



भारतीय प्रौद्योगिकी संस्थान रूड़की
INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

सिविल अभियांत्रिकी विभाग
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No. CED/MAI/UL/01CRC

Dated: 29.11.2023

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

SUB: Proof Checking of the Structural Design of Residential Buildings of Uniworld Gardens (Phase-3) Sector 117, Noida, Uttar Pradesh

REF: (i) Request Letter of M/s Sangam Project Consultants, Navi Mumbai with REF. No. SPC/UNITECH NOIDA\20622b Dated 20th June 2022.
(ii) Structural Design Calculations and Drawings Submitted by M/s Acecon Engineers, New Delhi

The structural design and drawing of the buildings of Uniworld Gardens (Phase-3), Sector 117 Noida, UP submitted by M/s Acecon Engineers, New Delhi have been checked. All the stipulated combinations of gravity loads and the relevant lateral loads have been considered and duly incorporated in the analysis and design in accordance with the provisions of the relevant Indian Standard Code of Practice, IS456:2000 & IS 1893:2002.

The design and drawings have been found to be in order except a few structural members which have been found to be over stressed and where the reinforcement requirement has been found to be higher than the provisions of the existing structural drawings. These members are required to be retrofitted. The members shall be retrofitted by injection grouting wherever there is minor concrete strength deficiency. Wherever, both the concrete strength as well as reinforcement are deficient, fiber wrapping shall be adopted. Where there is a major deficiency in the reinforcement, RCC Jacketing all around the column of minimum 100 mm thickness shall be provided.

Alternatively, steel bracings at some appropriate and judiciously identified locations may be adopted to minimize retrofitting of the deficient members. 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