FYFE Asia Pte Ltd

Tyfo® Fibrwrap® Systems

PROJECT BRIEF

Malaysia

Remedy to Floor Slab due to Error in Placement of Reinforcement Bars at Wall Support with the TYFO® Fibrwrap® System

Housing Development
in Kluang, Johor
Malaysia
January 2006

The property developer of this private housing development called upon Fibrwrap Construction Malaysia to determine the cause or cracking that was notices on the slab and to provide an effective remedy to correct the defect. It is of paramount importance that the cause of such cracking be addressed so that proper precaution and measures can be taken on site for the construction of remaining units that where still in progress.

The new double storey terrace house was constructed using a shear wall-slab design system which is unique in that beams are replaced by wall support. The crack runs near the wall support, parallel to its longitudinal axis. It was found that the concrete cover to the top reinforcement mesh in the slab was too large – reducing the slab's ability in resisting bending near to the wall support. The presence of electrical conduits laid below at the bottom re-bar mesh layer also induces cracking due to its closeness to the bottom surface of the slab.

The above situation if not addressed would have caused the slab to leak as it was situated beside the common bathroom. The remedial measure proposed had to be sound to assure the property developer that the durability and integrity of the structure would be restored or enhanced back to its original intended state of design.

Due to its ease of installation, established track record, cost effectiveness and minimum disturbance to the finishes already installed, the TYFO® Fibrwrap® composite system became the preferable choice for the flexural strengthening. Cracks were grouted up prior to installation of the TYFO® SEH System.

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