



Intelligent Compaction

ICPF Technical Working Group Meeting

Conference Call

Wednesday, May 13th 2009

10:00 a.m. – 11:00 a.m. C.D.T.

Attendees:

Project Team: George Chang, Qinwu Xu (Transtec Group), David White (ISU), Bob Horan (Asphalt Institute)

MSDOT: Randy Battey, Scott White, James Williams, and etc.

FHWA: Mike Crib

Dunn Roadbuilders: Rick Croy and etc.

Sakai: Stan Rakowski

Caterpillar: Nick Oetken, Candace Young (Marketing)

Texena Case/Ammann: Kirby Carpenter

Purpose – Final Planning for MSDOT IC Demo

- Review Schedule/Activities
- Coordinate Work/Responsibilities

Summary and Action Items

Update from NYSDOT/Dunn Roadbuilders

- ▶ **Rick:** The site is muddy due to recent heavy rains. They can not work on the project in the past two weeks. Rains are also forecasted for tonight and tomorrow night. They will visit the job site in the next day or two and make decision on Friday May 15, whether to proceed with the original plan, June 1st, or postpone it to July. If the June 1 is workable, there will be ¾ miles of stabilized subgrade (one side of the section) and stabilized base (the other side of the section) available for the stabilized base demo and the asphalt IC demo, respectively. The subgrade is variable through the job site but all stabilized. The stabilized subbase is more consistent as a MSDOT 9C material.
- ▶ **Randy:** Clarify the current progress of the project. Between now and June 1, the contractor should be able to prepare stabilized subgrade and cure it prior to the June 1 demo – provided the weather is cooperating. In term of rescheduling, Randy will not be available after July 21 due to a personal commitment.
- ▶ All roller vendors have no problems for the July Plan B. However, the ISU mobile lab is only available in the second half of July based on the current schedule.
- ▶ **Randy:** MSDOT will supply a FWD and an operator from the week of June 1 (though it may be not needed everyday). A 450-mm dia. loading platen will be preferred.
- ▶ **Scott:** MSDOT will provide a hand-held survey grade GPS unit and an operator for the mini asphalt IC demo. MSDOT will also provide an inspector to conduct nuclear density gauge measurement – independent to contractors' own testing. Asphalt cores will also be taken for lab testing.
- ▶ **Randy/Scott:** MSDOT will conduct an Open House (tentatively from 10:30AM to 2:30PM) on Thursday, June 4. All three IC roller vendors and local dealers will participate. The target audience is about 40 people. First half indoor presentation will be at a location to be determined by MSDOT and the ICPF research team (MSDOT will email George information on a candidate Open House location that may allow for meal and presentation). The 1.5-hr to 2-hr presentation will include the ICPF team's IC overview and prelim results on this project (~ 30 min.) and roller

vendors' introduction on their IC systems (~ 20-min each). The second half 1.5-hr field demonstration will be at the IC demo field site at US 84. MSDOT (with help from local roller dealers) will promote this event to the local aggregate and paving associations (e.g. NAPA local chapters) and ((Though not discussed during the meeting) provide a LCD projector and a screen for the indoor presentation.

Logistics (assuming the June 1 target date)

- ▶ **Roller shipment and storage:** All IC rollers will be shipped to the field site by Friday, May 29. The shipping address is that of a MDOT Waynesboro Project Office (about 3 miles from the start of the project): 6716 Highway 184, Waynesboro, MS 39367 (601)735-3910. The rollers will be stored in the maintenance yard of this office. Due to the project site is in a rural area, security of the rollers should not be a concern. Therefore, IC rollers may be parked on the project site after each day's usage. Electronics such as GPS may be removed at night then reinstalled in the morning prior to the testing.
- ▶ **Rick:** Dunn Roadbuilder will move the rollers from the storage yard to the job site on Monday AM, June 1.
- ▶ **ISU Mobile Lab:** ISU mobile lab may arrive at the project location on Sunday (May 31) PM. The mobile lab may park and set up at a location (e.g. under a bridge in the middle of the test site) prepared or designated by the Dunn Roadbuilder.
- ▶ The research team and the IC roller vendors' tech support will be arriving in PM, May 31 or June 1. Most of the above personals will stay the entire week.

Experiment Plan

- ▶ **David White:** Detailed objectives for the stabilized base demo are described. A Caterpillar pad foot single drum IC roller and a Case/Ammann smooth single drum IC roller will be used. Detailed daily activities are summarized in a table. Preparation of test beds was discussed. The scheduled can be flexible. Dave W. explained the project goals esp. evaluate the IC measurements in terms of alternative specification options. He also answered the question from Kirby on how to compare IC with traditional compaction – on existing compacted final product as well as testing a freshly compacted areas, if time and resource permitted. (Though not discussed during the meeting) All IC rollers and the ISU hand-held rover will share a GPS base station setup by the ISU Mobile lab.
- ▶ **Bob Horan:** Mini-demo – scaled down version - for asphalt IC will be conducted using the Sakai double drum IC roller during the same period of the soil/subbase IC demo though at the other side of stabilized base IC demo. It is expected the existing base will be “mapped” prior to the asphalt paving using the Sakai IC roller. Only nuclear gauge readings (and limited corings) will be taken by MSDOT and Dunn Builders during the mini-demo. Will provide a draft plan similar to the stabilized base IC.
- ▶ **Rick:** The asphalt job will consist of 3” of 19-mm AC base course and 2” of 12.5-mm AC wearing course.
- ▶ **Nick:** Caterpillar may be interested in providing an asphalt IC roller for the mini-demo. **Bob:** The shipment of this additional roller will have to be provided by the manufacturers. Will discuss offline further.

Action Items

- ▶ **(Rick)** Email George and Randy on Friday, May 15 on the decision whether to proceed with the June 1 demo schedule.
- ▶ **(George)** Prepare a meeting minutes (this document), update the experimental plan document, and summary field sheets (including all on-site contact cell phone numbers).
- ▶ **(MSDOT)** Email George information on a candidate Open House location that may allow for meal and presentation. Promote the open house event to local contractors' associations and provide a LCD projector and a screen for the indoor presentation.

- ▶ **(Research team/ISU/Dunn Roadbuilders)** First onsite meeting will be at 7AM, June 1, at the jobsite.
- ▶ **(Dun Roadbuilder)** Email George the precise location for the first onsite meeting on June 1.