

BY DESIGN STRUCTURAL ENGINEERING & BUILDING STABILISATION

## LIGHT STEEL FRAME PROJECTS

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[bydesign.org.za](http://bydesign.org.za)



# BY DESIGN





By Design Engineers is a structural engineering consultancy based in Stellenbosch, South Africa, delivering projects locally, across Africa, and internationally. Since 2006, we have combined technical excellence with practical construction experience to deliver structural solutions that are innovative, buildable and made to last.

Recognised for our expertise in **Light Steel Framing (LSF)**, we provide specialist structural solutions in one of the most efficient and versatile systems in modern construction. Using cold-formed steel sections, LSF offers a lightweight, durable and precise framework for residential, commercial and industrial developments, with clear advantages in speed of construction, cost-efficiency, design flexibility and precision.

**Our LSF services include:**

- **Structural design and engineering**
- **Project optimisation**
- **Technical documentation and specifications**
- **Coordination with architects, contractors, developers and specialist suppliers**

Beyond LSF, By Design offers comprehensive structural consulting across **reinforced concrete, structural steel, timber, conventional masonry and hybrid or composite systems**. This breadth of expertise allows us to recommend the most appropriate structural solution for each project, balancing performance, constructability, cost and durability.

From bespoke homes to large-scale commercial and industrial developments, we leverage the latest technologies to produce clear, precise and practical design information that supports efficient construction and confident decision making.

By Design also offers a Building Stabilization division. Our construction teams provide advanced ground engineering solutions with a focus on injection, compaction/pressure grouting. These proven methods allow us to strengthen distressed foundations, fill voids under on the ground slabs, stabilize soil, and resolve geotechnical underground weaknesses.

## Albert Road – Cape Town

At the Steel Awards 2022, hosted by the Southern African Institute of Steel Construction (SAISC), the Light Steel extension to an office block in Albert Road, Woodstock, was awarded second place in the Light Steel category. This project exemplifies a successful collaboration between By Design (Structural Design), Futurecon (Contractor), and LSFCo (Light-Steel Frame Manufacturer).



## House Keys – Clara Anna Fontein – Durbanville

Light Steel Frame multi story residence in Clara Anna Fontein estate which combined hot rolled steel substructure and LSF panels.



## **New Orleans Primary School - Paarl**

At the Steel Awards 2025, hosted by the Southern African Institute of Steel Construction (SAISC), we were honoured to attend as guests of Futurecon, and thrilled when our collaborative project won both the Regional Award and the Light Steel Frame Category Award.

We regularly work with Futurecon as Structural Design Engineers, but this project was particularly special as both of our divisions were involved. Our Structural Engineering team developed an innovative anchoring detail that eliminated the need for new foundations, while our Building Stabilization division implemented this detail within the original foundation structure — resulting in significant savings in both cost and time.

Commissioned by the Western Cape Education Department, the new school in Paarl replaced a condemned 1973 building made of shutter ply, steel windows, and asbestos roofing. The project's challenges included reusing existing foundations where possible, delivering on a tight timeline, and staying within the preventative maintenance budget — all while creating a safe, modern learning environment for students.

It was a privilege to collaborate with the winning team at Futurecon, alongside GVK-Siya Zama and the Western Cape Education Department. Our appreciation also goes to LSFCo for their exceptional detailing and fabrication. Congratulations once again to Futurecon on this outstanding achievement.

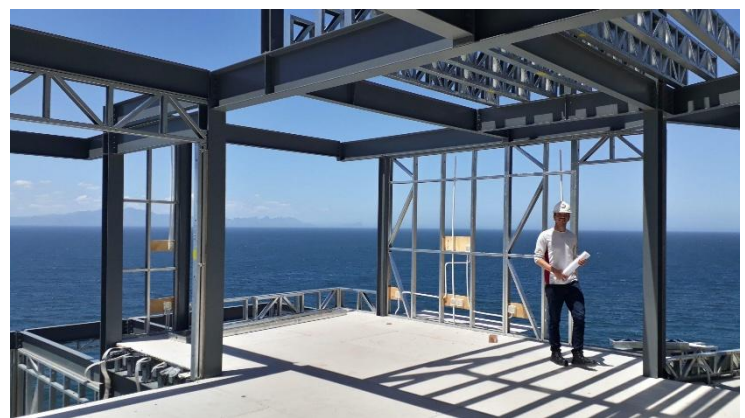


## Tygerberg Hostels – Cape Town



## House Echo Drive - Fish Hoek – Cape Town

Light Steel Frame residence in Fish Hoek against a steep slope which combined hot rolled steel substructure and LSF panels.



## School Hall – Mitchells Plain – Cape Town

It was a fun challenge as a 24 metre hall is not typically done with LSF, but using a combination of double panels and double trusses this was achieved.

