

**INSERT TAB**

**SECTION 4(C)  
Laboratory Samples**



## SAMPLES FOR SUBMITTAL TO MATERIALS LABORATORY

### General

When sampling materials for transmittal to a laboratory, place the samples in proper, secure containers with adequate labeling and submit with the appropriate paperwork.

Please use the following guidelines for samples that are submitted to the ODOT Central Materials Laboratory.

Although these guidelines are established for the ODOT Materials Laboratory, they are probably also appropriate for samples submitted to other laboratories.

### Documentation

Submit a properly completed Sample Data Sheet (Form 734-4000) with all samples that are delivered to the ODOT Materials Laboratory. There are three different types of Sample Data Sheets: 734-4000 (Aggregates & Oil), 734-4000C (Concrete) and 734-4000NFTM (Non Field Tested Materials). The appropriate Sample Data Sheet must be used for the appropriate sample. Each sample should have its own Sample Data Sheet. **Do not** submit two types of samples (i.e.  $\frac{3}{4}$ "-  $\frac{1}{4}$ " and  $\frac{1}{4}$ "-0") on one Sample Data Sheet. The Sample Data Sheet must be completed properly. Below is a list of information that must be included on the form for different types of samples. **If this information is missing the sample will not be accepted.**

#### Required on all Sample Data Sheets:

- Valid Expenditure Account (EA) or Con Number
- Class of Sample (i.e. "Source/Product Compliance")
- Submitted by name and contact number
- Appropriate Project contact person and number (not the Project Manager)

#### *Sample Data Sheet - (Form 734-4000)*

- Used for submitting aggregate, asphalt/emulsion, and ACP samples

#### Aggregate Samples:

- Aggregate size (i.e.  $\frac{3}{4}$ "-  $\frac{1}{4}$ " )
- Source Number
- Use of material (i.e. "Base Rock")

#### Asphalt/Emulsion Liquid Oil Samples:

- Grade of material (i.e. "PG 64-22")
- Name of the oil manufacturer (i.e. "McCall")
- Lot and Sublot number (i.e. "1-1" or "1-5")

### ACP Samples:

- Material
- Use of Material (i.e., “Level 3 ACP”)
- Mix Design Number (include in “Remarks/Special Requirements” section)
- Contract Number
- Date of sampling
- Bid Item, Lot and Sublot
- Location where sample was obtained.

#### *Sample Data Sheet for Concrete Cylinders - (Form 734-4000C)*

- Used for submitting concrete cylinder samples
- Specified strength (i.e., “3300 psi”)
- Number of days to break the concrete cylinders (i.e., “7 days” or “28 days”)
- Date the concrete cylinders were cast (i.e., “September 30, 2015”)
- Field test results, including curing and capping methods

#### *Sample Data Sheet (Non Field-Tested Materials) – (Form 734-4000NFTM)*

- Used for submitting non-field tested materials (Rebar, wire, etc.)
- Certificate of Origin of Steel Materials (CMO) (for steel items only)
- Test Result certificate (for steel items only)
- Quality Compliance certificate (for steel items only)

### Sample Containers

Securely attach an identification label to each sample or container which shows:

- Contract Number
- Sample Data Sheet (Form 734-4000) Number
- Source of Material

It is also helpful to place a second identifying label inside of the container (bag or bucket) of aggregates or similar material, in the event that the outside label is lost. Do not place the Sample Data Sheet in the bag.

### Aggregate Sample Containers

- Use canvas or other tear-proof bags. Fabric mesh must contain the fine materials in the sample.
- 5 gallon plastic buckets are also acceptable containers. Be sure that the lids are securely attached.
- The maximum weight of each sample container is 50 lb. Use additional containers if a larger quantity is being submitted. Properly label each container.
- Secure or tie bags with cord or strong string. **Do not use wire.**

### Asphalt Cement Containers

- Use 1 qt. wide-mouth plastic containers with tight lids for emulsified asphalt cements. Tape the lid onto the container to prevent leakage.
- Use 1 qt. metal containers with tight lids for other asphalt cements.

**Note: Ensure containers are labeled with the following information: Contract #, CON #, Date sample was obtained, Grade of Oil & Supplier and Lot and Sublot the sample represents.**

### Other Sample Containers

For other samples, use containers that will adequately contain the enclosed sample and will protect the sample from weather or other elements if needed.

**REQUIRED SAMPLE SIZES**

<b>MATERIALS AND CONSTITUENTS</b>	<b>MIX DESIGN</b>	<b>QUALITY CONTROL OR PRODUCT COMPLIANCE</b>
<p style="text-align: center;"><b>SOIL</b></p> <p>TOPSOIL</p> <p style="text-align: center;"><b>BASE AGGREGATE</b></p> <p>AGGREGATE SUB-BASE AGGREGATE</p> <p style="text-align: center;"><b>CEMENT TREATED BASE</b></p> <p>AGGREGATE</p> <p style="text-align: center;"><b>ROCK GABIONS &amp; RIPRAP</b></p> <p>AGGREGATE</p> <p style="text-align: center;"><b>MSE WALL BACKFILL MATERIAL (ALL TYPES)</b></p>	<p style="text-align: center;">250 lbs. - 5 bags</p>	<p style="text-align: center;">20 lbs. - 1 bag</p> <p style="text-align: center;">100 lbs. - 2 bags 100 lbs. - 2 bags</p> <p style="text-align: center;">150 lbs. - 3 bags</p> <p style="text-align: center;"><i>[Maximum size of individual pieces 9"]</i>.</p> <p style="text-align: center;">150 lbs. - 3 bags</p>
<p><b>NOTE:</b> Submit a completed Sample Data Sheet (Form 734-4000) with each sample. <b>Include all the required information or the sample will not be accepted.</b> (Properly label each container).</p> <p>See Section 4(A) for samples to be submitted for source/product compliance testing.</p>		

**REQUIRED SAMPLE SIZES**

<p><b>MATERIALS AND CONSTITUENTS</b></p>	<p><b>VERIFICATION OF CONTRACTOR MIX DESIGN</b></p>	<p><b>QUALITY CONTROL OR PRODUCT COMPLIANCE</b></p>
<p><b>ASPHALT CONCRETE PAVEMENT</b></p> <p>ASPHALT CEMENT</p> <p><b>ACP (OPEN GRADED) or POROUS ASPHALT CONCRETE (PAC)</b></p> <p>ASPHALT CEMENT</p> <p><b>EAC PAVEMENT</b></p> <p>EMULSIFIED ASPHALT CEMENT</p> <p>CONCRETE CURING COMPOUND</p>	<p><b>If JMF verification is requested by ODOT, submit samples to the ODOT Materials Laboratory in Salem according to the guidelines set forth in the current “Contractor Mix Design Guidelines for Asphalt Concrete”. Use the guideline version that coincides with the date the contract was advertised.</b></p> <p><b>This document can be found on the ODOT website.</b></p>	<p>2 - 1 qt. metal containers</p> <p>2 - 1 qt. metal containers</p> <p>2 - 1 qt. wide mouth plastic containers</p> <p>2 - 1 qt. wide mouth plastic containers</p>

**NOTE:** Submit a completed Sample Data Sheet (Form 734-4000) with each sample. **Include all the required information or the sample will not be accepted.** (Properly label each container).

See Section 4(A) for samples to be submitted for source/product compliance testing

