



Honesty and Service®

# Laboratory Update for Pavement Working Group Meeting

Federal Aviation Administration

April 2013

By: Jeff Stein, P.E.

Laboratory Manager

Support Contractor for FAA



# Outline

- **Equipment Upgrades**
- **Personnel**
- **Accreditation**
- **Research**



## New Equipment:

- Second Servo-Hydraulic Testing Frame
- Twin Shaft Concrete Mixer
- Rotary Viscometer



## MTS Test Frame with T-Slot Base

*Series 322 Load Units*



- 100 kN (22 kip)  
Capacity
- T-Slot Base 22" wide  
by 40" long, low to  
floor
- Triaxial testing of  
granular bases
- T-slot fixtures will  
allow biaxial testing
- Composites



## BHS Twin Shaft Lab Mixer

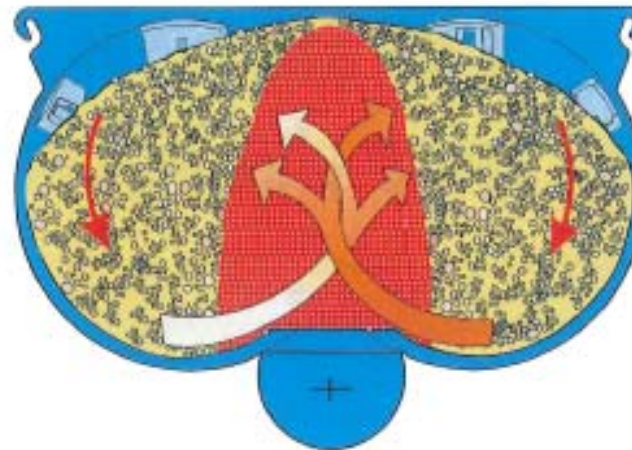
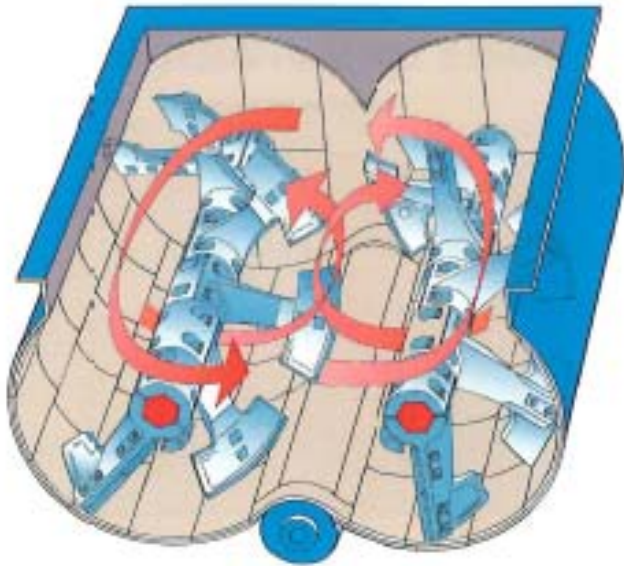


- **Maximum Batch 318 lbs.**
- **Maximum Volume 2 cu. Ft.**
- **3-4 concrete beams**
- **Maximum Agg. 32 mm**
- **Concrete Fibers**
- **Can also mix asphalt**
- **Can also pug granular**





## Twin Shaft Mixing



## Brookfield Rotary Viscometer

- Mixing and Compaction Temperatures
- Tack Coat Behavior
- Crack Sealers



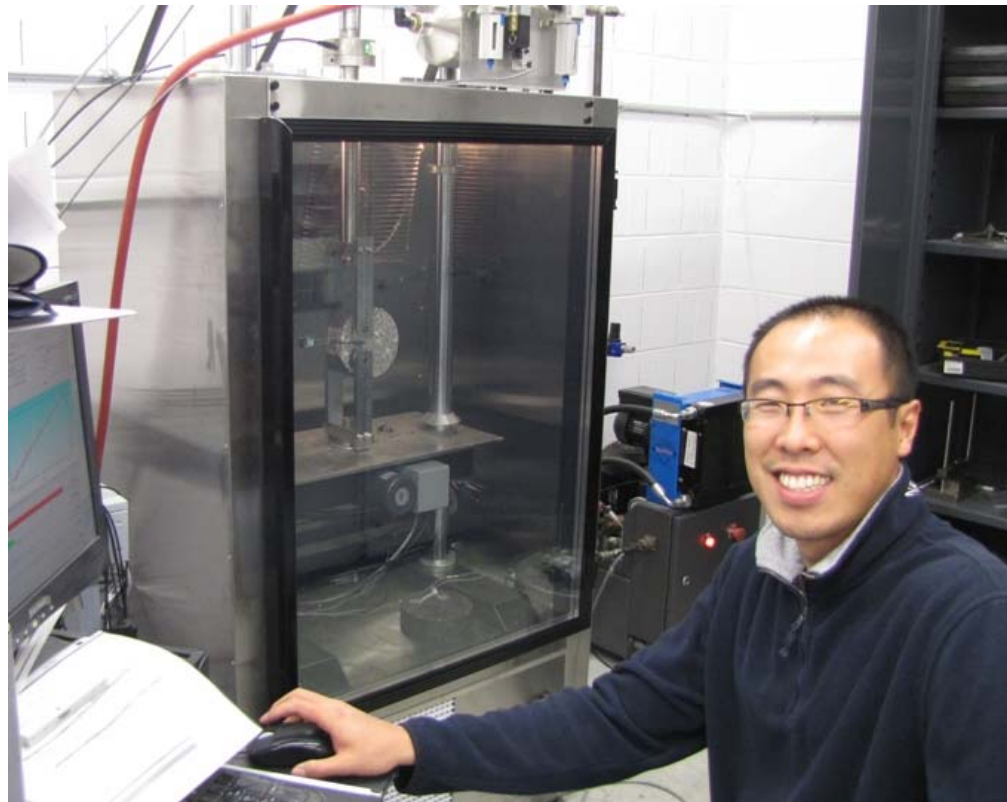
## Personnel

- **Jeffrey Stein P.E., Laboratory Manager**
- **Matthew Willson, Engineer Tech**  
ACI certification for Field and Lab Concrete Testing  
NJSAT certification for Lab HMA Testing  
IPC Beam Fatigue
- **Renee' Norcross-Burke, Engineer Tech**  
NICET I Soils, Asphalt, Concrete  
NICET II Soils (Fall 2013)  
MTS Operator (May 2013)





## Dr. Qiang Li, Civil Engineer



# Accreditation

## Accreditation Milestones

### Laboratory Assessments

- AMRL March 12- 13, 2013
- CCRL March 26-27, 2013

### In Progress

- Proficiency Sample Testing (Continuous)
- Resolution of deficiencies



# Accreditation

## June 2013 – Expected Lab Accreditation

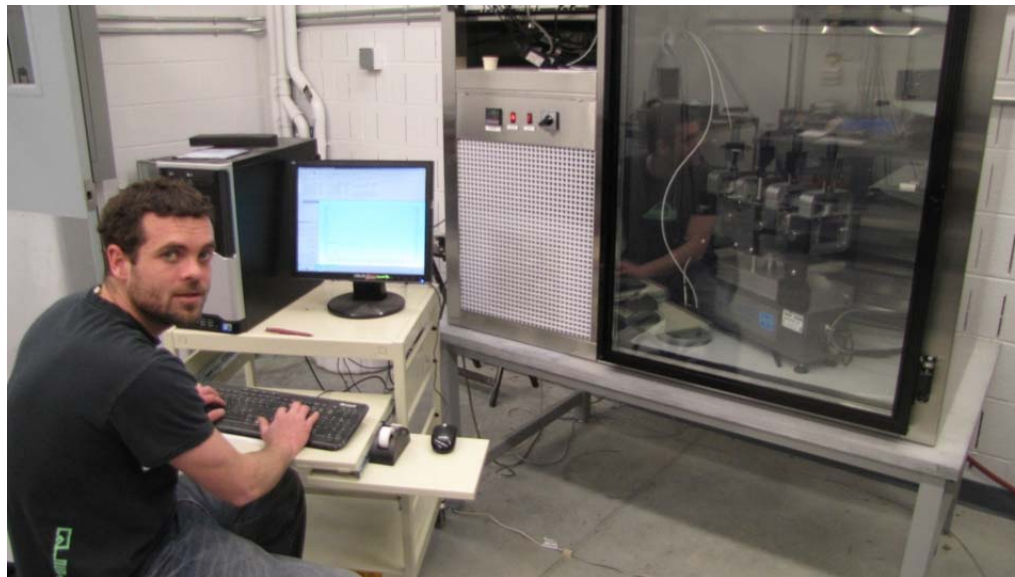
- **ASTM C1077 Agency Testing Concrete and Aggregates**
- **ASTM D3666 Agency Testing Paving Materials**
- **AASHTO R18 Construction Materials Testing Lab**



# Research

**2013-2014**

- **CC7 Construction materials testing**
- **Asphalt beam fatigue on High Tire Pressure mixes**
- **Laboratory tests for Reflective Crack research**
- **Pavement materials characterization for existing airports**
- **CC5 and CC6 Post-traffic materials testing**



# Thank You

## Questions?

