

A New Method of Determining Payment for In-Place Concrete with Double-Bounded Compressive Strength Pay Factors

PROJECT TITLE

A New Method of Determining Payment for In-Place Concrete with Double-Bounded Compressive Strength Pay Factors

STUDY TIMELINE

October 2020 - February 2022

INVESTIGATORS

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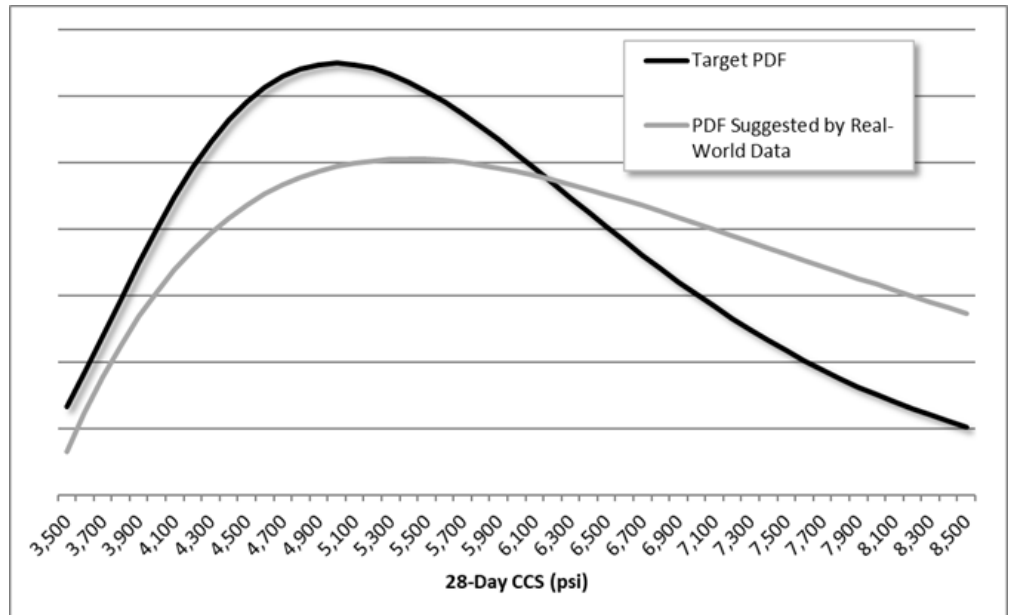
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More information about the VTrans Research Program, including additional Fact Sheets, can be found at:
<http://vtrans.vermont.gov/planning/research>

Problem Statement

Existing guidance for the use of a double-bounded pay factor system for the placement of concrete is inadequate if:

- The design distribution and/or the industry response is non-Normal
- The incentives and disincentives are not symmetrical around the peak of the design distribution



Methodology

The following tasks will be undertaken for this project:

1. Develop a new approach for calculating percent within limits (PWLs) from a lot distribution of 28-day concrete compressive strengths (CCSs) that is non-Gaussian
2. Demonstrate the implementation of the new approach for 3 5-year forecast scenarios
3. Create a tool to facilitate the implementation of the new approach by DOTs

Next Steps

The project is currently scheduled to start in October of 2020.

Potential Impacts and VTrans Benefits

The decision-support tool will allow state DOTs and other agencies that fund transportation infrastructure to implement their own double-bounded pay factor system for 28-day CCS.