ABTRACT

CALCULATION ANALYSIS OF PRECAST CONCRETE FLYSLAB PROJECT IN PURI KHAYANGAN RESIDENCE BATAM APARTMENT

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Floor plate on the 2nd floor apartment Puri Khayangan Residence Batam which used as parking field using Flyslab with life-equivalent criteria of 800 kg/m2, the quality of concrete K-350, thickness of 100 mm plate, weight itself ± 160 kg/m2, the main repatriation of the D12 mm, and the upper repatriation of D10 mm. Design of conventional floor plates as a comparison material with the FLYSLAB floor plate used with life-load criteria of 800 kg/m2, dead load 385 kg/m2, combination load 1742 kg/m2, quality of concrete K-350, quality reinforcement Iron 400 MPA, thickness of floor plate 150 mm, and the moment of the floor plate of 22.646 kNm.

The construction process of Puri Khayangan Residence Batam apartment uses precast floor plate (Flyslab). Flyslab can save up to 40% of construction costs compared to conventional floor plates. Based on calculations it can be known that using a FLYSLAB floor plate saves construction material costs to 33%, the workforce reaches 60%, and the working time reaches 67%.

The use of Flyslab precast concrete plates can reduce construction costs by up to 40% with the same concrete strength and quality on conventional floor plates.

Key words: Flyslab, floor plate structure, conventional floor plate, apartment, Material calculation.