IMPLEMENTATION OF THE DINING HALL

Post construction of the dining hall through prefabricated construction.

KEY IMPACTS & LEARNINGS

Sustainable building material helps in increasing thermal comfort

Enhanced built environment improves the health and productivity of the students

Improved quality of life of the students

SELCO FOUNDATION

MHT

SUSTAINABLE HOUSING PROGRAMME

ENERGY EFFICIENT DESIGN THROUGH CONSTRUCTION MATERIALS AND LAYOUTS

June 2019

SUSTAINABLE HOUSING PROGRAMME

PILOTS IN CONSTRUCTION MATERIALS AND LAYOUTS

ENERGY EFFICIENT BUILDING DESIGN IN ASHRAMASHAALA

Sustainable Housing Programme intends to explore the possibilities of achieving sustainability in built environment through different interventions on a pilot basis and subsequent scaling of pilots.

1 Pilots in construction materials and layouts

2 Pilots in energy efficient appliances and technologies

3 Pilots in institutional housing

4 Pilots in public housing

SELCO FOUNDATION

MHT

GADAT ASHRAMSHAALA

Ashramshaalas are residential schools which impart education to children from rural areas. *Gadat Ashramshaala* in Vyara region has been engaged in educating around five fifty students for about 50 years. It is supported by Gram SEWA Samaj Trust, Vyara. Students in the ashram are from economically weaker and diverse social backgrounds.

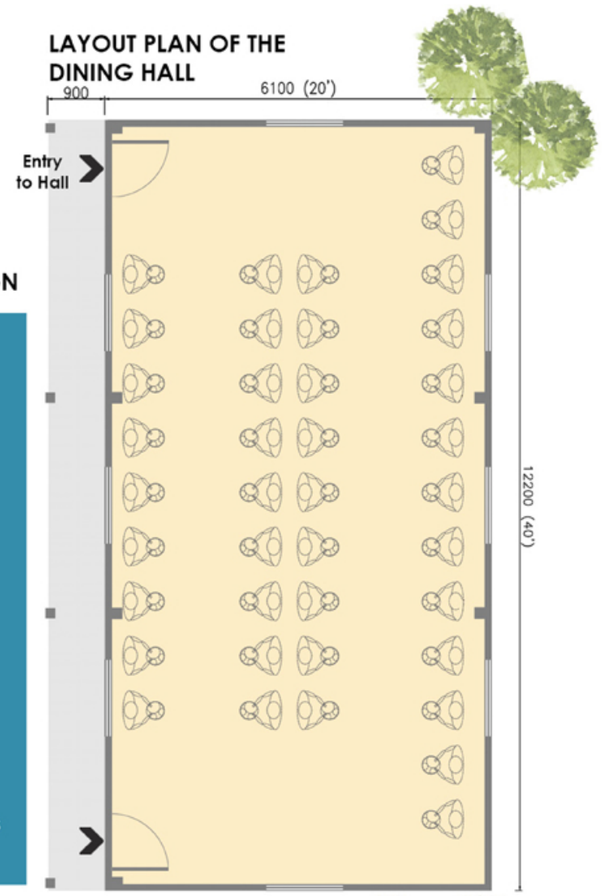
ISSUES IDENTIFIED IN THE ASHRAMASHAALA

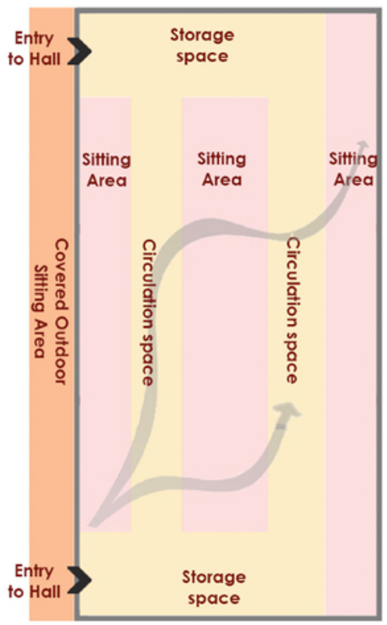
- CLASSROOMS USED FOR DINNING AND SLEEPING PURPOSES
- POOR HABITABLE CONDITION OF THE EXISTING CLASSROOM STRUCTURE
- LACK OF DINING SPACE FOR THE STUDENTS
- DIFFICULTY DURING SUMMERS AND MONSOONS

UNDERSTANDING THE NEED OF BUILT SPACE

MHT had identified a need of a multi purpose space in *Gadat Ashramashaala*. The key purpose of the hall is to provide a space for 80 students to have their meals in a comfortable space with habitable conditions.

A holistic design is provided for the Dining Hall through its layout, building materials and construction technology.





CONCEPT PLAN OF THE DINING HALL

BUILT SPACE DESIGN

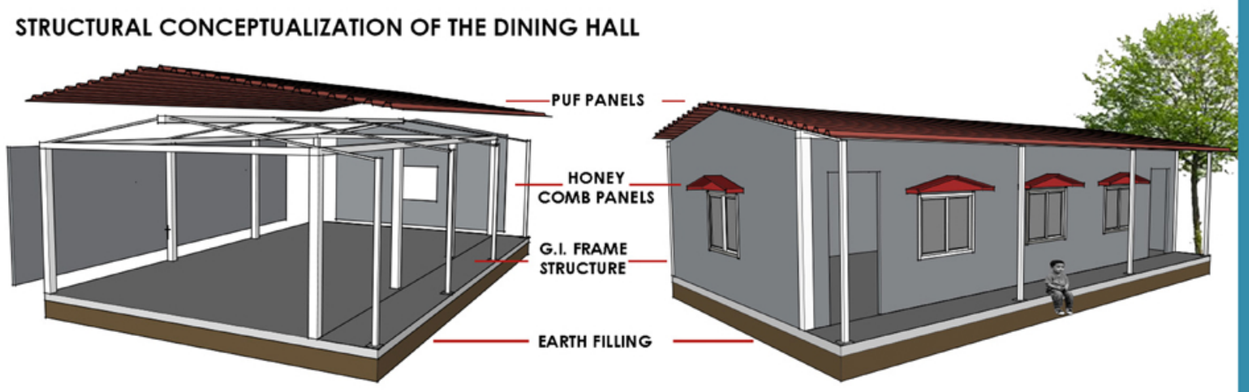
- Efficient Spacial Design
- Optimisation of functional spaces
- Thermal comfort through design
- Efficiency through fenestrations
- Efficiency through materials

N

INNOVATION IN CONSTRUCTION MATERIALS AND TECHNOLOGY

MHT has constantly worked on identification of various alternative sustainable building materials. We have imbibed the same values for this project. After thourough research on available sustainable technology, the materials used for the project are Honeycomb panels and PUF Insulated panels through Prefabricated Construction.

STRUCTURAL CONCEPTUALIZATION OF THE DINING HALL



Material:
Honeycomb panels and PUF insulated panels.

Company:
Industrial Foams (P) Ltd

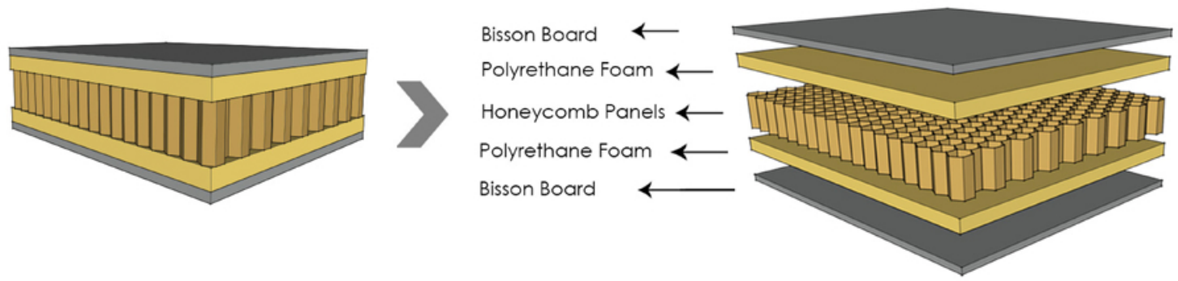
Components for Implementation:
Walling and Roofing

SALIENT FEATURES

Sustainable and Energy efficient
Lightweight
Flexibility in Installation
Shorter construction period
Reduced site disruption

HONEYCOMB PANELS

All the walls are of 100 mm honey comb panels which ensures a better solution for effective curtailing, safety and water leakages.



POLYURETHANE PUF INSULATED PANELS

PUF linsulated panels are used for the roof. These are made of 73 mm thick PUF panels which are further supported by an inner and outer layer of stainless steel sheets.