

THE POTENTIAL USE OF CONSTRUCTION AND DEMOLITION WASTE IN ROAD CONSTRUCTION IN IRELAND

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ABSTRACT

The construction and annual maintenance of Ireland's road network consumes large amounts of quarried virgin aggregate. The partial substitution of virgin aggregates in a 20mm Asphalt Concrete binder course with recycled construction and demolition (C&D) waste was investigated. Although this has been carried out in other countries, the use of using what would have until recently been sent to landfill is still quite novel. Whilst the part replacement of virgin aggregate with secondary materials helps reduce the burden on available landfill space it also tackles sustainability issues and helps reduce reducing the construction industry's carbon footprint. It was found that the addition of up to 25% good quality C&D waste improved the stiffness and rutting resistance without adversely affecting mix durability.

KEY WORDS: Construction and demolition waste, asphalt.