IPEX INFRASTRUCTURE (P) LTD

CORPORATE PROFILE

Building spaces that power growth

www.ipexinfra.in

INTRODUCTION

IPEX is a privately owned ground engineering company based in New Delhi, operating across India and abroad.

Established in 2009, the company specializes in executing large-scale ground engineering projects throughout the country.

IPEX is supported by a strong, dedicated, and highly experienced team of qualified engineers and professionals committed to delivering successful project outcomes.

To remain at the forefront of this dynamic industry, we continuously develop our business capabilities, refine our techniques, and explore innovative alternatives to deliver economical and feasible solutions suited to diverse ground conditions — ensuring complete client satisfaction.

We consistently uphold high standards and foster innovation in every project we undertake. Our growing construction teams possess a deep understanding of on-site challenges and are focused on providing practical, efficient, and cost-effective solutions.

The company comprises approximately 100 personnel, including managers, project engineers, quantity surveyors, supervisors, operators, and skilled labourers — many of whom have extensive experience in piling, diaphragm walls, ground/tie-back anchors, etc.

VISION AND GOAL

Vision and innovation in construction techniques are the core traits of our company.

With determination, passion, energy, knowledge, and talent, we deliver products and services that consistently exceed customer expectations.

We have the capability to execute projects of any scale — from the smallest to the most complex — to the complete satisfaction of our clients.

QUALITY POLICY

IPEX is committed to understanding and meeting the expectations and needs of our customers.

While complying with all statutory and regulatory requirements, we strive for continuous improvement in the performance of our Quality Management System.

Stringent quality assessment and uncompromising quality control are the hallmarks of our organization.

HEALTH, SAFETY, AND ENVIRONMENT POLICIES

a. Health and Safety Policy

IPEX considers health and safety as a core business value and is fully committed to safeguarding and promoting the well-being of its employees, contractors, clients, and the public who may be affected by our operations.

We believe that maintaining a safe and healthy work environment is fundamental to operational excellence, employee morale, and business sustainability.

Our Commitment In pursuit of this commitment, we continuously strive to:

- Ensure full compliance with all applicable laws, regulations, and standards related to Occupational Health, Safety, and Environment (OHSE).

- Promote continual improvement in the performance and effectiveness of our OHSE Management System.
- Enhance awareness and accountability among employees, clients, and suppliers through proactive communication, engagement, and structured training programs.
- Regularly review and improve our OHSE Management System to ensure its ongoing suitability, adequacy, and effectiveness.
- Foster a safety-oriented culture through leadership, continuous learning, and appropriate training at all levels.
- Integrate OHSE considerations into all major business decisions, including equipment selection, adoption of new technologies, services, and personnel appointments.
- Provide adequate resources to effectively implement and sustain the company's OHSE Policy and objectives.

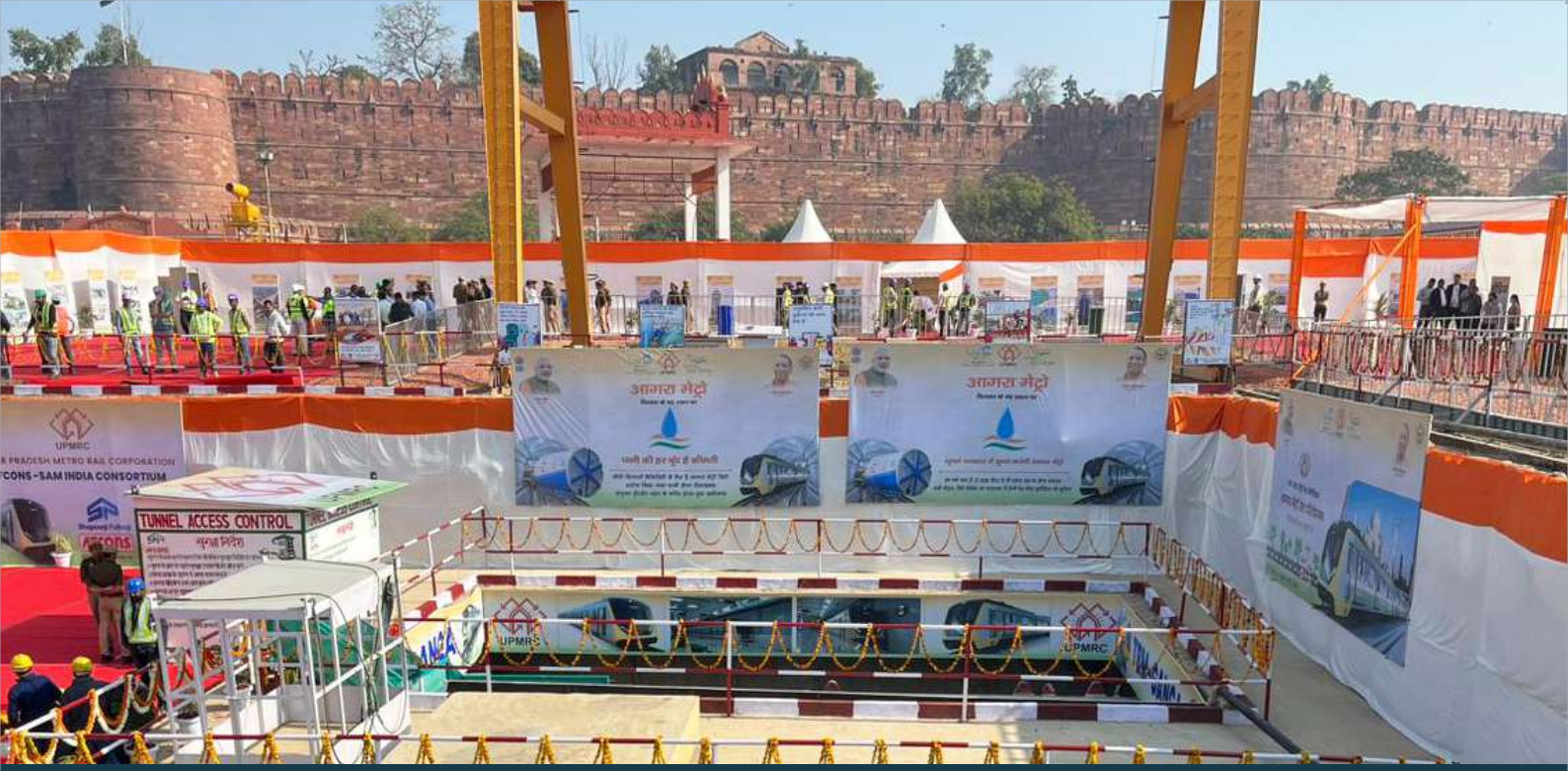
Commitment to Excellence

Our Senior Management ensures that a documented Safety Management System (SMS) is developed, implemented, and maintained across all levels. This system defines clear arrangements and organizational responsibilities to achieve safety objectives and reflects recognized industry best practices.

The Safety Management System (SMS)

The SMS outlines how the company:

- Implements its Health and Safety Policy.
- Identifies, assesses, and controls workplace hazards and risks.
- Monitors and reviews operations, implementing corrective and preventive actions where necessary.
- Allocates sufficient resources to achieve safety and operational excellence.
- Encourages workforce involvement and ownership in safety programs.
- Investigates incidents and implements preventive measures to eliminate recurrence.



STRENGTH THAT SHAPES CITIES

OUR SAFETY PHILOSOPHY

We are committed to fostering a safe, secure, and positive safety culture across the organization.

At Ipex Infrastructure, we:

- Encourage collaboration, communication, and consultation among all stakeholders who share our vision of "Zero Compromise on Safety."
- Believe that safety is a collective responsibility, and every individual plays a key role in maintaining a safe workplace.
- Ensure that every employee returns home safely each day.
- Recognize that continuous improvement in safety performance can only be achieved through awareness, participation, and commitment from every team member.

ENVIRONMENTAL POLICY

IPEX is committed to achieving excellence in environmental performance as a core business objective. We dedicate ourselves to protecting, preserving, and enhancing the environment in every aspect of our operations.

This commitment is implemented through a robust Environmental Management System (EMS), which governs both our office and on-site construction activities.

Our Environmental Objectives We strive to:

- Ensure full compliance with all applicable environmental laws, regulations, and standards.
- Minimize environmental impact through responsible planning, execution, and innovation in our operations.
- Prevent pollution by controlling emissions, discharges, and waste generation, while promoting the use of eco-friendly materials and technologies.
- Take proactive measures to preserve biodiversity, protect wildlife, and maintain the natural balance of flora and fauna.
- Continually improve our environmental performance by setting measurable objectives and targets, and regularly reviewing them for effectiveness.
- Promote environmental awareness and participation among all employees, contractors, and partners through communication, consultation, and training.

We believe that environmental protection is a shared responsibility. Every member of the Ipex family, as well as those working on our behalf, is encouraged to actively contribute to a sustainable and cleaner environment.

At Ipex, we are committed to creating a safer, cleaner, and greener workplace, ensuring that our operations leave a positive impact on both society and the planet.

DESCRIPTION OF COMPANY'S PRINCIPAL ACTIVITIES

Ground Engineering Contracts

IPEX specializes in executing complex ground engineering works, offering end-to-end design and construction solutions for D-Walls. Our services are designed to meet diverse soil conditions and project-specific requirements, ensuring safety, durability, and cost efficiency.

SCOPE OF SERVICES

PRODUCT	TYPE OF WORK	SERVICES
Diaphragm Wall	Diaphragm Wall Construction	Design & Construction
Ground Anchors	Support / Foundation Systems	Design & Installation

DIAPHRAGM WALL

A Diaphragm Wall is one of the most effective and reliable methods of shoring for deep excavations. It provides a rigid structural system, excellent verticality control, and superior watertightness compared to other shoring techniques.

A reinforced concrete diaphragm wall is constructed through a series of interconnected panels, excavated using specialized equipment such as hydraulic grabs or hydro mills (cutters).

- Panel length typically ranges from 2.5 m to 6.0 m, depending on project requirements and equipment used.
- Wall thickness generally varies from 600 mm to 1200 mm.

A guide wall is constructed initially to ensure alignment and to support the reinforcement cage during installation.

During panel excavation, a bentonite or polymer slurry is used to stabilize the trench and prevent collapse by exerting hydrostatic pressure on the trench walls.

Our state-of-the-art diaphragm wall machinery is capable of drilling through hard rock formations and achieving socket depths up to 70.0 meters.

To ensure watertightness, stop-ends with integrated water bars are installed between panels, effectively minimizing the risk of seepage.

For additional lateral stability, tie-back anchors or other support systems are incorporated as required during excavation and construction.

Typical Sequence of Work

1. Construction of guide walls
2. Excavation of panel using bentonite/polymer support fluid
3. Installation of stop-ends
4. Desanding and cleaning of the panel
5. Placement of reinforcement cage
6. Concreting using tremie pipes and simultaneous recovery of bentonite/polymer to the treatment plant
7. Execution of adjacent (secondary) panels
8. Removal of stop-ends

Note: Diaphragm walls can be designed and constructed as either temporary or permanent retaining structures, depending on the project's geotechnical and structural requirements.

c) Ground Anchoring

To ensure the stability of deep excavations, effective lateral support systems are essential. These systems help control the lateral displacement of shoring structures and enable the safe construction of deep basements and other underground works.

Ground anchors are installed by drilling into the soil and expanding the anchor at the end of the cable — either mechanically or by injecting pressurized grout or concrete to form a bulb within the surrounding soil.

TYPES OF GROUND ANCHORED SHORING SYSTEMS

1. **Stressed Anchors (Tiebacks):**

   Comprise high-strength steel bars or strands grouted into drilled holes and pre-stressed to provide active lateral support.

2. **Passive / Unstressed Anchors (Tie Rods):**

   Typically embedded in concrete anchor piles, providing lateral resistance in conjunction with gravity retaining walls.

System Stability

The overall stability of an anchored shoring system depends on multiple factors, including:

- Stiffness of shoring members
- Soil strength and composition
- Depth of pile penetration
- Length and inclination of tiebacks
- Applied anchor force

Tieback systems are inherently flexible, allowing active soil pressure to develop; however, when designed with sufficient prestress and rigidity, they can function similarly to a restrained system.

This modern technique — especially with pre-stressed anchors — enables IPEX to effectively execute works across varied soil conditions, delivering reliable and durable solutions for both temporary and permanent applications.

Typical Components of an Anchor

- Free Length: Portion of the anchor that does not transfer stress to the surrounding soil.
- Fixed Length: Portion bonded to the soil that transfers load through grout or concrete.
- Anchor Head: Connects the anchor to the shoring system and allows stress application.

Typical Sequence of Work

1. Drilling of hole to the designed depth using casing or support fluid (water or bentonite)
2. Flushing and cleaning of the drilled shaft
3. Injection of grout or cement to form the anchor bulb
4. Secondary injection (if required)
5. Setting and curing of grout
6. Prestressing or stressing of the anchor

Design Capacity:

Anchors are typically designed for 20 to 120 tonnes, depending on the number of strands, anchor length, and soil conditions at the site.

LIST OF MAIN EQUIPMENT

DESCRIPTIONS	EQUIPMENT MAKE	EQUIPMENT MODEL
Piling Rig	CASAGRANDE	B 200xp
D-Wall Grab	Sany	SH500E
D-Wall Grab	XCMG	XG500E
D-Wall Grab (Kelly) C400 Krc2	CASAGRANDE	C400
Hydraulic Crawler Crane 150 Ton	SANY	SCS1500A
Hydraulic Crawler Crane 150 Ton	FUWA	QUY-150A
Hydraulic Crawler Crane 90 Ton	HITACHI SUMITOMO	SCX900-2
Hydraulic Crawler Crane 80 Ton	SANY	SCS800A
Hydraulic Crawler Crane 80 Ton	FUSHUN	QUY80A
Mechanical Crawler Crane 75 Ton	TFC	TFC280-45
Mechanical Crawler Crane 40 Ton	HITACHI SUMITOMO	KH-150-2
Mechanical Crawler Crane 20 Ton	TATA	320
Hydra Mobile Crane 12 Ton	ESCORTS	HYDRA TRX 1250
Hydra Mobile Crane 12 Ton	ACE	F150
Air Compressor	Elgi	PG45E-7
Air Compressor	Atlas Copco	XA-157
Air Compressor	Kirloskar	.....
Airblower	BLOWVACC	Bv2557
Drilling Monitor	KODEN	DM-604-100
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LIST OF PROJECTS COMPLETED AND ONGOING

WORK DESCRIPTION	LOCATION	CLIENT NAME
Diaphragm walls & plunge columns for Washermen Pit Station, TTA JV, CMRL	Chennai	Afcons
Installation of barrettes & plunge columns for Mannadi Underground Station, CMRL	Chennai	Transtunnelstroy Afcons JV, Mumbai
Diaphragm walls & plunge columns for IIT Station, L&T-SUCG JV, DMRC	New Delhi	L&T-SUCG JV
Diaphragm wall, barrette pile & plunge column at Dabri Mor Station	New Delhi	HCC Samsung JV
Diaphragm wall at CC-66 Package, DMRC	New Delhi	Hindustan Construction Co. Ltd.
D-Wall works for LKCC-06 Hussain Ganj (LMRC)	Lucknow	Gulermak– TATA Projects Ltd. JV
Secant Piling (800mm & 1000mm Dia) at Vidhan Bhawan Station, Mumbai Metro Line 3	Mumbai	L&T-STEC
Boring in soil, 1000mm Dia pile LINE 4 MUMBAI	Mumbai	CHEC-TPL JV
Diaphragm wall at CC-126 Package, DMRC	New Delhi	STEC–SUCGIN JV
Diaphragm Wall 800mm, NCRTC – Package 4 Anand Vihar Station	New Delhi	STEC
Diaphragm Wall 1000mm, NCRTC – Package 4 Patparganj Vs01	New Delhi	STEC
Diaphragm Wall 800mm	Agra, UP	Afcons Sam India
Diaphragm Wall 800mm, DC-09	Hauz Rani, Delhi	L&T
Diaphragm Wall 1000mm, DC-09	Neb Sarai, Delhi	L&T
Barrette Pile Dwall 1000mm, DC-09 (Depth 50mtr)	Neb Sarai, Delhi	L&T

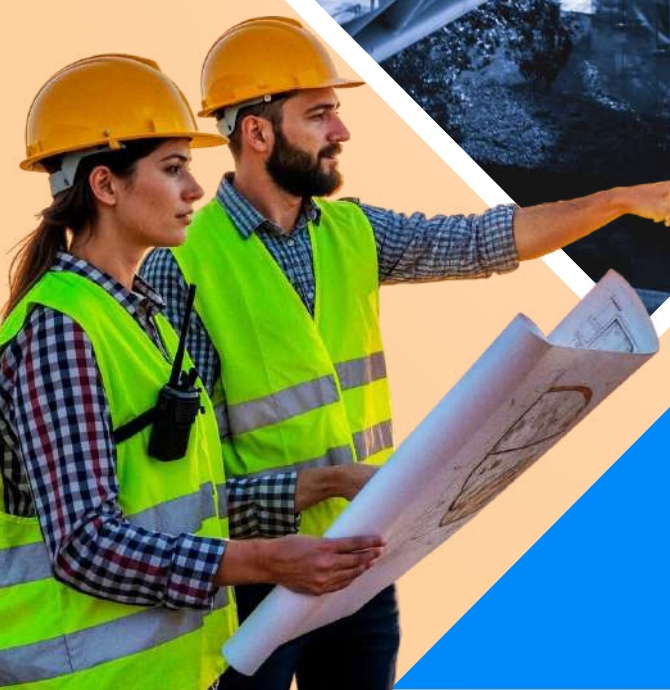
AND MANY MORE .....

OUR CLIENTS

Our client portfolio is a testament to our performance and reliability. We have proudly served:

AND MANY MORE .....

IPEX INFRASTRUCTURE



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