

DSS35 & DSS36



VALUE \$3.3M (combined)

YEAR 2015/2016

DURATION 8 months

CLIENT CSIRO

REFEREE David Lorimer

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SUMMARY

DSS (Deep Space Station) 35 & 36 Beam Waveguide Antenna's are new additions to NASA's Canberra's Deep Space Communications Complex at Tidbinbilla. The station provides resources for communication with existing deep space exploration missions and planned future missions. Complex was engaged to provide external site servicing facilities for the space station.

Construction works included bulk excavation, explosive blasting, underground services (inc. nitrogen, stormwater, electrical, gas, water and communications), concrete service tunnels, multiple culvert crossings, flexible pavements and structural steel works. The concrete hardstand surrounding DSS35 featured a unique 'night sky cooling' system, used to dissipate heat from electrical componentry via water filled lines cast into the concrete slab.

Servicing works were undertaken simultaneously with the antenna construction, requiring close coordination with CSIRO, NASA and JPL. All works met high regard from the client and were completed without any safety, environmental or quality non-conformances.

PROJECT FEATURES

Remote works with restricted communications (no mobile usage on site)

Collaborative works with multiple external subcontractors

Bulk and detailed earthworks up to 10m deep

Explosive rock blasting adjacent to highly calibrated equipment

Bedrock 'dental work'

Stormwater, water, nitrogen, electrical and communication services

20m long x 3m deep cast on-site concrete service trench

Transformer bunding

Building foundations and construction

Major concrete works

Major flexible pavement works

Structural steel works

Water storage tanks and water recycling system