





## COMPANY PROFILE

Geoharbour Australia Pty Ltd has been established in 2016 as an Engineering Procurement Construction (EPC) contractor with specialty on soft soil improvement. We are a member of Shanghai Geoharbour Group which has been in operation for more than 15 years.

Our Group owns over 30 patents, supported by more than 10 geotechnical PhD and has completed over 300 large-scale projects. We have treated soil of over 10,000 hectares including roadways, airport runways, land reclamation, power plants, port stack yards and factory buildings across the world.

Our Chairman has been awarded multiple awards including the World Intellectual Property Organization (WIPO), the Green Invention Glory and the World 10<sup>th</sup> Boghsch Memory.

With offices in Australia, China, Indonesia, India, Malaysia, Middle East, Myanmar, Singapore, South America and Vietnam, we work together and hard to deliver optimum solution and first-rate service to our clients.

Geoharbour Australia started from Perth and will be expanding across Australia and New Zealand.

Geoharbour Group has been taking an active role in the development and innovation of technology and scenario, aiming at the best outcomes with the least investment. Geoharbour has been insisting to create more value for clients with its professionalism.



# OUR SERVICES

As an experts of foundation and soil improvement, we provide a complete solution with quality and cost efficiency to our customer. We support customers in engineering design and construction for any soil problems.

## SOIL IMPROVEMENT

- High Vacuum Densification Method



- Vacuum Consolidation



- Vibro-compaction



- Vibro-flotation



- Dynamic Compaction



## SOIL IMPROVEMENT

- Deep Cement Mixing



- Vibro-replacement



## MARINE CONSTRUCTION WORK

- Dredging



## FOUNDATION

- Bored Piles





## OUR SPECIALITY

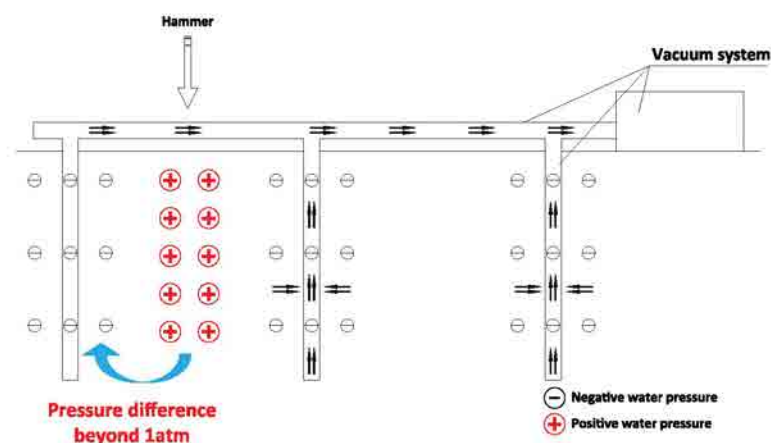
In 2001, HVDM series of technologies was developed by the Group independently and the Group made the patent registration and successfully promoted throughout the world.

**Fast “HVDM” (High Vacuum Densification Methods) Series of new technology compared with conventional technologies has 4 advantages**

**High Efficiency**  
**Environment-friendly**  
**Economically Viable**  
**Excellent QA & QC**



### Schematic of HVDM Construction



HVDM is one of Geoharbour Group's series of patented technology, which outperforms dynamic compaction, one of traditional ground improvement methods. HVDM enables soil consolidation process expediated by a pressure gradient acted within the ground, which is formed between positive pressure (i.e., excess pore water pressure from dynamic compaction) and negative pressure (i.e., vacuum pumping). HVDM extends the treatment scope of dynamic compaction to saturated silty soil. By using HVDM, an over consolidated hard crust is formed in the subsurface, which helps mitigate the post-treatment settlement of a job site.

## FEATURE PROJECTS



### Road & Highway

*Palembang—Indralaya Toll Road*

<b>Location</b>	Sumatera, Indonesia
<b>Client</b>	Hutama Karya
<b>Scope</b>	Vacuum Preloading
<b>Start year</b>	2015
<b>Completion year</b>	on-going

In 2015, Geoharbour Indonesia (Geotekindo) was engaged to carry out ground improvement as part of the new Palembang—Indralaya Toll Road.

The project involved 85Ha of total area, 10 to 25m depth of very soft soil with 17km in length. Some of the area required a high backfill to approximately 9m. Our technology method was able to consolidate the soil to reach a settlement up to 2.2m.



### Power Plant

*PLTU Jawa 7*

<b>Location</b>	Java, Indonesia
<b>Client</b>	Energy China ZTPC
<b>Scope</b>	Vacuum Preloading
<b>Start year</b>	2016
<b>Completion year</b>	2017

In 2016, Geoharbour Indonesia (Geotekindo) was engaged to carry out ground improvement of power plant.

The project involved 27 Ha, 14 to 17m depth very soft soil which was unused fish pond. Part of the area was newly reclaimed land.

The most challenging problem was to construct an embankment over very soft marine clay with coral mixed at some shallow depth. Our technology method was able to consolidate the soil to reach a settlement up to 1.5m.



## FEATURE PROJECTS



### Research and Development

*Fast-tracking NSW and Queensland project funding for industry-research collaboration*

<b>Location</b>	Australia
<b>Client</b>	University of Wollongong in conjunction with Australian Research Council
<b>Scope</b>	Vacuum consolidation + PVD
<b>Period</b>	2017 to 2019
<b>Completion date</b>	on-going

In 2017, Geoharbour Australia as a major industry partner of University of Wollongong takes part in an Australian Government funded geotechnical research project (Australia Research Council Linkage scheme).

The project will involve field tests on mitigation of mud pumping in soft subgrades under rail tracks. Geoharbour's ground improvement technologies using PVD and vacuum preloading will be applied in this research which is expected to propose a new method that can significantly save the maintenance cost for Australian railway tracks.



### Airport

*Changi Terminal 5*

<b>Location</b>	Singapore
<b>Client</b>	Singapore Ministry of Transport
<b>Scope</b>	PVD Installation Works, Deep Soil Mixing & Vacuum Consolidation Works
<b>Start year</b>	2014
<b>Completion year</b>	on-going

In 2014, Geoharbour Singapore was engaged in the land preparation works for Changi Airport Terminal 5.

This project involved the treatment on very soft to soft marine clays, soft organic clays and silty clays using the technologies of PVD, vacuum pumping as well as deep soil mixing method on a land of about 640,000 square metres.



## OUR MANAGEMENT SYSTEMS

Geoharbour Australia is committed to deliver all its projects on track and under the operation of its safety, quality, environmental and risk management system.

### SAFETY

We put high effort in safety and healthy workplace for our workers and others affected by our workplace activities by:

- ensuring the company complies with all legislation relating to work health and safety
- eliminating or minimising all workplace hazards as far as reasonably practicable
- providing adequate information, procedures and training to enable all workers and contractors to do their job safely
- consulting, encouraging and respecting all workers' involvement in the improvement of work health and safety
- providing appropriate safety equipment and personal protective equipment whenever required

### QUALITY

Our company treat quality as a strategic objective and an integral part of the company culture.

### RISK MANAGEMENT

Our company culture and commitment for risk management are designed to plan, monitor and control those measures needed to prevent exposure to risk.

### ENVIRONMENT

We make every single effort to improve, innovate and maintain our green technology for a safer earth and stronger ground.



## **GH** CONTACT US

**We're here to help.**

### **Geoharbour Australia**

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