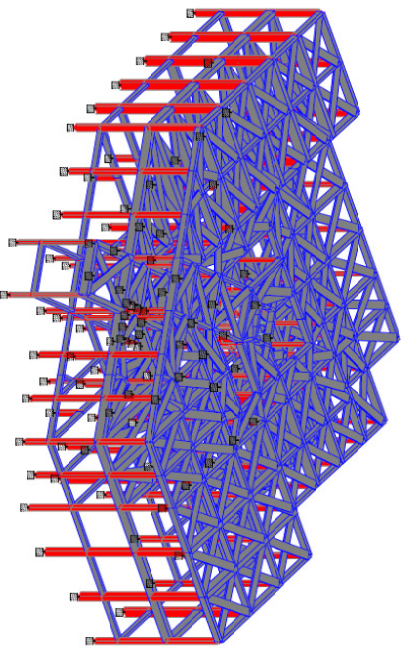


Bangalore, India

Retrofitting and Extension of Three - Axis Building for Air Craft project at ADE, Bangalore



SIE scope includes recommendations for structural retrofitting of existing structure duly accommodating another floor, with minimum impact on operation of existing building.

Site visit and a preliminary structural survey are carried out followed by desktop study to assess the current condition of structure.

Retrofitting designs include the strengthening of deficit elements namely Foundations, Columns and Beams.

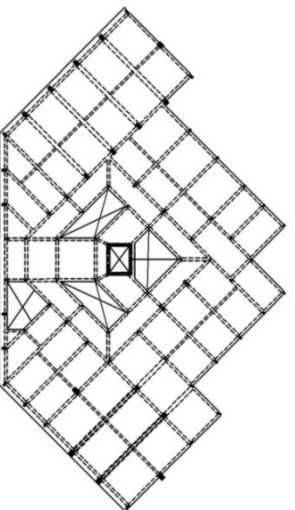
Additional floor design is carried out keeping in view the site constraints and the limitations of existing structure.

Stability of building is improved by providing a central core wall for the lift in the middle of building and connecting with horizontal R.C. diaphragm to the existing building.

Column Strengthening is achieved by fixing additional reinforcement around existing column with Hilti-key and micro-concreting.

Beam Strengthening is achieved by casting another layer of beams fixing over existing beams and column reinforcement, together with void filler (Polystyrene Blocks) and levelling screed.

Grout Injection, CFRP strips/Laminates are recommended for few areas of slab where crack widths are between 0.2 to 0.4mm.



Thixotropic patching mortar is recommended for grooves between structural elements and block wall and crack filling in plastering. High elongation acrylic coating is recommended as protective coating for crack-bridging.

Since the work is a specialist nature,

- Comprehensive structural survey
- Specialist Consultant's Supervision at every stage of work and
- Load testing to assess the performance of retrofitting measures are recommended during supervision.

Date: 2014

Client: Chief Engineer R & D Secunderabad, M.E.S.

Type: Reinforced Concrete

Plan Dims: 39m x 40m

Height / No.of Storeys: 7.75m / 2 Floors

Firm's Responsibilities: Assessment, Verification, Structural

Retrofitting Design and Supervision.