

Studi perilaku struktur bangunan parkir bertingkat knockdown terhadap beban gempa = Study on seismic behaviour of knockdown parking structure

Amri Munawar, author

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Abstrak

ABSTRACT

Parkir knockdown merupakan inovasi gedung parkir yang mudah dibangun dan dapat dibongkar pasang. Dengan berkembangnya penggunaan parkir knockdown di Indonesia, perlu dilakukan penelitian mengenai perilaku struktur terhadap gempa. Tujuan penelitian ini adalah menganalisa perilaku struktur parkir knockdown terhadap gempa. Metode penelitian ini menggunakan simulasi model pada software dengan analisa respon spektrum. Adapun variasi pada penelitian ini yaitu : (i) variasi jumlah lantai (ii) variasi perletakan (iii) variasi pelat (iv) variasi fly braced. Hasil penelitian ini menunjukkan model pelat precast dengan elemen link memiliki respons seismik yang relatif sama dengan model pelat cast in situ dengan diafragma rigid.

ABSTRACT

Knockdown parking system is a new innovation of parking lot which is easy to built, as well as, to overhaul. Since the application of this system has widely used in Indonesia, thus conducting a research about the response of the typical structure behaviour to the earthquake is necessary. The aims of this research was analyzing the structural behaviour of knockdown parking system to the earthquake. This research used the numerical model of spectrum response analysis. While the variation of the model were: (i) number of building storey, (ii) support variation, (iii) slab variation, and (iv) fly brace variation. The result showed that the seismic response of precast slab model with the spring coefficient was relatively similar to the cast in-situ slab model with the rigid diaphragm.