عنوان مقاله:
THE IN-PLANE RESPONSE OF MASONRY INFILLED STEEL FRAMES: A NUMERICAL INVESTIGATION

محل انتشار:
چهارمین همایش بین المللی مهندسی سازه (سال: 1396)

تعداد صفحات اصل مقاله: 8

نویسندگان:
V Bahreini - *Assistant Professor, Dashtestan Branch, Islamic Azad University, Borazjan, Iran*

T Mahdi - *Assistant Professor,BHRC, Tehran, Iran*

Kh Khalidi - *MSc ,Young Researchers and Elite Club, Bushehr Branch, Islamic Azad University, Bushehr, Iran*

خلاصه مقاله:
Infilled frames are commonly used in many regions of the world, including seismically active ones. In this paper, three different configurations of masonry infilled steel frames with isolated gaps are investigated. Pushover analyses have been conducted to evaluate the effects of in-plane forces on these walls. The first two specimens are infilled frames with infill walls that are completely decoupled from the frame. The third has an infill wall that in full contact with the upper beam but separated from the columns. The load-displacement curves of these frames have been compared with the corresponding ones of a bare frame and an infilled frame having an infill wall with full physical contact to its bounding frame. Compared to the bare frame, each of the proposed frames has successfully increased the strength without noticeable effect on the initial stiffness. Generally, it has been concluded that the separation of infill walls from the frames is quite helpful in reducing their inappropriate effects

کلمات کلیدی:
numerical modeling, infill wall, isolated gap, in-plane performance, steel frame