ABSTRACT

The development of healthcare facilities demands that hospitals function not only as centers for medical services, but also as integrated service systems. In Indonesia, the high risk of disasters, particularly floods, has led to an increase in trauma cases requiring rapid and integrated responses. However, current trauma services remain partial, resulting in suboptimal emergency response.

The design of a Type B Trauma Center Hospital in Semarang Regency aims to provide a healthcare facility as a strategic infrastructure for handling critical trauma cases. The approach applied is an integrated service system that combines spatial organization, building design, medical services, and technology into a unified design that is adaptive to both normal and emergency conditions.

The methods used include descriptive, documentary, and comparative approaches through literature studies, regulations, and hospital precedents. The results of the analysis are implemented into a design concept that emphasizes efficiency in service flow (trauma flow), clarity of zoning, optimization of circulation, and adaptation to flood risks.

The design outcome is a Trauma Center that functions not only as a healthcare facility, but also as an integrated medical infrastructure system that is responsive, adaptive, and sustainable.

Keywords: trauma center, type B hospital, integrated system, healthcare architecture