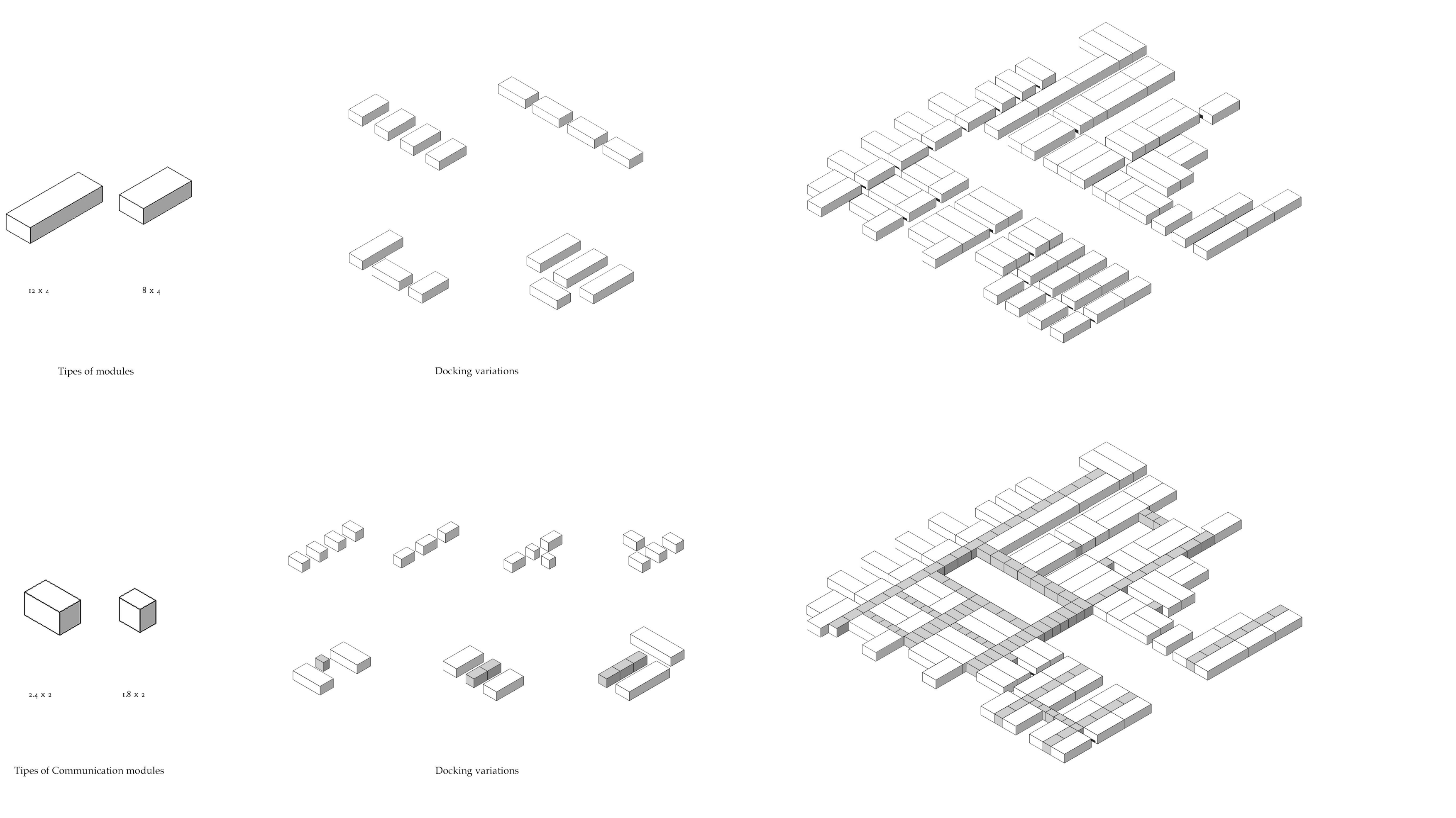


- 1. Courtyard - Waiting Area
- 2. Courtyard for Patients & Staff
- 3. Courtyard - Rest zone for Staff
- 4. Courtyard - Rest zone for Medical Staff
- 5. Technical entrance

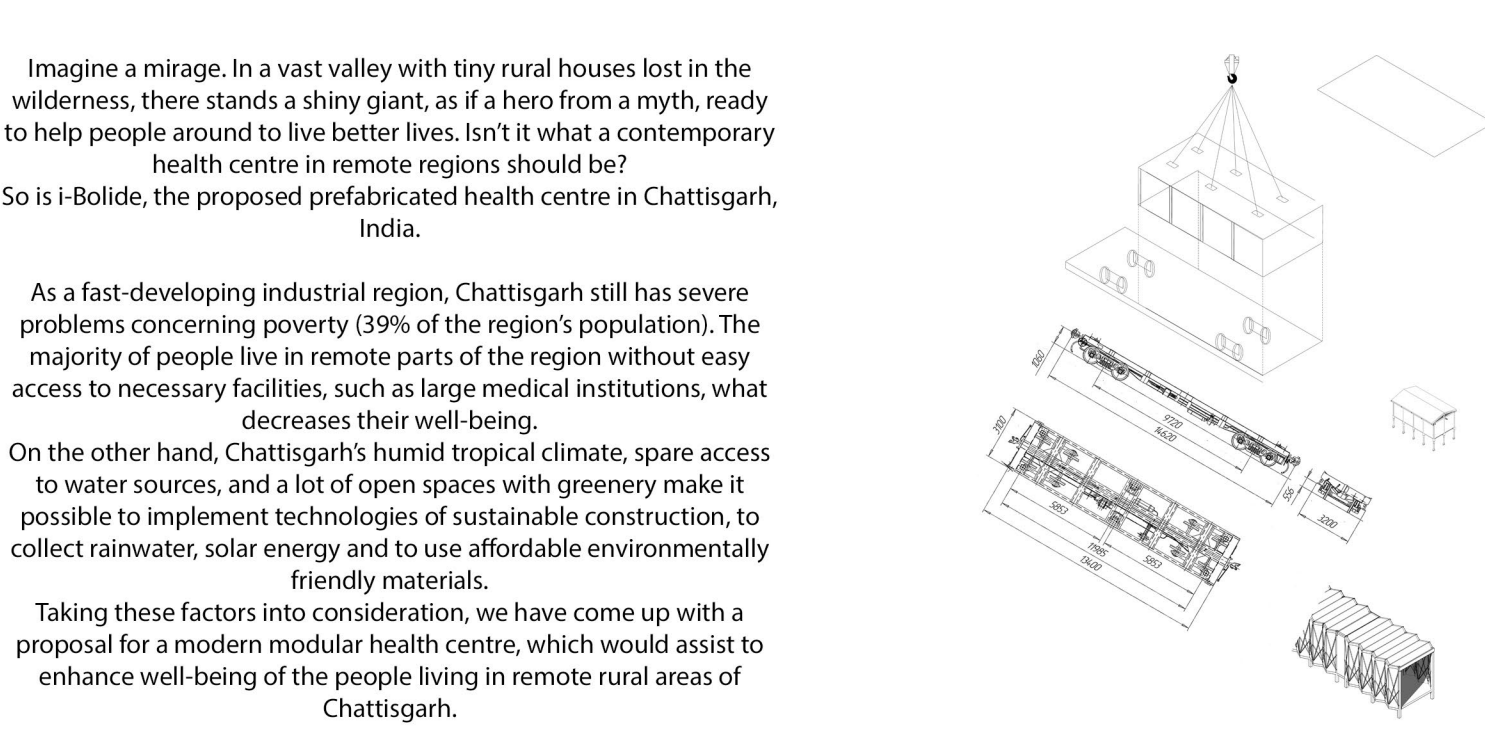
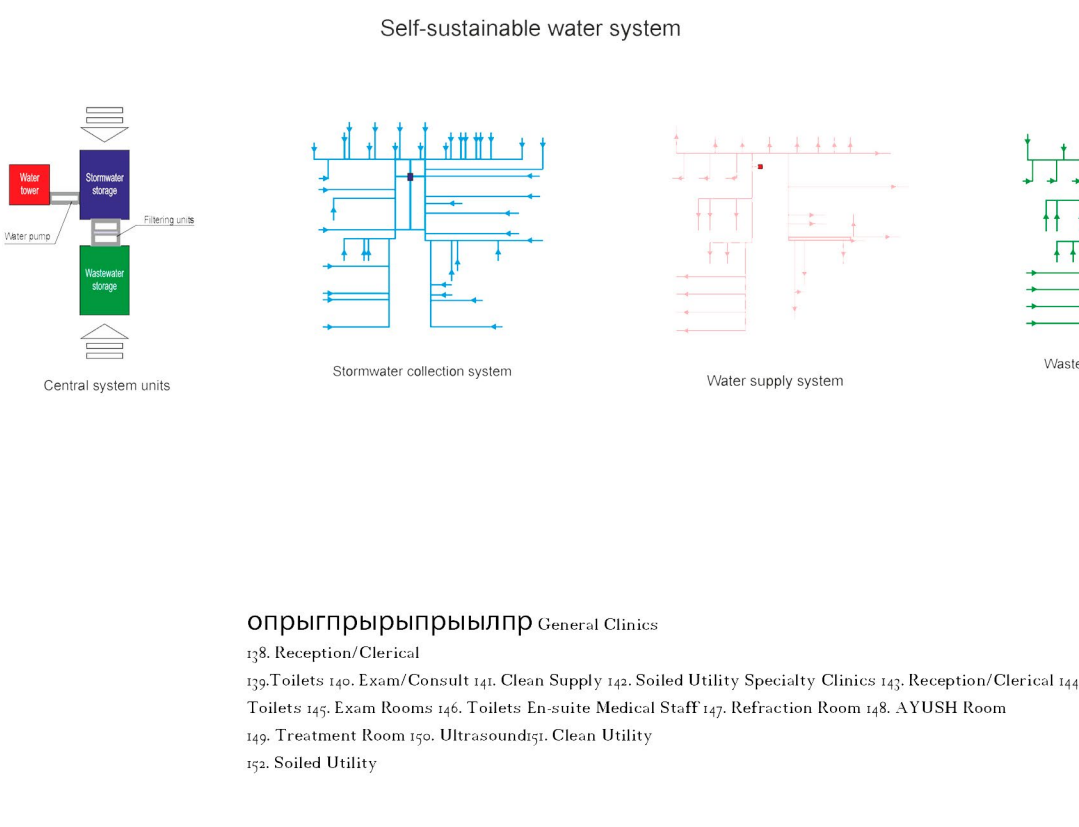


Imagine a mirage. In a vast valley with tiny rural houses lost in the wilderness, there stands a shiny giant, as if a hero from a myth, ready to help people around to live better lives. Isn't that a contemporary health centre in remote regions should be?
So is i-Bolide, the proposed prefabricated health centre in Chattisgarh, India.

As a fast-developing industrial region, Chattisgarh still has severe problems concerning poverty (39% of the region's population). The majority of people live in remote parts of the region without easy access to necessary facilities, such as large medical institutions, what decreases their well-being.

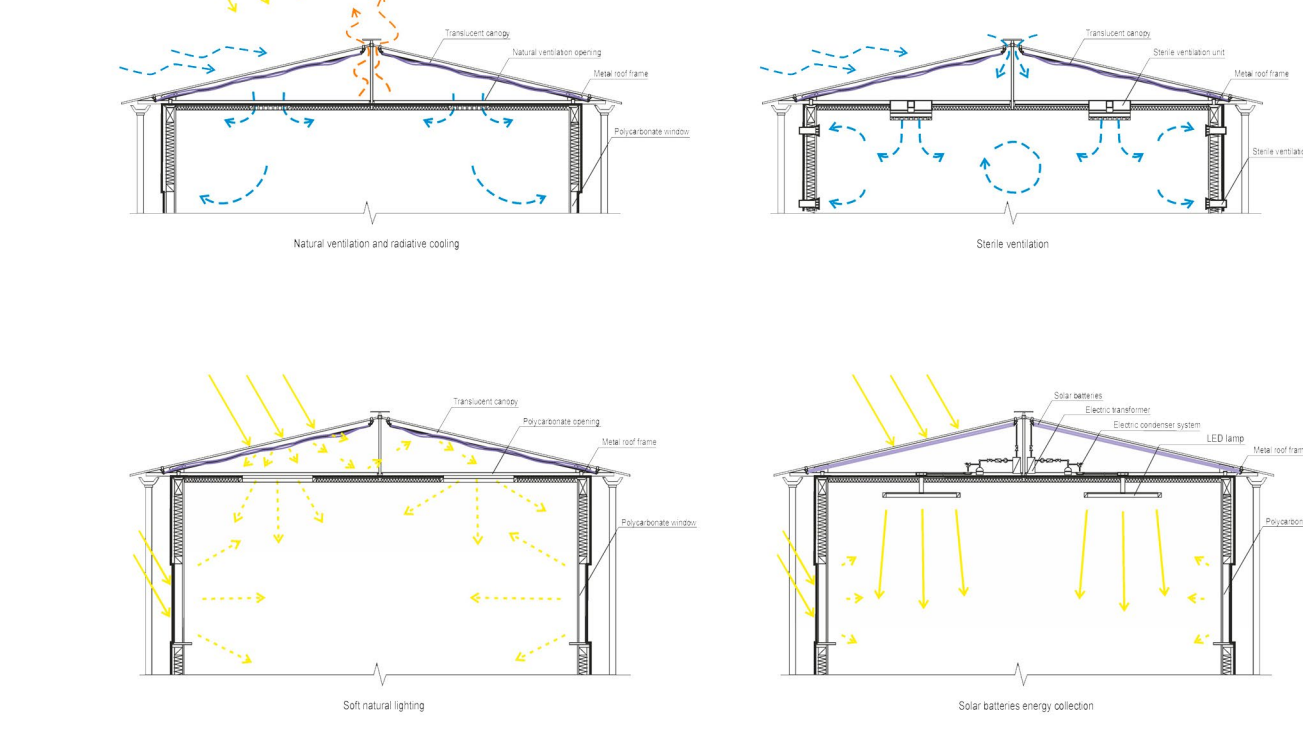
On the other hand, Chattisgarh's humid tropical climate, spare access to water sources, and a lot of open spaces with greenery make it possible to implement technologies of sustainable construction, to collect rainwater, solar energy and to use affordable environmentally friendly materials.

Taking these factors into consideration, we have come up with a proposal for a modern modular health centre, which would assist to enhance well-being of the people living in remote rural areas of Chattisgarh.



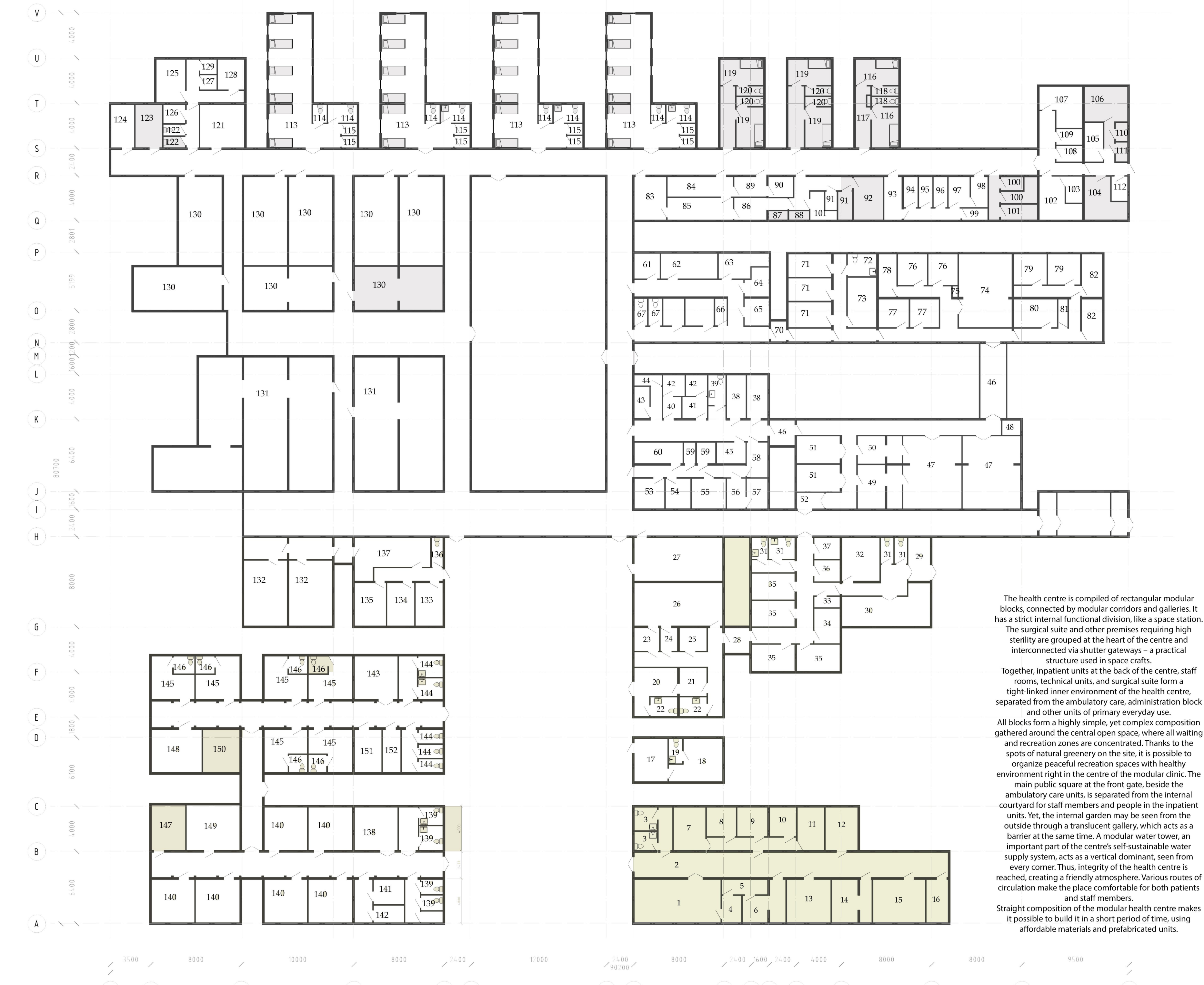
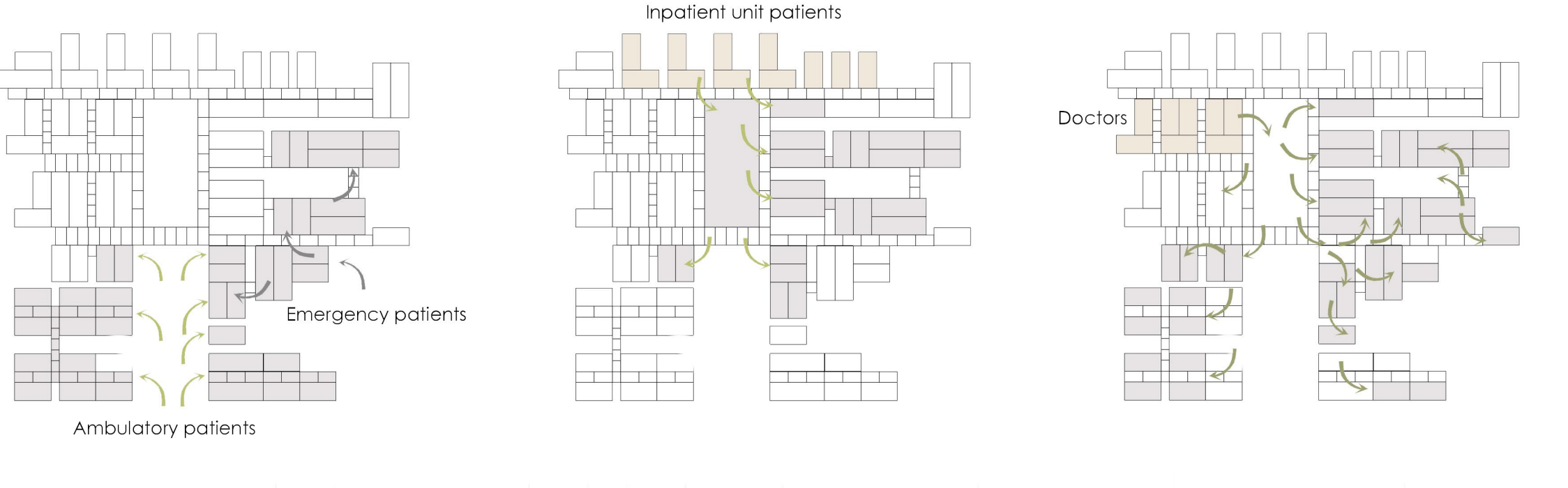
Have you noticed that the structure of a modular health centre is very similar to the one of a space station? Like a huge and mighty space craft, a "Bolide", it docks on a remote site with a certain goal - to give a chance to live healthy lives to people around. It is designed not to penetrate the environment, it reaches a balance with it instead. Finally, as its mission is its top priority, the design of i-Bolide, just as of a space station, is highly refined - the primitive elements it consists of have multiple variants of use. Thus, i-Bolide, a modular health centre, is highly efficient in its mission.

Interestingly, our health centre is named not only after a smart space craft. i-Bolide sounds very much like the name of a kind doctor, Aibolit, a hero of a Russian tale. Our health centre is devoted to this cheerful character, who is always ready to help everyone get



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- 83. Cafeteria and Servery
- 84. Tray Assembly
- 85. Meal Preparation
- 86. Dishwashing Room
- 87. Cart Washing
- 88. Garbage Holding
- 89. Dry Storage
- 90. Freezers and Refrigerated Rooms
- 91. Staff Lockers
- 92. Office, Director
- 93. Soiled Linen Receiving
- 94. Soiled Linen Sorting and Washing
- 95. Soiled Linen Washing
- 96. Drying Area
- 97. Clean Linen Sorting Area and Storage
- 98. Assembly and Distribution
- 99. New Linen Storage
- 100. Staff Lockers
- 101. Housekeeping Closet
- 102. Equipment Storage
- 103. Supplies Storage
- 104. Receiving Dock
- 105. Equipment Storage
- 106. Bulk Stores, Non-medical Supplies
- 107. Bulk Stores, Medical Supplies
- 108. Gas Cylinder Storage
- 109. Gas Cylinder Manifold
- 110. Flammable Communication
- 111. Kitchen Garbage Holding
- 112. Biomedical Waste Holding Room
- 113. Bed Area
- 114. Toilets
- 115. Shower Stalls
- 116. Isolation Room
- 117. Vestibule w/ sink
- 118. Toilet
- 119. Private Room
- 120. Toilet
- 121. Nursing Station
- 122. Toilet Staff
- 123. Clean Utility
- 124. Soiled Utility
- 125. Doctors' Room
- 126. Bathroom, Doctors' Room
- 127. Storage Stretches and Wheelchairs
- 128. Equipment Storage
- 129. Housekeeping Closet
- 130. Living/Sleeping Units
- 131. Living/Sleeping Units
- 132. Laboratory
- 133. Vaccination
- 134. Infection Room
- 135. Cold Chain Room
- 136. Logistics Room
- 137. Toilets
- 138. Specimen Collection
- 139. Collection Room
- 140. General Clinics
- 141. Reception/Clinical
- 142. Exam/Consult
- 143. Clean Supply
- 144. Soiled Utility
- 145. Reception/Clinical
- 146. Toilets
- 147. Exam Rooms
- 148. Toilets Ensuite Medical Staff
- 149. Refraction Room
- 150. AV/USH Room
- 151. Treatment Room
- 152. Ultrasound
- 153. Clean Utility
- 154. Soiled Utility

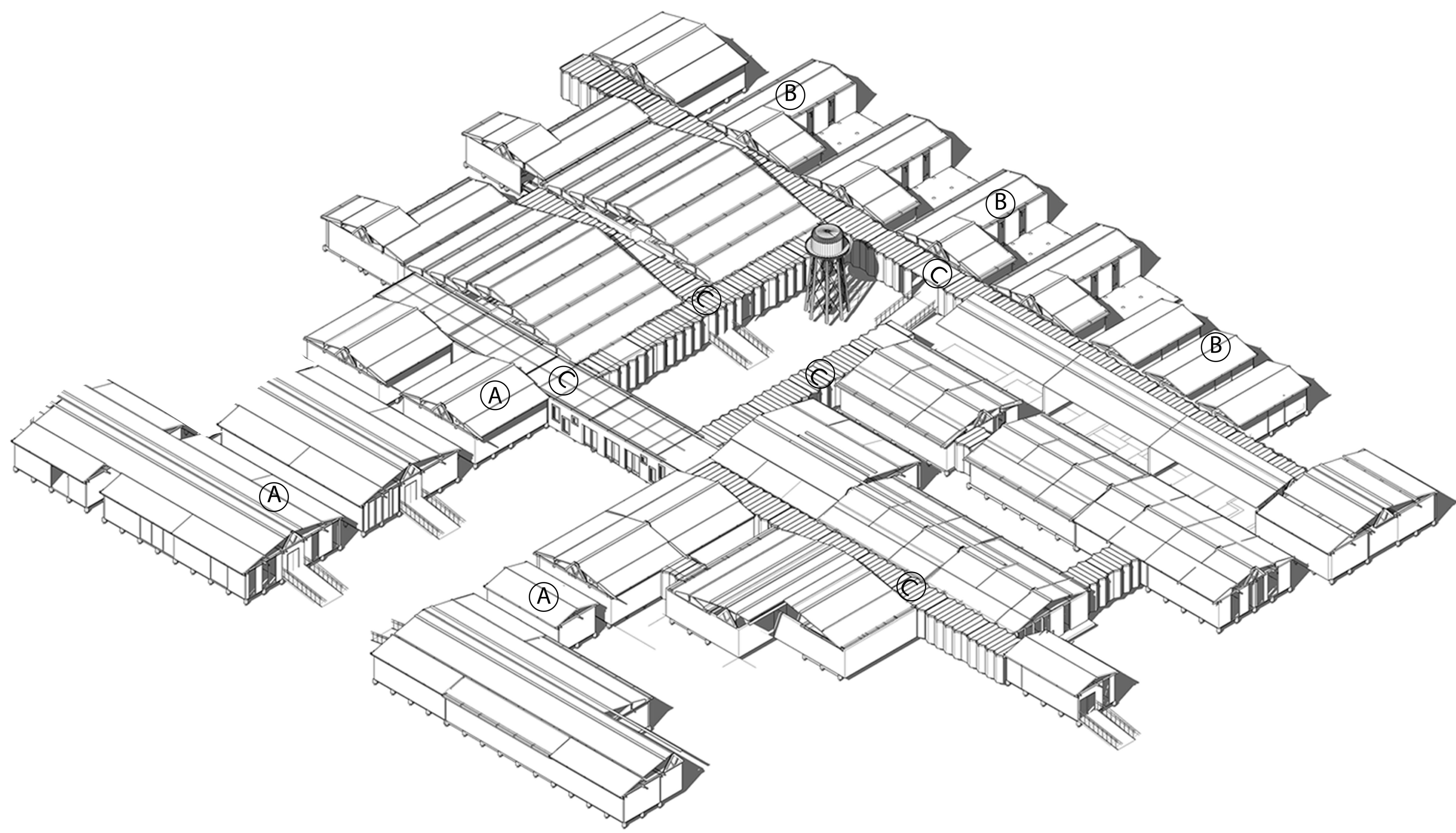


The health centre is compiled of rectangular modular blocks, connected by modular corridors and galleries. It has a strict internal functional division, like a space station. The surgical suite and other premises requiring high sterility are grouped at the heart of the centre and interconnected via shutter gateways - a practical structure used in space crafts.

Together, inpatient units at the back of the centre, staff rooms, technical units and surgical suite form a tight-linked inner environment of the health centre, separated from the ambulatory care, administration block and other units of primary everyday use.

All blocks form a highly simple, yet complex composition gathered around the central open space, where all waiting and recreation zones are concentrated. Thanks to the spots of natural greenery on the site, it is possible to organize peaceful recreation spaces with healthy environment right in the centre of the modular clinic. The main public square at the front gate, beside the ambulatory care units, is separated from the internal courtyard for staff members and people in the inpatient units. Yet, the internal garden may be seen from the outside through a translucent gallery, which acts as a barrier at the same time. A modular water tower, an important part of the centre's self-sustainable water supply system, acts as a vertical dominant, seen from every corner. Thus, integrity of the health centre is reached, creating a friendly atmosphere. Various routes of circulation make the place comfortable for both patients and staff members.

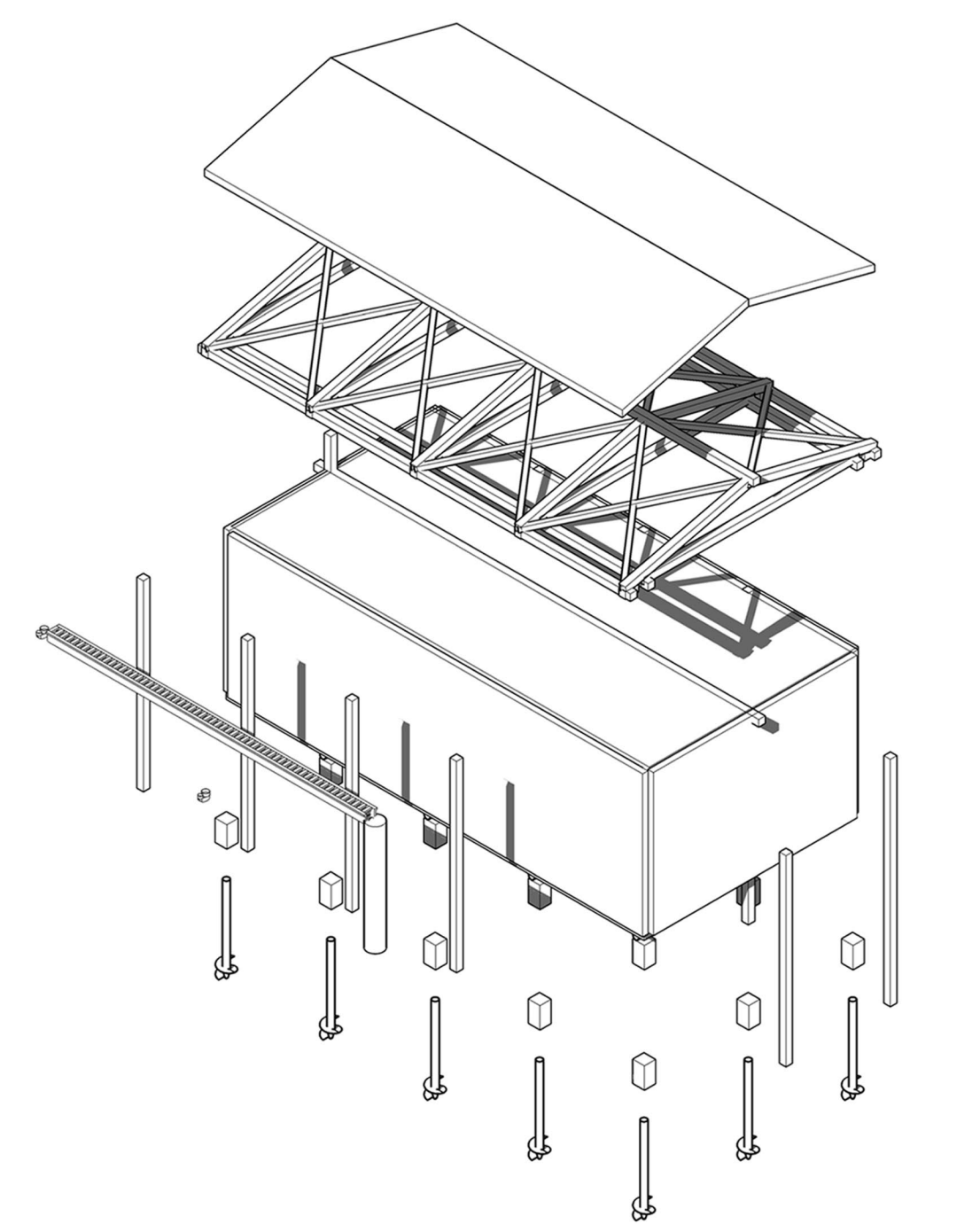
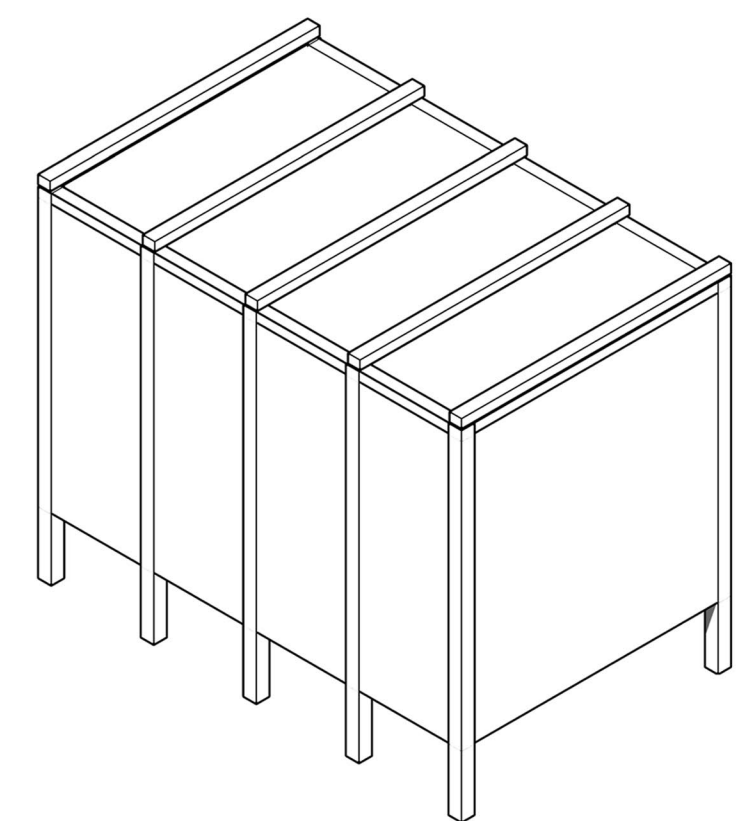
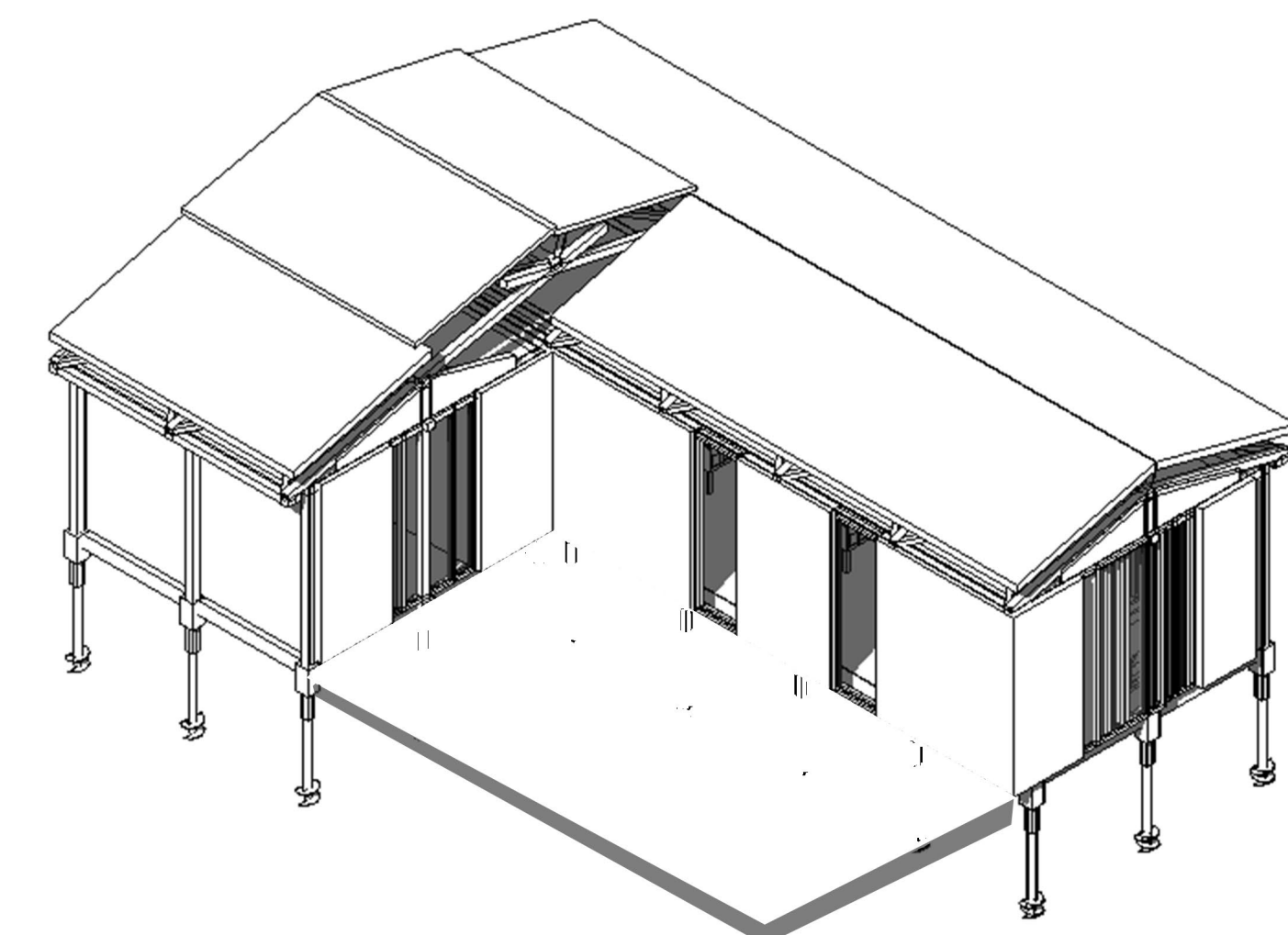
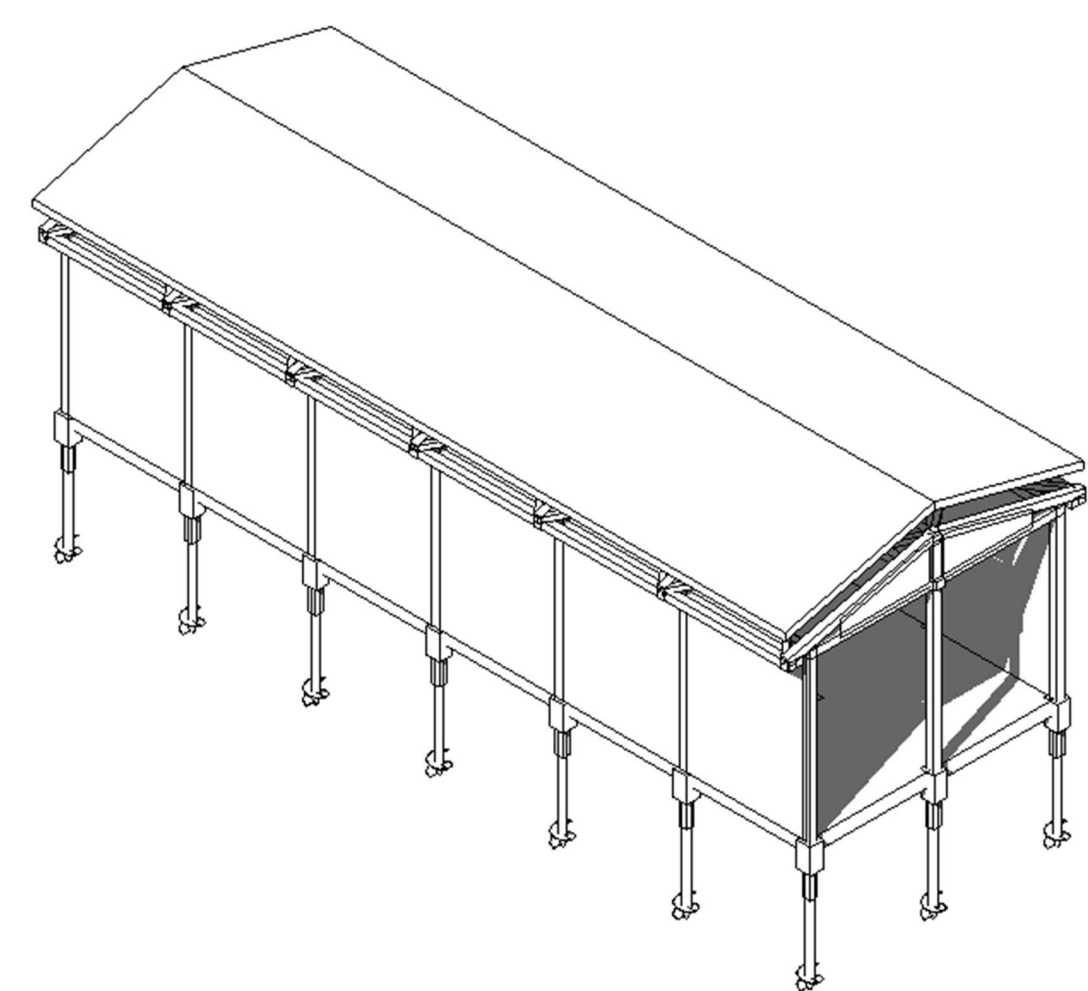
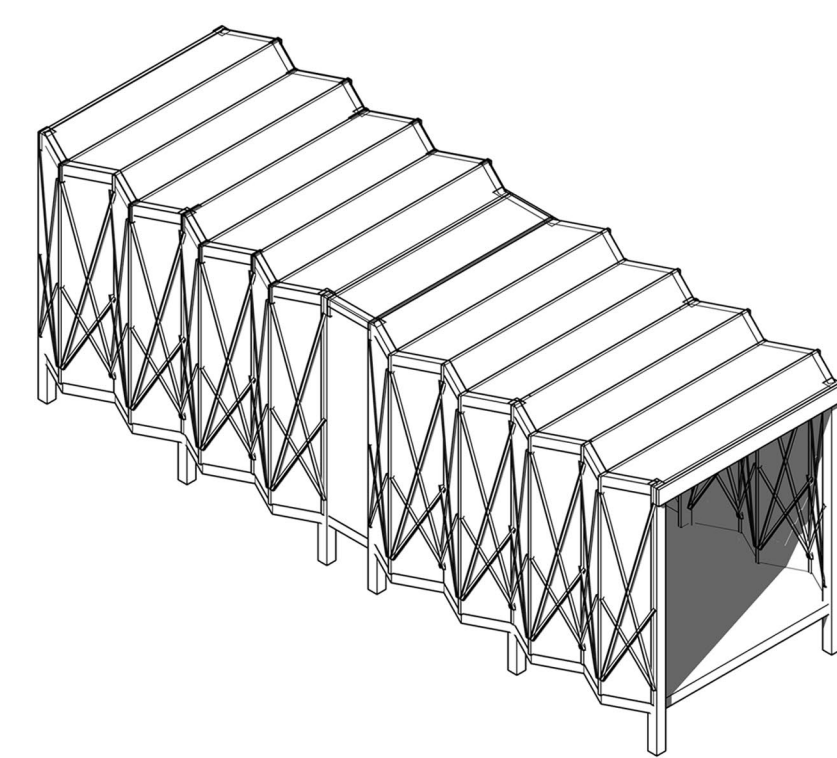
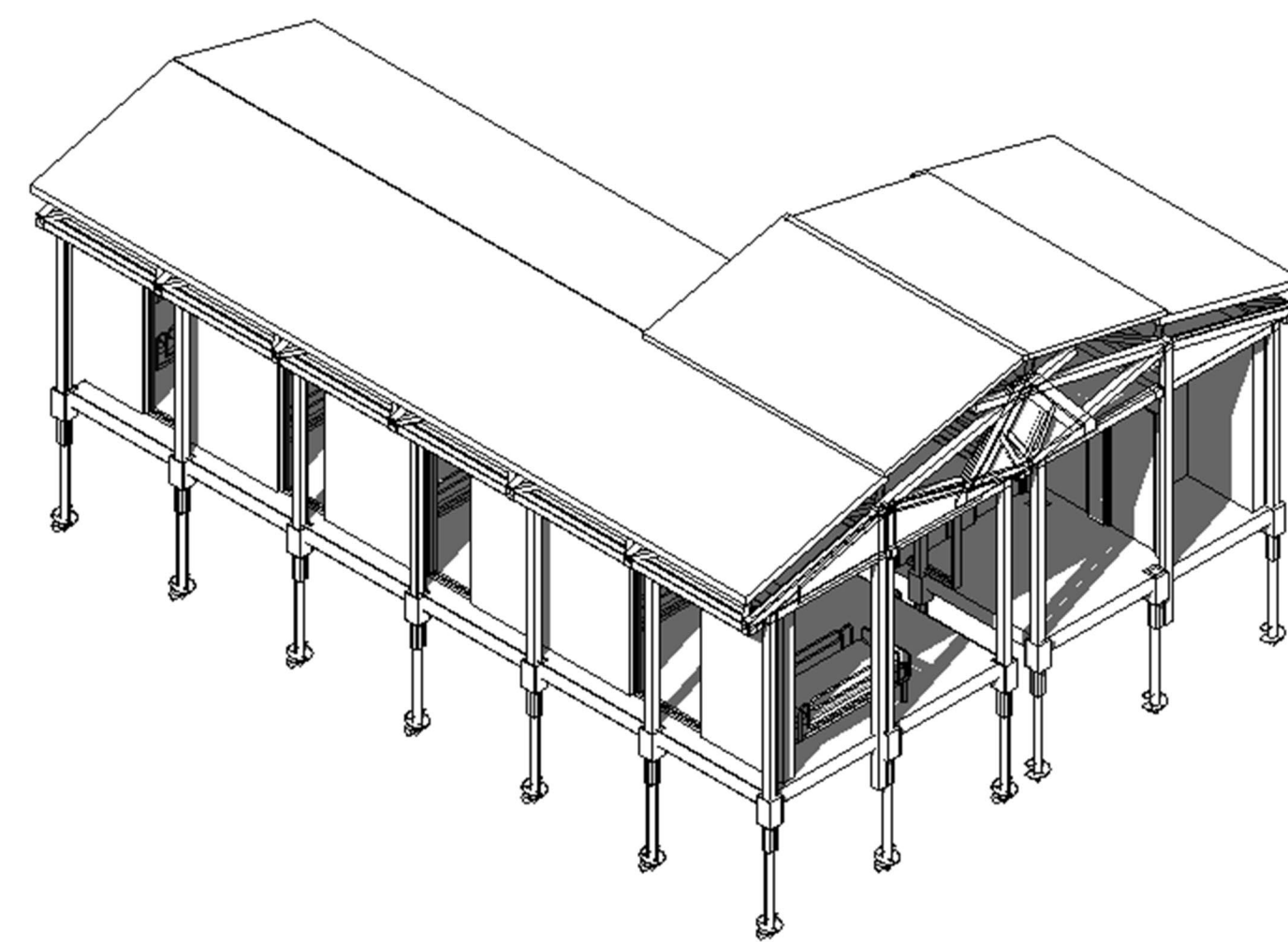
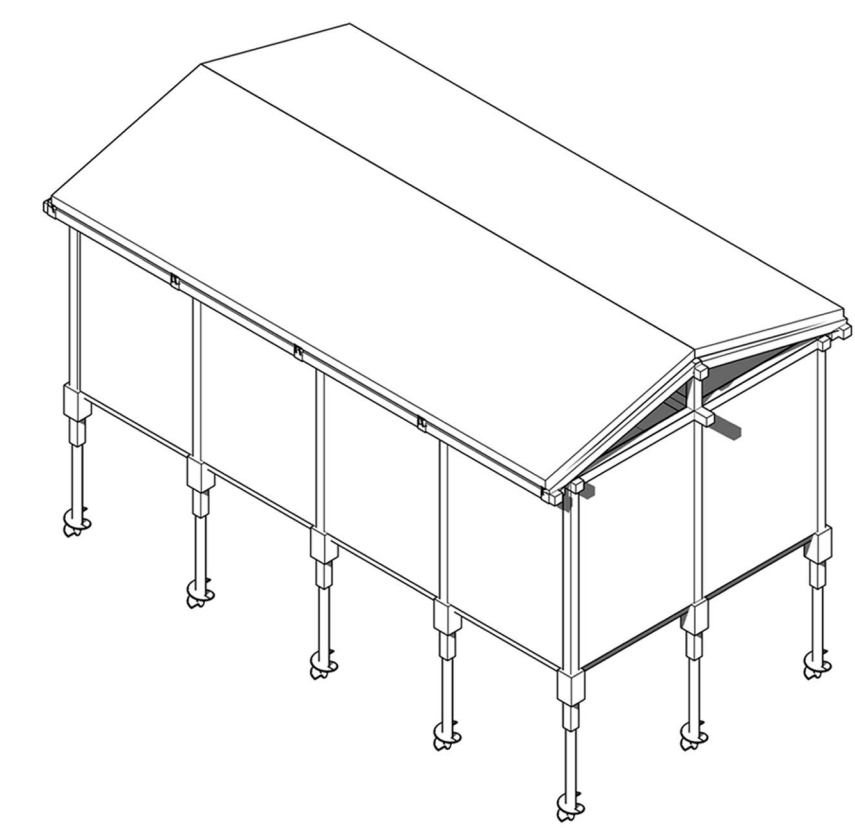
Straight composition of the modular health centre makes it possible to build it in a short period of time, using affordable materials and prefabricated units.



Ⓐ 2 types of moduls

Ⓑ patient room

Ⓒ communication modul



The whole health centre is easy to build because its structure is compiled of rectangular modular blocks of two types. There are two types of modular communications, as well. The dimensions of all modules are designed specifically so that it was possible to deliver the modules to the site by train or any other means of transport.

The smaller modular block is 4*8 meters, while the bigger one is 4*12 meters. The roof of the modules has triangular structure made of metal bars.

On the roof frame, translucent canopy is placed so as to provide the inner space with soft diffused natural light via polycarbonate openings beneath the canopy. Also, the canopy collects condensation and storm water, which is a vital part of the centre's self-sustainable water system. Hence, the canopy plays a major part in natural ventilation of the blocks, as well. Apart from the canopy, solar batteries may be placed on the roof frame to provide the centre with electricity.

Thanks to the use of such materials, as polycarbonate, sandwich panels, and modular PVC floor coating, the modules are well-isolated and respond to the demand of healthy climate in a medical institution.

There are two types of communications within the health centre – sterile ones, which are close to the surgical suite and other spaces requiring special safety and isolation, and semi-sterile ones for the rest of the routes. Sterility is achieved in the passages thanks to a folding modular communication unit, whose structure is similar to shutter gateways of a space station. The construction proves to be durable and practical.

Semi-sterile communications are formed by such modular communication units with translucent sliding doors made of polycarbonate. Not only do they provide sufficient light to the corridors of the health centre, but they also create a lively vision of the space. For instance, people in the inpatient units and staff members may feel better, enjoying the view of the inner courtyard with a garden on their daily commutes within the hind part of the centre. The outline of the inner courtyard may be seen from the main public square through a perpendicular translucent gallery. Such effect of the centre being visible throughout creates a feeling of trust and community, yet there is a certain level of intimacy – because polycarbonate galleries are mildly opaque, not entirely transparent.

