FHWA ASR TWG

- Representation from various stake-holders:
  - Federal Agencies
  - State DOT’s
  - Industry
  - Academia

- Ultimate goal is to mitigate ASR in new and existing concrete.
- Share information and experiences.
Meet bi-yearly for updates from research teams.

Review the data and discuss conclusions and outcomes of research and/or testing.

Ultimate goal is for implementation nationwide of ASR resistant concrete.

From TWG, AASHTO ASR team was born at SOM in 2007.....
AASHTO ASR Task Force

- Members of TWG volunteered through AASHTO to review ASR specs nationally.
- To review state-of-the-art ASR specifications, tests, etc.
- Update the status of current AASHTO specifications.
- Determine what more is needed with regards to ASR?
Current AASHTO Specifications

- There is an AASHTO Lead States DRAFT ASR Specification – never implemented.
- States have various versions of ASR Specifications (some based on AASHTO DRAFT with Modifications).
- FHWA ASR Development and Deployment Program Protocols (through TWG).
AASHTO ASR Task Force Recommendations

- Have AASHTO form a small group with the goal of drafting an AASHTO ASR specification.

  - Technical support available through the FHWA’s ASR Development and Deployment Program.
AASHTO DRAFT “Practice”

- Draft document is based upon an FHWA report preventing ASR in new construction.
- Document recognizes both ASR and ACR.
- Comments have been received.
- Presenting to AASHTO as a Recommended Practice at 2009 SOM.
Tries to identify potentially expansive aggregates.

Takes into account field history of materials, petrographic examination, and lab testing (AMBT, CPT).

Performance or Prescriptive Approach is referenced.
Preventative measures for ASR include:
using non-reactive aggregates, limiting alkali content in the concrete, use of blended cements, using supplementary cementitious materials, lithium admixtures, or any combinations of the above.
Preventative measures for alkali carbonate reaction are limited to not using reactive aggregates.

Preventative measures are based upon “risk tolerance” of specifying agency.
AASHTO DRAFT “Practice”

- This is a working draft…. addendum and appendix may be needed in the future…
- The idea is to get this out to those that may not be as knowledgeable about ASR.

- FHWA funding is available until September 2011 for this work. After 2011????
Questions?

Gina Ahlstrom
Gina.ahlstrom@dot.gov
www.fhwa.dot.gov/pavement/concrete/asr.cfm
202-366-4612

Jim Pappas
james.pappas@state.de.us
302-760-2400