

MODULAR HABITAT

- CIRCULAR
- LIVELY
- AFFORDABLE

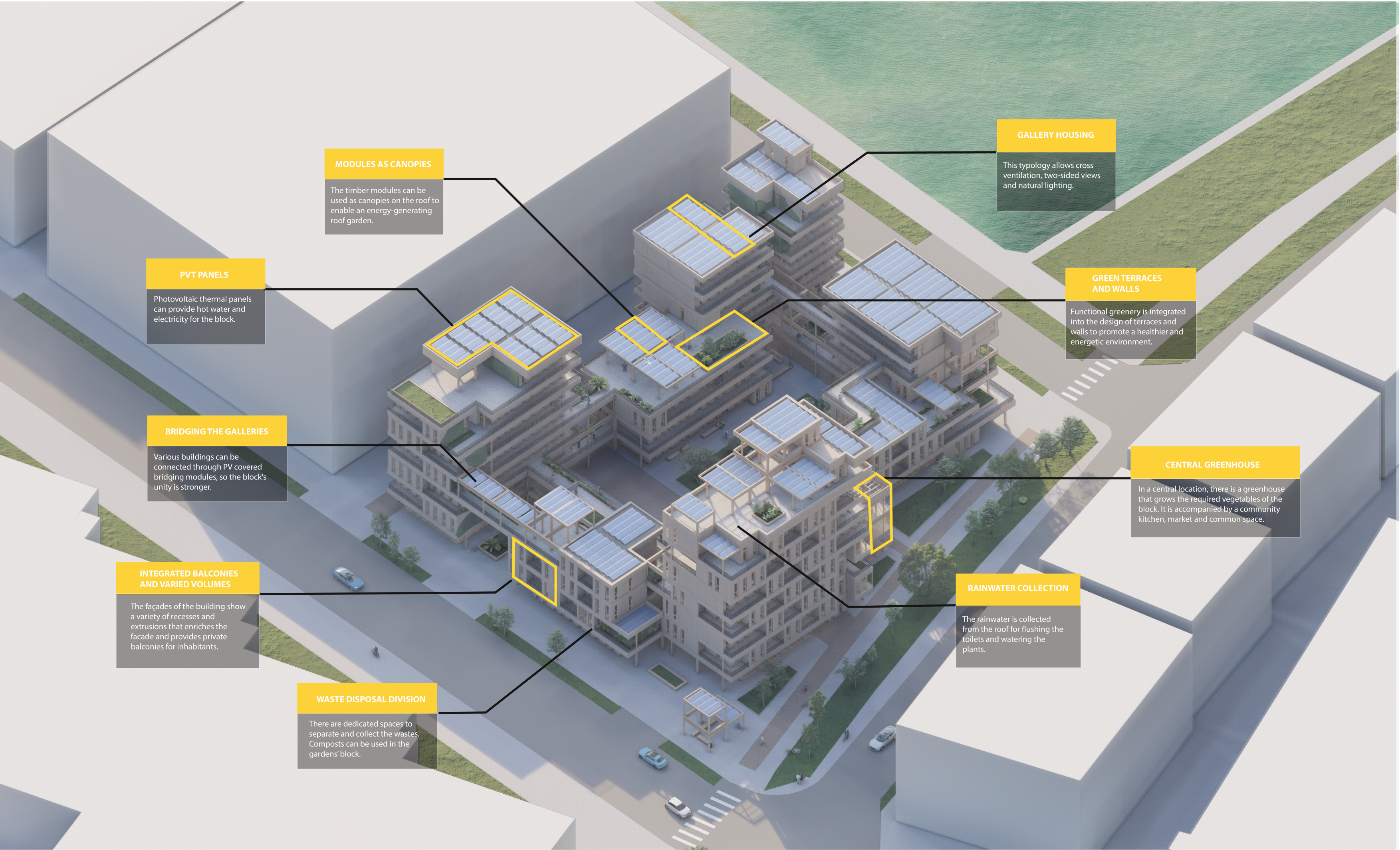
The goal of this project is to design a high-quality circular housing complex. The challenge lies in finding a balance between creating a circular and high-quality result and making it as cost-effective as possible. Circularity in this design will focus on using prefabricated timber modules that are designed for disassembly. It also entails the circular use of other resources such as energy and water. High-quality in this context stands for a space that aesthetically and socially is pleasant and lively for the inhabitants.

Prefabrication of timber has the potential to create high-quality results in a safer work environment, faster and with lower costs. Timber building products can be categorised in the following prefabrication levels: material, component, panel and module. Modules are at the last level of completion, and they can comprise a room finished up to 95% until it is moved to the site.



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1. Timber is currently more expensive than concrete which makes it a less attractive choice for developers. However, the expenditure on building products can decrease by prefabrication and efficient material use. LVL (Laminated Veneer Lumber) is used in these prefab modules to reduce timber use, and the infills can be sourced from a variety of available materials around the site.

2. The fixed and predefined modules can be used in different organizations to make large or small units equipped with the necessary facilities for a pleasant living environment. This pre-investment allows the future designs to be faster and also demand fewer permit procedures.

3. The average available living area for one person in a city like Amsterdam is 49 square meters. The studios in this system are 35 square meters, and the two bedrooms are 72. A studio can house a couple, and the two bedrooms can be suitable for a family with kids. The efficient area of the units can affect the land costs. The inhabitants can use shared common rooms and terraces for their parties and gatherings.

