

steel

SOUTHERN AFRICAN INSTITUTE  
OF STEEL CONSTRUCTION



**EDS Engineering Design Services (Pty) Ltd.**

**YFPO PAINTLINE FACILITY**



# THE PROJECT BRIEF

**CLIENT: ERIS Property Group**

**STRUCTURAL ENGINEERS: EDS Engineering Design Services**

**ARCHITECTS: TCRPV Architects**

**MAIN CONTRACTOR: WBHO & Trencon Construction JV**

# ARCHITECTURAL RENDER



**e•d•s**  
Structural, Civil and  
Transportation Engineers

**tc  
rpv**  
ARCHITECTS

**ERIS**  
PROPERTY GROUP

**Yanfeng**  
Global Automotive Interiors

ROSSLYN HUB

ENTRANCE PERSPECTIVE

# ARCHITECTURAL RENDER

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**ris**  
PROPERTY GROUP

**Yanfeng**  
Global Automotive Interiors

ROSSLYN HUB

SOUTH WEST PERSPECTIVE



ARCHITECTURAL RENDER



# THE PROJECT OVERVIEW



# PROJECT OVERVIEW

## STRUCTURAL STEELWORK

Project Completed: March 2024

Steelwork Completed: July 2023

Tonnage: 636 Tonnes

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



# PROJECT OVERVIEW

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Transportation Engineers

## STRUCTURAL STEELWORK

Structural Engineer: EDS Engineering Design Services

Steelwork Contractor: CADCON Steel Construction & Engineering

Steel Detailer: CND Structural Services

Steel Merchant/s: BSI Steel

Macsteel

Stewarts & Lloyds

Allied Steel

# PROJECT OVERVIEW

## METAL CLADDING AND ROOFING

Project Completed: March 2024

Cladding Completed: October 2024

Cladding Material Used: Metal Sheeting

Cladding Profile: Roof – Novotexi 440

Sides – Widespan 762

Cladding Area Coverage: Roofs – 23'400m<sup>2</sup>

Sides – 13'700m<sup>2</sup>

Cladding Tonnage: 161 Tonnes



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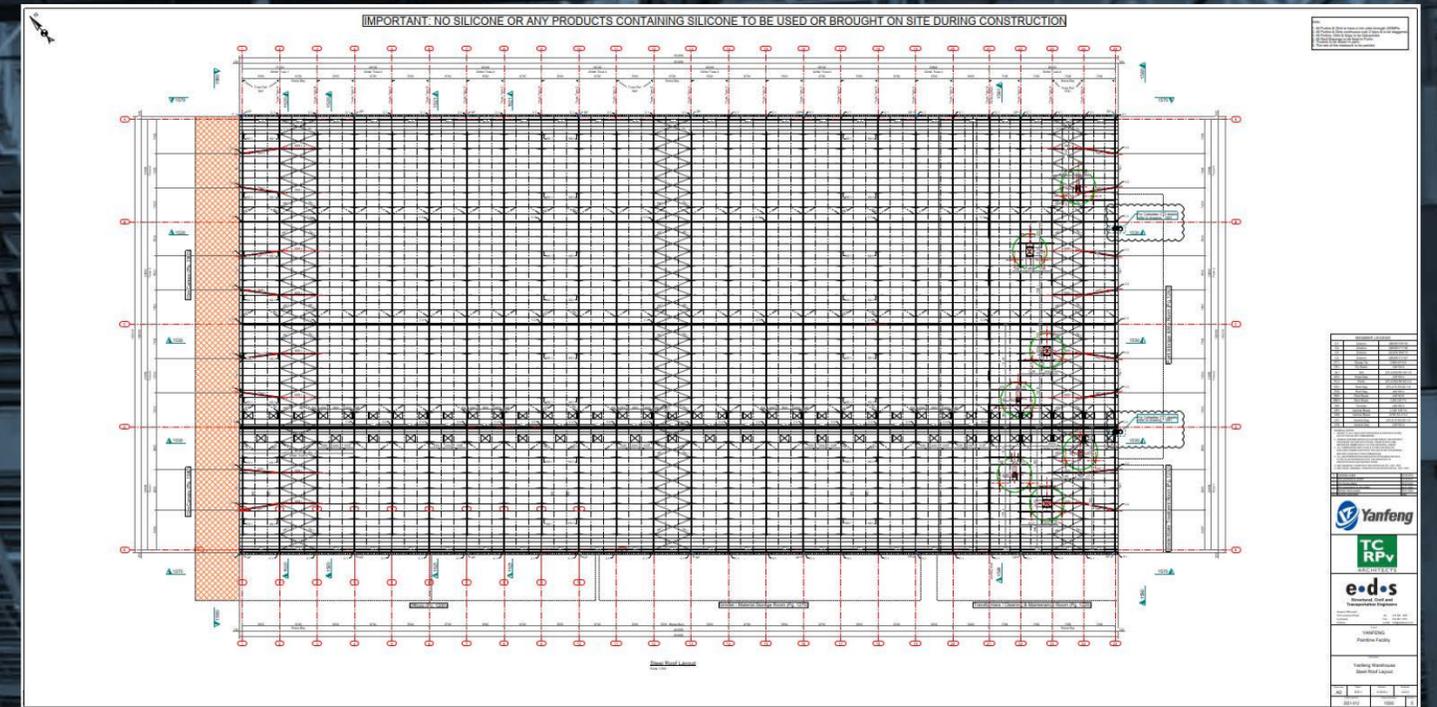
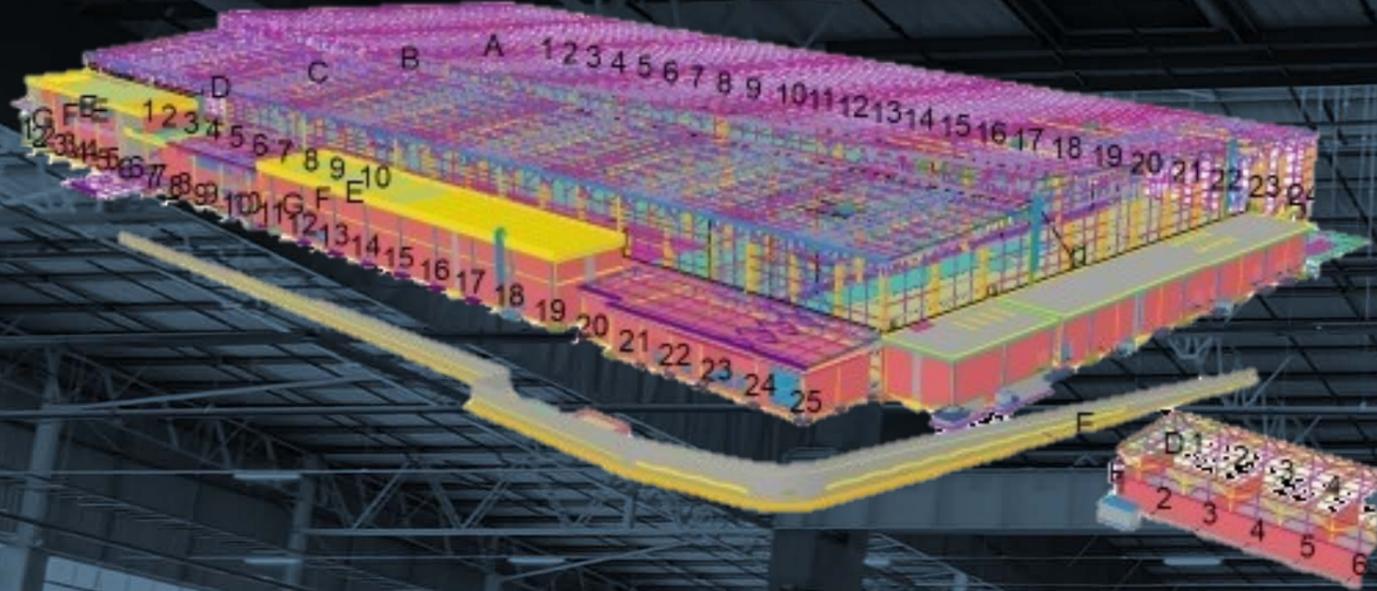


# STRUCTURAL FRAMING

**STRUCTURAL ENGINEER:** EDS Engineering Design Services

**STEELWORK CONTRACTOR:** CADCON Steel Construction & Engineering

**STEEL DETAILER:** CND Structural Services



## SOFTWARE UTILIZED:

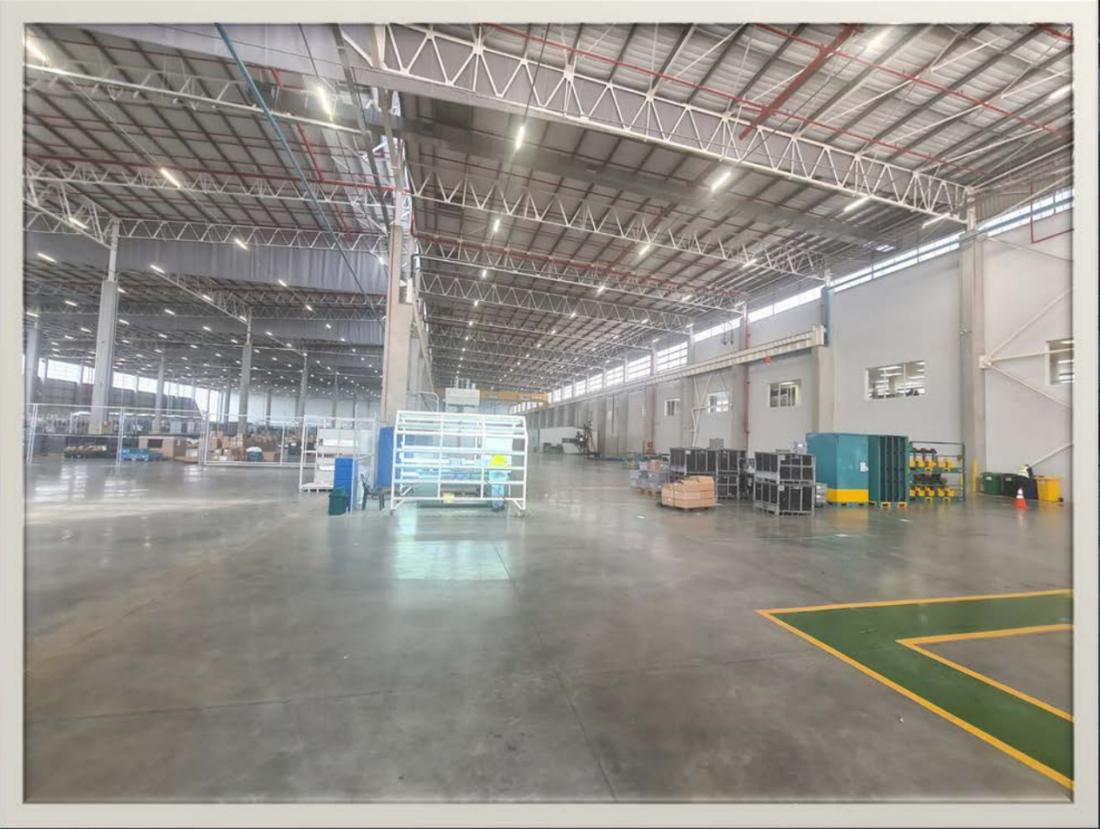
- Tekla Structures (Draughting)
- Prokon (Analysis)
- Tekla Structural Designer (Analysis)



## STRUCTURAL SYSTEM

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

# GENERAL PHOTOS



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# 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

**STRUCTURAL ENGINEERS:** EDS Engineering Design Services

# CLADDING/SHEETING:

- Profiles: Roof – Novotexi 440; Sides – Widespan 762
- Coverage Area: Roofs – 23'400m<sup>2</sup>; Sides – 13'700m<sup>2</sup>
- Total Tonnage: 161 tonnes



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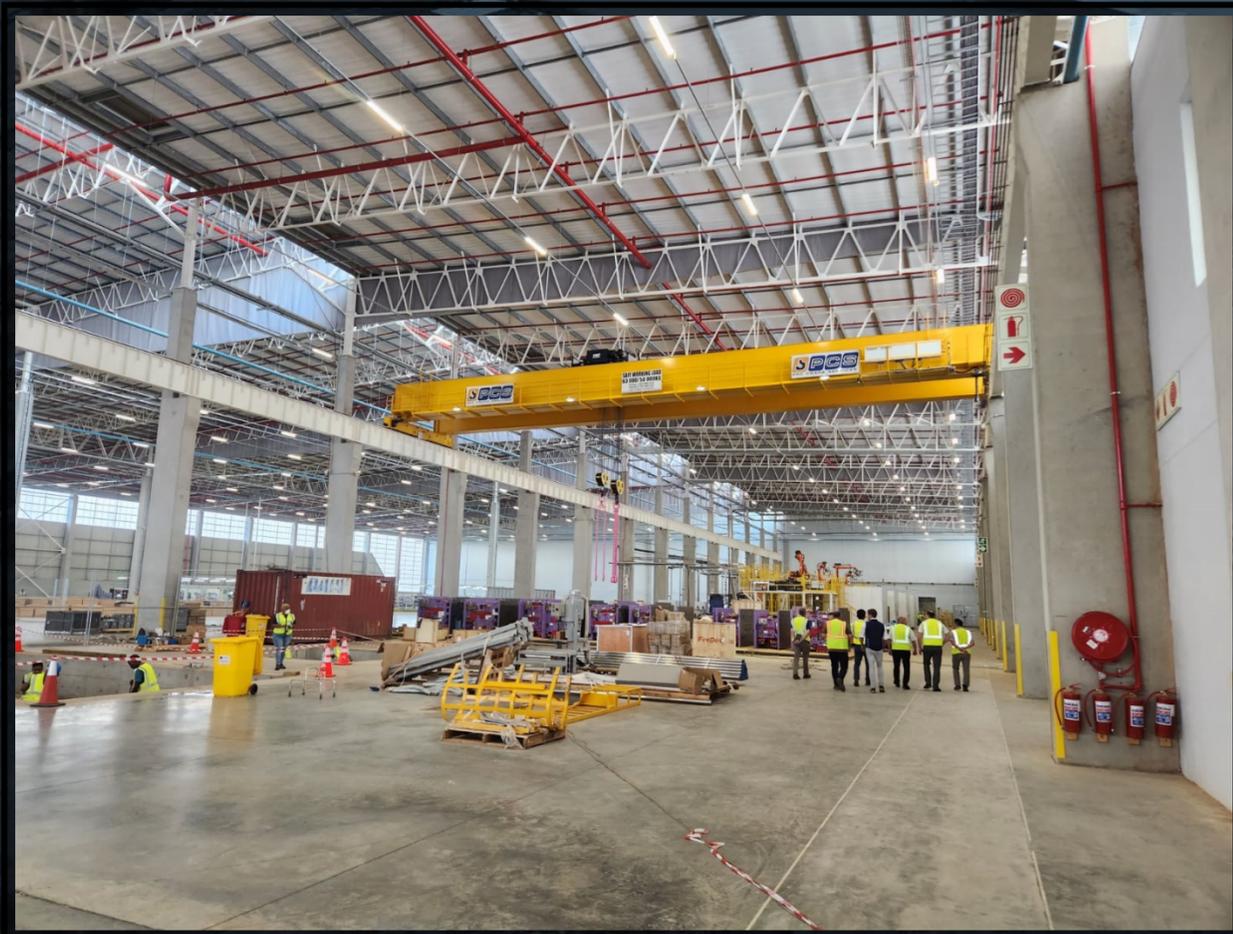
# FABRICATION

**STEELWORK CONTRACTOR: CADCON Steel Construction & Engineering**

**STRUCTURAL ENGINEERS: EDS Engineering Design Services**

# STRUCTURAL STEELWORK:

- Completion Date: July 2023
- Tonnage (TOTAL): 636 tonnes
- Value: R 32'800'000,00



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- Completion Date: July 2023
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# ERECTION / CONSTRUCTION / INSTALLATION

**CONTRACTOR: FANIE LEIBRANDT STEEL ERECTORS**

**STRUCTURAL ENGINEERS: EDS Engineering Design Services**

## ERECTION FACTS:

- Tonnage (TOTAL): 636 tonnes
- Planned 90 Working days to erect all steel
- +/- 6.7 tonnes per day (planned)
- Average of 4 Cranes per day

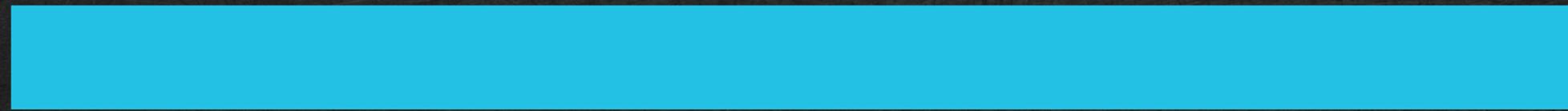


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# CHALLENGES AND SOLUTIONS



# CHALLENGES

- Community Strikes
- Riots
- Weather
- Etc.

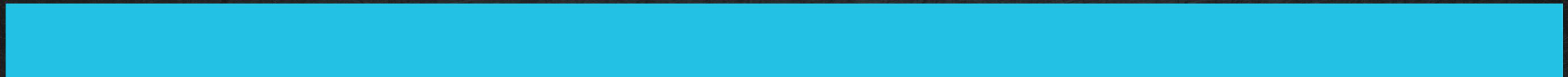


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# THE BENEFITS OF STEEL IN THIS APPLICATION



# BENEFITS

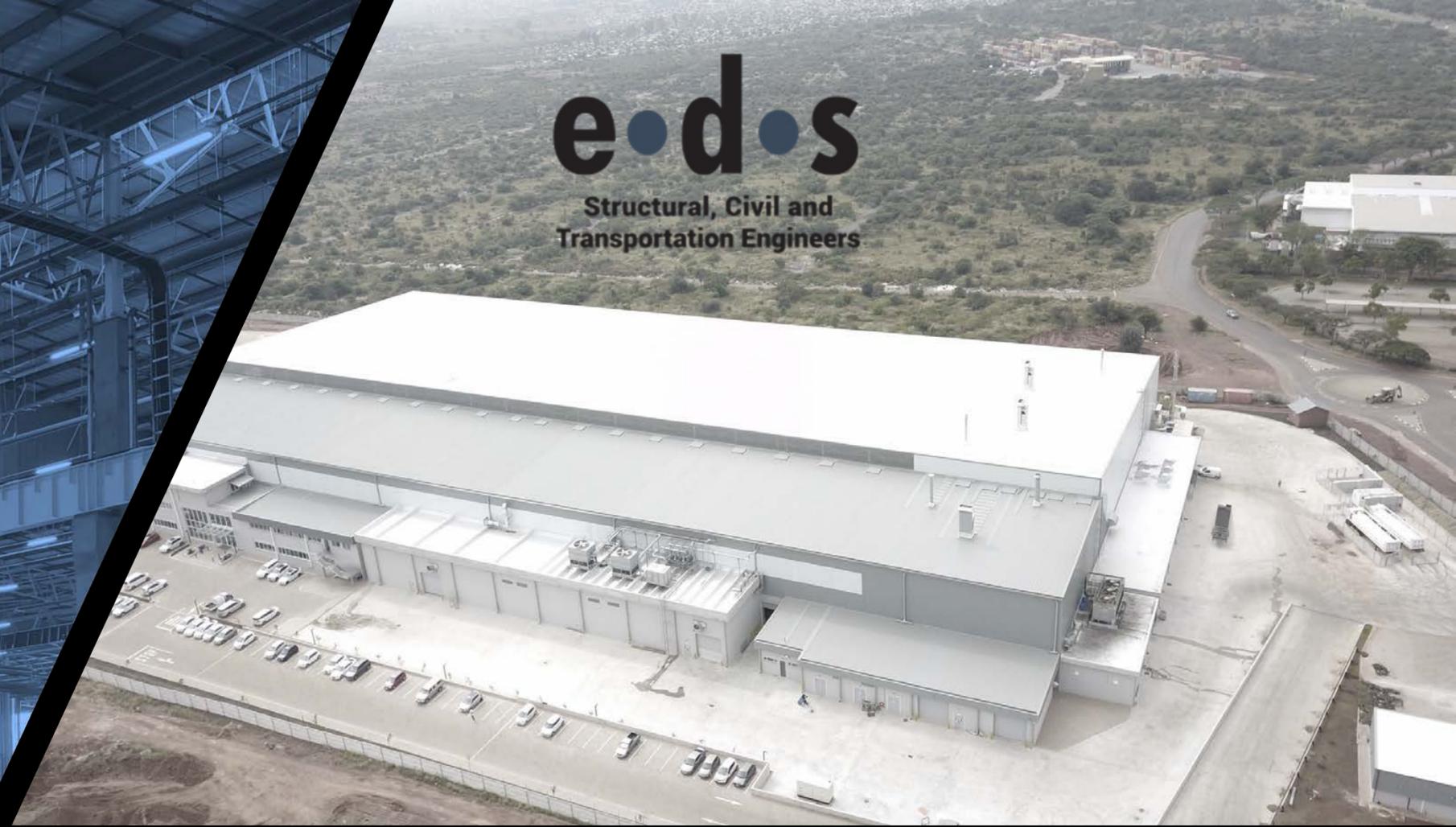
- Speed of Construction
- Allowable Spans
- Cost Efficiency
- Robustness & Ductility
- Adaptability
- Sustainability



# WHAT WE'RE PROUD OF



- Cost Effective Design
- Interactive Coordination
- Successful implementation of Designs
- Simple and Effective Connections
- Interactive problem solving
- Consideration to the Environment





# Q & A

