

Jason Litteral

From: Midgett, Randy <rmidgett@ncdot.gov>
Sent: Tuesday, June 24, 2025 8:52 AM
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Cc: Strader, Mike; timN@crmpinc.com; bobn@crmpinc.com; Bridgers, Clemmon W; Sawyer, Ronald K; Otts, David B
Subject: [EXTERNAL] Commercial Ready Mix Products, Inc

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Currituck County Officials,

Commercial Ready Mix Products, Inc (CRMP) has informed us that they are currently requesting approval from Currituck County to construct a Portland Cement Concrete Plant in the central area of the County.

CRMP is the largest supplier of Portland Cement Concrete (PCC) in our 14 County Division. In many areas of the Division they are the only approved producer/supplier.

In order to become an approved producer/supplier for NCDOT, concrete plants must meet minimum standards, pass routine inspections, and be operated by personnel trained and certified by the Department. The Department must also approve all sources of materials utilized in the concrete mix as well as the proportions of the materials themselves.

Once the PCC is delivered to one of our building sites, the Department's Technicians test the physical properties of the mixture to determine acceptability prior to placement. They also collect strength samples which are tested for compressive strength after the mix has matured for 28 days.

In other words, concrete production for NCDOT undergoes probably the most rigorous Quality Control process of any material utilized for highway construction. Constructing plants, and producing PCC for the Department requires significant investment, not only in the physical plant, but also in research, mix design, sourcing of materials, and training of quality personnel.

In addition to everything mentioned thus far, concrete delivery is one of the most difficult, and risky steps of the production process. Once a load of PCC is batched into the mixing truck the chemical process of hydration begins immediately. The time we have to get the material to the job site, tested, and placed into its final location is limited. This time limit is largely driven by temperature. For certain mix designs this can be as little as 30 minutes or as long as 90 minutes. The table below is from our Standard Specifications.

**TABLE 1000-2
ELAPSED TIME FOR PLACING CONCRETE**

Air or Concrete Temperature Whichever is Higher	Maximum Elapsed Time	
	No Retarding Admixture Used	Retarding Admixture Used
90°F or above	30 minutes	1 hr. 15 minutes
80°F through 89°F	45 minutes	1 hr. 30 minutes
79°F or below ^A	60 minutes	1 hr. 45 minutes
70°F through 79°F ^B	60 minutes	1 hr. 45 minutes
69°F or below ^B	1 hr. 30 minutes	2 hr. 15 minutes

A. Applicable to Class AA, A and Drilled Pier concrete.

B. Applicable to Class B concrete.

Having reliable PCC Plants strategically placed around the Division aids in being able to receive quality concrete mixtures in a safe and timely manner.

The above is presented as information regarding the logistics of PCC Production and Delivery to our Projects, it should not be interpreted as an endorsement of a specific producer/supplier.

But the Department believes that having an additional PCC plant in the Mid Currituck area would be beneficial to our mission. As well as benefit commercial and residential endeavors needing PCC for their projects.

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