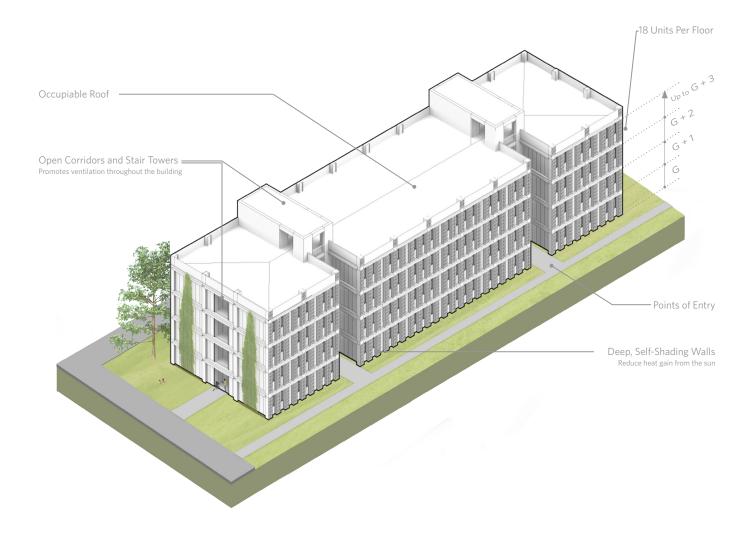


Transforming how homes are designed and built in India today



A pre-engineered construction system for quick-to-build, low-cost one to four-story multi-unit residences for affordable, high quality, community housing.



#### Introduction

The Ideal Choice Homes multi-unit housing construction system provides pre-engineered, quick-to-build, community housing for development sites in seismic zones 1 through 3.

Developed for the Indian housing market, the Ideal Choice Homes construction system is designed to meet demand for well-built, low-cost, sustainable housing. It is a fully developed housing solution suitable for application on a mass scale. It's material-optimized, factory-fabricated modular components leverage established precast concrete technologies. The system is quick-to-build, reducing on-site construction time by more than half, enabling a 3,000 m² G+3 building to be constructed in eight months. Factory made components are designed to be easily transportable and site assembled with basic erection equipment. Factory-finished exterior surfaces do not require render or painting. Finishing options for the interior accommodate the needs and budgets of specific project conditions.

#### **Features**

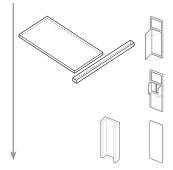
- Available in one- to four-story configurations of up to 72 walk-up apartments.
- Up to 18 residential units per floor in the two-stair option.
- Minimum residential units have a 26.5 m<sup>2</sup> carpet area and contain a kitchen, WC/wash area, and studio living space.
- Construction time of eight months including structure, enclosure, building systems, and finishes for a 72 unit G+3 building.
- G+3 construction cost rage of 13,500-14,745 Rupees/m<sup>2</sup> including standard foundation, systems, and finishes.



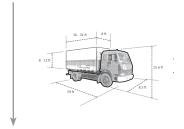
# Combining quality, comfort, affordability, and choice, ICH housing offers time and cost savings that are unprecedented in the current market.

#### Factory to Finish

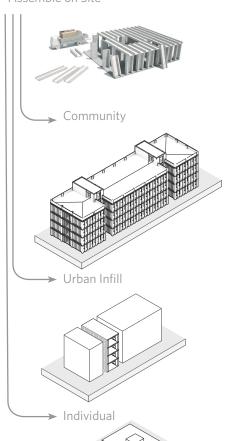
Manufacture Components



Transport to Site



Assemble on Site



#### Solid

Each ICH is solidly constructed using precast concrete technology. Prefabrication in a controlled environment inside the factory ensures that each piece meets rigorous quality standards. Precast concrete provides durable, prefinished surfaces for painting or tiling as desired.

#### Quick to Build

The ICH system reduces typical construction time by at least half. Components are factory-built under careful control, then assembled on site in as little as four weeks per story, with minimal re-shoring requirements. Floor, wall, and partition components fit together quickly, requiring limited use of heavy machinery.

#### **Affordable**

ICH prioritizes quality housing at an affordable price point. Costs are comparable to conventionally constructed buildings of similar size. In addition, reduced construction time leads to an average savings of 5% on interest costs.

#### Comfortable

With ample natural light and ventilation, ICH is designed to be thermally comfortable year-round, limiting the need for mechanical heating and cooling. Deep roof overhangs coupled with walls that are formed for self-shading contribute to a comfortable interior temperature.

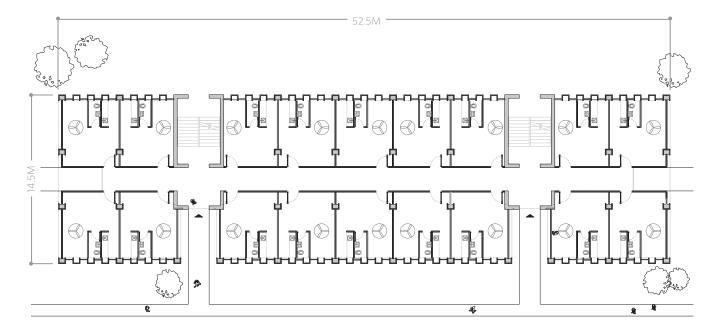
#### Customizable

ICH multi-unit buildings are customizable to a variety of sites and conditions, available in G to G+3 building height. Unit plans can be sized and configured to meet site and development requirements.

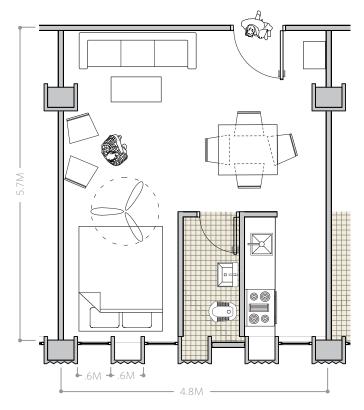
### **Self-Sustaining**

ICH uses innovative design to reduce reliance on resources and utilities. Each building responds to the change in seasons by minimizing heat gain from the sun, encouraging air movement, and reducing cold air infiltration during the winter.





#### Floorplan



Dimensions 26.5m<sup>2</sup> Floor to Ceiling Height 3m

#### Unit Plan

## Minimum Unit Configuration

The compact footprint of an 18 unit per floor block is 52.5 m in length by 14.5 m in width. Each floor is accessed by two common stairs. Apartment units are entered from a 2.0 m wide open-air hallway.

- Each unit is 4.8 m wide x 5.7 m deep, containing 26.5 m2 of carpet area with a basic 3.3 m<sup>2</sup> kitchen and 2.2 m<sup>2</sup> WC/wash area.
- 2.9 m ceiling height allows air stratification.
- Kitchen and WC are located at exterior walls for ventilation and accessible plumbing stacks.
- Three windows per unit provide natural light and ventilation, recessed for protection from rain and direct sun.

Space within the unit is configured to provide living and sleeping areas, and to allow subdivision into two separate rooms by the occupant if desired. Partitions are lightweight concrete panels finished with a site-applied render. Floors are tiled; ceiling surfaces are factory-finished precast concrete.

# **Prototype**

The construction system was developed on site in Ahmedabad through a series of planned prototypes. Building full-scale prototypes of the system helped demonstrate it's solidity, maneuverability, construction time, extendability, quality, and finish.

- 1 The c-panel is set and adjusted around a prefabricated rebar cage
- 2 The closure panel is inserted and secured to complete the permanent formwork
- 3 The second floor is constructed
- 4 Slab panels are set on column assemblies
- 5 The concrete topping slab is cast in place
- 6 Off-site fabricated infill panels are installed
- 7 The completed prototype



















Ideal Choice Homes designs prefabricated housing products and the supply chains to deliver them. The company was formed in partnership with international collaborators in order to provide a holistic solution to the demand-supply gap in housing in India.

#### **Development Partners**

**ProjectWell**, a Sam Circle Venture partner, is a third-party development management firm based in Mumbai, India. They currently manage a portfolio of diverse projects across India, focusing on developing solutions related to mass affordable housing with an emphasis on planning, development, and management of building assets. ProjectWell develops processes, products, and systems to address the entire building supply chain, from pre-feasibility to post-operation phases.

**KT India**, an affiliate of KieranTimberlake, an award-winning architecture firm whose mission is the alchemy of art, science, analysis, and intuition. KieranTimberlake's projects include programming, planning, and design for new structures as well as conservation, renovation, and transformation of existing buildings, with special expertise in education, government, arts and culture, civic, and residential projects. KieranTimberlake is committed to research initiatives that push the practice of architecture forward, such as new fabrication techniques and new tools for sustainable design.

Sam Circle Venture is an incubation-based asset management firm engaged in developing a portfolio of assets in mass housing, education, and healthcare through its business and operating partners. Sam Circle Venture partners are currently engaged in developing innovative solutions in sectors that are critical for the sustainability of India's economic and social growth.

Bakeri Group is one of the oldest and most trusted real estate developers in India, with 17 million square feet of space developed since its founding in 1959. Bakeri Group strives to exceed customer expectations with prudent, transparent and ethical business practices. With a focus on decalage de paradigm (paradigm shift) through innovation in its design and architecture, Bakeri Group brought its concept of affordable housing projects within a planned township a decade ago, before the idea became widespread among real estate developers today. It was the first developer in India to be awarded the highest PA-1 rating by CRISIL for SAKAR-III project in October 1995.

