

Diamond Grid™

Case

Studies



15 years across
27 countries

- Hardstands
- Workshops
- Access Roads
- Haul Roads
- Camps &
- Office Blocks



DIAMOND GRID™



Case Studies













Contents.

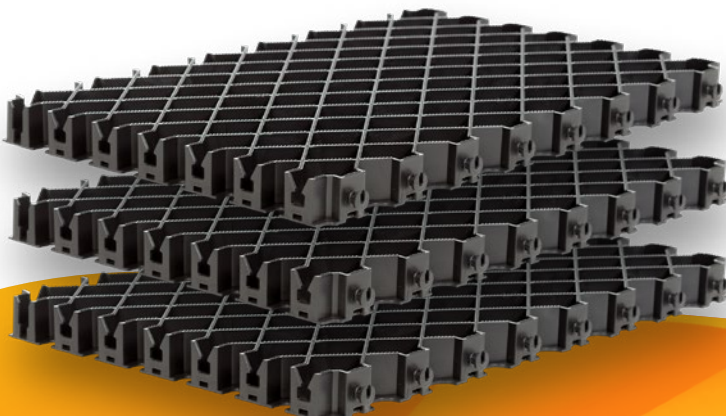


DIAMOND GRID™



Mining & Civil

	Belyando Concrete pavement and hardstand area for heavy machinery, container traffic, and efficient unloading.	3
	Boyne Smelter Unbound pavement for truck loading, machinery storage, and all-weather use.	4
	Blackwater Stable pavement for remote workshop for heavy vehicles.	5
	Curragh Mine Concrete Pavements around the fixed plant.	6
	Collinsville Coal Warehouse Laydown Area.  Includes video link & QR Code – Cost Comparison VS Traditional Concrete.	7
	Anthill Mine Heavy Vehicle Workshop Slab.	8
	Blackwater Workshops and Hardstands.	9
	S&S Heavy Haulage Concrete Hardstand.  Includes video link & QR Code – 6000m2 Concrete Pavement.	10
	Newman Unbound pathways for Camps, Office Blocks & Facilities.	11
	Pilbara All-Weather Access Road.	12





Adani – Belyando

Concrete pavement and hardstand area for heavy machinery, container traffic, and efficient unloading.

Requirements and Challenges:

The client needed a comprehensive infrastructure solution for their container shelter warehouse on the mine site.

- Required substantial concrete pavement to support heavy machinery and container traffic.
- Needed an outdoor hardstand area for efficient unloading of supplies from trucks.
- Solution had to be robust, durable, and seamlessly integrated into the mine site's operational logistics.

Solution:

Implementing Diamond Grid™ for Cost-Effective Infrastructure. We proposed using Diamond Grid to meet the client's needs for a robust yet cost-effective pavement solution.

- Diamond Grid™ enhances surface stability and load-bearing capacity.
- Installed and filled with concrete, providing a seamless and durable pavement surface.
- Significant cost savings compared to traditional concrete slabs.

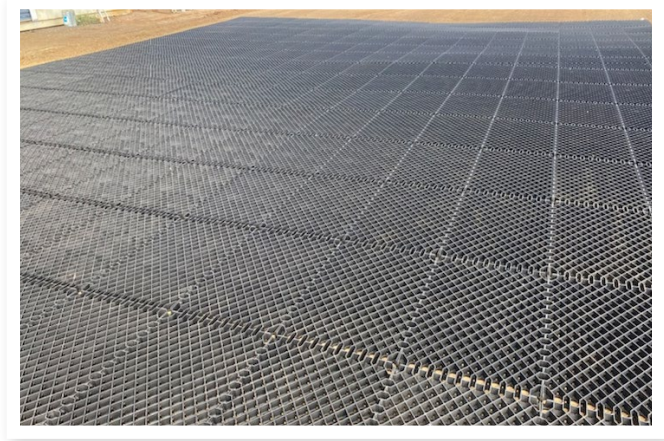
Outcome:

The project delivered a robust, durable, and efficient infrastructure solution.

- Accelerated construction process with access to pavement within 24 hours of installation.
- Long-term benefits including enhanced durability, reduced maintenance, and improved sustainability.
- Successfully met the client's needs and positioned them for long-term operational success.

Installation date: April 2021

Quantity supplied: 1,760m²



RioTinto – Boyne Smelter

Unbound pavement for truck loading, machinery storage, and all-weather use.

Requirements and Challenges:

An “all-weather” pavement solution for their lay-down area to manage heavy machinery and contractor operations.

- Required a durable pavement for truck loading, machinery storage, and remote work.
- Withstand daily use of large forklifts and heavy machinery in all weather conditions.
- Aimed to ensure uninterrupted operations and minimise downtime.

Solution:

We proposed using Diamond Grid™ to meet the client’s need for a durable and versatile pavement solution.

- Recommended Diamond Grid™ filled with unbound gravel material.
- Rapid installation process allowed for immediate use of the area.
- Ensured the lay-down area could withstand heavy machinery and weather conditions.

Outcome:

The project delivered a durable, versatile, and efficient pavement solution.

- Immediate use of the pavement minimised downtime and maximized productivity.
- Enhanced safety with a stable surface that reduces the risk of slips, trips, and falls.
- Long-term durability with resistance to potholing and fatigue, reducing maintenance costs.

Installation date: July 2022

Quantity supplied: 2,350m²

BMA

Blackwater



BMA – BLACKWATER Remote Satellite Workshop for Heavy Vehicles

Requirements and Challenges:

The client needed a sealed pavement for their satellite workshop to address issues with dust and mud.

- Operated a remote workshop for dozers and heavy vehicles with a container and dome roof structure.
- Required a stable and clean parking area for machinery to perform technical data downloads and calibration work.
- Traditional concrete slab installation was not feasible due to downtime and costs.

Solution:

We installed Diamond Grid™ filled with unbound material to meet the client's needs.

- The project delivered a cleaner, more efficient, and safer workshop area.
- Created a stable and durable pavement, reducing dust and mud.
- Improved safety and efficiency by minimising the risk of slips, trips, and falls.

Outcome:

The project delivered a durable, versatile, and efficient pavement solution within a short time frame.

- Enhanced safety with a stable, durable pavement.
- Reduced maintenance requirements and improved operational efficiency.
- Successful installation within a single day, minimising disruption.

Installation date: July 2021

Quantity supplied: 2,20m²

**BUILT
TOUGH**



DIAMOND GRID™



Coronado – Curragh Mine Concrete Pavements around the fixed plant

Requirements and Challenges:

The client needed a sealed pavement to improve safety and efficiency around their CHPP.

- Faced safety and efficiency issues due to unbound pavement areas.
- Required easy-to-clean pavement for managing coal spills and water accumulation.
- Needed a solution that minimized disruptions to operations.

Solution:

We installed the Diamond Grid™ system to meet the client's needs.

- Offered a 78% cost savings compared to traditional concrete slabs.
- Quick installation with sectional implementation to maintain operations.
- Created a sealed, easy-to-clean pavement using skid steers and high-pressure water.

Outcome:

The project delivered a safe, and cost-effective pavement solution superior to unbound with minimal disruption.

- Enhanced safety and operational efficiency around the CHPP.
- Reduced maintenance requirements and improved clean-up processes.
- Successful implementation with minimal disruption to operations.

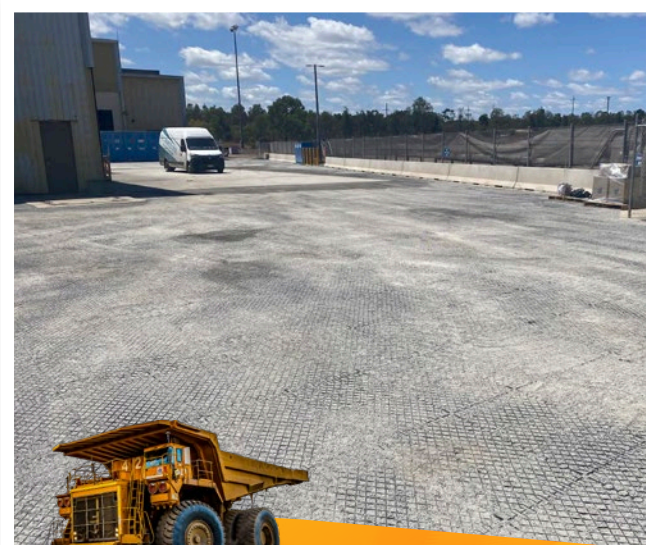
Installation date: October 2022

COST COMPARISON

CLIENT: GLENCORE
LOCATION: COLLINSVILLE COAL
PROJECT: WAREHOUSE PAVEMENT PROJECT

DIAMOND GRID™	TRADITIONAL CONCRETE
COST: \$230,000	COST: \$860,000
BUILD: 2 WEEKS	BUILD: 43 WEEKS
DOWNTIME: 0 DAYS	DOWNTIME: 44 WEEKS

Cost Comparison Video
Diamond Grid vs Traditional Concrete
70.0%
\$630,000



Glencore Collinsville Coal Warehouse Laydown Area

Requirements and Challenges:

Required an all-weather pavement for their warehouse laydown area to address mud and potholes.

- Suffered from fatigue due to an unbound wearing layer, especially during wet seasons.
- Required a durable surface for safely unloading B Double combinations daily.
- Traditional concrete slab was too costly and time-consuming.

Solution:

Diamond Grid™ a minimised disruption to daily operations and considerable cost savings.

- Excavated, imported subbase material, and installed Diamond Grid™ filled with unbound gravel.
- Saved over \$630,000 and approximately 6 weeks of downtime compared to concrete.
- Provided a pothole-free, all-weather surface for daily unloading and frequent forklift movements.

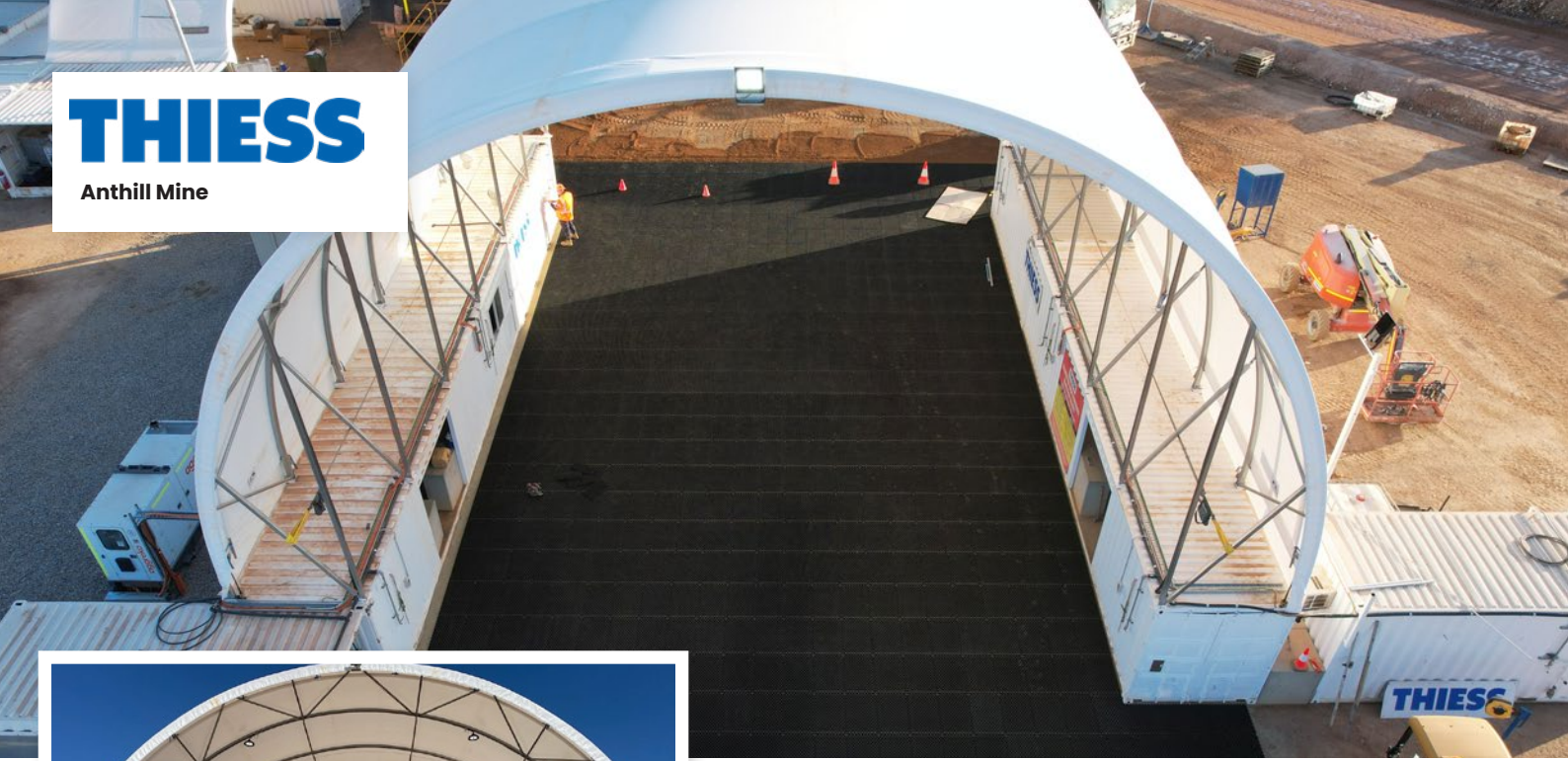
Outcome:

The project delivered a cost-effective, durable, and efficient pavement solution.

- Immediate use of the area with a reliable all-weather surface.
- Significant savings in both cost and time.
- Enhanced operational efficiency and reduced maintenance.

Installation date: May 2023

Quantity supplied: 1,200m²



Thiess – Anthill Mine Heavy Vehicle Workshop Slab

Requirements and Challenges:

A workshop floor to accommodate heavy mining equipment while addressing cost and time constraints.

- Required a strong floor for heavy mining equipment, traditionally needing a 400mm thick concrete slab.
- Faced high costs and long construction times with traditional concrete slabs.
- Existing roadbase floors became dusty, muddy, and fatigued over time.

Solution:

Diamond Grid™ concrete pavement with minimal disruption to daily operations and considerably reduced cost.

- Compacted roadbase material and installed Diamond Grid filled with concrete
- Completed installation within 2-3 days, allowing use within 7 days.
- Created a safer working environment and prevented soil contamination.

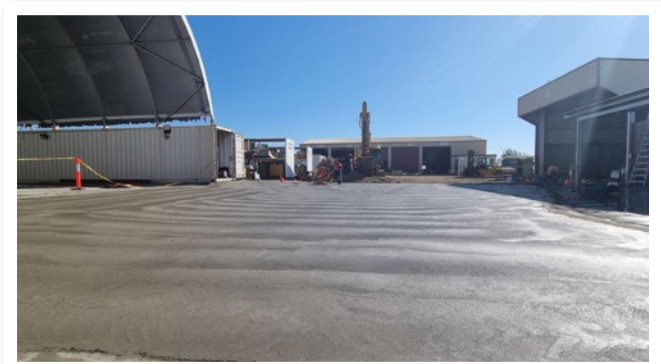
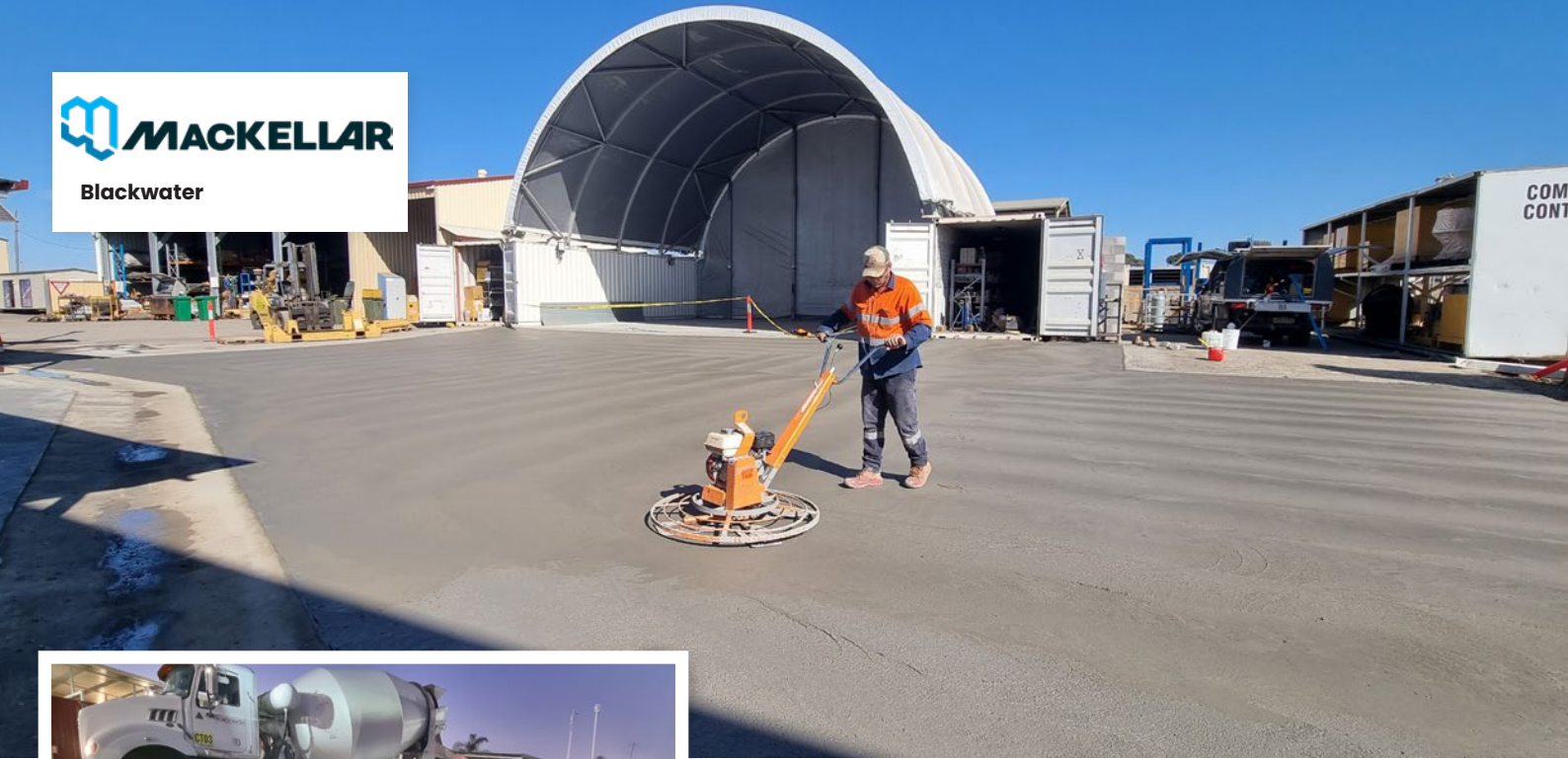
Outcome:

The project delivered a cost-effective, durable, and efficient workshop floor solution.

- Safer environment for personnel and machinery.
- Reduced project time and cost compared to traditional concrete slabs.
- Improved operational efficiency and minimised maintenance.

Installation date: July 2023

Quantity supplied: 2,500m²



Mackellar – Blackwater Workshops and Hardstands

Requirements and Challenges:

A durable sealed pavement for their workshops and hardstands to address inefficiencies caused by an unbound roadbase.

- Faced issues with potholes, dust, and slipperiness when wet.
- Required a durable solution for daily use by heavy machinery, cranes, and forklifts.
- Traditional concrete slabs were unaffordable due to the large footprint; bitumen and asphalt were inadequate.

Solution:

Diamond Grid™ enabled sectional completion, saved 1,909 cubic meters of concrete, and created a durable, clean, and safe surface.

- Allowed sectional completion to minimize operational disruption.
- Considerable saving of over 1,909 cubic meters of concrete.
- Created a durable surface that reduced dust, dirt, and mess, and prevented potholes and slips.

Outcome:

The project delivered a cost-effective, durable, and efficient pavement solution.

- Improved efficiency and safety for the Mackellar Group.
- Significant cost savings and reduced maintenance requirements.
- Enhanced operational efficiency with minimal disruption.

Installation date: December 2021

Quantity supplied: 7,600m²



S&S Heavy Haulage Concrete Hardstand

Requirements and Challenges:

State-of-the-art facility in Mackay to meet the growing demands in the mining sector. Focusing on transporting and repairing heavy mining equipment, specializing in mid-life rebuilds & heavy repairs.

- High costs of traditional concrete for supporting heavy equipment.
- Budget constraints from constructing the new workshop.
- Pavements required durability for heavy daily use without frequent maintenance.

Solution:

Provide 65% savings, minimised delays, and ensure a robust performance for heavy loads.

- Planning: Engineers designed a pavement plan tailored to the facility's needs.
- Subbase Preparation: Proper subbase preparation ensured stability and longevity.
- Installation: The Diamond Grid™ was precisely laid out and filled with concrete.

Outcome:

Delivered a cost-effective, durable, and efficient pavement solution.

- Significant savings in both cost and time as compared to a traditional concrete pavement.
- Can Handle the heavy demands of equipment transport and repairs, enhancing operational efficiency.
- Reduced ongoing maintenance.

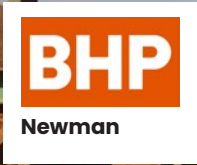
Installation date: December 2023

Quantity supplied: 6,000m²

**BUILT
TOUGH**



DIAMOND GRID™



BHP Mines – Newman Pathways for Camps, Office Blocks & Facilities

Requirements and Challenges:

Required a durable, low cost pavement solution due to high costs, labor shortages, and time constraints associated with traditional concrete slabs.

- High Cost of Concrete: Traditional slabs were expensive, particularly in remote areas.
- Labour Shortage: Finding skilled workers for concrete installation was challenging due to the remote location.
- Time Constraints: Pouring concrete slabs was time-consuming, leading to delays.

Solution:

We provided Diamond Grid™ achieving significant savings, reducing labor requirements, and enabling faster installation to meet the client's needs.

- Cost Efficiency: Achieved significant savings on material and labor compared to traditional concrete.
- Labour Reduction: Required fewer skilled workers for installation.
- Time Savings: Faster installation reduced project timelines and operational delays

Outcome:

The project delivered a cost-effective, durable, and efficient pavement solution, minimizing downtime and ensuring robust performance for heavy loads.

- Cost Savings: Reduced material and labor costs.
- Efficiency: Minimised downtime with faster installation.
- Durability: Pavements withstand heavy loads & constant use.



RioTinto – Pilbara All-Weather Access Road

Requirements and Challenges:

An all-weather access road along a rail siding to load trains with large forklifts and facilitate truck and freight movements in the Pilbara region.

- Harsh Weather Conditions: The Pilbara's extreme weather required a durable, all-weather road.
- Maintenance Concerns: The remote location necessitated a low-maintenance solution.
- Cost and Time Efficiency: High costs and long timelines for traditional pavements were impractical.

Solution:

Diamond Grid™, offered a fatigue-free, all-weather surface with significant cost & time savings compared to traditional concrete.

- Durability: Provides a fatigue-free, all-weather surface suitable for heavy equipment and frequent use.
- Cost Savings: Achieved significant savings on material and labor compared to traditional concrete.
- Time Efficiency: Faster installation reduced project timelines and operational delays.

Outcome:

This solution addressed the challenges of harsh weather, remote location, and high costs, ensuring efficient and reliable freight and equipment movements.

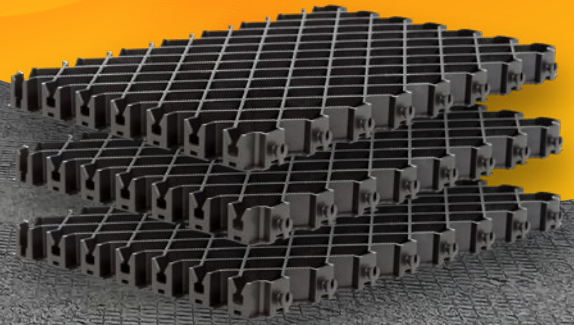
- Cost Savings: Significant reduction in concrete and labor costs.
- Efficiency: Faster installation allowed completion of a larger area than initially planned.
- Durability: The all-weather, maintenance-free pavement withstands heavy use and extreme weather, ensuring reliable operation.



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