



Industrial & Special Structures Portfolio

Optimal Consultancy Services Pvt. Ltd.

Mumbai

■
New Delhi

■
Vadodara



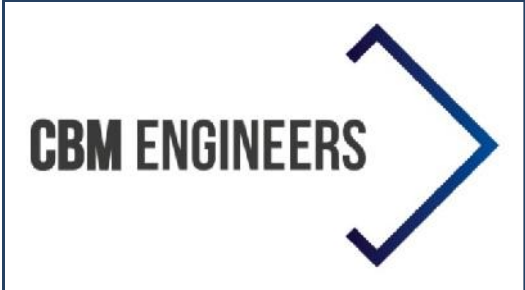
During the first quarter of 2015, CBM Engineers and Optimal Consultancy Services Pvt Ltd [OCSPL] entered into an agreement that allows both the parties to share its resources and provide with an array of unsurpassed design services. The corporation, under the helmsmanship of now a bigger management portfolio, stands at a combined resource strength of over 150 technical professionals; making CBM Plus the largest multinational company of the structural engineering discipline, in India.

A new and enriched business model was implemented, which recognised the demands of the current and future assignments and demands of the clients. Progressive interaction between the two sets of staff members, on both a professional and social level, resulted in a unique and unprecedented display of indulgence where a very assorted group of individuals disassembled in their level of knowledge, experience and age, came together to collectively contribute to uplift the CBM Engineers we are today.

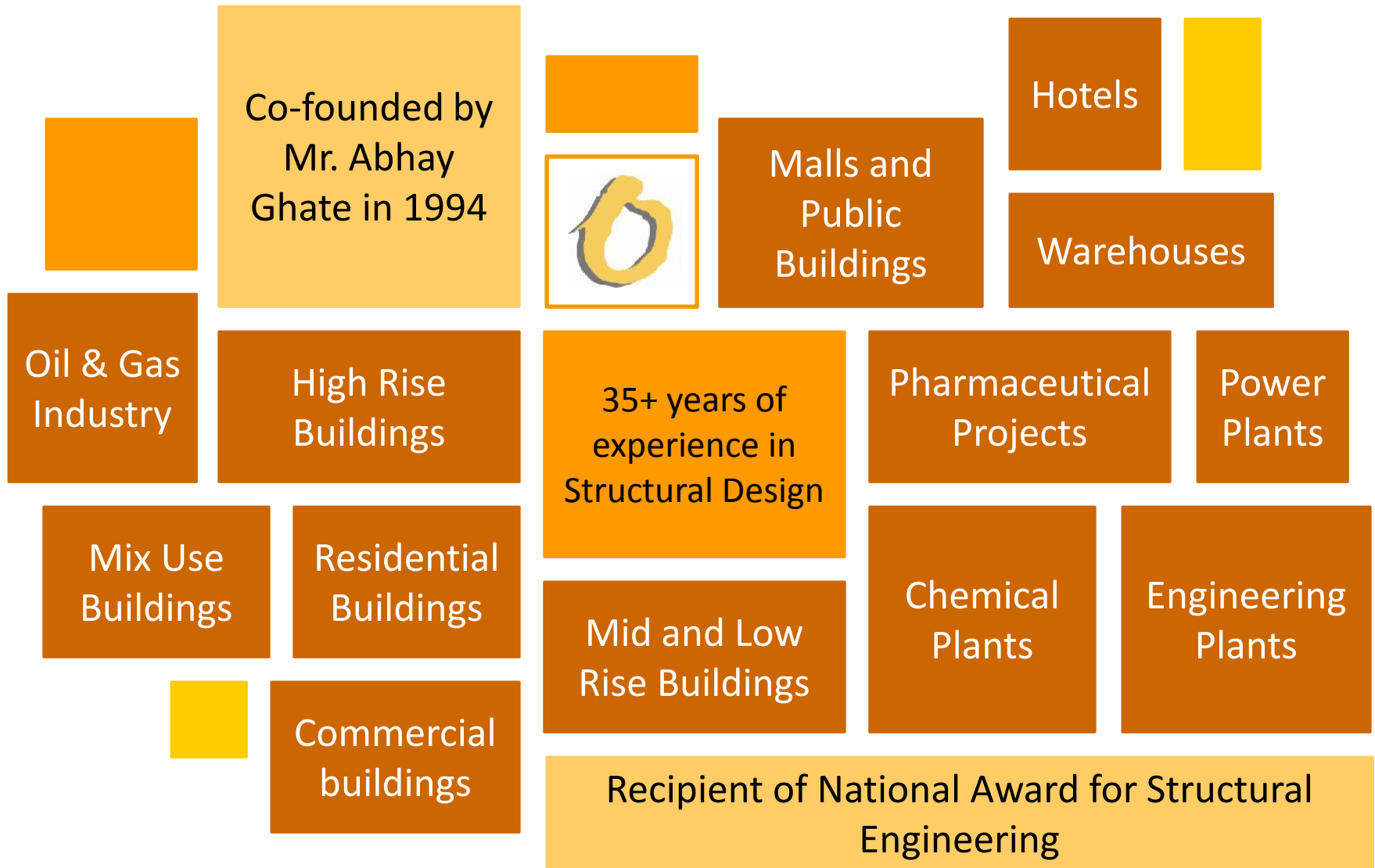
This allows CBM Engineers, a powerhouse of knowledge and experience, to provide pristine engineering services and professional excellence to the clients, while ensuring commercial success and employee fulfilment.



**Industrial &
Special
Structures
Portfolio**



Background



Background

Peer
Review

Value
Engineering

Phased
Services

Full Design

Scope of
Services
Offered

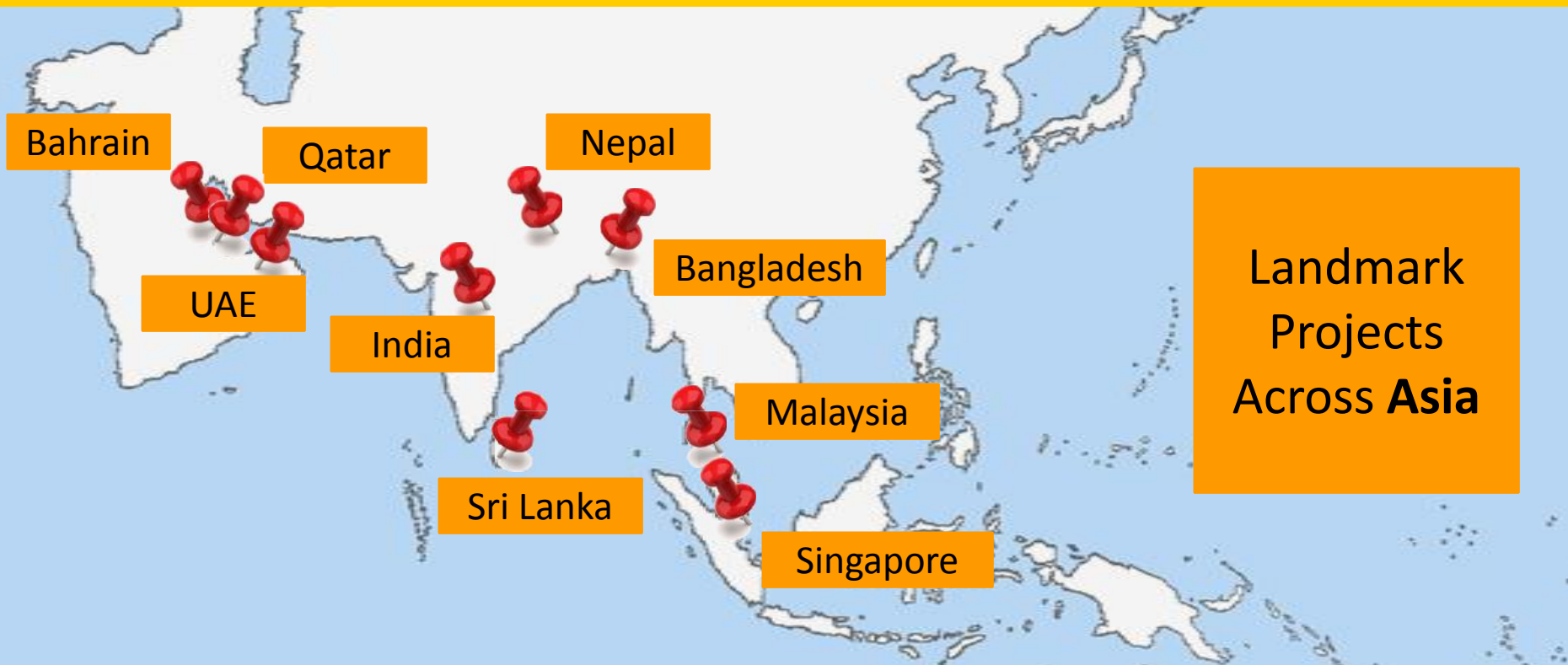
Construction
Administration

Retrofitting

Structural
Forensic
Services

Feasibility
Study

Background



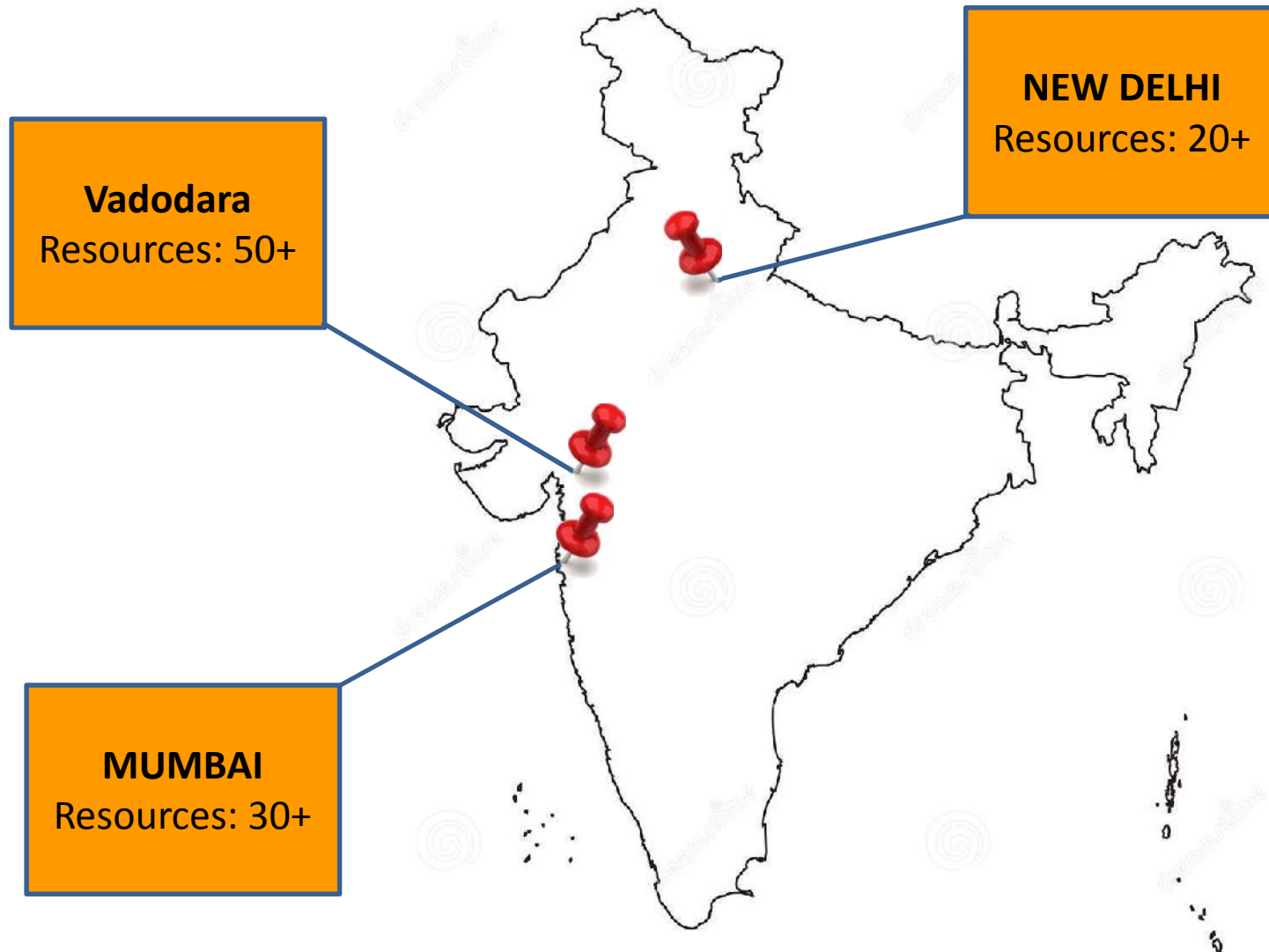
Our grand portfolio of **Industrial Projects** showcases our works on various Power Plants, Chemical Plants, Oil & Gas, Petrochemicals, Pharmaceuticals, Food, Cement, Factory Buildings, Desalination Plants, and Blast Resistant Designs for complex structures, etc.

Our Philosophy



OCSPL is a **Structural Engineering & Consultancy Firm** which makes honest efforts to provide their clients a professional service of uniform high quality, providing imaginative and reasonable approach to Engineering Problems.

Presence in India



Key Persons

Engine
Workshop for
Mirage 2000
Aircraft, UAE

Designed Jumeirah Beach
Residence, Dubai

Excellence in
Consultancy
Services Award
First Prize 2006

220 kV
Substation
Structures,
Bahrain

Abhay
Ghate



2 × 100
MW Gas
Turbine
Plant, UAE

40+ years of
experience as a
Structural
Engineer

Managing
Director

Co-
Founder
of OCSPL

Desalination
Plant, Ajman,
UAE

132 kV
Substation
Structures,
UAE

Design
Management
Assignments,
Scheduling &
Quality
Control

Applies various tactics
to achieve *Optimised
Design Solutions*

Key Persons

Specialises in
coordinated design
management
projects

500 MW (Unit 5)
Thermal Power
Plant, Trombay

Power
Plants

Managing
Director

*Specialist:
Industrial
Structural Design*

40+ Nos.
132/11
Substations for
DEWA



Shekhar
Ghate

Chemical
Plants

Heavy
&
Light
Engg.

Worked in close
coordination
with Areva,
Seimens, ETA,
etc. on various
occasions.

4 Nos.
400/132 kV
Substation
for DEWA

35+ years of
experience as a
Structural
Engineer

Unlimited
Building
Height Licence
as a Structural
Engineer in
Dubai.

Key Persons

Oil & Gas
Refineries –
*Indian Oil,
Numaligarh
Refinery,
etc.*

Member of the
Standing
Committee of
Bureau of Indian
Standards

ASLV & GSLV
Launch
Complex for
ISRO

Several
Offshore
projects for
ONGC

Mumbai –
Manmad
pipeline
(underground)
– Seismic
design

***Specialist:
Special
Structures’
Engineering***

**Vinay
Salpekar**



**Executive
Director**

45+ years of
experience as a
Structural
Engineer

Special
use
structures

Smelter Unit for
NALCO – Steel
silos and storage
beans

Blast Resistant Structures
for *DRDO*

Integrated system of reactors,
regenerators, connected piping,
structures, etc for *IOCL*

Key Persons

Jt. Managing
Director

Nitin Dhariyal



40+ years
of
experience
as a
Structural
Engineer

Has an extensive experience
in the industry. Developed
several architecturally
elegant and cost effective
solutions over years.

Blast
resistant
structures
for *DRDO*.

Various
Station
buildings for
Delhi Metro

Several
technical
facilities for
Armed Forces.

Arial Delivery Research
and Development
laboratory for Indian
Armed Forces.

Boat
landing &
offshore
structures



Abhijit
Kane

Senior
Structural
Engineer

25+ years
of
experience
as a
Structural
Engineer



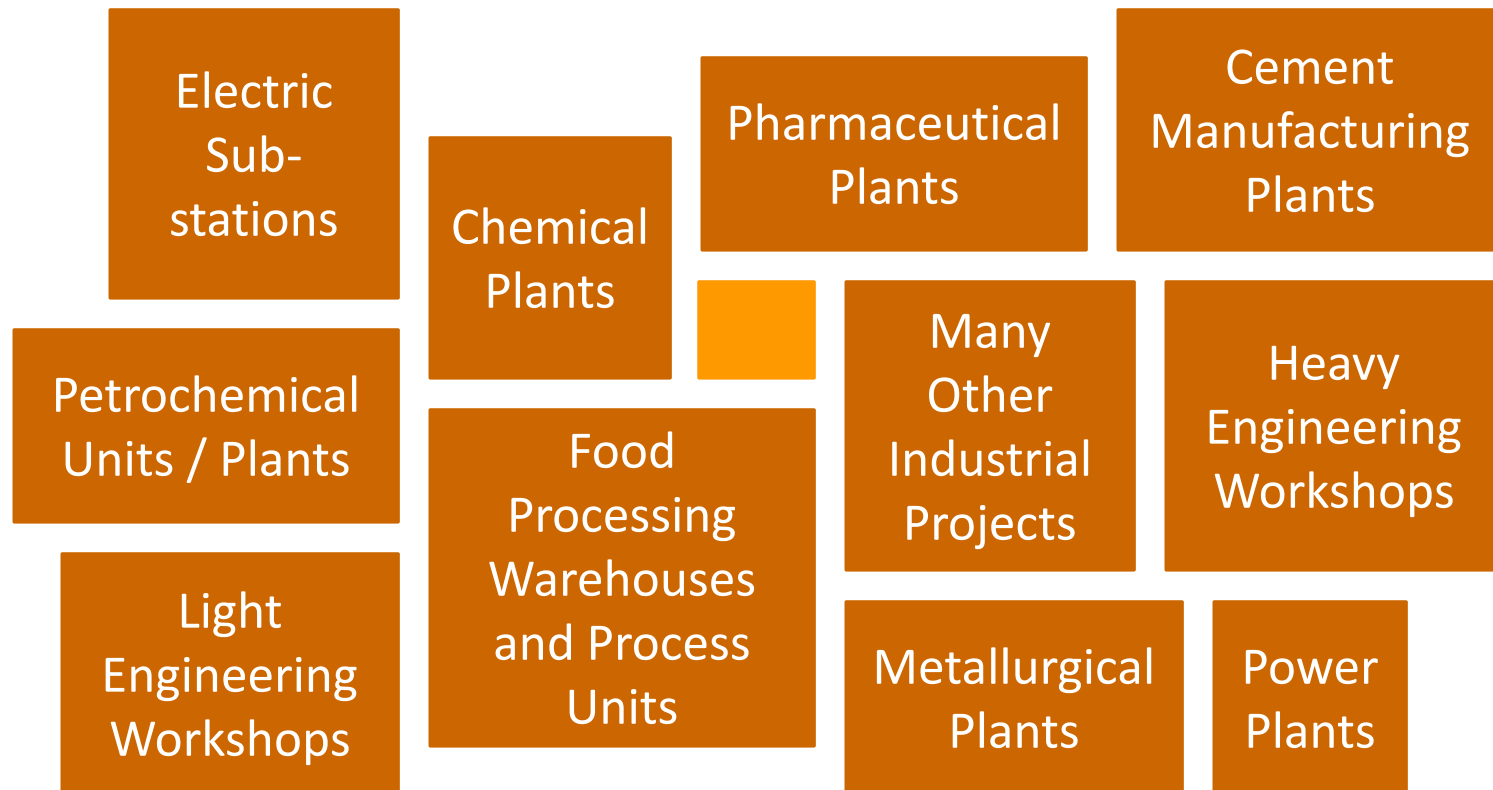
Senior
Structural
Engineer

Srinivas
Kulkarni

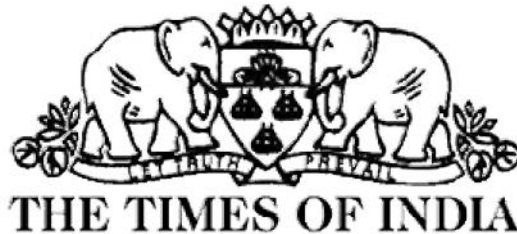
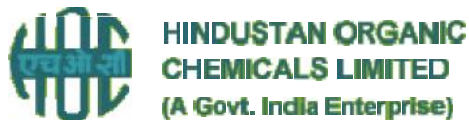
15+ years
of
experience
as a
Structural
Engineer

Our Specialisation

Optimal Consultancy, over the years has designed numerous industrial and special structures, across India and abroad. We pride ourselves over our rich experience in structural design.



Clientele (Industrial)



ADITYA BIRLA



HINDALCO



Clientele (Industrial)



LARSEN & TOUBRO

It's all about Imagineering

Clientele (Industrial)



In Collaboration with MAUSER of Germany

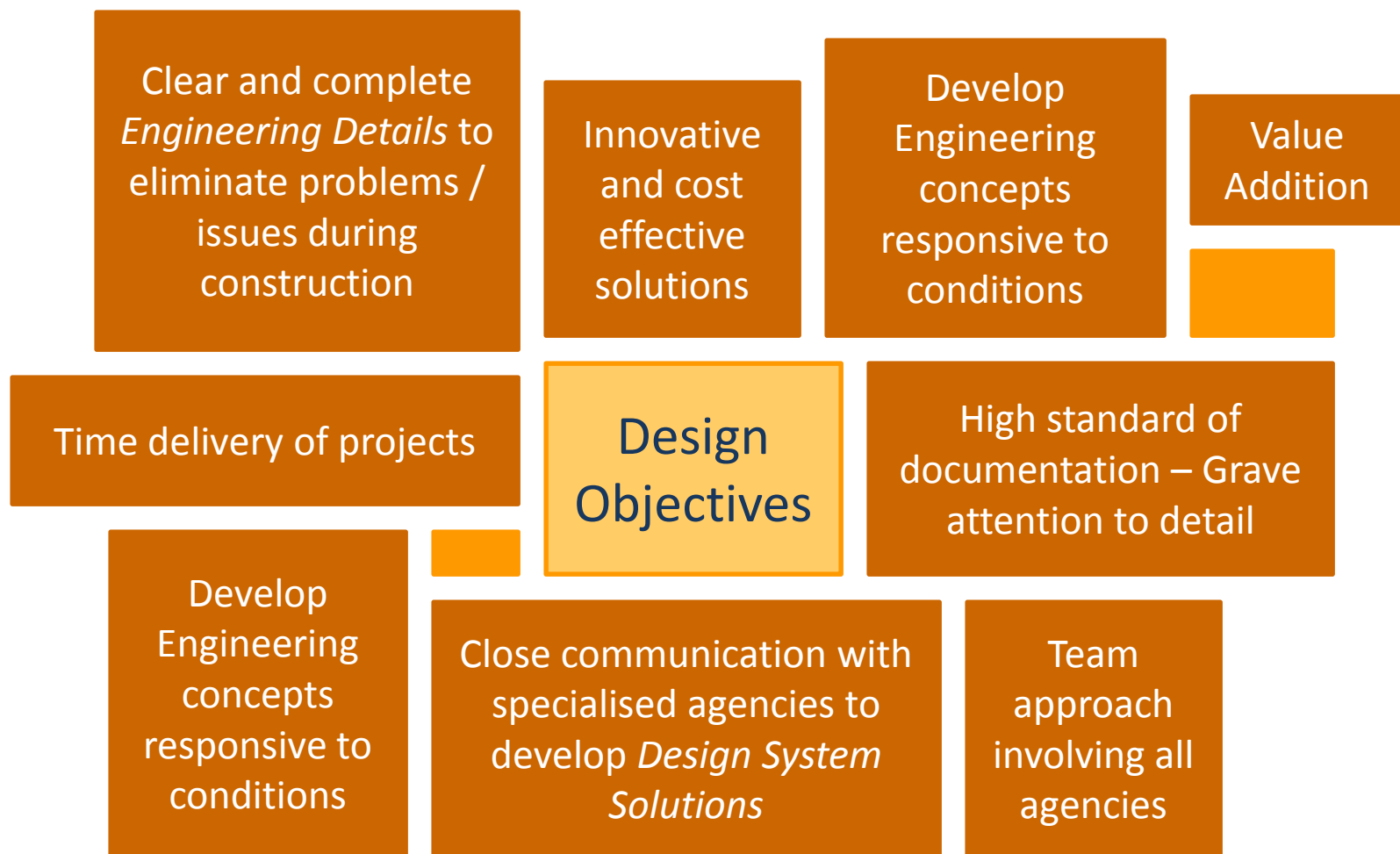
MAHARASHTRA SEAMLESS LIMITED

Clientele (Industrial)



Design Approach

Objective



Design Approach

Scope of Services Offered

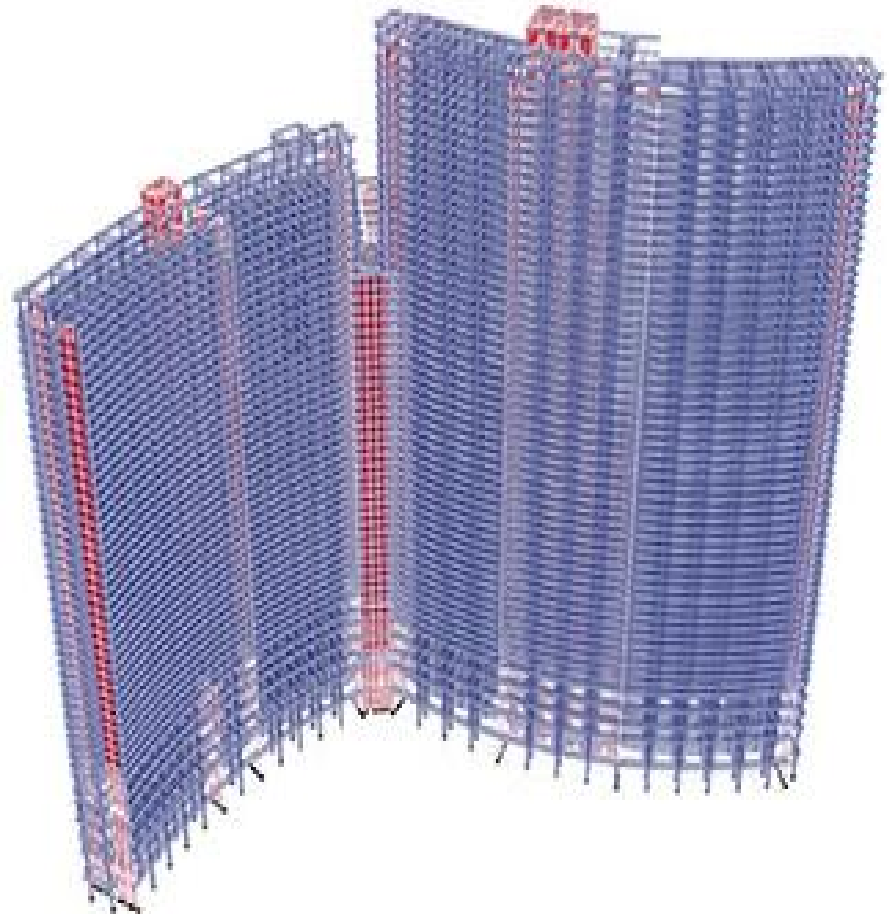
- ❑ Confer with the Client, Architects and all project contributors to confirm the detailed requirements of the Project Brief and all matters relevant to the successful delivery.
- ❑ Prepare concept stage design best suited for the project, and prepare various alternatives for discussions.
- ❑ Prepare Design Development based on approved concept.
- ❑ Preparation of tender documents, floating inquiries bid evaluation and recommendation of contractor.
- ❑ Complete Computer Analysis and Detailed Design.
- ❑ Complete Design Details through AutoCAD.
- ❑ Submit Detailed Calculations and Drawings in Digitized Form.
- ❑ Carry out Periodic Supervision at Site, if required to ensure that the work is being carried out as per Design Intent.

The broad objective of the firm is to provide our clients a professional service of uniform and high quality providing imaginative and responsible approach to Engineering problems.

Design Approach

Design Optimisation Process

- ☐ Choose the most appropriate *Lateral Load Resisting System*.
- ☐ Calculate the *Strength Carrying Capacity* of all elements.
- ☐ Redistribute the Forces based on the *Load Carrying Capacity*.
- ☐ Reanalyse the structural system.
- ☐ Recalculate the *Efficiency* of all elements.
- ☐ Redistribute the forces and reanalyse to ensure that all elements are designed to an optimum level.
- ☐ Ensure code compliance at all stages.



Design Review

Optimal CSPL has a panel of experts with decades of experience on hand, who conduct a fresh and unbiased study of every project, the company undertakes. We call it *INTERNAL REVIEW*.



An Internal review is a fresh, unbiased and independent **examination** of the technical aspects relating to the concept, progress or final results of a project, by an **independent**, high-level professional. It is the highest level of action to **improve** quality and cost-effectiveness in projects. The overall time to complete a constructed project can be reduced by a review.

Design Review

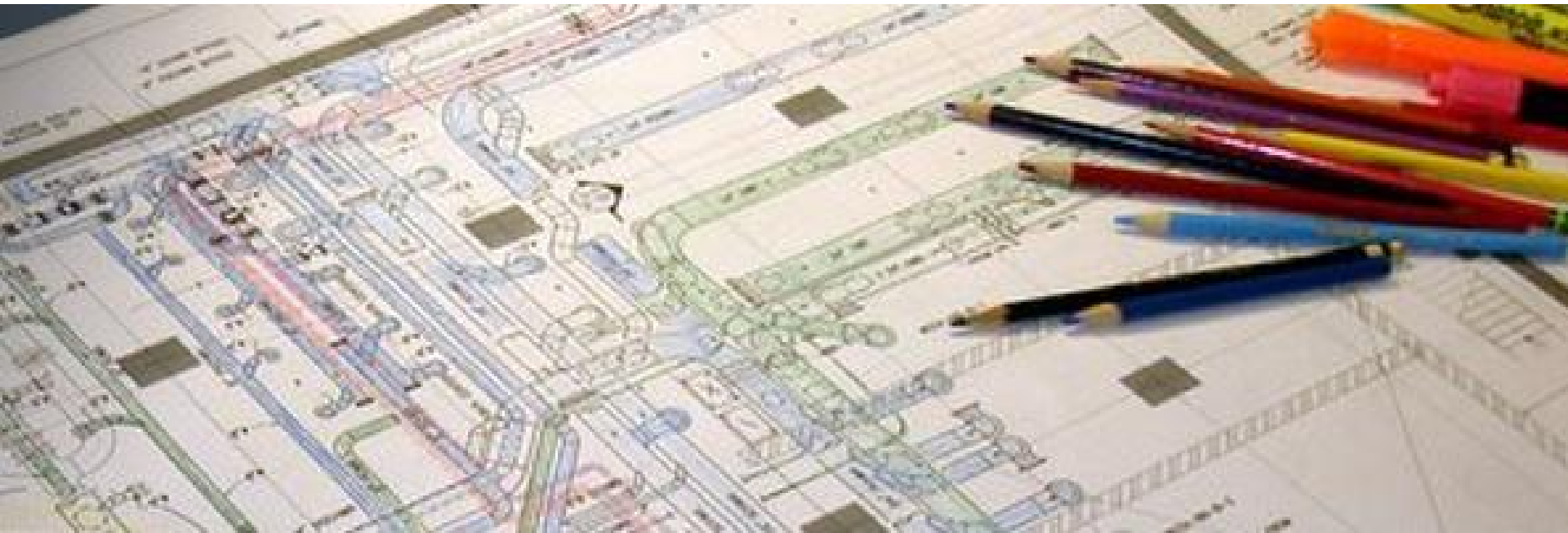
The *Internal Review* will broadly inquire into the following;

- ☐ Design Assumptions
- ☐ Applicable Codes and Regulations
- ☐ Accuracy of the Calculations
- ☐ Appropriateness of selection of Alternatives
- ☐ Application of Judgment
- ☐ Constructability of Details
- ☐ Feasibility to meet the Client's and Design Professionals' Objectives



Design Review

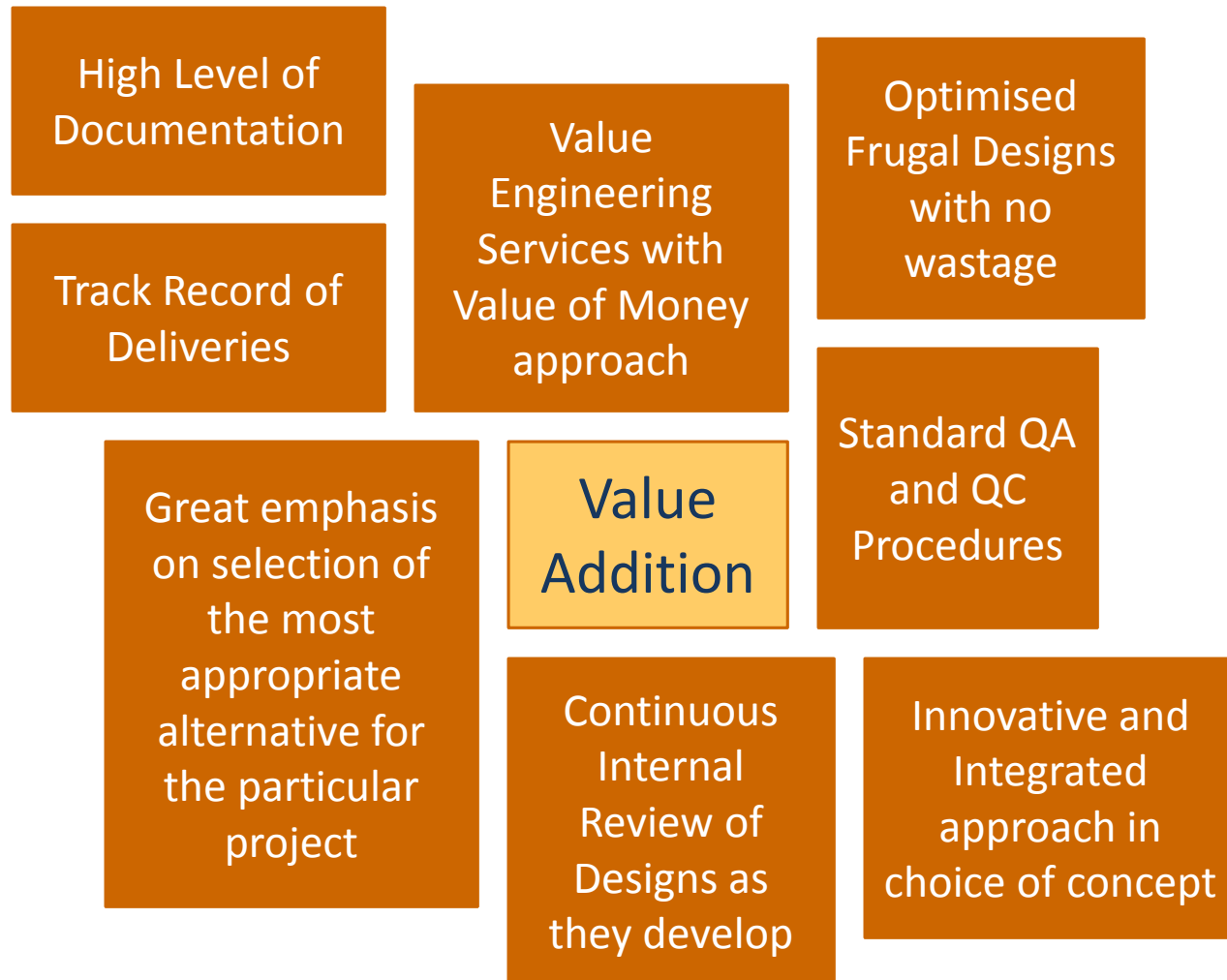
Value Engineering



Value Engineering is an organized, creative approach to efficiently identify unnecessary costs, which do not measurably contribute to the project's quality, utility, durability, appearance, or to the owner's requirements. Sound economic design is the cornerstone of quality design practice.

Design Review

Value Engineering



Project Panorama

Power Plant and Substations

RIL, Jamnagar

Structural detailing for Captive Power Plant. Developed Standard Connections for easy workability, which were used as standard for the entire Phase 1. (60000 MT)

2 × 100 MW Gas Turbine, UAE

Full Design for 60m High Stack supporting system, transformer house, electrical building, turbine enclosure structure, supporting system, etc.

Wartsile India, Hassan

Engineering for 3 x 6 MW Diesel Engine Power Plant

Tata Power, Trombay

Structures of Coal Handling system, Ash Handling system, Silos, Crusher House, etc. for the 500 MW unit.

Project Panorama

Power Plant and Substations

Central Power Research Institute, Bangalore

Short Circuit Bus bar system for SPIE Batgnolles (France), main contractor for CPRI

Substation Design, Middle-East

Numerous Substations designed for companies like Seimens, Areva, ETA, ABB, etc.:

- 2 Nos 400 kV Substations through SIEMENS, at UAE.
- 2 Nos 400 kV Substations through AREVA, at UAE.
- 36 Nos 132/11kV Substations through ETA, Dubai, at UAE.
- 9 Nos 132/11 kV Substations through AREVA, Dubai, at UAE.
- 2 Nos 132/11 kV Substations through SIEMENS, at UAE.
- 3 Nos 132/11 kV Substations through ABB, at Ajnam, UAE.

RCC Chimneys up to 180 m.

Project Panorama

Power Plant and Substations

Horse Race Substation for DEWA, Dubai



Project Panorama

Power Plant and Substations

Barsha Substation for DEWA, Dubai



Project Panorama

Power Plant and Substations

Jumeirah Golf Estate Substation for DEWA, Dubai



Project Panorama

Power Plant and Substations

Corniche 132/11 kV Substation (Proposed) for DEWA, Dubai



Project Panorama

Power Plant and Substations

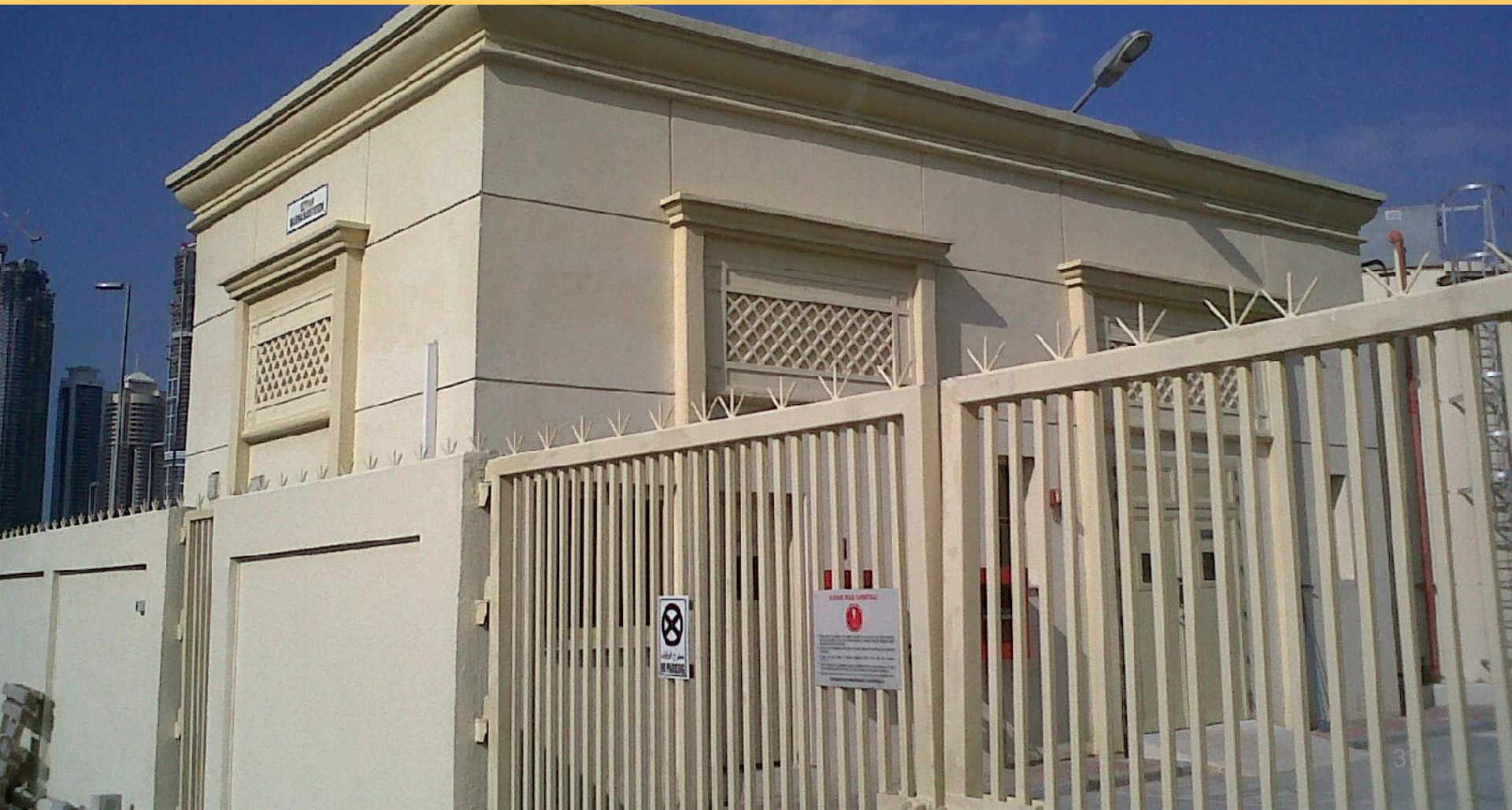
400 / 132 kV Substation – Car Complex



Project Panorama

Power Plant and Substations

Marina Substation for DEWA, Dubai



Project Panorama

Power Plant and Substations

Jadaf Substation for DEWA, Dubai



Project Panorama

Refineries and Oil & Gas

Hindustan Petroleum, Mumbai

Sulphur Recovery Unit projects - Technological Structures, 90 m high Flares Stack, etc.

IOCL, Haldia (WB)

Technological Structures, Pipe racks , Equipment foundations including H2 bullets, Charge heater, 100 m High Flare Stack, RCC Blast-proof Control Bldg, Tank farm for tanks up to ϕ 42m, Flare Trestles 14 m high and supporting flare pipes with diameter up to 54" and anchor forces up to 33T.

RIL, Jamnagar

Fabrication drawings for Regenerator & other structures

Costain Oil & Gas Process Ltd., UK

included pipe racks, equipment foundations, splitter Columns, underground services etc.

Project Panorama

Refineries and Oil & Gas

Mott Macdonald, Muscat

Exhaust Gas stack for Petroleum Development at Marmul – Haima West.

ONGC, India

Skid for DSN & BHN platform (4 Nos.) Ltd for MNW process platform project for Produce water-conditioning system supplied through AXSIA Serck Baker Ltd.

Indian Armed Forces, India

Technical Facility for Defence – Challenging Blast Resistant Structures have been Designed and Executed.

Project Panorama

Chemical and Petrochemical Projects

ISRO, Trivandrum

Liquid hydrogen project through Linde Process Tech. (I) Ltd, Baroda.

Sabero Organics, Vapi

Grass-root level pesticide manufacturing plant

Tributon Exports Ltd, Bharuch

Polyester film plant project involving film plant building - 174m x 30m x 33m (h) having a continuous film production process equipments.

RIL, Jamnagar

T2 storage, T2 cylinder storage, Catalyst & Additive Storage building, etc.

Gulf Stabilizers Industries, Saudi Arabia

Expansion of existing antioxidants plant

Project Panorama

Chemical and Petrochemical Projects

Rashtriya Chemicals and Fertilizers Ltd.

Purge Gas Recovery plant through Linde Process Tech. (I) Ltd. Baroda

I P Faraiyard, Iran

Self – evaporation plant for USF HPD

Assam Petrochemicals, Namrup

Formaldehyde Plant

Project Panorama

Pharmaceutical and Food Processing Units

Ally Pharma Options, Tarapur

Pharmaceutical process and manufacturing plant

Cipla

Harmone and Sodium hydride plant at Kurkumbh;
Grass root level Bulk drug plant at Patalganga and Kurkumbh

Aarti Industries, Tarapur

Steroid & T.A.P.I. plant

Bristol Meyers Squibb Ltd, N. Ireland

Plant buildings, Utility Buildings and Control Room

Alkem Laboratories Ltd, Ankleshwar

Grass root level Artificial Sweetener Plant

Project Panorama

Pharmaceutical and Food Processing Units

McDonald's, Taloia

Full Design of Food Processing plant in collaboration with OSI Inc (USA).

Colorcon India Ltd, Goa

Food grade dye plant

Param Industries Ltd, Gandhidham

1000 TPD Edible Oil refinery

Bharat Food Corp Ltd, Gandhidham

800 TPD Edible Oil refinery

Project Panorama

Pharmaceutical and Food Processing Units

Aarti Industries at Tarapur



Project Panorama

Metallurgical Plants

Sterile Industries (A Vetanta Company)

Converter and anode casting area involving about 3000 MT structural steel.
Sulphuric Acid project at Ratnagiri and Tuticorin.
Aluminium rod rolling mill at Rakholi, Union Territory of Dadra and Nagar Haveli.

Indian Steel Corporation, Gandhidham

Grass-root level plant for Cold Rolling and Galvanisation, and CRCA plant

Emirates Aluminium Co. Ltd, Abu Dhabi, UAE

Pot Lining, Cathode Sealing & Superstructure maintenance building (smelter Project at Abu Dhabi) through SNC Lavalin Engineering India Pvt. Ltd.

Optimal Consultancy Services Pvt. Ltd.

Project Panorama

Metallurgical Plants

Indian Steel Corporation Ltd.



Project Panorama

Light and Heavy Engineering Workshops

ATV Projects, Mathura

Heavy Vessel Manufacturing Unit involving 1200 T of Structural Steel including 130 T capacity Gantry Girders.

Times of India & Hindustan Times, New Delhi

Foundation for new generation printing press with very stringent tolerance

Glass manufacturing facility, Asahi India Glass Ltd, Taloja

Manufacturing facility plant, Hydril – Jindal International Pvt. Ltd.

Otoklin Al Qahtani – Consortium, Kandala

Pipe coating terminal (5500 sq.m.)

Stainless Steel Vessels manufacturing unit, Alpha Laval, Pune

“14” Pipe Mill Shed, Maharashtra Seamless Ltd, Nagothane

Project Panorama

Cement Manufacturing Units

ACC Ltd., Gagal, Himachal Pradesh

Fly Ash Dryer Plant (12 x 9 x 48m high building in RCC / Structural steel with heavy equipments, ducts, pipes, etc. at all levels)

Gulf Cement, Ras Al Khaimah, UAE

Coal Shed, Lime Stone Shed, Silica & Bauxite Shed

Other Industrial Projects

Ruchi Group

Soap manufacturing Unit, Sunshine Soaps, Gandhidham
Detergent Manufacturing Unit, Evershine Soaps, Roorkee
Expansion Refinery and Fractionation plant, Patalganga

Cipla, Patalganga

Expansion of API Stores & a Bridge connecting the API Stores with Pharmaceutical Building. The Bridge is required to be aesthetically appealing, merging with the two buildings & extremely clean from inside to GMP and FDA standards.

Project Panorama

Other Warehouse and Industrial Projects

Indospace Industrial Park



Project Panorama

Other Warehouse and Industrial Projects

Indospace Industrial Park



Project Panorama

Other Warehouse and Industrial Projects



Time Mauser

Sunshine Soaps



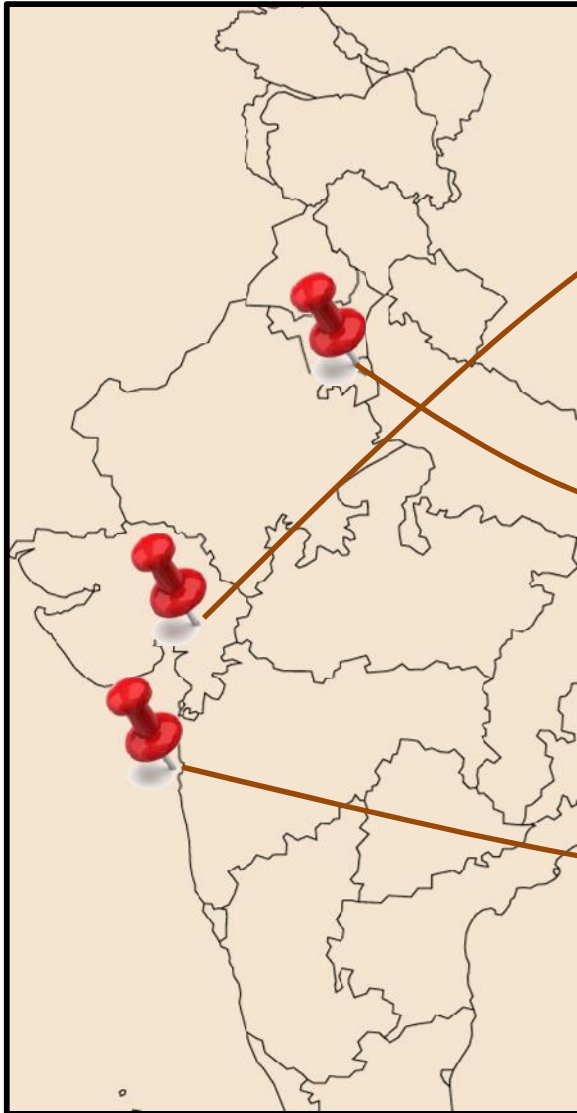
Project Panorama

Other Warehouse and Industrial Projects

Divine Polymers Pvt. Ltd



Contact Us



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