#### DTFH61-07-R-00134

# ACCELERATED IMPLEMENTATION OF INTELLIGENT COMPACTION TECHNOLOGY FOR EMBANKMENT SUBGRADE SOILS, AGGREGATE BASE, AND ASPHALT PAVEMENT MATERIALS

2<sup>nd</sup> Quarterly Progress Report – December 2007 to March 2008 Prepared by The Transtec Group, Inc. 15 April 2008

#### A. ACCOMPLISHMENTS/SIGNIFICANT FINDINGS BY TASK THIS QUARTER:

#### TASK 1 - Technical Working Group (TWG)

• This task is complete.

## TASK 2 - Literature Review and Evaluation of Intelligent Compaction Equipment

• This task is ongoing. The first step of summary of literature is complete. More updates are included as the project progresses. Updated contents (e.g., IC library) are also posted on the IC website (www.IntelligentCompaction.com) to facilitate knowledge transfer and information sharing. Further detailed, technical review i

#### TASK 3 – Preparation of Interim Report and Work Plan Package

• A draft interim report and a work plan package are under final review. The work plan package has derived a draft experiment plan that provides detailed guidelines for conducting field demonstration projects. The draft experiment plan (a general plan that includes both soil/aggregate IC and HMA IC) is under reviewed by all parties that will be involved in future IC demonstration.

## TASK 4 – Technical Working Group Initial Meeting

• This task is complete. The Technical Working Group (TWG) initial meeting was held on January 23 and 24, 2008 at the DFW airport area, Dallas, Texas. It was well attended by all TWG state representatives, FHWA COTR, IC facilitators, the IC project team, and IC roller vendors. Detailed meeting minutes were recorded and posted on the IC website along with all presentation slides.

#### TASK 5 - Coordinated IC Field Demonstrations

- Planning for the first four field sites is underway. The first few candidate sites and the material of interest are: Minnesota (HMA), Texas (soil), Kansas (soil), and Indiana (HMA).
- The draft general experiment plan is refined during the planning stage for the first few field sites. Further specific experiment plan for both HMA and soil/aggregate will be derived from the general plan.

#### TASK 6 – Database Management Plan

• A draft plan is being reviewed by the project team.

## TASK 7 – Development of a Feasibility Report for an European Scan

• No work is conducted during this period.

#### TASK 8 – Quality Control/Assurance Training and Assistance

• No work is conducted during this period.

## TASK 9 – Presentations

• No work is conducted during this period.

#### TASK 10 – Annual and Final Reports

• No work is conducted during this period.

#### B. WORK PLANNED FOR NEXT QUARTER (MAR 2008 TO MAY 2008):

#### TASK 1 - Technical Working Group (TWG)

• This task is complete.

# TASK 2 - Literature Review and Evaluation of Intelligent Compaction Equipment

• This task is complete. On-going update (e.g. in-depth IC technical information) is expected.

#### TASK 3 – Preparation of Interim Report and Work Plan Package

• A draft interim report, a work plan package, and the experiment plan will be finalized after the Iowa IC conference in April.

# TASK 4 – Technical Working Group Initial Meeting

• This task is complete.

#### TASK 5 - Coordinated IC Field Demonstrations

- Planning will be underway for the first few sites Texas, Minnesota, and Kansas.
- Specific experiment plans will be developed for each of the IC demonstration site based on the guidelines in the general experiment plan.

#### TASK 6 – Database Management Plan

• A database plan will be finalized to manage data to be collected during the project period.

#### TASK 7 – Development of a Feasibility Report for an European Scan

• No work will be conducted during this period unless instructed by the COTR.

## TASK 8 – Quality Control/Assurance Training and Assistance

• Quality contrl/assurance training and assistance will be conducted along with the IC field demonstration project.

# TASK 9 – Presentations

• Presentation may be if opportunity (such as: paving conferences and etc.) comes up.

# TASK 10 – Annual and Final Reports

• No work will be conducted during this period.

## C. IDENTIFICATION OF PROBLEMS/RECOMMENDED SOLUTIONS:

• No problems are identified in this quarter.