ISO:9001-2008

SPAR GEO INFRA PVT.LTD

INTRODUCTION

- Spar Geo Infra is ISO-9001:2008 (QMS) certified India's emerging geotechnical engineering company with more than 30 years of pan-India experience.
- The company was listed in 2009. Spar has around 200 employees.
- Geo Spar is first company in India to use micro pile for bridge construction.
- The company executed various prestigious projects in states of Himachal Pradesh, Rajasthan, Sikkim, Assam, Gujarat, New Delhi, Karnataka and Andhra Pradesh.

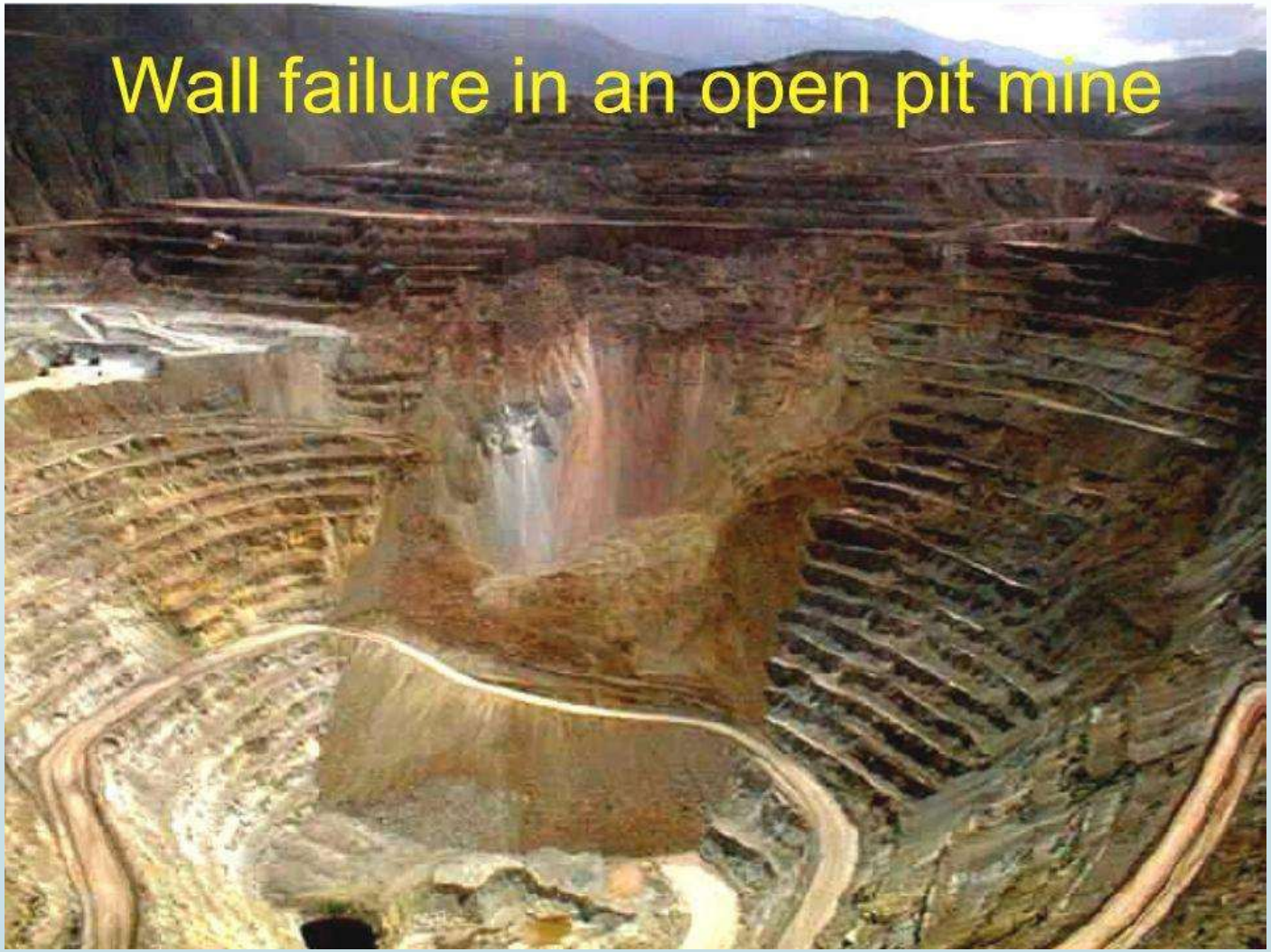
GEOSPAR

A specialist Ground Engineering company

Ground Engineering

- Ground engineering is applicable in all range of civil engineering projects.
- Areas where Ground engineering is applicable includes
  - Slope Retention
    - Slope stability
    - Mining
  - Foundation
    - Hydraulic structures
    - Infrastructure
      - Roads
      - Railways
      - Underground tunnels
    - Commercial and residential projects
    - Telecommunication towers
    - Solar foundation works
  - Rehabilitation and retrofitting

Mining industry



Slope Failure

Slope Retention

- Slope retention refers to retention of slopes at a particular location. The slopes may be vertical, inclined depending on situation. Slope retention has to be done in mining works and in case of landslides and other natural hazards to protect the infrastructure and ppl present at that location.
- Slope Retention can be done by
  - Retaining walls
  - Gabion walls
  - Soil nails
  - Anchors
  - Shotcreate
  - Wire mesh etc.

Foundation

- Foundation of any structure requires ground engineering principles to effectively transfer load to surrounding soils.
- Hydraulic structures : In hydraulic structures, ground engineering is required in
  - Foundations for abutments and piers which can be done by pile foundation, raft foundation depending on sub-surface profile.
  - To stabilize existing abutments and piers (i.e. foundation strengthening by using micro piles, sacrificial piles etc.)
  - Scour protection
  - To stop seepage of water which can be done by sheet piling, grouting etc.

Ground engineering in infrastructure projects

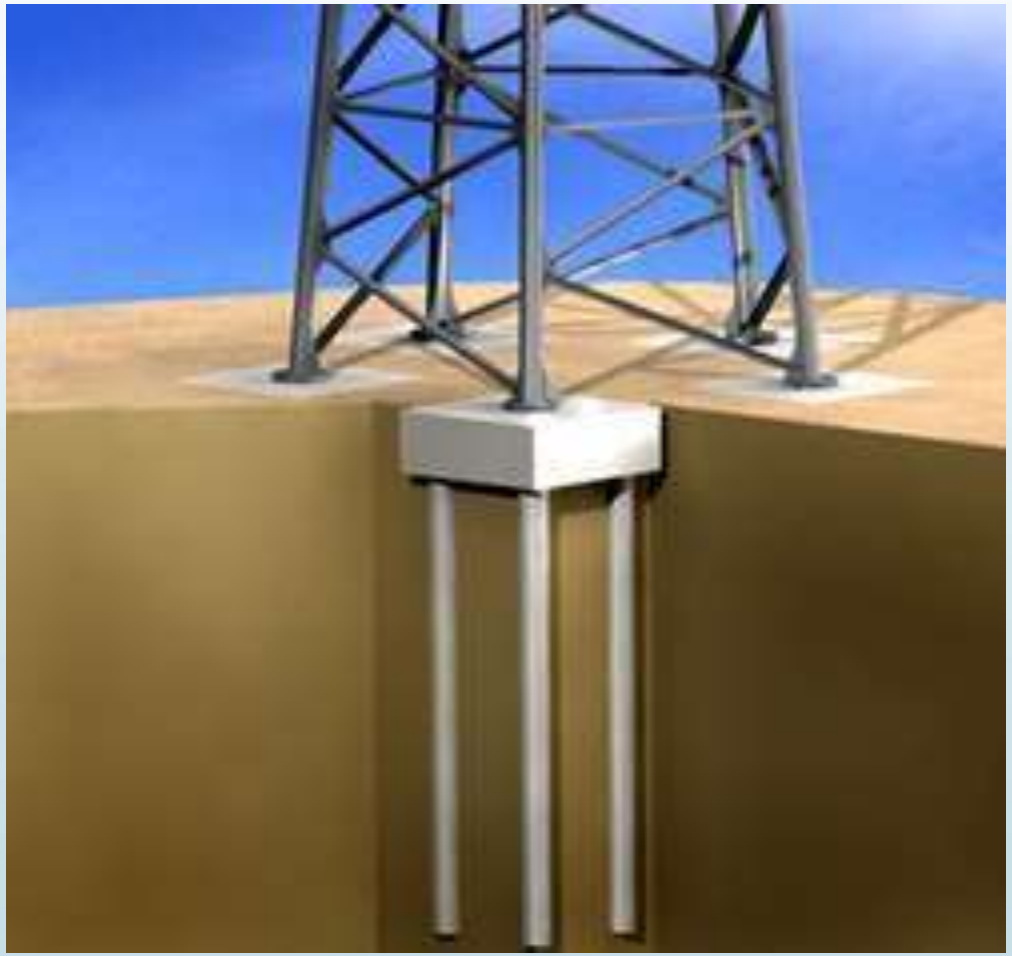
Commercial and residential purpose

- The construction of commercial and residential buildings requires the strengthening of the ground if the soil present at that location is poor and if the loads from the structures are more.
- Ground improvement can be done by
- Ground anchors
- Piles/Micropiles
- Grouting
- Stone columns, Vibro compaction etc.
- The construction of basement walls requires the excavation which in turn requires ground engineering. The excavation requires slope stabilization which can be done by braced excavation support or ground anchors or micro piles or soil nails etc.

Ground engineering in commercial and residential projects

Telecommunication towers & Solar works/ wind turbine Towers

- The foundations for telecommunication towers, wind turbine towers and solar works depends mainly on the soil condition and load acting on it.
- Micropiles/normal raft foundation can be chosen as a foundation for this works depending on the load and soil condition.
- Sometimes grouting and other ground improvement methods is chosen when the soil present at that location is weak.



Rehabilitation and retrofitting

- Sometimes due to underestimation of soil properties or due to expansion/ improvement of existing structures or due to underestimation of some of the properties there is a need for enhancement of properties which requires ground improvement techniques.
- The various cases where this ground improvement techniques has to be used is
- Undesirable Settlements of commercial or residential building
- Scouring below dam
- Abutments or pier settlement
- To Enhance the load carrying capacity
- Sinking of ground due to cavities
- Slope failure due to natural calamities etc.

SERVICES

- Slope Protection
  - Prestressed Ground anchors
  - Soil Nails
  - Rock Bolting
  - Shot Crete
  - Wire mesh system
  - Rock fall barriers
- Foundation Engineering
  - Secant Pile
  - Soldier Pile

- Sheet Pile
- Micro Pile
- Cast In Situ Pile

❖ Ground Improvement

- Tam Grouting
- Jet Grouting
- Cavity Grouting
- Consolidation Grouting
- Compaction grouting

OUR KEY PERSONNELS

S.K. Goyal

Managing Director

S.K.Goyal founder of Spar Geo Infra Pvt. Ltd. has graduated from Rajasthan University in 1981. He has been awarded 79th rank among Rajasthan University. With his reach 30 years of experience in Drilling, Grouting and Geo engineering he has guided spar through the most difficult and challenging time in its history. He is efficient and detail oriented in the execution of daily problem solving and is very skilled at building and maintaining a cohesive team with the various on-site subcontractors.

Nitin Kumar Goyal

Director (Business Development)

Nitin Kumar Goyal is Business developer by profession, and holds Bachelor's degree in Mechanical engineering in 2008. Nitin Goyal has been associated with Spar geo infra since its formation. With his 7 years of experience in Geo engineering company he guides the technical team and overseeing the marketing and administrative management effectively. Nitin Goyal's radical thinking and harbinger of professionalism and commitment, has led the company to its present position of eminence.

Rahul Kumar

General Manager (Execution)

Rahul Kumar has been appointed as General Manager Execution in Spar Geo Infra Pvt. Ltd. He is an alumnus of National Institute of Technology, Tiruchirappalli. He has over 20 years of geoengineering experience, having worked with GVK projects India Ltd, GAMMON India Ltd. IJM India Infrastructure Ltd. His years of experience in construction operation & maintenance has given him the skills to foresee potential problems in advance, and develop pro-active solutions to maintain the projects schedule.

CASESTUDIES

- Subhansiri Lower 2000 MW Hydro Project, Assam

Work: Design and Installation of Wire Anchor of 120 ton capacity for Slope Protection at Power House

- Delhi Metro Rail Corporation, Delhi
  Work: Design and Installation of anchoring, pilling, rock bolt & shot Crete

- Subhansiri Lower 2000 MW Hydro Project, Assam
  Work: Design and Installation of Wire Anchor of 120 ton capacity for Slope Protection at Dam Location

- Teesta Stage III 1200 MW Hydro Project, Chungthang, Sikkim
  Work: Design and installation of wire anchor of 100 ton capacity for slope protection of dam area

- Delhi Metro Rail Corporation Cc-07, Kashmiri Gate, Delhi Work: Blasting & excavation, sda fore polling/ rockbolts, eraction of lattic girder, fixing of wiremesh & shotcrete

- Project Himank, Leh Ladakh, J&K
- Work: Carrying out Sub-surface investigation, ground improvement using TAM grouting, design and installation of micropile for bailey bridge.

- Madhya Bharat Power Corporation Ltd, Hydro Project, Rongnichu, Sikkim
  Work: Design and installation of wire anchor of 100 ton capacity

- Teesta Stage III 1200 Mw Hydro Project, Mangan, Sikkim
  Work: Stitching of busduct at power house with horizontal anchor of 100 ton load

- Delhi Metro Rail Corporation, Delhi
  Work: Designing and installation of removable soil anchor

- HCL Noida
  Work: Design and installation of vertical ground/ soil anchor

- Tech Mahindra Satyam, Bangalore

Work: Design and installation of soil anchor, pilling, soil nail & shotcrete

- Delhi Metro Rail Corporation CC-01, Janpath, Delhi
  Work: Slope protection upto 11 mtr depth by installation of soil anchor and shotcreting

Major Clients

Clients	Type of Work
• BRO	- Micropiling
• BGS-SGS Soma JV.	- Micropiling, Wire Anchor, Grouting
• SEW Infrastructure Ltd.	- Micropiling, Wire Anchor, Grouting
•NEC Ltd	- Ground Anchor (Sikkim)
•Abir Infrastructure Ltd.	- Tunnel Stitching by Anchors
•Soma Enterprises	- Wire anchor, cladding wall

Clients	Type of Work
• Alpine Samsung HCC JV	- King post piling
• ITD – ITD CEM JV, CC 32	- Retrievable Anchors
• Era Infra, CC 07	- Tunneling
• L&T – SUGG JV	- Micropiles
•Pratibha CRFG JV	- Vertical Slope
• Jkumar Infrastructure Limited	- Soil Anchoring

CLIENTS

- Soma Enterprise Ltd.
- Sew Infrastructure Ltd.
- Navyuga Engineering Company Ltd.
- Abir Infrastructure Ltd.
- L & T Construction
- Madhya BharatJaypee
- HydroRv Akash Ganga Infrastructure Ltd
- Enfinity Solar Solutions Pvt Ltd
- Mahindra Epc Services Pvt Ltd
- L&T Construction, Power & Transmission & Distribution
- Sterling & Wilson
- Refex Energy Limited
- DMRC

- Pratibha – Crfg Jv
- Pratibha – Femc Jv
- Alpine Samsung Hcc Jv
- Itd-Itd Cem Jv
- Metro Tunneling Group
- L&T – Sucg Jv
- Metro Tunneling Delhi – L&T Sucg
- Era Infra Engineering Ltd
- J-Kumar Infra
- Bhola Singh Jaiprakash Construction Ltd
- Era Infra Engineering Ltd
- Senbo Engineering Ltd
- Hindustan Infrastructure Construction Corp. Ltd.

Our Location

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Thank You