USE OF SECONDARY MATERIALS FOR BACKFILLING UTILITY TRENCHES IN ROADS

G. S. Ghataora *

Senior Lecturer, University of Birmingham, UK

I. M. H. Alobaidi

Atkins Environmental, UK

Ed Faragahar

Advantica Technologies Ltd, UK

H. Evdorides

Lecturer, University of Birmingham, UK

*Department of Civil Engineering, Edgbaston, Birmingham, B15 2TT. UK

ABSTRACT

In the United Kingdom, aggregate tax had been introduced on all aggregate including backfill materials for utility trenches. Furthermore, the cost of disposal in landfills is becoming prohibitively expensive. Consequently research was conducted to investigate the possibility of utilizing secondary granular and clayey materials for trench backfill. The former were derived from recycled aggregates excavated from trenches in roads and footpaths. The latter were derived from excavations and further developed into backfill. The backfills were first tested in the laboratory to assess whether they comply with the existing UK standards and specifications. The materials were then trialled in trenches in roads. The backfills developed compared favourably with materials currently used for such purposes, in terms of strength and cost.

KEY WORDS: Pulverised Fuel Ash, Road Trenches