

Zeitschrift: IABSE congress report = Rapport du congrès AIPC = IVBH
Kongressbericht

Band: 14 (1992)

Artikel: Tower block of Civic Center, Shah Alam Core Project, Malaysia

Autor: Alimchandani, C.R. / Huat, Harry Tan Kian

DOI: <https://doi.org/10.5169/seals-853171>

Nutzungsbedingungen

Die ETH-Bibliothek ist die Anbieterin der digitalisierten Zeitschriften auf E-Periodica. Sie besitzt keine Urheberrechte an den Zeitschriften und ist nicht verantwortlich für deren Inhalte. Die Rechte liegen in der Regel bei den Herausgebern beziehungsweise den externen Rechteinhabern. Das Veröffentlichen von Bildern in Print- und Online-Publikationen sowie auf Social Media-Kanälen oder Webseiten ist nur mit vorheriger Genehmigung der Rechteinhaber erlaubt. [Mehr erfahren](#)

Conditions d'utilisation

L'ETH Library est le fournisseur des revues numérisées. Elle ne détient aucun droit d'auteur sur les revues et n'est pas responsable de leur contenu. En règle générale, les droits sont détenus par les éditeurs ou les détenteurs de droits externes. La reproduction d'images dans des publications imprimées ou en ligne ainsi que sur des canaux de médias sociaux ou des sites web n'est autorisée qu'avec l'accord préalable des détenteurs des droits. [En savoir plus](#)

Terms of use

The ETH Library is the provider of the digitised journals. It does not own any copyrights to the journals and is not responsible for their content. The rights usually lie with the publishers or the external rights holders. Publishing images in print and online publications, as well as on social media channels or websites, is only permitted with the prior consent of the rights holders. [Find out more](#)

Download PDF: 23.03.2026

ETH-Bibliothek Zürich, E-Periodica, <https://www.e-periodica.ch>

**Tower Block of Civic Center, Shah Alam Core Project, Malaysia**

Tour du Centre civique, Shah Alam Core Project, Malaysia

Turmaufbau beim Civic Center, Shah Alam Core Project, Malaysia

C.R. ALIMCHANDANI
Chairman & Managing Dir.
Consult. Ltd.
Bombay, India

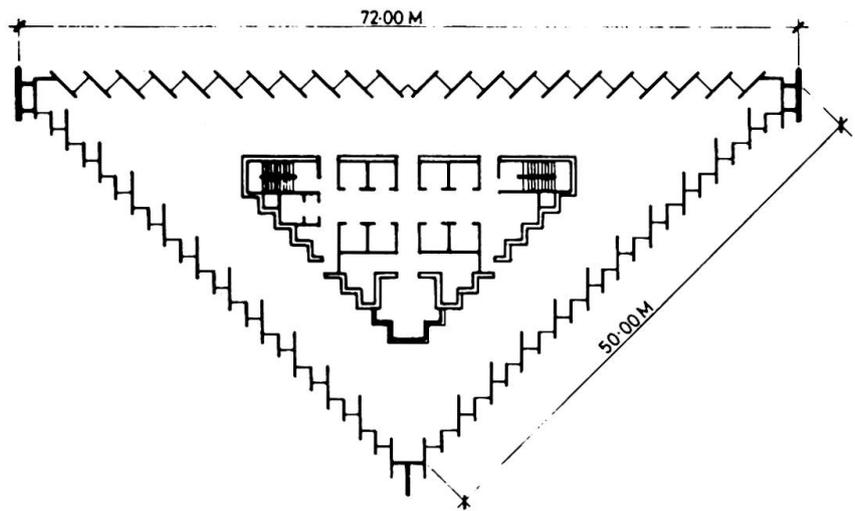
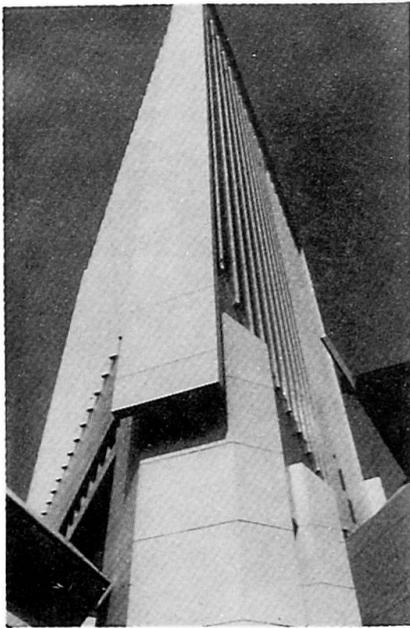
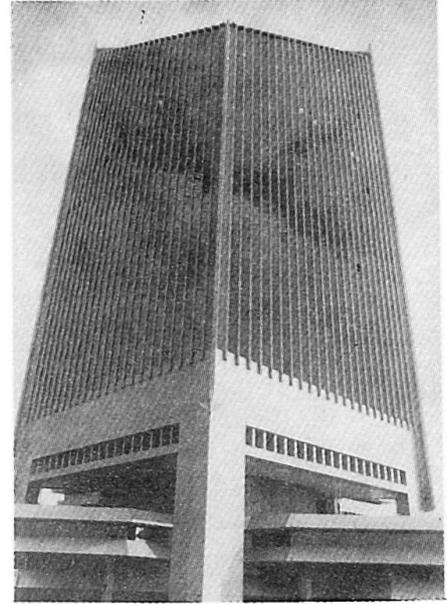
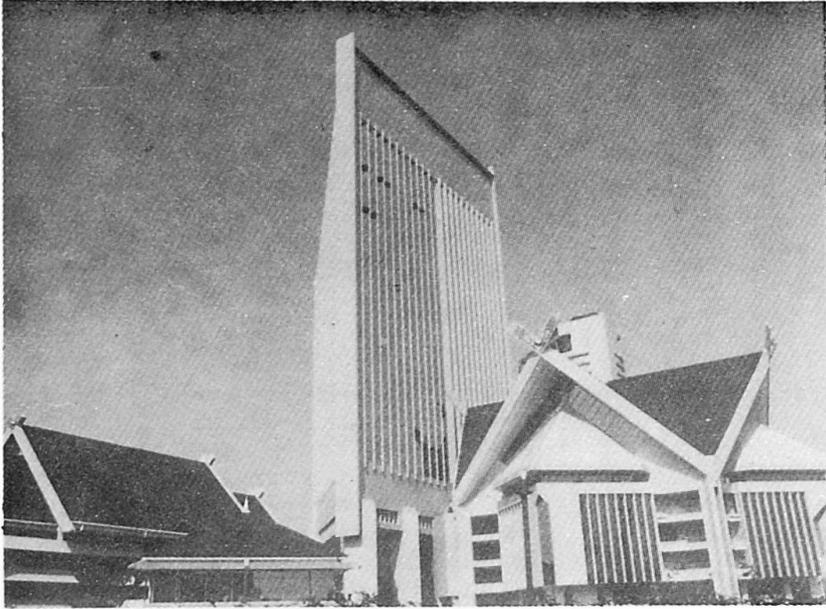
Harry Tan Kian HUAT
Kumarasivam Tan & ArrifinSTUP
Kuala Lumpur, Malaysia

The civic centre at Selangor has three major buildings of striking architecture. The main civic office is housed in one of them - a building triangular in plan with two sides of 50 m at right angles and a 72 m hypotenuse.

At the base is a concrete podium of 4 m height above ground with a basement for car parking below. Above the podium, monumental columns at the three apices with two more intermediate columns along the longer side rise 20 metres to the soffit of 12 m (4 stories) deep transfer girders. In the centre of the building there is only a triangular shaft enclosing the lifts and services. The rest of the space is clear for a 20 m height giving a majestic appearance to the building.

The tower rises 30 stories above the soffit level. The external triangular tower functions as a structural tube above the transfer girders. Each face is composed of a frame formed by RCC fins and transverse beams connecting the fins at every floor level. The inner triangular tube carrying the lift shafts and the services is of monolithic reinforced concrete. The outer and inner tubes are connected by floors. This permits the outer and inner tubes to carry vertical loads from the floors as well as to resist in tandem the wind loads. The floors provide lateral support to the external tube which has low lateral strength but good strength along the faces of the tube. The large transfer girders give rise to major variable deformations during construction and long term deformations in service that are as high as 15 cm. The differential temperature effects between the outer tube and the inner tube (the latter is an airconditioned environment) adds differential vertical movement of the order of 15 mm. The floors have therefore to be articulated at supports on the inner and outer triangular tubes.

The structure required very detailed analyses covering the structural behaviour and deformations and appropriate and meticulous detailing. The prestressed concrete transfer girders which are monolithic with the columns act together as a space frame. Their analysis and detailing required special attention. Similarly the construction procedure for the 12 m deep and 4 m wide box transfer girders, constructed on staging 20 m to 32 m high, required very careful detailing.



TYPICAL FLOOR PLAN OF TOWER BLOCK

Tower Block of Civic Center, Shah Alam Core Project, Malaysia