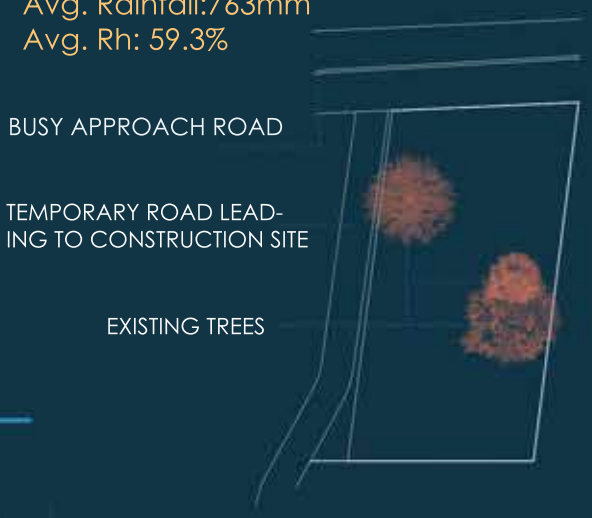
Aggressive progression of corona virus witnessed enormous community spread which steered the migration of fearful labours through whatever means they can reach their safe places.

This the point where we realise the importance of a clean hygenic and safe place for ourselves. This is the need of the time that we critically think of habitable spaces for the transient construction labours.

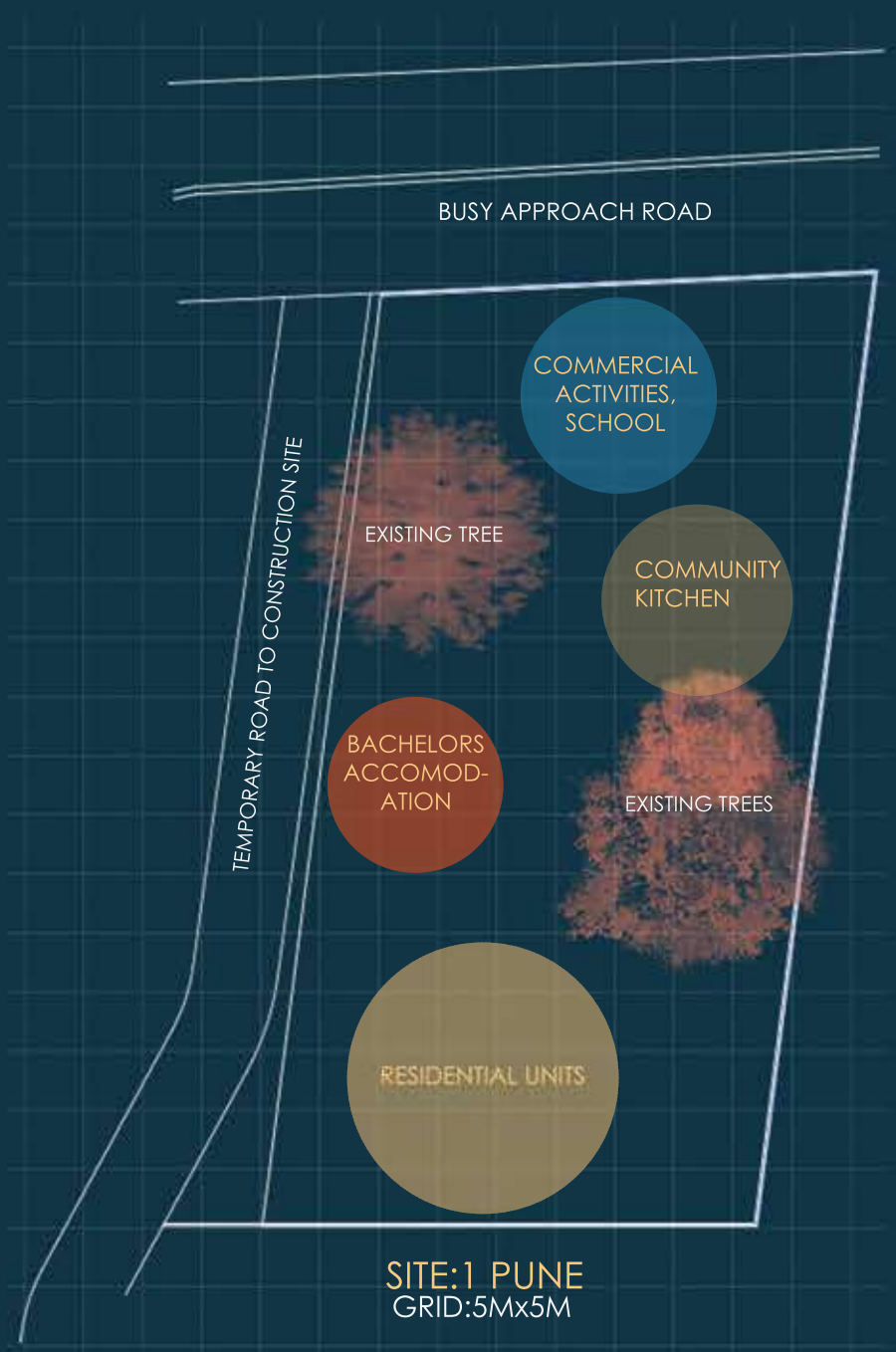
SITE

Location: Pune
Climate: composite Min.avg. Temperature:20°C
Max. Avg. Temperature:28°C
Avg. Rainfall:763mm
Avg. Rh: 59.3%

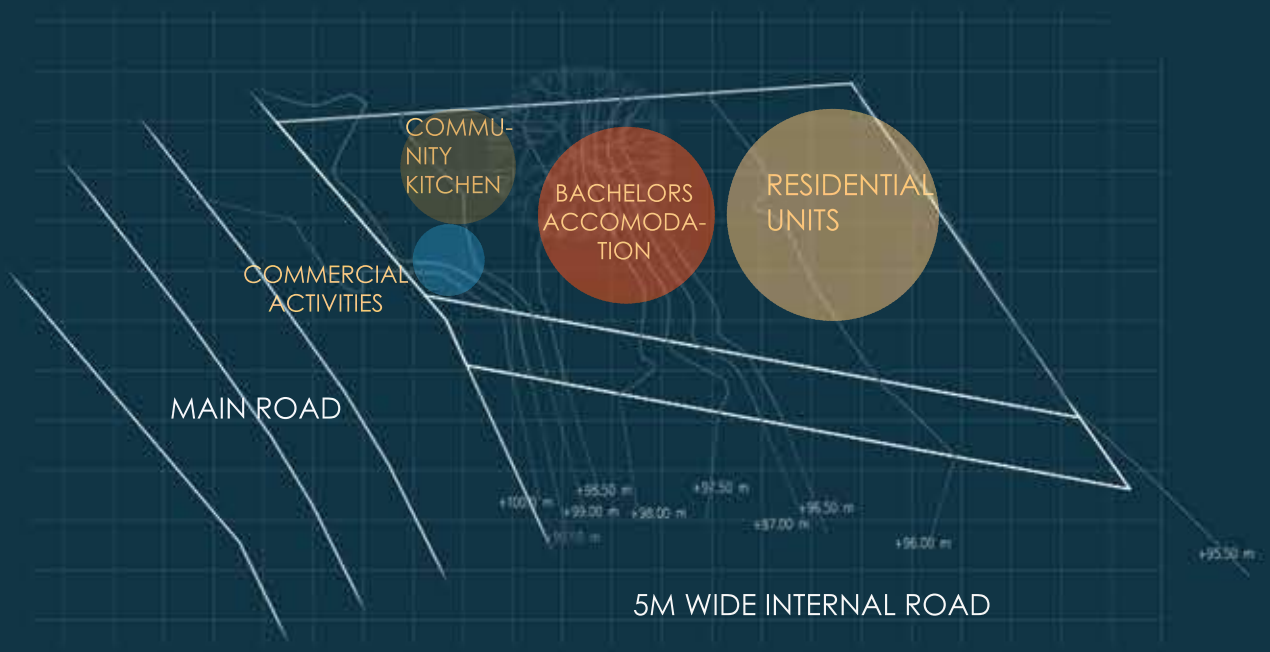


Location: Cochin/Ernakulam
Climate: hot and humid
Min. Avg. Temperature: 22.2°c
Max. Avg. Temperature:31.8°c
Avg rainfall:3254 mm
Avg rh:73.9%

ZONING



SITE:1 PUNE
GRID:5Mx5M



SITE:2 KOCHI/ERNAKULAM
GRID: 2.5M x 2.5M

The commercial activities and school/activity centre has been placed near the road so that they get maximum opportunity.

The community addressed here are more prone to commit crimes and that is more prevalent with bachelor category hence their accomodation has been made in the centre so that they are in constant visual connection.

The family residences have been placed at the end to ensure safety of children playing around and also to create a sense of privacy within the community. The communal kitchen has been placed in close proximity to the bachelors accomodation yet it is separated so that everyone can have an advantage of it

CONCEPT

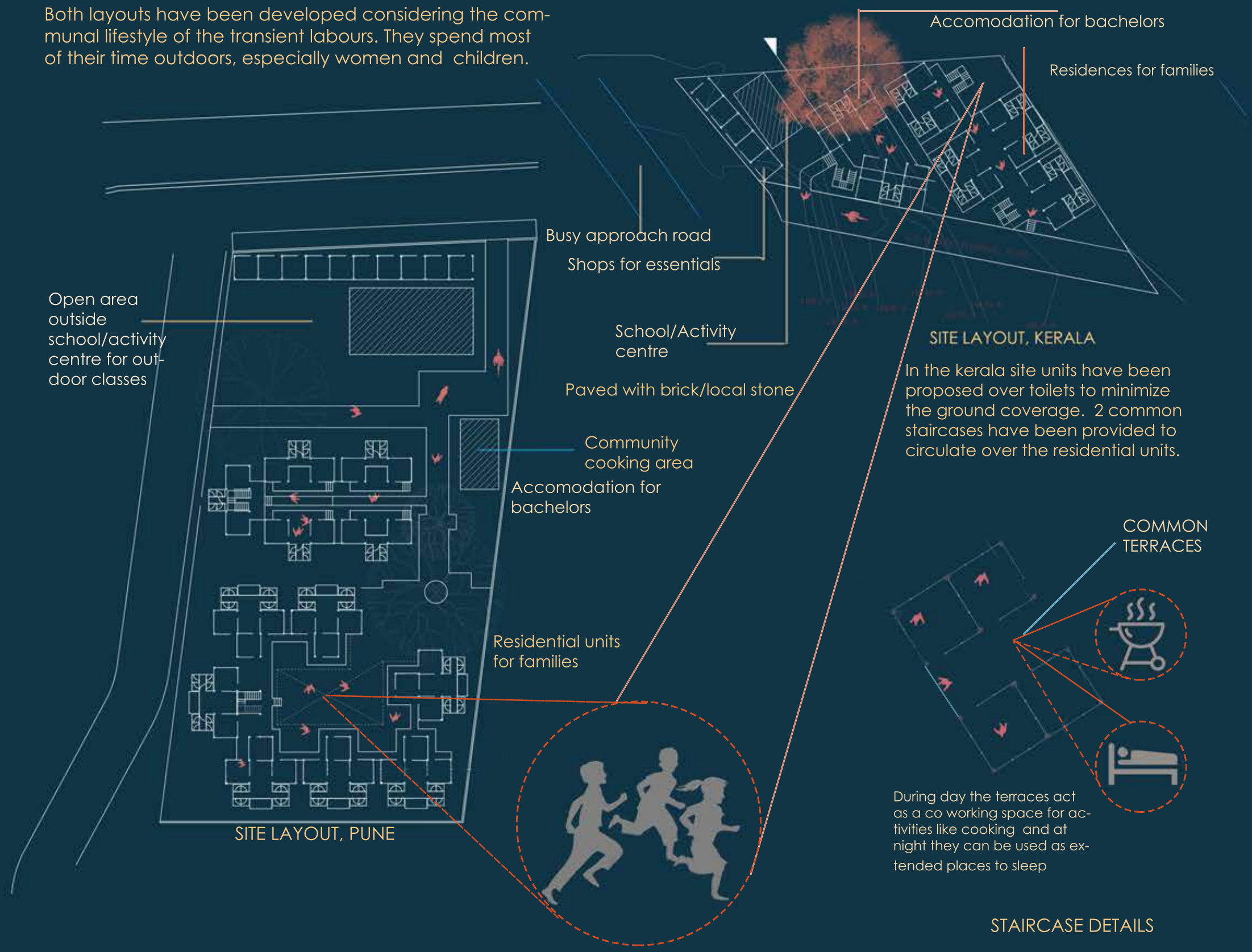
The basic concept was to use a versatile material which can be moduled yet it has a low environmental impact, sustainable low cost and available in abundance.

It should be from the materials which the transient labours are used to working with so that they are not dependent on others for maintenance which would make it cost effective

SUSTAINABLE LOW COST VERSATILE

PRANJALI MAGANAHALLI
VADODARA

Both layouts have been developed considering the communal lifestyle of the transient labours. They spend most of their time outdoors, especially women and children.



SITE LAYOUT, PUNE

SITE LAYOUT, KERALA

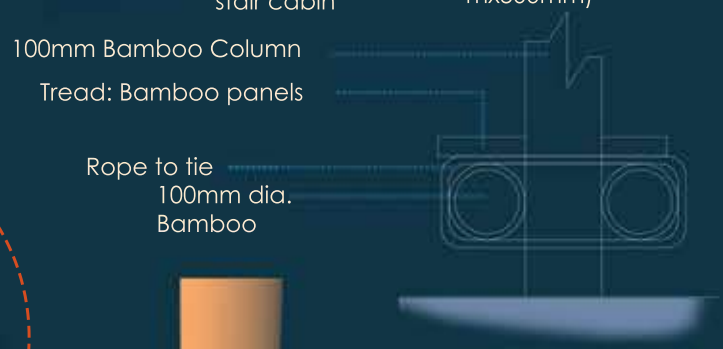
In the kerala site units have been proposed over toilets to minimize the ground coverage. 2 common staircases have been provided to circulate over the residential units.

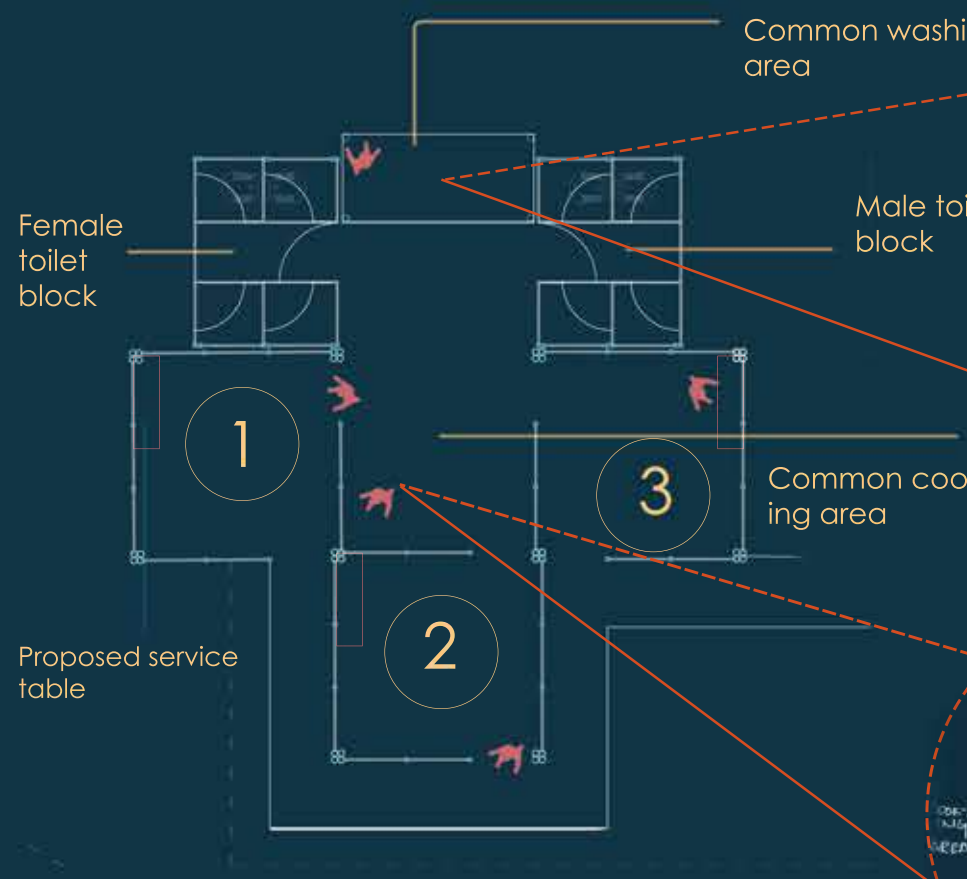
During day the terraces act as a co working space for activities like cooking and at night they can be used as extended places to sleep

KIDS PLAYING AROUND

STAIRCASE DETAILS

Open riser bamboo staircase has been proposed. Tread and riser details have been shown below

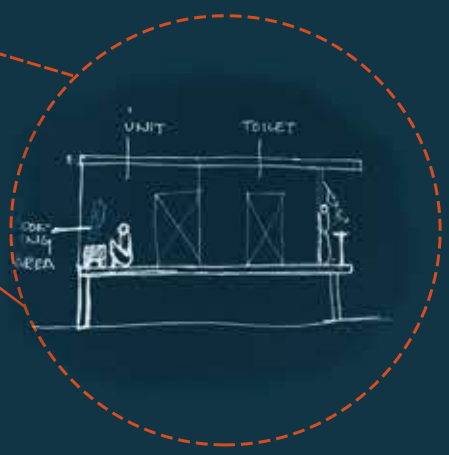


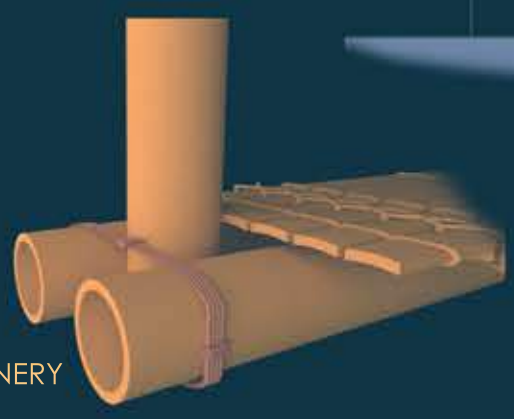


CLUSTER LAYOUT

The cluster layout has been developed with shared spaces promoting more interaction. Common cooking area, common washing area has been provided.

As they are prone to cook over the traditional "chula" which generate a lot of smoke.. Hence cooking outdoor is a way.





3-D VIEW OF THE JOINERY

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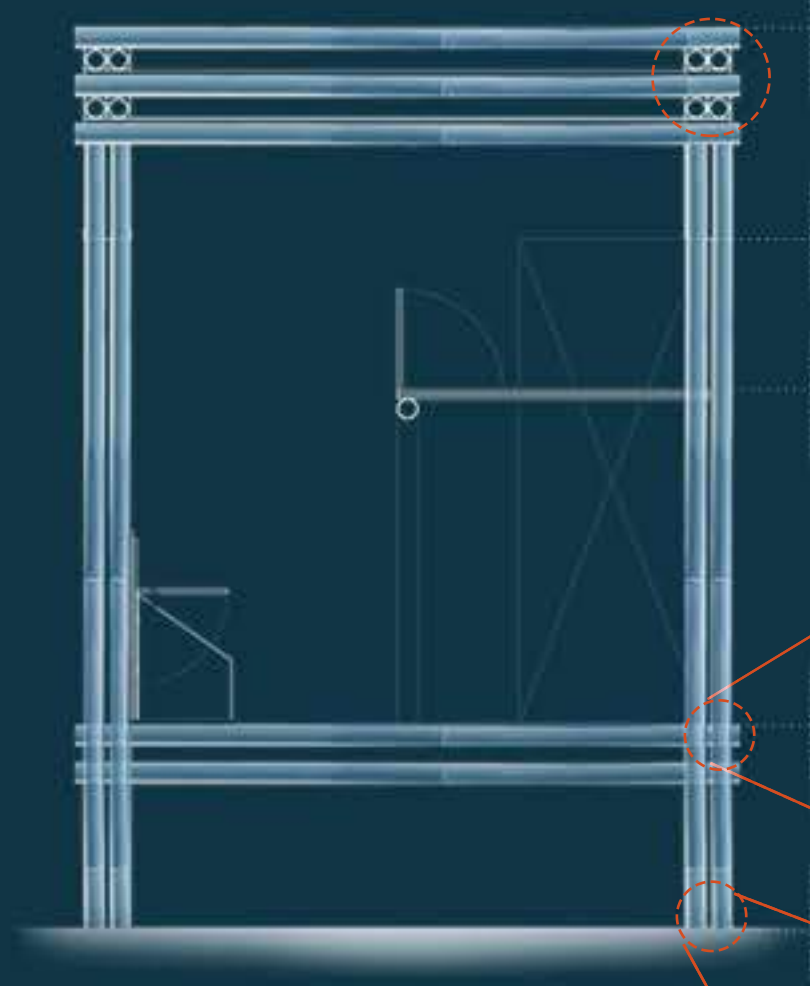
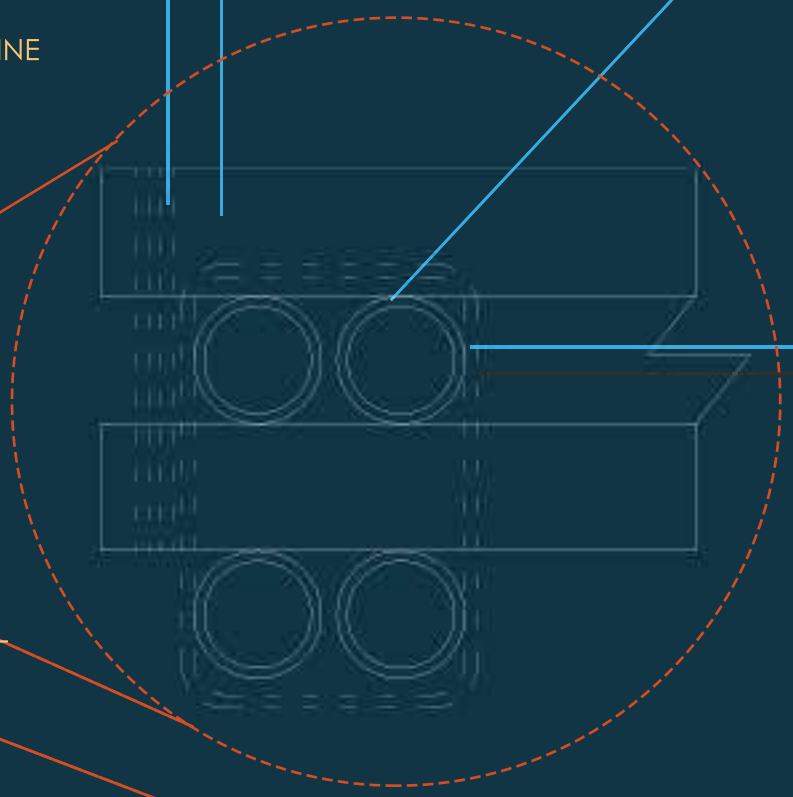
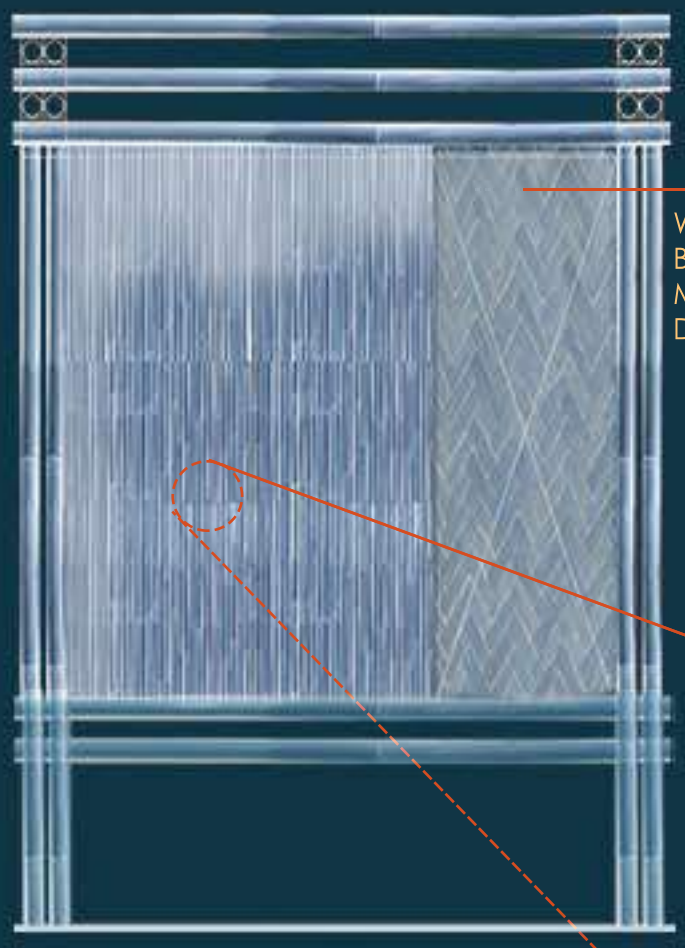
VADODARA



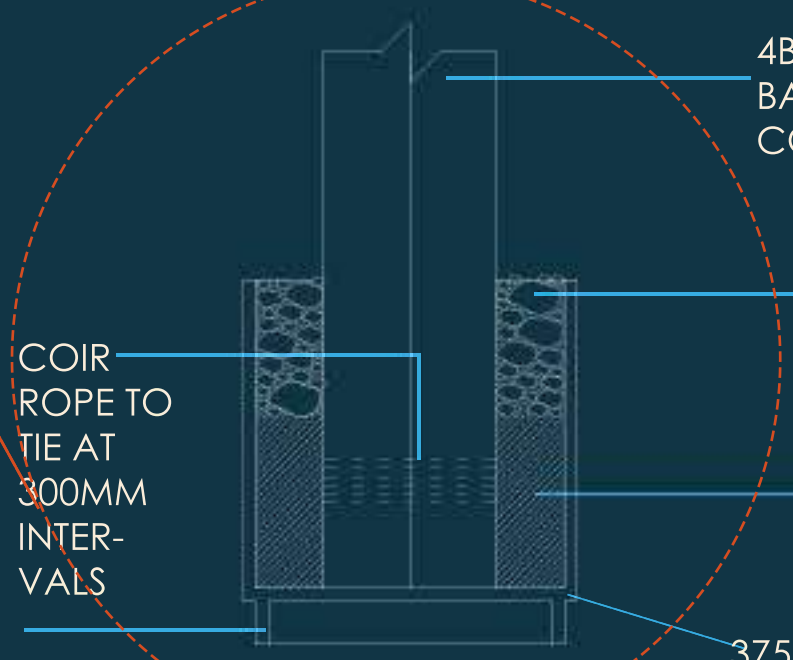
SECTION



BEAM DETAILS



ELEVATION



FOUNDATION DETAILS

LOCALLY AVAILABLE STONE HAS BEEN USED TO WITHSTAND WIND PRESSURE.

PLAN

PANEL JOINERY TO COLUMN

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VADODARA

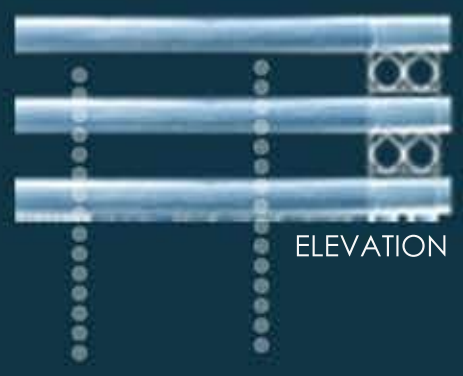
Bamboo has been used as major material, as it is fast growing thus cause negligible environmental impact.

Moreover working with bamboo is known by all migrant workers thus they can build it easily for themselves.

Bamboo is very sustainable, has a high tensile strength, low cost and is very versatile.

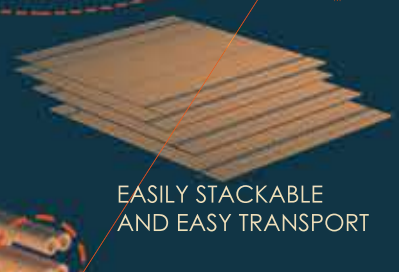
Everything is prone to wear and tear and after sometimes it requires maintenance. Bamboo has a low maintenance cost and they can repair it by themselves in a very less amount.

By stacking beam in a sandwich manner and tying will help in better grip as it is interlocked and also it will create a opening on upper level which will help in venting off the hot air from inside

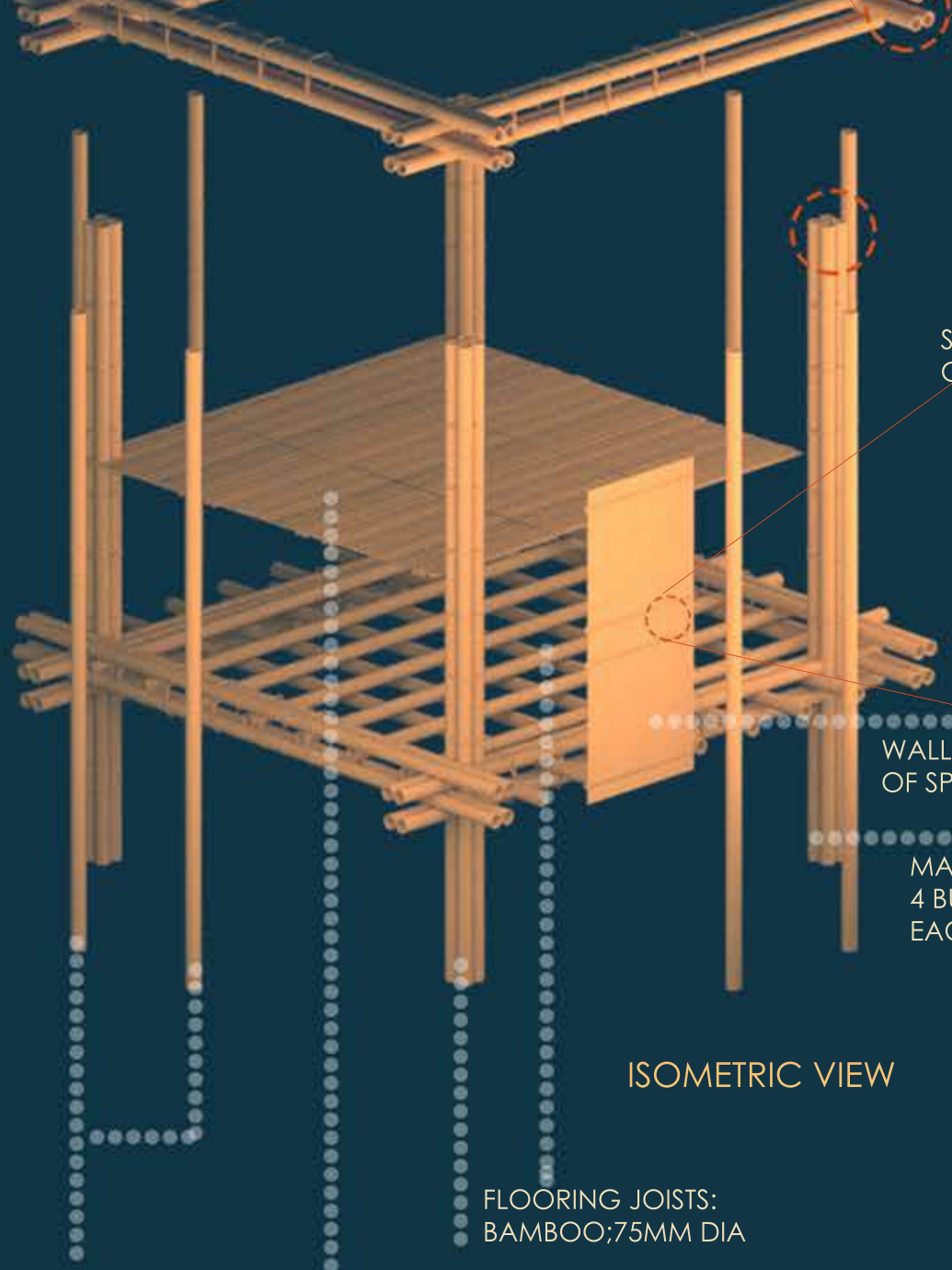


OPENING ON UPPER LEVEL

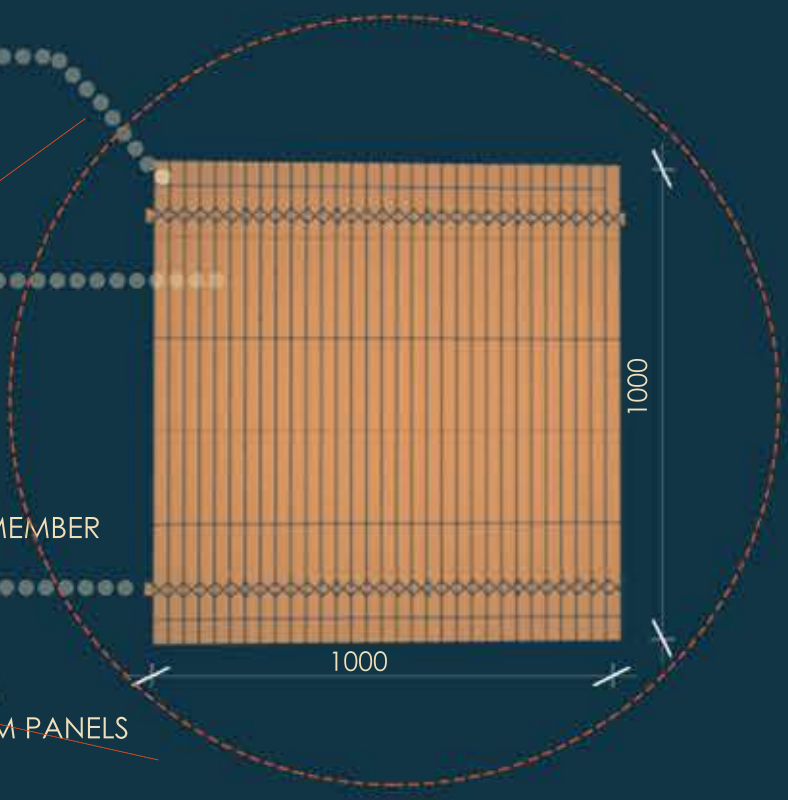
Modularity has been achieved by creating panels of 1mx1m of bamboo splits which is used as wall material, as a flooring material and also as a roofing material. The panels are made by 25mm bamboo splits tied together with coir rope with a horizontal support member. It has been kept in a traditional way so in future if ant damage occurs to any of the splits the owner can easily replace it by themselves in a very less amount.



EASILY STACKABLE
AND EASY TRANSPORT



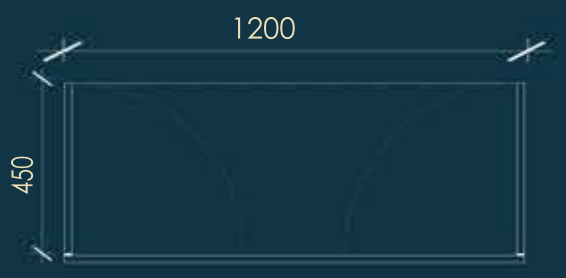
ISOMETRIC VIEW



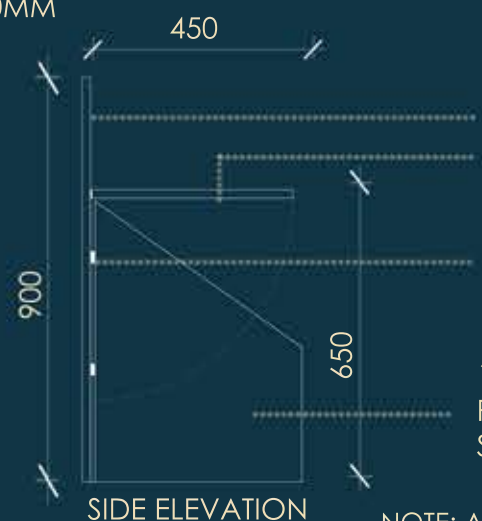
PANEL DETAILS

ROPE TO TIE
100MM DIA. ; 4NOS BAMBOO POLES

20MM THICK WOODEN MEMBER FOR SUPPORT



PLAN



SIDE ELEVATION

19MM BAMBOO PLY FOR BACK SUPPORT

19MM BAMBOO PLY : COUNTER TOP

25MM BAMBOO PLY S.S HINGES

19MM BAMBOO PLY FOR SIDE SUPPORT

Integrated furniture has also been proposed :
A foldable service table made of bamboo ply has been proposed. It gets converted into straight planks

NOTE: ALL MENTIONED DIMENSIONS ARE IN MM

PRANJALI MAGANAHALLI
VADODARA