CITRA
Live Different

Design Without Limits

Sustainability in Architecture

Q2 - 2021

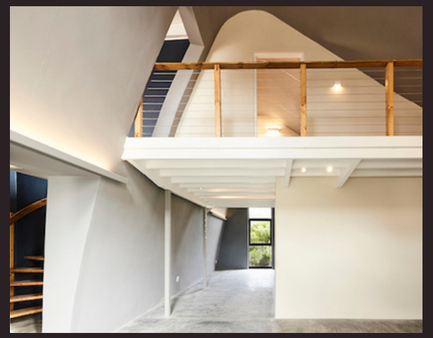
CITRA Construction

Long story short

CITRA started operations in South Africa in 2016. The cornerstone of our company is our unique, environmentally friendly, durable, yet affordable building technology.

CITRA delivers a product of high quality and aims to be the most innovative building company in Africa.

Why CITRA?



Limitless Design Possibilities

CITRA System can take any shape, thanks to the use of CNC machines and parametric design.

From a material perspective, there's no limit to the radius of the bend of the CITRA System.

Structural assessments are made case-by-case using Finite Element Modelling (FEM).

EcoFriendly System

We use environmentally friendly, strong, and non-toxic materials.

CITRA System utilises minimal energy, both in manufacturing and building, leading to a significant reduction in carbon emissions, not only during construction but throughout the entire life cycle of the building.

Easy & Fast Construction

Lightweight and strong core, practical and easy to assemble.

The structural plaster is mechanically applied, eliminating the time on hand application.

Erecting the external walls and the roof of a single storey residential house will only take 5 days.

Reduced Costs

CITRA System has competitive prices compared not only to conventional building systems but with other alternative methods. It is durable and high in performance whilst being affordable.

Design with CITRA

The CITRA System

Our core material, Expanded Polystyrene (EPS) is lightweight, safe, sustainable, non-toxic, non-flammable, and fully recyclable. The EPS is composed of the organic elements of carbon, hydrogen and oxygen, and does not contain chlorofluorocarbons (CFCs) nor hydrochlorofluorocarbons (HCFCs).

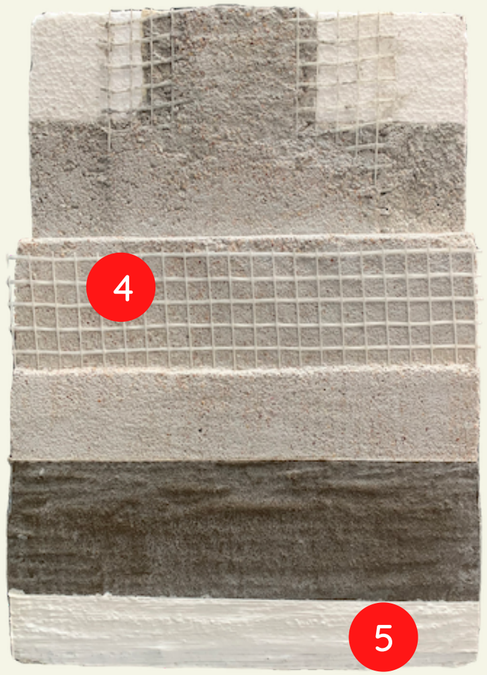
Magnesium Oxide (MgO) boards form the structural frame. This is an environmentally friendly, strong, and non-toxic material. The MgO provides strength and insulation, whilst joining the panels together.

The **internal and external layers** consist of high-performance plaster, connected with fireproof MgO studs. **Glass fibre mesh** provides additional durability to the plaster, designed to have the best adhesion to the EPS and this combination is able to regulate humidity within the structure.

1 EPS
Thermally Insulated
Durable, Recyclable

2 MgO
Structural Frame
Fireproof

3 Structural Plaster
Robust, Fireproof, Durable



4 Glass Fibre Mesh
Resilient, Resistant

5 Waterproof Top-Coat
Durable, Waterproof, Reflective

House Mahika

Organic green design blending into the mountains and fynbos

House Mahika design is driven by a strong belief in sustainability: from the organic shape of the house to the excellent thermal insulation, PV panels and LED lighting.

eHomes

Homes in a league of its own

The CITRA system of construction is currently specified as one of the building methods at the new residential development in Blue Downs, Cape Town. The eHomes are curated architectural design homes that allow for for easy expansions as the family grows.

Community Hall

Holding the space in which life happens

A place to bring the community closer together, share experiences, to learn and explore new horizons: Daycare Centre, Community Hall, Church.

ForeverBlue Hotel

A new type of experience

At ForeverBlue Hotel, every space is found thinking globally and acting locally, offering a new experience, where guest satisfaction is our main priority. We have designed a hotel that’s attractive to a wide range of clients, where sustainability and green living are the core.

Ambassador's Cottage

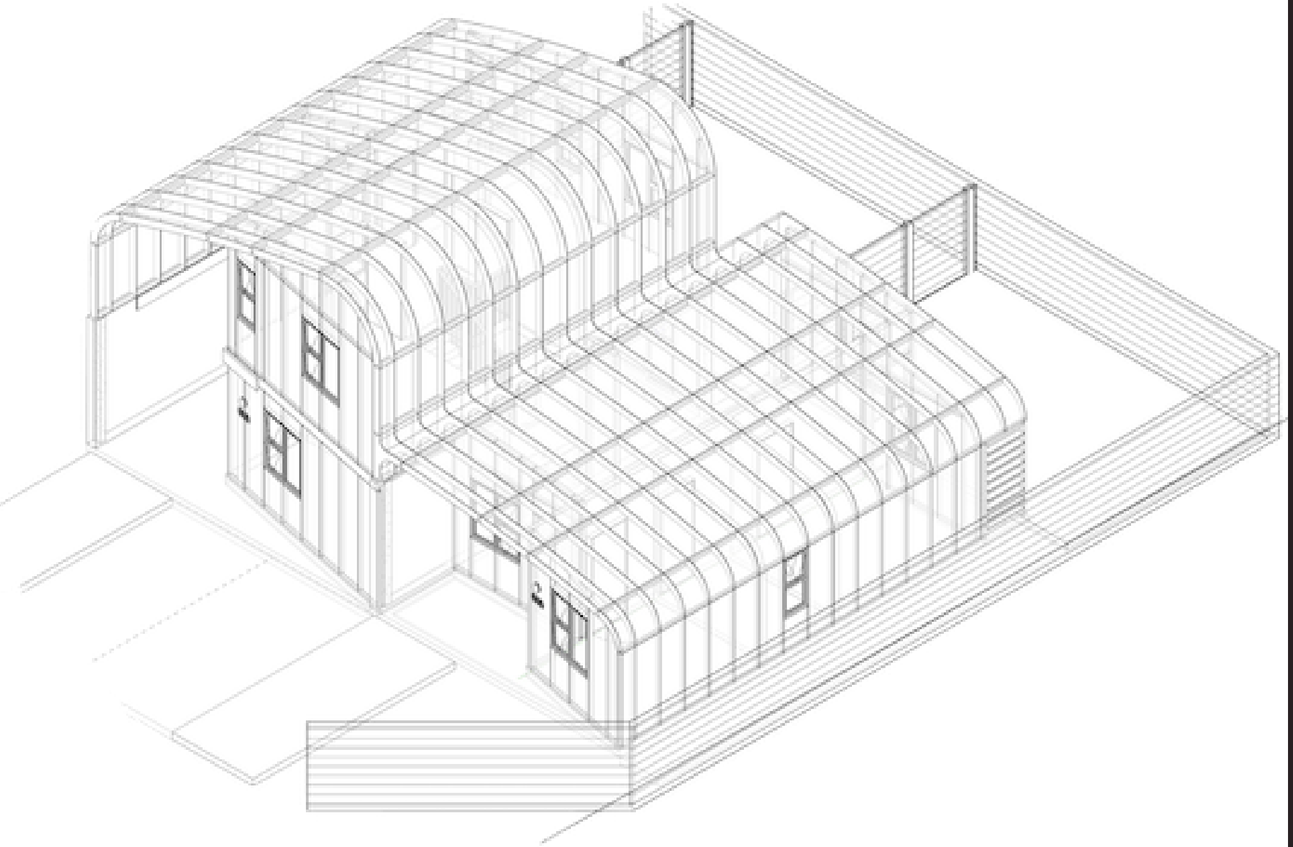
Erected in only a few weeks, the Ambassador's Cottage had no steel, concrete or structural timber.

Special curved windows were manufactured to fit the shape of the house and to be built in without window frames. This allowed CITRA to use cost-efficient curved windows - a novelty in the building industry.

Green Cottage

This cottage has been designed as an annex for the garden of a residential or to blend in the countryside.

This small piece of architecture is sustainable, embodying the slow life philosophy behind a cottage. It is still fresh and bold, while being respectful to the environment.



Click & Design Now

A Tool Kit For Architects

We created an easy step-by-step guide, where architects can experiment with the CITRA System and see how easy it is to achieve those designs that were previously limited by conventional building methods.

Curves vs Straight Lines

Inspired by nature

At CITRA we know that organic architecture has a positive effect on human emotions and well-being. We enjoy the free-flowing curved forms; after all, there are no straight lines in nature, but we want you can create the design that best meets your ideas.

When building with CITRA you have the freedom of designing more than just straight lines and angular forms.

Get in touch

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