For Immediate Release

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New Report Release: Improving the Reliability of Resistivity Tests of Concrete

Alexandria, VA – August 11, 2020: The Ready Mixed Concrete (RMC) Research & Education Foundation is proud to release a new report, titled *Improving the Reliability of Resistivity Tests of Concrete*. The work was conducted by researchers at the National Ready Mixed Concrete Association's Laboratory and was funded by the RMC Research & Education Foundation.

The move from prescriptive to performance-based specifications for ready mixed concrete supports goals of optimized concrete for strength and durability, sustainability, and improved competitiveness with other building systems. However, one hindrance to implementing performance-based specifications is the lack of a reliable and cost-effective test method for permeability of concrete.

This new study seeks to fill that gap. Resistivity of concrete is an indicator of its potential permeability. The research evaluates various factors that impact the measurement of resistivity to reach conclusions that can be incorporated in standards. The research concludes that measuring the resistivity is a reliable measured indicator that predicts concrete's permeability property and potential durability. The results of this research can be used to improve testing protocols for improved reliability of results and can be used as an alternative to water-to-cementitious material ratio (w/cm) in industry codes and standards for more optimized concrete mixtures.

"The current way of specifying for durability is to impose a maximum w/cm limit on concrete. Unfortunately, this is not verifiable and does not recognize the significant benefit provided by supplementary cementitious materials (SCMs). In order to optimize concrete mixtures, we need performance-based specifications to allow for innovation, and we need reliable test methods to be used for quality assurance by specifiers and owners. This research provides us the means to do both," said Ted Chandler, 2020 RMC Research & Education Foundation Chairman.

Foundation Executive Director Julie Garbini continued, "We are proud to add this important research deliverable to our catalog of guides and studies that support the Prescriptive-to-Performance (P2P) Initiative. Allowing for optimization of modern concrete

mixtures is essential to building sustainable, long-lasting and affordable infrastructure with concrete as the most used building material on earth."

The full report is available from the RMC Research & Education Foundation's website on under *the Concrete Applications* page.

The vision of the RMC Research & Education Foundation is to be a lasting resource for increasing quality, professionalism, and sustainability in the ready mixed concrete industry by funding and implementing research and education programs.