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## The 2<sup>nd</sup> International Conference on Management, Engineering and Environment

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# DEVELOPMENT OF METHODOLOGY FOR THE SELECTION OF THE OPTIMAL TYPE OF PEDESTRIAN CROSSING, A CASE STUDY

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Abstract: The World Health Organization in its agenda on sustainable development 2030 sets a goal to reduce the number of traffic-related accidents by 50%. According to the trend of reducing the number of traffic-related accidents and the latest statistics report by SIA Bitola, we found that this is a very high goal for our city and a great challenge which we could try to reach. Namely, we started the pedestrian safety initiative by trying to provide infrastructural facilities and elements that are planned and designed according to the security principles and which correspond to the projected speed and road function, as well as safe infrastructure for pedestrians, the elderly and persons with disabilities. The main objective of this paper is to develop a case study methodology regarding the selection of pedestrian crossing types on the case study location example. Namely, the VISSIM simulation model for the studied location has been introduced, and the general conclusions have been adopted based on the multi-criteria decisionmaking process analysis. The most important aim is directed towards obtaining pedestrian safety, as well as bearing in mind the role of pedestrian safety within the current safety goals.

Keywords: pedestrian safety; pedestrian crossing, AHP, VISSIM simulation.