

**Rapid Seismic Evaluation of Multi-Story Buildings in the City of
Nablus and Plans for Disaster Response**

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Abstract

This thesis discusses the urban patterns in buildings higher than five floors in the city of Nablus and the impact of these patterns on the seismic vulnerability for these buildings and their action at the time of earthquakes. In addition, it sheds light on the mechanism of rapid seismic evaluation of existing buildings, depending on a number of important criteria, which control the action of the buildings at the time of the earthquakes. In addition, the thesis discusses finding temporary evacuate areas to residents after earthquakes and alternative methods.

The study followed both the descriptive and analytical approach, in addition to some tools of scientific research, including; observations, field surveys, interviews with officials and residents, as well as the rapid assessment method of all buildings more than five stories.

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The study results showed the high levels of vulnerability to many buildings, particularly buildings built on mountainous areas and experiencing the presence of many architectural and construction styles, which are not commensurate with the minimum requirements for earthquake-resistant buildings. The results of the study indicated the failure to adopt any kind of seismic design in most high-rise buildings in the city of Nablus, also not taking into account the seismic studies in the planning process and to identify the land uses of the land. In many places (seismically dangerous), building was allowed without taking into account influence of the location factors and identification of the type of construction and number of floors.

Moreover, the study indicated places that may be exposed to total or partial closure, and therefore would not be able to be accessed by rescue teams, in addition to indicating the private bad situation of hospitals in terms of access roads, where there was deficiency in selecting the several locations of these hospitals.

The study had many recommendations, most notably the need to avoid the implementation of a number of architectural patterns without taking into account the seismic aspects of these patterns, as well as working on creating narrow roads, which could be closed according to the seismic scenario provided by this study.

Besides, the study recommended the need to conduct more precise studies of the installations of soft floors and multi-story structures, which were marked by a high vulnerability in this study, in addition to public facilities such as schools and hospitals, and the need for rehabilitation of seismically existing buildings identified by the study.

