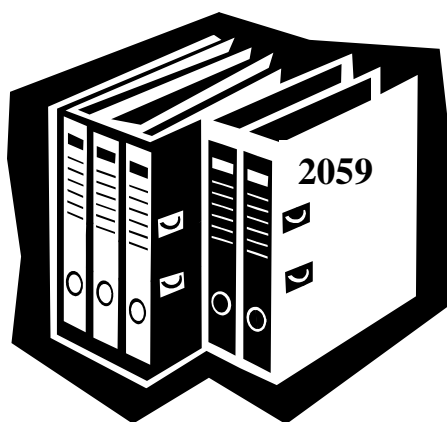


# **PROCEDURE FOR PREPARATION, REVIEW, AND APPROVAL OF FORM 2059**



Developed by  
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LOUISIANA TRANSPORTATION RESEARCH CENTER  
for  
Louisiana Department of Transportation and Development  
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# **CREDITS**

This handbook was prepared by Mr. Alvin J. Justelien III under the direction of Ms. Cindy Twiner, Construction and Materials Training Program Manager.

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## **Introduction**

The purpose of this handbook is to introduce the student to the proper preparation, review and approval process and all supporting documentation commonly referred to as “2059” to minimize possible delays in processing due to errors or lack of documentation.

It is important to remember the final Form 2059 is an audit of Quality Control, Quality Assurance document for a project. The building and maintenance of 2059 starts before the pre-construction conference and continues until the completion of the job.

During the construction project, remember, **“If the report appears to be neatly and efficiently prepared, it will make the review process much easier.”**

The minimum requirements for documentation of material quality for sampling and testing of materials are outlined in *EDSM No: III.5.1.2, Material Quality Assurance Documentation, MATT System & Form 2059*, and *EDSM No: V.2.2.2, DOTD Record Test Measurements*. Copies of these documents are included in the tab section “EDSM”. This document was developed from *EDSM No: III.5.1.2*.

### **What's 2059?**

The 2059 is the Quality Control/Quality Assurance documentation of each Construction Project with the DOTD. The term “2059” is derived from the cover sheet “Summary of Test Results” (Form 03-40-2059). The 2059 report is delivered bound by fasteners, possibly in several binders, depending on the size of the job, possibly with a number of tabbed sections, and the required documents applicable to the specific contract.

### **What references are needed to complete 2059?**

The items below are needed to complete a 2059. Each item is briefly discussed later in the presentation.

- Louisiana Standard Specifications for Roads and Bridges
- The Project Contract
- Materials Sampling Manual - MSM
- Field Testing Procedures Manual - TPM
- MATT System Field Handbook - MSFH
- Qualified Product List - QPL

Copies of these manuals/documents should be available in the Project Engineer's office, the District Laboratory Engineer's office and most are accessible on the DOTD website. It is important to keep the hard copies up to date. Contact the District Laboratory Engineer for the most current edition. A brief description of each manual is located in the “Reference Material” tab in this document to refer to as needed.

### **Who's Responsible?**

The Project Engineer is responsible for the proper preparation and completion of the 2059. Prior to the Pre-Construction Conference, the Project Engineer, with the cooperation of the District Laboratory Engineer, will develop a Sampling Plan for the project. They will use the contract's list of pay items and materials, referring to the *Louisiana Standard Specifications for Roads and Bridges*, and the *Materials Sampling Manual*. The sampling plan is the foundation of the 2059; it resembles a table of contents and is essential to a well-organized 2059.

The Project Engineer will also setup quality assurance files for each contract item in the Sampling Plan, one for “**FAILING**” reports, and a file for test or logging reports printed by the MATT system. These reports are reviewed for discrepancies with the original source documents. The Project Engineer and District Laboratory Engineer will routinely record in their respective Sampling Plan the number of samples taken, certificates, and

other quality assurance documents received for each item. The Sampling Plan must reflect the current status of the sampling and testing (EDSM III.5.1.2, 3D).

The District Laboratory Engineer is responsible for the detailed review and approval of all submittals and for advising the Project Engineer of any deficiencies not already explained. Within five working days of receipt of the 2059 and attachments, the District Laboratory Engineer shall complete the review of the entire quality assurance documents file and notify the Project Engineer, in writing, of all deficiencies. The Project Engineer has five working days to resolve noted deficiencies and advise the District Laboratory Engineer of the resolutions (EDSM III.5.1.2, 3I). The District Laboratory Engineer ensures that documents generated and updated by the District Laboratory are complete and accurate.

### **Format of the 2059**

The final 2059 is placed in a binder or several binders depending on the size of project. The contents are divided into (tabbed) sections. Sections are placed in the following order.

- Form 03-40-2059 (Summary of Test Results)
- Errors and Omissions
- Previous submittal logs (if applicable)
- Sampling Plan (Project Engineer's final copy)
- Sampling Plan (District Laboratory Engineer's final copy)
- One Complete copy MATT "Special Report for 2059", including;
  - The disposition of FAILING samples
  - Density tests reports
  - Plant reports
  - Change Orders
- Job Mix Formulas and Mix Designs
- IA Section (Required on Federal Highway Systems, FHS)
- DOTD TR 602 measurements (if required)
- Drilled Paving Concrete cores report (Concrete paving only)
- Numerical sections (201-901)
  - Material Certificates of Delivery and other documents

### **COVER LETTER "Summary of Test Results" Form 03-40-2059**

Notice the "Summary of Test Results" Form 03-40-2059, in the "Summary" appendix. The Project Engineer will fill this form out completely, sign, and date. The header identifies the project. The State Project Number in the header follows the 3-2-4 (XXX-XX-XXXX) format for all state projects. The header also contains the Federal Project Number (if applicable), the Project Name, Route Number and the Parish location.

**Example: Form 2059 Header**

DOTD 03-40-2059	
STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT	
<b>SUMMARY OF TEST RESULTS</b>	
STATE PROJECT NUMBER <b>450-09-0022</b>	FEDERAL PROJECT NUMBER N/A
PROJECT NAME <b>Mississippi river fender repair</b>	
ROUTE NUMBER I-10	PARISH East Baton Rouge

The Form 2059 also contains boxes alerting the examiners of “Failing Samples,” “Errors and Omissions” and a box for Error and Omissions comments. It is automatically assumed there are failing samples, so if there are NO FAILING SAMPLES, mark the appropriate box.

It is automatically assumed that there are no Errors and Omissions, so if there are, mark the appropriate box and include comments in the box below, space permitting, or attach an Errors and Omissions Letter.

**Example: Form 2059 Error and Omissions**

All material used on the project were in conformity with the requirements of the contract as indicated by acceptance test results and other documentation. Exceptions to this, if any, are indicated below and explained on the referenced reports.			
<input checked="" type="checkbox"/>	Disposition of failing tests report attached	<input type="checkbox"/>	No failing tests
<input checked="" type="checkbox"/>	Errors and omissions report attached, or typed below	<input type="checkbox"/>	Not applicable
S-101 - The Treated timber used as a "bumper" was approved "visual by P.E."			
S-101 - The inspector did not sample the few nuts and bolts that were used on the project.			
S-106 - DOTD personnel failed to receive the CC for the navigation lights after repeatedly requesting this from the Contractor.			

The Project Engineer will sign and date the Cover Sheet upon completion of project. The District Laboratory Engineer will review, verify and sign the properly completed 2059.

**Example: Form 2059 Signatures**

CERTIFIED CORRECT, PROJECT ENGINEER	DATE
VERIFIED AND APPROVED, DISTRICT LABORATORY ENGINEER	DATE
APPROVED, DISTRICT CONSTRUCTION ENGINEER	DATE

**ERRORS AND OMISSIONS REPORT**

The Errors and Omissions Report is the Project Engineer's account of any material used on the project that has not been tested and/or documented according to the sampling plan. The Error and Omissions Report is for tests, samples and documentation **that did not take place** as opposed to the Failing Test report that deals with test that **did not meet specifications**. Entries are listed in numerical item/section order the same order as in the contract. They may be included on the "Summary of Test Results" like the sample above. If not, an Errors and Omissions Letter must accompany the 2059 explaining all missing samples, incorrectly coded samples, samples listed under wrong items numbers, etc. Each listing on the Errors and Omissions Report should include the following;

- the item number,
- the error and omission that occurred,
- why it occurred (accidental, engineering judgment, etc.) and
- basis for acceptance.

The Project Engineer's signature on this document means he is taking professional responsibility for the item's present and future performance. The Project Engineer must sign this document.

## **“SPECIAL REPORT FOR 2059” OR Summary Report**

This is a report from the Materials Testing System (MATT) which lists all tests performed by DOTD personnel and possibly QC tests run by Contractor Personnel that were entered into the computer system.

The MATT generated Summary Report is part of the department’s Quality Assurance Document Files submitted at the end of a project for final acceptance and payment. It consists of three parts:

- List of all materials entered into the MATT System
- List of approved Asphaltic Concrete Cement Job Mix Formulas and Portland Concrete Cement Mix Designs entered in the MATT system for the specific project
- List of **ALL** failing samples with disposition remarks

(Instructions are found in the MATT System Field Handbook under “Reports”)

### **Job Mix Formulas & Mix Designs**

All Asphalt Cement Concrete Mix Formulas and Portland Cement Concrete Mix Designs must be included with the project documentation. A job mix or mix design is the recipe listing the amounts, types, and sources of materials to produce a product. Common types of mixes are Portland Concrete and Asphaltic Concrete. All materials on a job mix must have been sampled and tested, either by project personnel, certificate or by being included on a Qualified Products List, prior to the job mix being approved.

### **Disposition of Failing Samples (Plus \*\*\*FAILING\*\*\* logs)**

This section begins with the “Disposition of Failing Tests” summary printout from the MATT system, followed by ALL failing tests reports in the order they appear on the Disposition of Failing Tests Summary report. The “Disposition of Failing Tests” list samples that **FAIL TO MEET SPECIFICATIONS**. The disposition remarks also state what was done with the failing samples. The failing material is not to be used on the project except in special cases, usually at reduced pay. Whenever a material fails to **meet specifications**, a “\*\*\*FAILING\*\*\*” test report is generated the next day on the Project Engineer’s daily log and exception report. “\*\*\*FAILING\*\*\*” **Exception** test reports have three lines with asterisks on both sides of the word “**FAILING**” to alert the Project Engineer failing tests exist, with explanations why the test failed. In all cases, additional samples or investigation into the quality of the materials is required. When the engineer receives a failing test exception report, the engineer determines the proper disposition of the failing material. In all cases, additional samples or an investigation into the quality of the material is required. The Project Engineer will investigate, explain, and sign the report. A handwritten note should be included on the failing report explaining disposition of the failing material. For example, should the material be re-sampled, left in place at

reduced pay or not used on the project? In the case of re-samples, the failing sample will reference the laboratory number of the re-sample. If the material is left in place at reduced pay, the Change Order number authorizing the percent pay should be shown.

The Project Engineer makes a copy of the failing report for his files, and then sends the original to the District Laboratory Engineer for review. Except for materials sampled by the Material Laboratory or the Construction Section, the Project Engineer is responsible for determining the disposition of failing samples. The Project Engineer is responsible for the remarks being entered into the “Disposition Remarks” field on the computer in the MATT system “Remarks 2”. Remarks 2 comment will appear on the 2059 “Disposition of Failing Samples” report. (Refer to MATT System Field Handbook for more instructions)

### **SAMPLING PLAN (Project Engineer’s & District Laboratory Engineer’s final copy)**

The Sampling Plan lists the minimal number of documents and samples required, based on quantities listed in the contract, to ensure adequate assurance of materials incorporated into the project. The Sampling Plan is considered to be a tool to help the inspector keep up with sampling and testing requirements, and is subject to change due to various situations that might occur throughout a project. As mentioned earlier, ideally, the Project Engineer and the District Laboratory Engineer will use the *Louisiana Standard Specifications for Roads and Bridges*, and the *Materials Sampling Manual*, along with the contract specifications and plans, as source documents in preparation of the Sampling Plan. The contract plans specify the materials, the proper specification book edition, and any supplemental specifications or special provisions to be used in constructing the project. One completed copy of the Sampling Plan is included in the Sampling Plan section of the 2059. On some projects, to aid in review, an exact copy, divided by sections, maybe placed in each corresponding section number. A remarks column could be used to direct the reader to Change Orders, error and omissions, Independent Assurance letters or any other issues that happened during the construction process. The Sampling Plan is like the table of contents to the 2059. The Sampling Plan is based on the frequencies in the *Materials Sampling Manual*. The Sampling Plan is in chart form with columns for number of samples required and number of samples taken and possibly a remarks column. Include only sections used on the project in the Sampling Plans. For some materials it is impractical to predetermine number of samples required, it is acceptable to show the minimum sample frequencies, then show number of samples taken at completion of the project.

All materials and/or tests are compiled according to item numbers. Only ONE item number should be entered in each sample ID. If a material is used under several item sections, use the item number requiring the most material and reference that item when necessary during preparation of the 2059 Sampling Plan. When materials that are

ingredients for a product, such as Asphaltic Concrete or Portland Cement Concrete, are sampled, the best method is to use the three digit item number, i.e. 501, 601, 805, etc., for all ingredient ID's. Then use the complete pay item number, 501-01, 601-02, 805-03, etc. for the amount of product produced (tons, yd<sup>3</sup>, etc.). Copies of the Sampling Plan will be maintained by the Project Engineer, and District Laboratory Engineer.

## Change Orders

There are situations during the life of a project when plan changes are necessary. These plan changes are called "Change Orders". A Change Order is for circumstances that will change the quantity of a pay item; increase, decrease or delete a pay item. Any time a Change Order alters the quantities of a material the Sampling Plan needs to be updated.

Several example formats of a Sampling Plan section are included in the Appendix. Following is one example of a Sampling Plan format. Note the columns for the number of samples required, samples taken and the remarks. This sampling plan also has columns for quantities of materials.

### Example: Sampling Plan

S.P. XXX-XX-XXXX		Sampling Plan		Page 1 of 1		
SECTION 306		MINIMUM				
SCARIFYING AND COMPACTING		QUANTITY		SAMPLE		SAMPLES
ROADBED		ORIG.	FINAL	FREQUENCY	REQ'D	TAKEN
306(01)	Scarifying and Compacting Roadbed ( " thick)			Mile		
306(02)	Scarifying and Compacting Roadbed ( " thick)			Square Yard		
EXISTING MATERIAL	Density					
	Accept.					
	Density					
	Accept.					

## **INDEPENDENT ASSURANCE (IA) SECTION (Required on Federal Jobs)**

All construction projects on the National Highway System require an Independent Assurance Testing Letter, denoting testing required for project. If testing is required, **All** Independent Assurance results are required in this section. The District Laboratory Engineer implements and coordinates the Independent Assurance (I.A.) program at the beginning of a National Highway System (NHS) construction project in accordance with DOTD Designation: S 701 of the *Materials Sampling Manual*. Copies of Independent Assurance Sampling and Testing reports along with a certification letter are sent to the Project Engineer and should be placed in the 2059 behind the Master Sampling Plan, as a section by itself. The tests are performed and entered into the computer by the District Laboratory Engineer. Copies, along with a certification letter, are sent to the Project Engineers.

A count of the number of Independent Assurance samples and tests taken are recorded in the proper Section (301, 501, etc.) on the Sampling Plan. For an in depth explanation of Independent Assurance Sampling and Testing requirements, see *Materials Sampling Manual* Part III-69 (update) 4/05 "Independent Assurance Sampling and Testing Program, Designation S 701" and Table 1.

([http://www.dotd.state.la.us/highways/construction/lab/msm/2000\\_Specs/samproc/s701-05.pdf](http://www.dotd.state.la.us/highways/construction/lab/msm/2000_Specs/samproc/s701-05.pdf))

Louisiana National Highway Maps are located online at  
<http://www.fhwa.dot.gov/ladiv/nhs.htm>.

## **DOTD TR-602: ACCEPTANCE MEASUREMENT OF THICKNESS AND WIDTHS OF BASE AND SUBBASE COURSES AND AGGREGATE SURFACE COURSES**

EDSM III.2.2.3 is the directive for DOTD TR 602 and procedures may be found in the Field Testing Procedures Manual. This data is collected and maintained in the Laboratory Technician's or possibly the inspector's field handbook and a copy is included in the 2059. Measurements are required on net-items paid by cubic yards (cubic meters) or square yard (square meters) only. This report comes from the District Laboratory.

## **DRILLED PAVING CONCRETE CORES**

If the project includes concrete paving, a final core drill report will be generated by the Materials Laboratory or the District Laboratory. It should be included in the 2059.

## **NUMERICAL SECTIONS (201-901)**

The sequence of this section reflects the contract Schedule of Items. More complete explanation of these sections is in the number section chapter of this document.

Each Item Section Number may have:

- Copy of the Sampling Plan for that item
- 2059 MATT Summary Printout for that item number

In addition to these, documents applicable to the specific section are included, such as:

- Certificate of Delivery - CD
- Certificate of Analysis - CA
- Certificate of Compliance – CC
- Welding Certifications
- Others

## **MATERIAL CERTIFICATES OF DELIVERY AND OTHER DOCUMENTS**

Requirements for these documents are listed in the *Materials Sampling Manual*.

### Certificates of Delivery

Some materials are shipped to the job with a Certificate of Delivery, which indicates the material has been sampled or inspected prior to shipment. The *Materials Sampling Manual* will indicate which materials may be accepted by certificate, the type of certificate required, the number of copies needed, and the distribution of the certificates. The Project Engineer or their representative will sign and date the Certificate of Delivery after items are visually inspected.

# NUMERICAL SECTIONS

## NUMERICAL SECTION

The following is a list of items from the *Louisiana Standard Specifications for Roads and Bridges* and the *Materials Sampling Manual*. **ONLY ITEMS USED ON THE PROJECT ARE INCLUDED IN THIS SECTION.**

DISCLAIMER: This list does not replace the requirements of the Materials Sampling Manual. The intent of this list is to guide the person completing the 2059.

- 1) Item sections may have a copy of:
  - a. Sampling Plan for that section
  - b. Job Mix Formulas & Mix Designs (From District Laboratory, if applicable)
- 2) Each Section Number requires unique documents to that section. Some are:
  - a. Certificate of Acceptance - CA
  - b. Certificate of Compliance - CC
  - c. Certificate of Delivery – CD
  - d. Welding Certifications
  - e. Others

## SECTION 203 - EXCAVATION AND EMBANKMENT

- 1) Borrow Pit Reports
- 2) Original Density Reports for acceptance in the order as they appear on the printout
- 3) Contractors QC Density Report
- 4) CD for Lime and Geotextile Fabric

## SECTION 204 - TEMPORARY EROSION CONTROL

1. CD's for Asphaltic Materials, Lime, and Geotextile Fabric

## SECTION 301, 302, AND 303 - BASE COURSE

- 1) If Asphalt was used, refer to 501 or 502 for instructions
- 2) Density and Moisture Content Worksheet
- 3) If Portland Cement Concrete was used, refer to Section 901
- 4) If Soil was used:
  - a. Original Density Reports in order as they appear on the printout.
  - b. CD's for Cement
  - c. CD for Asphaltic Curing Membrane
  - d. DOTD TR - 602 Report (Width & Depth)

# **NUMERICAL SECTIONS**

## **SECTION 304 - LIME TREATMENT**

- 1) Original Density Reports in order
- 2) CD's for Lime
- 3) CD's for Asphaltic Curing Membrane
- 4) DOTD TR 602 Report (Width & Depth)

## **SECTION 305 - SUBGRADE LAYER**

- 1) CD's for Cement
- 2) CD's for Lime
- 3) CD's for Asphaltic Curing Membrane and Prime Coat
- 4) Original Density Reports in order

## **SECTION 401 - AGGREGATE SURFACE COURSE**

- 1) Lime CD's
- 2) CD's for Asphaltic Curing Membrane
- 3) DOTD TR 602 Report (if applicable)

## **SECTION 501, 502 AND 508 - ASPHALTIC CONCRETE MIXTURES**

- 1) Asphaltic Concrete Paving Equipment Checklist
- 2) Asphaltic Concrete Plant Report, make sure all 4 signatures are on copy, plus Profile Results, one per lot (MATT menu selection 03)
- 3) Original Asphaltic Pavement Reports, make sure the Project Engineer signs report, one per lot (MATT menu selection 04)
- 4) Asphaltic Cement CD's one for each test on report
- 5) CD's for Tack Coat
- 6) Asphaltic Concrete Job Mix Formula one for each JMF used (MATT menu selection 31)
- 7) Anti-Stripping CD
- 8) Project Profilograph test report
- 9) DOTD TR 602 Report (if applicable)

## **SECTION 507 - ASPHALTIC SURFACE TREATMENTS**

- 1) Emulsified Asphaltic CD

## **SECTION 509 - COLD PLANING FOR ASPHALTIC CONCRETE**

- 1) QC traces for Cold Planing
- 2) CC for Temporary Markings (if not listed with 713)

# **NUMERICAL SECTIONS**

## **SECTION 601 & 602 - CONCRETE PAVING & CONCRETE PAVING REHABILITATION**

- 1) Portland Cement Concrete Mix designs (District Laboratory) (MATT menu selection 30)
- 2) Portland Cement Concrete Plant Report
- 3) CD's for Cement, Fly Ash, Slag, Curing Compound, Lime and Admixture
- 4) Copy of Paving Reports, plus Profile Results, one per lot
- 5) Core Report from Lab if applicable with original letter of request for cores
- 6) Control Charts for Aggregate, Slump, and Air
- 7) CC's for Reinforcements
- 8) CA's and/or CD's for Joint Material; Geotextile Fabric, Joint Sealant
- 9) DOTD TR 602 Report (if applicable)

## **SECTION 701 - CULVERTS AND STORM DRAINS**

- 1) CD's for pipe
- 2) Original Density Reports in order
- 3) CD's for Geotextile fabric

## **SECTION 702 - MANHOLES, JUNCTION BOXES, CATCH BASINS AND END TREATMENTS**

- 1) Lab test reports; Chemical and Physical
- 2) Mix Designs (Lab)
- 3) Original Density Reports
- 4) CA's for Covers, Grates, and Frames
- 5) CD's for Precast Catch Basins
- 6) CC' for Steel
- 7) CD's for Cement, Fly Ash and Admixtures

## **SECTION 703 - UNDERDRAIN SYSTEMS**

- 1) CA's for Geocomposite Wall, Precast Headwalls, and Edge Drains
- 2) CD's for Cement, Fly Ash , Curing Compound and Mixtures
- 3) CD's for Metal Pipe
- 4) CC's for Plastic Pipe

## **SECTION 704 - GUARD RAIL**

- 1) CA's for Metal Rails
- 2) CD's for Wood Post and Timber Rails
- 3) CC's for Wire Rope

# **NUMERICAL SECTIONS**

## **SECTION 705 - FENCES**

- 1) CD's for Timber
- 2) CC's for Gates

## **SECTION 706 - CONCRETE WALKS, DRIVES AND INCIDENTAL PAVING & SECTION 707 - CURBS AND GUTTERS**

- 1) Concrete Batch Tickets
- 2) Mix Designs (District Laboratory)
- 3) CD's for Cement, Fly Ash, Curing Compound and Admixtures

## **SECTION 708 - RIGHT-OF-WAY MONUMENTS**

- 1) CD's for Right of Way Monuments

## **SECTION 709 - STEEL RAIL CATTLE GUARD**

- 1) CD's for Cement, Fly Ash, Curing Compound and Admixtures
- 2) Steel Cattle Guard Inspection Report from Construction Fabrication Inspector.
- 3) CC's for Timber

## **SECTION 710 - FLOWABLE FILL**

- 1) CD's for Cement and Fly Ash

## **SECTION 711 - RIPRAP**

- 1) CD's for Geotextile Fabric

## **SECTION 712 - REVETMENTS**

- 1) CD's for Cement, Fly Ash, Curing Compound and Admixtures
- 2) CA's for Dry-Batched Prepackaged Sacked Concrete
- 3) CD's for Geotextile Fabric
- 4) CD's for Cellular Blocks

## **SECTION 713 - TEMPORARY SIGNS, BARRICADES & PAVEMENT MARKINGS**

- 1) CC for Barricade Warning Lights
- 2) CD's for Traffic Paint, Glass Beads and Marking Tape
- 3) CC for NCHRP 350 (crash worthiness)

# **NUMERICAL SECTIONS**

## **SECTION 714 – 721, & 739 - EROSION CONTROL ITEMS**

- 1) CD for Asphaltic Material, Erosion Control Matting and Lime
- 2) CA for Fertilizer, if bulk shipment
- 3) Analysis Tags and Test Reports for Seeding

## **SECTION 724 - PAVEMENT PATCHING, WIDENING AND JOINT REPAIR**

- 1) If Asphalt, refer to Section 501 or 502
- 2) If PCC, refer to Section 601 or 901

## **SECTION 725 - TEMPORARY DETOUR ROADS AND BRIDGES**

- 1) CD's for Timber

## **SECTION 726 - BEDDING MATERIAL**

- 1) Lab Test Results
- 2) CD's for Geotextile Fabric

## **SECTION 728 - JACKED OR BORED PIPE**

- 1) CD's for Pipe

## **SECTION 729 - TRAFFIC SIGNS AND DEVICES**

- 1) CD's for Timber, Wood Posts and Spacer Blocks, Hazard Markers
- 2) CA's for Metal Beam Rail, Steel Posts and Spacer Blocks, Traffic Sign Panels, Sign and Marker Sheeting, Structural Steel
- 3) CC's for Mile Markers

## **SECTION 730 - ELECTRIC SYSTEMS**

- 1) CA's for Anchor Bolts, Nuts, Washers, High Mast Poles, Reinforcing Steel
- 2) CD for Timber

## **SECTION 731 - RAISED PAVEMENT MARKERS**

- 1) CD for Markers and Adhesives

## **SECTION 732 - PLASTIC PAVEMENT MARKINGS**

- 1) CD for Glass Beads and Thermoplastic Markings

# **NUMERICAL SECTIONS**

## **SECTION 733 - CONCRETE ROADWAY BARRIERS**

- 1) CD for Precast Barriers
- 2) CA for Reinforcement
- 3) CD's for Cement, Fly Ash, Curing Compound and Admixtures

## **SECTION 736 - TRAFFIC SIGNALS**

- 1) CA's for Electrical Conductors, Metal Poles and Metal Conduit
- 2) CD's for Precast Junction Boxes, Manholes and Timber Poles
- 3) CC's for Steel Arm Mast and ALL Traffic Signal Hardware and Equipment

## **SECTION 737 - PAINTED TRAFFIC STRIPING**

- 1) CD's for Traffic Paint and Glass Beads

## **SECTION 803 - SHEET PILES**

- 1) CD's for Precast Concrete and Timber
- 2) CA's for Steel

## **SECTION 804 - BEARING PILES**

- 1) If Cast-in-Place, See Section 805
- 2) CD's for PreCast Concrete or Timber
- 3) CA's for Reinforcing Steel and Hydraulic Jack Calibration

## **SECTION 805 - STRUCTURAL CONCRETE**

- 1) Lab Test results
- 2) Mix Designs
- 3) CD's for Cement, Fly Ash, Curing Compound, and Admixtures
- 4) CA's for Bearing and Expansion Plates, Bearing Pads, Joint Seal, Steel Joints and Polyvinyl Chloride Water Stops
- 5) CD's for Precast Box Culverts, Bridge Members, Geotextile Fabric, and Precast Forms

## **SECTION 806 - REINFORCEMENT**

- 1) CC for Epoxy Coated Bars
- 2) CA for other Reinforcing Steel
- 3) CC's for ALL Reinforcement

# **NUMERICAL SECTIONS**

## **SECTION 807 - STRUCTAL METALS**

- 1) CA's for Bearing and Expansion Pads, Castings, Concrete Anchor Systems, Shear Connectors, Steel Forging and Shafting, Structural Steel & Aluminum, High-Strength Fasteners
- 2) CC's for Fasteners (Bolts, Nuts, Washers, Rivets, Steel Lock pins & Collars)

## **SECTION 808 - STEEL GRID FLOORING**

- 1) CD's cement Fly Ash, Curing Compound and Admixtures
- 2) CA's for Structural Steel

## **SECTION 809 - MOVABLE BRIDGES**

- 1) CD's for Cement, Fly Ash, Curing Compound and Admixtures
- 2) ALL EQUIPMENT APPROVED BY BRIDGE DESIGN

## **SECTION 810 - BRIDGE RAILING AND BARRIERS**

- 1) CD's for Cement, Fly Ash, Curing Compound and Admixture
- 2) CA's for Metal Castings, Fittings, Posts, Railing and Reinforcement

## **SECTION 812 - TREATED TIMBER**

- 1) CD's for Timber Piles, Structural Timber and Lumber
- 2) CA's for Structural Timber and Lumber, Hardware and Structural Shapes

## **SECTION 813 - CONCRETE APPROACH SLABS**

- 1) CD's for Cement, Fly Ash, Curing Compound and Admixtures
- 2) CA's for Metal Castings, Fittings, Posts, Railings and Reinforcement
- 3) CA's for Drainage Systems (Pipe or Wall Drain) and Joint Sealant

## **SPECIALITY ITEMS S-XXX**

LIST SPECIALITY ITEMS UNDER SECTION REFERENCED, WHENEVER POSSIBLE. OTHERWISE, SAMPLING WILL BE IN ACCORDANCE WITH THE SPECIAL PROVISIONS.

# REFERENCE ITEMS

## Reference Items

This section of the manual is designed to lead the Project Engineer, Inspector or any personnel charged with the maintenance of the 2059. We will follow a particular item S-001, Cement Treated Base Course from the contract phase through the different reference materials needed to calculate the proper number of samples for the Sampling Plan. We begin with the contract, identifying the item and what section number to use in the *Louisiana Standard Specifications for Roads and Bridges*. The *Louisiana Standard Specifications for Roads and Bridges* book will reference test methods to use in the *Field Testing Procedures Manual* to calculate how much material to use. Then we will go to the *Materials Sampling Manual* to learn the sampling quantities for this material.

## Louisiana Standard Specifications for Roads and Bridges

The Louisiana Standard Specifications for Roads and Bridges is approved for use on construction contracts awarded by the Louisiana Department of Transportation and Development.

## Contract

The Project Contract is a written agreement between the Louisiana Department of Transportation and Development the contractor setting forth obligations of both parties for performance of work. The contract includes the advertisements, bid forms, contract and bond forms, specifications, supplemental specifications, special provisions and plans. Any Change Orders or supplemental agreements required to complete the work is considered part of the original contract.

Every project has a unique state project number with a 3-2-4 or xxx-xx-xxxx format. It will also have a unique Federal Aid Project number if applicable. The contract will designate the route number, parish and the project limits.

## **Example: Contract Cover Letter**

**FEDERAL AID PROJECT  
STATE PROJECT NO. 011-02-0018  
JUNCTION LA 173– JUNCTION LA 173  
ROUTE US 71  
CADDO PARISH**

# REFERENCE ITEMS

## Contract (Continued)

The contract specifies which edition of the *Louisiana Standard Specifications for Roads and Bridges* will govern the project. The referenced specification book, along with the contract schedule of items, special provisions, construction notes, and supplemental specifications will identify the construction project process. A Schedule of Items is the listing of all pay items used on the project, sequenced in accordance with the specifications book, ending with S-xxx (specialty) items. Each item will have an approximate quantity, unit of measure, description, and total amount price. The number of samples for each item required for the sampling plan is based on these quantities. Specialty items will have Special Provisions in the contract. We will use S-001, Cement Treated Base Course, as our example.

## **Example: Schedule of Items**

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT SCHEDULE OF ITEMS			
LEAD PROJECT: 011-02-0018		DATE: 12/13/05 09:25 PAGE: 7	
OTHER PROJECTS:			
ITEM NUMBER	APPROXIMATE QUANTITY	UNIT OF MEASURE	PAY ITEM UNIT PRICE (IN WORDS, INK OR TYPED)
735-01	18	EACH	MAILBOXES _____ DOLLARS _____ CENTS
735-02	18	EACH	MAILBOX SUPPORTS (SINGLE) _____ DOLLARS _____ CENTS
739-01	18.00	ACRE	HYDRO-SEEDING _____ DOLLARS _____ CENTS
740-01	LUMP	LUMP SUM	CONSTRUCTION LAYOUT _____ DOLLARS _____ CENTS
744-01	LUMP	LUMP SUM	TRAFFIC CONTROL MANAGEMENT _____ DOLLARS _____ CENTS
S-001	16,870	SQUARE YARD	CEMENT TREATED BASE COURSE (12" THICK) (5% BY VOLUME) _____ DOLLARS _____ CENTS

## REFERENCE ITEMS

### Contract (Continued)

The special provisions reference to the 2000 edition *Louisiana Standard Specifications for Roads and Bridges* dictates the specification which will govern construction of this project.

### Example: Special Provisions

#### STATE PROJECT NO. 011-02-0018 SPECIAL PROVISIONS

**GENERAL BIDDING REQUIREMENTS (10/05):** The specifications, contract and bonds governing the construction of the work are the 2000 Edition of the Louisiana Standard Specifications for Roads and Bridges, together with any supplementary specifications and special provisions attached to this proposal.

Paper or electronic bids shall be prepared and submitted in accordance with Section 102 of the Standard Specifications.

The plans herein referred to are the plans approved and marked with the project number, route and Parish, together with all standard or special designs that may be included in such plans. The bidder declares that the only parties interested in this proposal as principals are those named herein; that this proposal is made without collusion or combination of any kind with any other person, firm, association, or corporation, or any member or officer thereof; that careful examination has been made of the site of the proposed work, the plans, Standard Specifications, supplementary specifications and special provisions above mentioned, and the form of contract and payment, performance, and retainage bond; that the bidder agrees, if this proposal is accepted, to provide all necessary machinery, tools, apparatus and other means of construction

In the special provision below, we are instructed to use Section 303 in the *Louisiana Standard Specifications for Roads and Bridges* for S-001. This is the specification that will govern this item on this construction project. The percentage rate of mixture is given in the plans.

### Example: Special Provisions

#### STATE PROJECT NO. 011-02-0018 SPECIAL PROVISIONS

**REINFORCING STEEL AND WIRE ROPE (07/05):** Section 1009 of the 2000 Standard Specifications is amended as follows.

Subsection 1009.01 General. Headings (b) and (c) are deleted and the following substituted.

(b) Rail-Steel and Axle-Steel Deformed and Plain Bars shall comply with ASTM A 996 (A 996M).

**ITEM S-001, CEMENT TREATED BASE COURSE (12" THICK) (5% BY VOLUME)(07/04):**

This work consists of treating roadbed material with Types I, IB, or II portland cement, Type IP portland-pozzolan cement, or Type IS portland blast-furnace slag cement conforming with the applicable requirements of Subsection 1001. All work shall be in accordance with the lines, grades, thickness and sections established on the plans and in accordance with Section 303 as amended by the following requirements. Portland blast-furnace slag cement shall contain a maximum of 50 percent ground granulated blast-furnace slag by weight. Pre-blending of Types I

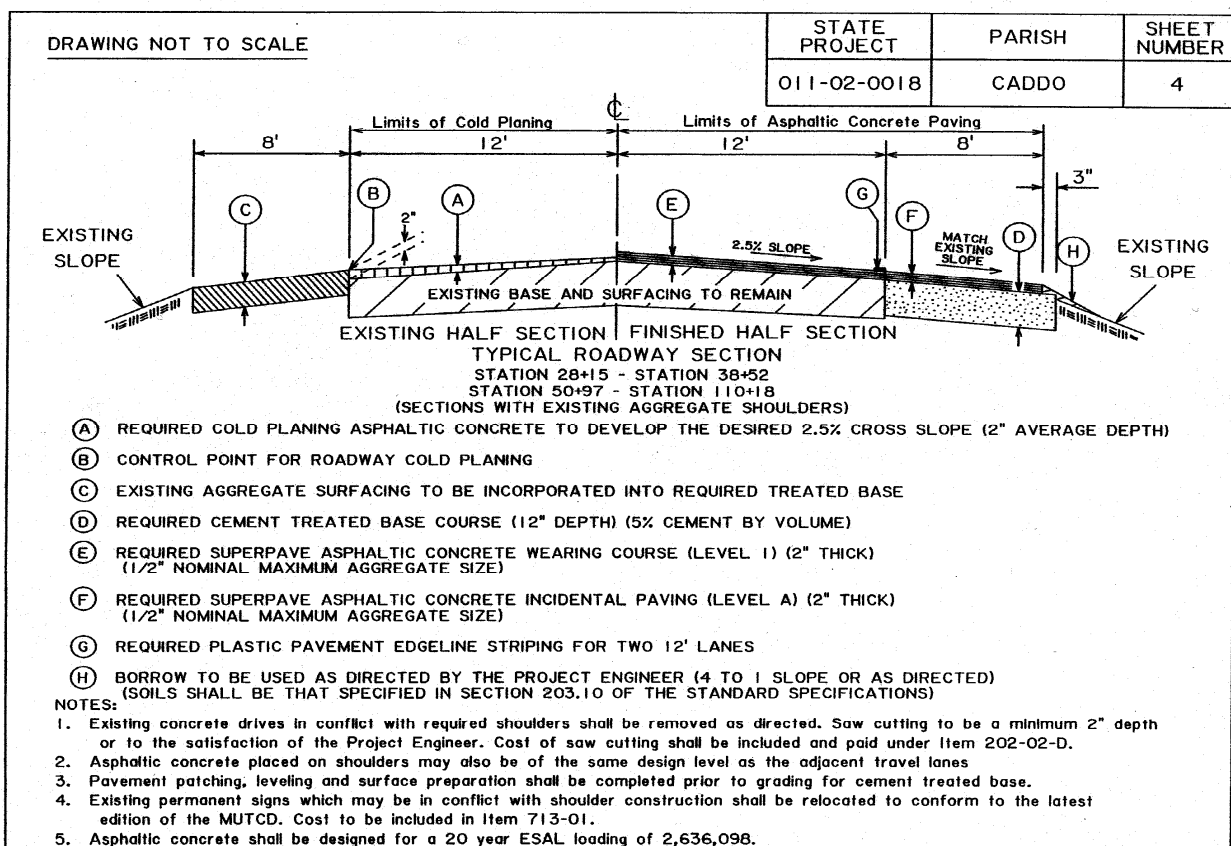


# REFERENCE ITEMS

## Contract (Continued)

The typical section describes the width and depth of each layer constructed. Note "D" refers to our example S-001, 12" cement treated base course (5% cement content by volume). Each side is eight feet wide. These dimensions are used in the calculations of how much material is used, indicating the minimum number of test samples needed. Borrow material will be placed on the shoulders. This page also shows that the required cross slope is 2.5 %, and the roadway is to be striped for 12' lanes. If there is more than one typical section on the project, each typical will have a separate page, with the limits of the section denoted.

## Example: Typical Section



## Material Sampling Manual

The Materials Sampling Manual lists standardize construction and maintenance sampling and material acceptance requirements. All sampling of materials shall be done in accordance with this manual unless otherwise specified by contract.

Returning to the S-001 listed in our contract, the contract directs us to Section 303 in the Material Sampling Manual to learn the base course requirements. These pages identify; the

## REFERENCE ITEMS

material properties, who will test it, purpose of testing, the frequency, and other information. Note the Material Sampling Manual pages below from Section 303.

- A. The first thing to note is that some of the items will be sampled per Section 301 or 506.
- B. The Section 303 lists all requirements for the base material prior to adding the cement. First, let's look at density. A minimum density of 93% is required for the pre-mixed material. The contractor is required to test twice daily. The test procedure is TR 401 found in the Testing Procedures Manual. The test is documented in the proper form; results are entered in the field book, and also in the MATT system.
- C. The second is pulverization. Again the contractor is required to test as needed. The inspector is required to test once per 1000 linear feet of two lane roadway. The test procedure is TR 431. These tests are documented, and entered in the MATT system.

### Example: Material Sampling Manual

SECTION 303 IN-PLACE CEMENT STABILIZED BASE COURSE

MATERIAL	REF.	PURP.	SAMPLED BY	MIN.	MIN.	CERT.	SMALL	TYPICAL	REMARKS
	TESTED BY		METHOD	FREQ.	QUANT.	DISTR.	QUANTITY	HANDLING TIME	
FOR DETAILS ON HYDRAULIC CEMENT AND WATER, REFER TO SECTION 301 OF THIS MANUAL. FOR DETAILS ON ASPHALTIC CURING MEMBRANE, REFER TO SECTION 506 OF THIS MANUAL. FOR DETAILS ON ASPHALTIC CONCRETE OR PORTLAND CEMENT CONCRETE, REFER TO SECTIONS 501, 502 AND 901 OF THIS MANUAL, AS APPLICABLE.									
MATERIAL FOR BASE PRIOR TO SPREADING CEMENT (Existing or Furnished Soils/Soil-Aggregate)	Contractor Furnished Soil	303.07 Contractor	Quality Control	Contractor S 101 or S 401	-----	-----	-----	-----	Must test sufficient to ensure material will meet specification requirements before placing on roadway. Check M.C. % on all materials before spreading cement.
		303.02 303.04 Dist. Lab	Accept.	Proj. Engr. S 101 or S 401	1/1000 yd <sup>3</sup>	1 full sample sack	-----	4 days	Contractor furnished material will be approved before incorporation into existing material. Furnished material not meeting the requirement of specification Subsection 302.02(a) will not be incorporated in the base.
	Density (93%)	303.04 303.07 Contractor	Quality Control	Contractor TR 401	*	-----	-----	-----	* Shall be tested frequently enough to ensure specifications are met. Minimum density is required on roadway prior to mixture with cement. All blending of soils materials will be accomplished before testing.
		303.04 Proj. Engr.	Accept.	Proj. Engr. TR 401	1/half day	-----	-----	30 min.	-----
	In-Place Material on Roadway	303.04 303.05 Dist. Lab	Design* /Accept.	Proj. Engr. S 101 or S 401	1/1000 lin ft/ 2-lane rdwy or 1/2000 lin ft/shoulder	6 full sample sacks	-----	14 days	*For cement content and moisture-density relationships (if needed). Design will be conducted on the final blend.
	Pulverization	303.04 303.07 Contractor	Quality Control	Contractor TR 401	*	-----	-----	-----	* Shall be tested frequently enough to ensure specifications are met.
		303.04 Proj. Engr.	Accept.	Proj. Engr. TR 431	1/1000 lin ft/ 2-lane rdwy or 1/2000 lin ft/ shoulder	-----	-----	-----	½ hr.

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# REFERENCE ITEMS

## Material Sampling Manual (Continued)

- D. This page begins with Cement Spread Rate. The contractor is required to sample each transport, but the Inspector is to sample one per day. The Material Sampling Manual directs us to TR 436 for the testing procedures
- E. We notice the Density is checked by the inspector 1/1000 lin. ft. for 2-lane roadway or 1/2000 lin. ft/shoulder. The Material Sampling Manual directs us to TR 401 for the testing procedures.

## Example: Material Sampling Manual

SECTION 303 IN-PLACE CEMENT STABILIZED BASE COURSE (Cont'd)

MATERIAL	REF.	PURP.	SAMPLED BY	MIN. FREQ.	MIN. QUANT.	CERT.	SMALL QUANTITY	TYPICAL HANDLING TIME	REMARKS
MIXTURE WITH CEMENT ON ROADWAY	Cement Spread Rate	303.07 Contractor	Quality Control	Contractor* TR 436	Each transport	**	-----	-----	*The contractor shall determine the length of spread prior to mixing. **Use an approved sampling device.
		303.11 Proj. Engr.	Accept.	Proj. Engr.* TR 436	1/day	**	-----	1/2 hr.	*The Proj. Engr. will verify the length of spread prior to mixing. **Use an approved sampling device.
	Cross Slope & Grade	303.06 Contractor	Quality Control	Contractor	*	-----	-----	-----	*Shall test sufficient to ensure specifications are met. Use an approved 10 ft metal static straightedge.
		303.07 Contractor	Verif.	Proj. Engr.	*	-----	-----	1/4 hr.	
	Density	303.07 Contractor	Quality Control	Contractor TR 401	*	-----	-----	-----	*Shall test sufficient to ensure specifications are met.
		303.11 Proj. Engr.	Accept.	Proj. Engr. TR 401	1/1000 lin ft/ 2-lane rdwy or 1/2000 lin ft/ shoulder	-----	-----	1/2 hr.	-----
		303.11 Dist. Lab	I A	Dist. Lab TR 401	SEE INDEPENDENT ASSURANCE PROGRAM S 701.				
	Moisture Content	303.05 Contractor	Quality Control	Contractor S 101 or S 401	*	-----	-----	-----	*Shall test sufficient to ensure specifications are met. (DOTD TR 403)
		303.05 Proj. Engr.	Accept.	Proj. Engr. S 101 or S 401	1/1000 lin ft/ 2-lane rdwy or 1/2000 lin ft/ shoulder	1 gal Friction top can*	-----	1 hr.	*May be obtained by M.C. % determine during application of TR 415 B, if available on in-place moisture at the time of compaction (TR 403).

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# REFERENCE ITEMS

## Field Testing Procedures Manual (TPM)

The *Field Testing Procedures Manual* is divided into sections by types of materials. The *Field Testing Procedures Manual* gives step-by-step methods for testing materials. This includes lists of equipment needed to take field tests, health precautions and procedures as well as example calculations, example forms, and worksheets to assist in field tests. This information is also available at the DOTD Materials Laboratory home page. Notice the several items referred to by the Material Sampling Manual below. For example, look at DOTD TR 436. The field test procedures and calculation methods are found there.

## Example: Field Testing Procedures Manual (TPM)

### Testing Procedures Manual Part IV - Soils

- ➔ [DOTD TR 401](#) The Determination of In-Place Density
- ➔ [DOTD TR 403](#) Determination of Moisture Content
- ➔ [DOTD TR 411](#) Dry Preparation of Disturbed Samples for Test
- ➔ [DOTD TR 415](#) Field Moisture-Density Relationships [English Version](#) [Metric Version](#)
- ➔ [DOTD TR 431](#) Determining Pulverization
- ➔ [DOTD TR 436](#) Determining the Percentage of Additives in Stabilization or Treatment Processes

## MATT System Field Handbook (MSFH)

The *MATT System Field Handbook* has an enormous amount of information and will assist you in all aspects of completing the identification portion of MATT system worksheet sample reports. It contains MATT codes and examples of completed sample ID's and other information. This book also has instructions how to use the computerized MATT system to input and extract reports concerning pertinent information and reports for 2059. Codes for material, submitter, plant and others are used to input information. These codes are listed in *MATT System Field Handbook*. Information needed to locate records in the MATT system includes the Project Number, Material Code and the Laboratory Number. Some projects have multiple Project Numbers. If the project has more than one project number, enter only the lead project number which is the first number listed on the contract. It is recommended that secondary project numbers are entered into in the remarks field. The Material Code identifies the type of material and is a required entry using 3 characters. In order to enter material test data

## REFERENCE ITEMS

into the MATT system, a material code must exist for that type of material. The Laboratory Number is assigned by the testing laboratory. All references to a sample should include the lab number. To find the material code for item S-001, our Plan Specified 2000 English units, code for "In-Place Cement Treated Base Course", so, the material code is 658.

### Example: MATT System Field Handbook

MATERIAL CODES FOR TR 602 - ACCEPTANCE MEASUREMENTS					
TR 602 - Acceptance Measurements					
Material Code				Material Description	
1992		2000			
Eng	Met	Eng	Met		
460	560	660	760	AGGREGATE SURFACE COURSE	
439	539	639	739	ASPHALTIC CONCRETE BASE (TYPE 5A)	
440	540	640	740	ASPHALTIC CONCRETE BASE (TYPE 5B)	
495	595	595	795	BLEND. CALC. SULF. HEMIHY. FOR SUBGRADE LAYER	
409	509	609	709	BLENDED CALCIUM SULFATE BASE (609)	
407	507	607	707	CEMENT STABILIZED SAND CLAY GRAVEL BASE (CLASS I)	
408	508	608	708	CEMENT STABILIZED SAND-SHELL (CLASS I)	
411	511	611	711	CEMENT TREATED SAND CLAY GRAVEL BASE (CLASS II)	
417	517	617	717	CEMENT-TREATED SAND-SHELL BASE (CLASS II)	
487	587	687	787	GRANULAR MATERIAL	
422	522	622	722	IN-PLACE CEMENT STABILIZED BASE	
458	558	658	758	IN-PLACE CEMENT TREATED BASE COURSE (PLAN SPECIFIED)	
431	531	631	731	LIME TREATMENT (TYPE B)	

### Qualified Products List Manual (QPL)

The *Qualified Products List (QPL)* is a list of approved material manufacturers, but is not a blanket approval. The Qualified Products List will designate if the material must be tested, listed on a certificate, or both. Material in the lists require more than normal sample testing, such as requiring source approval, performance evaluation, in-service evaluation and possibly long-term testing. *Qualified Products List* sources have demonstrated the capability to conform to the quality requirements. Regardless of prior approval, all material shall be sampled according *Materials Sampling Manual*.

A qualification procedure has been established for each Qualified Products List. This procedure contains a list of information required from the manufacturer of the product, a Qualified Product Evaluation form, and sample size, laboratory testing time, field testing time, tests performed, specification requirements and project acceptance requirements.

## REFERENCE ITEMS

### Laboratory Review

If there are any missing documents the District Laboratory Engineer will call or e-mail the Project Engineer's office (for simple errors), or return the entire 2059 for correction. When a 2059 is received by the District Laboratory Engineer, it is checked for completeness and accuracy. Each item will be checked for pay quantity and number of samples taken. Certificates will be counted to verify quantities covered. Only when the District Laboratory Engineer is satisfied with the documentation is the 2059 forwarded to District Construction Engineer. Requesting a partial 2059 MATT printout periodically and checking against the Sampling Plan for the number of samples taken and disposition of failing samples will help prevent any problems.

## REFERENCE ITEMS

### Summary of the Life of the 2059

It was learned during the development of this manual that several different methods are used to complete a 2059. Most of the resources consulted during the process of developing this manual indicated that sometimes the Sampling Plan is developed in the District Laboratory Engineer's office and then forward it to the Project Engineer's office. There, it would be given to the senior inspector to be a tool to help the inspector keep up with sampling and testing requirements, and is subject to change due to various situations that might occur throughout a project. The inspector will collect the information and assemble the 2059. In other districts, the Project Engineer and the District Laboratory Engineer will develop the Sampling Plan together. Someone in the Project Engineer's office will collect and maintain the information for the 2059. At the end of a project, it is the Project Engineer, who ensures that the 2059 is correctly completed and sent to the District Laboratory Engineer for approval. When the 2059 meets the District Laboratory Engineer's approval, the 2059 is sent to the District Construction Engineer for review and approval. After signing the 2059, the District Construction Engineer will return the 2059 to the Project Engineer to include the final estimates for submittal to Headquarters Construction Section for review. Then finally, the 2059 goes to the Construction Estimates Engineer for review and storage at headquarters.

Many thanks go out to the subject matter experts who assisted on the development of this manual.

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MR. RONNIE DELAUNE	Engineer Technician Construction Estimates

# CHECKLIST FOR 2059 REPORT

STATE PROJECT NO. XXX-XX-XXXX

## 1. General

- |     |    |   |
|-----|----|---|
| Yes | No | -Is the report bound (binder, folders, boxes...)?                           |
| Yes | No | -Is each section of the Form 2059 properly delineated/tabbed?               |
| Yes | No | -Are the documents in the order listed below?                               |
|     |    | a. Form 2059 Summary of Test Results  |
|     |    | b. Error and Omissions (if applicable)                                      |
|     |    | c. Previous submittal log (if applicable)                                   |
|     |    | d. Sampling Plan (Project Engineer's final copy)                            |
|     |    | e. Sampling Plan (District Laboratory Engineer's final copy)                |
|     |    | f. MATT "Special Report for 2059", including disposition of failing samples |
|     |    | g. Job mix formulas and mix designs releases (concrete and asphalt)         |
|     |    | h. Independent Assurance Documentation (National Highway Systems only)      |
|     |    | i. DOTD TR 602 measurements (if required)                                   |
|     |    | j. Drilled Paving Concrete Cores Report (Concrete paving only)              |
|     |    | k. Material Certificates of Delivery and other documents.                   |

## 2. Department Form 03-40-2059 -A word processor document

- |     |    |   |
|-----|----|---|
| Yes | No | -State Project Number, Project Name, Route Number., Federal Project Number., and Parish filled out properly |
| Yes | No | -X marked in boxes that are applicable?   |
|     |    | a. Disposition of failing reports attached  |
|     |    | b. Errors and Omissions attached  |
|     |    | c. No failing test  |
|     |    | d. Not applicable   |

## 3. Errors and Omissions

- |     |    |  |
|-----|----|--|
| Yes | No | -Entered on the Form 2059 or attached as a letter?           |
| Yes | No | -Are the Item Numbers in order?                              |
| Yes | No | -Are the explanations listed under the proper item?          |
| Yes | No | -If a separate letter, is it signed by the Project Engineer? |

## CHECKLIST FOR 2059 REPORT

### 4. MATT Printout “Special Report for 2059”

Yes    No    -Is the printout in the order it was printed?

Yes    No    -Is the printout complete?

### 5. Failing samples

Yes    No    -Is the computer generated disposition included?

Yes    No    -Are all failing test properly explained?

a. Was Change Orders included for samples paid at less than 100%?

b. Were the samples not used on project indicated?

c. If re-sampled, is passing re-samples referenced?

### 6. Previous submittal plan

Yes    No    -Included only if intermediate submittals have been made.

### 7. Sampling Plan

Yes    No    -Is the Sampling Plan complete? (Every item paid on the estimate listed if samples or documentation is required, as well as every item on the MATT 2059 Printout.)

Yes    No    -Is the Sampling Plan filled out completely? (Every sample listed in the 2059 printout, and all documents must be listed or referenced in the appropriate section)

### 8. Documentation

Yes    No    -Are certificates grouped by item number? And totaled?

Yes    No    -Are documents in item number order? (Section 203 would be before section 302)

Yes    No    -Are documents recorded on the Sampling Plan in the proper location?

Yes    No    - Are all necessary documents signed and dated?

## HELPFUL HINTS

1. Include items that were added by any Change Orders.
2. Sampling Plan units correspond with units used in contract (Metric, English, ...)
3. Include all Asphaltic Concrete Cement Job Mix Formulas and Portland Concrete Cement Mix Designs listed in the Form 2059.
4. Every item listed on the 2059 report is recorded on the Sampling Plan for that section.
5. Re-number and re-title pages of the Sampling Plan as necessary.
6. Items may be cross referenced. For example, if a number of minor concrete items exists, the curing compound CD is filed with the first item number and referenced in subsequent items (i.e., 702, 706, 707, 712, file the CD in item 702, and reference the CD in 702 in items 706, 707, 712)
7. Sampling items that do not have a section number, (such as S-items) should be filed under the section number that applies (S-item for guard rail would be filed under Section 704).
8. Do not count failing samples in the Sampling Report. For example, if two samples are needed and five were taken and all five passed, count all of them. If three samples failed, only count the two required.
9. The three digit section number is sufficient for the materials used for a number of pay items. Examples: Different thickness paving concrete will have different item numbers. All the materials; cement, aggregates, joint materials, steel, etc ... can be sampled under 601 instead of listing all the items.
10. The "Small Quantity Rule" will only be applicable to materials that have a small quantity listed in the Material Sampling Manual.
11. A Disposition of Failing Samples is required for all failing samples.
12. Disposition of Failing Samples must be signed by the Project Engineer with Disposition Remarks.
13. NO Logging Reports are required for passing samples.
14. The complete sampling plan in the front of Form 2059 **MUST MATCH EXACTLY** with the corresponding section sampling plan.

## **Sampling Plans**

Several different Sampling Plan versions exist across the states. The Sampling Plan lists the minimal number of documents and samples required, based on quantities listed in the contract, to ensure adequate assurance of materials incorporated into the project. The Sampling Plan is considered to be a tool to help the inspector keep up with sampling and testing requirements, and is subject to change due to various situations that might occur throughout a project. The Sampling Plan is like the table of contents to the 2059. The Sampling Plan is based on the frequencies in the Materials Sampling Manual. The Sampling plan is in chart form with columns for number of samples required and number of samples taken and possibly a remarks column. Some formats have columns for estimate quantities and final quantities to assist in the calculations in the final number of samples needed.

Sample formats from different districts.