097.13 DPWH (R7)
11-14-96

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
OFFICE OF THE SECRETARY
MANILA

07 November 1996

DEPARTMENT ORDER)
NO. 177)
Series of 1996) 11-14

SUBJECT: **Standardization of Materials Test Reports**

In order to ensure uniformity and consistency in reporting the results of tests of samples of construction materials used in DPWH projects, all Regional and District Offices are hereby directed to adopt the attached standard materials test report formats (Annex A) in the preparation of official test reports. Henceforth, test reports using the prescribed formats may be manually- or computer-generated and should bear the official seal of the Regional/District Office.

Where the office has the capability to adopt the computer-based system, the User's Manual on the Materials Testing System (MTS) shall serve as guide in the operation of the system. MTS users may undergo a one-week on-the-job training at the Bureau of Research and Standards on a pre-arranged schedule basis.

For compliance.

GREGORIO R. VIGILAR
Secretary

Attachment: As stated.

B 3445 (BRS) 11/11
A17/standmat

Pp 351-153

Department Order No. 177
Series of 1996

ANNEX A

STANDARD MATERIALS TEST REPORT FORMS

Form No.	Test Report Form
MTS-01	Sample Card
MTS-02	Test Report on Concrete Aggregate
MTS-03	Test Report on Soil Aggregate
MTS-04	Test Report on Asphalt Cement
MTS-05	Test Report on Emulsified Asphalt
MTS-06	Test Report on Cut-Back Asphalt
MTS-07	Test Report on Bituminous Mixes
MTS-08	Test Report on Concrete Sample
MTS-09	Test Report on Reinforcing Steel
MTS-10	Test Report on Concrete Masonry Units
MTS-11	Test Report on Reinforced Concrete Pipe
MTS-12	Test Report on Portland Cement
MTS-13	Test Report on Reflectorized Traffic Paint
MTS-14	Test Report on Concrete Core
MTS-15 *	Test Report on _____

* MTS-15 is intended for Miscellaneous Materials.

A17/standmat

MTS Form No. 01

Republic of the Philippines
Department of Public Works and Highways
(NAME OF OFFICE)
(ADDRESS)

SAMPLE CARD

Project : _____
(Name) (City/Province)

Kind of material : _____
Sample identification : _____
Quantity represented : _____
Sampled at : _____
(Give accurate location possible)

Original source : _____
Owner/Supplier : _____
Sampled/Cast by : _____
(Name of authorized representative) (Signature)

: _____
(Designation) (Office) (Date)

Proposed use : _____
Test desired : _____
Governing Specification : _____
Shipped by : _____
(Name and Designation) (Office) (Date)

Send test results to : _____
: _____
(Mailing Address)

REMARKS : _____

Bill Charge to : _____
Submitted by : _____
(Name and Date) (Signature)

: _____
(Office) (Mailing Address)

Received by : _____

Due Date : _____ Lab. No. _____

NOTED :

_____
(Head of Office)
(Designation)

MTS Form No. 02

Republic of the Philippines
Department of Public Works and Highways
(NAME OF OFFICE)
(ADDRESS)

Lab. Report No. _____
Date _____

TEST REPORT ON CONCRETE AGGREGATE

Project : _____
: _____
Kind of material : _____
Sample identification : _____
Quantity represented : _____
Sampled at : _____
Original source : _____
Proposed use : _____
Spec's. Item No. : _____
Sampled by : _____
(Name & Designation) (Office) (Date)
Submitted by : _____
(Name & Designation) (Office) (Date Received)

Lab. No. _____

TESTS	REQUIREMENTS	RESULTS
Sieve Analysis : Cummulative % passing Sieve Size, mm		
Fineness Modulus		
Abrasion Loss (LAM), %		
Fractured Face, %		
Bulk Specific Gravity		
Absorption, %		
Friable Particle		
Clay Lumps		
Soundness (Na_2SO_4), % loss		
Dry Unit Mass, kg/m^3:		
Loose		
Rodded		
Mortar Strength, %		
Organic Impurities		

REMARKS:

Tested by :

Checked by :

_____
(MQCH Div/Sect. Head)
(Designation)

Witnessed by :

Attested :

_____
(Head of Office)
(Designation)

MTS Form No. 03

Republic of the Philippines
Department of Public Works and Highways
(NAME OF OFFICE)
(ADDRESS)

Lab. Report No. _____
Date _____

TEST REPORT ON SOIL AGGREGATE

Project : _____
: _____
Kind of material : _____
Sample identification : _____
Quantity represented : _____
Sampled at : _____
Original source : _____
Supplied by : _____
Proposed use : _____
Spec's. Item No. : _____
Sampled by : _____
(Name & Designation) (Office) (Date)
Submitted by : _____
(Name & Designation) (Office) (Date Received)

Lab. No. _____

TESTS	REQUIREMENTS	RESULTS
Sieve Analysis : Cummulative % passing : Sieve Size, mm Liquid Limit Plasticity Index Abrasion Loss (LAM), % Moisture Density Relationship : Max. Dry Density, Kg/cu. m Optimum Moisture Content, % California Bearing Ratio : CBR value at MDD, % Swell, %		
REMARKS:		
Tested by : Witnessed by :	Checked by : _____ **(MQCH Div/Sect. Head)** (Designation) Attested : _____ **(Head of Office)** (Designation)	

MTS Form No. 04

Republic of the Philippines
Department of Public Works and Highways
(NAME OF OFFICE)
(ADDRESS)

Lab. Report No. _____
Date _____

TEST REPORT ON ASPHALT CEMENT

Project : _____
: _____
Sample identification : _____
Quantity represented : _____
Sampled at : _____
Original source : _____
Grade : _____
Supplied by : _____
Proposed use : _____
Spec's. Item No. : _____
Sampled by : _____
(Name & Designation) (Office) (Date)

Submitted by : _____
(Name & Designation) (Office) (Date Received)

Lab. No. _____

TESTS	REQUIREMENTS	RESULTS
Original Sample Penetration 25°C, 100 g, 5s Flash Point, Cleveland Open Cup, °C Ductility, 25°C, 5 cm/min, cm Solubility in trichloroethylene, % Loss on heating, % Residue : Penetration, % of original Ductility, 25°C, 5 cm/min, cm Spot Test, 25% xylene-heptane Specific Gravity		

REMARKS:

Tested by :

Checked by :

_____
(MQCH Div/Sect. Head)
(Designation)

Witnessed by :

Attested :

_____
(Head of Office)
(Designation)

MTS Form No. 05

Republic of the Philippines
Department of Public Works and Highways
(NAME OF OFFICE)
(ADDRESS)

Lab. Report No. _____
Date _____

TEST REPORT ON EMULSIFIED ASPHALT

Project : _____
: _____
Sample identification : _____
Quantity represented : _____
Sampled at : _____
Type and Grade : _____
Original source : _____
Supplied by : _____
Proposed use : _____
Spec's. Item No. : _____
Sampled by : _____
(Name & Designation) (Office) (Date)
Submitted by : _____
(Name & Designation) (Office) (Date Received)

Lab. No. _____

TESTS	REQUIREMENTS	RESULTS
Emulsion: Viscosity (Saybolt-furol),25°C, s Storage Stability,% Cement Mixing, % Sieve Test, % Residue by distillation,% Particle charge, % Specific Gravity Residue: Penetration, 25°C, 100g, 5's Ductility, 25°C, 5cm/min., cm Solubility in trichloroethylene,%		
REMARKS:		
Tested by : Witnessed by :	Checked by : _____ **(MQCH Div/Sect. Head)** (Designation) Attested : _____ **(Head of Office)** (Designation)	

MTS Form No. 06

Republic of the Philippines
Department of Public Works and Highways
(NAME OF OFFICE)
(ADDRESS)

Lab. Report No. _____
Date _____

TEST REPORT ON CUT-BACK ASPHALT

Project : _____
: _____
Sample identification : _____
Quantity represented : _____
Type and Grade : _____
Sampled at : _____
Original source : _____
Supplied by : _____
Proposed use : _____
Spec's. Item No. : _____
Sampled by : _____
(Name & Designation) (Office) (Date)

Submitted by : _____
(Name & Designation) (Office) (Date Received)

Lab. No. _____

TESTS	REQUIREMENTS	RESULTS
Original Sample		
Viscosity, Kinematic at 60°C, centistokes		
Specific Gravity		
Flash Point, Tag-Open Cup, °C		
Distillation Test:		
Distillate, % by volume of total distillate to 360°C		
to 225°C		
to 260°C		
to 315°C		
Residue by distillation, %		
Residue Test:		
Penetration, 25°C, 100 g, 5s		
Ductility, 25°C, 5cm/min, cm		
Solubility in trichloroethylene, %		
Spot Test, 25% xylene-heptane		
REMARKS:		

Tested by :

Witnessed by :

Checked by :

_____
(MQCH Div/Sect. Head)
(Designation)

Attested :

_____
(Head of Office)
(Designation)

MTS Form No. 07

Republic of the Philippines
Department of Public Works and Highways
(NAME OF OFFICE)
(ADDRESS)

Lab. Report No. _____
Date _____

TEST REPORT ON BITUMINOUS MIXES

Project : _____
: _____
Sample identification : _____
Quantity represented : _____
Sampled at : _____
Original source : _____
Supplied by : _____
Proposed use : _____
Spec's. Item No. : _____
Sampled by : _____
(Name & Designation) (Office) (Date)
Submitted by : _____
(Name & Designation) (Office) (Date Received)

Lab. No. _____

TESTS	REQUIREMENTS	RESULTS
Sieve Analysis : Cummulative % passing (After Extraction) Sieve Size, mm Bitumen Content, % by wt. of agg. Bulk Specific Gravity Immersion/Compression Test : Dry Stability, kPa Wet Stability, kPa Index of Retained Strength, %		
REMARKS:		
Tested by : Witnessed by :	Checked by : _____ **(MQCH Div/Sect. Head)** (Designation) Attested : _____ **(Head of Office)** (Designation)	

MTS Form No. 08

Republic of the Philippines
Department of Public Works and Highways
(NAME OF OFFICE)
(ADDRESS)

Lab. Report No. _____
Date _____

TEST REPORT ON CONCRETE SAMPLE

Project : _____
: _____
Type of Specimen : _____
Spec's. Item No. : _____
Class : _____
Source of mixture : _____
Sampled by : _____
(Name & Designation) (Office) (Date)
Submitted by : _____
(Name & Designation) (Office) (Date Received)

LAB. NO.	SAMPLE IDENTIFICATION	PART OF STRUCTURE or STATION REPRESENTED	DATE SAMPLED	AGE IN DAYS	STRENGTH, MPa FLEXURAL/ COMPRESSIVE

Tested by :

Witnessed by :

Checked by :

(MQCH Div/Sect. Head)
(Designation)

Attested :

(Head of Office)
(Designation)

MTS Form No. 09

Republic of the Philippines
Department of Public Works and Highways
(NAME OF OFFICE)
(ADDRESS)

Lab. Report No. _____
Date _____

TEST REPORT ON REINFORCING STEEL

Project : _____
: _____
Kind of material : _____
Sample identification : _____
Quantity represented : _____
Sampled at : _____
Original source : _____
Supplied by : _____
Proposed use : _____
Spec's. Item No. & Grade : _____
Sampled by : _____
(Name & Designation) (Office) (Date)
Submitted by : _____
(Name & Designation) (Office) (Date Received)

Lab. No. _____

TESTS	REQUIREMENTS	RESULTS
Tensile Properties : Yield Point, MPa Tensile Strength, MPa Elongation, % Bending Properties : Degree bent, 180 degrees Actual Unit mass, kg/m Variation in mass, % Deformation, mm : Spacing, average Height, average Gap Phosphorous Content, %	No cracking on outside bent portion	

REMARKS:

Tested by :

Witnessed by :

Checked by :

_____
(MQCH Div/Sect. Head)
(Designation)

Attested :

_____
(Head of Office)
(Designation)

MTS Form No. 10

Republic of the Philippines
Department of Public Works and Highways
(NAME OF OFFICE)
(ADDRESS)

Lab. Report No. _____
Date _____

TEST REPORT ON CONCRETE MASONRY UNITS

Project : _____
: _____
Type of Unit : _____
Quantity represented : _____
Sampled at : _____
Original source : _____
Supplied by : _____
Proposed use : _____
Spec's. Item No. : _____
Sampled by : _____
(Name & Designation) (Office) (Date)
Submitted by : _____
(Name & Designation) (Office) (Date Received)

Lab. No. _____

SAMPLE I. D.	T E S T S	REQUIREMENTS	RESULTS
	Dimension Measurement, mm Width Length Weight Compressive Strength, MN/m² Individual Unit 1 2 3 Average of three (3) units Absorption, % (Avg. of 3 units) Moisture Content, % (Avg. of 3 units)		

REMARKS:

Tested by :	Checked by : **(MQCH Div/Sect. Head)** (Designation)
Witnessed by :	Attested : **(Head of Office)** (Designation)

MTS Form No. 11

Republic of the Philippines
Department of Public Works and Highways
(NAME OF OFFICE)
(ADDRESS)

Lab. Report No. _____
Date _____

TEST REPORT ON REINFORCED CONCRETE PIPE

Project : _____
: _____
Kind and class : _____
Quantity represented : _____
Sampled at : _____
Original source : _____
Proposed use : _____
Spec's. Item No. : _____
Sampled by : _____
(Name & Designation) (Office) (Date)
Submitted by : _____
(Name & Designation) (Office) (Date Received)

Lab. No. _____

TESTS	REQUIREMENTS	RESULTS
Internal diameter, mm		
Wall thickness, mm		
Length, mm		
Sides variation, mm		
Reinforcement :		
Covering, mm		
Spacing, mm		
Reinforcement Area, mm²/linear m :		
Inner cage		
Outer cage		
Strength, D-load to produce :		
0.3 mm crack, N		
Ultimate load, N		
Absorption, %		

Note : D-load is expressed in newton per linear meter per mm of diameter.
REMARKS:

Tested by :

Checked by :

_____
(MQCH Div/Sect. Head)
(Designation)

Witnessed by :

Attested :

_____
(Head of Office)
(Designation)

MTS Form No. 12

Republic of the Philippines
Department of Public Works and Highways
(NAME OF OFFICE)
(ADDRESS)

Lab. Report No. _____
Date _____

TEST REPORT ON PORTLAND CEMENT

Project : _____
: _____
Sample identification : _____
Quantity represented : _____
Sampled at : _____
Manufactured by : _____
Brand : _____
Spec's. Item No. : _____
Sampled by : _____
(Name & Designation) (Office) (Date)
Submitted by : _____
(Name & Designation) (Office) (Date Received)

Lab. No. _____

TESTS	REQUIREMENTS	RESULTS
Magnesium Oxide (MgO), %	6.0 Max.	
Sulfur Trioxide (SO), %	3.0 Max.	
Loss on Ignition, %	3.0 Max.	
Insoluble Residue, %	0.75 Max.	
Air Content of mortar, %	12.0 Max	
Fineness : Amount passing		
0.075 mm sieve, %		
Autoclave Expansion, %	0.8 Max.	
Vicat Test :		
Time of setting, minutes	45 Min.	
Time of setting, minutes	375 Max.	
Compressive Strength, Avg. mortar cubes, MPa		
3 days	12.4 Min.	
7 days	19.3 Min.	
28 days	27.6 Min.	
Specific Gravity	-	

REMARKS:

Tested by :

Checked by :

_____
(MQCH Div/Sect. Head)
(Designation)

Witnessed by :

Attested :

_____
(Head of Office)
(Designation)

MTS Form No. 13

Republic of the Philippines
Department of Public Works and Highways
(NAME OF OFFICE)
(ADDRESS)

Lab. Report No. _____
Date _____

TEST REPORT ON REFLECTORIZED TRAFFIC PAINT

Project : _____
: _____
Kind of material : _____
Sample identification : _____
Quantity represented : _____
Sampled at : _____
Original source : _____
Supplied by : _____
Proposed use : _____
Spec's. Item No. : _____
Sampled by : _____
(Name & Designation) (Office) (Date)
Submitted by : _____
(Name & Designation) (Office) (Date Received)

Lab. No. _____

TESTS	REQUIREMENTS	RESULTS
A. Physical Properties : 1. Condition in container 2. Specific Gravity 3. Drying Time : No pick up, min. B. Paint Composition : 1. Total Dry Solids (Pigment & Glass Beads, %) 2. 3. Extenders (by difference), % 4. Non-volatile content, % by weight of vehicle 5. Glass Beads, % a. Weight, g/L b. Amount of True Spheres, % c. Grading, % Passing : 0.212 mm 0.186 mm 0.063 mm		
REMARKS:		
Tested by : Witnessed by :	Checked by : **(MQCH Div/Sect. Head)** (Designation) Attested : **(Head of Office)** (Designation)	

MTS Form No. 14

Republic of the Philippines
Department of Public Works and Highways
(NAME OF OFFICE)
(ADDRESS)

Lab. Report No. _____
Date _____

TEST REPORT ON CONCRETE CORE

Project : _____
: _____
Type of Specimen : _____
Spec's. Item No. : _____
Class : _____
Source of mixture : _____
Sampled by : _____
(Name & Designation) (Office) (Date)
Submitted by : _____
(Name & Designation) (Office) (Date Received)

LAB. NO.	SAMPLE IDENTIFICATION	PART OF STRUCTURE or STATION REPRESENTED	AVERAGE THICKNESS (cm)	STRENGTH COMPRESSIVE MPa

Tested by :

Witnessed by :

Checked by :

_____
(MQCH Div/Sect. Head)
(Designation)

Attested :

_____
(Head of Office)
(Designation)

MTS Form No. 15

Republic of the Philippines
Department of Public Works and Highways
(NAME OF OFFICE)
(ADDRESS)

Lab. Report No. _____
Date _____

TEST REPORT ON _____

Project	:			
	:			
Kind of material	:			
Sample identification	:			
Quantity represented	:			
Sampled at	:			
Original source	:			
Supplied by	:			
Proposed use	:			
Spec's. Item No.	:			
Sampled by	:			
		(Name & Designation)	(Office)	(Date)
Submitted by	:			
		(Name & Designation)	(Office)	(Date Received)

Lab. No. _____

REMARKS:

Tested by :	Checked by : **(MQCH Div/Sect. Head)** (Designation)
Witnessed by :	Attested : **(Head of Office)** (Designation)