

# SILVERGRASS

## MTK-0000-FCT-QA-0013 Engineering & Design Fact Sheet

### CLIENT:

RIO TINTO

### PROJECT OWNER:

RIO TINTO

### PROJECT VALUE:

\$150M

### LOCATION:

TOM PRICE, PILBARA, WA

### DATE COMPLETED:

2016 – 2017

### Key Project Components

- Engineering Management, Project Management and Project Controls
- SMP Engineering and Design
- DEM Modelling for all chutes in-house
- Static and dynamic analysis in-house
- Civil Engineering and Design
- Electrical Engineering and Design
- Control Systems, including Communication Systems
- Shop Detailing
- Procurement Support of Long Lead Items
- Completions, FAT, SAT and Commissioning
- Handover and Ongoing Support

### Project Overview

EMtek, working in a partnership with RCR and Rio Tinto developed the Silvergrass Project in the Pilbara, delivered as an EPC.

The project involved an indirect fed primary gyratory crusher and 9km overland conveyor, linking the Silvergrass mine with the existing Nammuldi processing plant.

EMtek's scope included the detailed engineering, design, and shop detailing of the earthworks, hydrology, mechanical, structural, concrete, electrical and control systems elements from concept to completion, including construction support and commissioning onsite for the crushing plant, crusher discharge conveyor and overland conveyor.

The overland conveyor, over 9km long, incorporated 6 horizontal curves covering more than 80% of the conveyor, allowing it to weave around sensitive areas along the route.

### Major Works Included

- Design of 6 overland conveyors over 38km, including CV2104 (14.2km) and CV2113 (13.5km)
- Transfer Bins TS2111 and TS2105, including apron feeders.
- Primary crusher discharge conveyors
- Primary crushing plants PC1 and PC2
- Switchrooms, including HV, MV and LV, Control Systems and Communications
- FAT, SAT and Commissioning and Completions including no-load, loaded, and 2-week operational.