

ALDOT-368-89
SAMPLING PROCEDURES FOR ELASTOMERIC BRIDGE BEARING PADS

1. Scope

- 1.1. This procedure covers the requirements for the marking and sampling of elastomeric bridge bearing pads. The specifications for these items can be found in Section 837 of the Department's Specifications.
- 1.2. All elastomeric bearing pads used on Department projects shall be from approved producers as listed in List I-17 of the Department's Materials, Sources, and Devices with Special Acceptance Requirements manual.

2. Definitions

- 2.1. Elastomeric Bridge Bearing - A vibration absorbing pad made from an elastomeric material and designed to compensate for thermal expansion and contraction, rotation, camber changes, creep and shrinkage of structural members. These bearings are divided into four types according to the design of the pad. Specifications for the elastomer and steel components of these pads can be found in Section 837 of the Department's Specifications.
- 2.2. Manufacturer - Company actually taking raw components and producing a finished bearing.
- 2.3. Fabricator - A company or facility responsible for producing the girders of the bridge and inspected by Department personnel. The fabricator's production facility shall be called the fabrication yard.
- 2.4. Department - The Alabama Department of Transportation.
- 2.5. Lot - A lot of pads shall be considered to be a group of 100 or fewer pads which are manufactured from the same batch of elastomer, cured under the same conditions, and are of the same type. A lot may include different sizes of pads, but not different types.
- 2.6. Type - Refers to general design of a bearing as outlined in section 837 of the Department's Specifications.

3. Marking

- 3.1. The manufacturer shall stencil each pad with a legible order number, lot number, bearing identification number, elastomer type and grade number. All markings shall be done with paint or a semi-permanent material not easily removed from the surface of the pad. All markings shall be applied on a face visible after installation, if possible, and shall be applied prior to shipment to the fabricator or project.

4. Sampling

- 4.1. All pads, along with certified test reports for each lot of bearings, shall be shipped to the fabricator or project for sampling and inspection. (Article 837 of the Specifications allows sampling at the fabrication yard by Department personnel.)

- 4.2. A representative of the Department will inspect all pads for workmanship and markings. He/she will divide the pads according to lots and choose a random sample of one pad from each lot (see ALDOT-210). When a lot contains more than one size of pad the inspector will treat the lot as if all pads were the same size and choose only one sample.
- 4.3. The Department inspector will complete a BMT – 1 and attach it to the sample. The sample, sample card and a copy of the manufacturer's test report shall be sent to the Department's Central Laboratory for testing.
- 4.4. In cases where larger and more expensive pads, Type 3 and Type 4 pads, are used, an alternate sampling plan may be elected by the Department. Some bridge structures require a large variety of Type 3 and Type 4 pads in small quantities. The cost of making additional replacement pads is not feasible. When this occurs the contractor may furnish the Materials and Tests Engineer, in writing, the number and types of pads involved. The Materials and Tests Engineer may at his option elect to specify which types and sizes of pads the samples shall be taken from. This will allow the contractor to have additional pads of that size and type made at the same time as the other pads are produced. The inspector will then choose at random from these pads.
- 4.5. Should the contractor elect this option, he/she should make arrangements prior to production of the pads, in order that the manufacturer may make these additional pads along with the balance of the order. This should be done immediately after the shop drawings have been approved by the Bridge Bureau.