

State DOT: Ohio Department of Transportation

State Report Questions on NDT Testing

1. What NDT testing methods for concrete materials, concrete pavements, and overlays are you trying?

If there are low cylinder strengths on Structure concrete, our QC/QA specification requires that the contractor test the concrete with NDT (presumably impact hammer or Windsor Probe). These are just used to decide if the cylinder is accurate. If there is no correlation between the cores and the NDT, the concrete will be cored. For our "prescription" mixes, the department will sometimes use an Impact Hammer or Windsor probe to check the strength.

We just put a requirement into our pavement spec to use the MIT Scan 2 when using Dowel Bar Inserters. This hasn't been implemented yet though.

2. In your experience, how does the reliability of NDT testing methods compare to traditional testing methods?

I'm not aware of any situations where NDT has been used for our QC/QA spec. On the occasion where the in-place concrete has been tested using NDT on our prescription mixes, it usually indicates that the strength is adequate for the design (therefor can remain in place), but it is usually that the strength is lower than what is expected out of the design. I don't know of any situations where we have cored to validate the findings.

As for the MIT Scan 2, it's too early for results on the spec. However, there was a project that experienced cracking at some joints. The MIT Scan @ was used to check the dowel bar alignment, and the Scan verified that the dowel bars did not have the proper alignment.