

**SUSTAINABLE DRAINAGE CHARACTERISTICS
INFLUENCED BY ENVIRONMENTAL AND TOPOGRAPHICAL
CONDITIONS**

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ABSTRACT

A series of laboratory experiments were carried out on two surfaces i.e. a 10mm hot stone asphalt surface mix and a smooth plywood wood surface. The purpose was to investigate their drainage characteristics. By applying various rainfall intensities and different crossfall slopes, it was found that the surface runoff increases rapidly to the peak value, followed by rapid decline that begins at the moment of rainfall cessation and then approaches zero slowly. The significant variation between the two trial surfaces assessed related primarily to their surface texture or texture depth. These initial findings suggest that the research will allow better understanding of highway surface rainfall runoff and its affect on adjacent land areas and watercourses.

KEY WORDS: SuDS, surface texture, crossfall, rainfall, permeability