

عنوان مقاله:

Influence of the yield strength of the LRB base isolation on the response of the isolated buildings in the Near-Fault

محل انتشار:

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خلاصه مقاله:

Seismic base isolation are devices that used to limit the human and material damage caused by an earthquake. This devices diffuse the energy induced at the time of the earthquake before being transferred to the structure. The base isolated structures when subjected to the near-fault earthquakes which contain long-period velocity pulses that may coincide with the period of base isolated structures resulting in excessive deformation and rupture of isolators. Therefore, a parametric study on the yield strength of the lead rubber bearing isolation system carried out in this work has allowed the evaluation of the influence of the yield strength of this seismic base isolation system on the dynamic response of the isolated structures in term of displacement, acceleration and absorbed energy. The results showed that the increase in the bearing yield strength causes the bearing displacement decreased significantly without special effects on the superstructure accelerations.

کلمات کلیدی:

Lead rubber bearing, Yield strength, bearing displacement, Dynamic response

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