

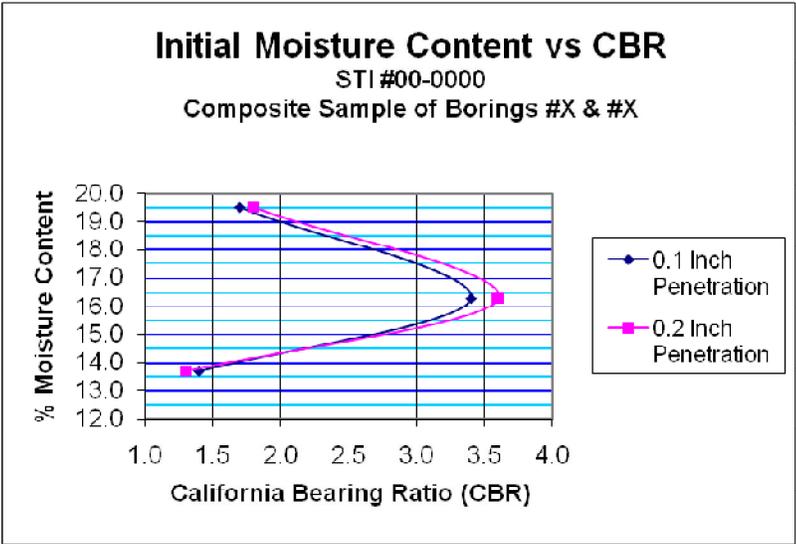


Reminder: Moisture Changes The CBR Value

The pictures above depict a real situation that occurred in the spring of 2010. Although it may be obvious that the street surfacing was not much to begin with, it is also obvious that the vehicle is not a loaded semi-truck.

Last year we sent out an article that asked, "Are we using the Correct CBR Value?" This year, during winter design days, we want to re-emphasize the importance of using correct CBR values in our designs, and how we can all get fooled by one-point CBR test results.

Last year’s article about CBR values showed how the CBR value dropped from 3.5 at the optimum moisture content to about 1.7 at a moisture content of 3% above optimum, even though the density remained the same. The CBR dropped even more at a moisture content of 3% below optimum. The article concluded with some suggestions about how to more carefully choose your CBR design value, and if more than just a single-point CBR should be performed. The article can be read on the blog page of our web site (www.soil-technologies.com), but here is the graph again for your convenience. Which CBR value would you chose for this pavement design?



Future Article: How about “Dynamic Cone Penetrometer Tests.” You’ve got some soft spots in your street construction project. You’ve checked the soil densities and the tests showed that they meet the required 95% compaction. Yet, they are so unstable that you are reluctant to drive a loaded truck over them? Are these soft areas going to hold up long term? Do I need to change the pavement section design for these areas? What is the answer?

One answer may be the use of “Dynamic Cone Penetrometer Tests.” These field tests can be a fairly simple and quick way to help determine what is occurring during construction and what should be done. -- We’ll discuss “Dynamic Cone Penetrometer Tests” in a future article.

- Other articles about construction and design can be viewed on the blog page at: www.soil-technologies.com.