ABSTRAK

PERANCANGAN RUMAH TAHFIDZ MASJID AR-ROFI'AH ILYAS LASSIK KECAMATAN ALANG-ALANG LEBAR KOTA PALEMBANG

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Perkembangan fasilitas pendidikan agama mendorong lahirnya Rumah Tahfidz sebagai pusat pembinaan generasi muda dalam penghafalan dan pengamalan Al-Qur'an. Laporan ini mengkaji perancangan struktur bangunan Rumah Tahfidz Masjid Ar-Rofi'ah Ilyas Lassik di Kecamatan Alang-Alang Lebar, Kota Palembang, guna mendukung aktivitas ibadah dan pendidikan secara optimal. Fokus kajian meliputi perhitungan struktur atas dan bawah sesuai Standar Nasional Indonesia (SNI), penyusunan Rencana Anggaran Biaya (RAB), serta penjadwalan pelaksanaan proyek konstruksi. Struktur atas mencakup perhitungan elemen pelat lantai, balok, kolom, dan tangga, sedangkan struktur bawah meliputi pondasi dan tie beam yang berfungsi menyalurkan beban ke tanah secara aman. Proses perancangan berpedoman pada regulasi teknis seperti SNI 2847–2019 mengenai beton struktural, SNI 1727–2020 tentang beban minimum, dan SNI 8900–2020 untuk desain beton bertulang sederhana. Kajian ini diharapkan memberi kontribusi dalam menghadirkan bangunan keagamaan yang kuat, efisien, nyaman, serta berkelanjutan, sekaligus menjadi referensi dalam penerapan teknik perencanaan konstruksi dan manajemen proyek yang sesuai standar dan kebutuhan masyarakat. Hasil yang didapat dari perhitungan Rp. 8.391.390.202,00., dan waktu yang dibutuhkan dalam penyelesaian pekerjaan selama 149 hari.

Kata kunci: Perancangan Struktur , Beton Bertulang , Standar Nasional Indonesia (SNI) , Rencana Anggaran Biaya , Penjadwalan

ABSTRACT

DESIGN OF AR-ROFI'AH ILYAS LASSIK MOSQUE TAHFIDZ HOUSE ALANG-ALANG LEBAR DISTRICT, PALEMBANG CITY

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The development of religious education facilities has led to the emergence of Rumah Tahfidz as a center for nurturing young generations in memorizing and practicing the Qur'an. This report examines the structural design of the Rumah Tahfidz building at Masjid Ar-Rofi'ah Ilyas Lassik, located in the Alang-Alang Lebar District of Palembang City, aimed at supporting religious and educational activities optimally. The study focuses on the calculation of upper and lower structural elements according to Indonesia's National Standards (SNI), the preparation of a Cost Budget Plan (RAB), and construction project scheduling. The upper structure includes the design of floor slabs, beams, columns, and staircases, while the lower structure consists of foundations and tie beams that safely transfer loads to the ground. The design process refers to technical regulations such as SNI 2847–2019 on structural concrete, SNI 1727–2020 concerning minimum loads, and SNI 8900–2020 for simplified reinforced concrete building design. This study is expected to contribute to the development of religious buildings that are strong, efficient, comfortable, and sustainable, while also serving as a reference for construction planning and project management aligned with technical standards and community needs. The result obtained from the calculation is Rp. 8.391.390.202,00, and the time required to complete the work is 149 days.

Keywords: Structural Design, Reinforced Concrete, Indonesian National Standard (SNI), Cost Budget Plan, Scheduling.