

## ***ABSTRACT***

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*Structural planning is a safety requirement for building users, therefore structural planning is an important stage. Building structures are divided into two categories, namely the upper structure and the lower structure. The city of East Jakarta is based on the Indonesian spectral design with a medium soil class, classified in the seismic design category D. The purpose of this planning is to obtain a reinforced concrete building structure that is resistant to earthquakes. The planned building structure uses a special moment bearer frame system (SRPMK). The first step in planning is by studying the literature, collecting data, determining the dimensions of structural elements, loading, recycling, foundation planning and RAB calculations. The structural elements reviewed in this plan include floor slabs, master beams, T-beams, child beams, columns and foundations. The planned thickness of the floor slabs is 125 mm, the main beam with dimensions of 550/300 mm, the T-beam with dimensions of 500/300 with a wingspan of 1712.5 mm and a wingspan of 125 mm, the child beam with dimensions of 450/300 mm, the columns with dimensions of 1000 × 750 mm and 850 × 650 mm. In this planning, a foundation is used with a type of drill pile foundation with a diameter of 40 cm with a depth of 15 m. The total cost budget plan obtained for the planning of reinforced concrete building structures for 8-storey flats is Rp 25,775,084,809.00. With a price/m<sup>2</sup> of IDR 2,988,762.15.*

*Keywords: Reinforced Concrete, Earthquake, Flats, SRPMK*

*Bibliography, 15 (2019 – 2022)*