Research Need for Construction Technical Advisory Group

Effective/Updated: August 14, 2015

ISSUE: PCC Pavement Mixes with High Cement Replacement Rates

SUMMARY OF PROBLEM: PCCs with high percentages of pozzolanic and/or cementitious materials will become more and more common in the near future. Durability and viability for mixes of this type used in transportation infrastructure are not well understood. The current IDOT permitted maximum cement replacement percentage is 35. It is desirable, but not mandatory, that the research approach to this subject be interdisciplinary (i.e., a collaboration between researchers with civil materials expertise and concrete pavement expertise).

EXPECTED IMPLEMENTABLE OUTCOME: Special provisions and updates/revisions to IDOT Standard Specifications, improved mitigation of alkali–silica reaction, more economical concrete mixes, “greener” concrete mixes.

To submit a research idea for consideration at the spring 2016 Executive Committee meeting, prepare and submit a Proposed Research Idea form to IDOT (DOT.BMPR.RESEARCH@illinois.gov) no later than October 1, 2015.