

**MMDOT**

**Local  
Public  
Agency**

*Sampling and  
Testing Proposal*

**2009**

## LPA

### *Materials Sampling & Testing Proposal*

## I. Introduction

The Local Public Agencies (LPA) Materials Proposal Program has been developed based on the requirements for materials acceptance set forth in the Project Development Manual for Local Public Agencies (PDM) Section 7.7. This document provides a description of the program along with directions for development and use of a materials testing proposal.

As detailed in the PDM, all materials used on a project must meet the requirements of the contract and MDOT specifications. On LPA projects, the Project Engineer/Architect is responsible for seeing that daily acceptance sampling and testing of project materials is performed. The frequency for acceptance sampling and testing for a project is outlined within MDOT S.O.P.'s TMD-20-04-00-000, Approximate Frequencies for Job Control Acceptance Testing and Sampling, and TMD-20-05-00-000, Sampling and Testing of Small Quantities of Miscellaneous Materials. Section 7.7 of the Project Development Manual details the requirements for LPA Sampling and Testing Proposals. A materials proposal should outline the sampling and testing for materials incorporated into a project along with the associated testing frequencies. The Project Engineer/Architect submits the proposal for review and approval to the MDOT LPA District Coordinator and District Materials Engineer. The MDOT District LPA Coordinator will provide written approval of the proposal, providing a copy to the MDOT State Materials Engineer and MDOT Contract Administration Division.

The LPA materials proposal program was developed to assist in the creation of a materials sampling and testing proposal and materials certification. The LPA Materials Program uses the data from MDOT's Construction and Materials Management software program. The tables in the Materials program use the same Pay Item, Material, and Test Method relationships that have been developed in the database to create a basis for the sampling and testing proposal. Data Tables for Pay Items, Materials, and Testing have been copied into Excel worksheets for this program. There is currently no direct link to MDOT's Construction and Materials Management software from this program so the data tables have to be updated periodically as new pay items are created. The gomdot.com website should be checked periodically for updates. The program name will have a version number in the title. If the version number on the website is different from the one on your computer, the program has been updated.

## II. Program Description

The LPA Materials program will allow the user to select the pay items detailed in the project proposal. The program can generate a preliminary materials proposal based on these selections. The pay items selected will have materials commonly used in the construction of an individual item along with a summary of the testing frequencies for the materials specified. It is important to note that the associations are generalized. There are multiple types of a material listed if it commonly varies from project to project (i.e. Type I and Type II Cement for a concrete item). In addition, not all the test methods for each material are listed in the proposal in order to minimize duplicate listing of materials and streamline the report. Generally, a material is only listed multiple times for a pay item when the testing frequency varies from test to test. In all cases, reference can be made to the TMD-20-04-00-000, Approximate Frequencies for Job Control Acceptance Testing and Sampling, when specifics are required. This program was designed to establish the pay item to material relationship with a sampling frequency in a streamlined report. Note that the sampling frequency will not calculate in the program until quantities are entered for each pay item. There are also columns in the proposal that establish who most commonly samples and tests a material so that the proposal can be used for reference by field personnel. Finally, the proposal can be utilized at project closing to summarize final quantities and as a check to ensure that materials testing has been completed.

## III. Program Instructions

Download the program from the goMDOT.com website at: <http://www.gomdot.com/Home/Projects/LPA/LPA.aspx>

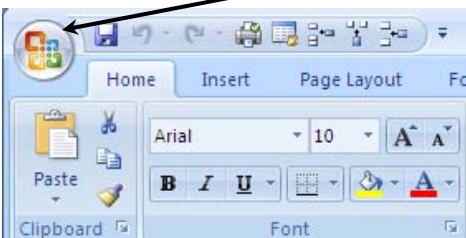
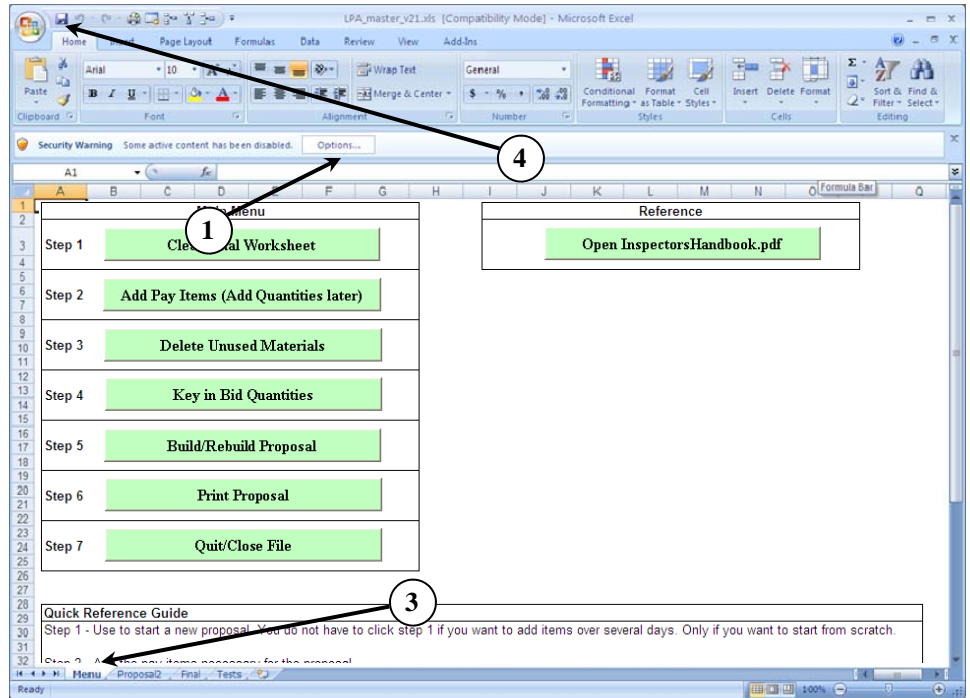
## LPA

### Materials Sampling & Testing Proposal

Open the excel spreadsheet.

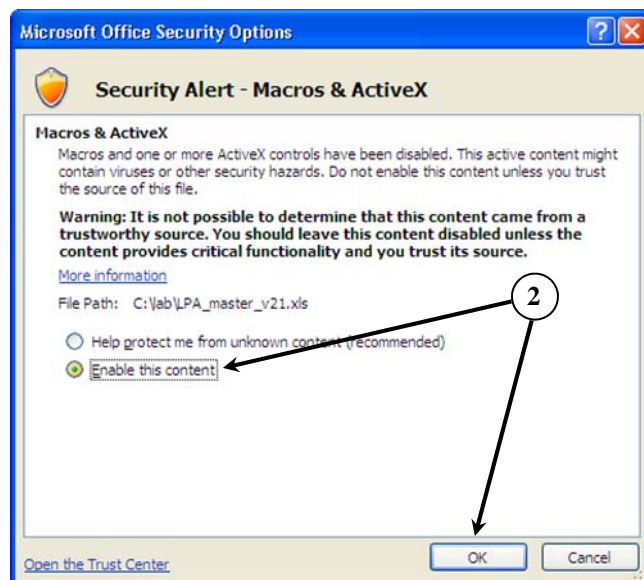
1. If this is your first time to open the worksheet, you may have a security warning. If so, then click on Options.
2. The Microsoft Security Options window will display. Select "Enable this content" and click ok. The excel spreadsheet will be ready for use.
3. Make sure the "Menu" tab has been selected. These tabs will be helpful in navigation of the various worksheets.
4. Save the spreadsheet.

Note: It is recommended that you save this as your master file. After saving the spreadsheet in step 5 above, save the worksheet for the specific project. For example, if the project number is 104359701000, save the file as: "104359701000 Sample requirements.xls". Depending on which version of excel you have, click on File or the Office button.



Click on "Save as" to give the file a new name.

The worksheet is now ready for data entry.



1. For new proposals, click on Step 1, "**Clear Final Worksheet**". If a proposal has been partially created in the program and you wish to continue working with the existing information, *skip step 1*.
2. Click Step 2, "**Add Pay Items (Add Quantities later)**" to select the pay items detailed in the contract proposal. The full pay item description and pay item units are displayed to assist in selection of the correct pay item. Please note that these pay items are strictly based on the pay items used by MDOT.

*Note:* If there are items that will not need testing, such as "removal of" pay items, they do not need to be added.

*Note:* If non-standard pay items are used, you must manually create a sampling and testing proposal. If similar items are used that will require the same testing, you may select the item and change the pay item description later.

3. Select the correct Specification Year (i.e. 2004, 1996, etc) for the contract. Upon selection of the year, the corresponding Pay Items will be listed.
4. Select each Pay Item that you want to add to the Proposal by clicking on the item.
5. When you have selected all your pay items, click the "**Build Worksheet**" button.

*Note:* If you forget a Pay Item, click the Add Pay Items button on Step 2 again and add another Pay Item using the same process. This step is building the table found on the worksheet named "Final".

6. Click Step 3, "**Delete Unused Materials**" to remove any materials that may not be needed for a Pay Item. When a Pay Item is selected, *all* possible materials are added to the "Final" worksheet with *all* the associated Tests. For example, on a concrete Pay Item, you would typically not need both a Type I and Type II cement as Materials, so delete the unnecessary materials. (dependent on the Mix Design in this case).

## LPA Materials Sampling & Testing Proposal

**Main Menu**

1 **Step 1** Clear Final Worksheet

2 **Step 2** Add Pay Items (Add Quantities later)

**Select Spec Year and needed Pay Items below and click the Build Worksheet button.**

Select Spec Year  3

| Item Code                           | Spec Year | E/M  | Description                            | Unit |
|-------------------------------------|-----------|------|--|------|
| <input type="checkbox"/>            | 304-B024  | 2004 | E Granular Material, Class 5, Group D  | TON  |
| <input type="checkbox"/>            | 304-B025  | 2004 | E Granular Material, Class 5, Group E  | TON  |
| <input type="checkbox"/>            | 304-B026  | 2004 | E Granular Material, Class 6, Group A  | TON  |
| <input type="checkbox"/>            | 304-B027  | 2004 | E Granular Material, Class 6, Group B  | TON  |
| <input type="checkbox"/>            | 304-B028  | 2004 | E Granular Material, Class 6, Group C  | TON  |
| <input type="checkbox"/>            | 304-B029  | 2004 | E Granular Material, Class 6, Group D  | TON  |
| <input type="checkbox"/>            | 304-B030  | 2004 | E Granular Material, Class 6, Group E  | TON  |
| <input type="checkbox"/>            | 304-B031  | 2004 | E Granular Material, Class 7, Group A  | TON  |
| <input type="checkbox"/>            | 304-B032  | 2004 | E Granular Material, Class 7, Group B  | TON  |
| <input type="checkbox"/>            | 304-B033  | 2004 | E Granular Material, Class 7, Group C  | TON  |
| <input type="checkbox"/>            | 304-B034  | 2004 | E Granular Material, Class 7, Group D  | TON  |
| <input type="checkbox"/>            | 304-B035  | 2004 | E Granular Material, Class 7, Group E  | TON  |
| <input type="checkbox"/>            | 304-B036  | 2004 | E Granular Material, Class 8, Group A  | TON  |
| <input type="checkbox"/>            | 304-B037  | 2004 | E Granular Material, Class 8, Group B  | TON  |
| <input type="checkbox"/>            | 304-B038  | 2004 | E Granular Material, Class 8, Group C  | TON  |
| <input type="checkbox"/>            | 304-B039  | 2004 | E Granular Material, Class 8, Group D  | TON  |
| <input type="checkbox"/>            | 304-B040  | 2004 | E Granular Material, Class 8, Group E  | TON  |
| <input type="checkbox"/>            | 304-B041  | 2004 | E Granular Material, Class 9, Group A  | TON  |
| <input type="checkbox"/>            | 304-B042  | 2004 | E Granular Material, Class 9, Group B  | TON  |
| <input checked="" type="checkbox"/> | 304-B043  | 2004 | E Granular Material, Class 9, Group C  | TON  |
| <input type="checkbox"/>            | 304-B044  | 2004 | E Granular Material, Class 9, Group D  | TON  |
| <input type="checkbox"/>            | 304-B045  | 2004 | E Granular Material, Class 9, Group E  | TON  |
| <input type="checkbox"/>            | 304-B046  | 2004 | E Granular Material, Class 10, Group A | TON  |
| <input type="checkbox"/>            | 304-B047  | 2004 | E Granular Material, Class 10, Group B | TON  |
| <input type="checkbox"/>            | 304-B048  | 2004 | E Granular Material, Class 10, Group C | TON  |
| <input type="checkbox"/>            | 304-B049  | 2004 | E Granular Material, Class 10, Group D | TON  |
| <input type="checkbox"/>            | 304-B050  | 2004 | E Granular Material, Class 10, Group E | TON  |

5 Build Worksheet

**Step 3** Delete Unused Materials

LPA

Materials Sampling & Testing Proposal

After the Pay Items, have been selected, you are ready to enter the bid quantities. Click on Step 4, "Key in Bid Quantities". This will display all the pay items. Many will be listed multiple times. Enter the bid quantity only on the first line.

Step 4

Key in Bid Quantities

| A            | B                           | C   | D             | E         | F    |
|--------------|-----------------------------|---|---------------|-----------|------|
| Pay Item     | Bid + Change Order Quantity | Pay Item Description                            | Pay Item Unit | Spec Year | Unit |
| 201-B001     | 2.000                       | Clearing and Grubbing                           | ACRE          | 2004      | E    |
| 304-A028     | 1150.000                    | Granular Material, LVM, Class 6, Group C        | CY            | 2004      | E    |
| 304-A028     |                             | Granular Material, LVM, Class 6, Group C        | CY            | 2004      | E    |
| 304-A028     |                             | Granular Material, LVM, Class 6, Group C        | CY            | 2004      | E    |
| 907-403-A012 | 950.000                     | Hot Mix Asphalt, ST, 19-mm mixture              | TON           | 2004      | E    |
| 907-403-A012 |                             | Hot Mix Asphalt, ST, 19-mm mixture              | TON           | 2004      | E    |
| 907-403-A012 |                             | Hot Mix Asphalt, ST, 19-mm mixture              | TON           | 2004      | E    |
| 907-403-A012 |                             | Hot Mix Asphalt, ST, 19-mm mixture              | TON           | 2004      | E    |
| 907-403-A012 |                             | Hot Mix Asphalt, ST, 19-mm mixture              | TON           | 2004      | E    |
| 907-403-A012 |                             | Hot Mix Asphalt, ST, 19-mm mixture              | TON           | 2004      | E    |
| 907-403-A012 |                             | Hot Mix Asphalt, ST, 19-mm mixture              | TON           | 2004      | E    |
| 907-403-A012 |                             | Hot Mix Asphalt, ST, 19-mm mixture              | TON           | 2004      | E    |
| 907-403-A015 | 475.000                     | Hot Mix Asphalt, ST, 9.5-mm mixture             | TON           | 2004      | E    |
| 907-403-A015 |                             | Hot Mix Asphalt, ST, 9.5-mm mixture             | TON           | 2004      | E    |
| 907-403-A015 |                             | Hot Mix Asphalt, ST, 9.5-mm mixture             | TON           | 2004      | E    |
| 907-403-A015 |                             | Hot Mix Asphalt, ST, 9.5-mm mixture             | TON           | 2004      | E    |
| 907-403-A015 |                             | Hot Mix Asphalt, ST, 9.5-mm mixture             | TON           | 2004      | E    |
| 907-403-A015 |                             | Hot Mix Asphalt, ST, 9.5-mm mixture             | TON           | 2004      | E    |
| 907-403-A015 |                             | Hot Mix Asphalt, ST, 9.5-mm mixture             | TON           | 2004      | E    |
| 907-403-A015 |                             | Hot Mix Asphalt, ST, 9.5-mm mixture             | TON           | 2004      | E    |
| 907-403-A015 |                             | Hot Mix Asphalt, ST, 9.5-mm mixture             | TON           | 2004      | E    |
| 601-B001     | 26.000                      | Class "B" Structural Concrete, Minor Structures | CY            | 2004      | E    |
| 601-B001     |                             | Class "B" Structural Concrete, Minor Structures | CY            | 2004      | E    |
| 601-B001     |                             | Class "B" Structural Concrete, Minor Structures | CY            | 2004      | E    |
| 601-B001     |                             | Class "B" Structural Concrete, Minor Structures | CY            | 2004      | E    |

- If a pay item you selected does not appear in this list, it does not require testing, although other items that do not require testing may appear.
- You can change item descriptions on this worksheet if you chose similar items during step 2.
- If a pay item could not be found in the pay item list, but there are similar pay items, you may copy & paste the lines associated to that pay item and change the pay item number and description as needed.
- If you accidentally added a pay item, you may delete the row (s) associated to that pay item on this worksheet.
- Pay Items not in the Pay Item dropdown list in Step 2, can be manually added to the Proposal on this worksheet. Add these items to the bottom of the worksheet prior to running Step 4. It will be automatically added to the proposal.

To navigate back to the Menu, use either the tabs at the bottom of the spreadsheet or click on the Bid + Change Order Quantity header.

LPA

Materials Sampling & Testing Proposal

After the Pay Items, have been selected, unused test have been deleted and bid quantities are entered you are ready to build the Proposal with Step 5.

Click on Step 5, "Build/Rebuild Proposal". The Proposal is built (or Re-built) each time this button is clicked. You can build the Proposal, use Step 3 to delete a material, use Step 4 to enter/check quantities and then use Step 5 to re-build the Proposal.

Step 5 Build/Rebuild Proposal

A proposal is shown below. Complete the sampling and testing proposal by entering the basic project data at the top of the spreadsheet. Materials requiring sampling are listed below the pay item number.

Mississippi Department of Transportation  
LPA Sampling and Testing Proposal

Date: \_\_\_\_\_ Federal/State Project: \_\_\_\_\_  
 Project No.: \_\_\_\_\_ Route: \_\_\_\_\_  
 Location: \_\_\_\_\_ County: \_\_\_\_\_  
 Type of Work: \_\_\_\_\_ Contractor Name: \_\_\_\_\_

| Pay Item                              | Pay Item Description  | Pay Item Unit         | Bid + Change Order Quantity            | Installed Pay-Item Quantity      |  |                                |                             |
|---------------------------------------|-----------------------|-----------------------|--|----------------------------------|--|--------------------------------|-----------------------------|
| Pay Item < > Material                 | Material              | Material Unit         | Pay Item to Material Conversion Factor | Explanation of Conversion Factor | Test Description   | Estimated Material Quantity    | Installed Material Quantity |
| Material < > Sampling                 | Sampling Frequency    | Sample Responsibility | Test Responsibility                    |                                  | No. of Samples Required                                      | No. of Samples/Tests Completed | Samples/Tests Remaining     |
| 201-A001                              | Clearing and Grubbing | LS                    | NA                                     |                                  |  |                                |                             |
| 201-A001 <<>> NA                      | NA                    | NA                    | 1.000                                  | NA                               | NA   |                                | NA                          |
| NA <<>> Sampling                      | NA                    | NA                    | NA                                     |                                  |  |                                |                             |
| 216-A001                              | Solid Sodding         | SY                    | 1455.000                               |                                  |  |                                |                             |
| 216-A001 <<>> Material Group#1        | SODDING (SOLID)       | SY                    | 1.000                                  | NA                               | Maintain records per Red Book Section 700.05 in Project file | 1455.000                       | NA                          |
| SODDING (SOLID) <<>> Sampling Group#1 | 1,000,000             | District              | District                               |                                  | 1  |                                |                             |

The "Estimated Material Quantity" and the "No. of Samples Required" will be calculated for each material test listed based on the Bid + Change Order Quantity. If a change order alters the quantity during the project, the Bid + Change Order Quantity will need to be adjusted on the "Final" worksheet to accurately to reflect the sampling required. The proposal will need to be rebuilt to accurately reflect the new quantities.

Note: Conversion factors are estimates based on MDOT Specifications and engineering judgement. Conversion factors may sometimes need to be adjusted for an individual project per the project plans and specifications. To do this, unprotect the worksheet to edit the cell formula. There is no password protection on the sheet. It is recommended that you re-protect the sheet after the changes have been made to avoid accidental formula deletions.

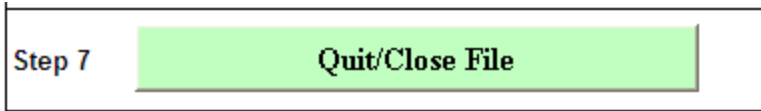
After the proposal is built, you may Print the proposal using Step 6, Print Proposal

Step 6 Print Proposal

LPA

Materials Sampling & Testing Proposal

Step 7: This step closes the excel file. It will prompt you to save any changes that you have made to the file. The proposal spreadsheet for each project should be saved to avoid losing the data



**Materials Certification:** This program can be used to summarize the final quantities of a project. Any remaining tests will be displayed in the “**Samples/Tests Remaining**” column. This column will display zero (0) if testing requirements are satisfied. To summarize sampling and testing, complete the following columns:

1. Correct Bid+Change Order Quantities
2. Installed Pay Item Quantity
3. No. of Samples/Tests Completed

All data entry fields are underlined in **green**

At closing, a completed sampling and testing proposal can be submitted with the materials certification letter by the Project Engineer/Architect to the MDOT State Materials Engineer, with a copy to the MDOT District LPA Coordinator, attesting that all materials utilized on the project were incorporated into the work in accordance with the contract requirements and MDOT specifications. Note that variations from the standard sampling and testing frequencies must be explained with a recommendation from the Project Engineer/Architect as to the disposition of the in-place material.

*Note:* Rebuilding the proposal will delete any entries made to the proposal. If you enter installed pay item quantities or number of samples completed, rebuilding the proposal will set them back to blank.

| Pay Item                                      | Pay Item Description               | Pay Item Unit         | Bid + Change Order Quantity            | Installed Pay Item Quantity   |  |                                |                             |
|---|------------------------------------|-----------------------|--|---|--|--------------------------------|-----------------------------|
| Pay Item <!\ Material                         | Material                           | Material Unit         | Pay Item to Material Conversion Factor | Explanation of Conversion Factor  | Test Description                       | Estimated Material Quantity    | Installed Material Quantity |
| Material <!\ Sampling                         | Sampling Frequency                 | Sample Responsibility | Test Responsibility                    |   | No. of Samples Required                | No. of Samples/Tests Completed | Samples/Tests Remaining     |
| 403-A013                                      | Hot Mix Asphalt, ST, 25-mm mixture | TON                   | 500000.000                             | 40000.000   |  |                                |                             |
| 403-A013 <<> Material Group#1                 | HYDRATED LIME (TON) (MT)           | TON                   | 0.010                                  | Basis 1% by Weight Hydrated Lime: 0.01 TON Hydrated Lime / TON HMA  | Testing specified in TMD 20-04-00-000. | 5000.000                       | 400.000                     |
| HYDRATED LIME (TON) (MT) <<> Sampling Group#1 | 1,000,000                          | District              | Central Lab                            |   | 1                                      | 1,000                          | 0.000                       |
| 403-A013 <<> Material Group#2                 | PG 67-22                           | GAL                   | 12.800                                 | Basis 5.5% by weight AC: (0.055 TON AC / 1 TON HMA)*(2000 LB AC / 1 TON AC)*(1 CU FT AC / 1.03*62.4 LB AC)*(7.48 GAL AC / 1 CU FT AC) = 12.8 GAL AC / TON HMA | Testing specified in TMD 20-04-00-000. | 6400000.000                    | 512000.000                  |
| PG 67-22 <<> Sampling Group#2                 | 100,000                            | District              | District                               |   | 64                                     | 10,000                         | 54,000                      |
| 403-A013 <<> Material Group#3                 | ST 25 MM                           | TON                   | 1,000                                  | NA  | Testing specified in TMD 20-04-00-000. | 500000.000                     | 40000.000                   |

LPA

Materials Sampling & Testing Proposal

IV. Program Tips and Troubleshooting

Specific Notes regarding the tables in the program:

A. Reference:

The Inspectors Handbook is a useful tool for correct sampling & testing procedures.

|   |
|---|
| Reference                                   |
| <a href="#">Open InspectorsHandbook.pdf</a> |

B. Explanation of Test Method Notations:

All the test methods for each material are not listed in the proposal. However, the notations and individually listed test methods can be found in the table located on the worksheet named "Tests". These have been condensed since when sampling a material, you may not need (or want) to know the specific name of the tests being run on the sample. The information has been included in the table for reference.

In this table, the column named "DescriptionNo" has a number for each group of tests and a description of this group in the column named LPA Description. If a test method has a 999 code in this column, the test is not applicable for LPA proposals. The Sample Responsibility and Test Responsibility from the final proposal are listed in this table too. Each unique group (Group 1 for example) has the same values for Sample Responsibility and Test Responsibility. Group 1.1 may have different values.

| LAB     | Template | Template Description   | Tests                          | Template Type | LPA Description                                      | DescriptionNo | Sample Responsibility |
|---------|----------|--|--------------------------------|---------------|--|---------------|-----------------------|
| Asphalt | FAC101   | AC Gauge Cross Calibration                                   |                                | PowerBuilder  | Testing specified in TMD 20-04-00-000.               | 1             | District              |
|         | FAC102   | Asphalt Pavement Analyzer                                    |                                | PowerBuilder  | Testing specified in TMD 20-04-00-000.               | 999           | District              |
|         | FAC106   | Asphalt Content and Gradation by Centrifuge Method           | AASHTO T30, T164, MT-31, MT-76 | PowerBuilder  | Testing specified in TMD 20-04-00-000.               | 999           | District              |
|         | FAC106m  | Asphalt Content and Gradation by Centrifuge Extraction - Met | AASHTO T30, T164, MT-31, MT-76 | PowerBuilder  | Testing specified in TMD 20-04-00-000.               | 999           | District              |
|         | FAC107   | Resistance To Stripping By MT-59                             | MT-59                          | PowerBuilder  | Testing specified in TMD 20-04-00-000.               | 1             | District              |
|         | FAC108   | Asphalt Aggregate  | AASHTO T30                     | PowerBuilder  | Testing specified in TMD 20-04-00-000.               | 1             | District              |
|         | FAC108m  | Asphalt Aggregate Metric                                     | AASHTO T30                     | PowerBuilder  | Testing specified in TMD 20-04-00-000.               | 1             | District              |
|         | FAC109   | Mineral Filler   | AASHTO T37                     | PowerBuilder  | Testing specified in TMD 20-04-00-000.               | 999           | District              |
|         | FAC109m  | Mineral Filler Metric  | AASHTO T37                     | PowerBuilder  | Testing specified in TMD 20-04-00-000.               | 999           | District              |
|         | FAC110   | Tensile Strength Ratio MT-63                                 | MT-63                          | Excel         | Testing specified in TMD 20-04-00-000.               | 1             | District              |
|         | FAC110m  | Tensile Strength Ratio                                       | MT-63                          | Excel         | Testing specified in TMD 20-04-00-000.               | 1             | District              |
|         | FAC111   | Maximum Specific Gravity of Bituminous Mix                   | AASHTO T209                    | PowerBuilder  | Testing specified in TMD 20-04-00-000.               | 1             | District              |
|         | FAC112   | Moisture Content of Bituminous Mix by Microwave Method       |                                | PowerBuilder  | Testing specified in TMD 20-04-00-000.               | 1             | District              |
|         | FAC113   | Asphalt Content by Centrifuge Method                         | AASHTO T164, MT-31, MT-76      | PowerBuilder  | Testing specified in TMD 20-04-00-000.               | 999           | District              |
|         | FAC114   | Asphalt Content by Nuclear Gauge                             |                                | PowerBuilder  | Testing specified in TMD 20-04-00-000.               | 1             | District              |
|         | FAC115   | Asphalt Content by Ignition Oven AASHTO T308                 | AASHTO T308                    | PowerBuilder  | Testing specified in TMD 20-04-00-000.               | 1             | District              |
|         | FAC116   | HMA Aggregate Extraction By MT-31 Alternate Method 3         | MT-31 Alternate Method 3       | PowerBuilder  | Testing specified in TMD 20-04-00-000.               | 1             | District              |
|         | FAC117   | Specific Gravity of Bituminous Aggregates                    | MT-78 and AASHTO T85           | PowerBuilder  | Testing specified in TMD 20-04-00-000.               | 999           | District              |
|         | FAC117m  | Specific Gravity of Bituminous Aggregates Metric             | MT-78 and AASHTO T85           | PowerBuilder  | Testing specified in TMD 20-04-00-000.               | 999           | District              |
|         | FAC118   | Fine Aggregate Angularity                                    | ASTM C1252                     | PowerBuilder  | Testing specified in TMD 20-04-00-000.               | 999           | District              |
|         | FAC118m  | Fine Aggregate Angularity Metric                             | ASTM C1252                     | PowerBuilder  | Testing specified in TMD 20-04-00-000.               | 999           | District              |
|         | FAC119   | Gyratory Compacted Samples                                   | AASHTO T166, T269, T312        | PowerBuilder  | Testing specified in TMD 20-04-00-000.               | 1             | District              |
|         | FAC119m  | Gyratory Compacted Samples                                   | AASHTO T166, T269, T312        | PowerBuilder  | Testing specified in TMD 20-04-00-000.               | 1             | District              |
|         | FAC120   | Flat and Elongated Particles                                 | AASHTO T30, ASTM D4791         | PowerBuilder  | Testing specified in TMD 20-04-00-000.               | 1             | District              |
|         | FAC120m  | Flat and Elongated Particles Metric                          | AASHTO T30, ASTM D4791         | PowerBuilder  | Testing specified in TMD 20-04-00-000.               | 1             | District              |
|         | FAC126   | HMA Samples for IAS  | AASHTO T30, T308, MT-6         | PowerBuilder  | Testing specified in TMD 20-04-00-000.               | 999           | District              |
|         | FAC126m  | HMA Samples for I.A.S. Metric                                | AASHTO T30, T308, MT-6         | PowerBuilder  | Testing specified in TMD 20-04-00-000.               | 999           | District              |
|         | FAC128   | Approval of Bituminous Mix Design (without RAP)              |                                | PowerBuilder  | Mix Design Approval: Refer to LPA Manual Section 7.7 | 2.1           | Contractor            |
|         | FAC129   | Transfer of Bituminous Mix Design                            |                                | PowerBuilder  | Mix Design Approval: Refer to LPA Manual Section 7.7 | 2.1           | Contractor            |
|         | FAC130   | Review of Bituminous Mix Design                              |                                | PowerBuilder  | Mix Design Approval: Refer to LPA Manual Section 7.7 | 2.1           | Contractor            |

C. Viewing tip:

It may be helpful to see the whole proposal window rather than having to scroll to the right. To do this, click on **View, Zoom**. When the zoom window opens choose **75%** and click on **OK**

## LPA

### Materials Sampling & Testing Proposal

#### D. Troubleshooting:

Make sure to save the program to your hard drive on your computer before attempting to create a proposal. Some of the tables do not function properly otherwise. In addition, you may need to check the macro security if using Excel 2007 if you are having trouble getting the program to run.

1. To do this, open **Excel** and click the Office button on the top left. When the window opens, click the "Excel Options" button
2. Click the "Trust Center" button on the left and then the Trust Center Settings on the right.
3. Select Macro Settings on the right and make sure "Enable all macros" is selected and "Trust access to the VBA project" is selected.

