



Rain Delays

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On a rainy day, you likely will not see much activity at our roadway construction sites because a saturated work zone is not conducive for the contractor to safely and efficiently work in without causing potentially drastic and costly damages to the project, equipment or people.

While ALDOT project engineers and contractors monitor the weather forecast and plan work accordingly, rain events can be hit or miss and leave unpredictable amounts of moisture to deal with before work can continue. Frequent rain delays can cause shifts in the project's anticipated completion date.

Dry conditions are needed to build or widen a road with a surface that will be smooth and safe for motorists. Heavy machinery is required to apply asphalt, and operating this machinery on a soggy subsurface (the dirt layers beneath the asphalt) would create ruts and bumps that asphalt cannot be applied over. After a rain, the contractor must wait until the subsurface is dry and stable to apply asphalt in smooth, even layers.

There are some preventative measures that a contractor can take to potentially protect the subsurface from unwanted moisture. The contractor can put a coat of prime (sealant) on the subsurface once it is graded that prevents low levels of extra moisture from seeping in before asphalt can be applied. However, sudden rain events can wash away this petroleum-based prime layer, which can have negative environmental effects. The contractor may use polyethylene to cover portions of the subsurface, but this is not cost efficient on large job sites or able to be placed quickly enough before a sudden rain event. After a rain event a contractor can rake the subsurface in order to let it dry out before re-grading it, however, this process can take several days.

Rain also affects the components of the materials used in projects and their ability to function properly. Similarly to baking a cake, the "ingredients" used to construct a roadway require a measured amount of moisture. Too much moisture in the ingredients can alter the product's ability to hold its form. For example, when asphalt is being placed, it must bind to the surface beneath it, however, it cannot bind properly to a wet surface.

There are many other types of tasks performed at roadway construction sites than the ones discussed in this article, however, the conclusion is largely the same. It is not safe, efficient, or cost effective to continue construction operations during rain events nor without allowing enough time for necessary materials to dry.

