

Category 4: Excellence in Pavement Recycling and Stabilising in Local Government

CHRC Remote Airstrip Upgrade Program – Rolleston Runway Rehabilitation

Bryan Griggs

Central Highlands Regional Council



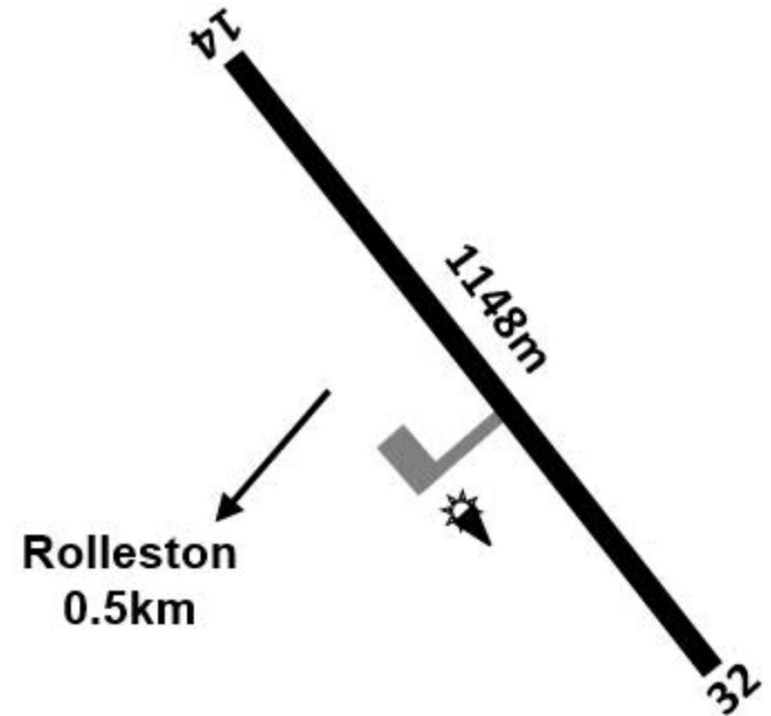
2024 AustStab Awards of Excellence

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Overview

- CHRC provides a sealed runway (RWY 14/32) adjacent to the rural township of Rolleston (population 132)
- Rolleston is the centre for the local pastoral and coal mining industries as well as a staging post for tourism.
- RWY 14/32 services recreational and small commercial GA aircraft, is a staging post for air support in natural disasters incl fire and supports up to 10 seater aircraft for the local coal mine.



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Overview and Objectives

- Options Considered
 - Repair RWY 14/32 by recycling insitu materials - \$1.2M estimated project cost
 - Strengthen RWY 14/32 by reconstruction - \$5M estimated project cost
 - Upgrade RWY 14/32 to meet the requirements of a Code 2 certified aerodrome - \$39M estimated project cost



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Initiative Undertaken

- CHRC considering the costs and having regard for engineering judgement opted for a compromise between repair and reconstruction
- Why rehabilitation and not reconstruction:
 - Existing materials were of satisfactory quality and could be recycled
 - While coal is readily available near Rolleston, quality gravels are rare
 - Lightly binding the blend of existing and imported gravel resulted in a similar outcome to reconstructing at a fraction of the cost

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Key Point of Interest

- In addition to the innovative recycling CHRC opted to get the stabilised pavement experts involved in the design phase
- CHRC achieved this by procuring a contractor to undertake the Design and Construction (D&C) of rehabilitation works



Contract (Design and Construct: Major Works)

Contractor: Stabilised Pavements of Australia Pty Ltd

REMOTE AIRSTRIP UPGRADE PROGRAM
(‘Project’)

ROLLESTON RUNWAY REHABILITATION
(‘Works’)

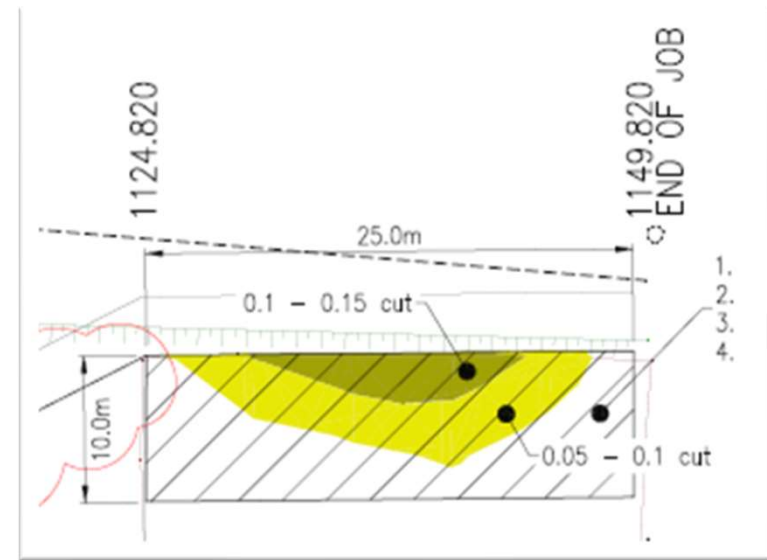
Contract No: 2022T042S

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Specific Challenges

- Designing a solution that complied with the strict aviation safety requirements while balancing the non-compliant existing alignment and constructability desires
- This required input from the Client, the Contractor and the Designer



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D & C Highlights

- Comprehensive Geometric & Pavement design modelled for constructability
- Pre-pulverisation and shape existing runway prior to stabilisation
- Additional gravel sourced from local quarry



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- Cementitious Stabilisation & Reconstruction of 17,600m² of Runway including Taxiway



- 100% of all material onsite recycled



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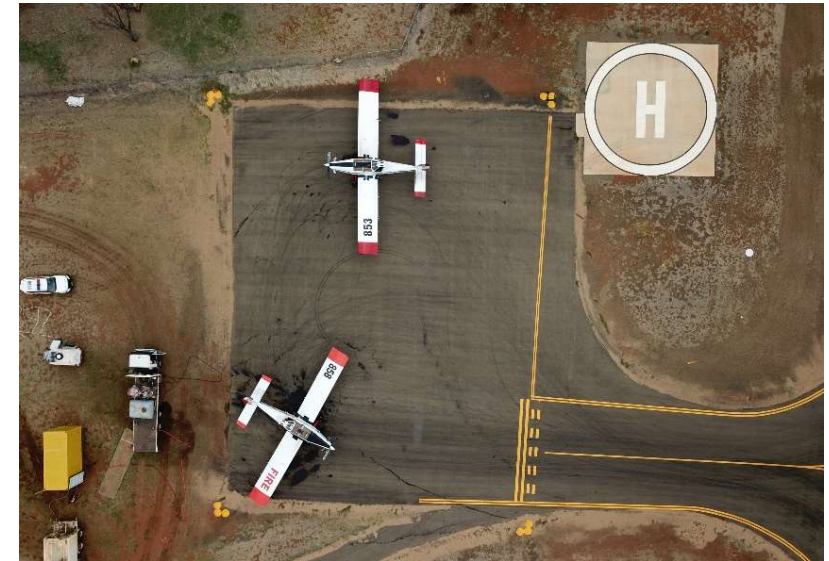


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Initiative in Practical Use

- Works completed on 2nd November 2023
- For the first two months of operation a coordinated air response was staged from the ALA in response to a 360,000-hectare fire at Carnarvon National Park
- This involved heavy water bombers, water carts and fuel trucks trafficking the runway.
- The newly rehabilitated ALA stood up well to the punishment



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A Word from the Sponsors

- The Australian Government Contributed \$783,750 through the Remote Airstrip Upgrade Program Round 9



Australian Government

**Department of Infrastructure, Transport,
Regional Development, Communications and the Arts**

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The Project Team



- Asset Owner
- Principal



- Project Manager
- Contract Administrator



- D&C Contractor

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