



भारतीय प्रौद्योगिकी संस्थान रूड़की
INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

सिविल अभियांत्रिकी विभाग
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No. CED/MAI/JUL/01ARA

Dated: 29.11.2023

The Chief Executive Officer
M/s Unitech Limited
Plot No. HG-01, Unihomes-117
Noida, Uttar Pradesh-201306

SUB: Structural Health Safety Audit of Residential Buildings of Unihomes 1 (Phase-1), Sector 117, Noida, Uttar Pradesh


REF: Request Letter of M/s Sangam Project Consultants, Navi Mumbai with REF. No. SPC/UNITECH NOIDA\20622b Dated 20th June 2022.

The structural health safety audit of the buildings of Unihomes 1 (Phase-1), Sector 117, Noida, Uttar Pradesh was carried out by IIT Roorkee during December 2022-March 2023. The objective of the structural audit was to obtain an estimate of the health condition of the structure of the buildings based on visual inspection, non-destructive testing and semi-destructive testing. The detailed methodology, results, conclusions and recommendations are mentioned in the structural audit report submitted by IIT Roorkee to M/s Sangam Project Consultants, Navi Mumbai on 16th June 2023.

The structure has been found to be safe and stable but some issues with respect to workmanship, corrosion of reinforcement and localized concrete strength in members have been noticed which could be resolved with the strength/repair measures recommended as follows;

- (i) Wherever the core strength was below the permissible strength, adequate measures shall be taken to enhance the strength of concrete by employing injection grouting with epoxy based/cementitious material.
- (ii) The visible offsets of shear-walls and columns shall be retrofitted. For large offsets only RCC jacketing around the columns is recommended. For minor shifting the fiber wrapping may be adopted.
- (iii) Wherever there is visible honeycombing, it shall be improved with injection grouting with epoxy/cementitious material.
- (iv) All the affected structural members where the corroded reinforcement is exposed shall be treated/cleaned with antirust compound and covered with polymer modified plaster or micro concrete as required. Further propagation of Chloride shall be restricted by treating the member with alkaline material.

The opinion contained in this letter is professional opinion in the capacity of faculty of Dept. of Civil Engineering, IIT Roorkee.


M. A. Iqbal
Professor