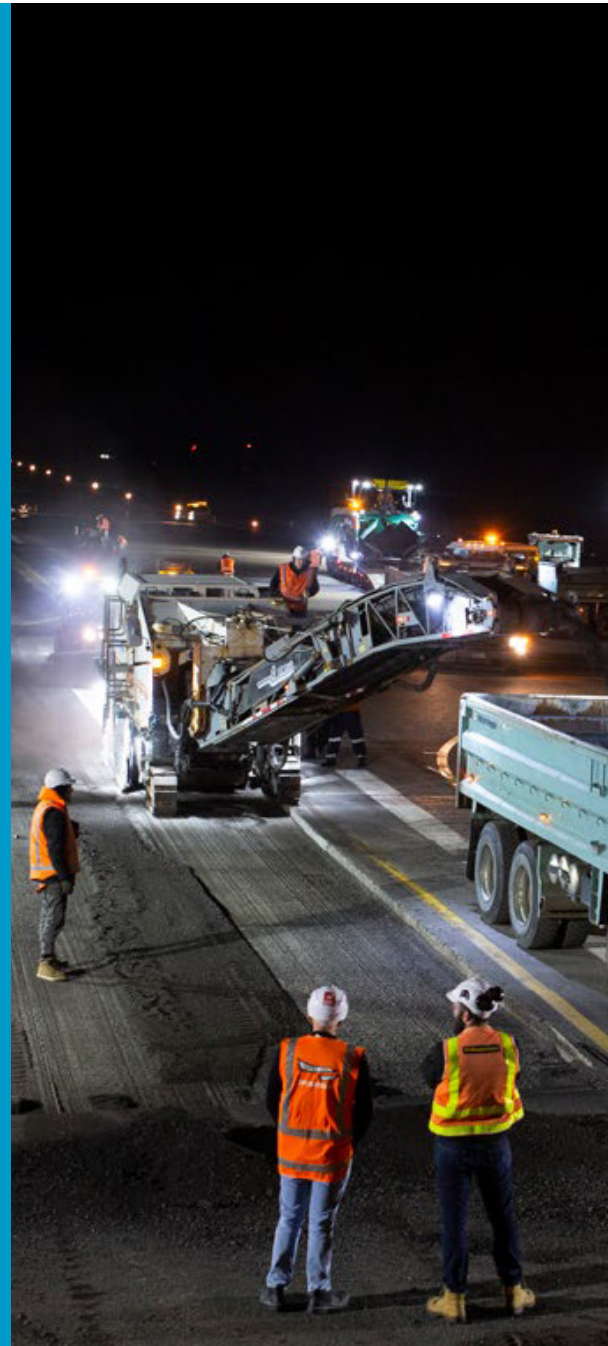


Airports

Capability Brochure

| 2026



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Your trusted partner in airport infrastructure

Connecting communities through aviation

Building and servicing assets for the New Zealand aviation sector



Capability Statement

Fulton Hogan is a trusted partner for the delivery of high-performance airport infrastructure solutions across Australasia. With over 90 years of experience and a team of 6000 professionals in New Zealand and 4000 in Australia, we combine expertise and innovation to meet the unique and demanding requirements of airports operations.

We bring:

A proven track record

Our projects range from \$1M to \$100M; delivered on time, on budget and meeting the exacting HSQES standards expected by our airport clients. This includes durable and high-quality runway rehabilitation and construction which support heavy aircraft use, critical airfield pavement maintenance to meet stringent regulatory and operational requirements and landside infrastructure, terminals, access roads, and utilities which enhance airport functionality and connectivity.

Specialist knowledge

Our extensive experience with airport infrastructure enables us to address the extreme performance standards required for runways, taxiways, aprons, and associated facilities.

Innovation, both homegrown and international

We leverage cutting-edge techniques and solutions to improve sustainability, performance, operational efficiency and safety.

A customer focused approach

We collaborate closely with our clients to deliver solutions tailored to your specific project needs, goals and budget.

Together, we will connect people, places, and opportunities.

REAL Values

Respect

- We understand, listen and learn
- We respect our differences
- We take care of ourselves and others
- We treat others the way they expect to be treated

Energy and Effort

- We bring out the best in everything we do
- We do it once, we do it right
- We never give up
- We keep things simple
- We have fun

Attitude

- We are one Fulton Hogan
- We take pride in everything we do
- We do what we say
- We challenge and improve
- We work together, win together and celebrate together

Leadership

- We value and grow our people
- We do the right thing
- We are fair and trustworthy
- We are accountable
- The standard we walk past is the standard we set
- We are humbly smart.

This approach proved successful over 90 years ago and continues to be effective for us today.

Our purpose is creating, connecting and caring for communities.

A trusted partner

Fulton Hogan is a leader in airport runway construction, surfacing, and maintenance across Australasia. We've partnered with airport operators in New Zealand, Australia, and the Pacific to deliver safe, compliant and efficient projects. This is backed by over 90 years of experience in pavement construction in every corner of the country.

We know airports must continue operating during major repairs or upgrades to critical infrastructure. Drawing on years of experience in live airport environments, our national airports experts have developed advanced project and risk management strategies.

Our large, reliable plant fleet, including mobile asphalt plants, provide delivery certainty, even in tight operational windows. In-house experts, recognised across the industry, ensure compliance with the highest safety, quality, and regulatory specifications.

We offer a comprehensive range of airside and landside maintenance solutions. These include specialised coatings to restore oxidised airport pavements, increase runway friction, and repair concrete surfaces.

Our team offers services such as rubber removal, line marking and emergency runway repairs. Our proven expertise and reliability have secured long-term contracts with airports nationwide.

Our extensive contracting experience, technical expertise, and deep understanding of the unique requirements of airport projects have established us as one of Australasia's most respected providers of airport construction, surfacing, and maintenance services, with most of our work coming from repeat customers.

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Collaborative approach

Airport operators and owners play a crucial role in ensuring New Zealand airports operate efficiently and safely. They not only maintain and enhance airport infrastructure but also support communities, businesses, and tourism activities.

Since the 1980s, Fulton Hogan has worked with airport operators and owners in their efforts to improve airport infrastructure. We sustain long-term working relationships and deliver projects and services as both self-performing lead contractor and collaborative partner.

Our track record of collaborative-style contracting includes:

- Alliance
- Managing Contractor with an Integrated Project Delivery model
- Design and Construct
- Early Contractor/Tenderer Involvement
- Collaborative Project Agreement delivery contracts.

Many of our most successful airport projects have required us to effectively manage a range of specialist contractors.

End to end asset and infrastructure solutions

Our vertically integrated business structure begins with a network of quarries, asphalt plants and bitumen storage facilities. They supply direct to civil and construction projects, assuring quality, embedding sustainability, and providing increased control over delivery schedules for our valued clients in every region of New Zealand.

Fulton Hogan's capabilities encompass project design, planning, engineering, construction, commissioning and handover. We bring a proven track record in the following:

- Inspection and maintenance planning - Detailed inspections of runways, taxiways and aprons assisting clients with scheduling, prioritising, and executing maintenance works.
- Major civil construction - Design and construction, including major service relocation and protection works.
- Runways, taxiways, and aprons - Heavy-duty pavement construction and resurfacing, aeronautical ground lighting upgrades, friction testing, and runway grooving.

- Earthworks, drainage, and ground improvements - Site preparation, hardstand construction, soil stabilisation, bulk earthworks, drainage, and other minor ancillary civil works.
- Water - Water and wastewater upgrades, treatment plants, pump stations, and flood mitigation.
- Geospatial and digital engineering solutions - Understanding of the Airports Pavements Management System (APMS), GIS capability and solutions to provide digital twins and offer whole of life asset management.
- Environmental and contaminated site remediation - Environmental protection works such as erosion and sediment control, hazardous material management, environmental remediation practices including managing contaminated land.
- Pavement repair, crack sealing, rejuvenation, and line marking.



Asphalt

Fulton Hogan can produce various types of mixes to meet the demands of airport environments. These can include AC14, AC20 and EME2 type mixes where heavy loading performance is needed. To ensure the mixes meet the loading requirements, our internal Fulton Hogan Engineering Solutions team can assist in the development of a cost-effective solution to meet your requirements.

Binders and emulsions

We can manufacture a wide range of binders, including emulsions and polymer-modified binders, to suit the full spectrum of applications and the unique characteristics of various pavements. Our specialty emulsions are enhanced with polymers and additives to increase performance, extending the life of your pavement.

Concrete

We are the only supplier of precast and prestressed concrete including precast panels, columns, beams and much more. We can design and manufacture precast concrete products to meet the requirements of your project.



Pavement technology experts

Fulton Hogan's technical specialists are internationally renowned leaders in designing pavements and developing specialty products to enhance asset lifecycle management.

Each year, we invest significant resources to bring new products to market and incorporate innovative materials into our pavement solutions to enhance sustainability, durability, and cost-effectiveness. Our research and development teams challenge conventional methods, bringing innovation to the industry. Whether it's a new pavement design incorporating recycled products or a technology which reduces energy consumption; we are always seeking ways to improve.

Specialty airfield products

Drawing on our extensive experience in providing specialised services to airport operators, we understand the unique requirements for pavement longevity under specialty aircraft. Consequently, we have developed a range of proprietary products and treatments specifically designed for airport applications. These products are designed to meet stringent operational, safety, and quality standards.

JetBlack®

A life-extending treatment for aged asphalt surfaces, offering an alternative to resealing. JetBlack® was developed to provide airports with an alternative option to resealing aged pavements and thereby, extending their life.

- Extends pavement life by enriching the oxidised surface
- Gives a uniform black appearance to the pavement
- Locks aggregates down by filling in voids in the seal
- Adheres strongly to existing pavement surface
- Seals and protects the pavement from UV and water damage.

JetBind®

High-performance bitumen binder for runways, designed to withstand extreme temperatures and high tyre pressures.

- Reduces risk of runway closure due to groove closure
- Reduces pavement thickness design
- Increases rut resistance without adversely impacting reflective cracking/fatigue resistance
- Enhanced resistance to fuel spills.

Other airfield applicable products

EmulSure® chipseal runways

We have developed emulsions for the last 30 years to provide a fast-curing option. This allows us to provide a chipseal surface efficiently and safely to everyone. Along with emulsion locking coats, this ensures a cost-effective solution for operators who require more economic solutions. New Zealand has a number of chipseal runways which need to be maintained and resurfaced and Fulton Hogan's development in cutting edge emulsions helps to deliver these.

Our technical teams collaborate closely with our crews, fostering a culture of learning and idea-sharing to drive continuous improvement.

Quarries

We offer premium rock products and a wide array of refined products including aggregates and road base, specialty sand, recycled glass basecourse mixes, railway ballast and gabion rock, as well as bulk fills and non-specified materials.

Labratories and testing

Our in-house technical team leads a network of nine state-of-the-art IANZ-accredited laboratories and specialised testing equipment, ensuring the highest standards of quality and reliability.

Trenchless technologies and service location

We can provide directional drilling, pit installations, non-destructive digging, and advanced service location mapping.

Signs and graphics

Fulton Hogan has a dedicated signs and graphics team to make all your visual signage needs. These can be from temporary signs right through to large scale permanent signage for building and retail areas. Our inhouse design team can create signage to meet your needs from the foundations up and manage the whole process.

Utilities

We also offer utility infrastructure planning, asset management, operational improvements, feasibility studies, concept designs, and engineering services. Full self-perform capability to construct utility infrastructure, manage complex service installations, and protect or relocate existing utilities in congested environments.

FibreDec®

A sprayed crack mitigating treatment comprising a combination of bitumen emulsion, aggregate and chopped glass fibre strands.

Surfacing supply capability - current and future

RAP

We've used up to 30% RAP in airport asphalt layers for over 20 years across NZ. Our advanced plants support client sustainability targets while delivering proven, high-performing RAP asphalt surfaces.

Reduced Energy Asphalts (REA™)

Our modern NZ asphalt plants produce Reduced Energy Asphalt (REA™), including WarmPhalt® and CoolPhalt®, reducing energy use and, when combined with RAP, cutting carbon emissions by up to 25%.

Gilsonite

For the past 10 years at CIAL we have implemented an annual airside programme which has included the application of Gilsonite. This has enabled continued innovation with application methods, plant, import and blending.

CTB

Cement-treated basecourse (CTB) strengthens airport pavements, enhancing load distribution, durability, and resistance to deformation. This reduces long-term maintenance for reliable and cost-effective airfield surfaces under heavy aircraft traffic.

BTB

Bitumen-treated basecourse (BTB) enhances load distribution, deformation resistance, and flexibility, offering reliable, economical, and long-lasting airport pavements well-suited to intensive aircraft traffic and maintenance control.

Foamed Bitumen

In situ foam bitumen stabilising has been used at Wellington Airport with good success. This provides an effective pavement solution.

Specialised plant and equipment

Fulton Hogan has an extensive fleet of plant and equipment for aircraft pavement construction

- We operate 17 asphalt plants and 5 bitumen blending plants strategically located across New Zealand. Additionally, we have multiple high-capacity mobile asphalt plants ready to deploy for large projects or remote locations.
- Our trailer-mounted friction testers are designed to test airport runways to CAA specifications, ensuring safety and compliance.

Friction testing

Fulton Hogan's trailer mounted friction tester for testing airport runways to CAA specifications is based in Hamilton.

Rubber removal

Fulton Hogan developed and patented our own watercutter to use fine needles of ultra-high-pressure water to remove rubber build-up on runways without the mess or environmental problems caused by chemical removal. These are located in Auckland and Christchurch.

Depth of technical and delivery support

Our regional teams know their conditions and clients the best. Regional surfacing and construction teams deliver our airport work. In some regions where there is ongoing maintenance or delivery projects, specialist teams have been formed to solely deliver this work.

Regardless of location our teams receive the same training and use the same systems and procedures. This means when additional capacity is required to meet tight delivery deadlines, or for surge resourcing or a disaster, our teams can be mobilised rapidly and supplement existing teams. The same system works for additional plant and equipment, giving us unmatched people and plant resources

Airports Knowledge Group

As Australasia's largest and most experienced provider of construction, upgrade and maintenance services at international, domestic and regional airports and defence facilities, Fulton Hogan shares and acquires lessons learned between our airport maintenance and project works. Our airport works leaders have a monthly teleconference, meet annually in person and additionally, if and when required.

Our teams are trained and competency assessed. Safety inductions are mandatory on sites, and we start every day with our teams completing risk control plans to understand the job, identify the risks and implement controls which are then monitored throughout the day.

Our extensive experience ensures we understand the unique safety and security requirements of working airside including managing aspects of site security, and minimising impact to airfield operations. We fulfil our obligations for delivering works safely under Return to Services constraints

Quality from start to finish

At Fulton Hogan quality is about delivering 'Good Work' to our customers. Our commitment is to do every job right first time and we recognise this commitment to excellence is especially important in airport environments.

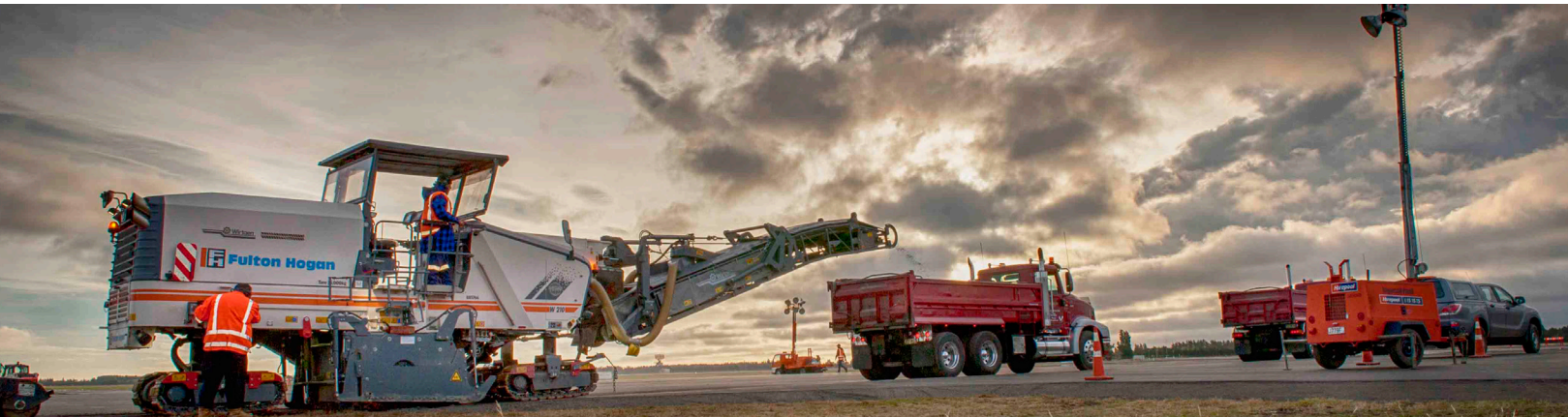
Our approach to quality management is holistic and risk based. Planning and verification are crucial in setting a job up for success. To deliver compliant works, we discuss and incorporate Ecologically Sustainable Development and whole of life considerations into the project lifecycle from the design phase, through to construction, commissioning and handover, as well as ongoing operation and maintenance of airfield assets.

Sustainability

After more than 90 years in business Fulton Hogan remains proudly family and staff owned. This gives us the flexibility to make decisions and investments which best suit our country, our customers and the environmental legacy we want our children and grandchildren to inherit.

Our business purpose of creating, connecting with and caring for our communities empowers our teams to think and deliver environmental and socially sustainable practice. They don't require much encouragement to want to do what's best for their communities and families.

We are committed to reducing our reliance on non-renewable energy sources and strive for environmental protection that exceeds compliance standards. Our teams are dedicated to engineering out and reducing carbon emissions. We achieve this through operational efficiency, increased use of recycled materials in our supply chain, and minimising waste sent to landfills. We also challenge our supply chain to collaborate with us in providing commercial and technological solutions.



We have the systems, tools and training to ensure our team and supply partners understand how the work needs to be done.



Risk management for unique operating environments

Over the past 30 years Fulton Hogan has developed an extensive knowledge of airport requirements. Careful planning, early stakeholder engagement, and meticulous logistical management are crucial to executing work effectively and safely. Using advanced risk management strategies, we keep airports operational during construction works.

Our training and approach to HSQES reinforces the understanding that we have a responsibility at every step of our work process for everyone involved in and ultimately affected by our work.

Safety

Fulton Hogan's Health and Safety philosophy centres on people - People at the heart of everything we do. This approach is encompassed in our Living Safely Manual which aligns with ISO 4801:2001 and the requirements set out in the Health and Safety at Work Act.

Living Safely balances personal responsibility and leadership accountability to ensure no life changing harm. It fosters an environment where safety is everyone's responsibility.

We use a hierarchy of controls and work with customers to eliminate safety risks through design and construction processes.

Initiatives to date include:

- Piloting and adoption of lower temperature asphalt technology
- Progressive electrification of our fleet and quarry operations
- Environmentally friendly dust suppression for unsealed roads
- In-situ pavement recycling
- Advanced bitumen emulsion technologies
- Use of recycled glass in asphalt mixes
- Recycled Asphalt Pavement applications.

We are independently audited by Deloitte against the Greenhouse Gas protocol, giving confidence in our reporting.

Experts in airfield infrastructure

Fulton Hogan has extensive expertise in constructing and maintaining airfields. For over four decades we have assisted airfield and airport operators enhance their infrastructure and facilities. Today, we are one of Australasia's most respected providers of airfield and airport construction, surfacing, and maintenance services.

Our long-term relationship contracts with Auckland, Wellington and Christchurch International Airports demonstrate we are the leading New Zealand airport pavement constructors with a solid track record for collaboration and innovation.

Our New Zealand airfield experience



We self-perform all pavement works, ensuring direct control over time-critical tasks and mitigating operational risks. Our in-house team of airfield and pavement technical specialists combine engineering expertise with extensive experience in producing and placing asphalt for airside and operationally time-sensitive environments.

Many commercial airports need to stay operational during construction and upgrades; we ensure this through meticulous planning. Our approach prioritises safety and minimises disruptions to daily operations, allowing us to work airside efficiently and effectively.

Track Record

Auckland

Auckland Airport Horizontal Infrastructure Agreements

Contract value of up to \$20M p.a. (\$85M delivered to date with work ongoing)
July 2017–Present (HITA superseded by HIFA in 2022)

Fulton Hogan is part of Auckland Airport's Horizontal Infrastructure Framework Agreement (HIFA) Master Services agreement for the delivery of individual work packages in support of airport precinct horizontal infrastructure upgrades and improvements. In parallel with HIFA, the airport team has also delivered a range of Terminal Integration Enabling packages.

The work delivered has been extensive, both airside and landside. Fulton Hogan has delivered 100% of the drainage, asphalt/paving, earthworks, asphalt supply and concrete supply. We have also delivered 60% of the utilities and 50% of the lighting with various subcontractors delivering the remaining portion.



Work packages vary in value, are multi-disciplinary and include delivery under operational environments. Activities have included bulk earthworks, roading and utility upgrades, carpark reconfigurations, fitout and occupancy upgrades, demolition, pavements, 3 waters, piling, and investigation works. A selection of work over the last seven years includes:

MPI Arrivals & MSCP1 Enabling - The team installed a LV/HV service trench, with connections to two power centres within the international terminal breezeway and then reinstated the area with structural asphalt and concrete pavements.

Terminal B Transport Hub - 1290m³ milling; 600m³ of concrete; 4300m² of 120mm AC20 laid asphalt; 4300m² of 55mm AC14; and new sewer and water connections in eight shifts with careful sequencing to manage impacts.

Park & Ride South - 100,000m² of pavement – cement stabilised basecourse and 50mm-180mm asphalt concrete overlay.

Ray Emery Drive - 550m of new and upgraded road with a concrete subbase and structural asphalt basecourse, with associated retaining walls and line marking, and managing critical services (HV/LV, gas, water, communications).

Laurence Stevens Drive Stage 1 - Road widening and utilities upgrade project, including a full pavement rehabilitation (7,500m² of deep lift asphalt pavement). The team overcame a delayed project start by changing the pavement and completing the RAB paving during a 24/7 super weekend.

HITA/HIFA has required safe, staged airport construction, sequencing and interfacing projects in a high security environment. We have achieved critical completion dates by self-performing works, using specialist resources where needed. Mutual multi-contractor demarcation has been managed through similar integrated programmes and MOWP; FOD, ASO management; designer engagement; transferable BIM initiatives and merging GIS systems for progressive handovers.

Our track record is one of on time delivery, agile programming, scaling to meet resource requirements, an integrated and reliable supply chain, and collaboration with Auckland Airport partners and other contractors.

Wellington

Wellington International Airport Ltd (WIAL) Runway Resurfacing

Total project cost of \$13.7M

13 Sept 2020–03 March 2021

Every 12-15 years, the runway at Wellington International Airport requires resurfacing, to ensure the ongoing safety and efficiency of airfield operations. The last runway resurfacing was carried out in 2009 and had been planned again for 2023. In March 2020, Covid-19 struck, like most businesses, the airport's initial focus was on cost management. However, this soon turned into seeking opportunities presented by the reduction in air traffic.

In late April 2020, Wellington Airport proposed bringing forward the runway overlay to take advantage of the increased night working window. This required the team to halve both the design and construction time and achieve in eight months (three months design/five months execution), a typical 18 months of work.

The collaboration between Fulton Hogan, Beca and Wellington Airport allowed the careful planning and implementation of controls to accomplish the project successfully within the reduced time frame.

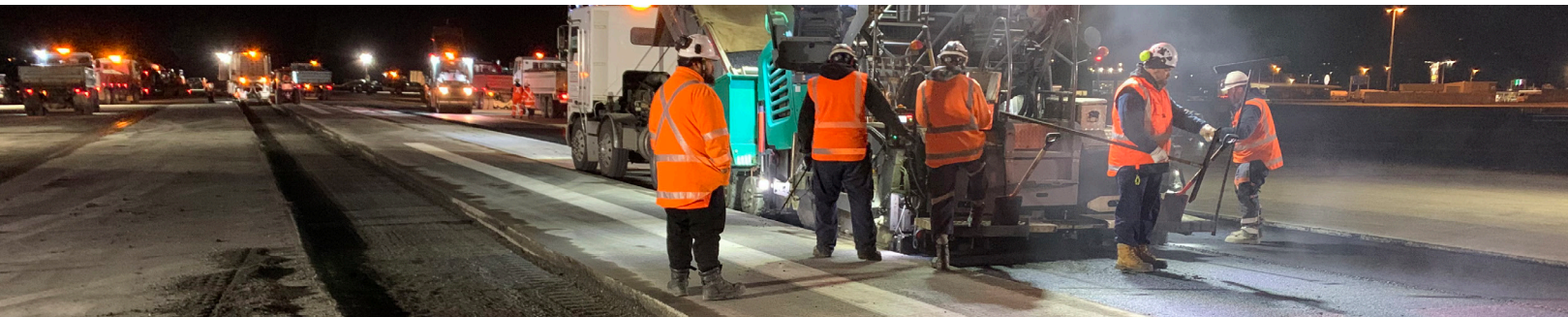
Winner of the 2021 NZAA Annual Awards - Large Airports and Project of the Year Award

"I'm proud of how the team recognised, sized up and acted on an opportunity that Covid-19 offered.

We're also proud we managed to recycle 100% of the old asphalt, which was used on Transmission Gully.

Most importantly, we have done it right by our many stakeholders, particularly our neighbours."

- Nick Petkov, Wellington Airport's General Manager
Infrastructure and Development



The collaboration in the conception and design phases, which would traditionally be managed independently, allowed us to design out likely technical and operational bottle necks.

Key outcomes and achievements included:

- New runway of nine hectares with a special heavy-duty pavement, capable of supporting a 350t aircraft.
- One hectare of paint markings applied
- 1.86 million metres of grooving.
- Increased productivity from the longer nightly (curfew) period from four to five hours per night to eight.
- Approximately 200 people employed on the project, including a night team of 70 on site and 15 staff on the day shift doing testing, scheduling and trucking in/out material.
- 35,000t of asphalt milled and replaced on site.

- 100% of the old asphalt sustainably recycled by Fulton Hogan for use on roading projects, diverting thousands of tonnes of asphalt from the landfill.

Fulton Hogan were engaged to carry out further surfacing activities on the northern runway safety area, which was also delivered at the same time as the completion of the project without causing any delay which would have affected stakeholders.

This is an example of excellent teamwork and collaboration, innovative design, and delivery, and keeping our environment and communities at the centre of an essential project

We have been WIAL's contractor of choice for their 24/7 airport civil maintenance works since 2016.

Whanganui

Whanganui Airport Resurfacing for Whanganui District Council

\$6.3M

30 Oct 2023–08 Dec 2023

This contract was for the resurfacing of the runway, including the taxiway and apron. The project was the most significant airside works the airport has undertaken with a total area of 72,200m² of resurfacing work with 11,000t of AC14. Fulton Hogan's Engineering Solutions Technical Team prepared the design, based on a survey completed of the existing chipseal runway. They liaised closely with the client from shape correction required, the chip sealing of the shoulders instead of AC, and QA including production testing, field testing and core results.

Fulton Hogan completed the works at night outside operational working hours with the work site illuminated by 10 light towers. After weather delays, we allocated extra resource, increasing from a five-night shift to a six-night shift to ensure we remained on schedule and able to mitigate any potential operational impacts.

This exemplifies how Fulton Hogan's integrated supply chain in a design-and-build process minimised price and design/build times while maximising owner oversight and control.

The four-month project from planning to conclusion has a 25-year design life.



Winner - NZ Airports 2024 Award Small Airport Infrastructure

Finalist - 2024 CCNZ Category 3: Projects with a value between \$5M and \$20M

"Fulton Hogan and all their subcontractors have been fantastic to work with and were willing to adjust their plans to accommodate airport operations as much as possible, while still getting the job done, which is greatly appreciated."

- Phil McBride, Whanganui Airport Manager

"Your team's extensive experience, and willingness to accommodate the specific requirements of the airport, were greatly appreciated. It was a notable achievement that not one of the scheduled passenger flights from Whanganui Airport was delayed. This was due, in large part, to the professionalism demonstrated by your team in developing the work's schedule and ensuring that key timelines were achieved."

- Rosemary Fletcher, WDC Capital Projects Manager

New Plymouth

New Plymouth Airport Runway 05/23 Resurfacing Contract

\$7M

Summer 24/25

Work comprised of asphalt resurfacing of the runway, taxiway and apron.

- Milling 28490m² to depth of 20mm and 194230m² to 50mm.
- Placement of 8,500t of AC14 Airfield asphalt mix on a PMB chipseal (Grade 5 chip) membrane
- Removal of existing and replacement of lighting and navigational aids and reinstatement of line markings
- Construction of a timber edged airside track 2233m² and additional 793m² 55mm AC14 asphalt mix on a PMB chipseal (Grade 5 chip) membrane.

This project demonstrates our ability to bring resources to the regions and deliver a high-quality outcome on a high-risk site with high levels of public interest. It required input from seven Fulton Hogan regions and many subcontractors as well as the supplier management relating to the asphalt delivery.

Our team comprised of an Auckland milling team, Auckland, Hamilton and Wellington laboratory representatives, Manawatu and Canterbury paving teams, Canterbury surveying support, a Taranaki construction team and National Airports and Paving Sector Lead, Craig McNeilly. Craig brought experience working on the previous resurfacing at the airport back in 2009.

A high level of project planning and logistics was required. As the work was airside it could only occur during the night after the final flight and before the first flight the next day. Coordination was required between the asphalt plant production rates, milling of the existing runway, replacing with new asphalt and line marking to ensure an operational runway the next day.

Marlborough

Marlborough Airport Runway Reseal

\$8.5M

January–April 2025

Fulton Hogan brought together a highly skilled team from across the upper South Island to deliver runway, taxiway and apron resurfacing for Marlborough Airport.

Fulton Hogan, Beca (Design Engineer) and TDZ (Principal's Representative) engaged in a value engineering process. Fulton Hogan's Engineering Solutions Pavements Team offered early savings by suggesting a more suitable and cost-effective binder type. Contaminated soil (coal tar and PHAS) was managed through the development of a collaborative methodology between all parties.

A total of 70,500m² pavement at a nominal 55mm of AC14 was laid, with variable milling between 15 and 40mm. Approximately 6km of paint and line marking completed the job.

Work was successfully delivered over 36-night shifts (8.30pm– 5.30am).

A 15-minute tracker with hold points ensured schedule certainty. To reduce risk our asphalt plant pre-made the equivalent volume to match planned removal rates. The plant also remained. We had a backup paver, mill and rollers and a fulltime Mechanic on site so nothing was left to chance.

All millings were recycled either for resealing the airport's short-term car park or stockpiled at our Renwick crush site for future RAP (Reclaimed Asphalt Pavement) or basecourse use.

The project went to plan, was delivered to programme and to budget. Dean Heiford, MAL CE acknowledged the job was so good the public barely noticed it was happening.



Queenstown

Queenstown Airport Apron Concrete Stands 2-4

\$870K

1 June 2022 - extensions were granted for added work scope variations.

These works involved constructing high strength concrete pavement for stands 2 to 4 on the main passenger apron, along with associated adjacent asphalt pavement and line markings. Additional variation works included two mill and fill patches on the runway and the north side of stands 4 and 5. Bandaging was completed on the runway, and line markings were removed and reinstated as required.

All concrete pours, mill and fill asphalt works, RBB, and joint sealing were completed at night between the last scheduled flight and 6am the following morning to minimise disruption to QAC operations.

The delivery in Queenstown reflects our commitment to health and safety. All personnel were inducted on site in compliance with QAC protocols and Fulton Hogan health and safety standards. They also completed QAC's online safety courses to ensure awareness of emergency planning and general airside protocols. Frequent communication between the Site Engineer and the client ensured high-risk operations like asphalt delivery, were properly managed and notified in advance.

Other airside safety measures included:

- Escorting all traffic to and from the site by a member of the Fire and Safety team. This ensured vehicles followed designated routes and moved only when safe, reducing interaction risks with others outside the works.
- Securing the site with water-filled barriers to prevent public and Queenstown Airport workers from entering the area.

Innovation

Digital Engineering

Our digital engineering teams work in collaboration with our project teams, clients, and stakeholders to design and develop geospatial solutions which document and reveal insights about the infrastructure we build and maintain across the whole asset lifecycle. This enhances project performance by providing digital initiatives (renders and wider investigations) for staging and work sequencing. This can transfer into delivery to assist aspects such as 4D modelling, traffic management, clash reduction, communications, and reporting.

GIS Solutions

Fulton Hogan bring proven understanding of the Airports Pavements Management System (APMS). As demonstrated at CIAL, we have strong inhouse GIS capability and solutions.

These utilise ArcGIS applications to offer whole of life cycle management for stormwater inspections and maintenance, reactive works, general inspections and flood inspections.

We host and administer utilities and geospatial informal on behalf of CIAL. Our crews capture data which is displayed live onto a dashboard, providing instant metrics on progress, targets and quantities of each defect type. These enable the creation of more efficient maintenance work programmes and provide insights into the maintenance works and issues we are finding. The quality assurance, existing services and survey and quantity take offs documentation for new construction are able to be tracked and managed. QA is seamlessly completed on site and a project can be wrapped up almost as soon as the last FOD walk has been undertaken.

3D Scanning

Our innovative 3D scanning tool, FHRapidView®, scans assets or completed work using an iPhone or iPad. It speeds up field measurements and volume calculations, and creates a live record, saving data in ArcGIS as a 3D model for accurate material volume calculations later. It can also be emailed directly to clients. We are enhancing this technology to replace manual sand circle measurements and subjective basecourse mosaic surface assessments.



Modernising information systems

Our \$14M Modern Information Programme (MIP) encompasses upgrades to our intranet and information management capabilities, digital collaboration workspaces, standardised records management, and prepares us for future AI capabilities. This investment will lay the foundational groundwork for enhanced collaboration, data-driven decisions, and quality management.

Concrete Slabs

Fulton Hogan bring extensive expertise in the delivery of concrete and block slabs. We have demonstrated our skill at WIAL, CIAL, AIAL, Queenstown, Dunedin, Invercargill and completed large scale slabs (approx.18,000m²) for NZDF airfields at Ohakea and Whenuapai.

In Christchurch we have delivered 10 aircraft hard stands in the past three years. We are skilled in the sequencing and delivery necessary to ensure disruption is minimised for ongoing airport operations. We run clean sites to reduce FOD risks, plan the timing of concrete deliveries and stay focused on the quality specifications.

Sustainability innovations

In Christchurch our team have built a strong collaborative relationship with CIAL and AECOM and lead Fulton Hogan's airport innovations, many of which have a sustainability focus.

The CIAL journey includes:

- Collaboration on rubber bandaging product application – best practice methodology and specialist product use
- Use of Geospatial System for site service investigations and quality assurance
- CTB material product development
- Development of 'High Rap' product stream into permanent works.

Safety Innovation

We are retrofitting smart AI reversing cameras on our mobile plant fleet to enhance operators' situational awareness and aid safe navigation in complex work environments. These AI cameras identify if a person enters the exclusion zone around plant, providing an audible and visual alarm and preventing a critical risk of plant versus people. These cameras will improve visibility, detect hazards, and reduce vehicle-to-person risks, preventing serious harm. We have already installed 50 cameras with another 350 on the way.



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