

Analysis of Experimentally Designed Soundproof Gypsum Partition Wall's Sections in Terms of Structural Engineering

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Abstract : In developing countries, the urban populations are increasing rapidly and with this increment the residential areas are experiencing major problems. Construction of high-rise buildings in confined spaces is one of the most practical solutions for this problem. However, by living in high-rise buildings and sharing common residential areas, residents will face many problems. Irritating sound problem which is known as noise is one of the major problems mentioned above. The second most important problem is the weight of the high-rise buildings which makes the structure more vulnerable to earthquakes. To decrease earthquake loads it's very important to decrease the weight of the buildings. To solve the problem of noise and keep the building weight at minimum level, experimentally designed soundproof gypsum partition wall which has optimum thickness has been used in high-rise story building and the results have been compared with ordinary brick partition walls. In this compression the effect of weights of soundproof gypsum walls and ordinary brick walls in accordance to structural engineering have been investigated.

Keywords : cellulor, gypsum board, gypsum partition walls, light partition walls, noise, sound

Conference Title : ICESE 2016 : International Conference on Earthquake and Structural Engineering

Conference Location : Jeddah, Saudi Arabia

Conference Dates : January 26-27, 2016