

Dr. Greg White

Airport Pavement Engineering Specialist

Dr. Greg White is the sole director and proprietor of APES and also holds the position of Director, Airport Pavement Research Program, at the University of the Sunshine Coast. Following a career as an Airfield Engineering Officer in the Royal Australian Air Force, Greg worked for a number of leading Australian design consultants as a Principal Airport Pavement Engineer and then as the Technical Manager Airports for construction and surfacing company Fulton Hogan.



In 2016 Greg established APES in order to provide specialist independent advice to the airport industry. Greg holds a number of Masters level degrees, as well as a PhD, all earned in the area of pavement materials and engineering. Greg is one of Australia's most experienced and qualified airport pavement engineers and is committed to introducing innovation and sustainability to airport pavement solutions.

Contact Details

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Qualifications

Doctor of Philosophy, University of Sunshine Coast, 2015

Master of Engineering, Queensland University of Technology, 2008

Master of Engineering, University of New South Wales, 2007

Master of Technology (Pavements), Deakin University, 2002

Master of Engineering, University of Newcastle, 2000

Bachelor of Engineering (Civil, Honours 1), University of New South Wales, 1997

Graduate Certificate of Applied Statistics, Murdoch University, 2005

Chartered Professional Engineer, Engineering Australia, since 2000

Registered Professional Engineering Queensland, since 2006

Expertise

Pavement Research and Investigation

Pavement Design and Evaluation

Pavement Maintenance and Management

Pavement Construction and Logistics Management

Technical Specialties

Bitumen and asphalt selection and specification

Pavement structural design

Structural evaluation and PCN assignment

Spray seal design and supervision

Inspection and maintenance planning
Independent and peer review of design documentation
Constructability and operational constraint review
New product and technology evaluation
Forensic and distress investigation
Expert witness reports and services

Publications

Theses and Dissertations

White, GW 2015, *Systematic Diagnosis of Factors Leading to Cyclic Shear Creep of Airport Asphalt Surfaces*, A Dissertation submitted to the Faculty of Science, Health, Education and Engineering, University of the Sunshine Coast, for the Award of Doctor of Philosophy, August.

White, GW 2007, *An Investigation of the Australian Layered Elastic tool for Flexible Aircraft Pavement Thickness Design*, A Thesis submitted to the Faculty of Built Environment and Engineering, Queensland University of Technology, for the Award of Master of Engineering, July.

White, GW 2006, *Laboratory Characterisation of Cementitiously Stabilised Pavement Materials*, A Thesis submitted to the School of Aerospace, Civil & Mechanical Engineering, University of New South Wales at the Australian Defence Force Academy, for the Award of Master of Engineering, August.

White, GW 1999, *Aircraft Pavement Joint Sealants – Standards, Specifications and Materials*, A Thesis submitted to the Department of Civil Engineering, University of Newcastle, for the Award of Master of Engineering in Civil Engineering, December.

White, GW 1997, *Investigation of Fuel Farm Contamination at RAAF Base Williamtown*, A Thesis submitted to the University of New South Wales at the Australian Defence force Academy, for partial completion of Bachelor of Civil Engineering, October.

Technical Papers

Refer to https://www.researchgate.net/profile/Greg_White9 for technical paper publication details

Employment History

APES, Sole Director and Proprietor, 2016 to present

University of the Sunshine Coast, Director – Airport Pavement Research Program, 2016 to present

Fulton Hogan, Technical Manager Airports, 2009-2016

GHD, Principal Pavement Engineer, 2008-2009

SKM, Principal Airport and Pavement Engineer, 2005-2008

GHD, Principal Airport and Pavement Engineer, 2002-2005

Department of Defence, Airfield Engineering Officer, 1998-2002

Non-Project Experience

Teaching Experience

Course writer and coordinator, Heavy Duty Pavements (Ports, Mine Haul Roads and Airports), Centre for Pavement Engineering Education, since 2017

Master of Transportation Technology, University of the Sunshine Coast, specialist lecturer in airport pavements and materials, since 2014

Expedient Airfield Survey Course, development of materials, delivery of training and updating of materials, 2000-2003

Committee and Board Experience

Scientific Committee, *Bearing Capacity of Roads, Railways and Airfields Conference*, 29 June to 1 July 2021

Technical Director, *AAA Pavements and Lighting Forum*, 26-27 May 2021

International Advisory Board Member, *Bearing Capacity of Roads, Railways and Airfields*, since 2019

Australian representative on the *ICAO Friction Task Force*, since 2018

Scientific Committee member, *AAPA 18th International Flexible Pavements Conference*, 18-21 August 2019

Scientific Committee, *AAPA International Flexible Pavement Conference*, 13-16 August 2017

Technical Director, *AAA Pavements and Lighting Forum*, 1-3 May 2017

Scientific Committee, *Bearing Capacity of Roads, Railways and Airfields Conference*, 28-30 June 2017

Scientific Committee member, *AAPA 17th International Flexible Pavements Conference*, 13-16 August 2017

Director and Convener, *University of the Sunshine Coast Airfield Engineering CPD Seminar* 4-6 May 2016

Australian representative on the *ICAO Airport Pavement Expert Group*, since 2016

Editorial Board Member, *International Journal of Pavement Engineering and Asphalt Technology* since 2015

Editorial Board Member, *International Journal of Pavements* since 2016

Member of the *CASA MOS 139 Post Implementation Review* committee 2015-2018

Member and Secretary of the *Australian Airport Association Pavement Working Group* since 2014

Member of Australian Standard Committee *CH-025 (Bitumen and Related Products)* since 2013

Significant Recent Project Experience

Projects in 2021

Technical advisor for runway resurfacing, Groote Eylandt Airport

Technical advisor for airport pavement upgrades and expansion, Cessnock Airport

Specialist pavement engineer for runway strength upgrade design, Cooktown Airport

Technical specialist for the review of the pavement strength ratings, Norfolk Island Airport

Technical advisor for pavement rehabilitation program, Townsville Airport

Technical advisor for pavement maintenance planning, Groote Eylandt Airport

Designer and technical supervisor of cross runway resealing, Mudgee Airport

Technical specialist for General Aviation pavement rehabilitation, Dubbo Airport

Technical specialist for all aircraft pavement strength assessment, Cairns Airport

Independent expert witness for legal dispute regarding concrete apron cracking, Queensland, Australia

Projects in 2020

Designer and technical supervisor of cross runway resealing, Narrandera Airport

Technical advisor for runway upgrade concept design, Ballina Airport

Technical advisor for contractor's alternate designs, Hervey Bay Airport

Designer and technical supervisor of cross runway resealing, Rockhampton Airport

Technical specialist on advising on pavement condition and strength, Latrobe Airport

Independent expert and advisor to the contractor for asphalt distress investigation, Bonriki (Kiribati) Airport

Technical advisor and designer for runway extension and strengthening, Merimbula Airport

Technical advisor and construction supervisor for asphalt resurfacing, Shellharbour Airport

Technical advisor for construction phase, Maranoa airfield resealing works

Pavement condition and valuation/depreciation, Dubbo and Wellington Airports

Specialist advisor on asphalt defects, Sunshine Coast Airport Expansion Project

Independent review of pavement designs and asphalt surfacing, Shellharbour Airport

Construction phase technical advisor for airfield overlay and upgrade, Norfolk Island Airport

Independent forensic investigation of non-compliant runway pavement, Julia Creek Airport

Construction phase technical advisor for runway and overlay, Cairns Airport

Projects in 2019

Independent expert to the contractor on pavement defects, Jeddah Airport, Saudi Arabia

Pavement specialist for runway resealing, Parkes Airport

Specialist Pavement Engineer for runway extension and overlay, Merimbula Airport

Technical Advisor for construction phase runway resurfacing and taxiway rebuilds, Alice Springs Airport

Pavement specialist for runway and taxiway resealing, Dubbo Airport

Technical advisor and pavement specialist to the runway strengthening project, Emerald Airport

Specialist pavement engineer for maintenance and resurfacing planning, Bundaberg Airport

Technical specialist of sprayed sealed for runway resurfacing, Ravensthorpe Airport

Technical advisor and pavement specialist for runway strengthening and apron expansion, Weipa Airport

Independent forensic investigation and pavement specialist, Kangaroo Island airport

Technical advisor and pavement specialist to the runway resurfacing project, Cairns Airport

Projects in 2018

Technical drafter for standardised airport sprayed sealing specification, for AAA and AAPA

Specialist pavement engineer for preliminary pavement upgrade design, King Island Airport

Independent review of runway upgrade design, Emerald Airport

Pavement designer and site attendance for spray sealing, Archerfield Airport

Technical advisor for planning phase of runway overlay, Cairns Airport

Independent review of construction quality issues for asphalt surfacing, Mildura Airport

Pavement engineer for preliminary design for further upgrades and expansion, Dubbo Airport

Specialist pavement engineer to Rio Tinto for maintenance, Weipa airport

Technical specialist for non-compliant crushed rock grading evaluation, RAAF Edinburgh

Pavement engineer for taxiway and apron reconstruction, Parkes Airport

On-site technical advisor to the client for the asphalt overlay, Dubbo Airport

Specialist advisor for the rehabilitation of all airfield pavements at Norfolk Island Airport

Specialist pavement engineer for runway resealing design, Ravensthorpe Airport

Client's specialist pavement advisor, new runway development project, Sunshine Coast Airport

Pavement engineer and technical advisor, Rockhampton Airport runway overlay project

Projects in 2017

Technical advisor for runway asphalt stripping rectification, RAAF Williamtown
Runway distress investigation and overlay technical advisor, Alice Springs Airport
Contractor's technical advisor (tender phase), runway overlay and taxiway reconstruction, Samoa
Expert Witness, runway and taxiway asphalt surfacing dispute, major airport in the United Kingdom
Coondewanna Airport, Pavement designer, runway upgrade, remote Western Australia, technical specialist
Independent expert for investigation of defective taxiway asphalt in Northern Territory, technical expert
Post-flood inspection of Rockhampton Airport runway, specialist pavement engineer
Melbourne Airport, runway development project, tenderer's specialist pavement advisor
Mount Isa surface enrichment and taxiway widening works, independent design reviewer
Independent expert for investigation of defective taxiway asphalt in North Queensland, technical expert
Independent expert for legal dispute on a rigid airport apron in Queensland, technical expert
Introduction to Airport Pavements Airport Practice Note, for the Australian Airports Association, lead author
Brisbane Airport, new parallel runway, tenderer's specialist pavement advisor
Independent expert for legal dispute on a Perth Highway, technical expert
Orange Airport, runway reseal, designer and specialist technical supervision
Mildura Airport, runway extension and strengthening overlay, airport's specialist technical advisor

Projects in 2016

Mildura airport runway extension and asphalt overlay, independent design reviewer and client's advisor
Cairns Airport, taxiway overlay, independent review of asphalt non-compliances
Devonport Airport, runway overlay, Design and Construct, lead designer
Brisbane Airport, runway overlay, technical advisor
Gladstone Airport, inspection and rejuvenation planning
Dubbo Airport, runway upgrade and overlay, specialist advisor to the owner
Proserpine Airport, runway upgrade and airport expansion, specialist advisor to the owner

Projects in 2015

Gold Coast Airport, runway overlay, technical advisor
Barimunya Airport, reconstruction and asphalt surfacing, Design and Construction, lead designer
Cairns Airport, runway cracking inspection and advice
Gold Coast Airport, runway resurfacing, distress investigator and technical advisor
Koolan Island Airport, new airfield Design and Construction, tender design manager and pavement lead
Cooma Airport, airport upgrade planning, inspection and concept design report

Major Projects Prior to 2015

Barimunya and Coondewanna Airports, resealing, Design and Construction, lead designer
RAAF Woomera, runway overlay and apron reconstruction, technical advisor and alternate design lead
Dubbo Airport, runway reseal, technical advisor and construction supervisor
Brunei Airport, complete airfield upgrade, Design and Construct, tender design manager
Melbourne Airport, runway distress investigation, researcher and investigator

RAAF Darwin, taxiway widening, technical advisor and alternate design lead
Brisbane Airport, runway overlay, technical advisor
St George Airport, runway reconstruction and seal, design manager and lead designer
Moranbah Airport, apron and runway inspection and upgrade scope, design lead
Cocos Island Airport, runway upgrade and reseal, technical advisor and construction supervisor
Melbourne Airport, Taxiway F and Southern apron concrete construction, technical advisor
RAAF Peace, Gin Gin and Oakey, runway overlays, technical advisor
Defence airfield maintenance program, technical advisor and part-time site supervisor
Adelaide Airport, runway overlay, technical advisor
Olympic Dam Airport, new airport development, site selection and concept design, design manager
Melbourne Airport, runway overlay, technical advisor
Moomba Airport, runway overlay, technical advisor and alternate design lead
RAAF Williamstown, fighter apron development, pavement designer and design manager
Defence airfields upgrade for new refuelling aircraft, project manager and design lead
Perth Airport, concrete apron reconstruction, technical advisor
RAAF Pearce, taxiway and parking apron reconstruction, lead designer and construction supervisor
Sydney Airport, apron reconstruction and runway overlay, pavement designer
Defence airfield maintenance program, project manager, lead designer and construction supervisor
RAAF Amberley, airfield upgrade and new apron construction, design team member