



Intelligent Compaction

ICPF Technical Working Group Meeting

Conference Call

Monday, July 27, 2009

2:00 p.m. – 3:00 p.m. E.D.T.

Attendees:

Project Team: George Chang – PI, Bob Horan – Facilitator (Asphalt Institute), Larry Michael – Co-PI (LLM Asphalt Consultant)

FHWA: Lee Gallivan (COTR)

GDOT: Georgene Geary, Sheila Hines, Don Sychra, and Paul Noble

Paving Contractors/Consultants: Johnny Brister (Astra), John Runkle (Astra), Wayne Boatright (Atlanta Paving), Ernie Lopez (Atlanta Paving)

Sakai: Stan Rakowski

Bomag: Chris Connolly

Purpose – Final Planning for GDOT IC Demo – Aug. 17 to 20, 2009

- Update on IC Rollers
- Update on Paving Schedule/Activities
- Coordinate Work/Responsibilities

Summary and Action Items

Update on IC Rollers

- Bomag will not participate this demonstration.
- Sakai would provide a double-drum IC roller, a Trimble GPS base station, a Trimble GPS radio, a Trimble GPS receiver, and an alternative StarFire/NavCom receiver.
- By Friday, Aug. 14, The Sakai roller will be shipped from their Georgia office to the address to the Atlantic Paving Project Office 4500 Peachtree Rd., Atlanta, GA 30360
Contacts: Ernie Lopez, (770)231-4405 (cell). Wayne Boatright, (770) 220-0228 (office), (404) 580-9184 (cell)

Update on Paving Schedule/Activities (subject to weather delay)

- The paving schedule is targeting Aug. 17-20 (weather permitted). A prime coat will be applied on the existing GAB using cutback prior to the above week.
- **Monday, Aug. 17** – Project team at the job site at 7AM. Set up GPS base station, GPS receivers/rovers and validate the GPS measurements by 8AM. Project briefing at 8AM. Train the roller operator by 9AM. Map the primed GAB surface with the Sakai IC roller and point testing with a FWD. GPS measurements using rovers will be taken at each FWD test points.
- **Tuesday, Aug. 18** - Pave the bus lanes with a 3" lift of 25-mm Superpave mix. Sakai roller will be the break-down roller, a rubber tire roller will be used as the intermediate roller, and a finishing roller will follow. Nuclear gauge readings will be taken behind the break-down roller and finishing roller with two separate gauges. Cores will be taken to calibrate the nuclear gauges.
- **Wednesday, Aug. 19** - Pave the rest of the areas with a 2" lift 19-mm Superpave mix (PG 67-22). Sakai roller will be the break down roller. Nuclear gauge readings will be taken behind the break-down roller and finishing roller with two separate gauges.
- **Thursday, Aug. 20** - Pave the rest of the areas with a 2" lift of 19-mm Superpave mix (PG 67-22). Open House would start at the GDOT material office (10 miles from the job site) for a 2-

hour indoor presentation before moving to the job site for another 1-2 hours field demonstration. *The IC demonstration may wrap up after the Open House depending on the weather and data collected.*

- **Friday, Aug. 21** (tentative) - Pave the areas with a 1-1/4" lift of 9.5-mm Superpave mix (PG 67-22).

Coordinate Work/Responsibilities

GDOT will provide

- A FWD and an operator (at designated locations during pre-mapping on the existing subbase on Day 1). A relative calibration prior to the testing will be required.
- Two nuclear density gauges and two operators at designated locations by the research team.
- A Trimble survey-grade GPS rover and an operator (record all FWD test locations, nuclear density gauge measurement locations).
- An indoor presentation facility (a LCD projector and screen) for the first 2-hr Open House. It is normally expected to have ~40 participants.
- Promotion of the Open House to local FHWA resource center, local general contractors' association, asphalt association, and other GDOT offices. GDOT may also get the news media involved.

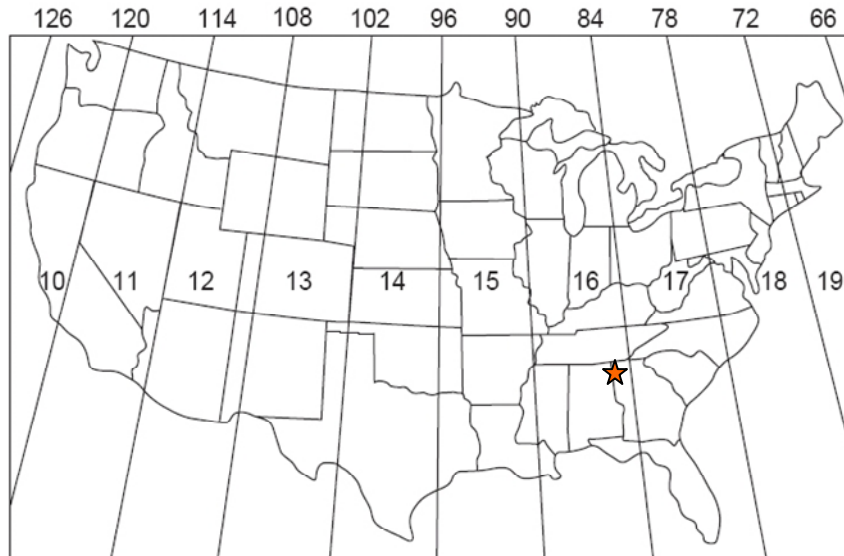
Contractor will provide:

- One operator to operate the Sakai IC roller.
- Water and fuel for the IC roller.
- A TopCon GPS rover and an operator. (A TopCon GPS station will be setup onsite)

Summary on GPS

(*further details will be included in the Summary Field Sheet document)

- UTM zone 16 N is the preferred datum or the grid data (see the figure below) for Atlanta. Note that the site is close to the longitude=84° line.
- There will be a Trimble base station (setup by Sakai) and a TopCon base station (setup by Atlanta Paving) on site. The base stations will be setup at different channels for a comparison study.
- Sakai would use a Trimble GPS radio, a Trimble GPS receiver, and an alternative NavCom/StarFire receiver on the IC roller. A comparison study would be conducted on Monday, Aug. 17.
- GDOT will provide a Trimble rover, while Atlanta Paving will provide a TopCon rover. Both rovers will be needed to measure locations for FWD test locations, and simultaneously for the nuclear gauge test locations behind the break-down and finishing rollers.



Action Items

- ▶ **(George)** Prepare a meeting minutes (this document), update summary field sheets (including all on-site contact cell phone numbers), and project webpage contents. Send Sheila and Georgene a draft Open House agenda.
- ▶ **(Bob)** Contact Trimble for providing additional GPS rover and technical support. Work with George on modification of the experimental plan.
- ▶ **(Sheila)** Provide update and promote the Open House event. Provide a LCD projector and a screen for the first 2-hour of the Open House at the GDOT Material Office (15 Kennedy Dr, Forest Park, GA 30297).
- ▶ **(Georgene)** Provide update on the GDOT support on a GPS rover and an operator, FWD and an operator. Georgene will send George contacts of the above operators for follow up discussions on machine compatibility and settings. (Jeff Fletcher will be the surveyor, 404-699-4442, jfletcher@dot.ga.gov)
- ▶ **(Stan)** Arrange shipment of the Sakai double-drum IC roller to the Atlantic Paving project office by Friday, Aug. 14.