

## ACI Mix Design Example #2

Consider the following example: The 28-day compressive strength should be 7,000 psi. The slump should be between 3 and 4 in. The maximum aggregate size should not exceed  $\frac{3}{4}$  in. The coarse and fine aggregates in the storage bins are wet.

The properties of the materials are as follows:

- Cement : Type I, specific gravity = 3.15
- Coarse Aggregate: Bulk specific gravity (SSD) = 2.65; absorption capacity = 0.5%;  
dry-rodded unit weight = 100 lb./ft.<sup>3</sup>  
surface moisture = 1%
- Fine Aggregate: Bulk specific gravity (SSD) = 2.60; absorption capacity = 1.1%;  
fineness modulus = 2.70;  
surface moisture = 3.0%