

## DETERMINING BEST LOCATION OF EMERGENCY STATIONS IN THE URBAN AREA

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Emergency medical stations and fire stations play a key role in emergency management. An early primary attack will save more lives and properties in emergency cases. Response time is a critical component which includes alarm answering time, alarm processing time, turnout time and travel time in an emergency. Travel time is one of the most important elements of the response time and it is affected by various factors; such as traffic volume, road networks, the time of day, driver habits, and the location of the incident. The strategic locations of emergency medical stations and fire stations are of paramount importance in achieving a minimal travel time which is part of an effective and reliable emergency response system. In Turkey land readjustment projects are done in order to create a regular urban area. These projects depend on a land development plan. Land development plans includes residential area, commercial area, industrial area and technical infrastructures like road, park, car park, sport area, school and other public service areas. Emergency medical stations and fire stations are important public services for the residents. Determining best location of this kind of public services affects the performance of these services. In this study, the response time and in particular the travel time criteria were determined according to the previous studies in the literature, and then existing sites of emergency medical stations and fire stations in Samsun city were evaluated according to the location of emergency calls and the eight minute response time coverage area. In addition, necessity of new stations and locations of them were determined using the Geographic Information System.

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