



MODELLING OF STORMPAV GREEN PAVEMENT: INLET AND OUTLET OF INTEGRATED PERMEABLE ROAD AND STORMWATER DETENTION SYSTEM

Ching Vern Liow

Department of Civil Engineering, Faculty of Engineering, Universiti Malaysia Sarawak,
94300 Kota Samarahan, Sarawak, Malaysia

Darrien Yau Seng Mah

Department of Civil Engineering, Faculty of Engineering, Universiti Malaysia Sarawak,
94300 Kota Samarahan, Sarawak, Malaysia

Mohd Remy Rozainy bin Mohd Arif Zainol

School of Civil Engineering, Universiti Sains Malaysia,
14300 Nibong Tebal, Penang, Malaysia

ABSTRACT

Having a dual function of conveyance and storage integrated to a permeable road is demonstrated here. Yet, this function could only be executed when appropriate inlet and outlet designs are decided. The mentioned permeable road is referring to StormPav Green Pavement which is designated along the front street of typical commercial premises. Stormwater runoff generated from building and road catchments of the commercial area is simulated by using Storm Water Management Model (SWMM). Subjected to 10-year average recurrent interval design rainfall with durations ranging from 5 to 180 minutes, results show that 100mm diameter inlets and 0.19m x 0.7m outlet are the optimized sizes to allow for the filling and draining in StormPav Green Pavement system.

Keywords; Downpipe, Green pavement, On-site detention, Orifice, Runoff, StormPav, SWMM.

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