

Effective Design Factors for Bicycle-Friendly Streets

Authors : Zohreh Asadi-Shekari, Mehdi Moeinaddini, Muhammad Zaly Shah, Amran Hamzah

Abstract : Bicycle level of service (BLOS) is a measure for evaluating street conditions for cyclists. Currently, various methods are proposed for BLOS. These analytical methods however have some drawbacks: they usually assume cyclists as users that can share street facilities with motorized vehicles, it is not easy to link them to design process and they are not easy to follow. In addition, they only support a narrow range of cycling facilities and may not be applicable for all situations. Along this, the current paper introduces various effective design factors for bicycle-friendly streets. This study considers cyclists as users of streets who have special needs and facilities. Therefore, the key factors that influence BLOS based on different cycling facilities that are proposed by developed guidelines and literature are identified. The combination of these factors presents a complete set of effective design factors for bicycle-friendly streets. In addition, the weight of each factor in existing BLOS models is estimated and these effective factors are ranked based on these weights. These factors and their weights can be used in further studies to propose special bicycle-friendly street design model.

Keywords : bicycle level of service, bicycle-friendly streets, cycling facilities, rating system, urban streets

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