GRIDMATS®

Smart, Sustainable Infrastructure for the Future

SHARK TANK INDIA

PATENTED

Patent No. 398992

POTHOLERAJA® GroundReality

Meet The Team

Dr. Prathap B Rao

Founder & CEO

- Former fighter pilot - Indian Air Force & RAF
- Graduated from Harvard & MIT
- Ex-Senior VP for Global Business Services HP, Palo Alto
- Founder of non-profit PotHoleRaja® & Creator of GridMats®
- Organizational Efficiency consultant (PfMP, Lean Six Sigma Master Blackbelt)

Management Team

Pavan Sampath
USA Business Development
Ex-Goldman Sachs
Michigan State Uni

Abhimanyu Kinha
USA - Strategy & Ops
QC Engineer, Tesla

Shariq Ameer
Implementation Manager
Michigan State University

Nikhil S
Asia - Strategy & Ops
Ex-Manager, Bosch

Surya Bhat
Head - Finance and Sales
National-level Sportsman
CSR & Lead Accountant

Dr Kalpana Sampath
CPO
Serial Entrepreneur

Poornima Prathap
Contorller
Educator

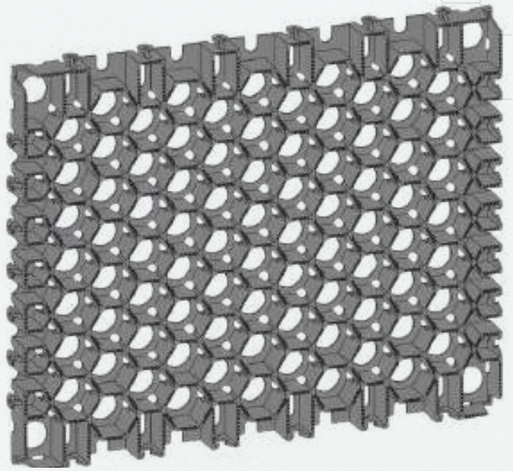
Shravan Kumar
Techie
MTech-Highways

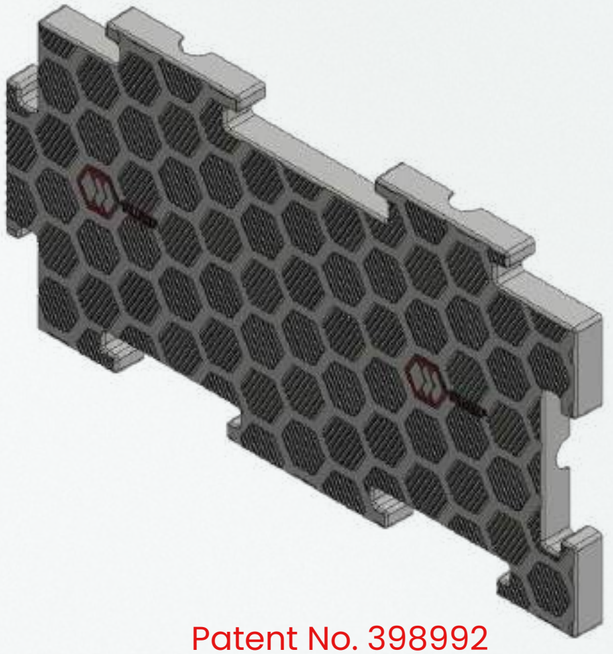
What Is GridMats®?

GridMats® was born from our social mission, **PotHoleRaja®**, where we fixed thousands of potholes across India through CSR programs.

We realized fixing them wasn't enough—**we needed to prevent them.**

Using 100% recycled polypropylene and a patented design, GridMats® creates stronger floors and roads while reducing cost, time, and resources compared to traditional methods.





Patent No. 398992

Product Suite

GridMats® Open Cell

100% Recycled polypropylene

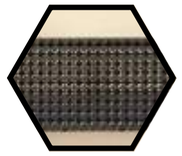
Light Weight	Heavy Duty
19.68 x 19.58 x 1.57 IN	18.07 x 21.96 x 1.57 IN
246,00 Lbs/Sq Foot (Filled Grid Load)	2,460,000 Lbs/Sq Foot (Filled Grid Load)
-30 to 80 Degrees C	-30 to 80 Degrees C

Fill Options

Roadbase, Gravel, Pebbles, Grass, Soil, Concrete, Asphalt

Use Cases

Commercial walkways, public roads, parking lots, Event flooring, Factory Flooring, Hangers, Non-apron roads, Hotels, Permanent Flooring & more



GridMats® Grass Paver

100% Recycled polypropylene

9.84 x 9.84 x 1.18 IN

10,240 Lbs/Sq Foot (Filled Grid Load)

-30 to 80 Degrees C

Fill Options

Gravel or Grass

Use Cases

Grass Car Parks, Golf Courses, Grass Walkways

GridMats® Top Covered

Light weight model 100% Recycled PP

39.37 x 19.68 x 1.96 IN

41,000 Lbs/Sq Foot

14.3 Lbs per tile

Reusable Grids

Use Cases

Temporary Roads, carne pads, storage areas, access roads, events (concerts) & more

GridMats® Solar

100% Recycled PP + Custom Solar Panels

110 W/Sq Meter

Base with GridMats Specifications

Use Cases

Walkways, Parking, EV Charging Stations, etc

GridMats® IoT

100% Recycled PP + IoT Sensors

Track Load, Pressure, Temperature, Stress & Moisture

Use Cases

Surveillance, Footfall tracking, weigh bridges

Heavey duty (Mats)

Recycled materials

Replace any potamats for temproraty roads & accesses

Use Cases

Shuttering, scafolding, Doors, Office Decor, Drain Walls, Cabins and more

Product Images

GridMats® Open Cell
Heavy Duty
INR 1200 per Sqm
(Excl Tax & frights)

GridMats® Open Cell
Light Weight
INR 750 per Sqm
(Excl Tax & frights)

GridMats® Grass Paver
For Grass/Mud Surfaces
INR 550 per Sqm
(Excl Tax & frights)

GridMats® Top Covered
Reusable Temporary Surface
INR 2200 per Sqm
(Excl Tax & frights)

Fill Options

Bitumen

Asphalt

Concrete

7-8mm Stones

9-10mm Stones

12-13mm Stones

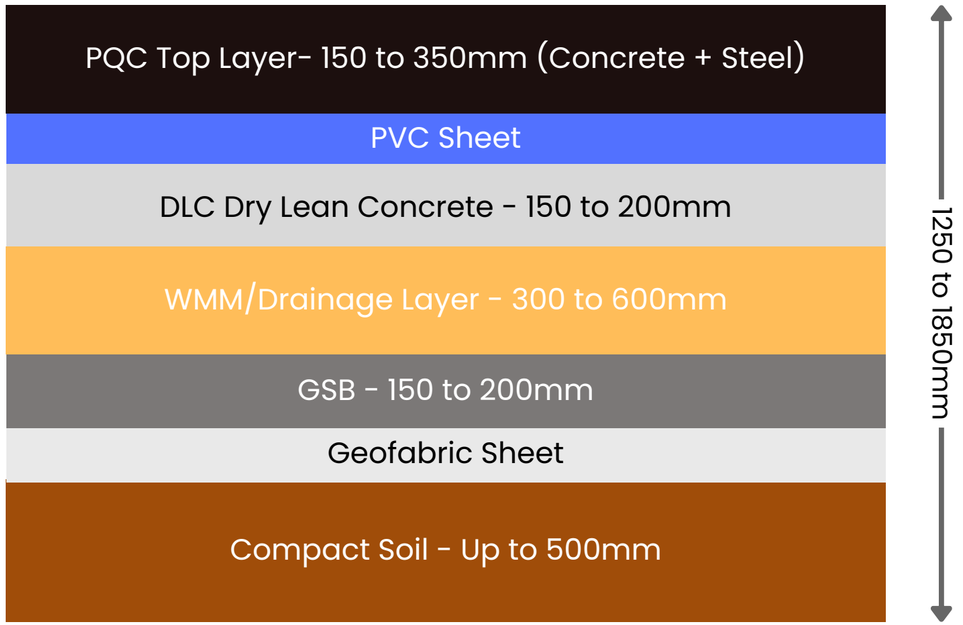
Turf

Gravel

Soil

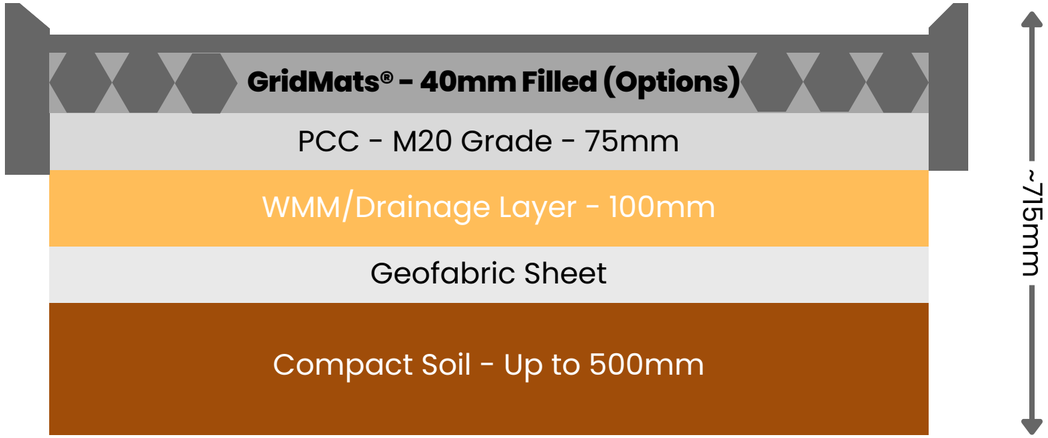
Comparison-CC Road

Traditional Road



50% Reduction

GridMats® Road



~20% Minimum Cost Savings

~25% Time To Install Faster

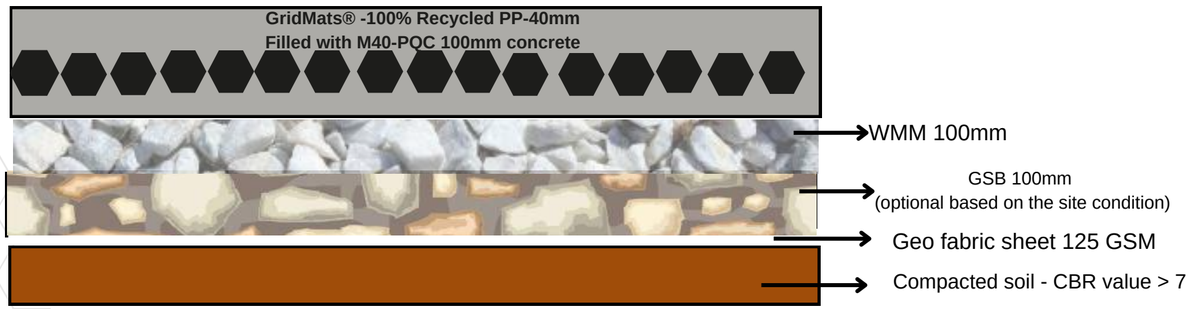
0% Steel Reinforcement Required

80% Reduced Carbon Footprint

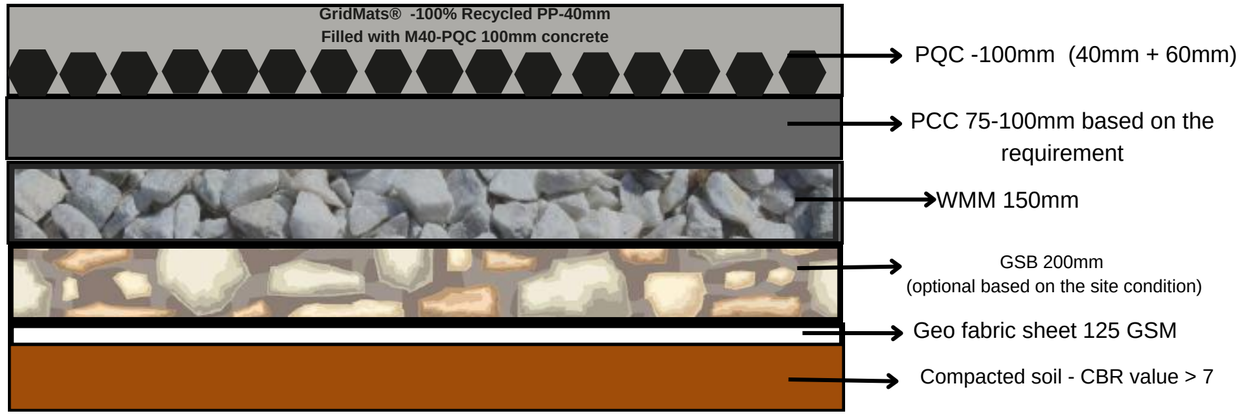
CC Road design

Cross Section - Road
HD-GridMats with Concrete Pavement

Design approach for areas with CBR more than 5



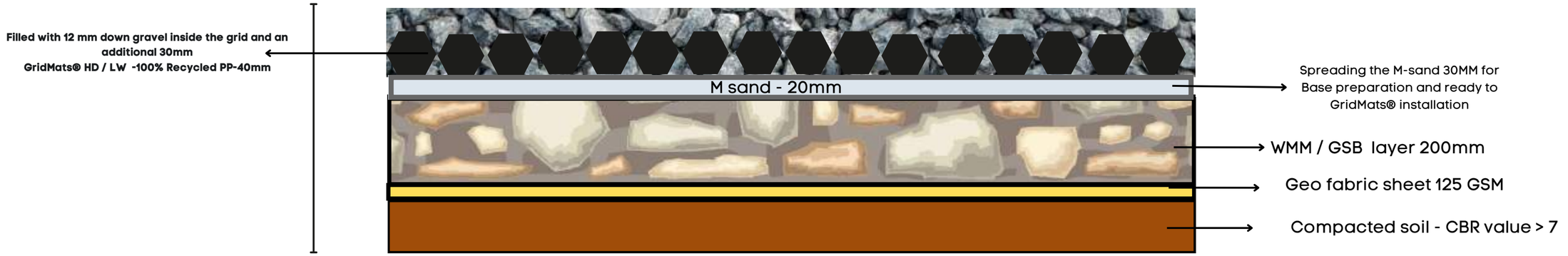
Design approach for areas with CBR less than 5



GridMats HD or GridMats LW will be selected based on the expected load movement on the particular road Subjected to the site requirement

Gravel/Soil road design

Cross Section

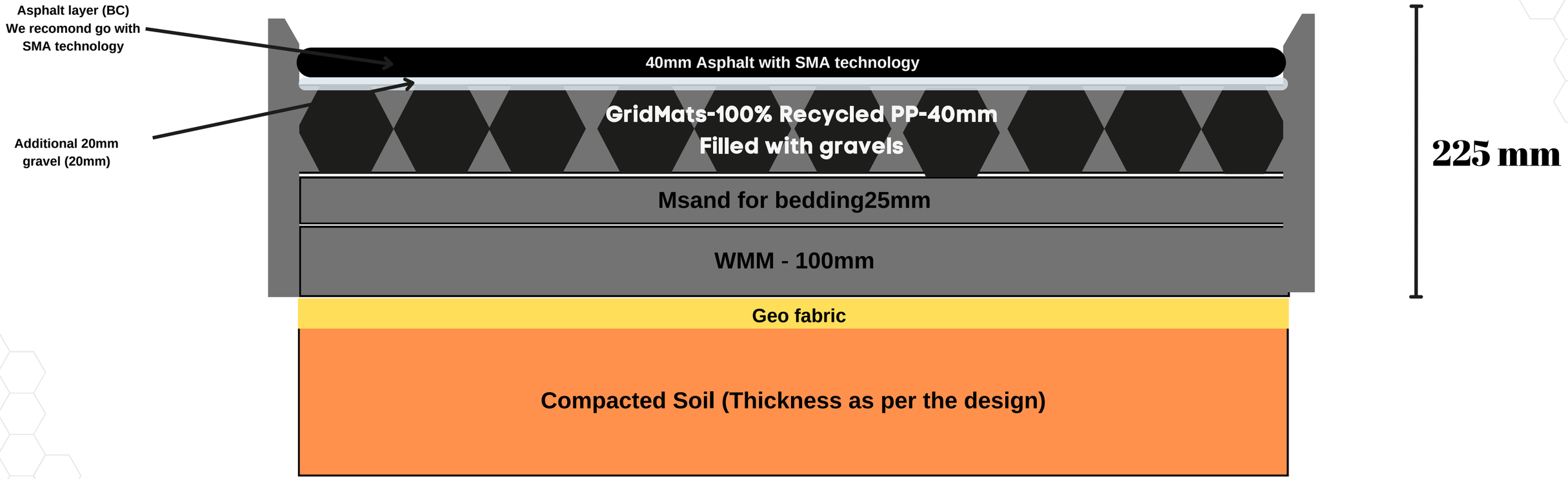


GridMats HD or GridMats LW will be selected based on the expected load movement on the particular road

Subjected to the site requirement

Asphalt road design

Cross Section



GridMats HD or GridMats LW will be selected based on the expected load movement on the particular road

Subjected to the site requirement

Industry Use Cases

Museum & Events

Walkways, footpaths, event display areas, parking, Music Festival Temporary Flooring, Warehouses, Overflow Parking Areas.

Aviation

Non-Apron roads, walkways, parking areas, Storage yards, warehouses, construction sites, loading and unloading bays.

Industry

Industrial flooring, warehouse flooring, loading bays, parking areas, sheds, trolly movement areas, construction sites, slippery areas, and stockyards

Residential

Internal roads, basements, parking areas, play areas, water tanker loading areas, lawns and many other rigid surface applications

Energy Sector

Solar roads, walkways, solar farm supporting structures, construction sites, and permanent and temporary surfaces.

Sports

Play areas, turfs, walkways, cart roads, benches, amphitheatre, lawns, grass and stone filled surfaces

Logistics

Logistics and supply chain yards, warehouse flooring, roads, loading and unloading bays, & temporary and permanent rigid surfaces

Hospitality

Parking areas, entrances, walkways, basements, construction sites, loading areas, balconies, and outdoor dining areas

Benefits Of GridMats®

Technical Benefits

- No additional **expansion** or **contraction** joints required. Integrated design joints
- No change of **settlements** or **potholes** on the roads
- High **longevity** (20+ years) with minimal maintenance
- Strong honeycomb structure promotes high **static** and **dynamic** load bearing
- Overall **thickness** of pavements **reduced** significantly

Commercial Benefits

- Minimum **cost reduction** of over **20%** compared to traditional methods
- **Lower labor** required with interlocking grids that are light weight
- Better aesthetics as cell fill structures **prevents shrinkage cracks**
- Lower curing time required so installation is **~30% lower**
- GridMats® are **removable** and **reusable** so it can be used for temporary roads

Environmental Benefits

- Minimum of **30% lower water** usage compared to traditional methods
- **80% reduction** in carbon dioxide emission reducing **carbon footprint**
- **Lesser dust** during construction using open cell fill structure
- GridMats® are made of **100% recycled polypropylene** reducing landfill waste
- **No steel reinforcements** and **lesser resources** for a better result

Certifications and Awards

Press

THE HINDU

INDIA TODAY

The Indian EXPRESS

MIRROR NOW

SHARK TANK INDIA

Business Standard

the better india

THE TIMES OF INDIA

YOURSTORY

Member

महाराष्ट्र शासन — Maharashtra State Innovation Society

TIA SUMMIT

STARTUP KARNATAKA

MARUTI SUZUKI MAIL — Mobility & Automobile Innovation Lab

GreenPro

CLIMATE SOLVER

GREENR

SOCIAL alpha

BRIGADE REAP

R&D Partners

Indian Institute of Science

Council of Scientific & Industrial Research

Rasta center for Road Technology

Indian Institute of Technology Hyderabad

Maastricht University Netherlands

GridMats® By The Numbers

3 Mn+
SQM Of Roads & Surfaces Made From GridMats®

170+
Customers Supported

2,500+
Tons of CO2-eq Mitigated

4,000+
Tons of Plastic Recycled

13+
Countries with GridMats®

Clients Include

ABB
Radiall
JSW
RMZ ECOWORLD
MARUTI SUZUKI
AJMERA
Godrej
GMR
adani
BRIGADE
TATA STEEL
ADITYA BIRLA GROUP
Brookfield Properties
RINAC
PGP GLASS

GridMats® vs Traditional Methods

	GridMats®	Grass/Paver Blocks	Concrete
Cost	~30% cheaper, less material, low maintainence and less labor	High material cost, required more sub-base	Higher cost for rebar, thick slabs, formwork, plus larger labor budget
Time	Quick interlocking installation, minimal curing	Slower to lay individual blocks; may need mortar	Slower to pour, level, cure large slabs; can disrupt traffic longer
Labor	Lightweight panels easy to handle by small crews	Heavier blocks, can need more manual handling or small machinery	Requires rebar tying, form setting, finishing crews, curing oversight
Strength	50-400 tons/Sq meter of compression load	~40–60 t/m², but can crack if not leveled or if mortar joints fail	300–600 t/m² for standard roads; at risk of cracks at expansion joints
Maintenance	No Risk of heaving/shifting blocks, large potholes	Can develop uneven surfaces, potential for weed growth in joints	Potential cracks, potholes over time; expensive and time-consuming to repair

Case Study

Heavy Duty Road

JSW Steel and Power Plant - Odisha (2024)

JSW has a large steel and power plant in Sambalpur, Odisha, and needed a strong, long-lasting road for industrial use. They planned an 11 km road that is both durable and sustainable. We supplied **25,000 sqm** of GridMats® for building internal roads and parking areas. Our solution supports heavy loads and offers a cost-effective, eco-friendly alternative to traditional methods.

Business Case

JSW needed a low-maintenance and sustainable alternative to traditional pavements for walking trails, garden zones, and driveways.

- GridMats® provided a durable, reinforced surface capable of handling heavy plant movement.
- Helped JSW save 18–20% on overall road construction costs.
- Reduced maintenance costs by avoiding frequent repairs and resurfacing.
- Approx. **138,480 kgs of plastic** were reused in the process.
- Around **1,767,150 kgs of CO_2** emissions were reduced, contributing to a greener environment.

Specifics

25k	20%	80%	25%	200
Sqm of GridMats®	Reduced Expenses	CO2 reduction	Reduced Install Time	Tons/Sq M of strength

GridMats® HD Industrial Road

Case Study

Drive and Walkways

GMR Airport - Hyderabad, India (2023)

The first Indian airport to have the Airport Operations Control Centre, the nerve centre for all coordination within the airport. It proudly serves over **24 million** passengers every year.

Business Case

As one of the most innovative airports in India, they looked to improve their internal access roads and walkways using GridMats® to ensure damage proof, long lasting and sustainable roads.

The roads are used for internal airport staff to use buggies to travel to other parts of the airport faster. These walkways experience high, consistent footfall. They will also be used by forklifts for moving objects and heavy parts. So durability and compressive load were key metrics.

Specifics

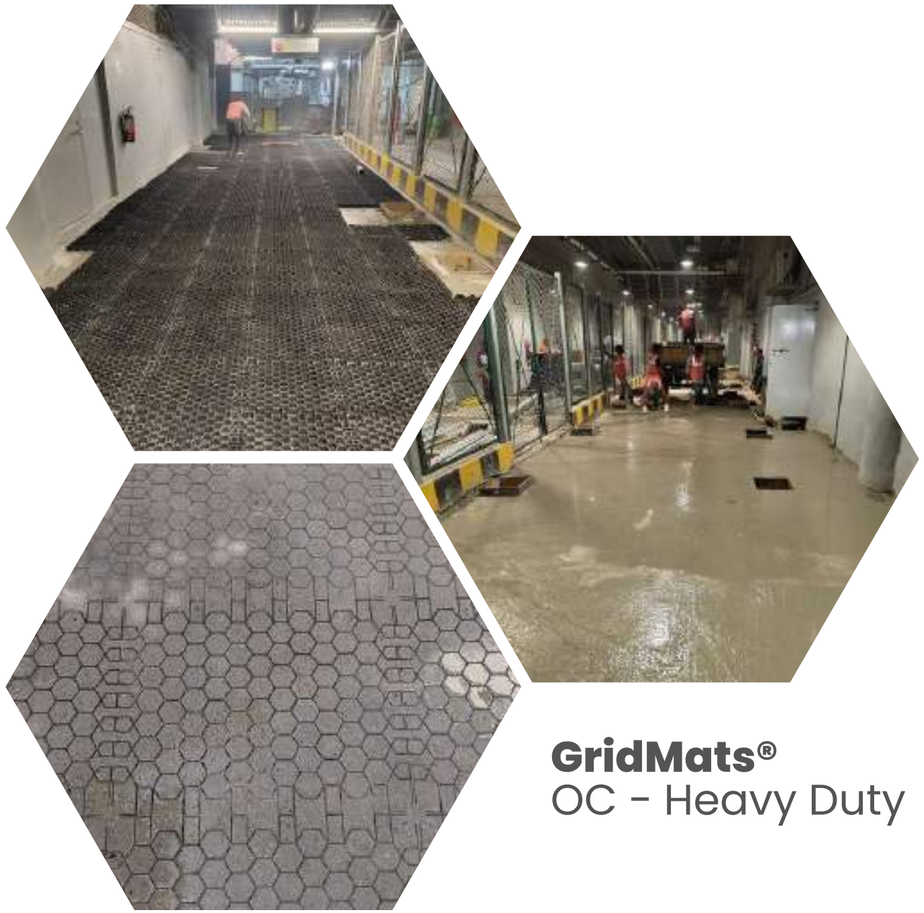
9.3
Million Sq Foot of GridMats®

32%
Reduced Expenses

81%
Reduced CO2 Footprint

26%
Reduced Install Time

400
Tons/Sq M of strength



GridMats®
OC - Heavy Duty

Case Study

Landscaping

Prestige Tranquil Apartment Complex (2022)

Prestige Tranquil, a luxury residential community known for its lush green spaces and premium amenities, sought an eco-friendly, durable, and aesthetically pleasing solution to reinforce its landscaped walkways, garden paths, and parking areas. With high foot traffic from residents and visitors, maintaining the greenery while ensuring accessibility was a key challenge.

Business Case

The management team at Prestige Tranquil wanted a low-maintenance and sustainable alternative to traditional pavement for their walking trails, garden zones, and driveways.

- Reinforced green spaces that retain natural aesthetics without soil erosion.
- Permeable pathways for proper rainwater drainage, preventing waterlogging.
- Durability under foot traffic and light vehicles such as bicycles and golf carts.
- Reduced maintenance costs, avoiding frequent lawn repairs and pavement fixes.

Specifics

4.2
Million Sq Foot of GridMats®

40%
Reduced Expenses

85%
Permeability and Draining

25%
Reduced Install Time

150
Tons/Sq M of strength

GridMats®
Grass Paver

Case Study

Temporary Access Road

Coffee Plantation (2021)

A leading organic coffee estate, required a temporary yet durable access road for the transportation of harvested coffee beans, workers, and equipment. The challenge was to create a cost-effective, eco-friendly, and non-disruptive road through uneven, soft terrain without damaging the surrounding ecosystem.

Business Case

During harvest season, daily transport of coffee beans and workers placed significant strain on traditional dirt paths, leading to erosion, soil compaction, and accessibility issues in wet conditions. GreenHorizon needed a solution that could:

- Support heavy vehicles, including tractors and small trucks, without sinking into the soft soil.
- Prevent soil degradation and protect the plantation's delicate ecosystem.
- Allow quick installation and removal after the harvest season.
- Ensure all-weather access, even during monsoon conditions.

Specifics

5.8
Million Sq Foot of GridMats®

75%
Reduced Soil Erosion

50%
Reduced Maintenance

40%
Reduced Install Time

400
Tons/Sq M of strength

GridMats®
OC - Heavy Duty
& LW based on load

Launch: Q4 2025

GridMats® Solar

GridMats® Solar is our latest innovation ready for commercial use. We use MLP Plastic and Solar Panels and lay them on top of our grids to create floors and walkways that can generate electricity.

Product Specifications

Power Output: 20 Watt/Tile (110 W per Square Meter)

Weight: 12 Lbs per board

Load Bearing: 1 ton/Sq M

Size: 500 x 500 x 60 mm

GridMats® Solar: 16-18% Efficiency (vs 18-20% for rooftop option)

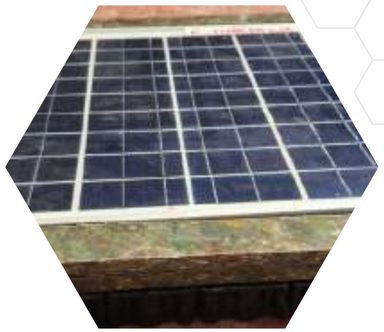
Costs on par with rooftop options

Use Cases

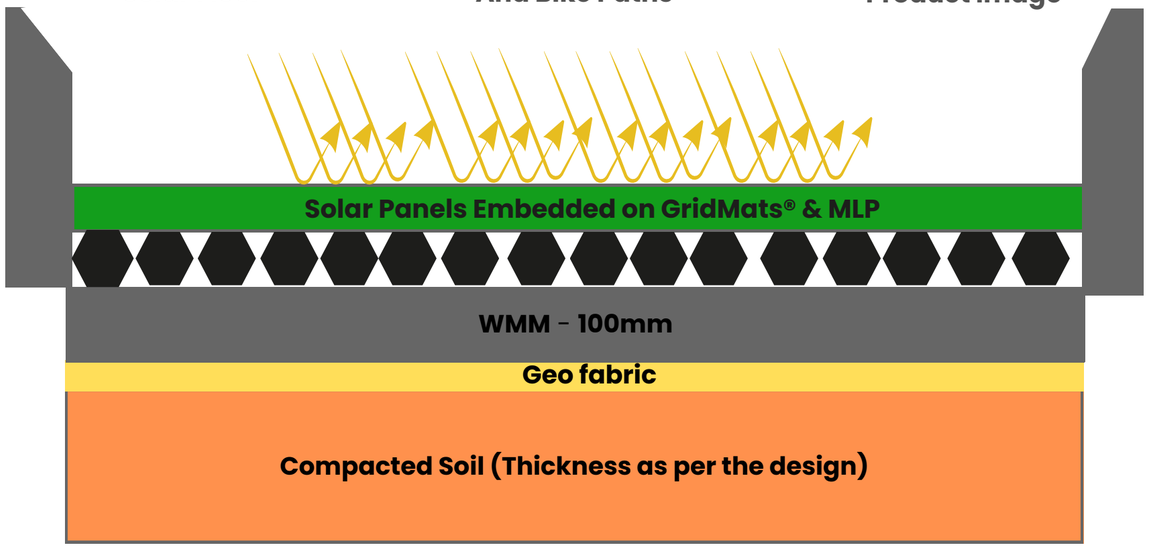
Walkway, Cycle Path, Park lawn, Car Parking Balcony flooring

Balcony With Solar Floor

Internal Roads And Bike Paths



GridMats® Solar Product Image



Designed for Max load of 1 Ton/Sq m

Launch: Q4 2025

GridMats® IoT

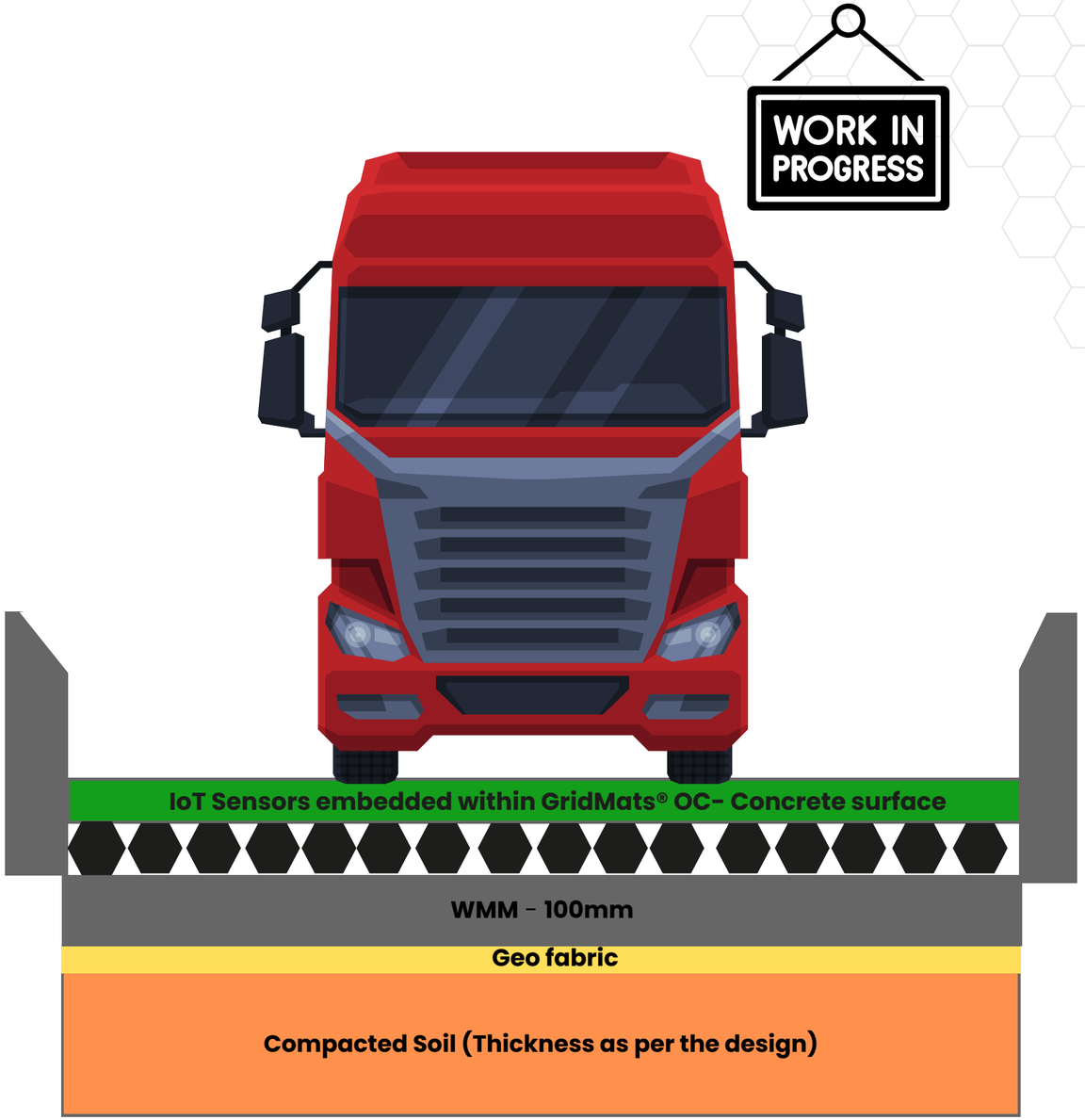
GridMats® IoT is at the forefront of our research and development efforts where we can embed various sensors on GridMats® to provide unparalleled data and analytics.

Sensor Options (Data Measured)

Pressure
Load cell
Moisture
Temperature-Thermocouples
Strain Gauge
Vibrations
Fiber Optic Sensors
Footfall Data

Use Cases

Plazas and malls foot traffic monitoring, weigh bridges, border control, secure compound monitoring, Traffic trend analysis.



Designed for Max load of 150 Tons/Sq m

GRIDMATS®

www.gridmats.com

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Sales@GridMats.com

ANY QUESTIONS?

GridMats® OC-LW-30 MM
Installation-Gravel road

GridMats® OC-HD-40 MM
Installation- CC Road

How Does It Work? For Heavy Duty Concrete Roads

Step 1

Clean and Dispose Debris

Step 2

Prepare the gradient on existing surface

Step 3

Place the shoulder kerbstone/ saucer drain

Step 4

Spread WMM on Geofabric Textile

Step 5

Compact WMM with roller & create profiles

Step 6

Prepare Bedding

Step 7

Place the GridMats® with 3.5 to 4 mt panel size. 10 mm gap for expansion.

Step 8

Interlock and compact

Step 9

Sprinkle Water to wet the bedding sand

Step 10

Place the concrete SCC over the GridMats®. Finish with power floater machine

Step 11

Allow the concrete to set overnight

Step 12

Cure the concrete surface for 15 days

The illustrations are for reference and conceptual understanding only and may not accurately represent the actual product or installation.

Annexure

Executed Projects

Ecoworld ORR Public Road- Bengaluru

Installed-2022

3000 Kgs of Plastic Waste Ultilized

KARNATAKA

In Bengaluru, road built with 100% recycled plastic waste between Ecoworld and ORR

SPECIAL CORRESPONDENT

BENGALURU | JULY 14, 2022 21:16 IST
UPDATED: JULY 15, 2022 10:38 IST

The road has been constructed using what is touted as a first-of-its-kind solution by PotHoleRaja called GridMats

What is better than a smooth, pothole-free road? One that has put plastic waste to good use. A new concrete road connecting Ecoworld and the Outer Ring Road (ORR) to ease the traffic congestion in the area has been built entirely from 100% recycled plastic.

The project, undertaken under a partnership between the Bruhat Bengaluru Mahanagara

INNOVATION | PLASTIC

PotHoleRaja Builds 25% Cheaper Road From 3000 Kg of Plastic, Assures '5-Year Warranty'

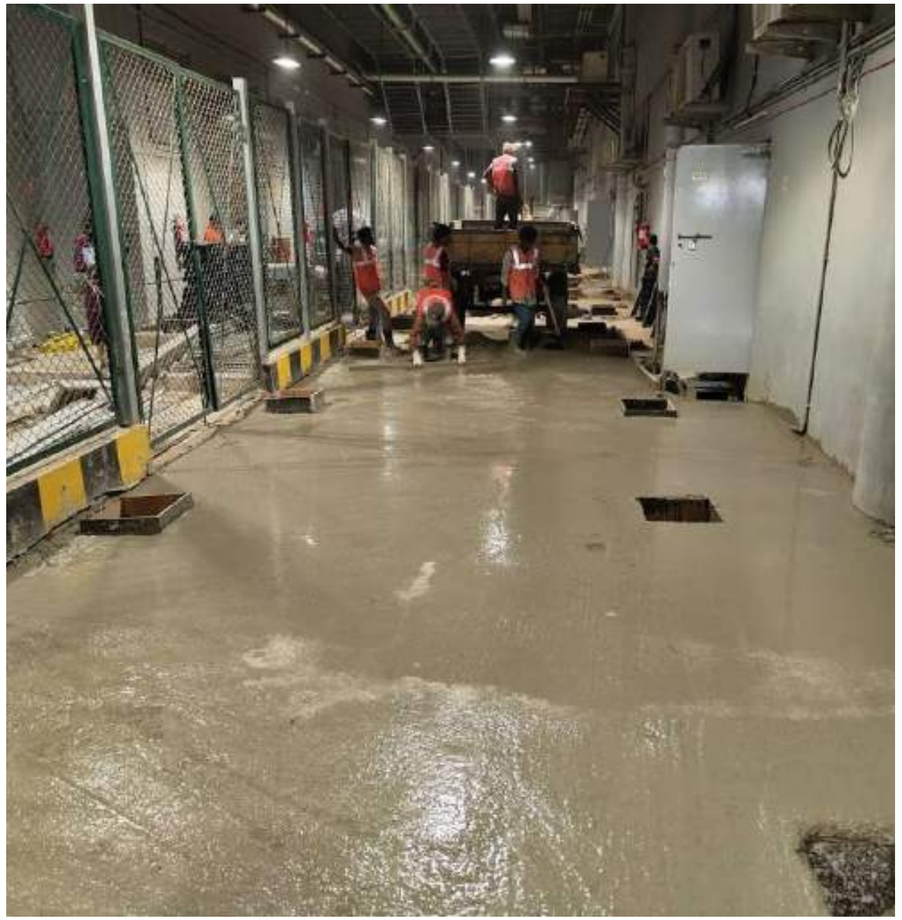
By Rinchen Norbu Wangchuk August 1, 2022

In Bengaluru, PotHoleRaja has built an innovative road using 3000 kg of recycled plastic, that's cheaper, uses less water and gives a 5-year warranty of being pothole-free.

Earlier last month, PotHoleRaja®, a social enterprise on a mission to fix roads in India, was contracted to construct a road using its patented 'eco-friendly' and 'durable' technology called GridMats® crafted entirely from recycled plastic waste.

Installed-2022

GMR Hyderabad Airport



Installed-2024

Amphitheatre inside Waters Office

Installed-2024

Projects Executed

Aditya Birla Group- Guindy National Park

ADITYA BIRLA GROUP

Installed-2024

Svamitva Floresta - Kanakapura

Grass Top Road

Installed-2022

Orxa Energies- EV Bike Test Track

Installed-2022

Nestalra Layout - Devanahalli

Installed-2022

Footpath at Radial

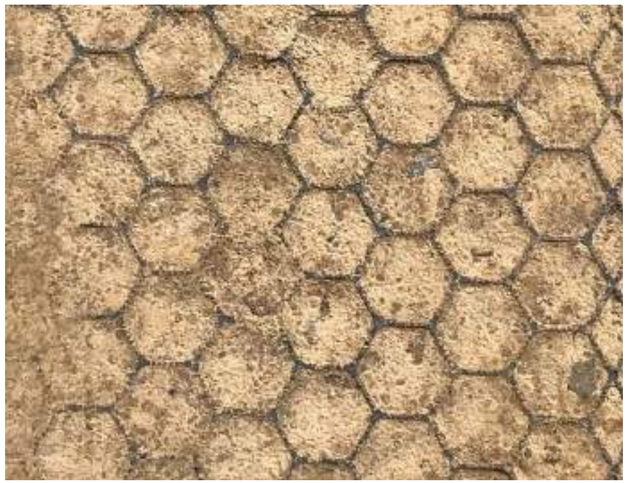
Installed-2024

Ajmera Mumbai-Bhakti Park

Installed-2022

Maruti Suzuki - Gurugram

Concrete Road



Landscaping Road

Bituminous Road

Installed-2021

ABB - Peenya

Entrance Ramp at ABB Factory with GridMats

2KMS of drain cover slab reinforced with GridMats

Installed-2021

Prestige Tranquility Apartment

200 SqMt road restoration work

Concrete Road

Installed-2021

Gayathri Associates

Concrete Flooring

India’s first road hump from plastic waste

At RMZ Ecoworld, Bengaluru

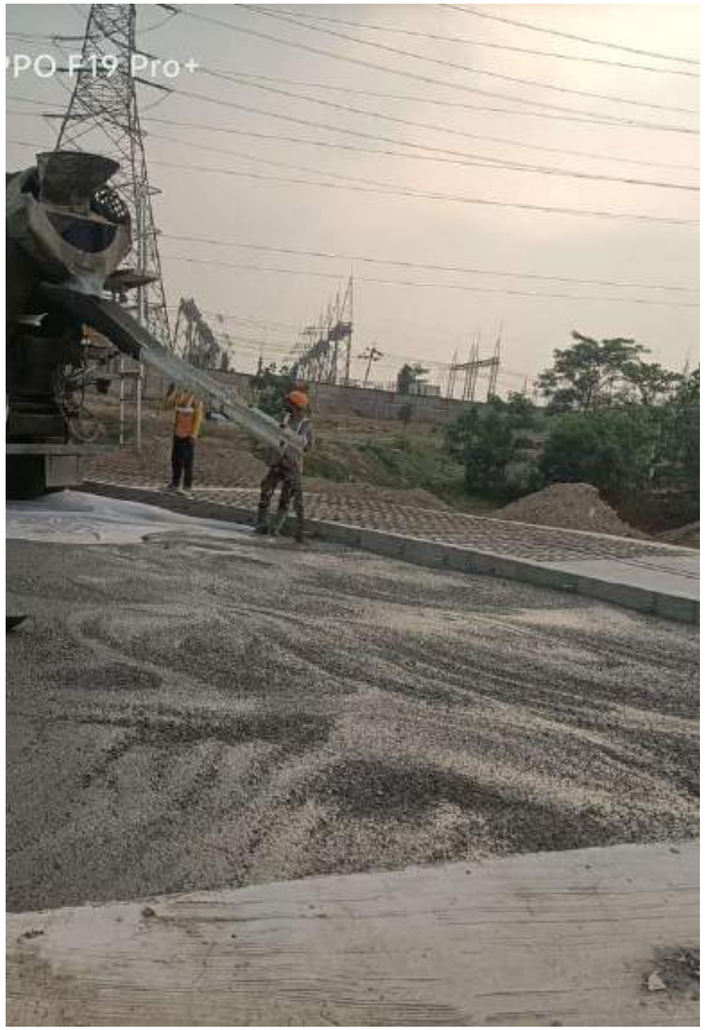
← **Rubber humps – Expensive & needs continuous repair.**

PotHoleRaja GridMats speed hump
Installed-2018

↓

- 36 kgs recycled plastic used
- Eco-friendly cold asphalt (no pollution)
- Just 2 hrs to install.

Jindal Steel - Odis



Installed-2025

GridMats TC Testing - Bangalore

Sample tesing
20Sqmt

Installed-2024

GridMats TC Testing - Singapore

Installed-2024

Farm Land

Installed-2019

Contact Us

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+ 91 9972711331

www.gridmats.com
www.potholeraja.com

GRIDMATS®

Scan here

click here - https://wa.link/5x4hfn

Smart, Sustainable Infrastructure for the Future