

CIR-IC Test Strip

Goal: Establish Target Density, rolling pattern, and ICMV

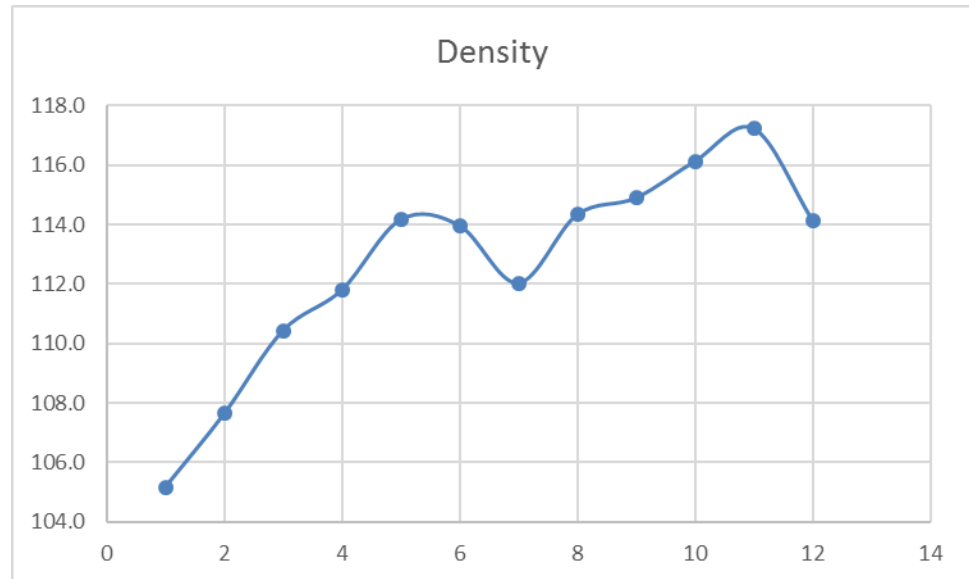
I. Field

A. Choose test Strip location

1. Within the test strip for CIR
2. 500 feet long
3. Use rover to establish test strip boundary
4. Establish 3 randomly selected nuclear gage density locations. Record the position of the density test locations using handheld rover.

B. Determine Break Over Point density and rolling pattern

1. After each coverage measure density at 3 preselected random location using nuclear gage and record
2. Record the pass (coverage) number
3. Record type of the roller
4. Calculate average density for each pass (coverage)
5. Plot average density vs. No. of passes
 - a. Determine Break over point (maximum density) and the corresponding no. of passes
 - b. Use intelligent compaction roller as the last coverage after reaching break over point
 - (1) Measure density at 10 random location
 - (a) If the average density is greater than break over point density
 - i) Establish new break over point
 - (1) Continue rolling using steel or rubber tire roller
 - (2) Measure density at 10 random location
 - (3) Plot average density vs. passes
 - (4) Determine the break over point density
 - (b) If the average density is lower than break over point density
 - i) Stop rolling
 - ii) Break over point is the previous density



II. VETA Analysis

A. Download the latest version of VETA from www.intelligent.com

B. Use vendor's software to combine all rollers data. If vendor's software cannot process Combine rollers data, separate analyses for steel drum and pneumatic tire roller

1. Steel drum vibratory IC roller

a. Import all passes data (*.csv or *.pln) into VETA

b. Enter the coordinate system

c. Set up the test strip boundary as a filter location to exclude outside work data

(1) Set the filter compaction mode to vibratory

d. Enter or import the density reading corresponding to each pass

e. Run analysis with test strip filter, for number of passes for IC roller

f. Use compaction curve for all passes to determine the target ICMV corresponding to target No. of passes established in field for break over point

g. Report

Prepare and include the following

(1) Complet form CEM-IC25

(2) Excel spreadsheet of boundary coordinates

(3) Excel spreadsheet of gage density readings and coordinates

(4) Plot of field average density vs. number of passes

(5) Plot of compaction curve for all passes

(6) Plots of coverage for all passes and individual passes (11"x17")

2. AMG rubber tire roller

a. Import all passes data (*.csv or *.pln) into VETA

b. Enter the coordinate system

- c. Set up the test strip boundary as a filter location to exclude outside work data
 - (1) Set the filter compaction mode to static
- d. Enter or import the density reading corresponding to each pass
- e. Run analysis with test strip filter, for number of passes for AMG roller
- f. Use compaction curve for all passes to determine the target density corresponding to no. of passes established in field for break over point
- g. Report
 - Prepare and include the following
 - (1) Complete form CEM-IC25
 - (2) Excel spreadsheet of boundary coordinates
 - (3) Excel spreadsheet of gage density readings and coordinates
 - (4) Plot of field average density vs. number of passes
 - (5) Plot of compaction curve for all passes
 - (6) Plots of coverage for all passes and individual passes (11'x17')