Bureau of Materials & Physical Research Issues
1) General Topics
2) Hot-Mix Asphalt (HMA) Issues
3) Coming Soon
Staffing Issues

CLAMP!  SO, STAFF SHORTAGES ARE GETTING SERIOUS!
2016 Std. Spec. for Road and Bridge Construction

- Div. 1000 - Materials
- BDE & GBSP Special Provisions Incorporated
2016 Std. Spec. for Road and Bridge Construction

- Friction Aggregate (BDE)
- HMA Mixture Design Composition and Volumetric Requirements (BDE)
- HMA Mixture Design Verification and Production (BDE)
Longitudinal Joint Issues
Why the Poor Performance?
• 2001/2002 Longitudinal Joint Sealants
  - IDOT worked w/ 2 companies to Develop a Longitudinal Joint Sealant (LJS)
  - LJS is a Band of Asphalt Binder that Seals a lift of HMA from the Bottom Up.
Joint Sealant Concept

- Band melts up into the joint thus:
  - Increasing density
  - Decreasing permeability
  - Increasing joint life

Unconfined

18 inches

Joint Sealant
Longitudinal Joint Seal 12 Years Later
How it was Applied in 2002-2004

Asphalt Materials – “J –Band”

Hendy – “Quickseam”
How Asphalt Materials Applies it Now

Heavy Duty Pressure Distributor for Applying LJS
Five Minutes After Placement (Spec calls for 30 Minutes)
BMPR Experimental Feature Special Provision

- Waives density within 1 ft of C.L.
- Applied to C.L. Joint of every lift except IL-4.75
- Implementation Goals:
  - 2016 – 2 Projects per District
  - 2017 – 50% of Projects per District
  - 2018 – Full Implementation
- [http://www.idot.illinois.gov/doing-business/material-approvals/hot-mix-asphalt/index](http://www.idot.illinois.gov/doing-business/material-approvals/hot-mix-asphalt/index)
High Speed Profilers

- D2, D4, and D5 have devices
- Additional procurements affected by FY 16 budget
- Targeting 2017 to have a new Surface Testing Special Provision with smoothness based on IRI
e-Construction

- Web-based contract management
- Paperless contract administration
- Electronic submission of construction documentation by stakeholders
- Electronic Document Approvals
- Secure Digital management of construction documentation
e-Construction

- Begins with electronic deliverables needed to include a contract on a letting
- Ends with the final acceptance of contract work
- Includes CAD models, daily records, quantities of work, materials information, project correspondence, EEO compliance,…
- Multiple relational software tools
Current Status

- In the process of developing an RFP to replace ICORS and MISTIC
- Construction and Materials processes have been mapped
- Developing requirements for use in the RFP
- Developing hardware requirements to facilitate mobile use of the new web based systems
- Anticipate issuing an RFP to replace ICORS and MISTIC in early FY 17