

عنوان مقاله:

Traffic Impact Assessment of Land Use Proposals: Fifty Years of Australian Experience

محل انتشار:

نشریه بین المللی مهندسی حمل و نقل, دوره 6, شماره 4 (سال: 1398)

تعداد صفحات اصل مقاله: 14

نویسندگان: Gholam Reza Shiran - *Assistant Professor, Faculty of Transport, University of Isfahan, Isfahan, Iran*

John Black - Emeritus Professor, School of Civil and Environmental Engineering, Sydney, Australia

Kam Tara - Director, Urban Research and Planning (URaP), International, North Strathfield, NSW, Australia

خلاصه مقاله:

A Traffic Impact Assessment (TIA) provides information on the projected traffic expected from a proposed development. A TIA also evaluates the impact of proposed development on the roadways in the immediate proximity of the proposed development. The TIA should identify potential traffic operational problems or concerns and recommend appropriate actions to reduce impacts. Draft traffic impact assessment (TIA) guidelines for various land uses in general, and for high traffic generating buildings in particular, were proposed in Iran in the middle of 2016. In formulating that report the Traffic Committee of the Iranian Building Engineering Order reviewed international experience, including that of Australia. Traffic impact assessment started in Australia in the 1960s when the traffic police exercised much authority in trying to prevent land-use developments from taking place abutting main roads. Concepts derived from queuing theory where the application of the mean service time to establish maximum traffic generation rates for a proposed development was introduced. Attached to that theory was the absorption capacity of a priority traffic stream. This latter one found its way into traffic engineering practice to provide a rational basis for assessing development applications. As experience accumulated the guidelines became refined and a second edition of Austroads' traffic impact assessment was released in 2016. This paper presents the documentation which is expected from a developer, traffic models available to the consultants working for the developer, and importance of developer contributions require by the developer for changes to the surrounding transport network. To illustrate the process, a simple case study of a school expansion is provided. The steps taken to show the impact of an increase from 185 to 600 pupils in Sydney is illustrated. The process include traffic data collection on the surrounding streets to forecasting future traffic using appropriate models and community workshops. In the light of a practical case, the process then ends with proposing options to mitigate adverse traffic impacts of the development application. The overall work illustrates the principles of TIA and to point to the onus on all developers to manage travel demands to .achieve more sustainable outcomes from urban development

کلمات کلیدی:

Traffic impact assessment, development guidelines, TIA, traffic generating building

لینک ثابت مقاله در پایگاه سیویلیکا:

https://civilica.com/doc/863840



