

CLINIC 850 m²

MALABO - EQUATORIAL GUINEA

Clinic 850 m² built, with 17 modules for activities related to health. Courtyard and 4 skylights to let light enter the building. Big access porch.

CONSTRUCTION PROCESS



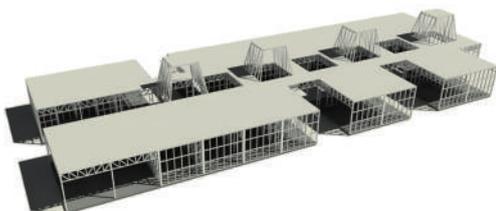
1. Foundation and studs



2. Trusses and skylight structure



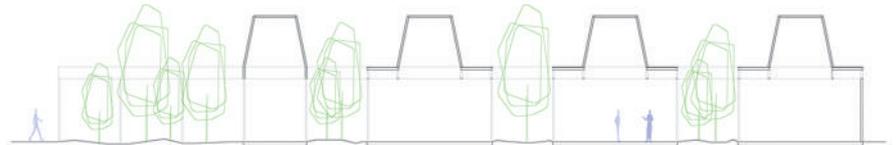
3. Beams



4. Deck ecubrimiento coating

Steel Frame construction system, with structure of cold formed lightened galvanized profiles.

5. Facade coating



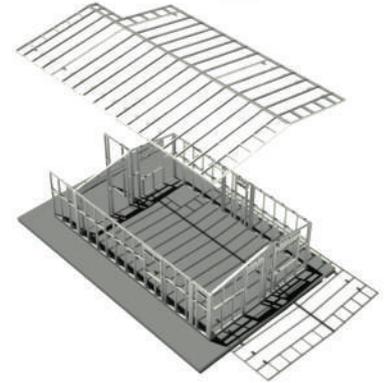
COMPONENT DESCRIPTION

SYSTEM GENERAL FEATURES

Steel frame is a constructive system whose main feature is a structure which consists in cold-formed profiles of galvanized steel. This system is basically formed by upright-profiles in C form (installed in vertical position separated 40-60 centimeters). On the borders, the profiles are screwed down to the track profiles (U form). These U form-profiles form the inferior and superior border of the whole grid.

The profiles are used to form structural and non-structural panels, secondary beams, ground beams, rafters and other components. These profile grids are later covered by different layers of panels. That is why we can talk about a Dry Construction system.

The profiles present reduced thickness and have drillings to let the electric and plumbing installation system go through them.



CONSTRUCTIVE SOLUTION



FACADE - OSB panel



FACADE - Calcium silicate panels

SYSTEM ADVANTAGES

Main advantages:

- Faster (almost 80% faster than traditional systems)
- lower construction costs (around 40% cheaper)
- Easier to handle

We can also emphasize and group the system advantages into 3 types:

1. ADVANTAGES OF THE CONSTRUCTIVE SYSTEM ITSELF:

- Earthquake-proof system
- Fire proof system
- Light system
- Recyclable and environmental system
- Modular and panel based system
- adequacy and benefits not only in big but also in small projects
- Durability (profile sheet galvanization)
- Easy transport everywhere
- Investment in plants or models not needed
- Flexible to all kinds of design

2. ON SITE ADVANTAGES:

- More cost-effective
- Faster
- Easier (easier assembly)
- Better thermic and acoustic insulation
- Dry system
- Cleaner construction site
- The system does not need high qualified workers
- Increases the usable floor area regarding to traditional systems
- Avoids overrun and setting-out on site
- Eliminates heavy machinery and reduces auxiliar construction elements
- Reduces the number of trades on site
- Simplification of the electrical and plumbing installations

3. ADVANTAGES POST - WORK:

- Flexibility and simplicity in building extensions and renovations
- Easier, cleaner, faster and cheaper maintenance and repair works