



SOUTHERN AFRICAN INSTITUTE
OF STEEL CONSTRUCTION

Steel Awards 2023



**EDS ENGINEERING DESIGN SERVICES (PTY)
LTD** **PEPKOR DC HAMMARSDALE**

THE PROJECT BRIEF

CLIENT: Pepkor Properties

ARCHITECTS: TCrv Architects

MAIN CONTRACTOR: Abbeydale Projects



ARCHITECTURAL RENDER

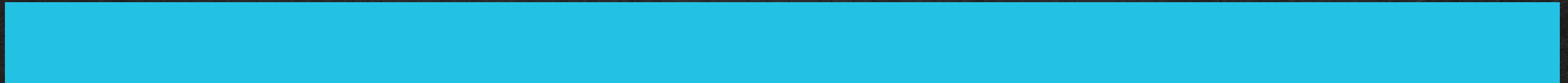


ARCHITECTURAL RENDER

ARCHITECTURAL RENDER



THE PROJECT OVERVIEW



PROJECT OVERVIEW

STRUCTURAL STEELWORK

Project Completed: MARCH 2023

Steelwork Completed: AUGUST 2021

Tonnage: 2731 TONS

Profiles used: I-, H-, Angles, SHS, CHS, PFC, CFLC etc.



PROJECT OVERVIEW

STRUCTURAL STEELWORK

Structural Engineer: EDS Engineering Design Services (Pty) Ltd.

Steelwork Contractor: CADCON Steel Construction & Engineering

Steel Detailer: Mondo Cane Structural Steel Detailers

Steel Merchant/s: Macsteel, BSI, Steelrode



PROJECT OVERVIEW

METAL CLADDING AND ROOFING

Project Completed: March 2023

Cladding Completed: December 2022

Cladding Material Used: Metal Sheeting

Cladding Profile: Roof: Novotexi 440 – Sides: Widespan 762

Cladding Area Coverage: Roofs: 115'000m² - Sides: 30'000m²

Cladding Tonnage: 800 tons



STRUCTURAL FRAMING

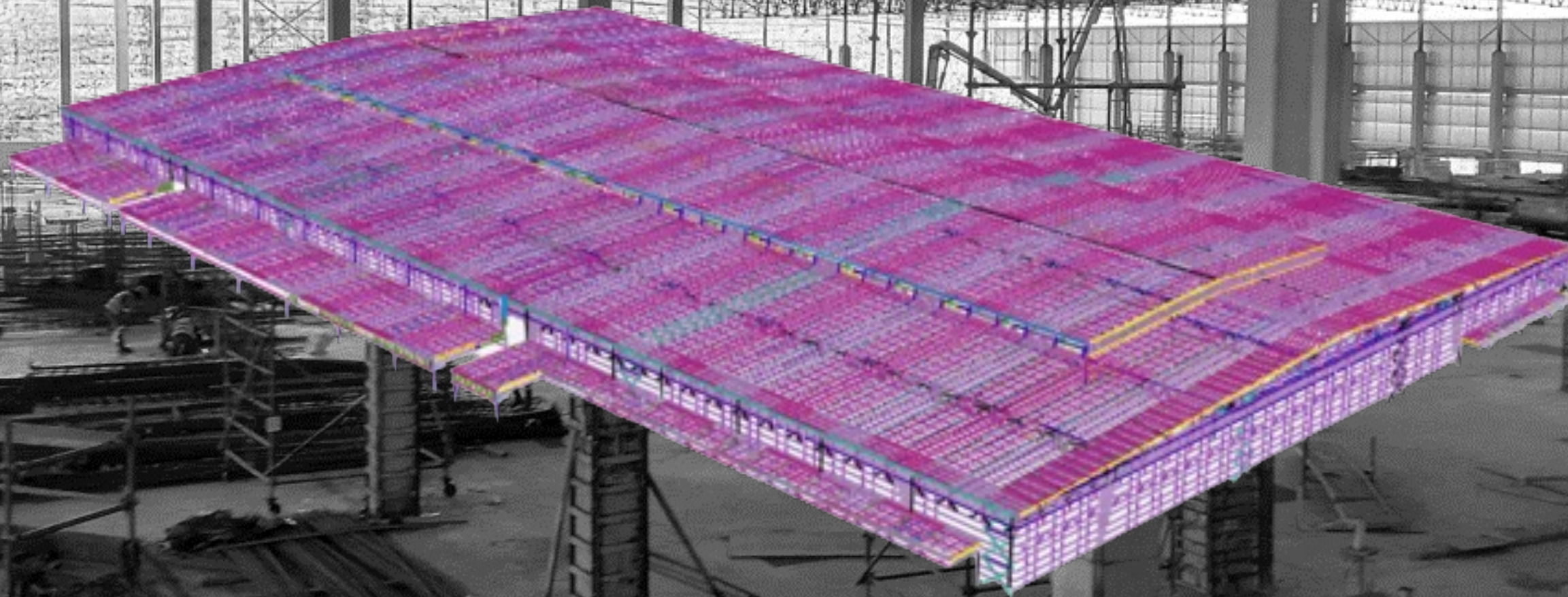
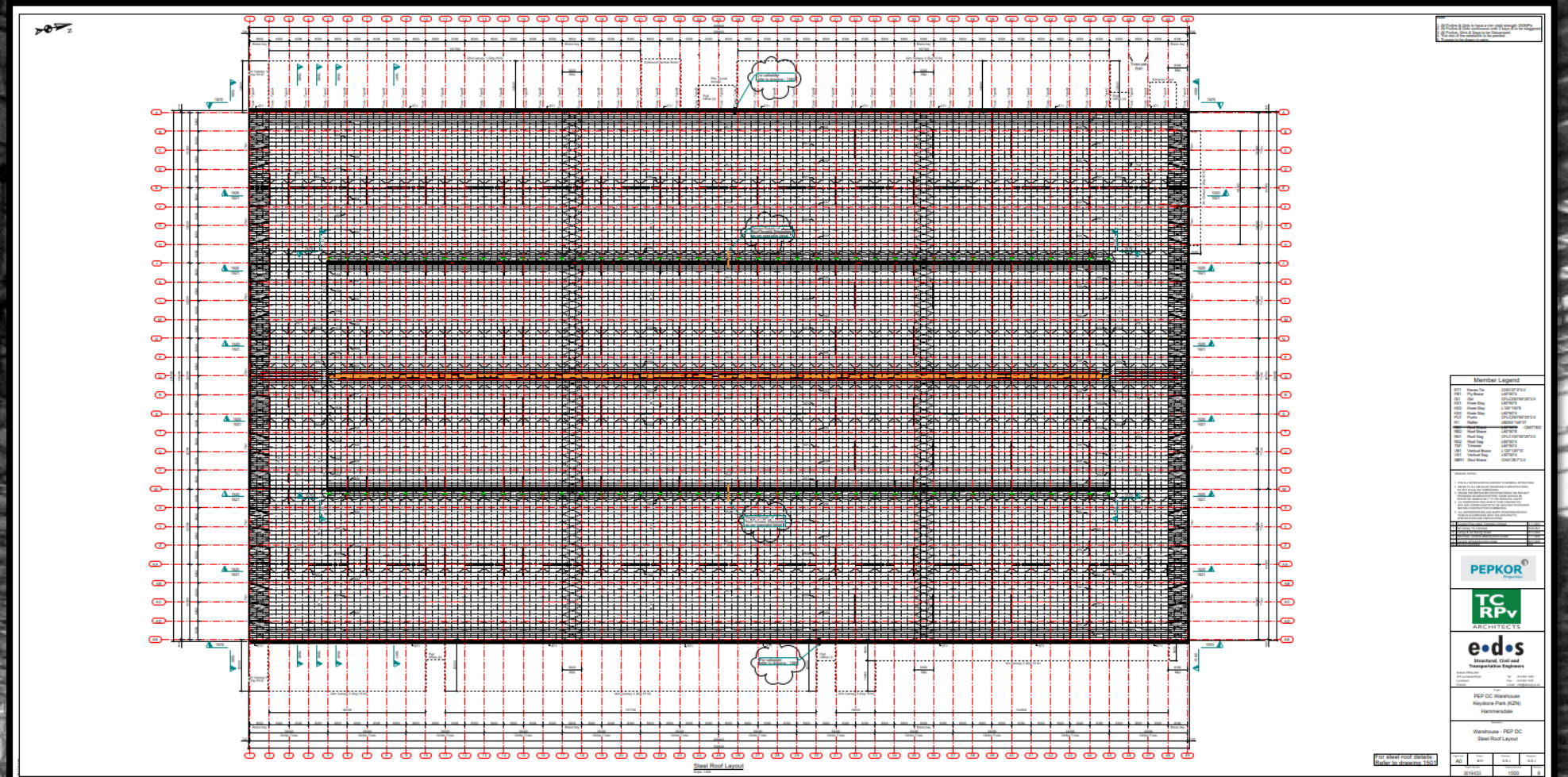
STRUCTURAL ENGINEER: EDS Engineering Design Services

STEELWORK CONTRACTOR: CADCON Steel Construction & Engineering

STEEL DETAILER: Mondo Cane Structural Steel Detailers

SOFTWARE UTILIZED:

- Tekla Structures (Draughting)
- Prokon (Analysis)
- Tekla Structural Designer (Analysis)

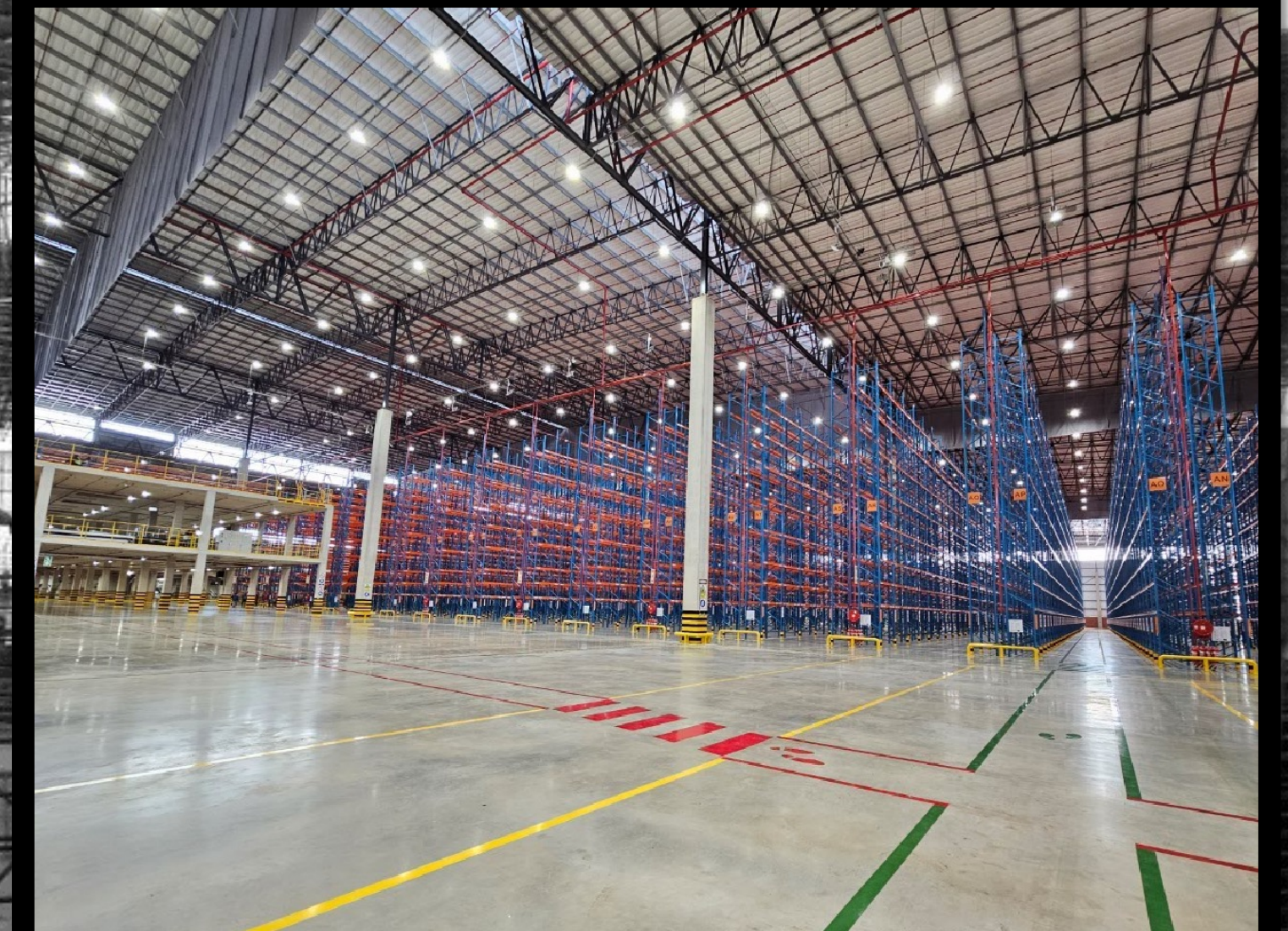




STRUCTURAL SYSTEM:

- Girder/Truss System
- Lateral trusses
- Steel members Used: I-, H- Beams, Angles, CHS, SHS, CFLC etc

GENERAL PHOTOS



METAL CLADDING/ ROOFING

CLADDING MANUFACTURER: BlueScope

CLADDING ROLL FORMER / PROFILER: Macsteel – Roof: Novotexi XC440; Sides: Widespan 762

CLADDING/ ROOFING SUPPLIER: Macsteel

CLADDING/ ROOFING CONTRACTOR: Tate and Nicholson



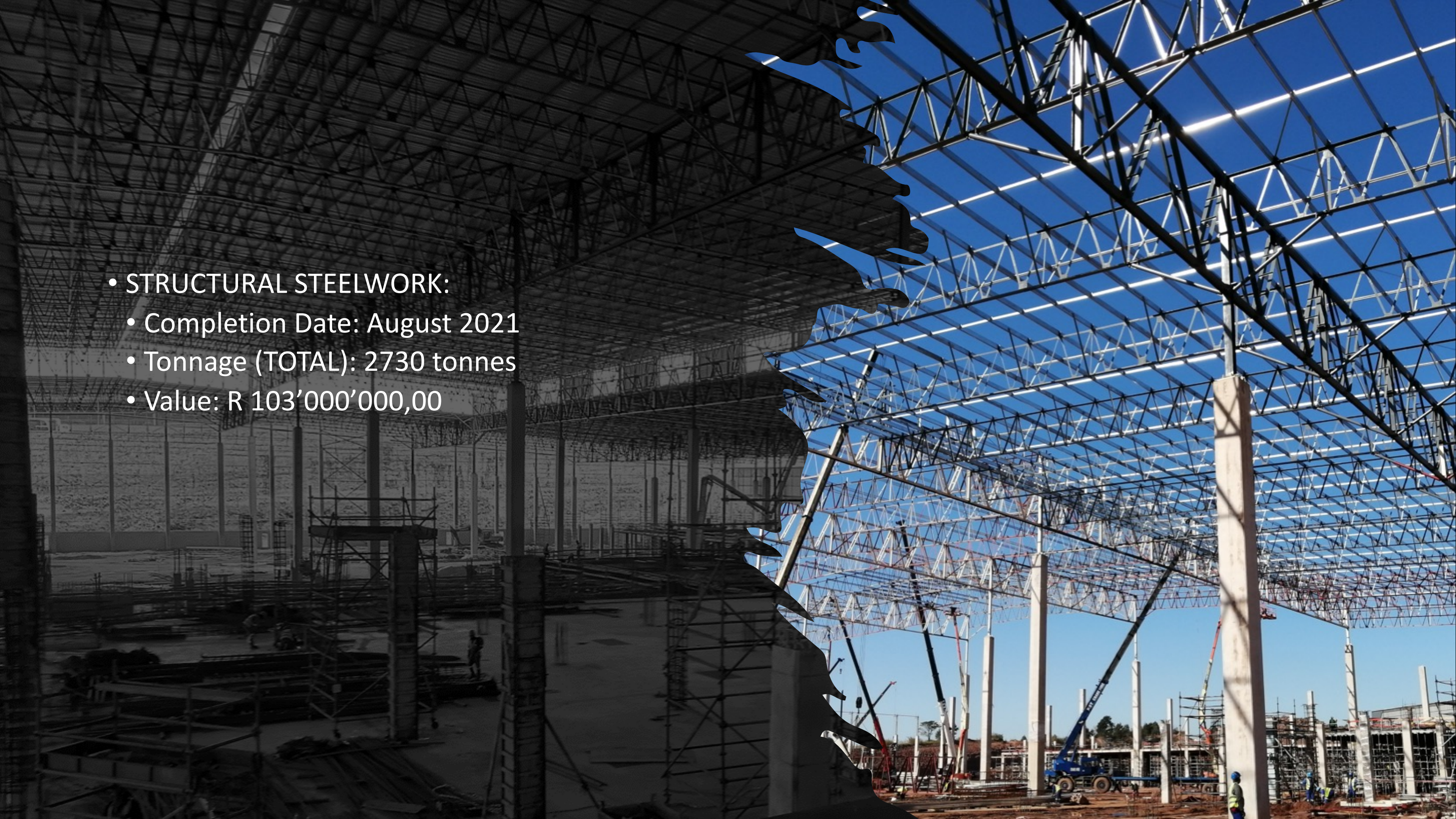
CLADDING/SHEETING:

- Profiles: Roof – Novotexi 440; Sides – Widespan 762
- Coverage Area: Roofs – 115'000m²; Sides – 30'000m²
- Total Tonnage: 800 tonnes

FABRICATION ERECTION CONSTRUCTION INSTALLATION

STEELWORK CONTRACTOR: CADCON

STEELWORK ERECTOR: FANIE LEIBRANDT STEEL ERECTORS

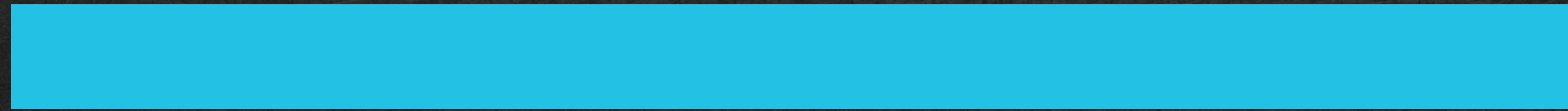
- 
- **STRUCTURAL STEELWORK:**
 - Completion Date: August 2021
 - Tonnage (TOTAL): 2730 tonnes
 - Value: R 103'000'000,00



ERECTION FACTS:

- 110 Workings days to Erect all Steel
- +/- 2,45 tons per day
- Average of 8 Cranes per day, simultaneously.
- 515 tons of structural steel per month

CHALLENGES AND SOLUTIONS





CHALLENGES

- Weather
- Riots
- Sheet lengths
- Earthworks & Platform Construction
- Etc.

THE BENEFITS OF STEEL IN THIS APPLICATION

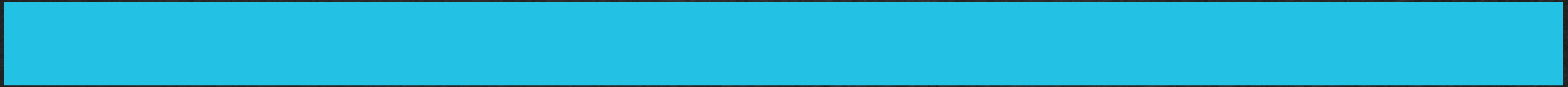




BENEFITS

- Speed of Construction
- Allowable Spans
- Cost Efficiency
- Robustness & Ductility
- Adaptability
- Sustainability

WHAT WE'RE PROUD OF



- COST EFFECTIVE DESIGN
- INTERACTIVE COORDINATION AND IMPLEMENTATION
- SIMPLE & EFFICIENT CONNECTION DESIGN



Q & A

