plant ticket for each load of concrete delivered for use on the project. Batch tickets may be computer-generated, handwritten, or a combination. The ticket shall include, at a minimum, the information listed in Table I:

| TABLE I - EVERY BATCH TICKET | |
|---|---|
| Name of ready-mix batch plant | |
| Batch Plant No | |
| Batch Plant Location | |
| Serial number of ticket | |
| Date | |
| Truck Number | |
| Class of Concrete | |
| JMF# | |
| Time the load was batched | |
| Size of Batch [cu yd (cu m)] | |
| Actual weights of cementitious material: | |
| Cement [lbs(kg)] | |
| Fly ash [lbs(kg)] | |
| Ground granulated blast furnace slag [lbs(kg)] | |
| Micro-silica [lbs(kg)] | |
| Other | |
| Actual weights of aggregates: | |
| Coarse [lbs(kg)] | |
| Fine [lbs(kg)] | |
| Other | |
| Actual weight of water [lbs(kg)] | |
| Actual volume of admixtures: | |
| Air entrainer [fl. oz. (mL)] | |
| Superplasticizer [fl. oz. (mL)] | |
| Water reducer [fl. oz.(mL)] | |
| Retarder [fl. oz. (mL)] | |
| Other | |
| Aggregate moisture contents (%): | |
| Coarse Aggregate | |
| Fine Aggregate | |
| Water Cement Ratio, leaving the plant | |

Batch tickets for each day's first load of concrete, for each JMF, shall also include the information in Table II below. The Table II information may be either included on the batch ticket or furnished on a separate form. The separate form may be computer-generated or handwritten, but the form must be physically attached to the batch ticket.

If during the concrete manufacturing process any of the information listed in Table II changes, the information in Table II shall be resubmitted with the first concrete batch ticket supplied with the changed concrete.

| TABLE II - FIRST TICKET EACH DAY, EACH JMF | |
|---|---|
| Cementitious Sources and Grade or Type: | |
| Cement | |
| Micro - Silica | |
| Ground granulated Blast Furnace slag | |
| Fly Ash | |
| Other | |
| Admixtures - Brand and Type: | |
| Air entrainer | |
| Retarder | |
| Water reducer | |
| Superplasticizer | |
| Other | |

Concrete batch ticket information conforms to ASTM C 94, section 13.
Supporting data may be required by the Engineer to validate the basis for the furnished aggregate moisture contents.
Cost for generating and supplying the information and the concrete batch tickets shall be included in the individual concrete items.

**899.09 Mixing Concrete.** The concrete may be mixed in a central mix plant or in truck mixers. The mixer shall be of an approved type.

When mixed in central mixers, the mixing time shall not be less than 60 seconds. Mixing time begins when all materials are in the drum and ends when the discharge begins. Transfer time in multiple drum mixers is included in mixing time. The contents of an individual mixer drum shall be removed before a succeeding batch is emptied therein.

Ready-mixed concrete shall be mixed and delivered in accordance with 899.04(b). Mixed concrete from the central mixers shall be transported in truck mixers, truck agitators, or trucks having nonagitating bodies. The concrete shall be delivered to the site of the work and discharge shall be completed within one hour after the combining of the water and the cement. If an approved set-retarding (705.12, Type B) or a water-reducing and set-retarding (705.12, Type D or G) admixture is used at the Contractor's expense, discharge shall be completed within 90 minutes after the combining of the water and the cement.

When concrete is delivered in transit mixers or agitators, additional water within the limits specified may be added and sufficient mixing performed to adjust the slump and to regenerate the specified air content throughout the batch, provided all these operations are performed prior to discharging any of the batch and within the above time limitations. When making these adjustments, the concrete shall be mixed a minimum of 30 revolutions at mixing speed.

Retempering after the start of discharge is permitted by the use of approved admixtures (705.12, Type F or G) when approved by the Engineer.

Admixtures containing more than 50 parts per million chloride by weight of cement will be permitted only when provided for in the contract, or upon written permission of the Director.

The procedure for making and testing of concrete beams shall be in accordance with the requirements of Supplement 1023 on file in the Office of the Director.

When mixed, all concrete shall have a temperature of not more than 90° F (32° C ), and the concrete shall be maintained under this temperature until deposited in the work.