



Certification

**Certification Policies
for
Masonry Field Testing Technician
and
Masonry Laboratory Testing Technician**

*Approved by the Certification Programs Committee
Joe Hug, Chairman*

*Last revised by the Certification Programs Committee
December 17, 2016*

The statements contained herein are a consolidation of approved policies and procedures. This policy statement supersedes all previous action of the ACI Board of Direction with respect to Masonry Field Testing Technician and Masonry Laboratory Testing Technician certification.

The ACI Certification program policies are divided into eight sections as follows:

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| Section 1.0 | Certification Criteria |
| Section 2.0 | Examination Criteria |
| Section 3.0 | Re-examination Criteria |
| Section 4.0 | Appeals Criteria |
| Section 5.0 | Sponsoring Group Criteria |
| Section 6.0 | Examiner / Supplemental Examiner Criteria |
| Section 7.0 | ACI Duties and Responsibilities |
| Section 8.0 | Recertification Criteria |

Revision 1 – October 20, 2014

Revision 2 – Approved December 17, 2016

SECTION 1.0 CERTIFICATION CRITERIA

- 1.1 The American Concrete Institute (ACI) certification programs for Masonry Field Testing Technician (MFTT) and Masonry Laboratory Testing Technician (MLTT) shall require successful completion of both a written examination and a performance examination.
- 1.2 No specific education or work experience is required for MFTT or MLTT certification.
- 1.3 ACI certification for MFTT and/or MLTT shall be valid for a period of five years from the date of completion of all certification requirements.
- 1.4 Technicians shall be permitted to renew certification by satisfying the recertification criteria in Section 8.0.

SECTION 2.0 EXAMINATION CRITERIA**GENERAL REQUIREMENTS**

- 2.1 Content of the program for certification as a MFTT shall be derived directly from the following ASTM test methods, as presented in the most current version of the ACI Certification **CP-70** technician workbook:

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| ASTM C67 | Standard Test Methods for Sampling and Testing Brick and Structural Clay Tile |
| ASTM C140 | Standard Test Methods for Sampling and Testing Concrete Masonry Units and Related Units |
| ASTM C780 | Standard Test Method for Preconstruction and Construction Evaluation of Mortars for Plain and Reinforced Unit Masonry |
| ASTM C780 - Annex | Standard Test Method for Preconstruction and Construction Evaluation of Mortars for Plain and Reinforced Unit Masonry |
| ASTM C1019 | Standard Test Method for Sampling and Testing Grout |
| ASTM C1314 | Standard Test Method for Compressive Strength of Masonry Prisms |

- 2.2 Content of the program for certification as a MLTT shall be derived directly from the following ASTM specifications, practices, and test methods, as presented in the most current version of the ACI Certification **CP-70** technician workbook:

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| ASTM C90 | Standard Specification for Loadbearing Concrete Masonry Units |
| ASTM C140 | Standard Test Methods for Sampling and Testing Concrete Masonry Units and Related Units |
| ASTM C780 | Standard Test Method for Preconstruction and Construction Evaluation of Mortars for Plain and Reinforced Unit Masonry |

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| ASTM C780 - Annex | Standard Test Method for Preconstruction and Construction Evaluation of Mortars for Plain and Reinforced Unit Masonry |
| ASTM C1552 | Standard Practice for Capping Concrete Masonry Units, Related Units and Masonry Prisms for Compression Testing |
| ASTM C1314 | Standard Test Method for Compressive Strength of Masonry Prisms |
| ASTM C1019 | Standard Test Method for Sampling and Testing Grout |
| ASTM C270 | Standard Specification for Mortar for Unit Masonry |
- 2.3 Both the written and performance examinations for MFTT and MLTT must be successfully completed within a one-year period.
- 2.4 Examinations shall be conducted by the Examiner, Proctor(s), and/or Supplemental Examiner(s), as applicable. (See Section 6.0)
- 2.5 Examiners, Proctors, Supplemental Examiners, and/or Sponsoring Groups have no jurisdiction over the content of any examination or over the grading of the written examination.

WRITTEN EXAMINATION

- 2.6 The written examination for certification as a MFTT shall consist of approximately **60** multiple-choice questions (approximately 8–12 questions on each section). A maximum of one hour shall be permitted for completion of the written examination.
- The written examination is closed-book. Simple function (non-programmable) calculators shall be permitted.
- 2.7 The written examination for certification as a MLTT shall consist of approximately **70** multiple-choice questions (approximately 8–12 questions on each section). A maximum of one and one half hours shall be permitted for completion of the written examination.
- The written examination is open-book; reference materials other than those approved by ACI shall not be permitted in the examination area. Simple function (non-programmable) calculators shall be permitted.
- 2.8 Verbal administration of the written examination is permitted upon approval by the ACI Certification Department on a case-by-case basis.
- 2.9 Successful completion of the written examination shall be considered as meeting both of the following requirements:
- A) Score a minimum of 60% correct on each individual section of the examination (e.g., six correct out of ten questions);
- AND
- B) Score a minimum of 70% for the overall examination (e.g., 42 correct out of 60 total questions).

PERFORMANCE EXAMINATION

- 2.10 The performance examination for certification as a MFTT shall require the Examinee to perform, pursuant to the contents of the ACI Certification performance examination checklist, procedures described in Test Methods C140, C780, and C1019.
- 2.10.1 Additional test methods referenced for completions of the performance exam:
- 2.10.1.1 ASTM C780 references ASTM C109 for specimen fabrication
- 2.10.1.2 ASTM C 1019 references ASTM C1064 for temperature, C143 for slump or ASTM C1611 for slump flow and VSI.
- 2.11 The performance examination for certification as a MLTT shall require the Examinee to perform, pursuant to the contents of the ACI Certification performance examination checklist, procedures described in Test Methods C140, C780, C1552, and C1019.
- 2.11.1 Additional test methods referenced for completion of the performance exam:
- 2.11.1.1 ASTM C780 references ASTM C109 for compressive strength.
- 2.11.1.2 ASTM C 1019 references ASTM C617 for capping and ASTM C39 for compressive strength testing.
- 2.12 The Examinee's performance shall be evaluated based on the criteria of the performance examination checklist.
- NOTE: Some procedures and test methods may be described verbally as indicated on the performance examination checklists. Specific instructions keyed to these areas and describing administration procedures will be included with the exam materials for each session.*
- 2.13 The performance examinations are closed-book; notes or other technical material shall not be permitted in the examination area. Simple function (non-programmable) calculators shall be permitted.
- 2.14 The Examinee shall conduct the performance examination in the direct presence of the Examiner or Supplemental Examiner(s).
- 2.15 Grading for the individual performance examinations shall be on a pass/fail basis only, with the Examiner or Supplemental Examiner indicating pass or fail for each step of the checklist.
- 2.16 Incorrect performance, or omission of one or more of the steps of the performance checklist, shall constitute a failure of that trial.
- 2.17 An Examinee shall be allowed a second trial, on the same day of the examination, if the first trial was not successfully completed.
- 2.18 The second trial of a particular test shall not be conducted immediately following the first trial.

- 2.19 An Examinee shall be permitted to suspend one trial and begin the procedure over again. A voluntary suspension of a trial shall not be counted as a failure of that trial.
- 2.20 The Examiner/Supplemental Examiner shall not stop a trial at any point which an error is made.
- 2.21 A second trial, or voluntary repeat of a trial, shall require performance of the entire practice or test method from the beginning, not from the point the error was made.
- 2.22 Immediately following completion of each trial, the Examiner/Supplemental Examiner shall inform the Examinee of the results, either pass or fail.
- 2.23 When a failure of a trial occurs, the Examiner/Supplemental Examiner shall inform the Examinee of the particular step(s) performed incorrectly.
- 2.24 The Examinee shall be permitted to leave the examination area between trials to consult notes or books.
- 2.25 It shall be the Sponsoring Group's responsibility to provide equipment that conforms to the applicable ASTM specifications, practices, and test methods and that it is in good working order. The Examinee shall not be penalized as a result of faulty or incorrect equipment.
- NOTE: In cases where the Supplemental Examiners have been approved to conduct the performance examination without the direct supervision of an approved Examiner, the Supplemental Examiner shall be responsible for determining that the equipment requirements listed in Section 2.26 are met.*
- 2.26 Failure of any section of the performance examination after two trials will constitute failure of the entire performance examination.

SECTION 3.0 RE-EXAMINATION CRITERIA

- 3.1 Failure of the written examination by either of the criteria cited under Section 2.10 shall require re-examination on the entire written examination.
- 3.2 Failure or invalidation of the performance examination shall require re-examination on the entire performance examination.
- 3.3 Re-examination on the written or performance examination must be taken within one year of the initial examination. Otherwise, both the written and the performance examinations must be retaken in their entireties.

SECTION 4.0 APPEALS CRITERIA

- 4.1 All appeals shall be directed initially to the Examiner.
- 4.2 In the event that the Examinee is not satisfied with the decision of the Examiner regarding an appeal, the Examinee may pursue an appeal with ACI according to the following order:
1. Sponsoring Group
 2. ACI Director of Certification

3. The Certification Appeals Committee
[consisting of the Director of Certification, the Chairman of the Certification Programs Committee, and the Chairman of Committee C 670]
 4. Committee C 670, Masonry Testing Technician Certification
 5. Certification Programs Committee
- 4.3 Appeals submitted to ACI for consideration must be received, in writing, within sixty [60] days of the receipt of the examination at ACI Headquarters.

SECTION 5.0 SPONSORING GROUP CRITERIA

Groups desiring to conduct ACI Certification program(s) shall adhere to the current Policy on Sponsoring Groups for Certification.

NOTE: The Sponsoring Group policy was approved by the ACI Board of Direction on March 21, 1991.

SECTION 6.0 EXAMINER / SUPPLEMENTAL EXAMINER CRITERIA

- 6.1 The Examiner shall be authorized by ACI to conduct the ACI Certification examinations for MFTT and MLTT.
- 6.2 The Examiner shall be approved by ACI. Qualifications shall be submitted on the Examiner Application Form and shall be evaluated in accordance with the criteria outlined in Section 6.3.
- 6.3 The Examiner shall meet the following requirement:
 - A) Be a registered professional engineer;
 - B) Have had at least two years of recent experience in concrete and masonry construction, inspection, or testing; and
 - C) Be thoroughly familiar with the current applicable standards.
- 6.4 Examiners, Supplemental Examiners, and Proctors shall not conduct any portion of the examination for anyone with whom he/she is personally related.
- 6.5 Examiners and Supplemental Examiners shall not examine anyone on the performance examination who is employed in the same organization. Governmental organizations may petition ACI, in writing, and request a waiver of this requirement. Waivers shall be granted only if it can be shown that the intent of the policy will be maintained.
- 6.6 Supplemental Examiners shall be permitted to assist in conducting the performance examination, and may be authorized to conduct the performance examination without direct supervision of an Examiner with prior approval of ACI Committee C 670.
- 6.7 Supplemental Examiners shall satisfy the following requirements:
 - A) Have recent experience in concrete and masonry testing;
 - B) Be selected and adjudged qualified by the Examiner or ACI Committee C 670;
 - C) Be considered trustworthy and conscientious.

- 6.8 Proctors shall be permitted to assist the Examiner in conducting the written examination.
- 6.9 Proctors shall satisfy the following requirements:
- A) Be considered trustworthy and conscientious by the Examiner.
- 6.10 The Examiner shall be directly responsible for:
- A) Selection of the Supplemental Examiners and Proctors, except in cases where the Supplemental Examiners are approved by ACI Committee C 670;
 - B) Verification that the qualifications of the Supplemental Examiners and Proctors conform to the criteria outlined in Sections 6.4 through 6.9 of this policy;
 - C) Ensuring the secure handling of examination materials;
 - D) Verification of the identity of each Examinee, and ensuring that the Examinees are aware of the certification criteria;
 - E) Verification that the Examinees have signed the release statement on the written and performance examinations prior to testing;
 - F) Verification that the performance evaluations are conducted by approved Supplemental Examiners, and co-signing the performance checklists where appropriate;
 - G) Entering the appropriate grade for the completed performance examination on the checklist report;
 - H) Ensuring that all Examinees have an opportunity to take a second trial on any failed procedure of the performance examination; and
 - I) Ensuring that terms are not defined and examination questions are not interpreted during the course of the written examination.
- 6.11 Examiners or Supplemental Examiners shall not observe more than one Examinee conducting tests at any one time during the performance examination.
- 6.12 The examination sessions must be supervised constantly by the Examiner, Supplemental Examiner(s) and/or Proctor(s).

SECTION 7.0 ACI DUTIES AND RESPONSIBILITIES

- 7.1 ACI shall approve the Sponsoring Group.
- 7.2 ACI shall authorize the Sponsoring Group to conduct examination sessions for MFTT and MLTT certification.
- 7.3 ACI shall approve the Examiner.
- 7.4 ACI shall grade the written examinations, review the performance examinations, and notify Examinees and the Examiner of the final results in writing.
- 7.5 ACI shall certify the Examinees who have satisfied the certification requirements.
- 7.6 ACI shall issue program credentials to successful examinees.

SECTION 8.0 RECERTIFICATION CRITERIA

Recertification as a MFTT or MLTT requires successful completion of the certification requirements outlined in Sections 1.0, 2.0 and 3.0 of this policy.