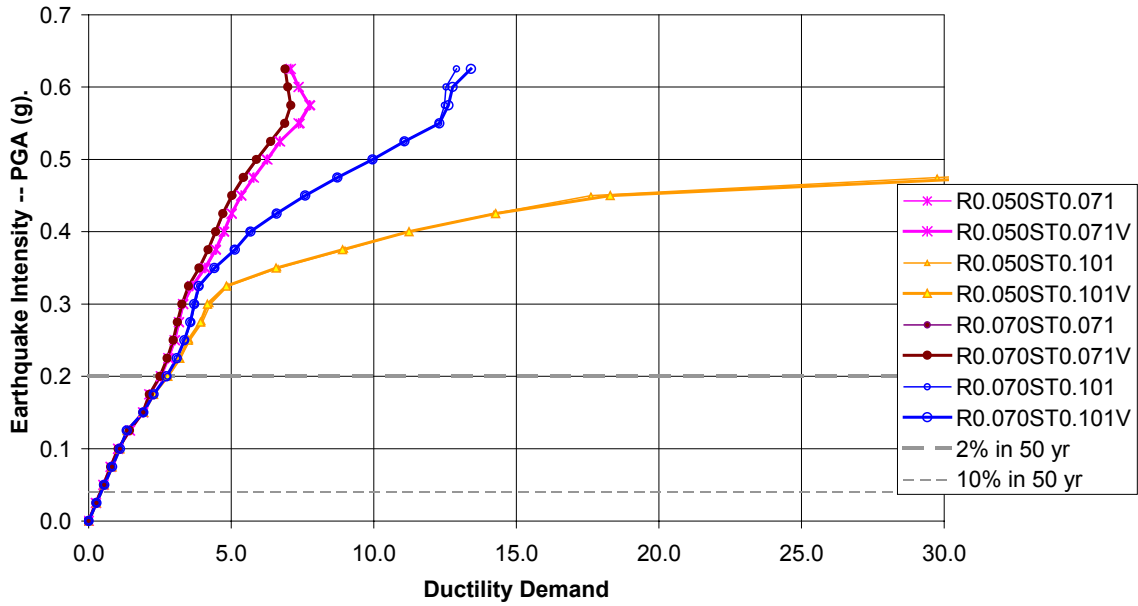
**Figure D1.4.5.9c – Roof Drift Ratio of the New York City 5 Story Models Subjected to the Northridge Earthquake (EQ 9).**



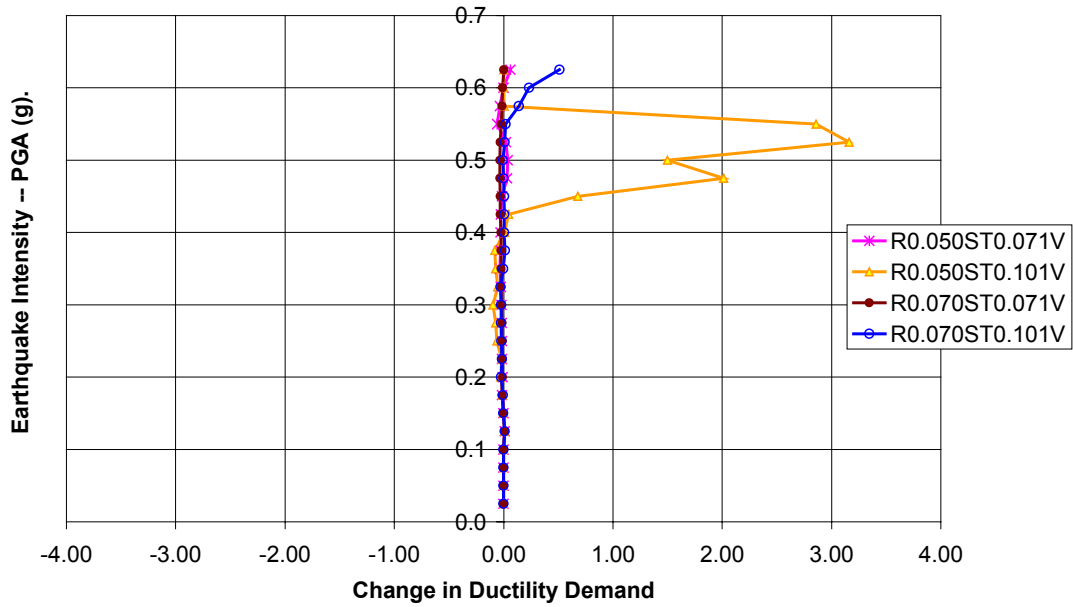
**Figure D1.4.5.9d – Park and Ang Damage Indices of the New York City 5 Story Models Subjected to the Northridge Earthquake (EQ 9).**



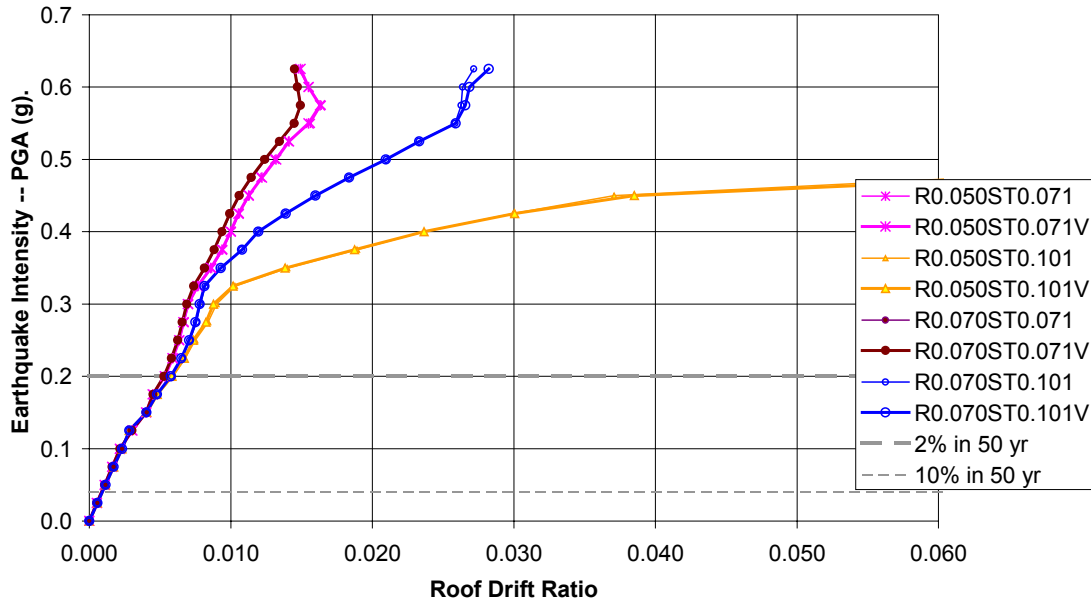
**Figure D1.4.5.9e – Kumar and Usami Damage Indices of the New York City 5 Story Models Subjected to the Northridge Earthquake (EQ 9).**



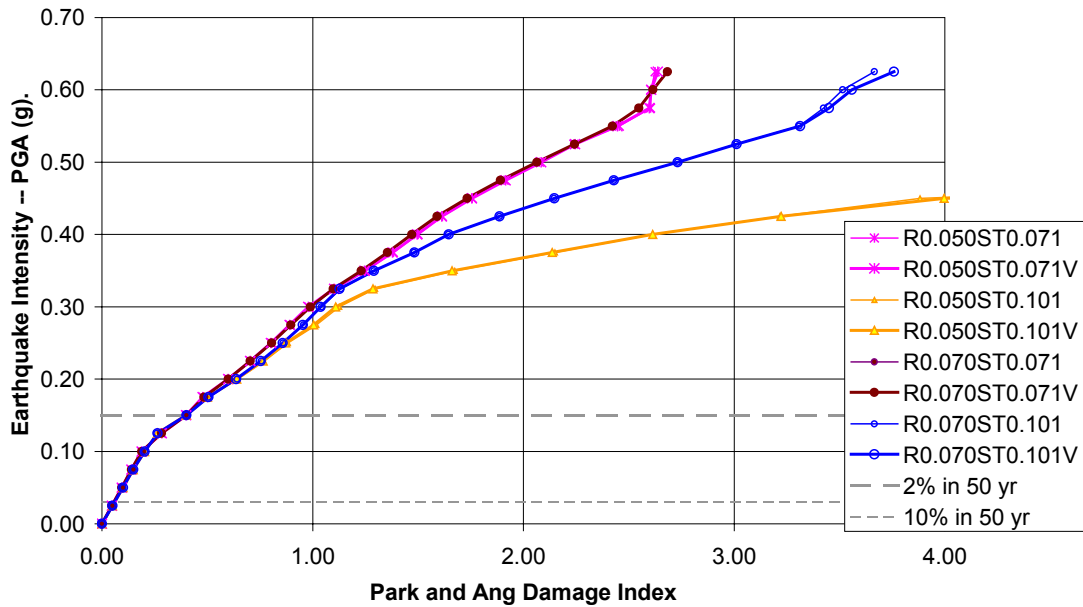
**Figure D1.4.7.4a – Ductility Demands of the New York City 7 Story Models Subjected to the Taft Earthquake (EQ 4).**



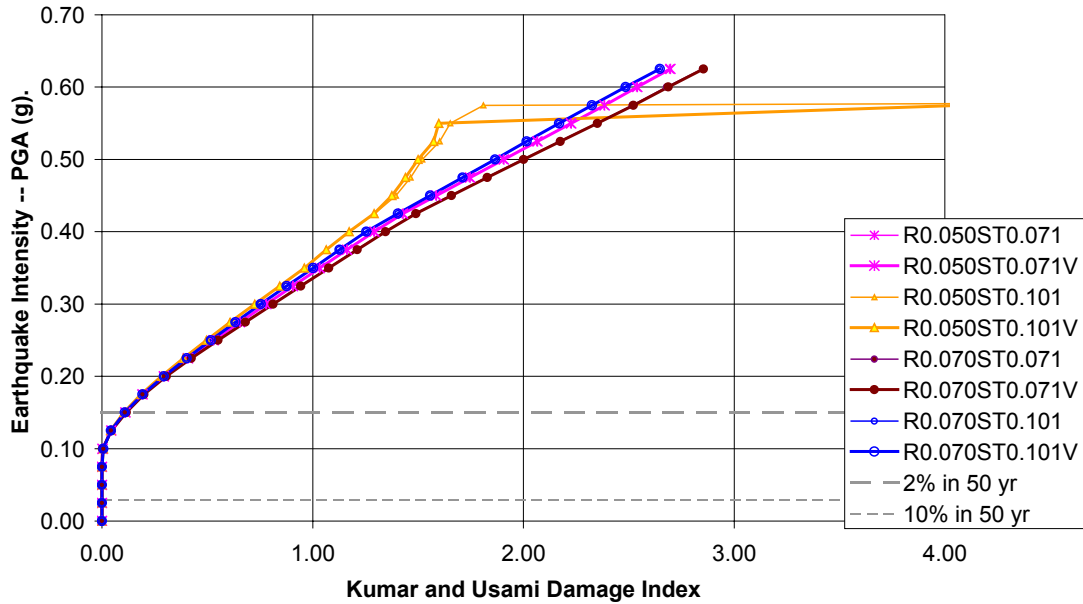
**Figure D1.4.7.4b – Change in Ductility Demands Due to Vertical Accelerations for the New York City 7 Story Models Subjected to the Taft Earthquake (EQ 4).**



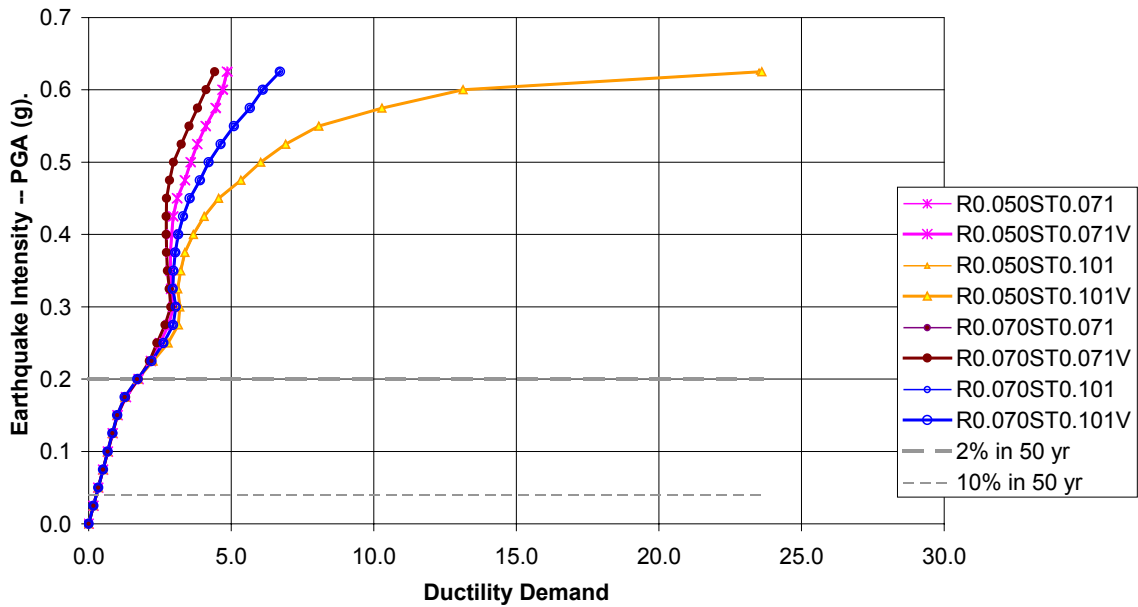
**Figure D1.4.7.4c – Roof Drift Ratio of the New York City 7 Story Models Subjected to the Taft Earthquake (EQ 4).**



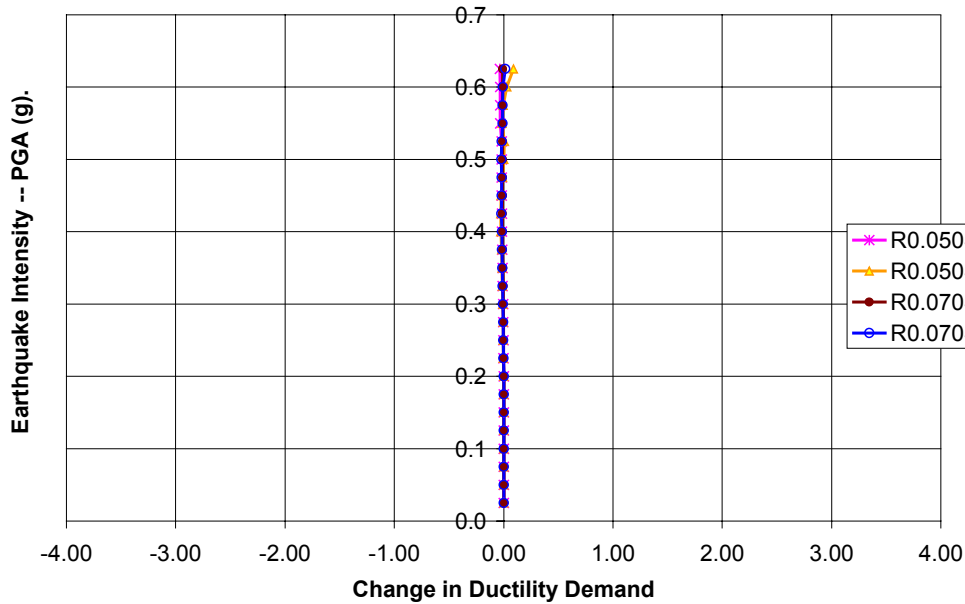
**Figure D1.4.7.4d – Park and Ang Damage Indices of the New York City 7 Story Models Subjected to the Taft Earthquake (EQ 4).**



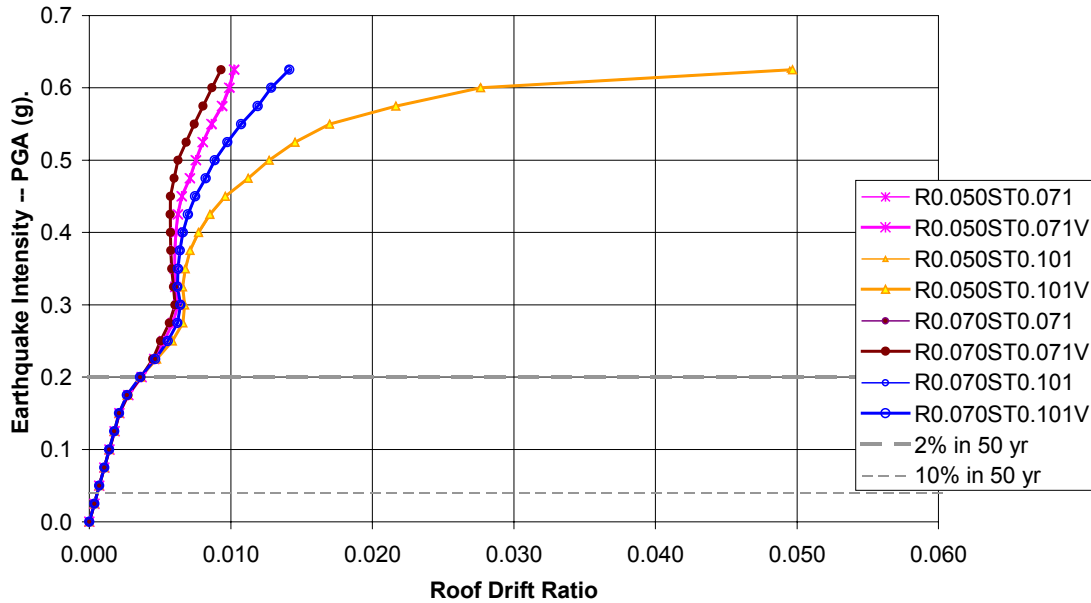
**Figure D1.4.7.4e – Kumar and Usami Damage Indices of the New York City 7 Story Models Subjected to the Taft Earthquake (EQ 4).**



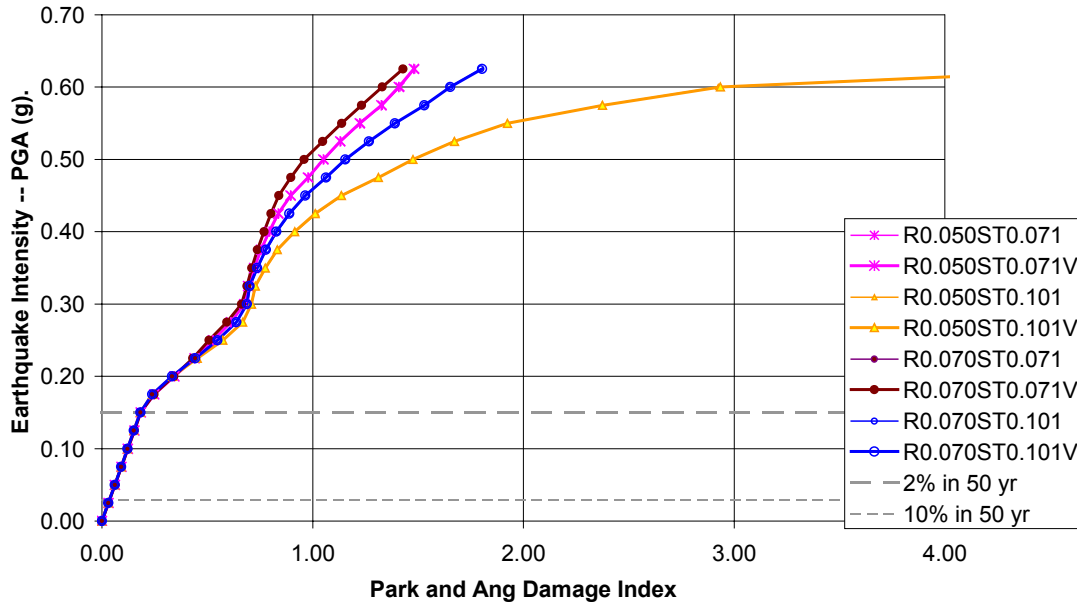
**Figure D1.4.7.5a – Ductility Demands of the New York City 7 Story Models Subjected to the Hollister Earthquake (EQ 5).**



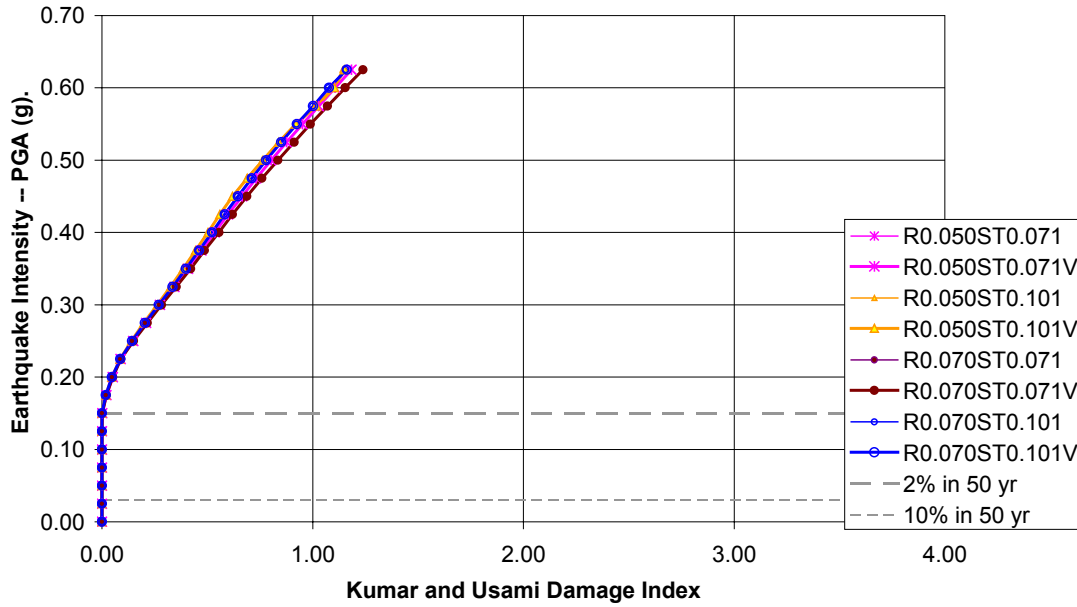
**Figure D1.4.7.5b – Change in Ductility Demands Due to Vertical Accelerations for the New York City 7 Story Models Subjected to the Hollister Earthquake (EQ 5).**



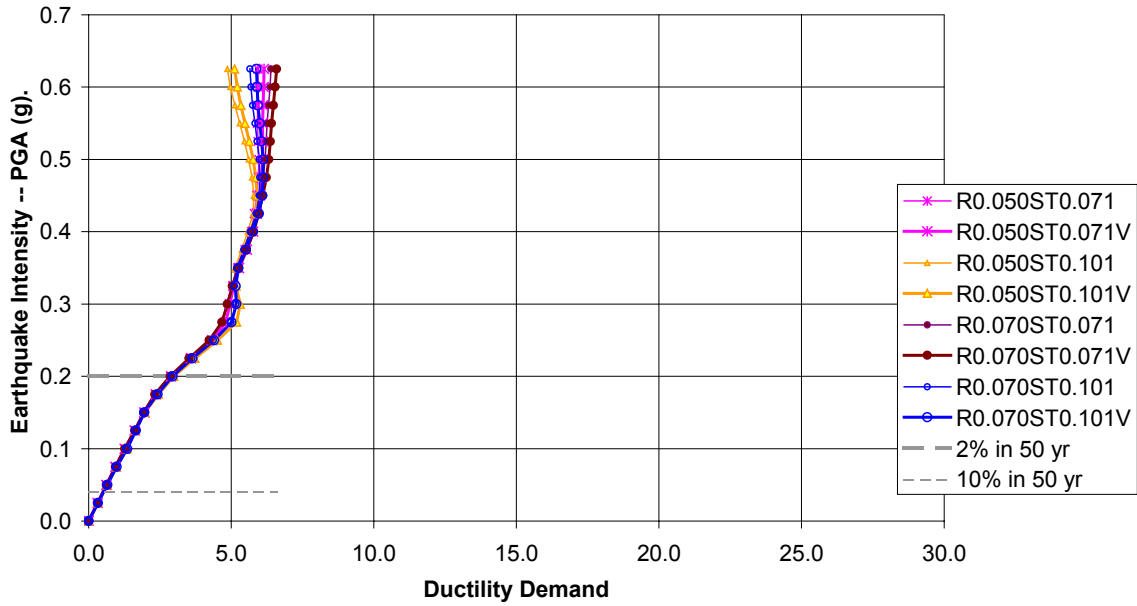
**Figure D1.4.7.5c – Roof Drift Ratio of the New York City 7 Story Models Subjected to the Hollister Earthquake (EQ 5).**



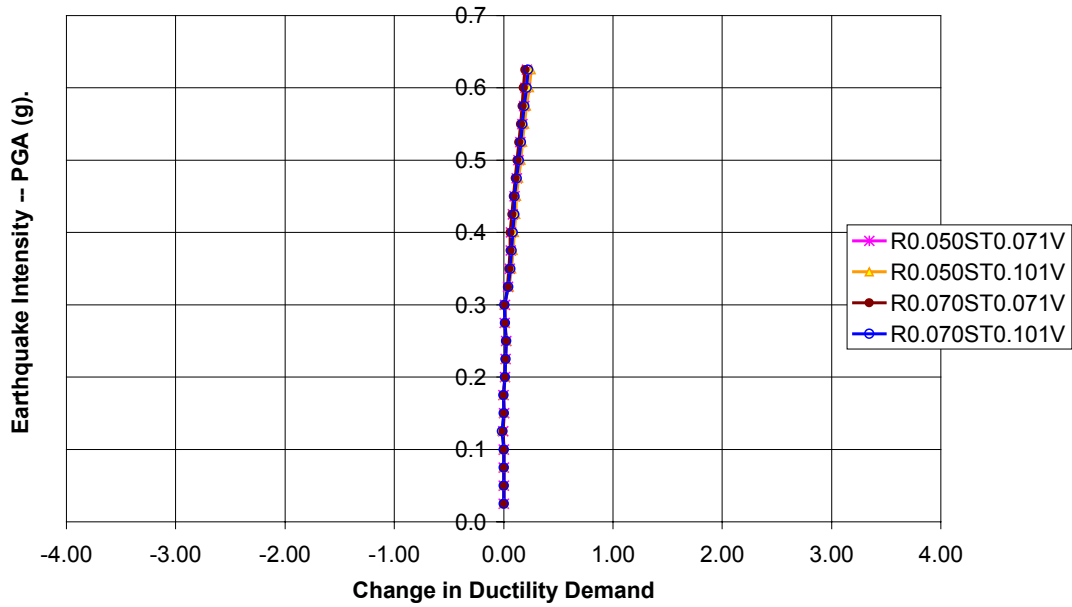
**Figure D1.4.7.5d – Park and Ang Damage Indices of the New York City 7 Story Models Subjected to the Hollister Earthquake (EQ 5).**



**Figure D1.4.7.5e – Kumar and Usami Damage Indices of the New York City 7 Story Models Subjected to the Hollister Earthquake (EQ 5).**

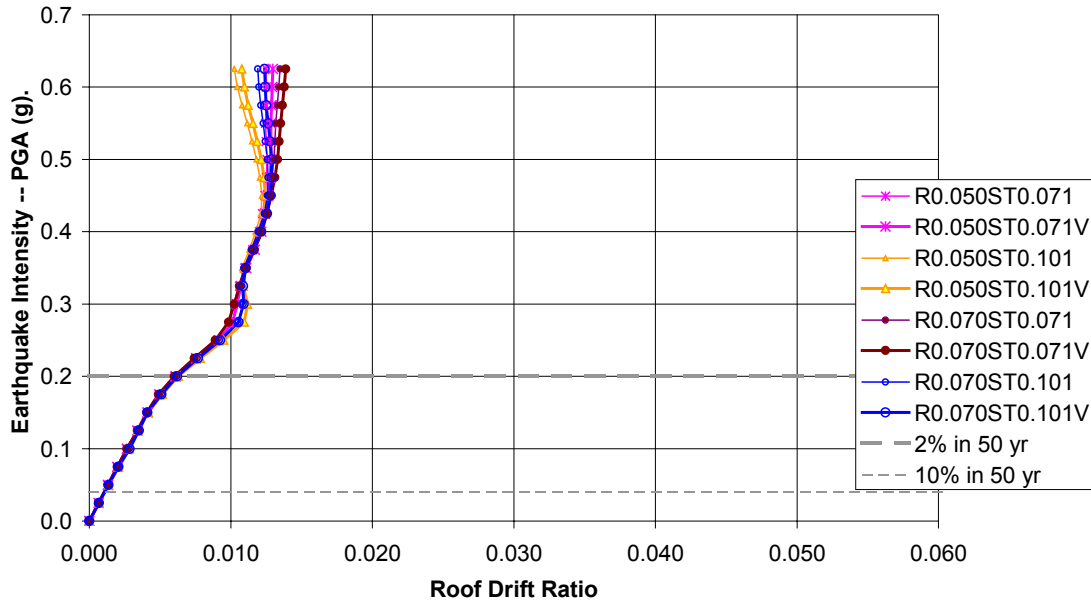


**Figure D1.4.7.9a – Ductility Demands of the New York City 7 Story Models Subjected to the Hollister Earthquake (EQ 9).**

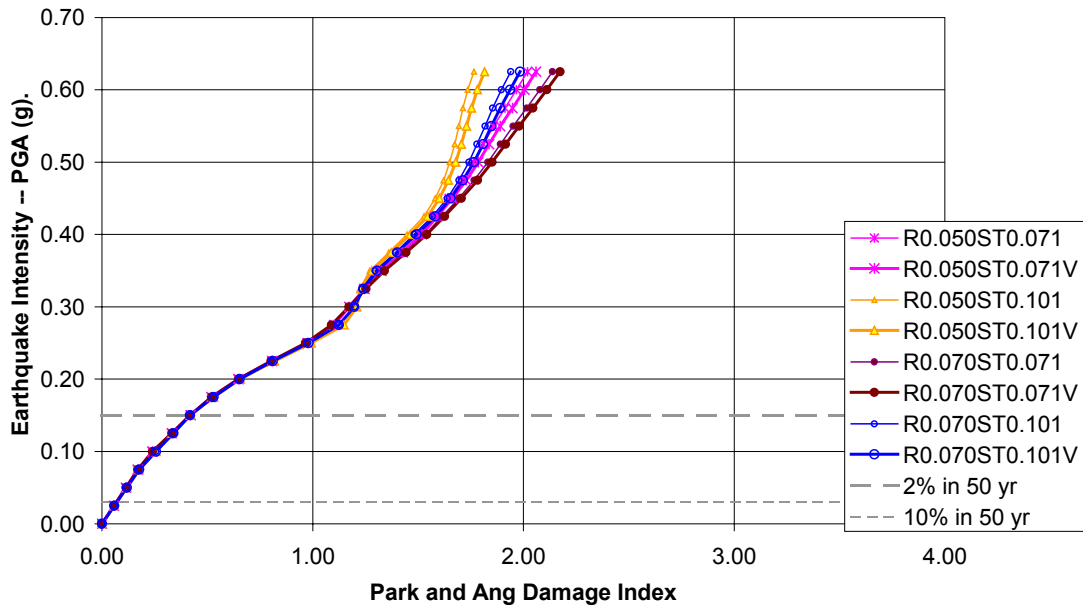


**Figure D1.4.7.9b – Change in Ductility Demands Due to Vertical Accelerations for the New York City 7 Story Models Subjected to the Northridge Earthquake (EQ 9).**

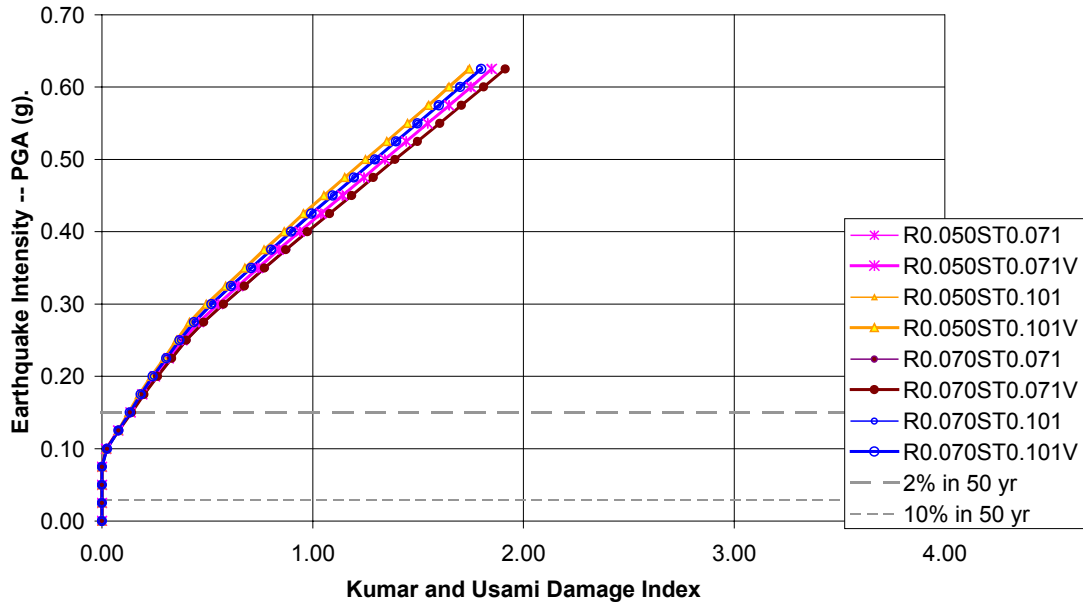




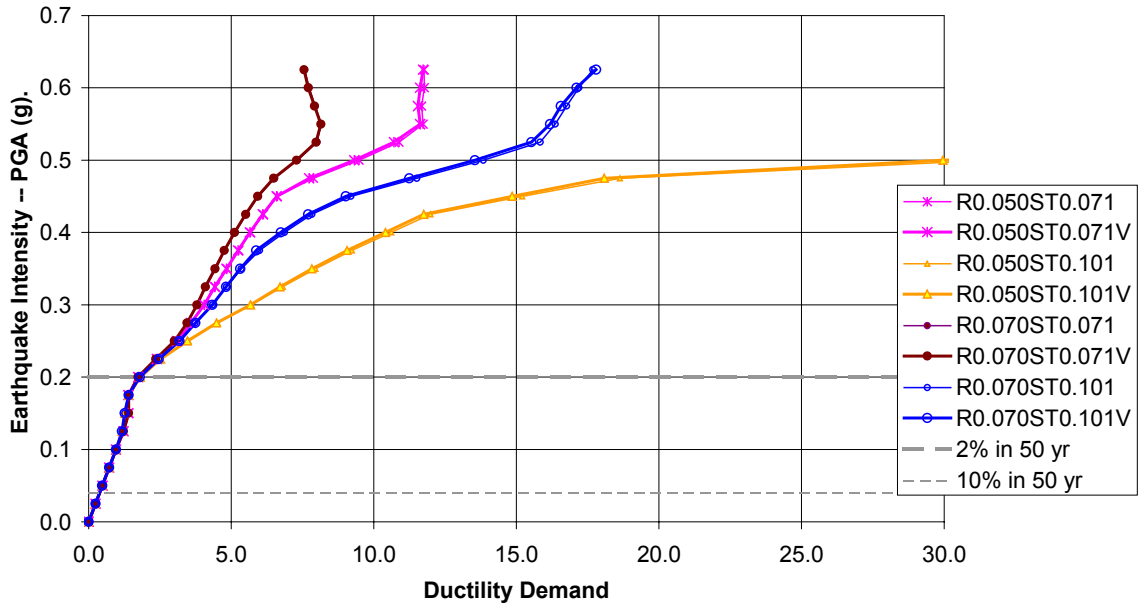
**Figure D1.4.7.9c – Roof Drift Ratio of the New York City 7 Story Models Subjected to the Northridge Earthquake (EQ 9).**



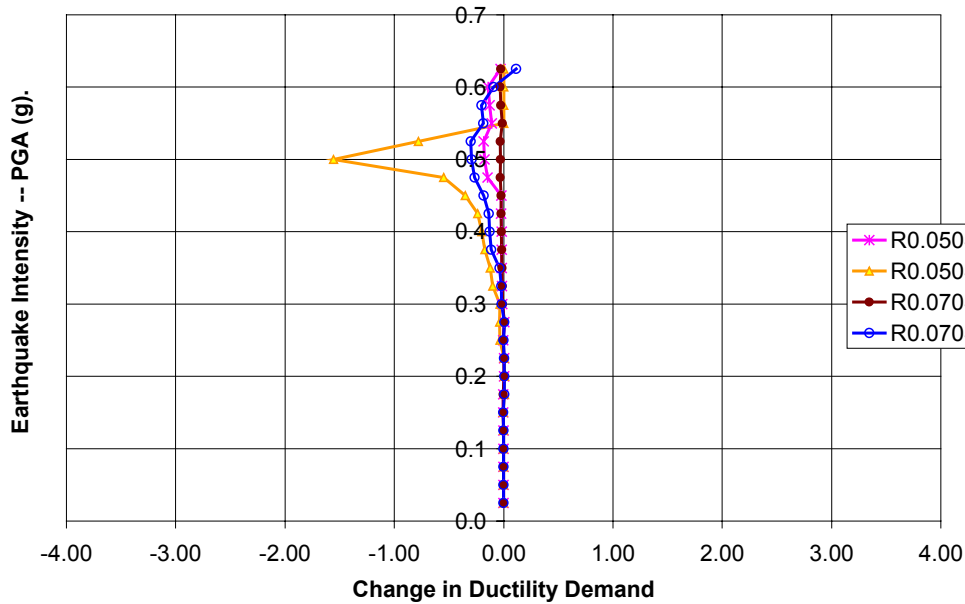
**Figure D1.4.7.9d – Park and Ang Damage Indices of the New York City 7 Story Models Subjected to the Northridge Earthquake (EQ 9).**



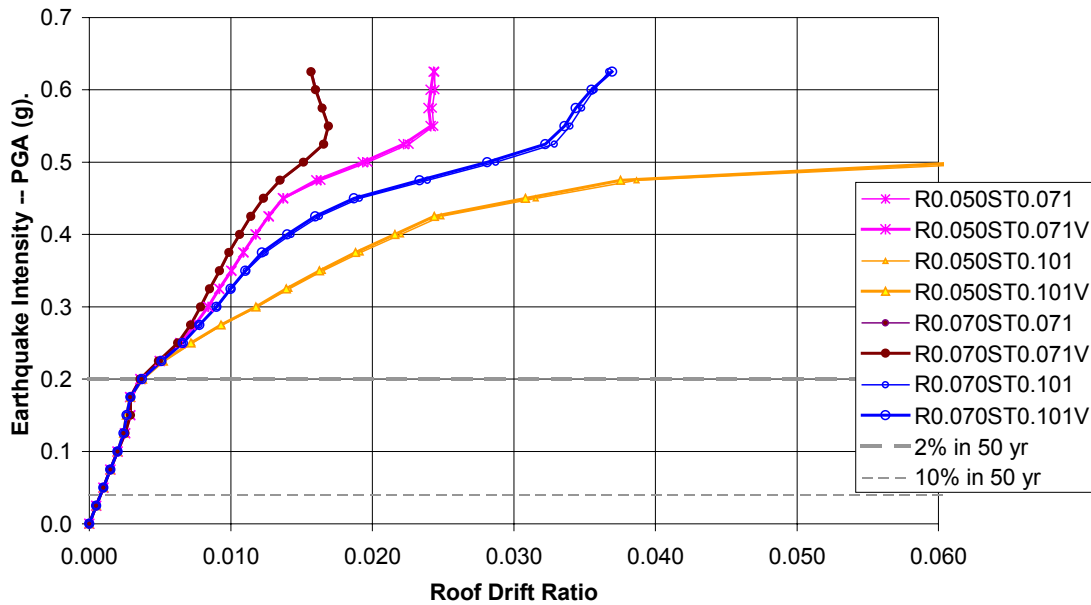
**Figure D1.4.7.9e – Kumar and Usami Damage Indices of the New York City 7 Story Models Subjected to the Northridge Earthquake (EQ 9).**



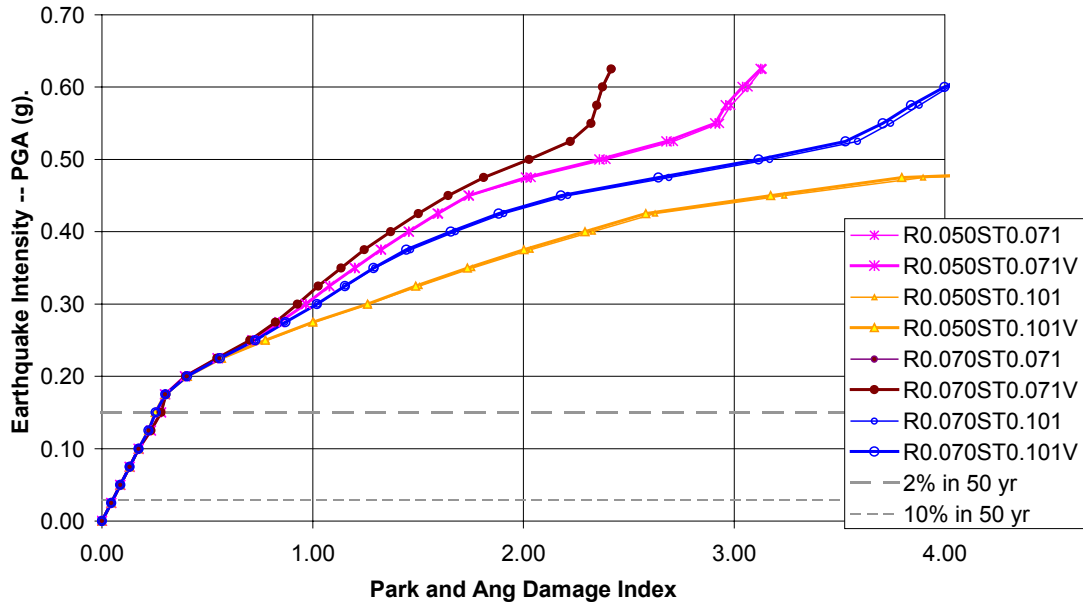
**Figure D1.4.9.4a – Ductility Demands of the New York City 9 Story Models Subjected to the Taft Earthquake (EQ 4).**



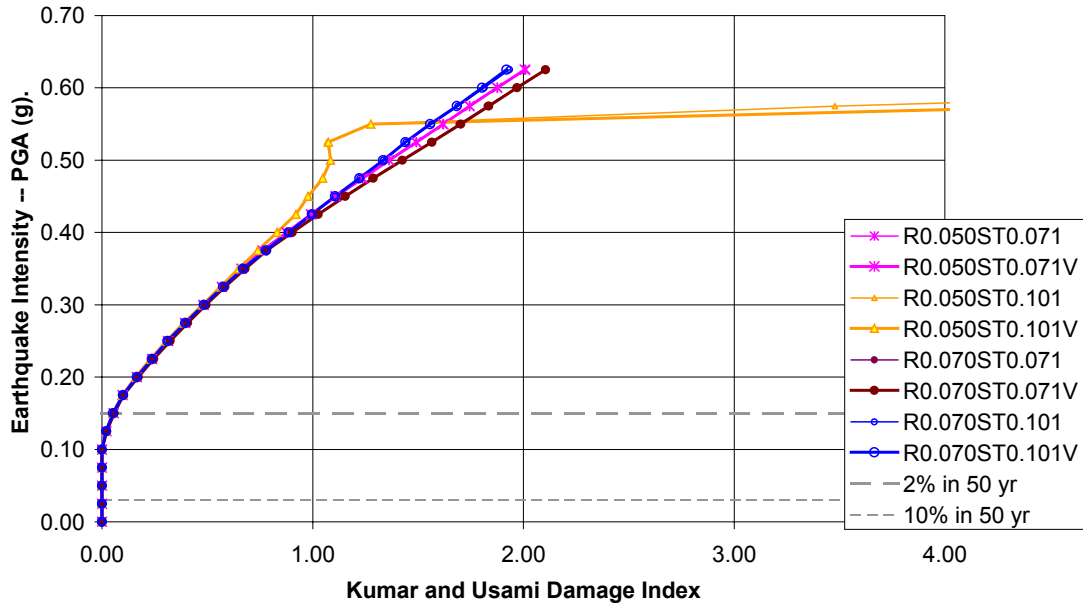
**Figure D1.4.9.4b – Change in Ductility Demands Due to Vertical Accelerations for the New York City 9 Story Models Subjected to the Taft Earthquake (EQ 4).**



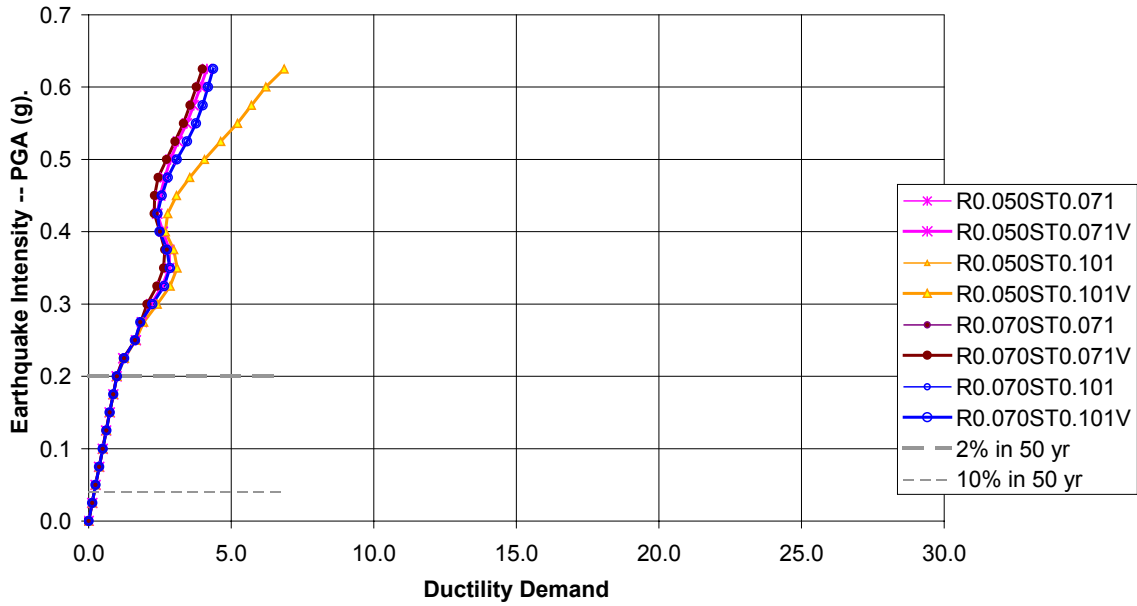
**Figure D1.4.9.4c – Roof Drift Ratio of the New York City 9 Story Models Subjected to the Taft Earthquake (EQ 4).**



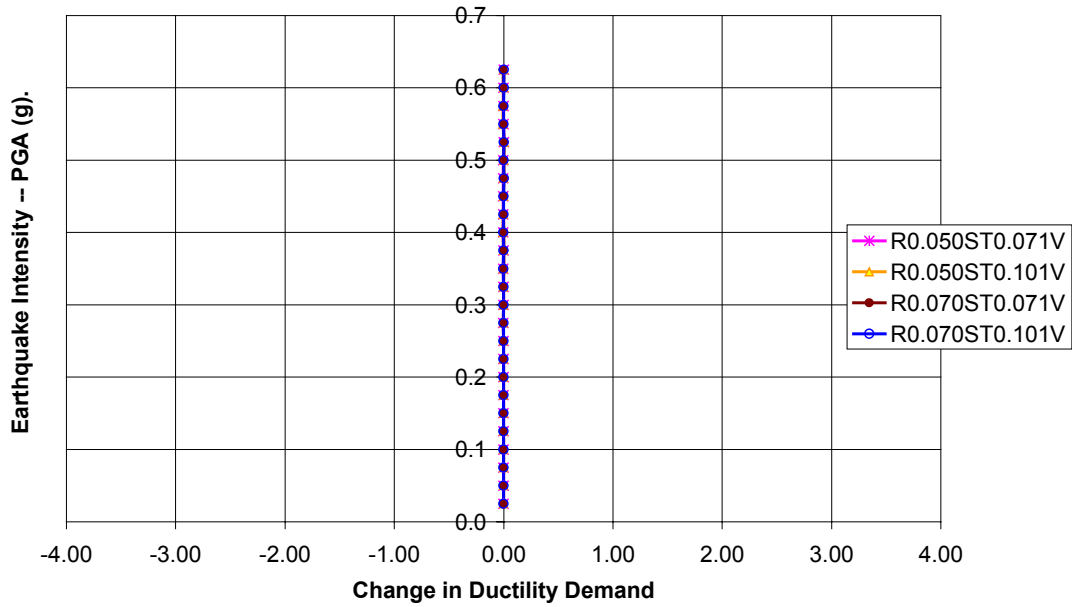
**Figure D1.4.9.4d – Park and Ang Damage Indices of the New York City 9 Story Models Subjected to the Taft Earthquake (EQ 4).**



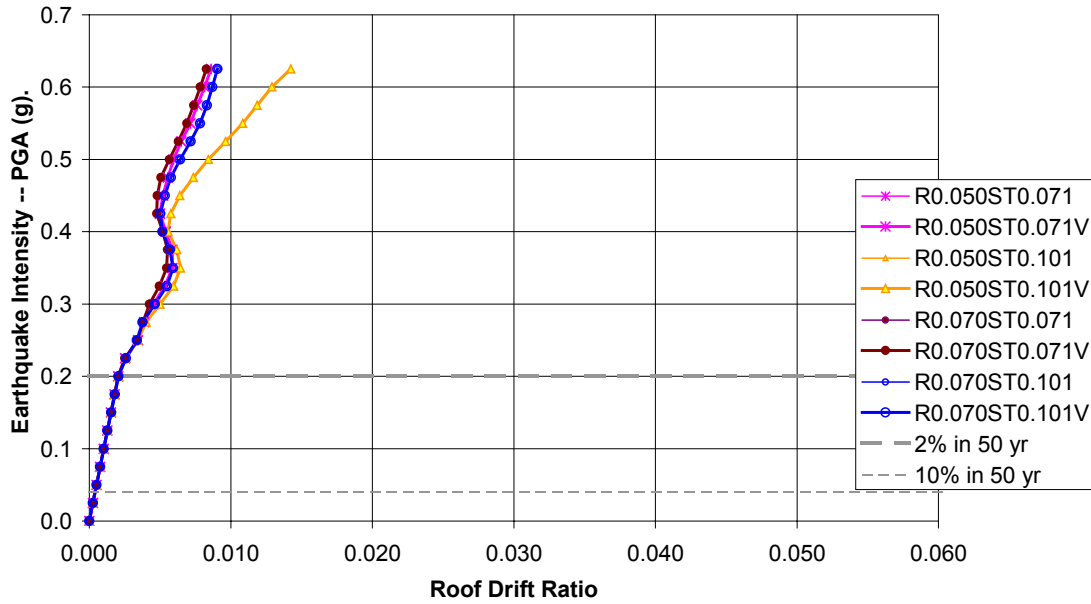
**Figure D1.4.9.4e – Kumar and Usami Damage Indices of the New York City 9 Story Models Subjected to the Taft Earthquake (EQ 4).**



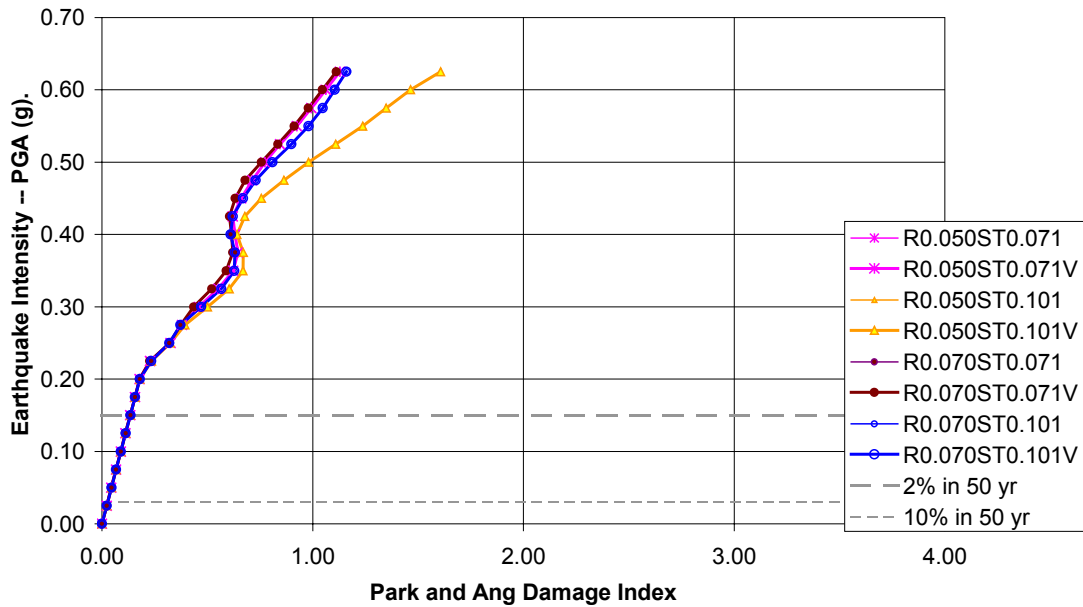
**Figure D1.4.9.5a – Ductility Demands of the New York City 9 Story Models Subjected to the Hollister Earthquake (EQ 5).**



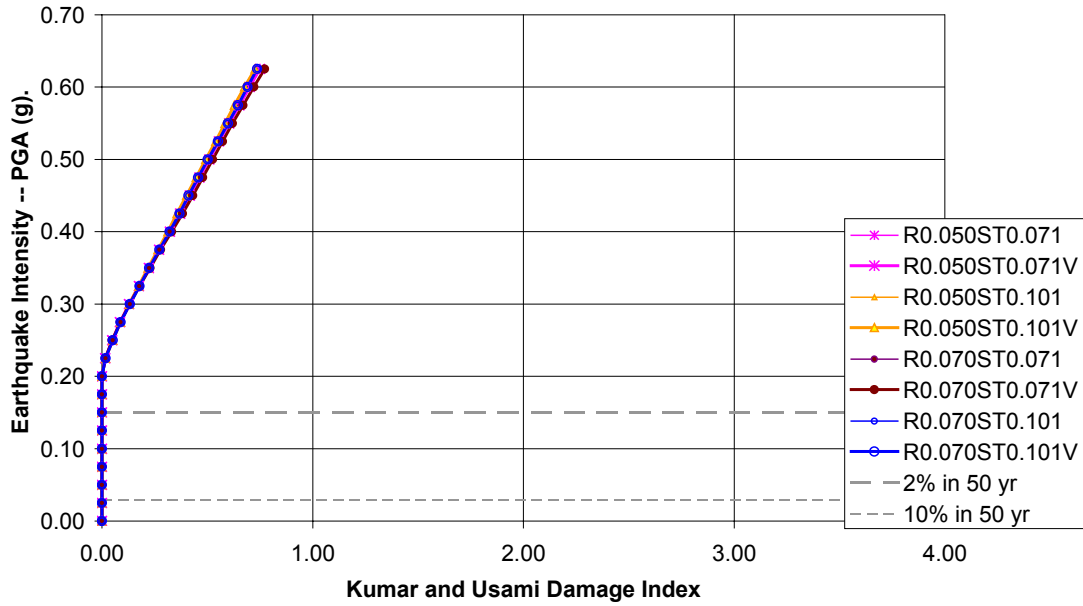
**Figure D1.4.9.5b – Change in Ductility Demands Due to Vertical Accelerations for the New York City 9 Story Models Subjected to the Hollister Earthquake (EQ 5).**



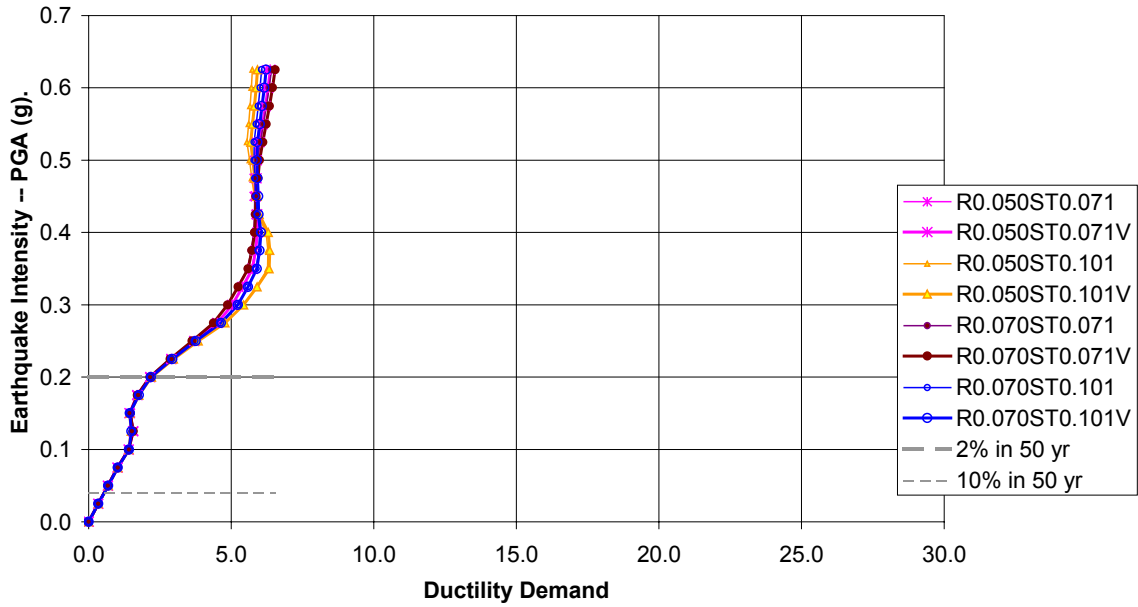
**Figure D1.4.9.5c – Roof Drift Ratio of the New York City 9 Story Models Subjected to the Hollister Earthquake (EQ 5).**



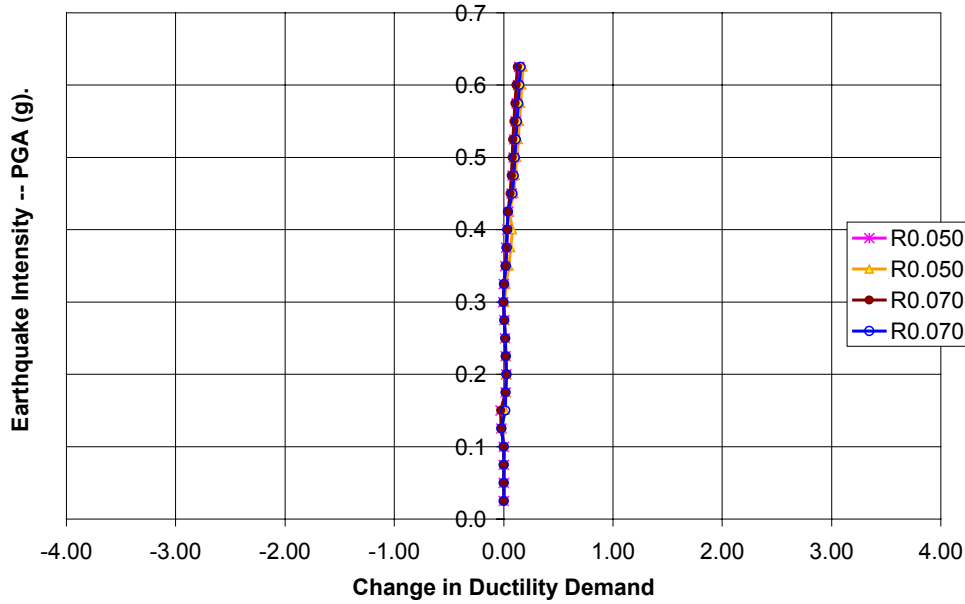
**Figure D1.4.9.5d – Park and Ang Damage Indices of the New York City 9 Story Models Subjected to the Hollister Earthquake (EQ 5).**



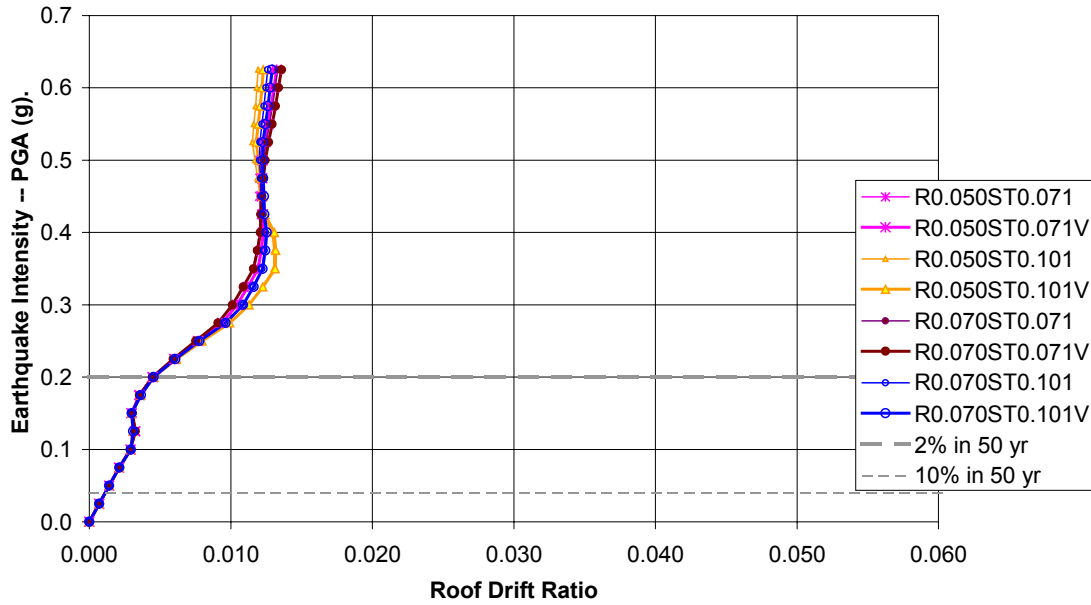
**Figure D1.4.9.5e – Kumar and Usami Damage Indices of the New York City 9 Story Models Subjected to the Hollister Earthquake (EQ 5).**



**Figure D1.4.9.9a – Ductility Demands of the New York City 9 Story Models Subjected to the Hollister Earthquake (EQ 9).**

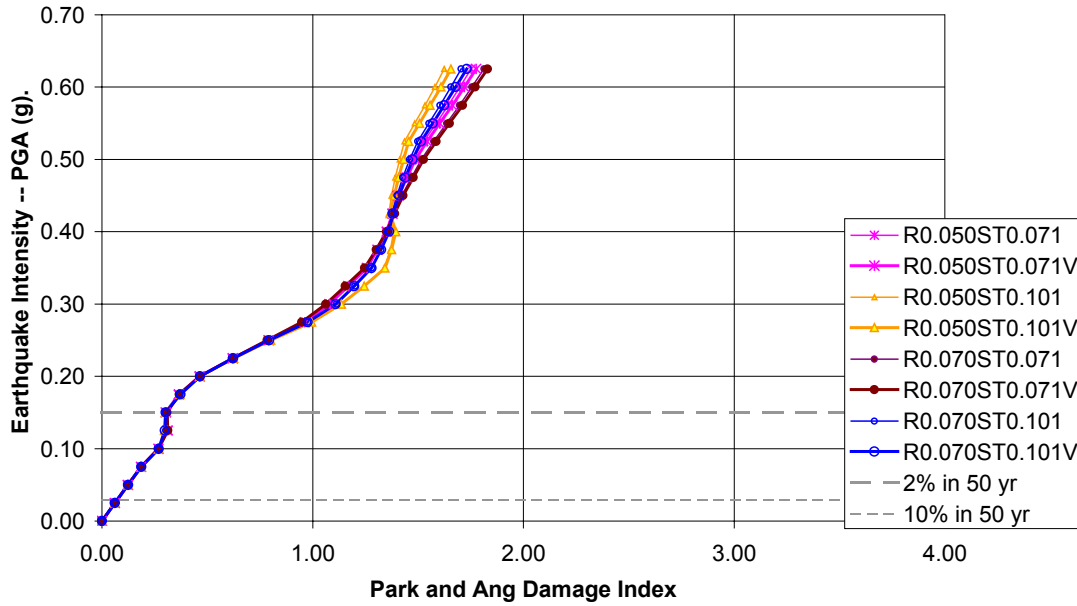


**Figure D1.4.9.9b – Change in Ductility Demands Due to Vertical Accelerations for the New York City 9 Story Models Subjected to the Northridge Earthquake (EQ 9).**

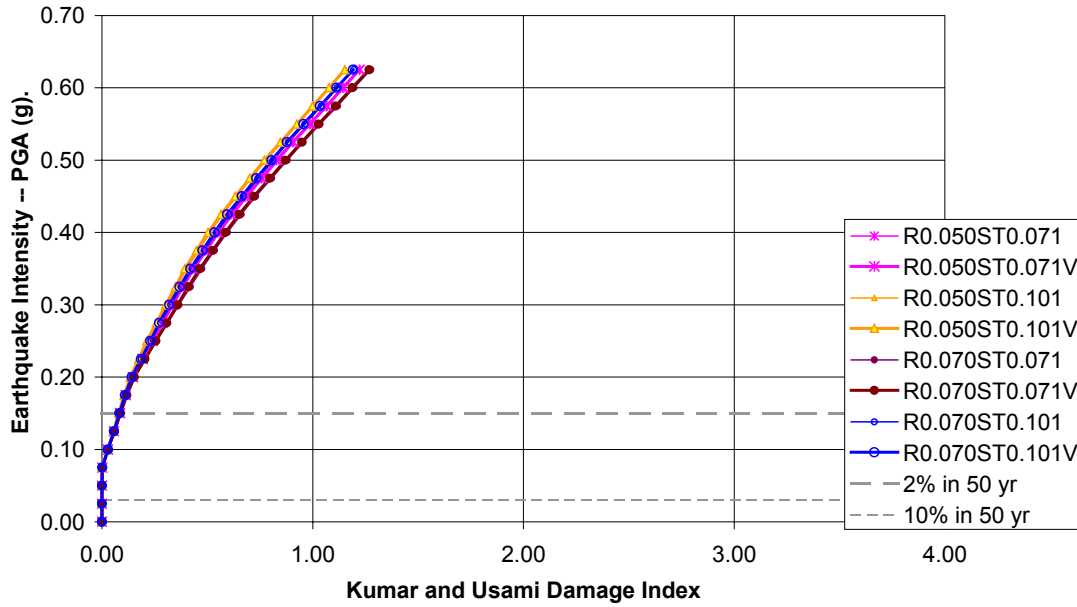


**Figure D1.4.9.9c – Roof Drift Ratio of the New York City 9 Story Models Subjected to the Northridge Earthquake (EQ 9).**

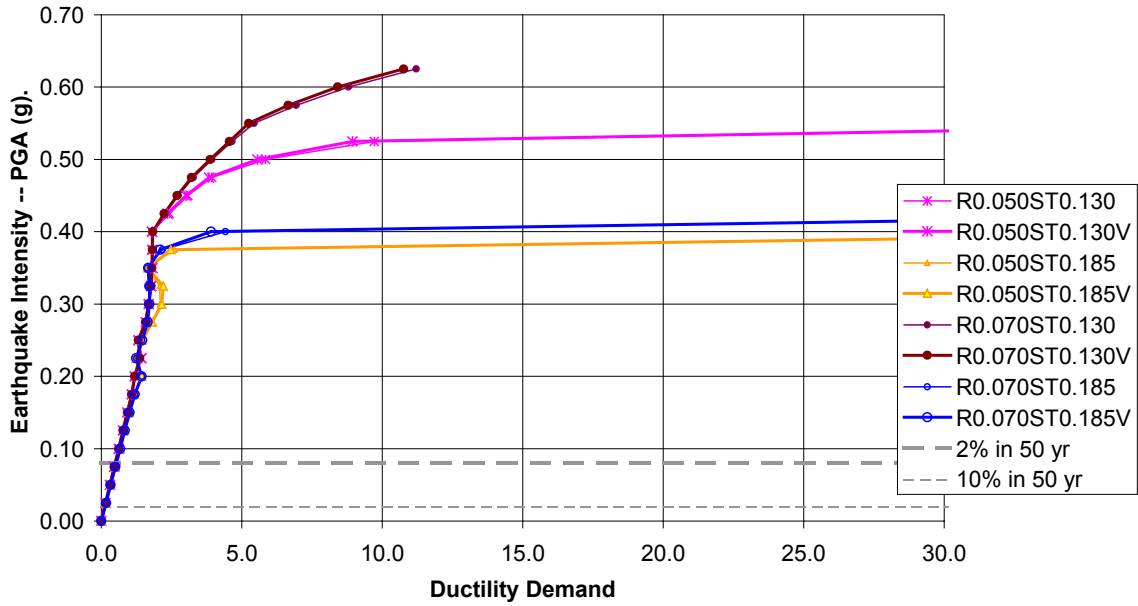




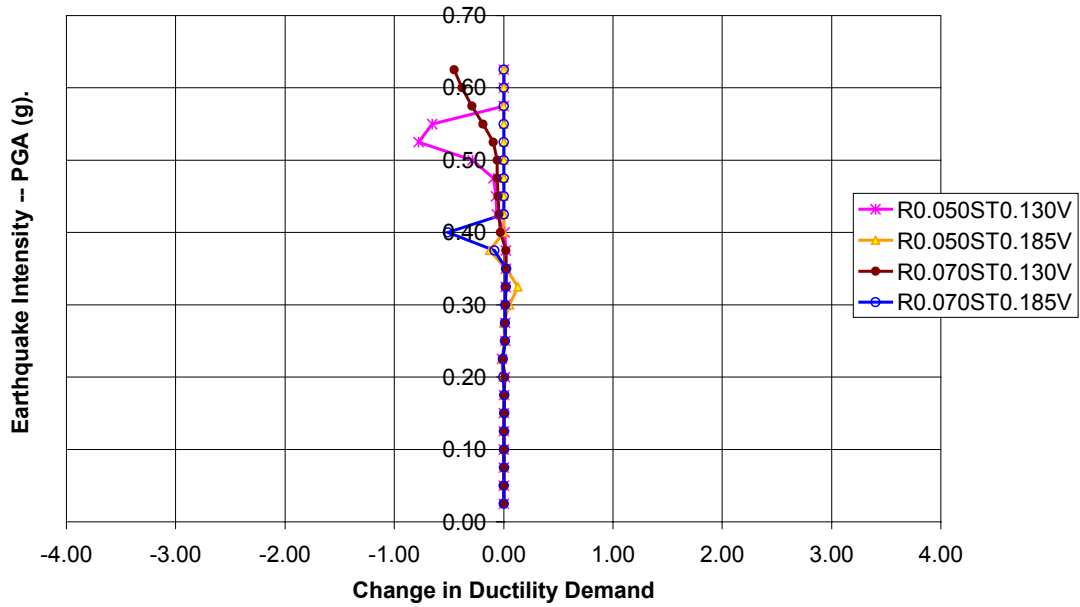
**Figure D1.4.9d – Park and Ang Damage Indices of the New York City 9 Story Models Subjected to the Northridge Earthquake (EQ 9).**



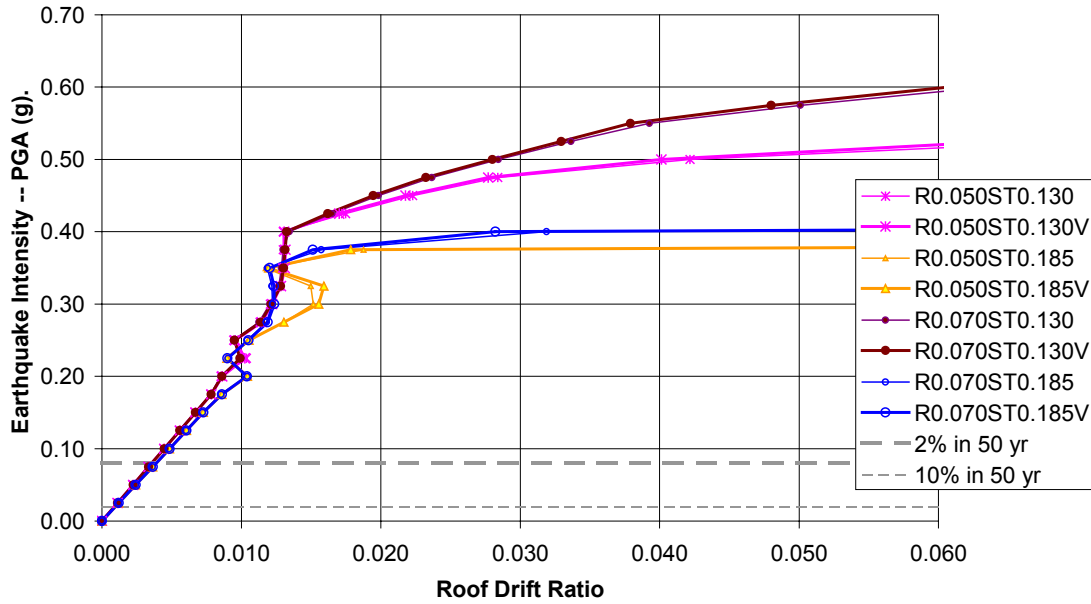
**Figure D1.4.9e – Kumar and Usami Damage Indices of the New York City 9 Story Models Subjected to the Northridge Earthquake (EQ 9).**



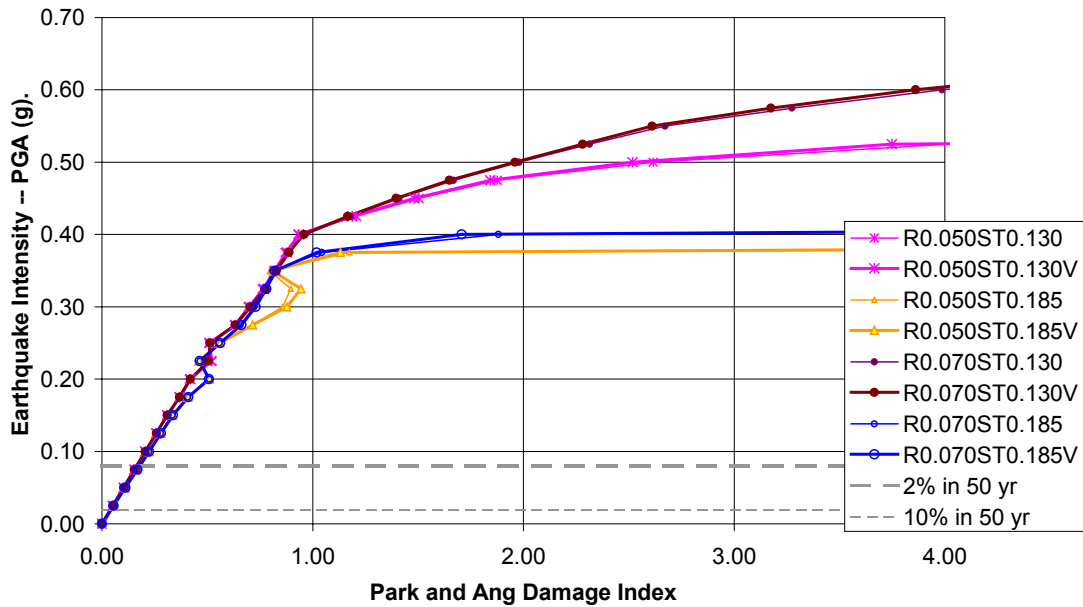
**Figure D1.5.3.4a – Ductility Demands of the Chicage/Washington D.C. 3 Story Models Subjected to the Taft Earthquake (EQ 4).**



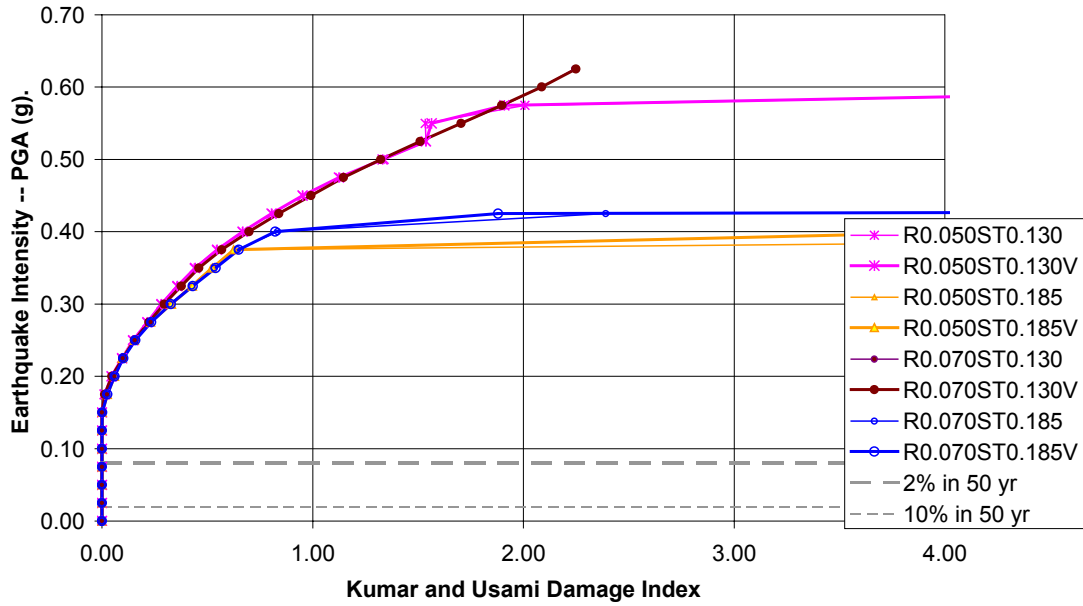
**Figure D1.5.3.4b – Change in Ductility Demands Due to Vertical Accelerations for the Chicage/Washington D.C. 3 Story Models Subjected to the Taft Earthquake (EQ 4).**



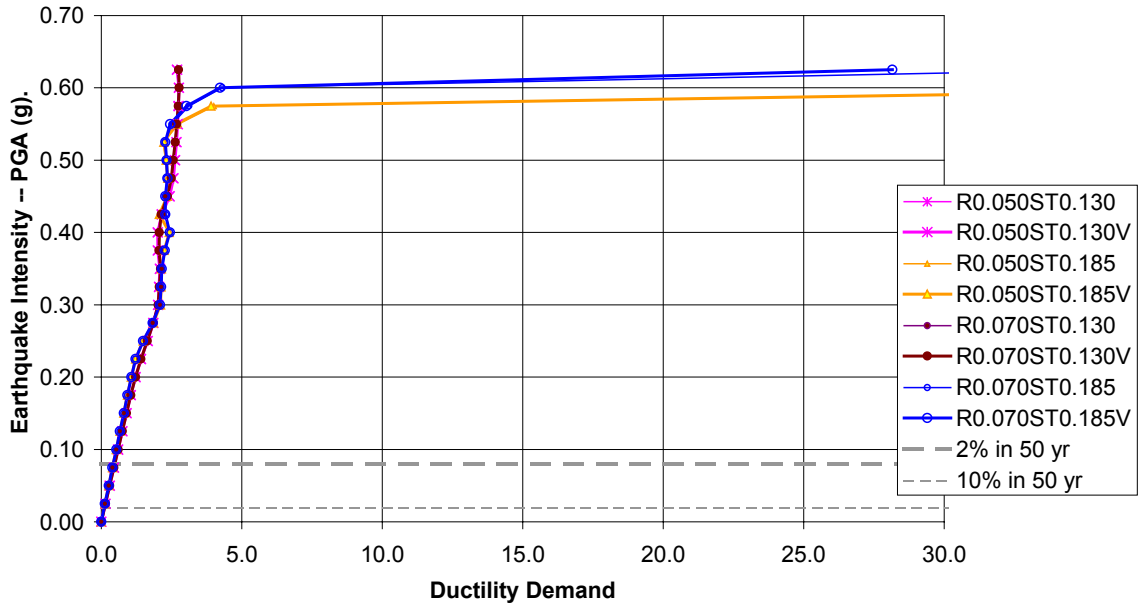
**Figure D1.5.3.4c – Roof Drift Ratio of the Chicago/Washington D.C. 3 Story Models Subjected to the Taft Earthquake (EQ 4).**



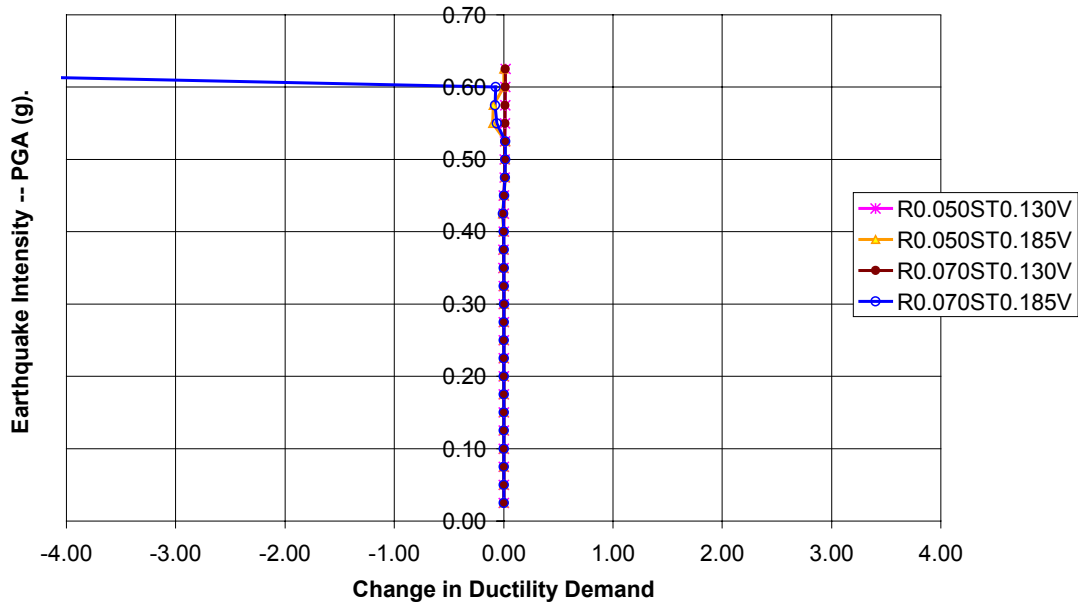
**Figure D1.5.3.4d – Park and Ang Damage Indices of the Chicago/Washington D.C. 3 Story Models Subjected to the Taft Earthquake (EQ 4).**



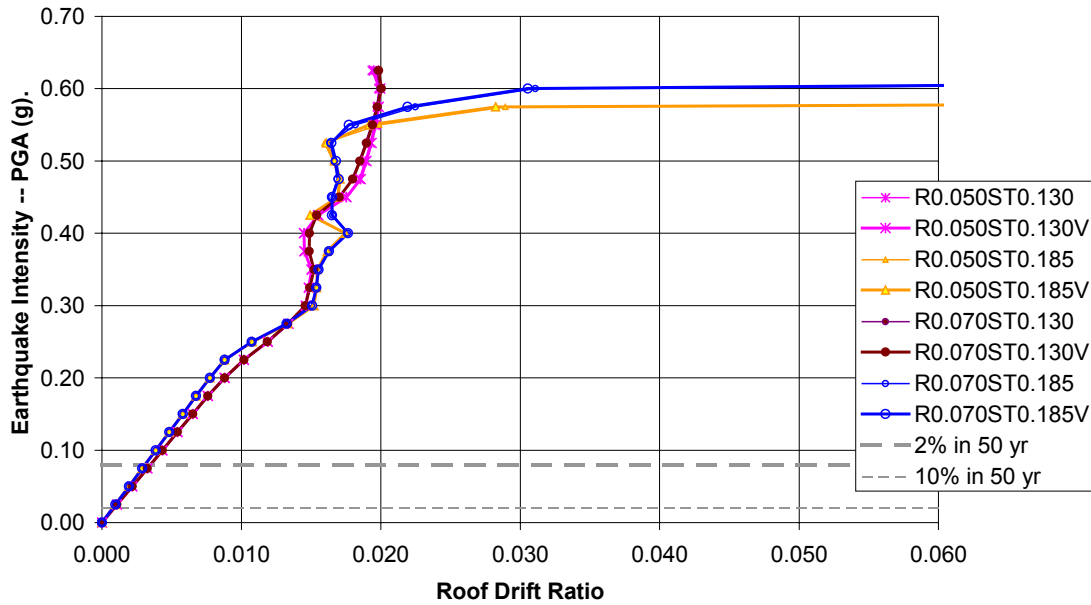
**Figure D1.5.3.4e – Kumar and Usami Damage Indices of the Chicago/Washington D.C. 3 Story Models Subjected to the Taft Earthquake (EQ 4).**



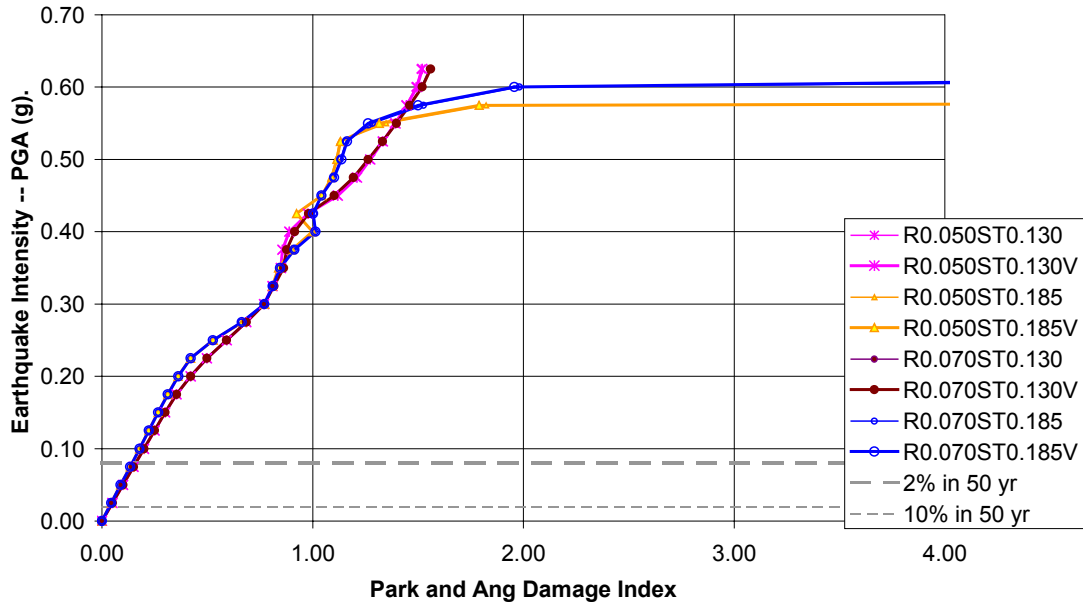
**Figure D1.5.3.5a – Ductility Demands of the Chicago/Washington D.C. 3 Story Models Subjected to the Hollister Earthquake (EQ 5).**



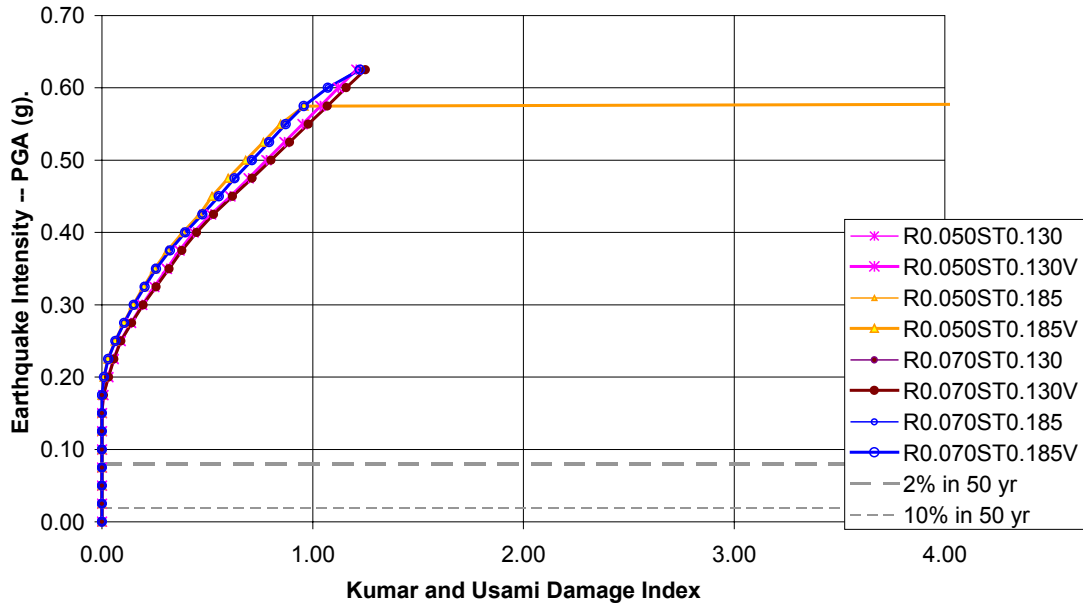
**Figure D1.5.3.5b – Change in Ductility Demands Due to Vertical Accelerations for the Chicago/Washington D.C. 3 Story Models Subjected to the Hollister Earthquake (EQ 5).**



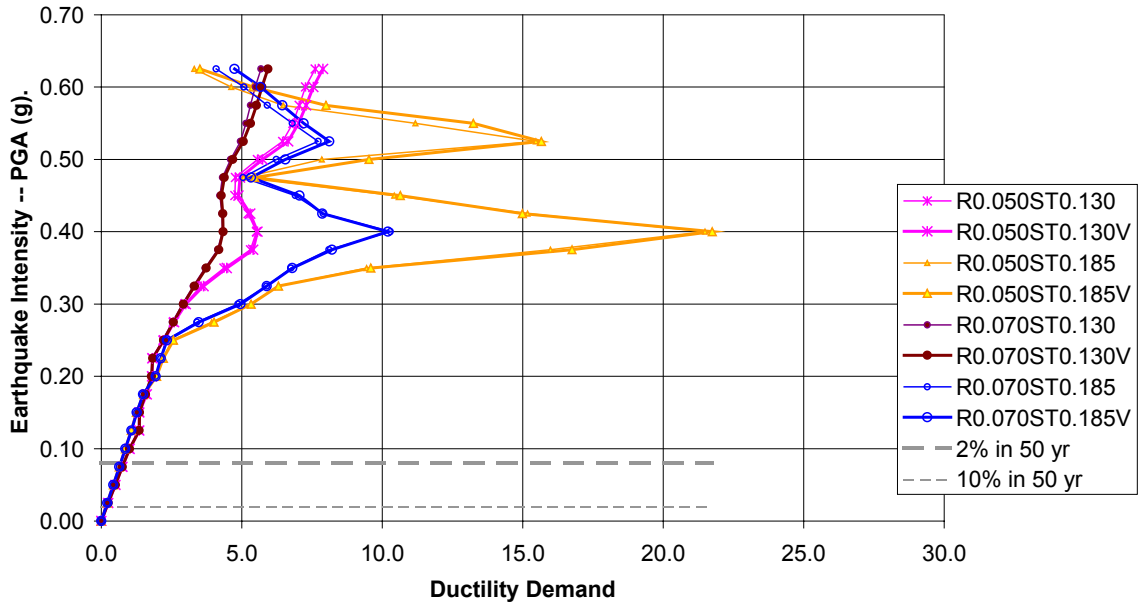
**Figure D1.5.3.5c – Roof Drift Ratio of the Chicago/Washington D.C. 3 Story Models Subjected to the Hollister Earthquake (EQ 5).**



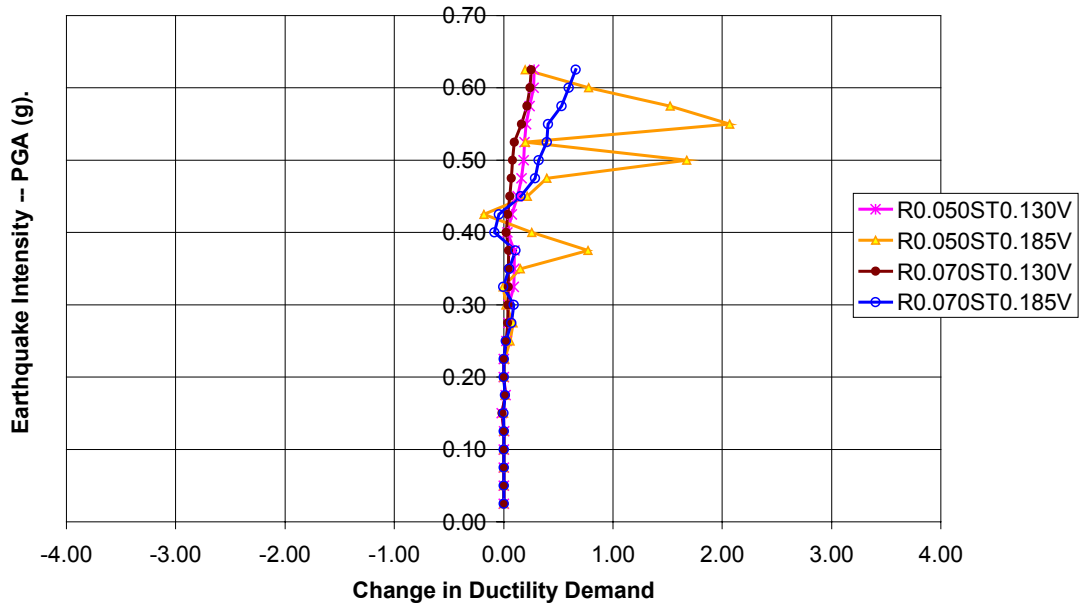
**Figure D1.5.3.5d – Park and Ang Damage Indices of the Chicago/Washington D.C. 3 Story Models Subjected to the Hollister Earthquake (EQ 5).**



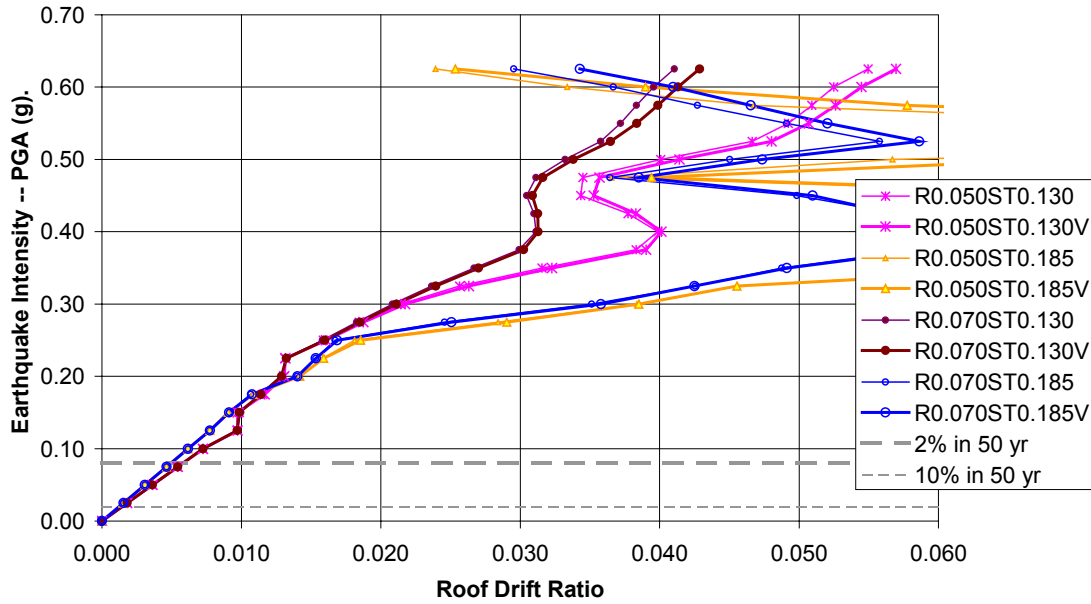
**Figure D1.5.3.5e – Kumar and Usami Damage Indices of the Chicago/Washington D.C. 3 Story Models Subjected to the Hollister Earthquake (EQ 5).**



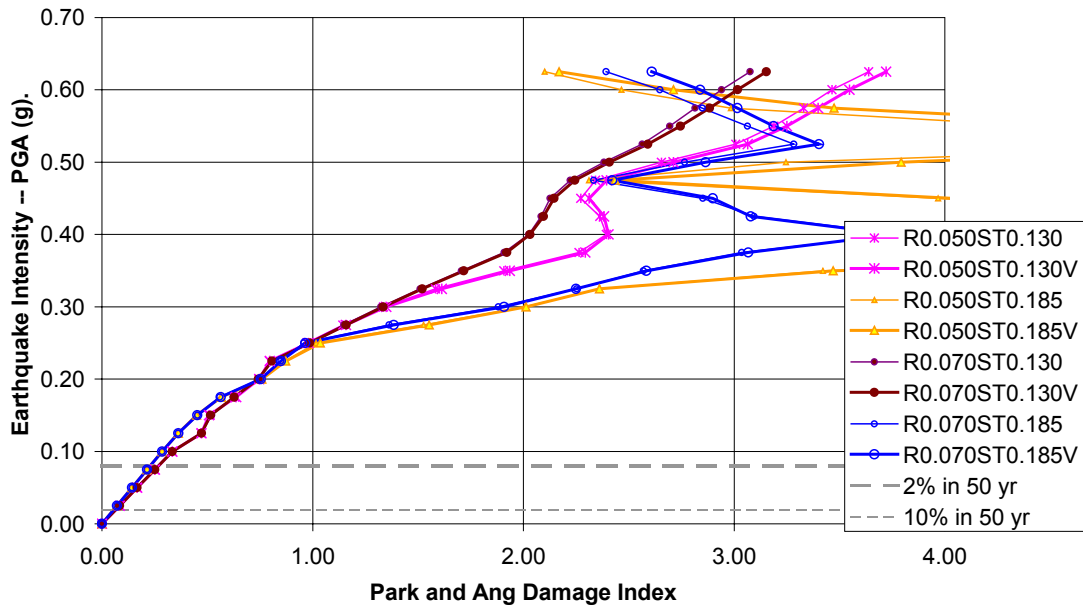
**Figure D1.5.3.9a – Ductility Demands of the Chicage/Washington D.C. 3 Story Models Subjected to the Hollister Earthquake (EQ 9).**



**Figure D1.5.3.9b – Change in Ductility Demands Due to Vertical Accelerations for the Chicage/Washington D.C. 3 Story Models Subjected to the Northridge Earthquake (EQ 9).**

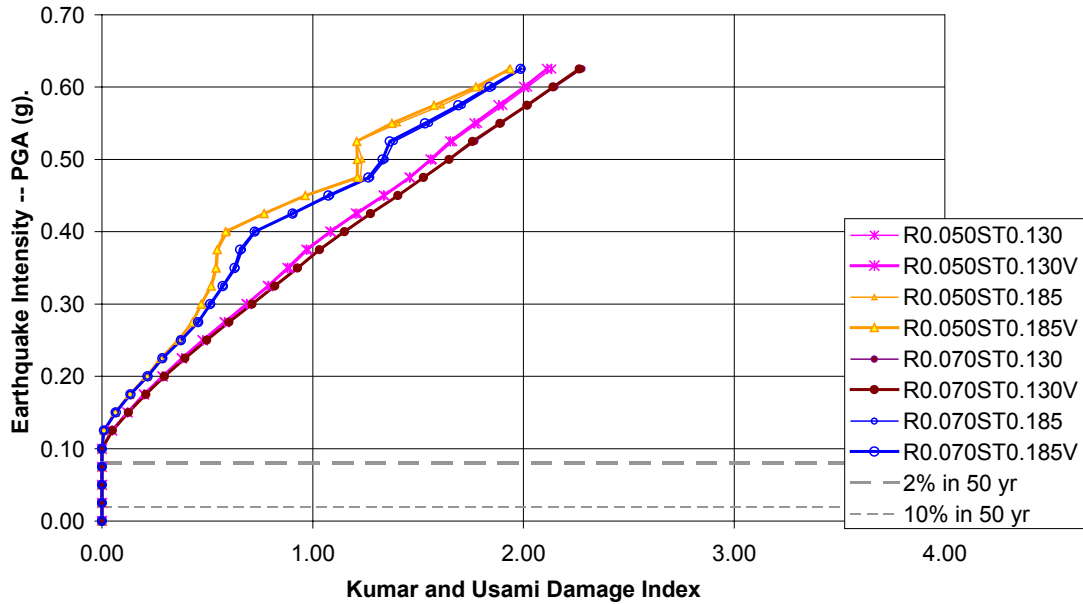


**Figure D1.5.3.9c – Roof Drift Ratio of the Chicago/Washington D.C. 3 Story Models Subjected to the Northridge Earthquake (EQ 9).**

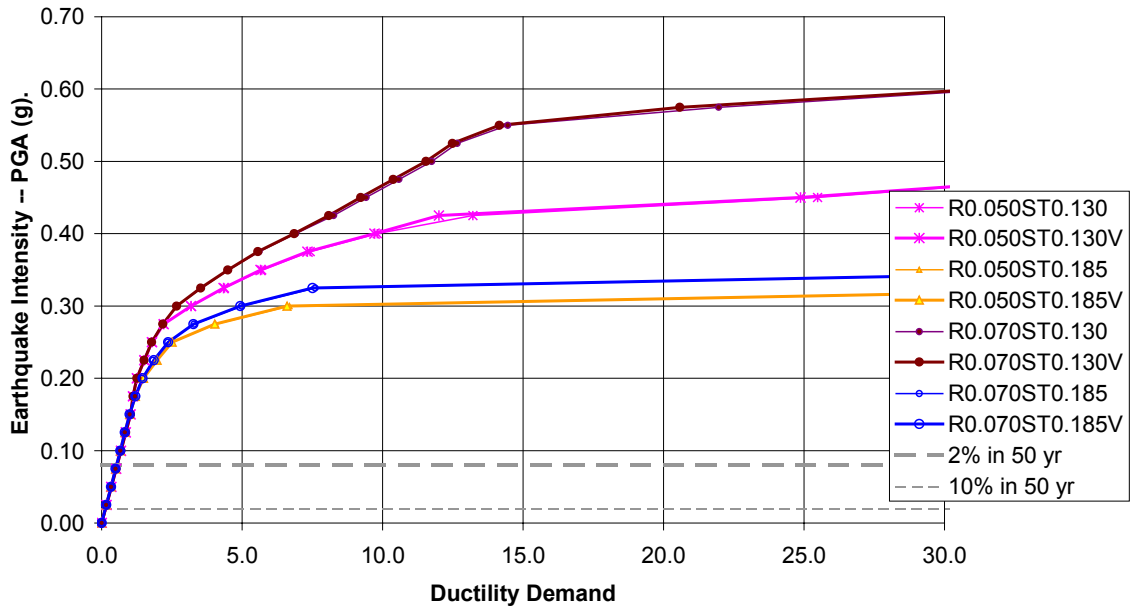


**Figure D1.5.3.9d – Park and Ang Damage Indices of the Chicago/Washington D.C. 3 Story Models Subjected to the Northridge Earthquake (EQ 9).**

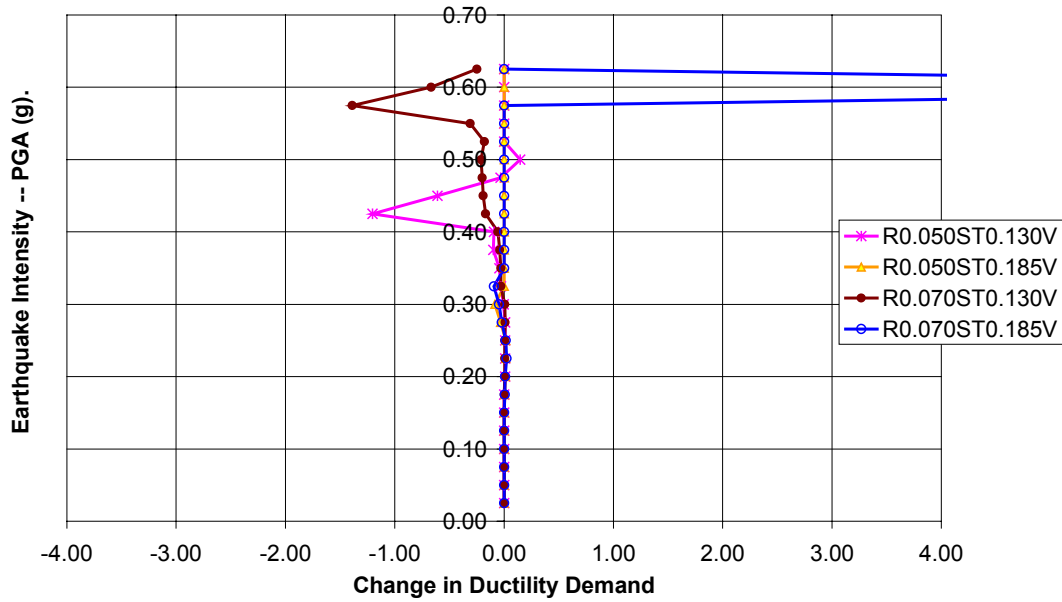




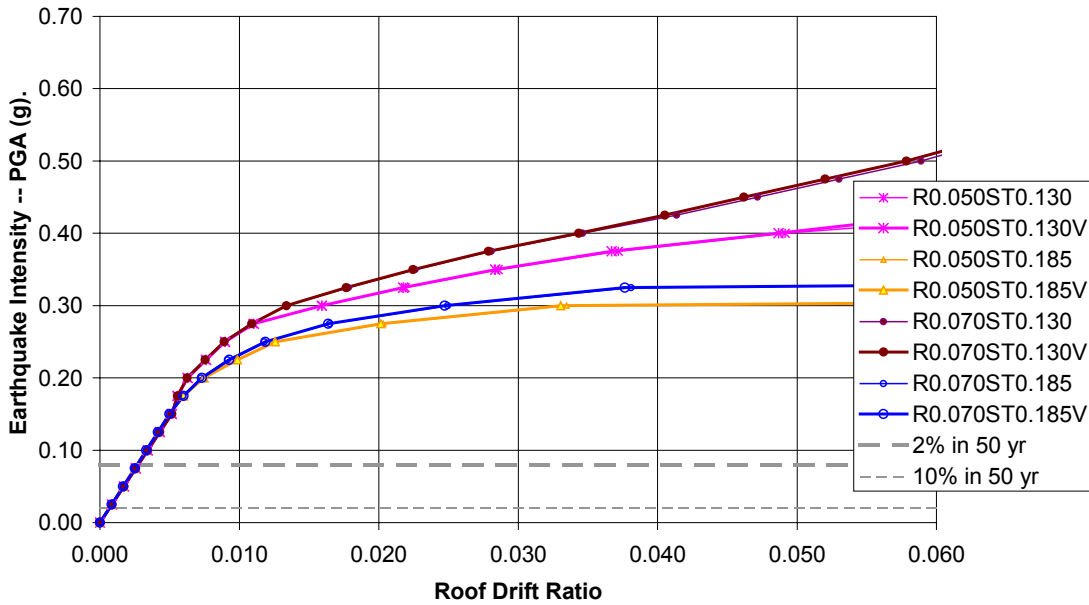
**Figure D1.5.3.9e – Kumar and Usami Damage Indices of the Chicago/Washington D.C. 3 Story Models Subjected to the Northridge Earthquake (EQ 9).**



**Figure D1.5.5.4a – Ductility Demands of the Chicago/Washington D.C. 5 Story Models Subjected to the Taft Earthquake (EQ 4).**



**Figure D1.5.5.4b – Change in Ductility Demands Due to Vertical Accelerations for the Chicago/Washington D.C. 5 Story Models Subjected to the Taft Earthquake (EQ 4).**



**Figure D1.5.5.4c – Roof Drift Ratio of the Chicago/Washington D.C. 5 Story Models Subjected to the Taft Earthquake (EQ 4).**

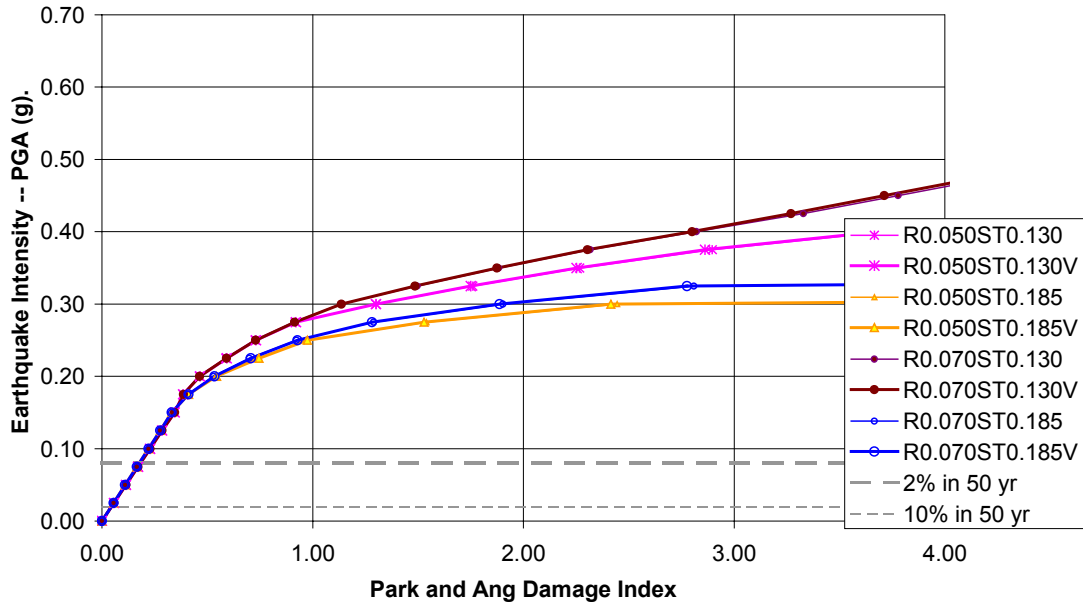


Figure D1.5.5.4d – Park and Ang Damage Indices of the Chicago/Washington D.C. 5 Story Models Subjected to the Taft Earthquake (EQ 4).

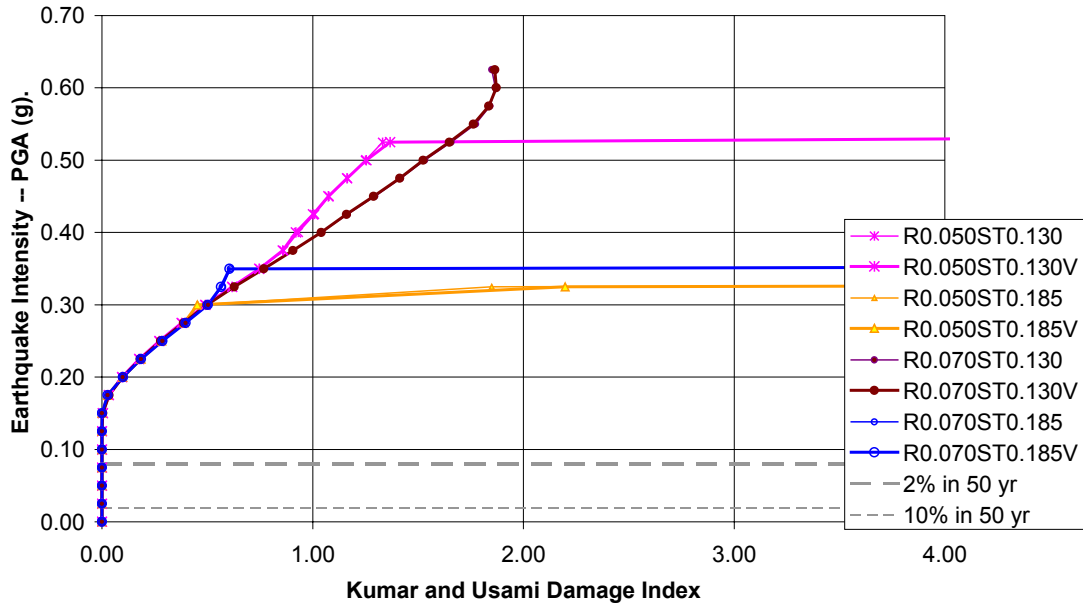
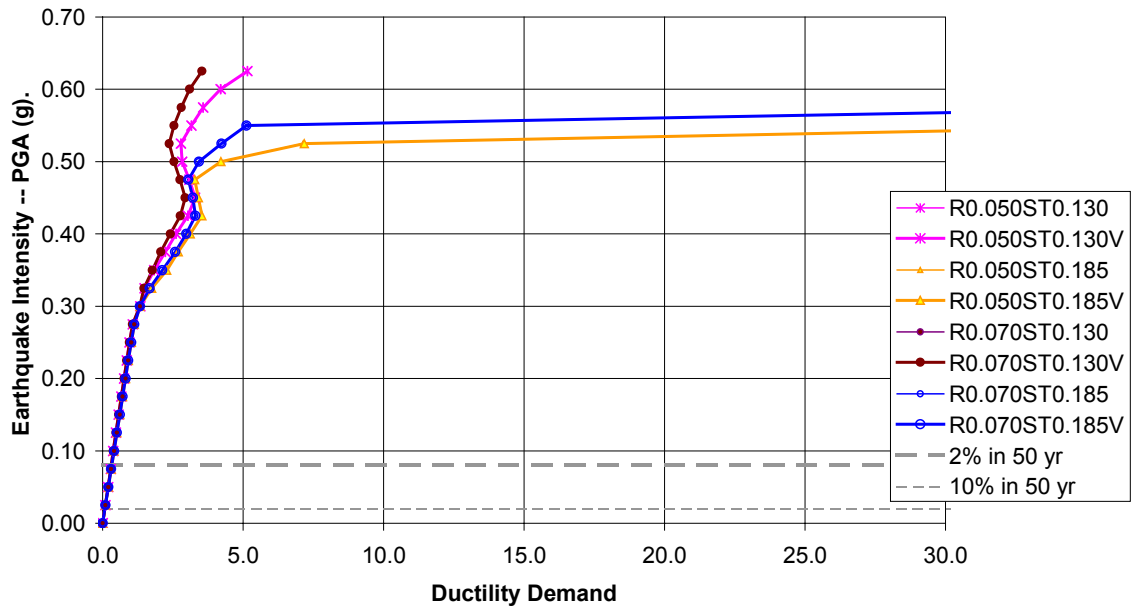
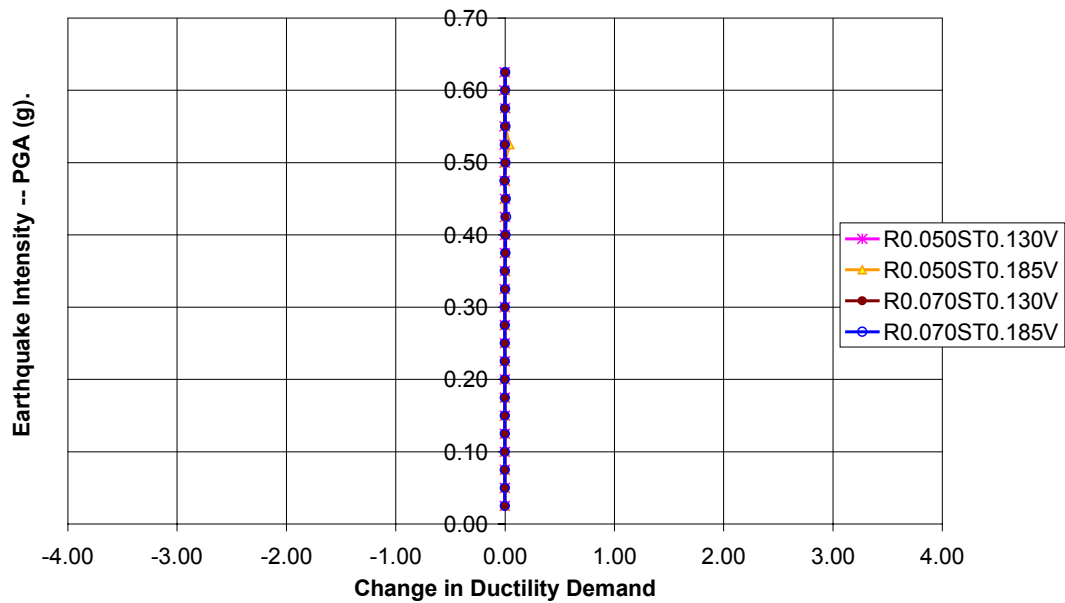


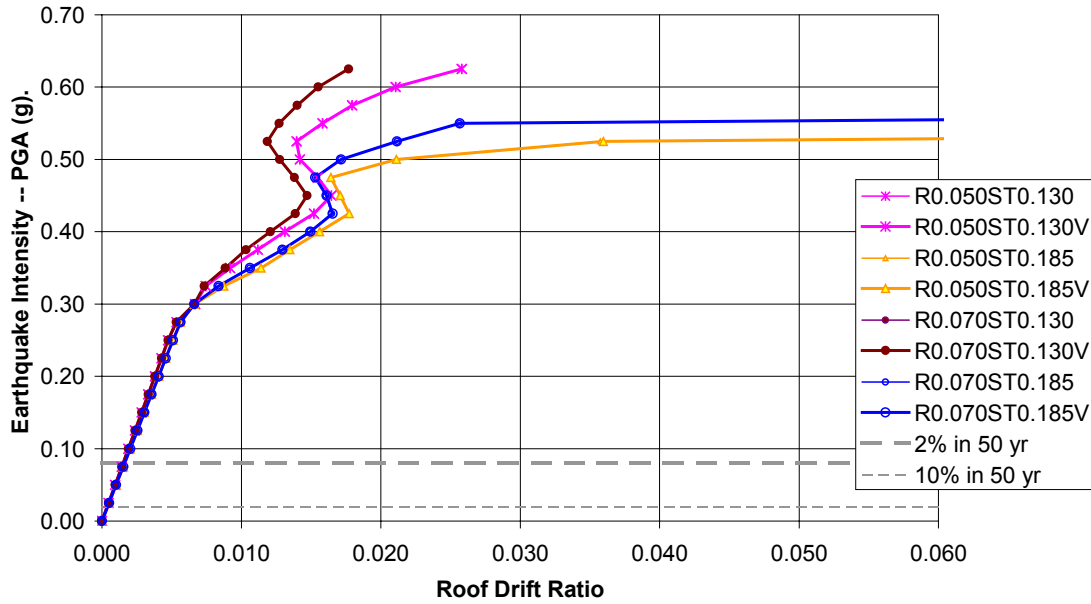
Figure D1.5.5.4e – Kumar and Usami Damage Indices of the Chicago/Washington D.C. 5 Story Models Subjected to the Taft Earthquake (EQ 4).



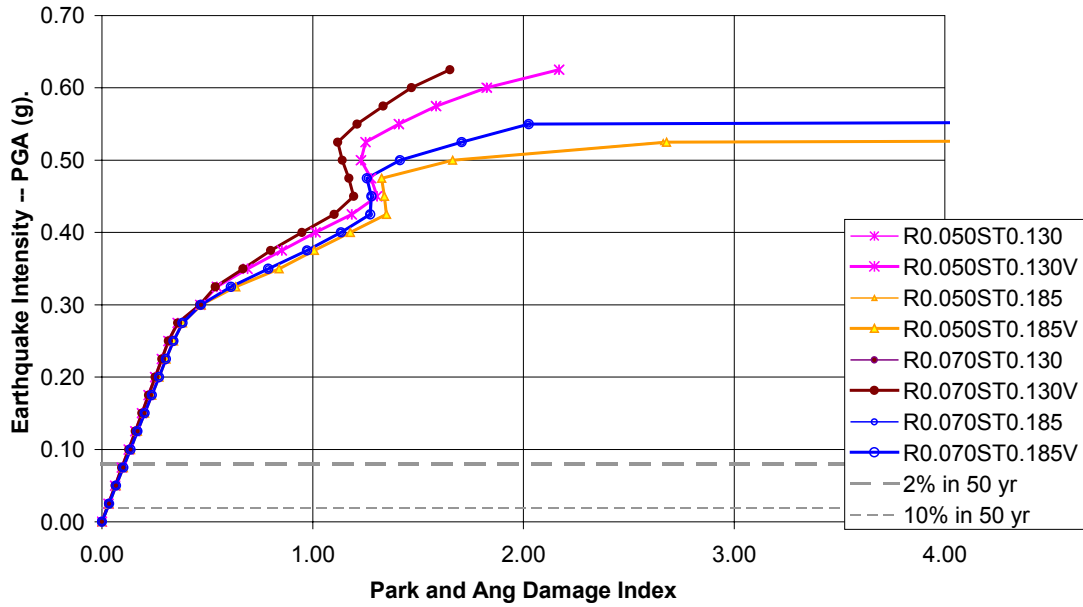
**Figure D1.5.5.5a – Ductility Demands of the Chicage/Washington D.C. 5 Story Models Subjected to the Hollister Earthquake (EQ 5).**



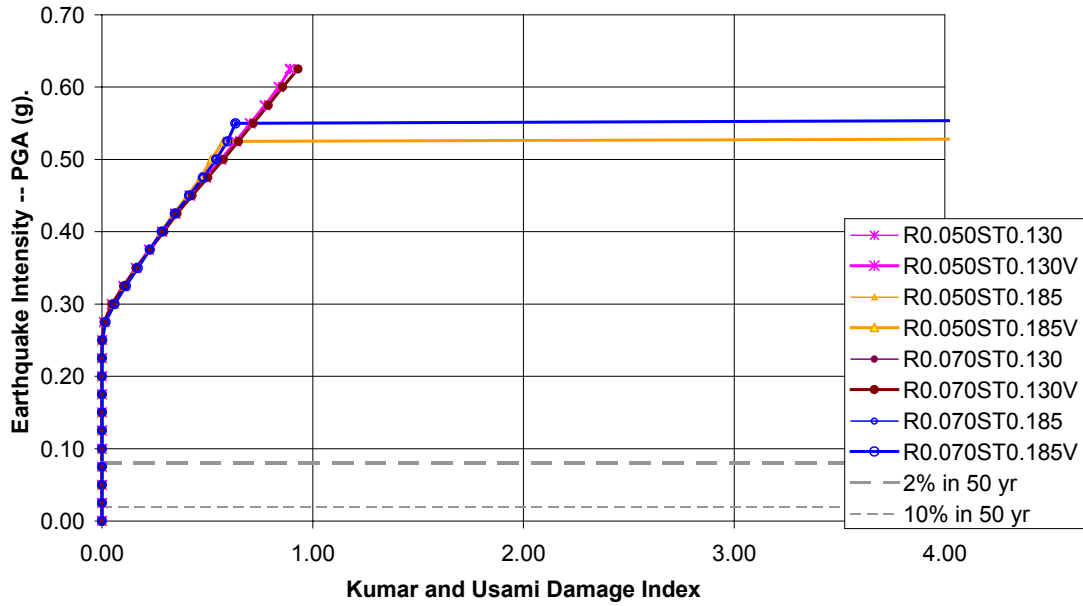
**Figure D1.5.5.5b – Change in Ductility Demands Due to Vertical Accelerations for the Chicage/Washington D.C. 5 Story Models Subjected to the Hollister Earthquake (EQ 5).**



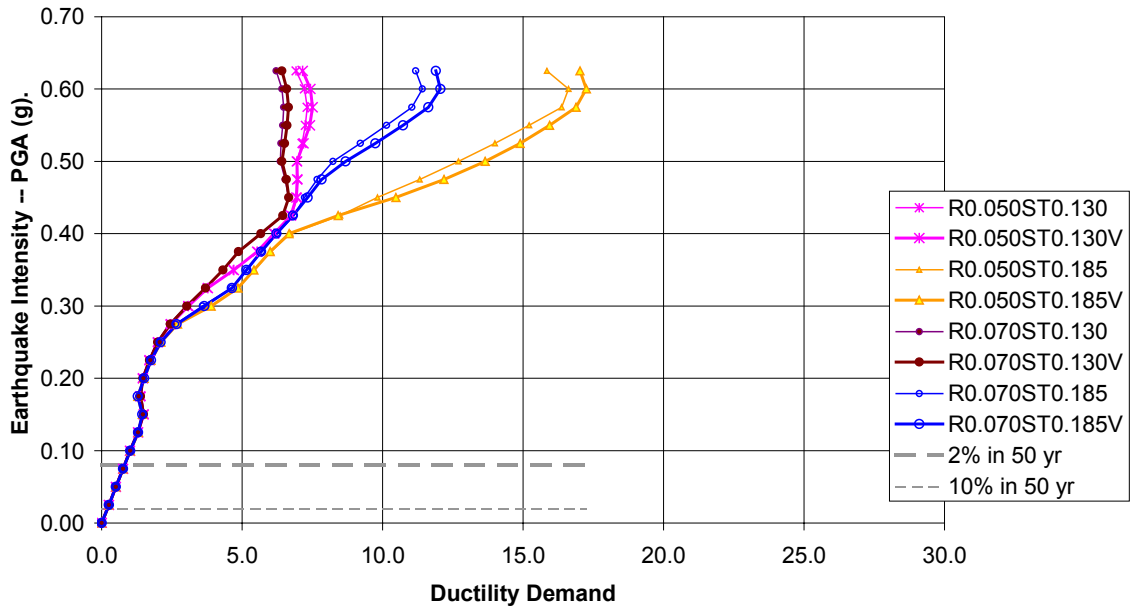
**Figure D1.5.5.5c – Roof Drift Ratio of the Chicago/Washington D.C. 5 Story Models Subjected to the Hollister Earthquake (EQ 5).**



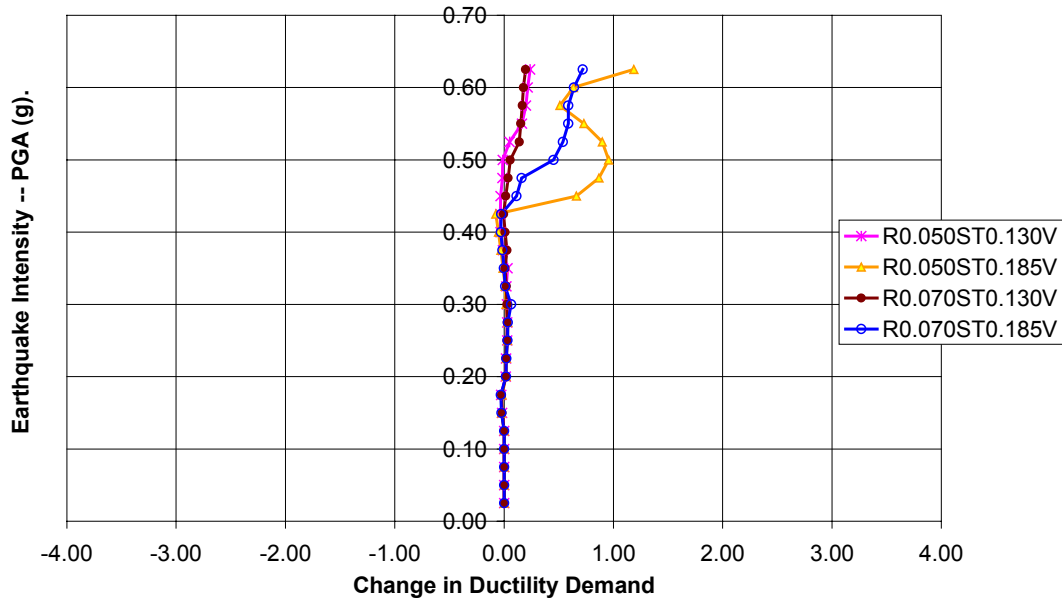
**Figure D1.5.5.5d – Park and Ang Damage Indices of the Chicago/Washington D.C. 5 Story Models Subjected to the Hollister Earthquake (EQ 5).**



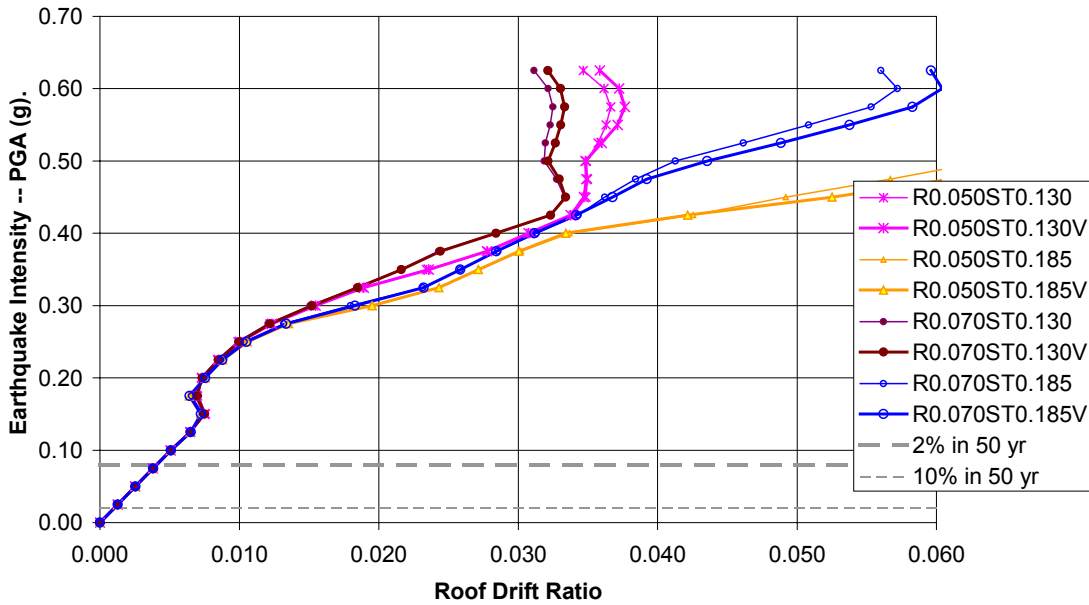
**Figure D1.5.5.5e – Kumar and Usami Damage Indices of the Chicago/Washington D.C. 5 Story Models Subjected to the Hollister Earthquake (EQ 5).**



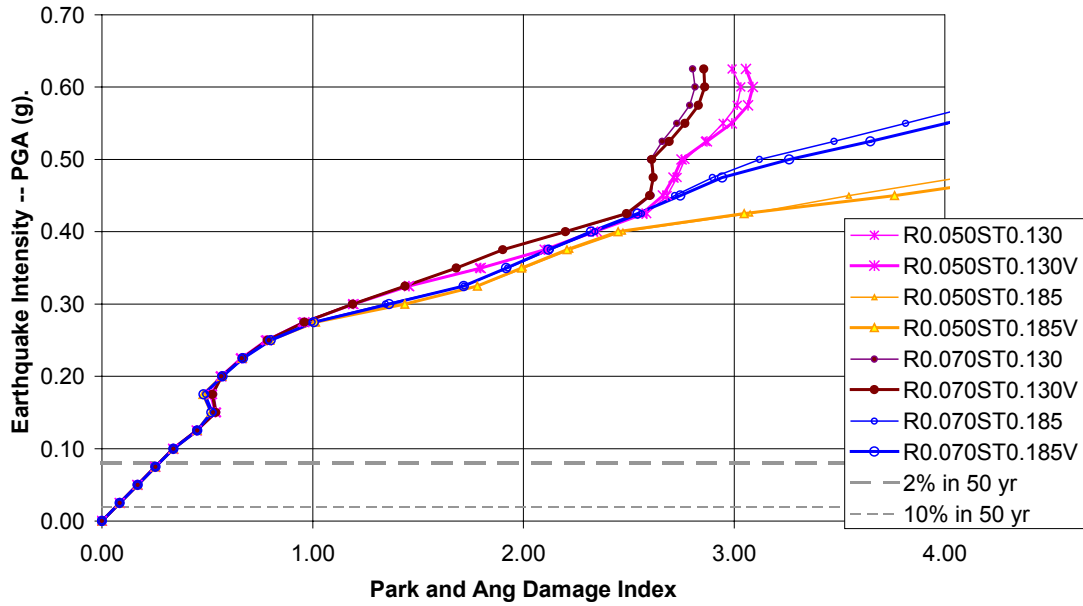
**Figure D1.5.5.9a – Ductility Demands of the Chicago/Washington D.C. 5 Story Models Subjected to the Hollister Earthquake (EQ 9).**



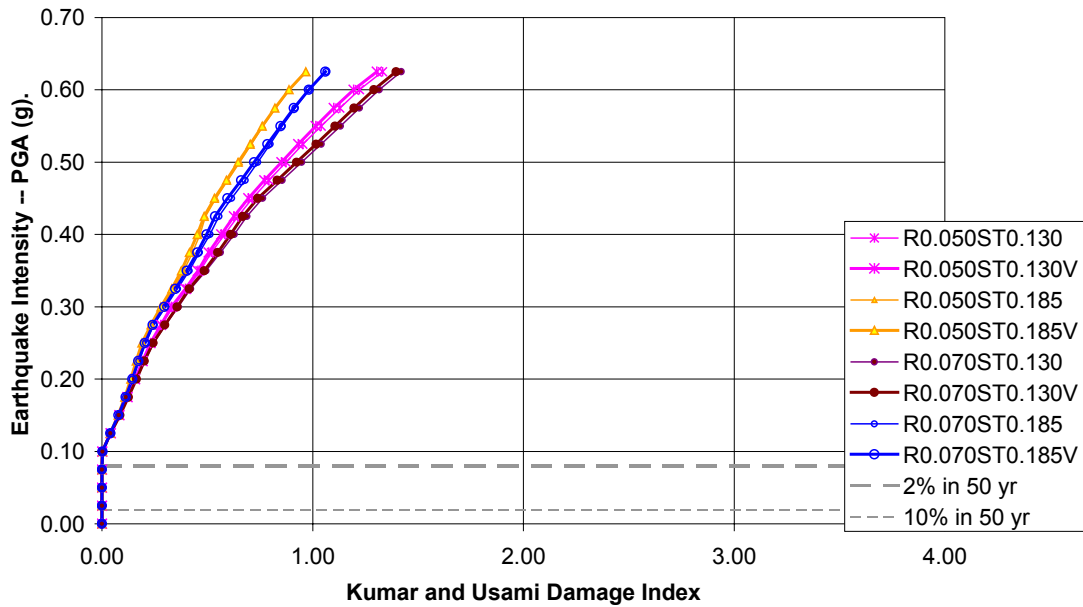
**Figure D1.5.5.9b – Change in Ductility Demands Due to Vertical Accelerations for the Chicago/Washington D.C. 5 Story Models Subjected to the Northridge Earthquake (EQ 9).**



**Figure D1.5.5.9c – Roof Drift Ratio of the Chicago/Washington D.C. 5 Story Models Subjected to the Northridge Earthquake (EQ 9).**

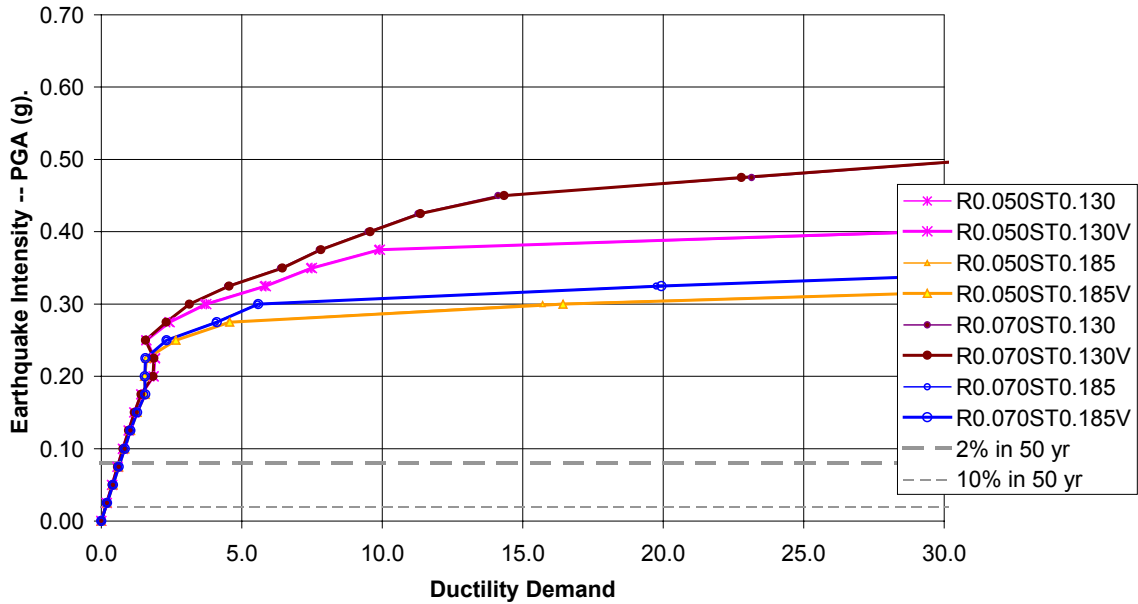


**Figure D1.5.5.9d – Park and Ang Damage Indices of the Chicago/Washington D.C. 5 Story Models Subjected to the Northridge Earthquake (EQ 9).**

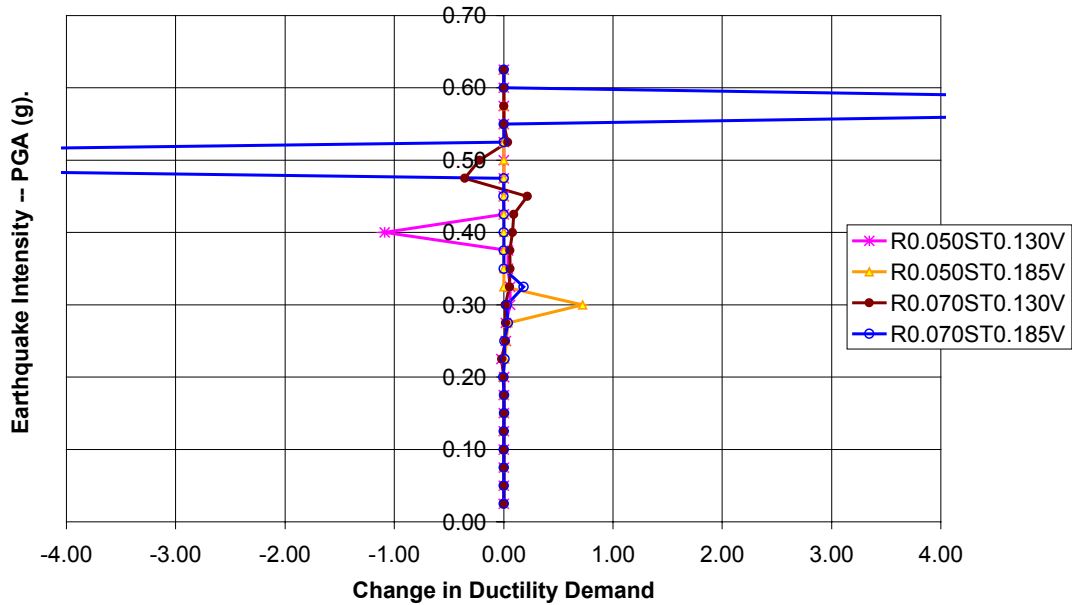


**Figure D1.5.5.9e – Kumar and Usami Damage Indices of the Chicago/Washington D.C. 5 Story Models Subjected to the Northridge Earthquake (EQ 9).**

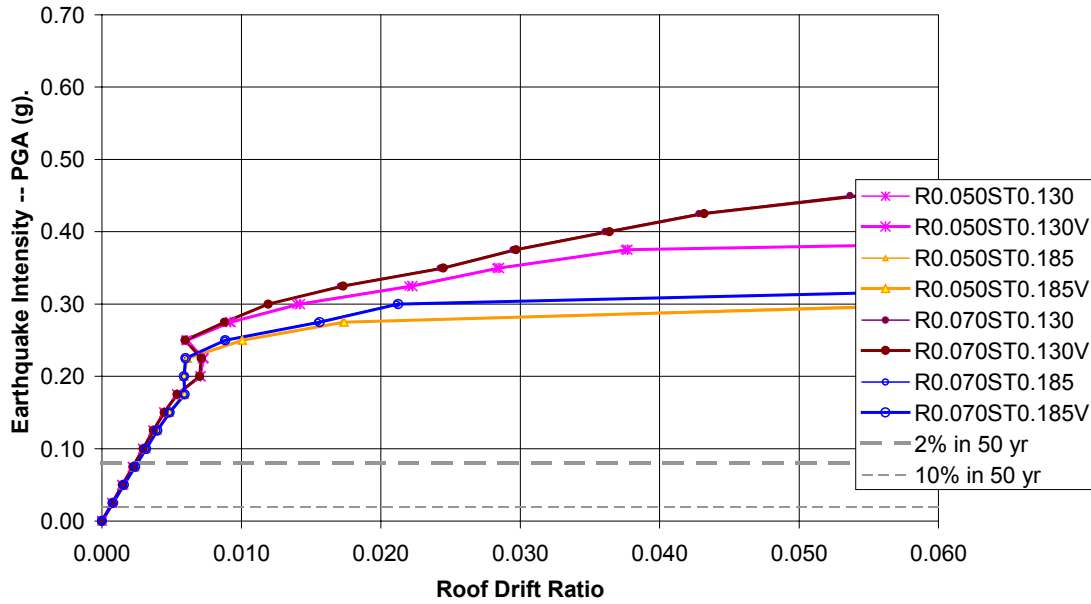




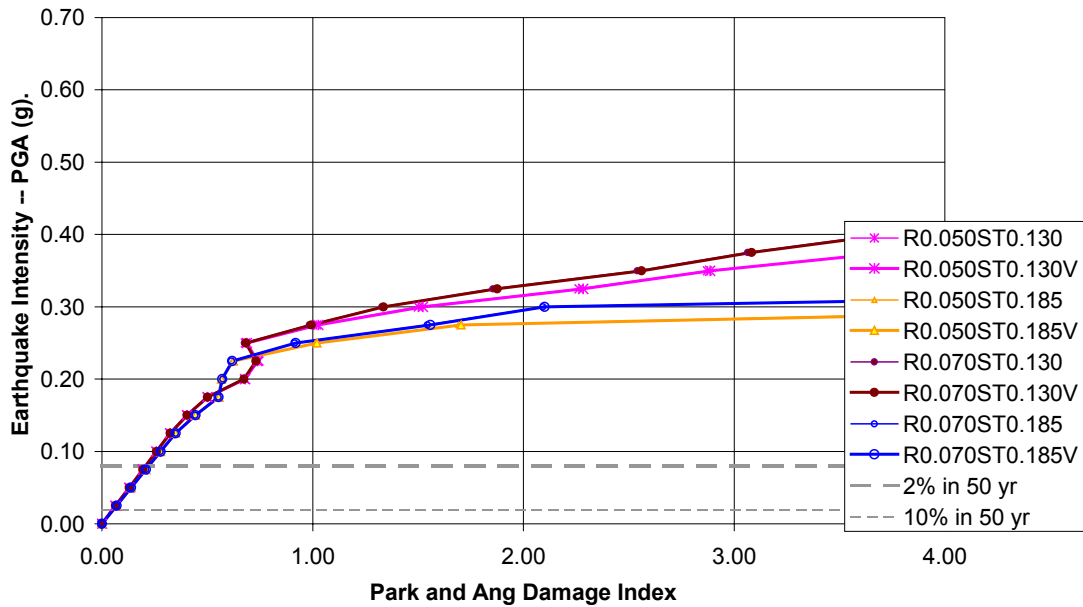
**Figure D1.5.7.4a – Ductility Demands of the Chicago/Washington D.C. 7 Story Models Subjected to the Taft Earthquake (EQ 4).**



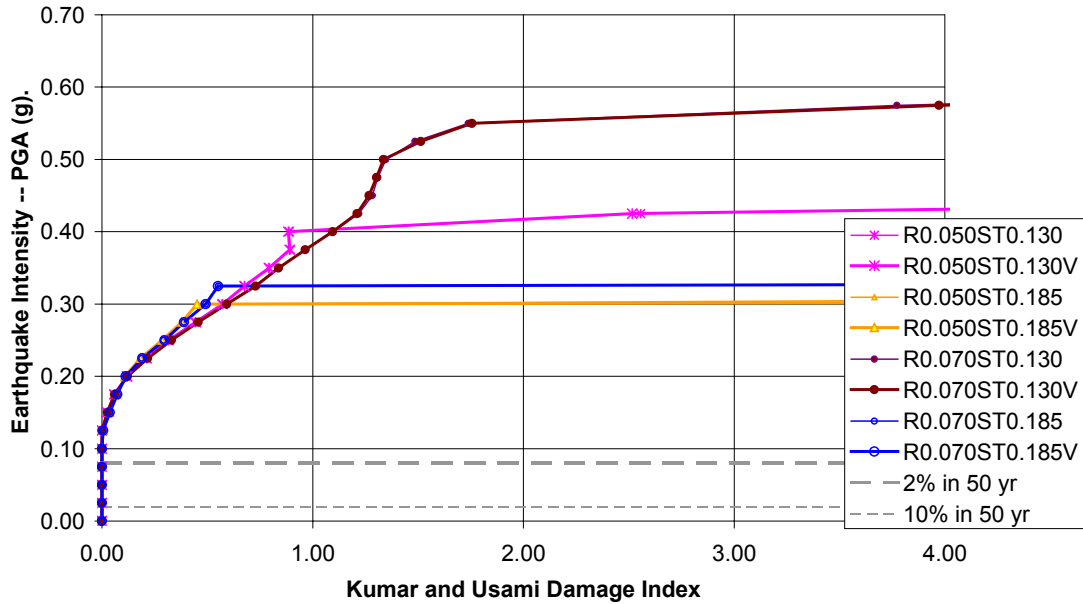
**Figure D1.5.7.4b – Change in Ductility Demands Due to Vertical Accelerations for the Chicago/Washington D.C. 7 Story Models Subjected to the Taft Earthquake (EQ 4).**



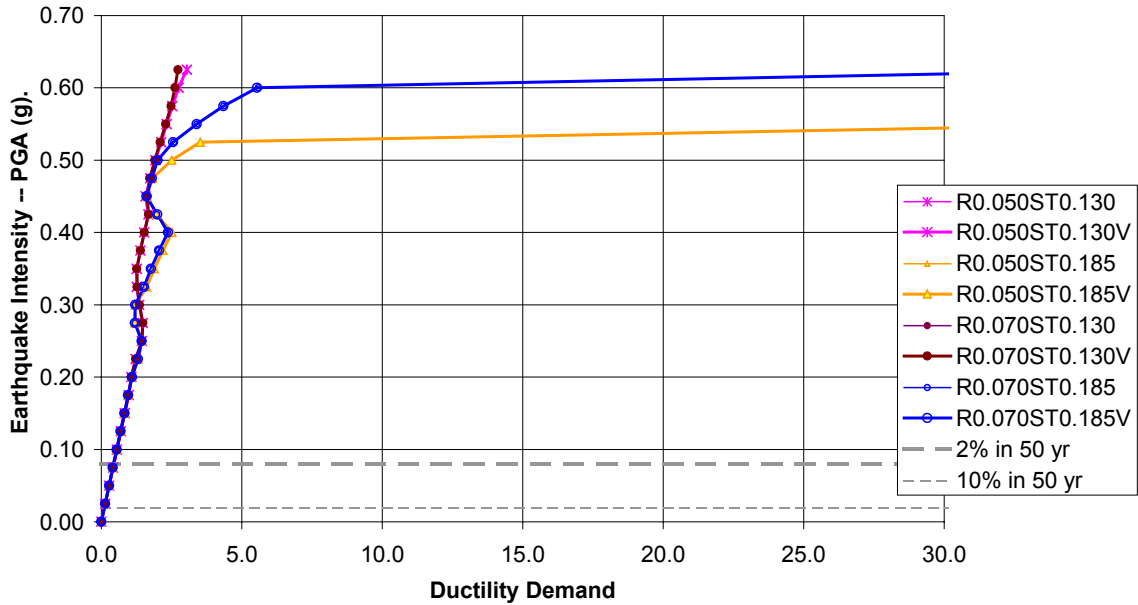
**Figure D1.5.7.4c – Roof Drift Ratio of the Chicago/Washington D.C. 7 Story Models Subjected to the Taft Earthquake (EQ 4).**



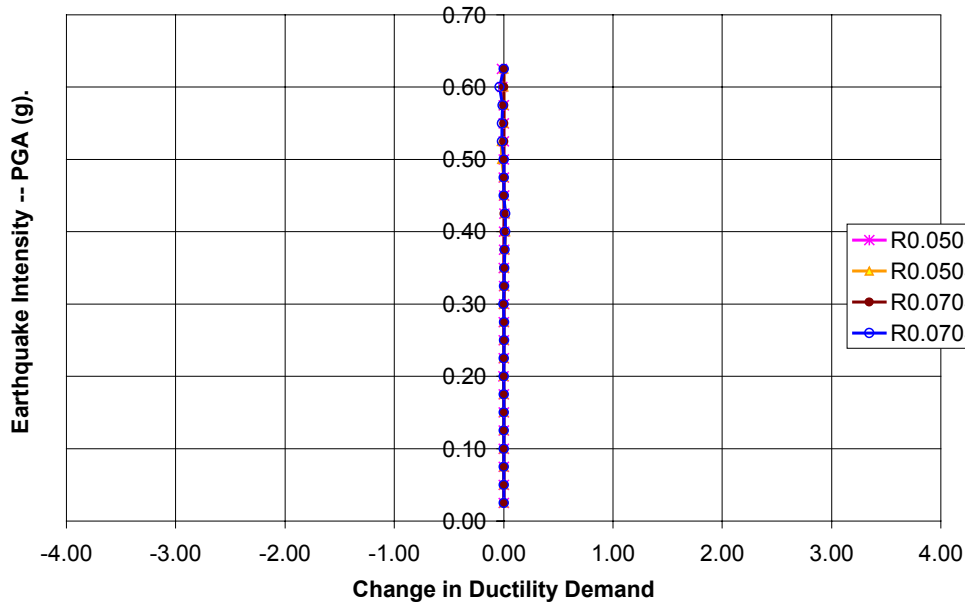
**Figure D1.5.7.4d – Park and Ang Damage Indices of the Chicago/Washington D.C. 7 Story Models Subjected to the Taft Earthquake (EQ 4).**



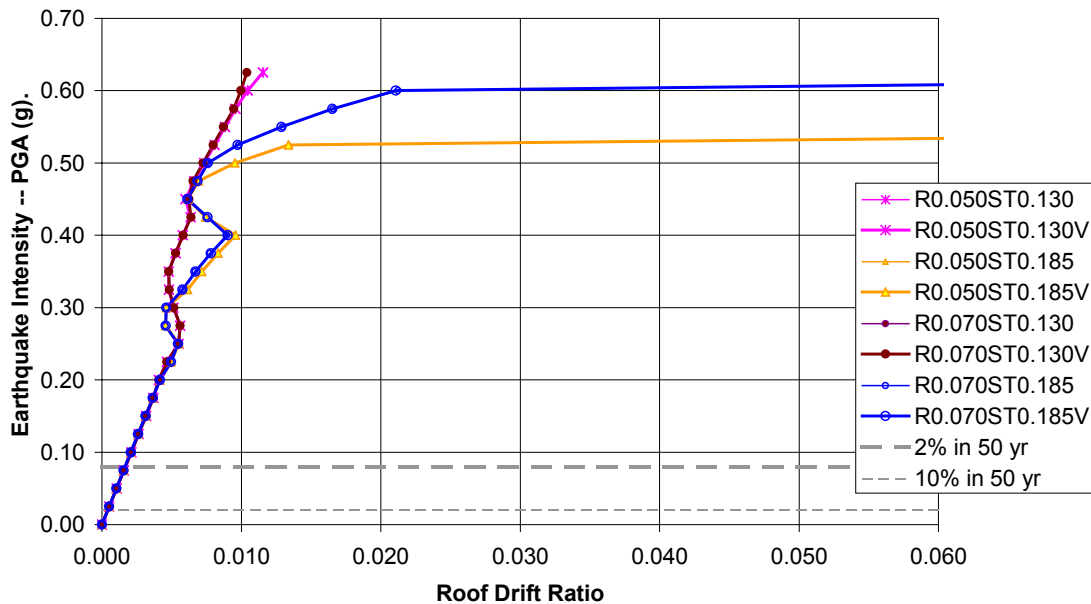
**Figure D1.5.7.4e – Kumar and Usami Damage Indices of the Chicago/Washington D.C. 7 Story Models Subjected to the Taft Earthquake (EQ 4).**



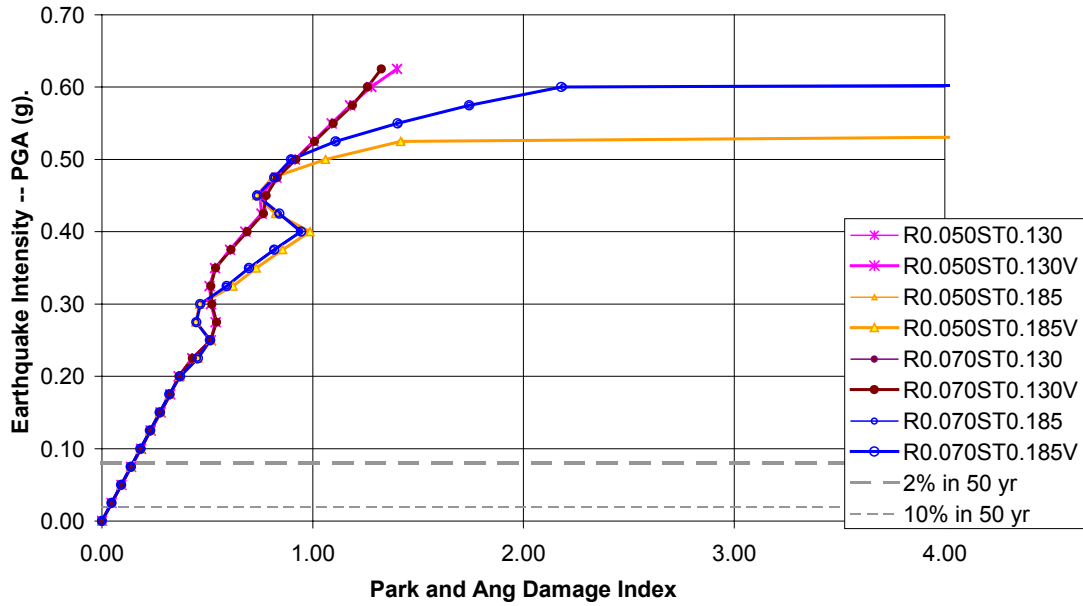
**Figure D1.5.7.5a – Ductility Demands of the Chicago/Washington D.C. 7 Story Models Subjected to the Hollister Earthquake (EQ 5).**



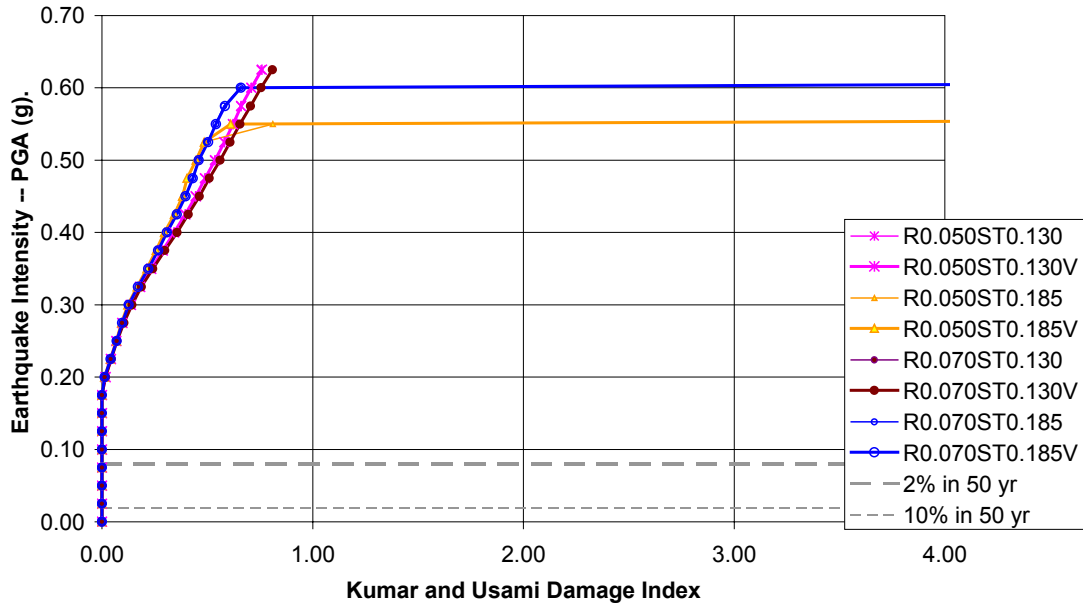
**Figure D1.5.7.5b – Change in Ductility Demands Due to Vertical Accelerations for the Chicago/Washington D.C. 7 Story Models Subjected to the Hollister Earthquake (EQ 5).**



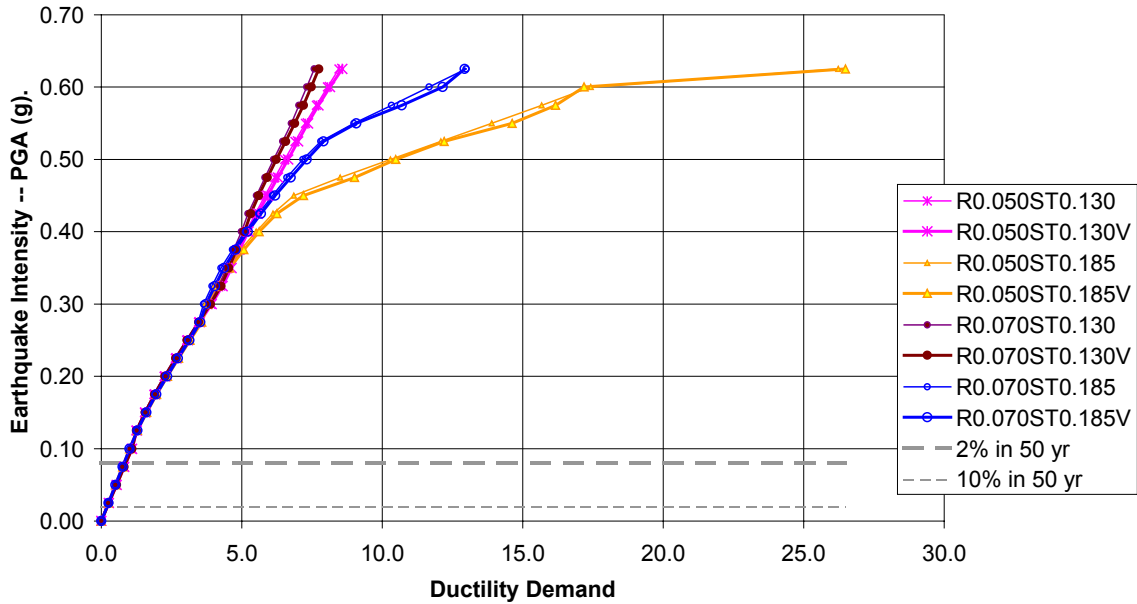
**Figure D1.5.7.5c – Roof Drift Ratio of the Chicago/Washington D.C. 7 Story Models Subjected to the Hollister Earthquake (EQ 5).**



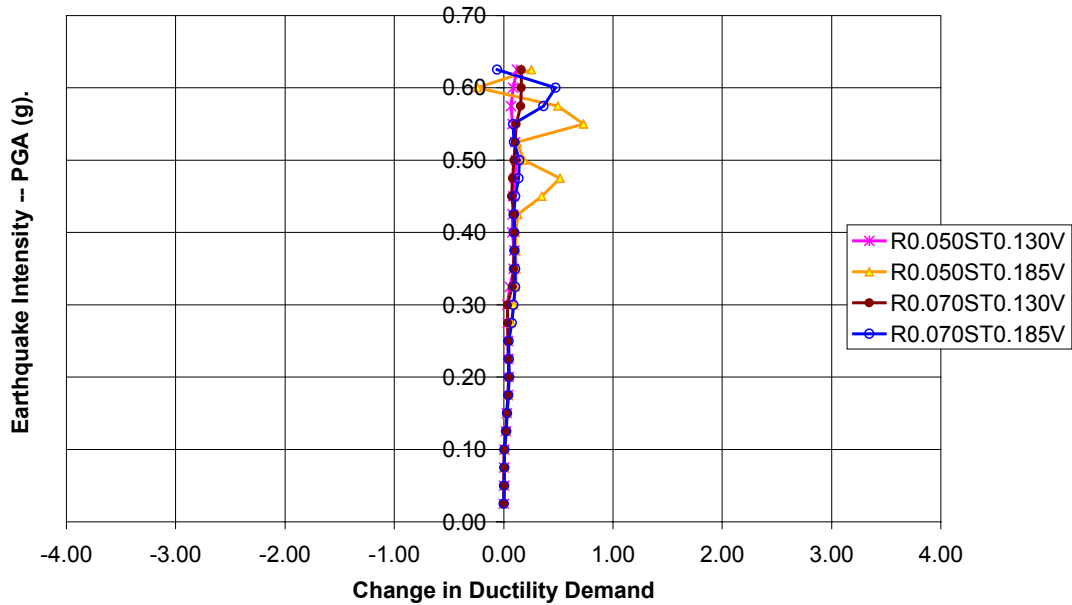
**Figure D1.5.7.5d – Park and Ang Damage Indices of the Chicago/Washington D.C. 7 Story Models Subjected to the Hollister Earthquake (EQ 5).**



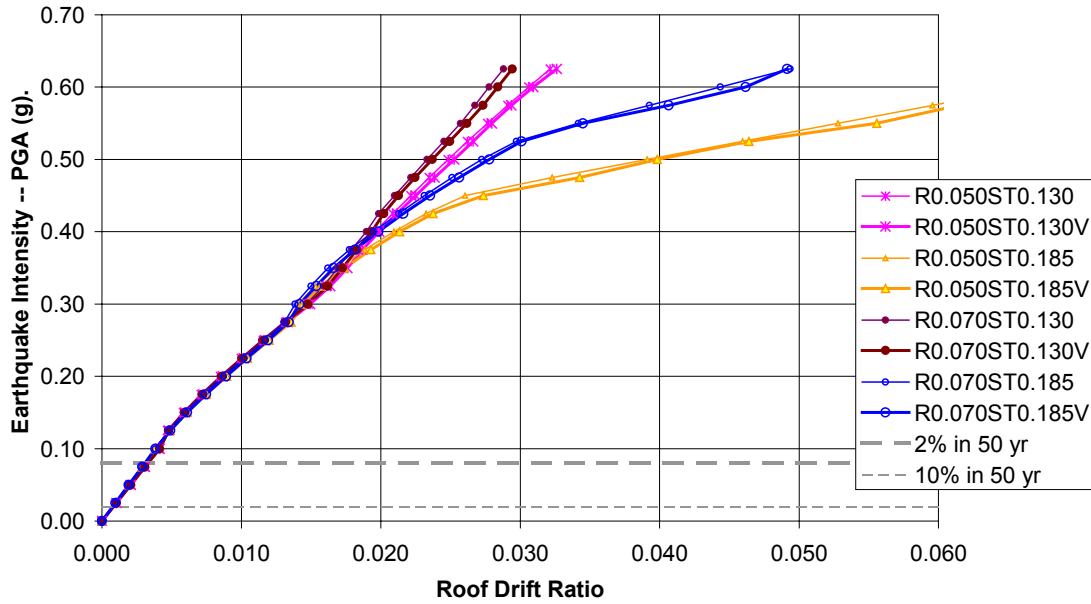
**Figure D1.5.7.5e – Kumar and Usami Damage Indices of the Chicago/Washington D.C. 7 Story Models Subjected to the Hollister Earthquake (EQ 5).**



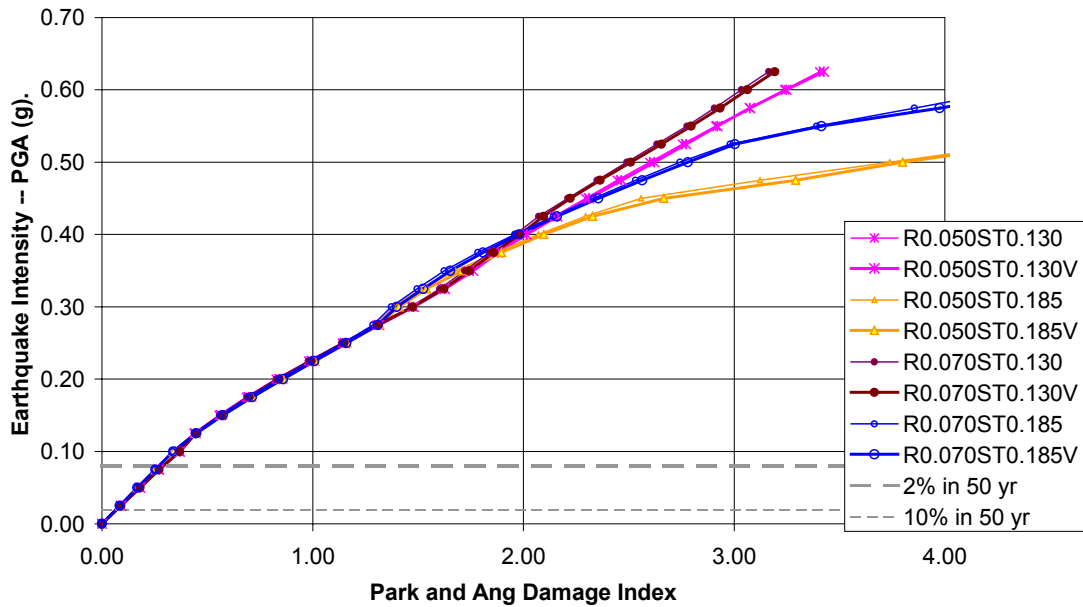
**Figure D1.5.7.9a – Ductility Demands of the Chicage/Washington D.C. 7 Story Models Subjected to the Hollister Earthquake (EQ 9).**



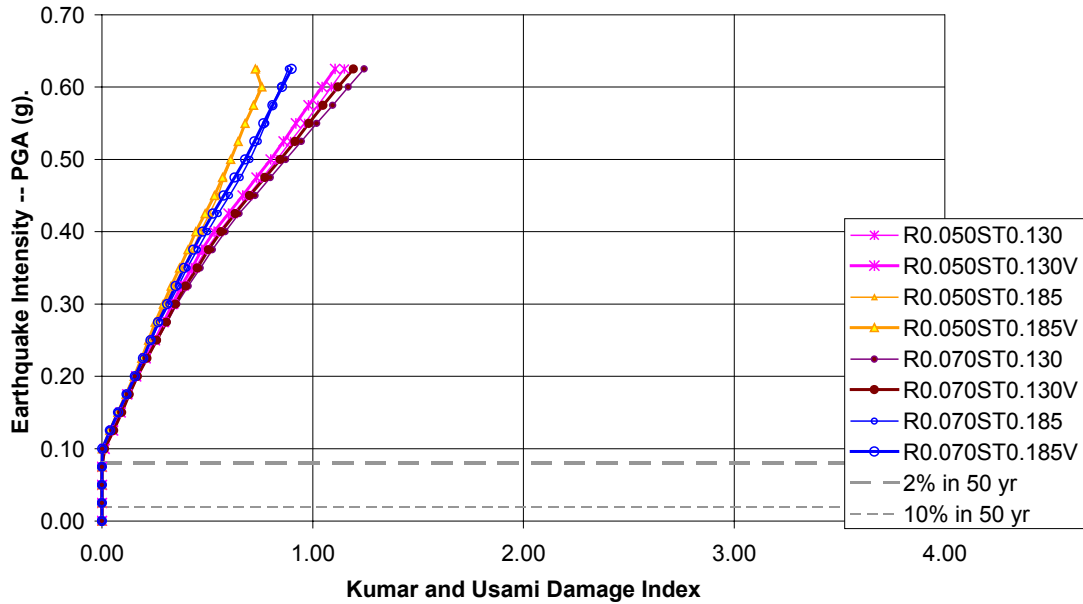
**Figure D1.5.7.9b – Change in Ductility Demands Due to Vertical Accelerations for the Chicage/Washington D.C. 7 Story Models Subjected to the Northridge Earthquake (EQ 9).**



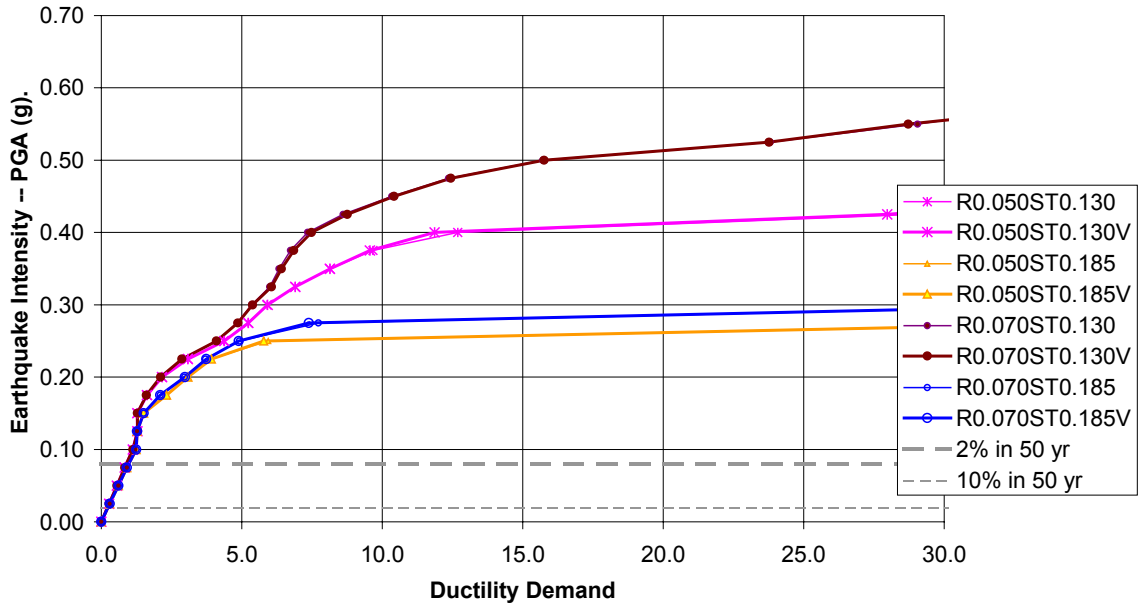
**Figure D1.5.7.9c – Roof Drift Ratio of the Chicago/Washington D.C. 7 Story Models Subjected to the Northridge Earthquake (EQ 9).**



**Figure D1.5.7.9d – Park and Ang Damage Indices of the Chicago/Washington D.C. 7 Story Models Subjected to the Northridge Earthquake (EQ 9).**

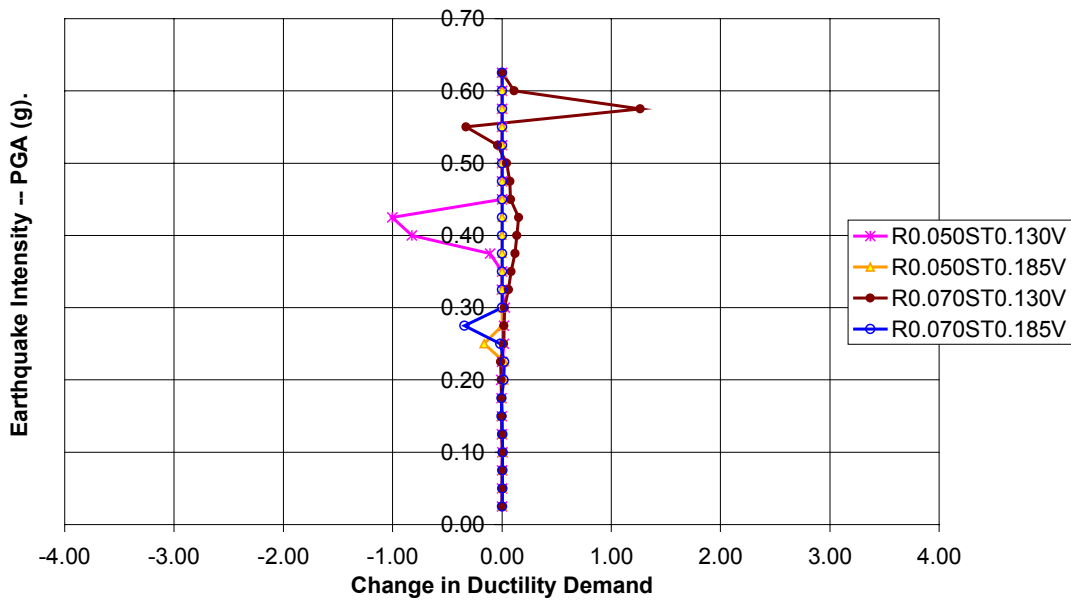


**Figure D1.5.7.9e – Kumar and Usami Damage Indices of the Chicago/Washington D.C. 7 Story Models Subjected to the Northridge Earthquake (EQ 9).**

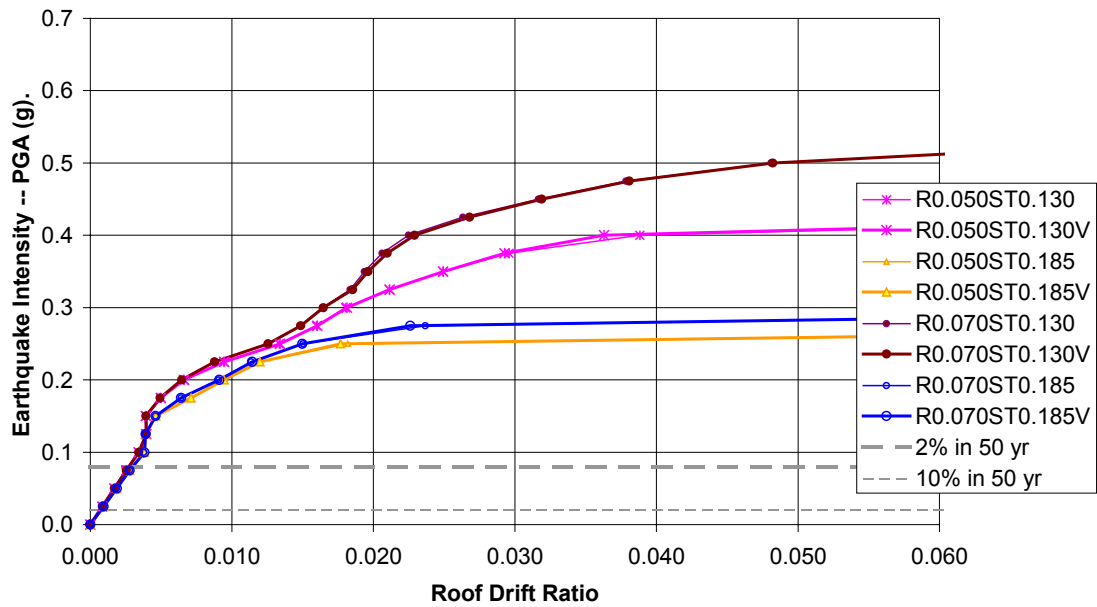


**Figure D1.5.9.4a – Ductility Demands of the Chicago/Washington D.C. 9 Story Models Subjected to the Taft Earthquake (EQ 4).**





**Figure D1.5.9.4b – Change in Ductility Demands Due to Vertical Accelerations for the Chicago/Washington D.C. 9 Story Models Subjected to the Taft Earthquake (EQ 4).**



**Figure D1.5.9.4c – Roof Drift Ratio of the Chicago/Washington D.C. 9 Story Models Subjected to the Taft Earthquake (EQ 4).**

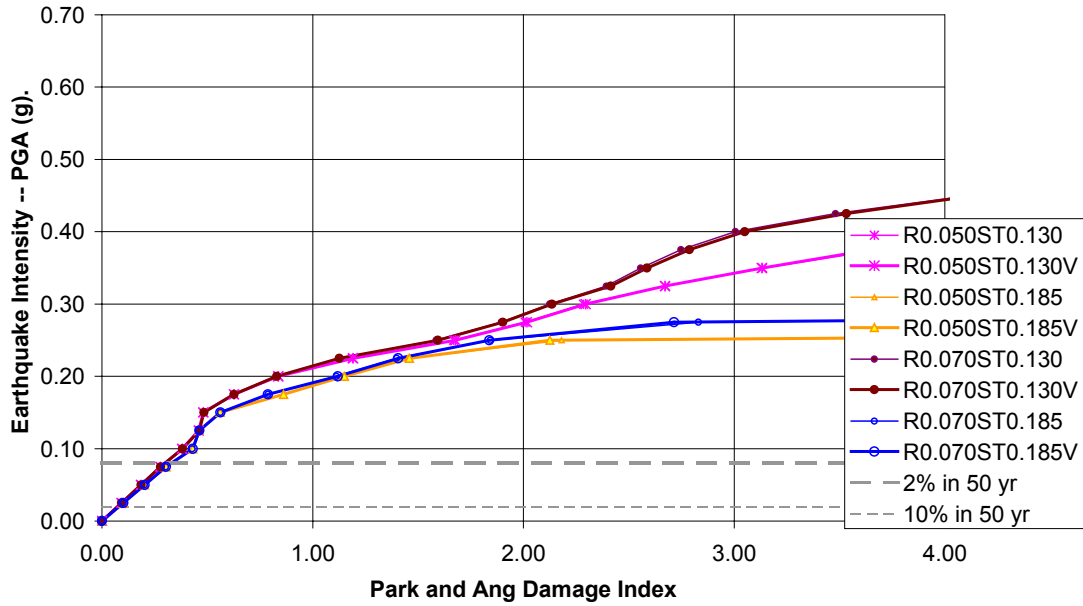


Figure D1.5.9.4d – Park and Ang Damage Indices of the Chicago/Washington D.C. 9 Story Models Subjected to the Taft Earthquake (EQ 4).

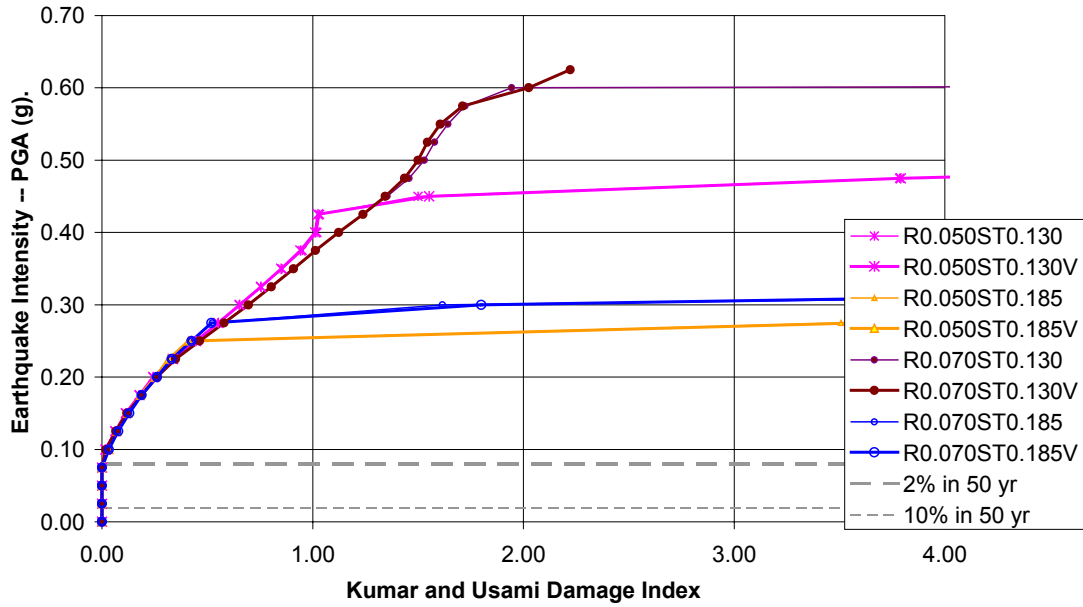
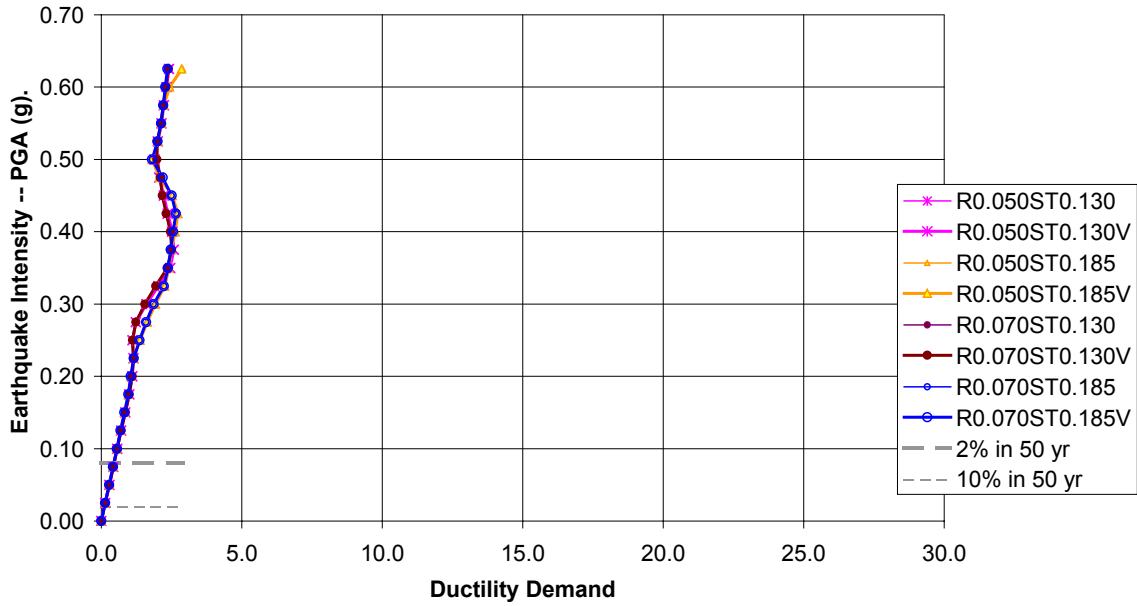
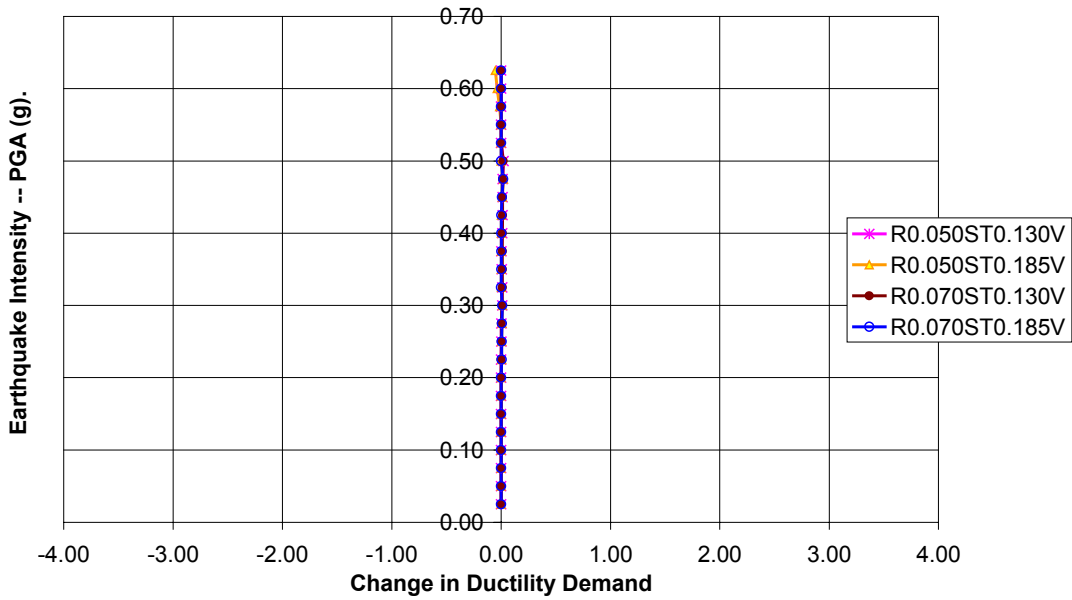


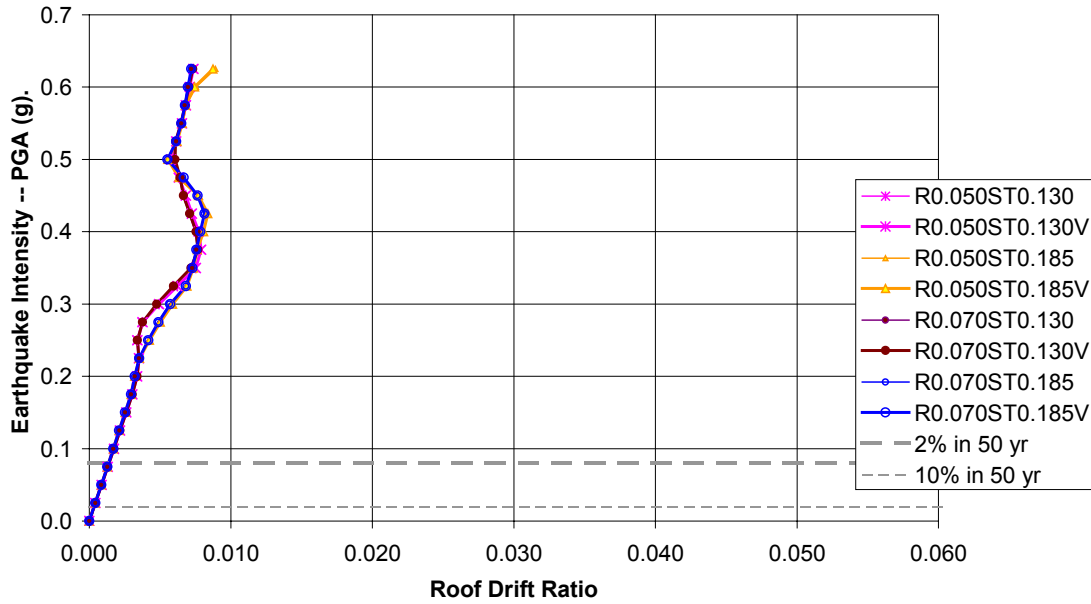
Figure D1.5.9.4e – Kumar and Usami Damage Indices of the Chicago/Washington D.C. 9 Story Models Subjected to the Taft Earthquake (EQ 4).



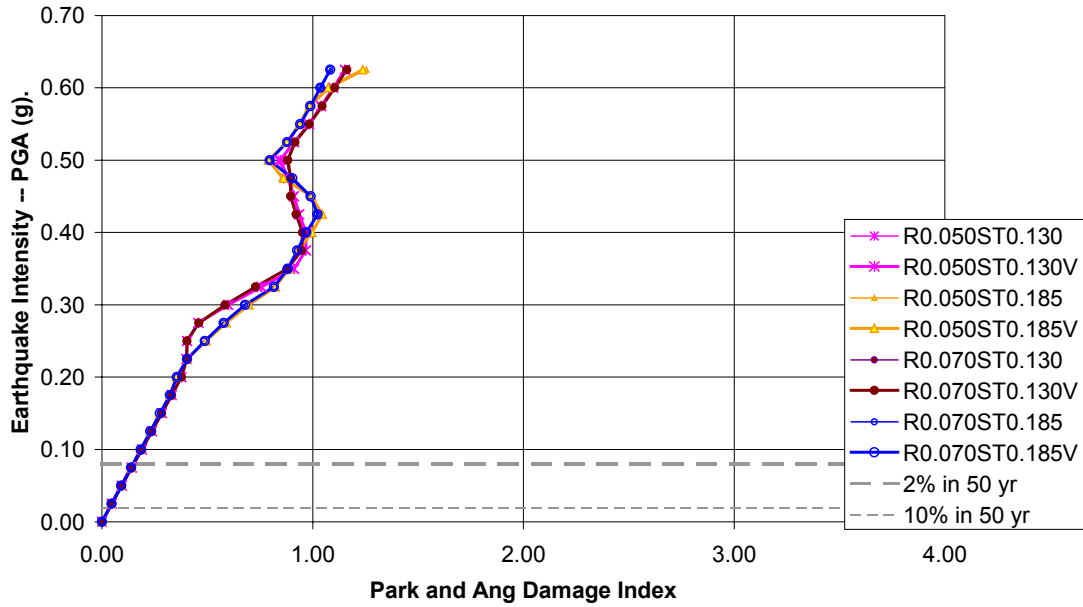
**Figure D1.5.9.5a – Ductility Demands of the Chicago/Washington D.C. 9 Story Models Subjected to the Hollister Earthquake (EQ 5).**



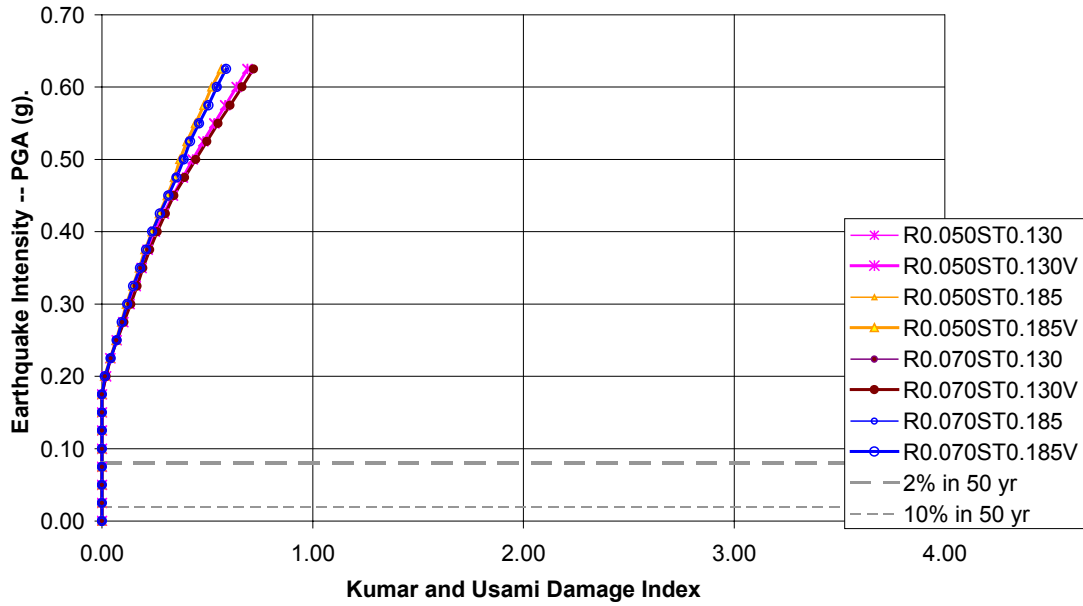
**Figure D1.5.9.5b – Change in Ductility Demands Due to Vertical Accelerations for the Chicago/Washington D.C. 9 Story Models Subjected to the Hollister Earthquake (EQ 5).**



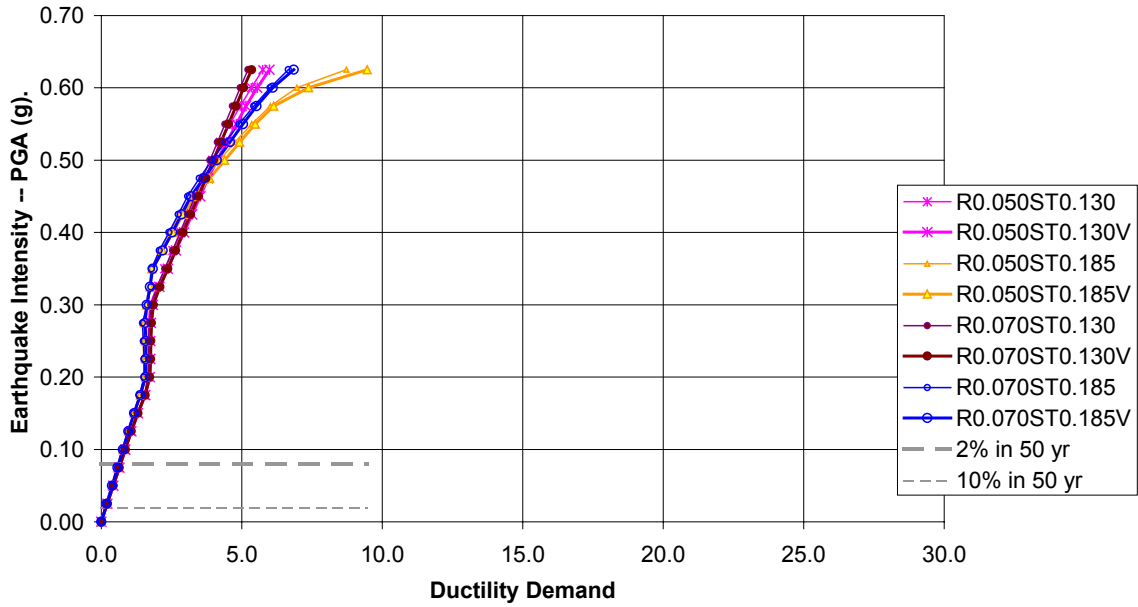
**Figure D1.5.9.5c – Roof Drift Ratio of the Chicago/Washington D.C. 9 Story Models Subjected to the Hollister Earthquake (EQ 5).**



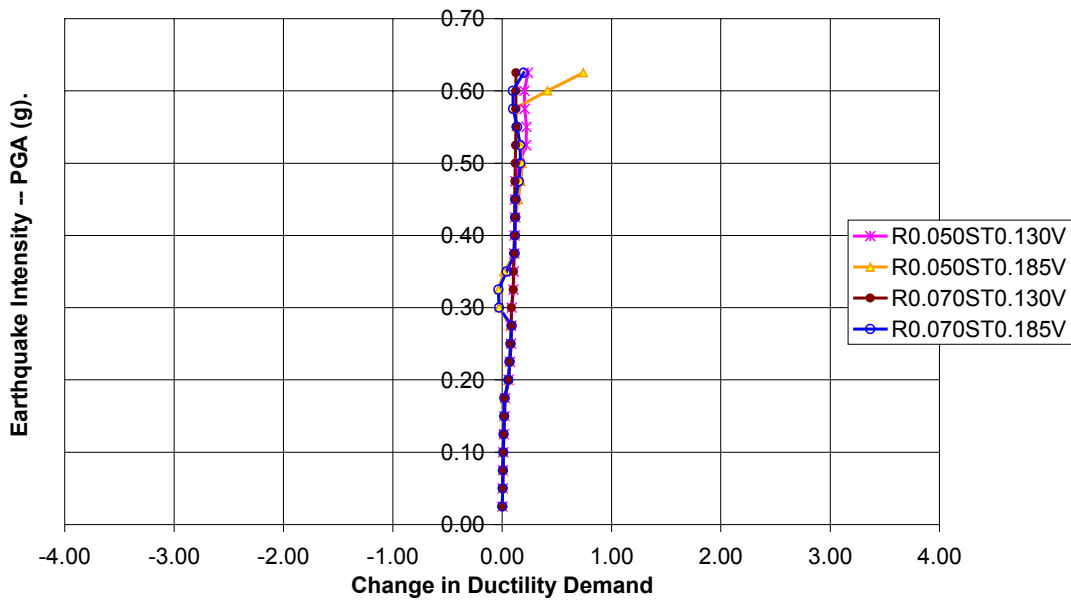
**Figure D1.5.9.5d – Park and Ang Damage Indices of the Chicago/Washington D.C. 9 Story Models Subjected to the Hollister Earthquake (EQ 5).**



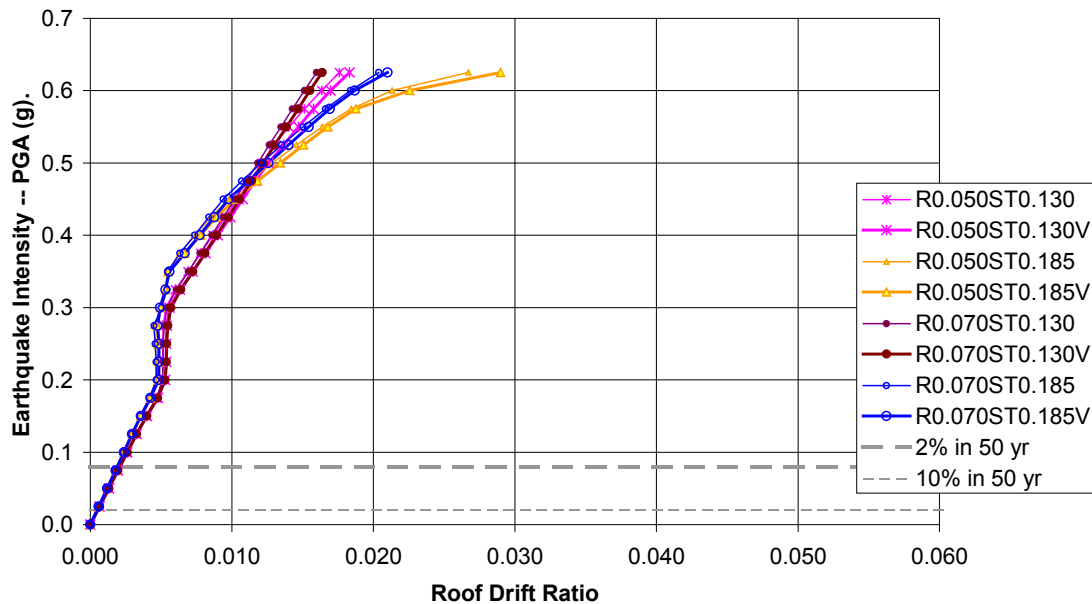
**Figure D1.5.9.5e – Kumar and Usami Damage Indices of the Chicago/Washington D.C. 9 Story Models Subjected to the Hollister Earthquake (EQ 5).**



**Figure D1.5.9.9a – Ductility Demands of the Chicago/Washington D.C. 9 Story Models Subjected to the Hollister Earthquake (EQ 9).**



**Figure D1.5.9.9b – Change in Ductility Demands Due to Vertical Accelerations for the Chicago/Washington D.C. 9 Story Models Subjected to the Northridge Earthquake (EQ 9).**



**Figure D1.5.9.9c – Roof Drift Ratio of the Chicago/Washington D.C. 9 Story Models Subjected to the Northridge Earthquake (EQ 9).**

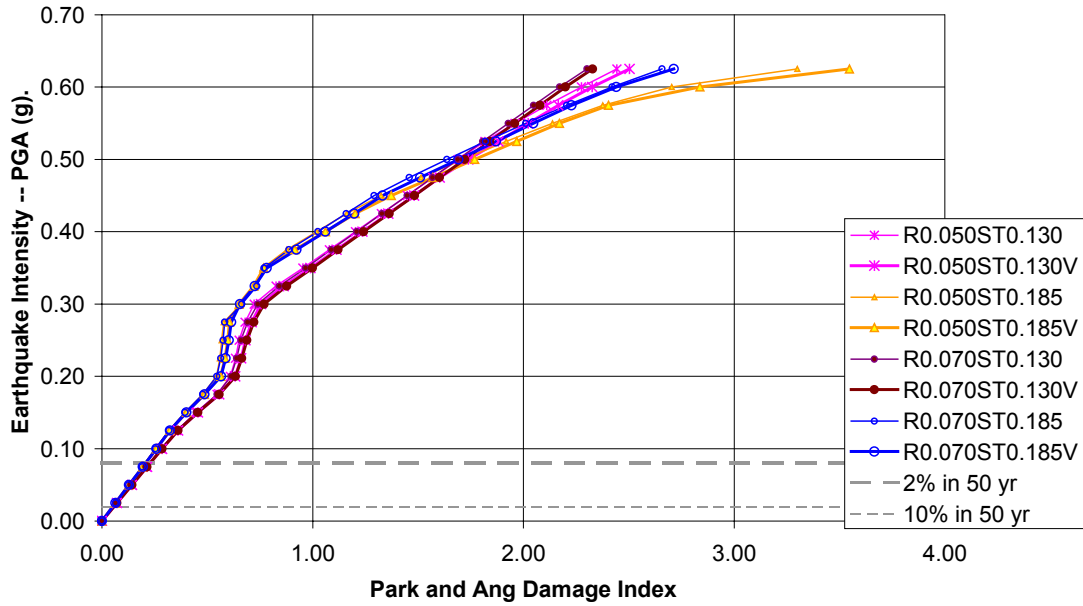


Figure D1.5.9d – Park and Ang Damage Indices of the Chicago/Washington D.C. 9 Story Models Subjected to the Northridge Earthquake (EQ 9).

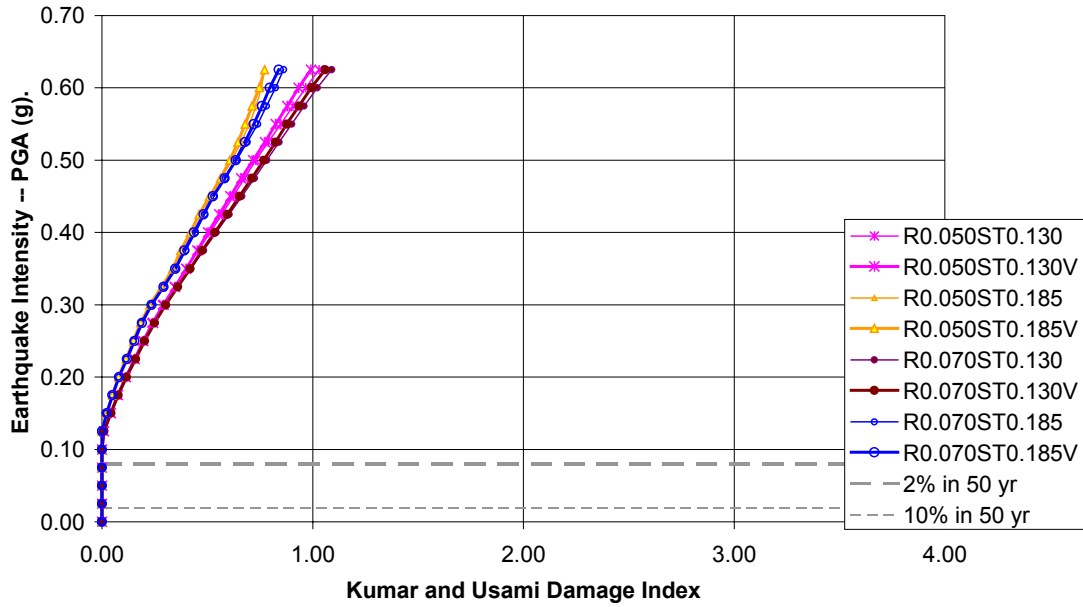


Figure D1.5.9e – Kumar and Usami Damage Indices of the Chicago/Washington D.C. 9 Story Models Subjected to the Northridge Earthquake (EQ 9).