



**INNOVATIVE
SUSTAINABLE
PAVEMENT
SOLUTION
SPECIALISTS**



EXCELLENCE FROM THE GROUND UP

Hiway Group has been delivering innovative ground improvement solutions since 1986.

Our reputation for quality performance has been built upon our drive and commitment to Zero Harm, innovation and exceeding our customers' expectations.

It is our commitment to innovation and environmental sustainability that has seen us introduce cutting edge technologies into Australia and develop our own advanced methodologies and stabilising products.

With a proven track record of ensuring high quality, lasting outcomes – even in challenging conditions – our in-house design and contracting teams are industry experts.

Hiway Stabilizers and SAT Civil are Accredited Contractors under the AustStab ARRB accreditation scheme. This independent accreditation assures our clients that our processes and practices meet industry best practice standards.



Hiway Stabilizers provides specialist pavement construction services and advanced stabilisation solutions. Our proven solutions increase strength and durability, and conserve diminishing resources.



Hiway Geotechnical uses world-leading technologies to meet a range of complex geotechnical and foundation requirements for ground improvement and slip/slope reinforcement.



SAT Civil deliver uncompromising road maintenance and construction services. Our innovation has introduced a number of construction methods in, HIPAR and accurate dustless applications.



Hiway Environmental's expert team provides cost effective, site-specific solutions for the remediation of contaminated sites and other environmental challenges, including treatment and processing of unsuitable materials.



SAT Civil

SAT Civil is a leader in the design and delivery of advanced stabilisation solutions for pavements in road construction, infrastructure, maintenance, gas and mining.

SAT Civil is committed to protecting the environment and natural resources by using in situ and ex situ stabilisation, Hot in place asphalt recycling and Dry Matting processes to rehabilitate and rejuvenate pavements. As contractors for government bodies, and private and public construction companies throughout Australia, SAT Civil prides itself in utilizing technologically advanced machines and methods.

Our in situ stabilisation solutions provide a range of subgrade, subbase and basecourse modification services that are more cost effective than traditional road construction and rehabilitation methods.

Our expert team also provides a proven one-stop-shop for design and construction.

INNOVATIVE SOLUTIONS

We provide innovative, cost-saving solutions for:

- ▶ New pavement construction.
- ▶ Subgrade and subbase stabilisation.
- ▶ Aggregate modification.
- ▶ Base-course improvement.
- ▶ Road rehabilitation and maintenance patching.
- ▶ Heavy duty pavements for ports and airports.
- ▶ Rail track stabilisation.
- ▶ Commercial platform slab optimisation.
- ▶ Residential developments.
- ▶ Pavement smoothing.
- ▶ Earthworks.
- ▶ Dustless stabilisation.
- ▶ Hot in place asphalt recycling.
- ▶ Dry matting.

SUBGRADE MODIFICATION

SAT Civil have over 20 years of refined experience in delivering stabilisation solutions.

Our subgrade stabilisation solutions enable construction to be carried out faster and allow for the pavement design to be optimised to deliver significant cost benefits to the client.

They also offer the assurance that the subgrade will provide adequate performance, both during the construction period and in decades to come.

Our track record covers a wide range of applications, from local authority roads to site works for land developers and major infrastructure projects for Government bodies.



APPLICATIONS

- ▶ Construction of new pavements.
- ▶ Earthworks for residential subdivisions.
- ▶ Earthworks for civil and infrastructure projects.
- ▶ Earthworks for industrial and commercial developments.

BENEFITS

- ▶ Significantly improved subgrade stability.
- ▶ Subgrade strength gains of up to 20 times.
- ▶ Cost savings due to reduced requirement for imported aggregates, fewer transport costs and faster construction time.
- ▶ Reduces risk of costly subgrade pavement failures.
- ▶ A robust, durable platform for aggregate construction.
- ▶ Substantially reduces moisture susceptibility.
- ▶ Creates a more uniform subgrade layer.
- ▶ Stabilised subgrade forms a soil particle and moisture barrier that protects overlying aggregate layers from upward migration of plastic fines.
- ▶ Dries large volumes of water-logged soil instantly.
- ▶ Can be undertaken in any weather conditions.
- ▶ Reduces down time by enabling earthworks to continue immediately after wet weather.
- ▶ May enable reduced pavement thickness providing, significant cost savings.

Our solutions improve subgrade performance, while at the same time enabling faster construction and significant aggregate savings.

SUBBASE MODIFICATION

Our subbase stabilisation services enable faster, more cost effective delivery of new pavement construction and existing pavement rehabilitation.

Our expert team is responsible for providing road construction solutions for numerous long-term road maintenance contracts across both Australia and New Zealand. The technology we use meets all local engineering specifications and is accepted by all state highway controlling authorities.

Our in-house design and project management team also offers a range of complementary consultancy services, including aggregate testing and pavement design and modelling.

APPLICATIONS

- ▶ Stabilisation of aggregates for new pavements.
- ▶ Remediation of failed pavements.
- ▶ Area wide pavement treatments.
- ▶ Use of locally-sourced marginal aggregates, previously not suitable for road construction.

BENEFITS

- ▶ Strengthens and improves performance of marginal aggregates.
- ▶ More cost effective than using premium aggregates.
- ▶ Aggregate can be placed much faster – up to 1km of two lane road can be stabilised or modified in a day by a single crew.
- ▶ Prepared surface (prior to sealing) is more durable and requires less maintenance than a premium aggregate alternative.
- ▶ Significantly reduces the need to cut out failed pavement material.
- ▶ Final trimming and surface preparation requires less time and effort.
- ▶ Significantly reduces the amount of imported material needed to rebuild the pavement.
- ▶ Conserves aggregate resources.
- ▶ Quick turn-around process minimises inconvenience to the public.

Aggregate modification reduces the need for new aggregates, improves the strength of the existing pavement and can be implemented quickly to reduce inconvenience to motorists.



BASECOURSE MODIFICATION

SAT Civil's quick-turnaround services rejuvenate aged pavement materials, leaving them as good as or better than a premium basecourse, at a fraction of the cost.

Our solutions cost much less to implement than traditional pavement reconstruction and remediation methods, and are proven to deliver lasting strength in the most challenging conditions.

Our 'one-stop-shop' design and project management service gives clients access to world-leading methodologies, delivered by local experts.

Our state-of-the-art fleet includes specialist foamed bitumen recycling equipment, as well as more conventional cement, lime and polymer stabilisation plant.



BASECOURSE STABILISATION

Basecourse stabilisation improves the performance of pavements by modifying in-situ or imported materials with cement, specialist blends, polymers or foamed bitumen.

SAT Civil has been a major provider of basecourse cement stabilisation pavements in Australia, consistently creating pavements with greater strength and performance, and longer design life.

Our proprietary binders and polymers enable cost effective stabilisation, regardless of aggregate properties, traffic loadings or intended pavement use. SAT Civil also provides a truly dustless stabilisation service through the new generation Wirtgen 240 S Pack dustless stabilizer particularly suited to urban and high profile sites i.e. Airports where traditional forms of stabilisation are not possible.

FOAMED BITUMEN RECYCLING

Foamed Bitumen Recycling is a proven solution for the long-term rehabilitation of pavements that have reached the end of their useful life or need strengthening to accommodate increased loading.

It is a highly cost effective alternative to traditional remediation methods, and is particularly useful in level-constrained settings where a significant overlay is not feasible.

Foamed Bitumen Recycling is quick to deliver and results in a strong and durable basecourse, with viscoelastic performance approaching that of asphalt.

The process also eliminates the need for new aggregates and the end product can be trafficked almost immediately, making it perfect for environments where works are carried out adjacent to active lanes.

FBR pavements can be constructed using specialised in situ equipment fitted with computer controlled systems or by ex situ mobile foamed plants. SAT Civil have proven expertise in both operations.

APPLICATIONS

- ▶ Remediation of failed pavements.
- ▶ Strengthening of existing pavements.
- ▶ Construction of new pavements.
- ▶ Maintenance patching.
- ▶ Area-wide pavement treatments.
- ▶ Seal smoothing.

BENEFITS

- ▶ More cost effective than traditional methodologies.
- ▶ Considerably cheaper than deep lift asphalt.
- ▶ Foam bitumen recycling produces a strong, durable and flexible pavement, with viscoelastic performance similar to asphalt.
- ▶ Proven as an effective treatment for mitigation of pavement deterioration due to freezing and thawing.
- ▶ Conserves diminishing aggregate resources.
- ▶ Significantly reduces or eliminates excavation volumes.
- ▶ Quick turn-around process minimises inconvenience to the public.
- ▶ Can be carried out in unfavourable weather conditions.
- ▶ Can be trafficked almost immediately.
- ▶ Reduced maintenance requirements and whole-of-life costs.
- ▶ Significantly improved resistance to moisture and pumping of fines.
- ▶ No risk of shrinkage cracking.

Our Foamed Bitumen Recycling products have been used on a number of road projects and runways in Australia.



Hot In Place Asphalt Recycling

SAT Civil aims to become leaders in road rehabilitation using advanced technology and innovative processes to provide the highest quality of long term solutions to permanent rejuvenation, Australia-wide and internationally.

SAT Civil have been pioneering hot in place asphalt recycling for over 20 years providing for the rehabilitation and rejuvenation of existing asphalt pavements.

The solution provides for reheating and gentle hot milling of an existing pavement then the addition of rejuvenating agents or conventional asphalt which is then remixed through an inline pugmill and relaid all in one single process.

HIPAR

The benefit of the HIPAR process is that SAT Civil are able to turn an old tired roading surface into a freshly laid brand new asphalt wearing course using existing materials at a fraction of the cost of a conventional mill and relay process. Additionally, the HIPAR equipment is also utilised in for dry matting where existing chip sealed surfaces are flushed or fatty. The heating process allows for the volumetrics of the chip sealed road to be adjusted through the addition of aggregate recorrecting the aggregate to binder ratios and eliminating the bitumen flushing of the road.

SAT Civil are committed to protecting the environment and natural resources by using In situ Stabilisation (Cold Recycling), Hot-In-Place-Asphalt-Recycling (HIPAR), and Dry-Matting processes to rehabilitate and rejuvenate pavements.



APPLICATIONS

- ▶ Rejuvenation of failed, aged or oxidized pavements
- ▶ Treatment of flushed/fatty chip seals
- ▶ Shape correction of existing pavements
- ▶ Remediation of failed pavements.

BENEFITS

- ▶ More cost effective than traditional methodologies.
- ▶ Single process provides for less disruption than and mill and re-lay.
- ▶ Conserves diminishing aggregate and bitumen resources.

The HIPAR process turns old tired roading surfaces into freshly laid brand new asphalt wearing course using existing materials at a fraction of the cost of a conventional mill and relay process.



INNOVATION

SAT Civil have pioneered the use of many of the stabilizing technologies employed in Australia and New Zealand today.

Our expertise and commitment to innovation has seen us develop solutions that optimise material properties to make them ideal for use in all types of applications and conditions

As part of our commitment to remaining at the cutting edge of the industry, we have the largest fleet of purpose built stabilisation plant across Australasia.

We have also developed a range of specialist binder blends and polymers that enable us to deliver exceptional performance in aggregate modification and infrastructure stabilisation.





DESIGN & PROJECT MANAGEMENT SERVICES

The Hiway Group is the only specialist stabilizing contractor in Australia to provide extensive in-house design services.

From concept design to delivery, our in-house team provides a 'one-stop-shop' for design of roading, foamed bitumen, stabilising, asphaltic concrete, rehabilitation and overlay pavement solutions.

We offer a range of consultancy services, from pavement investigation and subgrade analysis, to bitumen 'foamability' testing and foamed bitumen mix design.

Our track record covers a variety of pavement types, from heavy duty pavements for port and airport applications to high level structural and modified highway pavements.



QUEENSLAND – Jan Weinert
503 Sandy Creek Road, Josephville, QLD 4285
PO Box 946, Ashmore City, QLD 4214
T. +61 7 5541 2074 E. info@hiways.com.au

www.hiways.com.au