DURABILITIY OF HOLLOW BLOCKS WITH SHREDDED PLASTICS AS ADDITIVE

A SPECIAL PAPER

Presented to

the College of Agriculture, Resources, and Environmental Sciences

Central Philippine University

Iloilo City

In Partial Fulfilment

of the Requirements for the Degree of

BACHELOR OF SCIENCE IN ENVIRONMENTAL MANAGEMENT

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APRIL 2020

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ABSTRACT

This study was conducted to produce and determine the durability of hollow blocks with shredded plastics as additive. The study conducted utilized shredded plastics, specifically Low-Density Polyethylene (LDPE) as additives in making concrete tile hollow blocks. The plastics were divided into those which were shredded finely and those that were shredded into strips. Three varying amounts of shredded plastics were tested for each type, as 200 g, 400 g and 600 g. Results of the study revealed that concrete hollow blocks made of Cement + sand + gravel + 200 g of Low-Density Polyethylene (LDPE) plastics shredded into strips has the highest compressive strength while cement + sand + gravel + 600 g of Low-Density Polyethylene (LDPE) shredded finely has the lowest compressive strength. All concrete hollow blocks were rough. The concrete blocks made of cement +sand +gravel was regarded as the most aesthetically pleasing. The concrete blocks made of cement + sand + gravel + Low-Density Polyethylene (LDPE) shredded finely (600g) was the lightest. Plastics shredded into strips at 200g as additive produced the most durable hollow block and can be a viable additive to increase the durability of hollow blocks.