

THE ROLE OF ENGINEER IN SITE INVESTIGATION

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Do You Need Engineer in SI?

Input of Engineer Required for:

- Planning of SI
- Specification
 - Appropriate Methods of Ground Investigation
 - Field tests and samplings
- Selection of Contractor
- Supervision
- Analysis

Planning of SI

- SI for sizeable project is usually divided into 3 stages
 - Preliminary Design
 - Detailed Design
 - Construction

SI for Preliminary Design

- To confirm the layout to ensure it is the optimum in terms of cost and time/ease of construction
- Preliminary design for cost estimate of earthwork (soil & rock), the foundation and ground treatment and estimate time of construction

Do We Need Supervision in SI?

- Extra Cost

Need of Supervision in

- **By-Law 5 (Uniform Building By-Law)**

(Any plan, drawing or calculation in relation to any building is required to be submitted by qualified person. Erection or continued erection of that building shall take place only if qualified person or any person duly authorised by him undertakes the supervision of the erection and the setting out, where applicable, of that building).

- **Technical requirements for:**

- Safe Design
- Economical Design
- Safety During Construction

S.I. FOR DETAILED DESIGN

- Refinement in design and construction
 - refined profile and properties
- Cost/Value engineering saving
- Usually concentrate critical areas:
 - soft ground area
 - major cuts
 - structures
 - area with high loading
 - retaining wall

SUPERVISION OF LABORATORY TESTING

- Accreditation
- Surprise visit
- Checking on the correctness of data

CONCLUSION

For a safe and economical project

- Get Design Engineer in early
- Engage accredited site investigation contractor and laboratory
- Adequate site supervision