

A Methodology for Design of Pedestrian Crossing Facilities in Sri Lanka

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Accommodation of pedestrian should be an integral part of any transport infrastructure design project. Pedestrian facility comprises with walkways and pedestrian crossings. Pedestrians have a right to cross roads safely. Therefore road designers have a professional responsibility to plan, design and provide safe walking and crossing facilities in their designs.

Analyses of recent accident studies have identified that pedestrians comprise a significant proportion of serious injuries and fatalities while they were crossing the road without using a designated pedestrian crossing. Majority of pedestrian accidents occur while negotiating a road crossing, hence provision of safe and effective pedestrian crossing facilities are paramount.

Sight distance, level of service and delay to pedestrians are major parameters to be considered with warrants prior to installation of a pedestrian crossing. Introduction of a crossing without following a rational design approach would create additional delays and such a provision would even be hazardous.

It is important to recognize the correlation between pedestrian travel characteristics, with parameters such as speed, density, flow and space by conducting comprehensive pedestrian surveys.

Design of a pedestrian crossing requires basic understanding of related human behaviors, characteristics and capabilities which again depend on age, physical and mental condition of pedestrians, who are expecting to negotiate a crossing.

So the main objective of this study is to develop a guideline to assist in determining the appropriate crossing facility for a given location of a road based on the sight distance, Level of Service, delay to pedestrians and vehicles, pedestrian speed, density, flow and space in addition to the warrants.