

Design Standards Letter

Letter Number: G-1970-22

Letter Date: 04/28/1970

Effective Date: 04/28/1970

Section/Plan No.: None

Subject: Low Type Dustless Surfaces for Outer Roadways

Body

ALL DIVISION AND DISTRICT ENGINEERS

Recent unsatisfactory performance of outer roadways in certain areas of the State constructed of processed aggregate surface with a seal coat has prompted the following:

The intent of usage of this type of construction is to provide a low type dustless pavement structure. The success of this type of construction is dependent to a large degree on the type of anticipated traffic and the type of soil predominant at the site.

The Design Manual, under Section 12.8.1, states "If a low-type surface is selected, provisions are made for a dustless surface treatment if the anticipated traffic is 25 VPD or greater." This type of construction is confined to a maximum design traffic of 400 ADT, at which point an intermediate type pavement structure is used. The range of traffic used for low type pavement design is predicated on the absence of, or at least a very minimum of, trucks.

The purpose of the processed aggregate surface is an attempt to provide, in the initial stage of construction, an approximate equivalent of a dustless surface developed by several years of maintenance and oiling. As such, the quantity of aggregate necessary can, to some extent, be related to the soil type; i.e., the poorer or less granular soils, the greater the quantity of aggregate necessary.

It is fully the intent of the preceding to utilize to the greatest extent practicable the construction of processed aggregate surfaces and seal coats for dustless low type pavements for outer roadways. If, however, in the judgment of the District, this design does not suffice for the anticipated traffic or the predominant soil, it will be satisfactory to establish a design consisting of a 2-inch road or plant mix mat on a 4-inch Type 1 aggregate base.

Care should be exercised to obtain the most economical design for the anticipated conditions. Your attention is directed to the Design Manual Section 14.3.4.1 and Section 14.3.4.2, which describe the compaction requirements of the subgrade where a constructed

base or a processed aggregate surface is used.

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