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2025 STEEL AWARDS



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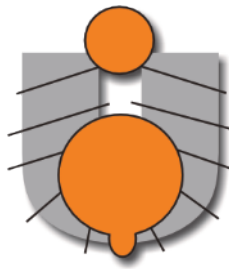
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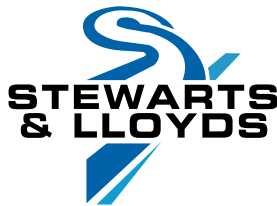
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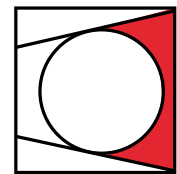
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## CONTACT US

The Southern African Institute of Steel Construction (SAISC) has tirelessly served the industry since its inception in 1956. Our mission is to promote the use of steel in construction and contribute to the health and wealth of the industry for the good of all role players. We are respected as an institute for our authority, technical knowledge, and position as the voice, champion and custodian of the steel construction sector.

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Cover Photo  
Lycopodium Modular Plant

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Published by: The Southern African Institute of Steel Construction  
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# 2025 Steel Awards

## EVENT OVERVIEW

### RESILIENCE, COLLABORATION, AND A CONFIDENT FUTURE FOR SOUTH AFRICAN STEEL

The 2025 Steel Awards brought together almost 600 people from across the steel construction value chain to celebrate something bigger than individual projects. It was a celebration of an industry that has absorbed pressure, adapted to change and continued to deliver world-class work in a complex environment.

Presented by the Southern African Institute for Steel Construction (SAISC), this red-carpet evening merged black-tie stiffness with flamboyant Moulin Rouge flair, turning Emperors Palace into a mix of feathers, top hats and serious steel talk on 23 October 2025.

Guided through the evening by MC Vafa Naraghi, the event combined glamour with a clear message: despite supply disruptions, policy shifts and global uncertainty, South Africa's steel industry is not standing still. It is innovating, collaborating and proving that a strong local steel ecosystem is both possible and active.

As Institute CEO Amanuel Gebremeskel reminded the audience, the impact of the Steel Awards reaches far beyond the room on the night.

*“Our reach as the Institute in terms of media, when we promote these projects after the Steel Awards, is so far that we get requests from every corner of the world asking if South Africans can build the most exciting projects, and our answer is always in the affirmative, that we can. As the world moves further into the cloud, we remain one of the few industries that’s grounded to support a modern society.”*

His message underscored the global visibility of local expertise, and the increasingly important role South African steel plays in shaping the infrastructure, industries and economies of the future.

#### An Industry that Refuses to Stand Still

In his address, SAISC board member and Macsteel Engineering Manager Axel Kayoka captured the mood in the room. He noted that the past year brought significant challenges, from changes in steel supply to broader

economic uncertainty. Yet his central message was one of calm confidence:

*“Steel supply will continue, and we will be okay, despite mill closures or rerouting of steel supply through further imports.”*

Axel highlighted how networks of merchants, fabricators and engineers have already adapted. Alternative supply channels were secured, lead-time visibility was maintained and quality assurance was upheld. The result: downstream industries are not forced to outsource entire value chains abroad. Local capability is intact and active.

He closed with three key areas of focus for the road to 2026: continuity of supply, quality and compliance, and confidence in local capability. The Steel Awards offered real evidence of these commitments. Each nominated project represented a team that did not wait for ideal conditions. They simply got on with the work and excelled.

#### Collaboration Across the Value Chain

One of the strongest themes to emerge from the evening was the sense of inspiration that comes from seeing what peers across the industry are accomplishing together. Few of the showcased projects could have existed without close cooperation between architects, engineers, fabricators, contractors, cladding specialists, merchants and owners.

As Nicolette Skjoldhammer, Managing Director at Betterect and Chairwoman of the SAISC Board, reflected while speaking about the Lycopodium Modular Plant, winner of the Mining Category:

*“I think that people are inspired when they see what their peers are achieving and rather than it being a comparison between competitors, I think it truly is to motivate, inspire and showcase to the rest of the world what our industry can achieve in South Africa.”*

Her dual role in both industry and the Institute captures the spirit of the Steel Awards perfectly. It is not a



competition for bragging rights, but a platform for raising the standard, celebrating shared capability and reminding both local and international audiences of the remarkable work being done across the South African steel sector.

The presence of primary producers, merchants, fabricators, engineers, Eskom and other associations in the same room reinforced this point. The Steel Awards are one of the few platforms where the entire value chain can see, in a single evening, what is being built, where the bar is set, and what is possible when skills and resources are aligned.

### What the Awards Say About the Sector

Taken together, the 2025 winners and commendations send several important signals about the state of the steel-construction sector:

- The industry has absorbed supply-chain shocks and reorganised around new realities without losing quality.
- There is a visible shift toward innovation and sustainability, with projects like 96 Rissik Street, Lycopodium Modular Plant and Sasol-Wood CF 2 demonstrating new ways of working.
- Light steel frame and advanced cladding solutions are steadily becoming central to the industry's toolkit.

- South African companies continue to play a leading role in major projects across the region, strengthening the case for a resilient local ecosystem.

Most importantly, the Awards confirm that South Africa has the skills, capacity and resourcefulness to keep its steel-construction sector world class, even under pressure.

### Looking Forward with Confidence

As the evening drew to a close, it was clear that the Steel Awards are more than a celebration of completed projects. They are a signpost for the future. The work showcased in 2025 reflects a sector defined not by constraint, but by creativity and resilience.

In the words of Axel Kayoka, the industry is ready to “meet the next challenge head on.” With resilient supply chains, exceptional technical expertise and a culture of collaboration, the South African steel sector is not just prepared to endure; it is poised to excel.

The Steel Awards 2025 made one thing very clear. The legacy of South African steel is in good hands, and the next generation of steel art is already being imagined, detailed and built.

# Meet Our Judges

## MULTIDISCIPLINARY STEEL EXPERTS

TOP MINDS  
FROM ACROSS  
THE INDUSTRY



**AMANUEL GEBREMESKEL**  
CEO, SAISC



**SPENCER ERLING**  
THE RETIRED LEGEND



**DENNIS WHITE**  
FORMER DIRECTOR, SAMCRA



**EMMA LOUBSER**  
PROJECT MANAGER,  
DATALOOP



**FRANCO MORDINI**  
BUSINESS DEVELOPMENT  
SPECIALIST, MACSTEEL



**JOHN DUNCAN**  
CONSULTING STRUCTURAL  
ENGINEER & TEKLA ACOLYTE



**MO PHALA**  
DIRECTOR, ARC MU:V



**JOHAN PIEKAAR**  
CONSULTING STRUCTURAL ENGINEER  
& DIRECTOR, WSP GROUP AFRICA



**CUAN LYNES**  
SENIOR STRUCTURAL DESIGN  
ENGINEER, DRA GLOBAL



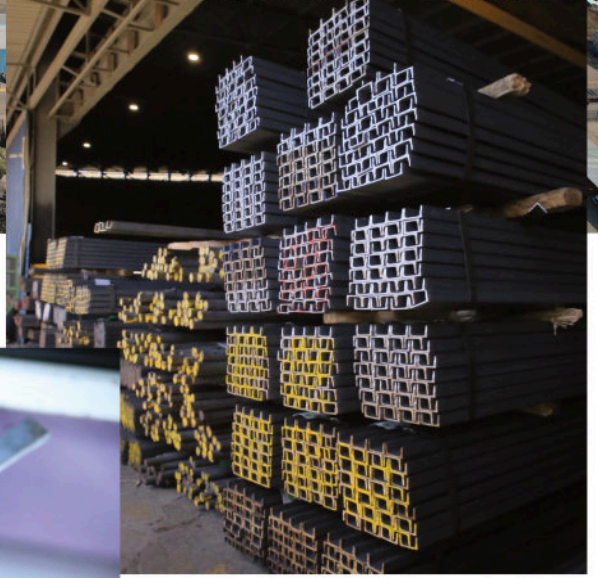
**DANIEL STRUWIG**  
TECHNICAL SPECIALIST, ZUTARI



**DANEEL STRYDOM**  
PRINCIPAL AND STRUCTURES  
TEAM LEADER, BIGEN GROUP



**ANDRE FRIIS**  
SENIOR STRUCTURAL  
ENGINEER, TAKRAF GROUP



## **Proudly pioneering secondary steel manufacturing in South Africa.**

Unica Iron and Steel stands as South Africa's first fully integrated mini steel plant, producing high-quality light and medium structural steel from recycled scrap. Since its establishment in Babelegi in 2006, the company has earned a strong reputation for delivering reliable hot-rolled structural sections to the local and regional market.

Today, Unica operates three rolling mills, offering a diverse range of hot-rolled sections. The recent commissioning of a state-of-the-art Argon Oxygen Decarburisation (AOD) plant has further enhanced the company's ability to manufacture a wider variety of mild steel grades to meet the growing demands of the industry. With the addition of a new green induction furnace, Unica's installed melting capacity has increased to 24,000 tons per month — reinforcing its position as a competitive force in the steel sector.

Unica is also proud to hold ISO 17025 accreditation for its world-class in-house laboratory. Equipped with advanced testing technology, the lab ensures the highest standards of quality assurance and enables the company to issue 3.1 certification with confidence.

Looking ahead, Unica has embarked on a bold expansion into heavy structural sections. This major project is already underway and is expected to come on stream by Q3 2026 — cementing Unica's role as a pioneer in South Africa's secondary steel manufacturing industry.

# Product Range



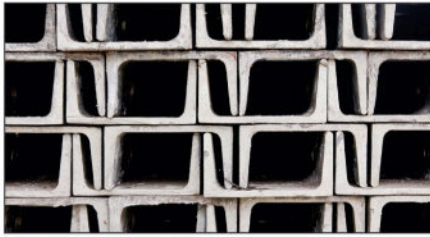
**Equal Angles**

25 x 25 up to 100 x 100



**Unequal Angles**

65 x 50    75 x 50  
90 x 65    100 x 75



**Channels**

76mm x 38mm  
100mm x 50mm



**I.P.E**

76mm x 45mm (Fencing) @ 4.5kg/m  
100mm x 55mm @ 8.1kg/m



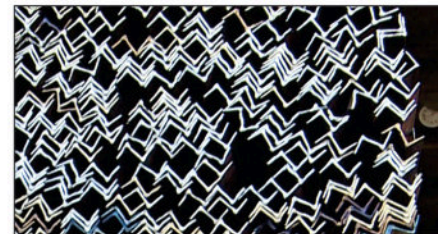
**Flat Bars**

25mm up to 100mm



**Square Bars & Round Bars**

10mm | 12mm | 16mm  
20mm | 30mm | 40mm |  
50mm | 60mm



**Window sections**

LF7, LFX

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I.P.E.	100mm to 200mm
I-Beam	203mm to 406mm
Channels	120mm to 300mm
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Rails	150mm, 165mm
Flat Bar	110 mm to 300mm



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# Steel Awards

WINNERS & COMMENDATIONS

# Overall Winner

## SASOL-WOOD CF 2

INDUSTRIAL PRECISION  
AND STRUCTURAL  
INNOVATION



**T**he Sasol-Wood CF 2 Project represents a definitive paradigm shift in industrial tankage construction, securing the Overall Winner title, the Industrial Category award, and the Best Regional Project: Mpumalanga honours at the 2025 SAISC Steel Awards. Completed for Sasol in Secunda, this turnkey project, involving the design, fabrication, and erection of five massive above-ground storage tanks defines a new standard for structural steel accuracy and innovation.

The project involved the design and construction of five 34 m diameter tanks, two with frameless dome roofs, three with carbon steel roofs, some with internal aluminium floating roofs. Unlike conventional designs that rely on a complex internal skeleton of rafters and girders, these domes are entirely self-supporting clear spans.

The engineering team, led by Trotech, utilised S355 J2 Normalised plate to construct a 28 m radius dome. Achieving this required a delicate optimisation between plate thickness and the constraints defined by the API 650 code of construction. The resulting structures offer superior resistance to hydrostatic and pneumatic

### PROJECT TEAM

**Nominator**  
TROTECH

**Main Contractor**  
WOOD SOUTH AFRICA

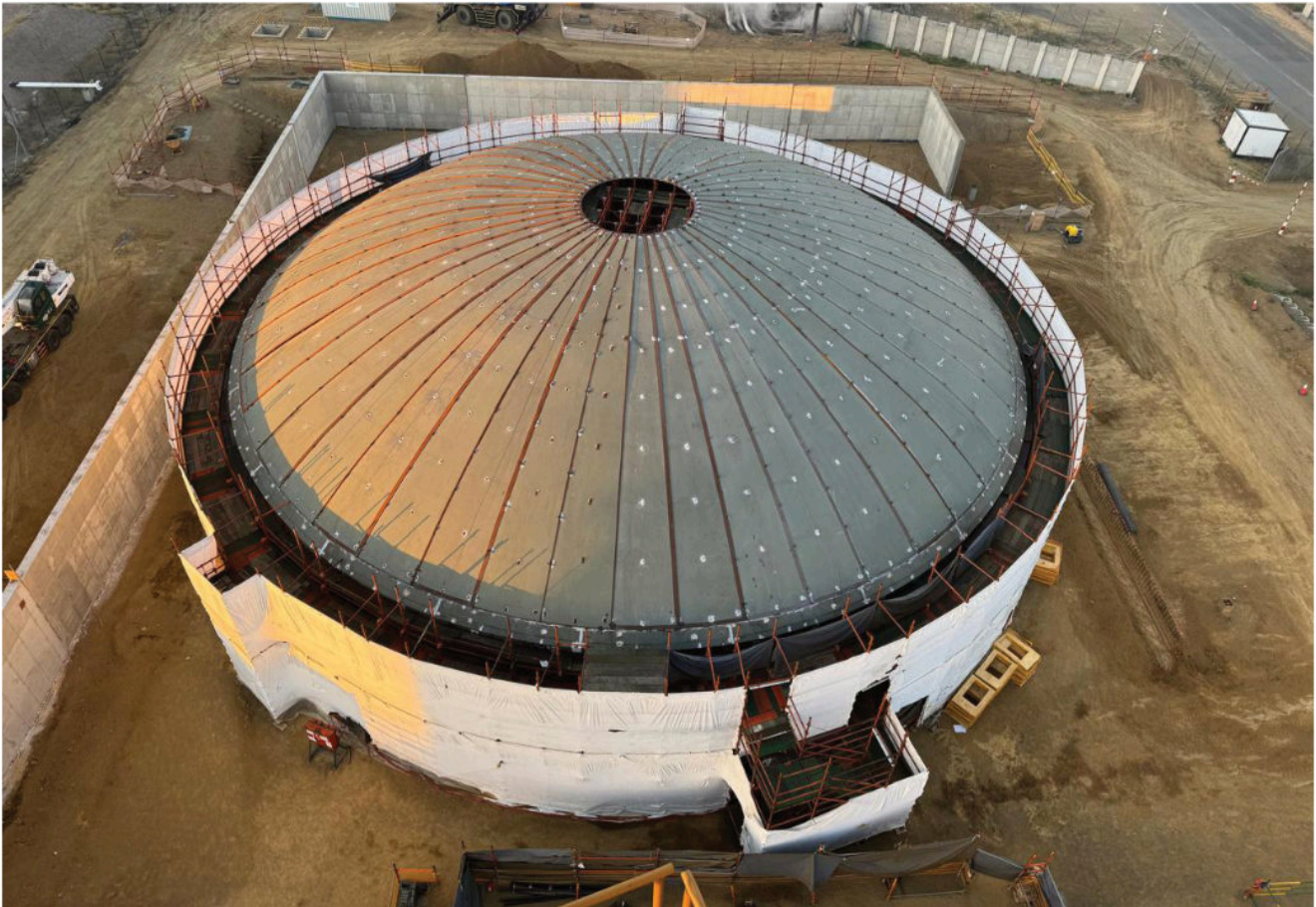
**Steelwork Contractor**  
TROTECH

**Steel Merchant**  
ALLIED STEELRODE

**Steel Detailer**  
TROTECH

**Structural Engineer**  
TROTECH

**Paintwork Contractor**  
SGB-CAPE



pressures while significantly reducing the total weight compared to traditional supported roofs.

### Technical Specifications of the Roof Petals

The engineering of these domes relied on the precision fabrication of large-scale steel "petals". These components were critical to achieving the self-supporting span, requiring rigorous attention to detail during the workshop phase:

**Scale and weight:** Individual roof petals reached lengths of up to 16 m. Despite their 16 mm to 18 mm thickness, the plates were described as relatively "flimsy" over such a length, making them susceptible to distortion during handling.

**Precision rolling:** Each petal was rolled to a precise 28 m radius curve. Two overhead cranes were operated in tandem to manage the logistics of moving and rolling these massive components.

**Staged jiggging:** To counteract the tendency of the plate to lose its shape or fall away, a specialised staged jiggging process was developed. This method used tension to maintain exact curvature, a technique refined through extensive workshop mock-ups.

**Petal management:** The project utilised two distinct petal types; custom steel transport and storage cradles ensured

segregation on-site, as the installation sequence dictated that no two "Type 1" petals could be placed adjacent to one another.

### "Top-Down" Erection

To minimise high-risk work at elevation and improve safety, the project utilised tank jacking technology, a "top-down" construction method. The roof and the primary shell ring were assembled at ground level and then lifted using synchronised hydraulic steel jacks. This process demanded rigorous technical control and innovative support systems.

Advanced modelling (Finite Element Analysis (FEA)) was used to calculate the minimum weld requirements on the roof petals. This ensured the structure was sound enough to begin the jacking process, allowing for concurrent welding and jacking to optimise the project schedule.

Because the petals were structurally weak until fully assembled, the team engineered a custom steel spreader beam. This beam, rolled from steel channel to match the dome's curvature, functioned as a rigid "precisely bent hanger" to maintain the geometric profile during installation. A specially designed, load-bearing scaffold jig with rolled steel ring beams provided the internal template required to hold the petals in position until the final closing welds rendered the dome rigid.

## Mitigating Material and Environmental Variables

Precision fabrication extended to the heavily reinforced nozzles. Managing heat input during the welding of these complex components was critical as unbalanced thermal distribution could lead to dimensional warping that would compromise API 650 compliance. The complexity required some nozzles to be reworked to meet the stringent tolerances required before on-site installation.

On-site, the team navigated significant environmental challenges, including high-velocity wind loads that threatened the stability of the tanks during the jacking phase. Unexpectedly high winds acting on the large surface area caused deformation in partially completed shells. The team responded with rapid structural analysis and the implementation of temporary steel bracing to stabilise the shells without compromising the timeline.

The use of environmental encapsulation, utilising clear plastic over steel scaffolding, ensured that corrosion protection was applied in a controlled setting. This prevented overspray from affecting Sasol's adjacent operations and protected the working environment during the painting phase.

## Social Impact and the "Human Element"

The team employed up to 330 local workers, prioritising skill development in advanced welding and rigging. The complexity of the dome assembly required unique training methods.

The team conducted hands-on workshops where workers used paper cutouts to simulate the sequencing and rigging of the roof petals. This focus on training ensured that the workforce understood the "why" behind the methodology, leading to a roof accuracy described as "second to none" with "virtually no deformities".

## A Future-forward Industrial Legacy

The project serves as a definitive blueprint for the next generation of petrochemical infrastructure: efficient, safe, and technically impeccable. Through extensive 3D modelling and clash detection, the team eliminated interface errors between the shell, internal aluminium floating roofs, and complex piping systems.

From the specialised tank jacks to the custom-engineered spreader beams, steel allowed the site teams to utilise high-performance equipment to ensure a high-quality delivery. Ultimately, the project's success reinforces steel's position as the only viable material for high-scale petrochemical storage, outperforming alternatives in both durability and practical execution.

The Sasol-Wood CF 2 project highlights the synergy between innovation and the collaborative expertise of South African companies and their workforce. By utilising local materials and engineering, site teams delivered a high-quality project that met every client specification.

The project's completion proves that the future of heavy industry relies as much on human ingenuity as it does on technical precision.



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# Category Winner

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**C**enturion's skyline has been redefined by a structure that captures the very essence of flight. The Civil Aviation Authority (SACAA) Headquarters, a 10,000 m<sup>2</sup> office development, represents a collaboration between bold architectural vision and precision structural engineering. As the winner of the Architectural Category, the project highlights how steel can be utilised to translate a complex biological concept into a functional, sustainable landmark.

### The Vision of a Black Eagle in Flight

The architectural design is a literal interpretation of a black eagle, a concept chosen to symbolise the authority and spirit of the aviation industry. This ambitious aesthetic is built around three core features:

**The wings:** Sweeping, multi-axis steel roof structures mimic an eagle in mid-flight. The roof surface is a hybrid of 70% sheeted roofing and 30% concrete.

**The beak:** A sharp, prominent entrance façade defines the building's face.

**The talons:** Dramatic concrete elements at the front of the structure are shaped to resemble the eagle's claws, anchoring the building's visual identity.

This flagship facility serves a dual purpose: it meets the SACAA's operational requirements for 350 covered and open parking bays while providing a highly visible symbol of South African aviation excellence, clearly visible from the nearby highway.

The geometry of the SACAA Headquarters made steel an essential choice rather than a secondary one. Traditional materials could not have achieved the twisting, curved geometries required for the roof and the building envelope. The structure utilises a hybrid system where a complex steel frame integrates with a reinforced concrete base.

The primary feature is a 10,000 m<sup>2</sup> roof system designed as a 3D steel space frame. This frame wraps over and around the concrete core, utilising two symmetrical wings. The geometry shifts from circular in elevation to parabolic where it meets inclined planes at the gable



## PROJECT TEAM

### Nominators

CADCON, B&T STEEL CONSTRUCTION

### Main Contractor & Architect

M&T DEVELOPMENT

### Steelwork Contractor

CADCON

### Steel Merchants

MACSTEEL, BSI STEEL, ALLIED STEELRODE,  
STEWARTS & LLOYDS, GARSIN ENGINEERING

### Steel Detailer

CND STRUCTURAL SERVICES

### Structural Engineer

SOTIRALIS CONSULTING ENGINEERS

### Cladding Manufacturer

SAFAL STEEL

### Cladding Supplier & Roll Former

SAFINTRA

### Cladding Contractor

FERRUM TRADING

### Paintwork Contractor

DRAM INDUSTRIAL PAINTING CONTRACTORS

ends. This required the steel members to twist and turn simultaneously—a multi-axis challenge that demanded millimetre-level precision.

To manage these intricate curves and the resulting torsional forces, the engineering team utilised a variety of specialised components:

**Circular hollow sections:** These were used for the complex gable-end corners, as they could be rolled to shape while sustaining the torsional forces induced by the geometry.

**Trusses and girders:** The chords of the main support trusses were fabricated in facets to create the required architectural curves.

**Space frame composition:** The frame includes CFLC Purlins, girder trusses, and tubular sections for bracing.

*"The versatility and the end product that we could achieve with the steel was definitely a game changer. There's just certain things that other products can't do".*

— Etienne Fourie, Ferrum Trading

## Engineering and High-Wind Performance

The site in Centurion presented a major geological hurdle: sinkhole-prone ground. To protect the structure, engineers designed a massive post-tensioned raft foundation with ground beams approximately 800 mm deep. This system provided the stability while minimising excavation depth and optimising material use.

Environmental factors were equally critical to the structural design. The building is located in a high-wind zone with design pressures reaching approximately 108 kPa. The wing-like roofs, which contain multiple cavities, had the potential to trap wind and create massive uplift forces. To counter this, robust bracing strategies were implemented within the 3D space frame to transfer lateral loads safely to the main concrete structure via portal frame action.

If the steel frame is the skeleton, the cladding is the skin which had to be flawless. The exterior features double-skinned aluminium cladding that was bent and twisted in multiple directions to conform to the compound curves. Achieving this without "oil canning" or visible distortion represented one of the project's most significant technical wins.

Waterproofing such a non-standard shape required a "trial and error" approach to detailing. The inward and outward sloping surfaces created massive drainage requirements. The team developed custom-designed, concealed gutter systems and precisely sequenced, roll-curved flashings to ensure the envelope remained watertight.

*"It curved in more than one plane, vertical as well as horizontal. There was a lot of trial and error and planning and making up of samples to eventually get to a product that was waterproof and functional, but also aesthetically pleasing".*

— Etienne Fourie, Ferrum Trading

### Digital Precision and Sustainability

The architectural, structural, and steel teams leveraged a suite of advanced software, including Autodesk Revit and Tekla. This enabled early clash detection and ensured that the 160 tonne frame could be fabricated with the precision needed for a rapid assembly.

Steel components were prefabricated concurrently with on-site concrete works, a strategy that allowed the team to meet significant programme pressure.

Sustainability was baked into the design, earning the project a 3-star Green Building Council South Africa (GBCSA) rating. Key environmental features include:

**Resource management:** Optimised systems for water, energy, and waste.

**Sustainable material impact:** The use of prefabricated steel minimised on-site waste, noise, and local ecosystem disruption.

**Future resilience:** Provisions for a future solar PV farm and backup water storage with a 2-3 day capacity.

### A Remarkable Result

The project shows how collaborative execution can overcome massive geometric and geological challenges. By pushing the boundaries of steel construction and cladding, the project team created a building that truly embodies the spirit of aviation.



# Commendation

## OU MEUL BAKERY AT WINDMEUL KELDER

A MODERN ICON  
IN THE BOLAND



**R**eimagined industrial materials shape the Ou Meul Bakery into a welcoming, high-end destination. Located in Agter-Paarl, Western Cape, the bakery is a distinctive addition to the well-known Windmeul Kelder winery. The team at Arch on Main has created a structure that honours the farm's history while making an expressive architectural statement.

The goal for this project was to design a multi-functional farm shop that feels warm and welcoming while housing a bakery, coffee shop, bistro, and retail area. The team wanted to create an eye-catching "contemporary twist" that would draw in the heavy traffic passing by on the R44. The architects chose steel to ensure the new shop felt at home in its agricultural setting.

However, they wanted to move away from the idea that steel is "cold" or purely industrial. As Nikita van Zyl, founder and lead architect at Arch on Main, explained:

*"We wanted to create something that would draw attention to the farm, would be inviting...*

*and then also using steel as the main type of architectural language because of the setting."*

### A Setting Rooted in History

The shop is perfectly placed to celebrate the heritage of the Paarl region. The name "Windmeul" refers to a traditional mill on the farm that was historically used to grind flour for bread, and this new bakery brings that story full circle. The building was carefully oriented to make the most of the Western Cape landscape, featuring an outdoor "stoop" that faces the mountains to provide customers with a scenic backdrop. While the winery is a busy commercial operation, the architecture guides visitors naturally toward the entrance.

The project proves that steel is a highly versatile material that can achieve a "cathedral-like" beauty when paired with thoughtful design. Steel's strength allows for wide, open spans without the need for many columns, which was essential for creating an airy, spacious flow inside the busy farm shop. By combining a pitched steel frame with

massive glass facades, the architects converted a basic barn shape into a bright, soaring space that feels both grand and cozy.

One of the most successful features is the connection between the glass front and the main steel frame. The team designed a "special internal box frame" to hide structural connections, ensuring the final look remained clean and sharp.

### Smart Engineering and Sustainability

The project relied on modern digital tools to ensure everything ran smoothly. Using Autodesk Revit for 3D modelling, the team was able to resolve any technical conflicts long before construction began saving both time and resources.

Beyond its efficiency, the use of steel offered significant sustainability benefits. As a highly recycled material, steel helps minimise the demand for new resources.

Many components were prefabricated off-site, which meant less waste and much less disruption to the daily operations of the farm. Also, steel's robustness makes it ideal for a high-traffic commercial space, requiring very little maintenance over its lifetime.

### PROJECT TEAM

**Nominator**  
ARCH ON MAIN

**Main Contractor**  
PDK CIVIL & CONSTRUCTION

**Architect**  
ARCH ON MAIN

**Structural Engineer**  
FRAME

**Steelwork Contractor**  
TRIOMF STAALWERKE

**Cladding Supplier**  
SAFINTRA

Nikita van Zyl, Principal at Arch on Main views the project as a celebration of the material's potential:

*"Working with steel is a challenging, but yet... exciting material. It gives you a lot of options. The fact that we can use it in a more contemporary way is very exciting."*



# Commendation

## LEBONE II AMPHITHEATRE ROOF

CELEBRATING THE  
INHERENT STRENGTH  
OF STEEL IN TENSION



**T**he Lebone II Private College in Phokeng, North West Province, has long been a focal point for the Royal Bafokeng Nation. However, its central amphitheatre once faced a "fatal flaw": the previous roof combined stainless steel with aluminium, leading to catastrophic galvanic corrosion that compromised its structural integrity. Today, that failure has been replaced by a brand new iconic roof structure.

### Architectural Vision & Royal Innovation

The project was born from a visionary brief commissioned directly by the King of the Royal Bafokeng Nation, Kgosi Leruo, who sought a new iconic roof to replace the failed structure.

His requirements were clear: the design had to provide enhanced shading, mitigate local corrosion risks, and achieve a lifespan exceeding 30 years. The design team at Urban Engineering responded with a "draped tensile structure" leveraging steel's best property: tension.

### PROJECT TEAM

**Nominator, Architect & Structural Engineer**  
URBAN ENGINEERING

**Main Contractor & Cladding Contractor**  
SARA ROPE ACCESS

**Steelwork Contractor & Steel Detailer**  
DETON ENGINEERING

**Steel Merchant**  
NATIONAL STAINLESS STEEL

**Cladding Manufacturer  
& Cladding Roll Former**  
NATIONAL STAINLESS STEEL

**Quantity Surveyor & Project Manager**  
WCS

**Drawing and Modelling**  
MACDESIGN STUDIO

This concept was enabled by the King's appointment and guidance, which removed typical limitations and encouraged an innovative "pure tensile design".

The result is a fluid, 600 m<sup>2</sup> canopy that appears to float between existing concrete V-beams. Key to its clean aesthetic is the move away from conventional cables; instead, the project utilises bespoke flat bar tension hangers as the primary load-bearing elements. These bars allow for precise tensioning via 4M30 bar tensioners in pinned connections, reducing material usage by 30% while achieving a curvature that resists dynamic loads.

### Technical Excellence and Engineering

The structure is efficient and resilient, spanning 24 m, it boasts impressive metrics at just 21.6 kg/m<sup>2</sup> including the roof covering. To ensure stability, a catenary-shaped cable system was incorporated below the roof to counteract wind uplift forces. Lateral stability is further provided by a novel approach using inclined end cables.

The project also showcased creative problem-solving during construction. When it was discovered that the existing concrete V-beam edges were under-reinforced for the higher loads, the team cast a concrete upstand beam to stiffen the structure. To accommodate the school's operations and eliminate the need for a crane, all steel members were designed to weigh less than 100 kg. This allowed components to be man-handled up a scaffold ramp to the assembly point. All on-site connections were bolted to enhance the ease of installation and maintain the brushed stainless steel finish.

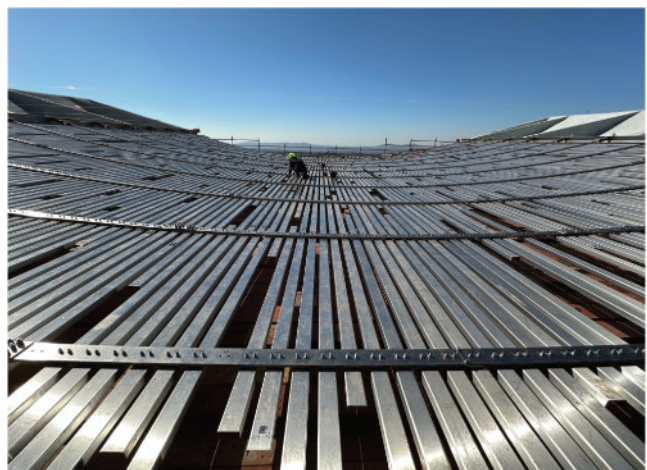
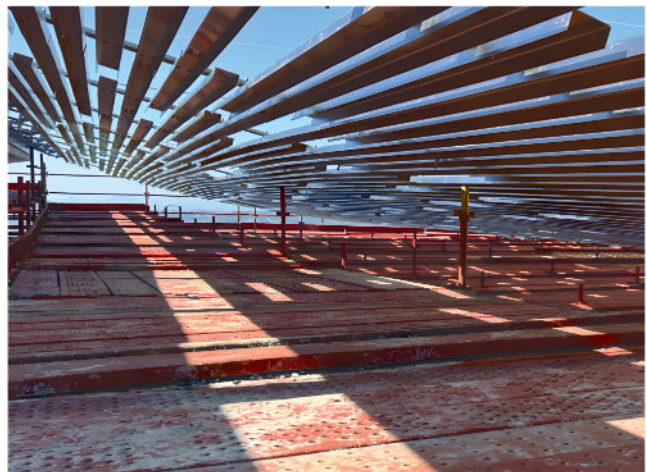
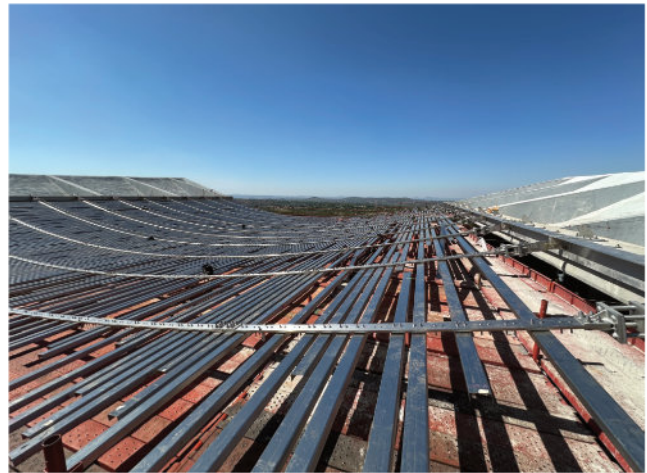
### Sustainability and Lifecycle Success

The choice of Grade 316L stainless steel was a strategic economic decision. By eliminating the need for future repainting and corrosion repairs, the material choice resulted in a lower total lifecycle cost compared to conventional coated steel.

The structure is designed for a lifespan exceeding 30 years, supported by a maintenance strategy of quarterly wash-downs. To facilitate this, the team integrated dedicated roof access routes and safety lines. This allows all future maintenance to be conducted safely from the top, negating the need for expensive scaffolding from below, an important consideration given the structure's height of 7 to 15m.

Today, the amphitheatre has been reimagined into the vibrant "social hub of the school" and serves as a point of immense pride for the entire community.

Beyond its technical brilliance, the structure has become the most photographed location on campus, embodying the Royal Bafokeng Nation's commitment to excellence and heritage.





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The background of the entire image is a photograph of a massive industrial mining or processing plant. The structure is composed of a complex network of steel beams, walkways, and pipes, extending high into the sky. In the lower-left foreground, a person wearing a white hard hat and a high-visibility safety vest is seen from behind, looking towards the facility. The entire image has a blue color cast.

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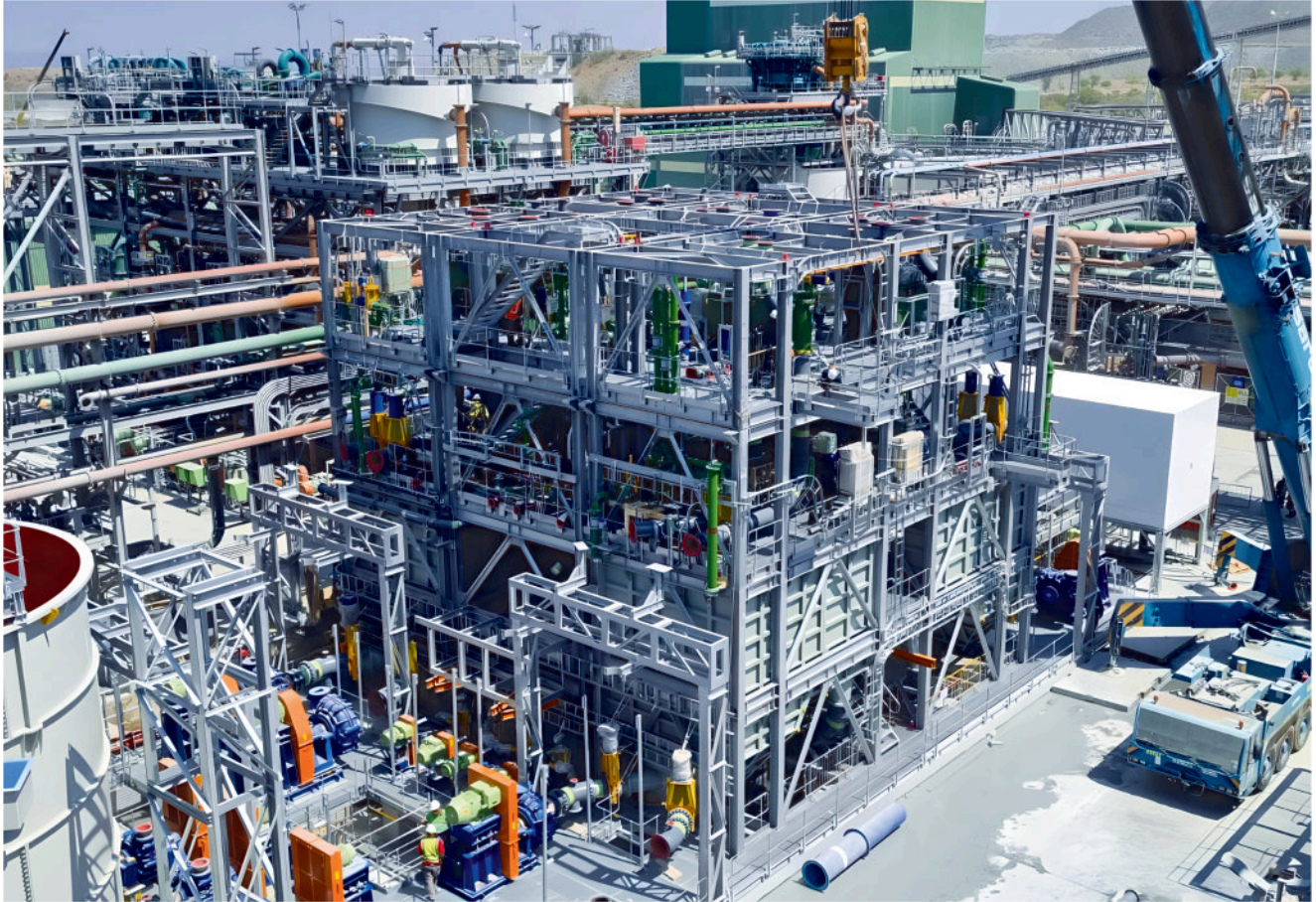
Category  
Sponsor

# Mining Category

# Category Winner

## LYCOPODIUM MODULAR PLANT

Category Sponsor  
MACSTEEL



**T**he winner in the Mining Category highlights a unique achievement in a South African mining landscape often defined by its scale and environmental harshness. The project represents a major success in overcoming the constraints of space and time. The Mogalakwena North Footprint Reduction Project (FRP) represents a shift in how industrial facilities are conceived and delivered in South Africa.

The primary driver for the project was the "Footprint Reduction" mandate. The new slurry concentrator plant had to be integrated into an existing facility's location that had been demolished, leaving a strictly limited footprint for new infrastructure.

Traditional construction methods, which often require three to four years of on-site labour and extensive crane usage, were deemed unfeasible given the confined space and the mine's operational requirements. The solution lay in a pioneering modular design that moved the majority of the risk and labour from the mine site to the controlled environment of a workshop.

### PROJECT TEAM

**Nominator, Main Contractor & Steelwork Contractor**  
BETTERECT

**Structural Engineer**  
DENITH ENGINEERING

**Steel Merchants**  
MACSTEEL, ALLIED STEELRODE,  
STEWARTS & LLOYDS, BSI STEEL

*"I think that people are inspired when they see what their peers are achieving and rather than it be a comparison between competitors, I think it truly is to motivate and inspire and showcase to the rest of the world what our industry can achieve in South Africa."*

— Nicolette Skjoldhammer, Betterect



### Engineering the Modular "Box"

The strategy was to "de-scope" the mine site, shifting 80% to 90% of the work off-site. In a workshop, the team could access 24-hour productivity, avoiding the safety and operational rules that often limit productive site hours. The plant was reimagined as a series of 18 precision-engineered modular units, varying in weight from 32 to 56 tonnes. The structural framing utilised hot-rolled steel beams, columns, and bracing arranged into stacked modules to form the complete plant. To maintain consistency and speed of fabrication, Denith Engineering utilised a standardised structural template for each module.

**Top modules:** These were designed to support heavy Jameson Cells. They featured false-floor installations that allowed for safe operator access and maintenance while ensuring adequate head clearance for equipment on the levels below.

**Level modules:** Levels ground through five housed essential sumps, pump platforms, and mechanical equipment.

**Stability systems:** To manage structural stability, V-bracing was used on three sides of each module. The fourth side was intentionally left open to maintain maintenance access.

The project team also had to account for "fully silted" failure scenarios. This meant the entire steel structure

had to be robust enough to stand firm even if all pipes, tanks, and chutes became completely filled with mud or silt. This requirement demanded a design that was significantly more robust than a typical plant while still maintaining economic efficiencies.

### Technical Rigour and Advanced Simulation

What distinguishes the Mogalakwena North project is the depth of its technical verification. The project demanded comprehensive Finite Element Analysis (FEA) for all modules, including tank tops, crane beams, and pump platforms. Using tools like ANSYS Mechanical, these analyses validated load transfer under static, dynamic, seismic, and wind actions.

The team also applied Computational Fluid Dynamics (CFD) using ANSYS Fluent to the slurry sumps. By optimising flow patterns and reducing energy at the design stage, they were able to predict and mitigate wear before a single piece of steel was cut—a level of detail rarely applied to structural steel projects.

Connection design was equally critical. Because the modules had to be trial-assembled in a workshop where crane clearances were restricted, the team designed custom bolted beam-to-column connections. These joints were strong enough to enable heavy lifts in a different arrangement from the final site setup, utilising the roof beams of each module. Bolted friction-grip connections were used at key joints, with FEA ensuring slip resistance and load path reliability.

Limited headroom required detailed lift studies and custom rigging solutions developed in compliance with DNV offshore lifting codes (DNVGL-ST-E2.7-3), providing safety margins beyond typical onshore requirements.

A cornerstone of the quality control process was the 100% trial assembly. Every module was fully put together in the workshop, including the steelwork, piping, and mechanical equipment. This process ensured that every hole, grating, and interface aligned within millimetres.

This "plug-and-play" philosophy was put to the test when the team identified a challenge regarding fastener performance. During assembly, some galvanised nuts were stripping under preload. A Skidmore-Willhelm torque-tension test confirmed that a portion of the supplied fasteners were non-matching assemblies, including property class 8 nuts from a withdrawn standard that had lower proof loads than the required ISO class. Because this was caught in the workshop, the team was able to enforce the supply of certified, matched manufacturer assemblies with correct lubrication, ensuring the joints achieved the required preload without delaying the site schedule.

Logistical constraints required creative problem-solving. The mine's remote location and restricted road access imposed strict limits on transportable module size. Modules were optimised for road transport, which saved costs while maintaining structural integrity.

### Rapid Site Integration

The precision of the off-site work resulted in a massive reduction in site time. The entire plant was installed on-site in just under a month. While the original plan anticipated installing three modules per day, the team achieved rates of up to six modules per day.

This speed was enabled by the fact that 100% of the welded connections were completed off-site. Site work was limited to a bolting exercise involving approximately 20,000 to 30,000 bolts.

Beyond its rapid delivery, the project was designed for ease of maintenance over its lifecycle. The V-bracing system on three sides of the modules allows process equipment to be removed and replaced without dismantling the primary structure.

To protect the investment, every piece of steel was sandblasted and finished with hot-dip galvanising to SANS 121/ISO 1461 standards. Galvanising provided full corrosion protection for internal surfaces and bolted details, which is critical in a plant environment. Galvanised surfaces have a documented slip factor for friction-grip joints, eliminating the need to mask connection areas for painting during fabrication.

The modular nature of the design also offers a sustainable future for the facility. The units are independently lifted and bolted, so the plant can be disassembled and redeployed in a different site location, reflecting the modern mining industry's move toward flexibility and 100% reusable industrial assets.

The Mogalakwena North FRP is a validation of modular construction as an alternative and perhaps even superior method for constructing complex industrial facilities.

This project shows that when design and efficient execution are perfectly aligned, steel becomes a strategic tool for meeting the mining industry's most challenging, design, delivery and safety targets.



*"I think it's important for companies to realise that it's a tough industry. It's important to excel and be perfectionists in your field of expertise and to think out-of-the-box and in the modular space. It is an area that needs to be explored more in the future."*

— Toby Lamboy, Betterect

# Commendation

## PLATREEF SHAFT 2 WINDER BUILDING

ENGINEERING AT  
NEW HEIGHTS



In the lifecycle of a capital-intensive mining project, the ability to challenge original design assumptions is often the difference between financial viability and a major budget overrun. The construction of the Platreef Shaft 2 Winder Building serves as a compelling case study in strategic steel construction agility.

Originally conceived as a conventional concrete extension of the existing headgear, a late-stage shift to a steel-concrete hybrid protected the project's bottom line.

By opting for a steel superstructure 70 m in the air, the project team achieved a significantly lower structural mass and a streamlined construction timeline. The switch "saved the project millions of rands," leaving the client in a substantially better position than the original concrete-only scope would have allowed.

### The Engineering Constraint

The facility's most notable technical feature is a 40 tonne crane that performs a dual structural role: it spans 9 m between columns and cantilevers off the side of the

### PROJECT TEAM

**Nominator & Structural Engineer**  
RESULTANT CONSULTING ENGINEERS

**Main Contractor**  
STEFANUTTI STOCKS

**Architect**  
MURRAY & ROBERTS CEMENTATION

**Steelwork Contractor & Steel Detailer**  
BHUBEZI PROJECTS

**Steel Merchant**  
MACSTEEL

**Cladding Roll Former**  
YOUNGMAN ROOFING

**Cladding Contractor**  
RAINBOW ROOF SHEETERS & ERECTORS

**Paintwork Contractor**  
SPS CORROSION

building. While this design is described by the team as "impressive," it introduced a significant interface risk.

The steel superstructure had to be anchored to pre-installed cast-in plates within the existing concrete headgear. These plates were a fixed constraint, with a maximum allowable tension load of 600 kN.

Initial modelling indicated that the dynamic forces from the crane would exceed this threshold, potentially compromising the connection points. Rather than opting for a costly and time-consuming retrofit of the concrete base, the team at Resultant Consulting Engineers fundamentally altered the building's structural behaviour:

**Truss conversion:** The team added full braced bays to three faces of the building.

**Force redistribution:** This converted the frame into a series of large, braced trusses, which redirected and reduced the loads at the critical connection points.

**Regulatory alignment:** This change brought the tension loads back within the 600 kN limit, ensuring the project remained within the safety tolerances of the pre-existing infrastructure.

The physical erection of the structure presented a unique logistical hurdle. The concrete base was "inherently skew," making the precise alignment of the four critical welding points a major concern for the site team.

To mitigate this, the steelwork contractor, Bhubezi Projects, pre-assembled large sections on the ground to reduce high-risk crane lifts. The defining innovation, however, was a temporary support system devised after fabrication was already complete:

**The hanging frame:** The team used a system of temporary steel frames to "hang" the cantilevered portion in place.

**Adjustable pins:** By using four large pins with adjustable supports, the team could achieve perfect final alignment



on the uneven concrete before the knee braces were permanently welded.

In heavy industrial environments, structural redundancy is a prerequisite for long-term safety. The Platreef design ensures that if a primary knee brace connection were to fail, the structure would not suffer a catastrophic collapse. Instead, the braced bays provide enough redundancy to result in a "serviceable failure" that can be safely repaired.

The project's success was underpinned by careful digital modelling that incorporated all mechanical and electrical systems, ensuring a "clash-free" installation despite the 70 m working height. By leveraging the advantages of both steel and concrete, the team delivered a project that was structurally innovative, functional, and commercially superior. This attention to detail earned the project a commendation in the Mining Category at the 2025 Steel Awards.



# Commendation

## THUNGELA ELDERS 1000 TONNE TRUCK LOAD-OUT STATION

FORGING PRECISION  
INTO EVERY TONNE

The transition from continuous underground mining to the discontinuous world of road transport has long been a bottleneck in the coal industry. Traditional methods, often relying on Front-End Loaders (FEL), are fraught with inefficiencies: skewed load profiles, weighbridge failures, and the constant risk of operator fatigue.

However, at the Thungela Elders project, a new benchmark has been set. This 1000 tonne truck load-out station (LOS), which received a well-deserved commendation in the Mining Category at the 2025 Steel Awards, shows how structural steel, digitalisation, and interdisciplinary collaboration can redefine industrial efficiency.

At its core, the Elders LOS is a high-capacity buffer designed to ensure that mining operations never have to wait for a truck. The facility handles sub-250 mm Run-of-Mine (ROM) coal with a sophisticated dual-storage philosophy: a 1000 tonne live capacity surge bin paired with a massive 10,000 tonne conical throw-out stockpile.

The operational logic is seamless. A feed conveyor discharge chute, equipped with an automatic overflow mechanism, monitors the surge bin. When the bin reaches capacity, material is automatically diverted to the throw-out stockpile. As soon as truck loading reduces the bin level, the feed returns to the LOS. This allows for a relentless throughput of 34 trucks per hour across two parallel loading bays, accommodating both 40 tonne and 50 tonne side-tipping interlink trucks.

### Why Structural Steel?

When LSL Consulting embarked on the design, structural steel was identified as the only commercially viable material capable of meeting the project's extreme demands.

The station is a tall, exposed structure that must withstand immense internal material pressures, "kick forces" during discharge, and environmental loads, including highveld winds and potential seismic events.



## PROJECT TEAM

**Nominator, Architect,  
Structural & Mechanical Engineer**  
LSL CONSULTING

**Main Contractor, Steelwork Contractor  
& Paintwork Contractor**  
J&L LINING & CONSTRUCTION

**Steel Detailer**  
ER DRAFTING SERVICES

**Steel Merchant**  
PEGASUS STEEL

The technical complexity of the Elders LOS is most evident in its structural framing and the specialised connections required to isolate forces. The structure rests on a reinforced concrete foundation with stub columns and walls designed to mitigate the risk of truck impact. Above this, the steel frame is braced in all directions, using a portal frame on the lowest level to maintain vehicle clearance.

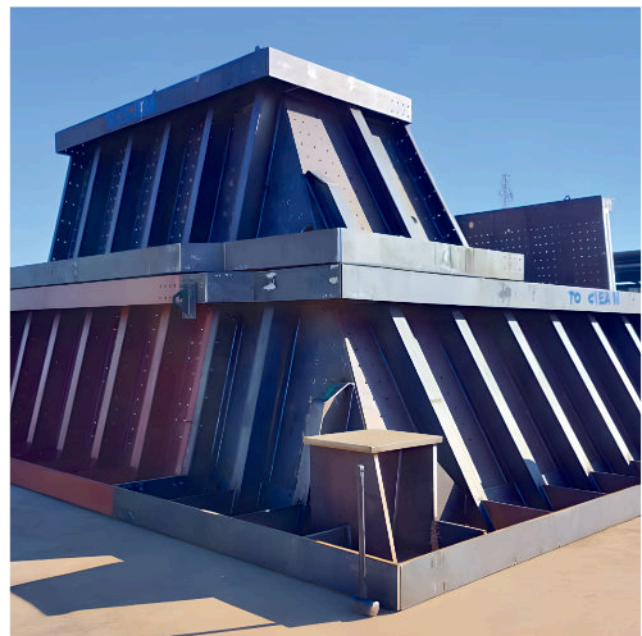
Innovative modularity was key to the bin's construction. The surge bin was fabricated in 2.4 m high "rings" to align with standard plate widths and simplify transportation. Each section was formed into an "L" shape (comprising a long wall, a bend, and a short wall). When four of these sections are bolted together, they form a complete box with splices strategically located near the point of zero bending moment. By staggering these vertical splices on each level, the engineers added significant redundancy to the entire system.

### The Teflon Slide Bearing Solution

One of the project's most notable technical solutions is found at the concrete column supporting the Throw-Out Conveyor within the stockpile area. To prevent the immense pressure of the buried stockpile from deflecting the concrete column and transferring those forces into the steel gantry, a Teflon slide bearing was implemented. This allows the conveyor to expand and contract longitudinally while remaining isolated from the column's deflection. LSL designed a custom connection to provide uplift resistance during 1-in-50-year storm events, a critical safety feature for such an exposed site.

The precision required for the Elders project was made possible by an advanced digital workflow. BIM 360 served as the central collaboration hub, allowing mechanical and structural teams to work in lockstep.

The engineering team utilised dual Finite Element Analysis (FEA) models for the bin. The first utilised beam elements in Autodesk Robot for general structural analysis, while the second broke the structure down into



plates for a granular analysis of wall pressures. For the most complex connections, IDEA StatiCa was employed to perform non-linear material and geometry analysis, ensuring every bolt and weld could handle the calculated strain.

**Constructability: Planning for the Highveld**

Construction in the South African highveld presents unique challenges, particularly inclement weather and high winds. The team mitigated these through careful scheduling and a "ground-level pre-assembly" strategy.

Major components—including bin segments, staircases, and the "doghouse" unit atop the bin—were assembled on the ground. This moved the work from dangerous heights to the safety of the ground level, requiring only a final, strategic lift into position. To combat midday winds, critical lifts were scheduled for the early morning hours using a 500 tonne mobile crane.

The result is a facility that outperforms traditional front-end loader methods in every metric. The station is designed for a 25-30 year lifespan, supported by hot-dipped galvanised primary members and replaceable VRN400 hardened steel wear liners. These liners are

easily accessible from both inside and outside the bin, ensuring that maintenance shutdowns are as brief as possible.

Beyond technical merit, the Elders LOS serves a broader purpose. It facilitates the reliable transport of coal for domestic power generation, stabilising the national power grid. In an era where the national rail network faces challenges, the facility's ability to load trucks for the export market brings essential external currency into the economy.

From a sustainability perspective, the structure is designed for the future. Water dust suppression systems at transfer points mitigate environmental impact, and the entire steel structure is 100% recyclable. Perhaps most impressively, the modular design allows the station to be dismantled and relocated once mining operations at the current site are complete.

The Thungela Elders 1000 tonne truck load-out station reflects what is possible when precision engineering meets practical constructability. By leveraging the unique properties of structural steel, the project team has created a system that is as robust as it is efficient.

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Category  
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# Factory & Warehouse Category

# Category Winner

## WOOLWORTHS DC PHASE 2

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**W**hen construction begins on a 60,000 m<sup>2</sup> warehouse extension, the conventional approach is to wall off the site, reroute traffic, and slow down operations. At the Woolworths Distribution Centre, those luxuries simply didn't exist. The facility had to stay fully operational 24 hours a day, pushing through 130% of its intended capacity while more than 2000 tonnes of structural steel were fabricated and erected right in the middle of the chaos.

Phase 2 required the team to extend the warehouse from two different ends nearly 600 m apart, eventually tying back into the existing building with millimetre-level precision. This meant building over active ring roads filled with trucks and strengthening existing roof trusses while staff worked underneath. It's this mix of massive scale and surgical precision that earned the project the top spot in the Factory & Warehouse Category at the 2025 Steel Awards.

Beyond the main structure, the project team had to handle:

**Structural strengthening:** Reinforcing existing trusses to carry new, heavy mechanical and electrical systems.

### PROJECT TEAM

#### Nominators

RSB CONTRACTS, GLOBAL ROOFING SOLUTIONS (GRS)

#### Main Contractor

ABBeyDALE

#### Architect

R&L ARCHITECTS

#### Structural Engineer

ZUTARI

#### Steelwork Contractor & Steel Detailer

RSB CONTRACTS

#### Steel Merchants

MACSTEEL, ALLIED STEELRODE

#### Cladding Manufacturer & Cladding Roll Former

GLOBAL ROOFING SOLUTIONS (GRS)

#### Cladding Contractor

PINNACLE CLADDING

#### Paintwork Contractor

FIRST CLASS PROJECTS



**Complex ancillaries:** New gatehouses, staff entrances, and multi-level walkways.

**The "chocolate box":** A specialised 3000 m<sup>2</sup> temperature-controlled zone kept at a constant 16°C.

**Water management:** Custom-engineered gutters and civil works to handle large amounts of roof discharge.

The goal was simple but tough: build a robust, economical facility that could manage everything from goods-in to retail dispatch without ever hitting the "pause" button on daily operations.

### Steel as the Structural Strategy

Steel was the only material that could provide the necessary speed and flexibility. The design uses an 8.5 m x 8.5 m grid with 32.5 m spans, creating the huge, column-free spaces required for modern racking systems. In some areas, the structure spans nearly 120 m in width.

Primary girders were fabricated in lengths up to 17 m to avoid time-consuming on-site splicing. The team used a hybrid approach: reinforced concrete columns (cast using custom steel box forms for perfect alignment) topped with steel truss frames.

Building toward a single point from two ends nearly 600 m apart is a recipe for a "bridge that doesn't meet in the middle." Even a small error at the start would have resulted in a massive misalignment by the time the structures met.

To prevent this, the team used 3D laser scanning to create a digital twin of the existing building, accounting for every slight dip or curve in the original structure. This allowed the new steel to be fabricated to a tolerance of just 2 mm. On the eastern end, the erection teams started building

275 m away from the warehouse and worked their way back toward it—a "reverse" sequence that required incredible surveying discipline.

### Constructing Above Live Operations

One of the most impressive feats was building over the active ring road. Because the road was the lifeblood of the centre's logistics, it couldn't be closed.

The solution? The team engineered external canopy girders to temporarily bridge the road. This allowed the roofing and steelwork to happen safely overhead while a constant stream of delivery trucks passed underneath.

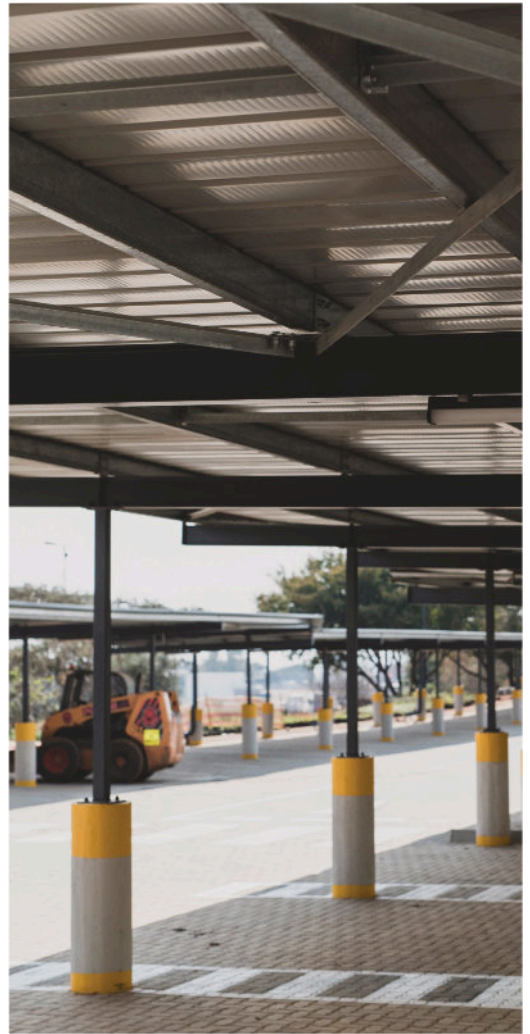
### Digital Integration and Problem Solving

Modern problems require modern tools. BIM (Building Information Modelling) acted as the project's brain, catching "clashes" between steel beams and air conditioning ducts before they ever reached the site.

When a national shortage of high-grade steel hit, they sourced material from across South Africa to keep the momentum going. When delivered parts didn't quite meet the clip requirements due to transport stress, the site team engineered custom tools on-site to fix them and keep the project on track.

Since this is a long-term investment, the steel was treated with a high-performance corrosion protection system. With a 10-year warranty and a first maintenance cycle predicted at 15 years, the building is designed to survive the harsh industrial environment with minimal fuss.

The Woolworths Distribution Centre Phase 2 proves that factory & warehouse construction is really about how intelligently designed steel can grow a business without disrupting the world around it.



# Commendation

## SIGNAL HILL BREWERY

FAST-TRACK WAREHOUSING  
FOR THE BREWING  
INDUSTRY



Constructing factories and warehouses requires a pragmatic balance between fast-tracked schedules and rigorous structural demands. The Signal Hill Brewery development, located in the R21 Business Park in Olifantsfontein, provides a clear demonstration of this balance. Earning a commendation at the 2025 Steel Awards, the greenfield project involved the delivery of a complete brewery precinct, comprising a brew house, packaging facility, utilities, and warehousing, within an 18-month timeframe.

The project utilised 884 tonnes of structural steel profiles, with the total steel requirement exceeding 1000 tonnes. Achieving the project timeline necessitated peak erection rates of 15 to 18 tonnes per day.

The primary structural framework consists of multiple warehouse structures utilising lattice trusses and girders. Constructability was prioritised during the detailing phase to facilitate rapid site assembly. The design relied predominantly on standard "red book" bolted connections and conventional bracing systems for overall stability, keeping site welding to a minimal level.

### PROJECT TEAM

**Nominator & Steelwork Contractor**  
B&T STEEL CONSTRUCTION

**Main Contractor & Architect**  
M&T DEVELOPMENT

**Structural Engineer**  
SOTIRALIS CONSULTING ENGINEERS

**Steel Detailer**  
CND STRUCTURAL SERVICES

**Cladding Roll Former**  
SAFINTRA

**Cladding Contractor**  
FERRUM TRADING

The efficiency of the erection sequence was heavily dependent on a collaborative approach between the detailing team and the structural engineer. By carefully detailing the placement of girders and trusses on columns for immediate crane release, the structural steel contractor maintained the demanding daily targets.

### Corrosion Protection in High-Humidity Zones

The brew house, which accommodates 18 stainless steel brewing tanks, presents a highly corrosive internal environment due to constant high humidity. Standard industrial coating specifications are insufficient for these localised conditions.

To ensure the design life of the steelwork, the structural elements in this zone were specified with a rigorous three-coat StonCor system. Preparation involved extensive sandblasting. Crucially, the detailing and fabrication processes were adapted to eliminate moisture traps: all back-to-back angle irons within the lattice trusses were mechanically sealed prior to the application of the intermediate and final coats. To prevent exposure of raw steel at the joints, all structural connections were painted prior to bolting.

### Tolerance Management and Plant Integration

A critical component of the brewery's infrastructure is the extensive network of pipe racks that carry process piping between the various processing and utility facilities. The mechanical parameters of the process piping dictated strict spatial constraints.

Achieving this millimetre-level accuracy required repeated structural adjustments on site. The installation teams utilised targeted jacking, propping, and cambering of the galvanised steel rack structures to meet the alignment specifications. For stability and vibration resistance, the structures relied on chemical anchors for hold-down bolts, reinforced by a double-nut system across all structural bolts to prevent loosening over time.

### Site Constraints and Specialised Erection Methods

The packaging facility, which houses an automated, high-speed bottling plant and robotics, introduced a distinct challenge. The facility required high-performance epoxy floor coatings that are highly sensitive to impact; even minor surface damage necessitates a complete refinishing. To erect the structural steel above these finished surfaces without causing damage, the contractor engineered custom-fabricated dollies. This equipment allowed for the precise movement and placement of the steel columns without point-loading or scratching the epoxy surface.

Late-stage design alterations further complicated the erection process. The integration of the client's plant equipment required unplanned penetrations through the

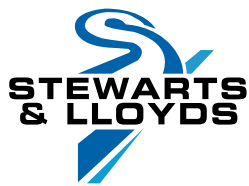
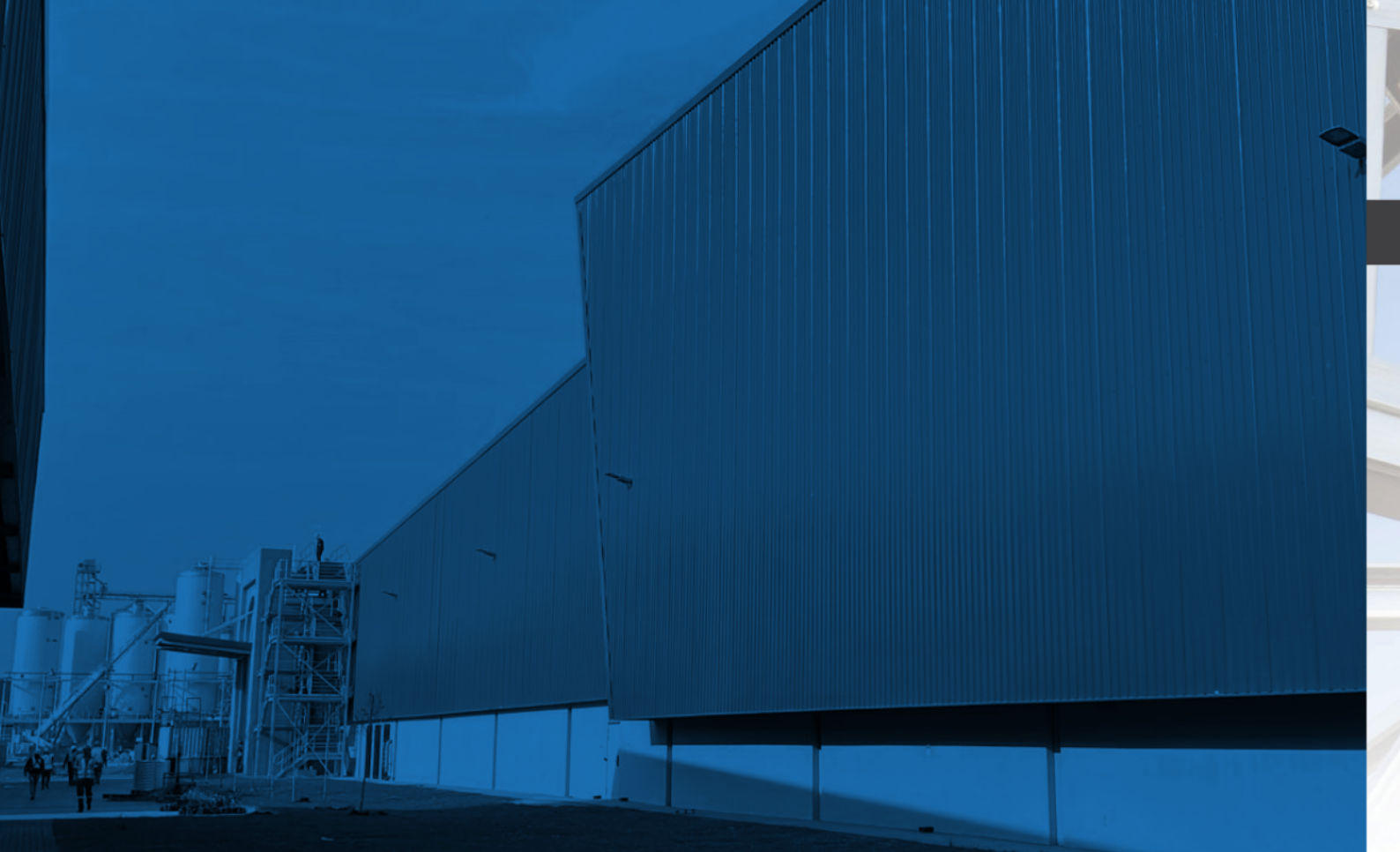


roof and walls directly above operational tanks. Because the plant was live, these penetrations had to be executed under strict safety protocols, prohibiting any sparks or hot works in the affected areas.

### Building Envelope Integration

The structural steel frame was clad with 38,000 m<sup>2</sup> of sheeting for the roof and wide-span profiles for the side cladding. The architectural design featured a ribbed, "shark gill" facade, which required complex flashing and trim detailing. Early iterations of the window flashings and bullnose details suffered from water ingress, a common issue with complex industrial profiles. The project team resolved this through an iterative process of stripping, redesigning the details, and resealing until watertight integrity was achieved.

Ultimately, the Signal Hill Brewery project succeeds by adhering to the fundamentals of sound structural engineering: appropriate material specification for aggressive environments, meticulous tolerance management, and a detailing strategy that prioritises site constructability.



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# Category Winner

## SASOL-WOOD CF 2

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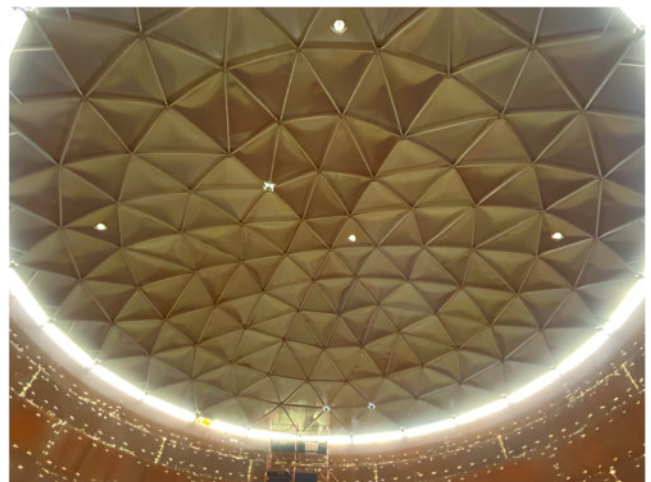
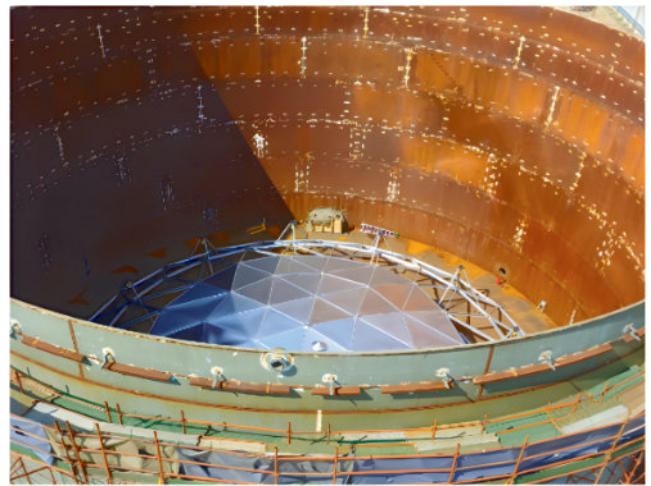
**T**he Sasol-Wood CF 2 project received the top award in the Industrial Category at the 2025 Steel Awards in recognition of its fabrication innovation and technical excellence.

The development included five 34 m diameter steel storage tanks, two featuring frameless, self supporting geodesic dome roofs.

A key achievement was the precision rolling of roof petals up to 16 m long to a 28 m radius. To control distortion over these spans, the team implemented a staged rolling and jiggling methodology using controlled tension to maintain geometric accuracy.

Custom lifting and support systems, including a curved steel spreader beam and an engineered internal scaffold jig, ensured precise alignment during installation, while a top down hydraulic tank jacking system enhanced safety and construction efficiency.

For a complete project overview, refer to pages 9 - 11.



# Commendation

## NOVA FEEDS

MAXIMISING CAPACITY  
THROUGH VERTICAL  
ENGINEERING



Earning a commendation in the Industrial Category at the 2025 Steel Awards, the Nova Feeds project in Malmesbury, Western Cape is a six-storey process plant expansion executed within a live industrial environment.

The Nova Feeds facility expansion was designed to significantly increase animal feed production capacity, all within a highly confined building footprint. Surrounded by existing operational plant equipment and live silos, the only viable direction for growth was vertical. The project team designed a structure comprising six floors of heavy-duty structural steel, effectively creating multiple mezzanine working platforms that reached a staggering height of 26 m above ground.

The project's success was defined by its response to "highly constrained" site conditions. The facility was bordered by a main road on one side and active silos on the other.

With no on-site laydown area, every piece of the 241 tonne steel structure had to be "double handled". Materials were offloaded at a remote location, sequenced, and then

### PROJECT TEAM

**Nominator & Steelwork Contractor**  
B&T STEEL CONSTRUCTION

**Main Contractor**  
SKY CONSTRUCTION

**Structural Engineer**  
C&S PROJECTS

**Steel Detailer**  
CND STRUCTURAL SERVICES

**Cladding Roll Former**  
SAFINTRA

**Cladding Contractor**  
FERRUM TRADING

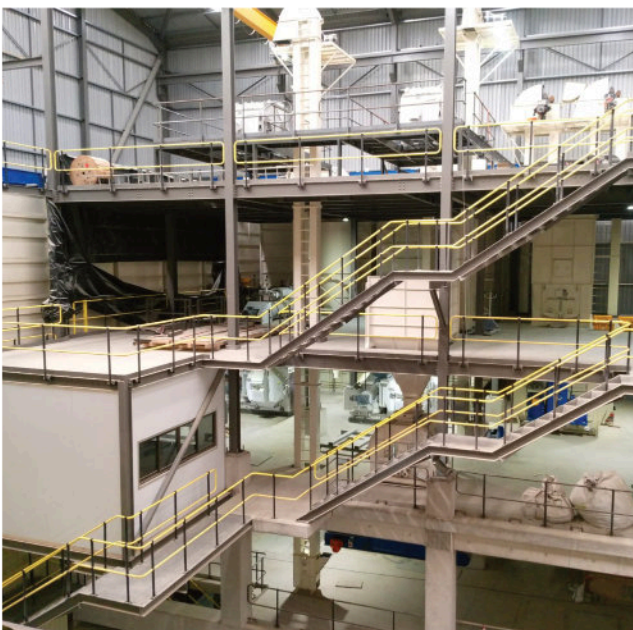
**Paintwork Contractor**  
INDUSTRIAL PAINTING SERVICES (IPS)

brought to the site daily exactly when needed for lifting. Logistics were further complicated by a single point of access from the main road. To operate, the team secured a wayleave that permitted them to protrude only 2 m into the public roadway. This necessitated the use of massive cranes, ranging from 50 to 180 tonnes, to reach the furthest erection points up to 32 m away from the road.

### Technical Excellence in Engineering and Detailing

One of the most significant technical achievements was the 100% precision rate in aligning structural floor cutouts with mechanical equipment penetrations.

This was achieved through a non-linear, phased erection sequence where the structural team would install a floor



and then pause to allow mechanical teams to install process machinery before proceeding to the level above.

To optimise the speed of erection, the team redesigned several key connections:

**Optimised connections:** Complex notched channel end-plates were replaced with simpler, more efficient angle iron connections, which allowed members to be swung into place and bolted more quickly.

**Vibration management:** Because the structure houses sensitive bins and conveyors, heavy wind bracing and internal bracing were utilised to prevent vibrations that could impair machinery performance.

**Splice details:** Large universal columns were joined using splice plates on both the flanges and the web, ensuring perfect alignment even when transitioning between different member sizes.

**Existing integration:** Tying into adjacent concrete structures required custom flashing and adjustable bracket solutions to accommodate tolerance errors found in the existing buildings.

### Cladding Challenges and Safety

The installation of the IBR and polycarbonate cladding was perhaps the most labour-intensive phase of the project.

Due to the lack of space, scaffolding could not be used for 90% of the building. Teams were forced to work directly from the steel purlins, manually pulling sheets across the structure and climbing multiple levels of ladders.

Safety was the ultimate priority, particularly given the proximity to live silos containing volatile organic material. A strict exclusion zone was enforced to ensure no steel members or equipment ever made contact with the silos, which carried a risk of vacuum collapse or explosion if damaged.

The project's zero-incident record under these conditions was a point of immense pride for the entire project team.

The Nova Feeds expansion was, at its heart, a feat of collaboration. Strong relationships between the engineer, fabricator, and the client allowed for proactive problem-solving. When material supply issues arose or late-stage design alterations were required, the team managed the impact through "late nights and many phone calls" to ensure the five-month schedule remained intact.

By the time the steelwork was completed, the project had successfully proven that even the most restrictive industrial sites can be transformed through intelligent steel design and careful planning.

# Commendation

## BAYER BLUE CASTLE (ZAMBIA)

SOWING  
ECONOMIC  
OPPORTUNITY  
WITH STEEL

The Bayer Blue Castle maize seed production facility in Kabwe, Zambia, was awarded with a commendation in the Industrial Category at the 2025 Steel Awards. This large scale greenfield development is a critical infrastructure project designed to address food and nutrition insecurity in Sub-Saharan Africa.

Strategically located 120 km north of Lusaka, the facility was designed to triple Bayer's existing maize seed capacity in Zambia. The output is immense: the high-yielding seeds produced here are expected to reach 6.4 million smallholder farmers this year, eventually providing enough maize to feed approximately 30 million people annually across the region.

The architectural brief, led by Jeffrey Cole of Messaris Wapenaar Cole Architects, demanded a design that was "fit for purpose". A basic, viable design that prioritised production output and financial savings without compromising integrity.

The complex comprises approximately 30 buildings, including massive structures for seed drying, shelling, conditioning, and warehousing.

### PROJECT TEAM

**Nominator, Steelwork Contractor,  
Steel Detailer & Cladding Contractor**  
JTC BUILDING SYSTEMS

**Main Contractor**  
STEFANUTTI STOCKS ZAMBIA

**Architect**  
MESSARIS WAPENAAR COLE ARCHITECTS

**Structural Engineer**  
LNW CONSULTING ENGINEERS  
AND PROJECT MANAGERS

**Steel Merchants**  
ALLIED STEELRODE, BSI STEEL

**Cladding Manufacturer**  
SAFAL STEEL

**Cladding Roll Former**  
SAFINTRA NAMIBIA

**Paintwork Contractor**  
INDUSTRIAL PAINTING SERVICES (IPS), NEMCHEM





Steel was the indispensable medium that allowed the team to meet a gruelling schedule and a remote location's logistical demands. The project utilised 527 tonnes of structural steel and 22,000 m<sup>2</sup> of cladding.

The architectural innovation lies in the "unifying aesthetic" achieved through steel. While industrial sites typically use brick or concrete for support buildings like offices and canteens, Bayer Blue Castle utilised steel framing and cladding across all types. To create a cohesive language between a 4 m high administration office and an 8 m high warehouse, the architects implemented horizontal "tide lines" to form banding that repeats across all buildings regardless of their scale. Technically, the project pushed boundaries through:

**Modular design:** Repetitive detailing allowed for fast, error-free erection in a remote area.

**Clear spans:** Lattice trusses and pre-cambered girders

were used to create large, usable floor areas, with one girder span even doubling from 15m to 30m.

**On-site innovation:** Because no permanent mill existed in Zambia, a Saflok 700 roll-forming mill was temporarily imported from Namibia to roll roof sheets up to 25 m long directly on-site.

### Sustainability and Impact

The facility is a model of environmental responsibility, featuring a sewer treatment plant that converts effluent into grey water and a 45,000 m<sup>3</sup> water retention pond.

Economically, it is a powerhouse, set to generate 15,000 seasonal on-farm jobs and 80 permanent positions. The Bayer Blue Castle project proves that with innovative steel design and unwavering team commitment, industrial architecture can solve some of the world's most pressing humanitarian challenges.





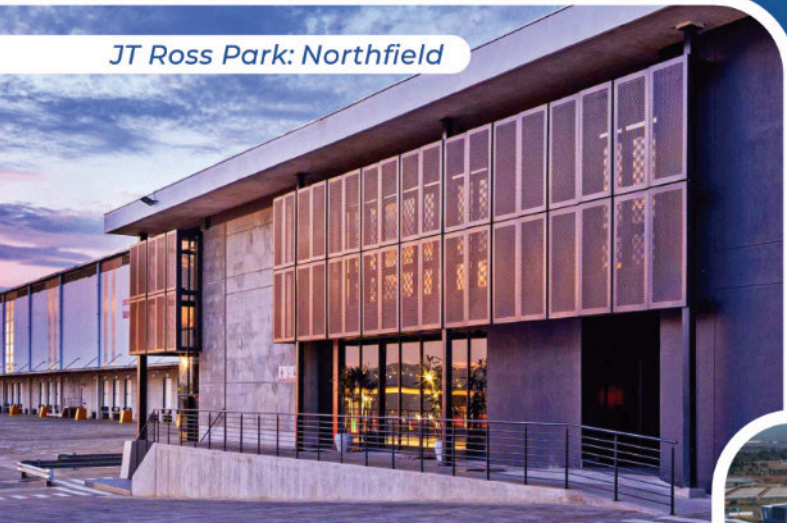
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# Metal Cladding Category

# Category Winner

## WOOLWORTHS DC PHASE 2

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SAFAL STEEL



**T**he Woolworths Distribution Centre Phase 2 expansion secured the top spot in both the Factory & Warehouse and Metal Cladding categories at the 2025 Steel Awards. The project required a seamless integration of new cladding with an existing 1.2 km long structure. This ambitious extension was led by a specialised team including Global Roofing Solutions (GRS) as the cladding manufacturer and roll former, with Pinnacle Cladding serving as the cladding contractor.

To achieve a perfect tie-in on both gable ends, the project team utilised 3D laser scanning to create mesh models of the existing facility. This allowed engineers to account for historical deflections and align new purlin lines within a precise 2 mm tolerance.

Despite significant deviations in the old structure, the new steel was fabricated to ensure a consistent "straight-line" roof geometry. When material shortages necessitated the use of both 450 MPa and ISQ 230 coil steel, the team even developed custom on-site tools to correct rolling tolerances and ensure a perfect fit for the cladding clips.

The completed envelope features a robust water management strategy designed for massive roof catchment areas.

The system utilises custom galvanised gutters, approximately 500 mm wide, which are supported by steel frames projecting from the eaves. These work in tandem with extensive downpipes and underground drainage, including specific systems for crate-wash and industrial waste areas, to manage discharge effectively.

For a complete project overview, refer to pages 33 - 35.

# Commendation

## BOTSWANA INTERNATIONAL UNIVERSITY OF SCIENCE & TECHNOLOGY

SHAPING A  
DYNAMIC HUB FOR  
STUDENT LIFE AND  
LEARNING



**T**he Botswana International University of Science and Technology (BIUST) Student Centre, located in Palapye about halfway between Francistown and Gaborone, received a commendation in the Metal Cladding Category at the 2025 Steel Awards. The 5,200 m<sup>2</sup> building is a student hub designed as a multifunctional space for learning and social engagement.

The overarching goal of the project was to create a space that could handle the daily footfall of thousands of students while offering long-term longevity in a challenging climate. While the primary structure utilises a robust portal frame design, it is the overhanging curved support steelwork and the octagonal features on the ancillary buildings that catch the eye.

The cladding system is one of the notable achievements of the BIUST Student Centre. What makes the cladding particularly impressive is how it navigates the building's geometry. The architectural design required the cladding

to flow over complex curves, a task that is notoriously difficult with rigid metal sheets. To solve this, the team provided specialised frames to take the curved sheeting, ensuring the panels maintained clean, uninterrupted lines across the massive surface area.

Proper planning and execution was vital because the project involved 50 tonnes of steel cladding that had to be delivered in stages to match the construction schedule and avoid on-site storage issues.

### Battling the Botswana Heat

Global Roofing Solutions (GRS) managed the full scope of the building envelope featuring a 0.80mm Safal® Colorplus® Slate Brownbuilt™ profile. This cladding was laid over semi-rigid Rock-wool insulation to optimise thermal performance, and provide critical protection against the local climate.

Palapye is known for intense solar radiation and high summer temperatures. The cladding system serves as a high-performance thermal barrier that significantly reduces the building's reliance on mechanical cooling.

The choice of a 0.80 mm thickness profile was also a strategic decision to balance structural integrity with the ease of installation, providing enough rigidity to withstand significant wind uplift pressures in the exposed Palapye location.

Completed in 2024, the BIUST Student Centre shows how innovative steel construction can be used to shape spaces that are both functional and inspiring.

Through thoughtful design and the strategic use of steel, the building creates a welcoming, comfortable, and sustainable environment where students can gather, learn, and connect.

## PROJECT TEAM

**Nominator, Cladding Manufacturer,  
Cladding Roll Former & Cladding Contractor**  
GLOBAL ROOFING SOLUTIONS (GRS)

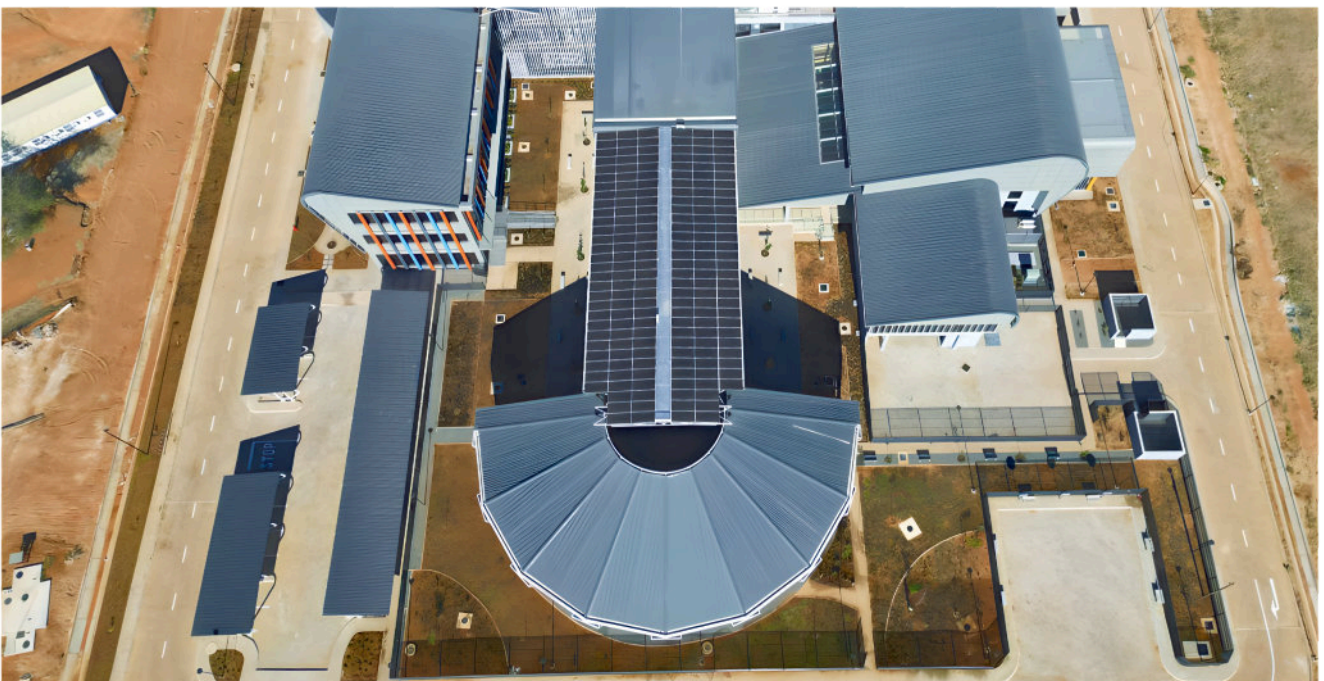
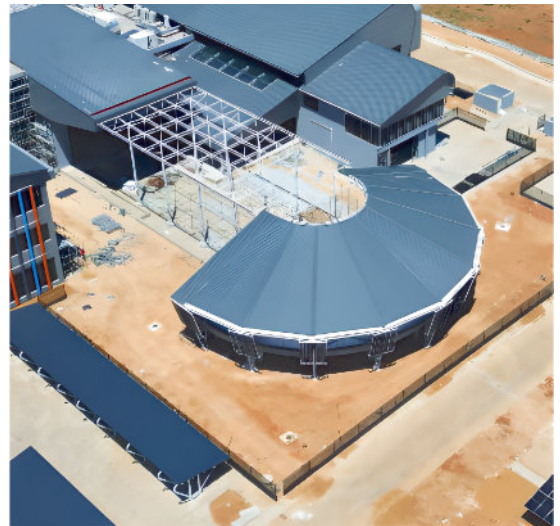
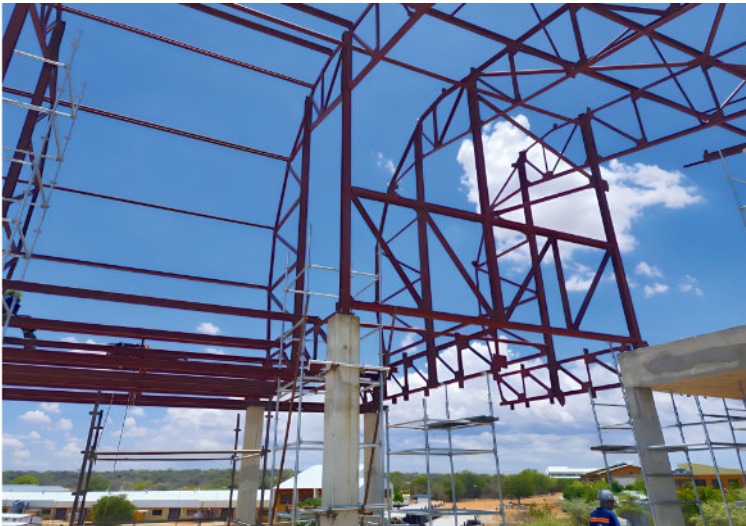
**Main Contractor**  
ZHONG GAN ENGINEERING & CONSTRUCTION

**Architect**  
TIKI ARCHITECTS

**Structural Engineer**  
ZUTARI

**Steel Merchant, Steel Detailer  
& Steelwork Contractor**  
FB ENGINEERING

**Light Steel Frame  
Manufacturer & Contractor**  
FB ENGINEERING



# Commendation

## CIVIL AVIATION AUTHORITY

MODERN CLADDING  
DESIGN CREATES AN  
IMPACTFUL EXTERIOR



The Civil Aviation Authority Headquarters earned a commendation in the Metal Cladding Category at the 2025 Steel Awards for its execution of a complex, eagle-inspired envelope. The project's defining feature is its double-skinned aluminium cladding, which was bent and twisted across two axes to form sweeping wing-like structures.

The cladding system is supported by a 3D steel space frame that extends from reinforced concrete columns, creating a multi-axis geometry where the roof and walls twist and shift parabolically. This complexity required millimetre-level tolerance and custom rolling of all flashing and sheeting to accommodate non-standard angles. The composite wall systems were fixed to a steel subframe to flow with the design of the primary structure.

To manage the unique drainage challenges presented by these curving surfaces, the project team developed custom gutter systems and specific flashing sequences to handle both inward and outward water flow.

This high-precision envelope features robust bracing to resist high wind pressures of ~108 kPa, particularly within the cavities of the eagle-wing roofs.

The Civil Aviation Authority project was also awarded the top spot in the Architectural Category at the awards, recognising the project's distinctive design.

For a complete project overview, refer to pages 14 - 16.





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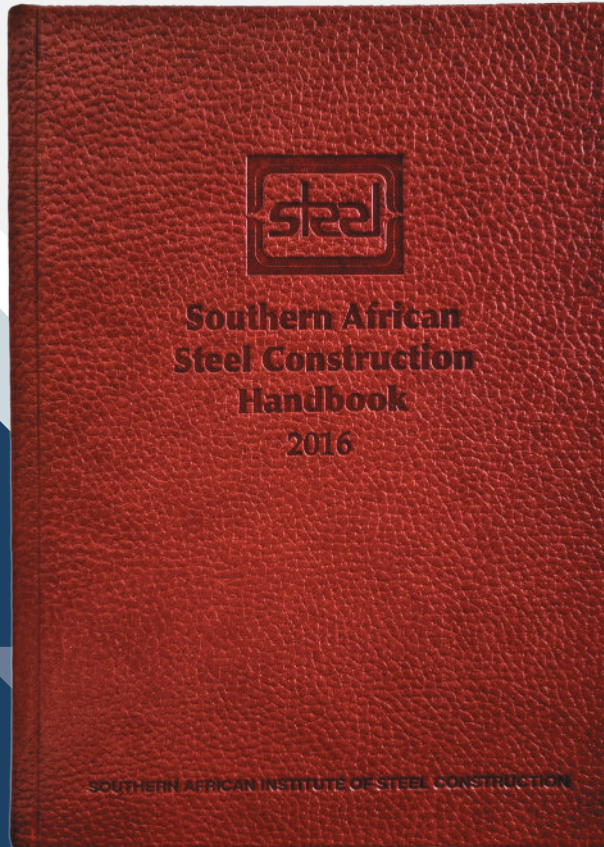






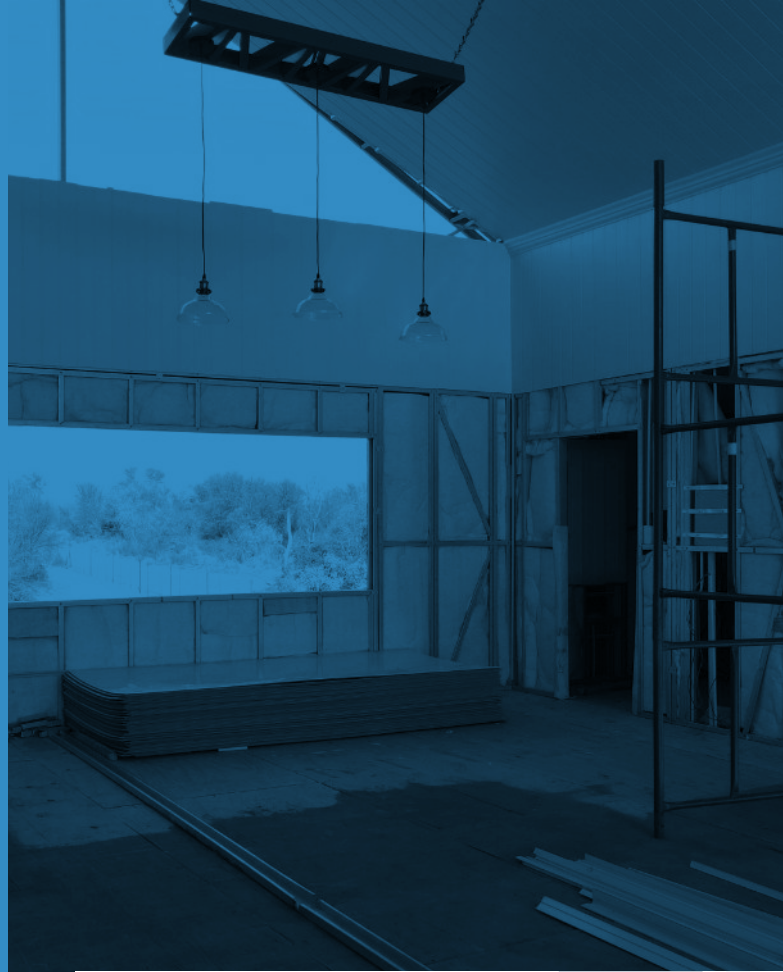
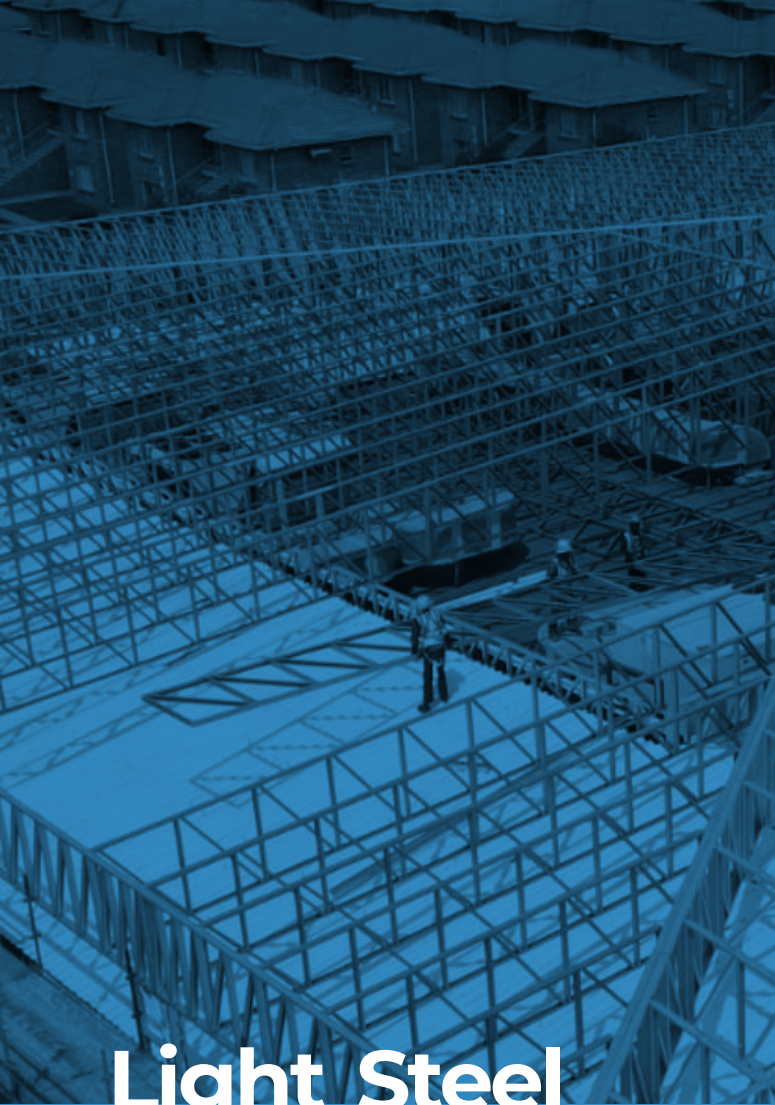
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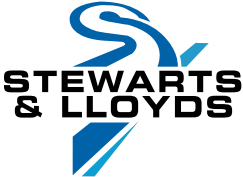


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# Light Steel Frame Category

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# Category Winner

## NEW ORLEANS PRIMARY SCHOOL

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STEWARTS & LLOYDS



**B**uilt in 1973, New Orleans Primary School, situated in Paarl, had been condemned, its structure deemed unsafe and its halls emptied, forcing learners into a daily commute to distant facilities. The easy answer would have been to bulldoze it. The cheap answer would have been temporary containers, but the community insisted on something better.

Instead, the project team delivered a salient solution, turning a structural "dead end" into a blueprint for the future of public infrastructure and winning the Light Steel Frame (LSF) Category at the 2025 Steel Awards.

### The Foundation Challenge

The project's greatest constraint was also its greatest opportunity. The Western Cape Education Department (WCED) required a solution that was cost-effective and rapid, yet the existing 50-year-old foundations, consisting of thin "foot pads" and surface beds without rebar, were far too weak for traditional brick construction.

### PROJECT TEAM

**Nominator & Steelwork Contractor**  
FUTURECON

**Main Contractor**  
GVK-SIYA ZAMA

**Architect**  
OSMOND LANGE

**Structural Engineer**  
BY DESIGN CONSULTING ENGINEERS

**Steel Detailer**  
LSF CO

**Cladding Manufacturer & Cladding Roll Former**  
YOUNGMAN ROOFING

**Cladding Contractor**  
PDK CIVILS & CONSTRUCTION

Light Steel Framing (LSF) was the hero of this story. Because steel offers a high strength-to-weight ratio, the team could build a full-scale, durable school that the aging concrete could actually support.

### Technical Excellence

The project's success was anchored in a data-driven approach to technical excellence, beginning with 3D scanning to perfectly align the new structure with the existing foundations. By utilising 45 tonnes of Light Steel Framing (LSF)—specifically 0.80 mm G550 Z275 sections—the team achieved an optimised kg/m<sup>2</sup> that matched the limited capacity of the original footings.

Structural stability was ensured through the installation of 2000 linear metres of T-Grip strap bracing and roof diaphragms designed to transfer lateral loads to vertical bracing. This system allowed for a rapid turnaround, completing the entire project in just 6.5 months.

The heavy asbestos roofing was replaced with lightweight steel sheeting (3000 m<sup>2</sup> of roof and wall panels) which created a massive "uplift" risk during high winds. The project team engineered a complex anchoring system. They drilled through the 100 mm thick surface beds and used chemically anchored threaded rods to tie the structure directly into the original 600 mm deep footings. This allowed the school to meet modern safety standards without the prohibitive cost of new civil works.

Schools are high-traffic environments. To ensure the building could withstand the rigours of a primary school, the team utilised 12 mm exterior and 9 mm interior fibre cement boards for maximum durability and reduced long-term maintenance.

### A Model for the Future

The impact of the New Orleans Primary redevelopment goes beyond its walls:

**40% cost savings:** Compared to a traditional new build, the LSF retrofit model saved the department approximately 40% in costs.

**Community first approach:** By staying on the original footprint, the project preserved the school's sports fields for the community and returned the school to operational use in record time.

**Sustainability:** Reusing foundations and using recyclable steel significantly reduced the project's carbon footprint and minimised site disruption.

"Turning a condemned school into a functioning facility in 6.5 months with a 40% cost saving is a remarkable result," notes the project team. "It demonstrates a scalable model for public infrastructure across the country".



# Commendation

## HUIS UYS

RISING ABOVE  
THE VAAL



Architecture is often a dialogue between a dream and the reality of the landscape. For the owners of Huis Uys, that reality was a beautiful but volatile stretch of the Vaal River. This is a site that had previously claimed a family structure to the relentless power of floodwaters. When it came time to rebuild, the new home had to be faster to build, easier to maintain, and, above all, invincible against the rising tide. The result is a weekend sanctuary that is able to withstand and embrace its environment.

### A Design of Two Halves

Architect Justus Liebenberg of Just-us Architecture envisioned a home that visually narrates the difference between social connection and private rest. By utilising contrasting roof geometries, the home is split into two distinct zones:

**Public spaces:** Housed under a dramatic, high-pitched roof, the living areas feature a glazed gable end that frames the river like a living painting.

**Private quarters:** The sleeping areas are tucked under lower, mono-pitched roofs, offering a more intimate, grounded atmosphere.



### PROJECT TEAM

**Nominator, Steel Detailer & LSF Manufacturer**  
SITEFORM FRAMING

**Main Contractor, Steelwork (LSF) Contractor,  
Cladding Manufacturer & Cladding Contractor**  
ELEGANT HOME BUILDERS SA

**Architect**  
JUST-US ARCHITECTURE

**Structural Engineer**  
CONIC

**Steel Merchant**  
BSI STEEL

**Cladding Roll Former**  
IRONSHIELD



To bring this vision to life the entire structure was elevated 3.5 m on columns, placing the family safely above the 100-year flood line and allowing the ground level to serve as functional parking.

The choice of Light Steel Frame (LSF) construction was the "foundational element" that made the project possible. In a remote setting where heavy machinery would be costly and disruptive, LSF offered a nimble alternative. The engineering solved the "sleek appearance" challenge by using clever bracing and "boxed" steel sections. This allowed for massive, open-plan spaces and expansive windows without the need for thick, intrusive internal walls.

The building's envelope features Ironshield Concealed fix sheeting and tongue-and-groove insulated metal cladding, which integrates seamlessly with the steel frame to provide both energy efficiency and a modern aesthetic. Internally, a durable PVC wall cladding was selected for its quick installation and its ability to withstand moisture in this high-risk flood zone.

### Speed, Silence, and Sustainability

Building in an established holiday development requires

a "good neighbour" policy. Because the LSF components were pre-fabricated and delivered in pre-assembled sections, the on-site impact was minimal.

**Rapid turnaround:** The entire LSF order was manufactured and delivered within just two weeks.

**Hand-built precision:** The lightweight nature of the steel meant girders and joists could be lifted by hand, eliminating the need for loud, expensive cranes on the riverbank.

**Thermal comfort:** Beyond its strength, the home is a cocoon of efficiency, utilising Isover cavity batt insulation and insulated metal cladding to ensure the family stays cool in the summer and warm during winter retreats.

The true test of Huis Uys didn't come from a judge's panel, but from nature itself. During the 2025 floods, water levels on the Vaal surged past previous records.

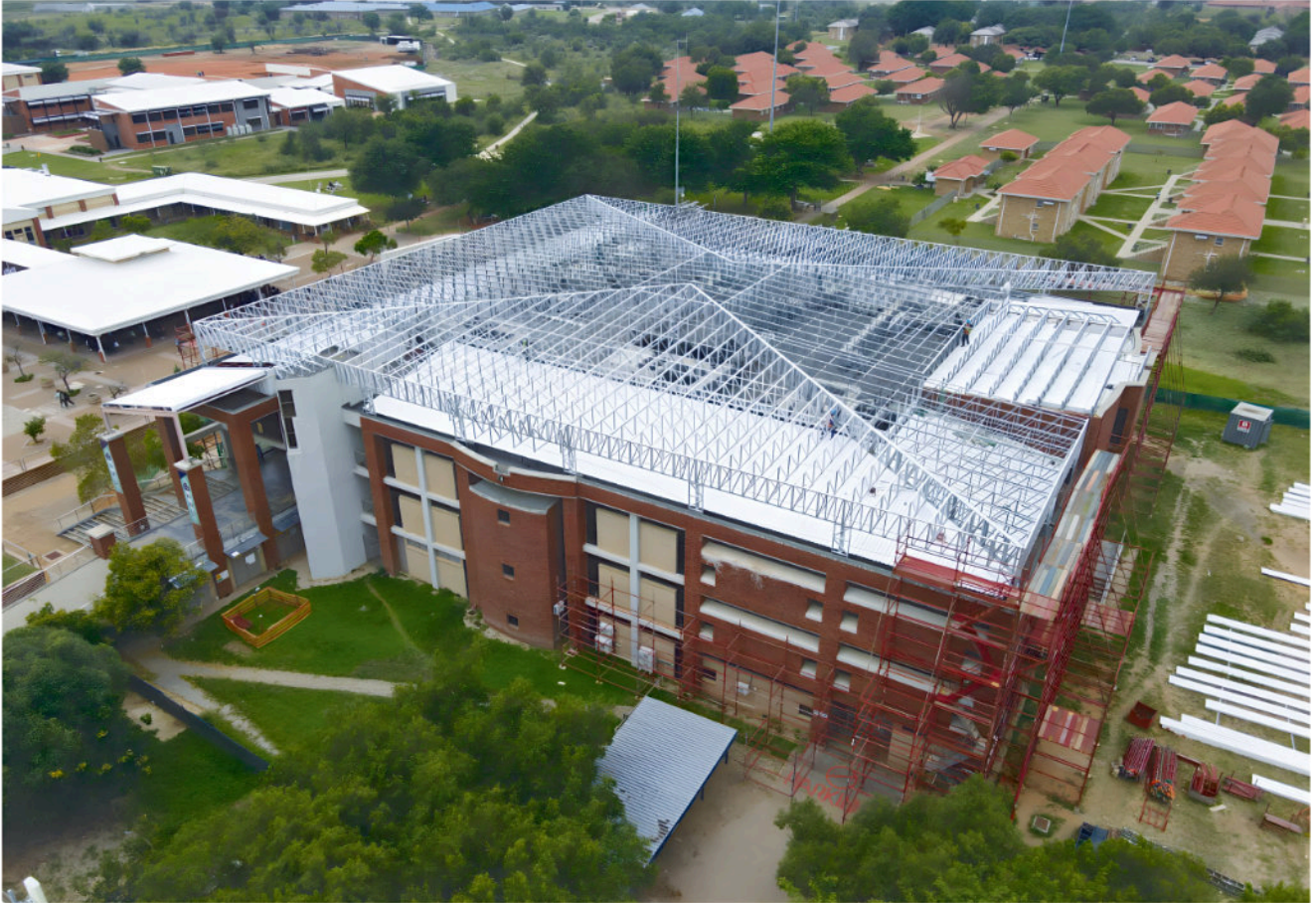
While the river reclaimed the banks and swirled beneath the home, the base of the joist floor remained several centimetres above the water. The project fulfilled its primary purpose perfectly: zero damage, zero losses, and a family that can finally enjoy the river without fear.



# Commendation

## LIBRARY, NORTH WEST UNIVERSITY

SMART STEEL  
ABOVE A BUSY  
CAMPUS



**P**ositioned above the existing Library at North West University's Mahikeng campus, a new lightweight roof structure quietly solves a complex engineering challenge. Designed to house air-conditioning condenser units while protecting them from the elements, the structure uses light steel frame construction to deliver an elegant and highly practical solution where conventional building methods may have struggled.

The existing concrete roof had to accommodate a growing number of mechanical units, yet these installations required protection from rainwater and contamination while still allowing airflow and natural light into the roof space. At the same time, the solution needed to integrate visually with surrounding campus buildings and avoid placing excessive structural load on the existing building.

Because the new structure would sit on top of an existing building, weight was one of the most critical design considerations. The high strength-to-weight ratio of steel made it possible to create a robust roof structure without placing undue strain on the original foundations. The

lightweight nature of the LSF system allowed the design team to span the roof space efficiently while maintaining a relatively low structural profile.

Beyond structural efficiency, the use of steel also shaped the construction approach. All major structural elements including columns, girders, and parallel chord trusses, were fabricated off-site using digital modelling and advanced manufacturing processes. This prefabrication ensured precise production and allowed the structure to be assembled quickly once components arrived on site.

The structure had to be erected on the fourth-floor roof of an operational library building, and strict budget constraints ruled out the use of a crane. Instead, the lightweight steel components were specifically designed to be manageable in size and weight, allowing them to be hoisted manually to the roof level.

Engineering ingenuity was also required to accommodate the existing roof structure. Because the concrete roof slab slopes to allow for water drainage, column anchor points

were not level across the building. Custom extension pieces and carefully detailed connection brackets were introduced to align the steel columns with the concrete beams, secured using chemical anchors.

Meanwhile, long-span trusses were designed to clear all mechanical equipment while keeping the roof height as low as possible, ensuring the new structure remained visually unobtrusive within the campus environment.

The completed roof combines the efficiency of steel framing with carefully selected cladding materials. Concealed-fix roof sheeting provides a clean, continuous roof surface, while expanded welded mesh cladding encloses the sides of the structure. This mesh performs several functions simultaneously: it allows essential airflow around the condenser units, filters natural light into the space, and prevents birds from nesting in the roof – a long-standing maintenance issue for the building.

In total, the project incorporates approximately 21 tonnes of light steel framing and 9 tonnes of roof cladding, covering more than 2400 m<sup>2</sup> of roof area. Despite the complexity of the installation, the project was completed with little disruption to the daily operations of the library below.

From its lightweight structural system and efficient prefabrication process to the crane-less installation at height, the project highlights the versatility of light steel frame technology in modern building design.

## PROJECT TEAM

**Nominator, Steel Detailer & LSF Manufacturer**  
SITEFORM FRAMING

**Main Contractor**  
EXCELLENCE BUSINESS ACADEMY

**Structural Engineer**  
THUSABATHO CONSULTING ENGINEERS

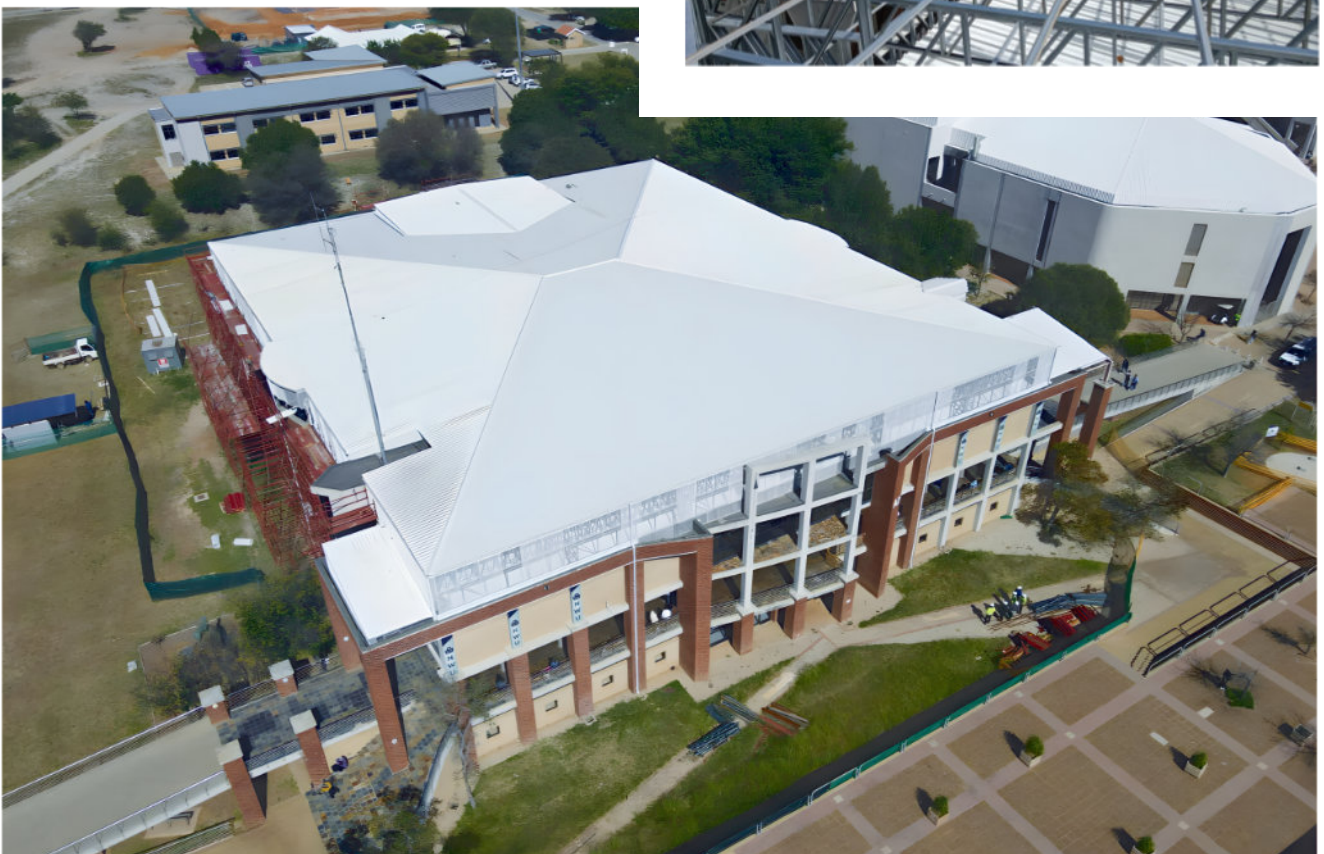
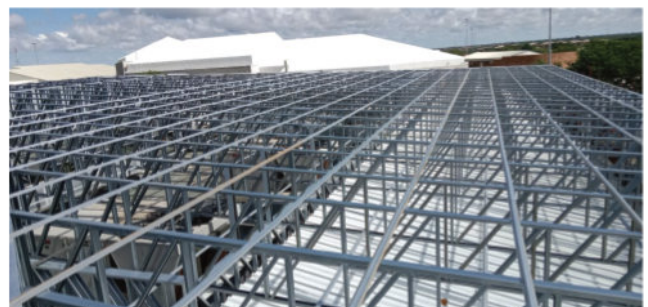
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& Cladding Contractor**  
MVW PROJECTS

**Cladding Manufacturer**  
ARCELOMITTAL SOUTH AFRICA

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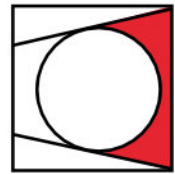
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# Tubular Steel Category

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# Category Winner

## 96 RISSIK STREET

**Category Sponsor**  
ASSOCIATION OF STEEL TUBE  
AND PIPE MANUFACTURERS  
OF SOUTH AFRICA



In Johannesburg's historic CBD, the new atrium roof at 96 Rissik Street is a striking steel structure which now hovers delicately above a century-old building.

Winner of the Tubular Steel Category at the 2025 Steel Awards, the roof spans a large courtyard with a light, elegant steel structure supported by only four columns, and changed an underutilised space into a luminous, weather-protected environment while preserving the integrity of the historic building beneath.

### Reimagining a Historic Courtyard

The redevelopment of 96 Rissik Street formed part of a broader effort to revitalise the prominent heritage building in Johannesburg's inner city. The brief called for a large-span roof that would protect the courtyard from the elements while maintaining an open, airy atmosphere. Achieving this vision, however, came with a significant structural constraint: the existing building simply could not carry the additional loads associated with a conventional roof system.

### PROJECT TEAM

**Nominator, Structural Engineer  
& Cladding Contractor**  
LEAF STRUCTURES

**Main Contractor**  
GVK-SIYA ZAMA

**Architect**  
OSMOND LANGE

**Steelwork Contractor**  
TASS ENGINEERING

**Steel Detailer**  
3D-STRUCT

**Steel Merchants**  
MACSTEEL TUBING, HALL LONGMORE

**Cladding Manufacturer**  
NOVUM MEMBRANES (GERMANY)

**Paintwork Contractor**  
DRAM INDUSTRIAL PAINTING CONTRACTORS



Instead of imposing new loads on the historic structure, the design team adopted a different approach by creating a predominantly self-supporting steel structure that would transfer the majority of the roof loads directly to new foundations. The resulting solution is a remarkable feat of structural efficiency: a 50 m by 40 m atrium roof that lightly touches the existing building while remaining structurally independent.

The roof structure is composed primarily of circular hollow section tubular steel, forming a grid of orthogonal trusses that span the courtyard. These trusses distribute loads efficiently across the structure before transferring them to a series of branching support columns.

The four dramatic 23 m long primary columns, each designed with a distinctive “tree” configuration rise from new foundations at ground level before branching outward to support the main trusses above the atrium.

Because the structure interacts with two separate buildings on either side of the courtyard, special care was taken in the connection design. The entire structure was fully modelled in three dimensions, using detailed survey information from the existing building to ensure accurate integration between the new steelwork and the historic architecture. This digital modelling process was essential in coordinating the steel structure with the ETFE cladding system, which required extremely tight fabrication tolerances.

### Advanced Fabrication

One of the most technically demanding aspects of the project was the fabrication of the four primary columns. Each was produced from standard 12 m tubular sections that were shop-jointed and welded to form continuous elements, with specially designed roller supports allowing the tubes to rotate during welding to maintain precise alignment.

Many of the roof components were fabricated into 10 m sections and pre-assembled in the workshop using purpose-built jigs, allowing the team to confirm connection accuracy before transport to site. This preparation reduced the risk of fitment issues and enabled a faster, more efficient installation on site.

### Logistics in a Dense Urban Environment

Constructing a large steel structure within the confines of Johannesburg’s CBD required careful planning and coordination. Transporting the nearly 24 m long columns to site required abnormal load vehicles, while sections of Rissik Street had to be temporarily closed to allow the oversized elements to be offloaded.

The installation sequence was equally complex. Because the courtyard is surrounded by tall buildings, cranes had to lift the massive columns over existing structures before lowering them into the atrium for assembly. The result was an installation process that was both safe and efficient, with minimal disruption to the surrounding urban environment.



### The Power of Lightweight Cladding

The roof is clad with 22 air-filled ETFE (Ethylene Tetrafluoroethylene) cushions, each consisting of two layers of membrane supported by aluminium extrusions along their perimeter. Some of these cushions span nearly 30 m in length, creating a gently vaulted roof form that floods the atrium with natural light.

ETFE weighs only about 1% of the weight of an equivalent glass system, dramatically reducing the dead loads imposed on the structure. This lightweight cladding system allowed the steel structure to remain slender and efficient, reducing the load on foundations and enabling the elegant, long-span design.

### A Collaborative Achievement

The 96 Rissik Street atrium roof is the result of close collaboration between architects, engineers, fabricators, and contractors from the earliest stages of design.

Today, the completed atrium roof transforms the historic courtyard into a vibrant, light-filled space that connects the building’s past with its future.

# Commendation

## HELDERFONTEIN PEDESTRIAN BRIDGE

A SMALL BRIDGE  
WITH BIG IMPACT



**T**ucked within the tranquil landscape of the Helderfontein Residential Estate in Dainfern, Gauteng, the Helderfontein Pedestrian Bridge crosses a river running through the estate, improving connectivity between landscaped pathways while adding a refined architectural element to the environment. Recognised with a commendation at the 2025 Steel Awards, the bridge highlights the versatility of structural tubular steel while delivering a practical and cost-effective solution for the estate's residents.

Although modest in scale, the project showcases how careful design, efficient fabrication, and innovative engineering can elevate everyday infrastructure into something memorable. From the outset, the design brief called for a bridge that would blend into the surrounding landscape while remaining visually distinctive. Achieving this balance required a structure that was both elegant and economical to construct.

Steel proved to be the ideal material to realise this vision. Its flexibility enabled the bridge to take on a unique sculptural form, with the top chord of the truss bowed to a

### PROJECT TEAM

**Nominator & Structural Engineer**  
WSP

**Main Contractor**  
ATLAS SLABS AND RAFTS

**Steelwork Contractor  
& Steel Detailer**  
TASS ENGINEERING

48 m radius and tilted outward at a 10 degree angle. This subtle manipulation of the steel geometry creates a three-dimensional profile that gives the bridge its unique visual identity. The resulting structure feels light and modern, adding visual interest without overwhelming the surrounding landscape. Rather than dominating the site, the bridge integrates naturally into the estate's network of pedestrian routes.

*“Steel gave us the flexibility to shape the bridge in a way that created a distinctive three-dimensional form while still remaining practical to fabricate and install.”*

— Craig Black, WSP

The bridge is a semi-through arch truss comprising three simply supported spans, each approximately 19.5 m long. The structure is fabricated primarily from square hollow steel sections, chosen for their clean appearance and structural efficiency.

All three spans were manufactured off-site with most connections fully welded, ensuring a smooth and visually continuous steel structure.

Bending the top chord to the required 48 m radius presented one of the project's most technically demanding fabrication tasks. Precision rolling and strict quality control were essential to ensure that the curved members aligned perfectly during assembly.

Where splices were required due to span lengths, they were strategically located at the point of inflection along each span, where bending moments are minimal. This approach reduced stress on the welded joints and helped maintain the bridge's clean aesthetic.

The finished steelwork reflects a high level of craftsmanship, with welds described as exceptionally neat and splice locations virtually unnoticeable.

The lightweight nature of the steel superstructure was a major advantage during construction. Because the bridge



spans a river with a relatively high flow rate, traditional cast-in-place concrete construction would have required extensive formwork within the watercourse.

Instead, the entire steel superstructure for each span was fabricated off-site and transported to the project location once the substructure was completed. The spans were then lifted into place and secured in a single day, significantly reducing construction time and minimising disruption to the surrounding community.

### Adaptability and Collaboration

As with many successful projects, collaboration and adaptability were key to the bridge's final form. During the design phase, the initial concept for a straight bridge alignment was modified to preserve a tree located near the riverbank. Rather than removing the tree, the bridge alignment was adjusted to accommodate it.

A later request from the client to allow golf cart access across the bridge required the deck to be widened and the structural model updated to account for additional loading. Because the change was implemented before construction drawings were issued, it was incorporated without affecting the project schedule.

### Designed for Durability

Long-term durability and maintenance were also carefully considered. The steel structure is protected by a three-coat paint system, providing robust corrosion protection with an estimated repainting cycle of around 10 years.

The bridge deck incorporates removable fibreglass-reinforced plastic grating, allowing maintenance teams to easily access the steel structure for inspection and repainting when required.

Using just 12 tonnes of structural steel across three spans, the Helderfontein Pedestrian Bridge's elegant, curved geometry, efficient structural system, and streamlined construction process illustrate the many advantages of steel as a building material.



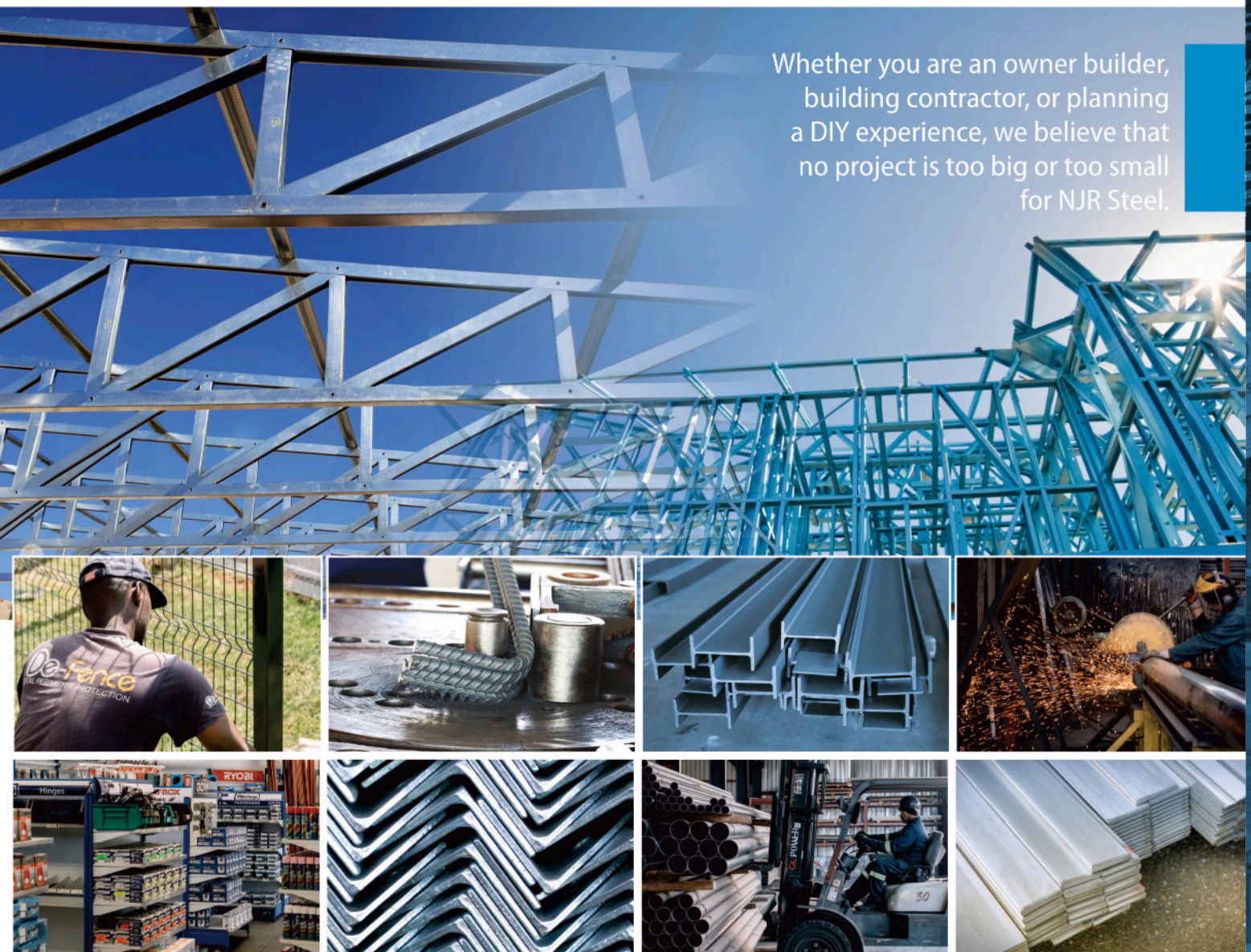
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# Innovation & Sustainability Category

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*first for steel*

# Category Winner

## 96 RISSIK STREET

Category Sponsor  
NJR STEEL



**T**he 96 Rissik Street project showcases how innovative steel design can unlock new life in existing urban structures while reducing environmental impact. Rather than demolishing the historic building, the project team adapted the existing structure. By prioritising adaptive reuse over demolition, the project significantly reduced embodied carbon while delivering a modern, high-performance building. The result is a compelling example of how structural ingenuity and sustainable thinking can extend the life of existing buildings while meeting contemporary needs.

*"If we can create great spaces in a sustainable way, the people who use those spaces can be inspired and do their best work."*

— Andrew Spottiswoode, LEAF Structures

For a complete project overview, refer to pages 62 - 63.

# Commendation

## LYCOPODIUM MODULAR PLANT

FAST-TRACK  
INDUSTRIAL  
INNOVATION



**T**he Lycopodium Footprint Reduction Project (FRP) in Limpopo secured a commendation in the Innovation & Sustainability category at the 2025 Steel Awards by revolutionising mining infrastructure through a 100% modular design.

To overcome the restricted 6-hour daily productivity window on active sites, the team shifted 90% of assembly to a controlled workshop environment. As Nicolette Skjoldhammer, Chief Executive Officer at Betterect noted: "The whole plant was installed in a box modularisation status, in just under a month... the client said that this was the most successful project in their execution history".

Beyond its rapid 12-month project execution, the independently lifted modules are 100% recyclable, allowing the plant to be easily decommissioned and reused elsewhere.

For a complete project overview, refer to pages 23 - 25.



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OF STEEL CONSTRUCTION

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## Our Mission

The Southern African Institute of Steel Construction (SAISC) is dedicated to fostering the growth and prosperity of the steel construction industry in Southern Africa. Through its various initiatives, SAISC aims to promote the use of steel, enhance industry standards, and support the professional development of its members.

## Why choose us ?

By becoming a member you choose to join a vibrant community of industry experts, get access to vital resources, and benefits that propel your success in steel construction. Our diverse members, spanning various disciplines, company sizes, and industry sectors, share a unified commitment to fostering industry growth and prosperity.



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# Pan-African Trailblazer Category



# Category Winner

BOTSWANA INTERNATIONAL UNIVERSITY  
OF SCIENCE & TECHNOLOGY

Category Sponsor

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DISTRIBUTORS (B.E.D.)



**A**t the Botswana International University of Science and Technology, the Student Centre reflects the growing confidence and ambition of universities across Africa.

Designed as a vibrant hub for student life, the building brings together spaces for learning, collaboration and connection under a striking steel structure. Steel played a key role in creating large, open interiors while allowing the architecture to remain light, modern and efficient. More than just a campus building, the project represents the evolving face of higher education infrastructure on the continent.

Its recognition in the Pan-African Trailblazer category at the 2025 Steel Awards highlights how innovative steel design is supporting Africa's next generation of academic spaces.

For a complete project overview, refer to pages 48 - 49.

# Commendation

BAYER BLUE CASTLE (ZAMBIA)

BUILDING  
AFRICA'S FOOD  
FUTURE IN STEEL



**T**he Bayer Blue Castle maize seed production facility in Kabwe, Zambia, represents a major step forward in strengthening agricultural resilience across Africa.

Comprising around 30 steel-framed buildings used for seed drying, shelling, conditioning and storage, the facility showcases the efficiency and versatility of structural steel in delivering complex industrial infrastructure in remote locations. The seeds produced here are expected to reach millions of smallholder farmers and ultimately contribute to feeding tens of millions of people across the region.

Recognised with a commendation in the Industrial Category at the 2025 Steel Awards, the project highlights how innovative steel design can support large-scale agricultural development and strengthen Africa's food systems.

For a complete project overview, refer to pages 43 - 44.



# Best Regional Projects Category

# Gauteng

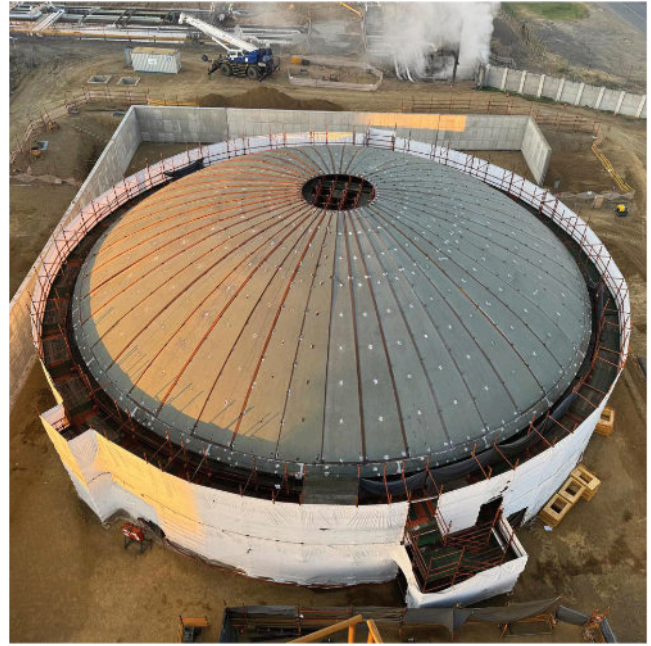
WOOLWORTHS DC PHASE 2



For a complete project overview, refer to pages 33 - 35.

# Mpumalanga

SASOL-WOOD CF 2



For a complete project overview, refer to pages 9 - 11.

# Limpopo

LYCOPODIUM MODULAR PLANT



For a complete project overview, refer to pages 23 - 25.

# North West

HUIS UYS



For a complete project overview, refer to pages 56 - 57.

# KwaZulu-Natal

## UCL FRUIT PACKING FACILITY

PRECISION ENGINEERING  
IN THE MIDLANDS



The UCL Fruit Packing Facility in the KZN Midlands is an excellent example of industrial engineering, where structural steel has been leveraged to solve complex logistical and environmental challenges. As the winner of the Best Regional Project category for KwaZulu-Natal, this 12,000 m<sup>2</sup> greenfield facility serves as an industry benchmark for combined commodity packing at scale.

The architectural brief dictated that the facility had to accommodate both avocados and kiwi fruit. These are two commodities with distinct handling and refrigeration processes within a single structure. To facilitate the precise placement of complex packing line equipment, the design required massive, unobstructed spans and slender columns that only structural steel could provide. A combination of structural steel and metal cladding enabled the creation of a distinctive roofline that mimics the rolling hills of the surrounding Midlands landscape, integrating a massive structure into its natural context.

The project successfully navigated a challenging site characterised by a steep slope and poor soil that required a massive concrete raft foundation. To mitigate the time-

### PROJECT TEAM

**Nominator & Architect**  
BESPOKE ARCHITECTS

**Main Contractor**  
ROBERTSON & POOLE CONSTRUCTION

**Structural Engineer**  
STANCE CONSULTING ENGINEERS

**Steelwork Contractor**  
NJW ENGINEERING

**Steel Detailer**  
GERHARD HERSELMAN

**Cladding Manufacturer  
& Cladding Roll Former**  
SAFINTRA

**Cladding Contractor**  
MJC INDUSTRIAL ROOFING



intensive curing process of the concrete, the team split the building into three distinct portions: north, south, and central. This allowed steel erection to commence on the north and south sections while the central raft was still being poured, a parallel workflow that "shaved a lot of time off the project". Further ingenuity was required to address the site's proximity to an operational sugar mill. The mill produces a fine dusty residue known as "bagasse," which settles on surrounding structures. To address this, the team selected dark, textured cladding for the walls to hide the inevitable settlement, ensuring the facility remains a "marketing tool" in the product's value chain rather than an eyesore.

### The Integration of Hidden Complexity

A primary goal for the project was a "clean" interior where services were integrated to ensure an unobtrusive view. This required surgical precision during the design and fabrication phases:

**Fire protection:** Fixing points for sprinkler pipes were pre-punched into the purlins, allowing hangers to be tucked above ceiling panels and completely out of sight.

**Electrical infrastructure:** Electrical wiring was run inside the steel trusses, with wires protruding exactly where needed for the packline equipment.

**Material longevity:** 3CR12 stainless steel was utilised for gutters and downpipes to provide high resistance to corrosion and ensure a low-maintenance lifecycle.

**Climate control:** A combination of Lambda board insulation and specialised polycarbonate panels was used to maintain controlled ambient temperatures while introducing natural light.

The smooth execution of this project was underpinned by Building Information Modeling (BIM) and the use of IFC files for construction data. Digitalisation allowed the team to model complex steel connections, calculate wind load pressures for the unique roof shape, and compute steel tonnages instantly.

Beyond its technical merits, the UCL Fruit Packing Facility represents a shift in how industrial architecture is perceived in the agricultural sector. Traditionally, a packhouse was merely a functional building, but this project shows that a facility can serve as a sophisticated "marketing tool" within the value chain.

*"We measure the success of a project by our clients. The feedback which we got from them was that the facility works. It works as was intended to. We've put down a benchmark building, which was only possible with such a fantastic client to put their trust in us."*

- John Carter, *Bespoke Architects*



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# Northern Cape

## REDSTONE CONCENTRATED SOLAR THERMAL POWER PROJECT

A FOREST OF STEEL IN  
THE NORTHERN CAPE



**T**he Northern Cape, one of the sunniest regions on the globe, has recently become home to a record-breaking build. Named the Best Regional Project for the Northern Cape, the Redstone Concentrated Solar Thermal Power (CSP) Project is a 100 MW monument.

### Harnessing the Desert Sun

Located at the Humansrus Solar Park near Postmasburg, this R11.6 billion landmark is one of Africa's most ambitious renewable energy developments. Unlike standard solar panels, Redstone uses a vast "forest of steel" to track the sun. A field of heliostats—mirrors mounted on intricate steel frames—directs sunlight toward a central tower. This heat melts molten salt, which stores energy to create steam and generate electricity on demand, even after the sun goes down. It's a "dispatchable" power solution that provides a reliable heartbeat for the national grid, capable of powering over 200,000 households.

For the project team and especially the steel fabricators at Steel Xperts, the project was incredibly complex. To ensure the mirrors could hit their mark on the tower with perfect accuracy, every component had to meet staggering tolerances. The scale of the steelwork is large:



### PROJECT TEAM

**Nominator & Steelwork Contractor**  
STEEL XPERTS

**Main Contractor**  
SEPCOIII ELECTRIC POWER CONSTRUCTION CO.

**Structural Engineer & Steel Detailer**  
BRIGHTSOURCE ENERGY

**Steelwork Contractor**  
NJW ENGINEERING

**Steel Merchant**  
STEWARTS & LLOYDS

**Light Steel Frame Manufacturer**  
BRIGHTSOURCE ENERGY

**Light Steel Frame Contractor**  
STEEL XPERTS

- 9,200 tonnes of fabricated steel and 2,850 tonnes of light steel frame (LSF) were delivered to the site for installation.
- 42,000 pylons and 42,000 torque tubes form the backbone of the solar field.
- 294,000 support arms were manufactured using specialised Magnelis-coated steel to withstand the harsh, corrosive desert environment.

To achieve this, the project team deployed cutting-edge technology, including robotic welding and Coordinate Measuring Machines (CMMs).

### A Project for the People

While the technical stats are impressive, the true heart of the Redstone project lies in its social impact. The project became a beacon for transformation and youth employment.

**Youth empowerment:** The project was largely executed by team members under the age of 35.

**Breaking barriers:** The workforce included many women welders, proving that the future of South African steel is inclusive.

**Local success:** Over 100 families were supported through employment at the factory and on-site.

As the final truck rolled out of the yard, the team paused to reflect on what they had achieved. Before the last tube was dispatched to the Northern Cape, members of the team signed it – a quiet but meaningful gesture marking their contribution.

The Redstone CSP project reflects the capability of a local team delivering world-class work in response to South Africa's growing energy challenges.



## Western Cape

### NEW ORLEANS PRIMARY SCHOOL



The New Orleans Primary School redevelopment used Light Steel Framing to transform a 1973 structure into an award-winning facility in just 6.5 months, saving 40% in costs.

For a complete project overview, refer to pages 54 - 55.



## Mentis Africa Inspires Young Engineers



**A LEGACY OF EXCELLENCE**

Mentis Africa championed the next generation of engineering talent by sponsoring a group of young engineers to attend the SAISC Steel Awards. This initiative provided them with a front-row seat to the world-class innovation and technical excellence currently shaping Africa's built environment.

---

**Innovation and excellence stamped into every steel solution.**

Mentis is a world leader in high-quality grating, handrailing, expanded metal, guardrail and other light structural steel products.

**Quality. Service. Innovation.**





# All Project Entries A - Z



# 96 Rissik Street

GAUTENG, SOUTH AFRICA



## Awards

**Tubular Steel Category:** Winner  
**Innovation & Sustainability Category:** Winner

## PROJECT TEAM

**Nominator, Structural Engineer  
& Cladding Contractor**  
LEAF STRUCTURES

**Main Contractor**  
GVK-SIYA ZAMA

**Architect**  
OSMOND LANGE

**Steelwork Contractor**  
TASS ENGINEERING

**Steel Detailer**  
3D-STRUCT

**Steel Merchants**  
MACSTEEL TUBING, HALL LONGMORE

**Cladding Manufacturer**  
NOVUM MEMBRANES (GERMANY)

**Paintwork Contractor**  
DRAM INDUSTRIAL PAINTING CONTRACTORS

# Bayer Blue Castle (Zambia)

CENTRAL PROVINCE, ZAMBIA



## Awards

**Industrial Category:** Commendation  
**Pan-African Trailblazer Category:** Commendation

## PROJECT TEAM

**Nominator, Steelwork Contractor,  
Steel Detailer & Cladding Contractor**  
JTC BUILDING SYSTEMS

**Main Contractor**  
STEFANUTTI STOCKS ZAMBIA

**Architect**  
MESSARIS WAPENAAR COLE ARCHITECTS

**Structural Engineer**  
LNW CONSULTING ENGINEERS  
AND PROJECT MANAGERS

**Steel Merchants**  
ALLIED STEELRODE, BSI STEEL

**Cladding Manufacturer**  
SAFAL STEEL

**Cladding Roll Former**  
SAFINTRA NAMIBIA

**Paintwork Contractor**  
INDUSTRIAL PAINTING SERVICES (IPS), NEMCHEM

# Blessed Generation Church

GAUTENG, SOUTH AFRICA



## PROJECT TEAM

**Nominator, Main Contractor,  
Steelwork Contractor & Cladding Contractor**  
CONSOLIDATED ROOF BRANDS

**Steel Merchant, Cladding Supplier  
& Cladding Roll Former**  
YOUNGMAN ROOFING

**Cladding Manufacturer**  
SAFAL STEEL



# Botswana International University of Science & Technology

CENTRAL DISTRICT, BOTSWANA



## PROJECT TEAM

**Nominator, Cladding Manufacturer,  
Cladding Roll Former & Cladding Contractor**  
GLOBAL ROOFING SOLUTIONS (GRS)

**Main Contractor**  
ZHONG GAN ENGINEERING & CONSTRUCTION

**Architect**  
TIKI ARCHITECTS

**Structural Engineer**  
ZUTARI

**Steel Merchant, Steel Detailer & Steelwork  
Contractor**  
FB ENGINEERING

**Light Steel Frame Manufacturer & Contractor**  
FB ENGINEERING

## Awards

**Pan-African Trailblazer Category:** Winner  
**Metal Cladding Category:** Commendation

# Civil Aviation Authority

GAUTENG, SOUTH AFRICA



## Awards

**Architectural Category:** Winner  
**Metal Cladding Category:** Commendation

## PROJECT TEAM

### Nominators

CADCON, B&T STEEL CONSTRUCTION

### Main Contractor & Architect

M&T DEVELOPMENT

### Steelwork Contractor

CADCON

### Steel Merchants

MACSTEEL, BSI STEEL, ALLIED STEELRODE,  
STEWARTS & LLOYDS, GARSIN ENGINEERING

### Steel Detailer

CND STRUCTURAL SERVICES

### Structural Engineer

SOTIRALIS CONSULTING ENGINEERS

### Cladding Manufacturer

SAFAL STEEL

### Cladding Supplier & Roll Former

SAFINTRA

### Cladding Contractor

FERRUM TRADING

### Paintwork Contractor

DRAM INDUSTRIAL PAINTING CONTRACTORS

# DRD Solar Project

GAUTENG, SOUTH AFRICA



## PROJECT TEAM

### Nominator

LUMAX ENERGY

Lumax Energy provided the advanced photovoltaic mounting infrastructure for this project, featuring a high-efficiency single-axis tracking (SAT) system. By dynamically rotating 55° from East to West to follow the sun's trajectory, the system delivers a significantly higher energy yield than traditional fixed-tilt installations.

The robust architecture utilises galvanised steel columns anchored in concrete foundations, with torque tubes securely supported by precision-engineered steel drive posts and trusses.

## Eagles Crest Value Centre

MPUMALANGA, SOUTH AFRICA



### PROJECT TEAM

**Nominator, Cladding Manufacturer  
& Cladding Roll Former**  
GLOBAL ROOFING SOLUTIONS (GRS)

**Main Contractor**  
STELLER PROJECTS

**Architect**  
HERMANN SCHNEPEL ARCHITECTS

**Structural Engineer**  
ENDECON UBUNTU ENGINEERING CONSULTANTS

**Steelwork Contractor & Steel Merchant**  
LHI STEEL

**Steel Detailer**  
RF DRAUGHTING SERVICES

**Cladding Contractor**  
CZ ROOFING

## Fourways Mall Solar Roof

GAUTENG, SOUTH AFRICA



### PROJECT TEAM

**Nominator & Steelwork Contractor**  
CADCON

**Main Contractor**  
CONCOR

**Architect**  
MDS ARCHITECTURE

**Structural Engineer**  
L&S CONSULTING

**Steel Detailer**  
3D CON STEEL DETAILING

**Cladding Roll Former**  
GLOBAL ROOFING SOLUTIONS (GRS)

**Steel Merchant**  
MACSTEEL, BSI STEEL, ALLIED STEELRODE

**Cladding Contractor**  
TATE & NICHOLSON

# Helderfontein Pedestrian Bridge

GAUTENG, SOUTH AFRICA



## PROJECT TEAM

**Nominator & Structural Engineer**  
WSP

**Main Contractor**  
ATLAS SLABS AND RAFTS

**Steelwork Contractor & Steel Detailer**  
TASS ENGINEERING

## Awards

**Tubular Steel Category:** Commendation



# Huis Uys

NORTH WEST, SOUTH AFRICA



## PROJECT TEAM

**Nominator, Steel Detailer & LSF Manufacturer**  
SITEFORM FRAMING

**Main Contractor, Steelwork (LSF) Contractor, Cladding Manufacturer & Cladding Contractor**  
ELEGANT HOME BUILDERS SA

**Architect**  
JUST-US ARCHITECTURE

**Structural Engineer**  
CONIC

**Steel Merchant**  
BSI STEEL  
**Cladding Roll Former**  
IRONSHIELD

## Awards

**Light Steel Frame (LSF) Category:** Commendation  
**Best Regional Projects Category:** Winner (North West)

## Isover Saint Gobain Solar

GAUTENG, SOUTH AFRICA



### PROJECT TEAM

**Nominator, Steel Detailer & LSF Manufacturer**  
SITEFORM FRAMING

**Main Contractor, Steelwork (LSF) Contractor**  
PSC PROJECTS

**Structural Engineer**  
MALAN CONSULTING

**Steel Merchant**  
BSi STEEL



## Lebone II Amphitheatre Roof

NORTH WEST, SOUTH AFRICA



### PROJECT TEAM

**Nominator, Architect & Structural Engineer**  
URBAN ENGINEERING

**Main Contractor & Cladding Contractor**  
SARA ROPE ACCESS

**Steelwork Contractor & Steel Detailer**  
DETON ENGINEERING

**Steel Merchant**  
NATIONAL STAINLESS STEEL

**Cladding Manufacturer  
& Cladding Roll Former**  
NATIONAL STAINLESS STEEL

**Quantity Surveyor & Project Manager**  
WCS

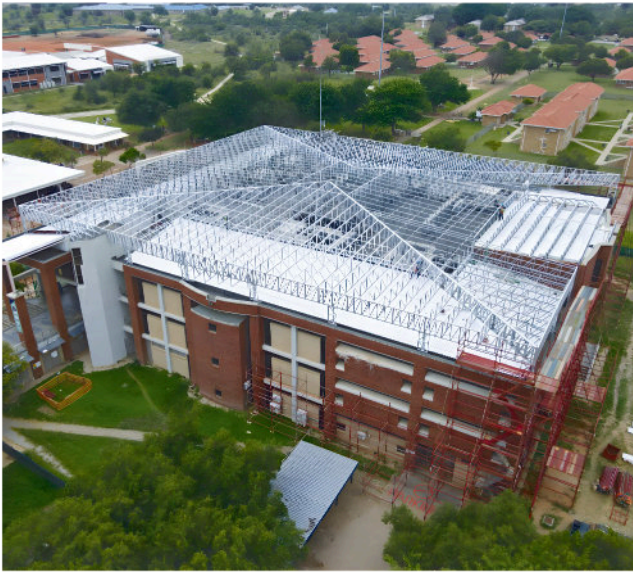
**Drawing and Modelling**  
MACDESIGN STUDIO

### Awards

**Stainless Steel Architectural Category:** Commendation

# Library, North West University

NORTH WEST, SOUTH AFRICA



## Awards

**Light Steel Frame (LSF) Category:** Commendation

## PROJECT TEAM

**Nominator, Steel Detailer & LSF Manufacturer**  
SITEFORM FRAMING

**Main Contractor**  
EXCELLENCE BUSINESS ACADEMY

**Structural Engineer**  
THUSABATHO CONSULTING ENGINEERS

**Steelwork (LSF) Contractor  
& Cladding Contractor**  
MVW PROJECTS

**Cladding Manufacturer**  
ARCELORMITTAL SOUTH AFRICA

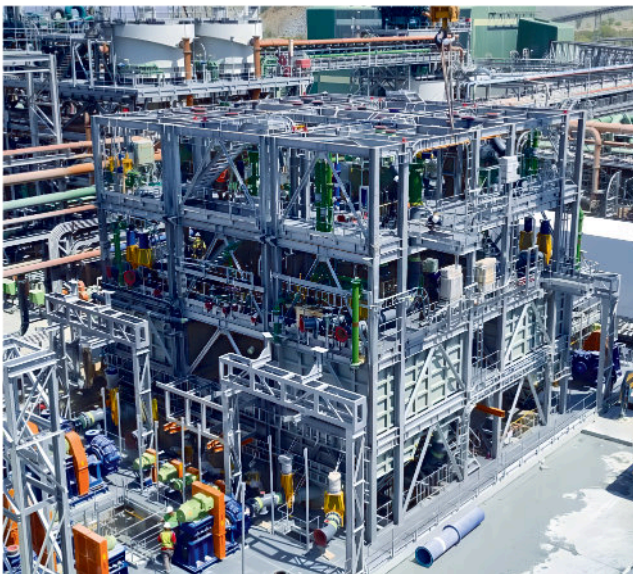
**Steel Merchant**  
BSI STEEL

**Cladding Roll Former**  
IRONSHIELD

**Paintwork Contractor**  
BOTLEKA PROJECTS

# Lycopodium Modular Plant

LIMPOPO, SOUTH AFRICA



## Awards

**Mining Category:** Winner  
**Best Regional Projects Category:** Winner (Limpopo)  
**Innovation & Sustainability Category:** Commendation

## PROJECT TEAM

**Nominator, Main Contractor &  
Steelwork Contractor**  
BETTERECT

**Structural Engineer**  
DENITH ENGINEERING

**Steel Merchants**  
MACSTEEL, ALLIED STEELRODE,  
STEWARTS & LLOYDS, BSI STEEL



# New Orleans Primary School

WESTERN CAPE, SOUTH AFRICA



## Awards

**Light Steel Frame (LSF) Category:** Winner  
**Best Regional Projects Category:** Winner (Western Cape)

## PROJECT TEAM

**Nominator & Steelwork Contractor**  
FUTURECON

**Main Contractor**  
GVK-SIYA ZAMA

**Architect**  
OSMOND LANGE

**Structural Engineer**  
BY DESIGN CONSULTING ENGINEERS

**Steel Detailer**  
LSF CO

**Cladding Manufacturer & Cladding Roll Former**  
YOUNGMAN ROOFING

**Cladding Contractor**  
PDK CIVILS & CONSTRUCTION

# North West University Science Laboratory

NORTH WEST, SOUTH AFRICA



## PROJECT TEAM

**Nominator & Steel Merchant**  
MACSTEEL

**Main Contractor**  
THAW CONSTRUCTION

**Architect**  
PROSITE PLAN AFRICA

**Structural Engineer**  
SOLENG

**Steelwork Contractor**  
MAXGIL ENGINEERING

**T**his project involved installing cellular beams across expansive spans to create a high-rigidity grid, significantly reinforcing the building's structural integrity. The resulting open-span design maximises floor-plate flexibility, future-proofing the laboratory for evolving research needs and partition reconfigurations.

# Nova Feeds

WESTERN CAPE, SOUTH AFRICA



## Awards

**Industrial Category:** Commendation

### PROJECT TEAM

**Nominator & Steelwork Contractor**  
B&T STEEL CONSTRUCTION

**Main Contractor**  
SKY CONSTRUCTION

**Structural Engineer**  
C&S PROJECTS

**Steel Detailer**  
CND STRUCTURAL SERVICES

**Cladding Roll Former**  
SAFINTRA

**Cladding Contractor**  
FERRUM TRADING

**Paintwork Contractor**  
INDUSTRIAL PAINTING SERVICES (IPS)

# Ou Meul Bakery at Windmeul Kelder

WESTERN CAPE, SOUTH AFRICA



## Awards

**Architectural Category:** Commendation

### PROJECT TEAM

**Nominator**  
ARCH ON MAIN

**Main Contractor**  
PDK CIVIL & CONSTRUCTION

**Architect**  
ARCH ON MAIN

**Structural Engineer**  
FRAME

**Steelwork Contractor**  
TRIOMF STAALWERKE

**Cladding Supplier**  
SAFINTRA

# Platreef Shaft 2 Winder Building

LIMPOPO, SOUTH AFRICA



## Awards

**Mining Category:** Commendation

## PROJECT TEAM

**Nominator & Structural Engineer**  
RESULTANT CONSULTING ENGINEERS

**Main Contractor**  
STEFANUTTI STOCKS

**Architect**  
MURRAY & ROBERTS CEMENTATION

**Steelwork Contractor & Steel Detailer**  
BHUBEZI PROJECT

**Steel Merchant**  
MACSTEEL

**Cladding Roll Former**  
YOUNGMAN ROOFING

**Cladding Contractor**  
RAINBOW ROOF SHEETERS & ERECTORS

**Paintwork Contractor**  
SPS CORROSION

# Redstone Concentrated Solar Thermal Power Project

NORTHERN CAPE, SOUTH AFRICA



## Awards

**Best Regional Projects Category:** Winner (Northern Cape)

## PROJECT TEAM

**Nominator & Steelwork Contractor**  
STEEL XPERTS

**Main Contractor**  
SEPCOIII ELECTRIC POWER CONSTRUCTION CO.

**Structural Engineer & Steel Detailer**  
BRIGHTSOURCE ENERGY

**Steelwork Contractor**  
NJW ENGINEERING

**Steel Merchant**  
STEWARTS & LLOYDS

**Light Steel Frame Manufacturer**  
BRIGHTSOURCE ENERGY

**Light Steel Frame Contractor**  
STEEL XPERTS

# Sasol-Wood CF 2

MPUMALANGA, SOUTH AFRICA



## PROJECT TEAM

**Nominator, Structural Engineer, Steelwork Contractor & Steel Detailer**  
TROTECH

**Main Contractor**  
WOOD SOUTH AFRICA

**Steel Merchant**  
ALLIED STEELRODE

**Paintwork Contractor**  
SGB-CAPE

## Awards

**Overall Winner**  
**Industrial Category:** Winner  
**Best Regional Projects Category:** Winner (Mpumalanga)

# Sharona Sai Spiritual Trust Centre

KWAZULU-NATAL, SOUTH AFRICA



## PROJECT TEAM

**Nominator, Cladding Manufacturer & Cladding Roll Former**  
GLOBAL ROOFING SOLUTIONS (GRS)

**Main Contractor**  
RUBRO BUILDING

**Architect**  
BARLAND ARCHITECTS

**Structural Engineer**  
TOBBELL STRETCH & ASSOCIATES

**Steel Detailer**  
OGILVIE ENGINEERING

**Cladding Contractor**  
BROWNECK ROOFING & LIGHTWEIGHT  
STEEL STRUCTURES

# Signal Hill Brewery

GAUTENG, SOUTH AFRICA



## PROJECT TEAM

**Nominator & Steelwork Contractor**  
B&T STEEL CONSTRUCTION

**Main Contractor & Architect**  
M&T DEVELOPMENT

**Structural Engineer**  
SOTIRALIS CONSULTING ENGINEERS

**Steel Detailer**  
CND STRUCTURAL SERVICES

**Cladding Roll Former**  
SAFINTRA

**Cladding Contractor**  
FERRUM TRADING

## Awards

**Factory & Warehouse Category:** Commendation

# Thungela Elders 1000 Tonne Truck Load-Out Station

MPUMALANGA, SOUTH AFRICA



## PROJECT TEAM

**Nominator, Architect, Structural  
& Mechanical Engineer**  
LSL CONSULTING

**Main Contractor, Steelwork  
Contractor & Paintwork Contractor**  
J&L LINING & CONSTRUCTION

**Steel Detailer**  
ER DRAFTING SERVICES

**Steel Merchant**  
PEGASUS STEEL

## Awards

**Mining Category:** Commendation

## Tronox Namaqua Sands Mine East OFS Project - ROM Stockpile Feed Conveyor

WESTERN CAPE, SOUTH AFRICA



### PROJECT TEAM

**Nominator, Architect, Structural & Mechanical Engineer & Steel Detailer**  
LSL CONSULTING

**Main Contractor, Steelwork Contractor, Steel Merchant & Paintwork Contractor**  
GRINAKE



## UCL Fruit Packing Facility

KWAZULU-NATAL, SOUTH AFRICA



### PROJECT TEAM

**Nominator & Architect**  
BESPOKE ARCHITECTS

**Main Contractor**  
ROBERTSON & POOLE CONSTRUCTION

**Structural Engineer**  
STANCE CONSULTING ENGINEERS

**Steelwork Contractor**  
NJW ENGINEERING

**Steel Detailer**  
GERHARD HERSELMAN

**Cladding Manufacturer & Cladding Roll Former**  
SAFINTRA

**Cladding Contractor**  
MJC INDUSTRIAL ROOFING

### Awards

**Best Regional Projects Category: Winner (KwaZulu-Natal)**

# Woolworths DC Phase 2

GAUTENG, SOUTH AFRICA



## PROJECT TEAM

**Nominator & Steelwork Contractor**  
B&T STEEL CONSTRUCTION

**Main Contractor & Architect**  
M&T DEVELOPMENT

**Structural Engineer**  
SOTIRALIS CONSULTING ENGINEERS

**Steel Detailer**  
CND STRUCTURAL SERVICES

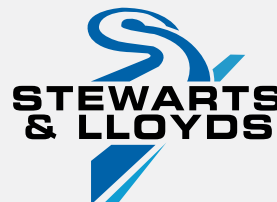
**Cladding Roll Former**  
SAFINTRA

**Cladding Contractor**  
FERRUM TRADING

## Awards

**Factory & Warehouse Category:** Winner  
**Metal Cladding Category:** Winner  
**Best Regional Projects Category:** Winner (Gauteng)

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Tel: +27 18 788 6652/3  
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**Umshini Engineering Services CC**  
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**Union Steel (SA) (Pty) Ltd**  
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### Gauteng

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LARGE : Capacity >= 1000 tons

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## SMALL

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## NATIONAL ROOFING CONTRACTORS

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## ALLIED PRODUCTS

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## ROOFING CONSULTANT

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