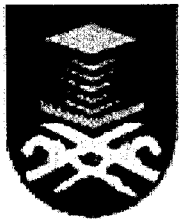
INFLUENCED OF GRANITE AGGREGATES MACROTEXTURES ON PAVEMENT SKID RESISTANCE



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SEPTEMBER 2006

Surat Kami : 600-UiTMPP (URDC:5/2/1)
Tarikh : 25 Mei 2004

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Tuan/Puan/Prof.Madya,

KELULUSAN PERMOHONAN UNTUK MENJALANKAN PROJEK PENYELIDIKAN

Perkara di atas adalah dirujuk.

Sukacita dimaklumkan permohonan tuan/puan/Prof.Madya untuk menjalankan penyelidikan telah diluluskan dalam Mesyuarat Jawatankuasa Teknikal Unit Penyelidikan, Pembangunan dan Pengkomersilan Universiti Teknologi MARA (UiTM) Pulau Pinang yang telah diadakan pada 17 Mei 2004.

Butiran permohonan yang diluluskan adalah seperti berikut:

Nama Ketua Projek	:	Azura Binti Ahmad
Ahli Projek	:	Mohd Hisbany Bin Mohd Hashim Juraidah Binti Ahmad Malaysia Institute of Transport, UiTM Shah Alam
Tajuk Penyelidikan	:	Influence of Macrotexture on Pavement Skid Resistance
Keputusan	:	Diluluskan dengan peruntukkan RM 20,000.00
Tempoh	:	Jun 2004 – Mei 2005

Berikut disertakan dokumen-dokumen untuk panduan dan tindakan pihak tuan/puan/Prof.Madya selanjutnya.

1. Perjanjian bagi menjalankan Projek Penyelidikan, sila isi dan kembalikan kepada pihak kami untuk ditandatangani oleh pihak seterusnya.

2. Borang laporan kemajuan yang perlu dikemukakan kepada pihak kami setiap empat (4) bulan.

Tarikh: 28 September 2006

No. Fail Projek: 600-IRDC/ST.5/3/780

Penolong Naib Canselor (Penyelidikan)
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Selangor

Yang Berbahagia Prof.,

LAPORAN AKHIR PENYELIDIKAN "INFLUENCED OF GRANITE AGGREGATES MACROTEXTURES ON PAVEMENT SKID RESISTANCE"

Merujuk kepada perkara di atas, bersama-sama ini disertakan 3 (tiga) naskah Laporan Akhir Penyelidikan bertajuk "Influenced of Granite Aggregates Macrotextures on Pavement Skid Resistance".

Sekian, terima kasih.

Yang Benar,

AZURA AHMAD
Ketua
Projek Penyelidikan

TABLE OF CONTENTS

ABSTRACT

Skid resistance is an important feature of road pavement. Concern on road safety contributes towards many researches in the relationship between road materials and skid resistance. The quality of the road material such as the aggregates is very important in affecting the resistance to skid. The current research focuses on the evaluation of physical properties of granite aggregates collected on the northern region of Peninsular Malaysia namely from the state of Perak and Penang. The study aims to investigate the correlation between PSV of granites aggregates to its mineral, texture and grain sizes. The research is also intended to study the relationship between macro-textures and PSV of aggregates in pavement skid resistance. Hence, in order to achieve the objectives of the study several basic properties test for aggregates was conducted. The basic tests that were carried out include Los Angeles Abrasion Test, Aggregates Impact Value Test, Aggregates Crushing Value Test, Flakiness Index Test, and Specific Gravity Test. PSV and Petrographic tests were carried out to achieve the main objectives. Los Angeles abrasion test for all quarries has values of less than 45% which is acceptable according to standards. Aggregate Impact Values and Aggregates Crushing Values also give a positive result which is suitable to be used in road construction. The petrographic test confirms the material used in the study is granite. The results of texture depth show some indicator of lower adequacy for road construction requirement. The skid resistance of a wide range of dry surfaces is high and fairly constant.