



CHANGE LETTER

Douglas A. Forstie
Assistant State Engineer

MATERIALS TESTING MANUAL	CHANGE LETTER NO. 18
SUBJECT: Title Page, Distribution Memo, Table of Contents, Introduction, Changes in the Materials Testing Manual, and Glossary; Arizona Test Methods 210b, 211c, 212e, 233c, 236b, 237b, 238a, 240a, 242a, 249, 307a, 311a, 410c, 421, 422, 502a, 505a, 509a, 706a, 708, 719b, 725a, 726a, 727a, 729a, and 732; Cover Sheets for Series 200 (AASHTO T 85), Series 400 (AASHTO T 195), and Series 700 (ASTM D 1851 and E 18); Appendix A1, Appendix A2, and Appendix A3.	EFFECTIVE DATE: September 5, 1996

SUMMARY:

NOTE: Changes issued under this Change Letter will be effective for projects with a bid opening date on or after September 5, 1996.

1. **TITLE PAGE** - Attached is a revised title page.
2. **DISTRIBUTION MEMO** - Attached is a revised distribution memo to manual holders regarding distribution and revision of this manual.
3. **TABLE OF CONTENTS** - The Table of Contents has been revised to reflect the changes made in this Change Letter.
4. **INTRODUCTION** - Attached is a revised introduction to this manual.
5. **CHANGES IN THE MATERIALS TESTING MANUAL** - Revised information is attached regarding changes to this manual.
6. **GLOSSARY** - Attached is a revised Glossary of Terms.
7. The following items are deleted by this Change Letter

Arizona Test Method 307a, "FABRICATION OF PNEUMATICALLY PLACED MORTAR CYLINDERS".

Series 400 Cover Sheet, "BITUMINOUS MIXTURES".

AASHTO T 195, "DETERMINING DEGREE OF PARTICLE COATING OF BITUMINOUS-AGGREGATE MIXTURES" is deleted. No other AASHTO or ASTM procedures are referenced on the existing cover sheet.

Arizona Test Method 706a, "DYNAMIC HARDNESS OF METALLIC MATERIALS BY SHORE SCLEROSCOPE".

Arizona Test Method 708, "TESTING BITUMINOUS COATED CORRUGATED METAL CULVERT PIPE AND PIPE ARCHES".

8. The following items are added by this Change Letter:

Arizona Test Method 210b, "SPECIFIC GRAVITY AND ABSORPTION OF COARSE AGGREGATE".

This test procedure replaces AASHTO T 85. When AASHTO T 85 is referenced, such as in specifications or test procedures, it shall be replaced with Arizona Test Method 210.

Arizona Test Method 249, "REMOLDED RING SAMPLES FOR DIRECT SHEAR, SWELL, AND CONSOLIDATION".

Arizona Test Method 421, "BITUMINOUS MATERIAL CONTENT OF ASPHALTIC CONCRETE MIXTURES BY THE NUCLEAR METHOD".

This test method replaces all previous Interim editions of this procedure.

Arizona Test Method 422, "COMPACTION AND TESTING OF BITUMINOUS MIXTURES UTILIZING 152.4 mm (SIX INCH) MARSHALL APPARATUS".

Arizona Test Method 732, "CALCIUM CARBONATE IN TOPSOIL (NEUTRALIZATION POTENTIAL OF TOPSOIL)".

Appendix A3, "EQUIPMENT CALIBRATION AND VERIFICATION".

9. The following items are revised by this Change Letter:

Series 200 Cover Sheet, "SOILS AND AGGREGATES".

AASHTO T 85, "SPECIFIC GRAVITY AND ABSORPTION OF COARSE AGGREGATE" is deleted from this cover sheet. It is replaced with Arizona Test Method 210b.

Arizona Test Method 211c, "SPECIFIC GRAVITY AND ABSORPTION OF FINE AGGREGATE".

This test method is a modification of AASHTO T 84. When AASHTO T 84 is referenced, such as in specifications or test procedures, it shall be replaced with Arizona Test Method 211.

Arizona Test Method 212e, "PERCENTAGE OF FRACTURED COARSE AGGREGATE PARTICLES".

Arizona Test Method 233c, "FLAKINESS INDEX OF COARSE AGGREGATE".

Arizona Test Method 236b, "DETERMINING pH AND MINIMUM RESISTIVITY OF SOILS AND AGGREGATES".

Arizona Test Method 237b, "DETERMINING pH AND SOLUABLE SALTS OF SOILS".

Arizona Test Method 238a, "PERCENT CARBONATES IN AGGREGATE".

Arizona Test Method 240a, "SIEVE ANALYSIS AND SEPARATION OF SALVAGED AC PAVEMENT PARTICLES FOR RECYCLED ASPHALTIC CONCRETE".

Arizona Test Method 242a, "SAND EQUIVALENT TEST FOR MINERAL AGGREGATE FOR ASPHALTIC CONCRETE FRICTION COURSE".

Arizona Test Method 311a, "METHOD OF TEST FOR FLOW OF GROUT MIXTURES (FLOW CONE METHOD)".

Arizona Test Method 410c, "COMPACTION AND TESTING OF BITUMINOUS MIXTURES UTILIZING 101.6 mm (FOUR INCH) MARSHALL APPARATUS".

Arizona Test Method 502a, "PERCENTAGE OF UNCOATED PARTICLES USING ASPHALT EMULSIONS".

Arizona Test Method 505a, "ASPHALT REJUVENATING AGENT RESIDUE INSOLUBLE IN PETROLEUM ETHER".

Arizona Test Method 509a, "RAPID DETERMINATION OF ASPHALTENES AND CHEMICAL REACTIVITY OF ASPHALTS".

Series 700 Cover Sheet, "CHEMICAL AND SPECIALITY".

ASTM D 1851, "CONCRETE JOINT SEALERS, COLD APPLICATION TYPE" is removed from this cover sheet due to its deletion from the ASTM specifications.

ASTM E 18, "ROCKWELL HARDNESS AND ROCKWELL SUPERFICIAL HARDNESS OF METALLIC MATERIALS" is added to this cover sheet.

Arizona Test Method 719b, "HEATING AND DRYING MATERIALS IN MICROWAVE OVEN".

Arizona Test Method 725a, "TENSILE PROOF DOWEL TEST".

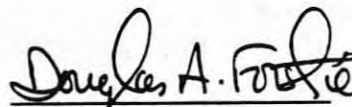
Arizona Test Method 726a, "REFLECTANCE, DRY OPACITY, AND YELLOWNESS INDEX OF TRAFFIC PAINT".

Arizona Test Method 727a, "CHLORIDE IN HARDENED CONCRETE".

Arizona Test Method 729a, "EXCHANGEABLE SODIUM IN TOPSOIL".

Appendix A1, "ROUNDING PROCEDURE".

Appendix A2, "METRIC GUIDE".


Douglas A. Forstie
Assistant State Engineer
Materials Group (068R)