



**DEVELOPMENTAL SPECIFICATIONS  
FOR  
ELECTRONIC TICKETING**

**Effective Date  
October 17, 2023**

**THE STANDARD SPECIFICATIONS, SERIES 2023, ARE AMENDED BY THE FOLLOWING MODIFICATIONS AND ADDITIONS. THESE ARE DEVELOPMENTAL SPECIFICATIONS AND THEY SHALL PREVAIL OVER THOSE PUBLISHED IN THE STANDARD SPECIFICATIONS.**

**23032.01      DESCRIPTION.**

- A.** This work shall consist of providing electronic material tickets for all loads of flexible paving mixture or ready mixed PCC delivered to the project. Electronic ticketing will only be required for the primary material supplied to the project, i.e. flexible paving mixture for an HMA resurfacing project or PCC for a PCC paving project. Electronic tickets for other materials supplied to a project may be submitted at the Contractor's option. The Contractor/supplier can use the plant ticketing system of their choice to create the material ticket data.
  
- B.** Ticket data shall include the following:
  - 1.** After each truck is loaded, ticket data must be electronically captured, and ticket information uploaded via web service / Application Programming Interface (API) to the agency.
  - 2.** Material ticket data will be submitted to <https://iowa.dot-portal.io> via an HTTPS POST as JSON documents. Include the API key specific to each customer in each request as an HTTP header.
  - 3.** Material supplier must test to confirm that ticketing data can be shared from the originating system no less than 30 days prior to project start. Topic shall be discussed at the pre-construction meeting.
  - 4.** Ticket data must be available immediately upon project start so there are no delays to viewing tickets.
  - 5.** Provide the same data that is currently accessible and viewed by agency users previously on printed tickets specific to state projects.
  - 6.** Transmit ticket data before the truck leaves the plant and transmit any updates to the ticket data within 5 minutes of a change.

**23032.02 CONSTRUCTION DATA.**

Contractor shall submit material ticket data in accordance with the plant manufacturer's system recommendations to provide the following.

- A. Net weight (or volume for ready mix concrete) of material being transported (to nearest 0.01 ton or cubic yard).
- B. Running daily total of net weight of material (or volume for ready mix concrete) being transported (to the nearest 0.01 ton or cubic yard).
- C. Each material ticket shall contain the following:

**1. General Ticket information (All Material).**

- a. Date.
- b. Iowa DOT Project Number.
- c. Name of Contractor
- d. Name of material supplier.
- e. Unique truck ID.
- f. Plant/scale name (source).
- g. Truck Status Times:
  - 1) Loaded time (time batched) shall be available.
  - 2) Provided other truck status times as available.
    - a) Ticketed.
    - b) Load time.
    - c) Left plant.
    - d) Arrive at project.
    - e) Begin unload.
    - f) Finish unload.
    - g) Leave project.

**2. Portland Cement Concrete.**

- a. Loaded time (water/cement time).
- b. Wet and dry batch weights (if computer generated).
- c. Water:
  - 1) In aggregate.
  - 2) Total water.
  - 3) Water/cement ratio.
  - 4) Max water/cement ratio.
  - 5) Allowable water to add.
- d. Admixtures (including brand names if available):
  - 1) Retarder and weights.
  - 2) Water reducer and weights.
  - 3) Air entrainment and weights.
  - 4) Special performance admixtures and weights.
  - 5) Concrete fibers.
- e. Cementitious material(s) and weights.
- f. CPI Name and certificate number.

**3. Flexible Pavement Mixture.**

- a. Type of material.
- b. Gross weight (if not automatic weighed).
- c. Tare weight (if not automatic weighed).
- d. Net weight.
- e. Mix design number.

**23032.03      METHOD OF MEASUREMENT.**

None.

**23032.04      BASIS OF PAYMENT.**

Payment for electronic ticketing will be incidental to the material being provided.