

Architectural Plan for A Bi-Level Annex Structure at Kasili Lakeside Resort and Hotel

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Abstract: *The core focus of civil engineering lies in structural design, with the foundational principle in structural engineering being the creation of elemental components and sections for buildings. An annex building serves as an extension to the main edifice, fulfilling diverse user needs. This study's primary objectives encompass crafting an annex structure capable of rivalling the aesthetic appeal of prominent hotels, engineering resilience against climatic phenomena, addressing lakeside challenges, and assessing compliance with the National Building Code and National Structural Code of the Philippines. The study diligently fulfilled the aesthetic prerequisites set forth by the LGU of Mainit. Accounting for wind, earthquake, dead, and live loads directly impacting the structure, the researcher conducted a comprehensive analysis, leveraging resultant moments to design each structural element. Given the project's location atop an embankment, the researchers conservatively employed the weakest soil pressure to underpin footing design. Rigorous evaluation by industry professionals, aligned with the stipulations of the National Building Code of the Philippines, substantiated the structure's integrity, resulting in official approval.*

Keywords: bi-level, resort, hotel, disaster resistant.

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