



STRUCTWEL LABORATORY



PLOT NO-15, SECTOR-24, OFF SION-PANVEL HIGHWAY, TURBHE, NAVI MUMBAI

COMPANY INCEPTION

**RAMESH
N. RAIKAR**

1939 - 2008

Founder & Inspiration



Founded **STRUCTWEL** on 18th April 1967. A Highly Celebrated & an accomplished Engineer with fellowship of most of the major institutions across the globe and Honors such as the **“Lifetime Achievement Award”** in CIDC Vishwakarma Award

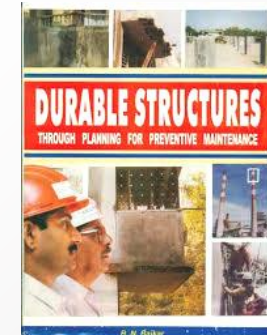
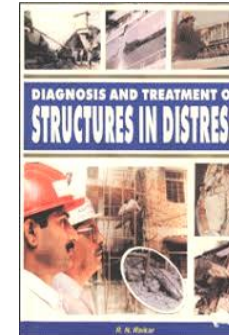
He is the author of four books and has been bestowed with many awards and honors

Behind this ever growing company was a complete technocrat who believed in the philosophy of

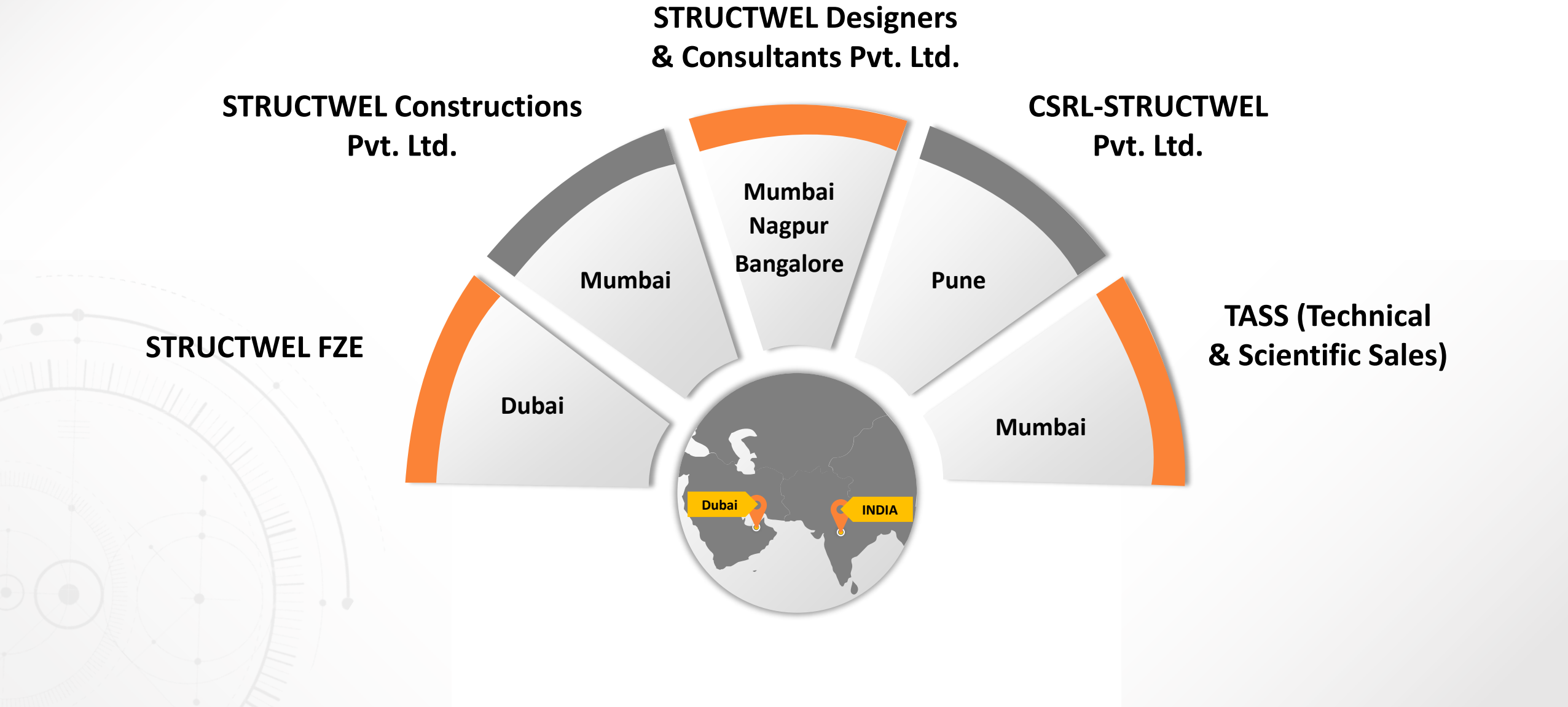
“Progress Through Knowledge.”

Special Recognition Award for Leadership Role in the Concrete Industry in India by CANMET / ACI, 1994.

ACI, USA awarded ACI Honorary Membership, 2004. First Asian to receive this award.



STRUCTWEL GROUP OF COMPANIES



STRUCTWEL HISTORY



1978



STRUCTWEL became a private limited company

1988



Achieved its **R&D** status. This recognition has been renewed, till date uninterrupted



Started its own In-house material testing laboratory

2000



Laboratories got **NABL accreditation**

2004



Got certified with **ISO 9001**

2005



Established an **in-house mechanical and electrical division**

2007



Shifted to its **Corporate office** building in **Navi Mumbai**



Ventured into the international markets and established **STRUCTWEL FZE, Dubai**

2007



Acquired 50% shares of CSRL laboratories (now known as **CSRL- STRUCTWEL Pvt. Ltd.**) Pune



Established EPC division under the flagship of **STRUCTWEL Constructions Pvt. Ltd.**



Acquired **TASS** a laboratory equipment manufacturing & trading company

2011



Started **Bangalore Office**

2016



Started **Nagpur Lab**

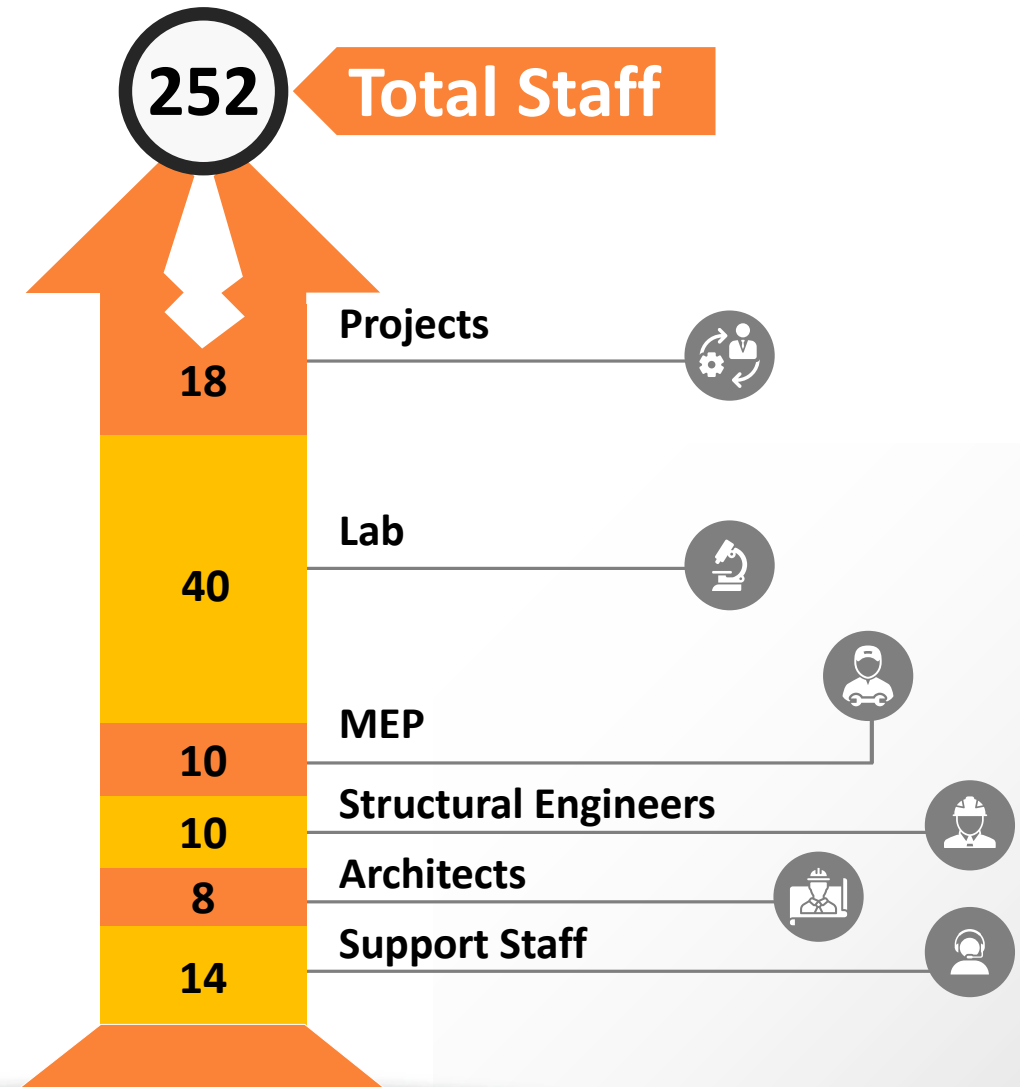
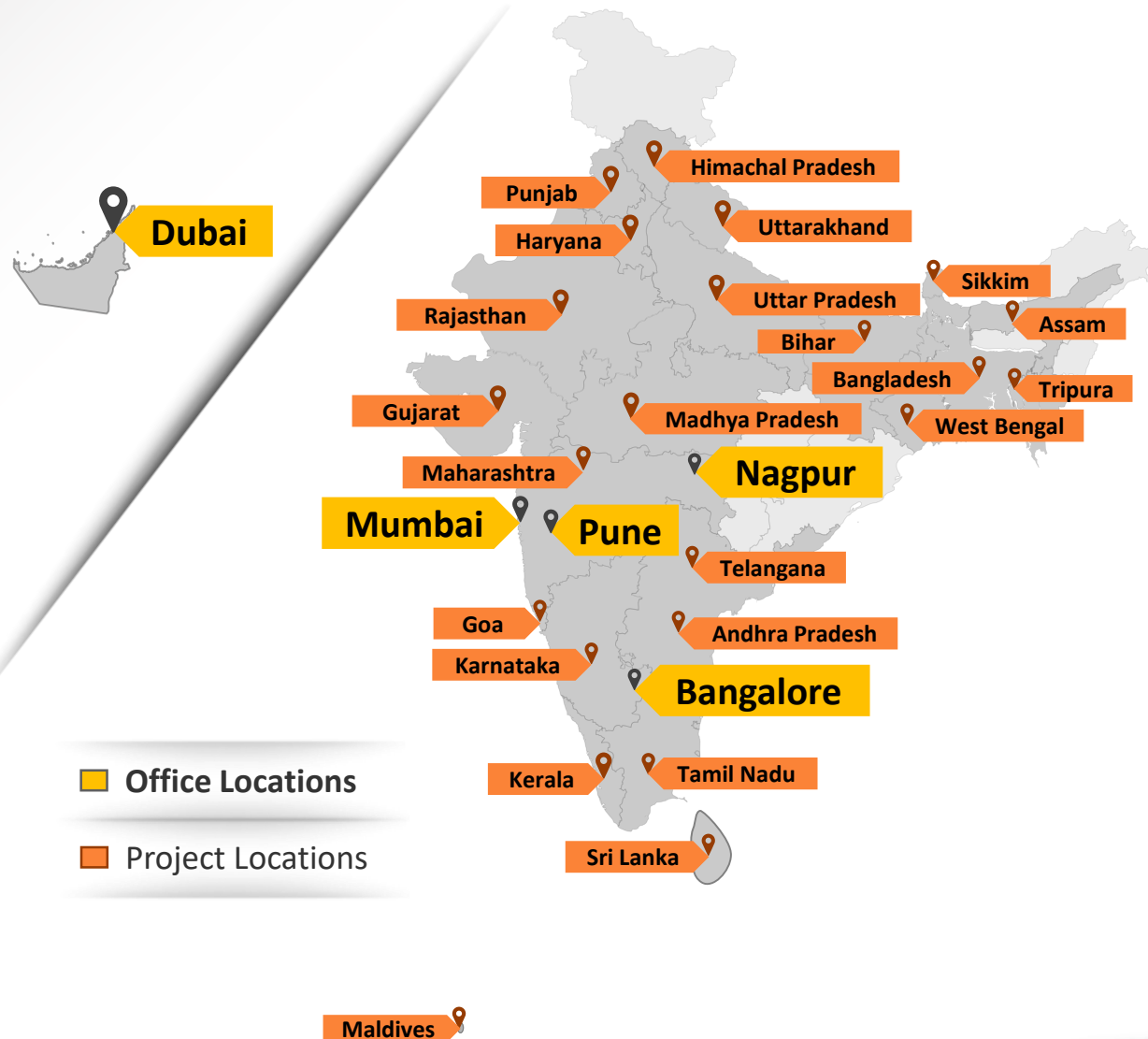
2018



Affiliation with **Construction Industry Development Council, New Delhi**



LOCATIONAL PRESENCE & TEAM STRENGTH



ACHIEVEMENTS & AWARDS

Chetan Raikar receiving IBC Award for 'Excellence in Built Environment, 2015-2016' by the Minister of Housing and Urban Affairs
Shri Hardeep Singh Puri



Chetan R. Raikar greets the then Hon. President, Late Dr. APJ Abdul Kalam at New Delhi and proudly presents our R & D achievements



The Chief Minister of Maharashtra Shri Prithvi Raj Chouhan felicitating Chetan Raikar for the work on Replication of Ajanta Caves



Achievements & Awards - For "Wagh Mandir, at Morvi, Gujarat"



Best Consultant for
Heritage Construction
from **CIA World
Construction Awards
2016**



IBC Trophy
First Prize
Rehabilitation /
Retrofitting of
Buildings



**Design Awards
2015 – 1st Prize**
in the category
of "Conservation
of Heritage"



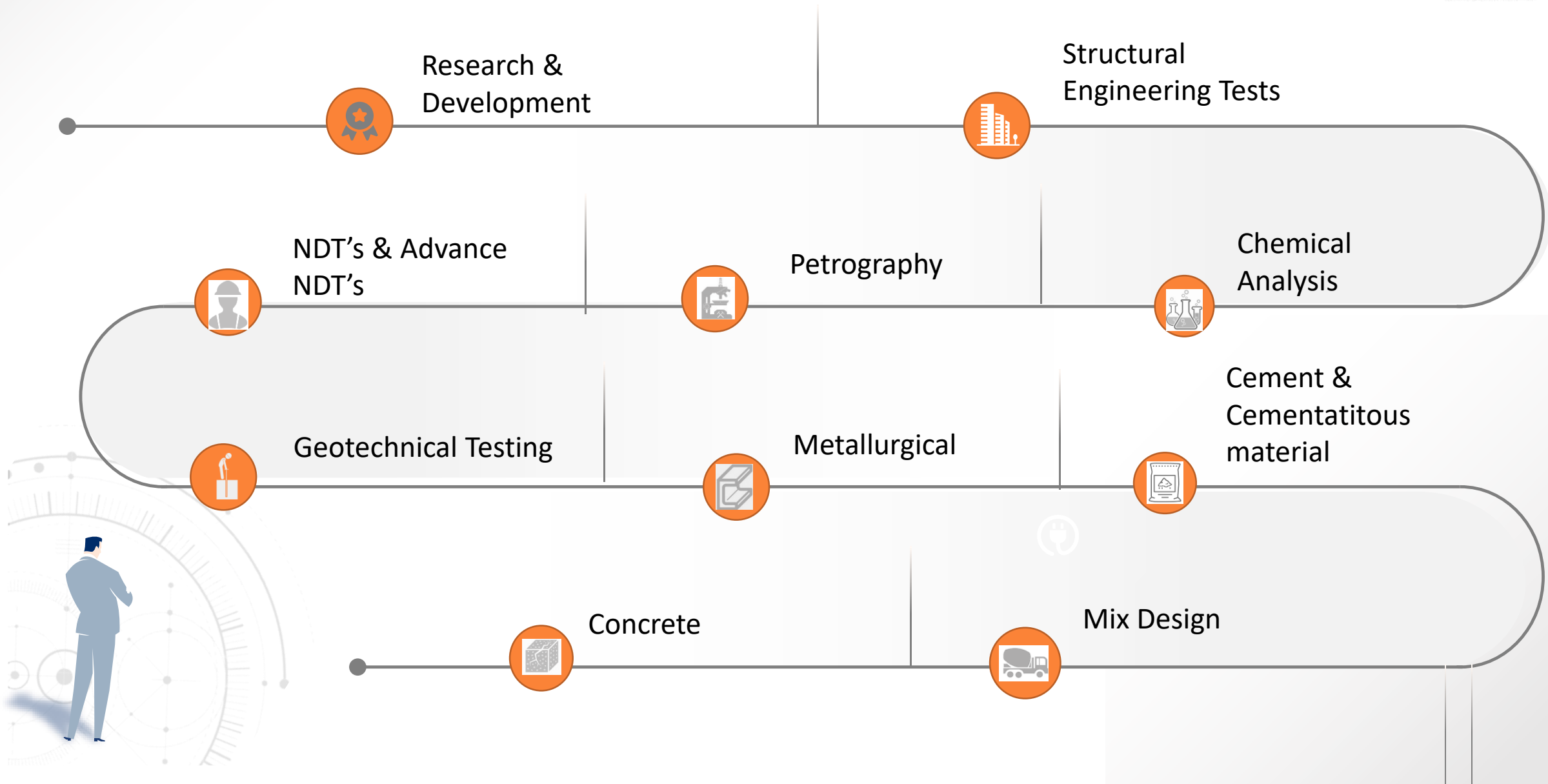


STRUCTWEL

Laboratory



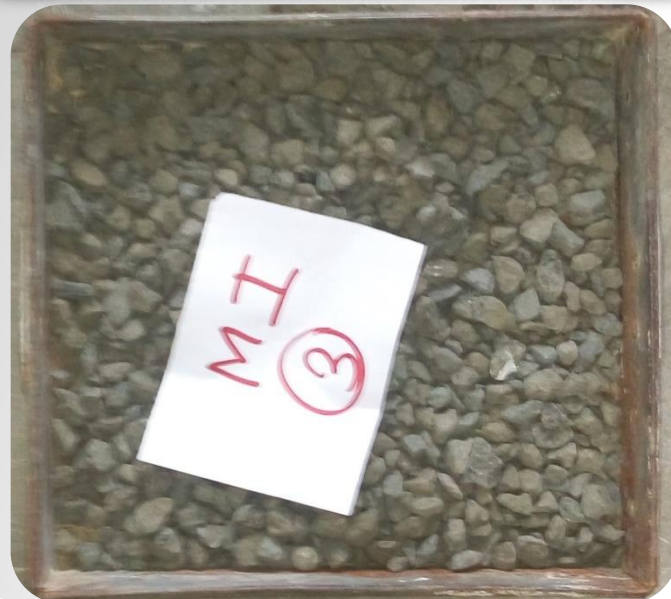
SERVICES



CONCRETE

AGGREGATE

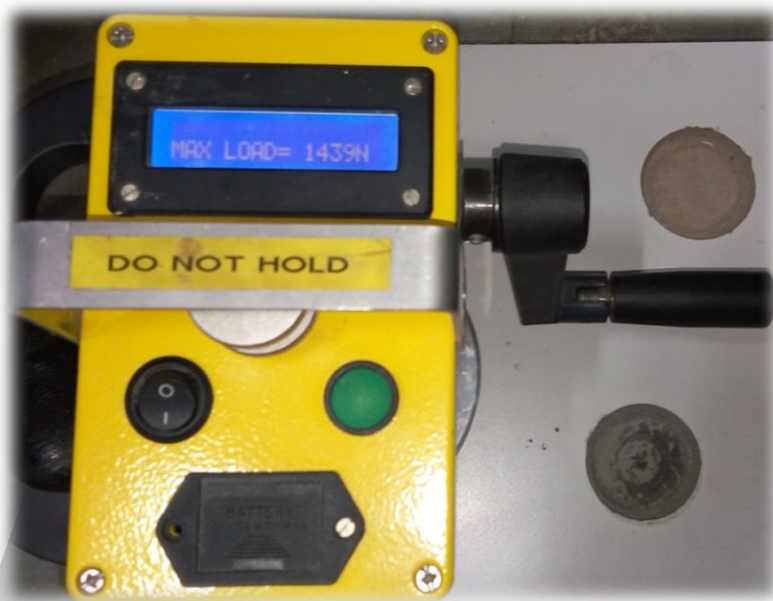
- Sieve Analysis
- Specific Gravity
- Bulk age
- Flakiness/Elongation Index
- Impact Value
- Los Angeles abrasion Value
- Crushing Value
- %Silt By Weight
- %silt By Volume
- DLBD
- Moisture Absorption



CONCRETE

PHYSICAL

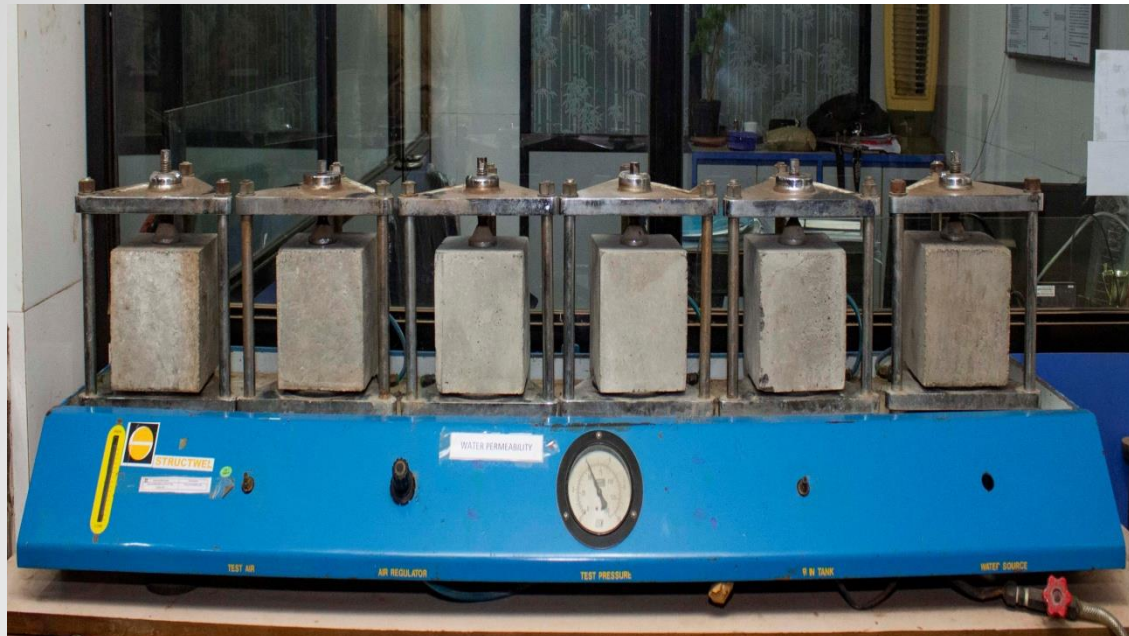
- Field ISAT
- Compression Strength
- Flexural Strength
- Split Tensile Test
- Modulus Of Elasticity
- Pull Off



CONCRETE

CONCRETE - DURABILITY TESTS

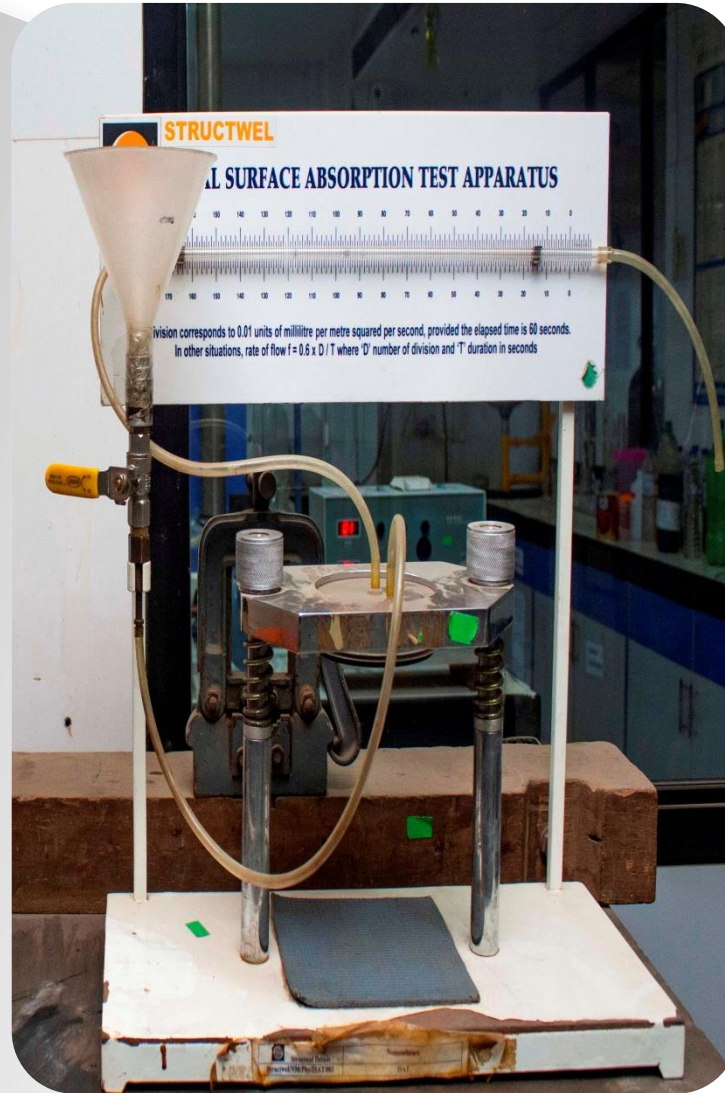
- Rapid Chloride Penetration Test
- Water Permeability
- Initial Surface Absorption test
- Permit



CONCRETE

WATER PERMEABILITY & ISAT

- Determines the depth of penetration of water under pressure in hardened concrete
- Resistance of Concrete
- Porosity of Concrete
- Measurement of water flow



RAPID CHLORIDE PENETRATION TEST

- Determination of the electrical conductance of concrete to provide a rapid indication of its resistance to the penetration of chloride ions.
- Is relatively quick—can be used for quality control
- Has simple and convenient setup and procedures
- Provides results that are easy to interpret.



MIX DESIGN

TRIAL MIX

- High Strength Concrete with low water/ Cement ratios.
- Proportions with or without admixtures.
- Cement
- Fine aggregate
- Coarse aggregate
- Admixture (If required)
- Cementitious materials



CEMENT & CEMENTATITIOUS MATERIAL

CEMENT & ADDITIVES

- Cement testing through Physical and Chemical methods
- With full fleshed service and trained Engineers
- Le-chatalier Soundness
- Fineness
- Compressive strength
- Initial / Final setting time
- GGBS, Fly Ash, Grout, Mortar, Micro Silica testing



METALLURGICAL

REINFORCEMENT & STRUCTURAL STEEL

- Tensile strength
- 0.2% Proof Test
- Bend
- Rebend
- Percentage Elongation
- Unit Weight



METALLURGICAL

MECHANICAL & CHEMICAL

- Impact IZOD
- Rockwell Hardness
- Vicker – HV 30
- Ductility
- Hardness
- Spectrophotometer



GEOTECHNICAL SERVICES

SOIL & GEOTECHNICAL INVESTIGATION

- Plate Load Test
- Standard Penetration test
- California Bearing Ratio
- Field Density by Core Cutter and Sand Replacement
- Electrical Resistivity Test
- Filed Vane Shear
- Specific Gravity
- Consolidation
- Triaxial Shear Strength
- Modulus of Elasticity of rock



GEOTECHNICAL SERVICES

SOIL TESTS

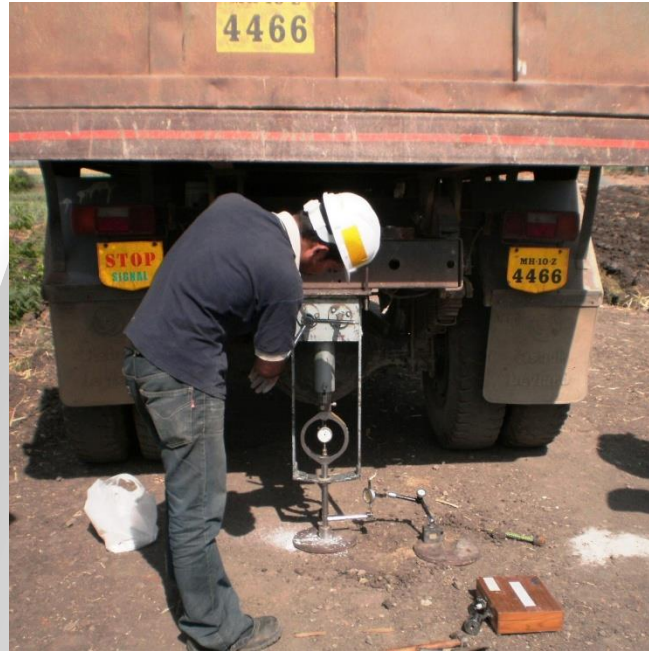
- Engineering properties of the strata.
- Hydrometer Analysis
- Standard & Modified Proctor
- Consolidation and Swelling Pressure
- Atterberg's Limit
- Direct Shear & Triaxial
- Unconfined compressive strength
- To Understand suitability of soil and rock.



GEOTECHNICAL SERVICES

BORING AND FIELD CBR

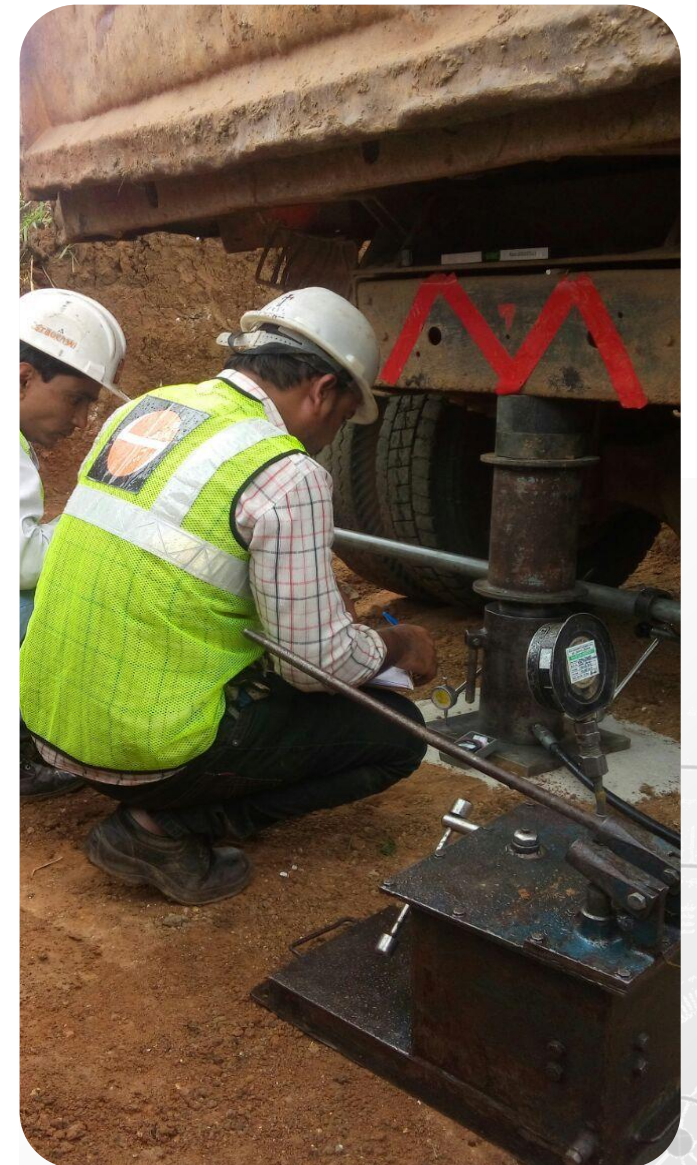
- Field California Bearing Ratio
- Strengths of sub-grade and bases.
- Soil Investigation
- Determining the profile of natural soil and rock deposits.
- Physical properties of earthworks
- Standard Penetration Test
- Relative Density



GEOTECHNICAL SERVICES

PLATE LOAD TEST

- Ultimate bearing capacity of soil.
- Measure the allowable pressure
- Allowable Settlement
- Modulus of Sub-grade reaction
- Safe Bearing capacity



NON DESTRUCTIVE TEST

NDT'S & ADVANCE NDT'S

- Schmidt Rebound Hammer Test
- Ultrasonic Pulse Velocity test
- Thermography Survey
- Ground Penetration Radar
- Core Extraction
- Cover Meter
- Half Cell Potentiometer Test
- Endoscope Inspection

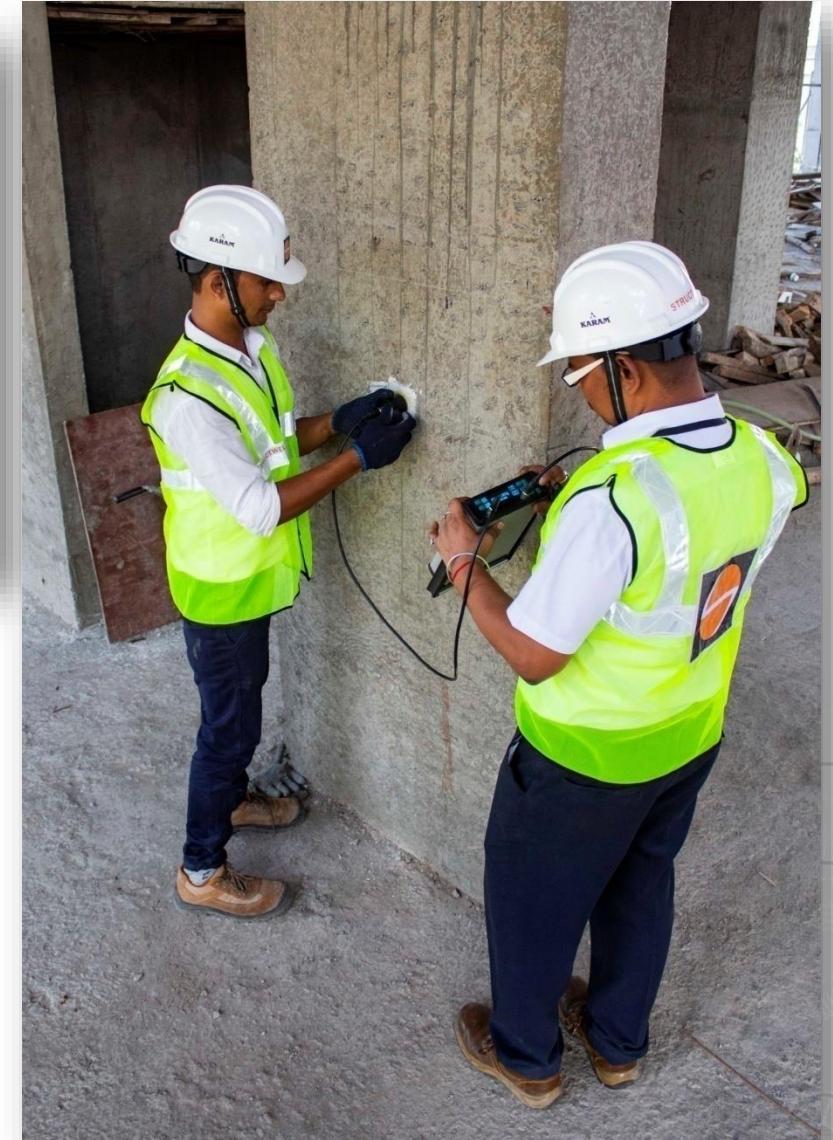


NON DESTRUCTIVE TEST

REBOUND HAMMER & ULTRA SONIC PULSE VELOCITY

“Every action has a equal and opposite reaction”

- Qualitative assessment of concrete in old structures
- High frequency sound waves through concrete body and measuring the time taken to travel fixed distance

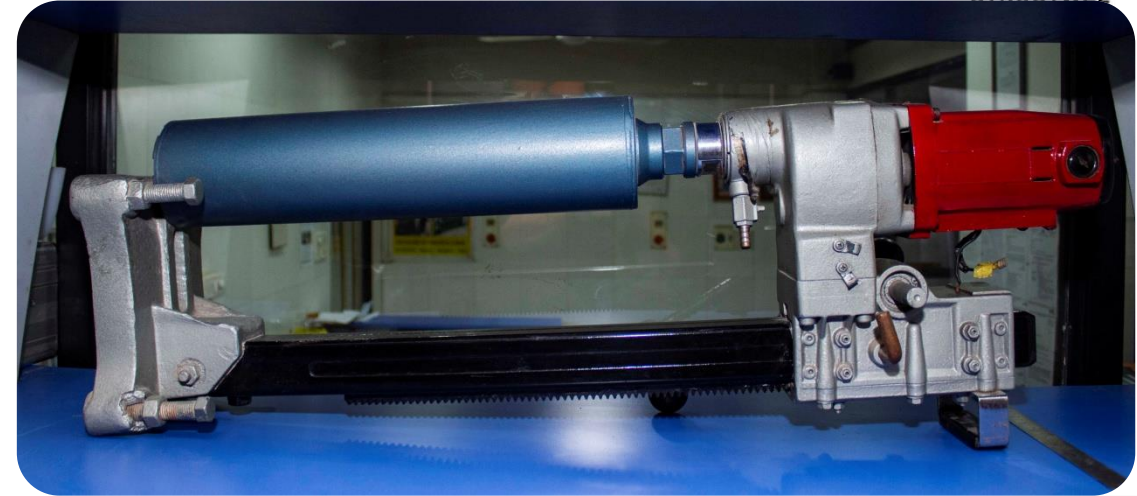


NON DESTRUCTIVE TEST



COVER METER, CORE & CARBONATION

- Cover Measurement
- The position of embedded reinforcement in concrete.
- Estimation of Rebar Diameter
- Useful in preparing structural drawings of RCC structures.
- Reaction between carbon dioxide and calcium hydroxide in concrete



ADVANCE NON DESTRUCTIVE TEST

GPR

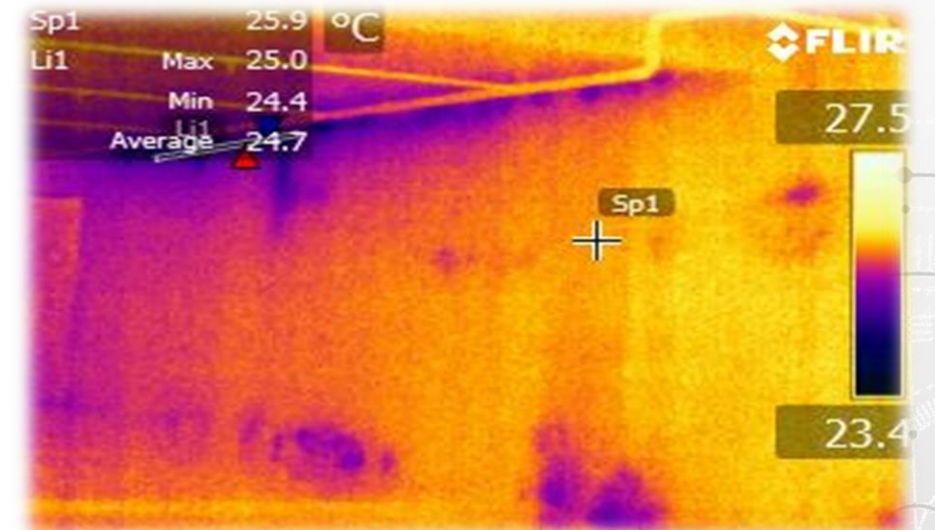
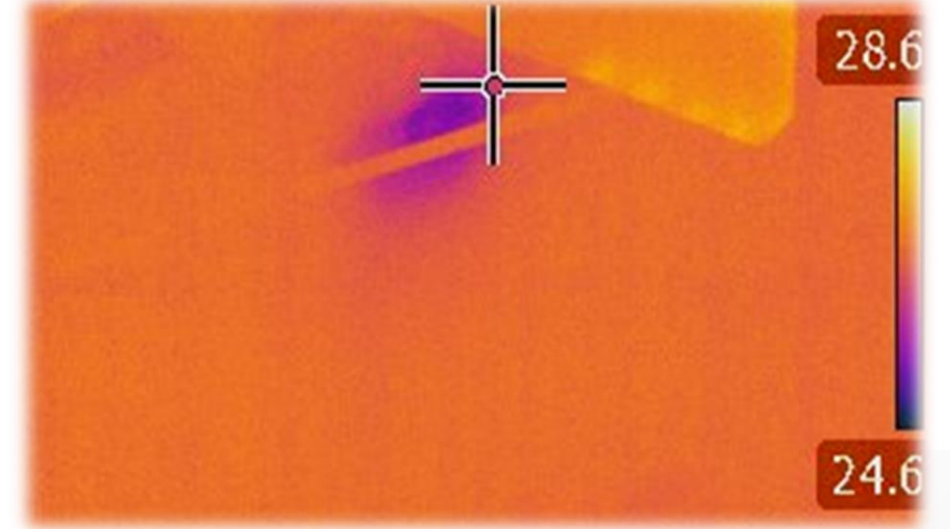
- Mapping of underground services, bedrock/boulders and cavities.
- Detection of underground structures like trenches, tunnels etc.
- Detection sinkholes, defects.
- Define the layers of soil profile



ADVANCE NON DESTRUCTIVE TEST

THERMOGRAPHY SURVEY

- Thermography means “Writing With Heat”
- Intensity of radiation in the infrared part.
- Electromagnetic spectrum and converts it to a visible image
- Transforming an infrared image into a radiometric one



ADVANCE NON DESTRUCTIVE TEST

ENDOSCOPY

- Condition assessment of embedded wooden section & Steel Section
- Visual inspection of hidden members



PETROGRAPHY

GEOLOGY OF CONCRETE & ROCK

- Examination of hardened concrete
- Investigation and evaluation of Alkali-Aggregates
- Investigation of fire damaged concrete
- Determining the quality of concrete.



CHEMICAL

CHEMICAL ANALYSIS OF MATERIALS

- Construction water
- Construction Chemicals
- Plasticizer
- Aggregates
- Concrete
- GGBFS
- Micro Silica
- Metal & Alloys
- Cement
- Soil & Rock
- Fly Ash
- Wood
- Gypsum & POP
- Lime



STRUCTURAL ENGINEERING

ENGINEERING TESTS

- Slab Load Test
- Bridge Load Test
- Vibration Monitoring
- Strain Gauge Monitoring
- Temperature Monitoring.
- Displacement Monitoring
- Crack Width Monitoring

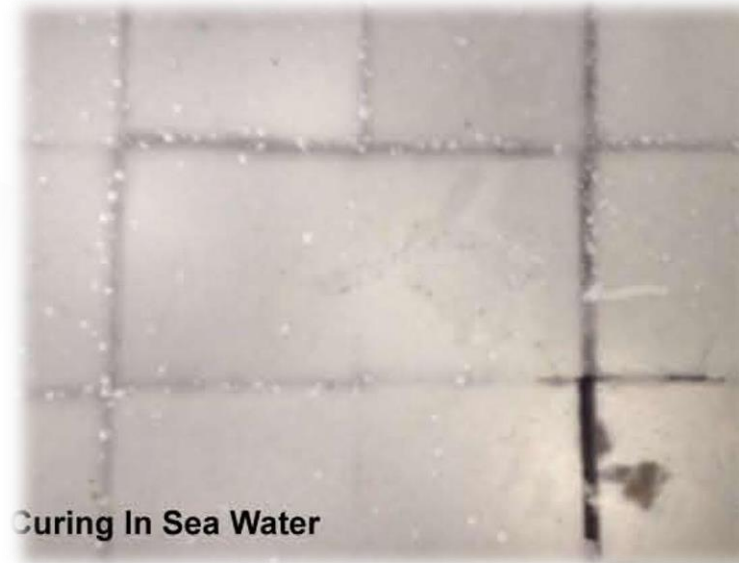


RESEARCH & DEVELOPMENT

- Replacement of portable water with sea water
- Substitute of Cement as Sulphur.
- Replacing drying oven with microwave oven



Casting In Sea Water



Curing In Sea Water



Temperature Monitoring



PATENTS



Water Permeability



Fresh Concrete Analysis Machine



प्रकरण ओ - 2
FORM O-2

संयोजक संस्था, भारत
Intellectual Property, India

भारत सरकार
GOVERNMENT OF INDIA
व्यापार चिन्ह रजिस्ट्री
TRADE MARKS REGISTRY
क्रमांक
No. 612930

व्यापार चिन्ह अधिनियम, 1999
TRADE MARKS ACT, 1999

व्यापार चिन्ह के रजिस्ट्रीकरण का प्रमाणपत्र, धारा 23 (2) नियम 62 (I)
Certificate of Registration of Trade Mark, Section 23 (2), Rule 62 (I)

व्यापार चिन्ह संख्या/ Trade Mark No. 1240533 दिनांक/ Date 30-09-2003 ज.संख्या/ J.No. 1,342

यह प्रमाणित किया जाता है कि जिस प्रकार चिन्ह की समकृति इसके साथ संलग्न है, वह नाम से रजिस्ट्रीकृत हो चुका है।
के बारे में दिनांक नाम से रजिस्ट्रीकृत हो चुका है।

Certified that the Trade Mark / a representation is annexed hereto, has been registered in the name(s) of
STRUCTWEL DESIGNERS AND CONSULTANTS PVT. LTD. 1008/9, 10TH FLOOR, RAHILJA CENTRE, NARIMAN POINT,
MUMBAI - 400 021. MANUFACTURERS, DEALERS & TRADERS.

In Class 9 Under No. 1240533 as of the Date 30-Sep-2003 in respect of
FRESH CONCRETE ANALYSIS MACHINE USED IN LABORATORY FOR ANALYSING CEMENT CONTENT IN FRESH
CONCRETE INCLUDED IN CLASS 09.

व्यापार चिन्ह रजिस्ट्री
TRADE MARKS REGISTRY
MUMBAI

F-CAM

मेरे निदेश पर आज के मास के वे दिन को इस पर मुद्रा लगायी गई।
Sealed at my direction, this March 05, day of 2007

व्यापार चिन्ह रजिस्ट्री, मुम्बई।
Trade Marks Registry, Mumbai

व्यापार चिन्ह रजिस्ट्रार
Registrar of Trade Marks

रजिस्ट्रीकरण कार्डन की शर्तों से 10 वर्ष के लिए है और प्रत्येक 10 वर्ष की कालावधि के लिए और प्रत्येक 10 वर्ष की कालावधि के अन्तर्गत पर भी नवीनीकृत किया जा सकता है।
Registration is for 10 years from the date of application and may then be renewed for a period of 10 years and also at the expiration of each period of 10 years.
यह प्रमाणपत्र विधि कार्यवाही में प्रयोग के लिये या विदेश में रजिस्ट्रीकरण अधिप्राप्त करने के लिये नहीं है।
This certificate is not for use in Legal proceedings or for obtaining Registration abroad.
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द्वारा किया जाना चाहिए।
Note: Upon any change of ownership of this Trade Mark, or change in address, of the principal place of business or address for service in India a request should
AT ONCE be made to register the change.

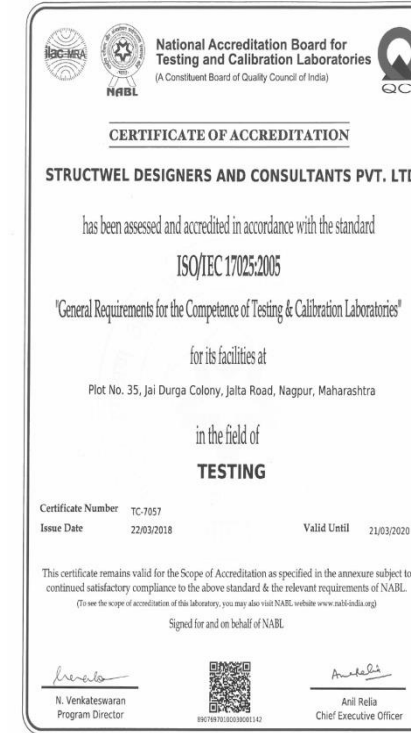
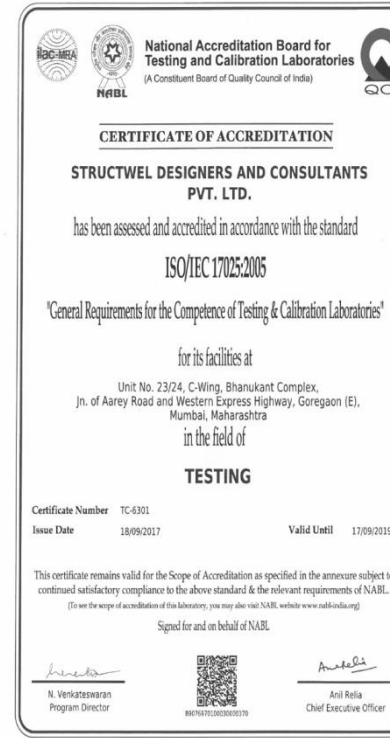
LABORATORY CERTIFICATES



NABL & TESTS LIST



Five NABL Accredited Laboratory in INDIA



- Accredited as per ISO/IEC 17025
- Accredited Test of more than 250 tests across all Labs.
- R&D Unit recognized by Government of India.

LABORATORY CREDENTIALIALS



PWD



CPWD



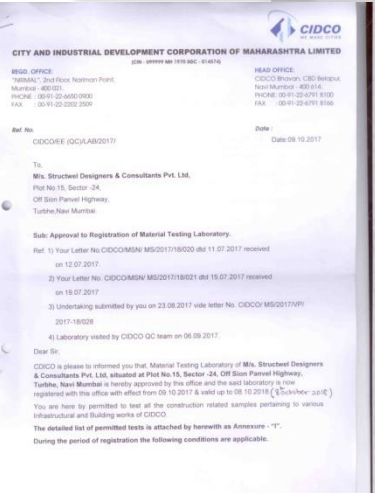
ISO



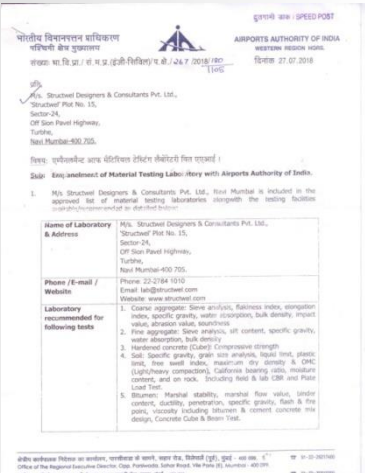
University of Mumbai



CIDCO



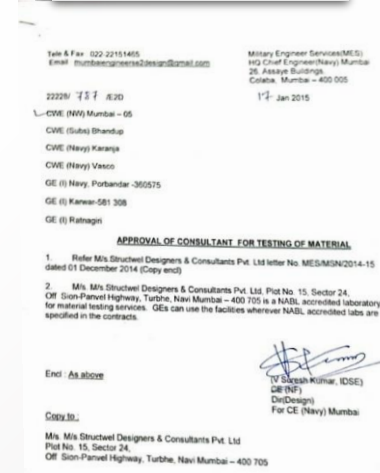
AAI



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CLIENTELE





THANK YOU